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(54) Title: COMPOSITIONS AND METHODS FOR THE DIAGNOSIS AND TREATMENT OF TUMOR

(57) Abstract: The present invention is directed to compositions of matter useful for the diagnosis and treatment of tumor in mammals and to methods of using those compositions of matter for the same.

COMPOSITIONS AND METHODS FOR THE DIAGNOSIS AND TREATMENT OF TUMOR

FIELD OF THE INVENTION

The present invention is directed to compositions of matter useful for the diagnosis and treatment of tumor in mammals and to methods of using those compositions of matter for the same.

BACKGROUND OF THE INVENTION

Malignant tumors (cancers) are the second leading cause of death in the United States, after heart disease (Boring et al., *CA Cancel J. Clin.* 43:7 (1993)). Cancer is characterized by the increase in the number of abnormal, or neoplastic, cells derived from a normal tissue which proliferate to form a tumor mass, the invasion of adjacent tissues by these neoplastic tumor cells, and the generation of malignant cells which eventually spread via the blood or lymphatic system to regional lymph nodes and to distant sites via a process called metastasis. In a cancerous state, a cell proliferates under conditions in which normal cells would not grow. Cancer manifests itself in a wide variety of forms, characterized by different degrees of invasiveness and aggressiveness.

In attempts to discover effective cellular targets for cancer diagnosis and therapy, researchers have sought to identify transmembrane or otherwise membrane-associated polypeptides that are specifically expressed on the surface of one or more particular type(s) of cancer cell as compared to on one or more normal non-cancerous cell(s). Often, such membrane-associated polypeptides are more abundantly expressed on the surface of the cancer cells as compared to on the surface of the non-cancerous cells. The identification of such tumor-associated cell surface antigen polypeptides has given rise to the ability to specifically target cancer cells for destruction via antibody-based therapies. In this regard, it is noted that antibody-based therapy has proved very effective in the treatment of certain cancers. For example, HERCEPTIN® and RITUXAN® (both from Genentech Inc., South San Francisco, California) are antibodies that have been used successfully to treat breast cancer and non-Hodgkin's lymphoma, respectively. More specifically, HERCEPTIN® is a recombinant DNA-derived humanized monoclonal antibody that selectively binds to the extracellular domain of the human epidermal growth factor receptor 2 (HER2) proto-oncogene. HER2 protein overexpression is observed in 25-30% of primary breast cancers. RITUXAN® is a genetically engineered chimeric murine/human monoclonal antibody directed against the CD20 antigen found on the surface of normal and malignant B lymphocytes. Both these antibodies are recombinantly produced in CHO cells.

In other attempts to discover effective cellular targets for cancer diagnosis and therapy, researchers have sought to identify (1) non-membrane-associated polypeptides that are specifically produced by one or more particular type(s) of cancer cell(s) as compared to by one or more particular type(s) of non-cancerous normal cell(s), (2) polypeptides that are produced by cancer cells at an expression level that is significantly higher than that of one or more normal non-cancerous cell(s), or (3) polypeptides whose expression is specifically limited

to only a single (or very limited number of different) tissue type(s) in both the cancerous and non-cancerous state (e.g., normal prostate and prostate tumor tissue). Such polypeptides may remain intracellularly located or may be secreted by the cancer cell. Moreover, such polypeptides may be expressed not by the cancer cell itself, but rather by cells which produce and/or secrete polypeptides having a potentiating or growth-enhancing effect on cancer cells. Such secreted polypeptides are often proteins that provide cancer cells with a growth advantage over normal cells and include such things as, for example, angiogenic factors, cellular adhesion factors, growth factors, and the like. Identification of antagonists of such non-membrane associated polypeptides would be expected to serve as effective therapeutic agents for the treatment of such cancers. Furthermore, identification of the expression pattern of such polypeptides would be useful for the diagnosis of particular cancers in mammals.

As described above, genes upregulated in tumor cells provide attractive anti-cancer therapeutic targets. Although the general underlying mechanism for increased expression in tumor is often not known, tumor-specific upregulation of some genes can be attributed to abberant DNA amplification, a common phenomenon in many tumors. The availability of the human genome sequences and over 4-million expressed sequence tags (ESTs) in the public database has made it possible not only to construct a general transcriptome map, but also to perform large-scale analyses of differential gene expression in normal and tumor tissues. Using a computational method described herein, we have found non-random regions of clusters of genes along various chromosomes that exhibit increased expression in ten tumor types, and these genomic regions often correspond to tumor amplicons experimentally demonstrated by other methods. Thus, we herein describe the genome-wide identification of chromosomal regions with increased tumor expression, regions that represent potential tumor amplicons.

There is a great need for additional diagnostic and therapeutic agents capable of detecting the presence of tumor in a mammal and for effectively inhibiting neoplastic cell growth, respectively. Accordingly, it is an objective of the present invention to identify: (1) cell membrane-associated polypeptides that are more abundantly expressed on one or more type(s) of cancer cell(s) as compared to on normal cells or on other different cancer cells, (2) non-membrane-associated polypeptides that are specifically produced by one or more particular type(s) of cancer cell(s) (or by other cells that produce polypeptides having a potentiating effect on the growth of cancer cells) as compared to by one or more particular type(s) of non-cancerous normal cell(s), (3) non-membrane-associated polypeptides that are produced by cancer cells at an expression level that is significantly higher than that of one or more normal non-cancerous cell(s), or (4) polypeptides whose expression is specifically limited to only a single (or very limited number of different) tissue type(s) in both a cancerous and non-cancerous state (e.g., normal prostate and prostate tumor tissue), and to use those polypeptides, and their encoding nucleic acids, to produce compositions of matter useful in the therapeutic treatment and diagnostic detection of cancer in mammals. It is also an objective of the present invention to identify cell membrane-associated, secreted or intracellular polypeptides whose expression is limited to a single or very limited number of tissues, and to use those polypeptides, and their encoding nucleic acids, to produce compositions of matter useful in the therapeutic treatment and diagnostic detection of cancer in mammals.

SUMMARY OF THE INVENTION

A. Embodiments

In the present specification, Applicants describe for the first time the identification of non-random regions of clusters of genes along various chromosomes that exhibit significantly increased expression in one or more tumor types as compared to normal tissues of the same tissue type. These non-randon chromosomal regions appear to be regions of chromosomal DNA that are amplified in tumor cells yet not amplified in normal cells of the same tissue type, thereby resulting in tumor-specific overexpression of the genes located within the amplicons as compared to the expression level in normal tissue.

Moreover, Applicants describe for the first time the identification of various cellular polypeptides (and their encoding nucleic acids or fragments thereof) which are expressed to a greater degree on the surface of or by one or more types of cancer cell(s) as compared to on the surface of or by one or more types of normal non-cancer cells. Alternatively, such polypeptides are expressed by cells which produce and/or secrete polypeptides having a potentiating or growth-enhancing effect on cancer cells. Again alternatively, such polypeptides may not be overexpressed by tumor cells as compared to normal cells of the same tissue type, but rather may be specifically expressed by both tumor cells and normal cells of only a single or very limited number of tissue types (preferably tissues which are not essential for life, e.g., prostate, etc.). All of the above polypeptides are herein referred to as Tumor-associated Antigenic Target polypeptides ("TAT" polypeptides) and are expected to serve as effective targets for cancer therapy and diagnosis in mammals.

Accordingly, in one embodiment of the present invention, the invention provides an isolated nucleic acid molecule having a nucleotide sequence that encodes a tumor-associated antigenic target polypeptide or fragment thereof (a "TAT" polypeptide).

In certain aspects, the isolated nucleic acid molecule comprises a nucleotide sequence having at least about 80% nucleic acid sequence identity, alternatively at least about 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99% or 100% nucleic acid sequence identity, to (a) a DNA molecule encoding a full-length TAT polypeptide having an amino acid sequence as disclosed herein, a TAT polypeptide amino acid sequence lacking the signal peptide as disclosed herein, an extracellular domain of a transmembrane TAT polypeptide, with or without the signal peptide, as disclosed herein or any other specifically defined fragment of a full-length TAT polypeptide amino acid sequence as disclosed herein, or (b) the complement of the DNA molecule of (a).

In other aspects, the isolated nucleic acid molecule comprises a nucleotide sequence having at least about 80% nucleic acid sequence identity, alternatively at least about 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99% or 100% nucleic acid sequence identity, to (a) a DNA molecule comprising the coding sequence of a full-length TAT polypeptide cDNA as disclosed herein, the coding sequence of a TAT polypeptide lacking the signal peptide as disclosed herein, the coding sequence of an extracellular domain of a transmembrane TAT polypeptide, with or without the signal peptide, as disclosed herein or the coding sequence of any other specifically defined fragment of the full-length TAT polypeptide amino acid sequence as disclosed herein, or (b) the complement of the DNA molecule of (a).

In further aspects, the invention concerns an isolated nucleic acid molecule comprising a nucleotide

sequence having at least about 80% nucleic acid sequence identity, alternatively at least about 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99% or 100% nucleic acid sequence identity, to (a) a DNA molecule that encodes the same mature polypeptide encoded by the full-length coding region of any of the human protein cDNAs deposited with the ATCC as disclosed herein, or (b) the complement of the DNA molecule of (a).

Another aspect of the invention provides an isolated nucleic acid molecule comprising a nucleotide sequence encoding a TAT polypeptide which is either transmembrane domain-deleted or transmembrane domain-inactivated, or is complementary to such encoding nucleotide sequence, wherein the transmembrane domain(s) of such polypeptide(s) are disclosed herein. Therefore, soluble extracellular domains of the herein described TAT polypeptides are contemplated.

In other aspects, the present invention is directed to isolated nucleic acid molecules which hybridize to (a) a nucleotide sequence encoding a TAT polypeptide having a full-length amino acid sequence as disclosed herein, a TAT polypeptide amino acid sequence lacking the signal peptide as disclosed herein, an extracellular domain of a transmembrane TAT polypeptide, with or without the signal peptide, as disclosed herein or any other specifically defined fragment of a full-length TAT polypeptide amino acid sequence as disclosed herein, or (b) the complement of the nucleotide sequence of (a). In this regard, an embodiment of the present invention is directed to fragments of a full-length TAT polypeptide coding sequence (or any of the amplified chromosomal regions shown in Appendicies B through J), or the complement thereof, as disclosed herein, that may find use as, for example, hybridization probes useful as, for example, diagnostic probes, antisense oligonucleotide probes, or for encoding fragments of a full-length TAT polypeptide that may optionally encode a polypeptide comprising a binding site for an anti-TAT polypeptide antibody, a TAT binding oligopeptide or other small organic molecule that binds to a TAT polypeptide. Such nucleic acid fragments are usually at least about 5 nucleotides in length, alternatively at least about 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 185, 190, 195, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, or 1000 nucleotides in length, wherein in this context the term "about" means the referenced nucleotide sequence length plus or minus 10% of that referenced length. It is noted that novel fragments of a TAT polypeptide-encoding nucleotide sequence may be determined in a routine manner by aligning the TAT polypeptide-encoding nucleotide sequence with other known nucleotide sequences using any of a number of well known sequence alignment programs and determining which TAT polypeptide-encoding nucleotide sequence fragment(s) are novel. All of such novel fragments of TAT polypeptide-encoding nucleotide sequences are contemplated herein. Also contemplated are the TAT polypeptide fragments encoded by these nucleotide molecule fragments, preferably those TAT polypeptide fragments that comprise a binding site for an anti-TAT antibody, a TAT binding oligopeptide or other small organic molecule that binds to a TAT polypeptide.

In another embodiment, the invention provides isolated TAT polypeptides encoded by any of the isolated nucleic acid sequences hereinabove identified.

In a certain aspect, the invention concerns an isolated TAT polypeptide, comprising an amino acid sequence having at least about 80% amino acid sequence identity, alternatively at least about 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99% or 100% amino acid sequence identity, to a TAT polypeptide having a full-length amino acid sequence as disclosed herein, a TAT polypeptide amino acid sequence lacking the signal peptide as disclosed herein, an extracellular domain of a transmembrane TAT polypeptide protein, with or without the signal peptide, as disclosed herein, an amino acid sequence encoded by any of the nucleic acid sequences disclosed herein or any other specifically defined fragment of a full-length TAT polypeptide amino acid sequence as disclosed herein.

In a further aspect, the invention concerns an isolated TAT polypeptide comprising an amino acid sequence having at least about 80% amino acid sequence identity, alternatively at least about 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% amino acid sequence identity, to an amino acid sequence encoded by any of the human protein cDNAs deposited with the ATCC as disclosed herein.

In a specific aspect, the invention provides an isolated TAT polypeptide without the N-terminal signal sequence and/or without the initiating methionine and is encoded by a nucleotide sequence that encodes such an amino acid sequence as hereinbefore described. Processes for producing the same are also herein described, wherein those processes comprise culturing a host cell comprising a vector which comprises the appropriate encoding nucleic acid molecule under conditions suitable for expression of the TAT polypeptide and recovering the TAT polypeptide from the cell culture.

Another aspect of the invention provides an isolated TAT polypeptide which is either transmembrane domain-deleted or transmembrane domain-inactivated. Processes for producing the same are also herein described, wherein those processes comprise culturing a host cell comprising a vector which comprises the appropriate encoding nucleic acid molecule under conditions suitable for expression of the TAT polypeptide and recovering the TAT polypeptide from the cell culture.

In other embodiments of the present invention, the invention provides vectors comprising DNA encoding any of the herein described polypeptides. Host cells comprising any such vector are also provided. By way of example, the host cells may be CHO cells, *E. coli* cells, or yeast cells. A process for producing any of the herein described polypeptides is further provided and comprises culturing host cells under conditions suitable for expression of the desired polypeptide and recovering the desired polypeptide from the cell culture.

In other embodiments, the invention provides isolated chimeric polypeptides comprising any of the herein described TAT polypeptides fused to a heterologous (non-TAT) polypeptide. Example of such chimeric molecules comprise any of the herein described TAT polypeptides fused to a heterologous polypeptide such as, for example, an epitope tag sequence or a Fc region of an immunoglobulin.

In another embodiment, the invention provides an antibody which binds, preferably specifically, to any of the above or below described polypeptides. Optionally, the antibody is a monoclonal antibody, antibody fragment, chimeric antibody, humanized antibody, single-chain antibody or antibody that competitively inhibits

the binding of an anti-TAT polypeptide antibody to its respective antigenic epitope. Antibodies of the present invention may optionally be conjugated to a growth inhibitory agent or cytotoxic agent such as a toxin, including, for example, a maytansinoid or calicheamicin, an antibiotic, a radioactive isotope, a nucleolytic enzyme, or the like. The antibodies of the present invention may optionally be produced in CHO cells or bacterial cells and preferably induce death of a cell to which they bind. For diagnostic purposes, the antibodies of the present invention may be detectably labeled, attached to a solid support, or the like.

In other embodiments of the present invention, the invention provides vectors comprising DNA encoding any of the herein described antibodies. Host cell comprising any such vector are also provided. By way of example, the host cells may be CHO cells, *E. coli* cells, or yeast cells. A process for producing any of the herein described antibodies is further provided and comprises culturing host cells under conditions suitable for expression of the desired antibody and recovering the desired antibody from the cell culture.

In another embodiment, the invention provides oligopeptides ("TAT binding oligopeptides") which bind, preferably specifically, to any of the above or below described TAT polypeptides. Optionally, the TAT binding oligopeptides of the present invention may be conjugated to a growth inhibitory agent or cytotoxic agent such as a toxin, including, for example, a maytansinoid or calicheamicin, an antibiotic, a radioactive isotope, a nucleolytic enzyme, or the like. The TAT binding oligopeptides of the present invention may optionally be produced in CHO cells or bacterial cells and preferably induce death of a cell to which they bind. For diagnostic purposes, the TAT binding oligopeptides of the present invention may be detectably labeled, attached to a solid support, or the like.

In other embodiments of the present invention, the invention provides vectors comprising DNA encoding any of the herein described TAT binding oligopeptides. Host cell comprising any such vector are also provided. By way of example, the host cells may be CHO cells, *E. coli* cells, or yeast cells. A process for producing any of the herein described TAT binding oligopeptides is further provided and comprises culturing host cells under conditions suitable for expression of the desired oligopeptide and recovering the desired oligopeptide from the cell culture.

In another embodiment, the invention provides small organic molecules ("TAT binding organic molecules") which bind, preferably specifically, to any of the above or below described TAT polypeptides. Optionally, the TAT binding organic molecules of the present invention may be conjugated to a growth inhibitory agent or cytotoxic agent such as a toxin, including, for example, a maytansinoid or calicheamicin, an antibiotic, a radioactive isotope, a nucleolytic enzyme, or the like. The TAT binding organic molecules of the present invention preferably induce death of a cell to which they bind. For diagnostic purposes, the TAT binding organic molecules of the present invention may be detectably labeled, attached to a solid support, or the like.

In a still further embodiment, the invention concerns a composition of matter comprising a TAT polypeptide as described herein, a chimeric TAT polypeptide as described herein, an anti-TAT antibody as described herein, a TAT binding oligopeptide as described herein, or a TAT binding organic molecule as described herein, in combination with a carrier. Optionally, the carrier is a pharmaceutically acceptable carrier.

In yet another embodiment, the invention concerns an article of manufacture comprising a container and a composition of matter contained within the container, wherein the composition of matter may comprise a TAT polypeptide as described herein, a chimeric TAT polypeptide as described herein, an anti-TAT antibody as described herein, a TAT binding oligopeptide as described herein, or a TAT binding organic molecule as described herein. The article may further optionally comprise a label affixed to the container, or a package insert included with the container, that refers to the use of the composition of matter for the therapeutic treatment or diagnostic detection of a tumor.

Another embodiment of the present invention is directed to the use of a TAT polypeptide as described herein, a chimeric TAT polypeptide as described herein, an anti-TAT polypeptide antibody as described herein, a TAT binding oligopeptide as described herein, or a TAT binding organic molecule as described herein, for the preparation of a medicament useful in the treatment of a condition which is responsive to the TAT polypeptide, chimeric TAT polypeptide, anti-TAT polypeptide antibody, TAT binding oligopeptide, or TAT binding organic molecule.

B. Additional Embodiments

Another embodiment of the present invention is directed to a method for inhibiting the growth of a cell that expresses a TAT polypeptide, wherein the method comprises contacting the cell with an antibody, an oligopeptide or a small organic molecule that binds to the TAT polypeptide, and wherein the binding of the antibody, oligopeptide or organic molecule to the TAT polypeptide causes inhibition of the growth of the cell expressing the TAT polypeptide. In preferred embodiments, the cell is a cancer cell and binding of the antibody, oligopeptide or organic molecule to the TAT polypeptide causes death of the cell expressing the TAT polypeptide. Optionally, the antibody is a monoclonal antibody, antibody fragment, chimeric antibody, humanized antibody, or single-chain antibody. Antibodies, TAT binding oligopeptides and TAT binding organic molecules employed in the methods of the present invention may optionally be conjugated to a growth inhibitory agent or cytotoxic agent such as a toxin, including, for example, a maytansinoid or calicheamicin, an antibiotic, a radioactive isotope, a nucleolytic enzyme, or the like. The antibodies and TAT binding oligopeptides employed in the methods of the present invention may optionally be produced in CHO cells or bacterial cells.

Yet another embodiment of the present invention is directed to a method of therapeutically treating a mammal having a cancerous tumor comprising cells that express a TAT polypeptide, wherein the method comprises administering to the mammal a therapeutically effective amount of an antibody, an oligopeptide or a small organic molecule that binds to the TAT polypeptide, thereby resulting in the effective therapeutic treatment of the tumor. Optionally, the antibody is a monoclonal antibody, antibody fragment, chimeric antibody, humanized antibody, or single-chain antibody. Antibodies, TAT binding oligopeptides and TAT binding organic molecules employed in the methods of the present invention may optionally be conjugated to a growth inhibitory agent or cytotoxic agent such as a toxin, including, for example, a maytansinoid or calicheamicin, an antibiotic, a radioactive isotope, a nucleolytic enzyme, or the like. The antibodies and oligopeptides employed in the methods of the present invention may optionally be produced in CHO cells or bacterial cells.

Yet another embodiment of the present invention is directed to a method of determining the presence of a TAT polypeptide in a sample suspected of containing the TAT polypeptide, wherein the method comprises exposing the sample to an antibody, oligopeptide or small organic molecule that binds to the TAT polypeptide and determining binding of the antibody, oligopeptide or organic molecule to the TAT polypeptide in the sample, wherein the presence of such binding is indicative of the presence of the TAT polypeptide in the sample. Optionally, the sample may contain cells (which may be cancer cells) suspected of expressing the TAT polypeptide. The antibody, TAT binding oligopeptide or TAT binding organic molecule employed in the method may optionally be detectably labeled, attached to a solid support, or the like.

A further embodiment of the present invention is directed to a method of diagnosing the presence of a tumor in a mammal, wherein the method comprises detecting the level of expression of a gene encoding a TAT polypeptide (a) in a test sample of tissue cells obtained from said mammal, and (b) in a control sample of known normal non-cancerous cells of the same tissue origin or type, wherein a higher level of expression of the TAT polypeptide in the test sample, as compared to the control sample, is indicative of the presence of tumor in the mammal from which the test sample was obtained.

Another embodiment of the present invention is directed to a method of diagnosing the presence of a tumor in a mammal, wherein the method comprises (a) contacting a test sample comprising tissue cells obtained from the mammal with an antibody, oligopeptide or small organic molecule that binds to a TAT polypeptide and (b) detecting the formation of a complex between the antibody, oligopeptide or small organic molecule and the TAT polypeptide in the test sample, wherein the formation of a complex is indicative of the presence of a tumor in the mammal. Optionally, the antibody, TAT binding oligopeptide or TAT binding organic molecule employed is detectably labeled, attached to a solid support, or the like, and/or the test sample of tissue cells is obtained from an individual suspected of having a cancerous tumor.

Yet another embodiment of the present invention is directed to a method for treating or preventing a cell proliferative disorder associated with altered, preferably increased, expression or activity of a TAT polypeptide, the method comprising administering to a subject in need of such treatment an effective amount of an antagonist of a TAT polypeptide. Preferably, the cell proliferative disorder is cancer and the antagonist of the TAT polypeptide is an anti-TAT polypeptide antibody, TAT binding oligopeptide, TAT binding organic molecule or antisense oligonucleotide. Effective treatment or prevention of the cell proliferative disorder may be a result of direct killing or growth inhibition of cells that express a TAT polypeptide or by antagonizing the cell growth potentiating activity of a TAT polypeptide.

Yet another embodiment of the present invention is directed to a method of binding an antibody, oligopeptide or small organic molecule to a cell that expresses a TAT polypeptide, wherein the method comprises contacting a cell that expresses a TAT polypeptide with said antibody, oligopeptide or small organic molecule under conditions which are suitable for binding of the antibody, oligopeptide or small organic molecule to said TAT polypeptide and allowing binding therebetween.

Other embodiments of the present invention are directed to the use of (a) a TAT polypeptide, (b) a nucleic acid encoding a TAT polypeptide or a vector or host cell comprising that nucleic acid, (c) an anti-TAT polypeptide antibody, (d) a TAT-binding oligopeptide, or (e) a TAT-binding small organic molecule in the

preparation of a medicament useful for (i) the therapeutic treatment or diagnostic detection of a cancer or tumor, or (ii) the therapeutic treatment or prevention of a cell proliferative disorder.

Another embodiment of the present invention is directed to a method for inhibiting the growth of a cancer cell, wherein the growth of said cancer cell is at least in part dependent upon the growth potentiating effect(s) of a TAT polypeptide (wherein the TAT polypeptide may be expressed either by the cancer cell itself or a cell that produces polypeptide(s) that have a growth potentiating effect on cancer cells), wherein the method comprises contacting the TAT polypeptide with an antibody, an oligopeptide or a small organic molecule that binds to the TAT polypeptide, thereby antagonizing the growth-potentiating activity of the TAT polypeptide and, in turn, inhibiting the growth of the cancer cell. Preferably the growth of the cancer cell is completely inhibited. Even more preferably, binding of the antibody, oligopeptide or small organic molecule to the TAT polypeptide induces the death of the cancer cell. Optionally, the antibody is a monoclonal antibody, antibody fragment, chimeric antibody, humanized antibody, or single-chain antibody. Antibodies, TAT binding oligopeptides and TAT binding organic molecules employed in the methods of the present invention may optionally be conjugated to a growth inhibitory agent or cytotoxic agent such as a toxin, including, for example, a maytansinoid or calicheamicin, an antibiotic, a radioactive isotope, a nucleolytic enzyme, or the like. The antibodies and TAT binding oligopeptides employed in the methods of the present invention may optionally be produced in CHO cells or bacterial cells.

Yet another embodiment of the present invention is directed to a method of therapeutically treating a tumor in a mammal, wherein the growth of said tumor is at least in part dependent upon the growth potentiating effect(s) of a TAT polypeptide, wherein the method comprises administering to the mammal a therapeutically effective amount of an antibody, an oligopeptide or a small organic molecule that binds to the TAT polypeptide, thereby antagonizing the growth potentiating activity of said TAT polypeptide and resulting in the effective therapeutic treatment of the tumor. Optionally, the antibody is a monoclonal antibody, antibody fragment, chimeric antibody, humanized antibody, or single-chain antibody. Antibodies, TAT binding oligopeptides and TAT binding organic molecules employed in the methods of the present invention may optionally be conjugated to a growth inhibitory agent or cytotoxic agent such as a toxin, including, for example, a maytansinoid or calicheamicin, an antibiotic, a radioactive isotope, a nucleolytic enzyme, or the like. The antibodies and oligopeptides employed in the methods of the present invention may optionally be produced in CHO cells or bacterial cells.

Yet further embodiments of the present invention will be evident to the skilled artisan upon a reading of the present specification.

BRIEF DESCRIPTION OF THE DRAWINGS

In the list of figures for the present application, specific cDNA sequences which are overexpressed in certain tumor tissues as compared to their normal tissue counterparts are individually identified with a specific alphanumerical designation. These cDNA sequences are expressed from genes that are located within amplified chromosomal regions in tumor cells that are identified as described in Example 1 below. If start and/or stop codons have been identified in a cDNA sequence shown in the attached figures, they are shown in bold and underlined font.

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Figure 50: NM_007112.1
Figure 51: XM_053256.7
Figure 52: XM_089386.1
Figure 53: NM_025058.1
Figure 54: XM_114144.1
Figure 55: XM_086571.1
Figure 56: NM_018973.2
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Figure 58: XM_113377.1
Figure 59: NM_004952.2
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Figure 62: XM_036744.6
Figure 63: NM_130898.1
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Figure 65: NM_002870.1
Figure 66: NM_001030.2
Figure 67: XM_036829.6
Figure 68: NM_015449.1
Figure 69: NM_014847.1
Figure 70: NM_006118.2
Figure 71: XM_114855.1
Figure 72: NM_080429.1
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Figure 74: XM_036934.4
Figure 75: XM_087710.2
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Figure 77: XM_167726.1
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Figure 79: NM_004265.2
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Figure 82: NM_014206.1
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Figure 87: XM_090000.4
Figure 88: XM_048286.6
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Figure 90: XM_113225.1
Figure 91: NM_004322.2
Figure 92: XM_113222.1
Figure 93: XM_113221.1
Figure 94: XM_115027.1
Figure 95: NM_014067.2
Figure 96: XM_053791.1
Figure 97: XM_006111.8
Figure 98: XM_011988.9
Figure 99: XM_049178.6
Figure 100: NM_032344.1
Figure 101: NM_031472.1
Figure 102: XM_037808.4
Figure 103: NM_004074.1
Figure 104: XM_017481.6
Figure 105: NM_017670.1
Figure 106: XM_043159.1
Figure 107: XM_113223.1
Figure 108: NM_003942.1

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Figure 125: XM_006529.8
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Figure 129: XM_084617.4
Figure 130: XM_045533.3
Figure 131: XM_057307.6
Figure 132: NM_001667.1
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Figure 134: XM_115029.1
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Figure 146: NM_006842.1
Figure 147: XM_167811.1
Figure 148: NM_000852.2
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Figure 179: XM_090501.4
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Figure 182: XM_049148.2
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Figure 185: NM_006121.2
Figure 186: XM_062616.1
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Figure 188: XM_096612.4
Figure 189: NM_021934.1
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Figure 194: XM_085065.4
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Figure 239: NM_002819.2
Figure 240: NM_024888.1
Figure 241: XM_086035.2
Figure 242: XM_037560.3
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Figure 277: NM_079834.1
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Figure 279: NM_017797.2
Figure 280: NM_017572.1
Figure 281: XM_059021.3
Figure 282: XM_053871.4
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Figure 285: NM_018049.1
Figure 286: NM_007165.1
Figure 287: XM_009274.1
Figure 288: NM_004152.1
Figure 289: XM_036985.3
Figure 290: NM_012458.1
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Figure 309: XM_086124.1
Figure 310: XM_097426.1
Figure 311: NM_005597.1
Figure 312: XM_096112.2
Figure 313: NM_016263.1
Figure 314: XM_113988.1
Figure 315: NM_024292.1
Figure 316: NM_006221.1
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Figure 327: XM_049518.1
Figure 328: NM_022377.1
Figure 329: XM_008895.2
Figure 330: XM_091913.4
Figure 331: NM_080665.1
Figure 332: XM_058946.5

Figure 333: NM_002162.2
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Figure 343: XM_085862.4
Figure 344: NM_012218.1
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Figure 348: NM_006858.1
Figure 349: XM_032719.3
Figure 350: NM_024029.2
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Figure 355: XM_085920.1
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Figure 357: XM_032773.1
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Figure 359: XM_032774.1
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Figure 361: XM_032782.2
Figure 362: XM_032783.1
Figure 363: XM_057075.3
Figure 364: NM_138783.1
Figure 365: NM_016581.2
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Figure 372: XM_064934.1
Figure 373: XM_064935.5
Figure 374: XM_032820.1
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Figure 380: XM_032799.5
Figure 381: XM_009075.7
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Figure 383: XM_085915.4
Figure 384: XM_064940.1
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Figure 395: XM_009065.5
Figure 396: NM_002229.1
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Figure 426: XM_056602.1
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Figure 438: NM_018028.1
Figure 439: XM_046090.2
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Figure 443: NM_003407.1
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Figure 463: XM_053106.1
Figure 464: NM_012068.2
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Figure 467: XM_016217.6
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Figure 469: XM_008985.6
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Figure 490: XM_058991.3
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Figure 552: XM_031105.1
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Figure 569: XM_058039.4
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Figure 668: NM_014596.2

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Figure 671: XM_087971.2
Figure 672: XM_167122.1
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Figure 683: XM_002013.6
Figure 684: XM_086138.1
Figure 685: NM_000969.2
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Figure 691: XM_056380.2
Figure 692: XM_044083.5
Figure 693: NM_001878.2
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Figure 695: XM_086573.1
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Figure 701A-B: XM_044148.3
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Figure 873: NM_006503.1
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Figure 942: XM_003735.6
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Figure 946: NM_006816.1
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Figure 961: NM_003093.1
Figure 962: NM_024294.1
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Figure 965: XM_166344.1
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Figure 980: NM_006989.1
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Figure 987: XM_168590.1
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Figure 990: NM_024033.1
Figure 991: XM_050288.2
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Figure 1016: XM_037560.3
Figure 1017: NM_138774.1
Figure 1018: NM_005224.1
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Figure 1021: XM_037565.1
Figure 1022: NM_033420.1
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Figure 1024: XM_037572.2
Figure 1025: XM_009279.6
Figure 1026: NM_002085.1
Figure 1027A-B: XM_009277.5
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Figure 1029: NM_001687.1
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Figure 1031: XM_028064.3
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Figure 1033: NM_024407.2
Figure 1034: NM_018959.1
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Figure 1036A-D: XM_047577.3
Figure 1037: XM_086102.1
Figure 1038: XM_047584.2
Figure 1039: NM_006830.2
Figure 1040A-B: XM_030721.1
Figure 1041: NM_031918.1
Figure 1042: XM_103282.1
Figure 1043: NM_031213.1
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Figure 1045: NM_001319.4
Figure 1046: NM_017797.2
Figure 1047: NM_017572.1
Figure 1048: XM_059021.3
Figure 1049A-B: NM_003938.2
Figure 1050A-B: XM_046822.2
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Figure 1052: NM_007165.1
Figure 1053: NM_004152.1
Figure 1054: NM_016199.1
Figure 1055: NM_012458.1
Figure 1056: NM_032737.1
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Figure 1065: XM_052661.3
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Figure 1067: NM_016263.1
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Figure 1094: XM_032281.4
Figure 1095: XM_085984.2
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Figure 1108: XM_059045.1
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Figure 1111: XM_046090.2
Figure 1112: XM_167529.1
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Figure 1117: NM_001020.2
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Figure 1133: NM_004596.1
Figure 1134A-B: NM_017555.1
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Figure 1137: XM_030914.1
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Figure 1140: XM_085882.1
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Figure 1145: XM_115603.1
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Figure 1153: XM_017591.4
Figure 1154: NM_006058.1
Figure 1155: NM_002084.2
Figure 1156: XM_117396.1
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Figure 1158A-B: NM_007286.1
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Figure 1161: XM_003937.5
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Figure 1164: XM_046349.5
Figure 1165: XM_089375.4
Figure 1166: XM_096141.1
Figure 1167: NM_015911.1
Figure 1168: NM_006516.1
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Figure 1173: XM_001468.5
Figure 1174: XM_047841.5
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Figure 1182: NM_002810.1
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Figure 1198: NM_025174.1
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Figure 1200: NM_017710.1
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Figure 1202: NM_018253.1
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Figure 1205: NM_002004.1
Figure 1206: NM_000298.1
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Figure 1208: NM_005698.2
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Figure 1211: NM_018845.1
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Figure 1215: XM_036744.6
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Figure 1220: NM_015449.1
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Figure 1223: XM_036934.4
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Figure 1229: XM_050993.5
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Figure 1244: XM_058365.1
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Figure 1319A-B: XM_027198.1
Figure 1320: XM_012272.3
Figure 1321A-B: XM_056481.4
Figure 1322: NM_024056.1
Figure 1323: NM_001659.1
Figure 1324: XM_084866.2
Figure 1325: XM_006826.2
Figure 1326: XM_028662.3
Figure 1327: NM_031157.1
Figure 1328: NM_006163.1
Figure 1329: NM_016057.1
Figure 1330: XM_006800.3
Figure 1331: NM_005016.2
Figure 1332: XM_113707.1
Figure 1333A-B: NM_032656.1
Figure 1334: XM_015274.6
Figure 1335: XM_055013.4
Figure 1336: XM_113715.1
Figure 1337: XM_084832.4
Figure 1338A-C: XM_045602.2
Figure 1339A-B: XM_031617.1
Figure 1340: NM_007223.1

Figure 1341A-B: XM_031612.5
Figure 1342: NM_003134.1
Figure 1343: XM_113826.1
Figure 1344: XM_031561.3
Figure 1345: NM_002225.2
Figure 1346: XM_031555.3
Figure 1347: NM_018145.1
Figure 1348: NM_005258.2
Figure 1349: NM_032850.1
Figure 1350: XM_031510.4
Figure 1351: NM_024111.1
Figure 1352: XM_085313.4
Figure 1353: XM_113821.1
Figure 1354: NM_016359.1
Figure 1355: NM_007364.1
Figure 1356: XM_091042.1
Figure 1357: XM_044593.1
Figure 1358: NM_006791.1
Figure 1359: XM_060042.5
Figure 1360: XM_085445.2
Figure 1361: XM_058781.3
Figure 1362: XM_113876.1
Figure 1363: XM_117027.1
Figure 1364: XM_165927.1
Figure 1365: XM_053402.2
Figure 1366A-B: XM_055195.2
Figure 1367: XM_113291.1
Figure 1368: NM_000418.1
Figure 1369: XM_113874.1
Figure 1370: XM_102377.2
Figure 1371: XM_008441.5
Figure 1372A-B: XM_113932.1
Figure 1373: NM_003809.1
Figure 1374A-B: XM_018453.3
Figure 1375: NM_001416.1
Figure 1376: XM_008237.3
Figure 1377: NM_004870.1
Figure 1378: XM_008234.3
Figure 1379: NM_133491.1
Figure 1380: NM_001040.2
Figure 1381: XM_008679.2
Figure 1382: XM_008231.2
Figure 1383: NM_025099.1
Figure 1384: NM_032354.1
Figure 1385A-B: XM_034028.1
Figure 1386: XM_113328.1
Figure 1387: XM_113929.1
Figure 1388: NM_001970.2
Figure 1389: NM_004217.1
Figure 1390: NM_017622.1
Figure 1391: XM_165941.1
Figure 1392: NM_021210.1
Figure 1393: XM_113928.1
Figure 1394: XM_097077.1
Figure 1395: XM_167528.1
Figure 1396: NM_001307.1
Figure 1397: XM_113934.1
Figure 1398: XM_165421.1
Figure 1399: NM_015343.1
Figure 1400: XM_113325.1
Figure 1401: XM_165422.1
Figure 1402: XM_113931.1
Figure 1403: XM_085689.2
Figure 1404: XM_036659.1
Figure 1405A-B: XM_113334.1
Figure 1406: NM_001254.2
Figure 1407: XM_036465.1
Figure 1408: XM_055061.1
Figure 1409A-B: XM_036462.1
Figure 1410: XM_083975.1
Figure 1411: XM_008290.2
Figure 1412: XM_048654.3
Figure 1413A-B: XM_008633.4
Figure 1414: NM_025197.1
Figure 1415: NM_002087.1
Figure 1416: NM_016016.1
Figure 1417: NM_014233.1
Figure 1418: XM_012642.4
Figure 1419: NM_053047.1
Figure 1420: XM_097133.2
Figure 1421: NM_032484.1
Figure 1422: XM_045901.4
Figure 1423: XM_058850.3
Figure 1424: NM_032376.1
Figure 1425: XM_091544.2
Figure 1426: XM_045950.3
Figure 1427: XM_032808.2
Figure 1428: XM_115461.1
Figure 1429A-B: XM_008393.3
Figure 1430: XM_032852.1
Figure 1431: XM_064317.1
Figure 1432: XM_113918.1
Figure 1433: NM_000263.1
Figure 1434: NM_025233.1
Figure 1435: XM_032817.4
Figure 1436: XM_085635.1
Figure 1437: XM_091549.2
Figure 1438: XM_032781.1
Figure 1439: NM_000151.1
Figure 1440: XM_113917.1
Figure 1441: XM_017557.6
Figure 1442: XM_032766.1
Figure 1443: NM_003766.2
Figure 1444: NM_014019.1
Figure 1445: NM_032353.1
Figure 1446: XM_008401.5
Figure 1447: XM_008402.1
Figure 1448: NM_017595.2
Figure 1449: XM_116844.1
Figure 1450: XM_085636.2
Figure 1451: NM_000988.2
Figure 1452: XM_008559.1

Figure 1453: XM_115480.1
Figure 1454: NM_005831.2
Figure 1455: XM_117061.1
Figure 1456: XM_113318.1
Figure 1457: XM_113319.1
Figure 1458: XM_030444.5
Figure 1459: XM_008459.3
Figure 1460: NM_005324.1
Figure 1461: XM_054344.2
Figure 1462: NM_002766.1
Figure 1463: XM_046481.1
Figure 1464: XM_097197.2
Figure 1465: XM_097193.2
Figure 1466: XM_083988.1
Figure 1467: NM_004309.2
Figure 1468: XM_046472.1
Figure 1469: NM_016286.1
Figure 1470: NM_004127.3
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Figure 1473: XM_042018.1
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Figure 1476: NM_017876.1
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Figure 1478: NM_002819.2
Figure 1479: NM_024888.1
Figure 1480: XM_037560.3
Figure 1481: NM_138774.1
Figure 1482: XM_037565.1
Figure 1483: NM_033420.1
Figure 1484: XM_092042.2
Figure 1485: XM_037572.2
Figure 1486A-B: XM_037574.3
Figure 1487: XM_009279.6
Figure 1488: NM_002085.1
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Figure 1492: XM_072012.3
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Figure 1494: NM_018959.1
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Figure 1496: XM_086101.1
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Figure 1500: NM_006830.2
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Figure 1502A-B: XM_030721.1
Figure 1503: NM_031918.1
Figure 1504: NM_079834.1
Figure 1505: NM_001319.4
Figure 1506: NM_017797.2
Figure 1507: NM_017572.1
Figure 1508A-B: NM_003938.2
Figure 1509: NM_007165.1
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Figure 1511: XM_085870.1
Figure 1512: NM_018381.1
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Figure 1521: NM_007065.2
Figure 1522A-B: XM_008891.7
Figure 1523: XM_049561.1
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Figure 1525: NM_012218.1
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Figure 1530: NM_024029.2
Figure 1531A-B: NM_003072.1
Figure 1532A-B: XM_009082.1
Figure 1533: XM_085924.4
Figure 1534: XM_009085.7
Figure 1535: XM_032773.1
Figure 1536: XM_032782.2
Figure 1537: NM_032377.1
Figure 1538: NM_001611.2
Figure 1539: XM_113989.1
Figure 1540: XM_015697.3
Figure 1541: XM_032812.1
Figure 1542: NM_001436.2
Figure 1543: XM_012860.4
Figure 1544: NM_006503.1
Figure 1545: XM_042665.2
Figure 1546: XM_047409.3
Figure 1547: NM_000713.1
Figure 1548: XM_047376.6
Figure 1549A-B: XM_047374.5
Figure 1550: XM_059052.5
Figure 1551: NM_004596.1
Figure 1552: XM_049920.1
Figure 1553: XM_055859.2
Figure 1554: XM_008860.6
Figure 1555: XM_097339.1
Figure 1556: XM_055856.5
Figure 1557: XM_009036.3
Figure 1558A-B: XM_028253.1
Figure 1559: XM_009039.1
Figure 1560A-B: XM_085943.4
Figure 1561: XM_028263.1
Figure 1562: XM_085928.1
Figure 1563: NM_013403.1
Figure 1564: NM_001743.3

Figure 1565: NM_017432.1
Figure 1566: XM_046344.2
Figure 1567: NM_025129.2
Figure 1568: NM_014203.2
Figure 1569: NM_001536.1
Figure 1570A-B: XM_046305.2
Figure 1571: NM_015953.2
Figure 1572: XM_084026.2
Figure 1573: NM_012423.2
Figure 1574: NM_017916.1
Figure 1575: NM_018111.1
Figure 1576: NM_022165.1
Figure 1577: XM_085942.2
Figure 1578: NM_006666.1
Figure 1579: NM_000146.2
Figure 1580: NM_004324.1
Figure 1581: NM_006184.2
Figure 1582: XM_009097.4
Figure 1583: NM_000979.2
Figure 1584: XM_049963.4
Figure 1585: NM_031485.1
Figure 1586: NM_006801.1
Figure 1587: XM_012808.5
Figure 1588: NM_001425.1
Figure 1589: XM_091973.1
Figure 1590A-B: XM_049938.3
Figure 1591: XM_009118.9
Figure 1592: NM_021103.1
Figure 1593: XM_086920.1
Figure 1594: XM_056742.2
Figure 1595: XM_034215.3
Figure 1596: XM_086916.1
Figure 1597: XM_002568.8
Figure 1598: NM_001747.1
Figure 1599: NM_005911.2
Figure 1600: XM_050962.4
Figure 1601: NM_012100.1
Figure 1602: XM_050638.2
Figure 1603: NM_002601.1
Figure 1604: NM_022730.1
Figure 1605: XM_054226.4
Figure 1606A-B: NM_024085.1
Figure 1607: XM_050885.1
Figure 1608: XM_058098.3
Figure 1609: XM_087157.1
Figure 1610: XM_058100.3
Figure 1611: XM_065804.1
Figure 1612: NM_000784.2
Figure 1613A-B: XM_002591.7
Figure 1614: NM_004328.2
Figure 1615: XM_010866.6
Figure 1616: XM_117275.1
Figure 1617: NM_002712.1
Figure 1618: NM_018635.1
Figure 1619A-B: XM_042326.3
Figure 1620: NM_004404.1
Figure 1621A-B: NM_014808.1
Figure 1622A-B: XM_117274.1
Figure 1623: XM_002742.4
Figure 1624: NM_023083.1
Figure 1625: NM_018226.2
Figure 1626: XM_009622.5
Figure 1627A-B: XM_009682.3
Figure 1628: NM_000801.2
Figure 1629: NM_003091.1
Figure 1630: NM_052881.1
Figure 1631: NM_006899.1
Figure 1632: NM_022760.2
Figure 1633A-B: NM_002836.2
Figure 1634: XM_045394.1
Figure 1635: NM_030811.2
Figure 1636: NM_016732.1
Figure 1637: NM_003908.1
Figure 1638: NM_000687.1
Figure 1639: NM_014183.1
Figure 1640: NM_080476.1
Figure 1641: XM_086728.1
Figure 1642A-C: XM_047155.2
Figure 1643: NM_018677.1
Figure 1644: NM_000178.1
Figure 1645: NM_015638.1
Figure 1646: NM_018217.1
Figure 1647: NM_006404.1
Figure 1648: NM_002212.1
Figure 1649: NM_018244.1
Figure 1650A-C: NM_007186.1
Figure 1651: NM_015966.1
Figure 1652: NM_003915.1
Figure 1653: XM_033090.4
Figure 1654: NM_003776.1
Figure 1655: XM_059313.2
Figure 1656: XM_055490.4
Figure 1657: NM_003504.2
Figure 1658: NM_002688.2
Figure 1659: XM_058918.2
Figure 1660: NM_024627.2
Figure 1661A-B: NM_005877.2
Figure 1662: NM_012429.1
Figure 1663: NM_016498.1
Figure 1664: NM_004861.1
Figure 1665: NM_014303.1
Figure 1666: XM_114209.1
Figure 1667: NM_003661.1
Figure 1668A-B: NM_002473.1
Figure 1669: NM_003753.1
Figure 1670: XM_009973.3
Figure 1671: XM_009974.4
Figure 1672: NM_138797.1
Figure 1673: NM_016091.1
Figure 1674: NM_012407.1
Figure 1675: NM_012264.2
Figure 1676: NM_001894.1

Figure 1677: NM_006855.2
Figure 1678: NM_006386.2
Figure 1679: NM_015373.1
Figure 1680: NM_020243.2
Figure 1681: NM_014876.1
Figure 1682A-B: XM_039332.3
Figure 1683: XM_039339.5
Figure 1684: XM_114199.1
Figure 1685: NM_021822.1
Figure 1686A-B: XM_009997.2
Figure 1687: NM_000967.2
Figure 1688: XM_010000.3
Figure 1689: XM_010003.4
Figure 1690: XM_039372.4
Figure 1691: NM_000026.1
Figure 1692: NM_015705.1
Figure 1693: XM_039410.1
Figure 1694: NM_003932.2
Figure 1695: NM_014248.1
Figure 1696: XM_086844.1
Figure 1697A-C: XM_010013.4
Figure 1698: NM_002883.1
Figure 1699: NM_017590.1
Figure 1700: NM_016272.1
Figure 1701: NM_001098.1
Figure 1702A-B: XM_039448.4
Figure 1703: NM_002676.1
Figure 1704: XM_039495.2
Figure 1705: NM_001469.2
Figure 1706: NM_005008.1
Figure 1707A-B: NM_004599.1
Figure 1708: NM_024053.1
Figure 1709A-B: XM_010024.3
Figure 1710: NM_002490.2
Figure 1711: XM_040050.3
Figure 1712: XM_040066.3
Figure 1713: XM_066334.1
Figure 1714: XM_013015.3
Figure 1715: XM_040084.1
Figure 1716A-B: XM_084084.1
Figure 1717: XM_010029.3
Figure 1718: XM_051518.6
Figure 1719: NM_003365.1
Figure 1720A-C: XM_030109.5
Figure 1721: XM_030062.4
Figure 1722: XM_003288.8
Figure 1723: XM_084122.1
Figure 1724: XM_047561.3
Figure 1725: XM_116853.1
Figure 1726A-B: XM_114325.1
Figure 1727A-B: XM_113405.1
Figure 1728A-B: XM_028610.2
Figure 1729: NM_013334.2
Figure 1730: NM_022064.1
Figure 1731: NM_020998.1
Figure 1732: XM_002828.6
Figure 1733A-B: XM_018223.6
Figure 1734: NM_000481.1
Figure 1735: NM_032316.1
Figure 1736: XM_114367.1
Figure 1737A-B: NM_005777.1
Figure 1738: NM_005778.1
Figure 1739: NM_006841.1
Figure 1740: XM_041507.1
Figure 1741: NM_004636.1
Figure 1742: NM_007312.2
Figure 1743: NM_033158.1
Figure 1744: XM_016345.5
Figure 1745: XM_116479.1
Figure 1746: NM_002887.2
Figure 1747: XM_047992.2
Figure 1748: XM_114453.1
Figure 1749: XM_165484.1
Figure 1750: XM_030771.4
Figure 1751: NM_019057.1
Figure 1752: XM_030777.2
Figure 1753: XM_030782.2
Figure 1754: XM_003735.6
Figure 1755: XM_003736.4
Figure 1756: NM_000505.2
Figure 1757: NM_006816.1
Figure 1758: NM_013237.1
Figure 1759: NM_130781.1
Figure 1760: NM_002011.2
Figure 1761: NM_007355.2
Figure 1762: XM_165772.1
Figure 1763: XM_168123.1
Figure 1764: XM_166457.1
Figure 1765: NM_018135.2
Figure 1766: XM_166428.1
Figure 1767: XM_166334.1
Figure 1768A-B: XM_166340.1
Figure 1769: XM_087960.1
Figure 1770: XM_166404.1
Figure 1771: NM_015388.1
Figure 1772: NM_080604.1
Figure 1773A-C: XM_165735.1
Figure 1774: XM_165754.1
Figure 1775: NM_006443.1
Figure 1776A-B: XM_166408.1
Figure 1777A-B: NM_003131.1
Figure 1778A-B: NM_002821.2
Figure 1779: NM_138343.1
Figure 1780: XM_165729.1
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Figure 1782: XM_166425.1
Figure 1783: NM_014623.1
Figure 1784: NM_006245.1
Figure 1785: XM_165830.1
Figure 1786: NM_018960.1
Figure 1787: NM_005510.1
Figure 1788: NM_001710.2

Figure 1789: NM_000063.2
Figure 1790A-B: NM_006709.2
Figure 1791: NM_000434.1
Figure 1792: NM_005346.2
Figure 1793: NM_005345.3
Figure 1794A-B: NM_006295.1
Figure 1795: NM_001288.3
Figure 1796: NM_013974.1
Figure 1797: NM_021160.1
Figure 1798: NM_001320.2
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Figure 1800: XM_165719.1
Figure 1801A-B: NM_004639.2
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Figure 1803: NM_004847.2
Figure 1804: XM_165771.1
Figure 1805: NM_004640.3
Figure 1806: NM_005931.1
Figure 1807: XM_165832.1
Figure 1808: XM_165765.1
Figure 1809: XM_087945.1
Figure 1810: XM_166381.1
Figure 1811: XM_165720.1
Figure 1812: NM_001517.1
Figure 1813A-B: XM_165738.1
Figure 1814: NM_003897.2
Figure 1815: NM_005803.2
Figure 1816: XM_087939.2
Figure 1817A-B: XM_165734.1
Figure 1818: XM_166353.1
Figure 1819A-B: XM_166376.1
Figure 1820: XM_165782.1
Figure 1821: NM_014046.2
Figure 1822: NM_001090.1
Figure 1823: NM_025263.1
Figure 1824: XM_166361.1
Figure 1825: XM_165764.1
Figure 1826: XM_165758.1
Figure 1827: XM_069477.2
Figure 1828: NM_024839.1
Figure 1829: NM_003449.2
Figure 1830: NM_021959.1
Figure 1831: NM_014596.2
Figure 1832: XM_165809.1
Figure 1833: XM_087971.2
Figure 1834: XM_167122.1
Figure 1835: XM_166392.1
Figure 1836: XM_167128.1
Figure 1837: XM_166357.1
Figure 1838: NM_001069.1
Figure 1839: NM_004332.1
Figure 1840: NM_000904.1
Figure 1841: NM_004568.2
Figure 1842: NM_030666.2
Figure 1843: NM_020135.2
Figure 1844: NM_004156.1
Figure 1845: XM_088338.1
Figure 1846: XM_040574.5
Figure 1847: XM_049247.2
Figure 1848: XM_058968.2
Figure 1849: NM_024736.2
Figure 1850A-B: XM_005044.7
Figure 1851: NM_003313.2
Figure 1852: NM_032862.1
Figure 1853: XM_059915.5
Figure 1854A-B: XM_114611.1
Figure 1855: XM_114613.1
Figure 1856: XM_035368.4
Figure 1857: NM_024531.1
Figure 1858: XM_113532.1
Figure 1859: NM_016458.2
Figure 1860: NM_032687.1
Figure 1861: XM_035370.1
Figure 1862: XM_035341.1
Figure 1863: NM_033301.1
Figure 1864: XM_098796.1
Figure 1865: XM_059998.5
Figure 1866: NM_013442.1
Figure 1867: XM_048461.3
Figure 1868A-B: XM_048462.3
Figure 1869: XM_114661.1
Figure 1870: XM_048479.1
Figure 1871: NM_003289.1
Figure 1872A-C: NM_006289.2
Figure 1873: XM_048513.1
Figure 1874: XM_048518.6
Figure 1875: NM_000907.1
Figure 1876: XM_005397.5
Figure 1877: XM_048539.1
Figure 1878: NM_007268.1
Figure 1879: XM_015516.4
Figure 1880A-B: XM_013042.3
Figure 1881A-B: XM_001466.8
Figure 1882: XM_046565.1
Figure 1883: NM_024602.1
Figure 1884: XM_056881.6
Figure 1885: XM_086536.4
Figure 1886: NM_004073.1
Figure 1887: XM_046557.1
Figure 1888: NM_001012.1
Figure 1889: XM_046551.2
Figure 1890: NM_024587.1
Figure 1891: NM_018150.1
Figure 1892: XM_117668.1
Figure 1893: XM_086370.4
Figure 1894: XM_001605.9
Figure 1895: NM_005727.1
Figure 1896A-B: XM_027983.5
Figure 1897: XM_086324.2
Figure 1898: NM_016486.1
Figure 1899: XM_055818.6
Figure 1900: XM_086537.4

Figure 1901: XM_032391.2
Figure 1902: NM_006066.1
Figure 1903: NM_002574.1
Figure 1904: XM_032397.1
Figure 1905: NM_025077.1
Figure 1906: NM_012222.1
Figure 1907: NM_032756.1
Figure 1908: XM_114085.1
Figure 1909: NM_006369.1
Figure 1910: XM_097553.1
Figure 1911: XM_059133.5
Figure 1912A-B: NM_014784.1
Figure 1913: NM_003975.1
Figure 1914: NM_005973.3
Figure 1915: XM_044077.3
Figure 1916: XM_056380.2
Figure 1917: XM_044080.2
Figure 1918: XM_044083.5
Figure 1919: NM_001878.2
Figure 1920: XM_017040.3
Figure 1921: NM_021948.2
Figure 1922: XM_086573.1
Figure 1923: XM_097656.1
Figure 1924: XM_059219.2
Figure 1925: NM_005920.1
Figure 1926: XM_044127.8
Figure 1927: XM_053245.6
Figure 1928A-B: XM_044148.3
Figure 1929: NM_024897.1
Figure 1930: NM_007221.1
Figure 1931A-B: XM_044155.1
Figure 1932: XM_086562.1
Figure 1933: NM_022367.1
Figure 1934: NM_005572.1
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Figure 1936: XM_053243.1
Figure 1937: XM_017041.3
Figure 1938: XM_044128.6
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Figure 1976: NM_014847.1
Figure 1977: NM_006118.2
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Figure 1987: XM_052974.5
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Figure 2232: NM_023936.1
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Figure 2235: XM_034590.1
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Figure 2246: NM_002528.3
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Figure 2282: XM_058783.3
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Figure 2348: XM_008591.4

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Figure 2552: XM_114009.1
Figure 2553A-B: XM_048457.1
Figure 2554: XM_114008.1
Figure 2555: NM_015965.2
Figure 2556: XM_013176.3
Figure 2557: NM_004647.1
Figure 2558: XM_032281.4
Figure 2559: XM_085984.2
Figure 2560: XM_032285.3
Figure 2561: NM_004823.1
Figure 2562: NM_002812.1
Figure 2563: XM_056604.3
Figure 2564A-E: XM_029455.3
Figure 2565: XM_029450.1
Figure 2566: NM_004924.2
Figure 2567: XM_085989.2
Figure 2568: XM_115619.1
Figure 2569: NM_006149.2
Figure 2570: XM_008904.4
Figure 2571: NM_001533.1
Figure 2572: NM_012237.2

Figure 2573: NM_002503.1
Figure 2574: NM_017827.2
Figure 2575: NM_021107.1
Figure 2576A-B: NM_005884.2
Figure 2577: XM_092066.1
Figure 2578: XM_009225.5
Figure 2579: NM_018028.1
Figure 2580: XM_046090.2
Figure 2581: XM_167529.1
Figure 2582: XM_086004.2
Figure 2583: XM_097361.2
Figure 2584: NM_003407.1
Figure 2585: XM_046114.3
Figure 2586: NM_001020.2
Figure 2587A-B: NM_003169.2
Figure 2588: XM_053074.4
Figure 2589: NM_016941.1
Figure 2590: NM_004714.1
Figure 2591: NM_001436.2
Figure 2592: XM_016410.2
Figure 2593A-C: XM_096107.1
Figure 2594: XM_012860.4
Figure 2595: NM_006503.1
Figure 2596: XM_042665.2
Figure 2597: XM_009203.6
Figure 2598: XM_059053.5
Figure 2599: XM_047409.3
Figure 2600: NM_013376.1
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Figure 2602: NM_000713.1
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Figure 2607: NM_024876.1
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Figure 2609: NM_004596.1
Figure 2610: NM_016154.1
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Figure 2620: XM_008912.1
Figure 2621: XM_085882.1
Figure 2622: NM_030578.1
Figure 2623: XM_058950.4
Figure 2624: NM_020158.1
Figure 2625: XM_030901.1
Figure 2626: NM_018035.1
Figure 2627: XM_085874.1
Figure 2628: XM_012777.2
Figure 2629: XM_113346.1
Figure 2630: XM_115603.1
Figure 2631: NM_001022.2
Figure 2632: NM_004706.2
Figure 2633: NM_006423.1
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Figure 2636A-B: XM_057401.6
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Figure 2638: XM_064875.2
Figure 2639A-B: NM_015125.2
Figure 2640: NM_002573.2
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Figure 2642: NM_002659.1
Figure 2643: XM_059019.3
Figure 2644: NM_024327.1
Figure 2645: XM_059018.3
Figure 2646: XM_009200.3
Figure 2647: XM_086014.2
Figure 2648: NM_014297.1
Figure 2649: NM_014400.1
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Figure 2652: XM_049920.1
Figure 2653: XM_055859.2
Figure 2654: XM_064954.1
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Figure 2662: XM_085928.1
Figure 2663: NM_013403.1
Figure 2664: NM_016457.2
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Figure 2666: XM_085951.1
Figure 2667: XM_031307.4
Figure 2668: NM_032040.1
Figure 2669: NM_006247.2
Figure 2670: XM_058994.3
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Figure 2673: XM_117132.1
Figure 2674: NM_012068.2
Figure 2675: XM_085927.2
Figure 2676: XM_084023.1
Figure 2677: XM_016217.6
Figure 2678: XM_114025.1
Figure 2679: XM_008985.6
Figure 2680: NM_017432.1
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Figure 2682: NM_030973.1
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Figure 2694: XM_027904.5
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Figure 2696: NM_012423.2
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Figure 2698: NM_017916.1
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Figure 2709: NM_006666.1
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Figure 2719: XM_009103.5
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Figure 2722: NM_000979.2
Figure 2723: XM_009112.4
Figure 2724: XM_049964.2
Figure 2725: XM_049963.4
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Figure 2732: XM_009118.9
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Figure 2734: XM_009161.8
Figure 2735: XM_092006.2
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Figure 2745: NM_014501.1
Figure 2746: NM_013333.1
Figure 2747: NM_007279.1
Figure 2748: NM_016535.1
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Figure 2752: XM_058964.2
Figure 2753: NM_024710.1
Figure 2754: XM_085842.1
Figure 2755: XM_084011.1
Figure 2756: NM_003969.1
Figure 2757: NM_014453.1
Figure 2758: NM_005762.2
Figure 2759: NM_018337.1
Figure 2760: NM_003091.1
Figure 2761: NM_052881.1
Figure 2762: XM_044914.1
Figure 2763: XM_044915.5
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Figure 2765: NM_022760.2
Figure 2766A-B: NM_002836.2
Figure 2767: NM_030811.2
Figure 2768: NM_021826.1
Figure 2769A-B: XM_009582.2
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Figure 2772: XM_086711.1
Figure 2773A-C: XM_045431.3
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Figure 2776: NM_017874.1
Figure 2777: XM_045451.2
Figure 2778: XM_045460.1
Figure 2779: XM_015893.3
Figure 2780: NM_003098.2
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Figure 2785: NM_032819.2
Figure 2786: XM_059282.3
Figure 2787: NM_016732.1
Figure 2788: NM_003908.1
Figure 2789: XM_012928.4
Figure 2790: NM_000687.1
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Figure 2792: NM_014183.1
Figure 2793: NM_032514.1
Figure 2794: XM_114179.1
Figure 2795: XM_086728.1
Figure 2796A-C: XM_047155.2

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Figure 2798: NM_018677.1
Figure 2799: NM_000178.1
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Figure 2803: NM_006404.1
Figure 2804: XM_086729.1
Figure 2805: XM_072161.3
Figure 2806: NM_002212.1
Figure 2807: NM_018244.1
Figure 2808: NM_000557.2
Figure 2809A-C: NM_007186.1
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Figure 2811: NM_024777.1
Figure 2812: NM_003915.1
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Figure 2822: NM_031487.1
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Figure 2828: XM_114196.1
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Figure 2833: XM_092854.1
Figure 2834: XM_086781.1
Figure 2835A-B: NM_001112.1
Figure 2836A-B: XM_036175.3
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Figure 2838: XM_057166.4
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Figure 2843A-B: XM_033048.3
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Figure 2845: XM_033090.4
Figure 2846A-B: XM_033096.4
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Figure 2848: XM_055490.4
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Figure 2852: NM_080647.1
Figure 2853: NM_053004.1
Figure 2854: XM_058918.2
Figure 2855: XM_097833.1
Figure 2856: NM_024627.2
Figure 2857: NM_006440.1
Figure 2858: NM_000754.2
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Figure 2863: XM_033828.2
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Figure 2867A-B: XM_036730.3
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Figure 2870: XM_018295.2
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Figure 2872: XM_086876.2
Figure 2873: NM_002650.1
Figure 2874: XM_009850.5
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Figure 2876: NM_005207.1
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Figure 2878A-B: XM_009853.5
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Figure 2882: XM_036892.3
Figure 2883: XM_104587.2
Figure 2884: XM_086827.1
Figure 2885A-B: XM_059324.1
Figure 2886: XM_096155.2
Figure 2887: XM_009885.6
Figure 2888: XM_086855.2
Figure 2889: XM_096156.2
Figure 2890: XM_086824.2
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Figure 2892: NM_003347.1
Figure 2893: XM_097886.2
Figure 2894: NM_022044.1
Figure 2895: NM_014337.1
Figure 2896: XM_059326.3
Figure 2897A-B: XM_097870.1
Figure 2898: XM_036967.3
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Figure 2901: NM_005080.2
Figure 2902A-B: XM_037887.3
Figure 2903: NM_012265.1
Figure 2904: NM_005243.1
Figure 2905: NM_006478.2
Figure 2906A-B: XM_009905.7
Figure 2907A-B: XM_037942.2
Figure 2908A-B: XM_037945.4

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Figure 2913: NM_013387.1
Figure 2914: NM_032204.2
Figure 2915A-B: NM_021090.1
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Figure 2917A-B: XM_009915.6
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Figure 2920A-B: NM_005877.2
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Figure 2922: NM_016498.1
Figure 2923: NM_014303.1
Figure 2924: NM_000355.1
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Figure 2926: XM_086863.1
Figure 2927: XM_097857.1
Figure 2928A-B: NM_014941.1
Figure 2929: NM_017903.1
Figure 2930: NM_134269.1
Figure 2931: NM_080430.1
Figure 2932: XM_018516.4
Figure 2933A-B: NM_016733.1
Figure 2934A-B: NM_014323.2
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Figure 2936A-B: NM_019843.2
Figure 2937A-B: XM_038520.4
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Figure 2940A-B: NM_014662.1
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Figure 2943: NM_020839.1
Figure 2944: XM_114334.1
Figure 2945: XM_059521.2
Figure 2946: XM_047503.3
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Figure 2948: XM_087349.4
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Figure 2950: NM_002295.2
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Figure 2953: XM_093546.4
Figure 2954: XM_114314.1
Figure 2955: XM_093423.1
Figure 2956A-B: XM_002914.6
Figure 2957: XM_029136.5
Figure 2958: XM_087324.4
Figure 2959: NM_006232.2
Figure 2960A-B: XM_029131.5
Figure 2961A-B: XM_029132.6
Figure 2962A-B: XM_029104.4
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Figure 2965: XM_029078.5
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Figure 2970A-B: NM_003137.2
Figure 2971A-B: NM_004117.2
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Figure 2975: NM_022047.1
Figure 2976: XM_166399.1
Figure 2977A-B: NM_030900.1
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Figure 2979: XM_168417.1
Figure 2980: NM_012412.2
Figure 2981: NM_021130.1
Figure 2982: NM_031449.1
Figure 2983A-B: XM_165877.1
Figure 2984: XM_166556.1
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Figure 2986A-B: NM_015332.1
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Figure 2989: XM_165870.1
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Figure 2993A-B: XM_165882.1
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Figure 2996: NM_014063.2
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Figure 3005: XM_050607.1
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Figure 3008: XM_042927.3
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Figure 3013: NM_032951.1
Figure 3014: NM_032317.1
Figure 3015: NM_017528.1
Figure 3016: NM_004603.1
Figure 3017: NM_031295.1
Figure 3018: NM_001306.1
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Figure 3028: XM_088228.1
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Figure 3033: NM_005395.1
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Figure 3035: XM_167498.1
Figure 3036: XM_168454.1
Figure 3037: NM_031925.1
Figure 3038: XM_167499.1
Figure 3039: NM_005918.1
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Figure 3041: NM_001540.2
Figure 3042A-B: XM_168538.1
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Figure 3044: NM_007155.1
Figure 3045: XM_050377.4
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Figure 3048A-B: XM_170390.1
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Figure 3053: XM_088374.4
Figure 3054: NM_052963.1
Figure 3055: NM_138465.1
Figure 3056A-B: XM_088298.4
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Figure 3062: NM_023078.1
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Figure 3064: XM_049226.6
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Figure 3111: NM_017585.2
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Figure 3114A-B: NM_005676.2
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Figure 3127A-B: NM_080612.1
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Figure 3130: NM_021806.1
Figure 3131: NM_014235.1
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Figure 3135: XM_010152.4
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Figure 3137: XM_010154.1
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Figure 3139: NM_006013.2
Figure 3140: XM_048410.1
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Figure 3143: NM_001569.2
Figure 3144: NM_003492.1
Figure 3145A-C: XM_048390.3
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Figure 3147: NM_001666.1
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Figure 3150: NM_004135.1
Figure 3151: NM_014370.1
Figure 3152A-B: NM_000033.2
Figure 3153: NM_005745.3
Figure 3154A-B: XM_048315.1
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Figure 3157: XM_042153.4
Figure 3158: NM_007205.2
Figure 3159: XM_059930.5
Figure 3160A-B: NM_014784.1
Figure 3161: NM_003975.1
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Figure 3233: XM_037142.5
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Figure 3482: XM_008559.1
Figure 3483: NM_024017.2
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Figure 3520: XM_085711.1
Figure 3521: XM_046481.1
Figure 3522: XM_097197.2
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Figure 3584: NM_001319.4
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Figure 3652: XM_055230.3
Figure 3653: NM_015683.1
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Figure 3734: NM_006503.1
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Figure 3741: XM_047376.6
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Figure 3752: XM_008912.1
Figure 3753: XM_085882.1
Figure 3754: NM_020158.1
Figure 3755: NM_018035.1
Figure 3756: XM_085874.1
Figure 3757: XM_009170.3
Figure 3758: XM_012777.2
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Figure 3760: XM_115603.1
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Figure 3768: NM_006494.1
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Figure 3772A-B: NM_005357.1
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Figure 3775: XM_054350.3
Figure 3776: XM_113354.1
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Figure 3778: XM_092027.1
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Figure 3780: NM_019108.1
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Figure 3808: NM_006247.2
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Figure 3820: NM_025136.1
Figure 3821: XM_085848.1
Figure 3822: NM_003370.1
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Figure 4382: NM_032758.1
Figure 4383: NM_001098.1
Figure 4384A-B: XM_039448.4
Figure 4385: NM_002676.1
Figure 4386: NM_001469.2
Figure 4387: NM_005008.1
Figure 4388: XM_039501.2
Figure 4389: NM_024588.1
Figure 4390: NM_024821.1
Figure 4391A-B: NM_004599.1
Figure 4392: NM_024053.1
Figure 4393A-B: XM_010024.3
Figure 4394: NM_033318.1
Figure 4395: NM_002490.2
Figure 4396: XM_040050.3
Figure 4397: XM_040066.3
Figure 4398: XM_013015.3
Figure 4399: NM_014509.2
Figure 4400A-B: XM_084084.1
Figure 4401: XM_010029.3
Figure 4402: XM_076414.5
Figure 4403: XM_116066.1
Figure 4404: XM_093546.4
Figure 4405: XM_116067.1
Figure 4406: XM_116069.1
Figure 4407: NM_018130.1
Figure 4408: XM_051902.4
Figure 4409: XM_116410.1
Figure 4410: XM_098401.1
Figure 4411A-B: XM_027156.3
Figure 4412A-B: NM_006999.2
Figure 4413: NM_138809.1
Figure 4414: XM_052313.5
Figure 4415: XM_059691.3
Figure 4416: XM_003862.5
Figure 4417: XM_057492.4
Figure 4418: XM_016170.6
Figure 4419: XM_030424.3
Figure 4420A-B: XM_113451.1
Figure 4421: XM_165474.1
Figure 4422: XM_168338.1
Figure 4423: NM_015610.1
Figure 4424A-B: XM_166549.1
Figure 4425: XM_166550.1
Figure 4426: NM_001101.2
Figure 4427: NM_003088.1
Figure 4428: XM_165858.1
Figure 4429: NM_000535.2
Figure 4430: NM_006303.2
Figure 4431A-B: NM_014413.2
Figure 4432: NM_032706.1
Figure 4433: NM_006908.2
Figure 4434: XM_166545.1
Figure 4435: NM_006854.2
Figure 4436: NM_017756.1
Figure 4437: NM_018106.1
Figure 4438: XM_166538.1
Figure 4439: XM_037224.3
Figure 4440: XM_165859.1
Figure 4441: XM_167302.1
Figure 4442: XM_055725.1
Figure 4443: XM_167304.1
Figure 4444: XM_166521.1
Figure 4445: XM_166512.1
Figure 4446: NM_019059.1
Figure 4447: XM_167279.1
Figure 4448: XM_088260.1
Figure 4449: NM_003406.1
Figure 4450: XM_011657.3
Figure 4451: NM_002568.1
Figure 4452: XM_035046.2
Figure 4453: XM_070950.1
Figure 4454: XM_114679.1
Figure 4455: XM_114678.1
Figure 4456: XM_114677.1
Figure 4457: XM_059637.5
Figure 4458: NM_032360.1
Figure 4459: XM_114109.1
Figure 4460: NM_002826.2
Figure 4461A-D: XM_113370.1
Figure 4462: NM_019852.1
Figure 4463A-B: NM_014828.1
Figure 4464A-B: XM_033511.6
Figure 4465A-B: NM_007192.2
Figure 4466: XM_012376.6
Figure 4467: XM_085105.1
Figure 4468: NM_016423.1
Figure 4469: XM_033553.6
Figure 4470: NM_022734.1
Figure 4471: XM_033595.6
Figure 4472: NM_002937.2
Figure 4473: NM_001145.1
Figure 4474: XM_007491.3
Figure 4475: XM_034238.5
Figure 4476: NM_001641.2

Figure 4477: NM_017807.1
Figure 4478: NM_005484.2
Figure 4479: NM_021178.1
Figure 4480: XM_015893.3
Figure 4481: NM_003098.2
Figure 4482A-B: XM_047042.2
Figure 4483: XM_056253.3
Figure 4484: XM_097772.1
Figure 4485: XM_059282.3
Figure 4486: NM_016732.1
Figure 4487: NM_003908.1
Figure 4488: NM_000687.1
Figure 4489: XM_047136.1
Figure 4490: NM_014183.1
Figure 4491: NM_032514.1
Figure 4492: NM_080476.1
Figure 4493: XM_086728.1
Figure 4494A-C: XM_047155.2
Figure 4495: NM_052830.1
Figure 4496: NM_018677.1
Figure 4497: NM_000178.1
Figure 4498: NM_015638.1
Figure 4499: NM_018217.1
Figure 4500: NM_006404.1
Figure 4501: XM_086729.1
Figure 4502: XM_072161.3
Figure 4503: NM_002212.1
Figure 4504: NM_018244.1
Figure 4505A-C: NM_007186.1
Figure 4506: NM_015966.1
Figure 4507: XM_016061.3
Figure 4508: NM_003915.1
Figure 4509A-B: XM_047271.2
Figure 4510: XM_047273.2
Figure 4511: XM_113380.1
Figure 4512: NM_004902.1
Figure 4513: XM_092776.1
Figure 4514: NM_016436.2
Figure 4515: NM_016558.2
Figure 4516A-B: XM_047295.1
Figure 4517: XM_114076.1
Figure 4518: XM_086357.1
Figure 4519: NM_000975.2
Figure 4520: NM_003198.1
Figure 4521: NM_007260.2
Figure 4522: NM_000191.1
Figure 4523: NM_017761.2
Figure 4524: NM_054016.1
Figure 4525: XM_086375.1
Figure 4526: XM_006290.5
Figure 4527: NM_019084.1
Figure 4528A-B: XM_005681.1
Figure 4529: XM_089514.1
Figure 4530: NM_013314.1
Figure 4531: XM_055459.3
Figure 4532: XM_050993.5
Figure 4533A-B: XM_058343.5
Figure 4534: XM_058602.2
Figure 4535: XM_016640.2
Figure 4536: XM_096146.2
Figure 4537A-B: XM_090334.1
Figure 4538A-B: XM_084841.1
Figure 4539: NM_022496.1
Figure 4540A-B: XM_113724.1
Figure 4541: XM_052542.1
Figure 4542: NM_003348.1
Figure 4543A-B: NM_019094.1
Figure 4544: NM_003877.2
Figure 4545: XM_012219.4
Figure 4546A-B: XM_040952.1
Figure 4547: XM_116948.1
Figure 4548: NM_005348.1
Figure 4549: XM_016985.2
Figure 4550: XM_012448.9
Figure 4551: NM_014736.1
Figure 4552: NM_000942.2
Figure 4553: XM_042248.1
Figure 4554: NM_032231.2
Figure 4555: NM_002789.2
Figure 4556: XM_113812.1
Figure 4557: XM_091100.1
Figure 4558: XM_047970.6
Figure 4559: NM_012170.1
Figure 4560: NM_000126.1
Figure 4561A-C: XM_037176.2
Figure 4562: NM_004278.1
Figure 4563: NM_018955.1
Figure 4564: XM_058900.2
Figure 4565: NM_016428.1
Figure 4566: NM_002634.2
Figure 4567: XM_011118.7
Figure 4568: NM_003563.1
Figure 4569: NM_005827.1
Figure 4570: NM_030802.1
Figure 4571: NM_007067.1
Figure 4572: XM_165954.1
Figure 4573: XM_041678.4
Figure 4574: NM_003244.1
Figure 4575: XM_167362.1
Figure 4576: XM_064591.1
Figure 4577: XM_015755.1
Figure 4578: XM_097232.2
Figure 4579: NM_022081.2
Figure 4580: XM_037840.4
Figure 4581: NM_012143.1
Figure 4582: NM_003595.1
Figure 4583: XM_086821.1
Figure 4584: XM_092888.1
Figure 4585: XM_057492.4
Figure 4586: XM_016170.6
Figure 4587: XM_030424.3
Figure 4588A-B: XM_113451.1

Figure 4589: XM_165474.1
Figure 4590: XM_055002.1
Figure 4591: NM_133645.1
Figure 4592: XM_097453.2
Figure 4593: XM_029228.1
Figure 4594: XM_059745.3
Figure 4595: NM_004906.1
Figure 4596: XM_087871.1
Figure 4597: XM_033912.1
Figure 4598: XM_033910.1
Figure 4599: NM_014161.1
Figure 4600A-C: XM_004237.5
Figure 4601: XM_166521.1
Figure 4602: XM_166512.1
Figure 4603: XM_167279.1
Figure 4604A-B: NM_032581.2
Figure 4605: NM_002314.2
Figure 4606: NM_022170.1
Figure 4607: NM_022040.2
Figure 4608: XM_004901.3
Figure 4609A-B: NM_003388.3
Figure 4610: NM_016328.1
Figure 4611A-B: NM_032999.1
Figure 4612: XM_113540.1
Figure 4613: NM_015941.1
Figure 4614: NM_006330.2
Figure 4615: NM_014175.1
Figure 4616: NM_005648.2
Figure 4617: NM_000971.2
Figure 4618: XM_088311.2
Figure 4619A-B: NM_014393.1
Figure 4620: NM_003406.1
Figure 4621: XM_011657.3
Figure 4622: NM_002568.1

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

I. Definitions

The terms "TAT polypeptide" and "TAT" as used herein and when immediately followed by a numerical designation, refer to various polypeptides, wherein the complete designation (i.e., TAT/number) refers to specific polypeptide sequences as described herein. The terms "TAT/number polypeptide" and "TAT/number" wherein the term "number" is provided as an actual numerical designation as used herein encompass native sequence polypeptides, polypeptide variants and fragments of native sequence polypeptides and polypeptide variants (which are further defined herein). The TAT polypeptides described herein may be isolated from a variety of sources, such as from human tissue types or from another source, or prepared by recombinant or synthetic methods. The term "TAT polypeptide" refers to each individual TAT/number polypeptide disclosed herein. All disclosures in this specification which refer to the "TAT polypeptide" refer to each of the polypeptides individually as well as jointly. For example, descriptions of the preparation of, purification of, derivation of, formation of antibodies to or against, formation of TAT binding oligopeptides to or against, formation of TAT binding organic molecules to or against, administration of, compositions containing, treatment of a disease with, etc., pertain to each polypeptide of the invention individually. The term "TAT polypeptide" also includes variants of the TAT/number polypeptides disclosed herein.

A "native sequence TAT polypeptide" comprises a polypeptide having the same amino acid sequence as the corresponding TAT polypeptide derived from nature. Such native sequence TAT polypeptides can be isolated from nature or can be produced by recombinant or synthetic means. The term "native sequence TAT polypeptide" specifically encompasses naturally-occurring truncated or secreted forms of the specific TAT polypeptide (*e.g.*, an extracellular domain sequence), naturally-occurring variant forms (*e.g.*, alternatively spliced forms) and naturally-occurring allelic variants of the polypeptide. In certain embodiments of the invention, the native sequence TAT polypeptides disclosed herein are mature or full-length native sequence polypeptides comprising the full-length amino acids sequences shown in the accompanying figures. Start and stop codons (if indicated) are shown in bold font and underlined in the figures. Nucleic acid residues indicated as "N" in the accompanying figures are any nucleic acid residue. However, while the TAT polypeptides disclosed in the accompanying figures are shown to begin with methionine residues designated herein as amino acid position 1 in the figures, it is conceivable and possible that other methionine residues located either upstream or downstream from the amino acid position 1 in the figures may be employed as the starting amino acid residue for the TAT polypeptides.

The TAT polypeptide "extracellular domain" or "ECD" refers to a form of the TAT polypeptide which is essentially free of the transmembrane and cytoplasmic domains. Ordinarily, a TAT polypeptide ECD will have less than 1% of such transmembrane and/or cytoplasmic domains and preferably, will have less than 0.5% of such domains. It will be understood that any transmembrane domains identified for the TAT polypeptides of the present invention are identified pursuant to criteria routinely employed in the art for identifying that type of hydrophobic domain. The exact boundaries of a transmembrane domain may vary but most likely by no more than about 5 amino acids at either end of the domain as initially identified herein. Optionally, therefore, an extracellular domain of a TAT polypeptide may contain from about 5 or fewer amino acids on either side of the

transmembrane domain/extracellular domain boundary as identified in the Examples or specification and such polypeptides, with or without the associated signal peptide, and nucleic acid encoding them, are contemplated by the present invention.

The approximate location of the "signal peptides" of the various TAT polypeptides disclosed herein may be shown in the present specification and/or the accompanying figures. It is noted, however, that the C-terminal boundary of a signal peptide may vary, but most likely by no more than about 5 amino acids on either side of the signal peptide C-terminal boundary as initially identified herein, wherein the C-terminal boundary of the signal peptide may be identified pursuant to criteria routinely employed in the art for identifying that type of amino acid sequence element (e.g., Nielsen et al., Prot. Eng. 10:1-6 (1997) and von Heinje et al., Nucl. Acids. Res. 14:4683-4690 (1986)). Moreover, it is also recognized that, in some cases, cleavage of a signal sequence from a secreted polypeptide is not entirely uniform, resulting in more than one secreted species. These mature polypeptides, where the signal peptide is cleaved within no more than about 5 amino acids on either side of the C-terminal boundary of the signal peptide as identified herein, and the polynucleotides encoding them, are contemplated by the present invention.

"TAT polypeptide variant" means a TAT polypeptide, preferably an active TAT polypeptide, as defined herein having at least about 80% amino acid sequence identity with a full-length native sequence TAT polypeptide sequence as disclosed herein, a TAT polypeptide sequence lacking the signal peptide as disclosed herein, an extracellular domain of a TAT polypeptide, with or without the signal peptide, as disclosed herein or any other fragment of a full-length TAT polypeptide sequence as disclosed herein (such as those encoded by a nucleic acid that represents only a portion of the complete coding sequence for a full-length TAT polypeptide). Such TAT polypeptide variants include, for instance, TAT polypeptides wherein one or more amino acid residues are added, or deleted, at the N- or C-terminus of the full-length native amino acid sequence. Ordinarily, a TAT polypeptide variant will have at least about 80% amino acid sequence identity, alternatively at least about 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% amino acid sequence identity, to a full-length native sequence TAT polypeptide sequence as disclosed herein, a TAT polypeptide sequence lacking the signal peptide as disclosed herein, an extracellular domain of a TAT polypeptide, with or without the signal peptide, as disclosed herein or any other specifically defined fragment of a full-length TAT polypeptide sequence as disclosed herein. Ordinarily, TAT variant polypeptides are at least about 10 amino acids in length, alternatively at least about 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600 amino acids in length, or more. Optionally, TAT variant polypeptides will have no more than one conservative amino acid substitution as compared to the native TAT polypeptide sequence, alternatively no more than 2, 3, 4, 5, 6, 7, 8, 9, or 10 conservative amino acid substitution as compared to the native TAT polypeptide sequence.

"Percent (%) amino acid sequence identity" with respect to the TAT polypeptide sequences identified herein is defined as the percentage of amino acid residues in a candidate sequence that are identical with the amino acid residues in the specific TAT polypeptide sequence, after aligning the sequences and introducing gaps,

if necessary, to achieve the maximum percent sequence identity, and not considering any conservative substitutions as part of the sequence identity. Alignment for purposes of determining percent amino acid sequence identity can be achieved in various ways that are within the skill in the art, for instance, using publicly available computer software such as BLAST, BLAST-2, ALIGN or Megalign (DNASTAR) software. Those skilled in the art can determine appropriate parameters for measuring alignment, including any algorithms needed to achieve maximal alignment over the full length of the sequences being compared. For purposes herein, however, % amino acid sequence identity values are generated using the sequence comparison computer program ALIGN-2, wherein the complete source code for the ALIGN-2 program is provided in Table 1 below. The ALIGN-2 sequence comparison computer program was authored by Genentech, Inc. and the source code shown in Table 1 below has been filed with user documentation in the U.S. Copyright Office, Washington D.C., 20559, where it is registered under U.S. Copyright Registration No. TXU510087. The ALIGN-2 program is publicly available through Genentech, Inc., South San Francisco, California or may be compiled from the source code provided in Table 1 below. The ALIGN-2 program should be compiled for use on a UNIX operating system, preferably digital UNIX V4.0D. All sequence comparison parameters are set by the ALIGN-2 program and do not vary.

In situations where ALIGN-2 is employed for amino acid sequence comparisons, the % amino acid sequence identity of a given amino acid sequence A to, with, or against a given amino acid sequence B (which can alternatively be phrased as a given amino acid sequence A that has or comprises a certain % amino acid sequence identity to, with, or against a given amino acid sequence B) is calculated as follows:

100 times the fraction X/Y

where X is the number of amino acid residues scored as identical matches by the sequence alignment program ALIGN-2 in that program's alignment of A and B, and where Y is the total number of amino acid residues in B. It will be appreciated that where the length of amino acid sequence A is not equal to the length of amino acid sequence B, the % amino acid sequence identity of A to B will not equal the % amino acid sequence identity of B to A. As examples of % amino acid sequence identity calculations using this method, Tables 2 and 3 demonstrate how to calculate the % amino acid sequence identity of the amino acid sequence designated "Comparison Protein" to the amino acid sequence designated "TAT", wherein "TAT" represents the amino acid sequence of a hypothetical TAT polypeptide of interest, "Comparison Protein" represents the amino acid sequence of a polypeptide against which the "TAT" polypeptide of interest is being compared, and "X, "Y" and "Z" each represent different hypothetical amino acid residues. Unless specifically stated otherwise, all % amino acid sequence identity values used herein are obtained as described in the immediately preceding paragraph using the ALIGN-2 computer program.

"TAT variant polynucleotide" or "TAT variant nucleic acid sequence" means a nucleic acid molecule which encodes a TAT polypeptide, preferably an active TAT polypeptide, as defined herein and which has at least about 80% nucleic acid sequence identity with a nucleotide acid sequence encoding a full-length native sequence TAT polypeptide sequence as disclosed herein, a full-length native sequence TAT polypeptide sequence

lacking the signal peptide as disclosed herein, an extracellular domain of a TAT polypeptide, with or without the signal peptide, as disclosed herein or any other fragment of a full-length TAT polypeptide sequence as disclosed herein (such as those encoded by a nucleic acid that represents only a portion of the complete coding sequence for a full-length TAT polypeptide). Ordinarily, a TAT variant polynucleotide will have at least about 80% nucleic acid sequence identity, alternatively at least about 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% nucleic acid sequence identity with a nucleic acid sequence encoding a full-length native sequence TAT polypeptide sequence as disclosed herein, a full-length native sequence TAT polypeptide sequence lacking the signal peptide as disclosed herein, an extracellular domain of a TAT polypeptide, with or without the signal sequence, as disclosed herein or any other fragment of a full-length TAT polypeptide sequence as disclosed herein. Variants do not encompass the native nucleotide sequence.

Ordinarily, TAT variant polynucleotides are at least about 5 nucleotides in length, alternatively at least about 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 185, 190, 195, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, or 1000 nucleotides in length, wherein in this context the term "about" means the referenced nucleotide sequence length plus or minus 10% of that referenced length.

"Percent (%) nucleic acid sequence identity" with respect to TAT-encoding nucleic acid sequences identified herein is defined as the percentage of nucleotides in a candidate sequence that are identical with the nucleotides in the TAT nucleic acid sequence of interest, after aligning the sequences and introducing gaps, if necessary, to achieve the maximum percent sequence identity. Alignment for purposes of determining percent nucleic acid sequence identity can be achieved in various ways that are within the skill in the art, for instance, using publicly available computer software such as BLAST, BLAST-2, ALIGN or Megalign (DNASTAR) software. For purposes herein, however, % nucleic acid sequence identity values are generated using the sequence comparison computer program ALIGN-2, wherein the complete source code for the ALIGN-2 program is provided in Table 1 below. The ALIGN-2 sequence comparison computer program was authored by Genentech, Inc. and the source code shown in Table 1 below has been filed with user documentation in the U.S. Copyright Office, Washington D.C., 20559, where it is registered under U.S. Copyright Registration No. TXU510087. The ALIGN-2 program is publicly available through Genentech, Inc., South San Francisco, California or may be compiled from the source code provided in Table 1 below. The ALIGN-2 program should be compiled for use on a UNIX operating system, preferably digital UNIX V4.0D. All sequence comparison parameters are set by the ALIGN-2 program and do not vary.

In situations where ALIGN-2 is employed for nucleic acid sequence comparisons, the % nucleic acid sequence identity of a given nucleic acid sequence C to, with, or against a given nucleic acid sequence D (which can alternatively be phrased as a given nucleic acid sequence C that has or comprises a certain % nucleic acid

sequence identity to, with, or against a given nucleic acid sequence D) is calculated as follows:

100 times the fraction W/Z

where W is the number of nucleotides scored as identical matches by the sequence alignment program ALIGN-2 in that program's alignment of C and D, and where Z is the total number of nucleotides in D. It will be appreciated that where the length of nucleic acid sequence C is not equal to the length of nucleic acid sequence D, the % nucleic acid sequence identity of C to D will not equal the % nucleic acid sequence identity of D to C. As examples of % nucleic acid sequence identity calculations, Tables 4 and 5, demonstrate how to calculate the % nucleic acid sequence identity of the nucleic acid sequence designated "Comparison DNA" to the nucleic acid sequence designated "TAT-DNA", wherein "TAT-DNA" represents a hypothetical TAT-encoding nucleic acid sequence of interest, "Comparison DNA" represents the nucleotide sequence of a nucleic acid molecule against which the "TAT-DNA" nucleic acid molecule of interest is being compared, and "N", "L" and "V" each represent different hypothetical nucleotides. Unless specifically stated otherwise, all % nucleic acid sequence identity values used herein are obtained as described in the immediately preceding paragraph using the ALIGN-2 computer program.

In other embodiments, TAT variant polynucleotides are nucleic acid molecules that encode a TAT polypeptide and which are capable of hybridizing, preferably under stringent hybridization and wash conditions, to nucleotide sequences encoding a full-length TAT polypeptide as disclosed herein. TAT variant polypeptides may be those that are encoded by a TAT variant polynucleotide.

The term "full-length coding region" when used in reference to a nucleic acid encoding a TAT polypeptide refers to the sequence of nucleotides which encode the full-length TAT polypeptide of the invention (which is often shown between start and stop codons, inclusive thereof, in the accompanying figures). The term "full-length coding region" when used in reference to an ATCC deposited nucleic acid refers to the TAT polypeptide-encoding portion of the cDNA that is inserted into the vector deposited with the ATCC (which is often shown between start and stop codons, inclusive thereof, in the accompanying figures).

"Isolated," when used to describe the various TAT polypeptides disclosed herein, means polypeptide that has been identified and separated and/or recovered from a component of its natural environment. Contaminant components of its natural environment are materials that would typically interfere with diagnostic or therapeutic uses for the polypeptide, and may include enzymes, hormones, and other proteinaceous or non-proteinaceous solutes. In preferred embodiments, the polypeptide will be purified (1) to a degree sufficient to obtain at least 15 residues of N-terminal or internal amino acid sequence by use of a spinning cup sequenator, or (2) to homogeneity by SDS-PAGE under non-reducing or reducing conditions using Coomassie blue or, preferably, silver stain. Isolated polypeptide includes polypeptide *in situ* within recombinant cells, since at least one component of the TAT polypeptide natural environment will not be present. Ordinarily, however, isolated polypeptide will be prepared by at least one purification step.

An "isolated" TAT polypeptide-encoding nucleic acid or other polypeptide-encoding nucleic acid is a nucleic acid molecule that is identified and separated from at least one contaminant nucleic acid molecule with which it is ordinarily associated in the natural source of the polypeptide-encoding nucleic acid. An isolated polypeptide-encoding nucleic acid molecule is other than in the form or setting in which it is found in nature. Isolated polypeptide-encoding nucleic acid molecules therefore are distinguished from the specific polypeptide-encoding nucleic acid molecule as it exists in natural cells. However, an isolated polypeptide-encoding nucleic acid molecule includes polypeptide-encoding nucleic acid molecules contained in cells that ordinarily express the polypeptide where, for example, the nucleic acid molecule is in a chromosomal location different from that of natural cells.

The term "control sequences" refers to DNA sequences necessary for the expression of an operably linked coding sequence in a particular host organism. The control sequences that are suitable for prokaryotes, for example, include a promoter, optionally an operator sequence, and a ribosome binding site. Eukaryotic cells are known to utilize promoters, polyadenylation signals, and enhancers.

Nucleic acid is "operably linked" when it is placed into a functional relationship with another nucleic acid sequence. For example, DNA for a presequence or secretory leader is operably linked to DNA for a polypeptide if it is expressed as a preprotein that participates in the secretion of the polypeptide; a promoter or enhancer is operably linked to a coding sequence if it affects the transcription of the sequence; or a ribosome binding site is operably linked to a coding sequence if it is positioned so as to facilitate translation. Generally, "operably linked" means that the DNA sequences being linked are contiguous, and, in the case of a secretory leader, contiguous and in reading phase. However, enhancers do not have to be contiguous. Linking is accomplished by ligation at convenient restriction sites. If such sites do not exist, the synthetic oligonucleotide adaptors or linkers are used in accordance with conventional practice.

"Stringency" of hybridization reactions is readily determinable by one of ordinary skill in the art, and generally is an empirical calculation dependent upon probe length, washing temperature, and salt concentration. In general, longer probes require higher temperatures for proper annealing, while shorter probes need lower temperatures. Hybridization generally depends on the ability of denatured DNA to reanneal when complementary strands are present in an environment below their melting temperature. The higher the degree of desired homology between the probe and hybridizable sequence, the higher the relative temperature which can be used. As a result, it follows that higher relative temperatures would tend to make the reaction conditions more stringent, while lower temperatures less so. For additional details and explanation of stringency of hybridization reactions, see Ausubel et al., Current Protocols in Molecular Biology, Wiley Interscience Publishers, (1995).

"Stringent conditions" or "high stringency conditions", as defined herein, may be identified by those that: (1) employ low ionic strength and high temperature for washing, for example 0.015 M sodium chloride/0.0015 M sodium citrate/0.1% sodium dodecyl sulfate at 50°C; (2) employ during hybridization a denaturing agent, such as formamide, for example, 50% (v/v) formamide with 0.1% bovine serum albumin/0.1% Ficoll/0.1% polyvinylpyrrolidone/50mM sodium phosphate buffer at pH 6.5 with 750 mM sodium chloride, 75 mM sodium citrate at 42°C; or (3) overnight hybridization in a solution that employs 50%

formamide, 5 x SSC (0.75 M NaCl, 0.075 M sodium citrate), 50 mM sodium phosphate (pH 6.8), 0.1% sodium pyrophosphate, 5 x Denhardt's solution, sonicated salmon sperm DNA (50 μg/ml), 0.1% SDS, and 10% dextran sulfate at 42°C, with a 10 minute wash at 42°C in 0.2 x SSC (sodium chloride/sodium citrate) followed by a 10 minute high-stringency wash consisting of 0.1 x SSC containing EDTA at 55°C.

"Moderately stringent conditions" may be identified as described by Sambrook et al., Molecular Cloning: A Laboratory Manual, New York: Cold Spring Harbor Press, 1989, and include the use of washing solution and hybridization conditions (e.g., temperature, ionic strength and %SDS) less stringent that those described above. An example of moderately stringent conditions is overnight incubation at 37°C in a solution comprising: 20% formamide, 5 x SSC (150 mM NaCl, 15 mM trisodium citrate), 50 mM sodium phosphate (pH 7.6), 5 x Denhardt's solution, 10% dextran sulfate, and 20 mg/ml denatured sheared salmon sperm DNA, followed by washing the filters in 1 x SSC at about 37-50°C. The skilled artisan will recognize how to adjust the temperature, ionic strength, etc. as necessary to accommodate factors such as probe length and the like.

The term "epitope tagged" when used herein refers to a chimeric polypeptide comprising a TAT polypeptide or anti-TAT antibody fused to a "tag polypeptide". The tag polypeptide has enough residues to provide an epitope against which an antibody can be made, yet is short enough such that it does not interfere with activity of the polypeptide to which it is fused. The tag polypeptide preferably also is fairly unique so that the antibody does not substantially cross-react with other epitopes. Suitable tag polypeptides generally have at least six amino acid residues and usually between about 8 and 50 amino acid residues (preferably, between about 10 and 20 amino acid residues).

"Active" or "activity" for the purposes herein refers to form(s) of a TAT polypeptide which retain a biological and/or an immunological activity of native or naturally-occurring TAT, wherein "biological" activity refers to a biological function (either inhibitory or stimulatory) caused by a native or naturally-occurring TAT other than the ability to induce the production of an antibody against an antigenic epitope possessed by a native or naturally-occurring TAT and an "immunological" activity refers to the ability to induce the production of an antibody against an antigenic epitope possessed by a native or naturally-occurring TAT.

The term "antagonist" is used in the broadest sense, and includes any molecule that partially or fully blocks, inhibits, or neutralizes a biological activity of a native TAT polypeptide disclosed herein. In a similar manner, the term "agonist" is used in the broadest sense and includes any molecule that mimics a biological activity of a native TAT polypeptide disclosed herein. Suitable agonist or antagonist molecules specifically include agonist or antagonist antibodies or antibody fragments, fragments or amino acid sequence variants of native TAT polypeptides, peptides, antisense oligonucleotides, small organic molecules, etc. Methods for identifying agonists or antagonists of a TAT polypeptide may comprise contacting a TAT polypeptide with a candidate agonist or antagonist molecule and measuring a detectable change in one or more biological activities normally associated with the TAT polypeptide.

"Treating" or "treatment" or "alleviation" refers to both therapeutic treatment and prophylactic or preventative measures, wherein the object is to prevent or slow down (lessen) the targeted pathologic condition or disorder. Those in need of treatment include those already with the disorder as well as those prone to have

the disorder or those in whom the disorder is to be prevented. A subject or mammal is successfully "treated" for a TAT polypeptide-expressing cancer if, after receiving a therapeutic amount of an anti-TAT antibody, TAT binding oligopeptide or TAT binding organic molecule according to the methods of the present invention, the patient shows observable and/or measurable reduction in or absence of one or more of the following: reduction in the number of cancer cells or absence of the cancer cells; reduction in the tumor size; inhibition (i.e., slow to some extent and preferably stop) of cancer cell infiltration into peripheral organs including the spread of cancer into soft tissue and bone; inhibition (i.e., slow to some extent and preferably stop) of tumor metastasis; inhibition, to some extent, of tumor growth; and/or relief to some extent, one or more of the symptoms associated with the specific cancer; reduced morbidity and mortality, and improvement in quality of life issues. To the extent the anti-TAT antibody or TAT binding oligopeptide may prevent growth and/or kill existing cancer cells, it may be cytostatic and/or cytotoxic. Reduction of these signs or symptoms may also be felt by the patient.

The above parameters for assessing successful treatment and improvement in the disease are readily measurable by routine procedures familiar to a physician. For cancer therapy, efficacy can be measured, for example, by assessing the time to disease progression (TTP) and/or determining the response rate (RR). Metastasis can be determined by staging tests and by bone scan and tests for calcium level and other enzymes to determine spread to the bone. CT scans can also be done to look for spread to the pelvis and lymph nodes in the area. Chest X-rays and measurement of liver enzyme levels by known methods are used to look for metastasis to the lungs and liver, respectively. Other routine methods for monitoring the disease include transrectal ultrasonography (TRUS) and transrectal needle biopsy (TRNB).

For bladder cancer, which is a more localized cancer, methods to determine progress of disease include urinary cytologic evaluation by cystoscopy, monitoring for presence of blood in the urine, visualization of the urothelial tract by sonography or an intravenous pyelogram, computed tomography (CT) and magnetic resonance imaging (MRI). The presence of distant metastases can be assessed by CT of the abdomen, chest x-rays, or radionuclide imaging of the skeleton.

"Chronic" administration refers to administration of the agent(s) in a continuous mode as opposed to an acute mode, so as to maintain the initial therapeutic effect (activity) for an extended period of time. "Intermittent" administration is treatment that is not consecutively done without interruption, but rather is cyclic in nature.

"Mammal" for purposes of the treatment of, alleviating the symptoms of or diagnosis of a cancer refers to any animal classified as a mammal, including humans, domestic and farm animals, and zoo, sports, or pet animals, such as dogs, cats, cattle, horses, sheep, pigs, goats, rabbits, etc. Preferably, the mammal is human.

Administration "in combination with" one or more further therapeutic agents includes simultaneous (concurrent) and consecutive administration in any order.

"Carriers" as used herein include pharmaceutically acceptable carriers, excipients, or stabilizers which are nontoxic to the cell or mammal being exposed thereto at the dosages and concentrations employed. Often the physiologically acceptable carrier is an aqueous pH buffered solution. Examples of physiologically acceptable carriers include buffers such as phosphate, citrate, and other organic acids; antioxidants including

ascorbic acid; low molecular weight (less than about 10 residues) polypeptide; proteins, such as serum albumin, gelatin, or immunoglobulins; hydrophilic polymers such as polyvinylpyrrolidone; amino acids such as glycine, glutamine, asparagine, arginine or lysine; monosaccharides, disaccharides, and other carbohydrates including glucose, mannose, or dextrins; chelating agents such as EDTA; sugar alcohols such as mannitol or sorbitol; salt-forming counterions such as sodium; and/or nonionic surfactants such as TWEEN®, polyethylene glycol (PEG), and PLURONICS®.

By "solid phase" or "solid support" is meant a non-aqueous matrix to which an antibody, TAT binding oligopeptide or TAT binding organic molecule of the present invention can adhere or attach. Examples of solid phases encompassed herein include those formed partially or entirely of glass (e.g., controlled pore glass), polysaccharides (e.g., agarose), polyacrylamides, polystyrene, polyvinyl alcohol and silicones. In certain embodiments, depending on the context, the solid phase can comprise the well of an assay plate; in others it is a purification column (e.g., an affinity chromatography column). This term also includes a discontinuous solid phase of discrete particles, such as those described in U.S. Patent No. 4,275,149.

A "liposome" is a small vesicle composed of various types of lipids, phospholipids and/or surfactant which is useful for delivery of a drug (such as a TAT polypeptide, an antibody thereto or a TAT binding oligopeptide) to a mammal. The components of the liposome are commonly arranged in a bilayer formation, similar to the lipid arrangement of biological membranes.

A "small" molecule or "small" organic molecule is defined herein to have a molecular weight below about 500 Daltons.

An "effective amount" of a polypeptide, antibody, TAT binding oligopeptide, TAT binding organic molecule or an agonist or antagonist thereof as disclosed herein is an amount sufficient to carry out a specifically stated purpose. An "effective amount" may be determined empirically and in a routine manner, in relation to the stated purpose.

The term "therapeutically effective amount" refers to an amount of an antibody, polypeptide, TAT binding oligopeptide, TAT binding organic molecule or other drug effective to "treat" a disease or disorder in a subject or mammal. In the case of cancer, the therapeutically effective amount of the drug may reduce the number of cancer cells; reduce the tumor size; inhibit (i.e., slow to some extent and preferably stop) cancer cell infiltration into peripheral organs; inhibit (i.e., slow to some extent and preferably stop) tumor metastasis; inhibit, to some extent, tumor growth; and/or relieve to some extent one or more of the symptoms associated with the cancer. See the definition herein of "treating". To the extent the drug may prevent growth and/or kill existing cancer cells, it may be cytostatic and/or cytotoxic.

A "growth inhibitory amount" of an anti-TAT antibody, TAT polypeptide, TAT binding oligopeptide or TAT binding organic molecule is an amount capable of inhibiting the growth of a cell, especially tumor, e.g., cancer cell, either *in vitro* or *in vivo*. A "growth inhibitory amount" of an anti-TAT antibody, TAT polypeptide, TAT binding oligopeptide or TAT binding organic molecule for purposes of inhibiting neoplastic cell growth may be determined empirically and in a routine manner.

A "cytotoxic amount" of an anti-TAT antibody, TAT polypeptide, TAT binding oligopeptide or TAT binding organic molecule is an amount capable of causing the destruction of a cell, especially tumor, e.g., cancer cell, either *in vitro* or *in vivo*. A "cytotoxic amount" of an anti-TAT antibody, TAT polypeptide, TAT binding oligopeptide or TAT binding organic molecule for purposes of inhibiting neoplastic cell growth may be determined empirically and in a routine manner.

The term "antibody" is used in the broadest sense and specifically covers, for example, single anti-TAT monoclonal antibodies (including agonist, antagonist, and neutralizing antibodies), anti-TAT antibody compositions with polyepitopic specificity, polyclonal antibodies, single chain anti-TAT antibodies, and fragments of anti-TAT antibodies (see below) as long as they exhibit the desired biological or immunological activity. The term "immunoglobulin" (Ig) is used interchangeable with antibody herein.

An "isolated antibody" is one which has been identified and separated and/or recovered from a component of its natural environment. Contaminant components of its natural environment are materials which would interfere with diagnostic or therapeutic uses for the antibody, and may include enzymes, hormones, and other proteinaceous or nonproteinaceous solutes. In preferred embodiments, the antibody will be purified (1) to greater than 95% by weight of antibody as determined by the Lowry method, and most preferably more than 99% by weight, (2) to a degree sufficient to obtain at least 15 residues of N-terminal or internal amino acid sequence by use of a spinning cup sequenator, or (3) to homogeneity by SDS-PAGE under reducing or nonreducing conditions using Coomassie blue or, preferably, silver stain. Isolated antibody includes the antibody in situ within recombinant cells since at least one component of the antibody's natural environment will not be present. Ordinarily, however, isolated antibody will be prepared by at least one purification step.

The basic 4-chain antibody unit is a heterotetrameric glycoprotein composed of two identical light (L) chains and two identical heavy (H) chains (an IgM antibody consists of 5 of the basic heterotetramer unit along with an additional polypeptide called J chain, and therefore contain 10 antigen binding sites, while secreted IgA antibodies can polymerize to form polyvalent assemblages comprising 2-5 of the basic 4-chain units along with J chain). In the case of IgGs, the 4-chain unit is generally about 150,000 daltons. Each L chain is linked to a H chain by one covalent disulfide bond, while the two H chains are linked to each other by one or more disulfide bonds depending on the H chain isotype. Each H and L chain also has regularly spaced intrachain disulfide bridges. Each H chain has at the N-terminus, a variable domain (V_H) followed by three constant domains (C_H) for each of the α and γ chains and four C_H domains for μ and ϵ isotypes. Each L chain has at the N-terminus, a variable domain (V_L) followed by a constant domain (C_L) at its other end. The V_L is aligned with the V_H and the C_L is aligned with the first constant domain of the heavy chain (C_H1). Particular amino acid residues are believed to form an interface between the light chain and heavy chain variable domains. The pairing of a V_H and V_L together forms a single antigen-binding site. For the structure and properties of the different classes of antibodies, see, e.g., Basic and Clinical Immunology, 8th edition, Daniel P. Stites, Abba I. Terr and Tristram G. Parslow (eds.), Appleton & Lange, Norwalk, CT, 1994, page 71 and Chapter 6.

The L chain from any vertebrate species can be assigned to one of two clearly distinct types, called kappa and lambda, based on the amino acid sequences of their constant domains. Depending on the amino acid sequence of the constant domain of their heavy chains (C_H), immunoglobulins can be assigned to different

classes or isotypes. There are five classes of immunoglobulins: IgA, IgD, IgE, IgG, and IgM, having heavy chains designated α, δ, ϵ, γ, and μ, respectively. The γ and α classes are further divided into subclasses on the basis of relatively minor differences in C_H sequence and function, e.g., humans express the following subclasses: IgG1, IgG2, IgG3, IgG4, IgA1, and IgA2.

The term "variable" refers to the fact that certain segments of the variable domains differ extensively in sequence among antibodies. The V domain mediates antigen binding and define specificity of a particular antibody for its particular antigen. However, the variability is not evenly distributed across the 110-amino acid span of the variable domains. Instead, the V regions consist of relatively invariant stretches called framework regions (FRs) of 15-30 amino acids separated by shorter regions of extreme variability called "hypervariable regions" that are each 9-12 amino acids long. The variable domains of native heavy and light chains each comprise four FRs, largely adopting a β-sheet configuration, connected by three hypervariable regions, which form loops connecting, and in some cases forming part of, the β-sheet structure. The hypervariable regions in each chain are held together in close proximity by the FRs and, with the hypervariable regions from the other chain, contribute to the formation of the antigen-binding site of antibodies (see Kabat et al., Sequences of Proteins of Immunological Interest, 5th Ed. Public Health Service, National Institutes of Health, Bethesda, MD. (1991)). The constant domains are not involved directly in binding an antibody to an antigen, but exhibit various effector functions, such as participation of the antibody in antibody dependent cellular cytotoxicity (ADCC).

The term "hypervariable region" when used herein refers to the amino acid residues of an antibody which are responsible for antigen-binding. The hypervariable region generally comprises amino acid residues from a "complementarity determining region" or "CDR" (e.g. around about residues 24-34 (L1), 50-56 (L2) and 89-97 (L3) in the V_L, and around about 1-35 (H1), 50-65 (H2) and 95-102 (H3) in the V_H; Kabat et al., Sequences of Proteins of Immunological Interest, 5th Ed. Public Health Service, National Institutes of Health, Bethesda, MD. (1991)) and/or those residues from a "hypervariable loop" (*e.g.* residues 26-32 (L1), 50-52 (L2) and 91-96 (L3) in the V_L, and 26-32 (H1), 53-55 (H2) and 96-101 (H3) in the V_H; Chothia and Lesk J. Mol. Biol. 196:901-917 (1987)).

The term "monoclonal antibody" as used herein refers to an antibody obtained from a population of substantially homogeneous antibodies, i.e., the individual antibodies comprising the population are identical except for possible naturally occurring mutations that may be present in minor amounts. Monoclonal antibodies are highly specific, being directed against a single antigenic site. Furthermore, in contrast to polyclonal antibody preparations which include different antibodies directed against different determinants (epitopes), each monoclonal antibody is directed against a single determinant on the antigen. In addition to their specificity, the monoclonal antibodies are advantageous in that they may be synthesized uncontaminated by other antibodies. The modifier "monoclonal" is not to be construed as requiring production of the antibody by any particular method. For example, the monoclonal antibodies useful in the present invention may be prepared by the hybridoma methodology first described by Kohler et al., Nature, 256:495 (1975), or may be made using recombinant DNA methods in bacterial, eukaryotic animal or plant cells (see, e.g., U.S. Patent No. 4,816,567). The "monoclonal antibodies" may also be isolated from phage antibody libraries using the techniques described in Clackson et al., Nature, 352:624-628 (1991) and Marks et al., J. Mol. Biol., 222:581-597 (1991), for

example.

The monoclonal antibodies herein include "chimeric" antibodies in which a portion of the heavy and/or light chain is identical with or homologous to corresponding sequences in antibodies derived from a particular species or belonging to a particular antibody class or subclass, while the remainder of the chain(s) is identical with or homologous to corresponding sequences in antibodies derived from another species or belonging to another antibody class or subclass, as well as fragments of such antibodies, so long as they exhibit the desired biological activity (see U.S. Patent No. 4,816,567; and Morrison et al., Proc. Natl. Acad. Sci. USA, 81:6851-6855 (1984)). Chimeric antibodies of interest herein include "primatized" antibodies comprising variable domain antigen-binding sequences derived from a non-human primate (*e.g.* Old World Monkey, Ape etc), and human constant region sequences.

An "intact" antibody is one which comprises an antigen-binding site as well as a C_L and at least heavy chain constant domains, C_H1, C_H2 and C_H3. The constant domains may be native sequence constant domains (*e.g.* human native sequence constant domains) or amino acid sequence variant thereof. Preferably, the intact antibody has one or more effector functions.

"Antibody fragments" comprise a portion of an intact antibody, preferably the antigen binding or variable region of the intact antibody. Examples of antibody fragments include Fab, Fab', $F(ab')_2$, and Fv fragments; diabodies; linear antibodies (see U.S. Patent No. 5,641,870, Example 2; Zapata et al., Protein Eng. 8(10): 1057-1062 [1995]); single-chain antibody molecules; and multispecific antibodies formed from antibody fragments.

Papain digestion of antibodies produces two identical antigen-binding fragments, called "Fab" fragments, and a residual "Fc" fragment, a designation reflecting the ability to crystallize readily. The Fab fragment consists of an entire L chain along with the variable region domain of the H chain (V_H), and the first constant domain of one heavy chain (C_H1). Each Fab fragment is monovalent with respect to antigen binding, i.e., it has a single antigen-binding site. Pepsin treatment of an antibody yields a single large $F(ab')_2$ fragment which roughly corresponds to two disulfide linked Fab fragments having divalent antigen-binding activity and is still capable of cross-linking antigen. Fab' fragments differ from Fab fragments by having additional few residues at the carboxy terminus of the C_H1 domain including one or more cysteines from the antibody hinge region. Fab'-SH is the designation herein for Fab' in which the cysteine residue(s) of the constant domains bear a free thiol group. $F(ab')_2$ antibody fragments originally were produced as pairs of Fab' fragments which have hinge cysteines between them. Other chemical couplings of antibody fragments are also known.

The Fc fragment comprises the carboxy-terminal portions of both H chains held together by disulfides. The effector functions of antibodies are determined by sequences in the Fc region, which region is also the part recognized by Fc receptors (FcR) found on certain types of cells.

"Fv" is the minimum antibody fragment which contains a complete antigen-recognition and -binding site. This fragment consists of a dimer of one heavy- and one light-chain variable region domain in tight, non-covalent association. From the folding of these two domains emanate six hypervariable loops (3 loops each from the H and L chain) that contribute the amino acid residues for antigen binding and confer antigen binding specificity to the antibody. However, even a single variable domain (or half of an Fv comprising only three

CDRs specific for an antigen) has the ability to recognize and bind antigen, although at a lower affinity than the entire binding site.

"Single-chain Fv" also abbreviated as "sFv" or "scFv" are antibody fragments that comprise the V_H and V_L antibody domains connected into a single polypeptide chain. Preferably, the sFv polypeptide further comprises a polypeptide linker between the V_H and V_L domains which enables the sFv to form the desired structure for antigen binding. For a review of sFv, see Pluckthun in The Pharmacology of Monoclonal Antibodies, vol. 113, Rosenburg and Moore eds., Springer-Verlag, New York, pp. 269-315 (1994); Borrebaeck 1995, infra.

The term "diabodies" refers to small antibody fragments prepared by constructing sFv fragments (see preceding paragraph) with short linkers (about 5-10 residues) between the V_H and V_L domains such that inter-chain but not intra-chain pairing of the V domains is achieved, resulting in a bivalent fragment, i.e., fragment having two antigen-binding sites. Bispecific diabodies are heterodimers of two "crossover" sFv fragments in which the V_H and V_L domains of the two antibodies are present on different polypeptide chains. Diabodies are described more fully in, for example, EP 404,097; WO 93/11161; and Hollinger et al., Proc. Natl. Acad. Sci. USA, 90:6444-6448 (1993).

"Humanized" forms of non-human (*e.g.,* rodent) antibodies are chimeric antibodies that contain minimal sequence derived from the non-human antibody. For the most part, humanized antibodies are human immunoglobulins (recipient antibody) in which residues from a hypervariable region of the recipient are replaced by residues from a hypervariable region of a non-human species (donor antibody) such as mouse, rat, rabbit or non-human primate having the desired antibody specificity, affinity, and capability. In some instances, framework region (FR) residues of the human immunoglobulin are replaced by corresponding non-human residues. Furthermore, humanized antibodies may comprise residues that are not found in the recipient antibody or in the donor antibody. These modifications are made to further refine antibody performance. In general, the humanized antibody will comprise substantially all of at least one, and typically two, variable domains, in which all or substantially all of the hypervariable loops correspond to those of a non-human immunoglobulin and all or substantially all of the FRs are those of a human immunoglobulin sequence. The humanized antibody optionally also will comprise at least a portion of an immunoglobulin constant region (Fc), typically that of a human immunoglobulin. For further details, see Jones et al., Nature 321:522-525 (1986); Riechmann et al., Nature 332:323-329 (1988); and Presta, Curr. Op. Struct. Biol. 2:593-596 (1992).

A "species-dependent antibody," e.g., a mammalian anti-human IgE antibody, is an antibody which has a stronger binding affinity for an antigen from a first mammalian species than it has for a homologue of that antigen from a second mammalian species. Normally, the species-dependent antibody "bind specifically" to a human antigen (i.e., has a binding affinity (Kd) value of no more than about 1×10^{-7} M, preferably no more than about 1×10^{-8} and most preferably no more than about 1×10^{-9} M) but has a binding affinity for a homologue of the antigen from a second non-human mammalian species which is at least about 50 fold, or at least about 500 fold, or at least about 1000 fold, weaker than its binding affinity for the human antigen. The species-dependent antibody can be of any of the various types of antibodies as defined above, but preferably is a humanized or human antibody.

A "TAT binding oligopeptide" is an oligopeptide that binds, preferably specifically, to a TAT polypeptide as described herein. TAT binding oligopeptides may be chemically synthesized using known oligopeptide synthesis methodology or may be prepared and purified using recombinant technology. TAT binding oligopeptides are usually at least about 5 amino acids in length, alternatively at least about 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, or 100 amino acids in length or more, wherein such oligopeptides that are capable of binding, preferably specifically, to a TAT polypeptide as described herein. TAT binding oligopeptides may be identified without undue experimentation using well known techniques. In this regard, it is noted that techniques for screening oligopeptide libraries for oligopeptides that are capable of specifically binding to a polypeptide target are well known in the art (see, e.g., U.S. Patent Nos. 5,556,762, 5,750,373, 4,708,871, 4,833,092, 5,223,409, 5,403,484, 5,571,689, 5,663,143; PCT Publication Nos. WO 84/03506 and WO84/03564; Geysen et al., Proc. Natl. Acad. Sci. U.S.A., 81:3998-4002 (1984); Geysen et al., Proc. Natl. Acad. Sci. U.S.A., 82:178-182 (1985); Geysen et al., in Synthetic Peptides as Antigens, 130-149 (1986); Geysen et al., J. Immunol. Meth., 102:259-274 (1987); Schoofs et al., J. Immunol., 140:611-616 (1988), Cwirla, S. E. et al. (1990) Proc. Natl. Acad. Sci. USA, 87:6378; Lowman, H.B. et al. (1991) Biochemistry, 30:10832; Clackson, T. et al. (1991) Nature, 352: 624; Marks, J. D. et al. (1991), J. Mol. Biol., 222:581; Kang, A.S. et al. (1991) Proc. Natl. Acad. Sci. USA, 88:8363, and Smith, G. P. (1991) Current Opin. Biotechnol., 2:668).

A "TAT binding organic molecule" is an organic molecule other than an oligopeptide or antibody as defined herein that binds, preferably specifically, to a TAT polypeptide as described herein. TAT binding organic molecules may be identified and chemically synthesized using known methodology (see, e.g., PCT Publication Nos. WO00/00823 and WO00/39585). TAT binding organic molecules are usually less than about 2000 daltons in size, alternatively less than about 1500, 750, 500, 250 or 200 daltons in size, wherein such organic molecules that are capable of binding, preferably specifically, to a TAT polypeptide as described herein may be identified without undue experimentation using well known techniques. In this regard, it is noted that techniques for screening organic molecule libraries for molecules that are capable of binding to a polypeptide target are well known in the art (see, e.g., PCT Publication Nos. WO00/00823 and WO00/39585).

An antibody, oligopeptide or other organic molecule "which binds" an antigen of interest, e.g. a tumor-associated polypeptide antigen target, is one that binds the antigen with sufficient affinity such that the antibody, oligopeptide or other organic molecule is useful as a diagnostic and/or therapeutic agent in targeting a cell or tissue expressing the antigen, and does not significantly cross-react with other proteins. In such embodiments, the extent of binding of the antibody, oligopeptide or other organic molecule to a "non-target" protein will be less than about 10% of the binding of the antibody, oligopeptide or other organic molecule to its particular target protein as determined by fluorescence activated cell sorting (FACS) analysis or radioimmunoprecipitation (RIA). With regard to the binding of an antibody, oligopeptide or other organic molecule to a target molecule, the term "specific binding" or "specifically binds to" or is "specific for" a particular polypeptide or an epitope on a particular polypeptide target means binding that is measurably different from a non-specific interaction. Specific

binding can be measured, for example, by determining binding of a molecule compared to binding of a control molecule, which generally is a molecule of similar structure that does not have binding activity. For example, specific binding can be determined by competition with a control molecule that is similar to the target, for example, an excess of non-labeled target. In this case, specific binding is indicated if the binding of the labeled target to a probe is competitively inhibited by excess unlabeled target. The term "specific binding" or "specifically binds to" or is "specific for" a particular polypeptide or an epitope on a particular polypeptide target as used herein can be exhibited, for example, by a molecule having a Kd for the target of at least about 10^{-4} M, alternatively at least about 10^{-5} M, alternatively at least about 10^{-6} M, alternatively at least about 10^{-7} M, alternatively at least about 10^{-8} M, alternatively at least about 10^{-9} M, alternatively at least about 10^{-10} M, alternatively at least about 10^{-11} M, alternatively at least about 10^{-12} M, or greater. In one embodiment, the term "specific binding" refers to binding where a molecule binds to a particular polypeptide or epitope on a particular polypeptide without substantially binding to any other polypeptide or polypeptide epitope.

An antibody, oligopeptide or other organic molecule that "inhibits the growth of tumor cells expressing a TAT polypeptide" or a "growth inhibitory" antibody, oligopeptide or other organic molecule is one which results in measurable growth inhibition of cancer cells expressing or overexpressing the appropriate TAT polypeptide. The TAT polypeptide may be a transmembrane polypeptide expressed on the surface of a cancer cell or may be a polypeptide that is produced and secreted by a cancer cell. Preferred growth inhibitory anti-TAT antibodies, oligopeptides or organic molecules inhibit growth of TAT-expressing tumor cells by greater than 20%, preferably from about 20% to about 50%, and even more preferably, by greater than 50% (e.g., from about 50% to about 100%) as compared to the appropriate control, the control typically being tumor cells not treated with the antibody, oligopeptide or other organic molecule being tested. In one embodiment, growth inhibition can be measured at an antibody concentration of about 0.1 to 30 μg/ml or about 0.5 nM to 200 nM in cell culture, where the growth inhibition is determined 1-10 days after exposure of the tumor cells to the antibody. Growth inhibition of tumor cells *in vivo* can be determined in various ways such as is described in the Experimental Examples section below. The antibody is growth inhibitory in vivo if administration of the anti-TAT antibody at about 1 μg/kg to about 100 mg/kg body weight results in reduction in tumor size or tumor cell proliferation within about 5 days to 3 months from the first administration of the antibody, preferably within about 5 to 30 days.

An antibody, oligopeptide or other organic molecule which "induces apoptosis" is one which induces programmed cell death as determined by binding of annexin V, fragmentation of DNA, cell shrinkage, dilation of endoplasmic reticulum, cell fragmentation, and/or formation of membrane vesicles (called apoptotic bodies). The cell is usually one which overexpresses a TAT polypeptide. Preferably the cell is a tumor cell, e.g., a prostate, breast, ovarian, stomach, endometrial, lung, kidney, colon, bladder cell. Various methods are available for evaluating the cellular events associated with apoptosis. For example, phosphatidyl serine (PS) translocation can be measured by annexin binding; DNA fragmentation can be evaluated through DNA laddering; and nuclear/chromatin condensation along with DNA fragmentation can be evaluated by any increase in hypodiploid cells. Preferably, the antibody, oligopeptide or other organic molecule which induces apoptosis is one which results in about 2 to 50 fold, preferably about 5 to 50 fold, and most preferably about 10 to 50 fold,

induction of annexin binding relative to untreated cell in an annexin binding assay.

Antibody "effector functions" refer to those biological activities attributable to the Fc region (a native sequence Fc region or amino acid sequence variant Fc region) of an antibody, and vary with the antibody isotype. Examples of antibody effector functions include: C1q binding and complement dependent cytotoxicity; Fc receptor binding; antibody-dependent cell-mediated cytotoxicity (ADCC); phagocytosis; down regulation of cell surface receptors (e.g., B cell receptor); and B cell activation.

"Antibody-dependent cell-mediated cytotoxicity" or "ADCC" refers to a form of cytotoxicity in which secreted Ig bound onto Fc receptors (FcRs) present on certain cytotoxic cells (e.g., Natural Killer (NK) cells, neutrophils, and macrophages) enable these cytotoxic effector cells to bind specifically to an antigen-bearing target cell and subsequently kill the target cell with cytotoxins. The antibodies "arm" the cytotoxic cells and are absolutely required for such killing. The primary cells for mediating ADCC, NK cells, express Fc γRIII only, whereas monocytes express Fc γRI, FcγRII and FcγRIII. FcR expression on hematopoietic cells is summarized in Table 3 on page 464 of Ravetch and Kinet, Annu. Rev. Immunol. 9:457-92 (1991). To assess ADCC activity of a molecule of interest, an in vitro ADCC assay, such as that described in US Patent No. 5,500,362 or 5,821,337 may be performed. Useful effector cells for such assays include peripheral blood mononuclear cells (PBMC) and Natural Killer (NK) cells. Alternatively, or additionally, ADCC activity of the molecule of interest may be assessed in vivo, e.g., in a animal model such as that disclosed in Clynes et al. (USA) 95:652-656 (1998).

"Fc receptor" or "FcR" describes a receptor that binds to the Fc region of an antibody. The preferred FcR is a native sequence human FcR. Moreover, a preferred FcR is one which binds an IgG antibody (a gamma receptor) and includes receptors of the FcγRI, FcγRII and FcγRIII subclasses, including allelic variants and alternatively spliced forms of these receptors. FcγRII receptors include FcγRIIA (an "activating receptor") and FcγRIIB (an "inhibiting receptor"), which have similar amino acid sequences that differ primarily in the cytoplasmic domains thereof. Activating receptor Fc γRIIA contains an immunoreceptor tyrosine-based activation motif (ITAM) in its cytoplasmic domain. Inhibiting receptor FcγRIIB contains an immunoreceptor tyrosine-based inhibition motif (ITIM) in its cytoplasmic domain. (see review M. in Daëron, Annu. Rev. Immunol. 15:203-234 (1997)). FcRs are reviewed in Ravetch and Kinet, Annu. Rev. Immunol. 9:457-492 (1991); Capel et al., Immunomethods 4:25-34 (1994); and de Haas et al., J. Lab. Clin. Med. 126:330-41 (1995). Other FcRs, including those to be identified in the future, are encompassed by the term "FcR" herein. The term also includes the neonatal receptor, FcRn, which is responsible for the transfer of maternal IgGs to the fetus (Guyer et al., J. Immunol. 117:587 (1976) and Kim et al., J. Immunol. 24:249 (1994)).

"Human effector cells" are leukocytes which express one or more FcRs and perform effector functions. Preferably, the cells express at least Fc γRIII and perform ADCC effector function. Examples of human leukocytes which mediate ADCC include peripheral blood mononuclear cells (PBMC), natural killer (NK) cells, monocytes, cytotoxic T cells and neutrophils; with PBMCs and NK cells being preferred. The effector cells may be isolated from a native source, e.g., from blood.

"Complement dependent cytotoxicity" or "CDC" refers to the lysis of a target cell in the presence of complement. Activation of the classical complement pathway is initiated by the binding of the first component

of the complement system (C1q) to antibodies (of the appropriate subclass) which are bound to their cognate antigen. To assess complement activation, a CDC assay, e.g., as described in Gazzano-Santoro et al., J. Immunol. Methods 202:163 (1996), may be performed.

The terms "cancer" and "cancerous" refer to or describe the physiological condition in mammals that is typically characterized by unregulated cell growth. Examples of cancer include, but are not limited to, carcinoma, lymphoma, blastoma, sarcoma, and leukemia or lymphoid malignancies. More particular examples of such cancers include squamous cell cancer (e.g., epithelial squamous cell cancer), lung cancer including small-cell lung cancer, non-small cell lung cancer, adenocarcinoma of the lung and squamous carcinoma of the lung, cancer of the peritoneum, hepatocellular cancer, gastric or stomach cancer including gastrointestinal cancer, pancreatic cancer, glioblastoma, cervical cancer, ovarian cancer, liver cancer, bladder cancer, cancer of the urinary tract, hepatoma, breast cancer, colon cancer, rectal cancer, colorectal cancer, endometrial or uterine carcinoma, salivary gland carcinoma, kidney or renal cancer, prostate cancer, vulval cancer, thyroid cancer, hepatic carcinoma, anal carcinoma, penile carcinoma, melanoma, multiple myeloma and B-cell lymphoma, brain, as well as head and neck cancer, and associated metastases.

The terms "cell proliferative disorder" and "proliferative disorder" refer to disorders that are associated with some degree of abnormal cell proliferation. In one embodiment, the cell proliferative disorder is cancer.

"Tumor", as used herein, refers to all neoplastic cell growth and proliferation, whether malignant or benign, and all pre-cancerous and cancerous cells and tissues.

An antibody, oligopeptide or other organic molecule which "induces cell death" is one which causes a viable cell to become nonviable. The cell is one which expresses a TAT polypeptide, preferably a cell that overexpresses a TAT polypeptide as compared to a normal cell of the same tissue type. The TAT polypeptide may be a transmembrane polypeptide expressed on the surface of a cancer cell or may be a polypeptide that is produced and secreted by a cancer cell. Preferably, the cell is a cancer cell, e.g., a breast, ovarian, stomach, endometrial, salivary gland, lung, kidney, colon, thyroid, pancreatic or bladder cell. Cell death *in vitro* may be determined in the absence of complement and immune effector cells to distinguish cell death induced by antibody-dependent cell-mediated cytotoxicity (ADCC) or complement dependent cytotoxicity (CDC). Thus, the assay for cell death may be performed using heat inactivated serum (i.e., in the absence of complement) and in the absence of immune effector cells. To determine whether the antibody, oligopeptide or other organic molecule is able to induce cell death, loss of membrane integrity as evaluated by uptake of propidium iodide (PI), trypan blue (see Moore et al. Cytotechnology 17:1-11 (1995)) or 7AAD can be assessed relative to untreated cells. Preferred cell death-inducing antibodies, oligopeptides or other organic molecules are those which induce PI uptake in the PI uptake assay in BT474 cells.

A "TAT-expressing cell" is a cell which expresses an endogenous or transfected TAT polypeptide either on the cell surface or in a secreted form. A "TAT-expressing cancer" is a cancer comprising cells that have a TAT polypeptide present on the cell surface or that produce and secrete a TAT polypeptide. A "TAT-expressing cancer" optionally produces sufficient levels of TAT polypeptide on the surface of cells thereof, such

that an anti-TAT antibody, oligopeptide ot other organic molecule can bind thereto and have a therapeutic effect with respect to the cancer. In another embodiment, a "TAT-expressing cancer" optionally produces and secretes sufficient levels of TAT polypeptide, such that an anti-TAT antibody, oligopeptide ot other organic molecule antagonist can bind thereto and have a therapeutic effect with respect to the cancer. With regard to the latter, the antagonist may be an antisense oligonucleotide which reduces, inhibits or prevents production and secretion of the secreted TAT polypeptide by tumor cells. A cancer which "overexpresses" a TAT polypeptide is one which has significantly higher levels of TAT polypeptide at the cell surface thereof, or produces and secretes, compared to a noncancerous cell of the same tissue type. Such overexpression may be caused by gene amplification or by increased transcription or translation. TAT polypeptide overexpression may be determined in a diagnostic or prognostic assay by evaluating increased levels of the TAT protein present on the surface of a cell, or secreted by the cell (e.g., via an immunohistochemistry assay using anti-TAT antibodies prepared against an isolated TAT polypeptide which may be prepared using recombinant DNA technology from an isolated nucleic acid encoding the TAT polypeptide; FACS analysis, etc.). Alternatively, or additionally, one may measure levels of TAT polypeptide-encoding nucleic acid or mRNA in the cell, e.g., via fluorescent *in situ* hybridization using a nucleic acid based probe corresponding to a TAT-encoding nucleic acid or the complement thereof; (FISH; see WO98/45479 published October, 1998), Southern blotting, Northern blotting, or polymerase chain reaction (PCR) techniques, such as real time quantitative PCR (RT-PCR). One may also study TAT polypeptide overexpression by measuring shed antigen in a biological fluid such as serum, e.g, using antibody-based assays (see also, e.g., U.S. Patent No. 4,933,294 issued June 12, 1990; WO91/05264 published April 18, 1991; U.S. Patent 5,401,638 issued March 28, 1995; and Sias et al., J. Immunol. Methods 132:73-80 (1990)). Aside from the above assays, various *in vivo* assays are available to the skilled practitioner. For example, one may expose cells within the body of the patient to an antibody which is optionally labeled with a detectable label, e.g., a radioactive isotope, and binding of the antibody to cells in the patient can be evaluated, e.g., by external scanning for radioactivity or by analyzing a biopsy taken from a patient previously exposed to the antibody.

As used herein, the term "immunoadhesin" designates antibody-like molecules which combine the binding specificity of a heterologous protein (an "adhesin") with the effector functions of immunoglobulin constant domains. Structurally, the immunoadhesins comprise a fusion of an amino acid sequence with the desired binding specificity which is other than the antigen recognition and binding site of an antibody (i.e., is "heterologous"), and an immunoglobulin constant domain sequence. The adhesin part of an immunoadhesin molecule typically is a contiguous amino acid sequence comprising at least the binding site of a receptor or a ligand. The immunoglobulin constant domain sequence in the immunoadhesin may be obtained from any immunoglobulin, such as IgG-1, IgG-2, IgG-3, or IgG-4 subtypes, IgA (including IgA-1 and IgA-2), IgE, IgD or IgM.

The word "label" when used herein refers to a detectable compound or composition which is conjugated directly or indirectly to the antibody, oligopeptide or other organic molecule so as to generate a "labeled" antibody, oligopeptide or other organic molecule. The label may be detectable by itself (e.g. radioisotope labels or fluorescent labels) or, in the case of an enzymatic label, may catalyze chemical alteration of a substrate

compound or composition which is detectable.

The term "cytotoxic agent" as used herein refers to a substance that inhibits or prevents the function of cells and/or causes destruction of cells. The term is intended to include radioactive isotopes (e.g., ^{211}At, I^{131}, I^{125}, Y^{90}, Re^{186}, Re^{188}, Sm^{153}, Bi^{212}, P^{32} and radioactive isotopes of Lu), chemotherapeutic agents e.g. methotrexate, adriamicin, vinca alkaloids (vincristine, vinblastine, etoposide), doxorubicin, melphalan, mitomycin C, chlorambucil, daunorubicin or other intercalating agents, enzymes and fragments thereof such as nucleolytic enzymes, antibiotics, and toxins such as small molecule toxins or enzymatically active toxins of bacterial, fungal, plant or animal origin, including fragments and/or variants thereof, and the various antitumor or anticancer agents disclosed below. Other cytotoxic agents are described below. A tumoricidal agent causes destruction of tumor cells.

A "growth inhibitory agent" when used herein refers to a compound or composition which inhibits growth of a cell, especially a TAT-expressing cancer cell, either *in vitro* or *in vivo*. Thus, the growth inhibitory agent may be one which significantly reduces the percentage of TAT-expressing cells in S phase. Examples of growth inhibitory agents include agents that block cell cycle progression (at a place other than S phase), such as agents that induce G1 arrest and M-phase arrest. Classical M-phase blockers include the vincas (vincristine and vinblastine), taxanes, and topoisomerase II inhibitors such as doxorubicin, epirubicin, daunorubicin, etoposide, and bleomycin. Those agents that arrest G1 also spill over into S-phase arrest, for example, DNA alkylating agents such as tamoxifen, prednisone, dacarbazine, mechlorethamine, cisplatin, methotrexate, 5-fluorouracil, and ara-C. Further information can be found in The Molecular Basis of Cancer, Mendelsohn and Israel, eds., Chapter 1, entitled "Cell cycle regulation, oncogenes, and antineoplastic drugs" by Murakami et al. (WB Saunders: Philadelphia, 1995), especially p. 13. The taxanes (paclitaxel and docetaxel) are anticancer drugs both derived from the yew tree. Docetaxel (TAXOTERE®, Rhone-Poulenc Rorer), derived from the European yew, is a semisynthetic analogue of paclitaxel (TAXOL®, Bristol-Myers Squibb). Paclitaxel and docetaxel promote the assembly of microtubules from tubulin dimers and stabilize microtubules by preventing depolymerization, which results in the inhibition of mitosis in cells.

"Doxorubicin" is an anthracycline antibiotic. The full chemical name of doxorubicin is (8S-cis)-10-[(3-amino-2,3,6-trideoxy-α-L-lyxo-hexapyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-5,12-naphthacenedione.

The term "cytokine" is a generic term for proteins released by one cell population which act on another cell as intercellular mediators. Examples of such cytokines are lymphokines, monokines, and traditional polypeptide hormones. Included among the cytokines are growth hormone such as human growth hormone, N-methionyl human growth hormone, and bovine growth hormone; parathyroid hormone; thyroxine; insulin; proinsulin; relaxin; prorelaxin; glycoprotein hormones such as follicle stimulating hormone (FSH), thyroid stimulating hormone (TSH), and luteinizing hormone (LH); hepatic growth factor; fibroblast growth factor; prolactin; placental lactogen; tumor necrosis factor-α and -β; mullerian-inhibiting substance; mouse gonadotropin-associated peptide; inhibin; activin; vascular endothelial growth factor; integrin; thrombopoietin (TPO); nerve growth factors such as NGF-β; platelet-growth factor; transforming growth factors (TGFs) such as TGF-α and TGF-β; insulin-like growth factor-I and -II; erythropoietin (EPO); osteoinductive factors;

interferons such as interferon -α, -β, and -γ; colony stimulating factors (CSFs) such as macrophage-CSF (M-CSF); granulocyte-macrophage-CSF (GM-CSF); and granulocyte-CSF (G-CSF); interleukins (ILs) such as IL-1, IL- 1a, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-11, IL-12; a tumor necrosis factor such as TNF-α or TNF-ß; and other polypeptide factors including LIF and kit ligand (KL). As used herein, the term cytokine includes proteins from natural sources or from recombinant cell culture and biologically active equivalents of the native sequence cytokines.

The term "package insert" is used to refer to instructions customarily included in commercial packages of therapeutic products, that contain information about the indications, usage, dosage, administration, contraindications and/or warnings concerning the use of such therapeutic products.

Table 1

```
/*
 *
 * C-C increased from 12 to 15
 * Z is average of EQ
 * B is average of ND
 * match with stop is _M; stop-stop = 0; J (joker) match = 0
 */
#define _M      -8      /* value of a match with a stop */

int     _day[26][26] = {
/*      A  B  C  D  E  F  G  H  I  J  K  L  M  N  O  P  Q  R  S  T  U  V  W  X  Y  Z */
/* A */   { 2, 0,-2, 0, 0,-4, 1,-1,-1, 0,-1,-2,-1, 0,_M, 1, 0,-2, 1, 1, 0, 0,-6, 0,-3, 0},
/* B */   { 0, 3,-4, 3, 2,-5, 0, 1,-2, 0, 0,-3,-2, 2,_M,-1, 1, 0, 0, 0, 0,-2,-5, 0,-3, 1},
/* C */   {-2,-4,15,-5,-5,-4,-3,-3,-2, 0,-5,-6,-5,-4,_M,-3,-5,-4, 0,-2, 0,-2,-8, 0, 0,-5},
/* D */   { 0, 3,-5, 4, 3,-6, 1, 1,-2, 0, 0,-4,-3, 2,_M,-1, 2,-1, 0, 0, 0,-2,-7, 0,-4, 2},
/* E */   { 0, 2,-5, 3, 4,-5, 0, 1,-2, 0, 0,-3,-2, 1,_M,-1, 2,-1, 0, 0, 0,-2,-7, 0,-4, 3},
/* F */   {-4,-5,-4,-6,-5, 9,-5,-2, 1, 0,-5, 2, 0,-4,_M,-5,-5,-4,-3,-3, 0,-1, 0, 0, 7,-5},
/* G */   { 1, 0,-3, 1, 0,-5, 5,-2,-3, 0,-2,-4,-3, 0,_M,-1,-1,-3, 1, 0, 0,-1,-7, 0,-5, 0},
/* H */   {-1, 1,-3, 1, 1,-2,-2, 6,-2, 0, 0,-2,-2, 2,_M, 0, 3, 2,-1,-1, 0,-2,-3, 0, 0, 2},
/* I */   {-1,-2,-2,-2,-2, 1,-3,-2, 5, 0,-2, 2, 2,-2,_M,-2,-2,-2,-1, 0, 0, 4,-5, 0,-1,-2},
/* J */   { 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,_M, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0},
/* K */   {-1, 0,-5, 0, 0,-5,-2, 0,-2, 0, 5,-3, 0, 1,_M,-1, 1, 3, 0, 0, 0,-2,-3, 0,-4, 0},
/* L */   {-2,-3,-6,-4,-3, 2,-4,-2, 2, 0,-3, 6, 4,-3,_M,-3,-2,-3,-3,-1, 0, 2,-2, 0,-1,-2},
/* M */   {-1,-2,-5,-3,-2, 0,-3,-2, 2, 0, 0, 4, 6,-2,_M,-2,-1, 0,-2,-1, 0, 2,-4, 0,-2,-1},
/* N */   { 0, 2,-4, 2, 1,-4, 0, 2,-2, 0, 1,-3,-2, 2,_M,-1, 1, 0, 1, 0, 0,-2,-4, 0,-2, 1},
/* O */   {_M,_M,_M,_M,_M,_M,_M,_M,_M,_M,_M,_M,_M,_M, 0,_M,_M,_M,_M,_M,_M,_M,_M,_M,_M,_M},
/* P */   { 1,-1,-3,-1,-1,-5,-1, 0,-2, 0,-1,-3,-2,-1,_M, 6, 0, 0, 1, 0, 0,-1,-6, 0,-5, 0},
/* Q */   { 0, 1,-5, 2, 2,-5,-1, 3,-2, 0, 1,-2,-1, 1,_M, 0, 4, 1,-1,-1, 0,-2,-5, 0,-4, 3},
/* R */   {-2, 0,-4,-1,-1,-4,-3, 2,-2, 0, 3,-3, 0, 0,_M, 0, 1, 6, 0,-1, 0,-2, 2, 0,-4, 0},
/* S */   { 1, 0, 0, 0, 0,-3, 1,-1,-1, 0, 0,-3,-2, 1,_M, 1,-1, 0, 2, 1, 0,-1,-2, 0,-3, 0},
/* T */   { 1, 0,-2, 0, 0,-3, 0,-1, 0, 0, 0,-1,-1, 0,_M, 0,-1,-1, 1, 3, 0, 0,-5, 0,-3, 0},
/* U */   { 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,_M, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0},
/* V */   { 0,-2,-2,-2,-2,-1,-1,-2, 4, 0,-2, 2, 2,-2,_M,-1,-2,-2,-1, 0, 0, 4,-6, 0,-2,-2},
/* W */   {-6,-5,-8,-7,-7, 0,-7,-3,-5, 0,-3,-2,-4,-4,_M,-6,-5, 2,-2,-5, 0,-6,17, 0, 0,-6},
/* X */   { 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,_M, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0},
/* Y */   {-3,-3, 0,-4,-4, 7,-5, 0,-1, 0,-4,-1,-2,-2,_M,-5,-4,-4,-3,-3, 0,-2, 0, 0,10,-4},
/* Z */   { 0, 1,-5, 2, 3,-5, 0, 2,-2, 0, 0,-2,-1, 1,_M, 0, 3, 0, 0, 0, 0,-2,-6, 0,-4, 4}
};
```

Table 1 (cont')

```
/*
 */
#include <stdio.h>
#include <ctype.h>

#define  MAXJMP          16      /* max jumps in a diag */
#define  MAXGAP          24      /* don't continue to penalize gaps larger than this */
#define  JMPS            1024    /* max jmps in an path */
#define  MX              4       /* save if there's at least MX-1 bases since last jmp */

#define  DMAT            3       /* value of matching bases */
#define  DMIS            0       /* penalty for mismatched bases */
#define  DINS0           8       /* penalty for a gap */
#define  DINS1           1       /* penalty per base */
#define  PINS0           8       /* penalty for a gap */
#define  PINS1           4       /* penalty per residue */

struct jmp {
        short           n[MAXJMP];      /* size of jmp (neg for dely) */
        unsigned short  x[MAXJMP];      /* base no. of jmp in seq x */
};                                      /* limits seq to 2^16 -1 */

struct diag {
        int             score;          /* score at last jmp */
        long            offset;         /* offset of prev block */
        short           ijmp;           /* current jmp index */
        struct jmp      jp;             /* list of jmps */
};

struct path {
        int     spc;            /* number of leading spaces */
        short   n[JMPS];/* size of jmp (gap) */
        int     x[JMPS];/* loc of jmp (last elem before gap) */
};

char            *ofile;                 /* output file name */
char            *namex[2];              /* seq names: getseqs() */
char            *prog;                  /* prog name for err msgs */
char            *seqx[2];               /* seqs: getseqs() */
int             dmax;                   /* best diag: nw() */
int             dmax0;                  /* final diag */
int             dna;                    /* set if dna: main() */
int             endgaps;                /* set if penalizing end gaps */
int             gapx, gapy;             /* total gaps in seqs */
int             len0, len1;             /* seq lens */
int             ngapx, ngapy;           /* total size of gaps */
int             smax;                   /* max score: nw() */
int             *xbm;                   /* bitmap for matching */
long            offset;                 /* current offset in jmp file */
struct  diag    *dx;                    /* holds diagonals */
struct  path    pp[2];                  /* holds path for seqs */

char            *calloc(), *malloc(), *index(), *strcpy();
char            *getseq(), *g_calloc();
```

Table 1 (cont')

```
/* Needleman-Wunsch alignment program
 *
 * usage: progs file1 file2
 *   where file1 and file2 are two dna or two protein sequences.
 *   The sequences can be in upper- or lower-case an may contain ambiguity
 *   Any lines beginning with ';', '>' or '<' are ignored
 *   Max file length is 65535 (limited by unsigned short x in the jmp struct)
 *   A sequence with 1/3 or more of its elements ACGTU is assumed to be DNA
 *   Output is in the file "align.out"
 *
 * The program may create a tmp file in /tmp to hold info about traceback.
 * Original version developed under BSD 4.3 on a vax 8650
 */
#include "nw.h"
#include "day.h"

static  _dbval[26] = {
        1,14,2,13,0,0,4,11,0,0,12,0,3,15,0,0,0,5,6,8,8,7,9,0,10,0
};

static  _pbval[26] = {
        1, 2|(1<<('D'-'A'))|(1<<('N'-'A')), 4, 8, 16, 32, 64,
        128, 256, 0xFFFFFFF, 1<<10, 1<<11, 1<<12, 1<<13, 1<<14,
        1<<15, 1<<16, 1<<17, 1<<18, 1<<19, 1<<20, 1<<21, 1<<22,
        1<<23, 1<<24, 1<<25|(1<<('E'-'A'))|(1<<('Q'-'A'))
};

main(ac, av)                                                    main
        int     ac;
        char    *av[];
{
        prog = av[0];
        if (ac != 3) {
                fprintf(stderr,"usage: %s file1 file2\n", prog);
                fprintf(stderr,"where file1 and file2 are two dna or two protein sequences.\n");
                fprintf(stderr,"The sequences can be in upper- or lower-case\n");
                fprintf(stderr,"Any lines beginning with ';' or '<' are ignored\n");
                fprintf(stderr,"Output is in the file \"align.out\"\n");
                exit(1);
        }
        namex[0] = av[1];
        namex[1] = av[2];
        seqx[0] = getseq(namex[0], &len0);
        seqx[1] = getseq(namex[1], &len1);
        xbm = (dna)? _dbval : _pbval;

        endgaps = 0;                    /* 1 to penalize endgaps */
        ofile = "align.out";                    /* output file */

        nw();                   /* fill in the matrix, get the possible jmps */
        readjmps();             /* get the actual jmps */
        print();                /* print stats, alignment */

        cleanup(0);             /* unlink any tmp files */}
```

Table 1 (cont')

```
/* do the alignment, return best score: main()
 * dna: values in Fitch and Smith, PNAS, 80, 1382-1386, 1983
 * pro: PAM 250 values
 * When scores are equal, we prefer mismatches to any gap, prefer
 * a new gap to extending an ongoing gap, and prefer a gap in seqx
 * to a gap in seq y.
 */
nw()                                                                    nw
{
        char            *px, *py;       /* seqs and ptrs */
        int             *ndely, *dely;  /* keep track of dely */
        int             ndelx, delx;    /* keep track of delx */
        int             *tmp;           /* for swapping row0, row1 */
        int             mis;            /* score for each type */
        int             ins0, ins1;     /* insertion penalties */
        register        id;             /* diagonal index */
        register        ij;             /* jmp index */
        register        *col0, *col1;   /* score for curr, last row */
        register        xx, yy;         /* index into seqs */

        dx = (struct diag *)g_calloc("to get diags", len0+len1+1, sizeof(struct diag));
        ndely = (int *)g_calloc("to get ndely", len1+1, sizeof(int));
        dely = (int *)g_calloc("to get dely", len1+1, sizeof(int));
        col0 = (int *)g_calloc("to get col0", len1+1, sizeof(int));
        col1 = (int *)g_calloc("to get col1", len1+1, sizeof(int));
        ins0 = (dna)? DINS0 : PINS0;
        ins1 = (dna)? DINS1 : PINS1;
        smax = -10000;
        if (endgaps) {
                for (col0[0] = dely[0] = -ins0, yy = 1; yy <= len1; yy++) {
                        col0[yy] = dely[yy] = col0[yy-1] - ins1;
                        ndely[yy] = yy;
                }
                col0[0] = 0;            /* Waterman Bull Math Biol 84 */
        }
        else
                for (yy = 1; yy <= len1; yy++)
                        dely[yy] = -ins0;
        /* fill in match matrix
         */
        for (px = seqx[0], xx = 1; xx <= len0; px++, xx++) {
                /* initialize first entry in col
                 */
                if (endgaps) {
                        if (xx == 1)
                                col1[0] = delx = -(ins0+ins1);
                        else
                                col1[0] = delx = col0[0] - ins1;
                        ndelx = xx;
                }
                else {
                        col1[0] = 0;
                        delx = -ins0;
                        ndelx = 0;
                }
```

Table 1 (cont')

...nw

```
for (py = seqx[1], yy = 1; yy <= len1; py++, yy++) {
        mis = col0[yy-1];
        if (dna)
                mis += (xbm[*px-'A']&xbm[*py-'A'])? DMAT : DMIS;
        else
                mis += _day[*px-'A'][*py-'A'];

        /* update penalty for del in x seq;
         * favor new del over ongong del
         * ignore MAXGAP if weighting endgaps
         */
        if (endgaps || ndely[yy] < MAXGAP) {
                if (col0[yy] - ins0 >= dely[yy]) {
                        dely[yy] = col0[yy] - (ins0+ins1);
                        ndely[yy] = 1;
                } else {
                        dely[yy] -= ins1;
                        ndely[yy]++;
                }
        } else {
                if (col0[yy] - (ins0+ins1) >= dely[yy]) {
                        dely[yy] = col0[yy] - (ins0+ins1);
                        ndely[yy] = 1;
                } else
                        ndely[yy]++;
        }

        /* update penalty for del in y seq;
         * favor new del over ongong del
         */
        if (endgaps || ndelx < MAXGAP) {
                if (col1[yy-1] - ins0 >= delx) {
                        delx = col1[yy-1] - (ins0+ins1);
                        ndelx = 1;
                } else {
                        delx -= ins1;
                        ndelx++;
                }
        } else {
                if (col1[yy-1] - (ins0+ins1) >= delx) {
                        delx = col1[yy-1] - (ins0+ins1);
                        ndelx = 1;
                } else
                        ndelx++;
        }

        /* pick the maximum score; we're favoring
         * mis over any del and delx over dely
         */
```

...nw

```
        id = xx - yy + len1 - 1;
        if (mis >= delx && mis >= dely[yy])
                col1[yy] = mis;
```

Table 1 (cont')

```
                else if (delx >= dely[yy]) {
                        col1[yy] = delx;
                        ij = dx[id].ijmp;
                        if (dx[id].jp.n[0] && (!dna || (ndelx >= MAXJMP
                        && xx > dx[id].jp.x[ij]+MX) || mis > dx[id].score+DINS0)) {
                                dx[id].ijmp++;
                                if (++ij >= MAXJMP) {
                                        writejmps(id);
                                        ij = dx[id].ijmp = 0;
                                        dx[id].offset = offset;
                                        offset += sizeof(struct jmp) + sizeof(offset);
                                }
                        }
                        dx[id].jp.n[ij] = ndelx;
                        dx[id].jp.x[ij] = xx;
                        dx[id].score = delx;
                }
                else {
                        col1[yy] = dely[yy];
                        ij = dx[id].ijmp;
        if (dx[id].jp.n[0] && (!dna || (ndely[yy] >= MAXJMP
                        && xx > dx[id].jp.x[ij]+MX) || mis > dx[id].score+DINS0)) {
                                dx[id].ijmp++;
                                if (++ij >= MAXJMP) {
                                        writejmps(id);
                                        ij = dx[id].ijmp = 0;
                                        dx[id].offset = offset;
                                        offset += sizeof(struct jmp) + sizeof(offset);
                                }
                        }
                        dx[id].jp.n[ij] = -ndely[yy];
                        dx[id].jp.x[ij] = xx;
                        dx[id].score = dely[yy];
                }
                if (xx == len0 && yy < len1) {
                        /* last col
                         */
                        if (endgaps)
                                col1[yy] -= ins0+ins1*(len1-yy);
                        if (col1[yy] > smax) {
                                smax = col1[yy];
                                dmax = id;
                        }
                }
        }
        if (endgaps && xx < len0)
                col1[yy-1] -= ins0+ins1*(len0-xx);
        if (col1[yy-1] > smax) {
                smax = col1[yy-1];
                dmax = id;
        }
        tmp = col0; col0 = col1; col1 = tmp;            }
(void) free((char *)ndely);
(void) free((char *)dely);
(void) free((char *)col0);
(void) free((char *)col1);                      }
```

Table 1 (cont')

```
/*
 *
 * print() -- only routine visible outside this module
 *
 * static:
 * getmat() -- trace back best path, count matches: print()
 * pr_align() -- print alignment of described in array p[]: print()
 * dumpblock() -- dump a block of lines with numbers, stars: pr_align()
 * nums() -- put out a number line: dumpblock()
 * putline() -- put out a line (name, [num], seq, [num]): dumpblock()
 * stars() - -put a line of stars: dumpblock()
 * stripname() -- strip any path and prefix from a seqname
 */

#include "nw.h"

#define SPC     3
#define P_LINE  256     /* maximum output line */
#define P_SPC   3       /* space between name or num and seq */

extern  _day[26][26];
int     olen;           /* set output line length */
FILE    *fx;            /* output file */

print()                                                          print
{
        int     lx, ly, firstgap, lastgap;      /* overlap */

        if ((fx = fopen(ofile, "w")) == 0) {
                fprintf(stderr,"%s: can't write %s\n", prog, ofile);
                cleanup(1);
        }
        fprintf(fx, "<first sequence: %s (length = %d)\n", namex[0], len0);
        fprintf(fx, "<second sequence: %s (length = %d)\n", namex[1], len1);
        olen = 60;
        lx = len0;
        ly = len1;
        firstgap = lastgap = 0;
        if (dmax < len1 - 1) {          /* leading gap in x */
                pp[0].spc = firstgap = len1 - dmax - 1;
                ly -= pp[0].spc;
        }
        else if (dmax > len1 - 1) {     /* leading gap in y */
                pp[1].spc = firstgap = dmax - (len1 - 1);
                lx -= pp[1].spc;
        }
        if (dmax0 < len0 - 1) {         /* trailing gap in x */
                lastgap = len0 - dmax0 -1;
                lx -= lastgap;
        }
        else if (dmax0 > len0 - 1) { /* trailing gap in y */
                lastgap = dmax0 - (len0 - 1);
                ly -= lastgap;
        }
        getmat(lx, ly, firstgap, lastgap);
        pr_align();         }
```

Table 1 (cont')

```
/*
 * trace back the best path, count matches
 */
static
getmat(lx, ly, firstgap, lastgap)                                    getmat
        int     lx, ly;                 /* "core" (minus endgaps) */
        int     firstgap, lastgap;      /* leading trailing overlap */
{
        int             nm, i0, i1, siz0, siz1;
        char            outx[32];
        double          pct;
        register        n0, n1;
        register char   *p0, *p1;
        /* get total matches, score
         */
        i0 = i1 = siz0 = siz1 = 0;
        p0 = seqx[0] + pp[1].spc;
        p1 = seqx[1] + pp[0].spc;
        n0 = pp[1].spc + 1;
        n1 = pp[0].spc + 1;
        nm = 0;
        while ( *p0 && *p1 ) {
                if (siz0) {
                        p1++;
                        n1++;
                        siz0--;
                }
                else if (siz1) {
                        p0++;
                        n0++;
                        siz1--;
                }
                else {
                        if (xbm[*p0-'A']&xbm[*p1-'A'])
                                nm++;
                        if (n0++ == pp[0].x[i0])
                                siz0 = pp[0].n[i0++];
                        if (n1++ == pp[1].x[i1])
                                siz1 = pp[1].n[i1++];
                        p0++;
                        p1++;
                }
        }

        /* pct homology:
         * if penalizing endgaps, base is the shorter seq
         * else, knock off overhangs and take shorter core
         */
        if (endgaps)
                lx = (len0 < len1)? len0 : len1;
        else
                lx = (lx < ly)? lx : ly;
        pct = 100.*(double)nm/(double)lx;
        fprintf(fx, "\n");
        fprintf(fx, "< %d match%s in an overlap of %d: %.2f percent similarity\n",
                nm, (nm == 1)? "" : "es", lx, pct);
```

Table 1 (cont')

...getmat

```
        fprintf(fx, "<gaps in first sequence: %d", gapx);
        if (gapx) {
                (void) sprintf(outx, " (%d %s%s)",
                        ngapx, (dna)? "base":"residue", (ngapx == 1)? "":"s");
                fprintf(fx,"%s", outx);
        fprintf(fx, ", gaps in second sequence: %d", gapy);
        if (gapy) {
                (void) sprintf(outx, " (%d %s%s)",
                        ngapy, (dna)? "base":"residue", (ngapy == 1)? "":"s");
                fprintf(fx,"%s", outx);
        }
        if (dna)
                fprintf(fx,
                "\n<score: %d (match = %d, mismatch = %d, gap penalty = %d + %d per base)\n",
                smax, DMAT, DMIS, DINS0, DINS1);
        else
                fprintf(fx,
                "\n<score: %d (Dayhoff PAM 250 matrix, gap penalty = %d + %d per residue)\n",
                smax, PINS0, PINS1);
        if (endgaps)
                fprintf(fx,
                "<endgaps penalized. left endgap: %d %s%s, right endgap: %d %s%s\n",
                firstgap, (dna)? "base" : "residue", (firstgap == 1)? "" : "s",
                lastgap, (dna)? "base" : "residue", (lastgap == 1)? "" : "s");
        else
                fprintf(fx, "<endgaps not penalized\n");
}
static          nm;             /* matches in core -- for checking */
static          lmax;           /* lengths of stripped file names */
static          ij[2];          /* jmp index for a path */
static          nc[2];          /* number at start of current line */
static          ni[2];          /* current elem number -- for gapping */
static          siz[2];
static char     *ps[2];         /* ptr to current element */
static char     *po[2];         /* ptr to next output char slot */
static char     out[2][P_LINE]; /* output line */
static char     star[P_LINE];   /* set by stars() */
/*
 * print alignment of described in struct path pp[]
 */
static
```

pr_align

```
pr_align()
{
        int             nn;     /* char count */
        int             more;
        register        i;

        for (i = 0, lmax = 0; i < 2; i++) {
                nn = stripname(namex[i]);
                if (nn > lmax)
                        lmax = nn;
                nc[i] = 1;
                ni[i] = 1;
                siz[i] = ij[i] = 0;
                ps[i] = seqx[i];
                po[i] = out[i];                 }
```

Table 1 (cont')

...pr_align

```
        for (nn = nm = 0, more = 1; more; ) {
                for (i = more = 0; i < 2; i++) {
                        /*
                         * do we have more of this sequence?
                         */
                        if (!*ps[i])
                                continue;
                        more++;
                        if (pp[i].spc) {        /* leading space */
                                *po[i]++ = ' ';
                                pp[i].spc--;
                        }
                        else if (siz[i]) {      /* in a gap */
                                *po[i]++ = '-';
                                siz[i]--;
                        }
                        else {                  /* we're putting a seq element
                                                 */
                                *po[i] = *ps[i];
                                if (islower(*ps[i]))
                                        *ps[i] = toupper(*ps[i]);
                                po[i]++;
                                ps[i]++;
                                /*
                                 * are we at next gap for this seq?
                                 */
                                if (ni[i] == pp[i].x[ij[i]]) {
                                        /*
                                         * we need to merge all gaps
                                         * at this location
                                         */
                                        siz[i] = pp[i].n[ij[i]++];
                                        while (ni[i] == pp[i].x[ij[i]])
                                                siz[i] += pp[i].n[ij[i]++];
                                }
                                ni[i]++;
                        }
                }
                if (++nn == olen || !more && nn) {
                        dumpblock();
                        for (i = 0; i < 2; i++)
                                po[i] = out[i];
                        nn = 0;
                }
        }
}
/*
 * dump a block of lines, including numbers, stars: pr_align()
 */
static
dumpblock()
{
        register  i;
        for (i = 0; i < 2; i++)
                *po[i]-- = '\0';
```

dumpblock

Table 1 (cont')

...dumpblock

```
        (void) putc('\n', fx);
        for (i = 0; i < 2; i++) {
                if (*out[i] && (*out[i] != ' ' || *(po[i]) != ' ')) {
                        if (i == 0)
                                nums(i);
                        if (i == 0 && *out[1])
                                stars();
                        putline(i);
                        if (i == 0 && *out[1])
                                fprintf(fx, star);
                        if (i == 1)
                                nums(i);
                }
        }
}
/*
 * put out a number line: dumpblock()
 */
static
nums(ix)                                                        nums
        int     ix;     /* index in out[] holding seq line */
{
        char            nline[P_LINE];
        register        i, j;
        register char   *pn, *px, *py;
        for (pn = nline, i = 0; i < lmax+P_SPC; i++, pn++)
                *pn = ' ';
        for (i = nc[ix], py = out[ix]; *py; py++, pn++) {
                if (*py == ' ' || *py == '-')
                        *pn = ' ';
                else {
                        if (i%10 == 0 || (i == 1 && nc[ix] != 1)) {
                                j = (i < 0)? -i : i;
                                for (px = pn; j; j /= 10, px--)
                                        *px = j%10 + '0';
                                if (i < 0)
                                        *px = '-';
                        }
                        else
                                *pn = ' ';
                        i++;
                }
        }
        *pn = '\0';
        nc[ix] = i;
        for (pn = nline; *pn; pn++)
                (void) putc(*pn, fx);
        (void) putc('\n', fx);
}
/*
 * put out a line (name, [num], seq, [num]): dumpblock()
 */
static
putline(ix)                                                     putline
        int     ix;                     {
```

Table 1 (cont')

...putline

```
        int             i;
        register char   *px;

        for (px = namex[ix], i = 0; *px && *px != ':'; px++, i++)
                (void) putc(*px, fx);
        for (; i < lmax+P_SPC; i++)
                (void) putc(' ', fx);

        /* these count from 1:
         * ni[] is current element (from 1)
         * nc[] is number at start of current line
         */
        for (px = out[ix]; *px; px++)
                (void) putc(*px&0x7F, fx);
        (void) putc('\n', fx);
}

/*
 * put a line of stars (seqs always in out[0], out[1]): dumpblock()
 */
static
stars()                                                          stars
{
        int             i;
        register char   *p0, *p1, cx, *px;

        if (!*out[0] || (*out[0] == ' ' && *(po[0]) == ' ') ||
           !*out[1] || (*out[1] == ' ' && *(po[1]) == ' '))
                return;
        px = star;
        for (i = lmax+P_SPC; i; i--)
                *px++ = ' ';

        for (p0 = out[0], p1 = out[1]; *p0 && *p1; p0++, p1++) {
                if (isalpha(*p0) && isalpha(*p1)) {

                        if (xbm[*p0-'A']&xbm[*p1-'A']) {
                                cx = '*';
                                nm++;
                        }
                        else if (!dna && _day[*p0-'A'][*p1-'A'] > 0)
                                cx = '.';
                        else
                                cx = ' ';
                }
                else
                        cx = ' ';
                *px++ = cx;
        }
        *px++ = '\n';
        *px = '\0';
}
```

Table 1 (cont')

```
/*
 * strip path or prefix from pn, return len: pr_align()
 */
static
stripname(pn)                                                    stripname
        char    *pn;    /* file name (may be path) */
{
        register char   *px, *py;

        py = 0;
        for (px = pn; *px; px++)
                if (*px == '/')
                        py = px + 1;
        if (py)
                (void) strcpy(pn, py);
        return(strlen(pn));

}
```

Table 1 (cont')

```
/*
 * cleanup() -- cleanup any tmp file
 * getseq() -- read in seq, set dna, len, maxlen
 * g_calloc() -- calloc() with error checkin
 * readjmps() -- get the good jmps, from tmp file if necessary
 * writejmps() -- write a filled array of jmps to a tmp file: nw()
 */
#include "nw.h"
#include <sys/file.h>

char    *jname = "/tmp/homgXXXXXX";          /* tmp file for jmps */
FILE    *fj;
int     cleanup();                           /* cleanup tmp file */
long    lseek();
/*
 * remove any tmp file if we blow
 */
cleanup(i)                                                              cleanup
        int     i;
{
        if (fj)
                (void) unlink(jname);
        exit(i);
}
/*
 * read, return ptr to seq, set dna, len, maxlen
 * skip lines starting with ';', '<', or '>'
 * seq in upper or lower case
 */
char    *
getseq(file, len)                                                       getseq
        char    *file;  /* file name */
        int     *len;   /* seq len */
{
        char            line[1024], *pseq;
        register char   *px, *py;
        int             natgc, tlen;
        FILE            *fp;
        if ((fp = fopen(file,"r")) == 0) {
                fprintf(stderr,"%s: can't read %s\n", prog, file);
                exit(1);
        }
        tlen = natgc = 0;
        while (fgets(line, 1024, fp)) {
                if (*line == ';' || *line == '<' || *line == '>')
                        continue;
                for (px = line; *px != '\n'; px++)
                        if (isupper(*px) || islower(*px))
                                tlen++;
        }
        if ((pseq = malloc((unsigned)(tlen+6))) == 0) {
                fprintf(stderr,"%s: malloc() failed to get %d bytes for %s\n", prog, tlen+6, file);
                exit(1);
        }
        pseq[0] = pseq[1] = pseq[2] = pseq[3] = '\0';
```

Table 1 (cont')

...getseq

```
        py = pseq + 4;
        *len = tlen;
        rewind(fp);
        while (fgets(line, 1024, fp)) {
                if (*line == ';' || *line == '<' || *line == '>')
                        continue;
                for (px = line; *px != '\n'; px++) {
                        if (isupper(*px))
                                *py++ = *px;
                        else if (islower(*px))
                                *py++ = toupper(*px);
                        if (index("ATGCU",*(py-1)))
                                natgc++;
                }
        }
        *py++ = '\0';
        *py = '\0';
        (void) fclose(fp);
        dna = natgc > (tlen/3);
        return(pseq+4);
}
char    *
g_calloc(msg, nx, sz)                                                    g_calloc
        char    *msg;           /* program, calling routine */
        int     nx, sz;         /* number and size of elements */
{
        char            *px, *calloc();
        if ((px = calloc((unsigned)nx, (unsigned)sz)) == 0) {
                if (*msg) {
                        fprintf(stderr, "%s: g_calloc() failed %s (n=%d, sz=%d)\n", prog, msg, nx, sz);
                        exit(1);
                }
        }
        return(px);
}

/*
 * get final jmps from dx[] or tmp file, set pp[], reset dmax: main()
 */
readjmps()                                                               readjmps
{
        int             fd = -1;
        int             siz, i0, i1;
        register  i, j, xx;
        if (fj) {
                (void) fclose(fj);
                if ((fd = open(jname, O_RDONLY, 0)) < 0) {
                        fprintf(stderr, "%s: can't open() %s\n", prog, jname);
                        cleanup(1);
                }
        }
        for (i = i0 = i1 = 0, dmax0 = dmax, xx = len0; ; i++) {
                while (1) {
                        for (j = dx[dmax].ijmp; j >= 0 && dx[dmax].jp.x[j] >= xx; j--)
                                ;
```

Table 1 (cont')

...readjmps

```
                        if (j < 0 && dx[dmax].offset && fj) {
                                (void) lseek(fd, dx[dmax].offset, 0);
                                (void) read(fd, (char *)&dx[dmax].jp, sizeof(struct jmp));
                                (void) read(fd, (char *)&dx[dmax].offset, sizeof(dx[dmax].offset));
                                dx[dmax].ijmp = MAXJMP-1;                                }
                        else
                                break;                }
                if (i >= JMPS) {
                        fprintf(stderr, "%s: too many gaps in alignment\n", prog);
                        cleanup(1);
                }
                if (j >= 0) {
                        siz = dx[dmax].jp.n[j];
                        xx = dx[dmax].jp.x[j];
                        dmax += siz;
                        if (siz < 0) {                  /* gap in second seq */
                                pp[1].n[i1] = -siz;
                                xx += siz;
                                /* id = xx - yy + len1 - 1                                */
                                pp[1].x[i1] = xx - dmax + len1 - 1;
                                gapy++;
                                ngapy -= siz;
/* ignore MAXGAP when doing endgaps */
                                siz = (-siz < MAXGAP || endgaps)? -siz : MAXGAP;
                                i1++;
                        }
                        else if (siz > 0) {  /* gap in first seq */
                                pp[0].n[i0] = siz;
                                pp[0].x[i0] = xx;
                                gapx++;
                                ngapx += siz;
/* ignore MAXGAP when doing endgaps */
                                siz = (siz < MAXGAP || endgaps)? siz : MAXGAP;
                                i0++;
                        }
                }
                else
                        break;
        }
        /* reverse the order of jmps   */
        for (j = 0, i0--; j < i0; j++, i0--) {
                i = pp[0].n[j]; pp[0].n[j] = pp[0].n[i0]; pp[0].n[i0] = i;
                i = pp[0].x[j]; pp[0].x[j] = pp[0].x[i0]; pp[0].x[i0] = i;
        }
        for (j = 0, i1--; j < i1; j++, i1--) {
                i = pp[1].n[j]; pp[1].n[j] = pp[1].n[i1]; pp[1].n[i1] = i;
                i = pp[1].x[j]; pp[1].x[j] = pp[1].x[i1]; pp[1].x[i1] = i;
        }
        if (fd >= 0)
                (void) close(fd);
        if (fj) {
                (void) unlink(jname);
                fj = 0;
                offset = 0;
        }                                       }
```

Table 1 (cont')

writejmps

```
/*
 * write a filled jmp struct offset of the prev one (if any): nw()
 */
writejmps(ix)
        int     ix;
{
        char    *mktemp();

        if (!fj) {
                if (mktemp(jname) < 0) {
                        fprintf(stderr, "%s: can't mktemp() %s\n", prog, jname);
                        cleanup(1);
                }
                if ((fj = fopen(jname, "w")) == 0) {
                        fprintf(stderr, "%s: can't write %s\n", prog, jname);
                        exit(1);
                }
        }
        (void) fwrite((char *)&dx[ix].jp, sizeof(struct jmp), 1, fj);
        (void) fwrite((char *)&dx[ix].offset, sizeof(dx[ix].offset), 1, fj);
}
```

Table 2

TAT	XXXXXXXXXXXXXXX	(Length = 15 amino acids)
Comparison Protein	XXXXXYYYYYYY	(Length = 12 amino acids)

% amino acid sequence identity =

(the number of identically matching amino acid residues between the two polypeptide sequences as determined by ALIGN-2) divided by (the total number of amino acid residues of the TAT polypeptide) =

5 divided by 15 = 33.3%

Table 3

TAT	XXXXXXXXXX	(Length = 10 amino acids)
Comparison Protein	XXXXXYYYYYYZZYZ	(Length = 15 amino acids)

% amino acid sequence identity =

(the number of identically matching amino acid residues between the two polypeptide sequences as determined by ALIGN-2) divided by (the total number of amino acid residues of the TAT polypeptide) =

5 divided by 10 = 50%

Table 4

TAT-DNA	NNNNNNNNNNNNNN	(Length = 14 nucleotides)
Comparison DNA	NNNNNNLLLLLLLLL	(Length = 16 nucleotides)

% nucleic acid sequence identity =

(the number of identically matching nucleotides between the two nucleic acid sequences as determined by ALIGN-2) divided by (the total number of nucleotides of the TAT-DNA nucleic acid sequence) =

6 divided by 14 = 42.9%

Table 5

TAT-DNA	NNNNNNNNNNNN	(Length = 12 nucleotides)
Comparison DNA	NNNNLLLVV	(Length = 9 nucleotides)

% nucleic acid sequence identity =

(the number of identically matching nucleotides between the two nucleic acid sequences as determined by ALIGN-2) divided by (the total number of nucleotides of the TAT-DNA nucleic acid sequence) =

4 divided by 12 = 33.3%

II. Compositions and Methods of the Invention

A. Anti-TAT Antibodies

In one embodiment, the present invention provides anti-TAT antibodies which may find use herein as therapeutic and/or diagnostic agents. Exemplary antibodies include polyclonal, monoclonal, humanized, bispecific, and heteroconjugate antibodies.

1. Polyclonal Antibodies

Polyclonal antibodies are preferably raised in animals by multiple subcutaneous (sc) or intraperitoneal (ip) injections of the relevant antigen and an adjuvant. It may be useful to conjugate the relevant antigen (especially when synthetic peptides are used) to a protein that is immunogenic in the species to be immunized. For example, the antigen can be conjugated to keyhole limpet hemocyanin (KLH), serum albumin, bovine thyroglobulin, or soybean trypsin inhibitor, using a bifunctional or derivatizing agent, e.g., maleimidobenzoyl sulfosuccinimide ester (conjugation through cysteine residues), N-hydroxysuccinimide (through lysine residues), glutaraldehyde, succinic anhydride, $SOCl_2$, or $R^1N=C=NR$, where R and R^1 are different alkyl groups.

Animals are immunized against the antigen, immunogenic conjugates, or derivatives by combining, e.g., 100 μg or 5 μg of the protein or conjugate (for rabbits or mice, respectively) with 3 volumes of Freund's complete adjuvant and injecting the solution intradermally at multiple sites. One month later, the animals are boosted with 1/5 to 1/10 the original amount of peptide or conjugate in Freund's complete adjuvant by subcutaneous injection at multiple sites. Seven to 14 days later, the animals are bled and the serum is assayed for antibody titer. Animals are boosted until the titer plateaus. Conjugates also can be made in recombinant cell culture as protein fusions. Also, aggregating agents such as alum are suitably used to enhance the immune response.

2. Monoclonal Antibodies

Monoclonal antibodies may be made using the hybridoma method first described by Kohler et al., Nature, 256:495 (1975), or may be made by recombinant DNA methods (U.S. Patent No. 4,816,567).

In the hybridoma method, a mouse or other appropriate host animal, such as a hamster, is immunized

as described above to elicit lymphocytes that produce or are capable of producing antibodies that will specifically bind to the protein used for immunization. Alternatively, lymphocytes may be immunized *in vitro*. After immunization, lymphocytes are isolated and then fused with a myeloma cell line using a suitable fusing agent, such as polyethylene glycol, to form a hybridoma cell (Goding, Monoclonal Antibodies: Principles and Practice, pp.59-103 (Academic Press, 1986)).

The hybridoma cells thus prepared are seeded and grown in a suitable culture medium which medium preferably contains one or more substances that inhibit the growth or survival of the unfused, parental myeloma cells (also referred to as fusion partner). For example, if the parental myeloma cells lack the enzyme hypoxanthine guanine phosphoribosyl transferase (HGPRT or HPRT), the selective culture medium for the hybridomas typically will include hypoxanthine, aminopterin, and thymidine (HAT medium), which substances prevent the growth of HGPRT-deficient cells.

Preferred fusion partner myeloma cells are those that fuse efficiently, support stable high-level production of antibody by the selected antibody-producing cells, and are sensitive to a selective medium that selects against the unfused parental cells. Preferred myeloma cell lines are murine myeloma lines, such as those derived from MOPC-21 and MPC-11 mouse tumors available from the Salk Institute Cell Distribution Center, San Diego, California USA, and SP-2 and derivatives e.g., X63-Ag8-653 cells available from the American Type Culture Collection, Manassas, Virginia, USA. Human myeloma and mouse-human heteromyeloma cell lines also have been described for the production of human monoclonal antibodies (Kozbor, J. Immunol., 133:3001 (1984); and Brodeur et al., Monoclonal Antibody Production Techniques and Applications, pp. 51-63 (Marcel Dekker, Inc., New York, 1987)).

Culture medium in which hybridoma cells are growing is assayed for production of monoclonal antibodies directed against the antigen. Preferably, the binding specificity of monoclonal antibodies produced by hybridoma cells is determined by immunoprecipitation or by an *in vitro* binding assay, such as radioimmunoassay (RIA) or enzyme-linked immunosorbent assay (ELISA).

The binding affinity of the monoclonal antibody can, for example, be determined by the Scatchard analysis described in Munson et al., Anal. Biochem., 107:220 (1980).

Once hybridoma cells that produce antibodies of the desired specificity, affinity, and/or activity are identified, the clones may be subcloned by limiting dilution procedures and grown by standard methods (Goding, Monoclonal Antibodies: Principles and Practice, pp.59-103 (Academic Press, 1986)). Suitable culture media for this purpose include, for example, D-MEM or RPMI-1640 medium. In addition, the hybridoma cells may be grown *in vivo* as ascites tumors in an animal e.g,, by i.p. injection of the cells into mice.

The monoclonal antibodies secreted by the subclones are suitably separated from the culture medium, ascites fluid, or serum by conventional antibody purification procedures such as, for example, affinity chromatography (e.g., using protein A or protein G-Sepharose) or ion-exchange chromatography, hydroxylapatite chromatography, gel electrophoresis, dialysis, etc.

DNA encoding the monoclonal antibodies is readily isolated and sequenced using conventional procedures (e.g., by using oligonucleotide probes that are capable of binding specifically to genes encoding the heavy and light chains of murine antibodies). The hybridoma cells serve as a preferred source of such DNA.

Once isolated, the DNA may be placed into expression vectors, which are then transfected into host cells such as *E. coli* cells, simian COS cells, Chinese Hamster Ovary (CHO) cells, or myeloma cells that do not otherwise produce antibody protein, to obtain the synthesis of monoclonal antibodies in the recombinant host cells. Review articles on recombinant expression in bacteria of DNA encoding the antibody include Skerra et al., Curr. Opinion in Immunol., 5:256-262 (1993) and Plückthun, Immunol. Revs. 130:151-188 (1992).

In a further embodiment, monoclonal antibodies or antibody fragments can be isolated from antibody phage libraries generated using the techniques described in McCafferty et al., Nature, 348:552-554 (1990). Clackson et al., Nature, 352:624-628 (1991) and Marks et al., J. Mol. Biol., 222:581-597 (1991) describe the isolation of murine and human antibodies, respectively, using phage libraries. Subsequent publications describe the production of high affinity (nM range) human antibodies by chain shuffling (Marks et al., Bio/Technology, 10:779-783 (1992)), as well as combinatorial infection and *in vivo* recombination as a strategy for constructing very large phage libraries (Waterhouse et al., Nuc. Acids. Res. 21:2265-2266 (1993)). Thus, these techniques are viable alternatives to traditional monoclonal antibody hybridoma techniques for isolation of monoclonal antibodies.

The DNA that encodes the antibody may be modified to produce chimeric or fusion antibody polypeptides, for example, by substituting human heavy chain and light chain constant domain (C_H and C_L) sequences for the homologous murine sequences (U.S. Patent No. 4,816,567; and Morrison, et al., Proc. Natl Acad. Sci. USA, 81:6851 (1984)), or by fusing the immunoglobulin coding sequence with all or part of the coding sequence for a non-immunoglobulin polypeptide (heterologous polypeptide). The non-immunoglobulin polypeptide sequences can substitute for the constant domains of an antibody, or they are substituted for the variable domains of one antigen-combining site of an antibody to create a chimeric bivalent antibody comprising one antigen-combining site having specificity for an antigen and another antigen-combining site having specificity for a different antigen.

3. Human and Humanized Antibodies

The anti-TAT antibodies of the invention may further comprise humanized antibodies or human antibodies. Humanized forms of non-human (e.g., murine) antibodies are chimeric immunoglobulins, immunoglobulin chains or fragments thereof (such as Fv, Fab, Fab', $F(ab')_2$ or other antigen-binding subsequences of antibodies) which contain minimal sequence derived from non-human immunoglobulin. Humanized antibodies include human immunoglobulins (recipient antibody) in which residues from a complementary determining region (CDR) of the recipient are replaced by residues from a CDR of a non-human species (donor antibody) such as mouse, rat or rabbit having the desired specificity, affinity and capacity. In some instances, Fv framework residues of the human immunoglobulin are replaced by corresponding non-human residues. Humanized antibodies may also comprise residues which are found neither in the recipient antibody nor in the imported CDR or framework sequences. In general, the humanized antibody will comprise substantially all of at least one, and typically two, variable domains, in which all or substantially all of the CDR regions correspond to those of a non-human immunoglobulin and all or substantially all of the FR regions are those of a human immunoglobulin consensus sequence. The humanized antibody optimally also will comprise at least a portion of an immunoglobulin constant region (Fc), typically that of a human immunoglobulin [Jones

et al., Nature, 321:522-525 (1986); Riechmann et al., Nature, 332:323-329 (1988); and Presta, Curr. Op. Struct. Biol., 2:593-596 (1992)].

Methods for humanizing non-human antibodies are well known in the art. Generally, a humanized antibody has one or more amino acid residues introduced into it from a source which is non-human. These non-human amino acid residues are often referred to as "import" residues, which are typically taken from an "import" variable domain. Humanization can be essentially performed following the method of Winter and co-workers [Jones et al., Nature, 321:522-525 (1986); Riechmann et al., Nature, 332:323-327 (1988); Verhoeyen et al., Science, 239:1534-1536 (1988)], by substituting rodent CDRs or CDR sequences for the corresponding sequences of a human antibody. Accordingly, such "humanized" antibodies are chimeric antibodies (U.S. Patent No. 4,816,567), wherein substantially less than an intact human variable domain has been substituted by the corresponding sequence from a non-human species. In practice, humanized antibodies are typically human antibodies in which some CDR residues and possibly some FR residues are substituted by residues from analogous sites in rodent antibodies.

The choice of human variable domains, both light and heavy, to be used in making the humanized antibodies is very important to reduce antigenicity and HAMA response (human anti-mouse antibody) when the antibody is intended for human therapeutic use. According to the so-called "best-fit" method, the sequence of the variable domain of a rodent antibody is screened against the entire library of known human variable domain sequences. The human V domain sequence which is closest to that of the rodent is identified and the human framework region (FR) within it accepted for the humanized antibody (Sims et al., J. Immunol. 151:2296 (1993); Chothia et al., J. Mol. Biol., 196:901 (1987)). Another method uses a particular framework region derived from the consensus sequence of all human antibodies of a particular subgroup of light or heavy chains. The same framework may be used for several different humanized antibodies (Carter et al., Proc. Natl. Acad. Sci. USA, 89:4285 (1992); Presta et al., J. Immunol. 151:2623 (1993)).

It is further important that antibodies be humanized with retention of high binding affinity for the antigen and other favorable biological properties. To achieve this goal, according to a preferred method, humanized antibodies are prepared by a process of analysis of the parental sequences and various conceptual humanized products using three-dimensional models of the parental and humanized sequences. Three-dimensional immunoglobulin models are commonly available and are familiar to those skilled in the art. Computer programs are available which illustrate and display probable three-dimensional conformational structures of selected candidate immunoglobulin sequences. Inspection of these displays permits analysis of the likely role of the residues in the functioning of the candidate immunoglobulin sequence, i.e., the analysis of residues that influence the ability of the candidate immunoglobulin to bind its antigen. In this way, FR residues can be selected and combined from the recipient and import sequences so that the desired antibody characteristic, such as increased affinity for the target antigen(s), is achieved. In general, the hypervariable region residues are directly and most substantially involved in influencing antigen binding.

Various forms of a humanized anti-TAT antibody are contemplated. For example, the humanized antibody may be an antibody fragment, such as a Fab, which is optionally conjugated with one or more cytotoxic

agent(s) in order to generate an immunoconjugate. Alternatively, the humanized antibody may be an intact antibody, such as an intact IgG1 antibody.

As an alternative to humanization, human antibodies can be generated. For example, it is now possible to produce transgenic animals (e.g., mice) that are capable, upon immunization, of producing a full repertoire of human antibodies in the absence of endogenous immunoglobulin production. For example, it has been described that the homozygous deletion of the antibody heavy-chain joining region (J_H) gene in chimeric and germ-line mutant mice results in complete inhibition of endogenous antibody production. Transfer of the human germ-line immunoglobulin gene array into such germ-line mutant mice will result in the production of human antibodies upon antigen challenge. See, e.g., Jakobovits et al., Proc. Natl. Acad. Sci. USA, 90:2551 (1993); Jakobovits et al., Nature, 362:255-258 (1993); Bruggemann et al., Year in Immuno. 7:33 (1993); U.S. Patent Nos. 5,545,806, 5,569,825, 5,591,669 (all of GenPharm); 5,545,807; and WO 97/17852.

Alternatively, phage display technology (McCafferty et al., Nature 348:552-553 [1990]) can be used to produce human antibodies and antibody fragments *in vitro*, from immunoglobulin variable (V) domain gene repertoires from unimmunized donors. According to this technique, antibody V domain genes are cloned in-frame into either a major or minor coat protein gene of a filamentous bacteriophage, such as M13 or fd, and displayed as functional antibody fragments on the surface of the phage particle. Because the filamentous particle contains a single-stranded DNA copy of the phage genome, selections based on the functional properties of the antibody also result in selection of the gene encoding the antibody exhibiting those properties. Thus, the phage mimics some of the properties of the B-cell. Phage display can be performed in a variety of formats, reviewed in, e.g., Johnson, Kevin S. and Chiswell, David J., Current Opinion in Structural Biology 3:564-571 (1993). Several sources of V-gene segments can be used for phage display. Clackson et al. Nature, 352:624-628 (1991) isolated a diverse array of anti-oxazolone antibodies from a small random combinatorial library of V genes derived from the spleens of immunized mice. A repertoire of V genes from unimmunized human donors can be constructed and antibodies to a diverse array of antigens (including self-antigens) can be isolated essentially following the techniques described by Marks et al., J. Mol. Biol. 222:581-597 (1991), or Griffith et al., EMBO J. 12:725-734 (1993). See, also, U.S. Patent Nos. 5,565,332 and 5,573,905.

As discussed above, human antibodies may also be generated by *in vitro* activated B cells (see U.S. Patents 5,567,610 and 5,229,275).

4. Antibody fragments

In certain circumstances there are advantages of using antibody fragments, rather than whole antibodies. The smaller size of the fragments allows for rapid clearance, and may lead to improved access to solid tumors.

Various techniques have been developed for the production of antibody fragments. Traditionally, these fragments were derived via proteolytic digestion of intact antibodies (see, e.g., Morimoto et al., Journal of Biochemical and Biophysical Methods 24:107-117 (1992); and Brennan et al., Science, 229:81 (1985)). However, these fragments can now be produced directly by recombinant host cells. Fab, Fv and ScFv antibody fragments can all be expressed in and secreted from *E. coli*, thus allowing the facile production of large amounts of these fragments. Antibody fragments can be isolated from the antibody phage libraries discussed above.

Alternatively, Fab'-SH fragments can be directly recovered from *E. coli* and chemically coupled to form $F(ab')_2$ fragments (Carter et al., Bio/Technology 10:163-167 (1992)). According to another approach, $F(ab')_2$ fragments can be isolated directly from recombinant host cell culture. Fab and $F(ab')_2$ fragment with increased in vivo half-life comprising a salvage receptor binding epitope residues are described in U.S. Patent No. 5,869,046. Other techniques for the production of antibody fragments will be apparent to the skilled practitioner. In other embodiments, the antibody of choice is a single chain Fv fragment (scFv). See WO 93/16185; U.S. Patent No. 5,571,894; and U.S. Patent No. 5,587,458. Fv and sFv are the only species with intact combining sites that are devoid of constant regions; thus, they are suitable for reduced nonspecific binding during in vivo use. sFv fusion proteins may be constructed to yield fusion of an effector protein at either the amino or the carboxy terminus of an sFv. See Antibody Engineering, ed. Borrebaeck, supra. The antibody fragment may also be a "linear antibody", e.g., as described in U.S. Patent 5,641,870 for example. Such linear antibody fragments may be monospecific or bispecific.

5. Bispecific Antibodies

Bispecific antibodies are antibodies that have binding specificities for at least two different epitopes. Exemplary bispecific antibodies may bind to two different epitopes of a TAT protein as described herein. Other such antibodies may combine a TAT binding site with a binding site for another protein. Alternatively, an anti-TAT arm may be combined with an arm which binds to a triggering molecule on a leukocyte such as a T-cell receptor molecule (e.g. CD3), or Fc receptors for IgG (FcγR), such as FcγRI (CD64), FcγRII (CD32) and FcγRIII (CD16), so as to focus and localize cellular defense mechanisms to the TAT-expressing cell. Bispecific antibodies may also be used to localize cytotoxic agents to cells which express TAT. These antibodies possess a TAT-binding arm and an arm which binds the cytotoxic agent (e.g., saporin, anti-interferon-α, vinca alkaloid, ricin A chain, methotrexate or radioactive isotope hapten). Bispecific antibodies can be prepared as full length antibodies or antibody fragments (e.g., $F(ab')_2$ bispecific antibodies).

WO 96/16673 describes a bispecific anti-ErbB2/anti-FcγRIII antibody and U.S. Patent No. 5,837,234 discloses a bispecific anti-ErbB2/anti-FcγRI antibody. A bispecific anti-ErbB2/Fc α antibody is shown in WO98/02463. U.S. Patent No. 5,821,337 teaches a bispecific anti-ErbB2/anti-CD3 antibody.

Methods for making bispecific antibodies are known in the art. Traditional production of full length bispecific antibodies is based on the co-expression of two immunoglobulin heavy chain-light chain pairs, where the two chains have different specificities (Millstein et al., Nature 305:537-539 (1983)). Because of the random assortment of immunoglobulin heavy and light chains, these hybridomas (quadromas) produce a potential mixture of 10 different antibody molecules, of which only one has the correct bispecific structure. Purification of the correct molecule, which is usually done by affinity chromatography steps, is rather cumbersome, and the product yields are low. Similar procedures are disclosed in WO 93/08829, and in Traunecker et al., EMBO J. 10:3655-3659 (1991).

According to a different approach, antibody variable domains with the desired binding specificities (antibody-antigen combining sites) are fused to immunoglobulin constant domain sequences. Preferably, the fusion is with an Ig heavy chain constant domain, comprising at least part of the hinge, C_H2, and C_H3 regions. It is preferred to have the first heavy-chain constant region (C_H1) containing the site necessary for light chain

bonding, present in at least one of the fusions. DNAs encoding the immunoglobulin heavy chain fusions and, if desired, the immunoglobulin light chain, are inserted into separate expression vectors, and are co-transfected into a suitable host cell. This provides for greater flexibility in adjusting the mutual proportions of the three polypeptide fragments in embodiments when unequal ratios of the three polypeptide chains used in the construction provide the optimum yield of the desired bispecific antibody. It is, however, possible to insert the coding sequences for two or all three polypeptide chains into a single expression vector when the expression of at least two polypeptide chains in equal ratios results in high yields or when the ratios have no significant affect on the yield of the desired chain combination.

In a preferred embodiment of this approach, the bispecific antibodies are composed of a hybrid immunoglobulin heavy chain with a first binding specificity in one arm, and a hybrid immunoglobulin heavy chain-light chain pair (providing a second binding specificity) in the other arm. It was found that this asymmetric structure facilitates the separation of the desired bispecific compound from unwanted immunoglobulin chain combinations, as the presence of an immunoglobulin light chain in only one half of the bispecific molecule provides for a facile way of separation. This approach is disclosed in WO 94/04690. For further details of generating bispecific antibodies see, for example, Suresh et al., Methods in Enzymology 121:210 (1986).

According to another approach described in U.S. Patent No. 5,731,168, the interface between a pair of antibody molecules can be engineered to maximize the percentage of heterodimers which are recovered from recombinant cell culture. The preferred interface comprises at least a part of the C_H3 domain. In this method, one or more small amino acid side chains from the interface of the first antibody molecule are replaced with larger side chains (e.g., tyrosine or tryptophan). Compensatory "cavities" of identical or similar size to the large side chain(s) are created on the interface of the second antibody molecule by replacing large amino acid side chains with smaller ones (e.g., alanine or threonine). This provides a mechanism for increasing the yield of the heterodimer over other unwanted end-products such as homodimers.

Bispecific antibodies include cross-linked or "heteroconjugate" antibodies. For example, one of the antibodies in the heteroconjugate can be coupled to avidin, the other to biotin. Such antibodies have, for example, been proposed to target immune system cells to unwanted cells (U.S. Patent No. 4,676,980), and for treatment of HIV infection (WO 91/00360, WO 92/200373, and EP 03089). Heteroconjugate antibodies may be made using any convenient cross-linking methods. Suitable cross-linking agents are well known in the art, and are disclosed in U.S. Patent No. 4,676,980, along with a number of cross-linking techniques.

Techniques for generating bispecific antibodies from antibody fragments have also been described in the literature. For example, bispecific antibodies can be prepared using chemical linkage. Brennan et al., Science 229:81 (1985) describe a procedure wherein intact antibodies are proteolytically cleaved to generate $F(ab')_2$ fragments. These fragments are reduced in the presence of the dithiol complexing agent, sodium arsenite, to stabilize vicinal dithiols and prevent intermolecular disulfide formation. The Fab' fragments generated are then converted to thionitrobenzoate (TNB) derivatives. One of the Fab'-TNB derivatives is then reconverted to the Fab'-thiol by reduction with mercaptoethylamine and is mixed with an equimolar amount of the other Fab'-TNB derivative to form the bispecific antibody. The bispecific antibodies produced can be used

as agents for the selective immobilization of enzymes.

Recent progress has facilitated the direct recovery of Fab'-SH fragments from *E. coli,* which can be chemically coupled to form bispecific antibodies. Shalaby et al., J. Exp. Med. 175: 217-225 (1992) describe the production of a fully humanized bispecific antibody $F(ab')_2$ molecule. Each Fab' fragment was separately secreted from *E. coli* and subjected to directed chemical coupling *in vitro* to form the bispecific antibody. The bispecific antibody thus formed was able to bind to cells overexpressing the ErbB2 receptor and normal human T cells, as well as trigger the lytic activity of human cytotoxic lymphocytes against human breast tumor targets.

Various techniques for making and isolating bispecific antibody fragments directly from recombinant cell culture have also been described. For example, bispecific antibodies have been produced using leucine zippers. Kostelny et al.,J. Immunol. 148(5):1547-1553 (1992). The leucine zipper peptides from the Fos and Jun proteins were linked to the Fab' portions of two different antibodies by gene fusion. The antibody homodimers were reduced at the hinge region to form monomers and then re-oxidized to form the antibody heterodimers. This method can also be utilized for the production of antibody homodimers. The "diabody" technology described by Hollinger et al., Proc. Natl. Acad. Sci. USA 90:6444-6448 (1993) has provided an alternative mechanism for making bispecific antibody fragments. The fragments comprise a V_H connected to a V_L by a linker which is too short to allow pairing between the two domains on the same chain. Accordingly, the V_H and V_L domains of one fragment are forced to pair with the complementary V_L and V_H domains of another fragment, thereby forming two antigen-binding sites. Another strategy for making bispecific antibody fragments by the use of single-chain Fv (sFv) dimers has also been reported. See Gruber et al., J. Immunol., 152:5368 (1994).

Antibodies with more than two valencies are contemplated. For example, trispecific antibodies can be prepared. Tutt et al., J. Immunol. 147:60 (1991).

6. Heteroconjugate Antibodies

Heteroconjugate antibodies are also within the scope of the present invention. Heteroconjugate antibodies are composed of two covalently joined antibodies. Such antibodies have, for example, been proposed to target immune system cells to unwanted cells [U.S. Patent No. 4,676,980], and for treatment of HIV infection [WO 91/00360; WO 92/200373; EP 03089]. It is contemplated that the antibodies may be prepared *in vitro* using known methods in synthetic protein chemistry, including those involving crosslinking agents. For example, immunotoxins may be constructed using a disulfide exchange reaction or by forming a thioether bond. Examples of suitable reagents for this purpose include iminothiolate and methyl-4-mercaptobutyrimidate and those disclosed, for example, in U.S. Patent No. 4,676,980.

7. Multivalent Antibodies

A multivalent antibody may be internalized (and/or catabolized) faster than a bivalent antibody by a cell expressing an antigen to which the antibodies bind. The antibodies of the present invention can be multivalent antibodies (which are other than of the IgM class) with three or more antigen binding sites (e.g. tetravalent antibodies), which can be readily produced by recombinant expression of nucleic acid encoding the

polypeptide chains of the antibody. The multivalent antibody can comprise a dimerization domain and three or more antigen binding sites. The preferred dimerization domain comprises (or consists of) an Fc region or a hinge region. In this scenario, the antibody will comprise an Fc region and three or more antigen binding sites amino-terminal to the Fc region. The preferred multivalent antibody herein comprises (or consists of) three to about eight, but preferably four, antigen binding sites. The multivalent antibody comprises at least one polypeptide chain (and preferably two polypeptide chains), wherein the polypeptide chain(s) comprise two or more variable domains. For instance, the polypeptide chain(s) may comprise VD1-$(X1)_n$-VD2-$(X2)_n$-Fc, wherein VD1 is a first variable domain, VD2 is a second variable domain, Fc is one polypeptide chain of an Fc region, X1 and X2 represent an amino acid or polypeptide, and n is 0 or 1. For instance, the polypeptide chain(s) may comprise: VH-CH1-flexible linker-VH-CH1-Fc region chain; or VH-CH1-VH-CH1-Fc region chain. The multivalent antibody herein preferably further comprises at least two (and preferably four) light chain variable domain polypeptides. The multivalent antibody herein may, for instance, comprise from about two to about eight light chain variable domain polypeptides. The light chain variable domain polypeptides contemplated here comprise a light chain variable domain and, optionally, further comprise a CL domain.

8. Effector Function Engineering

It may be desirable to modify the antibody of the invention with respect to effector function, e.g., so as to enhance antigen-dependent cell-mediated cyotoxicity (ADCC) and/or complement dependent cytotoxicity (CDC) of the antibody. This may be achieved by introducing one or more amino acid substitutions in an Fc region of the antibody. Alternatively or additionally, cysteine residue(s) may be introduced in the Fc region, thereby allowing interchain disulfide bond formation in this region. The homodimeric antibody thus generated may have improved internalization capability and/or increased complement-mediated cell killing and antibody-dependent cellular cytotoxicity (ADCC). See Caron et al., J. Exp Med. 176:1191-1195 (1992) and Shopes, B. J. Immunol. 148:2918-2922 (1992). Homodimeric antibodies with enhanced anti-tumor activity may also be prepared using heterobifunctional cross-linkers as described in Wolff et al., Cancer Research 53:2560-2565 (1993). Alternatively, an antibody can be engineered which has dual Fc regions and may thereby have enhanced complement lysis and ADCC capabilities. See Stevenson et al., Anti-Cancer Drug Design 3:219-230 (1989).

To increase the serum half life of the antibody, one may incorporate a salvage receptor binding epitope into the antibody (especially an antibody fragment) as described in U.S. Patent 5,739,277, for example. As used herein, the term "salvage receptor binding epitope" refers to an epitope of the Fc region of an IgG molecule (e.g., IgG_1, IgG_2, IgG_3, or IgG_4) that is responsible for increasing the *in vivo* serum half-life of the IgG molecule.

9. Immunoconjugates

The invention also pertains to immunoconjugates comprising an antibody conjugated to a cytotoxic agent such as a chemotherapeutic agent, a growth inhibitory agent, a toxin (*e.g.*, an enzymatically active toxin of bacterial, fungal, plant, or animal origin, or fragments thereof), or a radioactive isotope (*i.e.*, a radioconjugate).

Chemotherapeutic agents useful in the generation of such immunoconjugates have been described above. Enzymatically active toxins and fragments thereof that can be used include diphtheria A chain, nonbinding active fragments of diphtheria toxin, exotoxin A chain (from *Pseudomonas aeruginosa*), ricin A chain, abrin A chain, modeccin A chain, alpha-sarcin, *Aleurites fordii* proteins, dianthin proteins, *Phytolaca americana* proteins (PAPI, PAPII, and PAP-S), momordica charantia inhibitor, curcin, crotin, sapaonaria officinalis inhibitor, gelonin, mitogellin, restrictocin, phenomycin, enomycin, and the tricothecenes. A variety of radionuclides are available for the production of radioconjugated antibodies. Examples include ^{212}Bi, ^{131}I, ^{131}In, ^{90}Y, and ^{186}Re. Conjugates of the antibody and cytotoxic agent are made using a variety of bifunctional protein-coupling agents such as N-succinimidyl-3-(2-pyridyldithiol) propionate (SPDP), iminothiolane (IT), bifunctional derivatives of imidoesters (such as dimethyl adipimidate HCL), active esters (such as disuccinimidyl suberate), aldehydes (such as glutareldehyde), bis-azido compounds (such as bis (p-azidobenzoyl) hexanediamine), bis-diazonium derivatives (such as bis-(p-diazoniumbenzoyl)-ethylenediamine), diisocyanates (such as tolyene 2,6-diisocyanate), and bis-active fluorine compounds (such as 1,5-difluoro-2,4-dinitrobenzene). For example, a ricin immunotoxin can be prepared as described in Vitetta *et al.*, Science, 238: 1098 (1987). Carbon-14-labeled 1-isothiocyanatobenzyl-3-methyldiethylene triaminepentaacetic acid (MX-DTPA) is an exemplary chelating agent for conjugation of radionucleotide to the antibody. See WO94/11026.

Conjugates of an antibody and one or more small molecule toxins, such as a calicheamicin, maytansinoids, a trichothene, and CC1065, and the derivatives of these toxins that have toxin activity, are also contemplated herein.

Maytansine and maytansinoids

In one preferred embodiment, an anti-TAT antibody (full length or fragments) of the invention is conjugated to one or more maytansinoid molecules.

Maytansinoids are mitototic inhibitors which act by inhibiting tubulin polymerization. Maytansine was first isolated from the east African shrub *Maytenus serrata* (U.S. Patent No. 3,896,111). Subsequently, it was discovered that certain microbes also produce maytansinoids, such as maytansinol and C-3 maytansinol esters (U.S. Patent No. 4,151,042). Synthetic maytansinol and derivatives and analogues thereof are disclosed, for example, in U.S. Patent Nos. 4,137,230; 4,248,870; 4,256,746; 4,260,608; 4,265,814; 4,294,757; 4,307,016; 4,308,268; 4,308,269; 4,309,428; 4,313,946; 4,315,929; 4,317,821; 4,322,348; 4,331,598; 4,361,650; 4,364,866; 4,424,219; 4,450,254; 4,362,663; and 4,371,533, the disclosures of which are hereby expressly incorporated by reference.

Maytansinoid-antibody conjugates

In an attempt to improve their therapeutic index, maytansine and maytansinoids have been conjugated to antibodies specifically binding to tumor cell antigens. Immunoconjugates containing maytansinoids and their therapeutic use are disclosed, for example, in U.S. Patent Nos. 5,208,020, 5,416,064 and European Patent EP 0 425 235 B1, the disclosures of which are hereby expressly incorporated by reference. Liu et al., Proc. Natl. Acad. Sci. USA 93:8618-8623 (1996) described immunoconjugates comprising a maytansinoid designated DM1 linked to the monoclonal antibody C242 directed against human colorectal cancer. The conjugate was found to be highly cytotoxic towards cultured colon cancer cells, and showed antitumor activity in an *in vivo* tumor

growth assay. Chari et al., Cancer Research 52:127-131 (1992) describe immunoconjugates in which a maytansinoid was conjugated via a disulfide linker to the murine antibody A7 binding to an antigen on human colon cancer cell lines, or to another murine monoclonal antibody TA.1 that binds the HER-2/*neu* oncogene. The cytotoxicity of the TA.1-maytansonoid conjugate was tested *in vitro* on the human breast cancer cell line SK-BR-3, which expresses 3 x 10^5 HER-2 surface antigens per cell. The drug conjugate achieved a degree of cytotoxicity similar to the free maytansonid drug, which could be increased by increasing the number of maytansinoid molecules per antibody molecule. The A7-maytansinoid conjugate showed low systemic cytotoxicity in mice.

Anti-TAT polypeptide antibody-maytansinoid conjugates (immunoconjugates)

Anti-TAT antibody-maytansinoid conjugates are prepared by chemically linking an anti-TAT antibody to a maytansinoid molecule without significantly diminishing the biological activity of either the antibody or the maytansinoid molecule. An average of 3-4 maytansinoid molecules conjugated per antibody molecule has shown efficacy in enhancing cytotoxicity of target cells without negatively affecting the function or solubility of the antibody, although even one molecule of toxin/antibody would be expected to enhance cytotoxicity over the use of naked antibody. Maytansinoids are well known in the art and can be synthesized by known techniques or isolated from natural sources. Suitable maytansinoids are disclosed, for example, in U.S. Patent No. 5,208,020 and in the other patents and nonpatent publications referred to hereinabove. Preferred maytansinoids are maytansinol and maytansinol analogues modified in the aromatic ring or at other positions of the maytansinol molecule, such as various maytansinol esters.

There are many linking groups known in the art for making antibody-maytansinoid conjugates, including, for example, those disclosed in U.S. Patent No. 5,208,020 or EP Patent 0 425 235 B1, and Chari et al., Cancer Research 52:127-131 (1992). The linking groups include disufide groups, thioether groups, acid labile groups, photolabile groups, peptidase labile groups, or esterase labile groups, as disclosed in the above-identified patents, disulfide and thioether groups being preferred.

Conjugates of the antibody and maytansinoid may be made using a variety of bifunctional protein coupling agents such as N-succinimidyl-3-(2-pyridyldithio) propionate (SPDP), succinimidyl-4-(N-maleimidomethyl) cyclohexane-1-carboxylate, iminothiolane (IT), bifunctional derivatives of imidoesters (such as dimethyl adipimidate HCL), active esters (such as disuccinimidyl suberate), aldehydes (such as glutareldehyde), bis-azido compounds (such as bis (p-azidobenzoyl) hexanediamine), bis-diazonium derivatives (such as bis-(p-diazoniumbenzoyl)-ethylenediamine), diisocyanates (such as toluene 2,6-diisocyanate), and bis-active fluorine compounds (such as 1,5-difluoro-2,4-dinitrobenzene). Particularly preferred coupling agents include N-succinimidyl-3-(2-pyridyldithio) propionate (SPDP) (Carlsson et alBiochem. J. 173:723-737 [1978]) and N-succinimidyl-4-(2-pyridylthio)pentanoate (SPP) to provide for a disulfide linkage.

The linker may be attached to the maytansinoid molecule at various positions, depending on the type of the link. For example, an ester linkage may be formed by reaction with a hydroxyl group using conventional coupling techniques. The reaction may occur at the C-3 position having a hydroxyl group, the C-14 position modified with hyrdoxymethyl, the C-15 position modified with a hydroxyl group, and the C-20 position having a hydroxyl group. In a preferred embodiment, the linkage is formed at the C-3 position of maytansinol or a

maytansinol analogue.

Calicheamicin

Another immunoconjugate of interest comprises an anti-TAT antibody conjugated to one or more calicheamicin molecules. The calicheamicin family of antibiotics are capable of producing double-stranded DNA breaks at sub-picomolar concentrations. For the preparation of conjugates of the calicheamicin family, see U.S. patents 5,712,374, 5,714,586, 5,739,116, 5,767,285, 5,770,701, 5,770,710, 5,773,001, 5,877,296 (all to American Cyanamid Company). Structural analogues of calicheamicin which may be used include, but are not limited to, γ_1^I, α_2^I, α_3^I, N-acetyl-γ_1^I, PSAG and θ^I_1 (Hinman et al., Cancer Research 53:3336-3342 (1993), Lode et al., Cancer Research 58:2925-2928 (1998) and the aforementioned U.S. patents to American Cyanamid). Another anti-tumor drug that the antibody can be conjugated is QFA which is an antifolate. Both calicheamicin and QFA have intracellular sites of action and do not readily cross the plasma membrane. Therefore, cellular uptake of these agents through antibody mediated internalization greatly enhances their cytotoxic effects.

Other cytotoxic agents

Other antitumor agents that can be conjugated to the anti-TAT antibodies of the invention include BCNU, streptozoicin, vincristine and 5-fluorouracil, the family of agents known collectively LL-E33288 complex described in U.S. patents 5,053,394, 5,770,710, as well as esperamicins (U.S. patent 5,877,296).

Enzymatically active toxins and fragments thereof which can be used include diphtheria A chain, nonbinding active fragments of diphtheria toxin, exotoxin A chain (from *Pseudomonas aeruginosa*), ricin A chain, abrin A chain, modeccin A chain, alpha-sarcin, *Aleurites fordii* proteins, dianthin proteins, *Phytolaca americana* proteins (PAPI, PAPII, and PAP-S), momordica charantia inhibitor, curcin, crotin, sapaonaria officinalis inhibitor, gelonin, mitogellin, restrictocin, phenomycin, enomycin and the tricothecenes. See, for example, WO 93/21232 published October 28, 1993.

The present invention further contemplates an immunoconjugate formed between an antibody and a compound with nucleolytic activity (e.g., a ribonuclease or a DNA endonuclease such as a deoxyribonuclease; DNase).

For selective destruction of the tumor, the antibody may comprise a highly radioactive atom. A variety of radioactive isotopes are available for the production of radioconjugated anti-TAT antibodies. Examples include At^{211}, I^{131}, I^{125}, Y^{90}, Re^{186}, Re^{188}, Sm^{153}, Bi^{212}, P^{32}, Pb^{212} and radioactive isotopes of Lu. When the conjugate is used for diagnosis, it may comprise a radioactive atom for scintigraphic studies, for example tc^{99m} or I^{123}, or a spin label for nuclear magnetic resonance (NMR) imaging (also known as magnetic resonance imaging, mri), such as iodine-123 again, iodine-131, indium-111, fluorine-19, carbon-13, nitrogen-15, oxygen-17, gadolinium, manganese or iron.

The radio- or other labels may be incorporated in the conjugate in known ways. For example, the peptide may be biosynthesized or may be synthesized by chemical amino acid synthesis using suitable amino acid precursors involving, for example, fluorine-19 in place of hydrogen. Labels such as tc^{99m} or I^{123}, .Re^{186},

Re^{188} and In^{111} can be attached via a cysteine residue in the peptide. Yttrium-90 can be attached via a lysine residue. The IODOGEN method (Fraker et al (1978) Biochem. Biophys. Res. Commun. 80: 49-57 can be used to incorporate iodine-123. "Monoclonal Antibodies in Immunoscintigraphy" (Chatal,CRC Press 1989) describes other methods in detail.

Conjugates of the antibody and cytotoxic agent may be made using a variety of bifunctional protein coupling agents such as N-succinimidyl-3-(2-pyridyldithio) propionate (SPDP), succinimidyl-4-(N-maleimidomethyl) cyclohexane-1-carboxylate, iminothiolane (IT), bifunctional derivatives of imidoesters (such as dimethyl adipimidate HCL), active esters (such as disuccinimidyl suberate), aldehydes (such as glutareldehyde), bis-azido compounds (such as bis (p-azidobenzoyl) hexanediamine), bis-diazonium derivatives (such as bis-(p-diazoniumbenzoyl)-ethylenediamine), diisocyanates (such as tolyene 2,6-diisocyanate), and bis-active fluorine compounds (such as 1,5-difluoro-2,4-dinitrobenzene). For example, a ricin immunotoxin can be prepared as described in Vitetta et al., Science 238:1098 (1987). Carbon-14-labeled 1-isothiocyanatobenzyl-3-methyldiethylene triaminepentaacetic acid (MX-DTPA) is an exemplary chelating agent for conjugation of radionucleotide to the antibody. See WO94/11026. The linker may be a "cleavable linker" facilitating release of the cytotoxic drug in the cell. For example, an acid-labile linker, peptidase-sensitive linker, photolabile linker, dimethyl linker or disulfide-containing linker (Chari et al., Cancer Research 52:127-131 (1992); U.S. Patent No. 5,208,020) may be used.

Alternatively, a fusion protein comprising the anti-TAT antibody and cytotoxic agent may be made, e.g., by recombinant techniques or peptide synthesis. The length of DNA may comprise respective regions encoding the two portions of the conjugate either adjacent one another or separated by a region encoding a linker peptide which does not destroy the desired properties of the conjugate.

In yet another embodiment, the antibody may be conjugated to a "receptor" (such streptavidin) for utilization in tumor pre-targeting wherein the antibody-receptor conjugate is administered to the patient, followed by removal of unbound conjugate from the circulation using a clearing agent and then administration of a "ligand" (e.g., avidin) which is conjugated to a cytotoxic agent (e.g., a radionucleotide).

10. Immunoliposomes

The anti-TAT antibodies disclosed herein may also be formulated as immunoliposomes. A "liposome" is a small vesicle composed of various types of lipids, phospholipids and/or surfactant which is useful for delivery of a drug to a mammal. The components of the liposome are commonly arranged in a bilayer formation, similar to the lipid arrangement of biological membranes. Liposomes containing the antibody are prepared by methods known in the art, such as described in Epstein et al., Proc. Natl. Acad. Sci. USA 82:3688 (1985); Hwang et al., Proc. Natl Acad. Sci. USA 77:4030 (1980); U.S. Pat. Nos. 4,485,045 and 4,544,545; and WO97/38731 published October 23, 1997. Liposomes with enhanced circulation time are disclosed in U.S. Patent No. 5,013,556.

Particularly useful liposomes can be generated by the reverse phase evaporation method with a lipid composition comprising phosphatidylcholine, cholesterol and PEG-derivatized phosphatidylethanolamine (PEG-

PE). Liposomes are extruded through filters of defined pore size to yield liposomes with the desired diameter. Fab' fragments of the antibody of the present invention can be conjugated to the liposomes as described in Martin et al., J. Biol. Chem. 257:286-288 (1982) via a disulfide interchange reaction. A chemotherapeutic agent is optionally contained within the liposome. See Gabizon et al., J. National Cancer Inst. 81(19):1484 (1989).

B. TAT Binding Oligopeptides

TAT binding oligopeptides of the present invention are oligopeptides that bind, preferably specifically, to a TAT polypeptide as described herein. TAT binding oligopeptides may be chemically synthesized using known oligopeptide synthesis methodology or may be prepared and purified using recombinant technology. TAT binding oligopeptides are usually at least about 5 amino acids in length, alternatively at least about 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, or 100 amino acids in length or more, wherein such oligopeptides that are capable of binding, preferably specifically, to a TAT polypeptide as described herein. TAT binding oligopeptides may be identified without undue experimentation using well known techniques. In this regard, it is noted that techniques for screening oligopeptide libraries for oligopeptides that are capable of specifically binding to a polypeptide target are well known in the art (see, e.g., U.S. Patent Nos. 5,556,762, 5,750,373, 4,708,871, 4,833,092, 5,223,409, 5,403,484, 5,571,689, 5,663,143; PCT Publication Nos. WO 84/03506 and WO84/03564; Geysen et al., Proc. Natl. Acad. Sci. U.S.A., 81:3998-4002 (1984); Geysen et al., Proc. Natl. Acad. Sci. U.S.A., 82:178-182 (1985); Geysen et al., in Synthetic Peptides as Antigens, 130-149 (1986); Geysen et al., J. Immunol. Meth., 102:259-274 (1987); Schoofs et al., J. Immunol., 140:611-616 (1988), Cwirla, S. E. et al. (1990) Proc. Natl. Acad. Sci. USA, 87:6378; Lowman, H.B. et al. (1991) Biochemistry, 30:10832; Clackson, T. et al. (1991) Nature, 352: 624; Marks, J. D. et al. (1991), J. Mol. Biol., 222:581; Kang, A.S. et al. (1991) Proc. Natl. Acad. Sci. USA, 88:8363, and Smith, G. P. (1991) Current Opin. Biotechnol., 2:668).

In this regard, bacteriophage (phage) display is one well known technique which allows one to screen large oligopeptide libraries to identify member(s) of those libraries which are capable of specifically binding to a polypeptide target. Phage display is a technique by which variant polypeptides are displayed as fusion proteins to the coat protein on the surface of bacteriophage particles (Scott, J.K. and Smith, G. P. (1990) Science 249: 386). The utility of phage display lies in the fact that large libraries of selectively randomized protein variants (or randomly cloned cDNAs) can be rapidly and efficiently sorted for those sequences that bind to a target molecule with high affinity. Display of peptide (Cwirla, S. E. et al. (1990) Proc. Natl. Acad. Sci. USA, 87:6378) or protein (Lowman, H.B. et al. (1991) Biochemistry, 30:10832; Clackson, T. et al. (1991) Nature, 352: 624; Marks, J. D. et al. (1991), J. Mol. Biol., 222:581; Kang, A.S. et al. (1991) Proc. Natl. Acad. Sci. USA, 88:8363) libraries on phage have been used for screening millions of polypeptides or oligopeptides for ones with specific binding properties (Smith, G. P. (1991) Current Opin. Biotechnol., 2:668). Sorting phage libraries of random mutants requires a strategy for constructing and propagating a large number

of variants, a procedure for affinity purification using the target receptor, and a means of evaluating the results of binding enrichments. U.S. Patent Nos. 5,223,409, 5,403,484, 5,571,689, and 5,663,143.

Although most phage display methods have used filamentous phage, lambdoid phage display systems (WO 95/34683; U.S. 5,627,024), T4 phage display systems (Ren, Z-J. et al. (1998) Gene 215:439; Zhu, Z. (1997) CAN 33:534; Jiang, J. et al. (1997) can 128:44380; Ren, Z-J. et al. (1997) CAN 127:215644; Ren, Z-J. (1996) Protein Sci. 5:1833; Efimov, V. P. et al. (1995) Virus Genes 10:173) and T7 phage display systems (Smith, G. P. and Scott, J.K. (1993) Methods in Enzymology, 217, 228–257; U.S. 5,766,905) are also known.

Many other improvements and variations of the basic phage display concept have now been developed. These improvements enhance the ability of display systems to screen peptide libraries for binding to selected target molecules and to display functional proteins with the potential of screening these proteins for desired properties. Combinatorial reaction devices for phage display reactions have been developed (WO 98/14277) and phage display libraries have been used to analyze and control bimolecular interactions (WO 98/20169; WO 98/20159) and properties of constrained helical peptides (WO 98/20036). WO 97/35196 describes a method of isolating an affinity ligand in which a phage display library is contacted with one solution in which the ligand will bind to a target molecule and a second solution in which the affinity ligand will not bind to the target molecule, to selectively isolate binding ligands. WO 97/46251 describes a method of biopanning a random phage display library with an affinity purified antibody and then isolating binding phage, followed by a micropanning process using microplate wells to isolate high affinity binding phage. The use of*Staphlylococcus aureus* protein A as an affinity tag has also been reported (Li et al. (1998) Mol Biotech., 9:187). WO 97/47314 describes the use of substrate subtraction libraries to distinguish enzyme specificities using a combinatorial library which may be a phage display library. A method for selecting enzymes suitable for use in detergents using phage display is described in WO 97/09446. Additional methods of selecting specific binding proteins are described in U.S. Patent Nos. 5,498,538, 5,432,018, and WO 98/15833.

Methods of generating peptide libraries and screening these libraries are also disclosed in U.S. Patent Nos. 5,723,286, 5,432,018, 5,580,717, 5,427,908, 5,498,530, 5,770,434, 5,734,018, 5,698,426, 5,763,192, and 5,723,323.

C. TAT Binding Organic Molecules

TAT binding organic molecules are organic molecules other than oligopeptides or antibodies as defined herein that bind, preferably specifically, to a TAT polypeptide as described herein. TAT binding organic molecules may be identified and chemically synthesized using known methodology (see, e.g., PCT Publication Nos. WO00/00823 and WO00/39585). TAT binding organic molecules are usually less than about 2000 daltons in size, alternatively less than about 1500, 750, 500, 250 or 200 daltons in size, wherein such organic molecules that are capable of binding, preferably specifically, to a TAT polypeptide as described herein may be identified without undue experimentation using well known techniques. In this regard, it is noted that techniques for screening organic molecule libraries for molecules that are capable of binding to a polypeptide target are well known in the art (see, e.g., PCT Publication Nos. WO00/00823 and WO00/39585). TAT binding organic molecules may be, for example, aldehydes, ketones, oximes, hydrazones, semicarbazones, carbazides, primary amines, secondary amines, tertiary amines, N-substituted hydrazines, hydrazides, alcohols, ethers, thiols,

thioethers, disulfides, carboxylic acids, esters, amides, ureas, carbamates, carbonates, ketals, thioketals, acetals, thioacetals, aryl halides, aryl sulfonates, alkyl halides, alkyl sulfonates, aromatic compounds, heterocyclic compounds, anilines, alkenes, alkynes, diols, amino alcohols, oxazolidines, oxazolines, thiazolidines, thiazolines, enamines, sulfonamides, epoxides, aziridines, isocyanates, sulfonyl chlorides, diazo compounds, acid chlorides, or the like.

D. Screening for Anti-TAT Antibodies, TAT Binding Oligopeptides and TAT Binding Organic Molecules With the Desired Properties

Techniques for generating antibodies, oligopeptides and organic molecules that bind to TAT polypeptides have been described above. One may further select antibodies, oligopeptides or other organic molecules with certain biological characteristics, as desired.

The growth inhibitory effects of an anti-TAT antibody, oligopeptide or other organic molecule of the invention may be assessed by methods known in the art, e.g., using cells which express a TAT polypeptide either endogenously or following transfection with the TAT gene. For example, appropriate tumor cell lines and TAT-transfected cells may treated with an anti-TAT monoclonal antibody, oligopeptide or other organic molecule of the invention at various concentrations for a few days (e.g., 2-7) days and stained with crystal violet or MTT or analyzed by some other colorimetric assay. Another method of measuring proliferation would be by comparing ^{3}H-thymidine uptake by the cells treated in the presence or absence an anti-TAT antibody, TAT binding oligopeptide or TAT binding organic molecule of the invention. After treatment, the cells are harvested and the amount of radioactivity incorporated into the DNA quantitated in a scintillation counter. Appropriate positive controls include treatment of a selected cell line with a growth inhibitory antibody known to inhibit growth of that cell line. Growth inhibition of tumor cells *in vivo* can be determined in various ways known in the art. Preferably, the tumor cell is one that overexpresses a TAT polypeptide. Preferably, the anti-TAT antibody, TAT binding oligopeptide or TAT binding organic molecule will inhibit cell proliferation of a TAT-expressing tumor cell *in vitro* or *in vivo* by about 25-100% compared to the untreated tumor cell, more preferably, by about 30-100%, and even more preferably by about 50-100% or 70-100%, in one embodiment, at an antibody concentration of about 0.5 to 30 μg/ml. Growth inhibition can be measured at an antibody concentration of about 0.5 to 30 μg/ml or about 0.5 nM to 200 nM in cell culture, where the growth inhibition is determined 1-10 days after exposure of the tumor cells to the antibody. The antibody is growth inhibitory *in vivo* if administration of the anti-TAT antibody at about 1 μg/kg to about 100 mg/kg body weight results in reduction in tumor size or reduction of tumor cell proliferation within about 5 days to 3 months from the first administration of the antibody, preferably within about 5 to 30 days.

To select for an anti-TAT antibody, TAT binding oligopeptide or TAT binding organic molecule which induces cell death, loss of membrane integrity as indicated by, e.g., propidium iodide (PI), trypan blue or 7AAD uptake may be assessed relative to control. A PI uptake assay can be performed in the absence of complement and immune effector cells. TAT polypeptide-expressing tumor cells are incubated with medium alone or medium containing the appropriate anti-TAT antibody (e.g, at about 10μg/ml), TAT binding oligopeptide or TAT binding organic molecule. The cells are incubated for a 3 day time period. Following each treatment, cells are washed and aliquoted into 35 mm strainer-capped 12 x 75 tubes (1ml per tube, 3 tubes per treatment

group) for removal of cell clumps. Tubes then receive PI (10 μg/ml). Samples may be analyzed using a FACSCAN® flow cytometer and FACSCONVERT® CellQuest software (Becton Dickinson). Those anti-TAT antibodies, TAT binding oligopeptides or TAT binding organic molecules that induce statistically significant levels of cell death as determined by PI uptake may be selected as cell death-inducing anti-TAT antibodies, TAT binding oligopeptides or TAT binding organic molecules.

To screen for antibodies, oligopeptides or other organic molecules which bind to an epitope on a TAT polypeptide bound by an antibody of interest, a routine cross-blocking assay such as that described in Antibodies, A Laboratory Manual, Cold Spring Harbor Laboratory, Ed Harlow and David Lane (1988), can be performed. This assay can be used to determine if a test antibody, oligopeptide or other organic molecule binds the same site or epitope as a known anti-TAT antibody. Alternatively, or additionally, epitope mapping can be performed by methods known in the art . For example, the antibody sequence can be mutagenized such as by alanine scanning, to identify contact residues. The mutant antibody is initailly tested for binding with polyclonal antibody to ensure proper folding. In a different method, peptides corresponding to different regions of a TAT polypeptide can be used in competition assays with the test antibodies or with a test antibody and an antibody with a characterized or known epitope.

E. Antibody Dependent Enzyme Mediated Prodrug Therapy (ADEPT)

The antibodies of the present invention may also be used in ADEPT by conjugating the antibody to a prodrug-activating enzyme which converts a prodrug (e.g., a peptidyl chemotherapeutic agent, see WO81/01145) to an active anti-cancer drug. See, for example, WO 88/07378 and U.S. Patent No. 4,975,278.

The enzyme component of the immunoconjugate useful for ADEPT includes any enzyme capable of acting on a prodrug in such a way so as to covert it into its more active, cytotoxic form.

Enzymes that are useful in the method of this invention include, but are not limited to, alkaline phosphatase useful for converting phosphate-containing prodrugs into free drugs; arylsulfatase useful for converting sulfate-containing prodrugs into free drugs; cytosine deaminase useful for converting non-toxic 5-fluorocytosine into the anti-cancer drug, 5-fluorouracil; proteases, such as serratia protease, thermolysin, subtilisin, carboxypeptidases and cathepsins (such as cathepsins B and L), that are useful for converting peptide-containing prodrugs into free drugs; D-alanylcarboxypeptidases, useful for converting prodrugs that contain D-amino acid substituents; carbohydrate-cleaving enzymes such as β-galactosidase and neuraminidase useful for converting glycosylated prodrugs into free drugs; β-lactamase useful for converting drugs derivatized with β-lactams into free drugs; and penicillin amidases, such as penicillin V amidase or penicillin G amidase, useful for converting drugs derivatized at their amine nitrogens with phenoxyacetyl or phenylacetyl groups, respectively, into free drugs. Alternatively, antibodies with enzymatic activity, also known in the art as "abzymes", can be used to convert the prodrugs of the invention into free active drugs (see, e.g., Massey, Nature 328:457-458 (1987)). Antibody-abzyme conjugates can be prepared as described herein for delivery of the abzyme to a tumor cell population.

The enzymes of this invention can be covalently bound to the anti-TAT antibodies by techniques well known in the art such as the use of the heterobifunctional crosslinking reagents discussed above. Alternatively,

fusion proteins comprising at least the antigen binding region of an antibody of the invention linked to at least a functionally active portion of an enzyme of the invention can be constructed using recombinant DNA techniques well known in the art (see, e.g., Neuberger et al., Nature 312:604-608 (1984).

F. Full-Length TAT Polypeptides

The present invention also provides newly identified and isolated nucleotide sequences encoding polypeptides referred to in the present application as TAT polypeptides. In particular, cDNAs (partial and full-length) encoding various TAT polypeptides have been identified and isolated, as disclosed in further detail in the Examples below.

As disclosed in the Examples below, various cDNA clones have been deposited with the ATCC. The actual nucleotide sequences of those clones can readily be determined by the skilled artisan by sequencing of the deposited clone using routine methods in the art. The predicted amino acid sequence can be determined from the nucleotide sequence using routine skill. For the TAT polypeptides and encoding nucleic acids described herein, in some cases, Applicants have identified what is believed to be the reading frame best identifiable with the sequence information available at the time.

G. Anti-TAT Antibody and TAT Polypeptide Variants

In addition to the anti-TAT antibodies and full-length native sequence TAT polypeptides described herein, it is contemplated that anti-TAT antibody and TAT polypeptide variants can be prepared. Anti-TAT antibody and TAT polypeptide variants can be prepared by introducing appropriate nucleotide changes into the encoding DNA, and/or by synthesis of the desired antibody or polypeptide. Those skilled in the art will appreciate that amino acid changes may alter post-translational processes of the anti-TAT antibody or TAT polypeptide, such as changing the number or position of glycosylation sites or altering the membrane anchoring characteristics.

Variations in the anti-TAT antibodies and TAT polypeptides described herein, can be made, for example, using any of the techniques and guidelines for conservative and non-conservative mutations set forth, for instance, in U.S. Patent No. 5,364,934. Variations may be a substitution, deletion or insertion of one or more codons encoding the antibody or polypeptide that results in a change in the amino acid sequence as compared with the native sequence antibody or polypeptide. Optionally the variation is by substitution of at least one amino acid with any other amino acid in one or more of the domains of the anti-TAT antibody or TAT polypeptide. Guidance in determining which amino acid residue may be inserted, substituted or deleted without adversely affecting the desired activity may be found by comparing the sequence of the anti-TAT antibody or TAT polypeptide with that of homologous known protein molecules and minimizing the number of amino acid sequence changes made in regions of high homology. Amino acid substitutions can be the result of replacing one amino acid with another amino acid having similar structural and/or chemical properties, such as the replacement of a leucine with a serine, i.e., conservative amino acid replacements. Insertions or deletions may optionally be in the range of about 1 to 5 amino acids. The variation allowed may be determined by systematically making insertions, deletions or substitutions of amino acids in the sequence and testing the resulting variants for activity exhibited by the full-length or mature native sequence.

Anti-TAT antibody and TAT polypeptide fragments are provided herein. Such fragments may be truncated at the N-terminus or C-terminus, or may lack internal residues, for example, when compared with a full length native antibody or protein. Certain fragments lack amino acid residues that are not essential for a desired biological activity of the anti-TAT antibody or TAT polypeptide.

Anti-TAT antibody and TAT polypeptide fragments may be prepared by any of a number of conventional techniques. Desired peptide fragments may be chemically synthesized. An alternative approach involves generating antibody or polypeptide fragments by enzymatic digestion, e.g., by treating the protein with an enzyme known to cleave proteins at sites defined by particular amino acid residues, or by digesting the DNA with suitable restriction enzymes and isolating the desired fragment. Yet another suitable technique involves isolating and amplifying a DNA fragment encoding a desired antibody or polypeptide fragment, by polymerase chain reaction (PCR). Oligonucleotides that define the desired termini of the DNA fragment are employed at the 5' and 3' primers in the PCR. Preferably, anti-TAT antibody and TAT polypeptide fragments share at least one biological and/or immunological activity with the native anti-TAT antibody or TAT polypeptide disclosed herein.

In particular embodiments, conservative substitutions of interest are shown in Table 6 under the heading of preferred substitutions. If such substitutions result in a change in biological activity, then more substantial changes, denominated exemplary substitutions in Table 6, or as further described below in reference to amino acid classes, are introduced and the products screened.

Table 6

Original Residue	Exemplary Substitutions	Preferred Substitutions
Ala (A)	val; leu; ile	val
Arg (R)	lys; gln; asn	lys
Asn (N)	gln; his; lys; arg	gln
Asp (D)	glu	glu
Cys (C)	ser	ser
Gln (Q)	asn	asn
Glu (E)	asp	asp
Gly (G)	pro; ala	ala
His (H)	asn; gln; lys; arg	arg
Ile (I)	leu; val; met; ala; phe; norleucine	leu
Leu (L)	norleucine; ile; val; met; ala; phe	ile
Lys (K)	arg; gln; asn	arg
Met (M)	leu; phe; ile	leu
Phe (F)	leu; val; ile; ala; tyr	leu
Pro (P)	ala	ala
Ser (S)	thr	thr
Thr (T)	ser	ser
Trp (W)	tyr; phe	tyr
Tyr (Y)	trp; phe; thr; ser	phe
Val (V)	ile; leu; met; phe; ala; norleucine	leu

Substantial modifications in function or immunological identity of the anti-TAT antibody or TAT polypeptide are accomplished by selecting substitutions that differ significantly in their effect on maintaining (a) the structure of the polypeptide backbone in the area of the substitution, for example, as a sheet or helical conformation, (b) the charge or hydrophobicity of the molecule at the target site, or (c) the bulk of the side chain. Naturally occurring residues are divided into groups based on common side-chain properties:

(1) hydrophobic: norleucine, met, ala, val, leu, ile;

(2) neutral hydrophilic: cys, ser, thr;

(3) acidic: asp, glu;

(4) basic: asn, gln, his, lys, arg;

(5) residues that influence chain orientation: gly, pro; and

(6) aromatic: trp, tyr, phe.

Non-conservative substitutions will entail exchanging a member of one of these classes for another class. Such substituted residues also may be introduced into the conservative substitution sites or, more preferably, into the remaining (non-conserved) sites.

The variations can be made using methods known in the art such as oligonucleotide-mediated (site-directed) mutagenesis, alanine scanning, and PCR mutagenesis. Site-directed mutagenesis [Carter et al., Nucl. Acids Res., 13:4331 (1986); Zoller et al., Nucl. Acids Res., 10:6487 (1987)], cassette mutagenesis [Wells et al., Gene, 34:315 (1985)], restriction selection mutagenesis [Wells et al., Philos. Trans. R. Soc. London SerA,

317:415 (1986)] or other known techniques can be performed on the cloned DNA to produce the anti-TAT antibody or TAT polypeptide variant DNA.

Scanning amino acid analysis can also be employed to identify one or more amino acids along a contiguous sequence. Among the preferred scanning amino acids are relatively small, neutral amino acids. Such amino acids include alanine, glycine, serine, and cysteine. Alanine is typically a preferred scanning amino acid among this group because it eliminates the side-chain beyond the beta-carbon and is less likely to alter the main-chain conformation of the variant [Cunningham and Wells, Science, 244:1081-1085 (1989)]. Alanine is also typically preferred because it is the most common amino acid. Further, it is frequently found in both buried and exposed positions [Creighton, The Proteins, (W.H. Freeman & Co., N.Y.); Chothia, J. Mol. Biol., 150:1 (1976)]. If alanine substitution does not yield adequate amounts of variant, an isoteric amino acid can be used.

Any cysteine residue not involved in maintaining the proper conformation of the anti-TAT antibody or TAT polypeptide also may be substituted, generally with serine, to improve the oxidative stability of the molecule and prevent aberrant crosslinking. Conversely, cysteine bond(s) may be added to the anti-TAT antibody or TAT polypeptide to improve its stability (particularly where the antibody is an antibody fragment such as an Fv fragment).

A particularly preferred type of substitutional variant involves substituting one or more hypervariable region residues of a parent antibody (e.g., a humanized or human antibody). Generally, the resulting variant(s) selected for further development will have improved biological properties relative to the parent antibody from which they are generated. A convenient way for generating such substitutional variants involves affinity maturation using phage display. Briefly, several hypervariable region sites (e.g., 6-7 sites) are mutated to generate all possible amino substitutions at each site. The antibody variants thus generated are displayed in a monovalent fashion from filamentous phage particles as fusions to the gene III product of M13 packaged within each particle. The phage-displayed variants are then screened for their biological activity (e.g., binding affinity) as herein disclosed. In order to identify candidate hypervariable region sites for modification, alanine scanning mutagenesis can be performed to identify hypervariable region residues contributing significantly to antigen binding. Alternatively, or additionally, it may be beneficial to analyze a crystal structure of the antigen-antibody complex to identify contact points between the antibody and human TAT polypeptide. Such contact residues and neighboring residues are candidates for substitution according to the techniques elaborated herein. Once such variants are generated, the panel of variants is subjected to screening as described herein and antibodies with superior properties in one or more relevant assays may be selected for further development.

Nucleic acid molecules encoding amino acid sequence variants of the anti-TAT antibody are prepared by a variety of methods known in the art. These methods include, but are not limited to, isolation from a natural source (in the case of naturally occurring amino acid sequence variants) or preparation by oligonucleotide-mediated (or site-directed) mutagenesis, PCR mutagenesis, and cassette mutagenesis of an earlier prepared variant or a non-variant version of the anti-TAT antibody.

H. Modifications of Anti-TAT Antibodies and TAT Polypeptides

Covalent modifications of anti-TAT antibodies and TAT polypeptides are included within the scope of this invention. One type of covalent modification includes reacting targeted amino acid residues of an anti-TAT

antibody or TAT polypeptide with an organic derivatizing agent that is capable of reacting with selected side chains or the N- or C- terminal residues of the anti-TAT antibody or TAT polypeptide. Derivatization with bifunctional agents is useful, for instance, for crosslinking anti-TAT antibody or TAT polypeptide to a water-insoluble support matrix or surface for use in the method for purifying anti-TAT antibodies, and vice-versa. Commonly used crosslinking agents include, e.g., 1,1-bis(diazoacetyl)-2-phenylethane, glutaraldehyde, N-hydroxysuccinimide esters, for example, esters with 4-azidosalicylic acid, homobifunctional imidoesters, including disuccinimidyl esters such as 3,3'-dithiobis(succinimidylpropionate), bifunctional maleimides such as bis-N-maleimido-1,8-octane and agents such as methyl-3-[(p-azidophenyl)dithio]propioimidate.

Other modifications include deamidation of glutaminyl and asparaginyl residues to the corresponding glutamyl and aspartyl residues, respectively, hydroxylation of proline and lysine, phosphorylation of hydroxyl groups of seryl or threonyl residues, methylation of the α-amino groups of lysine, arginine, and histidine side chains [T.E. Creighton, Proteins: Structure and Molecular Properties, W.H. Freeman & Co., San Francisco, pp. 79-86 (1983)], acetylation of the N-terminal amine, and amidation of any C-terminal carboxyl group.

Another type of covalent modification of the anti-TAT antibody or TAT polypeptide included within the scope of this invention comprises altering the native glycosylation pattern of the antibody or polypeptide. "Altering the native glycosylation pattern" is intended for purposes herein to mean deleting one or more carbohydrate moieties found in native sequence anti-TAT antibody or TAT polypeptide (either by removing the underlying glycosylation site or by deleting the glycosylation by chemical and/or enzymatic means), and/or adding one or more glycosylation sites that are not present in the native sequence anti-TAT antibody or TAT polypeptide. In addition, the phrase includes qualitative changes in the glycosylation of the native proteins, involving a change in the nature and proportions of the various carbohydrate moieties present.

Glycosylation of antibodies and other polypeptides is typically either N-linked or O-linked. N-linked refers to the attachment of the carbohydrate moiety to the side chain of an asparagine residue. The tripeptide sequences asparagine-X-serine and asparagine-X-threonine, where X is any amino acid except proline, are the recognition sequences for enzymatic attachment of the carbohydrate moiety to the asparagine side chain. Thus, the presence of either of these tripeptide sequences in a polypeptide creates a potential glycosylation site. O-linked glycosylation refers to the attachment of one of the sugars N-aceylgalactosamine, galactose, or xylose to a hydroxyamino acid, most commonly serine or threonine, although 5-hydroxyproline or 5-hydroxylysine may also be used.

Addition of glycosylation sites to the anti-TAT antibody or TAT polypeptide is conveniently accomplished by altering the amino acid sequence such that it contains one or more of the above-described tripeptide sequences (for N-linked glycosylation sites). The alteration may also be made by the addition of, or substitution by, one or more serine or threonine residues to the sequence of the original anti-TAT antibody or TAT polypeptide (for O-linked glycosylation sites). The anti-TAT antibody or TAT polypeptide amino acid sequence may optionally be altered through changes at the DNA level, particularly by mutating the DNA encoding the anti-TAT antibody or TAT polypeptide at preselected bases such that codons are generated that will translate into the desired amino acids.

Another means of increasing the number of carbohydrate moieties on the anti-TAT antibody or TAT polypeptide is by chemical or enzymatic coupling of glycosides to the polypeptide. Such methods are described in the art, e.g., in WO 87/05330 published 11 September 1987, and in Aplin and Wriston, CRC Crit. Rev. Biochem., pp. 259-306 (1981).

Removal of carbohydrate moieties present on the anti-TAT antibody or TAT polypeptide may be accomplished chemically or enzymatically or by mutational substitution of codons encoding for amino acid residues that serve as targets for glycosylation. Chemical deglycosylation techniques are known in the art and described, for instance, by Hakimuddin, et al., Arch. Biochem. Biophys., 259:52 (1987) and by Edge et al., Anal. Biochem., 118:131 (1981). Enzymatic cleavage of carbohydrate moieties on polypeptides can be achieved by the use of a variety of endo- and exo-glycosidases as described by Thotakura et al., Meth. Enzymol., 138:350 (1987).

Another type of covalent modification of anti-TAT antibody or TAT polypeptide comprises linking the antibody or polypeptide to one of a variety of nonproteinaceous polymers, e.g., polyethylene glycol (PEG), polypropylene glycol, or polyoxyalkylenes, in the manner set forth in U.S. Patent Nos. 4,640,835; 4,496,689; 4,301,144; 4,670,417; 4,791,192 or 4,179,337. The antibody or polypeptide also may be entrapped in microcapsules prepared, for example, by coacervation techniques or by interfacial polymerization (for example, hydroxymethylcellulose or gelatin-microcapsules and poly-(methylmethacylate) microcapsules, respectively), in colloidal drug delivery systems (for example, liposomes, albumin microspheres, microemulsions, nano-particles and nanocapsules), or in macroemulsions. Such techniques are disclosed in Remington's Pharmaceutical Sciences, 16th edition, Oslo, A., Ed., (1980).

The anti-TAT antibody or TAT polypeptide of the present invention may also be modified in a way to form chimeric molecules comprising an anti-TAT antibody or TAT polypeptide fused to another, heterologous polypeptide or amino acid sequence.

In one embodiment, such a chimeric molecule comprises a fusion of the anti-TAT antibody or TAT polypeptide with a tag polypeptide which provides an epitope to which an anti-tag antibody can selectively bind. The epitope tag is generally placed at the amino- or carboxyl- terminus of the anti-TAT antibody or TAT polypeptide. The presence of such epitope-tagged forms of the anti-TAT antibody or TAT polypeptide can be detected using an antibody against the tag polypeptide. Also, provision of the epitope tag enables the anti-TAT antibody or TAT polypeptide to be readily purified by affinity purification using an anti-tag antibody or another type of affinity matrix that binds to the epitope tag. Various tag polypeptides and their respective antibodies are well known in the art. Examples include poly-histidine (poly-his) or poly-histidine-glycine (poly-his-gly) tags; the flu HA tag polypeptide and its antibody 12CA5 [Field et al., Mol. Cell. Biol., 8:2159-2165 (1988)]; the c-myc tag and the 8F9, 3C7, 6E10, G4, B7 and 9E10 antibodies thereto [Evan et al., Molecular and Cellular Biology, 5:3610-3616 (1985)]; and the Herpes Simplex virus glycoprotein D (gD) tag and its antibody [Paborsky et al., Protein Engineering, 3(6):547-553 (1990)]. Other tag polypeptides include the Flag-peptide [Hopp et al., BioTechnology, 6:1204-1210 (1988)]; the KT3 epitope peptide [Martin et al., Science, 255:192-194 (1992)]; an α-tubulin epitope peptide [Skinner et al., J. Biol. Chem., 266:15163-15166 (1991)]; and the T7 gene 10 protein peptide tag [Lutz-Freyermuth et al., Proc. Natl. Acad. Sci. USA, 87:6393-6397 (1990)].

In an alternative embodiment, the chimeric molecule may comprise a fusion of the anti-TAT antibody or TAT polypeptide with an immunoglobulin or a particular region of an immunoglobulin. For a bivalent form of the chimeric molecule (also referred to as an "immunoadhesin"), such a fusion could be to the Fc region of an IgG molecule. The Ig fusions preferably include the substitution of a soluble (transmembrane domain deleted or inactivated) form of an anti-TAT antibody or TAT polypeptide in place of at least one variable region within an Ig molecule. In a particularly preferred embodiment, the immunoglobulin fusion includes the hinge, CH_2 and CH_3, or the hinge, CH_1, CH_2 and CH_3 regions of an IgG1 molecule. For the production of immunoglobulin fusions see also US Patent No. 5,428,130 issued June 27, 1995.

I. Preparation of Anti-TAT Antibodies and TAT Polypeptides

The description below relates primarily to production of anti-TAT antibodies and TAT polypeptides by culturing cells transformed or transfected with a vector containing anti-TAT antibody- and TAT polypeptide-encoding nucleic acid. It is, of course, contemplated that alternative methods, which are well known in the art, may be employed to prepare anti-TAT antibodies and TAT polypeptides. For instance, the appropriate amino acid sequence, or portions thereof, may be produced by direct peptide synthesis using solid-phase techniques [see, e.g., Stewart et al., Solid-Phase Peptide Synthesis, W.H. Freeman Co., San Francisco, CA (1969); Merrifield, J. Am. Chem. Soc., 85:2149-2154 (1963)]. *In vitro* protein synthesis may be performed using manual techniques or by automation. Automated synthesis may be accomplished, for instance, using an Applied Biosystems Peptide Synthesizer (Foster City, CA) using manufacturer's instructions. Various portions of the anti-TAT antibody or TAT polypeptide may be chemically synthesized separately and combined using chemical or enzymatic methods to produce the desired anti-TAT antibody or TAT polypeptide.

1. Isolation of DNA Encoding Anti-TAT Antibody or TAT Polypeptide

DNA encoding anti-TAT antibody or TAT polypeptide may be obtained from a cDNA library prepared from tissue believed to possess the anti-TAT antibody or TAT polypeptide mRNA and to express it at a detectable level. Accordingly, human anti-TAT antibody or TAT polypeptide DNA can be conveniently obtained from a cDNA library prepared from human tissue. The anti-TAT antibody- or TAT polypeptide-encoding gene may also be obtained from a genomic library or by known synthetic procedures (e.g., automated nucleic acid synthesis).

Libraries can be screened with probes (such as oligonucleotides of at least about 20-80 bases) designed to identify the gene of interest or the protein encoded by it. Screening the cDNA or genomic library with the selected probe may be conducted using standard procedures, such as described in Sambrook et al., Molecular Cloning: A Laboratory Manual (New York: Cold Spring Harbor Laboratory Press, 1989). An alternative means to isolate the gene encoding anti-TAT antibody or TAT polypeptide is to use PCR methodology [Sambrook et al., supra; Dieffenbach et al., PCR Primer: A Laboratory Manual (Cold Spring Harbor Laboratory Press, 1995)].

Techniques for screening a cDNA library are well known in the art. The oligonucleotide sequences selected as probes should be of sufficient length and sufficiently unambiguous that false positives are minimized. The oligonucleotide is preferably labeled such that it can be detected upon hybridization to DNA in the library being screened. Methods of labeling are well known in the art, and include the use of radiolabels like ^{32}P-

labeled ATP, biotinylation or enzyme labeling. Hybridization conditions, including moderate stringency and high stringency, are provided in Sambrook et al., supra.

Sequences identified in such library screening methods can be compared and aligned to other known sequences deposited and available in public databases such as GenBank or other private sequence databases. Sequence identity (at either the amino acid or nucleotide level) within defined regions of the molecule or across the full-length sequence can be determined using methods known in the art and as described herein.

Nucleic acid having protein coding sequence may be obtained by screening selected cDNA or genomic libraries using the deduced amino acid sequence disclosed herein for the first time, and, if necessary, using conventional primer extension procedures as described in Sambrook et al., supra, to detect precursors and processing intermediates of mRNA that may not have been reverse-transcribed into cDNA.

2. Selection and Transformation of Host Cells

Host cells are transfected or transformed with expression or cloning vectors described herein for anti-TAT antibody or TAT polypeptide production and cultured in conventional nutrient media modified as appropriate for inducing promoters, selecting transformants, or amplifying the genes encoding the desired sequences. The culture conditions, such as media, temperature, pH and the like, can be selected by the skilled artisan without undue experimentation. In general, principles, protocols, and practical techniques for maximizing the productivity of cell cultures can be found in Mammalian Cell Biotechnology: a Practical Approach, M. Butler, ed. (IRL Press, 1991) and Sambrook et al., supra.

Methods of eukaryotic cell transfection and prokaryotic cell transformation are known to the ordinarily skilled artisan, for example, $CaCl_2$, $CaPO_4$, liposome-mediated and electroporation. Depending on the host cell used, transformation is performed using standard techniques appropriate to such cells. The calcium treatment employing calcium chloride, as described in Sambrook et al., supra, or electroporation is generally used for prokaryotes. Infection with *Agrobacterium tumefaciens* is used for transformation of certain plant cells, as described by Shaw et al., Gene, 23:315 (1983) and WO 89/05859 published 29 June 1989. For mammalian cells without such cell walls, the calcium phosphate precipitation method of Graham and van der Eb, Virology, 52:456-457 (1978) can be employed. General aspects of mammalian cell host system transfections have been described in U.S. Patent No. 4,399,216. Transformations into yeast are typically carried out according to the method of Van Solingen et al., J. Bact., 130:946 (1977) and Hsiao et al., Proc. Natl. Acad. Sci. (USA), 76:3829 (1979). However, other methods for introducing DNA into cells, such as by nuclear microinjection, electroporation, bacterial protoplast fusion with intact cells, or polycations, e.g., polybrene, polyornithine, may also be used. For various techniques for transforming mammalian cells, see Keown et al., Methods in Enzymology, 185:527-537 (1990) and Mansour et al., Nature, 336:348-352 (1988).

Suitable host cells for cloning or expressing the DNA in the vectors herein include prokaryote, yeast, or higher eukaryote cells. Suitable prokaryotes include but are not limited to eubacteria, such as Gram-negative or Gram-positive organisms, for example, Enterobacteriaceae such as *E. coli*. Various *E. coli* strains are publicly available, such as *E. coli* K12 strain MM294 (ATCC 31,446); *E. coli* X1776 (ATCC 31,537); *E. coli* strain W3110 (ATCC 27,325) and K5 772 (ATCC 53,635). Other suitable prokaryotic host cells include Enterobacteriaceae such as *Escherichia*, e.g., *E. coli*, *Enterobacter*, *Erwinia*, *Klebsiella*, *Proteus*, *Salmonella*,

e.g., *Salmonella typhimurium*, *Serratia*, e.g., *Serratia marcescans*, and *Shigella*, as well as *Bacilli* such as *B. subtilis* and *B. licheniformis* (e.g., *B. licheniformis* 41P disclosed in DD 266,710 published 12 April 1989), *Pseudomonas* such as *P. aeruginosa*, and *Streptomyces*. These examples are illustrative rather than limiting. Strain W3110 is one particularly preferred host or parent host because it is a common host strain for recombinant DNA product fermentations. Preferably, the host cell secretes minimal amounts of proteolytic enzymes. For example, strain W3110 may be modified to effect a genetic mutation in the genes encoding proteins endogenous to the host, with examples of such hosts including *E. coli* W3110 strain 1A2, which has the complete genotype *tonA* ; *E. coli* W3110 strain 9E4, which has the complete genotype *tonA ptr3*; *E. coli* W3110 strain 27C7 (ATCC 55,244), which has the complete genotype *tonA ptr3 phoA E15 (argF-lac)169 degP ompT kan*r; *E. coli* W3110 strain 37D6, which has the complete genotype *tonA ptr3 phoA E15 (argF-lac)169 degP ompT rbs7 ilvG kan*r; *E. coli* W3110 strain 40B4, which is strain 37D6 with a non-kanamycin resistant *degP* deletion mutation; and an *E. coli* strain having mutant periplasmic protease disclosed in U.S. Patent No. 4,946,783 issued 7 August 1990. Alternatively, *in vitro* methods of cloning, e.g., PCR or other nucleic acid polymerase reactions, are suitable.

Full length antibody, antibody fragments, and antibody fusion proteins can be produced in bacteria, in particular when glycosylation and Fc effector function are not needed, such as when the therapeutic antibody is conjugated to a cytotoxic agent (e.g., a toxin) and the immunoconjugate by itself shows effectiveness in tumor cell destruction. Full length antibodies have greater half life in circulation. Production in E. coli is faster and more cost efficient. For expression of antibody fragments and polypeptides in bacteria, see, e.g., U.S. 5,648,237 (Carter et. al.), U.S. 5,789,199 (Joly et al.), and U.S. 5,840,523 (Simmons et al.) which describes translation initiation regio (TIR) and signal sequences for optimizing expression and secretion, these patents incorporated herein by reference. After expression, the antibody is isolated from the E. coli cell paste in a soluble fraction and can be purified through, e.g., a protein A or G column depending on the isotype. Final purification can be carried out similar to the process for purifying antibody expressed e.g,, in CHO cells.

In addition to prokaryotes, eukaryotic microbes such as filamentous fungi or yeast are suitable cloning or expression hosts for anti-TAT antibody- or TAT polypeptide-encoding vectors. *Saccharomyces cerevisiae* is a commonly used lower eukaryotic host microorganism. Others include*Schizosaccharomyces pombe* (Beach and Nurse, Nature, 290: 140 [1981]; EP 139,383 published 2 May 1985); *Kluyveromyces* hosts (U.S. Patent No. 4,943,529; Fleer et al., Bio/Technology, 9:968-975 (1991)) such as, e.g., *K. lactis* (MW98-8C, CBS683, CBS4574; Louvencourt et al., J. Bacteriol., 154(2):737-742 [1983]), *K. fragilis* (ATCC 12,424), *K. bulgaricus* (ATCC 16,045), *K. wickeramii* (ATCC 24,178), *K. waltii* (ATCC 56,500), *K. drosophilarum* (ATCC 36,906; Van den Berg et al., Bio/Technology, 8:135 (1990)), *K. thermotolerans*, and *K. marxianus; yarrowia* (EP 402,226); *Pichia pastoris* (EP 183,070; Sreekrishna et al., J. Basic Microbiol., 28:265-278 [1988]); *Candida; Trichoderma reesia* (EP 244,234); *Neurospora crassa* (Case et al., Proc. Natl. Acad. Sci. USA, 76:5259-5263 [1979]); *Schwanniomyces* such as *Schwanniomyces occidentalis* (EP 394,538 published 31 October 1990); and filamentous fungi such as, e.g., *Neurospora, Penicillium, Tolypocladium* (WO 91/00357 published 10 January 1991), and *Aspergillus* hosts such as *A. nidulans* (Ballance et al., Biochem. Biophys. Res. Commun., 112:284-289 [1983]; Tilburn et al., Gene, 26:205-221 [1983]; Yelton et al., Proc. Natl. Acad. Sci. USA, 81: 1470-1474

[1984]) and *A. niger* (Kelly and Hynes, EMBO J., 4:475-479 [1985]). Methylotropic yeasts are suitable herein and include, but are not limited to, yeast capable of growth on methanol selected from the genera consisting of *Hansenula, Candida, Kloeckera, Pichia, Saccharomyces, Torulopsis,* and *Rhodotorula*. A list of specific species that are exemplary of this class of yeasts may be found in C. Anthony, The Biochemistry of Methylotrophs, 269 (1982).

Suitable host cells for the expression of glycosylated anti-TAT antibody or TAT polypeptide are derived from multicellular organisms. Examples of invertebrate cells include insect cells such as Drosophila S2 and Spodoptera Sf9, as well as plant cells, such as cell cultures of cotton, corn, potato, soybean, petunia, tomato, and tobacco. Numerous baculoviral strains and variants and corresponding permissive insect host cells from hosts such as *Spodoptera frugiperda* (caterpillar), *Aedes aegypti* (mosquito), *Aedes albopictus* (mosquito), *Drosophila melanogaster* (fruitfly), and *Bombyx mori* have been identified. A variety of viral strains for transfection are publicly available, e.g., the L-1 variant of *Autographa californica* NPV and the Bm-5 strain of *Bombyx mori* NPV, and such viruses may be used as the virus herein according to the present invention, particularly for transfection of *Spodoptera frugiperda* cells.

However, interest has been greatest in vertebrate cells, and propagation of vertebrate cells in culture (tissue culture) has become a routine procedure. Examples of useful mammalian host cell lines are monkey kidney CV1 line transformed by SV40 (COS-7, ATCC CRL 1651); human embryonic kidney line (293 or 293 cells subcloned for growth in suspension culture, Graham et al., J. Gen Virol. 36:59 (1977)); baby hamster kidney cells (BHK, ATCC CCL 10); Chinese hamster ovary cells/-DHFR (CHO, Urlaub et al., Proc. Natl. Acad. Sci. USA 77:4216 (1980)); mouse sertoli cells (TM4, Mather, Biol. Reprod. 23:243-251 (1980)); monkey kidney cells (CV1 ATCC CCL 70); African green monkey kidney cells (VERO-76, ATCC CRL-1587); human cervical carcinoma cells (HELA, ATCC CCL 2); canine kidney cells (MDCK, ATCC CCL 34); buffalo rat liver cells (BRL 3A, ATCC CRL 1442); human lung cells (W138, ATCC CCL 75); human liver cells (Hep G2, HB 8065); mouse mammary tumor (MMT 060562, ATCC CCL51); TRI cells (Mather et al., Annals N.Y. Acad. Sci. 383:44-68 (1982)); MRC 5 cells; FS4 cells; and a human hepatoma line (Hep G2).

Host cells are transformed with the above-described expression or cloning vectors for anti-TAT antibody or TAT polypeptide production and cultured in conventional nutrient media modified as appropriate for inducing promoters, selecting transformants, or amplifying the genes encoding the desired sequences.

3. Selection and Use of a Replicable Vector

The nucleic acid (e.g., cDNA or genomic DNA) encoding anti-TAT antibody or TAT polypeptide may be inserted into a replicable vector for cloning (amplification of the DNA) or for expression. Various vectors are publicly available. The vector may, for example, be in the form of a plasmid, cosmid, viral particle, or phage. The appropriate nucleic acid sequence may be inserted into the vector by a variety of procedures. In general, DNA is inserted into an appropriate restriction endonuclease site(s) using techniques known in the art. Vector components generally include, but are not limited to, one or more of a signal sequence, an origin of replication, one or more marker genes, an enhancer element, a promoter, and a transcription termination sequence. Construction of suitable vectors containing one or more of these components employs standard ligation techniques which are known to the skilled artisan.

The TAT may be produced recombinantly not only directly, but also as a fusion polypeptide with a heterologous polypeptide, which may be a signal sequence or other polypeptide having a specific cleavage site at the N-terminus of the mature protein or polypeptide. In general, the signal sequence may be a component of the vector, or it may be a part of the anti-TAT antibody- or TAT polypeptide-encoding DNA that is inserted into the vector. The signal sequence may be a prokaryotic signal sequence selected, for example, from the group of the alkaline phosphatase, penicillinase, lpp, or heat-stable enterotoxin II leaders. For yeast secretion the signal sequence may be, e.g., the yeast invertase leader, alpha factor leader (including *Saccharomyces* and *Kluyveromyces* α-factor leaders, the latter described in U.S. Patent No. 5,010,182), or acid phosphatase leader, the *C. albicans* glucoamylase leader (EP 362,179 published 4 April 1990), or the signal described in WO 90/13646 published 15 November 1990. In mammalian cell expression, mammalian signal sequences may be used to direct secretion of the protein, such as signal sequences from secreted polypeptides of the same or related species, as well as viral secretory leaders.

Both expression and cloning vectors contain a nucleic acid sequence that enables the vector to replicate in one or more selected host cells. Such sequences are well known for a variety of bacteria, yeast, and viruses. The origin of replication from the plasmid pBR322 is suitable for most Gram-negative bacteria, the 2μ plasmid origin is suitable for yeast, and various viral origins (SV40, polyoma, adenovirus, VSV or BPV) are useful for cloning vectors in mammalian cells.

Expression and cloning vectors will typically contain a selection gene, also termed a selectable marker. Typical selection genes encode proteins that (a) confer resistance to antibiotics or other toxins, e.g., ampicillin, neomycin, methotrexate, or tetracycline, (b) complement auxotrophic deficiencies, or (c) supply critical nutrients not available from complex media, e.g., the gene encoding D-alanine racemase for *Bacilli*.

An example of suitable selectable markers for mammalian cells are those that enable the identification of cells competent to take up the anti-TAT antibody- or TAT polypeptide-encoding nucleic acid, such as DHFR or thymidine kinase. An appropriate host cell when wild-type DHFR is employed is the CHO cell line deficient in DHFR activity, prepared and propagated as described by Urlaub et al., Proc. Natl. Acad. Sci. USA, 77:4216 (1980). A suitable selection gene for use in yeast is the *trp*1 gene present in the yeast plasmid YRp7 [Stinchcomb et al., Nature, 282:39 (1979); Kingsman et al., Gene, 7:141 (1979); Tschemper et al., Gene, 10:157 (1980)]. The *trp*1 gene provides a selection marker for a mutant strain of yeast lacking the ability to grow in tryptophan, for example, ATCC No. 44076 or PEP4-1 [Jones, Genetics, 85:12 (1977)].

Expression and cloning vectors usually contain a promoter operably linked to the anti-TAT antibody- or TAT polypeptide-encoding nucleic acid sequence to direct mRNA synthesis. Promoters recognized by a variety of potential host cells are well known. Promoters suitable for use with prokaryotic hosts include theβ-lactamase and lactose promoter systems [Chang et al., Nature, 275:615 (1978); Goeddel et al., Nature, 281:544 (1979)], alkaline phosphatase, a tryptophan (trp) promoter system [Goeddel, Nucleic Acids Res., 8:4057 (1980); EP 36,776], and hybrid promoters such as the tac promoter [deBoer et al., Proc. Natl. Acad. Sci. USA, 80:21-25 (1983)]. Promoters for use in bacterial systems also will contain a Shine-Dalgarno (S.D.) sequence operably linked to the DNA encoding anti-TAT antibody or TAT polypeptide.

Examples of suitable promoting sequences for use with yeast hosts include the promoters for 3-

phosphoglycerate kinase [Hitzeman et al., J. Biol. Chem., 255:2073 (1980)] or other glycolytic enzymes [Hess et al., J. Adv. Enzyme Reg., 7:149 (1968); Holland, Biochemistry, 17:4900 (1978)], such as enolase, glyceraldehyde-3-phosphate dehydrogenase, hexokinase, pyruvate decarboxylase, phosphofructokinase, glucose-6-phosphate isomerase, 3-phosphoglycerate mutase, pyruvate kinase, triosephosphate isomerase, phosphoglucose isomerase, and glucokinase.

Other yeast promoters, which are inducible promoters having the additional advantage of transcription controlled by growth conditions, are the promoter regions for alcohol dehydrogenase 2, isocytochrome C, acid phosphatase, degradative enzymes associated with nitrogen metabolism, metallothionein, glyceraldehyde-3-phosphate dehydrogenase, and enzymes responsible for maltose and galactose utilization. Suitable vectors and promoters for use in yeast expression are further described in EP 73,657.

Anti-TAT antibody or TAT polypeptide transcription from vectors in mammalian host cells is controlled, for example, by promoters obtained from the genomes of viruses such as polyoma virus, fowlpox virus (UK 2,211,504 published 5 July 1989), adenovirus (such as Adenovirus 2), bovine papilloma virus, avian sarcoma virus, cytomegalovirus, a retrovirus, hepatitis-B virus and Simian Virus 40 (SV40), from heterologous mammalian promoters, e.g., the actin promoter or an immunoglobulin promoter, and from heat-shock promoters, provided such promoters are compatible with the host cell systems.

Transcription of a DNA encoding the anti-TAT antibody or TAT polypeptide by higher eukaryotes may be increased by inserting an enhancer sequence into the vector. Enhancers are cis-acting elements of DNA, usually about from 10 to 300 bp, that act on a promoter to increase its transcription. Many enhancer sequences are now known from mammalian genes (globin, elastase, albumin, α-fetoprotein, and insulin). Typically, however, one will use an enhancer from a eukaryotic cell virus. Examples include the SV40 enhancer on the late side of the replication origin (bp 100-270), the cytomegalovirus early promoter enhancer, the polyoma enhancer on the late side of the replication origin, and adenovirus enhancers. The enhancer may be spliced into the vector at a position 5' or 3' to the anti-TAT antibody or TAT polypeptide coding sequence, but is preferably located at a site 5' from the promoter.

Expression vectors used in eukaryotic host cells (yeast, fungi, insect, plant, animal, human, or nucleated cells from other multicellular organisms) will also contain sequences necessary for the termination of transcription and for stabilizing the mRNA. Such sequences are commonly available from the 5' and, occasionally 3', untranslated regions of eukaryotic or viral DNAs or cDNAs. These regions contain nucleotide segments transcribed as polyadenylated fragments in the untranslated portion of the mRNA encoding anti-TAT antibody or TAT polypeptide.

Still other methods, vectors, and host cells suitable for adaptation to the synthesis of anti-TAT antibody or TAT polypeptide in recombinant vertebrate cell culture are described in Gething et al., Nature, 293:620-625 (1981); Mantei et al., Nature, 281:40-46 (1979); EP 117,060; and EP 117,058.

4. Culturing the Host Cells

The host cells used to produce the anti-TAT antibody or TAT polypeptide of this invention may be cultured in a variety of media. Commercially available media such as Ham's F10 (Sigma), Minimal Essential Medium ((MEM), (Sigma), RPMI-1640 (Sigma), and Dulbecco's Modified Eagle's Medium ((DMEM), Sigma)

are suitable for culturing the host cells. In addition, any of the media described in Ham et alMeth. Enz. 58:44 (1979), Barnes et al., Anal. Biochem.102:255 (1980), U.S. Pat. Nos. 4,767,704; 4,657,866; 4,927,762; 4,560,655; or 5,122,469; WO 90/03430; WO 87/00195; or U.S. Patent Re. 30,985 may be used as culture media for the host cells. Any of these media may be supplemented as necessary with hormones and/or other growth factors (such as insulin, transferrin, or epidermal growth factor), salts (such as sodium chloride, calcium, magnesium, and phosphate), buffers (such as HEPES), nucleotides (such as adenosine and thymidine), antibiotics (such as GENTAMYCIN™ drug), trace elements (defined as inorganic compounds usually present at final concentrations in the micromolar range), and glucose or an equivalent energy source. Any other necessary supplements may also be included at appropriate concentrations that would be known to those skilled in the art. The culture conditions, such as temperature, pH, and the like, are those previously used with the host cell selected for expression, and will be apparent to the ordinarily skilled artisan.

5. Detecting Gene Amplification/Expression

Gene amplification and/or expression may be measured in a sample directly, for example, by conventional Southern blotting, Northern blotting to quantitate the transcription of mRNA [Thomas, Proc. Natl. Acad. Sci. USA, 77:5201-5205 (1980)], dot blotting (DNA analysis), or *in situ* hybridization, using an appropriately labeled probe, based on the sequences provided herein. Alternatively, antibodies may be employed that can recognize specific duplexes, including DNA duplexes, RNA duplexes, and DNA-RNA hybrid duplexes or DNA-protein duplexes. The antibodies in turn may be labeled and the assay may be carried out where the duplex is bound to a surface, so that upon the formation of duplex on the surface, the presence of antibody bound to the duplex can be detected.

Gene expression, alternatively, may be measured by immunological methods, such as immunohistochemical staining of cells or tissue sections and assay of cell culture or body fluids, to quantitate directly the expression of gene product. Antibodies useful for immunohistochemical staining and/or assay of sample fluids may be either monoclonal or polyclonal, and may be prepared in any mammal. Conveniently, the antibodies may be prepared against a native sequence TAT polypeptide or against a synthetic peptide based on the DNA sequences provided herein or against exogenous sequence fused to TAT DNA and encoding a specific antibody epitope.

6. Purification of Anti-TAT Antibody and TAT Polypeptide

Forms of anti-TAT antibody and TAT polypeptide may be recovered from culture medium or from host cell lysates. If membrane-bound, it can be released from the membrane using a suitable detergent solution (e.g. Triton-X 100) or by enzymatic cleavage. Cells employed in expression of anti-TAT antibody and TAT polypeptide can be disrupted by various physical or chemical means, such as freeze-thaw cycling, sonication, mechanical disruption, or cell lysing agents.

It may be desired to purify anti-TAT antibody and TAT polypeptide from recombinant cell proteins or polypeptides. The following procedures are exemplary of suitable purification procedures: by fractionation on an ion-exchange column; ethanol precipitation; reverse phase HPLC; chromatography on silica or on a cation-exchange resin such as DEAE; chromatofocusing; SDS-PAGE; ammonium sulfate precipitation; gel filtration using, for example, Sephadex G-75; protein A Sepharose columns to remove contaminants such as

IgG; and metal chelating columns to bind epitope-tagged forms of the anti-TAT antibody and TAT polypeptide. Various methods of protein purification may be employed and such methods are known in the art and described for example in Deutscher, Methods in Enzymology, 182 (1990); Scopes, Protein Purification: Principles and Practice, Springer-Verlag, New York (1982). The purification step(s) selected will depend, for example, on the nature of the production process used and the particular anti-TAT antibody or TAT polypeptide produced.

When using recombinant techniques, the antibody can be produced intracellularly, in the periplasmic space, or directly secreted into the medium. If the antibody is produced intracellularly, as a first step, the particulate debris, either host cells or lysed fragments, are removed, for example, by centrifugation or ultrafiltration. Carter et al., Bio/Technology 10:163-167 (1992) describe a procedure for isolating antibodies which are secreted to the periplasmic space of *E. coli*. Briefly, cell paste is thawed in the presence of sodium acetate (pH 3.5), EDTA, and phenylmethylsulfonylfluoride (PMSF) over about 30 min. Cell debris can be removed by centrifugation. Where the antibody is secreted into the medium, supernatants from such expression systems are generally first concentrated using a commercially available protein concentration filter, for example, an Amicon or Millipore Pellicon ultrafiltration unit. A protease inhibitor such as PMSF may be included in any of the foregoing steps to inhibit proteolysis and antibiotics may be included to prevent the growth of adventitious contaminants.

The antibody composition prepared from the cells can be purified using, for example, hydroxylapatite chromatography, gel electrophoresis, dialysis, and affinity chromatography, with affinity chromatography being the preferred purification technique. The suitability of protein A as an affinity ligand depends on the species and isotype of any immunoglobulin Fc domain that is present in the antibody. Protein A can be used to purify antibodies that are based on human γ1, γ2 or γ4 heavy chains (Lindmark et al., J. Immunol. Meth. 62:1-13 (1983)). Protein G is recommended for all mouse isotypes and for human γ3 (Guss et al., EMBO J. 5:15671575 (1986)). The matrix to which the affinity ligand is attached is most often agarose, but other matrices are available. Mechanically stable matrices such as controlled pore glass or poly(styrenedivinyl)benzene allow for faster flow rates and shorter processing times than can be achieved with agarose. Where the antibody comprises a C_H3 domain, the Bakerbond ABX™resin (J. T. Baker, Phillipsburg, NJ) is useful for purification. Other techniques for protein purification such as fractionation on an ion-exchange column, ethanol precipitation, Reverse Phase HPLC, chromatography on silica, chromatography on heparin SEPHAROSE™ chromatography on an anion or cation exchange resin (such as a polyaspartic acid column), chromatofocusing, SDS-PAGE, and ammonium sulfate precipitation are also available depending on the antibody to be recovered.

Following any preliminary purification step(s), the mixture comprising the antibody of interest and contaminants may be subjected to low pH hydrophobic interaction chromatography using an elution buffer at a pH between about 2.5-4.5, preferably performed at low salt concentrations (e.g., from about 0-0.25M salt).

J. Pharmaceutical Formulations

Therapeutic formulations of the anti-TAT antibodies, TAT binding oligopeptides, TAT binding organic molecules and/or TAT polypeptides used in accordance with the present invention are prepared for storage by mixing the antibody, polypeptide, oligopeptide or organic molecule having the desired degree of purity with

optional pharmaceutically acceptable carriers, excipients or stabilizers (Remington's Pharmaceutical Sciences 16th edition, Osol, A. Ed. (1980)), in the form of lyophilized formulations or aqueous solutions. Acceptable carriers, excipients, or stabilizers are nontoxic to recipients at the dosages and concentrations employed, and include buffers such as acetate, Tris, phosphate, citrate, and other organic acids; antioxidants including ascorbic acid and methionine; preservatives (such as octadecyldimethylbenzyl ammonium chloride; hexamethonium chloride; benzalkonium chloride, benzethonium chloride; phenol, butyl or benzyl alcohol; alkyl parabens such as methyl or propyl paraben; catechol; resorcinol; cyclohexanol; 3-pentanol; and m-cresol); low molecular weight (less than about 10 residues) polypeptides; proteins, such as serum albumin, gelatin, or immunoglobulins; hydrophilic polymers such as polyvinylpyrrolidone; amino acids such as glycine, glutamine, asparagine, histidine, arginine, or lysine; monosaccharides, disaccharides, and other carbohydrates including glucose, mannose, or dextrins; chelating agents such as EDTA; tonicifiers such as trehalose and sodium chloride; sugars such as sucrose, mannitol, trehalose or sorbitol; surfactant such as polysorbate; salt-forming counter-ions such as sodium; metal complexes (e.g., Zn-protein complexes); and/or non-ionic surfactants such as TWEEN®, PLURONICS® or polyethylene glycol (PEG). The antibody preferably comprises the antibody at a concentration of between 5-200 mg/ml, preferably between 10-100 mg/ml.

The formulations herein may also contain more than one active compound as necessary for the particular indication being treated, preferably those with complementary activities that do not adversely affect each other. For example, in addition to an anti-TAT antibody, TAT binding oligopeptide, or TAT binding organic molecule, it may be desirable to include in the one formulation, an additional antibody, e.g., a second anti-TAT antibody which binds a different epitope on the TAT polypeptide, or an antibody to some other target such as a growth factor that affects the growth of the particular cancer. Alternatively, or additionally, the composition may further comprise a chemotherapeutic agent, cytotoxic agent, cytokine, growth inhibitory agent, anti-hormonal agent, and/or cardioprotectant. Such molecules are suitably present in combination in amounts that are effective for the purpose intended.

The active ingredients may also be entrapped in microcapsules prepared, for example, by coacervation techniques or by interfacial polymerization, for example, hydroxymethylcellulose or gelatin-microcapsules and poly-(methylmethacylate) microcapsules, respectively, in colloidal drug delivery systems (for example, liposomes, albumin microspheres, microemulsions, nano-particles and nanocapsules) or in macroemulsions. Such techniques are disclosed in Remington's Pharmaceutical Sciences, 16th edition, Osol, A. Ed. (1980).

Sustained-release preparations may be prepared. Suitable examples of sustained-release preparations include semi-permeable matrices of solid hydrophobic polymers containing the antibody, which matrices are in the form of shaped articles, e.g., films, or microcapsules. Examples of sustained-release matrices include polyesters, hydrogels (for example, poly(2-hydroxyethyl-methacrylate), or poly(vinylalcohol)), polylactides (U.S. Pat. No. 3,773,919), copolymers of L-glutamic acid and γ ethyl-L-glutamate, non-degradable ethylene-vinyl acetate, degradable lactic acid-glycolic acid copolymers such as the LUPRON DEPOT® (injectable microspheres composed of lactic acid-glycolic acid copolymer and leuprolide acetate), and poly-D-(-)-3-hydroxybutyric acid.

The formulations to be used for *in vivo* administration must be sterile. This is readily accomplished

by filtration through sterile filtration membranes.

K. Diagnosis and Treatment with Anti-TAT Antibodies, TAT Binding Oligopeptides and TAT Binding Organic Molecules

To determine TAT expression in the cancer, various diagnostic assays are available. In one embodiment, TAT polypeptide overexpression may be analyzed by immunohistochemistry (IHC). Parrafin embedded tissue sections from a tumor biopsy may be subjected to the IHC assay and accorded a TAT protein staining intensity criteria as follows:

Score 0 - no staining is observed or membrane staining is observed in less than 10% of tumor cells.

Score 1+ - a faint/barely perceptible membrane staining is detected in more than 10% of the tumor cells. The cells are only stained in part of their membrane.

Score 2+ - a weak to moderate complete membrane staining is observed in more than 10% of the tumor cells.

Score 3+ - a moderate to strong complete membrane staining is observed in more than 10% of the tumor cells.

Those tumors with 0 or 1+ scores for TAT polypeptide expression may be characterized as not overexpressing TAT, whereas those tumors with 2+ or 3+ scores may be characterized as overexpressing TAT.

Alternatively, or additionally, FISH assays such as the INFORM® (sold by Ventana, Arizona) or PATHVISION® (Vysis, Illinois) may be carried out on formalin-fixed, paraffin-embedded tumor tissue to determine the extent (if any) of TAT overexpression in the tumor.

TAT overexpression or amplification may be evaluated using an *in vivo* diagnostic assay, e.g., by administering a molecule (such as an antibody, oligopeptide or organic molecule) which binds the molecule to be detected and is tagged with a detectable label (e.g., a radioactive isotope or a fluorescent label) and externally scanning the patient for localization of the label.

As described above, the anti-TAT antibodies, oligopeptides and organic molecules of the invention have various non-therapeutic applications. The anti-TAT antibodies, oligopeptides and organic molecules of the present invention can be useful for diagnosis and staging of TAT polypeptide-expressing cancers (e.g., in radioimaging). The antibodies, oligopeptides and organic molecules are also useful for purification or immunoprecipitation of TAT polypeptide from cells, for detection and quantitation of TAT polypeptide *in vitro*, e.g., in an ELISA or a Western blot, to kill and eliminate TAT-expressing cells from a population of mixed cells as a step in the purification of other cells.

Currently, depending on the stage of the cancer, cancer treatment involves one or a combination of the following therapies: surgery to remove the cancerous tissue, radiation therapy, and chemotherapy. Anti-TAT antibody, oligopeptide or organic molecule therapy may be especially desirable in elderly patients who do not tolerate the toxicity and side effects of chemotherapy well and in metastatic disease where radiation therapy has limited usefulness. The tumor targeting anti-TAT antibodies, oligopeptides and organic molecules of the invention are useful to alleviate TAT-expressing cancers upon initial diagnosis of the disease or during relapse.

For therapeutic applications, the anti-TAT antibody, oligopeptide or organic molecule can be used alone, or in combination therapy with, e.g., hormones, antiangiogens, or radiolabelled compounds, or with surgery, cryotherapy, and/or radiotherapy. Anti-TAT antibody, oligopeptide or organic molecule treatment can be administered in conjunction with other forms of conventional therapy, either consecutively with, pre- or post-conventional therapy. Chemotherapeutic drugs such as TAXOTERE® (docetaxel), TAXOL® (palictaxel), estramustine and mitoxantrone are used in treating cancer, in particular, in good risk patients. In the present method of the invention for treating or alleviating cancer, the cancer patient can be administered anti-TAT antibody, oligopeptide or organic molecule in conjuction with treatment with the one or more of the preceding chemotherapeutic agents. In particular, combination therapy with palictaxel and modified derivatives (see, e.g., EP0600517) is contemplated. The anti-TAT antibody, oligopeptide or organic molecule will be administered with a therapeutically effective dose of the chemotherapeutic agent. In another embodiment, the anti-TAT antibody, oligopeptide or organic molecule is administered in conjunction with chemotherapy to enhance the activity and efficacy of the chemotherapeutic agent, e.g., paclitaxel. The Physicians' Desk Reference (PDR) discloses dosages of these agents that have been used in treatment of various cancers. The dosing regimen and dosages of these aforementioned chemotherapeutic drugs that are therapeutically effective will depend on the particular cancer being treated, the extent of the disease and other factors familiar to the physician of skill in the art and can be determined by the physician.

In one particular embodiment, a conjugate comprising an anti-TAT antibody, oligopeptide or organic molecule conjugated with a cytotoxic agent is administered to the patient. Preferably, the immunoconjugate bound to the TAT protein is internalized by the cell, resulting in increased therapeutic efficacy of the immunoconjugate in killing the cancer cell to which it binds. In a preferred embodiment, the cytotoxic agent targets or interferes with the nucleic acid in the cancer cell. Examples of such cytotoxic agents are described above and include maytansinoids, calicheamicins, ribonucleases and DNA endonucleases.

The anti-TAT antibodies, oligopeptides, organic molecules or toxin conjugates thereof are administered to a human patient, in accord with known methods, such as intravenous administration, e.g.,, as a bolus or by continuous infusion over a period of time, by intramuscular, intraperitoneal, intracerobrospinal, subcutaneous, intra-articular, intrasynovial, intrathecal, oral, topical, or inhalation routes. Intravenous or subcutaneous administration of the antibody, oligopeptide or organic molecule is preferred.

Other therapeutic regimens may be combined with the administration of the anti-TAT antibody, oligopeptide or organic molecule. The combined administration includes co-administration, using separate formulations or a single pharmaceutical formulation, and consecutive administration in either order, wherein preferably there is a time period while both (or all) active agents simultaneously exert their biological activities. Preferably such combined therapy results in a synergistic therapeutic effect.

It may also be desirable to combine administration of the anti-TAT antibody or antibodies, oligopeptides or organic molecules, with administration of an antibody directed against another tumor antigen associated with the particular cancer.

In another embodiment, the therapeutic treatment methods of the present invention involves the

combined administration of an anti-TAT antibody (or antibodies), oligopeptides or organic molecules and one or more chemotherapeutic agents or growth inhibitory agents, including co-administration of cocktails of different chemotherapeutic agents. Chemotherapeutic agents include estramustine phosphate, prednimustine, cisplatin, 5-fluorouracil, melphalan, cyclophosphamide, hydroxyurea and hydroxyureataxanes (such as paclitaxel and doxetaxel) and/or anthracycline antibiotics. Preparation and dosing schedules for such chemotherapeutic agents may be used according to manufacturers' instructions or as determined empirically by the skilled practitioner. Preparation and dosing schedules for such chemotherapy are also described in Chemotherapy Service Ed., M.C. Perry, Williams & Wilkins, Baltimore, MD (1992).

The antibody, oligopeptide or organic molecule may be combined with an anti-hormonal compound; e.g., an anti-estrogen compound such as tamoxifen; an anti-progesterone such as onapristone (see, EP 616 812); or an anti-androgen such as flutamide, in dosages known for such molecules. Where the cancer to be treated is androgen independent cancer, the patient may previously have been subjected to anti-androgen therapy and, after the cancer becomes androgen independent, the anti-TAT antibody, oligopeptide or organic molecule (and optionally other agents as described herein) may be administered to the patient.

Sometimes, it may be beneficial to also co-administer a cardioprotectant (to prevent or reduce myocardial dysfunction associated with the therapy) or one or more cytokines to the patient. In addition to the above therapeutic regimes, the patient may be subjected to surgical removal of cancer cells and/or radiation therapy, before, simultaneously with, or post antibody, oligopeptide or organic molecule therapy. Suitable dosages for any of the above co-administered agents are those presently used and may be lowered due to the combined action (synergy) of the agent and anti-TAT antibody, oligopeptide or organic molecule.

For the prevention or treatment of disease, the dosage and mode of administration will be chosen by the physician according to known criteria. The appropriate dosage of antibody, oligopeptide or organic molecule will depend on the type of disease to be treated, as defined above, the severity and course of the disease, whether the antibody, oligopeptide or organic molecule is administered for preventive or therapeutic purposes, previous therapy, the patient's clinical history and response to the antibody, oligopeptide or organic molecule, and the discretion of the attending physician. The antibody, oligopeptide or organic molecule is suitably administered to the patient at one time or over a series of treatments. Preferably, the antibody, oligopeptide or organic molecule is administered by intravenous infusion or by subcutaneous injections. Depending on the type and severity of the disease, about 1 μg/kg to about 50 mg/kg body weight (e.g., about 0.1-15mg/kg/dose) of antibody can be an initial candidate dosage for administration to the patient, whether, for example, by one or more separate administrations, or by continuous infusion. A dosing regimen can comprise administering an initial loading dose of about 4 mg/kg, followed by a weekly maintenance dose of about 2 mg/kg of the anti-TAT antibody. However, other dosage regimens may be useful. A typical daily dosage might range from about 1 μg/kg to 100 mg/kg or more, depending on the factors mentioned above. For repeated administrations over several days or longer, depending on the condition, the treatment is sustained until a desired suppression of disease symptoms occurs. The progress of this therapy can be readily monitored by conventional methods and assays and based on criteria known to the physician or other persons of skill in the art.

Aside from administration of the antibody protein to the patient, the present application contemplates administration of the antibody by gene therapy. Such administration of nucleic acid encoding the antibody is encompassed by the expression "administering a therapeutically effective amount of an antibody". See, for example, WO96/07321 published March 14, 1996 concerning the use of gene therapy to generate intracellular antibodies.

There are two major approaches to getting the nucleic acid (optionally contained in a vector) into the patient's cells; *in vivo* and *ex vivo*. For *in vivo* delivery the nucleic acid is injected directly into the patient, usually at the site where the antibody is required. For *ex vivo* treatment, the patient's cells are removed, the nucleic acid is introduced into these isolated cells and the modified cells are administered to the patient either directly or, for example, encapsulated within porous membranes which are implanted into the patient (see, e.g., U.S. Patent Nos. 4,892,538 and 5,283,187). There are a variety of techniques available for introducing nucleic acids into viable cells. The techniques vary depending upon whether the nucleic acid is transferred into cultured cells *in vitro*, or *in vivo* in the cells of the intended host. Techniques suitable for the transfer of nucleic acid into mammalian cells *in vitro* include the use of liposomes, electroporation, microinjection, cell fusion, DEAE-dextran, the calcium phosphate precipitation method, etc. A commonly used vector for*ex vivo* delivery of the gene is a retroviral vector.

The currently preferred *in vivo* nucleic acid transfer techniques include transfection with viral vectors (such as adenovirus, Herpes simplex I virus, or adeno-associated virus) and lipid-based systems (useful lipids for lipid-mediated transfer of the gene are DOTMA, DOPE and DC-Chol, for example). For review of the currently known gene marking and gene therapy protocols see Anderson et al., Science 256:808-813 (1992). See also WO 93/25673 and the references cited therein.

The anti-TAT antibodies of the invention can be in the different forms encompassed by the definition of "antibody" herein. Thus, the antibodies include full length or intact antibody, antibody fragments, native sequence antibody or amino acid variants, humanized, chimeric or fusion antibodies, immunoconjugates, and functional fragments thereof. In fusion antibodies an antibody sequence is fused to a heterologous polypeptide sequence. The antibodies can be modified in the Fc region to provide desired effector functions. As discussed in more detail in the sections herein, with the appropriate Fc regions, the naked antibody bound on the cell surface can induce cytotoxicity, e.g., via antibody-dependent cellular cytotoxicity (ADCC) or by recruiting complement in complement dependent cytotoxicity, or some other mechanism. Alternatively, where it is desirable to eliminate or reduce effector function, so as to minimize side effects or therapeutic complications, certain other Fc regions may be used.

In one embodiment, the antibody competes for binding or bind substantially to, the same epitope as the antibodies of the invention. Antibodies having the biological characteristics of the present anti-TAT antibodies of the invention are also contemplated, specifically including the *in vivo* tumor targeting and any cell proliferation inhibition or cytotoxic characteristics.

Methods of producing the above antibodies are described in detail herein.

The present anti-TAT antibodies, oligopeptides and organic molecules are useful for treating a TAT-expressing cancer or alleviating one or more symptoms of the cancer in a mammal. Such a cancer includes

prostate cancer, cancer of the urinary tract, lung cancer, breast cancer, colon cancer and ovarian cancer, more specifically, prostate adenocarcinoma, renal cell carcinomas, colorectal adenocarcinomas, lung adenocarcinomas, lung squamous cell carcinomas, and pleural mesothelioma. The cancers encompass metastatic cancers of any of the preceding. The antibody, oligopeptide or organic molecule is able to bind to at least a portion of the cancer cells that express TAT polypeptide in the mammal. In a preferred embodiment, the antibody, oligopeptide or organic molecule is effective to destroy or kill TAT-expressing tumor cells or inhibit the growth of such tumor cells, *in vitro* or *in vivo*, upon binding to TAT polypeptide on the cell. Such an antibody includes a naked anti-TAT antibody (not conjugated to any agent). Naked antibodies that have cytotoxic or cell growth inhibition properties can be further harnessed with a cytotoxic agent to render them even more potent in tumor cell destruction. Cytotoxic properties can be conferred to an anti-TAT antibody by, e.g., conjugating the antibody with a cytotoxic agent, to form an immunoconjugate as described herein. The cytotoxic agent or a growth inhibitory agent is preferably a small molecule. Toxins such as calicheamicin or a maytansinoid and analogs or derivatives thereof, are preferable.

The invention provides a composition comprising an anti-TAT antibody, oligopeptide or organic molecule of the invention, and a carrier. For the purposes of treating cancer, compositions can be administered to the patient in need of such treatment, wherein the composition can comprise one or more anti-TAT antibodies present as an immunoconjugate or as the naked antibody. In a further embodiment, the compositions can comprise these antibodies, oligopeptides or organic molecules in combination with other therapeutic agents such as cytotoxic or growth inhibitory agents, including chemotherapeutic agents. The invention also provides formulations comprising an anti-TAT antibody, oligopeptide or organic molecule of the invention, and a carrier. In one embodiment, the formulation is a therapeutic formulation comprising a pharmaceutically acceptable carrier.

Another aspect of the invention is isolated nucleic acids encoding the anti-TAT antibodies. Nucleic acids encoding both the H and L chains and especially the hypervariable region residues, chains which encode the native sequence antibody as well as variants, modifications and humanized versions of the antibody, are encompassed.

The invention also provides methods useful for treating a TAT polypeptide-expressing cancer or alleviating one or more symptoms of the cancer in a mammal, comprising administering a therapeutically effective amount of an anti-TAT antibody, oligopeptide or organic molecule to the mammal. The antibody, oligopeptide or organic molecule therapeutic compositions can be administered short term (acute) or chronic, or intermittent as directed by physician. Also provided are methods of inhibiting the growth of, and killing a TAT polypeptide-expressing cell.

The invention also provides kits and articles of manufacture comprising at least one anti-TAT antibody, oligopeptide or organic molecule. Kits containing anti-TAT antibodies, oligopeptides or organic molecules find use, e.g., for TAT cell killing assays, for purification or immunoprecipitation of TAT polypeptide from cells. For example, for isolation and purification of TAT, the kit can contain an anti-TAT antibody, oligopeptide or organic molecule coupled to beads (e.g., sepharose beads). Kits can be provided which contain the antibodies, oligopeptides or organic molecules for detection and quantitation of TAT *in vitro*, e.g., in an ELISA or a

Western blot. Such antibody, oligopeptide or organic molecule useful for detection may be provided with a label such as a fluorescent or radiolabel.

L. Articles of Manufacture and Kits

Another embodiment of the invention is an article of manufacture containing materials useful for the treatment of anti-TAT expressing cancer. The article of manufacture comprises a container and a label or package insert on or associated with the container. Suitable containers include, for example, bottles, vials, syringes, etc. The containers may be formed from a variety of materials such as glass or plastic. The container holds a composition which is effective for treating the cancer condition and may have a sterile access port (for example the container may be an intravenous solution bag or a vial having a stopper pierceable by a hypodermic injection needle). At least one active agent in the composition is an anti-TAT antibody, oligopeptide or organic molecule of the invention. The label or package insert indicates that the composition is used for treating cancer. The label or package insert will further comprise instructions for administering the antibody, oligopeptide or organic molecule composition to the cancer patient. Additionally, the article of manufacture may further comprise a second container comprising a pharmaceutically-acceptable buffer, such as bacteriostatic water for injection (BWFI), phosphate-buffered saline, Ringer's solution and dextrose solution. It may further include other materials desirable from a commercial and user standpoint, including other buffers, diluents, filters, needles, and syringes.

Kits are also provided that are useful for various purposes , e.g., for TAT-expressing cell killing assays, for purification or immunoprecipitation of TAT polypeptide from cells. For isolation and purification of TAT polypeptide, the kit can contain an anti-TAT antibody, oligopeptide or organic molecule coupled to beads (e.g., sepharose beads). Kits can be provided which contain the antibodies, oligopeptides or organic molecules for detection and quantitation of TAT polypeptide *in vitro*, e.g., in an ELISA or a Western blot. As with the article of manufacture, the kit comprises a container and a label or package insert on or associated with the container. The container holds a composition comprising at least one anti-TAT antibody, oligopeptide or organic molecule of the invention. Additional containers may be included that contain, e.g., diluents and buffers, control antibodies. The label or package insert may provide a description of the composition as well as instructions for the intended in vitro or diagnostic use.

M. Uses for TAT Polypeptides and TAT-Polypeptide Encoding Nucleic Acids

Nucleotide sequences (or their complement) encoding TAT polypeptides have various applications in the art of molecular biology, including uses as hybridization probes, in chromosome and gene mapping and in the generation of anti-sense RNA and DNA probes. TAT-encoding nucleic acid will also be useful for the preparation of TAT polypeptides by the recombinant techniques described herein, wherein those TAT polypeptides may find use, for example, in the preparation of anti-TAT antibodies as described herein.

The full-length native sequence TAT gene, or portions thereof, may be used as hybridization probes for a cDNA library to isolate the full-length TAT cDNA or to isolate still other cDNAs (for instance, those encoding naturally-occurring variants of TAT or TAT from other species) which have a desired sequence

identity to the native TAT sequence disclosed herein. Optionally, the length of the probes will be about 20 to about 50 bases. The hybridization probes may be derived from at least partially novel regions of the full length native nucleotide sequence wherein those regions may be determined without undue experimentation or from genomic sequences including promoters, enhancer elements and introns of native sequence TAT. By way of example, a screening method will comprise isolating the coding region of the TAT gene using the known DNA sequence to synthesize a selected probe of about 40 bases. Hybridization probes may be labeled by a variety of labels, including radionucleotides such as ^{32}P or ^{35}S, or enzymatic labels such as alkaline phosphatase coupled to the probe via avidin/biotin coupling systems. Labeled probes having a sequence complementary to that of the TAT gene of the present invention can be used to screen libraries of human cDNA, genomic DNA or mRNA to determine which members of such libraries the probe hybridizes to. Hybridization techniques are described in further detail in the Examples below. Any EST sequences disclosed in the present application may similarly be employed as probes, using the methods disclosed herein.

Other useful fragments of the TAT-encoding nucleic acids include antisense or sense oligonucleotides comprising a singe-stranded nucleic acid sequence (either RNA or DNA) capable of binding to target TAT mRNA (sense) or TAT DNA (antisense) sequences. Antisense or sense oligonucleotides, according to the present invention, comprise a fragment of the coding region of TAT DNA. Such a fragment generally comprises at least about 14 nucleotides, preferably from about 14 to 30 nucleotides. The ability to derive an antisense or a sense oligonucleotide, based upon a cDNA sequence encoding a given protein is described in, for example, Stein and Cohen (Cancer Res. 48:2659, 1988) and van der Krol et al. (BioTechniques 6:958, 1988).

Binding of antisense or sense oligonucleotides to target nucleic acid sequences results in the formation of duplexes that block transcription or translation of the target sequence by one of several means, including enhanced degradation of the duplexes, premature termination of transcription or translation, or by other means. Such methods are encompassed by the present invention. The antisense oligonucleotides thus may be used to block expression of TAT proteins, wherein those TAT proteins may play a role in the induction of cancer in mammals. Antisense or sense oligonucleotides further comprise oligonucleotides having modified sugar-phosphodiester backbones (or other sugar linkages, such as those described in WO 91/06629) and wherein such sugar linkages are resistant to endogenous nucleases. Such oligonucleotides with resistant sugar linkages are stable *in vivo* (i.e., capable of resisting enzymatic degradation) but retain sequence specificity to be able to bind to target nucleotide sequences.

Preferred intragenic sites for antisense binding include the region incorporating the translation initiation/start codon (5'-AUG / 5'-ATG) or termination/stop codon (5'-UAA, 5'-UAG and 5-UGA / 5'-TAA, 5'-TAG and 5'-TGA) of the open reading frame (ORF) of the gene. These regions refer to a portion of the mRNA or gene that encompasses from about 25 to about 50 contiguous nucleotides in either direction (i.e., 5' or 3') from a translation initiation or termination codon. Other preferred regions for antisense binding include: introns; exons; intron-exon junctions; the open reading frame (ORF) or "coding region," which is the region between the translation initiation codon and the translation termination codon; the 5' cap of an mRNA which comprises an N7-methylated guanosine residue joined to the 5'-most residue of the mRNA via a 5'-5' triphosphate linkage and includes 5' cap structure itself as well as the first 50 nucleotides adjacent to the cap;

the 5' untranslated region (5'UTR), the portion of an mRNA in the 5' direction from the translation initiation codon, and thus including nucleotides between the 5' cap site and the translation initiation codon of an mRNA or corresponding nucleotides on the gene; and the 3' untranslated region (3'UTR), the portion of an mRNA in the 3' direction from the translation termination codon, and thus including nucleotides between the translation termination codon and 3' end of an mRNA or corresponding nucleotides on the gene.

Specific examples of preferred antisense compounds useful for inhibiting expression of TAT proteins include oligonucleotides containing modified backbones or non-natural internucleoside linkages. Oligonucleotides having modified backbones include those that retain a phosphorus atom in the backbone and those that do not have a phosphorus atom in the backbone. For the purposes of this specification, and as sometimes referenced in the art, modified oligonucleotides that do not have a phosphorus atom in their internucleoside backbone can also be considered to be oligonucleosides. Preferred modified oligonucleotide backbones include, for example, phosphorothioates, chiral phosphorothioates, phosphorodithioates, phosphotriesters, aminoalkylphosphotri-esters, methyl and other alkyl phosphonates including 3'-alkylene phosphonates, 5'-alkylene phosphonates and chiral phosphonates, phosphinates, phosphoramidates including 3'-amino phosphoramidate and aminoalkylphosphoramidates, thionophosphoramidates, thionoalkylphosphonates, thionoalkylphosphotriesters, selenophosphates and borano-phosphates having normal 3'-5' linkages, 2'-5' linked analogs of these, and those having inverted polarity wherein one or more internucleotide linkages is a 3' to 3', 5' to 5' or 2' to 2' linkage. Preferred oligonucleotides having inverted polarity comprise a single 3' to 3' linkage at the 3'-most internucleotide linkage i.e. a single inverted nucleoside residue which may be abasic (the nucleobase is missing or has a hydroxyl group in place thereof). Various salts, mixed salts and free acid forms are also included. Representative United States patents that teach the preparation of phosphorus-containing linkages include, but are not limited to, U.S. Pat. Nos.: 3,687,808; 4,469,863; 4,476,301; 5,023,243; 5,177,196; 5,188,897; 5,264,423; 5,276,019; 5,278,302; 5,286,717; 5,321,131; 5,399,676; 5,405,939; 5,453,496; 5,455,233; 5,466,677; 5,476,925; 5,519,126; 5,536,821; 5,541,306; 5,550,111; 5,563,253; 5,571,799; 5,587,361; 5,194,599; 5,565,555; 5,527,899; 5,721,218; 5,672,697 and 5,625,050, each of which is herein incorporated by reference.

Preferred modified oligonucleotide backbones that do not include a phosphorus atom therein have backbones that are formed by short chain alkyl or cycloalkyl internucleoside linkages, mixed heteroatom and alkyl or cycloalkyl internucleoside linkages, or one or more short chain heteroatomic or heterocyclic internucleoside linkages. These include those having morpholino linkages (formed in part from the sugar portion of a nucleoside); siloxane backbones; sulfide, sulfoxide and sulfone backbones; formacetyl and thioformacetyl backbones; methylene formacetyl and thioformacetyl backbones; riboacetyl backbones; alkene containing backbones; sulfamate backbones; methyleneimino and methylenehydrazino backbones; sulfonate and sulfonamide backbones; amide backbones; and others having mixed N, O, S and CH.sub.2 component parts. Representative United States patents that teach the preparation of such oligonucleosides include, but are not limited to,. U.S. Pat. Nos.: 5,034,506; 5,166,315; 5,185,444; 5,214,134; 5,216,141; 5,235,033; 5,264,562; 5,264,564; 5,405,938; 5,434,257; 5,466,677; 5,470,967; 5,489,677; 5,541,307; 5,561,225; 5,596,086; 5,602,240;

5,610,289; 5,602,240; 5,608,046; 5,610,289; 5,618,704; 5,623,070; 5,663,312; 5,633,360; 5,677,437; 5,792,608; 5,646,269 and 5,677,439, each of which is herein incorporated by reference.

In other preferred antisense oligonucleotides, both the sugar and the internucleoside linkage, i.e., the backbone, of the nucleotide units are replaced with novel groups. The base units are maintained for hybridization with an appropriate nucleic acid target compound. One such oligomeric compound, an oligonucleotide mimetic that has been shown to have excellent hybridization properties, is referred to as a peptide nucleic acid (PNA). In PNA compounds, the sugar-backbone of an oligonucleotide is replaced with an amide containing backbone, in particular an aminoethylglycine backbone. The nucleobases are retained and are bound directly or indirectly to aza nitrogen atoms of the amide portion of the backbone. Representative United States patents that teach the preparation of PNA compounds include, but are not limited to, U.S. Pat. Nos.: 5,539,082; 5,714,331; and 5,719,262, each of which is herein incorporated by reference. Further teaching of PNA compounds can be found in Nielsen et al., Science, 1991, 254, 1497-1500.

Preferred antisense oligonucleotides incorporate phosphorothioate backbones and/or heteroatom backbones, and in particular -CH_2-NH-O-CH_2-, -CH_2-N(CH_3)-O-CH_2- [known as a methylene (methylimino) or MMI backbone], -CH_2-O-N(CH_3)-CH_2-, -CH_2-N(CH_3)-N(CH_3)-CH_2- and -O-N(CH_3)-CH_2-CH_2- [wherein the native phosphodiester backbone is represented as -O-P-O-CH_2-] described in the above referenced U.S. Pat. No. 5,489,677, and the amide backbones of the above referenced U.S. Pat. No. 5,602,240. Also preferred are antisense oligonucleotides having morpholino backbone structures of the above-referenced U.S. Pat. No. 5,034,506.

Modified oligonucleotides may also contain one or more substituted sugar moieties. Preferred oligonucleotides comprise one of the following at the 2' position: OH; F; O-alkyl, S-alkyl, or N-alkyl; O-alkenyl, S-alkeynyl, or N-alkenyl; O-alkynyl, S-alkynyl or N-alkynyl; or O-alkyl-O-alkyl, wherein the alkyl, alkenyl and alkynyl may be substituted or unsubstituted C_1 to C_{10} alkyl or C_2 to C_{10} alkenyl and alkynyl. Particularly preferred are $O[(CH_2)_nO]_mCH_3$, $O(CH_2)_nOCH_3$, $O(CH_2)_nNH_2$, $O(CH_2)_nCH_3$, $O(CH_2)_nONH_2$, and $O(CH_2)_nON[(CH_2)_nCH_3)]_2$, where n and m are from 1 to about 10. Other preferred antisense oligonucleotides comprise one of the following at the 2' position: C_1 to C_{10} lower alkyl, substituted lower alkyl, alkenyl, alkynyl, alkaryl, aralkyl, O-alkaryl or O-aralkyl, SH, SCH_3, OCN, Cl, Br, CN, CF_3, OCF_3, $SOCH_3$, SO_2 CH_3, ONO_2, NO_2, N_3, NH_2, heterocycloalkyl, heterocycloalkaryl, aminoalkylamino, polyalkylamino, substituted silyl, an RNA cleaving group, a reporter group, an intercalator, a group for improving the pharmacokinetic properties of an oligonucleotide, or a group for improving the pharmacodynamic properties of an oligonucleotide, and other substituents having similar properties. A preferred modification includes 2'-methoxyethoxy (2'-O-$CH_2CH_2OCH_3$, also known as 2'-O-(2-methoxyethyl) or 2'-MOE) (Martin et al., Helv. Chim. Acta, 1995, 78, 486-504) i.e., an alkoxyalkoxy group. A further preferred modification includes 2'-dimethylaminooxyethoxy, i.e., a $O(CH_2)_2ON(CH_3)_2$ group, also known as 2'-DMAOE, as described in examples hereinbelow, and 2'-dimethylaminoethoxyethoxy (also known in the art as 2'-O-dimethylaminoethoxyethyl or 2'-DMAEOE), i.e., 2'-O-CH_2-O-CH_2-N(CH_2).

A further prefered modification includes Locked Nucleic Acids (LNAs) in which the 2'-hydroxyl group is linked to the 3' or 4' carbon atom of the sugar ring thereby forming a bicyclic sugar moiety. The linkage is

preferably a methelyne ($-CH_2-)_n$ group bridging the 2' oxygen atom and the 4' carbon atom wherein n is 1 or 2. LNAs and preparation thereof are described in WO 98/39352 and WO 99/14226.

Other preferred modifications include 2'-methoxy (2'-O-CH_3), 2'-aminopropoxy (2'-$OCH_2CH_2CH_2NH_2$), 2'-allyl (2'-CH_2-CH=CH_2), 2'-O-allyl (2'-O-CH_2-CH=CH_2) and 2'-fluoro (2'-F). The 2'-modification may be in the arabino (up) position or ribo (down) position. A preferred 2'-arabino modification is 2'-F. Similar modifications may also be made at other positions on the oligonucleotide, particularly the 3' position of the sugar on the 3' terminal nucleotide or in 2'-5' linked oligonucleotides and the 5' position of 5' terminal nucleotide. Oligonucleotides may also have sugar mimetics such as cyclobutyl moieties in place of the pentofuranosyl sugar. Representative United States patents that teach the preparation of such modified sugar structures include, but are not limited to, U.S. Pat. Nos.: 4,981,957; 5,118,800; 5,319,080; 5,359,044; 5,393,878; 5,446,137; 5,466,786; 5,514,785; 5,519,134; 5,567,811; 5,576,427; 5,591,722; 5,597,909; 5,610,300; 5,627,053; 5,639,873; 5,646,265; 5,658,873; 5,670,633; 5,792,747; and 5,700,920, each of which is herein incorporated by reference in its entirety.

Oligonucleotides may also include nucleobase (often referred to in the art simply as "base") modifications or substitutions. As used herein, "unmodified" or "natural" nucleobases include the purine bases adenine (A) and guanine (G), and the pyrimidine bases thymine (T), cytosine (C) and uracil (U). Modified nucleobases include other synthetic and natural nucleobases such as 5-methylcytosine (5-me-C), 5-hydroxymethyl cytosine, xanthine, hypoxanthine, 2-aminoadenine, 6-methyl and other alkyl derivatives of adenine and guanine, 2-propyl and other alkyl derivatives of adenine and guanine, 2-thiouracil, 2-thiothymine and 2-thiocytosine, 5-halouracil and cytosine, 5-propynyl (-C≡C-CH_3 or -CH_2-C≡CH) uracil and cytosine and other alkynyl derivatives of pyrimidine bases, 6-azo uracil, cytosine and thymine, 5-uracil (pseudouracil), 4-thiouracil, 8-halo, 8-amino, 8-thiol, 8-thioalkyl, 8-hydroxyl and other 8-substituted adenines and guanines, 5-halo particularly 5-bromo, 5-trifluoromethyl and other 5-substituted uracils and cytosines, 7-methylguanine and 7-methyladenine, 2-F-adenine, 2-amino-adenine, 8-azaguanine and 8-azaadenine, 7-deazaguanine and 7-deazaadenine and 3-deazaguanine and 3-deazaadenine. Further modified nucleobases include tricyclic pyrimidines such as phenoxazine cytidine(1H-pyrimido[5,4-b][1,4]benzoxazin-2(3H)-one), phenothiazine cytidine (1H-pyrimido[5,4-b][1,4]benzothiazin-2(3H)-one), G-clamps such as a substituted phenoxazine cytidine (e.g. 9-(2-aminoethoxy)-H-pyrimido[5,4-b][1,4]benzoxazin-2(3H)-one), carbazole cytidine (2H-pyrimido[4,5-b]indol-2-one), pyridoindole cytidine (H-pyrido[3',2':4,5]pyrrolo[2,3-d]pyrimidin-2-one). Modified nucleobases may also include those in which the purine or pyrimidine base is replaced with other heterocycles, for example 7-deaza-adenine, 7-deazaguanosine, 2-aminopyridine and 2-pyridone. Further nucleobases include those disclosed in U.S. Pat. No. 3,687,808, those disclosed in The Concise Encyclopedia Of Polymer Science And Engineering, pages 858-859, Kroschwitz, J. I., ed. John Wiley & Sons, 1990, and those disclosed by Englisch et al., Angewandte Chemie, International Edition, 1991, 30, 613. Certain of these nucleobases are particularly useful for increasing the binding affinity of the oligomeric compounds of the invention. These include 5-substituted pyrimidines, 6-azapyrimidines and N-2, N-6 and O-6 substituted purines, including 2-aminopropyladenine, 5-propynyluracil and 5-propynylcytosine. 5-methylcytosine substitutions have been shown to increase nucleic acid duplex stability by 0.6-1.2.degree. C. (Sanghvi et al, Antisense Research

and Applications, CRC Press, Boca Raton, 1993, pp. 276-278) and are preferred base substitutions, even more particularly when combined with 2'-O-methoxyethyl sugar modifications. Representative United States patents that teach the preparation of modified nucleobases include, but are not limited to: U.S. Pat. No. 3,687,808, as well as U.S. Pat. Nos.: 4,845,205; 5,130,302; 5,134,066; 5,175,273; 5,367,066; 5,432,272; 5,457,187; 5,459,255; 5,484,908; 5,502,177; 5,525,711; 5,552,540; 5,587,469; 5,594,121, 5,596,091; 5,614,617; 5,645,985; 5,830,653; 5,763,588; 6,005,096; 5,681,941 and 5,750,692, each of which is herein incorporated by reference.

Another modification of antisense oligonucleotides chemically linking to the oligonucleotide one or more moieties or conjugates which enhance the activity, cellular distribution or cellular uptake of the oligonucleotide. The compounds of the invention can include conjugate groups covalently bound to functional groups such as primary or secondary hydroxyl groups. Conjugate groups of the invention include intercalators, reporter molecules, polyamines, polyamides, polyethylene glycols, polyethers, groups that enhance the pharmacodynamic properties of oligomers, and groups that enhance the pharmacokinetic properties of oligomers. Typical conjugates groups include cholesterols, lipids, cation lipids, phospholipids, cationic phospholipids, biotin, phenazine, folate, phenanthridine, anthraquinone, acridine, fluoresceins, rhodamines, coumarins, and dyes. Groups that enhance the pharmacodynamic properties, in the context of this invention, include groups that improve oligomer uptake, enhance oligomer resistance to degradation, and/or strengthen sequence-specific hybridization with RNA. Groups that enhance the pharmacokinetic properties, in the context of this invention, include groups that improve oligomer uptake, distribution, metabolism or excretion. Conjugate moieties include but are not limited to lipid moieties such as a cholesterol moiety (Letsinger et al., Proc. Natl. Acad. Sci. USA, 1989, 86, 6553-6556), cholic acid (Manoharan et al., Bioorg. Med. Chem. Let., 1994, 4, 1053-1060), a thioether, e.g., hexyl-S-tritylthiol (Manoharan et al., Ann. N.Y. Acad. Sci., 1992, 660, 306-309; Manoharan et al., Bioorg. Med. Chem. Let., 1993, 3, 2765-2770), a thiocholesterol (Oberhauser et al., Nucl. Acids Res., 1992, 20, 533-538), an aliphatic chain, e.g., dodecandiol or undecyl residues (Saison-Behmoaras et al., EMBO J., 1991, 10, 1111-1118; Kabanov et al., FEBS Lett., 1990, 259, 327-330; Svinarchuk et al., Biochimie, 1993, 75, 49-54), a phospholipid, e.g., di-hexadecyl-rac-glycerol or triethyl-ammonium 1,2-di-O-hexadecyl-rac-glycero-3-H-phosphonate (Manoharan et al., Tetrahedron Lett., 1995, 36, 3651-3654; Shea et al., Nucl. Acids Res., 1990, 18, 3777-3783), a polyamine or a polyethylene glycol chain (Manoharan et al., Nucleosides & Nucleotides, 1995, 14, 969-973), or adamantane acetic acid (Manoharan et al., Tetrahedron Lett., 1995, 36, 3651-3654), a palmityl moiety (Mishra et al., Biochim. Biophys. Acta, 1995, 1264, 229-237), or an octadecylamine or hexylamino-carbonyl-oxycholesterol moiety. Oligonucleotides of the invention may also be conjugated to active drug substances, for example, aspirin, warfarin, phenylbutazone, ibuprofen, suprofen, fenbufen, ketoprofen, (S)-(+)-pranoprofen, carprofen, dansylsarcosine, 2,3,5-triiodobenzoic acid, flufenamic acid, folinic acid, a benzothiadiazide, chlorothiazide, a diazepine, indomethicin, a barbiturate, a cephalosporin, a sulfa drug, an antidiabetic, an antibacterial or an antibiotic. Oligonucleotide-drug conjugates and their preparation are described in U.S. patent application Ser. No. 09/334,130 (filed Jun. 15, 1999) and United States patents Nos.: 4,828,979; 4,948,882; 5,218,105; 5,525,465; 5,541,313; 5,545,730; 5,552,538; 5,578,717, 5,580,731; 5,580,731; 5,591,584; 5,109,124; 5,118,802;

5,138,045; 5,414,077; 5,486,603; 5,512,439; 5,578,718; 5,608,046; 4,587,044; 4,605,735; 4,667,025; 4,762,779; 4,789,737; 4,824,941; 4,835,263; 4,876,335; 4,904,582; 4,958,013; 5,082,830; 5,112,963; 5,214,136; 5,082,830; 5,112,963; 5,214,136; 5,245,022; 5,254,469; 5,258,506; 5,262,536; 5,272,250; 5,292,873; 5,317,098; 5,371,241, 5,391,723; 5,416,203, 5,451,463; 5,510,475; 5,512,667; 5,514,785; 5,565,552; 5,567,810; 5,574,142; 5,585,481; 5,587,371; 5,595,726; 5,597,696; 5,599,923; 5,599,928 and 5,688,941, each of which is herein incorporated by reference.

It is not necessary for all positions in a given compound to be uniformly modified, and in fact more than one of the aforementioned modifications may be incorporated in a single compound or even at a single nucleoside within an oligonucleotide. The present invention also includes antisense compounds which are chimeric compounds. "Chimeric" antisense compounds or "chimeras," in the context of this invention, are antisense compounds, particularly oligonucleotides, which contain two or more chemically distinct regions, each made up of at least one monomer unit, i.e., a nucleotide in the case of an oligonucleotide compound. These oligonucleotides typically contain at least one region wherein the oligonucleotide is modified so as to confer upon the oligonucleotide increased resistance to nuclease degradation, increased cellular uptake, and/or increased binding affinity for the target nucleic acid. An additional region of the oligonucleotide may serve as a substrate for enzymes capable of cleaving RNA:DNA or RNA:RNA hybrids. By way of example, RNase H is a cellular endonuclease which cleaves the RNA strand of an RNA:DNA duplex. Activation of RNase H, therefore, results in cleavage of the RNA target, thereby greatly enhancing the efficiency of oligonucleotide inhibition of gene expression. Consequently, comparable results can often be obtained with shorter oligonucleotides when chimeric oligonucleotides are used, compared to phosphorothioate deoxyoligonucleotides hybridizing to the same target region. Chimeric antisense compounds of the invention may be formed as composite structures of two or more oligonucleotides, modified oligonucleotides, oligonucleosides and/or oligonucleotide mimetics as described above. Preferred chimeric antisense oligonucleotides incorporate at least one 2' modified sugar (preferably 2'-O-$(CH_2)_2$-O-CH_3) at the 3' terminal to confer nuclease resistance and a region with at least 4 contiguous 2'-H sugars to confer RNase H activity. Such compounds have also been referred to in the art as hybrids or gapmers. Preferred gapmers have a region of 2' modified sugars (preferably 2'-O-$(CH_2)_2$-O-CH_3) at the 3'-terminal and at the 5' terminal separated by at least one region having at least 4 contiguous 2'-H sugars and preferably incorporate phosphorothioate backbone linkages. Representative United States patents that teach the preparation of such hybrid structures include, but are not limited to, U.S. Pat. Nos. 5,013,830; 5,149,797; 5,220,007; 5,256,775; 5,366,878; 5,403,711; 5,491,133; 5,565,350; 5,623,065; 5,652,355; 5,652,356; and 5,700,922, each of which is herein incorporated by reference in its entirety.

The antisense compounds used in accordance with this invention may be conveniently and routinely made through the well-known technique of solid phase synthesis. Equipment for such synthesis is sold by several vendors including, for example, Applied Biosystems (Foster City, Calif.). Any other means for such synthesis known in the art may additionally or alternatively be employed. It is well known to use similar techniques to prepare oligonucleotides such as the phosphorothioates and alkylated derivatives. The compounds of the invention may also be admixed, encapsulated, conjugated or otherwise associated with other molecules, molecule structures or mixtures of compounds, as for example, liposomes, receptor targeted molecules, oral,

rectal, topical or other formulations, for assisting in uptake, distribution and/or absorption. Representative United States patents that teach the preparation of such uptake, distribution and/or absorption assisting formulations include, but are not limited to, U.S. Pat. Nos. 5,108,921; 5,354,844; 5,416,016; 5,459,127; 5,521,291; 5,543,158; 5,547,932; 5,583,020; 5,591,721; 4,426,330; 4,534,899; 5,013,556; 5,108,921; 5,213,804; 5,227,170; 5,264,221; 5,356,633; 5,395,619; 5,416,016; 5,417,978; 5,462,854; 5,469,854; 5,512,295; 5,527,528; 5,534,259; 5,543,152; 5,556,948; 5,580,575; and 5,595,756, each of which is herein incorporated by reference.

Other examples of sense or antisense oligonucleotides include those oligonucleotides which are covalently linked to organic moieties, such as those described in WO 90/10048, and other moieties that increases affinity of the oligonucleotide for a target nucleic acid sequence, such as poly-(L-lysine). Further still, intercalating agents, such as ellipticine, and alkylating agents or metal complexes may be attached to sense or antisense oligonucleotides to modify binding specificities of the antisense or sense oligonucleotide for the target nucleotide sequence.

Antisense or sense oligonucleotides may be introduced into a cell containing the target nucleic acid sequence by any gene transfer method, including, for example, $CaPO_4$-mediated DNA transfection, electroporation, or by using gene transfer vectors such as Epstein-Barr virus. In a preferred procedure, an antisense or sense oligonucleotide is inserted into a suitable retroviral vector. A cell containing the target nucleic acid sequence is contacted with the recombinant retroviral vector, either *in vivo* or *ex vivo*. Suitable retroviral vectors include, but are not limited to, those derived from the murine retrovirus M-MuLV, N2 (a retrovirus derived from M-MuLV), or the double copy vectors designated DCT5A, DCT5B and DCT5C (see WO 90/13641).

Sense or antisense oligonucleotides also may be introduced into a cell containing the target nucleotide sequence by formation of a conjugate with a ligand binding molecule, as described in WO 91/04753. Suitable ligand binding molecules include, but are not limited to, cell surface receptors, growth factors, other cytokines, or other ligands that bind to cell surface receptors. Preferably, conjugation of the ligand binding molecule does not substantially interfere with the ability of the ligand binding molecule to bind to its corresponding molecule or receptor, or block entry of the sense or antisense oligonucleotide or its conjugated version into the cell.

Alternatively, a sense or an antisense oligonucleotide may be introduced into a cell containing the target nucleic acid sequence by formation of an oligonucleotide-lipid complex, as described in WO 90/10448. The sense or antisense oligonucleotide-lipid complex is preferably dissociated within the cell by an endogenous lipase.

Antisense or sense RNA or DNA molecules are generally at least about 5 nucleotides in length, alternatively at least about 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 185, 190, 195, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710,

720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, or 1000 nucleotides in length, wherein in this context the term "about" means the referenced nucleotide sequence length plus or minus 10% of that referenced length.

The probes may also be employed in PCR techniques to generate a pool of sequences for identification of closely related TAT coding sequences.

Nucleotide sequences encoding a TAT can also be used to construct hybridization probes for mapping the gene which encodes that TAT and for the genetic analysis of individuals with genetic disorders. The nucleotide sequences provided herein may be mapped to a chromosome and specific regions of a chromosome using known techniques, such as *in situ* hybridization, linkage analysis against known chromosomal markers, and hybridization screening with libraries.

When the coding sequences for TAT encode a protein which binds to another protein (example, where the TAT is a receptor), the TAT can be used in assays to identify the other proteins or molecules involved in the binding interaction. By such methods, inhibitors of the receptor/ligand binding interaction can be identified. Proteins involved in such binding interactions can also be used to screen for peptide or small molecule inhibitors or agonists of the binding interaction. Also, the receptor TAT can be used to isolate correlative ligand(s). Screening assays can be designed to find lead compounds that mimic the biological activity of a native TAT or a receptor for TAT. Such screening assays will include assays amenable to high-throughput screening of chemical libraries, making them particularly suitable for identifying small molecule drug candidates. Small molecules contemplated include synthetic organic or inorganic compounds. The assays can be performed in a variety of formats, including protein-protein binding assays, biochemical screening assays, immunoassays and cell based assays, which are well characterized in the art.

Nucleic acids which encode TAT or its modified forms can also be used to generate either transgenic animals or "knock out" animals which, in turn, are useful in the development and screening of therapeutically useful reagents. A transgenic animal (e.g., a mouse or rat) is an animal having cells that contain a transgene, which transgene was introduced into the animal or an ancestor of the animal at a prenatal, e.g., an embryonic stage. A transgene is a DNA which is integrated into the genome of a cell from which a transgenic animal develops. In one embodiment, cDNA encoding TAT can be used to clone genomic DNA encoding TAT in accordance with established techniques and the genomic sequences used to generate transgenic animals that contain cells which express DNA encoding TAT. Methods for generating transgenic animals, particularly animals such as mice or rats, have become conventional in the art and are described, for example, in U.S. Patent Nos. 4,736,866 and 4,870,009. Typically, particular cells would be targeted for TAT transgene incorporation with tissue-specific enhancers. Transgenic animals that include a copy of a transgene encoding TAT introduced into the germ line of the animal at an embryonic stage can be used to examine the effect of increased expression of DNA encoding TAT. Such animals can be used as tester animals for reagents thought to confer protection from, for example, pathological conditions associated with its overexpression. In accordance with this facet of the invention, an animal is treated with the reagent and a reduced incidence of the pathological condition, compared to untreated animals bearing the transgene, would indicate a potential therapeutic intervention for the pathological condition.

Alternatively, non-human homologues of TAT can be used to construct a TAT "knock out" animal which has a defective or altered gene encoding TAT as a result of homologous recombination between the endogenous gene encoding TAT and altered genomic DNA encoding TAT introduced into an embryonic stem cell of the animal. For example, cDNA encoding TAT can be used to clone genomic DNA encoding TAT in accordance with established techniques. A portion of the genomic DNA encoding TAT can be deleted or replaced with another gene, such as a gene encoding a selectable marker which can be used to monitor integration. Typically, several kilobases of unaltered flanking DNA (both at the 5' and 3' ends) are included in the vector [see e.g., Thomas and Capecchi, Cell, 51:503 (1987) for a description of homologous recombination vectors]. The vector is introduced into an embryonic stem cell line (e.g., by electroporation) and cells in which the introduced DNA has homologously recombined with the endogenous DNA are selected [see e.g., Li et al., Cell, 69:915 (1992)]. The selected cells are then injected into a blastocyst of an animal (e.g., a mouse or rat) to form aggregation chimeras [see e.g., Bradley, in *Teratocarcinomas and Embryonic Stem Cells: A Practical Approach*, E. J. Robertson, ed. (IRL, Oxford, 1987), pp. 113-152]. A chimeric embryo can then be implanted into a suitable pseudopregnant female foster animal and the embryo brought to term to create a "knock out" animal. Progeny harboring the homologously recombined DNA in their germ cells can be identified by standard techniques and used to breed animals in which all cells of the animal contain the homologously recombined DNA. Knockout animals can be characterized for instance, for their ability to defend against certain pathological conditions and for their development of pathological conditions due to absence of the TAT polypeptide.

Nucleic acid encoding the TAT polypeptides may also be used in gene therapy. In gene therapy applications, genes are introduced into cells in order to achieve *in vivo* synthesis of a therapeutically effective genetic product, for example for replacement of a defective gene. "Gene therapy" includes both conventional gene therapy where a lasting effect is achieved by a single treatment, and the administration of gene therapeutic agents, which involves the one time or repeated administration of a therapeutically effective DNA or mRNA. Antisense RNAs and DNAs can be used as therapeutic agents for blocking the expression of certain genes *in vivo*. It has already been shown that short antisense oligonucleotides can be imported into cells where they act as inhibitors, despite their low intracellular concentrations caused by their restricted uptake by the cell membrane. (Zamecnik *et al.*, Proc. Natl. Acad. Sci. USA 83:4143-4146 [1986]). The oligonucleotides can be modified to enhance their uptake, e.g. by substituting their negatively charged phosphodiester groups by uncharged groups.

There are a variety of techniques available for introducing nucleic acids into viable cells. The techniques vary depending upon whether the nucleic acid is transferred into cultured cells *in vitro*, or *in vivo* in the cells of the intended host. Techniques suitable for the transfer of nucleic acid into mammalian cells *in vitro* include the use of liposomes, electroporation, microinjection, cell fusion, DEAE-dextran, the calcium phosphate precipitation method, etc. The currently preferred *in vivo* gene transfer techniques include transfection with viral (typically retroviral) vectors and viral coat protein-liposome mediated transfection (Dzau et al., Trends in Biotechnology 11, 205-210 [1993]). In some situations it is desirable to provide the nucleic acid source with an agent that targets the target cells, such as an antibody specific for a cell surface membrane

protein or the target cell, a ligand for a receptor on the target cell, etc. Where liposomes are employed, proteins which bind to a cell surface membrane protein associated with endocytosis may be used for targeting and/or to facilitate uptake, e.g. capsid proteins or fragments thereof tropic for a particular cell type, antibodies for proteins which undergo internalization in cycling, proteins that target intracellular localization and enhance intracellular half-life. The technique of receptor-mediated endocytosis is described, for example, by Wu et al., J. Biol. Chem. 262, 4429-4432 (1987); and Wagner et al., Proc. Natl. Acad. Sci. USA 87, 3410-3414 (1990). For review of gene marking and gene therapy protocols see Anderson et al., Science 256, 808-813 (1992).

The nucleic acid molecules encoding the TAT polypeptides or fragments thereof described herein are useful for chromosome identification. In this regard, there exists an ongoing need to identify new chromosome markers, since relatively few chromosome marking reagents, based upon actual sequence data are presently available. Each TAT nucleic acid molecule of the present invention can be used as a chromosome marker.

The TAT polypeptides and nucleic acid molecules of the present invention may also be used diagnostically for tissue typing, wherein the TAT polypeptides of the present invention may be differentially expressed in one tissue as compared to another, preferably in a diseased tissue as compared to a normal tissue of the same tissue type. TAT nucleic acid molecules will find use for generating probes for PCR, Northern analysis, Southern analysis and Western analysis.

This invention encompasses methods of screening compounds to identify those that mimic the TAT polypeptide (agonists) or prevent the effect of the TAT polypeptide (antagonists). Screening assays for antagonist drug candidates are designed to identify compounds that bind or complex with the TAT polypeptides encoded by the genes identified herein, or otherwise interfere with the interaction of the encoded polypeptides with other cellular proteins, including e.g., inhibiting the expression of TAT polypeptide from cells. Such screening assays will include assays amenable to high-throughput screening of chemical libraries, making them particularly suitable for identifying small molecule drug candidates.

The assays can be performed in a variety of formats, including protein-protein binding assays, biochemical screening assays, immunoassays, and cell-based assays, which are well characterized in the art.

All assays for antagonists are common in that they call for contacting the drug candidate with a TAT polypeptide encoded by a nucleic acid identified herein under conditions and for a time sufficient to allow these two components to interact.

In binding assays, the interaction is binding and the complex formed can be isolated or detected in the reaction mixture. In a particular embodiment, the TAT polypeptide encoded by the gene identified herein or the drug candidate is immobilized on a solid phase, e.g., on a microtiter plate, by covalent or non-covalent attachments. Non-covalent attachment generally is accomplished by coating the solid surface with a solution of the TAT polypeptide and drying. Alternatively, an immobilized antibody, e.g., a monoclonal antibody, specific for the TAT polypeptide to be immobilized can be used to anchor it to a solid surface. The assay is performed by adding the non-immobilized component, which may be labeled by a detectable label, to the immobilized component, e.g., the coated surface containing the anchored component. When the reaction is complete, the non-reacted components are removed, e.g., by washing, and complexes anchored on the solid

surface are detected. When the originally non-immobilized component carries a detectable label, the detection of label immobilized on the surface indicates that complexing occurred. Where the originally non-immobilized component does not carry a label, complexing can be detected, for example, by using a labeled antibody specifically binding the immobilized complex.

If the candidate compound interacts with but does not bind to a particular TAT polypeptide encoded by a gene identified herein, its interaction with that polypeptide can be assayed by methods well known for detecting protein-protein interactions. Such assays include traditional approaches, such as, e.g., cross-linking, co-immunoprecipitation, and co-purification through gradients or chromatographic columns. In addition, protein-protein interactions can be monitored by using a yeast-based genetic system described by Fields and co-workers (Fields and Song, Nature (London), 340:245-246 (1989); Chien et al., Proc. Natl. Acad. Sci. USA, 88:9578-9582 (1991)) as disclosed by Chevray and Nathans, Proc. Natl. Acad. Sci. USA, 89: 5789-5793 (1991). Many transcriptional activators, such as yeast GAL4, consist of two physically discrete modular domains, one acting as the DNA-binding domain, the other one functioning as the transcription-activation domain. The yeast expression system described in the foregoing publications (generally referred to as the "two-hybrid system") takes advantage of this property, and employs two hybrid proteins, one in which the target protein is fused to the DNA-binding domain of GAL4, and another, in which candidate activating proteins are fused to the activation domain. The expression of a GAL1- *lacZ* reporter gene under control of a GAL4-activated promoter depends on reconstitution of GAL4 activity via protein-protein interaction. Colonies containing interacting polypeptides are detected with a chromogenic substrate for β-galactosidase. A complete kit (MATCHMAKER™) for identifying protein-protein interactions between two specific proteins using the two-hybrid technique is commercially available from Clontech. This system can also be extended to map protein domains involved in specific protein interactions as well as to pinpoint amino acid residues that are crucial for these interactions.

Compounds that interfere with the interaction of a gene encoding a TAT polypeptide identified herein and other intra- or extracellular components can be tested as follows: usually a reaction mixture is prepared containing the product of the gene and the intra- or extracellular component under conditions and for a time allowing for the interaction and binding of the two products. To test the ability of a candidate compound to inhibit binding, the reaction is run in the absence and in the presence of the test compound. In addition, a placebo may be added to a third reaction mixture, to serve as positive control. The binding (complex formation) between the test compound and the intra- or extracellular component present in the mixture is monitored as described hereinabove. The formation of a complex in the control reaction(s) but not in the reaction mixture containing the test compound indicates that the test compound interferes with the interaction of the test compound and its reaction partner.

To assay for antagonists, the TAT polypeptide may be added to a cell along with the compound to be screened for a particular activity and the ability of the compound to inhibit the activity of interest in the presence of the TAT polypeptide indicates that the compound is an antagonist to the TAT polypeptide. Alternatively, antagonists may be detected by combining the TAT polypeptide and a potential antagonist with membrane-bound TAT polypeptide receptors or recombinant receptors under appropriate conditions for a competitive inhibition

assay. The TAT polypeptide can be labeled, such as by radioactivity, such that the number of TAT polypeptide molecules bound to the receptor can be used to determine the effectiveness of the potential antagonist. The gene encoding the receptor can be identified by numerous methods known to those of skill in the art, for example, ligand panning and FACS sorting. Coligan et al., Current Protocols in Immun. , 1(2): Chapter 5 (1991). Preferably, expression cloning is employed wherein polyadenylated RNA is prepared from a cell responsive to the TAT polypeptide and a cDNA library created from this RNA is divided into pools and used to transfect COS cells or other cells that are not responsive to the TAT polypeptide. Transfected cells that are grown on glass slides are exposed to labeled TAT polypeptide. The TAT polypeptide can be labeled by a variety of means including iodination or inclusion of a recognition site for a site-specific protein kinase. Following fixation and incubation, the slides are subjected to autoradiographic analysis. Positive pools are identified and sub-pools are prepared and re-transfected using an interactive sub-pooling and re-screening process, eventually yielding a single clone that encodes the putative receptor.

As an alternative approach for receptor identification, labeled TAT polypeptide can be photoaffinity-linked with cell membrane or extract preparations that express the receptor molecule. Cross-linked material is resolved by PAGE and exposed to X-ray film. The labeled complex containing the receptor can be excised, resolved into peptide fragments, and subjected to protein micro-sequencing. The amino acid sequence obtained from micro- sequencing would be used to design a set of degenerate oligonucleotide probes to screen a cDNA library to identify the gene encoding the putative receptor.

In another assay for antagonists, mammalian cells or a membrane preparation expressing the receptor would be incubated with labeled TAT polypeptide in the presence of the candidate compound. The ability of the compound to enhance or block this interaction could then be measured.

More specific examples of potential antagonists include an oligonucleotide that binds to the fusions of immunoglobulin with TAT polypeptide, and, in particular, antibodies including, without limitation, poly- and monoclonal antibodies and antibody fragments, single-chain antibodies, anti-idiotypic antibodies, and chimeric or humanized versions of such antibodies or fragments, as well as human antibodies and antibody fragments. Alternatively, a potential antagonist may be a closely related protein, for example, a mutated form of the TAT polypeptide that recognizes the receptor but imparts no effect, thereby competitively inhibiting the action of the TAT polypeptide.

Another potential TAT polypeptide antagonist is an antisense RNA or DNA construct prepared using antisense technology, where, e.g., an antisense RNA or DNA molecule acts to block directly the translation of mRNA by hybridizing to targeted mRNA and preventing protein translation. Antisense technology can be used to control gene expression through triple-helix formation or antisense DNA or RNA, both of which methods are based on binding of a polynucleotide to DNA or RNA. For example, the 5' coding portion of the polynucleotide sequence, which encodes the mature TAT polypeptides herein, is used to design an antisense RNA oligonucleotide of from about 10 to 40 base pairs in length. A DNA oligonucleotide is designed to be complementary to a region of the gene involved in transcription (triple helix - see Lee et al., Nucl. Acids Res., 6:3073 (1979); Cooney et al., Science, 241: 456 (1988); Dervan et al., Science, 251:1360 (1991)), thereby preventing transcription and the production of the TAT polypeptide. The antisense RNA oligonucleotide

hybridizes to the mRNA *in vivo* and blocks translation of the mRNA molecule into the TAT polypeptide (antisense - Okano, Neurochem., 56:560 (1991); Oligodeoxynucleotides as Antisense Inhibitors of Gene Expression (CRC Press: Boca Raton, FL, 1988). The oligonucleotides described above can also be delivered to cells such that the antisense RNA or DNA may be expressed *in vivo* to inhibit production of the TAT polypeptide. When antisense DNA is used, oligodeoxyribonucleotides derived from the translation-initiation site, e.g., between about -10 and +10 positions of the target gene nucleotide sequence, are preferred.

Potential antagonists include small molecules that bind to the active site, the receptor binding site, or growth factor or other relevant binding site of the TAT polypeptide, thereby blocking the normal biological activity of the TAT polypeptide. Examples of small molecules include, but are not limited to, small peptides or peptide-like molecules, preferably soluble peptides, and synthetic non-peptidyl organic or inorganic compounds.

Ribozymes are enzymatic RNA molecules capable of catalyzing the specific cleavage of RNA. Ribozymes act by sequence-specific hybridization to the complementary target RNA, followed by endonucleolytic cleavage. Specific ribozyme cleavage sites within a potential RNA target can be identified by known techniques. For further details see, e.g., RossCurrent Biology, 4:469-471 (1994), and PCT publication No. WO 97/33551 (published September 18, 1997).

Nucleic acid molecules in triple-helix formation used to inhibit transcription should be single-stranded and composed of deoxynucleotides. The base composition of these oligonucleotides is designed such that it promotes triple-helix formation via Hoogsteen base-pairing rules, which generally require sizeable stretches of purines or pyrimidines on one strand of a duplex. For further details see, e.g., PCT publication No. WO 97/33551, *supra*.

These small molecules can be identified by any one or more of the screening assays discussed hereinabove and/or by any other screening techniques well known for those skilled in the art.

Isolated TAT polypeptide-encoding nucleic acid can be used herein for recombinantly producing TAT polypeptide using techniques well known in the art and as described herein. In turn, the produced TAT polypeptides can be employed for generating anti-TAT antibodies using techniques well known in the art and as described herein.

Antibodies specifically binding a TAT polypeptide identified herein, as well as other molecules identified by the screening assays disclosed hereinbefore, can be administered for the treatment of various disorders, including cancer, in the form of pharmaceutical compositions.

If the TAT polypeptide is intracellular and whole antibodies are used as inhibitors, internalizing antibodies are preferred. However, lipofections or liposomes can also be used to deliver the antibody, or an antibody fragment, into cells. Where antibody fragments are used, the smallest inhibitory fragment that specifically binds to the binding domain of the target protein is preferred. For example, based upon the variable-region sequences of an antibody, peptide molecules can be designed that retain the ability to bind the target protein sequence. Such peptides can be synthesized chemically and/or produced by recombinant DNA technology. See, *e.g.*, Marasco *et al.*, Proc. Natl. Acad. Sci. USA, 90: 7889-7893 (1993).

The formulation herein may also contain more than one active compound as necessary for the particular

indication being treated, preferably those with complementary activities that do not adversely affect each other. Alternatively, or in addition, the composition may comprise an agent that enhances its function, such as, for example, a cytotoxic agent, cytokine, chemotherapeutic agent, or growth-inhibitory agent. Such molecules are suitably present in combination in amounts that are effective for the purpose intended.

The following examples are offered for illustrative purposes only, and are not intended to limit the scope of the present invention in any way.

All patent and literature references cited in the present specification are hereby incorporated by reference in their entirety.

EXAMPLES

Commercially available reagents referred to in the examples were used according to manufacturer's instructions unless otherwise indicated. The source of those cells identified in the following examples, and throughout the specification, by ATCC accession numbers is the American Type Culture Collection, Manassas, VA.

EXAMPLE 1: Identification of Tumor-Specific Amplified Chromosomal Regions

From the GenBank and NCBI databases, we retrieved over 4-million EST sequences representing a variety of normal and diseased tissues. Excluding ESTs from normalized or subtracted libraries, there are approximately 1.2 million EST sequences from normal and 1.7 million EST sequences from tumor tissues. In order to quantify the expression level for each known or novel gene for a tissue of interest, we computed the normalized EST abundance and expressed this as the digital expression level (DEL = EST abundance per million ESTs). In our previous studies, we have found a linear correlation between DEL and normalized mRNA level measured by real-time PCR analysis.

The DEL values for each gene can then be plotted along each chromosome according to its genomic coordinates, producing transcriptome maps for both normal and tumor tissues in each tissue. In some specific regions, genes located close to one another appeared to be co-upregulated in the tumor tissue when compared with normal. One such example is a 1.8 MB region corresponding to chromosome 17q11 where 33 genes are expressed at a higher level in the breast tumor samples than in normal breast tissue (data not shown). This region, which includes the ERBB2 gene, is known to be amplified in 30% of breast cancer patients and roughly corresponds to known breast tumor amplicons in size. We were able to visually identify a number of other tumor-related regions like this one, which we herein call RITEs (regions of increased tumor expression).

To determine whether RITEs merely represent isolated cases or common features on chromosome, we took a computational approach to identify all RITEs in ten different tumor types. For each gene, a two-proportion Z-test was performed using the EST distribution data in normal and tumor samples, and the resulting Z-score was used to measure the extent of upregulation in the tumor. In order to systematically identify RITEs and to reduce noises caused by individual genes, we scanned the human genome in a 500-KB window with a 100-KB offset and calculated the trimmed mean of Z-scores (TMZ) for the genes in each window. We then empirically devised a sensing index that captures consecutive windows with TMZ above

genomic average. Scanning the genomic regions with the breast data revealed a number of genomic regions with an exceptionally high sensing index (data not shown). When the cutoff of sensing index was empirically set to 3, we found 67 RITEs for breast tumor as compared to normal breast tissue. Since EST clones come from multiple individual tissue libraries, these RITEs are representations of the entire patient population with breast cancer rather than individual patients. We then refined the boundaries of each RITE by trimming off genes on each side whose Z-scores were less than 4 times the genomic mean. Visual inspection of these putative RITEs confirmed clusters of genes with higher expression in a tumor type.

To address the concern that the RITEs identified are simply coincidental clustering of individual tumor-specific genes, we performed a series of permutation analyses where the chromosomal coordinates of each gene were randomly shuffled with other available coordinates. We analyzed 10,000 permuted breast data sets to record the number of RITEs. Under permuted condition, the average number of RITEs was 5.4 with a standard deviation of 1.2, which is significantly below that detected under the native condition. We also performed similar analyses on nine other tissues: brain, colon, kidney, liver, lung, pancreas, prostate, stomach, and testis, respectively. In all tissues, the observed number of RITEs under native conditions was at least 25 standard deviations higher than the average number in the permutations. This demonstrates that the clustering of tumor-upregulated genes is not the result of random variation in the distribution of these genes over the genome.

The presence of these RITEs could be attributed to either genomic alteration or transcriptional control. To examine the relationship between RITEs and known amplicons, we retrieved the cytogenetic marker for each RITE to compare with known data. Identification of amplicons in tumor usually requires laborious approaches such as fluorescence in situ hybridization (FISH) and comparative genomic hybridization (CGH). In brain, breast, and lung tissues where CGH data are most abundant, about 50% of RITEs correspond to amplicons identified by CGH analysis, suggesting that these RITEs are the results of genomic DNA amplification in tumor. The alternative mechanism for the presence of RITEs requires coordinated gene expression at the transcription level. Even though eukaryotic genes are known to be controlled on an individual basis, there is accumulating evidence for large domains of similarly expressed genes in eukaryotic genomes. A preliminary analysis of the upstream DNA sequences failed to identify promoter elements common to all genes in the RITE regions (data not shown); however, it is still possible that these regions are organized in some forms of chromosomal scaffold that enable coordinated expression in tumor.

In summary, by using a computational approach and available public data sources, we were able to rapidly identify non-random clusters of genes with increased expression in tumors. It is likely most of the herein identified RITEs are the consequence of allelic imbalance in tumor cells. DNA microarray-based CGH have recently been adapted for high-throughput detection of chromosomal imbalance; however, the result is often limited by the requirement for large number of microarray experiments using samples from various cancer patients, and the resolution is restricted by the density of the genomic DNA array. While microarray-based CGH analysis is effective in finding tumor-specific amplicons, the EST-based transcriptome analysis has the advantage of identifying potential amplicons present in large number of cancer types and patients. The availability of these RITE regions would enable us to study the mechanism of aberrant DNA amplification in

tumors and to identify novel target genes for therapeutic intervention.

The results from these analyses are shown in the accompanying Appendices B through J. In each of Appendix B through J, the first page of the appendix shows the tissue type for the results shown. Then, throughout each appendix, the location of each tumor-specific amplified chromosomal region (RITE) for that tumor tissue type is given in bold font showing first the chromosome name or number (e.g., "**chr1**") followed by the numerical coordinates of the starting position and ending position, respectively, of the amplified region on that specific chromosome. The numerical coordinates relate to those that appear in the Build 29 release of human genome sequence data from the NCBI (May 2002). For example, the RITE designated by the phrase "chr1.147531064.149694137" is an amplified region on chromosome 1 with a starting point at position 147531064 and an ending point at position 149694137 as appearing in the Build 29 release of human genome sequence data from the NCBI (May 2002). Under the location of each individual RITE are a listing of figures showing the cDNA sequences which are expressed from genes located within that specific amplified chromosomal region. The following appendices are shown:

Appendix B - 14 RITEs identified in brain tumor tissue (overexpressed cDNA sequences shown in Figures 1-682 (SEQ ID NOS:1-682);

Appendix C - 22 RITEs identified in breast tumor tissue (overexpressed cDNA sequences shown in Figures 683-1007 (SEQ ID NOS:683-1007);

Appendix D - 4 RITEs identified in kidney tumor tissue (overexpressed cDNA sequences shown in Figures 1008-1162 (SEQ ID NOS:1008-1162);

Appendix E - 50 RITEs identified in liver tumor tissue (overexpressed cDNA sequences shown in Figures 1163-1880 (SEQ ID NOS:1163-1880);

Appendix F - 41 RITEs identified in lung tumor tissue (overexpressed cDNA sequences shown in Figures 1881-3158 (SEQ ID NOS:1881-3158);

Appendix G - 40 RITEs identified in pancreatic tumor tissue (overexpressed cDNA sequences shown in Figures 3159-4326 (SEQ ID NOS:3159-4326);

Appendix H - 12 RITEs identified in prostate tumor tissue (overexpressed cDNA sequences shown in Figures 4327-4457 (SEQ ID NOS:4327-4457);

Appendix I - 3 RITEs identified in stomach tumor tissue (overexpressed cDNA sequences shown in Figures 4458-4516 (SEQ ID NOS:4458-4516); and

Appendix J - 20 RITEs identified in testis tumor tissue (overexpressed cDNA sequences shown in Figures 4517-4622 (SEQ ID NOS:4517-4622).

Methods:

Human EST and mRNA Collection

The human EST collection consists of all sequences in the EST division of GenBank, plus human SAGE sequences from NCBI. Quality information contained in the GenBank flat file was used to trim poor sequence. Tissue and histology labels were added using library information from NCI/CGAP (http://cgap.nci.nih.gov/Tissues/). The human mRNA collection (46515 transcripts) consists of mRNA sequences mapped onto the assembled human genome from NCBI (release 29, May 2002), as specified in the GenBank style flat file for each chromosome. The location of each mRNA in its chromosome was determined by using contig order information plus position information from the flatfile. Pseudogenes, mRNAs labeled "similar to ALU SUBFAMILY", and mRNAs with anomalies in the location specification were eliminated. Among 24491 genes that have EST coverage, 24388 non-overlapping genes were selected for expression profiling analysis.

EST-based expression level calculation

The sequence alignment program BLAST 19 was used to identify all EST sequences which matches at least 60 base pairs with >98% identity to a gene of interest. Matched ESTs were grouped by their source libraries, which were further consolidated by library tissue types. For each tissue category, a DEL (digital expression level) value was calculated as the total number of matching EST clones divided by the sum of library sizes and multiplied by 1,000,000. Even though a typical EST library contains only a few thousand-clone sequences, multiple libraries from the same tissue type can be aggregated to form a composite data source that is more information-rich and better represents rare genes. These normalized EST abundances were calculated for both normal and tumor groups for each tissue.

Comparison of two proportions with Z-test

The Z-test is applied to test whether the proportions from two independent populations are identical. For a given gene, the common relative abundance (p) was computed in all libraries by taking the sum of clone counts for the gene over all libraries and dividing by the total number of clones over all libraries. The relative abundance for tumor (p1) and normal (p2) libraries were also calculated, respectively. The test statistic Z-score is calculated as follows:

z = (p1 minus p2) divided by the square root of X, where X is:

$$p(1-p)[(1/Nt)+(1/Nn)]$$

where Nt is the total number of EST clones derived from a given tumor tissue and Nn is the total number of EST clones derived from a given normal tissue.

Calculation of trimmed mean of Z-score (TMZ) and sensing index

TMZ is calculated using a 500 kbp window moving along the chromosome with 100 kbp interval and defined as:

$$TMZ = \frac{\sum_{i=1}^{n} z_i - \max - \min}{n-2}$$

where

z_i is the Z-score of the gene in a 500 kbp window.

max is the maximum Z-score in the window.

min is the minimum Z-score in the window.

n is the number of genes in the window.

The sensing index (S) is calculated as follows:

$$s = (m-g) \times \sqrt{n}$$

where

m is the TMZ mean of consecutive windows whose TMZ is greater than genomic mean (g).

g is the mean of TMZ for all windows

n is the number of consecutive windows whose TMZ is greater than genomic mean (g).

If the trimmed mean of the window is less than the genomic mean, S = m – g. For regions with consecutive windows whose trimmed means are greater than the genomic mean, S = (m – g)* $\sqrt{n}$. Each window within the region has the same S value.

EXAMPLE 2: Use of TAT as a hybridization probe

The following method describes use of a nucleotide sequence encoding TAT as a hybridization probe for, i.e., diagnosis of the presence of a tumor in a mammal.

DNA comprising the coding sequence of full-length or mature TAT as disclosed herein can also be employed as a probe to screen for homologous DNAs (such as those encoding naturally-occurring variants of TAT) in human tissue cDNA libraries or human tissue genomic libraries.

Hybridization and washing of filters containing either library DNAs is performed under the following high stringency conditions. Hybridization of radiolabeled TAT-derived probe to the filters is performed in a solution of 50% formamide, 5x SSC, 0.1% SDS, 0.1% sodium pyrophosphate, 50 mM sodium phosphate, pH 6.8, 2x Denhardt's solution, and 10% dextran sulfate at 42°C for 20 hours. Washing of the filters is performed in an aqueous solution of 0.1x SSC and 0.1% SDS at 42°C.

DNAs having a desired sequence identity with the DNA encoding full-length native sequence TAT can then be identified using standard techniques known in the art.

EXAMPLE 3: Expression of TAT in *E. coli*

This example illustrates preparation of an unglycosylated form of TAT by recombinant expression in *E. coli*.

The DNA sequence encoding TAT is initially amplified using selected PCR primers. The primers should contain restriction enzyme sites which correspond to the restriction enzyme sites on the selected expression vector. A variety of expression vectors may be employed. An example of a suitable vector is pBR322 (derived from *E. coli*; see Bolivar et al., Gene, 2:95 (1977)) which contains genes for ampicillin and tetracycline resistance. The vector is digested with restriction enzyme and dephosphorylated. The PCR amplified sequences are then ligated into the vector. The vector will preferably include sequences which encode for an antibiotic resistance gene, a trp promoter, a polyhis leader (including the first six STII codons, polyhis sequence, and enterokinase cleavage site), the TAT coding region, lambda transcriptional terminator, and an argU gene.

The ligation mixture is then used to transform a selected *E. coli* strain using the methods described in Sambrook et al., supra. Transformants are identified by their ability to grow on LB plates and antibiotic resistant colonies are then selected. Plasmid DNA can be isolated and confirmed by restriction analysis and DNA sequencing.

Selected clones can be grown overnight in liquid culture medium such as LB broth supplemented with antibiotics. The overnight culture may subsequently be used to inoculate a larger scale culture. The cells are then grown to a desired optical density, during which the expression promoter is turned on.

After culturing the cells for several more hours, the cells can be harvested by centrifugation. The cell pellet obtained by the centrifugation can be solubilized using various agents known in the art, and the solubilized TAT protein can then be purified using a metal chelating column under conditions that allow tight binding of the protein.

TAT may be expressed in *E. coli* in a poly-His tagged form, using the following procedure. The DNA encoding TAT is initially amplified using selected PCR primers. The primers will contain restriction enzyme sites which correspond to the restriction enzyme sites on the selected expression vector, and other useful sequences providing for efficient and reliable translation initiation, rapid purification on a metal chelation column, and proteolytic removal with enterokinase. The PCR-amplified, poly-His tagged sequences are then ligated into an expression vector, which is used to transform an *E. coli* host based on strain 52 (W3110 fuhA(tonA) lon galE rpoHts(htpRts) clpP(lacIq). Transformants are first grown in LB containing 50 mg/ml carbenicillin at 30°C with shaking until an O.D.600 of 3-5 is reached. Cultures are then diluted 50-100 fold into CRAP media (prepared by mixing 3.57 g $(NH_4)_2SO_4$, 0.71 g sodium citrate•2H2O, 1.07 g KCl, 5.36 g Difco yeast extract, 5.36 g Sheffield hycase SF in 500 mL water, as well as 110 mM MPOS, pH 7.3, 0.55% (w/v) glucose and 7 mM $MgSO_4$) and grown for approximately 20-30 hours at 30°C with shaking. Samples are removed to verify expression by SDS-PAGE analysis, and the bulk culture is centrifuged to pellet the cells. Cell pellets are frozen until purification and refolding.

E. coli paste from 0.5 to 1 L fermentations (6-10 g pellets) is resuspended in 10 volumes (w/v) in 7 M guanidine, 20 mM Tris, pH 8 buffer. Solid sodium sulfite and sodium tetrathionate is added to make final concentrations of 0.1M and 0.02 M, respectively, and the solution is stirred overnight at 4°C. This step results in a denatured protein with all cysteine residues blocked by sulfitolization. The solution is centrifuged at 40,000 rpm in a Beckman Ultracentifuge for 30 min. The supernatant is diluted with 3-5 volumes of metal chelate column buffer (6 M guanidine, 20 mM Tris, pH 7.4) and filtered through 0.22 micron filters to clarify. The clarified extract is loaded onto a 5 ml Qiagen Ni-NTA metal chelate column equilibrated in the metal chelate column buffer. The column is washed with additional buffer containing 50 mM imidazole (Calbiochem, Utrol grade), pH 7.4. The protein is eluted with buffer containing 250 mM imidazole. Fractions containing the desired protein are pooled and stored at 4°C. Protein concentration is estimated by its absorbance at 280 nm using the calculated extinction coefficient based on its amino acid sequence.

The proteins are refolded by diluting the sample slowly into freshly prepared refolding buffer consisting of: 20 mM Tris, pH 8.6, 0.3 M NaCl, 2.5 M urea, 5 mM cysteine, 20 mM glycine and 1 mM EDTA. Refolding volumes are chosen so that the final protein concentration is between 50 to 100 micrograms/ml. The refolding solution is stirred gently at 4°C for 12-36 hours. The refolding reaction is quenched by the addition of TFA to a final concentration of 0.4% (pH of approximately 3). Before further purification of the protein, the solution is filtered through a 0.22 micron filter and acetonitrile is added to 2-10% final concentration. The refolded protein is chromatographed on a Poros R1/H reversed phase column using a mobile buffer of 0.1% TFA with elution with a gradient of acetonitrile from 10 to 80%. Aliquots of fractions with A280 absorbance are analyzed on SDS polyacrylamide gels and fractions containing homogeneous refolded protein are pooled. Generally, the properly refolded species of most proteins are eluted at the lowest concentrations of acetonitrile since those species are the most compact with their hydrophobic interiors shielded from interaction with the reversed phase resin. Aggregated species are usually eluted at higher acetonitrile concentrations. In addition to resolving misfolded forms of proteins from the desired form, the reversed phase step also removes endotoxin from the samples.

Fractions containing the desired folded TAT polypeptide are pooled and the acetonitrile removed using a gentle stream of nitrogen directed at the solution. Proteins are formulated into 20 mM Hepes, pH 6.8 with 0.14 M sodium chloride and 4% mannitol by dialysis or by gel filtration using G25 Superfine (Pharmacia) resins equilibrated in the formulation buffer and sterile filtered.

Certain of the TAT polypeptides disclosed herein have been successfully expressed and purified using this technique(s).

EXAMPLE 4: Expression of TAT in mammalian cells

This example illustrates preparation of a potentially glycosylated form of TAT by recombinant expression in mammalian cells.

The vector, pRK5 (see EP 307,247, published March 15, 1989), is employed as the expression vector. Optionally, the TAT DNA is ligated into pRK5 with selected restriction enzymes to allow insertion of the TAT DNA using ligation methods such as described in Sambrook et al., supra. The resulting vector is called pRK5-TAT.

In one embodiment, the selected host cells may be 293 cells. Human 293 cells (ATCC CCL 1573) are grown to confluence in tissue culture plates in medium such as DMEM supplemented with fetal calf serum and optionally, nutrient components and/or antibiotics. About 10 μg pRK5-TAT DNA is mixed with about 1 μg DNA encoding the VA RNA gene [Thimmappaya et al., Cell, 31:543 (1982)] and dissolved in 500 μl of 1 mM Tris-HCl, 0.1 mM EDTA, 0.227 M $CaCl_2$. To this mixture is added, dropwise, 500μl of 50 mM HEPES (pH 7.35), 280 mM NaCl, 1.5 mM $NaPO_4$, and a precipitate is allowed to form for 10 minutes at 25 °C. The precipitate is suspended and added to the 293 cells and allowed to settle for about four hours at 37 °C. The culture medium is aspirated off and 2 ml of 20% glycerol in PBS is added for 30 seconds. The 293 cells are then washed with serum free medium, fresh medium is added and the cells are incubated for about 5 days.

Approximately 24 hours after the transfections, the culture medium is removed and replaced with culture medium (alone) or culture medium containing 200 μCi/ml ^{35}S-cysteine and 200 μCi/ml ^{35}S-methionine. After a 12 hour incubation, the conditioned medium is collected, concentrated on a spin filter, and loaded onto a 15% SDS gel. The processed gel may be dried and exposed to film for a selected period of time to reveal the presence of TAT polypeptide. The cultures containing transfected cells may undergo further incubation (in serum free medium) and the medium is tested in selected bioassays.

In an alternative technique, TAT may be introduced into 293 cells transiently using the dextran sulfate method described by Somparyrac et al., Proc. Natl. Acad. Sci., 12:7575 (1981). 293 cells are grown to maximal density in a spinner flask and 700 μg pRK5-TAT DNA is added. The cells are first concentrated from the spinner flask by centrifugation and washed with PBS. The DNA-dextran precipitate is incubated on the cell pellet for four hours. The cells are treated with 20% glycerol for 90 seconds, washed with tissue culture medium, and re-introduced into the spinner flask containing tissue culture medium, 5 μg/ml bovine insulin and 0.1 μg/ml bovine transferrin. After about four days, the conditioned media is centrifuged and filtered to remove cells and debris. The sample containing expressed TAT can then be concentrated and purified by any selected method, such as dialysis and/or column chromatography.

In another embodiment, TAT can be expressed in CHO cells. The pRK5-TAT can be transfected into CHO cells using known reagents such as $CaPO_4$ or DEAE-dextran. As described above, the cell cultures can be incubated, and the medium replaced with culture medium (alone) or medium containing a radiolabel such as ^{35}S-methionine. After determining the presence of TAT polypeptide, the culture medium may be replaced with serum free medium. Preferably, the cultures are incubated for about 6 days, and then the conditioned medium is harvested. The medium containing the expressed TAT can then be concentrated and purified by any selected method.

Epitope-tagged TAT may also be expressed in host CHO cells. The TAT may be subcloned out of the pRK5 vector. The subclone insert can undergo PCR to fuse in frame with a selected epitope tag such as a poly-his tag into a Baculovirus expression vector. The poly-his tagged TAT insert can then be subcloned into a SV40 driven vector containing a selection marker such as DHFR for selection of stable clones. Finally, the CHO cells can be transfected (as described above) with the SV40 driven vector. Labeling may be performed, as described above, to verify expression. The culture medium containing the expressed poly-His tagged TAT can then be concentrated and purified by any selected method, such as by Ni^{2+}-chelate affinity chromatography.

TAT may also be expressed in CHO and/or COS cells by a transient expression procedure or in CHO cells by another stable expression procedure.

Stable expression in CHO cells is performed using the following procedure. The proteins are expressed as an IgG construct (immunoadhesin), in which the coding sequences for the soluble forms (e.g. extracellular domains) of the respective proteins are fused to an IgG1 constant region sequence containing the hinge, CH2 and CH2 domains and/or is a poly-His tagged form.

Following PCR amplification, the respective DNAs are subcloned in a CHO expression vector using standard techniques as described in Ausubel et al., Current Protocols of Molecular Biology, Unit 3.16, John Wiley and Sons (1997). CHO expression vectors are constructed to have compatible restriction sites 5' and 3' of the DNA of interest to allow the convenient shuttling of cDNA's. The vector used expression in CHO cells is as described in Lucas et al., Nucl. Acids Res. 24:9 (1774-1779 (1996), and uses the SV40 early promoter/enhancer to drive expression of the cDNA of interest and dihydrofolate reductase (DHFR). DHFR expression permits selection for stable maintenance of the plasmid following transfection.

Twelve micrograms of the desired plasmid DNA is introduced into approximately 10 million CHO cells using commercially available transfection reagents Superfect® (Quiagen), Dosper® or Fugene® (Boehringer Mannheim). The cells are grown as described in Lucas et al., supra. Approximately 3 x 10^7 cells are frozen in an ampule for further growth and production as described below.

The ampules containing the plasmid DNA are thawed by placement into water bath and mixed by vortexing. The contents are pipetted into a centrifuge tube containing 10 mLs of media and centrifuged at 1000 rpm for 5 minutes. The supernatant is aspirated and the cells are resuspended in 10 mL of selective media (0.2 μm filtered PS20 with 5% 0.2 μm diafiltered fetal bovine serum). The cells are then aliquoted into a 100 mL spinner containing 90 mL of selective media. After 1-2 days, the cells are transferred into a 250 mL spinner filled with 150 mL selective growth medium and incubated at 37°C. After another 2-3 days, 250 mL, 500 mL and 2000 mL spinners are seeded with 3 x 10^5 cells/mL. The cell media is exchanged with fresh media by

centrifugation and resuspension in production medium. Although any suitable CHO media may be employed, a production medium described in U.S. Patent No. 5,122,469, issued June 16, 1992 may actually be used. A 3L production spinner is seeded at 1.2 x 10^6 cells/mL. On day 0, the cell number pH ie determined. On day 1, the spinner is sampled and sparging with filtered air is commenced. On day 2, the spinner is sampled, the temperature shifted to 33°C, and 30 mL of 500 g/L glucose and 0.6 mL of 10% antifoam (e.g., 35% polydimethylsiloxane emulsion, Dow Corning 365 Medical Grade Emulsion) taken. Throughout the production, the pH is adjusted as necessary to keep it at around 7.2. After 10 days, or until the viability dropped below 70%, the cell culture is harvested by centrifugation and filtering through a 0.22 μm filter. The filtrate was either stored at 4°C or immediately loaded onto columns for purification.

For the poly-His tagged constructs, the proteins are purified using a Ni-NTA column (Qiagen). Before purification, imidazole is added to the conditioned media to a concentration of 5 mM. The conditioned media is pumped onto a 6 ml Ni-NTA column equilibrated in 20 mM Hepes, pH 7.4, buffer containing 0.3 M NaCl and 5 mM imidazole at a flow rate of 4-5 ml/min. at 4°C. After loading, the column is washed with additional equilibration buffer and the protein eluted with equilibration buffer containing 0.25 M imidazole. The highly purified protein is subsequently desalted into a storage buffer containing 10 mM Hepes, 0.14 M NaCl and 4% mannitol, pH 6.8, with a 25 ml G25 Superfine (Pharmacia) column and stored at -80°C.

Immunoadhesin (Fc-containing) constructs are purified from the conditioned media as follows. The conditioned medium is pumped onto a 5 ml Protein A column (Pharmacia) which had been equilibrated in 20 mM Na phosphate buffer, pH 6.8. After loading, the column is washed extensively with equilibration buffer before elution with 100 mM citric acid, pH 3.5. The eluted protein is immediately neutralized by collecting 1 ml fractions into tubes containing 275 μL of 1 M Tris buffer, pH 9. The highly purified protein is subsequently desalted into storage buffer as described above for the poly-His tagged proteins. The homogeneity is assessed by SDS polyacrylamide gels and by N-terminal amino acid sequencing by Edman degradation.

Certain of the TAT polypeptides disclosed herein have been successfully expressed and purified using this technique(s).

EXAMPLE 5: Expression of TAT in Yeast

The following method describes recombinant expression of TAT in yeast.

First, yeast expression vectors are constructed for intracellular production or secretion of TAT from the ADH2/GAPDH promoter. DNA encoding TAT and the promoter is inserted into suitable restriction enzyme sites in the selected plasmid to direct intracellular expression of TAT. For secretion, DNA encoding TAT can be cloned into the selected plasmid, together with DNA encoding the ADH2/GAPDH promoter, a native TAT signal peptide or other mammalian signal peptide, or, for example, a yeast alpha-factor or invertase secretory signal/leader sequence, and linker sequences (if needed) for expression of TAT.

Yeast cells, such as yeast strain AB110, can then be transformed with the expression plasmids described above and cultured in selected fermentation media. The transformed yeast supernatants can be analyzed by precipitation with 10% trichloroacetic acid and separation by SDS-PAGE, followed by staining of the gels with Coomassie Blue stain.

Recombinant TAT can subsequently be isolated and purified by removing the yeast cells from the fermentation medium by centrifugation and then concentrating the medium using selected cartridge filters. The concentrate containing TAT may further be purified using selected column chromatography resins.

Certain of the TAT polypeptides disclosed herein have been successfully expressed and purified using this technique(s).

EXAMPLE 6: Expression of TAT in Baculovirus-Infected Insect Cells

The following method describes recombinant expression of TAT in Baculovirus-infected insect cells.

The sequence coding for TAT is fused upstream of an epitope tag contained within a baculovirus expression vector. Such epitope tags include poly-his tags and immunoglobulin tags (like Fc regions of IgG). A variety of plasmids may be employed, including plasmids derived from commercially available plasmids such as pVL1393 (Novagen). Briefly, the sequence encoding TAT or the desired portion of the coding sequence of TAT such as the sequence encoding an extracellular domain of a transmembrane protein or the sequence encoding the mature protein if the protein is extracellular is amplified by PCR with primers complementary to the 5' and 3' regions. The 5' primer may incorporate flanking (selected) restriction enzyme sites. The product is then digested with those selected restriction enzymes and subcloned into the expression vector.

Recombinant baculovirus is generated by co-transfecting the above plasmid and BaculoGold™ virus DNA (Pharmingen) into *Spodoptera frugiperda* ("Sf9") cells (ATCC CRL 1711) using lipofectin (commercially available from GIBCO-BRL). After 4 - 5 days of incubation at 28°C, the released viruses are harvested and used for further amplifications. Viral infection and protein expression are performed as described by O'Reilley et al., Baculovirus expression vectors: A Laboratory Manual, Oxford: Oxford University Press (1994).

Expressed poly-his tagged TAT can then be purified, for example, by Ni^{2+}-chelate affinity chromatography as follows. Extracts are prepared from recombinant virus-infected Sf9 cells as described by Rupert et al., Nature, 362:175-179 (1993). Briefly, Sf9 cells are washed, resuspended in sonication buffer (25 mL Hepes, pH 7.9; 12.5 mM $MgCl_2$; 0.1 mM EDTA; 10% glycerol; 0.1% NP-40; 0.4 M KCl), and sonicated twice for 20 seconds on ice. The sonicates are cleared by centrifugation, and the supernatant is diluted 50-fold in loading buffer (50 mM phosphate, 300 mM NaCl, 10% glycerol, pH 7.8) and filtered through a 0.45 μm filter. A Ni^{2+}-NTA agarose column (commercially available from Qiagen) is prepared with a bed volume of 5 mL, washed with 25 mL of water and equilibrated with 25 mL of loading buffer. The filtered cell extract is loaded onto the column at 0.5 mL per minute. The column is washed to baseline A_{280} with loading buffer, at which point fraction collection is started. Next, the column is washed with a secondary wash buffer (50 mM phosphate; 300 mM NaCl, 10% glycerol, pH 6.0), which elutes nonspecifically bound protein. After reaching A_{280} baseline again, the column is developed with a 0 to 500 mM Imidazole gradient in the secondary wash buffer. One mL fractions are collected and analyzed by SDS-PAGE and silver staining or Western blot with Ni^{2+}-NTA-conjugated to alkaline phosphatase (Qiagen). Fractions containing the eluted His_{10}-tagged TAT are pooled and dialyzed against loading buffer.

Alternatively, purification of the IgG tagged (or Fc tagged) TAT can be performed using known chromatography techniques, including for instance, Protein A or protein G column chromatography.

Certain of the TAT polypeptides disclosed herein have been successfully expressed and purified using this technique(s).

EXAMPLE 7: Preparation of Antibodies that Bind TAT

This example illustrates preparation of monoclonal antibodies which can specifically bind TAT.

Techniques for producing the monoclonal antibodies are known in the art and are described, for instance, in Goding, supra. Immunogens that may be employed include purified TAT, fusion proteins containing TAT, and cells expressing recombinant TAT on the cell surface. Selection of the immunogen can be made by the skilled artisan without undue experimentation.

Mice, such as Balb/c, are immunized with the TAT immunogen emulsified in complete Freund's adjuvant and injected subcutaneously or intraperitoneally in an amount from 1-100 micrograms. Alternatively, the immunogen is emulsified in MPL-TDM adjuvant (Ribi Immunochemical Research, Hamilton, MT) and injected into the animal's hind foot pads. The immunized mice are then boosted 10 to 12 days later with additional immunogen emulsified in the selected adjuvant. Thereafter, for several weeks, the mice may also be boosted with additional immunization injections. Serum samples may be periodically obtained from the mice by retro-orbital bleeding for testing in ELISA assays to detect anti-TAT antibodies.

After a suitable antibody titer has been detected, the animals "positive" for antibodies can be injected with a final intravenous injection of TAT. Three to four days later, the mice are sacrificed and the spleen cells are harvested. The spleen cells are then fused (using 35% polyethylene glycol) to a selected murine myeloma cell line such as P3X63AgU.1, available from ATCC, No. CRL 1597. The fusions generate hybridoma cells which can then be plated in 96 well tissue culture plates containing HAT (hypoxanthine, aminopterin, and thymidine) medium to inhibit proliferation of non-fused cells, myeloma hybrids, and spleen cell hybrids.

The hybridoma cells will be screened in an ELISA for reactivity against TAT. Determination of "positive" hybridoma cells secreting the desired monoclonal antibodies against TAT is within the skill in the art.

The positive hybridoma cells can be injected intraperitoneally into syngeneic Balb/c mice to produce ascites containing the anti-TAT monoclonal antibodies. Alternatively, the hybridoma cells can be grown in tissue culture flasks or roller bottles. Purification of the monoclonal antibodies produced in the ascites can be accomplished using ammonium sulfate precipitation, followed by gel exclusion chromatography. Alternatively, affinity chromatography based upon binding of antibody to protein A or protein G can be employed.

EXAMPLE 8: Purification of TAT Polypeptides Using Specific Antibodies

Native or recombinant TAT polypeptides may be purified by a variety of standard techniques in the art of protein purification. For example, pro-TAT polypeptide, mature TAT polypeptide, or pre-TAT polypeptide is purified by immunoaffinity chromatography using antibodies specific for the TAT polypeptide of interest. In general, an immunoaffinity column is constructed by covalently coupling the anti-TAT polypeptide antibody to an activated chromatographic resin.

Polyclonal immunoglobulins are prepared from immune sera either by precipitation with ammonium sulfate or by purification on immobilized Protein A (Pharmacia LKB Biotechnology, Piscataway, N.J.).

Likewise, monoclonal antibodies are prepared from mouse ascites fluid by ammonium sulfate precipitation or chromatography on immobilized Protein A. Partially purified immunoglobulin is covalently attached to a chromatographic resin such as CnBr-activated SEPHAROSE™ (Pharmacia LKB Biotechnology). The antibody is coupled to the resin, the resin is blocked, and the derivative resin is washed according to the manufacturer's instructions.

Such an immunoaffinity column is utilized in the purification of TAT polypeptide by preparing a fraction from cells containing TAT polypeptide in a soluble form. This preparation is derived by solubilization of the whole cell or of a subcellular fraction obtained via differential centrifugation by the addition of detergent or by other methods well known in the art. Alternatively, soluble TAT polypeptide containing a signal sequence may be secreted in useful quantity into the medium in which the cells are grown.

A soluble TAT polypeptide-containing preparation is passed over the immunoaffinity column, and the column is washed under conditions that allow the preferential absorbance of TAT polypeptide (*e.g.*, high ionic strength buffers in the presence of detergent). Then, the column is eluted under conditions that disrupt antibody/TAT polypeptide binding (*e.g.*, a low pH buffer such as approximately pH 2-3, or a high concentration of a chaotrope such as urea or thiocyanate ion), and TAT polypeptide is collected.

EXAMPLE 9: *In Vitro* Tumor Cell Killing Assay

Mammalian cells expressing the TAT polypeptide of interest may be obtained using standard expression vector and cloning techniques. Alternatively, many tumor cell lines expressing TAT polypeptides of interest are publicly available, for example, through the ATCC and can be routinely identified using standard ELISA or FACS analysis. Anti-TAT polypeptide monoclonal antibodies (and toxin conjugated derivatives thereof) may then be employed in assays to determine the ability of the antibody to kill TAT polypeptide expressing cells *in vitro*.

For example, cells expressing the TAT polypeptide of interest are obtained as described above and plated into 96 well dishes. In one analysis, the antibody/toxin conjugate (or naked antibody) is included throughout the cell incubation for a period of 4 days. In a second independent analysis, the cells are incubated for 1 hour with the antibody/toxin conjugate (or naked antibody) and then washed and incubated in the absence of antibody/toxin conjugate for a period of 4 days. Cell viability is then measured using the CellTiter-Glo Luminescent Cell Viability Assay from Promega (Cat# G7571). Untreated cells serve as a negative control.

EXAMPLE 10: *In Vivo* Tumor Cell Killing Assay

To test the efficacy of conjugated or unconjugated anti-TAT polypeptide monoclonal antibodies, anti-TAT antibody is injected intraperitoneally into nude mice 24 hours prior to receiving tumor promoting cells subcutaneously in the flank. Antibody injections continue twice per week for the remainder of the study. Tumor volume is then measured twice per week.

The foregoing written specification is considered to be sufficient to enable one skilled in the art to practice the invention. The present invention is not to be limited in scope by the construct deposited, since the deposited embodiment is intended as a single illustration of certain aspects of the invention and any constructs

that are functionally equivalent are within the scope of this invention. The deposit of material herein does not constitute an admission that the written description herein contained is inadequate to enable the practice of any aspect of the invention, including the best mode thereof, nor is it to be construed as limiting the scope of the claims to the specific illustrations that it represents. Indeed, various modifications of the invention in addition to those shown and described herein will become apparent to those skilled in the art from the foregoing description and fall within the scope of the appended claims.

WHAT IS CLAIMED IS:

1. Isolated nucleic acid having a nucleotide sequence that has at least 80% nucleic acid sequence identity to:

(a) the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622);

(b) the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(c) the complement of (a) or (b).

2. Isolated nucleic acid having:

(a) the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622);

(b) the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(c) the complement of (a) or (b).

3. Isolated nucleic acid that hybridizes to:

(a) the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622);

(b) the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(c) the complement of (a) or (b).

4. The nucleic acid of Claim 3, wherein the hybridization occurs under stringent conditions.

5. The nucleic acid of Claim 3 which is at least about 5 nucleotides in length.

6. An expression vector comprising the nucleic acid of Claim 1, 2 or 3.

7. The expression vector of Claim 6, wherein said nucleic acid is operably linked to control sequences recognized by a host cell transformed with the vector.

8. A host cell comprising the expression vector of Claim 7.

9. The host cell of Claim 8 which is a CHO cell, an *E. coli* cell or a yeast cell.

10. A process for producing a polypeptide comprising culturing the host cell of Claim 8 under conditions suitable for expression of said polypeptide and recovering said polypeptide from the cell culture.

11. An isolated polypeptide having at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID

NOS:1-4622); or

(b) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

12. An isolated polypeptide having:

(a) an amino acid sequence encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) an amino acid sequence encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

13. A chimeric polypeptide comprising the polypeptide of Claim 11 or 12 fused to a heterologous polypeptide.

14. The chimeric polypeptide of Claim 13, wherein said heterologous polypeptide is an epitope tag sequence or an Fc region of an immunoglobulin.

15. An isolated antibody that binds to a polypeptide having at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

16. An isolated antibody that binds to a polypeptide having:

(a) an amino acid sequence encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) an amino acid sequence encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

17. The antibody of Claim 15 or 16 which is a monoclonal antibody.

18. The antibody of Claim 15 or 16 which is an antibody fragment.

19. The antibody of Claim 15 or 16 which is a chimeric or a humanized antibody.

20. The antibody of Claim 15 or 16 which is conjugated to a growth inhibitory agent.

21. The antibody of Claim 15 or 16 which is conjugated to a cytotoxic agent.

22. The antibody of Claim 21, wherein the cytotoxic agent is selected from the group consisting of toxins, antibiotics, radioactive isotopes and nucleolytic enzymes.

23. The antibody of Claim 21, wherein the cytotoxic agent is a toxin.

24. The antibody of Claim 23, wherein the toxin is selected from the group consisting of maytansinoid and calicheamicin.

25. The antibody of Claim 23, wherein the toxin is a maytansinoid.

26. The antibody of Claim 15 or 16 which is produced in bacteria.

27. The antibody of Claim 15 or 16 which is produced in CHO cells.

28. The antibody of Claim 15 or 16 which induces death of a cell to which it binds.

29. The antibody of Claim 15 or 16 which is detectably labeled.

30. An isolated nucleic acid having a nucleotide sequence that encodes the antibody of Claim 15 or 16.

31. An expression vector comprising the nucleic acid of Claim 30 operably linked to control sequences recognized by a host cell transformed with the vector.

32. A host cell comprising the expression vector of Claim 31.

33. The host cell of Claim 32 which is a CHO cell, an *E. coli* cell or a yeast cell.

34. A process for producing an antibody comprising culturing the host cell of Claim 32 under conditions suitable for expression of said antibody and recovering said antibody from the cell culture.

35. An isolated oligopeptide that binds to a polypeptide having at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

36. An isolated oligopeptide that binds to a polypeptide having:

(a) an amino acid sequence encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) an amino acid sequence encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

37. The oligopeptide of Claim 35 or 36 which is conjugated to a growth inhibitory agent.

38. The oligopeptide of Claim 35 or 36 which is conjugated to a cytotoxic agent.

39. The oligopeptide of Claim 38, wherein the cytotoxic agent is selected from the group consisting of toxins, antibiotics, radioactive isotopes and nucleolytic enzymes.

40. The oligopeptide of Claim 38, wherein the cytotoxic agent is a toxin.

41. The oligopeptide of Claim 40, wherein the toxin is selected from the group consisting of maytansinoid and calicheamicin.

42. The oligopeptide of Claim 40, wherein the toxin is a maytansinoid.

43. The oligopeptide of Claim 35 or 36 which induces death of a cell to which it binds.

44. The oligopeptide of Claim 35 or 36 which is detectably labeled.

45. A TAT binding organic molecule that binds to a polypeptide having at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) apolypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

46. The organic molecule of Claim 45 that binds to a polypeptide having:

(a) an amino acid sequence encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) an amino acid sequence encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

47. The organic molecule of Claim 45 or 46 which is conjugated to a growth inhibitory agent.

48. The organic molecule of Claim 45 or 46 which is conjugated to a cytotoxic agent.

49. The organic molecule of Claim 48, wherein the cytotoxic agent is selected from the group consisting of toxins, antibiotics, radioactive isotopes and nucleolytic enzymes.

50. The organic molecule of Claim 48, wherein the cytotoxic agent is a toxin.

51. The organic molecule of Claim 50, wherein the toxin is selected from the group consisting of maytansinoid and calicheamicin.

52. The organic molecule of Claim 50, wherein the toxin is a maytansinoid.

53. The organic molecule of Claim 45 or 46 which induces death of a cell to which it binds.

54. The organic molecule of Claim 45 or 46 which is detectably labeled.

55. A composition of matter comprising:

(a) the polypeptide of Claim 11;

(b) the polypeptide of Claim 12;

(c) the chimeric polypeptide of Claim 13;

(d) the antibody of Claim 15;

(e) the antibody of Claim 16;

(f) the oligopeptide of Claim 35;

(g) the oligopeptide of Claim 36;

(h) the TAT binding organic molecule of Claim 45; or

(i) the TAT binding organic molecule of Claim 46; in combination with a carrier.

56. The composition of matter of Claim 55, wherein said carrier is a pharmaceutically acceptable carrier.

57. An article of manufacture comprising:

(a) a container; and

(b) the composition of matter of Claim 55 contained within said container.

58. The article of manufacture of Claim 57 further comprising a label affixed to said container, or a package insert included with said container, referring to the use of said composition of matter for the therapeutic treatment of or the diagnostic detection of a cancer.

59. A method of inhibiting the growth of a cell that expresses a protein having at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622), said method comprising contacting said cell with an antibody, oligopeptide or organic molecule that binds to said protein, the binding of said antibody, oligopeptide or organic molecule to said protein thereby causing an inhibition of growth of said cell.

60. The method of Claim 59, wherein said antibody is a monoclonal antibody.

61. The method of Claim 59, wherein said antibody is an antibody fragment.

62. The method of Claim 59, wherein said antibody is a chimeric or a humanized antibody.

63. The method of Claim 59, wherein said antibody, oligopeptide or organic molecule is conjugated to a growth inhibitory agent.

64. The method of Claim 59, wherein said antibody, oligopeptide or organic molecule is conjugated to a cytotoxic agent.

65. The method of Claim 64, wherein said cytotoxic agent is selected from the group consisting of toxins, antibiotics, radioactive isotopes and nucleolytic enzymes.

66. The method of Claim 64, wherein the cytotoxic agent is a toxin.

67. The method of Claim 66, wherein the toxin is selected from the group consisting of maytansinoid and calicheamicin.

68. The method of Claim 66, wherein the toxin is a maytansinoid.

69. The method of Claim 59, wherein said antibody is produced in bacteria.

70. The method of Claim 59, wherein said antibody is produced in CHO cells.

71. The method of Claim 59, wherein said cell is a cancer cell.

72. The method of Claim 71, wherein said cancer cell is further exposed to radiation treatment or a chemotherapeutic agent.

73. The method of Claim 71, wherein said cancer cell is selected from the group consisting of a breast cancer cell, a colorectal cancer cell, a lung cancer cell, an ovarian cancer cell, a central nervous system cancer cell, a liver cancer cell, a bladder cancer cell, a pancreatic cancer cell, a cervical cancer cell, a melanoma cell and a leukemia cell.

74. The method of Claim 71, wherein said protein is more abundantly expressed by said cancer cell as compared to a normal cell of the same tissue origin.

75. The method of Claim 59 which causes the death of said cell.

76. The method of Claim 59, wherein said protein has:

(a) an amino acid sequence encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) an amino acid sequence encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

77. A method of therapeutically treating a mammal having a cancerous tumor comprising cells that express a protein having at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622), said method comprising administering to said mammal a therapeutically effective amount of an antibody, oligopeptide or organic molecule that binds to said protein, thereby effectively treating said mammal.

78. The method of Claim 77, wherein said antibody is a monoclonal antibody.

79. The method of Claim 77, wherein said antibody is an antibody fragment.

80. The method of Claim 77, wherein said antibody is a chimeric or a humanized antibody.

81. The method of Claim 77, wherein said antibody, oligopeptide or organic molecule is conjugated to a growth inhibitory agent.

82. The method of Claim 77, wherein said antibody, oligopeptide or organic molecule is conjugated to a cytotoxic agent.

83. The method of Claim 82, wherein said cytotoxic agent is selected from the group consisting of toxins, antibiotics, radioactive isotopes and nucleolytic enzymes.

84. The method of Claim 82, wherein the cytotoxic agent is a toxin.

85. The method of Claim 84, wherein the toxin is selected from the group consisting of maytansinoid and calicheamicin.

86. The method of Claim 84, wherein the toxin is a maytansinoid.

87. The method of Claim 77, wherein said antibody is produced in bacteria.

88. The method of Claim 77, wherein said antibody is produced in CHO cells.

89. The method of Claim 77, wherein said tumor is further exposed to radiation treatment or a chemotherapeutic agent.

90. The method of Claim 77, wherein said tumor is a breast tumor, a colorectal tumor, a lung tumor, an ovarian tumor, a central nervous system tumor, a liver tumor, a bladder tumor, a pancreatic tumor, or a cervical tumor.

91. The method of Claim 77, wherein said protein is more abundantly expressed by the cancerous cells of said tumor as compared to a normal cell of the same tissue origin.

92. The method of Claim 77, wherein said protein has:

(a) an amino acid sequence encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) an amino acid sequence encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

93. A method of determining the presence of a protein in a sample suspected of containing said protein, wherein said protein has at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622), said method comprising exposing said sample to an antibody, oligopeptide or organic molecule that binds to said protein and determining binding of said antibody, oligopeptide or organic molecule to said protein in said sample, wherein binding of the antibody, oligopeptide or organic molecule to said protein is indicative of the presence of said protein in said sample.

94. The method of Claim 93, wherein said sample comprises a cell suspected of expressing said protein.

95. The method of Claim 94, wherein said cell is a cancer cell.

96. The method of Claim 93, wherein said antibody, oligopeptide or organic molecule is detectably labeled.

97. The method of Claim 93, wherein said protein has:

(a) an amino acid sequence encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) an amino acid sequence encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

98. A method of diagnosing the presence of a tumor in a mammal, said method comprising determining the level of expression of a gene encoding a protein having at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622), in a test sample of tissue cells obtained from said mammal and in a control sample of known normal cells of the same tissue origin, wherein a higher level of expression of said protein in the test sample, as compared to the control sample, is indicative of the presence of tumor in the mammal from which the test sample was obtained.

99. The method of Claim 98, wherein the step of determining the level of expression of a gene encoding said protein comprises employing an oligonucleotide in an *in situ* hybridization or RT-PCR analysis.

100. The method of Claim 98, wherein the step determining the level of expression of a gene encoding said protein comprises employing an antibody in an immunohistochemistry or Western blot analysis.

101. The method of Claim 98, wherein said protein has:

(a) an amino acid sequence encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) an amino acid sequence encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

102. A method of diagnosing the presence of a tumor in a mammal, said method comprising contacting a test sample of tissue cells obtained from said mammal with an antibody, oligopeptide or organic molecule that binds to a protein having at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622), and detecting the formation of a complex between said antibody, oligopeptide or organic molecule and said protein in the test sample, wherein the formation of a complex is indicative of the presence of a tumor in said mammal.

103. The method of Claim 102, wherein said antibody, oligopeptide or organic molecule is detectably labeled.

104. The method of Claim 102, wherein said test sample of tissue cells is obtained from an individual suspected of having a cancerous tumor.

105. The method of Claim 102, wherein said protein has:

(a) an amino acid sequence encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) an amino acid sequence encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

106. A method for treating or preventing a cell proliferative disorder associated with increased expression or activity of a protein having at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622), said method comprising administering to a subject in need of such treatment an effective amount of an antagonist of said protein, thereby effectively treating or preventing said cell proliferative disorder.

107. The method of Claim 106, wherein said cell proliferative disorder is cancer.

108. The method of Claim 106, wherein said antagonist is an anti-TAT polypeptide antibody, TAT binding oligopeptide, TAT binding organic molecule or antisense oligonucleotide.

109. A method of binding an antibody, oligopeptide or organic molecule to a cell that expresses a protein having at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622), said method comprising contacting said cell with an antibody, oligopeptide or organic molecule that binds to said protein and allowing the binding of the antibody, oligopeptide or organic molecule to said protein to occur, thereby binding said antibody, oligopeptide or organic molecule to said cell.

110. The method of Claim 109, wherein said antibody is a monoclonal antibody.

111. The method of Claim 109, wherein said antibody is an antibody fragment.

112. The method of Claim 109, wherein said antibody is a chimeric or a humanized antibody.

113. The method of Claim 109, wherein said antibody, oligopeptide or organic molecule is conjugated to a growth inhibitory agent.

114. The method of Claim 109, wherein said antibody, oligopeptide or organic molecule is conjugated to a cytotoxic agent.

115. The method of Claim 114, wherein said cytotoxic agent is selected from the group consisting of toxins, antibiotics, radioactive isotopes and nucleolytic enzymes.

116. The method of Claim 114, wherein the cytotoxic agent is a toxin.

117. The method of Claim 116, wherein the toxin is selected from the group consisting of maytansinoid and calicheamicin.

118. The method of Claim 116, wherein the toxin is a maytansinoid.

119. The method of Claim 109, wherein said antibody is produced in bacteria.

120. The method of Claim 109, wherein said antibody is produced in CHO cells.

121. The method of Claim 109, wherein said cell is a cancer cell.

122. The method of Claim 121, wherein said cancer cell is further exposed to radiation treatment or a chemotherapeutic agent.

123. The method of Claim 121, wherein said cancer cell is selected from the group consisting of a breast cancer cell, a colorectal cancer cell, a lung cancer cell, an ovarian cancer cell, a central nervous system cancer cell, a liver cancer cell, a bladder cancer cell, a pancreatic cancer cell, a cervical cancer cell, a melanoma cell and a leukemia cell.

124. The method of Claim 123, wherein said protein is more abundantly expressed by said cancer cell as compared to a normal cell of the same tissue origin.

125. The method of Claim 109 which causes the death of said cell.

126. Use of a nucleic acid as claimed in any of Claims 1 to 5 or 30 in the preparation of a medicament for the therapeutic treatment or diagnostic detection of a cancer.

127. Use of a nucleic acid as claimed in any of Claims 1 to 5 or 30 in the preparation of a medicament for treating a tumor.

128. Use of a nucleic acid as claimed in any of Claims 1 to 5 or 30 in the preparation of a medicament for treatment or prevention of a cell proliferative disorder.

129. Use of an expression vector as claimed in any of Claims 6, 7 or 31 in the preparation of a medicament for the therapeutic treatment or diagnostic detection of a cancer.

130. Use of an expression vector as claimed in any of Claims 6, 7 or 31 in the preparation of medicament for treating a tumor.

131. Use of an expression vector as claimed in any of Claims 6, 7 or 31 in the preparation of a medicament for treatment or prevention of a cell proliferative disorder.

132. Use of a host cell as claimed in any of Claims 8, 9, 32, or 33 in the preparation of a medicament for the therapeutic treatment or diagnostic detection of a cancer.

133. Use of a host cell as claimed in any of Claims 8, 9, 32 or 33 in the preparation of a medicament for treating a tumor.

134. Use of a host cell as claimed in any of Claims 8, 9, 32 or 33 in the preparation of a medicament for treatment or prevention of a cell proliferative disorder.

135. Use of a polypeptide as claimed in any of Claims 11 to 14 in the preparation of a medicament for the therapeutic treatment or diagnostic detection of a cancer.

136. Use of a polypeptide as claimed in any of Claims 11 to 14 in the preparation of a medicament for treating a tumor.

137. Use of a polypeptide as claimed in any of Claims 11 to 14 in the preparation of a medicament for treatment or prevention of a cell proliferative disorder.

138. Use of an antibody as claimed in any of Claims 15 to 29 in the preparation of a medicament for the therapeutic treatment or diagnostic detection of a cancer.

139. Use of an antibody as claimed in any of Claims 15 to 29 in the preparation of a medicament for treating a tumor.

140. Use of an antibody as claimed in any of Claims 15 to 29 in the preparation of a medicament for treatment or prevention of a cell proliferative disorder.

141. Use of an oligopeptide as claimed in any of Claims 35 to 44 in the preparation of a medicament for the therapeutic treatment or diagnostic detection of a cancer.

142. Use of an oligopeptide as claimed in any of Claims 35 to 44 in the preparation of a medicament for treating a tumor.

143. Use of an oligopeptide as claimed in any of Claims 35 to 44 in the preparation of a medicament for treatment or prevention of a cell proliferative disorder.

144. Use of a TAT binding organic molecule as claimed in any of Claims 45 to 54 in the preparation of a medicament for the therapeutic treatment or diagnostic detection of a cancer.

145. Use of a TAT binding organic molecule as claimed in any of Claims 45 to 54 in the preparation of a medicament for treating a tumor.

146. Use of a TAT binding organic molecule as claimed in any of Claims 45 to 54 in the preparation of a medicament for treatment or prevention of a cell proliferative disorder.

147. Use of a composition of matter as claimed in any of Claims 55 or 56 in the preparation of a medicament for the therapeutic treatment or diagnostic detection of a cancer.

148. Use of a composition of matter as claimed in any of Claims 55 or 56 in the preparation of a medicament for treating a tumor.

149. Use of a composition of matter as claimed in any of Claims 55 or 56 in the preparation of a medicament for treatment or prevention of a cell proliferative disorder.

150. Use of an article of manufacture as claimed in any of Claims 57 or 58 in the preparation of a medicament for the therapeutic treatment or diagnostic detection of a cancer.

151. Use of an article of manufacture as claimed in any of Claims 57 or 58 in the preparation of a medicament for treating a tumor.

152. Use of an article of manufacture as claimed in any of Claims 57 or 58 in the preparation of a medicament for treatment or prevention of a cell proliferative disorder.

153. A method for inhibiting the growth of a cell, wherein the growth of said cell is at least in part dependent upon a growth potentiating effect of a protein having at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622), said method comprising contacting said protein with an antibody, oligopeptide or organic molecule that binds to said protein, there by inhibiting the growth of said cell.

154. The method of Claim 153, wherein said cell is a cancer cell.

155. The method of Claim 153, wherein said protein is expressed by said cell.

156. The method of Claim 153, wherein the binding of said antibody, oligopeptide or organic molecule to said protein antagonizes a cell growth-potentiating activity of said protein.

157. The method of Claim 153, wherein the binding of said antibody, oligopeptide or organic molecule to said protein induces the death of said cell.

158. The method of Claim 153, wherein said antibody is a monoclonal antibody.

159. The method of Claim 153, wherein said antibody is an antibody fragment.

160. The method of Claim 153, wherein said antibody is a chimeric or a humanized antibody.

161. The method of Claim 153, wherein said antibody, oligopeptide or organic molecule is conjugated to a growth inhibitory agent.

162. The method of Claim 153, wherein said antibody, oligopeptide or organic molecule is conjugated to a cytotoxic agent.

163. The method of Claim 162, wherein said cytotoxic agent is selected from the group consisting of toxins, antibiotics, radioactive isotopes and nucleolytic enzymes.

164. The method of Claim 162, wherein the cytotoxic agent is a toxin.

165. The method of Claim 164, wherein the toxin is selected from the group consisting of maytansinoid and calicheamicin.

166. The method of Claim 164, wherein the toxin is a maytansinoid.

167. The method of Claim 153, wherein said antibody is produced in bacteria.

168. The method of Claim 153, wherein said antibody is produced in CHO cells.

169. The method of Claim 153, wherein said protein has:

(a) an amino acid sequence encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) an amino acid sequence encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

170. A method of therapeutically treating a tumor in a mammal, wherein the growth of said tumor is at least in part dependent upon a growth potentiating effect of a protein having at least 80% amino acid sequence identity to:

(a) a polypeptide encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) a polypeptide encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622), said method comprising contacting said protein with an antibody,

oligopeptide or organic molecule that binds to said protein, thereby effectively treating said tumor.

171. The method of Claim 170, wherein said protein is expressed by cells of said tumor.

172. The method of Claim 170, wherein the binding of said antibody, oligopeptide or organic molecule to said protein antagonizes a cell growth-potentiating activity of said protein.

173. The method of Claim 170, wherein said antibody is a monoclonal antibody.

174. The method of Claim 170, wherein said antibody is an antibody fragment.

175. The method of Claim 170, wherein said antibody is a chimeric or a humanized antibody.

176. The method of Claim 170, wherein said antibody, oligopeptide or organic molecule is conjugated to a growth inhibitory agent.

177. The method of Claim 170, wherein said antibody, oligopeptide or organic molecule is conjugated to a cytotoxic agent.

178. The method of Claim 177, wherein said cytotoxic agent is selected from the group consisting of toxins, antibiotics, radioactive isotopes and nucleolytic enzymes.

179. The method of Claim 177, wherein the cytotoxic agent is a toxin.

180. The method of Claim 179, wherein the toxin is selected from the group consisting of maytansinoid and calicheamicin.

181. The method of Claim 179, wherein the toxin is a maytansinoid.

182. The method of Claim 170, wherein said antibody is produced in bacteria.

183. The method of Claim 170, wherein said antibody is produced in CHO cells.

184. The method of Claim 170, wherein said protein has:

(a) an amino acid sequence encoded by the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622); or

(b) an amino acid sequence encoded by the full-length coding region of the nucleotide sequence shown in any one of Figures 1-4622 (SEQ ID NOS:1-4622).

185. A method of diagnosing the presence of tumor in a mammal, said method comprising determining the presence or absence of amplification of one of the amplified chromosomal regions shown in any one of Appendices B through J in a tissue sample obtained from said mammal, wherein the presence of amplification of said chromosomal region is indicative of the presence of tumor in said mammal.

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FIGURE 1

CTGCGGCAAAGAACCGGGCTGTGTCCAAAGTGTTCTCTGGAAGTTGTAGTTCCTGTATTGGTGAGGCAAGGAGGA
GGCGGAGTGACTCGGCGGCCATTAGCTGTGTGTAGTTGCCCGGGACTAGGAGCTTAAGTGAAGAGGTACGCCTTG
TTCGGTGGAAATCAGCCGTAGCCATGAGTTTCTGCCGGGGCTAGCCCTAGAGTACGGAGCAGGCGGACTTTTCGG
TTCCCCGCCCCGCCAGGTGGCGGGGCCTACTAGGCCTCCGGGCATCCCCGGTCTCAAGTAGGCCTCATCTGCCGG
CAAGGGCGCCCGAAACGCGGGAGGCGCC**ATG**TCGCTGGTTGCTTACGCCAGCAGCGATGAGAGCGAGCCGGATGA
GGCTGAGCCCGAGCCGGAGGAAGAGGAGGCGGTGGCTCCTACATCTGGGCCCGCTTTAGGGGGCTTGTTCGCTTC
TCTCCCTGCGCCCAAGGGTCCGGCCTTGCTGCCTCCGCCCCCTCAGATGCTGGCGCCAGCCTTTCCCCCGCCGCT
GTTGCTTCCCCCACCCACCGGAGACCCCAGGCTTCAGCCTCCTCCCCCCTTGCCCTTCGGCCTGGGAGGCTTCCC
CCCACCTCCAGGCGTGAGCCCGGCTGAAGCGGCGGGAGTTGGGGAGGGACTGGGATTGGGGTTGCCCTCGCCCCG
AGGCCCTGGCCTCAATCTGCCCCCTCCAATTGGCGGTGCCGGTCCCCCGCTGGGGCTTCCCAAGCCAAAGAAGAG
GAAAGAGCCCGTGAAGATCGCGGCGCCGGAGTTGCATAAGGGAGATTCAGATTCTGAGGAAGATGAACCCACAAA
GAAGAAAACTATCCTTCAGGGATCCAGTGAGGGGACTGGTTTGTCTGCCTTGCTTCCCCAACCTAAAAACCTGAC
TGTGAAAGAGACTAACAGGTTGCTCCTGCCCCATGCCTTCTCCCGCAAACCCTCGGATGGCTCCCCTGATACTAA
GCCCTCCAGACTGGCTTCTAAGACCAAGACTTCCTCTCTTGCCCCTGTTGTGGGCACCACAACCACCACTCCGTC
GCCCTCTGCTATCAAGGCTGCTGCCAAGAGTGCTGCCCTGCAGGTGACAAAGCAGATCACGCAGGAAGAAGACGA
CAGTGATGAGGAAGTAGCCCCCGAAAACTTTTTCTCCCTCCCTGAAAAGGCTGAGCCACCTGGAGTTGAGCCATA
CCCTTACCCCATCCCCACTGTCCCTGAAGAGCTGCCTCCAGGCACGGAACCAGAGCCGGCTTTCCAGGACGATGC
AGCCAATGCCCCCCTTGAATTCAAGATGGCAGCAGGTTCAAGTGGGGCCCCTTGGATGCCTAAGCCTGGGGACGA
CTACAGCTACAATCAGTTTTCCACATATGGCGATGCCAATGCCGCTGGTGCTTATTATCAGGATTATTACAGTGG
TGGCTACTATCCTGCACAGGACCCGGCCCTGGTCCCCCCCCCAGGAAATTGCCCCAGATGCCTCCTTCATCGATGA
CGAAGCATTTAAGCGGCTGCAGGGCAAGAGGAACCGAGGGAGAGAAGAAATCAACTTTGTGGAGATCAAAGGTGA
TGACCAGCTCAGTGGGGCCCAGCAATGGATGACTAAGTCATTGACAGAAGAGAAAACCATGAAGTCATTCAGCAA
AAAGAAAGGTGAGCAGCCAACAGGCCAGCAGCGGCGGAAACACCAGATCACATATCTTATTCATCAGGCCAAGGA
GCGGGAGCTGGAACTGAAGAACACCTGGTCAGAGAACAAGCTCAGCCGCCGTCAGACCCAAGCCAAATATGGATT
C**TAG**GGCTCTGGAACTGATTGCTCCCAGGATCTCCTGCCAGCCCAGCTGGCCTGGCCCCCAGCTTCACCTCTGGG
ACCCCAGCTGCTCTAAGCCCAGGATCTCTTTCCCCAAGGACCCAGCCCTCGCCTCTGCGAGAATGAACATATTTG
ATAGATTTTTCTTAACAAGTTAGAAAATTCAGCTCCTTTCTGTCCTGGAGCTAGCAAAGACTTGTGTGATGCCTC
CGAAGGGGCTCTGAGTTCTGGGGTGGGAGTTTTGCTCTCTGTCAGGTGTGATAAAATGTTGAACCCTCCCCACCA
CCACTTTTTTTTTTTTAAACCAGGGATGTCTGTTGAAATAAAACATTCAGTCTGAC

FIGURE 2

GAGGAGGAGTGGGGACCGGGCGGGGGGTGGAGGAAGAGGCCTCGCGCAGAGGAGGGAGCAATTGAATTTCAAACA
CAAACAACTGCACGAGCGCGCACCCACCGCGCCGGAGCCTTGCCCCGATCCGCGCCCGCCCCGTCCGTGCGGCGC
GCGGGCGGAGACGCCGTGGCCGCGCCGGAGCTCGGGCCGGGGGCCACCATCGAGGCGGGGGCCGCGCGAGGGCCG
GAGCGGAGCGGCGCCGCCACCGCCGCACGCGCAAACTTGGGCTCGCGCTTCCCGGCCCGGCGCGGAGCCCGGGGC
GCCCGGAGCCCCGCC**ATG**TCGCGATCCAACCGGCAGAAGGAGTACAAATGCGGGGACCTGGTGTTCGCCAAGATG
AAGGGCTACCCACACTGGCCGGCCCGGATTGACGAGATGCCTGAGGCTGCCGTGAAATCAACAGCCAACAAATAC
CAAGTCTTTTTTTTCGGGACCCACGAGACGGCATTCCTGGGCCCCAAAGACCTCTTCCCTTACGAGGAATCCAAG
GAGAAGTTTGGCAAGCCCAACAAGAGGAAAGGGTTCAGCGAGGGGCTGTGGGAGATCGAGAACAACCCTACTGTC
AAGGCTTCCGGCTATCAGTCCTCCCAGAAAAAGAGCTGTGTGGAAGAGCCTGAACCAGAGCCCGAAGCTGCAGAG
GGTGACGGTGATAAGAAGGGGAATGCAGAGGGCAGCAGCGACGAGGAAGGGAAGCTGGTCATTGATGAGCCAGCC
AAGGAGAAGAACGAGAAAGGAGCGTTGAAGAGGAGAGCAGGGGACTTGCTGGAGGACTCTCCTAAACGTCCCAAG
GAGGCAGAAAACCCTGAAGGAGAGGAGAAGGAGGCAGCCACCTTGGAGGTTGAGAGGCCCCTTCCTATGGAGGTG
GAAAAGAATAGCACCCCCTCTGAGCCCGGCTCTGGCCGGGGGCCTCCCCAAGAGGAAGAAGAGGAGGAGGATGAA
GAGGAAGAGGCTACCAAGGAAGATGCTGAGGCCCCAGGCATCAGAGATCATGAGAGCCTG**TAG**CCACCAATGTTT
CAAGAGGAGCCCCCACCCTGTTCCTGCTGCTGTCTGGGTGCTACTGGGGAAACTGGCCATGGCCTGCAAACTGGG
AACCCCTTTCCCACCCCAACCTGCTCTCCTCTTCTACTCACTTTTCCCACTCCAAGCCCAGCCCATGGAGATTGA
CCTGGATGGGGCAGGCCACCTGGCTCTCACCTCTAGGTCCCCATACTCCTATGATCTGAGTCAGAGCCATGTCTT
CTCCCTGGAATGAGTTGAGGCCACT TGTTCCTTCCGCTTGGGAGGGGCAATCCTCAAATGCGGGGTGGGGGCAG
CACAGGAGGGCGGCCTCCTTCTGAGCTCCTGTCCCCTGCTACACCTATTATCCCAGCTGCCTAGATTCAGGGAAA
GTGGGACAGCTTGTAGGGGAGGGGCTCCTTTCCATAAATCCTTGATGATTGACAACACCCATTTTTCCTTTTGCC
GACCCCAAGAGTTTTGGGAGTTGTAGTTAATCATCAAGAGAATTTGGGGCTTCCAAGTTGTTCGGGCCAAGGACC
TGAGACCTGAAGGGTTGACTTTACCCATTTGGGTGGGAGTGTTGAGCATCTGTCCCCCTTTAGATCTCTGAAGCC
ACAAATAGGATGCTTGGGAAGACTCCTAGCTGTCCTTTTTCCTCTCCACACAGTGCTCAAGGCCAGCTTATAGTC
ATATATATCACCCAGACATAAAGGAAAAGACACATTTTTTAGGAAATGTTTTTAATAAAAGAAAATTACAAAAAA
AAATTTTAAAGACCCCTAACCCTTTGTGTGCTCTCCATTCTGCTCCTTCCCCATCGTTGCCCCCATTTCTGAGGT
GCACTGGGAGGCTCCCCTTCTATTTGGGGCTTGATGACTTTCTTTTTGTAGCTGGGGCTTTGATGTTCCTTCCAG
TGTCATTTCTCATCCACATACCCTGACCTGGCCCCCTCAGTGTTGTCACCAGATCTGATTTGTAACCCACTGAGA
GGACAGAGAGAAATAAGTGCCCTCTCCCACCCTCTTCCTACTGGTCTCTCTATGCCTCTCTACAGTCTCGTCTCT
TTTACCCTGGCCCCTCTCCCTTGGGCTCTGATGAAAAATTGCTGACTGTAGCTTTGGAAGTTTAGCTCTGAGAAC
CGTAGATGATTTCAGTTCTAGGAAAATAAAACCCGTTGATTACT

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FIGURE 3

GCGGGGGAGGGGACGCTGAGGGCCCATGTGCTGAAAATCCGAAGTGCCGCGGAAAGTGGAGAGCTGACAAGGAAG
GTTTCGAGCGTTTTGCTGGCAAAGGGATTTCTTACAACCTCCAGGC**ATG**CGTCTTTCTGCCCTGCTGGCCTTGGC
ATCCAAGGTCACTCTGCCCCCCCATTACCGCTATGGGATGAGCCCCCCAGGCTCTGTTGCAGACAAGAGGAAGAA
CCCCCCATGGATCAGGCGGCGCCCAGTGGTTGTGGAACCCATCTCTGATGAAGACTGGTATCTGTTCTGTGGGGA
CACGGTGGAGATCCTAGAAGGCAAGGATGCCGGGAAGCAGGGCAAAGTGGTTCAAGTTATCCGGCAGCGAAACTG
GGTGGTCGTGGGAGGGCTGAACACACATTACCGCTACATTGGCAAGACCATGGATTACCGGGGAACCATGATCCC
TAGTGAAGCCCCCTTGCTCCACCGCCAGGTCAAACTTGTGGATCCTATGGACAGGAAACCCACTGAGATCGAGTG
GAGATTTACTGAAGCAGGAGAGCGGGTACGAGTCTCCACACGATCAGGGAGAATTATCCCTAAACCCGAATTTCC
CAGAGCTGATGGCATCGTCCCTGAAACGTGGATTGATGGCCCCAAAGACACATCAGTGGAAGATGCTTTAGAAAG
AACCTATGTGCCCTGTCTAAAGACACTGCAGGAGGAGGTGATGGAGGCCATGGGGATCAAGGAGACCCGGAAATA
CAAGAAGGTCTATTGGTAT**TGA**GCCTGGGGCAGAGCAGCTCCTCCCCAACTTCTGTCCCAGCCTTGAAGGCTGAG
GCACTTCTTTTTCAGATGCCAATAAAGAGCACTTTATGAGTC

FIGURE 4

AAGGCAGGCGCGCGGGTTAGAACGCGCCAGAGGTCGGCGCGCGCACACCCGCACCGCCCCGACCCCAGGTAGTGA
GGCCAGTGATTCCGAGTGTGTGAGGAGAGGAGTGTACGGCAAGGGGCGGGAACTGGAACTTGGCCCGCCTCGTTG
TGAGCTGAGCTCAGCGGCACGCTTTTGTGGCGTCACTGCACTGTTACCCCGCCCTACGTGTCTCTGACGCTGACA
CCTTCTCACTGTGAAACGTCGCGACCTGTGACGTCTGGGGGGCGCCTCAAATCTTCCACTCCAGCATCGGATCCC
GGAAAGGCAGCGTCGGAGACTGGACCCAAAACTCTTCCTGTTCTGCCTGCAGAGTTGAGCCCCGTCCGGGTCCTG
GACCCGCGTAGTACTGACCCTGGATCCCTGTTCACTGCGTTCTCGCTCCCCGCGCTCCCTGCTGGACCCCGGG**AT**
GCCGGGCATCTCCGCCCGAGGCCTCTCTCATGAGGGGAGGAAGCAGCTAGCTGTTAACCTCACCCGTGTCCTGGC
ACTCTACCGTTCCATCTTGGATGCCTACATCATCGAATTTTTCACAGACAACCTATGGGACACACTCCCTTGCTC
ATGGCAGGAAGCATTGGATGGACTGAAACCACCACAGCTGGCCACAATGCTGCTGGGGATGCCTGGGGAAGGGGA
GGTCGTCAGGTACAGGTCAGTGTGGCCACTCACCCTGCTGGCCCTGAAGTCCACGGCGTGTGCCCTGGCCTTTAC
CCGGATGCCTGGCTTTCAGACCCCCTCAGAATTCCTGGAGAACCCCAGCCAGAGCTCCCGACTAACAGCTCCATT
CCGGAAACATGTCAGGCCCAAGAAGCAGCATGAGATCCGGAGGCTGGGAGAGTTGGTGAAGAAGCTGAGTGATTT
CACAGGCTGCACCCAGGTTGTAGACGTGGGCTCAGGCCAGGGCCATCTCTCCCGCTTCATGGCTCTTGGCCTGGG
GTTGATGGTGAAGAGCATCGAAGGGGATCAGAGACTGGTGGAGAGAGCCCAGCGCCTGGACCAGGAGCTTCTGCA
GGCTCTGGAGAAAGAGGAGAAGAGGAACCCGCAGGTGGTCCAAACCAGCCCTCGTCACTCCCCACACCACGTGGT
TAGGTGGGTAGACCCCACAGCCCTGTGTGAGGAGCTTCTGCTTCCACTGGAGAACCCGTGTCAGGGCAGGGCCCG
CTTGCTGCTCACAGGCCTCCACGCCTGTGGGGATCTGAGTGTTGCCTTGCTGAGACACTTCTCCTGCTGTCCTGA
GGTGGTGGCCCTGGCCTCAGTGGGCTGCTGCTACATGAAGCTGAGTGACCCTGGCGGCTACCCACTGAGTCAGTG
GGTGGCTGGGCTGCCTGGCTATGAACTGCCCTACCGGCTTCGGGAGGGGGCCTGCCATGCCCTGGAGGAATATGC
TGAGCGGCTACAGAAAGCTGGCCCTGGCCTTCGAACTCACTGCTACCGTGCAGCACTGGAGACAGTCATCCGACG
GGCCCGGCCCGAGCTCCGTCGGCCAGGCGTGCAGGGTATCCCCAGGGTCCACGAGCTCAAGATTGAAGAATATGT
GCAGCGGGGGCTACAGCGAGTGGGGCTAGATCCCCAGCTGCCACTGAATCTGGCTGCCCTTCAGGCCCACGTGGC
CCAGGAGAACCGTGTGGTGGCCTTCTTCAGCCTGGCTCTACTGCTTGCCCCACTGGTGGAGACGCTTATTCTACT
GGACCGGCTGCTGTACCTTCAGGAACAGGGTTTCCATGCTGAGCTCCTGCCCATCTTCAGTCCTGAACTCTCTCC
CAGAAACCTGGTTCTGGTGGCCACCAAGATGCCCCTGGGTCAGGCTCTTTCTGTTCTGGAGACTGAAGACAGC**TG**
ATGCAGCCTGAGGAAACATCTCAGACCCCATCATCTGAAAGTGCCCAGAGAGCACAGTGGCAGAGTACATCTCAT
CCAGAGAAACAGCATCCTGCATCCTCCAGAGTCCTGGTTCCTTCAGTTTCATCCCCTTTCTCTCCTTCCATGGAT
TATGTAATACATTGTAAAGTTTTAATTAATTAAAAATTGGATATCTG

FIGURE 5

CTGGGAGGTAGGTTTGTGAGCGTGAGAGATCGATCTGTACCGCGGGGATCCGAAGTATGCTTATCCAGGTGGGCT
GCCTCAAGCCTCGATCCCACCCCCGCGCTGGTAGATGGTGTCAAGGTCCTTGCGTGGGAGAAGGACTTGGGTGAG
ATGCATGCGGAGATTGCCCCCAATTCCGGCCTGGAGCCAAGGGAAAGGGATGCCTGGATTTGTGTCTCTATTGGT
GGTCCACGCTGCGGATGCCTGGGTAGCCCAGAGGTTATCTACGCCATACTTCTCACTGTTTTTGAGCATACCTAG
ATGTTCCTTTCCTAGGCGGAGTATAGATCGCACGTGTTCTAGCCTCTTAGACTCAGAGGGTTCGAGCTCTATAAG
CCCCTCCACTCCCTTCATTTTACAAATGAGACTCAAACCTAGAGCGCGGTAATGACCTTACTAAGACCAAATGGC
TGGTGAATTGGGCTTCACTAGAATCCAGGCTTGCTGGCTAACACCAATGCTCCCTCCATCATTTCATGTTATGTT
TTCATTTCCCCTCTGTCTGAGAGATTGCTCTGATGTCTTTCCTTCCATAAGTCCTACGGAGATCGAGCTTACCTC
ATTTTTCTCCCAGGCCTAGGAGCTCAATTACCAGGATCACTTTCTTCCCCAGGGTGTACTACAGACCTCCACATG
TTGGACAGTAGGATTCAGCAGAGAATGAGTCCCACATCCTCTTTTCATCCATAAGCCACTCTTCCCAACTACTCT
TCCGCCTTCCATTGTCCCT**ATG**TCTACTTTACTGCTCAATCTGGATTTTGGGGAACCTCCTCCCAAAAAGGCATT
AGAAGGAAATGCCAAGCACCGAAATTTTGTCAAGAAGCGGAGGCTCTTAGAACGGAGAGGCTTTCTGAGTAAAAA
GAACCAACCCCCTAGCAAGGCGCCTAAGTTGCACTCTGAACCTTCAAAGAAAGGGGAAACTCCTACGGTCGATGG
CACTTGGAAGACCCCTTCCTTCCCAAAAAAGAAGACAGCTGCTTCCAGCAATGGGTCAGGACAGCCCCTGGACAA
GAAAGCTGCAGTGTCTTGGTTGACCCCTGCCCCTTCAAAAAAGGCTGATTCTGTTGCTGCTAAAGTAGATTTGCT
GGGGGAGTTCCAGAGTGCCCTTCCAAAGATCAATAGCCACCCAACCCGCTCTCAGAAGAAGAGCTCCCAGAAGAA
ATCCTCTAAAAAGAACCATCCTCAGAAGAATGCCCCACAGAACTCCACCCAAGCTCATTCAGAGAATAAATGCTC
CGGAGCATCCCAGAAGTTGCCACGGAAGATGGTGGCAATTGACTGTGAGATGGTGGGCACAGGACCAAAGGGGCA
TGTTAGTTCCTTGGCTCGATGTAGCATTGTCAACTACAACGGAGATGTGCTTTATGACGAGTACATTCTTCCCCC
CTGCCACATTGTGGACTACCGAACCAGGTGGAGTGGTATCCGGAAGCAGCACATGGTGAATGCCACACCCTTCAA
GATTGCTCGAGGCCAGATCTTGAAGATACTCACAGGGAAGATAGTGGTGGGGCATGCCATCCACAACGACTTCAA
AGCCCTTCAGTACTTTCACCCCAAGTCCCTCACCCGTGACACCTCCCATATCCCCCCCCTCAACCGGAAGGCTGA
CTGCCCGGAGAATGCCACCATGTCTCTGAAGCATCTCACCAAGAAGCTGCTAAACCGGGATATCCAGGTTGGGAA
GAGCGGACATTCCTCTGTGGAAGATGCCCAGGCCACCATGGAGCTATATAAGTTGGTTGAAGTCGAGTGGGAAGA
GCACCTAGCCCGGAATCCCCCTACAGAC**TAG**TGGCAGTGGGGACGCTGGTGATATGAGGAGGCAGAGGCAGCACC
CAGGAGAAACAGGGCAGTGGACCAATGGACAGCTCCACCAGCTCCACATCTTTGGAAGCTAGATTTGGGGAGAGA
GAAGCTCTACCCCAGACTTAATACCCATTGAAATTTCACCTCAGGTGTTGTGTCCTGTGTCTGGTTAAGTGTCCC
ATGGAAGGGGAAAGCCTTCACGTCAGAACCCAACCCTATACCTTTTACTTCTTAAATGGTGCTAACCACAGGTGT
CCCAGGGTGCTCTGTGCCAGTTAAGATTTTTAACTTTCAAGGGGCAGGGCATACTGGGAAATGTAGTTTCCCAAA
CTGCCTTATCACTTGGGTGGACATATGTCTCCTTTTATGCCTTTTGGTCTTGAGTAATTAACAGCATCCTCTTCC
ACGCTCAGAAGTGTTCTGGTTGGGGCCAGGCATGGTGGCTCACACCTGTAGTCCCAACACTTAGGGAGGCCGAGG
CGGGCGGATCACCTGAGATCAGGAGTTCAAGACCAGCCTGGCCAACATGGCGAATTCCCGTTCTCTACTAAAAAT
ACAAAAAATGTGTGGGGTGTGGTGGCAGGAGCCTGTAATCCTAGCTACTCAGGAGGCTGAGGCAGGAGAATCGCT
TGAGCCCAGGAGGCGGAGATTGCAGTGAGCCGAGATCGTGTCACTGCACTCCAGCCTGGGTGACAAGAGTGAGAC
TCCGTCTCCAAAAAAAAAAAAAAAGAATTTATTAACCTGGTTGGTTAATAAATTGTGTGGTCCCTGCCGGGCGTG
GTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGACGGGCAGATCACGAGGTCAGGAGATCGAGACCAT
CCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCAGGCGTGGTGGCGGGCACCTGTA
GTTCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCAGGAGGCGGAGCTTGCAGTGAGCCGAGATT
GTGCCACTGCACTCCAGCCTGGGCCACGGCCACAGAGCGAGACTCTGTCTC

FIGURE 6

AGCTTTGGGGTTGTCCCTGGACTTGTCTTGGTTCCAGAACCTGACGACCCGGCGACGGCGACGTCTCTTTTGACT
AAAAGACAGTGTCCAGTGCTCCAGCCTAGGAGTCTACGGGGACCGCCTCCCGCGCCGCCACC**ATG**CCCAACTTCT
CTGGCAACTGGAAAATCATCCGATCGGAAAACTTCGAGGAATTGCTCAAAGTGCTGGGGGTGAATGTGATGCTGA
GGAAGATTGCTGTGGCTGCAGCGTCCAAGCCAGCAGTGGAGATCAAACAGGAGGGAGACACTTTCTACATCAAAA
CCTCCACCACCGTGCGCACCACAGAGATTAACTTCAAGGTTGGGGAGGAGTTTGAGGAGCAGACTGTGGATGGGA
GGCCCTGTAAGAGCCTGGTGAAATGGGAGAGTGAGAATAAAATGGTCTGTGAGCAGAAGCTCCTGAAGGGAGAGG
GCCCCAAGACCTCGTGGACCAGAGAACTGACCAACGATGGGGAACTGATCCTGACCATGACGGCGGATGACGTTG
TGTGCACCAGGGTCTACGTCCGAGAG**TGA**GTGGCCACAGGTAGAACCGCGGCCGAAGCCCACCACTGGCCATGCT
CACCGCCCTGCTTCACTGCCCCCTCCGTCCCACCCCCTCCTTCTAGGATAGCGCTCCCCTTACCCCAGTCACTTC
TGGGGGTCACTGGGATGCCTCTTGCAGGGTCTTGCTTTCTTTGACCTCTTCTCTCCTCCCCTACACCAACAAAGA
GGAATGGCTGCAAGAGCCCAGATCACCCATTCCGGGTTCACTCCCCGCCTCCCCAAGTCAGCAGTCCTAGCCCCA
AACCAGCCCAGAGCAGGGTCTCTCTAAAGGGGACTTGAGGGCCTGAGCAGGAAAGACTGGCCCTCTAGCTTCTAC
CCTTTGTCCCTGTAGCCTATACAGTTTAGAATATTTATTTGTTAATTTTATTAAAATGCTTTAAAAAAA

FIGURE 7

AGTCGCTCAGGCTACTCCCACCCCGCCCCGCCCCGTCATTGTCCCCGTCGGTCTCTTTTCTCTTCCGTCCTAAAA
GCTCTGCGAGCCGCTCCCTTCTCCCGGTGCCCCGCGTCTGTCCATCCTCAGTGGGTCAGACGAGCAGGATGGAGG
GCTGCAGAACTGGCTCAGGAAAGCCCTCCTGGG**ATG**GCTGGAGTGGAAAATGAGGATGAGGCAGAGCTGAATCTG
AGGGAGCAGGATGGCTTCACTGGGAAGGAGGAGGTGGTAGAGCAGGGAGAGCTGAATGCCACAGAGGAGGTCTGG
ATCCCAGGCGAGGGGCACCCAGAGAGCCCTGAGCCCAAAGAGCAGAGAGGCCTGGTTGAGGGAGCCAGTGTGAAG
GGAGGGGCTGAGGGCCTCCAGGACCCTGAAGGGCAATCACAACAGGTGGGGGCCCCAGGCCTCCAGGCTCCCCAG
GGGCTGCCAGAGGCGATAGAGCCCCTGGTGGAAGATGATGTGGCCCCAGGGGGTGACCAAGCCTCCCCAGAGGTC
ATGTTGGGGTCAGAGCCTGCCATGGGTGAGTCTGCTGCGGGAGCTGAGCCAGGCCCGGGGCAGGGGGTGGGAGGG
CTGGGGGACCCAGGCCATCTGACCAGGGAAGAGGTGATGGAACCACCCCTGGAAGAGGAGAGTTTGGAGGCAAAG
AGGGTTCAGGGCTTGGAAGGGCCTAGAAAGGACCTAGAGGAGGCAGGTGGTCTGGGGACAGAGTTCTCCGAGCTG
CCTGGGAAGAGCAGAGACCCTTGGGAGCCTCCCAGGGAGGGTAGGGAGGAGTCAGAGGCTGAGGCCCCCAGGGGA
GCAGAGGAGGCGTTCCCTGCTGAGACCCTGGGCCACACTGGAAGTGATGCCCCTTCACCTTGGCCTCTGGGGTCA
GAGGAAGCTGAGGAGGATGTACCACCAGTGCTGGTCTCCCCCAGCCCAACGTACACCCCGATCCTGGAAGATGCC
CCTGGGCCTCAGCCTCAGGCTGAAGGGAGTCAGGAGGCTAGCTGGGGGGTGCAGGGGAGGGCTGAAGCCCTGGGG
AAAGTAGAGAGCGAGCAGGAGGAGTTGGGTTCTGGGGAGATCCCCGAGGGCCCCCAGGAGGAAGGGGAGGAGAGC
AGAGAAGAGAGCGAGGAGGATCAGGAGGAGGGGAGGGAGCCAGGGGCTGGGCGGTGGGGGCCAGGGTCTTCTGTT
GGCAGCCTCCAGGCCCTGAGTAGCTCCCAGAGAGGGGAATTCCTGGAGTCTGATTCTGTGAGTGTCAGTGTCCCC
TGGGATGACAGCTTGAGGGGTGCAGTGGCTGGTGCCCCCAAGACTGCCCTGGAAACGGAGTCCCAGGACAGTGCT
GAGCCTTCTGGCTCAGAGGAAGAGTCTGACCCTGTTTCCTTGGAGAGGGAGGACAAAGTCCCTGGCCCTCTAGAG
ATCCCCAGTGGGATGGAGGATGCAGGCCCAGGGGCAGACATCATTGGTGTTAATGGCCAGGGTCCCAACTTGGAG
GGGAAGTCACAGCATGTGAATGGGGGAGTGATGAACGGGCTGGAGCAGTCTGAGGAAGTGGGGCAAGGAATGCCG
CTAGTCTCTGAGGGAGACCGAGGGAGCCCCTTTCAGGAGGAGGAGGGGAGTGCTCTGAAGACCTCTTGGGCAGGG
GCTCCTGTTCACCTGGGCCAGGGTCAGTTCCTGAAGTTCACTCAGAGGGAAGGAGATAGAGAGTCCTGGTCCTCA
GGGGAGGAC**TAG**GAAAAGACCATCTGCCCGGCACTGGGGACTTAGGGGTGCGGGGAGGGGAAGGACGCCTCCAAG
CCCGCTCCCTGCTCAGGAGCAGCACTCTTAACTTACGATCTCTTGACATATGGTTTCTGGCTGAGAGGCCTGGCC
CGCTAAGGTGAAAAGGGGTGTGGCAAAGGAGCCTACTCCAAGAATGGAGGCTGTAGGAATATAACCTCCCACCCT
GCAAAGGGAATCTCTTGCCTGCTCCATCTCATAGGCTAAGTCAGCTGAATCCCGATAGTACTAGGTCCCCTTCCC
TCCGCATCCCGTCAGCTGGAAAAGGCCTGTGGCCCAGAGGCTTCTCCAAAGGGAGGGTGACATGCTGGCTTTTGT
GCCCAAGCTCACCAGCCCTGCGCCACCTCACTGCAGTAGTGCACCATCTCACTGCAGTAGCACGCCCTCCTGGGC
CGTCTGGCCTGTGGCTAATGGAGGTGACGGCACTCCCATGTGCTGACTCCCCCCATCCCTGCCACGCTGTGGCCC
TGCCTGGCTAGTCCCTGCCTGAATAAAGTAATGCCTCCGCTTC

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FIGURE 8

CGCTCGTCCTTGCTCTCGCCGCTGCTGCCGGAGCCGAAGCAGAGAAGGCAGCGGGTCCCGTGACCGTCCCGAGAG
CCCCGCGCTCCCGACCAGGGGGCGGGGGCGGCCCCGGGGAGGGCGGGGCAGGGGCGGGGGGAAGAAAGGGGGTTT
TGTGCTGCGCCGGGAGGGCCGGCGCCCTCTTCCGAATGTCCTGCGGCCCCAGCCTCTCCTCACGCTCGCGCAGTC
TCCGCCGCAGTCTCAGCTGCAGCTGCAGGACTGAGCCGTGCACCCGGAGGAGACCCCCGGAGGAGGCGACAAACT
TCGCAGTGCCGCGACCCAACCCCAGCCCTGGGTAGCCTGCAGC**ATG**GCCCAGCTGTTCCTGCCCCTGCTGGCAGC
CCTGGTCCTGGCCCAGGCTCCTGCAGCTTTAGCAGATGTTCTGGAAGGAGACAGCTCAGAGGACCGCGCTTTTCG
CGTGCGCATCGCGGGCGACGCGCCACTGCAGGGCGTGCTCGGCGGCGCCCTCACCATCCCTTGCCACGTCCACTA
CCTGCGGCCACCGCCGAGCCGCCGGGCTGTGCTGGGCTCTCCGCGGGTCAAGTGGACTTTCCTGTCCCGGGGCCG
GGAGGCAGAGGTGCTGGTGGCGCGGGGAGTGCGCGTCAAGGTGAACGAGGCCTACCGGTTCCGCGTGGCACTGCC
TGCGTACCCAGCGTCGCTCACCGACGTCTCCCTGGCGCTGAGCGAGCTGCGCCCCAACGACTCAGGTATCTATCG
CTGTGAGGTCCAGCACGGCATCGATGACAGCAGCGACGCTGTGGAGGTCAAGGTCAAAGGGGTCGTCTTTCTCTA
CCGAGAGGGCTCTGCCCGCTATGCTTTCTCCTTTTCTGGGGCCCAGGAGGCCTGTGCCCGCATTGGAGCCCACAT
CGCCACCCCGGAGCAGCTCTATGCCGCCTACCTTGGGGGCTATGAGCAATGTGATGCTGGCTGGCTGTCGGATCA
GACCGTGAGGTATCCCATCCAGACCCCACGAGAGGCCTGTTACGGAGACATGGATGGCTTCCCCGGGGTCCGGAA
CTATGGTGTGGTGGACCCGGATGACCTCTATGATGTGTACTGTTATGCTGAAGACCTAAATGGAGAACTGTTCCT
GGGTGACCCTCCAGAGAAGCTGACATTGGAGGAAGCACGGGCGTACTGCCAGGAGCGGGGTGCAGAGATTGCCAC
CACGGGCCAACTGTATGCAGCCTGGGATGGTGGCCTGGACCACTGCAGCCCAGGGTGGCTAGCTGATGGCAGTGT
GCGCTACCCCATCGTCACACCCAGCCAGCGCTGTGGTGGGGGCTTGCCTGGTGTCAAGACTCTCTTCCTCTTCCC
CAACCAGACTGGCTTCCCCAATAAGCACAGCCGCTTCAACGTCTACTGCTTCCGAGACTCGGCCCAGCCTTCTGC
CATCCCTGAGGCCTCCAACCCAGCCTCCAACCCAGCCTCTGATGGACTAGAGGCTATCGTCACAGTGACAGAGAC
CCTGGAGGAACTGCAGCTGCCTCAGGAAGCCACAGAGAGTGAATCCCGTGGGGCCATCTACTCCATCCCCATCAT
GGAGGACGGAGGAGGTGGAAGCTCCACTCCAGAAGACCCAGCAGAGGCCCCTAGGACGCTCCTAGAATTTGAAAC
ACAATCCATGGTACCGCCCACGGGGTTCTCAGAAGAGGAAGGTAAGGCATTGGAGGAAGAAGAGAAATATGAAGA
TGAAGAAGAGAAAGAGGAGGAAGAAGAAGAGGAGGAGGTGGAGGATGAGGCTCTGTGGGCATGGCCCAGCGAGCT
CAGCAGCCCGGGCCCTGAGGCCTCTCTCCCCACTGAGCCAGCAGCCCAGGAGGAGTCACTCTCCCAGGCGCCAGC
AAGGGCAGTCCTGCAGCCTGGTGCATCACCACTTCCTGATGGAGAGTCAGAAGCTTCCAGGCCTCCAAGGGTCCA
TGGACCACCTACTGAGACTCTGCCCACTCCCAGGGAGAGGAACCTAGCATCCCCATCACCTTCCACTCTGGTTGA
GGCAAGAGAGGTGGGGGAGGCAACTGGTGGTCCTGAGCTATCTGGGGTCCCTCGAGGAGAGAGCGAGGAGACAGG
AAGCTCCGAGGGTGCCCCTTCCCTGCTTCCAGCCACACGGGCCCCTGAGGGTACCAGGGAGCTGGAGGCCCCCTC
TGAAGATAATTCTGGAAGAACTGCCCCAGCAGGGACCTCAGTGCAGGCCCAGCCAGTGCTGCCCACTGACAGCGC
CAGCCGAGGTGGAGTGGCCGTGGTCCCCGCATCAGGTGACTGTGTCCCCAGCCCCTGCCACAATGGTGGGACATG
CTTGGAGGAGGAGGAAGGGGTCCGCTGCCTATGTCTGCCTGGCTATGGGGGGGACCTGTGCGATGTTGGCCTCCG
CTTCTGCAACCCCGGCTGGGACGCCTTCCAGGGCGCCTGCTACAAGCACTTTTCCACACGAAGGAGCTGGGAGGA
GGCAGAGACCCAGTGCCGGATGTACGGCGCGCATCTGGCCAGCATCAGCACACCCGAGGAACAGGACTTCATCAA
CAACCGGTACCGGGAGTACCAGTGGATCGGACTCAACGACAGGACCATCGAAGGCGACTTCTTGTGGTCGGATGG
CGTCCCCCTGCTCTATGAGAACTGGAACCCTGGGCAGCCTGACAGCTACTTCCTGTCTGGAGAGAACTGCGTGGT
CATGGTGTGGCATGATCAGGGACAATGGAGTGACGTGCCCTGCAACTACCACCTGTCCTACACCTGCAAGATGGG
GCTGGTGTCCTGTGGGCCGCCACCGGAGCTGCCCCTGGCTCAAGTGTTCGGCCGCCCACGGCTGCGCTATGAGGT
GGACACTGTGCTTCGCTACCGGTGCCGGGAAGGACTGGCCCAGCGCAATCTGCCGCTGATCCGATGCCAAGAGAA
CGGTCGTTGGGAGGCCCCCCAGATCTCCTGTGTGCCCAGAAGACCTGCCCGAGCTCTGCACCCAGAGGAGGACCC
AGAAGGACGTCAGGGGAGGCTACTGGGACGCTGGAAGGCGCTGTTGATCCCCCCTTCCAGCCCCATGCCAGGTCC
C**TAG**GGGGCAAGGCCTTGAACACTGCCGGCCACAGCACTGCCCTGTCACCCAAATTTTCCCTCACACCCTGCGCT
CCCGCCACCACAGGAAGTGACAACATGACGAGGGGTGGTACTGGAGTCCAGGTGACAGTTCCTGAAGGGGCTTCT
GGGAAATACCTAGGAGGCTCCAGCCCAGCCCAGGCCCTCTCCCCCTACCCTGGGCACCAGATCTTCCATCAGGGC
CGGAGTAAATCCCTAAGTGCCTCAACTGCCCTCTCCCTGGCAGCCATCTTGTCCCCTCTATTCCTCTAGGGAGCA
CTGTGCCCACTCTTTCTGGGTTTTCCAAGGGAATGGGCTTGCAGGATGGAGTGTCTGTAAAATCAACAGGAAATA
AAACTGTGTATGAGCCC

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FIGURE 9

TTGCCATTACCCACAGAATAAAGAAAGGGGCCCTGTTATTCAACAATAGGGGAAAAGACAGAGACAATGGGAAAT
TGTGCTTCCGATGGGGTGGGGACTGAGAAGGAAAGGACAGACAGACAGACAGACAGGGGGTTGTACAGAAGAGGT
CCGGTTTCTTGAAGCAGCTGGAAGTCCTGGATAGTTCCCACCTGAAAGTCTGTTTGCAAAGGCAATGCGCACTCA
GGCACCAGAGGGCAGAGGGGCTCAAGTTCCAGGGTTTTAAGGTGCTTGGAACTCCCAGGAGCCTGGCAAACCTTC
ATCCAGAACCTCTTCCTCAAGCAAGACAAAAAGCTGCTAAGCACTGCTCCCTCCGTCTCTGTGAAGAGACCAGCT
TCTAACAGACGGTGCCGGGCTGACCCCCCATC**ATG**CCAGGCTGGCTCACCCTCCCCACACTCTGCCGCTTCCTTC
TTTGGGCCTTCACCATCTTCCACAAAGCCCAAGGAGACCCAGCATCCCACCCGGGCCCCCACTACCTCCTGCCCC
CCATCCACGAGGTCATTCACTCTCATCGTGGGGCCACGGCCACGCTGCCCTGCGTCCTGGGCACCACGCCTCCCA
GCTACAAGGTGCGCTGGAGCAAGGTGGAGCCTGGGGAGCTCCGGGAAACGCTGATCCTCATCACCAACGGACTGC
ACGCCCGGGGGTATGGGCCCCTGGGAGGGCGCGCCAGGATGCGGAGGGGGCATCGACTAGACGCCTCCCTGGTCA
TCGCGGGCGTGCGCCTGGAGGACGAGGGCCGGTACCGCTGCGAGCTCATCAACGGCATCGAGGACGAGAGCGTGG
CGCTGACCTTGAGCTTGGAGGGTGTGGTGTTTCCGTACCAACCCAGCCGGGGCCGGTACCAGTTCAATTACTACG
AGGCGAAGCAGGCGTGCGAGGAGCAGGACGGACGCCTGGCCACCTACTCCCAGCTCTACCAGGCTTGGACCGAGG
GTCTGGACTGGTGTAACGCGGGCTGGCTGCTCGAGGGCTCCGTGCGCTACCCTGTGCTCACCGCACGCGCCCCGT
GCGGCGGCCGAGGCCGGCCCGGGATCCGCAGCTACGGACCCCGCGACCGGATGCGCGACCGCTACGACGCCTTCT
GCTTCACCTCCGCGCTGGCGGGCCAAGTGTTCTTCGTGCCCGGGCGGCTGACGCTGTCTGAAGCCCACGCGGCGT
GCCGGCGACGCGGCGCCGTGGTGGCCAAGGTTGGGCACCTCTACGCCGCCTGGAAGTTTTCGGGGCTAGACCAGT
GCGACGGCGGCTGGCTGGCTGACGGCAGTGTGCGCTTCCCAATCACCACGCCGAGGCCGCGCTGCGGGGGGCTCC
CGGATCCCGGAGTGCGCAGTTTCGGCTTCCCCAGGCCCCAACAGGCAGCCTATGGGACCTACTGCTACGCCGAGA
AT**TAG**GCGCCCACCGTGTCCCCTCCAGCGCGCGCGAAGAAGCTTGGGAGTCGTGGCGGGGGTCTCTCGCCACCCC
TTTCCGGAGAGCCTCCCCTCCCTCCAGACCCGGAGCGGCCTCTCCAGACCTGCCTTCCCAGCCGGGGGCTGCGGG
CCTCGGACCCCGGCTGGCCCGGCGGCGGGGAGGGGAGGCGGGGGCGCCTCCGGCGGCGAGATGCAGAGGTGACCC
TCGGACCCGCTGCCGTTCGCGAACCCTAGCAGAGGACTCAGCCACCGCCGGGGGGAGGGTGAGGCGGCCGGGGGC
ATTAACTGACCTCTGAGTACAGCAATAAAATAACCTGGGGATCTTT

FIGURE 10

GGCGGCGCACAAGTCAGGTCCGGCACATGTTTCCGCGGAGCGGACCCAGCAATGACGGATGATATCACCTCTTCT
TCTCTGGTGAGAGTCTGAGGATAGAGACTTTTTTCTCACC**ATG**AATGTCACCCCAGAGGTCAAGAGTCGTGGGAT
GAAGTTTGCTGAGGAGCAGCTGCTAAAGCATGGATGGACTCAAGGCAAAGGCCTCGGCCGGAAGGAGAATGGTAT
CACTCAGGCTCTCAGGGTGACACTGAAGCAAGACACTCATGGGGTAGGACATGACCCTGCCAAGGAGTTCACAAA
CCACTGGTGGAATGAGCTCTTCAACAAGACTGCGGCCAACTTGGTAGTGGAAACTGGGCAGGATGGAGTACAGAT
AAGGAGCCTTTCTAAGGAGACCACCCGTTATAATCATCCCAAGCCCAACTTGCTGTATCAGAAGTTTGTGAAGAT
GGCTACATTGACTTCAGGTGGAGAGAAGCCAAACAAAGACTTGGAGAGCTGCAGTGATGACGACAACCAGGGGTC
CAAGTCCCCAAAGATTCTGACTGATGAGATGCTGCTCCAAGCCTGTGAGGGGCGAACAGCACACAAGGCTGCCCG
TCTTGGGATCACAATGAAGGCCAAGCTTGCTCGCCTAGAGGCCCAGGAGCAGGCCTTCCTGGCTCGTCTCAAAGG
CCAGGACCCTGGGGCCCCTCAACTGCAGTCAGAGAGCAAGCCCCCCAAAAAAAAGAAAAAGAAAAGGAGGCAGAA
AGAGGAGGAAGAAGCTACAGCATCTGAAAGGAATGATGCAGATGAGAAGCACCCAGAACATGCTGAGCAGAACAT
CAGAAAAAGCAAGAAGAAGAAAAGGCGACATCAAGAAGGAAAGGTCTCAGATGAAAGAGAGGGTACAACTAAAGG
GAATGAGAAGGAGGACGCTGCAGGAACAAGTGGGCTTGGGGAATTGAATAGCAGAGAGCAAACCAATCAGTCCCT
CAGGAAAGGGAAGAAAAAGAAGAGGTGGCACCATGAAGAGGAGAAGATGGGGGTCTTGGAGGAAGGAGGAAAAGG
CAAGGAGGCTGCAGGCAGTGTCAGGACAGAGGAGGTAGAGAGCAGGGCATATGCTGACCCATGCAGCCGAAGAAA
GAAGAGGCAGCAACAGGAGGAGGAGGACTTGAACCTAGAAGATAGAGGTGAGGAAACTTTTAGGTGGTGGAACCA
GGGAAGCAGAGAGCAGAGCATGCAG**TGA**TGGAAGAAGCAGGAAAAGCAAGAAGAAAAGACAGCAGCATCAAGAGG
AGGAGGACATCTTGGATGTAAGGGATGAGAAGGATGGCGGGGCTAGGGAAGCAGAGAGCAGAGCACACACTGGCT
CAAGCAGCAGAGGTAAGAGGAAGAGGCAGCAGCATCCCAAGAAGGAAAGAGCTGGAGTCAGCACTGTCCAGAAAG
CCAAAAAGAAACAGAAGAAGAGAGACTAAAGGTCTGGTAAAGGTAGGGCTCAATTGATTGATTTTCAGGAGTTGA
AGCCTCAAAGACCAGGGTTGATGCAGGTCTGCAGGTCTTCTGCACCCCCCTCAATGAGGAGTCCCTCCCAGAAAG
GAAACTGATCTCTGGGACGTCAGCTGCTGAGAGGAGCAAGCGGTAGTACCACCCCTTAGTTGAGGGAGTCAGCAC
AGTCCTTTCTGCAGCTTCTAACCCAGGACCATGAACTCAGGTGCCTAGAGAAGCCAGGCAGCTAAAGGACAAGGA
ATGCTGGGGGCTGTGGGAACAGGAATGCAGATACCCTTTGAAGGAGCATTCCTGCTAAAAGAAGCTGAAAATGTA
GACCTATGTGAAGTGCTCTGATTTCTAAATATTGTGAAGGTTAAGAAAAACATAAATTTAGGTCTATGGGCTAGA
TTTAGCCCACAGTTGCCAGTTTCTAGCGCTACCAAATGAATGAATAAACATGAGCTTGCGCTCCTAGCCTAGAGA
TAAATCCTGACTGGCATCTCTGTTCCCAGCCTGGGAAGGTCCTGAATACAAATTAGAAGATATTCCTTGGAGGCC
TTTGAAGAAATTCCTTCGGTTAACCTCTTTGTAGTCTTGCTACACTGATAAGTAGAAGTAGCTCCCTGTCTGTGT
CCCAAATGAATAAGAATTGTGTAAAGGACAGCA

FIGURE 11

ATAAGGCCTTCTCAACACCATCACCATCCCTATTCCCTTGTGGAAGCCCCCTAAGAATTTATAGCTCCAGGCAGT
GGTTTGCCAGCCCCCACCATTGCTCCTTGAGGAGCCACAGGGAGGTGTGCCATCCTGCATACTCGAACTTGGATA
GGAGATGGGCTGCTGCTGCTGGG**ATG**TGCAGCAGCTTTGGCCTCTCTCACCCACAGCTGGCTGGTGAGCAGAACA
AGAAGAGGAAATGCTCTGGTTCATCAGGTCTTCACAGTGGACAAGTGCCAGTGACTGACAGTAAAGATGCCCCGC
TCCACCCCGACCATAGTACCTGTTCACAGTACCTTCATTTAATCAGATTAATTGAGAGTCTACTATGGGCCAAGG
AGTTGGGGATTCAGAGTGGAATAAGAATGAGATGGGCCCAGCCCAGATGGAATCTACATAGGCAATTA**TGA**TGGA
AGTGTTGCCTGTGATAGAGGAAGGGTACTCAACTCAGACTTCAGAGAATGGCTTCTAAAAGTAACTGATGTATAA
GCTGAGCTCTGGAGGATAAGAGAAACTCAGAAGGTAAAGGGGGAAAGGGAGAAGAATGTCCCAAGCAGAGGGAGC
AACATGTGCAATAACCTGAAGATGGAAGACTGTCGTACCTTCAAAGAAAAGAAACAGATTGGAATCTGTTATGCT
AATGGTTAGGCTAAAGTAGTGGTCCTGGAGAAAAGTGAAGAGATGAGGCTGGAGATGGCAGGAACAGGCATGCAG
AGCCATATAAGCCAGTCCGATAAATCTGGATTGTGTCATCCTAGGTCAAACAAGACCCAGTGACATGATGACATT
TATGTTTTAGAGAGAACACTGGATGCTTTGTGGAGAAGTCCATCCTCCACAAAGGTTGGGGTGGGGAGTGAGACT
ACAGGTGTTCTTAGGAGGCTGCTGGAGAAAGAAATTAGGCAAGAGATGATGATGGCCCGAAGTGGGGTAGTAGAT
GGTAACAGAGATGTAGAGAAATGGGAAAGATTTGCTAGGTAACATGTATAGCCCTTAGCACATAATGACCATTAC
ATGTTAGCTTCCTCCTATTGGTACAGTAGAAAGTGGAGGCCTGAAGTCCTGGGTTCCAGTCCTGTTTGCCATTAC
TAGCCAGCTGTGGGCTCTTCAGCAAACCACTTTTCACCCTTTTAGCCACATCTGCAAAGCAGGGATGGTCCAGAT
AATCTCTCAGGTCTCCTCTGGCTTCTAAGTCCTTTGAATTAGATGTCCCCTGGCCCCCCCAAAATTTGGCAGCTC
CTGACTTAAGAGACTGTACCCTACCTCCCACGCCCTATTGCTGCTCCCTTAACAGATGGCAGGATCCACGGAACC
TGAAGATCTCAATTCCTGCTGAGGGTCTGGGCAGTCTAAGTAAGCAACAGCAAGGCTGGTCACAGGATCCCACTA
TGTTAGGAAAGTTCTGAGAATTGATAAGGCATACAAGGCAACTGTTCAGGCCCCAGGGAAACCAGGGAAGAGAAA
AAGGATGGACTCTGTTACCCACAGCCTCTAATACCTTCACAAACTTCTGATACAGCAAGTTGGGCTTGGGATGAT
TATAACGGGTGGTCTCCTTAGAAAGGCTCCTTATCTGTACTCCATCCTGTAGAGAATTATCAGTACCAGTGAATG
GGTGACATATCATGACTGCCTACGCCACAGGTCCCAGGCCCTCTGTTTCATGTGCCCATCTATCAAGAGCTCATA
CCTGCCCAGTTTCCACTACCAAGTTGGCCGCAGTCTTGTTGAAGAGCTCATTCCACCAGTGGTTTGTGAACTCCT
TGGCAGGGTCATGTCCTACCTGCCAGGGGAATAAATATGAGCTCTGAGTGCCTGCCTCACCTGCCCTCAAGGGTC
CCCTCTCCCACACATGCTAACCTTCCTCAGTCCACCCAGTCTTACCCCATGAGTGTCTTGCTTCAGTGTCACCCT
GAGAGCCTGAGTGATACCATTCTCCTTCCGGCCGAGGCCTTTGCCTGCAGAGGACAGTGAGCGATTTGGCTTATT
CTCCTGCCTGCTGTGAGACCTCACAAGGCACCCCCCACACAGGCCTCTTGCCATTCCACACACCTGACATTGGGG
TATACTCTGTACCTCTCAGAAGACCTCCTAGCGCACTTCTTTCTAGTACCACTCCATATAGTCCCCTGCCTTTGT
GTGAGCCTGAACTATCTCTTCCTTCAAATTCTTTTGGTAGAGAGCCCATATCTCTTTTTCCCTCCCCTAGTCCTC
CCAACCACCACTTCTTCATTATCCACTGTCAAATTTCTTCCTTTCTTCCCTTTTCTGGGAAAGTTAGAAATTTTC
TTCTGCAAATTTCCCTTTAAACTAGCTTTTCCTCCTTTAATTAAATGGACTACATGGGGGGGTAATCCAGGATGA
TGGCTTTCCCCTGGGCAGATGGTAGGCAGGGAGCTGGGGGATGTGGAAGAGGCCCCATGGGGATCACCTTGAGTC
CATCCATGCTTTAGCAGCTGCTCCTCAGCAAACTTCATCCCACGACTCTTGACCTCTGGGGTGACATTCATGGTG
AGAAAAAAGTCTCTATCCTCAGACTCTCACCAGAGAAGAAGAGGTGATATCATCCTTTTAAGAAGAAAGTAGAAA
GTGCCCAAACAGCCATCAGTTCCATCCTGACTGCTTGTTAAGAATTCTCTGCTAGTTGGGTGCAGTGGCACACAC
CTGTAGTCCCAGCTACATGGGAGGCTGAGGCGGGATTGCTTGAGTCCAGCCTGGGCAGTATAGCAAGACCCTCTC
TCATAAAAAGAATAAAGCGGCCAGGCACAGTGGTTCACATTTGTAATCCCAGCACTTTGGAAGGCCAAGGTAGAA
GAATCACTTGAGCCCAGGAGTTCCAGACCAGTGTGGGCAACGTAGTGAAACCCTGCCTCTAGAAAAAATAAAAAA
TTAAAAAG

FIGURE 12

GGGCCGGGGGCGCGCGCTCTGCGAGCTGG**ATG**TCCAGGCTGCGGGCGCTGCTGGGCCTCGGGCTGCTGGTTGCGG
GCTCGCGCGTGCCGCGGATCAAAAGCCAGACCATCGCCTGTCGCTCGGGACCCACCTGGTGGGGACCGCAGCGGC
TGAACTCGGGTGGCCGCTGGGACTCAGAGGTCATGGCGAGCACGGTGGTGAAGTACCTGAGCCAGGAGGAGGCCC
AGGCCGTGGACCAGGAGCTATTTAACGAATACCAGTTCAGCGTGGACCAACTTATGGAACTGGCCGGGCTGAGCT
GTGCTACAGCCATCGCCAAGGCATATCCCCCCACGTCCATGTCCAGGAGCCCCCCTACTGTCCTGGTCATCTGTG
GCCCGGGGAATAATGGAGGAGATGGTCTGGTCTGTGCTCGACACCTCAAACTCTTTGGCTACGAGCCAACCATCT
ATTACCCCAAAAGGCCTAACAAGCCCCTCTTCACTGCATTGGTGACCCAGTGTCAGAAAATGGACATCCCTTTCC
TTGGGGAAATGCCCGCAGAGCCCATGACGATTGATGAACTGTATGAGCTGGTGGTGGATGCCATCTTTGGCTTCA
GCTTCAAGGGCGATGTTCGGGAACCGTTCCACAGCATCCTGAGTGTCCTGAAGGGACTCACTGTGCCCATTGCCA
GCATCGACATTCCCTCAGGATGGGACGTGGAGAAGGGAAATGCTGGAGGGATCCAGCCAGACTTGCTCATATCCC
TCACAGCCCCCAAAAAATCTGCAACCCAGTTTACCGGTCGCTACCATTACCTGGGGGGTCGTTTTGTGCCACCTG
CTCTGGAGAAGAAGTACCAGCTGAACCTGCCACCCTACCCTGACACCGAGTGTGTCTATCGTCTGCAG**TGA**GGGA
AGGTGGGTGGGTATTCTTCCCAATAAAGACTTAGAGCCCCTCTCTTCCAGAACTGTGGATTCCTGGGAGCTCCTC
TGGCAATAAAAGTCAGTGAATGGTGGAAGTCAGAGACCAACCCTGGGGATTGGGTGCCATCTCTCTAGGGGTAAC
ACAAAGGGCAAGAGGTTGCTATGGTATTTGGAAACAATGAAAATGGACTGTTAGATGCC

FIGURE 13

CAGGGGCGAGGGCTACCCGCTCTTTGCCGTGACAACACCGTTCCCCCAGCCGGGCTGGAGGCTGTGCAGAAGGTA
TCCTGCAGACCATGAACTGAGCACTGTTCCCAGACCGTTCATGAGCACAGTGTAAGGTGTGCCGAGACCCACCAC
CCAGCGAGCCCCTCCCCTCCGTAGCACTGAGGACCCCCGGAGAAG**ATG**GGGAGGAAAAAGATTCAGATCCAGCGA
ATCACCGACGAGCGGAACCGACAGGTGACTTTCACCAAGCGGAAGTTTGGCCTGATGAAGAAGGCGTATGAGCTG
AGCGTGCTATGTGACTGCGAGATCGCACTCATCATCTTCAACCACTCCAACAAGCTGTTCCAGTACGCCAGCACC
GACATGGACAAGGTGCTGCTCAAGTACACGGAGTACAATGAGCCACACGAGAGCCGCACCAACGCCGACATCATC
GAGACCCTGAGGAAGAAGGGCTTCAACGGCTGCGACAGCCCCGAGCCCGACGGGGAGGACTCGCTGGAACAGAGC
CCCCTGCTGGAGGACAAGTACCGACGCGCCAGCGAGGAGCTCGACGGGCTCTTCCGGCGCTATGGGTCAACTGTC
CCGGCCCCCAACTTTGCCATGCCTGTCACGGTGCCCGTGTCCAATCAGAGCTCACTGCAGTTCAGCAATCCCAGC
GGCTCCCTGGTCACCCCTTCCCTGGTGACATCATCCCTCACGGACCCGCGGCTCCTGTCCCCCCAGCAGCCAGCA
CTACAGAGGAACAGTGTGTCTCCTGGCCTGCCCCAGCGGCCAGCTAGTGCGGGGGCCATGCTGGGGGGTGACCTG
AACAGTGCTAACGGAGCCTGCCCCAGCCCTGTTGGGAATGGCTACGTCAGTGCTCGGGCTTCCCCTGGCCTCCTC
CCTGTGGCCAATGGCAACAGCCTAAACAAGGTCATCCCTGCCAAGTCTCCACCCCCACCTACCCACAGCACCCAG
CTTGGAGCCCCCAGCCGCAAGCCCGACCTGCGAGTCATCACTTCCCAGGCAGGAAAGGGGTTAATGCATCACTTG
ACTGAGGACCATTTAGATCTGAACAATGCCCAGCGCCTTGGGGTCTCCCAGTCTACTCATTCGCTCACCACCCCA
GTGGTTTCTGTGGCAACGCCGAGTTTACTCAGCCAGGGCCTCCCCTTCTCTTCCATGCCCACTGCCTACAACACA
GATTACCAGTTGACCAGTGCAGAGCTCTCCTCCTTACCAGCCTTTAGTTCACCTGGGGGGCTGTCGCTAGGCAAT
GTCACTGCCTGGCAACAGCCACAGCAGCCCCAGCAGCCGCAGCAGCCACAGCCTCCACAGCAGCAGCCACCGCAG
CCACAGCAGCCACAGCCACAGCAGCCTCAGCAGCCGCAACAGCCACCTCAGCAACAGTCCCACCTGGTCCCTGTA
TCTCTCAGCAACCTCATCCCGGGCAGCCCCCTGCCCCACGTGGGTGCTGCCCTCACAGTCACCACCCACCCCCAC
ATCAGCATCAAGTCAGAACCGGTGTCCCCAAGCCGTGAGCGCAGCCCTGCGCCTCCCCCTCCAGCTGTGTTCCCA
GCTGCCCGCCCTGAGCCTGGCGATGGTCTCAGCAGCCCAGCCGGGGGATCCTATGAGACGGGAGACCGGGATGAC
GGACGGGGGGACTTCGGGCCCACACTGGGCCTGCTGCGCCCAGCCCCAGAGCCTGAGGCTGAGGGCTCAGCTGTG
AAGAGGATGCGGCTTGATACCTGGACATTAAAG**TGA**CGATTCCCACTCCCCTCCTCTCAGCCTCCCTGATGAAGA
GTTGACAATCTCACCGCCCGCCCTTCCCTGCCCCGGGCTCCTCCCGCTCGACCCCCACTTCCTTTCTTGTGCTTC
GTGTCCTGTTGACGGTTACATTTGTGTATAATTATTATATTATT

FIGURE 14

CTCCTCACAGAAGCCTGGAGCTGGGCATCCAAGAAGAAGCAGCCTCATTTGTTTTCTGGTGTCATCGTAGGTGGC
CACCTATGGCTTTTGGGAATGTAAAAAGGGCAGCTCTCTGGC**ATG**TTCCTGACTGAGGATCTCATAACATTTAAC
TTGAGGAACTTCCTCCTTTTCCAGCTTTGGGAGTCAAGCTTCTCACCTGGGGCGGGTGGGTTCTGCACCACCCTC
CCACCCTCCTTCCTCCGTGTGGACGATAGAGCCACATCCAGCACCACGGACAGCTCCCGGGCGCCTTCATCTCCT
CGTCCTCCAGGCAGCACAAGCCATTGTGGAATCTCCACCAGGTGTACAGAACGGTGCCTCTGCGTCCTGCCACTC
AGGACCTCTCAAGTCCCCGATGTGATGGCTCCTCAGCATGATCAGGAGAAATTCCATGATCTTGCTTATTCCTGT
CTTGGGAAGTCCTTCTCCATGTCTAACCAAGATCTATATGGCTATAGCACCAGCTCTTTGGCTCTTGGCTTGGCA
TGGCTAAGTTGGGAGACCAAAAAGAAGAATGTACTTCATCTGGTTGGGCTGGATTCCCTC**TGA**TAAGCCTTCCCA
GTTGACTGAAAGATGAGGCTAGGCTCTAGCAAGTTGAAGTCAAACCAGCTCCTTCAAGAAGCTTTGAGCAGAATG
AAGTGGGGAGGACCCAGCTTCCAGCCCAGGAAGCCCACTGTACCTGGAGCCATCTGGGATAAGACTTTGACCCAT
GACTCCCATATCCACAGCCTGTCCATCCTAGCCCATCCCAGTTTATCCTGTATCATTTGAGCTGGGATTCCCACA
TCCTCTGAGTTGGAAGTCCCATCTCAAGTCTTCAATAAAGACTCTTGAATATTG

FIGURE 15

CAGGCGCCAAGGCTCTGGCAGTTGGCCAGCACACCACTACGCATGTGTGTCAACTCTAGGGTTGGGTGCTGGGGT
TGCGGCTTTCGGTTAACACCGCAGATTGGAACAGGCTGAGATCTGCTGGAGACAACTTAGGAAATTATCATAGTG
AAAATACTAACATGGATTGTTGATCATCTGATGCTATGATTCTTTCCCAGGCACCACACCTGTTGGTGTTCAG**AT**
GGAGCGGCACACTAGTCATCCTAACAGAAAAGTTCCAGCCAAAGAGGAAGCTAATGCTGTGCCTCTCTGTAGAGC
AAAACCCTCCCCCAGCTATATTAATCTTCAAGCAAGTTCCCCACCAGCCACTTTTCTGAACATCCAGACAACAAA
GCTGCCCTCGGTTGATCACAAGCCCAAGGAATGCCTAGGACTCCTGGAATGTATGTATGCAAACCTCCAGCTTCA
GACCCAGCTCGCCCAACAACAGATGGCTGTTTTGGAACATTTACAGGCATCTGTGACACAACTGGCTCCTGGGAG
GGGAAGCAATAACTCTTCTCTCCCAGCCTTATCTCCTAATCCATTGTTAAATCACCTGCCCCAATTCAGTAAA**TG**
AATTGTGGAAC

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FIGURE 16

TTGCGTAGGGGGCGGGACTAAGGCTGTCAATTGGTCTGTTTTTGTGCCGATCAATGAGATGGGTGCGGTGATTGG
CGACTACCTTGAGAGTAGCGGGTTGAGGTGTAAGCCCTGAGGAGGCAGCGTTTTCTGGGCTTCTGTCTGGTTCTC
TCTCTCCAGAAGGTTCTGCCGGTTCCCCCAGCTCTGGGTACCCGGCTCTGCATCGCGTCGCCATG**ATG**GGCCATC
GTCCAGTGCTCGTGCTCAGCCAGAACACAAAGCGTGAATCCGGAAGAAAAGTTCAATCTGGAAACATCAATGCTG
CCAAGACTATTGCAGATATCATCCGAACATGTTTGGGACCCAAGTCCATGATGAAGATGCTTTTGGACCCAATGG
GAGGCATTGTGATGACCAATGATGGCAATGCCATTCTTCGAGAGATTCAAGTCCAGCATCCAGCGGCCAAGTCCA
TGATCGAAATTAGCCGGACCCAGGATGAAGAGGTTGGAGATGGGACCACATCAGTAATTATTCTTGCAGGGGAAA
TGCTGTCTGTAGCTGAGCACTTCCTGGAGCAGCAGATGCACCCAACAGTGGTGATCAGTGCTTACCGCAAGGCAT
TGGATGATATGATCAGCACCCTAAAGAAAATAAGTATCCCAGTCGACATCAGTGACAGTGATATGATGCTGAACA
TCATCAACAGCTCTATTACTACCAAAGCCATCAGTCGGTGGTCATCTTTGGCTTGCAACATTGCCCTGGATGCTG
TCAAGATGGTACAGTTTGAGGAGAATGGTCGGAAAGAGATTGACATAAAAAAATATGCAAGAGTGGAAAAGATAC
CTGGAGGCATCATTGAAGACTCCTGTGTCTTGCGTGGAGTCATGATTAACAAGGATGTGACCCATCCACGTATGC
GGCGCTATATCAAGAACCCTCGCATTGTGCTGCTGGATTCTTCTCTGGAATACAAGAAAGGAGAAAGCCAGACTG
ACATTGAGATTACACGAGAGGAGGACTTCACCCGAATTCTCCAGATGGAGGAAGAGTACATCCAGCAGCTCTGTG
AGGACATTATCCAACTGAAGCCCGATGTGGTCATCACTGAAAAGGGCATCTCAGATTTAGCTCAGCACTACCTTA
TGCGGGCCAATATCACAGCCATCCGCAGAGTCCGGAAGACAGACAATAATCGCATTGCTAGAGCCTGTGGGGCCC
GGATAGTCAGCCGACCAGAGGAACTGAGAGAAGATGATGTTGGAACAGGAGCAGGCCTGTTGGAAATCAAGAAAA
TTGGAGATGAATACTTTACTTTCATCACTGACTGCAAAGACCCCAAGGCCTGCACCATTCTCCTCCGGGGGGCTA
GCAAAGAGATTCTCTCGGAAGTAGAACGCAACCTCCAGGATGCCATGCAAGTGTGTCGCAATGTTCTCCTGGACC
CTCAGCTGGTGCCAGGGGGTGGGGCCTCCGAGATGGCTGTGGCCCATGCCTTGACAGAAAAATCCAAGGCCATGA
CTGGTGTGGAACAATGGCCATACAGGGCTGTTGCCCAGGCCCTAGAGGTCATTCCTCGTACCCTGATCCAGAACT
GTGGGGCCAGCACCATCCGTCTACTTACCTCCCTTCGGGCCAAGCACACCCAGGAGAACTGTGAGACCTGGGGTG
TAAATGGTGAGACGGGTACTTTGGTGGACATGAAGGAACTGGGCATATGGGAGCCATTGGCTGTGAAGCTGCAGA
CTTATAAGACAGCAGTGGAGACGGCAGTTCTGCTACTGCGAATTGATGACATCGTTTCAGGCCACAAAAAGAAAG
GCGATGACCAGAGCCGGCAAGGCGGGGCTCCTGATGCTGGCCAGGAG**TGA**GTGCTAGGCAAGGCTACTTCAATGC
ACAGAACCAGCAGAGTCTCCCCTTTTCCTGAGCCAGAGTGCCAGGAACACTGTGGACGTCTTTGTTCAGAAGGGA
TCAGGTTGGGGGGCAGCCCCCAGTCCCTTTCTGTCCCAGCTCAGTTTTCCAAAAGACACTGACATGTAATTCTTC
TCTATTGTAAGGTTTCCATTTAGTTTGCTTCCGATGATTAAATCTAAGTCATTTG

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FIGURE 17

GAATTGCGGCCGT**ATG**CGCGGCTCTGTGGAGTGCACCTGGGGTTGGGGGCACTGTGCCCCCAGCCCCCTGCTCCT
TTGGACTCTACTTCTGTTTGCAGCCCCATTTGGCCTGCTGGGGGAGAAGACCCGCCAGGTGTCTCTGGAGGTCAT
CCCTAACTGGCTGGGCCCCCTGCAGAACCTGCTTCATATACGGGCAGTGGGCACCAATTCCACACTGCACTATGT
GTGGAGCAGCCTGGGGCCTCTGGCAGTGGTAATGGTGGCCACCAACACCCCCCACAGCACCCTGAGCGTCAACTG
GAGCCTCCTGCTATCCCCTGAGCCCGATGGGGGCCTGATGGTGCTCCCTAAGGACAGCATTCAGTTTTCTTCTGC
CCTTGTTTTTACCAGGCTGCTTGAGTTTGACAGCACCAACGTGTCCGATACGGCAGCAAAGCCTTTGGGAAGACC
ATATCCTCCATACTCCTTGGCCGATTTCTCTTGGAACAACATCACTGATTCATTGGATCCTGCCACCCTGAGTGC
CACATTTCAAGGCCACCCCATGAACGACCCTACCAGGACTTTTGCCAATGGCAGCCTGGCCTTCAGGGTCCAGGC
CTTTTCCAGGTCCAGCCGACCAGCCCAACCCCCTCGCCTCCTGCACACAGCAGACACCTGTCAGCTAGAGGTGGC
CCTGATTGGAGCCTCTCCCCGGGGAAACCGTTCCCTGTTTGGGCTGGAGGTAGCCACATTGGGCCAGGGCCCTGA
CTGCCCCTCAATGCAGGAGCAGCACTCCATCGACGATGAATATGCACCGGCCGTCTTCCAGTTGGACCAGCTACT
GTGGGGCTCCCTCCCATCAGGCTTTGCACAGTGGCGACCAGTGGCTTACTCCCAGAAGCCGGGGGGCCGAGAATC
AGCCCTGCCCTGCCAAGCTTCCCCTCTTCATCCTGCCTTAGCATACTCTCTTCCCCAGTCACCCATTGTCCGAGC
CTTCTTTGGGTCCCAGAATAACTTCTGTGCCTTCAATCTGACGTTCGGGGCTTCCACAGGCCCTGGCTATTGGGA
CCAACACTACCTCAGCTGGTCGATGCTCCTGGGTGTGGGCTTCCCTCCAGTGGACGGCTTGTCCCCACTAGTCCT
GGGCATCATGGCAGTGGCCCTGGGTGCCCCAGGGCTCATGCTGCTAGGGGGCGGCTTGGTTCTGCTGCTGCACCA
CAAGAAGTACTCAGAGTACCAGTCCATAAAT**TAA**GGCCCGCTCTCTGGAGGGAAGGACATTACTGAACCTGTCTT
GCTGTGCCTCGAAACTCTGGAGGTTGGAGCATCAAGTTCCAGCCGGCCCCTTCACTCCCCCATCTTGCTTTTCTG
TGGAACCTCAGAGGCCAGCCTCGACTTCCTGGAGACCCCCAGGTGGGGCTTCCTTCATACTTTGTTGGGGGACTT
TGGAGGCGGGCAGGGGACAGGGCTATTGATAAGGTCCCCTTGGTGTTGCCTTCTTGCATCTCCACACATTTCCCT
TGGATGGGACTTGCAGGCCTAAATGAGAGGCATTCTGACTGGTTGGCTGCCCTGGAAGGCAAGAAAATAGATTTA
TTTTTTTTC

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FIGURE 18

GGCAGCATGGCGTCTTTCCGGCTTCTCCAAACCCTTGCGAAAAACTTTATTGGCAAAGCTATCAGAGAACGGACA
GTGTACCCACTGAGGCGGCCAAAGCTTAACTGGATCAGGGCAGGATGACATGACCTTGTGGTAGATCCCAGAACT
GAGGCCCCAGG**ATG**ACAGAACAGGAGACCCTGGCCCTACTGGAAGTGAAGAGGTCTGATTCCCCAGAGAAGAGCT
CACCCCAGGCCTTGGTTCCCAATGGCCGGCAGCCAGAAGGGGAAGGTGGGGCCGAATCCCCGGGAGCTGAGTCCC
TCAGAGTGGGGTCTTCAGCTGGATCTCCCACAGCCATAGAGGGGGCTGAGGATGGTCTAGACAGCACAGTAAGTG
AGGCTGCCACCTTGCCCTGGGGGACTGGCCCTCAGCCCAGTGCTCCGTTCCCGGATCCCCCTGGCTGGCGGGACA
TTGAACCAGAGCCCCCTGAGTCAGAACCACTTACCAAGCTAGAGGAGCTGCCCGAAGACGATGCCAACCTGCTGC
CTGAGAAAGCGGCCCGTGCCTTCGTGCCTATTGACCTACAGTGCATTGAGCGGCAGCCCCAAGAAGACCTTATCG
TGCGCTGTGAGGCAGGCGAGGGCGAGTGCCGAACCTTCATGCCCCCCCGGGTCACCCACCCCGACCCCACTGAGC
GCAAGTGGGCTGAGGCAGTGGTGAGGCCGCCTGGCTGTTCCTGTGGGGGCTGCGGGAGCTGTGGAGACCGTGAGT
GGCTAAGGGCTGTGGCCTCCGTGGGAGCCGCACTCATTCTCTTCCCTTGCCTACTATACGGGGCATATGCCTTCC
TGCCGTTTGATGTCCCACGGCTGCCCACCATGAGTTCCCGCCTGATCTACACACTGCGCTGCGGGGTCTTTGCCA
CCTTCCCCATTGTGCTGGGGATCCTGGTGTACGGGCTGAGCCTGTTATGCTTTTCTGCCCTTCGGCCCTTTGGGG
AGCCACGGCGGGAGGTGGAGATCCACCGGCGATATGTGGCCCAGTCGGTCCAGCTCTTTATTCTCTACTTCTTCA
ACCTGGCCGTGCTTTCCACTTACCTGCCCCAGGATACCCTCAAACTGCTCCCTCTGCTCACTGGTCTCTTTGCCG
TCTCCCGGCTGATCTACTGGCTGACCTTTGCCGTGGGCCGCTCCTTCCGAGGCTTCGGCTACGGCCTGACGTTTC
TGCCACTGCTGTCGATGCTGATGTGGAACCTCTACTACATGTTCGTGGTGGAGCCGGAGCGCATGCTCACTGCCA
CCGAGAGCCGCCTGGACTACCCGGACCACGCCCGCTCGGCCTCCGACTACAGGCCCCGCCCCTGGGGC**TGA**GCCT
CTCCGCCCTCGCCCTCGGAGTAGGGGGTAGCGGCTTGGGTCTGACACATCTTTGAACCTTGTGGCCAGGCCTGGA
CTTCGCCCCCAGGCCTAGGACCGCGGTGGGTGGAACCCTGCTACTGCCCCAACAGGGACTCCAATCAATCGGAGT
TCTCCCCTTGCCGGAGCTGCCCTTCACCTTTGGGGCCCGAGACAGTCATAAGGGATGGACTTAGTTTTCTTGCAG
GGAAAAAGGTGGACAGCCGTGTTTCTTAAGGATGCTGAGGGCATGGGGCCAGGACCAGGGGAGAGGCACAGCTCC
TTCCTGAGCAGCCTCTCACCACTGCCACAAGGCTCCCTAATGCTGGTCTCTGCTCCACTCCCCGGCTTCCCGTGA
GGCAGGAGGCAGAGCCACAGCCAAGGCCCTGACCACTTCTGTGCCAGTTGTCTAAGCAGAGCGCCTCAGGGACGC
TGGAAATGCCTTAAGGATAGAGGCTGGGCATCACATCAAATGGGACTGTGGTGTTTGGTGAAAACCTTCCTGAGG
ATCTGGATTCAGGACCCTCCATGACTGGCCTATTTACTGTTTACAGCTGGCCAGTGCAGAGCTGCTGCTCTTTTA
CCTTTTTAGGCCCCTGTAACTTCCCACCTTTAAACTGCCCAGAAGGCATGCCTCTCCCACAGGAAGAGGGGAGCA
GACAGGGAAATCTGCCTACCAAGAGGGGTGTGTGTGTCTTTGTGCCCACACGTGGTGGCTGGGGAGTGCCTGGAT
GGTGCGGTGGTTGATGTTAACCTAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTAACAA
TAAATTACTACCAGTC

FIGURE 19A

GTCGCGGGCAGCCGCCTCACAGCGATGGCGGCCGAGCAGGGCCGGTGGCGGCGGCGGCTGCGGCTACGGCCGGAG
ACGGCAGTGTTGGCGGTAGTGGTGGGTGGCAGGGGCCTGTGACCGGGAGCTGCCCCCGGACCCGGGCACC**ATG**AG
CCAAGGCCCCCCCACAGGGGAGAGCAGCGAGCCCGAAGCAAAAGTCCTCCACACTAAGCGGCTTTACCGGGCTGT
GGTGGAGGCTGTGCATCGACTTGACCTCATCCTTTGCAACAAAACTGCTTATCAAGAAGTATTCAAACCAGAAAA
CATTAGCCTGAGGAACAAGCTGCGTGAGCTCTGCGTCAAGCTTATGTTCCTGCACCCAGTGGACTATGGGAGAAA
GGCTGAGGAGCTGCTGTGGAGAAAGGTATACTATGAAGTTATCCAGCTTATCAAGACTAACAAAAAGCACATCCA
CAGCCGGAGCACTTTGGAATGTGCCTACAGGACGCACCTGGTTGCTGGTATTGGCTTCTACCAGCATCTCCTTCT
CTATATCCAGTCCCACTACCAGCTGGAACTGCAGTGCTGCATCGACTGGACCCATGTCACTGACCCCCTCATAGG
ATGCAAGAAGCCAGTGTCTGCCTCAGGGAAGGAGATGGATTGGGCACAGATGGCATGTCACCGATGTCTGGTGTA
TCTGGGGGATTTGTCCCGATATCAGAATGAATTAGCTGGCGTAGATACCGAGCTGCTAGCCGAGAGATTTTACTA
CCAAGCCCTGTCAGTAGCTCCTCAGATTGGAATGCCCTTCAATCAGCTGGGCACCCTGGCAGGCAGCAAGTACTA
TAATGTGGAAGCCATGTATTGCTACCTGCGCTGCATCCAGTCAGAAGTGTCCTTTGAGGGAGCCTATGGGAACCT
CAAGCGGCTGTATGACAAGGCAGCCAAAATGTACCACCAACTGAAGAAGTGTGAGACTCGGAAACTGTCTCCTGG
CAAAAAGCGATGTAAAGACATTAAAAGGTTGCTAGTGAACTTTATGTATCTGCAAAGCCTCCTACAGCCCAAAAG
CAGCTCCGTGGACTCAGAGCTGACCTCACTTTGCCAGTCAGTCCTGGAGGACTTCAACCTCTGCCTCTTCTACCT
GCCCTCCTCACCCAACCTCAGCCTGGCCAGTGAGGATGAGGAGGAGTATGAGAGTGGATATGCTTTCCTCCCGGA
CCTTCTCATCTTTCAAATGGTCATCATCTGCCTTATGTGTGTGCACAGCTTGGAGAGAGCAGGATCCAAGCAGTA
CAGTGCAGCCATTGCCTTCACCCTGGCCCTCTTTTCCCACCTCGTCAATCATGTCAACATACGGCTGCAGGCTGA
GCTGGAAGAGGGCGAGAATCCCGTCCCGGCATTCCAGAGTGATGGCACAGATGAACCAGAGTCCAAGGAACCTGT
GGAGAAAGAGGAGGAGCCAGATCCTGAGCCTCCTCCTGTAACACCCCAAGTGGGTGAGGGCAGAAAGAGCCGTAA
GTTCTCTCGCCTCTCCTGTCTCCGCCGTCGCCGCCACCCACCCAAAGTTGGTGATGACAGTGACCTGAGTGAAGG
CTTTGAATCGGACTCAAGCCATGACTCAGCCCGGGCCAGTGAGGGCTCAGACAGTGGCTCTGACAAGAGTCTTGA
AGGTGGGGGAACGGCCTTTGATGCTGAAACAGACTCGGAAATGAATAGCCAGGAGTCCCGATCAGACTTGGAAGA
TATGGAGGAAGAGGAGGGGACACGGTCACCAACCCTGGAGCCCCCTCGGGGCAGATCAGAGGCTCCCGATTCCCT
CAATGGCCCACTGGGCCCCAGTGAGGCTAGCATTGCCAGCAATCTACAAGCCATGTCCACCCAGATGTTCCAGAC
TAAGCGCTGCTTCCGACTGGCCCCCACCTTTAGCAACCTGCTCCTCCAGCCCACCACCAACCCTCATACCTCGGC
CAGCCACAGGCCTTGCGTCAATGGGGATGTAGACAAGCCTTCAGAGCCAGCCTCTGAGGAGGGCTCTGAGTCGGA
GGGGAGTGAGTCCAGTGGACGCTCCTGTCGGAATGAGCGCAGCATCCAGGAGAAGCTTCAGGTCCTGATGGCCGA
AGGTCTGCTTCCTGCTGTGAAAGTCTTCCTGGACTGGCTTCGGACCAACCCCGACCTCATCATCGTGTGTGCGCA
GAGCTCTCAAAGTCTGTGGAACCGCCTGTCTGTGTTGCTGAATCTGTTGCCTGCTGCTGGTGAACTCCAGGAGTC
TGGCCTGGCCTTGTGTCCTGAGGTCCAAGATCTTCTTGAAGGTTGTGAACTGCCTGACCTCCCCTCTAGCCTTCT
GCTCCCAGAGGACATGGCTCTTCGTAACCTGCCCCCGCTCCGAGCTGCCCACAGACGCTTTAACTTTGACACGGA
TCGGCCCCTGCTCAGCACCTTAGAGGAGTCAGTGGTGCGCATCTGCTGCATCCGCAGCTTTGGTCATTTCATCGC
CCGCCTGCAAGGCAGCATCCTGCAGTTCAACCCAGAGGTTGGCATCTTCGTCAGCATTGCCCAGTCTGAGCAGGA
GAGCCTGCTGCAGCAGGCCCAGGCACAGTTCCGAATGGCACAGGAGGAAGCTCGTCGGAACAGGCTCATGAGAGA
CATGGCTCAGCTACGACTTCAGCTCGAAGTGTCTCAGCTGGAGGGCAGCCTGCAGCAGCCCAAGGCCCAGTCAGC
CATGTCTCCCTACCTCGTCCCTGACACCCAGGCCCTCTGCCACCATCTCCCTGTCATCCGCCAACTGGCCACCAG
TGGCCGCTTCATTGTCATCATCCCAAGGACAGTGATCGATGGCCTGGATTTGCTGAAGAAGGAACACCCAGGGGC
CCGGGATGGGATTCGGTACCTGGAGGCAGAGTTTAAAAAAGGAAACAGGTACATTCGCTGCCAGAAAGAGGTGGG
AAAGAGCTTTGAGCGGCATAAGCTGAAGAGGCAGGATGCAGATGCCTGGACTCTCTATAAGATCCTAGACAGCTG
CAAACAGCTGACTCTGGCCCAGGGGGCAGGTGAGGAGGATCCGAGTGGCATGGTGACCATCATCACAGGCCTTCC
ACTGGACAACCCCAGCGTGCTTTCAGGCCCCATGCAGGCAGCCCTGCAGGCCGCTGCCCACGCCAGTGTGGACAT
CAAGAATGTTCTGGACTTCTACAAGCAGTGGAAGGAAATTGGT**TGA**TACTGACCCCCAGGCCCTGCAGTGGGGCT
GACTCCAGATCTCTCCTGCCCTCCCTGGCAGCCAGGACCAGCACCTGTAGTCACCCCACCACACGCAGACTCATG
CACGCACACAGGAGGGAGGCCTAGCTGCTCAGAGGCTGCAGGGAGGGCCCAGGAGCCGGCTGGGAGGGTGGGGTC
CCTTTGTTGCCAAGACGTTAGGAAAGCGAGGAAAGTGCTTGGATTAGGAGAGTCTTGTGGGCCCCTGGCCAGCCT
TCCTGCCTCAGCTCCCCTGCTGTCTCCAGGGGCAGGTGGTAGGCATGGGTACCTGCATTTCACTGGAATGGGTTC
TTGGATCTCTGAGGGGAAGGAACAGCAAAAGAGGCCCTTCTTCCTCACCCAAGATGCAGGGTGGTTGGGGCCAGG

FIGURE 19B

AGTTTGGACCCTCTAGGTCTTGGGGGAAGAGCTGGGTAATACCTGGTGTCTGAGTGATTCTCTGCAGACCCTTCC
CCTCCTCAAGGATCACCCATCCTCCTTTCAGCCCCCTTTATGGGGACCAGGCAGCTCTGGAGCCAGCCACAGGGG
CTGTTAGAGAAGCAAGGCCTGGAGTGGCCTGCACCGAGTAGCAGGGTCAGGGTTCGTGTGCTCCTCCTCCTGCTG
CAGGGGCTGCACATCCCATTGCCCCACTTCTGCTTTGTGTCTCCCTCTGTCTAGCTTCCAGGGCAGGGAGCAGGC
CCCACCTAGGGCTGCAGGCAGTCTGGCCTGTGCCAGCACGGTCTCCTGTGCCCACCAGCCCCACAGGTGCTGTGC
TTTGTGCTCTTGGCTGCTGTGCTGGGACAGAATGGGATGCCAGGAAGAGAAGAAAGGGGGTGCAGTCTGAGGCCA
CCACCCCCCTTCCTATCTAAGGGAGGGCTGAAGACAAGGGGCCGGCATTCAGTGGGCAGCAGAAAGGAGAGGCTC
CTTGAAGCTGCTCAGTCAGAGGCCCCCGTCCCTCCTTTTGCCTTCCGCAGGACTGAAGACCTGAAGGGGCTGGCT
TTTGGAGTGTTGAGGTGAATATCTGGGAGCAGAGATCATGAATAGCTCAGGGCAGTGAATGGCGCACCAAGAGCA
GGGCTGTGTGTGGGAGGCTGCAGCCAGGATTGCCTCAGCTCCTCCCCCTCAGGCTGGGAGGATAGCACAGGCTAG
GGGCTCGGGGTGGAGGGTCTCAGCTCTGCTGCCCCCACCCCAGTACTAGCCTAGCTTCCCAAGCTGTGGCTTAGA
GGATAGTTGGCTTCCTGCCTCTCTCCTCTAAAATAGCAAGTCTGGGAAATCCTGGGGTGAGTGGAGTCACCCCAC
TCCCAGTTGCTGGCAGAGACTGAGACTAAAGCATCACTTAATAAACCCCCCAAGCCC

FIGURE 20

ACTCCCCGCCCAGGCCTGGCCCGCCTGCCTGGCCACTCTTCCTCCATCAGCCTGGCTGGCAGCAGCCTTGGACTC
CGCCCGTGGAGCCCTGGGCCTGTTGACCCACCAGCTTAGGAGCACCCACCAAGCTCTGGGTGTTCTGGGAAGATG
GCATC**ATG**TCTGGCTACCGCCGCCCCACCAGCTCGGCTTTGGACTGTGTCCTCAGCTCCTTCCAGATGACCAACG
AGACGGTCAACATCTGGACTCACTTCCTGCCCACCTGGTACTTCCTGTGGCGGCTCCTGGCGCTGGCGGGCGGCC
CCGGCTTCCGTGCGGAGCCGTACCACTGGCCGCTGCTGGTCTTCCTGCTGCCCGCCTGCCTCTACCCCTTCGCGT
CGTGCTGCGCGCACACCTTCAGCTCCATGTCGCCCCGCATGCGCCACATCTGCTACTTCCTCGACTACGGCGCGC
TCAGCCTCTACAGTCTGGGCTGCGCCTTCCCCTATGCCGCCTACTCCATGCCGGCCTCCTGGCTGCACGGCCACC
TGCACCAGTTCTTTGTGCCTGCCGCCGCACTCAACTCCTTCCTGTGCACCGGCCTCTCCTGCTACTCCCGTTTCC
TGGAGCTGGAAAGCCCTGGGCTCAGTAAGGTCCTCCGCACAGGAGCCTTCGCCTATCCATTCCTGTTCGACAACC
TCCCACTCTTTTATCGGCTCGGGCTGTGCTGGGGCAGGGGCCACGGCTGTGGGCAGGAGGCCCTGAGCACCAGCC
ATGGCTACCATCTCTTCTGCGCGCTGCTCACTGGCTTCCTCTTCGCCTCCCACCTGCCTGAAAGGCTGGCACCAG
GACGCTTTGATTACATCGGCCACAGCCACCAGTTATTCCACATCTGTGCAGTGCTGGGCACCCACTTCCAGCTGG
AGGCAGTGCTGGCTGATATGGGATCACGCAGAGCCTGGCTGGCCACACAGGAACCTGCCCTGGGCCTGGCAGGCA
CAGTGGCCACACTGGTCTTGGCTGCAGCTGGGAACCTACTCATTATTGCTGCTTTCACAGCCACCCTGCTTCGGG
CCCCCAGTACATGCCCTCTGCTGCAGGGTGGCCCACTGGAGGGGGGTACCCAGGCCAAACAACAG**TGA**GGCCCCA
TCCCTGACCCTGTCCTGGAGGGGGCAGAGGCCAGGCCCCAGTGCTGACGAGGAGCCCAGATTTGGGCCTAATCAG
GTGGGGACGCATCTCAGCCTGGAACCAACAGGGGCTGAGGAGAGAGGGCACAGGAGAGAGGGCAGAGAAGAGGAG
GGGTGTCTAGGGGGACTGGCAGAGTGTGAGAGGGACCGTGAGGGGGCTCTTGATGGGAGTGGAAGAAGTGCTGAG
GGTCTGAGAGGGGAGATGCATGCGTGTCCAGGCTGAAGATGCCCCTATATTCTGTCAAAGGTTGGCGGGGGGAGG
TGTTGGGGTCCTTTCATCTGGCTCCGTTTCTGGTGCTTCTGGAAGTCTCTGCTCAGCACAGGGAAGAACTAACAC
GACTAACCTAGGCCTACCCTGAATGCTTCTTGCTAACCAGGCCGAGAGGCCACACACTTGCCCCCCCATCCCCAC
AAACCAGGTAATGCCAGTTTGCCAGCAGCTATTTGCCTATAGAGATGAGTCTGTCCTGGTCATAACTGTGTGCTC
AAGGTGTCCAGGCTTTTGGGGGTGGGCCTATCTGGGTGCATTATGGATGGTTTGGTGGATTGAGGTGTGGGGAGG
AGGGTCCTAGGCTAGAGGGGGTATCCCTAGTTAGACTTTGGGAAGCCACCTTCAACGTTTTCTGGAACAAGGCAG
GTACAAATAAAAAAATAAAACTTTGGAAAGC

FIGURE 21

GCAAGTAGCGCCAATCTAGGCAGCGGCTGTGAGGAAAAAAGGCATGAGGGGTCGTCTTCGGAATCTGTGCCACCC
GGCACTACCATTTCGAGGGTGAAGCTCCTCGACACC**ATG**GTGGACACTTTTCTTCAGAAGCTGGTCGCCGCCGGC
AGCTACCAGAGATTCACTGACTGCTATAAGTGCTTCTACCAGTTGCAGCCTGCGATGACACAGCAAATCTATGAC
AAGTTTATAGCTCAGTTGCAGACATCTATCCGGGAGGAAATCTCTGACATCAAAGAGGAGGGGAACCTAGAAGCT
GTCTTGAATGCCTTGGATAAAATTGTGGAAGAAGGCAAAGTCCGCAAAGAGCCAGCCTGGCGCCCCAGCGGGATC
CCAGAGAAGGATCTGCACAGTGTTATGGCACCCTACTTCCTGCAGCAACGGGACACCCTGCGGCGCCATGTGCAG
AAACAGGAGGCCGAGAACCAGCAGCTGGCAGATGCCGTCCTGGCAGGGCGGAGGCAGGTGGAGGAGCTGCAGCTA
CAGGTCCAGGCCCAGCAGCAGGCCTGGCAGGCTCTACACAGAGAACAGAGGGAGCTGGTTGCTGTGCTGAGGGAG
CCTGAG**TGA**GGAGACCGCCAGCCCCAGAAGCAGAGGGCAGTCAAGGTCAAGAGCCTGTGGTCCAGCATGCCTGGC
CTGGGCGGGCTACCTCTGAGAACGGCTGAAATGGTGCCCAGTCCATCAGCAGTGATGGAATTTGCTGGAGGACTA
GGCCAGAGCAAGCCTCACTGCCACTGTGCCTTTGGGGCACCCTTGGGGGTTGGACATACACCCCCTTTAGATTCCT
CTGTTTCTTCTACCTGGATAATTCTTGGCCATGTTCTCTCTTCTCTAGGTTCAGGTCAGCTCTGCCCCTCCGCCC
CCCTCCTGCTGGTTCCCCAGCCCTTTTCCCTGGCCCTGGCTTGGAGAATCTGTTTTCAATCTCCACTGATTGCCC
CCTTGCTGGCCAGCCCAGGGGCCTTTACCATGTTCTCTCCACATCCGTAAATAAACTTCCTTCACTAC

FIGURE 22A

AAACAAGAAGAATGGGATTGATATTTCCGCAGGAAGTTTGGAAGTTATGTAACAGAGCAGGTTGAGATCCTACCT
TTTAGGAGCAGCCTGCCCCTTTTGAAGGGGTAAAGGGAGTGGGTGCAGTGCCCTCTCTTCTGTTGTAGTGGCTTA
TCCCTCTAAGGCATGACCCTTGGATAGGGGTTACCTGCCTCGGAAAGTCCCCACTTCCTTGTGGGAGTTTAAAAT
AGATTGGCATATGTGAGAGATGGAGACAAGGTGGGAAATCGGATCCTGTCTTAGGATTTCTCATCAGGAGATGCT
GATACTTGGTGTTTCAGCTTGATAAATTGAGAAGGTGCCATGAAACCAGGTCCTGGAACAGAATCCCTGGTTGCT
CTGTCTTTTAGCTGCTCTGACCCTCTGCCCTGCAGAGCATGCATTTTGCATGTGCCTGGCAGGAGGCCCTCCTGC
TTGAGCCCTGCTGTATTTGTCTGTGTTGACAACGTGACTGCCAGCCATTAAGCTTGGTCAGTCCACAGACACACT
AGGAAAGCAGAGGCAGCTCTTGGTTTCTCTGGAACAGAGCTGCAAGAAGTCTCTGGGCATCTGCATGGCCAGGAG
CTTATGCTTAACTGTTGAGTGACCTGCAGCCATAAGGGCATTAATTCTGCCTTCCAGAGGTGGGAATGACTTGGC
TTTAAACAGTGATTTGTGTGAGAATTCTTCAAATCCCATAAGGTAGAAGGCATGGTGGAGTAGAGGAGAAATCTT
GGCTCATATCTGCCTCTTCCATTGACCAGCTGTGTGACCTTGGGCCTGTTACTTTTAACCTACCTGACCCTCCAT
TTCCTCATTTATCAGAAGTGTCTAACTGTACACAAGTTAAACTGTAAGGATTACATGAGGTAGTAGTCAATCCTG
GTGTTTCTCTGTATCTTCTCACTTCTCACTGGTGTTGGAAATATGATCTTGCGACCCTAGATGGCAGCCACTCTG
GGGCAGAAGAGACAGTGACCACCTTTTGAAGAGCTCAAAGGAGAATATTGCCCCACAGGGCTTAGTGGGTCCCCC
AGGCTGAGGCTGGGGAGGAGGGCCACCTTTGCCTACAGCAAGTGGCATATCATTGTTCTAGGGGTTCTCTTGACG
GCAGAACTTTGCCTCTAGCTCATTTTCCACAGCCTAGATTTTCCAATCTTGCCAATCCAGTTGACTTCTGTCTTC
TCATTTCCAAGCCATTGTTCTCTCTCTTTCACTATCTACATGGATTATCCTTCATTCAAACTGCTTTGTCCCGGC
TGGGTGCGGTGGCTCATGCCTGTAATCCTAGCACTTTGGGAAGCCGAGGCGGGTGGATCACGAGGTCAGGAGATC
GAGACCATCCTGGCTAACATGGTGAAACCCCGTCTCTACTAAAATTAAAAAAATTAGCCGGGCGTGGTGGCAGGC
GCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCATGAACCCGGGAGGTGGAGCTTGCAGTGGGT
GGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTGAAAAAAAAAAACAAAAAAACTGCT
TTGTCCTGTAGGAATCCTGTGCGGGTTATGTGCACCTCCCTCAATCCTTACCTTGAAGCTAAGGTTTCCCCTCAG
CTCTCAAGTACTCAGTTTGCACTGCAGGTAGTCCCTATTTTAACGAAAGTTATACGGTCCAGCTCAGGGAATCCT
GAAAAGCTGCCCTTGCTTCCATGGTAATCAAAAGGCAGTTCTCATGGAATAAAAGCTACCTGAAGCCTGAGTTGG
GACCTTTGGCTGGGGAAGGTGGTTGAGGACGTTCTCTGATTAGATGCTTGGCATGAGGTTTGCTACTGGAACTGC
TAGTGTAGAATGTTTCAGCCCCCTAGAGTTGTCCCTGTGATGTGGCTACCTCCTTTCTCTGGGATTTCTCTTAAA
GTCTGGGGAGCCCCTGCTTCTCATTTCCTGGAATTTATCTTCCCAGTCTCCCTTTCTGGCTGAAAATTTCTAGTA
TCTTACAGAACAGCGGTGGGATACACTGGAGCACATCATATTACCACTAAGTATGTCTAATAAATGATGTCCTCT
GATTTGACATTTCCTAAATGTGAAGCTCCTGATTTTATACAATTTTGAAATTAGTAAGCTTGTTAGTTTTGTTTG
AAATTCTAGGCATTGGATACACTTAACATGAGGGCTACATGTGCATCAACATACTCTGGTTTCCTTCCCTCTGTA
TCTTTTTTTTTTTTGAGATGGAGTCTCACTGTCTCCTAGGCTGGAGTGCAGTGGTGTGATCATGGCTCACTGCAG
CCCCAACCTTCAGGGCTCAGGTGATCCTCCCACCTCAGCCACCCAAGTAGCTGGGACCACAGGTGCATGCCACCA
TGCCTGGCTAACTTATTTTTATATATTGTAGAGACGGAGTCTCCCTATGTTGCCTAGGCTGACCTTGAGCTCTTG
GGCTCAGGTGATCCTCCCACCTTGGCCTCCCAAAGTGTTGGGATTATAGGCGTGAGCCACTGTGTCCAGCCTTTT
CCTCTGTATCTTGTATCCATTCCCCAGAGCGATACTGTGTATCCTTGAACAGACGGTTTCTTGAAGTCAGAGTCT
ATCTCCTCTGTCACTTCTCCCCCTTCATTATCTAAGACTGAGGTTGTGGTTTATATGCTTAGAGTTGAAAGCATG
GGGTCCAACGTGTTCTGTACTCTGTAGTTCCCCAGACTCTTCAGGGAAACTACTTAGCTCTCAGGTGGTTCTTTT
CTGTTTTTCTCAGAGCAAGTTATCTAATAACTGAAGAGGACTCTGCCCTTTGGCCTGTTCCTGACTTTCTAACTC
CTTTTGCTGGAGGAAGGGGAGGTTGAGGGGGGTGCCCTGTGGTGTGAAAGCCCCACTTGCCCTCTCCTCTATACT
TTCTTCCAATGCAGACGGGAGAAAGTATCATAAATGTAGTGACTGTGGGTCAGGGGAGCTCTGAGAGGCCAGCAC
AGGAAACCAGAAACAAAATGAGTCAGTTCGTAGGTGGCGATCAGAGGCACCCTGCTGAGGGTGCAAGGCCACAGG
TGATGCCTCCTCAGTAGGCCCAGGAGCATCAAAACGGGAACAGTCCCTTTCAGCCTTCAGGAGCCTCCCAAATGT
CACTTAGTGATGTCCCATTCACCTGCTTAAAGGCCCTGCATCCTGCCAGGTAGTTGGTTTGTCCATAGCATCCTG
AGCTCTGCTTGGGTGAGCCAGACAAAAAGAATGATTCCTGGCCAGAGTAGTGATACCAGGGCCCAGACAGAGGCA
GAGAGTCCGGATAGAAGATCCTGTAAGCTGGGGTAGGGAGCCGAGGAGGCCATGGAGCCAGGGGAATCATTGAAG
TGAGGGACAATTTCTGGAGGAGGGAAACTGAGTAAGGAAGGCCTGGCCAAGGACCAAGAAGGGGACAGTATCCTG
ATCTATGAAAGAAGACTCAAGTGGGGATTGACAGAGCCAGATTGGGTGGAGTCCAAGCTTTGGGCAGGTGAGTGT
CCAGGAG**ATG**AGGGCTGAGAATGGGCCTTCAGAGCCCAGCCAGAAGGGGAAAGCACAAAGCTCCACCCTCCTTCT

FIGURE 22B

TCACATCCCTCCATACTGCTCAAATCCCAGGTCTTCAGGCACCATGGAGGACAAACGCAACATCCAGATCATCGA
GTGGGAACACCTGGACAAGAAGAAGTTCTACGTGTTTGGTGTGGCAATGACAATGATGATCCGTGTCAGTGTCTA
CCCATTCACCCTCATCCGCACCCGGTTGCAAGTTCAGAAGGGGAAGAGCCTCTACCATGGGACCTTCGATGCCTT
CATCAAGATCCTGCGAGCAGATGGTATCACTGGCCTCTACCGAGGGTTCCTGGTCAATACCTTCACCCTCATCTC
TGGCCAGTGTTATGTCACCACTTATGAGCTCACCCGGAAGTTTGTAGCTGACTACAGCCAGAGTAACACAGTCAA
ATCACTGGTGGCTGGTGGCTCAGCCTCCCTTGTGGCCCAGAGCATCACAGTGCCCATTGATGTAGTCTCCCAGCA
CCTGATGATGCAACGCAAGGGTGAGAAAATGGGCCGCTTTCAGGTGCGGGGGAACCCAGAGGGACAAGGGGTAGT
TGCCTTTGGCCAAACCAAGGACATCATCAGGCAGATCCTGCAGGCTGATGGACTTCGCGGCTTCTATCGAGGCTA
TGTGGCTTCACTGCTTACCTATATCCCAAACAGTGCTGTCTGGTGGCCCTTCTATCACTTCTATGCAGAGCAGCT
CTCCTACCTGTGTCCTAAGGAGTGCCCTCACATTGTCTTTCAAGCTGTCTCGGGGCCCCTGGCTGCAGCCACTGC
CTCCATCCTCACCAATCCCATGGATGTCATACGAACCCGTGTGCAGGTTGAGGGCAAGAACTCCATCATCCTGAC
CTTCAGACAGCTGATGGCAGAAGAAGGGCCTTGGGGCCTCATGAAGGGCCTCTCGGCCAGAATCATCTCAGCCAC
ACCTTCCACCATTGTCATTGTGGTGGGCTATGAGAGCCTCAAGAAACTCAGCCTCCGACCTGAGCTGGTGGACTC
GAGACACTGG**TAA**CCAGTGGTGGGGAGAGAAGCCTGCTGTTTTCCACACTACCGTGGGTCAGGGGCAGAGTGGAG
AGGACAGCACCCTCTCCAGGTGCTCCCACCACACACCCAGCCCTGCCCTGGGCCAAGTGGCCTATCTGGGATAGG
GATAGAGACTTTGAACTGCTCTTGCTGAAGAGGCTCCACGCCTGGATCCCTTGCCCCCACTATTTAAAATTCTCT
TCTGAGCTGGGCTCCCTCACTCAGTCCCTGTATTTGATACTGGCCTAAAGACCCCACCCCCCACCCTGCCAGCCC
TTCTTCTGGCTTCCCCTTCCATCTGTGTCCCTGAGACCCTGAGAAGAGCTGTACATAGAGCTTGCTTACTACCAC
TGGTTCTTCCTCTTGGGCTTTCAGCCCAGACTCCAAGCAGCTGCTATCAACCCTCTCTCCCTTCATCTCTTAGCC
TTGCTTATTTTTATTTTGGGACCGAGCTGCCCACTAGATGACTCTGCTTTTCCCTGCATTTGGGGCTAAGGTGCC
AGGTACTTATTTGCACAGGGAGCAGGAGCAGCAAAAAATCTCTGGTTCTCCAGAGCACTCGTCCTCTCTTTGGAG
GGGTTATTAGGTTGGGAGAAATGTTGATACTTTTGTTTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT
GTGTGTGTTTTAACATCTGTGAACCAGGCTATTAGTCCTGCTAAAGCGCCAATCCTGCTGTCAGAGCTCACCCCC
TTCCTAAGACAGGTAGAAAAATGTAATGTAGCTTTTTCCACAAGCCACTTCCCTGTCCCTTCAGTCTCAGGAGCC
CTAGGAGAGTCTAAGCTGGGGCATCCCCTGGCCCAGAGGACTCCCGTGGTGGGCACAGTTCTAAGTGGATCAGGC
TGTCTTGGGTGCACTGGACTTGGAGCACTACCTTGAGAAGTCAGGTTGAGAAAGTAGTTGATCTAGAAGGCAACA
AGTGGGCATGTGTTCCCCAGCACATTACCCAGGCCAGCAGAGCCAAACCTAGGAGAGGGCAGTGGGTAGATTCTC
TGCCCCAGGCAGCCATGACATACACATAAATACCCCAATCACTCAGACTTACGGCAACAAGTGTTGTCTCACTAT
GGTGATCTCTAAGATCCACATCACTGGATGCGTAGTCATCCCAGTCATGGTACCCTGTGGAGGAATGCTGGAAGA
ACATAAAGAGCAGTTCAGAAAGTCACCCAATACCAGGACCACTGCATTTACCAGCCTGATACTGCCAAGATTATC
TGATGCTCTCCTCAGGAGCTAGGAGAGGAGTGCTCCTTCCTCCCTACCGCTACTCTCCCCAAGCCTGTGTTGCAG
GTAGAGAGGTGCAGCAAATAGAGAAGGCATGTCAAACCCTGCATTTCTACCTGAGACGTGTGACCTGGATGATCC
TCCAAACCCTATTGGTCCCACCCCCTGGGAAAGGCCATGGTGCCAGTTTGAAAGGTGCTAGCTACCTGAAGCCTT
GATATTTCTTCATGGCTGCCGCACATTCTTCCACCTTGGCCAGAACAGGTTCTGAAAACCACTTCTCTACCTTCA
CCACCACCACTGCCCATCTTGATCTCTTTGAGGGTTTTCCCATTTCACTTGATCTTATTTTTGTTTATCCCTTCC
TGCACTTTGTCAAGAGAGTCCTCCAGTTTCTATCCAGGAATGTTCACATCCAAAGGGTTGGACCCACGGATCATT
CTGAATCTTCCTGCCCCTCCTCACTGCTTAACCCTGAGAACCACAAATATAATGGAAGCAGTTCCCCCCACCCTC
ACCCCATCTCTTTAAGCTCATCCTAGCAAGACCTCTAGAGACCCTAGAGACTCGACTTTAGTCCTTCCCCGCCAT
GGCACAGTGGGGAAGGTGTCAATGGGGAGTGTCACGGACAGGAGGTAGGATCCTGCCGCTCGCGTCTTAGTGTTT
CTCCCTCAAGACTTTCCTTCTGTTTTGTTGTCTTGTGCAGTATTTTACAGCCCCTCTTGTGTTTTTCTTTATTTC
TCGTACACACACGCAGTTTTAAGGGTGATGTGTGTATAATTAAAAGGACCCTTGGCCCATACTTTCCTAATTCTT
TAGGGACTGGGATTGGGTTTGACTGAAATATGTTTTGGTGGGGATGGGACGGTGGACTTCCATTCTCCCTAAACT
GGAGTTTTGGTCGGTAATCAAAACTAAAAGAAACCTCTGGGAGACTGGAAACCTGATTGGAGCACTGAGGAACAA
GGGAATGAAAAGGCAGACTCTCTGAACGTTTGATGAAATGGACTCTTGTGAAAATTAACAGTGAATATTCACTGT
TGCACTGTACGAAGTCTCTGAAATGTAATTAAAAGTTTTTATTGAGCCCCCG

FIGURE 23

CCCATGTTTGGTGGTACCAGGAAAGAGAGACTGATTATCTAGAGAACGCCTGAACACACCTGTAGGTGGGAGAGG
AGAG**ATG**AAAGATGAGGAAGTGGGTAAAGCGAGTGGGGATGCTGGAGGTCAGATGATTAGAGAACAGATCCCTGG
CAGTGATGGGGGGGAGAGATGTGCTGGTTAGTCTTGGTGGAAGAGGGACCTGTGCCTTTGTGACAGAGGGTAGAGG
AGGAAGGTGGTGTGGAGGTGTGGACAGAGCATTATCAGATACTGAGAGAGATGTGGCCAGGATGGGGGTGGATGC
ACAGTCTTTCTATAAATTTGTCTACCAACAGTTGAAGCCAACTGCTGCAGTGGGGAAGCAGGGC**TGA**ATTGGAGT
CACGAGAAGTGTGGGAGAGGTGTGGACAGCAACTGTGGGGGCCGCAGCAGGGGAGTTAGTGATGGATGAGGTATC
GCCTGTCTAGCAGAAGGATACAAGCTGAGCCTGGTCAACACCAACCTGTGGTTGGCCCAAAAGGCAAAAGTTTGC
AGCACCCTCTAGCAATGCTCAGAGTGGAGGAAAGTGCTGTGGGCTGGTTCTGGGTGGGCTGGTTCTGGGTGGGGA
GCTGGCAGGGCAGAGGAGGTAGTCTGGAGTTGGAG

FIGURE 24

GATGAGCAAGTGGTGGGGACGCCCCTGCTGGTGAAATCTGGCGTGGAGTATACACGGCTTGCAGTGGAGACAGCC
CAGGGCCTTGATGGGCACAGCCATCTTGTC**ATG**TACCTGGGAACCACCACAGGGTCGCTCCACAAGGCTGTGGTA
AGTGGGGACAGCAGTGCTCATCTGGTGGAAGAGATTCAGCTGTTCCCTGACCCTGAACCTGTTCGCAACCTGCAG
CTGGCCCCCACCCAGGGTGCAGTGTTTGTAGGCTTCTCAGGAGGTGTCTGGAGGGTGCCCCGAGCCAACTGTAGT
GTCTATGAGAGCTGTGTGGACTGTGTCCTTGCCCGGGACCCCCACTGTGCCTGGGACCCTGAGTCCCGAACCTGT
TGCCTCCTGTCTGCCCCCAACCTGAACTCCTGGAAGCAGGACATGGAGCGGGGGAACCCAGAGTGGGCATGTGCC
AGTGGCCCCATGAGCAGGAGCCTTCGGCCTCAGAGCCGCCCGCAAATCATTAAAGAAGTCCTGGCTGTCCCCAAC
TCCATCCTGGAGCTCCCCTGCCCCCACCTGTCAGCCTTGGCCTCTTATTATTGGAGTCATGGCCCAGCAGCAGTC
CCAGAAGCCTCTTCCACTGTCTACAATGGCTCCCTCTTGCTGATAGTGCAGGATGGAGTTGGGGGTCTCTACCAG
TGCTGGGCAACTGAGAATGGCTTTTCATACCCTGTGATCTCCTACTGGGTGGACAGCCAGGACCAGACCCTGGCC
CTGGATCCTGAACTGGCAGGCATCCCCCGGGAGCATGTGAAGGTCCCGTTGACCAGGGTCAGTGGTGGGGCCGCC
CTGGCTGCCCAGCAGTCCTACTGGCCCCACTTTGTCACTGTCACTGTCCTCTTTGCCTTAGTGCTTTCAGGAGCC
CTCATCATCCTCGTGGCCTCCCCATTGAGAGCACTCCGGGCTCGGGGCAAGGTTCAGGGCTGTGAGACCCTGCGC
CCTGGGGAGAAGGCCCCGTTAAGCAGAGAGCAACACCTCCAGTCTCCCAAGGAATGCAGGACCTCTGCCAGTGAT
GTGGACGCTGACAACAACTGCCTAGGCACTGAGGTAGCT**TAA**ACTCTAGGCACAGGCCGGGGCTGCGGTGCAGGC
ACCTGGCCATGCTGGCTGGGCGGCCCAAGCACAGCCCTGACTAGGATGACAGCAGCACAAAAGACCACCTTTCTC
CCCTGAGAGGAGCTTCTGCTACTCTGCATCACTGATGACACTCAGCAGGGTGATGCACAGCAGTCTGCCTCCCCT
ATGGGACTCCCTTCTACCAAGCACATGAGCTCTCTAACAGGGTGGGGGCTACCCCCAGACCTGCTCCTACACTGA
TATTGAAGAACCTGGAGAGGATCCTTCAGTTCTGGCCATTCCAGGGACCCTCCAGAAACACAGTGTTTCAAGAGA
CCCTAAAAAACCTGCCTGTCCCAGGACCCTATGGTAATGAACACCAAACATCTAAACAATCATATGCTAACATGC
CACTCCTGGAAACTCCACTCTGAAGCTGCCGCTTTGGACACCAACACTCCCTTCTCCCAGGGTCATGCAGGGATC
TGCTCCCTCCTGCTTCCCTTACCAGTCGTGCACCGCTGACTCCCAGGAAGTCTTTCCTGAAGTCTGACCACCTTT
CTTCTTGCTTCAGTTGGGGCAGACTCTGATCCCTTCTGCCCTGGCAGAATGGCAGGGGTAATCTGAGCCTTCTTC
ACTCCTTTACCCTAGCTGACCCCTTCACCTCTCCCCCTCCCTTTTCCTTTGTTTTGGGATTCAGAAAACTGCTTG
TCAGAGACTGTTTATTTTTTATTAAAAATATAAGGCTT

FIGURE 25

ACTCAGTGTTCGCGGGAGCGCCGCACCTACACCAGCCAACCCAGATCCCGAGGTCCGACAGCGCCCGGCCCAGAT
CCCCACGCCTGCCAGGAGCAAGCCGAGAGCCAGCCGGCCGGCGCACTCCGACTCCGAGCAGTCTCTGTCCTTCGA
CCCGAGCCCCGCGCCCTTTCCGGGACCCCTGCCCCGCGGGCAGCGCTGCCAACCTGCCGGCC**ATG**GAGACCCCGT
CCCAGCGGCGCGCCACCCGCAGCGGGGCGCAGGCCAGCTCCACTCCGCTGTCGCCCACCCGCATCACCCGGCTGC
AGGAGAAGGAGGACCTGCAGGAGCTCAATGATCGCTTGGCGGTCTACATCGACCGTGTGCGCTCGCTGGAAACGG
AGAACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTGGTCAGCCGCGAGGTGTCCGGCATCAAGGCCG
CCTACGAGGCCGAGCTCGGGGATGCCCGCAAGACCCTTGACTCAGTAGCCAAGGAGCGCGCCCGCCTGCAGCTGG
AGCTGAGCAAAGTGCGTGAGGAGTTTAAGGAGCTGAAAGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTG
CTCAGGCTCGGCTGAAGGACCTGGAGGCTCTGCTGAACTCCAAGGAGGCCGCACTGAGCACTGCTCTCAGTGAGA
AGCGCACGCTGGAGGGCGAGCTGCATGATCTGCGGGGCCAGGTGGCCAAGCTTGAGGCAGCCCTAGGTGAGGCCA
AGAAGCAACTTCAGGATGAGATGCTGCGGCGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAACTGG
ACTTCCAGAAGAACATCTACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTCATGAGACCCGACTGGTGGAGATTG
ACAATGGGAAGCAGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAACTGCGGGCCCAGCATGAGGACC
AGGTGGAGCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAGTCTGCTGAGA
GGAACAGCAACCTGGTGGGGGCTGCCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATCGACAGCCTCTCTGCCC
AGCTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGACCTGGAGGACTCACTGGCCCGTG
AGCGGGACACCAGCCGGCGGCTGCTGGCGGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCAAGGATGCAGCAGC
AGCTGGACGAGTACCAGGAGCTTCTGGACATCAAGCTGGCCCTGGACATGGAGATCCACGCCTACCGCAAGCTCT
TGGAGGGCGAGGAGGAGAGGCTACGCCTGTCCCCCAGCCCTACCTCGCAGCGCAGCCGTGGCCGTGCTTCCTCTC
ACTCATCCCAGACACAGGGTGGGGGCAGCGTCACCAAAAAGCGCAAACTGGAGTCCACTGAGAGCCGCAGCAGCT
TCTCACAGCACGCACGCACTAGCGGGCGCGTGGCCGTGGAGGAGGTGGATGAGGAGGGCAAGTTTGTCCGGCTGC
GCAACAAGTCCAATGAGGACCAGTCCATGGGCAATTGGCAGATCAAGCGCCAGAATGGAGATGATCCCTTGCTGA
CTTACCGGTTCCCACCAAAGTTCACCCTGAAGGCTGGGCAGGTGGTGACGATCTGGGCTGCAGGAGCTGGGGCCA
CCCACAGCCCCCCTACCGACCTGGTGTGGAAGGCACAGAACACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTC
TCATCAACTCCACTGGGGAAGAAGTGGCCATGCGCAAGCTGGTGCGCTCAGTGACTGTGGTTGAGGACGACGAGG
ATGAGGATGGAGATGACCTGCTCCATCACCACCACGTGAGTGGTAGCCGCCGC**TGA**GGCCGAGCCTGCACTGGGG
CCACCCAGCCAGGCCTGGGGGCAGCCTCTCCCCAGCCTCCCCGTGCCAAAAATCTTTTCATTAAAGAATGTTTTG
GAACTTT

FIGURE 26

GCGCAGACGCCCCAGCCCCCCACCGCCCCCAAAGGGGCGAGCGACGCCAAGCTCTGCGCTCTCTACAAAGAGGCC
GAGCTGCGCCTGAAGGGCAGCAGCAACACCACGGAGTGTGTTCCCGTGCCCACCTCCGAGCACGTGGCCGAGATC
GTGGGCAGGCAAGGCTGCAAGATTAAGGCCTTGAGGGCCAAGACCAACACCTACATCAAGACACCGGTGAGGGGC
GAGGAACCAGTGTTC**ATG**GTGACAGGGCGACGGGAGGACGTGGCCACAGCCCGGCGGGAAATCATCTCAGCAGCG
GAGCACTTCTCCATGATCCGTGCCTCCCGCAACAAGTCAGGCGCCGCCTTTGGTGTGGCTCCTGCTCTGCCCGGC
CAGGTGACCATCCGTGTGCGGGTGCCCTACCGCGTGGTGGGGCTGGTGGTGGGCCCCAAAGGGGCAACCATCAAG
CGCATCCAGCAGCAAACCAACACATACATTATCACACCAAGCCGTGACCGCGACCCCGTGTTCGAGATCACGGGT
GCCCCAGGCAACGTGGAGCGTGCGCGCGAGGAGATCGAGACGCACATCGCGGTGCGCACTGGCAAGATCCTCGAG
TACAACAATGAAAACGACTTCCTGGCGGGGAGCCCCGACGCAGCAATCGATAGCCGCTACTCCGACGCCTGGCGG
GTGCACCAGCCCGGCTGCAAGCCCCTCTCCACCTTCCGGCAGAACAGCCTGGGCTGCATCGGCGAGTGCGGAGTG
GACTCTGGCTTTGAGGCCCCACGCCTGGGTGAGCAGGGCGGGGACTTTGGCTACGGCGGGTACCTCTTTCCGGGC
TATGGCGTGGGCAAGCAGGATGTGTACTACGGCGTGGCCGAGACTAGCCCCCCGCTGTGGGCGGGCCAGGAGAAC
GCCACGCCCACCTCCGTGCTCTTCTCCTCTGCCTCCTCCTCCTCCTCCTCTTCCGCCAAGGCCCGCGCTGGGCCC
CCGGGCGCACACCGCTCCCCTGCCACTTCCGCGGGACCCGAGCTGGCCGGACTCCCGAGGCGCCCCCCGGGAGAG
CCGCTCCAGGGCTTCTCTAAACTTGGTGGGGGCGGCCTGCGGAGCCCCGGCGGCGGGCGGGATTGCATGGTCTGC
TTTGAGAGCGAAGTGACTGCCGCCCTTGTGCCCTGCGGACACAACCTGTTCTGCATGGAGTGTGCAGTACGCATC
TGCGAGAGGACGGACCCAGAGTGTCCCGTCTGCCACATCACAGCCACGCAAGCCATCCGAATATTCTCC**TAA**GCC
CCGTGCCCCATGCCTCCGGGGCCCACTCCACTGGGCCCACCCTGGACCTGTTTTCCACTAAAGCCTTTTGGAAAG
CGGTGATTTGAGGGGCAAGGTGCTTAGAGATACTCGCTCGCTGGGGAAGGGGGGAGGGAGGCAGTGGTGGCTGGA
GGGTGCGCCACTTTCAGAGCCTCTGGTCACCCTGTCCTGGAAAGATTGGGAGGGGGCCAGACTGAAAATTTTACT
AGAGTTACAACTCTGATACCTCAACACACCCTTAAATCTGGAAGCAGCTAAGAGAAACTTTTGTTTTGCCAGAGG
TGGCCACTAAGGCATTCTGACGCCCTCTGCCCACCTCCCCCGCTGTGTGTCACTCCACCCCTTCTTCCGAGGAGG
GGGTGGGTAAAAGGGAGAGGGAGAATTACCACCTGTATCTAGAGGTGCTCTTTGCAATCCCTAAGCCCTCTGGTC
CTGACCTCCGACCTCCCAGCTCTGTCTTGTTCCTTGTCTTTGTCTTTCTTCCCTTCCCCCTGCCCCTGCCCCTAC
CAGCCCAGCTTTGGGGACACCATCCTTCTGGGGAGAAGTAGGGGGAGGAATATTTGGATGGTCCCTCCATTCCTC
TTCAGGCATCTGGAGGCCCTCTCCCCCACTCCTCCAAAGAAACATCTCAAATTATTGATGGAATGTATCCCCATT
CTCAGTGAAAATGTGAGGAGGGGACTAATACTGGGGTAAAGGGTCAAACCCCCACCTTCATCACTATGGGCATTA
TATTTAGGGAGTAGTTCTTGGGCTGGATTTTCTGGTTGTGGAAGTGGGGGCGCCAGAGTAGTGTGTCTGCTATTT
AAAGGAGCAGGAAAGGGCGTGAGGCAGGAGGAGAGACTGGTGGAGGGAAGAGCTGCTCCTCCCATGCAGTGCCCG
ACTCCCTGCACCCCTCTCAACCTGACCTGAACCTTTATTGAATCCTTATTAGCTTGAATCCTTATTAGCTTGAAT
CCTCCATGCAAATCATGGAGTCTGTGTCCCACCTGATGTGGTTGAGGAGAAGCCAGGTCTTCAAAGAGGGGTCAG
CCTGGGGCAAAGCAGGACTGGGGGGAGGTGGGCAGCAGGGCCTATTCTGAGAATCACATATTGTTACAGGCCTTG
CACCCCCTTTGCTGCTTCCCTCCTGCTCATTTGGGGCTGCCACCAGCTCTCCACCCTCCTGGTTCCGCTGGCCGG
GCCAAGAGAGGATGGAGGGATGGGAGTCCCAGGAGATCCTTGTAAATAGTGGGGTGGGACTGTTCTGAGTGATCA
CCCGAGCACTTAAAGCTCCAGAGTCCCATTCTTCCTGGATGGAGCAGGTGGAGGTGCAGAGGGGATTTCCTCCTC
TCCTTCCTCCTGTCGAGAATTAACACCTCTCCACAGCCTTCCCCTCCAGAACACCAGCCAGGGAGGGGTGGGGAA
GGAGGTCACAGCCAAGAAAACTGCCCTGTGACGACTTCCCTCCTTCCCGCCTATGTGAGCCATCCTGAGATGTCT
GTACAATAGAAACCAAACCAAATGGGCACCCTCGGTTGCCGGGGGGCAGGTGGGGAGGGGGGTGGGAAGAAGGGA
TGTCTGTCTGTCGTCCCCCTCCCCCTCTCCACTCTTTACCCACAAAGGCAGAAGACTGTTACACTAGGGGGCTCA
GCAAATTCAATCCCACCCTTACCAATTGAGCCAAACCTAGAAACAAACACAAAACACGAATAGTGAGAGACAAAA
TAGAGGAGAGAAAGAGAGCATGAGAGGGAGCGAGACAGGCGACCAACACAGAGGAGAGAAAACAAAAATAGC

FIGURE 27

CTCTGCTTCCTTACAGCACCCCCACCTGCCAGAGCTGATCCTCCCTAGGCCCTGCCTAACCTTGAGTTGGCCCCC
AATCCCTCTGGCTGCAGAAGTCCCCTTACCCCCAATGAGAGGAGGGGCAGGACCAGATCTTTTGAGAGCTGAGGG
TTGAGGGCATTGAGCCAACACACAGATTTGTCGCCTCTGTCCCCGAAGACACCTGCACCCTCCATGCGGAGCCAA
G**ATG**GGGAATGGAACTGAGGAAGATTATAACTTTGTCTTCAAGGTGGTGCTGATCGGCGAATCAGGTGTGGGGAA
GACCAATCTACTCTCCCGATTCACGCGCAATGAGTTCAGCCACGACAGCCGCACCACCATCGGGGTTGAGTTCTC
CACCCGCACTGTGATGTTGGGCACCGCTGCTGTCAAGGCTCAGATCTGGGACACAGCTGGCCTGGAGCGGTACCG
AGCCATCACCTCGGCGTACTATCGTGGTGCAGTGGGGGCCCTCCTGGTGTTTGACCTAACCAAGCACCAGACCTA
TGCTGTGGTGGAGCGATGGCTGAAGGAGCTCTATGACCATGCTGAAGCCACGATCGTCGTCATGCTCGTGGGTAA
CAAAAGTGACCTCAGCCAGGCCCGGGAAGTGCCCACTGAGGAGGCCCGAATGTTCGCTGAAAACAATGGACTGCT
CTTCCTGGAGACCTCAGCCCTGGACTCTACCAATGTTGAGCTAGCCTTTGAGACTGTCCTGAAAGAAATCTTTGC
GAAGGTGTCCAAGCAGAGACAGAACAGCATCCGGACCAATGCCATCACTCTGGGCAGTGCCCAGGCTGGACAGGA
GCCTGGCCCTGGGGAGAAGAGGGCCTGTTGCATCAGCCTC**TGA**CCTTGGCCAGCACCACCTGCCCCCACTGGCTT
TTTGGTGCCCCTTGTCCCCACTTCAGCCCCAGGACCTTTCCTTGCCCTTTGGTTCCAGATATCAGACTGTTCCCT
GTTCACAGCACCCTCAGGGTCTTAAGGTCTTCATGCCCTATCACAAATACCTCTTTTATCTGTCCACCCCTCACA
GACTAGGACCCTCAAATAAAGCTGTTTTATATC

FIGURE 28

GGAAGCAGCGGGCAGCGGCCCGCGGGAGGCACCTCGGAGATCTGGGTGCAAAAGCCCAGGGTTAGGAACCGTAGG
C**ATG**CTGCGCCCCAAGGCTTTGACCCAGGTGCTAAGCCAAGCCAACACTGGAGGCGTCCAGAGCACCCTGCTGCT
GAATAACGAGGGATCACTGCTGGCCTACTCTGGTTACGGGGACACTGACGCCCGGGTCACCGCTGCCATAGCCAG
TAACATCTGGGCCGCCTACGACCGGAACGGGAACCAAGCGTTTAATGAAGACAATCTCAAATTCATCCTCATGGA
CTGCATGGAGGGCCGTGTAGCCATCACCCGAGTGGCCAACCTTCTGCTGTGTATGTATGCCAAGGAGACCGTGGG
CTTTGGAATGCTCAAGGCCAAGGCCCAGGCTTTGGTGCAGTACCTGGAGGAGCCCCTCACCCAAGTGGCGGCATC
T**TAA**CGGCATTGGTGGAAGCTGGGGTCAGAAAAGAGAAATGACCATTTGGAGGGGCGGGGCCTCCTAGAAGAACC
TTCTTAGACAATGGGGGGAGGATGGGACTTTGTTTTTTCCAAGAATAAACTTCAACTCCTGT

FIGURE 29

GGAGGAGCCGGGCGGGCTGGCGGGCGGCCGGGTGGCGGCGGCGGC**ATG**GCGGAGCCGAGCGGGGCCGAGACGAGG
CCCCCCATTCGGGTCACCGTCAAGACCCCCAAGGACAAGGAGGAAATTGTGATCTGCGATCGAGCCTCGGTCAAG
GAGTTCAAAGAGGAAATCTCCCGGAGGTTTAAGGCTCAGCAGGATCAGCTGGTCCTGATCTTCGCAGGCAAGATC
CTCAAGGATGGGGACACACTGAACCAGCACGGAATCAAGGACGGGCTCACTGTCCATCTGGTCATCAAGACCCCT
CAGAAGGCTCAAGATCCAGCTGCTGCCACTGCTTCTTCCCCCTCCACACCTGACCCTGCCTCAGCACCCTCCACC
ACGCCTGCTTCACCCGCCACCCCTGCCCAGCCCTCCACCTCTGGCAGTGCCTCTTCAGATGCTGGCAGTGGAAGC
CGGAGGAGCAGTGGTGGGGGGCCCTCTCCGGGGGCTGGGGAGGGATCCCCCAGTGCTACTGCGTCCATACTCTCT
GGCTTTGGGGGCATCCTGGGGCTGGGCAGCCTAGGCCTGGGCTCTGCCAACTTCATGGAGCTGCAGCAGCAGATG
CAGCGGCAGCTGATGTCCAATCCTGAGATGCTGTCACAGATCATGGAGAACCCCCTGGTCCAGGATATGATGTCT
AACCCTGATCTGATGCGTCACATGATTATGGCCAACCCCCAGATGCAGCAGTTGATGGAGCGGAACCCTGAGATC
AGCCACATGCTCAATAACCCTGAACTCATGAGGCAGACAATGGAGCTTGCTCGGAATCCAGCCATGATGCAAGAG
ATGATGCGGAACCAGGACCGGGCCCTGAGCAACCTTGAGAGCATCCCTGGAGGGTATAATGCCCTCCGCCGCATG
TACACGGACATCCAGGAGCCCATGTTCAGTGCTGCCCGGGAACAGTTTGGCAACAATCCCTTCTCTTCCCTGGCC
GGGAACTCCGACAGCTCATCCTCCCAGCCTCTGCGGACTGAGAATCGAGAGCCCCTCCCTAACCCCTGGAGCCCC
TCGCCCCCCACCTCCCAGGCCCCCGGGTCCGGTGGGGAGGGCACCGGAGGATCGGGGACCAGCCAGGTGCACCCG
ACAGTCTCGAACCCCTTTGGGATCAATGCGGCTAGCCTGGGGTCAGGGATGTTCAATAGCCCAGAAATGCAAGCC
CTCCTCCAGCAGATCTCTGAGAACCCCCAGCTGATGCAGAATGTGATCTCAGCACCCTACATGCGCAGCATGATG
CAGACGCTTGCCCAGAACCCCGACTTTGCTGCTCAGATGATGGTGAATGTGCCGCTCTTCGCGGGGAACCCCCAA
CTGCAGGAGCAGCTCCGCCTGCAGCTCCCAGTCTTCCTGCAGCAGATGCAGAACCCAGAGTCACTCTCCATCCTT
ACCAATCCCCGAGCCATGCAGGCATTGCTGCAGATCCAGCAGGGACTACAGACCTTGCAGACCGAGGCCCCTGGG
CTGGTACCCAGCCTTGGCTCCTTTGGGATATCCCGGACCCCAGCACCCTCAGCAGGCAGCAACGCAGGGTCTACG
CCCGAGGCCCCCACTTCCTCACCAGCCACGCCAGCCACATCTTCTCCAACAGGGGCTTCCAGCGCCCAGCAGCAA
CTCATGCAGCAGATGATCCAGCTTTTGGCTGGAAGTGGAAACTCACAGGTGCAGACGCCAGAAGTGAGATTTCAG
CAGCAGCTGGAGCAGCTCAACTCCATGGGCTTCATCAATCGTGAGGCTAACCTGCAGGCCCTGATTGCCACAGGA
GGGGACATCAACGCAGCTATCGAGAGACTGCTGGGCTCCCAGCTCTCC**TAA**TCCCTCGGCCCATGCCTCCTGCCT
CTCCCCTCCCTCGATGTCAGCATTCGGTTCTTCTGTCAATCCTTACCCTCTGCAGCTTGTCCTCCCTTCCGTCTT
CTCCCTCATCCTTTCCAAACAGCAGGGTGACTTTAGAGGCATGGGCTCCAACCCCTTAGCTCTGTCTGAGAATTA
TGGTTTTACTGCTACGTCTCTAACAGACTCTTCTCTCCTGGTCTCCTTGAGCAGTGCTACTTAAACAGTTTTCAC
AGTTTCATTGATTGACTCTACCTCCTTGCCCCACACCACTTTTGCAATCTTTAAACTTTCAGTGGCTGTGCAGAG
TCGAGGGAGGAACCAGCTCTCTGGTTTACTGGAACATAGTCTTCCATCTATACCACTAGGGTTTTGTCTTATGTT
TACTTTTGGTAACTCTCTTCCTTCTTTTTCTCCCTACCCCCCAACCCCTAGCCCAACCAATGCTAGAATTTCTTG
CTCTGAAGGAGGAGCAGGTGAAACAGGTGGTAATTTTCCTTCTCGGCCCCTATTCTGGTTCATTCAGCACTTTTT
GGTGGGAACTGTTGGAAATTCCAGGGTAAGGAGGAAGATGCCTGTTCTCCCTGTCTGAAGAGGGAGATGAGACAG
CTCTCTGGACAGGAATTAACAAACGCTGGAGCAGCCCAGAGGAAATTCGTGTGAAAGAGGAGGGAATGAGATTAT
TCGGAGGAAGGGAATGGGGGAGACAGCCTGAGTAAAAGGCTTGGAAGTTGGAATTAACAGTGGGGAGCAGAAGCA
CTCATAGCTCTTTTAGGCAGAAGAATCCAGGCCCGAGCTGGCAGAAGAGACTTAGAGATGCTAATGGAATTTAAA
CTGAAAAAAGGAGCCCAATGAAGCTAAGCGCCACGCCCCACAAGGGGTCATATTGGCTTTAGTTCCTCAAGCATA
TGTGCTTATATGCACACACACACACATTTCCATGGACCCAGGTCTTGCTTGTGTCCCCAGGCACCAGTAGTTTGA
GCCCCCCTCAAAAGACATGAAGGGGGTTGGGGTCTGTGTGAGTAGTGGGGAGGTGCATGTGTATCCACATGTGTG
CATACACTCTTAAGTTGGGTGGGAAGTGGATTCCTTGTTGGTTTCTGGTTCAGAGTGCTCTCCCACCACCAGAGA
CAAGTGGGTAAAAAGGTCAGTCCATTGCAGGAATATATATCCGGGAGAGCTAGGTCCCTTGGGGCTCTGGATGCT
GGGTAACCCAGAGGTAATGTGGGTACCCTTTCTGAAGCTGTCAGGGCTGTGACTAGCACCCTTATCACCCCTCAC
TGCCTTGTGGGAATAGTAGAGGGTTTTTTTCCTCCAGAGCCCCTGGCCTTTCAGTTCTTAACTATTTCCCTCCAG
GCCAGAAAGTTTTCTTTGAGGAAGGAGAGGAGAGGGTGGCAATGATGCCTTTGATCTGGAATTGGACATTTCTCT
GTCAGAGCACAGAGGAGGCTCATATCACCTCTTCCCTCTCCTACTTGGCCCAGCTGCTTGGAGGACCGACCCCAT
GGCTGAGAATATGACGGCAAGAGGAACAGAGTTTGCTCCAAGTGGGAAAGGGTCCCAAGCAGTCCAGAGAAGATG
TCTGTGTGGCTTTCCCTCCCTGCCTCCCCCAGCTCCCACACTGGCCTTTGTAAATAAATGGCGTGGTCTTTGTTG
TG

FIGURE 30

GCTCTCTTCCTGTCTTTGTGGCTCCGGAAAGGCGTTTGGGATGCCAACG**ATG**AGGCTGCTGTCATTTGTGGTGTT
GGCTCTATTTGCTGTCACTCAAGCAGAGGAAGGAGCCAGGCTTTTGGCTTCCAAATCACTGCTGAACAGATACGC
CGTGGAGGGACGAGACCTGACCTTGCAGTACAACATCTACAATGTTGGCTCAAGTGCTGCATTAGACGTGGAACT
ATCTGATGATTCCTTCCCTCCAGAAGACTTTGGCATTGTGTCTGGAATGCTCAATGTCAAATGGGACCGGATTGC
CCCTGCTAGCAATGTCTCCCACACTGTGGTCCTGCGCCCTCTCAAGGCTGGTTATTTCAACTTCACCTCGGCAAC
AATTACTTACCTGGCCCAGGAGGATGGGCCCGTTGTGATTGGCTCTACCAGTGCACCTGGACAGGGAGGAATCCT
GGCTCAGCGGGAGTTTGACAGGCGATTCTCCCCTCATTTTCTGGACTGGGCAGCCTTTGGGGTCATGACCCTTCC
CTCCATCGGCATCCCCCTGCTATTGTGGTACTCCAGCAAGAGGAAATATGACACTCCCAAAACGAAGAAGAAC**TG**
ATTGGGGCTTCCACAGCCCTCCTCTCCCAAGAAATCCAGGCTCCTCTCCCAAGAAATCCAGGTGCTTTCCAGACT
CCAAAGGGTATCTTAAATGCAATCTCTTCTCTCTTAGCCCTTGGCCACTTTCTCCTGGATCCTGCCCTGCTCTCA
GCCATAGTGAAGGACCAGCCCTAGGAGTCTGCGAGAGCCTCCTTGGTTCCATCGTGAAGCCATAAACAGGAATGC
CTTTGGCAATAGCCTTGAGCCTAGAGGGCCCTCTGATGCCCCACTGAGGTGCTGTTGGTTTATTGCTGGCAACGT
GAATTCTCTCAGGGGTCTAGGAGGGGCATTTTGGAGACTGCCTGACACCACCCCTATCCCCTGCCTCCCCCTCTC
AGAAGAGGGTGGAAGATGAAATGAAAGCTATGGGACTCTTGGAGGATACCCAGTGTCTATTCTGGGTTAGAGAAG
TGCTTACTAAGGGGTTTTCTAATAAAAACAAATGCCACATTG

FIGURE 31A

GAGACCAACGCGTGCGGGCCGAACCCCTCCCCCCGCCTTCCCCCAACAATACAGGACGCCGGGGTCCGCGCCGCG
TCCTCCCTGGTCCCCCCGTCCGATTATGTCTCGGATCGAATCCCTCACGCGGGCGCGGATCGACCGGAGCAGAGA
GCTGGCGAGCAAGACCCGGGAAAAGGAGAAA**ATG**AAGAAAGCCAAGGATGCCCGCTATACAAATGGGCACCTCTT
CACCACCATTTCAGTTTCAGGCATGACCATGTGCTATGCCTGTAACAAGAGCATCACAGCCAAGGAAGCCCTCAT
CTGCCCAACCTGCAATGTGACTATCCACAACCGCTGTAAAGACACCCTCGCCAACTGTACCAAGGTCAAGCAGAA
GCAACAGAAAGCGGCCCTGCTGAAGAACAACACCGCCTTGCAGTCCGTTTCTCTTCGAAGTAAGACAACCATCCG
GGAGCGGCCAAGCTCGGCCATCTACCCCTCCGACAGCTTCCGGCAGTCCCTCCTGGGCTCCCGCCGTGGCCGCTC
CTCCTTGTCTTTAGCCAAGAGTGTTTCTACCACCAACATTGCTGGACATTTCAATGATGAGTCTCCCCTGGGGCT
GCGCCGGATCCTCTCACAGTCCACAGACTCCCTCAACATGCGGAACCGAACCCTATCCGTGGAATCCCTCATTGA
CGAAGAGGTAATCTACAGTGAGCTGATGAGTGACTTTGAGATGGATGAGAAGGACTTTGCAGCTGACTCTTGGAG
TCTTGCTGTGGACAGCAGCTTCCTGCAGCAGCATAAAAAGGAGGTGATGAAGCAGCAAGATGTCATCTATGAGCT
AATCCAGACAGAGCTGCACCATGTGAGGACACTGAAGATCATGACCCGCCTCTTCCGCACGGGGATGCTGGAAGA
GCTACACTTGGAGCCAGGAGTGGTCCAGGGCCTGTTCCCCTGCGTGGACGAGCTCAGTGACATCCATACACGCTT
CCTCAGCCAGCTATTAGAACGCCGACGCCAGGCCCTGTGCCCTGGCAGCACCCGGAACTTTGTCATCCATCGCTT
GGGTGATCTGCTCATCAGCCAGTTCTCAGGTCCTAGTGCGGAGCAGATGTGTAAGACCTACTCGGAGTTCTGCAG
CCGCCACAGCAAGGCCTTAAAGCTCTATAAGGAGCTGTACGCCCGAGACAAACGCTTCCAGCAATTCATCCGGAA
AGTGACCCGCCCCGCCGTGCTCAAGCGGCACGGGGTACAGGAGTGCATCCTGCTGGTGACTCAGCGCATCACCAA
GTACCCGTTACTCATCAGCCGCATCCTGCAGCATTCCCACGGGATCGAGGAGGAGCGCCAGGACCTGACCACAGC
ACTGGGGCTAGTGAAGGAGCTGCTGTCCAATGTGGACGAGGGTATTTATCAGCTGGAGAAAGGGGCCCGTCTGCA
GGAGATCTACAACCGCATGGACCCTCGGGCCCAAACCCCAGTGCCTGGCAAGGGCCCCTTTGGCCGAGAGGAACT
TCTGAGGCGCAAACTCATCCACGATGGCTGCCTGCTCTGGAAGACAGCGACGGGGCGCTTCAAAGATGTGCTAGT
GCTGCTGATGACAGATGTACTGGTGTTTCTCCAGGAAAAGGACCAGAAGTACATCTTTCCTACCCTGGACAAGCC
TTCAGTGGTATCGCTGCAGAATCTAATCGTACGAGACATTGCCAACCAGGAGAAAGGGATGTTTCTGATCAGCGC
AGCCCCACCTGAGATGTACGAGGTGCACACAGCATCCCGGGATGACCGGAGCACCTGGATCCGGGTCATTCAGCA
GAGCGTGCGCACATGCCCATCCAGGGAGGACTTCCCCCTGATTGAGACAGAGGATGAGGCTTACCTGCGGCGAAT
TAAGATGGAGTTGCAGCAGAAGGACCGGGCACTGGTGGAGCTGCTGCGAGAGAAGGTCGGGCTGTTTGCTGAGAT
GACCCATTTCCAGGCCGAAGAGGATGGTGGCAGTGGGATGGCCCTGCCCACCCTGCCCAGGGGCCTTTTCCGCTC
TGAGTCCCTTGAGTCCCCTCGTGGCGAGCGGCTGCTGCAGGATGCCATCCGTGAGGTGGAGGGTCTGAAAGACCT
GCTGGTGGGGCCAGGAGTGGAACTGCTCTTGACACCCCGAGAGCCAGCCCTGCCCTTGGAACCAGACAGCGGTGG
TAACACGAGTCCTGGGGTCACTGCCAATGGTGAGGCCAGAACCTTCAATGGCTCCATTGAACTCTGCAGAGCTGA
CTCAGACTCTAGCCAGAGGGATCGAAATGGAAATCAGCTGAGATCACCGCAAGAGGAGGCGTTACAGCGATTGGT
CAATCTCTATGGACTTCTACATGGCCTACAGGCAGCTGTGGCCCAGCAGGACACTCTGATGGAAGCCCGGTTCCC
TGAGGGCCCTGAGCGGCGGGAGAAGCTGTGCCGAGCCAACTCTCGGGATGGGGAGGCTGGCAGGGCTGGGGCTGC
CCCTGTGGCCCCTGAAAAGCAGGCCACGGAACTGGCATTACTGCAGCGGCAACATGCGCTGCTGCAGGAGGAGCT
ACGGCGCTGCCGGCGGCTAGGTGAAGAACGGGCAACCGAAGCTGGCAGCCTGGAGGCCCGGCTCCGGGAGAGTGA
GCAGGCCCGGGCACTGCTGGAGCGTGAGGCCGAAGAGGCTCGAAGGCAGCTGGCCGCCCTGGGCCAGACCGAGCC
ACTCCCAGCTGAGGCCCCCTGGGCCCGCAGACCTGTGGATCCTCGGCGGCGCAGCCTCCCCGCAGGCGATGCCCT
GTACTTGAGTTTCAACCCCCCACAGCCCAGCCGAGGCACTGACCGCCTGGATCTACCTGTCACTACTCGCTCTGT
CCATCGAAACTTTGAGGACCGAGAGAGGCAGGAACTGGGGAGCCCCGAAGAGCGGCTGCAAGACAGCAGTGACCC
TGACACTGGCAGCGAGGAGGAAGGTAGCAGCCGTCTGTCTCCGCCCCACAGTCCACGAGACTTTACCAGAATGCA
GGACATCCCGGAGGAGACGGAGAGCCGCGACGGGGAGGCTGTAGCCTCCGAGAGC**TAA**GGGGGCCCCTCCCCCCT
GCCCCGTGCCCCACTGAAGAACATTACTGAGGGGGCTAACCTTGGGGACTCCAATTTGCCAATGATGAGGGAACA
TTTGAAAGAACTGCAAATTGTCCTTGCCAGCTCTTGGGATCCTTGGATACCTGGGGCCATTTAAGAAGCTAGGGG
AATTAGGCCACAACACCCCCTGGGACATCCGAAAGCTACACCACAGATGCCAGTGGTTCATGCCTTCTTCCCGCA
ACTTTAGGAAAATTTATTTATTTATTGTTTATTAGTTATGGGGGGAGAGGGGAGATTTAAAGGACCAGGGACATG
GGAACCAAGCCATAGGGATCAGAGGGCCTTGTCCTTGAACACTACTGGGGTATATTCAGGCTCATCCACGCAGCT
GCTGGGTTCTTGCCCTAACGGCCCTCCCCTGCAACATCCGTCTTGGAGGAGAGGCTGCAGCCACAGCACCCTACT
GCCCTTTAAATAAAGGAGGGCTGTGGGCAGGGCCATGTCCCTTTCTCCTCTCCCCTCAACCTCTTACTGCTGTTC

FIGURE 31B

TCCCTTTCTCCGTCCTTCATGGAAGCCCTGGGAGATAACCTGGCTTCCTGGAGTTGATGGAATAAAGGTTGGGGT
GGCCATAATGGTTTGTTGGGGGTGAGGGAAAAAACCCACAGGGACCAGAATGTTTTGTTGTTCTTTTGTTTTCTT
TTTTGTACCAAAGTCAACTGCACGTGTTTTATATTTTTAAGAGATCGTAGGCAATTAGAGATCGAAGCCTCCTAT
CTCCACATCTCTGAAGAAGTTGAGGGGTGGGGGAGAGAATGACTTCTGCCTTCATCTGCAGTAACGGGGGGACCT
ATACTGACCTCTTCCCCAGCCATTTAGAAACAAGTTCTAGGGTGGGTTGGAAAATCTCCAAGAGCCCTGACCTCA
TCTTCCACCTCAGCAACCATGACCTGAAACCTCAGCGTGAATTTGGGGGATTTTTCAGTGGAACCCTTGCCCCCA
AATGTCGACCAGCCCCCAAATGTCGAAGAATTTTCTTCTTGCCAATTTTGTTGTTTAAAAAAAAAATTCAGGGAA
AATTAAAAACCTGGAACTCCA

FIGURE 32A

CGGGTGGTTGAGTAGAAGCGGTCGCC**ATG**TCCGCGGGGAGCGCGACACATCCTGGAGCTGGCGGGCGCCGCAGCA
AATGGGACCAACCAGCTCCAGCCCCACTTCTCTTCCTCCCGCCAGCGGCCCCAGGTGGGGAGGTCACCAGCAGTG
GGGGAAGTCCTGGGGGCACCACAGCTGCTCCTTCAGGAGCCTTGGATGCTGCTGCTGCTGTGGCTGCCAAGATTA
ATGCCATGCTCATGGCAAAAGGGAAGCTGAAACCAACTCAGAATGCTTCTGAGAAGCTTCAGGCTCCTGGCAAAG
GCCTAACTAGCAATAAAAGCAAGGATGACCTGGTGGTAGCTGAAGTAGAAATTAATGATGTGCCTCTCACATGTA
GGAACTTGCTGACTCGAGGACAGACTCAAGACGAGATCAGCCGACTTAGTGGGGCTGCAGTATCAACTCGAGGGA
GGTTCATGACAACTGAGGAAAAAGCCAAAGTGGGACCAGGGGATCGTCCATTATATCTTCATGTTCAGGGCCAGA
CACGGGAATTAGTGGACAGAGCTGTAAACCGGATCAAAGAAATTATCACCAATGGAGTGGTAAAAGCTGCCACAG
GAACAAGTCCAACTTTTAATGGTGCAACAGTAACTGTCTATCACCAGCCAGCACCCATCGCTCAGTTGTCTCCAG
CTGTTAGCCAGAAGCCTCCCTTCCAGTCAGGGATGCATTATGTTCAAGATAAATTATTTGTGGGTCTAGAACATG
CTGTACCCACTTTTAATGTCAAGGAGAAGGTGGAAGGTCCAGGCTGCTCCTATTTGCAGCACATTCAGATTGAAA
CAGGTGCCAAAGTCTTCCTGCGGGGCAAAGGTTCAGGCTGCATTGAGCCAGCATCTGGCCGAGAAGCTTTTGAAC
CTATGTATATTTACATCAGTCACCCCAAACCAGAAGGCCTGGCTGCTGCCAAGAAGCTTTGTGAGAATCTTTTGC
AAACAGTTCATGCTGAATACTCTAGATTTGTGAATCAGATTAATACTGCTGTACCTTTACCAGGCTATACACAAC
CCTCTGCTATAAGTAGTGTCCCTCCTCAACCACCATATTATCCATCCAATGGCTATCAGTCTGGTTACCCTGTTG
TTCCCCCTCCTCAGCAGCCAGTTCAACCTCCCTACGGAGTACCAAGCATAGTGCCACCAGCTGTTTCATTAGCAC
CTGGAGTCTTGCCGGCATTACCTACTGGAGTCCCACCTGTGCCAACACAATACCCGATAACACAAGTGCAGCCTC
CAGCTAGCACTGGACAGAGTCCGATGGGTGGTCCTTTTATTCCTGCTGCTCCTGTCAAAACTGCCTTGCCTGCTG
GCCCCCAGCCCCAGCCCCAGCCCCAGCCCCCACTCCCAAGTCAGCCCCAGGCACAGAAGAGACGATTCACAGAGG
AGCTACCAGATGAACGGGAATCTGGACTGCTTGGATACCAGCATGGACCCATTCATATGACTAATTTAGGTACAG
GCTTCTCCAGTCAGAATGAGATTGAAGGTGCAGGATCGAAGCCAGCAAGTTCCTCAGGCAAAGAGAGAGAGAGGG
ACAGGCAGTTGATGCCTCCACCAGCCTTTCCAGTGACTGGAATAAAAACAGAGTCCGATGAAAGGAATGGGTCTG
GGACCTTAACAGGGAGCCATGGTGAGTGTGATATAGCTGGGGGAACAGGGGAGTGGCTAAGACTGGTC**TAA**AGCT
ATTAGTTTTCTCAGCCGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGGGCAGATCA
CCTAAGGTCAGGAGTTCAAGACCAGCTTGGCCAACATAGTGAAATCCCATCTCTACTAAAAATACAAAAACTAGC
GGGCATGGTGGTGGGCGCCTGTAATTCCAGCTACTCAGGGGGTTGAGGCAGGAGAATCGCTTCAACCTGGGAGGC
AGAGGTTGCAGTGAGCCAAGATCAGACCACTGCCCTCCAGCCTGGGCAATAGAGCAAGACTCCATCTCATAAATA
AATAAATACATAAATAAAGCTATTAATTTTCTAACCTGATGTTCATTCAGGTGTTTAATCCAACCTCTATAATCT
GTTGGCCAGTGAAAATACTTTTGGGCTGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGG
TGGGCGGATAACCTGAGGTCAGGAGTTTGAGACCAGCGTGGCTAACATGGTGAAACCCCGTCTCTACTAAAAATA
GAAAAATTAAGCTGGGCATGGTGGTGCATGCCTGTAATTCCAGCGGCTTGGAAGGCTGAGGCAGGAGAATCACTT
GAACTTGGGAGGTGGAGGTTGCAGTGAGCCAAGATCACACCACTGCATTCCAGCCTGGGCACTAGAGTGAGACTC
TGTCTCAAAAAAAAAGAAAGAGAAAGAGAAAATAGTTTCTAAAAAATTGTATACAGACAACCTTTTATTTCCAAC
AAACGTGTGCCGAGAGAGAGAGAGAGAAAATAGTTTTAAAAAAATTGTATACAGACAACCTTTTGTTTCCAACCA
ACGTGTATCTAGAAAAGAGTTAGTCGACTTATTTTATACATAGCATCAGTGAATAGTAATGAGTGGTAGGTCATT
TCAAAATCCTGTTGCCTATATTATGTGAATACCAGGAGGTCATCTGATACGGACTTAATAAAGGTTGATTTTGCT
TTATATTGGGAGCTGAGCCACACCTCCCCTTATAACTCTATTGGTCAGTAATGGTCAGTTTGTGGCTGTTAGGAA
AATGTTGCCTTTTAGCATTCCAGAACTCTAAATCCTGTAGAGGTACATGGGATATTTTATTCTTTGCCTGTACTC
ATAAAAATGAACAGAAGAAAATACGTTTTTTTCTTTTCTTAACTTCTTTTCTTTTAACTCTTTAAAAGGTGAAAT
ATCAGCCCTCAAGAGACTCACTTGCTAACTTTCCTTTTTTTCTTTTTTTTTTCTTTTTTTGTGTTTCTTTTTTCTT
TCTCTGTTTTCTTACATGGTTCTGGTGGATTCACATTTGCTGATGCTGGTGCTGTTTTTCGTGTGATCTTCAACG
TTTTTGGGTGACCATTGACCCTGTGACCTCAAAATGGTGTCCAACTAACCACTTAAAATTAACATCTTTTTTTTA
ATTAACGAATTTATGGTATTTTTTTTTTTCCCTTGGCGGGGATGGGGTTGGGGTTGTTTTTTCTCTATTCTAGAT
TATCCAGCCAAGAAGATGAAAACTACAGAGAAGGGATTTGGCTTGGTGGCTTATGCTGCAGATTCATCTGATGAA
GAGGAGGAACATGGAGGTCATAAAAATGCAAGTAGTTTTCCACAGGGCTGGAGTTTGGGATACCAATATCCTTCA
TCACAACCACGAGCTAAACAACAGATGCCATTCTGGATGGCTCCCTAGGAAACAGTGGAACAGAGTTTTGACCCT
CAGTGACTCTTCTTAGCAATAATGCATGCATTTGATTTAACAAGACTCTGGGGCCTGTGCTGGGAACCATCTGGA
CCTTTGCAGAAGTTAGAGATTCAGTGCCCCCCTTTCTTAAAGGGGTTCCTTAACAACCACAAAAATCCTTATTTC

FIGURE 32B

TGCAGTGGCATAGAATCTGTTAAAATTTAATTAGAATCACAAATTTATCTCAGAAGCTTTTTAACAGTTGGTGAA
ATGTGCTTGTCCAACAAAGCATCCTAACAGGGTCGTTCCCATACACATTTGACCTGGTCAGCCTTTTCCAGGTGA
ATAGCCCCAGTTCTGACATAAAGAAAGTTTTATTTGTATTTTACTACTGTTTGGTCAATTTTGATATATAACTGG
TTACAAACAGAGCCTTACTATTTATTAGTGGGGAAATGATTTTAAGACCGTCCTTTTCAGTATTTAATTCTGACA
GATCTGCATCCCTGTTTTGTTTTGGATTATTTCTGTTTTGGAAAATGCTGTCTCATTTAAAACTGTTGGATATAG
CTGGATCCTGGATAGGAAAATGAAATTATTTTTTCATTGTGTTTTTTAATTGGGGTGATCCAAAGCTGGCACCTT
CAGGCACATTGGTCTCATAGCCATTACTGTTTTTATTGCCCTTCTAAGATCCTGTCTTCAGCTGGGTCAGAGAAA
ACTTCTTGACTAAAACTGGTCAGAACTCATCACAGAAATGAAATACAGTGGTCTCTCTCTCCCAGAACTGGTTGC
AGCTAAAACAGAGAGATCTGACTGCTGGCTATAGGATTTTGGACTTAATGACTGAAATTGCAAATTGTCCTTTTT
CTTGGCATTACAGATTTTGCCAAAATAACTTTTTGTATCAAATATTGATGTGTGAAAGTGAAGGAGCTAGTCTGC
TGAACCAGGAATAGTTTGAGATATTGAACTGTCATTTTTGCACATTTGAATACTTTGCAGGCTGGCTTTGTATAA
ACTTATCCTCTGGTTTCCTATATGTTGTAAATATTTAGACCATAATTTCATTATAAATAAATCTATAAATATTC

FIGURE 33

CAGGACCAGTCTGACTGCACCTGCATCCTTAGCTCAGCGCATCCCCGGAGCATCTTAAGAGCTGAGCGCAGCTGA
CAACTAGGGGCCGGACCGTCGCAGGAGGCGTCCGCTGGATACCTTCCCCCTTCCCTGACCTAGAGCTCTACAGCT
GCTGCCTCGGTACTGACCGAGGGTTCCCAGAGCTGTCTCACCATTGCAAAAACGTTATAGCAACAGCCTCTGATT
ACGAC**ATG**GCTGAGATCACCAATATCCGACCTAGCTTTGATGTGTCACCGGTGGTGGCCGGCCTCATCGGGGCCT
CTGTGCTGGTGGTGTGTGTCTCGGTGACCGTCTTTGTCTGGTCATGCTGCCACCAGCAGGCAGAGAAGAAGCAGA
AGAACCCACCATACAAGTTTATTCACATGCTCAAAGGCATCAGCATATACCCAGAGACCCTCAGCAACAAGAAGA
AAATCATCAAAGTGCGGAGAGACAAAGATGGTCCTGGGAGGGAAGGTGGACGTAGGAACCTGTTGGTGGACGCAG
CAGAGGCTGGCCTGCTAAGCCGAGACAAAGATCCCAGGGGGCCTAGCTCTGGATCTTGTATAGACCAATTACCCA
TCAAAATGGACTATGGGGAAGAACTAAGGAGCCCTATTACAAGCCTGACCCCTGGGGAGAGCAAAACCACCTCTC
CATCATCTCCAGAGGAGGATGTCATGCTAGGATCCCTCACCTTCTCAGTGGACTATAACTTCCCGAAAAAAGCCC
TGGTGGTGACAATCCAGGAGGCCCATGGGCTGCCAGTGATGGATGACCAGACCCAGGGATCTGACCCCTACATCA
AAATGACCATCCTTCCTGACAAACGGCATCGGGTGAAGACCAGAGTGCTGCGGAAGACCCTGGACCCTGTGTTTG
ACGAGACCTTCACCTTCTATGGCATCCCCTACAGCCAGCTGCAGGACCTGGTGCTGCACTTCCTTGTCCTCAGCT
TTGACCGCTTCTCTCGGGATGATGTCATTGGCGAGGTCATGGTGCCACTGGCAGGGGTGGACCCCAGCACAGGCA
AGGTACAACTGACCAGGGACATCATCAAAAGGAATATCCAGAAGTGCATCAGCAGAGGGGAGCTCCAGGTGTCTC
TGTCATATCAGCCTGTGGCACAGAGAATGACAGTGGTGGTCCTCAAAGCCAGACACTTGCCGAAGATGGATATCA
CCGGTCTCTCAGGTAATCCTTATGTCAAGGTGAACGTCTACTACGGCAGAAAGCGCATTGCCAAGAAGAAAACCC
ATGTGAAGAAGTGCACTTTGAACCCCATCTTCAATGAATCTTTCATCTACGACATCCCCACTGACCTCCTGCCTG
ATATCAGCATCGAGTTCCTCGTTATCGACTTCGATCGCACCACCAAGAATGAGGTGGTGGGGAGGCTGATCCTGG
GGGCACACAGTGTCACAGCCAGTGGTGCTGAACACTGGAGAGAGGTCTGCGAGAGCCCCCGCAAGCCTGTGGCCA
AGTGGCACAGTCTGAGCGAGTAC**TAA**TCCTGTTCTTCTCTCCTCTAATCCCCGGGGGCCAAGCTGGGGAGGGATG
TGGAGGGGAAAAAGATGACAGAGAAGTGGACTCCAAACCTCATTTTAGTTGTAGAAGAAAATTTCTTACAAAACA
AATTCCACAAAGAACACCCTATATGACCACAGCTGCAGATCAGTTCTTAGCAATGATGTTTTTTTTTCTGCTTTG
CAAGGCGCTAGAATCTTTTATTTTACTTTATTTTTTTTGAGGTGGAGTTTCGCTCTTGTTGCCCGGGCTGGAGTG
CAATGGTGAGATCTCAACTCACTGCAACCTCTGCCCTCCAGGTTCAAGTGATTCTCCTCCCTCAGCCTCCCAAGT
AGCTGGGATTACAGGCACCCACGAGCATGCCCGGCTAATTTTTTGTATTTTCAGTAGAGATGGGTTTCACCATGT
TGGCCAGGCTGGTCTCGAATTCCAGACCTCAGGTGATCCACCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGG
TGCGAGCCACCGTGCCCGGCCTCTGGTTTTGTTTTGTTTTTTTTTTTTAATGGGGGACAAAAGAGAGGGAAAGAC
CCCTATAAATCTATATATAACAATGTAACCATATACTTGCATGTCTAATACAAACTGAAGAAATTAGCCTAACTG
CCAATATCAAGTTGCAGATTTTAATCCATGGAAATTGTGTTTTGTGCTGAATTGTATTTGCTGATTACCTGAAAT
TGGCTTCTTTTTATTGGGCTTCTCTGGAGAATTTCTCCCACTCCCCACCTCTGCAGAAGAAAATTTTGCTCTTAT
AAAACCTCATGTTTTCATCATTCCCATCTTTTCTTTTTATTGCCTCTTATATCTCTGCTCTTTGACCTCAAGGTC
TAGAGGTCTGCAGTAAGCCAAGAAACAAAGGTGGGGTGGATGAGGCAAGGTTTGCAGGAGAAAGAGGAATTGAGA
AATGGGGTATTTTTGCTATCAGCTCTTCTGCTATGAAGTAGTAAAAGGCAGTCTATAATTAACTGACAGACCTAA
CTGAAGCACAGAGAATACATCAGACTTATGCATCCAAGACATCAGAACTTGGATTTTATCAAACTTGATGACTTC
TCTAAAAGGAGCTTTGGAAACTTCAAATTCAGCTATAGGATAGTACCAATGAACACATCCAGCTGATCCCAAAAG
CTGTTTTCAGGTATAAGGACAAGGAGAGGAGACAAGTGACGACAGCCATTCCCCTTTGCAGCTATCTACTGTAGT
GACAGCCATTTCTTGGTTGATGGGTTGGAAGTCATCAGAGGTTTGAAGAATTACACTGGCCTTTGTTTTTCTGGA
AATGCCGACCATGGAGATGCTTTAGAGTCTTCTCAAATAGCTTAGATGTTGTAATGAGGTTAGCTTTGCTTCATA
AAACAGGGGCCCTCAGAAGTTCTCCTTAAATTTTTCAATAAAAATTTAGCTCTT

FIGURE 34

AGAAATCTTCAGCCAAACAGCTGCAGGAAGTAGAGAAGGTTAAACCCCAGAGTGAGAAAGTTCATCAGACTCTGA
TTCTGGACCCAGCACAGAGGAAGAGACTCCAGCAGCAG**ATG**CAGCAGCACGTTCAGCTCTTGACCCAAATCCACC
TTCTTGCCACCTGCAACCCCAACCTCAATCCGGAGGCCACTACCACCAGGATATTTCTTAAAGAGCTGGGAACCT
TTGCTCAAAGCTCCATCGCCCTTCACCATCAGTACAACCCCAAGTTTCAGACCCTGTTCCAACCCTGTAACTTGA
TGGGAGCTATGCAGCTGATTGAAGACTTCAGCACACATGTCAGCATTGACTGCAGCCCTCATAAAACTGTCAAGA
AGACTGCGAATGAATTTCCCTGTTTGCCAAAGCAAGTGGCTTGGATTCTGGCCACAAGCAAGGTTTTCATGTATC
CAGAGTTACTTCCAGTGTGTTCCCTGAAGGCAAAGAATCCCCAGGATAAGATCGTCTTCACCAAGGCTGAGGACA
ATTTGTTAGCTTTAGGACTGAAGCATTTTGAAGGAACTGAGTTTCCTAATCCTCTAATCAGCAAGTACCTTCTAA
CCTGCAAAACTGCCCACCAACTGACAGTGAGAATCAAGAACCTCAACATGAACAGAGCTCCTGACAACATCATTA
AATTTTATAAGAAGACCAAACAGCTGCCAGTCCTAGGAAAATGCTGTGAAGAGATCCAGCCACATCAGTGGAAGC
CACCTATAGAGAGAGAAGAACACCGGCTCCCATTCTGGTTAAAGGCCAGTCTGCCATCCATCCAGGAAGAACTGC
GGCACATGGCTGATGGTGCTAGAGAGGTAGGAAATATGACTGGAACCACTGAGATCAACTCAGATCGAAGCCTAG
AAAAAGACAATTTGGAGTTGGGGAGTGAATCTCGGTACCCACTGCTATTGCCTAAGGGTGTAGTCCTGAAACTGA
AGCCAGTTGCCACCCGTTTCCCCAGGAAGGCTTGGAGACAGAAGCGTTCATCAGTCCTGAAGCCCCTCCTTATCC
AACCCAGCCCCTCTCTCCAGCCCAGCTTCAACCCTGGGAAAACACCAGCCCGATCAACTCATTCAGAAGCCCCTC
CGAGCAAAATGGTGCTCCGGATTCCTCACCCAATACAGCCAGCCACTGTTTTACAGACAGTTCCAGGTGTCCCTC
CACTGGGGGTCAGTGGAGGTGAGAGTTTTGAGTCTCCTGCAGCACTGCCTGCTGTGCCCCCTGAGGCCAGGACAA
GCTTCCCTCTGTCTGAGTCCCAGACTTTGCTCTCTTCTGCCCCTGTGCCCAAGGTAATGCTGCCCTCCCTTGCCC
CTTCTAAGTTTCGAAAGCCATATGTGAGACGGAGACCCTCAAAGAGAAGAGGAGTCAAGGCCTCTCCCTGTATGA
AACCTGCCCCTGTTATCCACCACCCTGCATCTGTTATCTTCACTGTTCCTGCTACCACTGTGAAGATTGTGAGCC
TTGGCGGTGGCTGTAACATGATCCAGCCTGTCAATGCGGCTGTGGCCCAGAGTCCCCAGACTATTCCCATCACTA
CCCTCTTGGTTAACCCTACTTCCTTCCCCTGTCCATTGAACCAGTCCCTTGTGGCCTCCTCTGTCTCACCCTTAA
TTGTTTCTGGCAATTCTGTGAATCTTCCTATACCATCCACCCCTGAAGATAAGGCCCACGTGAATGTGGACATTG
CTTGTGCTGTGGCTGATGGGGAAAATGCCTTTCAGGGCCTAGAACCCAAATTAGAGCCCCAGGAACTATCTCCTC
TCTCTGCTACTGTTTTCCCGAAAGTGGAACATAGCCCAGGGCCTCCACTAGCAGATGCAGAGTGCCAAGAAGGAT
TGTCAGAGAATAGTGCCTGTCGCTGGACCGTTGTGAAAACAGAGGAGGGGAGGCAAGCTCTGGAGCCGCTCCCTC
AGGGCATCCAGGAGTCTCTAAACAACCCTACCCCTGGGGATTTAGAGGAAATTGTCAAGATGGAACCTGAAGAAG
CTAGAGAGGAAATCAGTGGATCCCCTGAGCGTGATATTTGTGATGACATCAAAGTGGAACATGCTGTGGAATTGG
ACACTGGTGCCCCAAGCGAGGAGTTGAGCAGTGCTGGAGAAGTAACGAAACAGACAGTCTTACAGAAGGAAGAGG
AGAGGAGTCAGCCAACTAAAACCCCTTCATCTTCTCAAGAGCCCCCTGATGAAGGAACCTCAGGGACAGATGTGA
ACAAAGGATCATCAAAGAATGCTTTGTCCTCAATGGATCCTGAAGTGAGGCTTAGTAGCCCCCCAGGGAAGCCAG
AAGATTCATCCAGTGTTGATGGTCAGTCAGTGGGGACTCCAGTTGGGCCAGAAACTGGAGGAGAGAAGAATGGGC
CAGAAGAAGAGGAAGAAGAGGACTTTGATGACCTCACCCAAGATGAGGAAGATGAAATGTCATCAGCTTCTGAGG
AATCTGTGCTTTCTGTCCCAGAACTCCAGGTGAGAGCTGGAGAATATTCTCAAGTATTTCGTGGACTCAGTAATA
TGTATCACTTATTGATATGCCACCTGCTTGCTTGCTGCACTATGGATAGTCCTAAAATCATTTGTATT**TGA**TTTG
TGAATGCATTATGGGACATGATTGTGGAGTTGAGGTGAAATGAGATGGAAAGGATGAAATTTTACTTATTATATT
AAACTCGTTTACACATTAAA

FIGURE 35

ATGAA**ATG**ACGGATGAAGCAGTTGGAGACTCTGCTGAGAAGCCTCCTACTTTTGCTTCACCTGAGACTGCTCCAG
AAGTGGAGACCAGCAGAACTCCACCAGGAGAGAGCATCAAAGCTGCTGGAAAAGGCCGGAACAATCATCGAGCTC
GCAACAAGCGGGGAAGTCGGGCTCGGGCCAGCAAGGACACCTCCAAGCTGCTGTTGCTGTATGATGAGGACATTC
TCGAGCGAGATCCACTCAGGGAGCAGAAGGACTTGGCCTTTGCCCAAGCTTATCTGACCAGGGTGCGAGAAGCCC
TACAACATATCCCTGGCAAGTATGAAGACTTCCTTCAAGTCATCTATGAATTTGAGTCAAGTACCCAGAGACGGA
CGGCTGTAGATCTCTACAAAAGCCTGCAAATTCTGCTCCAAGACTGGCCTCAGCTGTTGAAAGACTTTGCTGCTT
TCCTGTTACCTGAGCAAGCTCTGGCCTGTGGATTATTTGAGGAGCAGCAGGCTTTTGAGAAGAGCCGCAAGTTCC
TTCGGCAGCTGGAGATTTGCTTTGCAGAGAACCCCTCACACCACCAGAAGATTATCAAGGTCCTCCAAGGCTGTG
CAGACTGCCTTCCCCAGGAGATCACCGAGCTCAAGACACAGATGTGGCAGCTCCTCAAGGGCCACGACCACCTGC
AGGATGAGTTTTCTATCTTCTTTGACCACTTGCGCCCAGCAGCTAGCCGGATGGGTGACTTTGAAGAGATCAATT
GGACTGAGGAAAAGGAGTATGAGTTTGATGGCTTTGAAGAAGTGGCCCTGCCTGATGTGGAAGAAGAGGAGGAGC
CTCCCAAGATACCCACAGCCTCAAAGAACAAGAGGAAAAAAGAGATCGGGGTCCAAAATCATGATAAGGAGACTG
AATGGCCAGATGGGGCCAAGGACTGTGCCTGCTCCTGCCATGAAGGAGGTCCAGATTCCAAGCTGAAGAAGAGCA
AAAGGCGGAGCTGTAGCCACTGTAGCAGCAAGGTCTGTGACAGCAAATCCTACAAGAGCAAGGAGCCCCATGAGT
TGGTGGGCAGCAGCCCCCACCGAGAGGCTAGTCCTATGCCTGGTGCTAAGGAAGCTGGGCAGGGCAAGGATATGA
TGGAAGAGGAAGCCCCAGAGGAGCGGGAGAGCACTGAGGCCACCCAGAGCAGGACTGTCAGGACCACCAGAAAGG
GAGAGATGCCTGTTTCAGGATTGGCAGTGGGGAGCACTTTGCCATCCCCTCGAGAAGTGACTGTTACAGAACGGC
TCCTCCTGGATGGCCCACCACCTCATTCACCAGAGACTCCTCAATTTCCCCCCACAACTGGAGCTGTACTGTACA
CTGTTAAGAGAAACCAGGTTGGGCCTGAGGTTCGCTCCTGCCCCAAGGCATCCCCCAGACTTCAGAAAGAGAGGG
AGGGCCAAAAGGCAGTGAGTGAGTCAGAGGCTTTGATGCTGGTCTGGGATGCATCAGAAACTGAGAAATTGCCTG
GTACCGTGGAACCCCCTGCTTCCTTCCTGAGTCCTGTTTCCTCAAAGACCAGAGATGCAGGGAGAAGACATGTGT
CCGGGAAACCAGACACTCAAGAGAGATGGCTGCCCTCAAGCAGAGCTCGGGTGAAGACAAGAGACAGGACGTGCC
CTGTCCATGAATCTCCATCAGGAATTGACACCTCAGAGACTTCTCCCAAAGCCCCTAGAGGGGGTTTGGCTAAAG
ACAGTGGAACACAGGCCAAGGGTCCAGAGGGGGAGCAGCAGCCAAAGGCCGCAGAAGCTACGGTGTGTGCCAACA
ACAGCAAGGTCAGCTCCACTGGGGAAAAGGTTGTCCTGTGGACAAGGGAAGCTGACCGTGTGATCCTCACCATGT
GCCAGGAGCAAGGGGCACAGCCACAGACCTTCAACATCATCTCCCAGCAGCTGGGAAATAAGACCCCTGCTGAGG
TTTCCCACCGTTTTCGAGAACTCATGCAGCTCTTCCACACTGCCTGTGAAGCCAGCTCTGAGGATGAGGATGATG
CAACCAGTACCAGCAATGCAGACCAGCTGTCTGACCATGGGGACCTTCTGTCTGAAGAGGAGCTGGATGAA**TGA**G
ACTCTGGGAATCATCTACACAGGACCAAACCCAACAGGCGCCCTGGCACCGGGGAGGGGGTAGTTGTACTCTGCT
TGTACAGTCCTTGAGCCCAGTTTACAGATCTGGAGAGCAGGAGGCCAGGACAAGGACAAAGGCTGGAGGATGGAG
TAGGACCCAGGGGCTCTGCCATCCTAGGCATCATTCAAGGTCTTTTATGAAGACTTTACAGATGTCCTCTGTAAA
TAGCATCGAGAGTGGAGTTCAGCTCCTTTCTCTACTTTTTTTTGGTCTGATGGCACATATTTATTGTTCTGTGGT
CTAATCACAGTGTTTCTAAATGTAAAAAGTGCATATGTTGGTGTAGCTAGTCCCGCGACATTGAGCTCCTCTGCA
TGAAGACACTGGGCTCCTGCATCCAGCTGTTTTTATTGCAAACTAGCTCCTTTCTCCCACACTGGGAACTTTAGT
CCACGAGGCTGTCACCACCCTGGTAGCACTGGGCCAGGCTTTGTAGCTCCTGCAGCAGCTCTGCTACGTCATCGT
GCTCCACTCCAGCATCCATGAAGCTGGCCCAGCGCCGCAAGTCGAGTTTGGTGAGGTCTCTGGCCAAGGCTTCCA
GGGTCTGGTGCAGGGACGAAGAGGAACACAGTGCCCCAAACACTGGGATGCTCTCCACTGCTGTGGAGGGAGAGG
AAACAGAGACCTGTAGATGGATGATTATTCTGCCCTGGGACTCGCCAAACTGATAAGGAAGTCCAACCTTAGTAG
ACTTGATTGTAAACTCAACAAATTTGGTGTATTGTCCCCTTAGTACACCAGTACTCCAGAGGAAGAATGCTTTTC
TTGGGAGCCATAGGGTGAATAAAGGAATGTTTAACTGTGG

FIGURE 36

CCTTTTTTGCAGTCTCAGGACGGGCGCTTTGGAGCCGGCCCCAGGCAGCGTGTGTCGGTCGCCTAGTCTGGAGAA
CTAGTCCTCGACTCACGGTGAGGGAATGGACCGACACGGGTATTGTACCGCTGAGGGAAAGGAGCGGGACTCCGG
ACCTCCAGGAGTGCAAGG**ATG**ATGCTGAAAGGAATAACAAGGCTTATCTCTAGGATCCATAAGTTGGACCCTGGG
CGTTTTTTACACATGGGGACCCAGGCTCGCCAAAGCATTGCTGCTCACCTAGATAACCAGGTTCCAGTTGAGAGT
CCGAGAGCTATTTCCCGCACCAATGAGAATGACCCGGCCAAGCATGGGGATCAGCACGAGGGTCAGCACTACAAC
ATCTCCCCCCAGGATTTGGAGACTGTATTTCCCCATGGCCTTCCTCCTCGCTTTGTGATGCAGGTGAAGACATTC
AGTGAAGCTTGCCTGATGGTAAGGAAACCAGCCCTAGAACTTCTGCATTACCTGAAAAACACCAGTTTTGCTTAT
CCAGCTATACGATATCTTCTGTATGGAGAGAAGGGAACAGGAAAAACCCTAAGTCTTTGCCATGTTATTCATTTC
TGTGCAAAACAGGACTGGCTGATACTACATATTCCAGATGCTCATCTTTGGGTGAAAAATTGTCGGGATCTTCTG
CAGTCCAGCTACAACAAACAGCGCTTTGATCAACCTTTAGAGGCTTCAACCTGGCTGAAGAATTTCAAAACTACA
AATGAGCGCTTCCTGAACCAGATAAAAGTTCAAGAGAAGTATGTCTGGAATAAGAGAGAAAGCACTGAGAAAGGG
AGTCCTCTGGGAGAAGTGGTTGAACAGGGCATAACACGGGTGAGGAACGCCACAGATGCAGTTGGAATTGTGCTG
AAAGAGCTAAAGAGGCAAAGTTCTTTGGGTATGTTTCACCTCCTAGTGGCCGTGGATGGAATCAATGCTCTTTGG
GGAAGAACCACTCTGAAAAGAGAAGATAAAAGCCCGATTGCCCCCGAGGAATTAGCACTTGTTCACAACTTGAGG
AAAATGATGAAAAATGATTGGCATGGAGGCGCCATTGTGTCGGCTTTGAGCCAGACTGGGTCTCTCTTTAAGCCC
CGGAAAGCCTATCTGCCCCAGGAGTTGCTGGGAAAGGAAGGATTTGATGCCCTGGATCCCTTTATTCCCATCCTG
GTTTCCAACTATAACCCAAAGGAATTTGAAAGTTGTATTCAGTATTATTTGGAAAACAATTGGCTTCAACATGAG
AAAGCTCCTACAGAAGAAGGGAAAAAAGAGCTGCTGTTCCTAAGTAACGCGAACCCCTCGCTGCTGGAGCGGCAC
TGTGCCTACCTC**TAA**GCCAAGATCACAGCATGTGAGGAAGACAGTGGACATCTGCTTTATGCTGGACCCAGTAAG
ATGAGGAAGTCGGGCAGTACACAGGAAGAGGAGCCAGGCCCTTGTACCTATGGGATTGGACAGGACTGCAGTTGG
CTCTGGACCTGCATTAAAATGGGTTTCACTGTGAATGCGTGACAATAAGATATTCCCTTGTTCCTAAAACTTTAT
ATCAGTTTATTGGATGTGGTTTTTCACATTTAAGATAATTATGGCTCTTTTCCTAAAAAATAAAATATCTTTCT

FIGURE 37

CAAACAGCAGAAGGAGGTAGAGAAGGTTAAACCCCAGTGTAAGGAAGTTCATCAGACCCTGATTCTGGACCCAGC
ACAAAGGAAGAGACTCCAGCAGCAG**ATG**CAGCAGCATGTTCAGCTCTTGACACAAATCCACCTTCTTGCCACCTG
CAACCCCAATCTCAATCCGGAGGCCAGTAGCACCAGGATATGTCTTAAAGAGCTGGGAACCTTTGCTCAAAGCTC
CATCGCCCTTCACCATCAGTACAACCCCAAGTTTCAGACCCTGTTCCAACCCTGTAACTTGATGGGAGCTATGCA
GCTGATTGAAGACTTCAGCACACATGTCAGCATTGACTGCAGCCCTCATAAAACTGTCAAGAAGACTGCCAATGA
ATTTCCCTGTTTGCCAAAGCAAGTGGCTTGGATCCTGGCCACAAGCAAGGTTTTCATGTATCCAGAGTTACTTCC
AGTGTGTTCCCTGAAGGCAAAGAATCCCCAGGATAAGATCCTCTTCACCAAGGCTGAGGACAATTTGTTAGCTTT
AGGACTGAAGCATTTTGAAGGGACTGAGTTTCTTAACCCTCTAATCAGCAAGTACCTTCTAACCTGCAAGACTGC
CCGCCAACTGACAGTGAGAATCAAGAACCTCAACATGAACAGAGCTCCTGACAACATCATTAAATTTTATAAGAA
GACCAAACAGCTGCCAGTCCTAGGAAAATGCTGTGAAGAGATCCAGCCACATCAGTGGAAGCCACCTATAGAGAG
AGAAGAACACCGGCTCCCATTCTGGTTAAAGGCCAGTCTGCCATCCATCCAGGAAGAACTGCGGCACATGGCTGA
TGGTGCTAGAGAGGTAGGAAATATGACTGGAACCACTGAGATCAACTCAGATCAAGGCCTAGAAAAAGACAACTC
AGAGTTGGGGAGTGAAACTCGGTACCCACTGCTATTGCCTAAGGGTGTAGTCCTGAAACTGAAGCCAGTTGCCGA
CCGTTTCCCCAAGAAGGCTTGGAGACAGAAGCGTTCATCAGTCCTGAAACCCCTCCTTATCCAACCCAGCCCCTC
TCTCCAGCCCAGCTTCAACCCTGGGAAAACACCAGCCCAATCAACTCATTCAGAAGCCCCTCCGAGCAAAATGGT
GCTCCGGATTCCTCACCCAATACAGCCAGCCACTGTTTTACAGACAGTTCCAGGTGTCCCTCCACTGGGGGTCAG
TGGAGGTGAGAGTTTTGAGTCTCCTGCAGCACTGCCTGCTATGCCCCCTGAGGCCAGGACAAGCTTCCCTCTGTC
TGAGTCCCAGACTTTGCTCTCTTCTGCCCCTGTGCCCAAGGTAATGATGCCCTCCCCTGCCTCTTCCATGTTTCG
AAAGCCATATGTGAGACGGAGACCCTCAAAAAGAAGGGGAGCCAGGGCCTTTCGCTGTATCAAACCTGCCCCTGT
TATCCACCCTGCATCTGTTATCTTCACTGTTCCTGCTACCACTGTGAAGATTGTGAGCCTTGGCGGTGGCTGTAA
CATGATCCAGCCTGTCAATGCGGCTGTGGCCCAGAGTCCCCAGACTATTCCCATCGCCACCCTCTTGGTTAACCC
TACTTCCTTCCCCTGTCCATTGAACCAGCCCCTTGTGGCCTCCTCTGTCTCACCCTTAATTGTTTCTGGCAATTC
TGTGAATCTTCCTATACCATCCACCCCTGAAGATAAGGCCCACATGAATGTGGACATTGCTTGTGCTGTGGCTGA
TGGGGAAAATGCCTTTCAGGGCCTAGAACCCAAATTAGAGCCCCAGGAACTATCTCCTCTCTCTGCTACTGTTTT
CCCCAAAGTGGAACATAGCCCAGGGCCTCCACCAGTCGATAAACAGTGCCAAGAAGGATTGTCAGAGAACAGTGC
CTATCGCTGGACCGTTGTGAAAACAGAGGAGGGAAGGCAAGCTCTGGAGCCGCTCCCTCAGGGCATCCAGGAGTC
TCTAAACAACTCTTCCCCTGGGGATTTAGAGGAAGTTGTCAAGATGGAACCTGAAGATGCTACAGAGGAAATCAG
TGGATTTCTT**TGA**GCTAGGAGAATAAGAGTCTGGAGACTGGGAGCCTTCACTTCGGCCTCCGATTGGTGGCGCAT
AGGGTGTAACCAATAGGAAACCCCTAAAGGGTACTTAAACCCCAGATTTTGCAACTGGGGCTCTTGAGCAGCTTG
CTTTAGCCTGCTCCCACTCTGTGGAATATACTTTTGCTTCAATAAATCTGTGCTTTTATTGC

FIGURE 38

AGCGCAGT**ATG**GCGGGCGGGGCCCGGGAGGTGCTCACACTGCAGTTGGGACATTTTGCCGGTTTCGTGGGCGCGC
ACTGGTGGAACCAGCAGGATGCTGCGCTGGGCCGAGCGACCGATTCCAAGGAGCCCCCGGGAGAGCTGTGCCCCG
ACGTCCTGTATCGTACGGGCCGGACGCTGCACGGCCAGGAGACCTACACGCCGCGACTCATCCTCATGGATCTGA
AGGGTAGTTTGAGCTCCCTAAAAGAGGAAGGTGGACTCTACAGGGACAAACAGTTGGATGCTGCAATAGCATGGC
AGGGGAAGCTCACCACACACAAAGAGGAACTCTATCCCAAGAACCCTTATCTCCAAGACTTTCTGAGTGCAGAGG
GAGTGCTGAGTAGTGATGGTGTCTGGAGGGTCAAATCCATTCCCAATGGCAAAGGTTCCTCACCACTCCCCACCG
CTACAACTCCAAAACCACTTATCCCTACAGAGGCCAGCATCAGGGTCTGGTCAGACTTCCTCAGAGTCCATCTCC
ATCCCCGGAGCATCTGTATGATTCAGAAGTACAACCACGATGGGGAAGCAGGTCGGCTGGAGGCTTTTGGCCAAG
GGGAAAGTGTCCTAAAGGAACCCAAGTACCAGGAAGAGCTGGAGGACAGGCTGCATTTCTACGTGGAGGAATGTG
ACTACTTGCAGGGCTTCCAGATCCTGTGTGACCTGCACGATGGCTTCTCTGGGGTAGGCGCGAAGGCGGCAGAGC
TGCTACAAGATGAATATTCAGGGCGGGGAATAATAACCTGGGGCCTGCTACCTGGTCCCTACCATCGTGGGGAGG
CCCAGAGAAACATCTATCGTCTATTAAACACAGCTTTTGGTCTCGTGCACCTGACTGCTCACAGCTCTCTTGTCT
GCCCCTTGTCCTTGGGTGGGAGCCTGGGCCTGCGACCCGAGCCACCTGTCAGCTTCCCTTACCTGCATTATGATG
CC**TGA**GGCCAAGTGCCCATCTTGGTGTCTTCTTACAGGCCACTCTGCCCTTCCACTGCAGTGCCATCCTGGCTAC
AGCCCTGGACACAGTCACTGTTCCTTATCGCCTGTGTTCCTCTCCAGTTTCCATGGTTCATCTGGCTGACATGCT
GAGCTTCTGTGGGAAAAAGGTGGTGACAGCAGGAGCAATCATCCCTTTCCCCTTGGCTCCAGGCCAGTCCCTTCC
TGATTCCCTGATGCAGTTTGGAGGAGCCACCCCATGGACCCCACTGTCTGCATGTGGGGAGCCTTCTGGAACACG
TTGCTTTGCCCAGTCAGTGGTGCTGAGGGGTATAGACAGAGCATGCCACACAAGCCAGCTCACCCCAGGGACACC
TCCACCCTCTGCCCTTCATGCATGTACCACTGGGGAAGAAATCTTGGCTCAGTATTTACAACAGCAGCAGCCTGG
AGTCATGAGTTCTTCCCATCTGCTGCTGACTCCCTGCAGGGTGGCTCCTCCTTACCCCCACCTCTTCTCAAGCTG
CAGTCCACCGGGTATGGTTCTGGATGGTTCCCCCAAGGGAGCAGCAGTGGAGAGCATCCCAGTGTTTGGGGCACT
GTGTTCCTCTTCGTCCCTGCACCAGACCCTGGAAGCCTTGGCCAGAGACCTCACCAAACTCGACTTGCGGCGCTG
GGCCAGCTTCATGGATGCTGGAGTGGAGCACGATGACGTAGCAGAGCTGCTGCAGGAGCTACAAAGCCTGGCCCA
GTGCTACCAGGGTGGTGACAGCCTCGTGGACTAAAGTTCCCAGTGTGGGAGAAAGGAGCTAGTTTGCAATAAAAA
CAGCTGGATGCAGGAGCCCAGTGTCTTCATGCAGAGGAGCTCAATGTCGCGGGACTAGCTACACCAACATATGCA
CTTTTTACATTTAGAAACACTGTGATTAGACCACAGAACAATAAATATGTGCCATCAGACC

FIGURE 39A

CGCCTCCCCTCAGTTTGCCCCCTTTAGCCTTCCACCTTTCCCTTCTCCTCTCTCGCATTTCCGCCAGTCAGCTTA
CCCGCTGGCCGCCTCCTGACAAGCGGGAGGGATCCGCCGTGGACCCAGGGAAGCGGAGGAGCCTGGCGGCCACCC
CCTCTTCCCCACTTCCCTGCACTCTCATCGCTCTCGGCCTCGGCCTCGGCCTCCGACACGAGAAAGATGCTGGTT
TCGAGTTTTGGAGATCCTTGTTTTTTATGGAACACAGTTCTGTAAAATTTTCATAAGATTCCTTGGCAATAACAT
ACGCTTGTG**ATG**GACCCTAGAAATACTGCTATGTTAGGATTGGGTTCTGATTCCGAAGGTTTTTCAAGAAAGAGT
CCTTCTGCCATCAGTACTGGCACATTGGTCAGTAAGAGAGAAGTAGAGCTAGAAAAAAACACAAAGGAGGAAGAG
GACCTTCGCAAACGGAATCGAGAAAGAAACATCGAAGCTGGGAAAGATGATGGTTTGACTGATGCACAGCAACAG
TTTTCAGTGAAAGAAACAAACTTTTCAGAGGGAAATTTAAAATTGAAAATTGGCCTCCAGGCTAAGAGAACTAAA
AAACCTCCAAAGAACTTGGAGAACTATGTATGTCGACCTGCCATAAAAACAACTATTAAGCACCCAAGGAAAGCA
CTTAAAAGTGGAAAGATGACGGATGAAAAGAATGAACACTGTCCTTCAAAACGAGACCCTTCAAAGTTGTACAAG
AAAGCAGATGATGTTGCAGCCATTGAATGCCAGTCTGAAGAAGTCATCCGTCTTCATTCACAGGGAGAAAACAAT
CCTTTGTCTAAGAAGCTGTCTCCAGTACACTCAGAAATGGCAGATTATATTAATGCAACGCCATCTACTCTTCTT
GGTAGCCGGGATCCTGATTTAAAGGACAGAGCATTACTTAATGGAGGAACTAGTGTAACAGAAAAGTTGGCACAG
CTGATTGCTACCTGTCCTCCTTCCAAGTCTTCCAAGACAAAACCGAAGAAGTTAGGAACTGGCACTACAGCAGGA
TTGGTTAGCAAGGATTTGATCAGGAAAGCAGGTGTTGGCTCTGTAGCTGGAATAATACATAAGGACTTAATAAAA
AAGCCAACCATCAGCACAGCAGTTGGATTGGTAACTAAAGATCCTGGGAAAAAGCCAGTGTTTAATGCAGCAGTA
GGATTGGTCAATAAGGACTCTGTGAAAAAACTGGGAACTGGCACTACAGCGGTATTCATTAATAAAAACTTAGGC
AAAAAGCCAGGAACTATCACTACAGTAGGACTGCTAAGCAAAGATTCAGGAAAGAAGCTAGGAATTGGTATTGTT
CCAGGTTTAGTGCATAAAGAGTCTGGCAAGAAGTTAGGACTTGGCACTGTGGTTGGACTGGTTAATAAAGATTTG
GGAAAGAAATTGGGTTCTACTGTTGGCCTAGTGGCCAAGGACTGTGCAAAGAAGATTGTAGCAAGTTCAGCAATG
GGATTGGTTAATAAGGACATTGGAAAGAAACTAATGAGTTGTCCTTTGGCAGGTCTGATCAGTAAAGATGCCATA
AACCTTAAAGCCGAAGCACTGCTCCCCACTCAGGAACCGCTTAAGGCTTCTTGTAGTACAAACATCAATAATCAG
GAAAGTCAGGAACTTTCTGAATCCCTGAAAGATAGTGCCACCAGCAAAACTTTTGAAAAGAATGTTGTACGGCAG
AATAAAGAAAGCATATTGGAAAAGTTCTCAGTACGAAAAGAAATCATTAATTTGGAGAAAGAAATGTTTAATGAA
GGAACATGCATTCAGCAAGACAGTTTCTCATCCAGTGAAAAGGGATCTTATGAAACCTCAAAGCATGAAAAGCAG
CCTCCTGTATATTGCACTTCTCCGGACTTTAAAATGGGAGGTGCTTCTGATGTATCTACCGCTAAATCCCCATTC
AGTGCAGTAGGAGAAAGCAATCTCCCTTCCCCATCACCTACTGTATCTGTTAATCCTTTAACCAGAAGTCCCCCT
GAAACTTCTTCACAGTTGGCTCCTAATCCATTACTTTTAAGTTCTACTACAGAACTAATCGAAGAAATTTCTGAA
TCTGTTGGAAAGAACCAGTTTACTTCTGAAAGTACCCACTTGAACGTTGGTCATAGGTCAGTTGGTCATAGTATA
AGTATTGAATGTAAAGGGATTGATAAAGAGGTAAATGATTCAAAAACTACCCATATAGATATTCCAAGAATAAGC
TCTTCCCTTGGAAAAAAGCCAAGTTTGACTTCTGAATCCAGCATTCATACTATTACTCCTTCAGTTGTTAACTTC
ACTAGTTTATTTAGTAATAAGCCTTTTTTAAAACTGGGTGCAGTATCTGCATCAGACAAACACTGCCAAGTTGCT
GAAAGCCTAAGTACTAGTTTGCAGTCCAAACCATTAAAAAAAAGAAAAGGAAGAAAACCTCGGTGGACTAAAGTG
GTGGCAAGAAGCACATGCCGGTCTCCAAAAGGGCTAGAATTAGAAAGATCAGAGCTTTTTAAAAACGTTTCATGT
AGCTCACTATCAAATAGTAATTCTGAGCCAGCCAAGTTTATGAAAAACATTGGACCCCCTTCATTTGTAGATCAT
GACTTCCTTAAACGCCGATTGCCAAAGTTGAGCAAATCCACAGCTCCATCTCTTGCTCTCTTAGCTGATAGTGAA
AAACCATCTCATAAGTCTTTTGCTACTCACAAACTATCCTCCAGTATGTGTGTCTCTAGTGACCTTTTGTCTGAT
ATTTATAAGCCCAAAAGAGGAAGGCCTAAATCTAAGGAGATGCCTCAACTGGAAGGGCCACCTAAAAGGACTTTA
AAAATCCCTGCTTCTAAAGTGTTTTCTTTACAGTCTAAGGAAGAACAAGAACCCCCAATTTTACAGCCAGAAATT
GAAATCCCTTCCTTCAAACAAGGTCTGTCTGTGTCTCCTTTTCCAAAAAAGAGAGGCAGGCCTAAGAGGCAAATG
AGGTCACCAGTCAAGATGAAGCCACCTGTACTGTCAGTGGCTCCATTTGTTGCCACTGAAAGTCCAAGCAAGCTA
GAATCTGAAAGTGACAACCATAGAAGTAGCAGTGATTTCTTTGAGAGCGAGGATCAACTTCAGGATCCAGATGAC
CTAGATGACAGTCATAGGCCAAGTGTCTGTAGTATGAGTGACCTTGAGATGGAACCAGATAAAAAAATTACCAAG
AGAAACAATGGACAATTAATGAAAACAATTATCCGCAAAATAAATAAAATGAAGACTTTAAAGAGAAAGAAACTG
TTGAATCAGATTCTTTCAAGTTCTGTAGAATCAAGTAATAAAGGGAAAGTGCAATCCAAACTCCATAATACGGTA
TCAAGTCTTGCTGCCACATTTGGCTCTAAATTGGGCCAACAGATAAATGTCAGCAAGAAAGGAACCATTTATATA
GGAAAGAGAAGAGGTCGCAAACCAAAAACTGTCTTAAATGGTATTCTTTCTGGTAGTCCTACTAGCCTTGCTGTT
CTTGAGCAAACAGCTCAACAGGCAGCTGGGTCAGCATTAGGACAGATTCTTCCCCCATTACTGCCTTCATCTGCT

FIGURE 39B

AGTAGTTCTGAGATTCTTCCATCACCTATTTGCTCTCAGTCTTCTGGGACTAGTGGAGGTCAGAGCCCTGTAAGT
AGTGATGCAGGTTTTGTTGAACCCAGTTCAGTGCCATATTTGCATTTACACTCCAGACAGGGCAGTATGATTCAG
ACTCTTGCAATGAAGAAGGCCTCAAAGGGGAGGAGGCGGTTATCTCCTCCTACTTTGTTGCCAAATTCTCCTTCG
CACTTGAGTGAACTCACATCTCTAAAAGAAGCTACTCCTTCCCCAATCAGTGAGTCTCATAGTGATGAGACCATT
CCCAGTGATAGTGGAATTGGAACAGATAATAACAGCACATCAGACAGGGCAGAGAAATTTTGTGGGCAAAAAAAG
AGGAGGCATTCTTTTGAGCATGTTTCTCTGATTCCCCCTGAAACCTCTACAGTGCTAAGCAGTCTTAAAGAAAAA
CATAAACACAAATGTAAGCGCAGGAATCATGATTACCTCAGCTATGACAAGATGAAAAGGCAGAAACGAAAACGG
AAAAAGAAATATCCCCAGCTTCGAAATAGACAGGATCCAGACTTTATTGCAGAGCTGGAGGAACTAATAAGTCGC
CTAAGTGAAATTCGGATCACTCATCGAAGTCATCATTTTATCCCCCGAGATCTTCTGCCAACTATCTTTCGAATC
AACTTTAATAGTTTCTATACACATCCTTCTTTCCCCTTAGACCCTTTGCACTACATTCGAAAACCTGACTTAAAA
AAGAAAAGAGGGAGACCCCCTAAGATGAGGGAGGCAATGGCTGAAATGCCTTTTATGCACAGCCTTAGTTTTCCT
CTTTCTAGTACTGGATTCTATCCATCTTATGGTATGCCTTACTCTCCTTCACCCCTTACAGCTGCTCCCATAGGA
TTAGGTTACTATGGAAGGTATCCTCCCACTCTTTATCCACCTCCTCCATCTCCTTCTTTCACCACGCCACTTCCA
CCTCCTTCCTATATGCATGCTGGTCATTTACTTCTCAATCCTGCCAAATACCATAAGAAAAAGCATAAGCTACTT
CGACAGGAGGCCTTTCTTACAACCAGCAGGACTCCCCTCCTTTCCATGAGTACCTACCCCAGTGTTCCTCCTGAG
ATGGCCTATGGTTGGATGGTTGAGCACAAACACAGGCACCGTCACAAACACAGAGAACACCGTTCTTCTGAACAA
CCCCAGGTTTCTATGGACACTGGCTCTTCCCGATCTGTCCTGGAATCTTTGAAGCGCTATAGATTTGGAAAGGAT
GCTGTTGGAGAGCGATATAAGCATAAGGAAAAGCACCGTTGTCACATGTCCTGCCCTCATCTCTCTCCTTCAAAA
AGCTTAATAAACAGAGAGGAACAGTGGGTCCACCGAGAGCCTTCAGAATCTAGTCCATTGGCCTTGGGATTGCAG
ACACCTTTACAGATTGACTGTTCAGAAAGTTCTCCAAGCTTATCCCTTGGAGGATTCACTCCCAACTCTGAGCCA
GCCAGCAGTGATGAACATACAAACCTTTTCACAAGTGCAATAGGCAGCTGCAGAGTTTCAAACCCTAACTCCAGT
GGCCGGAAGAAATTAACTGACAGCCCTGGACTCTTTTCTGCACAGGACACTTCACTAAATCGGCTTCACAGAAAG
GAGTCACTGCCTTCTAACGAAAGGGCAGTACAGACTTTGGCAGGCTCCCAGCCAACCTCTGATAAACCCTCCCAG
CGGCCATCAGAGAGCACAAATTGTAGCCCTACCCGGAAAAGGTCTTCATCTGAGAGTACTTCTTCAACAGTAAAC
GGAGTTCCCTCTCGAAGTCCAAGATTAGTTGCTTCTGGGGATGACTCTGTGGATAGTCTGCTGCAGCGGATGGTA
CAAAATGAGGACCAAGAGCCCATGGAGAAAAGTATTGATGCTGTGATTGCAACTGCCTCTGCACCACCTTCTTCC
AGTCCAGGCCGTAGCCACAGCAAGGACCGAACCCTGGGAAAACCAGACAGCCTTTTAGTGCCTGCAGTCACAAGT
GACTCTTGCAATAATAGCATCTCACTCCTATCTGAAAAGTTGACAAGCAGCTGTTCCCCCCATCATATCAAGAGA
AGTGTAGTGGAAGCTATGCAACGCCAAGCTCGGAAAATGTGCAATTACGACAAAATCTTGGCCACAAAGAAAAAC
CTAGACCATGTCAATAAAATCTTAAAAGCCAAAAAACTTCAAAGGCAGGCCAGGACAGGGAATAACTTTGTGAAA
CGTAGGCCAGGTCGACCTCGGAAATGTCCCCTTCAGGCTGTCGTATCAATGCAAGCATTCCAGGCTGCTCAGTTT
GTCAACCCAGAATTGAACAGAGACGAGGAAGGAGCAGCACTGCACCTCAGTCCTGACACAGTTACAGATGTAATT
GAGGCTGTTGTTCAGAGTGTAAATCTGAACCCAGAACATAAAAAGGGGTTGAAGAGAAAAGGTTGGCTATTGGAA
GAACAGACCAGAAAAAAGCAGAAGCCATTACCAGAGGAAGAAGAGCAAGAGAATAATAAAAGCTTTAATGAAGCA
CCAGTTGAGATTCCCAGTCCTTCTGAAACCCCAGCTAAACCTTCTGAACCTGAAAGTACCTTGCAGCCTGTGCTT
TCTCTCATCCCAAGGGAAAAGAAGCCCCCACGTCCCCCAAAGAAGAAGTATCAGAAAGCAGGGCTGTATTCTGAC
GTTTACAAAACTACAGACCCAAAGAGTCGATTGATCCAATTAAAGAAAGAGAAGCTGGAGTATACTCCAGGAGAG
CATGAATATGGATTATTTCCAGCGCCCATTCATGTTGTGTTTTTTGTTTCAGGAAAGTATCTAAGACAAAAGAGA
ATTGACTTCCAGCTTCCTTATGATATCCTTTGGCAGTGGAAACACAATCAGCTATACAAAAAGCCAGATGTCCCA
CTATATAAGAAAATTCGTTCAAATGTCTACGTTGATGTCAAACCCCTTTCTGGTTACGAAGCTACCACCTGTAAC
TGTAAGAAGCCAGATGATGACACCAGGAAGGGCTGTGTTGATGACTGCCTCAATAGAATGATCTTTGCTGAGTGT
TCCCCCAACACTTGCCCATGTGGCGAGCAATGCTGTAACCAGAGGATACAGAGGCATGAATGGGTGCAATGTCTA
GAACGATTTCGAGCTGAGGAAAAAGGTTGGGGAATCAGAACCAAAGAGCCCCTAAAAGCTGGGCAGTTCATCATT
GAATACCTAGGGGAGGTCGTCAGTGAACAGGAGTTCAGGAACAGGATGATTGAGCAGTATCATAATCACAGTGAC
CACTACTGCCTGAACCTGGATAGTGGGATGGTGATTGACAGTTACCGCATGGGAAATGAGGCCCGATTCATCAAC
CATAGCTGTGACCCAAATTGTGAAATGCAGAAATGGTCTGTTAATGGAGTATACCGGATTGGACTCTATGCTCTT
AAAGACATGCCAGCTGGGACTGAACTCACTTATGATTATAACTTTCATTCCTTCAATGTGGAAAAACAGCAACTT
TGTAAGTGTGGCTTTGAGAAATGTCGAGGAATCATCGGAGGCAAGAGTCAGCGTGTGAATGGACTCACCAGCAGC

FIGURE 39C

AAAAACAGCCAGCCCATGGCCACACACAAAAAATCTGGACGGTCAAAAGAGAAGAGAAAGTCTAAGCACAAGCTG
AAGAAAAGGAGAGGCCATCTCTCTGAGGAACCCAGTGAAAATATCAACACCCCAACTAGATTGACCCCCCAATTA
CAGATGAAGCCAATGTCCAATCGTGAAAGGAACTTTGTGTTAAAGCATCATGTATTCTTGGTCCGAAACTGGGAG
AAGATTCGTCAAAAACAGGAGGAAGTAAAGCACACCAGTGATAATATTCACTCAGCATCATTATATACCCGTTGG
AATGGGATCTGCCGAGATGATGGGAATATCAAGTCTGATGTCTTCATGACCCAGTTCTCTGCCCTGCAGACAGCT
CGATCTGTTCGAACAAGACGGTTGGCAGCTGCAGAGGAAAATATTGAAGTGGCTCGGGCAGCCCGCCTAGCCCAG
ATCTTCAAAGAAATTTGTGATGGTATCATCTCTTATAAAGATTCTTCCCGGCAAGCACTGGCAGCTCCACTTTTG
AACCTTCCCCCAAAGAAAAAGAATGCTGATTATTATGAGAAGATCTCTGATCCCCTAGATCTTATCACCATAGAG
AAGCAGATCCTCACTGGTTACTATAAGACAGTGGAAGCTTTTGATGCTGACATGCTCAAAGTCTTTCGGAATGCT
GAGAAGTACTATGGGCGTAAATCCCCAGTTGGGAGAGATGTTTGTCGTCTACGAAAGGCCTATTACAATGCCCGG
CATGAGGCATCAGCCCAGATTGATGAGATTGTGGGAGAGACAGCAAGTGAGGCAGACAGCAGTGAGACCTCAGTC
TCTGAAAAGGAGAATGGGCATGAGAAGGACGACGATGTTATTCGCTGTATCTGTGGCCTCTACAAGGATGAAGGT
CTCATGATCCAGTGTGACAAGTGCATGGTATGGCAGCACTGTGATTGTATGGGAGTGAACTCAGATGTGGAGCAC
TACCTTTGTGAGCAGTGTGACCCAAGGCCTGTGGACAGGGAGGTTCCCATGATCCCTCGGCCCCACTATGCCCAA
CCTGGCTGTGTCTACTTCATCTGTTTGCTCCGAGATGACTTGCTGCTTCGTCAGGGTGACTGTGTGTATCTGATG
AGGGATAGTCGGCGCACCCCTGATGGCCACCCGGTCCGTCAGTCCTATCGACTGTTATCTCACATTAACCGAGAT
AAACTTGACATCTTTCGCATTGAGAAGCTTTGGAAGAATGAAAAAGAGGAACGGTTTGCCTTTGGTCACCATTAT
TTCCGTCCCCACGAAACACACCACTCTCCATCCCGTCGGTTCTATCATAATGAACTATTTCGGGTGCCACTCTAT
GAGATCATTCCCTTGGAGGCTGTAGTGGGGACCTGCTGTGTGTTGGACCTTTATACGTATTGTAAAGGGAGACCC
AAAGGAGTAAAGGAGCAAGATGTGTACATCTGTGATTATCGGCTTGACAAGTCAGCACACCTGTTTTACAAGATC
CACCGGAACCGCTATCCTGTCTGCACCAAACCCTATGCTTTTGATCACTTCCCCAAGAAGCTCACTCCCAAAAAA
GATTTCTCGCCTCATTACGTCCCAGACAACTACAAGAGGAATGGAGGACGATCATCCTGGAAGTCTGAGCGCTCA
AAGCCACCCCTAAAAGACTTGGGCCAGGAGGATGATGCTCTACCCTTGATTGAAGAGGTTCTAGCCAGTCAAGAG
CAAGCAGCCAATGAGATACCCAGCCTGGAGGAGCCAGAACGGGAAGGGGCCACTGCTAACGTCAGTGAGGGTGAA
AAAAAAACAGAGGAAAGTAGTCAAGAACCCCAGTCAACCTGTACCCCTGAGGAACGACGGCATAACCAACGGGAA
CGACTCAACCAGATCTTGCTCAATCTCCTTGAAAAAATCCCTGGAAAAAATGCCATTGATGTGACCTACTTGCTG
GAGGAAGGATCAGGCAGGAAACTGCGAAGGCGTACTTTGTTTATCCCAGAAAACAGCTTTCGAAAG**TGA**CCCTCA
AAGAATGAGAACCTCAAGCATCTGGGATCCAGTGGAGCTAATCAGTCCTGCCTCCTGCTCTCTGGGTATAGACAG
GGGTGGGAAGGGTCCATCTGGGCAAGGGGAATGGGGCCATGTTGTTGACATTAGGTACTTAATAAGCCTTGGAGC
TAGTGGAGAGGGAGAGGAAAGGGTTCTGTCCAAGACAGTTCAGGTTAATTAATTTTCTTCTCCATTGCTTCACCT
TAAGGGTTAATAATGTAGAGAGGAGGGAGGACCACATTGATGACCAGAACCTACTGGTACTTTATAGCATTTGCC
CCACCCCACAGCTTAGGTTTTTCTGTCATCCTCAGATCCCACAGGCATTGCGAAGAAGCTGCTTCCTATACCCAG
GTATAACTCAAAATCCAAAGGGATAGGGCCAGGATCCCTATTCCTACCCCATCTATTCTCTGTTGGCTCCAAGAG
CTACCCCAGAGACCTTAAACAGAAACAGTAGCTGAGGCTTCTTCCTAGATACCTGACTAGGGAAGTTTGTCTCTC
CTTTCTTGCCCAACCAGGTCAAAGTAAAATGTGAGTTGACAGCTCAAAGCACTTGTAACTGCTGCCCCCTCCCTA
CCTCTACTCCCCAAAATGGAATCATGGGATAGGGAAGGCCCCCATGGGGTCAGAAGGGCACGGTAGTTCTTGCAA
TTATTTTTGTTTTACCCTTCATAACC

FIGURE 40

CATTTCACCAGGCCCCCAGCTTGGGGCGCCTTCCTTCCCCATGGCGGGACACCTGGCTTCGG**ATG**CCTGCCTTCT
TGCCCCCTCCAGGCGGTGGAGGTGATGGGCCAGGGGGGCCGGAGCCGGGCTGGGTTGATCCTCGGACCTGGCTAA
GCTTCCAAGGCCCTCCTGGAGGGCCAGGAATCGGGCCGGGAGTTGGGTCAGGCTCTGAGGTGTGGGGGATTCCCC
CATGCCCCCCGCTGTATGAGTTCTGTGGGGGGATGGCGTACTGTGGGCCTCAGGTTGGAGTGCGGCTAGTGCCCC
AAGGCGGCTTGGAGACCTCTCAGCCTGAGGGCGAAGCAGGAGTCAGGGTGGAGAGCAACTCCGATGGCACCTCCC
TGGAGCCCTGCACCGTCCCCCCTGGTGCCGTGAAACTGGAGAAGGAGAAGCTGGAGCAAAACCCGCAGGAGTCCC
AGAACATCAAAGCTCTGCAGAAAGAACTCGAACAATTTGCCAAGCTCCTGAAGCAGAAGAGGATCACCCTGGGAT
ATACACAGGCCGATGTGGGGCTCACCCTGGGGGTTCTATTTGGGAAGGTGTTCAGCCAAACGACCATCTGCCGCT
TTGAGGGTCTGCAGCTTAGCTTCAAGAACATGTGTAAGCTGCGGCCCTTGCTGCAGAAGTGGGTGGAGGAAGCTG
ACAACAATGAAAATCTTCAGGAGACATGCAAAGCAGAAACCCTCTTGCAGGCTCGAAAGAGAAAGCGAACCAGTA
TCGAGAACCGAGTGAGAGGCAACCTGGAGAATTTGTTCCTGCAGTGCCCGAAACCCACACTGCAGCAGATCAGCC
ACATCGCCCAGCAGCTTGGGCTCGAGAAGGATGTGGTCCGAGTGTGGTTCTGTAACCGGTGCCAGAAAGGCAAGC
AATCAAGCAGCGACTATGCA**TAA**CGAGAGGATTTTGAGGCTGCTGGGTCTCCTTTCTCAGGGGTACCAGTATCCT
TTCCTCTGGCCCCAGGGCCCCATTTTGGTACCCCAGGCTATGGGAGCCCTCACTTCACTGCACTGTACTCCTCGG
TCCCTTTCCCTGAGGGGGAAGCCTTTCCCCCGTCTCCGTCACCACCCTGGGCTCTCCCATGCATTCAAACTGAGG
TGCCTGCCCTTCTAGGAATGGGGGACAGGGGGAGGGGAGGAGCTAGGGAAAGAGAACCTGGAGTTTGTGCCAGGG
CTTTTGGAATTAAGTTCTTCATTCACTAAGGAAGGAATTGGGAACACAAAGGGTGGGGGCAGGGGAGTTTGGGGC
AACTGGTTGGAGGGAAGGTGAAGTTCAATGATGTTCTTGATTTTAATCCCACATCATGTATCACTTTTTTCTTAA

FIGURE 41

CGCCCTACAGGCCCTAGCAGGGCAGGCGGGAGGTGAGCGCGGCCATCCCGCTCCCGGAGTTCCGGGATCCTGGAG
TCCGTAGTTCGTGGTCCTTCGCCGGTGTCCCCGGAGCCCAGCGGCTGTGG**ATG**GCAGAAGCCCAGAGTGGGACTG
GTCAGCTGCAGGAGCAGAAGAAAGGTCTTCTGATAGCCGTCAGCGTCTCCGTTGATAAAATCATCTCGCATTTCG
GGGCCGCCCGGAACTTGGTGCAGAAGGCCCAGTTGGGTGATAGCCGGCTGAGCCCGGATGTGGGGCACCTGGTGC
TGACCACCCTCTGCCCGGCCCTCCACGCCCTGGTGGCGGACGGGCTGAAGCCTTTCCGGAAGGACCTCATCACCG
GGCAGCGCAGGAGCAGCCCCTGGAGCGTGGTGGAGGCGTCGGTGAAGCCAGGCTCCAGCACCCGCTCCCTTGGAA
CCCTGTATAGCCAGGTCAGCCGTCTAGCCCCGCTGAGCAGCAGCCGTAGCCGCTTCCATGCCTTTATCCTGGGCC
TCCTCAACACCAAGCAGTTGGAGCTGTGGTTTTCCAGTCTCCAGGAAGATGCAGGCCTGCTCTCCCTCCTGTACC
TGCCAACAGGATTTTTCTCCCTGGCCCGCGGTGGTTGTCCCTCCCTGTCCACAGAGCTGCTGCTCCTGCTGCAGC
CATTGTCGGTGCTCACTTTCCACCTGGACCTGCTCTTTGAGCACCACCACCACCTGCCCCTGGGCCCACCTCAGG
CCCCTGCCCCTCCAGGCCCACCTCCAGCTCTGCAGCAGACTATGCAAGCCATGCTGCACTTTGGGGGCCGGCTGG
CCCAGAGCCTTCGGGGGACTTCCAAGGAAGCTGCTTCAGACCCCTCTGACTCTCCAAACCTTCCCACACCAGGGA
GCTGGTGGGAGCAGTTGACCCAGGCCTCCCGGGTCTATGCCTCTGGGGGCACTGAGGGCTTTCCTCTTTCCCGAT
GGGCACCGGGGCGTCATGGGACTGCAGCTGAAGAAGGTGCACAGGAGAGACCCCTGCCCACAGATGAGATGGCAC
CAGGCAGGGGCCTCTGGTTGGGAAGACTATTTGGAGTGCCTGGGGGCCCCGCAGAAAATGAGAATGGAGCCCTAA
AGTCCAGGAGACCATCTAGCTGGCTGCCCCCGACAGTGAGTGTGTTGGCTCTTGTGAAGCGGGGGGCACCTCCCG
AGATGCCTTCTCCTCAGGAGCTTGAGGCCTCAGCACCCAGGATGGTGCAAACCCATAGGGCAGTGCGGGCTCTCT
GTGATCACACTGCTGCAAGACCTGACCAGTTGAGCTTCCGGCGTGGGGAAGTGCTGCGTGTCATCACCACAGTGG
ATGAGGACTGGCTCCGCTGTGGGCGGGATGGCATGGAGGGTCTGGTGCCTGTGGGGTATACCTCCCTTGTTCTG**T**
AGCCCTGGGACCCTTTCCTGCGTATGTGTCTCCTTCCTGTCACCTGGGAATGGAATGGCCAGTGAACACCATCCC
AGAAGCATTTTCCCTCTGCAAAATGACGTTTCTTCCCACGTCTGTTTCTGCTAATATTTAAAATAAACTTTCCTT
CTTCCCTCCTATACCCACCTGTAAGGTGAAATCTGCTCTTCTTCCAAATATATAAAAAAGGAATTGCCCTCCAGG
TAATCCCTTTCCTTTTTCCCGTCTATATAAGGGAATGTCTTCCTTCCTATCTATCTGCAAAATGGAAATCTAGAC
CTCCTTCTTCATCCATAAGTGGACTGTGCCAGTACAATACATGCCTCAGCCCCCAAGCCTAGAAGGACCTCTAGT
CTCCTTCCTGTGTGGAATCTTCCCCACTCCATCCCTCCCAAGTTGCCTGTATTGATAATGTACTCACTCATGCTG
TACTAGGTGCTGAAGCCTGGACACCCTTGGTGGGTGGGCCTGTGGTGATGGTTTGCATCCTTCCTCCTTTGTCCC
AATAAAGTATGGGAGTTG

FIGURE 42

AGGTGAGAGAGGATGTGTGCTGGGCCTTGGAGGAAGGGGGCCGAGACCGGGCCTTACTTCTGTAACGATACTGTG
AGGCATCGGAAGGCCAGCCTGTTGTGTCCGTTTTGAAGGATGCCCCTGTCCCGCTGGTTGAGATCTGTGGGGGTC
TTCCTGCTGCCAGCCCCCTACTGGGCACCCCGGGAGAGGTGGCTGGGTTCCCTACGGCGGCCCTCCCTGGTGCAC
GGGTACCCAGTCCTGGCCTGGCACAGTGCCCGCTGCTGGTGCCAAGCGTGGACAGAGGAACCTCGAGCCCTTTGC
TCCTCCCTCAGAATGAACGGAGACCAGAATTCAGATGTTTATGCCCAAGAAAAGCAGGATTTCGTTCAGCACTTC
TCCCAGATCGTTAGGGTGCTGACTGAGGATGAGATGGGGCACCCAGAGATAGGAGATGCTATTGCCCGGCTCAAG
GAGGTCCTGGAGTACAATGCCATTGGAGGCAAGTATAACCGGGGTTTGACGGTGGTAGTAGCATTCCGGGAGCTG
GTGGAGCCAAGGAAACAGGATGCTGATAGTCTCCAGCGGGCCTGGACTGTGGGCTGGTGTGTGGAACTGCTGCAA
GCTTTCTTCCTGGTGGCAGATGACATCATGGATTCATCCCTTACCCGCCGGGGACAGATCTGCTGGTATCAGAAG
CCGGGCGTGGGTTTGGATGCCATCAATGATGCTAACCTCCTGGAAGCATGTATCTACCGCCTGCTGAAGCTCTAT
TGCCGGGAGCAGCCCTATTACCTGAACCTGATCGAGCTCTTCCTGCAGAGTTCCTATCAGACTGAGATTGGGCAG
ACCCTGGACCTCCTCACAGCCCCCCAGGGCAATGTGGATCTTGTCAGATTCACTGAAAAGAGGTACAAATCTATT
GTCAAGTACAAGACAGCTTTCTACTCCTTCTACCTTCCTATAGCTGCAGCCATGTACATGGCAGGAATTGATGGC
GAGAAGGAGCACGCCAATGCCAAGAAGATCCTGCTGGAGATGGGGGAGTTCTTTCAGATTCAGGATGATTACCTT
GACCTCTTTGGGGACCCCAGTGTGACCGGCAAAATTGGCACTGACATCCAGGACAACAAATGCAGCTGGCTGGTG
GTTCAGTGTCTGCAACGGGCCACTCCAGAACAGTACCAGATCCTGAAGGAAAATTACGGGCAGAAGGAGGCTGAG
AAAGTGGCCCGGGTGAAGGCGCTATATGAGGAGCTGGATCTGCCAGCAGTGTTCTTGCAATATGAGGAAGACAGT
TACAGCCACATTATGGCTCTCATTGAACAGTACGCAGCACCCCTGCCCCCAGCCGTCTTTCTGGGGCTTGCGCGC
AAAATCTACAAGCGGAGAAAGTGACCTAGAGATTGCAAGGGCGGGGAGAGGAGGCTCTCAATAAATAATCGTGTA
ACCTT

FIGURE 43A

ATCCCCAAATCTGGGCCTGAGCCTAAGAGGAGGCACCTTGGGACGCTGCTCCAGCCTACGGTCAACAAGTTCTCC
CTTCGGGTGTTCGGCAGCCACAAAGCAGTGGAAATCGAGCAGGAGCGGGTGAAGTCAGCGGGGGCCTGGATCATC
CACCCCTACAGCGACTTCCGGTTTTACTGGGACCTGATC**ATG**CTGCTGCTGATGGTGGGGAACCTCATCGTCCTG
CCTGTGGGCATCACCTTCTTCAAGGAGGAGAACTCCCCGCCTTGGATCGTCTTCAACGTATTGTCTGATACTTTC
TTCCTACTGGATCTGGTGCTCAACTTCCGAACGGGCATCGTGGTGGAGGAGGGTGCTGAGATCCTGCTGGCACCG
CGGGCCATCCGCACGCGCTACCTGCGCACCTGGTTCCTGGTTGACCTCATCTCTTCTATCCCTGTGGATTACATC
TTCCTAGTGGTGGAGCTGGAGCCACGGTTGGACGCTGAGGTCTACAAAACGGCACGGGCCCTACGCATCGTTCGC
TTCACCAAGATCCTAAGCCTGCTGAGGCTGCTCCGCCTCTCCCGCCTCATCCGCTACATACACCAGTGGGAGGAG
ATCTTTCACATGACCTATGACCTGGCCAGTGCTGTGGTTCGCATCTTCAACCTCATTGGGATGATGCTGCTGCTA
TGTCACTGGGATGGCTGTCTGCAGTTCCTGGTGCCCATGCTGCAGGACTTCCCTCCCGACTGCTGGGTCTCCATC
AACCACATGGTGAACCACTCGTGGGGCCGCCAGTATTCCCATGCCCTGTTCAAGGCCATGAGCCACATGCTGTGC
ATTGGCTATGGGCAGCAGGCACCTGTAGGCATGCCCGACGTCTGGCTCACCATGCTCAGCATGATCGTAGGTGCC
ACATGCTACGCCATGTTCATCGGCCATGCCACGGCACTCATCCAGTCCCTGGACTCTTCCCGGCGTCAGTACCAG
GAGAAGTACAAGCAGGTGGAGCAGTACATGTCCTTCCACAAGCTGCCAGCAGACACGCGGCAGCGCATCCACGAG
TACTATGAGCACCGCTACCAGGGCAAGATGTTCGATGAGGAAAGCATCCTGGGCGAGCTGAGCGAGCCGCTTCGC
GAGGAGATCATTAACTTCACCTGTCGGGGCCTGGTGGCCCACATGCCGCTGTTTGCCCATGCCGACCCCAGCTTC
GTCACTGCAGTTCTCACCAAGCTGCGCTTTGAGGTCTTCCAGCCGGGGGATCTCGTGGTGCGTGAGGGCTCCGTG
GGGAGGAAGATGTACTTCATCCAGCATGGGCTGCTCAGTGTGCTGGCCCGCGGCGCCCGGGACACACGCCTCACC
GATGGATCCTACTTTGGGGAGATCTGCCTGCTAACTAGGGGCCGGCGCACAGCCAGTGTTCGGGCTGACACCTAC
TGCCGCCTTTACTCACTCAGCGTGGACCATTTCAATGCTGTGCTTGAGGAGTTCCCCATGATGCGCCGGGCCTTT
GAGACTGTGGCCATGGATCGGCTGCTCCGCATCGGCAAGAAGAATTCCATACTGCAGCGGAAGCGCTCCGAGCCA
AGTCCAGGCAGCAGTGGTGGCATCATGGAGCAGCACTTGGTGCAACATGACAGAGACATGGCTCGGGGTGTTCGG
GGTCGGGCCCCGAGCACAGGAGCTCAGCTTAGTGGAAAGCCAGTACTGTGGGAGCCACTGGTACATGCGCCCCTT
CAGGCAGCTGCTGTGACCTCCAATGTGGCCATTGCCCTGACTCATCAGCGGGGCCCTCTGCCCCTCTCCCCTGAC
TCTCCAGCCACCCTCCTTGCTCGCTCTGCTTGGCGCTCAGCAGGCTCTCCAGCTTCCCCGCTGGTGCCCGTCCGA
GCTGGCCCATGGGCATCCACCTCCCGCCTGCCCGCCCCACCTGCCCGAACCCTGCACGCCAGCCTATCCCGGGCA
GGGCGCTCCCAGGTCTCCCTGCTGGGTCCCCCTCCAGGAGGAGGTGGACGGCGGCTAGGACCTCGGGGCCGCCCA
CTCTCAGCCTCCCAACCCTCTCTGCCTCAGCGGGCAACAGGCGATGGCTCTCCTGGGCGTAAGGGATCAGGAAGT
GAGCGGCTGCCTCCCTCAGGGCTCCTGGCCAAACCTCCAAGGACAGCCCAGCCCCCCAGGCCACCAGTGCCTGAG
CCAGCCACACCCCGGGGTCTCCAGCTTTCTGCCAACATG**TAA**AACCTTTGAGTACATCCAGCCTTAGTTCTTGGG
GTGCAGTAGTATGTACCCAAGGGCAGATGCCTCTTGGGGAAGGCCATGGGGACCTGAAACATTGCCCCATGGAAA
TGTCGACCCTGTGCGGACATTCCGCATACTGCCATGAAGACGGTCTCTGTGTCCTCAGCTCAAGAATCCTGTAGC
TTGTCCCATCATAATCCATTCACCCGTTCATCATGTGTACTGAGCAGCTACCATGTTCAAGGTAATATGCCAGGC
GCTGTATGTCTCCACTGCCAAGTAGAAGTGACTCAAAACCCTCTGACAAGGATATTCCCTTGGCTATGGTCCTGC
CAGGTGCAGGCCCAGGCCCATGACCCCACCTTTACTAAGCACAAGTACTTGCCACTGCCATCACTGCCAAGTAAC
TAGATGTCTCTGTTTCCCTGCCAATGATCCTGCAGGTTCTGCCCGGTCTGGTTATCTTCCTGTTCCTGTAGCATA
GCCAGGCACTGCCAGTCACCTGTGCCCCCATTGCTGTCAGCAGATGTCTTGGGTCCTGAGTGTGGGTATCCACTT
TTACCCGCTCACTGCCACCTGTGGACACTCTGTGTCTACCCTCTGAGTGGGAACATACTTCTAAGTTCCCTGCAG
TCTCTGTCCTGTGGTAGACCATCTTTTTGTAAACTGCGAGCTTCCTCTTCCCTGTACCCTCTGCCCCAGTCGTGA
CCCCCTAAAAGTTAAGGGGTAGTTGGCACCTCCTTATTAATATGCCAGCCTAGATCCCCCCCGGTGGAGGGGCAA
ATGGCTGAATCCTTGTGTGATATTTTTTTCTTCGCTTGTTTATTTATTCATTTATTTAATTGTATTTATTCATTT
ACTAACTTTATGTGTTACCAATTAATTTTGTTTACCCATTCCTTTATCCATCCCTCCCCTCCTTTTCAGGTAAGG
AGACAGGAGGAGTAGGAGGAGGCAGGGCCTCTCCATGCCAGCCTCTGTGGTCCTTGCCCAAACCCATCAGCGCAA
TACTTGAACCTTCTCCCAGGTAGGGGCAGGAGGAGCCACATGAGAGAGGGAGAAGGACCGCGTTTACCTTTAGAG
TTTTGTTTTGTTTTTTCCTTCTGAGTTTGCTGTTGGTGCAGGAATAAGGGAAAGGCCCAAGGTATCCAAGCCTGG
GGAAGGGCAGGCCAGCCAGCACCTCTGCCTTCTCAGGGACAAGAGTAGTCCTTTACCACCCTCACTCTGCCTGTC
CCCTCTCCTACTCTACAGCATTAAAGACTGTGGGACCAGGACCCTAAGTCTCCTTTCCTTCTGGGTGGGGAGTTC
TGGGGTTCTTGGTGTGTGGGAGAAGTTTTATAATTGCTTCCAAACAGCTGGGTTTAAATATAAAATAGACACACT

FIGURE 43B

C

FIGURE 44

TCCCAGGGTCCCGGGTTGGGGGGGTGGAGCAGCATTTCGTCGCCGCGGGGGTGCCGGGACTCCGGCCGCAGTGTC
GCCGCCATCACGGACTTCCTGTGGGACAAGCGCACGGGCCTCGCCGCCAGAACG**ATG**CCGCATCCTCGAAGGTAC
CACTCCTCAGAGCGAGGCAGCCGGGGGAGTTACCGTGAACACTATCGGAGCCGAAAGCATAAGCGACGAAGAAGT
CGCTCCTGGTCAAGTAGTAGTGACCGGACACGACGGCGTCGGCGAGAGGACAGCTACCATGTCCGTTCTCGAAGC
AGTTATGATGATCGTTCGTCCGACCGGAGGGTGTATGACCGGCGATACTGTGGCAGCTACAGACGCAACGATTAT
AGCCGGGATCGGGGAGATGCCTACTATGACACAGACTATCGGCATTCCTATGAATATCAGCGGGAGAACAGCAGT
TACCGCAGCCAGCGCAGCAGCCGGAGGAAGCACAGACGGCGGAGGAGGCGCAGCCGGACATTTAGCCGCTCATCT
TCGCAGCACAGCAGCCGGAGAGCCAAGAGTGTAGAGGACGACGCTGAGGGCCACCTCATCTACCACGTCGGGGAC
TGGCTACAAGAGCGATATGAAATCGTTAGCACCTTAGGAGAGGGGACCTTCGGCCGAGTTGTACAATGTGTTGAC
CATCGCAGGGGTGGGGCTCGAGTTGCCCTGAAGATCATTAAGAATGTGGAGAAGTACAAGGAAGCAGCTCGACTT
GAGATCAACGTGCTAGAGAAAATCAATGAGAAAGACCCTGACAACAAGAACCTCTGTGTCCAGATGTTTGACTGG
TTTGACTACCATGGCCACATGTGTATCTCCTTTGAGCTTCTGGGCCTTAGCACCTTCGATTTCCTCAAAGACAAC
AACTACCTGCCCTACCCCATCCACCAAGTGCGCCACATGGCCTTCCAGCTGTGCCAGGCTGTCAAGTTCCTCCAT
GATAACAAGCTGACACATACAGACCTCAAGCCTGAAAATATTCTGTTTGTGAATTCAGACTATGAGCTCACCTAC
AACCTAGAGAAGAAGCGAGATGAGCGCAGTGTGAAGAGCACAGCTGTGCGGGTGGTAGACTTTGGCAGTGCCACC
TTTGACCATGAGCACCATAGCACCATTGTCTCCACTCGCCATTACCGAGCACCAGAAGTCATCCTTGAGTTGGGC
TGGTCACAGCCTTGTGATGTGTGGAGTATAGGCTGCATCATCTTTGAATACTATGTGGGATTCACCCTCTTCCAG
ACCCATGACAACAGAGAGCATCTAGCCATGATGGAAAGGATCTTGGGTCCTATCCCTTCCCGGATGATCCGAAAG
ACAAGAAAGCAGAAATATTTTTACCGGGGTCGCCTGGATTGGGATGAGAACACATCAGCTGGGCGCTATGTTCGT
GAGAACTGCAAACCGCTGCGGCGGTATCTGACCTCAGAGGCAGAGGAACACCACCAGCTCTTCGATCTGATTGAA
AGCATGCTAGAGTATGAACCAGCTAAGCGGCTGACCTTGGGTGAAGCCCTTCAGCATCCTTTCTTCGCCCGCCTT
CGGGCTGAGCCGCCCAACAAGTTGTGGGACTCCAGTCGGGATATCAGTCGG**TGA**CGATCAGGCCCTGGGCCCCCC
TGCATCTTTTATAGCAGTGGGTGTCCAGTCCAGGACACTGGTGCTTTTTTATACAAGAGAACGAGCCAGAGTTCA
CTCCTTCCTCCTGGCTCTCTATATACCTGTGAATATGTGAAATAGTGTAAATATGAAAGAACTTGTACCTATCAC
TTCAACCCCTGCCTTGTACATAATACTATTCCATCCACACAGTTTCCACCCTCACCTGCCCCCTCATACGGAGTT
GGATGGGGGCCGAGTGAGGTAACCAGGTGGCATCTACCCCATGTTTTATAAGGAATTTTGTACAGTCTTTGTGAA
ATAAAATAACGTGCTTCATTTGA

FIGURE 45

GGTAGTTGGTTGTGGGCACTGGGTTAGAGGTATCACGTGGGGGCACTTTCGTCTTAGCTTTTGGACAAGACGCAG
GCGCAACCCACGGCTGCTGCGGGGATCCTTGTGGCCCTTCCGGTCGGTGGAACCAATCCGTGCACAGAGAAGCGG
GGCGAACTGAGGCGAGTGAAGTGGACTCTGAGGGCTACCGCTACCGCCACTGCTGCGGCAGGGGCGTGGAGGGCA
GAGGGCCGCGGAGGCCGCAGTTGCAAAC**ATG**GCTCAGAGCAGAGACGGCGGAAACCCGTTCGCCGAGCCCAGCGA
GCTTGACAACCCCTTTCAGGACCCAGCTGTGATCCAGCACCGACCCAGCCGGCAGTATGCCACGCTTGACGTCTA
CAACCCTTTTGAGACCCGGGAGCCACCACCAGCCTATGAGCCTCCAGCCCCTGCCCCATTGCCTCCACCCTCAGC
TCCCTCCTTGCAGCCCTCGAGAAAGCTCAGCCCCACAGAACCTAAGAACTATGGCTCATACAGCACTCAGGCCTC
AGCTGCAGCAGCCACAGCTGAGCTGCTGAAGAAACAGGAGGAGCTCAACCGGAAGGCAGAGGAGTTGGACCGAAG
GGAGCGAGAGCTGCAGCATGCTGCCCTGGGGGGCACAGCTACTCGACAGAACAATTGGCCCCCTCTACCTTCTTT
TTGTCCAGTTCAGCCCTGCTTTTTCCAGGACATCTCCATGGAGATCCCCCAAGAATTTCAGAAGACTGTATCCAC
CATGTACTACCTCTGGATGTGCAGCACGCTGGCTCTTCTCCTGAACTTCCTCGCCTGCCTGGCCAGCTTCTGTGT
GGAAACCAACAATGGCGCAGGCTTTGGGCTTTCTATCCTCTGGGTCCTCCTTTTCACTCCCTGCTCCTTTGTCTG
CTGGTACCGCCCCATGTATAAGGCTTTCCGGAGTGACAGTTCATTCAATTTCTTCGTTTTCTTCTTCATTTTCTT
CGTCCAGGATGTGCTCTTTGTCCTCCAGGCCATTGGTATCCCAGGTTGGGGATTCAGTGGCTGGATCTCTGCTCT
GGTGGTGCCGAAGGGCAACACAGCAGTATCCGTGCTCATGCTGCTGGTCGCCCTGCTCTTCACTGGCATTGCTGT
GCTAGGAATTGTCATGCTGAAACGGATCCACTCCTTATACCGCCGCACAGGTGCCAGCTTTCAGAAGGCCCAGCA
AGAATTTGCTGCTGGTGTCTTCTCCAACCCTGCGGTGCGAACCGCAGCTGCCAATGCAGCCGCTGGGGCTGCTGA
AAATGCCTTCCGGGCCCCG**TGA**CCCCTGACTGGGATGCCCTGGCCCTGCTACTTGAGGGAGCTGACTTAGCTCCC
GTCCCTAAGGTCTCTGGGACTTGGAGAGACATCACTAACTGATGGCTCCTCCGTAGTGCTCCCAATCCTATGGCC
ATGACTGCTGAACCTGACAGGCGTGTGGGGAGTTCACTGTGACCTAGTCCCCCCATCAGGCCACACTGCTGCCAC
CTCTCACACGCCCCAACCCAGCTTCCCTCTGCTGTGCCACGGCTGTTGCTTCGGTTATTTAAATAAAAAGAAAGT
GGAACTGGAACTGAC

FIGURE 46

CCTGCGGCAGCCGGAGCTCGGGGAGCGGAGCGTGGTGGGGAGGGGAGCGGGACAGGCGACACAGGAGACAGCGGC
GCCGCGGCCTCTCCCCACCAGGCGGCCCCGGATCCTACTGGACGCCCTGAGGGCACACCGACCGCGCCTCTAGAG
TCACCCCACGCCGACCCCTCCCCTCTTCTCTAGACTTATTTCCATCCTTCCCGCTTTTACCCTCCCCACCCCTCC
CTGGGCTCCAGGCCGCCGCCCCCTCCTCACTCCTGGACCGGCCCTTCTCGGTGCCCCTCTTCCCTAGGGAGATGC
GATGAGCCGGTGCCCCCGCGTCCTCATCGTCGCCCCGGGCACGGTGCCCGTCCAGTGCCCGTGGTGGGGAGGGAG
CACTCCGCGGTCCCTCCGTGACGCCCCTCGCTTGGCCCCCCCCACAGCTGGCGTCCCTCGGCCATGCCCCAGGGG
ACCCAGCCAGGGGGTGGGCTCTAGAGCGAGTGGGGTGGAGAGGAGAAAGGACGGGGCCTTGGGCGCCTCTGAGAT
GCTCCCAAGTGCCAGGGAGGGCCGAGCGAGGCGCAGGCAACCGGGCAGCAGGC**ATG**ATGCCCTCGCCTAGTGACT
CCAGCCGCTCGCTGACCAGCCGGCCCAGCACCAGGGGCCTTACCCACCTCCGCCTCCACCGACCCTGGCTGCAGG
CCCTGCTTACGCTGGGGCTGGTCCAAGTGCTCCTGGGCATCCTGGTGGTCACCTTCAGCATGGTGGCCTCTTCCG
TCACCACCACCGAGAGCATCAAGAGGTCCTGCCCGTCTTGGGCTGGGTTCTCGCTGGCGTTCTCCGGGGTGGTTG
GCATTGTGTCCTGGAAGCGGCCATTCACTCTAGTGATCTCCTTCTTCTCCTTGCTTTCGGTGCTCTGTGTCATGC
TTAGCATGGCTGGCTCTGTTCTCTCCTGTAAGAATGCTCAACTGGCCCGAGACTTCCAACAGTGCTCTCTGGAAG
GAAAGGTCTGTGTGTGCTGTCCCTCTGTTCCCCTCCTCCGGCCCTGTCCAGAGTCGGGGCAGGAACTGAAAGTTG
CCCCTAACTCCACCTGTGATGAAGCCCGAGGGGCCCTCAAGAACCTGCTCTTCAGCGTCTGTGGGCTCACCATTT
GTGCCGCTATAATCTGTACACTCTCTGCTATTGTCTGCTGCATCCAAATCTTCTCCCTGGACCTCGTGCATACGC
AGCTGGCCCCTGAGCGGTCAGTCTCAGGCCCACTGGGACCTCTGGGCTGCACGTCCCCGCCCCCAGCCCCTCTCC
TACACACCATGCTGGACCTGGAGGAATTTGTCCCGCCTGTGCCCCCACCGCCCTACTATCCCCCAGAGTATACCT
GCAGCTCAGAAACAGATGCACAGAGCATCACGTACAATGGCTCCATGGACAGCCCAGTGCCCTTGTACCCTACCG
ATTGCCCCCCTTCTTATGAGGCAGTCATGGGACTACGAGGAGACAGCCAGGCCACTCTCTTTGACCCTCAGCTTC
ACGATGGCTCGTGCATCTGTGAACGAGTGGCCTCCATTGTAGACGTGTCCATGGACAGCGGGTCTCTGGTGCTGT
CAGCCATTGGTGACCTCCCTGGGGGCTCTAGCCCGTCGGAGGACTCGTGCCTGCTGGAGCTGCAGGGCTCCGTGC
GCTCCGTGGACTACGTTCTCTTTCGCTCCATCCAGCGCAGCCGTGCCGGCTACTGCCTCAGCCTGGACTGTGGCC
TGCGGGGCCCCTTCGAGGAAAGCCCCCTGCCACGGCGCCCCCCACGGGCTGCCCGCTCCTATTCCTGCTCTGCCC
CTGAAGCTCCACCCCCACTGGGTGCCCCCACAGCTGCCCGCAGCTGCCACCGGTTGGAGGGCTGGCCGCCCTGGG
TGGGACCCTGCTTCCCCGAGCTGAGGCGGCGGGTCCCCCGGGGAGGGGGCCGCCCAGCCGCAGCCCCGCCCACCC
GAGCCCCGACTCGTCGCTTCAGCGATAGCTCAGGTTCCCTCACCCCACCGGGGCACCGGCCTCCTCATCCGGCAT
CCCCACCACCGCTGCTGCTGCCACGGTCCCACAGCGACCCAGGCATCACGACCTCCAGTGACACTGCTGACTTCA
GGGACCTTTATACCAAAGTGCTTGAGGAAGAAGCTGCTTCTGTTTCCTCTGCAGATACAGGGCTCTGCTCTGAAG
CCTGCCTCTTCCGCCTAGCCCGCTGCCCTTCCCCCAAGTTGCTACGTGCCCGGTCAGCCGAGAAACGGCGCCCTG
TGCCCACCTTCCAAAAAGTTCCCCTGCCCTCGGGCCCTGCACCTGCCCACTCCCTGGGGGACCTAAAGGGCAGCT
GGCCAGGTCGGGGCCTGGTCACTCGTTTCCTCCAGATATCCAGGAAAGCCCCAGACCCCAGTGGGACTGGAGCTC
ATGGACATAAGCAGGTGCCCCGGAGCCTGTGGGGCCGGCCTGGCCGAGAGAGCCTCCACCTTCGCAGCTGCGGAG
ATCTGAGCTCTAGCTCTTCCCTGCGGCGTCTCCTGTCTGGCCGCAGGCTGGAGCGTGGTACCCGCCCCCACAGCC
TCAGCCTCAACGGGGGCAGCCGGGAGACTGGGCTC**TGA**CCTAGGCTTCTTGTCACACTGAACACATCCAGCCACA
GGCACCAGCTGGTTGGGACCAGCAGCCCCCAGCATCCTCTTGCACTGGCTGGCACAAAAAGAAACCTGCTGTATA
CCCCCCAAAGTGTCCCTTTCCCTCCTACCTCTGGGGTCTCTTGCTGCTTGCCTCTGCTGCTCTGGACTGGGAGAG
CTTCTGTCCTGTGCTGCATGGGTATTTAGACTGTGGGGGAGATGCCCCTTCTTATAGCACTGGAGGAGGAAAACA
AATTCTTGTCCCCCTCAGAATGAGAGTGGCTCTTTCTGATTTGCAAGGGCACTATGGTCAGGGCAAAGGCATGGC
CCAGGTGTTTAAGTACAGGGTGACGTGTGCCTATGCAATGGGGTGGTAAGGCAGGCACGAAGAGTCCAAAAAATC
TAGGTGGCCTCTCAGCTCTGCCACCTCTAGCTGCATGACCTTGGGCAAGCTATGTAACCCCAATTGCCTGCTCCA
TTAAAGACTGTGAAGGTAGAATGTTTGTAAAGCTCTTAACAGTATGTAAGCCTTCAATAAATTTCAGTTTTCCCC
TT

FIGURE 47

AATCCAGGTCCCGCCCCGACTCCCCAGGGCTGCTTTTCTCGCGGCTGCGGGTGGTCGGGCTGCATCCTGCCTTCA
GAGTCTTACTGCGCGGGGCCCCAGTCTCCAGTCCCGCCCAGGCGCCTTTGCAGGCTGCGGTGGGATTTCGTTTTG
CCTCCGGTTGGGGCTGCTGTTTCTCTTCGCCGACGAGACGGGGTTTCACCATGTTGGTCAGGCTGGTCTCCAATT
CCTGACCTCGTGATCCGCCCGCCTCGGCCTGCCAAACAGCTGTGATTATAGGCGTGAGCCACCGCGCCCGGCCAA
CCATCATTATTATTTTTAACGAGACTCTGGAACCCCTGTGGTCTTCTCTTCATCTAATGACCCTGAGGGGATGGA
GTTTTCAAGTCCTTCCAGAGAGGAATGTCCCAAGCCTTTGAGTAGGGTAAGCATCATGGCTGGCAGCCTCACAGG
ATTGCTTCTACTTCAGGCAGTGTCGTGGGCATCAGGTGCCCGCCCCTGCATCCCTAAAAGCTTCGGCTACAGCTC
GGTGGTGTGTGTCTGCAATGCCACATACTGTGACTCCTTTGACCCCCCGACCTTTCCTGCCCTTGGTACCTTCAG
CCGCTATGAGAGTACACGCAGTGGGCGACGGATGGAGCTGAGTATGGGGCCCATCCAGGCTAATCACACGGGCAC
AGGCCTGCTACTGACCCTGCAGCCAGAACAGAAGTTCCAGAAAGTGAAGGGATTTGGAGGGGCCATGACAGATGC
TGCTGCTCTCAACATCCTTGCCCTGTCACCCCCTGCCCAAAATTTGCTACTTAAATCGTACTTCTCTGAAGAAGG
AATCGGATATAACATCATCTGGGTACCCATGGCCAGCTGTGACTTCTCCATCCGCACCTACACCTATGCAGACAC
CCCTGATGATTTCCAGTTGCACAACTTCAGCCTCCCAGAGGAAGATACCAAGCTCAAGATACCCCTGATTCACCG
AGCCCTGCAGTTGGCCCAGCGTCCCGTTTCACTCCTTGCCAGCCCCTGGACATCACCCACTTGGCTCAAGACCAA
TGGAGCGGTGAATGGGAAGGGGTCACTCAAGGGACAGCCCGGAGACATCTACCACCAGACCTGGGCCAGATACTT
TGTGAAGTTCCTGGATGCCTATGCTGAGCACAAGTTACAGTTCTGGGCAGTGACAGCTGAAAATGAGCCTTCTGC
TGGGCTGTTGAGTGGATACCCCTTCCAGTGCCTGGGCTTCACCCCTGAACATCAGCGAGACTTCATTGCCCGTGA
CCTAGGTCCTACCCTCGCCAACAGTACTCACCACAATGTCCGCCTACTCATGCTGGATGACCAACGCTTGCTGCT
GCCCCACTGGGCAAAGGTGGTACTGACAGACCCAGAAGCAGCTAAATATGTTCATGGCATTGCTGTACATTGGTA
CCTGGACTTTCTGGCTCCAGCCAAAGCCACCCTAGGGGAGACACACCGCCTGTTCCCCAACACCATGCTCTTTGC
CTCAGAGGCCTGTGTGGGCTCCAAGTTCTGGGAGCAGAGTGTGCGGCTAGGCTCCTGGGATCGAGGGATGCAGTA
CAGCCACAGCATCATCACGAACCTCCTGTACCATGTGGTCGGCTGGACCGACTGGAACCTTGCCCTGAACCCCGA
AGGAGGACCCAATTGGGTGCGTAACTTTGTCGACAGTCCCATCATTGTAGACATCACCAAGGACACGTTTTACAA
ACAGCCCATGTTCTACCACCTTGGCCACTTCAGCAAGTTCATTCCTGAGGGCTCCCAGAGAGTGGGGCTGGTTGC
CAGTCAGAAGAACGACCTGGACGCAGTGGCACTGATGCATCCCGATGGCTCTGCTGTTGTGGTCGTGCTAAACCG
CTCCTCTAAGGATGTGCCTCTTACCATCAAGGATCCTGCTGTGGGCTTCCTGGAGACAATCTCACCTGGCTACTC
CATTCACACCTACCTGTGGCGTCGCCAGTGATGGAGCAGATACTCAAGGAGGCACTGGGCTCAGCCTGGGCATTA
AAGGGACAGAGTCAGCTCACACGCTGTCTGTGACTAAAGAGGGCACAGCAGGGCCAGTGTGAGCTTACAGCGACG
TAAGCCCAGGGGCAATGGTTTGGGTGACTCACTTTCCCCTCTAGGTGGTGCCAGGGGCTGGAGGCCCCTAGAAAA
AGATCAGTAAGCCCCAGTGTCCCCCCAGCCCCCATGCTTATGTGAACATGCGCTGTGTGCTGCTTGCTTTGGAAA
CTGGGCCTGGGTCCAGGCCTAGGGTGAGCTCACTGTCCGTACAAACACAAGATCAGGGCTGAGGGTAAGGAAAAG
AAGAGACTAGGAAAGCTGGGCCCAAAACTGGAGACTGTTTGTCTTTCCTGGAGATGCAGAACTGGGCCCGTGGAG
CAGCAGTGTCAGCATCAGGGCGGAAGCCTTAAAGCAGCAGCGGGTGTGCCCAGGCACCCAGATGATTCCTATGGC
ACCAGCCAGGAAAAATAGCAGCTCATATGGGAGAAATGTTTGAGCC

FIGURE 48

CAGTGCCCCACAGCTCTTCAGGCCCTTCCTGTGCCTGGCTGCCCTCCCACCCTACCCTTTTGTACCTCTGAGAAG
GCTCTGGCCCCACGCACAGCCCCACTGTCACCAGGGCCAGTATCTGTCTCAGGGACCTCCTATCCAGAGCCTGAG
CCAGCCCCAGCCCCAGCCCCAGCTCCAGCTGCTCCATCTGAACCTGTATCTTCTTCCAAGCCACCCATTACCCTC
TTGGAGTCAGACTCACGCATCTCCAAAGAAGAACTTTTGAGAGCCCAGGCGCTGAGAGAGCAGGGTCAGACACTC
CCGAGCCTCTCGGTACAGCTGTAGGGGCGACACAGGTAGGCTTGCAGCTGCGGGAACAGTGCCACCTCCGCACCT
AAGCACTCCCATTCCTGGCCAGCATCCTTGGGGCTCATCTCATACAATAGCCCCCGGTCTCAGAGCTACCTCCTT
CTCCAGCTCTTCCTCGTCCTCAGGCCTGTGCTCCCCAGTCAGCAGCTGTAGCCGTTCCATGTACTGCCGCTGCAT
GCGGCCAGGCAGGAAGAAGTTGAGGGGAAAGGGCATAGCCTCTGCATACCACTTCCGGGTCACTTCTACGTAGTT
CTTGGTGTCTATCCAAAAAGTATGTACCTGGATTGGGTGGGCAGGAAGAAACAGGCAGGTCTGAGCCAGTGCACC
TGTCTGATTCAAGGTGGGCTTCTGACCTCCATGCTCTCCTGAGTCTCTGTGTGGGTCTGTGTGTTCCCGTCCCCT
CCCCGGCTGGCCATGGATGCTGGGAGGTCTGGGCACACTCACCAGCACCGGGATCAACTTCTCCTCCAGGAGAGA
CATGAAGGCCAGGGTGTCTGCCCCTTGCTGAGCTGACAGATCATAATCAGCATTGTACTTCTGTGGAGGAAATAT
CC**ATG**GCGTGGACGCTGGGGAGCTGCAAGGGCACTTCACCAGGGAGGAAGGAGTCCTGTCTGGTACCCCCCTCAC
TGGCCTCTGAGTGCAGTGGAGGTACAGCAAGGAACTTTTCCTGCCAAGGCCCCCTTGCCTGGGCCCAGCCAGTAG
CCTGTTGCTGTTGGCAAAAAGCCTGGGCCTTGGAGCCCGCTGGCCGTCAAGGTCCTGGGCCCATTGAGAAGAAGG
AAGAAAGGTTGGGCCGCAAACTAGGAGCAGCTCCCAGAATTTCCATGGAAAGCTGGAACAATGCCTGC**TGA**CAGC
AACTTTCTAACAGTAACTTTCCCGACCCAGACACCACAAAGCTAGCACAACGGAGCTCAGATGCAGGCTAGGACT
CGGTCCATGCCTCAGGAACCAGGGAAAGCCATCCTCACACTCCCTGGATCCAGGGAACCCACGCCCAGGGCCCCC
CAGCTTGTTCCCTCAGTGCCCAGCTCTTGGCTATTTCTTTCACTTCATTCCATCGCCCAGACACCATTACCACAT
ACACATTCCATCCATACCCCCAGGTCTCAGCCTGCCCTACCTTCCCAGGCTCCAGTCCCTGTTCCTCAGCATCCC
CCACCACATCCTGAGTAAGCTTTGTCCCCAGATAACCTCTTCAGCATGATCCTTAAATCTCCCTAAGCCTCAGTT
TCTCCCCTGTGGAATGGGGGTAAGAATCTCTTTCTCTGAATGCCCCTGTGTTAGGAAATAATTTAGAATACTTCG
GAAACAAAAAGCTCTGTTCACACCTAAGCAATCAGGGCAGTGGCCCTGGCCTTGCCAGGAACTTAGGCTTTTATC
TGGATCCTCTTTCCAGGCCTCTCAATTAATTCCCCAGGTCCTTAACCTTTGGGAAATTAGAAATTAGGAAGAGTG
TCCCACTTCTGACACTGTGTTCCCTCTTGGAACCTGACCGTCAATGCTAGAAGAACCCTTGGAAAACATGCTGGC
CCAGCCCTCTAGTTTTACAAATAAGGGAGTGCACAGCCCTGAGAGGTTACATGGCCTGCCCAAGATCACGCAGTC
AATGGCAGAGTAAAGAGCATAGCCTAGGCCTCCCCACTCCTCTAGTAATGCTCTTTCATCTTCTCCAACCTGGCT
CTAAGCCTTGTCCATCCTGAGCCCCATATCTAGCCCAACCTAGTCCCTGAAAACAAGAAGTGGCCCTTAGAAATC
TCTCTCCAGTCCCACTATCAGAGGCCAACTGCTGTCTTCCAGTCTCCTTCAGCCTGTGCTCCTCTCCCTCCCTGA
CTGACAGGCAGAAGGTACCGTGCCTCTGGATATCCCCACAGTGCCCTGAGCTGCATCTCTTGCCGACTGCTTTAA
TACATCACAGTGACATTGTGTGTGTCTCTGCCACCAGACTATTGCTCCTTGATGCTCTGGGTCACCTGCATCTAG
CATGGCATATATCTAGTGCTCAATAAATGTGTATTGTACGG

FIGURE 49

AAGCCCCAGCCCGGCCTCCGCTCCGGCCGCCGCCACCGCCCCTGTTTTGTTTCCATGGCGACAGGCGGCGCAGGG
CCCGCTCCAAACATAACGCGCTGTGGAAAACATGCTGCTCGGGGGACCCCCCCGCAGTCCCCGCTCGGGGACGAG
CCCCAAGGGGCCCTGGAGCAGTACAGGCCACGTGCAGTTTGGCAAGAGCCCCCAGACCTGGCCCAGGCGCACAAG
ACCCCGCTCTCCAGAGCCTGCCGCGCCTTCAAGGGTTCGGGGCTCCACTTGGACGAGGCGCCGTGACTCTCCGAG
GCGCGCCGGGCCGACAGCGCTGTCCCGCTACGTGGGCCACCTCTGGATGGGCCGGCGGCCGCCCTCCCCCGAGGC
CCGCGGCCCAGTCCCCCGCAGTTCAGCTGCCAGTCGGGCCAGAAGAAGCCTCGCCTCCCCGGGGATCTCCCCAGG
CCCCCTGACCGCAACGATCGGAGGGGCGGTGGCGGGGGGCGGGCCCAGGCAGGGGAGGGCAGAAGCACACAAGGA
AGTGTTTCCGGGACAGAGGGTGGGCAAGATGGCGGCGCCCATGGAGCTGTTCTGCTGGTCAGGGGGCTGGGGGCT
GCCGTCAGTGGACCTGGACAGCCTGGCCGTGCTGACCTATGCCAGATTTACTGGTGCTCCACTGAAGGTACACAA
GATCAGCAACCCCTGGCAGAGCCCTTCAGGAACTCTGCCTGCCCTTCGGACCAGTCATGGAGAGGTCATCTCAGT
TCCACACAAGATCATCACCCACCTTCGAAAAGAGGTACATACTTTTTGGATAGACACCAAGAACTACGTGGAAGT
GACCCGGAAGTGGTATGCAGAGGCTATGCCCTTTCCCCTCAACTTCTTCCTGCCTGGCCGCATGCAGCGGCAGTA
CATGGAACGGCTACAGCTGCTGACTGGGGAGCACAGGCCTGAGGACGAGGAAGAGCTGGAGAAGGAGCTGTACCG
AGAGGCTCGGGAGTGTCTGACCCTGCTCTCTCAGCGCCTGGGCTCTCAAAAGTTCTTCTTTGGAGATGCCCCTGC
CTCCTTGGACGCCTTCGTCTTCAGCTACTTGGCCCTGCTGCTGCAGGCAAAGCTGCCCAGTGGGAAGCTGCAGGT
CCACCTGCGTGGGCTGCACAACCTCTGTGCCTATTGTACCCACATTCTCAGTCTCTACTTCCCCTGGGATGGAGC
TGAGGTACCACCGCAACGCCAGACACCAGCAGGCCCAGAGACTGAGTGAGTGAGCCATACCGGCGCCGGAACCAG
ATCCTATCTGTGCTGGCAGTGACTGGCAGCCATGGTGGGCTACGCCTTGCTCAGCGGCATTGTCTCCATCCAGCG
GGCAACGCCTGCTCGTGGCCCCAGGCACCCGGACCCTGGGCATGGCTGAGGAGGATGAAGAGGAATGATTTGTCC
TCACGCTCCCAAGACTGGTTTTTCTACTCTCATGCATTCCAGAGGCCCCCGTGCCTCCTCGTTGTTGGTACAGCC
GGACACGGGGTGTGCCACCCAGAATAAAGCCACTCACACTG

FIGURE 50

ATGGAGACGCAGGAACTTCGGGGGGCCCTGGCTCTTCTCCTCCTTTGCTTTTTCACATCTGCCAGTCAGGATCTG
CAGGTAATTGACCTGCTGACTGTGGGCGAGTCTCGGCAGATGGTAGCTGTGGCAGAGAAGATCCGGACAGCCTTG
CTCACTGCTGGGGACATCTACCTCTTATCCACCTTCCGCCTGCCCCCCAAGCAGGGTGGTGTCCTCTTTGGCCTC
TATTCTCGCCAAGACAACACTCGATGGCTGGAGGCCTCTGTTGTAGGCAAGATCAACAAAGTACTGGTGCGATAC
CAGCGGGAGGATGGCAAAGTCCACGCCGTGAACCTACAGCAAGCGGGCCTGGCTGATGGGCGCACACACACAGTT
CTCCTGCGACTCCGAGGTCCCTCCAGACCCAGCCCTGCCCTACATCTCTACGTGGACTGCAAACTGGGTGACCAA
CATGCAGGCCTTCCAGCACTGGCCCCCATTCCTCCAGCGGAGGTCGATGGGCTGGAGATTAGGACTGGACAGAAG
GCGTATTTGAGGATGCAGGGCTTTGTGGAATCTATGAAAATTATTCTGGGTGGGTCCATGGCCCGGGTAGGAGCC
CTGAGTGAGTGTCCATTCCAAGGGGACGAGTCCATCCACAGTGCAGTGACCAATGCACTGCACTCCATTCTAGGG
GAGCAGACCAAGGCGCTGGTCACCCAACTCACCCTCTTCAACCAGATCCTGGTGGAGCTGCGGGATGATATACGA
GACCAGGTGAAGGAAATGTCCCTGATCCGAAACACCATTATGGAGTGTCAGGTGTGCGGCTTCCATGAGCAGCGT
TCCCACTGCAGCCCCAATCCCTGCTTCCGAGGTGTGGACTGCATGGAAGTGTACGAGTACCCAGGCTACCGCTGT
GGGCCCTGCCCCCCTGGCCTGCAGGGCAACGGCACCCACTGCAGTGACATCAATGAGTGTGCTCACGCTGACCCC
TGTTTCCCGGGCTCCAGCTGCATCAACACCATGCCCGGCTTCCACTGTGAGGCCTGTCCTCGAGGGTACAAGGGC
ACACAGGTGTCTGGTGTGGGCATTGACTATGCCCGGGCCAGCAAACAGGTCTGCAATGACATCGATGAATGCAAC
GATGGCAACAATGGTGGCTGTGACCCAAACTCCATCTGCACCAACACTGTGGGCTCTTTCAAGTGTGGTCCCTGC
CGCCTGGGTTTCCTGGGCAACCAGAGCCAGGGCTGCCTCCCAGCCCGGACCTGCCACAGCCCAGCCCACAGCCCC
TGCCACATCCATGCTCACTGTCTCTTTGAACGCAATGGTGCAGTGTCCTGCCAGTGTAACGTGGGCTGGGCTGGG
AATGGGAACGTGTGTGGGACTGACACAGACATCGATGGCTACCCAGACCAAGCACTGCCCTGCATGGACAACAAC
AAACACTGCAAACAGGACAACTGCCTTTTGACACCCAACTCTGGGCAGGAAGATGCTGATAATGATGGTGTGGGG
GACCAGTGTGATGATGATGCTGATGGGGATGGGATCAAGAATGTTGAGGACAACTGCCGGCTGTTCCCCAACAAA
GACCAGCAGAACTCAGATACAGATTCATTTGGTGATGCCTGTGACAATTGCCCCAACGTTCCCAACAATGACCAG
AAGGACACAGATGGCAATGGGGAAGGAGATGCCTGTGACAACGACGTGGATGGGGATGGCATCCCCAATGGATTG
GACAATTGCCCTAAAGTCCCCAACCCACTACAGACAGACAGGGATGAGGACGGGGTGGGAGATGCTTGCGACAGC
TGCCCTGAAATGAGCAATCCTACCCAGACAGATGCAGACAGCGACCTGGTGGGGGATGTCTGTGATACTAATGAA
GACAGCGATGGGGATGGGCATCAGGACACCAAGGACAACTGCCCACAGCTGCCAAATAGCTCCCAGCTGGACTCT
GATAACGATGGACTTGGAGATGAGTGTGATGGGGATGATGACAATGATGGCATCCCAGATTATGTGCCTCCTGGT
CCCGATAACTGCCGCCTGGTACCCAATCCCAATCAGAAGGACTCAGATGGCAATGGCGTTGGTGATGTGTGTGAG
GATGACTTTGACAATGATGCTGTGGTCGACCCCCTGGATGTGTGTCCTGAAAGTGCAGAGGTAACGCTTACGGAT
TTTCGGGCCTATCAGACCGTCGTCCTGGATCCTGAGGGTGATGCTCAGATTGACCCAAACTGGGTTGTGCTCAAC
CAGGGCATGGAAATCGTTCAGACCATGAACAGTGACCCTGGCTTGGCAGTTGGATACACGGCCTTCAATGGTGTG
GACTTTGAAGGCACCTTCCATGTGAACACAGTGACTGATGATGACTACGCAGGCTTTCTCTTCAGTTATCAAGAC
AGTGGCCGCTTCTACGTAGTCATGTGGAAGCAGACCGAGCAGACCTACTGGCAGGCTACACCCTTCCGGGCGGTT
GCCCAGCCCGGGCTGCAGCTCAAGGCAGTGACATCAGTGTCTGGCCCAGGTGAGCACCTCCGAAATGCCCTGTGG
CATACTGGCCACACCCCTGATCAGGTACGACTGCTGTGGACAGACCCACGAAATGTGGGCTGGCGGGACAAGACC
TCCTATCGCTGGCAGCTTCTGCACCGGCCTCAAGTTGGCTACATTCGGGTGAAGCTCTATGAGGGACCCCAGCTT
GTGGCGGATTCTGGGGTGATCATTGACACATCCATGCGAGGGGGGCGTCTTGGTGTATTCTGCTTCTCCCAAGAA
AACATAATTTGGTCCAATCTCCAGTATCGATGCAATGACACAGTGCCTGAGGACTTTGAGCCATTCCGGAGGCAG
CTGCTCCAGGGAAGGGTGTGA

FIGURE 51

CGCTCCACCTCTCAAGCAGCCAGCGCCTGCCTGAATCTGTTCTGCCCCCTCCCCACCCATTTCACCACCACC**ATG**

ACACCGGGCACCCAGTCTCCTTTCTTCCTGCTGCTGCTCCTCACAGTGCTTACAGTTGTTACAGGTTCTGGTCAT
GCAAGCTCTACCCCAGGTGGAGAAAAGGAGACTTCGGCTACCCAGAGAAGTTCAGTGCCCAGCTCTACTGAGAAG
AATGCTGTGAGTATGACCAGCAGCGTACTCTCCAGCCACAGCCCCGGTTCAGGCTCCTCCACCACTCAGGGACAG
GATGTCACTCTGGCCCCGGCCACGGAACCAGCTTCAGGTTCAGCTGCCACCTGGGGACAGGATGTCACCTCGGTC
CCAGTCACCAGGCCAGCCCTGGGCTCCACCACCCCCCCAGCCCACGGTGTCACCTCGGCCCCGGACACCAGGCCG
GCCCGGGGCTCCACCGCCCCCCCAGCCCACGGTGTCACCTCGGCCCCGGACACCAGGCCGGCCCCGGGCTCCACC
GCCCCCCCAGCCCATGGTGTCACCTCGGCCCCGGACAACAGGCCCGCCTTGGGCTCCACCGCCCCTCCAGTCCAC
AATGTCACCTCGGCCTCAGGCTCTGCATCAGGCTCAGCTTCTACTCTGGTGCACAACGGCACCTCTGCCAGGGCT
ACCACAACCCCAGCCAGCAAGAGCACTCCATTCTCAATTCCCAGCCACCACTCTGATACTCCTACCACCCTTGCC
AGCCATAGCACCAAGACTGATGCCAGTAGCACTCACCATAGCACGGTACCTCCTCTCACCTCCTCCAATCACAGC
ACTTCTCCCCAGTTGTCTACTGGGGTCTCTTTCTTTTTCCTGTCTTTTCACATTTCAAACCTCCAGTTTAATTCC
TCTCTGGAAGATCCCAGCACCGACTACTACCAAGAGCTGCAGAGAGACATTTCTGAAATGTTTTTGCAGATTTAT
AAACAAGGGGGTTTTCTGGGCCTCTCCAATATTAAGTTCAGGCCAGGATCTGTGGTGGTACAATTGACTCTGGCC
TTCCGAGAAGGTACCATCAATGTCCACGACGTGGAGACACAGTTCAATCAGTATAAAACGGAAGCAGCCTCTCGA
TATAACCTGACGATCTCAGACGTCAGCGTGAGTGATGTGCCATTTCCTTTCTCTGCCCAGTCTGGGGCTGGGGTG
CCAGGCTGGGGCATCGCGCTGCTGGTGCTGGTCTGTGTTCTGGTTGCGCTGGCCATTGTCTATCTCATTGCCTTG
GCTGTCTGTCAGTGCCGCCGAAAGAACTACGGGCAGCTGGACATCTTTCCAGCCCGGGATACCTACCATCCTATG
AGCGAGTACCCCACCTACCACACCCATGGGCGCTATGTGCCCCCTAGCAGTACCGATCGTAGCCCCTATGAGAAG
GTTTCTGCAGGTAATGGTGGCAGCAGCCTCTCTTACACAAACCCAGCAGTGGCAGCCACTTCTGCCAACTTG**TAG**

GGGCACGTCGCCCGCTGAGCTGAGTGGCCAGCCAGTGCCATTCCACTCCACTCAGGTTCTTCAGGGCCAGAGCCC
CTGCACCCTGTTTGGGCTGGTGAGCTGGGAGTTCAGGTGGGCTGCTCACAGCCTCCTTCAGAGGCCCCACCAATT
TCTCGGACACTTCTCAGTGTGTGGAAGCTCATGTGGGCCCCTGAGGGCTCATGCCTGGGAAGTGTTGTGGTGGGG
GCTCCCAGGAGGACTGGCCCAGAGAGCCCTGAGATAGCGGGGATCCTGAACTGGACTGAATAAAACGTGGTCTCC
CACTG

FIGURE 52

TCCTGCACTTCTTCCTCGATAGCCGCTGGGGCGCAAGCCGAGAGCGGCTGGCTATCAGCAAGGACCAGCGAGCAG
TACGGAGTGTTCCAGGGCTGCCCCTGCTGCTGGCTGCTGACCGGCTGCTGACCGGCTGCCACCTGAGTGTGGATG
TGGTCCTGGGCGACGTGGCTGTGACCCAGGGCCGCAGCTACTGGGCCTGCGCCGTAGACCCAGCCTCCTACTTGG
TCAAGGTGGGCGTCGGGCTGGAGAGCAAGCTTCAAGAAAGTTTCCAGGGTGCCCCCGATGTGATCAGCCCCAGGT
ACGACCCGGACAGCGGGCACGACAGCGGTGCCGAGGATGCCACAGTGGAGGCGTCGCCACCCTTCGCTTTCCTAA
CCATTGGC**ATG**GGCAAGATCCTGCTGGGGTCGGGGGCAAGCTCAAACGCAGGGCTGACAGGGAGGGATGGCCCCA
CAGCCGGCTGCACAGTGCCCCTGCCACCCCGCCTGGGCATCTGCCTGGACTATGAGCGGGGCCGGGTTTCCTTCC
TGGATGCTGTTTCCTTCCGTGGGCTCTTGGAGTGCCCCCTGGACTGCTCAGGGCCTGTGTGCCCTGCCTTTTGCT
TCATCGGGGGTGGCGCAGTACAGCTCCAGGAGCCAGTGGGCACTAAGCCTGAGAGGAAAGTCACCATTGGGGGCT
TCGCCAAGCTGGAC**TGA**

FIGURE 53

CACACCCCCACTGGGCTCCTGCATTAAGCCCGGGGTTCGCAGCCGCAGCCGGGATCGGGCACCCAGGGGCGGGCG
GGCACGGTAGGGCC**ATG**GCAGAGGGTGAGGATATGCAGACCTTCACTTCCATCATGGACGCACTGGTCCGCATCA
GTACCAGCATGAAGAACATGGAGAAGGAACTGCTGTGCCCAGTGTGTCAAGAGATGTACAAGCAGCCACTGGTGC
TGCCCTGTACCCACAACGTGTGCCAGGCCTGTGCCCGAGAGGTCTTGGGCCAGCAGGGCTACATAGGACATGGTG
GGGACCCCAGCTCCGAGCCCACCTCTCCTGCCTCCACCCCTTCCACCCGCAGCCCCCGCCTCTCCCGCAGAACTC
TCCCCAAGCCAGACCGCCTGGACCGGCTGCTTAAGTCAGGCTTTGGGACATACCCTGGGAGGAAGCGAGGTGCTT
TGCACCCCCAAGTGATCATGTTCCCGTGCCCAGCCTGCCAAGGTGATGTGGAGCTTGGGGAGCGGGGTCTGGCAG
GGCTTTTCCGGAACCTGACCCTGGAGCGTGTGGTGGAGCGGTACCGCCAGAGTGTGAGTGTGGGAGGTGCCATCC
TGTGCCAGTTGTGCAAGCCCCCACCACTAGAGGCCACCAAGGGCTGCACAGAGTGCCGCGCCACCTTCTGCAATG
AGTGCTTCAAGCTCTTCCACCCCTGGGGCACCCAGAAGGCCCAGCATGAGCCCACCCTGCCTACCCTCTCCTTCC
GACCCAAGGGCCTTATGTGCCCAGACCACAAGGAAGAGGTGACCCACTACTGCAAGACATGCCAACGCCTGGTAT
GTCAACTCTGCCGGGTGCGGCGCACCCACAGCGGGCACAAGATCACACCAGTGCTCAGTGCCTACCAGGCCCTCA
AGGACAAGCTGACAAAGAGCCTGACATACATCCTGGGAAACCAGGACACGGTACAGACCCAGATCTGTGAGCTGG
AGGAGGCCGTGAGGCACACCGAGGTGAGTGGTCAGCAGGCCAAGGAGGAGGTGTCGCAGCTGGTGCGGGGGCTGG
GGGCTGTGCTGGAGGAGAAGCGGGCATCACTGCTTCAGGCCATTGAAGAATGCCAGCAGGAGCGGCTGGCCCGTC
TCAGCGCCCAGATCCAGGAGCACCGGAGCCTGCTGGATGGCTCAGGTCTGGTGGGCTATGCCCAGGAAGTACTTA
AGGAAACAGACCAGCCTTGCTTTGTGCAAGCCGCCAAGCAGCTGCACAACAGGATTGCCCGAGCCACTGAAGCCC
TCCAGACATTCCGGCCAGCTGCCAGCTCCTCCTTCCGCCATTGCCAGCTCGACGTGGGACGTGAGATGAAGCTGC
TGACAGAGCTTAACTTCCTGCGAGTGCCTGAGGCCCCCGTCATTGACACCCAGCGCACCTTTGCCTATGATCAGA
TCTTCCTGTGCTGGCGGCTGCCCCCCCATTCACCACCTGCCTGGCACTATACCGTTGAGTTCCGGCGCACGGATG
TGCCTGCTCAGCCAGGCCCCACCCGCTGGCAGCGGCGGGAGGAGGTGAGGGGCACCAGTGCCCTGCTTGAGAACC
CCGACACGGGCTCTGTGTATGTGCTGCGTGTCCGCGGCTGCAACAAGGCCGGCTACGGCGAATACAGTGAAGATG
TGCACCTGCACACGCCCCCGGCACCTGGAATACAAAACTTAGCCAGGCGTGGTGGTGCGTGCCTACAATTCCAGC
TACTCGGGAGGCTGAGG**TAG**GAGAATCGCTTGAACCTGGGAGGCGGAGGTTGCAGTGAGCTGAGATCGCGCCACT
GGACTCCAGCCTGGACAACAGAGCAAGACTCCGACGTCTCGGAAAAATAAATAAATAAA

FIGURE 54

GC**ATG**CGCATAGCTAACCGCACCCGGTTCAGCTCGCCTTTCTTGGCCAGAGGCGCCGGTTGGACTCACGGGCGGG
GCATGATGGTGGTGGGTACGGGCACCTCGCTGGCGCTCTCCTCCCTCCTGTCCCTGCTGCTCTTTGCTGGGATGC
AGATGTACAGCCGTCAGCTGGCCTCCACCGAGTGGCTCACCATCCAGGGCGGCCTGCTTGGTTCGGGTCTCTTCG
TGTTCTCGCTCACTGCCTTCAATAATCTGGAGAATCTTGTCTTTGGCAAAGGATTCCAAGCAAAGATCTTCCCTG
AGATTCTCCTGTGCCTCCTGTTGGCTCTCTTTGCATCTGGCCTCATCCACCGAGTCTGTGTCACCACCTGGTATC
TTCATCTTCTCCATGGTTGGTCTGTACTACATCAACAAGATCTCCTCCACCCTGTACCAGGCAGCAGCTCCAGTC
CTCACACCAGCCAAGGTCACAGGCAAGAGCAAGAAGAGAAACTGACCCTGAATGTTCAA**TAA**AGTTGATTCTTTG
T

FIGURE 55

GCCACCACC**ATG**CCCAAGGGAAAGGCTGAAGGGGATCCTAAAGGAGATAAAGCCAAGGTGAAGGACGAACCACAA
AGGAGATCCGCGAGGTTGTCTGCTAAACCTTCTTCTCCAAAGCCAGAGCCCAAGCCTAAAAAGGCCCCTGCAAAG
AAGGGAGAGAAGGTACTCAAAGAGAAGAAGGGAAAAGCTGATGCTGGAAAGGAGGGGAATAACCCTGCAGAAAAT
GGAGATGCCAAAACAGACCAGGAACAGAAAGCTGAAGGTGCTGGAGATGCCAGAGGAAGTGTGTGCATTTTTGAT
AACTGTGTACTTCTGGTGAGTGTACAGTTTGAAATACTATTTTGTATCAAGTTTTATAAAAATGCAGATTTTTCA
GATTTTTTTTTTTTTTTTAAGCTATGTTGT**TAG**CACACAGAACACTTCATTGTTGCTTTTAGGAGAAGGAGCAAA
TGTCACTAATAGAATGTCTCTGAAGCTGGATTGATATGGGGAAATCGTCTTTTCCTTCTAGTTCCGAGAGACTTC
CTCTTGGCTCCCAGGAGGAGGGATTCCCTGACTTTGACACACATGGCCACCTTGGCACAAAAGCCTTGTGAAAGG
GAAAAGCAAATTTGTTTTTATGTCCTCTTCTCCCTTTCCATCTTTCAGCATAGACTTAACTCCCTTAAGCCCAGA
CATCTATTGGAACCTGACCTCCAATCATTGGTTACTAGTGTGTCAGGCAATCTGGACTTTCCAGTGATGTCACTG
AGATGGCACCTGTCAAAAAAGTAGTGGTTCTGTTTCTAGATTGTAGATCTTCAGATAAATTCTGCCATTTTAATT
TCACTTCCTGAAAGTCAGGGTTGACTTGTGAAAAGTTGTTAAACAACATGCTAAATGTGAAATGTCAACTCTCAC
TCTAAACTTTCCCTGTTCAGATCATCAGATGAAGACTTCATTGGGTTTTATAGTGGCTTTCTGATTTCTGGTAGT
CCATTGAAGAAGGGAGTTTGAAAGTTGTTGTATACTGTTAATGATTGTCTGCCCATGTCCTGCCTGAAATACCAT
GATTGTTTATGCAAAGTATCTTTAATAAAACTGGATACAGTTAGGCTTGG

FIGURE 56

GGCCCTTCCACCTTTTGTGGGCACTCAAGTTCGGACCTCTGGGATCGGCGATTCCCCTCTGGCCAGGGCTGGTTT
TA**ATG**CTCTCCGTGGGCGGGCTTCGGTTGAGTTTGGTCCGCTTTTCCTTTCTGCTCCTCAGGGGAGCATTGCTTC
CTTCTCTCGCAGTGACCATGACGAAATTAGCGCAGTGGCTTTGGGGACTAGCGATCCTGGGCTCCACCTGGGTGG
CCCTGACCACGGGAGCCTTGGGCCTGGAGCTGCCCTTGTCCTGCCAGGAAGTCCTGTGGCCACTGCCCGCCTACT
TGCTGGTGTCCGCCGGCTGCTATGCCCTGGGCACTGTGGGCTATCGTGTGGCCACTTTTCATGACTGCGAGGACG
CCGCACGCGAGCTGCAGAGCCAGATACAGGAGGCCCGAGCCGACTTAGCCCGCAGGGGGCTGCGCTTC**TGA**CAGC
CTAACCCCATTCCTGTGCGGACAGCCCTTCCTCCCATTTCCCATTAAAGAGCCAGTTTATTTTCT

FIGURE 57

GTAGGTCCCGGCAACCGCAGGCTCGCGGCGGGCGCTGGGCGCGGGATCCGACTCCAGTCGTA**ATG**GAGGCGGGCG
GCTTTCTGGACTCGCTCATTTACGGAGTCATGCACATGCGAATGACCCGGAGTGTGGACAACGTCCAGTTCCTGC
CCTTTCTCACCACGGAAGTCAACAACCTGGGCTGGCTGAGTTATGGGGCTTTGAAGGGAGACGGGATCCTCATCG
TCGTCAACACAGTGGGTGCTGCGCTTCAGACCCTGTATATCTTGGCATATCTGCATTACTGCCCTCGGAAGCGTG
TTGTGCTCCTACAGACTGCAACCCTGCTAGGGGTCCTTCTCCTGGGTTATGGCTACTTTTGGCTCCTGGTACCCA
ACCCTGAGGCCCGGCTTCAGCAGTTGGGCCTCTTCTGCAGTGTCTTCACCATCAGCATGTACCTCTCACCACTGG
CTGACTTGGCTAAGGTGATTCAAACTAAATCAACCCAATGTCTCTCCTACCCACTCACCATTGCTACCCTTCTCA
CCTCTGCCTCCTGGTGCCTCTATGGGTTTCGACTCAGAGATCCCTATATCATGGTGTCCAACTTTCCAGGAATCG
TCACCAGCTTTATCCGCTTCTGGCTTTTCTGGAAGTACCCCCAGGAGCAAGACAGGAACTACTGGCTCCTGCAAA
CC**TGA**GGCTGCTCATCTGACCACTGGGCACCTTAGTGCCAACCTGAACCAAAGAGACCTCCTTGTTTCAGCTGGG
CCTGCTGTCCAGCTTCCCAGGTGCAGTGGGTTGTGGGAACAAGAGATGACTTTGAGGATAAAAGGACCAAAGAAA
AAGCTTTACTTAGATGATTGATTGGGGCCTAGGAGATGAAATCACTTTTTATTTTTTAGAGATTTTTTTTTTTAA
TTTTGGAGGTTGGGGTGCAATCTTTAGAATATGCCTTAAAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAG
CACTTTGGGAGGCCAAGGTGGGCGGATCGCCTGAGGTCAGGAGTTCAAGACCAACCTGACTAACATGGTGAAACC
CCATCTCTACTAAAAATACAAAATTAGCCAGGCATGATGGCACATGCCTGTAATCCCAGATACTTGGGAGGCTGA
GGCAGGAGAATTGCTTGAACCCAGGAGGTGGAGGTTGCAGTGAGCTGAGATCGTGCCATTGTGATATGAATATGC
CTTATATGCTGATATGAATATGCCTTAAAATAAAGTGTTCCCCACCCCTG

FIGURE 58

CCCAGGTTCCGGAATGAGGACTACACCATACATGTGCAGCTGAATGACTACGTGGACATCATCTGTCCGCACTAT
GAAGATCACTCTGTGGCAGACGCTGCC**ATG**GAGCAGTACATACTGTACCTGGTGGAGCATGAGGAGTACCAGCTG
TGCCAGCCCCAGTCCAAGGACCAAGTCCGCTGGCAGTGCAACCGGCCCAGTGCCAAGCATGGCCCGGAGAAGCTG
TCTGAGAAGTTCCAGCGCTTCACACCTTTCACCCTGGGCAAGGAGTTCAAAGAAGGACACAGCTACTACTACATC
TCCAAACCCATCCACCAGCATGAAGACCGCTGCTTGAGGTTGAAGGTGACTGTCAGTGGCAAAATCACTCACAGT
CCTCAGGCCCATGACAATCCACAGGAGAAGAGACTTGCAGCAGATGACCCAGAGGTGCGGGTTCTACATAGCATC
GGTCACAGTGCTGCCCCACGCCTCTTCCCACTTGCCTGGACTGTGCTGCTCCTTCCACTTCTGCTGCTGCAAACC
CCG**TGA**AGGTGTATGCCACACCTGGCCTTAAAGAGGGACAGGCTGAAGAGAGGGACAGGCACTCCAAACCTGTCT
TGGGGCCACTTTCAGAGCCCCCAGCCCTGGGAACCACTCCCACCACAGGCATAAGCTATCACCTAGCAGCCTCAA
AACGGGTCAGTATTAAGGTTTTCAACCGGAAGGAGGCCAACCAGCCCGACAGTGCCATCCCCACCTTCACCTCGG
AGGGATGGAGAAAGAAGTGGAGACAGTCCTTTCCCACCATTCCTGCCTTTAAGCCAAAGAAACAAGCTGTGCAGG
CATGGTCCCTTAAGGCACAGTGGGAGCTGAGCTGGAAGGGGCCACGTGGATGGGCAAAGCTTGTCAAAGATGCCC
CCTCCAGGAGAGAGCCAGGATGCCCAGATGAACTGACTGAAGGAAAAGCAAGAAACAGTTTCTTGCTTGGAAGCC
AGGTACAGGAGAGGCAGCATGCTTGGGCTGACCCAGCATCTCCCAGCAAGACCTCATCTGTGGAGCTGCCACAGA
GAAGTTTGTAGCCAGGTACTGCATTCTCTCCCATCCTGGGGCAGCACTCCCCAGAGCTGTGCCAGCAGGGGGGCT
GTGCCAACCTGTTCTTAGAGTGTAGCTGTAAGGGCAGTGCCCATGTGTACATTCTGCCTAGAGTGTAGCCTAAAG
GGCAGGGCCCACGTGTATAGTATCTGTATATAAGTTGCTGTGTGTCTGTCCTGATTTCTACAACTGGAGTTTTTT
TATACAATGTTCTTTGTCTCAAAATAAAGCAATGTGTTTTTTCGG

FIGURE 59

GGAGCTGGGAAGCGGAGAAGCCGGGAGCGCGGGGCTCAGTCGGGGGGCGGCGGCGGCGGCGGCTCCGGGGATGGC
GGCGGCTCCGCTGCTGCTGCTGCTGCTGCTCGTGCCCGTGCCGCTGCTGCCGCTGCTGGCCCAAGGGCCCGGAGG
GGCGCTGGGAAACCGGCATGCGGTGTACTGGAACAGCTCCAACCAGCACCTGCGGCGAGAGGGCTACACCGTGCA
GGTGAACGTGAACGACTATCTGGATATTTACTGCCCGCACTACAACAGCTCGGGGGTGGGCCCCGGGGCGGGACC
GGGGCCCGGAGGCGGGGCAGAGCAGTACGTGCTGTACATGGTGAGCCGCAACGGCTACCGCACCTGCAACGCCAG
CCAGGGCTTCAAGCGCTGGGAGTGCAACCGGCCGCACGCCCCGCACAGCCCCATCAAGTTCTCGGAGAAGTTCCA
GCGCTACAGCGCCTTCTCTCTGGGCTACGAGTTCCACGCCGGCCACGAGTACTACTACATCTCCACGCCCACTCA
CAACCTGCACTGGAAGTGTCTGAGGATGAAGGTGTTCGTCTGCTGCGCCTCCACATCGCACTCCGGGGAGAAGCC
GGTCCCCACTCTCCCCCAGTTCACCATGGGCCCCAATATGAAGATCAACGTGCTGGAAGACTTTGAGGGAGAGAA
CCCTCAGGTGCCCAAGCTTGAGAAGAGCATCAGCGGGACCAGCCCCAAACGGGAACACCTGCCCCTGGCCGTGGG
CATCGCCTTCTTCCTCATGACGTTCTTGGCCTCCTAGCTCTGCCCCCTCCCCTGGGGGGGGAGAGATGGGGCGGG
GCTTGGAAGGAGCAGGGAGCCTTTGGCCTCTCCAAGGGAAGCCTAGTGGGCCTAGACCCCTCCTCCCATGGCTAG
AAGTGGGGCCTGCACCATACATCTGTGTCCGCCCCCTCTACCCCTTCCCCCCACGTAGGCACTGTAGTGGACCAA
GCACGGGGACAGCCATGGGTCCCGGGCGGCCTTGTGGCTCTGGTAATGTTTGGTACCAAACTTGGGGGCCAAAAA
GGGCAGTGCTCAGGACTCCCTGGCCCCTGGTACCTTTCCCTGACTCCTGGTGCCCTCTCCCTTTGTCCCCCCAGA
GAGACATATGCCCCCAGAGAGAGCAAATCGAAGCGTGGGAGGCACCCCCATTGCTCTCCTCCAGGGGCAGAACAT
GGGGAGGGGACTAGATGGGCAAGGGGCAGCACTGCCTGCTGCTTCCTTCCCCTGTTTACAGCAATAAGCACGTCC
TCCTCCCCCACTCCCACTTCCAGGATTGTGGTTTGGATTGAAACCAAGTTTACAAGTAGACACCCCTGGGGGGGC
GGGCAGTGGACAAGGATGGCAAGGGGTGGGCATTGGGGTGCCAGGCAGGCATGTACAGACTCTATATCTCTATAT
ATAATGTACAGACAGACAGAGTCCCTTCCCTCTTTAACCCCCTGACCTTTCTTGACTTCCCCTTCAGCTTCAGAC
CCCTTCCCCACCAGGCTAGGCCCCCCACACCTGGGGGACCCCCTGGCCCCTCTTTTGTCTTCTGTGAAGACAGGA
CCTATGCAACGCACAGACACTTTTGGAGACCGTAAAACAACAACGCCCCCTCCCTTCCAGCCCTGAGCCGGGAAC
CATCTCCCAGGACCTTGCCCTGCTCACCCTATGTGGTCCCACCTATCCTCCTGGGCCTTTTTCAAGTGCTTTGGC
TGTGACTTTCATACTCTGCTCTTAGTCT

FIGURE 60A

CGCCGGCCGAGGAGGAGGGGTGGGGGTAGCGGCGGCGCCCGCGGCCCGGAGCGGGGGTTGGGGGAGTAGAGAAAG
CGGGGCGCGCGGAGGAACGCTGGGTCCCCGGCGCCGCGGGAGCTGGGAGGACCGAGCCGGCCGAGCGAGCAGCGC
GGCAGCACAGTCCCCGCGTGGCGCAGCGCGGCGGGGACGCGGGGACCGCCCGGATCTCCTTCCACTGCGCCCCGC
GCTCTGCGGTCCTCGGCCGCCTCTTCTTCCTTCACTCACTGCCCGGGCGGGAGCGGCGCCCAAGTCGGGTGCGCC
ATGTCTGGGGCCGGGTAGCCCCGCCGCCCGCCGGCCCGCCAGCTCGCCCTCCGAGCCACCCGCCAGCGGGCCGGC
CGGCCGGGAAGCGCGGGACAGGCAGATGCAGTGAGTGAGGGGGGGGCCATGGCGGAGGAGCGGCCCCCCCGGCTG
GTGGATTACTTCGTGGTAGCTGGGCTTGCAGGGAACGGAGCACCCATCCCTGAGGAAACGTGGGTTCCTGAACCC
AGTGGGCCCCTGCGCCCTCCCCGGCCAGCTGAGCCCATCACAG**ATG**TGGCAGTCATCGCTAGGGCACTGGGCGAG
GAAGTGCCCCAGGGCTACACATGCATCCAGGCTTCTGCTGGGGGCCACCCCTTGGAACTCAGTGCTGGACTTCTG
GGTGGAACTCAACCCGTCATCTGCTACCGCAGGGGCCGTGACAAGCCCCCCCTCGTTGAGCTGGGGGTGTTGTAT
GAGGGGAAGGAACGTCCCAAGCCTGGCTTCCAAGTGCTTGACACGACACCCTACAGCCACTCAGCAAACCTGGCC
CCTCCAGGCCCCGGGCACCCCCGCACCTACCTCACTTACCGGCGGGCAGCAGAGGGGGCAGGGCTGCATGCCCTG
GGCATCACTGACCTCTGCCTGGTGCTGCCCAGTAAGGGCGAGGGCACTCCTCATACTTACTGCCGGCTGCCCCGC
AACCTCAACCCTGGCATGTGGGGCCCAGCAGTGTACCTGTGCTATAAGGTGGGCCTGGCGAAGGCCAACACGCTG
GTGTACGAGGCAGTTCTACGAGGCGTTCCCAAGGGCCAGGCTATCAGAGCGACAGGCACGGGCACTGGGCCTGCT
GAGCGCCGTGGAGCGGGGTCGGGCACTGGGGGGCAGAGCTGTGCGCAGCCGGCGTGCCATCGCTGTGCTGTCCCG
CTGGCCTGCCTTCCCTGCCTTCCGCGCCTTCCTCACCTTCCTTTACCGCTACTCCGTCTCAGGCCCCCACCGCCT
ACCCTTGGAAGCGCACATCTCCCACTTCATTCACAACGTTCCCTTCCCTTCCCCACAGAGACCCCGCATCCTAGT
GCAGATGTCTCCCTATGACAACTTGCTCCTCTGTCAGCCTGTATCCTCACCCCTGCCCCTCAGTGGTGCCAGCTT
CCTGCAGCTGCTGCAGAGCCTGGGCCCTGAGCTGGCTATCACACTGCTGCTGGCTGTGCTCACAGAGCACAAGCT
GCTAGTCCACTCGCTGCGGCCAGACCTGCTCACCAGCGTCTGTGAGGCCCTCGTCTCGATGATCTTCCCACTGCA
CTGGCAGTGCCCCTACATTCCTCTGTGCCCGCTGGTGCTGGCAGATGTGCTGAGTGCCCCAGTGCCCTTCATTGT
GGGTATCCACTCCAGCTACTTTGATCTGCATGACCCGCCTGCTGATGTCATCTGTGTAGACCTTGATACCAACAC
GCTCTTCCAGACTGAGGAAAAGAAGCTCCTCTCCCCTCGGACCCTGCCCCGCAGACCCTACAAGGTTCTGCTGGC
CACACTGACAAACCTGTACCAGCAGCTGGACCAGACATACACTGGACCTGAGGAGGAAGCATCCCTGGAGTTCCT
ACTGACAGACTACGAGGCAGTGTGTGGCCGCAGGGCCCGGCTGGAGCGCGAAGTCCAAGGAGCCTTCCTCCGCTT
CATGGCCTGTCTGCTCAAGGGCTACCGGGTCTTCCTGCGCCCACTCACCCAGGCCCCCTCCGAGGGAGCTCGTGA
TGTTGACAACCTTTTCTTCCTGCAGGGCTTCCTCAAATCCCGGGAACGCTCCAGCCACAAACTTTACTCTCAGCT
GCTGCACACACAGATGTTCTCACAGTTCATTGAGGAGTGCTCTTTTGGCTCTGCTCGCCATGCTGCCCTTGAATT
CTTTGACTCTTGTGTTGAAAAGGTCCACCCAGAGCAGGAGAAGCCTGAGCCGACACCCTTAGTGGAGCTAGAGGA
GCTGTCAGGAAGTGAGCTCACTGTCTTTATCACACCTCCCGAGGAGCCTGCCTTACCAGAGGGCAGTGAATCCAC
TCCCCAGTACTGCTATGATGGATTCCCAGAGCTACGGGCTGAGTTGTTTGAGTCTCTTCAAGAGCAACCTGGGGC
CCTGCCTGTGCCAGGCCCTTCCCGTAGCGCCCCCAGCAGTCCTGCTCCTCGCCGTACCAAACAGGAGATGAAAGT
TGCACAGCGGATGGCACAGAAGTCAGCAGCTGTGCCTGAGCTGTGGGCCCGGTGCCTGCTGGGGCACTGCTATGG
GCTGTGGTTCCTGTGTCTGCCTGCCTATGTGCGGTCGGCACCCTCCCGAGTGCAGGCACTGCACACAGCCTACCA
TGTGCTGCGCCAGATGGAGAGCGGCAAGGTGGTGCTCCCTGATGAGGTGTGTTACCGGGTACTGATGCAGCTCTG
CTCACACTATGGGCAGCCTGTGCTGTCTGTGCGGGTCATGCTGGAGATGCGTCAGGCAGGCATTGTGCCCAACAC
CATCACCTATGGCTACTACAATAAGGCTGTGTTGGAAAGCAAGTGGCCGTCTGGCACACCAGGTGGGCGTCTGCG
CTGGGCCAAGCTCCGGAATGTTGTCCTGGGGGCTGCTCAGTTCCGCCAGCCCTTGAGAGAACGGCAACAGCAGCA
GCAGCAGCAACAGCAGCAGCAGCAGCAGCAGCAGCAGGAGCAGGTGTCAGCACATCAAGAGGCAGGCAGCTCCCA
GGCAGAGCCCTATTTGGAGCGCCCTTCCCCTACTCGCCCTCTTCAGCGCCAGACTACTTGGGCTGGGCGAAGTCT
GAGAGACCCAGCCTCACCCCCTGGACGCCTGGTGAAGAGTGGTAGCCTGGGCAGTGCCCGAGGGGCACAGCCCAC
TGTGGAGGCCGGTGTGGCCCACATGATAGAGGCCTTGGGGGTCCTGGAACCCCGGGGATCACCTGTGCCCTGGCA
CGATGGAAGTCTCTCAGACCTGAGCCTGACAGGGGAGGAGCCGCTCCCTGGAGGCAGCCCAGGGGGCTCAGGCTC
AGCCCTGAGTGCCCAGTCCACTGAGGCCCTGGAAGGGCTAAGTGGGCGGGGACCCAAGGCTGGTGGGCGACAGGA
TGAGGCAGGCACCCCCCGACGAGGGCTGGGTGCCCGCCTCCAACAGCTGCTCACTCCTTCCCGCCACTCCCCTGC
CTCCCGCATTCCCCCACCTGAGCTGCCTCCTGACCTGCCACCCCCAGCCCGCCGCAGCCCCATGGACAGTCTTCT
GCACCCCCGGGAGCGCCCTGGATCCACTGCCTCCGAGAGCTCAGCCTCTCTGGGCAGTGAGTGGGACCTCTCAGA

FIGURE 60B

ATCTTCTCTCAGCAACCTGAGTCTTCGCCGTTCCTCAGAGCGCCTCAGTGACACCCCTGGATCCTTCCAGTCACC
TTCCCTGGAAATTCTGCTGTCCAGCTGCTCCCTGTGCCGTGCCTGTGATTCGCTGGTGTATGATGAGGAAATCAT
GGCTGGCTGGGCACCTGATGACTCTAACCTCAACACAACCTGCCCCTTCTGCGCCTGCCCCTTTGTGCCCCTGCT
CAGTGTCCAGACCCTTGATTCCCGGCCCAGTGTCCCCAGCCCCAAATCTGCTGGTGCCAGTGGCAGCAAAGATGC
TCCTGTCCCTGGTGGTCCTGGCCCTGTGCTCAGTGACCGAAGGCTCTGCCTTGCTCTGGATGAGCCCCAGCTCTG
CAACGGGCACATGGGGGGAGCCTCCCGGCGGGTTGAGAGTGGGGCATGGGCATACCTGAGCCCCCTGGTGCTGCG
TAAGGAGCTGGAGTCGCTGGTAGAGAACGAGGGCAGTGAGGTGCTGGCGTTGCCTGAACTGCCCTCTGCCCACCC
CATCATCTTCTGGAACCTTTTGTGGTATTTCCAACGGCTACGCCTGCCCAGTATTCTACCAGGCCTGGTGCTGGC
CTCCTGTGATGGGCCTTCGCACTCCCAGGCCCCATCTCCTTGGCTAACCCCTGATCCAGCCTCTGTTCAGGTACG
GCTGCTGTGGGATGTACTGACCCCTGACCCCAATAGCTGCCCACCTCTCTATGTGCTCTGGAGGGTCCACAGCCA
GATCCCCCAGCGGGTGGTATGGCCAGGCCCTGTACCTGCATCCCTTAGTTTGGCACTGTTGGAGTCAGTGCTGCG
CCATGTTGGACTCAATGAAGTGCACAAGGCTGTGGGGCTCCTGCTGGAAACTCTAGGGCCCCCACCCACTGGCCT
GCACCTGCAGAGGGGAATCTACCGTGAGATATTATTCCTGACAATGGCTGCTCTGGGCAAGGACCACGTGGACAT
AGTGGCCTTCGATAAGAAGTACAAGTCTGCCTTTAACAAGCTGGCCAGCAGCATGGGCAAGGAGGAGCTGAGGCA
CCGGCGGGCGCAGATGCCCACTCCCAAGGCCATTGACTGCCGAAAATGTTTTGGAGCACCTCCAGAATGC**TAG**AG
ACCTTAAGCTTCCCTCTCCAGCCTAGGGTGGGGAAGTGAGGAAGAAGGGATTCTAGAGTTAAACTGCTTCCCTGT
TGCCTTCATGGAGTTGGGAACAGGCTGGGAAGGATGCCCAGTCAAAGGCTCCAAGCGAGGACAACAGGAAGAGGG
ATCCACTGTTACCAAAAGTCCTGATTCCCCCATCACCAACCTACCCAGTTTGTTCGTGCTGATGTTGGGGGAGAT
CTGGGGGGAGTTGGTACAGCTCTGTTCTTCCCTTGTCCTATACCGGGAACTCCCCTCCAGGGTACCCACAGATCT
GCATTGCCCTGGTCATTTTAGAAGTTTTTGTTTTAAAAAACAACTGGAAAGATGCAGAGCTACTGAGCCTTTGCC
CTGAATGGGAGGTAGGGATGTCATTCTCCACCAATAATGGTCCCTCTTCCCTGACGTTGCTGAAGGAGCCCAAGG
CTCTCCATGCCTTTCTACCTAAGTGTTTGTATTTTATTTTAAATTATTTATTCTGGAGCCACAGCCCCCTTGCTT
ATGAGGTTCTTATGGAGAGTGAGAAAGGGAAGGGAAATAGGGCACCATGGTCCGGTGGTTTGTAGTTCCTTCAAA
GTCAGGCACTGGGAGCTAGAGGAGTCTCAAGCTCCCCTTAGGAAGAACTGGTGCCCCCTCCAGTCCTAATTTTTC
TTGCCTGCCCCGCCTTGGGGAATGCCTCACCCACCCAGGTCCTGACCTGTGCAATAAGGATTGTTCCCTGCGAAG
TTTTGTTGGATGTAAATATAGTAAAAGCTGCTTCTGTCTTTTTC

FIGURE 61

ATCCACCTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCATACCCGGCCTCC**ATG**GAGCTATT
TAAAGCAGGTAGGCAAGTGAGCACTGCAGCCAATGCCACTGTATCCCTTGCAGGTATTCTGGATGGTGAAATGGA
CCCCAAAGGTATGTGTTCCTCACTGCTGTGGGTACTGAATGCCAAAGAATTTCTGGGCTGGTGTTGGGATTGTGT
GCAGGTTCAGGGAGCAGGACTCCTTCCCACCTGCTTCTGCTTCCTGTCCTGCCTTACTGGCTCTTTCTCCAACTC
TCCCATCACCAGTCTTTCTCTTTCAAGTACCTGCTAT**TGA**GGAGAACTTGCTAGATGACAAGCATTTGCTGAAGC
CATGGGATGCTAAGAAGCTATCCTCATCCTCTTCCCGACCTCGGTCCTGTGAAGTCCCTGGAATTAACATCTTTC
CATCTCCTGACCAGCCTGCCAATGTGCCTGTCCTCCCACCTGCCATGAACACGGGGGGCTCCCTACCTGACCTCA
CCAACCTGCACTTTCCCCCACCACTGCCCACCCCCCTGGACCCTGAAGAGACAGCCTACCCTAGCCTGAGTGGGG
GCAACAGTACCTCCAATTTGACCCACACCATGACTCACCTGGGCATCAGCAGGGGCATGGGCCTGGGCCCAGGCT
ATGATGCACCAGGACTTCATTCACCTCTCAGCCACCCATCCCTGCAGTCCTCCCTAAGCAATCCCAACCTCCAGG
CTTCCCTGAGCAGTCCTCAGCCCCAGCTTCAGGGCTCCCACAGCCACCCCTCTCTGCCTGCCTCCTCCTTGGCCC
GCCATGTACTGCCCACCACCTCCCTGGGCCACCCCTCACTCAGTGCTCCGGCTCTCTCCTCCTCCTCTTCCTCCT
CCTCCACTTCATCTCCTGTTTTGGGCGCCCCCTCTTACCCTGCTTCTACCCCTGGGG

FIGURE 62

GCCGGAAGCGCGCGGAGACCATGTAGTGAGACCCTCGCGAGGTCTGAGAGTCACTGGAGCTACCAGAAGCATCATG
GGGGCCCTGGGGAGAGCCAGAGCTCCTGGTGTGGCGCCCCGAGGCGGTAGCTTCAGAGCCTCCAGTGCCTGTGGG
GCTGGAGGTGAAGTTGGGGGCCCTGGTGCTGCTGCTGGTGCTCACCCTCCTCTGCAGCCTGGTGCCCATCTGTGT
GCTGCGCCGGCCAGGAGCTAACCATGAAGGCTCAGCTTCCCGCCAGAAAGCCCTGAGCCTAGTAAGCTGTTTCGC
GGGGGGCGTCTTTTTGGCCACTTGTCTCCTGGACCTGCTGCCTGACTACCTGGCTGCCATAGATGAGGCCCTGGC
AGCCTTGCACGTGACGCTCCAGTTCCCACTGCAAGAGTTCATCCTGGCCATGGGCTTCTTCCTGGTCCTGGTGAT
GGAGCAGATCACACTGGCTTACAAGGAGCAGTCAGGGCCGTCACCTCTGGAGGAAACAAGGGCTCTGCTGGGAAC
AGTGAATGGTGGGCCGCAGCATTGGCATGATGGGCCAGGGGTCCCACAGGCGAGTGGAGCCCCAGCAACCCCCTC
AGCCTTGCGTGCCTGTGTACTGGTGTTCTCCCTGGCCCTCCACTCCGTGTTCGAGGGGCTGGCGGTAGGGCTGCA
GCGAGACCGGGCTCGGGCCATGGAGCTGTGCCTGGCTTTGCTGCTCCACAAGGGCATCCTGGCTGTCAGCCTGTC
CCTGCGGCTGTTGCAGAGCCACCTTAGGGCACAGGTGGTGGCTGGCTGTGGGATCCTCTTCTCATGCATGACACC
TCTAGGCATCGGGCTGGGTGCAGCTCTGGCAGAGTCGGCAGGACCTCTGCACCAGCTGGCCCAGTCTGTGCTAGA
GGGCATGGCAGCTGGCACCTTTCTCTATATCACCTTTCTGGAAATCCTGCCCCAGGAGCTGGCCAGTTCTGAGCA
AAGGATCCTCAAGGTCATTCTGCTCCTAGCAGGCTTTGCCCTGCTCACTGGCCTGCTCTTCATCCAAATCTAGGG
GGCTTCAAGAGAGGGGCAGGGGAGATTGATGATCAGGTGCCCCTGTTCTCCCTTCCCTCCCCCAGTTGTGGGGAA
TAGGAAGGAAAGGGGAAGGGAAATACTGAGGACCAAAAAGTTCTCTGGGAGCTAAAGATAGAGCCTTTGGGGCTA
TCTGACTAATGAGAGGGAAGTGGGCAGACAAGAGGCTGGCCCCAGTCCCAAGGAACAAGAGATGGTCAAGTCGCT
AGAGACATATCAGGGGACATTAGGATTGGGGAAGACACTTGACTGCTAGAATCAGAGGTTGGACACTATACATAA
GGACAGGCTCACATGGGAGGCTGGAGGTGGGTACCCAGCTGCTGTGGAACGGGTATGGACAGGTCATAAACCTAG
AGTCAGTGTCCTGTTGGTCCTAGCCCATTTCAGCACCCTGCCACTTGGAGTGGACCCCTCCTACTCTTCTTAGCG
CCTACCCTCATACCTATCTCCCTCCTCCCATCTCCTAGGGGACTGGCGCCAAATGGTCTCTCCCTGCCAATTTTG
GTATCTTCTCTGGCCTCTCCAGTCCTGCTTACTCCTCTATTTTTAAAGTGCCAAACAAATCCCCTTCCTCTTTCT
CAAAGCACAGTAATGTGGCACTGAGCCCTACCCAGCACCTCAGTGAAGGGGGCCTGCTTGCTCTTTATTTTGGTC
CCGGATCCTGGGGTGGGGCAGAAATATTTTCTGGGCTGGGGTAGGAGGAAGGTTGTTGCAGCCATCTACTGCTGC
TGTACCCTAGGAATATGGGGACATGGACATGGTGTCCCATGCCCAGATGATAAACACTGAGCTGCCAAAACATTT
TTTTAAATACACCCGAGGAGCCCAAGGGGGAAGGGCAATGCCTACCCCCAGCGTTATTTTTGGGGAGGGAGGGCT
GTGCATAGGGACATATTCTTTAGAATCTATTTTATTAACTGACCTGTTTTGGGACCTGTTACCCAAATAAAAGAT
GTTTCTAG

FIGURE 63

AGAAAGAAAAGGTGTAGTGTTTGGGGAGGTCAACGGGCTATGCTGGCTTGACAGGGCTGGGCTCTTCAGAACAGA
AGC**ATG**GATCTCGGAATCCCTGACCTGCTGGACGCGTGGCTGGAGCCCCCAGAGGATATCTTCTCGACAGGATCC
GTCCTGGAGCTGGGACTCCACTGCCCCCCTCCAGAGGTTCCGGTAACTAGGCTACAGGAACAGGGACTGCAAGGC
TGGAAGTCCGGTGGGGACCGTGGCTGTGGCCTTCAAGAGAGTGAGCCTGAAGATTTCTTGAAGCTTTTCATTGAT
CCCAATGAGGTGTACTGCTCAGAAGCATCTCCTGGCAGTGACAGTGGCATCTCTGAGGACCCCTGCCATCCAGAC
AGTCCCCCTGCCCCCAGGGCAACCAGTTCTCCTATGCTCTATGAGGTTGTCTATGAGGCAGGGGCCCTGGAGAGG
ATGCAGGGGGAAACTGGGCCAAATGTAGGCCTTATCTCCATCCAGCTAGATCAGTGGAGCCCAGCATTTATGGTG
CCTGATTCCTGCATGGTCAGTGAGCTGCCCTTTGATGCTCATGCCCACATCCTGCCCAGAGCAGGCACCGTAGCC
CCAGTGCCCTGTACAACCCTGCTGCCCTGTCAAACCCTGTTCCTGACCGATGAGGAGAAGCGTCTGCTGGGGCAG
GAAGGGGTTTCCCTGCCCTCTCACCTGCCCCTCACCAAGGCAGAGGAGAGGGTCCTCAAGAAGGTCAGGAGGAAA
ATCCGTAACAAGCAGTCAGCTCAGGACAGTCGGCGGCGGAAGAAGGAGTACATTGATGGGCTGGAGAGCAGGGTG
GCAGCCTGTTCTGCACAGAACCAAGAATTACAGAAAAAAGTCCAGGAGCTGGAGAGGCACAACATCTCCTTGGTA
GCTCAGCTCCGCCAGCTGCAGACGCTAATTGCTCAAACTTCCAACAAAGCTGCCCAGACCAGCACTTGTGTTTTG
ATTCTTCTTTTTTCCCTGGCTCTCATCATCCTGCCCAGCTTCAGTCCATTCCAGAGTCGACCAGAAGCTGGGTCT
GAGGATTACCAGCCTCACGGAGTGACTTCCAGAAATATCCTGACCCACAAGGACGTAACAGAAAATCTGGAGACC
CAAGTGGTAGAGTCCAGACTGAGGGAGCCACCTGGAGCCAAGGATGCAAATGGCTCAACAAGGACACTGCTTGAG
AAGATGGGAGGGAAGCCAAGACCCAGTGGGCGCATCCGGTCCGTGCTGCATGCAGATGAGATG**TGA**GCTGGAACA
GACCTTCCTGGCCCACTTCCTGATCACAAGGAATCCTGGGCTTCCTTATGGCTTTGCTTCCCACTGGGATTCCTA
CTTAGGTGTCTGCCCTCAGGGGTCCAAATCACTTCAGGACACCCCAAGAGATGTCCTTTAGTCTCTGCCTGAGGC
CTAGTCTGCATTTGTTTGCATATATGAGAGGGTACCTCAAATACTTCTGTTATGTATCTGTGATTTTATTTCTTC
TTTGGGTATAGGGTTGAGGGGAAATAAGTTTTGAGTGAGAAATAAACGTTTTAGCTGAAATTGT

FIGURE 64

GCGAGGCGCCACCGACGCGGAAGACTATAAGCCCCAGCGGGCGACGACCGAACGCCCCCGGGAACACCGGGCCCC
GAGCTCGGTCCCGCGCCCGAGGATCCTCCACGGGGCTAGATGGCTGCGTCGGGGGCGGGAGCGGAGGTGAGCGGG
CGCTAGGGCCGCGAGCCCCCGCCGGCCCTTCCTCCAGCGCCCTGCGGACCCCGCAGAAGGCGCTCGCCTCCCTAG
CCCGCAAAAACATATCGATTTTTCTCGCTGTGGCAACGGGGACGTCCTGATAGATCCTCTGCTCCAATAGGCAAC
TCCGGCCTTCCCTGCCCTGACCTGGAACCTCTGGGAGGGCTGCAGAGTAAGTGCCGCCTCTGCGCTCCGACGGAG
GCACGAGGCCTGTGGAGTAGGTCCCTCTGTTCCGACAGGTGCGACACTTGGCGCTCC**ATG**CTTGCGGGTGCCGGG
AGGCCTGGCCTCCCCCAGGGCCGCCACCTCTGCTGGTTGCTCTGTGCTTTCACCTTAAAGCTCTGCCAAGCAGAG
GCTCCCGTGCAGGAAGAGAAGCTGTCAGCAAGCACCTCAAATTTGCCATGCTGGCTGGTGGAAGAGTTTGTGGTA
GCAGAAGAGTGCTCTCCATGCTCTAATTTCCGGGCTAAAACTACCCCTGAGTGTGGTCCCACAGGATATGTAGAG
AAAATCACATGCAGCTCATCTAAGAGAAATGAGTTCAAAAGCTGCCGCTCAGCTTTGATGGAACAACGCTTATTT
TGGAAGTTCGAAGGGGCTGTCGTGTGTGTGGCCCTGATCTTCGCTTGTCTTGTCATCATTCGTCAGCGACAATTG
GACAGAAAGGCTCTGGAAAAGGTCCGGAAGCAAATCGAGTCCATA**TAG**CTACATTCCACCCTTGTATCCTGGGTC
TTAGAGACCCTATCTCAGACAGTGAAAGTGAAATGGACTGATTTGCACTCTTGGTTCTTTGGAGCCTTGTGGTGG
AATCCCCTTTTCCCCATCTTCTTCTTTCAGATCATTAATGAGCAGAATAAAAAGAGTAAAATGGT

FIGURE 65

GGGAGGAAAACTTCTTCCTGGCCTGGGCTCCGTGCCGCTCTGTTTGCCAACCGTCCAGTCCCGCCTACCAGTGCC
GGGCGCTCCCCACCCCTCCCCCGGCTCCCCCGGTGTCCGCCATGGCCAAAGCCTACGACCACCTCTTCAAGTTGC
TGCTGATCGGGGACTCGGGGGTGGGCAAGACTTGTCTGATCATTCGCTTTGCAGAGGACAACTTCAACAACACTT
ACATCTCCACCATCGGAATTGATTTCAAGATCCGCACTGTGGATATAGAGGGGAAGAAGATCAAACTACAAGTCT
GGGACACGGCTGGCCAAGAGCGGTTCAAGACAATAACTACTGCCTACTACCGTGGAGCCATGGGCATTATCCTAG
TATACGACATCACGGATGAGAAATCTTTCGAGAATATTCAGAACTGGATGAAAAGCATCAAGGAGAATGCCTCGG
CTGGGGTGGAGCGCCTCTTGCTGGGGAACAAATGTGACATGGAGGCCAAGAGGAAGGTGCAGAAGGAGCAGGCCG
ATAAGTTGGCTCGAGAGCATGGAATCCGATTTTTCGAAACTAGTGCTAAATCCAGTATGAATGTGGATGAGGCTT
TTAGTTCCCTGGCCCGGGACATCTTGCTCAAGTCAGGAGGCCGGAGATCAGGAAACGGCAACAAGCCTCCCAGTA
CTGACCTGAAAACTTGTGACAAGAAGAACACCAACAAGTGCTCCCTGGGCTGAGGACCCTTTCTTGCCTCCCCAC
CCCGGAAGCTGAACCTGAGGGAGACAACGGCAGAGGGAGTGAGCAGGGGAGAAATAGCAGAGGGGCTTGGAGGGT
CACATAGGTAGATGGTAAAGAGAATGAGGAGAAAAAGGAGAAAAGGGAAAAGCAGAAAGGAAAAAAAGGAAGAGA
GAGGAAGGGAGAAGGGAGAGGAATGAATTGAGGAAGTGAAAGAAGGCAAGGAGGTAGGAAGAGAGGGAGGAGGAA
AGGAAGGAGAGATGCCTCAGGCTTCAGACCTTACCTGGGTTTTCAGGGCAAACATAAATGTAAATACACTGATTT
ATTCTGTTACTAGATCAGGTTTTAGGGTCCTGCAAAAGGCTAGCTCGGCACTACACTAGGGAATTTGCTCCTGTT
CTGTCACTTGTCATGGTCTTTCTTGGTATTAAAGGCCACCATTTGCACAAAAAAAAAAAAAAA

FIGURE 66

CCTTTCCGGCGGTGACGACCTACGCACACGAGAAC**ATG**CCTCTCGCAAAGGATCTCCTTCATCCCTCTCCAGAAG
AGGAGAAGAGGAAACACAAGAAGAAACGCCTGGTGCAGAGCCCCAATTCCTACTTCATGGATGTGAAATGCCCAG
GATGCTATAAAATCACCACGGTCTTTAGCCATGCACAAACGGTAGTTTTGTGTGTTGGCTGCTCCACTGTCCTCT
GCCAGCCTACAGGAGGAAAAGCAAGGCTTACAGAAGGATGTTCCTTCAGGAGGAAGCAGCAC**TAA**AAGCACTCTG
AGTCAAGATGAGTGGGAAACCATCTCAATAAACACATTTTGGAT

FIGURE 67

ACTCAGGCAGCAGCCCCTTCTTTCTTGCCCCAGTCTCCAGTTCTCCAGTGTTCACAGGTGAGCCTACCAACAGCC
ACTGCTC**ATG**ATGGAGGCCATCAAGAAAAAGATGCAGATGCTGAAGTTAGACAAGGAGAATGCTCTGGATCGGGC
AGAGCAAGCTGAAGCTGAGCAGAAGCAGGCAGAAGAAAGAAGTAAACAGCTGGAGGATGAGCTGGCAGCCATGCA
GAAGAAGCTGAAAGGGACAGAGGATGAGCTGGACAAGTATTCTGAAGCTTTGAAGGATGCCCAGGAGAAGCTGGA
ACTGGCAGAGAAGAAGGCTGCTGATGCTGAGGCTGAGGTGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGA
AGAGCTGGACCGTGCTCAGGAGCGCCTGGCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAAAGCTGCTGATGA
GAGTGAGAGAGGTATGAAGGTTATTGAAAACCGGGCCTTAAAAGATGAAGAAAAGATGGAACTCCAGGAAATCCA
ACTCAAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGATCAT
TGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGGCAGAGTCTAAGTGTTCTGAGCTGGAGGAGGAGCT
GAAGAATGTCACCAACAACCTCAAGTCTCTTGAGGCTCAGGCGGAGAAGTACTCTCAAAAAGAAGATAAATATGA
GGAAGAAATCAAGATTCTTACTGATAAACTCAAGGAGGCAGAGACCCGTGCTGAGTTTGCTGAGAGATCGGTAGC
CAAGCTGGAAAAGACAATTGATGACCTGGAAGATGAGCTCTATGCCCAGAAACTGAAGTACAAGGCCATTAGCGA
GGAGCTGGACCACGCCCTCAATGACATGACCTCTATA**TAA**TTATCACCGTTTCTGCTCTGTTCTGGATCTGCCCC
CTTTACTCCTCGGGGAACCCAAGGCCCCACTCTCGCTCTGGATTCCATTTGGGTCAGCCTGGCTGGTCCCCAAGG
CATTAGGATGGGGGAGCAAAAAGCAACTTATGTATTTTCTTCCACCCCCACCCCAAATTAAAATGTTAAGCTGCT
GGA

FIGURE 68

GTCAGGGGGAAGCTGGAAGGCGTCGTTCTCCTTTCCCAGCTCTCCTGCCTGTCCGCCATGTTTTCAGGCCGGGTC
TGGCTTGGTCTTCCCCCGTAAGGAAATGGCCGGGGAGCTCCAGGGGACCCAGGCGCCGTCGCTTCGGCGGAGCCT
GGGCTGACCAGCCAGGACAGCGGGGTAAACCCGAACAATTCTGCGCGAGGTAGGGAGGCC**ATG**GCGTCCGGCAGT
AACTGGCTCTCCGGGGTGAATGTCGTGCTGGTGATGGCCTACGGGAGCCTGGACTTGAAAGAGGAGATTGATATT
CGACTCTCCAGGGTTCAGGATATCAAGTATGAGCCCCAGCTCCTTGCAGATGATGATGCTAGACTACTACAACTG
GAAACCCAGGGAAATCAAAGTTGCTACAACTATCTGTATAGGATGAAAGCTCTGGATGCCATTCGTACCTCTGAG
ATCCCATTTCATTCTGAAGGCCGGCATCCCCGTTCCTTAATGGGCAAGAATTTCCGCTCCTACCTGCTGGATCTG
CGAAACACTAGTACGCCTTTCAAGGGTGTACGCAAAGCACTCATTGATACCCTTTTGGATGGCTATGAAACAGCC
CGCTATGGGACAGGGGTCTTTGGCCAGAATGAGTACCTACGCTATCAGGAGGCCCTGAGTGAGCTGGCCACTGCG
GTTAAAGCACGAATTGGGAGCTCTCAGCGACATCACCAGTCAGCAGCCAAAGACCTAACTCAGTCCCCTGAGGTC
TCCCCAACAACCATCCAGGTGACATACCTCCCCTCCAGTCAGAAGAGTAAACGTGCCAAGCACTTCCTTGAATTG
AAGAGCTTTAAGGATAACTATAACACATTGGAGAGTACTCTG**TGA**CGGAGCTGAAGGACTCTTGCCGTAGATTAA
GCCAGTCAGTTGCAATGTGCAAGACAGGCTGCTTGCCGGGCCGCCCTCGGAACATCTGGCCCAGCAGGCCCAGAC
TGTATCCATCCAAGTTCCCGTTGTATCCAGAGTTCTTAGAGCTTGTGTCTAAAGGGTAATTCCCCAACCCTTCCT
TATGAGCATTTTTAGAACATTGGCTAAGACTATTTTCCCCCAGTAGCGCTTTTTTCTGGATTTGCATTCAGGTGT
TATTCTTAATGTTTCTGTCAAAGCTTCTTAAAAATCTTCACTTGGTTTCAGCCATAGTTCACCTTCCCTGTTCCA
GGTTTATTTAATTCCAAAGGTGAGAGTTGGAGTGAGATGTCTTCCATATCTATACCTTTGTGCACAGTTGAATGG
GAACTGTTTGGGTTTAGGGCATCTTAGAGTTGATTGATGGAAAAAGCAGACAGGAACTGGTGGGAGGTCAAGTGG
GGAAGTTGGTGAATGTGGAATAACTTACCTTTGTGCTCCACTTAAACCAGATGTGTTGCAGCTTTCCTGACATGC
AAGGATCTACTTTAATTCCACACTCTCATTAATAAATTGAATAAAAGGGAATGTTTTGGCACCTGATATAATCTG
CCAGGCTATGTGACAGTAGGAAGGAATGGTTTCCCCTAACAAGCCCAATGCACTGGTCTGACTTTATAAATTATT
TAATAAAATGAACTATTATCAAATAAAACGTATGAATCAGT

FIGURE 69

CCCGACTAAGTGACTTAAACTCCCACCTACTCCTGGAATAAGGAGTCAAAGCCCGGATAGGCGCAGTATTCTACC
TTGTAAATACTGTTATTTGTATATACTGTAA**ATG**ATGACATCGGTGGGCACTAACCGAGCCCGGGGAAACTGGGA
ACAACCTCAAAACCAAAACCAGACACAGCACAAGCAGCGGCCACAGGCCACTGCAGAACAAATTAGACTTGCACA
GATGATTTCGGACCATAATGATGCTGACTTTGAGGAGAAGGTGAAACAATTGATTGATATTACAGGCAAGAACCA
GGATGAATGTGTGATTGCTTTGCATGACTGCAATGGAGATGTCAACAGAGCTATCAATGTTCTTCTGGAAGGAAA
CCCAGACACGCATTCCTGGGAGATGGTCGGGAAGAAGAAGGGAGTCTCAGGCCAGAAGGATGGTGGCCAGACGGA
ATCCAATGAGGAAGGCAAAGAAAATCGAGACCGGGACAGAGACTATAGTCGGCGACGTGGTGGGCCACCAAGACG
GGGGAGAGGTGCCAGCCGTGGACGAGAGTTTCGAGGTCAGGAAAATGGATTGGATGGCACCAAGAGTGGAGGGCC
TTCTGGAAGAGGAACAGAAAGAGGCAGAAGGGGCCGTGGCCGAGGCAGAGGTGGCTCTGGTAGGCGAGGAGGAAG
GTTTTCTGCTCAAGGAATGGGAACCTTTAACCCAGCTGATTATGCAGAGCCAGCCAATACTGATGATAACTATGG
CAATAGCAGCGGCAATACGTGGAACAACACTGGCCACTTTGAACCAGATGATGGGACGAGTGCATGGAGGACTGC
AACAGAGGAGTGGGGGACTGAAGATTGGAATGAAGATCTTTCTGAGACCAAGATCTTCACTGCCTCTAATGTGTC
TTCAGTGCCTCTGCCTGCGGAGAATGTGACAATCACTGCTGGTCAGAGAATTGACCTTGCTGTTCTGCTGGGGAA
GACACCATCTACAATGGAGAATGATTCATCTAATCTGGATCCGTCTCAGGCTCCTTCTCTGGCCCAGCCTCTGGT
GTTCAGTAATTCGAAGCAGACTGCCATATCACAGCCTGCTTCAGGGAACACATTTTCTCATCACAGTATGGTGAG
CATGTTAGGGAAAGGATTTGGTGATGTCGGTGAAGCTAAAGGCGGCAGTACTACAGGCTCCCAGTTCTTGGAGCA
ATTCAAGACTGCCCAAGCCCTGGCTCAGTTGGCAGCTCAGCATTCTCAGTCTGGAAGCACCACCACCTCCTCTTG
GGACATGGGCTCGACGACACAATCCCCATCACTGGTGCAGTATGATTTGAAGAACCCAAGTGATTCAGCAGTGCA
CAGCCCCTTTACAAAGCGCCAGGCTTTTACCCCATCTTCAACCATGATGGAGGTGTTCCTTCAGGAGAAGTCACC
TGCAGTGGCTACCTCCACAGCTGCACCTCCACCTCCGTCTTCTCCTCTGCCAAGCAAATCCACATCGGCTCCACA
GATGTCGCCTGGATCTTCAGACAACCAGTCCTCTAGCCCTCAGCCGGCTCAGCAGAAACTGAAACAGCAGAAGAA
AAAAGCCTCCTTGACTTCTAAGATTCCTGCTCTGGCTGTGGAGATGCCTGGCTCAGCAGATATCTCAGGGCTAAA
CCTGCAGTTTGGGGCATTGCAGTTTGGGTCAGAGCCTGTCCTTTCTGATTATGAGTCCACCCCCACCACGAGCGC
CTCTTCAAGCCAGGCTCCAAGTAGCCTGTATACCAGCACGGCCAGTGAATCATCCTCTACAATTTCATCTAACCA
GAGTCAGGAGTCTGGTTATCAGAGCGGCCCAATTCAGTCGACAACCTATACCTCCCAAAATAATGCTCAGGGCCC
TCTTTATGAACAGAGATCCACACAGACTCGGCGGTACCCCAGCTCCATCTCTTCATCACCCCAAAAGGACCTGAC
TCAGGCAAAGAATGGCTTCAGTTCTGTGCAGGCCACGCAGTTACAGACCACACAATCTGTTGAAGGTGCTACAGG
CTCTGCAGTGAAATCTGATTCACCTTCCACTTCTAGCATCCCCCCTCTCAATGAAACGGTATCTGCAGCTTCCTT
ACTGACGACAACCAATCAGCATTCATCCTCCTTGGGTGGCTTGAGCCACAGTGAGGAGATTCCAAATACTACCAC
CACACAACACAGCAGCACGTTATCTACGCAGCAGAATACCCTTTCATCATCAACATCTTCTGGGCGCACTTCGAC
ATCCACTCTTTTGCACACAAGTGTGGAGAGTGAGGCGAATCTCCATTCTTCCTCCAGCACTTTTTCCACCACATC
CAGCACAGTCTCTGCACCTCCCCCAGTGGTCAGTGTCTCCTCCAGTCTCAATAGTGGCAGTAGCCTGGGCCTCAG
CCTAGGCAGCAACTCCACTGTCACAGCCTCGACTCGAAGCTCAGTTGCTACGACTTCAGGAAAAGCTCCTCCCAA
CCTCCCTCCTGGGGTCCCGCCGTTGTTGCCTAATCCGTATATTATGGCTCCAGGGCTGTTACATGCCTACCCGCC
ACAAGTATATGGTTATGATGACTTGCAGATGCTTCAGACAAGATTTCCATTGGATTACTACAGCATCCCATTTCC
CACACCCACTACTCCGCTGACTGGGAGGGATGGTAGCCTGGCCAGCAACCCTTATTCTGGTGACCTCACAAAGTT
CGGCCGTGGGGATGCCTCCTCCCCAGCCCCGGCCACAACCTTGGCCCAACCCCAACAGAACCAGACGCAGACTCA
CCATACCACGCAGCAGACATTCCTGAACCCGGCGCTGCCTCCTGGCTACAGTTACACCAGCCTGCCATACTATAC
AGGGGTCCCGGGCCTCCCCAGCACCTTCCAGTATGGGCCTGCTGTGTTCCCTGTGGCTCCTACCTCTTCCAAGCA
GCATGGTGTGAATGTCAGTGTGAATGCATCGGCCACCCCTTTCCAACAGCCGAGTGGATATGGGTCTCATGGATA
CAACACTGGAAGAAAATATCCACCCCCTTACAAGCATTTCTGGACGGCTGAGAGC**TAA**TTTGGCCCAAGGCTGGG
GGCTGTGTTTTGTGTGTGTGTATAAATTTGCACTGAAGTCTTGTTTCAGAAACCAGACCACTGAGGAGAGCCTGC
TGAGCTGAGGCCATGGCCTGCGTGGCTTGGGGAAATGAGTTGGTGGATACCTTCTGGGCTTTTGAACTTGCCCCT
CCCCCATTTCCCTCTCCCCCATGTGTCTGACCCTGTCTTACCCATTTCAAGTTCAAGCGGTGCAGCACCTTCGAA
GCATCAATGCACACACCTGCTGTTGCTTTTGATTTCTGGAAGGCATGTAGTTTCAACTTGTAACAAAAATATTTG
TAGTCTTCAATAAACTGTGGTATTTCTTTAGCTAAC

FIGURE 70

GTCCGGCTTACCGTCGTTTACGACAGTGTCAGGATCGCGGGCTTGCTTTCCGGTAGCGTGGGCTGACGCCTCGCT
CAATTTCTCACAGGGCTGCGCAGGTTTCCCCCGTCTGCGAATGGACCACTGGAGGGGTTCAAAGGTTCGCGTCCC
AGTACGGGA**ATG**AGCCTCTTTGATCTCTTCCGGGGCTTTTTCGGCTTTCCTGGACCTCGGAGCCACAGAGATCCC
TTTTTTGGAGGGATGACTCGAGATGAAGATGATGATGAGGAAGAAGAAGAAGAAGGGGGCTCATGGGGCCGTGGG
AACCCAAGGTTCCATAGTCCTCAGCACCCCCCTGAGGAATTTGGCTTCGGCTTCAGCTTCAGCCCAGGAGGAGGG
ATACGTTTCCACGATAACTTCGGCTTTGATGACCTAGTACGAGATTTCAATAGCATCTTCAGCGATATGGGGGCC
TGGACCTTGCCTTCCCATCCTCCTGAACTTCCAGGTCCTGAGTCAGAGACACCTGGTGAGAGACTACGGGAGGGA
CAGACACTTCGGGACTCAATGCTTAAGTATCCAGATAGTCACCAGCCCAGGATCTTTGGGGGGGTCTTGGAGAGT
GATGCAAGAAGTGAATCCCCCCAACCAGCACCAGACTGGGGCTCCCAGAGGCCATTTCATAGGTTTGATGATGTA
TGGCCTATGGACCCCCATCCTAGAACCAGAGAGGACAATGATCTTGATTCCCAGGTTTCCCAGGAGGGTCTTGGC
CCGGTTCTACAGCCCCAGCCCAAATCCTATTTCAAGAGCATCTCTGTGACCAAGATCACTAAACCAGATGGGATA
GTGGAGGAGCGCCGGACTGTGGTGGACAGTGAGGGCCGGACAGAGACTACAGTAACCCGACACGAAGCAGATAGC
AGTCCTAGGGGTGATCCAGAATCACCAAGACCTCCAGCCCTGGATGATGCCTTTTCCATCCTGGACTTATTCCTG
GGACGTTGGTTCCGGTCCCGG**TAG**CCTTGTTAACCCTCAGAGGCCTTCAAGTCCTTTCCACCTCTCACCCATTGC
CCACCATTAATAAGCTTAGCTTCTCTTGCCACCTCAGGGGCTTGGATATGTGGAATAGTGAACTGGGGCCATGTC
AGTTTGTCACTCACCCAAACTGACCAATAAAACCTTTATTTATGCT

FIGURE 71

ATGGTCTTCACTCAGGCCCCGGCTGAAATCATGGGCCACCTCCGGATATGCAGCCTCCTGGCCCGGCAGTGCCTG
GCAGAGTTTCTGGGTGTGTTTGTACTCATGCTCCTCACCCAAGGAGCTGTGGCCCAGGCTGTCACCAGTGGAGAA
ACCAAAGGCAACTTCTTCACCATGTTTCTGGCTGGCTCTCTGGCCGTTACGATAGCCATCTACGTGGGTGGTAAC
GTCTCAGGTGAGGAGGGTGGGGTCTGGTCATCAGAGCAGGTGGGACGTGCATGTGAGCGTGTCGGTCTGGCGATG
GTGGAAACGCAAATCCTTCTG**TGA**

FIGURE 72

AGAGGGAGCAGTGAATAGCAATAGGGTGTTTCCACC**ATG**GTCTTCACTCAGGCCCCGGCTGAAATCATGGGCCAC
CTCCGGATACGCAGCCTCCTGGCCCGGCAGTGCCTGGCAGAGTTTCTGGGTGTGTTTGTACTCATGCTCCTCACC
CAAGGAGCTGTGGCCCAGGCTGTCACCAGTGGAGAAACCAAAGGCAACTTCTTCACCATGTTTCTGGCTGGCTCT
CTGGCCGTTACGATAGCCATCTACGTGGGTGGTAACGTCTCAGGGGCCCACCTGAATCCAGCCTTCTCCCTGGCC
ATGTGCATCGTTGGACGCCTCCCCTGGGTCAAGCTCCCCATTTACATCTTGGTGCAGTTGCTGTCTGCTTTCTGT
GCTTCGGGAGCCACCTATGTTCTCTACCATGATGCCCTACAGAACTATACAGGTGGGAACCTGACAGTGACTGGC
CCCAAGGAGACAGCCTCCATTTTTGCCACCTATCCTGCCCCCTATCTGTCCCTGAACAATGGCTTCCTGGATCAG
GTTCTGGGCACTGGGATGCTGATTGTGGGGCTCTTGGCCATCCTGGACAGACGGAACAAGGGAGTCCCTGCGGGT
CTGGAGCCTGTGGTGGTGGGGATGCTGATCCTGGCCCTCGGGTTATCCATGGGTGCCAACTGCGGGATTCCACTC
AACCCTGCCCGGGACCTGGGCCCACGTCTCTTCACCTACGTGGCTGGCTGGGGTCCTGAAGTCTTCAGGTGGGAG
ACAGACTCTCCTGGTGCTGGCCTCCACTCACCTTCCTCTGCTAAGGGCTCTGTCCCTGGGTCCACAGCACTCTGC
CTT**TAA**AATAGCTCTCTTGGCTTCTTAGGACAGTGTTCTTTCTCCAAGTCATATTCTCCCCCTTTCTCCCTTGCT
TCCCTCCCAACTTTTCACTGAAACAGTAAGATTTAGAGGTTGTGTTCTTAGGCATGCCACATTACTTCCATGCAC
ATTAGTGACTTCATCAGCAAAATTAATATATTCAGATAATTCCCTAAGGCAAGAGGCTGGACCAAGCTCTCCTGG
GGTTCCCTCTTCTAAATACTATGCTTTGGTGACAAGGCAATCCTCTTCCTGGTGTCTACCACCCTGGGAACAACT
TTAGGGCACTCTCTTGTTACTGCCCCCCGTCCTTGGAGAGGGGAAGGCTAAGGGAGTCACTCCTGATACCTTCCC
ACTGTCCTTCTTTTGCAGTGCTGGTAATGGCTGGTGGTGGGTGCCTGTGGTGGCCCCTCTGGTGGGGGCCACCGT
TGGCACAGCCACTTACCAGCTGTTGGTGGCTCTGCACCACCCTGAGGGCCCAGAGCCAGCTCAGGATCTGGTGTC
TGCTCAACACAAAGCCTCAGAGTTGGAAACTCCTGCCTCAGCTCAGATGCTGGAGTGTAAGCTATGATTAGGACA
ACCCTCACTTCACTCATGGACCCTGGAGCCAGCCACTGACCCCGCCTGGGAACAACAGTCATTCTTCCTCTTTGT
TAATGTGCCAGAACCTGGGAGGCTTCTCTGTTTATCTGTTTGGCATCCCTTCCTCCTAAACTAAGAAGGATCCTG
GACAGGGAGAAGTGGAGGAGGATAAGGTACCAGGACTCAGGCTTCTCATCCCCTCCTCCCGCAAAGCGGTTTTCT
GACCCTCAGGGCCTCTCGGAATGTAGTTGCTCGAGGTAACCGCTAGAGGGTGCGCACCTGGATGCTGGATGGGGA
CGGCTGCGGGCATCTGCAGGGTGGAGGGGGCCACCATCCAGTGTAGGGCACAACCCTGGGGACTGCCCTCCATAG
CCTGTCCCGACTGCCGACTCCTAGCTCTCATCGCCTCGGCGCCTCCCACCTTCACCCTCTCGGGGATGCCTCCCC
AAGAGGGTAGTTAGGGGTGGGGAAGCCGCCTCCACCCAGGGGGCGTGGTGGGGGCGGAGGGAAGGAGGGCGGCGG
GGCACAGAGACAGAGAGCAAGGCTGTGAAACTGAGGCACCGTTCCTAGACATCTCGGTGCTGTGTCGTTCATTCA
AGGAGAGTTGAGATACAGTGAAATGAGCCAGGGCGAGGAGGGAGGGTGAAGGAACGGAGGGCGGGCGGCTCCGAG
GAGCGAGAGTCGGGCTGAGGGCAACCTGGCGCCAGGGAAAATTCTGGTTATTCACCACTTCTACAGCTCTCCTGC
CGCTCCCTGCAGAGGATGCTCGTTTTGCAGAGAAGGCAGTGTTCCTCTATTCCCTTCTTCCGAATTAAAAATACC
CCCTCAGAGCG

FIGURE 73A

AGCTCGCGGTGTCCCCGAGCGCCGGCGGCCGGGAGGATGGCCTGGGCTGCGGGTGGGGCGCGCGCCCGACGGCTG
GGGCTCCCCTCTGAGCGGCTGCGGCTCCTGCACCTCCCCGGGGAGCCGCCCCGTCGATGCCACTAAGGCCAAGGA
CATATAGACGGTCTGCCCTCCCCCACTCAAACCGGGATCATGACGGTCCCCAAGGAGATGCCCGAGAAGTGGGCC
CGGGCCCAGGCGCCTCCCTCTTGGAGCCGAAAGAAGCCCTCTTGGGGGACAGAAGAAGAAAGGAGGGCGCGGGCT
AATGACCGAGAATACAATGAGAAATTCCAGTATGCGAGTAACTGCATCAAGACCTCCAAGTACAATATTCTCACC
TTCCTGCCTGTCAACCTCTTTGAGCAGTTCCAGGAAGTTGCCAACACTTACTTCCTGTTCCTCCTCATTCTGCAG
TTGATCCCCCAGATCTCTTCCCTGTCCTGGTTCACCACCATTGTGCCTTTGGTTCTTGTCCTCACCATCACAGCT
GTTAAAGATGCCACTGATGACTATTTCCGCCACAAGAGCGATAACCAGGTGAATAACCGCCAGTCTCAGGTGCTG
ATCAATGGAATCCTCCAGCAGGAGCAGTGGATGAATGTCTGTGTTGGTGATATTATCAAGCTAGAAAATAACCAG
TTTGTGGCGGCGGATCTCCTCCTCCTTTCCAGCAGTGAGCCCCATGGGCTGTGTTACATAGAGACAGCAGAACTT
GATGGCGAGACCAACATGAAAGTACGTCAGGCGATTCCAGTCACCTCAGAATTGGGAGACATCAGTAAGCTTGCC
AAGTTTGACGGTGAAGTGATCTGTGAACCTCCCAACAACAAACTGGACAAATTCAGCGGAACCCTCTACTGGAAG
GAAAATAAGTTCCCTCTGAGCAACCAGAACATGCTGCTGCGGGGCTGTGTGCTGCGAAACACCGAGTGGTGCTTC
GGGCTGGTCATCTTTGCAGGTCCCGACACTAAGCTGATGCAAAACAGCGGCAGAACAAAGTTCAAAAGAACGAGT
ATCGATCGCCTAATGAATACCCTGGTGCTCTGGATTTTTGGATTCCTGGTTTGCATGGGGGTGATCCTGGCCATT
GGCAATGCCATCTGGGAGCACGAGGTGGGGATGCGTTTCCAGGTCTACCTGCCGTGGGATGAGGCAGTGGACAGT
GCCTTCTTCTCTGGCTTCCTCTCCTTCTGGTCCTACATCATCATCCTCAACACCGTTGTGCCCATTTCACTCTAT
GTCAGTGTGGAGGTCATCCGTCTGGGCCACAGCTACTTCATCAACTGGGATAAGAAGATGTTCTGCATGAAGAAG
CGGACGCCTGCAGAAGCCCGCACCACCACCCTAAACGAGGAGCTGGGCCAGGTGGAGTACATCTTCTCCGACAAG
ACGGGCACCCTCACCCAGAACATCATGGTTTTCAACAAGTGCTCCATCAATGGCCACAGCTATGGTGATGTGTTT
GACGTCCTGGGACACAAAGCTGAATTGGGAGAGAGAGGCCTGAACCTGTTGACTTCTCCTTCAATCCTCTGGCTG
ACAAGAAGTTCTTATTTTGGGACCCCAGCCTGCTGGAGGCTGTCAAGATCGGGGACCCCCACACGCATGAGTTCT
TCCGCCTCCTTTCCCTGTGTCATACTGTC**ATG**TCAGAAGAAAAGAACGAAGGAGAGCTGTACTACAAAGCTCAGT
CCCCAGATGAGGGGGCCCTGGTCACCGCAGCCAGGAACTTTGGTTTTGTTTTCCGCTCTCGCACCCCCAAAACAA
TCACCGTCCATGAGATGGGCACAGCCATCACCTACCAGCTGCTGGCCATCCTGGACTTCAACAACATCCGCAAGC
GGATGTCGGTCATAGTGCGGAATCCAGAGGGGAAGATCCGACTCTACTGCAAAGGGGCTGACACTATCCTACTGG
ACAGACTGCACCACTCCACTCAAGAGCTGCTCAACACCACCATGGACCACCTTAATGAGTACGCAGGGGAAGGGC
TGAGGACCCTGGTGCTGGCCTACAAGGATCTGGATGAAGAGTACTACGAGGAGTGGGCTGAGCGACGCCTCCAGG
CCAGCCTGGCCCAGGACAGCCGGGAGGACAGGCTGGCTAGCATCTATGAGGAGGTTGAGAACAACATGATGCTGC
TGGGTGCAACGGCCATTGAGGACAAACTTCAGCAAGGGGTTCCAGAGACCATTGCCCTCCTGACACTGGCCAACA
TCAAGATTTGGGTGCTAACCGGAGACAAGCAAGAGACGGCTGTGAACATCGGCTATTCCTGCAAGATGCTGACGG
ATGACATGACTGAGGTTTTCATAGTCACTGGCCATACTGTCCTGGAGGTGCGGGAGGAGCTCAGGAAAGCCCGGG
AGAAGATGATGGACTCATCCCGCTCCGTAGGCAACGGCTTCACCTATCAGGACAAGCTTTCTTCTTCCAAGCTAA
CTTCTGTCCTGGAGGCCGTTGCTGGGGAGTACGCCCTGGTCATAAATGGTCACAGCCTGGCCCACGCACTGGAGG
CAGACATGGAGCTGGAGTTTCTGGAGACAGCGTGTGCCTGCAAAGCTGTCATCTGCTGCCGGGTGACCCCCTTGC
AGAAGGCACAGGTGGTAGAACTGGTCAAGAAGTACAAGAAGGCTGTGACGCTTGCCATTGGAGACGGAGCCAATG
ATGTCAGCATGATCAAAACGGCTCACATTGGTGTGGGGATCAGTGGGCAGGAAGGGATCCAGGCTGTCTTGGCCT
CCGATTACTCCTTCTCCCAGTTCAAGTTCCTGCAGCGCCTCCTGCTGGTGCATGGGCGCTGGTCCTACCTGCGAA
TGTGCAAGTTTCTTTGCTATTTCTTCTACAAAAACTTTGCTTTCACCATGGTCCACTTCTGGTTTGGCTTCTTCT
GTGGCTTCTCAGCCCAGACCGTCTATGACCAGTATTTCATCACCCTGTATAACATCGTGTACACCTCCCTGCCAG
TCCTGGCTATGGGGGTCTTTGATCAGGATGTCCCCGAGCAGCGGAGCATGGAGTACCCTAAGCTGTATGAGCCGG
GCCAGCTGAACCTTCTCTTCAACAAGCGGGAGTTCTTCATCTGCATCGCCCAGGGCATCTACACCTCCGTGCTCA
TGTTCTTCATTCCCTATGGGGTGTTTGCTGATGCCACCCGGGATGATGGCACTCAGCTGGCTGACTACCAGTCCT
TTGCAGTCACTGTGGCCACATCCTTGGTCATTGTGGTTAGCGTGCAGATTGGGCTCGACACAGGCTACTGGACGG
CCATCAACCACTTCTTCATCTGGGGAAGCCTTGCTGTTTACTTTGCCATCCTCTTTGCCATGCACAGCAATGGGC
TCTTCGACATGTTTCCCAACCAGTTCCGGTTTGTGGGGAATGCCCAGAACACCTTGGCCCAGCCCACGGTGTGGC
TGACCATTGTGCTCACCACAGTCGTCTGCATCATGCCCGTGGTTGCCTTCCGATTCCTCAGGCTCAACCTGAAGC
CGGATCTCTCCGACACGGTCCGCTACACACAGCTCGTGAGGAAGAAGCAGAAGGCCCAGCACCGCTGCATGCGGC

FIGURE 73B

GGGTTGGCCGCACTGGCTCCCGGCGCTCCGGCTATGCCTTCTCCCATCAGGAGGGCTTCGGGGAGCTCATCATGT
CTGGCAAGAACATGCGGCTGAGCTCTCTCGCGCTCTCCAGCTTCACCACCCGCTCCAGCTCCAGCTGGATTGAGA
GCCTGCGCAGGAAGAAGAGTGACAGTGCCAGTAGCCCCAGTGGCGGTGCCGACAAGCCCCTCAAGGGC**TGA**AGGC
CGAGGATGGATGCCCTGTGCCAGTGACCAGAGCACCCAGGGCTGGCCAGTCACTGAGGGAACAGCGTCTCGGAAC
TGCTGGTCCTCATTCCTTGCTTCCCGTCCCCCCGGTAGACTCTGTCCTGCTGGTCCCACCACACATGGCTGGGAC
ATCTGTTCCCAGCTGTAGGCCCTTCCACCAGCTGGGGAGCTAGAGGGAGCAGGCCCAAGGGCAGAGCAGAGGCTG
AGGCACGGGGAGCCAGCCCCACTCGGGGACCAGAAGTGGAACCAAAAACAAGAAAAAACTGTGAGAGATTGTGTC
TGCCCCTGCCCTGCCTGGGACCCACAGGGAGACTATAATCTCCTTATTTTTTACTCCTACTCCCCAGAGGGGCC
CTAGTGCCTCTGTTCCTGAATTACATAAGAATGTACCATGCCGGGAAGCCAGAGACCTGCAGGGGCCTCGGCCCC
TCACATCGTGTATGTCTCTCCTTGATTTGTGTTGTGTCCAGTTTGGTTTTGTCTTTTTTTATTTGGCAAGTGGAG
GAGGCTTTTATGTGACTTTTATGTTGTGGTTGGTGTCTTAACTCTCCTGGGAAAAGGAGGCTGGCACACACTGGG
ATGCCGCAGCCTGGCCGGCTGTGGGGTGGTTTGGGAGGATCCATGTCGGCTCTGCCTGCAGTGACCAGTGCTCTG
TGGGGCAGAGGAGCTGACCAGGGAGGGAGGTACCCATGAGCAGAGGGTAGTGGGAGAGTGTAAAGGAGGGTTTGG
TCCTGTCTGCTTCCTCACCTTGAGAGTAAAGTGCTGCCCTCTGCCCCCAACACACACACATATCAATTCCTGGAT
TCCTTAGTCCTGCTGGCCTTGGGCTGGAGCCTAGGAAAGTGGCCCCCAAATCCTTAGTGAGCTAAAGCTGGGTCT
GAAATTTGGTCAGTGGGGAGGGGTAGTTTTCTTTTCTTTTTTCTTTTTCTTTTTTTCTTTTTTTTTTTTGAGATGG
AGTCTCACTCTTGTCACCTAGGCAAGAGTGCAATGGCACAATCTCAGCTCACTGCAACCTCCACCTCCTGGGTTC
AAGCGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAGGCACACACCACCACGCTTGGTTAATTTTTGT
ATTTTTAGTAGAGATGTTTCACCATGTTGGCCAGGCTAGTCTTGAATTCCTGACCTCCTGACCTGCCCACCTCAA
CCTCCCAAAGTGCTGAGATTACAGGCGTGAGCCACCACACCCAGCTCAGGGAGGCGTAGTTTTCTTTAATTTTAA
ATTTAAACCCAAGTTTATTGGCAGACTCCCTTTTGACCTCCCTTTGCCTCCCCATCTGGTGCTTTCTTGCATCTA
CACCCCAGGGCCCTGTGGTGGGGCTGCAGGGGGAAGCTGTGCACCTGAGATGAGGCTGGAACGGGAATTGGCCTC
TCTGCTCCCTTCTTCAGTAAGCAAGGAGCCCCGCCCCTCAGGCCCAGCCTCTGGCAAGAGGTGGTGGAATCCTTG
TGCCGGGTAGTAGAGGAGGATAAGGGCAAAACCAGGCCCAGGCCAGTGCCTGGCTTGGTCTGGATGGGACACTGT
CAGAGTTTGGCCACAGCCTGTCCTTTACTTCATCCACACCTATGAAGCTATTCCCTAAATAAGGCATTTCCCAAG
TTAGTCGCTACCTAATCAGCCTTGAGAAGAATCCTTTCCTCTTCTTTGATAGTGGGTCGGGGGATTCTTCAGGAA
TGGTTTGGAGCTGGGAGTGGGTAGGGGGATTTTAAATGTTCCATATGGGAGCCCCAAAGGAACTGGATGGGCTGC
AGTGAGGTGGGGGCGGGTGGGCAGGGAATGGGAGAGGGGAAGTCTTGGCAGGGAAATCCCTTTTGGCCACACAGT
TTACAAACCCAGTATCATGTCTGTCTGTGTGTCTCTCAAGGTGAGAGTCTGATTTTTATACCAAAGAGGAAATGA
TTTTTTTTCATATTTTGTTTGTCTATATTATATAAATATATATATACAGTTATATATATATATATTATTTTTTGG
TTCTCTCTCGTTTTTTAGGGAGGGAAGAAAGTACCAAGTTGCATTGAGCTGTAATTAAGGAACATTATAATTTAT
GACACATTTCTATACTTGCAAAAATTATATCATTTTATGGATATAAGAGAAAAATGCCTTTTTATAAAATTTCAA
TTTCTGA

FIGURE 74

CCTACAGAGGGGTCCATACCGTGTTGTTCTGGATTCCCGTTGTAACTTAAAGGGAAATTTTCACA**ATG**TCCAGAG
CCCTTGATGTCCTGCAAATGAAGGAGGAGGATGTCCTTAAGTTCCTTGCAGCAGGAACCCACTTAGGTGGCACTA
ATCTTGACTTCCAGATGGAACAGTACATCTATAAAAGGAAAAGTGATGGCATCTACATCATAAATCTGAAGAGGA
CCTGGGAGAAGCTTCTGCTGGCAGCTCGTGCCATTGTTGCCATTGAAAACCCTGCTGATGTCAGTGTTATATCCT
CCAGGAATACTGGCCAGAGGGCCATGCTGAAGTTTGCTGCTGCCACTGGAGCCACTCCAATTGCTGGCCACTTCA
CTCCTGGAACCTTCACTAACCGGATCCAGGCAGCCTTCCGGGAGCCACAGCTTCCTGTGGTTACTGACCCCAGGG
CTGACCACCAGCCTCTCACGGAGGTATCTTATGTTAACTTACCTACCATTGCGCTGTGTAACACAGATTCTCCTC
TGCGCTATGTGGACATTGCCATCCCATGCAACAATAAGGGAGCTCACTCAGTGGGTTGGATGTGGTGGATGCTGG
CTCAGGAAGTTCTGCGCATGCGTGGCACCATTTCCCGTGAACACCCATGGGAGGTCATGCCTGATCTCTGCTTCT
ACAGAGATCCTGAAGAGATTGAAAAAGAAGAGCAGGCTGCTGCTGAAGAGGCAGTGACCAAGGAGGAATTTCAGG
GTGAATGGACTGCTCCAGCTCCTGAGTTCACTGCTACTCAGCCTGAGGTTGCAGACTGGTCTGAAGGTCTGCAGG
TGCCCTCTGTGTCTATTCAG**TAG**TTCCCTACTGAAGACTGGAGCGCTCAGCCTGCCACGGAAGACTGGTCTGCAG
CTCCCACTGCTCAGGCCACTGAATGGGTAGGAGCAACCACTGAATGGTCTTAAGCTGTTCTTGCATGGGCTCTTA
AGCAACATGGAAAAATGGTTGATGGAAAATAAATAAACATCAGTTTCT

FIGURE 75

CGCCGCCGCTCCAGCGCCGCGCAGCCACCGCCGCCGCCGCCGCCTCTCCTTAGTCGCCGCC**ATG**ACGACCGCGTC
CACCTCGCAGGTGCGCCAGAACTACCACCAGGACTCAGAGGCCGCCATCAACCGCCAGATCAACCTGGAGCTCTA
CGCCTCCTACGTTTACCTGTCCATGTCTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAACTTTGCCAAATA
CTTTCTTCACCAATCTCATGAGGAGAGGGAACATGCTGAGAAACTGATGAAGCTGCAGAACCAACGAGGTGGCCG
AATCTTCCTTCAGGATATCAAGAAACCAGACTGTGATGACTGGGAGAGCGGGCTGAATGCAATGGAGTGTGCATT
ACATTTGGAAAAAAATGTGAATCAGTCACTACTGGAACTGCACAAACTGGCCACTGACATGAAAGCCATCAAAGA
ATTGGGTGACCACGTGACCAACTTGCGCAAGATGGGAGCGCCCGAATCTGGCTTGGCGGAATATCTCTTTGACAA
GCACACCCTGGGAGACAGTGATAATGAAAGC**TAA**GCCTCGGGCTAATTTCCCCATAGCCGTGGGGTGACTTCCCT
GGTCACCAAGGCAGTGCATGCATGTTGGGG

FIGURE 76

CAGGGAGTCCCACCAGCCTAGTCGCCAGACCTTCTGTGGGATCATCGGACCCACCTGGAACCCCACCTGACCCAA
GCCCACCTGCTGCAGCCCACTGCCTGGCC**ATG**ACCATCACTTACACAAGCCAAGTGGCTAATGCCCGCTTAGGCT
CCTTCTCCCGCCTGCTGCTGTGCTGGCGGGGCAGCATCTACAAGCTGCTATATGGCGAGTTCTTAATCTTCCTGC
TCTGCTACTACATCATCCGCTTTATTTATAGGCTGGCCCTCACGGAAGAACAACAGCTGATGTTTGAGAAACTGA
CTCTGTATTGCGACAGCTACATCCAGCTCATCCCCATTTCCTTCGTGCTGGGCTTCTACGTGACGCTGGTCGTGA
CCCGCTGGTGGAACCAGTACGAGAACCTGCCGTGGCCCGACCGCCTCATGAGCCTGGTGTCGGGCTTCGTCGAAG
GCAAGGACGAGCAAGGCCGGCTGCTGCGGCGCACGCTCATCCGCTACGCCAACCTGGGCAACGTGCTCATCCTGC
GCAGCGTCAGCACCGCAGTCTACAAGCGCTTCCCCAGCGCCCAGCACCTGGTGCAAGCAGGCTTTATGACTCCGG
CAGAACACAAGCAGTTGGAGAAACTGAGCCTACCACACAACATGTTCTGGGTGCCCTGGGTGTGGTTTGCCAACC
TGTCAATGAAGGCGTGGCTTGGAGGTCGAATCCGGGACCCTATCCTGCTCCAGAGCCTGCTGAACGAGATGAACA
CCTTGCGTACTCAGTGTGGACACCTGTATGCCTACGACTGGATTAGTATCCCACTGGTGTATACACAGGTGGTGA
CTGTGGCGGTGTACAGCTTCTTCCTGACTTGTCTAGTTGGGCGGCAGTTTCTGAACCCAGCCAAGGCCTACCCTG
GCCATGAGCTGGACCTCGTTGTGCCCGTCTTCACGTTCCTGCAGTTCTTCTTCTATGTTGGCTGGCTGAAGGTGG
GCCTCTCCAGGGCCCTGCTGGGCTGGAGGCATGGCCAGAGGGGTCATGGCCAGCAGCTGCCTGAGACGAGGATGC
AGTGTCAGGAAAGGAAGGTCTCACGGGTAGAAAGCAGCCAGGCGTGGTGGCGCACACCTGTAATCCCAGCTACTC
GGGAGGCTGAGGCAGGAGAATCGCTTGAACCCGGGAGGCGGAGGTTGTGGTGGCAGAGCAGCTCATCAACCCCTT
TGGAGAGGATGATGATGATTTTGAGACCAACTGGATTGTCGACAGGAATTTGCAGGTGTCCCTGTTGGCTGTGGA
TGAGATGCACCAGGACCTGCCTCGGATGGAGCCGGACATGTACTGGAATAAGCCCGAGCCACAGCCCCCCTACAC
AGCTGCTTCCGCCCAGTTCCGTCGAGCCTCCTTTATGGGCTCCACCTTCAACATCAGCC**TGA**ACAAAGAGGAGAT
GGAGTTCCAGCCCAATCAGGAGGACGAGGAGGATGCTCACGCTGGCATCATTGGCCGCTTCCTAGGCCTGCAGTC
CCATGATCACCATCCTCCCAGGGCAAACTCAAGGACCAAACTACTGTGGCCCAAGAGGGAATCCCTTCTCCACGA
GGGCCTGCCCAAAAACCACAAGGCAGCCAAACAGAACGTTAGGGGCCAGGAAGACAACAAGGCCTGGAAGCTTAA
GGCTGTGGACGCCTTCAAGTCTGCCCCACTGTATCAGAGGCCAGGCTACTACAGTGCCCCACAGACGCCCCTCAG
CCCCACTCCCATGTTCTTCCCCCTAGAACCATCAGCGCCGTCAAAGCTTCACAGTGTCACAGGCATAGACACCAA
AGACAAAAGCTTAAAGACTGTGAGTTCTGGGGCCAAGAAAAGTTTTGAATTGCTCTCAGAGAGCGATGGGGCCTT
GATGGAGCACCCAGAAGTATCTCAAGTGAGGAGGAAAACTGTGGAGTTTAACCTGACGGATATGCCAGAGATCCC
CGAAAATCACCTCAAAGAACCTTTGGAACAATCACCAACCAACATACACACTACACTCAAAGATCACATGGATCC
TTATTGGGCCTTGGAAAACAGGGATGAAGCACATTCCTAACCTGCTTCCTAATGGGGATGCTTCGCCAGCCAGGT
CCTCACCTGTGTGTACACCAGCAGGACACTGATCCAGTCACAGCCATACAGCTGTCCACACTGAAGAACATGTCC
TACAACAGCCTGAATCAAATGGTTAGCTTAATAGATAAAAATCCCAGACTACTTCAGCCTTTAATGCCTTTTATT
CATAAAAACTGTGAAAGCTAGACTGAACCATTGGAAACATTTAACTCAGACTCTGGATTCAGAGTCGGGAACCCT
TAGTTCTATCTGAATCCAAGACAGCCACACCTTAGTATACTGCCCAAACTAATGAGTTTAATAAATACAAATACT
CGTT

FIGURE 77

CTGGTGGGGGGAAGAAGGCTCCTGCTACCTCCCTTCCCGGCACCCTCCAGAGGGACCCTCAGTCTGGCCTTGCAA
GCATGGACTCTTCTGAGGAGCACGCTGGGTGCCCCGCCCGAGGGACATGTCCCGTGTTCCTGGCCATGAGTGCAG
GGACTGTCCGCTACGCCCCATCAGGCCTGTGCCCTGTACTTGAGGGGAACTTGAGAGAAGAGCCCTGGGGCACAG
ACAGCCCACCCCAGCCAGACCAGGGCCTCCCGCCGCCCCTTGCAGCTGTCCCGGTCCCCTGGAAGAGCACGGACC
CCTGCCAAGGCCACAGGGAGTCCCCAGGAGCCCTGGTGGAGACCTCTGCAGGGGAGGAGGCCCGAGGCCAGGAGG
GCCCCGCAGCCGCCCAGCTGGACGTGTTGCGCCTGCGCAGCTCTTCC**ATG**GAGATCCGAGAGAAGGGCTCCGAGT
TCCTGAAGGAGGAGCTGCACAGAGCGCAGAAGGAGCTGAAGCTAAAGGACGAGGAATGTGAGCGGCTGTCCAAGG
TGCGGGAGCAGCTAGAACAGGAGCTGGAAGAGCTGACGGCCAGCCTGTTTGAGGAAGCTCACAAGATGGTTCGAG
AAGCCAACATGAAGCAGGCGGCATCAGAAAAGCAGCTGAAGGAGGCTCGGGGCAAGATCGACATGCTGCAGGCAG
AGGTGACAGCCTTGAAGACGCTGGTCATCACGTCCACACCAGCCTCTCCCAACCGCGAGCTTCACCCCCAGCTGC
TGAGCCCCACCAAGGCCGGGCCCCGAAAGGGCCACTCTCGCCACAAGAGCACCAGCAGCACCCTCTGCCCCGCCG
TGTGTCCCGCTGCGGGACACACCCTCACCCCAGACAGAGAGGGCAAGGAGGTGGACACAATCCTGTTTGCAGAGT
TCCAGGCCTGGAGGGAATCCCCCACCCTGGACAAGACCTGCCCCTTCCTGGAAAGGGTGTACCGGGAGGACGTGG
GCCCCTGCCTGGACTTCACGATGCAGGAGCTCTCGGTGCTGGTACGGGCCGCCGTGGAGGACAACACGCTCACCA
TTGAGCCGGTGGCTTCGCAGACGCTGCCCACAGTGAAGGTGGCCGAGGTTGACTGTAGCAGCACCAACACATGTG
CCCTGAGCGGGCTGACCCGCACCTGCCGCCACCGAATCCGGCTCGGGGACTCCAAAAGCCATTACTACATCTCGC
CATCTTCCCGGGCCAGGATCACCGCAGTGTGCAACTTCTTCACCTACATCCGCTACATCCAGCAAGGCCTGGTGC
GGCAGGACGCAGAGCCCATGTTCTGGGAGATCATGAGGTTGCGGAAGGAGATGTCACTGGCCAAGCTCGGCTTCT
TCCCCCAGGAGGCT**TAG**GGCGCGGCCCAGGCCTGAAGGGGAGCTCTGAGACAGAGCAAACACCCACCCCAGAACA
AGCCGACACACAGGGAGACGGGGGCCTGGAGCCAGCCCTGAGCCAGAGGCAGAATGGATGGACAGACAGGCCATG
GAGGCAGCACTGAGCCAGCACCACACGTCCATCCTGGGACAGACGGGCCTGGACTTCACGGCAAGACCCCCCTCT
CTTCCCCACTGGGTTCTGCCACCACCAGGAGGATTTCAAGAAAGCACCAAAGACCAGGGAGCTCGGATCCATACT
CGGGGGGCCTCAGCCCTTGGGAGGGGACACCTGAGGCAGCCAGCGCCCCCTCCCCAGTCCCCAGAACTGCCTGCA
GGTGCCTTGTTGCTGGCTTGTCTTCAGAAAGGGACTGTTCTGGGTGGCTGGATCTCCAGGGTACCCTCCACCCCA
GCTGCCAAGCCCTGGGCCAGCAGCACCCCCTTGTGGCCATCCTGTGCCTTGTTCCCGGTGGCCTCCCTATTGGAC
TACTAGGAGGGGCTGGCAGGGCCTCCATAGCACAGAATTGCCCCAAAGCCTTGTTAAGATGAGTCAAGACCCCTC
CCCCGCTTCCTCCCTTCCTTTCCCCCTTCCTCCCTCCCCCTTCACAAAGGCCTCCCTTGTCACCTTCCCTCCCAC
CCCGTCTCAGCCCTGTGCTCCTGGAGGCCCTGCTCCCAAAACCGCTGGAAGGACTGGGGCACTTTCTGCCACAGT
AGAACACAGACAGGGCTTCAGATCGCCCACGCCTGTTTTCAGCTGTGGGTGGCCATGCAGACACGCGCCCTGGCA
TGTGGGGCCTGGGTGGGCAGGCAGGACCTGGGCCCTCCCACCCATCAGAGCCCACTCAGGACCAGCGTTCGGAGC
TCCCACCTGGACGCATCCCTCACCACGTCCGGATTTCCTTCTTTGGATGGAATGTAACGCGATCTCTATTTAATA
AAGGCAGGCTTTGTTGGT

FIGURE 78

GAGGCGCACGCTCGCTCGTACGGCGGCCGCGGCGGCAGGGCGGGGCCGGAGCAGCGGGCGGCGGCGGAGGCGGCG
CCCGGGAGCGCTCTTCGCTTCCCTCGGGGTCTTGCTCGGACCTCGGCCACCGCCTGGGATCCCCAGGACTCGTGC
GTGCAGC**ATG**GGCGGCGTCGGGGAGCCGGGACCGCGGGAGGGACCCGCGCAGCCGGGGGCGCCGCTGCCCACCTT
CTGCTGGGAGCAGATCCGCGCGCACGACCAGCCCGGCGACAAGTGGCTGGTCATCGAGCGCCGCGTCTACGACAT
CAGCCGCTGGGCACAGCGGCACCCAGGGGGCAGCCGCCTCATCGGCCACCACGGCGCTGAGGACGCCACGGATGC
CTTCCGTGCCTTCCATCAAGATCTCAATTTTGTGCGCAAGTTCCTACAGCCCCTGTTGATTGGAGAGCTGGCTCC
GGAAGAACCCAGCCAGGATGGACCCCTGAATGCGCAGCTGGTCGAGGACTTCCGAGCCCTGCACCAGGCAGCCGA
GGACATGAAGCTGTTTGATGCCAGTCCCACCTTCTTTGCTTTCCTACTGGGCCACATCCTGGCCATGGAGGTGCT
GGCCTGGCTCCTTATCTACCTCCTGGGTCCTGGCTGGGTGCCCAGTGCCCTGGCCGCCTTCATCCTGGCCATCTC
TCAGGCTCAGTCCTGGTGTCTGCAGCATGACCTGGGCCATGCCTCCATCTTCAAGAAGTCCTGGTGGAACCACGT
GGCCCAGAAGTTCGTGATGGGGCAGCTAAAGGGCTTCTCCGCCCACTGGTGGAACTTCCGCCACTTCCAGCACCA
CGCCAAGCCCAACATCTTCCACAAAGACCCAGACGTGACGGTGGCGCCCGTCTTCCTCCTGGGGGAGTCATCCGT
CGAGTATGGCAAGAAGAAACGCAGATACCTACCCTACAACCAGCAGCACCTGTACTTCTTCCTGATCGGCCCGCC
GCTGCTCACCCTGGTGAACTTTGAAGTGGAAAATCTGGCGTACATGCTGGTGTGCATGCAGTGGGCGGATTTGCT
CTGGGCCGCCAGCTTCTATGCCCGCTTCTTCTTATCCTACCTCCCCTTCTACGGCGTCCCTGGGGTGCTGCTCTT
CTTTGTTGCTGTCAGGGTCCTGGAAAGCCACTGGTTCGTGTGGATCACACAGATGAACCACATCCCCAAGGAGAT
CGGCCACGAGAAGCACCGGGACTGGGTCAGCTCTCAGCTGGCAGCCACCTGCAACGTGGAGCCCTCACTTTTCAC
CAACTGGTTCAGCGGGCACCTCAACTTCCAGATCGAGCACCACCTCTTCCCCAGGATGCCGAGACACAACTACAG
CCGGGTGGCCCCGCTGGTCAAGTCGCTGTGTGCCAAGCACGGCCTCAGCTACGAAGTGAAGCCCTTCCTCACCGC
GCTGGTGGACATCGTCAGGTCCCTGAAGAAGTCTGGTGACATCTGGCTGGACGCCTACCTCCATCAG**TGA**AGGCA
ACACCCAGGCGGGCAGAGAAGGGCTCAGGGCACCAGCAACCAAGCCAGCCCCCGGCGGGATCGATACCCCCACCC
CTCCACTGGCCAGCCTGGGGGTGCCCTGCCTGCCCTCCTGGTACTGTTGTCTTCCCCTCGGCCCCCTCACATGTG
TATTCAGCAGCCCTATGGCCTTGGCTCTGGGCCTGATGGGACAGGGGTAGAGGGAAGGTGAGCATAGCACATTTT
CCTAGAGCGAGAATTGGGGGAAAGCTGTTATTTTTATATTAAAATACATTCAGATGT

FIGURE 79

AGGGGGCGCGGTGGGAGGAGTAGGAGAAGACAAAAGCCGAAAGCGAAGAGGGCCCGGGCTGCACACACCGGCTGG
GAGGCAGCCGTCTGTGCAGCGAGCAGCCGGCGCGGGGAGGCCGCAGTGCACGGGGCGTCACAGTCGGCAGGCAGC
ATGGGGAAGGGAGGGAACCAGGGCGAGGGGGCCGCCGAGCGCGAGGTGTCGGTGCCCACCTTCAGCTGGGAGGAG
ATTCAGAAGCATAACCTGCGCACCGACAGGTGGCTGGTCATTGACCGCAAGGTTTACAACATCACCAAATGGTCC
ATCCAGCACCCGGGGGGCCAGCGGGTCATCGGGCACTACGCTGGAGAAGATGCAACGGATGCCTTCCGCGCCTTC
CACCCTGACCTGGAATTCGTGGGCAAGTTCTTGAAACCCCTGCTGATTGGTGAACTGGCCCCGGAGGAGCCCAGC
CAGGACCACGGCAAGAACTCAAAGATCACTGAGGACTTCCGGGCCCTGAGGAAGACGGCTGAGGACATGAACCTG
TTCAAGACCAACCACGTGTTCTTCCTCCTCCTCCTGGCCCACATCATCGCCCTGGAGAGCATTGCATGGTTCACT
GTCTTTTACTTTGGCAATGGCTGGATTCCTACCCTCATCACGGCCTTTGTCCTTGCTACCTCTCAGGCCCAAGCT
GGATGGCTGCAACATGATTATGGCCACCTGTCTGTCTACAGAAAACCCAAGTGGAACCACCTTGTCCACAAATTC
GTCATTGGCCACTTAAAGGGTGCCTCTGCCAACTGGTGGAATCATCGCCACTTCCAGCACCACGCCAAGCCTAAC
ATCTTCCACAAGGATCCCGATGTGAACATGCTGCACGTGTTTGTTCTGGGCGAATGGCAGCCCATCGAGTACGGC
AAGAAGAAGCTGAAATACCTGCCCTACAATCACCAGCACGAATACTTCTTCCTGATTGGGCCGCCGCTGCTCATC
CCCATGTATTTCCAGTACCAGATCATCATGACCATGATCGTCCATAAGAACTGGGTGGACCTGGCCTGGGCCGTC
AGCTACTACATCCGGTTCTTCATCACCTACATCCCTTTCTACGGCATCCTGGGAGCCCTCCTTTTCCTCAACTTC
ATCAGGTTCCTGGAGAGCCACTGGTTTGTGTGGGTCACACAGATGAATCACATCGTCATGGAGATTGACCAGGAG
GCCTACCGTGACTGGTTCAGTAGCCAGCTGACAGCCACCTGCAACGTGGAGCAGTCCTTCTTCAACGACTGGTTC
AGTGGACACCTTAACTTCCAGATTGAGCACCACCTCTTCCCCACCATGCCCCGGCACAACTTACACAAGATCGCC
CCGCTGGTGAAGTCTCTATGTGCCAAGCATGGCATTGAATACCAGGAGAAGCCGCTACTGAGGGCCCTGCTGGAC
ATCATCAGGTCCCTGAAGAAGTCTGGGAAGCTGTGGCTGGACGCCTACCTTCACAAA**TGA**AGCCACAGCCCCCGG
GACACCGTGGGGAAGGGGTGCAGGTGGGGTGATGGCCAGAGGAATGATGGGCTTTTGTTCTGAGGGGTGTCCGAG
AGGCTGGTGTATGCACTGCTCACGGACCCCATGTTGGATCTTTCTCCCTTTCTCCTCTCCTTTTTCTCTTCACAT
CTCCCCCATAGCACCCTGCCCTCATGGGACCTGCCCTCCCTCAGCCGTCAGCCATCAGCCATGGCCCTCCCAGTG
CCTCCTAGCCCCTTCTTCCAAGGAGCAGAGAGGTGGCCACCGGGGGTGGCTCTGTCCTACCTCCACTCTCTGCCC
CTAAAGATGGGAGGAGACCAGCGGTCCATGGGTCTGGCCTGTGAGTCTCCCCTTGCAGCCTGGTCACTAGGCATC
ACCCCCGCTTTGGTTCTTCAGATGCTCTTGGGGTTCATAGGGGCAGGTCCTAGTCGGGCAGGGCCCCTGACCCTC
CCGGCCTGGCTTCACTCTCCCTGACGGCTGCCATTGGTCCACCCTTTCATAGAGAGGCCTGCTTTGTTACAAAGC
TCGGGTCTCCCTCCTGCAGCTCGGTTAAGTACCCGAGGCCTCTCTTAAGATGTCCAGGGCCCCAGGCCCGCGGGC
ACAGCCAGCCCAAACCTTGGGCCCTGGAAGAGTCCTCCACCCCATCACTAGAGTGCTCTGACCCTGGGCTTTCAC
GGGCCCCATTCCACCGCCTCCCCAACTTGAGCCTGTGACCTTGGGACCAAAGGGGGAGTCCCTCGTCTCTTGTGA
CTCAGCAGAGGCAGTGGCCACGTTCAGGGAGGGGCCGGCTGGCCTGGAGGCTCAGCCCACCCTCCAGCTTTTCCT
CAGGGTGTCCTGAGGTCCAAGATTCTGGAGCAATCTGACCCTTCTCCAAAGGCTCTGTTATCAGCTGGGCAGTGC
CAGCCAATCCCTGGCCATTTGGCCCCAGGGGACGTGGGCCCTGCAGGCTGCAGGAGGGCACTGGAGCTGGGAGGT
CTCGTCCCAGCCCTCCCCATCTCGGGGCTGCTGTGTGGACGGCGCTGCCTCAGGCACTCTCCTGTCTGAACCTGC
CCTTACTGTGTTTAACCTGTTGCTCCAGGATGCATTCTGATAGGAGGGGGCGGCAGGGCTGGGCCTTGTGACAAT
CTGCCTTTCACCACATGGCCTTGCCTCGGTGGCCCTGACTGTCAGGGAGGGCCAGGGAGGCAGAGCGGGAGGGAG
TCTCAGGAGGAGGCTGCCCTGAGGGGCTGGGGAGGGGGTACCTCATGAGGACCAGGGTGGAGCTGAGAAGAGGAG
GAGGTGGGGGCTGGAGGTGCTGGTAGCTGAGGGGACGGGCAAGTGAGAGGGGAGGGAGGGAAGTCCTGGGAGGAT
CCTGAGCTGCTGTTGCAGTCTAACCCACTAATCAGTTCTTAGATTCAGGGGAAGGGCAGGCACCAACAACTCAGA
ATGGGGGCTTTCGGGGAGGGCGCCTAGTCCCCCCAGCTCTAAGCAGCCAGGAGGGACCTGCATCTAAGCATCTGG
GTTGCCATGGCAATGGCATGCCCCCCAGCTACTGTATGCCCCCGACCCCCGCAGAGGCAGAATGAACCCATAGGG
AGCTGATCGTAATGTTTATCATGTTACTTCCCCACCCCTACATTTTTTGAAATAAAATAAGGAATTTTATTCTC

FIGURE 80A

TCCACTCCTGGAGCCCGCGGACCCCGAGCACGCGCCTGACAGCCCCTGCTGGCCCGGCGCGCGGCGTCGCCAGGC
CAGCT**ATG**GCCCCCGACCCGGTGGCCGCCGAGACCGCGGCTCAGGGACCTACCCCGCGCTACTTCACCTGGGACG
AGGTGGCCCAGCGCTCAGGGTGCGAGGAGCGGTGGCTAGTGATCGACCGTAAGGTGTACAACATCAGCGAGTTCA
CCCGCCGGCATCCAGGGGGCTCCCGGGTCATCAGCCACTACGCCGGGCAGGATGCCACGGATCCCTTTGTGGCCT
TCCACATCAACAAGGGCCTTGTGAAGAAGTATATGAACTCTCTCCTGATTGGAGAACTGTCTCCAGAGCAGCCCA
GCTTTGAGCCCACCAAGAATAAAGAGCTGACAGATGAGTTCCGGGAGCTGCGGGCCACAGTGGAGCGGATGGGGC
TCATGAAGGCCAACCATGTCTTCTTCCTGCTGTACCTGCTGCACATCTTGCTGCTGGATGGTGCAGCCTGGCTCA
CCCTTTGGGTCTTTGGGACGTCCTTTTTGCCCTTCCTCCTCTGTGCGGTGCTGCTCAGTGCAGTTCAGGCCCAGG
CTGGCTGGCTGCAGCATGACTTTGGGCACCTGTCGGTCTTCAGCACCTCAAAGTGGAACCATCTGCTACATCATT
TTGTGATTGGCCACCTGAAGGGGGCCCCCGCCAGTTGGTGGAACCACATGCACTTCCAGCACCATGCCAAGCCCA
ACTGCTTCCGCAAAGACCCAGACATCAACATGCATCCCTTCTTCTTTGCCTTGGGGAAGATCCTCTCTGTGGAGC
TTGGGAAACAGAAGAAAAAATATATGCCGTACAACCACCAGCACAAATACTTCTTCCTAATTGGGCCCCCAGCCT
TGCTGCCTCTCTACTTCCAGTGGTATATTTTCTATTTTGTTATCCAGCGAAAGAAGTGGGTGGACTTGGCCTGGA
TGATTACCTTCTACGTCCGCTTCTTCCTCACTTATGTGCCACTATTGGGGCTGAAAGCCTTCCTGGGCCTTTTCT
TCATAGTCAGGTTCCTGGAAAGCAACTGGTTTGTGTGGGTGACACAGATGAACCATATTCCCATGCACATTGATC
ATGACCGGAACATGGACTGGGTTTCCACCCAGCTCCAGGCCACATGCAATGTCCACAAGTCTGCCTTCAATGACT
GGTTCAGTGGACACCTCAACTTCCAGATTGAGCACCATCTTTTTCCCACGATGCCTCGACACAATTACCACAAAG
TGGCTCCCCTGGTGCAGTCCTTGTGTGCCAAGCATGGCATAGAGTACCAGTCCAAGCCCCTGCTGTCAGCCTTCG
CCGACATCATCCACTCACTAAAGGAGTCAGGGCAGCTCTGGCTAGATGCCTATCTTCACCAA**TAA**CAACAGCCAC
CCTGCCCAGTCTGGAAGAAGAGGAGGAAGACTCTGGAGCCAAGGCAGAGGGGAGCTTGAGGGACAATGCCACTAT
AGTTTAATACTCAGAGGGGGTTGGGTTTGGGGACATAAAGCCTCTGACTCAAACTCCTCCCTTTTATCTTCTAGC
CACAGTTCTAAGACCCAAAGTGGGGGGTGGACACAGAAGTCCCTAGGAGGGAAGGAGCTGTTGGGGCAGGGGTGT
AAATTATTTCCTTTTTCTAGTTTGGCACATGCAGGTAGTTGGTGAACAGAGAGAACCAGGAGGGTAACAGAAGAG
GAGGGACCTACTGAACCCAGAGTCAGGAAGAGATTTAACACTAAAATTCCACTCATGCCGGGCGTGGTGGCACGC
GCCTGTAATCCCAGCTACCCAGGAGGCTGAGGCAGGAGAATCGCTTGAACCGGGGAGGTGGAGGTTGCAGTGAGC
TGAGATCACGCCATTGTACTCCAGCCTGGGCGACAGAGCAAGACTCCATTTCAAAAAAAAAAAAAAAATCCACTC
ATATAAAAGGTGAGCTCAGCTCACTGGTCCATTTCTCAGTGGCTTCTCCATCCTCATTTGCAAACCTCAGAGGGA
TAAGGCAGTTGAACCTGATGAGCAAGAATTATAACAGCAAGGAAACATTAATGCTTAGAATTCTGAGATCCAGCA
CAACTCAGTCTGTGGGAGCTCAGCTCGCTGCCCAGGGATAGGTATGACCTATGTCTGCCTTAGGCTGCTGGGAGA
TGCCATTCTCCAGTTTCAGAAGCAGGCAGGGCAAAGGTCAAGACTGTGGTATTGGGGTCTTTTGGCTCTGAAGGA
TCCTGGAACCACTGATTTTGGTTTATTCCCTCCAGGGTCTAAAGAGAACAAGAGGTGCTAGCTCTTACCAAAACA
GATGGTAGAGAGAGTTGCTGGCTATTTAAAAAGCTCTTTCATCTTTTAATTCACCTCTTCTTTTCACCTCTTTAA
CCACTCCTCAGGAACAGAACACTTCTAGGACTGGGGGTCTTTTAGCTCCATAAGCAAGTGAGCAGATGGGACAAG
TTAGTCTTTTCTCCCTAGAAACAAAGGGGATGCCCAGTGGTTTCCCTTTGCTTCCCAACCTAAAATTTCAAGTTT
AATAAAATAGCAATTAGCAGAAGTGACCAAATTGGGAGATAATTATCAGTCATGAGGAAAGACACAGATTTCGGT
CATAAAGAATGTAAGGGCTATAAGTAGAAACTTTCTATAACCTAAATGATGTTATAGAATTATTTTTGAGCAGGA
GCAGAAAGATTAAATATGATCACTTCATACTTCTAAATCAGAAATAGGAAGATTAAAACCACAGAACAGTTTGTG
ATTTCTATTGCTGTAGCTAGGTATCTTACTCTGTCCACTCTTGTTCAAGTATCTAACTCTTCTGGAAACCAAATA
GGCTTTAGAAGAGATTATCCTATATTCCTATCAGTATAATACTAAAATGTAACTTTTTAATCATCTGGTTTTTAA
AAGATAAACAGTTTAGCCCATCTCTCCAGAGAGCAAACATAGGAATATGACTCAGGAGCCTCCTAGGGCTTATCA
TCAGCCCTCACACCCGCTTCCCCCTCCAACCCACAGCCTTTGCTTCCAGGTGGCAGGATTACTACTTTGCCTCTT
CAGCAGCATCTACTCTAGGCATATTGATCATTTTAGACACTGGGAGAAGAGAACCTCAAACTAGGAGGAAAAGAC
AGAGCCTCCACTTAGTTTTGGGAGGGGATGGCAGACAGTCAAGGAGATGAGCGTCCTAAGGCATGTTGGGATAGG
GTCAGATGCACCACCCATGGAGAGGTTTGTCAACACAAAGACATGGAAGGTTAGAGGTTTGTCAACAAAAAGACA
TGGAAGGTTAGGTTTGTCAACACAAAGACATGGAAGATTAGAGGTTTGTCAACACAAAGACACAGGAAGAATGGG
CTGCAGAAGATTTAGATGTTTTCCATTTGGGCACATTTTACTTAGCTGGAGAACTAGGTTTAAAACAGCCTGGGT
AGGAAAATTAGAAGCAAGCTGGATGCAGTGGCTCATGCCTGTAATCCCAACACTTTTGGGAGGTCCAGGCAGGAG
GATCACTTGGGCCCAGGAGGTCAAGCCTGCAGCGAGCTGAGATCACACCACTGCACTCCAGCCTGGGGTGATAGA

FIGURE 80B

ACAAGACCCTGTCTCAAAAAAAAAAAAAACAACAAAAACTTAGAATTGAGGAGTTGTACCTCCATTGGCTTCCTC
ACTCCAAAATAGGTGCTGATCCTTCCTATTCCTATTCTTTGCCACCTTTTGGGTGTGGTGTCACCAGCCTGTTTA
GCCAAGTAGCTTTGGGCATAGGCTGCCCAATCTGAGCAAACACCAGTGAGGCTCTATTGAGCCAAGACCAAGTCC
TCAAAGCACCTGAACCACTGTGGCCTTCTCAGCCTACAGCAGTGTGGTCTCTTACATGGCCACAAAGGGACACAC
AGTGACAAAAGGCTCGGAATGTTACAATGGTAAAATGAGTGATCTCAAATCCACTGACAGATATAAAATAGGCTT
AGAGAGGAAAAGCTGCCTCTGGTCAAGTAGATCATGGCAGCATGAATTCCAACTCACTTTTTTACAACTCCAACT
TCTATGTTTATCTTTGTTACTTTCACTTTTTTACAACCTGGCCAGAGGCATTTTTTAAATCAGGCCCAATATCAG
TATTCTTTTTGTGTGTGCCAATTTTGTTATCACATCCCTATGAAGTTGAAAAATAAAGTTAATTTTGACC

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FIGURE 81

AGTCCTGCGATTTCGGGTGTAGAGGGAGCAGGGGCCTGCGGGGACCTGGTGTGGGTGGAGTGGGGACAAGCGGTG
GAGAAGGGTACGCCAGGGTCGCTGAGAGACTCTGTTCTCCCTGGAGGGACTGGTTGCCATGAGAGCAGCCGTCTG
AGGGGACGCAGCCTGCACTACGCGCCCCAAGAGGCTGTGCGTGGCGAGCAGGTCACGTGACGGGAGCGCGGGCTT
TGGAAGGCGGCTGAACGTCAGGCCACCCGCCGCTAAGCTGAGAAGGGAGAGCGAGCTTAGGACCGCCTGCCCGGG
GCAACCCCGAACCAAGCTTTAGCCGCCGAGGCCGCGTGTCCCAAAGGCCAGTCATCCCTCCTCTGTGTTGCC**ATG**

GGAATTCAAGGCCTGGCCAAACTAATTGCTGATGTGGCCCCCAGTGCCATCCGGGAGAATGACATCAAGAGCTAC
TTTGGCCGTAAGGTGGCCATTGATGCCTCTATGAGCATTTATCAGTTCCTGATTGCTGTTCGCCAGGGTGGGGAT
GTGCTGCAGAATGAGGAGGGTGAGACCACCAGCCACCTGATGGGCATGTTCTACCGCACCATTCGCATGATGGAG
AACGGCATCAAGCCCGTGTATGTCTTTGATGGCAAGCCGCCACAGCTCAAGTCAGGCGAGCTGGCCAAACGCAGT
GAGCGGCGGGCTGAGGCAGAGAAGCAGCTGCAGCAGGCTCAGGCTGCTGGGGCCGAGCAGGAGGTGGAAAAATTC
ACTAAGCGGCTGGTGAAGGTCACTAAGCAGCACAATGATGAGTGCAAACATCTGCTGAGCCTCATGGGCATCCCT
TATCTTGATGCACCCAGTGAGGCAGAGGCCAGCTGTGCTGCCCTGGTGAAGGCTGGCAAAGTCTATGCTGCGGCT
ACCGAGGACATGGACTGCCTCACCTTCGGCAGCCCTGTGCTAATGCGACACCTGACTGCCAGTGAAGCCAAAAAG
CTGCCAATCCAGGAATTCCACCTGAGCCGGATTCTGCAGGAGCTGGGCCTGAACCAGGAACAGTTTGTGGATCTG
TGCATCCTGCTAGGCAGTGACTACTGTGAGAGTATCCGGGGTATTGGGCCCAAGCGGGCTGTGGACCTCATCCAG
AAGCACAAGAGCATCGAGGAGATCGTGCGGCGACTTGACCCCAACAAGTACCCTGTGCCAGAAAATTGGCTCCAC
AAGGAGGCTCACCAGCTCTTCTTGGAACCTGAGGTGCTGGACCCAGAGTCTGTGGAGCTGAAGTGGAGCGAGCCA
AATGAAGAAGAGCTGATCAAGTTCATGTGTGGTGAAAAGCAGTTCTCTGAGGAGCGAATCCGCAGTGGGGTCAAG
AGGCTGAGTAAGAGCCGCCAAGGCAGCACCCAGGGCCGCCTGGATGATTTCTTCAAGGTGACCGGCTCACTCTCT
TCAGCTAAGCGCAAGGAGCCAGAACCCAAGGGATCCACTAAGAAGAAGGCAAAGACTGGGGCAGCAGGGAAGTTT
AAAAGGGGAAAA**TAA**ATGTGTTTCCCCATTATACCTCCTTCACCCCAGAATATTTGCCGTCTTGTACCCTTAAGA
GCTACAGCTAGAGAAACCTTCACGGGGTGGAGAGAGGATTCTAAGGCTTTTCTAGCGTGACCCTTTTCAGTAGTG
CTAGTCCCTTTTTTACTTGATCTTAATGGCAAGAAGGCCACAGAGGTACTTTTCCTTTTTTAGCTCAGGAAAATA
TGTCAGGCTCAAACCACTTCTCAGGCAGTTTAATGGACACTAAGTCCATTGTTACATGAAAGTGATAGATAGCAA
CAAGTTTTGGAGAAGAGAGAGGGAGATAAAAGGGGGAGACAAAAGATGTACAGAAATGATTTCCTGGCTGGCCAA
CTGGTGGCCAGTGGGAGGTGATGGTGGACCTAGACTGTGCTTTTCTGTCTTGTTCAGCCTTGACCCACCTTGAGA
GAGAGCCACCAGGAAGGCGCATCTTAGCAGATGGGAGGAACTGCTGAGAGAAGATGGGCAGAAAGCTGGAGCCCC
TGGAGTTGGCTGTGTCTGTGTTTGTGACTGATTACTGGCTGTGTCTTGGGTGGGCAGAAACTCGAACTTGCTATG
TAATTTGTGTCTAGTTATTCAGAGGAGTAAGATGGTGATGTTCACCTGGCAATCAGCTGAGTTGAGACTTTGGAA
TAAGACACTGGTTTTCATGCGCTGTTTTTGTTTTAAAGTTATGAAGAAAAAAGTCAATAAAATTCTAAAAGT

FIGURE 82

CCTGCCGACGTGTTCTTCCGGTGGCGGAGCGGCGGATTAGCCTTCGCGGGGCAAA**ATG**GAGCTCGAGGCCATGAG
CAGATATACCAGCCCAGTGAACCCAGCTGTCTTCCCCCATCTGACCGTGGTGCTTTTGGCCATTGGCATGTTCTT
CACCGCCTGGTTCTTCGTTTACGAGGTCACCTCTACCAAGTACACTCGTGATATCTATAAAGAGCTCCTCATCTC
CTTAGTGGCCTCACTCTTCATGGGCTTTGGAGTCCTCTTCCTGCTGCTCTGGGTTGGCATCTACGTG**TGA**GCACC
CAAGGGTAACAACCAGATGGCTTCACTGAAACCTGCTTTTGTAAATTACTTTTTTTTACTGTTGCTGGAAGTGTC
CCACCTGCTGCTCATAATAAATGCAGATGTATA

FIGURE 83A

CACAGGGCCTGCAGAGAGGGGACCCACCGGGCAGG**ATG**CACTGGCTTCCAGCAGGCCACGACATCAACGGTGCCC
TGGAGCCCTCCAACATAGACACCAGCATCCTGGAGGAGTACATCAGCAAGGAGGATGCCTCCGACCTCTGCTTCC
CTGACATCTCTGCTCCAGCCAGCTCGGCCTCCTACTCCCACGGGCAGCCTGCGATGCCTGGCTCCAGCGGGGTCC
ACCACCTGAGCCCCCCTGGGGGTGGACCCTCCCCGGGGCGCCATGGTCCCCTCCCACCCCCGGGCTACGGCACCC
CGCTGAACTGCAACAACAACAACGGCATGGGCGCTGCCCCCAAGCCCTTCCCGGGGGGCACCGGGCCCCCCATCA
AGGCTGAGCCCAAGGCTCCCTATGCCCCAGGCACACTGCCGGACTCTCCCCCAGACTCGGGCTCCGAGGCCTACT
CCCCCCAGCAGGTGAATGAGCCCCACCTCCTGCGCACGATAACCCCTGAGACACTGTGCCACGTGGGAGTGCCCT
CCCGCCTGGAGCATCCGCCCCCACCTCCAGCCCACTTGCCAGGCCCCCCGCCACCCCCACCACCCCCACCTCACT
ACCCTGTCCTGCAGCGGGATCTGTACATGAAGGCCGAGCCCCCGATCCCCCACTACGCTGCCATGGGGCAGGGGC
TGGTGCCCACTGATCTTCACCACACCCAGCAGTCCCAGATGCTGCACCAGCTCCTGCAGCAGCACGGAGCTGAGC
TCCCTACACACCCCTCCAAGAAGAGGAAGCACTCTGAATCCCCCCCGAGCACCCTCAATGCCCAGATGCTGAATG
GAATGATCAAACAGGAGCCTGGGACCGTGACAGCCCTGCCTCTGCACCCCACTCGAGCCCCATCGCCACCCTGGC
CTCCCCAGGGTCCGCTCTCCCCGGGCCCTGGTTCCTTGCCTCTCAGCATTGCCCGTGTCCAGACACCGCCTTGGC
ACCCGCCAGGTGCCCCCTCCCCAGGCCTCCTGCAGGACAGTGACAGCCTCAGTGGCTCCTACCTGGACCCCAACT
ACCAGTCCATCAAGTGGCAGCCTCATCAGCAGAACAAGTGGGCGACCCTGTACGATGCTAACTACAAGGAGCTGC
CCATGCTCACCTACCGCGTGGATGCGGACAAGGGCTTCAACTTTTCGGTGGGCGACGACGCCTTTGTGTGCCAGA
AGAAGAACCACTTCCAGGTGACAGTGTACATCGGCATGCTGGGCGAGCCCAAGTACGTCAAGACGCCCGAGGGCC
TCAAGCCCCTCGACTGCTTCTATCTGAAGCTGCACGGAGTGAAGCTGGAGGCCCTGAACCAGTCCATTAACATCG
AGCAGTCCCAGTCAGACCGGAGCAAGCGGCCCTTCAACCCGGTCACGGTCAATCTGCCCCCTGAGCAGGTCACGA
AGGTGACTGTGGGGCGGCTGCACTTCAGCGAGACCACCGCTAACAACATGCGTAAGAAGGGCAAGCCCAACCCGG
ACCAGAGGTACTTCATGCTGGTGGTGGCCCTCCAGGCTCATGCACAGAACCAGAACTACACGCTGGCCGCCCAGA
TCTCAGAGCGCATCATTGTGCGGGCCTCCAACCCAGGCCAGTTCGAGAGCGACAGCGATGTGTTGTGGCAGCGGG
CACAGGTGCCCGACACCGTCTTCCACCACGGCCGCGTGGGCATCAACACAGACCGGCCGGATGAGGCGCTGGTTG
TGCACGGGAATGTCAAGGTCATGGGCTCGCTTATGCACCCCTCCGACCTGCGCGCCAAGGAACACGTGCAGGAGG
TGGACACCACCGAGCAATTGAAGAGGATCTCGCGCATGCGGCTGGTGCACTACAGATACAAGCCCGAGTTCGCCG
CCAGCGCGGGCATCGAGGCCACCGCGCCAGAGACAGGTGTCATCGCTCAGGAGGTGAAGGAGATCTTGCCTGAGG
CTGTGAAAGACACCGGAGACATGGTCTTTGCCAATGGGAAAACCATAGAGAACTTCCTGGTGGTGAACAAGGAGC
GCATCTTCATGGAGAACGTAGGGGCCGTGAAGGAGCTGTGCAAGCTGACAGACAACCTGGAGACGCGCATTGATG
AGCTGGAGCGCTGGAGCCACAAGCTGGCCAAGCTGCGGCGGCTCGACAGCCTCAAGTCCACCGGCAGCTCGGGCG
CCTTCAGCCATGCAGGGAGCCAGTTCAGTCGGGCGGGCAGCGTCCCCCACAAGAAGAGGCCCCCCAAGGTGGCCA
GCAAGTCATCGTCCGTGGTTCCGGACCAGGCCTGCATCAGCCAGCGCTTCCTGCAGGGAACCATCATTGCCCTGG
TGGTGGTCATGGCCTTCAGCGTGGTGTCCATGTCCACACTGTACGTGCTGAGCCTGCGCACAGAGGAGGACCTGG
TAGACACTGATGGCAGGTCCAGCCAGAGCTTTGGGACCACGCAGCTCCGACAGTCCCCCTTGACCACGGGGCTAC
CAGGCATACAGCCCTCTTTGCTGCTGGTGACCACCAGCCTCACCAGCTCGGCCCCAGGTTCTGCTGTCCGCACCT
TGGACATGTGTTCCAGCCACCCCTGCCCTGTCATCTGCTGTTCCTCACCCACTACCAACCCTACCACTGGTCCTA
GTCTTGGCCCCAGCTTTAACCCTGGCCATGTTCTCAGCCCAAGTCCCAGCCCCAGCACCAACCGCTCAGGCCCCA
GCCAGATGGCCCTTCTGCCAGTCACCAACATCAGAGCCAAGTCCTGGGGTCTTTCAGTCAATGGCATTGGCCACT
CCAAGCATCACAAGAGTCTGGAGCCTCTGGCCAGCCCTGCAGTCCCCTTCCCTGGGGGGCAGGGCAAAGCCAAGA
ACAGTCCCAGCCTTGGTTTCCATGGCCGGGCCCGCCGAGGGGCCCTCCAGTCCAGCGTGGGCCCTGCTGAGCCCA
CCTGGGCCCAGGGCCAGTCAGAGCCAGTGCCCTCCCTGACCTCCATCCAGGTGCTGGAGAATTCGATGTCCATCA
CCTCCCAGTACTGTGCTCCAGGGGATGCCTGCAGGCCTGGGAACTTCACCTACCACATCCCTGTCAGTAGTGGCA
CCCCACTGCACCTCAGCCTGACTCTGCAGATGAACTCCTCCTCCCCCGTGTCTGTGGTGCTGTGCAGCCTGAGGT
CAAAGGAGGAACCATGTGAGGAGGGGAGCCTTCCACAGAGTCTCCACACCCACCAGGACACCCAGGGCACCTCTC
ACCGGTGGCCAATAACCATCCTGTCCTTCCGTGAATTCACCTACCACTTCCGGGTGGCACTGCTGGGTCAGGCCA
ACTGCAGTTCAGAGGCTCTCGCCCAGCCAGCCACAGACTACCACTTCCACTTCTACCGCCTGTGTGAC**TGA**GCTG
CCCTCCTGAGGCAGCACCACACCAGGGACCAGGGGTGCCCAGGCACCCCCCAACACTGGATGCAATGGTGTTACA
CTGGAGCCCGCTGCAGGCCAGCTCTGCTGTTCACTGGCCCTACCCGAGACTGGTGAAACTGGAAGTCTTCACACT
GGAGTTGCTGTTCCAGCTGGTCGCCCCTCACGGCACAGAGGGAACCTGAGAGCCAGAGACTTCTTGGGCCTTCCT

FIGURE 83B

GCCTGCCACCCCCTAGGGGCCAGGACAGGACCAGTTTACCTCTTTCCAGATATGGTGGTTGGAGGGCTGGTTCAG
GTGCCCTGGAGGGAAGGGGAAGCCTGTGGCCCTGATTTGTTCAGAGCCCATTCTCCCTTGCCTCCCCTTTTGAGA
CTGGAGCCAACCCTTTTGGAGAGAGGACCTGCCCACCTTTGAGATCAGCAGGGGGCTCGGATCCAGCCCTAAGAG
ACTTGGGTGGACCCCCATGAGTCAATGGAGGGCAGACGGCTCTCCCCCTTAAAGCTGTTCCCTGGGGGATGGCTT
GGTAGTGGACTTTCTGGGGTTTGCCTGTTACGCCAGACTCGGACTTCTAAGCTTTAAGTGTGGCCCAGGAGGTTT
CTTCTCCCTGGGAGGGCTTGGCTCCCAAGAAGTCCCAGGGCAGCCGAGGCCAGCCCTGCCTGGGTTGGAGAAACT
GACTTTGTGCCTTAAGTCTACTCAGTGCCTGGTGAAGCCACCCTCAGCCCTTCACAGGCCTGAACCAGTAGGGGC
CAGTGGGCCAGGTAAGCCCTAGAGCCTTGAACCAGGAATATCCAGGAAGAGGAAATTCCCTTTGAGCCCCCAGAT
GGTATTGCAGCTTCACTGCCTGCGTTCCTGGGAGCGTCTGGAGCTCACAGTGATCAGTGACCACATCATTCTCTC
TGAGCAGAGGAGCAGGAATCCCTCAAGCAGCAGCCTGGTCTTGGCTGGTGGGCAGATGCAAATAGCTTTTGCTGT
TATTAATGAAGTAATTACTAAATGCACTTAAACCAGGGCAGGAAGGAATGGAAGGATGGAGCTAGAAAGCTCAGA
GTGGGCCAGAGCAGGGGTGTGACACTTGCAAAGACAGGGCTCTGACTCTGATCCCTCCCAGGGAGCCTCCGACAC
CCATCCCACTCCCAACCACCAAGACCCTGGGTTAGGGAAGAAGTTGTATCTTAAGTGCCACCTTCAAGTTTCTTA
GTGGTGCCTGGTGCATTCCGAGGCTACATCCAGGCTCATGGAAGGAGTGTAGTATTCATTTAGCCATGTCTGCCA
TGGGTCCAGAAATGGGAAAGGGAATTGCTGTCCTTGCCCTGTGGTATGCTGCCACCTCTTTGGGAAGCAGGCCTT
GCCCCTGTCCCACCACTCATTCTCAGCTTTGAATGGGAGGCCTTTCTATAGTGGAGGCCTTTCCTTGAAGCCTAT
GAACTGCAGGCCCCCTTTTGCCATTGATCTCAAAGCACTTGTCCTCAGGATAGGGAAGAGCAGGGGGATGCAGGA
ATAGCAGGGATAGCTTGCTCCCAGCCCCCTCCCCAATTTGGTTCCGTTGACATAGGAATTTTACGATTCCCAAAC
CATGCAGGGGCTGAGCCTTCCTTATGATGACTTTGTTCTCCCTCCCACTGGGGGAATCCTCCCTATGCCTTAAAA
CTGCCGAGCCCCACTCCATGTAATAGGATTCCTGGGCTTCCTCAATGGGGGTTCATGTTCTTGGACTGCGGGCCC
TCAGTCCTTAACTGGAAAGTGACCGTCCACTGCCCCATGGAGCCCATCTGGACACAGCACAGCCCCAAAACCGTT
AGCAGCTGGCTCTGTTTCCAAGCCTGGGGAGGGGTTCCTCAGTGCAGGAGTTGGGGACAGGCTGGGGATCCAAGC
TGCTTGAGGGGGTCAACCTTGGACCAAAGTTGCCTTAAGCCTGTGGTAAAAGGGCTTCAGGGAAGGTAAGTGGGC
CACCTGCTGGAAGCTGCCAGCTGCCCGGCTGGCAATGGTGTGAGTGTCTTGGCCCTGTCCCTGCCCTGGGGTCCA
GCAGGTCATCCCTCCCTTCTTCTCTCTCCTTTGGCGTTTGTTCCTGTAGTCACTGGGCTAATCTCCCCCTAGCTT
CAAGCTGTACATAGGGCCTCCCAGTGCAAATCCTCCTGCCCATACCGTGCACCCTTAGAAGCCTGCGTGTGCATA
GAGCGCCCCCTACTTCCCAGTTAACTCCCAGTTCTTCTCCCTGAGCTTGGTATTTGTCATGTGCCAACTCTGACT
CTGAGGTGGGCAGTGAGGGAAGCAGCCCCGGGCCTGCTTGCTTCCTGTCCCCGAAATGTTCGTTTCTTCTGAAGT
AAATATACATATATAAATAAATGTATAAATACTGCTTTGTATCTG

FIGURE 84A

TCAGTATCCGGGGGACCCTGTCCCCCAAGGATGCCCTGACTGACCTGACGGGTGATGCTGAGCGCCTCCCCGTGG
AGGGGCACCACGGCACCTGGCTGGGCCACAAGGGTATGGTCCTCTCAGCTGAGTACATCAAGAAGAAACTGGAGC
AGGAGATGGTCCTGTCCCAGGCCTTTGGGCGAGACCTGGGCCGCGGAACCAAACACTACGGCCTGATTGTGGTGG
GCCACTCCCTGGGCGCGGGCACTGCTGCCATCCTCTCCTTCCTTCTGCGCCCACAGTATCCGACCCTCAAGTGCT
TTGCCTACTCCCCGCCAGGGGGCCTGCTGAGGTGAGGATGCG**ATG**GAGTATTCCAAGGAGTTCGTGACTGCTGTG
GTTCTGGGCAAAGACCTCGTCCCCAGGATTGGCCTCTCTCAGCTGGAAGGCTTCCGCAGACAGCTCCTGGATGTC
CTGCAGCGAAGCACCAAGCCCAAATGGCGGATCATCGTGGGGGCCACCAAATGCATCCCCAAGTCGGAGCTGCCT
GAGGAGGTAGAGGTGACCACCCTGGCCAGCACGCGGCTCTGGACCCACCCCAGCGACCTAACTATAGCCCTCTCA
GCCAGCACTCCACTCTACCCGCCCGGCCGCATCATCCACGTGGTCCACAACCACCCTGCAGAGCAGTGCTGCTGC
TGTGAGCAGGAGGAGCCCACATACTTTGCCATCTGGGGCGACAACAAGGCCTTCAATGAGGTGATCATCTCGCCA
GCCATGCTGCATGAGCACCTGCCCTATGTGGTCATGGAGGGGCTCAACAAGGTGCTGGAGAACTACAACAAGGGG
AAGACCGCTCTGCTCTCTGCAGCCAAGGTCATGGTGAGCCCTACCGAGGTGGACCTGACTCCTGAGCTCATCTTC
CAGCAGCAGCCACTCCCCACGGGGCCGCCCATGCCCACTGGCCTTGCCCTGGAGCTGCCGACTGCAGACCACCGC
AACAGCAGCGTCAGGAGCAAGTCCCAGTCTGAGATGAGCCTGGAGGGCTTCTCGGAGGGGCGGCTGCTGTCGCCA
GTGGTTGCGGCGGCGGCCCGCCAGGACCCGGTGGAGCTGCTGCTGCTGTCTACCCAGGAGCGGCTGGCGGCGGAG
CTGCAGGCCCGGCGGGCACCACTGGCCACCATGGAGAGCCTCTCGGACACTGAGTCCCTGTACAGCTTCGACTCG
CGCCGCTCCTCAGGCTTCCGCAGCATCCGGGGCTCCCCCAGCCTCCACGCTGTGCTGGAGCGTGATGAAGGCCAC
CTCTTCTACATTGACCCTGCCATCCCCGAGGAAAACCCATCCCTGAGCTCGCGCACTGAGCTGCTGGCGGCCGAC
AGCCTGTCCAAGCACTCACAGGACACGCAGCCCCTGGAGGCGGCCCTGGGCAGTGGCGGCGTCACTCCTGAGCGG
CCCCCCAGTGCTGCGGCCAATGACGAGGAGGAAGAGGTTGGCGGTGGGGGTGGCGGGCCGGCCTCCCGCGGGGAG
CTGGCGCTGCACAATGGGCGCCTGGGGGACTCGCCCAGTCCTCAGGTGCTGGAATTCGCCGAGTTCATCGACAGC
CTCTTCAACCTGGACAGCAAGAGCAGCTCCTTCCAAGACCTCTACTGCATGGTGGTGCCCGAGAGCCCCACCAGT
GACTACGCTGAGGGCCCCAAGTCCCCCAGCCAGCAAGAGATCCTGCTCCGTGCCCAGTTCGAGCCCAACCTGGTG
CCCAAGCCCCCACGGCTCTTTGCCGGCTCAGCCGACCCCTCCTCGGGCATCTCACTCTCGCCCTCCTTCCCGCTC
AGCTCCTCGGGTGAGCTCATGGACCTGACGCCCACGGGCCTCAGTAGCCAGGAATGCCTGGCGGCTGACAAGATC
CGGACTTCTACCCCCACTGGCCACGGAGCCAGCCCCGCCAAGCAAGATGAGCTGGTCATCTCAGCACGC**TAG**CAC
CCCAGTTGCGTGGCCAGCCGGGCCCAGGCAGGAGCAGGTGGCCCTGTGGGCACCTGGTGCCTGCCCCCTGCCGGG
CAGCTTTAAGGACAGACCCCCAGGGGCAGTTTAGCCTCAGGCACAGGCATCGCTGCTGAGCTGGGGGTCCGCATC
CCTACCTCAGCTTAGGACCCCCAGAGCCAAGGTGGCTGGGATCTGGCCCCACAGATGGGGAAAGATGGGGAAGGG
TGTGGAGTGGGGAGGAGCCTGGGCAGCCTGCTGGGTGGGCCACACTCAGCCTGACTGCCCTCCATGGGGGCATTC
TGGCACCCCCTGCTCCAGGACAGGCCATGGGCAAGCTGCCTCCCATCACTGCCTGCTGGCTGCTCTCCCAGGGGC
CAGGTGGAGAGCAGTGCCCCCCGACACATGTATTCTCATCTGTGGTCCAGGCCGGCATCGTCCTGGCCACCCCCC
AGATCTGGTGCCTGCTGGCCGGCCCCCTGGGGTGCCCCTGCCGAGGTGGCCTGCAGTGCTGTACATGTTTACAGA
AGCTGCTGGGCTTGGCTCAGGATGTGTTCTGGGCTTGCAAGCCCCCCGCCCAATCATGTGTTCAGTAGCCGTCCT
CTGAGCAGGGCCCAAGGCAGCCAGGGGCCTGGAGGGGCCAGAGGAGGGTGGGGTCAGGGCCGCCCCTTCTCTGCC
TTGTGCCTCTCATGCTGCCTCCTCTGCCCATGGGTCCTGGGCACCCAGGCCTGCCCTGCCTGCTGGCTACTTCCT
GGCTTACCTTCTACCCCCAAGGATCCTCACCACCCAAAGGGTGGTGGGCACTGCTGTGACCACCCCAGCTGCAGA
GTCAGTGCCCTGGGTGGAAGGAAGGCACTGAGAGCCCCCTTCCTCTGAGGGCCCCACCTCACCCCTTGGTGTCAC
CCCCACCACGCCTAGGCAGCTCTGGGCCCTGGGATCTGGAACCAACACACCCCTGTTCCCCTCAGCTTTCCCTCC
TCGCTGGCCTGGGCACCCTCCTGGGAGCAGGCCTTCCTCCCTCCCACCCCCAATGTCCTGTTGGTAGGAGGTGGG
GCCAAGAGTGGGGTATGGTGGGCCTTGGCTGGAGACCTCTGTCCACTGCCCAGGGAGGGGCCTGGGGCTGGGAGC
AGTCCCGGTTTAGCCTGAGGTCCCCATAGGGCTTCCTCCCCTGCTGGGTTTGGGAAGCAGTTAGGGAGATAGCGA
CCCGGAGTTTCCCCAGAAGCGGGGTGGGAGGGTGTGCATGCTAGTGTTGGCGCGTATGCATGTGCATGAGTGTGC
ACCGTTCCTAAGGAAGGGGCCTCTGGGGCTGCCCACCCTACCTGCCCTGCCTGCCTGCTGCCCCTCCCAGCCTGC
CAAGAAAACGGTAGGGGAGCATGATGGGGCCTTTGAGGCAGGGTCGCAGGGACAAGCTCAGCTTTAGGCACCATC
TGTTCCCATCGCGCCTGCTGCTGTGACCCGTTTTGGAAAACTGGTGTGTACCGAGGCGCTGACTGCACGGCTGAC
CGCCTGCTCGTGCCTTCATTCTGCAGCGGCATGGTCCCTCCCATTCTGGCTCCACCTGCAGCCTCCCTGGGTGGC
CTAGGCTCCCCCGACCAAGAGACCTCCCTCTCATGATCACTGGTACCTGGGGGCCTGAATTCTGGCCCCCGGCTC

FIGURE 84B

CCCACACAGCTGGGACTGGCCTGGATGGCTGTCCTGGGAGCCCCTGCCCACCCTGACAGAGGGAGCTGGGCCTCC
CCTCATCCTCTGTAACTCCCGCCTTCACCAGACTCAAGGACACCCTGGCCCTGCTGAGGCATACAGAGCTTCAGC
CCAGCACAGAAGCAAGACAAAATCAGTGGCTCTTAGAGTTTAGAAAACAAGACAGACTCTCAGATGAAAGATCTG
ACAAGCACCGTGGCCAGTCACAGGGAGAGACTTGATGTCTGGCCTTTTAATTCCTCCTCTGCCAGGGTGGGTCCT
GGGACCTCTAATGTGGGCATGTCGTCCACCCCAGGACGAGCCATCAGGGACAGACCCCCCACCCCCAAGGCTGCA
GCCACACCATGTTTCAGGCTTGGGGCTGGGGCAGGCTTGGGCTCAATCCTGGGCACCCAGGGGCAGCCCACCCCT
AACCTGGCTCCTACCCACCTCGCCCTTGAAGGATGGGCCTGCTGCACGTCTCCCTCCTCCACCCCATACCACACT
GGGGGGTCTGAGCCACCCCCCTCAGCCCCGTTCGGCTCAGACCGACCCCCACTCCATCCCCAGACCTGCAGCACA
AGTGCGCGGGCCTGTCCTCCCAGGGGCCTGGGCGACTCCATATGCAATCAGTAGCGAGCAGCCGGGCCCCACAGA
CCCTCATGCACTCTCTTACGTGCCATTCTCCCCAGACTTTTTTTGTACTTAATGTATGAAAGATCCAAACTAATA
TTGCTGTAAAAAGGAGAGACAAATTAATATAGCTTATTCTATAAATATATCTGTATATAAAGGTTTCTGTATATT
GTATAGAGCTGTGTATAAACTGGATGTAGAAGCAC

FIGURE 85

ATTGCTGGGGCTGCAGCGCTGCCTCCGAGACCGCGAGGTGGGTGGATCGGGTCTTCCTGGAAGGGTGCGATAAGG
CCGGGCGAGGTGCCTGGGATGCTTCTCCCCTTCCGCGAGGAAGAGATCTAATTGGGTAGGGCGGGTGTAGACTAG
CCTGCCGAGCCGCCCGCTGGCACCTGCAGCCTCCTGGGCGCCCGCCGGGCCCCGGCGAGAAAGTTGTTAAAGGGA
GCGAGGTGGTTGTTCCTGGGGTGCTTGGCGCGCCCTCTCACGCCCTGCCCAACAGAAGCCGCAGTCCCGTGGGGT
CTGGAGACGCAGTTTCCTGTTAATGACAATAAATCCCTGCTCCCCCTGCCTCAGACATCTACGCAGCGAAATCGA
GCCTGGCCTTGAGGGTCCACACCGCGAGGGAAG**ATG**CGTGCGCCCATTCCAGAGCCTAAGCCTGGAGACCTGATT
GAGATTTTTCGCCCTTTCTACAGACACTGGGCCATCTATGTTGGCGATGGATATGTGGTTCATCTGGCCCCTCCA
AGTGAGGTCGCAGGAGCTGGTGCAGCCAGTGTCATGTCCGCCCTGACTGACAAGGCCATCGTGAAGAAGGAATTG
CTGTATGATGTGGCCGGGAGTGACAAGTACCAGGTCAACAACAAACATGATGACAAGTACTCGCCGCTGCCCTGC
AGCAAAATCATCCAGCGGGCGGAGGAGCTGGTGGGGCAGGAGGTGCTCTACAAGCTGACCAGTGAGAACTGCGAG
CACTTTGTGAATGAGCTGCGCTATGGAGTCGCCCGCAGTGACCAGGTCAGAGATGTCATCATCGCTGCAAGCGTT
GCAGGAATGGGCTTGGCAGCCATGAGCCTTATTGGAGTCATGTTCTCAAGAAACAAGCGACAAAAGCAA**TAA**CTG
AAAAAGACTGTCCTGTCAGCGATGACTTTATACATCAAGGGGGTCTTGTTTTGCTAGAGAGTTTGGGGTTTGGTT
TGTGGATTTCATTGTGATTTATAATAAGGCTTATTTTCACAGAATAAAATAAAGCAAAACGAGGGAGGATTTTAT
TGGGGGAAGTGCAGC

FIGURE 86

AGTTAAACACCAAAGCTGTCTCTCACACTGGTGGTTCCAGGATAAAGCCTCGGCCTGGGGCCTGGTCTGCACGTT
AGGCGCCGGCCGCAGCTCGCAGGAGGACCCGAGCCAGCCCGCCCCTTCCCGCACAGCCTGCTGGGAGTTGTAGTT
CAGTCGTCGGAGAACCACGCCAAGCCCCGCCCCAGATGAGTGCGCAGT**ATG**AGGACCGCTGGCCGGGACCCAGTG
AGCGCGGGACTACAATTCCCAAAGGACGGTAGCACTCAGCGCCCCGCCAACAGAGATGATGCCATGGAGAGCAGC
AAGCCTGGTCCAGTGCAGGTTGTTTTGGTTCAGAAAGATCAACATTCCTTTGAGCTAGATGAGAAAGCCTTGGCC
AGCATCCTCTTGCAGGACCACATCCGAGATCTTGATGTGGTGGTGGTTTCAGTGGCTGGTGCCTTCCGAAAGGGC
AAGTCCTTCATTCTGGATTTTATGCTACGATACTTATATTCTCAGAAGGAAAGTGGCCATTCAAATTGGTTGGGT
GACCCAGAAGAACCGTTAACAGGATTTTCCTGGAGAGGGGGATCTGATCCAGAAACCACTGGGATTCAAATCTGG
AGTGAAGTTTTCACTGTGGAGAAGCCAGGTGGGAAGAAGGTTGCAGTTGTTCTGATGGATACCCAGGGGGCATTT
GACAGCCAGTCAACTGTGAAAGACTGTGCTACCATCTTTGCTCTAAGCACTATGACTAGTTCTGTTCAGATTTAT
AATTTATCTCAGAACATTCAAGAAGATGATCTTCAACAGCTGCAGCTCTTCACAGAATACGGTCGTCTGGCAATG
GATGAAATTTTCCAAAAGCCTTTCCAGACACTGATGTTTTTGGTTAGAGATTGGAGTTTCCCTTATGAATATAGC
TATGGACTCCAAGGAGGAATGGCATTTTTGGATAAGCGTTTACAGGTGAAGGAACATCAACATGAAGAAATTCAG
AATGTTCGAAATCACATTCACTCATGTTTCTCCGATGTCACCTGCTTTCTCTTACCACATCCAGGACTCCAGGTG
GCCACAAGCCCTGACTTTGATGGGAAATTAAAAGATATTGCTGGTGAATTCAAAGAGCAGTTACAGGCACTGATA
CCGTATGTATTAAACCCATCTAAGTTAATGGAAAAGGAGATCAATGGCTCAAAGGTCACCTGTCGGGGACTACTG
GAGTATTTTAAGGCATATATTAAAATTTATCAAGGAGAAGATCTGCCTCACCCCAAGTCCATGCTTCAGGCCACT
GCTGAAGCCAACAACTTAGCAGCTGCAGCCTCTGCCAAGGACATTTATTATAACAACATGGAAGAGGTTTGTGGG
GGAGAGAAACCTTATTTGTCTCCAGACATTCTAGAGGAGAAGCACTGTGAATTCAAACAACTTGCTCTGGACCAT
TTTAAGAAGACCAAGAAGATGGGTGGGAAGGATTTCAGCTTTCGTTACCAGCAGGAGCTGGAGGAGGAAATCAAG
GAATTATATGAGAACTTCTGCAAGCACAATGGTAGCAAGAACGTCTTCAGCACCTTCCGAACCCCTGCAGTGCTG
TTCACGGGCATTGTAGCTTTGTACATAGCCTCAGGCCTCACTGGCTTCATAGGTCTTGAGGTTGTAGCCCAGTTG
TTCAACTGTATGGTTGGACTACTGTTAATAGCACTCCTCACCTGGGGCTACATCAGGTATTCTGGTCAATATCGT
GAGCTGGGCGGAGCTATTGATTTTGGTGCCGCATATGTGTTGGAGCAGGCTTCTTCTCATATCGGTAATTCCACT
CAGGCCACTGTGAGGGATGCAGTTGTTGGAAGACCATCCATGGATAAAAAAGCTCAA**TAG**CATCTTAACGTGAAG
ATCAAACAAGAACACAACAAGCCCCTACTGATTTCTGGGTTTCTGCCACGGCCACAGGTTCATATCCAGAGGAAT
GGCAGATCTGAGACGATCCAGGAAGAGCTAAAACATGGCCCTGTAATAAATGAGCAGACCTCTCCTGTGGTTTCA
AATTATTAAACACACTTCCATTTCTCTTGGAAGCATTTCTTTTCCTTGCTGTTATAGATGCAAGCCTGTGTCTAT
TTTCATATTACTCTGCTTTGTGCACTTTATGGAGGAGGAAGCTAGAGGAAAAATGGAAATGCAGCTTTTAAGTTC
TTTATGTGCCACTTAGTGCCTTTTAAGATTGATTCCATGGTTTTGCACACACGATGGGGAGGGGATGGAGGATAA
CCTCATGAAAGGTGCCGTTTTCGGGTGAAACTTGACATTTCTTTTATACTTTACTCTTTTGAGAAGGATTCTTTT
TTTTTTTTTTTTTTTTTTTGAGTTGGAGTCTCGCTCTGTCACCAGGCTTGAGTGCAGTGGTGTGATCTTGGCTCA
CTGCAACCTCTGCCTGCCGGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGTGTACG
CCACCATA

FIGURE 87

ATGCCTAGCCCATCCCCAAAATGGGAGTCTCAGGAAGCTATATTTGAAGCATTACTGGAAAAAGGGAGAAGACCT
GTGGGTGGGGCCCTCCTGGCGGGGGCCCCAGGGCAAGATCTTCAGCTGGAAGGGGGTGCCTTGGGGTCCTGGGGG
AGTGCCCCCCTGCCCTCCTCCAGGGCCAGGGGACCAGCATCTTCAGGCAGGAAATATTCAGACCACTGTGAGGCC
CGGGCCTCGAGGCCTGGAAAGAGCCGCATCCCTGGCCGTGACCACCGGCGCTACTACCACGACCACTGGCGGCTG
GAGTACCTGATGGACTTCAACCCTGCCCGGCACGGCATGGTGTGCATGGTGTGCGGCAGCTCCCTGGCCACCCTC
AAGCTCAGCACCATCAAGCGCCACATCCGCCAAAAGCACCCCTACTCCTTGCATTGGAGTCCCCGGGAGAAGGAA
GTCATCAGCAACAGCTGGGATGCACACCTGGGGCTGGGGGCCTGCGGAGAGGCCGAGGGCCTGGGGGTGGGGGAA
GGACAGTGGGGTGAGAGGGTCTCCGATGTCCATGACAGCTTGTACATTCTGTGGTTTTTGAAGTATCAAGGAGAG
AAGTTGGGTGACAGGCAGTGGAAAGGCTTGGAGCAGGGAGGCCTGGCTGGGGTGGGCAAAGCCCCAGCTGGTGGG
GGCTGCCGGCGCCAGCGGCGAGGGGGCCCAGTGGCACCCCGGGCTCGGCGTCTGCGCCTCTCAGCCTCCCGGAGG
GCCGGGGGCAGCAGGGGGCTGGGGGCCCGGCGCCTGGAGAGGAGGCTGAAGGAGTCCCTGCAGAACTGGTTCCGG
GCCGAGTGTCTCATGGACTATGACCCGCGGGGGAACCGGCTGGTGTGCATGGCCTGTGGCCGGGCACTGCCCAGC
CTGCACCTGGACGACATCCGTGCCCACGTGCTGGAGGTGCACCCTGGCTCCCTGGGGCTCAGCGGCCCCCAGCGC
AGTGCCCTGCTGCAGGCCTGGGGGGGCCAGCCCGAGGCGCTGTCTGAGCTCACCCAGTCCCCACCAGGCGATGAC
CTCGCCCCCCAGGACCTGACCGGAAAGAGCCGGGACTCGGCCTCCGCTGCTGGAGCCCCCTCCTCTCAGGATCTC
AGCCCCCCAGACGAGCGCTGGCGGCTGGAGTACCTCATGGAGTTGGACGGCGGCCGGCGCGGCCTGGTGTGCGGG
GTGTGCGGGGGCGCGCTGGCCTCGCTCAAGATGAGCACCATCGAGCGCCACATCCGCCGGCGCCACCCGGGCTCC
ACGCGCCTCGGCGGGCCTGTCCAGGCCCTCATCGCCCGGGAGTGGAGCGAGAAGGCCGCCCACCTGCTGGCCCTG
GGGCCGCCCCGCCCCGAATCGGAAAACCCTTCACCGACGCGGCGGGCCGACAAGAGGCGTGACCCGGCAGAACGC
GTTAACGCTCGCCGGCACCAGGCGCGGCCCACCACGATGACGTGCAACTGGTCAATGCGACCCGAACCGTTCGAA
CCCTCAAAATCGGTGGCAAAACGTGACCCGCAAGCGAACAGCTACATTTCTGCTCAGCAGACCCGAAGCCAACCG
ACCCTCTGGGTGACCCGCGCCCGGAGGTCGGATGCGCGACCCCCTTCGACCGTCAGGCGGCGCGGCCGAGCCTTC
GCAAAACGACCCAAGCCGAACCGCCGACTTTCGCCTTTTGCGCTCTTACACGCGCCTCTCCCACATAGCGAAAAG
GCGGGCGACTTGCGAGGCACGGAGGTCGGAGAACCGACCTGGTACTACGTCCCTTTAACGTTTTTAAGCGACGGG
ACACGAGCAAAACCTGATGCACGAAAAACAACGTCGAAAAAAAACATGAAAAATAAAAAAGGCAACCCGACTCGG
ATTCCCCCGGTCCGTACCAGTTCTAAGTCGGCTGTTCGACGCCGGCCGAAGCGGGCCGCGAGGCCCGCGTTAGCT
GCGGCATTCCACGGGAAGACGCCGACACAGAGGCTGTTCACCTTGGAGACCTGCTGCGGATATGGGTACGACCTC
GCACGAAAATTACACCGTCTCCCTCGGATTTTCAAGGGCCGACGCGAGCTCACCGGACAGCACAAGAGACGTGCT
GCTTTACGGGGCCCATGTCCCTATCTCCGGGCGAACCGATTCCAGGGTCGCCGCCCCTTACCAAGAAAAGAGAAC
TCTTCCCGGGACCCACGTCGGCGTTTCCGAGTTCGTTTGCGTTGCCGCACTAGGCGCCGGAGCGCCAATCTCCGC
GTCGAGACGGGTCGGGAAGGTGGCTGGCGTCAGCCGCTGACCCGCGGCACCTCGCGAGGGAGCGACCGCTCGGAA
CCGCGCCGAGACGACCCGGGACTGAGGACAGTCCCGGACCGCGACACGACGCTGCTCGAACGGCTTCCCCGGCCC
CGCGAACGGGGCAGCCGGTCGCGGCCCTCGTCCGACGCTAGTGCGCCGAGCCGTCGGCCGGCGACGCGAGTCGAG
GCCCGCGAAGGTCCCCGATCCCGCGACCCGGTCTCCGGCCCGCCTGAAAGCGACCGAACGACCCGACAGGCCCTC
CCGTTTGCCTCTCGACGGTTTCACGTACTTTTTAACTCTCTCTCCAAAGTGCTTTTCAACTTTCCCTCACGGTAC
TTGTTCGCTATCGGTCTCGTGACCGTATTTAGCCTTAGATGGAGTTTACCACCCGCTTTGGGCTGCATTCCCAAA
CAACCCGACTCCGGGAAGACACCGAGAGCCCGGGCCAGCCGCCGCCAAGGGCCTGACACCCGCTATGGGATGAAG
CCTCGATCAGAAGGACGTGGGCAGCCGGTCCGCGCTCGAAGCGAATTCCATACGCCACAATTCCGTCCGCTCCAT
AAGCGGCCGGATTCGGCGCTGGGCTCGTCCCGCTTCACTCGCCGTTAC**TGA**

FIGURE 88

CAGGTGACCAGCGCC**ATG**TCCAGCCAGGTGGTGGGCATTGAGCCTCTCTACATCAAGGCAGAGCCGGCCAGCCCT
GACAGTCCAAAGGGTTCCTCGGAGACAGAGACCGAGCCTCCTGTGGCCCTGGCCCCTGGTCCAGCTCCCACTCGC
TGCCTCCCAGGCCACAAGGAAGAGGAGGATGGGGAGGGGGCTGGGCCTGGCGAGCAGGGCGGTGGGAAGCTGGTG
CTCAGCTCCCTGCCCAAGCGCCTCTGCCTGGTCTGTGGGGACGTGGCCTCCGGCTACCACTATGGTGTGGCATCC
TGTGAGGCCTGCAAAGCCTTCTTCAAGAGGACCATCCAGGGGAGCATCGAGTACAGCTGTCCGGCCTCCAACGAG
TGTGAGATCACCAAGCGGAGACGCAAGGCCTGCCAGGCCTGCCGCTTCACCAAGTGCCTGCGGGTGGGCATGCTC
AAGGAGGGAGTGCGCCTGGACCGCGTCCGGGGTGGGCGGCAGAAGTACAAGCGGCGGCCGGAGGTGGACCCACTG
CCCTTCCCGGGCCCCTTCCCTGCTGGGCCCCTGGCAGTCGCTGGAGGCCCCCGGAAGACAGCAGCCCCAGTGAAT
GCACTGGTGTCTCATCTGCTGGTGGTTGAGCCTGAGAAGCTCTATGCCATGCCTGACCCCGCAGGCCCTGATGGG
CACCTCCCAGCCGTGGCTACCCTCTGTGACCTCTTTGACCGAGAGATTGTGGTCACCATCAGCTGGGCCAAGAGC
ATCCCAGGCTTCTCATCGCTGTCGCTGTCTGACCAGATGTCAGTACTGCAGAGCGTGTGGATGGAGGTGCTGGTG
CTGGGTGTGGCCCAGCGCTCACTGCCACTGCAGGATGAGCTGGCCTTCGCTGAGGACTTAGTCCTGGATGAAGAG
GGGGCACGGGCAGCTGGCCTGGGGGAACTGGGGGCTGCCCTGCTGCAACTAGTGCGGCGGCTGCAGGCCCTGCGG
CTGGAGCGAGAGGAGTATGTTCTACTAAAGGCCTTGGCCCTTGCCAATTCAGACTCTGTGCACATCGAAGATGCC
GAGGCTGTGGAGCAGCTGCGAGAAGCTCTGCACGAGGCCCTGCTGGAGTATGAAGCCGGCCGGGCTGGCCCCGGA
GGGGGTGCTGAGCGGCGGCGGGCGGGCAGGCTGCTGCTCACGCTACCGCTCCTCCGCCAGACAGCGGGCAAAGTG
CTGGCCCATTTCTATGGGGTGAAGCTGGAGGGCAAGGTGCCCATGCACAAGCTGTTCTTGGAGATGCTCGAGGCC
ATGATGGAC**TGA**GTGCAAGGGGTGGGACTGGTGGGGGTTCTGGCAGGACCTGCCTAGCATGGGGTCAGCCCCAAG
GGCTGGGGCGGAGCTGGGGTCTGGGCAGTGCCACAGCCTGCTGGCAGGGCCAGGCAATGCCATCAGCCCCTGGGA
ACAGGCCCCACGCCCTCTCCTCCCCCTCCTAGGGGGTGTCAGAAGCTGGGAACGTGTGTCCAGGCTCTGGGCACA
GTGCTGCCCCTTGCAAGCCATAACGTGCCCCCAGAGTGTAGGGGGCCTTGCGGAAGCCATAGGGGGCTGCACGGG
ATGCGTGGGAGGCAGAAACCTATCTCAGGGAGGGAAGGGGATGGAGGCCAGAGTCTCCCAGTGGGTGATGCTTTT
GCTGCTGCTTAATCCTACCCCCTCTTCAAAGCAGAGTGGGACTTGGAGAGCAAAGGCCCATGCCCCCTTCGCTCC
TCCTCTCATCATTTGCATTGGGCATTAGTGTCCCCCCTTGAAGCAATAACTCCAAGCAGACTCCAGCCCCTGGAC
CCCTGGGGTGGCCAGGGCTTCCCCATCAGCTCCCAACGAGCCTCCTCAGGGGGTAGGAGAGCACTGCCTCTATGC
CCTGCAGAGCAATAACACTATATTTATTTTTGGGTTTGGCCAGGGAGGCGCAGGGACATGGGGCAAGCCAGGGCC
CAGAGCCCTTGACTGTACAGAGACTCTATTTTAATGTATATTTGCTGCAAAGAGAAACCGCTTTTGGTTTTAAAC
CTTTAATGAGAAAAAAATATATAATACCGAGCTC

FIGURE 89

TCCGGTTCCGGCCTGGCGAGAGTTTGTGCGGCGAC**ATG**AAACTGCTTACCCACAATCTGCTGAGCTCGCATGTGC
GGGGGGTGGGGTCCCGTGGCTTCCCCCTGCGCCTCCAGGCCACCGAGGTCCGTATCTGCCCTGTGGAATTCAACC
CCAACTTCGTGGCGCGTATGATACCTAAAGTGGAGTGGTCGGCGTTCCTGGAGGCGGCCGATAACTTGCGTCTGA
TCCAGGTGCCGAAAGGGCCGGTTGAGGGATATGAGGAGAATGAGGAGTTTCTGAGGACCATGCACCACCTGCTGC
TGGAGGTGGAAGTGATAGAGGGCACCCTGCAGTGCCCGGAATCTGGACGTATGTTCCCCATCAGCCGCGGGATCC
CCAACATGCTGCTGAGTGAAGAGGAAACTGAGAGT**TGA**TTGTGCCAGGCGCCAGTTTTTCTTGTTATGACTGTGT
ATTTTTGTTGATCTATACCCTGTTTCCGAATTCTGCCGTGTGTATCCCCAACCCTTGACCCAATGACACCAAACA
CAGTGTTTTTGAGCTCGGTATTATATATTTTTTTCTCATTAAAGGTTTAAAACC

FIGURE 90

AGGGCACAGCCAGCAGCGAGGTGAATGCCACTGAGGAG**ATG**TCCACGCTTGTCAACTACATCGAACCTGTCAAGT
TCAAGTCCTTTGAGGCTGCTCGAAAGAGGAACAAATGCTTCGAGATGTCGTCCTTTGTGGAGACCAAGGCCATGG
AGCAACTGACCAAGAGCCCCATGGAGTTTGTGGAATACAACAAGCAGCAGCTCAGCCGCATCTACCCCAAGGGCA
CCCGCGTGGACTCCTCCAACTACATGCCCCAGCTCTTCTGGAACGTAGGGTGCCAGCTTGTTGCGCTCAACTTCC
AGACCCTCGATGTGGCGATGCAGCTCAACGCGGGCGTTTTTGAGTACAACGGGCGCAGCGGGTACCTGCTCAAGC
CGGAGTTCATGCGGCGGCCGGACAAGTCCTTCGACCCCTTCACTGAGGTCATCGTGGATGGCATCGTGGCCAATG
CCTTGCGGGTCAAGGTGATCTCAGGGCAGTTCCTGTCCGACAGGAAGGTGGGCATCTACGTGGAGGTGGACATGT
TTGGCCTCCCTGTTGATACGCGGCGCAAGTACCGCACCCGGACCTCTCAGGGGAACTCGTTCAACCCCGTGTGGG
ACGAAGAGCCCTTCGACTTCCCCAAGGTGGTGCTGCCCACGCTGGCTTCACTTCGCATTGCAGCCTTTGAGGAGG
GGGGTAAATTCGTAGGGCACCGGATCCTGCCTGTCTCTGCCATCCGCTCCGGATACCACTACGTCTGCCTGCGGA
ACGAGGCCAACCAACCGCTGTGCCTGCCGGCCCTGCTCATCTACACCGAAGCCTCGGACTACATTCCTGACGACC
ACCAGGACTATGCGGAGGCCCTGATCAACCCCATTAAGCACGTCAGCCTGATGGACCAGAGGGCCCGGCAGCTGG
CCGCCCTCATTGGGGAGAGTGAGGTCAGTGTGATGATCTCATCGCCAGCATCCTCTCAGGATGAGCTCCGAGGTC
ACAAGGCTCTGGTCAAGCTCCGGAGCCGGCAAGAGCGAGACCTGCGGGAGCTGCGCAAGAAGCATCAGCGGAAGG
CAGTCACCCTCACCCGCCGCCTGCTGGATGGCCTGGCTCAGGCACAGGCTGAGGGCAGGTGCCGGCTGCGGCCAG
GTGCCCTAGGTGGGGCCGCTGATGTGGAGGACACGAAGGAGGGGGAGGACGAGGCAAAGCGGTATCAGGAGTTCC
AGAACAGACAGGTGCAGAGCCTGCTGGAGCTGCGGGAGGCCCAGGTGGACGCAGAGGCCCAGCGGAGGCTGGAAC
ACCTGAGACAGGCTCTGCAGCGGCTCAGGGAGGTCGTCCTTGATGCAAACACAACTCAGTTCAAGAGGCTGAAAG
AGATGAACGAGAGGGAGAAGAAGGAGCTGCAGAAGATCCTGGACAGAAAGCGCCATAACAGCATCTCGGAGGCCA
AGATGAGGGACAAGCATAAGAAGGAGGCGGAACTGACGGAGATTAACCGTCGGCACATCACTGAGTCAGTCAACT
CCATCCGTCGGCTGGAGGAGGCCCAGAAGCAGCGGCATGACCGTCTTGTGGCTGGGCAGCAGCAGGTCCTGCAAC
AGCTGGCAGAAGAGGAGCCCAAGCTGCTGGCCCAGCTGGCCCAGGAGTGTCAGGAGCAGCGGGCGAGGCTCCCCC
AGGAGATCCCGCCGGAGCCTGCTGGGCGAGATGCCGGAGGGGCTGGGGGACAGGGCCTCTGGTGGCCTGTGCAAG
CAACCGGTCACGCACCCCGGGAGCAGCGGGCACCTGTCGGGCGC**TGA**CTCGGAGAGCCAGGAGGAGAACACGCAG
CTCTGA

FIGURE 91

CACGGGCGGGGCGGGGCCTGGGTCCACCGGGGTTCTGAGGGGAGACTGAGGTCCTGAGCCGACAGCCTCAGCTCC
CTGCCAGGCCAGACCCGGCAGACAGATGAGGGCCCAGGAGGCCTGGCGGGCCTGGGGGCGCTACGGTGGGAGAGG
AAGCCAGGGGTACCTGCCTCTGCCTTCCAGGGCCACCGTTGGCCCCAGCTGTGCCTTGACTACGTAACATCTTGT
CCTCACAGCCCAGAGC**ATG**TTCCAGATCCCAGAGTTTGAGCCGAGTGAGCAGGAAGACTCCAGCTCTGCAGAGAG
GGGCCTGGGCCCCAGCCCCGCAGGGGACGGGCCCTCAGGCTCCGGCAAGCATCATCGCCAGGCCCCAGGCCTCCT
GTGGGACGCCAGTCACCAGCAGGAGCAGCCAACCAGCAGCAGCCATCATGGAGGCGCTGGGGCTGTGGAGATCCG
GAGTCGCCACAGCTCCTACCCCGCGGGGACGGAGGACGACGAAGGGATGGGGGAGGAGCCCAGCCCCTTTCGGGG
CCGCTCGCGCTCGGCGCCCCCCAACCTCTGGGCAGCACAGCGCTATGGCCGCGAGCTCCGGAGGATGAGTGACGA
GTTTGTGGACTCCTTTAAGAAGGGACTTCCTCGCCCGAAGAGCGCGGGCACAGCAACGCAGATGCGGCAAAGCTC
CAGCTGGACGCGAGTCTTCCAGTCCTGGTGGGATCGGAACTTGGGCAGGGGAAGCTCCGCCCCCTCCCAG**TGA**CC
TTCGCTCCACATCCCGAAACTCCACCCGTTCCCACTGCCCTGGGCAGCCATCTTGAATATGGGCGGAAGTACTTC
CCTCAGGCCTATGCAAAAAGAGGATCCGTGCTGTCTCCTTTGGAGGGAGGGCTGACCCAGATTCCCTTCCGGTGC
GTGTGAAGCCACGGAAGGCTTGGTCCCATCGGAAGTTTTGGGTTTTCCGCCCACAGCCGCCGGAAGTGGCTCCGT
GGCCCCGCCCTCAGGCTCCGGGCTTTCCCCCAGGCGCCTGCGCTAAGTCGCGAGCCAGGTTTAACCGTTGCGTCA
CCGGGACCCGAGCCCCCGCGATGCCCTGGGGGCCGTGCTCACTACCAAATGTTAATAAAGCCCGCGTCTGTGCCG
CC

FIGURE 92

AGCGGCCGCTGCCCTGACCCGACGGGTATCAGCCGGCTCTCCCCCTCCACCCAGGACGACATGAACGACCGAGGC
CAGGGAGTCCTCTCCTTGGGCCTCTGCATCCCCCCATCCTTGGCTCTGGGGTAGGCCCAGGGAGGAGACACCCCC
AACCCCTATCCGGTCTGTCCTGGAGAAAAGAGACTGCCCTTCCATGCCCCTGAGTGAGGGGCCTGGGGCCCAGGC
TGCCTGTGTTCCCCAAGGGCAAGGGTCTCTCTGTTGAGGAGGAGGGGCCTGTCAGCCACAACTTCTTTCCTCCTG
AGCGCCCCATCTCCCTCTCTGCACCCTGCAATTCCCACCCCTCCGTATTTATTTCCCTGGTCCCGCCGACAGTCC
CCTCCTTGTCTGTCTCCGGGATTCAGGCCTCCCTCCCTGAC**ATG**GAGAGTAACCTGTCTGGCCTGGTGCCTGCTG
CCGGGCTGGTGCCTGCGCTGCCACCTGCTGTGACCCTGGGGCTGACAGCTGCCTACACCACCCTGTATGCCCTGC
TCTTCTTCTCCGTCTATGCCCAGCTCTGGCTGGTGCTTCTGTATGGGCACAAGCGTCTCAGCTATCAGACGGTGT
TCCTGGCCCTCTGTCTGCTCTGGGCCGCCTTGCGTACCACCCTCTTCTCCTTCTACTTCCGAGATACTCCCCGCG
CCAACCGCCTGGGGCCCTTGCCCTTCTGGCTTCTCTACTGCTGCCCCGTCTGCCTGCAGTTCTTCACCTTGACGC
TTATGAACCTCTACTTTGCCCAGGTGGTGTTCAAGGCCAAGGTGAAGCGTCGGCCGGAGATGAGCCGAGGCTTGC
TCGCTGTCCGAGGGGCCTTTGTGGGGGCCTCGCTGCTCTTTCTGCTGGTGAACGTGCTGTGTGCTGTGCTCTCCC
ATCGGCGCCGGGCACAGCCCTGGGCCCTGCTGCTTGTCCGCGTCCTGGTGAGCGACTCCCTGTTCGTCATCTGCG
CGCTGTCTCTTGCTGCCTGCCTCTGCCTCGTCGCCAGGCGGGCGCCCTCCACTAGCATCTACCTGGAGGCCAAGG
TAGGGCTGCAGCAC**TGA**TGCCCAGGTGTCTTTTGGGTCTCTCGGCAGCGGTTCTCAGGGTGTAGAG

FIGURE 93

CAGGCTTAGGCTCTCTTTGGGCCTCCCACTCGCCTTCCTTTCCCTTCTCGGTGCCCTCCTCTCTTTCCTCACCCG
GTAGTCCCAGACAGGGGCTGAGGGCCGGGCAGCGGAGGTAAGGGGAAGGCTGGAGATAGGAGGGGGACTGGGTGT
GTCCAGCCAGAGGGATGTCTGTGGACAGTGCAGCTGGGGGCTTTATGGATCTTTGGGTGTGTAGGGGATAGAGGA
GGAGGGTGTGGGTGTCAGGCCAGCTCAGTGACCCCAGCATCCCTGGTTTTGCCCGCAGTGACGACAGCTCCCCAG
GAGCCCCCCGCCCGGCCCCTCCAGGCGGGCAGTGGAGCTGGCCCGGCGCCTGGGCGCGCC**ATG**CGCAGCACCACG
CTCCTGGCCCTGCTGGCGCTGGTCTTGCTTTACTTGGTGTCTGGTGCCCTGGTGTTCCGGGCCCTGGAGCAGCCC
CACGAGCAGCAGGCCCAGAGGGAGCTGGGGGAGGTCCGAGAGAAGTTCCTGAGGGCCCATCCGTGTGTGAGCGAC
CAGGAGCTGGGCCTCCTCATCAAGGAGGTGGCTGATGCCCTGGGAGGGGGTGCGGACCCAGAAACCAACTCGACC
AGCAACAGCAGCCACTCAGCCTGGGACCTGGGCAGCGCCTTCTTTTTCTCAGGGACCATCATCACCACCATCGGC
TATGGCAATGTGGCCCTGCGCACAGATGCCGGGCGCCTCTTCTGCATCTTTTATGCGCTGGTGGGGATTCCGCTG
TTTGGGATCCTACTGGCAGGGGTCGGGGACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCC
ATCTTCTTGAAGTGGCACGTGCCACCGGAGCTAGTAAGAGTGCTGTCGGCGATGCTTTTCCTGCTGATCGGCTGC
CTGCTCTTTGTCCTCACGCCCACGTTCGTGTTCTGCTATATGGAGGACTGGAGCAAGCTGGAGGCCATCTACTTT
GTCATAGTGACGCTTACCACCGTGGGCTTTGGCGACTATGTGGCCGGCGCGGACCCCAGGCAGGACTCCCCGGCC
TATCAGCCGCTGGTGTGGTTCTGGATCCTGCTCGGCCTGGCTTACTTCGCCTCAGTGCTCACCACCATCGGGAAC
TGGCTGCGAGTAGTGTCCCGCCGCACTCGGGCAGAGATGGGCGGCCTCACGGCTCAGGCTGCCAGCTGGACTGGC
ACGGTGACAGCGCGCGTGACCCAGCGAGCCGGGCCCGCCGCCCCGCCGCCGGAGAAGGAGCAGCCACTGCTGCCT
CCACCGCCCTGTCCAGCGCAGCCGCTGGGCAGGCCCCGATCCCCTTCGCCCCCCGAGAAGGCTCAGCCGCCTTCC
CCGCCCACGGCCTCGGCCCTGGATTATCCCAGCGAGAACCTGGCCTTCATCGACGAGTCCTCGGATACGCAGAGC
GAGCGCGGCTGCCCGCTGCCCCGCGCGCCGAGAGGTCGCCGCCGCCCAAATCCCCCCAGGAAGCCCGTGCGGCCC
CGCGGCCCCGGGCGTCCCCGAGACAAAGGCGTGCCGGTG**TAG**GGGCAGGATCCCTGGCCGGGCCTCTCAAGCTCT
CCCCGGCATGCCTGGCTTGTTTGACCAAAGAGCCCTCTTTCCACGAGACTGAAGTCTGGGGAGGAGGCTACAGTT
GCCTCTCCGACCTCCTCCCTGGCCCCGGCCCTTCCCTCACTTCCATCCATCTCTAGACCCCCCCAAGGCTTTCTG
TGTCGCTGCCCCGGGCGGGTGTATCCCTCACAGCACCTCACGACTGTGCCTCAAAGCCTGCATCAATAAATGAAA
ACGGTCTGC

FIGURE 94

GAGGTGGCTGATGCCCTGGGAGGGGGTGCGGACCCAGAAACCAACTCGACCAGCAACAGCAGCCACTCAGCCTGG
GACCTGGGCAGCGCCTTCTTTTTCTCAGGGACCATCATCACCACCATCGGCTATGGCAATGTGGCCCTGCGCACA
GATGCCGGGCGCCTCTTCTGCATCTTTTATGCGCTGGTGGGGATTCCGCTGTTTGGGATCCTACTGGCAGGGGTC
GGGGACCGGCTGGGCTCCTCCCTGCGCCATGGCATCGGTCACATTGAAGCCATCTTCTTGAAGTGGCACGTGCCA
CCGGAGCTAGTAAGAGTGCTGTCGGCG**ATG**CTTTTCCTGCTGATCGGCTGCCTGCTCTTTGTCCTCACGCCCACG
TTCGTGTTCTGCTATATGGAGGACTGGAGCAAGCTGGAGGCCATCTACTTTGTCATAGTGACGCTTACCACCGTG
GGCTTTGGCGACTATGTGGCCGGTAAACTGGGGGGAGGGGGGGCGCAACCTGGAAACACCAGAAGTCTTCTACAAG
GGCTGTGGCCTCCCACAAAGTCCAGATGTCCTTGTGCTACCCTGTGCCCGTTGGGACTGCAGAGCCCCTGGAGAA
CAAGAACTTGGCCGCTACATGTCCGCATCCCCCACAGAGCCTTCTCTGGAGACAGTGTCTGGAACTGTTGACGTT
TTTAGGTACCAT**TGA**

FIGURE 95

GCGCCGTAAATAGAGTCCAAGTGGGCGGAGAGCCGTCCCGCGCCGCCCGCTC**ATG**TCTCTACAGAGCCGACTGTC
CGGCCGCCTGGCACAGCTGCGCGCGGCGGGGCAGCTGCTCGTCCCCCCGCGCCCCCGGCCCGGACACTTGGCGGG
TGCCACGAGGACCCGCAGCAGCACGTGCGGTCCCCCGGCGTTCCTGGGCGTGTTCGGCCGCCGTGCGCGGACCTC
GGCGGGAGTTGGGGCGTGGGGGGCGACGNCGGTGGGGCGGACAGCCGGGGTGCGCACTTGGGCCCCCCTGGCCAT
GGCGGCGAAGGTGGACCTGAGCACCTCCACCGACTGGAAGGAGGCGAAATCCTTTCTGAAGGGCCTGAGTGACAA
GCAGCGGGAGGAACATTACTTCTGCAAGGACTTTGTCAGGCTGAAGAAGATCCCGACATGGAAGGAGATGGCGAA
AGGGGTGGCTGTGAAGGTGGAGGAGCCCAGGTATAAAAAGGACAAGCAGCTCAATGAGAAAATCTCCCTGCTCCG
CAGCGACATCACCAAGCTGGAGGTGGACGCCATCGTCAACGCCGCCAACAGCTCCCTGCTCGGAGGCGGTGGCGT
GGACGGCTGCATTCATCGGGCCGCCGGCCCCCTGCTTACCGACGAGTGCCGGACCCTGCAGAGCTGTAAGACTGG
CAAGGCCAAGATCACCGGCGGCTATCGGCTCCCGGCCAAGTACGTCATCCACACAGTGGGGCCCATCGCCTACGG
GGAGCCCAGCGCCAGCCAGGCTGCCGAGCTCCGCAGCTGCTACCTGAGCAGTCTGGACCTGCTGCTGGAGCACCG
GCTCCGCTCGGTGGCGTTCCCCTGCATCTCCACCGGCGTGTTTGGCTACCCCTGTGAGGCGGCCGCCGAGATCGT
GCTGGCCACGCTGCGAGAGTGGCTGGAGCAGCACAAGGACAAGGTGGACCGGCTGATCATCTGCGTGTTCCTCGA
GAAGGACGAGGACATCTACCGGAGCCGGCTCCCCCACTACTTCCCCGTGGCC**TGA**GGCTCCCGCAGCCCACCCTG
ACCGGGACTGACCCGCCTTCGGGACCCCGCTCCCAGCTCTGAGAGGTCGCCAAAGCCTGCAGCCTGGCCTGGGCC
TGGCCACCCCTTCTTTCCCTCCGCGCCCCGCCCCCGAGGAGCCTAATAAAGATCTCGTTGTGGC

FIGURE 96

GATTACAGGCATGAGCCACTGTGCCTGGCCATATGGGACATCTTGTAACTGGGAGTTGGAGTCCTGGGTACAAGT
CCTGGCTTCACCGTGTACCAGCTTTGTGACCTTGGGCAAATCACTTAACCTCTCTGAGCCTGTTTTCTTGTCTGT
AAAACAGGGATAAGAGTGCATGGGGACCCAGCCCCCAGCACTGTGGGTTTGAGAGGAGACTGCTTGTGTAGGATG
CTCAGTACAGTGTCTGGCACAGAGTGAGCGCCCAGGAG**ATG**CCAGCTCTAGTTCTTGTTGCCATAGCTGCTGCTC
TGGGAGGGCTGCTGAGACCCGCTGAACCGGGCATCCCATCAGCCAGCACCTGCCCTGCACCCAGCCCTTGGTGGG
GCTGGGAACGGGGGAATGGTCCCTCTATCCTGAACAGGCTGAAGGCACCTCCTTCCCATATTCGTGGTAGGGAAT
CGAGTCACCTGCTGGACCTGGCATGGCCGAGGGGACGGCCCTCTCCTGACTGCCAGAGTCTCTTGGATGGGCTTC
CTGACCATGAGGGCACAGGGCAGGCAGCCTGGGCCCCTCACTCCCCACTGCCAGCAAGGCGGTCCATGCCTGCTC
TGCCTTCCATTGGGAAAGATGTGTGGTCACATGGAAACGGCCTGTGCAGTGGGGCG**TGA**GGTGGGCTAGGACAGG
GGATGTCCCCAGAGAAGCCAGGTGACTGAAGTGGCCCTGTCAGGGCCTGGCTGCCATCTGCTGAGGCCTAAGCTG
CCAGAGAAGACCCCTGAAGGCCTTCAGGGGTGGGGTGGAGGGCGCTGGCATGCTTGGTTGGCCAGCTTTGGAGGT
CCCAGAGGCCAGGGCAGTGGCTGCTTACCAGACAGAACTGGCTAAGATCTGGTTCCTCCACTATGTTGGGCAAGC
CCCTGCCTCTTTTTTTTTTCTTTTTTTGAGACTGAGTCTCGCTCTGTCACCCAGGCTAGAGTGCAGTGGCGTGAT
CTCGGCTCACTGCAAGCTTCGCCTCCCAGGTTCATGCTATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTAC
AGGCGCCCGCCACCACGCCCGGCTAATTTTTTGTATTTTTAGTAGATACGGGGTTTCACCGTGTTAGCCAGGATG
GTCTTGATCTCCTGACCTCGTGATCCGCCCGCCTCCACCTCCTAAAGTGCTGGGATTACAGGCATGAGCCACCGC
ACCCGGCCAGCCCCTGCCTCTTTAGGCCTTGGGGTTTCCCATCTGTTCCTTATGGGGGCATTAATAGGAAAAAAA
TGCATTACCACACTGGAGGGGCTCATAAACGGTAGTGACTGTTATTAGCAGTGAGGGATCTCACTTCACCACCCA
CAGGACTCCGAGCCCCTCGAGGGCAGGGGCAGCTCCATGGACTCTGGGTCTCCGTCCCTGGACAGGGCTCCTCTG
CGGTGGGGGCAGCCCGAGCATGCCTGCCCCTGGAAGGACATACAGGAACTCATGATGGCTCATGGCTAAGGAGTC
TTATGGGGAAGCAGGCTGCCCTGGTGGGCACGGCTGTGTGGGAGTCTCCTGCTCTGTCCACTCCTGGCAGGGGCA
GGGACGCGGCTGTTTATATCCGCGCCGGGTGTCAGGAGATGGAAGCCAGGGAGGACGGGAGGATGCAGGAGCATG
GAGAGCATGTGGGCTGCAGATCCGGGGGAGGATGGGCACCAGGACAGAGCTTGTCCTGACAGTGGTGCGGGAGGC
AGTGAGCAGAGGTGGGGCTGAGAGGTCACTGGCGGCTTCCTCCACTGAGGCATGGCTGGCATTCCCTTCGGTTCA
TTAAAACCCATCAGTGGGCCGGGCGCGGTGGCTCACGCCTATAATCCCAGCACTTTGGGAGGCCAAGGTGGGTGG
ATCACCTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAAGATAGTGAAACCCTGTCTCTACAAAAATACAAAAATT
AGCTGGGCATGATGGCAGGTGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCTTGAACCTGGG
AGGCAGAAGTTGCAGTGAGCTGAGATGGTGCCACCGCACTCCAGCCTGGGCGACAGAGCAAGACTCTGTCTT

FIGURE 97

AGGTATTCAGGCTCCAGGCCAGGTGGGGCCGGACGCCCCCAGCCATCCACC**ATG**GTGGTGGCACACCCCACCGCC
ACTGCCACCACCACGCCCACTGCCACTGTCACGGCCACCGTTGTGATGACCACGGCCACCATGGACCTGCGGGAC
TGGCTGTTCCTCTGCTACGGGCTCATCGCCTTCCTGACGGAGGTCATCGACAGCACCACCTGCCCCTCGGTGTGC
CGCTGCGACAACGGCTTCATCTACTGCAACGACCGGGGACTCACATCCATCCCCGCAGATATCCCTGATGATGCC
ACCACCCTCTACCTGCAGAACAACCAGATCAACAACGCCGGCATCCCCCAGGACCTCAAGACCAAGGTCAACGTG
CAGGTCATCTACCTATACGAGAATGACCTGGATGAGTTCCCCATCAACCTGCCCCGCTCCCTCCGGGAGCTGCAC
CTGCAGGACAACAATGTGCGCACCATTGCCAGGGACTCGCTGGCCCGCATCCCGCTGCTGGAGAAGCTGCACCTG
GATGACAACTCCGTGTCCACCGTCAGCATTGAGGAGGACGCCTTCGCCGACAGCAAACAGCTCAAGCTGCTCTTC
CTGAGCCGGAACCACCTGAGCAGCATCCCCTCGGGGCTGCCGCACACGCTGGAGGAGCTGCGGCTGGATGACAAC
CGCATCTCCACCATCCCGCTGCATGCCTTCAAGGGCCTCAACAGCCTGCGGCGCCTGGTGCTGGACGGTAACCTG
CTGGCCAACCAGCGCATCGCCGACGACACCTTCAGCCGCCTACAGAACCTCACAGAGCTCTCGCTGGTGCGCAAT
TCGCTGGCCGCGCCACCCCTCAACCTGCCCAGCGCCCACCTGCAGAAGCTCTACCTGCAGGACAATGCCATCAGC
CACATCCCCTACAACACGCTGGCCAAGATGCGTGAGCTGGAGCGGCTGGACCTGTCCAACAACAACCTGACCACG
CTGCCCCGCGGCCTGTTCGACGACCTGGGGAACCTGGCCCAGCTGCTGCTCAGGAACAACCCTTGGTTTTGTGGC
TGCAACCTCATGTGGCTGCGGGACTGGGTGAAGGCACGGGCGGCCGTGGTCAACGTGCGGGGCCTCATGTGCCAG
GGCCCTGAGAAGGTCCGGGGCATGGCCATCAAGGACATTACCAGCGAGATGGACGAGTGTTTTGAGACGGGGCCG
CAGGGCGGCGTGGCCAATGCGGCTGCCAAGACCACGGCCAGCAACCACGCCTCTGCCACCACGCCCCAGGGTTCC
CTGTTTACCCTCAAGGCCAAAAGGCCAGGGCTGCGCCTCCCCGACTCCAACATTGACTACCCCATGGCCACGGGT
GATGGCGCCAAGACCCTGGCCATCCACGTGAAGGCCCTGACGGCAGACTCCATCCGCATCACGTGGAAGGCCACG
CTCCCCGCCTCCTCTTTCCGGCTCAGTTGGCTGCGCCTGGGCCACAGCCCAGCCGTGGGCTCCATCACGGAGACC
TTGGTGCAGGGGGACAAGACAGAGTACCTGCTGACAGCCCTGGAGCCCAAGTCCACCTACATCATCTGCATGGTC
ACCATGGAGACCAGCAATGCCTACGTAGCTGATGAGACACCCGTGTGTGCCAAGGCAGAGACAGCCGACAGCTAT
GGCCCTACCACCACACTCAACCAGGAGCAGAACGCTGGCCCCATGGCGAGCCTGCCCCTGGCGGGCATCATCGGC
GGGGCAGTGGCTCTGGTCTTCCTCTTCCTGGTCCTGGGGGCCATCTGCTGGTACGTGCACCAGGCTGGCGAGCTG
CTGACCCGGGAGAGGGCCTACAACCGGGGCAGCAGGAAAAAGGATGACTATATGGAGTCAGGGACCAAGAAGGAT
AACTCCATCCTGGAAATCCGCGGCCCTGGGCTGCAGATGCTGCCCATCAACCCGTACCGCGCCAAAGAAGAGTAC
GTGGTCCACACTATCTTCCCCTCCAACGGCAGCAGCCTCTGCAAGGCCACACACACCATTGGCTACGGCACCACG
CGGGGCTACCGGGACGGCGGCATCCCCGACATAGACTACTCCTACACA**TGA**TGCCCGCCCACCCGGGCTGCCCCG
CCTCAGCCCCAGCTGCCCTGGCGTGGCCATGTGGCTTTGCCCAGCCTGCTGCAATCCAAGAGAGCAAGGAAGAGA
AATTCCATGGGTGACTTTCCTCCGCAGAAAGCAAAGTTTGGGGAGGGCTGACGATTTTGTAGAACACAACAGTGA
CAATTTTTTTTAAAAGAATAGAAGGCAGGAGGGGGAATTCGACATTGTTGAAGACATAATTTATACCAAGTTATG
CCAGTTGGGGAGGGAAGGACTAAAAATAATATTGCAGGCAGGGCTGGGTTGGGTTTTTTTTTTTTCCCCCCTGAA
CTGGAAGGATACTACCTGTACAACATCTGTGGACACCTCATGCTCTGTTCAAGGCCATCACAAAGGAACCGCCAG
GGAGAAGCAGCCGGCTCTCAAAGCTCCCACGCAGCTCTCCCGCCACTGGCCACTCGCTGGCGACCCGATGGAAGG
TTTTCAGGCTCCTCACAAAGGAGAGAGGGAAGAAAAGATCTTTTGCCCTGGAGATATGGTCCTGAAATCTCTCCC
CTGGCTTATTCCATACCATTTCCCTTGCAGATTTGCAGAAACATGGCATCTTTCACTGCATTCTTTGAACAATCA
TGTAGTCGATTAAAAAAAAAAAAC

FIGURE 98

GGCGAGGAAGGGGCGGGAGCCGGGGTCCCGGTAGCTTCTAGTAGGTTCCAGAAGGCGGCGCGTGCGGTTGGGAAC
GCGGAGCGGACGGATTCGATTCAACGGGGTTCCGGACCGCGCTGCGCTATGGAGCAGGTCAATGAGCTGAAGGAG
AAAGGCAACAAGGCCCTGAGCGTGGGTAACATCG**ATG**ATGCCTTACAGTGCTACTCCGAAGCTATTAAGCTGGAT
CCCCACAACCACGTGCTGTACAGCAACCGTTCTGCTGCCTATGCCAAGAAAGGAGACTACCAGAAGGCTTATGAG
GATGGCTGCAAGACTGTCGACC**TAA**AGCCTGACTGGGGCAAGGGCTATTCACGAAAAGCAGCAGCTCTAGAGTTC
TTAAACCGCTTTGAAGAAGCCAAGCGAACCTATGAGGAGGGCTTAAAACACGAGGCAAATAACCCTCAACTGAAA
GAGGGTTTACAGAATATGGAGGCCAGGTTGGCAGAGAGAAAATTCATGAACCCTTTCAACATGCCTAATCTGTAT
CAGAAGTTGGAGAGTGATCCCAGGACAAGGACACTACTCAGTGATCCTACCTACCGGGAGCTGATAGAGCAGCTA
CGAAACAAGCCTTCTGACCTGGGCACGAAACTACAAGATCCCCGGATCATGACCACTCTCAGCGTCCTCCTTGGG
GTCGATCTGGGCAGTATGGATGAGGAGGAAGAGATTGCAACACCTCCACCACCACCCCCTCCCAAAAAGGAGACC
AAGCCAGAGCCAATGGAAGAAGATCTTCCAGAGAATAAGAAGCAGGCACTGAAAGAAAAAGAGCTGGGGAACGAT
GCCTACAAGAAGAAAGACTTTGACACAGCCTTGAAGCATTACGACAAAGCCAAGGAGCTGGACCCCACTAACATG
ACTTACATTACCAATCAAGCAGCGGTATACTTTGAAAAGGGCGACTACAATAAGTGCCGGGAGCTTTGTGAGAAG
GCCATTGAAGTGGGGAGAGAAAACCGAGAAGACTATCGACAGATTGCCAAAGCATATGCTCGAATTGGCAACTCC
TACTTCAAAGAAGAAAAGTACAAGGATGCCATCCATTTCTATAACAAGTCTCTGGCAGAGCACCGAACCCCAGAT
GTGCTCAAGAAATGCCAGCAGG

FIGURE 99

CCCAACGCACAGTACTGGTCCCAGTTTCACAGCGTGAGGCCACAGGGGCCCCAGTTGAGGCAGCAGCAACACAAA
CAAAACAAACAAGTGCTGGGGTACTGCCTCCTCCTCATGCTGGCGGGCATGGGCCTGCACTACATTGCCTTCAGG
AAGGTGAAGCAGATGCACCTTAACTTCATGG**ATG**AAAAGGATCGGATCATCACAGCCTTCTACAACGAAGCCCGG
GCACGGGCCAGGTCTGTCCCTGCTCTATTCTGCTCCCTGCTCCCTGTCCAGGAACCACACTTCGGGATCCCTATC
CCAACCACCCAGGTGCCCTCTCCTCCAGGGCCAACAGAGGCATCCTTCAGCAGGAGCGACAACGGCTAGGGCAGC
GGCAGCCGCCACCATCCGAGCCAACCCAAGGCCCCGAGATCGTGCCCCGGGGCGCCGGCCCCTGAGGGGCTCACC
TGGATGGGGCCTGCAGTGCGTTCCCGCTTTGCTTCCTTCCTGGACGGCCCGCTCCCCGAAACGCGCGCAA**TAA**AG
TGATTCGCAGA

FIGURE 100

GGCGGCTGGTGAGCGCCCGCTGGAGGCTGGAGCTTCCGGGCCCTGGAAAGGGGTCCCCGCGCGCCCCGGGTCGGA
GGCAGACCCCTGGGTTTGGGGGACATGGGCATTTGGGGCGCCTGAACCCAAGACCTCTGG**ATG**AGCTGCCCCGTT
CAGACCATGGATCCTGAGGTGACCTTGCTGCTGCAGTGCCCTGGCGGGGGCCTGCCCCAGGAGCAGATACAGGCC
GAGCTGAGCCCCGCCCATGACCGTCGCCCACTGCCAGGTGGGGACGAGGCCATCACTGCCATCTGGGAGACCCGG
CTAAAGGCCCAACCCTGGCTCTTCGACGCCCCCAAGTTCCGCCTGCACTCAGCCACCCTGGCGCCTATTGGCTCT
CGGGGGCCACAGCTGCTCCTGCGCCTGGGCCTTACTTCCTACCGAGACTTCCTGGGCACCAACTGGTCCAGCTCA
GCTGCCTGGCTGCGACAGCAGGGTGCCACCGACTGGGGTGACACGCAGGCCTATCTGGCGGACCCACTGGGGGTG
GGCGCTGCACTAGCCACAGCCGATGACTTCCTTGTCTTCCTGCGCCGCTCCCGGCAGGTGGCTGAGGCCCCTGGG
CTGGTGGACGTACCTGGTGGGCACCCTGAGCCTCAGGCCCTGTGCCCTGGTGGCAGCCCCCAGCACCAGGACCTC
GCTGGGCAGCTGGTGGTACATGAACTCTTTTCCAGTGTCCTTCAGGAGATCTGTGATGAGGTGAACCTGCCGCTG
CTCACCCTGAGCCAGCCCCTGCTGTTGGGCATCGCCCGAAATGAGACCAGTGCTGGCCGAGCCAGTGCCGAGTTC
TATGTCCAGTGCAGCCTGACTTCTGAGCAGGTGAGGAAGCACTACCTGAGTGGGGGACCCGAGGCCCACGAGTCT
ACAGGAATCTTCTTTGTGGAGACACAGAACGTGCAGAGATTGCTCGAGACGGAGATGTGGGCTGAACTCTGCCCC
TCGGCCAAAGGCGCCATCATCCTCTACAACCGGGTTCAGGGAAGTCCCACTGGAGCGGCCCTAGGGTCCCCAGCC
CTACTCCCGCCGCTC**TGA**AAATAATAAACGACTTTATTCTTGG

FIGURE 101

GGCACGTCGGCCCTGCCTCCCGGACCACCCTGCGGGGCGCACCAGCGATCTGGGGTGCGGGGCTCGGCCTCCCTG
CGCTCCTGGCTGACCGTGTGACCTTGGGACCGAGACGTGCAGCTGTCCAAGGCTCTGTCCTATGCCCTGCGCCAT
GGGGCCTTGAAGCTGGGGCTTCCC**ATG**GGAGCTGATGGCTTCGTGCCCCTGGGCACCCTCCTGCAGTTGCCCCAG
TTCCGCGGCTTCTCTGCTGAAGATGTGCAGCGCGTGGTGGACACCAATAGGAAGCAGCGGTTCGCCCTGCAGCTG
GGGGATCCCAGCACTGGCCTTCTCATCCGGGCCAACCAGGGCCATTCCCTGCAGGTACCTAAGTTGGAGCTGATG
CCCCTGGAGACACCGCAGGCCCTGCCCCCGATGCTAGTCCATGGTACATTCTGGAAGCACTGGCCATCCATCCTA
CTCAAAGGCCTGTCCTGCCAGGGAAGGACGCACATTCACCTGGCCCCAGGACTGCCTGGAGACCCCGGTATCATC
AGTGGCATGCGGTCCCATTGTGAAATAGCTGTGTTCATCGATGGACCCCTGGCTCTGGCAGATGGAATACCCTTC
TTCCGCTCTGCCAATGGGGTGATTCTGACTCCAGGGAATACTGATGGCTTCCTCCTTCCCAAGTACTTCAAGGAG
GCCCTGCAGCTACGCCCTACCCGAAAGCCCCTTTCCTTGGCTGGTGATGAAGAGACAGAGTGTCAGAGTAGCCCC
AAGCACAGCTCCAGAGAAAGGAGGAGGATCCAACAA**TAA**AATATTAATTTATAAAAAAGAAATTTTAAAAAGTAA
CAAGAAAGAACTCGTTTGAAACCATGTTTCATCATCCTGT

FIGURE 102

AGACAGACCCCGTGCGGCTGACACAGCTGTATGAGCAGGCCCGGTGGGACCTGCTGCTGGAGGAGATTGACTGCA
CCGAGGAGGAGATGATGGTGTTTGCCGCCCTGCAGTACCACATCAACAAGCTGTCCCAGAGCGGGGAGGTGGGGG
AGCCGGCTGGCACAGACCCAGGGCTGGACGACCTGGATGTGGCCCTGAGCAACCTGGAGGTGAAGCTGGAGGGGT
CGGCGCCCACAGATGTGCTGGACAGCCTCACCACCATCCCAGAGCTCAAGGACCATCTCCGAATCTTTCGGCCCC
GGAAGCTGACCCTGAAGGGCTACCGCCAACACTGGGTGGTGTTCAAGGAGACCACACTGTCCTACTACAAGAGCC
AGGACGAGGCCCCTGGGGACCCCATTCAGCAGCTCAACCTCAAGGGCTGTGAGGTGGTTCCCGATGTTAACGTCT
CCGGCCAGAAGTTCTGCATTAAACTCCTAGTGCCCTCCCCTGAGGGC**ATG**AGTGAGATCTACCTGCGGTGCCAGG
ATGAGCAGCAGTATGCCCGCTGGATGGCTGGCTGCCGCCTGGCCTCCAAAGGCCGCACCATGGCCGACAGCAGCT
ACACCAGCGAGGTGCAGGCCATCCTGGCCTTCCTCAGCCTGCAGCGCACGGGCAGTGGGGGCCCGGGCAACCACC
CCCACGGCCCTGATGCCTCTGCCGAGGGCCTCAACCCCTACGGCCTCGTTGCCCCCCGTTTCCAGCGAAAGTTCA
AGGCCAAGCAGCTCACCCCACGGATCCTGGAAGCCCACCAGAATGTGGCCCAGTTGTCGCTGGCAGAGGCCCAGC
TGCGCTTCATCCAGGCCTGGCAGTCCCTGCCCGACTTCGGCATCTCCTATGTCATGGTCAGGTTCAAGGGCAGCA
GGAAAGACGAGATCCTGGGCATCGCCAACAACCGACTGATCCGCATCGACTTGGCCGTGGGCGACGTGGTCAAGA
CCTGGCGTTTCAGCAACATGCGCCAGTGGAATGTCAACTGGGACATCCGGCAGGTGGCCATCGAGTTTGATGAAC
ACATCAATGTGGCCTTCAGCTGCGTGTCTGCCAGCTGCCGAATTGTACACGAGTATATCGGGGGCTACATTTTCC
TGTCGACGCGGGAGCGGGCCCGTGGGGAGGAGCTGGATGAAGACCTCTTCCTGCAGCTCACCGGGGGCCATGAGG
CCTTC**TGA**GGGCTGTCTGATTGCCCCTGCCCTGCTCACCACCTGTCACAGCCACTCCCAAGCCCACACCCACAGG
GGCTCACTGCCCCACACCCGCTCCAGGCAGGCACCCAGCTGGGCATTTCACCTGCTGTCACTGACTTTGTGCAGG
CCAAGGACCTGGCAGGGCCAGACGCTGTACCATCACCCAGGCCAAGGATGGGGGTGGGGGTCCCTGAGCTCATGT
GGTGCCCCCTTTCCTTGTCTGAGTGGCTGAGGCTGATACCCCTGACCTATCTGCAGTCCCCCAGCACACAAGGAA
GACCAGATGTAGCTACAGGATGATGAAACATGGTTTCAAACGAGTTCTTTCTTGTTACTTTTTAAAATTTCTTTT
TTATAAATTAATATTTTATTGTTGG

FIGURE 103

GGCTACGGCTGACCGTTTTTTGTGGTGTACTCCGTGCCATC**ATG**TCCGTCCTGACGCCGCTGCTGCTGCGGGGCT
TGACAGGCTCGGCCCGGCGGCTCCCAGTGCCGCGCGCCAAGATCCATTCGTTGCCGCCGGAGGGGAAGCTTGGGA
TCATGGAATTGGCCGTTGGGCTTACCTCCTGCTTCGTGACCTTCCTCCTGCCAGCGGGCTGGATCCTGTCACACC
TGGAGACCTACAGGAGGCCAGAG**TGA**AGGGGTCCGTTCTGTCCCTCACACTGTGACCTGACCAGCCCCACCGGCC
CATCCTGGTCATGTTACTGCATTTGTGGCCGGCCTCCCCTGGATCATGTCATTCAATTCCAGTCACCTCTTCTGC
AATCATGACCTCTTGATGTCTCCATGGTGACCTCCTTGGGGGTCACTGACCCTGCTTGGTGGGGTCCCCCTTGTA
ACAATAAAATCTATTTAAACTTT

FIGURE 104

GGTTGAATGTCTCCATTGAATGTAAGCGAGTGTCTGGACTGGAGCCAGCCACCGTGGATTGGGCCTTCGACCTGA
CCAAAACGAAT**ATG**CAAACCATGTATGAGCAGAGCGAGTGGGGCTGGAAGGACCGAGAGAAACGGGAGGAAATGA
CAGATGACCGAGCCTGGTACCTCATCGCGTGGGAAAACAGCTCCGTCCCTGTTGCCTTTTCTCACTTCCGGTTTG
ACGTGGAGTGTGGGGATGAAGTCCTGTACTGCTATGAAGTGCAGTTGGAAAGCAAGGTGCGGCGGAAAGGCCTGG
GGAAGTTCCTCATACAGATCCTGCAGCTCATGGCCAACAGCACACAGATGAAGAAGGTTATGTTAACAGTATTTA
AACACAATCATGGTGCCTACCAGTTCTTCAGAGAAGCGTTGCAGATT**TGA**AATTGATGACTCTTCCCCCAGCATG
TCCGGTTGCTGTGGGGAGGATTGCTCCTATGAGATCCTGAGCCGGAGGACCAAGTTTGGGGACAGCCATCACTCC
CACGCGGGTGGGCACTGTGGTGGCTGCTGCCACTGAACTCTCAGAGCCACTTTCAAGTCACAATGCTCTCTCCTA
AGGCCTTTCCTCTTTCCTGGTCTCACTGTTCACCGGGTGTCCTCAGAGCTGTGGCCTCCCCAGCCCTGCACGTGC
CAGGCTGCGCCCTGAGAGCACAGAACCCTGGGGAGAAGTGGTATCAGCTGCTCCTCCTCTCCTAGGAGACCAGAG
TGCTAGAAGGGAATGAAAGGGAGAGGGAAGAGTAGGTGGGGCCGGGCAGTGAAGCTCATCCTCCACAGTGGCTGC
CTCCTCATTTGGCTCCTGGGGCCTGCAGTGGAGGTTCTCGCACCTCTGCAGCCCCTAGATTCCTGGCAACCTCCC
CTCCCCTGACACATACACACTTGGACAAATGGAATGTTTATGTCCACCTTTATGAAAGTTCTGGAGTCCTGGGTC
TGGGGTTTGCTGGTCCCCAAAGAGGAACACACTGGGTGTAAGATCTGGGTGTAGAGGGCGGCTTCAGAGAGACTC
ACGCTTGCGCAGTTGGAATTGCTGTTAACGGAGACTGGGAAGATCTTTTGTGCCAAGATGCAGGGAAATGAAGAA
AGCTCTTTCCAGCTGTTTTTATGGATTCATGGAGTGGGCTCATGTTGGGACCAGCTGACTCTGGGAGGAAGACTG
CCTCTCCATCGCTGTCAGAGAGCCTGAAAGGACCAACAATGAGGTGTTCTTGGGACCCGCCATGGGGATGATTGC
TTCTCTAGGCTCCTGGATGTTGCTGCATTCTAAGCTTAACCTCCTGGTCTCATGGCAGTGACTTGAGCTTTTGAT
TCATAGAAGAAAGCCAGAGGTTCTGCTTGTTCTTGTCTGCCAGCCCTCGTCGTTCTTTCTCCTCTGCCTCTCACC
TCTACCCCAAATACCTCTGTTCTTAGTCTCAAGGGGAGAATAACATCAGGGAGCCCCTCATCTTCCCCAGAAGGA
CTTCTCGTTCCTCATGTAGTTAACTCCATTGATTTTCCTATCTTGGTGCTGATAGCTCTCTAAGGGTAGGGCACA
CCTCCCCACAGCCACCCTCCCTCTTCAGAGAGCCCCCAGCCAGCAGCAGGCCCCTCTGCCTGCACTCCTCAGGCT
TGCCCCTCGCTGCCTCAGTGAGGCACTAGTGCCACTGCCGTGGCCCAGCCGGGCCATAGCTCAGGCTGCAGCAGA
AATGCCTCTCAGTGGCCAACAGTTGCTTTTCTCTCTGGTGTCACCCTGTGGCAACAGGCTGGAGCAGGGGAAGGA
GAAAGCCTTCCTCTTCTCTCATAGGATAGAAAGGCAGGCTCAGAACTAATGCTCATCCTGATCTCTAGGCCTTGT
TCCTCTTCCAGGGAAGAAAAGCCAAATCCTTATCAAGGAAAAAGCACCTAACAGCTCCCTTTGGATATCCCTGAG
CTCTGCTGTGGGGAGTATCATAAAGGTTCTAGCCTTCGTGAAGTTGTTCTCGTGGAGGTCTGTTGGTCCCTCTGA
CCTCAGCATCTGCTCACATCCCACCCTCTGCCCAACTCTGGCAGTCTCTCCTGGCAGATCTCCCCAGAGTGGTCC
TTGCTTCTCACCTGGATTCCTGCTTGTGCAGGAGCCTGTGTACACAGGGCCTCCCTCACCCAGCCTGGCCCCTCT
GCTGAGCACTTTGCGCTGCTCTTGATGGGCAGCAGTGGGACTGGGAACTCCTTAGAGAGGGCCTTGCAGCTTTAC
ACTGGAATAAGTCTGCCTCTGCCTCTGCCTCACCCTGCTGGCTCCTGGTGGGTTTCATCCCAGGCAGAGTTGACA
TTGCTGGAGGGGTTTGGTGGACTCCTAAGAATCATGAAACCACAGGAGCATGTTTAGGAAGAGATTTGTCTCTGG
TCCCTGTCTCTGAAAGGACACAGATGCTAAATATTTATTGTCTTAGATCATGGATTCCTGATACCTCTCACTCAA
GGGGACCAAAAGGGACCCCCCCGTGTTCATCCCTTGTAAGGTGAGTTCAGTCTACGTTGTCTCTTTCCAGTCACT
GGATACGTGGCACCAACTGGTCAATGGGTGCTTGGTGCCATACCCTGCTCACCCTAGTCTCTGCAGGCCATGTCC
TGAAGGGTTCCTCAGGAGGTCGGGACTAGGGTGGGAGAGGCACTATCTGAGACCTGCAATCACTCTTGTTGGTCT
TGAGCCCATTCATTTCCAAAACATCCATCTTTCTCCACTTTCCCCAGGTCTTGGTTTTGAGAAACAGCAGGCATG
GCTGAGTGCGGTGGCTTACACCTGTAATCCCAGCACTTTGGGAGGCTGAGGCAGGCGGGTCACCTGAGGTCAGGA
GTTCAAGACCAGCCTGGTCAACATGGCAAAAGCCCATCTCTACTAAAAAATACAAAAATCACCCAGGCGTGGTTG
TGGCCTGTGATCCCAGCTACTCGGGAGGCTGAGGCAGGAGACTCGCTTGAACCCAGCAGGTGGAGGTTGTGGTGA
GCTGAGATCACGCCATTGCACTCCAGCCTAGGCGACCGAGTGAGACTCCATCTC

FIGURE 105

AGGTGTTAACTGTCTGGCCTATGATGAAGCCATC**ATG**GCTCAGCAGGACCGAATTCAGCAAGAGATTGCTGTGCA
GAACCCTCTGGTGTCAGAGCGGCTGGAGCTCTCGGTCCTATACAAGGAGTATGCTGAAGATGACAACATCTATCA
ACAGAAGATCAAGGACCTCCACAAAAAGTACTCGTACATCCGCAAGACCAGGCCTGACGGCAACTGTTTCTATCG
GGCTTTCGGATTCTCCCACTTGGAGGCACTGCTGGATGACAGCAAGGAGTTGCAGCGGTTCAAGGCTGTGTCTGC
CAAGAGCAAGGAAGACCTGGTGTCCCAGGGCTTCACTGAATTCACAATTGAGGATTTCCACAACACGTTCATGGA
CCTGATTGAGCAGGTGGAGAAGCAGACCTCTGTCGCCGACCTGCTGGCCTCCTTCAATGACCAGAGCACCTCCGA
CTACCTTGTGGTCTACCTGCGGCTGCTCACCTCGGGCTACCTGCAGCGCGAGAGCAAGTTCTTCGAGCACTTCAT
CGAGGGTGGACGGACTGTCAAGGAGTTCTGCCAGCAGGAGGTGGAGCCCATGTGCAAGGAGAGCGACCACATCCA
CATCATTGCGCTGGCCCAGGCCCTCAGCGTGTCCATCCAGGTGGAGTACATGGACCGCGGCGAGGGCGGCACCAC
CAATCCGCACATCTTCCCTGAGGGCTCCGAGCCCAAGGTCTACCTTCTCTACCGGCCTGGACACTACGATATCCT
CTACAAA**TAG**GGCTGGCTCCAGCCCGCTGCTGCCCTGCTGCCCCCCTCTGCCAGGCGCTAGACATGTACAGAGGT
TTTTCTGTGGTTGTAAATGGTCCTATTTCACCCCCTTCTTCCTGTCACATGACCCCCCCCCCATGTTTTATTAAAG
GGGGTGCTGGTGGTGAGCCGTGTGTGCGTGTCCCTGCTCTGCTGCCCGCCTGGCTGCTCTGTCTGCTGCCCCCTC
CCCCCAGGTGGGTCCCCCTGCTTTTCACCTATCTACTCCTGAGCTTCCCCAACAGGAGCAGGTTTGAGGGGCCAG
GCCTCTTGGAGGCCCCTCCTGCTTCGTTGGGTTCTGCTTCCTTCCCTTCTTAGCTGGCTCAGGGGCTTCTATGGG
ATCCTGGAAGTTCCTTAGGGACTTGCCCAGGGTCCCAGGGCCACCCACACTTCATCTGCTCCCTCATAGGCCCCA
CCTCCACGTCCCGGCTGGGCCCCAGACCCCAGCTTCCTGCCCTCCACCGGGAGTCTGCATGGTTGGGAGTCCTGG
GTGGAGGGGCCTTTGTGAGGCTGGACCCGGCTCAGGGCAGGTGGAGGAGCTGGGCCTCCCACAGGGTGCCCGGGC
AGTGCCATCCTGGTGGGGGAGGGCAGCCTTCAAACGTGTGGGGTCTACAGTCCTCAGGTCTAGGCAGGGCTGCCG
GTTCTCCACCTCCCCATCCGCCCCAGGCCCCCTGCCTGTGCCTGCCTTGCACCCCCTCTGCTTGGGCCACGGTGT
CTCTGCATTGCCTGCCTTTTTGCCTTCACCTCTTTTCTTCCCCGCCCCCTGCACATTCGGGGTCTCAGCCCCCAG
GCTGTGAGCTCCTTGGGGGCAGGCCCTCAATAAATGTGAACTGCTGCTGCCGCC

FIGURE 106

CCTTCAGCATAAAAGCTGATCCACAAACAAGAGGAGCACCAGACCTCCTCTTGGCTTCGAGATGGCTTCGCCACA
CCAAGAGCCCAAACCTGGAGACCTGATTGAGATTTTCCGCCTTGGCTATGAGCACTGGGCCCTGTATATAGGAGA
TGGCTACGTGATCCATCTGGCTCCTCCAAGTGAGTACCCCGGGGGCTGGCTCCTCCAGTGTCTTCTCAGTCCTGAG
CAACAGTGCAGAGGTGAAACGGGAGCGCCTGGAAGATGTGGTGGGAGGCTGTTGCTATCGGGTCAACAACAGCTT
GGACCATGAGTACCAACCACGGCCCGTGGAGGTGATCATCAGTTCTGCGAAGGAGATGGTTGGTCAGAAGATGAA
GTACAGTATTGTGAGCAGGAACTGTGAGCACTTTGTCACCCAGCTGAGATATGGCAAGTCCCGCTGTAAACAGGT
GGAAAAGGCCAAGGTTGAAGTTGGTGTGGCCACGGCGCTTGGAATCCTGGTTGTTGCTGGATGCTCTTTTGCGAT
TAGGAGATACCAAAAAAAAGCGACAGCCTGAAGCAGCCACAAAATCCTGTGTTAGAAGCAGCTGTGGGGGTCCCA
GTGGAGATGAGCCTCCCCCATGCCTCCAGCAGCCTGACCCTCGTGCCCTGTCTCAGGCGTTCTCTAGATCCTTTC
CTCTGTTTCCCTCTCTCGCTGGCAAAAGTATGATCTAATTGAAACAAGACTGAAGGATCAATAAACAGCCATCTG
CCCCTTC

FIGURE 107

AGAGTGGGCGTCTGGCGGGGTCCGCAGTTTCAGCAGAGCCGTGCAGCC**ATG**GCCCCAATCAAGGTGGGAGATGCC
ATCCCAGCAGTGGAGGTGTTTGAAGGGGAGCCAGGGAACAAGGTGAACCTGGCAGAGCTGTTCAAGGGCAAGAAG
GGTGTGCTGTTTGGAGTTCCTGGGGCCTTCACCCCTGGATGTTCCAAGACACACCTGCCAGGGTTTGTGGAGCAG
GCTGAGGCTCTGAAGGCCAAGGGAGTCCAGGTGGTGGCCTGTCTGAGTGTTAATGATGCCTTTGTGACTGGCGAG
TGGGGCCGAGCCCACAAGGCGGAAGGCAAGGTTCGGCTCCTGGCTGATCCCACTGGGGCCTTTGGGAAGGAGACA
GACTTATTACTAGATGATTCGCTGGTGTCCATCTTTGGGAATCGACGTCTCAAGAGGTTCTCCATGGTGGTACAG
GATGGCATAGTGAAGGCCCTGAATGTGGAACCAGATGGCACAGGCCTCACCTGCAGCCTGGCACCCAATATCATC
TCACAGCTC**TGA**GGCCCTGGGCCAGATTACTTCCTCCACCCCTCCCTATCTCACCTGCCCAGCCCTGTGCTGGGG
CCCTGCAATTGGAATGTTGGCCAGATTTCTGCAATAAACACTTGTGGTTTGCGG

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FIGURE 108

GGAGCCGCCATGTAACCGGCGCCGCCCGGAGCCCGAGCCGCGCGGGCCCCAGCGACCCGCCCGCC**ATG**GGGGACG
AGGACGACGATGAGAGCTGCGCCGTGGAGCTGCGGATCACAGAAGCCAACCTGACCGGGCACGAGGAGAAGGTGA
GCGTGGAGAACTTCGAGCTGCTCAAGGTGCTGGGCACGGGAGCCTACGGCAAGGTGTTCCTGGTGCGGAAGGCGG
GCGGGCACGACGCGGGGAAGCTGTACGCCATGAAGGTGCTGCGCAAGGCGGCGCTGGTGCAGCGCGCCAAGACGC
AAGAGCACACGCGCACCGAGCGCTCGGTGCTGGAGCTGGTGCGCCAGGCGCCCTTCCTGGTCACGCTGCACTACG
CTTTCCAGACGGATGCCAAGCTGCACCTCATCCTGGACTATGTGAGCGGCGGGGAGATGTTCACCCACCTCTACC
AGCGCCAGTACTTCAAGGAGGCTGAGGTGCGCGTGTATGGGGGTGAGATCGTGCTGGCCCTGGAACACCTGCACA
AGCTCGGCATCATTTACCGAGACCTGAAACTGGAGAATGTGCTGCTGGACTCCGAGGGCCACATTGTCCTCACGG
ACTTCGGGCTGAGCAAGGAGTTCCTGACGGAGGAGAAAGAGCGGACCTTCTCCTTCTGTGGCACCATCGAGTACA
TGGCCCCCGAAATCATCCGTAGCAAGACGGGGCATGGCAAGGCTGTGGACTGGTGGAGCCTGGGCATCTTGCTCT
TCGAGCTGCTGACGGGGGCCTCGCCCTTCACCCTGGAGGGCGAGAGGAACACGCAGGCTGAGGTGTCTCGACGGA
TCCTGAAGTGCTCCCCTCCCTTCCCCCCTCGGATCGGGCCCGTGGCGCAGGACCTGCTGCAGCGGCTGCTTTGTA
AGGATCCTAAGAAGCGATTGGGCGCGGGGCCCCAGGGGGCACAAGAAGTCCGGAACCATCCCTTCTTCCAGGGCC
TCGATTGGGTGGCTCTGGCTGCCAGGAAGATTCCAGCCCCATTCCGGCCCCAAATCCGCTCAGAGCTGGATGTGG
GCAACTTTGCGGAGGAATTCACTCGGCTGGAGCCTGTCTACTCACCCCCTGGCAGCCCCCCACCTGGGGACCCCC
GAATCTTTCAGGGATACTCCTTTGTGGCACCCTCCATTCTCTTTGACCACAACAACGCGGTGATGACCGATGGGC
TGGAAGCGCCTGGTGCTGGAGACCGGCCAGGTCGGGCAGCGGTGGCCAGGAGCGCTATGATGCAGGACTCGCCCT
TCTTCCAGCAGTACGAGCTGGACCTGCGGGAGCCTGCGCTGGGCCAGGGCAGCTTTTCTGTGTGTCGCCGCTGCC
GCCAGCGCCAGAGCGGCCAGGAGTTCGCAGTCAAGATCCTCAGTCGCAGGCTGGAGGCGAACACGCAGCGCGAAG
TGGCTGCCCTGCGCCTGTGCCAGTCACACCCCAACGTGGTGAATCTGCACGAGGTGCATCACGACCAGCTGCACA
CGTACCTGGTCCTGGAGCTGCTGCGGGGCGGGGAGCTGCTGGAGCACATCCGCAAGAAGCGGCACTTCAGCGAGT
CGGAAGCAAGCCAGATCCTGCGCAGCCTCGTGTCGGCCGTGAGCTTCATGCACGAGGAGGCGGGCGTGGTGCACC
GCGACCTCAAGCCGGAGAACATCCTGTACGCCGACGACACGCCCGGGGCCCCGGTGAAAATCATCGACTTCGGGT
TCGCGCGGTTGCGGCCGCAGAGTCCCGGGGTGCCCATGCAGACGCCCTGCTTCACGCTGCAGTACGCTGCCCCCG
AGCTGCTGGCGCAGCAGGGCTACGACGAGTCCTGCGACCTCTGGAGCCTGGGCGTCATTCTGTACATGATGCTGT
CGGGGCAGGTCCCCTTCCAGGGGGCCTCTGGCCAGGGCGGGCAGAGCCAGGCGGCCGAGATCATGTGCAAAATCC
GCGAGGGGCGCTTCTCCCTTGACGGGGAGGCCTGGCAGGGTGTATCCGAGGAAGCCAAGGAGCTGGTCCGAGGGC
TCCTGACCGTGGACCCCGCCAAGCGGCTGAAGCTCGAGGGACTGCGGGGCAGCTCGTGGCTGCAGGACGGCAGCG
CGCGCTCCTCGCCCCCGCTCCGGACGCCCGACGTGCTCGAGTCCTCTGGGCCCGCAGTGCGCTCGGGTCTCAACG
CCACCTTCATGGCATTCAACCGGGGCAAGCGGGAGGGCTTCTTCCTGAAGAGCGTGGAGAATGCACCCCTGGCCA
AGCGGCGGAAGCAGAAGCTGCGGAGCGCCACCGCCTCCCGCCGGGGCTCCCCTGCACCAGCCAACCCGGGCCGAG
CCCCCGTCGCCTCCAAAGGGGCCCCCCGCCGAGCCAACGGCCCCCTGCCCCCCTCC**TAA**TCCCCACCACTGTGAC
CCCCTTCCCTCATAGGGGCTGTGACCTGGGAGCCCGGCTCACTCCCGGAGGCCTCTGCCTGCGGCTGACCTGATC
CCCAAGGGACTGTCCTTTCCTCTCCTACCCCACCCCACTCCCAGACAGAGCAGAAGTATTTTTATAAGCAGAGAA
TTTTTTATGTCTTACCAGATAGAGTTGCAGGGAAGGGGGGGCCTGCTGGGGAGTGGGGTTTGGGGGGCCCTCTCC
CAGGACACTGCCTCTTCTGGGCAGAAGGCCCCTCCAGGGGGACTGCTCCAACAGGAAAGAGCCCCTCCCCCACTT
CTAAGCACTGAGTTAGGAGTGCTAACTCCTAAACTGGGACCCCCTACCCTGTTCTCCCCTGAGGCCCCGTTCCTG
GGAGGGGCACCCCTCAACTGTCACTTTATGGACTGTCTGTGCAATTACGTCCACCAAAGACCCGTGTTGGGGGTA
CTGAAGGAGAGGCCCTGGGGGACCCTCTGAAGCATTTCTGCCTCACTTTATGTCATCTGCTTCTCCCCTGTTGGG
GCTAAGGAAGGAGATAGGTGGCTCCTAAAAGAGGAGGCCATCTTCTCACCCACCCCTTCCTCTTTGGCACAGCTA
CTCCTGGCTGGGGGTGGGGCCTTGGGGGTCTGGGCTGGGCATCCATGGTCACTGCCTCAGCCCAGCCAGGCTGTG
CCTTTGACTTTAAAATAAAAGTCCACCCAGTGCTGTGTGTGGC

FIGURE 109A

AAGGGAGCCCCGCTCAGCGCGGGGAGCGCCCGGCCCCCTCCCGCCCCATGCGCCCGCGGCTCTGAAGCCTGAGCG
GGGGCCGGGGGCCGGGCGGGGCCGGGGCCGCCGTAGGC**ATG**GCGTCCGGGAGCCGGTGGCGGCCGACACCGCCGC
CGCTGCTGTTGCTGCTGCTGCTGGCGCTGGCGGCGCGCGCGGACGGCCTGGAGTTCGGCGGCGGCCCCGGGCAGT
GGGCTCGCTACGCGCGCTGGGCGGGCGCGGCGAGCAGCGGCGAGCTCAGCTTCAGCCTGCGCACCAACGCCACGC
GCGCGCTGCTGCTCTACCTGGACGACGGCGGCGACTGCGACTTCCTGGAGCTGCTGCTGGTGGACGGCCGCCTGC
GGCTGCGCTTCACGCTTTCGTGCGCCGAGCCGGCCACGCTGCAGCTGGACACGCCGGTGGCCGACGACCGCTGGC
ACATGGTGCTGCTGACCCGCGACGCGCGCCGCACGGCGCTGGCGGTGGACGGCGAGGCCCGCGCCGCCGAGGTGC
GCTCCAAGCGGCGCGAGATGCAGGTGGCCAGCGACCTGTTCGTGGGCGGCATCCCGCCCGACGTGCGCCTCTCGG
CGCTTACGCTGAGCACCGTCAAGTACGAGCCGCCCTTCCGCGGCCTCTTGGCCAACCTGAAGCTGGGCGAGCGGC
CCCCCGCGCTGCTGGGCAGCCAGGGCCTGCGCGGCGCCACCGCCGACCCGCTGTGCGCGCCCGCGCGCAACCCCT
GCGCCAACGGCGGCCTCTGCACCGTGCTGGCCCCCGGCGAGGTGGGCTGCGACTGCAGCCACACGGGCTTCGGCG
GCAAGTTCTGCAGCGAAGAGGAGCACCCCATGGAAGGTCCGGCTCACCTGACGTTAAACAGCGAAGTAGGGTCCT
TACTGTTCTCCGAGGGGGGGGCCGGGAGAGGAGGAGCCGGCGATGTGCACCAGCCAACAAAAGGCAAGGAGGAGT
TTGTGGCGACCTTCAAAGGCAATGAGTTCTTCTGCTACGACCTGTCACACAACCCCATCCAGAGCAGCACTGATG
AGATCACACTGGCCTTCCGCACCCTGCAACGCAACGGCCTGATGCTGCATACAGGCAAGTCGGCCGACTACGTCA
ACCTGTCCCTCAAGTCTGGGGCTGTCTGGCTGGTCATCAACCTAGGCTCAGGTGCCTTCGAGGCCCTTGTGGAAC
CCGTCAATGGCAAGTTCAACGACAACGCCTGGCACGACGTCCGGGTCACCCGAAACCTGCGCCAGCACGCAGGGA
TTGGACACGCTATGGTAAACAAACTGCATTATCTGGTGACCATCTCGGTGGACGGGATCCTGACCACCACAGGCT
ACACGCAGGAGGATTACACCATGCTGGGCTCTGATGACTTCTTCTACATTGGGGGCAGCCCCAACACAGCTGACC
TGCCGGGCTCGCCCGTCAGCAACAACTTCATGGGCTGCCTCAAGGACGTGGTCTATAAGAACAATGACTTCAAAT
TGGAACTATCCCGCCTGGCAAAGGAAGGGGACCCCAAGATGAAGCTGCAGGGGGACTTGTCATTCCGCTGTGAGG
ATGTGGCTGCCCTGGACCCTGTGACCTTTGAGAGTCCCGAGGCCTTTGTGGCGCTGCCCCGCTGGAGCGCTAAGC
GCACTGGCTCCATCTCCCTAGACTTCCGCACCACCGAGCCCAATGGGCTGCTGCTCTTCAGCCAGGGCCGGCGGG
CTGGGGGTGGAGCTGGCAGCCACAGCTCTGCTCAGCGGGCCGACTACTTTGCCATGGAGCTATTGGACGGCCACC
TCTATCTTCTGCTGGACATGGGATCTGGGGGCATCAAGCTGCGGGCATCCAGCCGCAAGGTCAATGATGGCGAGT
GGTGTCACGTGGACTTCCAGAGGGATGGGCGAAAAGGCTCCATCTCAGTGAATAGTCGCAGCACGCCGTTCTTGG
CCACTGGAGACAGCGAGATTCTGGACCTGGAGAGTGAGCTGTACCTGGGCGGTCTCCCTGAGGGGGGCCGGGTGG
ACCTGCCCCTGCCCCCAGAGGTGTGGACAGCAGCACTCCGGGCAGGCTACGTGGGCTGTGTGCGGGACCTCTTCA
TAGATGGGCGTAGCCGAGACCTCCGGGGCCTGGCTGAGGCTCAGGGGGCTGTGGGCGTTGCCCCCTTTTGCTCCC
GGGAGACGCTGAAGCAGTGTGCATCTGCCCCCTGTCGCAATGGGGGCGTCTGTCGAGAAGGCTGGAACCGCTTCA
TCTGTGACTGCATCGGGACCGGCTTTCTTGGGCGGGTCTGTGAGAGAGAGGCCACGGTCCTGAGCTACGATGGCT
CCATGTACATGAAGATCATGCTGCCTAACGCCATGCACACGGAGGCAGAGGATGTGTCCCTGCGTTTCATGTCCC
AGCGGGCCTACGGACTCATGATGGCCACCACTTCCAGGGAGTCTGCCGACACCCTACGCCTGGAGCTGGATGGGG
GGCAGATGAAGCTCACTGTCAACCTCGACTGCCTGCGCGTCGGCTGCGCACCCAGTAAAGGCCCCGAAACGCTGT
TTGCGGGGCACAAGCTCAATGACAATGAGTGGCACACGGTGAGGGTGGTCCGGCGTGGCAAGAGCCTGCAGCTGT
CTGTGGACAACGTGACTGTGGAGGGACAGATGGCAGGAGCCCATATGCGGCTGGAGTTCCACAACATTGAGACGG
GCATCATGACGGAGCGGCGGTTTATCTCCGTGGTGCCCTCCAACTTCATCGGGCATCTGAGTGGGCTCGTGTTCA
ATGGCCAGCCCTACATGGACCAGTGCAAGGATGGTGACATCACCTACTGTGAGCTCAATGCTCGCTTTGGCCTGC
GTGCCATCGTGGCCGATCCCGTCACCTTCAAGAGTCGCAGCAGCTACCTGGCACTCGCCACGCTCCAAGCCTATG
CTTCCATGCACCTCTTCTTCCAGTTCAAGACCACGGCCCCTGATGGGCTTCTTCTGTTCAACTCGGGCAACGGCA
ATGACTTCATTGTCATCGAGCTGGTCAAGGGGTACATCCACTACGTGTTTGACCTGGGGAATGGCCCGTCCTTGA
TGAAGGGGAACTCAGACAAACCAGTCAATGACAACCAGTGGCACAACGTGGTGGTGTCCAGGGACCCAGGCAACG
TGCACACGCTCAAGATTGACTCCCGCACTGTCACGCAGCACTCCAATGGCGCCCGAAACCTCGATCTCAAAGGGG
AGTTGTACATTGGCGGTCTGAGCAAGAATATGTTCAGCAACCTGCCCAAGCTGGTGGCCTCCCGGGATGGCTTTC
AGGGCTGCCTGGCCTCAGTGGACCTCAACGGACGTCTCCCAGACCTCATCGCCGACGCCCTGCACCGCATTGGGC
AGGTGGAGAGGGGCTGTGATGGCCCCAGCACCACCTGCACTGAAGAGTCCTGTGCCAACCAGGGCGTCTGCTTGC
AGCAGTGGGATGGCTTCACCTGCGACTGCACCATGACTTCCTATGGAGGCCCTGTCTGCAATGATCCCGGGACCA
CATACATCTTTGGGAAGGGGGGAGCGCTCATCACCTACACGTGGCCCCCCAATGACAGGCCCAGCACGAGGATGG

FIGURE 109B

ATCGCCTGGCCGTGGGCTTCAGCACCCACCAGCGGAGCGCTGTGCTGGTGCGGGTGGACAGCGCCTCCGGCCTTG
GAGACTACCTGCAGCTGCACATCGACCAGGGCACCGTGGGGGTGATCTTTAACGTGGGCACGGACGACATTACCA
TCGACGAGCCCAACGCCATAGTAAGCGACGGCAAATACCACGTGGTGCGCTTCACTCGAAGCGGCGGCAACGCCA
CCCTGCAGGTGGACAGCTGGCCGGTCAACGAGCGGTACCCGGCAGGAAACTTTGATAACGAGCGCCTGGCGATTG
CTAGACAGAGAATCCCCTACCGGCTTGGTCGAGTAGTAGATGAGTGGCTGCTCGACAAAGGCCGCCAGCTGACCA
TCTTCAACAGCCAGGCTGCCATCAAGATCGGGGGCCGGGATCAGGGCCGCCCCTTCCAGGGCCAGGTGTCCGGCC
TCTACTACAATGGGCTCAAGGTGCTGGCGCTGGCCGCCGAGAGCGACCCCAATGTGCGGACTGAGGGTCACCTGC
GCCTGGTGGGGGAGGGGCCGTCCGTGCTGCTCAGTGCGGAGACCACGGCCACCACCCTGCTGGCTGACATGGCCA
CCACCATCATGGAGACTACCACCACCATGGCCACTACCACCACGCGCCGGGGCCGCTCCCCCACACTGAGGGACA
GCACCACCCAGAACACAGATGACCTGCTGGTGGCCTCTGCTGAGTGTCCAAGCGATGATGAGGACCTGGAGGAGT
GTGAGCCCAGTACTGGAGGAGAGTTAATATTGCCCATTATCACGGAGGACTCCTTAGACCCCCCTCCCGTGGCCA
CCCGATCCCCCTTCGTGCCCCCGCCCCCTACCTTCTACCCCTTCCTCACGGGAGTGGGCGCCACCCAAGACACGC
TGCCCCCGCCCGCCGCGCGCCGCCCGCCCTCTGGGGGCCCGTGCCAGGCCGAGCGGGACGACAGCGACTGCGAGG
AGCCCATCGAGGCCTCGGGCTTCGCCTCCGGGGAGGTCTTTGACTCCAGCCTCCCCCCCACGGACGACGAGGACT
TTTACACCACCTTTCCCCTGGTCACGGACCGCACCACCCTCCTGTCACCCCGCAAACCCGCTCCCCGGCCCAACC
TCAGGACAGATGGGGCCACGGGCGCCCCTGGGGGTGCTGTTTGCCCCCTCCGCCCCGGCCCCCAACCTGCCGGCGG
GCAAAATGAACCACCGAGACCCGCTTCAGCCCTTGCTGGAGAACCCGCCCTTGGGGCCCGGGGCCCCCACGTCCT
TTGAGCCGCGGAGGCCCCCTCCCCTGCGCCCCGGCGTGACCTCAGCCCCCGGCTTCCCCCATCTGCCCACAGCCA
ACCCCACAGGGCCTGGGGAGCGGGGCCCGCCGGGCGCAGTGGAGGTGATCCGGGAGTCCAGCAGCACCACGGGCA
TGGTGGTGGGCATTGTGGCGGCGGCGGCGCTCTGCATCCTCATCCTCCTCTACGCCATGTATAAGTACCGCAATC
GTGATGAGGGCTCCTACCAGGTGGACCAGAGCCGAAACTACATCAGTAACTCGGCCCAGAGCAATGGGGCGGTGG
TGAAAGAGAAGGCCCCGGCTGCCCCCAAGACGCCCAGCAAGGCCAAGAAGAACAAAGACAAGGAGTATTATGTC**T**
GAGCCCCCGGCACTGCGCCCCACTGCCAGCTGCCCCTCCTGGGAGGGCCCGGGAGGAGGGTGCCACCCTCTCCCT
GCCAGGGGCCTGGGGACCCTCTCCCTGGCTGCCTCAGGCTTCTCTTACGAAGAGGAAACGCAAAAAAAGAAAAGG
AAAAACCCCGTGCTCGCCCCCTTCCTCCTGCCGTCCACTGCGCGGCCTCGTCAGTCCCGGGGCTGACTGTCCCTC
TCAGCTCTGCGCCTGCCAGGCAGGGCACGTGCTCACAGCCCTGGGTTGATTTATTTTTTTAAGGGGGTAGTTTTA
TTTTGGTGGGGTTGGGTGGGAAGGAAGGCTGGGGGTTTTGTAAAGTGTCCACTGCTCGTCCTGTTAATTTTCCTC
AATTTTTCTTCTTCTTCCTTCTGTCCCTCCTGCCTTCCTTCTCTTCCCAAGCCCTCCAATCCCCATCCCAGGCTT
GCTGTGTCTCACTGTCCCCACCCTCCTTCCCTACTTCTTTTTTTGTGTGTCTGGTTTCTCCCTTCCTTTCCTCCC
TTTGGGTTTCCAGAGTCGGTGGGAGAAGGGCGGGAGGGTGGGCCCGAGTGGCCCAGTGGGTGGGTGGGGTGGGGT
GGGGCAAGTGCCCCAACTCCCCTCACCAGGAGAGGCACCTGCTTGGTGCCGCCCAGGGAAGGGGCTCAGGCCTGA
CGGAAGGCCTGTTCTGTGTGTGCCGCCGGGCGACGTGCATTGATGGGGAAGCTGCTGGAGGAGCAGGGGTGGGGG
GTGGGAGGGAGGGGAAAGGCAAATGCAGATATATATTACAGACAAATACTCTAGATTCCACGAGCAGCAGCCTGT
GGCACCCGCTGGGCGCGGGCAGCAGGGAAGAGGGAGCAAGGCATTGTCCACAGACTGCTGGGGTCACTTCTTTGC
CCACGGGCTCCCTGCTCCCCCAGTTTTTTTTCTCTCTTTGTTAACAAATGTGTCTGAGTCTTGGAAAACACCCCA
ACCCCGGAAATGTGTGGGAAAAAGAAAACAAAAACTTTCCAAATTCC

FIGURE 110

CGATTTCATTCCTCGCTCCCCACAGGTCCCTCTCCCCAAAATATTCCCATCTTGTCCTAGCCCATCCCCCAGACT
ATCTCAAGGACCAGCTGTCCCCACGCCCCCGACCTCCACTAGGCCTGTGCCACCCGCTGCCTGCAGGAAGACGCC
CGGTCCCGGGCCGGGTTAGCCCC**ATG**GGAACGCAGCGCCTGTGTGGCCGCGGGACTCAAGGCTGGCCTGGCTCAA
GTGAACAGCACGTCCAGGAGGCGACCTCGTCCGCGGGTTTGCATTCTGGGGTGGACGAGCTGGGGGTTCGGTCCG
AGCCCGGTGGGAGGCTCCCGGAGCGCAGCCTGGGCCCAGCCCACCCCGCGCCGGCGGCCATGGCAGGCACCCTGG
ACCTGGACAAGGGCTGCACGGTGGAGGAGCTGCTCCGCGGGTGCATCGAAGCCTTCGATGACTCCGGGAAGGTGC
GGGACCCGCAGCTGGTGCGCATGTTCCTCATGATGCACCCCTGGTACATCCCCTCCTCTCAGCTGGCGGCCAAGC
TGCTCCACATCTACCAACAATCCCGGAAGGACAACTCCAATTCCCTGCAGGTGAAAACGTGCCACCTGGTCAGGT
ACTGGATCTCCGCCTTCCCAGCGGAGTTTGACTTGAACCCGGAGTTGGCTGAGCAGATCAAGGAGCTGAAGGCTC
TGCTAGACCAAGAAGGGAACCGACGGCACAGCAGCCTAATCGACATAGACAGCGTCCCTACCTACAAGTGGAAGC
GGCAGGTGACTCAGCGGAACCCTGTGGGACAGAAAAAGCGCAAGATGTCCCTGTTGTTTGACCACCTGGAGCCCA
TGGAGCTGGCGGAGCATCTCACCTACTTGGAGTATCGCTCCTTCTGCAAGATCCTGTTTCAGGACTATCACAGTT
TCGTGACTCATGGCTGCACTGTGGACAACCCCGTCCTGGAGCGGTTCATCTCCCTCTTCAACAGCGTCTCACAGT
GGGTGCAGCTCATGATCCTCAGCAAACCCACAGCCCCGCAGCGGGCCCTGGTCATCACACACTTTGTCCACGTGG
CGGAGAAGCTGCTACAGCTGCAGAACTTCAACACGCTGATGGCAGTGGTCGGGGGCCTGAGCCACAGCTCCATCT
CCCGCCTCAAGGAGACCCACAGCCACGTTAGCCCTGAGACCATCAAGCTCTGGGAGGGTCTCACGGAACTAGTGA
CGGCGACAGGCAACTATGGCAACTACCGGCGTCGGCTGGCAGCCTGTGTGGGCTTCCGCTTCCCGATCCTGGGTG
TGCACCTCAAGGACCTGGTGGCCCTGCAGCTGGCACTGCCTGACTGGCTGGACCCAGCCCGGACCCGGCTCAACG
GGGCCAAGATGAAGCAGCTCTTTAGCATCCTGGAGGAGCTGGCCATGGTGACCAGCCTGCGGCCACCAGTACAGG
CCAACCCCGACCTGCTGAGCCTGCTCACGGTGTCTCTGGATCAGTATCAGACGGAGGATGAGCTGTACCAGCTGT
CCCTGCAGCGGGAGCCGCGCTCCAAGTCCTCGCCAACCAGCCCCACGAGTTGCACCCCACCACCCCGGCCCCCGG
TACTGGAGGAGTGGACCTCGGCTGCCAAACCCAAGCTGGATCAGGCCCTCGTGGTGGAGCACATCGAGAAGATGG
TGGAGTCTGTGTTCCGGAACTTTGACGTCGATGGGGATGGCCACATCTCACAGGAAGAATTCCAGATCATCCGTG
GGAACTTCCCTTACCTCAGCGCCTTTGGGGACCTCGACCAGAACCAGGATGGCTGCATCAGCAGGGAGGAGATGG
TTTCCTATTTCCTGCGCTCCAGCTCTGTGTTGGGGGGGCGCATGGGCTTCGTACACAACTTCCAGGAGAGCAACT
CCTTGCGCCCCGTCGCCTGCCGCCACTGCAAAGCCCTGATCCTGGGCATCTACAAGCAGGGCCTCAAATGCCGAG
CCTGTGGAGTGAACTGCCACAAGCAGTGCAAGGATCGCCTGTCAGTTGAGTGTCGGCGCAGGGCCCAGAGTGTGA
GCCTGGAGGGGTCTGCACCCTCACCCTCACCCATGCACAGCCACCATCACCGCGCCTTCAGCTTCTCTCTGCCCC
GCCCTGGCAGGCGAGGCTCCAGGCCTCCAGAGATCCGTGAGGAGGAGGTACAGACGGTGGAGGATGGGGTGTTTG
ACATCCACTTG**TAA**TAGATGCTGTGGTTGGATCAAGGACTCATTCCTGCCTTGGAGAAAATACTTCAACCAGAGC
AGGGAGCCTGGGGGTGTCGGGGCAGGAGGCTGGGGATGGGGGTGGGATATGAGGGTGGCATGCAGCTGAGGGCAG
GGCCAGGGCTGGTGTCCCTAAGGTTGTACAGACTCTTGTGAATATTTGTATTTTCCAGATGGAATAAAAAGGCCC
GTGTAATTAACCTTC

FIGURE 111

ACTTACTGTCATTAAACCAGTATGATGATGGAGTGGGGAATGCCTCAGTTTCTCCCACCGCCGAGGGCCTATAGG
ACTACAGTTCCCAGGGCCCCGTGCTGCAGGCTAGCGGCCTCCCGCCAATGCTGGCCAGTAACCTGAGCATCCCTC
TCCAAAAGGTCACTTCAGGGCTCCTTGAGGGACAGCAACAGGGGGAGCCTAGAGCTGCTCAGCTTCGGTGGGGGT
GGAGTGAGGGCTGTGGCCCTGCCTCACACAACCTCCCTCACACCACCCCTGCAATGCAGGGTCGTGGGCCCCTTT
CTCAAAGACATCCAGTGGCCTCTGCTAGTTGCACCTCTTCCGTCAGGGGACACTGACTTGGCTCCTGCACCACAG
CCTGCAGGGGGTCCTGGTTCCTTTTGCCACAACACATGGCCTCCCATCCTGGTTCAGCCACTGACAGACAGCTCC
CCAATCCAGCACTCTGCCTGCTCCTTCTTGTATCCAACCCTCCAAAAGGCAGGGACAAGGGACAGAAGACCATGT
GCAAGGCCTGGAGGAAGTGGGTCAGCACAGGCCTGTGAACAAGCCAGGCCAGTCTTGGCGGCCCAAGTGGAGCTC
ACCTCTCCCTCCCCTCTCCTCTCCTCCCCTTGCCCTCAAAATAGCTCCCTGAGCTGCCAGGCCAAGACCCTCCCA
TTGCAGGGGAGGCGGGGCGTGCTGCCCAGAGCCAGGCTTTAAATCCCCTTGAGGCTGGGGAGCTCCACTCCTTGG
CTGGAGGCAGTGCTGAGGCCGCCGTCCCCTCTACCATCAGTCCAGTCCGGCCCGCCCTCCTGCAGCC**ATG**TCCCG
GCCCCTGTCAGACCAAGAGAAAAGAAAGCAAATCAGTGTGCGTGGCCTGGCCGGCGTGGAGAACGTGACTGAGCT
GAAAAAGAACTTCAACCGGCACCTGCATTTCACACTCGTAAAGGACCGCAATGTGGCCACCCCACGAGACTACTA
CTTTGCTCTGGCCCATACCGTGCGCGACCACCTCGTGGGGCGCTGGATCCGCACGCAGCAGCACTACTATGAGAA
GGACCCCAAGAGGATCTACTACCTGTCTTTAGAGTTCTATATGGGACGGACGCTACAGAACACCATGGTGAACCT
GGCCTTAGAGAATGCCTGTGACGAGGCCACCTACCAGCTGGGCCTGGACATGGAGGAGCTGGAGGAAATTGAGGA
GGATGCGGGGCTGGGCAACGGGGGCCTGGGCCGGCTGGCAGCCTGCTTTCTTGACTCCATGGCAACACTGGGCCT
GGCCGCCTATGGCTACGGGATTCGCTATGAGTTTGGGATTTTTAACCAGAAGATCTCCGGGGGCTGGCAGATGGA
GGAGGCCGATGACTGGCTTCGCTACGGCAACCCCTGGGAGAAGGCCCGGCCCGAGTTCACGCTACCTGTGCACTT
CTACGGCCATGTGGAGCACACCAGCCAGGGTGCCAAGTGGGTGGACACACAGGTGGTACTGGCCATGCCCTACGA
TACGCCCGTGCCTGGCTATCGCAACAATGTTGTCAACACCATGCGCCTCTGGTCTGCCAAGGCTCCCAATGACTT
CAACCTCAAGGACTTCAATGTCGGTGGCTACATCCAGGCTGTGTTGGACCGAAACCTGGCGGAGAACATCTCTCG
TGTCCTGTACCCCAATGATAATTTCTTCGAAGGGAAGGAGCTGCGGCTGAAGCAGGAGTATTTCGTGGTGGCTGC
CACCCTCCAGGACATCATCCGTCGCTTCAAGTCTTCCAAGTTCGGCTGCCGTGATCCCGTGCGCACGAACTTCGA
TGCCTTCCCAGATAAGGTGGCCATCCAGCTCAATGACACCCACCCCTCCCTGGCCATCCCCGAGCTGATGAGGAT
CCTGGTGGACCTGGAACGGATGGACTGGGACAAGGCGTGGGATGTGACAGTGAGGACCTGTGCCTACACCAACCA
CACGGTGCTGCCCGAGGCCCTGGAGCGCTGGCCGGTGCACCTCTTGGAGACGCTGCTGCCGCGGCACCTCCAGAT
CATCTACGAGATCAACCAGCGCTTCCTCAACCGGGTGGCGGCCGCATTCCCAGGGGACGTAGACCGGCTGCGGCG
CATGTCGCTGGTGGAGGAGGGCGCAGTGAAGCGCATCAACATGGCACACCTGTGCATCGCGGGGTCGCACGCCGT
CAACGGCGTGGCGCGCATCCACTCCGAGATCCTCAAGAAGACCATCTTCAAAGACTTCTATGAGCTGGAGCCTCA
TAAGTTCCAGAATAAGACCAACGGCATCACCCCTCGGCGCTGGCTGGTTCTGTGTAACCCCGGGCTGGCAGAGGT
CATTGCTGAGCGCATCGGGGAGGACTTCATCTCTGACCTGGACCAGCTGCGCAAACTGCTCTCCTTTGTGGATGA
TGAAGCTTTCATTCGGGATGTGGCCAAAGTGAAGCAGGAAAACAAGTTGAAGTTTGCTGCCTACCTAGAGAGGGA
ATACAAAGTCCACATCAACCCCAACTCACTCTTCGACATCCAGGTGAAGCGGATTCACGAATATAAACGACAGCT
CCTCAACTGCCTCCATGTCATCACCCTGTACAACCGCATCAAGAGGGAGCCCAATAAGTTTTTTGTGCCTCGGAC
TGTGATGATTGGAGGGAAGGCTGCACCTGGGTACCACATGGCCAAGATGATCATCAGACTCGTCACAGCCATCGG
GGATGTGGTCAACCATGACCCGGCAGTGGGTGACCGCCTCCGTGTCATCTTCCTGGAGAACTACCGAGTCTCACT
GGCCGAGAAAGTGATCCCAGCTGCAGACCTCTCTGAGCAGATCTCCACTGCGGGCACTGAAGCCTCAGGCACCGG
CAACATGAAGTTCATGCTCAACGGGGCTCTGACCATTGGCACCATGGACGGGGCCAATGTGGAGATGGCAGAAGA
GGCGGGAGAGGAAAACTTCTTCATCTTTGGCATGCGGGTGGAGGATGTGGATAAGCTTGACCAAAGAGGGTACAA
TGCCCAGGAGTACTACGATCGCATTCCTGAGCTTCGGCAGGTCATTGAGCAGCTGAGCAGTGGCTTCTTCTCCCC
CAAACAGCCCGACCTGTTCAAGGACATTGTCAATATGCTCATGCACCATGACCGGTTTAAAGTCTTCGCAGATTA
TGAAGACTACATTAAATGCCAGGAGAAAGTCAGCGCCTTGTACAAGAACCCAAGAGAGTGGACGCGGATGGTGAT
CCGGAACATAGCCACCTCTGGCAAGTTCTCCAGTGACCGCACCATTGCCCAGTATGCCCGGGAGATCTGGGGTGT
GGAGCCTTCCCGCCAGCGCCTGCCAGCCCCGGATGAGGCCATC**TGA**GCCTCCAGACCAGACCCCAAACCAGCCCT
TGAGTCTGTCACACTCTCTTGGGCCAGCCCCAGCACCTCATGCAGAGGGTGGGGTACTGGAGTTAGATCTCT

FIGURE 112

AAATGAAGTGCGCGCTGCGACACCTCCCAGCCCACCGAACTCCGCCGCCATTTCCTCGCTTGGCCTAACGGTTCG
GCCAATCCCAGCGCGCATCAAGAAGGACTGAGGCTCCGCCAATCGGAGGCCGCCGATTTCGACCCTTCGCCTCGG
CCCGGCCCAATCCAGGCCCCGGCCCCGCCGCCCCCGGCCCGCCCCCGCGGTGCCCTCTCTCCTCCCTCTTTGTGC
GTCTCGCGCCGCCGCCGCCCGCCGCGTGAGAGGACGGGCTCCGCGCGCTCCGGCAGCGCATTCGGGTCCCCTCCC
CCCGGGAGGCTTGCGAAGGAGAAGCCGCCGCAGAGGAAAAGCAGGTGCCGGTGCCTGTCCCCGGGGGCGCC**ATG**G
CGACCGGAGCGAACGCCACGCCGTTGGACTTCCCAAGTAAGAAGCGGAAGAGGAGCCGCTGGAACCAAGACACAA
TGGAACAGAAGACAGTGATTCCAGGAATGCCTACAGTTATTCCCCCTGGACTTACTCGAGAACAAGAAAGAGCTT
ATATAGTGCAACTGCAGATAGAAGACCTGACTCGTAAACTGCGCACAGGAGACCTGGGCATCCCCCCTAACCCTG
AGGACAGGTCCCCTTCCCCTGAGCCCATCTACAATAGCGAGGGGAAGCGGCTTAACACCCGAGAGTTCCGCACCC
GCAAAAAGCTGGAAGAGGAGCGGCACAACCTCATCACAGAGATGGTTGCACTCAATCCGGATTTCAAGCCACCTG
CAGATTACAAACCTCCAGCAACACGTGTGAGTGATAAAGTCATGATTCCACAAGATGAGTACCCAGAAATCAACT
TTGTGGGGCTGCTCATCGGGCCCAGAGGGAACACCCTGAAGAACATAGAGAAGGAGTGCAATGCCAAGATTATGA
TCCGGGGGAAAGGGTCTGTGAAAGAAGGGAAGGTTGGGCGCAAAGATGGCCAGATGTTGCCAGGAGAAGATGAGC
CACTTCATGCCCTGGTTACTGCCAATACAATGGAGAACGTCAAAAAGGCAGTGGAACAGATAAGAAACATCCTGA
AGCAGGGTATCGAGACTCCAGAGGACCAGAATGATCTACGGAAGATGCAGCTTCGGGAGTTGGCTCGCTTAAATG
GGACCCTTCGGGAAGACGATAACAGGATCTTAAGACCCTGGCAGAGCTCAGAGACCCGCAGCATTACCAACACCA
CAGTGTGTACCAAGTGTGGAGGGGCTGGCCACATTGCTTCAGACTGTAAATTCCAAAGGCCTGGTGATCCTCAGT
CAGCTCAGGATAAAGCACGGATGGATAAAGAATATTTGTCCCTCATGGCTGAACTGGGTGAAGCACCTGTCCCAG
CATCTGTGGGCTCCACCTCTGGGCCTGCCACCACACCCCTGGCCAGCGCACCTCGTCCTGCTGCTCCCGCCAACA
ACCCACCTCCACCGTCTCTCATGTCTACCACCCAGAGCCGCCCACCCTGGATGAATTCTGGCCCTTCAGAGAGTC
GGCCCTACCACGGCATGCATGGAGGTGGTCCTGGTGGGCCCGGAGGTGGCCCCCACAGCTTCCCACACCCATTAC
CCAGCCTGACAGGTGGGCATGGTGGACATCCCATGCAGCACAACCCCAATGGACCCCCACCCCCTTGGATGCAGC
CACCACCACCACCGATGAACCAGGGCCCCCACCCTCCTGGGCACCATGGCCCTCCTCCAATGGATCAGTACCTGG
GAAGTACGCCTGTGGGCTCTGGGGTCTATCGCCTGCATCAAGGAAAAGGTATGATGCCGCCACCACCTATGGGCA
TGATGCCGCCGCCGCCGCCGCCTCCCAGTGGGCAGCCCCCACCCCCTCCCTCTGGTCCTCTTCCCCCATGGCAAC
AACAGCAGCAGCAGCCTCCGCCACCCCCTCCGCCCAGCAGCAGTATGGCTTCCAGTACCCCCTTGCCATGGCAGC
AAAATACGACGACTACCACCACGAGCGCTGGCACAGGGTCCATCCCGCCATGGCAACAGCAGCAGGCGGCTGCCG
CAGCTTCTCCAGGAGCCCCTCAGATGCAAGGCAACCCCACTATGGTGCCCCTGCCCCCCGGGGTCCAGCCGCCTC
TGCCGCCTGGGGCCCCTCCCCCTCCGCCCCGTAGCATCGAGTGTCTTCTTTGTCTTCTTTCTCTCCTCACCCAAC
TCCCTTTGCCTCTCCCCAAACCGGGCCGCCAGGATCCCTCCCCGCGGCGGCGATGGCCCGAGCCA**TGA**GAGTGAG
GACTTTCCGCGCCCATTGGTGACCCTTCCAGGCAGACAGCCTCAGCAACGCCCCTGGTGGACAGGATGGTTCGGC
AAAGCAGCCTGAGTTATTTTTGTGGACGGAATCGGAACACGCTGGCTCCATATCGTGAAATTTTTATTAATTTTT
TTCTTTTTCCTTTGTTACTTCTTTATCTTTTCCTTTCTTCAGACTCCGTCCAAGGAGATGCTCTCCCCGGTCTTC
TGCTGCAATTTAGATTCCTTTCCCTTCTCTCCAGTTCTCCTTCCCTTACCAAGGAGAGGGGAGCAAATGGTTTTG
GGCAAGGGCTTTGGCCATTCATGTCAAGCTGGTTGTGGGTTTTTCAAGGTGCCATAGCCACCCCCAAATATGTTT
GTTTAAAGCGTGGGGTTTTTTAATCTCTGCCACCCTTGTCAAGGGAGTCTTGTAAAGTTGCCGAGGGTAGGTTCA
TCTCCAGGTTTCGGGATTCCCATCCGTCCTGGCGATCCTGCCAGCAGTGGGTGGGCAGCCTGAGCTCCCTCGGGC
TCGCCTGCCAGCCTGGAGTTCTTCCTGTGCTCCTTGATCACCTGAGCTGCCTCAGATTCCATTTGGTCCTCTCCT
TCCTGGAAGGCTTCCTTTTATGTTTTGTTTTAATCCCAAATGTCTGAATGTTTTGCAGTGTGTAGGGGTTTGAGC
CCCTTGTTCATTCTCCTTCCTTTTTCCTCCCGCTTCCCTCTCCATGAAGTGATTCTGTTGACAATAATGTATACT
GCGCGTTCTCTTCACTGGTTTATCTGCAGAAATTTCTCTGGGCTTTTTTCGGTGTTAGATTCAACACTGCGCTAA
AGCGGGGATGTTCCATTGAATAAAAGAGCAGTGTGGTTTTCTGGG

FIGURE 113

GCGCCGGGCC**ATG**GCGCTGCTGCGGGATGTGTCGCTGCAGGACCCGCGGGACCGCTTCGAGCTGCTGCAGCGCGT
GGGGGCCGGGACCTATGGCGACGTCTACAAGGCCCGCGACACGGTCACGTCCGAACTGGCCGCCGTGAAGATAGT
CAAGCTAGACCCAGGGGACGACATCAGCTCCCTCCAGCAGGAAATCACCATCCTGCGTGAGTGCCGCCACCCCAA
TGTGGTGGCCTACATTGGCAGCTACCTCAGGAATGACCGCTTGTGGATCTGCATGGAGTTCTGCGGAGGGGGCTC
CCTGCAGGAGATTTACCATGCCACTGGGCCCCTGGAGGAGCGGCAGATTGCCTACGTCTGCCGAGAGGCACTGAA
GGGGCTCCACCACCTGCATTCTCAGGGGAAGATCCACAGAGACATCAAGGGAGCCAACCTTCTCCTCACTCTCCA
GGGAGATGTCAAACTGGCTGACTTTGGGGTGTCAGGCGAGCTGACAGCGTCTGTGGCCAAGAGGAGGTCTTTCAT
TGGGACTCCCTACTGGATGGCTCCCGAGGTGGCTGCTGTGGAGCGCAAAGGTGGCTACAATGAGCTATGTGACGT
CTGGGCCCTGGGCATCACTGCCATTGAGCTGGGCGAGCTGCAGCCCCCTCTGTTCCACCTGCACCCCATGAGGGC
CCTGATGCTCATGTCGAAGAGCAGCTTCCAGCCGCCCAAACTGAGAGATAAGACTCGCTGGACCCAGAATTTCCA
CCACTTTCTCAAACTGGCCCTGACCAAGAATCCTAAGAAGAGGCCGACAGCAGAGAAGCTCCTGCAGCACCCGTT
CACGACTCAGCAGCTCCCTCGGGCCCTCCTCACACAGCTGCTGGACAAAGCCAGTGACCCTCATCTGGGGACCCC
CTCCCCTGAGGACTGTGAGCTGGAGACCTATGACATGTTTCCAGACACCATTCACTCCCGGGGGCAGCACGGCCC
AGCCGAGAGGACCCCCTCGGAGATCCAGTTTCACCAGGTGAAATTTGGCGCCCCACGCAGGAAGGAAACTGACCC
ACTGAATGAGCCGTGGGAGGAAGAGTGGACACTACTGGGAAAGGAAGAGTTGAGTGGGAGCCTGCTGCAGTCGGT
CCAGGAGGCCCTGGAGGAAAGGAGTCTGACTATTCGGTCAGCCTCAGAATTCCAGGAGCTGGACTCCCCAGACGA
TACCATGGGAACCATCAAGCGGGCCCCGTTCCTAGGGCCACTCCCCACTGACCCTCCAGCAGAGGAGCCTCTGTC
CAGTCCCCCAGGAACCCTGCCCCCACCTCCTTCAGGCCCCAACAGCTCCCCACTGCTGCCCACGGCCTGGGCCAC
CATGAAGCAGCGGGAGGATCCTGAGAGGTCATCCTGCCACGGGCTCCCCCCAACTCCCAAGGTGCATATGGGCGC
CTGCTTCTCCAAGGTCTTCAATGGCTGCCCCCTGCGGATCCACGCTGCTGTCACCTGGATTCACCCTGTTACTCG
GGACCAGTTCCTGGTGGTAGGGGCCGAGGAAGGCATCTACACACTCAACCTGCATGAACTGCATGAGGATACGCT
GGAGAAGCTGATTTCACATCGCTGCTCCTGGCTCTACTGCGTGAACAACGTGCTGCTGTCACTCTCAGGGAAATC
CACGCACATCTGGGCCCATGACCTCCCAGGCCTGTTTGAGCAGCGGAGGCTACAGCAACAGGTTCCCCTCTCCAT
CCCCACCAACCGCCTCACCCAGCGCATCATCCCCAGGCGCTTTGCTCTGTCCACCAAGATTCCTGACACCAAAGG
CTGCTTGCAGTGTCGTGTGGTGCGGAACCCCTACACGGGTGCCACCTTCCTGCTGGCCGCCCTGCCCACCAGCCT
GCTCCTGCTGCAGTGGTATGAGCCGCTGCAGAAGTTTCTGCTGCTGAAGAACTTCTCCAGCCCTCTGCCCAGCCC
AGCTGGGATGCTGGAGCCGCTGGTGCTGGATGGGAAGGAGCTGCCGCAGGTGTGTGTTGGGGCCGAGGGGCCTGA
GGGGCCCGGCTGCCGCGTCCTGTTCCATGTCCTGCCCCTGGAGGCTGGCCTGACGCCCGACATCCTCATCCCACC
TGAGGGGATCCCAGGCTCGGCCCAGCAGGTGATCCAGGTGGACAGGGACACAATCCTAGTCAGCTTTGAACGCTG
TGTGAGGATTGTCAACATGCAGGGCGAGCCCACGGCCACACTGGCACCTGAGCTGACCTTTGATTTCCCCATCGA
GACTGTGGTGTGCCTGCAGGACAGTGTGCTGGCCTTCTGGAGCCATGGGATGCAAGGCCGAAGCCTGGATACCAA
TGAGGTGACCCAGGAGATCACAGATGAAACAAGGATCTTCCGAGTGCTTGGGGCCCACAGAGACATCATCCTGGA
GAGCATTCCCACTGACAACCCAGAGGCGCACAGCAACCTCTACATCCTCACGGGCCACCAGAGCACCTAC**TAA**GA
GCAGCGGGCCTGTCCAGGGGCTCCCCGCCCCACCCCACGCCTTAGCTGCAGGCCCTTTTGGGCAAAGGGGCCCAT
CCTAGACCAGAGGAGCCCAGGCCCTGGCCCTGCTGGGGCTGAAGGTCAGAAGTAATCCTGAGAAATGTTTCAGGC
CTGGGGAGGGAGGGGAGCCCCCGACGCCTCTGCAATAACTGGACCAGGGGGAGCTGCTGTCACTCCCCCATCCCC
GAGGCAGCCCAGTCCCTAGTGCCCAAGGCAGGGACCCTGGGCCTGGGCCATCCATTCCATTTTGTTCCACATTTC
CTTTCTACTCTTTCTGCCAAGAGCCTGCCCCTGCATTTGTCCTGGGAAACACGGTATTTAAGAGAGAACTATATT
GGTATTAAAGCTGGTTTGTTTT

FIGURE 114

TATATTTATGTATATGCACATACACACAAAATTAGGCGGGAGTGGTGGCGCACGCCTGTGATCACAGCTACTCGG
GAGGCTGAGGCACGAGAATCGCTTGAGCCCGTGAAGTCGAGGCTGCAGTGAGCCCAGATCGAGCCACTGCATTCC
AGCCTGGGCGAAAGAGAAAGACCGTGTCTCAAAACAAACAAACAAAAGCTACTCTTAGCACGTGTTAGAGTATCT
CGCGGGCGGAAGTGGGAAACGAGTGCTGCACACAGACAACCTGATCTTTTTCCTCATAACTTGCCGACCGACCCG
TGACAGCAAAACCGGCAGAAGCTCGGCGACCTCCCACCCCGAGTCTGCAGGTAGCCGCCGCCCACCGCCCGCCGT
C**ATG**GGGCTGAAGGCCGCCCAGAAGACGCTGTTCCCGCTGCGCTCCATCGACGACGTGGTGCGCCTGTTTGCTGC
CGAGCTGGGCCGAGAGGAGCCGGACCTGGTGCTCCTTTCCTTGGTGCTGGGCTTCGTGGAGCATTTTCTGGCTGT
CAACCGCGTCATCCCTACCAACGTTCCCGAGCTCACCTTCCAGCCCAGCCCCGCCCCCGACCCGCCTGGCGGCCT
CACCTACTTTCCCGTGGCCGACCTGTCTATCATCGCCGCCCTCTATGCCCGCTTCACCGCCCAGATCCGAGGCGC
CGTCGACCTGTCCCTCTATCCTCGAGAAGGGGGTGTCTCCAGCCGTGAGCTGGTGAAGAAGGTCTCCGATGTCAT
ATGGAACAGCCTCAGCCGCTCCTACTTCAAGGATCGGGCCCACATCCAGTCCCTCTTCAGCTTCATCACAGGTTG
GAGCCCAGTAGGCACCAAATTGGACAGCTCCGGTGTGGCCTTTGCTGTGGTTGGGGCCTGCCAGGCCCTGGGTCT
CCAGGATGTCCACCTCGCCCTGTCTGAGGATCATGCCTGGGTAGTGTTTGGGCCCAATGGGGAGCAGACAGCTGA
GGTCACCTGGCACGGCAAGGGCAACGAGGACCGCAGGGGCCAGACAGTCAATGCCGGTGTGGCTGAGCGGAGCTG
GCTGTACCTGAAAGGATCATACATGCGCTGTGACCGCAAGATGGAGGTGGCGTTCATGGTGTGTGCCATCAACCC
TTCCATTGACCTGCACACCGACTCGCTGGAGCTTCTGCAGCTGCAGCAGAAGCTGCTCTGGCTGCTCTATGACCT
GGGACATCTGGAAAGGTACCCCATGGCCTTAGGGAACCTGGCAGATCTAGAGGAGCTGGAGCCCACCCCTGGCCG
GCCAGACCCACTCACCCTCTACCACAAGGGCATTGCCTCAGCCAAGACCTACTATCGGGATGAACACATCTACCC
CTACATGTACCTGGCTGGCTACCACTGTCGCAACCGCAATGTGCGGGAAGCCCTGCAGGCCTGGGCGGACACGGC
CACTGTCATCCAGGACTACAACTACTGCCGGGAAGACGAGGAGATCTACAAGGAGTTCTTTGAAGTAGCCAATGA
TGTCATCCCCAACCTGCTGAAGGAGGCAGCCAGCTTGCTGGAGGCGGGCGAGGAGCGGCCGGGGGAGCAAAGCCA
GGGCACCCAGAGCCAAGGTTCCGCCCTCCAGGACCCTGAGTGCTTCGCCCACCTGCTGCGATTCTACGACGGCAT
CTGCAAATGGGAGGAGGGCAGTCCCACGCCTGTGCTGCACGTGGGCTGGGCCACCTTTCTTGTGCAGTCCCTAGG
CCGTTTTGAGGGACAGGTGCGGCAGAAGGTGCGCATAGTGAGCCGAGAGGCCGAGGCGGCCGAGGCCGAGGAGCC
GTGGGGCGAGGAAGCCCGGGAAGGCCGGCGGCGGGGCCCACGGCGGGAGTCCAAGCCAGAGGAGCCCCCGCCGCC
CAAGAAGCCAGCACTGGACAAGGGCCTGGGCACCGGCCAGGGTGCAGTGTCAGGACCCCCCCGGAAGCCTCCTGG
GACTGTCGCTGGCACAGCCCGAGGCCCTGAAGGTGGCAGCACGGCTCAGGTGCCAGCACCCGCAGCATCACCACC
GCCGGAGGGTCCAGTGCTCACTTTCCAGAGTGAGAAGATGAAGGGCATGAAGGAGCTGCTGGTGGCCACCAAGAT
CAACTCGAGCGCCATCAAGCTGCAACTCACGGCACAGTCGCAAGTGCAGATGAAGAAGCAGAAAGTGTCCACCCC
TAGTGACTACACTCTGTCTTTCCTCAAGCGGCAGCGCAAAGGCCTC**TGA**ACTACTGGGGACTTCGGACCGCTTGT
GGGGACCCAGGCTCCGCCCTTAGTCCCCCAACTCTGAGCCCATGTTCTGCCCCCAGCCCAAAGGGGACAGGCCTC
ACCTCTACCCAAACCCTAGGTTCCCGGTCCCGAGTACAGTCTGTATCAAACCCACGATTTTCTCCAGCTCAGAAC
CCAGGGCTCTGCCCCAGTCGTTAGAATATAGGTCTCTTCTCCCAGAATCCCAGCCGGCCAATGGAAACCTCACGC
TGGGTCCTAATTACCAGTCTTTAAAGGCCCAGCCCCTAGAAACCCAAGCTCCTCCTCGGAACCGCTCACCTAGAG
CCAGACCAACGTTACTCAGGGCTCCTCCCAGCTTGTAGGAGCTGAGGTTTCACCCTTAACCCAAGGAGCACAGGT
CCCACCTCCAGCCCGGGAGCCTAGGACCACTCAGCCCCTAGGAGTATATTTCCGCACTTCAGAATTCCATATCTT
GCGAATCCAAGCTCCCTGCCCCAAATAACTTCAGTCCTGCTCCAGAATTTGGAAATCCTAGTTTCCTCTCCTTCG
TATCCCGAGTCTGGGACACAAAACTCCGCCCCCAGCCTATGAGCATCCTGAGCCCCGCCCTCTTCCTGACGAAAC
TGGCCCCGGATCAGAGCAGGACCTCCCTTCCGACCCTCTGGGAACCTCCCAGAGGTCCAGCCCATCTCGGAGCAT
CCCGGAGGAAATCTGCAGAGGGTTAGGAGTGGGTGACAAGAGCCTGATCTCTTCCTGTTTTGTACATAGATTTAT
TTTTCAGTTCCAAGAAAGATGAATACATTTTGTT

FIGURE 115

GGCACCAGTCGGAGGGGCGGGGCTGGGAGGGGCTCCTCCCTACCGCCCCCAATTCCGCCCTGCCCCCGCCGCGGC
GGCGCTAGCCGCCACTGAGGGACCGACCCTATAAAGGCCGCTCCGCGAGGGGTGCGCAGCATTCGGCAGAGGGCG
CTTCGACGGGCTGGGCTGTGCGCCTGCGCAGTGTGGGTCGCTCCCGATTCCCTGCCCCGGCCGGCCCCGCCTCGG
CTCCGCACCCTCGCCCCGCTCTCAGCCGCCGCTCTGCCCCGCAGCAGCCAGCCCCGTGTCCGGCAGT**ATG**TTCAG
CTGGGTCAGCAAGGATGCCCGCCGCAAGAAGGAGCCGGAGCTCTTCCAGACGGTGGCTGAGGGGCTGCGGCAGCT
GTACGCGCAGAAGCTGCTACCCCTGGAGGAGCACTACCGCTTCCACGAGTTCCACTCGCCCGCGCTGGAGGACGC
TGACTTCGACAACAAGCCTATGGTGCTCCTCGTGGGGCAGTACAGCACGGGCAAGACCACCTTCATCCGACACCT
GATCGAGCAGGACTTCCCGGGGATGCGCATCGGGCCCGAGCCCACCACCGACTCCTTCATCGCCGTCATGCACGG
CCCCACTGAGGGCGTGGTGCCGGGCAACGCGCTCGTGGTGGACCCGCGGCGCCCCTTCCGCAAGCTCAACGCGTT
TGGCAACGCTTTCCTCAACAGGTTCATGTGTGCCCAGCTGCCCAACCCCGTCCTGGACAGCATCAGCATCATCGA
CACCCCCGGGATCCTGTCTGGAGAGAAGCAGCGGATCAGCAGAGGCTATGACTTTGCAGCCGTCCTGGAGTGGTT
CGCGGAGCGTGTGGACCGCATCATCCTGCTCTTCGACGCCCACAAGCTGGACATCTCCGATGAGTTCTCGGAAGT
GATCAAGGCTCTGAAGAACCATGAGGACAAGATCCGCGTGGTGCTGAACAAGGCAGACCAGATCGAGACGCAGCA
GCTGATGCGGGTGTACGGGGCCCTCATGTGGTCCCTGGGCAAGATCATCAACACCCCCGAGGTGGTCAGGGTCTA
CATCGGCTCCTTCTGGTCCCACCCGCTCCTCATCCCCGACAACCGCAAGCTCTTTGAGGCCGAGGAGCAGGACCT
CTTCAAGGACATCCAGTCACTGCCCCGAAACGCCGCCCTCAGGAAGCTCAATGACCTGATCAAGCGGGCACGGCT
GGCCAAGGTTCACGCCTACATCATCAGCTCCCTCAAGAAAGAGATGCCCAATGTCTTTGGTAAAGAGAGCAAAAA
GAAAGAGCTGGTGAACAACCTCGGAGAGATCTACCAGAAGATTGAGCGCGAGCACCAGATCTCCCCTGGGGACTT
CCCGAGCCTCCGCAAGATGCAGGAACTCCTGCAGACCCAGGACTTCAGCAAGTTCCAGGCGCTGAAGCCCAAGCT
GCTGGACACGGTGGATGACATGCTGGCCAACGACATCGCGCGGCTGATGGTGATGGTGCGGCAGGAGGAGTCCCT
GATGCCTTCCCAGGTGGTCAAGGGCGGCGCCTTTGACGGCACCATGAACGGGCCGTTCGGGCACGGCTACGGCGA
GGGGGCCGGCGAGGGCATCGACGACGTGGAGTGGGTGGTGGGCAAGGACAAGCCCACCTACGACGAGATCTTCTA
CACGCTGTCCCCTGTCAACGGCAAGATCACGGGCGCCAACGCCAAGAAGGAGATGGTGAAGTCCAAGCTCCCCAA
CACCGTGCTAGGGAAGATCTGGAAGCTGGCCGACGTGGACAAGGACGGGCTGCTGGACGACGAGGAGTTCGCGCT
GGCCAACCACCTCATCAAGGTCAAGCTGGAGGGCCACGAGCTGCCTGCCGACCTGCCCCCGCACCTGGTGCCGCC
CTCCTCTGCCTGGGGCCAT**TGA**GCCCAGCCTCCAGGGCCCGGGCGCGTTTGCAGGCCAGTGGCCACTGTCCGGGC
TGTGATGGCACCAAGGCAGGTGGAGCACCAGGTACCACACAGCTGGGCTTCCCACCAGGCTTTCCCGCGGGGGTC
TCAGGGAGCTTCTCCCCAGCGCTGCTCGGAGTCTGCAGGAACTGGCCTTGTTCTCCTTAGCCCGTCACTCCATAC
AGTATTAGGTGAGGATGGATGCGGGCGCTGTCCTTGCCGGGAAGTCACTGTTGAAGTTGCAGTGGCTTGTTCACA
CCTGTGGGAAGAGAAGTGAAGACTTTCTCCTTGCATTAAAAAGTCTGAACTGTG

FIGURE 116A

ACGGGGATCGCCGGCGGGCGGCAAGCGGAGGCGGCCCAGGCCCGGCGGTCTCCGAGATGTCACGATGGCTGTGGC
CATGGTCAAACTGTGTGAAAGAGCGGGTCTGCCGCTACTTGCTGCACCACTACTTAGGTCACTTCTTCCAAGAGC
ACCTCAGCCTGGACCAGCTCAGCCTCGATCTGTACAAGGGCAGCGTTGCCCTGCGAGACATCCACCTGGAAATCT
GGTCTGTGAACGAGGTGCTGGAGTCAATGGAGTCACCGCTGGAGCTGGTGGAAGGCTTCGTGGGCTCCATCGAGG
TGGCCGTGCCCTGGGCTGCTCTGCTCACCGACCACTGCACAGTGCGCGTGTCCGGCCTCCAGCTCACCTTGCAGC
CCCGCCGGGGTCCAGCGCCAGGGGCTGCCGACTCACAGAGCTGGGCCTCATGCATGACCACAAGCCTGCAGCTGG
CCCAGGAGTGTCTGCGGGATGGGCTACCGGAGCCCTCTGAGCCACCACAGCCCCTGGAGGGGCTGGAGATGTTTG
CCCAGACCATTGAGACTGTGCTTCGGAGGATCAAAGTGACCTTCCTGGACACTGTCGTGAGGGTGGAGCACTCTC
CGGGTGATGGGGAACGTGGTGTGGCCGTCGAGGTCCGTGTGCAGAGACTGGAGTACTGTGATGAGGCAGTGCGGG
ACCCAAGCCAGGCGCCGCCGGTGGACGTGCATCAGCCGCCTGCCTTCCTGCACAAGCTGCTGCAGCTGGCAGGGG
TCCGCCTGCACTACGAGGAGCTCCCGGCACAGGAAGAGCCTCCAGAGCCCCCCTTGCAGATCGGCAGCTGCTCAG
GGTACATGGAGCTGATGGTGAAGTTGAAGCAAAATGAGGCCTTCCCTGGCCCCAAGTTGGAGGTGGCGGGACAGC
TGGGCTCCCTGCACCTGCTCCTGACCCCGAGGCAGCTCCAGCAACTTCAGGAACTGCTCAGCGCCGTGAGCCTTA
CAGACCACGAGGGCCTGGCTGACAAGCTGAACAAGAGCCGCCCGCTAGGTGCCGAAGACCTGTGGCTGATTGAGC
AGGACCTGAACCAGCAGCTGCAGGCAGGGGCAGTGGCTGAGCCCCTCAGCCCAGACCCCCTTACCAACCCCCTTC
TCAACCTGGATAACACTGACCTCTTCTTCTCCATGGCTGGCCTCACAAGCAGTGTGGCCTCAGCCCTCTCTGAGC
TCTCCCTCTCCGATGTAGACCTGGCCTCCTCTGTGCGCAGCGACATGGCCTCCCGCCGGCTCTCTGCCCAGGCCC
ACCCAGCTGGCAAGATGGCCCCCAACCCCCTCCTGGACACCATGCGCCCTGACTCGCTGCTGAAGATGACCTTGG
GGGGTGTGACCCTGACCTTGCTTCAGACGTCTGCCCCATCTTCCGGACCACCTGACCTCGCCACGCACTTTTTCA
CCGAGTTTGATGCCACCAAGGATGGGCCCTTCGGTTCCCGAGACTTCCATCACCTTCGACCACGCTTCCAGAGGG
CCTGTCCCTGTAGCCATGTTCGGCTAACGGGCACAGCCGTGCAGCTGTCCTGGGAGCTGCGGACGGGCAGTCGGG
GCCGGCGGACAACCAGCATGGAAGTGCACTTCGGGCAGCTGGAGGTGCTGGAGTGTCTGTGGCCCCGGGGCACCT
CTGAGCCTGAGTACACGGAGATCCTGACCTTTCCTGGTACGCTGGGCTCCCAGGCCTCAGCTCGGCCCTGCGCCC
ATCTGCGCCACACACAGATCCTGCGCCGTGTGCCTAAGAGCCGACCCCGGCGCTCAGTTGCCTGCCATTGCCACT
CAGAACTGGCCCTGGACCTGGCCAACTTCCAGGCGGACGTGGAGCTGGGGGCCCTGGACCGGCTGGCCGCCCTAC
TGCGCCTGGCCACCGTACCTGCTGAGCCTCCAGCCGGCCTGCTGACAGAGCCCCTGCCGGCGATGGAGCAGCAGA
CGGTATTTCGGCTCTCTGCACCCCGGGCCACGCTGCGGCTGCGCTTCCCCATTGCCGACCTGCGGCCTGAGCCGG
ACCCCTGGGCGGGCCAGGCCGTGCGGGCTGAGCAGCTTCGGCTGGAGCTGAGTGAGCCCCAGTTCCGGTCAGAGC
TTAGCAGTGGGCCTGGTCCCCCAGTCCCCACCCACCTGGAACTCACCTGCTCCGACCTACATGGTATCTATGAAG
ATGGAGGGAAGCCACCTGTCCCTTGCCTGCGTGTCTCCAAAGCCCTGGACCCCAAGAGCACTGGGCGCAAGTACT
TCCTGCCCCAGGTAGTGGTGACTGTGAACCCCCAGTCCAGCAGCACACAGTGGGAGGTGGCCCCGGAGAAGGGAG
AGGAACTGGAGCTGTCAGTGGAGAGTCCCTGTGAGCTGCGGGAACCTGAGCCCTCGCCCTTCTCCTCTAAGAGGA
CCATGTATGAGACAGAGGAGATGGTGATCCCTGGAGACCCTGAGGAGATGAGGACGTTCCAGAGCCGGACCCTGG
CACTGTCCCGCTGCAGCCTGGAAGTGATCCTGCCCAGTGTCCACATCTTTCTGCCCAGCAAGGAGGTCTACGAGA
GCATCTACAACAGGATCAACAACGACCTGCTCATGTGGGAGCCTGCAGATCTGCTTCCCACCCCCGACCCCGCCG
CCCAGCCCTCGGGCTTCCCCGGCCCCTCAGGCTTCTGGCACGACAGCTTTAAGATGTGCAAGTCAGCCTTCAAGC
TGGCCAACTGCTTTGATCTCACCCCAGACTCGGACTCGGATGACGAGGATGCCCACTTCTTCTCAGTGGGGGCAT
CAGGTGGCCCACAGGCCGCTGCCCCTGAGGCCCCAAGTCTTCACTTGCAGAGCACCTTCTCTACACTGGTGACAG
TGCTGAAGGGGCGGATCACAGCCCTCTGTGAGACCAAGGATGAGGGTGGGAAGCGGCTGGAGGCTGTGCACGGGG
AGCTGGTGCTGGACATGGAGCACGGTACCCTCTTCAGCGTCTCCCAGTACTGTGGCCAGCCAGGACTTGGCTACT
TCTGTCTGGAAGCTGAAAAGGCAACACTCTACCACCGAGCGGCCGTGGATGACTACCCGCTGCCCAGTCACCTGG
ACCTTCCCAGTTTCGCTCCCCCGGCTCAGCTGGCCCCAACCATCTACCCATCGGAGGAAGGGGTGACCGAGCGGG
GAGCCTCGGGCCGCAAGGGCCAGGGCCGGGGACCCCACATGTTGTCCACTGCTGTGCGCATCCACCTGGACCCCC
ACAAGAATGTGAAGGAGTTCCTGGTGACACTGCGGTTGCACAAAGCCACCTTGCGCCACTACATGGCCCTGCCCG
AGCAGAGCTGGCATTCCCAGTTGTTGGAGTTCCTAGACGTGCTGGATGACCCTGTGCTGGGCTACCTGCCCCCGA
CGGTCATCACCATCCTGCACACACACCTGTTCTCCTGCTCTGTGGACTATAGGCCACTCTACCTCCCAGTGCGTG
TCCTCATCACCGCGGAGACCTTCACTCTCTCCAGCAACATCATCATGGACACCTCCACCTTCCTGCTCAGGTTCA
TCCTCGATGACTCCGCCTTGTACCTGTCCGACAAGTGTGAGGTGGAGACCCTGGACCTGCGGCGAGATTATGTCT

FIGURE 116B

GTGTTTTGGATGTTGACCTCTTGGAACTTGTGATTAAAACCTGGAAAGGGAGCACCGAGGGCAAACTGAGCCAGC
CACTATTCGAGCTGCGCTGCTCCAACAATGTGGTACACGTGCACAGCTGTGCCGACTCCTGTGCCCTGCTGGTCA
ACCTGCTCCAGTACGTAATGAGCACAGGCGATCTGCACCCCCCACCCCGGCCCCCCAGCCCCACGGAGATCGCCG
GCCAGAAGCTCTCGGAGAGTCCTGCCTCTCTGCCCTCGTGCCCCCCAGTGGAGACGGCCCTCATCAACCAGCGTG
ACCTGGCCGACGCCCTCCTGGACACCGAGCGCAGCCTACGGGAGCTGGCCCAGCCTTCAGGTGGCCACCTCCCTC
AGGCGTCGCCCATCTCCGTCTACCTATTCCCAGGTGAACGGAGTGGGGCCCCACCCCCTTCACCACCTGTCGGGG
GCCCTGCTGGCAGCTTAGGGTCATGCTCAGAGGAGAAGGAAGATGAAAGGGAAGAGGAGGGCGATGGAGACACCC
TGGACAGTGATGAGTTCTGCATCCTTGATGCTCCCGGCCTGGGCATCCCGCCCCGAGATGGGGAGCCTGTGGTGA
CACAGCTGCATCCCGGCCCCATCGTTGTGAGGGACGGTTACTTCTCACGGCCGATCGGCAGCACGGACTTGCTGC
GGGCACCTGCCCATTTCCCAGTGCCCAGCACTCGGGTGGTGCTACGTGAGGTCTCCCTCGTCTGGCACCTCTATG
GGGGCCGAGACTTTGGCCCCCACCCCGGCCACAGGGCAAGAACTGGCCTCTCAGGTCCCAGGAGCTCCCCTTCCC
GCTGCTCTGGCCCCAACCGGCCCCAGAACTCATGGCGCACGCAGGGGGGCAGCGGGCGGCAGCACCATGTCCTCA
TGGAGATCCAGCTGAGCAAGGTAAGCTTCCAGCACGAGGTGTACCCAGCGGAGCCAGCCACAGGCCCTGCGGCCC
CCAGCCAGGAGCTGGAGGAGCGACCGCTGTCCCGTCAGGTGTTCATCGTGCAGGAGCTGGAGGTCCGAGACCGGC
TCGCCTCCTCCCAGATCAACAAGTTCCTGTACCTACACACGAGTGAGCGGATGCCGCGACGTGCCCACTCTAACA
TGCTCACCATCAAAGCGCTGCATGTGGCCCCCACTACCAACCTGGGTGGGCCTGAGTGCTGTCTCCGCGTCTCGC
TGATGCCCCTGCGGCTCAATGTGGACCAGGATGCCCTCTTCTTCCTCAAGGACTTCTTCACTAGTCTGGTGGCCG
GCATCAACCCCGTGGTCCCAGGGGAGACCTCCGCTGAGGCTCGCCCCGAGACTCGAGCCCAGCCCAGCAGCCCCC
TGGAAGGGCAGGCCGAAGGCGTAGAGACCACTGGTTCGCAGGAGGCCCCAGGAGGTGGACACAGCCCCTCCCCTC
CTGACCAGCAGCCCATCTACTTCAGAGAGTTCCGCTTCACGTCTGAGGTCCCCATCTGGCTGGATTACCATGGCA
AGCACGTCACGATGGACCAGGTGGGCACTTTTGCTGGCCTCCTCATCGGCCTGGCCCAACTCAACTGCTCCGAGC
TGAAGCTAAAGCGGCTCTGTTGCAGGCACGGGCTCCTGGGTGTGGACAAGGTGCTGGGCTATGCCCTCAACGAGT
GGCTGCAGGACATCCGCAAGAACCAGCTGCCCGGCCTGCTGGGAGGCGTGGGCCCCATGCACTCGGTTGTCCAGC
TCTTCCAAGGGTTCCGGGACCTGCTGTGGCTGCCCATTGAGCAGTACAGGAAGGATGGCCGCCTCATGCGGGGGC
TGCAGCGAGGGGCTGCCTCCTTTGGCTCATCCACAGCCTCTGCCGCCCTGGAACTCAGCAACCGGTTGGTACAGG
CTATCCAGGCCACAGCTGAGACCGTGTATGACATCCTGTCCCCGGCAGCCCCCGTCTCCCGCTCCCTGCAGGATA
AGCGCTCTGCGCGGAGGCTGCGCAGGGGCCAGCAGCCTGCCGACCTGCGGGAGGGTGTGGCCAAGGCCTACGACA
CAGTGCGAGAGGGCATCTTGGATACAGCTCAGACCATCTGTGACGTGGCATCGCGGGGCCATGAGCAGAAGGGGC
TGACGGGCGCCGTGGGGGGCGTGATCCGCCAGCTGCCCCCGACTGTGGTGAAGCCGCTCATCCTGGCCACGGAGG
CCACGTCCAGCCTGCTCGGGGGCATGCGCAACCAGATTGTCCCCGACGCCCACAAGGACCACGCCCTCAAGTGGC
GCTCGGACAGTGCCCAAGAC**TGA**GCCTGGGGTGCCCGGCACCCAGAGGGTGCTGCCCACCATGCTCCTGAGCCTC
CCAAGAGCTGCAGCCCACGGGCCCGGCCCGGCCTGGCCCTTCAGGGGATGGCCACTGTGAAGGACGCCTTCCCAG
CCTGCCCGTTGCCAATCTGCTGTGAGAGGGGGGCCTCCCTGCCTTGGGGCCTTAGCCCTGGCTCTGCACTTTTCC
TCCGGGGAGAAAGGACACTGCCCCTCCCCCGACCTGGGCCCACACTGCTGCCTTCTCCCAGGACGGAGGCTTTTG
GACCCTCGGACCCCATCCCACTCAGCCAAGTGTCTTTCTGTGTCTGGGGGGAGGAGGGGATGATATCCGTGTGGT
TCGATGTATTATTTTTAAGCTCCGTGAGTGCGTGGGTCAGTGTCTGCATGAAGTGGAATAAACTGCCCACCGCC

FIGURE 117

CCGTCGCCCTCCCTACGGGCAGCCCCCGGGGGTTGGCGACCGAAGTCTAGGTTTTCGAGAAAGCCAGGGTGGGAA
CCCTAACTGGACTCTTCGGGACCCCCAGGAAGGATCTGAGGCCTGAGCCATCCTCCTTTCTACCCTGTCTGCCCC
CCAGGACTGGGCAGTTGCAGGAGGCCCTGGGGGGGGGCCCAGGACTGTGGTTGTGCCCCCCCCCCAAAGGCCGGA
CAGGATGGGACCAAGTTAGTCTGTCCAGTCTCACCCAGCACCTCCCAGGCCCAGAGAGAACCCCCGGGGCTCTGA
AAGCTTGCCCTGCCGCCTGACCGCC**ATG**GAGACGAAGCTGCCCCCTGCAAGCACCCCCACTAGCCCCTCCTCCCC
CGGGCTGTCGCCTGTGCCCCCACCCGACAAGGTGGACGGCTTCTCCCGCCGTTCCCTCCGCAGAGCCCGGCCCCG
CCGCTCCCACAGCTCCTCTCAGTTCCGCTATCAGAGCAACCAGCAAGAGCTCACACCGCTGCCCCTGCTCAAAGA
TGTGCCGGCTTCCGAGCTGCACGAGCTGCTGAGCCGGAAGCTGGCCCAGTGTGGGGTGATGTTTGACTTCTTGGA
CTGTGTGGCCGACCTCAAGGGGAAGGAGGTGAAGCGGGCAGCCCTCAACGAGCTGGTGGAGTGTGTGGGGAGCAC
CCGGGGTGTCCTCATCGAGCCCGTCTACCCAGACATCATCCGCATGATCTCAGTGAATATCTTCCGGACTCTGCC
GCCCAGTGAGAACCCTGAATTTGACCCTGAAGAGGATGAGCCCAATCTTGAGCCTTCGTGGCCACACCTGCAGCT
GGTATATGAGTTTTTCCTGCGTTTCTTGGAGAGCCCAGACTTCCAGCCCTCCGTGGCCAAGAGATATGTGGATCA
AAAGTTTGTCCTGATGCTCCTGGAGCTATTTGATAGTGAGGATCCCCGGGAGCGTGAGTACCTCAAGACCATCCT
GCACCGGGTCTATGGCAAGTTCCTGGGTCTCCGGGCCTACATCCGCAAACAGTGCAACCACATCTTCCTCCGGTT
CATCTATGAATTCGAGCACTTCAATGGTGTGGCTGAGCTGCTGGAGATCCTAGGAAGCATCATCAATGGCTTTGC
GCTGCCCCTGAAGACGGAGCACAAGCAGTTCCTGGTTCGCGTCCTGATCCCCCTGCACTCTGTCAAGTCGCTGTC
TGTCTTCCATGCCCAGCTGGCATACTGTGTGGTGCAGTTCCTGGAGAAGGATGCCACTCTGACAGAGCACGTGAT
CCGGGGGCTGCTCAAATACTGGCCAAAAACCTGCACCCAGAAGGAGGTGATGTTTCTGGGGGAGATGGAAGAGAT
TCTTGATGTCATCGAGCCCTCCCAGTTTGTGAAGATCCAGGAGCCCCTTTTTAAGCAGGTGGCTCGCTGTGTTTC
CAGCCCCCATTTCCAGGTTGCAGAGCGGGCTCTGTATTTCTGGAACAATGAGTATATCCTAAGCCTCATTGAGGA
CAACTGCCACACTGTGCTGCCTGCTGTGTTTGGGACCCTCTACCAAGTCTCCAAGGAGCACTGGAACCAAACCAT
CGTATCACTGATCTACAATGTGCTCAAGACCTTCATGGAGATGAATGGGAAGCTGTTTGATGAGCTCACAGCCTC
CTACAAGCTGGAAAAGCAGCAGGAGCAGCAGAAGGCCCAGGAGCGTCAGGAGTTATGGCAAGGTCTGGAGGAGCT
GCGGCTACGCCGGCTACAGGGGACCCAGGGGGCCAAGGAGGCCCCCCTCCAGCGGCTTACACCCCAGGTGGCCGC
CAGTGGGGGTCAGAGC**TAG**ACAGCACCTCAGAAGGGGAAAAGCTAAACCCAGAGCTGTCAGTCCCTCTATCCCTT
CTCCTGTCCAGGGGCCCAGAGAGAAACACACCTACCCCTGGCCTTGCCAGAGTGGCTTCTGAGGACTCCCTGCCC
AGCCCAGCTTTCACTGGGGGGAGACGAGGAGAGGCAATGGTGGTCTTGGCAACAGAATGCTCAGCCCCTCGTGGC
AGGACTTGACAAGGGCAAGCTTGACCAGGAAGCTGCCATCAGGGATCTTCCCCTGCCCCGCAAAGCTAGGCTCCA
GCTGCAGGCGGGCTCCCACCCTCTGCTCCTGGCCTTGGGCAAGGGCACTCAGCGCCTCGCCTGCCCCTGCCTTGG
CCAATGCGAGGTCCTTCCTTATCCCCACCATGGGGTCCATGGTCTATTTATTCTCGCCCAGCTCACCCTCTACAC
AGACACTGTCCTGGGTGCACACTCCTCCCTTCCCTCGCTGTGTACTTCCTTGTCCCCTTTTTATTTATTGGGCAG
GGGGAGGGGGAGGGCACAGGCAAGAAGAGATTCACAGTGTCCTGGGGTAAGGGGGGGTTCACAGTAATCATGGTC
TACTCCTCTTTCCGTGGCTGGGGGTAGACTTAATAAAGAGAGAAATTC

FIGURE 118

AAGGAGAGAGGGAGGGCGGAGGGCGGAGGGGCGGCGGGAGGAGGGCGGGGAGGAGCGCTCTTCCTGGTTGGGCCC
TGCCCTGAGCTGCCACCGGGAAGCCAGCCTCAGGGACTGCAGCGACCCCCAAACACCCCTCCCCCAGGATGTCGG
AGGAGATCATCACGCCGGTGTACTGCACTGGGGTGTCAGCCCAAGTGCAGAAGCAGCGGGCCAGGGAGCTGGGCC
TGGGCCGCCATGAGAATGCCATCAAGTACCTGGGCCAGGATTATGAGCAGCTGCGGGTGCGATGCCTGCAGAGTG
GGACCCTCTTCCGTGATGAGGCCTTCCCCCCGGTACCCCAGAGCCTGGGTTACAAGGACCTGGGTCCCAATTCCT
CCAAGACCTATGGCATCAAGTGGAAGCGTCCCACGGAACTGCTGTCAAACCCCCAGTTCATTGTGGATGGAGCTA
CCCGCACAGACATCTGCCAGGGAGCACTGGGGGACTGCTGGCTCTTGGCGGCCATCGCCTCCCTCACTCTCAACG
ACACCCTCCTGCACCGAGTGGTTCCGCACGGCCAGAGCTTCCAGAATGGCTATGCCGGCATCTTCCATTTCCAGC
TGTGGCAATTTGGGGAGTGGGTGGACGTGGTCGTGGATGACCTGCTGCCCATCAAGGACGGGAAGCTAGTGTTCG
TGCACTCTGCCGAAGGCAACGAGTTCTGGAGCGCCCTGCTTGAGAAGGCCTATGCCAAGGTAAATGGCAGCTACG
AGGCCCTGTCAGGGGGCAGCACCTCAGAGGGCTTTGAGGACTTCACAGGCGGGGTTACCGAGTGGTACGAGTTGC
GCAAGGCTCCCAGTGACCTCTACCAGATCATCCTCAAGGCGCTGGAGCGGGGCTCCTGCTGGGCTGCTCCATAGA
CATCTCCAGCGTTCTAGACATGGAGGCCATCACTTTCAAGAAGTTGGTGAAGGGCCATGCCTACTCTGTGACCGG
GGCCAAGCAGGTGAACTACCGAGGCCAGGTGGTGAGCCTGATCCGGATGCGGAACCCCTGGGGCGAGGTGGAGTG
GACGGGAGCCTGGAGCGACAGCTCCTCAGAGTGGAACAACGTGGACCCATATGAACGGGACCAGCTCCGGGTCAA
GATGGAGGACGGGGAGTTCTGGATGTCATTCCGAGACTTCATGCGGGAGTTCACCCGCCTGGAGATCTGCAACCT
CACACCCGACGCCCTCAAGAGCCGGACCATCCGCAAATGGAACACCACACTCTACGAAGGCACCTGGCGGCGGGG
GAGCACCGCGGGGGGCTGCCGAAACTACCCAGCCACCTTCTGGGTGAACCCTCAGTTCAAGATCCGGCTGG**ATG**A
GACGGATGACCCGGACGACTACGGGGACCGCGAGTCAGGCTGCAGCTTCGTGCTCGCCCTTATGCAGAAGCACCG
TCGCCGCGAGGCCGCTTCGGCCGCGACATGGAGACTATTGGCTTCGCGGTCTACGAGGTCCCTCCGGAGCTGGTC
GCGAGCCGGCCGTACACTTGAAGCGTGACTTCTTCCTGGCCAATGCGTCTCGGGCGCGCTCAGAGCAGTTCATCA
ACCTGCGAGAGGTCAGCACCCGCTTCCGCCTGCCACCCGGGGAGTATGTGGTGGTGCCCTCCACCTTCGAGCCCA
ACAAGGAGGGCGACTTCGTGCTGCGCTTCTTCTCAGAGAAGAGTGCTGGGACTGTGGAGCTGGATGACCAGATCC
AGGCCAATCTCCCCGATGAGCAAGTGCTCTCAGAAGAGGAGATTGACGAGAACTTCAAGGCCCTCTTCAGGCAGC
TGGCAGGGGAGGACATGGAGATCAGCGTGAAGGAGTTGCGGACAATCCTCAATAGGATCATCAGCAAACACAAAG
ACCTGCGGACCAAGGGCTTCAGCCTAGAGTCGTGCCGCAGCATGGTGAACCTCATGGATCGTGATGGCAATGGGA
AGCTGGGCCTGGTGGAGTTCAACATCCTGTGGAACCGCATCCGGAATTACCTGTCCATCTTCCGGAAGTTTGACC
TGGACAAGTCGGGCAGCATGAGTGCCTACGAGATGCGGATGGCCATTGAGTCGGCAGGCTTCAAGCTCAACAAGA
AGCTGTACGAGCTCATCATCACCCGCTACTCGGAGCCCGACCTGGCGGTCGACTTTGACAATTTCGTTTGCTGCC
TGGTGCGGCTAGAGACCATGTTCCGATTTTTCAAAACTCTGGACACAGATCTGGATGGAGTTGTGACCTTTGACT
TGTTTAAGTGGTTGCAGCTGACCATGTTTGCA**TGA**GGCAGGGACTCGGTCCCCCTTGCCGTGCTCCCCTCCCTCC
TCGTCTGCCAAGCCTCGCCTCCTACCACACCACACCAGGCCACCCCAGCTGCAAGTGCCTTCCTTGGAGCAGAGA
GGCAGCCTCGTCCTCCTGTCCCCTCTCCTCCCAGCCACCATCGTTCATCTGCTCCGGGCAGAACTGTGTGGCCCC
TGCCTGTGCCAGCCATGGGCTCGGGATGGACTCCCTGGGCCCCACCCATTGCCAAGCCAGGAAGGCAGCTTTCGC
TTGTTCCTGCCTCGGGACAGCCCCGGGTTTCCCCAGCATCCTGATGTGTCCCCTCTCCCCACTTCAGAGGCCACC
CACTCAGCACCACCGGCCTGGCCTTGCCTGCAGACTATAAACTATAACCACTAGCTCGACACAGTCTGCAGTCCA
GGCGTGTGGAGCCGCCTCCCGGCTCGGGGAGGCCCCGGGGCTGGGAACGCCTGTGCCTTCCTGCGCCGAAGCCAA
CGCCCCCTCTGTCCTTCCCTGGCCCTGCTGCCGACCAGGAGCTGCCCAGCCTGTGGGCGGTCGGCCTTCCCTCCT
TCGCTCCTTTTTTATATTAGTGATTTTAAAGGGGACTCTTCAGGGACTTGTGTACTGGTTATGGGGGTGCCAGAG
GCACTAGGCTTGGGGTGGGGAGGTCCCGTGTTCCATATAGAGGAACCCCAAATAATAAAAGGCCCCACATCTGTC
TGTG

FIGURE 119

GTTCCGGTTCGCAGGGGGTGGGGAGTGTTGTTAACCGGAGGGGCAGCCGCAGTCGCGCGGATTGAGCGGGCTCGC
GGCGCTGGGTTCCTGGTCTCCGGGCCAGGGCA**ATG**TTCCGCACGGCAGTGATGATGGCGGCCAGCCTGGCGCTGA
CCGGGGCTGTGGTGGCTCACGCCTACTACCTCAAACACCAGTTCTACCCCACTGTGGTGTACCTGACCAAGTCCA
GCCCCAGCATGGCAGTCCTGTACATCCAGGCCTTTGTCCTTGTCTTCCTTCTGGGCAAGGTGATGGGCAAGGTGT
TCTTTGGGCAACTGAGGGCAGCAGAGATGGAGCACCTTCTGGAACGTTCCTGGTACGCCGTCACAGAGACTTGTC
TGGCCTTCACCGTTTTTCGGGATGACTTCAGCCCCCGCTTTGTTGCACTCTTCACTCTTCTTCTCTTCCTCAAAT
GTTTCCACTGGCTGGCTGAGGACCGTGTGGACTTTATGGAACGCAGCCCCAACATCTCCTGGCTCTTTCACTGCC
GCATTGTCTCTCTTATGTTCCTCCTGGGCATCCTGGACTTCCTCTTCGTCAGCCACGCCTATCACAGCATCCTGA
CCCGTGGGGCCTCTGTGCAGCTGGTGTTTGGCTTTGAGTATGCCATCCTGATGACGATGGTGCTCACCATCTTCA
TCAAGTATGTGCTGCACTCCGTGGACCTCCAGAGTGAGAACCCCTGGGACAACAAGGCTGTGTACATGCTCTACA
CAGAGCTGTTTACAGGCTTCATCAAGGTTCTGCTGTACATGGCCTTCATGACCATCATGATCAAGGTGCACACCT
TCCCACTCTTTGCCATCCGGCCCATGTACCTGGCCATGAGACAGTTCAAGAAAGCTGTGACAGATGCCATCATGT
CTCGCCGAGCCATCCGCAACATGAACACCCTGTATCCAGATGCCACCCCAGAGGAGCTCCAGGCAATGGACAATG
TCTGCATCATCTGCCGAGAAGAGATGGTGACTGGTGCCAAGAGACTGCCCTGCAACCACATTTTCCATACCAGCT
GCCTGCGCTCCTGGTTCCAGCGGCAGCAGACCTGCCCCACCTGCCGTATGGATGTCCTTCGTGCATCGCTGCCAG
CGCAGTCACCACCACCCCCGGAGCCTGCGGATCAGGGGCCACCCCCTGCCCCCCCACCCCCCACCACTCTTGCCTC
AGCCCCCCCAACTTCCCCCAGGGCCTCCTGCCTCCTTTTCCTCCAGGCATGTTCCCACTGTGGCCCCCCATGGGCC
CCTTTCCACCTGTCCCGCCTCCCCCCAGCTCAGGAGAGGCTGTGGCTCCTCCATCCACCAGTGCAGCCCTTTCTC
GGCCCAGTGGAGCAGCTACAACCACAGCTGCTGGCACCAGTGCTACTGCTGCTTCTGCCACAGCATCTGGCCCAG
GCTCTGGCTCTGCCCCAGAGGCTGGCCCTGCCCCTGGTTTCCCCTTCCCTCCTCCCTGGATGGGTATGCCCCTGC
CTCCACCCTTTGCCTTCCCCCCAATGCCTGTGCCCCCTGCGGGCTTTGCTGGGCTGACCCCAGAGGAGCTACGAG
CTCTGGAGGGCCATGAGCGGCAGCACCTGGAGGCCCGGCTGCAGAGCCTGCGTAACATCCACACACTGCTGGACG
CCGCCATGCTGCAGATCAACCAGTACCTCACCGTGCTGGCCTCCTTGGGGCCCCCCCCGGCCTGCCACTTCAGTCA
ACTCCACTGAGGAGACTGCCACTACAGTTGTTGCTGCTGCCTCCTCCACCAGCATCCCTAGCTCAGAGGCCACGA
CCCCAACCCCAGGAGCCTCCCCACCAGCCCCTGAAATGGAAAGGCCTCCAGCTCCTGAGTCAGTGGGCACAGAGG
AGATGCCTGAGGATGGAGAGCCCGATGCAGCAGAGCTCCGCCGGCGCCGCCTGCAGAAGCTGGAGTCTCCTGTTG
CCCAC**TGA**CACTGCCCCAGCCCAGCCCCAGCCTCTGCTCTTTTGAGCAGCCCTCGCTGGAACATGTCCTGCCACC
AAGTGCCAGCTCCCTCTCTGTCTGCACCAGGGAGTAGTACCCCCAGCTCTGAGAAAGAGGCGGCATCCCCTAGGC
CAAGTGGAAAGAGGCTGGGGTTCCCATTTGACTCCAGTCCCAGGCAGCCATGGGGATCTCGGGTCAGTTCCAGCC
TTCCTCTCCAACTCTTCAGCCCTGTGTTCTGCTGGGGCCATGAAGGCAGAAGGTTTAGCCTCTGAGAAGCCCTCT
TCTTCCCCCACCCCTTTCCAGGAGAAGGGGCTGCCCCTCCAAGCCCTACTTGTATGTGCGGAGTCACACTGCAGT
GCCGAACAGTATTAGCTCCCGTTCCCAAGTGTGGACTCCAGAGGGGCTGGAGGCAAGCTATGAACTTGCTCGCTG
GCCCACCCCTAAGACTGGTACCCATTTCCTTTTCTTACCCTGATCTCCCCAGAAGCCTCTTGTGGTGGTGGCTGT
GCCCCCTATGCCCTGTGGCATTTCTGCGTCTTACTGGCAACCACACAACTCAGGGAAAGGAATGCCTGGGAGTGG
GGGTGCAGGCGGGCAGCNNTGNGGGNCCNNGCNCCGCCCCTCCCCCCAGGCCCCTTTCCTCTGCAGCTTCTCAAG
TGAGACTGACCTGTCTCACCCAGCAGCCACTGCCCAGCCGCACTCCAGGCAAGGGCCAGTGCGCCTGCTCCTGAC
CACTGCAATCCCAGCGCCCAAGGAAGGCCACTTCTCAACTGGCAGAACTTCTGAAGTTTAGAATTGGAATTACTT
CCTTACTAGTGTCTTTTGGCTTAAATTTTGTCTTTTGAAGTTGAATGCTTAATCCCGGGAAAGAGGAACAGGAGT
GCCAGACTCCTGGTCTTTCCAGTTTAGAAAAGGCTCTGTGCCAAGGAGGGACCACAGGAGCTGGGACCTGCCTGC
CCCTGTCTTTTCCCCTTGGTTTTGTGTTACAAGAGTTGTTGGAGACAGTTTCAGATGATTATTTAATTTGTAAAT
ATTGTACAAATTTTAATAGCTTAAATTGTATATACAGCCAAATAAAAACTTGCATTAAC

FIGURE 120

GTAGCAGGTAAAG**ATG**GCAGCTACCATGTTCCGGGCTACGCTGCGGGGATGGAGAACCGGTGTCCAGCGGGGCTG
CGGGCTACGGCTGTTGAGCCAGACCCAGGGCCCTCCAGATTACCCCAGGTTTGTGGAGTCTGTGGATGAATATCA
GTTTGTGGAGCGCCTGTTACCGGCTACCAGGATCCCAGATCCCCCAAAGCATGAACATTATCCTACCCCTAGTGG
CTGGCAGCCTCCCAGAGACCCCCCACCCAACCTGCCTTACTTTGTACGACGCTCTCGGATGCACAACATCCCCGT
CTACAAGGACATCACGCATGGCAACCGGCAGATGACTGTGATCCGGAAAGTGGAAGGGGACATCTGGGCCCTGCA
GAAAGACGTGGAAGATTTTCTGAGCCCGCTGCTGGGGAAGACACCTGTCACCCAGGTCAATGAGGTGACAGGTAC
CCTACGGATCAAGGGCTACTTTGACCAGGAGCTTAAAGCCTGGCTCTTGGAGAAAGGCTTC**TGA**GGCCCAGCCGA
GCAGCCTGCTTGTCAGCATGCCCTGTGGATCAAGTCTAGGGGGCCTCAGGAGGAGGGAGGTGGGTGTTGGAGCCC
CTGAGACAGGGGATACAGAAACTAGGGCTAAAGGACTTTGGGGTCAGGCCTTGCTTGCATAAAGGAGAAAACAAC
TCTATGTACATGCTGGGGGAGAGTGCCTAATGTGGGAGACCAAATAGGGATCACCAGGCTAATGGGGGGCGTCAG
CAGCTTTCTCTCCCTCCTATCTTGGCCTGTTCTTTTTTGTTTTTTGAGACGGAGTCTCACTCTGTTGCCCAGGGT
GGAGTGCAGTGGCATGATCTTGGCTCACTGCAACTTCCACCTCTGGGATCAAGGGATTCTCCTGCCTCAGCCTCT
TGAGTAGCTGGGATTACAGGCGCCCACCACCACAGCCTGCTAATTTTTGTATTTTTAGTAGAGATGGGGTTTCAC
CATGTTGGCCAGGCTGGTCTCAAACTCCTGACTCGAAGTGATCCGCCCACCTTGGCCTCCCAAAGCGTTGGGATT
ATAGGCATGAGCCATGTGCCTGGTCCACCTTGGCCTGTTTTGTTTTTCTTTCCTTGGGCTCAGCAATTCAAATTC
TAGTTGTTATTTGGTGGAAGCAGTAGCCCAACCCCAGTTTAGGGGAAGGTAGCACAGGGCAGAGCCACTGGGCAC
TTTGTTTCCTTGGCCCTCCGAAGCTCACTGTTGCAAATACCCCCAAGCCTTTGCTCTAGGCCAGATCTTGTTTGG
TGCAGGTGATGGAGAACACAGATGACTCGGGCATGGGTCTTGGAGATCTTCTGTTCAAAGTACAGTGCTGGCACT
GGGGCACAGAGTGCCCACGTTAGCCCCGGGCTCTGATAGAGAGGTAGGAGGCACGTTCTTGGTCACTGTTCCATT
GCAGACCAGACTTGCTGGCCTGACCACAAGGGAGTGGCTGGGAACTCACAGCCAGCATAGGGACATCCCCCTGCA
GCCTTCTGACCTGCAATCAAGGCTGGGGAGGGGTTTGCAGGCAGGAATATGCTGACCTTTCACCCTGCCATCCCA
TCCCAACCCCAGCTCACTAGCCTTCATATATGCCTTATACTTGGAGTCACAGGGGCCAAAGGCCTGAGACCCCAC
CCTGCCCCCAAACTGGCTAAGACAGCTTTCAGTTCCTGACTCCCCAACTTGGTCTCTGCCCTGAAGCAGGGCACT
GAACTCTGGGCTGCTTCTCTGTGTGTAAAATGGGCACATCTTCCTAATCTGTTAATGGTCAGTGGTGTCCCCAAG
GATAGTGCTGGCTTCCATGGAAACCCTCACTCCTGGAGATTCCATTCCATTTTCAAGTGTACAGCCACAGCAAGG
AGCCCGACACTGATTTGATCGATTCTGTGACACAAACCCCACCAATTGTTAATGCAAGTTTTTATTTGGCTGTAT
ATACAATTTAAGCTATTAAAATTTGTACAATATTTACAAATTAAA

FIGURE 121

CAGTGACGTGACACGCAGCCCACGGTCTGTACTGACGCGCCCTCGCTTCTTCCTCTTTCTCGACTCCATCTTCGC
GGTAGCTGGGACCGCCGTTCAGTCGCCAATATGCAGCTCTTTGTCCGCGCCCAGGAGCTACACACCTTCGAGGTG
ACCGGCCAGGAAACGGTCGCCCAGATCAAGGCTCATGTAGCCTCACTGGAGGGCATTGCCCCGGAAGATCAAGTC
GTGCTCCTGGCAGGCGCGCCCCTGGAGGATGAGGCCACTCTGGGCCAGTGCGGGGTGGAGGCCCTGACTACCCTG
GAAGTAGCAGGCCGCATGCTTGGAGGTAAAGTCCATGGTTCCCTGGCCCGTGCTGGAAAAGTGAGAGGTCAGACT
CCTAAGGTGGCCAAACAGGAGAAGAAGAAGAAGACAGGTCGGGCTAAGCGGCGGATGCAGTACAACCGGCGC
TTTGTCAACGTTGTGCCCACCTTTGGCAAGAAGAAGGGCCCCAATGCCAACTCTTAAGTCTTTTGTAATTCTGGC
TTTCTCTAATAAAAAAGCCACTTAGTTCAGTC

FIGURE 122

CTACCACCGGCGTGCGTTCGCAGGTAGATCGCGGTGCCAGTTGCC**ATG**GAGCCGGCCGGGCCCTGTGGCTTCTGC
CCGGCGGGGGAGGTCCAGCCAGCGCGTTACACCTGCCCTCGCTGTAATGCGCCCTACTGCTCGCTGCGCTGCTAC
CGGACGCATGGCACCTGCGCAGAAAACTTCTACCGTGACCAGGTGCTGGGAGAGCTCCGCGGTTGCAGCGCTCCT
CCCAGCCGCCTAGCAAGCGCCCTACGCCGGCTGCGTCAGCAACGCGAGACCGAGGACGAGCCTGGGGAAGCAGGC
CTCAGCTCCGGCCCGGCGCCCGGCGGCCTATCGGGACTCTGGGAGCGGCTGGCGCCGGGCGAAAAAGCTGCCTTC
GAGCGGCTGCTGAGCCGCGGTGAGGCCGGGCGGCTGCTGCCTCCATGGCGGCCGTGGTGGTGGAACCGCGGAGCC
GGACCGCAGCTTCTGGAGGAGCTGGATAATGCCCCGGGTAGTGACGCCGCGGAGCTGGAGCTCGCCCCTGCGAGG
ACCCCGCCGGATTCTGTGAAAGATGCCTCCGCCGCGGAGCCCGCGGCCGCCGAGCGGGTTCTTGGAGATGTCCCG
GGGGCCTGCACGCCCGTCGTACCCACCCGCATCCCCGCGATAGTCAGCCTGAGCCGCGGCCCAGTCTCGCCGCTC
GTGCGCTTCCAGCTGCCCAATGTGCTGTTCGCCTACGCGCATACTCTCGCCCTGTATCACGGCGGTGACGACGCG
CTGCTCTCTGACTTCTGTGCCACACTGCTCGGCGTTTCCGGAGCCCTGGGTGCCCAGCAAGTCTTCGCCTCTGCG
GAAGAAGCCCTGCAGGCGGCAGCCCACGTGCTGGAAGCAGGCGAGCACCCGCCGGGGCCCCTGGGCACACGAGGG
GCTATGCACGAGGTCGCCCGCATCCTGCTGGGCGAGGGCCCGACCAACCAGAAAGGCTACACGCTGGCAGCACTG
GGGGACCTGGCACAGACCCTGGGCCGTGCCCGGAAACAGGCCGTGGCTAGAGAAGAGCGAGATCATCTTTACCGG
GCCCGGAAAAAGTGCCAGTTCCTCCTGGCCTGGACCAACGAAAATGAGGCGGCCCTCACACCCCTGGCCCTAGAC
TGCGCCAGGGCTCACCAAGCCCATGCTGTGGTAGCCGAGGAGGTGGCCGCCCTCACTGGGGAGCTGGAGCGGCTT
TGGGGAGGCCCCGTGCCACCTGCCCCAAGAACTCTCATTGAGGAGCTCCCTAGC**TGA**ACGGGTTACCCTGGTCAT
TAATAAAGCTGTGACTGGTCA

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FIGURE 123

GTCCAGGCAGGTGCAGGCGCCGCGGGGCCGGATCCTCCGCGCGGCCGAGTCCATCTCCTGGGAAATGGGGCGGAC
AGTGTTTCCTTGACTGACTATTGTGAGCGCCCTCTCTCTCCGGCGGAGCGGAGACC**ATG**GCCCCCACTCAGGGCC
CCCGGGCCCCGCTGGAATTCGGAGGGCCCCTGGGCGCCGCGGCTCTGCTACTGCTGCTGCCCGCCACCATGTTCC
ACCTGCTCCTGGCGGCCCGTTCGGGCCCCGCGCGCCTGCTGGGTCCACCCGCGTCCCTGCCGGGGCTGGAGGTGC
TGTGGAGCCCACGGGCGCTGCTGCTGTGGCTCGCCTGGCTCGGCCTGCAGGCGGCGCTCTACCTACTGCCGGCGC
GCAAGGTGGCCGAGGGGCAGGAATTGAAGGACAAGAGTCGCCTGCGCTATCCTATTAACGGCTTCCAGGCCCTGG
TGCTGACAGCCCTGTTGGTGGGGCTGGGGATGTCAGCGGGGCTGCCTCTGGGGGCGCTCCCGGAAATGCTCCTGC
CCTTGGCGTTTGTCGCCACCCTCACCGCTTTCATCTTCAGCCTCTTTCTCTACATGAAGGCGCAGGTAGCCCCAG
TTTCGGCCCTGGCACCTGGGGGGAACTCAGGCAATCCGATTTACGACTTTTTTCTGGGACGAGAGCTCAACCCTC
GTATCTGTTTCTTCGACTTCAAATATTTCTGTGAACTGCGACCCGGCCTCATCGGCTGGGTCCTCATCAACCTGG
CCCTGTTGATGAAGGAGGCAGAGCTTCGAGGCAGTCCCTCACTGGCCATGTGGCTGGTCAATGGCTTCCAGTTGC
TCTACGTGGGTGATGCCCTCTGGCACGAGGAGGCCGTCCTCACCACCATGGATATCACACATGACGGGTTTGGCT
TCATGCTGGCGTTTGGGGACATGGCCTGGGTGCCCTTCACCTACAGCCTGCAGGCCCAGTTCCTGCTGCACCACC
CGCAGCCCCTGGGGTTGCCCATGGCCTCTGTCATCTGCCTCATCAATGCTACTGGTTACTACATCTTCCGTGGGG
CGAATTCCCAGAAAAACACTTTCCGAAAGAATCCTTCTGACCCCAGAGTGGCTGGGCTTGAGACCATCTCTACAG
CCACAGGGCGGAAACTGCTGGTGTCTGGGTGGTGGGGTATGGTCCGCCATCCCAACTATCTTGGAGACCTCATCA
TGGCTCTGGCTTGGTCCTTGCCCTGCGGGGTGTCACACCTGCTGCCCTACTTCTACCTCCTCTACTTCACCGCGC
TGCTGGTGCACCGTGAGGCCCGGGATGAGCGGCAGTGCCTGCAGAAGTACGGCCTGGCCTGGCAGGAGTACTGCC
GGCGTGTGCCTTACCGCATCATGCCCTACATCTAC**TGA**AGCGGCTCCACCACCCCAGGTGGGGGCATGTGCCCAC
TCATCCACCAGCACACCCAGGACCAGGAGCCTCGACACACTTGGGACTCAAGGGCTTGCACCCCACCCAGCCCTG
AGGATGAACAACCTCAGAGAAGAGGTGGTTTAGAGCAAGGAAAAAAATGAAACCAGTGACC

FIGURE 124

GGAAGTGCCTCCTCCCCGTCCCCTTCCTTTCCAGCCTCACGCCCGTGGGCTGCAGTTGGAACG**ATG**GCGGCGGCA
GCTGCCGCCGGGCCTAGCCCGGGGTCTGGACCTGGGGACTCCCCAGAAGGGCCCGAGGGGGAGGCTCCGGAGCGT
CGGCGGAAGGCGCACGGGATGCTGAAGCTTTACTACGGCCTCTCGGAAGGGGAGGCGGCGGGACGCCCCGCGGGG
CCCGACCCCCTGGACCCGACTGATCTGAACGGGGCGCACTTCGACCCGGAAGTTTACCTAGACAAGCTGCGTAGA
GAGTGCCCTCTGGCCCAGTTGATGGACAGTGAGACGGACATGGTGCGGCAGATCCGGGCTCTAGACAGCGACATG
CAGACCCTGGTCTATGAGAACTACAACAAGTTCATCTCAGCCACAGACACCATCCGGAAGATGAAGAACGATTTC
CGGAAGATGGAGGATGAGATGGACCGGCTGGCCACCAACATGGCAGTGATCACCGACTTCAGCGCTCGCATCAGC
GCCACGCTGCAGGACCGCCACGAGCGCATCACCAAGCTGGCAGGTGGGCGCTGCCGGGCAGGGCCTGCAGTGGGC
CTTTCCTGGGGCTCTGGGGCTAACGTCACCCTCCGTCCCCCAGGGGTCCACGCGCTGCTGCGGAAGCTGCAGTTC
CTCTTTGAGCTGCCCTCGCGCCTCACCAAGTGCGTGGAACTGGGCGCCTATGGGCAGGCGGTGCGCTACCAGGGC
CGCGCGCAGGCCGTGCTGCAGCAGTACCAACACCTGCCCTCGTTCCGCGCCATCCAGGACGACTGCCAGGTCATC
ACGGCCCGCCTGGCCCAGCAGCTGCGGCAGCGCTTTAGGGAGGGCGGCTCAGGCGCCCCGGAGCAGGCAGAGTGC
GTGGAGCTGCTGCTGGCCCTGGGCGAGCCTGCGGAGGAGCTGTGCGAGGAGTTCCTGGCGCACGCCCGCGGCCGG
CTGGAGAAGGAGCTGAGAAACCTGGAGGCCGAGCTGGGGCCCTCACCTCCGGCTCCCGACGTGTTAGAGTTCACC
GACCATGGAGGCAGTGGCTTCGTGGGCGGCCTCTGCCAGGTGGCGGCGGCCTACCAGGAGCTGTTTGCGGCCCAG
GGCCCAGCAGGTGCCGAGAAGCTGGCGGCCTTCGCCCGGCAGCTGGGCAGCCGCTATTTTGCGCTGGTGGAGCGG
CGGCTGGCGCAGGAGCAGGGTGGTGGTGACAACTCACTGCTGGTGCGGGCGCTGGACCGCTTCCACCGGCGCTTG
CGGGCTCCCGGGGCCCTGCTGGCCGCTGCCGGGCTCGCAGACGCTGCCACGGAGATCGTGGAACGAGTGGCCCGC
GAGCGCCTGGGCCACCACCTGCAGGGTCTCCGGGCGGCCTTCCTGGGCTGCCTGACAGACGTCCGCCAGGCGCTG
GCAGCACCTCGCGTGGCTGGGAAGGAGGGCCCTGGCCTGGCCGAGTTGCTGGCCAATGTGGCCAGCTCCATCCTG
AGCCACATTAAGGCCTCTCTGGCAGCAGTGCACCTTTTCACCGCCAAAGAGGTGTCCTTCTCCAACAAGCCCTAC
TTCCGGGGTGAGTTCTGCAGTCAGGGTGTCCGTGAGGGCCTCATCGTGGGCTTCGTCCACTCTATGTGCCAGACG
GCTCAGAGCTTCTGCGACAGCCCTGGGGAGAAGGGGGGTGCCACACCACCTGCCCTGCTCCTGCTGCTCTCCCGC
CTCTGCCTGGACTACGAGACGGCCACCATCTCCTACATCCTCACTCTCACTGATGAACAGTTTCTGGTGCAGGAT
CAGTTCCCAGTGACGCCCGTGAGCACGCTGTGTGCAGAGGCCAGGGAAACGGCGCGGCGGCTGCTGACCCACTAC
GTGAAGGTGCAGGGCCTGGTCATATCACAGATGCTGCGCAAGAGCGTGGAGACTCGCGACTGGCTCAGCACTCTG
GAGCCCCGGAATGTGCGGGCCGTCATGAAGCGGGTGGTGGAGGATACCACCGCCATCGACGTGCAGGTGGGGCTC
CTGTACGAAGAGGGTGTTCGCAAGGCCCAGAGCAGCGACTCCAGCAAGAGGACTTTCTCCGTGTACAGCAGCTCT
CGGCAGCAGGGCCGCTACGCCCCCAGCTATACCCCCAGTGCCCCGATGGACACCAACCTCTTGAGCAATATCCAG
AAGCTATTCTCTGAACGTATTGATGTGTTCAGCCCTGTGGAGTTCAACAAGGTGTCGGTGCTGACCGGCATCATC
AAGATCAGCCTGAAGACGCTGCTGGAGTGTGTGCGGCTGCGCACCTTTGGGCGCTTCGGGCTGCAGCAGGTGCAA
GTGGACTGCCACTTTCTGCAGCTCTACCTGTGGCGTTTTGTGGCCGACGAAGAACTCGTGCACTTGCTGCTGGAC
GAAGTGGTGGCCTCTGCTGCCCTGCGCTGCCCAGACCCTGTGCCCATGGAGCCCAGTGTGGTTGAGGTCATCTGC
GAGCGCGGC**TAG**GCGCAGCCGCTGCCATGCACCGGTCTGTCCCTGCACCCCATGGCACCCAGGATCTGGTCTCGG
TGGTCCTTCCCCGCAGGCAGGTGTCAGGACCGGCCTAATAAACATGTGTGGCCTCCTCCTCTCGCTTGCTGGGCG
GGCCTTTCCGGGGGCGGGGTTTTGAAGCTGAGGCTTCTGAGGCGCCCGCGTCGGGTCCGCCCCCGAGCGCCGATT
GGCTGGTGTGCTGGGCCCAGCATGGGCAGGGGGCGGTTCCACTTAAAAACCCTGGGACGA

FIGURE 125

GAGGGATAATCGGGGCGGCCGGGGCTGAAGGGAGAGGCGCAGGAGCCCTGGGGAGAGTGGTCCCTGCCCTTCCGC
GCCTCGAGCCATCGCTACCGCCCTTCGGAACCAGTGCAGCGGCCGATCAGTAAACACAGAGACTGGGGATCGATC
ATGGGGCTTTGTAAGTGCCCCAAGAGAAAGGTGACCAACCTGTTCTGCTTCGAACATCGGGTCAACGTCTGCGAG
CACTGCCTGGTAGCCAATCACGCCAAGTGCATCGTCCAGTCCTACCTGCAATGGCTCCAAGATAGCGACTACAAC
CCCAATTGCCGCCTGTGCAACATACCCCTGGCCAGCCGAGAGACGACCCGCCTTGTCTGCTATGATCTCTTTCAC
TGGGCCTGCCTCAATGAACGTGCTGCCCAGCTACCCCGAAACACGGCACCTGCCGGCTATCAGTGCCCCAGCTGC
AATGGCCCCATCTTCCCCCCAACCAACCTGGCTGGCCCCGTGGCCTCCGCACTGAGAGAGAAGCTGGCCACAGTC
AACTGGGCCCGGGCAGGACTGGGCCTCCCTCTGATCGATGAGGTGGTGAGCCCAGAGCCCGAGCCCCTCAACACG
TCTGACTTCTCTGACTGGTCTAGTTTTAATGCCAGCAGTACCCCTGGACCAGAGGAGGTAGACAGCGCCTCTGCT
GCCCCAGCCTTCTACAGCCAGGCCCCCCGGCCCCCAGCTTCCCCAGGCCGGCCCGAGCAGCACACAGTGATCCAC
ATGGGCAATCCTGAGCCCTTGACTCACGCCCCTAGGAAGGTGTATGATACGCGGGATGATGACCGGACACCAGGC
CTCCATGGAGACTGTGACGATGACAAGTACCGACGTCGGCCGGCCTTGGGTTGGCTGGCCCGGCTGCTAAGGAGC
CGGGCTGGGTCTCGGAAGCGGCCGCTGACCCTGCTCCAGCGGGCGGGGCTGCTGCTACTCTTGGGACTGCTGGGC
TTCCTGGCCCTCCTTGCCCTCATGTCTCGCCTAGGCCGGGCCGCAGCTGACAGCGATCCCAACCTGGACCCACTC
ATGAACCCTCACATCCGCGTGGGCCCCTCC**TGA**GCCCCCTTGCTTGTGGCTAGGCCAGCCTAGGATGTGGGTTCT
GTGGAGGAGAGGCGGGGTAATGGGGAGGCTGAGGGCACCTCTTCACTGCCCCTCTCCCTCAAGCCTAAGACACTA
AGACCCCAGACCCAAAGCCAAGTCCACCAGAGTGGCTGCAGGCCAGGCCTGGAGTCCCCGTGGGTCAAGCATTTG
TCTTGACTTGCTTTCCTCCCGGGTCTCCAGCCTCCGACCCCTCGCCCCATGAAGGAGCTGGCAGGTGGAAATAAA
CAACAACTTTATTAAAAC

FIGURE 126

GCAGCGAGTGGCCTTCCCGGTTGGCGCGCGCCCGGGGCGGCGGCGCTGGAGGAGCTCGAGACGGAGCCTAAGTTA
TGTCTGGGAGGCGAACGCGGTCCGGAGGAGCCGCTCAGCGCTCCGGGCCAAGGGCCCCATCTCCTACTAAGCCTC
TGCGGAGGTCCCAGCGGAAATCAGGCTCTGAACTCCCGAGCATCCTCCCTGAAATCTGGCCGAAGACACCCAGTG
CGGCTGCAGTCAGAAAGCCCATCGTCTTAAAGAGGATCGTGGCCCATGCTGTAGAGGTCCCAGCTGTCCAATCAC
CTCGCAGGAGCCCTAGGATTTCCTTTTTCTTGGAGAAAGAAAACGAGCCCCCTGGCAGGGAGCTTACTAAGGAGG
ACCTTTTCAAGACACACAGCGTCCCTGCCACCCCCACCAGCACTCCTGTGCCGAACCCTGAGGCCGAGTCCAGCT
CCAAGGAAGGAGAGCTGGACGCCAGAGACTTGGAAATGTCTAAGAAAGTCAGGCGTTCCTACAGCCGGCTGGAGA
CCCTGGGCTCTGCCTCTACCTCCACCCCAGGCCGCCGGTCCTGCTTTGGCTTCGAGGGGCTGCTGGGGGCAGAAG
ACTTGTCCGGAGTCTCGCCAGTGGTGTGCTCCAAACTCACCGAGGTCCCCAGGGTTTGTGCAAAGCCCTGGGCCC
CAGACATGACTCTCCCTGGAATCTCCCCACCACCCGAGAAACAGAAACGTAAGAAGAAGAAAATGCCAGAGATCT
TGAAAACGGAGCTGGATGAGTGGGCTGCGGCCATGAATGCCGAGTTTGAAGCTGCTGAGCAGTTTGATCTCCTGG
TTGAATGAGATGCAGTGGGGGGTGCACCTGGCCAGACTCTCCCTCCTGTCCTGTACATAGCCACCTCCCTGTGGA
GAGGACACTTAGGGTCCCCTCCCCTGGTCTTGTTACCTGTGTGTGTGCTGGTGCTGCGCATGAGGACTGTCTGCC
TTTGAGGGCTTGGGCAGCAGCGGCAGCCATCTTGGTTTTAGGAAATGGGGCCGCCTGCCCAGCCACTCACTGGTG
TCCTGTCTCTTGTCGTCCTGTCCTTCCTATCTCCCCAAAGTACCATAGCCAGTTTCCAGATGGGCCACAGACTGG
GGAGGAGAATCAGTGGCCCAGCCAGAAGTTAAAGGGCTGAGGGTTGAGGTGAGAGGCACCTCTGCTCTTGTTGGG
AGGGGTGGCTGCTTGGAAATAGGCCCAGGGCTCTGCCAGCCTCGGCCTCTCCCTCCTGAGTTGCCTTCTGTTGGT
GGCTTTCTTCTTGAACCCACCTGTGTAAAGAGGTTTTCAGTTCCGTGGGTTTCCCCTTTGATTCTGTAAATAGTC
CCAGAGAGAATTCGTGGGCTGAGGGCAATTCTGTCTTGGAGGAAGAAGCTGGACATTCAGCCTGTGGAGTCTGAG
TTTTGAAGGATGTAGGGAGCCTTAGTTGGGTCTCAGACCATAAGTGTGTACTACACAGAAGCTGTGTTTTCTAGT
TCTGGTCTGCTGTTGAGATGTTTGGTAAATGCCAGGTTGATAGGGCGCTGGCTGCTTGGAGCAAAGGGTGCATTT
CAGGGTGTGGCCACCAGGTGCTGTGAGTTTCTGTGGCTCATGGCCTCTGGGCTGGTCCCTTGCACAGGGCCCACG
CTGGAGTCTTACCACTCTGCTGCAGGGGTGGAAGGTGGCCCCTCTTGTCACCCATACCCATTTCTTACAAAATAA
GTTACACCGAGTCTACTTGGCCCTAGAAGAGAAAGTTGAAGAGTCCCAGACCTACTAGCATTTTGCAACTATGCT
TGTAAAGTCCTCGGAAAGTTTCCTCGCGTACCAGACAGCGGCGGGGGCTGATAGCAATTTTAGTTTTTGGCCTCC
CTATCCTCTCACATGAGAACACTGCCTGGATGCATCTCATGATCTCTGGAGAATTTCCCCATCTTTCTCTTCTTT
CCATCGTGTGGATTCAATAGTGTGGATTTGAAGGCTGCCCTGCCCCCGACTCTCCTGCCGCACCCCTGGCCATTG
TACCTTTTGATGTTTAGAAGTTCGTGGAAGTAGACGCTGAGGTGTGCAGAGGAGCTGGTGGATAACAGAGAATGC
CAGGGAAGATGAGTGCTGGGTCAGGGTACTTGGATGAAACGGTGCAGGCCAGGCGGGCCCTAATAAAACCCTCTG
CCAGGTCTGGGAGTCCCAGGCCATCTGCTCAACGCTCTGTGGTTTGTCAGACCTGCAAGCAAGCCCCCTGCTGGG
GAAGCCTAGGTGTCCTTGAGCTGAACCGCACTGAAGAACTCTTGTCCTCACTGGCTGATGCAGCAGAACTCTTGG
GAAATGTCTTAGTCCTGCAGAATCAGGAGTCACCAGATGATGCAGAGTTGAGATCATCATTGCAAAGTTCTCTGT
TCCTGAGGAACTAAATTTAAGGAAAAAATGGGATTTTGTTTTAGAGTTGGAAAAAAAGCCTGATTAAAGAGTTTC
TGCCTGTT

FIGURE 127

GTGCACGATCTGATTTTCTGGAGAGATGTGAAGAAGACTGGGTTTGTCTTTGGCACCACGCTGATC**ATG**CTGCTT
TCCCTGGCAGCTTTCAGTGTCATCAGTGTGGTTTCTTACCTCATCCTGGCTCTTCTCTCTGTCACCATCAGCTTC
AGGATCTACAAGTCCGTCATCCAAGCTGTACAGAAGTCAGAAGAAGGCCATCCATTCAAAGCCTACCTGGACGTA
GACATTACTCTGTCCTCAGAAGCTTTCCATAATTACATGAATGCTGCCATGGTGCACATCAACAGGGCCCTGAAA
CTCATTATTCGTCTCTTTCTGGTAGAAGATCTGGTTGACTCCTTGAAGCTGGCTGTCTTCATGTGGCTGATGACC
TATGTTGGTGCTGTTTTTAACGGAATCACCCTTCTAATTCTTGCTGAACTGCTCATTTTCAGTGTCCCGATTGTC
TATGAGAAGTACAAGACCCAGATTGATCACTATGTTGGCATCGCCCGAGATCAGACCAAGTCAATTGTTGAAAAG
ATCCAAGCAAAACTCCCTGGAATCGCCAAAAAAAAGGCAGAA**TAA**GTACATGGAAACCAGAAATGCAACAGTTAC
TAAAACACCATTTAATAGTTATAACGTCGTTACTTGTACTATGAAGGAAAATACTCAGTGTCAGCTTGAGCCTGC
ATTCCAAGCTTTTTTTTTAATTTGGTGTTTTCTCCCATCCTTTCCCTTTAACCCTCAGTATCAAGCACAAAAATT
GATGGACTGATAAAAGAACTATCTTAGAACTCAGAAGAAGAAAGAATCAAATTCATAGGATAAGTCAATACCTTA
ATGGTGGTAGAGCCTTTACCTGTAGCTTGAAAGGGGAAAGATTGGAGGTAAGAGAGAAAATGAAAGAACACCTCT
GGGTCCTTCTGTCCAGTTTTCAGCACTAGTCTTACTCAGCTATCCATTATAGTTTTGCCCTTAAGAAGTCATGAT
TAACTTATGAAAAAATTATTTGGGGACAGGAGTGTGATACCTTCCTTGGTTTTTTTTTGCAGCCCTCAAATCCTA
TCTTCCTGCCCCACAATGTGAGCAGCTACCCCTGATACTCCTTTTCTTTAATGATTTAACTATCAACTTGATAAA
TAACTTATAGGTGATAGTGATAATTCCTGATTCCAAGAATGCCATCTGATAAAAAAGAATAGAAATGGAAAGTGG
GACTGAGAGGGAGTCAGCAGGCATGCTGCGGTGGCGGTCACTCCCTCTGCCACTATCCCCAGGGAAGGAAAGGCT
CCGCCATTTGGGAAAGTGGTTTCTACGTCACTGGACACCGGTTCTGAGCATTAGTTTGAGAACTCGTTCCCGAAT
GTGCTTTCCTCCCTCTCCCCTGCCCACCTCAAGTTTAATAAATAAGGTTGTACTTTTCTTACTATAAAATAAATG
TCTGTAACTGCTGTGCACTGCTGTAAACTTGTTAGAGAAAAAAATAACCTGCATGTGGGCTCCTCAGTTATTGAG
TTTTTGTGATCCTATCTCAGTCTGGGGGGGAACATTCTCAAGAGGTGAAATACAGAAAGCCTTTTTTTCTTGATC
TTTTCCCGAGATTCAAATCTCCGATTCCCATTTGGGGGCAAGTTTTTTTCTTCACCTTCAATATGAGAATTCAGC
GAACTTGAAAGAAAAATCATCTGTGAGTTCCTTCAGGTTCTCACTCATAGTCATGATCCTTCAGAGGGAATATGC
ACTGGCGAGTTTAAAGTAAGGGCTATGATATTTGATGGTCCCAAAGTACGGCAGCTGCAAAAAGTAGTGGAAGGA
AATTGTCTACGTGTCTTGGAAAAATTAGTTAGGAATTTGGATGGGTAAAAGGTACCCTTGCCTTACTCCATCTTA
TTTTCTTAGCCCCCTTTGAGTGTTTTAACTGGTTTCATGTCCTAGTAGGAAGTGCATTCTCCATCCTCATCCTCT
GCCCTCCCAGGAAGTCAGTGATTGTCTTTTTGGGCTTCCCCTCCAAAGGACCTTCTGCAGTGGAAGTGCCACATC
CAGTTCTTTTCTTTTGTTGCTGCTGTGTTTAGATAATTGAAGAGATCTTTGTGCCACACAGGATTTTTTTTTTTT
TTAAGAAAAACCTATAGATGAAAAATTACTAATGAAACTGTGTGTACGTGTCTGTGCGTGCAACATAAAAATACA
GTAGCACCTAAGGAGCTTGAATCTTGGTTCCTGTAAAATTTCAAATTGATGTGGTATTAATAAAAAAAAAAAAAA

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FIGURE 128

GAACCCGCCCTGCTCGTGATAAGGCACAAGCAAGGGCTGCCCTGAAGGAAGCTCCAAAGAGAAAGGAGGGCAGGA
AGCCCACGGCCCACAGGGGTGTAGCCCGAGACCCACCTGCAGCCCCCAGCCCTTGCCAGGAAAGCAGCAGCCGCA
GCC**ATG**GCGGGGATGAAGACAGCCTCCGGGGACTACATCGACTCGTCATGGGAGCTGCGGGTGTTTGTGGGAGAG
GAGGACCCAGAGGCCGAGTCGGTCACCCTGCGGGTCACTGGGGAGTCGCACATCGGCGGGGTGCTCCTGAAGATT
GTGGAGCAGATCAATCGCAAGCAGGACTGGTCAGACCATGCTATTTGGTGGGAACAGAAGAGGCAGTGGCTGCTG
CAGACCCACTGGACACTGGACAAGTACGGGATCCTGGCCGACGCACGCCTCTTCTTTGGGCCCCAGCACCGGCCC
GTCATCCTTCGGTTGCCCAACCGCCGCGCACTGCGCCTCCGTGCCAGCTTCTCCCAGCCCCTCTTCCAGGCTGTG
GCTGCCATCTGCCGCCTCCTCAGCATCCAGGCACCCCGAGGAGCTGTCCCTGCTCCGGGCTCC**TGA**GAAGAAGGA
G

FIGURE 129

AGTAGAGATGGGGTTTCACCATGTTGGCCAGGCTGGTGTCAAACTCCTGACCTCAGGTGATCCACCCACCTTGGC
CTTCCAGAGTGCTGGGATTACAGGCATGAGCCACCGCACCCAGCGTTGTTTTGTTTTTTAGTCAGCAATGGTTTT
GGATTCCAAAGCTCTCAGGACCAAGGCCCACGCATTTTGTCTAGTTGTCATGTACTCTTCAGTTTCTCAAACTGG
AATTGTCCCCCGCTATGTGTTTTTCATAACATCAGCCTCTTGCAGAGTCCAGGCAGTTTGTCTTGTGTGGGATGA
TCCATCATCTGGAGTTGTCTTTCCTGATGTTGTCCCCTCTGTTTGGTGCTGGGTGAGGCATTAGAGTTGGAAGTC
CACATGCTTGAGTTGCCTGTACTGAGCTTGTCCAAGGGAATGAGCCTAATTTCTTTCTGTTGCTTCATTCTAGGA
CTGTGAGGAATGTATCCAGCTGGAGCCGACCTTCATCAAGGGTTATACACGGAAAGCCGCTGCGCTGGAAGCG**ATG**
AAGGACTACACCAAAGCCATGGATGTGTACCAGAAGGCGCTAGACCTGGACTCCAGCTGTAAGGAGGCGGCAGA
CGGCTACCAGCGCTGTATGATGGCGCAGTACAACCGGCACGACAGCCCCGAAGATGTGAAGCGACGAGCCATGGC
CGACCCTGAGGTGCAGCAGATCATGAGTGACCCAGCCATGCGCCTTATCCTGGAACAGATGCAGAAGGACCCCCA
GGCACTCAGCGAACACTTAAAGAATCCTGTAATAGCACAGAAGATCCAGAAGCTGATGGATGTGGGTCTGATTGC
AATTCGG**TGA**TGACTTGTTCATCCCCCCTTCCCTTCGCCCTCATGTGGAAAGAGGAGCTGGGACCGCGGCGAGCA
GCACGGAGCGGAAGGGAGAGCAGGGGAGAGAAGGCCTCATCTCTCTATATTTATACATAACCCCGGGGAAGACAC
AGAGACTCGTACCTGCGCTGTTTGTGCCGCCGCTGCCTCTGGGCCCTCCCAGCACACGCATGGTCTCTTCACCGC
TGCCCTCGAGTTCCATGTCTCTTTCCCCTGCCCCTAGTTGCTGTCTCGGCTGCTCTCCCATAGTTGGTTTTTTTT
TTATTTGGGGGCAGTGGGCATGTTATGGGGAGGGGAGGGGGTTCTTCCAGCCTCAGGTCCCAGCTGTCTCACGTT
GTTTATTCTGCGTCCCCTTCTCCAATAAAACAAGCCAGTTGGGCGTGGTTATATGTT

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FIGURE 130

AAAACACTAAGGGGAGCGCGCGAAGCTGAACTTGGCGCTCGATGGGGGCCGTTAGCCGCCCTAGAGCGCGCGGAG
CCGCAGAGGCGTAGCTGGACTACAACGCAGTGCATCTCGGGAGGCCAACTCGACTGGACTGGGTGAGAGGACAGA
GGTGGCTCG**ATG**GGCGGCCCGAAGGCCGGGGATCATGGCGGGAAGGCGGGCCCAGACAGGTTCAGCCCCGCCCCC
GACCCGCCGCTCCCCACCCCCCGGCCGGCCTCGCGTGCCTTCCCGCAGCACTGCCGTCCCCGGGATGCTGAGCGC
CCACCGTCTCCCCGCAGCCCCCTCATGCCCGGCTGCGAGCTGCCCGTGGGCACCTGCCCGGACATGTGCCCGGCC
GCCGAGCGCGCCCAGCGCGAAAGGGAGCACCGCCTGCACCGCTTGGAGGTGGTGCCGGGTTGCCGCCAGGACCCG
CCCCGCGCGGATCCGCAGCGCGCGGTGAAGGAGTACAGCCGACCCGCCGCCGGCAAGCCCCGGCCCCCGCCCAGC
CAGTTGCGTCCGCCCTCCGTGCTGCTGGCCACCGTGCGCTACCTGGCCGGTGAGGTGGCGGAGAGCGCCGACATC
GCCCGCGCCGAGGTGGCCAGCTTCGTGGCAGACCGCTTGCGAGCTGTGCTCCTGGACCTGGCGCTGCAGGGAGCG
GGCGACGCCGAGGCAGCTGTGGTGCTGGAGGCGGCGCTGGCCACGCTGCTGACCGTAGTGGCGCGGCTCGGGCCC
GACGCGGCGCGGGGACCCGCGGACCCGGTGCTGCTGCAGGCCCAGGTGCAGGAGGGCTTCGGCTCGCTGCGGCGC
TGCTACGCGCGGGGCGCCGGGCCGCACCCCCGCCAACCCGCCTTCCAGGGCCTCTTTCTGCTCTATAACCTGGGT
GAGTCGGGATCCTGGCGGCTGGGCAGAGCGTGGGGACAGGAGCCCACCATGACAGTGGAGGCTCGGTGGAAGCCC
TGCATGAGGTTCTACAGCTGCCTGCTGCCCTGCGCGCCTGCCCGCCCCTCCGCAAGGCCTTGGCGG**TAG**ATGCTG
CCTTCCGAGAGGGCAATGCTGCCCGCCTGTTCCGTCTGCTCCAGACCCTGCCCTACCTGCCAAGTTGCGCTGTGC
AGTGCCATGTGGGCCATGCCCGCCGGGAAGCCCTGGCCCGCTTCGCTCGTGCCTTTAGCACCCCCAAGGGCCAGA
CCTTGCCTCTGGGCTTCATGGTCAACCTCTTGGCCCTGGATGGACTCAGGGAAGCACGGGACCTGTGCCAGGCCC
ACGGGCTGCCCTTGGACGGAGAGGAGAGAGTTGTGTTCCTGAGGGGTCGCTACGTGGAGGAAGGGCTACCGCCTG
CCAGTACGTGCAAGGTGTTAGTGGAGAGCAAACTTCGAGGACGTACCCTGGAGGAGGTGGTCATGGCAGAGGAGG
AAGATGAGGGCACGGACAGACCTGGGTCCCCAGCCTGAGGAGGGAGCGTGAGCCTCCCAGAGCCCCAGGACTGGG
CCAGAGCACTTAGGTTTCTTTTTCCATGGTTTCCAGGTAATAAAAGGAACTTGTTTTGTTGGT

FIGURE 131

GCGCAGGCCTGGCGAGGCGGCGGCGGGCGGAGGCTGGGCCGGAGGGGTGGGGACGGCGAGGAGGTGGAGGCCGGC
GCTCCGCTCCGCTCCAGCTCGGTTTC**ATG**TCCCGCCAGGCGAAGGATGACTTCCTGCGGCACTACACAGTGTCGG
ACCCCAGGACTCACCCCAAGGGCTACACCGAGTACAAAGTAACCGCGCAGGTGGTGGTCTGGAAGCGGTACAGCG
ACTTCCGCAAGCTGCATGGAGACCTGGCCTACACCCACCGCAACCTCTTCCGCCGCCTCGAGGAGTTCCCTGCTT
TCCCCCGGGCCCAGGTGTTTGGCCGGTTTGAAGCCTCAGTGATCGAGGAGCGGCGAAAGGGGGCAGAGGACCTGC
TTCGCTTCACTGTGCACATACCTGCGCTCAACAACAGCCCCCAGCTCAAGGAGTTCTTCCGGGGTGGGGAGGTGA
CCCGACCCTTGGAGGTGTCCAGGGACCTACACATCCTGCCACCCCCTCTGATCCCCACCCCGCCCCCTGATGACC
CCCGGCTATCCCAACTGCTCCCTGCAGAAAGGAGGGGCCTCGAGGAATTGGAGGTGCCAGTGGACCCCCCACCAT
CCAGCCCTGCCCAGGAGGCCCTGGATCTCCTCTTTAACTGTGAGAGCACCGAGGAGGCATCTGGTTCCCCTGCCC
GAGGCCCCCTCACCGAGGCTGAGCTTGCCCTCTTCGACCCCTTCTCCAAGGAAGAAGGCGCAGCCCCCAGCCCCA
CCCATGTGGCTGAGCTGGCAACGATGGAGGTGGAGTCTGCAAGGCTGGACCAGGAACCCTGGGAGCCAGGAGGGC
AGGAGGAGGAAGAGGATGGGGAAGGAGGGCCCACCCCTGCCTACCTAAGCCAGGCCACAGAGCTCATCACCCAGG
CCCTGCGGGATGAGAAGGCAGGCGCTTACGCTGCTGCACTCCAGGGCTATCGAGATGGCGTGCACGTCTTGCTTC
AGGGAGTCCCCAGTGACCCGTTGCCTGCCCGCCAGGAAGGTGTGAAGAAGAAGGCAGCTGAGTACCTGAAGCGGG
CAGAGGAGATCCTGTGCCTGCACCTGTCTCAACTCCCACCC**TAA**CAGGGAGTGGGCCCTTCCCTGGGACTCTCGC
TCCTGCACTGCCAGCCCCTTCTCCTCTCCCCAGGGCCTGGCCCTACCTCCTGGTCTTGTAATTACAGGAGCCATT
TCTGTAGGTAACTGGACCAAGAATGAGAAAAATAATGAATTCTTAGCTCCCTGATTACACCTGCCACCTTGGAAT
CAAGGACTCACACTTCTGACCCTGCCTGTCTTTTTGGGGTTTTTTTGAGTTGGAGTCTCGCTGTGTCGCCCAGAC
TGGAGTGCAGTGGTGGGATCGCGGCTCACTGCAACCTCCACCTCCCAGGTTCAAGCAGTTCTCCTGTCTCAGCCT
CCCCAGTAGCTGAGATTGCAGGCACATGCCACCACGCCCAGCTAATATTTTGTATTTTCAGTAGGGACGGGGTTA
CACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAAGTGATCCACCCGCCTCAGTCTCCCAAAGTGCTGAG
ATTACAGGCATGAGTCACTACGCCCGGCCCATGTCTGTCTGTCTTGATGTGTGAGCAGCAGCTGTGGTCATTAAA
CCATTAGTTTACCCCTCTAGAACTGGGGTCTGCAAACTCCCACCTGCAGCCAAATCTGGCCCACCTCCTTTTTAA
TGTAAGGGCTGTGAGAGTGGTTTTTACTTTTTTTAATGATTAAAAAAATCAAAATAATATTCTGTGACAATGACA
GGTGAAATTTATATGTGACAAGTGAAAATTATATGAAATTTAAGAGTCCATAAATAAAATTTGTTGGAACAC

FIGURE 132

CTCCGGGGACC**ATG**GGGCTCCTGACCATTCTGAAGAAGATGAAGCAGAAAGAGCGGGAGCTGCGACTGCTCATGC
TTGGCCTGGACAATGCTGGAAAGACAACCATCCTGAAGAAGTTCAATGGGGAGGACATCGACACCATCTCCCCAA
CGCTGGGCTTCAACATCAAGACCCTGGAGCACCGAGGATTCAAGCTGAACATCTGGGATGTGGGTGGCCAGAAGT
CCCTGCGGTCCTACTGGCGGAACTACTTTGAGAGCACCGATGGCCTCATCTGGGTAGTGGACAGCGCAGACCGCC
AGCGCATGCAGGACTGCCAGCGGGAGCTCCAGAGCCTGCTGGTGGAGGAGCGCCTGGCCGGAGCAACCCTCCTCA
TCTTTGCTAATAAGCAGGACCTGCCTGGAGCACTGTCCTCTAACGCCATCCGCGAGGTCCTGGAGCTGGACTCCA
TCCGCAGCCACCACTGGTGCATCCAGGGCTGCAGCGCCGTCACCGGGGAGAACCTGCTGCCGGGCATCGACTGGC
TCCTGGATGACATTTCCAGCCGCATTTTCACAGCTGAC**TGA**ACCACTCCAGATGCCCCCCACCTAGCAGTCCAGG
TCCCTCAACCTTCACCAAACACTACCCATGGGGGGTTGGGAGTCAGCCGGCCAAACTAACACTCCCCCTCCTCCA
CCCCAGCCTGCTGCTGCTACTGCTGCCCGCTGCTGCTCTGTGGCCACCCGGCTCCCATGGCGGGAGGGCTGTGCC
CTGGCTGTCTCTCTGGCTCCTGACCTGGCCTTTGGCTACCATACCAAGAAGAGAGGGCTGGGCGGGGAGGAGCTG
CTACTGCTGCTACCGAGGCTGTGGGCCTCATCCTTCACTCAGTTGTGAAATAAACCGCTCCTTGCCCCG

FIGURE 133

GGAGACCGGAGGTCTGAGCTGCAGCCACTACACAGGCCTGGAATTCTACCACAGGGAATTTGCAGCACGAGTCTC
TGGAAAAAGACAACCTCGCCCTGCGGAAGGAGATCCAGTCCCTGCAGGCCGAGCTGGCGTGGTGGAGCCGGACCC
TGCACGTGCATGAGCGCCTGTGCCCC**ATG**GATTGTGCCTCCTGCTCAGCTCCAGGGCTCCTGGGCTGCTGGGACC
AGGCTGAGGGGCTCCTGGGCCCTGGCCCACAGGGACAACATGGCTGCCGGGAGCAGCTGGAGCTGTTCCAGACCC
CGGGTTCCTGTTACCCAGCTCAGCCGCTCTCTCCAGGTCCACAGCCTCATGATTCTCCCAGCCTCCTCCAGTGCC
CCCTGCCCTCACTGTCCCTTGGCCCCGCTGTGGTTGCTGAACCTCCTGTCCAGCTGTCCCCCAGCCCTCTCCTGT
TTGCCTCGCACACTGGTTCCAGCCTGCAGGGGTCTTCCTCTAAGCTCAGTGCCCTCCAGCCCAGCCTCACGGCCC
AAACTGCCCCTCCACAGCCCCTCGAGCTGGAGCATCCCACCAGAGGGAAGCTGGGGTCCTCTCCCGACAACCCTT
CCTCTGCCCTGGGGCTTGCACGTCTGCAGAGCAGGGAGCACAAACCTGCTCTCTCAGCAGCCACTTGGCAAGGGC
TGGTTGTGGATCCCAGCCCTCACCCTCTCCTGGCCTTTCCTCTGCTCTCCTCTGCTCAAGTCCACTTC**TAA**CCTG
GTCTTCGGAGCTGGGTTGGCCCCTTCTTTGGGCTCAGGAAGCAGCCTTAGCACACGGGCCTCTCCTCCCTCACTA
CTGGGTGCTGCCCTGCGTGGCTGACCAGCTGGCCCAGGATTTCACAGTCGAAAAGGAAGCCACCACTGATGCCTC
CCACTGTGACAGGCCCTGTCACCACCAATATCTTATTTCAACCTCACAGTTGACCTGAGAAATCGAGATTATCAC
TCCACTTTTTCAGACAAGGAAACTGAGGCTCAGGGAAGCCAAGTGACAAGTCCAAGGTCACGAAGACTTTCTTGG
AGCCCGAAACACCACCCTCTGCTCCTCCTTCTCCTGTCCTGGCCCAGGCATCCTAGGGGCTGAAATCCTGGAAAC
CGTGGGCTGGTGTGAGAAGGTTTGCATGCTCAGAGCAGAGAAGGGCTCTCCCCACTGCTTCGTGATTCCAGGGCC
AGAGCCATGCAGTCCCAGAAACCCCAACCTAGCTGGGGCAGGTCCAGAGTCCAAGCCCTGGTGGGTAGAGGCCAA
GCAGAAGCCCTGAAGTGGACTCTTGCTTCCCCTAGTAGTGTTTTCAGTGCCAAGAAGCTGAAACTGTGAGCTGGA
GTTGGGGAGAGGTCTGGAAGAGGACCATCTGGGATTTCTACAGCCTGGGTACCCATAGCCACACCAAGGCTTCTG
GGAGATTCTGCAGGGTCAGCTTTCCAGGCTGTTCCCAAATAGCTCCCTGCCTCCCCACTGCCCCTAAAGCCACAG
CAGAAGAGCCATTCATCTCATAAACAAAAAGGAAGAGGAAAGAATGAGGAAGGACCCTGTGCAAGGTTATTTGCA
GGCAGGGATGGGCTTGTACCTGACAGCACCCACCCCTGTGTGGCCCCCAGGCCCTCATCACCCTCAGACCCCTCC
TAAGCAGTTCCCTCATTGCTCTTTGGACTAGGCTGACAGCAGGAAGAGCAGGGCCCATGACCGGGTGGAAGTTCA
GTTTTGGTGTCTGCTTCAAGAGGGGGTTTTACACTCTGATTCCAGGACAAGCACTCTGAGGCGGGTGGGGGAGAG
AAACCCTGGCTCTTCACCCAGGTTTCACACACATGTAAATGAAACACTATGTTAGTATCTAACACACTCCTGGAT
ACAGAACACAAGTCTTGGCACATATGTGATGGAAATAAAGTGTTTTGCAATCTTT

FIGURE 134

ATGGAGGAGCGTGACCAGACTTGCAGTTTAGAAAGAGTGTTCTCGCTGCTGCATGGAGACCTGGAAGGTGCCCAG
GGTCTGGGCACTCTCACAGCGTCTCCTGGCAGCCTGGCTGTGAAGTGGGCCCCACGCTGTCCCCACGCTGGAGCT
CTCAAGTGGCAGTTTGAAGCAGCACTGTGCTGGCTGCAGCGCGACATATCCTGCAGGCTCATGGGCCCCTGGGGG
GAGCCCCCTGCTCACTTCCTTCAAGGGCTCCGTGCTAGTGCTGGGGGTCCAGTGTGCAGCACCTCCCTCCGCCTG
CTGCATCTAGAAACCCAGCCCTCCTCAGACCTCCGCTGTGAGCTGGGGATTCCAGTCCACACATATGCCATCATC
CGAGTTACTCAGGGGCTGCCTCGTAAATTATTATCGACCCACTGCTGCCCGGGCTGGAGAAAGAAGGAGCTAAGC
CCTGTGTACCCACTGCCTTCATCTCCTGAAACAGCCCCCAGGAGAGTGGTCTGTGGACCCCACAGTGCAGAGAAG
CCAGCCCTGGGCAGGCGTCCAGCCTCCGGTCATTCAGACGTGCACAGCGTGCTCTGTGTACTGGGTGGACAGGGT
GAGGGACCACAAGGACCAGGCCAAGCATGCAGCATCATGAGATCATCACAGGAGAGTGAATATGAGGACAAGGAC
CCGTGGCTGCATGTCCTGCAGGGTGGCTGGGGCCGCGGGCAAGGCCAGCCTTGCAGGCTGCAGCGAGTGAAGCTG
CAGGATGCTGGTACCAGCTGCGCCCATTTCTTGGGGACTGCGTGCTTGCCTCCAAGCCCAGAGCTCCAGCAAGGG
GTGGCAACTGTGGAGAGCCCCGTGGTTGGGCCTGGCCTCCCTGCCAGTCTCCCCCGCCCTCCGTCCCCGGAAGGC
AGGCAGCCCGCCGCCCCCAGAGAAATATTAGCACGAATTCGATTTGGGCGCCTGCCCACAGTGCAGGGAGGGGGC
TTCGCGGGAAAGAACAAATCCATGTTCCTTGTCGGAGTCTACAGACCTCTGTCTCCGCCATTCACCACCCTTAAC
CGCACTGGCATAAAGATATGTCCTGGAACCTGCCAAACTCCCACTCTGAGTTCTCGCTGTCCCCTCTGCCGAGAC
AGTCTCCACGGCCAGCTATGTGTCCTCAAGCTGGCCCCTGCCCCCACACCCCCTGCTCAGAGAGGCCTCCCCCCC
TGCAGTCACCCGTCTTTTGGGTTTCCTTGTGGCCTGTCTCCCCAGCTTGGGGTGCCCTCCCTGAGGGCAAAGCCT
GGCTCCCCCTTTGCTGCTGGGGCACCTCAAAGCTCGGTGAAGAGCACATATTTCCCAACCAACCCTTCAACCCCA
GAGCCCCTAAGTGGCTGGGCTGGATCCGGGTCCCCAACTGCATCTCTGGCCCTGCAAGGCTCTGGGGGCTGTGGG
CCCCCCTCCCCAACACAGGGCTGGATGCGGCTGCTGGGTTTCTCAGTGGGAAGCTCCAGTGTTTACCCTGCCGAG
GCCCAGCTTTTACTCCCCAAGGAGTGTGTTTGGGAGGCGAGAACCCACGCGCACGCACACTCTCGCATGCCATCT
GATGTGCCAGACCTCACAGGCTCCCGGCCCAGACGTACATGTGCACCCCCAGCGCTGGCTCTGGCCTGCACCTGC
CGTACCTGGGCCAGGCCAGTGGCCTCAGCACGGCAGGCAACTGGCACTAATTTTGAATTAGTTAAGTTAATTAGG
CCGGCATCACCCCTGTACCCATCTGTGGGTTGGGTGCAGAACCAGCCCCTCCATCCCACAGCAGCTGAGGATGAA
GCAGACCCTGCTCCCGACCCCCAAGTCCCCCCAGGCCCAGCCACAGCTCCCACTCACTCCCACCCCTGGCTGCCA
GCCGGGGCAGGCCCCAGCGGTTATGAGTTCAGCAGTCGATTCGATTCGGGCTCACATCATCTTGTCTGCCGGGAG
GATTTAGTGCGCGCGGCGGTCAATAGTGCGTTTGTTTTGCTATCGACCTGCTGGAGCGGCTCAGGAGCCAGCCCG
TTCCCCTCGGCAGCTGAGGCCTCTCCAGACTGCAGAGCCGGGACC**TAG**

FIGURE 135

ATGAATGCAGCACTGAGCTCTGTTTGCCCTCTAAGCTTGTCCCCAGAAAAAACAAGATATACCCTAAATATGCAC
GATCTGATTTTCTGGAGAGATGTGAAGAAGACTGGGTTTGTCTTTGGCACCACGCTGATCATGCTGCTTTCCCTG
GCAGCTTTCAGTGTCATCAGTGTGGTTTCTTACCTCATCCTGGCTCTTCTCTCTGTCACCATCAGCTTCAGGATC
TACAAGTCCGTCATCCAAGCTGTACAGAAGTCAGAAGAAGGCCATCCATTCAAAGCCTACCTGGACGTAGACATT
ACTCTGTCCTCAGAAGCTTTCCATAATTACATGAATGCTGCCATGGTGCACATCAACAGGGCCCTGAAACTCATT
ATTCGTCTCTTTCTGGTAGAAGATCTGGTTGACTCCTTGAAGCTGGCTGTCTTCATGTGGCTGATGACCTATGTT
GGTGCTGTTTTTAACGGAATCACCCTTCTAATTCTTGCTGAACTGCTCATTTTCAGTGTCCCGATTGTCTATGAG
AAGTACAAGGAGATGGGCCAC**TAA**

FIGURE 136

GGCCTGAGGGCGCCGCACTCGACTGCTTCGAGGTGACGCTGAAATGCGAGGAAGGGGAGGACGAGGAGGAGGCCA
TGGTGGTGGCCGTAATTCCGCGGCCCGAGCCGATGCTCAGAGTGACCCAACAGGAGAAGACCCCACCGCCTAGAC
CCAGCCCGCTAGAGGCAGGCAGTGATGGCTGTGAGGAGCCGAAGCAGCAGGTGTCTTGGGAGCAGGAGTTCCTGG
TGGGCAGCAGCCCAGGAGGCAGCGGGCGGGCACTGTGCATGGTGTGTGGCGCTGAGATCCGGGCACCCTCGGCCG
ACACAGCTCGCTCGCACATCTTGGAGCAGCACCCTCACACCTTGGACCTGAGCCCTTCTGAGAAGAGCAATATCC
TGGAGGCCTGGAGTGAAGGGGTGGCCCTCTTGCAAGACGTGAGAGCTGAGCAGCCGTCCCCACCCAACTCAGACT
CGGGCCAGGATGCCCACCCAGACCCAGACGCCAACCCAGACGCTGCCAGAATGCCAGCCGAAATCGTCGTTCTCC
TTGACTCTGAGGATAACCCATCCCTCCCTAAAAGGAGCAGGCCCAGGGGACTCCGCCCCCTCGAGCTTCCTGCTG
TCCCTGCCACAGAGCCAGGAAATAAGAAGCCCCGTGGTCAGAGATGGAAGGAACCCCCAGGGGAAGAGCCAGTCA
GAAAGAAAAGAGGCAGACCTATGACCAAAAACCTGGACCCTGACCCAGAGCCCCCATCGCCAGACTCGCCCACGG
AGACTTTCGCAGCACCAGCCGAGGTCCGACACTTCACTGACGGCAGCTTCCCCGCCGGCTTCGTCTTGCAGCTCT
TCTCCCACACCCAGCTCAGGGGCCCAGACAGCAAGGACTCACCCAAAGACAGGGAAGTGGCAGAAGGAGGCCTTC
CCCGGGCGGAGAGCCCCTCTCCAGCTCCCCCTCCGGGGCTCCGCGGGACACTGGATCTCCAGGTTATCCGCGTGC
GGATGGAGGAGCCCCCAGCGGTCAGCCTCCTGCAAGACTGGTCCAGGCACCCCCAGGGCACCAAGCGTGTGGGAG
CAGGTGACACCTCAGACTGGCCCACAGTTCTGTCAGAATCCAGCACCACTGTGGCAGGGAAGCCGGAAAAAGGGA
ATGGAGTGTAAATTCTTGCTTTCCTGGGGAGGGAGGGAGGGATGAGGCAGCGTCCCCCAGTGGCTTATAACTCAG
AGCTGCCTGGCTCACCCACCTGGTGGAGAGAGTAGAAACAGGTGCCAGGGCAGGAGGGGGCTGGGGCAGCATCCA
CTGTTATTTCGGGGCACTGGAAAGTGTCTGTTCCTGGCCAGGCCTGAGGTCGGCGAGGGTGGCTGAGGCTGTTGT
GCAGTAGGGCACTGGGCCTGTGGAGAACACCTACCCCAGTCCTTCGCTGACCCCCACCTCTGTTTGTCCCCCATG
ACCTCCTCCCACCCTCCCCCTGCTCCCCACCATTCTCCCTTGGCACAGTGCCTTACACAAGAGTGGTCATAAGGG
GGTTTGAACTGAGTCCCACTACCTCGGGGGACACCTCTCCTCCCCACTTGTTCAGGCTTCTAAACCAGGAGGCCT
CCATTACCTCTTCCTGTCCCACCCCTGCAGAGGCCTGAAGCTGGGCCTGGGCACCCCATTCACTCCCGTTCTCAT
TTACATCTGTTTTCCTGTTGTATATATCACCTTTGTTGACAATAAATTATTTTTTTTTATT

FIGURE 137

CCCACCTTGGGACACCTTGACTCCAAGCCCAGCAGTAAGTCCAAC**ATG**ATTCGGGGCCGCAACTCAGCCACCTCT
GCTGATGAGCAGCCCCACATTGGAAACTACCGGCTCCTCAAGACCATTGGCAAGGGTAATTTTGCCAAGGTGAAG
TTGGCCCGACACATCCTGACTGGGAAAGAGGTAGCTGTGAAGATCATTGACAAGACTCAACTGAACTCCTCCAGC
CTCCAGAAACTATTCCGCGAAGTAAGAATAATGAAGGTTTTGAATCATCCCAACATAGTTAAATTATTTGAAGTG
ATTGAGACTGAGAAAACGCTCTACCTTGTCATGGAGTACGCTAGTGGCGGAGAGGTATTTGATTACCTAGTGGCT
CATGGCAGGATGAAAGAAAAAGAGGCTCGAGCCAAATTCCGCCAGATAGTGTCTGCTGTGCAGTACTGTCACCAG
AAGTTTATTGTCCATAGAGACTTAAAGGCAGAAAACCTGCTCTTGGATGCTGATATGAACATCAAGATTGCAGAC
TTTGGCTTCAGCAATGAATTCACCTTTGGGAACAAGCTGGACACCTTCTGTGGCAGTCCCCCTTATGCTGCCCCA
GAACTCTTCCAGGGCAAAAAATATGATGGACCCGAGGTGGATGTGTGGAGCCTAGGAGTTATCCTCTATACACTG
GTCAGCGGATCCCTGCCTTTTGATGGACAGAACCTCAAGGAGCTGCGGGAACGGGTACTGAGGGGAAAATACCGT
ATTCCATTCTACATGTCCACGGACTGTGAAAACCTGCTTAAGAAATTTCTCATTCTTAATCCCAGCAAGAGAGGC
ACTTTAGAGCAAATCATGAAAGATCGATGGATGAATGTGGGTCACGAAGATGATGAACTAAAGCCTTACGTGGAG
CCACTCCCTGACTACAAGGACCCCCGGCGGACAGAGCTGATGGTGTCCATGGGTTATACACGGGAAGAGATCCAG
GACTCGCTGGTGGGCCAGAGATACAACGAGGTGATGGCCACCTATCTGCTCCTGGGCTACAAGAGCTCCGAGCTG
GAAGGCGACACCATCACCCTGAAACCCCGGCCTTCAGCTGATCTGACCAATAGCAGCGCCCCATCCCCATCCCAC
AAGGTACAGCGCAGCGTGTCGGCCAATCCCAAGCAGCGGCGCTTCAGCGACCAGGCTGGTCCTGCCATTCCCACC
TCTAATTCTTACTCTAAGAAGACTCAGAGTAACAACGCAGAAAATAAGCGGCCTGAGGAGGACCGGGAGTCAGGG
CGGAAAGCCAGCAGCACAGCCAAGGTGCCTGCCAGCCCCCTGCCCGGTCTGGAGAGGAAGAAGACCACCCCAACC
CCCTCCACGAACAGCGTCCTCTCCACCAGCACAAATCGAAGCAGGAATTCCCCACTTTTGGAGCGGGCCAGCCTC
GGCCAGGCCTCCATCCAGAATGGCAAAGACAGCCTAACCATGCCAGGGTCCCGGGCCTCCACGGCTTCTGCTTCT
GCCGCAGTCTCTGCGGCCCGGCCCCGCCAGCACCAGAAATCCATGTCGGCCTCCGTGCACCCCAACAAGGCCTCT
GGGCTGCCCCCCACGGAGAGTAACTGTGAGGTGCCGCGGCCCAGCACAGCCCCCCAGCGTGTCCCTGTTGCCTCC
CCATCCGCCCACAACATCAGCAGCAGTGGTGGAGCCCCAGACCGAACTAACTTCCCCCGGGGGTGTGTCCAGCCGA
AGCACCTTCCATGCTGGGCAGCTCCGACAGGTGCGGGACCAGCAGAATTTGCCCTACGGTGTGACCCCAGCCTCT
CCCTCTGGCCACAGCCAGGGCCGGCGGGGGGCCTCTGGGAGCATCTTCAGCAAGTTCACCTCCAAGTTTGTACGC
AGAAATCTGTCTTTCAGGTTTGCCAGAAGGAACCTGAATGAACCTGAAAGCAAAGACCGAGTGGAGACGCTCAGA
CCTCACGTGGTGGGCAGTGGCGGCAACGACAAAGAAAAGGAAGAATTTCGGGAGGCCAAGCCCCGCTCCCTCCGC
TTCACGTGGAGTATGAAGACCACGAGCTCCATGGAGCCCAACGAGATGATGCGGGAGATCCGCAAGGTGCTGGAC
GCGAACAGCTGCCAGAGCGAGCTGCATGAGAAGTACATGCTGCTGTGCATGCACGGCACGCCGGGCCACGAGGAC
TTCGTGCAGTGGGAGATGGAGGTGTGCAAACTGCCGCGGCTCTCTCTCAACGGGGTTCGATTTAAGCGGATATCG
GGCACCTCCATGGCCTTCAAAAACATTGCCTCCAAAATAGCCAACGAGCTGAAGCTT**TAA**CAGGCTGCCAGGAGC
GGGGGCGGCGGGGGGCGGGCCAGCTGGACGGGCTGCCGGCCGCTGCGCCGCCCCACCTGGGCGAGACTGCAGCGA
TGGATTGGTGTGTCTCCCCTGCTGGCACTTCTCCCCTCCCTGGCCCTTCTCAGTTTTCTCTTACATGTTTGTGGG
GGGTGGGAGATTGTTNTCCAGCACCCCACATTCACCCCTGCCCAGAGATTCCCCCTTCTCCTCTCCCCTACTGGA
GGCAAAGGAAGGGGAGGGTGGATGGGGGGGCAGGGCTCCCCCTCGGTACTGCGGTTGCACAGAGTATTTCGCCTA
AACCAAGAAATTTTTTATTACCAAAAAG

FIGURE 138

GCGCCCAGCCGCTGAACGGCGTGGGCAGGTGGGCGGTGGGGTTCCAGGGCGCCCCGAGGACAGGGGGCCCCGACT
TCAGGGGAACCCCAACCCTGAGGGGCGTACATAGTAATCACGCCCCAGCCGCACCGGACCTTGCGCTCATCCCTT
GCGTCCCCCACTTCTGCACAAACTTTTCTGACGCCCTGGCTCGTGGGGGTCGTGGAGAGCGCTGGGGCTACCAGG
TGGGCTCCCACCCCGCCGGACCCTAGCCACGCTGACCTCCTGCCTCTCCTAACCTCAGTGGCGACCTCTCCAGGC
CGGGCCGGGCTCGGCACTCGGAGCGAGTGCGGCAACCACTGTCGCTCTCCGAAGGCTCCTGCGCCCCCCGGGGCA
GCTGGGCGGGGTA**ATG**CCCTCAGTGATGGAGAAGCCGAGCGCGGGCTCTGGGATCCTGTCCCGTAGCCGGGCCAA
GACGGTGCCCAACGGCGGACAGCCCCACTCGGAGGATGACAGCAGCGAGGAGGAGCACTCGCACGTCCCTTCTGT
GGCTGCAGACAGCATGATCCGCGTTGGAACCAATTACCAGGCCGTAATTCCGGAGTGCAAGCCTGAGAGCCCCGC
ACGCTACAGCAACAAGGAGCTGAAGGGGATGCTGGTGTGGTCACCCAACCACTGTGTGTCAGATGCCAAGCTTGA
CAAGTACATTGCGATGGCCAAGGAGAAGCATGGCTACAACATTGAGCAGGCGCTGGGCATGCTTCTGTGGCATAA
GCACGATGTGGAGAAGTCGCTGGCCGACCTGGCCAACTTCACCCCATTCCCTGACGAGTGGACAGTAGAGGACAA
GGTGCTGTTTGAACAGGCCTTTGGCTTCCATGGCAAATGCTTCCAGCGGATCCAGCAGATGCTGCCTGACAAGTT
GATTCCCAGCCTGGTGAAATACTACTACTCTTGGAAGAAGACCCGCAGCCGAACTAGTGTGATGGACAGACAGGC
CCGGCGGCTGGGGGGCCGCAAGGACAAAGAAGACAGTGATGAGCTCGAAGAGGGTCGAGGAGGCGTGAGTGAGGG
AGAGCCCGATCCTGCAGATCCCAAGAGAGAGCCTCTACCCTCTCGGCCCCTGAATGCACGCCCAGGCCCTGGGAA
AAAGGAGGTCCAGGTGTCTCAGTACCGCCACCATCCCTTGCGAACCCGGCGTCGCCCACCCAAGGGCATGTACCT
GAGCCCTGAAGGCCTCACGGCAGTGTCAGGAAGCCCGGACCTTGCCAACCTCACGCTCCGAGGTCTTGACTCTCA
GCTCATCTCCCTCAAGCGCCAGGTACAGAGCATGAAGCAGACGAACAGCAGCCTGCGCCAAGCCCTGGAGGGCGG
TATTGATCCACTACGCCCCCCGGAGGCCAACACCAAGTTCAACTCCCGCTGGACCACAGATGAGCAGCTTTTGGC
TGTTCAAGCCATCCGTAGGTATGGCAAAGACTTTGGGGCTATTGCAGAGGTGATTGGGAACAAGACTCTGACCCA
GGTGAAGACTTTCTTTGTGAGCTACCGGCGCCGCTTCAATCTGGAGGAGGTGCTGCAGGAATGGGAGGCTGAGCA
GGATGGGGCCCCTGGAGCCCCAGTCCCCATGGAGGAGGCTAGGAGAGGGGCTCCATTGCCAGCCCCAGCCCTAGA
GGAAGATGATGAGGTCCAGATTACATCGGTCTCCACGTCCGTGCCCCGATCAGTGCCCCCTGCGCCACCACCCCC
TCCACCTCCCACCTCGCTGTCCCAGCCACCCCCGCTGCTGAGGCCACCTTTGCCCACGGCTCCCACTCTGCTCCG
ACAGCCACCCCCACTGCAGCAGGGCCGCTTCCTCCAGCCCCGGCTGGCCCCCAACCAGCCCCCACCGCCTCTCAT
CCGCCCCGCTCTGGCTGCCCCCCGCCACAGCGCCCGCCCTGGCCCTCAGCCCCCACCCACCCTGATTGGAACCCC
TCTGGAGCCCCCAGCACCCTCACTC**TGA**GCCCTGACGTCCTCCACCAACCACGGGCTCCAGGACCCCTTTGCTGG
CCATCCCCAGGCATCTCTGGTGTCACTGAGGACAGAAGGGACTAGGGCTCTGGCGGGGTCTTTGTAAGACCAGAG
TTTCGGACAGCCCAGCCCCGCCCTTTGGGTTCTGCATGTGTTCCTGGCAGCTGGGCCTGTCTCCTGGGGCCATGG
CCGGGCTCAGGGGCCTTTGAGCTGGCCTGAGGGCACTTTCGCTTCCTGGCCGGTACTGGAATGGCTGTGTCCTAG
TCTGCTGGGGCTTGGCCTCTGGGTCCTGCCCTTTGTGTGTCCGGGGTAGTGACCTTAGCGTGGAGTGGGGAGAGG
GCAGTTGGGTGTGCTGGCTGTTCTCATTCCTCTTTCCCTTCTTTTAGCAATAAGTCTGGGGTGAGGTGGGGAGGG
AGGCTGCAGGGGGGGAGGTGGGCAGAGGGGCCTTACAGCAGCAGAGGCTGGAAGAGAAGCTCTGTCTTCAGGGGC
CAGCTGGGAAATGCTAAGGAGCTGAGGGTGCCCACCAAGCCCACCTTCCAGAAACTTGGAGAAATGGGGGTTGGG
AACTTATGCAGACATGGATTTATTTTTCAACATTTTTTAAAAATTAAAAAAAATAAAATCTAA

FIGURE 139

GCTGCTGACTGGCGGGCCGCCAGGCGCGTGCGTAGAGACGCCCACACGCCCGCTGATGCGCACGCGCCCTGGGCC
GCGCGTGCGCGCGTGGGGTTCCGGAATGAGCCGGGGAAAGCAAGGGGAAGGTTTGGGGTTGGCTCCCGGTTTCGC
GCATGCGTGCACTGCACAAACCATTTGGCGGGTTTTTCCGGCCACTCAGTTCTGCCACCGTCACTGAGAAGCTCA
GCGGTAGCTTTTGGGAAGCAGGACGTTCTCACCAGGAGAGCGTCCTCTCGAGATTTCTGCTCCCTCCATTCAGGG
CGTTTGGGAGCCACCCCTTCATTTTTTAAAAAAAGTATTTCTCTGTGACCGACGGCCGGGGCCTTCTGACGGTCT
GAGGTCTTGCTTGGGCCAGTCACCTCCTGTCACGGTCCGCGGAGGGGGGAAGGATAAGAGGGCGAGGAGCTCATC
GCTCGCCACCCCCGTGGGCTTCTTGGGCGCAGGTCGGAGCTGGGTGGGCCGGCTCCCCGGCCCCTGGCTTGGGCG
ACC**ATG**TCCGCATCCGCCCAGCAGCTGGCGGAGGAGCTGCAGATCTTCGGCCTAGACTGCGAGGAGGCTCTAATT
GAGAAATTGGTAGAGCTTTGTGTTCAGTATGGACAGAATGAGGAGGGAATGGTAGGCGAGCTTATAGCCTTCTGC
ACCAGCACACATAAAGTTGGCCTTACCTCAGAGATCCTGAACTCTTTTGAGCATGAGTTTCTGAGCAAAAGATTA
TCGAAAGCCAGGCATAGTACCTGCAAGGACAGTGGCCATGCAGGAGCTAGAGACATTGTTTCCATTCAAGAGCTA
ATTGAAGTGGAAGAAGAAGAGGAAATCCTCTTGAACTCTTACACCACACCTTCAAAGGGTTCTCAGAAGCGAGCT
ATCTCTACCCCAGAAACCCCCCTAACAAAAAGGAGTGTGTCAACTCGTAGCCCCCATCAGCTACTCTCACCGTCA
AGTTTCTCTCCAAGTGCTACTCCCTCCCAGAAATACAACTCACGAAGTAACCGAGGAGAAGTGGTTACCTCCTTC
GGCTTAGCACAGGGAGTATCTTGGTCTGGGAGAGGAGGAGCTGGAAACATCAGCCTGAAGGTCTTGGGATGTCCA
GAGGCACTAACTGGGAGCTACAAATCCATGTTTCAGAAGCTCCCAGACATTCGAGAAGTTCTGACCTGTAAGATA
GAAGAACTTGGCAGCGAACTCAAGGAACATTACAAGATTGAAGCTTTCACTCCTTTGCTAGCCCCAGCACAGGAG
CCTGTCACTCTGCTGGGCCAGATTGGCTGTGATAGCAACGGGAAGCTGAACAACAAGTCAGTGATTCTCGAGGGA
GACCGGGAACATTCCTCGGGTGCTCAAATTCCAGTGGATTTATCTGAGCTTAAGGAATATTCTCTGTTTCCTGGA
CAGGTTGTAATTATGGAAGGAATCAACACCACTGGTAGGAAACTTGTTGCCACCAAACTCTACGAGGGTGTGCCA
CTTCCATTTTATCAGCCCACTGAAGAGGATGCAGACTTTGAGCAAAGCATGGTCCTGGTTGCCTGTGGACCATAC
ACCACATCTGACAGCATCACGTATGACCCCCTGCTTGACCTGATTGCTGTCATCAACCATGACCGGCCAGATGTC
TGCATCCTGTTTGGCCCTTTCCTGGATGCTAAGCATGAACAGGTGGAGAATTGTCTACTGACAAGTCCATTTGAA
GACATTTTCAAGCAGTGTCTACGAACAATTATTGAAGGCACAAGAAGCTCCGGCTCCCACCTTGTCTTTGTCCCG
TCATTGAGAGATGTGCACCATGAGCCTGTGTACCCCCAGCCGCCTTTCAGCTACTCCGATCTGTCTCGAGAGGAC
AAAAAGCAAGTACAGTTTGTGTCCGAGCCCTGCAGCCTCTCCATAAACGGAGTGATCTTCGGCTTGACATCCACA
GATCTGCTTTTCCACCTGGGGGCCGAGGAGATCAGTAGTTCTTCCGGAACTTCAGACAGATTCAGCCGAATACTC
AAGCACATCTTGACCCAGAGGAGCTACTACCCACTCTACCCGCCCCAAGAAGACATGGCCATTGACTATGAGTCG
TTCTATGTTTACGCACAGCTGCCTGTCACCCCAGATGTCCTCATCATCCCGTCAGAGCTGAGGTACTTCGTGAAG
GATGTCCTCGGCTGTGTCTGTGTGAACCCTGGGCGCCTTACCAAAGGGCAGGTGGGAGGCACCTTCGCCCGACTC
TACCTTAGGAGGCCGGCAGCGGACGGGGCAGAGAGGCAGAGCCCATGCATTGCTGTGCAGGTCGTCAGGATC**TGA**

GGCTTCTGTCCTCTGCTGTTCTCTGCTGTGTGGGCCCTTAAAGTCTTAGCCAAGAGCCAAGACATAGCCCTGTGA
CAAGGTGAACAGTTGGGTGGGAAAGGAGAGAGGAGCCAGCCAGGGAGGGGCAGCTGCAGTGACCAGGCCCAGCAG
GGAGGACTTGTGCAGCCGGGCCTGCCTCTGAGTGGTGCCTCTCCTGGAAGGAAGCTCTTGCTTCTCAGTCCATGC
TCCGTGTCCAGAAGTAAGCCAGCTGTGGATCCCGCCCACTCAGAAAAGGCGAGAAGGCTTTGTGATTTTCTACAT
GAATCAAACACAGAAACAACTTTTGGAGAAATTAAATTCTGAGTGTGACTTCTGAGTTTGACCTTTCTTCTATTT
TCTTTTATTTATTTATTTTGTTTTTAGACGGAGTCTCGATCTGTCGCCCAGGCTGGAGTGCAGTGGTGAGATCTC
GGCTCACTGCAAGCTCTGCCGCCCGGGTTCATGCCATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA

FIGURE 140

AAG**ATG**GCGGCTGTGGTGGAGAATGTAGTGAAGCTCCTTGGGGAGCAGTACTACAAAGATGCCATGGAGCAGTGC
CACAATTACAATGCTCGCCTCTGTGCTGAGCGCAGCGTGCGCCTGCCTTTCTTGGACTCACAGACCGGAGTAGCC
CAGAGCAATTGTTACATCTGGATGGAAAAGCGACACCGGGGTCCAGGATTGGCCTCCGGACAGCTGTACTCCTAC
CCTGCCCGGCGCTGGCGGAAAAAGCGGCGAGCCCATCCCCCTGAGGATCCACGACTTTCCTTCCCATCTATTAAG
CCAGACACAGACCAGACCCTGAAGAAGGAGGGGCTGATCTCTCAGGATGGCAGTAGTTTAGAGGCTCTGTTGCGC
ACTGACCCCCTGGAGAAGCGAGGTGCCCCGGATCCCCGAGTTGATGATGACAGCCTGGGCGAGTTTCCTGTGACC
AACAGTCGAGCGCGAAAGCGGATCCTAGAACCAGATGACTTCCTGGATGACCTCGATGATGAAGACTATGAAGAA
GATACTCCCAAGCGTCGGGGAAAGGGGAAATCCAAGGGTAAGGGTGTGGGCAGTGCCCGTAAGAAGCTGGATGCT
TCCATCCTGGAGGACCGGGATAAGCCCTATGCCTGTGACATTTGTGGAAAACGTTACAAGAACCGACCAGGCCTC
AGTTACCACTATGCCCACTCCCACTTGGCTGAGGAGGAGGGCGAGGACAAGGAAGACTCTCAACCACCCACTCCT
GTTTCCCAGAGGTCTGAGGAGCAGAAATCCAAAAAGGGTCCTGATGGATTGGCCTTGCCCAACAACTACTGTGAC
TTCTGCCTGGGGGACTCAAAGATTAACAAGAAGACGGGACAACCCGAGGAGCTGGTGTCCTGTTCTGACTGTGGC
CGCTCAGGGCATCCATCTTGCCTCCAATTTACCCCCGTGATGATGGCGGCAGTGAAGACATACCGCTGGCAGTGC
ATCGAGTGCAAATGTTGCAATATCTGCGGCACCTCCGAGAATGACGACCAGTTGCTCTTCTGTGATGACTGCGAT
CGTGGCTACCACATGTACTGTCTCACCCCGTCCATGTCTGAGCCCCCTGAAGGAAGTTGGAGCTGCCACCTGTGT
CTGGACCTGTTGAAAGAGAAAGCTTCCATCTACCAGAACCAGAACTCCTCT**TGA**TGTGGCCACCCACCTGCTCCC
CGACATATCTAAGGCTGTTTCTCTCCTCCACTTCATATTTCATACCCATCTTTCCCTTCTTCCTCCTCTCCTTCA
CAAATCCAGAGAACCTTGGGGTGGTTGTGCCAGCCTGCCTTTGGCAGCTGCAAGCTGAGGTGGCAGCTCTGACCA
CCTCTGGCCCCAGGCCCTCAGGGAGAAAGGAGCAACACACTGCCCCTAGGCGTGCGTGTGGCCCAGTTTCTCTCT
GCTCTCCATTAAGTGCATTCACTCTGCTTGCCTTGGGCCCAGCCCCTGGTGATCACAGGGTTCAAACAGTGTCCT
CCTAGAAAGAGTGGGAGAGCAGCTCACTTCTCTGTGTTCTGCCTCCCCTCTGGTCTCCAGAGTTTTCCTGTCCTC
TAGAGGCAAGCCAGGCCAGGGAGCTGGGAGCGAGCAAGCTGAGGCCACGTCCACAAGGAGCTTTTCATGCCCCTG
TGCCGCATAGCCTCACCTCTTTCCTCCAGAGTGGCTCTCTGCGGCCCTGTGTTCCTGCTACAGAGTGTTCTTTTC
TGGAGTCAGGATGTTCTCGGTCACCCTCCTGGTTCTGCCCTGTCCCATTCCACCCCACCCCAGGGGGAACAGTAG
CTTCACCTTGTTATTCCCATTGCTCTCCTGGCTCACTCTTACGGTCGGTCTCCAGTGACTGAAGCATTCCCCACC
CTTGGAATTTCTCATCTTCTGCCTCCCTTCCTACTCCTTTTGGTTTTGTGGGGAGAGGGGAAGGATCAGGGGGCC
AGGCCAGCAGCTCGGGGGCCACAAGGAGATGGATAATGTGCCTGTTTTTTAACACAACAAAAAAGCCTACCTCCA
AAATCCCCTTTTTGTTCTTCCTGGACCTGGGCATTCAGCCTCCTGCTCTTAACTGAATTGGGAGCCTCTGCCACC
TGCCCCGTGTATCCTGGCTCTCAGCTCATGGGGAAGCCACATAGACATCCCTTTCTTCCCTTGCACGCTCGCTAG
CAGCTGGTAAGGTCTTCACACCCTGATTCCTCAAGTTTTCTGCTTAGTGGCACTGACATTAAGTAGTGGGGGGAC
AGTCCATGCCAGGACACCCTGGAGTAGCCTTCCCCCTTGGCCGTGGGCAGGCCCTAACTCACTGTCGCTTTGGAG
TTGAGGTGTCTTTTCTTTTTCTTTCTTTAGTTCCTGTATTCTAAACATTAGTAAAAATAAATGTTTTTACACAGA

FIGURE 141

GGGCTCGGGAGCCGGGCTGGGGGCAGGGGCTGGAGCCGCGGGACCAGCGCCTGAGGTGCCCCGGAGAGGCC**ATG**G
AGCTGAGCAGCAAGAAGAAGCTTCACGCCCTGTCCCTGGCCGAGAAGATCCAGGTGCTGGAACTCCTGGATGAGT
CCAAGATGTCCCAGTCGGAGGTGGCCCGGCGCTTCCAGGTTTCCCAGCCCCAGATCTCGCGCATCTGCAAGAATA
AGGAGAAGCTGCTGGCGGACTGGTGCAGCGGCACAGCCAACCGAGAGCGCAAGCGCAAGCGGGAGTCCAAGTACA
GCGGGATCGACGAGGCTCTGCTCTGCTGGTACCACATTGCCCGGGCCAAGGCCTGGGACGTGACGGGGCCCATGC
TGCTCCACAAAGCCAAGGAGCTGGCCGATATCATGGGCCAGGACTTCGTGCCCAGCATCGGCTGGCTGGTCCGCT
GGAAACGCCGAAACAACGTCGGCTTTGGGGCCCGCCATGTTCTTGCGCCTTCATTCCCCCCTGAGCCACCTCCCC
CGGGGCTCACATCCCAGGCTCAGCTGCCTCTTTCCCTAAAAGACTTCTCTCCAGAGGACGTGTTTGGCTGTGCTG
AATTGCCCTTGCTGTATCGGGCAGTGCCCGGCAGCTTTGGTGCATGTGATCAAGTACAGGTGCTGCTGTGTGCCA
ACAGCAGGGGCACCGAGAAGCGGCGGGTACTGCTGGGTGGGCTCCAGGCTGCCCCGAGATGCTTCTTTGGGATCC
GCAGTGAGGCTCTGCCTGCCTCCTACCACCCGGACCTGGGCATCCCCTGGTTAGAGTGGTTGGCACAGTTTGACC
GGGACATGGGACAGCAGGGCCGACAGGTGGCTTTGCTGCTGGCTGCCCGAGTGGTGGAGGAGCTGGCAGGCCTGC
CTGGGCTCTACCACGTGAAGCTCTTGCCTCTGGCCGCCTCTAGCACCACGCCTCCCCTGCCCAGCTCAGTGGTCC
GGGCCTTTAAGGCCCATTACCGACACCGGCTGTTGGGCAAACTGGCTGCCATCCAAAGCGAGAGGGATGGCACCT
CGCTGGCCGAGGCCGGGGCAGGCATCACCGTGCTGGACGCCCTGCACGTGGCGTCTGCCGCCTGGGCCAAGGTGC
CTCCTCAGCTCATTTTCAGCAGCTTCATTCAAGAAGGGCTGGCTCCCGGCAAAACGCCCCCGTCCTCGCACAAAA
CCTCTGAGATGCCACCAGTCCCCGGCGGGCTGAGCCTGGAGGAGTTTTCCCGCTTTGTGGACCTGGAGGGTGAGG
AGCCAAGGTCTGGAGTATGTAAGGAGGAGATAGGCACTGAAGACGAGAAGGGGGACAGAGAGGGTGCCTTTGAGC
CCCTGCCCACCAAAGCTGATGCCCTCCGGGCCCTGGGCACCTTGAGGAGGTGGTTTGAATGCAACAGCACTTCTC
CTGAGCTATTCGAAAAATTCTACGACTGTGAGGAGGAGGTGGAGCGGCTTTGCTGCCTA**TGA**

FIGURE 142A

GGAATTCTCTGGGGCTTTGGGGAATTTAGTGCGTGGGTGAGCCAAGAAAATACTAATTAATAATAGTAAGTTGTT
AGTGTTGGTTAAGTTGTTGCTTGGAAGTGAGAAGTTGCTTAGAAACTTTCCAAAGTGCTTAGAACTTTAAGTGCA
AACAGACAAACTAACAAACAAAAATTGTTTTGCTTTGCTACAAGGTGGGGAAGACTGAAGAAGTGTTAACTGAAA
ACAGGTGACACAGAGTCACCAGTTTTCCGAGAACCAAAGGGAGGGGTGTGTGATGCCATCTCACAGGCAGGGGAA
ATGTCTTTACCAGCTTCCTCCTGGTGGCCAAGACAGCCTGTTTCAGAGGGTTGTTTTGTTTGGGGTGTGGGTGTT
ATCAAGTGAATTAGTCACTTGAAAGATGGGCGTCAGACTTGCATACGCAGCAGATCAGCATCCTTCGCTGCCCCT
TAGCAACTTAGGTGGTTGATTTGAAACTGTGAAGGTGTGATTTTTTCAGGAGCTGGAAGTCTTAGAAAAGCCTTG
TAAATGCCTATATTGTGGGCTTTTAACGTATTTAAGGGACCACTTAAGACGAGATTAGATGGGCTCTTCTGGATT
TGTTCCTCATTTGTCACAGGTGTCTTGTGATTGAAAATCATGAGCGAAGTGAAATTGCATTGAATTTCAAGGGAA
TTTAGTATGTAAATCGTGCCTTAGAAACACATCTGTTGTCTTTTCTGTGTTTGGTCGATATTAATAATGGCAAAA
TTTTTGCCTATCTAGTATCTTCAAATTGTAGTCTTTGTAACAACCAAATAACCTTTTGTGGTCACTGTAAAATTA
ATATTTGGTAGACAGAATCCATGTACCTTTGCTAAGGTTAGAATGAATAATTTATTGTATTTTTAATTTGAATGT
TTGTGCTTTTTAAATGAGCCAAGACTAGAGGGGAAACTATCACCTAAAATCAGTTTGGAAAACAAGACCTAAAAA
GGGAAGGGGATGGGGATTGTGGGGAGAGAGTGGGCGAGGTGCCTTTACTACATGTGTGATCTGAAAACCCTGCTT
GGTTCTGAGCTGCGTCTATTGAATTGGTAAAGTAATACCAATGGCTTTTTATCATTTCCTTCTTCCCTTTAAGTT
TCACTTGAAATTTTAAAAATCATGGTTATTTTTATCGTTGGGATCTTTCTGTCTTCTGGGTTCCATTTTTTAAAT
GTTTAAAAATATGTTGACATGGTAGTTCAGTTCTTAACCAATGACTTGGGGATGATGCAAACAATTACTGTCGTT
GGGATTTAGAGTGTATTAGTCACGCATGTATGGGGAAGTAGTCTCGGGTATGCTGTTGTGAAATTGAAACTGTAA
AAGTAGATGGTTGAAAGTACTGGTATGTTGCTCTGTATGGTAAGAACTAATTCTGTTACGTCATGTACATAATTA
CTAATCACTTTTCTTCCCCTTTACAGCACAAATAAAGTTTGAGTTCTAAACTCATTAGAATTGTTGTATTGCTAT
GTTACATTTCTCGACCCCTATCACATTGCCTTCATAACGACTTTGGATGTATCTTCATATTGTAGATTTAGGTCT
AGATTTGCTAGCTCCAAGTAATTAAGGCCATGTAGGAGAGCATGGTAACCACAGATAGAACTGGTATTATCCCAA
GTGGTCTGCAGACTGCTGAGTGGGGATGGGATCTGCTCTCTGTTGAGAGTTGGTAATCATTGGTTTGAAATGTGA
TGAAACCACTCAAGCCAATGAAGGTGGGTGTGTAGGTGGGGAGTACTTTGCCATAATATTTTAAAACATTACCTG
GTTAGAGTTCTAAGTGGTACTTATTTTTGTTTGGTTAGGGGAAAGCCTGAATAAAAACAGAAATGGACACATAAT
ATGCATATTCCATAGTCTTTGGGAGGCTGGAATGTGCCTGGGATTTGGGTCTAAGTGTATGCGTAATTCTTACCT
CACTAAAGAATTTGCCTTGTTTTTTTCCTTTTGGTGAGTGACTAAAACGTCTGGGCTTCCCTGTGTGCGTGCTAC
AGTAAGCAAGCAGAGGCTGTGCAAAGGTGTGAGCAGGATCACGTGGAATCTGGAGGATACATCTTGGCTTGCAAA
CTGCCTCTGTCTCCTGGGTGGGACTGTTCTGTCCTTGCACTGCTGTTCTGTGTTACCTCTTGGGGTGTAAGGTTT
TGCTTACAGGAGACAAACTTTGGGCGTAGAATGGAAGCCACTGCCAGCCTCTGTGCTGAGAAGGAAGGTGCTTGT
TTCAAAGGGAGCAGCAAGGGAGGCTTGTTCTACTCACCTGGGCCTGTTTGCCTGAGAAGGGGAGATAAGGGCTGA
ACTGGGACTAGCCAGGGGGACCAACACAAATGGTGGGGGATCATGACCTGAAGGATTCTTTCCTTCCCATGAGCT
GCAGGGCTGGTTGCCGTCCTTGCAACTGTGTCTTATTTGCCTGTGCCGTTATATCTTGGTGACCCCTCCACGTGT
ACACTACTGACAAACGGGTGGAGTGCTGGGGAGAAGTCACTGTGCCGCCCACCTAGTAAACCTTCTGTCTGTGCT
CATGGCATCTCCAAGATGGGGCACTGCTGTGTGCAGAATCCAGGGTCCTCTTTCTGCTTGCAACTCCTTTCCCTG
GATGCCCCAGAAACAATCCAGGCCTCCTTTCCTATCTTACCCCTTTGCTTTGCTTTTTACCCCAGCACCTCTATA
ACCGCCTTCTCTTCTTTTCAGAACTCCTTGTTTCTCATCCTGTTTTTTATGATTACAAAACTCTTGCTTCCACCC
TGGAAGATAACTGCTATAGATGCCTGTATGTAAATGGTGCTGTCTCCAGCAACTGGCATGCTGAAGAAGAATTGA
TTCACGGGGTATAAATGTTGGGGATTGGAAGTGGGGATGAAATGGCACTTGTTGATACAGGAGCAGAGAGGTGAG
GCCGACTGCTGAAGACAGCTCGCCACCCTCCTTGCCTCCACTCCAATCCAGGGGCTGGGGCCACATTCTTTGCCT
TCATTTATCCTCAGATCAGGTGAGATCGACAGGAGGTGTTGATGGCAGTGCCAGCAATTATTGCTAATCCGTTTG
CATCCTTATGCATAGATCTGAATTCAGACTTTGTGAATTTCCAGAGGTGTGGGTAATATAATAGAATTCAGTGAG
TGGGCATGGCTGATCTTGTGCAAATTAAAAGTTATGGGGCATAAGAATAGCAAAAGTTGAACTTCTTTTAAAAAG
GAAAGTACCCTGAGAGCCAGTATTGGTTGAGGCTCTTCAGTATGCCCAGGTTGGCAGCACTGAGAACCGCAGGAA
CGGCCTGTTGTTACAAAAAGGAGATTGACTCAGCTGCCCTTGGTGCATCTGACTGACTATGACTGCTGAGAGATT
CCAAGGACCCTTAATGCCAGGGCTAACCTCTCCATGTGCAGTGAGACCTCTGGAGGAAGTGTCATCCTCTGGCTT
TGTGTGGTACTCATTATGGTGCAGTGCGGGCATGAAATGAAGACACCCAAATAGGCTTACAGATACGATATGTTT
TAAATGTTCGTATTTAACAAAAACATACTGACACTGTTTGGAAATGGCAACAGGAAGATAGCAAAATGAATACTA

FIGURE 142B

ACATTACGAAAAGATGAACAGGTACATGTTCCAAGGCAGGTGGCTGTGAACTTCCTCTGAGTGAAGGCATCCCCT
CCAGCACCTTTCAGCCTGCTAGTTAGGACGACCCGCCGCCACCCTCCAGGACCTCCAGCCCTGCACTGCCTTTCC
TCTCTTTTAAATAATTCTTCATTGAGTTCTAATATGTAAAAAAAAAAAGTTTACTGTAAAGTTTGCAAATAAGGA
AATTTTTTTTAAAAGTCCTCAGTAATCTTACCAGTAACAATTGTTATGGGCACATTTGCTTTTGGAAGATTTCTT
TTGTATGCATGGGATAAGTACATTTTTAAACAAAAATGGGATTATGCCATAAATTCTATTTTGTGACTTTAATAT
ATAGTGAACACCTTTTTTAATGATGACAGGATGTTCCCTTGCATGGCTGTATCAATTTAAACAATCTTGTTTCAA
TGGGCATACAGGGTATTTTCTAGTTTTTTTTTCCTCTTAGAAAATAATACTTGCGATGACTTTCCTTGTAGCTCA
GACTTTTTCACGTCTGTTGTTATCTCTTTGGGAATGCTGAATACATACATTTCGAGAAGGAAATGACTGTTAAAC
TCTTAAGACTTCAGGTTCATATTGCTAAACTGCCCAGCAGGGAGGGATTTTTTCAATTAGTGTTCTCACTGGTGA
GGCAAACCTGATGCCTTCCCCTCTTCCTCAGAACCGGCTTTATCACATTGAAAACCTTTGCTCCTCCGACGGATC
GAGTCTGCTTTCCCTGTGGATGTGAGCATTGCTTTGTCTGCTGGTGACTGAACATCTCTACCATGTGTCAATTGG
CCATTTGTGGTGTGTGTGTGTGTGCGTGTGTGTGTGTGTGTGTGTGTATGATTTTCTAATTCCTAGTCATTTT
TCTATTGATTGTTTTGCAAAAGCCATTTACATCTTAAGGATATTGATAATCTTTTGTTATATTTGATGCAAATAT
TTTTTTCCAGTTTATAGGTTGCCTTTTAATTTTGTGTTTCAGGTAGATAAAAGTTAAACGATTTTCTTAGGTTAG
TTTATCACTGTGGTTTCTGAACTTGTTATGTGTAGATCTTTTCCACCCCAAGAGTACATAAATATTAATCCATAC
TTTCTTATGGAACTTGTATGGTTTCGTTTTTTACATTTAAACCTTCTTCCCCGTGGTGTGTGTTGTGGAATCTGT
GTTTGTGTGAGGAGGGGCATGGTGCTCTCAGAACCCACCTCCTGTGGCCAGAGAGCCCTGTCCTGTGAGGGTGGT
TATCACAGTGGCAGGGTTCAATTCAGAAGACCTTGAGGGCAGGCTGATGTTTCCTGAATGGGCCCCTGGTTGTTG
CTTGTCCCTGACTCTCCATTTCCCCATCTGAGTGGATTTGGACCTAATAGGGCACTGGAGCTGGTTCGAATCCTG
ACTGGACTACTTGGCAACTTTATGTCTGGGAGCAAGTTACTTAACCTCCCCAAGCCTGTGTCTGTGAAATGCGGG
TAAATGAATGTAG**ATG**TTTGGCAGCAGCTACTCCTTGTTGAGCTCTCACAGTGAACTCTCCTGCCTCTGCCCTCC
TTCCCCGCCTCCCCTGGTGCCTAGCGTCAGGTCTAGCCACTTCCTCCTGGGCCCCTCTCCCTTTTCTGTGGCTGG
CTGCCTGCCCGCCTGGCGCTGGACCTTTCATGTAACGGGAATCAGCATGTATATTCTGGTCTGGTCTGTTTCTAC
ACTTAATTTTGTTTCCAGTAGTATTTCCCTGTACCGGCAGAGTTCACAAACACATTTGAAGAGGCTTTTTCTCAG
GATTCTTAACCTTCCCAAAGGAAGTCCCATGGATGGGTTTCTAGAAGTCTATAAATGCTCTGAAATTGTATTTTT
CTGTGGAAAGCATAACTTTCATCTGCTTGTTCGTGCTCAAAAAAGATCA**TGA**ATGAATGATTGCATGATTTTATG
CCATTGTGCTTATACTAAAGGATATGTAGCCCATCTCTTGAGCTGTTAAACTGTTTTGACTACTTTAAATCGTGC
AGCTGTGAGCATCTCTGTAAATTTAGTGTACACATGTATCCCCTGGAGTGGCATTGCCTCGGCAGTGAGCACTTA
TGGTTTTATAACTCTCTTCACAGACTCAAATGACTCCAGAAAGCTACACTTCCTGTTGTGAGTATATGATATCCA
TTTCCCTACATAGCCACTAACATCAGGTTTTTACAATTTTATTTATTTCTTGCTACTTTAAGAAATTTTTGTGGT
GAAATACATATAATAGAAGTTGACTATCTGAATCATTTTTAAGTATACATTCAGTAGTGTTAAGTATGTCGCCAT
TGTTGTACAACCAATCTCCAGAACTTTTTCATCTTGCAAAACAAACTCTGTACCCATTAAATAACATTAAACATT
CCATTCCCTCCAGCCTCAGCAACCCCATTCTACTTTCTGTTTCTGTGAGTTTGACTATTCCAAGCACTTCATATC
AGTTAAATCATGAAGTATTTGTCTGTCTGTGACTGGCTTATTTCTCTGAGCACAGTGTCCTCGAGATGCGTCTAT
GTTGTAGCATATGTCAGAATTTCCTTCCTTTTTAAAAGATCCAAATAATATTCTTATTTTATATCTTTTTTTTAT
CCATTCATCCATTAGTGGACACTTGGGTTGCTTTTGGCTATTGTAAATAATGGTGCTATGTACAAATATCTATAT
TATTGTATTTACAAGTATAATGCTGTAATGTACACACATCTTTTTGAGATCCTACCTTCAGTTCTTTTGAGTATA
TAGCCAGAAGTGGTATTACTAAATCTTACGATATTTCTATTTTTAATTTATTGAGGAACCACTGTAGTTTTTCAT
AGCAACTGCACCATTTTACGTTCTCACCAAGAGTGCACAAGGGTTCCGAGGTTCCCACATCCTCCCCAACACTTG
TTATTTTCTGCTTTTTTTAGATTGCAGCCATCATAGTGGGTGTGAGGTGACATTTCATTGTGGTTTTGATTTGCA
TTTCCCTAATGAGGAGTGATGCTGAGCATCTTTTCATATGCTTACTGGTCATTTGTATGTTGTCTTTGGAAAAAT
GTCTATTCAAGTCCTTTGACTATTTTAAAAATTGGGTTATTAGAGTTATCGTTGTTGTTGACTTGTAGGAGTTTC
TTTCTATATTCTGGATATTAATCCCCTATCAGATATATGATTTGCAAATATCTTCTCTTATTCCATAAGGTTACT
TTTTCACTTTGTTGATTGTGTTCTTTGATGTATAGAAGTTTTTAGTTTTGAAATAGTCTAATTTATCTGTTTTTA
CTTTTGTGGTCTGTGCTTTTGGTGTCATATCCAAGAAATCCTTGCCAAATCCAACGTTATAAGGTACTTTTAAGG
TATTTTAGTTGTCTTAGTCTATATTTCTGTACTCACCTTTCTTTATCCACTCATCAGTTGATGGGCATGTAGGTT
GGTTCCATATCTTTGCAATTCTGAATTGTGCTGTGATCAGGTGTCTTTTTAGTATAATGATTTACTCTCCTTTGG
GTAGATACCCAGTAGTGGGATTGCTGGATCGAATGGTTTTTATAATTTTCTATTTTACCACAGTTTCTCTCTGCA

FIGURE 142C

TTTTTCCTCTTTGACCACTAACCATGTGAAATTCTCATATTGACCTTTATAATGATCATGAACTCTTAGTATCAT
TGGGAAGGCCACATTTGCCACTTATGATTGTAAACCTTATCCTCCATTTTTCCTGTTATTGTTGGTGCAAAAAGC
ACCTATTATACCAGGACTTTAAAAATCAGTCTGATAAGTCTTTGATAAGTCTAATAATAATAACTGATAAGTCCA
TTGAATTTGCTTCTGATTACTTTTTCTTTAGTAGCTAAACATGTATGTACTCCTATGATTACAATGAACACTCCT
CTCCATTTAAATTAATTATTTACATTGATGAAATAGCAAAATGTTAATGACTAAATACTGTCTTGGTTTTTTCGT
TCCAGGTCAGTCAATATTAACTTCTTATAATTTTCTTTTTTTTCTTTATGTGTGTGTGTGTGTGTATTTTTTTTT
TTTTAATTTCAATGGCTTTTGGGGTACAAATGGCTTTTGGTCATATAGATGAATTCTACAGTAGTGAAGTCTGAG
ATTTTACTGCACCGGTCACCTGAGTAGTGTACATTGTACCCAATATGTGGTTTTTTATACCTTGCCCCCCTCTTA
CCCTCCCCACTTTGAGTCTCTAGTGTCCATTATGTCACTCTGTATACCTTTTTGTACCCATAAGTTAGCTCTCAC
TTATAAGTGAGAACACACAGTATTTGGTTTTCCATTCCTGAGTTGCTTCACTTAGAATAATATCCTCCAGCTCCA
TCCAAAATTGCTGCAAAAAAAAAAAAAACCACAAACATTATTTTGTTCTTTTTTATTGCTAAGTCATATTCCATG
GTGTAGAGATACCACATTTTATTTATCCACTCACTGGTTGATGGGTTGGTTCCACATCTTTGCAATTGTGACTTG
TACTGCCATCAAGTGTCTTTCTGGTATAATGACTTCTTTTCCTTTGGGTAGATACCCAGGAGTGGGATTGCTAGA
TCAAATGGTTCTTAACATTTTCTCTCTGGATCTATTTCTGGAAATTTTAGGCTCCAGTTTTTGTTGTTGTTGTTA
ATAAAATGCAATGGAATGTAATGATCATCACTTTTCATTATGCTTTAAAATCTGGTAAATGGAGGCTAGAACACT
CCTGTAAGGCAAGAATATTCTCTCTGTTGGAACTCAAATACACAGAACTGGGTAAATCTCAATCTTAATCTTTGA
TTCAGGACACAACATGGCTCTCTTTTACTTGCTTTCTTTAATTGTTTTTTAATAATGTGGTAAGCATTTCTGAAT
CTCCTATCCAATACAAAAACTAGGACAATACAGACAGTAACTCCTATGGTTACAATGAACACTCCTCTCCACTTA
AATTAATTATTTACACTGATGAAATTGAAATAGCAAAATTTTAATGACTAAATACTGTCTTTGATTTTTTGTTCC
AGGTCTGTCAATATTAACTTCTTATAATTTTCTTTTTTTTTCTTTATGTGTGTGTGTGTGTGTATATATATATAT
ATTTAATTTCAATGGCTTTTGGGGTACAAATGGCTTTTGGTCATATATATGAGTTCTACAGTAGTGAAGTCTGAG
ATTTTACTACACCTTCCACTTATGTGGTCCCACACCACCCGCCTCCCCTGCCGCCTCCTGCCACCCCCTAGGCCA
AGGTAATAATCATCCTGAATCCTGGGTTTATCTCTCACTTGCTTTCTTTTCATATAATTTTGCAAAAGAATCTGA
TCTAAATGTGTTTTTCAGAGTATATATTTATATTTTAGCTGTTCTTAGAGAAAATTTATTATTTTGCATGTAATC
TTATGGAACATTCTCATTTAATACCATGGTAAGATTCAGCCCTTGCCCAGGGGATAGTTCATTTAGTTTGTTTAC
TGGATAGAGCTCATCATGTGACTATACCTCAGTTAGTTTATCAGTTCTCCCATCCATGGTGACTAGGTTGCCTCT
CAGCCTCTCAACAACACTGTTTCTCAGTGTCCTTGTAGAAGTGATATGTGGGTGTTTTCTCCTTACACAGAGTTG
AAAGGTGACGACAACAACGTTGGCACTACCAATCCCCCACCCTCCAGAGGGGTAACCAGTGTTACCAGTTTGCTG
TGTTTCCTGCTACACCTCGCCTTATTCACTTCCATTTGTATCTGAAAAACGTGTTGCATGGTTTCTTTTCTATAG
AAGTGGTAAAATGCTATTGTGTCCTGTACATTATTGATTACTTTTTTTCATTTAACAGTAGGGAGATGCCTGGGA
GTACACAGAGAACTGCCCTCATTGTTTTCAACTTCTGCACTGTATGTCTGTGAGTTTAGCCATTCTGCTGTTAAT
GGAAATTTACAGTATTCTAATCTTTTGATATTACAAACAGTTCTGTGCGATCATCGTCATACACAACCCCTTGTG
CACAATGCATGAGTGTTTCTCAGGGTAGGTACCAAGAAGTGAAATTCCTGGGTCATAGGGCGTGAGTCCGACATT
TTTCTCCATTCTGCCCTGTTGCCCTCCAGAGTGGGTGTCCAGCTTTGCATACCTAAGTATGAGAGTATCTGTTGT
TCATATCCTCTACGACGCTCCATATATGAAACTTAAGTTTCTGCTAGTTGCCATCTTTGATCTATCATGTATGCA
GTGACCTACTAAGACTGTAATTGGTACAGTAGATTCTTGTCATCTGTGTGTGAATTTAGCATTCATGGGCTTAAT
GCTGACAAGGCCCCCAGGGTCCAAGACATATAATCATGTATAATTTTGTCAAGGTATAATTTTTTAAATTGCTTT
TGTCATGTGTCTGCTGGTGATGCCCAACCCAGTGCTCTGCACCCAGGTCACACTGTGGCTTTGTCCTCTGCTTAT
GCCTGCATTGCAGCAACTGTCCTGAAGAGACCAAAATTATGCAGATTTAGGTAAGTCCATGGCTAATGTTATTAT
ATTATGTGCTATTGTAATGGATGGGGCTGTGGAGTGTATGAATTTATAAATCACTGGTCTTGTAATTAAAATTCA
AACACTATAGAAAAAGGCCATGTAGAAGATAAAAGTTCCTCTATAATCCCGGACCCCTAAGATAACTACTAATGA
CAACTTCATTTATATTCCTTCAGACATTTTCTGGCTGTGGATGTACTAAAATGTATCCTATTATTCTCTGCCCTA
AAATGGAATCATACAAGGTGTACTGTTATTTTTATGGCTCTATAACATGTCATATTGTACGTGTTGGTATGGTCA
TTTTAACCATTTTTCTAGTGATGGCTTTGAGGTTATTTGCAGTTTCCTAGCCATCTCAAAGTGTGCTGCGGGGAT
CTCTTTTGCATCCCTCTGGGTGCAGAGCTGAGGCACCCAGAGGCAGTGTCCAGAGGAGGCAGCATCTGTAGGTGT
CTTCACCTGCTCTGGCTCTTGGCACATCTGGTTGGTGACACTGTTTTGTGAGATGGGTTGAAAGCACGTGCTGCC
AAAATAGAATAATGTTGGTCCTCTCCTCATGTGCCGTGGAACTGGGGTAAAACTGCGTAGTGGCTGCAGCTGCCT
GTCCATACCGGAATCGAGTATAACACGGTGCCTGGCTTAGCACAAAACAGTAGTGGGTCCTGCAGGCCCCAGAGT

FIGURE 142D

CTAATTCCTGGTATTCTTTCCCCTACACAGATTAAATAAACCAAAAACAAACTATTCTAGGAAAGCGTCTGTGAC
ATTTGTAAAAAGTGGTATTTAATGATCTTTTATTCACTTGTCTGTTTAGTTTGTTGAAATCTTAAGTGGCATCCT
GGTCTGGGAAGGAGTGCTGTCTGCGCCTGCCCTCCGCTGGGCACAGCGTGGCTGCTTCAGGGGCTAAGCACACAC
TTTCTGTCTTCTAAAGGGCCGCCACATGCCAGGAGCTCAGGTGTGAGCCCGGCTCTGGCTCTTACCTCATAGGGT
CACTCATAGGGGCACAGGGAGCAGAACATTGTACACAGCGAGGCACCACCCGGCTTGGCATCTGCCTCGGTGGAC
TTACTACCTCTAGAAGGAAATACCTGAGTTCCTCTGGCCTCAGCTCCTAGAGTGACTGGTGTGCTGTCCCTGTTA
CTCTTCTGTCAAGGTGACAACTGTGTGACCCATCATCTGTGTGTCAAAGCAAGGCCCTGCGTGGGCCTCTGCTCC
TGTGCTGACCCCAAAGGCAAATGCTTTGCTAGTTTCCTTCCAGTTAATTTCACCTATGAATAGATGTGTGAAAAC
TGTTCAAAGCCATACCTGCACATGTTTGAACTTCAAACCCTGTGGGTGATTCAGTGGCATCTTTCTCTAACCCCC
AGCCTCCCTTCCCACAGAGGCCACCGTCATGGCCAGTTGCTGCAGTTTCTTTCCAGAGAACCTGTGTATGTGTAA
AGCTGTACAGGCGTGGGTACACCACACAGCCTGTCTTGCACTGTGGACTGTTGAGTTACTAGTACATCTAGGTAA
GCACCGCATATCTGTATTCATGTCTGCCTTGGTCTTTTCAACATCTGTGTGGTAGCCGTGTTTGAATTACCCATT
CCCTTTTTGGGGAACCATTAAGTTGTTTCAGCAATTTTTACTGTAGATAAGGCTATACCGCATATCTGTGTACAT
GGGTTTTTATGTACATGGGCAAGTATATCTGTGAGAGAAAAGTTTCCTCAGGAGGAATTCTGGGCACAGCATGTG
TAAATTTCTAAATATGATGGACACCCCCAGCTTCCACCTCAAGGAGGTTGGTCCCATTGACATTTCCCCACACCT
TCACCCAGGCTGTGCCCTTAAACTTGGTTATTTGTCAATGTGAGAAGTGGAAAATAGTATTTAATTGTAGTTTGG
ATTTGTATTTCTATTGGGTTGTATACTTACTGATTAATAATAAGAGCTCTTTACATATTAAGGAAATTAACCCTT
TTCAAATACATTCCTATTTCTCACTAATCTTTAAGTTTTATTGTAATATTTTGCTCTTTAGTTTATATATATATG
TATATATATATATATGTATATATATATATATACATATATATATACATATATATATA

FIGURE 143

ATGGTCCGCTGCGTCCGACTGGTGGAAGCAGGATCTGTGGTGAGATACCTCAGCACAAGCATATGCAGGCCTGTG
GTAGACGCCGGAAGTAGGGCCCTTTGTCTCCAAGAATGGGCAGACTCTCAACAGGTGAAAGAAAAACAGTACTCC
AGCAGAGATGTCCAGAGAGCAGCCGCTCTCAACATCTACCGTATCCCACCGTCTAGCAGGAAGCCCGCTCTCTGT
CCAACTCCGCGGGACCGACTAGAGTACGACGAGGACCGACTAGAGCACATCGCCTACGTGCGCGCCCGGGAGCTG
CACACTCTTGAAGTGACCGGCCTGGAGACGGTTGCCCAGAGCAAGCCACTACTTGCCTTTCCTCCTGTGGCTTCC
CCAGACAACACTCTTGACTCTCCCTTTCCTTTGAAGGCCCATGTAGCATCCCTGGAGGGCCTCATCCCTGAAGAT
AAGGTTGTGCTTCTGGCAGGTTCTCCCTTACAGAATGAAGCCACCCTGGGTCAGTGTGGGGTGGAAGCCCTGACA
ACCCTGGAAGTGGTTGGCCGCAGGCTAGGAGTGGTAAGAGTGCCAGGAACGGAGCGCGTTTGCTGCACACCATTT
GCCATTGGTGCATCGAGCACACTCCCAGCTCCAGGATTATGGGAAGACCTTTTTGGGGCTGGAACAGCGCGCAGT
GGCCACCGCCGCCGGGTCTCCAGCCCCCAGGAGCGCGGCCTCCTCCCGGACTCTCTCCGATGCGGTCCTGCCCTG
GGGACACGGCAGGAAGAAGGGACCTGGCTGGGGGACGTGGCCCCGGCGCGGGGGCAGGGGAGGCAGCGCGGGACT
CCCAGCGGCCCCTGCGCGGGCCTTCCTGAACAGCAGCAGCAGCTGGGAATGCAAAATGACATCCCTATGTTGTCC
CTGCCCTTTGTCCAGGGTGAGAGGGACCCTTCCTCGGTGGAGTTGACACAGACCTGCCTCTCTCTCATGTCTGTA
CTGGGACCCACAGTGCTACAGCTGGGCTGCCACAGCCAGGCCTTTCGGGAGGATCCACCAATAGGCTTCAGGGCC
CAGGGCCAAGGAGGGCGGCTCACGGCCCTCGCGTATCCCTGCGCGGCGCTCGCGAGCCGCCCCTCCCCCGGCGTT
TGTCCC**TGA**

FIGURE 144

AGCCCCCCCATCCCCGCCCCTCTCCCGCCCCTCCCTTGTCCCCGCCCCTTCCCGCCCCAACTCAGGTTCTGCCCC
ACCCCGCCCCAATTCACGTCCTGCTCCGCCCCGACGTAGGCCCCGCCCTGGCCCCCGGGCCCCGCCCCCGTCTGA
CGCAGGCCCCGCCCCCTCTCCGCCCCGCCCCGGCTCGGGCGGCCGGAGGACCCGGAGCTAAGGCGCCCGAACCCG
CGGCGGCGGTGGGGACG**ATG**TGGTTCTTTGCCCGGGACCCGGTCCGGGACTTTCCGTTCGAGCTCATCCCGGAGC
CCCCAGAGGGCGGCCTGCCCGGGCCCTGGGCCCTGCACCGCGGCCGCAAGAAGGCCACAGGCAGCCCCGTGTCCA
TCTTCGTCTATGATGTGAAGCCTGGCGCGGAAGAGCAGACCCAGGTGGCCAAAGCTGCCTTCAAGCGCTTCAAAA
CTCTACGGCACCCCAACATCCTGGCTTACATCGATGGACTGGAGACAGAAAAATGCCTCCACGTCGTGACAGAGG
CTGTGACCCCGTTGGGAATATACCTCAAGGCGAGAGTGGAGGCTGGTGGCCTGAAGGAGCTGGAGATCTCCTGGG
GGCTACACCAGATCGTGAAAGCCCTCAGCTTCCTGGTCAACGACTGCAGCCTCATCCACAACAATGTCTGCATGG
CCGCCGTGTTCGTGGACCGAGCTGGCGAGTGGAAGCTTGGGGGCCTGGACTACATGTATTCGGCCCAGGGCAACG
GTGGGGGACCTCCCCGCAAGGGGATCCCCGAGCTTGAGCAGTATGACCCCCCGGAGTTGGCTGACAGCAGTGGCA
GAGTGGTCAGAGAGAAGTGGTCAGCAGACATGTGGCGCTTGGGCTGCCTCATTTGGGAAGTCTTCAATGGGCCCC
TACCTCGGGCAGCAGCCCTACGCAACCCTGGGAAGATCCCCAAAACGCTGGTGCCCCATTACTGTGAGCTGGTGG
GAGCAAACCCCAAGGTGCGTCCCAACCCAGCCCGCTTCCTGCAGAACTGCCGGGCACCTGGTGGCTTCATGAGCA
ACCGCTTTGTAGAAACCAACCTCTTCCTGGAGGAGATTCAGATCAAAGAGCCAGCCGAGAAGCAAAAATTCTTCC
AGGAGCTGAGCAAGAGCCTGGACGCATTCCCTGAGGATTTCTGTCGGCACAAGGTGCTGCCCCAGCTGCTGACCG
CCTTCGAGTTCGGCAATGCTGGGGCCGTTGTCCTCACGCCCCTCTTCAAGGTGGGCAAGTTCCTGAGCGCTGAGG
AGTATCAGCAGAAGATCATCCCTGTGGTGGTCAAGATGTTCTCATCCACTGACCGGGCCATGCGCATCCGCCTCC
TGCAGCAGATGGAGCAGTTCATCCAGTACCTTGACGAGCCAACAGTCAACACCCAGATCTTCCCCCACGTCGTAC
ATGGCTTCCTGGACACCAACCCTGCCATCCGGGAGCAGACGGTCAAGTCCATGCTGCTCCTGGCCCCAAAGCTGA
ACGAGGCCAACCTCAATGTGGAGCTGATGAAGCACTTTGCACGGCTACAGGCCAAGGATGAACAGGGCCCCATCC
GCTGCAACACCACAGTCTGCCTGGGCAAAATCGGCTCCTACCTCAGTGCTAGCACCAGACACAGGGTCCTTACCT
CTGCCTTCAGCCGAGCCACTAGGGACCCGTTTGCACCGTCCCGGGTTGCGGGTGTCCTGGGCTTTGCTGCCACCC
ACAACCTCTACTCAATGAACGACTGTGCCCAGAAGATCCTGCCTGTGCTCTGCGGTCTCACTGTAGATCCTGAGA
AATCCGTGCGAGACCAGGCCTTCAAGGCCATTCGGAGCTTCCTGTCCAAATTGGAGTCTGTGTCGGAGGACCCGA
CCCAGCTGGAGGAAGTGGAGAAGGATGTCCATGCAGCCTCCAGCCCTGGCATGGGAGGAGCCGCAGCTAGCTGGG
CAGGCTGGGCCGTGACCGGGGTCTCCTCACTCACCTCCAAGCTGATCCGTTCGCACCCAACCACTGCCCCAACAG
AAACCAACATTCCCCAAAGACCCACGCCTGAAGGCCACTGGGAGACGCAGGAGGAGGACAAGGACACAGCAGAGG
ACAGCAGCACTGCTGACAGATGGGACGACGAAGACTGGGGCAGCCTGGAGCAGGAGGCCGAGTCTGTGCTGGCCC
AGCAGGACGACTGGAGCACCGGGGGCCAAGTGAGCCGTGCTAGTCAGGTCAGCAACTCCGACCACAAATCCTCCA
AATCCCCAGAGTCCGACTGGAGCAGCTGGGAAGCTGAGGGCTCCTGGGAACAGGGCTGGCAGGAGCCAAGCTCCC
AGGAGCCACCTCCTGACGGTACACGGCTGGCCAGCGAGTATAACTGGGGTGGCCCAGAGTCCAGCGACAAGGGCG
ACCCCTTCGCTACCCTGTCTGCACGTCCCAGCACCCAGCCGAGGCCAGACTCTTGGGGTGAGGACAACTGGGAGG
GCCTCGAGACTGACAGTCGACAGGTCAAGGCTGAGCTGGCCCGGAAGAAGCGCGAGGAGCGGCGGCGGGAGATGG
AGGCCAAACGCGCCGAGAGGAAGGTGGCCAAGGGCCCCATGAAGCTGGGAGCCCGGAAGCTGGAC**TGA**ACCGTGG
CGGTGGCCCTTCCCGGCTGCGGAGAGCCCGCCCCACAGATGTATTTATTGTACAAACCATGTGAGCCCGGCCGGC
CCAGCCAGGCCATCTCACGTGTACATAATCAGAGCCACAATAAATTCTATTTCAC

FIGURE 145

CAGAGACTGATGAGTGCCGACTGAACCAGAACATCTGTGGCCACGGAGAGTGCGTGCCGGGCCCCCCTGACTACT
CCTGCCACTGCAACCCCGGCTACCGGTCACATCCCCAGCACCGCTACTGCGTGGATGTGAACGAGTGCGAGGCAG
AGCCCTGTGGCCCGGGGAGGGGCATCTGC**ATG**AACACCGGCGGCTCCTACAATTGCCACTGCAACCGCGGCTACC
GCCTGCACGTGGGCGCCGGGGGGCGCTCGTGCGTGGACCTGAACGAATGCGCCAAGCCCCACCTGTGCGGCGACG
GCGGCTTCTGCATCAACTTTCCCGGTCACTACAAGTGCAACTGCTACCCCGGCTACCGGCTCAAAGCCTCCCGGC
CTCCTGTGTGCGAAGACATCGACGAGTGCCGGGACCCAAGCTCTTGCCCGGATGGCAAATGCGAGAACAAGCCCG
GGAGCTTCAAGTGCATCGCCTGTCAGCCTGGCTACCGCAGCCAGGGGGGCGGGGCCTGTCGCGACGTGAACGAGT
GCGCCGAGGGCAGCCCCTGCTCGCCTGGCTGGTGCGAGAACCTCCCGGGCTCCTTCCGCTGCACCTGTGCCCAGG
GCTACGCGCCCGCGCCCGACGGCCGCAGTTGCTTGGATGTGGACGAGTGTGAGGCTGGGGACGTGTGTGACAATG
GCATCTGCAGCAACACGCCAGGATCTTTCCAGTGTCAGTGCCTCTCTGGCTACCATCTGTCCAGGGACCGGAGCC
ACTGCGAGGACATTGATGAGTGTGACTTCCCTGCAGCCTGCATTGGGGGTGACTGCATCAATACCAATGGCTCCT
ACAGATGTCTTTGCCCCCAGGGGCATCGGCTGGTGGGTGGCAGGAAATGCCAAGACATAGATGAGTGCAGCCAGG
ACCCGAGCCTGTGCCTTCCCCATGGGGCCTGCAAGAACCTTCAGGGCTCCTATGTGTGTGTCTGCGATGAGGGCT
TCACTCCCACCCAGGACCAGCACGGTTGTGAGGAGGTGGAGCAGCCCCACCACAAGAAGGAGTGCTACCTGAACT
TCGATGACACAGTGTTCTGCGACAGCGTATTGGCCACCAACGTGACCCAGCAGGAGTGCTGCTGCTCTCTGGGGG
CCGGCTGGGGCGACCACTGCGAAATCTACCCCTGCCCAGTCTACAGCTCAGCCGAGTTCCACAGCCTCTGCCCAG
ACGGAAAGGGCTACACCCAGGACAACAACATCGTCAACTACGGCATCCCAGCCCACCGTGACATCGACGAGTGCA
TGTTGTTCGGGTCGGAGATTTGCAAGGAGGGCAAGTGCGTGAACACGCAGCCTGGCTACGAGTGCTACTGCAAGC
AGGGCTTCTACTACGACGGGAACCTGCTGGAATGCGTGGACGTGGACGAGTGCCTGGACGAGTCCAACTGCCGGA
ACGGAGTGTGTGAGAACACGCGCGGCGGCTACCGCTGTGCCTGCACGCCCCCTGCCGAGTACAGTCCCGCGCAGC
GCCAGTGCCTGAGCCCGGAAGAGATGGACGTGGACGAGTGCCAGGACCCGGCAGCCTGCCGCCCTGGCCGCTGCG
TCAACCTGCCGGGCTCCTACCGCTGCGAGTGTCGCCCGCCCTGGGTGCCCGGGCCCTCCGGCCGCGATTGCCAGC
TCCCCGAGAGCCCGGCCGAGCGTGCCCCGGAGCGGCGCGACGTGTGCTGGAGCCAGCGCGGAGAGGACGGCATGT
GCGCTGGCCCCCTGGCCGGGCCTGCCCTCACCTTCGACGACTGCTGCTGCCGCCAGGGCCGCGGCTGGGGCGCCC
AATGCCGACCGTGCCCGCCGCGCGGCGCGGGGTCCCATTGCCCGACATCGCAGAGCGAGAGCAATTCCTTCTGGG
ACACAAGCCCCCTGCTGTTGGGGAAGCCCCCAAGAGATGAGGACAGTTCAGAGGAGGATTCAGACGAGTGTCGCT
GCGTGAGTGGCCGCTGCGTGCCGCGGCCGGGCGGCGCCGTGTGCGAGTGTCCCGGCGGCTTCCAGCTCGACGCCT
CCCGCGCCCGCTGCGTGGATATCGACGAGTGCCGAGAGCTGAACCAGCGCGGGCTGCTGTGCAAGAGCGAGCGCT
GCGTGAACACCAGCGGCTCCTTCCGCTGCGTCTGCAAAGCCGGCTTCGCGCGCAGCCGCCCGCACGGGGCCTGCG
TTCCCCAGCGCCGCCGC**TGA**CGCCGCCGACGCCGCCCTCGGCCCAGACCTCGGTGATCACTGAGGGATTTCCGCG
AGCTCGGCCTCACTTCTGCCCCGACTTGTGGCTCGGACCCAGGGACCTTCAGGGCCCGCAGACCCTCCCGGCGCC
TTGAGACCCGAGGCGCCCCTACCGGCCCCCCTCCCCGGTTAGCGGGCGGTTGTAAGGTCTCCGGCGGGCGCTGCC
TGCCTTCCTCCCAGAGGGTGTTTCCTAGAAACTGATAAATCAGATCGTGCCTCTTTACCCTTGGCTTTCG

FIGURE 146

CTCCCAAAGCAGAATTGCAGCTGCCGCCGCCGCCACCTCCAGGCCACTATGGCGCCTGGGCTGCCCAGGAGCTTC
AGGCCAAGTTGGCAGAGATCGGAGCTCCGATCCAGGGTAATCGCGAGGAGCTGGTGGAGCGGCTGCAGAGCTACA
CCCGCCAGACTGGCATCGTGCTGAATCGGCCGGTTTTGAGAGGGGAAGATGGGGACAAAGCCGCTCCACCTCCCA
TGTCGGCACAGCTCCCTGGAATTCCCATGCCACCACCACCTTTGGGACTCCCCCCTCTGCAGCCTCCTCCGCCAC
CCCCACCACCTCCACCAGGCCTTGGCCTTGGCTTTCCTATGGCCCACCCACCAAATTTGGGGCCCCCGCCTCCTC
TCCGTGTGGGTGAGCCAGTGGCACTGTCAGAGGAGGAGCGGCTGAAGTTGGCTCAGCAGCAGGCGGCATTGCTGA
TGCAGCAGGAGGAGCGTGCCAAGCAGCAGGGAGATCATTCGCTGAAGGAACATGAGCTCTTGGAGCAGCAGAAGC
GGGCAGCTGTGTTACTGGAGCAGGAACGACAGCAGGAGATTGCCAAGATGGGCACCCCAGTCCCTCGGCCCCCAC
AAGACATGGGCCAGATTGGTGTGCGCACTCCTCTGGGTCCTCGAGTAGCTGCTCCAGTGGGCCCAGTGGGCCCCA
CTCCTACAGTTTTGCCCATGGGAGCCCCTGTTCCCCGGCCTCGTGGTCCCCCACCGCCCCCTGGAGATGAGAACA
GAGAGATGGATGACCCCTCTGTGGGCCCCAAGATCCCCCAGGCTTTGGAGAAGATCCTGCAGCTGAAGGAGAGCC
GCCAGGAAGAGATGAATTCTCAGCAGGAGGAAGAGGAAATGGAAACAGATGCTCGCTCGTCCCTGGGCCAGTCAG
CGTCAGAGACTGAGGAGGACACAGTGTCCGTATCTAAAAAGGAGAAAAACCGGAAGCGTAGGAACCGAAAGAAGA
AGAAAAAGCCCCAGCGGGTGCGAGGGGTGTCCTCTGAGAGCTCTGGGGACCGGGAGAAAGACTCAACCCGGTCCC
GTGGCTCTGATTCCCCAGCAGCTGATGTTGAGATTGAGTATGTGACTGAAGAACCTGAAATTTACGAGCCCAACT
TTATCTTCTTTAAGAGGATCTTTGAGGCTTTTAAGCTCACTGATGATGTGAAGAAGGAGAAAGAGAAGGAGCCAG
AGAAACTTGACAAACTGGAGAACTCTGCAGCCCCCAAGAAGAAGGGATTTGAAGAGGAGCACAAGGACAGTGATG
ATGACAGCAGTGATGACGAGCAGGAAAAGAAGCCAGAAGCCCCCAAGCTGTCCAAGAAGAAGTTGCGCCGAATGA
ACCGCTTCACTGTGGCTGAACTCAAGCAGCTGGTGGCTCGGCCCGATGTCGTGGAGATGCACGATGTGACAGCGC
AGGACCCTAAGCTCTTGGTTCACCTCAAGGCCACTCGGAACTCTGTGCCTGTGCCACGCCACTGGTGTTTTAAGC
GCAAATACCTGCAGGGCAAACGGGGCATTGAGAAGCCCCCCTTCGAGCTGCCAGACTTCATCAAACGCACAGGCA
TCCAGGAGATGCGAGAGGCCCTGCAGGAGAAGGAAGAACAGAAGACCATGAAGTCAAAAATGCGAGAGAAAGTTC
GGCCTAAGATGGGCAAAATTGACATCGACTACCAGAAACTGCATGATGCCTTCTTCAAGTGGCAGACCAAGCCAA
AGCTGACCATCCATGGGGACCTGTACTATGAGGGGAAGGAGTTCGAGACACGACTGAAGGAGAAGAAGCCAGGAG
ATCTGTCTGATGAGCTAAGGATTTCCTTGGGGATGCCAGTAGGACCAAATGCCCACAAGGTCCCTCCCCCATGGC
TGATTGCCATGCAGCGATATGGACCACCCCCATCGTATCCCAACCTGAAAATCCCTGGGCTGAACTCGCCCATCC
CTGAGAGCTGTTCCTTTGGGTACCATGCTGGTGGCTGGGGCAAACCTCCAGTGGATGAGACTGGGAAACCGCTCT
ATGGGGACGTGTTTGGAACCAATGCTGCTGAATTTCAGACCAAGACTGAGGAAGAAGAGATTGATCGGACCCCTT
GGGGGGAACTGGAACCATCTGATGAAGAATCCTCAGAAGAAGAGGAAGAGGAAGAAAGTGATGAAGACAAACCAG
ATGAGACAGGCTTTATTACCCCTGCAGACAGTGGCCTTATCACTCCTGGAGGCTTTTCATCAGTGCCTGCTGGAA
TGGAGACCCCTGAACTCATTGAGCTGAGGAAGAAGAAGATTGAGGAGGCGATGGACGGAAGTGAGACACCTCAGC
TCTTCACTGTGTTGCCAGAGAAGAGAACAGCCACTGTTGGAGGGGCCATGATGGGATCAACCCACATTTATGACA
TGTCCACGGTTATGAGCCGGAAGGGCCCGGCTCCTGAGCTGCAAGGTGTGGAAGTGGCGCTGGCGCCTGAAGAGT
TGGAGCTGGATCCTATGGCCATGACCCAGAAGTATGAGGAGCATGTGCGGGAGCAGCAGGCTCAAGTAGAGAAGG
AGGACTTCAGTGACATGGTGGCTGAGCACGCTGCCAAACAGAAGCAAAAAAAAACGGAAAGCTCAGCCCCAGGACA
GCCGTGGGGGCAGCAAGAAATATAAGGAGTTCAAGTTTTAGGTCCCCTCACACTAGCCCTTTTTTTGGCCCTACG
TCTGGATGCCTGGGCTTCACACAAGAACCACCTCTCCCGCAGTTCCCAAGGACTTGTCATTTCATGTTCTTATTT
TAGACCTGTTTTGTAAATAAAGCTGTTTCCCAAGGAAAGAGATG

FIGURE 147

CGCCGCCGCCGCCGCGGGGGAAGCCTGGGAGCCAGATCGGCGTCGCCTCGGCCTCCGTAACCCCCGCCTAGCCGG
GCCATGGCGGAACGCGGAGGGGCGGGCGGTGGTCCCGGAGGCGCCGGGGGCGGCAGCGGCCAGCGGGGATCCGGG
GTCGCCCAGTCCCCTCAGCAGCCGCCGCCGCAGCAGCAGCAGCAGCCGCCGCAGCAGCCGACGCCCCCCAAG
CTGGCCCAGGCCACCTCGTCGTCCTCGTCCACCTCGGCGGCGGCTGCCTCCTCCTCGTCCTCGTCTACCTCCACC
TCCATGGCCGTGGCGGTGGCCTCGGGCTCCGCGCCTCCCGGTGGCCCGGGAGCCAGGCCGCACCCCCGCCCCGGT
GCAGATGAACCTGTACGCCACCTGGGAGGTGGACCGGAGCTCGTCCAGCTGCGTGCCTAGGCTATTCAGCTTGAC
CCTGAAGAAACTCGTCATGCTAAAAGAAATGGACAAAGATCTTAACTCAGTGGTCATCGCTGTGAAGCTGCAGGG
TTCAAAAAGAATTCTTCGCTCCAACGAGATCGTCCTTCCAGCTAGTGGACTGGTGGAAACAGAGCTCCAATTAAC
CTTCTCCCTTCAGTACCCTCATTTCCTTAAGCGAGATGCCAACAAGCTGCAGATCATGCTGCAAAGGAGAAAACG
TTACAAGAATCGGACCATCTTGGGCTATAAGACCTTGGCCGTGGGACTCATCAACATGGCAGAGGTGATGCAGCA
TCCTAATGAAGGCGCACTGGTGCTTGGCCTACACAGCAACGTGAAGGATGTCTCTGTGCCTGTGGCAGAAATAAA
GATCTACTCCCTGTCCAGCCAACCCATTGACCATGAAGGAATCAAAT

FIGURE 148

GGAGTTTCGCCGCCGCAGTCTTCGCCACC**ATG**CCGCCCTACACCGTGGTCTATTTCCCAGTTCGAGGCCGCTGCG
CGGCCCTGCGCATGCTGCTGGCAGATCAGGGCCAGAGCTGGAAGGAGGAGGTGGTGACCGTGGAGACGTGGCAGG
AGGGCTCACTCAAAGCCTCCTGCCTATACGGGCAGCTCCCCAAGTTCCAGGACGGAGACCTCACCCTGTACCAGT
CCAATACCATCCTGCGTCACCTGGGCCGCACCCTTGGGCTCTATGGGAAGGACCAGCAGGAGGCAGCCCTGGTGG
ACATGGTGAATGACGGCGTGGAGGACCTCCGCTGCAAATACATCTCCCTCATCTACACCAACTATGAGGCGGGCA
AGGATGACTATGTGAAGGCACTGCCCGGGCAACTGAAGCCTTTTGAGACCCTGCTGTCCCAGAACCAGGGAGGCA
AGACCTTCATTGTGGGAGACCAGATCTCCTTCGCTGACTACAACCTGCTGGACTTGCTGCTGATCCATGAGGTCC
TAGCCCCTGGCTGCCTGGATGCGTTCCCCCTGCTCTCAGCATATGTGGGGCGCCTCAGTGCCCGGCCCAAGCTCA
AGGCCTTCCTGGCCTCCCCTGAGTACGTGAACCTCCCCATCAATGGCAACGGGAAACAG**TGA**GGGTTGGGGGGAC
TCTGAGCGGGAGGCAGAGTTTGCCTTCCTTTCTCCAGGACCAATAAAATTTCTAAGAGAGCT

FIGURE 149

GCGTGACGTCTTTCCTGCGCGCCACCTAGCGTCTCTATCGCGCCAGTTCCTCAGCCTCAGTGCTATGAAGGTGAC
AGCGTGAGGTGACCCATCTGGCCCGCCGCGATGCTGGCAACACGGCGGCTGCTCGGCTGGTCGCTTCCCGCGCGG
GTATCTGTGCGTTTCAGCGGCGACACGACAGCACCCAAGAAAACCTCATTTGGCTCGCTGAAGGATGAAGACCGG
ATTTTCACCAACCTGTACGGCCGCCATGACTGGAGGCTGAAAGGTTCCCTGAGTCGAGGTGACTGGTACAAGACA
AAGGAGATCCTGCTGAAGGGGCCCGACTGGATCCTGGGCGAGATCAAGACATCGGGTTTGAGGGGCCGTGGAGGC
GCTGGCTTCCCCACTGGCCTCAAGTGGAGCTTCATGAATAAGCCCTCAGATGGCAGGCCCAAGTATCTGGTGGTG
AACGCAGACGAGGGGGAGCCGGGCACCTGCAAGGACCGGGAGATCTTACGCCATGATCCTCACAAGCTGCTGGAA
GGCTGCCTGGTGGGGGGCCGGGCCATGGGCGCCCGCGCTGCCTATATCTACATCCGAGGGGAATTCTACAATGAG
GCCTCCAATCTGCAGGTGGCCATCCGAGAGGCCTATGAGGCAGGTCTGATTGGCAAGAATGCTTGTGGCTCTGGC
TATGATTTTGACGTGTTTGTGGTGCGCGGGGCTGGGGCCTACATCTGTGGAGAGGAGACAGCGCTCATCGAGTCC
ATTGAGGGCAAGCAGGGCAAGCCCCGCCTGAAGCCCCCCTTCCCCGCAGACGTGGGAGTGTTTGGCTGCCCCACA
ACTGTGGCCAACGTGGAGACAGTGGCAGTGTCCCCCACAATCTGCCGCCGTGGAGGTACCTGGTTTGCTGGCTTT
GGCAGAGAACGCAACTCAGGCACCAAACTATTCAACATCTCTGGCCATGTCAACCACCCTTGCACTGTGGAGGAG
GAGATGTCTGTGCCCTTGAAAGAACTGATTGAGAAGCATGCTGGGGGTGTCACGGGCGGCTGGGACAACCTCCTT
GCTGTGATCCCTGGCGGCTCGTCTACCCCACTGATCCCCAAGTCTGTGTGTGAGACGGTGCTGATGGACTTCGAT
GCGCTGGTGCAGGCACAGACAGGCCTGGGCACAGCTGCGGTGATCGTCATGGACCGCTCGACGGACATCGTGAAA
GCCATCGCCCGCCTCATTGAGTTCTATAAGCACGAGAGCTGTGGCCAGTGTACCCCATGCCGTGAGGGTGTGGAC
TGGATGAACAAGGTGATGGCACGTTTCGTGAGGGGGGATGCCCGGCCGGCCGAGATCGACTCCCTGTGGGAGATC
AGCAAGCAGATAGAAGGCCATACGATTTGTGCTCTGGGTGACGGGGCCGCCTGGCCTGTGCAGGGTCTGATCCGC
CACTTTCGGCCGGAGCTCGAGGAGCGGATGCAGCGGTTTGCCCAGCAGCATCAGGCCCGGCAGGCTGCCTCTTAG

CCCACCACCCTGGCCTGCTGTCCTGCGTCTATCCATGTGGAATGCTGGACAATAAAGCGAGTGCTGCCCACCCTC
C

FIGURE 150

GTCAAAGCCCTGCGTCCTTCGGCCCCCAGAGCGGAGAAGCGCGCAAGGCACCGGTGGCAGCGGCGACGGCAGCTG
CGACAGCAACCCCTGCTGGGCCGAAACTGGGCAGAGCGGAGCAGACGTCTGAAGCAGCGCGAGTGAGGCGCGAGG
GTAGCGCCCGCGCCCGGGAAGACCCCTCGGCGCGAACCGGCAGCCCAGCCCCGGGTCCCGGTTCCCAAGGCCCCG
CCTCTAGGGCCTGGGGACTAATCGGATTGAGAGCGCGCCGGCCCGGGCCGCGAACTCGCCAATTGCGGAGGGCGG
TGGCCACCGCCCAATCCGGAGCAGACAGGTGCGAGGTCCGGAAGGCGGAGGCCAATCGGCGGCGGTTGCGACCTG
CTGGGGCAGGTCTCGGCCAATAAGGAGGCTCGAGTGACATCTTCGCGCACCAATCGGGAGTGAGGGAGCATTCGT
GCCCGCTCGCCCTTCCGGCCAGACCTCTATTTACCAGGGGCGTGCAGCCCGCTTGCCAATCAGAGCGCGGCTGAG
CGGCCCCGCAGCCAACCCCCGAGGAGCGGCCGGCTGGCGTCCGCCGCGCCCAGGAGTTGGGGATGTCCTACAAAC
CCATCGCCCCTGCTCCCAGCAGCACCCCTGGCTCCAGCACCCCTGGGCCGGGCACCCCGGTCCCTACAGGTGAGG
ATCCAGCTCCACCCCTGCTCGCCTGCCGGGCGGTCGAGGTCTCGAAGAGAAGACGGCCTGAGTTCTGCAATACTG
GGCCTGCCGCCTACCCTCGCTGAGCCTCAGTTTGCTGGCCTGTGAAGTGGGCGTGGTCACGTAAGGGCTTGTAGG
TGGAGCGCAGTGGGAGGGATTTGTCCCTGAAGTTGATCAGCATGGA**ATG**AAGCATCCTTTGGAGGGAATCGGGCG
AACCCGGTCCTGGGCTTGGAAAAGCTGGGAGGCGGCGTCCCTGCCCCGCGCTGACCTCTTACTCGCGCCTGTTGC
TGCAGGAAGCGTCCCGTCGCCGTCGGGCTCAGTGCCAGGAGCCGGCGCTCCTTTCAGACCGCTGTTTAACGACTT
TGGACCGCCTTCCATGGGCTACGTGCAGGCGATGAAGCCACCCGGCGCCCAGGGCTCCCAGAGCACCTACACGGA
CCTGCTGTCAGTCATAGAGGAGATGGGCAAAGAGATCCGGCCTACCTATGCTGGCAGCAAGAGCGCCATGGAGCG
CCTGAAGAGAGGTATCATCCATGCCCGGGCCCTAGTCAGAGAGTGCCTGGCAGAGACAGAGCGGAACGCCCGCAC
G**TAA**CAGGAAGCGCCTCGGCCTCAGCGTCTGGACCTATCCGGCCACTGCAGAGCACCCGCTTCTCCCTGGCCTTC
ATCCCGAGTTGCACTAACCATCCTGGGCTTCCTGTCCTGTGTCCCTTGGTGGGTCCCCTCCAGGAACCAAGGAGT
GGCCCTCCAGGTGGCAGCACTAAGGACACCCCCCCACAACAAGAGTTAGCAGCGAGGTCCCCATGAGTCCCACCC
ATGACCTGCCGACAGTGTTGCCCACCGGAACTTTTGTGGCCCCTACCGCTCAGCCCTTCCCAGCACTTCTCCCAC
TTTGTCCCGAGCCTCCTTCTCCCCCAGCAGGGGCACAGGCCTGGCACCTCCCTGCCTTGTGTCCTGAGCCATAGT
GACTCTTTTATCTGTGTGTCTTTTGCTAAATATGCCCTTTTTATATTAATAAAAGATGATTTGGAGTTGTGCTCT
C

FIGURE 151

CGCGGGCGGCGGTGCTAGGCTCGCCTCTGCCTCCCTCGTGGCGGGCCCGGACATGGGGTCCCGTGGCCTGAGTCC
CTCGGCCGGCGCGCAGGGCTCGGGCCGCGCGCAGCCTCCCCGCACTGACTGTCGCGCCGTGCCCTGCGCCAGGAG
GAGCGGAGGCCGCGCGCCCGCCGAGCGCCTTCAGGATGCTCATCAAGGAATACCACATTCTGCTGCCCATGAGCC
TGGACGAGTACCAGGTGGCCCAGCTCTACATGATCCAGAAAAAGAGCCGGGAGGAGTCTAGTGGTGAGGGCAGCG
GCGTGGAGATCCTGGCCAACCGGCCCTACACGGATGGGCCCGGGGGCAGCGGGCAATACACACACAAGGTGTACC
ACGTGGGCTCCCACATCCCAGGCTGGTTCCGGCACTGCTGCCCAAGGCTGCCCTGCAGGTAGAAGAGGAATCCTG
GAATGCCTACCCCTACACCCGAACCCGGTACACCTGCCCTTTCGTGGAGAAATTCTCCATTGAAATTGAGACCTA
TTACCTGCCTGATGGGGGGCAGCAGCCAAACGTCTTCAACCTGAGCGGGGCCGAGAGGAGACAGCGCATCCTGGA
CACCATCGACATCGTGCGGGATGCAGTGGCCCCAGGCGAGTACAAAGCAGAAGAGGACCCCCGGCTTTATCACTC
GGTCAAGACGGGCCGAGGGCCACTGTCTGATGACTGGGCACGGACGGCGGCACAGACGGGGCCCCTTATGTGTGC
CTATAAGCTGTGCAAGGTTGAGTTCCGCTACTGGGGCATGCAAGCCAAGATCGAGCAGTTCATCCATGATGTAGG
TACTGCGTCGGGTGATGCTGCGGCCCACCGCCAGGCCTGGTGCTGGCAGGATGAGTGGACAGAGCTGAGCATGGC
TGACATCCGGGCACTGGAAGAGGAGACTGCTCGCATGCTGGCCCAGCGCATGGCCAAGTGCAACACAGGCAGTGA
GGGTCCGAGCCCAGCCCCCCGGGAAACCGAGCACCGAGGCCCGGTCTGCGGCAGCAACACTGGCACCCCCGATGG
GCCTGAGCCCCCCCAGGCCCAGATGCCTCCCCCGATGCCAGCTTTGGGAAGCAGTGGTCCTCATCCTCCCGTTCC
TCCTACTCATCCCAACATGGAGGGGCTGTGTCTCCCCAGAGCTTGTCTGAGTGGCGC**ATG**CAGAACATTGCCCGA
GACTCTGAGAACAGCTCCGAGGAAGAGTTCTTTGATGCCCACGAAGGCTTCTCGGACAGTGAGGAGGTCTTCCCC
AAGGAGATGACCAAGTGGAACTCCAATGACTTCATTGATGCCTTTGCCTCCCCAGTGGAGGCAGAGGGAACGCCA
GAGCCTGGAGCCGAGGCAGCTAAAGGCATTGAGGATGGGGCCCAAGCACCCAGGGACTCAGAGGGCCTGGATGGA
GCCGGGGAGCTGGGGGCTGAGGCATGCGCAGTCCACGCCCTCTTCCTTATCCTGCACAGCGGCAACATCCTGGAC
TCAGGCCCTGGAGACGCCAACTCCAAGCAGGCGGATGTGCAGACGCTGAGCTCCGCCTTCGAGGCCGTCACCCGC
ATCCACTTCCCTGAGGCCTTGGGCCACGTGGCGCTGCGACTGGTGCCCTGTCCACCCATCTGCGCCGCCGCCTAT
GCCCTTGTCTCCAACCTGAGCCCTTACAGCCACGATGGGGACAGCCTGTCTCGCTCCCAAGACCACATTCCACTG
GCTGCCCTGCCACTGCTGGCCACCTCATCCTCCCGCTACCAGGGCGCCGTGGCCACCGTCATTGCCCGCACCAAC
CAGGCCTACTCAGCCTTCCTGCGCTCACCTGAGGGTGCCGGCTTCTGTGGGCAGGTCGCACTGATTGGAGATGGT
GTTGGTGGCATCCTGGGCTTTGATGCACTCTGCCACAGTGCTAACGCGGGCACCGGGAGTCGGGGCAGCAGCCGC
CGTGGGAGCATGAACAATGAGCTGCTCTCTCCGGAGTTTGGCCCAGTGCGGGACCCCCTGGCAGATGGTGTGGAA
GGCCTGGGTCGGGGCAGCCCAGAACCCTCGGCCTTGCCTCCCCAGCGCATCCCCAGCGACATGGCCAGTCCTGAG
CCCGAGGGCTCTCAGAACAGCCTTCAGGCAGCCCCCGCAACCACCTCCTCCTGGGAGCCCCGGCGGGCAAGCACG
GCCTTCTGCCCACCCGCTGCCAGTTCCGAGGCACCTGACGGCCCCAGCAGCACTGCCCGCCTTGACTTCAAGGTC
TCTGGCTTCTTCCTCTTCGGCTCCCCACTGGGCCTGGTGCTGGCTCTGCGCAAAACTGTGATGCCCGCCCTGGAG
GCAGCCCAGATGCGCCCAGCCTGTGAACAGATCTACAACCTCTTCCACGCGGCTGACCCCTGCGCCTCACGCCTC
GAGCCCCTGCTGGCCCCGAAGTTCCAGGCCATCGCCCCACTGACCGTGCCCCGCTACCAGAAGTTCCCCCTGGGA
GATGGCTCATCCCTGCTGCTGGCCGACACTCTGCAGACGCACTCCAGCCTCTTTCTGGAGGAGCTGGAGATGCTG
GTGCCCTCAACACCCACCTCTACTAGCGGTGCCTTCTGGAAGGGCAGTGAGTTGGCCACTGACCCCCCGGCCCAG
CCAGCCGCCCCCAGCACCACCAGTGAGGTGGTTAAGATCCTGGAGCGCTGGTGGGGGACCAAGCGGATCGACTAC
TCGCTGTACTGCCCCGAGGCGCTCACCGCCTTTCCCACCGTCACGCTGCCCCACCTCTTCCACGCCAGCTACTGG
GAGTCCGCCGACGTGGTGGCGTTCATCCTGCGCCAGGTGATCGAGAAGGAGCAGGCCACAGCTGGCGGAATGCGA
GGAGCCGTCCATCTACAGCCCGGCCTTCCCCAGGCAGAAGTGGCAGCGAAAACGCACGCAGGTCAAGATCCGGGT
AGAACTGAACATCGTGGCCGGTTATGGGTCTCCCAAAGATGTGGCTGTATACGCGGCGCTGGGGCTGTCCCCGAG
CCAGACCTACATCGTGGGCCGTGCCGTGCGGAAGCTACAGGCGCAGTGCCAGTTCCTGTCAGACGGCTATGTGGC
CCACCTGGGCCAGCTGGAAGCGGGCTCGCACTCGCATGCCTCCTCGGGACCCCCGAGAGCTGCCTTGGGCAAGAG
CAGCTATGGTGTGGCTGCCCCCGTGGACTTCCTGCGCAAACAGAGCCAGCTGCTTCGCTCGAGGGGCCCCAGCCA
GGCGGAGCG**TGA**GGGCCCGGGAACACCACCCACCACCCTGGCACGGGGCAAAGCACGGAGCATCAGCCTGAAGCT
GGACAGCGAGGAGTGAGGCCCACACCAGCCTGGACCTGGGTTATTTATTGACACACCCAAGGGGCCCGAGGGGCT
GCGTGTGGGAGGCTGGGGACCCAGACTTTTGGCCCCAGCGCTGGCCCCCCCAGCCCCACACCCTATATCTCCGTG
TGCTCCTCGGTGTTACTTCCCTTTCATATGAGGGGACCCAGCGCCGGGGGGAGGGAGGAGGGCGTGGGCATGGGC
GCAGAGGCTTTTCCAGTGTGTATAAATCCATGAAAATAAACGCCACCTGCACCCC

FIGURE 152

AGGCCACGTTCCACTACCGGACGCTGCACAGTGACGACGAGGGCACCGTGCTGGACGACAGCCGGGCTCGTGGCA
AGCCCATGGAGCTCATCATTGGCAAGAAGTTCAAGCTGCCTGTGTGGGAGACCATCGTGTGCACCATGCGAGAAG
GGGAGATTGCCCAGTTCCTCTGTGACATCAAGCATGTGGTCCTGTACCCGCTGGTGGCCAAGAGTCTCCGCAACA
TCGCGGTGGGCAAGGACCCCCTGGAGGGCCAGCGGCACTGCTGCGGTGTTGCACAGATGCGTGAACACAGCTCCC
TGGGCCATGCTGACCTGGACGCCCTGCAGCAGAACCCCCAGCCCCTCATCTTCCACATGGAGATGCTGAAGGTGG
AGAGCCCTGGCACGTACCAGCAGGACCCATGGGCCATGACAGACGAAGAGAAGGCAAAGGCAGTGCCACTTATCC
ACCAGGAGGGCAACCGGTTGTACCGCGAGGGGCATGTGAAGGAGGCTGCTGCCAAGTACTACGATGCCATTGCCT
GCCTCAAGAACCTGCAGATGAAGGAACAGCCTGGGTCCCCTGAATGGATCCAGCTGGACAAGCAGATCACGCCGC
TGCTGCTCAACTACTGCCAGTGCAAGCTGGTGGTCGAGGAGTACTACGAGGTGCTGGACCACCTAGCTCTTCCAT
CCTCAACAAGTACGACGACAACGTCAAGGCCTACTTCAAGCGGGGCAAGGCCCACGCGGCCGTGTGGAATGCCCA
GGAGGCCCAGGCTGACTTTGCCAAAGTGCTGGAGCTGGACCCAGCCCTGGCGCCTGTGGTGAGCCGAGAGCTGCT
GGGCCCTGGAGGCACGGATCCGGCAGAAGGACGAAGAGGACAAAGCCCGGTTCCGGGGGATCTTCTCCCATTGAC
AGGAGCACTTGGCCCTGCCTTACCTGCCAAGCCCACTGCTGCAGCTGCCAGCCCCCCTGCCCGTGCTGCGTCATG
CTTCTGTGTATATAAAGGCCTTTATTTATCTCTC

FIGURE 153

GCCCACGTC**ATG**GCGCCCGAGGAGAACGCGGGGACCGAACTCTTGCTGCAGAGTTTGGAGCGCCGCTTCCTGGCG
GCGCGTGCACTGCGCTCCTTCCCCTGGCAGAGCTTAGAAGCAAAGTTAAGAGACTCATCAGATTCTGAGCTGCTG
CGGGATATTTTGCAGAAGACGTGCTGTATAGCCCAGAAGCCATCGTGTCGCTGGTCGGGGTCCTGCGGAGGCTGG
CTGCCTGCCGGGAGCACCAGCGGGCTCCTCAAGTCTATGTGGCCCTTACCATCTGCAACCCAGAGACGTGCCAGC
TGTTCACCACTGAGCTATGCCGGGCTGGGATCAGATGGGAAGTGGAACCTCGTCATGACCAGAAACTGTTTCCCT
ACGAAGAGCACTTGGAGATGGCAATGC**TGA**ACCTCACACTGTAGGACTCACATACGACTCCAACGGGATTGTGAG
AATCAAGTCACTCTAGTGGGAAGAGTTTTTATATGGGAAAGCGGATAAAACTTTCATTGGACTGGAATGTTTGGA
GAATGTTAATTTCCAAATCAGGAACCACAAACTGCCCTCTAATAAGACATCAGCTATCTAAGCATGTGGGTGCTC
CCTTTCTGCCAGCAGTTCTGGTTCTTAAGAAAATCGCCATCAATCAGACATGAAATCTCTGGCTCCAAAAATAGC
ATTTTCTTTGTGCAAATAAAAACGTGTGTATCAAGTATGATGTTCCCCCAATGTGGACACACTCGGTTCCCCACA
AAGCCAAGCCCGCTGCAGCTGCCACATCCCTGGACACATTCGGTTCCTCACAAAGCCAAGCCCGCTGCAGCTGCC
ACATCCGTGGACACACTCGGTTCTTCACAAAGCCAAGCCCACTGCAGCTGCCACATCCCTGGGCTTACAGTGCAG
CAGGTGCTTTTTTCAAGACAGGAATCAAAATGTTAGGAACACGGCGGAAAGATGACACCTGGAGAGCAAACGCAG
GATGAGGAGTACTGCAGAGGTCACACGGAAGTCGCAGAACAGTAATCCGCT

FIGURE 154

ATGGGGGAGCAGGTGCCTGGATTATCCACCCTAACAAATCTGGACAAAGGAAAACGAGGTTGCAGTAAAAACAGG
GATACCATAAGCAACCACCTCTTTCCTCAACGATGTGATGAAAGCAAAAGCCAAGTAGCTCCATATATCCAACTT
AAAAATATAAAAAGTTACGCCCGTGGGCTGCAGTTGGAGCTATGGCGGCAGCAGCTGTCACTGGGCCTAGCCTGG
GGTGTGGACCTGGGGACTCCCCAGAAGGCCCCGATGTGGAGGCTCACGGAGCGTCGGCGGAAGGCGCACAGGATG
CTAAAGCTTTACAACGGCCTCTCAGAAGGGGAAGCGGTGGGACTCCCTGCAGGGCCCGACCCCCTGGACCCCACT
GATCTGAACGGGGCACACTTTGACCCGGAAGTTTACCTAGACAAGCTGCCTAGAGAGTCCCCTCTGGCCCAGCTG
ATGGACAGTGAGACGGACATGGTGCAGCAGATCCGGGCTCTAGACAGCGACATGCAAACCCTGGTCTATGAGAAC
TACGATAAGGAGACCATCGGGGTGCAACCTGGTTGGGGCGGGGAGGAGGTGCAGGGCCTGGCCAGAGCGGGCATG
GCCGCAGGCAGGGGACAGCGACTGCTTGGGCCAGGGCAGGCGAGCTCAGCGCAGGCCAGGGCCCGGCGTGTCCGC
GGTGCAGGCAGAGCCCCCGGAGCCATGGCCAGCCCTTCCGGCAGCTCCAAAGCCACTGGCAAGCCCCGAGGCAGG
GATGGCCGGCCCAGGAGAGAGGAGGACGACGTCACTCCCGAAGAGAAGAGGCTGCGGCTGTTGCTGGAGGAGGGA
AGCGCACAGCCCGATGACGGGGAGGACGCACCGCGGCCAGGCAGGAAGGAGACCGGCACCCAGACAGGTGGCGAC
GGCAGAGGAGCAGCACGGGCAGCCCTCCTCGCCGTGGGCGGCATCAGAGCCCCCCTGCCCAGTCTTGGGGTTGCT
CCTGGATGCCGTCTGGGAGGCTTGCTCATGGTGACATCCTTATCTCCCCGTGCACGTTACCGCATTCAGAGCTTG
GGTCACCTGGACACTGAACTCAGGCGAATTTTCTCTGAGATCCTGGGAGAAGGAGGACAGTTCTCTGGAAGGTTT
TCCAGGGCCGATCACGGAAAGGATGAGAAGGGAGAGGTCCTGGTCGGGGACACAATTACGATGGCAGTG**TAA**

FIGURE 155

GACTCCGGGGCGACCGCCGCGAGTCCGCAGTAGTTCGGGCC**ATG**GAGGCGGAGCCGCCGCTCTACCCGATGGCGG
GGGCTGCGGGGCCGCAGGGCGACGAGGACCTGCTCGGGGTCCCGGACGGGCCCGAGGCCCCGCTGGACGAGCTGG
TGGGCGCGTACCCCAACTACAACGAGGAGGAGGAGGAGCGCCGCTACTACCGCCGCAAGCGCCTGGGCGTGCTCA
AGAACGTGCTGGCTGCCAGCGCCGGGGGCATGCTCACCTACGGCGTCTACCTGGGCCTCCTGCAGATGCAGCTGA
TCCTGCACTACGACGAGACCTACCGCGAGGTGAAGTATGGCAACATGGGGCTGCCCGACATCGACAGCAAAATGC
TGATGGGCATCAACGTGACTCCCATCGCCGCCCTGCTCTACACACCTGTGCTCATCAGGTTTTTTGGAACGAAGT
GGATGATGTTCCTCGCTGTGGGCATCTACGCCCTCTTTGTCTCCACCAACTACTGGGAGCGCTACTACACGCTTG
TGCCCTCGGCTGTGGCCCTGGGCATGGCCATCGTGCCTCTTTGGGCTTCCATGGGCAACTACATCACCAGGATGG
CGCAGAAGTACCATGAGTACTCCCACTACAAGGAGCAGGATGGGCAGGGGATGAAGCAGCGGCCTCCGCGGGGCT
CCCACGCGCCCTATCTCCTGGTCTTCCAAGCCATCTTCTACAGCTTCTTCCATCTGAGCTTCGCCTGCGCCCAGC
TGCCCATGATTTATTTCCTGAACCACTACCTGTATGACCTGAACCACACGCTGTACAATGTGCAGAGCTGCGGCA
CCAACAGCCACGGGATCCTCAGCGGCTTCAACAAGACGGTTCTGCGGACGCTCCCGCGGAGCGGAAACCTCATTG
TGGTGGAGAGCGTGCTCATGGCAGTGGCTTCCTGGCCATGCTGCTGGTGCTGGGTTTGTGCGGAGCCGCTTACCG
GCCCACGGAGGAGATCGATCTGCGCAGCGTGGGCTGGGGCAACATCTTCCAGCTGCCCTTCAAGCACGTGCGTGA
CTACCGCCTGCGCCACCTCGTGCCTTTCTTTATCTACAGCGGCTTCGAGGTGCTCTTTGCCTGCACTGGTATCGC
CTTGGGCTATGGCGTGTGCTCGGTGGGGCTGGAGCGGCTGGCTTACCTCCTCGTGGCTTACAGCCTGGGCGCCTC
AGCCGCCTCACTCCTGGGCCTGCTGGGCCTGTGGCTGCCACGCCCGGTGCCCCTGGTGGCCGGAGCAGGGGTGCA
CCTGCTGCTCACCTTCATCCTCTTTTTCTGGGCCCCTGTGCCTCGGGTCCTGCAACACAGCTGGATCCTCTATGT
GGCAGCTGCCCTTTGGGGTGTGGGCAGTGCCC**TGA**ACAAGACTGGACTCAGCACACTCCTGGGAATCTTGTACGA
AGACAAGGAGAGACAGGACTTCATCTTCACCATCTACCACTGGTGGCAGGCTGTGGCCATCTTCACCGTGTACCT
GGGCTCGAGCCTGCACATGAAGGCTAAGCTGGCGGTGCTGCTGGTGACGCTGGTGGCGGCCGCGGTCTCCTACCT
GCGGATGGAGCAGAAGCTGCGCCGGGGCGTGGCCCCGCGCCAGCCCCGCATCCCGCGGCCCCAGCACAAGGTGCG
CGGTTACCGCTACTTGGAGGAGGACAACTCGGACGAGAGCGACGCGGAGGGCGAGCATGGGGACGGCGCGGAGGA
GGAGGCGCCGCCCGCAGGGCCCAGGCCTGGCCCCGAGCCCGCTGGACTCGGCCGCCGGCCCTGCCCGTACGAACA
GGCGCAGGGGGGAGACGGGCCGGAGGAGCAGTGAGGGGCCGCCTGGTCCCCGGACTCAGCCTCCCTCCTCGCCGG
CCTCAGTTTACCACGTCTGAGGTCGGGGGGACCCCCTCCGAGTCCCGCGCTGTCTTCAAAGGCCCCTGTCTCCCC
TCCCCCACGTTGGGGACGCCCCTCCCAGAGCCCAGGTCACCTCCGGGCTTCCGCAGCCCCCTCCAAGGCGGAGTG
GAGCCTTGGGAACCCCTCGGCCAAGCACAGGGGTTCGAAAATACAGCTGAAACCCCGCGGGCCCTTAGCACGCGC
CCCAGCGCCGGAGCACGGTCAGGGTCTTCTTGCGACCCGGCCCGCTCCAGATCCCCACAGCTCTCGGCCGCGGAC
CCGGGCCGCGTGTGAGCGCACTTTGCACCTCCTATCCCCAGGGTCCGCCGAGAGCCACGATTTTTTACAGAAAAT
GAGCAATAAAGAGATTTTGTACTGTC

FIGURE 156

ATTTCTTAACAGCAGGGCCACCAGGCAGAGCGGGACAGCCAGGAGGAAGGGCAGCTTGGCAGAGCCTCAGGATGG
ACCCCCTTGGGGACACGCTGCGGCGACTGCGGGAGGCCTTCCACGCGGGGCGCACGCGGCCAGCTGAGTTCCGGG
CTGCGCAGCTCCAAGGCCTGGGCCGCTTCCTGCAAGAAAACAAGCAGCTTCTGCACGACGCACTGGCCCAGGACC
TGCACAAGGCCACGCAGCTGGACTCCGCCTTCATCCGGAAGGAGCCCTTTGGCCTGGTCCTCATCATTGCGCCCT
GGAACTATCCGCTGAACCTGACGCTGGTGCCCCTCGTGGGAGCCCTCGCTGCAGGGAACTGTGTGGTGCTGAAGC
CATCGGAGATTAGCAAGAACGTCGAGAAGATCCTGGCCGAGGTGCTGCCCCAATACGTGGACCAGAGCTGCTTTG
CTGTGGTGCTGGGCGGGCCCCAGGAGACGGGGCAGCTGCTAGAGCACAGGTTCGACTACATCTTCTTCACAGGGA
GCCCTCGTGTGGGCAAGATTGTTATGACTGCTGCCGCCAAGCACCTGACACCTGTCACCCTGGAGCTGGGGGGCA
AGAACCCTTGCTACGTGGACGACAACTGCGACCCCCAGACCGTGGCCAACCGCGTGGCCTGGTTCCGCTACTTCA
ACGCCGGCCAGACCTGCGTGGCCCCCGACTACGTCCTATGCAGCCCTGAGATGCAGGAGAGGCTGCTGCCTGCCC
TGCAGAGCACCATCACCCGTTTCTATGGCGACGACCCCCAGAGCTCCCCAAACCTGGGCCGCATCATCAACCAGA
AACAGTTCCAGCGGCTGCGGGCATTGCTGGGCTGCGGCGTGTGGCCATTGGGGGCCAGAGCGATGAGAGCGATCG
CTACATCGCCCCCACGGTGCTGGTGGATGTGCAGGAGATGGAGCCTGTGATGCAGGAGGAGATCTTCGGGCCCAT
CCTGCCCATCGTGAACGTGCAGAGCTTGGACGAGGCCATCGAGTTCATCAACCGGCGGGAGAAGCCCCTGGCCCT
GTACGCCTTCTCCAACAGCAGCCAGGTGGTCAAGCGGGTGCTGACCCAGACCAGCAGCGGGGGCTTCTGTGGGAA
CGACGGCTTCATGCACATGACCCTGGCCAGCCTGCCTTTTGGAGGAGTGGGTGCCAGTGGGATGGGCCGGTACCA
TGGCAAGTTCTCCTTCGACACCTTCTCCCACCATCGCGCCTGCCTCCTGCGCAGCCCGGGGATGGAGAAGCTCAA
CGCCCTCCGCTACCCGCCGCAATCGCCGCGCCGCCTGAGGATGCTGCTGGTGGCCATGGAGGCCAAGGCTGCAGC
TGCACACTGCTCTGAGCCCTTCCCCAGGCCCAGGCTGTAGACCACCATGACAGCTGTCGCCTGCGGCTGGTGGAG
ACGGGGCCTGGGCTCCCGGGCCCGAGGAGGAAAAGGATTGCCAAGGCTCCAGGGCACCCCTCAAAGCAGCGCCTG
CCTCCTCCCTCCTGGGTCTTCCCTCTCCCTGCCTCAGCCTCCTCCCTCAGCCGCTCCCAACCATGAGAGCCGAGG
TGGGAGGCATGGGAAACAGTGCAGTGACTCACCCCCTGCCCCCGCACCAACCACCCATATTCAGGAGAAGAGGAC
AGACACGGCACCTCTGAGTCACCCCTCTCCTGTGGAGCGGGCGTCCGAGGGGCCCTGGCATCTGACTCAGGCCAC
ACCATGGAATCACTGCATCCAAGGCCATTCCTGCCCTCTCTGAGTCTCAGTTTTTCCATTTGTTCAGTGGAGAGA
ATTAACCATTGATACCTCCTGGCTGGGTGAGGCGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCCGAGGCAG
GCGGATCACCTGAAATCAGGAGTTCAAGATCAGCCTGGCTAACATGGCGAAACCCCGTCTCTACTAAAAATACAA
AAATTAGCCTGGCGTGGTGGCGCATGCCTGTAATCCCAGCTACTCAGGAGGCTAAGGCAGGAGAATCGCTTGAAC
CCGGGAGGTGGAGGTTGCCGTGAGCTGAGATTGCGTCACTGAACTCCGGCCTGGGTGACAGAAGGAGGCTCTGCC
TTAAAAAAAAAAAAAAAAAAAACCTCCTGGGACTGTTGCAAGGATGAAATGAAGGATTGAGGGATTGAGGGATTG
CTGAGCTGGAGCTCCAGGTGTCCTATCTTTCTCAGTGGGGTGGCACGGAGCGGGGCCGCCTCCCTCTTCTCTCCA
GGCAGGTGGGGCTGTGGTTATGCGATAGGGTCTCCCTTCCCTCCAGCCCATGCCAGAGGAGCTTGTAACTCTTTA
TCCTCATGGTGCCCACTACGAGTCATACTCTTCCCCATGCTGCTCATCCTCCTGGGCCCCATCCACTCAGCCAAA
GCAGAATGCAGGGTTTCCTGCCTGACAACCCTTCTCACCTCCCAAGTCCCACTTTTGAACAAGCTGATGATTCTG
AAACTGGCCCAATTTCCTAACAAGCCGGATGCTTGAGAAACCTACATTTGGACAATGAGAGGCTGCTCCTGCGGC
CTGCGGGCCACCTCCTCTTCCTTGGCTCCTGCTTTCTTTTTAGACTATATCAACCTACAACTTTAGTCGGGAAGA
GGGACAGGGGTGGACCTGAGTTTCGTCTCCTGTCTCTCTGGCTGATGTCACCTGAATAAAGCCTTCTTCCCTGGC

FIGURE 157

CCCGCTGGCCCAATGGCAGCGTCCTACAGTGTAGCCTCCGCCTCCCGATTGACTGGCCTGCTTGGCAAGGCAAGT
AGCGGCGGCGCTTCAAG**ATG**CGCTGCCTGACCACGCCTATGCTGCTGCGGGCCCTGGCCCAGGCTGCACGTGCAG
GACCTCCTGGTGGCCGGAGCCTCCACAGCAGTGCAGTGGCAGCCACCTACAAGTATGTGAACATGCAGGATCCCG
AGATGGACATGAAGTCAGTGACTGACCGGGCAGCCCGCACCCTGCTGTGGACTGAGCTCTTCCGAGGCCTGGGCA
TGACCCTGAGCTACCTGTTCCGGGAACCGGCCACCATCAACTACCCGTTCGAGAAGGGCCCGCTGAGCCCTCGCT
TCCGTGGGGAGCATGCGCTGCGCCGGTACCCATCCGGGGAGGAGCGTTGCATTGCCTGCAAGCTCTGCGAGGCCA
TCTGCCCCGCCCAGGCCATCACCATCGAGGCTGAGCCAAGAGCTGATGGCAGCCGCCGGACCACCCGCTATGACA
TCGACATGACCAAGTGCATCTACTGCGGCTTCTGCCAGGAGGCCTGTCCCGTGGATGCCATCGTCGAGGGCCCCA
ACTTTGAGTTCTCCACGGAGACCCATGAGGAGCTGCTGTACAACAAGGAGAAGTTGCTCAACAACGGGGACAAGT
GGGAGGCCGAGATCGCCGCCAACATCCAGGCTGACTACTTGTATCGG**TGA**CGCCCCACCGGCCCGCAGCCCCTGC
TGCCCAATAAAACCACTCCGACCCCACGG

FIGURE 158

GCGGCGCCTAGTCCCGGGCTGGCGGGAGTGCAGTTCTGAGTCCCGCCCGGCGTGCGCGGAGCGGGGCAGCCAGCA
GCGGAGGCGCGGCGCGCAGCACACCCGGGGACC**ATG**GGCTCCATGTTCCGGAGCGAGGAGGTGGCCCTGGTCCAG
CTCTTTCTGCCCACAGCGGCTGCCTACACCTGCGTGAGTCGGCTGGGCGAGCTGGGCCTCGTGGAGTTCAGAGAC
CTCAACGCCTCGGTGAGCGCCTTCCAGAGACGCTTTGTGGTTGATGTTCGGCGCTGTGAGGAGCTGGAGAAGACC
TTCACCTTCCTGCAGGAGGAGGTGCGGCGGGCTGGGCTGGTCCTGCCCCCGCCAAAGGGGAGGCTGCCGGCACCC
CCACCCCGGGACCTGCTGCGCATCCAGGAGGAGACGGAGCGCCTGGCCCAGGAGCTGCGGGATGTGCGGGGCAAC
CAGCAGGCCCTGCGGGCCCAGCTGCACCAGCTGCAGCTCCACGCCGCCGTGCTACGCCAGGGCCATGAACCTCAG
CTGGCAGCCGCCCACACAGATGGGGCCTCAGAGAGGACGCCCCTGCTCCAGGCCCCCGGGGGGCCGCACCAGGAC
CTGAGGGTCAACTTTGTGGCAGGTGCCGTGGAGCCCCACAAGGCCCCTGCCCTAGAGCGCCTGCTCTGGAGGGCC
TGCCGCGGCTTCCTCATTGCCAGCTTCAGGGAGCTGGAGCAGCCGCTGGAGCACCCCGTGACGGGCGAGCCAGCC
ACGTGGATGACCTTCCTCATCTCCTACTGGGGTGAGCAGATCGGACAGAAGATCCGCAAGATCACGGACTGCTTC
CACTGCCACGTCTTCCCGTTTCTGCAGCAGGAGGAGGCCCGCCTCGGGGCCCTGCAGCAGCTGCAACAGCAGAGC
CAGGAGCTGCAGGAGGTCCTCGGGGAGACAGAGCGGTTCCTGAGCCAGGTGCTAGGCCGGGTGCTGCAGCTGCTG
CCGCCAGGGCAGGTGCAGGTCCACAAGATGAAGGCCGTGTACCTGGCCCTGAACCAGTGCAGCGTGAGCACCACG
CACAAGTGCCTCATTGCCGAGGCCTGGTGCTCTGTGCGAGACCTGCCCGCCCTGCAGGAGGCCCTGCGGGACAGC
TCGATGGAGGAGGGAGTGAGTGCCGTGGCTCACCGCATCCCCTGCCGGGACATGCCCCCCACACTCATCCGCACC
AACCGCTTCACGGCCAGCTTCCAGGGCATCGTGGATGCCTACGGCGTGGGCCGCTACCAGGAGGTCAACCCCGCT
CCCTACACCATCATCACCTTCCCCTTCCTGTTTGCTGTGATGTTCGGGGATGTGGGCCACGGGCTGCTCATGTTC
CTGTTCGCCCTGGCCATGGTCCTTGCGGAGAACCGACCGGCTGTGAAGGCCGCGCAGAACGAGATCTGGCAGACT
TTCTTCAGGGGCCGCTACCTGCTCCTGCTTATGGGCCTGTTCTCCATCTACACCGGCTTCATCTACAACGAGTGC
TTCAGTCGCGCCACCAGCATCTTCCCCTCGGGCTGGAGTGTGGCCGCCATGGCCAACCAGTCTGGCTGGAGTGAT
GCATTCCTGGCCCAGCACACGATGCTTACCCTGGATCCCAACGTCACCGGTGTCTTCCTGGGACCCTACCCCTTT
GGCATCGATCCTATTTGGAGCCTGGCTGCCAACCACTTGAGCTTCCTCAACTCCTTCAAGATGAAGATGTCCGTC
ATCCTGGGCGTCGTGCACATGGCCTTTGGGGTGGTCCTCGGAGTCTTCAACCACGTGCACTTTGGCCAGAGGCAC
CGGCTGCTGCTGGAGACGCTGCCGGAGCTCACCTTCCTGCTGGGACTCTTCGGTTACCTCGTGTTCCTAGTCATC
TACAAGTGGCTGTGTGTCTGGGCTGCCAGGGCCGCCTCGGCCCCCAGCATCCTCATCCACTTCATCAACATGTTC
CTCTTCTCCCACAGCCCCAGCAACAGGCTGCTCTACCCCCGGCAGGAGGTGGTCCAGGCCACGCTGGTGGTCCTG
GCCTTGGCCATGGTGCCCATCCTGCTGCTTGGCACACCCCTGCACCTGCTGCACCGCCACCGCCGCCGCCTGCGG
AGGAGGCCCGCTGACCGACAGGAGGAAAACAAGGCCGGGTTGCTGGACCTGCCTGACGCATCTGTGAATGGCTGG
AGCTCCGATGAGGAAAAGGCAGGGGGCCTGGATGATGAAGAGGAGGCCGAGCTCGTCCCCTCCGAGGTGCTCATG
CACCAGGCCATCCACACCATCGAGTTCTGCCTGGGCTGCGTCTCCAACACCGCCTCCTACCTGCGCCTGTGGGCC
CTGAGCCTGGCCCACGCCCAGCTGTCCGAGGTTCTGTGGGCCATGGTGATGCGCATAGGCCTGGGCCTGGGCCGG
GAGGTGGGCGTGGCGGCTGTGGTGCTGGTCCCCATCTTTGCCGCCTTTGCCGTGATGACCGTGGCTATCCTGCTG
GTGATGGAGGGACTCTCAGCCTTCCTGCACGCCCTGCGGCTGCACTGGGTGGAATTCCAGAACAAGTTCTACTCA
GGCACGGGCTACAAGCTGAGTCCCTTCACCTTCGCTGCCACAGATGAC**TAG**GGCCCACTGCAGGTCCTGCCAGAC
CTCCTTCCTGACCTCTGAGGCAGGAGAGGAATAAAGACGGTCCGCCCTGGC

FIGURE 159

GAGGTCCTGTAATAAAGAGGGATCCGAACAAGCTCAGAAAGAAAATGAATTTCAAGGGGCTGAGGCC**ATG**GTTCT
GGAGAGCGTTATGTTTGCCATTCTCGCAGAGAGGTCACTTGGGCCAAAACTCTATGGCATCTTTCCCCAAGGCCG
ACTGGAGCAGTTCATCCCGAGCCGGCGATTAGATACTGAAGAATTAAGTTTGCCAGATATTTCTGCAGAAATCGC
CGAGAAAATGGCTACATTTCATGGTATGAAAATGCCATTCAATAAGGAACCAAAATGGCTTTTTGGCACAATGGA
AAAGTATCTAAAGGAAGTGCTGAGAATTAAATTTACTGAGGAATCCAGAATTAAAAAGCTCCACAAATTGCTCAG
TTACAATCTGCCCTTGGAACTGGAAAACCTGAGATCATTGCTTGAATCTACTCCATCTCCAGTTGTATTTTGTCA
TAATGACTGTCAAGAAGGTAATATCTTGTTGCTGGAAGGCCGAGAGAATTCTGAAAAACAGAAACTGATGCTCAT
TGATTTCGAATACAGCAGTTACAATTACAGGGGATTCGACATTGGAAATCACTTCTGTGAGTGGATGTATGATTA
TAGCTATGAAAAATACCCTTTTTTCAGAGCAAACATCCGGAAGTATCCCACCAAGAAACAACAGCTCCATTTTAT
TTCCAGTTACTTGCCTGCATTCCAAAATGACTTTGAAAACCTCAGTACTGAAGAAAAATCCATTATAAAAGAAGA
AATGTTGCTTGAAGTTAATAGGTTTGCCCTTGCATCTCATTTCCTCTGGGGACTGTGGTCCATTGTACAAGCCAA
GATTTCATCTATTGAATTTGGGTACATGGACTACGCCCAAGCAAGGTTTGATGCCTATTTCCACCAGAAGAGGAA
GCTTGGGGTG**TGA**CTGTGGGGAGGACTCCATCCACCTCATCACTGGACTGCATGGGGAGGCAGCAGAGCGGGGTC
CCCTCTGTGCTTCGACTACTGCTCCTGTGGCAGGAGGCTTTGGGTGGCTCACTACTGAACACATGTGTATGATAC
TAAAGACGGTATTAAAATGGAGCGACGTTTATTTCATCTCTTGTTTACGATTTCACTAGGACTCAGAAACGAGAT
CGGGAAGCAGAAATATAGTGCAATAGTGCAACATCTCTGAATCCTTTTAATCTAGAGAAGGCATTTCATATTTGG
GGGCTAAGGTTTCCAGTCAGATGAGGCAAACAGCAAGAGTAAGCAGTGTTACTTGCAGGTACTTTGGTTAATGTT
GATTTAAATTTTCATGAATGTGCTGGTGAACACTGTGACCAGGCTTTTGTAGATGGCGATGTGTTATAGACGGTG
CTCACTCCCAAGGGACAGCAAGTGAGCAGAGATGTACTGCAAAGTCGCCAGTCACTGCTGCAAGGTGGCCTCTGC
CTGGGGCCTCCAGAAGCTGCTCCTTTACCCTCTTGGTCCCATGGCTGAAGCTGGAGCAGCGGATTGCTCTGGAGC
AGCCAAGGCCGCCAGCGTGTGGAGCAGAGCTCTCCCCTCCTGCTGGGCGTGTGTGACACTGATGAGTTTCACTGT
ACTGCATGTGACTTCTCCCCTGCCCTTCCTCCTGATGGAGTGTGCAGACAGCCATGCGTGGCCACGGGGGCAGTG
TGAGGACCTCCCTGTCTCCCGGCTCCCCTCCCAGGGGAGCCAGCTGCTTGACCTAGCTCTTTGGGCCTCTCCTGC
CCTCTGCTCTGCCTGGAGTGTCGGATCCTGTGAGTAGGCTGGGCCTCCCCTGGGCAGGGTTCTCCAAGGGCCCGG
TTTCCCGGCCCTTACCTTTCCTGATGCCCCTGACATCATCATTCTTGTGGGAGACAGCAGCCTGTATGTGGTGTG
GGGCGTGGATCGAGTGTAGCTGTGAAATCCATATATATGAAATGTCC

FIGURE 160

CATCATTCTGTGCCGGAGATCAGTGTGGACGCCTGGTCCCGTCATCAGTTAAGTTTCTGGTTGAGCTGCATTCAC
TC**ATG**AGGATAATCTGGAACCCAGTCGCACCCAGAGCAGAGTACAAGCAAGTTGCCAGCTCCAGGGCACTCCCTG
TGACTATGGCACGTGTGACCCTCGCATGCAAAGGAAGGCCGTTAAGCTTAACACATATTCATGGAAACTGTTGTA
AAGCTGCTAATCTGGAGGACAGAAGACAGACGCAGGCCCGTAGAGATTGCTTTGGTAATGTTCTGAAAAAGCCAG
ATCTGTTGCCAGATCCCGCGTCCTCCTTGCCAGGGAAACACACACGAACATCAGTAAAATGTGGTAATTGCCAGG
ATGCATGTGTGGAAGAAGCGTGGCAGGAGGACCAAGGAGAGTGCCCCCTGTTTCTGCTGGGGAACCAAGCAAAGC
AGGCTTCATGGAGGAGGATTCAGGTCACCCTGAAGTCAAAACCTCAGGTTGCCAGCCGCTGTCAGAGCCCCTGGG
CCAGTCCAGACCCCTCCCACCTGCGGAAGCATGGAGCCCAGGAGGCCATGTTGGGCAAACAGGCTGTGCCCAGAC
AGTGCCCCAAGACCAACTCATCACACCCACCACCTTCTCATTTTCATGTCTTGCTGTTCCTGGTCATTGTCAATG
TTAAGAACCGCAAAAGGTGTCCAAACTATACAGATCCACATAGTCTAACAGATGTCTCTATATTCCTCCTCCTCA
AACTCTCAGAGGATCCAGAACTGCAGCCGGTCGTCGCTGGGCTGTTCCTGTCCATGTGCCTGGTCACAGTGCTGG
GGAACCTGCTCATCATCCTGGCCGTCAGCCCTGACTCCCACCTCCACACCCCCATGTACTTCATCCTTTCCAACC
TGCCCTTGCCTGACATCGGTTTCACCTCCACCACGGTCCCCAAGATGATTGTGGACATCCAGTCTCACAGCAGAG
TCATCTCCTATGCAGGCTGCCTGACTCAGATGTCTCTCTTTGCCATTTTTGGAGGCATGGAAGAGAGACATGCTC
CTGAGTGTGATGGCCTATGGCCGGAACATCAACCTGTATTTCCCTGCTGCCGTATTTGGTTTTCTTCCCATCTTG
GGGACCTTTTCTCTTACTGTAAAATTGTTTCCTCCATTCTGAGGGTTTCATCATCAGGTGTTGGAGGGTACCTCG
GTTCAGATGTGTCATCTTCCCCAAGAAAGAGTGCAGTGGCCTCAGTGATGTACACGGTGGTCACCCCCATGCTGA
ACCCCTTCATGTGTCCAAGACACACAGGGCCACGGAATCTCACAGGTGTCCGAGAATTCCTCCTCCTGGGACTCT
CAGAGGACCCAGAACTGCAGCTTATCCTCACTTTGCTGTCCCTGTCCCTGTCCATGTATCTGGTCACGGTGCTGA
GGAACCTGCTCAGCATCCTGGCTGTCAGCTCTGACTCCCCCCTCCACACCCCCATGTACTTCTTCCTCTCCAAGC
TGTGCTGGGCTGACATCGGTTTCACCTCGGCCACGGTTCCCAAGATGATTGTGGACATGCAGTCACATAGCAGAG
TCATCTCTCATGCGGGCTGCCTGACGCAGATATCTTTCTTGGTCCTTTTTGCATGTATAGAAGGCATGCTCCTGA
CTGTGATGGCCTATGACTACTTTGTAGCCATCTGTCGTCCTCTGCACTACCCAGTCATTGTGAATCCTCAGCTCT
GTGTCTTCTTCTTTTTGGTGTCCTTTTTCCTTAGCTTGTTGGATTCCCAGCTGCACAGTTGGATTGTGTTACAAT
TCACCATCATCAAGAATGTGGAAATCTCTAATTTTGTCTGTGACCCCTCTCAACTTCTCAAACTTGCCTGTTCTG
ACAGCGTCATCAATAGCATATTCATATATTTCGATAGTACTATGTTTGGTTTTCTTCCCATTCCAGGGATCCTTT
TGTCTTACTATAAAATCATCCCCTCCATTCTAAGGATTTCATCATCAGATGGGAAGTATAAAGCCTTCTTCACCT
GTGGCTCTCACCTAGCAGCTGTTTGC**TGA**

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FIGURE 161

TGAAGAAGCCTGCAAAGCCTTTACTTTCAAAGATAAAATTGAGAAATCATTGCAAGCGGCTGGAGCAAAAGAATG
CTTCAAGAAAACTCGAA**ATG**GGAAACTTAGTACTGAAAGAGCCTAAAGTAGTTCTGTATAAAAATTTGCCCATTA
AAAAAGATAAGGAGCCAGAGGGACCAGCCCAAGCCGCAGTTGCCAGCGGGTGCTTGACTAGACACGCGGCGAGAG
AACACAGACAGAATCCTGTGAGAGGTGCTCATTCGCAGGGGGAGAGCTCGCCCTGCACCTACATAACTCGGCGGT
CAGTGAGGACAAGAACAAATCTGAAGGAGGCCTCTGACATCAAGCTTGAACCAAATACGTTGAATGGCTATAAAA
GCAGTGTGACGGAACCTTGCCCCGACAGTGGTGAACAGCTGCAGCCAGCTCCTGTGCTGCAGGAGGAAGAACTGG
CTCATGAGACTGCACAAAAAGGGGAGGCAAAGTGTCATAAGAGTGACACAGGCATGTCCAAAAAGAAGTCACGAC
AAGGAAAACTTGTGAAACAGTTTGCAAAAATAGAGGAATCTACTCCAGTGCACGATTCTCCTGGAAAAGACGACG
CGGTACCAGATTTGATGGGTCCCCATTCTGACCAGGGTGAGCACAGTGGCACTGTGGGCGTGCCTGTGAGCTACA
CAGACTGTGCTCCTTCACCCGTCGGTTGTTCAGTTGTGACATCAGATAGCTTCAAAACAAAAGACAGCTTTAGAA
CTGCAAAAAGTAAAAAGAAGAGGCGAATCACAAGGTATGATGCACAGTTAATCCTAGAAAATAACTCTGGGATTC
CCAAATTGACTCTTCGTAGGCGTCATGATAGCAGCAGCAAAACAAATGACCAAGAGAATGATGGAATGAACTCTT
CCAAAATAAGCATCAAGTTAAGCAAAGACCATGACAACGATAACAATCTCTATGTAGCAAAGCTTAATAATGGAT
TTAACTCAGGATCAGGCAGTAGTTCTACAAAATTAAAAATCCAGCTAAAACGAGATGAGGAAAATAGGGGGTCTT
ATACAGAGGGGCTTCATGAAAATGGGGTGTGCTGCAGTGATCCTCTTTCTCTCTTGGAGTCTCGAATGGAGGTGG
ATGACTATAGTCAGTATGAGGAAGAAAGTACAGATGATTCCTCCTCTTCTGAGGGCGATGAAGAGGAGGATGACT
ATGATGATGACTTTGAAGACGATTTTATTCCTCTTCCTCCAGCTAAGCGCTTGAGGTTAATAGTTGGAAAAGACT
CTATAGATATTGACATTTCTTCAAGGAGAAGAGAAGATCAGTCTTTAAGGCTTAATGCC**TAA**GCTCTTGGTCTTA
ACTTGACCTGGGATAACTACTTTAAAGAAATAAAAAATTCCAGTCAATTATTCCTCAACTGAAAGTTTAGTGGCA
GCACTTCTATTGTCCCTTCACTTATCAGCATACTATTGTAGAAAGTGTACAGCATACTGACTCAATTCTTAAGTC
TGATTTGTGCAAATTTTTATCGTACTTTTTAAATAGCCTTCTTACGTGCAATTCTGAGTTAGAGGTAAAGCCCTG
TTGTAAAATAAAGGCTCAAGCAAAATTGTACAGTGATAGCAACTTTCCACACAGGACGTTGAAAACAGTAATGTG
GCTACACAGTTTTTTTAACTGTAAGAGCATCAGCTGGCTCTTTAATATATGACTAAACAATAATTTAAAACAAAT
CATAGTAGCAGCATATTAAGGGTTTCTAGTATGCTAATATCACCAGCAATGATCTTTGGCTTTTTGATTTATTTG
CTAGATGTTTCCCCCTTGGAGTTTTGTCAGTTTCACACTGTTTGCTGGCCCAGGTGTACTGTTTGTGGCCTTTGT
TAATATCGCAAACCATTGGTTGGGAGTCAGATTGGTTTCTT

FIGURE 162

CGCGGGGGGCGCGACGGCGGCGGCGGCGGCCGGTTGGGGGCGGGGGGCTCGGACGCTGCGGGGACTCATTTTTCC
CGTCAGCGGAGGGAGCGAGCGGTGCTGCGGCCCGCGCCGCCATCTTGGATTTTACTCTCCATTTTTCTCTGGAAT
TATTTTTGGTGATTAATTTTCTGGGGGGGGACTGGGACGCGGGGCCCGGCGGCGCGGCCCCGCATCGCAGCGGCCG
GGCAGCGGGGCCTGGGACGCGCCCCGAGGAGGAGCGGGGCGGCGCAGGCGGAGAGAACATTGAAAGTATTCTCTA
AGCTATTTGAAGAGAGTGACTAAATGCACCTGGGTCAGGCTGTCTGTGGGTATGAAGTGGTTGGGAGAATCCAAG
AAC**ATG**GTGGTGAATGGCAGGAGAAATGGAGGCAAGTTGTCTAATGACCATCAGCAGAATCAATCAAAATTACAG
CACACGGGGAAGGACACCCTGAAGGCTGGCAAAAATGCAGTCGAGAGGAGGTCGAACAGATGTAATGGTAACTCG
GGATTTGAAGGACAGAGTCGCTATGTACCATCCTCTGGAATGTCCGCCAAGGAACTCTGTGAAAATGATGACCTA
GCAACCAGTTTGGTTCTTGATCCCTATTTAGGTTTTCAAACACACAAAATGAATACTAGCGCCTTTCCTTCGAGG
AGCTCAAGGCATTTTTCAAAATCTGACAGTTTTTCTCACAACAACCCTGTGAGATTTAGGCCTATTAAAGGAAGG
CAGGAAGAACTAAAGGAAGTAATTGAACGTTTTAAGAAAGATGAACACTTGGAGAAAGCCTTCAAATGTTTGACT
TCAGGCGAATGGGCACGGCACTATTTTCTCAACAAGAATAAAATGCAGGAGAAATTATTCAAAGAACATGTATTT
ATTTATTTGCGAATGTTTGCAACTGACAGTGGATTTGAAATATTGCCATGTAATAGATACTCATCAGAACAAAAT
GGAGCCAAAATAGTTGCAACAAAAGAGTGGAAACGAAATGACAAAATAGAATTACTGGTGGGTTGTATTGCCGAA
CTTTCAGAAATTGAGGAGAACATGCTACTTAGACATGGAGAAAACGACTTCAGTGTCATGTACTCCACAAGGAAA
AACTGTGCTCAACTCTGGCTGGGTCCTGCTGCGTTTATAAACCATGATTGCAGACCTAATTGTAAGTTTGTGTCA
ACTGGTCGAGATACAGCATGTGTGAAGGCTCTAAGAGACATTGAACCTGGAGAAGAAATTTCTTGTTATTATGGA
GATGGGTTCTTTGGAGAAAATAATGAGTTCTGCGAGTGTTACACTTGCGAAAGACGGGGCACTGGTGCTTTTAAA
TCCAGAGTGGGACTGCCTGCGCCTGCTCCTGTTATCAATAGCAAATATGGACTCAGAGAAACAGATAAACGTTTA
AATAGGCTTAAAAAGTTAGGTGACAGCAGCAAAAATTCAGACAGTCAATCTGTCAGCTCTAACACTGATGCAGAT
ACCACTCAGGAAAAAAACAATGCAAGTAAG**TAA**GGGAGATTTGATAAGCATATCTTTTAAAAGTATTTTCACACA
ATTTGCTTTATAAAGTGTGCTTCAGTAGTTTTAAACTTTTAAATACTCAGAGAGACTGGGACTTGTGAGCTTTGG
CTGCACTTCAAGGCTCTAGACGTGATTTGAGTAGAGGCACAGTCTGTATCCCATCTCTAACTTCAGTACCGTCCT
CTAGACTATTTTTCTTGAATACCTTGGTAACTGGATATGAGTTCTTCATCATATGTTCCAAGGTCATCATATGTT
TTAAACATTTTCAAGGTGTTAGAGACTGTGATGATGTCGCTAAGTCCTGCAAGAAGACAAAAGGACTGAGTAGAA
TTAAATTAGACTCTATACATTCCAGTGCCTAGCCAGTTTGTTAGAAAAGATGATGGACTTGGGGAATTCATAGCT
TCTGGCCTTAAGGCTTCCACCTTTTCATTGCTTGCTGACCTTTTTCAAAACGAACTGACTCAGTTCAGCAGACCA
CCAGTACCAGACTCAGAATTGTGATAGAGGAGCATTTTGAACAGTGCCGTATTGTGACATGCTGTATTGGCTACT
CCAGAAAGTAGGAGTAAAGATGGAAAGGAGAAAGAAGCAACCTCTGAGATTCCAGTGGTGTGTGGGGGCAAGATC
TGATGGAAACTGAAAAAGAGAACGAAGACTAAACAAAGAGAAAGGAAAGAGAAGAAACCCTAAATGGGCAAAGGA
AAGCACATCCTGTTTGCGGAGCTTTGAAATATTGGAACCATTTCTAATTGCTCCTGTTTTTCTGGGTAACACCAG
TTTTCTGTAGTTGCCACTAAAGCAGTAGACTCTTGAGTCTCACTTGTCTCTGAGAGAGACAGAAGTTAGAAAGTT
TTGACTTGGCGATTCCGAAAGTATGCCTTTGTTGGCACTTAAATGTCCAGTGAGACTTCTTGGCACCTTAGAGCC
CTCTGAGATACTGATTATTTTAGGTTCTTCTCCCTACTTTCAGATGTTTTCAGCCCAACACTGGGTGCTCTCTTC
CACTACAGAGAATCCTGAAGAAAAGGGAAGGTGTTTCCCATGATGGTGAATGTCACTGCCATGAATTCCTGAATC
TACCTGCTGCTGGGAGTCAGAGTCCAAGCATAACCCGTGTAGCATAAAAGCAGCGCTGTAGCCCTATTCCAGTCT
TTTTCGTTAATGTCCAGAGTGAACAACAAGAGTTAGTCAATCATTAACTGTTGACTGTTGATTCTCATAATAAAT
GCAGCATAACGACC

FIGURE 163

GCCTGGGTTGCGCTGCCGGCCACGTCCCCGCGCCGGGCCTCAGGCTCCTTCCTACTGTCCGAGGGCCACCAGGCC
GCCGGGGGCCTGCTGCGCCCGGATGCGTCTGTTACTAGAGTGGAGAGTCTACCTTCGTCTCACATGTGCCACAAA
GGATGGCATGGCCCGGGAGTGCCCCACCACGTGGCTTTCACCCCCTGCAAAGCCAGACTTCGCCCAGCGACACAG
TGTCAAGCCCACAGCTCTCCAAGGAGGAAGATGGTCCAGGCTGGGAGCATCCCCTTAGCAGCAGCCTCTGATCCC
TTGGCCAAGCAGGAGGGAACCATTAGCAGCCTGAGGAGCTGGCTGGCTGGGAGCCTCGGGGACCGCCCAGCCTTG
CTCCCAGCTCACCCACAAG**ATG**TGGACAGCTCTTGTGCTCATTTGGATTTTCTCCTTGTCCTTATCTGAAAGCCA
TGCGGCATCCAACGATCCACGCAACTTTGTCCCTAACAAAATGTGGAAGGGATTAGTCAAGAGGAATGCATCTGT
GGAAACAGTTGATAATAAAACGTCTGAGGATGTAACCATGGCAGCAGCTTCTCCTGTCACATTGACCAAAGGGAC
TTCGGCAGCCCACCTCAACTCTATGGAAGTCACAACAGAGGACACAAGCAGGACAGATGTGAGTGAACCAGCAAC
TTCAGGAGGTGCAGCTGATGGTGTGACCTCCATTGCTCCCACGGCTGTGGCCTCCAGTACGACTGCGGCCTCCAT
TACGACTGCGGCCTCCAGTATGACTGTGGCCTCCAGTGCTCCCACGACTGCAGCCTCCAGTACAACTGTGGCCTC
CATTGCTCCCACGACTACAGCCTCCAGTATGACTGCGGCCTCCAGCACTCCCATGACACTTGCACTCCCCGCGCC
CACGTCCACTTCCACAGGGCGGACCCCGTCCACTACCGCCACTGGGCATCCATCTCTCAGCACAGCCCTCGCACA
AGTGCCAAAGAGCAGCGCGTTGCCAAGAACAGCAACCCTGGCCACATTGGCCACACGTGCTCAGACTGTAGCGAC
CACAGCAAACACAAGCAGCCCCATGAGCACTCGTCCAAGTCCTTCCAAGCACATGCCCAGTGACACCGCGGCAAG
CCCTGTACCCCCTATGCGTCCCCAAGCACAAGGTCCCATTAGCCAGGTGTCAGTGGACCAGCCTGTGGTTAACAC
AACAAATAAATCCACACCCATGCCCTCAAACACAACCCCAGAGCCCGCCCCCACCCCCACAGTGGTGACCACCAC
CAAGGCACAAGCCAGGGAGCCAACTGCCAGCCCAGTGCCAGTACCTCACACCAGCCCAATCCCTGAGATGGAGGC
CATGTCCCCCACGACACAGCCAAGCCCCATGCCATATACCCAGAGGGCCGCTGGGCCAGGCACATCCCAGGCACC
GGAGCAGGTAGAGACTGAAGCCACACCAGGTACTGATTCCACTGGGCCAACACCCAGGAGCTCAGGGGGCACTAA
GATGCCAGCCACGGACTCGTGCCAGCCCAGCACCCAAGGCCAGTACATGGTGGTCACCACTGAGCCCCTCACCCA
GGCCGTGGTAGACAAAACTCTCCTTCTGGTGGTGCTGTTACTCGGGGTGACCCTTTTCATCACAGTCTTGGTTTT
GTTTGCCCTGCAGGCCTATGAGAGCTACAAGAAGAAGGACTACACCCAGGTGGACTACTTAATCAACGGGATGTA
TGCGGACTCAGAAATG**TGA**GGGGGGCGGGGGCCTGGCGGGAGGCCTGGCCCCTTCCTCGTCCTTTCCTTTTGCCT
TTGAGACCAAACCAAGTGCTTCCAAATTCTTTTGGTGCAATTGAGGAGATATGCCAGATGCTTAAACACATTTAA
TTGCTGTCAGATTAATTCCATGATCACTAAAGAGTTGCTGCTTTTTTCATATTTATTTTTGTAAATGATTCTGTG
CCCAGGAGCAGCTGGGGGTTCCACCTCAGGGTGGGGCGGGCAGGACCCCGTCTCCCCAGGTGTCGGAGCCTGACC
TGAATTAAAGTACTGACTGCTCGCC

FIGURE 164A

ATGGAGCCCGAGTGAGCGCGGCGCGGGCCCGTCCGGCCGCCGGACAACATGGAGGCAGCGCCGCCCGGGCCGCCG
TGGCCGCTGCTGCTGCTGCTGCTGCTGCTGCTGGCGCTGTGCGGCTGCCCGGCCCCCGCCGCGGCCTCGCCGCTC
CTGCTATTTGCCAACCGCCGGGACGTACGGCTGGTGGACGCCGGCGGAGTCAAGCTGGAGTCCACCATCGTGGTC
AGCGGCCTGGAGGATGCGGCCGCAGTGGACTTCCAGTTTTCCAAGGGAGCCGTGTACTGGACAGACGTGAGCGAG
GAGGCCATCAAGCAGACCTACCTGAACCAGACGGGGGCCGCCGTGCAGAACGTGGTCATCTCCGGCCTGGTCTCT
CCCGACGGCCTCGCCTGCGACTGGGTGGGCAAGAAGCTGTACTGGACGGACTCAGAGACCAACCGCATCGAGGTG
GCCAACCTCAATGGCACATCCCGGAAGGTGCTCTTCTGGCAGGACCTTGACCAGCCGAGGGCCATCGCCTTGGAC
CCCGCTCACGGGTACATGTACTGGACAGACTGGGGTGAGACGCCCCGGATTGAGCGGGCAGGGATGGATGGCAGC
ACCCGGAAGATCATTGTGGACTCGGACATTTACTGGCCCAATGGACTGACCATCGACCTGGAGGAGCAGAAGCTC
TACTGGGCTGACGCCAAGCTCAGCTTCATCCACCGTGCCAACCTGGACGGCTCGTTCCGGCAGAAGGTGGTGGAG
GGCAGCCTGACGCACCCCTTCGCCCTGACGCTCTCCGGGGACACTCTGTACTGGACAGACTGGCAGACCCGCTCC
ATCCATGCCTGCAACAAGCGCACTGGGGGGAAGAGGAAGGAGATCCTGAGTGCCCTCTACTCACCCATGGACATC
CAGGTGCTGAGCCAGGAGCGGCAGCCTTTCTTCCACACTCGCTGTGAGGAGGACAATGGCGGCTGCTCCCACCTG
TGCCTGCTGTCCCCAAGCGAGCCTTTCTACACATGCGCCTGCCCCACGGGTGTGCAGCTGCAGGACAACGGCAGG
ACGTGTAAGGCAGGAGCCGAGGAGGTGCTGCTGCTGGCCCGGCGGACGGACCTACGGAGGATCTCGCTGGACACG
CCGGACTTCACCGACATCGTGCTGCAGGTGGACGACATCCGGCACGCCATTGCCATCGACTACGACCCGCTAGAG
GGCTATGTCTACTGGACAGATGACGAGGTGCGGGCCATCCGCAGGGCGTACCTGGACGGGTCTGGGGCGCAGACG
CTGGTCAACACCGAGATCAACGACCCCGATGGCATCGCGGTCGACTGGGTGGCCCGAAACCTCTACTGGACCGAC
ACGGGCACGGACCGCATCGAGGTGACGCGCCTCAACGGCACCTCCCGCAAGATCCTGGTGTCGGAGGACCTGGAC
GAGCCCCGAGCCATCGCACTGCACCCCGTGATGGGCCTCATGTACTGGACAGACTGGGGAGAGAACCCTAAAATC
GAGTGTGCCAACTTGGATGGGCAGGAGCGGCGTGTGCTGGTCAATGCCTCCCTCGGGTGGCCCAACGGCCTGGCC
CTGGACCTGCAGGAGGGGAAGCTCTACTGGGGAGACGCCAAGACAGACAAGATCGAGGTGATCAATGTTGATGGG
ACGAAGAGGCGGACCCTCCTGGAGGACAAGCTCCCGCACATTTTCGGGTTCACGCTGCTGGGGGACTTCATCTAC
TGGACTGACTGGCAGCGCCGCAGCATCGAGCGGGTGCACAAGGTCAAGGCCAGCCGGGACGTCATCATTGACCAG
CTGCCCGACCTGATGGGGCTCAAAGCTGTGAATGTGGCCAAGGTCGTCGGAACCAACCCGTGTGCGGACAGGAAC
GGGGGGTGCAGCCACCTGTGCTTCTTCACACCCCACGCAACCCGGTGTGGCTGCCCCATCGGCCTGGAGCTGCTG
AGTGACATGAAGACCTGCATCGTGCCTGAGGCCTTCTTGGTCTTCACCAGCAGAGCCGCCATCCACAGGATCTCC
CTCGAGACCAATAACAACGACGTGGCCATCCCGCTCACGGGCGTCAAGGAGGCCTCAGCCCTGGACTTTGATGTG
TCCAACAACCACATCTACTGGACAGACGTCAGCCTGAAGACCATCAGCCGCGCCTTCATGAACGGGAGCTCGGTG
GAGCACGTGGTGGAGTTTGGCCTTGACTACCCCGAGGGCATGGCCGTTGACTGGATGGGCAAGAACCTCTACTGG
GCCGACACTGGGACCAACAGAATCGAAGTGGCGCGGCTGGACGGGCAGTTCCGGCAAGTCCTCGTGTGGAGGGAC
TTGGACAACCCGAGGTCGCTGGCCCTGGATCCCACCAAGGGCTACATCTACTGGACCGAGTGGGGCGGCAAGCCG
AGGATCGTGCGGGCCTTCATGGACGGGACCAACTGCATGACGCTGGTGGACAAGGTGGGCCGGGCCAACGACCTC
ACCATTGACTACGCTGACCAGCGCCTCTACTGGACCGACCTGGACACCAACATGATCGAGTCGTCCAACATGCTG
GGTCAGGAGCGGGTCGTGATTGCCGACGATCTCCCGCACCCGTTCGGTCTGACGCAGTACAGCGATTATATCTAC
TGGACAGACTGGAATCTGCACAGCATTGAGCGGGCCGACAAGACTAGCGGCCGGAACCGCACCCTCATCCAGGGC
CACCTGGACTTCGTGATGGACATCCTGGTGTTCCACTCCTCCCGCCAGGATGGCCTCAATGACTGTATGCACAAC
AACGGGCAGTGTGGGCAGCTGTGCCTTGCCATCCCCGGCGGCCACCGCTGCGGCTGCGCCTCACACTACACCCTG
GACCCCAGCAGCCGCAACTGCAGCCCGCCCACCACCTTCTTGCTGTTCAGCCAGAAATCTGCCATCAGTCGGATG
ATCCCGGACGACCAGCACAGCCCGGATCTCATCCTGCCCCTGCATGGACTGAGGAACGTCAAAGCCATCGACTAT
GACCCACTGGACAAGTTCATCTACTGGGTGGATGGGCGCCAGAACATCAAGCGAGCCAAGGACGACGGGACCCAG
CCCTTTGTTTTGACCTCTCTGAGCCAAGGCCAAAACCCAGACAGGCAGCCCCACGACCTCAGCATCGACATCTAC
AGCCGGACACTGTTCTGGACGTGCGAGGCCACCAATACCATCAACGTCCACAGGCTGAGCGGGGAAGCCATGGGG
GTGGTGCTGCGTGGGGACCGCGACAAGCCCAGGGCCATCGTCGTCAACGCGGAGCGAGGGTACCTGTACTTCACC
AACATGCAGGACCGGGCAGCCAAGATCGAACGCGCAGCCCTGGACGGCACCGAGCGCGAGGTCCTCTTCACCACC
GGCCTCATCCGCCCTGTGGCCCTGGTGGTAGACAACACACTGGGCAAGCTGTTCTGGGTGGACGCGGACCTGAAG
CGCATTGAGAGCTGTGACCTGTCAGGGGCCAACCGCCTGACCCTGGAGGACGCCAACATCGTGCAGCCTCTGGGC
CTGACCATCCTTGGCAAGCATCTCTACTGGATCGACCGCCAGCAGCAGATGATCGAGCGTGTGGAGAAGACCACC

FIGURE 164B

GGGGACAAGCGGACTCGCATCCAGGGCCGTGTCGCCCACCTCACTGGCATCCATGCAGTGGAGGAAGTCAGCCTG
GAGGAGTTCTCAGCCCACCCATGTGCCCGTGACAATGGTGGCTGCTCCCACATCTGTATTGCCAAGGGTGATGGG
ACACCACGGTGCTCATGCCCAGTCCACCTCGTGCTCCTGCAGAACCTGCTGACCTGTGGAGAGCCGCCCACCTGC
TCCCCGGACCAGTTTGCATGTGCCACAGGGGAGATCGACTGTATCCCCGGGGCCTGGCGCTGTGACGGCTTTCCC
GAGTGCGATGACCAGAGCGACGAGGAGGGCTGCCCCGTGTGCTCCGCCGCCCAGTTCCCCTGCGCGCGGGGTCAG
TGTGTGGACCTGCGCCTGCGCTGCGACGGCGAGGCAGACTGTCAGGACCGCTCAGACGAGGCGGACTGTGACGCC
ATCTGCCTGCCCAACCAGTTCCGGTGTGCGAGCGGCCAGTGTGTCCTCATCAAACAGCAGTGCGACTCCTTCCCC
GACTGTATCGACGGCTCCGACGAGCTCATGTGTGAAATCACCAAGCCGCCCTCAGACGACAGCCCGGCCCACAGC
AGTGCCATCGGGCCCGTCATTGGCATCATCCTCTCTCTCTTCGTCATGGGTGGTGTCTATTTTGTGTGCCAGCGC
GTGGTGTGCCAGCGCTATGCGGGGGCCAACGGGCCCTTCCCGCACGAGTATGTCAGCGGGACCCCGCACGTGCCC
CTCAATTTCATAGCCCCGGGCGGTTCCCAGCATGGCCCCTTCACAGGCATCGCATGCGGAAAGTCCATGATGAGC
TCCGTGAGCCTGATGGGGGGCCGGGGCGGGGTGCCCCTCTACGACCGGAACCACGTCACAGGGGCCTCGTCCAGC
AGCTCGTCCAGCACGAAGGCCACGCTGTACCCGCCGATCCTGAACCCGCCGCCCTCCCCGGCCACGGACCCCTCC
CTGTACAACATGGACATGTTCTACTCTTCAAACATTCCGGCCACTGCGAGACCGTACAGGCCCTACATCATTCGA
GGAATGGCGCCCCCGACGACGCCCTGCAGCACCGACGTGTGTGACAGCGACTACAGCGCCAGCCGCTGGAAGGCC
AGCAAGTACTACCTGGATTTGAACTCGGACTCAGACCCCTATCCACCCCCACCCACGCCCCACAGCCAGTACCTG
TCGGCGGAGGACAGCTGCCCGCCCTCGCCCGCCACCGAGAGGAGCTACTTCCATCTCTTCCCGCCCCCTCCGTCC
CCCTGCACGGACTCATCC**TGA**CCTCGGCCGGGCCACTCTGGCTTCTCTGTGCCCCTGTAAATAGTTTTAAATATG
AACAAAGAAAAAAATATATTTTATGATTTAAAAAATAAATATAATTGGGATTTTAAAAACATGAGAAATGTGAAC
TGTGATGGGGTGGGCAGGGCTGGGAGAACTTTGTACAGTGGAGAAATATTTATAAACTTAATTTTGTAAAACAG

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FIGURE 165

GGAGGGAATCCCTGGGTCCTCACAGGAACAGTCAGCAAGCCACACCTGACGCCTGCTGTGGGCCCATCCCTGCGG
TGCTGGAGAAGACAGACAAGGCCTGGTCACTGCCTCTGCAGGGTCCCCAGTCCGTGGAAGGAGACAGTAATCTAG
GCATTTTCGGTGGGGAAGCTGAGCTGTTCTCGTGTCCTGAAGGCCAGGCGGGAACAGCCGTCTTCAGAGGGAAGG
GAGAAAATGCACATCGCATCAGTGGAGAAGGGCCTGACTTCCCTCAGCATGGTGGAGGGAGA**ATG**GGTGTGGGAG
CTTCCTGCCTGCCCTGGGGCACTGAGGCAGCATCGCCCGGGCAGTTGAAGAAAGTCCATGTTGCCAGTTTGGCTA
TTTCCACTGCCGGGGAGGCCACTGTGGGAGGTCTTGTTCCCGAGAAATGCACCAGCCAGTCCCAGGACTCTCTGA
AACCTTTCCTGGGCTCCTTAGTCCAGCTCCAAGCTGCCCCTCTGGCCCTGTGCTACACCTGGTGCTCCCTGCTCT
CGCTTCCAGCCATCTTCTCTAGAGTGATCAATGTTGATGGGACGAAGAGGCGGACCCTCCTGGAGGACAAGCTCC
CGCACATTTTCGGGTTCACGCTGCTGGGGGACTTCATCTACTGGACTGACTGGCAGCGCCGCAGCATCGAGCGGG
TGCACAAGGTCAAGGCCAGCCGGGACGTCATCATTGACCAGCTGCCCGACCTGATGGGGCTCAAAGCTGTGAATG
TGGCCAAGGTCGTCGGAAGGGAAATACCTGCTTCCCAAGCGGTATTGAATCTTAATGCAGTGAAGAAGAAAGAGA
AGCAGAAGAGCTCAGTTTCCACGTTGAAATGGGCCGACCCCTCATATCCTACA**TGA**

FIGURE 166A

CAGATAAGAAAACAAGCTCAGAGAGATGTGGTGACTTGCTCAAATAGTGACAGAACTTCCTCGGCCATATGGAGG
GGTCATATAATACCCTTGTGTCTTCAGTTTGAGGAGAGCTTGTTTCATATCCATATCCCACTGTATTCCTGCTAA
TCTGCTAATGCAGTAAATTGGAGGAAAACTGTTACCAGGATAACCTGTAATGGGCAAGGAGCCACAAAGAAGAAA
ACATTTCTTTTAATTTTTAAACTTGGTTTGAAAGACCAGC**ATG**TTTTGGAAATTTGATCTTCACTCATCATCCCA
CATAGACACACTTCTAGAAAGAGAAGATGTAACACTGAAGGAGTTAATGGATGAGGAAGATGTTTTACAGGAATG
TAAAGCTCAGAACCGCAAACTTATAGAGTTTCTGTTAAAAGCAGAATGTCTCGAAGATTTAGTCTCATTCATTAT
AGAAGAACCACCTCAAGACATGGATGAAAAGATCAGATACAAGTATCCAAATATATCTTGTGAGTTGCTCACTTC
TGATGTCTCCCAGATGAATGATAGACTGGGAGAAGATGAATCCTTGCTAATGAAATTATATAGCTTCCTCCTAAA
CGATTCCCCTTTGAATCCACTACTTGCCAGTTTCTTCAGCAAGGTGCTAAGTATTCTTATCAGCAGAAAACCAGA
ACAGATTGTGGATTTCTTAAAGAAGAAGCATGATTTTGTAGACCTTATTATAAAGCACATAGGAACTTCTGCTAT
CATGGATTTGTTGCTCAGGCTCCTGACGTGTATCGAACCTCCACAGCCCAGGCAAGATGTGCTGAATTGGTTAAA
TGAGGAGAAAATTATCCAGAGGCTTGTGGAAATAGTTCATCCATCGCAAGAAGAAGATCGACATTCAAATGCATC
ACAATCACTTTGTGAAATTGTTCGCCTGAGCAGAGACCAGATGTTACAAATTCAGAACAGTACAGAGCCCGACCC
CCTGCTTGCCACTCTAGAAAAGCAAGAAATTATAGAGCAGCTTCTATCAAATATTTTCCACAAGGAGAAAAATGA
GTCAGCCATAGTCAGTGCAATCCAGATATTGCTGACTTTACTTGAGACACGACGACCAACATTTGAAGGCCATAT
AGAGATCTGCCCACCAGGCATGAGCCATTCAGCTTGTTCAGTAAACAAGAGTGTTCTAGAAGCCATCAGAGGAAG
ACTTGGATCTTTTCATGAACTCCTGCTGGAGCCACCCAAGAACATGTTCTTCAAGTATACATGGAATAACTTTTT
GCATACACAAGTGGAAATTTGTATTGCACTGATTCTTGCAAGTCCTTTTGAAAACACAGAAAATGCCACAATTAC
CGATCAAGACTCCACTGGTGATAATTTGTTATTAAAACATCTTTTCCAAAAATGTCAATTAATAGAACGAATACT
TGAAGCCTGGGAAATGAATGAGAAGAAACAGGCTGAGGGAGGAAGACGGCATGGTTACATGGGACACCTAACGAG
GATAGCTAACTGTATCGTGCACAGCACTGACAAGGGCCCCAACAGTGCATTAGTGCAGCAGCTTATCAAAGATCT
TCCCGACGAAGTCAGGGAACGATGGGAGACGTTCTGCACAAGCTCCTTAGGAGAAACTAACAAGAGGAACACGGT
AGATCTAGCCTTTTCTGATTATCAGATGCAACAAATGACGTCCAATTTTATTGACCAGTTTGGCTTCAACGATGA
GAAGTTTGCAGATCAAGATGACATTGGCAATGTTTCTTTTGATCGAGTATCAGACATCAACTTTACTCTCAATAC
AAATGAAAGTGGAAATATTGCCTTGTTTGAAGCATGTTGTAAGGAAAGAATACAACAGTTTGATGATGGTGGCTC
TGATGAGGAAGATATATGGGAGGAAAAGCACATCGCATTCACACCAGAATCCCAAAGACGATCCAGCTCGGGGAG
TACAGACAGTGAGGAAAGTACAGACTCTGAAGAAGAAGATGGAGCAAAGCAAGACTTGTTTGAACCCAGCAGTGC
CAACACGGAGGATAAAATGGAGGTGGACCTGAGTGAACCACCCAACTGGTCAGCTAACTTTGATGTCCCAATGGA
AACAACCCACGGTGCTCCATTGGATTCTGTGGGATCTGATGTCTGGAGCACAGAGGAGCCGATGCCAACTAAAGA
GACGGGCTGGGCTTCTTTTTCAGAGTTCACGTCTTCCCTGAGCACAAAAGATTCTTTAAGGAGTAATTCTCCAGT
GGAAATGGAAACCAGCACTGAACCCATGGACCCTCTGACTCCCAGTGCGGCTGCCCTGGCAGTGCAGCCAGAAGC
GGCAGGCAGTGTGGCCATGGAAGCCAGCTCTGACGGAGAGGAGGATGCAGAAAGTACAGACAAGGTAACTGAGAC
AGTGATGAATGGCGGCATGAAGGAAACGCTCAGCCTCACTGTAGATGCCAAGACAGAGACTGCGGTCTTCAAAAG
TGAGGAAGGGAAACTGTCTACCTCTCAAGATGCTGCTTGTAAAGACGCAGAGGAGTGTCCCGAGACTGCAGAGGC
GAAGTGCGCGGCACCCAGGCCTCCCAGCAGCAGTCCCGAGCAGAGGACTGGCCAACCAAGCGCACCAGGTGACAC
TTCAGTGAATGGCCCTGTA**TGA**CGGGTGACGTCTGCTGCTGCTGACTGAGGACTGCAGACCGCCACCACTCAGGG
GCTCTGGAGGGGTCAGCTGGAGCCCACCAAGCTGTCACTGCTGCACTCACTCTGCAAGGGATCAGGACCAGCAAC
CTTTATATTCTAGATTCTAAGACATTGTACAGAGAAATTCAGAAGTGTAAAAATATTGCACATTGACAAATACCA
AGAATTTTTGCGTATGTTTATATTGTATTGTTCTAAATAATGGGTAGCCTGTGAAATAAGATCTTGCCACCCATG
TAATAATAGTAGTAATACTATAGTTAAAATGGCTGTAAGAATAGTTTTATAAAAGTGAATACACAGATCTATTGT
ATTTGAAACATAACTTTGACAATTATTAGTGTGACCAAAGTATTAGGCGGTTTTCATACATTTTTCACCTTGTAC
AAAATTATGAATTCATTTTTCCTCCAGGCCGACAAGGAGTTGTAGAATGAAAATGCCCTCTAAGTGTTATTTTGG
TTGTTCTAACTTACAAAAGTGATTTTGAATAAGAAATATTTGGTGTTCTTTTTATAACCAGTTTTTGATTGGTAA
TTGTTTTCTGTATTGTTTAAAACGGATCAAAAATGTAAGTCTATTGGTAGAGATTAAGTAAAGTATTTATTGCTA
CATCATAGTTGATAAATTGATGTTATCGTAAAGCCATATGTTCTGTTCAAGTCTTGTTTGCTTGAAATGATTATT
CCTACAAGTGAAACACTAGACTATTTGGAGTGTATATGGCTTGTGTTTTGGGATTTTTTTTTTTTTTTTGGCTT
TTGTTTTTGTTTGTTTTTTTGTTTCGTTTGGTAGTTCATCTGCCTTTTAACCCATTCACCAAAATTTACCTTGTT
AACAAGCATCACCAATGAACATTTCAGAGCAATCTGCATATTTAACAGACCTAAAATAAATCCTATTAGGCAAGT

FIGURE 166B

CAGTTGAAAATGCTCGTGCTGCTAATGGAATTAGAGTGCGTTCATTTTACAGGCTAGTATTTTAAAAGTAGAAAT
CAAAATCTGGCACCGAAGCATGCTAATTGTTTACTGTACCTTGTGAGGTTTTCACTCATAAATTTAAACCAGTGT
ATTTTTTTAGAACTGGTTTGTGTATATATATAGTGATTATGGATACTAATTCAATGTAATTTATAATTTTCTATG
TCAATACAAAAATACATCACAGCCTTCTCAAACAGCTCAAGCAATATATTGTATATTGCCATATCGTCTGGTGAA
AGGGTTAAATTACTTCACCTCTTGCACTTTTAGATGCAAATCAGTTTTTCATTTCTGTAATAGAAAATTATTCAC
GTATTTTTACATCATTTGTTTTTCCTGACCAGTATTTAAAACCAAAAGGATATTCTGAAAAATGGCCAACAATTT
TTTTAGAAGTAGCATCCCAAGCAGCGTGCCTAAACATTACATTGCATATGGAAATAAAAGAATCAAACGTCTAAT
GCCTTATTATTTCTGATTTCCTTTTTCATTTTAAGTGGTGTGGAGATTCCAGCACTCCCAGGACAGTGGAGTCAG
CAGTAAGCCCTGGGACAGGTGGCAAGGGTGGGTCCCTTGACCTTTGCACGCCTCCTCAGGAACCCCCTTTCCCGG
GTGAGCCCCTCTCTGAAGAGACTGTCCTTGGGCCTCCTCTGGAAGCAGCACCCCCAGAGGACAGGGCTCCTCCTG
CTTGCCTCAGGGCTGCCTGACTTGAATGGCGTTGGACCTCGGGGATTACTGGTAGATAATATGCTCTGGTCTCGC
CTGGTGGTGAGTTTTGCCAGCCATGGCCAGGGTTTGGCTCCACTGGTGGCACACGTGGCCTCCGTGGTATGGACC
TGGTGGCTTCTCCATCCCACTGTGGCCTCTGTGGTATGGACCTGGTGGCTTCTCCATCCTACCCAAGGTAACAGT
GTCTTGCTTCATCCCACTGACTGCTGGGAGAGAGCCTCTGGGACTTTTCTTTGGGGCATCATTTTGTTTTGTCTT
TCGTAGCAGGGAAAGGATATGACAATGGGGAGGACAGTTCTTTTGGAGGTTGGAGGGGCCAAGCCAAGGACAGGA
GCAAGTGTGCCCTCATTTTGTTTCTACTTTTAATTTCTGTGTGTTGGCCATACTGA

FIGURE 167

GGTACTCTCTGAAG**ATG**GCAGAAGCTCACCAAGCTGTGGCCTTTCAGTTCACGGTCACTCCGGACGGGATTGACC
TGCGGCTGAGCCATGAAGCTCTTAGACAAATCTATCTCTCTGGACTTCATTCCTGGAAAAAGAAGTTCATCAGAT
TCAAGAACGGCATCATCACTGGCGTGTACCCGGCAAGCCCCTCCAGTTGGCTTATCGTGGTGGTGGGCGTGATGA
CAACGATGTACGCCAAGATCGACCCCTCGTTAGGAATAATTGCAAAAATCAATCGGACTCTGGAAACGGCCAACT
GCATGTCCAGCCAGACGAAGAACGTGGTCAGCGGCGTGCTGTTTGGCACCGGCCTGTGGGTGGCCCTCATCGTCA
CCATGCGCTACTCCCTGAAAGTGCTGCTCTCCTACCACGGGTGGATGTTCACTGAGCACGGCAAGATGAGTCGTG
CCACCAAGATCTGGATGGGTATGGTCAAGATCTTTTCAGGCCGAAAACCCATGTTGTACAGCTTCCAGACATCGC
TGCCTCGCCTGCCGGTCCCGGCTGTCAAAGACACTGTGAACAGGTATCTACAGTCGGTGAGGCCTCTTATGAAGG
AAGAAGACTTCAAACGGATGACAGCACTTGCTCAAGATTTTGCTGTCGGTCTTGGACCAAGATTACAGTGGTATT
TGAAGTTAAAATCCTGGTGGGCTACAAATTACGTGAGCGACTGGTGGGAGGAGTACATCTACCTCCGAGGACGAG
GGCCGCTCATGGTGAACAGCAACTATTATGCCATGGATCTGCTGTATATCCTTCCAACTCACATTCAGGCAGCAA
GAGCCGGCAACGCCATCCATGCCATCCTGCTTTACAGGCGCAAACTGGACCGGGAGGAAATCAAACCAATTCGTC
TTTTGGGATCCACGATTCCACTCTGCTCCGCTCAGTGGGAGCGGATGTTTAATACTTCCCGGATCCCAGGAGAGG
AGACAGACACCATCCAGCACATGAGAGACAGCAAGCACATCGTCGTGTACCATCGAGGACGCTACTTCAAGGTCT
GGCTCTACCATGATGGGCGGCTGCTGAAGCCCCGGGAGATGGAGCAGCAGATGCAGAGGATCCTGGACAATACCT
CGGAGCCTCAGCCCGGGGAGGCCAGGCTGGCAGCCCTCACCGCAGGAGACAGAGTTCCCTGGGCCAGGTGTCGTC
AGGCCTATTTTGGACGTGGGAAAAATAAGCAGTCTCTTGATGCTGTGGAGAAAGCAGCGTTCTTCGTGACGTTAG
ATGAAACTGAAGAAGGATACAGAAGTGAAGACCCGGATACGTCAATGGACAGCTACGCCAAATCTCTACTACACG
GCCGATGTTACGACAGGTGGTTTGACAAGTCGTTCACGTTTGTTGTCTTCAAAAACGGGAAGATGGGCCTCAACG
CTGAACACTCCTGGGCAGATGCGCCGATCGTGGCCCACCTTTGGGAGTACGTCATGTCCATTGACAGCCTCCAGC
TGGGCTATGCGGAGGATGGGCACTGCAAAGGCGACATCAATCCGAACATTCCGTACCCCACCAGGCTGCAGTGGG
ACATCCCGGGGGAATGTCAAGAGGTTATAGAGACCTCCCTGAACACCGCAAATCTTCTGGCAAACGACGTGGATT
TCCATTCCTTCCCATTCGTAGCCTTTGGTAAAGGAATCATCAAGAAATGTCGCACGAGCCCAGACGCCTTTGTGC
AGCTGGCCCTCCAGCTGGCGCACTACAAGGACATGGGCAAGTTTTGCCTCACATACGAGGCCTCCATGACCCGGC
TCTTCCGAGAGGGGAGGACGGAGACCGTGCGCTCCTGCACCACTGAGTCATGCGACTTCGTGCGGGCCATGGTGG
ACCCGGCCCAGACGGTGGAACAGAGGCTGAAGTTGTTCAAGTTGGCGTCTGAGAAGCATCAGCATATGTATCGCC
TCGCCATGACCGGCTCTGGGATCGATCGTCACCTCTTCTGCCTTTACGTGGTGTCTAAATATCTCGCTGTGGAGT
CCCCTTTCCTTAAGGAAGTTTTATCTGAGCCTTGGAGATTATCAACAAGCCAGACCCCTCAGCAGCAAGTGGAGC
TGTTTGACTTGGAGAATAACCCAGAGTACGTGTCCAGCGGAGGGGGCTTTGGACCGGTTGCTGATGACGGCTATG
GTGTGTCGTACATCCTTGTGGGAGAGAACCTCATCAATTTCCACATTTCTTCCAAGTTCTCTTGCCCTGAGACGG
ATTCTCATCGCTTTGGAAGGCACCTGAAAGAAGCAATGACTGACATCATCACTTTGTTTGGTCTCAGTTCTAATT
CCAAAAAG**TAA**TTCCACTGGAGCTGCTGGGAAGGAAAACGAG

FIGURE 168

CGGCCGAGGCTGCGGCC**ATG**GCAGCATCTTCCCTGACGGTCACCTTAGGGCGGCTGGCGTCCGCGTGCAGCCACA
GCATCCTGAGACCTTCGGGGCCCGGAGCAGCCTCCCTTTGGTCTGCTTCTCGAAGGTTCAATTCACAGAGCACTT
CATATCTACCAGGATATGTTCCTAAAACATCCCTGAGTTCACCACCTTGGCCAGAAGTTGTTCTGCCAGACCCAG
TTGAGGAGACCAGACACCATGCAGAGGTCGTGAAGAAGGTGAATGAGATGATCGTCACGGGGCAGTATGGCAGGC
TCTTTGCCGTGGTGCACTTTGCCAGCCGCCAGTGGAAGGTGACCTCTGAAGACCTGATCTTAATTGGAAATGAAC
TAGACCTTGCGTGTGGAGAGAGAATTCGACTGGAGAAGGTCCTGCTGGTTGGGGCAGACAACTTCACGCTGCTTG
GCAAGCCACTCCTCGGG**TAA**TGGCTGTGAAGTGCTGGGCTTTGTCTGGGGCTCCAGGGCTGGACATGCAGACAGT
GGTCACAGTGCAATTAGGCCAGAAAGGATCTTGTTCGAGTAGAAGCCACAGTCATTGAAAAGACAGAATCATGGC
CAAGAATCATTATGAGATTCAGGAAAAGGAAAAACTTCAAGAAGAAAAGAATCGTCACGACCCCGCAGACTGTCC
TCCGGATAAACAGCATTGAGATTGCTCCGTGTTTGTTGTGATTACCGAGTTAATACTTACAAAAGGATAAAAATA
AACTCCTGCTTCCCAAGG

FIGURE 169

GGCGCAGAAGCGGGACGTCGGCTTCTAGGGGCCCAGGCCGGCGGCGGCG**ATG**GCCTCGGCAGCTGTGGAGAGCTT
CGTGACCAAGCAACTGGACCTGCTGGAGCTTGAGAGAGACGCGGAGGTGGAGGAGCGCAGGTCCTGGCAGGAGAA
CATCTCTCTGAAAGAGCTCCAGAGCCGAGGCGTGTGTTTGCTGAAGCTGCAGGTATCCAGCCAGCGCACTGGGCT
GTACGGACGGCTGCTGGTCACCTTTGAGCCCAGGCGATACGGGTCCGCGGCAGCTCTTCCCAGTAACAGCTTTAC
TTCTGGTGATATCGTGGGCCTGTACGATGCTGCTAATGAGGGCAGTCAGCTGGCCACTGGGATCTTGACCCGGGT
CACCCAGAAGTCGGTCACGGTGGCCTTTGATGAGTCCCACGATTTCCAGTTGAGCTTGGACCGAGAGAATTCCTA
CAGACTGTTAAAACTTGCCAATGATGTCACTTACAGGCGACTGAAAAAAGCCCTGATTGCTCTAAAGAAGTATCA
TTCTGGCCCAGCCTCCTCACTCATAGAAGTGCTCTTTGGCAGATCTGCTCCCAGTCCTGCCAGTGAAATACACCC
GCTGACATTCTTCAACACCTGCCTGGACACCTCCCAGAAAGAAGCGGTTTCATTTGCGCTGTCTCAGAAAGAACT
TGCCATCATCCATGGACCTCCTGGCACTGGGAAAACCACGACTGTGGTTGAGATCATTCTTCAAGCTGTGAAACA
AGGCTTAAAGGTTCTGTGCTGCGCCCCCTCCAACATCGCCGTGGACAATCTGGTGGAGCGCCTGGCTCTGTGTAA
GCAGCGGATTCTGCGCCTGGGACACCCTGCCCGCCTCCTGGAGTCCATTCAGCAGCACTCCCTGGATGCGGTTTT
AGCGCGGAGCGACAGTGCCCAGATTGTTGCAGATATCAGGAAGGACATCGACCAGGTCTTTGTGAAAAACAAAAA
GACCCAGGATAAGAGAGAGAAAAGTAATTTTCGAAATGAAATTAAGCTGTTAAGAAAAGAACTGAAGGAGAGGGA
AGAAGCAGCTATGCTCGAGAGCCTCACTTCGGCAAACGTGGTCCTTGCAACAAACACAGGTGCGTCTGCCGATGG
CCCCCTGAAGTTGCTGCCCGAGAGCTACTTCGACGTGGTGGTCATTGACGAGTGTGCCCAGGCCCTCGAGGCGAG
CTGCTGGATCCCCCTGCTGAAGGCCAGAAAGTGCATCCTGGCGGGCGATCACAAGCAGCTGCCCCCCACCACAGT
CTCTCACAAGGCTGCGCTGGCAGGACTGTCACTCAGCCTGATGGAACGCCTGGCTGAGGAGTACGGCGCGAGGGT
GGTGCGGACACTGACGGTGCAGTACCGCATGCACCAGGCTATCATGCGCTGGGCCTCAGACACCATGTACCTTGG
GCAGCTCACAGCCCACTCTTCCGTGGCAAGGCACCTCCTGAGGGACCTCCCAGGTGTGGCTGCCACAGAAGAGAC
GGGTGTGCCCCTGCTCTTGGTGGACACCGCCGGCTGCGGGCTGTTTGAGCTGGAGGAGGAGGACGAACAGTCGAA
AGGGAACCCTGGCGAAGTCCGCCTCGTCAGTTTGCACATCCAGGCTCTGGTGGACGCTGGTGTTCCAGCCCGTGA
CATTGCTGTGGTCTCGCCATACAACCTCCAGGTGGACCTGCTCAGACAGAGCCTTGTGCACAGGCACCCTGAGCT
TGAAATCAAGTCTGTCGATGGCTTCCAAGGCCGAGAGAAGGAGGCCGTGATACTGTCCTTCGTCAGATCCAACAG
GAAAGGTGAAGTTGGTTTTCTTGCTGAGGACCGGAGGATCAACGTGGCTGTCACCCGTGCCCGACGCCACGTGGC
GGTCATCTGTGACTCCCGTACTGTCAACAACCATGCATTTTTGAAGACCCTGGTGGAGTATTTCACACAGCATGG
GGAAGTACGCACGGCCTTTGAGTATCTTGACGATATTGTCCCAGAAAACTATTCCCATGAGAACTCCCAGGGTTC
CAGCCACGCTGCCACCAAGCCCCAGGGACCTGCTACGTCCACCAGGACCGGAAGCCAGCGGCAGGAGGGAGGCCA
GGAGGCTGCAGCACCTGCCAGACAGGGCCGGAAGAAGCCGGCTGGGAAGTCTCTGGCCTCTGAAGCTCCATCTCA
GCCCAGCCTCAACGGAGGCAGCCCAGAGGGAGTGGAGAGCCAAGATGGCGTGGACCACTTCCGGGCCATGATAGT
GGAGTTCATGGCCAGCAAGAAGATGCAGTTGGAGTTTCCTCCTTCCCTCAATTCCCACGACAGGCTGCGGGTCCA
CCAAATAGCCGAGGAGCACGGGCTGAGGCACGACAGTTCCGGGGAAGGGAAGAGGAGGTTCATCACTGTGAGCAA
GAGGGCCCCGCGACCCCGAGCAGCCCTGGGACCCCCAGCAGGGACCGGTGGCCCAGCCCCTCTCCAGCCAGTGCC
CCCTACCCCTGCGCAGACAGAGCAGCCTCCCAGGGAGCAGCGTGGCCCAGACCAGCCTGATCTGAGGACGCTGCA
CCTGGAGAGACTGCAGAGGGTCAGGAGCGCGCAGGGGCAGCCCGCCAGCAAGGAGCAGCAGGCCTCAGGGCAGCA
GAAACTTCCAGAAAAGAAAAAGAAAAAAGCCAAAGGACATCCGGCCACAGATCTGCCCACGGAGGAGGACTTTGA
GGCCCTGGTTTCTGCCGCCGTTAAGGCTGATAACACCTGCGGCTTTGCCAAGTGCACAGCCGGCGTCACAACCCT
GGGCCAGTTCTGCCAGCTCTGCAGCCGCCGCTACTGCCTCAGCCACCACCTGCCCGAGATCCATGGCTGCGGTGA
GAGGGCTCGCGCCCATGCCCGGCAGAGAATCAGCCGGGAAGGGGTCCTCTATGCCGGCAGCGGGACCAAGAACGG
ATCCCTGGACCCAGCCAAGAGGGCCCAGCTGCAGAGGAGGCTGGATAAGAAGCTGAGTGAGCTCAGCAACCAGAG
GACCAGCCGGAGGAAGGAGAGGGGGACG**TGA**CCGGCCGCATCCTTGCACGCCCCGCGGAGCTCTCTCCATGGTAG
CCCAGGGCGCTGGCAGACCATGCTCCGCCTCCACCAGGGCCACAGAGGAGCGGAGGGGCCTATGGGGGAGGAGCG
GAGGGCCCTGTTGGGGAAGGTTGGGTTTTTGGACCCCAGGGATAAGCTTTTCCGATGTCACAATGTGGAGGAAAG
CACCTGGGGGGACAACAGTGCTCGTGCAGGTGGGGCTTGGGAAATGCACGTCCCTTCCCCTTACTCCCCGCCAAAC
CCACATCCCAGCCTCTGGATCCTGGGGAAGTTCCAGTCC

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FIGURE 170

CCTCCTCCTACTCCCCTCCCCCTCCCCCTCCTGCCGGGCCAGGAATTGGGTTTGGGGCGGGTTCTGCTTCCAAAG
CCATCTCTTCCAGCAGGAGAGGGCTCTACTCTGAGCTCCTATTTTCCAAGGCTCCGGGCCGCGCTCGGCGCTGGC
CTGCTGCCCCGGCGGGTCCGCCGGCCGGAGGCGGGAGTCACAGGAAGAGCCCTCCACAAAAGGAGGCCTCGGCGG
ATCAGGACAGCTGCAGGTGGGTGTGCAGACTGGTGAGCTGCCAGCAGGGGCCCAGACGCGCCAGGCCTGGAG**ATG**

GCTGGAAACTGCTCCTGGGAGGCCCATCCCGGCAACAGGAACAAGATGTGCCCTGGCCTGAGCGAGGCCCCGGAA
CTCTACAGCCGGGGCTTCCTGACCATCGAGCAGATCGCGATGCTGCCGCCTCCGGCCGTCATGAACTACATCTTC
CTGCTCCTCTGCCTGTGTGGCCTGGTGGGCAACGGGCTGGTCCTCTGGTTTTTCGGCTTCTCCATCAAGAGGAAC
CCCTTCTCCATCTACTTCCTGCACCTGGCCAGCGCCGATGTGGGCTACCTCTTCAGCAAGGCGGTGTTCTCCATC
CTGAACACGGGGGGCTTCCTGGGCACGTTTGCCGACTACATCCGCAGCGTGTGCCGGGTCCTGGGGCTCTGCATG
TTCCTTACCGGCGTGAGCCTCCTGCCGGCCGTCAGCGCCGAGCGCTGCGCCTCGGTCATCTTCCCCGCCTGGTAC
TGGCGCCGGCGGCCCAAGCGCCTGTCGGCCGTGGTGTGCGCCCTGCTGTGGGTCCTGTCCCTCCTGGTCACCTGC
CTGCACAACTACTTCTGCGTGTTCCTGGGCCGCGGGGCCCCCGGCGCGGCCTGCAGGCACATGGACATCTTCCTG
GGCATCCTCCTGTTCCTGCTCTGCTGCCCGCTCATGGTGCTGCCCTGCCTGGCCCTCATCCTGCACGTGGAGTGC
CGGGCCCGACGGCGCCAGCGCTCTGCCAAGCTCAACCACGTCATCCTGGCCATGGTCTCCGTCTTCCTGGTGTCC
TCCATCTACTTAGGGATCGACTGGTTCCTCTTCTGGGTCTTCCAGATCCCGGCCCCCTTCCCCGAGTACGTCACT
GACCTGTGCATCTGCATCAACAGCAGCGCCAAGCCCATCGTCTACTTCCTGGCCGGGAGGGACAAGTCGCAGCGG
CTGTGGGAGCCGCTCAGGGTGGTCTTCCAGCGGGCCCTGCGGGACGGCGCTGAGCTGGGGGAGGCCGGGGGCAGC
ACGCCCAACACAGTCACCATGGAGATGCAGTGTCCCCCGGGGAACGCCTCC**TGA**GACTCCAGCGCCTGGAGGAGG
CAGGGGCAGGAAGCGGCCTCCAAGACCCTTCGCCTTGGGACAGGAATGGGCACCTGCTTCTGAGTCCATACAGGA
GAAGAAAGATCTGTTTCCTCTCCTCGGGCCTCCTTCTCCCTGGGCTGGGGACTCCAGGGGTGGCTGGGAGACTGG
GCAGCCACCAGCAAACAGACCCTGTGGCCCCTGCCCGGCTCCCCCACCCATTCTGCTCCCCTAGAGACCTCTTGT
ACAGAAGTTGCCCCCAGGTGGTGGGGCCCCTCCTTGCCCTAGGCTGGTTGGTAAAAGAGAGGAGGTCAACACCCA
GCCTAGCCACCTCTGCCTCTTGGGTCAGCCCTCCTTGACTGTGTCCCAGCCAGCACCAGGCCAGCAGCCTCATCC
CTGCCATTCAGGGCTGTTCCAGAGATTCGATCCTCTTAAGGCATTATCAGTGAGCAAATGTGAAGGAAATGGTGT
CTGGAAGAAAGTTCTGGTTCACATGCCTTGTAGCTAAGTCTTTCTGCAAACAACCTCCCTTCCCCCCGTCGAGTC
ATTTGGTGACTTTGATGGGGGGATTTCTGGTTATGTCAAGGCTCTGGAGACAGGAAGGGCCTTTGGCCGCCTTGG
GTAGTTGACCTGCCTTTTCTGACTCCGGGACGAGCCAGTCCTAGGCTGCCTCCGGGAGCACTTGAGGTATCCCGC
AGGCCATGAGGACCCACTGGGCAGCTCCTGGACAGCCTCTTGGCTCCAGCCCCCACCCGAAAGTGGACACTGGCT
CCGCCCTGGCCACCTGGGGACTGGCACTGTGGTGCACAGTGGCCCAATGTGGCCAACGGAAGTTTTATAAAAGAC
AAAATGTATATCAATAAACATTTTATAACTTGC

FIGURE 171

CTTGCATTGATTCATTGAATTCCTGAAGCGAAGCTACACCAGCACATGGGTGGCTTTGAAAGGGGCCTCCCAGAG
CCTGGGGCTCCAGAGGAATTCACTCCCCAAACCTTTGTTGAGCAGCTACTGTATGCCACGCTTTGTGCTAGAGGA
CAGGACTGATGCCACCCCTGCCCCCAGGCACTGACAGGGTAGCAGAGGGAAGACACATGAGCTGCTTTTTAATTT
TTTTTAGAATTAATAGAGACGGGGTCTCACTCTGTCACTATGTTGCCCAGGCTAGTTTTGAACTCCTGGCCTCAA
GCAGTCCTCCTACCTCAGCCTCCCAAAATGCTGGGATTACAGGTGTGAGCCACCGTGCTTAGCCATGAATTGATT
TTAAAACCTTAAATGAGGGGCCAGGTGTTGTCTTTCCGTTTGCCTGAGTGACGCGGGTCTTCTCCAGGACATCCG
GCCACAGATCTGCCCACGGAGGAGGACTTTGAGGCCCTGGTTTCTGCCGCCGTTAAGGCTGATAACACCTGCGGC
TTTGCCAAGTGCACAGCCGGCGTCACAACCCTGGGCCAGTTCTGCCAGCTCTGCAGCCGCCGCTACTGCCTCAGC
CACCACCTGCCCGAGATCCATGGCTGCGGTGAGAGGGCTCGCGCCCATGCCCGGCAGAGAATCAGCCGGGAAGGG
GTCCTCTATGCCGGCAGCGGGACCAAGAACGGATCCCTGGACCCAGCCAAGAGGGCCCAGCTGCAGAGGAGGCTG
GATAAGAAGCTGAGTGAGCTCAGCAACCAGAGGACCAGCCGGAGGAAGGAGAGGGGGACGTGACCGGCCGCATCC
TTGCACGCCCCGCGGAGCTCTCTCCATGGTAGCCCAGGGCGCTGGCAGACCATGCTCCGCCTCCACCAGGGCCAC
AGAGGAGCGGAGGGGCCTATGGGGGAGGAGCGGAGGGCCCTGTTGGGGAAGGTTGGGTTTTTGGACCCCAGGGAT
AAGCTTTTCCGATGTCACAATGTGGAGGAAAGCACCTGGGGGACAACAGTGCTCGTGCCAGGTGGGGCTTGGGAA
ATGCACGTCCCTTCCCCTTACTCCCCGCCAAAACCCACATCCCAGCCTCTGGATCCTGGGGAAGGTTCCAGTCCC
TGGAGAATACCCAGGGCCTCAAACTTGAAGTCACTCCTCCAATGTCTGGGACTTGCCAGCTCAGCCCGTTAGG**AT**
GAGGGTGCTGAGAGGAAACAGGAAACAAGACTGCGAATGGCGCTCAGGCAGGGAGCAGGGAGTGGCGTTTGGCTT
GCACGTTCCCATGTGGCCAGATGCTGGGGCCACTTTCCTTCTGTCTGCTGGTGACTGCAGTGTTCCCCCTCCTCC
TCACCACGGGGCTCCTGTGAGTCTGGGGGGCACCTCTTTCTGGCCTGTGCACCTCTCTCTGGCTTATAAAGGTGC
CTGGCCTGTGCCAGCCCCTCCTTGTTGCGCCTCACCGTGGGGACCAGGTGAGCCGGCTCTCCCACGTGGTTGTCC
CGGGAAAGCTGCCCCACAGCCTCAGCATCTTCAGCACTTACCGATCCAGAGCCTCCCGGCCTTCTCCGGTGTCCT
GTACCAACTCTTCTATTTAAGAGAACCTCAGATGATGTACCTGAGCCTCAGGGTTTTGTTTCAGAGGGATATAAA
TTATTTAAAAATTAAA**TGA**AAACGTTGCACACTG

FIGURE 172

ATGGTCACACAGCAGCAGTCCAAGTGCCTGGGGCAGTCCGATGCCCACATCCCCCTTGAGGTCCCAGGAGGCCAC
TCCGTCCTCCTAGTACTCTCTTCTCCCAGCATCTCCAGTTCTCCACTGCCCGCTTTTCCTGCTGCCCCACTTGCT
GGTCCCCTGGAGTCCCCCAGACATCATCGCTCCTGCAGTCAGCAAGGATTTGCCCCCTTCCTGACCCTACAGCCC
CCGTTCCAGGCAGTTCCTAGCACCATAAGGACTCTGGCCACCCACACGCTGAGCTCCCACAGGGCAGGTCCAATG
CCCAGCACACAGGGGAAGCTCAGCCCATGTGCCGGCGGAACGTTGAAGACCTACTGTGTTCAGGGCCGTGAGCCA
GGGCACAACCACCCCTTGGGAGCACACTCTGCCTCAACCCTGGAGTGGCTCCGAAATGAGTCTTCAGTCCACAAG
ACTGAGGGTTGCCAATCCTTCTCGGGCTGCCCAGAGCCCCTTCCTGCCCAAGTGGCAGCTGGCCCGCTGGATCTG
CAGGGCAAAAGGAGCAATTGCCTCTCTGTGCGTTTCTATTTCTGCACCTTCCGCTTCCTGGCTGGTGGCCGGCTG
GCTGCTTCAGAAAGTTCTGGAATCCGCAAGGCCAGCTGGTCCTGGCTGGGGCCCAGCAGCACCTCAGCTGGAATG
TGGCGTTTTTCGTTGCAGGGAGAAGTGGTGAACCTGCGGCCCTCAGGCTTGTACCTGCTTCACTGGGGGAGGCTT
CGAAGGTGGCCCAGCTCAGCAGACACTGTGTGGATGTCACAGCCCAGTAGTTCAGAGGACCCTGGACCACCACCT
AGACAGAGAAGGCCACAGCCTTGGCAATGTCCAGACCCTTCCTCCTCTGATCCCACAGGAGGTCCTGGAAGTGGA
CCTACTTTATCTACTGCAAAAGGCCTCAAGAGTGGATTTTTGCTGTCCCTCTTAGAGCCCTCACTGGCATTCTCT
TGGCAGCAGGATACCCCTGACCCCGAAACCCTGGGCAGCTGCTGTCCAACGATCAGTTCCCTGTTTGTTTCCATC
ACGCACTCCACCTTCCACTCCTGTCTGCCTTTGCAGCAGGATCCCCCTGCCGCCCTAACACAGAAGGAGGTGAGA
CGACCGCGGATGCACAAGGTGGGACGACCGCGGCTGCGCAAGGTGGGACAACCGCGGCTGCGCAAGTTGGGACGA
CAGCGGATGTGCAAGGTGAGACGACCGCAGATGTGCAAGGTGGGACGAGGGACGACCACGGATGCACAAGGTGAG
ACGACTGCAGATGCCCAAGGGGCCTGCAGCATTTGTGTACACTTCCTGGTACAATTCAGACAGCCTGGGCCAGGA
CATAGAGAGACCCCAAAGGGAGCCGCTTCAGCAGCAAACAAGCCACAGCCTGTGTGCAGGGAGCTGACCAGACGC
CCTGCAGCCGCCGGGAAGCTGGCAGAGACAGATGGCGTCTGTGCTCAATGGGGCACACAGGGAGCAGAGGCCTCC
GCTGGAGCCCACCCGGCCACCCGCCCGGCAGAGGCTCCTGGGCCGGCCATGCAGGCAGGGAGAGGAGCGCCAGGA
GCTGTAACACGCCAGGTGTGGGTCGCAGCTGAGCAAGTGCTGACAGCTGGTGTTCCCATGCTCCTGGGGGCAGCA
TCTCGCAGCCACTCCAGGGGCCATGTGCACGCTGCCTGCCACCCGGCCCCGCCTCCCCCAGATGGAGCTTTGGCC
GTCACCTGTTGTGCGGTGCGGACAGACACAGCCCGTGGGAGCACACCCCAGGGCCCCCCGGCTCCTCACTCACAT
GGAAGTGAGCACCCACAAACCACTGCGGTGGAGACCCACCGGTTACAAGCAAAGAAACCCACTCTCACTCCTCAA
ATAAAAGGGGAATACTATTACAAGGATGCAAAAGACGAGTTCTCAGAATCCTGTAAACCTTATGTAGCCCCAACT
GCTCAATGCACAGGCAAAATCAACTCAAGAAATCGGCGTCAGAGAGGGGCTGGGAACGAGCCTCCAAGTTCCAGT
TTGGAATCTCTCTTCACCACA**TGA**

FIGURE 173

ATGGAAGATTCCCACAAGAGTACCACGTCAGAGACAGCACCTCAACCTGGTTCAGCAGTTCAGGGAGCTCACATT
TCTCATATTGCTCAACAGGTATCATCTTTATCAGAAAGTGAGGAGTCCCAGGACTCATCCGACAGCATAGGCTCC
TCACAGAAAGCCCACGGGATCCTAGCACGGCGCCCATCTTACAGAAAAATTTTGAAAGACTTATCTTCTGAAGAT
ACACGGGGCAGAAAAGGAGACGGAGAAAATTCTGGAGTTTCTGCTGCTGTCACTTCTATGTCTGTTCCAACTCCC
ATCTATCAGACTAGCAGCGGACAGTACATTGCCATTGCCCCAAATGGAGCCTTACAGTTGGCAAGTCCAGGCACA
GATGGAGTACAGGGACTTCAGACATTAACCATGACAAATTCAGGCAGTACTCAGCAAGGTACAACTATTCTTCAG
TATGCACAGACCTCTGATGGACAGCAGATACTTGTGCCCAGCAATCAGGTGGTCGTACAAACTGCATCAGGAGAT
ATGCAAACATATCAGATCCGAACTACACCTTCAGCTACTTCTCTGCCACAAACTGTGGTGATGACATCTCCTGTG
ACTCTCACCTCTCAGACAACTAAGACAGATGACCCCCAATTGAAAAGAGAAATAAGGTTAATGAAAAACAGAGAA
GCTGCTCGAGAATGTCGCAGAAAGAAGAAAGAATATGTGAAATGCCTGGAAAACCGAGTTGCAGTCCTGGAAAAT
CAAAATAAAACTCTAATAGAAGAGTTAAAAACTTTGAAGGATCTTTATTCCAATAAAAGTGTT**TGA**

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FIGURE 174

GTTTTTTTCCCTTCTGAGCA**ATG**GAGCTTACCATCTTTATCCTGAGACTGGCCATTTACATCCTGACATTTCCCT
TGTACCTGCTGAACTTTCTGGGCTTGTGGAGCTGGATATGCAAAAAATGGTTCCCCTACTTCTTGGTGAGGTTCA
CTGTGATATACAACGAACAGATGGCAAGCAAGAAGCGGGAGCTCTTCAGTAACCTGCAGGAGTTTGCGGGCCCCT
CCGGGAAACTCTCCCTGCTGGAAGTGGGCTGTGGCACGGGGGCCAACTTCAAGTTCTACCCACCTGGGTGCAGGG
TGACCTGTATTGACCCCAACCCCAACTTTGAGAAGTTTTTGATCAAGAGCATTGCAGAGAACCGACACCTGCAGT
TTGAGCGCTTTGTGGTAGCTGCCGGGGAGAACATGCACCAGGTGGCTGATGGCTCTGTGGATGTGGTGGTCTGCA
CCCTGGTGCTGTGCTCTGTGAAGAACCAGGAGCGGATTCTCCGCGAGGTGTGCAGAGTGCTGAGACCGGGAGGGG
CTTTCTATTTCATGGAGCATGTGGCAGCTGAGTGTTCGACTTGGAATTACTTCTGGCAACAAGTCCTGGATCCTG
CCTGGCACCTTCTGTTTGATGGGTGCAACCTGACCAGAGAGAGCTGGAAGGCCCTGGAGCGGGCCAGCTTCTCTA
AGCTGAAGCTGCAGCACATCCAGGCCCCACTGTCCTGGGAGTTGGTGCGCCCTCATATCTATGGATATGCTGTGA
AA**TAG**TGTGAGCTGGCAGTTAAGAGCTGAATGGCTCAAAGAATTTAAAGCTTCAGTTTTACATTTAAAATGCTAA
GTGGGAGAAGAGAAACCTTTTTTTTGGGGGGCGGTTTTTTTGGTTTGTTGTTGGTTTTTTTTTTTTTTTGGCAA
GACTCCGTCTCAAAAAAAAAAAAAAAAAAAAAAAGAAGTAGAGACAGGGAGACAGGGTCTCACTGTGTTGCCTAG
GCCGGTCTTGAACTCCTGGGCTCAAGTGATTCTCCCACCTTGACCTCCTAAATTGTTGGGATTACAGGTGTGAGA
CAGTGCACCTGGCCGAAATAGCTCAAGTTTCTGAAAAACAAATCTGAATCTATTTGTTATTCTTAGCGTCACTGG
TCTGGCTTTCAGAATTAACATACAAGGTTGCCACACCTAGTTCTGCCCAGCTTTATGTCTTTTATTCCAGTATTC
CACCAAAGTTTGTTTTCCTGCATTCCAGTTCTCAAGTCTTAAGATAAAGATTGTACTTGACAGTTTAGTATATCC
ATAAAACTATTTGAGGTGGTTAAGGTTCTTGGGTTCATTTTCCTTAATACTTTGCTGAATATTGTAGATTGTAGG
CAATGAAAAAGTCTACTAAATTAGGAAAACCTTGAATAATTAGGTATCCTAGGTAAGAGCCCCTAAACATCAAGC
AATCTGTGAGTCTGTAAAGAAATAAATATTTTTTGGATTATTCTTATCTAATTCCACCCCTGTTGGAAGATGATT
TCTTTGTTCTTTGCAACTATGGAAGCTGTGAAAATCATCACAAGTGCCTCTGAAAGCGAGTGTTAGGTTGGTTAG
AGGGTTTAATATTTTCTGCAATGGTTTGTAGGAATTTTAATAAATGTAGTATATTTTCTGAGATGATTTTGTAAA
AGTACTATTTTAAATATCAAATCAACCAATAAATTCACATTTGTGTTAGGAACAG

FIGURE 175A

CGCCCGAGTTGCCGGAGACGCCCGGCCCTCTCTGCCTGCCGGCTGGGCTGCCCACCGCCCTCCCTCCCCGCCCTG
CCGCCCTGGGAGCTCCCCGGCCGTCGCCGCGGGGCCCGGGACTCGCTCGCTCCTCCCTCCTTCCCACCGGGCTAG
GGCGGCGGCGGCAGCGGGGGCGGCAGAGACCATCACGGGAGGAGGCAGCTGCGGCGGGGCCGAATCCTAATGTAC
CTGGCTAGCTGGTGGTGAGTAGGGGCTTTGGGGCCAACTTGGTGGGCTCCCCAAGGAAACCCCTTTGAAACCA**AT**
GGATGCATTCACGGGCTCGGGTCTCAAGAGGAAGTTTGATGATGTGGATGTGGGCTCATCAGTTTCCAACTCAGA
TGATGAGATCTCCAGCAGTGATAGTGCTGACAGCTGCGACAGCCTCAATCCTCCTACCACTGCCAGCTTCACACC
CACATCCATCCTGAAGCGGCAGAAGCAGCTGCGGAGGAAGAATGTACGCTTTGACCAGGTGACTGTATACTACTT
TGCCCGGCGCCAAGGTTTTACCAGTGTGCCCAGCCAGGGTGGTAGCTCTCTGGGCATGGCCCAGCGCCATAACTC
TGTACGGAGCTATACACTCTGTGAGTTTGCCCAGGAACAGGAGGTGAACCATCGAGAGATTCTGCGTGAGCACCT
GAAGGAAGAGAAACTCCATGCCAAGAAAATGAAGCTGACCAAGAATGGGACAGTGGAGTCGGTGGAGGCTGATGG
CCTGACGCTGGATGATGTGTCAGATGAAGATATTGATGTGGAAAATGTGGAGGTGGATGATTACTTCTTCCTGCA
GCCTCTGCCCACCAAACGGCGACGGGCCCTGCTGAGGGCTTCTGGGGTCCACCGTATTGATGCTGAAGAGAAGCA
AGAACTTCGAGCCATCCGCCTGTCACGGGAAGAATGTGGTTGTGACTGCCGACTGTATTGTGACCCAGAAGCGTG
TGCCTGCAGCCAGGCTGGGATTAAATGCCAGGTGGATCGCATGTCCTTTCCATGTGGCTGCTCCCGGGATGGCTG
TGGGAACATGGCAGGACGCATTGAATTTAATCCAATCCGGGTCCGGACTCATTACCTCCACACCATTATGAAGCT
GGAGCTGGAGAGCAAGCGGCAGGTGAGCCGCCCAGCAGCCCCAGATGAGGAGCCCTCCCCGACTGCCAGTTGCAG
CCTGACAGGAGCACAGGGCTCTGAGACCCAGGACTTCCAGGAGTTCATTGCTGAGAATGAGACAGCAGTGATGCA
CCTGCAGAGTGCAGAGGAACTGGAGCGGCTCAAGGCAGAAGAAGATTCCAGCGGCTCTAGTGCCAGCCTGGACTC
GAGCATCGAGAGCCTGGGTGTGTGCATCCTAGAGGAGCCTCTGGCTGTCCCCGAAGAGCTGTGCCCAGGCCTTAC
AGCCCCCATTCTCATCCAGGCTCAGCTGCCCCCAGGCTCCTCTGTCCTGTGTTTTACCGAGAACTCAGACCACCC
AACTGCCTCAACGGTGAACAGCCCATCCTACTTGAACAGTGGGCCCCTGGTCTATTATCAAGTGGAGCAGAGGCC
AGTCTTGGGAGTGAAAGGAGAGCCTGGTACGGAAGAAGGCTCAGCCTCTTTCCCAAAGGAGAAGGATCTGAATGT
CTTCTCTCTCCCTGTTACCTCACTCGTGGCTTGTAGCTCCACAGACCCAGCTGCCCTCTGTAAATCAGAGGTGGG
GAAAACACCCACCCTAGAAGCTCTATTGCCCGAAGATTGTAACCCTGAGGAGCCTGAAAATGAAGACTTCCACCC
TTCCTGGTCCCCCTCAAGCCTCCCCTTCCGCACGGACAATGAAGAGGGCTGTGGGATGGTGAAGACCTCCCAGCA
GAATGAGGATCGGCCCCCTGAAGATTCTTCCTTAGAACTCCCTCTGGCAGTG**TGA**CAGGCGCTAGAGGTCCTGCC
TCTTACCCATTCTCTATTTATTCCCTTATTTTATCTAACACCATTTCAAAACAAAACTGTAGAAGCAGCTGCTGC
TCCCATGTTATTTTATTGGGGTCTTTGGGGAATGGGTGGGAAAGGATTGTTTGAGTATTTTTTAAAAGGGAAACA
GTACCAAGGAGACCAGCCCTACCTTGATCTGGGGATAGTCTTGGGGCAAAGAAAGCTGCGTAGTGCTGAACATTA
AGCTTTCTGGGCCACTGGAACAAAGAACTAGGATCTCACAGGAAAAGCTGGGTAACTCAAGCAGCTATTCTTTCT
GTAGGGACCAGAACACGAGAATTTGAAGAGCATGGCAAAGCCCTTTCTCTCCCAAGCCCCAGGCAGAGTACAAGC
TCATTTTTCTCGGTGGTTATTCTGATATCCCATTTTGGTGTGTCATAATACTTCAAACTGGAAAGTCACCTGGTC
GAGTCTAGGGAGGAGGGAGTGGAAGGGTCTCTGCTTCTGTACAAAATCTCCAGGATTTACAAAAATGTAACCTGC
CTTCCTTCAATCCCATATTTGGTAAATAAGTTAATATTTGACATGTTTGGTGTTCTCTGACCTGTTCCCCACACT
GGGGATTCCTGGTCTGTAACTTGAATTGTTTCTTCCACATGTTCTTAAGTACTAGAGTTAAACTTGTCTATGTGT
CTTTTTTCTCTCCATCCTTTTTCCTTCGGAGAAAGAGCTGGATTGGCTGGGGATATGGTATAACGAGCCTGAGCC
TTCTGTACGTGTCTGACACTAGCACTGTCAGGCAGCTTTCGGCTGGGGCTCACCCATCCCATAGGAGGCCTATGT
GGAGCATTAACTGTGGCCAAAGGAGGCAGCGGGAACAGGCTGCTTGCTATCTGGAAAGATGACATATTTGTGCCA
TGCTTGTTTTTTCACCCAGGTTTTTCCCTCTTTGTGAGATCTGAGCTTTAGTGGAATGTAGAATGTGGCAATCTT
AAGGTCACCAATCAGTTTTTGTTCTTTTTTCCTGGATCTACCCTCATGGTCGTTTTCAACATAGCGGGTTAGAGT
TCTTATACTGTTCCAGTTCAATTCCAAGAATTGCAAATGTTTATTGGACCCCTCCATCTTGATGATATATAAAAA
TTGGAAGCCAAACCAGTTCTTAAATGCTACATGCAACTCCCAGATTCCAAAGGATTCAAGTTCTAATTATAACCT
TTGAAGCGTATAGAATGGAACTCATTCAGTTTGATTCAGTTCTTACCTCTGTCAGGAGGAATACAGTTCCTGTTC
ATCCTGTGTTCTAAGATCTCCATTGAACAGCACTGATTTCCTTTCATTAGCAAAGTGATCTTTGTCTCTGTTCTA
AAATGGAGGCAGTAGGGAGCAAAACTATTCTTCTCAAGCATCCTTTACACCATACTTTACTTCTGGTATGGTTTA
TTAACCACACACACACACAAAAGTGAAAAACTGTGTTGGGGGGGAGACACTACTCCTACTTATCTTGCTCATAAA
GCCTTTTCTGGTGGGATATTAAGGCCCTGGTGTCTTACAGAAACCATCACGTATGTCGCAGCAGCATTTCACCCC
TGAAGTCTCTAAACTCTGAGCCTGAAAAGATTTGTATTTAATACACATAACATTTTTTAGTTCATTCTGCCTTTC

FIGURE 175B

CTATTTGTTCCAGTTTTTGCTTGGTTTTAGTTTGGAGGGGAACTTAAGTACACAGATCCTTATCTCTCCCCATCC
CCTAGCCTCACAAAACACAGTTGAGAGTCTTTTAAGTACCTGAGCTCTCGAAGCTACCCAGAACTGAACTAGACT
CCCCTACCTTAGACTGGTACCCTCAAACACAGGACTGAAGCTTAATTGGGAATTTGGCTTTATGGAGAAAAGAAT
CTTTTTCAAAGTTTGTGTCGGAAGGGGAGGGTGAGGTTTGCCCACTGTCTCTGCAGGAAGGCTCCGGCTTAATCT
AGGAAGTAGATTCCAGCTGCACGATGAGGAACACATTAGCTTTTGGGATCAAACCAGGAATATGAATCTGTAATT
ATTAAGCTCATTGCCAACCCACAAGATATGTTTCTGAAAACCTGTAGTTTCTTAATTTAAGTCCATCCCCTTCAT
TAACGCTACAGTTGTGACTCACACTGATCCCAAACTTTTAAGTGCTAAATATTAACATTTAGCATTAACTGTCTT
GTCAAGCGAAAGGCCTTCTCTACAACCTAGTCCATCTCACTTCTGGTGCTACCTGAGTTGGACAGAATTCTAGCT
CATGGTTGCTAGGAAAGCTAGGCCTCTGATCATAGAAGCAGATAGCTTCAGTCCCAGTCTAGGCCTAGATAAATG
ACTCTTATTACCACAACCCTTATTATTTTCCAATTTCCTTTCTCACATACTGTACACAGGTAGTATTTTCAATGT
GAATCCAAAGCTTGTCTGGTTCTCTGAAAATAATTTTTTCCCCTTTAGGTTCTTTACATTGTGATAATGCTGTAT
TTAAAGAGAATATTTAAATGTAATATTAAAGAAATATTCAAAAG

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FIGURE 176

TGATTGCCTATCTCTTCTTGACCCCAAGACCTTCCTTGGATTTCAGAAGTGTCAAGCCTTGGGATACAATCTCCG
AGACTCCTGCTTTACATTAGGGACTCAAGGCGTGAGGGAGCTTCTAGGACTGATTCCCAGATAGTCTCTTTGATC
TTCCTTGTAGGTCTTCAAAGCTTCACCTTTCTCCAAAGGCAGATGTGAAGAACTTGATGTCTTATGTGGTAACCA
AGACAAAAGCGATTAATGGGAAATACCATCGTTTCTTGGGTCGTCATTTCCCCCGCTTCTATGTCCTGTACACAA
TCTTCATGAAAGAAAGCCTTGAGCCGGGCC**ATG**CTTCTCACATCTTACCTGCCTCCTCCCTTGTTGAGACATCGT
TTGAAGACTCATACAACTGTGATTCACCAACTGGACAAGGCTTTGGCAAAGCTGGGGATTGGCCAGCTGACTGCT
CAGGAAGTAAAATCGGCTTGTTATCTCCGTGGCCTGAATTCTACGCATATTGGTGAAGATAGGTGTCGAACTTGG
CTGGGAGAATGGCTGCAGATTTCCTGCAGCCTGAAAGAAGCTGAGCTGTCTCTCTTGCTGCACAACGTGGTCCTG
CTCTCCACCAACTACCTTGGGACAAGGCGC**TGA**ATGAACCATGGAGCGGATGGCATTGTCCTGCAGTCGTATAGT
ATAGCAGTGCAGGAACAAACAGCACTTGCCAGCAAAGTCTGTGTGTACTGTTAAGTGTGTGGGAGGCAGAGAGAG
GAGCAGGGGCCATGGGCTTCACAGCATGGCACACATGTGGGAACTGCAGACATTCCTCTCACAGCTAGAACTGAA
ACAAACCCTCTTGCTAGGGGTGGTCCGTGTGAGGTGTCATCCTGTCCCCCTCATAATTACTAATAGCTGGAACTG
GCAGCAGCCTCTACTGGGCTTTTACTGTGATGTGTTCAGTTCATGTCCTAGGAAGTCAGCTTTTGCCCCAGGTGG
GAATCCTTATTTGGCTTAGGACTGATCCACTTCCATGTTACTTACATCTGTGGGTTTTTGTTGTTGCTGTTAGAA
AATTTGTGGCTGGTGAAAACAGCACTCCTTTGGCTGGAGCACATGTGTCCGTGCATGTACTTGGGTGTTTCCCTC
CATCCTTTCTGATATGACCAAAAATCAAGTTGTTTTGTTTTTTGTCACCTTCACTGGCATGGGCTAACCACTTCT
TTTTCAAACCCTCTGAACACCTTTTTCTGATGGGTAACTTGCAGGAATATTCTATTGGAAAAGATAACAGGAAGT
ACAAGTGCTTCTTGACCCCTTCCTCAATGTTTCTAGCCTTCACTCTCCATTGTCTTTTCTGGGCTGTATTACAGC
CCTCTGTGGATCTTCAACTCTGCTGCCTCCACTGTGATGCAGCAGTCCAACTGTAACTGACAGTGGCTGCCTTCT
CTGGGCCATGGATCACACCTGTAAGGTACTAATTACTGCCCAGCCTGGGGAGATCAGGAGAGGTCTGCATAGTTA
GTAAGTTGGGTTTAGCTTTTGTGTGTGCATCAGTGACTTAGAGTTCTGTAATAACTTATTGTAAATGCATGAAGC
ACTGTTTTTTAAACCCAAGTAAAGACTGCTTGAAACCTGTTGATGG

FIGURE 177

AGATATCCCG**ATG**TCTGTGGGTATAATCGATCCTAGGGCTAATCCAACTCAACTAAATACAGTGGAGTTCCTGTG
GGACCCTGCAAAGAGGACATCTGTGTTTATTCAGGTGCACTGTATTAGCACAGAGTTCACTATGAGGAAACATGG
TGGAGAAAAGGGGGTGCCATTCCGAGTACAAATAGATACCTTCAAGGAGAATGAAAACGGGGAATATACTGAGCA
CTTACACTCGGCCAGCTGCCAGATCAAAGTTTTCAAGCCCAAAGGTGCAGACAGAAAGCAAAAAACGGATAGGGA
AAAAATGGAGAAACGAACACCTCATGAAAAGGAGAAATATCAGCCTTCCTATGAGACAACCATACTCACAGAGTG
TTCTCCATGGCCCGAGATCACGTATGTCAATAACTCCCCATCACCTGGCTTCAACAGTTCCCATAGCAGTTTTTC
TCTTGGGGAAGGAAATGGTTCACCAAACCACCAGCCAGAGCCACCCCCTCCAGTCACAGATAACCTCTTACCAAC
AACCACACCTCAGGAAGCTCAGCAGTGGTTGCATCGAAATCGTTTTTCTACATTCACAAGGCTTTTCACAAACTT
CTCAGGGGCAGATTTATTGAAATTAACTAGAGATGATGTGATCCAAATCTGTGGCCCTGCAGATGGAATCAGACT
TTTTAATGCATTAAAAGGCCGGATGGTGCGTCCAAGGTTAACCATTTATGTTTGTCAGGAATCACTGCAGTTGAG
GGAGCAGCAACAACAGCAGCAGCAACAGCAGCAGAAGCATGAGGATGGAGACTCAAATGGTACTTTCTTCGTTTA
CCATGCTATCTATCTAGAAGAACTAACAGCTGTTGAATTGACAGAAAAAATTGCTCAGCTTTTCAGCATTTCCCC
TTGCCAGATCAGCCAGATTTACAAGCAGGGGCCAACAGGAATTCATGTGCTCATCAGTGATGAGATGATACAGAA
CTTTCAGGAAGAAGCATGTTTTATTCTGGACACAATGAAAGCAGAAACCAATGATAGCTATCATATCATACTGAA
G**TAG**GAGTGCGGCGTTTCGTGCCCAGTGGCTGCTCCTTCCTTCACCTCTGAAAACGGCCCTCTTGAAGGGGGATA
TGAATGGAGATTTGAAGGTCTGCAAGAACCTGACTCGTCTGACTGTGTGTGGAGGAGTCCAGGCCATGGAGGCAG
AATCCTGGCCCTCTGTGTTGGCCCAAGCTCTTGTGGTACACACAGATTACTGCCCAATATGCAGTTCTGCAGCTG
TTTTAGTTAAATTTCTGGACCTTGTTGTTGTTAAATATCAGTAGAAACTCTACATAATTTAGAGTGTATGTAGGG
CATAATGATGATGGGAATTGTGTGATGTTTAACAGGAAGATCTTAAATTTTGTGATATGGAGCCCTGTAATTTTT
TTCTTATATAAAAATGGGTATCTATATTCATAAGACTAGGTCTTCAATCTCTTTGTACTGGTCTCAAATGTACTG
GTATCTCTGCTTTTTGCCACAGTTTGTCCCTGAAAACTTTATCAGTGAGGAGAAATACAGAATTTTCCTTTTGGT
TCCCCTGTAATACCACAACTAATAGTATTTTCAGCTAACATTTATTGACCAGGCAGTGTGATAAATTTTTTGAAT
GACCATCTTGTTTAACCCCCTAATCACACTATCTGAAGTAGGTGCTATAGTGACCCCCAACCGAAGATGAGGAAA
TGGAGACACACAGTGGCTAAGTAGCTTGCTAGGTGCCAGGAGCTGGCAGGCAGTGATGCTGAAATCCAAACCAGG
CAATCTGGCCCTCCTTATTCACCCTCTCATACCACCAGTGCTACCCATTATAACCTGTGTTCACTTCGCTTATTA
CTGTGGCCCTTCTGGTGACTACAACATAACACTGAGTATGAACTGAGGAATTAACCACTGAAAGAGACAAAGCAC
ACCTAAATAATGATGAACAAATCAAGACCTACAAGAAATGAACACATAGATGCTTTTTAAGTGTCATTAGTTATC
GGAATCAAAGAATTTGAGGTGGTGACAACTGGGGATTATCTGTAACTCCCCAAATTTACTGTTCTTGAATGACAT
TCTCAAACTATTTATTAATGAGTTAGTCTCATCCCTGCTTTCTGTTTCCTCTCTCTGCATCTTCTCTTGGCATAG
GAAGTTATTTTACTCATGCTATGTTTTTTAATAGAAGCTTTACAAAAAAAGATGCATTCCCTTCCTGTTCACACT
CTTACCATGTTTTTGTTCTTCCTTAAGAATGATTGTGTGTGTGTGTGTGTGTGTGTGTAAGTGTGTAAGTGTAAC
ATCATGGGTTTTCTTTCTTCACTTGTAAAGTTTTATCTAGAAATACTTTTACAGGTTATGTTGAGGTACACAAAG
ATAATGTTCTAAGATTGTGTATTGGATTTGGATTTGTGTGTGTGTGTGTGTGTGTGTGTTTAAAGCATTTGAT
AAGGTTTAAATGTTTTTTATACAGAGATTTTTGTTCATTAAACTCAATCTGCATCATG

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FIGURE 178

GGCTCCCGGAATATGGAGCCCTGGGCGCGGGGGCGGCGTGTCAGGTGGTTGCGGAGCTGAATCATATTCTAAGAA
CTCAGCCACTCAGGTATCCACC**ATG**GTGCTGGGTCCTGAACAGAAGATGTCAGATGACAGTGTTTCTGGAGATCA
TGGGGAGTCTGCCAGTCTTGGTAACATCAACCCTGCCTATAGTAATCCCTCTCTTTCACAGTCCCCTGGGGACTC
AGAGGAGTACTTCGCCACTTACTTTAATGAGAAGATCTCCATTCCTGAGGAGGAGTACTCTTGTTTTAGCTTTCG
TAAACTCTGGGCTTTCACCGGACCAGGTTTTCTTATGAGCATTGCCTACCTGGATCCAGGAAATATTGAATCCGA
TTTGCAGTCTGGAGCAGTGGCTGGATTTAAGTTGCTCTGGATCCTTCTGTTGGCCACCCTTGTGGGGCTGCTGCT
CCAGCGGCTTGCAGCTAGACTGGGAGTGGTTACTGGGCTGCATCTTGCTGAAGTATGTCACCGTCAGTATCCCAA
GGTCCCACGAGTCATCCTGTGGCTGATGGTGGAGTTGGCTATCATCGGCTCAGACATGCAAGAAGTCATTGGCTC
AGCCATTGCTATCAATCTTCTGTCTGTAGGAAGAATTCCTCTGTGGGGTGGCGTTCTCATCACCATTGCAGATAC
TTTTGTATTTCTCTTCTTGGACAAATATGGCTTGCGGAAGCTAGAAGCATTTTTTGGCTTTCTCATCACTATTAT
GGCCCTCACATTTGGATATGAGTATGTTACAGTGAAACCCAGCCAGAGCCAGGTACTCAAGGGCATGTTCGTACC
ATCCTGTTCAGGCTGTCGCACTCCACAGATTGAACAGGCTGTGGGCATCGTGGGAGCTGTCATCATGCCACACAA
CATGTACCTGCATTCTGCCTTAGTCAAGTCTAGACAGGTAAACCGGAACAATAAGCAGGAAGTTCGAGAAGCCAA
TAAGTACTTTTTCATTGAATCCTGCATTGCACTCTTTGTTTCCTTCATCATCAATGTCTTTGTTGTCTCAGTCTT
TGCTGAAGCATTTTTTGGGAAAACCAACGAGCAGGTGGTTGAAGTCTGTACAAATACCAGCAGTCCTCATGCTGG
CCTCTTTCCTAAAGATAACTCGACACTGGCTGTGGACATCTACAAAGGGGGTGTTGTGCTGGGATGTTACTTTGG
GCCTGCTGCACTCTACATTTGGGCAGTGGGGATCCTGGCTGCAGGACAGAGCTCCACCATGACAGGAACCTATTC
TGGCCAGTTTGTCATGGAGGGATTCCTGAACCTAAAGTGGTCACGCTTTGCCCGAGTGGTTCTGACTCGCTCTAT
TGCCATCATCCCCACTCTGCTTGTTGCTGTCTTCCAAGATGTAGAGCATCTAACAGGGATGAATGACTTTCTGAA
TGTTCTACAGAGCTTACAGCTTCCCTTTGCTCTCATACCCATCCTCACATTTACGAGCTTGCGGCCAGTAATGAG
TGACTTTGCCAATGGACTAGGCTGGCGGATTGCAGGAGGAATCTTGGTCCTTATCATCTGTTCCATCAATATGTA
CTTTGTAGTGGTTTATGTCCGGGACCTAGGGCATGTGGCATTATATGTGGTGGCTGCTGTGGTCAGCGTGGCTTA
TCTGGGCTTTGTGTTCTACTTGGGTTGGCAATGTTTGATTGCACTGGGCATGTCCTTCCTGGACTGTGGGCATAC
GTGCCATCTGGGATTGACAGCTCAGCCTGAACTCTATCTTCTGAACACCATGGACGCTGACTCACTTGTGTCTAG
A**TGA**CTGACAGCCTGAGAGACTCTATAAGAACATGTTTTTCTAAGCCCTTTTTGTGCCAGGTGTCCCGTTAACGT
CTCTGTTAGTTCAGAGAGACGGGATTTCACCATGTTGCCCAGGCTGGTGTTGAACTCATGAGCTCAAGTAATCTG
CTGGCCTTGGCCTCCCAAAGTGCTGAGATTATAGGCGTGAGCCACTGCATCCAGCTCACTCCTCATTTCTTTCTA
GCCCCAAAGGTGTTGAGTCAGCAAATCCTGCAGCCTTTGTGTGACTTTGAGCATCACTTTCCCCTTTCAGCATTA
AATATATGACCTCTCTGCCTTATTTTAGAACTTACTACATTTCAATAAAACTTTTTAAAAAATCC

FIGURE 179

ATGTTTATGGCTTTCCAAAGCATTGCAGTTAAATCATTCAGCAATAAACCTGCGTTTGCACCATTGCCAGGTATT
AATGTGAGTCATTTGTTTTATTTTAGTGATGTCCTTGCATTGCCCATTTTTAAGCAAGAAGAGTCGAGTTTGCCT
CCTGATAATGAGAATAAAATCCTGCCTTTTCAATATGTGCTTTGTGCTGCTACCTCTCCAGCAGTGAAACTCCAT
GATGAAACCCTAACGTATCTCAATCAAGGACAGTCTTATGAAATTCGAATGCTAGACAATAGGAAACTTGGAGAA
CTTCCAGAAATTAATGGCAAATTGGTGAAGAGTATATTCCGTGTGGTGTTCCATGACAGAAGGCTTCAGTACACT
GAGCATCAGCAGCTAGAGGGCTGGAGGTGGAACCGACCTGGAGACAGAATTCTTGACATAGATATCCCGATGTCT
GTGGGTATAATCGATCCTAGGGCTAATCCAACTCAACTAAATACAGTGGAGTTCCTGTGGGACCCTGCAAAGAGG
ACATCTGTGTTTATTCAGTGGAACAAATTGGCCCCCAGTCCAATCTGCAGAGACAGCTTTGCCTTGGGGAAGTTA
CCTGATGTAGAACAAGGACAGGAGACAGGCACCAAGTCCGGAGTTTGCGTGGCTCTGATGTCTGCTCGTGGATCA
CTGATTGACCAGGCTGAAGCCAGAGGGTCCTTTAGATCCCGAGGGATAATAGAGCAGGCAGCATTTCCACCCACG
TTC**TGA**

FIGURE 180

CAGCCCTCTCATCTCCTGGAACCATGGCCAGCACATCCACCACCATCAGGAGCCACAGCAGCAGCCGCCGGGGTT
TCAGTGCCAACTCAGCCAGGCTCCCTGGGGTCAGCCGCTCTGGCTTCAGCAGCATCTCCGTGTCCCGCTCCAGGG
GCAGTGGTGGCCTGGGTGGTGC**ATG**TGGAGGAGCTGGCTTTGGCAGCCGCAGTCTGTATGGCCTGGGGGGCTCCA
AGAGGATCTCCATTGGAGGGGGCAGCTGTGCCATCAGTGGCGGCTATGGCAGCAGAGCCGGAGGCAGCTATGGCT
TTGGTGGCGCCGGGAGTGGATTTGGTTTCGGTGGTGGAGCCGGCATTGGCTTTGGTCTGGGTGGTGGAGCCGGCC
TTGCTGGTGGCTTTGGGGGCCCTGGCTTCCCTGTGTGCCCCCCTGGAGGCATCCAAGAGGTCACCGTCAACCAGA
GTCTCCTGACTCCCCTCAACCTGCAAAT**TGA**CCCCGCCATCCAGCGGGTGCGGGCCGAGGAGCGTGAGCAGATCA
AGACCCTCAACAACAAGTTTGCCTCCTTCATCGACAAGGTGCGGTTCCTAGAGCAGCAGAACAAGGTTCTGGACA
CCAAGTGGACCCTGCTGCAGGAGCAGGGCACCAAGACTGTGAGGCAGAACCTGGAGCCGTTGTTCGAGCAGTACA
TCAACAACCTCAGGAGGCAGCTGGACAACAT

FIGURE 181

CATGGCCAGCACATCCACCACCATCAGGAGCCACAGCAGCAGCCGCCGGGGTTTCAGTGCCAACTCAGCCAGGCT
CCCTGGGGTCAGCCGCTCTGGCTTCAGCAGCGTCTCCGTGTCCCGCTCCAGGGGCAGTGGTGGCCTGGGTGGTGC
ATGTGGAGGAGCTGGCTTTGGCAGCCGCAGTCTGTATGGCCTGGGGGGCTCCAAGAGGATCTCCATTGGAGGGGG
CAGCTGTGCCATCAGTGGCGGCTATGGCAGCAGAGCCGGAGGCAGCTATGGCTTTGGTGGCGCCGGGAGTGGATT
TGGTTTCGGTGGTGGAGCCGGCATTGGCTTTGGTCTGGGTGGTGGAGCCGGCCTTGCTGGTGGCTTTGGGGGCCC
TGGCTTCCCTGTGTGCCCCCCTGGAGGCATCCAAGAGGTCACCGTCAACCAGAGTCTCCTGACTCCCCTCAACCT
GCAAATCGATCCCACCATCCAGCGGGTGCGGGCTGAGGAGCGTGAACAGATCAAGACCCTCAACAACAAGTTTGC
CTCCTTCATCGACAAGGTGCGGTTCCTGGAGCAGCAGAACAAGGTTCTGGAAACAAAGTGGACCCTGCTGCAGGA
GCAGGGCACCAAGACTGTGAGGCAGAACCTGGAGCCGTTGTTCGAGCAGTACATCAACAACCTCAGGAGGCAGCT
GGACAGCATTGTCGGGGAACGGGGCCGCCTGGACTCAGAGCTCAGAGGCATGCAGGACCTGGTGGAGGACTTCAA
GAACAAATATGAGGATGAAATCAACAAGCGCACAGCAGCAGAGAATGAATTTGTGACTCTGAAGAAGGATGTGGA
TGCTGCCTACATGAACAAGGTTGAACTGCAAGCCAAGGCAGACACTCTCACAGACGAGATCAACTTCCTGAGAGC
CTTGTATGATGCAGAGCTGTCCCAGATGCAGACCCACATCTCAGACACATCTGTGGTGCTGTCCATGGACAACAA
CCGCAACCTGGACCTGGACAGCATCATCGCTGAGGTCAAGGCCCAATATGAGGAGATTGCTCAGAGAAGCCGGGC
TGAGGCTGAGTCCTGGTACCAGACCAAGTACGAGGAGCTGCAGGTCACAGCAGGCAGACATGGGGACGACCTGCG
CAACACCAAGCAGGAGATTGCTGAGATCAACCGCATGATCCAGAGGCTGAGATCTGAGATCGACCACGTCAAGAA
GCAGTGCGCCAACCTGCAGGCCGCCATTGCTGATGCTGAGCAGCGTGGGGAGATGGCCCTCAAGGATGCCAAGAA
CAAGCTGGAAGGGCTGGAGGATGCCCTGCAGAAGGCCAAGCAGGACCTGGCCCGGCTGCTGAAGGAGTACCAGGA
GCTGATGAATGTCAAGCTGGCCCTGGACGTGGAGATCGCCACCTACCGCAAGCTGCTGGAGGGTGAGGAGTGCAG
GCTGAATGGCGAAGGCGTTGGACAAGTCAACATCTCTGTGGTGCAGTCCACCGTCTCCAGTGGCTATGGCGGTGC
CAGTGGTGTCGGCAGTGGCTTAGGCCTGGGTGGAGGAAGCAGCTACTCCTATGGCAGTGGTCTTGGCGTTGGAGG
TGGCTTCAGTTCCAGCAGTGGCAGAGCCATTGGGGGTGGCCTCAGCTCTGTTGGAGGCGGCAGTTCCACCATCAA
GTACACCACCACCTCCTCCTCCAGCAGGAAGAGCTATAAGCACTAAAGTGCGTCTGCTAGCTCTCGGTCCCACAG
TCCTCAGGCCCCTCTCTGGCTGCAGAGCCCTCTCCTCAGGTTGCCTTTCCTCTCCTGGCCTCCAGTCTCCCCTGC
TGTCCCAGGTAGAGCTGGGTATGGATGCTTAGTGCCCTCACTTCTTCTCTCTCTCTCTATACCATCTGAGCACCC
ATTGCTCACCATCAGATCAACCTCTGATTTTACATCATGATGTAATCACCACTGGAGCTTCACTGTTACTAAATT
ATTAATTTCTTGCCTCCAGTGTTCTATCTCTGAGGCTGAGCATTATAAGAAAATGACCTCTGCTCCTTTTCATTG
CAGAAAATTGCCAGGGGCTTATTTCAGAACAACTTCCACTTACTTTCCACTGGCTCTCAAACTCTCTAACTTATA
AGTGTTGTGAACCCCCACCCAGGCAGTATCCATGAAAGCACAAGTGACTAGTCCTATGATGTACAAAGCCTGTAT
CTCTGTGATGATTTCTGTGCTCTTCGCTGTTTGCAATTGCTAAATAAA

FIGURE 182

TCGACAGCTCTCTCGCCCAGCCCAGTTCTGGAAGGGATAAAAAGGGGGCATCACCGTTCCTGGGTAACAGAGCCA
CCTTCTGCGTCCTGCTGAGCTCTGTTCTCTCCAGCACCTCCCAACCCACTAGTGCCTGGTTCTCTTGCTCCACCA
GGAACAAGCCACC**ATG**TCTCGCCAGTCAAGTGTGTCCTTCCGGAGCGGGGGCAGTCGTAGCTTCAGCACCGCCTC
TGCCATCACCCCGTCTGTCTCCCGCACCAGCTTCACCTCCGTGTCCCGGTCCGGGGGTGGCGGTGGTGGTGGCTT
CGGCAGGGTCAGCCTTGCGGGTGCTTGTGGAGTGGGTGGCTATGGCAGCCGGAGCCTCTACAACCTGGGGGGCTC
CAAGAGGATATCCATCAGCACTAGTGGTGGCAGCTTCAGGAACCGGTTTGGTGCTGGTGCTGGAGGCGGCTATGG
CTTTGGAGGTGGTGCCGGTAGTGGATTTGGTTTCGGCGGTGGAGCTGGTGGTGGCTTTGGGCTCGGTGGCGGAGC
TGGCTTTGGAGGTGGCTTCGGTGGCCCTGGCTTTCCTGTCTGCCCTCCTGGAGGTATCCAAGAGGTCACTGTCAA
CCAGAGTCTCCTGACTCCCCTCAACCTGCAAATCGACCCCAGCATCCAGAGGGTGAGGACCGAGGAGCGCGAGCA
GATCAAGACCCTCAACAATAAGTTTGCCTCCTTCATCGACAAGGTGCGGTTCCTGGAGCAGCAGAACAAGGTTCT
GGACACCAAGTGGACCCTGCTGCAGGAGCAGGGCACCAAGACTGTGAGGCAGAACCTGGAGCCGTTGTTCGAGCA
GTACATCAACAACCTCAGGAGGCAGCTGGACAGCATCGTGGGGGAACGGGGCCGCCTGGACTCAGAGCTGAGAAA
CATGCAGGACCTGGTGGAAGACTTCAAGAACAAGTATGAGGATGAAATCAACAAGCGTACCACTGCTGAGAATGA
GTTTGTGATGCTGAAGAAGGATGTAGATGCTGCCTACATGAACAAGGTGGAGCTGGAGGCCAAGGTTGATGCACT
GATGGATGAGATTAACTTCATGAAGATGTTCTTTGATGCGGAGCTGTCCCAGATGCAGACGCATGTCTCTGACAC
CTCAGTGGTCCTCTCCATGGACAACAACCGCAACCTGGACCTGGATAGCATCATCGCTGAGGTCAAGGCCCAGTA
TGAGGAGATTGCCAACCGCAGCCGGACAGAAGCCGAGTCCTGGTATCAGACCAAGTATGAGGAGCTGCAGCAGAC
AGCTGGCCGGCATGGCGATGACCTCCGCAACACCAAGCATGAGATCTCTGAGATGAACCGGATGATCCAGAGGCT
GAGAGCCGAGATTGACAATGTCAAGAAACAGTGCGCCAATCTGCAGAACGCCATTGCGGATGCCGAGCAGCGTGG
GGAGCTGGCCCTCAAGGATGCCAGGAACAAGCTGGCCGAGCTGGAGGAGGCCCTGCAGAAGGCCAAGCAGGACAT
GGCCCGGCTGCTGCGTGAGTACCAGGAGCTCATGAACACCAAGCTGGCCCTGGACGTGGAGATCGCCACTTACCG
CAAGCTGCTGGAGGGCGAGGAATGCAGACTCAGTGGAGAAGGAGTTGGACCAGTCAACATCTCTGTTGTCACAAG
CAGTGTTTCCTCTGGATATGGCAGTGGCAGTGGCTATGGCGGTGGCCTCGGTGGAGGTCTTGGCGGCGGCCTCGG
TGGAGGTCTTGCCGGAGGTAGCAGTGGAAGCTACTACTCCAGCAGCAGTGGGGGTGTCGGCCTAGGTGGTGGGCT
CAGTGTGGGGGGCTCTGGCTTCAGTGCAAGCAGTGGCCGAGGGCTGGGGGTGGGCTTTGGCAGTGGCGGGGGTAG
CAGCTCCAGCGTCAAATTTGTCTCCACCACCTCCTCCTCCCGGAAGAGCTTCAAGAGC**TAA**GAACCTGCTGCAAG
TCACTGCCTTCCAAGTGCAGCAACCCAGCCCATGGAGATTGCCTCTTCTAGGCAGTTGCTCAAGCCATGTTTTAT
CCTTTTCTGGAGAGTAGTCTAGACCAAGCCAATTGCAGAACCACATTCTTTGGTTCCCAGGAGAGCCCCATTCCC
AGCCCCTGGTCTCCCGTGCCGCAGTTCTATATTCTGCTTCAAATCAGCCTTCAGGTTTCCCACAGCATGGCCCCT
GCTGACACGAGAACCCAAAGTTTTCCCAAATCTAAATCATCAAAACAGAATCCCCACCCCAATCCCAAATTTTGT
TTTGGTTCTAACTACCTCCAGAATGTGTTCAATAAAATGCTTTTATAATAT

FIGURE 183

GAAAC**ATG**CAGGACCTGGTGGAAGACTTCAAGAACAAGTATGAGGATGAAATCAACAAGCGTACCACTGCTGAGA
ATGAGTTTGTGATGCTGAAGAAGGATGTAGATGCTGCCTACATGAACAAGGTGGAGCTGGAGGCCAAGGTTGATG
CACTGATGGATGAGATTAACTTCATGAAGATGTTCTTTGATGCGGAGCTGTCCCAGATGCAGACGCATGTCTCTG
ACACCTCAGTGGTCCTCTCCATGGACAACAACCGCAACCTGGACCTGGATAGCATCATCGCTGAGGTCAAGGCCC
AGTATGAGGAGATTGCCAACCGCAGCCGGACAGAAGCCGAGTCCTGGTATCAGACCAAGTCCGCAACACCAAGCA
TGAGATCTCTGAGA**TGA**ACCGGATGATCCAGAGGCTGAGAGCCGAGATTGACAATGTCAAGAAACAGTGCGCCAA
TCTGCAGAACGCCATTGCGGATGCCGAGCAGCGTGGGGAGCTGGCCCTCAAGGATGCCAGGAACAAGCTGGCCGA
GCTGGAGGAGGCCCTGCAGAAGGCCAAGCAGGACATGGCCCGGCTGCTGCGTGAGTACCAGGAGCTCATGAACAC
CAAGCTGGCCCTGGACGTGGAGATCGCCACTTACCGCAAGCTGCTGGAGGGCGAGGAATGCAGACTCAGTGGAGA
AGGAG

FIGURE 184

AGCCTGTGACTTTCCTCCCTGGACAAAGGCATC**ATG**AGTTGTCAGATCTCTTGCAAATCTCGAGGAAGAGGAGGA
GGTGGAGGAGGATTCCGGGGCTTCAGCAGCGGCTCAGCTGTGGTGTCTGGTGGAAGCCGGAGATCAACTTCCAGC
TTCTCCTGCTTGAGCCGCCATGGTGGTGGTGGCGGGGGCTTCGGTGGAGGCGGCTTTGGCAGTCGGAGTCTTGTT
GGCCTTGGAGGGACCAAGAGCATCTCCATTAGTGTGGCTGGAGGAGGTGGTGGCTTTGGCGCCGCTGGTGGATTT
GGTGGCAGAGGAGGTGGTTTTGGAGGCGGCAGCAGCTTTGGAGGTGGCAGCGGCTTCAGTGGTGGTGGTTTCGGT
GGAGGCGGCTTTGGTGGAGGCCGCTTTGGAGGTTTTGGGGGCCCTGGTGGTGTTGGAGGTTTAGGGGGTCCTGGT
GGCTTTGGGCCTGGAGGATACCCTGGTGGCATCCACGAAGTCTCTGTCAACCAGAGCCTCCTGCAGCCTCTCAAC
GTGAAAGTTGACCCAGAGATCCAGAATGTGAAGGCCCAAGAGCGTGAGCAGATCAAAACTCTCAACAACAAATTT
GCCTCCTTCATTGACAAGGTGCGGTTCTTGGAGCAGCAGAACCAGGTGTTACAGACCAAATGGGAGCTGCTACAA
CAAATGAATGTTGGCACCCGCCCCATCAACCTGGAGCCCATCTTCCAGGGGTATATCGACAGCCTCAAGAGATAT
CTGGATGGGCTCACTGCAGAAAGAACATCACAGAATTCAGAGCTGAATAACATGCAGGATCTTGTGGAGGATTAT
AAGAAGAAGTATGAGGATGAAATCAATAAGCGCACAGCTGCTGAGAATGATTTTGTGACGCTTAAAAAGGACGTG
GACAATGCCTACATGATAAAGGTGGAGTTGCAGTCCAAGGTGGACCTGCTGAACCAGGAAATTGAGTTTCTGAAA
GTTCTCTATGATGCGGAGATATCCCAGATACATCAGAGTGTCACTGACACCAACGTCATCCTCTCCATGGACAAC
AGCCGCAACCTGGACTTGGATAGCATCATCGCCGAGGTCAAGGCCCAGTATGAGGAGATCGCCCAGAGGAGCAAG
GAAGAAGCGGAGGCCCTGTACCACAGCAAGTATGAGGAGCTCCAGGTGACTGTCGGGAGACATGGAGACAGCCTG
AAAGAGATCAAGATAGAGATCAGCGAGCTGAACCGCGTGATCCAGAGGCTGCAGGGGGAGATCGCACATGTGAAG
AAGCAGTGTAAGAATGTGCAAGATGCCATCGCAGATGCCGAGCAGCGTGGGGAGCATGCCCTCAAGGATGCCAGG
AACAAGTTGAATGACCTGGAGGAGGCCCTGCAGCAGGCCAAGGAGGACTTGGCGCGGCTGCTGCGTGACTACCAG
GAGCTGATGAACGTGAAGCTGGCCCTAGATGTGGAGATCGCCACCTACCGCAAACTGCTGGAGGGCGAGGAGTGC
AGGATGTCTGGAGACCTCAGCAGCAATGTGACTGTGTCTGTGACAAGCAGCACCATTTCATCAAATGTGGCATCC
AAGGCTGCCTTTGGAGGTTCTGGAGGTAGAGGGTCCAGTTCCGGAGGAGGATACAGCTCTGGAAGCAGCAGTTAT
GGCTCTGGAGGCCGACAGTCTGGCTCCAGAGGCGGTAGTGGAGGAGGAGGTTCTATCTCTGGAGGAGGATATGGC
TCTGGCGGTGGTTCTGGAGGAAGATACGGATCTGGTGGTGGCTCTAAGGGAGGGTCCATCTCTGGAGGAGGATAT
GGCTCTGGAGGTGGAAAACACAGCTCTGGAGGTGGCTCTAGAGGAGGCTCCAGCTCTGGAGGAGGATATGGCTCT
GGAGGTGGGGGTTCTAGCTCTGTAAAGGGTAGCTCAGGTGAAGCTTTTGGTTCCAGCGTGACCTTCTCTTTTAGA
TAAAGATGAGCCCCCACCACCACCGACTCTCCCAACCCAGACTCTCCCACTCCAGAATGTAGAAGCCTGTCTCTG
TACCTCTAACTGGCAGCAAGTTAAATTTTTGTCATTTATCTCTGATGGCACTTTGAGGGAAAAGAATGTCCACAT
ACAGTTTTTGAAAGATCTTCTCTCCAAACCAGTTAGTTAGAGCCAGTGACGCCTCTGTGTTCTGGGGCGGAATCT
GTGCTGTCTAGGTTTGTGCTTCTAGCCATGCCCATTCCCGCCCCCACCATGCCTCTTTGCATTGCCCATTTTCCA
GATGTGTATTCTGTTGAGGACCCAGGCCCATCCAGGGATTTCATCTCTAAGCCTGGCAGTGCTGGGGGGAAATGT
GTTTCTGTGTATATAGCTCCTCTTGTCCACTCTGCTTTCGGAAGTGCTGTGGTCTGGGGGTCTTCATAATAAACC
TCATTTGCA

FIGURE 185

AGCTCCTTCCCTTACTCTACCTTGCTCCTACTTTTCTCTAAGTCAAC**ATG**AGTCGACAGTTTAGTTCCAGGTCTG
GGTACCGAAGTGGAGGGGGCTTCAGCTCTGGCTCTGCTGGGATCATCAACTACCAGCGCAGGACCACCAGCAGCT
CCACACGCCGCAGTGGAGGAGGTGGTGGGAGATTTTCAAGCTGTGGTGGTGGTGGTGGTAGCTTTGGTGCTGGTG
GTGGATTTGGAAGTCGGAGTCTTGTTAACCTTGGTGGCAGTAAAAGCATCTCCATAAGTGTGGCTAGAGGAGGTG
GACGTGGTAGTGGCTTTGGTGGTGGTTATGGTGGTGGTGGCTTTGGTGGTGGTGGCTTTGGTGGTGGTGGCTTTG
GTGGAGGTGGCATTGGGGGTGGTGGCTTTGGTGGTTTTGGCAGTGGTGGTGGTGGTTTTGGTGGAGGTGGCTTTG
GGGGTGGTGGATATGGGGGTGGTTATGGTCCTGTCTGCCCTCCTGGTGGCATACAAGAAGTCACTATCAACCAGA
GCCTTCTTCAGCCCCTCAATGTGGAGATTGACCCTGAGATCCAAAAGGTGAAGTCTCGAGAAAGGGAGCAAATCA
AGTCACTCAACAACCAATTTGCCTCCTTCATTGACAAGGTGAGGTTCCTGGAGCAGCAGAACCAGGTACTGCAAA
CAAAATGGGAGCTGCTGCAGCAGGTAGATACCTCCACTAGAACCCATAATTTAGAGCCCTACTTTGAGTCATTCA
TCAACAATCTCCGAAGGAGAGTGGACCAACTGAAGAGTGATCAATCTCGGTTGGATTCGGAACTGAAGAACATGC
AGGACATGGTGGAGGATTACCGGAACAAGTATGAGGATGAAATCAACAAGCGGACAAATGCAGAGAATGAATTTG
TGACCATCAAGAAGGATGTGGATGGTGCTTATATGACCAAGGTGGACCTTCAGGCCAAACTTGACAACTTGCAGC
AGGAAATTGATTTCCTTACAGCACTCTACCAAGCAGAGTTGTCTCAGATGCAGACTCAAATCAGTGAAACTAATG
TCATCCTCTCTATGGACAACAACCGCAGTCTCGACCTGGACAGCATCATTGCTGAGGTCAAGGCCCAGTACGAGG
ATATAGCCCAGAAGAGCAAAGCTGAGGCCGAGTCCTTGTACCAGAGCAAGTATGAAGAGCTGCAGATCACTGCTG
GCAGACATGGGGATAGTGTGAGAAATTCAAAGATAGAAATTTCTGAGCTGAATCGTGTGATCCAGAGACTTAGAT
CTGAAATCGACAATGTCAAGAAGCAGATCTCCAACTTGCAGCAGTCCATCAGTGATGCAGAGCAGCGTGGCGAGA
ATGCCCTCAAGGATGCCAAGAACAAGCTGAATGACCTGGAGGATGCCCTGCAGCAGGCCAAGGAAGACCTGGCCC
GCCTGCTGCGCGACTACCAGGAGCTGATGAACACAAAGCTGGCCCTGGATCTGGAGATTGCCACCTACAGGACCC
TCCTGGAGGGAGAAGAAAGCAGGATGTCTGGAGAATGTGCCCCGAACGTGAGTGTGTCTGTGAGCACAAGCCACA
CCACCATCAGTGGAGGTGGCAGCCGAGGAGGTGGCGGCGGTGGCTACGGCTCTGGAGGTAGCAGCTATGGCTCCG
GAGGTGGTAGCTATGGTTCTGGAGGTGGCGGCGGCGGCGGCCGTGGCAGCTATGGCTCCGGAGGTAGCAGCTACG
GCTCCGGAGGTGGCAGCTATGGCTCTGGAGGTGGCGGCGGCGGCCATGGCAGCTACGGCTCCGGAAGCAGCAGTG
GGGGCTACAGAGGTGGCTCTGGAGGCGGCGGCGGCGGCAGCTCTGGCGGCCGGGGCTCTGGCGGCGGGAGCTCTG
GAGGCTCCATAGGAGGCCGGGGATCCAGCTCTGGGGGTGTCAAGTCCTCTGGTGGCAGTTCCAGCGTGAAGTTTG
TTTCTACCACTTATTCCGGAGTAACCAGA**TAA**AGAGATGCCCTCTGTTTCATTAGCTCTAGTTCTCCCCCAGCAT
CACTAACAAATATGCTTGGCAAGACCGAGGTCGATTTGTCCCAGCCTTACCGGAGAAAAGAGCTATGGTTAGTTA
CACTAGCTCATCCTATTCCCCCAGCTCTTTCTTTTCTGCTGTTTCCCAATGAAGTTTTCAGATCAGTGGCAATCT
CAGTCCCCTGGCTATGACCCTGCTTTGTTCTTTCCCTGAGAAACAGTTCAGCAGTGACCACCACCCACATGACAT
TTCAAAGCACCTCCTTAAGCCAGCCAGAGTAGGACCAGTTAGACCCAGGGTGTGGACAGCTCCTTAGCATCTTAT
CTCTGTGCTGTTTTGGTTTTGTACATAAGGTGTAAGCAAGTTGTTTTTCTTTTGTGGAGAGGTCTTAAACTCCCC
ATTTCCTTGTTTTGCTGCAATAAACTGCATTTGAAATTCTCCATGTCTCGATCGCCCTTGTTTACGGCACTGTCT
AACCTGGATGGGTGTTTTGTGAGGTAAAAGAA

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FIGURE 186

ATGATGCATCACCTTCCAAGGAGGAAAGGAAGCGATCATGGACTCCTGACAGAGAGCAAGATAGAGACCAGAACT
GGAAGTCTTCCCCATCTAAAGATAGGAAGCAGCATTATTCAAGGAACAGACATCGAGGAGGCAGCCATTCTTGCT
TTCGTTCTCGTTCCAAATCTGCAGAAAAAGAACAACGGCACGAAGAACAAGAATGAGATAAGGAGAGGGATTGGA
ATAAGAAGGACCAATATCAAGACAATGATGGGCACAGATGGGACAAGGACCAGAAACGATCCAGTTTCTCCTGGC
CGAGGAAAAGACTTTAAATCTCGGAAGGATGGAGACTCTAAGAAGGATGAAGAGGATGAACATGGTGATAAGAAG
CCTAAGGCCCAGCTGTTATCCCTGGAGGAACTTCTGGCCAAGAAAAAGGCTAAGGAAGAAGCTGAGGTTAAGCCC
AAGTTCCTCTCCAAAGCAGAACAAGAGGCTGAAGCTCTAAAGCAACGGCAGCAGGAGGTGGAAGAGCAGCAGAGG
ATGCTTGTAGAGGAGAGGAAGAAAAGGAAACAGTTCCAAGACTTGGGCAGGAAGATGTTGGAAGATTCTCAGGAG
AGGATGGAGCCAGAGACCAGTGGAAATGAGGATGAGAAAGGGCAGCAGAAGATACGGGAAGAGAAGGATAAGAGC
AAAGAACTGCATGCCATTAAGGAGCATTACCTGGGTGGCATCAAAAAGCGGCACCAAACAAGACATCTCAATGAC
CGAAAGTTTGTTTTTGAGGGGGATGCATCTGAGGATACATCCATTGACTACAACCCCCTGTACAAAGAACGGCAC
CAGAAAAAGTTAGATGAGATGACGGACAGGGACTGGTGGCTCTTCCGTGAGGGCTACAGCATCACCACCAAAGGT
GGCAAGATCCCCAATCCCATCCGATCCTGGAAAGAGTCTTCTCTGCTGCCACACATCTTGGAGGTCATTGATAAG
TGTGGCTACAAGGAATCAACACCTATCCAGCGTCAGGCAATTCCCTTTGGGCTACAGAATCGTGACATCATTGGA
AGAGACCGTCAAGTTTGGGAAGCTGCTAGATATCCAACTGTGGCTGTCATTGGTGGCATCTCCAGAGAAGACTGG
GGCTTCAGGCTGCTCATGGGTTGTGAGATTGTGATCGCCACCCCTGGGCATTTGATTGATGTGCTGGAGAATCGC
TACCTGGTGCTGAGCTGCTGTACCTACGTGGTTCTGGATGAGGCAGATAGGATGATTGACGTGGGCTTCGAGCCA
GATGTCCAGAAGATCCTGGAGCACATGCCTCAATCAGAAGCCAGACACGATGAGTCTGAGGACCCTGAGAAGATG
CTGGCCAACTTTGAGTCAGGAAAACGCAAGCCCCATGAGCGTGTGGAACAGGTCTTCCTCATGTCAGAGTCAGAA
AAGAGGAAAAAGCTGCTGGAAATCTTGAAGCAAGGCTTTGACCCAGCCATCACTATTTTTGTCAACCAGAAGAAG
GGCTGCGACGTGTTGGCCAAATCCCTGGAGAAGATGGGGTACAATGCCTGTACACTGCACGGTGGAAAAGGCCAG
GAGCAGCGAGAGTTTGCATTGTCCAACCTCAAGCCTGGGGCCAAGGATGTCTTGGTGACTACAGATGTGGCTGGT
CATGGTATTGACATCCAAGATGTGTCTATGGTTGTCAACTATGATATGGCCAAAAATATTGACGATTACATCCAC
CGCATTGGCCGCATGGGACAAGCAGGCAAGAGTGGGGTGGCCATCACCTTCCTCACAAAAGAGGACTCTGCAGTT
TTCTACGAGCTGAAGCAAGCCATCCTGGAAAGCCCAGTGTCTTCCTGTCCCCCCAAACTAGCCAATCACCCAGAT
GCCCAGCATAAGCCAGGCACCATCCTCACCAAGAAGCGCCGGGGAGAGACCATCTTTGCC**TGA**

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FIGURE 187

GCGAGTGCGCGCTCCTCCTCGCCCGCCGCTAGGTCCATCCCGGCCCAGCCACC**ATG**TCCATCCACTTCAGCTCCC
CGGTATTCACCTCGCGCTCAGCCGCCTTCTCGGGCCGCGGCGCCCAGGTGCGCCTGAGCTCCGCTCGCCCCGGCG
GCCTTGGCAGCAGCAGCCTCTACGGCCTCGGCGCCTCACGGCCGCGCGTGGCCGTGCGCTCTGCCTATGGGGGCC
CGGTGGGCGCCGGCATCCGCGAGGTCACCATTAACCAGAGCCTGCTGGCCCCGCTGCGGCTGGACGCCGACCCCT
CCCTCCAGCGGGTGCGCCAGGAGGAGAGCGAGCAGATCAAGACCCTCAACAACAAGTTTGCCTCCTTCATCGACA
AGGTGCGGTTTCTGGAGCAGCAGAACAAGCTGCTGGAGACCAAGTGGACGCTGCTGCAGGAGCAGAAGTCGGCCA
AGAGCAGCCGCCTCCCAGACATCTTTGAGGCCCAGATTGCTGGCCTTCGGGGTCAGCTTGAGGCACTGCAGGTGG
ATGGGGGCCGCCTGGAGGCGGAGCTGCGGAGCATGCAGGATGTGGTGGAGGACTTCAAGAATAAGTACGAAGATG
AAATTAACCACCGCACAGCTGCTGAGAATGAGTTTGTGGTGCTGAAGAAGGATGTGGATGCTGCCTACATGAGCA
AGGTGGAGCTGGAGGCCAAGGTGGATGCCCTGAATGATGAGATCAACTTCCTCAGGACCCTCAATGAGACGGAGT
TGACAGAGCTGCAGTCCCAGATCTCCGACACATCTGTGGTGCTGTCCATGGACAACAGTCGCTCCCTGGACCTGG
ACGGCATCATCGCTGAGGTCAAGGCGCAGTATGAGGAGATGGCCAAATGCAGCCGGGCTGAGGCTGAAGCCTGGT
ACCAGACCAAGTTTGAGACCCTCCAGGCCCAGGCTGGGAAGCATGGGGACGACCTCCGGAATACCCGGAATGAGA
TTTCAGAGATGAACCGGGCCATCCAGAGGCTGCAGGCTGAGATCGACAACATCAAGAACCAGCGTGCCAAGTTGG
AGGCCGCCATTGCCGAGGCTGAGGAGCGTGGGGAGCTGGCGCTCAAGGATGCTCGTGCCAAGCAGGAGGAGCTGG
AAGCCGCCCTGCAGCGGGGCAAGCAGGATATGGCACGGCAGCTGCGTGAGTACCAGGAACTCATGAGCGTGAAGC
TGGCCCTGGACATCGAGATCGCCACCTACCGCAAGCTGCTGGAGGGCGAGGAGAGCCGGTTGGCTGGAGATGGAG
TGGGAGCCGTGAATATCTCTGTGATGAATTCCACTGGTGGCAGTAGCAGTGGCGGTGGCATTGGGCTGACCCTCG
GGGGAACCATGGGCAGCAATGCCCTGAGCTTCTCCAGCAGTGCGGGTCCTGGGCTCCTGAAGGCTTATTCCATCC
GGACCGCATCCGCCAGTCGCAGGAGTGCCCGCGAC**TGA**

FIGURE 188

CTCTCTGTCAAGAGCCATTGCCTGAAACTGGAGGAGAACATCAAGACAGCTGAGGAGCAGGGTGAGCTGGCCTTC
CAGGATGCCAAGACCAAGCTGGCCCAGCTGGAGGCCGCCCTGCAGCAGGCCAAGCAGGACATGGCGCGGCAGCTG
CGCAAGTACCAGGAGCTGATGAACGTCAAGCTGGCCCTGGACATCGAGATCGCCACCTACAGGAAGCTGGTGGAG
GGCGAGGAGGGCAGGATGGACTCGCCCTCAGCCACTGTGGTCAGCGCTGTGCAGTCCAGGTGCAAAACCGCCCCT
TCCCTCCCCTACCCCTTATGTTCCCTGTAGCTGCCTCCAGATCAGGCCTCTCCAAGGCCCCCTCCCGAAAGAAGA
AGGGCAGCAAAGGCCCCGTGATCAAAATCACCGAAATGTCAGAGAAGTACTTCTCGCAGGAGTCGGAGGTCTCAG
AGTAAGGCGGCTGGACCCCAGGAACCCCAGGGCACTCCACTGCAGCAGGAGGGACTTAAGCTAGACTCAAGAAAG
CAGCTTGGAGCCTCTAGGTTGAGAAGAGAGGCAAAACCTGATATTGAACTGAGAGAGGGGTTCAAAACTGACTGT
GTTTTGTGGGCTGCCAGGGTGGGAGAGGAGCATCACCAGCTCCTCAGAGCCACTCCGCTCCATATCAGTATCTCA
CAGTCCCATCCTTCCAACCTTCTGGCCAGAGGTTTTCCTGATGGGTGAGTCGGAATTAGGGGTCAGTTTTGTCTC
CACCTCCTCGCTCCTCTGAGGCTCCTCCTCCAGCATCAGGCTCTGCCAAGGCCCCTCTGACTCTTGCCCAATCCT
TGACCTTGACTCCTATCTCAAGCCTTGCCTTGTCTCTGCCTCGGAACTGGGACTGGGACTGGCTCATCCACCTAT
GTGCGGGAGCCGAGGAGGACGGCGTGGGCCCTGTCCTGTATCTGGAATTCCTGGGAAGGCTGGCTGCTGAAGACC
CTCTTGGCTTTCCCGTGCTCTTTGGGCTCCCCAGAGACCTGACAGTATTAGGGAGTGAAGGGAGGAGGGGCCCTG
GCTATTTGGGACCTAAGCCTAGGCCCCAGAGATCAGCCCGAACACCCGCATCCCTTCCTCCTCCCATGGGTCCCT
CCCAGTAGGCAGTAGTCAGAACTGGATGGGCTGCCCCCAGCCAGCTCCCAGCAGCTTCTCCGGAAGCTGCTCTTG
CCATAATCAACTCCCTGGGAGTGGAAGCCAGATGGCAGCTTGAGATTGGGCAGGAGCATTCGATCTTCCTTTCAC
CTCCCTGCCATGCTGGGGTCCTACCCAGCCTGGATCTGAGCTCTGTGCCCCCAGCCGGGTTGTTCCCAGCCTGAG
CACCGGGCTTTGGTGCACCAGGCCTTGGAGACCCCTGGTCCCACCCCTGCCGTGAAGCCCCAGGCCCACTTCCCA
AGAATCTCACTTCTCAGGGCCTCTGTTCTCCTCTCCACTGGGCCAAATAGCCTGGCCCTCCCCTCCTTGGCATTC
ATGGGGGAGCCCAGGAACCCCCCACACCT**ATG**GGGTTAGAGCTCCTCCTTTCTTCTCACTCCTTCCCCTTCCTCC
CTCCATGCCCACTCCCCCTGCCTCCAGCAGGCCAGGAAGAAGGCACAGTCCAGGCAAGTCTGGGAGCTTCCAAGC
CCTTGAGGTCCAGCTGTGGGGCCCAAATGACAGCCTTACAAGGGTTCTACCAGAGAGGAAAATTCCACATCCCAC
CAGAAGACAGGGGTGTTGGCAGGCATACTCCTATCTCCTCCTCTTGGCTCTCAATGCTGAGGCTTGCAGAGGCAT
CCCAGCGGCACCAGCCTCCCACTGCACAGCTTCCTTCCCTCCTTCACTCTCCTCTCCCCTCCCTGCCCCTTGCCT
CACCTCCTCTTCTAGACTGCATTAGATTCATTCATCTCATTTGCCAGGACATGTTGGCCAGAGGTCTGGGCCCAT
CCCAGGCCTCAAGGCCCTCCAGGCCTGTGGGGAGCACTGGAGGGTTACTGACTCTCTGGCCATGGGAACTCAGAG
ATTCTCATCCCCAAAGTCCCAAAAGAGGGTGC**TGA**TTGGTGCTTTTCCTCAGGCTCTTCATTGGTTTCCAAGGGA
GCAAATCCTCAGTGGGGATACAAGACATATAAAGTATATATTATTTTTTCATAACTTATGTGGCTTTTAACTTAT
TGCTTCCCTTCCTGTTTCTGCATGATCAGTCTGTATGTACTATCTGGAAAGATAACACATACTCCAGCCACCTCA
CCTGATTGGCTATCTTGGGGCCATGTCCCCTTCTTGCTGCCACAGGATGAATAAAGTGTTGAGATTTGTCTATGG
AGAAAGCTGTGTGTCTGTTTTTATCTCCCCTCTCAGGACCAGTCAGCCACTGGTCAATCAGGCTGATCATGGAAC
ATTAGGAATTCTCCAATTAAGGGAGAAAAAGTCCAGGGACTTAGTTATATCTTCAGACCAGTGCAGCTGGTACAC
ACAAAGTTCTCCTGTCTCACCATCTGATATGGTTTGGATGCTCGTCCCCTCCAAATCTCATGTTGAAATGTAATT
CCCAGTGTTGGAAGTGGAGCCTGGTGGGAAGTATTTGGATCATGAGAGAGGATCCTTCATGAATGGCTCAGCACC
ATCTCCTTGGTGATGAGTGAGTTCTCACTCAATTCACATAGATATGGTTGTTTAAAAGAGTCTGAGACCTCTCCC
CTCTTTCTCGCCATGTGATATGCCTGCTCCCCCTTCACCTTCCGCCTTTACTGTAAGCTTCCTGAGGCCCTCACC
AGAAGCTGAGCAAATGTTGGTGCCATGCCAGTACAGCCTGCAGAATTGTGAGCCAAAATAAATGTCTTTTCTTTA
TAAATTA

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FIGURE 189

TTCCGGTCCCGGCTCAGCCTCCGACCCAGGTGGTCTGGAGCCTGCCGGGAGAGTGGTGGCATCTGAGAGGCTGGT
CGTGGACTGTGGTTGGGGGAGGTGGGAGCTGTTTTAACCGTGTGCCCCCTCTCCTGTGCCGGCGTGGGCATCCCC
CGGGGCAGTGGAACGCGGGCGCTCCTCCAGCTTCCGAGTCCAGCCAGCCTGGGCGCGGGGCGCCGCCCCCGAGAC
ACCCGAGGAGTCCGTTCCTCCCTGGTTACGTGGACTGTGGAGCTGGTCTCTTGTGGCTCAGCGCCGTGCGGAGGT
TGAAGCGTACCTGCGGAGGTCGCACCAGGGCGTGAGGAGGAGGAGGAAGGGCATGAGCCGAGCTTGAGGAATCCG
TGCTCCAAACTCTACACTCAAGGGTGGCCCTTGGGTAGGGTGAAGATCCCCTGTCTTTATCCTAGTTCCACACCT
TGGTGTGGGTTACTGGGTGCAGG**ATG**AACTGTCGCTCGGAGGTGCTGGAGGTGTCGGTGGAGGGGCGGCAGGTGG
AGGAGGCCATGCTGGCTGTGCTGCACACGGTGCTTCTGCACCGCAGCACAGGCAAGTTCCACTACAAGAAGGAGG
GCACCTACTCCATTGGCACCGTGGGCACCCAGGATGTTGACTGTGACTTCATCGACTTCACTTATGTGCGTGTCT
CTTCTGAGGAACTGGATCGTGCCCTGCGCAAGGTTGTTGGGGAGTTCAAGGATGCACTGCGCAACTCTGGTGGCG
ATGGGCTGGGGCAGATGTCCTTGGAGTTCTACCAGAAGAAGAAGTCTCGCTGGCCATTCTCAGACGAGTGCATCC
CATGGGAAGTGTGGACGGTCAAGGTGCATGTGGTAGCCCTGGCCACGGAGCAGGAGCGGCAGATCTGCCGGGAGA
AGGTGGGTGAGAAACTCTGCGAGAAGATCATCAACATCGTGGAGGTGATGAATCGGCATGAGTACTTGCCCAAGA
TGCCCACACAGTCGGAGGTGGATAACGTGTTTGACACAGGCTTGCGGGACGTGCAGCCCTACCTGTACAAGATCT
CCTTCCAGATCACTGATGCCCTGGGCACCTCAGTCACCACCACCATGCGCAGGCTCATCAAAGACACCCTTGCCC
TC**TGA**GCGTCGCTGGATCTCTGGGAGCTCCTTGATGGCTCCCAGACCTTGGCTTTTGGGAATTGCACTTTTGGGC
CTTTGGGCTCTGGAACCTGCTCTGGGTCATTGGTGAGACTTGGAAGGGGCAGCCCCCGCTGGCTTCTTGGTTTTG
TGGTTGCCAGCCTCAGGTCATCCTTTTAATCTTTGCTGACGGTTCAGTCCTGCCTCTACTGTCTCTCCATAGCCC
TGGTGGGGGTCCCCCTTCTTTCTCCACTGTACAGAAGAGCCACCACTGGGATGGGGAATAAAGTTGAGAACATG

FIGURE 190

GAAACTTGGGGGAGTGCACAGAAGAACTTCGGGAGCGCACGCGGGACCAGGGACCAGGCTGAGACTCGGGGCGCC
AGTCCGGGCAGGGGCAGCGGGAGCCGGCCGGAG**ATG**CCCTGTATCCAAGCCCAATATGGGACACCAGCACCGAGT
CCGGGACCCCGTGACCACCTGGCAAGCGACCCCCTGACCCCTGAGTTCATCAAGCCCACCATGGACCTGGCCAGC
CCCGAGGCAGCCCCCGCTGCCCCCACTGCCCTGCCCAGCTTCAGCACCTTCATGGACGGCTACACAGGAGAGTTT
GACACCTTCCTCTACCAGCTGCCAGGAACAGTCCAGCCATGCTCCTCAGCCTCCTCCTCGGCCTCCTCCACATCC
TCGTCCTCAGCCACCTCCCCTGCCTCTGCCTCCTTCAAGTTCGAGGACTTCCAGGTGTACGGCTGCTACCCCGGC
CCCCTGAGCGGCCCAGTGGATGAGGCCCTGTCCTCCAGTGGCTCTGACTACTATGGCAGCCCCTGCTCGGCCCCG
TCGCCCTCCACGCCCAGCTTCCAGCCGCCCCAGCTCTCTCCCTGGGATGGCTCCTTCGGCCACTTCTCGCCCAGC
CAGACTTACGAAGGCCTGCGGGCATGGACAGAGCAGCTGCCCAAAGCCTCTGGGCCCCCACAGCCTCCAGCCTTC
TTTTCCTTCAGTCCTCCCACCGGCCCCAGCCCCAGCCTGGCCCAGAGCCCCCTGAAGTTGTTCCCCTCACAGGCC
ACCCACCAGCTGGGGGAGGGAGAGAGCTATTCCATGCCTACGGCCTTCCCAGGTTTGGCACCCACTTCTCCACAC
CTTGAGGGCTCGGGGATACTGGATACACCCGTGACCTCAACCAAGGCCCGGAGCGGGGCCCCAGGTGGAAGTGAA
GGCCGCTGTGCTGTGTGTGGGGACAACGCTTCATGCCAGCATTATGGTGTCCGCACATGTGAGGGCTGCAAGGGC
TTCTTCAAGCGCACAGTGCAGAAAAACGCCAAGTACATCTGCCTGGCTAACAAGGACTGCCCTGTGGACAAGAGG
CGGCGAAACCGCTGCCAGTTCTGCCGCTTCCAGAAGTGCCTGGCGGTGGGCATGGTGAAGGAAGTTGTCCGAACA
GACAGCCTGAAGGGGCGGCGGGGCCGGCTACCTTCAAAACCCAAGCAGCCCCCAGATGCCTCCCCTGCCAATCTC
CTCACTTCCCTGGTCCGTGCACACCTGGACTCAGGGCCCAGCACTGCCAAACTGGACTACTCCAAGTTCCAGGAG
CTGGTGCTGCCCCACTTTGGGAAGGAAGATGCTGGGGATGTACAGCAGTTCTACGACCTGCTCTCCGGTTCTCTG
GAGGTCATCCGCAAGTGGGCGGAGAAGATCCCTGGCTTTGCTGAGCTGTCACCGGCTGACCAGGACCTGTTGCTG
GAGTCGGCCTTCCTGGAGCTCTTCATCCTCCGCCTGGCGTACAGGTCTAAGCCAGGCGAGGGCAAGCTCATCTTC
TGCTCAGGCCTGGTGCTACACCGGCTGCAGTGTGCCCGTGGCTTCGGGGACTGGATTGACAGTATCCTGGCCTTC
TCAAGGTCCCTGCACAGCTTGCTTGTCGATGTCCCTGCCTTCGCCTGCCTCTCTGCCCTTGTCCTCATCACCGAC
CGGCATGGGCTGCAGGAGCCGCGGCGGGTGGAGGAGCTGCAGAACCGCATCGCCAGCTGCCTGAAGGAGCACGTG
GCAGCTGTGGCGGGCGAGCCCCAGCCAGCCAGCTGCCTGTCACGTCTGTTGGGCAAACTGCCCGAGCTGCGGACC
CTGTGCACCCAGGGCCTGCAGCGCATCTTCTACCTCAAGCTGGAGGACTTGGTGCCCCCTCCACCCATCATTGAC
AAGATCTTCATGGACACGCTGCCCTTC**TGA**CCCCTGCCTGGGAACACGTGTGCACATGCGCACTCTCATATGCCA
CCCCATGTGCCTTTAGTCCACGGACCCCCAGAGCACCCCCAAGCCTGGGCTTGAGCTGCAGAATGACTCCACCTT
CTCACCTGCTCCAGGAGGTTTGCAGGGAGCTCAAGCCCTTGGGGAGGGGGATGCCTTCATGGGGGTGACCCCACG
ATTTGTCTTATCCCCCCCAGCCTGGCCCCGGCCTTTATGTTTTTTGTAAGATAAACCGTTTTTAACACATAGCGC
CGTGCTGTAAATAAGCCCAGTGCTGCTGTAAATACAGGAAGAAAGAGCTTGAGGTGGGAGCGGGGCTGGGAGGAA
GGGATGGGCCCCGCCTTCCTGGGCAGCCTTTCCAGCCTCCTGCTGGCTCTCTCTTCCTACCCTCCTTCCACATGT
ACATAAACTGTCACTCTAGGAAGAAGACAAATGACAGATTCTGACATTTATATTTGTGTATTTTCCTGGATTTAT
AGTATGTGACTTTTCTGATTAATATATTTAATATATTGAATAAAAAATAGACATGTAGTTG

FIGURE 191A

CCGAAGCCGGCGACCGCCCCACCTCCTCCCTCCCTCCCGCCCGCTTCCTCTGCCCACAGCGCCGGCCAGAGCGAG
CTAGACAAGGGCACGCGGGGCCTCGCCTAGACCCGAGAAGACTGCGGGCGCGCGCAAGCGGCGGCGTGGAAGCTG
TGAGCGCCCCCATCCCGGAGGTCTCCGCCGGCTCCCGGGTGAATCAGCTCCCGGCCGACTTTAGGATTCTTCTGG
ATTTTAAATTTTTTCTTTTTAAAAAAACTTGGACGGATAAAAG**ATG**TGCCATGGCAGGATAGCACCAAAGAGCAC
CTCAGTGTTTGCCGTGGCCTCCGTGGGACATGGAGTGTTCCTTCCGCTAGTGATCCTTTGCACCCTGCTTGGAGA
CGGACTTGCTTCCGTGTGCCCCCTACCACCGGAGCCAGAGAATGGTGGCTACATCTGCCACCCCCGGCCCTGCAG
AGACCCCCTGACAGCAGGCAGTGTCATCGAATACCTGTGTGCTGAAGGCTACATGTTGAAGGGCGATTACAAATA
CCTGACGTGTAAGAATGGCGAGTGGAAACCAGCCATGGAGATTAGCTGCCGTCTCAACGAGGATAAAGACACCCA
CACATCACTTGGGGTCCCCACGCTGTCTATAGTGGCTTCTACTGCCAGCTCCGTGGCGCTCATTCTCCTCCTCGT
GGTGCTGTTTGTGCTGCTGCAGCCAAAGCTGAAGTCTTTCCATCATAGCAGGCGTGACCAGGGGGTATCTGGGGA
CCAGGTCTCCATCATGGTGGATGGAGTCCAGGTTGCACTACCATCATACGAGGAGGCTGTATATGGCAGTTCTGG
TCACTGTGTGCCACCTGCTGACCCCAGAGTACAGATTGTGCTGTCAGAAGGGTCTGGGCCCAGTGGGAGGAGCGT
GCCAAGGGAGCAACAGCTGCCGGACCAAGGGGCCTGCTCCTCTGCAGGTGGAGAAGATGAGGCCCCAGGCCAGTC
TGGACTATGTGAAGCCTGGGGCTCTCGGGCCTCAGAGACTGTGATGGTGCATCAGGCAACCACCTCTTCCTGGGT
GGCCGGCTCAGGGAACCGCCAACTGGCACACAAAGAAACTGCAGATTCAGAGAACAGTGACATACAAAGCCTTTT
ATCCCTCACGTCAGAGGAGTACACAGATGATATTCCACTGTTGAAAGAAGCA**TGA**GGGCAGCGGCCAGCCTTTCC
TCTCTGCGAGGTTCTCTCAGCCCTTCCTCCCTCTCCCTGTGGGATTGAGCACCCTGTACTCTCCAGCCACCTTAC
CTGGATACCTGAGCTGCCACCTGTGTATCTGTGTATCTCTGAGGGCCCTATAGGCCCACCTTGCTGGAAACTCAA
GGAAGATTCTCGCCATCTGCCTGTTGGACAGCTGGAGGAGCTGGCTCTTTGCCTGGCCCCGCCTTCCCATCTGTC
AGAGACATATTTGAATGTGCTGGATCAAACCCTCCCTTTTCCTAAGCCTCTGGGTCCCCTCCAGCCAGCTCTTTG
GCGGCAGCCCCCACCAGCTCCTGTGGGCCTGAGTGCTGCTGTGTTTACTTGTGCCTTTCCCCCACCCTGTCCAGT
TTCCCTGTCATGCAGACTTGTTGCTGTCCACAAGCCTTAGTGGCTGCACTGCTGCCCCCTGCCACACAGGGGGCC
GGGCCTGGGTCTGTCCTGTTTCCTTTGAGGGTTGCCCCTACTGCCCTTTGCAGGAACAGATCCAGGTGTGAGAGC
TCTTGAGTCAAGAGTGGCAGAAGTGGCTCTAATTGGGGTGAGAGTGTAGTCCCTGGGCTTGCCCTGGGTTGACCC
TGGTGGCATATTTCCTTGGCTGAGGATGGAAGATTTGGAGAATCATGTCCATGCTGGCCCAGGACCCAGCCATCT
GGCCCAAAGGCACAAGCTCCTGGCCCTGTTGAGTTGAGAGTTTCCAAGAAGCATCCAGAAGATCCCAAGGGAGAG
AAGGAAAATGGCTGATAATGATTGTCTTCCTAATATGCAAGTTCTCACTTCCTACTTCCAGCATCGGCCTTCCTG
GCCTTGTCTTTTTTTTGTTTCCCTGGAGTATAATGGGAAGTTGCATGCTGCCTCCTGGGTTTTATCCCAGATAGC
TCTGGCTTTCTTGCTGCCCACAGGGGCCTGGGGCAGGAAGGAGACTTGCTGAGATGCCATGGAGTGCCCATCTGG
TCACTGGCAGTCTGGGCAGGTTGCCCCTTTCTGGGTTTGTGGTGACGGAGGGGAGGCCGAGAGGCACAGACCAAG
TCCCCGGGTGGCTGCAGGCAGCTCCAGCCCGGTCCTGAGGATCCTCCTCACCATGGTCACGTGCCTTAGTAACTG
TGCCCAGGAAGTGGCCTGCTGCTTGCTGTGCTGCTGCTTTTCCTACTTCTGCCCTTCCCTGCCACCCCTCGCATG
TCACAGCTGACAAGCAATTCCTTGTCTTCCCTGGCCCCCTGGGGGAAGGGCTGAGAAACAGTCCGTGTGCACCCC
AACCTTAATGGCCTGAGGTGGGCAGAGGGGTGTGGAGCAGCCTGGAGTACAGGGCCCTGGGGGAGGAGCCCACTG
ATGAGGGGCGCTCTCCCATAGCCATGTGTTGAATGCTAACTAGGCTGGGGTGGACGAACTCTGCCAACTGCTGTC
ATCTTAGAAGATAGATGCAGCAGTAAGGAATGTTTGTTTTGCTTTTTTCTGAAATTTTCTGAAGCACTGTGGCTG
GGAAACTTCGAAGCGGACCCTGTGCTGCATGTCTGCTCCTCCCCTGAGCCTGTCTGCTTGGGGGTGGTAAAAATA
AAAATCCCAGTTTATTTTCAGTACCTTACCTAACAGGGTTGGCTCCAGGCGTGGGTGGCCTAGAAGATGAGGGGA
GTGGTCTTCTCCCAGCCTTTTACCCTCTTGCCTCCTGCCTCCGCGCTTACACACGCACTTTACCACCCGGTCATT
CCCTGGCCTCTTGCTGCCACTTGTAGTCTTCCTTCCTTCCTCTCAGGGTAAGGGCAGTGCCTGCTGTGCCTGTTG
GCCACTCCCACACTTCCCCTCCCCCAGGAGCCCTCATCTGCTGTGCTGAGTCCAGGAAAGCATAGTTAGGTAGGG
AGCTGGTTGGAGAAGGTGCTAGAACTAGAAGGCAGATGAGACTAGCATGGGCCCACCTGGAGGGCTGTCCCTAAT
GGCCCCAGTCGCCTTACCTCACCCACAGCAGTGCCCTTGTCTTCCTCCAAAACAGAAAGCAGTGACAAAAGGGGG
AGGGGTGGTAATCTGAAGTCTCACTGCTGAGCCTTCAGCTTTTATTTTTCACTGTTTCAAAACCCGCATTCTATT
CTAGAATGGTTTTTAAAATGGAAGATCTTACCTTTTTCTATCTTGTTACTCTGGGGTTTTGTCCCCCTAAGAGAT
TGCACTTTTTGTTTGGGGTTTATTCAGCTGCATAGATGACCAGCTTGATCCCTGGTGAAATGAAAAGCCTTCCTT
CTCCTGAAGCCTCTTTCCGCCCTGCCCTCCACTAACAACACTGAGGAGCACAAGCCCAGGCTTGCCCACCTGGTA
GGAAAGGAAGAAATTAGAACAATGGGAGCCTTGGCTCCCCTCTCGTCTCCTCCCCTCCTTCTTGTCACTGGCTTT

FIGURE 191B

GATGAGGCCCACTTCCCAGAGGCTCCTGGGCCTGTGAGTGCAGGAGCTCATTCTCCCCTCACTGCTGAAGTCTGT
GACAGCTTCTTCCTCCAGTTATGTCTTTCTTCCAAAGCAATTTCTTAACCATCAGCCATGTGCTGCTATTTCTAG
GGCTTCTGGGCTTTGTCCCTTACTGAGAGATTAGGGACTCCACAGCTGCCTTGAGGTAGGGCCTGGCTGAGAGAC
AAGGGTAGCAGCAGGTGGCAGGCTGTTAAAAGACAGGCTGCCTGAGGAGCCTGGAGCAGGTGGAAACAGGTGGAA
GAAACCGGCCACAGCCCTGCTTTACCGGGCTCACCTCTAGGGCATTCCAGCAAGAGGCTGATGCAGGAGAATGGC
CAGCACCAAAGGACATTTAAAAGAGTTTTTGGGTTTTTTTGTTTGTTTGTTGTTGGTGTTTGTTTTTTTTTTTTT
TTTTTTGGCACACTTGAGCTGACTCAGTGCAGGTTTAATATCCTGGTGACTTGCAGTCACATTCTAATGACTTTC
AAGGGCCAGAATATGGTGAAAATCACTTAAAATATCCGTCCCTTCCATGCCTTAGTTTAGCAGGTAGGCTCTATC
TTTTGCCATTTCTGTATTTTATGTGCTGTGTTCCCGTTTCACTGGGTATGAACTGTGAAATCGACTGAATCCTGG
CCACTTTATGAGTTTGTTTGGTTTTATAAGGCATTTCAATGTACATTCTATAAATACAAGCACTCCATTTGCAAA
CAGATCTTAAGCTAATATTTTCTTTCCCATTCATCTTGCCCTCCCCCTCCTCCCGCCAGCTTTAAAGTTCAGTGG
AGAAGCCAGATGGCAATTCAGACAAAGGTATACTCTTCCTGCTTCATGGGTGGTGGCACGGGAATAGATAGCCCT
TAGCCCTTTCCCTCCCAGTCCCAGCTGAGCCCTCAGACCACTTGCTTCCCACATAACAATGTCGCCTCCATTTCC
GAGGAACATCCTTGCGTAGAGAATGAAATATGCTGCAATCATTTCTGCATCCTTACTCCTCACCCCCAAAGAAAA
AAAAAAGGCCTAGCAGGGAAGCAGCATGCAGGCTTCACAGCTTAATGCCAAGGACAGCGAGTGAGGCTGGGAGCT
TCTCTTGGGCCTGCTGGGTCTGTCAGCTCTCGGAATAGGGACAGTCCTTACTGGTGCCCCAAGGTGGGACTTGGA
GAATATTTTGCTTGGCATATGTTTGGTCTGAATGGTGTAGTTGCTGGTTCCCTAGAGAGGAAAAGGTGGCAGGCC
CAGCTTTGCTGGGAAATGGCTCTTAATTTCCAGTTGAAACCCTAGTAGAATTGTGAATGAAAACCTCAAGGTTGA
GCCCCTCTGCCAAGCAGCAGAGCTAGTAGAAGGGGATGCAGGGGCAAAGCACTCAGTTGCCAAGCAAGGAGGAGA
GATGTACGTGGGCTGTGTGGCAGTCCCCACACCCTGCCCTGGCTTCTTCAGGTTATCGCACCACTATGGAATCCT
TTGCAGAATGGTACTCATATAATGGTTTAAAACAACACATTCATAATTGACTCTGTGCAGGATGTCACTCAATCA
GTTTGGGTTTGCTTTATTTTATTTTATATATATATTTTTTGGTATCCTGTACATTGCAGTGGGTGTGAAGATAGT
ATTTTAATATTTGTACAAAGTTTAATTTAATTTTAATTGTTCTATGTATATAACTGCATTTCTAAATAATTAAAA
AAAAGTTCTTATG

FIGURE 192

GCGTGGAGGTCGACGACTCCGTCGCAGACTACGGACCTGTCTGGGTCTCAGCCGCCAAAGACCCCGTCCGGTAGG
TGAGTGGCTCACTTTGAGGGCAAGCCTTCTCGGATCGAGGCTTCTTCATGGCCGCTCAGATCGTGAGCGGCCGGG
GCTGCTCTCTTTGCGGAGGATGGCGTCTAATGAGCGCAGTTGATTCGAGGAAGTACTAGCCGGACATC**ATG**AGTG
GCTGTCGGGTATTCATCGGGAGACTAAATCCAGCGGCCAGGGAGAAGGACGTGGAAAGATTCTTCAAGGGATATG
GACGGATAAGAGATATTGATCTGAAAAGAGGCTTTGGTTTTGTGGAATTTGAGGATCCAAGGGATGCAGATGATG
CTGTGTATGAGCTTGATGGAAAAGAACTCTGTAGTGAAAGGGTTACTATTGAACATGCTAGGGCTCGGTCACGAG
GTGGAAGAGGTAGAGGACGATACTCTGACCGTTTTAGTAGTCGCAGACCTCGAAATGATAGACGGTATGTGAAGG
GTGGATGGCTGCAT**TGA**ACAATTATTGTAGGGGTAGCATTTAAGATTCAGGAGTCATTAGCAGTGATGATTTTGG
GTCCTGCCGTATAATCTGTTCTTCTATTCCCACGTTAGCCAGTTGTTCTTGATGAATCTATATGAGTCATAGAAC
ACAAATCTATTGACGGAAGTCATTAGAATGGCTTGTGATATCTGATGGCTTGAACTTGCCCACAGTTGAACACAA
GTGCTGTCATTGCATTTCTTCCATTGTGAATACGAATTTTCTTCCTCAGAAATGCTCCACCTGTAAGAACAGAAA
ATCGTCTTATAGTTGAGAATTTATCCTCAAGAGTCAGCTGGCAGGATCTCAAAGATTTCATGAGACAAGCTGGGG
AAGTAACGTTTGCGGATGCACACCGACCTAAATTAAATGAAGGGGTGGTTGAGTTTGCCTCTTATGGTGACTTAA
AGAATGCTATTGAAAAACTTTCTGGAAAGGAAATAAATGGGAGAAAAATAAAATTAATTGAAGGCAGCAAAAGGC
ACAGGTCAAGAAGCAGGTCTCGATCCCGGACCAGAAGTTCCTCTAGGTCTCGTAGCCGATCCCGTTCCCGTAGTC
GCAAATCTTACAGCCGGTCAAGAAGCAGGAGCAGGAGCCGGAGCCGGAGCAAGTCCCGTTCTGTTAGTAGGTCTC
CCGTGCCTGAGAAGAGCCAGAAACGTGGTTCTTCAAGTAGATCTAAGTCTCCAGCATCTGTGGATCGCCAGAGGT
CCCGGTCCCGATCAAGGTCCAGATCAGTTGACAGTGGCAATTAAACTGTAAATAACTTGCCCTGGGGGCCTTTTT
TTAAAAAACAAAAACCACAAAAATTCCCAAACCATACTTGCTAAAAATTCTGGTAAGTATGTGCTTTTCTGTGGG
GGTGGGATTTGGAAGGGGGGTTGGGTTGGGCTGGATATCTTTGTAGATGTGGACCACCAAGGGGTTGTTGAAAAC
TAATTGTATTAAATGTCTTTTGATAAGCCTTCTGCTCACATTTTTGTGAATGTCTGAAGTATATAGTTTGTGTAT
ATTGACAGAGCTCTTTTATAACTAAAGCAAATTTAATTTTTTTGTACTAGAAAAAAATTTGAACATTTTAGTTCT
TGGTTATAAAAATGTTAATTCAGAATTAGTTTAATGCCTTAATTAAACTAATTAATAGCTTTGGACACTTAAAAG
AGCTCTAAATTTGCTTGTACATAAAGGCTTAATTTGTTTTCCTTGTTAGGGTCAAGGGTGTCCTCCACTCTTTAA
CAGCTGCTGGACAGACACATTAGAGCAGCTGTTTGTTATTGATAATAAAATATTATAAAACTA

FIGURE 193

CCTGCTGCCGCCTGGGCCCCGCCGAGCGGAGCTAGCGCCGCGCGCAGAGCACACGCTCGCGCTCCAGCTCCCCTC
CTGCGCGGTTCATGACTGTGTCCCCTGACCGCAGCCTCTGCGAGCCCCCGCCGCAGGACCACGGCCCGCTCCCCG
CCGCCGCGAGGGCCCCGAGCGAAGGAAGGAAGGGAGGCGCGCTGTGCGCCCCGCGGAGCCCGCGAACCCCGCTCG
CTGCCGGCTGCCCAGCCTGGCTGGCACC**ATG**CTGCCCGCGCGCTGCGCCCGCCTGCTCACGCCCCACTTGCTGCT
GGTGTTGGTGCAGCTGTCCCCTGCTCGCGGCCACCGCACCACAGGCCCCAGGTTTCTAATAAGTGACCGTGACCC
ACAGTGCAACCTCCACTGCTCCAGGACTCAACCCAAACCCATCTGTGCCTCTGATGGCAGGTCCTACGAGTCCAT
GTGTGAGTACCAGCGAGCCAAGTGCCGAGACCCGACCCTGGGCGTGGTGCATCGAGGTAGATGCAAAGATGCTGG
CCAGAGCAAGTGTCGCCTGGAGCGGGCTCAAGCCCTGGAGCAAGCCAAGAAGCCTCAGGAAGCTGTGTTTGTCCC
AGAGTGTGGCGAGGATGGCTCCTTTACCCAGGTGCAGTGCCATACTTACACTGGGTACTGCTGGTGTGTCACCCC
GGATGGGAAGCCCATCAGTGGCTCTTCTGTGCAGAATAAAACTCCTGTATGTTCAGGTTCAGTCACCGACAAGCC
CTTGAGCCAGGGTAACTCAGGAAGGAAAGATGACGGGTCTAAGCCGACACCCACGATGGAGACCCAGCCGGTGTT
CGATGGAGATGAAATCACAGCCCCAACTCTATGGATTAAACACTTGGTGATCAAGGACTCCAAACTGAACAACAC
CAACATAAGAAATTCAGAGAAAGTCTATTCGTGTGACCAGGAGAGGCAGAGTGCCCTGGAAGAGGCCCAGCAGAA
TCCCCGTGAGGGTATTGTCATCCCTGAATGTGCCCCTGGGGGACTCTATAAGCCAGTGCAATGCCACCAGTCCAC
TGGCTACTGCTGGTGTGTGCTGGTGGACACAGGGCGCCCGCTGCCTGGGACCTCCACACGCTACGTGATGCCCAG
TTGTGAGAGCGACGCCAGGGCCAAGACTACAGAGGCGGATGACCCCTTCAAGGACAGGGAGCTACCAGGCTGTCC
AGAAGGGAAGAAAATGGAGTTTATCACCAGCCTACTGGATGCTCTCACCACTGACATGGTTCAGGCCATTAACTC
AGCAGCGCCCACTGGAGGTGGGAGGTTCTCAGAGCCAGACCCCAGCCACACCCTGGAGGAGCGGGTAGTGCACTG
GTATTTCAGCCAGCTGGACAGCAATAGCAGCAACGACATTAACAAGCGGGAGATGAAGCCCTTCAAGCGCTACGT
GAAGAAGAAAGCCAAGCCCAAGAAATGTGCCCGGCGTTTCACCGACTACTGTGACCTGAACAAAGACAAGGTCAT
TTCACTGCCTGAGCTGAAGGGCTGCCTGGGTGTTAGCAAAGAAGGACGCCTCGTC**TAA**GGAGCAGAAAACCCAAG
GGCAGGTGGAGAGTCCAGGGAGGCAGGATGGATCACCAGACACCTAACCTTCAGCGTTGCCCATGGCCCTGCCAC
ATCCCGTGTAACATAAGTGGTGCCCACCATGTTTGCACTTTTAATAACTCTTACTTGCGTGTTTTGTTTTTGGTT
TCATTTTAAAACACCAATATCTAATACCACAGTGGGAAAAGGAAAGGGAAGAAAGACTTTATTCTCTCTCTTATT
GTAAGTTTTTGGATCTGCTACTGACAACTTTTAGAGGGTTTTGGGGGGGTGGGGGAGGGTGTTGTTGGGGCTGAG
AAGAAAGAGATTTATATGCTGTATATAAATATATATGTAAATTGTATAGTTCTTTTGTACAGGCATTGGCATTGC
TGTTTGTTTATTTCTCTCCCTCTGCCTGCTGTGGGTGGTGGGCACTCTGGACACATAGTCCAGCTTTCTAAAATC
CAGGACTCTATCCTGGGCCTACTAAACTTCTGTTTGGAGACTGACCCTTGTGTATAAAGACGGGAGTCCTGCAAT
TGTACTGCGGACTCCACGAGTTCTTTTCTGGTGGGAGGACTATATTGCCCCATGCCATTAGTTGTCAAAATTGAT
AAGTCACTTGGCTCTCGGCCTTGTCCAGGGAGGTTGGGCTAAGGAGAGATGGAAACTGCCCTGGGAGAGGAAGGG
AGTCCAGATCCCATGAATAGCCCACACAGGTACCGGCTCTCAGAGGGTCCGTGCATTCCTGCTCTCCGGACCCCC
AAAGGGCCCAGCATTGGTGGGTGCACCAGTATCTTAGTGACCCTCGGAGCAAATTATCCACAAAGGATTTGCATT
ACGTCACTCGAAACGTTTTCATCCATGCTTAGCATCTACTCTGTATAACGCATGAGAGGGGAGGCAAAGAAGAAA
AAGACACACAGAAGGGCCTTTAAAAAAGTAGATATTTAATATCTAAGCAGGGGAGGGGACAGGACAGAAAGCCTG
CACTGAGGGGTGCGGTGCCAACAGGGAAACTCTTCACCTCCCTGCAAACCTACCAGTGAGGCTCCCAGAGACGCA
GCTGTCTCAGTGCCAGGGGCAGATTGGGTGTGACCTCTCCA

FIGURE 194

AAG**ATG**CCGAAAGGAAAGAAGGCCAAGGGAAAGAAGGTGGCTCCGGCCCCAGCTGTCGTGAAGAAGCAGGAGGCT
AAGAAAGTGGTGAATCCCCTGTTTGAGAAAAGGCCTAAGAATTTTGGCATTGGACAGGACATCCAGCCCAAAAGA
GACCTCACCCGCTTTGTGAAATGGCCCCGCTATATCAGGTTGCAGCGGCAGAGAGCCATCCTCTATAAGCGGCTG
AAAGTGCCTCCTGCGATTAACCAGTTCACCCAGGCCCTGGACCGCCAAACAGCTACTCAGCTGCTTAAGCTGGCC
CACAAGTACAGGCCAGAGACAAAGCAAGAGAAGAAGCAGAGACTGTTGGCCCGGGCCGAGAAGAAAGCTGCTGGC
AAAGGGGACGTCCCGAAGAAGAGACCACCTGTCCTTCGAGCAGGAGTTAACACTGTCACCACCTTGGTGGAGAAC
AAGAAAGCTCAGCTGGTGGTGATTTCACACGACATGGATCCCATCGAGGGGGAAGGCAAGACTGGGACGTCTAGT
CCACAGGAAGACCTGCACCACTGTCGCCTTCACACAGGTGAACTCAGAAGACAAAGGCGCTTTGGC**TAA**GCTGGT
GGAAGCTATCAGGACCAATTACAATGACAGATACGATGAGATCCGCCGTCACTGGGGTGGCAATGTCCTGGGTCC
TAAGTCTGTGGCTCGTATCGCCAAGCGCAAAAAGGCAAAGGCTAAAGAACTTGCCACTAAACTGGGTTAAATGTA
CACTGTTGAGTTTTCTGTACATAAAAATAATTAAAATAATACAAATTTTCCTT

FIGURE 195

TGTTTCCGCTGCATCCAGACTTCCTCAGGCGGTGGCTGGAGGCTGCGCATCTGGGGCTTTAAACATACAAAGGGA
TTGCCAGGACCTGCGGCGGCGGCGGCGGCGGCGGGGGGCTGGGGCGCGGGGGCCGGACCATGAGCCGCTGAGCCGG
GCAAACCCCAGGCCACCGAGCCAGCGGACCCTCGGAGCGCAGCCCTGCGCCGCGGAGCAGGCTCCAACCAGGCGG
CGAGGCGGCCACACGCACCGAGCCAGCGACCCCCGGGCGACGCGCGGGGCCAGGGAGCGCTACG**ATG**GAGGCGCT
AATGGCCCGGGGCGCGCTCACGGGTCCCCTGAGGGCGCTCTGTCTCCTGGGCTGCCTGCTGAGCCACGCCGCCGC
CGCGCCGTCGCCCATCATCAAGTTCCCCGGCGATGTCGCCCCCAAAACGGACAAAGAGTTGGCAGTGCAATACCT
GAACACCTTCTATGGCTGCCCCAAGGAGAGCTGCAACCTGTTTGTGCTGAAGGACACACTAAAGAAGATGCAGAA
GTTCTTTGGACTGCCCCAGACAGGTGATCTTGACCAGAATACCATCGAGACCATGCGGAAGCCACGCTGCGGCAA
CCCAGATGTGGCCAACTACAACTTCTTCCCTCGCAAGCCCAAGTGGGACAAGAACCAGATCACATACAGGATCAT
TGGCTACACACCTGATCTGGACCCAGAGACAGTGGATGATGCCTTTGCTCGTGCCTTCCAAGTCTGGAGCGATGT
GACCCCACTGCGGTTTTCTCGAATCCATGATGGAGAGGCAGACATCATGATCAACTTTGGCCGCTGGGAGCATGG
CGATGGATACCCCTTTGACGGTAAGGACGGACTCCTGGCTCATGCCTTCGCCCCAGGCACTGGTGTTGGGGGAGA
CTCCCATTTTGATGACGATGAGCTATGGACCTTGGGAGAAGGCCAAGTGGTCCGTGTGAAGTATGGGAACGCCGA
TGGGGAGTACTGCAAGTTCCCCTTCTTGTTCAATGGCAAGGAGTACAACAGCTGCACTGATACCGGCCGCAGCGA
TGGCTTCCTCTGGTGCTCCACCACCTACAACTTTGAGAAGGATGGCAAGTACGGCTTCTGTCCCCATGAAGCCCT
GTTCACCATGGGCGGCAACGCTGAAGGACAGCCCTGCAAGTTTCCATTCCGCTTCCAGGGCACATCCTATGACAG
CTGCACCACTGAGGGCCGCACGGATGGCTACCGCTGGTGCGGCACCACTGAGGACTACGACCGCGACAAGAAGTA
TGGCTTCTGCCCTGAGACCGCCATGTCCACTGTTGGTGGGAACTCAGAAGGTGCCCCCTGTGTCTTCCCCTTCAC
TTTCCTGGGCAACAAATATGAGAGCTGCACCAGCGCCGGCCGCAGTGACGGAAAGATGTGGTGTGCGACCACAGC
CAACTACGATGATGACCGCAAGTGGGGCTTCTGCCCTGACCAAGGGTACAGCCTGTTCCTCGTGGCAGCCCACGA
GTTTGGCCACGCCATGGGGCTGGAGCACTCCCAAGACCCTGGGGCCCTGATGGCACCCATTTACACCTACACCAA
GAACTTCCGTCTGTCCCAGGATGACATCAAGGGCATTCAGGAGCTCTATGGGGCCTCTCCTGACATTGACCTTGG
CACCGGCCCCACCCCCACGCTGGGCCCTGTCACTCCTGAGATCTGCAAACAGGACATTGTATTTGATGGCATCGC
TCAGATCCGTGGTGAGATCTTCTTCTTCAAGGACCGGTTCATTTGGCGGACTGTGACGCCACGTGACAAGCCCAT
GGGGCCCCTGCTGGTGGCCACATTCTGGCCTGAGCTCCCGGAAAAGATTGATGCGGTATACGAGGCCCCACAGGA
GGAGAAGGCTGTGTTCTTTGCAGGGAATGAATACTGGATCTACTCAGCCAGCACCCTGGAGCGAGGGTACCCCAA
GCCACTGACCAGCCTGGGACTGCCCCCTGATGTCCAGCGAGTGGATGCCGCCTTTAACTGGAGCAAAAACAAGAA
GACATACATCTTTGCTGGAGACAAATTCTGGAGATACAATGAGGTGAAGAAGAAAATGGATCCTGGCTTCCCCAA
GCTCATCGCAGATGCCTGGAATGCCATCCCCGATAACCTGGATGCCGTCGTGGACCTGCAGGGCGGCGGTCACAG
CTACTTCTTCAAGGGTGCCTATTACCTGAAGCTGGAGAACCAAAGTCTGAAGAGCGTGAAGTTTGGAAGCATCAA
ATCCGACTGGCTAGGCTGC**TGA**GCTGGCCCTGGCTCCCACAGGCCCTTCCTCTCCACTGCCTTCGATACACCGGG
CCTGGAGAACTAGAGAAGGACCCGGAGGGGCCTGGCAGCCGTGCCTTCAGCTCTACAGCTAATCAGCATTCTCAC
TCCTACCTGGTAATTTAAGATTCCAGAGAGTGGCTCCTCCCGGTGCCCAAGAATAGATGCTGACTGTACTCCTCC
CAGGCGCCCCTTCCCCCTCCAATCCCACCAACCCTCAGAGCCACCCCTAAAGAGATACTTTGATATTTTCAACGC
AGCCCTGCTTTGGGCTGCCCTGGTGCTGCCACACTTCAGGCTCTTCTCCTTTCACAACCTTCTGTGGCTCACAGA
ACCCTTGGAGCCAATGGAGACTGTCTCAAGAGGGCACTGGTGGCCCGACAGCCTGGCACAGGGCAGTGGGACAGG
GCATGGCCAGGTGGCCACTCCAGACCCCTGGCTTTTCACTGCTGGCTGCCTTAGAACCTTTCTTACATTAGCAGT
TTGCTTTGTATGCACTTTGTTTTTTTCTTTGGGTCTTGTTTTTTTTTTCCACTTAGAAATTGCATTTCCTGACAG
AAGGACTCAGGTTGTCTGAAGTCACTGCACAGTGCATCTCAGCCCACATAGTGATGGTTCCCCTGTTCACTCTAC
TTAGCATGTCCCTACCGAGTCTCTTCTCCACTGGATGGAGGAAAACCAAGCCGTGGCTTCCCGCTCAGCCCTCCC
TGCCCCTCCCTTCAACCATTCCCCATGGGAAATGTCAACAAGTATGAATAAAGACACCTACTGAGTGGC

FIGURE 196

CACATGTAAACTACTTGAACTCCATTTCATCTTTTTTCATACCATCTCTAAGATTGCTGCCGCATTTGCTTGTTA
AACTGAAAGC**ATG**TTTCTTGCAAAGGCTCTATTGGAAGGAGCAGATCGAGGTCTTGGAGAAGCTCTTGGAGGCCT
CTTTGGAGGAGGTGGTCAGAGAAGAGAAGGAGGAGGAAGAAATATTGGAGGGATAGTTGGAGGAATTGTGAATTT
TATCAGTGAGGCTGCAGCAGCTCAGTATACTCCAGAACCGCCTCCCACTCAGCAGCATTTCACCAGTGTGGAGGC
CTCAGAAAGTGAGGAAGTTAGGCGATTTCGGCAACAATTTACACAGCTGGCTGGACCAGACATGGAGGTGGGTGC
CACTGATCTGATGAATATTCTCAACAAAGTCCTTTCTAAGCACAAAGATCTTAAGACTGACGGTTTTAGTCTTGA
CACCTGCCGGAGCATTGTGTCTGTCATGGACAGTGACACGACTGGTAAGCTGGGCTTTGAAGAATTTAAGTATCT
GTGGAACAACATCAAGAAATGGCAGTGTGTTTATAAGCAGTATGACAGGGACCATTCTGGGTCTCTGGGAAGTTC
TCAGCTGCGGGGAGCTCTGCAGGCCGCAGGCTTCCAGCTAAATGAACAACTTTACCAAATGATTGTCCGCCGGTA
TGCTAATGAAGATGGAGATATGGATTTTAACAATTTCATCAGCTGCTTGGTCCGCCTGGATGCCATGTTTCGTGC
CTTCAAGTCTCTGGATAGAGATAGAGATGGCCTGATTCAAGTGTCTATCAAAGAATGGCTGCAGTTGACCATGTA
TTCC**TGA**AGTGGGAACTGAGAAGTCAAGATCCTCCCTGGAGGACAGGACTGAAAACCTTGCCAAGCTGTACACAG
TTGCTGATACCCTGTGCAACAGCTCTCATTTCCTGGCAAGCTCTTTCACAACCCTACATATTTCTGATCATGTGC
TGCCTTTTACTGCTGAATTAAAACAGATATTTCA

FIGURE 197

CCTCGGCGTGCCCCCAGGACCGGTAAAGTTCCTCTCGCCAGCCGCATCC**ATG**CTTCTGGCGCGGATGAACCCGCA
GGTGCAGCCCGAGAACAACGGGGCGGACACGGGTCCAGAGCAGCCCCTTCGGGCGCGCAAAACTGCGGAGCTGCT
GGTGGTGAAGGAGCGCAACGGCGTCCAGTGCCTGCTGGCGCCCCGCGACGGCGACGCGCAGCCCCGGGAGACCTG
GGGCAAGAAGATCGACTTCCTGCTGTCCGTAGTCGGCTTCGCAGTGGACCTGGCCAACGTGTGGCGCTTCCCCTA
CCTCTGCTACAAGAACGGCGGCGGTGCCTTCTTGATCCCGTACACACTGTTCCTTATCATCGCGGGGATGCCCCT
GTTCTACATGGAGCTGGCTCTGGGACAGTACAACCGGGAGGGGGCTGCCACCGTTTGGAAAATCTGCCCATTCTT
CAAAGGCGTTGGCTATGCTGTCATCCTGATCGCCCTGTACGTTGGCTTCTACTACAACGTCATCATCGCCTGGTC
ACTCTACTACCTCTTCTCCTCCTTCACCCTCAACCTGCCCTGGACCGACTGTGGCCACACCTGGAACAGCCCCAA
CTGTACCGACCCCAAGCTCCTCAATGGCTCCGTGCTTGGCAACCACACCAAGTACTCCAAGTACAAGTTCACGCC
GGCAGCCGAGTTTTATGAGCGTGGTGTCCTGCACCTTCACGAGAGCAGCGGGATTCATGACATCGGCCTGCCCCA
GTGGCAGCTCTTGCTCTGTCTGATGGTCGTCGTCATCGTCTTGTATTTTAGCCTCTGGAAAGGGGTGAAGACATC
AGGAAAGGTGGTGTGGATCACAGCCACGCTGCCTTACTTCGTGCTGTTCGTGCTCCTGGTCCATGGCGTCACGCT
GCCCGGAGCCTCCAATGGCATCAATGCCTACCTGCACATCGACTTCTACCGCTTGAAAGAGGCCACGGTATGGAT
TGATGCCGCAACTCAGATATTTTTTTCCTTGGGGGCTGGATTTGGAGTATTGATTGCATTTGCCAGTTACAACAA
ATTTGACAACAACTGTTACAGGGATGCCCTGCTGACCAGCAGCATCAACTGTATCACCAGCTTCGTCTCTGGGTT
CGCCATCTTCTCCATCCTTGGTTACATGGCCCATGAACACAAGGTCAACATTGAGGATGTGGCCACAGAAGGAGC
TGGCCTAGTGTTCATCCTGTATCCAGAGGCCATTTCTACCCTGTCTGGATCTACATTCTGGGCTGTTGTGTTTTT
CGTCATGCTCCTGGCGCTGGGCCTTGACAGCTCAATGGGAGGCATGGAGGCTGTCATCACGGGCCTGGCAGATGA
CTTCCAGGTCCTGAAGCGACACCGGAAACTCTTCACATTTGGCGTCACCTTCAGCACTTTCCTTCTCGCCCTGTT
CTGCATAACCAAGGGTGGAATTTACGTCTTGACCCTCCTGGACACCTTTGCTGCGGGCACCTCCATCCTTTTTGC
TGTCCTCATGGAAGCCATCGGAGTTTCCTGGTTTTATGGAGTGGACAGGTTCAGCAACGACATCCAGCAGATGAT
GGGGTTCAGGCCGGGTCTATACTGGAGACTGTGCTGGAAGTTCGTCAGTCCTGCCTTCCTCCTGTTCGTGGTTGT
GGTCAGCATCATCAACTTCAAGCCACTCACCTACGACGACTACATCTTCCCGCCCTGGGCCAACTGGGTGGGGTG
GGGCATCGCCCTGTCCTCCATGGTCCTGGTGCCCATCTACGTCATCTATAAGTTCCTCAGCACGCAGGGCTCTCT
TTGGGAGAGACTGGCCTATGGCATCACGCCAGAGAACGAGCACCACCTGGTGGCTCAGAGGGACATCAGACAGTT
CCAGTTGCAACACTGGCTGGCCATC**TGA**GCCTGCCTGGAGGAGAAGGAGGAACCCCCATGCCAATGTCCAGGTCA
CAGGCATCCGCTGCGCTCCCACCTCGGACACCATCTTGGGATTCCTCCCCTGGAAGTTGTCCTTTCTGATCCTCT
CTTCTTTTCCCATTTACAAATGATTTCGTGACTGTAGTTTTTGTTCACCTTCTGTGCATCTGGCCTGGGGGCTGT
TAGCTCAGAGGAGAGGAGCAAACAGGAAAATGACTT

FIGURE 198

CTTTTTTCTTTTTTCCGGCGTTCAAG**ATG**TCGAAGCGAGGACGTGGTGGGTCCTCTGGTGCGAAATTCCGGATTT
CCTTGGGTCTTCCGGTAGGAGCTGTAATCAATTGTGCTGACAACACAGGAGCCAAAAACCTGTATATCATCTCCG
TGAAGGGGATCAAGGGACGGCTGAACAGACTTCCCGCTGCTGGTGTGGGTGACATGGTGATGGCCACAGTCAAGA
AAGGCAAACCAGAGCTCAGAAAAAAGGTACATCCAGCAGTGGTCATTCGACAACGAAAGTCATACCGTAGAAAAG
ATGGCGTGTTTCTTTATTTTGAAGATAATGCAGGAGTCATAGTGAACAATAAAGGCGAGATGAAAGGTTCTGCCA
TTACAGGACCAGTAGCAAAGGAGTGTGCAGACTTGTGGCCCCGGATTGCATCCAATGCTGGCAGCATTGCA**TGA**T
TCTCCAGTATATTTGTAAAAAATAAAAAAAAACTAAACCCATT

FIGURE 199

CCGGAAGTGACCTCTAGAGCGGTGGTGAAACTGGCAGTTGACGGCTCCTGGGACTAGATCCCGCGAGGTAGCCCC
CGAACTATTTCTCTACGTTTTCTCTTGATCCTCCCGAAATCTTCCAGATCCGCGTAGTGAGGAATCGTCTCCACC
GTC**ATG**GGGGGCGGAGACCTGAATCTGAAGAAGAGCTGGCACCCGCAGACCCTCAGGAATGTGGAGAAAGTGTGG
AAGGCCGAGCAGAAGCATGAGGCTGAGCGGAAGAAGATTGAGGAGCTTCAGCGGGAGCTGCGAGAAGAGAGAGCC
CGGGAAGAGATGCAGCGCTATGCGGAGGATGTTGGGGCCGTCAAGAAAAAAGAAGAAAAGTTGGACTGGATGTAC
CAGGGTCCTGGTGGGATGGTGAACCGTGACGAGTACCTGCTGGGGCGCCCCATTGACAAATATGTTTTTGAGAAG
ATGGAGGAGAAGGAGGCAGGCTGCTCTTCTGAAACAGGACTTCTCCCAGGCTCTATCTTTGCCCCATCAGGTGCC
AATTCCCTTCTTGACATGGCCAGCAAGATCCGGGAGGACCCACTCTTCATCATCAGGAAGAAGGAGGAGGAGAAA
AAACGAGAGGTATTAAATAATCCAGTGAAAATGAAGAAAATCAAAGAATTGTTGCAAATGAGTCTGGAAAAAAAG
GAGAAGAAGAAAAAGAAGGAGAAGAAAAAGAAGCACAAGAAACATAAGCACAGAAGCTCGAGTAGTGATCGTTCC
AGCAGCGAGGATGAGCACAGTGCAGGGAGATCACAGAAGAAGATGGCAAATTCCTCCCCTGTTTTGTCCAAAGTC
CCTGGATATGGCTTACAGGTCCGGAACTCTGACCGTAACCAGGGTCTTCAGGGTCCTCTGACAGCAGAGCAAAAG
AGAGGGCATGGGATGAAGAACCATTCCAGATCCAGAAGCTCCTCCCACTCACCCCCAAGACATGCCAGCAAGAAG
AGCACCAGGGAAGCAGGGTCCCGGGACAGGAGGTCTCGATCCCTGGGCAGAAGGTCACGGTCCCCAAGACCCAGC
AAACTGCACAACTCTAAGGTGAACAGGAGAGAGACAGGCCAAACTAGGAGCCCATCACCTAAAAAAGAGGTCTAC
CAAAGGCGACATGCTCCCGGATACACCAGAAAACTCTCTGCAGAGGAATTAGAGCGAAAACGGCAAGAGATGATG
GAAAACGCCAAATGGAGGGAGGAGGAGAGACTGAACATCCTCAAGAGGCATGCTAAGGATGAGGAACGGGAGCAG
AGGCTAGAGAAGCTGGACTCCCGGGATGGGAAGTTCATCCACCGCATGAAGCTGGAGAGTGCATCTACTTCCTCC
CTGGAGGATCGGGTGAAGCGGAATATCTACTCTTTACAGAGAACTTCGGTAGCTCTGGAGAAGAACTTTATGAAA
AGA**TGA**AAACTGTCCCCTCTCTTATTGGTTTTCCTGCATTTTCCAGGGAAGCTGCTGACCCCTTAATTCTCTTTA
TAAGAGTTCAAATGACTTCTTTCACAGATGTCAAACCACCAGTGTTCAAAGTGACCCTGCTTCATTGAGTCCTGA
AACAGCTCACTTCCTTTGAGAGCTAGTGTGACTTGCTTTGTGGGACACTCAGTAACTTTGGGTTTTGACTCTTTA
ACGGGTGGGCACTGGACCATCTCGGTGGGAGTGCTTGTGCCACTCTGGAAGGCTGTTCCCTGGGGTTGTGATGTT
TATCATGCCACTTCCTTCTTACCTGTGCCAACAGACCTATTTCACTGCCTCAGCGTACACCAGACCCTTCAGAAA
CCTCTCTGGTGTCACCCAGATAGATTGTGCTTACTGAGACAAATGAACGTTTACTTGATTTAGAAGATAATGTGA
CAGAATGATGTCAGGTTAGGTCAAAGCCAAGGGAGTGACAGAATCTGGAAAATCAAACAATACAAAAAGCCCTAA
ATGAACTGTTAACTATTTGATCTTTGGATGTAAAATTGTAATGCGTATATGTACAAATGTACAATTTTTACATGC
TTTTAAAAAAGGTTAGCTTTGTGAAAATACCTTGTTTGGTCAATGACTTTACTGGGTAATAGAACCACATTGAAC
CTTGATGGCAAGTAATACAATAAGGCAGGCCAGCTCGTTTTTCTCTCTGAATCTGGCTGGTTTAGGAGGAGCCTG
GGTTTATCGACGAGATCTGGAGTATCTATTCTTTTCCACTGCTTGCAGTCTCCAATGTAGGCAGTGTAAAGGTAT
AGTAAAATGATTTTAGGAGTCAGAACCAAATTGCCAATATGCTCCATGGCTCCTAAAGGAAAATAAAATGGAAGT
TTTT

FIGURE 200A

TTGCGGGAAAGAGCCAAACCCTGGCGTTGGGGGGCCCGGGCGGGGAGCCCCTCCCGCGGTCCACAGCGACGCCTG
CCCAGCCCTCCTCCCCTTCCGGCTCCGGCACGGGGCCCCGAGGCGTTCGGAGGCCAGGCGGGTTTCTGTCAGGCC
CGGGGAGGAGGGGCGGGCGGGGCGGCCGCTGCCTCCCCGGGACGGGCCGTACCACGCGGACGGGGAGGACGGGGC
CAGGGGACTGCAGGGCGGCTGCACCGCCCGGGGGCGGGGTGCGGAGCGGGCCGGCGGGCTCCCCGGGGCGGGGCG
GGAGGGCGGGGCGTGGGGCGGACGGAACCACCGGGGCGGGGTGGGAGGTAACGGGACGGGCGCGACCATGGCGCG
GTGAGGGAGCGGGGGTGGGGATCGGTCCGGGGGAGGCCTGAGGCCGCTGGCTTGTGCGCTGTCTCCGCCGCCCCC
CTCTTTCGCCGCCGCCGCCGCCGCCCCGGGC**ATG**TCGTCCAACTGCACCAGCACCACGGCGGTGGCGGTGGCGCC
GCTCAGCGCCAGCAAGACCAAGACCAAGAAGAAGCATTTCGTGTGCCAGAAAGTGAAGCTATTCCGGGCCAGCGA
GCCGATCCTCAGCGTCCTGATGTGGGGGGTGAACCACACGATCAATGAGCTGAGCAATGTTCCTGTTCCTGTCAT
GCTAATGCCAGATGACTTCAAAGCCTACAGCAAGATCAAGGTGGACAATCATCTCTTCAATAAGGAGAACCTGCC
CAGCCGCTTTAAGTTTAAGGAGTATTGCCCCATGGTGTTCCGAAACCTTCGGGAGAGGTTTGGAATTGATGATCA
GGATTACCAGAATTCAGTGACGCGCAGCGCCCCCATCAACAGTGACAGCCAGGGTCGGTGTGGCACGCGTTTCCT
CACCACCTACGACCGGCGCTTTGTCATCAAGACTGTGTCCAGCGAGGACGTGGCGGAGATGCACAACATCTTAAA
GAAATACCACCAGTTTATAGTGGAGTGTCATGGCAACACGCTTTTGCCACAGTTCCTGGGCATGTACCGCCTGAC
CGTGGATGGTGTGGAAACCTACATGGTGGTTACCAGGAACGTGTTCAGCCATCGGCTCACTGTGCATCGCAAGTA
TGACCTCAAGGGTTCTACGGTTGCCAGAGAAGCGAGCGACAAGGAGAAGGCCAAGGACTTGCCAACATTCAAAGA
CAATGACTTCCTCAATGAAGGGCAGAAGCTGCATGTGGGAGAGGAGAGTAAAAAGAACTTCCTGGAGAAACTGAA
GCGGGACGTTGAGTTCTTGGCACAGCTGAAGATCATGGACTACAGCCTGCTGGTGGGCATCCACGACGTGGACCG
GGCAGAGCAGGAGGAGATGGAGGTGGAGGAGCGGGCAGAGGACGAGGAGTGTGAGAATGATGGGGTGGGTGGCAA
CCTACTCTGCTCCTATGGCACACCTCCGGACAGCCCTGGCAACCTCCTCAGCTTTCCTCGGTTCTTTGGTCCTGG
GGAATTCGACCCCTCTGTTGACGTCTATGCCATGAAAAGCCATGAAAGTTCCCCCAAGAAGGAGGTGTATTTCAT
GGCCATCATTGATATCCTCACGCCATACGATACAAAGAAGAAAGCTGCACATGCTGCCAAAACGGTGAAACACGG
GGCAGGGGCCGAGATCTCGACTGTGAACCCTGAGCAGTACTCCAAACGCTTCAACGAGTTTATGTCCAACATCCT
GACG**TAG**TTCTCTTCTACCTTCAGCCAGAGCCAGAGAGCTGGATATGGGGTCGGGGATCGGGAGTTAGGGAGAAG
GGTGTATTTGGGCTAGATGGGAGGGTGGGAGCAGAGTCGGGTTTGGGAGGGCTTTAGCAATGAGACTGCAGCCTG
TGACACCGAAAGAGACTTTAGCTGAAGAGGAGGGGGATGTGCTGTGTGTGCACCTGCTCACAGGATGTAACCCCA
CCTTCTGCTTACCCTTGATTTTTTCTCCCCATTTGACACCCAGGTTAAAAAGGGGTTCCCTTTTTGGTACCTTGT
AACCTTTTAAGATACCTTGGGGCTAGAGATGACTTCGTGGGTTTATTTGGGTTTTGTTTCTGAAATTTCATTGCT
CCAGGTTTGCTATTTATAATCATATTTCATCAGCCTACCCACCCTCCCCATCTTTGCTGAGCTCTCAGTTCCCTT
CAATTAAAGAGATACCCGGTAGACCCAGCACAAGGGTCCTTCCAGAACCAAGTGCTATGGATGCCAGATTGGAGA
GGTCAGACACCTCGCCCTGCTGCATTTGCTCTTGTCTGGATTAACTTTGTAATTTATGGAGTATTGTGCACAACT
TCCTCCACCTTTCCCTTGGATTCAAGTGAAAACTGTTGCATTATTCCTCCATCCTGTCTGGAATACACCAGGTCA
ACACCAGAGATCTCAGATCAGAATCAGAGATCTCAGAGGGGAATAAGTTCATCCTCATGGGATGGTGAGGGGCAG
GAAAGCGGCTGGGCTCTTGGACACCTGGTTCTCAGAGAACCCTGTGATGATCACCCAAGCCCCAGGCTGTCTTAG
CCCCTGGAGTTCAGAAGTCCTCTCTGTAAAGCCTGCCTCCCACTAGGTCAAGAGGAACTAGAGTACCTTTGGATT
TATCAGGACCCTCATGTTTAAATGGTTATTTCCCTTTGGGAAAACTTCAGAAACTGATGTATCAAATGAGGCCCT
GTGCCCTCGATCTATTTCCTTCTTCCTTCTGACCTCCTCCCAGGCACTCTTACTTCTAGCCGAACTCTTAGCTCT
GGGCAGATCTCCAAGCGCCTGGAGTGCTTTTTAGCAGAGACACCTCGTTAAGCTCCGGGATGACCTTGTAGGAGA
TCTGTCTCCCTGTGCCTGGAGAGTTACAGCCAGCAAGGTGCCCCCATCTTAGAGTGTGGTGTCCAAACGTGAGGT
GGCTTCCTAGTTACATGAGGATGTGATCCAGGAAATCCAGTTTGGAGGCTTGATGTGGGTTTTGACCTGGCCTCA
GCCTTGGGGCTGTTTTTCCTTGTTGCCCCGCTCTAGACTTTTAGCAGATCTGCAGCCCACAGGCTTTTTTGGAAG
GAGTGGCTTCCTGCAGGTGTTCCACCTGCCTTCGGAGCCTGCCACCCAGGCCCTCAGAACTGAGCCACAGGCTGC
TCTGGCCAGGAGAGAAACAGCTCTGTTGTTCTGCATTGGGGGAGGTACATTCCTGCATCTTCTCACCCCCTCAAC
CAGGAACTGGGGATTTGGGATGAGATATGGTCAGACTTGTAGATAACCCCAAAGATGTGAAGATCGCTTGTGAAA
CCATTTTGAATGAATAGATTGGTTTCCTGTGGCTCCCTCCAAACCTGGCCAAGCCCAGCTTCCGAAGCAGGAACC
AGCACTGTCTCTGTGCCTGACTCACAGCATATAGGTCAGGAAAGAATGGAGACGGCATTCTTGGACTTCACTGGG
GCTGCTGGATTGGATGGGAAACCTTCTGGAAGAGGCAGATGGGGGTCAAACCACTGCCTTGGCCCCAGGAAGGGG
CCATAGGTAGGTCTGAACAACTGCCGCAAGACCACTACATGACTTAGGGAACTTGAAACCAACTGGCTCATGGAG

FIGURE 200B

AAAACAAATTTGACTTGGGAAAGGGATTATGTAGGAATAATGTTTGGACTTGATTTCCCCACGTCATAATGAAGA
ATGGAAGTTTGGATCTGCTCCTCGTCAGGCGCAGCATCTCTGAAGCTTGGAAAGCTGTCTTCCAG

FIGURE 201

CCTAGTACACCGCAATC**ATG**TCTATTATGTCCTATAACGGAGGGGCCGTCATGGCCATGAAGGGGAAGAACTGTG
TGGCCATCGCTGCAGACAGGCGCTTCGGGATCCAGGCCCAGATGGTGACCACGGACTTCCAGAAGATCTTTCCCA
TGGGTGACCGGCTGTACATCGGTCTGGCCGGGCTCGCCACTGACGTCCAGACAGTTGCCCAGCGCCTCAAGTTCC
GGCTGAACCTGTATGAGTTGAAGGAAGGTCGGCAGATCAAACCTTATACCCTCATGAGCATGGTGGCCAACCTCT
TGTATGAGAAACGGTTTGGCCCTTACTACACTGAGCCAGTCATTGCCGGGTTGGACCCGAAGACCTTTAAGCCCT
TCATTTGCTCTCTAGACCTCATCGGCTGCCCCATGGTGACTGATGACTTTGTGGTCAGTGGCACCTGCGCCGAAC
AAATGTACGGAATGTGTGAGTCCCTCTGGGAGCCCAACATGGATCCGGATCACCTGTTTGAAACCATCTCCCAAG
CCATGCTGAATGCTGTGGACCGGGATGCAGTGTCAGGCATGGGAGTCATTGTCCACATCATCGAGAAGGACAAAA
TCACCACCAGGACACTGAAGGCCCGAATGGAC**TAA**CCCTGTTCCCAGAGCCCACTTTTTTTTCTTTTTTTGAAAT
AAAATAGCCTGTCTTTC

FIGURE 202

GAGAGCCCGAACAGGAAGAGGGTACAGCTTTGTGCAGGTCACATGCCCACTGCAGCCCTCCAGCCTCTGGTCCCC
AGAGCGGACTTTGGAAGCTGAACTGCTTTTGTTGCTGGAAGACTTATGTTATAATTTACCCTGGGTGGACCAGGG
TCGTACAAAAGGGCAACGCTCCCCAGTCCCCCCACCCCCGACCCCGGAATC**ATG**CATCGGACTACACGGATCAAA
ATCACAGAGCTGAACCCCCACCTCATGTGTGCCCTCTGCGGGGGGTACTTCATCGACGCCACCACTATCGTGGAG
TGCCTGCATTCCTTCTGCAAAACCTGCATCGTGCGCTACCTGGAGACCAACAAATACTGCCCCATGTGTGACGTG
CAGGTCCATAAAACCCGGCCGCTGCTGAGCATCAGGTCTGACAAAACACTTCAAGACATTGTCTACAAATTGGTC
CCTGGGCTTTTTAAAGATGAGATGAAACGGCGGCGGGATTTCTATGCAGCGTACCCCCTGACGGAGGTCCCCAAC
GGCTCCAATGAGGACCGCGGCGAGGTCTTGGAGCAGGAGAAGGGGGCTCTGAGTGATGATGAGATTGTCAGCCTC
TCCATCGAATTCTACGAAGGTGCCAGGGACCGGGACGAGAAGAAGGGCCCCCTGGAGAATGGGGATGGGGACAAA
GAGAAAACAGGGGTGCGCTTCCTGCGATGCCCAGCAGCCATGACCGTCATGCATCTTGCCAAGTTTCTCCGCAAC
AAGATGGATGTGCCCAGCAAGTACAAGGTGGAGGTTCTGTACGAGGACGAGCCACTGAAGGAATACTACACCCTC
ATGGACATCGCCTACATCTACCCCTGGCGGCGGAACGGGCCTCTCCCCCTCAAGTACCGTGTCCAGCCAGCCTGC
AAGCGGCTCACCCTAGCCACGGTGCCCACCCCCTCCGAGGGCACCAACACCAGCGGGGCGTCCGAGTGTGAGTCA
GTCAGCGACAAGGCTCCCAGCCCTGCCACCCTGCCAGCCACCTCCTCCTCCCTGCCCAGCCCAGCCACCCCATCC
CATGGCTCTCCCAGTTCCCATGGGCCTCCAGCCACCCACCCTACCTCCCCCACTCCCCCTTCGACAGCCAGTGGG
GCCACCACAGCTGCCAACGGGGGTAGCTTGAACTGCCTGCAGACACCATCCTCCACCAGCAGGGGGCGCAAGATG
ACTGTCAACGGCGCTCCCGTGCCCCCCTTAACT**TGA**GGCCAGGGACCCTCTCCCTTCTTCCAGCCAAGCCTCTCC
ACTCCTTCCACTTTTTCTGGGCCCTTTTTTCCACCTCTTCTACTTTCCCCAGCTCTTCCCACCTTGGGGGTGGGG
GGCGGGTTTTATAAATAAATATATATATATATGTACATAGGAAAAACCAAATATACATACTTATTTTCTATGGAC
CAACCAGATTAATTTAAATGCCACAGGAAACAAACTTTATGTGTGTGTGTATGTGTGGAAAATGGTGTTCATTTT
TTTTGGGGGGGGTCTTGTGTAATTTGCTGTTTTTGGGGGTGCCTGGAGATGAACTGGATGGGCCACTGGAGTCTC
AATAAAGCTCTGCACCATCCTCGCTGTTTCCCAAGGCAGGTGGTGTGTTGGGGGCCCCTTCAGACCCAAAGCTTT
AGGCATGATTCCAACTGGCTGCATATAGGAGTCAGTTAGAATCGTTTCTTTCTCTCCCCGTTTCTCTCCCCATCT
TGGCTGCTGTCCTGCCTCTGACCAGTGGCCGCCCCCCACGTTGTTGAATGTCCAGAAATTGCTAAGAACAGTGCC
TTTTACAAATGCAGTTTATCCCTGGTTCTGAGGAGCAAGTGCAGGGTGGAGGTGGCACCTGCATCACCTCCTCCT
CTTGCAGTGGAAACTTTGTGCAAAGAATAGATAGTTCTGCCTCTTTTTTTTTTTTCCTGTGTGTGTGGCCTTTG
CATCATTTATCTTGTGGAAAAGAAGATTCAGGCCCTGAGAGGTCTCAGCTCTTGGAGGAGGGCTAAGGCTTTAGC
ATTGTGAAGCGCTGCACCCCCACCAACCTTACCCTCACCGGGGAACCCTCACTAGCAGGACTGGTGGTGGAGTCT
CACCTGGGGCCTAGAGTGGAAGTGGGGGTGGGTTAACCTCACACAAGCACAGATCCCAGACTTTGCCAGAGGCAA
ACAG

FIGURE 203

GCGGGCGGGCGCGGCGCGGGAGGCGACC**ATG**CGCGGCGCGGGGGCGATCCTGCGGCCGGCGGCGCGTGGTGCCCG
GGACCTGAACCCGCGGCGGGACATCTCCTCCTGGCTGGCCCAGTGGTTCCCTAGAACCCCAGCCAGGTCCGTGGT
GGCCCTGAAGACCCCCATCAAGGTGGAGCTGGTGGCAGGGAAAACCTACAGGTGGTGTGTGTGTGGCCGCAGCAA
GAAGCAGCCCTTCTGTGACGGCTCCCACTTCTTCCAACGCACTGGCCTATCTCCACTCAAGTTCAAGGCCCAAGA
GACCCGCATGGTGGCACTCTGTACCTGCAAGGCCACTCAGAGGCCCCCGTACTGCGATGGCACCCACAGGAGTGA
GCGCGTGCAGAAGGCAGAAGTGGGCTCCCCACTC**TGA**GGGGGCTGCTGCTGTCCAGCCACAGGTGGCCTTGGCTC
CAGGCCTCTGACAGGCACCCCCTTCTGTGGGAAAGGAAACAGGTGCTGAGCCCAAGAGACTCTGGTACCCACTGC
TGGCTCATGAAGGAAGAATTATTCCTTATAACCTAAAAGTCTCCAGTCTGGGGCAGGCGGGAGTGGGCCCTGGTT
CAATGTTTGCTGATGGGGAAGATGGCAAAAACAAGCCTGCCCAACCAGACTGGTAGTCCTGCAGTCACTGCTATG
AGGCCCACGTGCTGCCTCCTGCTCCAGATTTTAACCTCTCTGTGGGCTGGGGGCACCTGACCAGCCACAGGAGAG
GGCAGTTCAGATTCATTCTGTATGGGGTCCCCAAGCCAGGCTAAACCCAGAGATGAGAGGCACCCTTCCCTTCTT
CCCTCCACCCCAAAGAACTACAGGCTCCAGAAAGTATGCAGCATTTATTACAAAGCCAAGAGATACAGATGTCCC
AGGGCAAAGGAGGGTACAGTCACAGGACCTCAGACACAGGACAAGGTGCAAACACAGACAAGCCCATCAGGGGGC
TCCCAACCCCACACACCTACGCTATGATGGAATCTCGAGTCTCGACTCCCG

FIGURE 204

ATGAAGGAGATGGTAGGAGGCTGCTGCGTATGTTCGGACGAGAGGGGCTGGGCCGAGAACCCGCTGGTCTACTGC
GATGGGCACGCGTGCAGCGTGGTCGTCCACCAAGCTTGCTATGGCATCGTTCAGGTGCCAACGGGACCCTGGTTC
TGCCGGAAATGTGAATCTCAGGAGCGAGCAGCCAGGGTGAGGTGTGAGCTGTGCCCACACAAAGACGGGGCATTG
AAGAGGACTGATAATGGAGGCTGGGCACACGTGGTGTGTGCCCTCTACATCCCCGAGGTGCAATTTGCCAACGTG
CTCACCATGGAGCCCATCGTGCTGCAGTACGTGCCTCATGATCGCTTCAACAAGACCTGTTACATCTGCGAGGAG
CAGGGCCGGGAGAGCAAGGCGGCCTCGGGAGCCTGCATGACCTGTAACCGCCATGGATGTCGACAAGCTTTCCAC
GTCACCTGTGCCCAAATGGCAGGCTTGCTGTGTGAGGAAGAAGTGCTGGAGGTGGACAACGTCAAGTACTGCGGC
TACTGCAAATACCACTTCAGCAAGATGAAGACATCCCGGCACAGCAGCGGGGGAGGCGGAGGAGGCGCTGGAGGA
GGAGGTGGCAGCATGGGGGGAGGTGGCAGTGGTTTCATCTCTGGGAGGAGAAGCCGGTCAGCCTCACCATCCACG
CAGCAGGAGAAGCACCCCACCCACCACGAGAGGGGCCAGAAGAAGAGTCGAAAGGACAAAGAACGCCTTAAGCAG
AAGCACAAGAAGCGGCCTGAGTCGCCCCCCAGCATCCTCACCCCGCCCGTGGTCCCCACTGCTGACAAGGTCTCC
TCCTCGGCTTCCTCTTCCTCCCACCACGAGGCCAGCACGCAGGAGACCTCTGAGAGCAGCAGGGAGTCAAAGGGG
AAAAAGTCTTCCAGCCATAGCCTGAGTCATAAAGGGAAGAAACTGAGCAGTGGGAAAGGTGTGAGCAGTTTTACC
TCCGCCTCCTCTTCTTCCTCCTCCTCTTCCTCCTCCTCTGGGGGGCCCTTCCAGCCTGCAGTCTCGTCCCTGCAG
AGCTCCCCTGACTTCTCTGCATTCCCCAAGCTGGAGCAGCCAGAGGAGGACAAGTACTCCAAGCCCACAGCCCCC
GCCCCTTCAGCCCCTCCTTCTCCCTCAGCTCCCGAGCCCCCCAAGGCTGACCTTTTTGAGCAGAAGGTGGTCTTC
TCTGGCTTTGGGCCCATCATGCGCTTCTCCACCACCACCTCCAGCTCAGGCCGGGCCCGGGCGCCCTCCCCTGGG
GACTATAAGTCTCCCCACGTCACGGGGTCTGGGGCCTCGGCAGGCACCCACAAACGGATGCCCGCACTGAGTGCC
ACCCCTGTGCCTGCTGATGAGACCCCTGAGACAGGCCTGAAGGAGAAGAAGCACAAAGCCAGCAAGAGGAGCCGC
CATGGGCCAGGCCGTCCCAAGGGCAGCCGGAACAAGGAGGGCACTGGGGGCCCAGCTGCCCCATCCTTGCCCAGT
GCCCAGCTGGCTGGCTTTACCGCCACTGCTGCCTCACCCTTCTCTGGAGGTTCCCTGGTCAGCTCCGGCCTGGGA
GGTCTGTCCTCCCGAACCTTTGGGCCTTCTGGGAGCTTGCCCAGCTTGAGCCTGGAGTCCCCCTTACTAGGGGCA
GGCATCTACACCAGTAATAAGGACCCCATCTCCCACAGTGGCGGGATGCTGCGGGCTGTCTGCAGCACCCCTCTC
TCCTCCAGCCTCCTGGGGCCCCCAGGGACCTCGGCCCTGCCCCGCCTCAGCCGCTCCCCGTTCACCAGCACCCTC
CCCTCCTCTTCTGCTTCTATCTCCACCACTCAGGTGTTTTCTCTGGCTGGCTCTACCTTTAGCCTCCCTTCTACC
CACATCTTTGGAACCCCCATGGGTGCCGTTAATCCCCTCCTCTCCCAAGCTGAGAGCAGCCACACAGAGCCAGAC
CTGGAGGACTGCAGCTTCCGGTGTCGGGGGACCTCCCCTCAGGAGAGTCTGTCTTCCATGTCCCCCATCAGCAGC
CTCCCCGCACTCTTCGACCAGACAGCCTCTGCACCCTGTGGGGGCGGCCAGTTAGACCCGGCGGCCCCAGGGACG
ACTAACATGGAGCAGCTTCTGGAGAAGCAGGGCGACGGGGAGGCCGGCGTCAACATCGTGGAGATGCTGAAGGCG
CTGCACGCGCTGCAGAAGGAGAACCAGCGGCTGCAAGAGCAGATCCTGAGCCTGACGGCCAAAAAGGAGCGGCTG
CAGATTCTCAACGTGCAGCTCTCTGTGCCCTTCCCTGCCCTGCCTGCTGCCCTGCCTGCCGCCAACGGCCCTGTC
CCTGGGCCCTATGGCCTGCCTCCCCAAGCCGGCAGCAGCGACTCCTTGAGCACCAGCAAGAGCCCTCCGGGAAAG
AGCAGCCTCGGCCTGGACAACTCGCTGTCCACTTCTTCTGAGGACCCACACTCAGGCTGCCCGAGCCGCAGCAGC
TCGTCGCTGTCCTTCCACAGCACGCCCCCACCGCTGCCCCTCCTCCAGCAGAGCCCTGCCACTCTGCCCCTGGCC
CTGCCTGGGGCCCCTGCCCCACTCCCGCCCCAGCCGCAGAACGGGTTGGGCCGGGCACCCGGGGCAGCGGGGCTG
GGGGCCATGCCCATGGCTGAGGGGCTGTTGGGGGGGCTGGCAGGCAGTGGGGGCCTGCCCCTCAATGGGCTCCTT
GGGGGGTTGAATGGGGCCGCTGCCCCCAACCCCGCAAGCTTGAGCCAGGCTGGCGGGGCCCCCACGCTGCAGCTG
CCAGGCTGTCTCAACAGCCTTACAGAGCAGCAGAGACATCTCCTTCAGCAGCAAGAGCAGCAGCTCCAGCAACTC
CAGCAGCTCCTGGCCTCCCCGCAGCTGACCCCGGAACACCAGACTGTTGTCTACCAGATGATCCAGCAGATCCAG
CAGAAACGGGAGCTGCAGCGCCTGCAGATGGCTGGGGGCTCCCAGCTGCCCATGGCCAGCCTGCTGGCAGGAAGC
TCCACCCCGCTGCTGTCTGCGGGTACCCCTGGCCTGCTGCCCACAGCGTCTGCTCCACCCCTGCTGCCCGCTGGA
GCCCTAGTGGCTCCCTCGCTTGGCAACAACACAAGTCTCATGGCCGCAGCAGCTGCAGCTGCAGCAGTAGCAGCA
GCAGGCGGACCTCCAGTCCTCACTGCCCAGACCAACCCCTTCCTCAGCCTGTCGGGAGCAGAGGGCAGTGGCGGT
GGCCCCAAAGGAGGGACCGCTGACAAAGGAGCCTCAGCCAACCAGGAAAAAGGC**TAA**

FIGURE 205A

GGCGCCGGCGGCCTCTACAAGCGCGGCTCGGTGCGCTCGCTCAGCACCTACTCGGCCGCCGCGCTGCAGTCCGAT
CTGGAGGACTCCCTGTACAAGGCGGCGGGCGGCGGCGGCCCGCTGTACGGCGACGGCTACGGCTTCCGCCTGCCG
CCTTCGTCACCGCAGAAGCTGGCCGACGTGGCAGCACCCCCCGGAGGTCCCCCGCCACCGCACAGCCCCTACTCG
GGGCCGCCCAGCCGCGGCTCGCCAGTGCGCCAGTCCTTCCGCAAGGACTCGGGCTCCTCGTCCGTCTTTGCCGAG
AGTCCTGGAGGGAAGACCCGCAGCGCGGGGAGCGCCTCGACGGCCGGAGCTCCCCCTTCGGAGCTCTTCCCTGGG
CCTGGGGAACGCTCGCTGGTTGGGTTCGGGCCGCCAGTGCCAGCCAAGGACACGGAGACCAGGGAGCGC**ATG**GAG
GCCATGGAGAAGCAGATTGCCAGCCTCACAGGCCTGGTGCAGAGCGCCTTACTGCGAGGCTCTGAGCCTGAGACC
CCCAGCGAGAAGATTGAAGGCTCCAATGGAGCAGCCACCCCCTCAGCACCCTGTGGGTCAGGCGGCCGGAGCAGC
GGGGCCACCCCGGTGTCCGGCCCGCCCCCGCCCTCGGCCAGCAGCACCCCCGCAGGTCAGCCTACCGCCGTTAGC
CGGCTGCAGATGCAGCTTCACCTGCGAGGCCTGCAGAACAGCGCCAGTGACTTGCGCGGCCAGCTCCAGCAGTTG
CGCAAGCTCCAGCTACAGAACCAGGAGTCGGTGCGCGCGCTGCTGAAGCGCACGGAGGCAGAGCTGAGCATGCGC
GTGTCGGAGGCGGCGCGGCGGCAGGAGGACCCGCTGCAGCGGCAGCGCACCCTGGTGGAAGAGGAACGGCTGCGC
TATCTCAACGACGAGGAGCTTATTACCCAGCAGCTCAATGACCTGGAGAAATCGGTGGAGAAGATCCAGAGAGAC
GTGTCCCACAACCACCGGCTGGTGCCCGGCCCTGAGCTGGAGGAGAAGGCACTGGTGCTGAAGCAGCTCGGGGAG
ACGCTGACAGAGCTCAAGGCTCACTTCCCGGGCCTGCAGAGCAAGATGCGGGTGGTGCTGCGCGTGGAGGTGGAG
GCGGTGAAGTTCCTGAAGGAGGAGCCCCAGCGCCTGGATGGGCTCCTCAAGCGCTGCCGCGGGGTCACGGACACG
CTGGCCCAGATCCGAAGGCAAGTGGATGAGGGTGTGTGGCCACCCCCCAACAATCTCCTGAGTCAGTCCCCCAAG
AAGGTGACGGCAGAGACTGACTTCAACAAGAGCGTGGACTTCGAAATGCCACCCCCCAGCCCCCCGCTGAACCTG
CATGAGCTGAGCGGGCCAGCTGAAGGAGCCTCTCTTACCCCCAAGGGGGGCAACCCCACCAAAGGCCTGGACACT
CCTGGCAAGAGAAGCGTGGACAAAGCTGTGTCTGTTGAGGCTGCAGAGCGAGACTGGGAGGAGAAGCGGGCAGCC
CTGACCCAGTACAGTGCCAAGGACATCAACCGGCTGCTGGAAGAGACACAGGCAGAGCTGCTCAAGGCCATCCCT
GACCTGGACTGTGCCAGCAAGGCCCATCCAGGCCCGGCCCCCACTCCAGATCACAAGCCCCCCAAGGCCCCCCAC
GGCCAGAAGGCAGCCCCCCGAACGGAGCCCAGTGGGAGGAGGGGCTCAGATGAGTTGACCGTGCCCCGATACCGC
ACAGAGAAGCCCTCCAAGTCGCCCCCACCGCCCCCTCCCCGCCGGAGCTTCCCCTCCTCCCATGGCCTGACCACC
ACACGTACCGGAGAGGTGGTGGTCACCAGCAAGAAGGACTCGGCCTTCATCAAGAAGGCTGAGTCCGAGGAGCTG
GAGGTGCAGAAGCCCCAGGTGAAGCTGCGCCGGGCTGTGTCTGAGGTGGCCCGCCCAGCCTCCACACCACCCATC
ATGGCCTCGGCCATCAAGGACGAGGATGACGAGGATCGCATCATCGCAGAGCTAGAGAGTGGCGGAGGCAGTGTA
CCACCCATGAAGGTGGTGACTCCGGGGGCCTCTCGGCTGAAGGCGGCCCAGGGCCAGGCGGGCAGCCCCGACAAA
AGCAAACATGGCAAGCAGAGGGCCGAGTACATGCGGATCCAGGCCCAGCAGCAGGCCACTAAACCATCTAAAGAG
ATGAGCGGGTCGAATGAGACCTCGAGCCCAGTCTCAGAAAAGCCCTCGGCTTCCAGAACCTCTATCCCTGTATTG
ACTTCCTTTGGGGCAAGGAATTCTTCCATCTCCTTC**TAG**AAGCCCCTCACCCCGCTGCCCCGCCTGTCCCCCTCC
CTCACTCCTGCCATTTCTCCCCTCTCTTCCTTCATCTCCACCCCACCCCACCCTACTCTCCAGACGCCCTGAGGG
GTGTGCCCTGAAGAGGAGGGTGCGGCCCTCCTCAGCGACCCCTACCCATCATCTGTTGGTGTTTTTGGTTTTGTT
TTTTTTTTTTTTTTAACAATTAACTTTTAATTATCTTTTTTTAAACAGTAAAACTAAAAACCAAACACACCACCT
TCCTTGATCCCAGCTGGCCTCTCGCTGGCCGCACCTGTCACATCTCTCCTTCTTCTCTTTCACCACTCTTTCCCC
CAGTCCATCCTGAAGCTCCTGCACCCCCTTCCCGCCTTCCCCTCACTTCCCAAGAATACTCCAAACAAACTCTGA
ACCACGGAGACTTGGAGCAGTGGGAGACCCCTCTCCCGTTTCTCGATACCTTCCTGGAGGAACGCGGGGACATCG
GACCAACCCATACATCAAGCCAGAGAGCGGGGCTTAGGGAGACTGGCCTTGGAGATGCCCCACTCCCTGTCTAAG
CTCCGACAAGACTGTGACTTCCTCTGTGGCTGCTCTGCCTCCTCCCACTCACACCCAAGTGGGCCTGGAGTAGAG
ACGGACAGGCTGGAGACGAGGCCGGAGTTTGAGAGGCCTCAGGGTGGGTGTGAGGCCATGGAGTCTGTATCCCTG
GGGAGGCGCTGGCCTCCTGGGCCTTGCCGTCCAGTGGGGAGTGGAGGGCAGAGGCCCTTTGGTCTGCTGGCTGTG
GAGGGTGGGTTGCACGGACAGCCGGATATCGGGGACACTGCCTTGGGAGAGGGCGGCCCGGACGGGTATTTGGTA
CTTTTAGTTTCCTGATTTAGCACTTTAAATGGCATTAACTTATTGAATGGGGATGGGGTGGGCAAGAGTGAGGGG
CCTAGAAAACCAGGTTTTGTGGCTTGCAGTTGGGGGAAGGGTCTGGTTTGAGGGAAATGGGAGGGTCGAGAGGGG
CTTGACGGGGAGCACTGAAGACACCTGGGACCCGCAGGTGGGGTGACTTGAACTTCAGTCATCCTCTTGGCAATT
TGAGGGTTTTCCCAGGAAAGGATGAGACGTAGTTTTTCAATGGGGCTCTGGTGACCCTGGTGAGATGTCTGAAGG
TCCCTGAGGCCTGACCATCCAGCCAGCGCCCCTGGCCTGTGGACGCCCTGCCTGCCCTGCAGAGGCGGTTGGCAG
TGCCGCCTGGCTTTTGGCCGGGTCCTGGGGAGGCAGAGAGAGGCCAATTTTGGTTCTCACTCCTGGCCCCCCAGA

FIGURE 205B

GGGCACAGTGAGGAGCCGGTAGGGAGAGGATAGGAGAAGAGGAGGAGGAGGAGCGGGGTCCCCGGCCGCAGGATT
CCCACTTGGAGCACAAAGTGAAGTAAGCACAGGGGAGGGGGACTAGAATCAGTCCCCCATAGCAAGCACAGAAAG
GAGGAGCTGCGCAGAAGGCAGAGCCCCCCAGACCCTGGGGCCTGGCTGGGGAAGGTCCGCACCTGGGGAGAGCTG
GGAGCTGTTGAAGGTTTGGGGGGAGGGGAAACGGGTTGTGTTTCTTCATTTCTTTTTTTGTTTTTGCCTTTGTTG
GTTCATCCTTGTTTTCTAGCTTTGGATCATTTTTGTACCAAGGCGAGCAAGCCTTTTTGAAAAATAACAAAAGAG
GAAAAAAAAAATCCCTCCTGG

FIGURE 206

GTGGAATGTCATCAGTTAAGGCTATTTTCATTTCTTTTGTGGATCTTCAGTTGCTTCAGGCCATCTGGATGTATA
CATGCAGGTCACAGGGAATATGATGGCTTAGCTTGGGTTCAGAGGCCTGACACCTCAGGCTGCCAAATGTGGAAG
ATTTAAATACTTGAACCAATACCCTCCTCCCAAAAACTGAAATTGGCTTCTGTTTCTGAGTTGGTCCAGGCGCAA
TGTTCAGCGTATTTGAGGAAATCACAAGAATTGTAGTTAAGGAGATGGATGCTGGAGGGGATATGATTGCCGTTA
GAAGCCTTGTTGATGCTGATAGATTCCGCTGCTTCCATCTGGTGGGGGAGAAGAGAACTTTCTTTGGATGCCGGC
ACTACACAACAGGCCTCACCCTGATGGACATTCTGGACACAGATGGGGACAAGTGGTTAGATGAACTGGATTCTG
GGCTCCAAGGTCAAAAGGCTGAGTTTCAAATTCTGGATAATGTAGACTCAACGGGAGAGTTGATAGTGAGATTAC
CCAAAGAAATAACAATTTCAGGCAGTTTCCAGGGCTTCCACCATCAGAAAATCAAGATATCGGAGAACCGGATAT
CCCAGCAGTATCTGGCTACCCTTGAAAACAGGAAGCTGAAGAGGGAACTACCCTTTTCATTCCGATCAATTAATA
CGAGAGAAAACCTGTATCTGGTGACAGAAACTCTGGAGACGGTAAAGGAGGAAACCCTGAAAAGCGACCGGCAAT
ATAAATTTTGGAGCCAGATCTCTCAGGGCCATCTCAGCTATAAACACAAGGGCCAAAGGGAAGTGACCATCCCCC
CAAATCGGGTCCTGAGCTATCGAGTAAAGCAGCTTGTCTTCCCCAACAAGGAGACGATGAGAAAGTCTTTGGGTT
CGGAGGATTCCAGAAACATGAAGGAGAAGTTGGAGGACATGGAGAGTGTCCTCAAGGACCTGACAGAGGAGAAGA
GAAAAGATGTGCTAAACTCCCTCGCTAAGTGCCTCGGCAAGGAGGATATTCGGCAGGATCTAGAGCAAAGAGTAT
CTGAGGTCCTGATTTCCGGGGAGCTACACATGGAGGACCCAGACAAGCCTCTCCTAAGCAGCCTTTTTAATGCTG
CTGGGGTCTTGGTAGAAGCGCGTGCAAAAGCCATTCTGGACTTCCTGGATGCCCTGCTAGAGCTGTCTGAAGAGC
AGCAGTTTGTGGCTGAGGCCCTGGAGAAGGGGACCCTTCCTCTGTTGAAGGACCAGGTGAAATCTGTCATGGAGC
AGAACTGGGATGAGCTGGCCAGCAGTCCTCCTGACATGGACTATGACCCTGAGGCACGAATTCTCTGTGCGCTGT
ATGTTGTTGTCTCTATCCTGCTGGAGCTGGCTGAGGGGCCTACCTCTGTCTCTTCCTAACTACAAAAGCCCTTTC
TCCCCACAAGCCTCTGGGTTTTCCCTTTACCAGTCTGTCCTCACTGCCATCGCCACTACCATCCTGTCACCAGTG
GGACCTCTTTAAAACAAGCAGCCAACCATTCTTTGATGTATCCCATTCGCTCCATGTTAACATCCAAAACCAGCC
TGGATTTCATACATGGACTTCTGATTAAAAGTGGCAGGTTGTGCATGTT

FIGURE 207

TGGGGCCACATAGCAGCAGAGGACTGGTGTAAGGGAGGGAGGGGTAGGGACAGAAGCTAGACCCAATCTCCTTTG
GGATGTGGGCAGGGAGGGAAGCAGGCTTGGAGGGTTAATTTACCCACAGAATGTGATAGTAATAGGGGAGGGAGG
CTGCTGTGGGTTTAACTCCTGGGTTGGCTGTTGGGTAGACAGGTGGGGAAAAGGCCCGTGAGTCATTGTAAGCAC
AGGTCCAACTTGGCCCTGACTCCTGCGGGGGTATGGGGAAGCTGTGACAGAAACG**ATG**GGTGCTGTGGTCCTCTG
CAGGCCCTCACCCCTTAACTTCCTCATACAGACTGGCACTGGGCAGGGCCTCTCATGTGGCAGCCACATGTGGCG
TTGTGAGGCCACCCCATGTGGGGTCTGTGGTGAGAGTCCTGTAGGATCCCTGCTCAAGCAGCACAGAGGAAGGGG
CAAGACGTGGCCTGTAGGCACTGTCTCAGCCTGCAGAGAAGAAAGTGAGGCCGGGAGCCTGAGCCTGGGCTGGAG
CCTTCTCCCCTCCCCAGTTGGACTAGGGGCAGTGTTAATTTTGAAAAGGTGTGGGTCCCTGTGTCCTCTTCCAGG
GGTCCAAGGGAACGGGAGAGGTCACTGGGCCTGTTTTCTCCCTCCTGACCCTGCATCTCCCACCCCGTGTATCAT
AGGGAACTTTCACCTTAAAATCTTTCTAAGCAAAGTG**TGA**ATAGGATTTTTACTCCCTTTGTACAGTATTCTGAG
AAACGCAAATAAAAGGGCAACATGTTTCTGTT

FIGURE 208

TGCCAGCGGGGAGGCTGCAGCCGCGGGTTGTTACAGCTGCTGGAGCAGCAGCGGCCCCCGCTCCCGGGAACCGTT
CCCGGGCCGTTGATCTTCGGCCCCACACGAACAGCAGAGAGGGGCAGCAGGATGAATGTGGGCACAGCGCACAGC
GAGGTGAACCCCAACACGCGGGTGATGAACAGCCGTGGCATCTGGCTCTCCTACGTGCTGGCCATCGGTCTCCTC
CACATCGTGCTGCTGAGCATCCCGTTTGTGAGTGTCCCTGTCGTCTGGACCCTCACCAACCTCATTCACAACATG
GGCATGTATATCTTCCTGCACACGGTGAAGGGGACACCCTTTGAGACCCCGGACCAGGGCAAGGCGAGGCTGCTA
ACCCACTGGGAGCAGATGGATTATGGGGTCCAGTTCACGGCCTCTCGGAAGTTCTTGACCATCACACCCATCGTG
CTGTACTTCCTCACCAGCTTCTACACTAAGTACGACCAGATCCATTTTGTGCTCAACACCGTGTCCCTGATGAGC
GTGCTTATCCCCAAGCTGCCCCAGCTCCACGGAGTCCGGATTTTTGGAATCAATAAGTACTGAGAGTGCAGCCCC
TTCCCCTGCCCAGGGTGGCAGGGGAGGGGTAGGGTAAAAGGCATGTGCTGCAACACTGAAGACAGAAAGAAGAAG
CCTCTGGACACTGCCAGAGATGGGGGTTGAGCCTCTGGCCTAATTTCCCCCCTCGCTTCCCCCAGTAGCCAACTT
GGAGTAGCTTGTAGTGGGGTTGGGGTAGGCCCCCTGGGCTCTGACCTTTTCTGAATTTTTTGATCTTTTCCTTTT
GCTTTTTGAATAGAGACTCCATGGAGTTGGTCATGGAATGGGCTGGGCTCCTGGGCTGAACATGGACCACGCAGT
TGCGACAGGAGGCCAGGGGAAAAACCCCTGCTCACTTGTTTGCCCTCAGGCAGCCAAAGCACTTTAACCCCTGCA
TAGGGAGCAGAGGGCGGTACGGCTTCTGGATTGTTTCACTGTGATTCCTAGGTTTTTTCGATGCCACGCAGTGTG
TGCTTTTGTGTATGGAAGCAAGTGTGGGATGGGTCTTTGCCTTTCTGGGTAGGGAGCTGTCTAATCCAAGTCCCA
GGCTTTTGGCAGCTTCTCTGCAACCCACCGTGGGTCCTGGTTGGGAGTGGGGAGGGTCAGGTTGGGGAAAGATGG
GGTAGAGTGTAGATGGCTTGGTTCNCAGAGGTGAGGGGGCCAGGGCTGCTGCCATCCTGGCCTGGTGGAGGTTGG
GGAGCTGTAGGAGAGCTAGTGAGTCGAGACTTAGAAGAATGGGGCCACATAGCAGCAGAGGACTGGTGTAAGGGA

FIGURE 209

CCCAACCTCCACCAGGCCAGG**ATG**GCAGCAGCCCTGGCCCCCTCACCTCTGNGAACCAAGCCATCTACACTCTAC
CCCATCTTTCCCCAACCTGACCCTCCCCACTCCCAACCAGGACCCACGGTGGGTTGCAGAGAAGCTGCCAAAAGC
CTGGGACTTGGATTAGACAGCTCCCTACCCAGAAAGGCAAAGACCCATCCCACACTTGCTTCCATACACAAAAGC
ACACACTGCGTGGCATCGAAAAAACCTAGGAATCACAGTGAAACAATCCAGAAGCCGTACCGCCCTCTGCTCCCT
ATGCAGGGGTTAAAGTGCTTTGGCTGCCTGAGGGCAAACAAG**TGA**GCAGGGGTTTTTCCCCTGGCCTCCTGTCGC
AACTGCGTGGTCCATGTTCAGCCCAGGAGCCCAGCCCATTCCATGACC

FIGURE 210

GGTTTGCAGCTGCTCCGTCATCGTGCGGCCCGACGCTATCTCGCGCTCGTGTGCAGGCCCGGCTCGGCTCCTGGT
CCCCGGTGCGAGGGTTAACGCGAGGCCCCGGCCTCGGTCCCCGGACTAGGCCGTGACCCCGGGTGCC**ATG**AAGCA
GGAGGGCTCGGCGCGGCGCCGCGGCGCGGACAAGGCGAAACCGCCGCCCGGCGGAGGAGAACAAGAACCCCCACC
GCCGCCGGCCCCCCAGGATGTGGAGATGAAAGAGGAGGCAGCGACGGGTGGCGGGTCGACGGGGGAGGCAGACGG
CAAGACGGCGGCGGCAGCGGCTGAGCACTCCCAGCGAGAGCTGGACACAGTCACCTTGGAGGACATCAAGGAGCA
CGTGAAACAGCTAGAGAAAGCGGTTTCAGGCAAGGAGCCGAGATTCGTGCTGCGGGCCCTGCGGATGCTGCCTTC
CACATCACGCCGCCTCAACCACTATGTTCTGTATAAGGCTGTGCAGGGCTTCTTCACTTCAAATAATGCCACTCG
AGACTTTTTGCTCCCCTTCCTGGAAGAGCCCATGGACACAGAGGCTGATTTACAGTTCCGTCCCCGCACGGGAAA
AGCTGCGTCGACACCCCTCCTGCCTGAAGTGGAAGCCTATCTCCAACTCCTCGTGGTCATCTTCATGATGAACAG
CAAGCGCTACAAAGAGGCACAGAAGATCTCTGATGATCTGATGCAGAAGATCAGTACTCAGAACCGCCGGGCCCT
AGACCTTGTAGCCGCAAAGTGTTACTATTATCACGCCCGGGTCTATGAGTTCCTGGACAAGCTGGATGTGGTGCG
CAGCTTCTTGCATGCTCGGCTCCGGACAGCTACGCTTCGGCATGACGCAGACGGGCAGGCCACCCTGTTGAACCT
CCTGCTGCGGAATTACCTACACTACAGCTTGTACGACCAGGCTGAGAAGCTGGTGTCCAAGTCTGTGTTCCCAGA
GCAGGCCAACAACAATGAGTGGGCCAGGTACCTCTACTACACAGGGCGAATCAAAGCCATCCAGCTGGAGTACTC
AGAGGCCCGGAGAACGATGACCAACGCCCTTCGCAAGGCCCCTCAGCACACAGCTGTCGGCTTCAAACAGACGGT
GCACAAGCTTCTCATCGTGGTGGAGCTGTTGCTGGGGGAGATCCCTGACCGGCTGCAGTTCCGCCAGCCCTCCCT
CAAGCGCTCACTCATGCCCTATTTCCTTCTGACTCAAGCTGTCAGGACAGGAAACCTAGCCAAGTTCAACCAGGT
CCTGGATCAGTTTGGGGAGAAGTTTCAAGCAGATGGGACCTACACCCTAATTATCCGGCTGCGGCACAACGTGAT
TAAGACAGGTGTACGCATGATCAGCCTCTCCTATTCCCGAATCTCCTTGGCTGACATCGCCCAGAAGCTGCAGTT
GGATAGCCCCGAAGATGCAGAGTTCATTGTTGCCAAGGCCATCCGGGATGGTGTCATTGAGGCCAGCATCAACCA
CGAGAAGGGCTATGTCCAATCCAAGGAGATGATTGACATCTATTCCACCCGAGAGCCCCAGCTAGCCTTCCACCA
GCGCATCTCCTTCTGCCTAGATATCCACAACATGTCTGTCAAGGCCATGAGGTTTCCTCCCAAATCGTACAACAA
GGACTTGGAGTCTGCAGAGGAACGGCGTGAGCGAGAACAGCAGGACTTGGAGTTTGCCAAGGAGATGGCAGAAGA
TGATGATGACAGCTTCCCT**TGA**GCTGGGGGGCTGGGGAGGGGTAGGGGGAATGGGGACAGGCTCTTTCCCCCTTG
GGGGTCCCCTGCCCAGGGCACTGTCCCCATTTTCCCACACACAGCTCATATGCTGCATTCGTGCAGGGGGTGGGG
GTGCTGGGAGCCAGCCACCCTGACCTCCCCCAGGGCTCCTCCCCAGCCGGTGACTTACTGTACAGCAGGCAGGAG
GGTGGGCAGGCAACCTCCCNCCNNGGCAGGGTCCTGGCCAGCAGTGTGGGAGCAGGAGGGGAAGGATAGTTCTGT
GTACTCCTTTAGGGAGTGGGGGACTAGAACTGGGATGTCTTGGCTTGTATGTTTTTTGAAGCTTCGATTATGATT
TTTAAACAATAAAAAGTTCTCC

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FIGURE 211

CCAAACCGGCCTCCGTCCGGGCCCTGCTGTTTGACATCTCCTTCCTCATGCTGTGCCATGTGGCCCAGACCTATG
GTTCAGAGGTGATTCTGTCCGAGTCGCGCACAGGAGCTGAGGTGCCCTTCTTCGAGACCTGGATGCAGACCTGCA
TGCCTGAGGAGGGCAAGATCCTGAACCCTGACCACCCCTGCTTCCGCCCCGACTCCACCAAAGTGGAGTCCCTGG
TGGCCCTGCTCAACAACTCCTCGGAGATGAAGCTAGTGCAGATGAAGTGGCATGAGGCCTGTCTCAGCATCTCAG
CCGCCATCTTGGAAATCCTCAATGCCTGGGAGAATGGGGTCCTGGCCTTCGAGTCCATCCAGAAAATCACTGATA
ACATCAAAGGGNAAGGTATGCAGTCTGGCGGTGTGTGCTGTGGCTTNGGCTTGTGGCCCACGTCCGGATGCTGGG
GCTGGATGAGCGTGAGAAGTCGCTGCAGATGATCCGCCAGCTGGCAGGGCCNACTGTTTAGTGAGAACACCCTGC
AGTTCTACAATGAGAGGGTGGTGATC**ATG**AACTCGATCCTGGAGCGCATGTGTGCCGACGTGCTGCAGCAGACAG
CCACGCAGATCAAGTTTCCCTCCACCGGGGTGGACACAATGCCCTACTGGAACCTGCTGCCCCCCAAGCGGCCCA
TCAAAGAGGTGCTGACGGACATTTTTGCCAAGGTGCTGGAGAAGGGCTGGGTGGACAGCCGCTCCATCCACATCT
TTGACACCCTGCTGCACATGGGCGGCGTCTACTGGTTCTGCAACAACCTGATTAAGGAGCTGCTGAAGGAGACGC
GGAAGGAGCACACGCTGCGGGCAGTGGAGCTGCTCTACTCCATCTTCTGCCTGGACATGCAGCAAGTGACCCTGG
TCCTGCTGGGCCACATCCTACCTGGCCTGCTCACTGACTCCTCCAAGTGGCACAGCCTCATGGACCCCCCGGGCA
CTGCTCTTGCCAAGCTGGCCGTGTGGTGTGCCCTCAGTTCCTACTCCTCCCACAAGGGACAGGCGTCCACCCGCC
AGAAGAAGAGACACCGCGAAGACATTGAGGATTATATCAGCCTCTTCCCCCTGGACGATGTGCAGCCTTCGAAGT
TGATGCGACTGCTGAGCTCTAATGAGGACGATGCCAACATCCTTTCGAGCCCCACAGACCGATCCATGAGCAGCT
CCCTCTCAGCCTCTCAGCTCCACACGGTCAACATGCGGGACCCTCTGAACCGAGTCCTGGCCAACCTGTTCCTGC
TCATCTCCTCCATCCTGGGGTCTCGCACCGCTGGCCCCCACACCCAGTTCGTGCAGTGGTTCATGGAGGAGTGTG
TGGACTGCCTGGAGCAGGGTGGCCGTGGCAGCGTCCTGCAGTTCATGCCCTTCACCACCGTGTCGGAACTGGTGA
AGGTGTCAGCCATGTCCAGCCCCAAGGTGGTTCTGGCCATCACGGACCTCAGCCTGCCCCTGGGCCGCCAGGTGG
CTGCTAAAGCCATTGCTGCACTC**TGA**GGGGCTTGGCATGGCCGCAGTGGGGGCTGGGGACTGGCGCAGCCCCAGG
CGCCTCCAAGGGAAGCAGTGAGGAAAGATGAGGCATCGTGCCTCACATCCGCTCCACATGGTGCAAGAGCCTCTA
GCGGCTTCCAGTTCCCCGCTCCTGACTCCTGACCTCCAGGATGTCTCCCGGTTTCTTCTTTCAAAATTTCCTCTC
CATCTGCTGGCACCTGAGGAGAGTGAGCAGCCTGGACCACAAGCCCAGTGGTCACCCCTGTGTGCGCCCGCCCCA
GCCCAGGAGTAGTCTTACCTCTGAGGAACTTTCTAGATGCAAAGTGTGTATGTGTGTGTGTGTGTGTGTGTGT
GTGTTTGTGTGTATTTTGTAATATGTGAGGGAAATCTACCTTCGTTCATGTATAAATAAAGCTCCTCGTGGCTCC
CTT

FIGURE 212A

CACACACACACACACACACACACACACACCCCAACACACACACACACACCCCAACACACACACACACACACACAC
ACACACACACACACACACACACACACACACACACAGCGGGATGGCCGAGCGCCGCACGCGTAGCACGCCGGGACTAG
CTATCCAGCCTCCCAGCAGCCTCTGCGACGGGCGCGGTGCGTAAGTACCTCGCCGGTGGTGGCCGTTCTCCGTAA
G**ATG**GCGGACCGGCGGCGGCAGCGCGCTTCGCAAGACACCGAGGACGAGGAATCTGGTGCTTCGGGCTCCGACAG
CGGCGGCTCCCCGTTGCGGGGAGGCGGGAGCTGCAGCGGTAGCGCCGGAGGCGGCGGCAGCGGCTCTCTGCCTTC
ACAGCGCGGAGGCCGAACCGGGGCCCTTCATCTGCGGCGGGTGGAGAGCGGGGGCGCCAAGAGTGCTGAGGAGTC
GGAGTGTGTGAGTGAAGATGGCATTGAAGGTGATGCTGTTCTCTCGGATTATGAAAGTGCAGAAGACTCGGAAGG
TGAAGAAGGTGAATACAGTGAAGAGGAAAACTCCAAAGTGGAGCTGAAATCAGAAGCTAATGATGCTGTTAATTC
TTCAACAAAAGAAGAGAAGGGAGAAGAAAAGCCTGACACCAAAAGCACTGTGACTGGAGAGAGGCAAAGTGGGGA
CGGACAGGAGAGCACAGAGCCTGTGGAGAACAAAGTGGGTAAAAAGGGCCCTAAGCATTTGGATGATGATGAAGA
TCGGAAGAATCCAGCATACATACCTCGGAAAGGGCTCTTCTTTGAGCATGATCTTCGAGGGCAAACTCAGGAGGA
GGAAGTCAGACCCAAGGGGCGTCAGCGAAAGCTATGGAAGGATGAGGGTCGCTGGGAGCATGACAAGTTCCGGGA
AGATGAGCAGGCCCCAAAGTCCCGACAGGAGCTCATTGCTCTTTATGGTTATGACATTCGCTCAGCTCATAATCC
TGATGACATCAAACCTCGAAGAATCCGGAAACCCCGATATGGGAGTCCTCCACAAAGAGATCCAAACTGGAACGG
TGAGCGGCTAAACAAGTCTCATCGCCACCAGGGTCTTGGGGGCACCCTACCACCAAGGACATTTATTAACAGGAA
TGCTGCAGGTACCGGCCGTATGTCTGCACCCAGGAATTATTCTCGATCTGGGGGCTTCAAGGAAGGTCGTGCTGG
TTTTAGGCCTGTGGAAGCTGGTGGGCAGCATGGTGGCCGGTCTGGTGAGACTGTTAAGCATGAGATTAGTTACCG
GTCACGGCGCCTAGAGCAGACTTCTGTGAGGGATCCATCTCCAGAAGCAGATGCTCCAGTGCTTGGCAGTCCTGA
GAAGGAAGAGGCAGCCTCAGAGCCACCAGCTGCTGCTCCTGATGCTGCACCACCACCCCCTGATAGGCCCATTGA
GAAGAAATCCTATTCCCGGGCAAGAAGAACTCGAACCAAAGTTGGAGATGCAGTCAAGCTTGCAGAGGAGGTGCC
CCCTCCTCCTGAAGGACTGATTCCAGCACCTCCAGTCCCAGAAACCACCCCAACTCCACCTACTAAGACTGGGAC
CTGGGAAGCTCCGGTGGATTCTAGTACAAGTGGACTTGAGCAAGATGTGGCACAACTAAATATAGCAGAACAGAA
TTGGAGTCCGGGGCAGCCTTCTTTCCTGCAACCACGGGAACTTCGAGGTATGCCCAACCATATACACATGGGAGC
AGGACCTCCACCTCAGTTTAACCGGATGGAAGAAATGGGTGTCCAGGGTGGTCGAGCCAAACGCTATTCATCCCA
GCGGCAAAGACCTGTGCCAGAGCCCCCCGCCCCTCCAGTGCATATCAGTATCATGGAGGGACATTACTATGATCC
ACTGCAGTTCCAGGGACCAATCTATACCCATGGTGACAGCCCTGCCCCGCTGCCTCCACAGGGCATGCTTGTGCA
GCCAGGAATGAACCTTCCCCACCCAGGTTTACATCCCCACCAGACACCAGCTCCTCTGCCCAATCCAGGCCTCTA
TCCCCCACCAGTGTCCATGTCTCCAGGACAGCCACCACCTCAGCAGTTGCTTGCTCCTACTTACTTTTCTGCTCC
AGGCGTCATGAACTTTGGTAATCCCAGTTACCCTTATGCTCCAGGGGCACTGCCTCCCCCACCACCGCCTCATCT
GTATCCTAATACACAGGCCCCATCACAGGTATATGGAGGAGTGACCTACTATAACCCCGCCCAGCAGCAGGTGCA
GCCAAAGCCCTCCCCACCCCGGAGGACTCCCCAGCCAGTCACCATCAAGCCCCCTCCACCTGAGGTTGTAAGCAG
GGGTTCCAGT**TAA**TACAAGTTTCTGAATATTTTAAATCTTAACATCATATAAAAAGCAGCAGAGGTGAGAACTCA
GAAGAGAAATACAGCTGGCTATCTACTACCAGAAGGGCTTCAAAGATATAGGGTGTGGCTCCTACCAGCAAACAG
CTGAAAGAGGAGGACCCCTGCCTTCCTCTGAGGACAGGCTCTAGAGAGAGGGAGAAACAAGTGGACCTCGTCCCA
TCTTCACTCTTCACTTGAGTTGGCTGTGTTCGGGGGAGCAGAGAGAGCCAGACAGCCCCAAGCTTCTGAGTCTAG
ATACAGAAGCCCATGTCTTCTGCTGTTCTTCACTTCTGGGAAATTGAAGTGTCTTCTGTTCCCAAGGAAGCTCCT
TCCTGTTTGTTTTGTTTTCTAAGATGTTCATTTTTAAAGCCTGGCTTCTTATCCTTAATATTATTTTAATTTTTT
CTCTTTGTTTCTGTTTCTTGCTCTCTCTCCCTGCCTTTAAATGAAACAAGTCTAGTCTTCTGGTTTTCTAGCCCC
TCTGGATTCCCTTTTGACTCTTCCGTGCATCCCAGATAATGGAGAATGTATCAGCCAGCCTTCCCCACCAAGTCT
AAAAAGACCTGGCCTTTCACTTTTAGTTGGCATTTGTTATCCTCTTGTATACTTGTATTCCCTTAACTCTAACCC
TGTGGAAGCATGGCTGTCTGCACAGAGGGTCCCATTGTGCAGAAAAGCTCAGAGTAGGTGGGTAGGAGCCCTTCT
CTTTGACTTAGGTTTTTAGGAGTCTGAGCATCCATCAATACCTGTACTATGATGGGCTTCTGTTCTCTGCTGAGG
GCCAATACCCTACTGTGGGGAGAGATGGCACACCAGATGCTTTTGTGAGAAAGGGATGGTGGAGTGAGAGCCTTT
GCCTTTAGGGGTGTGTATTCACATAGTCCTCAGGGCTCAGTCTTTTGAGGTAAGTGGAATTAGAGGGCCTTGCTT
CTCTTCTTTCCATTCTTCTTGCTACACCCCTTTTCCAGTTGCTGTGGACCAATGCATCTCTTTAAAGGCAAATAT
TATCCAGCAAGCAGTCTACCCTGTCCTTTGCAATTGCTCTTCTCCACGTCTTTCCTGCTACAAGTGTTTTAGATG
TTACTACCTTATTTTCCCCGAATTCTATTTTTGTCCTTGCAGACAGAATATAAAAACTCCTGGGCTTAAGGCCTA
AGGAAGCCAGTCACCTTCTGGGCAAGGGCTCCTATCTTTCCTCCCTATCCATGGCACTAAACCACTTCTCTGCTG

FIGURE 212B

CCTCTGTGGAAGAGATTCCTATTACTGCAGTACATACGTCTGCCAGGGGTAACCTGGCCACTGTCCCTGTCCTTC
TACAGAACCTGAGGGCAAAGATGGTGGCTGTGTCTCTCCCCGGTAATGTCACTGTTTTTATTCCTTCCATCTAGC
AGCTGGCCTAATCACTCTGAGTCACAGGTGTGGGATGGAGAGTGGGGAGAGGCACTTAATCTGTAACCCCCAAGG
AGGAAATAACTAAGAGATTCTTCTAGGGGTAGCTGGTGGTTGTGCCTTTTGTAGGCTGTTCCCTTTGCCTTAAAC
CTGAAGATGTCTCCTCAAGCCTGTGGGCAGCATGCCCAGATTCCCAGACCTTAAGACACTGTGAGAGTTGTCTCT
GTTGGTCCACTGTGTTTAGTTGCAAGGATTTTTCCATGTGTGGTGGTGTTTTTTGTTACTGTTTTAAAGGGTGCC
CATTTGTGATCAGCATTGTGACTTGGAGATAATAAAATTTAGACTATAAACTTG

FIGURE 213

ATGAGATCCGCGGTGTTCAAGGCGGCCGCGGCCCCTGCCGGCGGCAATCCTGAGCAGCGACTGGACTACGAGCGG
GCTGCGGCGCTGGGCGGGCCCGAGGACGAGCCTGGGGCGGCCGAAGCCCACTTCCTCCCCCGGCACCGTAAGCTC
AAGGAGCCGGGGCCCCCGCTGGCCTCCTCCCAGGGCGGGAGCCCCGCGCCTTCCCCGGCCGGCTGCGGCGGCAAG
GGCCGGGGCTTGTTACTCCCGGCCGGGGCGGCCCCCGGGCAGCAGGAAGAGAGCTGGGGCGGTTCGGTGCCCTTG
CCCTGTCCGCCCCCGGCCACCAAGCAAGCCGGCATTGGGGGGGAGCCTGCCGCAGCCGGAGCCGGCTGCAGCCCC
CGGCCCAAGTATCAGGCGGTGCTGCCCATTCAGACGGGCTCTCTCGTGGCGGCGGCCAAAGAGCCTACGCCCTGG
GCTGGGGACAAGGGTGGGGCGGCCTCCCCCGCTGCCACCGCCTCGGACCCGGCGGGACCCCCACCACTACCTCTG
CCCGGGCCGCCACCCCTCGCGCCCACCGCCACCGCCGGGACCCTGGCGGCCAGCGAGGGCAGATGGAAGAGTATG
AGGAAGAGCCCTCTCGGGGGTGGTGGCGGCTCGGGAGCCTCCAGTCAGGCCGCCTGCCTCAAACAGATCCTTCTG
CTGCAATTGGACCTCATCGAACAGCAGCAGCAGCAGCTGCAGGCCAAGGAAAAGGAGATCGAGGAGCTGAAGTCA
GAGAGAGACACGCTCCTTGCTCGGATTGAACGTATGGAAAGGCGGATGCAGCTGGTAAAGAAGGATAACGAGAAA
GAAAGGCACAAGCTGTTTCAGGGCTATGAAACTGAAGAGAGAGAGGAAACAGAGCTATCTGAGAAAATTAAACTG
GAGTGCCAGCCGGAGCTTTCCGAGACATCCCAGACTCTGCCTCCCAAGCCCTTCTCATGTGGGCGGAGTGGAAAG
GGACATAAAAGGAAATCCCCATTTGGAAGTACAGAAAGAAAGACTCCTGTTAAAAAGCTGGCTCCTGAATTTTCA
AAAGTCAAAACAAAAACTCCTAAGCACTCTCCTATTAAAGAGGAACCCTGTGGTTCCTTATCTGAAACTGTTTGT
AAACGTGAATTGAGGAGCCAAGAAACCCCAGAAAAGCCCCGGTCTTCAGTGGACACCCCACCAAGACTCTCCACT
CCCCAAAAGGGACCCAGCACCCATCCCAAGGAGAAAGCCTTCTCAAGTGAGATAGAAGATTTGCCGTACCTTTCC
ACCACAGAAATGTATTTGTGTCGTTGGCACCAGCCTCCCCCATCACCGTTACCATTACGGGAATCCTCTCCAAAG
AAGGAGGAGACTGTAGCAAGTAAGGCA**TAG**AGAACACTTGCTCTTATACCCTAGTGGTGGCGGTCAAGCTAACAA
GTGTGAAAATGCCTTTGGCATTTTTAAAAAAGTGCAATCAATAAAGCAGAGTTCTGTCAAGAATGAGTAAGTTAA
CAGCCAGAGACAGACACTGTGCAGGCATTGCAAATAGATGGAATTACAGCAAAATGTGCTCAATGTATTTGCCTG
CTTACAACACTGGGAGATGTGTTTGCCAGTAAGTTGCTCATCACAAGAGCACCAGACTTGGGGGTGTAATCTCCG
GCAACTTGCATGCCCTCTGAAAGAAGGGTTTTCTGTGCTGTGAAATGCATAGAACTATACTTTGCCATGCACGAC
TGTTCCTGCAATTGATATTGTGTGAAATCT

FIGURE 214

CCAGGGACAGCGCCGCCTCAGATATCCTGCTGGATGACATTGTCCTTACCCATTCTCTCTTCCTCCCGACGGAGA
AATTTCTGCAGGAGCTACACCAGTACTTTGTTCGGGCAGGAGGC**ATG**GAGGGCCCTGAAGGGCTGGGCCGGAAGC
AAGCCTGTCTAGCCATGCTTCTCCATTTCTTGGACACCTACCAGGGGCTGCTTCAAGAGGAAGAGGGGGCCGGCC
ACATCATCAAGGATCTATACCTGCTAATTATGAAGGACGAGTCCCTTTACCAGGGCCTCCGAGAGGACACTCTGA
GGCTGCACCAGCTGGTGGAGACGGTGGAACTAAAGATTCCAGAGGAGAACCAGCCACCCAGCAAGCAGGTGAAGC
CACTCTTCCGCCACTTCCGCCGGATAGACTCCTGTCTGCAGACCCGGGTGGCCTTCCGGGGCTCTGATGAGATCT
TCTGCCGTGTATACATGCCTGACCACTCTTATGTGACCATACGCAGCCGCCTTTCAGCATCTGTGCAGGACATTC
TGGGCTCTGTGACGGAGAAACTTCAATATTCAGAGGAGCCCGCGGGGCGTGAGGATTCCCTCATCCTGGTAGCTG
TGTCCTCCTCTGGAGAGAAGGTCCTTCTCCAGCCCACTGAGGACTGTGTTTTCACCGCACTGGGCATCAACAGCC
ACCTGTTTGCCTGTACTCGGGACAGCTATGAGGCTCTGGTGCCCCTCCCCGAGGAGATCCAGGTCTCCCCTGGAG
ACACAGAGATCCACCGAGTGGAGCCTGAGGACGTTGCCAACCACCTAACTGCCTTCCACTGGGAGCTGTTCCGAT
GTGTGCATGAGCTGGAGTTCGTGGACTACGTGTTCCACGGGGAGCGCGGCCGCCGGGAGACGGCCAACTTGGAGC
TGCTGCTGCAGCGCTGCAGCGAGGTCACGCACTGGGTGGCCACCGAAGTGCTGCTCTGCGAGGCCCCGGGCAAGC
GCGCGCAGCTGCTCAAGAAGTTCATCAAGATCGCGGCCCTCTGCAAGCAGAACCAGGACCTGCTGTCTTTCTACG
CCGTGGTCATGGGGCTGGACAACGCCGCTGTCAGCCGCCTTCGACTCACCTGGGAGAAGCTGCCAGGGAAATTCA
AGAACTTGTTTCGCAAATTTGAGAACCTGACGGACCCCTGCAGGAACCACAAAAGCTACCGAGAAGTGATCTCCA
AAATGAAGCCCCCTGTGATTCCCTTCGTGCCTCTGATCCTCAAAGACCTGACTTTCCTGCACGAAGGGAGTAAGA
CCCTTGTAGATGGTTTGGTGAACATCGAGAAGCTGCATTCAGTGGCCGAAAAAGTGAGGACAATCCGCAAATACC
GGAGCCGGCCCCTTTGCCTGGACATGGAGGCATCCCCCAATCACCTGCAGACCAAGGCCTATGTGCGCCAGTTTC
AGGTCATCGACAACCAGAACCTCCTCTTCGAGCTCTCCTACAAGCTGGAGGCAAACAGTCAG**TGA**GAGTGGAGGC
TCCAGTCAGACCCGCCAGATCCTTGGGCACCTGGCACTCAAGCACTTTGCACGATGTCTCAACCAACATCTGACA
TCTTTCCCGTGGAGCAACTTCCTGCTCCACGGGAAAGAGGTCGATGGATTTACCCCTGGACCCATAAGTCTGTTC
ATCCTGCTGAAGTCCCCTCCCCATTGCTCCTTCAAGCCAAAACTACACTTTGCTGGTTCCTGTCCCCTCTGAGAA
AGGGGATAGAAAGCTCCTTCCTCTATGTCCTCCCATCGAGATCTGTTCTGGGGATGGAGCTTCCAACTTCCTCTT
GCAGCAGGAAAGAATGCTGCTCACCCTTCTGTCTTGCAGAGTGGGATTGTGGGAGGGATTGGCAGCCTTCTTCTC
CACCACCTGTCCAGCTTCTTCCTGGTCAGGGCTGGGACCCCCAGGAATATTATGTTGCCGTGTGTGTGTGTGTGT
GTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTCTTCTTTTAGGGAGCAAGAGTGCATCTGGTAAT
TGAGGGTGGATGTTGTGTGTGCTGGGGAGGGGTCCTTCTGTTTGGTGCTACCCTTGTCTACTCTGCCCCTGGATG
GTGCGGGGTGCTTTCTCCACCCCCACACTCCCTGCTCAGCTCCTCGTGCTGCCCTGCATGCCCAGGCTTGTGAGC
CAAGCTGCTTTTTGGGGCAGGGAGTAGCAGCAGGTGGGAGGGGTTACCCATCAGCCCTTGCAAGTCCCCCACTCA
GGCCTCTGGAAGGTCCAGGGATGGGCTCTGATGAGAGGGTAAAAGATGCTCAGGGAAACACAGGCCTCAGCTGCC
TAGAGGACCCTCCCCCTGCCTTGCAGTGGGCTCGGGTAGAGCAGTATCAGGAGCTAGGGTTGTCTGCTGCCCACA
CTCCTGCTTTTTGGGATATCTAACTGCTAAGGAGGGAGTTGACATCCCCCTTCTGGCTCATGTGTCTGACACCAA
CAACATGGTCTCTGTCCCTCTCTCTTTGACTCTCCCTTTGTCCTCCCCATAGAGCTGGGGTGGGGTGGATCCCTA
TACCTGGGGCAGGCAGCCCCAAAGTGGGGGAGGGGGATGGCAGAGACTGTAAAGGCGCCACTGGACTCTGGCAAG
GCCTTTATTACCTTTACTCCCCTCCCTCTCCCATCACCAGCCTCAAGGCCTGAGGGGTGCAGGGGCTCCTGGCAG
CTACTGGGTGAGGTTTCCTGGCACAGACTCACCCTTCTTTCTGGCACCACCTCTTTCCCTTTTGAAGAGACAGCA
ACAGCCGTAGCAAAAGCAGCTGCTGCTCCTGCTATGAGGGTGTATATATTTTTTACCCAAAGCTCTGGAATTGTA
CATTTATTTTTTAAAACTCAAAGAGGGAAAGAGCCTTGTATCATATGTGAACATTGTATCATAGGTAATGTTGTA
CAGACCCTTTTATACAGTGATCTGTCTTGTTCCTGCAGCAAAAATCCTCTATGGACATAGGAGGTGCTGTGTCCC
ATGCCCTCTTGCCCTGACAGTGTCCCATGGGCCCCCTTCTGCTCCCTGCCCCCTCCCTGCTACTGCTGATGCACT
CTCCTCTCCCTGCAGCCCCTGGCTTCCCAGCCTTCCTCCTGACCCCTTCCAACAGCCTTGGAACTCCAGCTGCCA
CCACCCTCTGGGTCGGACACTGGGACCCACTGGCCCAGTCTTGGCTGCTGCTTACCCCTAGCCTTGATGCCTGCC
CAGGGACCCCCAGCCCCCTCCCGTTGCCCTGCAGCTTTAACAGAGTGAACCATGTGTATTGTACAGGCGCGGTTG
TCATTGCAGAAACCGCTGGGTGGAGAAGAAGCCGATAAAGTCTATGAATC

FIGURE 215

CCCCCTACACACACACACACACACACACACACACACACACACACACAGACATGCACACACGGACATGGGAAGGCA
ATGCTATGCTGCCCGACAGGGCACTGTCCTTCCCCAATCGTTCAGGTGTTCCAACAGGGGTGGAGGGCCTGGAGG
AGCACCCGCTGTCACCTGTGCATGTGCCTGTCCCACCGGCCCCCCATGGACGCCCCCAGCACGGGGCGCTGAGAC
CCCCGCGTCGCTGCCCAGCCCGGTCCGGCGCGCCACGCCGAGGGATCTCTGGACAGGACAAGACTCCGAAGCTAC
TCCCCCAGCACACAGCCCGGGACCCACAAACCCAGCTTGCCCCCAGCCCTCCCACCTGCCACTCCCTGGCCCCTC
CCACCGCCCGCCCCCCTTGGGGCGCAGGGCATGGTGTGAAAGGCCAAGTGCTGAGGCGGGTATCATGGGTGCTGT
GCCCTAGGGCCTGGGTGGCAGGGGGTNGGGTGGCCTGTGGGTGTGCCGGGGGGGCCAGTGTGCCCACCCCAGTCT
CTTGGCGTGCTGGAGGGCATCCTGGATGGAATTGAAGTGAATGGAACAGAAGCCAAGCAAGGTGGAGTGTGGGTC
AGACCCAGAGGAGAACAGTGCCAGGTCACCAGATGGAAAGCGAAAAAGAAAGAACGGCCAATGTTCCCTGAAAAC
CAGCATGTCAGGGTATATCCCTAGTTACCTGGACAAAGACGAGCAGTGTGTCGTGTGTGGGGACAAGGCAACTGG
TTATCACTACCGCTGTATCACTTGTGAGGGCTGCAAGG

FIGURE 216

CGAGGCGCTCCCTGGGATCACATGGTACCTGCTCCAGTGCCGCGTGCGGCCCGGGAACCCTGGGCTGCTGGCGCC
TGCGCAGAGCCCTCTGTCCCAGGGAAAGGCTCGGGCAAAAGGCGGCTGAGATTGGCAGAGTGAAATATTACTGCC
GAGGGAACGTAGCAGGGCACACGTCTCGCCTCTTTGCGACTCGGTGCCCCGTTTCTCCCCATCACCTACTTACTT
CCTGGTTGCAACCTCTCTTCCTCTGGGACTTTTGCACCGGGAGCTCCAGATTCGCCACCCCGCAGCGCTGCGGAG
CCGGCAGGCAGAGGCACCCCGTACACTGCAGAGACCCGACCCTCCTTGCTACCTTCTAGCCAGAACTACTGCAGG
CTGATTCCCCCTACACACTCTCTCTGCTCTTCCCATGCAAAGCAGAACTCCGTTGCCTCAACGTCCAACCCTTCT
GCAGGGCTGCAGTCCGGCCACCCCAAGACCTTGCTGCAGGGTGCTTCGGATCCTGATCGTGAGTCGCGGGGTCCA
CTCCCCGCCCTTAGCCAGTGCCCAGGGGGCAACAGCGGCGATCGCAACCTCTAGTTTGAGTCAAGGTCCAGTTTG
AATGACCGCTCTCAGCTGGTGAAGAC**ATG**ACGACCCTGGACTCCAACAACAACACAGGTGGCGTCATCACCTACA
TTGGCTCCAGTGGCTCCTCCCCAAGCCGCACCAGCCCTGAATCCCTCTATAGTGACAACTCCAATGGCAGCTTCC
AGTCCCTGACCCAAGGCTGTCCCACCTACTTCCCACCATCCCCCACTGGCTCCCTCACCCAAGACCCGGCTCGCT
CCTTTGGGAGCATTCCACCCAGCCTGAGTGATGACGGCTCCCCTTCTTCCTCATCTTCCTCGTCGTCATCCTCCT
CCTCCTTCTATAATGGGAGCCCCCCTGGGAGTCTACAAGTGGCCATGGAGGACAGCAGCCGAGTGTCCCCCAGCA
AGAGCACCAGCAACATCACCAAGCTGAATGGCATGGTGTTACTGTGTAAAGTGTGTGGGGACGTTGCCTCGGGCT
TCCACTACGGTGTGCACGCCTGCGAGGGCTGCAAGGGCTTTTTCCGTCGGAGCATCCAGCAGAACATCCAGTACA
AAAGGTGTCTGAAGAATGAGAATTGCTCCATCGTCCGCATCAATCGCAACCGCTGCCAGCAATGTCGCTTCAAGA
AGTGTCTCTCTGTGGGCATGTCTCGAGACGCTGTGCGTTTTGGGCGCATCCCCAAACGAGAGAAGCAGCGGATGC
TTGCTGAGATGCAGAGTGCCATGAACCTGGCCAACAACCAGTTGAGCAGCCAGTGCCCGCTGGAGACTTCACCCA
CCCAGCACCCCACCCCAGGCCCCATGGGCCCCTCGCCACCCCCTGCTCCGGTCCCCTCACCCCTGGTGGGCTTCT
CCCAGTTTCCACAACAGCTGACGCCTCCCAGATCCCCAAGCCCTGAGCCCACAGTGGAGGATGTGATATCCCAGG
TGGCCCGGGCCCATCGAGAGATCTTCACCTACGCCCATGACAAGCTGGGCAGCTCACCTGGCAACTTCAATGCCA
ACCATGCATCAGGTAGCCCTCCAGCCACCACCCCACATCGCTGGGAAAATCAGGGCTGCCCACCTGCCCCCAATG
ACAACAACACCTTGGCTGCCCAGCGTCATAACGAGGCCCTAAATGGTCTGCGCCAGGCTCCCTCCTCCTACCCTC
CCACCTGGCCTCCTGGCCCTGCACACCACAGCTGCCACCAGTCCAACAGCAACGGGCACCGTCTATGCCCCACCC
ACGTGTATGCAGCCCCAGAAGGCAAGGCACCTGCCAACAGTCCCCGGCAGGGCAACTCAAAGAATGTTCTGCTGG
CATGTCCTATGAACATGTACCCGCATGGACGCAGTGGGCGAACGGTGCAGGAGATCTGGGAGGATTTCTCCATGA
GCTTCACGCCCGCTGTGCGGGAGGTGGTAGAGTTTGCCAAACACATCCCGGGCTTCCGTGACCTTTCTCAGCATG
ACCAAGTCACCCTGCTTAAGGCTGGCACCTTTGAGGTGCTGATGGTGCGCTTTGCTTCGTTGTTCAACGTGAAGG
ACCAGACAGTGATGTTCCTAAGCCGCACCACCTACAGCCTGCAGGAGCTTGGTGCCATGGGCATGGGAGACCTGC
TCAGTGCCATGTTCGACTTCAGCGAGAAGCTCAACTCCCTGGCGCTTACCGAGGAGGAGCTGGGCCTCTTCACCG
CGGTGGTGCTTGTCTCTGCAGACCGCTCGGGCATGGAGAATTCCGCTTCGGTGGAGCAGCTCCAGGAGACGCTGC
TGCGGGCTCTTCGGGCTCTGGTGCTGAAGAACCGGCCCTTGGAGACTTCCCGCTTCACCAAGCTGCTGCTCAAGC
TGCCGGACCTGCGGACCCTGAACAACATGCATTCCGAGAAGCTGCTGTCCTTCCGGGTGGACGCCCAG**TGA**CCCG
CCCGGCCGGCCTTCTGCCGCTGCCCCCTTGTACAGAATCGAACTCTGCACTTCTCTCTCCTTTACGAGACGAAAA
GGAAAAGCAAACCAGAATCTTATTTATATTGTTATAAAATATTCCAAGATGAGCCTCTGGCCCCCTGAGCCTTCT
TGTAAATACCTGCCTCCCTCCCCCATCACCGAACTTCCCCTGCTCCTTTTTTTAAACCACTCTGTCTCCCCCACA
ACCCTCCCCTGGCCCTCTGATTTGTTCTGTTCCTGTCTCAAATCCAATAGTTCACAGCTGAGCTGG

FIGURE 217

AGGGCTTCTTTCGCCGCACAATCCAGAAGAACCTNCCATCCCACCTATTCCTGCAAATATGACAGCTGCTGTGTC
ATTGACAAGATCACCCGCAATCAGTGCCAGCTGTGCCGCTTCAAGAAGTGCATCGCCGTGGGC**ATG**GCCATGGAC
TTGGTTCTAGATGACTCGAAGCGGGTGGCCAAGCGTAAGCTGATTGAGCAGAACCGGGAGCGGCGGCGGAAGGAG
GAGATGATCCGATCACTGCAGCAGCGACCAGAGCCCACTCCTGAAGAGTGGGATCTGATCCACATTGCCACAGAG
GCCCATCGCAGCACCAATGCCCAGGGCAGCCATTGGAAACAGAGGCGGAAATTCCTGCCCGATGACATTGGCCAG
TCACCCATTGTCTCCATGCCGGACGGAGACAAGGTGGACCTGGAAGCCTTCAGCGAGTTTACCAAGATCATCACC
CCGGCCATCACCCGTGTGGTGGACTTTGCCAAAAAACTGCCCATGTTCTCCGAGCTGCCTTGCGAAGACCAGATC
ATCCTCCTGAAGGGGTGCTGCATGGAGATCATGTCCCTGCGGGCGGCTGTCCGCTACGACCCTGAGAGCGACACC
CTGACGCTGAGTGGGGAGATGGCTGTCAAGCGGGAGCAGCTCAAGAATGGCGGCCTGGGCGTAGTCTCCGACGCC
ATCTTTGAACTGGGCAAGTCACTCTCTGCCTTTAACCTGGATGACACGGAAGTGGCTCTGCTGCAGGCTGTGCTG
CTAATGTCAACAGACCGCTCGGGCCTGCTGTGTGTGGACAAGATCGAGAAGAGTCAGGAGGCGTACCTGCTGGCG
TTCGAGCACTACGTCAACCACCGCAAACACAACATTCCGCACTTCTGGCCCAAGCTGCTGATGAAGGAGAGAGAA
GTGCAGAGTTCGATTCTGTACAAGGGGGCAGCGGCAGAAGGCCGGCCGGGCGGGTCACTGGGCGTCCACCCGGAA
GGACAGCAGCTTCTCGGAATGCATGTTGTTCAGGGTCCGCAGGTCCGGCAGCTTGAGCAGCAGCTTGGTGAAGCG
GGAAGTCTCCAAGGGCCGGTTCTTCAGCACCAGAGCCCGAAGAGCCCGCAGCAGCGTCTCCTGGAGCTGCTCCAC
CGAAGCGGAATTCTCCATGCCCGAGCGGTCTGTGGGGAAGACGACAGCAGTGAGGCGGACTCCCCGAGCTCCTCT
GAGGAGGAACCGGAGGTCTGCGAGGACCTGGCAGGCAATGCAGCCTCTCCC**TGA**AGCCCCCCAGAAGGCCGATGG
GGAAGGAGAAGGAGTGCCATACCTTCTCCCAGGCCTCTGCCCCAAGAGCAGGAGGTGCCTGAAAGCTGGGAGCGT
GGGCTCAGCAGGGCTGGTCACCTCCCATCCCGTAAGACCACCTTCCCTTCCTCAGCAGGCCAAACATGGCCAGAC
TCCCTTGCTTTTTGCTGTGTAGTTCCCTCTGCCTGGGATGCCCTTCCCCCTTTCTCTGCCTGGCAACATCTTACT
TGTCCTTTGAGGCCCCAACTCAAGTGTCACCTCCTTCCCCAGCTCCCCCAGGCAGAAATAG

FIGURE 218

CTCCTCTCCAGCCCTTCTCCTGTGTGCCTGCCTCCTGCCGCCGCCACC**ATG**ACCACCTCCATCCGCCAGTTCACC
TCCTCCAGCTCCATCAAGGGCTCCTCCGGCCTGGGGGGCGGCTCGTCCCGCACCTCCTGCCGGCTGTCTGGCGGC
CTGGGTGCCGGCTCCTGCAGGCTGGGATCTGCTGGCGGCCTGGGCAGCACCCTCGGGGGTAGCAGCTACTCCAGC
TGCTACAGCTTTGGCTCTGGTGGTGGCTATGGCAGCAGCTTTGGGGGTGTTGATGGGCTGCTGGCTGGAGGTGAG
AAGGCCACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTGCGTGCCCTGGAGGAGGCCAAC
ACTGAGCTGGAGGTGAAGATCCGTGACTGGTACCAGAGGCAGGCCCCGGGGCCCGCCCGTGACTACAGCCAGTAC
TACAGGACAATTGAGGAGCTGCAGAACAAGATCCTCACAGCCACCGTGGACAATGCCAACATCCTGCTACAGATT
GACAATGCCCGTCTGGCTGCTGATGACTTCCGCACCAAGTTTGAGACAGAGCAGGCCCTGCGCCTGAGTGTGGAG
GCCGACATCAATGGCCTGCGCAGGGTGCTGGATGAGCTGACCCTGGCCAGAGCCGACCTGGAGATGCAGATTGAG
AACCTCAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGAGGAGATGAACGCCCTGCGAGGCCAGGTGGGT
GGTGAGATCAATGTGGAGATGGACGCTGCCCCAGGCGTGGACCTGAGCCGCATCCTCAACGAGATGCGTGACCAG
TATGAGAAGATGGCAGAGAAGAACCGCAAGGATGCCGAGGATTGGTTCTTCAGCAAGACAGAGGAACTGAACCGC
GAGGTGGCCACCAACAGTGAGCTGGTGCAGAGTGGCAAGAGTGAGATCTCGGAGCTCCGGCGCACCATGCAGGCC
TTGGAGATAGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCTGGAGGGCAACCTGGCGGAGACAGAGAACCGC
TACTGCGTGCAGCTGTCCCAGATCCAGGGGCTGATTGGCAGCGTGGAGGAGCAGCTGGCCCAGCTTCGCTGCGAG
ATGGAGCAGCAGAACCAGGAATACAAAATCCTGCTGGATGTGAAGACGCGGCTGGAGCAGGAGATTGCCACCTAC
CGCCGCCTGCTGGAGGGAGAGGATGCCCACCTGACTCAGTACAAGAAAGAACCGGTGACCACCCGTCAGGTGCGT
ACCATTGTGGAAGAGGTCCAGGATGGCAAGGTCATCTCCTCCCGCGAGCAGGTCCACCAGACCACCCGC**TGA**GGA
CTCAGCTACCCCGGCCGGCCACCCAGGAGGCAGGGAGGCAGCCGCCCCATCTGCCCCACAGTCTCCGGCCTCTCC
AGCCTCAGCCCCCTGCTTCAGTCCCTTCCCCATGCTTCCTTGCCTGATGACAATAAAGCTTGTTGACTCAGCT

FIGURE 219

ATGACCACCTGCAGCCGCCAGTTCACCTCCTCCAGCTCCATGAAGGGCTCCTGCGGCATCGGAGGCGGCATCGGG
GGCGGCTCCAGCCGCATCTCCTCCGTCCTGGCCGGAGGGTCCTGCCGTGCCCCCAGCACCTACGGGGGCGGCCTG
TCTGTCTCCTCTCGCTTCTCCTCTGGGGGAGCCTGCGGGCTGGGGGGCGGCTATGGCGGTGGCTTCAGCAGCAGC
AGCAGCTTTGGTAGTGGCTTCGGGGGAGGATATGGTGGTGGCCTTGGTGCTGGCTTCGGTGGTGGCTTGGGTGCT
GGCTTTGGTGGTGGTTTTGCTGGTGGTGATGGGCTTCTGGTGGGCAGTGAGAAGGTGACCATGCAGAACCTCAAT
GACCGCCTGGCCTCCTACCTGGACAAGGTGCGTGCTCTGGAGGAGGCCAACGCCGACCTGGAAGTGAAGATCCGT
GACTGGTACCAGAGGCAGCGGCCCAGTGAGATCAAAGACTACAGTCCCTACTTCAAGACCATCGAGGACCTGAGG
AACAAGATCATTGCGGCCACCATTGAGAATGCGCAGCCCATTTTGCAGATTGACAATGCCAGGCTGGCAGCCGAT
GACTTCAGGACCAAGTATGAGCACGAACTGGCCCTGCGGCAGACTGTGGAGGCCGACGTCAATGGCCTGCGCCGG
GTGTTGGATGAGCTGACCCTGGCCAGGACTGACCTGGAGATGCAGATCGAAGGCCTGAAGGAGGAGCTGGCCTAC
CTGAGGAAGAACCACGAGGAGGAGATGCTTGCTCTGAGAGGTCAGACCGGCGGAGATGTGAACGTGGAGATGGAT
GCTGCACCTGGCGTGGACCTGAGCCGCATCCTGAATGAGATGCGTGACCAGTACGAGCAGATGGCAGAGAAAAAC
CGCAGAGACGCTGAGACCTGGTTCCTGAGCAAGACCGAGGAGCTGAACAAAGAAGTGGCCTCCAACAGCGAACTG
GTACAGAGCAGCCGCAGTGAGGTGACGGAGCTCCGGAGGGTGCTCCAGGGCCTGGAGATTGAGCTGCAGTCCCAG
CTCAGCATGAAAGCATCCCTGGAGAACAGCCTGGAGGAGACCAAAGGCCGCTACTGCATGCAGCTGTCCCAGATC
CAGGGACTGATTGGCAGTGTGGAGGAGCAGCTGGCCCAGCTACGCTGTGAGATGGAGCAGCAGAGCCAGGAGTAC
CAGATCTTGCTGGATGTGAAGACGCGGCTGGAGCAGGAGATTGCCACCTACCGCCGCCTGCTGGAGGGCGAGGAT
GCCCACCTTTCCTCCCAGCAAGCATCTGGCCAATCCTATTCTTCCCGCGAGGTCTTCACCTCCTCCTCGTCCTCT
TCGAGCCGTCAGACCCGGCCCATCCTCAAGGAGCAGAGCTCATCCAGCTTCAGCCAGGGCCAGAGCTCC**TAG**

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FIGURE 220

GGGTTGCTCCGTCCGTGCTCCGCCTCGCC**ATG**ACTTCCTACAGCTATCGCCAGTCGTCGGCCACGTCGTCCTTCG
GAGGCCTGGGCGGCGGCTCCGTGCGTTTTGGGCCGGGGGTCGCCTTTCGCGCGCCCAGCATTCACGGGGGCTCCG
GCGGCCGCGGCGTATCCGTGTCCTCCGCCCGCTTTGTGTCCTCGTCCTCCTCGGGGGCCTACGGCGGCGGCTACG
GCGGCGTCCTGACCGCGTCCGACGGGCTGCTGGCGGGCAACGAGAAGCTAACCATGCAGAACCTCAACGACCGCC
TGGCCTCCTACCTGGACAAGGTGCGCGCCCTGGAGGCGGCCAACGGCGAGCTAGAGGTGAAGATCCGCGACTGGT
ACCAGAAGCAGGGGCCTGGGCCCTCCCGCGACTACAGCCACTACTACACGACCATCCAGGACCTGCGGGACAAGA
TTCTTGGTGCCACCATTGAGAACTCCAGGATTGTCCTGCAGATCGACAATGCCCGTCTGGCTGCAGATGACTTCC
GAACCAAGTTTGAGACGGAACAGGCTCTGCGCATGAGCGTGGAGGCCGACATCAACGGCCTGCGCAGGGTGCTGG
ATGAGCTGACCCTGGCCAGGACCGACCTGGAGATGCAGATCGAAGGCCTGAAGGAAGAGCTGGCCTACCTGAAGA
AGAACCATGAGGAGGAAATCAGTACGCTGAGGGGCCAAGTGGGAGGCCAGGTCAGTGTGGAGGTGGATTCCGCTC
CGGGCACCGATCTCGCCAAGATCCTGAGTGACATGCGAAGCCAATATGAGGTCATGGCCGAGCAGAACCGGAAGG
ATGCTGAAGCCTGGTTCACCAGCCGGACTGAAGAATTGAACCGGGAGGTCGCTGGCCACACGGAGCAGCTCCAGA
TGAGCAGGTCCGAGGTTACTGACCTGCGGCGCACCCTTCAGGGTCTTGAGATTGAGCTGCAGTCACAGCTGAGCA
TGAAAGCTGCCTTGGAAGACACACTGGCAGAAACGGAGGCGCGCTTTGGAGCCCAGCTGGCGCATATCCAGGCGC
TGATCAGCGGTATTGAAGCCCAGCTGGGCGATGTGCGAGCTGATAGTGAGCGGCAGAATCAGGAGTACCAGCGGC
TCATGGACATCAAGTCGCGGCTGGAGCAGGAGATTGCCACCTACCGCAGCCTGCTCGAGGGACAGGAAGATCACT
ACAACAATTTGTCTGCCTCCAAGGTCCTC**TGA**GGCAGCAGGCTCTGGGGCTTCTGCTGTCCTTTGGAGGGTGTCT
TCTGGGTAGAGGGATGGGAAGGAAGGGACCCTTACCCCCGGCTCTTCTCCTGACCTGCCAATAAAAATTTATGGT
CCAAGGG

FIGURE 221

GGTACCTCCTGCCAGCATCTCTTGGGTTTGCTGAGAACTCACGGGCTCCAGCTACCTGGCC**ATG**ACCACCACATT
TCTGCAAACTTCTTCCTCCACCTTTGGGGGTGGCTCAACCCGAGGGGGTTCCCTCCTGGCTGGGGGAGGTGGCTT
TGGTGGGGGGAGTCTCTCTGGGGGAGGTGGAAGCCGAAGTATCTCAGCTTCTTCTGCTAGGTTTGTCTCTTCAGG
GTCAGGAGGAGGATATGGGGGTGGCATGAGGGTCTGTGGCTTTGGTGGAGGGGCTGGTAGTGTTTTCGGTGGAGG
CTTTGGAGGGGGCGTTGGTGGGGGTTTTGGTGGTGGCTTTGGTGGTGGCGATGGTGGTCTCCTCTCTGGCAATGA
GAAAATTACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTACGTGCCCTGGAGGAGGCCAA
TGCTGACCTGGAGGTGAAGATCCATGACTGGTACCAGAAGCAGACCCCAACCAGCCCAGAATGCGACTACAGCCA
ATACTTCAAGACCATTGAAGAGCTCCGGGACAAGATCATGGCCACCACCATCGACAACTCCCGGGTCATCCTGGA
GATCGACAATGCCAGGCTGGCTGCGGACGACTTCAGGCTCAAGTATGAGAATGAGCTGGCCCTGCGCCAGGGCGT
TGAGGCTGACATCAACGGCTTGCGCCGAGTCCTGGATGAGCTGACCCTGGCCAGGACTGACCTGGAGATGCAGAT
CGAGGGCCTGAATGAGGAGCTAGCCTACCTGAAGAAGAACCACGAAGAGGAGATGAAGGAGTTCAGCAGCCAGCT
GGCCGGCCAGGTCAATGTGGAGATGGACGCAGCACCGGGTGTGGACCTGACCCGTGTGCTGGCAGAGATGAGGGA
GCAGTACGAGGCCATGGCGGAGAAGAACCGCCGGGATGTCGAGGCCTGGTTCTTCAGCAAGACTGAGGAGCTGAA
CAAAGAGGTGGCCTCCAACACAGAAATGATCCAGACCAGCAAGACGGAGATCACAGACCTGAGACGCACGATGCA
GGAGCTGGAGATCGAGCTGCAGTCCCAGCTCAGCATGAAAGCTGGGCTGGAGAACTCACTGGCCGAGACAGAGTG
CCGCTATGCCACGCAGCTGCAGCAGATCCAGGGGCTCATTGGTGGCCTGGAGGCCCAGCTGAGTGAGCTCCGATG
CGAGATGGAGGCTCAGAACCAGGAGTACAAGATGCTGCTTGACATAAAGACACGGCTGGAGCAGGAGATCGCTAC
TTACCGCAGCCTGCTCGAGGGCCAGGATGCCAAGATGGCTGGCATTGCCATCAGGGAAGCCTCTTCAGGAGGTGG
TGGTAGCAGCAGCAATTTCCACATCAATGTAGAAGAGTCAGTGGATGGACAGGTGGTTTCTTCCCACAAGAGAGA
AATC**TAA**GTGTCTATTGCAGGAGAAACGTCCCTTGCCACTCCCCACTCTCATCAGGCCAAGTGGAGGACTGGCCA
GAGGGCCTGCACATGCAAACTCCAGTCCCTGCCTTCAGAGAGCTGAAAAGGGTCCCTCGGTCTTTTATTTCAGGG
CTTTGCATGCGCTCTATTCCCCCTCTGCCTCTCCCCACCTTCTTTGGAGCAAGGAGATGCAGCTGTATTGTGTAA
CAAGCTCATTTGTACAGTGTCTGTTCATGTAATAAAGAATTACTTTTCCTTTTGCAAAT

FIGURE 222

GGCCAAGCAAGCTTCTATCTGCACCTGCTCTCAATCCTGCTCTCACC**ATG**AGCCTCCGCCTGCAGAGCTCCTCTG
CCAGCTATGGAGGTGGTTTCGGGGGTGGCTCTTGCCAGCTGGGAGGAGGCCGTGGTGTCTCTACCTGTTCAACTC
GGTTTGTGTCCGGGGGATCAGCTGGGGGCTATGGAGGCGGCGTGAGCTGTGGTTTTGGTGGAGGGGCTGGTAGTG
GCTTTGGAGGTGGCTATGGAGGTGGCCTTGGAGGTGGCTATGGAGGTGGCCTTGGAGGTGGCTTTGGTGGGGGTT
TTGCTGGTGGCTTTGTTGACTTTGGTGCTTGTGATGGCGGCCTCCTCACTGGCAATGAGAAGATCACCATGCAGA
ACCTCAACGACCGCCTGGCTTCCTACCTGGAGAAGGTGCGCGCCCTGGAGGAGGCCAACGCTGACCTGGAGGTGA
AGATCCGTGACTGGCACCTGAAGCAGAGCCCAGCTAGCCCTGAGCGGGACTACAGCCCCTACTACAAGACCATTG
AAGAGCTCCGGGACAAGATCCTGACCGCCACCATTGAAAACAACCGGGTCATCCTGGAGATTGACAATGCCAGGC
TGGCTGCGGACGACTTCAGGCTCAAGTATGAGAATGAGCTGGCCCTGCGCCAGAGCGTGGAGGCCGACATCAACG
GCCTGCGCCGGGTGCTGGATGAGCTCACTCTGTCTAAGACTGACCTGGAGATGCAGATCGAGAGCCTGAATGAAG
AGCTAGCCTACATGAAGAAGAACCATGAAGAGGAGATGAAGGAATTTAGCAACCAGGTGGTCGGCCAGGTCAACG
TGGAGATGGATGCCACCCCAGGCATTGACCTGACCCGCGTGCTGGCAGAGATGAGGGAGCAGTACGAGGCCATGG
CAGAGAGGAACCGCCGGGATGCTGAGGAATGGTTCCACACCAAGAGTGCAGAGCTGAACAAGGAGGTGTCTACCA
ACACTGCCATGATTCAGACCAGCAAGACAGAGATCACGGAGCTCAGGCGCACGCTCCAAGGCCTGGAGATTGAGC
TGCAGTCCCAGCTGAGCATGAAAGCGGGGCTGGAGAACACGGTGGCAGAGACGGAGTGCCGCTATGCCCTGCAGC
TGCAGCAGATCCAGGGACTCATCAGCAGCATCGAGGCCCAGCTGAGCGAGCTCCGCAGTGAGATGGAGTGCCAGA
ACCAAGAGTACAAGATGCTGCTGGACATCAAGACACGTCTGGAGCAGGAGATCGCCACCTACCGCAGCCTGCTCG
AGGGCCAGGACGCCAAGAAGCGTCAGCCCCCG**TAG**CACCTCTGTTACCACGACTTCTAGTGCCTCTGTTACCACC
ACCTCTAATGCCTCTGGTCGCCGCACTTCTGATGTCCGTAGGCCTTAAATCTGCCTGGCGTCCCCTCCCTCTGTC
TTCAGCACCCAGAGGAGGAGAGAGCCGGCAGTTCCCTGCAGGAGAGAGGAGGGGCTGCTGGACCCAAGGCTCAGT
CCCTCTGCTCTCAGGACCCCCTGTCCTGACTCTCTCCTGATGGTGGGCCCTCTGTGCTCTTCTCTTCCGGTCGGA
TCTCTCTCCTCTCTGACCTGGATACGCTTTGGTTTCTCAACTTCTCTACCCCAAAGAAAAGATTATTCAATAAAG
TTTCCTGCCTTTCTGCAAACATA

FIGURE 223

GAGAATTTAGACTCTGTCTTCAGCCAGGCACTCCCTCCCTCCCTCCCAGCACT**ATG**CCCTACAACTTCTGCCTGC
CCAGCCTGAGCTGCCGCACCAGCTGCTCCTCCCGGCCCTGCGTGCCCCCCAGCTGCCACAGCTGCACCCTGCCCG
GGGCCTGCAACATCCCCGCCAATGTGAGCAACTGCAACTGGTTCTGCGAGGGCTCCTTCAATGGTAGCGAGAAGG
AGACTATGCAGTTCCTGAACGACCGCCTGGCCAGCTACCTGGAGAAAGTGCGTCAGCTGGAGCGGGACAACGCGG
AGCTGGAGAACCTCATCCGGGAGCGGTCTCAGCAGCAGGAGCCCTTGCTGTGCCCCAGTTACCAGTCCTATTTTA
AGACCATTGAGGAGCTCCAGCAGAAGATCCTGTGTACCAAGTCTGAGAATGCCAGGCTTGTGGTGCAGATCGACA
ACGCCAAGCTGGCTGCGGATGATTTCAGAACCAAGTACCAGACCGAGCTGTCCCTGCGGCAGCTGGTGGAGTCGG
ACATCAACGGTCTGCGCAGGATCCTGGATGAGCTGACCCTGTGCAAGTCCGACCTGGAGGCCCAGGTGGAGTCCC
TGAAGGAGGAGCTGCTCTGCCTCAAGAGCAACCATGAGCAGGAGGTCAATACCCTGCGCTGCCAGCTTGGAGACC
GCCTCAATGTGGAGGTGGATGCTGCTCCCACTGTGGACCTGAATCGGGTGCTGAACGAGACCAGGAGTCAGTATG
AGGCCCTGGTGGAAACCAACCGCAGGGAAGTGGAGCAATGGTTCACCACGCAGACCGAGGAGCTGAACAAGCAGG
TGGTATCCAGCTCAGAGCAGCTGCAGTCCTACCAGGCGGAGATCATCGAGCTGAGACGCACAGTCAACGCCCTGG
AGATCGAGCTGCAGGCCCAGCACAACCTGCGAGACTCTCTGGAAAACACGCTGACAGAGAGTGAGGCCCGCTACA
GCTCCCAGCTGTCCCAGGTGCAGAGCCTGATCACCAACGTGGAGTCCCAGCTGGCGGAGATCCGCAGTGACCTGG
AGCGGCAGAACCAGGAGTACCAGGTGCTGCTGGATGTGCGTGCCCGGCTGGAGTGTGAGATCAACACATACCGGA
GCCTGCTGGAGAGCGAGGACTGCAATCTGCCCAGCAATCCCTGTGCCACGACCAACGCGTGCAGCAAGCCCATCG
GACCCTGTCTCTCCAATCCCTGTACCTCTTGTGTCCCTCCTGCCCCCTGCACACCCTGTGCCCCACGCCCCCGCT
GTGGGCCCTGCAATTCCTTCGTGCGC**TAG**AACCTAGGGAATGCCAGAGGAGCAAGGATGCAGGGCCCAGGACTCC
AGAGCTGTGACCTGGCTCTGGTTCAACAAAAGGGGCCTGAAAACATCATTTGCATGGCTGGAGTTGCCCGCGTAA
GGCAGCCAAGAAACTCACCCAAAGCCTGTAGCCTCCCCAACTACTCCAGACTGTCCTGCTCACCCTTTCCTTCCT
GGGGGTCTGTTCCTTCCTATGCTCACCCAGAGAACTCTCTGATGTGCCAGTGGGCCTCCCTTTTAACCTCCTAAT
AAATATCATTTCCTTGGCAAA

FIGURE 224

ACCCGAGCACCTTCTCTTCACTCAGCCAACTGCTCGCTCGCTCACCTCCCTCCTCTGCACC**ATG**ACCACCTGCAG
CCGCCAGTTCACCTCCTCCAGCTCCATGAAGGGCTCCTGCGGCATCGGGGGCGGCATCGGGGGCGGCTCCAGCCG
CATCTCCTCCGTCCTGGCCGGAGGGTCCTGCCGCGCCCCCAGCACCTACGGGGGCGGCCTGTCTGTCTCATCCTC
CCGCTTCTCCTCTGGGGGAGCCTGCGGGCTGGGGGGCGGCTATGGCGGTGGCTTCAGCAGCAGCAGCAGCAGCTT
TGGTAGTGGCTTTGGGGGAGGATATGGTGGTGGCCTTGGTGCTGGCTTGGGTGGTGGCTTTGGTGGTGGCTTTGC
TGGTGGTGATGGGCTTCTGGTGGGCAGTGAGAAGGTGACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCT
GGACAAGGTGCGTGCTCTGGAGGAGGCCAACGCCGACCTGGAAGTGAAGATCCGTGACTGGTACCAGAGGCAGCG
GCCTGCTGAGATCAAAGACTACAGTCCCTACTTCAAGACCATTGAGGACCTGAGGAACAAGATTCTCACAGCCAC
AGTGGACAATGCCAATGTCCTTCTGCAGATTGACAATGCCCGTCTGGCCGCGGATGACTTCCGCACCAAGTATGA
GACAGAGTTGAACCTGCGCATGAGTGTGGAAGCCGACATCAATGGCCTGCGCAGGGTGCTGGACGAACTGACCCT
GGCCAGAGCTGACCTGGAGATGCAGATTGAGAGCCTGAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGA
GGAGATGAATGCCCTGAGAGGCCAGGTGGGTGGAGATGTCAATGTGGAGATGGACGCTGCACCTGGCGTGGACCT
GAGCCGCATTCTGAACGAGATGCGTGACCAGTATGAGAAGATGGCAGAGAAGAACCGCAAGGATGCCGAGGAATG
GTTCTTCACCAAGACAGAGGAGCTGAACCGCGAGGTGGCCACCAACAGCGAGCTGGTGCAGAGCGGCAAGAGCGA
GATCTCGGAGCTCCGGCGCACCATGCAGAACCTGGAGATTGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCT
GGAGAACAGCCTGGAGGAGACCAAAGGTCGCTACTGCATGCAGCTGGCCCAGATCCAGGAGATGATTGGCAGCGT
GGAGGAGCAGCTGGCCCAGCTCCGCTGCGAGATGGAGCAGCAGAACCAGGAGTACAAGATCCTGCTGGACGTGAA
GACGCGGCTGGAGCAGGAGATCGCCACCTACCGCCGCCTGCTGGAGGGCGAGGACGCCCACCTCTCCTCCTCCCA
GTTCTCCTCTGGATCGCAGTCATCCAGAGATGTGACCTCCTCCAGCCGCCAAATCCGCACCAAGGTCATGGATGT
GCACGATGGCAAGGTGGTGTCCACCCACGAGCAGGTCCTTCGCACCAAGAAC**TGA**GGCTGCCCAGCCCCGCTCAG
GCCTAGGAGGCCCCCCGTGTGGACACAGATCCCACTGGAAGATCCCCTCTCCTGCCCAAGCACTTCACAGCTGGA
CCCTGCTTCACCCTCACCCCCTCCTGGCAATCAATACAGCTTCATTATCTGAGTTGCAT

FIGURE 225A

AGGCCTCCTCGCTGGGGAGGCAGAGTCCTCGCGTGGTCTCCTGCCTCGAGCACAGCCTGTGCCCAGGGGAGCCGG
GCTTGCAGACAACAGCAGTGGTGTCC**ATG**GGCTCTGGAGACCATCAGTTCAACCTCGCAGAGATCCTGTCACAGA
ACTACAGTGTTAGGGGGGAGTGCGAGGAGGCCTCGAGGTGCCCAGACAAGCCCAAGGAGGAGCTGGAGAAGGACT
TCATCTCCCAGAGCAACGACATGCCCTTTGATGAGCTGCTTGCGCTCTATGGCTACGAGGCGTCAGACCCCATTT
CAGACCGGGAGAGTGAGGGTGGTGACGTGGCCCCGAACCTCCCAGACATGACCCTGGACAAAGAACAAATAGCGA
AGGATTTGCTTTCAGGGGAAGAAGAGGAAGAGACGCAATCATCTGCTGACGACCTCACCCCGTCCGTGACCTCCC
ACGAGGCCTCCGACCTCTTCCCTAACCGGAGTGGATCTCGTTTCCTGGCTGATGAAGACAGAGAGCCTGGCTCTT
CTGCCTCCTCCGACACCGAGGAGGACTCTCTTCCTGCCAACAAATGTAAGAAGGAGATCATGGTGGGACCTCAGT
TCCAAGCTGACCTCAGCAACCTGCACTTGAACCGGCACTGTGAGAAGATCTACGAGAACGAAGACCAGCTGCTCT
GGGACCCCAGCGTCCTCCCTGAGAGGGAGGTGGAGGAGTTCCTGTACAGGGCGGTGAAGCGGCGTTGGCACGAGA
TGGCCGGGCCTCAGCTCCCAGAGGGAGAAGCCGTGAAAGACAGTGAGCAGGCGCTGTACGAGTTGGTGAAATGCA
ACTTCAATGTGGAGGAGGCCCTGCGAAGGCTGCGGTTCAACGTGAAGGTGATCCGAGATGGGCTCTGTGCTTGGA
GTGAAGAGGAGTGCAGGAACTTTGAGCACGGCTTCCGTGTGCATGGAAAGAACTTTCACCTGATCCAGGCCAACA
AGGTGCGCACACGGTCAGTGGGCGAGTGTGTCGAGTACTACTACCTGTGGAAGAAGTCGGAGCGCTACGACTACT
TCGCCCAGCAGACGCGGCTGGGCCGGAGGAAGTACGTCCCGTCCGGAACCACGGACGCAGACCAGGACCTGGATG
GCAGCGACCCCGATGGCCCCGGCCGTCCGCGCCCGGAGCAAGACACCCTGACTGGGATGCGCACAGATCCACTGA
GCGTGGATGGCACGGCCGGTGGTCTCGATGAGCCCGGAGTGGCCTCTGATGGACTCCCGTCCTCGGAGCCAGGGC
CGTGTTCCTTCCAGCAGCTGGATGAGTCCCCCGCTGTACCCCTGTCCCATCGGCCCCCAGCCCTGGCCGACCCAG
CCTCATACCAGCCAGCTGTCACTGCTCCGGAGCCAGACGCCAGCCCAAGGCTGGCCGTGGACTTCGCCCTGCCCA
AGGAGCTGCCCCTCATCTCCAGCCATGTGGACCTCAGCGGGGATCCGGAGGAGACTGTGGCCCCAGCACAGGTGG
CTTTGTCGGTCACCGAGTTTGGACTCATCGGCATTGGGGACGTGAACCCCTTCCTGGCCGCCCACCCCACGTGCC
CGGCCCCCGGGCTACACTCGGAGCCCCTGTCACACTGTAACGTGATGACCTGC**TGA**CTCCTGGCCGCGGGCGGCG
TATGCGGCCCAGACTGGACTTAGCGCTGCCGCTGGGCCCGCCTCTGTCAGTCTTCCTGACCCCTTCCCCACCCCC
CGGGCCTTGGGGTAGCACCTCCTTCTGCTTCAGAACACGTCAGGACTGGGGTGAGGTGGCTGGGCCGTGAGCCCT
TGCCCCTGTCCACACAGAATGGACCCACGGCCCCACCCAGCGCCGTCAGCGCCCGGCACTGCCACCCGGGTCCGG
GCCGCTGCCTGCACGTGGGATCCGTCGGGCAGCCGGGGACAGAAGAGACCCCGCCGTTGGGACGCAGGGCAGAGC
CGGCCACCTAGTCCCTTCCAGCCAGCAGAGGCGAGGGAAGGCGTCACTGCCCCGGCGGGGAGACGGGCAGGACGC
CCTGCCCCGCACCAGCAGCCTCCGCCGGGGCGCCCTCAGCTCCCTGCTTGGCTCTGTCTCTCCACACCCGGCAGG
GCCGCGGGCTGCCCCAGCCCTGGGGGTCGTGGGCAGCTGCTACTCAGTGCCAACCCCGTGGGGCACAGAGCCATA
TACCTCGCTGTCCGGCCCCCACCCCAGCCTCGCCTTCCCACCCCATCGTCTCCACTTCAGGAAAAGCCGCACTTT
ACACCCCCACCTGCCTCTTCCCCCTCCATCCCTGCTCCCCGATCCTGAGCGGTTGGGGTGGGGTCCCTCAGCAAC
CCCAGGCGTGGGTTTGAGGAGACAGGTGATTTACATCCCCTTTGCTGTCCTCCCCCGGTACCAAGGCAGGGAGCC
TCCGGAGGAGCCGGCCCTGCTGGCCACGCAGGGGCCAGACTCCAGCCTGTTTCCCCAGCCCTGCAGGTCTTCCTT
CTGTGGGAAGCTTCCTAGCAAGATGGCTTGGAGTCCTGGTCCCCCTCCTCCCTGGCCCTCTCGTTCGTTTCTGTT
TCTGTTTACACGTTGGAGTGGGGTCCTCCGTGGGCGGCGGCGCGCCCTGCCCCGGGTGTCGTCCGGCCTCTTGTG
CTCGAGCCCCTTTCCGAGTTGGACTCGACCATCCCTCACCCCACCAAGGACCACACTGTGAAGTGATAACTGCCT
TGAACCCCCCTTTGCTGTTTTATTTATTAAACTTGATTTGAAGCCCGGGGTGCCTTGTGGTGGATCGGGTGGGGG
CTGGGGCGGCAGGTGTCCTCGTCATCTCACTTGGGGGCCTGCATGTCTCTTGGAGGGTCCAGGATAAGTCGTGAG
CAACACGGGCGAGGGGGTGCACCGGGGGCATGACGTGGTGGGCTACGTATTGTTCACGTCAGTAAGGGAATTGTG
GCCACGATGACGGGATGTGAGGAGGGCCCACGTCTGGGTAGAGGTGGTCGGGGCAGCCTCCTAGAAGTGATATTT
AAGCTGAAACATGAAGGAGAATGGGCCTCCTTTGCTGAAAGTTTGCCGAGAGGCCTGGCAGGCGTGACAGCAGAT
GCAGAGGACAGAGGCCTGGGTCTCCAGGAGAAGCTGAGGGCACAGAGGGCAGAGGTTGGGCGGGGTGGGGACAGT
AGGTCATGAGGCCAAGTTTTGTTCTTGGTGTGGAAGCCACTTTAGGTCTGCATTGTTTTTTTGTTTTGTTTTGCT
TTTTTTTTTTAGACAGGGTCTCACACTGTCGCCAGGCTGGAGTGCAGTGGTGCGATCTCGGCTCACTGCAACCTC
CGCCTCCTGAGTTCACGCGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGCGCCCGCCACCTGGGA
TTACGGGCGCCCGCCACCATGCCCAGCTACTTTTTATATTTTTTGTAGAGATGGGGTTTCTCCTTATTGCCCAGG
ATGGTCTCTATCTCTTGACCTTGTGTTCTCCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGACATC
GCGCCCGGCTGAGGTCTGCATTGTTAATAGCGCCCTGCAGGGACGGTGCAGGCTGGTTGGGTTGCATATTGTCCA

FIGURE 225B

CATCAGTGAGGGAAATGTGGGCATGCATGGTGATGGGATATGGGGAGGGCCGGCCCCCAGCTGGGAGGTGACTGT
GGCTTGGCCTCAGGGACTATTGGTGAAGGACCAGGACCACTTGCATGATGGGTGTGGGAGAGTCAGGGGTCTTGC
TGGTGAGCCTGTGCCAGGAGCTGTGAGAACCAGGGCCAGCCACTCGGCAACCTGGGTGTTTGGGGATGGGCATAG
AGGAGTTTTCATTGGAGCGCCGCAGCCTGCTGACGTTTTCTTCAGATGTGCAAGGTCTTCTGTCTTCCAGCTTGC
CCTGCCTCCAGCAGGAAATCTTCAGTCCTCTCTTGGTTTTTTTCCTCCAACTGCTTTGAAGATTTTTCAGTACCA
CTGGTTTTGAGCAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGGGTGTGCTTTGGTGTATTG
AGGAGTCTGATGAGAATGTGCTTTGGTGTATTGAGGTGTCTGATGAGGATGTGCTTTGGTGTATTGAGTCTGATG
AGGATGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGAATGTGCTTT
GGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGACTGATGAGAATGTGCTTTGGTGTATTGAGG
TGTCTGATGAGGGTGTGCTTTGGTGTATTGAGGTGTCTGATGAGGATGTGCTTTGGTGTATTGAGGAGTCTGATG
AGGATGTGCTTTGGTGTATTGAGTCCGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGAATGTGCTTT
GGTGTATTGAGTCTGATGAGAATGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGT
CTGATGAGAATGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATG
TGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGAATGTGCTTTGGTGTA
TTGAGTCTGATGAGAATGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATG
AGAATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTTGGTGTATTGATGAGGATGTGCTTTGGTGTA
TTGAGGTGTCTGATGAGGATGTGCTTTGGTGTATTGAGTCTGATGAGAATGTGCTTTGGTGTATTGAGTCTGATG
AGAATGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGAATGTGCTTT
GGTGTATTGAGGTGTCTGATGAGGGTGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTTGGTGTATTG
AGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGGATGTGCTTTGGTGTATTGAGTCTGATGAGG
ATGTGCTTTGGTGTATTGAGTCTGAAGAGGATGTGCTGTGGTGTATTGAGGTGTCTGATGAGGATGTACTTTGGT
GTATTGAGGTGTCTGATGAGGATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGT
CTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGAATGTGCTTTGGTGTATTGAGGAGTCTGATGAGG
ATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTT
GGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGT
CTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGAATGTGCTTTGGTGTATTGAGGAGTCTGATGAGG
GTGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTGTGGTGTATTGAGGTGTCTGATGAGGATGTGCTTTGGT
GTACTGAGGTGTCTGATGAGGATGTACTTTGGTGTATTGAGGTGTCTGATGAGGATGTGCTTTGGTGTATTGAGG
AGTCTGATGAGGATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGTCTGATGAGG
ATGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGACGAGGATGTGCTTTGGTGTATTGAGG
TGTCTGATGAGGATGTGCTTTGGTGTAC

FIGURE 226

CCCCGGGGAACCCGTTTCTCCCAGCTCTGGTCCCGGCAGGAGTAGCTGCTTGCCCCCTGCCTGCCCAGCACTCCT
GTCCCTGGCCTGCAGGACCCTTTGAGGATGCCCTGAAGTTGCATGAGTGCTCAGTGGCGGCAGGCGTGACAGCAG
CCCCTCTTCCCTTGGAGGACCAGTGGCCCAGCCCCCCTACCCGCCGGGCCCCTGTGGCCCCCACGGAGGAACAGC
TGCGTCAGGAGCCCTGGTACCACGGCCGGATGAGCCGCCGGGCGGCAGAGAGGATGCTTCGAGCTGACGGGGACT
TCCTTGTGCGAGACAGCGTCACCAACCCCGGGCAGTATGTCCTCACCGGCATGCACGCCGGGCAGCCCAAGCACC
TGCTGCTCGTGGACCCCGAGGGCGTGGTACGGACGAAGGACGTGCTGTTTGAGAGCATCAGCCACCTGATCGACC
ACCACCTGCAGAACGGGCAGCCCATCGTGGCCGCCGAGAGTGAGCTGCACCTGCGTGGCGTGGTCTCACGGGAGC
CCTGAGCCAGGTGACCGTTCTCAGCCCTGGCTCCTGCCTGTTCTCAGCCCCGGCTCCTGCCTGTCATGGCCTTGG
GGCTCTCAGCCCTCCTCCTGGATCCTGGTCAGGCCGAACCACCGCTGCCTCTCCTTCCTCCGC**ATG**AGCCTCTGG
CATGGTCCTTCCTCCAGCTGGCCCCGGGCTGGGCAGAGCCTCCTCCTGCCGGGGCCCCTGCCCACCCCCTCCTTT
GCCTGGAGTGAGGGTGTTCATACCAAAGACGGAACCATTTCGCCTTTAAAGAAAATATATCCAGAAGCAGCCGCT
GCCTCGGAGCCCTGGCCCTTGGGTCCCCCTCTCGCCTGGCTGGTTCGGTCTAACGCCCCGGAGAGTCAGGGCTCC
CAGGACCCTGGGGAGGAGGCGGATTCCGGGCCTGGCTGGGCTTCCTCTTCCCACCTGAGGACTGGGTGCACAGTT
GTCTTTGAGGGGGGACGCTTAAGGTGCTTTGGGGTTCTCAGGCCAGGATACATGCTGGCGCTGAAGTGCAGGCAG
CCT**TGA**GGTCACCTGGGATCTCGGGGTAGCCAGGCTGCTCCAAGACAGTGGATATCGAGGCAGTCGTGAGGCCCC
TACTCCACCTGGGAGCAGGGGAAGGACGTGGTTGCCTGGCCTGGGCTGCGCCCAGCAGCTTCCCCCCAGTCCTGC
CCTCCCAGCTGTCGACCCAGATGGGATGTTCGGATCGGTTTGTAATTAAACCTGGGAATGGCCACAAG

FIGURE 227

GCGGTTTCCCGCCGCGGGTGAATGAGTCCGACTGCGCTGCCGCCGCCGCCGCCCGCATCGAAGCTCCGGCCG
CGTCCCCCGCGCCAGCCCCGGGAGCCTGCGCGCCGAGACCCCTGCGTGTCTGCGAACAGACCTCCGGCCTCGGGC
CATCACCCCGGGCAGACGCTGCAGCCCCTGTCCGGGCCTCTTGCCTGCCGCCCCC**ATG**AGAAAAACCAACATGTG
GTTCTTGGAGCGGCTTCGGGGGTCTGGGGAAAACGGTGCTGCCCGGGGCGTGGGGAGTGAGGCGGGGGACAAGGC
CTCCAAGGGGCCCCTGTACAGCAATGTGTTGACGCCCGACAAGATCCCCGACTTTTTCATCCCCCCCAAGCTGCC
CTCGGGCCCCGCGGAGGGCGAGGGACAGGCCGCGCTGGGCCCCTCCACGTCGGAACAGAACCTGGCCTCTGCGGC
CCCCCGCCAGACCCCACGGAGCCCCCGGCTGCCTGCCAAGCTGGCAGCCGAGAGCAAGAGCCTGCTGAAGGCAGC
CACCCGGCACGTGATCCAGATCGAGAGTGCCGAGGACTGGCTGTCCGAGGAGGCCACTGACGCCGACCCCCAGGC
CCAGGGTGCCATGTCCCTGCCCTCGGTGCCCAAGGCCCAGACGTCCTACGGCTTCGCCATGCTGGCTGAGAGCCC
CCACACGAGGCGCAAGGAGTCTCTGTTCCACAGTGAGCACGGGGCTCTGGCCCAGGTGGGCTCCCCAGGGGCCGG
GCGCCGCCGGGCAGCTGCCAAGGCCAACGGGGGTGATGGGGGCCCCAGGGAGGCTGGCGGGGCCCTCATGAGCCC
CGGCCGCTACTTCAGTGGCGGGGAGAGCGACACAGGGTCCTCGGCCGAGTCCTCCCCCTTCGGGTCCCCTCTGCT
GTCCCGCTCCGTGTCTCTGCTCAAAGGTTTCGCCCAGGACAGCCAGGCCAAGGTGAGCCAGCTCCGGCACTCCGT
GGGCCGCCACGGCTCCCTGTCTGCGGACGACAGCACCCCGGACGCCAGCCCCGGGAGCCGGCGCCGCCTGACCCG
CCGGGCACCCCCGGAACCTGGCCCCGAGTCGGGCCAGGCGCGTGGGGAGCACACGGTCCACGTGGGCCCTCGGGG
CAGCGTGCGGCTGCTGGCCGAGTACGAGGCCGGCCAGGCCCGCCTGCGGGTGCACCTGCTGGCCGCCGAGGGCCT
CTACGACCGCCTGTGCGACGCCCGCAGCATCAACTGCTGCGTGGGCCTGTGCCTGGTGCCGGGCAAGCTGCAGAA
GCAGCGCAGCACCATCGTGAAGAACAGCCGCCGCCCCGTCTTCAACGAGGATTTCTTCTTCGACGGCCTGGGGCC
CGCCAGCGTCCGGAAACTGGCCCTCAGGATCAAGGTGGTGAACAAGGGCAGCAGCCTCAAGCGGGACACGCTGCT
CGGGGAGAAGGAGCTGCCCCTGACCTCCCTGCTCCCCTTCCTG**TAG**AGCGGGGACCTGCTCGCTGTCCGCTCGGG
TGCAGAGGGCAGACCCCGGTCTCTCCTCCACACCGGGTGCTGGCGGGCGGGTCCGCTGGCTTGGGCTGGGGCTGG
CCGGGGAGGGGCTCACACTCAGGCTGGGCTGGGCGCTGATGCTGTAGCTGACGCAGGGTTTCCTGGGTCACCCGA
TGCTGACTGGAGTATTATTTTTCATGAATTAATTTCTCCTTTGGAGGAGGAGGAGGAGGAGGAGAGGGGCCTCGG
GGGAAGAGAAGGGGCCACTTCGCGGGGCAGAGGGTCCCCCTTTGCCCCTCCACACTGCCTCGCGCCTTTCACGCA
GAGTTCTAGAAGGAGGTTCTCAGGGGTTCAGGAATCCGTGCATGTGGCCAGGGCGGGGCCGTGGACAGGGAGGTG
ACAAGTCTTGGAGCCCACAGTCTCCTTCACTGCACGTGTGTCTTCCTCCCCCACAGCCTGCCGCCATCCAGTTCC
CACCCCGCGGAGAGCAGGGCCTCGCGGCCACACCAGGCCCAGGCTCTGCCCGGGACGCCCCCTCCCAGGGGTCAG
GCTTGGCTCTGGGAGACCCCAGCTTCCCAGGCTCCGGTGGGGAGTGGGGCCAGGCGAGGGTGCCCTGACGAGGGT
GGGCGCGGAGGGAGCAGCCGCTGCCACAGTCGGAGCAGAGGAGGTCTTGGCAGAGGTCCGCGGGGAGGAGACGGC
TCTCCTGGCCTGTTTTCCTCCAACACTGTCGCCGCTGGCTTTTTGGGTACAGGCCCGTCTGGCCATTTCTGCTGT
GGCGCCGGAGGGTCTTGCTCAGAGATGCCCAGAGAGCAGCCCTATGGCCCATCCGTCCTCGCTGGGGGCTGCCAC
CCCGTCGCCCTTTTGTCCAGCGTCTGCAGCTGGGAGCGACACGCAGTGATTGACGGCCGTGGCTTTGACGCCACG
TGTGTAAATAGGCTGTGGCTACGGTGGGTGGGTCGGAGCCCAGGAGGCAGCTGGGGGGACCTGGCTATGGCCTTT
CCTGCTGTTAGGTGGCTGCAAGGCTTCCATTGTGTGGTTATGTGGGTCCTTGAATGATTTTGGGGAGGTTTCCAG
CTCAGAATGATGCAGAAATGATAAGACTCAAAGCAGGGGCCAGGCCAGGCCAGTGCCTTCGCCTCTCCCGGCTGC
TGGTGGGCACGGAGGAACCAGGGCACATCTGTGGTACCCAGGGACGTCCCTTGTCAGCCCGTTTGCCACACATTG
TTCCTCTTGTCCAGGGGAGGGTGGAGGAGCTGCTTCCCAGGACTGGAGGAGCAGCTGGGCCCCTGCTGCACGTCC
GGTGGGACACACCTGTGAGCCCCGCCTTCTCTGATGCTCACCCCTCCCAGGCCCTGTTCTCCCTGGGGTCCCCCG
TTTAGTAGCCCCCCTGCACTCTTTGATATCTTAGTGTCTGAGGTTGACTGTGGGTAAATCTTTAAGACACTCCCC
AGCTGTGTTTGTTTATAAATGCTGTTTATAGTGCAATAAAGGTGTTTCGGG

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FIGURE 228

GGTCCGGGGACGCCGCCGCCGCCGCCGAGTGGATCCGGAAGGGCAGCTTCATCCACAAACCCGCGCACGGCTGGC
TACACCCCGACGCCAGGGTCCTGGGGCCCGGGGTCTCCTACGTCGTGCGGTACATGGGCTGCATCGAGGTTCTCC
GCTCTATGCGCTCCCTGGACTTTAACACGCGCACGCAGGTGACCAGCTCCTGCCACCACTCAGGCTGCAGACAGG
ATCTCGACACGGACCCCGCGTCAGGCTCAGGGCCTCCTGCTCGCTGCTCCAACCCCCACATCTG**ATG**CCGAGCCT
TCCTTGTGGGCCGAGGCCAGGGACACACTGGTCCCTGGGAAAGAGGGTGGTAGAGGGGCCAGAGCTGGGGGCCGG
GCCTCTGCCGGATGCAAGGACGCACGTGGAGTGGGCTGGTGCCCAAGCTGCACCTGTCCTGTGGGGCACTCCTCC
CCCAGGGAAGCCATCAACCGGCTCCATGAGGCCGTGCCTGGCGTCCGGGGATCCTGGAAGAAAAAGGCCCCCAAC
AAGGCCCTGGCGTCCGTCCTGGGCAAGAGCAACCTTCGCTTTGCCGGCA**TGA**GCATCTCCATCCACATCTCCACT
GATGGCCTCAGCCTCTCCGTGCCTGCCACGCGCCAGGTCATCGCCAACCACCACATGCCGTCCATCTCCTTCGCG
TCAGGCGGAGACACGGACATGACGGATTACGTGGCCTACGTCGCCAAGGACCCCATCAACCAGAGAGCCTGCCAC
ATCCTGGAGTGCTGTGAGGGCCTGGCACAGAGCATCATCAGCACCGTGGGCCAAGCTTTCGAGCTGCGCTTCAAG
CAGTACCTGCACAGCCCGCCCAAGGTGGCGCTGCCCCCAGAAAGGCTGGCAGGGCCGGAGGAGTCGGCCTGGGGG
GACGAGGAGGACTCTTTGGAGCACAATTACTACAACAGCATCCCGGGGGAAGGAGCCGCCGCTGGGCGGG

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FIGURE 229

GTACCACCGCCGGCCGGTTTCACGGACAGCGGCCGCCAGTCGGTATCCCGGGCGGCGGGGGCGGCCGAGAGCGAG
GAGGACTTCCTGCGGCAGGTCGGCGTGACGGAA**ATG**CTACGTGCGGCCCTGCTGAAGGTGCTGGAGGCGCGGCCC
GAGGAGCCGATCGCCTTCCTGGCTCACTACTTCGAGAACATGGGCCTGCGCTCGCCTGTAAACGGCGGCGCCGGG
GAGCCCCCGGGCCAGCTCCTGCTGCAGCAGCAGCGCCTGGGCCGCGCGCTATGGCACCTTCGCCTGGCCCACCAC
TCCCAGAGGGCCGCCTTCAACAACAACGTGAGCGTGGCCTACGAGTGCCTGAGCGCCGGCGGGCGCAGGAAGAGG
CCGGGGCTGGACGGGCGCACCTACAGCGAGCTGCTCAGGCGCATCTGCCGGGACGGCCAAGCCCCCGAGGAGGTG
GTGGCGCCGCTGCTGCGCAAGGTGCAGTGCCGTGACCACGAGGCGGTGCCGCTGAGCGTCTTCCGCGCGGGCACA
CTCACCTGCTTCGTGCTGCTGGAGTTCGTGGCGCGCGCCGGCGCGCTCTTCCAGCTGCTGGAGGACTCGGCCGCC
GCCGTGGCCGACCGCCGCGTGGGCCAGGCCGTGCTGGACACCCTGGAGGGCGCGCTGCAGGCCAGCGACGCCGCC
GCGCCCGCGCGCTTCCTGGAGGCCGGCTCGCGCTTGGGGCCCGACAGCCTGGCGCTGGCGCTGGACCGCGCCGTC
GGGGGGCGGCGGCCCAGCGCGCCCATGACCCGCGAGGAGTTTCTGGAGAGGGCCGCCGCGCTCTTCATCGCGAAG
GTCAAGCCGGTGGGC**TGA**GGCCCGTGGGCCGCGCGGATCCGGGATCTGCGCTGGGGGGTCCCCGCGTGCGGGGCG
CGCGGAGCCTTCCCTTCGCCCTGGTGAGGCCCTGCCATAACCAGGCGCCCAGCCCTGCGGAGGAGGCCGGGGCTC
CCAGGAAGCGGACGCCCGGTCCCCACACAGCGCCGCGGCCGCCCCTCCACCCCCGCGGGAGCCCCTGCCCCACGC
TAATAAAATGTGTTGCGAGGCTGA

FIGURE 230

GGCAAGCGCCGGTGGGGCGGCGGCGCCAGAGCTGCTGGAGCGCTCGGGGTCCCCGGGCGGCGGCGGCGGCGCAGA
GGAGGAGGCAGGCGGCGGCCCCGGTGGCTCCCCCCCGGACGGTGCGCGGCCCGGCCCGTCTCGCGAACTCGCGGT
GGTCGCGCGGCCCCGCGCTGCTCCGACCCCGGGCCCCTCCGCCGCCGCC**ATG**GCTCGGCCGCTAGTGCCCAGCTC
GCAGAAGGCGCTGCTGCTGGAGCTCAAGGGGCTGCAGGAAGAGCCGGTCGAGGGATTCCGCGTGACACTGGTGGA
CGAGGGCGATCTATACAACTGGGAGGTGGCCATCTTCGGGCCCCCCAACACCTACTACGAGGGCGGCTACTTCAA
GGCGCGCCTCAAGTTCCCCATCGACTACCCATACTCTCCACCAGCCTTTCGGTTCCTGACCAAGATGTGGCACCC
TAACATCTACGAGACGGGGGACGTGTGTATCTCCATCCTCCACCCGCCGGTGGACGACCCCCAGAGCGGGGAGCT
GCCCTCAGAGAGGTGGAACCCCACGCAGAACGTCAGGACCATTCTCCTGAGTGTGATCTCCCTCCTGAACGAGCC
CAACACCTTCTCGCCCGCAAACGTGGACGCCTCCGTGATGTACAGGAAGTGGAAAGAGAGCAAGGGGAAGGATCG
GGAGTACACAGACATCATCCGGAAGCAGGTCCTGGGGACCAAGGTGGACGCGGAGCGTGACGGCGTGAAGGTGCC
CACCACGCTGGCCGAGTACTGCGTGAAGACCAAGGCGCCGGCGCCCGACGAGGGCTCAGACCTCTTCTACGACGA
CTACTACGAGGACGGCGAGGTGGAGGAGGAGGCCGACAGCTGCTTCGGGGACGATGAGGATGACTCTGGCACGGA
GGAGTCC**TGA**CACCACCAGAATAAACTTGCCGAGTTTACCTCACTAGGGCCGGACCCGTGGCTCCTTAGACGACA
GACTACCTCACGGAGGTTTTGTGCTGGTCCCCGTCTCCTCTGGTTGTTTCGTTTTGGCTTTTTCTCCCTCCCCAT
GTCTGTTCTGGGTTTTCACGTGCTTCAGAGAAGAGGGGCTGCCCCACCGCCACTCACGTCACTCGGGGCTCGGTG
GACGGGCCCAGGGTGGGAGCGGCCGGCCCACCTGTCCCCTCGGGAGGGGAGCTGAGCCCGACTTCTACCGGGGTC
CCCCAGCTTCCGGACTGGCCGCACCCCGGAGGAGCCACGGGGGCGCTGCTGGGAACGTGGGCGGGGGGCCGTTTC
CTGACACTACCAGCCTGGGAGGCCCAGGTGTAGCGGTCCGAGGGGCCCGGTCCTGCCTGTCAGCTCCAGGTCCTG
GAGCCACGTCCAGCACAGAGTGGACGGATTCACCGTGGCCGACTCTTTTCCCTGCTTTGGTTTGTTTGAAATCTA
AATAAAACTACTTTATGAG

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FIGURE 231

GCCGCGGGCGGCGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATC**ATG**GCGGCTGCGCTGTTC
GTGCTGCTGGGATTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAA
GACCTTGGCTCCAAGATACTCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTG
AAGGGGGGCGTGGTGCTGAAGGAGGACGCGCTGCCCGGCCAGAAAACGGAGTTCAAGGTGGACTCCGACGACCAG
TGGGGAGAGTACTCCTGCGTCTTCCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCCAGA
GTGAAGGCTGTGAAGTCGTCAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTG
CCACCTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGC
AGGTTCTTCGTGAGTTCCTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGC
CAGTACCGGTGCAACGGCACCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTG
GCCGCCCTCTGGCCCTTCCTGGGCATCGTGGCTGAGGTGCTGGTGCTGGTCACCATCATCTTCATCTACGAGAAG
CGCCGGAAGCCCGAGGACGTCCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAG
AATGACAAAGGCAAGAACGTCCGCCAGAGGAACTCTTCC**TGA**GGCAGGTGGCCCGAGGACGCTCCCTGCTCCACG
TCTGCGCCGCCGCCGGAGTCCACTCCCAGTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCC
GTAGATTCCCATCATACACTTCCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTCAGGATTCTGTTCCTTAGGT
TTTTTTCCTTCTGAAGTGTTTCACGAGAGCCCGGGAGCTGCTGCCCTGCGGCCCCGTCTGTGGCTTTCAGCCTCT
GGGTCTGAGTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCTTGCCCTTTG
TGGAAAGTCACAGGTCACACGAGGGGCCCCGTGTCCTGCCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTT
TGTGCTTTTATGTTTAATTTTATGAGGGCCACGGGTCTGTGTTCGACTCAGCCTCAGGGACGACTCTGACCTCTT
GGCCACAGAGGACTCACTTGCCCACACCGAGGGCGACCCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTT
GTCTGTGCATCCGGGGGCAGCTCTGGAGGGGGTTTGCTGGGGAACTGGCGCCATCGCCGGGACTCCAGAACCGCA
GAAGCCTCCCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCC
ACCCACCGCCACAATAAAGATCGCCCCCACCTCCACCCTC

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FIGURE 232

CGGGCGGCGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATC**ATG**GCGGCTGCGCTGTTCGTGC
TGCTGGGATTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAAGACC
TTGGCTCCAAGATACTCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTGAAGG
GGGGCGTGGTGCTGAAGGAGGACGCGCTGCCCGGCCAGAAAACGGAGTTCAAGGTGGACTCCGACGACCAGTGGG
GAGAGTACTCCTGCGTCTTCCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCCAGAGTGA
AGGCTGTGAAGTCGTCAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTGCCAC
CTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGCAGGT
TCTTCGTGAGTTCCTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGCCAGT
ACCGGTGCAACGGCACCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTGGCCG
CCCTCTGGCCCTTCCTGGGCATCGTGGCTGAGGTGCTGGTGCTGGTCACCATCATCTTCATCTACGAGAAGCGCC
GGAAGCCCGAGGACGTCCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAGAATG
ACAAAGGCAAGAACGTCCGCCAGAGGAACTCTTCC**TGA**GGTGGCCCGAGGACGCTCCCTGCTCCACGTCTGCGCC
GCCGCCGGAGTCCACTCCCAGTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCCGTAGATTC
CCATCATACACTTCCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTCAGGATTCTGTTCCTTAGGTTTTTTTCC
TTCTGAAGTGTTTCACGAGAGCCCGGGAGCTGCTGCCCTGCGGCCCCGTCTGTGGCTTTCAGCCTCTGGGTCTGA
GTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCTTGCCCTTTGTGGAAAGT
CACAGGTCACACGAGGGGCCCCGTGTCCTGCCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTTTGTGCTTT
TATGTTTAATTTTATGAGGGCCACGGGTCTGTGTTCGACTCAGCCTCAGGGACGACTCTGACCTCTTGGCCACAG
AGGACTCACTTGCCCACACCGAGGGCGACCCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTTGTCTGTGC
ATCCGGGGGCAGCTCTGGAGGGGGTTTGCTGGGGAACTGGCGCCATCGCCGGGACTCCAGAACCGCAGAAGCCTC
CCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCCACCCACCG
CCACAATAAAGATCGCCCCCACCTCCACCCTC

FIGURE 233

CGGCTCCGCTCCGCACTGCCCGGCGCCGCCTCGCC**ATG**GACGCGCGCGGGGGCGGCGGGCGGCCCGGGGAGAGCC
CGGGCGCGACCCCCGCGCCGGGGCCGCCGCCGCCGCCGCCCGCGCCCCCCCAACAGCAGCCGCCGCCGCCGC
CGCCGCCCGCGCCCCCCCCCGGGCCCCGGGCCCGCGCCCCCCCAGCACCCGCCCCGGGCCGAGGCGTTGCCCCCGG
AGGCGGCGGATGAGGGCGGCCCGCGGGGCCGGCTCCGCAGCCGCGACAGCTCGTGCGGCCGCCCCGGCACCCCGG
GCGCGGCGAGCACGGCCAAGGGCAGCCCGAACGGCGAGTGCGGGCGCGGCGAGCCGCAGTGCAGCCCCGCGGGGC
CCGAGGGCCCGGCGCGGGGGCCCAAGGTGTCGTTCTCGTGCCGCGGGGCGGCCTCGGGGCCCGCGCCGGGGCCGG
GGCCGGCGGAGGAGGCGGGCAGCGAGGAGGCGGGCCCGGCGGGGGAGCCGCGCGGCAGCCAGGCCAGCTTCATGC
AGCGCCAGTTCGGCGCGCTCCTGCAGCCGGGCGTCAACAAGTTCTCGCTGCGGATGTTCGGCAGCCAGAAGGCCG
TGGAGCGCGAGCAGGAGCGCGTCAAGTCGGCGGGGGCCTGGATCATCCACCCGTACAGCGACTTCAGGTTCTACT
GGGACTTCACCATGCTGCTGTTCATGGTGGGAAACCTCATCATCATCCCAGTGGGCATCACCTTCTTCAAGGATG
AGACCACTGCCCCGTGGATCGTGTTCAACGTGGTCTCGGACACCTTCTTCCTCATGGACCTGGTGTTGAACTTCC
GCACCGGCATTGTGATCGAGGACAACACGGAGATCATCCTGGACCCCGAGAAGATCAAGAAGAAGTATCTGCGCA
CGTGGTTCGTGGTGGACTTCGTGTCCTCCATCCCCGTGGACTACATCTTCCTTATCGTGGAGAAGGGCATTGACT
CCGAGGTCTACAAGACGGCACGCGCCCTGCGCATCGTGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGC
GCCTCTCACGCCTGATCCGCTACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGG
TGATGAGGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGTTCCTGGTGC
CTATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGGTGAACCACTCGTGGAGTGAACTGT
ACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGCTGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGA
CGGACATCTGGCTGACCATGCTCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTG
CCCTCATCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGTACATGTCCT
TCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGCACCGTTACCAGGGCAAGATGTTTG
ACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCCTGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGG
TGGCCTCCATGCCGCTGTTCGCCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGG
TCTTCCAGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGCACGGCGTGG
TCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCTACTTCGGGGAGATCTGCCTGCTCA
CCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACACCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCA
ACGAGGTGCTGGAGGAGTACCCCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCG
GCAAGAAGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACCAGGAGAACG
CCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCGAGCTGGGTCAGCGCGTGGGCCTCT
TCCCGCCGCCGCCGCCGCCGCCGCAGGTCACCTCGGCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCT
GCCCGCAGGTGGCGCGGCCGCTCGTGGGGCCGCTGGCGCTCGGCTCGCCGCGCCTCGTGCGCCGCCCGCCCCCGG
GGCCCGCACCTGCCGCCGCCTCACCCGGGCCCCCGCCCCCCGCCAGCCCCCCGGGCGCGCCCGCCAGCCCCCGGG
CACCGCGGACCTCGCCCTACGGCGGCCTGCCCGCCGCCCCCCTTGCTGGGCCCGCCCTGCCCGCGCGCCGCCTGA
GCCGCGCGTCGCGCCCACTGTCCGCCTCGCAGCCCTCGCTGCCTCACGGCGCCCCCGGCCCCGCGGCCTCCACAC
GCCCGGCCAGCAGCTCCACACCGCGCTTGGGGCCCACGCCCGCTGCCCGGGCCGCCGCGCCCAGCCCGGACCGCA
GGGACTCGGCCTCACCCGGCGCCGCCGGCGGCCTGGACCCCCAGGACTCCGCGCGCTCGCGCCTCTCGTCCAACT
TG**TGA**CCCTCGCCGACCGCCCCGCGGGCCCAGGCGGGCCGGGGGCGGGGCCGTCATCCAGACCAAAGCCATGCCA
TTGCGCTGCCCCGGCCGCCAGTCCGCCCAGAAGCCATAGACGAGACGTAGGTAGCCGTAGTTGGACGGACGGGCA
GGGCCGGCGGGGCAGCCCCCTCCGCGCCCCCGGCCGTCCCCCCTCATCGCCCCGCGCCCACCCCCATCGCCCCTG
CCCCCGGCGGCGGCCTCGCGTGCGAGGGGGCTCCCTTCACCTCGGTGCCTCAGTTCCCCCAGCTGTAAGACAGGG
ACGGGGCGGCCCAGTGGCTGAGAGGAGCCGGCTGTGGAGCCCCGCCCGCCCCCCACCCTCTAGGTGGCCCCCGTC
CGAGGAGGATCGTTTTCTAAGTGCAATACTTGGCCCGCCGGCTTCCCGCTGCCCCCATCGCGCTCACGCAATAAC
CGGCCCGGCCCCCGTCCGCGCGCGTCCCCCGGTGACCTCGGGGAGCAGCACCCCGCCTCCCTCCAGCACTGGCAC
CGAGAGGCAGGCCTGGCTGCGCAGGGCGCGGGGGGGAGGCTGGGGTCCCGCCGCCGTGATGAATGTACTGACGAG
CCGAGGCAGCAGTGCCCCCACCGTGGCCCCCCACGCCCCATTAACCCCCACACCCCCATTCCGCGCAATAAA

FIGURE 234A

AGGCGGCGCGGGCGCATGCGCAGGCGCGGGCCGGTGGGGTGGCCTGGAGCGGCGTGCGTAATGTCGGCACTTTGC
TGGGGCCGCGGAGCGGCGGGGCTCAAACGAGCCCTACGGCCTTGCGGCCGCCCGGGACTCCCCGGCAAAGAAGGG
ACCGCCGGTGGCGTCTGCGGCCCCAGGAGGAGCTCGTCCGCCAGCCCCCAGGAGCAAGACCAAGACCGCAGGAAG
GACTGGGGCCACGTGGAGCTGCTGGAGGTGCTCCAGGCGCGGGTGCGGCAGCTGCAGGCTGAGAGCGTGTCGGAG
GTGGTGGTGAACAGGGTGGATGTGGCGCGGCTCCCAGAATGTGGCAGTGGAGATGGTAGCCTCCAGCCACCCAGG
AAGGTCCAGATGGGGGCCAAGGATGCCACCCCGGTGCCCTGTGGCCGCTGGGCAAAGATACTGGAGAAGGATAAG
CGGACCCAGCAGATGCGTATGCAGCGGTTGAAGGCGAAGCTGCAGATGCCATTCCAGAGCGGGGAGTTCAAGGCG
CTGACCAGGCGCCTGCAGGTGGAGCCCCGGCTCCTGAGCAAGCAGATGGCCGGGTGCCTGGAGGACTGCACGCGC
CAGGCCCCCGAGAGCCCCTGGGAGGAGCAGCTGGCCCGGCTGCTGCAGGAGGCCCCTGGGAAGCTGAGCCTCGAT
GTGGAGCAGGCCCCGTCGGGGCAGCACTCGCAGGCCCAGCTCTCAGGTCAGCAGCAGAGGCTCCTGGCCTTCTTC
AAGTGCTGCCTGCTCACTGACCAGCTGCCCCTCGCCCACCACCTGCTGGTCGTCCACCACGGCCAGCGGCAGAAG
CGGAAGCTGCTCACGCTGGACATGTACAACGCCGTGATGCTTGGCTGGGCGCGGCAGGGTGCCTTCAAGGAGCTG
GTATATGTGTTATTCATGGTGAAGGATGCCGGCTTGACTCCGGACCTGCTGTCCTATGCGGCTGCCCTCCAGTGC
ATGGGGAGGCAGGACCAGGACGCCGGGACCATCGAAAGGTGTCTGGAACAGATGAGCCAGGAGGGGCTGAAGCTG
CAGGCACTCTTCACCGCCGTTCTGCTGTCTGAGGAGGATCGGGCCACTGTTCTGAAGGCCGTGCACAAGGTGAAG
CCCACCTTCAGCCTCCCGCCGCAGCTGCCGCCCCCGGTCAACACCTCCAAGCTGCTCAGGGACGTGTATGCCAAG
GATGGGCGTGTGTCCTACCCGAAGCTGCACCTGCCCTTGAAGACCCTGCAGTGCCTCTTTGAGAAGCAGCTCCAC
ATGGAGCTGGCCAGCAGGGTGTGCGTGGTGTCCGTGGAGAAGCCCACGTTGCCAAGCAAGGAGGTCAAGCACGCG
CGGAAGACCCTGAAGACCCTGCGGGACCAATGGGAGAAAGCACTGTGCCGGGCGCTGCGGGAGACCAAGAACCGC
CTAGAGCGCGAGGTGTACGAGGGCCGGTTCTCACTTTACCCCTTCCTGTGCCTGCTGGACGAGCGCGAGGTGGTG
CGGATGCTCCTGCAGGTCCTGCAGGCGCTGCCCGCCCAAGGTGAGTCCTTCACCACCCTGGCCCGGGAGCTGAGT
GCGCGCACTTTCAGCCGGCACGTGGTGCAGAGGCAGCGGGTCAGTGGCCAGGTGCAGGCGCTGCAGAACCACTAC
AGGAAGTACCTCTGCTTGCTGGCCTCCGACGCCGAGGTGCCCGAGCCCTGCCTGCCGCGGCAGTACTGGGAGGAG
CTGGGGGCGCCCGAGGCCCTGCGGGAGCAGCCCTGGCCCCTGCCAGTGCAGATGGAGCTGGGCAAGCTGCTGGCG
GAGATGCTGGTGCAGGCTACGCAGATGCCATGCAGCCTGGACAAGCCGCATCGTTCCTCTCGGCTTGTCCCCGTG
CTCTACCACGTGTATTCCTTCCGCAACGTCCAGCAGATCGGCATCCTGAAGCCGCACCCGGCCTACGTGCAGCTG
CTGGAGAAGGCCGCGGAGCCCACGCTGACCTTCGAGGCGGTGGATGTACCCATGCTTTGCCCCCCGCTGCCCTGG
ACATCGCCGCACTCTGGTGCTTTCCTGCTCAGCCCCACCAAGCTGATGCGCACGGTGGAAGGCGCCACGCAGCAC
CAGGAGCTGCTGGAAACCTGCCCGCCCACCGCGCTGCATGGCGCACTGGACGCCCTCACCCAACTGGGCAACTGC
GCCTGGCGCGTCAACGGGCGCGTGCTGGACCTGGTGCTGCAGCTCTTCCAGGCCAAGGGCTGCCCCCAGCTAGGC
GTGCCGGCCCCGCCCTCCGAGGCGCCCCAGCCGCCCGAGGCCCACCTGCCGCACAGCGCCGCGCCCGCCCGCAAG
GCCGAGCTGCGCCGTGAGCTGGCGCACTGCCAGAAGGTGGCCCGGGAGATGCACAGCCTGCGGGCGGAGGCGCTG
TACCGCCTCTCGCTGGCGCAGCACCTGCGGGACCGCGTCTTCTGGCTGCCGCACAACATGGACTTCCGCGGCCGC
ACCTACCCCTGCCCGCCGCACTTCAACCACCTGGGCAGCGACGTGGCGCGGGCCCTGCTGGAGTTCGCCCAGGGC
CGCCCGCTCGGCCCGCACGGCCTGGATTGGCTCAAGATCCACCTGGTCAATCTCACGGGGTTGAAGAAGCGGGAG
CCGCTGCGGAAGCGCCTGGCCTTTGCGGAGGAGGTGATGGATGACATCCTGGACTCCGCGGACCAACCCTTGACG
GGCCGAAAGTGGTGGATGGGCGCGGAGGAACCCTGGCAGACGCTGGCCTGCTGTATGGAGGTGGCGAACGCTGTG
CGCGCCTCCGACCCTGCCGCCTATGTCTCCCACCTCCCCGTCCATCAGGACGGCTCTTGCAACGGCCTGCAGCAT
TATGCTGCTCTGGGCCGCGACAGCGTGGGCGCCGCCTCCGTCAACCTGGAGCCCTCGGATGTGCCGCAGGACGTG
TACAGCGGCGTGGCCGCGCAGGTGGAGGTGTTCCGTAGGCAGGACGCCCAGCGGGGCATGCGGGTGGCACAGGTG
CTGGAAGGTTTCATCACCCGCAAGGTGGTGAAGCAGACGGTGATGACGGTGGTGTACGGGGTCACGCGCTATGGC
GGGCGCCTGCAGATTGAGAAGCGCCTCCGGGAGCTGAGCGACTTTCCCCAGGAGTTCGTGTGGGAGGCCTCTCAC
TATCTCGTACGCCAGGTCTTCAAGAGTCTACAGGAGATGTTCTCGGGGACCCGGGCCATCCAGCACTGGCTGACC
GAGAGTGCCCGCCTCATCTCCCACATGGGCTCTGTGGTGGAGTGGGTCACACCCCTGGGCGTCCCCGTCATCCAG
CCCTATCGCCTGGACTCCAAGGTCAAGCAAATAGGAGGTGGAATTCAGAGCATCACCTACACCCACAACGGAGAC
ATCAGCCGAAAGCCCAACACACGTAAGCAGAAGAACGGCTTCCCGCCCAACTTCATCCACTCGCTGGACTCCTCC
CACATGATGCTCACCGCCCTGCACTGCTACAGGAAGGGCCTGACCTTCGTCTCTGTGCACGACTGTTACTGGACT
CACGCAGCTGATGTCTCCGTCATGAACCAGGTGTGCCGGGAGCAGTTTGTCCGCTTGCACAGCGAGCCCATCCTG

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FIGURE 234B

CAGGACCTGTCCAGATTCCTGGTCAAGCGGTTCTGCTCTGAGCCCCAGAAGATCTTGGAGGCCAGCCAGCTGAAG
GAGACACTGCAGGCGGTGCCCAAGCCAGGGGCCTTCGACCTGGAGCAGGTGAAGCGTTCCACCTACTTCTTCAGC
TGACACCCCGTGAGCCTTGTCAGTGTGTAAATAAAGCTCTTTTGCCACCCCC

FIGURE 235

AGCAAACGGCCGGCGGCGGGTGCCGCGCGGGGGGCGGGCGGCGCGGAGTAGGTGGCGGCGGCC**ATG**GCCGAGGCG
TCGCCGCATCCCGGACGGTACTTCTGCCACTGCTGCTCCGTGGAGATCGTCCCGCGCCTGCCGGATTATATCTGT
CCAAGATGCGAGTCTGGTTTTATCGAGGAGCTTCCGGAAGAGACCAGGAGCACAGAAAATGGTTCTGCCCCCTCC
ACAGCTCCCACAGACCAGAGCCGGCCACCGTTGGAGCACGTGGACCAGCACCTGTTCACGCTGCCGCAGGGCTAC
GGACAGTTTGCTTTCGGCATCTTCGATGACAGCTTCGAGATCCCCACGTTCCCTCCTGGGGCGCAGGCTGACGAC
GGCAGGGACCCTGAGAGCCGGCGGGAGAGAGACCATCCGTCCCGGCACCGGTACGGCGCCCGACAGCCCCGCGCC
CGCCTCACCACGCGGCGGGCCACCGGCCGGCACGAAGGCGTCCCCACGCTGGAAGGGATCATCCAGCAGCTCGTC
AACGGCATCATCACGCCCGCCACCATCCCCAGCCTGGGCCCCTGGGGAGTCCTGCACTCAAACCCTATGGACTAC
GCCTGGGGGGCCAACGGCCTGGATGCCATCATCACACAGCTCCTCAATCAGTTTGAAAACACAGGCCCCCCACCG
GCAGATAAAGAGAAAATCCAGGCCCTCCCCACCGTCCCCGTCACTGAGGAGCACGTAGGCTCCGGGCTCGAGTGC
CCTGTGTGCAAGGACGACTACGCGCTGGGTGAGCGTGTGCGGCAGCTGCCCTGCAACCACCTGTTCCACGACGGC
TGCATCGTGCCCTGGCTGGAGCAGCACGACAGCTGCCCCGTCTGCCGAAAAAGCCTCACGGGACAGAACACGGCC
ACGAACCCCCCTGGCCTCACTGGGGTGAGCTTCTCCTCCTCGTCGTCATCGTCCTCCTCCAGCTCGCCCAGCAAC
GAGAACGCCACAAGCAACTCG**TGA**GCCCACGTCGGCCGTCGGGAAAGCACGGGGCCTTTCCCACCCACCCTCAGC
CAGCGCCACACGGCACCCACAGACTGGGTGCCCCGGCGGCGCCACGCTTGGCTGGTCAGCGCTGCAGGTCCCGCC
TGTTCCAGGGCAGGACCCGGGCCCGGCCCACCGGCCCCCTGGCTTGGGAAGGCGTGGGCCACATGGTCCCCTCTG
GGGCGTCCCCAGCCTCCCCGTCCTCTGTCTAACCTCACCCTCTAAACGTTCAGCGGTGGAAAGATTTTTATAATT
TTAAATTATTACTGCTTTGAAATAAACGGACGTTTGAGCTCACGTGGCGGCCATGCATGGTTTGTGGCGGAAGAC
GGGGCCCAGCGGCTCCCCCAGCGCTGAAGCACGGGGTTCAGCGGCTCCCCCAGTGCTGCAGGTGCCGCCAGGACG
GGCCACGTGGGCCCCCAGCCTCCCCCTCGGCCGCCTCCACGACCCGGAGTAGGGGGGCTCGGGACCATGAGGATG
ACCAGCAAAATTCAAGAACAAAACTGCTCCAACAGACTTTTTTAAAGGAAAAAATATGTGTATCTTGAAAGCTAT
TTAAAATACACTACTTACAAAGAG

FIGURE 236

GTTCGCC**ATG**CGTCCCGGGGCGCCAGGGCCACTCTGGCCTCTGCCCTGGGGGGCCCTGGCTTGGGCCGTGGGCTT
CGTGAGCTCCATGGGCTCGGGGAACCCCGCGCCCGGTGGTGTTTGCTGGCTCCAGCAGGGCCAGGAGGCCACCTG
CAGCCTGGTGCTCCAGACTGATGTCACCCGGGCCGAGTGCTGTGCCTCCGGCAACATTGACACCGCCTGGTCCAA
CCTCACCCACCCGGGGAACAAGATCAACCTCCTCGGCTTCTTGGGCCTTGTCCACTGCCTTCCCTGCAAAGATTC
GTGCGACGGCGTGGAGTGCGGCCCGGGCAAGGCGTGCCGCATGCTGGGGGGCCGCCCGCGCTGCGAGTGCGCGCC
CGACTGCTCGGGGCTCCCGGCGCGGCTGCAGGTCTGCGGCTCAGACGGCGCCACCTACCGCGACGAGTGCGAGCT
GCGCGCCGCGCGCTGCCGCGGCCACCCGGACCTGAGCGTCATGTACCGGGGCCGCTGCCGCAAGTCCTGTGAGCA
CGTGGTGTGCCCGCGGCCACAGTCGTGCGTCGTGGACCAGACGGGCAGCGCCCACTGCGTGGTGTGTCGAGCGGC
GCCCTGCCCTGTGCCCTCCAGCCCCGGCCAGGAGCTTTGCGGCAACAACAACGTCACCTACATCTCCTCGTGCCA
CATGCGCCAGGCCACCTGCTTCCTGGGCCGCTCCATCGGCGTGCGCCACGCGGGCAGCTGCGCAGGCACCCCTGA
GGAGCCGCCAGGTGGTGAGTCTGCAGAAGAGGAAGAGAACTTCGTG**TGA**GCCTGCAGGACAGGCCTGGGCCTGGT
GCCCGAGGCCCCCCATCATCCCCTGTTATTTATTGCCACAGCAGAGTCTAATTTATATGCCACGGACACTCCTTA
GAGCCCGGATTCGGACCACTTGGGGATCCCAGAACCTCCCTGACGATATCCTGGAAGGACTGAGGAAGGGAGGCC
TGGGGGCCGGCTGGTGGGTGGGATAGACCTGCGTTCCGGACACTGAGCGCCTGATTTAGGGCCCTTCTCTAGGAT
GCCCCAGCCCCTACCCTAAGACCTATTGCCGGGGAGGATTCCACACTTCCGCTCCTTTGGGGATAAACCTATTAA
TTATTGCTACTATCAAGAGGGCTGGGCATTCTCTGCTGGTAATTCCTGAAGAGGCATGACTGCTTTTCTCAGCCC
CAAGCCTCTAGTCTGGGTGTGTACGGAGGGTCTAGCCTGGGTGTGTACGGAGGGTCTAGCCTGGGTGAGTACGGA
GGGTCTAGCCTGGGTGAGTACGGAGGGTCTAGCCTGGGTGAGTACGGAGGGTCTAGCCTGGGTGTGTATGGAGGA
TCTAGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGTGTATGGAGGGTCT
AGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGTGTATGGAGGGTCTAGCCTGGGTGAGTATGGAGGGTCTAGC
CTGGGTGTGTACGGAGGGTCTAGTCTGAGTGCGTGTGGGGACCTCAGAACACTGTGACCTTAGCCCAGCAAGCCA
GGCCCTTCATGAAGGCCAAGAAGGCTGCCACCATTCCCTGCCAGCCCAAGAACTCCAGCTTCCCCACTGCCTCTG
TGTGCCCCTTTGCGTCCTGTGAAGGCCATTGAGAAATGCCCAGTGTGCCCCCTGGGAAAGGGCACGGCCTGTGCT
CCTGACACGGGCTGTGCTTGGCCACAGAACCACCCAGCGTCTCCCCTGCTGCTGTCCACGTCAGTTCATGAGGCA
ACGTCGCGTGGTCTCAGACGTGGAGCAGCCAGCGGCAGCTCAGAGCAGGGCACTGTGTCCGGCGGAGCCAAGTCC
ACTCTGGGGGAGCTCTGGCGGGGACCACGGGCCACTGCTCACCCACTGGCCCCGAGGGGGGTGTAGACGCCAAGA
CTCACGCATGTGTGACATCCGGAGTCCTGGAGCCGGGTGTCCCAGTGGCACCACTAGGTGCCTGCTGCCTCCACA
GTGGGGTTCACACCCAGGGCTCCTTGGTCCCCCACAACCTGCCCCGGCCAGGCCTGCAGACCCAGACTCCAGCCA
GACCTGCCTCACCCACCAATGCAGCCGGGGCTGGCGACACCAGCCAGGTGCTGGTCTTGGGCCAGTTCTCCCACG
ACGGCTCACCCTCCCCTCCATCTGCGTTGATGCTCAGAATCGCCTACCTGTGCCTGCGTGTAAACCACAGCCTCA
GACCAGCTATGGGGAGAGGACAACACGGAGGATATCCAGCTTCCCCGGTCTGGGGTGAGGAATGTGGGGAGCTTG
GGCATCCTCCTCCAGCCTCCTCCAGCCCCCAGGCAGTGCCTTACCTGTGGTGCCCAGAAAAGTGCCCCTAGGTTG
GTGGGTCTACAGGAGCCTCAGCCAGGCAGCCCACCCCACCCTGGGGCCCTGCCTCACCAAGGAAATAAAGACTCA
A

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FIGURE 237

CCCCCGCGCCGCGCAGCCCCGGCCGCCAGGCCTTAGCCCGCCCCGGCCCCCGCCAGGCCGCGTCCCCCTCCCCTC
CCCTCCCCCGCGCGCCACCCGCGCCCGCCCCCGCCCGGCACCGCGGACCCACCCGGACCTCGGCGGGGAG**ATG**GA
GGTCCTGGCGGCAGAGACCACGTCCCAGCAGGAGCGGCTGCAGGCCATCGCAGAGAAGCGGAAGCGGCAGGCGGA
GATCGAGAACAAGCGCCGGCAGCTGGAGGACGAGCGGAGGCAGCTGCAGCACCTGAAGTCCAAGGCACTGCGGGA
GCGCTGGCTGCTGGAGGGGACGCCGTCCTCGGCCTCAGAGGGGGATGAGGACCTGAGGAGGCAGATGCAGGACGA
CGAGCAGAAGACACGGCTGCTGGAGGACTCGGTGTCCAGGTTGGAGAAGGAAATTGAGGTGCTGGAGCGTGGAGA
CTCCGCCCCAGCCACTGCCAAGGAGAACGCGGCGGCCCCGAGCCCAGTCCGGGCCCCAGCCCCGAGTCCAGCCAA
GGAGGAGCGCAAGACAGAGGTGGTGATGAATTCACAGCAGACGCCGGTGGGCACGCCCAAAGACAAGCGAGTCTC
CAACACGCCCCTGAGGACGGTTGACGGCTCCCCCATGATGAAGGCAGCCATGTACTCGGTTGAGATCACTGTGGA
GAAGGACAAGGTGACAGGGGAGACCAGGGTGCTGTCCAGCACCACGCTGCTCCCTCGGCAGCCGCTCCCTCTGGG
CATCAAAGTCTACGAGGACGAGACCAAAGTGGTCCATGCTGTGGACGGCACCGCCGAGAACGGGATCCACCCCCT
GAGCTCCTCCGAGGTGGACGAACTCATCCACAAAGCGGACGAGGTCACGCTGAGCGAGGCAGGGTCCACGGCCGG
GGCGGCAGAGACCCGGGGGGCTGTGGAGGGGGCAGCCCGGACCACGCCCTCCCGGCGGGAGATCACCGGTGTGCA
GGCACAGCCAGGCGAGGCCACGTCCGGCCCGCCGGGGATCCAGCCCGGCCAGGAGCCCCCGGTCACAATGATCTT
CATGGGTTACCAGAACGTGGAGGATGAGGCCGAGACCAAGAAGGTGCTGGGCCTTCAAGATACCATCACGGCGGA
GCTGGTGGTCATCGAAGACGCGGCTGAGCCCAAGGAGCCTGCACCACCCAACGGCAGTGCTGCCGAGCCTCCCAC
GGAGGCCGCCTCCAGGGAAGAGAATCAGGCGGGGCCCGAGGCCACCACCAGCGACCCCCAGGACCTCGACATGAA
GAAGCACCGTTGTAAATGCTGCTCCATCATG**TGA**GCCGGCCCCCGAGACCCCGGCCCCCACCCCACACCACAGAC
ACCCACCAGCCCGGCCCCTCCCGGCGCCTGCCCACCCTCCACCCACAGCCTCACGGGTCCAGGACTTGGCGTGTT
GTTACATGTTCCTTCCGAGTTTTCTTTCGCTGGAAAGAGGGACAGGGGCCCCCACCCGTCACCACGCCCCAACAC
TCCCCCCGAACCAGAGCCGTGCACTTGTGCCTGGTAGGAGAGAGACAGGACAGACCCGCTTTTCCCGAGACAAGG
ACCCCCCATGTCACGGCAGCTTCACAGACGCGGCTCGCGCCCACCGGGGTCCTGGCGGGTGGGACCCGCAGCCTC
CACGCGGCCCAGGCCAGCCTGCCACCCTCTGGGCCTCCTACCTGTGCCTTTCTCTGAGGGGACACCCCGCCAGAG
AGGGCCCCGGGAGCCGGGGGTGGGTACTGAGGCCTGCTCAGGCCCTGGAAGTGAGGCTCTATGGGGTTCCCTGGC
CAAGGCGCTGGCCCCCCAATCTCAGGCAGTTGGGGTGAGGCCGTGCCTCTTTGGGGGCTAAAGGTCTTGGGTGGA
GGACAGGCCCCTCTGCTGTGCCCCTATGCCCTGTGTGGGCCCAACCAGTGGACAATGGAGTCTGGGGGAGGGGGA
ACCCCGGGGACATGCCCCCACCCGGGAGGGGCCGGTAACCCCTGGGCTATCTTCTAGACGGGGCGAACCAGGGGT
CATTGACCTGCCCCCTGCACAGGGCAGGGACCGAGTGAGCCACTCCTTGTCCCGAGCTCCCGCCCCCACTGGGCC
CTCCTTCCTCCTGGTGCTAATTTGGGGACCCCAGGGGCCGCCCCCGGCCTCTTCTCCATCCTGCTTGGACCAGGG
TCCTGGGTCTTCCCAACCATACCCCGAGATCAGGCCCCACCTGCCAGCTCTACTGGGCTTGGAGCACGTCCGGGC
AGTGGAGGGAGGGACACAGCCTGGGACAGGAAGCCTCTTGGGTTGGAGCAGGAGACCCTCATTTGCCACCCAGAC
CAATGTGAGCCTGCCCCCAGCCCCCTCTCATTGGAAGTGGCAAGGGGCTTCCCTCCTGGGGGCAGCTACACTCGT
CCCCAGAGGCACATTCGTGCACATTCTCACAGACACCGTCTCACACGTTGGCTTTGGACAACCAGGCCCCAACTT
GGTCCCTGCCCTAGGGACCTCCAGCCTGGTGCCCAGTGCTCAGGCCACCTCCTGGTCCAGTCACCACCTGCAGCC
TCGGCAGGGCAGGTACAGGGGCCACCTCAGATGGGAGCCTGGGTCCCTGCCTCCGCTCTGCCCCTGGGTGGCTGG
GAGGAGAGGCCCTCTCGGGGGTGACCTGGGCGTCAGCCGTGGAACCCCCTCCTCCTCCCTGGAGTCTGCCTGAGT
CCCTCGAGCCGCGAGCCTTCGCTGAAGTGCCCTTGCTATAACCCCCTCTGCTTCTGGTGTGTGACGAGGCCCCCG
ATGTTCTTGATTTTCCCAGAGAAGCAAATAAACAGCGTGAACAGCCCC

FIGURE 238

ATGCCCAGCTCTTCACCCACCGCCCCACGTGCCCACCATGCCAGGCTTCGGTCCCCGCCATGCCCAGCTCTTCAC
GCACCGCCCCACGGAATGCTGCTCACAGGACCCCTATACGGGTTTGCAGGAGGTCAAGGCTCTGTGACCGTGATG
GCCCGTCCGGGGGCAGAGACCTCATGATGCGGGTGGCACAGAGCAGCTGCGTGTTGGCGACAAACAGCCCACAATT
CTCAAATGGCGGATCCTATCGGCCACCAACGATCTGGACCGTGTGTCGGCCGTGGCGCTGCCCAAGCTGCCCATC
TCGCTCACCAACACCGACCTCAAGGTGGCCAGCGACACACAGTTCTACCCTGGCCTCGGGCTGGCCCTGGCCTTC
CACGACGGCAGCGTCCACATCGTGCACCGGCTCTCACTGCAGACCATGGCCGTCTTCTACAGCTCCGCGGCCCCG
AGGCCTGTGGATGAGCCGGCCATGAAGCGCCCCCGCACCGCGGGCCCCGCCGTCCACTTAAAGGCTATGCAGCTA
TCGTGGACGTCACTGGCCCTGGTGGGGATTGACAGCCACGGGAAGCCAGGGGAAGGCGAGCTGCTGGGGCACGTG
GGGCTGGGGCTGGTGGGCATTGACAACCAGGGGAAGGCGAGCTGCTGGGCATTGACAACCAGGGGAAGGCGAGCT
GCTGGGGCACGTGGGGCTGGGGCTGGGGAAGGCGAGCTGCTGGGCATTGACAACCAGGGGAAGGCGAGCTGCTGG
GGCATGGCCCTGGTGGGCATTGACAACCAGGGAAAGCTGAGCGTGCTCCGCCTCTCACCTTCCATGGGCCACCCG
CTGGAGGTGGGGCTGGCGCTGCGGCACCTGCTCTTCCTGCTGGAGTACTGCATGGTGACCGGCTACGACTGGTGG
GACATCCTGCTGCACGTGCAGCCCAGAAGGAACTGCTGGACCAGCAGAATGAGGGGCCAACGCCAGGGGCAGCAC
TGCCCGGCCACAGAGGACTGTGGCCCCACAGATGACACCCTCAGCTACCAGCTCCTGCATCTGGAAGATGACCAG
GAGGAGGAAGGACGGTCTGCAAGTGTTCAAAGCCCATCAAAACCAGAGCAAACTGGTACCTGTGATACAGCCTCC
ACTCCAGCCCCAGGGCCCAGCCCCAGGCCACCCGAGCCGGCTGCCGCTGACCCTGTGGTCGGGCTGATCAAATTC
TGCCTCCTCAGCGAGGCCTTCCTGACCCTCCCGGGCCCTTCCTGCCTTTCTCTCTGGCTGCGGCTGTTTCCTGCG
GGGCTGGCTGCAGCTCCCGGCGGCGCCCTGTCCTGTACCTGTTTCATGTCCATCGTCGGCAACCCCTGGCTTCTA
ACACAGCTCATTGCCCGCAGGACCTCCCAGCAGGAGCAGGGACCCAGCTCAGAGTATCATTTTCAAAATGGTAAC
CAGCAAACCAACGTGATTCTCGCACAAAGGCAAGTCGGGATTCGCTGTTCCGGGGCGAACAAAGAACGGTCGGGG
GTGACCCCGGATCATGGCGCGCCCGCAGTATCTGTGGCCACTGTGGAAACAGCCCTGGCGTGTCCGGGACGCGAC
GCGGCCTTTCCCTCCCCGCGCGATCACCCAGATGTGAGCGCTCAGTTTGAATCGGACTTTTTGGCCATGTGCCCA
CAACCAACATGGAGCCCTGAGGGTTTCCTGCCCGACTCCAAGATGGCGATGCGACTCCCTTTGCCCTCACGGCCC
AGGCGGGCGGGTCCTGCCCACTTGCAAGATGGCGGCAGCCTGGGCAAAGCACGCTTCCCGCCGCCTGACTCGCCA
CGTACCCACTCTCAAGATGGCGTCTCCCGCAAAGCCACGCGCCAGCTGACTGGCTCAGACGCCGTCACG**TGA**

FIGURE 239

TTGTGAGTCTATAACTCGGAGCCGTTGGGTCGGTTCCTGCTATTCCGGCGCCTCCACTCCGTCCCCCGCGGGTCT
GCTCTGTGTGCC**ATG**GACGGCATTGTCCCAGATATAGCCGTTGGTACAAAGCGGGGATCTGACGAGCTTTTCTCT
ACTTGTGTCACTAACGGACCGTTTATCATGAGCAGCAACTCGGCTTCTGCAGCAAACGGAAATGACAGCAAGAAG
TTCAAAGGTGACAGCCGAAGTGCAGGCGTCCCCTCTAGAGTGATCCACATCCGGAAGCTCCCCATCGACGTCACG
GAGGGGGAAGTCATCTCCCTGGGGCTGCCCTTTGGGAAGGTCACCAACCTCCTGATGCTGAAGGGGAAAAACCAG
GCCTTCATCGAGATGAACACGGAGGAGGCTGCCAACACCATGGTGAACTACTACACCTCGGTGACCCCTGTGCTG
CGCGGCCAGCCCATCTACATCCAGTTCTCCAACCACAAGGAGCTGAAGACCGACAGCTCTCCCAACCAGGCGCGG
GCCCAGGCGGCCCTGCAGGCGGTGAACTCGGTCCAGTCGGGGAACCTGGCCTTGGCTGCCTCGGCGGCGGCCGTG
GACGCAGGGATGGCGATGGCCGGGCAGAGCCCCGTGCTCAGGATCATCGTGGAGAACCTCTTCTACCCTGTGACC
CTGGATGTGCTGCACCAGATTTTCTCCAAGTTCGGCACAGTGTTGAAGATCATCACCTTCACCAAGAACAACCAG
TTCCAGGCCCTGCTGCAGTATGCGGACCCCGTGAGCGCCCAGCACGCCAAGCTGTCGCTGGACGGGCAGAACATC
TACAACGCCTGCTGCACGCTGCGCATCGACTTTTCCAAGCTCACCAGCCTCAACGTCAAGTACAACAATGACAAG
AGCCGTGACTACACACGCCCAGACCTGCCTTCCGGGGACAGCCAGCCCTCGCTGGACCAGACCATGGCCGCGGCC
TTCGGTGCACCTGGTATAATCTCAGCCTCTCCGTATGCAGGAGCTGGTTTCCCTCCCACCTTTGCCATTCCTCAA
GCTGCAGGCCTTTCCGTTCCGAACGTCCACGGCGCCCTGGCCCCCCTGGCCATCCCCTCGGCGGCGGCGGCAGCT
GCGGCGGCAGGTCGGATCGCCATCCCGGGCCTGGCGGGGGCAGGAAATTCTGTATTGCTGGTCAGCAACCTCAAC
CCAGAGAGAGTCACACCCCAAAGCCTCTTTATTCTTTTCGGCGTCTACGGTGACGTGCAGCGCGTGAAGATCCTG
TTCAATAAGAAGGAGAACGCCCTAGTGCAGATGGCGGACGGCAACCAGGCCCAGCTGGCCATGAGCCACCTGAAC
GGGCACAAGCTGCACGGGAAGCCCATCCGCATCACGCTCTCGAAGCACCAGAACGTGCAGCTGCCCCCCGAGGGC
CAGGAGGACCAGGGCCTGACCAAGGACTACGGCAACTCACCCCTGCACCGCTTCAAGAAGCCGGGCTCCAAGAAC
TTCCAGAACATATTCCCGCCCTCGGCCACGCTGCACCTCTCCAACATCCCGCCCTCAGTCTCCGAGGAGGATCTC
AAGGTCCTGTTTTCCAGCAATGGGGGCGTCGTCAAAGGATTCAAGTTCTTCCAGAAGGACCGCAAGATGGCACTG
ATCCAGATGGGCTCCGTGGAGGAGGCGGTCCAGGCCCTCATTGACCTGCACAACCACGACCTCGGGGAGAACCAC
CACCTGCGGGTCTCCTTCTCCAAGTCCACCATC**TAG**GGGCACAGGCCCCCACGGCCGGGCCCCCTGGCGACAACT
TCCATCATTCCAGAGAAAAGCCACTTTAAAAACAGCTGAAGTGACCTTAGCAGACCAGAGATTTTATTTTTTTAA
AGAGAAATCAGTTTACCTGTTTTTAAAAAAATTAAATCTAGTTCACCTTGCTCACCCTGCGGTGACAGGGACAGC
TCAGGCTCTTGGTGACTGTGGCAGCGGGAGTTCCCGGCCCTCCACACCCGGGGCCAGACCCTCGGGGCCATGCCT
TGGTGGGGCCTGTGTCGGGCGTGGGGCCTGCAGGTGGGCGCCCCGACCACGACTTGGCTTCCTTGTGCCTTAAAA
AACCTGCCTTCCTGCAGCCACACACCCACCCGGGGTGTCCTGGGGACCCAAGGGGTGGGGGGGTCACACCAGAGA
GAGGCAGGGGGCCTGGCCGGCTCCTGCAGGATCATGCAGCTGGGGCGCGGCGGCCGCGGCTGCGACACCCCAACC
CCAGCCCTCTAATCAAGTCACGTGATTCTCCCTTCACCCCGCCCCCAGGGCCTTCCCTTCTGCCCCCAGGCGGGC
TCCCCGCTGCTCCAGCTGCGGAGCTGGTCGACATAATCTCTGTATTATATACTTTGCAGTTGCAGACGTCTGTGC
CTAGCAATATTTCCAGTTGACCAAATATTCTAATCTTTTTTCATTTATATGCAAAAGAAATAGTTTTAAGTAACT
TTTTATAGCAAGATGATACAATGGTATGAGTGTAATCTAAACTTCCTTGTGGTATTACCTTGTATGCTGTTACTT
TTATTTTATTCCTTGTAATTAAGTCACAGGCAGGACCCAGTTTCCAGAGAGCAGGCGGGGCCGCCCAGTGGGTCA
GGCACAGGGAGCCCCGGTCCTATCTTAGAGCCCCTGAGCTTCAGGGAAGGGGCGGGCGTGTCGCCGCCTCTGGCA
TCGCCTCCGGTTGCCTTACACCACGCCTTCACCTGCAGTCGCCTAGAAAACTTGCTCTCAAACTTCAGGGTTTTT
TCTTCCTTCAAATTTTGGACCAAAGTCTCATTTCTGTGTTTTGCCTGCCTCTGATGCTGGGACCCGGAAGGCGGG
CGCTCCTCCTGTCTTCTCTGTGCTCTTTCTACCGCCCCCGCGTCCTGTCCCGGGGGCTCTCCTAGGATCCCCTTT
CCGTAAAAGCGTGTAACAAGGGTGTAAATATTTATAATTTTTTATACCTGTTGTGAGACCCGAGGGGCGGCGGCG
CGGTTTTTTATGGTGACACAAATGTATATTTTGCTAACAGCAATTCCAGGCTCAGTATTGTGACCGCGGAGCCAC
AGGGGACCCCACGCACATTCCGTTGCCTTACCCGATGGCTTGTGACGCGGAGAGAACCGATTAAAACCGTTTGAG
AAACTCCTCCCTTGTCTAGCCCTGTGTTCGCTGTGGACGCTGTAGAGGCAGGTTGGCCAGTCTGTACCTGGACTT
CGAATAAATCTTCTGTATCCTCGCTCCGTTCCGCCTT

FIGURE 240

GAGGAGACGCGCTTTGTGCTGGGCGCCGGCCGCGCCAGCCACGGCCTGCGGCGCCCGCGGCACC**ATG**ATCTCCAC
CAAGGAGAAGAACAAGATCCCGAAGGACAGCATGACGCTTCTGCCCTGCTTCTACTTCGTGGAGCTGCCCATAGT
GGCTTCTTCCATCGTATCCTTGTACTTCCTGGAGCTGACCGACCTCTTCAAGCCGGCCAAGGTGGGCTTCCAGTG
CTATGACCGCACTCTCTCCATGCCCTACGTGGAGACCAACGAGGAGCTCATCCCGCTGCTGATGCTGCTCAGCTT
GGCCTTCGCGGCCCCTGCCGCCTCGATCATGGTGGCCGAGGGCATGTTGTACTGTCTGCAGTCCCGGCTGTGGGG
CCGTGCCGGGGGGCCCGCCGGGGCGGAGGGCAGCATCAACGCCGGCGGCTGCAACTTCAACTCCTTCCTGCGGCG
TACGGTGCGGTTTGTGGGTGTCCACGTGTTCGGCCTGTGTGCCACAGCCCTGGTGACGGACGTGATCCAGCTGGC
CACGGGTTACCACACTCCCTTCTTCCTCACCGTCTGCAAGCCCAACTACACTCTCCTGGGCACGTCCTGCGAGGT
CAACCCCTACATCACGCAGGACATCTGCTCCGGCCACGACATCCACGCCATCCTGTCTGCACGGAAGACCTTCCC
GTCCCAGCACGCCACGCTGTCAGCCTTCGCCGCGGTCTATGTGTCGGTGAGTCCGGCCCCTCACTGCCCTTCCCA
GGCCCTCTTGCTGACCCGTGGGGAGCCCTCCCTGACCCCAACCCCCATGCCCCAGATGTACTTCAACTCGGTCAT
CTCGGACACCACCAAGCTGCTGAAGCCCATCCTGGTCTTCGCCTTTGCCATCGCCGCGGGCGTATGCGGGCTCAC
GCAGATCACGCAGTACCGCAGCCACCCTGTGGACGTGTATGCCGGCTTCCTCATCGGGGCGGGCATCGCTGCCTA
CCTGGCCTGCCACGCGGTGGGCAACTTCCAGGCCCCACCTGCAGAGAAGCCCGCGGCCCCGGCCCCCGCCAAGGA
CGCGCTGCGGGCCCTGACGCAGCGGGGCCACGACTCGGTTTATCAGCAGAATAAGTCGGTGAGCACCGACGAGCT
GGGGCCCCCAGGGCGGCTGGAGGGCGCGCCCCGGCCCGTGGCCCGCGAGAAGACCTCGCTGGGCAGCCTGAAGCG
CGCCAGCGTGGACGTGGACCTGCTGGCCCCGCGCAGCCCCATGGCCAAGGAGAACATGGTGACCTTCAGCCACAC
GCTGCCCAGGGCCAGCGCGCCCTCGCTGGACGACCCCGCGCGCCGCCACATGACCATCCACGTGCCGCTGGACGC
CTCGCGCTCCAAGCAGCTCATCAGCGAGTGGAAGCAGAAGAGCCTGGAGGGCCGCGGCCTGGGGCTGCCCGACGA
CGCCAGCCCCGGGCACCTGCGCGCGCCCGCCGAACCCATGGCGGAGGAGGAGGAAGAGGAGGAGGACGAAGAGGA
AGAGGAGGAGGAGGAAGAGGAGGAGGACGAGGGCCCGGCCCCGCCCTCGCTCTACCCCACCGTGCAGGCGCGGCC
GGGGCTGGGGCCTCGGGTCATCCTCCCACCGCGCGCGGGGCCGCCGCCGCTGGTGCACATCCCGGAGGAGGGCGC
GCAGACGGGGGCCGGCCTGTCCCCCAAAAGCGGCGCCGGGGTGCGCGCCAAGTGGCTCATGATGGCCGAGAAGAG
CGGGGCGGCAGTGGCCAACCCTCCGCGGCTGCTGCAGGTCATCGCCATGTCCAAGGCTCCGGGCGCGCCGGGCCC
CAAGGCGGCCGAGACGGCGTCGTCGTCCAGCGCCAGCTCCGACTCCTCGCAGTACCGGTCGCCGTCGGACCGCGA
CTCCGCCAGCATCGTGACCATCGACGCGCACGCGCCGCACCACCCCGTGGTGCACCTGTCGGCCGGCGGCGCGCC
CTGGGAGTGGAAGGCGGCGGGCGGCGGGGCCAAGGCGGAGGCCGACGGCGGCTACGAGCTGGGGGACCTGGCGCG
CGGCTTCCGCGGCGGGGCCAAGCCCCCGGGCGTGTCCCCCGGCTCGTCGGTCAGCGACGTGGACCAGGAGGAGCC
GCGGTTCGGGGCCGTGGCCACCGTCAACCTGGCCACGGGCGAGGGGCTGCCCCCGCTGGGCGCGGCCGATGGGGC
GCTGGGCCCGGGCAGCCGGGAGTCCACGCTGCGGCGCCACGCGGGCGGCCTGGGGCTGGCGGAGCGCGAGGCGGA
GGCGGAGGCCGAGGGCTACTTCCGCAAGATGCAGGCGCGCCGCTTCCCCGAC**TAG**CGCGGCGGGGCCGGGGGCGG
GCGGGGGGCGGGCCGAGGGCGCGGGCGGCCGC

FIGURE 241

GCCCAGCTAATTTTTTATTTATTTGTAGAGATGGAGTCGCGCTACGTGGCCCATGCTGATCTCGAACTCCTGAGA
TCCAATGATCCTCCCACCTCGGCCTCCCCTTCTGCATATAGTAGGTGCTCAATAAAGACCAACCAGATGCAGGAG
TGGATGACTTCATTGCTCGGGACTTTGTTGCTTGGGTGACCCTGACCTTCAGGCCCCGGCACCCTAGGCCAGGAC
GCTGTCGATCCAGGCCGCATAGCTCGCCACGCGGGTGTAGATCCCGGGCTTCTTGCGGTTGCCGCAAACGCGCGA
GCCCGAGGTGACCACGCCCTCGAGCACGCCCCCGCACACCAGCGGGCCCCCGGAGTCACCCTTGCAGCTGTCCCG
GCGATTGCTCTCCGCGCACATCAAGCGCTCGGTG**ATG**GCGCCGTCGTGGTGCGTGCGCCGGTTGCAGGTGGCGCG
GTCCAGCACTGGCAAGAGCACGTGCTGCAGGCTGTCCGGGCGGCGGCCCGCGTGGTTGACTATGCCCCAGCCGGC
CACGTCGCAGAGAGTTCCCGGTGCCACGTCGCGGTCCACGCGCTGCCAGGGCAGGGGGCGCACAGCAGGGCCCAG
TGTGGCCTTCTCCGACAGCTGTAGCAGCAGGAGGTCGTGGTCGATGGTGTCGGGCTGGCTGTCCGGGTGGGGCAC
TGCGCGGAGCACGTCGTACAGGCGCTTGGAGGGCTCCGGCTGCGACAGGGAGTGCGCGCCCAGGAGAACCTGCAC
CTTCCCGTCGGCCGCGTCCTCCAGGCAGTGCGCCGCGCTCAGCACCCACTGCTCCGCCACCAGGACGCCGCCGCA
CAGGTGCGCGCCGTTCAGCTGCACCGACGCCATG**TAG**GGCCGCGCGTGCGCCTCGGCCTCTCTGCCGCCCAGGAT
CCGACCACGGGGCGGCGCCGC

FIGURE 242

ATGTGTGATTTGCGGCGGCCAGCGGCAGGTGGGATGATGGACTTGGCCTACGTCTGTGAGTGGGAGAAATGGTCC
AAGAGCACCCACTGCCCATCGGTGCCCCTGGCCTGCGCCTGGTCCTGCCGAAATCTCATCGCCTTCACCATGGAC
CTGCGCAGCGATGACCAGGACCTGACCCGCATGATCCACATCCTGGACACGGAGCACCCCTGGGACCTGCACTCG
ATCCCCTCAGAGCACCACGAGGCTATCACCTGCCTGGAGTGGGACCAGTCAGGCTCCCGGCTCCTGTCAGCAGAT
GCCGACGGGCAGATCAAGTGCTGGAGCATGGCGGACCACCTGGCTAATAGCTGGGAGAGCTCAGTGGGCAGCCTA
GTGGAGGGGGACCCCATTGTGGCCCTGTCCTGGCTGCACAATGGTGTGAAACTGGCCCTGCACGTGGAGAAGTCG
GGCGCCTCCAGCTTCGGGGAGAAGTTCTCCCGAGTCAAGTTCTCACCGTCGCTCACGCTGTTCGGCGGCAAGCCC
ATGGAGGGCTGGATCGCGGTGACGGTCAGCGGCCTGGTCACCGTGTCCCTGCTGAAGCCCAGCGGGCAGGTGCTG
ACGTCCACCGAGAGCCTGTGCCGGCTGCGCGGCCGCGTGGCCCTGGCGACATCGCCTTCACCGGCGGCGGCAACA
TCGTGGTGGCCACGGCGGACGGCAGCAGCGCGTCGCCCGTGCAGTTCTACAAGGTGTGCGTGAGCGTGGTGAGCG
AGAAGTGCCGTATCGACACGGAGATCCTGCCCTCCCTGTTC**ATG**CGCTGCACCACCGACCTCAACCGCAAGGACA
AGTTCCCCGCCATCACCCACCTCAAGTTCCTGGCCCGGGACATGTCGGAGCAGGTGCTTTTGTGCGCGTCCAGCC
AGACCAGCAGCATCGTGGAGTGCTGGTCCCTGCGCAAGGAGGGACTCCCCGTGAACAACATCTTCCAGCAGATCT
CCCCCGTGGTTGGCGACAAACAGCCCACAATTCTCAAATGGCGGATCCTATCGGCCACCAACGATCTGGACCGTG
TGTCGGCCGTGGCGCTGCCCAAGCTGCCCATCTCGCTCACCAACACCGACCTCAAGCTGAGCGTGCTCCGCCTCT
CACCTTCCATGGGCCACCCGCTGGAGGTGGGGCTGGCGCTGCGGCACCTGCTCTTCCTGCTGGAGTACTGCATGG
TGACCGGCTACGACTGGTGGGACATCCTGCTGCACGTGCAGCCCAGTATGGTACAGAGCCTGGTGGAGAAGCTGC
ACGAGGAGTACACGCGCCAGACCGCTGCCCTGCAGCAGGTCCTCTCCACCCGGATCCTGGCCATGAAGGCCTCGC
TCTGCAAGCTGTCGCCCTGCACGGTGACTCGCGTGTGCGACTACCACACCAAGCTCTTCCTCATCGCCATCAGCT
CCACCCTGAAGTCGCTGCTGCGCCCCCACTTTCTCAACACGCCTGACAAGAGCCCCGGCGACCGGCTGACCGAGA
TCTGCACCAAGATCACCGACGTCGACATTGACAAGGTCATGATCAACCTCAAGACGGAGGAATTTGTGCTGGACA
TGAACACACTGCAGGCGCTGCAGCAGCTCTTGCAGTGGGTGGGCGACTTCGTGCTGTACCTGCTGGCCAGCCTAC
CCAACCAGGGTTCCCTGCTGAGGCCGGGCCACAGCTTTCTGCGGGACGGCACCTCGCTGGGCATGCTTCGGGAAT
TGATGGTGGTCATCCGCATCTGGGGCCTTCTGAAGCCCAGCTGCCTGCCCGTGTATACGGCCACTTCGGATACCC
AGGACAGCATGTCCCTGCTCTTCCGCCTGCTCACCAAGCTCTGGATCTGCTGTCGCGATGAGGGCCCAGCGAGCG
AGCCGGACGAGGCGCTGGTGGATGAATGCTGCCTGCTGCCCAGCCAGCTGCTTATCCCCAGCCTGGACTGGCTGC
CAGCCAGCGACGGCCTGGTCAGCCGCCTGCAGCCCAAGCAGCCCCTTCGTCTGCAGTTTGGCCGGGCGCCCACGC
TGCCTGGCAGTGCTGCCACCCTGCAGCTCGACGGCCTCGCCAGGGCCCCAGGCCAGCCCAAGATCGACCACCTGC
GGAGGCTGCACCTTGGCGCTTGCCCCACGGAGGAATGCAAGGCCTGCACCAGGTGCGGCTGTGTCACCATGCTCA
AGTCGCCCAACAGAACCACGGCGGTGAAGCAGTGGGAGCAGCGCTGGATCAAGAACTGCCTGGCTGTTGAAGGCC
GTGGGCCGGACGCCTGCGTGACCAGCAGAGCTTCTGAGGAAGCCCCTGCCTTTGTCCAGCTGGGCCCGCAGTCCA
CACACCACTCTCCCAGGACCCCCAGATCCCTGGACCATCTGCATCCAAAGGACCGTCCG**TGA**

FIGURE 243

GAAGGCCCTGCCGGGCGGCGGCGGCGGCGACAGCGTGCGAGCCATGGTCGCGCTGGAGAACCCCGAGTGCGGCCC
GGAGGCGGCGGAGGGCACCCCGGGCGGGCGGCGGCTGCTGCCCCTTCCCAGCTGCCTGCCTGCCCTAGCCAGCTC
CCAGGTGAAGAGACTCTCGGCTTCCAGGCGGAAACAGCACTTCATCAACCAGGCAGTGCGGAACTCAGACCTCGT
GCCCAAGGCCAAGGGGCGGAAGAGCCTCCAGCGCCTGGAGAACACCCAGTACCTCCTGACCCTGCTGGAGACAGA
CGGGGGCCTGCCTGGCCTGGAGGATGGGGACTTGGCACCCCCTGCATCACCAGGCATCTTTGCCGAGGCCTGCAA
CAACGCCACCTATGTGGAGGTCTGGAACGATTTCATGAACCGCTCCGGGGAGGAGCAGGAGCGGGTTCTTCGCTA
CCTGGAGGATGAGGGCAGGAGCAAGGCGCGGAGGAGGGGCCCTGGCCGTGGGGAGGACCGGAGGAGAGAGGACCC
CGCCTATACACCCCGCGAGTGCTTCCAGCGCATCAGCCGGCGTCTGCGAGCCGTCCTCAAGCGCAGCCGCATCCC
CATGGAAACGCTGGAGACCTGGGAGGAGCGGCTGCTTCGGTTCTTCTCCGTGTCCCCCCAGGCCGTGTACACAGC
AATGCTAGACAACAGCTTCGAGAGGCTTCTGCTGCACGCTGTCTGCCAGTACATGGACCTCATCTCAGCCAGTGC
TGACCTGGAGGGGAAGCGGCAGATGAAGGTCAGTAATCGGCACCTGGATTTCCTGCCGCCGGGGCTGCTCCTGTC
CGCCTACCTGGAGCAGCACAGCTGATGGCGGCCCCGCGGAGACCCCGCTGCCACCTCGCCCAGCCATCAAGCCCT
CCGATACCTTCGGCTAAAATATCTTTCATATTTTTAGAATTTGTCCTCGGAAACCTTTTTCGCTTGGGGTGGTCT
CTCTCACTCTGCCCCCTCCTCACGCAGCTCTTGGCAGTCAACAGACGCTGGCGGCTGGGGCTGCCCATGCCATCC
CAGCTCCAAGCTTCCCACTCCAGGACTTGTGTTTGGGTGGGGAGACCTGACCTGGGCATGTTCCTGTTTCTTCAT
CGTTGAGCTTTTCTGGCCCGGTCTGAAGCTCAAGTGAGGAGGGGGAGGCTGGGTTTTTATCACTTTTAATGAATT
TGGTGTGATTTGTTGTAGATTTTTAAATTTCCCTTTTGGAGAGAAAAACCAAAAAAACTCGCCCCACTGGTAAAA
CATGGGTCTTGGTCCCAGCCCCTGCTCAGCCCCTCCCAGTTTTTAGCTTGA**ATG**AGGGTGGGGTCTCTGGGACCC
TGCCCCTCATGCCAGAAGCATCTTGTGTTGTATATGTGTGCGCGCGTGTGCCCTGAGACCCAGGACAGAAGCCAC
GGTCCTAAGAGCCGGTTTTATCCTCGTCATTCTGCGTGTCCTCCCCCACGCCACCTGTGTCGGGGCTCAGGGTCT
CCTGCTTTATATGAGCCCCCTTCCTTTCCTCCCCTCCTTTATGCTGGGGGTCCAGGACTTCCAGCCAGAAGCCTC
TGCCCTTGCACTACCTTGTCTGTCACCCCATCCCGTGTCCCCTCGTCCCCCAGCCTGACTCCTGCC**TGA**TAGCTC
CTGTGTCCCCATGCTGGTCCTCCTGGCCCAGGCTGCAGGAGCCAGGCTGGGGGGCCTCCGCACCCCCTTGCTGCG
TGTGGGTAATTGTGTTTTGGGGGAAAGTGGGGAATTTAATAAATTTCTGGTGCTC

FIGURE 244

GCATGCCCCATCAGCCTTCAGCTTGAGCCCGGCGGCCCCCGCCCCCGCCCCCTGCCACCCTGCACTGCCCCGGCT
CCCCCGCGGCCCCCACGCTGCAGTGCGGCCGGGCCCCCTCCCCGCAGGGGCCGCCCCCGCCGCCCACCCCTAGCG
CCCGTGGTGGTGGTGGTGGTGGTGGTGGTGGCCCGGGCCGCAGGGCC**ATG**AAACTACAGGCCGTGATGGAGA
CGCTGTTGCAGCGGCAGCAGCGGGCGCGCCAGGAGCTGGAGGCCCGGCAGCAGCTGCCCCCCGATCCCCCTGCTG
CACCCCCCGGCCGGGCCCGGGCTGCCCCCGACGAGGACAGAGAGCCCGAGAGTGCCCGGATGCAGCGGGCTCAGA
TGGCCGCACTGGCAGCCATGCGGGCTGCAGCTGCGGGCCTGGGACACCCAGCCAGCCCCGGCGGCTCTGAGGATG
GGCCCCCAGGCTCGGAGGAGGAGGACGCGGCCCGGGAGGGGACACCGGGCTCACCCGGGCGAGGCAGAGAAGGGC
CAGGAGAGGAGCACTTTGAGGACATGGCCTCCGACGAGGACATGAAGCCCAAATGGGAGGAGGAGGAGATGGAGG
AAGACCTCGGGGAGGATGAGGAGGAGGAGGAGGAGGATTACGAGGATGAGGAGGAGGAGGAGGACGAGGAGGGGC
TGGGCCCCCCAGGCCCTGCCAGCTTGGGCACCACGGCACTGTTCCCCCGAAAGGCCCAGCCACCCCAGGCCTTCC
GCGGCGATGGCGTTCCCAGGGTGCTGGGGGGCCAGGAGCGGCCGGGGCCTGGCCCTGCCCACCCCGGAGGGGCCG
CCCACGTAGCCCCGCAGCTGCAGCCGCCTGACCACGGCGACTGGACTTACGAGGAGCAGTTTAAGCAGCTCTACG
AACTCGACGGGGACCCCAAGAGGAAGGAATTCCTGGATGACTTGTTCAGCTTCATGCAGAAGCGAGGGACACCTG
TGAACCGCATCCCCATCATGGCCAAACAGGTCCTTGACCTGTTCATGCTGTACGTGCTGGTGACGGAGAAGGGCG
GCCTCGTGGAGGTCATCAACAAGAAGCTGTGGCGTGAGATCACCAAGGGCCTCAACCTGCCCACGTCCATCACCA
GTGCAGCCTTCACCCTGCGGACCCAATACATGAAGTACCTGTACCCCTACGAGTGTGAGAAGCGGGGCCTCAGTA
ACCCCAATGAGCTCCAGGCAGCCATAGACAGCAACCGACGGGAGGGCCGGCGCCAGAGCTTTGGTGGCTCCCTCT
TTGCCTACTCGCCAGGCGGGGCACACGGCATGCTCTCCTCACCCAAGCTACCCGTGTCCTCCCTGGGCCTGGCCG
CAAGCACCAATGGCAGCTCCATCACCCCCGCCCCTAAGATCAAGAAAGAGGAGGACTCAGCCATCCCCATCACAG
TCCCTGGCCGCCTGCCTGTGTCCCTGGCGGGCCACCCTGTGGTGGCAGCCCAGGCAGCAGCTGTGCAAGCAGCAG
CCGCCCAAGCAGCTGTGGCCGCACAGGCAGCTGCCCTGGAACAGCTGCGGGAGAAGCTGGAGTCTGCAGAGCCTC
CGGAGAAGAAGATGGCCCTGGTGGCCGATGAGCAGCAACGGCTGATGCAACGTGCACTCCAGCAGAACTTCCTGG
CCATGGCGGCCCAGCTGCCCATGAGCATTCGGATCAACAGCCAAGCCTCCGAAAGCCGCCAGGACTCTGCTGTGA
ACCTGACGGGCACCAACGGCAGCAACAGCATCAGCATGTCGGTGGAGATCAACGGCATCATGTACACAGGAGTTC
TGTTTGCTCAGCCGCCGGCCCCCACGCCAACCTCTGCTCCCAACAAAGGAGGCGGCGGCGGCGGCGGCAGCAGCA
GCAACGCAGGCGGCCGGGGAGGAAACACCGGAACCAGCGGCGGCCAGGCTGGGCCAGCGGGGCTGTCCACACCCT
CCACATCTACCTCAAATAACTCGTTGCCT**TAA**CCGCATCACTCCCCACCCGCCACCCACCCTGGAGCCCGCCGGC
CTGGGCAGGGGGTCCAGGTGGGCCACACAGGGGCCAGGATGGCGGAAGATACGGGTGGGGAGGGAAGATATCCAG
AAAGGAGCCACAGCTGACGCCAAAAAGAAAAGAAAAAAGATATATATATATATATATATATATACACGTATATAT
ATAAAGAGAATTTAATAAAACAGGGGAAAACCAAGGAACACTTGAATTTCTCAGGTTTTGGACATTCAGAGAGAT
GAATTGTGAGAACAGCAAAGAAATCCATCAGAAAAACAGAAAGAGGCAGACGTTTCCCAGGGCGTTCAGGCAGCC
CTGATGGACCGAAGGCTCTGGTGTCTGGTTTGGCCCCACAGCAGTGTGGGCCGATCCTGTTTACCTCATACATCC
CTGCACTGTGTGTTTTCATTTTTGTCTGCTTTAGTTCTCTTTTATTTTCTATTCACCACACACTCACCACTCCCA
GCTTCTCGTGTCCAGTGAAACCCCTGAACCAAGATCACTGAATTTTTGTTTTTTTCTTGTTGCTTTGGGAAATTT
TTTTTTCTCTGTAGGGTTTTTAAGAGGTTTCGGGGGTTTTGTTGTGTAAATATTCTATTTTATTCTTGGGGGGAT
CAAACCTTAGGAAAAGGATATCTATATATCTATATAGCTATATATTTGTGTTCCTTCAGGGAAACTGGTCTTGAA
AAAGCAAGAAAAAAAAGCAAAAAA

FIGURE 245

GGCAAG**ATG**GCGGCGCCCATGGAGGTGGCCGTGTGTACGGACTCGGCGGCCCCGATGTGGAGCTGCATCGTGTGG
GAACTTCACTCGGGCGCCAACCTGCTCACCTACCGCGGCGGCCAGGCGGGACCCCGCGGCCTGGCGCTGCTCAAT
GGCGAGTATCTGCTGGCGGCGCAGCTGGGCAAGAATTACATCAGCGCCTGGGAGCTCCAGCGGAAGGACCAGCTC
CAGCAGAAGATCATGTGCCCCGGGCCTGTCACCTGTCTGACTGCATCACCCAATGGTCTCTACGTCCTGGCAGGA
GTTGCAGAAAGCATCCACCTGTGGGAGGTCTCCACCGGGAACCTTCTGGTCATCCTGAGTCGACACTACCAGGAC
GTCTCCTGCCTTCAGTTCACAGGGGACAGCAGCCACTTCATCTCAGGGGGCAAGGACTGCCTGGTGCTGGTTTGG
AGCCTCTGCAGCGTGCTGCAGGCCGACCCCTCCAGGATTCCGGCGCCCAGGCACGTCTGGTCTCACCACGCGCTC
CCCATCACGGACCTGCACTGCGGCTTTGGGGGCCCCCTGGCCCGGGTGGCCACCTCCTCACTGGACCAGACGGTG
AAGCTATGGGAGGTCTCCTCGGGGGAGCTGCTGCTCTCCGTCCTCTTTGACGTGTCCATCATGGCAGTGACCATG
GACCTGGCTGAGCACCATATGTTCTGCGGGGGCAGTGAGGGCTCCATCTTCCAGGTCGACCTCTTCACCTGGCCC
GGACAGAGGGAGAGGAGCTTCCACCCAGAGCAGGACGCCGGGAAGGTCTTCAAAGGGCACAGGAACCAGGTGACT
TGCCTGTCAGTGTCCACTGACGGCAGCGTGCTGCTCTCAGGCTCCCACGACGAGACCGTGCGCCTCTGGGACGTG
CAGAGCAAGCAGTGCATCCGGACGGTGGCCCTCAAAGGCCCAGTCACCAATGCCGCCATCCTGCTGGCGCCCGTC
AGCATGCTGAGCTCAGACTTCAGGCCCAGCCTGCCGCTGCCCCACTTCAACAAGCACCTGCTGGGCGCCGAGCAC
GGGGACGAGCCGCGCCACGGGGGCCTCACTCTGCGCCTGGGCCTCCACCAGCAGGGCTCGGAGCCCAGCTACCTG
GACCGCACGGAGCAGCTGCAGGCCGTCCTGTGCAGCACCATGGAGAAGAGCGTGCTCGGCGGCCAGGACCAGCTG
CGCGTCCGTGTGACGGAGCTGGAGGACGAGGTGCGCAACCTGCGCAAGATCAATCGGGACCTGTTCGACTTCTCC
ACGCGCTTCATCACGCGGCCGGCCAAG**TGA**GGCCCGGAGACCCCGGCCCGAGGCGCCCAGGCCTGAGCCCCATGC
CTCCCAGCAACCAGGGCCCGCGGGTGTGGCCCCCACCAGCCCAGGCCTGGACTCTCCTCAGTTCTGTGTCGTGTT
CGGGTTTTTCCTCTGTGACTGGGCCGTCTTGGTGTCTCGTGGCACGCGTCACAGTGGTGCTAGTCTGTTTTTAAC
AAAAGAGGATGAAAAGCC

FIGURE 246

GCTCTTGCCCGGCGTGGCGACTCGCTAGCGTCAGCAGCGCCGCAGCCGGACGAGAAAGCGGAAGATGGCGGCGGC
GGCCGGGAGGCCGTGAGGAGAGCGGCGGCTGCGAGGGCGGCCGATGGCGGCCGGGAGGCGCCCTCGGACACTTGC
GGGTCGTTAGGGCGCGACGCTGGGAGGCATGTCGGAGCACGTGGAGCCCGCAGCTCCGGGGCCCGGGCCCAACGG
CGGCGGCGGCGGCCCGGCCCCCGCGCGCGGGCCTCGCACCCCCAATCTCAACCCCAACCCCCTCATCAACGTGCG
CGACCGGCTCTTCCACGCGCTGTTCTTCAAGATGGCTGTCACCTATTCGCGGCTCTTCCCGCCCGCCTTCCGCCG
TCTCTTCGAGTTCTTCGTGCTGCTCAAGGCCCTGTTTGTGCTCTTCGTCCTGGCCTACATCCACATCGTCTTCTC
CCGCTCGCCCATCAACTGCCTGGAGCATGTGCGTGACAAGTGGCCGCGTGAGGGCATCCTGCGTGTGGAAGTGCG
GCACAACTCGAGCCGCGCGCCCGTCTTCCTACAGTTCTGTGACAGCGGCGGCCGCGGGAGCTTCCCGGGCCTGGC
CGTGGAACCAGGCAGCAACCTGGACATGGAAGATGAGGAGGAGGAAGAGCTGACCATGGAGATGTTTGGGAACAG
CTCCATCAAGTTTGAGCTGGACATCGAGCCCAAGGTGTTCAAGCCGCCGAGTAGCACAGAGGCCCTGAATGACAG
CCAGGAGTTCCCCTTCCCCGAGACGCCCACCAAAGTGTGGCCGCAGGACGAGTACATCGTGGAGTACTCACTAGA
GTATGGCTTCCTTCGCCTGTCGCAGGCCACCCGCCAGCGCCTGAGCATCCCCGTCATGGTGGTCACCCTGGGTGA
GTCTGAGCTGCTGGGCTTGGGGAGCTCCATGGCGGGGCCTCCCCTCCTCCCTCGGGTCTCCTCCTGCTGGTGCGG
GACGGGGGGCTGTGCAGGAAGCACTGGGGTCTGCCCCGCCCCAGGCACGCTTCCCAGGGCTGGGGTCCTGG**ATG**G
GTTTCCTAAGAATGGGCAGGGCCAGGAAGCAGGCCAGGCCTCAGCAATGGAGCCAGCTGGGGCAGGGCCCAGGGG
GTGGCCTGGGCGGGGCTCCCGGCTCCCTGATTCACCCACCCGCAGACCCCACGCGGGACCAGTGCTTCGGGGACC
GCTTCAGCCGCCTGCTGCTGGATGAGTTCCTGGGCTACGATGACATCCTCATGTCCAGCGTGAAGGGCCTGGCCG
AGAACGAGGAGAACAAGGGCTTCCTGCGGAATGTGGTGTCGGGCGAGCACTACCGCTTTGTGAGCATGTGGATGG
CGCGGACGTCCTACCTGGCCGCCTTCGCCATCATGGTCATCTTCACGCTGAGCGTGTCCATGCTGCTGCGGTACT
CACACCACCAGATCTTCGTCTTCATCGTGGACCTGCTGCAGATGCTGGAGATGAACATGGCCATCGCCTTCCCCG
CAGCGCCCCTGCTGACCGTCATCCTGGCCCTCGTCGGGATGGAGGCCATCATGTCGGAGTTCTTCAACGACACCA
CCACCGCCTTCTACATCATCCTCATCGTGTGGCTCGCGGACCAGTATGACGCCATCTGCTGCCACACCAGCACCA
GCAAGCGGCATTGGCTGCGGTTCTTCTATCTCTACCACTTCGCCTTCTATGCCTATCACTACCGCTTCAATGGGC
AGTATAGCAGCCTGGCCCTGGTCACCTCCTGGCTCTTCATCCAGCATTCCATGATCTACTTCTTCCACCACTACG
AGCTGCCTGCCATCCTGCAGCAGGTCCGCATCCAGGAGATGCTGCTTCAGGCGCCGCCACTGGGCCCCGGGACCC
CCACGGCGCTGCCCGATGACATGAACAACAACTCGGGCGCCCCGGCTACAGCCCCTGACTCTGCCGGCCAGCCCC
CCGCCCTGGGCCCCGTCTCGCCTGGGGCCAGCGGGAGTCCCGGGCCTGTGGCAGCGGCGCCCAGCTCCCTGGTGG
CCGCGGCAGCCTCAGTGGCAGCAGCTGCCGGTGGTGACCTGGGTTGGATGGCAGAGACCGCTGCCATCATCACAG
ACGCCTCCTTCCTGTCCGGCCTGAGCGCCTCCCTCCTGGAGCGGCGTCCAGCCAGCCCGCTGGGCCCTGCTGGGG
GCCTCCCCCACGCCCCCCAGGACAGTGTCCCCCCGAGTGACTCCGCAGCTTCTGACACAACTCCCCTGGGGGCTG
CGGTAGGCGGGCCTAGCCCGGCCTCCATGGCCCCAACGGAGGCGCCCTCGGAGGTGGGGTCC**TGA**GCCGCACAGC
TGAGCCGCCTCTGACCCCTGCTGGCTGGGCCTGACCTTCCCGAGCCCGTGGGGGTGGGGGAGGCCAGCCACCTCC
TTCCTCTGGGACTGCCCAGCCTGTGTCGGGGGCTTTCAGGGTTTCGTGGGGTTTGCCCGGAAGGCGGCTTTCCTC
CCCCTGGTGTGAGGTCGCGCCCGAGGCTTGTACCCGCTAGTGAGGTGTTTGAGCTGGTCAGCAAGGAGAGGGGGT
GGGGTTCCGCGGAAGGTTCTGGAGGGGTCTTGGTAGGTCTGCAGTGAACCGTCCTGAGGATGGAGTGGGGTCCCA
TGGTGCAGGTCTCTGAGCAAGGCGGAGGTGTGGAGGAGAGGCCGGCTTGGGGTGGGGCCTCGCGCCCTAGTGCCG
GCCGGCCTCAGCCCGGCTCTGCCTGGTGCTCCCTGCAGTGCCTTCTCCATGGCCCCGCCCTCCCCGCGTGTGCGC
CAGGCTTGGGGTCCCCGGGAGAGCAGAGCTTGCGCCTCGGGCATAGGGACGTGGGGTGCAGGCGCCAACATCAGT
GGCAGCAGCCAGGGCCGTGGTCCAGTCCCACTCGGGGATGGAGTGGGCCGGCGGCCAAACCAGTCACTCGGGGAG
GAATGCGGAGGAGCGCTCATTCCATTCTATTTAATTGCAGTGTACAAAATTGTGTTTGTATATAGAATAAACTGT
CTGTTGACAGCGGC

FIGURE 247

ATGAGCTCCACGCAGTTCAACAAGGGCCCCTCGTACGGGCTGTCGGCCGAGGTCAAGAACCGGGCTCCCGCGAAT
CTTGGGGAGCACCCAGGTCTGAGATCTGGGGGACGAGTGACCCATTCCCCCCCCCAACATCTAGGGGTAGTTGGG
TCTGACTTCGTCCCCTCGCCATGGCCCCAGGACCCCCACGTGTCCTTACAGCTGACTTCTGCAGGGGAAACTGCC
TCTGCACGCTCTGAGGGCACCGGCCCTGCCAGCCCCAACAGCCACCTGCCCGGCGGCACTCCAGGGCCGGCAGAC
TGGAGGGAGAATTCCTGCTTCCCCGCTGGGCCATCTGCACCCTGCATTCATAGAGCCCCCCGTGCAGTGGGGTGG
GCACCCTGCCGCACCCTGCATACAGCCGGC**TAA**

FIGURE 248

ACCAGCTCCTGTCCAAATATGACCCCCAGAAGGAGGCAGAGCTCCGCACCTGGATCGAGGGACTCACCGGCCTCT
CCATCGGCCCCGACTTCCAGAAGGGCCTGAAGGATGGAACTATCTTATGCACACTC**ATG**AACAAGCTACAGCCGG
GCTCCGTCCCCAAGATCAACCGCTCCATGCAGAACTGGCACCAGCTAGAAAACCTGTCCAACTTCATCAAGGCCA
TGGTCAGCTACGGCATGAACCCTGTGGACCTGTTCGAGGCCAACGACCTGTTTGAGAGTGGGAACATGACGCAGG
TGCAGGTGTCTCTTCTCGCCCTGGCGGGGAAGGCCAAGACTAAGGGGCTGCAGAGCGGGGTGGACATTGGCGTCA
AGTACTCGGAGAAGCAGGAGCGGAATTTCGACGATGCCACCATGAAGGCTGGCCAGTGCGTCATCGGGCTGCAGA
TGGGCACCAACAAATGCGCCAGCCAGTCGGGCATGACTGCCTACGGCACGAGAAGGCATCTCTATGACCCCAAGA
ACCATATCCTGCCCCCCATGGACCACTCGACCATCAGCCTCCAGATGGGCACGAACAAGTGTGCCAGCCAGGTGG
GCATGACGGCTCCCGGGACCCGGCGGCACATCTATGATACCAAGCTGGGAACCGACAAGTGTGACAACTCCTCCA
TGTCCCTGCAGATGGGCTACACGCAGGGCGCCAACCAGAGCGGCCAGGTCTTCGGCCTGGGCCGGCAGATATATG
ACCCCAAGTACTGCCCGCAAGGCACAGTGGCCGATGGGGCTCCCTCGGGCACCGGCGACTGCCCGGACCCGGGGG
AGGTCCCTGAATATCCCCCTTACTACCAGGAGGAGGCCGGCTAC**TGA**GGCTCCCAGCACGCTCTCTCCCCACATC
GTCTGCCCATCTGGGTTTTTGGGTTTTTCTGTGTTTTCATCTTTTTTTTTTTTTTCTTAACCCGTTCAGTGCTGC
CAGTCAACCAAGGGTCTGTGAGTGTCAGCGTGGGATCAGGCAGCAGAGCTTTTTTCCCCTTTGCCTTGATCCTTC
GCAAGGCTGAGCCACTGGGCTGTGGGGGAAGGGGTCAAGGCCATATCCCAATACGTGTAGGGCGAGGGTCCCTGC
TGGCACATTCAGGCTGTGCTGGGAAGAAGAGACCTGGGCTTGGAAGGAACCGGTCCCCGACGGTTTCTGCTTGCC
TCGCCTCTTCCCCCTTTTGTCAGCTGAGCAGTTTGTGGTTTCTATGCCCGCAAGTTTCAGGAAGTATTCACAAAA
GAAAAATACATTTTTTCCCCCAGGGGTGGGGCAAGGACAGTGGAGAGAGTGCTAGGAAATGAGTCCCCTGGGAAA
GGGGACCGGGCCGTGATGTTAAATATCTCCGGCTCCCAAGTGACTGGATTTGCCTAGGACCTTCAGACCAACAGA
CTTCAGACCCTCAGACCTGCCCCGGGGCCAGGTGGAGAAAGTGAGGGCCGTACAAGGAAGTGAAATTCTGAGTTG
TTGGGGCTAAGCCTGACCCCCTCTCCATGCTCCCCGCCCCAACCCACTCTGGCCTCAGTAGATTTTTTTTTCAGT
TGTGGTTGTTGCCCAGGCTGGAGTGCAGTGGCGCCATCTTGGCTCACTGCACCTCCACCTTCCGGGCTCAAGCGA
TTCTCCAGCCTCAGCCTCCTGAGTAGCTAGGACTGCAGGTGCTCCACCACGCCCGGCTAATTTTTGTATTTTTAG
TAGAGATGGGGTTTCCCCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCTCAGGTGTGATCCGCCCGCCTCCGC
CTCCCCAAGCGCTGAGATTACAGGTGTGAGCCACCGTGCCCAGCCCCTCAGTAGGTTTTAAGGAGCCCCCAGCCC
TCCTCCCTTCTGGGCCCGACCAGCTTATACTGCTCCATCTTCCCCGGCCACATGCCCCGCCAAGTACTGCACAGG
GACCCCCCACCCAGGGGACCTGCTCCGTGAGATAATGTGAAATACGACTGTGGACCAAACGCAATAAAACCTCTG
TTTGTACGAAG

FIGURE 249A

CGCCTCCCCGAAGCCTTTTCCTGTTGGGGGGAGGGCCCGCCAGTGACGGCCGGGCCTGTCACGTGGGCCTGACAG
CTGGGGAGGGGGTGGCCGGCGACAATGTGGTCCCGAAGCGGCCAGCGCCGGGAGCTGCAGCGCTGAGACCCCCAG
CCCGCCCCCTCGGGCTCCCGGCCGGGGCCCCATC**ATG**TTCTCCAGGAAGAAACGAGAGCTCATGAAAACCCCTTC
CATCTCGAAAAAGAACCGCGCGGGAAGCCCCAGCCCGCAGCCCTCGGGGGAGCTGCCCAGGAAGGATGGGGCTGA
CGCGGTGTTCCCCGGACCAAGCCTGGAGCCGCCCGCTGGGTCCTCCGGCGTCAAGGCCACAGGGACCCTCAAGCG
GCCCACCAGCCTGAGCCGCCACGCCAGCGCGGCTGGCTTCCCCCTGTCGGGTGCTGCCTCCTGGACACTGGGCCG
GAGCCACCGGAGCCCACTGACAGCCGCCAGCCCGGGCGAGCTGCCCACCGAGGGTGCCGGCCCGGACGTCGTCGA
GGACATCTCCCATCTGCTGGCGGACGTGGCCCGCTTCGCTGAGGGCCTTGAGAAACTTAAGGAGTGTGTGTTGCG
TGACGACCTCCTTGAGGCCCGCCGCCCGCGGGCCCACGAGTGCCTGGGTGAGGCTCTGCGTGTCATGCATCAGAT
CATCTCCAAGTACCCGCTGCTGAACACCGTGGAGACGCTCACCGCAGCCGGCACCCTCATTGCCAAGGTCAAAGC
CTTCCATTATGAGAGCAACAATGATCTGGAGAAACAGGAGTTCGAGAAGGCCCTGGAGACGATTGCTGTGGCCTT
CAGTAGCACAGTGTCCGAGTTCCTCATGGGTGAAGTGGACAGCAGCACCCTCCTAGCAGTGCCTCCTGGGGACTC
GAGCCAGTCCATGGAAAGCCTGTATGGACCGGGCAGTGAGGGCACGCCTCCCAGCCTGGAAGACTGTGACGCCGG
CTGCCTGCCCGCCGAGGAGGTGGACGTGCTGCTACAGCGCTGTGAGGGGGGCGTGGATGCCGCACTGCTGTATGC
CAAGAACATGGCCAAGTACATGAAGGACCTCATCAGCTACCTGGAGAAGCGGACGACGCTGGAGATGGAGTTTGC
CAAGGGCCTGCAGAAGATCGCTCACAACTGCAGACAGAGCGTCATGCAGGAGCCCCACATGCCGCTCCTGTCCAT
CTACTCGCTGGCCCTGGAGCAGGACCTGGAGTTCGGCCACAGCATGGTGCAGGCGGTGGGCACCTTGCAGACCCA
GACCTTCATGCAGCCCCTGACCCTGCGGCGGCTTGAACACGAGAAGCGCAGGAAGGAGATCAAGGAGGCCTGGCA
CCGTGCCCAGAGGAAGCTGCAAGAGGCGGAGTCCAACCTGCGCAAGGCCAAGCAGGGTTACGTGCAGCGCTGCGA
GGACCACGACAAGGCTCGCTTCCTCGTGGCCAAGGCGGAGGAGGAGCAGGCTGGCAGCGCGCCGGGAGCAGGCAG
CACGGCCACCAAGACCCTGGACAAGCGGCGGCGGCTGGAGGAGGAGGCCAAGAACAAGGCGGAGGAAGCTATGGC
CACCTACCGCACCTGCGTGGCCGACGCGAAGACGCAGAAGCAGGAGCTGGAGGATACCAAGGTGACGGCGCTGCG
GCAGATCCAGGAGGTCATCCGGCAGAGCGACCAAACCATCAAGTCGGCCACGATCTCCTACTACCAGATGATGCA
TATGCAGACGGCGCCGCTGCCCGTGCACTTCCAGATGCTGTGTGAGAGCAGCAAGCTGTATGACCCAGGCCAGCA
GTACGCCTCCCACGTGCGCCAGCTGCAGCGGGACCAGGAGCCCGATGTGCACTACGACTTTGAGCCCCACGTCTC
CGCCAACGCCTGGTCCCCCGTCATGCGTGCCCGGAAGAGCAGCTTCAACGTGAGTGATGTGGCGCGGCCGGAGGC
TGCCGGGAGCCCCCCAGAAGAAGGCGGGTGCACTGAGGGCACACCTGCCAAGGACCACAGGGCCGGGCGAGGACA
CCAGGTTCACAAGTCATGGCCGCTCTCGATCTCAGACTCGGACAGTGGGCTGGACCCCGGCCCTGGCGCAGGGGA
CTTTAAGAAGTTCGAGCGGACGTCATCCAGTGGTACCATGTCGTCCACGGAGGAGCTGGTGGACCCAGACGGTGG
AGCCGGGGCTTCAGCCTTTGAGCAGGCTGACCTCAACGGCATGACCCCCGAGCTGCCGGTGGCCGTGCCCAGTGG
ACCGTTCCGCCACGAGGGGCTGTCCAAGGCGGCCCGTACTCACCGGCTCCGGAAGCTCCGCACGCCCGCCAAGTG
CCGCGAGTGCAACAGCTACGTCTACTTCCAGGGTGCTGAGTGTGAAGAGTGCTGCCTGGCCTGCCACAAGAAATG
TCTGGAGACGCTGGCCATACAGTGCGGGCACAAGAAGCTGCAAGGCCGCCTGCAGCTGTTCGGCCAGGACTTCAG
CCACGCGGCCCGCAGCGCCCCCGACGGCGTGCCCTTCATCGTCAAGAAGTGCGTCTGCGAGATCGAGCGGCGGGC
GCTGCGCACCAAGGGCATCTACCGGGTCAATGGGGTAAAGACACGCGTGGAGAAGCTGTGCCAGGCCTTCGAGAA
CGGCAAGGAGCTGGTCGAGCTGTCGCAGGCCTCGCCCCACGACATCAGCAACGTCCTCAAGCTCTACCTGCGTCA
GCTTCCCGAGCCGCTCATCTCCTTCCGCCTCTACCACGAGCTCGTAGGGCTGGCCAAGGACAGCCTGAAGGCAGA
GGCCGAGGCCAAGGCGGCGTCCCGGGGCCGGCAGGACGGCTCGGAGAGCGAGGCAGTGGCGGTGGCCCTGGCAGG
TCGGCTGCGGGAGCTCCTGCGGGACCTGCCGCCTGAGAACCGGGCCTCGCTGCAGTACCTGCTGCGTCACCTACG
CAGGATCGTGGAGGTGGAGCAGGACAACAAGATGACCCCCGGGAACCTGGGCATCGTGTTCGGGCCCACGCTGCT
TCGGCCACGGCCCACCGAGGCCACCGTGTCCCTCTCCTCCCTGGTGGATTATCCCCATCAGGCCCGCGTCATCGA
GACTCTCATCGTCCACTACGGCCTGGTCTTCGAGGAGGAGCCGGAGGAGACCCCCGGGGGCCAGGACGAGTCATC
CAACCAGCGAGCTGAGGTAGTCGTCCAGGTGCCGTACCTGGAGGCGGGCGAGGCGGTGGTCTACCCGCTGCAGGA
GGCGGCGGCGGACGGGTGCAGAGAATCCCGAGTTGTGTCCAACGATTCGGACTCGGACCTAGAGGAGGCCTCCGA
GCTGCTGTCCTCATCGGAGGCCAGTGCCCTGGGCCACCTCAGCTTCCTGGAGCAGCAGCAGAGCGAGGCCAGCCT
AGAGGTGGCTTCTGGCAGCCACAGCGGCAGTGAGGAGCAGCTGGAGGCCACAGCCCGGGAGGACGGGGACGGGGA
CGAGGACGGCCCGGCCCAGCAGCTCTCAGGATTCAACACCAACCAGTCCAACAACGTGCTGCAGGCCCCACTGCC
CCCCATGAGGCTCCGTGGCGGGCGGATGACACTGGGCTCCTGCAGGGAAAGGCAGCCGGAATTCGTG**TGA**GCTGG

FIGURE 249B

GGTGGGGCTGGGACCACAGGTGGCTTCTCTCTTGCCTGCTCCTGTCCCTCCAGCACGTCCCCTGCACCACGGCAT
AGCTTAGGTGCGCCGTCCTGGGGTCGCTGCCGAGAGCGCCTGGACTTCGACGTCCCACCAGCGGGCGCCTCCTCC
CAGAGGCTTCCAGGAGCACGAGGGCCTTGCGGCACAGGACTGTGCCCTGTGCTGTCCCCTGCACCCCGGCTCAGC
TGAGCTGGGGAACACTGCTGTCGTGTGAAGTCACAGTGGCCTTGTTGGTGCCCACAGGGCTGTGTGGATGGAGGA
AGCTGTCCCTGCCCAGTGCATCCCCCAGGTCATCACGGGGACGCAGGAGGCAGGCCCTGCCCTGCCCTCTCCTCA
CAGGTCTGTTGCAGGGACTCCAGAAACCATTCTGGGAGCCGTGGATGGGGGCGGAGCTGGGGTTTGGTGCAGTTT
CCAGGGTGCAGTACAGCAGGGCCTGAATACTGGCCCTGGACTCCCTTTTCCAGAACACCAGGTGTGGCCACCTGG
GGCTCAGGTACACAGTGGGGTCTCTCGGAAGCCACCGTGTGGTTCTTTCACAGGCACGTTTATTTTGCTGAAATA
AAAAGTTTTTAATCGGG

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FIGURE 250

GGCGGCGGCGGCGGAGGCTGCC**ATG**GACGACGAGGAGGAGACGTACCGGCTCTGGAAAATCCGCAAGACCATCAT
GCAGCTGTGCCACGACCGTGGCTATCTGGTGACCCAGGACGAGCTTGACCAGACCCTGGAGGAGTTCAAAGCCCA
ATCTGGGGACAAGCCGAGTGAGGGGCGGCCGCGGCGCACGGACCTCACCGTGCTGGTGGCCCACAACGATGACCC
CACCGACCAGATGTTTGTGTTCTTTCCAGAGGAGCCCAAGGTGGGCATCAAGACCATCAAGGTGTACTGCCAGCG
CATGCAGGAGGAGAACATCACACGGGCTCTCATCGTGGTGCAGCAGGGCATGACACCCTCCGCCAAGCAGTCCCT
GGTCGACATGGCCCCCAAGTACATCCTGGAGCAGTTTCTGCAGCAGGAGCTGCTCATCAACATCACGGAGCACGA
GCTAGTCCCTGAGCACGTCGTCATGACCAAGGAGGAGGTGACAGAGCTGCTGGCCCGATATAAGCTCCGAGAGAA
CCAGCTGCCCAGGATCCAGGCGGGGGACCCTGTGGCGCGCTACTTTGGGATAAAGCGTGGGCAGGTGGTGAAGAT
CATCCGGCCCAGTGAGACGGCTGGCAGGTACATCACCTACCGGCTGGTGCAG**TAG**CTACCGCCTGACAGCCCCTA
GAGGCGGACACACAGCGACCCCCATCCCTGCAGGACAAACGCCCCTGCCCTGCCAGAATCCGGCCCCCACAGCTC
TCACGGCTGCTGCTCCTCTGGACTCCCCAAGGCAGGTGGCCTCCACCCACGTTCTCCCGTCCTGGGGTGAGGCTT
CCTGTGGCCCAGCCCGCCCCATTCACCTGTGGATTTGTGCGAGATGCAGCCTCAGAAGGAACAAGGCCCCCAGAG
GGAGGTCACCTGGGGGCAGCTGGTGCCGGGTCTTCACCCAGACCACGCTGGGTCCCCTCTGTTGGGGGTTTGGGG
TCCGGGTCTCCCACCAGCCACTGCTTCCTCCTGGGCCCTCGGCCTTCCACCCCTCGTCTTCCCTCCCTCGGGGGC
CCTGATGCGTGGCGGCCCCCGCCCGGCCTCGGCTCTTTACTCCATTCACAGCCATGCACGCGCTCAAGCCACCAG
GGTGCGAGATGCCAGCTCTGGAGTTCTCGGTTGTTGTAGGAGGTTGGGTGTTTTCAAATGGTAAAGATGTTTTGA
GCAAATAAATTTGCTTGATACAG

FIGURE 251

GGAGGCGCGGAAAGCCGACGCGCGTCCATTGGTCGGCTGGACGAGGGGAGGAGCCGCTGGCTCCCAGCCCCGCCG
CG**ATG**AGCCTCGGCCGCCTTTGCCGCCTACTGAAGCCGGCGCTGCTCTGTGGGGCTCTGGCCGCGCCTGGCCTGG
CCGGGACCATGTGCGCGTCCCGGGACGACTGGCGCTGTGCGCGCTCCATGCACGAGTTTTCCGCCAAGGACATCG
ACGGGCACATGGTTAACCTGGACAAGTACCGGGGCTTCGTGTGCATCGTCACCAACGTGGCCTCCCAGTGAGGCA
AGACCGAAGTAAACTACACTCAGCTCGTCGACCTGCACGCCCGATACGCTGAGTGTGGTTTGCGGATCCTGGCCT
TCCCGTGTAACCAGTTCGGGAAGCAGGAGCCAGGGAGTAACGAAGAGATCAAAGAGTTCGCCGCGGGCTACAACG
TCAAATTCGATATGTTCAGCAAGATCTGCGTGAACGGGGACGACGCCCACCCGCTGTGGAAGTGGATGAAGATCC
AACCCAAGGGCAAGGGCATCCTGGGAAATGCCATCAAGTGGAACTTCACCAAGTTCCTCATCGACAAGAACGGCT
GCGTGGTGAAGCGCTACGGACCCATGGAGGAGCCCCTGGTGATAGAGAAGGACCTGCCCCACTATTTC**TAG**CTCC
ACAAGTGTGTGGCCCCGCCCGAGCCCCTGCCCACGCCCTTGGAGCCTTCCACCGGCACTCATGACGGCCTGCCTG
CAAACCTGCTGGTGGGGCAGACCCGAAAATCCAGCGTGCACCCCGCCGGAGGAAGGTCCCATGGCCTGCTGGGCT
TGGCTCGGCGCCCCCACCCCTGGCTACCTTGTGGGAATAAACAGACAAATTAG

FIGURE 252A

GCCCGAAACCCGGAAGTGAGCGGCGGCAGCTGCGAGGCTCGGAGAAACAGGCGCCGCGGGCTCCGCGCCCGGCCG
GACCCGGGCCCGAGATCATGATGCTGCCGCCACCGCCGCCACCACGGAGCGAGAAGCCCAGATAGACGCCCCGGC
GGCCCCGGGTCCTGGAGTCCCGCCGCCTGCTGCCCGGCCGAGGACCCCACCCCGCCTGCCGCCCG**ATG**CTTGCAG
TGGGGCCCGCCATGGACAGGGATTACCCGCAGCATGAACCCCCGCCGGCGGGCAGCCTCCTGTACAGCCCGCCGC
CCCTGCAGAGCGCCATGCTGCACTGCCCCTACTGGAACACCTTCTCGCTGCCGCCATACCCTGCCTTCTCCAGCG
ACAGCCGCCCGTTCATGAGCTCCGCCTCCTTCCTCGGCAGCCAGCCCTGCCCAGACACCAGCTATGCCCCCGTGG
CCACCGCCTCCAGCTTGCCACCAAAGACCTGCGACTTTGCTCAGGACTCCTCCTATTTTGAGGACTTCTCCAACA
TCTCCATCTTCTCCTCGTCCGTGGACTCCCTGTCGGACATCGTGGACACGCCCGACTTCCTGCCGGCTGACAGCC
TCAACCAGGTGTCCACCATCTGGGACGATAACCCTGCCCCCTCCACCCACGATAAGCTGTTCCAGCTCAGCAGGC
CGTTTGCAGGCTTCGAGGACTTTCTGCCCTCCCACAGCACCCCGCTTCTCGTCAGCTACCAGGAGCAGAGTGTGC
AGAGCCAGCCAGAGGAGGAGGACGAGGCTGAGGAGGAGGAGGCGGAGGAGCTGGGGCACACAGAGACCTACGCCG
ACTACGTGCCGTCCAAGTCCAAGATCGGGAAGCAGCACCCAGACCGCGTGGTGGAGACCAGCACACTGTCCAGCG
TCCCACCCCCAGACATCACCTACACCCTGGCCCTGCCCTCGGACAGCGGGGCCCTGTCTGCCCTGCAGCTAGAGG
CCATCACCTACGCCTGCCAGCAACACGAGGTCCTGCTCCCCAGCGGGCAGCGCGCGGGCTTTCTCATCGGCGATG
GGGCCGGCGTGGGCAAAGGCCGGACGGTGGCCGGAGTCATCCTGGAGAACCACCTGCGCGGCCGGAAGAAAGCAT
TGTGGTTCAGCGTCTCCAACGACCTCAAGTACGATGCGGAGCGCGACCTGCGGGACATCGAAGCCACGGGCATCG
CGGTGCACGCGCTCAGCAAGATCAAGTACGGTGACACCACTACCTCAGAGGGCGTCCTCTTCGCCACCTACTCCG
CCCTGATTGGGGAGAGCCAGGCCGGCGGCCAGCACCGCACTCGCCTCCGGCAGATCCTGGACTGGTGTGGGGAGG
CCTTCGAGGGCGTCATCGTGTTCGACGAGTGTCACAAAGCCAAGAATGCCGGCTCCACCAAGATGGGCAAGGCTG
TGCTAGACCTGCAGAACAAGCTGCCCCTGGCCCGCGTGGTCTACGCCAGCGCCACAGGTGCCTCTGAGCCTCGGA
ACATGATCTACATGAGCCGCTTGGGTATCTGGGGCGAGGGCACACCCTTCCGGAACTTTGAGGAGTTCCTGCACG
CCATCGAGAAGAGGGGCGTTGGCGCCATGGAGATCGTGGCCATGGACATGAAGGTCAGCGGCATGTACATCGCAC
GCCAGCTCAGCTTCTCCGGCGTCACCTTCCGCATCGAGGAGATCCCGCTGGCCCCAGCCTTCGAGTGCGTCTACA
ACCGCGCGGCCCTGCTGTGGGCCGAGGCCCTGAACGTGTTCCAGCAGGCGGCCGACTGGATCGGCCTGGAGTCGC
GCAAGTCCCTGTGGGGCCAGTTCTGGTCGGCACACCAGCGCTTCTTCAAGTATCTGTGCATCGCAGCCAAGGTGC
GCCGGCTGGTGGAGCTGGCCCGAGAGGAGCTGGCGCGAGACAAGTGCGTGGTCATCGGGCTGCAGTCCACGGGCG
AGGCGCGCACGCGGGAGGTGCTGGGGGAGAACGATGGGCACCTCAACTGCTTCGTCTCGGCCGCTGAAGGCGTGT
TCCTGTCGCTAATTCAGAAGCACTTTCCGTCCACCAAGAGAAAGCGGGACAGAGGAGCGGGCAGCAAGCGGAAAC
GGCGACCTCGGGGACGCGGGGCCAAAGCCCCCCGGCTGGCGTGCGAGACAGCGGGCGTCATCCGCATCAGTGACG
ACAGCAGCACGGAGTCGGACCCTGGCCTGGACAGCGACTTCAACTCCTCCCCCGAGTCCCTGGTGGATGACGACG
TTGTCATCGTTGATGCAGTCGGGCTCCCCAGTGACGACCGGGGACCCCTGTGCCTCCTGCAGAGAGACCCGCATG
GCCCCGGGGTCCTGGAGCGGGTGGAGCGGCTGAAGCAGGATCTGCTGGACAAAGTGCGGCGGCTGGGCCGGGAAC
TGCCAGTCAACACCCTGGACGAGCTCATCGACCAGCTGGGCGGCCCCCAGCGGGTGGCGGAGATGACCGGCAGGA
AAGGCCGCGTGGTGTCCAGGCCCGACGGGACGGTGGCCTTCGAGTCGCGGGCAGAGCAGGGTCTGTCCATCGACC
ACGTGAACCTCAGGGAGAAGCAGCGCTTCATGAGCGGCGAGAAGCTCGTGGCCATCATCTCGGAGGCCTCCAGCT
CGGGTGTCTCCCTCCAAGCCGACCGCCGTGTCCAGAACCAGCGGCGCCGCGTGCACATGACCTTGGAGCTGCCGT
GGAGCGCCGACCGCGCCATCCAGCAGTTCGGCCGCACCCACCGGTCCAACCAGGTCTCCGCGCCAGAGTATGTCT
TCCTCATCTCGGAGCTGGCCGGGGAGCGCCGGTTCGCCTCCATCGTGGCCAAGCGCCTGGAGAGTCTGGGGGCCC
TGACCCACGGAGACCGCCGCGCCACGGAGTCCCGTGACCTCAGCAAGTACAACTTTGAGAACAAGTATGGCACCC
GGGCCCTGCACTGTGTCCTCACCACCATCCTGAGCCAGACTGAGAACAAAGTGCCTGTGCCCCAGGGATACCCTG
GAGGGGTCCCCACCTTCTTCCGGGACATGAAGCAGGGCCTGCTGTCTGTGGGCATTGGTGGCCGGGAGTCCCGGA
ATGGCTGCCTGGACGTGGAGAAGGACTGTTCCATCACCAAGTTCCTGAACCGCATCCTGGGGCTGGAGGTGCACA
AGCAGAACGCCCTGTTCCAGTACTTCTCAGACACCTTCGACCACCTCATCGAGATGGACAAGCGGGAGGGCAAAT
ACGACATGGGCATCCTGGACCTTGCTCCCGGTATCGAGGAGATCTACGAGGAGAGCCAGCAGGTGTTCCTGGCTC
CCGGGCACCCGCAGGACGGGCAGGTGGTCTTCTACAAGATCAGCGTGGACCGCGGCCTGAAGTGGGAGGACGCCT
TTGCCAAGTCGCTGGCGCTGACGGGCCCCTATGACGGCTTCTACCTCTCCTACAAGGTCCGCGGTAACAAGCCCA
GCTGCCTGCTGGCGGAGCAGAACCGCGGCCAGTTCTTCACGGTGTACAAGCCCAACATCGGCCGGCAGAGCCAGC
TGGAGGCCCTGGACAGCCTCCGCCGCAAGTTCCACCGGGTCACCGCGGAGGAGGCCAAGGAGCCCTGGGAGAGTG

FIGURE 252B

GCTACGCTTTGTCGCTGACGCACTGCAGCCACAGCGCCTGGAACCGGCACTGCCGGCTGGCGCAGGAGGGTAAGG
ACTGCCTGCAGGGGCTGCGGCTGCGGCACCACTACATGCTGTGCGGCGCGCTGCTGCGCGTGTGGGGCCGCATCG
CCGCCGTCATGGCCGACGTCAGCAGCAGCAGCTACCTGCAGATCGTGCGGCTGAAGACCAAGGACAGGAAGAAGC
AAGTGGGCATCAAGATCCCCGAGGGCTGCGTGCGCCGGGTGCTGCAGGAGCTGCGGCTGATGGATGCGGACGTGA
AGCGCAGGCAGGCGCCCGCCCTGGGCTGCCCCGCCCCGCCCGCCCCGCGCCCGCTGGCGCTGCCTTGCGGCCCCG
GAGAGGTGCTGGACCTCACCTACAGCCCCCCGGCCGAGGCCTTCCCGCCGCCCCCGCACTTCTCTTTCCCGGCGC
CGCTGTCCCTGGACGCCGGCCCCGGCGTCGTGCCGCTGGGCACCCCCGACGCCCAGGCCGACCCTGCGGCCCTCG
CGCACCAGGGCTGCGACATCAACTTCAAGGAGGTGCTGGAGGACATGCTGCGCTCGCTGCACGCGGGGCCGCCCT
CCGAGGGCGCGCTGGGGGAGGGCGCGGGGGCGGGGGGCGCGGCGGGCGGTGGTCCCGAGCGGCAGAGCGTGATCC
AGTTCAGCCCACCCTTCCCCGGCGCCCAGGCTCCTCTC**TGA**CACGCCTTTAGGCGAAACATGCCCCAAGACACAG
GGACCGTTTCTCCCCTAGGAGCAGCGGTGGGGAGCAGGGCCAAGGTCCCCTGACCACTGCTCAGAGGAGCCCTAG
GCCCTGGCCGCAGTGCCTTCAGCGCCCGACCCGGGCCCCCACCTGGTCAGCCCTGGCGGGGCCCACTCAGGACAG
CTGGGGGCCGGGGCGTGGCAGGGCCCTCTCTGTGCCTCTCCTCCCAAGTAGGAAGGGGCTCCGGGTGGCTGCTCT
GGGACTGGGCACCCACAAGGGCTCAGTGGGCCCAAACCCTTGAAATCCGTGAAACCGGGTGGTCCCAAGAGCTAG
AAACTCAGGAAACCCCAGGTGCTCAGGGCCCCGCGTCTCGGGGGCTCCGTGGGGCAGACCCCTGCTAATATATGC
AATTCTCCCTCCCCCAGCCCTTCCCTGACCCCTAAGTTATTGCCCGCTCACCTCTCCCAGGCCCCAGGCCGCGGA
GCTGGCAGGGTGGCGCCTGCGGTTTCTATGTATTTATAGCAAGTTCTGATGTACATATGTAAAGGACTTTTTTAA
AT

FIGURE 253

CCCAGGGTCCCCGAGGACGAAGTTGACCCTGACCGGGCCGTCTCCCAGTTCTGAGGCCCGGGTCCCACTGGAACT
CGCGTCTGAGCCGCCGTCCCGGACCCCCGGTGCCCGCCGGTCCGCAGACCCTGCACCGGGCTTGGACTCGCAGCC
GGGACTGACGTGTAGAACAATCGTTTCTGTTGGAAGAAGGGTTTTTCCCTTCCTTTTGGGGTTTTTGTTGCCTTT
TTTTTTTCTTTTTTCTTTGTAAAATTTTGGAGAAGGGAAGTCGGAACACAAGGAAGGACCGCTCACCCGCGGACT
CAGGGCTGGCGGCGGGACTCCAGGACCCTGGGTCCAGC**ATG**GAGGTGGTGGACCCGCAGCAGCTGGGCATGTTCA
CGGAGGGCGAGCTGATGTCGGTGGGTATGGACACGTTCATCCACCGCATCGACTCCACCGAGGTCATCTACCAGC
CGCGCCGCAAGCGGGCCAAGCTCATCGGCAAGTACCTGATGGGGGACCTGCTGGGGGAAGGCTCTTACGGCAAGG
TGAAGGAGGTGCTGGACTCGGAGACGCTGTGCAGGAGGGCCGTCAAGATCCTCAAGAAGAAGAAGTTGCGAAGGA
TCCCCAACGGGGAGGCCAACGTGAAGAAGGAAATTCAACTACTGAGGAGGTTACGGCACAAAAATGTCATCCAGC
TGGTGGATGTGTTATACAACGAAGAGAAGCAGAAAATATATATGGTGATGGAGTACTGCGTGTGTGGCATGCAGG
AAATGCTGGACAGCGTGCCGGAGAAGCGTTTCCCAGTGTGCCAGGCCCACGGGTACTTCTGTCAGCTGATTGACG
GCCTGGAGTACCTGCATAGCCAGGGCATTGTGCACAAGGACATCAAGCCGGGGAACCTGCTGCTCACCACCGGTG
GCACCCTCAAAATCTCCGACCTGGGCGTGGCCGAGGCACTGCACCCGTTCGCGGCGGACGACACCTGCCGGACCA
GCCAGGGCTCCCCGGCTTTCCAGCCGCCCGAGATTGCCAACGGCCTGGACACCTTCTCCGGCTTCAAGGTGGACA
TCTGGTCGGCTGGGGTCACCCTCTACAACATCACCACGGGTCTGTACCCCTTCGAAGGGGACAACATCTACAAGT
TGTTTGAGAACATCGGGAAGGGGAGCTACGCCATCCCGGGCGACTGTGGCCCCCCGCTCTCTGACCTGCTGAAAG
GGATGCTTGAGTACGAACCGGCCAAGAGGTTCTCCATCCGGCAGATCCGGCAGCACAGCTGGTTCCGGAAGAAAC
ATCCTCCGGCTGAAGCACCAGTGCCCATCCCACCGAGCCCAGACACCAAGGACCGGTGGCGCAGCATGACTGTGG
TGCCGTACTTGGAGGACCTGCACGGCGCGGACGAGGACGAGGACCTCTTCGACATCGAGGATGACATCATCTACA
CTCAGGACTTCACGGTGCCCGGACAGGTCCCAGAAGAGGAGGCCAGTCACAATGGACAGCGCCGGGGCCTCCCCA
AGGCCGTGTGTATGAACGGCACAGAGGCGGCGCAGCTGAGCACCAAATCCAGGGCGGAGGGCCGGGCCCCCAACC
CTGCCCGCAAGGCCTGCTCCGCCAGCAGCAAGATCCGCCGGCTGTCGGCCTGCAAGCAGCAG**TGA**GGCTGGCCGC
CTGCAGCCCGTGTCCAGGAGCCCCGCCAGGTGCCCGCGCCAGGCCCTCAGTCTTCCTGCCGGTTCCGCCCGCCCT
CCCGGAGAGGTGGCCGCCATGCTTCTGTGCCGACCACGCCCCAGGACCTCCGGAGCGCCCTGCAGGGCCGGGCAG
GGGGACAGCAGGGACCGGGCGCAGCCCTCCCCCCTCGGCCGCCCGGCAGTGCACGCGGCTTGTTGACTTCGCAGC
CCCGGGCGGAGCCTTCCCGGGCGGGCGTGGGAGGAGGGAGGCGGCCTCCATGCACTTTATGTGGAGACTACTGGC
CCCGCCCGTGGCCTCGTGCTCCGCAGGGCGCCCAGCGCCGTCCGGCGGCCCCGCCGCAGACCAGCTGGCGGGTGT
GGAGACCAGGCTCCTGACCCCGCCATGCATGCAGCGCCACCTGGAAGCCGCGCGGCCGCTTTGGTTTTTTGTTTG
GTTGGTTCCATTTTCTTTTTTTCTTTTTTTTTTTAAGAAAAAATAAAAGGTGGATTTG

FIGURE 254

GTCCTCCTCGCCCTCCAGGCCGCCCGCGCCGCGCCGGAGTCCGCTGTCCGCCAGCTACCCGCTTCCTGCCGCCCG
CCGCTGCC**ATG**CTGCCCGCCGCGCTGCTCCGCCGCCCGGGACTTGGCCGCCTCGTCCGCCACGCCCGTGCCTATG
CCGAGGCCGCCGCCGCCCCGGCTGCCGCCTCTGGCCCCAACCAGATGTCCTTCACCTTCGCCTCTCCCACGCAGG
TGTTCTTCAACGGTGCCAACGTCCGGCAGGTGGACGTGCCCACGCTGACCGGAGCCTTCGGCATCCTGGCGGCCC
ACGTGCCCACGCTGCAGGTCCTGCGGCCGGGGCTGGTCGTGGTGCATGCAGAGGACGGCACCACCTCCAAATACT
TTGTGAGCAGCGGTTCCATCGCAGTGAACGCCGACTCTTCGGTGCAGTTGTTGGCCGAAGAGGCCGTGACGCTGG
ACATGTTGGACCTGGGGGCAGCCAAGGCAAACTTGGAGAAGGCCCAGGCGGAGCTGGTGGGGACAGCTGACGAGG
CCACGCGGGCAGAGATCCAGATCCGAATCGAGGCCAACGAGGCCCTGGTGAAGGCCCTGGAG**TAG**GCGGTGCGTA
CCCGGTGTCCCGAGGCCCGGCCAGGGGCTGGGCAGGGATGCCAGGTGGGCCCAGCCAGCTCCTGGGGTCCCGGCC
ACCTGGGGAAGCCGCGCCTGCCAAGGAGGCCACCAGAGGGCAGTGCAGGCTTCTGCCTGGGCCCCAGGCCCTGCC
TGTGTTGAAAGCTCTGGGGACTGGGCCAGGGAAGCTCCTCCTCAGCTTTGAGCTGTGGCTGCCACCCATGGGGCT
CTCCTTCCGCCTCTCAAGATCCCCCCAGCCTGACGGGCCGCTTACCATCCCCTCTGCCCTGCAGAGCCAGCCGCC
AAGGTTGACCTCAGCTTCGGAGCCACCTCTGGATGAACTGCCCCCAGCCCCCGCCCCATTAAAGACCCGGAAGCC
TG

FIGURE 255

CAGCAGCGGGCGGCCGCGGCGTGACATCGGCACCATCCTGCAGATCCTGAACGACCTCCTGAGCGCCACCCGGCA
CTACCAGGGCATGCCCCCTTCGCTGGCCCAGCTCCGCTGCCACGCCCAGTGCTCCCCGGCCTCACCGGCCCCCGA
CCTGGCCCCCAGAACTACCTCCTGCGAGAAGCTCACGGCTGCCCCCTCAGCCTCCCTGCTGCAGGGCCAGAGCCA
GATCCGCATGTGCAAGCCCCCGGGGGACCGGCTTCGGCAGACAGAAAACCGCGCCACGCGCTGCAAGGTGGAACG
GCTGCAGCTGCTTCTGCAGCAGAAACGGCTCCGTAGAAAGGCCCGGCGGGACGCGCGGGGTCCGTACCACTGGTC
ACCCAGCCGCAAGGCCGGCCGCAGCGACAGCAGTAGCAGCGGGGGCGGCGGCAGCCCCAGCGAGGCCTCCGGCTT
GGGCCTCGACTTCGAGGACTCCGTGTGGAAGCCAGAAGTCAACCCTGACATCAAGTCAGAGTTCGTGGTGGCTTA
GGATCTTCGGATCGGCCACCCTCGCCCCTCGCACCCCAGCCCAGGGCGGCGGGGACTCCGAGAGCCCCGGAGAGA
ACGTGGCCCAGCCCTGGAGGGCAGGCGGCCACTCCCCCAGCCAGAAGTCTTTTTTTCTTTTCTTCTTTTTTATTA
TTTTTTTCTTTTTTTAAAAAGTTCTGACCGTGGTTTCCTGGACTCTTC**ATG**GGCTTTGCTTCCTACCTCCTTCAC
CCTTCACTCCTGCCCTCCTCTTCCTCCTCCTCCTCCTCCTCCGTCTGTCTCCTTTCACCTCTGCGCCAGGTCGGT
CCTCCCTGCCAACCTTCCCCAGCTCCAATATGTAGCAGTCTCTCTGGATGGCGGAGAGTGAAGGAGACGGAGAAA
CGCGCCCCATCCCTTCCGCCGCCTCCTTTCCCCCCCGACCCTATTCAGGTTTTAAGTCAAAAATGTCGATATGTC
ATTATGCACTTTACAGATGAGGGGAGGGGCCGCAGTGCGCAGAACCCACCCCACCCCCCAGTGCAGACTTCGGGG
TCTCCACCCCAGGCCAGCAGCGCCCACTGGGCTACAGCAAGCCAACAGGTCACAGAAGCCAACGAGGGGACTGTT
TCTCTTCCACTCCTATCCTCTTTTCTTGATCTTTTTTTTGCATTTTCCTTCATTTCTTTAACAAGGAGAGCAAAG
CTGTTT**TAG**CAGAGGCTGGGGCTGAGGTCCCCATGGGGTTTGGGTGCAGGGGCATGGCACCCTTTCCTGTCGGGA
AGGGAGAGGGGAACTACCCCCCCAGCCTGCCCTCCGCCCCGCCCCAGCCGGCGGACTGTGCTGTTTCCTCCGCCC
CCACTCCCGTGTTTTCTGACCTCCTGCCTGAGTTTGGGGTATTTATAGACTATTAATTTTCTGACTGAGCCAATA
GTGGTTGGGGAACTCTTGAAAAAGGGGAGAGAATGGCTGGGTGCTGGGGAGTTCCCCCCTCCGAGCCCTCCTTCC
CGGCCCAACCTGAGGGATGTGGATTTGGGACTGTCTGGGGGCCCCTCCTGCAGCGAGGATGGGAGGGGGTGCTGA
GCTGTGAATCCCCTGGGCAGGGGGCGACAACTCCGTGTAGCATTAACCCCCGTGGCGGGGTCCGCTGCTGGTCTA
ATTTGGACCCCCTGCCTCTCAGTGCCCCTGCCCTAGGGGTGTCTGTCTCCAGAGGGGAGGGACAAATCCCCTACT
GGGGCCATTTCAATGGGGTAGTTTTTGGATTTTTTTCCCCACTCACTTTTTATTTTTTAATGATAATGGAGATGT
CTGGACCCTTCCTCACCCCACCTGTCGGTCTTGTCCTGGCTCTGCCTGTCCCCCACCGTTGTTCTCGTAGGTGAA
CCCCAGGTCCTCAACTCCCCCCCTTTATGTGTTGAAAGTTAATGGTTTCAGATGTGAACATCACGTGTTATAACT
GTAGCGCTGTAAATTTTTTTGTGGGAGGGTGGGCAGGGAGGGGTCCCAGAGGGTAGAGCTCAAGGATTTTGGGTT
TTGTTTTGTTTTCATTTTTCCAAAAAAAAAAGAAAAAAAAATAGAAAAAAAAGGAGTAAAAGGGGCGGGTTTGTT
TTTTGAAGAACTGTCTTGGATACCTATTTAAATGTGTGTTCTGTTTTGTTTTTTAACGATTTTTAAATAACGTCT
GTGCCTCCACTGGTTGAGGGTGGAACCTCCAGGCAGGAACCGGCTCGCCACCCTCTGCCCGGTAAGGGCTGCCCA
AGAAAGCATTACCCGCCCTCGGGGGGTCGGGCTGTGGGGGTCCCGGCACCTGGCGTGAGTTTCATGTATGAAAAC
ATAAAATTGAAAAAAAAAAAAAAACCTACACGAGCACCGTGATTTCAAGTAATAAACAGAAAATGAAACAC

FIGURE 256

GAGGCTCGGGTCGTTGTGGTGCGCTGTCTTCCCGCTTGCGTCAGGGACCTGCCCGACTCAGTGGCCGCC**ATG**GCA
TCAGATGAAGGCAAACTTTTTGTTGGAGGGCTGAGTTTTGACACCAATGAGCAGTCGCTGGAGCAGGTCTTCTCA
AAGTACGGACAGATCTCTGAAGTGGTGGTTGTGAAAGACAGGGAGACCCAGAGATCTCGGGGATTTGGGTTTGTC
ACCTTTGAGAACATTGACGACGCTAAGGATGCCATGATGGCCATGAATGGGAAGTCTGTAGATGGACGGCAGATC
CGAGTAGACCAGGCAGGCAAGTCGTCAGACAACCGATCCCGTGGGTACCGTGGTGGCTCTGCCGGGGGCCGGGGC
TTCTTCCGTGGGGGCCGAGGACGGGGCCGTGGGTTCTCTAGAGGAGGAGGGGACCGAGGCTATGGGGGGAACCGG
TTCGAGTCCAGGAGTGGGGGCTACGGAGGCTCCAGAGACTACTATAGCAGCCGGAGTCAGAGTGGTGGCTACAGT
GACCGGAGCTCGGGCGGGTCCTACAGAGACAGTTATGACAGTTACGCTACACACAACGAG**TAA**AAACCCTTCCTG
CTCAAGATCGTCCTTCCAATGGCTGTGTGTTTAAAGATTGTGGGAGCTTCGCTGAACGTTAATGTGTAGTAAATG
CACCTCCTTGTATTCCCACTTTCGTAGTCATTTCGGTTCTGATCTTGTCAAACCCAGCCTGACCGCTTCTGACGC
CGGGATGGCCTCGTTACTAGACTTTTCTTTTTAAGGAAGTGCTGTTTTTTTTTGAGGGTTTTCAAAACATTTTGA
AAAGCATTTACTTTTTTGACCACGAGCCATGAGTTTTCAAAAAAATCGGGGGTTGTGTGGGTTTTTGGTTTTTGT
TTTAGTTTTTGGTTGCGTTGCCTTTTTTTTTTTAGTGGGGTTGGCCCCATGAAGTGGGTGCCCCACTCACTTCTC
TGAGATCGAACGGACTGTGAATCCGCTCTTTGTCGGAAGCTGAGCAAGCTGTGGCTTTTTTCCAACTCCGTGTGA
CGTTTCTGAGTGTAGTGTGGTAGGACCCCGGCGGGTGTGGCAGCAACTGCCCTGGAGCCCCAGCCCCTGCGTCCA
TCTGTGCTGTGCGCCCCACAGTAGACGTGCAGACGTCCCTGAGAGGTTCTTGAAGATGTTTATTTATATTGTCCT
TTTTTACTGGAAGACGTACGCATACTCCATCGATGTTGTATTTGCAGTGGCTGAGGAATTCTTGTACGCAGTTTT
CTTTGGCTTTACGAAGCCGATTAAAAGACCGTGTGAAATG

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FIGURE 257

CAGCGGAGGCGATACGGCCTCCTCGCCAACACTGAGGACCCCACGGAGGCGGCCCTTCCAGCAGCC**ATG**AGGGAA
GGACAGGAGATGGGGCCCACCCCAGTGCCCAGCAACCCCCTGCTCCACCGCTCATTCCCCTGCTGGCCCCGGGGC
TGGTCTCACCCAGTGCCAACCCGAGAGCTCCTTTTGGAACCTGCACAGCCCGCCGACCTGTTGCCACCTGCACCC
ACCGCTGGACCATGCAGCCTCGCCTCCTGGATGCTGTCCCAGCCTGGCCGAGGGTCCCAGGTGAAGACTGGAGGG
ACCCCAACAGCCACCGCCCAGGACGCTGAGGCTCCCTTGCCTGACTGTGACTTGTGCCTCTCTCCTGCCCCCGTG
GGGACATGGCAGCCCAGAGCCAAGGCTGGGTGGGCAGGTGACCCAAGGAACCTTTCTGGGAACACCTTCTCGCCG
GGCTGGGAACAA**TAA**ATGCAGCCATGTCTCTGC

FIGURE 258A

GCGGTGGCGGAGGCGGACACATTGGCGTGAGACCTGGGAGTACGTTGTGCCAAATCATTGCCACTTGCCACATGA
GTGTAA**ATG**ATGGCGGATGCCAAGTATGTCCTCTGCCGATGGGAAAAGCGATTATGGCCTGCGAAGGTTTTGGCC
CGAACCGCGACTTCAACAAAAAATAAGAGAAGAAAGGAATATTTTCTAGCTGTGCAAATCCTCTCTCTAGAGGAA
AAAATTAAGGTGAAAAGCACTGAAGTTGAGATCCTAGAGAAGTCTCAAATTGAAGCCATTGCTTCCTCGTTAGCC
TCACAGAATGAGGTTCCTGCGGCACCCCTGGAAGAACTGGCCTACAGACGGTCGCTTCGCGTGGCTCTGGACGTT
CTGAGCGAGGGCTCGATTTGGAGTCAAGAAAGCTCTGCAGGGACAGGTAGAGCTGACCGGTCTCTGCGAGGGAAG
CCCATGGAGCATGTCTCCTCGCCCTGTGATTCGAACTCCTCATCTCTTCCCCGCGGAGACGTGTTGGGCAGTTCC
AGACCTCACAGGAGGAGGCCATGTGTGCAACAAAGCCTGTCAAGTTCGTTCACTTGTGAAAAGGACCCCGAGTGC
AAAGTGGACCACAAGAAGGGGCTCAGGAAAAGTGAAAACCCAAGAGGCCCGTTGGTCCTCCCAGCTGGAGGTGGT
GCCCAAGATGAGAGTGGGTCCAGAATCCACCACAAAAATTGGACTCTTGCAAGTAAGAGGGGAGGAAACTCAGCG
CAGAAGGCTAGCTTGTGCCTGAATGGATCTTCCCTTTCAGAGGACGACACGGAGAGAGACATGGGGAGCAAAGGA
GGCAGCTGGGCAGCCCCGTCCTTGCCCTCCGGGGTCAGGGAGGACGATCCCTGTGCCAACGCTGAGGGACACGAC
CCCGGTCTGCCGTTGGGCAGCCTCACTGCGCCCCCAGCCCCTGAGCCCTCGGCCTGCTCAGAGCCTGGAGAATGC
CCTGCGAAAAAGAGGCCGCGCCTGGATGGCAGCCAAAGGCCGCCTGCCGTGCAGCTGGAGCCCATGGCAGCAGGG
GCCGCACCATCCCCCGGGCCGGGGCCAGGGCCCAGAGAGTCTGTGACCCCGCGCAGCACCGCCAGGCTGGGCCCG
CCTCCCTCCCACGCCTCTGCGGATGCAACCAGATGTCTTCCTTGCCCGGATTCCCAGAAGCTGGAGAAAGAGTGC
CAGTCTTCCGAAGAGTCCATGGGGTCTAATTCCATGCGTTCTATCCTGGAGGAAGACGAGGAAGACGAGGAGCCA
CCAAGAGTCCTTTTATACCACGAACCACGTTCGTTTGAAGTAGGAATGCTAGTCTGGCATAAACATAAAAAATAC
CCCTTCTGGCCAGCAGTGGTCAAAAGCGTCAGGCAGAGAGATAAGAAAGCAAGTGTGCTATACATCGAAGGACAC
ATGAACCCGAAAATGAAAGGTTTCACAGTGTCTCTTAAAAGTTTAAAGCACTTTGATTGTAAAGAGAAACAGACG
CTTCTGAATCAAGCCAGGGAGGACTTCAACCAGGACATCGGCTGGTGTGTCTCCCTCATCACCGACTACAGGGTC
CGGTTAGGCTGCGGGTCTTTTGCTGGCTCTTTCCTGGAATATTACGCGGCTGATATAAGCTATCCTGTCCGAAAA
TCCATCCAGCAGGACGTCTTGGGGACCAAGCTTCCTCAACTGAGCAAGGGGAGCCCCGAGGAGCCCGTGGTGGGG
TGCCCCCTGGGGCAGAGGCAGCCCTGCCGGAAAATGCTCCCCGACCGCTCGCGGGCCGCCCGGGACCGGGCCAAC
CAGAAGCTGGTGGAGTACATTGTGAAGGCCAAGGGCGCGGAGAGCCACCTGCGGGCCATCCTAAAGAGCAGGAAG
CCATCTCGCTGGCTGCAGACCTTCCTGAGCTCCAGCCAGTACGTGACCTGTGTGGAGACCTACCTGGAGGATGAG
GGGCAGCTGGACCTGGTGGTGAAGTACCTGCAGGGCGTCTACCAGGAGGTGGGGGCCAAGGTGCTCCAGCGCACC
AACGGCGACCGGATCCGGTTCATTCTGGACGTGCTTCTGCCCGAGGCCATCATCTGTGCGATCTCTGCGGTGGAC
GAGGTGGACTACAAGACGGCTGAGGAGAAGTACATCAAGGGGCCTTCGCTGAGCTACCGGGAAAAAGAAATATTT
GACAACCAGCTCCTTGAAGAGCGGAACCGGCGCCGTCGG**TGA**GGGAGCAGCCGGCTGTGCTGTCAGCGGGGCCTG
GCGGTGGAAGCGCCTCCAGTGTGCATGAGCGTGTCTGAAGATGGGGGGCTCAGGGGGCACGTTTGCGTTTGGACC
TGTCTGTGCGTTCTCCTGCGTGGCAGTCCTGATTTCCATGCTTCTGGAGAATCCATTTCGTTAACACTGAAAGCC
AGTTCTCTTTTCCTGGCAGTTTTTTTCATTTTATTTTTGGCATTTTTTACAAGATACCGTTCGGGAAAGGCTTTT
GAAAGGACGGAAGCGTATTCACTGTGCGCCAGTACTCCTGGCTGTGCTGTGGTTTCTCCCGACGTGCACATCGAT
CTCGTATGTGTGGCATCTGATATTAAACGGGAGGTTTTAAGAAGCGTCTGCCGTGATCATGGAGCTTCGGAAGCG
GGAATGGTTCTTCCGGGTTTGCTGTTTTGTCTGTTTCCCCCTTGTGTGGTTTCCGCCTGCGACAGTTCCAGAATT
TGCTCTCCCACTCAGTGTGCTCTGCAGCTGTGAGGAAACAGCCTTCGTTAGAGGCGGGAGCAGAGACGAGCCGCT
GCTCTGTGTCGTGTTTGCTGTGGCCGCAGGGAGAGGAGCAGGACACGCACCTTTCCAGGGGCCTCTGTGTCCCGC
ACTGTGTGTGAGTGGACCGCAGCGCGCAGCCACATGCCCTGGCTGCCATGGGCCAGACCGCCTCCACCTCCCCCG
CCCGCCTGGCCTGTCCTGAGTGCATTTCCCTGCACTGTGTCGTCACTGCACAGCCAGTCACCGCGGTCTCAGTCA
TCGGCGCGGATGGCTATGCTGGGGTCCCAGGGTGGCCGCAGCAGTCAGGGTCACTGTGGGAGCCCTGGGGTGGAG
TGACAAACCGCATTGTCCTGTGCCCGCCATGGCAGAAGCGCAGCCTTTGTATGGAGGCCCAACCGCGCTCCCGTC
TGGAGAAGCGGCTTCCGGGGTGTGGCTGCCGGGTCGGCTCTGGTCCACAGCACGGTGCCGGGGCTGCAGGTTGTT
GAGGGCTGTGACTCCGTGGGGCTCAGCCAGGCTCCAGCAGGGTCAGACGTGCTGTTAAGAGCAAAGCCACAGACG
ATGACTTGTCCATTCTCAGTGGATGCTCCAGGCTGTGCCTACACAGCAGTGCTGGTGACATGTCCAGGGTTCCAG
GGCCCGGTGGCCTGGGAGCTGCTTTCTCCCCACTGGCTGGGCTGCATCTGGCCCTGGCTGGAGGCCTTGCTTTGA
GGGGCTGTGACCCTCTTCCCCCAGGCCCTCCCCAGCCGACGACAGCCACCGGAGAGGAGATCGGAACACGATTGT
CTCAGATGCAGGGCGCTGTGCGGGACGAAGCCGCAAGGACTCTCGTATCGGGCCCTTGGGACTCGGGAGGTGCCA

FIGURE 258B

GAGGCGGCGGCTGCTCTGGACCTCGGTGTTCACTGACCTTTGTTTCACTTGCCTCTGCTCGACTCCGAGAGCAGG
AAACCCGGCCGTGGCCTGGCAGCTCCGCCTCCCATGCCCGCACGCTGGGGTCTGTCTTGTCTGGAGCAGTGGGGC
ACACCCCGGAGGAGGCGGGGGTCAGGGCTGTCGGCCTTGGCCCCCTGCTGGTCGCTGTTTCGGGGACTCGGGGCG
GCCAGTACCACCGCCTGAGGCGGGGCTCAGCAGCGTTGCATGTACGGGCCTCGTACTGCCTCATGGAAAATCCTC
CGGAGCCGCCCTCCATTGTGGGTTCCTGAGAGTAGGACACATTGCCATGGTTTTGTGGGAATCACGCGCCCCTGA
TGGAACTTTTCTGCTGTTGTGAAGTACTTTTATCCATTTGCTTCTCTGCTGACCTTGCCAAGTTGTTCGAGGTGG
AATTAAACACCTCCCAGACC

FIGURE 259

CTGCGCGCTGCGGTCCACTCACACACAGTGCGGGACACAGAGGCCCCTGGAAAGAGCACACTGAGTGGGAGAGCA
AATTCTGGAACTGTCGCAGGCGGAAACCACACAAGGGGGAAACAGACAAAACAGCAAACCCGGAAGAACCATTCC
CGCTTCCGAAGCTCCATGATCACGGCAGACGCTTCTTAAAACCTCCCGTTTAATATCAGATGCCACACATACGAG
ATCGATGTGCACGTCGGGAGAAACCACAGCACAGCCAGGAGTACTGGCGCACAGTGAATACGCTTCCGTCCTTTC
AAAAGCCTTTCCCGAACGGTATCTTGTAAAAAATGCCAAAAATAAAATGAAAAAAACTGCCAGGAAAAGAGAACT
GGCTTTCAGTGTTAACGAAATGGATTCTCCAGAAGCATGGAAATCAGGACTGCCACGCAGGAGAACGCACAGACA
GGTCCAAACGCAAACGTGCCCCCTGAGCCCCCCATCTTCAGACACGCTCATGCACACTGGAGGCGCTTCCACCGC
CAGGCCCCGCTGACAGCACAGCCGGCTGCTCCCTCACTGGCTTGTTATTTTGAGCATGTCCCCGGCGTGATGAAA
TCACGGCCTGTGTGCTCAGCCCAAGTAACTTCTCCATCAGCACCAGCACCATTCTCACAGGTCACGGGAGGCTTT
CATGGCAACTGGAAGCTGTGATGAACTCCTAACGGGTTTTGATGTCGGCAACCCAGACTCAAAAAAAAAAATCAG
GATGAAAGATTTCCACAGATGGGCGTGGAGCGGTGAAGAGGCTTCTGAGACGGAGGGAGAGGACAAACCAGCAGG
CTGGGTCCAGGTGTCCTGGCTCCGACCTTACCCCCTCCCCGGACCTCACTTATTCTTACGGCAAGCATGACGGGG
GAACC**ATG**AAGATCCAGCAGGAAAACACCCAGTTTCTGTATCCAAAGGCCTTTCCTGTTTTGGTAAGCCAGCTGG
GCCAACACTCCCTAAACAAGGCCAAATTCCACCTTTGTGCAGCTCTGCGGGGGTGGCCTGCCAATGCCACCGAGG
CCCCACACCTCCTCCCTGGCCTCTCCAGGGGCCCCTCCTGCCCTGCCCAGGGAGGACATGGGGCTGGTGAGGGAG
TTCAGTGTCTTCACCAGGAGTCTCCTGTGACTGTGGGCCCGGGAGACGTCGGTGGCTGCGCAAGCCACCCTGGCC
GGAGACCCTGTCCT**TGA**CTCTAGTTGAGTCTTCAGCCTGTCACTGCCCCGTGGGCCCCGCCTGGCTCCCAGCAAG
GCCTGGCCGCATGCCCAGAGACAGGATTAGGCGCTCTGGGGGCCAAACATCCAAGGGCAGCTAAGCACACGGATG
TGAGAGAAACATCTTGATCACAGCATTCTTCTGGCTGCTGGAAAGCACCGGGCCGTGCTGCTGCTTAATCTTGCT
GTATTTCTCACACAGCCATGGGGCTGTGGAAAGAGGGGAGGAAAGTGCAAAAAGCAAACATCAGCCCCTGCAAAA
AGAGATTAAGAACAGACACGGCCCAGGCACGTGCCCGTGGCCCCGTGCTGCCCACAGCGACCAGCTGGGAGACCC
GGGCACAGCCTTCCTGGGGGGCAGGAGTGACCCACAGGGTGAGTTCAGCGTATGTGATCAGCTCACCACCCAGCA
CCTGGGCCACCTCATGAGGGAGAGGGGCTGCGGCAGCCTGGAGTCAAACTGCCTGTGGGTGTGGAAATAGAAACT
GCAAGGCAGAGACGCAAGTGGCTGGAGATAGCGCCGGGAGCGGCCTACCGGTAGCTCAGCGAAGGCCCCTTGATG
TACTTCTCCTCAGCCGTCTTGTAGTCCACCTCGTCCACCGCAGAGATCGCACAGATGATGGCCTGTGAGAGGGCA
CGGGGCTCAATAGCAGCAGGCACTGCCCAACTGGCCCCAAGTGGCCTGCGGTTAAGAAGGCCGCAGGGAGCCTGG
GTCACCAGGTTCCAGCCTCCAGACATGGTCTAGCTCATGGTTCAGAAGGTGCAAACCTAGTCCATGAATCCCTGC
TTGTAATGATGTTTCTTAATTAAATCAGTACTATCTTTCGGACTAGACACAATAGCTCAGATCACTAAAAGCAGA
GAAGAAAAGGCAAGACCCAAACCCACAAGAGCATTTCTCAAAAATTTTAAGTTTTTTTTTTGGTGGCGGTTTTTT
CTGGTACAGAGTCTCGCCCTGTCGCCCAGGCTGGAGCGCAATGGCATAATCTCAGCTCACTGCAACCTCTGCCTC
CCGGGTTCAGGTGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTATAGGTACGCGCCACCACGCCCAGCTA
ATTTTTGTATTTTTAGTAGAAACGGGGTTTCACCATGTTGGCCAGGCTGGTCTCAAGCTCCTGGCCTCATGATCC
ACCTGCCTCGGCCTCCCAAAGTGCTGGAATTACCGATGCGAGCCACCACACCCGGCCTTAAGTTTATTGTTATAA
AAAAAAAAGAGTATCCTGAATACACAATACATACCTGACATTAAGAAATCATCCCTATTTTTTACTTTTGTGATT
ATGGTAAACACATTTTTAACAGAGTCCATTCGGTTCAGAGCAGAGTCTCTCCCACTCGGCCCTGTGGACGTCGGG
GCCAGACTGTTCTCTGAGGTGGGGCTGTCCTAGGCGCTGCAGGGTGCTGAGCAGCGTCCCTGCCCCAACCC

FIGURE 260

CCAAG**ATG**GCGGTGCTGTCAGCTCCTGGCCTGCGCGGCTTCCGGATCCTTGGTCTGCGCTCCAGCGTGGGCCCGG
CTGTGCAGGCACGAGGTGTCCATCAGAGCGTGGCCACCGATGGCCCAAGCAGCACCCAGCCTGCCCTGCCAAAGG
CCAGAGCCGTGGCTCCCAAACCCAGCAGCCGGGGCGAGTATGTGGTGGCCAAGCTGGATGACCTCGTCAACTGGG
CCCGCCGGAGTTCTCTGTGGCCCATGACCTTCGGCCTGGCCTGCTGCGCCGTGGAGATGATGCACATGGCAGCAC
CCCGCTACGACATGGACCGCTTTGGCGTGGTCTTCCGCGCCAGCCCGCGCCAGTCCGACGTCATGATCGTGGCCG
GCACACTCACCAACAAGATGGCCCCAGCGCTTCGCAAGGTCTACGACCAGATGCCGGAGCCGCGCTACGTGGTCT
CCATGGGGAGCTGCGCCAACGGAGGAGGCTACTACCACTATTCCTACTCGGTGGTGAGGGGCTGCGACCGCATCG
TGCCCGTGGACATCTACATCCCAGGCTGCCCACCTACGGCCGAGGCCCTGCTCTACGGCATCCTGCAGCTGCAGA
GGAAGATCAAGCGGGAGCGGAGGCTGCAGATCTGGTACCGCAGG**TAG**CGCCGCCGCCGCCGCCGCCGGAGCCTGT
CGCCGTCCTGTCCCCAGCCTGCTTGTGTCCCGTGAGGTTGTCAATAAACCTGCCCTCGGGCTGCCGCC

FIGURE 261

CCCCGGCCCACAAGCCCCTGCAGGGAGCGGGCCCGGGCGGCGCGCGATCGAGGTCGGGTCGCCGTCCAGCCTGCA
GC**ATG**AGCGCCCCCAGCGCGACCCCCATCTTCGCGCCCGGCGAGAACTGCAGCCCCGCGTGGGGGGCGGCGCCCG
CGGCCTACGACGCAGCGGACACGCACCTGCGCATCCTGGGCAAGCCGGTGATGGAGCGCTGGGAGACCCCCTATA
TGCACGCGCTGGCCGCCGCCGCCTCCTCCAAAGGGGGCCGGGTCCTGGAGGTGGGCTTTGGCATGGCCATCGCAG
CGTCAAAGGTGCAGGAGGCGCCCATTGATGAGCATTGGATCATCGAGTGCAATGACGGCGTCTTCCAGCGGCTCC
GGGACTGGGCCCCACGGCAGACACACAAGGTCATCCCCTTGAAAGGCCTGTGGGAGGATGTGGCACCCACCCTGC
CTGACGGTCACTTTGATGGGATCCTGTACGACACGTACCCACTCTCGGAGGAGACCTGGCACACACACCAGTTCA
ACTTCATCAAGAACCACGCCTTTCGCCTGCTGAAGCCGGGGGGCGTCCTCACCTACTGCAACCTCACCTCCTGGG
GGGAGCTGATGAAGTCCAAGTACTCAGACATCACCATCATGTTTGAGGAGACGCAGGTGCCCGCGCTGCTGGAGG
CCGGCTTCCGGAGGGAGAACATCCGTACGGAGGTGATGGCGCTGGTCCCACCGGCCGACTGCCGCTACTACGCCT
TCCCACAGATGATCACGCCCCTGGTGACCAAAGGC**TGA**GCCCCCACCCCGGCCCGGCCACACCCATGCCCTCCTC
CGTGCCTTCCTGGCCGGGAGTCCAGGGTGTCGCACCAGCCCTGGGCTGATCCCAGCTGTGTGTCACCAGAAGCTT
TCCCGGCTTCTCTGTGAGGGGTCCCACCAGCCCAGGGCTGATCCCAGCTGTGTGTCACCAGCAGCTTTCCCAGCT
TCTCTGTGAGGGTCACTGCTGCCCACTGCAGGGTCCCTGAGGTGAAGTAAACGCCGGCGCTGGGCTTGGCCAGTC
GGCAGTGA

FIGURE 262

GGAAGCTCTTCGTGGGCGGTCTTGACTGGAGCACGACCCAAGAGACTCTGCGCAGCTACTTTTCCCAATATGGAG
AAGTCGTAGATTGTGTTATC**ATG**AAAGATAAAACCACCAACCAGTCTCGAGGCTTTGGGTTTGTCAAATTTAAAG
ACCCAAACTGTGTGGGGACGGTGCTGGCCAGCAGACCGCACACGCTAGATGGCCGAAACATCGACCCCAAGCCAT
GCACACCCCGGGGGGATGCAGCCGGAGAGAACACGGCCGAAGGAAGGATGGCAGAAAGGACCCAGGAGCGATAACA
GTAAATCAAATAAGATATTTGTCGGTGGAATTCCTCACAATTGTGGTGAGACAGAGCTCAGGGAATACTTCAAGA
AGTTCGGAGTGGTCACGGAGGTAGTCATGATCTATGACGCCGAGAAGCAGAGGCCCCGAGGTTTTGGATTTATTA
CTTTCGAGGACGAACAATCAGTGGACCAGGCTGTCAACATGCATTTTCACGACATCATGGGCAAAAAAGTGGAAG
TTAAACGAGCTGAGCCTCGGGACAGCAAGAGCCAAGCGCCGGGACAGCCAGGTGCCAGCCAGTGGGGGAGCCGGG
TTGTGCCCAACGCTGCCAATGGCTGGGCAGGCCAGCCCCCGCCCACGTGGCAGCAAGGATATGGCCCGCAAGGAA
TGTGGGTGCCGGCAGGACAGGCGATTGGTGGCTATGGACCGCCCCCTGCAGGAAGAGGAGCCCCCCCGCCACCCC
CACCGTTCACCTCCTACATCGTGTCCACCCCTCCTGGAGGCTTTCCCCCTCCCCAGGGCTTCCCTCAGGGCTACG
GTGCCCCGCCACAGTTCAGTTTTGGCTACGGGCCTCCACCTCCACCGCCAGATCAGTTTGCCCCTCCGGGGGTTC
CTCCTCCACCAGCCACTCCCGGGGCAGCACCTCTGGCTTTCCCACCGCCTCCGTCTCAGGCTGCCCCGGACATGA
GCAAGCCCCCGACAGCTCAGCCAGACTTCCCCTATGGTCAGTATGGCCTGGGTTCCTATTCTCCAGCCCCGCCGG
GCTGCGGCCCACACTTTGTTTACAGTCTTATGGTCAGGCTGAGCAGTGATGTGGCC**TAG**CAGGTTACGGGCAGGA
CTTGAGTGGCTTCGGACAGGGCTTCTCAGACCCCAGCCAGCAGCCTCCTTCCTACGGGGGTCCCTCCGTGCCAGG
GTCGGGGGGCCCCCCCCGCCGGCGGCAGCGGCTTTGGACGAGGGCAGAACCACAACGTGCAAGGGTTCCACCCCTA
CCGACGCTAGCCCGCGGCGCCGCGACGTCTGCACGGCCCAGACCCAGGATTCCAAACTTGTGAACTCGTGACAAT
CACAAACTTGGCGGCAAAGTGGCGACTCAACCTTGGGGGGGGGGGCGGGGGGAGGGCGCGAGGCTTTTGGAGCGG
CTGTGGGTGTCGTCTGGACTGAGGTTTTTAAATATTTCTTTCTCTAACCCATCAGCACAATAAAAAAAAGTCACT
GGTTCAACAACAGGGTTTAAAAAAAATGTCTTCAGCTTTAATTCAAAACTTCAGGTTTCTTTTTCTTCCTTTTTT
TTGGAAATTATTTTCCTGAGCCTTTTGTTTTACGGTATATTGTAAACTTTTATGTTAAAGAAAAAATATACATTT
ACAAATTGTGAGATTTTTAAGAGAAATTTTCTACGATGTATACTGGCTTATTTTTTAATTTAAAACGGGGTTTCC
GTCGGCACTGGTGGAGGGGGTGCGCTGTTAGTCCCCTCGCTCCTGGCTTTGGGGGTTGGGACTTGGTGGTCCAGA
AACTCTGGGAGCTTCTAGAAGAAATCTACTGAGTGTATTTCTGTTTTTTGTTTAATTCCTTGCTTTTGTCGACTG
ACCTGCTTGGTAGTGTCTGAGGTGAACTGTGGGGGTTGCGCACAGCCAGCCGCGTGGATCCCACGCAGCGCTGAA
CCGAACCGAGTAGGAAGCCTTTCTCCCCAGGCACGTGGCTTCAGGGCGTTTCCCATTGACCAGTTTGACCCTGGT
TTGAATAAAGAGAAGTGCGTTTGGATTAG

FIGURE 263

CTGCGCAGGCGCGGACCAAAGCGATCTCTTCTGAGGATCCGGCAAG**ATG**GCAGAAGTAGAGCAGAAGAAGAAGCG
GACCTTCCGCAAGTTCACCTACCGCGGCGTGGACCTCGACCAGCTGCTGGACATGTCCTACGAGCAGCTGATGCA
GCTGTACAGTGCGCGCCAGCGGCGGCGGCTGAACCGGGGCCTGCGGCGGAAGCAGCACTCCCTGCTGAAGCGCCT
GCGCAAGGCCAAGAAGGAGGCGCCGCCCATGGAGAAGCCGGAAGTGGTGAAGACGCACCTGCGGGACATGATCAT
CCTACCCGAGATGGTGGGCAGCATGGTGGGCGTCTACAACGGCAAGACCTTCAACCAGGTGGAGATCAAGCCCGA
GATGATCGGCCACTACCTGGGCGAGTTCTCCATCACCTACAAGCCCGTAAAGCATGGCCGGCCCGGCATCGGGGC
CACCCACTCCTCCCGCTTCATCCCTCTCAAG**TAA**TGGCTCAGCTAATAAAGGCGCACATGACTCC

FIGURE 264A

GGGTTTGGGGAGCAGGAGGCAGACATGTGTTGCTTTGCACGTCATCTGGTCCTTCCACCTGGCTGGGCATGGGAT
GGTGACCTCAGCTGGAACATGGGGCTCGAGCCAGACCCCAGGGTCTCCCTGCGTGTAGCCCCCAACCCCAAGCCT
GATCCCCACTGGAGACCTGAACAGCCTTGGACATCATCGGATCAGGGTGGGAGGTGCCAGCCTCTGCCACCTGAC
TTCCAGTCCCTGTGCCCCTCCCACCCTGCCCTTGGGCACTCCTGCCCTGCAGGTTCCTCAGAGGGGCAACCCAAA
GCCAGAGAGGGGCGGGTCTTGTCGGGCCTCCAGCCTGGACTTCCCAGCCCCTCTGGGGCAGCATCTGGGTGCCAG
ACCTCGGTTCCTAGGGCCTCGTTTCTCCCTCTGGGAACAGCCAAATGGTGGTCCCTGAGACTCAGGACAGACCAA
GAAGGAGCCGGATGACATGGCAAGCCACACACTGCGTCCCCTGAGCAGGACGGGACAGCCCGACTCCATCCTCCC
ACCTGCGACTGAGCCCCCACCCCTACTCCTGTCCCAGCCGTGCCCCTGGTGACATTTGGGTGGGAGGGGAGGGGA
TGAGGGGGCACCTGGGGGTCAGAGAACAAATGACGGGTGAATACATGTGTGTGGCCAGGTGGAGGAGGGAGGGGA
GGAGCAGGTGGGCTGGACAGGGCCGGTGTGAGGAAGGGGCTCAGGCTGGCAGGGGGAGGTGGCAGAGGGATGGGC
TGCCATTGGTGCGTCTGAGACAAAGGCGGAGGGAGGAGGCGAGCGCTGATGGGAAAGGAACAAAGAGGGAAGGGG
GGCGTGAAGGGGGGCTCCGGCGGGAGGGCCGAGCCGAGGGAGGAGGCGCCGGCCAGCTGGACAGAGGGAGGAGGC
CAGGCCAGAGCCAGAAGACGGCCAGAGGCACAAAGAAGCCAGCGCGCTGGCAGAGTCAAGGGATGGGGCAGGGGC
TGCCGGGGCCAGCAGGGACCAGCTGAAGGCTGCGCAGGGGGTGCGGGCCACACAGGTAGCCACCCTGAGCTCAGC
CACCGATGGAGGGTCGTGGGGCTGCTGCGGTGATGGCGGTGGGCTTGGGTCCATCTGTCCTGCCGTTTCTGCACA
GCTTAGGTGTCACCCACTGGCCTTCGTGGTGTTTTCATTGTCCATCGGCAGGGACAGCTGGTGGTCTGTCCGCCC
CGCGTGTCTGGCTGTCAGCCTCTGGGCAGGCTTGCTTTTATGGGGGAGGGTCCTGTCTGTCTGTCTGTCGCCCTC
TCTGGCTGTGAGCCTGGGGGTGCTGGGCTGGCCAGTCGGCTTGCTGGGTTAGGCTGTCCCAGCTGTCTGTGTGTT
TGTCCGGCTGTCAGGATGTGTCCTGGGGGCTGGGAAGGAGAGGCCGACCCATCGTCTGTCGGTCGACTGGTCAGT
TGGACGTTCAGCTGTCTGTACGTCTGTCTGCTGGCCCCTCTGTCTCCCCTTGGGGCCACCTCTCACTCCACCTGC
CCCTCTGCGCCCCGGATTGCCTGGCCACCACCACGTGGGCCTGTACTTGTCCACACCAGTGACTCCTGCCTGAGA
CCCCCCCCAACCCAGGATCAGGCAGGACGGCTGGGGCTTAGGTCAGGGGCCGTCTGTCCGGAAGGCATCACCGCG
CCCTCCCCAGACCATCAGCTGAACCCTCTGACCCTGTGATCCCAGACGCTGCAGGAGCTGAAG**ATG**GCGAGCTCC
GTGGCGCCCTACGAGCAGCTGGTGAGGCAGGTGGAGGCCTTGAAGGCTGAGAACAGCCACCTGAGGCAGGAGCTA
AGGGACAACTCCAGCCACCTGTCCAAGCTGGAGACAGAGACGTCGGGCATGAAGGAGGTCCTGAAGCACCTACAG
GGAAAACTGGAGCAGGAGGCCCGAGTGCTGGTGTCCTCGGGGCAGACGGAGGTGCTGGAGCAGCTGAAGGCCCTA
CAGATGGACATCACCAGCCTGTACAACCTCAAGTTCCAGCCGCCCACCCTGGGCCCGGAGCCTGCCGCCCGGACC
CCCGAGGGCAGCCCAGTACACGGCTCCGGGCCCTCCAAGGACAGCTTTGGGGAGCTGAGCCGGGCCACCATCCGG
CTGCTGGAGGAACTGGACCGGGAACGGTGTTTCCTGCTGAATGAGATTGAGAAGGAGGAGAAGGAGAAGCTCTGG
TACTACTCTCAGCTGCAGGGCCTGTCCAAGCGCCTGGACGAGCTGCCGCACGTGGAGACGCAGTTCTCGATGCAG
ATGGACCTGATCCGGCAGCAGCTTGAGTTCGAGGCCCAGCACATCCGCTCGCTGATGGAGGAGCGCTTCGGCACC
TCGGACGAGATGGTGCAGCGGGCACAGATCCGCGCCTCGCGCCTGGAGCAGATTGACAAGGAGCTGCTGGAGGCG
CAGGACCGAGTGCAGCAGACGGAGCCCCAGGCCTTGCTGGCGGTGAAGTCGGTGCCGGTGGACGAGGACCCCGAG
ACAGAGGTCCCCACACACCCTGAGGATGGCACCCCTCAGCCGGGCAACAGCAAGGTGGAGGTGGTCTTCTGGCTG
TTGTCCATGTTGGCGACGCGCGACCAGGAGGATACAGCGCGCACGCTGCTGGCCATGTCCAGCTCGCCCGAGAGC
TGCGTGGCCATGCGCCGCTCGGGCTGTCTGCCTCTGCTGCTGCAAATCCTCCACGGCACCGAGGCCGCGGCCGGG
GGTCGCGCCGGGGCCCCAGGGGCACCGGGCGCCAAGGACGCACGCATGCGCGCCAACGCGGCGCTGCACAACATC
GTCTTCTCGCAGCCGGACCAGGGCCTGGCGCGCAAGGAGATGCGCGTCCTGCACGTGCTGGAGCAGATCCGGGCC
TACTGCGAGACCTGCTGGGACTGGCTGCAGGCCCGAGACGGCGGGCCCGAGGGAGGTGGCGCCGGCAGCGCCCCG
ATCCCCATCGAGCCGCAGATCTGCCAGGCCACCTGTGCTGTTATGAAGCTGTCCTTTGATGAGGAGTACCGCCGT
GCCATGAACGAGCTAGGTGGGCTGCAGGCCGTGGCAGAGCTGCTGCAGGTTGACTATGAGATGCACAAGATGACC
CGGGACCCGCTGAACCTGGCGCTGCGCCGCTACGCGGGCATGACCCTCACCAACCTCACCTTTGGGGACGTTGCC
AACAAGGCCACCCTGTGTGCGCGCCGCGGCTGCATGGAGGCCATCGTGGCCCAGCTGGCCTCCGACAGTGAGGAG
CTCCACCAGGTGGTGTCCAGCATCCTTCGGAACTTGTCCTGGAGGGCCGACATCAACAGCAAGAAGGTGCTGAGG
GAGGCGGGCAGCGTGACTGCCCTGGTGCAGTGTGTCCTGCGGGCCACCAAGGAGTCCACCCTGAAGAGCGTGCTG
AGCGCCCTGTGGAATCTGTCTGCACACAGCACAGAGAACAAGGCGGCCATCTGCCAGGTGGATGGCGCCCTGGGC
TTCCTGGTGAGCACCCTGACCTACAAGTGTCAGAGCAACTCGCTGGCCATCATCGAGAGCGGCGGCGGCATCCTC
CGCAATGTGTCCAGCCTCGTCGCCACCCGTGAGGACTACAGGCAGGTGCTCCGGGATCACAACTGTCTGCAGACG

FIGURE 264B

CTGCTGCAGCATCTGACTTCGCACAGCCTGACCATCGTGAGCAACGCGTGCGGCACGCTCTGGAACCTGTCGGCC
CGCAGCGCCCGTGACCAGGAGCTGCTGTGGGACCTGGGCGCCGTGGGCATGCTGCGTAATCTGGTGCACTCCAAG
CACAAGATGATCGCCATGGGCAGCGCCGCCGCCCTGCGCAACCTGCTGGCCCATCGGCCCGCCAAGCACCAGGCG
GCCGCCACCGCCGTGTCCCCAGGCAGCTGCGTGCCCAGCCTGTACGTGCGCAAGCAGCGGGCGCTGGAGGCCGAG
CTGGACGCACGGCACCTCGCGCAGGCGCTGGAGCACCTGGAGAAGCAGGGCCCGCCGGCAGCCGAGGCCGCCACT
AAGAAGCCGCTGCCGCCCCTGCGACACCTGGACGGCCTGGCCCAAGACTATGCTTCCGATTCGGGCTGCTTTGAC
GACGACGATGCACCGTCATCCCTGGCTGCGGCCGCGGCCACCGGGGAGCCAGCCAGCCCTGCCGCGCTGTCCCTC
TTCCTGGGCAGCCCCTTCCTGCAGGGGCAGGCGCTGGCTCGCACCCCGCCCACCCGCCGAGGCGGCAAGGAGGCA
GAGAAGGACACCAGTGGGGAGGCAGCCGTGGCGGCCAAGGCCAAGGCCAAGCTGGCGCTTGCAGTGGCGCGCATC
GACCAGCTGGTGGAGGACATCTCCGCCCTGCACACCTCGTCCGACGATAGCTTCAGCCTCAGCTCTGGAGACCCG
GGACAGGAGGCGCCACGGGAGGGCCGCGCCCAGTCCTGCTCGCCATGCCGCGGCCCGGAGGGCGGGCGGCGAGAG
GCAGGAAGCCGGGCGCACCCGCTGCTGCGGCTCAAGGCGGCCCACGCCAGCCTCTCCAACGACAGCCTCAACAGC
GGCAGTGCCAGCGACGGGTACTGCCCACGCGAACATATGCTGCCCTGCCCGCTGGCCGCACTGGCTTCGCGCCGC
GAGGACCCCAGGTGTGGGCAGCCTCGGCCCAGCCGGCTTGACCTTGACCTGCCCGGCTGCCAGGCCGAGCCCCCG
GCCCGCGAGGCCACCTCCGCCGACGCCCGCGTGCGCACCATCAAGCTGTCGCCTACCTATCAGCACGTGCCACTG
CTTGAGGGTGCCTCAAGGGCGGGTGCAGAGCCCCTCGCGGGGCCTGGAATCTCTCCAGGGGCCCGGAAGCAGGCC
TGGCTGCCGGCAGACCACCTGAGCAAGGTTCCCGAGAAGCTGGCGGCTGCCCCGCTGTCTGTGGCCAGCAAGGCA
CTGCAGAAACTGGCGGCGCAAGAGGGGCCACTCTCGCTGTCCCGATGCAGCTCCCTTTCCTCGCTGTCCTCGGCC
GGCCGCCCAGGCCCCAGCGAGGGTGGTGACCTGGATGACAGTGACTCCTCCCTGGAGGGGCTGGAGGAGGCCGGC
CCCAGCGAGGCTGAGCTGGACAGCACGTGGCGGGCGCCCGGGGCCACCTCGCTGCCCGTAGCCATTCCGGCTCCC
CGGCGTAACCGAGGCCGGGGCCTGGGGGTGGAAGACGCCACGCCGTCCAGCTCGTCGGAGAACTACGTGCAGGAG
ACACCGCTTGTGCTGAGCCGCTGCAGCTCTGTGAGCTCGCTGGGCAGCTTCGAGAGCCCGTCCATCGCCAGCTCC
ATCCCCAGTGAACCTTGCAGCGGGCAGGGCAGCGGCACCATCAGCCCTAGCGAGCTGCCCGACAGCCCCGGACAG
ACCATGCCTCCCAGCCGGAGCAAGACGCCACCGCTGGCGCCCGCGCCACAGGGTCCCCCCGAGGCCACCCAGTTC
AGCCTGCAGTGGGAGAGCTACGTGAAGCGCTTCCTGGACATCGCCGACTGCCGGGAGCGCTGCCGGCTGCCATCT
GAGCTGGACGCAGGCAGCGTGCGCTTTACCGTGGAGAAGCCAGACGAGAACTTCTCGTGCGCCTCCAGCCTCAGC
GCGCTGGCCTTGCACGAGCACTACGTGCAGCAGGACGTGGAGCTGCGGCTGCTGCCCTCGGCCTGCCCCGAGCGC
GGCGGGGGCGCCGGGGGCGCCGGCCTCCACTTTGCAGGGCACCGGCGGCGGGAGGAGGGGCCGGCGCCCACGGGT
TCTCGCCCTCGCGGCGCCGCGGACCAGGAGCTGGAACTGCTGCGGGAGTGCCTGGGAGCCGCCGTGCCTGCCCGG
CTGCGCAAGGTGGCCTCCGCGCTGGTGCCAGGTCGCCGCGCACTCCCCGTGCCCGTCTACATGTTGGTGCCCGCC
CCGGCCCCGGCCCAGGAGGACGACTCCTGCACTGACTCCGCGGAGGGCACGCCGGTCAACTTCTCTAGCGCCGCC
TCGCTCAGCGACGAGACGCTGCAGGGACCCCCCAGGGACCAGCCCGGGGGACCAGCGGGCAGGCAAAGACCCACC
GGCCGCCCCACCTCTGCCAGACAGGCCATGGGGCACCGGCACAAGGCGGGAGGCGCCGGCCGCAGCGCGGAGCAG
TCTCGGGGCGCGGGCAAGAACAGAGCAGGGCTGGAGCTGCCCCTGGGCCGGCCCCCGAGCGCCCCCGCAGACAAG
GACGGCTCAAAGCCCGGCCGGACCCGCGGGGACGGGGCGCTCCAGTCGCTGTGCCTCACGACGCCCACTGAGGAG
GCCGTGTACTGCTTCTACGGCAACGACTCGGACGAGGAGCCCCCGGCGGCCGCGCCCACGCCAACCCACCGGCGC
ACATCGGCCATCCCTCGCGCTTTTACGCGGGAGCGTCCGCAGGGCCGGAAGGAGGCCCCTGCCCCGTCCAAGGCT
GCACCAGCTGCCCCGCCGCCCGCCCGGACCCAGCCCAGCCTCATTGCTGACGAGACCCCGCCCTGCTACTCCCTG
AGCTCCTCCGCCAGCTCCCTCAGCGAGCCCGAGCCCTCGGAGCCGCCGGCCGTCCATCCACGAGGCCGGGAGCCC
GCGGTCACCAAGGACCCGGGCCCAGGAGGCGGACGCGACAGCTCGCCCAGCCCGCGGGCCGCGGAGGAGCTTCTG
CAGCGGTGCATCAGCTCGGCCCTGCCCAGGCGCCGGCCCCCCGTGTCTGGCCTGCGGCGCCGCAAGCCCCGAGCC
ACCCGGCTGGATGAGCGGCCCGCAGAGGGGTCCCGGGAACGCGGCGAGGAGGCAGCGGGCTCGGACCGGGCCTCC
GACCTGGATAGCGTGGAGTGGCGCGCCATCCAGGAGGGCGCCAATTCAATTGTCACGTGGCTGCACCAGGCAGCA
GCTGCCACGCGGGAGGCCTCGTCCGAGTCCGACTCCATCCTGTCCTTCGTATCCGGGCTGTCAGTGGGATCCACC
CTACAGCCCCCCAAGCACAGGAAGGGACGACAGGCGGAGGGAGAAATGGGCAGTGCCCGGCGGCCAGAGAAAAGG
GGCGCAGCCTCAGTCAAGACCAGCGGGAGCCCCCGTTCCCCTGCAGGCCCCGAGAAGCCACGTGGCACACAGAAG
ACCACGCCCGGGGTGCCAGCTGTGCTCCGGGGACGAACAGTGATCTACGTCCCCAGCCCGGCACCCCGTGCCCAG
CCCAAAGGGACCCCCGGCCCCCGCGCCACACCGCGGAAGGTGGCGCCCCCTTGCCTGGCACAGCCCGCGGCTCCA

FIGURE 264C

GCCAAAGTCCCGAGCCCCGGGCAGCAGCGGTCGCGGAGCCTACACCGGCCTGCCAAGACCTCGGAGCTGGCGACG
CTGAGCCAGCCCCCCAGAAGCGCCACACCGCCCGCCCGCCTCGCCAAGACCCCCTCCTCCAGCTCCTCCCAGACC
TCGCCCGCCTCCCAGCCCCTGCCCAGAAAGCGCCCCCCGGTCACCCAGGCTGCTGGGGCCCTGCCCGGCCCCGGA
GCCTCCCCGGTGCCCAAAACGCCGGCGCGCACCCTTCTGGCGAAGCAGCACAAGACGCAGAGATCGCCCGTGCGG
ATCCCGTTCATGCAGAGGCCGGCCCGGCGTGGGCCGCCACCGCTGGCTCGGGCAGTCCCGGAGCCGGGCCCCAGG
GGCCGGGCGGGGACCGAGGCGGGCCCGGGGGCGCGCGGGGGCCGCCTGGGCCTGGTGCGTGTGGCCTCAGCCCTC
TCCAGCGGCAGCGAGTCCTCCGACCGCTCGGGCTTCCGGCGACAGCTAACCTTCATCAAGGAGTCGCCGGGCTTG
CGGCGCCGCCGCTCCGAGCTGTCCTCGGCCGAGTCCGCGGCCTCTGCCCCCCAGGGCGCCTCGCCCCGCCGCGGC
CGGCCCGCGCTGCCCGCCGTCTTCCTCTGCTCCTCGCGCTGCGAAGAGCTCCGAGCGGCACCCCGGCAGGGCCCG
GCCCCGGCCCGGCAGCGGCCCCCCGCGGCCCGACCCAGCCCTGGCGAGCGCCCTGCCCGGCGCACCACCTCCGAG
AGCCCGTCCCGCCTGCCTGTGCGCGCCCGCCGCCCGGCCGGAGACTGTCAAGCGCTACGCGTCGCTGCCGCAC
ATCAGCGTGGCCCGCAGGCCCGACGGCGCCGTCCCCGCGGCCCCTGCCTCAGCCGACGCCGCGCGCCGCAGCAGC
GACGGGGAGCCCCGGCCGCTCCCCAGGGTGGCCGCGCCGGGCACGACCTGGCGGCGCATCCGAGATGAGGACGTG
CCCCACATCCTGCGCAGCACGCTTCCCGCCACGGCCCTGCCACTGCGGGGCTCCACGCCCGAGGACGCCCCGGCC
GGGCCCCCGCCGCGCAAGACCAGCGACGCCGTGGTCCAGACCGAGGAGGTCGCCGCCCCCAAGACCAACTCCAGC
ACGTCCCCGAGCCTGGAGACCAGGGAGCCCCCCGGGGCCCCCGCCGGCGGCCAGCTCTCCCTCCTCGGCAGCGAC
GTGGACGGTCCCAGCCTCGCCAAGGCTCCCATCTCCGCACCCTTCGTGCACGAGGGCCTGGGGGTCGCCGTGGGG
GGCTTCCCCGCCAGCCGGCACGGCTCCCCCAGCCGCTCGGCCCGAGTACCCCCCTTCAACTATGTGCCCAGCCCC
ATGGTGGTCGCAGCCACCACCGACTCGGCCGCGGAGAAAGCCCCGGCCACTGCCTCCGCCACCCTCCTGGAA**TAG**

TGGCCTAGGCCGGCCTTCTGGAACGTTCTCTCCCGGCCCTGCGGCGCGGTCTGGCTGCCCCATGGGCCTGCGCTG
TAGACGTCCCCCATAGGTCGCCCCAGGGCCTCTGCCCACCCGAGCCCCACCACTCTCAGAACCCCCGCCCAGCGC
ACGGCGACCTCGCGCCTCACCGGAAGACCTTGCCTCTGTGCCGCGGAGGTCCAGGAGGAAACGGGGCGGCCGCTA
GGCCTCAAGTCCCGACCGTGGAGCGCTGGCAAGGGCGTCCTGGCCCAGCCCTGAGCGCGCGGCCCTTCCCCTGTC
GGAAGCCGTTGCTTGACCCCGGGCGAGGGAGGCGGTAGCCTCCGGGTCCGGGTCTGGGTCTGGGTCCGCTGCTTC
GCAGGGACAGCGCTGGGGAGGTGACGGCGCCCGCCGCAGGTGGGGCGAGGCTGGGGGAGGGCGGCGCCGCGGCGG
GCCTGCCAGCTGGGGGCCTTTGCGGCGCGCAGGGGCGAAGCCTGTAATCACTGCAGCCGCCGGTAATTCGCTAAT
GAGGGCTTTGCAGGGATTGTTTTCATTCTCAGCCCCAGCTGTGGGAGTGCGGGTGGGGGTGTGGCCGAGCCCCGG
CAGGAAGCCCCGCCCAGACGGTGTTCAGGGAACCCGGAGCCCAAGCGCTCCGGCGGAGCCCAAAAGGGTGGGGGT
GGGAGGGGCAGAGGCCAACGGATCCCCCTGCCTGTCGCACCCCTTGGCGGGAGACGGGAAGGCAGCGGGCTGCGT
ACGATGGGACCCTGGTGCAGACGCCGGGCCGGCTGACATTTGGACCCCATCCCAGAGGAGATGCTGGCTACCAGC
TGGGGCGACCCCAAGGGTCGCTGGAGTCAGTATCGGCCCGGCGCAGCCGCGGCGGGCGAGGCCAATGGAAAGGAG
ACTGAGGGGAGTCCCGGCAGTGAGCCCGAGGCCCTGGGACCTGGAGCCCGCGCTGGCCTCTCCCCAGCGGAGCCT
GCACGTTACGGAGACCATCACATGTGGGCGTGGTCAGTGCCCAGGACCGCACCGCTGCTCATCTTGTCCCTTTTC
AATTCCCTTCTGGTTCATGATGCATAAAGCGCTAGGCCCTAGAACTCCAGAAACAGCACAGCTGGGGCGGGGACC
CAGCCTTGCCCTCCACCCGAGGCTCTGGGACAAGGCGGGAGGTTCGGGGGCCTTCCGGCAGGTGAACGCAGGGCT
GGAGAGTATTTGGTGCCAGATGAGGTGAAAGCTTATAGAAGGGCCTGAGGGGCTCGGCTGCCTCATCCCCTGGCG
GGGGAGGCTGGGAGCTGGGCCTCCTGCGTGGGGTGGGACTCGCAGGGGCCGGGTCTCCGTGACTGGGGCAACGCC
TCGTCCTGCAGAGGGAGCCGACGACCTCTTTTCTGCAGAAAAGCTCCAGCAGGCGCTGCCTTCACCCACGGATCT
GCCCAGGCTGAAGGCACACGCTCAATGCCCCACGTGCCTTCTCCAGGAGGAACGAAGCAGGGTTTGAGGGTTGGG
TGGATGGAGCTCAGAAGGAAACCCCAGCCCCACCACGGATGACACCATCCCTCCCGTCCCATCCCCAGCATGGGC
AAGGCCAGCCTTTCTGGCAGAAGGAGCTGTCCTCAACTCAGGGCCGCTGTGAGCAAAGCTGACCCCAGCCCCCAC
CCCCAGTTAACACTGCTGCTTCTCTGAATGCATGTCACGCTGCACCCCATGCTCCGGGCCCACACCCTGCAGGAC
AAGGAGCTCCAGACAGGACGTCCATAAGTCACCGAGGTGTGCCACCCAGCAGGTGCTGGAGGTGCCCAATGCTCC
CTCCTAGGACCTCGCAGCCAGGCAAGGCTGTCAGGTTGTTTTGGGGGAAGAGGGGGTCATGGATGGCTGAGCAGA
GAGCGGGGAAAATGCAGGCTGAGTGGGGCGACCTCCTGCCTGCCAGGAGCCCCCTTTCAGGACACAGCGGGGGTC
TCACACTTGCTGTCCCCATCCATGGCCCGAGGGGGAACCTGGTGGTCTCTTCTGAGCTTTTGGACTTGGGGATGC
CAAACACGTGCTCACCCTCACACTCGCCCCGGCCCGCTGCGCCCCTAATTGCCAAAGGGTAGGGAAATGGCGAAG
CCAGCCACCAGGTCGCTGGTGACAGGGCCAGGGTTATGCAGGAAGGTGGTGCGGCATTGCCTTCCACATATGTAA

FIGURE 264D

GTCTCTGGGCGGCGCCCTCCCAGCTCCCTGCCTCTGTTTCCCCATGTGGGCCGTGGGGAACTCCCAGAGCTACCT
CTTGGGGGAGCGTGGTGGCAGCGATGATGGGGAGACGCCTGGAAGCTCACAGAACTTGGGTCTGGCTGGCTCCTG
CCCGTGACGCCTTGCCCAGCAGCAAGGTGCGCAACATGGCTGCCAGCCCCGCCTCCCACCCCCACCCCGAGTCCT
GAGCTCACTTTCGCCTTCTCCATCCCCTGCCGTGGGGGCCACAGCCACACCTCACCGCCCAGTCCAGCTGTCTCC
AGAAGGGGACAGGCAGTCCGCGGTCTCTGGACAATCAACTCAAGGTACGCCCACTGCAAGGCCTCCCTCCCACCG
CGGCCCCTGCCTGGCCACCTGGCCTCTCTGCACCAGGGTGACAAGGGGTCCTCGTCTGCCCCCCAATGCTCCAGG
GCCAGTCCTAAGGAGCTGAGGGTCTGAGGACGCAGGGAGGGTGGAGGTGTCCTGAGGCTGATGGACAGTGACCGC
CACTGGCCCCCAACATGACCACACGTGGGTGCTGAACTCGGGGCGCCGTGCCCACCGGCATGGTCCTCCCGAGCT
CCGACAGCATTACCTCACCCGGCCCCATCTGTTGCCCCGGTCCAGCCCTGATGGCGCGCGCCTGGTCTGTCTGAT
TCCCCTAGCCGCCACCCCACGTTTCTGTACCGGGTCTCTGCAGTGTTAAACGGACGTGTAAATAGTGGTAAATAG
TGAAAGCCTGTCCTTCCCTAAATGTAAAGCCATCTGTCCGGCGTAAGGACGACACCGTCAGCTGTCCGACTCGCA
CACATTTAATAAACTGAGCTCTTGC

FIGURE 265

AGCATGCAGTTCGGTCACCTGAGGGTGCTGGGGCCGTGGTTTGAGCTTCATGGGCTCAGGTCCATGGCCGTTGAG
TGTGGCGAAACTGAGGCACGCTGTGCGGGGGACGGGGGGCGCTCACAGAAGGTAGGGGGCCTCCTGTGCCTTCAT
CCAGGCACTGCCCGGCCTTTCCCACCCTGTTGCTAAAGCAGGTGATGACAGAGGTGATTTGATCAGCCCAGACCC
GTGCGGCACGTGGAGCCTTCGTCCGTGGGAGACCACACTGCCGAGGGGCAGGCCAGAGCCGAGGGGCCCCTGACG
CTTCTCTGAGTGACCCTGAAGTCGGTGCTGCTTCAGCCCTGCTGCACTGGGCTTGCATACGTGGGGGAGCAGGGA
GCCATACGTAGTTTCTGCTGAATGTGGGAGTCACCAGGACGTCA**ATG**CCCACCTCTCACCTTCGCCACCCCTGCC
TCCCTAAGTGTGTGCTCCAGGAGGTTGCACGGCCCCTGGAGAGGTTTTCGGTGGCGGGCTTGTTGCGTCTCTGGC
TTCCAGAGACAGCAGGAATGAGAGCCAGGCCAGCTCAGTGGAGTCCATCCCGGTGGGTGCCACGGCTTTTGCAGG
AATGGAAGCCCCGCCCCCAGGAGGGCCACTGCTGGCGAGGCTTGAGCTCTTTCTGTGACCCGATCCCCCTGGTCA
CACGCTTTGCTAAGGCGGGTAGCCTAGAGCTGGAAGCCCCTCCTGCCACCCAGCCACTGTGCCTCTCCCAGCTGA
TGGACGAGGAAGCCTCCATTACT**TGA**TTTTTGTTTTTATTTATTTTTGAGACAGGGTCTCATTCTGTCACCCAGG
CTGGAGTACCGTGGCACGATCATAGCTTATTGCAGCCTCGGCCTCCCAGTCTCAAGCGATCCTCCTGCCTCTGCC
TCCAGAGAAGTAGGGACCACAGATGCGTGCTACCACGCCCAGCTAATTTTTGTATTTGTATTTTTTGGTAGAGAT
GGGGGTGTCACTATGTTGTCCAGGCTGGTCTCTAACTCTTGGGCTCAAGTGTTCCTCCCGCCTCGGCCTCCCAAA
GTGCTGGATTACAGGCGTGAGCCACCACACCTGGCTGCATCCGTCATGTTAAGAAGACCCCGGCTGGCAAGCTCA
CTCGGGGACTGCAGGGAACCCTGCCCTTTGGGGGCAGTAGTGAGGGGTGCCCAGGAGGATGGGGTGGTCAGCAGG
CAGTGATGCTGCTGTGTCCTGTCTCAGACCCCCCAGTTCCCTTCAGGATGATGGAGGATGCGGAGGCCCCGGGAG
AGCAGCTCTACCAGCAAAGCCGGGCCTACGTGGCTGCCAACCAGCGGCTGCAGCAGGCGGGCAACGTGCTGAGGC
AGAGGTGTGAGCTCCTGCAGCGAGCCGGCGAGGACCTGGAGCGGGAGGTGGCCCAGATGAAGCAGGCAGCATTAC
CGGCAGCCGAGGCTGCCTCCTCAGGCTGACCTCTCGGGGCCTGCAGGCTTGGGCAGCGCACAAGGTGGCCTGCAC
CCAGGCTTTCCCTGGGGGTCCGTCGGCCCCAGACTGGCATTCACGGGGTCCCAGCCCACGTGGGTGTTGACACAG
GCGCCCCTCCTGATGCTGGGGCTGCGGTTCATCCGTCGTCTCATTCATGCCGAGTTGGTGGGACCCACCCAGCTG
GCTCCGTCCTGCGTGACCTGAGGGCCCCACTGGGGTTCTGGAAGAGGATAGGGACATTATTGCTGTACTGTGATT
CTGTCGTCAGCTCACAGTGGCCGTGCTCTGCAGTGGGGCCCCTGGGAGCAGGTGCCACCTCCTTCCTCTCCCGGG
GCAGGCACTCGCCTGTCCACTTCTGAGTCCAGGTGTTGGGATCGAGGTGTTAACTGTGATTCCATCCAGCGAGTG
CCCACCCAATGTCAGAGCAGCCCGAGGGCCAGCCTGAGCCCCTGACCCCACTTCCTTCTGGGCCCCGGGCTCCTC
CCACAAGCCACGTTGATCTTCACAACGACCCTGGGCCGCTGGGGTCACCCAAGAGAAGCAGCCCTGAGACCCAGC
CAGGCTGGGCCTAGCTCCACGGCACGGGTGTCTCCCAGCCACTGCCCTTGCTGGAGGACCGCTGTGAGTCACTGG
CCAGGAGCCCAGGGTGTCCTGAGTCTCATAGCCACCCTGCCAGCTGCAGCAGGTCCTGGGCCTGCTTCCCTGCGG
GTTCTGGCCCTGGGGGAGGGGGCGTTAGTGCGGCGGAGGGTCTTGCCAAAGGCTTTTCATCCTAAATAGCAACTT
GAGTGGAAACCTGGGCAAGGCGGCCCAGAGGCTGGGCCCTGCACATAAAGCTTTCGTGTGTGTC

FIGURE 266

CGCGGGGAAACTGAGGCAGAGAG**ATG**GGCTCCAAGGCAAAGAAGCGCGTGCTGCTGCCCACCCGCCCAGCGCCCC
CCACGGTGGAGCAGATCCTGGAGGATGTGCGGGGTGCGCCGGCAGAGGATCCAGTGTTCACCATCCTGGCCCCGG
AAGGTAGGGGGAGCCCGGTCCCGGGGAAAAGCGGACCTGAGACCCCGGCAGCAAGGGGACGGGAGAGAAGCACAC
CCCTAACTCCTGACCCCACGCCCTGGGAACCCCCGCAACATGGGCACGGTCCGTATCCTCTCCGAGTCTCCCTCT
ACTCCTCCGTAGAGTGGGACCGATTTTCAGAGGGTTCTTCTGACAGGGGTGGAGGCCGGGCGCTGTGGTTCAGGC
CTGTAAGCCCAGCACTTTCGGAGGATGAGGCGGGAGGATCGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGCCAA
CATGG**TGA**AACCCCGTCTCTGCTAAAAATGAAAAAACAAAAC

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FIGURE 267

GGGGTCTGGGCAGCGGCGGCCGTGGCGGAGGGCTATGCGGCGGGGGAGACGGGGCAGGCCCCTCCTCCTTTGTCC
GCCCTGCCCTCCCATTGGTCCTAGCGGGGGGCCGGGGGCGGACACCGGCGCGGGGCCGGAGCATCGCGGCTCAGG
CTGCGGGAAAGCGGTGCGCGTGCAGCGGGGTGGGTGCCCTGGTCCGCGGGCGAGCTCGAGCAGCCAACCCCGGGC
GCGTCGGGGCC**ATG**GACGGCCTGAGGCAGCGCGTGGAGCACTTCCTGGAGCAAAGGAACCTGGTCACCGAAGTGC
TGGGGGCGCTGGAGGCCAAGACCGGGGTGGAGAAGCGGTATCTGGCTGCAGGAGCCGTCACTCTGCTAAGCCTGT
ATCTGCTGTTCGGCTACGGAGCGTCTCTGCTGTGCAATCTCATCGGATTTGTGTACCCCGCATATGCCTCAATCA
AAGCTATCGAGAGCCCAAGCAAGGACGACGACACTGTGTGGCTCACCTACTGGGTGGTGTACGCCCTGTTTGGGC
TGGCCGAGTTCTTCAGCGATCTACTCCTGTCCTGGTTCCCTTTCTACTACGTGGGCAAGTGCGCCTTCCTGTTGT
TCTGCATGGCTCCCAGGCCCTGGAACGGGGCTCTCATGCTGTATCAGCGCGTCGTGCGTCCGCTGTTCCTAAGGC
ACCACGGGGCCGTAGACAGAATCATGAACGACCTCAGCGGGCGAGCCCTGGACGCGGCGGCCGGAATAACCAGGA
ACGTCAAGCCAAGCCAGACCCCGCAGCCGAAGGACAAG**TGA**AGCAGCCCCCTGAGCCTCACAAGGACCTCCTGGC
TGGTGAGGAGGGGGCCGCGCCAGGCTCCCAGGCCTCCACAGAGTCTTCAGCGCATCCCCCAACAGCAGCCCCTGC
CAGTCCCTCGGGTCCAGGCAAGGCCCTGGGGGTCTCCTTAAATGCCACCTCGGGCAAGTCCCAGTCCCAGTCCTC
GGCCACCCCCAGCTCTGGATCCCAGGGCCAGCTGCCCTCTGGCTCTGGCTGTGGCTCCCGCCTGTCCGGCAGGGC
CCAGGGCCAGCGTCGGGCACAGGGCAGCTCCCACTGGTCTCGGCAACACACCCAGCCGCCTGGTACTTCCTCCAG
CCCCTCCCAGTCAGCCCTCCCGTCCTCGGGGCCCCTGCAGCCACCCAACGTCACCTCCAGCCCGGTCTCACCCAT
GGTCCAGTCTCCCAGCAGCAGCAACATCCCCACGCAGCCCCCCAGCAAGTCCTCTGGCAAGCCGGAGGACGCAGC
CCCCAAGACCAGCGGACAGCGCCAGAAGGAATCGTCGAAACAGCCTGCCAGCAGCGCCTCAGTGCCCGAGCTGGT
CCCCTGCCATTCCGGGACCTCTCTGGAGTACACTTCGGAGTCCACCACCGAGATCACCTGCAGCTGGCCACACCA
CAGGCCCCCGTGCCTGCAGCACTACTGGTGCCTGAAACACCTGGCCTGCTAGGAGGCTCCAATAAAGCTAACCCG
GACCAG

FIGURE 268

CTCAGAGCGGCCCCGGAGCGGCCGCAGCGCGGTGGTCTCGGCCCGGCTGCGCCAGAGTCCGCGCGATGGAGCCCC
GGCCGCGGCGGCGGCGCAGGAGTCGCCCCCTGGTCGCCGCCTTCCTGCGAGACCCGGGCTCGGGCCGCGTGTACA
GGCGCGGGAAGCTGATCGGCAAGGGCGCCTTCAGCCGCTGCTACAAGCTGACAGACATGTCCACCAGCGCCGTGT
TCGCCCTCAAGGTGGTGCCGTGTGGCGGGGCTGGGGCCGGGTGGCTTCGCCCGCAGGGAAAGGTGGAGCGTGAGA
TTGCCCTGCATAGCCGCCTGCGACCCCGCAACATCGTGGCTTTCCACGGACACTTTGCTGACCGCGACCACGTGT
ACATGGTGCTGGAGTACTGCAGCCGCCAGTCTTTGGCCCACGTGCTGAGGGCGCGGCAGATCCTGACGGAGCCAG
AAGTGCGCGACTACCTGCGGGGCCTGGTCAGCGGCCTGCGCTACCTGCACCAGCGGTGCATCCTGCACCGCGACC
TGAAGCTCAGTAACTTCTTCCTTAACAAGAACATGGAGGTGAAGATTGGAGACCTGGGACTGGCGGCCAAGGTGG
GGCCAGGGGGCCGCTGCCACAGAGTACTCTGTGGGACCCCTAACTTCCTGGACCCTGAGGTTGTCTCCAGAAACG
GTCACTCCTGCCAGTAGGACATCTGGGCTCTGGGCTGCATC**ATG**TACACGGTGCTGACTGGCACCCCACCCTTCA
TGGCCTCACCCCTGTCGGAGATGTACCAAAACATCCGTGAGGGCCACTACCCCGAACCCGCTCACCTGTCTGCCA
ATGCGCGCCGCCTCATCGTGCACCTCCTAGCACCCAACCCGGCCGAGCGGCCCAGCCTGGACCACCTGCTGCAGG
ACGACTTCTTCACACAGGGTTTCACTCCAGACCGGCTGCCGGCCCACTCCTGCCACAGTCCCCCCATCTTCGCCA
TACCCCCGCCTCTGGGCAGGATCTTCCGGAAGGTGGGCCAGCGGCTGCTCACCCAGTGCCGGCCACCCTGCCCCT
TCACGCCTAAAGAGGCCTCGGGTCCAGGAGAAGGTGGGCCAGACCCTGACTCCATGGAGTGGGACGGCGAGAGCT
CCCTGTCTGCGAAAGAGGTTCCCTGCCTGGAAGGCCCCATCCACCTGGTCGCACAAGGGACCCTGCAGAGTGACC
TGGCCGGGCCCGAGGGGAGCCGGCGGCCAGAGGTGGAGGCGGCCCTCAGACACCTGCAGCTGTGCCTGGATGTAG
GCCCCCCGGCCACACAGGACCCCCTGGGAGAGCAGCAGCCCATCCTCTGGGCCCCCAAATGGGTGGATTATTCCA
GCAAATACGGCTTTGGCTACCAGCTCTTGGACGGGGGGCGCACGGGACGGCACCCACATGGCCCTGCGACCCCCC
GGAGGGAGGGGACCCTCCCCACACCTGTGCCACCTGCTGGACCCGGCCTCTGCCTCCTGCGCTTCCTGGCCTCTG
AGCACGCCCTGCTGCTGCTGTTCAGCAATGGGATGGTGCAGGTGAGCTTCAGTGGAGTCCCGGCCCAACTGGTGC
TGAGTGGCGAGGGTGAGGGTTTGCAGCTCACCCTCTGGGAGCAGGGGTCCCCTGGCACCTCCTACTCCCTGGACG
TCCCGCGGAGCCACGGCTGCGCCCCCACCACCGGACAGCACCTTCACCACGCCCTCCGCATGCTGCAGAGTATC**T**
AGTGCCCCTGAGGGTCAGAGTGGACCCCTGCATGGTAGTGCCAGGGACCCAGGCTCCATTTCCATTCCTGTGGCT
CCCCCAGAGGGGCTGTCCTGGGGGAGGGCTGGGGGGCACACGGGAGGTGGGTTCTTGCCTTGTGGCATGACTGTT
CAACCCAGACTTTGCTGGGATCTCTTCCTTTTTCATTAAAGACAATTTGAAATGCTGT

FIGURE 269

GGCTCAGGACCCCCGTGGCGAGGATGCACCTCCCAGCCCTCGGCCCAGCCACACGGACCACAGGGCTCCCGAGTC
TCAGCAACACCAGCTAAGGGGCATCATGCCTCTCCTGCCACACCCAGGGCCCGTGCCTTGCTGTCCCTGCAGCCC
CCAGACCCAGGCAGACAGGGACAGCCCTTCTGACCACCGCACACACTCGCCACCGCAAAGATCCCCGGGGATGCC
CCTCGCCTGTGTGTGTCCCTCATGGCTGTCACAGCAAATCTCCAGGAGCCCGGAGGTGCCCATGGAAAACACCCC
CAGCTTCCGGAACGTTCTTTCGGACAGGGCCATACCGGAGCAAGACTCAGCTTTCTGGTAGCGGGTGGCTGGGCA
CTGCCTGTGAGATTCTGTCACACTCGCTCCAGATTCAAGGGGTCCAAAAAGTGTAAACAAGTCAAGTGCCCATCC
AGGG**ATG**AACGAACACAGCCCGGCCCGGCCACACCATGGAGCAGGACTCGGCCATGAACAGGAACCAGGCTCTGA
CACCGGCCACGGCGCAGATGCCCCTGGAGGAGTCCACCCTCAGCAAGAGACACACAGACACCGACACGGCGTGCA
ATCCCATTTGTGTGAATGTCCAGGACAGGCCGATTCAGAGACAGGAAGGGGACACGTGGGTGCCAGTGACTGGGG
ATTATGGGGACTGGGGGAAATGGCTAAAGGGCACCCACAAAAGTTAATGATAATGTTCCACAGTTTTTTTTTTGA
GATGGAGTCTCACTCTTGTCACCCAGGCTGGAGTGCAATGGTG**TGA**TCTCTGCTCACTGCAAGCTCTGCCTCCTG
GGTTCACGCCATTCTCCCTCCTCAGCCTCCCAAGTAGCTGAGATTACAGGCATATGCCACCACCCCCAGTAGAGA
CGGGGTTTCACCATGTTAGCCAGGCTGGTCACGAACTCCTGACCTCAAGTGATCCCCCACCTCGGCCTCCCAAAG
TGCTGGGATTACAGGCATGAGCCACCGTGCCTCACCAGAATTGTGTACTTTTTTTTCTTCTTCTTCTTCGGCATG
GAGTTTCGCTCTTGTTGCCCAGGCTGGAGTGCAATGGTGCAAACTTGGCTCACCGCAACCTCCTCCTCCCGGGTT
CAATAGATTCTCCAGCCTCAGCCTGCTGAGTAGCTGAGATTACGGGCGCCCGCCACCACACCCAGCTAATCTTTG
TACTTTTAGTAGAGACAGGGTTTCACCATGTTGGCCACGGGCAAAAGAATTTTGTTGAGGGCAAATAATATGAGA
CCACAAAACTGCCTTCCCTGCTCAGTTTTAATTTTCACAGTTTTAATTTTTAGCCTTCTCTGGTTACCAAAATAA
CCACGCTCACGGCCGTTCATTTGAAGATATTTCCAGTTAACGTGTGTGAAGTGGGTTTTTTGAGATGTAATTTAC
AAGCAATAAAATGCTCCTGTCTCTGC

FIGURE 270

GCGGGCCGAGGAGCCGGGCGCA**ATG**GAGCGGAAGAGGTGGGAGTGCCCGGCGCTCCCGCAGGGCTGGGAGAGGGA
AGAAGTGCCCAGAAGGTCGGGGCTGTCGGCCGGCCACAGGGATGTCTTTTACTATAGCCCGAGCGGGAAGAAGTT
CCGCAGCAAGCCGCAGCTGGCGCGCTACCTGGGCGGCTCCATGGACCTGAGCACCTTCGACTTCCGCACGGGCAA
GATGCTGATGAGCAAGATGAACAAGAGCCGCCAGCGCGTGCGCTACGACTCCTCCAACCAGGTCAAGGGCAAGCC
CGACCTGAACACGGCGCTGCCCGTGCGCCAGACGGCGTCCATCTTCAAGCAGCCGGTGACCAAGATTACCAACCA
CCCCAGCAACAAGGTCAAGAGCGACCCGCAGAAGGCGGTGGACCAGCCGCGCCAGCTCTTCTGGGAGAAGAAGCT
GAGCGGCCTGAACGCCTTCGACATTGCTGAGGAGCTGGTCAAGACCATGGACCTCCCCAAGGGCCTGCAGGGGGT
GGGACCTGGCTGCACGGATGAGACGCTGCTGTCGGCCATCGCCAGCGCCCTGCACACTAGCACCATGCCCATCAC
GGGACAGCTCTCGGCCGCCGTGGAGAAGAACCCCGGCGTATGGCTCAACACCACGCAGCCCCTGTGCAAAGCCTT
CATGGTGACCGACGAGGACATCAGGAAGCAGGAAGAGCTGGTGCAGCAGGTGCGGAAGCGGCTGGAGGAGGCGCT
GATGGCCGACATGCTGGCGCACGTGGAGGAGCTGGCCCGTGACGGGGAGGCGCCGCTGGACAAGGCCTGCGCTGA
GGACGACGACGAGGAAGACGAGGAGGAGGAGGAGGAGGAGCCCGACCCGGACCCGGAGATGGAGCACGTC**TAG**GG
CAGGTGCTGCGGGGCCACGGGGGCTCCCTGGAGTCGGGTCCTGGCAGTGGGGACTGCCTGGTGAACACAGATGTG
CTTGGGATGACGGGTGCCTCCCAAGAGCTTCCCATCTCCCTAGAAGAGCCCAAGCGTCCCCGTCCCGTGGAGTCG
CTAAAGCCAGCCCTCCCTGTCCTTTCCAGAGGCCCTGCCGAGAGCCCGTGCTGCCTGCTGGAGCCGCCTGCAGAC
GCGGTCCTCGGCCCCACGTGAACCAGGCTCGGCGGCGAAGCCCAGCCTTGGAGACACCCAGGAGGAAGGCCGTGC
TCCTGGCTCCCTCCTCGGCCCGTCCCCACTTCCCGGGGCCTCGGGGCACACAGCTGGGGCTGCCCCCACCCGAAA
GACCCTCCACGCTCGTCCTCTACAGAGTCCGGCTTCGGGAAGTGCCGGGTGCTCCTGGGCCCTGCCTGGCTCCCT
ACGACCTTTGGGCTCGAGGCCAGCTCCTCCCCATGCCCGCTGTCCCAGCTCCTTGAGACTGGAGAGCAGCCAGCA
GGTGCCCGGCAGCTCGGCGCCACGGCTTGCTGACAGCTGGGAGGGTTTCTCGGTCTGGAGGCGTAGTTTTGAAAC
TCACATCACCCACTGTGCAGCGTGAGGACGGGACTCTGGTCTGCTGTGGGGGGCATGCAGGACGGCGCCACTCTC
TGCCCTGCCATGCGGCTGGTGGTGCCACAGAGCCTCACCGTGCCTGAGTGGCATGCCCAGGAGGCCGCTCTCCTT
CAGTAAATGTAACACAGTCGAGGCACGTCATCGGGCAGCCTTCCCTGTGTGCCAACGCCAGCCTTCGCTTCTGAA
AACCAAACTCCAGCCGCTGCCAGTCGGGACTTGGTCGCCCGGCGCTGCCAGAATGCTCCACTGCCAGCCGGCCCC
CCTGCCTCGGTTTCCCTTCTGTTTAGTGGCGACACAGGCACCCAGCTTTGGGGTGGTGCTGACGCTCCCAGGGGT
GCCAGGAGCCACTGGGACAGGGTGAGGCTCCCAGACGCTCCTCGAGGTGCCCAGCTCTCCAGGGAGCTTCTGGCC
CAAGGCCGTCTGAGGGATCTGCTCCTTAACCCCCCAGTGCCTTGGCGAGGGCAGGTTCCAAGCCACAGACGCCTG
CCCCGAGTGGACTCTGCGGCCAGTCCCTGGTGCCCTCCTGGCCCTGCTGCCCAGTGAGGGCTCCTACGGGTGGGT
TCATTGGCCTGGGCCCAGCGAGCCCCCACCTGCATTGACCTTAGGCCCATAGAGAGGGCCTGTCCCGGTGCTGCC
CCAGCCAGGATCTGGTCGCTGCCCCAGGGGGACTGATGGGCAGAGTCGCCCCTGTGGCTGGACTGTGACCATCCC
TGATGGGGCCTGACCGCGGGAGCTGAGGAAGCGCCGCTCCACCGTCTGCCCTCCAAGGACCCGCATGGAGGCAGT
GGGCTGGCAGCTTCCTGCTGCTCCCTGTCAGAGTCAAAGCACAAATCCTCAGGACGGGCTCAAGGGCCAGGGCAG
CCGAGGGAAGCTCCAGGTGGGGACCACGTCTTCCTGAGGTTGGTGCCCACTGGCTGGGACCCTTTGCAGTGGGGT
GGCCTCCCCTCTGTCTGCCTGGTGGAGGGAGCCGTGGGCGTGGGGACGTGACTGAATAAAGCCACCATGGGTGGA
TGTGCTTGG

FIGURE 271

AGTGTAGCCGGGTCAGCTGGACAGGGTCATCCTGAGGGTGCGACTCCGCCGCG**ATG**GTGACCCGGTTCCTGGGCC
CACGCTACCGGGAGCTGGTCAAGAACTGGGTCCCGACGGCCTACACATGGGGCGCTGTGGGCGCCGTGGGGCTGG
TGTGGGCCACCGATTGGCGGCTGATCCTGGACTGGGTACCTTACATCAATGGCAAGTTTAAGAAGGATAAT**TAA**T
TACACAAACCCTTCACAGACTGCTCTGGTGCCTGGTGGTGCTAGCTCCTCCCACCTCAGCACCTGCTGCATCTGG
AGCAGCCCAAGCCTCAGGATGGACAAGAGGAAACCCACAGCTCAGCTTCAGGCTTCTTATGTTTCTGAAAACAGC
TTGGATATTTTAATGCACGTTGCATTAAACCTCACTGAAACCTGCTCCGTGCCCGGATGTTGATCATGCTGGTGG
CTTGGTTACTGTGACTGTAGCTGGAGTGGCACAGGTGACCCAGGCGTCCTTTCAGCTCCAGAATGTTGCAAGTCT
AGGAGAGTGTTCCAATGGCTGACAGAAACTGCCTATTTGAAATGGCTCATAAGTAGTATCTGCAGTGTGTTCATC
CGTTGCTGCCTTAACAAGTCACCCACACGTAGTGGCTTAAAGCAACGAACATTCACTCTCTCACAGTCTGTGTCA
GTCGGGGATTTGGGAGTGATGTATCTGGGTGGTTGTGGCCCAGAGTCTCTCATGAGGTTGCAGTTAAGACATCAG
CCAAGGCCACTTCGTCTGAGGAAGGCTCAACTGGGGCTGGAGCCACTTCCAAGCCAGTGCCCTCACGTGGCTGTC
GGTGACAGCCACAGTTCCTTCCCATGGGGGCCCCTACACGAAGCTGCTTGAGCATCCTCACGGCATGGCCTCTGC
CTTCCCCAGAGCAGGTGAACCAAGGGAGAGGAAGGAGCAAGCCACAGTGCTTCTATGAGCCACCCTGAGAAGTCT
CACGTGATCACTTCCGCCACAGCCTGTTTATCAAAAGCAAGCCCCCCAGGCCCAGCCCACGTGCAGAGGGAGGAG
AATGAGGTTCTGTGTTTTGAAGGGAAGAATATCAGAATTGGTAGACATTTCAAACTGTCACATTAGGGATACAAA
AATGAACAGGCTGGGAGTGGTGGCTCAGCCTACAATCCCAACACTTTGGGAGGCTGAGGAAGGGGCATCACTTGA
ACCAGGAGTTCAGTACTAACCTGGGCAACAAAGAGGCCCCTGTCTCTGATAAAAAGAAAAAAAATGAAAAAATAA
AAATGAACAGGTATAAAAAG

FIGURE 272A

GCCTGAGGTGCCCGCCCTGGCCCCAGGAGAATGAACCAGCCGCAGAGGATGGCGCCTGTGGGCACAGACAAGGAG
CTCAGTGACCTCCTGGACTTCAGCATGATGTTCCCGCTGCCTGTCACCAACGGGAAGGGCCGGCCCGCCTCCCTG
GCCGGGGCGCAGTTCGGAGGTTCAGGTCTTGAGGACCGGCCCAGCTCAGGCTCCTGGGGCAGCGGCGACCAGAGC
AGCTCCTCCTTTGACCCCAGCCGGACCTTCAGCGAGGGCACCCACTTCACTGAGTCGCACAGCAGCCTCTCTTCA
TCCACATTCCTGGGACCGGGACTCGGAGGCAAGAGCGGTGAGCGGGGCGCCTATGCCTCCTTCGGGAGAGACGCA
GGCGTGGGCGGCCTGACTCAGGCTGGCTTCCTGTCAGGCGAGCTGGCCCTCAACAGCCCCGGGCCCCTGTCCCCT
TCGGGCATGAAGGGGACCTCCCAGTACTACCCCTCCTACTCCGGCAGCTCCCGGCGGAGAGCGGCAGACGGCAGC
CTAGACACGCAGCCCAAGAAGGTCCGGAAGGTCCCGCCGGGTCTTCCATCCTCGGTGTACCCACCCAGCTCAGGT
GAGGACTACGGCAGGGATGCCACCGCCTACCCGTCCGCCAAGACCCCCAGCAGCACCTATCCCGCCCCCTTCTAC
GTGGCAGATGGCAGCCTGCACCCCTCAGCCGAGCTCTGGAGTCCCCCGGGCCAGGCGGGCTTCGGGCCCATGCTG
GGTGGGGGCTCATCCCCGCTGCCCCTCCCGCCCGGTAGCGGCCCGGTGGGCAGCAGTGGAAGCAGCAGCACGTTT
GGTGGCCTGCACCAGCACGAGCGTATGGGCTACCAGCTGCATGGAGCAGAGGTGAACGGTGGGCTCCCATCTGCA
TCCTCCTTCTCCTCAGCCCCCGGAGCCACGTACGGCGGCGTCTCCAGCCACACGCCGCCTGTCAGCGGGGCCGAC
AGCCTCCTGGGCTCCCGAGGGACCACAGCTGGCAGCTCCGGGGATGCCCTCGGCAAAGCACTGGCCTCGATCTAC
TCCCCGGATCACTCAAGCAATAACTTCTCGTCCAGCCCTTCTACCCCCGTGGGCTCCCCCCAGGGCCTGGCAGGA
ACGTCACAGTGGCCTCGAGCAGGAGCCCCCGGTGCCTTATCGCCCAGCTACGACGGGGGTCTCCACGGCCTGCAG
AGTAAGATAGAAGACCACCTGGACGAGGCCATCCACGTGCTCCGCAGCCACGCCGTGGGCACAGCCGGCGACATG
CACACGCTGCTGCCTGGCCACGGGGCGCTGGCCTCAGGTTTCACCGGCCCCATGTCACTGGGCGGGCGGCACGCA
GGCCTGGTTGGAGGCAGCCACCCCGAGGACGGCCTCGCAGGCAGCACCAGCCTCATGCACAACCACGCGGCCCTC
CCCAGCCAGCCAGGCACCCTCCCTGACCTGTCTCGGCCTCCCGACTCCTACAGTGGGCTAGGGCGAGCAGGTGCC
ACGGCGGCCGCCAGCGAGATCAAGCGGGAGGAGAAGGAGGACGAGGAGAACACGTCAGCGGCTGACCACTCGGAG
GAGGAGAAGAAGGAGCTGAAGGCCCCCCGGGCCCGGACCAGCCCAGACGAGGACGAGGACGACCTTCTCCCCCCA
GAGCAGAAGGCCGAGCGGGAGAAGGAGCGCCGGGTGGCCAATAACGCCCGGGAGCGGCTGCGGGTCCGTGACATC
AACGAGGCCTTTAAGGAGCTGGGGCGCATGTGCCAACTGCACCTCAACAGCGAGAAGCCCCAGACCAAACTGCTC
ATCCTGCACCAGGCTGTCTCGGTCATCCTGAACTTGGAGCAGCAAGTGCGAGAGCGGAACCTGAATCCCAAAGCA
GCCTGTTTGAAACGGCGAGAAGAGGAAAAGGTGTCAGGTGTGGTTGGAGACCCCCAGATGGTGCTTTCAGCTCCC
CACCCAGGCCTGAGCGAAGCCCACAACCCCGCCGGGCACATGTGAAGGTATGCCTCCGTGGGACGAGCCACCCG
CTTTCAGCCCTGTGCTCTGGCCCCAGAACGGCCACTCGAGACCCCGGGCTTCATCCACATCCACACCTCACACAC
CTGTTGTCAGCATCGAGCCAACACCAACCTGACAAGGTTCGGAGTGATGGGGGCGGCCAAGGTGACACTGGGTCC
AGGAGCTCCCTGGGGCCCTGGCCTACCACTCACTGGCCTCGCTCCCCCTGTCCCCGAATCTCAGCCACCGTGTCA
CTCTGTGACCTGTCCCATGGATCCTGAAACTGCATCTTGGCCCTGTTGCCTGGGCTGACAGGAGCATTTTTTTTT
TTTCCAGTAAACAAAACCTGAAAGCAAGCAACAAAACATACACTTTGTCAGAGAAGAAAAAAATGCCTTAACTAT
AAAAAGCGGAGAAATGGAAACATATCACTCAAGGGGGATGCTGTGGAAACCTGGCTTATTCTTCTAAAGCCACCA
GCAAATTGTGCCTAAGCGAAATATTTTTTTTAAGGAAAATAAAAACATTAGTTACAAGATTTTTTTTTTCTTAAT
GTAGATGAAAATTAGCAAGGATGCTGCCTTTGGTCTCTGGTTTTTTTAAGCTTTTTTTGCATATGTTTTGTAAGC
AACAAATTTTTTTGTATAAAAGTCCCGTGTCTCTCGCTATTTCTGCTGCTGTTCCTAGACTGAGCATTGCATTTC
TTGATCAACCAGATGATTAAACGTTGTATTAAAAAGACCCCGTGTAAACCTGAGCCCCCCCGTCCCCCCCCCCCC
CCGGAAGCCACTGCACACAGACAGAACGGGGACAGGCGGCGGGTCTTTTGTTTTTTTGATGTTGGGGGTTCTCTT
GGTTTTGTCATGTGGAAAGTGATGCGTGGGCGTTCCCTGATGAAGGCACCTTGGGGCTTCCCTGCCGCATCCTCT
CCCCTCAGGAAGGGGACTGACCTGGGCTTGGGGGAAGGGACGTCAGCAAGGTGGCTCTGACCCTCCCAGGTGACT
CTGCCAAGCAGCTGTGGCCCCCAGGGCTACCCTACACAACGCCCTCCCCAGGCCCCCCTAAGCTGCTCTCCCTTG
GAACCTGCACAGCTCTCTGAAATGGGGCATTTTGTTGGGACCAGTGACCCCTGGCATGGGGACCACACCCTGGAG
CCCGGTGCTGGGGACCTCCTGGACACCCTGTCCTTCACTCCTTTGCCCCAGGGACCCAGGCTCATGCTCTGAACT
CTGGCTGAGAGGATGCTGCTCAGGAGCCAGCACAGGACACCCCCCACCCCACCCCACCATGTCCCCATTACACCA
GAGGGCCATCGTGACGTAGACAGGATGCCAGGGGCCTGGCCAGCCTCCCCCAATGCTGGGGAGCATCCCTGGGCC
TGGGGCCACACCTGCTGCCCTCCCTCTGTGTGGTCCAAGGGCAAGAGTGGCTGGAGCCGGGGGACTGTGCTGGTC
TGAGCCCCACGAAGGCCTTGGGCTGTGCGTCCGACCCTGCTGCAGAACCAGCAGGGTGTCCCCTCGGGCCCATCT
GTGTCCCATGTCCCAGCACCCAGGCCTCTCTCCAGGTCTCCTTTTCTGGTCTTTTGCCATGAGGGTAACCAGCTC

FIGURE 272B

TTCCCAGCTGGCTGGGGACTGTCTTGGGTTTAAAACTGCAAGTCTCCTACCCTGGGATCCCATCCAGTTCCACAC
GAACTAGGGCAGTGGTCACTGTGGCACCCAGGTGTGGGCCTGGCTAGCTGGGGGCCTTCATGTGCCCTTCATGCC
CCTCCCTGCATTGAGGCCTTGTGGACCCCTGGGCTGGCTGTGTTCATCCCCGCTGCAGGTCGGGCGTCTCCCCCC
GTGCCACTCCTGAGACTCCCACCGTTACCCCCAGGAGATCCTGGACTGCCTGACTCCCCTCCCCAGACTGGCTTG
GGAGCCTGGGCCCCATGGTAGATGCAAGGGAAACCTCAAGGCCAGCTCAATGCCTGGTATCTGCCCCCAGTCCAG
GCCAGGCGGAGGGGAGGGGCTGTCCGGCTGCCTCTCCCTTCTCGGTGGCTTCCCCTACGCCCTGGGAGTTTGATC
TCTTAAGGGAACTTGCCTCTCCCTCTTGTTTTGCTCCTGGCCCTGCCCCTAGGTCTGGGTGGGCAGTGGCCCCAT
AGCCTCTGGAACTGTGCGTTCTGCATAGAATTCAAACGAGATTCACCCAGCGCGAGGAGGAAGAAACAGCAGTTC
CTGGGAACCACAATTATGGGGGGTGGGGGGTGTGATCTGAGTGCCTCAAGATGGTTTTCAAAAAAATTTTTTTAA
AGAAAATAATTGTATACGTGTCAACACAGCTGGCTGGATGATTGGGACTTTAAAACGACCCTCTTTCAGGTGGAT
TCAGAGACCTGTCCTGTATATAACAGCACTGTAGCAATAAACGTGACATTTTATAACG

FIGURE 273A

GCGGGCGGCGGCGACCGCGGCGCCAGTGAGGGGGCCCTGGGGCCCGGGCGGCTCCGGGCCGGGGCCCCGCCGCGG
GACGGACC**ATG**CTACGCTCCACTGGCTTCTTCCGGGCCATTGACTGCCCCTATTGGTCTGGGGCGCCCGGGGGGC
CCTGCCGGCGGCCCTACTGCCACTTCCGGCACCGCGGGGCCCGGGGCTCCGGCGCGCCCGGTGACGGCGGAGAGG
CGCCCCCCGCAGCAGGGCTGGGTTACGACCCCTACAACCCTGAGCTGCCCAAGCCCCCCGCGCAGAGGGAGAATG
GCACCCTGGGCCTGGGGGAGGAGCCGCGCCCGGATGTGCTGGAGTTGGAGCTGGTCAACCAGGCCATCGAGGCCG
TGCGCAGTGAGGTGGAGCTGGAGCAGCGGCGCTACCGGGAGCTGCTGGAGACGACCCGTGAGCACCGCTCCGCCG
AGGCCCCCGCCCTGGCGCCCCGCGGCCCCAACGCCAGCCCCACTGTGGGCCCGGACGAGGATGCCTTCCCACTGG
CCTTCGACTACAGCCCCGGCAGCCACGGCCTATTAAGCCCTGATGCCGGCTACCAGCCCACCCCACTGGCCGCCC
CTGCCGAGCCGGGCAGCAAGTACTCGCTGGCGTCCCTGGACAGGGGTCAGGGCAGAGGTGGAGGGGGTGGCGGTG
CCCTGGAATACGTCCCCAAGGCTGTGAGCCAGCCCCGGCGGCACAGCCGCCCCGTTCCCAGTGGCAAGTACGTGG
TGGACAACTCCAGGCCACCCACAGACCTGGAGTATGACCCTCTCTCCAACTACTCGGCCCGGCACCTCAGCAGGG
CCAGCTCCCGGGATGAGCGGGCCGCCAAGCGGCCCCGGGGCTCCCGCGGCAGTGAGCCCTACACACCTGCTCCCA
AGAAGCTCTGTGACCCCTTTGGCAGTTGCGATGCAAGGTTCTCAGACTCAGAAGATGAGGCCGCCACGGTCCCAG
GTAACGAGCCCACCACGGCCAGCACCCCCAAAGCCAGGGCCGACCCTGAGATCAAGGCCACCGGGCAGCCACCCT
CCAAAGAGGGCCTGGAGGCCGAGGGGGGCGGCCTGCGGGAGACCAAGGAGACGGCCGTGCAGTGCGACGTGGGGG
ACCTCCAGCCGCCCCCAGCCAAGCCCGCCTCCCCAGCCCAGGTCCAGTCCTCACAGGATGGGGGCTGCCCCAAGG
AGGGAAAACCCAAGAAGAAAAAAACCGGGGCCCCACCTGCCCCCAGCTGCAAAGACGGGGCCCAGGGGAAGGACA
AGACCAAGGACAAGGGCCGAGGGCGGCCTGTGGAGAAGCCCCGTGCGGACAAGAAGGGCCCGCAGGCCAGCAGCC
CCCGGCGCAAGGCAGAGCGGCCGGAAGGGACCAAGAAGAAGCCATCTTCGGCCACTCCTGTGGCCACCTCAGGGA
AAGGGAGGCCTGACCGGCCAGCGCGGCGGCCGAGCCCCACAAGCGGGGACTCCCGACCGGCGGCCGGCAGAGGCC
CACCCCGCCCCCCTCCAGCTGCCCGACAGGAAGAGCACCAAGGCCCCGTCGGGGAAGCTAGTGGAGCGGAAAGCCC
GCTCACTAGACGAGGGCGCCTCCCAGGACGCCCCCAAGCTGAAGAAGCGGGCCCTGAGCCACGCCGACCTCTTTG
GGGACGAGAGTGAGGACGAGGCCGCAGGGCCAGGGGTGCCGAGCGTGTGGCCCTCTGCCCTCCCCAGCCTCAGCT
CGGACTCAGACTCCGACTCAGACTCCAGCCTGGGCTTCCCGGAGGCGCAGGGGCCGCCCAAGCGGCTCAAGGCCT
CCCCGCCCCCCTCCCCCGCCCCATCCTCCTCCTCCTCCTCCTCCTCCTCCACCTCCAGCGCGGGGGCGGATGTGG
ACTACTCGGCCCTGGAGAAGGAGGTGGACTTTGACTCCGACCCCATGGAGGAGTGCCTGCGGATCTTCAACGAGT
CCACCAGCGTCAAGACGGAGGACAGAGGCCGGCTGGCCCGGCAGCCCCCCAAGGAAGAGAAGAGTGAGGAGAAGG
GGCTTTCGGGTCTGACCACTCTGTTCCCCGGGCAGAAGAGGAGGATCTCCCACCTTTCCAAGCAAGGCCAGGAGG
TGGAGCCCCCGAGGAGGGGTCCCGCGGTGCCCCCGGCCCGGCCCCCGACGGCGCAGGAGGTGTGCTACCTGCGGG
CCCAGCAGGCGCAGAGGGCATCGGCGAGCTTGCTGCAGGCCCCCGCCAGGCTGGCAGAGAAGTCGCCCTCCGTCC
ACATTTCCGCCCCTGGCGAGAAGAGGAGGATCGCCCACATCCCCAACCCCCGCCTGGCTGCAGCCCCCACAGGTG
CCAAGAGGACCCTTGCGGCCAGCGGCAGCCAGTCCTCCAACGGCCCTGAGCCAGGTGGCCAGCAGCTGAAAACAC
GCACATTGTCGGGGATGGCGTCCAAGACTACCACCACCATCATCCCTAAGCGAATCGCCCACAGTCCATCCTTAC
AGAGTTTAAAGAAACCCATTATCCCCAAAGAGTTTGGGGGCAAAGTCCCCACCGTCATCCGCCAGCGCTATCTCA
ACCTGTTCATCGAGGAGTGTCTCAAGTTCTGTACCTCCAACCAGGAGGCCATAGAGAAGGCACTGAACGAGGAGA
AGGTGGCCTATGACCGCAGCCCCAGCAAGAACATCTACCTGAATGTGGCCGTGAACACCCTCAAGAAGCTCAGGG
GCCTGGCCCCCAGCGCTGTGCCCGGCCTCAGCAAAACCAGTGGCCGCAGGGTTGTGTCCCACGAGGTGGTGTTGG
GGGGCAGGTTGGCCGCCAAGACCAGCTTCTCGCTCAGCCGTCCAAGCAGCCCCCGGGTGGAGGACCTGAAAGGGG
CTGCCCTGTACAGCCGCCTCAGGGAGTACCTGCTCACCCAGGACCAGCTCAAGGAGAACGGCTACCCCTTCCCGC
ACCCAGAGCGGCCCGGGGGCGCAATCATCTTCACAGCTGAGGAGAAGAGGCCCAAGGACTCTTCCTGCAGGACCT
GCTGCCGCTGTGGCACCGAGTACCTCGTGTCCTCTTCAGGCCGCTGCATCCGGGACGAGGAGTGTTATTACCACT
GGGGACGGCTGCGCCGGAACCGGGTGGCCGGAGGCTGGGAGACCCAGTACATGTGCTGCTCGGCTGCCGCCGGCT
CTGTCGGCTGCCAAGTCGCAAAGCAACACGTGCAGGATGGCCGGAAGGAGCGCCTTGAGGGCTTCGTGAAGACCT
TTGAGAAAGAGCTCTCAGGAGACACCCACCCGGGGATCTACGCCCTGGACTGCGAGATGTCCTACACCACATATG
GCCTGGAGCTGACGCGCGTCACGGTGGTCGACACGGACGTGCACGTGGTTTATGACACCTTCGTGAAGCCTGACA
ACGAGATCGTGGACTACAACACCAGGTTTTCGGGGGTGACGGAGGCTGACCTTGCCGACACAAGTGTCACGCTGC
GTGACGTCCAGGCCGTTCTGCTGAGCATGTTCAGCGCTGACACCATCCTCATCGGACACAGCCTGGAGAGCGACC
TCCTGGCCCTGAAGGTCATCCACAGCACCGTGGTGGACACGTCTGTGCTCTTCCCCCACCGCCTGGGCCTCCCCT

FIGURE 273B

ACAAGCGGTCCCTGCGGAACCTCATGGCCGACTACCTCAGACAGATCATCCAGGACAATGTGGATGGGCACAGCT
CCAGCGAGGACGCCGGCGCCTGCATGCACCTGGTGATCTGGAAGGTTCGAGAAGACGCCAAGACCAAGCGA**TGA**C
GCCTGCCCGCCTCCCACCCGCCTCTCCTGCCGTCCCGCTGGTCCTTAGCCCCATGCCTCTTCCAAAACAGTGCAA
TAAATCTCCGGTAACCCGTCCACCTGGCCGAGGCAGCCCAGAGCAGCGGGATGAGCTGGCGGCCAGAGAACGCCC
AGCCCAGCCCACCCCCGCTCACGTCCTGCCGCACCCCTCCGCCGGTCCCCACCCTCTGCCCCCCAGCCCTCTGGC
GTCTCTAGAAACTGCTGCTGATGGAGACCAGGACAGAGCCCGCCCCCACCCGGCCCGCAGCCCCTCCTGCCCCTC
CTGCCAGGCCCTCCCTCCCGGGTGGTGGCCGGCACCTCTGCTCCTCACGTGGGTCGCGGGGCGGGCTTGTCCCAG
GTTTGTTTGAGACAGTCTTTTTTTATTTTGTATTGTTATTTTTATTATTTTTAATTTAAACCTGATGACTTGCAC
AGCATCTTTCCCACCGGGAAGAGCGGGCCTGCTGCCTTCCCTCCTGCGGGGTGGGGGTGGGACAGACCCCAGTGG
GGGCCAGGGCCACACTCAGCGCAGTGTGGGCTGGACCCGCCTCTGTGCTCCAGGGGCTGGCCGGTCTTCGGGGGC
GCCGGCTTCCACCACTCGCCGCCCCACCCCTGCACTCCGTGACCTCTGAGAACCCAGCTGGCCCCTCGTTAGCCC
CAGGGTCTGCCGTCTAGAGGGAGCCCACCGGCCTCCGGACACTGTCTTCCCGCTAGAGCCCCGTCCTCCTCTGCG
GGGCTCTCCGGACCCCCTTCCCCCTCACCTCCAGGCAGGGACAGAATAAATGTTTGTATGGATTTT

FIGURE 274

ATGTCGGCGGCCGTGGCGTGCGTGGATTACTTCGCCGCCGACGTGCTCATGGCCATCTCTTCGGGCGCCGTGGTG
CACCGCGGGCGGCCCGGCCCCGAGGGCGCGGGCCCCGCCGCCGGCCTGG**ATG**TGCGCGCGGCGCGCCGCGAGGCC
GCCTCACCCCGGGACCCCGGGGCCACCCCCGCCGCCCCCCGCCGCTTCTGGCCCGGGCCCCGGCGCCGCCGCGGC
GCCCCACCTGCTGGCCGCCAGCATCCTGGCCGACCTGCGCGGCGGACCCGGAGCCGCCCCGGGGGGCGCCTCGCC
CGCCTCCTCCTCCTCAGCCGCCTCGTCCCCGTCCTCGGGCCGCGCCCCCGGCGCCGCGCCCTCCGCCGCCGCCAA
GAGCCACCGCTGTCCCTTCCCGGACTGCGCCAAAGCCTACTACAAGTCCTCGCACCTAAAGTCGCACCTGCGGAC
GCACACAGGGGAACGCCCTTTTGCTTGTGACTGGCAGGGCTGCGACAAGAAGTTCGCCCGCTCCGACGAGCTGGC
CCGCCACCACCGGACGCACACGGGCGAGAAGCGCTTCTCCTGCCCTCTGTGCTCCAAGCGCTTCACCCGCAGTGA
CCACCTGGCCAAGCACGCCCGCCGCCACCCCGGCTTCCACCCGGACCTGCTCCGGCGCCCTGGTGCCCGCAGTAC
CTCCCCCAGCGACTCGCTGCCCTGCAGCCTGGCCGGGAGCCCTGCGCCCAGCCCCGCGCCCAGCCCAGCCCCCGC
AGGCCTG**TAG**GGCCCTCGTGCAGCCCACCCTGACCGCCAGGATGCTTCTGCCATCCAGGGGTGTAGTGAGGACCC
ACGGGGAGCCTGGGCCCCTTCCAGCCGTGGGCAAACCCTGAAGACACCCCTGCCCCCCTCCAGAGAGTGAGGAGG
GGGCCTGAGACTGGACCTGGGTCTGCCTGACCTCAGAGTGTCCAGGGGCTTGGAGAGACCTGCGCCCACCCCTCC
ACTCTCCCAGGAGTCGCTGATCACTGGGACCTGGTTCCAGCCGTTTGCAGGGGAGGCGGCTCCGAGAGGCGTGTG
CTTTCCGTGGGTGGCGCCCCTCCCCCGCCCTGCCTGGCCTCATCCTTGTATTTAATTAATTAAACAAGCCCCTTT
TTAAACCCT

FIGURE 275

ATGAGGACGCCAGGCGTGGGGGCCCTGCTGCCATCGCGGGACTGCCCCCTCGACAGCTTCCCGTCAGTCCTACTG
CAGAGGGGCCAGGACAGCGCACTCTGGGTCCTGAGGCCCGTGGGGGCCGCCGCGGGGTCGGGGCTGCGAGGCAGC
GCCCGCCGTTCCATGCGCGGCTCACGTTTCGGAACACGTCTGCCTTTCATGCCTCCCGAAGAGCCTCCCCGCATC
CCGTGCCCCCTGCTCGCTGCTGCCGCTGACCCTTGGGCGCTGCGCTGGTCCAGAGCGTGTTGTCCTCTGACGCCG
TCAGAACCTGAGCTCCCTGCGAGCTGGGACTCCGCCGTGTCTTCATTGCCTCCAGTGCAAAGCAACTGCTTGCAA
GAGAACAAAATTCCACAAGACACTGTGATGAAGAGGATTTTGGAAATCGAAGTATTTGGGGCCGCCCCTCCCTCC
CTGCGGGCTGTGGATATTCACGGGCGCCTGGGGGCTGAGTCTCTGGTCCACCCTGTGTCACCTGCTCCTGGTACA
CCCCAGCACGGGGCCCTGGGTGACGGGACAGACACCAGCCAGGATGGAGGAGGCCTTGGTGTCCCTGAAGCAGCT
CCTAGCATGGATGCCGTGGACCCCAGAGATGCTCCCTGCAGGACCCCACGCAGGGGCTTCCTTGCAGTCGGCCAG
CAGGGTGACCTCGCTGTGTCCTCCGGTTGGAGGGTGGCAGCTGCTGCCCCACCTTCCCACCTGGCTGGTGGAACC
TTGTCCTCTGTCCCCCAGGAGCTTGCAGCTGCCCCCCCGCCCCCCACCGTGCGTGGTGGCCCCCCTGGACTGGAC
CATGGCCTGTCCGGAGGTGGCTTCCACAGGTTGGCAAAGGTCATCCGTGAA**TAA**

FIGURE 276

GGCTGCTGTCTGGGGCGGTAGCTGGGGGGGCGCTCTCCCCCCTGCCCGCGACTCGGAGCACCCCCACCCCTCCCC
TGCCGGGCCAGGCCGGGCGGCGTTGTTGGCGGGGGCCCCGGTGGAGGCCCGGCCTGGGCGGCGCCCGCC**ATG**AAT
GGGCTGTCGCTGAGTGAGCTCTGCTGCCTCTTCTGCTGCCCGCCCTGCCCCGGCCGCATCGCTGCCAAGCTCGCC
TTCCTGCCGCCGGAGGCCACCTACTCCCTGGTGCCTGAGCCCGAGCCGGGGCCTGGTGGGGCCGGGGCCGCCCCC
TTGGGGACCCTGAGAGCCTCCTCGGGCGCACCCGGGCGCTGGAAGCTGCACCTGACGGAGCGTGCCGACTTCCAG
TACAGCCAGCGCGAGCTGGACACCATCGAGGTCTTCCCCACCAAGAGCGCCCGCGGCAACCGCGTCTCCTGCATG
TATGTTCGCTGCGTGCCTGGTGCCAGGTACACGGTCCTCTTCTCGCACGGCAATGCCGTGGACCTGGGCCAGATG
AGCAGCTTCTACATTGGCCTGGGCTCCCGCCTCCACTGCAACATCTTCTCCTACGACTACTCCGGCTACGGTGCC
AGCTCGGGCAGGCCTTCCGAGAGGAACCTCTATGCCGACATCGACGCCGCCTGGCAGGCCCTGCGCACCAGGTAC
GGCATCAGCCCGGACAGCATCATCCTGTACGGGCAGAGCATCGGCACGGTGCCCACCGTGGACCTGGCCTCGCGC
TACGAGTGTGCCGCGGTGGTGCTGCACTCGCCGCTCACCTCGGGCATGCGCGTCGCCTTCCCCGACACCAAGAAG
ACCTACTGCTTCGACGCCTTCCCTAAG**TGA**GCGGCCCGGGCGGGGACGGGGGCGGGGCGGGGCCCGGGCCGGGCG
CGAAGTCTCACCGGCTCCACGACCCTCCCGCAGCATCGAGAAGGTGTCCAAGATCACGTCTCCCGTGCTCATCAT
CCACGGCACGGAGGACGAGGTGATCGACTTCTCGCACGGGCTGGCGCTCTACGAGCGCTGCCCCAAGGCGGTGGA
GCCGCTGTGGGTGGAGGGCGCCGGGCACAACGACATCGAGCTCTACAGCCAGTACCTGGAGCGCCTGCGTCGCTT
CATCTCCCAGGAGCTGCCCAGCCAGCGCGCCTAGCGGCGGCCCCAACCGGCCGGACCTCAGCAATAAGGCGGCCC
CCGGACCTCACCCCGCGCCGGCCCCCACCCAGGGGCTGCATGTGGACCCCCCGGGCGGCCCAGGGGACCCCGCCC
CGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACGCACTCCTTTCCTTTTGGAAGCAAGAAGAAAATA
CGTGAAAACGGAAATTAAAGATTTAAAATTTT

FIGURE 277

AGACTTGGCGAAGCGCTGCGCTCGCGCCCGGATCCCTCAGGCGGCTGCAGGCTTCAGCCTGCGCTGGTTGGTGAA
ACAGAGATGTCAGAAAAGGAGAACAACTTCCCGCCACTGCCCAAGTTCATCCCTGTGAAGCCCTGCTTCTACCAG
AACTTCTCCGACGAGATCCCAGTGGAGCACCAGGTCCTGGTGAAGAGGATCTACCGGCTGTGGATGTTTTACTGC
GCCACCCTCGGCGTCAACCTCATTGCCTGCCTGGCCTGGTGGATCGGCGGAGGCTCGGGGACCAACTTCGGCCTG
GCCTTCGTGTGGCTGCTCCTGTTCACGCCTTGCGGCTACGTGTGCTGGTTCCGGCCTGTCTACAAGGCCTTCCGA
GCCGACAGCTCCTTTAATTTCATGGCGTTTTTCTTCATCTTCGGAGCCCAGTTTGTCCTGACCGTCATCCAGGCG
ATTGGCTTCTCCGGCTGGGGCGCGTGCGGCTGGCTGTCGGCAATTGGATTCTTCCAGTACAGCCCGGGCGCTGCC
GTGGTCATGCTGCTTCCAGCCATCATGTTCTCCGTGTCGGCTGCCATGATGGCCATCGCGATCATGAAGGTGCAC
AGGATCTACCGAGGGGCTGGCGGAAGCTTCCAGAAGGCACAGACGGAGTGGAACACGGGCACTTGGCGGAACCCA
CCGTCGAGGGAGGCCCAGTACAACAACTTCTCAGGCAACAGCCTGCCCGAGTACCCCACTGTGCCCAGCTACCCG
GGCAGTGGCCAGTGGCCTTAGAGGGAGCCTGCCCTGCCCCCACCGCCCACCACCTCCTCCCCTTCATTCCTGCTG
CTACCCCTGGTCCCGAGGGCTGGGAGTACCTGGGGCCCCATCCCCCCAGCTGGGATGGTGGAAGCCGGTGGTGGC
CACGGACCGCCCCCCTCCTGCCAGGGCCACAGAACCCGTGTTCATCTCATCCGAGAGCGGAGTTCCTCACAAGCA
CTCCCCAGCAGCCCTTGGCCTCTGCCGTCCACAGGACGCCCTCTTGCTCCCGGAAACGTGTGGTCACCCGCCGTC
CACTGCACGGCTGGTACGGCCTTGTCTTCAGGTCTCGAGGCCTGACTCCGGGGGACAGGTGGCAGCAGGTCGGCC
GCCCTCCCGTCCTCCCAGAGCTGCTGGCGCTGAGGTCAGAGCGGGTCTGATGGGGAGCTCCGTCTCACCGGCCAC
CCGCCGTCACCATGGCAGATGCCCTTGGCCGGAACTAATAAGAGGCGTCGGGGCCAGCTTCCGGTCCCCTGCAGT
GATAGAGGGCTTGGTGCCTAGCTGAGTCCTCGCTGTCCCCGCCATCCCCTGATCTGTGCGGCTCCAGCCTCGCCC
CCTCCCCACGTGCACCATACCTGGGGAGTTCCTGGTCCAGGGTATCCTGGGGCCACCCTCCCTGCCTCCAAAACA
GGGATCCCTGGCAGGCTGTCTTTCCACGCCCCTGAGTTCAGAGTCGGGGACCCAGGCCAGGTCGGGAGCACAGCC
GCTCCCCAAACCCAGCAAACCGGCAGAGAGCCGGTTTCCCAGCAGCCGGAGCCCTGCAGGAGAGGCCTTTGTGTT
TTGTTTTGTTTTGTTTTTTCTCTTTTGAGACAAGAGTTTCACTCTGTCGCCCAGGCTGGAGTGCAGTGGTGTGAT
CTCGGCTCACTGCAACCTCTGCCTCCCGTGTTCAAGCAGTTCTCCTGCCTCAGCCTCCCAAATAGCTGGGATTAC
AGTTGCCTGCCACCACGCCCAGCTAATTTTTATATTTTTAGTACAGATGGGGTTTCACCATGTTGGCCAGGCTGG
TCTCGAACTCCTGACCTCAAGTGATCCACCCGCCTTGGCCTCCCAAAGTGCTGGGATAATAGGTGTCAGCCACCG
CGCCCAGCCTGGAGTGGCCTTTTATGAGAGGGGACCCGTCAAATCTGTGCCTTATGGAGGGGTCCGGCAGCGGCC
ACAATTGTCTTGTCCCCTCACCCCCCAACTCCCCCTGGAACACCTCTCCCAGGCAAGACATTTTCACAGCACCAT
TCACAACGGTTGGGCCAAAAAGAAACTTTTCCTTCATCATTTCCTGCACTCGCTGACCACAACTTTGGACACCCC
AGGCTGCCACCCCTCCCCACCCGTTCACCCCCAGGATGCTGTTGCTGTAGGACGCCTGCTGCCCTGGAGCCCTCC
CCAGGATGTGAGCCAGTCCCCTCGCTGGTACGGAATGCCGCTGGGTGCCCGGAGGCGGCCATGGTGTCTCGATGG
ACGGCAGCCAGGATGGAGCACCCATGGGTCTCACGGCCATGCTTCAGGGTCTTCAGGTCCTGCCCCCGGCCAGTC
TGCCAAGAGGCACCCCCTTCCCCAGCCTCTCGCCTGCACTGATGCAGACAAAATCTCACCTGGCAGGCCCAACCC
CCCCCCACCCCTCCCCCGCCGTGTGTGGCCCCTCGCCGCATCGTTGGGGTTTTGTTATGTGAAAATATCCTGGAA
ATAAATACATGTTTCTGCACTTAG

FIGURE 278

CAGCAGAATGTCTCCTGCCCCCGAGAGCGACCCCGAGGCCACTGAGAAGAGCAGCGCGGCCTGGCCGGCCCGAAC
GCCTGCGTCTCAGTAGCTGGGAGCCACGGGCCCACGCCCGCCCACCGGCCGCAGTGATGTTCTAGCCACAGAGGA
GCCAAGACCTCAGGTTTCCAGAGACTTGGGATTTGCACGGCAGCAGAGTCACCGTGGAGAGGCCAGGGTATCACA
AACTT**ATG**GATTTTGACAAGAAAGGAGGGAAAGGGGAGACGGAGGAGGGCCGGAGAATGTCCAAGGCCGGCGGGG
GCCGGAGCAGCCACGGCATCCGGAGCTCGGGGACCAGCTCGGGGGTCCTGATGGTGGGCCCCAACTTCCGCGTCG
GCAAGAAGATCGGCTGCGGCAACTTCGGGGAGCTCCGCCTAGGAAAGAATCTCTATACAAATGAATACGTGGCTA
TCAAATTGGAGCCGATCAAGTCCCGGGCCCCGCAGCTGCACCTGGAGTACCGGTTCTACAAGCAGCTCAGCGCCA
CAGAGGGCGTCCCTCAGGTCTACTACTTCGGTCCGTGCGGGAAGTACAACGCCATGGTGCTGGAGCTGCTGGGGC
CCAGCCTGGAGGACCTGTTCGACCTGTGCGACCGGACCTTCACGCTCAAGACGGTGCTGATGATCGCCATCCAGC
TGATCACGCGCATGGAGTATGTGCACACCAAGAGCCTAATCTACCGGGACGTGAAGCCCGAGAACTTCCTGGTGG
GCCGCCCGGGGACCAAGCGGCAGCATGCCATCCACATCATCGACTTCGGGCTGGCCAAGGAGTACATCGACCCCG
AGACCAAGAAGCACATCCCGTACCGCGAGCACAAGAGCCTGACGGGCACGGCGCGCTACATGAGCATCAACACGC
ACCTGGGCAAGGAGCAGAGCCGCCGCGACGACCTGGAGGCGCTGGGCCACATGTTCATGTACTTCCTGCGCGGCA
GCCTCCCCTGGCAGGGGCTCAAGGCCGACACGCTCAAGGAGCGGTACCAGAAGATCGGGGACACCAAACGCGCCA
CGCCCATCGAGGTGCTCTGCGAGAACTTCCCAGAGGAGATGGCCACGTACCTGCGCTATGTGCGGCGCCTGGACT
TCTTCGAGAAGCCCGACTATGACTACCTGCGGAAGCTCTTCACCGACCTCTTCGACCGCAGTGGCTTCGTGTTCG
ACTATGAGTACGACTGGGCCGGGAAGCCCCTGCCGACCCCCATCGGCACCGTCCACACCGACCTGCCCTCCCAGC
CTCAGCTCCGGGACAAAACCCAGCCGCACAGCAAAAACCAGGCGTTGAACTCCACCAACGGGGAGCTGAATGCGG
ACGACCCCACGGCCGGCCACTCCAACGCCCCGATCACAGCGCCTGCAGAGGTGGAGGTGGCCGATGAAACCAAAT
GCTGCTGTTTCTTCAAGAGGAGAAAGAGAAAATCGCTGCAGCGACACAAG**TGA**CCCTGGGCGCGTGCAGCCCCCT
GAATCTTCTCCGTGCAGCCCCTTGGGGCGCGACCTTGTGCGAGGCCCTCGGGGCCCACCCACAGCGGCCCAGGGC
CAGACCCTGGCTGGAAGCCAGAACGCAGACTGCAGGGGCCGCGCCTGGCTCAGGCGGCCCCACCCCCGGGACGTG
GGGTCACTTCCTTCATGTAAGACTTTGGCCGAAATTTCTACACCTGTGTCTAGTCCTCCCCTCCAAGAGCATTAA
CTATTTAAAACAAGGAAAAGAGGAAAAAAAAAACAGAGGCCCGCCCTACCCCACTCCTGCCCCTCCGTTTCTTTG
CTGAAGTGAGTAGTGTGATCCTGGAGGCCCCCCGGCCTGGCCCCGCCCCGCCAGCCGCCCCCGTTAGCGTCATAA
AGTCCAGCTTGTCTCCCTCGATCCAAAGGCCGTTTTCTCGAGGGGAGGGCAGGCCCGGCCTGGAGGGGTGCTGTG
GAGCTGTCTTGCCCAGGCCCTCCTGGGAGGGGGACAGGCATTGTTGCCAGGGGTGAGGCCGTGCCCCAGGCCTCC
CCGAAACCAAAGGGGAAGGCAGGGGTGGGGCCGTGGCTGAAGCCGGCTCCCCAACCAAAATGCTGCACCAAAGCT
CGGGCGCCGCGGGCACGGCTGCTGCAGTCTCTTCCCAGCCTGGCCCTGGCAAGGGGCGGGTGGGCGCTGCCAGGC
GGGTGCTTCTCGACGCACTTGCTCCCGGAGGCTGCGCCCCGGCGCCTGGAACCCGAGGTGGGAGGACCGGTTGGT
GTCACCCTGCTCGGCCCTCAGCCCTGCCGCGTGGGGCGCGTGGGCACGGAGCTTCCTGCCTCTCTGCTCCGACAC
CCGGCAAGCAGCCGGAGACAAAACGCCTTAAAGCCCCCGGCCCAGCCCTGCAGGTATATTGCAGGGGCCTGGGGG
CGGCCCTGGACTGGCGGGCGGTTCCCCAGTGGGGTGCCCTGGAGGCTGCCGGGCAGAGTGGAGCAGCTTGGGGCC
GTGCCCAGGGCGGTGGCTGTGAGTCTAGTTTTTGCTTTACCAAGTGTACAGAAATGGCATTTACGTTTCTCTGAT
GCTCCCTTGAAGCCATAGAATTTAGGGGCTTTTTTAAAAAAATAAAAGAAAAATGAAACC

FIGURE 279

ATGGCGGCGGGTGGGAGCGGCGGGCGTGCGTCGTGCCCGCCGGGGGTCGGGGTCGGCCCGGGCACGGGGGGCAGT
CCCGGGCCCAGCGCCAACGCCGCCGCCACCCCGGCCCCCGGCAACGCGGCCGCCGCCGCCGCCGCCGCCGCC
GCCGCCGCCGCCCCTGGGCCGACGCCGCCCGCCCCGCCGGGCCCCGGGACAGACGCGCAGGCCGCGGGCGCGGAG
CGGGCGGAGGAGGCGGCGGGCCCGGGGGCGGCGGCGCTGCAGCGCGAGGCCGCGTACAACTGGCAGGCCAGCAAG
CCCACCGTGCAGGAGCGCTTCGCCTTCCTCTTCAACAACGAGGTGCTGTGCGACGTGCACTTCCTGGTGGGCAAG
GGGCTCAGCTCGCAGCGCATCCCCGCGCACAGGTTCGTGCTGGCCGTGGGCAGCGCCGTCTTTGATGCCATGTTC
AACGGGGGAATGGCCACAACATCCACGGAGATTGAGCTGCCCGACGTGGAACCCGCTGCCTTCCTCGCACTGCTC
AAGTTTCTCTACTCGGACGAGGTGCAGATTGGCCCGGAGACGGTGATGACCACGCTATACACCGCCAAGAAGTAC
GCGGTGCCAGCGCTCGAGGCCCATTGCGTGGAGTTCCTGAAGAAGAACCTGCGAGCCGACAACGCCTTCATGCTG
CTCACGCAGGCGCGACTCTTCGATGAACCGCAGCTGGCCAGCCTGTGCCTGGAGAACATCGACAAAAACACTGCA
GACGCCATCACCGCGGAGGGCTTCACCGACATTGACCTGGACACGCTGGTGGCTGTCCTGGAGCGCGACACACTG
GGCATCCGTGAGGTGCGGCTGTTCAATGCCGTTGTCCGCTGGTCCGAGGCCGAGTGTCAGCGGCAGCAGCTGCAG
GTGACGCCAGAGAACAGGCGGAAGGTTCTGGGCAAGGCCCTGGGCCTCATTCGCTTCCCGCTCATGACCATCGAG
GAGTTCGCTGCAGGTCCCGCACAGTCGGGCATCCTGGTGGACCGCGAGGTGGTCAGCCTCTTCCTGCACTTCACC
GTCAACCCCAAGCCACGAGTGGAGTTCATTGACCGGCCCCGCTGCTGCCTGCGTGGGAAGGAGTGCAGCATCAAC
CGCTTCCAGCAGGTGGAGAGTCGCTGGGGCTACAGCGGGACCAGTGACCGCATCAGGTTCTCAGTCAACAAGCGC
ATCTTCGTGGTGGGATTTGGGCTGTATGGATCCATCCACGGGCCCACCGACTACCAAGTGAACATCCAGATTATT
CACACCGATAGCAACACCGTCTTGGGCCAGAACGACACGGGCTTCAGCTGCGACGGCTCAGCCAGCACCTTCCGC
GTCATGTTCAAGGAGCCGGTGGAGGTGCTGCCCAACGTCAACTACACGGCCTGTGCCACGCTCAAGGGCCCAGAC
TCCCACTACGGCACCAAAGGCCTGCGCAAGGTGACACACGAGTCGCCCACCACGGGCGCCAAGACCTGCTTCACC
TTTTGCTACGCGGCCGGGAACAACAATGGCACATCCGTGGAGGACGGCCAGATCCCCGAGGTCATCTTCTACACC
TAGGCTGCCCGACACCGACACCGCCCTCCCTCCGTGGGGATAGCCGCAGCCCCAGGCCATCATCTGCTGCTGGGG
CCCCCCCACCACGCGGTGCCAGGCCCAGTGTCCCCCAGGCCGTCTGTCCACTCCATGCCACCTTTCTCAGCATCA
GGACGGGGTTGCCCTGTGTTCACCACGAGTGTGGCTGCTGGATCAGGGCAGCCGGGGAGGTGGCCAGGCCAGTGG
CCAGGCCCTGTGGAGACAATCCCTCAGGACTAGGGACAGGGCTGTGCCGGCCTGGGCCAGGGCCCACGGACCCGC
AGCTCAGGGCGCCTGCCCACGTCGTCTGCCGGCGGTGCGCCGCGGGCGTCCCTCGCGTCTCTTCACTGCACATTG
CAATGCATTTGCGATTCCCATTTCTCTGCTAGGAGCCAGCCTGGGTGGCGCTGCTCCCAGAGCCGTGGGTCCCAG
ACCTTGCGTTCCTTTTGTTCCTGTCCGTTTATCAGGACACGGGCCCCACCTGTCACGTGCCCGAGGCCACCCAAG
CCCAGCCTGCGGGGCGTTCCCACTGCCTGGATGCCGGCTTGAGTTCTGCGCACGCAGGATTCAGTGTGGGGACGG
CCCCTGCCGGATAGGCCTAGCCCTGGCCCAGGTGGTGAGCGGTTTGCAGTGTCCGTTCTCATCCACCTGATGGGC
CCAGATAAAGGCCCCCGCTGTCCAGCCTCCCTGGACGGCCCTCGCGGTCCCTGCAGCCCAAGATGGGACTCAGAC
CCTGTGCCCCAGAGCTCCCCTGCCGCAGAATGGGGCCCCAGCCGGCCCCGACCGGGTCCAGGAGCACTGCTCGCC
TGTACATACTGTTGCCCTAGCCCACCTGGTGCCGTGGGAGCCACCCCCAGGTGCTGGGGGCACAGCCCCTCCCCA
CTCCGGCCACGCCCCCACCCACCCCGCGTGTTTCTGCCCTGTGACTCCTGGAACCTGCGTCCTCCCCAAAGCCAT
GGGAGGGGTGTCCTCCTCAGACCATGCCCCCAGATGATTTTTTTAAATAAAGAAACAAATGCACCTGC

FIGURE 280

GCTGGCGGGGCCCGGACAGAAG**ATG**GTGCAGAAGAAACCAGCCGAACTTCAGGGTTTCCACCGTTCGTTCAAGGG
GCAGAACCCCTTCGAGCTGGCCTTCTCCCTAGACCAGCCCGACCACGGAGACTCTGACTTTGGCCTGCAGTGCTC
AGCCCGCCCTGACATGCCCGCCAGCCAGCCCATTGACATCCCGGACGCCAAGAAGAGGGGCAAGAAGAAGAAGCG
CGGCCGGGCCACCGACAGCTTCTCGGGCAGGTTTGAAGACGTCTACCAGCTGCAGGAAGATGTGCTGGGGGAGGG
CGCTCATGCCCGAGTGCAGACCTGCATCAACCTGATCACCAGCCAGGAGTACGCCGTCAAGATCATTGAGAAGCA
GCCAGGCCACATTCGGAGCAGGGTTTTCAGGGAGGTGGAGATGCTGTACCAGTGCCAGGGACACAGGAACGTCCT
AGAGCTGATTGAGTTCTTCGAGGAGGAGGACCGCTTCTACCTGGTGTTTGAGAAGATGCGGGGAGGCTCCATCCT
GAGCCACATCCACAAGCGCCGGCACTTCAACGAGCTGGAGGCCAGCGTGGTGGTGCAGGACGTGGCCAGCGCCTT
GGACTTTCTGCATAACAAAGGCATCGCCCACAGGGACCTAAAGCCGGAAAACATCCTCTGTGAGCACCCCAACCA
GGTCTCCCCCGTGAAGATCTGTGACTTCGACCTGGGCAGCGGCATCAAACTCAACGGGGACTGCTCCCCTATCTC
CACCCCGGAGCTGCTCACTCCGTGCGGCTCGGCGGAGTACATGGCCCCGGAGGTAGTGGAGGCCTTCAGCGAGGA
GGCTAGCATCTACGACAAGCGCTGCGACCTGTGGAGCCTGGGCGTCATCTTGTATATCCTACTCAGCGGCTACCC
GCCCTTCGTGGGCCGCTGTGGCAGCGACTGCGGCTGGGACCGCGGCGAGGCCTGCCCTGCCTGCCAGAACATGCT
GTTTGAGAGCATCCAGGAGGGCAAGTACGAGTTCCCCGACAAGGACTGGGCCCACATCTCCTGCGCTGCCAAAGA
CCTCATCTCCAAGCTGCTGGTCCGTGACGCCAAGCAGAGGCTGAGTGCCGCCCAAGTCCTGCAGCACCCCTGGGT
TCAGGGGTGCGCCCCGGAGAACACCTTGCCCACTCCCATGGTCCTGCAGAGGTGGGACAGTCACTTCCTCCTCCC
TCCCCACCCCTGTCGCATCCACGTGCGACCTGGAGGACTGGTCAGAACCGTTACTGTGAATGAG**TGA**AGATCCTG
GAGGACCCTGGGCCCCAGGCCAGCTCCCATCGCTGGGGGACGGTGAACGGCCATGTGTTAATGTTACGATGTTTT
TAAAAGACAAAAAAAAAAAAAAAACCTCAAAAGTTTTTTTAAAGTGGGGGAAAAACATCCAAGCACTTTAATTCC
AATGTACCAGGTGAACTGACGGAGCTCAGAAGTTTTCCTTTACACCAACTGTCAATGCCGGAATTTTGTATTCTG
TTTTGTAAAGATTTAATAAAAGTCAAAAAACTTGC

FIGURE 281

GGAATTCTGAGAGCTGATTCCTGCCTTGTCTTCTCCACTGTTCCTGGAGGAATCCGAGAAGAGCAGAGCGGAGGG
AGCCCCAGACACGGTCCGCGGGAGAGCTGTGGGGCTTGGTGAGTGTTTCGTGGCCTCTCGGGTTGGTCAGCACCC
CCAGCCAGCTGGCCCAGGACCCCTCTACAGAAGTCCAGGAGAGCAGGCGTCACCAAG**ATG**TCCAACCCCTTCCTG
AAGCAAGTCTTCAACAAGGACAAGACATTCCGCCCCAAGCGCAAGTTTGAGCCAGGCACCCAGCGCTTCGAGCTG
CACAAGAAGGCGCAGGCGTCGCTGAACGCCGGGCTGGACCTGCGGCTGGCCGTGCAGTTGCCCCCGGGCGAGGAC
CTGAACGACTGGGTGGCTGTTCACGTGGTGGACTTCTTTAACCGCGTCAACCTCATCTACGGCACCATCAGCGAC
GGCTGCACGGAGCAGTCCTGCCCCGTCATGTCGGGGGGCCCCAAGTATGAGTACCGCTGGCAGGATGAGCATAAG
TTCCGGAAGCCCACGGCACTCTCCGCGCCCAGGTACATGGACCTGCTGATGGACTGGATCGAGGCGCAGATCAAC
AACGAGGACCTCTTCCCCACCAACGTTGGCACTCCGTTTCCCAAGAACTTCCTGCAGACGGTGCGGAAGATCCTG
TCGCGGCTGTTCCGCGTGTTCGTGCACGTCTACATCCACCACTTTGACCGCATCGCGCAGATGGGCTCCGAGGCC
CACGTGAACACCTGCTACAAGCACTTCTACTATTTCGTCAAGGAGTTCGGCCTCATCGACACCAAGGAGCTGGAG
CCACTGAAAGAAATGACCGCCCGGATGTGCCAC**TGA**GAGCCCCGCGGGTCTCCCGGTGCCCGAACCGCCGCTGGG
GCCTCGGAGACTTGGAGGAGGACGCTCTGGAACCATCATCCCGCTTCTCTCCGGCCTGAGCATCTCAGGGAGACC
AGGGGCCGAGCCGCTGAGCAGGTGTTGGTCCTCAGGAGCTCCAACCCCGGACGGCAGATGCCTTCCTCAGTCTCG
AGCCTCAGTCTCCCGTCTGGGACTAAAACGTGAACTCTGTAATTCTATGTGTTACTAGCAACCGGAAAAGCCCAC
TGTGTTTTTAAACCACTTCCACTTTCCAGGAGGCTGGATGGCTTCCAGGGTCACTCCTTGCCCTGGGTGGCTCCC
AGGCTCCTGGAACTTCTGCCTCCACCTCGCTGGGGAGCCCCCAGGGCTGCTGTGGCCACAGCCCTGCCTGGGCCT
GTCTCTCAAGGGCACCCAGCTTGCTCGGCCTCCTACATGTCTCCCGTTGGGGAGGCAAGAGGCTGAGGGGCTTCC
GAGCCCCTGAGAGCGGACATCTCCTCCCGCAGGCCTTTACTCCGCACTCCCCACTGGCAGCCGCTGGTGTCTCTT
CACACAGAGGCACAACCTGGACCCAGGCAGCCTCTTTCCTCCCTCCCCAATCTCTTCCATTTTTCTACAGATTTT
TTTTTTTTTGGTCATACTAGAGACAGGGGTCTCGCTGAACTCCTGGCCTCCAGTGATCCTCCATCCTCGGCCTCC
CAAAGTGCTGGAATCACAGGGGTGAGCCACCGCACCCAGCCCTCTCTCTTCCTCAATGCACTCTGCTTCTTCCGT
TCTTCCGAAACATTCAGCTGACTGTATCCAGGGCTTCCTGGACTCCTGGGACCCCACGTCCTGCACCCCGGCTTC
TGACTCATTTCCTAAGGGCCCCTTTGTGTATCATAAAGGGTTTGATTTTTATAGTCACATTTACAACCATCTTGA
GATTTTTATTTTTTTTGAACGGAGTCTCCCACTGTCGCCCAGACTGGAGTCCAGTGGCACAATCTCGGCTCACTG
CATCCTCCACCTCCTGGGTTCAAGTGATTCTCCTGCTTCAGCCTCCCAAGTAGCTGGGATTACAGGTGTGCGCCA
CCACGCCCAGGAAATTATTGTAGTTTTAGTAGAGACAAGATTTCACCATGTTGGCCAGGCTGGTCTCAAACTCCT
GACTTCAGGTGATCCGCCTACCTTGGCCTCCAAAAGTGCTGGGATTACAGGCATGAGCTACTGCACCCGGCCTAA
CCAGGCTGGAGTGCAGTGGTGGGATCTCGGCTCACTGCAAGCTCCGCCTCCCAGATTCACGCCATTCTCCTGCCT
CAGCCTCCCCAGCAGCTGGGACTACAGGCACCCACCGTCACACCCGGCTAATTTTTTTGTATTTTAGTAGAGACA
GGGTTTCACCGTGTTAGCCAGGATGGTCTTGATCTCCTGACCTTGTGATCCACCAGCCTCAGCCTCCCAAAGTGC
TGGGATTACAGGCGTGAGCCACTGTGCCCGGCCAAGAATTTTTTTATCGATAACATAGTGAGCTCTCTGCCTCTT
CGGAACGATGTCCACTTTGCTTATGATCAACCCAAGCAGGACTCTTCTCTCCCTGGACGCCTCTCCCCTGGTCTG
GAATCTTCCAGTTCTGCCAGAATTGGCCTTTCCCAGATGCTGCAAACTTCCAGTTGAACCCCTTTTTCTGTGTGG
CCCCTGGGGCTGCGAGACCAAAATCCATGAGTTCTGTGTACCCTAGACCTTTGGAAGGTGAGAGCAGGGCCCTGA
GAAAAGGCAGCCACCTCCTCTCCCTGGCTGAACCCCTGCCACCCTACTCCTCACCAGAATTGTCAGTGGCCTTTC
ACCACAGTGGTCCTTCCTGCCTGAGCCCTGCACTGTCCCAGACCACACAGAAGTCTGGTCACCTCTGGGCGCCTG
GGATGGTCACCGAAGAGAAGCACGCTGTCCCCGTCTCTCCTGGCTTCTGCCAGAAAATCGAACAAGTGCAATTAA
CACACTGTTACTGCCGAAGCCTGAAACTCCCAGGACTTGTCCTTGATCCTTCCAGAAACCACCAGGTCCGGCACT
TGGAGCCCCCCGGAGAGGGACCTCCCAGCCGAGCCCTCAAAGAACTCCATGAAATCAGGAACTGCTTGATGAAAT
GTATCTCCTTGTACCTGGAAGATGAAGCCCAAACACCCACACCTCTGTCTCCCCCAGGGCTCGGGATGTCTCCAG
CAGCCCGGCCACGCAGCTTCCCAGGTGGGCTCGGGGAGGTGGGAGCAGGGACCATCTCTGTCCCCTCCACCCTCA
CTCCATCCACCTCGGAGACCACCCTCCCCCAGCCAGATACGGAATAAAACTACAGACGCAGACGTCGG

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FIGURE 282

CTGAAGGGTGTGGCGCGAGCAGCGTCGTTGGTTGGCCGGCGGCGGGCCGGGACGGGC**ATG**GCCCTGCTGCTGTGC
CTGGTGTGCCTGACGGCGGCGCTGGCCCACGGCTGTCTGCACTGCCACAGCAACTTCTCCAAGAAGTTCTCCTTC
TACCGCCACCATGTGAACTTCAAGTCCTGGTGGGTGGGCGACATCCCCGTGTCAGGGGCGCTGCTCACCGACTGG
AGCGACGACACGATGAAGGAGCTGCACCTGGCCATCCCCGCCAAGATCACCCGGGAGAAGCTGGACCAAGTGGCG
ACAGCAGTGTACCAGATGATGGATCAGCTGTACCAGGGGAAGATGTACTTCCCCGGGTATTTCCCCAACGAGCTG
CGAAACATCTTCCGGGAGCAGGTGCACCTCATCCAGAACGCCATCATCGAAAGCCGCATCGACTGTCAGCACCGC
TGTGGCATCTTCCAGTACGAGACCATCTCCTGCAACAACTGCACAGACTCGCACGTCGCCTGCTTTGGCTATAAC
TGCGAGTCCTCGGCGCAGTGGAAGTCAGCTGTCCAGGGCCTCCTGAACTACATAAATAACTGGCACAAACAGGAC
ACGAGCATGAGCCTGGTATCGCCAGCCTTAAGGTGTCTGGAGCCCCCACACTTGGCCAACCTGACCTTGGAAGAT
GCTGCTGAGTGTCTCAAGCAGCAC**TGA**CAGCAGCTGGGCCTGCCCCAGGGCAACGTGGGGGCGGAGACTCAGCTG
GACAGCCCCTGCCTGTCACTCTGGAGCTGGGCTGCTGCTGCCTCAGGACCCCCTCTCCGACCCCGGACAGAGCTG
AGCTGGCCAGGGCCAGGAGGGCGGGAGGGAGGGAATGGGGGTGGGCTGTGCGCAGCATCAGCGCCTGGGCAGGTC
CGCAGAGCTGCGGGATGTGATTAAAGTCCCTGATGTTTCTC

FIGURE 283A

GGGGCCCGGAGCGGGATCGCGGCACCTGCCGAGCGGGTCGCCGCCTCTGCCGCGGTCCTTGGACCCCGCCGCCGC
CCTGGCCTGGGAGCTTGCCCCGCCGCAGCGGCCGGCAGCGCGGCGCTCCGCGGGCGGCAGGCACGGGCCCCGGGC
CCCCTCACGGCGCCCAGCCGCGGGCCTCCCGAGGCAAAAGCCCGTGGGCCGCCGCG**ATG**GCCCTCAAGATGGTGA
AGGGCAGCATCGACCGCATGTTCGACAAGAATCTGCAGGACTTGGTCCGCGGCATCCGTAACCACAAGGAGGACG
AGGCAAAATACATATCTCAGTGCATTGATGAGATCAAGCAGGAGCTGAAGCAGGACAACATAGCGGTGAAGGCGA
ACGCGGTCTGCAAGCTGACGTATTTACAGATGTTGGGATACGACATCAGCTGGGCCGCCTTCAACATCATAGAAG
TGATGAGTGCCTCCAAGTTCACCTTCAAGCGAATTGGCTACCTCGCTGCTTCCCAGAGCTTTCACGAAGGCACCG
ACGTCATCATGCTGACCACCAATCAGATCCGTAAGGACTTGAGCAGCCCCAGCCAGTACGACACAGGTGTTGCAC
TGACGGGTCTGTCCTGCTTCGTCACCCCAGACCTTGCCAGAGACCTGGCAAATGACATCATGACACTGATGTCAC
ACACCAAGCCCTACATCAGGAAGAAGGCTGTGCTGATCGAGCCCCTCACCAATCTCATCCACAGCACGTCTGCCA
TGTCTCTCCTCTATGAATGTGTGAACACCGTGATTGCAGTGCTCATCTCGCTGTCCTCCGGCATGCCCAACCACA
GCGCCAGCATCCAGCTTTGTGTTCAGAAATTAAGGATATTGATCGAGGACTCCGATCAGAACTTGAAGTACCTGG
GGCTGCTGGCAATGTCCAAGATCCTGAAGACCCACCCCAAGTCCGTGCAGTCCCACAAGGACCTCATCCTGCAGT
GCCTGGACGACAAGGACGAGTCCATCCGGCTGCGGGCCCTGGACCTGCTCTATGGGATGGTGTCCAAGAAGAACC
TGATGGAGATCGTGAAGAAGCTGATGACCCACGTAGACAAGGCAGAGGGTACCACCTACCGTGACGAGCTGCTCA
CCAAGATCATTGACATCTGCAGCCAGTCCAACTACCAGTACATCACCAACTTCGAGTGGTACATCAGCATCCTGG
TGGAGCTGACCCGGCTGGAGGGCACACGGCACGGCCACCTCATCGCCGCCCAAATGCTGGACGTGGCCATCCGCG
TGAAGGCCATCCGCAAGTTCGCCGTGTCCCAGATGTCTGCGCTGCTTGACAGTGCACACCTGCTGGCCAGCAGCA
CCCAGCGGAACGGGATCTGTGAGGTGCTGTACGCTGCCGCCTGGATCTGCGGGGAGTTCTCAGAGCATCTGCAGG
AACCACACCACACTTTGGAGGCCATGCTGCGGCCCAGAGTCACCACGCTGCCAGGCCACATCCAGGCCGTGTATG
TGCAGAACGTGGTCAAGCTCTACGCCTCCATCCTGCAGCAGAAGGAGCAGGCCGGGGAGGCAGAGGGCGCTCAGG
CCGTCACCCAGCTCATGGTGGACCGGCTGCCCCAGTTTGTGCAGAGCGCAGACCTGGAGGTGCAGGAGCGGGCGT
CCTGCATCCTGCAGCTGGTCAAGCACATCCAGAAGCTTCAGGCCAAGGACGTGCCTGTGGCAGAGGAGGTCAGCG
CTCTCTTTGCTGGGGAGCTGAACCCAGTGGCCCCCAAGGCCCAGAAGAAGGTTCCAGTCCCCGAAGGCCTGGACC
TGGACGCCTGGATCAATGAGCCACTCTCGGACAGCGAGTCAGAGGACGAGAGGCCCAGGGCCGTCTTCCACGAGG
AGGAGCAGCGGCGTCCCAAGCACCGGCCGTCGGAGGCGGACGAGGAAGAGCTGGCTCGGCGCCGAGAGGCCCGGA
AGCAGGAGCAGGCCAACAACCCCTTCTACATCAAGAGCTCGCCATCGCCACAGAAGCGGTACCAGGACACCCCGG
GCGTGGAGCACATTCCCGTGGTGCAGATTGACCTCTCCGTCCCCTTGAAGGTTCCAGGGCTGCCTATGTCAGATC
AGTATGTGAAGCTGGAGGAGGAGCGGCGGCACCGGCAGAAGCTGGAGAAGGACAAGAGGAGGAAAAAGAGGAAGG
AGAAGGAGAAGAAGGGCAAGCGCCGCCACAGCTCGCTGCCCACGGAGAGCGACGAGGACATCGCCCCTGCCCAGC
AGGTGGACATCGTCACAGAGGAGATGCCTGAGAATGCTCTGCCCAGCGACGAGGATGACAAAGACCCCAACGACC
CCTACAGGGCTCTGGATATTGACCTGGATAAGCCCTTAGCCGACAGCGAGAAACTGCCTATTCAGAAACACAGAA
ACACCGAGACCTCAAAATCCCCTGAGAAGGACGTTCCCATGGTAGAAAAGAAGAGCAAGAAACCCAAGAAGAAAG
AGAAAAAACACAAAGAGAAAGAGAGAGACAAGGAGAAGAAGAAGGAGAAGGAGAAGAAGGCTGAGGACCTGGACT
TCTGGCTGTCTACCACCCCACCGCCTGCCCCCGCCCCCGCCCCCGCCCCCGTTCCATCCACGGACGAGTGTGAGG
ACGCCAAGACGGAGGCGCAGGGCGAGGAGGACGATGCCGAGGGGCAAGACCAGGACAAGAAATCTCCCAAGCCTA
AGAAGAAGAAGCACAGGAAGGAGAAGGAGGAGCGGACCAAAGGCAAGAAGAAGTCCAAGAAGCAGCCTCCAGGCA
GCGAGGAGGCAGCGGGGGAGCCGGTGCAGAATGGCGCGCCAGAGGAGGAGCAGCTCCCGCCTGAGTCCAGCTACT
CCCTCCTCGCTGAAAATTCCTATGTTAAAATGACCTGTGACATCCGGGGCAGTCTGCAGGAGGACAGCCAGGTCA
CTGTGGCCATCGTGCTGGAGAACAGGAGCAGCAGCATCCTCAAGGGCATGGAGCTCAGCGTGCTGGACTCACTCA
ATGCCAGGATGGCCCGGCCGCAGGGCTCCTCCGTCCACGATGGCGTCCCCGTGCCTTTCCAGCTGCCCCCAGGCG
TCTCCAACGAAGCCCAGTATGTGTTCACCATCCAGAGCATCGTCATGGCGCAGAAGCTCAAGGGGACCCTGTCCT
TCATTGCCAAGAATGACGAGGGTGCGACCCACGAGAAGCTGGACTTCAGGCTGCACTTCAGCTGCAGCTCCTACT
TGATCACCACTCCCTGCTACAGTGACGCCTTTGCTAAGTTGCTGGAGTCTGGGGACTTGAGCATGAGCTCAATCA
AAGTCGATGGCATTCGGATGTCCTTCCAGAATCTTCTGGCGAAGATCTGTTTTCACCACCATTTTTCCGTTGTGG
AGCGAGTGGACTCCTGCGCCTCCATGTACAGCCGCTCCATCCAGGGCCACCATGTCTGCCTCCTGGTGAAAAAGG
GTGAGAACTCTGTCTCAGTCGACGGGAAGTGCAGTGACTCCACGCTACTGAGCAACTTGTTAGAAGAGATGAAGG
CGACGCTGGCCAAGTGT**TGA**GAGCTGCCTGCGAGCCCCGCACCACCCCGCGGAGCACGTACCCAGGGACCGCAGC

FIGURE 283B

CCTGACGTGTCTCGCCTCTCCTCAGTCGTGTGTACTGTACCCAAGCCTGAGTGTTAATTTAACTCTATGTTGTCC
GCCGTGTAGACATCCGAGGTCATTTGTTGCGTTGAATTATCTGACCATCCTTTTTTACTGTGACTCTTCCCATTC
TCTTTGGCAAGAAGTCCCCTTCTCGCCCCCAAACCAGCAAGGGACTCCCCCACCTGGGTCTGTGCCCTGCCCCGC
GCTGGGGGCCGAGTCCTTGAATGTGGCTTCAGGGGCTCCTGTCCTGGGCCAGGGCCTGATGGGCACCACGTGAGG
GGCACTTGGTGGACAGGGCGGGGCTGACGTGGCCTCCTCTGGGGTCGCCTGCTTTTGACCCAAAGGTCCTGACGG
TTGCGTCCGGGGGGAGGGGAAGGAAGGGCCGCTGTCGCCAAGGTTTTCTCTCCCAGAACCCACAGTGGGAAAGCGG
TCTTGCCAGGCGTTGTCCATTGTCAGTGTGCTCGTGGGCTGGTGACTGGGTCTTGGGATCCCAGGCCACGCGCCA
GCCAGGCTGTGGGCAGGGCGGGGCCAGGGACGCCAAAGAGAGGTTGCAGTCAGAACCGTGGACGGGGTGGGTTGA
GGCCTCTCTGCCACCCGTCTTCCTGGTCAGCAGAAGTGCATCTCGGCTTGGGTTTGGGGTGGTCCGCATCCCCTG
CTTGCCACTATGCGCACCAAGGTTTCCCCACATCCTTCCCAGCACCCTTAGGAAGGCCCAGGCAGGGCCTGGAAG
CAGCGGACCTGGGCTGTTCTGTGTTGAAGGAGTGTGCCCAGTGCCCTTGGGCAGGACCTGTGAGAGCCACCTCAC
AGGCAGAGCCCCCACCAGGCAGGGCAAGGAGACTCCGCTCACTCCCCACGGCCAGCGTGGGCACAGGACTGACCC
TTCTTCAGAGATAATGACATTTTATCTTCTCCTTTTGATGAAAACTGTCACTTTAGCATGTAATCCATTACAGAA
TCCCATGCAGTGATTCCAGGATTTGAAATTGTATGATGTGTTACATAAGAATTTATTTGCTATCGACATTCCCGT
ATAAAGAGAGAGACATATCACGCTGCTGTCATGATTTTGTGTCAAGATGATCCAATAAAGTTGTAAAACAGG

FIGURE 284A

GCGGCCGTCCACTGGACTCCTGCGCCATATCCTGCAGCAGGTCTACAACCACTCGGTGACCGACCCCGAGAAGCT
CAACAACTACGAGCCCTTCTCCCCCGAGGTGTACGGGGAGACCTCCTTCGACCTGGTGGCCCAGATGATTGATGA
GATCAAGATGACCGACGACGACCTGTTTGTGGACTTGGGGAGCGGTGTGGGCCAGGTCGTGCTCCAGGTTGCTGC
TGCCACCAACTGCAAACATCACTATGGCGTCGAGAAAGCAGACATCCCGGCCAAGTATGCGGAGACCATGGACCG
CGAGTTCAGGAAGTGGATGAAATGGTATGGAAAAAAGCATGCAGAATACACATTGGAGAGAGGCGATTTCCTCTC
AGAAGAGTGGAGGGAGCGAATCGCCAACACGAGTGTTATATTTGTGAATAATTTTGCCTTTGGTCCTGAGGTGGA
TCACCAGCTGAAGGAGCGGTTTGCAAACATGAAGGAAGGTGGCAGAATCGTGTCCTCGAAACCCTTTGCACCTCT
GAACTTCAGAATAAACAGTAGAAACTTGAGTGACATCGGCACCATCATGCGCGTGGTGGAGCTCTCGCCCCTGAA
GGGCTCGGTGTCGTGGACGGGGAAGCCAGTCTCCTACTACCTGCACACTATCGACCGCACCATACTTGAAAACTA
TTTTTCTAGTCTGAAAAACCCAAAACTCAGGGAGGAACAGGAGGCAGCCCGGCGCCGCCAGCAGCGCGAGAGCAA
GAGCAACGCGGCCACGCCCACTAAGGGCCCAGAGGGCAAGGTGGCCGGCCCCGCCGACGCCCCCATGGACTCTGG
TGCTGAGGAAGAGAAGGCGGGAGCAGCCACCGTGAAGAAGCCGTCTCCCTCCAAAGCCCGCAAGAAGAAGCTAAA
CAAGAAGGGGAGGAAGATGGCTGGCCGCAAGCGCGGGCGCCCCAAGAAGATGAACACTGCGAACCCCGAGCGGAA
GCCCAAGAAGAACCAAACTGCACTGGATGCCCTGCACGCTCAGACCGTGTCTCAGACGGCGGCCTCCTCACCCCA
GGATGCCTACAGATCCCCTCACAGCCCGTTCTACCAGCTACCTCCGAGCGTGCAGCGGCACTCCCCCAACCCGCT
GCTGGTGGCGCCCACCCCGCCCGCGCTGCAGAAGCTTCTAGAGTCCTTCAAGATCCAGTACCTGCAGTTCCTGGC
ATACACAAAGACCCCCCAGTACAAGGCCAGCCTGCAGGAGCTGCTGGGCCAGGAGAAGGAGAAGAACGCCCAGCT
CCTGGGTGCGGCTCAGCAGCTCCTCAGCCACTGCCAGGCCCAGAAGGAGGAGATCAGGAGGCTGTTTCAGCAAAA
ATTGGATGAGCTGGGTGTGAAGGCGCTGACCTACAACGACCTGATTCAAGCGCAGAAGGAGATCTCCGCCCATAA
CCAGCAGCTGCGGGAGCAGTCGGAGCAGCTGGAGCAGGACAACCGCGCGCTCCGCGGCCAGAGCTTGCAGCTGCT
CAAGGCTCGCTGCGAGGAGCTGCAGCTGGACTGGGCCACGCTGTCGCTGGAGAAGCTGTTGAAGGAGAAGCAGGC
CCTGAAGAGCCAGATCTCGGAGAAGCAGAGGCACTGCCTGGAGCTGCAGATCAGCATTGTGGAGCTAGAGAAGAG
CCAGCGGCAGCAGGAGCTCCTGCAGCTCAAGTCCTGTGTGCCGCCTGACGACGCCCTGTCCCTGCACCTGCGTGG
GAAGGGCGCCCTGGGCCGCGAGCTGGAGCCTGACGCCAGCCGGCTGCACCTGGAGCTGGACTGCACCAAGTTCTC
GCTGCCTCACTTGAGCAGCATGAGCCCGGAGCTCTCCATGAACGGCCAGGCTGCTGGCTATGAGCTCTGCGGTGT
GCTGAGCCGGCCTTCGTCGAAGCAGAACACGCCCCAGTACCTGGCCTCACCCCTGGACCAGGAGGTGGTGCCCTG
TACCCCTAGCCACGTCGGCCGGCCGCGCCTGGAGAAGCTGTCTGGCCTAGCCGCACCCGACTACACTAGGCTGTC
CCCGGCCAAGATTGTGCTGAGGCGGCACCTGAGCCAGGACCACACGGTGCCCGGCAGGCCGGCTGCCAGTGAGCT
GCATTCGAGAGCTGAGCACACCAAGGAGAACGGCCTTCCCTACCAGAGCCCCAGCGTGCCTGGCAGCATGAAGCT
GAGCCCTCAGGACCCGCGGCCCCTGTCCCCTGGGGCCTTGCAGCTTGCTGGAGAGAAGAGCAGTGAGAAGGGCCT
GAGAGAGCGCGCCTACGGCAGCAGCGGGGAGCTCATCACCAGCCTGCCCATCAGCATCCCGCTCAGCACCGTGCA
GCCCAACAAGCTCCCGGTCAGCATTCCCCTGGCCAGCGTGGTGCTGCCCAGCCGCGCCGAGAGGGCGAGGAGCAC
CCCCAGTCCCGTGCTGCAGCCCCGTGACCCCTCGTCCACACTTGAAAAGCAGATTGGTGCTAATGCCCACGGTGC
TGGGAGCAGAAGCCTTGCCCTGGCCCCCGCAGGCTTCTCCTACGCTGGCTCGGTGGCCATCAGCGGGGCCTTGGC
GGGCAGCCCGGCCTCTCTCACACCTGGAGCCGAGCCGGCCACCTTGGATGAGTCCTCCAGCTCTGGGAGCCTTTT
TGCCACCGTGGGGTCCCGCAGCTCCACGCCACAGCACCCCCTGCTGCTGGCACAGCCCCGGAACTCGCTTCCTGC
CTCTCCCGCCCACCAGCTCTCCTCCAGTCCCCGGCTTGGTGGGGCCGCCCAGGGCCCGTTGCCCGAGGCCAGCAA
GGGAGACCTGCCCTCCGATTCCGGCTTCTCAGATCCTGAGAGTGAAGCCAAGAGGAGGATTGTGTTCACCATCAC
CACTGGTGCGGGCAGTGCCAAGCAGTCGCCCTCCAGCAAGCACAGCCCCCTGACCGCCAGCGCCCGTGGGGACTG
TGTGCCGAGCCACGGGCAGGACAGTCGCAGGCGCGGCCGGCGGAAGCGAGCATCTGCGGGGACGCCCAGCTTGAG
CGCAGGCGTGTCCCCCAAGCGCCGAGCCCTGCCGTCCGTCGCTGGCCTTTTCACACAGCCTTCGGGGTCTCCCCT
CAACCTCAACTCCATGGTCAGTAACATCAACCAGCCCCTGGAGATTACAGCCATCTCGTCCCCGGAGACCTCCCT
GAAGAGCTCCCCTGTGCCCTACCAGGACCACGACCAGCCCCCCGTGCTCAAGAAGGAGCGGCCTCTGAGCCAGAC
CAATGGGGCACACTACTCCCCACTCACCTCAGACGAGGAGCCAGGCTCTGAGGACGAGCCCAGCAGTGCTCGAAT
TGAGAGAAAAATTGCAACAATCTCCTTAGAAAGCAAATCTCCCCCGAAAACCTTGGAAAATGGTGGTGGCTTGGC
GGGAAGGAAGCCCGCGCCCGCCGGCGAGCCAGTCAATAGCAGCAAGTGGAAGTCCACCTTCTCGCCCATCTCCGA
CATCGGCCTGGCCAAGTCGGCGGACAGCCCGCTGCAGGCCAGCTCCGCCCTCAGCCAGAACTCCCTGTTCACGTT
CCGGCCCGCCCTGGAGGAGCCCTCTGCCGATGCCAAGCTGGCCGCTCACCCCAGGAAAGGCTTTCCCGGCTCCCT

FIGURE 284B

GTCGGGGGCTGACGGACTCAGCCCGGGCACCAACCCTGCCAACGGCTGCACCTTCGGCGGGGGCCTGGCCGCGGA
CCTGAGTTTACACAGCTTCAGTGATGGTGCTTCTCTTCCCCACAAGGGCCCCGAGGCGGCCGGCCTGAGCTCCCC
GCTGAGCTTCCCCTCGCAGCGCGGCAAGGAGGGCTCGGACGCCAACCCTTTCCTGAGCAAGAGGCAGCTGGACGG
CCTGGCTGGGCTGAAGGGCGAGGGCAGCCGCGGCAAGGAGGCAGGGGAGGGCGGCCTACCGCTGTGCGGGCCCAC
GGACAAGACCCCACTGCTGAGCGGCAAGGCCGCCAAGGCCCGGGACCGCGAGGTCGACCTCAAGAATGGCCACAA
CCTCTTCATCTCTGCGGCGGCCGTGCCTCCCGGAAGCCTCCTCAGCGGCCCCGGCCTGGCCCCGGCGGCGTCCTC
CGCAGGCGGCGCGGCGTCCTCCGCCCAGACGCACCGGTCCTTCCTGGGCCCCTTCCCGCCGGGACCGCAGTTCGC
GCTCGGCCCCATGTCCCTGCAGGCCAACCTCGGCTCCGTGGCCGGCTCCTCCGTGCTGCAGTCGCTGTTCAGCTC
TGTGCCGGCCGCCGCAGGCCTGGTGCACGTGTCGTCCGCTGCCACCAGACTGACCAACTCGCACGCCATGGGCAG
CTTTTCCGGGGTGGCAGGCGGCACAGTTGGAGGTAAC**TAG**GATTTCTACCTCAACCGCGAGACCTATGCAAGGAC
GGTGTGGACCAACTCGCGCCCGCGGCATGGTGCCCGCCGGCCTGCCGGGCTCCCACCCCTGGACGGCAGAGGCAA
GGACGGACGGGAGCTCCACTGTGAATCGGCGGCACGCGCCGCAGGAGGCTGGGACTGGTCCAGTTTGTACTGTCG
ATAGTTTTAGATAAAGTATTTATCATTTTTTAAAAAGTATAAACAATTCTGACTTATTTTATTCCATCTAAGTGG
TAAAAGGCAACTTATTGAGAAATATAAATATCTATATATGAGAGCTCTATATAAAGACACGTGTCTGCAGGGCGG
GCCCGCCAGCGGATTCGCCACAGCCTGCCCCGGTGCTATCTCGTCCCCAGGCCCGCGCCTGCCTCCACCCGCTTG
GTGCTGACTAGACGCTGACAACGCCGAACCCCGTTCTCGGAAACGCCGCCCGGCCGGCTCCCCCGACGCGCTGCT
CCCGTACCAAAGGCAGGCCCGTCGCCACCACATTCCTCGGAGGCCTCCCCGCGGCCTGAGCCCCTTCCTGAGCGC
CCTGGCGCCTGCCCTGAGCTCTTCACCTTTACCCCGGCACTGTGAACCCCCAGACTGTTCACCCTCCGGGGCGTG
GGTTGCGCCCTTGCATGTGAAGGGGCCTGCGCGGTGACGCAGCTGGCCATGTGCTGCGCGATGGTGCTGTGAGGA
CGGCGCGGGCACGTTGAACAAGTGCATTTACTTTTGTATTTCTCGGCTGTCCATGGCTCGCAGCATGCCCTGCGA
TGCGGGGCAGGCCTGTCGTGGGTCCCTTGGTGTTTCTGTACAGGAGAGAGTCACACTAATGAGTGGCAGTATTTT
ATAGAGATGTGATGAGAATTTATAAATTTCATAGATTTGACAGCTTTTATTTTTAGATGGTATAATGCACAGTGA
AGAGGAAAGAAAAGCGAGGGGAAAAAACCTTATTTATTCAAACAGTGCACAAAATGGCCCCAGCGTCAGCCCCGA
CCCTAGACCCCTCAGTTGCAGCTCCCAGCAGCCCAGACAGAGCTGCCGGCGCCCCTGCCTGCCCCACATCCCTTC
CTGTCAGGGCCACGCCTGGCACCCATCCCTTGGAGCCTGTGCTGGTTCTCCCAGCTGCTGTGGGTGTGCTGGGGC
CAGGGTGCACTGCTGAAACCTGGCCTCTCTGGCCCTAGGCCCCAGGGTGACGTCGGCCCCCCACTCTGCAGCCTT
GGCGGGTGCCTGGGACTGGGTGTGGAAGGAGAGGAGCTGAGGCCGGGGTGTAGCAGGCAGGCAGGGCCACTCCAG
TGCTTCTGGAGCCCTGAGCAGTCAGGGCCTGGGTTGTCTGAGCAGTGGTGGCTCTGTGCCCTCCCTGGAGGATGG
GATCTGGGA

FIGURE 285

GACATTTTTGGCGCCGGCCCCAGCCTGAGCGGGGACGGCGGCCGGGAGGGCGCGGCCCGGGTTCCCGTTCCCCGC
GGAGCC**ATG**CGGTACAACGAGAAGGAGCTGCAGGCTCTGTCCCGGCAGCCGGCCGAGATGGCGGCCGAGCTGGGC
ATGAGGGGCCCCAAGAAGGGCAGCGTGCTGAAGCGGCGGCTGGTGAAGCTGGTGGTGAATTTCCTCTTCTACTTT
CGGACAGACGAGGCCGAGCCCGTCGGAGCCCTGCTGCTGGAGCGCTGCAGAGTCGTCCGGGAAGAGCCCGGCACC
TTCTCCATCAGCTTCATTGAGGACCCTGAGAGGAAGTATCACTTTGAGTGCAGCAGCGAGGAGCAGTGTCAGGAG
TGGATGGAGGCTCTGCGTCGGGCCAGCTACGAGTTCATGCGGAGAAGCCTCATCTTCTACAGGAACGAAATCCGG
AAGGTGACGGGCAAGGACCCCCTGGAACAGTTCGGCATATCCGAGGAGGCCAGGTTCCAGCTGAGTGGCTTGCAG
GCG**TGA**GCGCAGGGCACGGTGGTCAGCGTGCAGCGGGACGGGACTGGCCCTGCCCAGCCATGAATCGCTTGGCCA
TGCCTGGATCTGTTTTGTTTTGGTTTTTGGTTTTTGGGTCAGGGTTTCACTGTGTTGCCCAGGCTAGAGTGCAGT
GGTGCCACAGCTCACTGTGACCTTGACCTTCTGGACTCAAGTGATCCTCCTGCCTCAGCTTCCCAAGTAGCGGGG
ATCACAGGCATGAGCCGCCACACCCGGCCATCACACCTGGATTTTCAGTGGGAGGTTTTTGGTTTGGAGACATCC
AAAGCCTGAAGCCAGGTGGGTGTGGGCAGGGGCTGCATTTTATGAAACTGCCCAGCAAGCTGCGCTCCCTGGGGC
CCCAGGATCCACCTAACTGGCCTGGCACCTGGTGCCACGTGCTGCTGCCGCCAGGATATGCGCCTTCCCACAGGT
GCCCTGCCTGAGTTGTGTGCATCCAGGGGCCTGGTGAGCCCCCAGGCTGGTGGCATGGCCCCCCTGCCCCGTGCT
GAATGAATGTACAGAGCCAGACAAAGCTGTGAATGGCCTAGGGGCTGAGTCCCACACCAGCTGTGAATTCTCCTG
CAGACAGGAGGGCCCTGGCTGTGCACCTGGGGAAGTGGTTGCCCTGGGGCCAGGGTGCTTGTTCTGTTCAAATAA
AGGTACCTCTTTTCC

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FIGURE 286

ATGGACTTCCAGCATCGCCCCGGGGGCAAGACCGGGAGCGGGGGCGTGGCCTCCTCCTCCGAGAGCAACCGTGAC
CGCAGGGAGCGCCTCCGGCAGCTGGCCCTGGAGACCATCGACATCAACAAGGACCCGTACTTCATGAAGAACCAC
CTGGGCTCCTATGAATGCAAACTCTGCCTGACACTTCACAACAATGAGGGGAGCTACCTGGCACATACGCAGGGG
AAGAAGCACCAGACCAACCTGGCCCGGCGAGCAGCCAAGGAGGCCAAGGAGGCCCCTGCCCAGCCCGCGCCTGAG
AAGGTCAAGGTGGAGGTGAAGAAGTTTGTGAAGATCGGCCGCCCGGGCTACAAAGTGACCAAGCAGAGAGACTCG
GAGATGGGCCAGCAGAGCCTCCTCTTCCAGATTGACTACCCTGAGATCGCCGAGGGCATCATGCCACGTCACCGC
TTCATGTCTGCGTACGAGCAGAGGATCGAGCCTCCGGACCGGCGCTGGCAGTACCTGCTCATGGCCGCCGAGCCC
TACGAGACCATTGCCTTCAAGGTGCCGAGCAGAGAGATCGACAAGGCGGAGGGCAAGTTCTGGACACACTGGAAC
CGGGAGACCAAGCAGTTCTTCCTCCAGTTCCACTTTAAGATGGAGAAGCCCCCGGCTCCACCCAGCCTCCCTGCT
GGCCCCCCTGGGGTGAAGCGGCCTCCACCCCCGCTGATGAACGGTCTGCCCCCTCGGCCACCGCTGCCTGAGTCT
TTGCCACCGCCCCCGCCAGGAGGCCTGCCTCTGCCACCCATGCCCCCCACAGGGCCTGCGCCCTCAGGGCCCCCG
GGACCACCCCAGCTACCCCCGCCAGCTCCAGGGGTCCACCCCCCGGCCCCAGTGGTGCATCCCCCTGCATCTGGG
GTCCATCCCCCAGCTCCTGGCGTCCACCCCCCAGCTCCTGGCGTCCATCCCCCAGCCCCTGGGGTCCACCCACCA
ACCTCTGGGGTCCACCCCCCAGCTCCTGGAGTCCACCCTCCAGCCCCCGGGGGTTCACCCACCAGCCCCCGGAGTC
CACCCACCAGCCCCTGGGGGTTCACCCACCAGCCCCAGGGGTCCATCCTCCCCCATCAGCGGGGGTTCACCCCCAG
GCCCCGGGGGGTGCACCCAGCAGCCCCCGCCGTTCACCCTCAGGCCCCAGGGGTGCACCCACCAGCCCCAGGGATG
CACCCTCAGGCCCCGGGGGGTCCACCCCCAACCTCCCGGGGGTCCATCCGTCGGCTCCTGGGGGTCCACCCTCAGCCT
CCGGGAGTTCACCCCTCAAATCCTGGGGGTGCACCCCCCAACTCCCATGCCCCCAATGCTGAGGCCCCCACTTCCC
TCCGAAGGCCCAGGGAACATACCTCCCCCTCCCCCAACCAAC**TGA**

FIGURE 287

CACATCAGGCCCAGCTCTATCACTGGGGAGGGAGATAGGCTGCCAGGGACAGAAAGGGCTCTTTGAGAAGGCCAC
TCTGCCTGGAGTGGGGGCGCCGGGCACTGTCCCCCAAGGTCGCGGCAGAGGAGATAGGGGTCTGTCCTGCACAAA
CACCCCACCTTCCACTCGGCTCACTTAAGGCAGGCAGCCCAGCCCCTGGCAGCACCCACG**ATG**CGGGACCTGCCT
CTCACCAGCCTGGCCCTAGTGCTGTCTGCCCTGGGGGCTCTGCTGGGGACTGAGGCCCTCAGAGCAGAGGAGCCA
GCTGTGGGCACCAGTGGCCTCATCTTCCGAGAAGACTTGGACTGGCCTCCAGGCAGCCCACAAGAGCCTCTGTGC
CTGGTGGCACTGGGCGGGGACAGCAATGGCAGCAGCTCCCCCCTGCGGGTGGTGGGGGCTCTAAGCGCCTATGAG
CAGGCCTTCCTGGGGGCCGTGCAGAGGGCCCGCTGGGGCCCCCGAGACCTGGCCACCTTCGGGGTCTGCAACACC
GGTGACAGGCAGGCTGCCTTGCCCTCTCTACGGCGGCTGGGGGCCTGGCTGCGGGACCCTGGGGGGCAGCGCCTG
GTGGTCCTACACCTGGAGGAAGTGACCTGGGAGCCAACACCCTCGCTGAGGTTCCAGGAGCCCCCGCCTGGAGGA
GCTGGCCCCCCAGAGCTGGCGCTGCTGGTGCTGTACCCTGGGCCTGGCCCTGAGGTCACTGTGACGAGGGCTGGG
CTGCCGGGTGCCCAGAGCCTCTGCCCCTCCCGAGACACCCGCTACCTGGTGTTAGCGGTGGACCGCCCTGCGGGG
GCCTGGCGCGGCTCCGGGCTGGCCTTGACCCTGCAGCCCCGCGGAGAGGACTCCCGGCTGAGTACCGCCCGGCTG
CAGGCACTGCTGTTCGGCGACGACCACCGCTGCTTCACACGGATGACCCCGGCCCTGCTCCTGCTGCCGCGGTCC
GAGCCCGCGCCGCTGCCTGCGCACGGCCAGCTGGACACCGTGCCCTTCCCGCCGCCCAGGCCATCCGCGGAACTC
GAGGAGTCGCCACCCAGCGCAGACCCCTTCCTGGAGACGCTCACGCGCCTGGTGCGGGCGCTGCGGGTCCCCCCG
GCCCGGGCCTCCGCGCCGCGCCTGGCCCTGGATCCGGACGCGCTGGCCGGCTTCCCGCAGGGCCTAGTCAACCTG
TCGGACCCCGCGGCGCTGGAGCGCCTACTCGACGGCGAGGAGCCGCTGCTGCTGCTGCTGAGGCCCACTGCGGCC
ACCACCGGGGATCCTGCGCCCCTGCACGACCCCACGTCGGCGCCGTGGGCCACGGCCCTGGCGCGCCGCGTGGCT
GCTGAACTGCAAGCGGCGGCTGCCGAGCTGCGAAGCCTCCCGGGTCTGCCTCCGGCCACAGCCCCGCTGCTGGCG
CGCCTGCTCGCGCTCTGCCCAGGTGGCCCCGGCGGCCTCGGCGATCCCCTGCGAGCGCTGCTGCTCCTGAAGGCG
CTGCAGGGCCTGCGCGTGGAGTGGCGCGGGCGGGATCCGCGCGGGCCGGGTCGGGCACAGCGCAGCGCGGGGGCC
ACCGCCGCCGACGGGCCGTGCGCGCTGCGCGAGCTCAGCGTAGACCTCCGCGCCGAGCGCTCCGTACTCATCCCC
GAGACCTACCAGGCCAACAATTGCCAGGGCGTGTGCGGCTGGCCTCAGTCCGACCGCAACCCGCGCTACGGCAAC
CACGTGGTGCTGCTGCTGAAGATGCAGGTCCGTGGGGCCGCCCTGGCGCGCCCACCCTGCTGCGTGCCCACCGCC
TACGCGGGCAAGCTGCTCATCAGCCTGTCGGAGGAGCGCATCAGCGCGCACCACGTGCCCAACATGGTGGCCACC
GAGTGTGGCTGCCGG**TGA**CCCCTGCGCCGCGCGGACTCCTGCCCCGAGGGTCCGGACGCGCCCCAGCTCGCGCCC
CTTCCCATATTTATTCGGACCCCAAGCATCGCCCCAATAAAGACCAGCAAGCAACCGG

FIGURE 288

TGCGAACGGCGAGCAGCGGCGGCGGCGCGGAGAGACGCAGCGGAGGTTTTCCTGGTTTCGGACCCCAGCGGCCGG
ATGGTGAAATCCTCCCTGCAGCGGATCCTCAATAGCCACTGCTTCGCCAGAGAGAAGGAAGGGGATAAACCCAGC
GCCACCATCCACGCCAGCCGCACCATGCCGCTCCTAAGCCTGCACAGCCGCGGCGGCAGCAGCAGTGAGAGTTCC
AGGGTCTCCCTCCACTGCTGTAGTAACCCGGGTCCGGGGCCTCGGTGGTGCTCC**TGA**TGCCCCTCACCCACCCCT
GAAGATCCCAGGTGGGCGAGGGAATAGTCAGAGGGATCACAATCTTTCAGCTAACTTATTCTACTCCGATGATCG
GCTGAATGTAACAGAGGAACTAACGTCCAACGACAAGACGAGGATTCTCAACGTCCAGTCCAGGCTCACAGACGC
CAAACGCATTAACTGGCGAACAGTGCTGAGTGGCGGCAGCCTCTACATCGAGATCCCGGGCGGCGCGCTGCCCGA
GGGGAGCAAGGACAGCTTTGCAGTTCTCCTGGAGTTCGCTGAGGAGCAGCTGCGAGCCGACCATGTCTTCATTTG
CTTCCACAAGAACCGCGAGGACAGAGCCGCCTTGCTCCGAACCTTCAGCTTTTTGGGCTTTGAGATTGTGAGACC
GGGGCATCCCCTTGTCCCCAAGAGACCCGACGCTTGCTTCATGGCCTACACGTTCGAGAGAGAGTCTTCGGGAGA
GGAGGAGGAGTAGGGCCGCCTCGGGGCTGGGCATCCGGCCCCTGGGGCCACCCCTTGTCAGCCGGGTGGGTAGGA
ACCGTAGACTCGCTCATCTCGCCTGGGTTTGTCCGCATGTTGTAATCGTGCAAATAAACGCTCACTCCGAATTAG
CGGTGTATTTCTTGAAGTTTAATATTGTGTTTGTGATACTGAAGTATTTGCTTTAATTCTAAATAAAAATTTATA
TTTTACTTTTT

FIGURE 289

GCCGTTGGTTGCGGCGGGCACCGGCCGAC**ATG**GCGGCAGCGGTGGCGGCTGCGCTGGCGCGGCTTTTGGCGGCCT
TTCTGCTCCTCGCGGCCCAGGTGGCCTGTGAGTACGGCATGGTGCACGTGGTCTCCCAGGCCGGGGGCCCCGAAG
GCAAAGACTACTGCATCCTCTACAACCCGCAGTGGGCCCATCTTCCGCACGACCTCAGCAAGGCATCTTTCCTGC
AGCTGCGCAACTGGACGGCCTCCCTGCTCTGCTCCGCAGCCGACCTCCCCGCCCGTGGCTTCAGCAACCAGATCC
CGCTGGTGGCGCGGGGGAACTGCACCTTCTATGAGAAAGTGAGGCTGGCCCAGGGCAGCGGAGCACGCGGGCTGC
TCATCGTCAGCAGGGAGAGGCTGGTCCCCCCGGGGGGGTAATAAGACGCAGTATGATGAGATTGGCATTCCCGTGG
CCCTGCTCAGCTACAAAGACATGCTGGACATCTTCACGCGTTTCGGCCGCACGGTGAGGGCGGCGCTGTATGCGC
CTAAGGAGCCGGTGCTGGACTACAACATGGTCATCATCTTCATCATGGCTGTGGGCACCGTCGCCATCGGCGGCT
ACTGGGCCGGGAGTCGGGACGTGAAGAAAAGGTACATGAAGCACAAGCGCGACGATGGGCCCGAGAAGCAGGAGG
ACGAGGCGGTGGACGTGACGCCGGTGATGACCTGCGTGTTTGTGGTGATGTGCTGCTCCATGCTGGTGCTGCTCT
ACTATTTCTACGATCTCCTCGTGTACGTGGTCATCGGGATCTTCTGCCTGGCCTCCGCCACCGGCCTCTACAGCT
GCCTGGCGCCCTGTGTGCGGCGGCTGCCTTCGGCAAGTGCAGGATCCCCAACAACAGCCTGCCCTACTTCCACAA
GCGCCCGCAGGCCCGTATGCTGCTCCTGGCGCTCTTCTGCGTGGCCGTCAGCGTGGTGTGGGGCGTCTTCCGCAA
CGAGGACCAGTGGGCCTGGGTCCTCCAGGATGCCCTGGGCATCGCCTTCTGCCTCTACATGC**TGA**AGACCATCCG
TCTGCCCACCTTCAAGGCCTGCACGCTGCTGCTGCTGGTGCTGTTCCTCTACGACATCTTCTTCGTGTTCATCAC
GCCCTTCCTGACCAAGAGTGGGAGCAGCATCATGGTGGAGGTGGCCACTGGGCCCTCGGACTCAGCCACCCGTGA
GAAGCTGCCCATGGTCCTGAAGGTGCCCAGGCTGAACTCCTCACCTCTGGCCCTGTGTGACCGGCCCTTCTCCCT
CCTGGGTTTCGGAGACATTTTGGTGCCAGGGCTGCTGGTGGCCTACTGCCACAGGTTTGACATCCAGGTACAGTC
CTCCAGGGTATACTTCGTGGCCTGCACCATCGCCTATGGCGTTGGCCTCCTTGTGACATTCGTGGCACTGGCCCT
GATGCAGCGTGGCCAGCCCGCTCTCCTCTACCTGGTGCCCTGCACGCTGGTGACGAGCTGCGCTGTGGCGCTCTG
GCGCCGGGAGCTGGGCGTGTTCTGGACGGGCAGCGGCTTTGCGAAAGTCCTACCTCCATCTCCGTGGGCCCCAGC
ACCAGCCGACGGCCCGCAGCCTCCCAAAGACTCTGCCACGCCACTCTCCCCGCAGCCGCCCAGCGAAGAACCAGC
CACATCCCCCTGGCCTGCTGAGCAGTCCCCAAAATCACGCACGTCCGAGGAGATGGGGGCTGGAGCCCCCATGCG
GGAGCCTGGGAGCCCAGCTGAATCCGAGGGCCGGGACCAGGCCCAGCCGTCCCCGGTAACCCAGCCTGGCGCCTC
GGCCTAGGGGAGGGGTGAGACGCTCGCTGCCGTGCCCGCCACACCAAGATGTTGGGGCTGCCTGGCGCCCACTGG
AGACAGACAGACAGACGCCTGTCCCCCGGGACCGAGGCCTGTGCCGTCCCCACCCGCCCCAACATGGTGCTCATC
CTTGCCGAGACCCCTGCGGTCTGTGCCCGCGCCCAGCCCAGCTGCCCCGGCTGCACGCCTGCTGCTCCCAGCTCG
CCCGGCTGCCACAAGCTCTCTGCGGGTCCATCCTCCCCACCGGGGTCCGTCCTCGCAGGCCCTGCCCGGCCTCTC
TGCAGACCCTCAAGCGTCGTCTGCATGAGTGAGCAGGCGTGGGTGGACTCTGGCCGCGGCCACACTTGGTGCTCA
CCAGCTGCTTCGGCCTTCAGGTGACCTCCCTCCCCACGGCATCCTGCTCTCCGGGTGGAAGAGCAGCTTTCTGTC
TCCCAGAAGGCATCGCTTTTCCCTCTTGAGCAGATCGGAGCCCCTGGGAGGTTTGGAAGCTGCCTCCAAGCCTAG
GACACGGACCAGTGGCCGGGGCGGCCTCTGGCCCCTGACGCTGGCTGAGACAGGCCCGTGGGGCGGGGTTTTGGG
GCGTGAACAAGGCTGGCAGTAAGTGGACAAGCTGCTCCCCTGGCTAAGGCCCTGCCCTGCCCTCAGCCAGAGGTG
CCTGGCCATGCCTGCACACTCCTCCCCATTTTAATAAATGGTCGCAACTTCTAGAAGTCCTGCTGGTGCCACCTG
GTGGGGTGGACGTCTCTCAGACTGCCCTTCTGACAAGCAGGGGTGGGCGCCAGGCAGGCTGGGTCAGGCCCTCAG
GGGTCCCTGGAGCCCTGGGAGGGAGGGACTGGGTCGTGGGAGGTCCTGGTAGCTCCCGGCACCCAACCTCGCTTC
CCGTGTGGGCCCCGTGTTGCTTTTCTGCTGAGAGGGGCTTGGGCCTCGGTTCTCCCTGTGGCAGCGGCATTGGTG
CCTGGGTTCTTAACCCTCTGGACCCAGCAGCTAGGAGCTTCTGGAACCCACGAGGACATCTGCCACTGGCATGGT
CTACTCACTGATGGGGTCCTCCTGACTCCAGGGCAGAGACGTCCGTGCGGGAACTGACCGAGGCGTGGCCCCAGG
CCCCGGCATCCTCCCCTCGCTGCACGTGGTCACTTCCGAAGCAGCGCTCCCTGTGGCCGCAGAGACAGAGCCCGC
ACCCTGGCTGTCTGTGGTGCCTGGGCCCCAGCTCCCGCCCGCCACCCGCCCTGTTGAGTGCGGCCTCCAGACTCG
AGTCCAGAATCTGTTTCTGTCAAGTCAGTCGTCCCCAGCTGCACACGGGGACTGCTGAGCGCTGCGCTCTCACGG
GTCTGTTCCGGACAGAGGGTGGCAGGGGTGAGCCCTGATCCCTTACAAAAAATACCAGCTTCCCAGGGAGTAATG
GCGCCTTCACTGAAGCCATTTTGTACATGGGGACGGGGTGGGGACGTCTCTTTTTTGGTGTTGGACGTTTGACCA
GTGGGGAGGGGTTCAGAGGCGGCGGTCCTGTCCTTGGCTCCGTCTGTCCGTGTGGCCTTGCTGCCATTCCGTCTG
ATCATTAAACACAGCTTTTGATAC

FIGURE 290

ACCCCCAAGGAAAAAGGTCACTGGCTAGTGTAGCTAGTGTAAACAGGACCCAGGCGATGCATGGGACCCTGCCCT
TTTTTTTCTAGTGAGCCTCCGACGCTGTTGCACAAGCTGACTCTTCGTCACGTGATGCGACCGGGCTCCGCCCCG
GCGGCAACACGCTGTATAGACGCGCCGGGTGCCTCGTGCGCATGCGCGGCAGGCCCTTCGGGACGAGCTGGAGGC
AGAGCGTGAGTACAAAGTGATCGGCCTCGGCCGCACGTAGTAGCCCCCCTACTCCCCGGCCAAGTCAGGGCCTCC
CTCTTCCCGCGGAGTCGCAACCACGGGTAGCTCGTGTAGGTAACGGCAGGTCCAGGCCTCCGCATGAGCGGAGGG
CCCCCCGCGCGACCTTGAATGGCCCGGGCGCGCGCGGTCGTGTGGGAGTTGTAGTCCTCCGTCCCCGTCCGCGCG
GACTCCGTTTCCCGTGGTGCCCCGGGCGGCCCGCTTCCGGCGCAGTTAGTTACGAGTCGGCGCACGCGGCCTCGG
TCCGGTTGACTTTGCGGAGCC**ATG**GAGGGCGGCTTCGGCTCCGATTTCGGGGGCTCCGGCAGCGGGAAGCTGGAC
CCAGGGCTCATAATGGAGCAGGTGAAAGTGCAGATCGCCGTGGCCAACGCGCAGGAGCTGCTGCAGAGGATGACG
GACAAGTGTTTCCGGAAGTGTATAGGGAAACCTGGGGGCTCCCTGGACAACTCCGAGCAGAAGTGCATCGCCATG
TGCATGGACCGCTACATGGACGCCTGGAACACCGTGTCTCGCGCCTACAACTCGCGGCTGCAGCGGGAACGAGCC
AACATG**TGA**CCGGCGAGCGCGGGCCACCCCACCCTGTTCATTTCCATAAACGTGCTTTGAGAGGCGGGGTCCGCA
TGTACGTACTGCCTGCCCGGGGCTTAGGAGGGTGGCACCGGTGCTGGGACACACGGGACTGTGTCCTCGCCACCC
CCCGCCCTGCCCCCTGCCAGCCAGTGCAGCTTGGATCTCGGGGGTGTGGGGCCCTGTGCCTTCCTGAAGTGCTGG
CAGCCCAGTGGCACCTCCTTCAGGCCTTTGGGGTATTCCCCTAGTGTGCCCAAGTCAGCCTCATATTCTGGGCGG
ACAGCTTGTCTGGACTTCGGAGTTGGGGGTGGTCAGACACCACAGGAGCTGTCACCTCCTGCGGATGGGCAAATA
AATTGGTGGAGGACGGAGAGAAACCTCTTTATTTCCCTCCTGAGGGGTCTCTGGGAAGAGGTGACGCGTGTCCCT
GGAACCCCAGCTCGGAGGGTCTCAGCCTCCCCTGGGTTGGGAGAAGTCCATCTTTCCCCTTAGTGCCACCGGGCT
GCTGAGTCACGAGGAATGTGTTGCTGCTGCCACCCCTGCCCCAAAGGCTAAGGGGGACAGCCTTCCCCTTGTCAG
GGCTTGCTTTGACCCTGCTTCGTTCCACCCCGGGTCCTGGTGGAGCACCAGGCAGGTGGTCCTCGCTGTGACACT
GAGGTGCTGAGCCAGTGAGCTAGGGTGGAGGGGCTGTGTTTATTGGAACAAAGGGTGGTACCAAAATGCATCCCC
ATGACCCACAGCCCCCCCACACCCGTCCTTGGGTAGGGTACGGTGGGGTGGGGTGTTGGGTGGCCTGCTGCTCCT
GTTGCTTTCACGTAGAGTCTCGGCCTGGGCAGTCACGTGGTGGTCACTCCTGGATGTGCTGTCCTATCCAGCCTC
TCACAGCTGCCACCCGGGTATAGACACCTGGGAAGTGGGGCCGGCCACAGCCATAGCCCCAGCTAGTGACCCCAG
TTAGCACCCACCGTCCAGAGGGCTCCCTGCAGGCCAGGGGTCCCCCAGCGTCACCCTGTTGGGGAGAGAAGAAAG
GGGGTTCAGAGGCCGGTACCTCCCCTACAGCAGCCCTTGGGTCATTGGCCCCTCTAGGAGTGACCCTAGTGACTT
CCCCTGGGAGCCGCATTTTCACTATCTGGAAAATGGGCTCAATGCAAAGGTGGCAGACATTTATGGACACCCGCC
ACGTGGTCCCGGAGTGGAACGGTGCCTCCCACTGCAGCCTCTGCCTGCTCTGCCGCCGAGGCCCGGGGATGGGAT
GCGGTGGGTTGCCCAATAAACGGCTGTGGAGTGGAAATTCCTCCAGAGCCAAAAAGGC

FIGURE 291

TTTTAATGGATATTTATTTTTTTACATTGGTCAGTACACAGGTCAGGAGCTCACGCCAGGGCCTTGAGGACAGGC
TGACCCTCCTCCCCGGGGTGGCGTGGGGCTGGGGCACCCTCCGACGGCAGAGCCTCCTTCAGAAAGTGCAGCTCA
AGTCTTAAAGACACCAAAACTGAGCCATGGGCACGCGCCGTCTCCGGGCC**ATG**GCGTTCACTGCAGGGCGGGGGC
GGCACCGCTCCCCTGTGACTGCATCCCGCCTCCCTGGGGACCTGCCTGTGGCAGGAAGGAATGGGGGGCCCCAGC
CCCAGGCCGGGAAGGAGCCAGCGGCCGACAAAGCAGAAACACCCGCTGCTCCACGTAGCCCCTGCTCGCTGTCCT
TGCTCTCAGAAGTCCCGGTCCCATGTAGA**TAG**AGGGGGGCGCATCTTACCAAAGCATTTCCTCCTGGAGGCTACG
CCGCTGTGCTCCCAGTCAGGCGGCTGGTAGGGAGCTTTGCCTGCCCCGGGGATACCCTCTGCCAGCCGCTGGAAG
TGGGAATGCTGGCGACAGACTGTGTCCTCTTTCCCACCTTCATAGCAGGAATCACCCGGACCCGACTGGCTGGGC
TTCGTGCTAGCGAGGGTTCTGGGGGTGGGTCTTGGTGATCTTGTCCTATGGGGAGTCTGCAGTGGTCTCAGCCAC
ATCCTATGTATTTTGGCTCTGGAGGAGCAAAGCTGTATCCTGGAGTTGGTCTGTGATTTGCCGACAGCCTTGCAG
GCTGGGCTCAGGGACAAAGTCCCCCCCAAAACCCGCAGGTCCTCATGTCCAGACGCTGCCCAGTCCTGTCCTGAA
AACAGCACGCCCCAGGCCCACAGAACCCCCCACCCTACATTTGCCTTGGGTGGAGCTGGGGGTGGTCCTAGGACT
GCGGGTGCCCTTAGCTGAAGGGGGTGGGGAGAAGCGTGGACTGGGCAGCCTGTGGGTAATTGGAGGTTCATTGAG
AATTGAGTCTTTGGAAACACTAAGAAAATCAAATTTTTAAAAGTTATTTATGGCCTGGGAAACAATTTGCATTTG
TCCCCAAATACGCTTAGCTGTGTGCCGCTTAGAACGATGCGAAACCATCCCTCTGTGTAAGCCCGTGCCGTGTGA
CTCGAAGCCTAGCGCCCTCCCTGCGAAGCATCAGACGCCACCCAGCCCTGGGGGGGAGGCCCACGCCTGCTGGACC
AACGCGGGTTCTGGGGTGCACAGCGCCAGGTTAACGCTGAAGCCTGCCCCGCTGAGCCCAGGAGCCGGGAGGCCT
GCGGGCTGACCCAGAATCCGATCATGCACCTGTCCTCATGCCAGCGGCTTTGGCTGGGGTTGGTCTGAAGCCTGC
ACGCGGCAGTTCTTTGTTAAAGATCTGAGGGACTCCTCAGTCCTGGGGGCGTCGCCGCCTGCAGCCTCTTCCAAGC
CCTGCGTCCAGCGAGCGTCACAGCACAACCTGCAAAAACGGAGCTGGGCTGCAGCTGGGGCTGGCATGGACTTTC
ATTTCAGAGATTCGGTTTTTAAGAAGATGCATGCCTAATGTGTTCTTTTTTTTTTCCAATGATTTGTAATATACA
TTTTATGACTGGAAACTTTTTTGTACAACACTCCAATAAACATTTTGATTTT

FIGURE 292

AGCTCTGACCAGAACGACAAGGCGGCCAGTGCGGCTCGCGAGGAGCTGAAGGAGGCCCGC**ATG**CGCCTGGAGTCC
CTCAGCTACCAGCTCTCCGCCTCACTTCGCTGCCACTTCGCCGCTGCCCCGGAGACTTTTCAATCCCACCCCACT
CCTCATCTCACCATTTGGTCAAATTGGAAGCCCAGGGCCAGGACCCGGAGGTTTAGAAGATGCTTGGGCTTGGAG
GGAGGAGGGCCGGCGAGGCTAGCGAGGGGACAGGAGACGGCCCTGCTGCGGACGGAGCGCGGAAACTGCGTAGGA
ATTCAGTGGTGGTGGGTTTTTTTAAGGCTTTCTACAAAACCAAATTCAGAATCCAGGCGTCGACCTGGTGGGGCC
CGGGGCCAAGCCTGCATTCTGGCTGCCCAGCTTCGGACAGCGGGAACTCCTCAGGCAGCCACGCAGCGGGTGTGG
GCCAGCATGGGGATGGCGTGGCCCCCAGGGCGGGTTTTCACTCCGCTGCCTGGGCTTCCAGATTCCCGTTCTGGC
AGCGCACCGGCCGGGTTTCTCGGACCGTTGACTTTATTTGGGGGAGTTTTCCCGCAGTTCAGTTCC**TGA**CTGTGC
AAGGCCAACAGGGCAGGGGAGGGGAAGACCTGGGGAAGGAAGAATGAGGACAGTCCCGTCGTAAGACCTGTCACA
ACAATA

FIGURE 293

CGTCGGACTACCGTTGGTTTCCGCAACTTCCTGGATTATCCTCGCCAAGGACTTTGCAATATATTTTTCCGCCTT
TTCTGGAAGGATTTCGCTGCTTCCCGAAGGTCTTGGACGAGCGCTCTAGCTCTGTGGGAAGGTTTTGGGCTCTCT
GGCTCGGATTTTGCAATTTCTCCCTGGGGACTGCCGTGGAGCCGCATCCACTGTGGATTATAATTGCAAC**ATG**AC
GCTGGAAGAGCTCGTGGCGTGCGACAACGCGGCGCAGAAGATGCAGACGGTGACCGCCGCGGTGGAGGAGCTTTT
GGTGGCCGCTCAGCGCCAGGATCGCCTCACAGTGGGGGTGTACGAGTCGGCCAAGTTGATGAATGTGGACCCAGA
CAGCGTGGTCCTCTGCCTCTTGGCCATTGACGAGGAGGAGGAGGATGACATCGCCCTGCAAATCCACTTCACGCT
CATCCAGTCCTTCTGCTGTGACAACGACATCAACATCGTGCGGGTGTCGGGCATGCAGCGCCTGGCGCAGCTCCT
GGGAGAGCCGGCCGAGACCCAGGGCACCACCGAGGCCCGAGACCTGCATTGTCTCCTGGTCACGAACCCTCACAC
GGACGCCTGGAAGAGCCACGGCTTGGTGGAGGTGGCCAGCTACTGCGAAGAAAGCCGGGGCAACAACCAGTGGGT
CCCCTACATCTCTCTTCAGGAACGC**TGA**GGCCCTTCCCAGCAGCAGAATCTGTTGAGTTGCTGCCACAAACAAAA
AATACAATAAATATTTGAACCCCCTCCCCCCCAGCACAACCCCCCCAAAACAACCCAACCCACGAGGACCATCGG
GGGCAGAGTCGTTGGAGACTGAAGAGGAAGAGGAGGAGGAGAAGGGGAGTGAGCGGCCGCCCCCAGGGCGGAGAT
CCAGGAGCTGGCGGCCGCCGATCCGATGGAGAAGGGGGGACCCAGGCCAGCAGGAGACAGGACCCCCGAAGCTGA
GGCCTTGGGATGGAGCAGAAGCCGGAGTGGCGGGGCACGCTGCCGCCTTCCCCATCACGGAGGGTCCAGACTGTC
CACTCGGGGGTGGAGTGAGACTGACTGCAAGCCCCACCCTCCTTGAGACTGGAGCTGGCGTCTGCATACGAGAGA
CTTGGTTGAACTTGGTTGGTCCTTGTCTGCACCCTCGACAAGACCACACTTTGGGACTTGGGAGCTGGGGCTGAA
GTTGCTCTGTACCCATGAACTCCCAGTTTGCGAATTATAGAGACAATCTATTTTGTTACTTGCACTTGTTATTCG
AACCACTGAGAGCGAGATGGGAAGCATAGATATCTATATTTTTATTTCTACTATGAGGGCCTTGTAATAAATTTC
TAAAGCCTC

330/5332

FIGURE 294

CATGTTTTTGGATTTTTTTTTTTTTCTTTTTTTGAGATGGAGTTTCATTCTTGTTACCCAGGCTGGAGTGCAGC
TGC**ATG**ATTTCAGCTCACCGCAACCTCTGCCTCCCCGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAGCT
GAGACTACAGGCGTGTGCCACTACGCCCGGCTAATTGTTGTATTTTTAGTAGAGACGGGGTTTCACCGTATTGGC
CAGGCCGCTCTCAAACTCCTGACCTCGGGATCCGCCCACCTCGGCCTCCCAAAGTGCTGGGATTACAGGCATGAG
CCACCGCGCCCAGTGTGTTTTAAGCATGAGGCATCCGCGTGGCTGGGAGAGGCTTTGACCATCCTTGGCTCTTCC
AGGTTGTCCTACCCTCTGGCATCCACCATAGACGTTTTTCAAACAGAAAATGCAGGCTGGGGAGCCGCGGCAGGG
CGGGTGGGGCTACCCTGTGCTGCTGTGTGTACAAAATTGTTCCATGATCTTGGAGTGACTCTGAAGGACTCTGGG
AGG**TGA**GACGTTGTCCCGGAGATCAAAACGTCCGCTCAAAACGTTACCCTGTCGCTCGAACCCGATCTTTTTGCT
TTTCCACCCCCGTGCAACCCAGGACGGCTGTCTGAGGCCGGGAGATGCCTTAGACGCAGGATGGGCCACTCCTCC
CAGCGGCAAGTGGAAATCGAAGATGTCATGGGGTCGGGGGGAGGCTTCTGAAAGATGACTGCGTCCTCCTCTGCG
GCACGGACGGGAGCAGGTGCAGCCACATCTTCCAGGGCCTGCCGGCATCACCTGCGGCCACACCTGAGATGGACC
CCACGCAGCCCTGATCGCAGGAGGCCTGGCCGCCCCGACCCCCTCCACGGGGCTGGCCTAGAAGCAAGTAGTAGA
ATAAAACTAGCCTAGTCCTGTCCCTCCGGCCCCAGTGGAGACAGGCGTCTAAGAACCCGTGCCGAGAGGGTTCCT
GGACGGCCGCCCAGGTCCTCCGTGCAGGCCCGTGAGGCGGGGATCCCTGCTTGGCTCACTTCCTGAGCTGGTGAC
TGCCAGGGTTCCCACCTCGCCAAGGCTAGAGGGCTCCGGGTGTGTGTGCAGGTGTCGGGGGAGTGACCTCCACTC
CTCAACCTCGGGCAGCTCCCACAGGCCACAGCCGGGCTCCCCACCCCCGGCACCCAGCTCTCTACGGCAGGTCCG
GGAGGGCTGGGGCTTCGGGGAGCCCTACCCGCCAAACCTGCTGTTGGCCCGGGAGAGCCCCAGAGGCTCCCGGAG
ACTGCAGCCTCCTGTGGTTGGGCTGGGAGCCGGCAGGGTTTGGGGTGTGGGCGTCCCCACCACGCATAGCAGGAA
TGGCAGGAAGGGACAAAAGCCTGTTCCAGAGACCCTGGGAGGACCCCAGGCAGGGAGAGCCCGCCTGCCTCCACC
CTTTCCAACAAGCCATCTTGGTAACTGGGAACAAACACACCCCACCCCGTTTTTCCTTAAAAGAGGCCTTAATCC
CCGAGCCCCCGCTGCCAGGGCAGAGGGAGGAGGGGGCACAGCTGTGCCAAGCCCGGCCCCACTGGTGTGTCCTCA
CAATGTGACCCCAGAAATGCCAGCAGGGAACGGAGGCTGCTGCAGAGACGCAGCCCCAGGCAGCCGGGGCTCCTA
GGCTGGTGCAGATGGTGGGGTTAAACGGGCTGAGCGTTCCAGGTAAACTGAGGCTCGGGGAGGGGAAGGACAGGC
TGGCCTCTCCTTCACTGTCCACAGGGCCTTGGGTTCCCTGAGCTGTCCAGACCCCACCATCTCCCGGACCCCAGG
GAGGTGGCCATTGCCAGAAGCCTGTGGGTTTCTTTCTAGCTTGGGGGATTAAAAAAAAAATTCTCCACTTTTTTT
TTTCTTGAGTAGACTTCAGTGACCACACTGTGGAAAATACCTTTGCAGACGTGGCACCCGAGTGCACACACCGAC
CGCCACATGTGCTTTTCTGCCGGGAATCCCTGGGGTGAACGCATGTTTTATGGGCGTTTCCAGGAGCGCGCGTGC
ACCTCCAGACGGGGAGCTGGCGGGCGGGGGTGGCAGCAGCAGCTCTAGCCTTGGGGGGACAAGCCTCTCTCAGCT
ACGCCAGGGGAAAAGAGAGTTAAGGACACTCACCCCCACCCACGCACACACACAAGGCAGCGTCGGGTGGGAGAG
AGAAGGCCGTTTCTCCTTCTGTAGCCTGGGTCTCCCACGGGCCTTCCCCGCTGCTGAGCGAGACACCAGTAGCCA
GGTGAAGGGCCACAGCGGGCCAGGCCCCGACCCTGTTGTGACCCACCTGGGCACCTTCCCGGACCAGCTCCGCCT
CCCCTGCCCTCCTCTCTCCAGGAAGGAGCCAGAACCCTCACCCCTCTCCCACCCTCCCCAGGGGTAACCCCAGGC
CAAGCACAGATAGCTCAGCTGCGACCTCTGGCCTCTGGGGACATAAACGGGGCGGCTGGGCCAGGGCGGAAGGTG
CTCCTGTTTCCCTCCTTCTGCGTGGTCCCTTTGACGGGCCGGCCACCGTGTCCGAGGCGCAACGCTAGGCCTCCA
GGCCACGCATCCATCTCCAAGTTAACAGCCCGTCCTGCCCAAGTTCTGGGGCAGGTAGGAGAGGGCCGTCACACA
CCTGTCCGCCCGTGAGTGACCCGGGGGGGCTTCCGGGTGGAGGTGGAGCCACCACGCCCTTCCTCAAGGGGTCAC
TTATTAAAAAGTCCACGGCCTGAGGCCAGGCCCTCTGCACAGAAGCCATATGCC

FIGURE 295

GGGCAGGGGCGTGGGCGGGGCGTGGACCAGCCGCGCCGAGCGGGGCCTCTCCGGGCCGCGTCTGTGGGGTCGAGA
CTGCGCGGCCGTTGGGCGTGCAGCGGCGCCAGTCGGCGGACGAGGGGCCCCCGGGAGTTGCTGGACTGAGACATG
AGCCTCCAACTGTGTGGTTGGGCTCGGTAGCACATCGTGGGACTTGGGTGTGCGCCCACAGATGGTTTGGCCCTG
CAGTGACCAGAGCAGCCCAAGCCGCCACC**ATG**GTGAAATTGCTAGTGGCCAAAATCCTGTGCATGGTGGGCGTGT
TCTTCTTCATGCTGCTCGGCTCCCTGCTCCCCGTGAAGATCATCGAGACAGATTTTGAGAAGGCCCATCGCTCGA
AAAAGATCCTCTCTCTCTGCAACACCTTTGGAGGAGGGGTGTTTCTGGCCACGTGCTTCAACGCTCTGCTGCCCG
CTGTGAGGGAAAAGCTCCAGAAGGTCCTGAGCCTCGGCCACATCAGCACCGACTACCCGCTGGCCGAAACCATCC
TCCTGCTGGGCTTCTTCATGACCGTCTTCCTGGAGCAGCTGATCCTGACCTTCCGCAAGGAGAAGCCGTCCTTCA
TCGACCTGGAGACCTTCAACGCCGGATCGGACGTGGGCAGCGACTCGGAGTATGAGAGCCCCTTCATGGGGGGCG
CGCGGGGCCACGCGCTGTACGTGGAGCCCCACGGCCACGGCCCCAGCCTGAGCGTGCAGGGCCTCTCGCGCGCCA
GCCCCGTGCGCCTGCTCAGCCTGGCCTTCGCGCTGTCGGCCCACTCGGTCTTTGAGGGCCTGGCCCTGGGCCTGC
AGGAGGAGGGGGAGAAAGTGGTGAGCCTGTTCGTGGGGGTGGCCGTCCACGAGACACTGGTGGCCGTGGCCCTGG
GCATCAGCATGGCCCGGAGTGCCATGCCCCTGCGGGACGCGGCCAAGCTGGCGGTCACCGTAAGCGCCATGATCC
CCCTGGGCATCGGCCTGGGCCTGGGCATTGAGAGCGCCCAGGGCGTGCCGGGCAGCGTGGCGTCCGTGCTGCTGC
AGGGCCTGGCGGGCGGCACCTTCCTCTTCATCACCTTCCTGGAGATCCTGGCCAAGGAGCTGGAGGAGAAGAGTG
ACCGTCTGCTCAAGGTCCTCTTCCTGGTGCTGGGCTACACCGTCCTGGCCGGGATGGTCTTCCTCAAGTGG**TGA**G
CGGCCTCGCCATTGTCCCTGCCGCCGGAGCCCGCCGGGAGCCCCGGGCCGGACACAGGCCGCGTCCCCCGGCCGC
GCGTCCCCCAAGAGCGAGCACTGTGGCCCTGGGCCACCACCTGTGCACAAGGGGCCTCCCGGGACCAGGCTGTGC
CCCCGATCCTACACCCTGAGCCTCAGAGCACTGCTACTTTTTAAAATACTTCTTTCTCTTAAAAGTCTTTACC

FIGURE 296

GGCGTCGCGCCCTGGGGCCGGGGCCGGGCGGCACCGCGGTGCGCAAGCGCAACCGTCGGTGGGTCGGGGATCGGT
CGCCTGAGAGGTATCACCTCTTCTGGGCTCAAG**ATG**GACAACAAGAAGCGCCTGGCCTACGCCATCATCCAGTTC
CTGCATGACCAGCTCCGGCACGGGGGCCTCTCGTCCGATGCTCAGGAGAGCTTGGAAGTCGCCATCCAGTGCCTG
GAGACTGCGTTTGGGGTGACGGTAGAAGACAGTGACCTTGCGCTCCCTCAGACTCTGCCGGAGATATTTGAAGCG
GCTGCCACGGGCAAGGAGATGCCGCAGGACCTGAGGAGCCCCGCGCGAACCCCGCCTTCCGAGGAGGACTCAGCA
GAGGCAGAGCGCCTCAAAACCGAAGGAAACGAGCAGATGAAAGTGGAAAACTTTGAAGCTGCCGTGCATTTCTAC
GGAAAAGCCATCGAGCTCAACCCAGCCAACGCCGTCTATTTCTGCAACAGAGCCGCAGCCTACAGCAAACTCGGC
AACTACGCAGGCGCGGTGCAGGACTGTGAGCGGGCCATCTGCATTGACCCGGCCTACAGCAAGGCCTACGGCAGG
ATGGGCCTGGCGCTCTCCAGCCTCAACAAGCACGTGGAGGCCGTGGCTTACTACAAGAAGGCTCTGGAGCTGGAC
CCCGACAACGAGACATACAAGTCCAACCTCAAGATAGCGGAGCTGAAGCTGCGGGAGGCCCCCAGCCCCACGGGA
GGCGTGGGCAGCTTCGACATCGCCGGCCTGCTGAACAACCCTGGCTTCATGAGCATGGCTTCGAACCTAATGAAC
AATCCCCAGATTCAGCAGCTCATGTCCGGCATGATTTCGGGTGGCAACAACCCCTTGGGAACTCCCGGCACCAGC
CCCTCGCAGAACGACCTGGCCAGCCTCATCCAGGCGGGCCAGCAGTTTGCCCAGCAGATGCAGCAGCAGAACCCA
GAGTTGATAGAGCAGCTCAGGAGCCAGATCCGGAGTCGGACGCCCAGCGCCAGCAACGACGACCAGCAGGAG**TGA**

CGCTGCCTGCTCCCGGTGTGACCGCGTCCTTCCCTGGCCGACCCGAAGGAAGCCTTCTGGTTGTCTGCCACTTCC
TCCTGTTGGACTGCCTGAGAGAGGGGAAGAGAGAGACCTCGGACCTGCATGTCAAGATGGATTTTCCCCTTTTAT
CTCTGCCCTCCTCCACTCCCTTTTTGTAACTCCCTTACAGCCCCCAGACCCTTCTTGAAACGAGAGCCAGCAAGC
TGAGCACAGACCAGCAGCGACCTCCCTTCCAGCCCCCAGAAAGCTCGGTCACTTGAGTGTTTTCTAGAATCCTGG
GGTGCTCCCGGGCCGCTCTCAGAGAAGTGGCAGGTTTCACGTTCAGCCGTGTGGCGGATCGTGTGGCTTCCAAAG
CCTTTTACAGCCCCCGCCCCCCATCCCGTGGTCTGTCTGCAGGAACTCTCCCGTCTGTGAGAAGCCTCTTTCCGA
GTCGACCTCCCGGCCACCCCGGCCCTGTGCCTGCTCGGAAGAGCTCACTGCCAGCTGCGGCCTGGGCACCGCGGG
CCATGTGTGTTTGCATGAGGAACTCTTTAGTGGCAGACACCTAAGAGACGGCTGCGGTCACCCCACGCCTCCGCG
GCTCAGGAGCCGTCCTGGGTGCATAGGACCAGTTTCTGTGACTTTTCTCCAGTTGGGCATGTTGACAGACATGTT
TCCCCTCCTCCCACCCTCATTTTCTGGTCCTCGCGACTGAGAGCCAGGGGCGACATCATGACCTTCTGTCCCGGC
CGCCTTAGCCCCGGGCACAGGGAAGGCAGCTGGGCCGTTTCTGTCTGTGTCCCATCCTGCTGTCCTTCTGTCCTG
GATGTTTCATGGGCCCGGGGCCCCCCAGGGAAGCTTACCCCTCCTGTGCTGGGTGGAGGCCACGGGACACCTCAG
GTGCCACCCACCTTGGCCCTAAAACAGCCACCAGGAAAGCAGCCGGAGAGCCGGACAGCAGGCAGCCTGTCTGGG
TTCCTGAGGCCTGGGGGTGGCAGACGAGCCCACGGCGCCGTGGTCCCAGCAGCAGGGTTGTCAGTCGGAGCATCC
TGGGGCTCCCTGGCTCCTGGCCGTCTGTGAGGTAGGCGCAGTACCGTGTATCGTAGGTAGCAGTAGGAACGGGGG
CCGCCGCGGCCCTGCAGCCGCTCATGGCGGTGAGGTGTGTGCCAAGCCCACCCGGGGTGCAGGGCGTGACGTGTG
GGGAATAAATAGGCGTTGTGACCTCT

FIGURE 297

GTGGCGGCGGTTGGGCCGAGGCAGGCGGCCTCAGTGGCCGAGGTGGCTGGACGCGTAGCAGGTGGAAGGAGGGAG
GGAGCCGCAGGCGCAGACCCACCCGCC**ATG**AAGCCCCCCGCAGCCTGTGCAGGAGACATGGCGGACGCAGCATCT
CCGTGCTCTGTGGTAAACGACCTGCGGTGGGACCTGAGTGCCCAGCAGATAGAGGAGCGCACCAGGGAGCTCATC
GAGCAGACCAAGCGCGTGTATGACCAGGTTGGCACCCAGGAGTTTGAGGACGTGTCCTACGAGAGCACGCTCAAG
GCGCTGGCCGATGTGGAGGTCACCTACACAGTTCAGAGGAATATCCTTGACTTCCCCCAGCATGTTTCCCCCTCC
AAGGACATCCGGACAGCCAGCACAGAGGCCGACAAGAAGCTCTCTGAGTTCGACGTGGAGATGAGCATGAGGGAG
GACGTGTACCAGAGGATCGTGTGGCTCCAGGAGAAAGTTCAGAAGGACTCACTGAGGCCCGAGGCTGCGCGGTAC
CTGGAGCGGCTAATCAAGCTGGGCCGGAGAAATGGGCTTCACCTCCCCAGAGAGACTCAGGAAAACATCAAACGC
ATCAAGAAGAAGCTGAGCCTTCTGTGCATCGACTTCAACAAGAACCTGAACGAGGACACGACCTTCCTGCCCTTC
ACGCTCCAGGAGCTAGGAGGGCTCCCCGAGGACTTTCTGAACTCCCTGGAGAAGATGGAGGACGGCAAGTTGAAG
GTCACCCTCAAGTACCCCCATTACTTCCCCCTCCTGAAGAAATGCCACGTGCCTGAGACCAGGAGGAAAGTGGAG
GAGGCCTTCAACTGCCGGTGCAAGGAGGAGAACTGCGCTATCCTCAAGGAGCTGGTGACGCTGCGGGCCCAGAAG
TCCCGCCTGCTGGGGTTCCACACGCACGCCGACTATGTCCTGGAGATGAACATGGCCAAGACCAGCCAGACCGTG
GCCACCTTCCTAGATGAGCTGGCGCAGAAGCTGAAGCCCCTGGGGGAGCAGGAGCGTGCGGTGATTCTGGAGCTG
AAGCGTGCGGAGTGCGAGCGCCGGGGCCTGCCCTTCGACGGCCGCATCCGTGCCTGGGACATGCGCTACTACATG
AACCAGGTGGAGGAGACGCGCTACTGCGTGGACCAGAACCTGCTCAAGGAGTACTTCCCCGTGCAGGTGGTCACG
CACGGGCTGCTGGGCATCTACCAGGAGCTCCTGGGGCTGGCCTTCCACCACGAGGAGGGCGCCAGTGCCTGGCAT
GAGGACGTGCGGCTCTACACCGCGAGGGACGCGGCCTCGGGGGAGGTGGTCGGCAAGTTCTACCTGGACCTGTAC
CCGCGGGAAGGAAAGTACGGGCACGCGGCCTGCTTTGGCCTGCAGCCCGGCTGCCTGCGGCAGGATGGGAGCCGC
CAGATCGCCATCGCGGCCATGGTGGCCAACTTCACCAAGCCCACAGCCGACGCGCCCTCGCTGCTGCAGCATGAC
GAGGTGGAGACCTACTTCCATGAGTTTGGCCACGTGATGCACCAGCTCTGCTCCCAGGCGGAGTTCGCCATGTTC
AGCGGGACCCACGTGGAGCGGGACTTTGTGGAGGCGCCGTCGCAGATGCTGGAGAACTGGGTGTGGGAGCAGGAG
CCGCTGCTGCGGATGTCGCGGCACTACCGCACAGGCAGCGCCGTGCCCCGGGAGCTCCTGGAGAAGCTCATTGAG
TCCCGGCAGGCCAACACAGGCCTCTTCAACCTGCGCCAGATCGTCCTCGCCAAGGTGGACCAGGCCCTGCACACG
CAGACGGACGCAGACCCCGCCGAGGAGTATGCGCGGCTCTGCCAGGAGATCCTCGGGGTCCCGGCCACGCCAGGA
ACCAACATGCCTGCAACCTTCGGCCATCTGGCAGGTGGCTACGACGCCCAGTACTACGGGTACCTGTGGAGCGAG
GTGTATTCCATGGACATGTTCCACACGCGCTTCAAGCAGGAGGGTGTCCTGAACAGCAAGGTTGGCATGGATTAC
AGAAGCTGCATCCTGAGACCCGGCGGTTCCGAGGATGCCAGCGCCATGCTGAGGCGCTTCCTGGGCCGTGACCCC
AAGCAGGACGCCTTCCTCCTGAGCAAGGGGCTGCAGGTCGGGGGCTGCGAGCCCGAGCCGCAGGTCTGC**TGA**GGC
CTGGCACTGCGACTGCCCAGTCTGGCCTGCGCTCCCGCCGCCCTGGTGCCTTAGCCCCCGGCACAGGATGGGGCA
GGCTCTGGCACAGTGCCTGGGACTGGCAGGGTGGCTGAGCGGCTGTCTTGCCTCTTGTCATTGTCTGTCCCCACC
CGGTCGTGGCCCACCCGGCTAGAGACGGCGTCCTCAAGGCATCTGGAGGGCTTTCGTGGCTGCCAGGGCCTGGTC
TTTGTTGCACTAACACGTCTCCTCTCTGGGAAACGTCCCTTGTCAGGAGACGGCTCTTCTTTGAAATGAGGTCAT
TAAAAGGAAAC

FIGURE 298A

AGAATTTAGCTTTTTCAGGAACTGCCATACTGGCTTTTCTTTTGTTTTTTTGTTTTGAGACAGAGTCTCACTTTG
TTGCCCAGGCTGGAGTGCAGTGGCACTCTCTCAGGTCACTGCAACCTCTGCCTCCGCAGTTCAAGTGATTCTCAT
GCCTCAGCCTCCCAAGTAGCTGGAATTACAAGTGTGCACCACCACACCTGTTTTTGTATTTTTTTTTTTTTATGA
GACGGAGTTTCGCTCTCGTTGCCCAGGCTGAAGTGCAGTGGTACAATCTAGGCTCACCACAACCTCCACCTCCCA
GGTTCAAGCGATTCTCCTGCCTCAGCCTCCCCAGTAGCTGGGATTACAGGCATGCGCCACCACACCCGGCTACTG
TTTTTGTATTTTTAATAGAGATGGATTTTTGCCATGTTGGCCAGGGTGGTGTTGAACTCATGACCTCTAGTGATC
CACCTACTTCCGCTTCCCAAAGTGCTGGGATTACAGACGTGAGCCACTGTGCCCAGCCCCATACTGGGTTTTGTA
TCAGCATGTATATTTTCCATTCCCACCAGCAGTGCAGACTGTTGCAATTTCTCCACATCCTTGGCAACACTTACT
ATTTTTTATTATGGCCTTTCTAATATGTGTGAAGTGGTATCTCATTGCGGTTTTGATATGCATTCCCCTAATGAC
CAATGACATCGAGCATCCATTCCTGTGTTTATTGACCATTTGTGTATCGATTTTTGGGGGGAAATGTAAGATCTGT
AATTTTTTTTTTTTTTTTTACTCTGTCGCCCATGCTGGAATGCAGTGCTGCAATCTCGGCTCACTGCAAGCCCTGC
CTCCCGAGTTCATGTCATTCTCCCGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGCGCCTGCCACCACACCCGG
CTAATTTTTTGTATTTTTAGTAGAGACGGGGTTTCACCGTGTTAGCCAGGATGGTCTTGATCTCCTGACCTCATG
ATCCACCCGCCCTGCCCTCCCAAAGTGATGGGATTACAGGTGTGAGCCACTGCACCCGCCCTTTTTTTTTTTTTT
TTTTTTTGAGACAGAGTCTCACTCTCATTGCCCAGCCTGGGGTGCAGTGGTGTGATCACAGCTCACTGCAGCCTT
GACCTCCCCAGGGCTCAAGTGATCTTCCCACCTCAATCTCCCAGGTAGCTGGGACTATAGGCTTAGACCACCACA
CCTGGCTAGTTTTTTTGTTTGTTTGTTTTTGGTTTTTTTTTGGTAGGTCCGGGGTCTTGTCATGTTGCTCAGGCT
GGTCTCAAACTCCTGTGTTCCAGTGATCACCTGCCTCTGGGCCTCCCAAAGTGTTGGGATTACAGGTGTGAGCCA
CCACGCCCAACCAGATCTGTAATTTTTTTTTTCTTTGAGACTGAGTCTTGCTCTGTTGCCCAGGCTGGAGTGCAA
TGCCACGACCTCGGCTCACTGCAACCTCTGCCTCCTGGGTTCAAGTGATTCTCCCACCTCAGCCTCCTGAGTAAC
TGGGGTTACAGGCATGCACCACCACGCCCAGCTAATTTTTGTATTTTTAGTAGAGATGGGGTTTTACCATGTTGG
CCAGGCTGGTCTCAAACTCCTGACCTCAGGTGATCCGCCTGCCTCGGCCTCCCAAATTGCTGGGATTACAGGAGT
GAGCCACCATGCCTGGCACAGATCTGTAATTTTTTAACTAGAAAATAAAATCATTATCTTGTGCTACCTCTCAAG
TATACTCTTGTCTTTTTCAGAAGCCTTGAAGAACCAATGTACTGATGTGGGGATTAAAGAGGGTCCACTTTCCCC
AGCACAAACCTCACAAGTCACTAGTCTTTCCTCATGGACGGGGTATTTACTTTTTCAACCAGTGGCTTCTTCCCA
CTTGGAGCAAAGAGAAGCCCTGTGGATAGAGGAAAAAGGAACTCCTCAAGCCTCCTGTTCAGATTGG**ATG**ACTGT
ACTAAGAAACCAAGACTCAACTTACAAGAAGGTGGCTTTGCAGGAGGAACCAGCCAGTGGTATAAATATGATAAA
GCTTATCAGAGAAGATGGGGGATGGAAGCAGTTAGAGGACAGCCATGAAGACCCCCAGGGGCTTTTGAGCCAAAA
GGCATCCCTTCACGTAGTGGCCGTTCCTCAGGAGAAGGCTACTGCATGGCATGGATTTGGGGAAAATGGTAATCT
GAGCCCAGCCCTTGTTTTATCACAGGGAAGCTCTAAAGGGAACCACTTGTGTGGCAGCGAGTTAGATATTACAAG
CTTGGCATCCGATTCAGTCTTAAACCACCATCAGCTGGGATATGCAGATCGGAGACCTTGTGAAAGTAATGAATG
TGGAAATGCCATCCGCCAGAACAGTCACTTTATTCAACACGGGGGGAAGATGTTTGTGTATTTGGAAAATGGGCA
GTCATTGAACCACGGTATGGCCCTGACTATCCACAACAAAATCAACACGGCAGAGAAACCCTTTGAGTGCCACCA
GTGTGGGAAGGTGTTCAACCGGAGGCATTCTTTGAGCGAACATCAAAGAATTCACACGGGGGAGAAACCCTACGA
GTGTCAGGAGTGTGGGCGAGCCTTTACGCACAGCTCCACCCTCACGCGCCATCTGAGAACTCATACTGGAGAGAA
GCCCTACGGGTGCGGTGAGTGCGGGAAAGCCTTCAACAGGATCTCATCGCTGACTCAGCATCAGAGGATTCACAC
CGGGGAAAAGCCCTATAAATGTGAAGACTGTGGGAAATCCTTCTGCCAGAGCTCTTACCTGATCTTGCACAAGAG
GACACACACCGGAGAGAAGCCCTACGAATGCAGTGAATGTGGAAAGGCCTTCAGTGACCGTTCCTCTCTCAACCA
GCACGAGCGAACTCACACGGGCGAGAACCCCTATGAATGTAAGCAGTGTGGGAGAGCCTTCAGCCAGAGGTCTTC
CCTTGTGAGGCACGAGAGAACTCACACTGGAGAGAAACCCTACAGGTGTCAGGAATGTGGGAAAGCCTTCAGCCA
GAGCTCATCCCTTGTCACACATCAGAAAACTCACAGCAGCCAGAAAACCTATAAAATCATTGACTGTGGGAAAGC
GTTCTACCAGAACAGACATCTTATTGGATAT**TAG**CAATTGCACGCTGCTTTGTAAGCCACTTTTTAGTACTCTGA
CACATACATGTGGTTATCTTTTGCCCTGTTGTGATGGATAATTTGAAAAGAAGTGGGTTTATGTCACCTTCTCAC
CTTCTTATAAGAAAGCTCTGAGAATGGGCATTTTTGTATTTTGTTGTTGTTGTTGAGATGGAGTCTGCCACCCAG
GCTGGAGTCCAGTGGCGTGATCATACCTCACTGCAGCTTCAACTTCCTGGGCTCAAGTAATCCTCCCACCCCAGC
CTCCCAGGTAGCTAGTACTATAGGTGTGCACCACCACGCCCAGCAAATTTTTAAATTTATTATAGAGTGGGAGGC
AGGGTGCGGTGGCTCATGCCTATAATCCTAACACTTTAGGAGGCCGAGGCGGGTGGATCATGAGGTCAGGAGATC
GAGACCATCCTGGCTAACACAGTGAAACCCTGTCTCTACTAAAAATACAAAAAAGTAGCCGGGCGTGGTGGTGGG

FIGURE 298B

CGCCTGTAGTCCCAACTACTCAGGAGGCTGAGGCAGGAGAATGGTGTGAACCCGGGAGGTGGAGCTTGCAGTGAG
CCGAGATCGCACCACTGCACTCCAGCCTGGGAGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAATTATAG
AGTTGGGGTCTTGCTACATTGCCAAGACTGGTCTTGAACTCCTGGGGTCAAGCATCCTCCTGTCTTGGCCTCCCA
AAGTGTTGGGATTAGAAGCATGAGCCGCTGTGCCCAGCCTGACGGGGCCTTTTAGTGGGAGGAGTTGCCATTACA
CTACGTCCAGTAAGCTCCAGACTTTCGGAAAAGATTGGTGGACGGGAATGCTGTCATGGATGGGATCTTGCCAAG
AACCATCACGTGTTAATTTAGTTGCTTAAACAAAAGGTGTTCTGTTTCTTAACT

FIGURE 299A

TCTAATCAGGCCCCTGGGACGGGACGCCTCTGTCCTAGCCGTGAGTGCCCCGCCTGCCCCTAGCGGTCCCTGGCG
TCCCGGTTCCTGTCGCGCTCACCTGCGCCGGTAGCGAAGAAATCGCCCCGGGACATGGACTCAGTGGTCTTTGAG
GATGTGGCTGTGGACTTCACCCTGGAGGAGTGGGCTTTGCTGGATTCTGCTCAGAGGGACCTCTACAGAGATGTG
ATGCTGGAGACCTTTCAGAACCTGGCCTCAGTAGATGATGAAACTCAATTTAAGGCCAGTGGGTCAGTTTCTCAG
CAGGATATTTATGGAGAGAAAATACCCAAGGAATCTAAAATAGCCACGTTCACCAGAAATGTTTCCTGGGCCTCT
GTTTTAGGAAAAATTTGGGACAGTCTTAGCATCGAAGATCAAACCACAAACCAGGGGAGAAATCTCAGTAGAAAT
CATGGGTTGGAGAGACTCTGTGAAAGTAATGATCAATGTGGAGAAGCCCTCAGCCAGATTCCACATCTTAATCTG
TACAAGAAAATTCCACCTGGAGTAAAACAGTATGAATACAACACGTACGGAAAAGTCTTCATGCATCGCCGCACA
TCCCTCAAGAGTCCCATCACAGTTCACACTGGACACAAACCATATCAGTGCCAGGAATGTGGGCAGGCCTACAGT
TGTCGTTCACACCTAAGA**ATG**CATGTGAGAACCCACAATGGAGAGAGACCCTATGTGTGTAAATTATGTGGGAAA
ACCTTTCCTCGTACTTCCTCCCTCAATCGGCATGTAAGGATTCACACTGCTGAGAAAACCTACGAATGTAAGCAA
TGTGGGAAAGCCTTTATTGACTTCTCAAGTCTTACTAGTCATCTCAGAAGTCACACCGGAGAGAAGCCATATAAG
TGTAAGGAATGTGGGAAAGCTTTCAGTTATTCCTCAACGTTTCGAAGACACACAATAACACACACTGGCGAGAAG
CCATATAAATGTAAGGAATGTGCGGAAGCCTTTAGTTATTCCTCAACTTTTCGAAGACATATGATTTCACACACT
GGAGAGAAGCCACATAAATGTAAAGAATGTGGGGAGGCCTTCAGTTATTCTTCGGCTTTTCGAAGACACATGATA
ACACACACTGGAGAGAAACCCTACGAATGCAAACAATGTGGGAAAACCTTCATTTATCTCCAGTCCTTTCGAAGA
CATGAAAGGATTCACACTGGAGAGAAACCCTACGAATGCAAACAGTGTGGGAAGACCTTCATTTATCCCCAGTCC
TTTCGAAGACATGAAAGGACTCATGGTGGAGAGAAACCCTATGAATGCAACCAGTGCGGGAAAGCATTCAGTCAC
CCCTCCTCCTTTCGAGGACACATGAGGGTGCACACTGGAGAGAAACCCTATGAGTGCAAGCAATGTGGGAAAACT
TTCAATTGGCCCATATCTTTACGAAAACATATGAGAACACATACTAGAGAGAAACCCTATGAATGTAAGCAGTGT
GGGAAAGCCTTCAGCTTGTCTGCTTGCTTTCGAGAACATGTGAGAATGCACCCTGAAGACAAATCCTATGAATGC
AAGCTATGTGGGAAAGCTTTCTATTGCCACATATCCTTACAAAAACATATGAGAAGACATACCGCAGAGAAACTC
TATAAATGCAAGCAGTGTGGGAAAGCTTTCAGTTGGCCTGAACTTTTGCAACAACATGTGAGAACGCACACTGTA
GAGAAGCCCTATGAATGTAAGGAATGTGGGAAGGTCTTCAAATGGCCATCATCTTTACCAATACATATGAGACTG
CACACTGGAGAGAAACCTTATCAATGTAAGCATTGTGGGAAAGCATTCAATTGTTCCTCATCCTTAAGGCGACAT
GTGAGAATACACACTACAGAAAAACAGTATAAGTGTAATGTAGGACATCCTCCTGCAAATGAATTCATGTGCAGT
GCTTCAGAAAAGTCACACCAGGAGAGAGATCTGATCAAAGTTGTAAATATGGTGTTGCCTTTA**TGA**GTTCCTTAT
CCTGAAAGTGGACACTCAAGGAGTGTGTCTGTAGTTCATTTGCAAATAAACATTTAGTTGAAAAATAATTCTCCA
AATACTCTCAGCTATCCTACATGAATTTGAACAGGTAGTTTCTTACGATTCAGTAAATAAAACTTTCATCTTAGA
GTGTTTTGGACTCATGGATGATTTGAAGTGTATTTTTAATATGCAAGTAGGTTCAAGTTTTATTTAATTTCTTAA
ATTGTAACTGACTTAGTGTGACAGGTATTGGATATTACGTATCTATTATATTTTCCACCTTTTTTACTGGGAGTA
TTTTTATTGTTTGGCCAGAGGAGCCTTATTCCATTTTTTAAGAAGTAGTTGGCAGAATTTTGTAATTATGCAAAG
TTGTTTAAGGAGTATAGCCTCAAATGAATTGTAATTTTTAATGTTTGCCCATTGCTGTTTGTCTTTGCTTGTGAT
TGTGAATTGGACAGTAGGCTTTGACTTGTGATGTGACGGAGAAATCCAGAGTTGCAGATAGTTCTTCTGCATTGT
TGTCAGTGTGGGTAGTGTTAGGAACTTCATTTGCTGGAATGCATTTCCTTTATGGTTCCATGTCCAAATTTACCA
ATAGCAATAACTTGAATGAAATTTAGAATGAAGAAGAAGTAAGTCATCGCTGAGCTTTTGGGGTCACATTAAATG
GAGATGGACAGATGCATAGGGGCTTTGTGAACATCAACCTTCAGCTTATTTTCCAGATTCTTATTCCTGCCAATC
AAGAGTACCATCAAAAGAAACACTTAAGTGCTTGATTTCCACTGTGTCAGAGGTGTAGTCTTCCTCAGACATCTC
CATTAACTTGATATTAGGGATATTCCTGTGTGGTCAGTCACCTAGAGTCTGGATTTTTCTCAAAACCCTGCATGA
CCTCTTGACCACTGATTCAGACTGTCTTGTTTGGCAGTCTCTGAGCTTCTGATTCTCCCGTTCTGTAGATCTTAA
CATATTTGCATGGGGTCTAATTTATATAGTGAACACCTTGTTATCTTAATACTTCCAGTGGCTCTGTGATCCTGA
TTCCACCACGAAAGCCACAGTGTTGCAGTCAAAGAAGAAAAACAACACATGGGACTTTGTACCCTATTGCATTTT
TAAGTGTGCCTGCCGAGTCCTATGTGAGAACAAATACCTTCCTCATATATTAGATTTAGGGAGATTTCTGTTACT
CAGAACTAAATGCAGTTTCTTGATATAGGTTAAATTATTAGGTTTGATTATGTATCATTAAAAATAATGTGGATT
TTGTTTCAAGGAAAACCTTCTGTAGATATTTCTTAGAAATATCCTGTTTAGCTGGGCACAGTAGCTCATGCCTGT
AATCCCTGCACTTTGGGAGGCTTGAGGTCAGGAGTTTGAGACCAGCCTGGTTAACATGGTGAAACCCTGTCTCTA
CTAAAAACACAAAAATTAGCCAGGCATGGTGGTGAGTACCTGTAACCCCAGCTACTTGGGAGGCTGAGACAGGAG
AAGTGCTTGAACCTAGGAGGCGGAGGTTGCAGTGAGCCAAGATCACACCACTGCACTCCAGCCTGGGAGACGGGG

FIGURE 299B

AAAGACTCCATCACACAAGCAAG

FIGURE 300

AGGCACTCCTCCTCACTGTCCAGTCACCTGACGTGCTTTTTCTGCGCACTCAGGTCGTGACACCCCAGGAGGTGC
CTATCGCGCCCCAAGCTCCTCACGTGCCTCCTCCCCACAGTCCAGGACGCGTCTTACTAACGCCTCACCAGAGCG
CATGCGCCCTCCTCAGGAGCAGCCTCAAAGCGCGCAGCCTCAGCCCATTGGCCTGCGGGAAGTGGAGTTCCCGAA
CAGAAGCCCCTCAGTCTCCGGAAGCCCCGCCCGGCAGACTGTTCCCAGGATGCAACACGGGCTCGCGTCTAAAAG
AGCTGTGCTTTGTTGGGGCTATCTGGGAGTTTCCGCCTTCCATGAAGTGCGCAGGCGCACTTAGGCGAGGCGGGG
CGACTCTAGGAAGTGGAGACATCAAGAGTGGTACTGGAAGTGGCGGAAGCTCTCCTCTTGCCCTCTTCAGCTTCC
GGTGTGGTGGGTCCCGGATATCGCGTGGCTGTGGCAGGTAGACAGCCCGTGCTCCAGAGGCCTTCATCTTGTGAT
GGCAGATGTACTTGAGTAGACACGACAGACGGGGAAGGACCCTGATGGTCCGAGGGACCTTCCACAGCAAGTAGA
AGGCACTGCTGTGAATATGATGGCGTCAGAGGTGACTGCAAAAAAGGACAGGGCAGCTGGGCGAGGAAGAGATAC
CAGTGATGTCCTAACTGAGCTCCCTGGGTCTGGTAGTGAGGAGCTCAGTCTTAGAATATGAGCCGTGTCAGGGGC
TACAGCATCATCACTCTTGTCCTGTCGCAGACTCAGGCTCCCTGTTCTCAGGTTCTTATGTAGACAGTGAGGGCT
CAGGGAGGCTCCCACCACCACCACCACCAGCACCACCACTCCATCAAAACGGCTGAAGGACCTTCCTTTAGGGTT
CGGGGGATCTCCTCCTTCCACAAGGGATGGATGTGAAGACAACTCATTCTTTGATGTTCAGATGGTTGTGGCCCT
CTGATGAGATGTGTGCACACCTTGCCAAATGCATATGTCTGTTGAGCCTGGACATTAAGTATTTCTTGATGTTCT
TCTGTGTAACAGGTGATGTCCTAGGTGCTGCAGTGAACAGAAGAGACAAAATATCCTTGTTCCCTTGAAGCTAAT
GTCGTAGGGGCCCAAAACAAAGCAAACAAACAAAAAAAAGGAATGCAAGTCAAGTACACTTTGTATGGACAGTGG
TAATTCCTAAGAAGGAAAACAAAG**ATG**GACTTAAGGGGTGCAGAGGGCCTGGACTATGTGTGTCTGTGGGATAGT
CTGTTACTACCTCTGGGACTCTCATCTCTTGAGTGTGCTTGGGTGTGTCCAACCGTTTTTCCTAGTGACAAAGTC
TGGGTAATTCTGTGGGGACATATATTGGTGTATCTGGGAGGTCCCATGTGTCTCAGTGGTGGTCCCTGTTTTCAG
GAAAGAGTGTCTGTGAATGTCCATGTGTCTCACTGCACAGCTGTGATTTTTCTGTGTCTCTGTGTTTTCCAGTCT
TTGTGTGATGAAATA**TAA**AGGCCTAGCAGGCTCAGAGTTATTAATGAATTGTACTTAAGCGTTGAGAGGCATATA
TTTATTGCACTATTAAATTCTTCCAAAATATAGTT

FIGURE 301

CAGACTGCGAACCTTCTTGTGCACAAGAGTTACCCTACCGAAGCTAAACCCTCTGAGTGCACTAAGTGTGGCAAA
GCCTTCGAGAATCGGCAGAGATCTCACACTGGACAGAGACCGTGTAAGGAATGTGGGCAAGCCTGCAGCTGCCTC
TCCTGCCAAAGCCCTCCT**ATG**AAAACGCAGACTGTAGAGAAACCCTGTAATTGCCAGGACTCAAGGACAGCATCT
GTGACATACGTGAAAAGTCTCAGCAGTAAAAAGTCTTATGAATGTCAGAAATGTGGAAAAGCTTTCATTTGTCCC
TCATCTTTCAGGGGACATGTGAATAGTCATCATGGGCAGAAAACCCATGCATGTAAAGTATGTGGGAAGACCTTT
ATGTATTACTCCTACCTTACACGGCACGTAAGAACTCACACAGGAGAGAAACCCTATGAGTGTAAGGAGTGTGGG
AAAGCCTTCAGCTGTCCCTCATACTTTCGAGAACATGTCAGAACACACACTGGAGAGAAACCGTATGAATGTAAG
CATTGTGGAAAATCATTCAGCTGTTACTCCTCCTTTAGAGATCACGTGAGGACGCACACTGGAGAGAAACCCTGT
CAGTGTAAACATTGCGGAAAAGCGTTCACTTGTTACTCGTCTCTTCGAGAACATGGGAGAACGCACAGTGGAGAG
AAACCCTATGAATGTAAGGAATGCGGCAAAGCCTTCAGGTACCCCTCCTCTCTGCGAGCACACATGAGAATGCAC
ACCGGAGAGAAGCCCTATGTGTGCAAGCAGTGTGGGAAGGCCTTCGGATGTCCCACTTACTTTAGAAGACATGTG
AAAACACACAGCGGGGTGAAGCCCTATCAATGTAAAGAGTGTGGGAAAGCCTACAGTTTTTCCTCCTCCCTTCGA
ATCCACGTGAGGACGCATACTGGAGAGAAGCCCTTTGAGTGTAAGCATTGTGGGAAAGCCTTCAGCTGTCACTCC
TCCCTTCGAGAGCATGTGCGAACCCACAGCGGAGAGAAACCGTACGAATGTAATCAATGTGGGAAAGCCTTCAGC
CACGCTCAGTACTTTCAAAAGCATGTGAGATCACACAGTGGGGTCAAACCCTACGAATGTACTGAATGTGGGAAA
GCCTACAGTTGTTCCTCGTCCCTTCGTGTGCACGTGAGAACGCACACTGGAGAGAGACCGTATGAATGCAAGCAG
TGTGGGAAAACCTTCAGGTATCTCGCATCGCTTCAAGCACATGTGAGAACACATGCTGGAGCG**TGA**ATCTACGAA
TACAGTGGACCTGGGAGAGTGTTCAACCGTAAAACCTTGTTGTAAATGTGAGAAACGTTATTTATGTAGAGCATG
TAGGAAAACCTGGTATAGCACTTATTTTGTACCTAAAAATTCAGAGTAGGAGAGAAATCTCTTAATTATGATTAA
TATGGTATTGCCTTTACATGCCTCAGCCTTAATAGTGATTCCTTTTGTATTAATTTCTAGTGTATGTTTGTGATA
TAAACATTTAATAAATATCCTGTTTTGTACGCTTTC

FIGURE 302

AGTTTCCTCTTGGCCTGAACTTGGCTGACCTCCGCAGCTTCCGCCCGACTCTGGCTAAAGTCTTGGAGGCTACTG
CCTTGAAGATGACCTCTAGGGACCAGCCCAGACCCAAGGGCCCCCCGAAAAGCACTTCGCCTTGTCCTGGGATCT
CGAACTCTGAGAGCTCTCCGACGCTGAATTATCAGGGCATTCTAAATCGGCTCAAGCAGTTCCCCAGGTTTTCTC
CTCATTTTGCTGCGGAGTTGGAGAGCATTTACTACTCGCTGCACAAGATCCAGCAGGATGTGGCAGAACATCACA
AGCAGATAGGAAACGTCTTACAGATTGTGGAGAGCTGCAGCCAACTCCAGGGTTTCCAGTCTGAGGAGGTCTCAC
CTGCTGAACCAGCCAGCCCTGGGACGCCCCAGCAGGTGAAGGACAAGACCCTGCAGGAGTCGAGCTTTGAGGACA
TCATGGCCACCAGGTCCTCCGACTGGCTCCGGCGGCCTTTGGGGGAGGACAATCAGCCGGAGACCCAGCTGTTCT
GGGACAAGGAGCCTTGGTTTTGGCACGACACTCTGACCGAGCAACTCTGGCGGATTTTTGCCGGCGTCCACGATG
AGAAGGCAAAGCCCAGAGACAGACAGCAGGCACCAGGCCTGGGGCAGGAAAGCAAGGCACCAGGATCCTGTGACC
CAGGAACAGACCCATGTCCTGAAGATGCCTCCACCCCCAGGCCACCTGAGGCCTCCTCCAGTCCCCCTGAGGGTT
CCCAAGACAGGAACACAAGTTGGGGTGTGGTCCAGGAGCCTCCTGGAAGAGCCTCTCGGTTTCTACAGTCCATAT
CCTGGGACCCTGAGGACTTTGAAGATGCATGGAAGAGGCCAGATGCCTTGCCCGGGCAGTCAAAGAGACTCGCCG
TCCCGTGCAAACTGGAAAAGATGCGGATCTTGGCACACGGGGAGCTCGTGCTCGCCACGGCCATCAGCAGCTTCA
CGCGGCACGTGTTCACCTGTGGCAGAAGAGGCATCAAGGTGTGGAGCCTGACTGGACAGGTGGCTGAGGACAGGT
TCCCTGAGAGCCACCTGCCTATACAGACCCCTGGGGCCTTCCTGCGCACCTGCCTGCTGTCCTCAAACAGCAGGA
GCCTGCTCACCGGTGGCTACAACCTGGCCAGCGTGAGCGTGTGGGACCTGGCGGCGCCCTCCCTGCATGTGAAGG
AGCAGTTGCCCTGTGCAGGTCTCAACTGCCAGGCCCTGGATGCCAACCTGGATGCCAACCTGGCCTTCGCCAGCT
TCACCAGTGGTGTGGTCAGGATCTGGGACCTGCGGGATCAGAGTGTGGTCAGGGACCTCAAGGGTTATCCTGATG
GAGTCAAGAGTATCGTGGTCAAGGGCTACAACATCTGGACTGGGGGTCCGGATGCCTGTCTGCGGTGCTGGGACC
AGAGGACCATCATGAAACCTCTGGAGTACCAATTCAAGTCTCAGATAATGAGCCTGTCCCACAGCCCCCAGGAGG
ACTGGGTGCTGCTGGGCATGGCCAATGGCCAGCAGTGGCTGCAAAGCACCAGCGGGAGCCAGCGGCACATGGTGG
GGCAAAAAGACAGCGTCATCCTGAGCGTCAAGTTCTCCCCCTTTGGCCAGTGGTGGGCAAGCGTTGGAATGGACG
ACTTCCTTGGCGTCTACAGCATGCCGGCGGGGACAAAAGTGTTCGAGGTGCCTGAGATGTCTCCAGTCACGTGCT
GTGACGTCTCTTCCAACAACCGCCTCGTTGTCACAGGCTCCGGGGAGCACGCCTCCGTGTACCAGATCACCTACT
GAGGGGCCTCGCTGCTGTCATCCCACTCCGGCTCCTCTTTTCATCCCCCCCCTTCCCCCCCCCCAACAAGGGGGA
CATGGTGGAGGGAAGCGGGAAGGCTCTTCTGTGGCATCGCACGATCTAGTCTGTGGTGTAGACTGGTCGCCATCA
CGTGTAATAAAGCACCCGGGAAAGGC

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FIGURE 303

CTGGGGGGCTTTTCGGATCGGCAGG**ATG**TACCCCCAGGGAAGGCACCCGACCCCGCTCCAGTCCGGCCAGCCCTT
CAAGTTCTCGATCTTGGAGATCTGCGACCGCATCAAAGAAGAATTCCAGTTTCTTCAGGCTCAATACCACAGCCT
CAAGCTAGAATGTGAGAAGCTGGCCAGCGAGAAGACGGAAATGCAGCGACATTATGTCATGTATTATGAGATGTC
GTACGGGCTCAACATTGAAATGCATAAGCAGGCGGAGATTGTGAAGCGTCTGAGCGGTATCTGCGCTCAGATTAT
CCCCTTCCTGACCCAGGAGCATCAGCAGCAGGTGCTCCAGGCCGTAGAACGCGCCAAGCAGGTCACCGTGGGGGA
GCTGAACAGCCTCATCGGGCAGCAGCTCCAGCCGCTGTCCCACCACGCACCCCCTGTGCCCCTCACCCCCCGCCC
AGCCGGGCTGGTGGGCGGCAGTGCTACGGGGCTGCTTGCTCTGTCTGGAGCCCTGGCTGCCCAGGCTCAGCTGGC
GGCGGCTGTCAAGGAGGACCGTGCGGGCGTGGAGGCCGAGGGGTCCAGAGTGGAGAGAGCCCCGAGCAGGAGTGC
ATCTCCCTCGCCCCCTGAGAGTCTCGTGGAGGAGGAGCGACCGAGTGGCCCTGGTGGTGGCGGGAAGCAGAGAGC
AGATGAGAAGGAGCCATCAGGACCTTATGAAAGCGACGAAGACAAGAGTGATTACAATCTGGTGGTGGACGAGGA
CCAACCCTCAGAGCCCCCCAGCCCGGCTACCACCCCCTGCGGAAAGGTACCCATCTGCATTCCTGCCCGTCGGGA
CCTGGTGGACAGTCCAGCCTCCTTGGCCTCTAGCCTTGGCTCACCGCTGCCTAGAGCCAAGGAGCTCATCCTGAA
TGACCTTCCCGCCAGCACTCCTGCCTCCAAATCCTGTGACTCCTCCCCGCCCCAGGACGCTTCCACCCCCGGGCC
CAGCTCGGCCAGTCACCTCTGCCAGCTTGCTGCCAAGCCAGCACCTTCCACGGACAGCGTCGCCCTGAGGAGCCC
CCTGACTCTGTCCAGTCCCTTCACCACGTCCTTCAGCCTGGGCTCCCACAGCACTCTCAACGGAGACCTCTCCGT
GCCCAGCTCCTACGTCAGCCTCCACCTGTCCCCCCAGGTCAGCAGCTCTGTGGTGTACGGACGCTCCCCCGTGAT
GGCATTTGAGTCTCATCCCCATCTCCGAGGGTCATCCGTCTCTTCCTCCCTACCCAGCATCCCTGGGGGGAAAGCC
GGCCTACTCCTTCCACGTGTCTGCGGACGGGCAGATGCAGCCGGTTCCCTTCCCCTCGGATGCACTGGTAGGCGC
GGGCATCCCGCGGCACGCCCGGCAGCTGCACACGCTGGCCCATGGCGAGGTGGTCTGCGCGGTCACCATCAGCGG
CTCCACACAGCATGTGTACACGGGCGGCAAGGGCTGTGTGAAGGTGTGGGACGTGGGCCAGCCTGGGGCCAAGAC
GCCCGTGGCCCAGCTCGACTGCCTGAACCGAGACAACTACATTCGTTCCTGCAAGTTGCTGCCGGATGGCCGGAG
TCTGATCGTGGGCGGTGAGGCCAGCACCTTGTCCATTTGGGACCTGGCGGCGCCCACCCCCCGTATCAAGGCCGA
GCTGACTTCCTCAGCCCCAGCCTGCTACGCCCTGGCCGTCAGCCCCGACGCCAAGGTTTGCTTCTCCTGCTGCAG
CGATGGCAACATTGTGGTCTGGGACCTGCAGAATCAGACTATGGTCAGGCAGTTCCAGGGCCACACGGACGGCGC
CAGCTGCATTGATATTTCCGATTACGGCACTCGGCTCTGGACAGGGGGCCTGGACAACACGGTGCGCTGCTGGGA
CCTGCGGGAGGGCCGCCAGCTGCAGCAGCATGACTTCAGCTCCCAGATTTTCTCCCTGGGCCACTGCCCTAACCA
GGACTGGCTGGCGGTCGGAATGGAGAGTAGCAACGTGGAGATCCTGCACGTCCGCAAGCCGGAGAAATACCAGCT
GCACCTCCACGAGAGCTGCGTGCTGTCCCTGAAGTTTGCCTCCTGCGGACGGTGGTTTGTGAGCACCGGGAAGGA
CAACCTGCTCAACGCCTGGAGGACGCCGTACGGGGCCAGCATTTTCCAGTCCAAGGAGTCGTCCTCAGTCCTGAG
TTGTGACATCTCCAGAAATAACAAATACATCGTGACAGGCTCGGGGGACAAGAAGGCCACCGTGTATGAGGTGGT
CTAC**TGA**GACATGACCCCCC

FIGURE 304

GCAAGGTCACGTCCTGTCCCCACCTTTCGCCCCTCACCCTAGCTCCCCCAACGCCAAAGACAAGGTTAAGAAAGT
GATATCGCGAAATAGTTTTTTAAAGCATTTTATTGCATTTTATGACTTGGAGTTTATGTGAAACCTCAACGGTAT
TAGCCGAACAGCCTGCCGCACCTTCCGGGAGTTCCAGAGTGGGCCTACAACTCCCACAGGGCTCCGCGAGCGCCG
GACGGACGGACTACAATTCCCGACAGGCAGCGCGGCTGGCGGGGCGGTTCGCCGCGGTGCCCACAGGACCTCAGG
GCGAGTGCGGGCTGCCCCGCGCGGCGCCCGCAGGACCCCGGCGGCTACCCATGCCGAGGTGAGTCCGCGGGAGCC
GCCGCCGCCGCCGTCCCGTCCCAGCTGCCGCCCCGCGCGGCCCCGCCGCCGGCCAGGATGCTGGAGGAAGCGGGC
GAGGTGCTGGAGAAC**ATG**CTGAAGGCGTCTTGTCTGCCGCTCGGCTTCATCGTCTTCCTGCCCGCTGTGCTGCTG
CTGGTGGCGCCGCCGCTGCCTGCCGCCGACGCCGCGCACGAGTTCACCGTGTACCGCATGCAGCAGTACGACCTG
CAGGGCCAGCCCTACGGCACACGGAATGCAGTGCTGAACACGGAGGCGCGCACGATGGCGGCGGAGGTGCTGAGC
CGCCGCTGCGTGCTCATGCGGCTACTGGACTTCTCCTACGAGCAGTACCAGAAGGCCCTGCGGCAGTCGGCGGGC
GCCGTGGTCATCATCCTGCCCAGGGCCATGGCCGCCGTGCCCCAGGACGTCGTCCGGCAATTCATGGAGATCGAG
CCGGAGATGCTGGCCATGGAGACCGCCGTCCCCGTGTACTTTGCCGTGGAGGACGAGGCCCTGCTGTCTATCTAC
AAGCAGACCCAGGCTGCCTCCGCCTCCCAGGGCTCCGCCTCTGCTGCTGAAGTACTGCTGCGCACGGCCACTGCC
AACGGCTTCCAGATGGTCACCAGCGGGGTACAGAGCAAGGCCGTGAGTGACTGGCTGATTGCCAGCGTGGAGGGG
CGGCTGACGGGGCTGGGCGGAGAGGACCTTCCCACCATCGTCATCGTGGCCCACTACGACGCCTTTGGAGTGGCC
CCCTGGCTGTCGCTGGGCGCGGACTCCAACGGGAGCGGCGTCTCTGTGCTGCTGGAGCTGGCACGCCTCTTCTCC
CGGCTCTACACCTACAAGCGCACGCACGCCGCCTACAACCTCCTGTTCTTTGCGTCTGGAGGAGGCAAGTTTAAC
TACCAGGGAACCAAGCGCTGGCTGGAAGACAACCTGGACCACACAGACTCCAGCCTGCTTCAGGACAATGTGGCC
TTCGTGCTGTGCCTGGACACCGTGGGCCGGGGCAGCAGCCTGCACCTGCACGTGTCCAAGCCGCCTCGGGAGGGC
ACCCTGCAGCACGCCTTCCTGCGGGAGCTGGAGACGGTGGCCGCGCACCAGTTCCCTGAGGTACGGTTCTCCATG
GTGCACAAGCGGATCAACCTGGCGGAGGACGTGCTGGCCTGGGAGCACGAGCGCTTCGCCATCCGCCGACTGCCC
GCCTTCACGCTGTCCCACCTGGAGAGCCACCGTGACGGCCAGCGCAGCAGCATCATGGACGTGCGGTCCCGGGTG
GATTCTAAGACCCTGACCCGTAACACGAGGATCATTGCAGAGGCCCTGACTCGAGTCATCTACAACCTGACAGAG
AAGGGGACACCCCCAGACATGCCGGTGTTCACAGAGCAGATGCAGATCCAGCAGGAGCAGCTGGACTCGGTGATG
GACTGGCTCACCAACCAGCCGCGGGCCGCGCAGCTGGTGGACAAGGACAGCACCTTCCTCAGCACGCTGGAGCAC
CACCTGAGCCGCTACCTGAAGGACGTGAAGCAGCACCACGTCAAGGCTGACAAGCGGGACCCAGAGTTTGTCTTC
TACGACCAGCTGAAGCAAGTGATGAATGCGTACAGAGTCAAGCCGGCCGTCTTTGACCTGCTCCTGGCTGTTGGC
ATTGCTGCCTACCTCGGCATGGCCTACGTGGCTGTCCAGCACTTCAGCCTCCTCTACAAGACCGTCCAGAGGCTG
CTCGTGAAGGCCAAGACACAG**TGA**CACAGCCACCCCCACAGCCGGAGCCCCCGCCGCTCCACAGTCCCTGGGGCC
GAGCACGAGTCGTCATGATGGATGCACTGACTGACCGTCTGGGGCTCAGGCTGGTGTGGGATGCAGCCGGCCGAT
GAGAAAATAAAGCCATATTGAATGATC

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FIGURE 305

AGTCAGCCCCCGGGGGAGGCC**ATG**AACGCCACGGGGACCCCGGTGGCCCCCGAGTCCTGCCAACAGCTGGCGGCC
GGCGGGCACAGCCGGCTCATTGTTCTGCACTACAACCACTCGGGCCGGCTGGCCGGGCGCGGGGGGCCGGAGGAT
GGCGGCCTGGGGGCCCTGCGGGGGCTGTCGGTGGCCGCCAGCTGCCTGGTGGTGCTGGAGAACTTGCTGGTGCTG
GCGGCCATCACCAGCCACATGCGGTCGCGACGCTGGGTCTACTATTGCCTGGTGAACATCACGCTGAGTGACCTG
CTCACGGGCGCGGCCTACCTGGCCAACGTGCTGCTGTCGGGGGCCCGCACCTTCCGTCTGGCGCCCGCCCAGTGG
TTCCTACGGGAGGGCCTGCTCTTCACCGCCCTGGCCGCCTCCACCTTCAGCCTGCTCTTCACTGCAGGGGAGCGC
TTTGCCACCATGGTGCGGCCGGTGGCCGAGAGCGGGGCCACCAAGACCAGCCGCGTCTACGGCTTCATCGGCCTC
TGCTGGCTGCTGGCCGCGCTGCTGGGGATGCTGCCTTTGCTGGGCTGGAACTGCCTGTGCGCCTTTGACCGCTGC
TCCAGCCTTCTGCCCCTCTACTCCAAGCGCTACATCCTCTTCTGCCTGGTGATCTTCGCCGGCGTCCTGGCCACC
ATCATGGGCCTCTATGGGGCCATCTTCCGCCTGGTGCAGGCCAGCGGGCAGAAGGCCCCACGCCCAGCGGCCCGC
CGCAAGGCCCGCCGCCTGCTGAAGACGGTGCTGATGATCCTGCTGGCCTTCCTGGTGTGCTGGGGCCCACTCTTC
GGGCTGCTGCTGGCCGACGTCTTTGGCTCCAACCTCTGGGCCCAGGAGTACCTGCGGGGCATGGACTGGATCCTG
GCCCTGGCCGTCCTCAACTCGGCGGTCAACCCCATCATCTACTCCTTCCGCAGCAGGGAGGTGTGCAGAGCCGTG
CTCAGCTTCCTCTGCTGCGGGTGTCTCCGGCTGGGCATGCGAGGGCCCGGGGACTGCCTGGCCCGGGCCGTCGAG
GCTCACTCCGGAGCTTCCACCACCGACAGCTCTCTGAGGCCAAGGGACAGCTTTCGCGGCTCCCGCTCGCTCAGC
TTTCGGATGCGGGAGCCCCTGTCCAGCATCTCCAGCGTGCGGAGCATC**TGA**AGTTGCAGTCTTGCGTGTGGATGG
TGCAGCCACCGGGTGCGTGCCAGGCAGGCCCTCCTGGGGTACAGGAAGCTGTGTGCACGCAGCCTCGCCTGTATG
GGGAGCAGGGAACGGGACAGGCCCCCATGGTCTTCCCGGTGGCCTCTCGGGGCTTCTGACGCCAAATGGGCTTCC
CATGGTCACCCTGGACAAGGAGGCAACCACCCCACCTCCCCGTAGGAGCAGAGAGCACCCTGGTGTGGGGGCGAG
TGGGTTCCCCACAACCCCGCTTCTGTGTGATTCTGGGGAAGTCCCGGCCCCTCTCTGGGCCTCAGTAGGGCTCCC
AGGCTGCAAGGGGTGGACTGTGGGATGCATGCCCTGGCAACATTGAAGTTCGATCATGGTA

FIGURE 306

TGTTCCCAGCACTCAAGCCTTGCCACCGCCGAGCCGGGCTTCCTGGGTGTTTCAGGCAAGGAAGTCTAGGTCCCT
GGGGGGTGACCCCCAAGGAAAAGGCAGCCTCCCTGCGCACCCGGTTGCCCGGAGCCCTCTCCAGGGCCGGCTGGG
CTGGGGGTTGCCCTGGCCAGCAGGGGCCCGGGGGCGATGCCACCCGGTGCCGACTGAGGCCACCGCACC**ATG**GCC
CGCTCGCTGACCTGGCGCTGCTGCCCCTGGTGCCTGACGGAGGATGAGAAGGCCGCCGCCCGGGTGGACCAGGAG
ATCAACAGGATCCTCTTGGAGCAGAAGAAGCAGGACCGCGGGGAGCTGAAGCTGCTGCTTTTGGGCCCAGGCGAG
AGCGGGAAGAGCACCTTCATCAAGCAGATGCGGATCATCCACGGCGCCGGCTACTCGGAGGAGGAGCGCAAGGGC
TTCCGGCCCCTGGTCTACCAGAACATCTTCGTGTCCATGCGGGCCATGATCGAGGCCATGGAGCGGCTGCAGATT
CCATTCAGCAGGCCCGAGAGCAAGCACCACGCTAGCCTGGTCATGAGCCAGGACCCCTATAAAGTGACCACGTTT
GAGAAGCGCTACGCTGCGGCCATGCAGTGGCTGTGGAGGGATGCCGGCATCCGGGCCTACTATGAGCGTCGGCGG
GAATTCCACCTGCTCGATTCAGCCGTGTACTACCTGTCCCACCTGGAGCGCATCACCGAGGAGGGCTACGTCCCC
ACAGCTCAGGACGTGCTCCGCAGCCGCATGCCCACCACTGGCATCAACGAGTACTGCTTCTCCGTGCAGAAAACC
AACCTGCGGATCGTGGACGTCGGGGGCCAGAAGTCAGAGCGTAAGAAATGGATCCATTGTTTCGAGAACGTGATC
GCCCTCATCTACCTGGCCTCACTGAGTGAATACGACCAGTGCCTGGAGGAGAACAACCAGGAGAACCGCATGAAG
GAGAGCCTCGCATTGTTTGGGACTATCCTGGAACTACCCTGGTTCAAAAGCACATCCGTCATCCTCTTTCTCAAC
AAAACCGACATCCTGGAGGAGAAAATCCCCACCTCCCACCTGGCTACCTATTTCCCCAGTTTCCAGGGCCCTAAG
CAGGATGCTGAGGCAGCCAAGAGGTTCATCCTGGACATGTACACGAGGATGTACACCGGGTGCGTGGACGGCCCC
GAGGGCAGCAAGAAGGGCGCACGATCCCGACGCCTCTTCAGCCACTACACATGTGCCACAGACACACAGAACATC
CGCAAGGTCTTCAAGGACGTGCGGGACTCGGTGCTCGCCCGCTACCTGGACGAGATCAACCTGCTG**TGA**CCCAGG
CCCCACCTGGGGCAGGCGGCACCGGCGGGCGGGTGGGAGGTGGGAGTGGCTGCAGGGACCCCTAGTGTCCCTGGT
CTATCTCTCCAGCCTCGGCCCACACGCAAGGGAGTCGGGGGACGGACGGCCCGCTGCTGGCCGCTCTCTTCTCTG
CCTCTCACCAGGACAGCCGCCCCCCAGGGTACTCCTGCCCTTGCTTGACTCAGTTTCCCTCCTTTGAAAGGGAAG
GAGCAAAACGGCCATTTGGGATGCCAGGGTGGATGAAAAGGTGAAGAAATCAGGGGATTGAGGACTTGGGTGGGT
GGGCATCTCTCAGGAGCCCCATCTCCGGGCGTGTCACCTCCTGGGCAGGGTTCTGGGACCCTCTGTGGGTGACGC
ACACCCTGGGATGGGGCTAGTAGAGCCTTCAGGCGCCTTCGGGCGTGGACTCTGGCGCACTCTAGTGGACAGGAG
AAGGAACGCCTTCCAGGAACCTGTGGACTAGGGGTGCAGGGACTTCCCTTTGCAAGGGGTAACAGACCGCTGGAA
AACACTGTCACTTTCAGAGCTCGGTGGCTCACAGCGTGTCCTGCCCCGGTTTGCGGACGAGAGAAATCGCGGCCC
ACAAGCATCCCCCCATCCCTTGCAGGCTGGGGGCTGGGCATGCTGCATCTTAACCTTTTGTATTTATTCCCTCAC
CTTCTGCAGGGCTCCGTGCGGGCTGAAATTAAAGATTTCTTAG

FIGURE 307

AGCCGATGTCAGTCTGGTGTGGCAGGAGGGGCTTGGGTGGGAGCCGTCCTGGGATTGCAGATTGGGCCTTGGGGC
GCCAGGTGGCTGAGTCCTGGCGCTGTGTCCTTTCAGGATGGTGGATGTGGGGGGCCAGCGGTCGGAGCGGAGGAA
GTGGATCCACTGCTTTGAGAACGTGACATCCATCATGTTTCTCGTCGCCCTCAGCGAATACGACCAAGTCCTGGT
GGAGTCGGACAACGAGAACCGGATGGAGGAGAGCAAAGCCCTGTTCCGGACCATCATCACCTACCCCTGGTTCCA
GAACTCCTCCGTCATCCTCTTCCTCAACAAGAAGGACCTGCTGGAGGACAAGATCCTGTACTCGCACCTGGTGGA
CTACTTCCCCGAGTTCGATGGTCCCCAGCGGGACGCCCAGGCGGCGCGGGAGTTCATCCTGAAGATGTTCGTGGA
CCTGAACCCCGACAGCGACAAGATCATCTACTCACACTTCACGTGTGCCACCGACACGGAGAACATCCGCTTCGT
GTTCGCGGCCGTGAAGGACACCATCCTGCAGCTCAACCTCAAGGAGTACAACCTGGTCTGAGCGCCCAGGCCCAG
GGAGACGGGATGGAGACACGGGGCAGGACCTTCCTTCCACGGAGCCTGCGGCTGCCGGGCGGGTGGCGCTGCCGA
GTCCGGGCCGGGGCCTCTGCCCGCGGGAGGAGATTTTTTTTTTCATATTTTTAACAAATGGTTTTTATTTCACA
GTTATCAGGGGATGTACATCTCTCCCTCCGTACACTTCGCGCACCTTCTCACCTTTTGTCAACGGCAAAGGCAGC
CTTTTTCTGGCCTTGACTTATGGCTCGCTTTTTTCTAAAAAAAAAAAAAAAAGAAAGAAAGAAAAAAAGCAACGA
AACATAAAACACACAAGCGCCCCGTGCCCCCAGTGACTCTGGGCCTCACAGAGCCCCCGCCAGCCAGCATGGGGC
CCCGCCCTGCAGCCAGTCACGCGCCCCCACACCGCAGCCCCCTGTGGCTGTCCTTCCAACCCCACGTGCTTTTTC
TTTCTCCTGCCCGCTTCTTTTCTTCATCACAAAAGGCGTGGAGACTCGGAGACGGACGTTTTTCCCCTTTTTTAA
GTTATTGACGCCCAGCGCGCCTCGCCTCTTCACCCATCAACGCTGTGCTTTGCCCACTGGACTCCTGAAGAGGGG
GTGGGGGGCTCCCTCGGTCGCCCACCCTGGGAAGTGCCTAACCTTTTATTTTATTTTATTTTTTTGAGGAAAAAG
AACGCCTGACTCACAGGTTGAAGAAACACCCTGGGCCCTCTCTCATGGCCGGGTTCCCCGTCCCTCTGCAGAGGC
TGGGAAGGGTCCCCGGGCTGGAGCCACGGGGGCTTCTCTGGGCTGTGCCTCCGGGGCCAACACTGGCTGCTTGGG
GCTGCCCGGGGACTCCAGAGGGCTGCACGGCCACCCTGCCCTGGCTAGAGCGCACCCCACCGGAGCCCACGTGGG
CTGGGCGGCTGGAGGGATGGTCCCCCGGTGACACTGGGAGAAAGGCCACTTGGATGGGGGCGTTTCTGTTTTGTT
CCGCTTTGTGATGTCACCAATTTGGAAACAGCGAGGGTGGGTGGGGACTTTTACAGAATATTCTCAGGTGTGTAC
CCGAGAGGCAGAGAGAGGGACGTGGCCGGCAGCTCTGTGCGTGGCCTTGTCCCAAGCACTTGCGCCCGCCCCCGA
GCGCCGCCCCCGGGGAGCGGGAAGCCAGCACTCGCACTTTGGCCAGGGGCGCGTGGAAGGTGGTGGCAGGCACCG
GCCTGGGCAGCTTCCAGGCCTGGCTGGCCACGACCACGGCCCGAGGGGGAGCCCGCCAGGCCACGCCGCACTGAG
CCACAGCCCCGGGGGCCGCCTCCCGGGGCCCCTTGAGGCACTGAGGCACCGAGACTGGTTCTCCCCGAGAGACTC
GGAAGGTGGGGAACGAGGGGACTGTGTTTGGGGAGGTGGCTTTTTCGTCTGCTGTTGACTGAACACTACAGCGCC
CTGTGGTTCCGGGCTTCGCACAGCTGTCCCAGGG**ATG**GATCGCCTGTGCTGCCTTCGCCCGCCGCCACACCGGGA
CCCTGCACGGCTGCTTCTGGCCTCGACAGATGACAAAAGAAACAGCCCCAAAATACGACCACTCCAACCAGCAGT
TCCCGCCTGCCTGCCCGCCACTGTCAGGCCTGCCCTGGCCTCCTCGTCCGCAGGGCTGTCTGCTGGCTTCTGGGG
GCAGAAGAGCGGGGAGCCCCGTGGAAGGGTCAGGGGAGACCAGGTCAGGGCAGCTACATTTCTGGTGATCAGCCC
CATGGGGAGACGGGGCTGGCGGGATACCCCCCCCCCGGCTTCCCCACACCACTTCTGTCTCACCCGGAAGCGTCC
TTTTTTTGTGCCAGGTGTCTACCTAAGAGGGTTGGTGCCAGAAGCCCCCCATGGCGAGTGCTGGGGCCCGGCGGT
GCCCTGGGGGAGCAGATGGGGCCACCCCTGGCAGGGCCGCTACAACCTTTTCCAGCAGCGGAGCCCTCTGGGGGG
CCTGTGCTTGTGGCATCTC**TGA**GGGCCTAGATTGCACAAGGTGACCTGGCCGTGGCCTGAGGGTGGAGTCGCCCA
GCACGCAGGCCGGGGCGCTGCGGGGCTAAGTATTAGGCCTTCCCAGGGAGGGGGCGTGCCAAGCATCCCAGAGCC
GGGCTGGGACCGCCAAAACGTCGTGGCCTGGATCCTCTGGGTCTGAGTGCCTGATCCCCTGCCCCCCAAAAAAGC
AGAGGTAGGTGTTGCAGGCCCAGGGCAGGGGTGCCTGCCCCAGGAGAGTCCCAGGCAGTGGTTCTCGTGCCAGTG
GCACCCAGGGGCAAGGACAGCCAACCCCCACCCTTGCCACGTGTGGGGCCACGTGGGCATGTGGGGTGTGTGTTT
TTACCTTGGTGAATCTCACCTGCCAACGATTTCTCGTGAGTGCCGACCACCTTCTCCGACCATGTTACGCCCGGG
CGGCAGCAGCCCCCGGCCACTGCAAACCCATGCCCTGGGTCCCCCGGCTCCCCCAGGGAGGCATCCCCGTGCCAA
TGTCCCCCAGTGGTGGCAGCAGATCCTGTGGCCGGCCTGGCGGACGGGACCCAGTGATACTTGTATATTACACAG
TCCTGATTTCAGACAATTTCAACCTTAATCTATTTAAAAAAGAATATTCTATAC

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FIGURE 308

GGCCGCCCGGCGCCCCCAGCAGCCCGAGCCGGGGCGCACAGCCGGGGCGCAGCCCGCGCCCCCCGCCGCGATTGA
C**ATG**ATGTTTCCACAAAGCAGGCATTCGGGCTCCTCGCACCTACCCCAGCAACTCAAATTCACCACCTCGGACTC
CTGCGACCGCATCAAAGACGAATTTCAGCTACTGCAAGCTCAGTACCACAGCCTCAAGCTCGAATGTGACAAGTT
GGCCAGTGAGAAGTCAGAGATGCAGCGTCACTATGTGATGTACTACGAGATGTCCTACGGCTTGAACATCGAGAT
GCACAAACAGGCTGAGATCGTCAAAAGGCTGAACGGGATTTGTGCCCAGGTCCTGCCCTACCTCTCCCAAGAGCA
CCAGCAGCAGGTCTTGGGAGCCATTGAGAGGGCCAAGCAGGTCACCGCTCCCGAGCTGAACTCTATCATCCGACA
GCAGCTCCAAGCCCACCAGCTGTCCCAGCTGCAGGCCCTGGCCCTGCCCTTGACCCCACTACCCGTGGGGCTGCA
GCCGCCTTCGCTGCCGGCGGTCAGCGCAGGCACCGGCCTCCTCTCGCTGTCCGCGCTGGGTTCCCAGGCCCACCT
CTCCAAGGAAGACAAGAACGGGCACGATGGTGACACCCACCAGGAGGATGATGGCGAGAAGTCGGAT**TAG**CAGGG
GGCCGGGACAGGGAGGTTGGGAGGGGGGACAGAGGGGAGACAGAGGCACGGAGAGAAAGGAATGTTTAGCACAAG
ACACAGCGGAGCTCGGGATTGGCTAAACTCCCATAGTATTTATGGTGGCCGCCGGCGGGGGCCCCAGCCCAGCTT
GCAGGCCACCTCTAGCTTTCTTCCTACCCCATTCCCGGCTTCCCTCCTCCTCCCCTGCAGCCTGGTTAGGTGGAT
ACCTGCCCTGACATGTGAGGCAAGCTAAGGCCTGGAGGGTCAGATGGGAGACCAGGTCCCAAGGGAGCAAGACCT
CGCGAAGCGCAGCAGCCCCGGCCCTTCCCCCGTTTTGAACATGTGTAACCGACAGTCTGCCTGGGCCACAGCCCT
CTCACCCTGGTACTGCATGCACGCAATGCTAGCTGCCCCTTTCCCGTCCTGGGCACCCCGAGTCTCCCCCGACCC
CGGGTCCCAGGTATGCTCCCACCTCCACCTGCCCCACTCACCACCTCTGCTAGTTCCAGACACCTCCACGCCCAC
CTGGTCCTCTCCCATCGCCCACAAAAGGGGGGGCACGAGGGACGAGCTTAGCTGAGCTGGGAGGAGCAGGGTGAG
GGTGGGCGACCCAGGATTCCCCCTCCCCTTCCCAAATAAAGATGAGGGTACT

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FIGURE 309

TCCCCCGGGGGGGTTCGCCTCCTCTCCTTGGGGGCTTTATGTCTTTCTCTCCCCCACCTGCAGGTCCCGAGGGCT
GTAACCTGTTTATCTACCACCTCCCCCAGGAGTTTGGAGACACGGAGCTGACGCAGATGTTCCTACCCTTCGGCA
ATATCATTTCCTCCAAGGTGTTTATGGATCGAGCTACCAACCAGAGCAAGTGTTTCGGCTTCGTGAGCTTTGATA
ACCCGGCCAGCGCCCAGGCAGCCATCCAGGCCATGAACGGCTTCCAGATCGGCATGAAGAGGCTCAAAGTCCAGC
TGAAGCGGCCCAAAGACCCGGGACACCCCTACTGACCGCGCCCACAGCCGCCCTGAGGCTGTAGGCATGGCCCAG
GTGAGGGGCCTTCCCATCCCAGGAGGGTTTTCTGCTTCCAACCGATCCAGGACTTACCCATAAATTCCAACCGTT
CTTTGGACACCAGCCCTTTCCTCCCCTCTTCTCCCCTTGCCCTGCCCCTCTACTGGAGGCCACCTGGAGTGGCGA
GGGGCCTTTGGGGTCTGTCCTGGGGCAGGGGCGGGGGTGGGGGAGGCTCCTGAATCGTGGGCAGAAGTGTTCACA
CGCCCCCCCTGCTTTGGGAAACGCTCTCGCTTCTTCCCCACAAAACTTGGTGACTTCCCCAAACTAAATCACACC
TTTTCCTATATATATATATATGCATATATATATAGATCTATAGACAGTATATATATATTTTGAGTACGGATCATG
GGACCAAACTTTTCCGACTTCCTTCCATCCGAGTAGAGTGACCCTGGGCCGGTCACTCAGCGGGGGACACAGGAA
GGGCTGAGGTTGGCGGGACCCCGCGCAACACATACC

FIGURE 310

GTTTTCCCTGCTGAAAACCCAACACCAGACGGAAATGCCAAGTGCCCACCCCAGACCCCAAACCCTAAGGTTGGA
CCCCAACTCGGAACCAGGAGTGGAGCGTGGAAGGTGGGGACAGTGCTCAGGGCCCAGTCCAGTTGGCACTGACAG
CTTCCAGTGTCCCCGCTCCATTTCCACTAGTTCCCCTGGGACAAGCGGCCCCTCACTGGGTGTCATTCCTACCCA
ATGAGTTGATGGAAAAGTGGGATTCGTGCCCCACCCACCATCATGCAAGAAAAACAAGCAAAACGAAACCCAGAC
TGTAGTTTGCCATCAGGGCAAACCACTTTCTCAACATTTTTTTGTGGGGGGATGAACAGTAAACCTTGTGGGGCC
ACTGTGGAAACTTAACCGTGGGTCTCAAACCTTGATGAGCCTCATCTGTAAAATGGGTTCAAGAAAGTCATCTCC
CCAGAGACGGCGGAAACGGTCCACCTAGGGAACAGAGTGGGGCATCTTTTCGCAGCCGAGCCCAGAACCCATCAC
CTAAAGAGTTCTGGATGATTCGTTTTGATTTTTTTTTTTTTTAAATCACCATCGCTGTCGTCATCAGAGTCTCGC
CTAGGGCCTGGCACAGAGTAGACGCTCAGTTAGAAGCTGTCTGGCCTTTTCACCTTCTCCCGGGTCAGCACACAC
AGATTTGGGAGTATTTACCTGCACAGAACGCACCTTCAGGAACTGCCAACCAGAAGCAAAATCCAAAGCTGCTCT
CTGCGATCCCTTCACTTTTAACTCTCAGTCTGCACTTTTTTTTTTTAACTGAGCATCTATTATGTGCTAGGCACT
GTTCCAGTGCTCGGGGACGCAGCTGTGAATGAACAGAAACGGGGGATGGAGGACAGGGGAGAAACCCCCTTCACG
GGCCTTAGATGGCAGGGGGTAGGGAAGGAGAGACAGAAAATAAACAGAAATATCTGTCCCCAGCTGCCAGAGGAG
GAGGAAATGGGCTTGGTGATGGTGACATTAAGTTCTTTGAAAGCTGGGTTTGTTGGCCTCTGAACTCTGGCCTTT
GTGGGATCTGTTCTTTTGGAAAAG**ATG**GGAGCCCCTGTGTTCCTAGATCCCAGCCTGGCCGGGTGGAGTAGGGTG
GGGAGGTGGTGTCCACCTGTGTGGCCCCGTTCTCACTCCCTAACGCCCGTCCCTTCTCCCCCAGGTGAGGGGCCT
TCCCATCCCAGGAGGGTTTTCTGCTTCCAACCGATCCAGGACTTACCCATAAATTCCAACCGTTCTTTGGACACC
AGCCCTTTCCTCCCCTCTTCTCCCCTTGCCCTGCCCCTCTACTGGAGGCCACCTGGAGTGGCGAGGGGCCTTTGG
GGTCTGTCCTGGGGCAGGGGCGGGGGTGGGGGAGGCTCC**TGA**ATCGTGGGCAGAAGTGTTCACACGCCCCCCCTG
CTTTGGGAAACGCTCTCGCTTCTTCCCCACAAAACTTGGTGACTTCCCCAAACTAAATCACACCTTTTCCTATAT
ATATATATATGCATATATATATAGATCTATAGACAGTATATATATATTTTGAGTACGGATCATGGGACCAAACTT
TTCCGACTTCCTTCCATCCGAGTAGAGTGACCCTGGGCCGGTCACTCAGCGGGGGACACAGGAAGGGCTGAGGTT
GGCGGGACCCCGCGCAACACATACCAGGTGCCCCACCCCCACCCCCACCACCTCCTGGCTGGCACATCCCACCAG
GAACCCGCCAACACAACATACCTCCAGGACTTTTGGCACCCCCCACCACCAATTCTCCAGGGCCGTTGGGCTCTG
CCAGCTTCAGTGTCCCTGGTCCCAGCTGCAGCCTCCAGACCCCACCTCGCCCCTTCGTCCCAGAGCCCTGCCCTC
CGGGATGGATATAGGTACAACAGAGACGCTCTGGCCTGCCTCAGCCCTTCTCTGCTCCCCTGCCCGAGTCATAGC
CTTACTCATGTGACCAATAGCCCTTAGCTTTCCGTCGGAGGGGGGGGGCGGACAGGGTTGGGGGGAGCCCCCCTG
CCCCTCACCACCCCCTCCCAAGGCCAGGCAGCCATTGTCCCTGCCTTCGAATCACCAGCCTCGAATTTAAGGTCT
TGTAACCAGGATTGCCAAGCGTAGCGGAAGACCCTACCCGGACCGGCCAAGCACCCCTTTAACTGGAGACGAACT
TGATAATGACCTTCATACCTCTACAGAGATTTTTTTTTTTTTCCGGTCTTTCTGAGCAGGTACAAAGAAGAAAAG
AGAAGAAAAAGATGGGGGGAAAAAATCAAACCACAATGGATTTTTGTTTCCTAGTTGGGAGTGGGGTGGGGTGGG
GTGTCTTTGTGAGGGTGCCTCTGTACAGCTGCCCAATCCGCGACACCCACGTCAAAGCACAGCATCAAGTTCGTT
TGGACATCCGGCAAGGCCTCTTACCAAATGAGGCGCCAGATAACTTAATAAGCTCAAAAGAAAAAAACATTTAAA
AAGAAAGAAAAAAAAAAAAAAAAAAAACCAAGCATTTCCTTTTCTTTCTACCAAAATGTGTTGACTGACCCGGAGG
GGGGGCGGTAGGGTGGGGGAAACCACACAGAAAAAAAAAAA

FIGURE 311

AATGACTCAGTAAGTTCAGCGCGCCCGCTCCGGCCGGCCCTGCGCCTCCCGCCGCGCCCGGG**ATG**TATTCGTCCC
CGCTCTGCCTCACCCAGGATGAGTTCCACCCGTTCATCGAGGCCCTGCTGCCTCACGTCCGCGCCTTCGCCTACA
CCTGGTTCAACCTGCAGGCGCGGAAGCGCAAGTACTTCAAGAAGCACGAGAAGCGGATGTCGAAGGACGAGGAGC
GTGCGGTCAAGGACGAGCTGCTGGGCGAGAAGCCCGAGGTCAAGCAGAAGTGGGCGTCGCGGCTGCTGGCCAAGC
TGCGCAAGGACATCCGGCCCGAGTGCCGCGAGGACTTCGTGCTGAGCATCACCGGCAAGAAGGCGCCGGGCTGCG
TGCTCTCCAACCCCGACCAGAAGGGCAAGATGCGGCGCATCGACTGTCTCCGGCAGGCGGACAAGGTGTGGCGGC
TGGACCTGGTCATGGTCATCCTGTTCAAGGGCATCCCGCTGGAGAGCACCGACGGCGAGCGCCTGGTCAAGGCTG
CGCAGTGCGGTCACCCGGTCCTGTGCGTGCAGCCGCACCACATTGGCGTGGCCGTCAAGGAGCTGGACCTCTACC
TGGCCTACTTCGTGCGTGAGCGAGATGCAGAGCAAAGCGGCAGTCCCCGGACAGGGATGGGCTCTGACCAGGAGG
ACAGCAAGCCCATCACGCTGGACACGACCGACTTCCAGGAGAGCTTTGTCACCTCCGGCGTGTTCAGCGTCACTG
AGCTCATCCAAGTGTCCCGGACACCCGTGGTGACTGGAACAGGACCCAACTTCTCCCTGGGGGAGCTGCAGGGGC
ACCTGGCATACGACCTGAACCCAGCCAGCACTGGCCTCAGAAGAACGCTGCCCAGCACCTCCTCCAGTGGGAGCA
AGCGGCACAAATCGGGCTCGATGGAGGAAGACGTGGACACGAGCCCTGGCGGCGATTACTACACTTCGCCCAGCT
CGCCCACGAGTAGCAGCCGCAACTGGACGGAGGACATGGAAGGAGGCATCTCGTCCCCGGTGAAGAAGACAGAGA
TGGACAAGTCACCATTCAACAGCCCGTCCCCCCAGGACTCTCCCCGCCTCTCCAGCTTCACCCAGCACCACCGGC
CCGTCATCGCCGTGCACAGCGGGATCGCCCGGAGCCCACACCCGTCCTCCGCTCTGCATTTCCCTACGACGTCCA
TCCTACCCCAGACGGCCTCCACCTACTTCCCCCACACGGCCATCCGCTACCCACCTCATCTCAACCCCCAGGACC
CGCTCAAAGATCTTGTCTCGCTGGCCTGCGACCCAGCCAGCCAGCAACCTGGACCGTCCTGGTATCTGGGA**TAG**C
AAAGGTCTTCTTCCCTCGCCCCTTCTCCATCGTCCCAGGAATCCCAGGGGGCAGCACAGCCGGCCCCCGGCCCAC
GTTTTCGGTGGAAAATTAGAGTGAACAAGAACACCCCTGCCGACTCCCAGCCCGGCCAAAAAGACAAAACACATA
GACGCACACACTCAGGAGGAAAAGAAAAAACAAAGGCAGAAGAAGAAGAAGAAGAAATAAAAACCCACCCAAGCA
AGAAGACAAAAGGTAAAGACGCAACGTTTCCAACTCTCGGGACGCCAAGGCCGCAGGACTGGAGGGCCAGGCCCC
GCCACCCCCACGGGAGACCCGGGACAGGGCGTCTTCCTAAGTTATTCATCTCCTCTCCGCCTGCTGCTCGGGAAG
GACAGACGCCGGCCGCCCGCCCGCGCCCCGGAGGCCCTGGCTCTGTCCGGAGACCAGGTGAGCACAGCCTGGAGC
CTGTGCCCAGGGCCGACAGGCGCGACACCCAGCAAGGCCACCTCTCCCCGGGCCCCCGCGCCTCTGCCGGACACG
GACCGGCCCCTCAGCCCCCACCGAGGACGCAGCCACTGGGGGGAAAGGGAGACACAGCGGACCCCGGCCGGGCAG
CGGAGACCGCAGAGGCGGGCAGGGTGGGGCAGGCGAGTGGTGTCGCGGGGGTGCGTGGCGCTTGCGAGCCCTGGC
CAGGGGAGGAAGTGAGGCCCAGGCACCTGCTGCCCCTCGAGGGGGCCCTGCCTGCCGCGGGGCCTCCCCACAAGC
CCCTCCCAAAGCGCCGGCCGACTCGCTGTCTCGCTGGGGACTCTTTCAGCCCTCGCGCCCGCCCGTTTGGGAGGA
GAAGTCTCTATGCAATTGGCCCCGGCCCCTCCACCCCCCACCCCCGGCATAGGAGGCCCCCCCACCTCGCCCGGC
TCACACCCCCCACTTCCTCTTTAAA

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FIGURE 312

GGTGGTGGCAGAGGCGCCTGCGGTTACTGGCCGGGCCGACGGGTCCTGAGTCTCCAGAGCTCGGTGAGGCGTCCC
GGAGGCGGCGATCACGGTTCTTACATCCCCGCGTCCCCAGGTTTAGCCTGAGCAGGGTTGTGGAAGGCCGGGACC
CATTGACAGCACG**ATG**GTGACGGAGCAGGAGGTGGATGCCATCGGGCAGACGCTGGTGGACCCCAAGCAGCCCCT
GCAGGCCCGCTTCCGGGCGCTGTTCACGCTGCGTGGGCTCGGCGGCCCAGGCGCCATTGCATGGATCAGCCAGGC
CTTCGATGACGATTCCGCCCTGCTCAAGCACGAGCTGGCCTACTGCCTGGGCCAGATGCAGGATGCCCGCGCCAT
CCCCATGCTGGTGGACGTGCTGCAAGACACCCGTCAGGAGCCCATGGTGCGCCATGAGGCAGGGGAGGCCCTGGG
GGCCATCGGGGACCCGGAAGTTCTGGAGATCCTGAAGCAGTATTCCTCGGACCCCGTCATCGAGGTGGCCGAGAC
CTGCCAGCTGGCCGTGCGCAGGCTGGAGTGGCTGCAGCAGCACGGCGGGGAGCCGGCGGCGGGACCCTACCTCTC
CGTGGACCCTGCCCCGCCGGCTGAGGAGCGTGACGTGGGGCGCCTGCGGGAGGCGCTGCTGGATGAGTCCCGGCC
GCTCTTCGAGCGATACCGCGCCATGTTCGCCCTGCGCAACGCGGGAGGCGAGGAGGCCGCCCTGGCGCTGGCCGA
GGGTCTGCACTGTGGGAGCGCCCTCTTCCGCCACGAGGTCGGCTACGTCCTGGGACAGCTGCAGCACGAGGCGGC
GGTGCCCCAGCTGGCGGCCGCCCTGGCCCGATGCACCGAGAACCCCATGGTGCGGCACGAGTGCGCGGAGGCCCT
GGGCGCCATTGCCCGGCCCGCCTGCCTGGCCGCGCTGCAGGCTCACGCGGACGACCCAGAGCGCGTGGTGCGTGA
GAGCTGCGAGGTGGCTCTGGACATGTATGAGCACGAGACCGGGCGGGCCTTCCAGTACGCGGACGGCCTGGAGCA
GCTGCGCGGGGCCCCCTCC**TAG**GGCCCCACCCTCACCCGGAGCTCCCGGAGGACTCTTGAGGGCCGCTCCTCCCC
CGCAGAGCTTTGGCGTCTAAACCGGGTGTGTGTAAATCGGTGTCATCGCTTGTGTCTTGCTGGGCGCATGGTTGC
TGTCCCCCTCCTCCGTCTGGGACCGAGGAGCTGCCGTTGTGCTGTGACTCCCTGAGTCCCCTGACTGCTCCTCGG
GGCCTGGCGCAGGGCTGTAGCGTGGAAGTTTCCAGGCTTGGGGTGGGACTCTGCGGGAGGCTCTGGGATGCCCGG
CTCAGGACAGGGGAGGATTGCGAGGGAAGCCAGGGGAGGATCGCGAGGGAAGCCAGGGGAGGATCGCGAGGGAAG
CCAGGGGAGGATCGCGAGGGAAGCCAGGGGAGGATCGCGAGGGAAGCCAAGGGAGGATCGCGAGGGGAGCCAGGG
GAGGATCGCGAGGGAAGCCAGGGGCAGAGCTGGGGCTCTGGGAAGAGGCTGACGTTATGGTGGCTTCAGCTTCAC
TAGGAATGGGACACAGGGTCTGGGGGCCTCTGACTCCCCCACCCCGAGGCCTGGGTAGGGACAGGGTGGTGGTCC
CTGAGTGGGTCAGGTAGGGCACAGGGGCCAGGGAGGGACAAGCAGACCTCAGAGCGCTGCCCAGATGGAATATTA
AATTATTTTTGCCAA

FIGURE 313

ATGGACCAGGACTATGAGCGGCGCCTGCTTCGCCAGATCGTCATCCAGAATGAGAACACGATGCCACGCGTCACA
GAGATGCGGCGGACCCTGACGCCTGCCAGCTCCCCAGTGTCCTCGCCCAGCAAGCACGGAGACCGCTTCATCCCC
TCCAGAGCCGGAGCCAACTGGAGCGTGAACTTCCACAGGATTAACGAGAATGAGAAGTCTCCCAGTCAGAACCGG
AAAGCCAAGGACGCCACCTCAGACAACGGCAAAGACGGCCTGGCCTACTCTGCCCTGCTCAAGAATGAGCTGCTG
GGTGCCGGCATCGAGAAGGTGCAGGACCCGCAGACTGAGGACCGCAGGCTGCAGCCCTCCACGCCTGAGAAGAAG
GGTCTGTTCACGTATTCCCTTAGCACCAAGCGCTCCAGCCCCGATGACGGCAACGATGTGTCTCCCTACTCCCTG
TCTCCCGTCAGCAACAAGAGCCAGAAGCTGCTCCGGTCCCCCCGGAAACCCACCCGCAAGATCTCCAAGATCCCC
TTCAAGGTGCTGGACGCGCCCGAGCTGCAGGACGACTTCTACCTCAATCTGGTGGACTGGTCGTCCCTCAATGTG
CTCAGCGTGGGGCTAGGCACCTGCGTGTACCTGTGGAGTGCCTGTACCAGCCAGGTGACGCGGCTCTGTGACCTC
TCAGTGGAAGGGGACTCAGTGACCTCCGTGGGCTGGTCTGAGCGGGGGAACCTGGTGGCGGTGGGCACACACAAG
GGCTTCGTGCAGATCTGGGACGCAGCCGCAGGGAAGAAGCTGTCCATGTTGGAGGGCCACACGGCACGCGTCGGG
GCGCTGGCCTGGAATGCTGAGCAGCTGTCGTCCGGGAGCCGCGACCGCATGATCCTGCAGAGGGACATCCGCACC
CCGCCACTGCAGTCGGAGCGGCGGCTGCAGGGCCACCGGCAGGAGGTGTGCGGGCTCAAGTGGTCCACAGACCAC
CAGCTCCTCGCCTCGGGGGGCAACGACAACAAGCTGCTGGTCTGGAATCACTCGAGCCTGAGCCCCGTGCAGCAG
TACACGGAGCACCTGGCGGCCGTGAAGGCCATCGCCTGGTCCCCACATCAGCACGGGCTGCTGGCCTCGGGGGGC
GGCACAGCTGACCGCTGTATCCGCTTCTGGAACACGCTGACAGGACAACCACTGCAGTGTATCGACACGGGCTCC
CAAGTGTGCAATCTGGCCTGGTCCAAGCACGCCAACGAGCTGGTGAGCACGCACGGCTACTCACAGAACCAGATC
CTTGTCTGGAAGTACCCCTCCCTGACCCAGGTGGCCAAGCTGACCGGGCACTCCTACCGCGTGCTGTACCTGGCA
ATGTCCCCTGATGGGGAGGCCATCGTCACTGGTGCTGGAGACGAGACCCTGAGGTTCTGGAACGTCTTTAGCAAA
ACCCGTTCGACAAAGGTAAAGTGGGAGTCTGTGTCTGTGCTCAACCTCTTCACCAGGATCCGG**TAA**

FIGURE 314

GTGTGCA**ATG**GCTGCACACAGCAGCTTCCTTGGTAGTGTACGCAGCCTGTTGGTTGTATGGGTTGCTCTAAGGGA
CCTTGGAGACAGGCCTTTCCGATGGATGTTCATGTTTCTAACCTTGCACTACCACAATGTAGGCTCCAAACAGGC
ATGTGAGGTGCCTTTGGAAAGCCCCAGGGCACTGTGGCCAGGGTTGACATTGGCCAAGTTATCATGTCCATCCGC
ACCAAGCTGCAGAACAAGGAGCATGCGATTGAGGCCTTGCGCAGGGCCAAGTTCAAGTTTCCTGGCCGCCAGAAG
ATCTACATCTCAAAGAAGTGGGGCTTCACCAAGTTCAATGCTGATGAATTTGAAGACATGGTGGCTGAGAAGCGG
CTCATCCCAGATGGCTGTGGGGTCAAGTACATCCCCAATCGTGGCCCTCTGGACAAGTGGCTGGCCCTGCACTCA
TGAGGGCTTCCAATGTGCTGCCCCCCCTATTAATACTCACCAA**TAA**ATTCTACTTCCTGTCCAAAAAAAAAAA

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FIGURE 315

GCTCGGGTGAGGAGCTGGTGGCGTCGGCAGGTTCGAGGCGATTCGAGCTCCAGCTAGG**ATG**ATCGAGGTTGTTTG
CAACGACCGTCTGGGGAAGAAGGTCCGCGTTAAATGCAACACGGATGATACCATCGGGGACCTTAAGAAGCTGAT
TGCAGCCCAAACTGGTACCCGTTGGAACAAGATTGTCCTGAAGAAGTGGTACACGATTTTTAAGGACCACGTGTC
TCTGGGGGACTATGAAATCCACGATGGGATGAACCTGGAGCTTTATTATCAA**TAG**ATGAGAATCCTCATCTTCCT
GCCCCGCTTTCCTCTCCCATCCTCATCCCCCACACTGGGATAGATGCTTGTTTGTAAAAACTCACCTTAATAAAG
ACTTAGATGTTG

FIGURE 316

GAGGGAAG**ATG**GCGGACGAGGAGAAGCTGCCGCCCGGCTGGGAGAAGCGCATGAGCCGCAGCTCAGGCCGAGTGT
ACTACTTCAACCACATCACTAACGCCAGCCAGTGGGAGCGGCCCAGCGGCAACAGCAGCAGTGGTGGCAAAAACG
GGCAGGGGGAGCCTGCCAGGGTCCGCTGCTCGCACCTGCTGGTGAAGCACAGCCAGTCACGGCGGCCCTCGTCCT
GGCGGCAGGAGAAGATCACCCGGACCAAGGAGGAGGCCCTGGAGCTGATCAACGGCTACATCCAGAAGATCAAGT
CGGGAGAGGAGGACTTTGAGTCTCTGGCCTCACAGTTCAGCGACTGCAGCTCAGCCAAGGCCAGGGGAGACCTGG
GTGCCTTCAGCAGAGGTCAGATGCAGAAGCCATTTGAAGACGCCTCGTTTGCGCTGCGGACGGGGGAGATGAGCG
GGCCCGTGTTCACGGATTCCGGCATCCACATCATCCTCCGCACTGAG**TGA**GGGTGGGGAGCCCAGGCCTGGCCTC
GGGGCAGGGCAGGGCGGCTAGGCCGGCCAGCTCCCCCTTGCCCGCCAGCCAGTGGCCGAACCCCCCACTCCCTGC
CACCGTCACACAGTATTTATTGTTCCCACAATGGCTGGGAGGGGGCCCTTCCAGATTGGGGGCCCTGGGGTCCCC
ACTCCCTGTCCATCCCCAGTTGGGGCTGCGACCGCCAGATTCTCCCTTAAGGAATTGACTTCAGCAGGGGTGGGA
GGCTCCCAGACCCAGGGCAGTGTGGTGGGAGGGGTGTTCCAAAGAGAAGGCCTGGTCAGCAGAGCCGCCCCGTGT
CCCCCCAGGTGCTGGAGGCAGACTCGAGGGCCGAATTGTTTCTAGTTAGGCCACGCTCCTCTGTTCAGTCGCAAA
GGTGAACACTCATGCGGCCCAGCCATGGGCCCTCTGAGCAACTGTGCAGCACCCTTTCACCCCCAATTAAACCCA
GAACCA

FIGURE 317

AGACTCGGAGCGAGCGAGGGGGCGGGGGTGGGGCGGAATCCCGGCCGCCGGCGAGGCGGGGGAGGCGGCGGCGCA
GGGTCGCCCCGGCCGGGCGGGCGGGGTCGCGCCTGGTGGCGGTCCCCGCGCCGAGGCGCCGCTAGGGCGGGCGGG
GGTCGGGACGCCGGGCTAGGGGCGCGTC**ATG**TGGCCGCTCACGGTCCCGCCGCCGCTGCTGCTGCTGCTGTGCTC
AGGCCTGGCCGGACAGACTCTCTTCCAGAACCCAGAAGAGGGCTGGCAGCTGTACACCTCAGCCCAGGCCCCTGA
CGGGAAATGCATCTGCACGGCCGTGATCCCAGCGCAGAGTACCTGCTCTCGAGATGGCAGGAGTCGGGAGCTGCG
GCAACTGATGGAGAAGGTCCAGAACGTCTCCCAGTCCATGGAGGTCCTTGAGTTGCGGACGTATCGCGACCTCCA
GTATGTACGCGGCATGGAGACCCTCATGCGGAGCCTGGATGCGCGGCTCCGGGCAGCTGATGGGTCCCTCTCGGC
CAAGAGCTTCCAGGAGCTGAAGGACAGGATGACGGAACTGTTGCCCCTGAGCTCGGTCCTGGAGCAGTACAAGGC
AGACACGCGGACCATTGTACGCTTGCGGGAGGAGGTGAGGAATCTCTCCGGCAGTCTGGCGGCCATTCAGGAGGA
GATGGGTGCCTACGGGTATGAGGACCTGCAGCAACGGGTGATGGCCCTGGAGGCCCGGCTCCACGCCTGCGCCCA
GAAGCTGGGCTGTGGGAAGCTGACCGGGGTCAGTAACCCCATCACCGTTCGGGCCATGGGGTCCCGCTTCGGCTC
CTGGATGACTGACACGATGGCCCCCAGTGCGGATAGCCGGGTCTGGTACATGGATGGCTATTACAAAGGCCGCCG
GGTCCTGGAGTTCCGTACCCTGGGAGACTTCATCAAAGGCCAGAACTTTATCCAGCACCTGCTGCCCCAGCCGTG
GGCGGGCACGGGCCACGTGGTGTACAACGGCTCCCTGTTCTATAACAAGTACCAGAGCAACGTGGTGGTCAAATA
CCACTTCCGCTCGCGCTCTGTGCTGGTGCAGAGGAGCCTCCCGGGCGCCGGTTACAACAACACCTTCCCCTACTC
CTGGGGCGGCTTCTCCGACATGGACTTCATGGTGGACGAGAGCGGGCTCTGGGCTGTGTACACCACCAACCAGAA
CGCGGGCAACATCGTGGTCAGCCGGCTGGACCCGCACACCCTCGAGGTCATGCGGTCCTGGGACACCGGCTACCC
CAAGCGCAGCGCTGGCGAGGCCTTCATGATCTGCGGTGTGCTCTACGTGACCAACTCCCACCTGGCTGGGGCCAA
GGTCTACTTCGCCTATTTTACCAACACGTCCAGTTACGAGTACACGGACGTGCCCTTCCACAACCAGTATTCCCA
CATCTCGATGCTGGATTACAACCCCCGGGAGCGCGCCCTCTATACCTGGAACAACGGCCACCAGGTGCTCTACAA
TGTCACCCTGTTTCACGTCATCAGCACCTCTGGGGACCCC**TGA**GCCAATGCTGTGGCTCGGGCTGCTGCCTGGGG
GGCCTCTGGGGGCTGGGGGCCCTTTTCATTCTGCCTGTGTCCCTCAAGGGTGATCTCTCTGTCTCTGTCACGCCC
TTTCTCCCCGCCTTTTTGCTGGGCTTTTGTTCTCTGCCTATGTATTTCTGTCTATTTTTTCAATTTCCCCTCTTC
TCCTTTATTGATCTCTGCTTTTAATACACCACTTCTTTCTTTCTGCCTTTTTATGGATGTCTTTTTCTTTTTATG
GCTCTGGTTCTCCAGTTCTTTCCGTCTCTGCCTCTCTCTGTCTCTCTCTCTCTGTCCTTCCACCCCTCCCTCCTT
GCTTCCCACCCATTCCTCATCCCTCACTCCCACCCCCACCCCCACCCCCAGGAGTTGAGTGCATGGATCTGTTTC
TTTTTTTATTTACACTTTTTCTTTCCGGTTTGCCGGAATAAACAGGACCTTTGACATTTG

FIGURE 318A

GCGAGTGACTGCACCGAGCCCGAGAAGTCGCCGCGCCCCGCAGCCGCCCCGACTGGTTCCCCGCCTTGCCCGTGG
GCCCCGCCGGGATGGGGAACCGCCGGGACCTGGGCCAGCCGCGGGCCGGTCTCTGCCTGCTCCTGGCCGCGCTGC
AGCTTCTGCCGGGGACGCAGGCCGATCCTGTGGATGTCCTGAAGGCCCTGGGTGTGCAGGGAGGCCAGGCTGGGG
TCCCCGAGGGGCCTGGCTTCTGTCCCCAGAGGACTCCAGAGGGTGACCGGGCATTCAGAATTGGCCAGGCCAGCA
CGCTCGGCATCCCCACGTGGGAACTCTTTCCAGAAGGCCACTTTCCTGAGAACTTCTCCTTGCTGATCACCTTGC
GGGGACAGCCAGCCAATCAGTCTGTCCTGCTGTCCATTTATGATGAAAGGGGTGCCCGGCAGTTGGGCCTGGCAC
TGGGGCCAGCGCTGGGTCTCCTAGGTGACCCCTTCCGCCCCCTCCCCCAGCAGGTCAACCTCACAGATGGCAGGT
GGCACCGTGTGGCCGTCAGCATAGATGGTGAGATGGTGACCCTGGTAGCTGACTGTGAAGCTCAGCCCCCTGTTT
TGGGCCATGGCCCCCGCTTCATCAGCATAGCTGGACTCACTGTGCTGGGGACCCAGGACCTTGGGGAAAAGACTT
TCGAGGGAGACATTCAGGAGCTGCTGATAAGCCCAGATCCTCAGGCTGCCTTCCAGGCTTGTGAGCGGTACCTCC
CCGACTGTGACAACCTGGCACCGGCAGCCACAGTGGCTCCCCAGGGTGAACCAGAAACCCCTCGTCCTCGGCGGA
AGGGGAAGGGAAAAGGGAGGAAGAAAGGGCGAGGTCGCAAGGGGAAGGGCAGGAAAAAGAACAAGGAAATTTGGA
CCTCAAGTCCACCTCCTGACTCCGCAGAGAACCAGACCTCCACTGACATCCCCAAGACAGAGACTCCAGCTCCAA
ATCTGCCTCCGACCCCCACGCCTTTGGTCGTCACCTCCACTGTGACTACTGGACTCAATGCCACGATCCTAGAGA
GGAGCTTGGACCCTGACAGTGGAACCGAGCTGGGGACCCTGGAGACCAAGGCAGCCAGGGAGGATGAAGAAGGAG
ATGATTCCACCATGGGCCCTGACTTCCGGGCAGCAGAATATCCATCTCGGACTCAGTTCCAGATCTTTCCTGGTG
CTGGAGAGAAAGGAGCAAAAGGAGAGCCCGCAGTGATTGAAAAGGCAGCAGTTTGAGGGACCTCCAGGAGCCCCA
GGACCCCAAGGGGTGGTTGGCCCCTCAGGCCCTCCCGGCCCCCCAGGATTCCCTGGCGACCCTGGTCCACCGGGC
CCTGCTGGCCTCCCAGGAATCCCCGGCATTGATGGGATCCGAGGCCCACCGGGCACTGTGATCATGATGCCGTTC
CAGTTTGCAGGCGGCTCCTTTAAAGGCCCCCCAGTCTCATTCCAGCAGGCCCAGGCTCAGGCAGTTCTGCAGCAG
ACTCAGCTCTCTATGAAAGGCCCCCTGGTCCAGTGGGGCTCACTGGGCGCCCAGGCCCTGTGGGTCTCCCCGGGC
ATCCAGGTCTGAAAGGAGAGGAGGGAGCAGAAGGGCCACAGGGTCCCCGAGGCCTGCAGGGACCTCATGGACCCC
CTGGCCGAGTGGGCAAGATGGGCCGCCCTGGAGCAGATGGAGCTCGGGGCCTCCCAGGGGACACTGGACCTAAGG
GTGATCGTGGCTTCGATGGCCTCCCTGGGCTGCCTGGTGAGAAGGGCCAAAGGGGTGACTTTGGCCATGTGGGGC
AACCCGGTCCCCCAGGAGAGGATGGTGAGAGGAGCAGAGGGACCTCCAGGGCCCACTGGCCAGGCTGGGGAGCCG
GGTCCACGAGGACTGCTTGGCCCCAGAGGCTCTCCTGGCCCCACGGGTCGCCCGGGTGTGACTGGAATTGATGGT
GCTCCTGGTGCCAAAGGCAATGTGGGTCCTCCAGGAGAACCAGGCCCTCCGGGACAGCAGGGAAACCATGGGTCC
CAGGGACTCCCCGGTCCCCAGGGACTCATTGGCACTCCTGGGGAGAAGGGTCCCCCTGGAAACCCAGGAATTCCA
GGCCTCCCAGGATCCGATGGCCCTCTGGGTCACCCAGGACATGAGGGCCCCACGGGAGAGAAAGGGGCTCAGGGT
CCACCAGGGTCGGCAGGCCCTCCGGGCTATCCTGGACCTCGGGGAGTGAAGGGCACTTCAGGCAACCGGGGCCTC
CAGGGGGAGAAAGGCGAGAAGGGAGAGGACGGCTTCCCAGGCTTCAAGGGCGATGTGGGGCTCAAAGGTGATCAG
GGGAAACCCGGAGCTCCAGGTCCCCGGGGAGAGGATGGTCCTGAGGGGCCGAAGGGGCAGGCGGGGCAGGCTGGC
GAGGAGGGGCCCCCAGGCTCAGCTGGGGAGAAGGGCAAGCTTGGGGTGCCAGGCCTCCCAGGTTATCCAGGACGC
CCTGGACCTAAGATCTATTGGATTTCCCGGTCCCCTGGGACCCATAGGAGAGAAAGGGAAGTCGGGAAAGACAGG
GCAGCCAGGCCTGGAAGGAGAGCGGGGACCACCAGGTTCCCGTGGAGAGAGGGGGCAACCGGGTGCCACAGGGCA
ACCAGGCCCCAAGGGCGATGTGGGCCAGGATGGAGCCCCTGGGATCCCTGGAGAAAAGGGCCTCCCTGGTCTGCA
AGGCCCTCCAGGATTCCCTGGGCCAAAGGGCCCCCCTGGTCACCAAGGTAAAGATGGGCGACCAGGGCACCCTGG
ACAGAGAGGAGAACTGGGCTTCCAAGGTCAGACAGGCCCGCCTGGACCAGCTGGTGTCTTAGGCCCTCAGGGAAA
GACAGGAGAAGTGGGACCTCTAGGTGAAAGGGGGCCTCCAGGCCCCCCTGGACCTCCTGGTGAACAAGGTCTTCC
TGGCCTGGAAGGCAGAGAGGGGGCCAAGGGAACTGGGACCACCAGGACCCCTTGGGAAAGAAGGGCCAGCTGGAC
TCAGGGGCTTTCCCGGCCCCAAAGGGGGCCCTGGGGACCCGGGACCTACTGGCTTAAAGGGTGATAAGGGCCCCC
CAGGGCCCGTGGGGGCCAATGGCTCCCCTGGTGAGCGCGGTCCTTTGGGCCCAGCAGGAGGCATTGGACTTCCTG
GCCAAAGTGGCAGCGAAGGCCCCGTTGGCCCTGCAGGCAAGAAGGGGTCCCGGAGAACGTGGCCCCCCTGGCCCC
ACTGGCAAAGATGGGATCCCAGGGCCCCTGGGGCCTCTGGGACCCCCTGGAGCTGCTGGGCCTTCTGGCGAGGAA
GGGGACAAGGGATGTGGGTGCCCCCGGACACAAGGGGAGTAAAGGCGATAAAGGAGACGCGGGCCCACCTGGACA
ACCAGGGATACGGGGTCCTGCAGGACACCCAGGTCCCCCGGGAGCAGACGGGGCTCAGGGGCGCCGGGGACCCCC
AGGCCTCTTTGGGCAGAAAGGAGATGACGGAGTCAGAGGCTTTGTGGGGGTGATTGGCCCTCCTGGACTAGGGGC
TGCCAGGCCCTCCGGGAGAGAAAGGGGAGGTCGGAGACGTCGGGTCC**ATG**GGTCCCCATGGAGCTCCAGGTCCTC

FIGURE 318B

GGGGTCCCCAAGGCCCCACTGGATCAGAGGGCACTCCAGGGCTGCCTGGAGGAGTTGGTCAGCCAGGCGCCGTGG
GTGAGAAGGGTGAGCGAGGGGACGCTGGAGACCCAGGGCCTCCAGGAGCCCCAGGCATCCCGGGGCCCAAGGGAG
ACATTGGTGAAAAGGGGGACTCAGGCCCATCTGGAGCTGCTGGACCCCCAGGCAAGAAAGGTCCCCCTGGAGAGG
ATGGAGCCAAAGGGAGCGTGGGCCCCACGGGGCTGCCCGGAGATCTAGGGCCCCCAGGAGACCCTGGAGTTTCAG
GCATAGATGGTTCCCCAGGGGAGAAGGGAGACCCTGGTGATGTTGGGGGACCGGGTCCGCCTGGAGCTTCTGGGG
AGCCCGGCGCCCCCGGGCCCCCCGGCAAGAGGGGTCCTTCAGGCCACATGGGTCGAGAAGGCAGAGAAGGGGAGA
AAGGTGCCAAGGGGGAGCCAGGTCCTGATGGGCCCCCAGGGAGGACGGGTCCAATGGGGGCTAGAGGGCCCCCTG
GACGTGTGGGGCCTGAGGGTCTTCGAGGGATCCCTGGCCCTGTGGGTGAACCAGGCCTCCTGGGAGCCCCTGGAC
AGATGGGCCCTCCTGGCCCCCTGGGGCCCTCTGGCCTCCCAGGGCTGAAGGGAGACACTGGCCCCAAGGGGGAAA
AGGGCCACATTGGATTGATCGGTCTCATTGGCCCCCCGGGAGAAGCTGGTGAGAAAGGAGATCAGGGGTTGCCAG
GCGTGCAGGGACCCCCTGGTCCCAAGGGAGACCCTGGTCCCCCTGGTCCCATTGGCTCTCTGGGCCACCCTGGGC
CCCCAGGTGTGGCGGGCCCTCTAGGACAGAAAGGCTCAAAAGGGTCTCCGGGGGTCCATGGGCCCCCGTGGAGACA
CTGGACCTGCAGGCCCACCAGGCCCCCCGGGTGCCCCTGCCGAGCTGCATGGGCTGCGCAGGCGCCGGCGCTTCG
TCCCAGTCCCGCTTCCAGTCGTGGAGGGCGGCCTGGAGGAGGTGCTGGCCTCGCTCACATCGCTGAGCTTGGAGC
TGGAGCAGCTGCGGCGTCCTCCCGGCACTGCGGAGCGCCCGGGCCTCGTGTGCCACGAGCTGCACCGCAACCACC
CGCACCTGCCTGATGGGGAATACTGGATTGACCCCAACCAGGGCTGCGCGCGGGACTCGTTCAGGGTTTTTTGCA
ACTTCACGGCGGGAGGAGAGACCTGCCTCTATCCCGACAAGAAGTTTGAGATCGTGAAATTGGCCTCCTGGTCCA
AGGAAAAGCCTGGAGGCTGGTATAGCACATTCCGTCGAGGGAAGAAGTTCTCCTACGTGGACGCCGACGGGTCCC
CAGTGAATGTCGTGCAGCTGAACTTCCTGAAACTGCTGAGTGCCACAGCTCGCCAGAACTTCACCTACTCCTGCC
AGAATGCAGCTGCCTGGCTGGACGAAGCCACGGGTGACTACAGCCACTCCGCCCGCTTCCTTGGCACCAATGGAG
AGGAGCTGTCTTTCAACCAGACGACAGCAGCCACTGTCAGCGTCCCCCAGGATGGCTGCCGGCTCCGGAAAGGAC
AGACGAAGACCCTTTTCGAATTCAGCTCTTCTCGAGCGGGATTTCTGCCCCTGTGGGATGTGGCGGCCACTGACT
TTGGCCAGACGAACCAAAAGTTTGGGTTTGAACTGGGCCCCGTCTGCTTCAGCAGC**TGA**GAGTGTCCGGGGTGGG
AGGGACCATGAGGGAGCCCCAGAATGGGGTGCATTTGGTGCTGAGGCTTTGAAGCCACCGTATTTTTCGTTACCT
GTGACTATGGAGCCAATGGGATGTGACTTCGCTCATCACGGACAGTCATTCCTTCTCCTTTCCAGGGTGCTGGGG
GCTGGGGTTCCCTGGCCCAAGGGTCCAGCCTCCTCTCACCCCATTCCAGGTGGCATACTGCAGTCTGGCTCTTTC
TCCCCTCCCTCCCCACCCAAGCCTCACCTCCCCACCCCTTGAACCCCCATGCAATGAGCTTCTAACTCAGAGCTG
ATGAACAAAAGCCCCCCCACCCCCAATGCCTGCCTCCTCACTCCTCCGTCGCTGCCCTTCACACCTTTTGGTGCT
ACCCCTCCCCAGAGTTAAGCACTGGATGTCTCCTGATCCCAGGCTGGGACCCCTACCCCCACCCCCTTTGATCCT
TTCTACTTCCACGGTGAAAGGACTGAGGTCGGACTACAGAGGGAAGAGGGACTTCCCTTGACTGGGTTGTGTTTC
TTTTCCTGCCTCAGCCCAGCTCTGCAAATCCCCTCCCCCTGCCCCCCACCTCCCCAGGCTCACCTTGCCATGCCA
GGTGGTTTGGGGACCAAGATGTTGGGGGGGTGAATCAGGATCCTAATGGTGCTGCCCTATTTATACCTGGGTCTG
TATTAAAAGGGAAAGTCCCCCCTGTTGTAGATTTCATCTGCTTCCTCCTTAGGGAAGGCTGGGATATGATGAGAG
ATTCCAGCCCAAGCCTGGCCCCCCACCGCCAGGCCATAGGGCATAATTTGCATCTCAAATCTGAGAATAAACTGA
TGAACTGTG

FIGURE 319

CCCTGCGCGGCTGCTGGACCGACGGGCGCACCCAGGTAGGGGGGCGGCTGAGCCGCGCAGTGCGGACCCTCGCGG
GGAACTGCGCCGCCGCCACC**ATG**TCTCAGGAAGGTGTGGAGCTGGAGAAGAGCGTCCGGCGCCTCCGGGAGAAGT
TTCATGGGAAGGTATCCTCCAAGAAGGCGGGGGCTCTGATGAGGAAATTCGGCAGCGACCACACGGGAGTGGGGC
GCTCCATCGTGTACGGGGTAAAGCAAAAAGATGGCCAAGAACTAAGTAACGATCTGGATGCCCAGGATCCACCAG
AAGATATGAAGCAGGACCGGGACATTCAGGCAGTGGCGACCTCCCTCCTGCCACTGACAGAAGCCAACCTACGCA
TGTTTCAACGTGCCCAGGACGACCTTATCCCTGCTGTGGACCGGCAGTTTGCCTGCTCCTCCTGCGACCACGTCT
GGTGGCGCCGCGTGCCCCAGCGGAAGGAGGTATCCCGGTGCCGGAAATGCCGGAAGCGCTACGAGCCAGTGCCAG
CTGACAAGATGTGGGGCCTGGCTGAGTTCCACTGCCCGAAGTGTCGGCACAACTTCCGGGGCTGGGCACAGATGG
GGTCCCCGTCCCCCTGCTACGGGTGCGGCTTCCCCGTGTATCCAACACGGATCCTCCCCCCGCGCTGGGACCGGG
ACCCGGATCGCCGCAGCACCCACACTCACTCCTGCTCAGCTGCCGACTGCTACAACCGGCGAGAGCCCCACGTGC
CTGGGACATCCTGTGCTCACCCCAAGAGCCGGAAGCAGAACCACCTGCCCAAAGTGCTCCACCCCAGCAACCCTC
ACATTAGCAGTGGCTCCACTGTGGCCACCTGCTTGAGCCAGGGTGGCCTCCTGGAAGACCTGGACAACCTCATCC
TGGAGGACCTGAAGGAGGAGGAGGAGGAAGAGGAGGAGGTGGAGGACGAGGAGGGCGGGCCCAGGGAG**TGA**CCCC
TGCCAGGTGCAGATACAAACCAGACACGGTCTGTGGCTACTTTGTGTTATTATAAGATATGAGCTCAAACCGAGA
TATGAATGACCTTGGGGAGCCATCTGAGGCCAAGATATTGACGGGGGGGGATTCCTGGGTCCCATTTTCAGCGCCC
AGGGTCACAGATCCACAGTGGGAAGTTCTGTGGGACACATTGGCACTGAGCCACAAAGAAGGTGTGGCCAGAACA
ACTTGGGCTCCTGCTGACCAATGTCCTCTAGGGCCTAGGGGACAGAGGAACACAGAGTCACAGCTTCAGGGGCCG
AATGAGCATGGCGGCCTTCCTGAGAGAATATGCCCCACCACGAAACTCAGCCCAGTAGACACCATCCTGGTAGCG
GCTTCGGTAGTGGCCGCCGTGGTGCCACACACCGTTGAGGTTGGAGTGGGCACAGGCATGGTACCACCAGCCTCC
CCGCTGGTACAGGGCACAGTTACCTGAGGGGAGAGAGAGAGTCCATGTCCTCTCACCAGAATAAAAGCCTCTACC
TGCACCTCACAGTGCAAGGCTTTTGCCAGGCATCCCCTGGCCCCTCCCATTCTTATTGAATACAAGCCCTGATCT
TCCATCTCCTCAGCAAAAAAATAGGAGCCCTGGCCCCCCAACTTTCTTCAGAGTAATAGCCTTAATTCCTTCCCT
ATCTCCTTACCAAAGTACAAGTCACATCTTTCCCACCTTTTCTGCAAACTAGGAGTCTACCGTTCATTCCTTTAT
CAAAGAAAAGTATCTACTTCCTTTCTAGAATAAGAGTACTAGCTCTCACCCTCTGCCCTTTACTTGAACAGGAGT
CTTGATTCTTTTTTTGCCTCATCAGAGAAGGAATCTGGACTCCCCATCCCCCCACCAGGATAAAAGTCCTGACCT
TTGTTCTCTTGACGGAATAAAAGCTTGCTTATCCTT

FIGURE 320

TCAAGCGATCCTCCCTACTTAGCCTCCCAAAACACTGAGATTGCAGCCATGAGCCACTGCGCCTGGCCAGGTTTG
ATTTCTGTAGTAGCTGTTCAATTGTGGGTCAAGGGTCAGGTTCTGGGGTAAGGAGGTATTGGGCTTCTCACATTT
AAGGTCAGAAGTCCAGTCCTGGGTCAGGGGTTGGGATCAGAGATCAAGGCTGAGCTCTGAGTTTGGAGGTCAGGG
ATTGGACTCTCAGTGATTGAAATCCTTAGGTCAGAGGTACAGTCACTGAGGATAGGAGTCAGGAGTGGAGTTCGG
GACAGTCAAAGTCGAGGTTAAGTTTTAGGTCATCACCTCCTTCCGCTGGGGCACGCGGCGCCACCAGACGTGGTC
GCAGGAGGAGCAGGCAAACTGCCGGTCCACAGCAGGGATAAGGTCGTCCTGGGCACGTTGAAACATGCGTAGGTT
GGCTTCTGTCAGTGGCAGGAGGGAGGTCGCCACTGCCTGTGGAATGGGGCAGGTGGGGATGAGGTGGGGGGGTGT
CACCCCTTCTGCACCAACATAAGCATCAGCCCTCCTCTCCCTACAGACGAGTCCTCTTCCTGCCCCAGTGAATAT
CTCCCCTCCTGCCCTAATGGACATCCTTCTGTGCCTGCAGATGTCCCCCTCCCAACTCCCCCATCCCAAGCCCTA
GCCACCAACTCACCTGAATGTCCCGGTCCTGCTTCATATCTTCTGGTGGATCCTGGGTGGAGATAGCAGGGGCAG
AAACTGGGGATGGGGCTCAGGCCTCTTTCCACCCGTTTGCTGGGGGAGGCCCCCGGCCGCAATGAGTAGGGTGCC
CCTAACTCGCCAGAAGCTCACAGAGCACCACTCACTTATTGAGAGCCAGGTGTGTGGCCTCAGTTGTCCTCATAG
CAGCCCTGAGAGGTGGGCACACCTGTTACCTTATTGCTCAGATGGGGAAACTGAGGCTTAGGGGAGGGCTTGCCT
GAGTGAGGCTAGCCTGACCCCCATACTCACTTCCTGCCTGCAAATGCCAC**ATG**CTTGTTGATGTTGTGACATATC
GCCCCTTTGAGGCCACGTTGTGCTCGGCTAAGTGGGAGAGAGATGTGGGTTCAAATCCCAGCTGTATCACTTCCA
GCTGTGGGGACTTGGGCAAGCCACTCCCTGCCCCCTGGGTTCCCACTGACAGGCATGTTAGAGCCCAGGCTCTGA
CTCCAGGTGGCCAGGGTTCAAATCGCAGCTGCCCCTGCTTGCTGGCAAGTGACTTCGGCCTCAGTTTCTTTGTCT
GTGAAATGGGGATAAATAATAGGACCTGTCTCCTGGGGTCACTGCAG**TGA**TGAAATAAATAAATTCCTGGAATCT
TG

FIGURE 321

ATTCGGGAAATGCTAAATATTTATAGTTTGGGCTCCTGGGCCCAGCATCCCAGCTCCACTCCCAGGCTCTGGGGG
CTGGGGAGTGGTTACCAAGCCTCCTCTCTCCTTCTGTCCCACTGCCCTCTCCCCGTCTCTAGCTCAGAGGCCCCA
CTGGACCCTCGGCTCTTCCTTGGACTTCTTGTGTGTTCTGTGAGCTTCGCTGGATTCAGGGTCTTGGGCATCAGA
GGTCCGCCGCG**ATG**GGGAAGCCCTGGCTGCGTGCGCTACAGCTGCTGCTCCTGCTGGGCGCGTCGTGGGCGCGGG
CGGGCGCCCCGCGCTGCACCTACACCTTCGTGCTGCCCCCGCAGAAGTTCACGGGCGCTGTGTGCTGGAGCGGCC
CCGCATCCACGCGGGCGACGCCCGAGGCCGCCAACGCCAGCGAGCTGGCGGCGCTGCGCATGCGCGTCGGCCGCC
ACGAGGAGCTGTTACGCGAGCTGCAGAGGCTGGCGGCGGCCGACGGCGCCGTGGCCGGCGAGGTGCGCGCGCTGC
GCAAGGAGAGCCGCGGCCTGAGCGCGCGCCTGGGCCAGTTGCGCGCGCAGCTGCAGCACGAGGCGGGGCCCGGGG
CGGGCCCGGGGGCGGATCTGGGGGCGGAGCCTGCCGCGGCGCTGGCGCTGCTCGGGGAGCGCGTGCTCAACGCGT
CCGCCGAGGCTCAGCGCGCAGCCGCCCGGTTCCACCAGCTGGACGTCAAGTTCCGCGAGCTGGCGCAGCTCGTCA
CCCAGCAGAGCAGTCTCATCGCCCGCCTGGAGCGCCTGTGCCCGGGAGGCGCGGGCGGGCAGCAGCAGGTCCTGC
CGCCACCCCCACTGGTGCCTGTGGTTCCGGTCCGTCTTGTGGGTAGCACCAGTGACACCAGTAGGATGCTGGACC
CAGCCCCAGAGCCCCAGAGAGACCAGACCCAGAGACAGCAGGAGCCCATGGCTTCTCCCATGCCTGCAGGTCACC
CTGCGGTCCCCACCAAGCCTGTGGGCCCGTGGCAGGATTGTGCAGAGGCCCGCCAGGCAGGCCATGAACAGAGTG
GAGTGTATGAACTGCGAGTGGGCCGTCACGTAGTGTCAGTATGGTGTGAGCAGCAACTGGAGGGTGGAGGCTGGA
CTGTGATCCAGCGGAGGCAAGATGGTTCAGTCAACTTCTTCACTACCTGGCAGCACTATAAGGCGGGCTTTGGGC
GGCCAGACGGAGAATACTGGCTGGGCCTTGAACCCGTGTATCAGCTGACCAGCCGTGGGGACCATGAGCTGCTGG
TTCTCCTGGAGGACTGGGGGGGCCGTGGAGCACGTGCCCACTATGATGGCTTCTCCCTGGAACCCGAGAGCGACC
ACTACCGCCTGCGGCTTGGCCAGTACCATGGTGATGCTGGAGACTCTCTTTCCTGGCACAATGACAAGCCCTTCA
GCACCGTGGATAGGGACCGAGACTCCTATTCTGGTAACTGTGCCCTGTACCAGCGGGGAGGCTGGTGGTACCATG
CCTGTGCCCACTCCAACCTCAACGGTGTGTGGCACCACGGCGGCCACTACCGAAGCCGCTACCAGGATGGTGTCT
ACTGGGCTGAGTTTCGTGGTGGGGCATATTCTCTCAGGAAGGCCGCCATGCTCATTCGGCCCCTGAAGCTG**TGA**C
TCTGTGTTCCTCTGTCCCCTAGGCCCTAGAGGACATTGGTCAGCAGGAGCCCAAGTTGTTCTGGCCACACCTTCT
TTGTGGCTCAGTGCCAATGTGTCCCACAGAACTTCCCACTGTGGATCTGTGACCCTGGGCGCTGAAAATGGGACC
CAGGAATCCCCCCCGTCAATATCTTGGCCTCAGATGGCTCCCCAAGGTCATTCATATCTCGGTTTGAGCTCATAT
CTTATAATAACACAAAGTAGCC

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FIGURE 322

AGGAGGCCTCGTGGAGGACACAGCAGC**ATG**GGACAGTCAGGGAGGTCCCGGCACCAGAAGCGCGCCCGCGCCCAG
GCGCAGCTCCGCAACCTCGAGGCCTATGCCGCGAACCCGCACTCGTTCGTGTTCACGCGAGGCTGCACGGGTCGC
AACATCCGGCAGCTCAGCCTGGACGTGCGGCGGGTCATGGAGCCGCTCACTGCCAGCCGTCTGCAGGTTCGTAAG
AAGAACTCGCTGAAGGACTGCGTGGCAGTGGCTGGGCCCCTCGGGGTCACACACTTTCTGATCCTGAGCAAAACA
GAGACCAATGTCTACTTTAAGCTGATGCGCCTCCCAGGAGGCCCCACCTTGACCTTCCAGGTCAAGAAGTACTCG
CTGGTGCGTGATGTGGTCTCCTCACTGCGCCGGCACCGCATGCACGAGCAGCAGTTTGCCCACCCACCCCTCCTG
GTACTCAACAGCTTTGGCCCCCATGGTATGCATGTGAAGCTCATGGCCACCATGTTCCAGAACCTGTTCCCCTCC
ATCAACGTGCACAAGGTGAACCTGAACACCATCAAGCGCTGCCTCCTCATCGACTACAACCCCGACTCCCAGGAG
CTGGACTTCCGCCACTATAGCATCAAAGTTGTTCCTGTGGGCGCGAGTCGCGGGATGAAGAAGCTGCTCCAGGAG
AAGTTCCCCAACATGAGCCGCCTGCAGGACATCAGCGAGCTGCTGGCCACGGGCGCGGGGCTGTCGGAGAGCGAG
GCAGAGCCTGACGGCGACCACAACATCACAGAGCTGCCTCAGGCTGTCGCTGGCCGTGGCAACATGCGGGCCCAG
CAGAGTGCAGTGCGGCTCACCGAGATCGGCCCGCGGATGACACTGCAGCTCATCAAGGTCCAGGAGGGCGTCGGG
GAGGGCAAAGTGATGTTCCACAGTTTTGTGAGCAAGACGGAGGAGGAGCTGCAGGCCATCCTGGAAGCCAAGGAG
AAGAAGCTGCGGCTGAAGGCGCAGAGGCAGGCCCAGCAGGCCCAGAATGTGCAGCGCAAGCAGGAGCAGCGGGAG
GCCCACAGAAAGAAGAGCCTGGAGGGCATGAAGAAGGCACGGGTCGGGGGTAGTGATGAAGAGGCCTCTGGGATC
CCTTCAAGGACGGCGAGCCTGGAGTTGGGTGAGGACGATGATGAACAGGAAGATGATGACATCGAGTATTTCTGC
CAGGCGGTGGGCGAGGCGCCCAGTGAGGACCTGTTCCCCGAGGCCAAGCAGAAACGGCTTGCCAAGTCTCCAGGG
CGGAAGCGGAAGCGGTGGGAAATGGATCGAGGCAGGGGTCGCCTTTGTGACCAGAAGTTTCCCAAGACCAAGGAC
AAGTCCCAGGGAGCCCAGGCCAGGCGGGGGCCCAGAGGGGCTTCCCGGGATGGTGGGCGAGGCCGGGGCCGGGGC
CGCCCAGGGAAGAGAGTGGCC**TGA**GCCCAAGCCGCACCGGAGCAGCGGCTGGATTGAACGCCCCAGATTGGGGCC
CGAGATGTGGCCCTCGGTTTCCTTTCATAAAGGAGTTGTGTCCCCAGCCCTTCCACTCCAGTAAAGAACTGAATT
GGC

FIGURE 323

GAACCTCAGGAGGGTTGTGGCACAATGAGGAAGGAAACGTGGGTGGAAAGGCACGCTGGCCTGCTCTGCTGGCTG
GGCCAGTAACTGGGGATGGGGCTGGGGCAGGGCCCACTAAGCCACTGGTGACTGGGGGAGGGGCTGGGGAACTGG
GTAGCAGACACAGGCTGAGGATCGGCACGGGAGCATGGCAGCCAACGTCTCGGAGGTGCCAAGTCCTGCCCTGCC
AACTTCTTGGCAGCTGCCGACGACAAACTCAGTGGGTTCCAGGGGGACTTCCTGTGGCCCATACTGGTGGTTGAG
TTCCTGGTGGCCGTGGCCAGCAATGGCCTGGCCCTGTACCGCTTCAGCATCCGGAAGCAGCGCCCATGGCACCCC
GCCGTGGTCTTCTCTGTCCAGCTGGCAGTCAGCGACCTGCTCTGCGCCCTGACGCTGCCCCCGCTGGCCGCCTAC
CTCTATCCCCCCAAGCACTGGCGCTATGGGGAGGCCGCGTGCCGCCTGGAGCGCTTCCTCTTCACCTGCAACCTG
CTGGGCAGCGTCATCTTCATCACCTGCATCAGCCTCAACCGCTACCTGGGCATCGTGCACCCCTTCTTCGCCCGA
AGCCACCTGCGACCCAAGCACGCCTGGGCCGTGAGCGCTGCCGGCTGGGTCCTGGCCGCCCTGCTGGCC**ATG**CCC
ACACTCAGCTTCTCCCACCTGAAGAGGCCGCAGCAGGGGGCGGGCAACTGCAGCGTGGCCAGGCCCGAGGCCTGC
ATCAAGTGTCTGGGGACAGCAGACCACGGGCTGGCGGCCTACAGAGCGTATAGCCTGGTGCTGGCGGGGTTGGGC
TGCGGCCTGCCGCTGCTGCTCACGCTGGCAGCCTACGGCGCCCTCGGGCGGGCCGTGCTACGCAGCCCAGGCATG
ACTGTGGCCGAGAAGCTGCGTGTGGCAGCGTTGGTGGCCAGTGGTGTGGCCCTCTACGCCAGCTCCTATGTGCCC
TACCACATCATGCGGGTGCTCAACGTGGATGCTCGGCGGCGCTGGAGCACCCGCTGCCCGAGCTTTGCAGACATA
GCCCAGGCCACAGCAGCCCTGGAGCTGGGGCCCTACGTGGGCTACCAGGTGATGCGGGGCCTCATGCCCCTGGCC
TTCTGTGTCCACCCTCTACTCTACATGGCCGCAGTGCCCAGCCTGGGCTGCTGCTGCCGACACTGCCCCGGCTAC
AGGGACAGCTGGAACCCAGAGGACGCCAAGAGCACTGGCCAAGCCCTGCCCCTCAATGCCACAGCCGCCCCTAAA
CCGTCAGAGCCCCAGTCCCGTGAGCTGAGCCAA**TGA**

FIGURE 324

CTTTTTGCG**ATG**CCTACTGGAGACTTTGATTCGAAGCCCAGTTGGGCCGACCAGGTGGAGGAGGAGGGGGAGGAC
GACAAATGTGTCACCAGCGAGCTCCTCAAGGGGATCCCTCTGGCCACAGGTGACACCAGCCCAGAGCCAGAGCTA
CTGCCGGGAGCTCCACTGCCGCCTCCCAAGGAGGTCATCAACGGAAACATAAAGACAGTGACAGAGTACAAGATA
GATGAGGATGGCAAGAAGTTCAAGATTGTCCGCACCTTCAGGATTGAGACCCGGAAGGCTTCAAAGGCTGTCGCA
AGGAGGAAGAACTGGAAGAAGTTCGGGAACTCAGAGTTTGACCCCCCCCGGACCCAATGTGGCCACCACCACTGTC
AGTGACGATGTCTCTATGACGTTCATCACCAGCAAAGAGGACCTGAACTGCCAGGAGGAGGAGGACCCTATGAAC
AAACTCAAGGGCCAGAAGATCGTGTCCTGCCGCATCTGCAAGGGCGACCACTGGACCACCCGCTGCCCCTACAAG
GATACGCTGGGGCCCATGCAGAAGGAGCTGGCCGAGCAGCTGGGCCTGTCTACTGGCGAGAAGGAGAAGCTGCCG
GGAGAGCTAGAGCCGGTGCAGGCCACGCAGAACAAGACAGGGAAGTATGTGCCGCCGAGCCTGCGCGACGGGGCC
AGCCGCCGCGGGGAGTCCATGCAGCCCAACCGCAGAGCCGACGACAACGCCACCATCCGTGTCACCAACTTGTCA
GAGGACACGCGTGAGACCGACCTGCAGGAGCTCTTCCGGCCTTTCGGCTCCATCTCCCGCATCTACCTGGCTAAG
GACAAGACCACTGGCCAATCCAAGGGCTTTGCCTTCATCAGCTTCCACCGCCGCGAGGATGCTGCGCGTGCCATT
GCCGGGGTGTCCGGCTTTGGCTACGACCACCTCATCCTCAACGTCGAGTGGGCCAAGCCGTCCACCAAC**TAA**GCC
AGCTGCCACTGTGTACTCGGTCCGGGACCCTTGGCGACAGAAGACAGCCTCCGAGAGCGCGGGCTCCAAGGGCAA
TAAAGCAGCTCCACTCTC

FIGURE 325A

TCCGCGTGGGGGGGGTGTGTGCCCGCCTTGCGCATGCGTGTTCCCTGGGCATGGCCGGCTCCGTTCCATCCTTCT
GCACAGGGTATCGCCTCTCTCCGTTTGGTACATCCCCTCCTCCCCCACGCCCGGACTGGGGTGGTAGACGCCGCC
TCCGCTCATCGCCCCTCCCCATCGGTTTCCGCGCGAAAAGCCGGGGCGCCTGCGCTGCCGCCGCCGCGTCTGCTG
AAGCCTCCGAG**ATG**CCGGCGCGTACCGCCCCAGCCCGGGTGCCCACACTGGCCGTCCCGGCCATCTCGCTGCCCG
ACGATGTCCGCAGGCGGCTCAAAGATTTGGAAAGAGACAGCTTAACAGAAAAGGAATGTGTGAAGGAGAAATTGA
ATCTCTTGCACGAATTTCTGCAAACAGAAATAAAGAATCAGTTATGTGACTTGGAAACCAAATTACGTAAAGAAG
AATTATCCGAGGAGGGCTACCTGGCTAAAGTCAAATCCCTTTTAAATAAAGATTTGTCCTTGGAGAACGGTGCTC
ATGCTTACAACCGGGAAGTGAATGGACGTCTAGAAAACGGGAACCAAGCAAGAAGTGAAGCCCGTAGAGTGGGAA
TGGCAGATGCCAACAGCCCCCCCAAACCCCTTTCCAAACCTCGCACGCCCAGGAGGAGCAAGTCCGATGGAGAGG
CTAAGCCTGAACCTTCACCTAGCCCCAGGATTACAAGGAAAAGCACCAGGCAAACCACCATCACATCTCATTTTG
CAAAGGGCCCTGCCAAACGGAAACCTCAGGAAGAGTCTGAAAGAGCCAAATCGGATGAGTCCATCAAGGAAGAAG
ACAAAGACCAGGATGAGAAGAGACGTAGAGTTACATCCAGAGAACGAGTTGCTAGACCGCTTCCTGCAGAAGAAC
CTGAAAGAGCAAAATCAGGAACGCGCACTGAAAAGGAAGAAGAAAGAGATGAAAAAGAAGAAAAGAGACTCCGAA
GTCAAACCAAAGAACCAACACCCAAACAGAAACTGAAGGAGGAGCCGGACAGAGAAGCCAGGGCAGGCGTGCAGG
CTGACGAGGACGAAGATGGAGACGAGAAAGATGAGAAGAAGCACAGAAGTCAACCCAAAGATCTAGCTGCCAAAC
GGAGGCCCGAAGAAAAAGAACCTGAAAAAGTAAATCCACAGATTTCTGATGAAAAAGACGAGGATGAAAAGGAGG
AGAAGAGACGCAAAACGACCCCCAAAGAACCAACGGAGAAAAAAATGGCTCGCGCCAAAACAGTCATGAACTCCA
AGACCCACCCTCCCAAGTGCATTCAGTGCGGGCAGTACCTGGACGACCCTGACCTCAAATATGGGCAGCACCCAC
CAGACGCGGTGGATGAGCCACAGATGCTGACAAATGAGAAGCTGTCCATCTTTGATGCCAACGAGTCTGGCTTTG
AGAGTTATGAGGCGCTTCCCCAGCACAAACTGACCTGCTTCAGTGTGTACTGTAAGCACGGTCACCTGTGTCCCA
TCGACACCGGCCTCATCGAGAAGAATATCGAACTCTTCTTTTCTGGTTCAGCAAAACCAATCTATGATGATGACC
CATCTCTTGAAGGTGGTGTTAATGGCAAAAATCTTGGCCCCATAAATGAATGGTGGATCACTGGCTTTGATGGAG
GTGAAAAGGCCCTCATCGGCTTCAGCACCTCATTTGCCGAATACATTCTGATGGATCCCAGTCCCGAGTATGCGC
CCATATTTGGGCTGATGCAGGAGAAGATCTACATCAGCAAGATTGTGGTGGAGTTCCTGCAGAGCAATTCCGACT
CGACCTATGAGGACCTGATCAACAAGATCGAGACCACGGTTCCTCCTTCTGGCCTCAACTTGAACCGCTTCACAG
AGGACTCCCTCCTGCGACACGCGCAGTTTGTGGTGGAGCAGGTGGAGAGTTATGACGAGGCCGGGGACAGTGATG
AGCAGCCCATCTTCCTGACACCCTGCATGCGGGACCTGATCAAGCTGGCTGGGGTCACGCTGGGACAGAGGCGAG
CCCAGGCGAGGCGGCAGACCATCAGGCATTCTACCAGGGAGAAGGACAGGGGACCCACGAAAGCCACCACCACCA
AGCTGGTCTACCAGATCTTCGATACTTTCTTCGCAGAGCAAATTGAAAAGGATGACAGAGAAGACAAGGAGAACG
CCTTTAAGCGCCGGCGATGTGGCGTCTGTGAGGTGTGTCAGCAGCCTGAGTGTGGGAAATGTAAAGCCTGCAAGG
ACATGGTTAAATTTGGTGGCAGTGGACGGAGCAAGCAGGCTTGCCAAGAGCGGAGGTGTCCCAATATGGCCATGA
AGGAGGCAGATGACGATGAGGAAGTCGATGATAACATCCCAGAGATGCCGTCACCCAAAAAAATGCACCAGGGGA
AGAAGAAGAAACAGAACAAGAATCGCATCTCTTGGGTCGGAGAAGCCGTCAAGACTGATGGGAAGAAGAGTTACT
ATAAGAAGGTGTGCATTGATGCGGAAACCCTGGAAGTGGGGGACTGTGTCTCTGTTATTCCAGATGATTCCTCAA
AACCGCTGTATCTAGCAAGGGTCACGGCGCTGTGGGAGGACAGCAGCAACGGGCAGATGTTTCACGCCCACTGGT
TCTGCGCTGGGACAGACACAGTCCTCGGGGCCACGTCGGACCCTCTGGAGCTGTTCTTGGTGGATGAATGTGAGG
ACATGCAGCTTTCATATATCCACAGCAAAGTGAAAGTCATCTACAAAGCCCCCTCCGAAAACTGGGCCATGGAGG
GAGGCATGGATCCCGAGTCCCTGCTGGAGGGGGACGACGGGAAGACCTACTTCTACCAGCTGTGGTATGATCAAG
ACTACGCGAGATTCGAGTCCCCTCCAAAAACCCAGCCAACAGAGGACAACAAGTTCAAATTCTGTGTGAGCTGTG
CCCGTCTGGCTGAGATGAGGCAAAAAGAAATCCCCAGGGTCCTGGAGCAGCTCGAGGACCTGGATAGCCGGGTCC
TCTACTACTCAGCCACCAAGAACGGCATCCTGTACCGAGTTGGTGATGGTGTGTACCTGCCCCCTGAGGCCTTCA
CGTTCAACATCAAGCTGTCCAGTCCCGTGAAACGCCCACGGAAGGAGCCCGTGGATGAGGACCTGTACCCAGAGC
ACTACCGGAAATACTCCGACTACATCAAAGGCAGCAACCTGGATGCCCCTGAGCCCTACCGAATTGGCCGGATCA
AAGAGATCTTCTGTCCCAAGAAGAGCAACGGCAGGCCCAATGAGACTGACATCAAAATCCGGGTCAACAAGTTCT
ACAGGCCTGAGAACACCCACAAGTCCACTCCAGCGAGCTACCACGCAGACATCAACCTGCTCTACTGGAGCGACG
AGGAGGCCGTGGTGGACTTCAAGGCTGTGCAGGGCCGCTGCACCGTGGAGTATGGGGAGGACCTGCCCGAGTGCG
TCCAGGTGTACTCCATGGGCGGCCCCAACCGCTTCTACTTCCTCGAGGCCTATAATGCAAAGAGCAAAAGCTTTG
AAGATCCTCCCAACCATGCCCGTAGCCCTGGAAACAAAGGGAAGGGCAAGGGAAAAGGGAAGGGCAAGCCCAAGT

FIGURE 325B

CCCAAGCCTGTGAGCCGAGCGAGCCAGAGATAGAGATCAAGCTGCCCAAGCTGCGGACCCTGGATGTGTTTTCTG
GCTGCGGGGGGTTGTCGGAGGGATTCCACCAAGCAGGCATCTCTGACACGCTGTGGGCCATCGAGATGTGGGACC
CTGCGGCCCAGGCGTTCCGGCTGAACAACCCCGGCTCCACAGTGTTCACAGAGGACTGCAACATCCTGCTGAAGC
TGGTCATGGCTGGGGAGACCACCAACTCCCGCGGCCAGCGGCTGCCCCAGAAGGGAGACGTGGAGATGCTGTGCG
GCGGGCCGCCCTGCCAGGGCTTCAGCGGCATGAACCGCTTCAATTCGCGCACCTACTCCAAGTTCAAAAACTCTC
TGGTGGTTTCCTTCCTCAGCTACTGCGACTACTACCGGCCCCGGTTCTTCCTCCTGGAGAATGTCAGGAACTTTG
TCTCCTTCAAGCGCTCCATGGTCCTGAAGCTCACCCTCCGCTGCCTGGTCCGCATGGGCTATCAGTGCACCTTCG
GCGTGCTGCAGGCCGGTCAGTACGGCGTGGCCCAGACTAGGAGGCGGGCCATCATCCTGGCCGCGGCCCCTGGAG
AGAAGCTCCCTCTGTTCCCGGAGCCACTGCACGTGTTTGCTCCCCGGGCCTGCCAGCTGAGCGTGGTGGTGGATG
ACAAGAAGTTTGTGAGCAACATAACCAGGTTGAGCTCGGGTCCTTTCCGGACCATCACGGTGCGAGACACGATGT
CCGACCTGCCGGAGGTGCGGAATGGAGCCTCGGCACTGGAGATCTCCTACAACGGGGAGCCTCAGTCCTGGTTCC
AGAGGCAGCTCCGGGGCGCACAGTACCAGCCCATCCTCAGGGACCACATCTGTAAGGACATGAGTGCATTGGTGG
CTGCCCGCATGCGGCACATCCCCTTGGCCCCAGGGTCAGACTGGCGCGATCTGCCCAACATCGAGGTGCGGCTCT
CAGACGGCACCATGGCCAGGAAGCTGCGGTATACCCACCATGACAGGAAGAACGGCCGCAGCAGCTCTGGGGCCC
TCCGTGGGGTCTGCTCCTGCGTGGAAGCCGGCAAAGCCTGCGACCCCGCAGCCAGGCAGTTCAACACCCTCATCC
CCTGGTGCCTGCCCCACACCGGGAACCGGCACAACCACTGGGCTGGCCTCTATGGAAGGCTCGAGTGGGACGGCT
TCTTCAGCACAACCGTCACCAACCCCGAGCCCATGGGCAAGCAGGGCCGCGTGCTCCACCCAGAGCAGCACCGTG
TGGTGAGCGTGCGGGAGTGTGCCCGCTCCCAGGGCTTCCCTGACACCTACCGGCTCTTCGGCAACATCCTGGACA
AGCACCGGCAGGTGGGCAATGCCGTGCCACCGCCCCTGGCCAAAGCCATTGGCTTGGAGATCAAGCTTTGTATGT
TGGCCAAAGCCCGAGAGAGTGCCTCAGCTAAAATAAAGGAGGAGGAAGCTGCTAAGGAC**TAG**TTCTGCCCTCCCG
TCACCCCTGTTTCTGGCACCAGGAATCCCCAACATGCACTGATGTTGTGTTTTTAACATGTCAATCTGTCCGTTC
ACATGTGTGGTACATGGTGTTTGTGGCCTTGGCTGACATGAAGCTGTTGTGTGAGGTTCGCTTATCAACTAATGA
TTTAGTGATCAAATTGTGCAGTACTTTGTGCATTCTGGATTTTAAAAGTTTTTTATTATGCATTATATCAAATCT
ACCACTGTATGAGTGGAAATTAAGACTTTATGTAGTTTTTATATGTTGTAATATTTCTTCAAATAAATCTCTCCT
ATAAACC

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FIGURE 326

TGTGAGGTCGCGTTCCCCAGTGTTACGGAGGGTCCTTGAGGCAGGAGTGAAAATTGGGTCTGGGGGTTAGTCCTG
GGGTGGAGGTCTGGGCACGCCGGGTCGGACCCCCTCCATCTTCGGTTTTGCACACCCCGCTTTCCAGCGCGGAGT
CGCGGCGGGTAGGGCGGCGTCGCGTGCGTGACGTCATCCAGCGGCGCCTCGCGAGGCTCCAGTGGCCTTGACCTC
CCGCGGCGTGGGAGGCTGCGCGGCG**ATG**CTGCAGTTCGTCCGGGCCGGGGCGCGGGCCTGGCTTCGGCCTACCGG
CAGCCAGGGCCTGAGTTCCCTGGCGGAAGAGGCAGCGCGTGCGACCGAGAACCCGGAGCAGGTGGCGAGCGAGGG
TCTCCCGGAGCCCGTGCTGCGCAAAGTCGAGCTCCCGGTACCCACTCATCGACGCCCAGTGCAGGCCTGGGTCGA
GTCCTTGCGGGGCTTCGAGCAGGAGCGCGTGGGCCTGGCCGACCTGCACCCCGATGTTTTCGCCACCGCGCCCAG
GCTGGACATACTGCACCAGGTTGCTATGTGGCAGAAGAACTTCAAGAGAATTAGCTATGCCAAGACCAAGACGAG
AGCCGAGGTGCGGGGCGGTGGCCGGAAGCCTTGGCCGCAGAAAGGCACTGGGCGGGCCCGGCATGGCAGCATCCG
CTCTCCGCTCTGGCGAGGAGGAGGTGTTGCCCATGGCCCCCGGGGCCCCACAAGTTACTACTACATGCTGCCCAT
GAAGGTGCGGGCGCTGGGTCTCAAAGTGGCACTGACCGTCAAGCTGGCCCAGGACGACCTGCACATCATGGACTC
CCTAGAGCTGCCCACCGGAGACCCACAGTACCTGACAGAGCTGGCGCACTACCGCCGCTGGGGGGACTCCGTACT
CCTCGTGGACTTAACACACGAGGAGATGCCACAGAGCATCGTGGAGGCCACCTCTAGGCTTAAGACCTTCAACTT
GATCCCGGCTGTTGGCCTAAATGTGCACAGCATGCTCAAGCACCAGACGCTGGTCCTGACGCTGCCCACCGTCGC
CTTCCTGGAGGACAAGCTGCTCTGGCAGGACTCACGTTACAGACCCCTCTACCCCTTCAGCCTGCCCTACAGCGA
CTTCCCCCGACCCCTACCCCACGCTACCCAGGGCCCAGCGGCCACCCCGTACCACTGT**TGA**TGTGAAGCACCTCT
TCTGAGCCAGGCCGAGCCCCTGGCCGACTTGGGAGCCTCAGGCCCACGCCCACCCTTCGAGGAAGGTGTCACCTG
GACCCCTTCATTCCACGGAGGAAGCTGAGGCCACAGGGAGCGGCCATCGCCATTGGGAAGGGGCGACTCCACGGA
AAGCCCAGACGGGCTTCTGCATCCATTCCCTCTTTTTGTTTTTAAAATAAATTGTATTTTTG

FIGURE 327

GCGCCCCAGTCGACGCTGAGCTCCTCTGCTACTCAGAGTTGCAACCTCAGCCTCGCT**ATG**GCTCCCAGCAGCCCC
CGGCCCGCGCTGCCCGCACTCCTGGTCCTGCTCGGGGCTCTGTTCCCAGGACCTGGCAATGCCCAGACATCTGTG
TCCCCCTCAAAAGTCATCCTGCCCCGGGGAGGCTCCGTGCTGGTGACATGCAGCACCTCCTGTGACCAGCCCAAG
TTGTTGGGCATAGAGACCCCGTTGCCTAAAAAGGAGTTGCTCCTGCCTGGGAACAACCGGAAGGTGTATGAACTG
AGCAATGTGCAAGAAGATAGCCAACCAATGTGCTATTCAAACTGCCCTGATGGGCAGTCAACAGCTAAAACCTTC
CTCACCGTGTACTGGACTCCAGAACGGGTGGAACTGGCACCCCTCCCCTCTTGGCAGCCAGTGGGCAAGAACCTT
ACCCTACGCTGCCAGGTGGAGGGTGGGGCACCCCGGGCCAACCTCACCGTGGTGCTGCTCCGTGGGGAGAAGGAG
CTGAAACGGGAGCCAGCTGTGGGGGAGCCCGCTGAGGTCACGACCACGGTGCTGGTGAGGAGAGATCACCATGGA
GCCAATTTCTCGTGCCGCACTGAACTGGACCTGCGGCCCCAAGGGCTGGAGCTGTTTGAGAACACCTCGGCCCCC
TACCAGCTCCAGACCTTTGTCCTGCCAGCGACTCCCCCACAACTTGTCAGCCCCCGGGTCCTAGAGGTGGACACG
CAGGGGACCGTGGTCTGTTCCCTGGACGGGCTGTTCCCAGTCTCGGAGGCCCAGGTCCACCTGGCACTGGGGGAC
CAGAGGTTGAACCCCACAGTCACCTATGGCAACGACTCCTTCTCGGCCAAGGCCTCAGTCAGTGTGACCGCAGAG
GACGAGGGCACCCAGCGGCTGACGTGTGCAGTAATACTGGGGAACCAGAGCCAGGAGACACTGCAGACAGTGACC
ATCTACAGCTTTCCGGCGCCCAACGTGATTCTGACGAAGCCAGAGGTCTCAGAAGGGACCGAGGTGACAGTGAAG
TGTGAGGCCCACCCTAGAGCCAAGGTGACGCTGAATGGGGTTCCAGCCCAGCCACTGGGCCCGAGGGCCCAGCTC
CTGCTGAAGGCCACCCCAGAGGACAACGGGCGCAGCTTCTCCTGCTCTGCAACCCTGGAGGTGGCCGGCCAGCTT
ATACACAAGAACCAGACCCGGGAGCTTCGTGTCCTGTATGGCCCCCGACTGGACGAGAGGGATTGTCCGGGAAAC
TGGACGTGGCCAGAAAATTCCCAGCAGACTCCAATGTGCCAGGCTTGGGGGAACCCATTGCCCGAGCTCAAGTGT
CTAAAGGATGGCACTTTCCCACTGCCCATCGGGGAATCAGTGACTGTCACTCGAGATCTTGAGGGCACCTACCTC
TGTCGGGCCAGGAGCACTCAAGGGGAGGTCACCCGCAAGGTGACCGTGAATGTGCTCTCCCCCCGGTATGAGATT
GTCATCATCACTGTGGTAGCAGCCGCAGTCATAATGGGCACTGCAGGCCTCAGCACGTACCTCTATAACCGCCAG
CGGAAGATCAAGAAATACAGACTACAACAGGCCCAAAAAGGGACCCCCATGAAACCGAACACACAAGCCACGCCT
CCC**TGA**ACCTATCCCGGGACAGGGCCTCTTCCTCGGCCTTCCCATATTGGTGGCAGTGGTGCCACACTGAACAGA
GTGGAAGACATATGCCATGCAGCTACACCTACCGGCCCTGGGACGCCGGAGGACAGGGCATTGTCCTCAGTCAGA
TACAACAGCATTTGGGGCCATGGTACCTGCACACCTAAAACACTAGGCCACGCATCTGATCTGTAGTCACATGAC
TAAGCCAAGAGGAAGGAGCAAGACTCAAGACATGATTGATGGATGTTAAAGTCTAGCCTGATGAGAGGGGAAGTG
GTGGGGGAGACATAGCCCCACCATGAGGACATACAACTGGGAAATACTGAAACTTGCTGCCTATTGGGTATGCTG
AGGCCCCACAGACTTACAGAAGAAGTGGCCCTCCATAGACATGTGTAGCATCAAAACACAAAGGCCCACACTTCC
TGACGGATGCCAGCTTGGGCACTGCTGTCTACTGACCCCAACCCTTGATGATATGTATTTATTCATTTGTTATTT
TACCAGCTATTTATTGAGTGTCTTTTATGTAGGCTAAATGAACATAGGTCTCTGGCCTCACGGAGCTCCCAGTCC
TAATCACATTCAAGGTCACCAGGTACAGTTGTACAGGTTGTACACTGCAGGAGAGTGCCTGGCAAAAAGATCAAA
TGGGGCTGGGACTTCTCATTGGCCAACCTGCCTTTCCCCAGAAGGAGTGATTTTTCTATCGGCACAAAAGCACTA
TATGGACTGGTAATGGTTACAGGTTCAGAGATTACCCAGTGAGGCCTTATTCCTCCCTTCCCCCCAAAACTGACA
CCTTTGTTAGCCACCTCCCCACCCACATACATTTCTGCCAGTGTTCACAATGACACTCAGCGGTCATGTCTGGAC
ATGAGTGCCCAGGGAATATGCCCAAGCTATGCCTTGTCCTCTTGTCCTGTTTGCATTTCACTGGGAGCTTGCACT
ATGCAGCTCCAGTTTCCTGCAGTGATCAGGGTCCTGCAAGCAGTGGGGAAGGGGGCCAAGGTATTGGAGGACTCC
CTCCCAGCTTTGGAAGCCTCATCCGCGTGTGTGTGTGTGTGTATGTGTAGACAAGCTCTCGCTCTGTCACCCAGG
CTGGAGTGCAGTGGTGCAATCATGGTTCACTGCAGTCTTGACCTTTTGGGCTCAAGTGATCCTCCCACCTCAGCC
TCCTGAGTAGCTGGGACCATAGGCTCACAACACCACACCTGGCAAATTTGATTTTTTTTTTTTTTCCAGAGACGG
GGTCTCGCAACATTGCCCAGACTTCCTTTGTGTTAGTTAATAAAGCTTTCTCAACTGCC

FIGURE 328

CTTTTTGCC**ATG**GGGTCTCTGTTCCCTCTGTCGCTGCTGTTTTTTTTGGCGGCCGCCTACCCGGGAGTTGGGAGC
GCGCTGGGACGCCGGACTAAGCGGGCGCAAAGCCCCAAGGGTAGCCCTCTCGCGCCCTCCGGGACCTCAGTGCCC
TTCTGGGTGCGCATGAGCCCGGAGTTCGTGGCTGTGCAGCCGGGGAAGTCAGTGCAGCTCAATTGCAGCAACAGC
TGTCCCCAGCCGCAGAATTCCAGCCTCCGCACCCCGCTGCGGCAAGGCAAGACGCTCAGAGGGCCGGGTTGGGTG
TCTTACCAGCTGCTCGACGTGAGGGCCTGGAGCTCCCTCGCGCACTGCCTCGTGACCTGCGCAGGAAAAACACGC
TGGGCCACCTCCAGGATCACCGCCTACAAACCGCCCCACAGCGTGATTTTGGAGCCTCCGGTCTTAAAGGGCAGG
AAATACACTTTGCGCTGCCACGTGACGCAGGTGTTCCCGGTGGGCTACTTGGTGGTGACCCTGAGGCATGGAAGC
CGGGTCATCTATTCCGAAAGCCTGGAGCGCTTCACCGGCCTGGATCTGGCCAACGTGACCTTGACCTACGAGTTT
GCTGCTGGACCCCGCGACTTCTGGCAGCCCGTGATCTGCCACGCGCGCCTCAATCTCGACGGCCTGGTGGTCCGC
AACAGCTCGGCACCCATTACACTGATGCTCGGTGAGGCACCCCTG**TAA**CCCTGGGGACTAGGAGGAAGGGGGCAG
AGAGAGTTATGACCCCGAGAGGGCGCACAGACCAAGCGTGAGCTCCACGCGGGTCGACAGACCTCCCTGTGTTCC
GTTCCTAATTCTCGCCTTCTGCTCCCAGCTTGGAGCCCCGCGCCCACAGCTTTGGCCTCCGGTTCCATCGCTGCC
CTTGTAGGGATCCTCCTCACTGTGGGCGCTGCGTACCTATGCAAGTGCCTAGCTATGAAGTCCCAGGCGTAAAGG
GGGATGTTCTATGCCGGCTGAGCGAGAAAAAGAGGAATATGAAACAATCTGGGGAAATGGCCATACATGGTGGCT
GACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCAGGAGAATCGCTTGAGCCCAGGAGTTCGAGACCAGCCTG
GACAACATAGTGAGACCCCGTCTATGCAAAAAATACACAAATTAGCCTGGTGTGGTGGCCCGCACCTGTGGTCCC
AGCTACCCGGGAGGCTGAGTTGGGAGGATCCTTTGAGCCCTGAAAGTCGAGGTTGCAGTGAGCCTTGATCGTGCC
ACTGCACTCCAGCCTGGGGGGACAGAGCACGACCCTGTCTCCAAAAATAAAATAAAAATAAAAATAAATATTGGCG
GGGGAACCCTCTGGAATCAATAAAGGCTTCCTTAACCAGC

FIGURE 329

CCGTCCTCTAGCCCAGCTCCTCGGCTCGCGCTCTCCTCGCCTCCTGTGCTTTCCCCGCCGCGGCG**ATG**CCAGGGC
CTTCGCCAGGGCTGCGCCGGGCGCTACTCGGCCTCTGGGCTGCTCTGGGCCTGGGGCTCTTCGGCCTCTCAGCGG
TCTCGCAGGAGCCCTTCTGGGCGGACCTGCAGCCTCGCGTGGCGTTCGTGGAGCGCGGGGGCTCGCTGTGGCTGA
ATTGCAGCACCAACTGCCCTCGGCCGGAGCGCGGTGGCCTGGAGACCTCGCTGCGCCGAAACGGGACCCAGAGGG
GTTTGCGTTGGTTGGCGCGGCAGCTGGTGGACATTCGCGAGCCGGAGACTCAGCCCGTCTGCTTCTTCCGCTGCG
CGCGGCGCACACTACAGGCGCGTGGGCTCATTCGCACTTTCCAGCGACCAGATCGCGTAGAGCTGATGCCGCTGC
CTCCCTGGCAGCCGGTGGGCGAGAACTTCACCCTGAGCTGTAGGGTCCCCGGCGCCGGGCCCCGTGCGAGCCTCA
CGCTGACCCTGCTGCGGGGCGCCCAGGAGCTGATCCGCCGCAGCTTCGCCGGTGAACCACCCCGAGCGCGGGGCG
CGGTGCTCACAGCCACGGTACTGGCTCGGAGGGAGGACCATGGAGCCAATTTCTCGTGTCGCGCCGAGCTGGACC
TGCGGCCGCACGGACTGGGACTGTTTGAAAACAGCTCGGCCCCCAGAGAGCTCCGAACCTTCTCCCTGTCTCCGG
ATGCCCCGCGCCTCGCTGCTCCCCGGCTCTTGGAAGTTGGCTCGGAAAGGCCCGTGAGCTGCACTCTGGACGGAC
TGTTTCCAGCCTCAGAGGCCAGGGTCTACCTCGCACTGGGGGACCAGAATCTGAGTCCTGATGTCACCCTCGAAG
GGGACGCATTCGTGGCCACTGCCACAGCCACAGCTAGCGCAGAGCAGGAGGGTGCCAGGCAGCTGGTCTGCAACG
TCACCCTGGGGGGCGAAAACCGGGAGACCCGGGAGAACGTGACCATCTACAGCTTCCCGGCACCACTCCTGACCC
TGAGCGAACCCAGCGTCTCCGAGGGGCAGATGGTGACAGTAACCTGCGCAGCTGGGGCCCAAGCTCTGGTCACAC
TGGAGGGAGTTCCAGCCGCGGTCCCGGGGCAGCCCGCCCAGCTTCAGCTAAATGCCACCGAGAACGACGACAGAC
GCAGCTTCTTCTGCGACGCCACCCTCGATGTGGACGGGGAGACCCTGATCAAGAACAGGAGCGCAGAGCTTCGTG
TCCTATACGCTCCCCGGCTAGACGATTCGGACTGCCCCAGGAGTTGGACGTGGCCCGAGGGCCCAGAGCAGACGC
TGCGCTGCGAGGCCCGCGGGAACCCAGAACCCTCAGTGCACTGTGCGCGCTCCGACGGCGGGGCCGTGCTGGCTC
TGGGCCTGCTGGGTCCAGTCACTCGGGCGCTCTCAGGCACTTACCGCTGCAAGGCGGCCAATGATCAAGGCGAGG
CGGTCAAGGACGTAACGCTAACGGTGGAGTACGCACCAGCGCTGGACAGCGTGGGCTGCCCAGAACGCATTACTT
GGCTGGAGGGAACAGAAGCCTCGCTGAGCTGTGTGGCGCACGGGGTACCGCCGCCTGATGTGATCTGCGTGCGCT
CTGGAGAACTCGGGGCCGTCATCGAGGGGCTGTTGCGTGTGGCCCGGGAGCATGCGGGCACTTACCGCTGCGAAG
CCACCAACCCTCGGGGCTCTGCGGCCAAAAATGTGGCCGTCACGGTGGAATATGGCCCCAGGTTTGAGGAGCCGA
GCTGCCCCAGCAATTGGACATGGGTGGAAGGATCTGGGCGCCTGTTTTCCTGTGAGGTCGATGGGAAGCCACAGC
CAAGCGTGAAGTGCGTGGGCTCCGGGGGCGCCACTGAGGGGGTGCTGCTGCCGCTGGCACCCCCAGACCCTAGTC
CCAGAGCTCCCAGAATCCCTAGAGTCCTGGCACCCGGTATCTACGTCTGCAACGCCACCAACCGCCACGGCTCCG
TGGCCAAAACAGTCGTCGTGAGCGCGGAGTCGCCACCGGAGATGGATGAATCTACCTGCCCAAGTCACCAGACGT
GGCTGGAAGGGGCTGAGGCTTCCGCGCTGGCCTGCGCCGCCCGGGGTCGCCCTTCCCCAGGAGTGCGCTGCTCTC
GGGAAGGCATCCCATGGCCTGAGCAGCAGCGCGTGTCCCGAGAGGACGCGGGCACTTACCACTGTGTGGCCACCA
ATGCGCATGGCACGGACTCCCGGACCGTCACTGTGGGCGTGGAATACCGGCCAGTGGTGGCCGAACTTGCTGCCT
CGCCCCCTGGAGGCGTGCGCCCAGGAGGAAACTTCACGTTGACCTGCCGCGCGGAGGCCTGGCCTCCAGCCCAGA
TCAGCTGGCGCGCGCCCCCGGGGGCCCTCAACATCGGCCTGTCGAGCAACAACAGCACACTGAGCGTGGCAGGCG
CCATGGGAAGCCACGGCGGCGAGTACGAGTGCGCAGCCACCAACGCGCACGGGCGCCACGCGCGGCGCATCACGG
TGCGCGTGGCCGGTCCGTGGCTATGGGTCGCCGTGGGCGGCGCGGCGGGGGGCGCGGCGCTGCTGGCCGCGGGGG
CCGGCCTGGCCTTCTACGTGCAGTCCACCGCCTGCAAGAAGGGCGAGTACAACGTGCAGGAGGCCGAGAGCTCAG
GCGAGGCCGTGTGTCTGAACGGAGCGGGCGGCGGCGCTGGCGGGGCGGCAGGCGCGGAGGGCGGACCCGAGGCGG
CGGGGGGCGCGGCCGAGTCGCCGGCGGAGGGCGAGGTCTTCGCCATACAGCTGACATCGGCG**TGA**GCCCGCTCCC
CTCTCCCCGCGGGCCGGGGGACGCCCCCCAGACTCACACGGGGGCTTATTTATTGCTTTATTTATTTACTTATTC
ATTTATTTATGTATTCAACTCCAAGGGCGTCACCCCCATTTTCTACCCATCCCCTCAATAAAGTTTTTATAAAGG
A

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FIGURE 330

ATGGAGGCCGAGCCAATCCCGGACTCCTCAATGCCAGCAAAGCTTCTGGCGCCGCCCTGTCTGAACCTGGAGCGG
CTGGGAGGATCCCCCTCCCAGGAGAAGCCGAGGACCCCAGGATGCTGCAGAATCAGTGAGAGGGTACACAAAGAG
CCGGCCCAAGTTGGAACCCCCTGGCCGGCTAAACCCAGGAGTCACCCAAGAAAACGTGACCCCACTGCCCTTCTC
CCCAGGTCCCTCTGGCCTGCATGCCAGGAGTCGGTCACCGCCCTGTGCTTCCTCCAAGAGACAGTGGAGAGGCTG
GGGCCGCCTGCTGCTGGACAGGGATTCCAAGGACACACAGACCAGGATCAGCCAAAAGGGCCGCCGTCTGCAGCC
CCCGGGGACTCCCTCGGCCCCACCCCAGAGAAGGCCCCGGAAACAGCTGAACCCCTGCCGGGGCACCGAGAGAGT
GGACCCTGGGTTCGAGGGGGTGACTCTGAAGTTTCAGATAAAGCCGGACTCCAGCCTGCAGATCATCCCCACGTA
CAGTTACAACGCAAACACCAGTGTGGGAGCCTGCCCTGCAGTAGCCGTTCTCAGGAATCCCCTGCAGATGCTGTT
GGGGGCCCTGCAGCCCACCCAGGAGGCACCGAGGCCCACTCAGCAGGCAGCGAGGCCCTGGAGCCCCGGCGCTGT
GCTTCCTGTCGGACCCAGAGGACCCCGCTCTGGAGAGACGCTGAAGATGGGACCCCTCTCTGCAACGCCTGTGGG
ATCAGGTACAAGAAATACGGCACTCGCTGCTCCAGCTGCTGGCTGGTGCCCAGGAAAAATGTCCAGCCCAAGAGG
CTATGTGGCAGATGTGGAGTGTCCCTGGACCCCATTCAGGAAGGT**TAA**

FIGURE 331

GATGCATGTCATGGCCGCCTCCATGGCCCGGGGAGGCGTGAGTGCCAGGGTTCTACTGCAGGCTGCCAGGGGCAC
CTGGTGGAACAGACCTGGGGGCACTTCCGGGTCGGGGGAGGGGGTGGCGCTGGGGACAACCAGAAAGTTTCAAGC
GACAGGCTCGCGCCCGGCTGGAGAGGAGGACGCGGGCGGCCCGGAGCGGCCCGGGGACGTGGTGAACGTGGTGTT
CGTAGACCGCTCAGGCCAGCGGATCCCAGTGAGTGGCAGAGTCGGGGACAATGTTCTTCACCTGGCCCAGCGCCA
CGGGGTGGACCTGGAAGGGGCCTGTGAAGCCTCCCTGGCCTGCTCCACCTGCCATGTGTATGTGAGTGAAGACCA
CCTGGATCTCCTGCCTCCTCCCGAGGAGAGGGAAGACGACATGCTAGACATGGCCCCCCTCCTCCAGGAGAACTC
GCGGCTGGGCTGCCAGATTGTGCTGACACCGGAGCTGGAAGGAGCGGAATTCACCCTGCCCAAGATCACCAGGAA
CTTCTACGTGGATGGCCATGTCCCCAAGCCCCACTGACATGAACACCTGGACCATTCCACATTGCCATGGCCCCA
GGGCCCAGATTGAGGGAATAGCCAGGTGCCAGCCCTGCCCAGAGTGCGGACAGGCCCGGGAGAGACGTGGAAGCC
CCTGTGAAGGACAACACCCCTGCTTGGGAGAGAGTCCCATGTCCAGGCTCTGGTGGGGACAGGGCCCCTAGTGGG
GTGGCCTTCCCCAGGCCCCTGAGAATCAGGGTTTGAGTAGGAGTGGACTCATATTGGAGCTGCAATAAATCGATA
ACACAG

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FIGURE 332

CAAGATGGCGGCGGACGTGTCCGTTACTCACCGGCCCCCGCTGAGCCCTAAGTCTGGGGCCGAAGTCGAAGCCGG
CGATGCCGCGGAGCGCCGGGCGCCGGAAGAAGAGCTGCCGCCTCTAGATCCAGAAGAGATCCGGAAACGCCTGGA
ACACACCGAGCGCCAGTTCCGTAACCGCCGCAAGATACTGATCCGGGGCCTCCCGGGGGACGTGACCAACCAGGA
AGTACATGACCTGCTCAGTGACTATGAGCTCAAATACTGTTTTGTGGACAAATACAAAGGGACAGCCTTCGTGAC
CCTGCTGAATGGGGAGCAGGCCGAGGCCGCAATCAATGCTTTCCACCAGAGCCGCCTGCGGGAGCGTGAACTGTC
GGTGCAGCTGCAGCCCACGGATGCCCTGCTGTGTGTGGCCAACCTGCCCCCCAGCCTCACACAGCAGCAGTTCGA
GGAGCTGGTGCGGCCCTTCGGCAGCCTGGAGCGCTGCTTCCTGGTCTACAGTGAGCGCACTGGCCAATCCAAGGG
CTATGGCTTTGCTGAGTACATGAAGAAGGACTCGGCTGCCCGTGCCAAGTCGGACCTGCTGGGCAAGCCGCTGGG
ACCACGCACCCTCTACGTGCACTGGACGGATGCCGGGCAACTGACGCCTGCCCTTCTCCACTCCCGCTGCCTCTG
TGTGGACCGCCTGCCACCTGGCTTCAACGATGTGGACGCTCTGTGCCGGGCGCTGTCAGCTGTCCACAGCCCCAC
CTTCTGCCAGCTGGCGTGCGGCCAGGATGGGCAGCTGAAGGGCTTCGCGGTGCTGGAGTATGAGACGGCTGAGAT
GGCGGAGGAGGCACAGCAGCAGGCGGACGGCCTGTCCCTGGGGGGCAGCCACCTGCGAGTCTCCTTCTGCGCCCC
TGGGCCCCCCGGCCGCAGTATGCTGGCCGCTCTCATCGCTGCCCAGGCCACGGCCCTCAATCGGGGGAAGGGACT
CCTCCCCGAGCCCAACATCCTGCAGCTGCTCAACAACCTGGGCCCATCCGCGTCCCTCCAGCTGCTGCTCAACCC
CCTGCTCCATGGCAGTGCGGGGGGGAAGCAGGGCCTCCTGGGTGCCCCCCCAGCCATGCCGCTGCTCAATGGGCC
AGCCCTGTCCACGGCGCTGTTGCAGCTCGCCCTGCAGACCCAGGGCCAGAAGAAGCCCGGCATCCTGGGAGACTC
ACCCCTGGGCGCCCTCCAGCCTGGGGCCCAGCCAGCCAACCCCCTCCTCGGGGAGCTGCCTGCAGGAGGGGGCCT
GCCCCCGGAGCTGCCGCCCCGGCGAGGGAAGCCACCACCCCTGCTGCCATCCGTGCTTGGCCCTGCTGGGGGTGA
CCGGGAGGCCCTGGGCTTGGGTCCCCCAGCGGCCCAGCTCACTCCTCCCCCCGCCCCTGTGGGGCTCCGAGGCTC
TGGCCTCAGAGGCCTCCAGAAAGACAGTGGGCCTCTGCCGACGCCCCCTGGGGTCTCACTGCTGGGGGAGCCCCC
CAAGGACTACCGGATTCCCCTGAATCCCTACCTGAACCTACACAGCCTGCTCCCGGCCAGCAACCTGGCGGGTAA
GGAGGCCCGGGGCTGGGGAGGCGCCGGGAGAAGCCGCCGCCCAGCTGAGGGCCCCCCAACTAACCCCCCAGCCCC
TGGAGGTGGCAGCAGCAGCAGCAAAGCCTTCCAGCTCAAGTCCCGCCTGCTCAGCCCCCTCAGCAGCGCCCGCCT
GCCCCCCGAACCAGGACTGTCTGACAGCTACAGCTTCGACTACCCCTCGGACATGGGACCTCGGCGGCTCTTCTC
CCACCCACGGGAACCAGCCCTTGGGCCTCACGGACCCAGCCGACACAAGATGTCCCCCCCGCCCAGTGGCTTCGG
CGAACGGAGCAGCGGTGGGAGTGGCGGGGGCCCCCTGTCTCACTTCTATTCAGGCTCGCCCACTTCCTACTTCAC
CAGCGGCCTGCAGGCTGGCCTCAAGCAGAGCCACCTCAGTAAGGCAATCGGCTCTTCCCCGCTGGGGTCCGGAGA
AGGGCTCCTGGGCCTCAGCCCCGGGCCTAATGGTCACAGCCACCTGCTGAAGACCCCACTGGGCGGCCAGAAACG
CAGCTTTGCCCACCTGCTGCCCTCGCCCGAGCCCAGCCCAGAAGGCAGCTATGTGGGCCAGCACTCCCAGGGCCT
CGGCGGCCACTACGCGGACTCCTACCTGAAGCGGAAGAGGATTTTCTAAGTGGCTGGCACCAGAGATAACTCAAG
GGCCTGCACCAAATCGCTTTTGGGTTTTCTGATGTTTTGTTTTGTGTTTTTTTTAAACCATTTTCTCTCTTTCGG
TAATAGAAAAATCTCTGAAAGACTTTACTGACCAATCAGCCGGAGCCCCAGGAGCCCAAGGGGTGTGGGGGAGTC
TGGAGGCCTCATTATGTCTCTGGCTTGCTCCCCACGCTGAAACCCTGCAGCCTTAAGAGAGAGGGGCCCCGGCCT
GCTCTCCCTCCCTCCCCCCATCTCCTCCTCCGCTGTGCCCGTCTCTCCGGAGCCCTCCTGCCTCATTGCTCCTGT
AATTTTGGCCTTTCGAGTGCCTTGGAGGTTTCCCTGACCTCCCGTGAAGATACAGAGACTGTCTCCTTTTTTTTT
AACTTTGACAACTGACTTCTGTTTCCTTTTCTAAGTTTTATTTTTCAAACCACCCCGGACAGCCCCCAGCTCTGA
TTCCTTCAAGGCCCGGCCTGTCCGGGCCACCATTCCACACCTTGCGGTTTGAAACAGCTGTTTTTCCCACATTTG
CTGCAGGCATGGCTGTCTCCTGCCCCTGCCTGCCCATCTGGCCTATACCCCAGCCGTGGGGCCCGGGGTCCCTGC
CGCAGCCCCCTCCCCTTCTGATGCCTTAAAAGCTGGGCCCCAGGCCCTGCTGGCCAGAGCCACAGATGCCAAGCT
CTGGGAGCTTGACTATGGACCAAACAGCTCTGGCCTAGGGATTGGGCCACCCTACCCAGGATCTCCACCCTGGGG
ACAGTAGAAGGGGAAAGCCTTCATCTTGGCGAACCGGCCCCACCACCCCCTCCTACCCGGGCCTCCGTGCAGAGA
TGGGCTTTCTCTGCCAGTCCCCTGCTGTCTGTCTGTGGGAGTCGGACATTGTGCCCATCTCCCGGAGCCTCTGCT
GTCACTCGCTTGTTGAAGATGAATTCTTGAATTCTGCCTGCCCACCCCCGGCCAGATCCCTGGAGCTGGCCTCCT
TCCAGCCCAGTGCCAGAAACCAGCACTCCATGAAGATAAACTCTGGGCCCGCCCACCAGCAGGACCTGTCGACCT
GAGGTGACCCTGGGCCTTGCCCCCAGCCAACTGGGCCACCAGCTTCCCTCCCTTGACTCTGGGGGTCCACATCCA
CTCCAAGGGGACTATTCCCCCGACCCCACCCCAGTCTCCCCACACGGACCTTTGCTGAATTAAAGTTTGTAAGTA
AATGGTTTTAAAG

FIGURE 333

CTCTGTCAGA**ATG**GCCACCATGGTACCATCCGTGTTGTGGCCCAGGGCCTGCTGGACTCTGCTGGTCTGCTGTCT
GCTGACCCCAGGTGTCCAGGGGCAGGAGTTCCTTTTGCGGGTGGAGCCCCAGAACCCTGTGCTCTCTGCTGGAGG
GTCCCTGTTTGTGAACTGCAGTACTGATTGTCCCAGCTCTGAGAAAATCGCCTTGGAGACGTCCCTATCAAAGGA
GCTGGTGGCCAGTGGCATGGGCTGGGCAGCCTTCAATCTCAGCAACGTGACTGGCAACAGTCGGATCCTCTGCTC
AGTGTACTGCAATGGCTCCCAGATAACAGGCTCCTCTAACATCACCGTGTACAGGCTCCCGGAGCGTGTGGAGCT
GGCACCCCTGCCTCCTTGGCAGCCGGTGGGCCAGAACTTCACCCTGCGCTGCCAAGTGGAGGATGGGTCGCCCCG
GACCAGCCTCACGGTGGTGCTGCTTCGCTGGGAGGAGGAGCTGAGCCGGCAGCCCGCAGTGGAGGAGCCAGCGGA
GGTCACTGCCACTGTGCTGGCCAGCAGAGACGACCACGGAGCCCCTTTCTCATGCCGCACAGAACTGGACATGCA
GCCCCAGGGGCTGGGACTGTTCGTGAACACCTCAGCCCCCCGCCAGCTCCGAACCTTTGTCCTGCCCGTGACCCC
CCCGCGCCTCGTGGCCCCCCGGTTCTTGGAGGTGGAAACGTCGTGGCCGGTGGACTGCACCCTAGACGGGCTTTT
TCCAGCCTCAGAGGCCCAGGTCTACCTGGCGCTGGGGGACCAGATGCTGAATGCGACAGTCATGAACCACGGGGA
CACGCTAACGGCCACAGCCACAGCCACGGCGCGCGCGGATCAGGAGGGTGCCCGGGAGATCGTCTGCAACGTGAC
CCTAGGGGGCGAGAGACGGGAGGCCCGGGAGAACTTGACGGTCTTTAGCTTCCTAGGACCCATTGTGAACCTCAG
CGAGCCCACCGCCCATGAGGGGTCCACAGTGACCGTGAGTTGCATGGCTGGGGCTCGAGTCCAGGTCACGCTGGA
CGGAGTTCCGGCCGCGGCCCCGGGGCAGCCAGCTCAACTTCAGCTAAATGCTACCGAGAGTGACGACGGACGCAG
CTTCTTCTGCAGTGCCACTCTCGAGGTGGACGGCGAGTTCTTGCACAGGAACAGTAGCGTCCAGCTGCGAGTCCT
GTATGGTCCCAAAATTGACCGAGCCACATGCCCCCAGCACTTGAAATGGAAAGATAAAACGAGACACGTCCTGCA
GTGCCAAGCCAGGGGCAACCCGTACCCCGAGCTGCGGTGTTTGAAGGAAGGCTCCAGCCGGGAGGTGCCGGTGGG
GATCCCGTTCTTCGTCAACGTAACACATAATGGTACTTATCAGTGCCAAGCGTCCAGCTCACGAGGCAAATACAC
CCTGGTCGTGGTGATGGACATTGAGGCTGGGAGCTCCCACTTTGTCCCCGTCTTCGTGGCGGTGTTACTGACCCT
GGGCGTGGTGACTATCGTACTGGCCTTAATGTACGTCTTCAGGGAGCACCAACGGAGCGGCAGTTACCATGTTAG
GGAGGAGAGCACCTATCTGCCCCTCACGTCTATGCAGCCGACAGAAGCAATGGGGGAAGAACCGTCCAGAGCTGA
G**TGA**CGCTGGGATCCGGGATCAAAGTTGGCGGGGGCTTGGCTGTGCCCTCAGATTCCGCACCAATAAAGCCTTCA
AACTCCCT

FIGURE 334A

GACGCGGGCGCGGAAGGAGCGCGGCCGGAGGTCCTCAGGAAGAAGCCGCGGGGACTGGCTGCGCTTGACAGGCTG
CACTTGGATGGGAGCACCTGGTGCCTCGGGACTGCTCCGATGCCCGGGTCTGTGCTGAATGTGTAATATGCGGAA
CTATATTGAAACATTACAACCATCTTTTGATGGCAACACCCTGAGGACCTCCCTTTTCCAGATGGGGAAACTGAG
GCCCAGAATTGCTAAGTGGCTTGCTTGAGTTGACACAGGGAGCTCCAGGACTCACCCTCAGCTGAGCCACCTGCC
GGGAGC**ATG**CCTCTGCGCCACTGGGGGATGGCCAGGGGCAGTAAGCCCGTTGGGGATGGAGCCCAGCCCATGGCT
GCCATGGGAGGCCTGAAGGTGCTTCTGCACTGGGCTGGTCCAGGCGGCGGGGAGCCCTGGGTCACTTTCAGTGAG
TCATCGCTGACAGCTGAGGAAGTCTGCATCCACATTGCACATAAAGTTGGTATCACTCCTCCTTGCTTCAATCTC
TTTGCCCTCTTCGATGCTCAGGCCCAAGTCTGGTTGCCCCCAAACCACATCCTAGAGATCCCCAGAGATGCAAGC
CTGATGCTATATTTCCGCATAAGGTTTTATTTCCGGAACTGGCATGGCATGAATCCTCGGGAACCGGCTGTGTAC
CGTTGTGGGCCCCCAGGAACCGAGGCATCCTCAGATCAGACAGCACAGGGGATGCAACTCCTGGACCCAGCCTCA
TTTGAGTACCTCTTTGAGCAGGGCAAGCATGAGTTTGTGAATGACGTGGCATCACTGTGGGAGCTGTCGACCGAG
GAGGAGATCCACCACTTTAAGAATGAGAGCCTGGGCATGGCCTTTCTGCACCTCTGTCACCTCGCTCTCCGCCAT
GGCATCCCCCTGGAGGAGGTGGCCAAGAAGACCAGCTTCAAGGACTGCATCCCGCGCTCCTTCCGCCGGCATATC
CGGCAGCACAGCGCCCTGACCCGGCTGCGCCTTCGGAACGTCTTCCGCAGGTTCCTGCGGGACTTCCAGCCGGGC
CGACTCTCCCAGCAGATGGTCATGGTCAAATACCTAGCCACACTCGAGCGGCTGGCACCCCGCTTCGGCACAGAG
CGTGTGCCCGTGTGCCACCTGAGGCTGCTGGCCCAGGCCGAGGGGGAGCCCTGCTACATCCGGGACAGTGGGGTG
GCCCCTACAGACCCTGGCCCTGAGTCTGCTGCTGGGCCCCCAACCCACGAGGTGCTGGTGACAGGCACTGGTGGC
ATCCAGTGGTGGCCAGTAGAGGAGGAGGTGAACAAGGAGGAGGGTTCTAGTGGCAGCAGTGGCAGGAACCCCCAA
GCCAGCCTGTTTGGGAAGAAGGCCAAGGCTCACAAGGCAGTCGGCCAGCCGGCAGACAGGCCGCGGGAGCCACTG
TGGGCCTACTTCTGTGACTTCCGGGACATCACCCACGTGGTGCTGAAAGAGCACTGTGTCAGCATCCACCGGCAG
GACAACAAGTGCCTGGAGCTGAGCTTGCCTTCCCGGGCTGCGGCGCTGTCCTTCGTGTCGCTGGTGGACGGCTAT
TTCCGCCTGACGGCCGACTCCAGCCACTACCTGTGCCACGAGGTGGCTCCCCCACGGCTGGTGATGAGCATCCGG
GATGGGATCCACGGACCCCTGCTGGAGCCATTTGTGCAGGCCAAGCTGCGGCCCGAGGACGGCCTGTACCTCATT
CACTGGAGCACCAGCCACCCCTACCGCCTGATCCTCACAGTGGCCCAGCGTAGCCAGGCACCAGACGGCATGCAG
AGCTTGCGGCTCCGAAAGTTCCCCATTGAGCAGCAGGACGGGGCCTTCGTGCTGGAGGGCTGGGGCCGGTCCTTC
CCCAGCGTTCGGGAACTTGGGGCTGCCTTGCAGGGCTGCTTGCTGAGGGCCGGGGATGACTGCTTCTCTCTGCGT
CGCTGTTGCCTGCCCCAACCAGGAGAAACCTCCAATCTCATCATCATGCGGGGGGCTCGGGCCAGCCCCAGGACA
CTCAACCTCAGCCAGCTCAGCTTCCACCGGGTTGACCAGAAGGAGATCACCCAGCTGTCCCACTTGGGCCAGGGC
ACAAGGACCAACGTGTATGAGGGCCGCCTGCGAGTGGAGGGCAGCGGGGACCCTGAGGAGGGCAAGATGGATGAC
GAGGACCCCCTCGTGCCTGGCAGGGACCGTGGGCAGGAGCTACGAGTGGTGCTCAAAGTGCTGGACCCTAGTCAC
CATGACATCGCCCTGGCCTTCTACGAGACAGCCAGCCTCATGAGCCAGGTCTCCCACACGCACCTGGCCTTCGTG
CATGGCGTCTGTGTGCGCGGCCCTGAAAATATCATGGTGACAGAGTACGTGGAGCACGGACCCCTGGATGTGTGG
CTGCGGAGGGAGCGGGGCCATGTGCCCATGGCTTGGAAGATGGTGGTGGCCCAGCAGCTGGCCAGCGCCCTCAGC
TACCTGGAGAACAAGAACCTGGTTCATGGTAATGTGTGTGGCCGGAACATCCTGCTGGCCCGGCTGGGGTTGGCA
GAGGGCACCAGCCCCTTCATCAAGCTGAGTGATCCTGGCGTGGGCCTGGGCGCCCTCTCCAGGGAGGAGCGGGTG
GAGAGGATCCCCTGGCTGGCCCCCGAATGCCTACCAGGTGGGGCCAACAGCCTAAGCACCGCCATGGACAAGTGG
GGGTTTGGCGCCACCCTCCTGGAGATCTGCTTTGACGGAGAGGCCCCTCTGCAGAGCCGCAGTCCCTCCGAGAAG
GAGCATTTCTACCAGAGGCAGCACCGGCTGCCCGAGCCCTCCTGCCCACAGCTGGCCACACTCACCAGCCAGTGT
CTGACCTATGAGCCAACCCAGAGGCCATCATTCCGCACCATCCTGCGTGACCTCACCCGGCTGCAGCCCCACAAT
CTTGCTGACGTCTTGACTGTGAACCCGGACTCACCGGCGTCGGACCCTACGGTTTTCCACAAGCGCTATTTGAAA
AAGATCCGAGATCTGGGCGAGGGTCACTTCGGCAAGGTCAGCTTGTACTGCTACGATCCGACCAACGACGGCACT
GGCGAGATGGTGGCGGTGAAAGCCCTCAAGGCAGACTGCGGCCCCCAGCACCGCTCGGGCTGGAAGCAGGAGATT
GACATTCTGCGCACGCTCTACCACGAGCACATCATCAAGTACAAGGGCTGCTGCGAGGACCAAGGCGAGAAGTCG
CTGCAGCTGGTCATGGAGTACGTGCCCCTGGGCAGCCTCCGAGACTACCTGCCCCGGCACAGCATCGGGCTGGCC
CAGCTGCTGCTCTTCGCCCAGCAGATCTGCGAGGGCATGGCCTATCTGCACGCGCAGCACTACATCCACCGAGAC
CTAGCCGCGCGCAACGTGCTGCTGGACAACGACAGGCTGGTCAAGATCGGGGACTTTGGCCTAGCCAAGGCCGTG
CCCGAAGGCCACGAGTACTACCGCGTGCGCGAGGATGGGGACAGCCCCGTGTTCTGGTATGCCCCAGAGTGCCTG
AAGGAGTATAAGTTCTACTATGCGTCAGATGTCTGGTCCTTCGGGGTGACCCTGTATGAGCTGCTGACGCACTGT

FIGURE 334B

GACTCCAGCCAGAGCCCCCCCACGAAATTCCTTGAGCTCATAGGCATTGCTCAGGGTCAGATGACAGTTCTGAGA
CTCACTGAGTTGCTGGAACGAGGGGAGAGGCTGCCACGGCCCGACAAATGTCCCTGTGAGGTCTATCATCTCATG
AAGAACTGCTGGGAGACAGAGGCGTCCTTTCGCCCAACCTTCGAGAACCTCATACCCATTCTGAAGACAGTCCAT
GAGAAGTACCAAGGCCAGGCCCCTTCAGTGTTCAGCGTGTGC**TGA**GGCACAATGGCAGCCCTGCCTGGGAGGACT
GGACCAGGCAGTGGCTGCAGAGGGAGCCTCCTGCTCCCTGCTCCAGGATGAAACCAAGAGGGGGATGTCAGCCTC
ACCCACACCGTGTGCCTTACTCCTGTCTAGAGACCCCACCTCTGTGAACTTATTTTTCTTTCTTGGCCGTGAGCC
TAACCATGATCTTGAGGGACCCAACATTTGTAGGGGCACTAATCCAGCCCTTAAATCCCCCAGCTTCCAAACTTG
AGGCCCACCATCTCCACCATCTGGTAATAAACTCATGTTTTCTCTGCTGG

FIGURE 335

CGCTCCTAGTCTCCACTGCTGCCGCCGTCGCCGCCACCCGAGCCGGAGCGGGCTGGGCCGCCAAGGCAAGATGGT
GGACTACAGCGTGTGGGACCACATTGAGGTGTCTGATGATGAAGACGAGACGCACCCCAACATCGACACGGCCAG
TCTCTTCCGCTGGCGGCATCAGGCCCGGGTGGAACGCATGGAGCAGTTCCAGAAGGAGAAGGAGGAACTGGACAG
GGGCTGCCGCGAGTGCAAGCGCAAGGTGGCCGAGTGCCAGAGGAAACTGAAGGAGCTGGAGGTGGCCGAGGGCGG
CAAGGCAGAGCTGGAGCGCCTGCAGGCCGAGGCACAGCAGCTGCGCAAGGAGGAGCGGAGCTGGGAGCAGAAGCT
GGAGGAGATGCGCAAGAAGGAGAAGAGCATGCCCTGGAACGTGGACACGCTCAGCAAAGACGGCTTCAGCAAGAG
CATGGTAAATACCAAGCCCGAGAAGACGGAGGAGGACTCAGAGGAGGTGAGGGAGCAGAAACACAAGACCTTCGT
GGAAAAATACGAGAAACAGATCAAGCACTTTGGTGAGTGGGGCTTGTGGGTTATGGGGGGCAAGGTCGAGGCAGG
CCCTTTGCCTCCAGGGCCCTCCAGCACCTTGCCAGCATCTTCCCACAGGC**ATG**CTTCGCCGCTGGGATGACAGCC
AAAAGTACCTGTCAGACAACGTCCACCTGGTGTGCGAGGAGACAGCCAATTACCTGGTCATTTGGTGCATTGACC
TAGAGGTGGAGGAGAAATGTGCACTCATGGAGCAGGTGGCCCACCAGACAATCGTCATGCAATTTATCCTGGAGC
TGGCCAAGAGCCTAAAGGTGGACCCCCGGGCCTGCTTCCGGCAGTTCTTCACTAAGATTAAGACAGCCGATCGCC
AGTACATGGAGGGCTTCAACGACGAGCTGGAAGCCTTCAAGGAGCGTGTGCGGGGCCGTGCCAAGCTGCGCATCG
AGAAGGCCATGAAGGAGTACGAGGAGGAGGAGCGCAAGAAGCGGCTCGGCCCCGGCGGCCTGGACCCCGTCGAGG
TCTACGAGTCCCTCCCTGAGGAACTCCAGAAGTGCTTCGATGTGAAGGACGTGCAGATGCTGCAGGACGCCATCA
GCAAGATGGACCCCACCGACGCAAAGTACCACATGCAGCGCTGCATTGACTCTGGCCTCTGGGTCCCCAACTCTA
AGGCCAGCGAGGCCAAGGAGGGAGAGGAGGCAGGTCCTGGGGACCCATTACTGGAAGCTGTTCCCAAGACGGGCG
ATGAGAAGGATGTCAGTGTG**TGA**CCTGCCCCAGCTACCACCGCCACCTGCTTCCAGGCCCCTATGTGCCCCTTTT
CAGAAAACAGATAGATGCCATCTCGCCCGCTCCTGACTTCCTCTACTTGCGCTGCTCGGCCCAGCCTGGGGGGCC
CGCCCAGCCCTCCCTGGCCTCTCCACTGTCTCCACTCTCCAGCGCCCATTCAAGTCTCTGCTTTGAGTCAAGGGG
CTTCACTGCCTGCAGCCCCCCATCAGCATTATGCCAAAGGCCCGGGGGTCCGGGGAAGGGCAGAGGTCACCAGGC
TGGTCTACCAGGTAGTTGGGGAGGGTCCCCAGCCAAGGGGCCGGCTCTCGTCACTGGGCTCTGTTTTCACTGTTC
GTCTGCTGTCTGTGTCTTCTATTTGGCAAACAGCAATGATCTTCCAATAAAAGATTTCAGATGCTCTCTGGGCTG
CTGGGAGGGCCGTTCA

FIGURE 336A

CGGCCGGGCGCACCCGCGGGGCCCTGGGCTCGCTGGCTTGCGCGCAGCTGAGCGGGGTGTAGGTTGGAAGGGCCA
GGGCCCCCTGGGGCGCAAGTGGGGGCCGGCGCC**ATG**GAACCCCCGACCGTCCCCTCGGAAAGGAGCCTGTCTCTG
TCACTGCCCGGGCCCCGGGAGGGCCAGGCCACCCTGAAGCCTCCCCCGCAGCACCTGTGGCGGCAGCCTCGGACC
CCCATCCGTATCCAGCAGCGCGGCTACTCCGACAGCGCGGAGCGCGCCGAGCGGGAGCGGCAGCCGCACCGGCCC
ATAGAGCGCGCCGATGCCATGGACACCAGCGACCGGCCCGGCCTGCGCACGACCCGCATGTCCTGGCCCTCGTCC
TTCCATGGCACTGGCACCGGCAGCGGCGGCGCGGGCGGAGGCAGCAGCAGGCGCTTCGAGGCAGAGAATGGGCCG
ACACCATCTCCTGGCCGCAGCCCCCTGGACTCGCAGGCGAGCCCAGGACTCGTGCTGCACGCCGGGGCGGCCACC
AGCCAGCGCCGGGAGTCCTTCCTGTACCGCTCAGACAGCGACTATGACATGTCACCCAAGACCATGTCCCGGAAC
TCATCGGTCACCAGCGAGGCGCACGCTGAAGACCTCATCGTAACACCATTTGCTCAGGTGCTGGCCAGCCTCCGG
AGCGTCCGTAGCAACTTCTCACTCCTGACCAATGTGCCCGTTCCCAGTAACAAGCGGTCCCCGCTGGGCGGCCCC
ACCCCTGTCTGCAAGGCCACGCTGTCAGAAGAAACGTGTCAGCAGTTGGCCCGGGAGACTCTGGAGGAGCTGGAC
TGGTGTCTGGAGCAGCTGGAGACCATGCAGACCTATCGCTCTGTCAGCGAGATGGCCTCGCACAAGTTCAAAAGG
ATGTTGAACCGTGAGCTCACACACCTGTCAGAAATGAGCAGGTCCGGAAACCAGGTCTCAGAGTACATTTCCACA
ACATTCCTGGACAAACAGAATGAAGTGGAGATCCCATCACCCACGATGAAGGAACGAGAAAAACAGCAAGCGCCG
CGACCAAGACCCTCCCAGCCGCCCCCGCCCCCTGTACCACACTTACAGCCCATGTCCCAAATCACAGGGTTGAAA
AAGTTGATGCATAGTAACAGCCTGAACAACTCTAACATTCCCCGATTTGGGGTGAAGACCGATCAAGAAGAGCTC
CTGGCCCAAGAACTGGAGAACCTGAACAAGTGGGGCCTGAACATCTTTTGCGTGTCGGATTACGCTGGAGGCCGC
TCACTCACCTGCATCATGTACATGATATTCCAGGAGCGGGACCTGCTGAAGAAATTCCGCATCCCTGTGGACACG
ATGGTGACATACATGCTGACGCTGGAGGATCACTACCACGCTGACGTGGCCTACCATAACAGCCTGCACGCAGCT
GACGTGCTGCAGTCCACCCACGTACTGCTGGCCACGCCTGCACTAGATGCAGTGTTCACGGACCTGGAGATTCTC
GCCGCCCTCTTCGCGGCTGCCATCCACGATGTGGATCACCCTGGGGTCTCCAACCAGTTCCTCATCAACACCAAT
TCGGAGCTGGCGCTCATGTACAACGATGAGTCGGTGCTCGAGAATCACCACCTGGCCGTGGGCTTCAAGCTGCTG
CAGGAGGACAACTGCGACATCTTCCAGAACCTCAGCAAGCGCCAGCGGCAGAGCCTACGCAAGATGGTCATCGAC
ATGGTGCTGGCCACGGACATGTCCAAGCACATGACCCTCCTGGCTGACCTGAAGACCATGGTGGAGACCAAGAAA
GTGACCAGCTCAGGGGTCCTCCTGCTAGATAACTACTCCGACCGCATCCAGGTCCTCCGGAACATGGTGCACTGT
GCCGACCTCAGCAACCCCACCAAGCCGCTGGAGCTGTACCGCCAGTGGACAGACCGCATCATGGCCGAGTTCTTC
CAGCAGGGTGACCGAGAGCGCGAGCGTGGCATGGAAATCAGCCCCATGTGTGACAAGCACACTGCCTCCGTGGAG
AAGTCTCAGGTGGGTTTTATTGACTACATTGTGCACCCATTGTGGGAGACCTGGGCGGACCTTGTCCACCCAGAT
GCCCAGGAGATCTTGGACACTTTGGAGGACAACCGGGACTGGTACTACAGCGCCATCCGGCAGAGCCCATCTCCG
CCACCCGAGGAGGAGTCAAGGGGGCCAGGCCACCCACCCCTGCCTGACAAGTTCCAGTTTGAGCTGACGCTGGAG
GAGGAAGAGGAGGAAGAAATATCAATGGCCCAGATACCGTGCACAGCCCAAGAGGCATTGACTGCGCAGGGATTG
TCAGGAGTCGAGGAAGCTCTGGATGCAACCATAGCCTGGGAGGCATCCCCGGCCCAGGAGTCGTTGGAAGTTATG
GCACAGGAAGCATCCCTGGAGGCCGAGCTGGAGGCAGTGTATTTGACACAGCAGGCACAGTCCACAGGCAGTGCA
CCTGTGGCTCCGGATGAGTTCTCGTCCCGGGAGGAATTCGTGGTTGCTGTAAGCCACAGCAGCCCCTCTGCCCTG
GCTCTTCAAAGCCCCCTTCTCCCTGCTTGGAGGACCCTGTCTGTTTCAGAGCATGCCCCGGGCCTCCCGGGCCTC
CCCTCCACGGCGGCCGAGGTGGAGGCCCAACGAGAGCACCAGGCTGCCAAGAGGGCTTGCAGTGCCTGCGCAGGG
ACATTTGGGGAGGACACATCCGCACTCCCAGCTCCTGGTGGCGGGGGGTCAGGTGGAGACCCTACC**TGA**TCCCCA
GACCTCTGTCCCTGTTCCCCTCCACTCCTCCCCTCACTCCCCTGCTCCCCCGACCACCTCCTCCTCTGCCTCAAA
GACTCTTGTCCTCTTGTCCCTCCTGAGAAAAAAGAAAACGAAAAGTGGGGTTTTTTTCTGTTTTCTTTTTTTCCC
CTTTCCCCCTGCCCCCACCCACGGGGCCTTTTTTTGGAGGTGGGGGCTGGGGAATGAGGGGCTGAGGTCCCGGAA
GGGATTTTATTTTTTTGAATTTTAATTGTAACATTTTTAGAAAAAGAACAAAAAAAGAAAAAAAAAAGAAAGAAA
CACAGCAACTGTAGATGCTCCTGTTCCTGGTTCCCGCTTTCCACTTCCAAATCCCTCCCCTCACCTTCCCCCACT
GCCCCCCAAGTTCCAGGCTCAGTCTTCCAGCCGCCTGGGGAGTCTCTACCTGGGCCCAAGCAGGTGTGGGGCCTC
CTTCTGGGCTTTTCTTCTGAATTTAGAGGATTTCTAGAACGTGGTCAGGAATAGCCATTCTAGGCGGGGCTGGGG
CCAGGGTGGGGGGCAGTCACTGTGGGAGGTCCCAGCTCCAGCCCCCCTCTGGTTTGCTGCCTCCTCTCCCCTCTA
AAAAAGTCTTCCGCTTGATTTTGCACAATCCCGGCGATACTCCTGGCGATACTGACTAGAAAGTCAGGGAGCTGG
GGGAGCTGTTCACTTTAGGATACGGGGGTGGTATGGAAGGGAGCGTTCACACCGCCAGCCTCGGGCCTGGGATTT
GAGGAGGGCCCTAGACCTCCTCCACTCTCCATCCCCTTTCCCTTCCACTTTGGGTTCACTTTGAATTTTCTCCGT

FIGURE 336B

TTTTTGGGGCAGTGGCTCTGATCCACTCACCCCCCCGCCCC

FIGURE 337

CGCGCAGCGATGGAGGCGCCGGGGCTCGGGCGGTGGAGGCGGAGCCGGAGCGCGGCCATGGCGGGGTCCCTGAGT
GCCAGAGGTGGTGGTGTTGCTTATCTTCTGGAACCCC**ATG**CAGCCAGATCCCAGGCCTAGCGGGGCTGGGGCCTG
CTGCCGATTCCTGCCCCTGCAGTCACAGTGCCCTGAGGGGGCAGGGGACGCGGTGATGTACGCCTCCACTGAGTG
CAAGGCGGAGGTGACGCCCTCCCAGCATGGCAACCGCACCTTCAGCTACACCCTGGAGGATCATACCAAGCAGGC
CTTTGGCATCATGAACGAGCTGCGGCTCAGCCAGCAGCTGTGTGACGTCACACTGCAGGTCAAGTACCAGGATGC
ACCGGCCGCCCAGTTCATGGCCCACAAGGTGGTGCTGGCCTCATCCAGCCCTGTCTTCAAGGCCATGTTCACCAA
CGGGCTGCGGGAGCAGGGCATGGAGGTGGTGTCCATTGAGGGTATCCACCCCAAGGTCATGGAGCGCCTCATTGA
ATTCGCCTACACGGCCTCCATCTCCATGGGCGAGAAGTGTGTCCTCCACGTCATGAACGGTGCTGTCATGTACCA
GATCGACAGCGTTGTCCGTGCCTGCAGTGACTTCCTGGTGCAGCAGCTGGACCCCAGCAATGCCATCGGCATCGC
CAACTTCGCTGAGCAGATTGGCTGTGTGGAGTTGCACCAGCGTGCCCGGGAGTACATCTACATGCATTTTGGGGA
GGTGGCCAAGCAAGAGGAGTTCTTCAACCTGTCCCACTGCCAACTGGTGACCCTCATCAGCCGGGACGACCTGAA
CGTGCGCTGCGAGTCCGAGGTCTTCCACGCCTGCATCAACTGGGTCAAGTACGACTGCGAACAGCGACGGTTCTA
CGTCCAGGCGCTGCTGCGGGCCGTGCGCTGCCACTCGTTGACGCCGAACTTCCTGCAGATGCAGCTGCAGAAGTG
CGAGATCCTGCAGTCCGACTCCCGCTGCAAGGACTACCTGGTCAAGATCTTCGAGGAGCTCACCCTGCACAAGCC
CACGCAGGTGATGCCCTGCCGGGCGCCCAAGGTGGGCCGCCTGATCTACACCGCGGGCGGCTACTTCCGACAGTC
GCTCAGCTACCTGGAGGCTTACAACCCCAGTGACGGCACCTGGCTCCGGTTGGCGGACCTGCAGGTGCCGCGGAG
CGGCCTGGCCGGCTGCGTGGTGGGCGGGCTGTTGTACGCCGTGGGCGGCAGGAACAACTCGCCCGACGGCAACAC
CGACTCCAGCGCCCTGGACTGTTACAACCCCATGACCAATCAGTGGTCGCCCTGCGCCCCCATGAGCGTGCCCCG
TAACCGCATCGGGGTGGGGGTCATCGATGGCCACATCTATGCCGTCGGCGGCTCCCACGGCTGCATCCACCACAA
CAGTGTGGAGAGGTATGAGCCAGAGCGGGATGAGTGGCACTTGGTGGCCCCAATGCTGACACGAAGGATCGGGGT
GGGCGTGGCTGTCCTCAATCGTCTCCTTTATGCCGTGGGGGGCTTTGACGGGACAAACCGCCTTAATTCAGCTGA
GTGTTACTACCCAGAGAGGAACGAGTGGCGAATGATCACAGCAATGAACACCATCCGAAGCGGGGCAGGCGTCTG
CGTCCTGCACAACTGTATCTATGCTGCTGGGGGCTATGATGGTCAGGACCAGCTGAACAGCGTGGAGCGCTACGA
TGTGGAAACAGAGACGTGGACTTTCGTAGCCCCCATGAAGCACCGGCGAAGTGCCCTGGGGATCACTGTCCACCA
GGGGAGAATCTACGTCCTTGGAGGCTATGATGGTCACACGTTCCTGGACAGTGTGGAGTGTTACGACCCAGATAC
AGACACCTGGAGCGAGGTGACCCGAATGACATCGGGCCGGAGTGGGGTGGGCGTGGCTGTCACCATGGAGCCCTG
CCGGAAGCAGATTGACCAGCAGAACTGTACCTGT**TGA**GGCACTTTTGTTTCTTGGGCAAAAATACAGTCCAATGG
GGAGTATCATTGTTTTTGTACAAAAACCGGGACTAAAAGAAAAGACAGCACTGCAAATAACCCATCTTCCGGGAA
GGGAGGCCAGGATGCCTCAGTGTTAAAATGACATCTCAAAAGAAGTCCAAAGCGGGAATCATGTGCCCCTCAGCG
GAGCCCCGGGAGTGTCCAAGACAGCCTGGCTGGGAAAGGGGGTGTGGAAAGAGCAGGCTTCCAGGAGAGAGGCCC
CCAAACCCTCTGGCCGGGTAATAGGCCTGGGTCCCACTCACCCATGCCGGCAGCTGTCACCATGTGATTTATTCT
TGGATACCTGGGAGGGGGCCAATGGGGGCCTCAGGGGGAGGCCCCCTCTGGAAATGTGGTTCCCAGGGATGGGCC
TGTACATAGAAGCCACCGGATGGCACTTCCCCACCGGATGGACAGTTATTTTGTTGATAAGTAACCCTGTAATTT
TCCAAGGAAAATAAAGAACAGACTAACTAGTGTCTTTC

FIGURE 338

AAGGGCCTGAAGGGGCTGTCGCGCTCCTGGCGGTGTGATAAGGAGGGCGGGGGGAGGCCGCGGGAAGGCGTCGGG
GTTTGAGGTCCCCGCCTGGCGACCCGGGATCGGGGCAGGAAAGGCGGCTGGGCGGGGAGAGGGCGGGGCGGGGCG
TCTGGCTTGGCCACGCCCACCGTCATCCGGGGTCCTGGCCCGCTAAGATGGCGATGGCTGCGGTAGCAGCGGCGG
CGGCTGTTGCCTGGCCCGGTACCCTGGGGACGGGGGCCGAGTAGCGCCTTCCCCGGGCCCCGTGAACCGGCTGCG
GGTCGCCCTTGGGGGGCAGCGGCCGCAGCCCCCCACCTGGGCCCTCGGTCCGCCCTCCCGGCGCGTCCATGAACT
CAGTGTCGCCGGCCGCCGCGCAGTACCGGAGCAGCAGCCCGGAGGACGCGCGCCGCCGGCCCGAGGCCCGCAGGC
CGCGGGGTCCCAGAGGCCCAGACCCCAACGGCCTGGGGCCTTCCGGAGCCAGCGGCCCCGCTCTTGGCTCTCCCG
GGGCTGGCCCGAGTGAGCCGGACGAAGTGGACAAGTTCAAGGCCAAGTTCCTGACAGCCTGGAACAACGTCAAGT
ACGGTTGGGTGGTTAAAAGCCGGACCAGCTTTAGCAAGATCTCCAGCATCCACCTCTGTGGCCGCCGCTACCGTT
TCGAGGGCGAGGGTGACATACAGCGTTTCCAGCGGGACTTTGTGTCCCGCCTGTGGCTCACATACCGCCGGGACT
TCCCGCCCCTTCCTGGGGGCTGCCTGACCTCGGACTGTGGCTGGGGGTGCATGTTACGCAGCGGCCAGATGATGC
TGGCACAGGGCCTTCTGCTGCATTTCCTGCCCAGAGACTGGACATGGGCCGAGGGCATGGGCCTGGGCCCCCCTG
AGCTGTCAGGGTCAGCCTCTCCCAGCCGGTACCATGGGCCTGCCCGCTGGATGCCCCCACGCTGGGCCCAGGGTG
CCCCTGAGCTGGAGCAGGAACGCCGGCACCGGCAGATTGTGTCCTGGTTCGCCGACCACCCCCGGGCCCCCTTTG
GCCTACACCGGCTGGTGGAGCTTGGGCAGAGCTCAGGCAAGAAGGCAGGTGACTGGTATGGGCCATCGCTAGTGG
CACACATCCTCAGGAAAGCCGTGGAGAGCTGCTCCGACGTCACCCGCCTGGTGGTGTACGTTTCTCAGGACTGCA
CAGTGTACAAGGCGGATGTGGCACGCCTGGTGGCCAGGCCAGACCCCACAGCCGAGTGGAAGTCTGTGGTCATCC
TGGTGCCCGTGCGACTGGGTGGCGAGACTCTCAACCCCGTGTATGTGCCCTGCGTGAAGGAACTCCTGCGTTGCG
AGCTGTGCCTGGGCATC**ATG**GGTGGGAAACCGCGACACTCACTGTACTTCATTGGCTACCAAGATGACTTCCTGC
TGTACCTGGACCCTCACTACTGCCAGCCCACTGTGGATGTCAGCCAGGCCGACTTCCCCCTGGAGTCCTTCCACT
GCACCTCGCCCCGCAAGATGGCCTTTGCCAAGATGGACCCAAGCTGTACCGTGGGCTTCTATGCTGGAGACAGGA
AGGAGTTTGAGACACTCTGCTCAGAGCTGACCAGGGTCCTCAGCTCCTCCTCAGCCACAGAGCGGTACCCCATGT
TCACCCTGGCCGAGGGCCATGCTCAGGACCACAGCCTGGACGACCTCTGCTCCCAGCTCGCCCAGCCCACACTCC
GGCTCCCTCGCACAGGGCGGCTCCTCAGGGCCAAACGCCCCAGCTCTGAGGACTTTGTGTTTTTA**TAA**AGGGAGG
GGATGAGGGGAAAGATACAACACTATTTATTTTTTTATTTATGTCATGTCGGGTGTGGGATCTTGAGCTCTGGCA
GTGATGATGGTACTTCCTGTTGTCAGCCCCTCAAGCCCAGCTGCAACCAGTCTGGGGCCATTCAGCCAGGGACAG
AGCCCACAGAGCCCATACACCTGTCTCCCACCAGCGGGGCCCTCCTGGCAGGGTAGGGAAGGAGGACCCCGGGCA
CCCCCCTCAGGGCCTGACTCACGTACTGTAGTTTGCACTGGACGCCCGGGCCCTCCCTGTCCCAAAGCCCCCTTG
GGGGAACTGTGGCTGCTGGGGGCCAATAAAGCTGTGTAACTTG

FIGURE 339

TTTTACAAAACGCTCTCCTTGTTGAAGAAGAAGGACCCCCGCATTTATCAGAAAGATGCCACCTTCTATAACAGA
ACAGCATCGTCATCAGACAGTGAGGAGGACCCAGAAGCCTTGGAGAAGCAGAAGAAAGTGCGGCCC**ATG**TACCTG
AAGGACTACGAGAGGAAGGTTATCTTGGAGAAGGCAGGCAAATATGTTGATGAGGAGAACTCAGACGGGGAGACT
TCCAATCACAGACTCCAGGAGACATCGTCGCAAAGTTATGTGGAGGAACAGAAACAGCTCAAGGAAAGCTTCCGG
GCATTTGTGGAGGACAGTGAGGACGAGGACGGCGCTGGGGAGGGCGGCTCCAGTTTGCTGCAGAAACGTGCCAAA
ACCAGGCAGGAGAAGGCCCAGGAGGAGGCCGACTACATCGAGTGGCTGAAGGGACAGAAAGAGATTCGGAACCCA
GATTCCCTGAAGGAACTGACGCATCTCAAGGAATACTGGAACGACCCTGAGTTGGATGAAGGGGAGCGGTTCCTG
CGGGATTACATCCTCAACAAACGCTATGAGGAGGAGGAAGAGGAGGAGGAAGATGAAGAGGAAATGGAGGAAGAG
GAGGGGGTCCACGGTCCCCCAGTCCAGCTGGCTGTGGACGACTCCTCAGACGAAGGGGAGCTGTTTCTGAAGAAA
CAGGAGGACTTTGAACAGAAGTACAATTTCCGTTTCGAGGAGCCGGACTCAGCATCGGTCAAGACCTACCCACGC
AGCATCGCGTCCTCCGTGCGCCGTAAGGATGAGCGCAGAAAGGAGAAGAGGGAAGAGACTCGGGAGCGAAAGAAG
AGGGAGAAAGCAAAGAAGCAGGAAGAGCTCAAGCAGCTGAAGAACCTGAAGAGGAAGGAGATTCTGGCCAAGCTG
GAGAAGCTGCGGAAAGTAACAGGCAACGAGATGCTGGGCCTCGAGGAGGGGGACCTTGAAGACGACTTCGACCCT
GCCCAGCACGACCAGCTCATGCAGAAGTGCTTTGGGGACGAGTACTACGGGGCCGTGGAGGAGGAGAAGCCACAA
TTTGAGGAAGAAGAAGGGCTTGAAGACGACTGGAACTGGGACACGTGGGACGGGCCTGAGCAGGAGGGAGACTGG
AGCCAGCAGGAGCTGCACTGTGAGGACCCCAACTTCAACATGGACGCCGACTACGACCCCAGCCAGCCGAGGAAG
AAAAAGCGCGAGGCCCCCTTGACGGGCAAGAAGAAGCGCAAGTCGCCCTTCGCCGCGGCCGTGGGGCAGGAGAAG
CCCGTGTTTGAACCCGGGGACAAGACGTTCGAGGAGTACCTGGATGAGTATTACCGGCTGGACTACGAGGACATC
ATCGACGACCTGCCCTGTCGCTTCAAGTACCGCACAGTGGTGCCCTGTGACTTTGGCCTCAGCACTGAGGAGATC
CTCGCTGCTGACGATAAGGAGCTGAACCGGTGGTGCTCCCTAAAGAAGACCTGCATGTACAGGTCAGAGCAGGAG
GAGCTGCGGGACAAGCGGGCGTACAGCCAGAAGGCCCAGAACTCATGGAAAAAGCGGCAGGTCTTCAAGTCACTC
TGCCGAGAAGAGGCAGAGACACCTGCGGAAGCCACAGGGAAGCCACAGAGAGATGAAGCCGGCCCACAGAGGCAG
CTGCCAGCCCTTGATGGCAGCTTGATGGGGCCGGAGAGTCCCCCAGCACAGGAAGAGGAAGCCCCTGTATCACCC
CACAAGAAGCCAGCCCCCCAGAAGCGGAGGAGGGCCAAGAAGGCACGGCTGCTGGGCCCCACTGTGATGCTTGGT
GGATGCGAGTTCAGCCGCCAGAGACTGCAGGCCTTTGGCCTCAACCCCAAACGGCTGCACTTCCGCCAGCTGGGC
CGGCAGCGGAGGAAACAACAGGGGCCCAAGAACAGCTCC**TGA**GCACCAGGGAGCAGGCAGGGGCCTCAGGCTCCT
CTCCTCAAATCAAGCCCTGGACAGGTCTCGCACCCACAAGTACTATCTGCTGCAGAGATCCTCTCATCTGTGGCC
AGGCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGAAAGGATCACTTGAGCCCAGGAATTGGAGACCAGC
GTGGGCAACTTAGCGAGACTCCATCTCTACAAAATGTGGTGACACATGCCTGTAGTCCCAGCTACTCAGGAGGCT
GGGGAAGGAAGATCACTTAAGGCCATGAGTTTGAGGCTACAGAGAGCTATGATTGCACCACTGCACTCCAGCCTG
GGCAACAAAGCAAGACCCTGTCTCTTG

FIGURE 340

GGAGGGAGGGTGAGTTAGGGGGAGACCCGGCCCCCAAGGGGCGGGCGCCGGGCAGGGCCCCGCGGGCGGCCGAGG
GTTGGGCCCGGCTCCCAGCCCCTCGCCGTCCTCCGGCTGACAGGGGGAGGAGCCCGCCGGGAGGGCCGGGGTCTC
GGGCTGGGGAGCCGGGACGGGAGAGCAGCGCAGCCGGGTGCACCGCGGCCGCGCCCCGGGAGGGCTGTTCGGGCC
AGCGCCCGCCGGCTGCTCCGCGCTGACAGCGCCGGGCTGGGGCGGGGCGGGGGGCTTTGCAGGCCGCCAGTGTCG
AC**ATG**CTGCTGGAGGAGGTTCGCGCCGGCGACCGGCTGAGTGGGGCGGCGGCCCGGGGCGACGTGCAGGAGGTGC
GCCGCCTTCTGCACCGGGAGCTGGTGCATCCCGACGCCCTCAACCGCTTCGGCAAGACGGCGCTGCAGGTCATGA
TGTTTGGCAGCACCGCCATCGCCCTGGAGCTGCTGAAGCAAGGTGCCAGCCCCAATGTCCAGGACACCTCCGGTA
CCAGTCCAGTCCATGACGCAGCCCGCACTGGATTCCTGGACACCCTGAAGGTCCTAGTGGAGCACGGGGCTGATG
TCAACGTGCCTGATGGCACCGGGGCACTTCCAATCCATCTGGCAGTTCAAGAGGGTCACACTGCTGTGGTCAGCT
TTCTGGCAGCTGAATCTGATCTCCATCGCAGGGACGCCAGGGGTCTCACACCCTTGGAGCTGGCACTGCAGAGAG
GGGCTCAGGACCTCGTGGACATCCTGCAGGGCCACATGGTGGCCCCGCTG**TGA**TCTGGGGTCACCCTCTCCAGCA
AGAGAACCCCGTGGGGTTATGTATCAGAAGAGAGGGGAAGAAACACTTTCTCTTCTTGTTTCTCCTGCCCACTGC
TGCAGTAGGGGAGGAGCACAGTTTGTGGCTTATAGGTGTTGGTTTTGGGGGTGTGAGTGTTTGGGGGACGTTTCT
CATTTGTTTTTCTCACTCCTTTTGGTGTGTTGGACAGAGAAGGGCTCCTGCAGGCCACAGCCACCTAAACGGTTC
AGTTTCTTCTGCGCCTCAGGCTGCTGGGGCCTCAGACGAGACCCAAGGGCAGAGCATTTAAGAGTGAAGTCATGA
CCTCCAGGGAGCCTAGAAGCTGGTGGCCTTGGCCGGCTGTGCTCAGAGACCTGAAGTGTGCACGTTGCTTCAGGC
ATGGGGGGTGGGGGGAGCGTCCCAAATCAATAAGAAGGTAGAATGAGTTATGAGTTATTCATATTCTGTTGGAAG
CTTGTTTTCCAGTCTCTTGTACAGCGTTTTAAAAGAAATGGATTCTATTTATTATGCTTTATTGGAAAAAATGTT
GTAATAATTTAATGTTTTTACCCATTAAATTAAGACTTGTGCATGATC

FIGURE 341

GGCGCTTCCGCAGGAAGAAGGAAGCGGCGCCGCCATCGCCTCCCGGCGCTCCCTCCCCGACTCCTAAGTCCTTCG
GCCGCCACC**ATG**TCCGCCTCGGCTGTCTTCATTCTGGACGTTAAGGGCAAGCCATTGATCAGCCGCAACTACAAG
GGCGATGTGGCCATGAGCAAGATTGAGCACTTCATGCCTTTGCTGGTACAGCGGGAGGAGGAAGGCGCCCTGGCC
CCGCTGCTGAGCCACGGCCAGGTCCACTTCCTATGGATCAAACACAGCAACCTCTACTTGGTGGCCACCACATCG
AAGAATGCCAATGCCTCCCTGGTGTACTCCTTCCTGTATAAGACAATAGAGGTATTCTGCGAATACTTCAAGGAG
CTGGAGGAGGAGAGCATCCGGGACAACTTTGTCATCGTCTACGAGTTGCTGGACGAGCTCATGGACTTTGGCTTC
CCGCAGACCACCGACAGCAAGATCCTGCAGGAGTACATCACTCAGCAGAGCAACAAGCTGGAGACGGGCAAGTCA
CGGGTGCCACCCACTGTCACCAACGCTGTGTCCTGGCGCTCCGAGGGTATCAAGTATAAGAAGAACGAGGTCTTC
ATTGATGTCATAGAGTCTGTCAACCTGCTGGTCAATGCCAACGGCAGCGTCCTTCTGAGCGAAATCGTCGGTACC
ATCAAGCTCAAGGTGTTTCTGTCAGGAATGCCAGAGCTGCGGCTGGGCCTCAATGACCGCGTGCTCTTCGAGCTC
ACTGGCCGCAGCAAGAACAAATCAGTAGAGCTGGAGGATGTAAAATTCCACCAGTGCGTGCGGCTCTCTCGCTTT
GACAACGACCGCACCATCTCCTTCATCCCGCCTGATGGTGACTTTGAGCTCATGTCATACCGCCTCAGCACCCAG
GTCAAGCCACTGATCTGGATTGAGTCTGTCATTGAGAAGTTCTCCCACAGCCGCGTGGAGATCATGGTCAAGGCC
AAGGGGCAGTTTAAGAAACAGTCAGTGGCCAACGGTGTGGAGATATCTGTGCCTGTACCCAGCGATGCCGACTCC
CCCAGATTCAAGACCAGTGTGGGCAGCGCCAAGTATGTGCCGGAGAGAAACGTCGTGATTTGGAGTATTAAGTCT
TTCCCGGGGGGCAAGGAGTACTTGATGCGAGCCCACTTTGGCCTCCCCAGTGTGGAAAAGGAAGAGGTGGAGGGC
CGGCCCCCCATCGGGGTCAAGTTTGAGATCCCCTACTTCACCGTCTCTGGGATCCAGGTCCGATACATGAAGATC
ATTGAGAAAAGTGGTTACCAGGCCCTGCCCTGGGTTCGCTACATCACCCAGAGTGGCGATTACCAACTTCGTACC
AGC**TAG**AAGGGAGAAGAGATGGGGGCTTGAACACGGGGCTTCCTTACAGCCCCGGATGCAGATTTTAGAGGGAGG
GCAGGTGCGGGCTGTGTGTGTCTGTGTGAGGGCAGGTCCTGGACTTGGCAGTTTCTTGCTCCCAGCACCCGCCCC
TTCCTCACCTCTTCCTTATTCCATAGGCTGGGAGAGAAACTCTCTCTGCTTCCCTCGCCCTTGGAGCTTTCCCCA
TCCCCCTGATTTTATATGAAGAAATAGAAGAGGGGCTTGAAGTCCTCCTCGCGAGTGCCTTCTTGCAATTACCTG
CCTTAGCGGGTGTTGCGGGTCCCTCCTTCACAGCCGCTGAGCCCAGAGGTCCCGCTGGCCCCTCCTCTGAATTTT
AGGATGTCATTAAAAAGATGAATCTA

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FIGURE 342

ATGGGGGACGAGCGGCCCCACTACTACGGGAAACACGGAACGCCACAGAAGTATGATCCCACTTTCAAAGGACCC
ATTTACAATAGGGGCTGCACGGATATCATATGCTGTGTGTTCCTGCTCCTGGCCATTGTGGGCTACGTGGCTGTA
GGCATCATAGCCTGGACTCATGGAGACCCTCGAAAGGTGATCTACCCCACTGACAGCCGGGGCGAGTTCTGCGGG
CAGAAGGGCACAAAAAACGAGAACAAACCCTATCTGTTTTATTTCAACATTGTGAAATGTGCCAGCCCCCTGGTT
CTGCTGGAATTCCAATGTCCCACTCCCCAGATCTGCGTGGAAAAATGCCCCGACCGCTACCTCACGTACCTGAAT
GCTCGCAGCTCCCGGGACTTTGAGTACTATAAGCAGTTCTGTGTTCCTGGCTTCAAGAACAATAAAGGAGTGGCT
GAGGTGCTTCAAGATGGTGACTGCCCTGCTGTCCTCATCCCCAGCAAACCCTTGGCCCGGAGATGCTTCCCCGCT
ATCCACGCCTACAAGGGTGTCCTGATGGTGGGCAATGAGACGACCTATGAGGATGGGCATGGCTCCCGGAAAAAC
ATCACAGACCTGGTGGAGGGCGCCAAGAAAGCCAATGGAGTCCTAGAGGCGCGGCAACTCGCCATGCGCATATTT
GAAGATTACACCGTCTCTTGGTACTGGATTATCATAGGCCTGGTCATTGCCATGGCGATGAGCCTCCTGTTCATC
ATCCTGCTTCGCTTCCTGGCTGGTATTATGGTCTGGGTGATGATCATCATGGTGATTCTGGTGCTGGGCTACGGA
ATATTTCACTGCTACATGGAGTACTCCCGACTGCGTGGTGAGGCCGGCTCTGATGTCTCTTTGGTGGACCTCGGC
TTTCAGACGGATTTCCGGGTGTACCTGCACTTACGGCAGACCTGGTTGGCCTTTATGATCATTCTGAGTATCCTT
GAAGTCATTATCATCTTGCTGCTCATCTTTCTCCGGAAGAGAATTCTCATCGCGATTGCACTCATCAAAGAAGCC
AGCAGGGCTGTGGGATACGTCATGTGCTCCTTGCTCTACCCACTGGTCACCTTCTTCTTGCTGTGCCTCTGCATC
GCCTACTGGGCCAGCACTGCTGTCTTCCTGTCCACTTCCAACGAAGCGGTCTATAAGATCTTTGATGACAGCCCC
TGCCCATTTACTGCGAAAACCTGCAACCCAGAGACCTTCCCCTCCTCCAATGAGTCCCGCCAATGCCCCAATGCC
CGTTGCCAGTTCGCCTTCTACGGTGGTGAGTCGGGCTACCACCGGGCCCTGCTGGGCCTGCAGATCTTCAATGCC
TTCATGTTCTTCTGGTTGGCCAACTTCGTGCTGGCGCTGGGCCAGGTCACGCTGGCCGGGGCCTTTGCCTCCTAC
TACTGGGCCCTGCGCAAGCCGGACGACCTGCCGGCCTTCCCGCTCTTCTCTGCCTTTGGCCGGGCGCTCAGGTAC
CACACAGGCTCCCTGGCCTTTGGCGCGCTCATCCTGGCCATTGTGCAGATCATCCGTGTGATACTCGAGTACCTG
GATCAGCGGCTGAAAGCTGCAGAGAACAAGTTTGCCAAGTGCCTCATGACCTGTCTCAAATGCTGCTTCTGGTGC
CTGGAGAAGTTCATCAAATTCCTTAATAGGAATGCCTACATCATGATTGCCATCTACGGCACCAATTTCTGCACC
TCGGCCAGGAATGCCTTCTTCCTGCTCATGAGAAACATCATCAGAGTGGCTGTCCTGGATAAAGTTACTGACTTC
CTCTTCCTGTTGGGCAAACTTCTGATCGTTGGTAGTGTGGGGATCCTGGCTTTCTTCTTCTTCACCCACCGTATC
AGGATCGTGCAGGATACAGCACCACCCCTCAATTATTACTGGGTTCCTATACTGACGGTGATCGTTGGCTCCTAC
TTGATTGCACACGGTTTCTTCAGCGTCTATGGCATGTGTGTGGACACGCTGTTCCTCTGCTTCTTGGAGGACCTG
GAGAGGAATGACGGCTCGGCCGAGAGGCCTTACTTCATGTCTTCCACCCTCAAGAAACTCTTGAACAAGACCAAC
AAGAAGGCAGCGGAGTCC**TGA**

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FIGURE 343

GACCGGGGGCGAGCGGGCGGGCGGGCAGGCGCGCGCCGGGGAGGTGCGGGAACACGTGACCGGCTGAAGCCCCGC
CCCCTTTGACGCCGCGTTGCGCCTCGACGCAGGCCCAACCCAAATGGGAGGGAGGGGCGAAAAGAGATAAGGGGG
GGGCTGAGGGGGTGGGCGTGAGTTGCACGTGGTGCAAGCGGGAGTGTTTGCGTGCGTAGTCACGTGACTTCGGCA
CCTTTCCCTCCGCTTTCGATAGGTTGCTCCATCATGTGACAATGGCGAATTTCGCGGTTTCCTTCGCCATCTGAC
AACTTTTGGCGCCTTCCCTTTGCCGTACTGGGAGTCCTCCATCACGTGACGAGGGCACGCTCTGGTTTTCGCTAA
GGCGTTTTTTGAGCGGCCATTACCACGTGATGCAAGGCAAGCGTCAGAGGCGGAGCCTCCCTACGGCTGCGACAT
TTTGCGCCTGCGCGGCCGCCATCTTACGCCCGTCGCCCTGAGTACGTTAGCGGAAATGGCTCCGAGAGGCTTTGA
CGCATGTGTACCTTTTTAGTGGCGGTATCTCGGCCGGGGATTTTCGGGCTCCAGTGGAGGTGGCTATGCTCACCC
CATCTCCCTTGAGAGGCACAGAAGGTTAGAGATGTGTGCGAGGAACGGCCAGGTCCAGCGTCTCCTCGTTGCTGC
CCCTTGAGCCCGGGACCGGCGCCAATGCGCGCCCGGGTTCTTGGGTTCTTTCGTCCCGCAGACCTGCCTTGGTGT
GGCGTCCCTGGGCCGTAGCTTCCGAAGGCTGCAGCCGACCTGGTCGGGGTCCTCTAGCCCGCCTTCCCCTTCCCC
CATTGACAGATGGAGAAACTGAGGCCCAGGCCAAAAAATATCTCACTAGAGGGCTCACCGCCATTTCCTGGAAAA
ATTGGGGCTGGGACTCAACGGACGCTCGTCCAGCAGCAGCGCGGAGCTCCGAAGTAAAGGCGCCCGTGACCGAGT
GCTTTGTCCTTACAAGCGTGGTGTTCTTGAATGCTTCCAGGCGCCTTATGAGGCCCCCGATGTACAATCTGTGCT
TAACTAAACCCCACTGTCTTCCAGGGTCAGGTTGGCCATCCGCAGGCGTAGTTGCTAGGAAGGTTTGACAGATGT
CCGCCTGTTGATTCAGACGTTCCCAGGATTTGGAGCAAGAAGAGCAAGGAAGGCCAGGCGCGGTGGCTCACGTTT
GTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGTTCGAGACCAGCCTGGCCAGCATG
GTGAAACCCCGTCTCTACTAAAAATACAAAAGAAAATTAGCCGGGTGTGGTGGCACATGCCTGTAGTCCCACCTA
CTTGGGAGGCTGAGGCAGGAGAATTGTTTGACCTGGCAGGCGGAGGTTGCAGTGAGCCGAGATTGCGCCACTGCA
CTCCAGTCTGGGCGACAGAGCGAGACTCTGTCTCAGAAAAAAAAAAAGAGCAAGGAGGTGTTGAAAATGGGTTTCC
TGGCTGGGCGTGGTGGCTCACGCTTGTAATCCCAGCACTTTGGGAAGCTGAGGTGGGCGGATCACTTGAGGTCAG
GAGTTTGAGACCAGCCTGGCCAACATGGTGAAACACCGTCTCCACTAAAAATAGAAAAATTAACTGGGTGTGGTG
GAGGGCGCCTGTAATCCCAGCTAATCAGGAAGCTGAGACAGGAGGATCGCTTGAACCCAGGAGGCGGAGGTTGCA
GTGAGCCGAGATTGCTCCATTGCACTCCAGCCTGGGCGATAGAGTGAGACTCAGCCTCAAAAAAAAAAAAAAAAA
AAAATTCGCCAGGTGTGGTGGTGTGCGCCTATAATCCCAGCTACTCAGGAGGCAGAGGCACAAGAATGGCTTGAA
TCACTTGAACCTGGGAGGCAGAGGTTACAATGAGCCGAG**ATG**GCACCACTGCACTCCAGCCTGGGCGACAGAGCG
AGACTCCGACTTCCCATCTTAAAAAAAAAAAAAAAAAAAAAAAAAAGAAGTGTAAAGATGTGATTATGTGGCAGGGG
GTAAGGGTTAAAAAGAAAACAAGAACAAGTTTTCCTCTGCTTAGCCAGCTTACTTCAAGGACAGTTATAACACTG
AAAAGTCGAGGCCAAAGGAATGGGCTCCAGACAGCCTCCTCCGGAGCAAAGTTGAAAAGAAAAATTCCTTTACTG
TCTCTCCTTTTC**TGA**ACCATTAAATATGACTGTTTGCCAATGGTTGTATTTAGTAAGATTTGTAGACTCTGTTTT
TCTTTTGACACAGCTGCAAGGCCAACAGCTGTGCAAAGCCACAAGTTATGCTAAGTCAGCAGTTATGCTATAGAT
TACATGACCTGTGACTGTATCATTAACTGCTTTTGTTTTGCTTCTGTAAGTTTGCCTATAAAAACCACACTCAGT
CTTTGTTCAATGGTCAGCTTTTCAGATACAAATCCACTGAGCCGGTGTACATCTAAATAAATCCTCCTGTTTCCC
GT

FIGURE 344

GCGTCCA**ATG**CGAATTTTTGTGAATGATGACCGCCATGTGATGGCAAAGCATTCTTCCGTTTATCCAACACAAGA
GGAGCTGGAGGCAGTCCAGAACATGGTGTCCCACACGGAGCGGGCGCTCAAAGCTGTGTCCGACTGGATAGACGA
GCAGGAAAAGGGTAGCAGCGAGCAGGCAGAGTCCGATAACATGGATGTGCCCCCAGAGGACGACAGTAAAGAAGG
GGCTGGGGAACAGAAGACGGAGCACATGACCAGAACCCTGCGGGGAGTGATGCGGGTGGGCCTGGTGGCAAAGGG
CCTCCTACTCAAGGGGGACTTGGATCTGGAGCTGGTGCTGCTGTGTAAGGAGAAGCCCACAACCGCCCTCCTGGA
CAAGGTGGCCGACAACCTGGCCATCCAGCTTGCTGCTGTAACAGAAGACAAGTACGAAATACTGCAATCTGTCGA
CGATGCTGCGATTGTGATAAAAAACACAAAAGAGCCTCCATTGTCCCTGACCATCCACCTGACATCCCCTGTTGT
CAGAGAAGAAATGGAGAAAGTATTAGCTGGAGAAACGCTATCAGTCAACGACCCCCCGGACGTTCTGGACAGGCA
GAAATGCCTTGCTGCCTTGGCGTCCCTCCGACACGCCAAGTGGTTCCAGGCCAGAGCCAACGGGCTGAAGTCTTG
TGTCATTGTGATCCGGGTCTTGAGGGACCTGTGCACTCGCGTGCCCACCTGGGGTCCCCTCCGAGGCTGGCCTCT
CGAGCTCCTGTGTGAGAAATCCATTGGCACGGCCAACAGACCGATGGGTGCTGGCGAGGCCCTGCGGAGAGTGCT
GGAGTGCCTGGCGTCGGGCATCGTGATGCCAGATGGTTCTGGCATTTATGACCCTTGTGAAAAAGAAGCCACTGA
TGCTATTGGGCATCTAGACAGACAGCAACGGGAAGATATCACACAGAGTGCGCAGCACGCACTGCGGCTCGCTGC
CTTCGGCCAGCTCCATAAAGTCCTAGGCATGGACCCTCTGCCTTCCAAGATGCCCAAGAAACCAAAGAATGAAAA
CCCAGTGGACTACACCGTTCAGATCCCACCAAGCACCACCTATGCCATTACGCCCATGAAACGCCCAATGGAGGA
GGACGGGGAGGAGAAGTCGCCCAGCAAAAAGAAGAAGAAGATTCAGAAGAAAGAGGAGAAGGCAGAGCCCCCCCA
GGCTATGAATGCCCTGATGCGGTTGAACCAGCTGAAGCCAGGGCTGCAGTACAAGCTGGTGTCCCAGACTGGGCC
CGTCCATGCCCCCATCTTTACCATGTCTGTGGAGGTTGATGGCAATTCATTCGAGGCCTCTGGGCCCTCCAAAAA
GACGGCCAAGCTGCACGTGGCCGTTAAGGTGTTACAGGACATGGGCTTGCCGACGGGTGCTGAAGGCAGGGACTC
GAGCAAGGGGGAGGACTCGGCTGAGGAGACCGAGGCGAAGCCAGCAGTGGTGGCCCCTGCCCCAGTGGTAGAAGC
TGTCTCCACCCCTAGTGCGGCCTTTCCCTCAGATGCCACTGCCGAGCAGGGGCCGATCCTGACAAAGCACGGCAA
GAACCCAGTCATGGAGCTGAACGAGAAGAGGCGTGGGCTCAAGTACGAGCTCATCTCCGAGACCGGGGGCAGCCA
CGACAAGCGCTTCGTCATGGAGGTCGAAGTGGATGGACAGAAGTTCCAAGGTGCTGGTTCCAACAAAAAGGTGGC
GAAGGCCTACGCTGCTCTTGCTGCCCTAGAAAAGCTTTTCCCTGACACCCCTCTCGCCCTTGATGCCAACAAAAA
GAAGAGAGCCCCAGTACCCGTCAGAGGGGGACCGAAATTTGCTGCTAAGCCACATAACCCTGGCTTCGGCATGGG
AGGCCCCATGCACAACGAAGTGCCCCCACCCCCCAACCTTCGAGGGCGGGGAAGAGGCGGGAGCATCCGGGGACG
AGGGCGCGGGCGAGGATTTGGTGGCGCCAACCATGGAGGCTACATGAATGCCGGTGCTGGGTATGGAAGCTATGG
GTACGGAGGCAACTCGGCGACAGCAGGCTACAGTCAGTTCTACAGCAACGGAGGGCATTCTGGGAATGCCAGTGG
CGGTGGCGGCGGGGGCGGTGGTGGCTCCTCCGGCTATGGCTCCTACTACCAAGGTGACAACTACAACTCACCGGT
GCCCCCAAAACACGCTGGGAAGAAGCAGCCGCACGGGGGCCAGCAGAAGCCCTCCTACGGCTCGGGCTACCAGTC
CCACCAGGGCCAGCAGCAGTCCTACAACCAGAGCCCCTACAGCAACTATGGCCCTCCACAGGGCAAGCAGAAAGG
CTATAACCATGGACAAGGCAGCTACTCCTACTCGAACTCCTACAACTCTCCCGGGGGCGGGGGCGGATCCGACTA
CAACTACGAGAGCAAATTCAACTACAGTGGTAGTGGAGGCCGAAGCGGCGGGAACAGCTACGGCTCAGGCGGGGC
ATCCTACAACCCAGGGTCACACGGGGGCTACGGCGGAGGTTCTGGGGGCGGCTCCTCATACCAAGGCAAACAAGG
AGGCTACTCACAGTCGAACTACAACTCCCCGGGGTCCGGCCAGAACTACAGTGGCCCTCCCAGCTCCTACCAGTC
CTCACAAGGCGGCTATGGCAGAAACGCAGACCACAGCATGAACTACCAGTACAGA**TAA**GCCCCCGCGGGGCGGAG
ATTTCTACCTTCTGCACTTACTCCCCATCAGAAGATCGAGTTTTATGCATCACAGTTAACATGTCAGCTGGCCCT
CCAGGCCCCCGCCCCCATCCCGTCCACGTTGCTGTGTCGTGAGGTGCAGCGGGTCACCCTGTGGCCCGTCCTGTG
ACCCATATTTAGCCGTGTTTGGGACTCCGTGTCTTCAATGGTTTGTTAGTTGCCATTACAACTTTGTCTGGGTAG
AGTTTTTGAGTTTTTGCAGTTCAGTATCCCTCTGTCTATTCACACTTCGTGTTAGTGGTAACTCAGTTTGTCTTT
AAATAGTTACAGAAGGGATACGTCATTTGTTAATGCTTTTGTGAAGTGAGTTAAACGAGCTTTCTGTATTTTAAT
GCTTTAGTGTTTCAGTTTTATAAGTGAAGATTTTATTTTAAAAACCAGTGGGAAAGAGTGGGGGGTTTCTTTTTA
TGTCTGGGTCATTCAGGCAGTACATCTGAATTAAGCTGAATGTAGACAAATAAAGAAAAACAAAACT

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FIGURE 345

GTTAGAGCAGAGGAGGTCCCAGATACCAAGTGGCGCCTCCCAGGAAAGGCTGGGAGAAGAGGTGGCCTGGAGTAC
CCCGAGATCCCAGCAGCGCACACAGTGGAGGGATGAGGATGGATGGGTCCTAACCCCTGATTTTGATGGG**ATG**TG
TTCATGTCCTATCTCCTCTCCTGGACACATTAAGGGGTTGGGACAAGAAGAGACTCCTGTGAGATCAGCAGACCT
CGTGTTTAAGGAGAGAATGCCTGCCTGCAACACTCATGGAGAGGGACACTTCCTGGCCCCACCTGCTAAATACCT
CCAAACTCTGGGCAGGCGCCTGCATTCTCAACACAGGACTTCCCTTAACAGTTTCCGGATCAGTGACCACCACCA
CGTTCAGGTTTCTGAATGCAGACCCACCACGAGGGATGGATTCCACCCGCCCGCCCTGCTGCAGATACATGCGGC
ACAGCAGGCACGTGCCTGGAGAGAACAGCTCCTGAGCACAGCACCCTTGGAGCCCTCACCCCGCTCACGATCCTC
ACCAGTGCTGATGATGCCGTCATGCTGCTGGCCTGAGACAGTATCCCAGCTACAACAGGACGACACCGGGTTCAG
GAATATGTGGCTATCACCT**TGA**GCACTGACAGTGGCCTTCCAGGCTAGTTGCCTTCCAAACGCAGGTAGCCGACC
TGCAGGAGGGCCTACAAACGGGCCCAGCAAGAGCTGGGCAACAGCTGGCTTGTGAAATGAGACACCTTGACCAAT
ATGCTTTGGGTGGACGGTCTCCTACATGTTCAGTGGAGGCCACCAGGAGCATCCATGAGCGGGGAAGGGGTCCAC
ACCCTTACATGGCAAGTTGATACGATGGGGTGCTTGGTGGATGGGCCATGGAGGTCCGTGAGCTGGAACTGGGCA
CACGCCATCCCAGAGGGCTCAGGATGCCCCAGGAAGGAAAGAAGGGCAACAGACTACACGATTGGACGTGTGTGG
TTGACTGGGATGAAGTTGGAGGGAGGGGCAGGGCCTTGCAGGGGATTGGTACTGATCCCAGGGAGGAAGTGTTGG
GGCTTCATGAACTAGGATGAAAGGAGGCCCCTGAGCCATGACAAGGGGCACATCCAGGATTTCCGCCACCCTGAA
TTTAGTAGAGCTAGTAGGCCCTGGTCGTCACTCTGGGCAGGGATGCCGTCAGCCTTGAGGGTCGCCACCCACCTG
TGTGTTGCCCTCTGTCCTGGCAGGGAAACATACACCCCTTGTCTCACCACCAACCTTGCTTGTGTAGTCAGCAGG
GCTGGCCCTGCCCCAAGGACTCACTGCATGTACCCGGACCCCTAGGCCTGGCCTTTGCAGCATAGTTGGGAGCTT
CTGGATTCCATCTGCACCTGTGAGCCCCATGCTGGCTGTGCACTGCGCGGGCCTGAGACTGCTGGATACAATGTT
GGGCAACAACTCAGCCAGCCTGATGGCAGCCTCAGAGGCTTACTCTAACCCATCCCAGAATAAATGGAGACTTCA
TGTGTT

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FIGURE 346

GTCAAG**ATG**GCGGGAGCAGCTACCCAGGCTTCCCTGGAGTCGGCCCCACGGATCATGCGGCTGGTGGCCGAATGC
AGCCGCTCCAGGGCCCGGGCAGGCGAGCTGTGGCTGCCGCATGGGACAGTGGCCACTCCTGTGTTCATGCCAGTG
GGCACGCAGGCCACCATGAAGGGCATCACGACCGAACAGCTGGACGCTCTGGGTTGCCGCATCTGCCTGGGCAAT
ACCTACCATCTGGGTCTAAGGCCGGGACCCGAGCTGATCCAGAAAGCCAACGGTCTCCACGGCTTCATGAATTGG
CCTCATAATCTGCTAACGGACAGCGGCGGTTTCCAGATGGTGTCGCTGGTGTCTCTGTCCGAGGTGACGGAGGAG
GGCGTCCGCTTCCGCTCCCCCTACGACGGCAATGAGACCCTGCTGAGCCCGGAGAAATCCGTGCAGATCCAGAAT
GCGCTGGGCTCGGACATCATCATGCAGCTGGACGACGTGGTTAGCAGTACTGTGACTGGGCCACGTGTGGAGGAG
GCCATGTACAGGTCAATCCGCTGGCTGGACCGGTGCATTGCAGCCCATCAGCGGCCGGACAAGCAGAACCTCTTC
GCCATTATCCAGGGTGGGCTGGACGCAGATCTCCGGGCCACCTGCCTTGAAGAGATGACCAAGCGAGACGTGCCT
GGCTTCGCCATCGGGGGCCTGAGCGGGGGTGAGAGCAAGTCGCAGTTCTGGCGGATGGTGGCGCTGAGCACCTCT
CGGCTGCCGAAGGACAAGCCCCGATATCTGATGGGGGTTGGCTATGCCACTGATCTGGTAGTCTGCGTGGCTCTT
GGATGTGACATGTTCGACTGCGTCTTCCCCACACGGACAGCGCGCTTTGGCTCTGCCCTGGTGCCCACTGGGAAC
CTGCAGTTGAGGAAGAAGGTGTTTGAGAAGGACTTCGGCCCCATAGACCCGGAGTGCACCTGCCCCACGTGCCAA
AAGCACAGCCGCGCCTTCCTGCACGCACTGCTGCACAGTGACAACACGGCCGCGCTGCACCACCTCACGGTCCAC
AACATCGCCTACCAGCTGCAGCTCATGAGCGCCGTCCGCACCAGCATCGTGGAGAAGCGCTTCCCGGACTTCGTG
CGGGACTTCATGGGCGCCATGTACGGGGATCCCACCCTCTGTCCCACCTGGGCCACTGACGCTCTGGCCTCTGTG
GGAATCACACTGGGC**TGA**CCTGGCATTGGGAGAGGGAGGGAGGAAGGAAGGGAGGGAGGGGCTGGAAGATACTGA
AGGATTCCTTTTTGAAAGGTTTTTTTTATTGTAACTT

FIGURE 347A

GACCGTGAGGCCGAGCCGGGAGCGGGCGTCTTGCCGAGGCCCGGGCGGGCGGGGAGCAACGGCTACAGACGCCGC
GGGGCCAGGTCGTTGAGGGTCGGCGGCGGGCGAGGAGCGCAGGGCGCTCGGGCCGGGGGCCGCCGGCGCCATGGG
CAACCGCGGGATGGAAGAGCTGATCCCGCTGGTCAACAAACTGCAGGACGCCTTCAGCTCCATCGGCCAGAGCTG
CCACCTGGACCTGCCGCAGATCGCTGTAGTGGGCGGCCAGAGCGCCGGCAAGAGCTCGGTGCTGGAGAACTTCGT
GGGCCGGGACTTCCTTCCCCGCGGTTCAGGAATCGTCACCCGGCGGCCTCTCATTCTGCAGCTCATCTTCTCAAA
AACAGAACATGCCGAGTTTTTGCACTGCAAGTCCAAAAAGTTTACAGACTTTGATGAAGTCCGGCAGGAGATTGA
AGCAGAGACCGACAGGGTCACGGGGACCAACAAAGGCATCTCCCCAGTGCCCATCAACCTTCGAGTCTACTCGCC
ACACGTGTTGAACTTGACCCTCATCGACCTCCCGGGTATCACCAAGGTGCCTGTGGGCGACCAGCCTCCAGACAT
CGAGTACCAGATCAAGGACATGATCCTGCAGTTCATCAGCCGGGAGAGCAGCCTCATTCTGGCTGTCACGCCCGC
CAACATGGACCTGGCCAACTCCGACGCCCTCAAGCTGGCCAAGGAAGTCGATCCCCAAGGCCTACGGACCATCGG
TGTCATCACCAAGCTTGACCTGATGGACGAGGGCACCGACGCCAGGGACGTCTTGGAGAACAAGTTGCTCCCGTT
GAGAAGAGGCTACATTGGCGTGGTGAACCGCAGCCAGAAGGATATTGAGGGCAAGAAGGACATCCGTGCAGCACT
GGCAGCTGAGAGGAAGTTCTTCCTCTCCCACCCGGCCTACCGGCACATGGCCGACCGCATGGGCACGCCACATCT
GCAGAAGACGCTGAATCAGCAACTGACCAACCACATCCGGGAGTCGCTGCCGGCCCTACGTAGCAAACTACAGAG
CCAGCTGCTGTCCCTGGAGAAGGAGGTGGAGGAGTACAAGAACTTTCGGCCCGACGACCCCACCCGCAAAACCAA
AGCCCTGCTGCAGATGGTCCAGCAGTTTGGGGTGGATTTTGAGAAGAGGATCGAGGGCTCAGGAGATCAGGTGGA
CACTCTGGAGCTCTCCGGGGGCGCCCGAATCAATCGCATCTTCCACGAGCGGTTCCCATTTGAGCTGGTGAAGAT
GGAGTTTGACGAGAAGGACTTACGACGGGAGATCAGCTATGCCATTAAGAACATCCATGGAGTCAGGACCGGGCT
TTTCACCCCGGACTTGGCATTCGAGGCCATTGTGAAAAAGCAGGTCGTCAAGCTGAAAGAGCCCTGTCTGAAATG
TGTCGACCTGGTTATCCAGGAGCTAATCAATACAGTTAGGCAGTGTACCAGTAAGCTCAGTTCCTACCCCCGGTT
GCGAGAGGAGACAGAGCGAATCGTCACCACTTACATCCGGGAACGGGAGGGGAGAACGAAGGACCAGATTCTTCT
GCTGATCGACATTGAGCAGTCCTACATCAACACGAACCATGAGGACTTCATCGGGTTTGCCAATGCCCAGCAGAG
GAGCACGCAGCTGAACAAGAAGAGAGCCATCCCCAATCAGGGGGAGATCCTGGTGATCCGCAGGGGCTGGCTGAC
CATCAACAACATCAGCCTGATGAAAGGCGGCTCCAAGGAGTACTGGTTTGTGCTGACTGCCGAGTCACTGTCCTG
GTACAAGGATGAGGAGGAGAAAGAGAAGAAGTACATGCTGCCTCTGGACAACCTCAAGATCCGTGATGTGGAGAA
GGGCTTCATGTCCAACAAGCACGTCTTCGCCATCTTCAACACGGAGCAGAGAAACGTCTACAAGGACCTGCGGCA
GATCGAGCTGGCCTGTGACTCCCAGGAAGACGTGGACAGCTGGAAGGCCTCGTTCCTCCGAGCTGGCGTCTACCC
CGAGAAGGACCAGGCAGAAAACGAGGATGGGGCCCAGGAGAACACCTTCTCCATGGACCCCCAACTGGAGCGGCA
GGTGGAGACCATTCGCAACCTGGTGGACTCATACGTGGCCATCATCAACAAGTCCATCCGCGACCTCATGCCAAA
GACCATCATGCACCTCATGATCAACAATACGAAGGCCTTCATCCACCACGAGCTGCTGGCCTACCTATACTCCTC
GGCAGACCAGAGCAGCCTCATGGAGGAGTCGGCTGACCAGGCACAGCGGCGGGACGACATGCTGCGCATGTACCA
TGCCCTCAAGGAGGCGCTCAACATCATCGGTGACATCAGCACCAGCACTGTGTCCACGCCTGTACCCCCGCCTGT
CGATGACACCTGGCTCCAGAGCGCCAGCAGCCACAGCCCCACTCCACAGCGCCGACCGGTGTCCAGCATACACCC
CCCTGGCCGGCCCCCAGCAGTGAGGGGCCCCACTCCAGGGCCCCCCCTGATTCCTGTTCCCGTGGGGGCAGCAGC
CTCCTTCTCGGCGCCCCCAATCCCATCCCGGCCTGGACCCCAGAGCGTGTTTGCCAACAGTGACCTCTTCCCAGC
CCCGCCTCAGATCCCATCTCGGCCAGTTCGGATCCCCCCAGGGATTCCCCCAGGAGTGCCCAGCAGAAGACCCCC
TGCTGCGCCCAGCCGGCCCACCATTATCCGCCCAGCCGAGCCATCCCTGCTCGACTAGGCCTCGAGGGGGGCGTG
CTCTCGGGGGGGCCTCACGCACCCGCGGCGCAGGAGCTTCAGTGGTCTGGGGCCCTCCGCCGCCCCTATGCTGGG
ACCAGGCTCCCAGTGGGCAGCCCTGGCCTCTTCCTTAACGCTGGCCCCGGTCCAGGGCCGGCCCCTGTGCCTGGC
TGGACACCGCACTGCGCAAAGGGGCCCTGGAGCTCCAGGCAGGGGGCGCTGGGGTGTTGCACTTTGGGGGATGGA
GTCTCAGGGTGGCAGAGGGGGGACCAGAACCCTTGACACCATCCTGAATGAGGGGTCCAGCCTGGGGGGGACTCT
ACCAAGGTCTTCTTGGGCTGGGAAAGCCCATGTAGGGCAGGCCTTCTATAAGTGCGGGCACCAAGGGCGCCTACA
TCCCCAGGCCTTGCTGGGGTGCAGGGGTATATCAACTTCCCATTAGCAGGAGCTCCCCAGCGGCAAGCCTGGCCC
AGTGGGCTCGGTAGTGCCCAGCTGGCAGGCCTGAGGTGTACATAGTCCTTCCCGGCCATATTAACCACACAGCCT
GAGCCTGGCCCAGCCTCGGCTGCCAGAGGTGCCTTTGCTAGGCCCGGAGCCGTTGGCCCGGGCCGGCCTTGCCCT
ATTCCTCTCCTCCTCCTCCTCCTGGGTCCCCCAGGGTGGCTGGGCTTGGGCTATGTGGGTGGTGGTGGCGGGGGG
TCTTGGGGGCCTCTCAGCTCCCGCCCATGCCTCCCTGATGGGTGGGCCCAGGGCGGCCTCTCTCTGAGGAGACCT
CACCCACTCCTCGCTCAGTTTGACCACTGTAAGTGCCTGCACTCTGTATTCTATTAATAAACTAAAATAAAGGGA

FIGURE 347B

AGACGCTGCTGGTG

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FIGURE 348

CTGCCAATGAGCTCCGCCGAGTAGCACCGGGGCAGGGCTAGCGCTTAAAGGAGCCGCGACCCCTTTGCAGACCAG
AGGGTGACCCGG**ATG**ATGGCGGCCGGCGCGGCCCTAGCCCTGGCCTTGTGGCTACTAATGCCACCAGTGGAGGTG
GGAGGGGCGGGGCCCCCGCCAATCCAGGACGGTGAGTTCACGTTCCTGTTGCCGGCGGGGAGGAAGCAGTGTTTC
TACCAGTCCGCGCCGGCCAACGCAAGCCTCGAGACCGAATACCAGGTGATCGGAGGTGCTGGACTGGACGTGGAC
TTCACGCTGGAGAGCCCTCAGGGCGTGCTGTTGGTCAGCGAGTCCCGCAAGGCTGATGGGGTACACACGGTGGAG
CCAACGGAGGCCGGGGACTACAAGCTGTGCTTTGACAACTCCTTCAGCACCATCTCCGAGAAGCTGGTGTTCTTT
GAACTGATCTTTGACAGCCTCCAGGATGACGAGGAGGTCGAAGGATGGGCAGAGGCTGTGGAGCCCGAGGAGATG
CTGGATGTTAAAATGGAGGACATCAAGGAGTCCATTGAGACCATGCGGACCCGGCTGGAGCGCAGCATCCAGATG
CTCACGCTACTGCGGGCCTTCGAGGCACGTGACCGCAACCTGCAAGAGGGCAACTTGGAGCGGGTCAACTTCTGG
TCAGCTGTCAACGTGGCGGTGCTGCTGCTGGTGGCTGTGCTGCAGGTCTGCACGCTCAAGCGCTTCTTCCAGGAC
AAGCGCCCGGTGCCCACG**TAG**CCCCTGCCATGGAAGGAAGAACGGGACAAAGGAGGGGCAGCAGGGTGTGTGCAT
ATGAGACTTGGGGGTCCCTCCCCAATTTTAGTTTCCTGCCAAAACGGGAGTGTGCAGTCAGGGCCTGCGGTCTGG
CCCCATGAGTCTCCTTCCGTCCTCAGCGGGCAGGGAACACCTCTGGCTTGTAGAAGGGACGGCTCAGTGGCTGCA
CCGACGGTCCTGGAAATCTCACATGGTGGGCACTGCAGCGTTGGAACGTGAGCCTCGGATTTCCTGGCCCCTCTA
CTGTAAATGTGCCTTAGCCTAAGCCTCCCATCCTGTGTTAGCGTTGCCTGGTGCGGGGCAGGGCCTAACAAGGAA
ACCTGGGCCCTCCAAGCCAGGTTGAGGTCTGGTAACAGAATGCCAGGAAGGGGGCCTGGAAGACCACCTGCCCCG
GCCCCTCTCCTGCAGGGGCCCCACACAGGCATGAGGGATGGCCCGGCCAAAGTCTAGGCAGAAGCCTCCTATAAC
AAAGGGTGGTGTGGCCTGGGCATTGGAG

FIGURE 349

CGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCAGCGGCGGCGGCCTGGGCCCGGGCGC
AGCGGCGGCGGCGGCGGGGCCTGGAGCCGGATCTAAG**ATG**GCAGCGGCGGCGGCGGCGGTGGGGCCGGGCGCGGG
CGGCGCGGGGTCGGCGGTCCCGGGCGGCGCGGGGCCCTGCGCTACCGTGTCGGTGTTCCCCGGCGCCCGCCTCCT
CACCATCGGCGACGCGAACGGCGAGATCCAGCGGCACGCGGAGCAGCAGGCGCTGCGCCTCGAGGTGCGCGCCGG
CCCGGACTCGGCGGGCATCGCCCTCTACAGCCATGAAGATGTGTGTGTCTTTAAGTGCTCAGTGTCCCGAGAGAC
AGAGTGCAGCCGTGTGGGCAAGCAGTCCTTCATCATCACCCTGGGCTGCAACAGCGTCCTCATCCAGTTCGCCAC
ACCCAACGATTTCTGTTCCTTCTACAACATCCTGAAAACCTGCCGGGGCCACACCCTGGAGCGGTCTGTGTTCAG
CGAGCGGACGGAGGAGTCTTCTGCCGTGCAGTACTTCCAGTTTTATGGCTACCTGTCCCAGCAGCAGAACATGAT
GCAGGACTACGTGCGGACAGGCACCTACCAGCGCGCCATCCTGCAAAACCACACCGACTTCAAGGACAAGATCGT
TCTTGATGTTGGCTGTGGCTCTGGGATCCTGTCGTTTTTTGCCGCCCAAGCTGGAGCACGGAAAATCTACGCGGT
GGAGGCCAGCACCATGGCCCAGCACGCTGAGGTCTTGGTGAAGAGTAACAACCTGACGGACCGCATCGTGGTCAT
CCCGGGCAAGGTGGAGGAGGTGTCACTCCCCGAGCAGGTGGACATCATCATCTCGGAGCCCATGGGCTACATGCT
CTTCAACGAGCGCATGCTGGAGAGCTACCTCCACGCCAAGAAGTACCTGAAGCCCAGCGGAAACATGTTTCCTAC
CATTGGTGACGTCCACCTTGCACCCTTCACGGATGAACAGCTCTACATGGAGCAGTTCACCAAGGCCAACTTCTG
GTACCAGCCATCTTTCCATGGAGTGGACCTGTCGGCCCTCCGAGGTGCCGCGGTGGATGAGTATTTCCGGCAGCC
TGTGGTGGACACATTTGACATCCGGATCCTGATGGCCAAGTCTGTCAAGTACACGGTGAACTTCTTAGAAGCCAA
AGAAGGAGATTTGCACAGGATAGAAATCCCATTCAAATTCCACATGCTGCATTCAGGGCTGGTCCACGGCCTGGC
TTTCTGGTTTGACGTTGCTTTCATCGGCTCCATAATGACCGTGTGGCTGTCCACAGCCCCGACAGAGCCCCTGAC
CCACTGGTACCAGGTGCGGTGCCTGTTCCAGTCACCACTGTTCGCCAAGGCAGGGGACACGCTCTCAGGGACATG
TCTGCTTATTGCCAACAAAAGACAGAGCTACGACATCAGTATTGTGGCCCAGGTGGACCAGACCGGCTCCAAGTC
CAGTAACCTCCTGGATCTGAAAAACCCCTTCTTTAGATACACGGGCACAACGCCCTCACCCCCACCCGGCTCCCA
CTACACATCTCCCTCGGAAAACATGTGGAACACGGGCAGCACCTACAACCTCAGCAGCGGGATGGCCGTGGCAGG
GATGCCGACCGCCTATGACTTGAGCAGTGTTATTGCCAGTGGCTCCAGCGTGGGCCACAACAACCTGATTCCTTT
AGCCAACACGGGGATTGTCAATCACACCCACTCCCGGATGGGCTCCATAATGAGCACGGGGATTGTCCAAGGGTC
CTCCGGCGCCCAGGGCAGTGGTGGTGGCAGCACGAGTGCCCACTATGCAGTCAACAGCCAGTTCACCATGGGCGG
CCCCGCCATCTCCATGGCGTCGCCCATGTCCATCCCGACCAACACCATGCACTACGGGAGC**TAG**GGGCCCGCCCC
GCGGACTGACAGCACCAGGAAACCAAATGATGTCCCTGCCCGCCGCCCCCGCCGGGCGGCTTTCCCCCTTGTACT
GGAGAAGCTCGAACACCCGGTCACAGCTCTCTTTGCTATGGGAACTGGGACACTTTTTTACACGATGTTGCCGCC
GTCCCCACCCTAACCCCCACCTCCCGGCCCTGAGCGTGTGTCGCTGCCATATTTTACACAAAATCATGTTGTGGG
AGCCCTCGTCCCCCCTCCTGCCCGCTCTACCCTGACCTGGGCTTGTCATCTGCTGGAACAGGCGCCATGGGGCCT
GCCAGCCCTGCCTGCCAGGTCCCTTAGCACCTGTCCCCCTGCCTGTCTCCAGTGGGAAGGTAGCCTGGCCAGGCG
GGGCCTCCCCTTCGACGACCAGGCCTCGGTCACAACGGACGTGACATGCTGCTTTTTTTAATTTTATTTTTTTAT
GAAAAGAACCAGTGTCAATCCGCAGACCCTCTGTGAAGCCAGGCCGGCCGGGCCGAGCCAGCAGCCCCTCTCCCT
AGACTCAGAGGCGCCGCGGGGAGGGGTGGCCCCGCCGAGGCTTCAGGGGCCCCCTCCCCACCAAAGGGTTCACCT
CACACTTGAATGTACAACCCACCCCACTGTCGGGAAGGCCTCCGTCCTCGGCCCCTGCCTCTTGCTGCTGTCCTG
TCCCCGAGCCCCTGCAGGTCCCCCCCCGCCCCCCCACTCAAGAGTTAGAGCAGGTGGCTGCAGGCCTTGGGCCCG
GAGGGAAGGCCACTGCCGGCCACTTGGGGCAGACACAGACACCTCAAGGATCTGTCACGGAAGGCGTCCTTTTTC
CTTGTAGCTAACGTTAGGCCTGAGTAGCTCCCCTCCATCCTTGTAGACGCTCCAGTCCCTACTACTGTGACGGCA
TTTCCATCCCTCCCCTGCCCGGGAAGGGACCTTGCAGGGACCTCTCCCTCCAAAAAAAGAAAAAAAGAAAAAGAA
AGAAAAAATAAATGAGGAAACGTGTTGCA

FIGURE 350

GGATGTTGCTGTCAGGTCTGAGTCGGTTGGAGTCTGACGGGTAGGCGAGACGCGCAGGCGCAGAGAGCCCCAGCC
ACGCCGGCCCAGGTGGCCTCAGCGAGGGATGCGGAGACGCCCCTGAACGACC**ATG**GCATCGGCCGACGAGCTGAC
CTTCCATGAATTCGAGGAGGCCACTAATCTTCTGGCTGACACCCCAGATGCAGCCACCACCAGCAGAAGCGATCA
GCTGACCCCACAAGGGCACGTGGCTGTGGCCGTGGGCTCAGGTGGCAGCTATGGAGCCGAGGATGAGGTGGAGGA
GGAGAGTGACAAGGCCGCGCTCCTGCAGGAGCAGCAGCAGCAGCAGCAGCCGGGATTCTGGACCTTCAGCTACTA
TCAGAGCTTCTTTGACGTGGACACCTCACAGGTCCTGGACCGGATCAAAGGCTCACTGCTGCCCCGGCCTGGCCA
CAACTTTGTGCGGCACCATCTGCGGAATCGGCCGGATCTGTATGGCCCCTTCTGGATCTGTGCCACGTTGGCCTT
TGTCCTGGCCGTCACTGGCAACCTGACGCTGGTGCTGGCCCAGAGGAGGGACCCCTCCATCCACTACAGCCCCCA
GTTCCACAAGGTGACCGTGGCAGGCATCAGCATCTACTGCTATGCGTGGCTGGTGCCCCTGGCCCTGTGGGGCTT
CCTGCGGTGGCGCAAGGGTGTCCAGGAGCGCATGGGGCCCTACACCTTCCTGGAGACTGTGTGCATCTACGGCTA
CTCCCTCTTTGTCTTCATCCCCATGGTGGTCCTGTGGCTCATCCCTGTGCCTTGGCTGCAGTGGCTCTTTGGGGC
GCTGGCCCTGGGCCTGTCAGCCGCCGGGCTGGTATTCACCCTCTGGCCCGTGGTCCGTGAGGACACCAGGCTGGT
GGCCACAGTGCTGCTGTCCGTGGTCGTGCTGCTCCACGCCCTCCTGGCCATGGGCTGTAAGTTGTACTTCTTCCA
GTCGCTGCCTCCGGAGAACGTGGCTCCTCCACCCCAAATCACATCTCTGCCCTCAAACATCGCGCTGTCCCCTAC
CTTGCCGCAGTCCCTGGCCCCCTCC**TAG**GAAGGCCCGGGTCCCACAGGCAACACCTAAGTGGACCAACCCCTCTG
CCTGTCCTGCCCCCCAGACGATGACTGAAGGCTCCTTTGACACCTTGAGATGATTCTGCTACTTTCCAGACTTTT
CTTACAAAGCAAACACTTTTATTTTCTATGCAAAGGTGATTCAGAGAATTTATATAAAGGCGGGCGAGGGGCAGC
CGAGCAGGGAGCTTTGGGACAGGGCTGGGGCCCCCATATCCCCCCCGGGCCACCTGCTTTCCCTCCTATGGCTCC
CCTGGAACAGGAGGGAGAGCCAAGGGGGCGGCCCAGCCTGGACAGCGCCCGCTCCTGCCTGGGTGCACACACGGC
GGGCCTGAGCTCCAGCATCTGAGTTTGGGGGTATGAGAAACAGGGGAGCAGAAGGAGAAGAAAACTGCCTGTGCT
GCAACACGTTTCCTCATTTATTTTTCTTTCTTTTTCTTTTTTTCTTTTTTTGGAGGGAGAGGTCCCTGCAAGGT
CCCTTCCCGGGCAGGGGAGGGATGGAAATGCCGTCACAGTAGTAGGGACTGGAGCGTCTACAAGGATGGAGGGGA
GCTACTCAGGCCTAACGTTAGCTACAAGGAAAAAGGACGCCTTCCGTGACAGATCCTTGAGGTGTCTGTGTCTGC
CCCAAGTGGCCGGCAGTGGCCTTCCCTCCGGGCCCAAGGCCTGCAGCCACCTGCTCTAACTCTTGAGTGGGGGGG
CGGGGGGGGACCTGCAGGGGCTCGGGGACAGGACAGCAGCAAGAGGCAGGGGCCGAGGACGGAGGCCTTCCCGAC
AGTGGGGTGGGTTGTACATTCAAGTGTGAGGTGAACCCTTTGGTGGGGAGGGGGCCCCTGAAGCCTCGGCGGGGC
CACCCCTCCCCGCGGCGCCTCTGAGTCTAGGGAGAGGGGCTGCTGGCTCGGCCCGGCCGGCCTGGCTTCACAGAG
GGTCTGCGGATTGACACTGGTTCTTTTCATAAAAAAATAAAATTAAAAAAAGCA

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FIGURE 351

GAAGAGACTCCCGGGCTCTTAACGTCGGGTATCAGGAGTTTCTTCCCGGAGCAAGGACCCCCAAGACGGAAGAGG
ATGGCCGCGGCGGCTCTGAGGAGATTTTGGTCCCGGCGCCGCGCAGAGGCGGGCGACGCGGTAGTGGCGAAGCCG
GGAGTGTGGGCGCGGCTGGGGTCCTGGGCCCGCGCGCTGCTCCGGGACTACGCCGAGGCCTGCAGGGACGCTTCG
GCGGAGGCTAGGGCCCGGCCGGGGCGCGCCGCTGTGTATGTGGGTCTGCTGGGCGGCGCGGCGGCCTGCTTCACG
CTGGCGCCCAGCGAGGGTGCCTTCGAGGAGGCGCTGCTGGAGGCGTCGGGGACCCTCCTGCTGCTGGCGCCGGCC
ACCCGCAACCGCGAGTCCGAAGCCTTCGTGCAGAGGCTGCTCTGGCTGCGGGGCCGTGGCCGCCTGCGCTACGTC
AACCTGGGGCTCTGCTCGCTGGTGTACGAGGCGCCCTTCGACGCCCAGGCCAGCCTCTACCAGGCGCGTTGCCGC
TACCTGCAGCCCCGCTGGACCGACTTCCCCGGCCGGGTCCTGGACGTGGGCTTCGTGGGTCGCTGGTGGGTGCTG
GGGGCCTGGATGCGCGACTGCGACATCAACGACGACGAATTCCTGCACCTGCCGGCGCATTTGCGGGTGGTCGGG
CCCCAGCAGCTGCATTCCGAGACCAACGAGCGGCTCTTCGATGAGAAGTACAAGCCTGTCGTGCTCACCGACGAT
CAGGTGGACCAGGCGCTGTGGGAGGAGCAGGTCTTGCAGAAGGAGAAGAAGGACAGGCTCGCCCTGAGCCAGGCC
CACTCGCTGGTGCAGGCGGAGGCCCCGAGA**TGA**AACCCTGAGGCCCCCGAGTCCTGGCAAACTGCTTGCCTGGGG
TGGTGCAGTTCTGAGTGTGCCTCACCTGCAGAACAGCTGAGACAGATGATGTGCAAAGTGTTTTCTCACTGGATT
TGCACAAGTTTGGGGAGCCTTTCTGCCCCCCGTCTTTGTTCTTTATTAGCTGAAGCTAATTCAGAGCCACCTGGG
TCCGGGAGTTGGGGACAGCAGAACGACTTGACACATGTTCATCACTGGCAGAGCTGGTCATGAGCCTTTTATATA
AGCCTTTTTCATCGGGCCTCAGAGGCCCTCCTTAAGGAGGTACCACATTGGTCAGCTGACTTGCAAACTCTTCTA
AGGCCACTTAGATTTTCTTTTTCAAGTTTGGGTTGTGGCCTGGCATGGTGATGTCTGTAATCCCAGCAGTTTGCA
AACTGAGGCAAGAGAATCGCTTGAGGCCAGGAGTTTGAGGCCAGCTAGAGTGACATAGCAAGACTCCGATGCTAC
AAAAAAGAATAATAATAGTAATTAACTAAATAAAATTTGAGCTG

FIGURE 352A

GCCGGCGAGCGCGCGCGCAGCGGGGGCGCGGGTGGCGCGCGTGTGTGTGAAGGGGGGGCGGTGGCCGAGGCGGGC
GGGCGCGCGCGCGAGGCTTCCCCTCGTTTGGCGGCGGCGGCGGCTTCTTTGTTTCGTGAAGAGAAGCGAGACGCC
CATTCTGCCCCCGGCCCCGCGCGGAGGGGCGGGGGAGGCGCCGGGAAGTCGACGGCGCCGGCGGCTCCTGCAGGA
GGCCACTGTCTGCAGCTCCCGTGAAG**ATG**TCCACTCCAGACCCACCCCTGGGCGGAACTCCTCGGCCAGGTCCTT
CCCCGGGCCCTGGCCCTTCCCCTGGAGCCATGCTGGGCCCTAGCCCGGGTCCCTCGCCGGGCTCCGCCCACAGCA
TGATGGGGCCCAGCCCAGGGCCGCCCTCAGCAGGACACCCCATCCCCACCCAGGGGCCTGGAGGGTACCCTCAGG
ACAACATGCACCAGATGCACAAGCCCATGGAGTCCATGCATGAGAAGGGCATGTCGGACGACCCGCGCTACAACC
AGATGAAAGGAATGGGGATGCGGTCAGGGGGCCATGCTGGGATGGGGCCCCCGCCCAGCCCCATGGACCAGCACT
CCCAAGGTTACCCCTCGCCCCTGGGTGGCTCTGAGCATGCCTCTAGTCCAGTTCCAGCCAGTGGCCCGTCTTCGG
GGCCCCAGATGTCTTCCGGGCCAGGAGGTGCCCCGCTGGATGGTGCTGACCCCCAGGCCTTGGGGCAGCAGAACC
GGGGCCCAACCCCATTTAACCAGAACCAGCTGCACCAGCTCAGAGCTCAGATCATGGCCTACAAGATGCTGGCCA
GGGGGCAGCCCCTCCCCGACCACCTGCAGATGGCGGTGCAGGGCAAGCGGCCGATGCCCGGGATGCAGCAGCAGA
TGCCAACGCTACCTCCACCCTCGGTGTCCGCAACAGGACCCGGCCCTGGCCCTGGCCCTGGCCCCGGCCCGGGTC
CCGGCCCGGCACCTCCAAATTACAGCAGGCCTCATGGTATGGGAGGGCCCAACATGCCTCCCCCAGGACCCTCGG
GCGTGCCCCCCGGGATGCCAGGCCAGCCTCCTGGAGGGCCTCCCAAGCCCTGGCCTGAAGGACCCATGGCGAATG
CTGCTGCCCCCACGAGCACCCCTCAGAAGCTGATTCCCCCGCAGCCAACGGGCCGCCCTTCCCCCGCGCCCCCTG
CCGTCCCACCCGCCGCCTCGCCCGTGATGCCACCGCAGACCCAGTCCCCCGGGCAGCCGGCCCAGCCCGCGCCCA
TGGTGCCACTGCACCAGAAGCAGAGCCGCATCACCCCCATCCAGAAGCCGCGGGGCCTCGACCCTGTGGAGATCC
TGCAGGAGCGCGAGTACAGGCTGCAGGCTCGCATCGCACACCGAATTCAGGAACTTGAAAACCTTCCCGGGTCCC
TGGCCGGGGATTTGCGAACCAAAGCGACCATTGAGCTCAAGGCCCTCAGGCTGCTGAACTTCCAGAGGCAGCTGC
GCCAGGAGGTGGTGGTGTGCATGCGGAGGGACACAGCGCTGGAGACAGCCCTCAATGCTAAGGCCTACAAGCGCA
GCAAGCGCCAGTCCCTGCGCGAGGCCCGCATCACTGAGAAGCTGGAGAAGCAGCAGAAGATCGAGCAGGAGCGCA
AGCGCCGGCAGAAGCACCAGGAATACCTCAATAGCATTCTCCAGCATGCCAAGGATTTCAAGGAATATCACAGAT
CCGTCACAGGCAAAATCCAGAAGCTGACCAAGGCAGTGGCCACGTACCATGCCAACACGGAGCGGGAGCAGAAGA
AAGAGAACGAGCGGATCGAGAAGGAGCGCATGCGGAGGCTCATGGCTGAAGATGAGGAGGGGTACCGCAAGCTCA
TCGACCAGAAGAAGGACAAGCGCCTGGCCTACCTCTTGCAGCAGACAGACGAGTACGTGGCTAACCTCACGGAGC
TGGTGCGGCAGCACAAGGCTGCCCAGGTCGCCAAGGAGAAAAAGAAGAAAAAGAAAAAGAAGAAGGCAGAAAATG
CAGAAGGACAGACGCCTGCCATTGGGCCGGATGGCGAGCCTCTGGACGAGACCAGCCAGATGAGCGACCTCCCGG
TGAAGGTGATCCACGTGGAGAGTGGGAAGATCCTCACAGGCACAGATGCCCCCAAAGCCGGGCAGCTGGAGGCCT
GGCTCGAGATGAACCCGGGGTATGAAGTAGCTCCGAGGTCTGATAGTGAAGAAAGTGGCTCAGAAGAAGAGGAAG
AGGAGGAGGAGGAAGAGCAGCCGCAGGCAGCACAGCCTCCCACCCTGCCCGTGGAGGAGAAGAAGAAGATTCCAG
ATCCAGACAGCGATGACGTCTCTGAGGTGGACGCGCGGCACATCATTGAGAATGCCAAGCAAGATGTCGATGATG
AATATGGCGTGTCCCAGGCCCTTGCACGTGGCCTGCAGTCCTACTATGCCGTGGCCCATGCTGTCACTGAGAGAG
TGGACAAGCAGTCAGCGCTTATGGTCAATGGTGTCCTCAAACAGTACCAGATCAAAGGTTTGGAGTGGCTGGTGT
CCCTGTACAACAACAACCTGAACGGCATCCTGGCCGACGAGATGGGCCTGGGGAAGACCATCCAGACCATCGCGC
TCATCACGTACCTCATGGAGCACAAACGCATCAATGGGCCCTTCCTCATCATCGTGCCTCTCTCAACGCTGTCCA
ACTGGGCGTACGAGTTTGACAAGTGGGCCCCCTCCGTGGTGAAGGTGTCTTACAAGGGATCCCCAGCAGCAAGAC
GGGCCTTTGTCCCCCAGCTCCGGAGTGGGAAGTTCAACGTCTTGCTGACGACGTACGAGTACATCATCAAAGACA
AGCACATCCTCGCCAAGATCCGTTGGAAGTACATGATTGTGGACGAAGGTCACCGCATGAAGAACCACCACTGCA
AGCTGACGCAGGTGCTCAACACGCACTATGTGGCACCCCGCCGCCTGCTGCTGACGGGCACACCGCTGCAGAACA
AGCTTCCCGAGCTCTGGGCGCTGCTCAACTTCCTGCTGCCCACCATCTTCAAGAGCTGCAGCACCTTCGAGCAGT
GGTTTAACGCACCCTTTGCCATGACCGGGGAAAAGGTGGACCTGAATGAGGAGGAAACCATTCTCATCATCCGGC
GTCTCCACAAAGTGCTGCGGCCCTTCTTGCTCCGACGACTCAAGAAGGAAGTCGAGGCCCAGTTGCCCGAAAAGG
TGGAGTACGTCATCAAGTGCGACATGTCTGCGCTGCAGCGAGTGCTCTACCGCCACATGCAGGCCAAGGGCGTGC
TGCTGACTGATGGCTCCGAGAAGGACAAGAAGGGCAAAGGCGGCACCAAGACCCTGATGAACACCATCATGCAGC
TGCGGAAGATCTGCAACCACCCCTACATGTTCCAGCACATCGAGGAGTCCTTTTCCGAGCACTTGGGGTTCACTG
GCGGCATTGTCCAAGGGCTGGACCTGTACCGAGCCTCGGGTAAATTTGAGCTTCTTGATAGAATTCTTCCCAAAC
TCCGAGCAACCAACCACAAAGTGCTGCTGTTCTGCCAAATGACCTCCCTCATGACCATCATGGAAGATTACTTTG

FIGURE 352B

CGTATCGCGGCTTTAAATACCTCAGGCTTGATGGAACCACGAAGGCGGAGGACCGGGGCATGCTGCTGAAAACCT
TCAACGAGCCCGGCTCTGAGTACTTCATCTTCCTGCTCAGCACCCGGGCTGGGGGGCTCGGCCTGAACCTCCAGT
CGGCAGACACTGTGATCATTTTTGACAGCGACTGGAATCCTCACCAGGACCTGCAAGCGCAGGACCGAGCCCACC
GCATCGGGCAGCAGAACGAGGTGCGTGTGCTCCGCCTCTGCACCGTCAACAGCGTGGAGGAGAAGATCCTAGCTG
CAGCCAAGTACAAGCTCAACGTGGACCAGAAGGTGATCCAGGCCGGCATGTTCGACCAGAAGTCCTCCAGCCATG
AGCGGCGCGCCTTCCTGCAGGCCATCCTGGAGCACGAGGAGCAGGATGAGAGCAGACACTGCAGCACGGGCAGCG
GCAGTGCCAGCTTCGCCCACACTGCCCCTCCGCCAGCGGGCGTCAACCCCGACTTGGAGGAGCCACCTCTAAAGG
AGGAAGACGAGGTGCCCGACGACGAGACCGTCAACCAGATGATCGCCCGGCACGAGGAGGAGTTTGATCTGTTCA
TGCGCATGGACCTGGACCGCAGGCGCGAGGAGGCCCGCAACCCCAAGCGGAAGCCGCGCCTCATGGAGGAGGACG
AGCTCCCCTCGTGGATCATCAAGGACGACGCGGAGGTGGAGCGGCTGACCTGTGAGGAGGAGGAGGAGAAGATGT
TCGGCCGTGGCTCCCGCCACCGCAAGGAGGTGGACTACAGCGACTCACTGACGGAGAAGCAGTGGCTCAAGGCCA
TCGAGGAGGGCACGCTGGAGGAGATCGAAGAGGAGGTCCGGCAGAAGAAATCATCACGGAAGCGCAAGCGAGACA
GCGACGCCGGCTCCTCCACCCCGACCACCAGCACCCGCAGCCGCGACAAGGACGACGAGAGCAAGAAGCAGAAGA
AGCGCGGGCGGCCGCCTGCCGAGAAACTCTCCCCTAACCCACCCAACCTCACCAAGAAGATGAAGAAGATTGTGG
ATGCCGTGATCAAGTACAAGGACAGCAGCAGTGGACGTCAGCTCAGCGAGGTCTTCATCCAGCTGCCCTCGCGAA
AGGAGCTGCCCGAGTACTACGAGCTCATCCGCAAGCCCGTGGACTTCAAGAAGATAAAGGAGCGCATTCGCAACC
ACAAGTACCGCAGCCTCAACGACCTAGAGAAGGACGTCATGCTCCTGTGCCAGAACGCACAGACCTTCAACCTGG
AGGGCTCCCTGATCTATGAAGACTCCATCGTCTTGCAGTCGGTCTTCACCAGCGTGCGGCAGAAAATCGAGAAGG
AGGATGACAGTGAAGGCGAGGAGAGTGAGGAGGAGGAAGAGGGCGAGGAGGAAGGCTCCGAATCCGAATCTCGGT
CCGTCAAAGTGAAGATCAAGCTTGGCCGGAAGGAGAAGGCACAGGACCGGCTGAAGGGCGGCCGGCGGCGGCCGA
GCCGAGGGTCCCGAGCCAAGCCGGTCGTGAGTGACGATGACAGTGAGGAGGAACAAGAGGAGGACCGCTCAGGAA
GTGGCAGCGAAGAAGAC**TGA**GCCCCGACATTCCAGTCTCGACCCCGAGCCCCTCGTTCCAGAGCTGAGATGGCAT
AGGCCTTAGCAGTAACGGGTAGCAGCAGATGTAGTTTCAGACTTGGAGTAAAACTGTATAAACAAAAGAATCTTC
CATATTTATACAGCAGAGAAGCTGTAGGACTGTTTGTGACTGGCCCTGTCCTGGCATCAGTAGCATCTGTAACAG
CATTAACTGTCTTAAAGAGAGAGAGAGAGAATTCCGAATTGGGGAACACACGATACCTGTTTTTCTTTTCCGTTG
CTGGCAGTACTGTTGCGCCGCAGTTTGGAGTCACTGTAGTTAAGTGTGGATGCATGTGCGTCACCGTCCACTCCT
CCTACTGTATTTTATTGGACAGGTCAGACTCGCCGGGGGCCCGGCGAGGGTATGTCAGTGTCACTGGATGTCAAA
CAGTAATAAATTAAACCAACAACAAAACGC

FIGURE 353A

GCCCCGAGTGCAATCGCGGGAAGCCAGGGTTTCCAGCTAGGACACAGCAGGTCGTGATCCGGGTCGGGACACTGC
CTGGCAGAGGCTGCGAGC**ATG**GGGCCCTGGGGCTGGAAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCGCGGCG
GGGACTGCAGTGGGCGACAGATGCGAAAGAAACGAGTTCCAGTGCCAAGACGGGAAATGCATCTCCTACAAGTGG
GTCTGCGATGGCAGCGCTGAGTGCCAGGATGGCTCTGATGAGTCCCAGGAGACGTGCTTGTCTGTCACCTGCAAA
TCCGGGGACTTCAGCTGTGGGGGCCGTGTCAACCGCTGCATTCCTCAGTTCTGGAGGTGCGATGGCCAAGTGGAC
TGCGACAACGGCTCAGACGAGCAAGGCTGTCCCCCCAAGACGTGCTCCCAGGACGAGTTTCGCTGCCACGATGGG
AAGTGCATCTCTCGGCAGTTCGTCTGTGACTCAGACCGGGACTGCTTGGACGGCTCAGACGAGGCCTCCTGCCCG
GTGCTCACCTGTGGTCCCGCCAGCTTCCAGTGCAACAGCTCCACCTGCATCCCCCAGCTGTGGGCCTGCGACAAC
GACCCCGACTGCGAAGATGGCTCGGATGAGTGGCCGCAGCGCTGTAGGGGTCTTTACGTGTTCCAAGGGGACAGT
AGCCCCTGCTCGGCCTTCGAGTTCCACTGCCTAAGTGGCGAGTGCATCCACTCCAGCTGGCGCTGTGATGGTGGC
CCCGACTGCAAGGACAAATCTGACGAGGAAAACTGCGCTGTGGCCACCTGTCGCCCTGACGAATTCCAGTGCTCT
GATGGAAACTGCATCCATGGCAGCCGGCAGTGTGACCGGGAATATGACTGCAAGGACATGAGCGATGAAGTTGGC
TGCGTTAATGTGACACTCTGCGAGGGACCCAACAAGTTCAAGTGTCACAGCGGCGAATGCATCACCCTGGACAAA
GTCTGCAACATGGCTAGAGACTGCCGGGACTGGTCAGATGAACCCATCAAAGAGTGCGGGACCAACGAATGCTTG
GACAACAACGGCGGCTGTTCCCACGTCTGCAATGACCTTAAGATCGGCTACGAGTGCCTGTGCCCCGACGGCTTC
CAGCTGGTGGCCCAGCGAAGATGCGAAGATATCGATGAGTGTCAGGATCCCGACACCTGCAGCCAGCTCTGCGTG
AACCTGGAGGGTGGCTACAAGTGCCAGTGTGAGGAAGGCTTCCAGCTGGACCCCCACACGAAGGCCTGCAAGGCT
GTGGGCTCCATCGCCTACCTCTTCTTCACCAACCGGCACGAGGTCAGGAAGATGACGCTGGACCGGAGCGAGTAC
ACCAGCCTCATCCCCAACCTGAGGAACGTGGTCGCTCTGGACACGGAGGTGGCCAGCAATAGAATCTACTGGTCT
GACCTGTCCCAGAGAATGATCTGCAGCACCCAGCTTGACAGAGCCCACGGCGTCTCTTCCTATGACACCGTCATC
AGCAGAGACATCCAGGCCCCCGACGGGCTGGCTGTGGACTGGATCCACAGCAACATCTACTGGACCGACTCTGTC
CTGGGCACTGTCTCTGTTGCGGATACCAAGGGCGTGAAGAGGAAAACGTTATTCAGGGAGAACGGCTCCAAGCCA
AGGGCCATCGTGGTGGATCCTGTTCATGGCTTCATGTACTGGACTGACTGGGGAACTCCCGCCAAGATCAAGAAA
GGGGGCCTGAATGGTGTGGACATCTACTCGCTGGTGACTGAAAACATTCAGTGGCCCAATGGCATCACCCTAGAT
CTCCTCAGTGGCCGCCTCTACTGGGTTGACTCCAAACTTCACTCCATCTCAAGCATCGATGTCAACGGGGGCAAC
CGGAAGACCATCTTGGAGGATGAAAAGAGGCTGGCCCACCCCTTCTCCTTGGCCGTCTTTGAGGACAAAGTATTT
TGGACAGATATCATCAACGAAGCCATTTTCAGTGCCAACCGCCTCACAGGTTCCGATGTCAACTTGTTGGCTGAA
AACCTACTGTCCCCAGAGGATATGGTTCTCTTCCACAACCTCACCCAGCCAAGAGGAGTGAACTGGTGTGAGAGG
ACCACCCTGAGCAATGGCGGCTGCCAGTATCTGTGCCTCCCTGCCCCGCAGATCAACCCCCACTCGCCCAAGTTT
ACCTGCGCCTGCCCGGACGGCATGCTGCTGGCCAGGGACATGAGGAGCTGCCTCACAGAGGCTGAGGCTGCAGTG
GCCACCCAGGAGACATCCACCGTCAGGCTAAAGGTCAGCTCCACAGCCGTAAGGACACAGCACACAACCACCCGA
CCTGTTCCCGACACCTCCCGGCTGCCTGGGGCCACCCCTGGGCTCACCACGGTGGAGATAGTGACAATGTCTCAC
CAAGCTCTGGGCGACGTTGCTGGCAGAGGAAATGAGAAGAAGCCCAGTAGCGTGAGGGCTCTGTCCATTGTCCTC
CCCATCGTGCTCCTCGTCTTCCTTTGCCTGGGGGTCTTCCTTCTATGGAAGAACTGGCGGCTTAAGAACATCAAC
AGCATCAACTTTGACAACCCCGTCTATCAGAAGACCACAGAGGATGAGGTCCACATTTGCCACAACCAGGACGGC
TACAGCTACCCCTCGAGACAGATGGTCAGTCTGGAGGATGACGTGGCG**TGA**ACATCTGCCTGGAGTCCCGTCCCT
GCCCAGAACCCTTCCTGAGACCTCGCCGGCCTTGTTTTATTCAAAGACAGAGAAGACCAAAGCATTGCCTGCCAG
AGCTTTGTTTTATATATTTATTCATCTGGGAGGCAGAACAGGCTTCGGACAGTGCCCATGCAATGGCTTGGGTTG
GGATTTTGGTTTCTTCCTTTCCTCGTGAAGGATAAGAGAAACAGGCCCGGGGGGACCAGGATGACACCTCCATTT
CTCTCCAGGAAGTTTTGAGTTTCTCTCCACCGTGACACAATCCTCAAACATGGAAGATGAAAGGGGAGGGGATGT
CAGGCCCAGAGAAGCAAGTGGCTTTCAACACACAACAGCAGATGGCACCAACGGGACCCCCTGGCCCTGCCTCAT
CCACCAATCTCTAAGCCAAACCCCTAAACTCAGGAGTCAACGTGTTTACCTCTTCTATGCAAGCCTTGCTAGACA
GCCAGGTTAGCCTTTGCCCTGTCACCCCCGAATCATGACCCACCCAGTGTCTTTCGAGGTGGGTTTGTACCTTCC
TTAAGCCAGGAAAGGGATTCATGGCGTCGGAAATGATCTGGCTGAATCCGTGGTGGCACCGAGACCAAACTCATT
CACCAAATGATGCCACTTCCCAGAGGCAGAGCCTGAGTCACTGGTCACCCTTAATATTTATTAAGTGCCTGAGAC
ACCCGGTTACCTTGGCCGTGAGGACACGTGGCCTGCACCCAGGTGTGGCTGTCAGGACACCAGCCTGGTGCCCAT
CCTCCCGACCCCTACCCACTTCCATTCCCGTGGTCTCCTTGCACTTTCTCAGTTCAGAGTTGTACACTGTGTACA
TTTGGCATTTGTGTTATTATTTTGCACTGTTTTCTGTCGTGTGTGTTGGGATGGGATCCCAGGCCAGGGAAAGCC

FIGURE 353B

CGTGTCAATGAATGCCGGGGACAGAGAGGGGCAGGTTGACCGGGACTTCAAAGCCGTGATCGTGAATATCGAGAA
CTGCCATTGTCGTCTTTATGTCCGCCCACCTAGTGCTTCCACTTCTATGCAAATGCCTCCAAGCCATTCACTTCC
CCAATCTTGTCGTTGATGGGTATGTGTTTAAAACATGCACGGTGAGGCCGGGCGCAGTGGCTCACGCCTGTAATC
CCAGCACTTTGGGAGGCCGAGGCGGGTGGATCATGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGTGAAAC
CCCGTCTCTACTAAAAATACAAAAAATTAGCCGGGCGTGGTGGCGGGCACCTGTAGTCCCAGCTACTCGGGAGGC
TGAGGCAGGAGAATGGTGTGAACCCGGGAAGCGGAGCTTGCAGTGAGCCGAGATTGCGCCACTGCAGTCCGCAGT
CTGGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAACAAAAAAAAACCATGCATGGTGCATCAGCAG
CCCATGGCCTCTGGCCAGGCATGGCGAGGCTGAGGTGGGAGGATGGTTTGAGCTCAGGCATTTGAGGCTGTCGTG
AGCTATGATTATGCCACTGCTTTCCAGCCTGGGCAACATAGTAAGACCCCATCTCTTAAAAAATGAATTTGGCCA
GACACAGGTGCCTCACGCCTGTAATCCCAGCACTTTGGGAGGCTGAGCTGGATCACTTGAGTTCAGGAGTTGGAG
ACCAGGCCTGAGCAACAAAGCGAGATCCCATCTCTACAAAAACCAAAAAGTTAAAAATCAGCTGGGTACGGTGGC
ACGTGCCTGTGATCCCAGCTACTTGGGAGGCTGAGGCAGGAGGATCGCCTGAGCCCAGGAGGTGGAGGTTGCAGT
GAGCCATGATCGAGCCACTGCACTCCAGCCTGGGCAACAGATGAAGACCCTATTTCAGAAATACAACTATAAAAA
AATAAATAAATCCTCCAGTCTGGATCGTTTGACGGGACTTCAGGTTCTTTCTGAAATCGCCGTGTTACTGTTGCA
CTGATGTCCGGAGAGACAGTGACAGCCTCCGTCAGACTCCCGCGTGAAGATGTCACAAGGGATTGGCAATTGTCC
CCAGGGACAAAACACTGTGTCCCCCCCCAGTGCAGGGAACCGTGATAAGCCTTTCTGGTTTCGGAGCACGTAAATG
CGTCCCTGTACAGATAGTGGGGATTTTTTGTTATGTTTGCACTTTGTATATTGGTTGAAACTGTTATCACTTATA
TATATATATATACACACATATATATAAAATCTATTTATTTTTGCAAACCCTGGTTGCTGTATTTGTTCAGTGACT
ATTCTCGGGGCCCTGTGTAGGGGGTTATTGCCTCTGAAATGCCTCTTCTTTATGTACAAAGATTATTTGCACGAA
CTGGACTGTGTGCAACGCTTTTTGGGAGAATGATGTCCCCGTTGTATGTATGAGTGGCTTCTGGGAGATGGGTGT
CACTTTTTAAACCACTGTATAGAAGGTTTTTGTAGCCTGAATGTCTTACTGTGATCAATTAAATTTCTTAAATG

FIGURE 354

CCGCGACATAGAGGAGGTGAGCCAGGGGCTGCTCAGCCTGCTGGGCGCCAACCGCGCGGAGGCGCAGCAGCGACG
GCTGCTGGGGCGCCACGAGCAGGTGGTGGAGCGGCTGCTGGAAACGCAAGACGGTGCCGAGAAGCAGCTGCGAGA
GATCCTCACC**ATG**GAGAAGGAAGTGGCCCAGAGCCTTCTCAATGCGAAGGAGCAGGTGCACCAGGGAGGCGTGGA
GCTGCAGCAGCTGGAAGCTGGGCTTCAGGAGGCTGGGGAGGAGGACACCCGTCTGAAGGCCAGCCTCCTTCAGCT
CACCAGAGAGCTGGAAGAGCTCAAGGAGATTGAGGCGGATCTGGAGCGACAGGAGAAGGAGGTCGACGAGGACAC
GACAGTCACAATCCCCTCGGCCGTGTACGTGGCTCAACTTTACCACCAAGTTAGTAAAATTGAGTGGGATTATGA
GTGTGAGCCAGGGATGGTCAAAGGCATCCATCATGGCCCCAGTGTGGCCCAGCCCATCCACCTGGACAGCACCCA
GCTCTCCAGGAAATTCATCAGCGACTACCTCTGGAGTCTGGTGGACACCGAGTGG**TAG**CCAGGAGCCTCGTGGCT
GCGTCTTGCACCCAGCGGGCATCTGCCGTGGTCAGATCCATTTCAAATGAAATGTGGGGACATAGATCTTTTTTT
TTTTTTT

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FIGURE 355

ATTACTCCCCTGGTGACGGGAGGGTTGTTTGAGATTCAGGAGGAGATCAGCAAGTTGAGGGTACATTTCACCATC
AGAGCAGGACAGACGGCCCTG**ATG**CTGGCCGTCAGCCACGGGCGGGTGGACGTTGTCAAAGCCCTGCTGGCCTGT
GAGGCAGATGTCAACGTGCAAGATGATGACGGCTCCACGGCCCTCATGTGCGCCTGTGAGCACGGCCACAAGGAG
ATCGCGGGGCTGCTGCTGGCCGTGCCCAGCTGTGACATCTCACTCACAGATCGCGATGGGAGCACAGCTCTGATG
GTGGCCTTGGACGCAGGGCAGAGTGAGATTGCGTCCATGCTGTATTCCCGCATGAACATCAAGTGCTCGTTTGCC
CCAATGTCAGATGACGAGAGCCCTACATCATCCTCGGCAGAAGAG**TAG**CCGTGAGGGAGGCGGGGACCAGCCAGA
CCGGGAGCAAACCGTCCCTTGTCCCCGTCTCCTCCCTGTTCCCGTTCCTCCCTGGCCCACCCCACTCACACTCCC
CAAGGCCCACGGCTCAAAGGCAAGCGAGCTCTCCCTCTGCTTCCCTGGGGGAGCCCCGACGGCCACAGGACTCCA
GCTCCAAGTGGGTTTTCTTGGCTCCCCTGTTCAAAGTGGCCACAGCGCAGACCGAAGCAAAATTCTTGTATACAT
TGGCGCCAGGGCTGATGCTGGGGTGTGGGTTTTATGAAGAACATTGAGAACAATCAGCTGGTAATTATGGATGGA
GGAAGAGGGAGAGGAAAAAAATATTGTATTTTTGAATCATTGTTGCAGGAGGGGGTGGGAATCTTAGGATTTGTT
GCCAGATTTGAAAGTCACTGGAACTTGCATATTTTCATTTTAATCCTAAGTGTTATTACGCACCAGTTGGGGTTC
ACCCTTCATCCCCCACATTTAATTGTCTGATATAGAATAGTGTTGTGTCCACTGCCCCGCTAGACGGCTTTCTTA
GGGGAATTTTCTTCTGGTTGTTTCACAAGACAGATTCTGTCCTTGTCACCCGGGACAGAAAACTCAGTCTTTTCA
CCCTCATTCAGATGAAGGGACTCAGGACAGGCTCTGTGACTTACAGGGACCCAATCAATTCACAATGAGAAATTA
CCGGCCAGGCGTGGTGACTCACGTCTGTAATCCCAGCACTTTGGGAGGGCAAGGCAAGAGCTTGAGCTTGAGCCT
AGACGTTAAAGACCAGCCTGGGCAACACAGCAAGACCCATCTCTAC

FIGURE 356A

GACGCGAGGACC**ATG**GCTGCCTCCGAGCGCCGCGCCTTCGCGCACAAGATCAACAGGACGGTGGCCGCAGAGGTG
CGGAAGCAGGTGTCCCGGGAACGCAGTGGCTCCCCCCACTCCAGCAGGCGCTGCAGCAGCTCCCTGGGGGTCCCA
CTGACTGAAGTTGTCGAGCCCCTGGACTTTGAGGATGTACTTCTGAGCCGGCCACCAGATGCTGAGCCCGGGCCC
CTCAGGGACCTGGTAGAATTCCCAGCTGATGACTTGGAGCTGCTGCTGCAGCCCCGGGAATGCCGGACCACGGAG
CCCGGGATCCCCAAGGATGAAAAACTGGATGCCCAGGTGAGGGCCGCGGTGGAGATGTATATTGAGGACTGGGTC
ATTGTCCACAGAAGGTATCAGTACCTGAGTGCAGCATACAGCCCCGTCACCACAGACACACAGCGGGAGCGACAG
AAGGGCCTCCCCCGCCAGGTCTTTGAGCAGGATGCTTCTGGAGACGAGAGGTCCGGCCCTGAGGACTCGAATGAC
TCCCGGCGTGGCTCGGGCTCCCCGGAAGACACCCCTCGAAGCAGTGGTGCCTCTAGCATCTTCGACCTGAGGAAC
CTGGCAGCTGACTCATTGCTGCCCTCTCTGCTAGAGCGGGCGGCCCCAGAAGATGTGGACCGGCGCAATGAAACC
CTTCGACGGCAGCACCGGCCCCCGGCCCTGCTCACCCTCTACCCGGCACCTGACGAGGATGAAGCCGTGGAACGC
TGTAGCCGCCCAGAGCCACCCCGCGAGCACTTTGGACAAAGGATCTTGGTCAAGTGTCTGTCGCTCAAGTTCGAG
ATTGAAATTGAGCCCATCTTTGGGATCTTGGCTCTGTATGATGTGCGGGAGAAAAAGAAGATCTCGGAGAACTTC
TACTTCGACCTGAACTCGGACTCCATGAAGGGGCTGCTTCGGGCTCATGGCACCCACCCTGCCATCTCCACCCTG
GCCCGCTCTGCCATCTTCTCTGTGACCTACCCCTCACCTGACATCTTCCTGGTCATCAAGTTGGAGAAGGTGCTT
CAGCAAGGGGACATCAGTGAGTGCTGTGAGCCTTACATGGTGTTGAAAGAAGTGGACACAGCCAAGAACAAAGAG
AAGCTAGAGAAGCTGCGCCTGGCGGCCGAGCAGTTCTGCACCCGCCTGGGCCGCTACCGCATGCCCTTCGCCTGG
ACGGCCGTGCACTTGGCCAACATCGTGAGCAGCGCTGGGCAGCTGGACCGGGACTCTGACTCGGAGGGCGAGCGC
CGGCCAGCCTGGACAGACCGCCGCCGTCGGGGGCCCCAGGACCGGGCGAGTAGTGGGGACGACGCCTGCAGCTTC
TCTGGCTTCCGTCCAGCCACGCTAACTGTCACAAACTTCTTTAAGCAGGAGGCTGAGCGACTCAGTGACGAGGAC
CTCTTCAAGTTCCTGGCTGACATGAGGCGCCCGTCGTCCCTGCTGCGGCGACTACGTCCTGTGACTGCCCAGCTC
AAGATCGACATTTCTCCGGCTCCTGAAAATCCCCACTTCTGCCTCTCCCCTGAGCTGCTTCATATCAAGCCCTAC
CCGGACCCCAGGGGCCGGCCCACCAAGGAGATTCTGGAGTTCCCCGCCCGCGAAGTCTATGCCCCCCATACCAGC
TACAGGAACCTGCTGTACGTGTACCCGCACAGCCTCAACTTCAGCAGCCGCCAGGGCTCCGTGCGCAACCTTGCT
GTGCGAGTGCAGTACATGACAGGCGAGGACCCCAGCCAGGCTCTGCCGGTCATCTTTGGCAAGTCCAGCTGCAGT
GAATTTACCCGCGAGGCCTTCACACCGGTGGTCTACCATAACAAGTCCCCCGAGTTCTACGAGGAGTTCAAGCTG
CATCTTCCAGCCTGCGTGACAGAGAACCATCACCTGCTGTTCACCTTCTACCATGTCAGCTGCCAGCCCCGGCCG
GGCACTGCCCTGGAGACACCCGTGGGCTTTACTTGGATCCCACTGCTGCAGCACGGGCGCCTGAGGACCGGCCCC
TTCTGTCTCCCAGTGTCTGTGGACCAGCCGCCGCCCAGCTATTCCGTGCTCACACCCGATGTGGCGCTTCCGGGC
ATGCGCTGGGTGGACGGTCACAAGGGCGTGTTCAGTGTGGAGCTCACAGCCGTGTCCTCTGTGCACCCCCAGGAC
CCCTACCTGGACAAATTCTTCACCCTGGTGCACGTCCTGGAGGAGGGAGCCTTCCCATTCCGGCTCAAGGACACT
GTGCTGAGCGAGGGCAACGTGGAGCAGGAGCTGCGGGCCAGTCTTGCAGCACTGCGCCTGGCCAGCCCCGAACCC
CTTGTGGCCTTCTCCCACCACGTGCTGGACAAGCTCGTGCGTCTGGTCATCAGGCCCCCGATCATCAGTGGCCAG
ATTGTGAACCTGGGCCGTGGAGCCTTTGAAGCAATGGCCCATGTAGTCAGCCTTGTTCACCGGAGCCTGGAGGCA
GCCCAGGATGCCCGCGGTCACTGCCCACAGCTGGCTGCCTACGTCCACTACGCCTTTCGCCTTCCTGGCACTGAG
CCCAGCCTCCCGGATGGGGCCCCTCCAGTGACAGTGCAGGCTGCCACACTGGCCCGTGGCTCTGGTCGCCCCGCA
AGCCTCTACCTGGCGCGTTCCAAGAGCATCAGCAGCAGCAACCCTGACCTCGCCGTGGCCCCTGGCTCTGTGGAT
GACGAGGTTTCCCGCATCCTGGCCAGCAAGCTGCTTCACGAGGAGCTGGCTCTGCAGTGGGTGGTCAGCAGCAGT
GCCGTACGCGAGGCCATCCTCCAGCACGCCTGGTTCTTCTTCCAGCTCATGGTGAAGAGTATGGCGCTGCACCTG
CTGCTTGGCCAGCGACTAGACACACCCCGCAAGCTGCGCTTCCCCGGACGCTTCCTGGACGACATCACTGCCTTG
GTGGGCTCTGTGGGCCTGGAGGTCATCACCCGTGTCCACAAGGATGTGGAGCTGGCCGAGCACCTCAACGCCAGC
CTGGCTTTCTTCCTCAGTGACCTTCTGTCCCTGGTGGACCGGGGCTTTGTCTTCAGCCTGGTCCGGGCCCACTAC
AAGCAGGTGGCCACGCGGCTCCAGTCGTCCCCTAATCCAGCAGCCCTGCTGACCCTGCGCATGGAATTCACCCGC
ATCCTGTGCAGCCACGAGCACTACGTGACCCTCAACCTCCCCTGCTGCCCCCTGTCACCTCCAGCCTCGCCCTCC
CCCTCTGTGTCCTCCACCACCTCCCAGAGCTCCACCTTCTCCAGCCAAGCCCCGGACCCCAAGGTGACCAGCATG
TTCGAACTGAGTGGACCATTCCGGCAGCAGCACTTCCTAGCTGGGCTCCTGCTGACGGAGCTGGCACTGGCCCTC
GAACCTGAGGCTGAAGGGGCATTCCTGTTGCACAAGAAGGCCATCAGTGCTGTGCACAGCCTGCTATGTGGCCAT
GACACTGACCCCCGCTACGCCGAGGCCACTGTGAAGGCTCGTGTGGCCGAGCTGTACCTGCCACTGCTATCGATT
GCACGGGATACCTTGCCACGGCTGCATGACTTTGCTGAGGGCCCAGGTCAGCGGTCAAGACTGGCCTCAATGCTT

FIGURE 356B

GACTCAGACACAGAAGGCGAAGGGGACATTGCGGGTACCATCAACCCCTCTGTGGCCATGGCCATTGCTGGTGGC
CCCCTAGCCCCTGGCTCCCGGGCCAGCATCTCCCAGGGGCCACCAACGGCTTCTCGCGCAGGCTGTGCCCTCTCT
GCTGAGTCAAGCCGGACCTTGCTGGCGTGTGTGCTGTGGGTGCTGAAAAACACCGAGCCGGCGCTCCTGCAGCGC
TGGGCCACTGACCTGACACTCCCCCAGCTGGGACGTCTGTTGGATTTGCTGTACCTTTGCCTAGCTGCCTTTGAG
TACAAGGGGAAAAAGGCCTTTGAACGCATCAACAGCCTCACATTCAAAAAATCTCTGGATATGAAGGCGCGGCTA
GAGGAAGCCATTCTGGGTACCATCGGAGCTCGACAAGAAATGGTTCGGCGAAGTCGTGAGAGGAGCCCGTTTGGG
AATCCGGAGAATGTGCGCTGGCGGAAGAGCGTCACACACTGGAAGCAAACCTCAGACCGCGTGGACAAGACCAAG
GATGAAATGGAACACGAGGCCTTGGTGGAAGGGAACCTGGCAACCGAGGCAAGCCTAGTGGTTCTGGACACACTG
GAGATCATCGTGCAGACGGTGATGCTTTCAGAAGCCCGGGAGAGCGTCTTGGGGGCAGTGCTGAAGGTTGTGCTG
TACAGCCTGGGCAGTGCCCAGAGTGCCCTCTTCTTGCAGCATGGCCTGGCCACCCAGAGGGCCCTTGTGTCCAAG
TTCCCGGAGCTGCTGTTCGAGGAGGACACGGAGCTGTGTGCCGACCTGTGCCTGAGGCTCCTACGACACTGTGGC
AGCCGCATCAGCACCATCCGCACGCACGCCAGCGCCTCGCTGTACCTGCTCATGCGACAGAACTTCGAGATCGGC
CACAACTTTGCCCGTGTGAAGATGCAGGTCACCATGTCTCTCTCGTCCCTGGTGGGGACGACGCAGAACTTCAGT
GAAGAGCACCTGCGACGTTCACTCAAAACCATCCTCACCTATGCTGAGGAGGACATGGGGCTGCGGGACAGCACC
TTCGCAGAGCAGGTCCAGGACCTGATGTTCAACCTGCACATGATCCTGACGGACACGGTGAAGATGAAGGAACAC
CAGGAGGACCCTGAGATGCTCATCGACCTCATGTACAGAATTGCCCGGGGCTACCAGGGCTCACCGGACCTTCGG
CTGACCTGGTTGCAGAACATGGCCGGGAAGCACGCGGAGCTGGGCAACCACGCCGAGGCCGCCCAGTGCATGGTG
CACGCGGCCGCCCTCGTGGCTGAGTACCTCGCCCTGCTCGAGGACCACCGCCACCTGCCCGTGGGCTGCGTTTCC
TTCCAGAACATCTCATCCAACGTGCTAGAGGAGTCCGCCATCTCCGACGACATCCTGTCGCCCGACGAGGAGGGC
TTCTGCTCCGGGAAGCACTTCACTGAGCTGGGGCTGGTAGGGTTGCTGGAACAGGCAGCCGGCTACTTCACCATG
GGCGGGCTCTACGAGGCGGTGAATGAGGTCTACAAGAACCTCATCCCCATCCTGGAAGCCCACCGTGACTACAAG
AAGCTGGCCGCGGTGCACGGCAAACTGCAGGAGGCCTTCACCAAGATCATGCACCAGAGTTCCGGCTGGGAGCGC
GTGTTCGGGACGTATTTCCGCGTGGGCTTCTACGGCGCCCACTTCGGTGACCTGGATGAGCAGGAGTTTGTGTAC
AAGGAGCCATCGATCACGAAGCTGGCAGAGATCTCACACCGGCTGGAGGAGTTCTACACGGAGAGATTTGGCGAC
GACGTCGTTGAGATTATCAAAGACTCTAACCCTGTGGACAAGTCCAAGCTTGACTCACAAAAGGCCTACATCCAG
ATCACGTATGTGGAACCGTACTTTGATACCTACGAGCTCAAGGACCGGGTGACCTACTTTGACCGCAACTATGGG
CTTCGCACATTCCTGTTCTGCACGCCGTTCACGCCGGATGGGCGCGCACACGGGGAGCTGCCCGAGCAACACAAG
CGTAAGACGCTGCTCAGCACCGACCACGCCTTCCCCTACATCAAGACTCGCATCCGTGTGTGCCACCGGGAGGAG
ACGGTGCTGACGCCAGTGGAGGTGGCCATCGAGGACATGCAGAAGAAGACACGGGAGCTGGCCTTTGCCACCGAG
CAGGACCCACCAGATGCTAAGATGCTACAGATGGTGCTTCAGGGCTCTGTAGGGCCCACCGTGAACCAGGGTCCC
CTGGAGGTGGCCCAGGTGTTTTTAGCAGAGATCCCGGAAGACCCCAAGCTCTTCCGGCATCACAACAAATTGCGG
CTCTGCTTCAAGGACTTCTGCAAGAAATGTGAGGATGCGCTGCGGAAAAATAAGGCCCTGATTGGGCCGGACCAG
AAGGAGTACCACCGTGAGCTGGAGCGCAACTACTGCCGCCTGCGGGAGGCTCTGCAGCCCCTGCTTACCCAGCGC
CTGCCCCAGCTGATGGCACCCACCCCACCCGGCCTCAGGAACTCCTTGAACAGAGCAAGTTTCCGAAAGGCAGAC
CTC**TGA**GCCCACAAGGACCAAAGCTGTACCTAGAGGAACCAGCACCCGGGCCTCAGCTGTCTGTGCTGCGAGGGG
AGTCTGCCCTGGTGCCCACTGGGCTGTGGGGTGACCACACTGTACTTGGGGCTGGGCCCTCTGCCCCTGTGTCCC
CATCTGTGTGCACTGATGCTTCCTCCCTTTTTTAATTTAAAATGGTTTTTATAAGC

FIGURE 357

GTGAGGTACCAGATTCAGCCCATTTGGCCCCGACGCCTCTGTTCTCGGAATCCGGGTGCTGCGGATTGAGGTCCC
GGTTCCTAACGGTGGGATCGGTGTCCTCGGGATGAGATTTGGCGTTTCCTCGGGGCTTTGGTGGGATCGGTGTCC
TCAGGATGAGATTTAGGGTTTCCTCGGGGCTTTCGGGATCTTCACCTAATATCCGGACTGCAAG**ATG**GAGGAAGG
CGGGAACCTAGGAGGCCTGATTAAGATGGTCCATCTACTGGTCTTGTCAGGTGCCTGGGGCATGCAAATGTGGGT
GACCTTCGTCTCAGGCTTCCTGCTTTTCCGAAGCCTTCCCCGACATACCTTCGGACTAGTGCAGAGCAAACTCTT
CCCCTTCTACTTCCACATCTCCATGGGCTGTGCCTTCATCAACCTCTGCATCTTGGCTTCACAGCATGCTTGGGC
TCAGCTCACATTCTGGGAGGCCAGCCAGCTTTACCTGCTGTTCCTGAGCCTTACGCTGGCCACTGTCAACGCCCG
CTGGCTGGAACCCCGCACCACAGCTGCCATGTGGGCCCTGCAAACCGTGGAGAAGGAGCGAGGCCTGGGTGGGGA
GGTACCAGGCAGCCACCAGGGTCCCGATCCCTACCGCCAGCTGCGAGAGAAGGACCCCAAGTACAGTGCTCTCCG
CCAGAATTTCTTCCGCTACCATGGGCTGTCCTCTCTTTGCAATCTGGGCTGCGTCCTGAGCAATGGGCTCTGTCT
CGCTGGCCTTGCCCTGGAAATAAGGAGCCTC**TAG**CATGGGCCCTGCATGCTAATAAATGCTTCTTCAG

FIGURE 358

AGCGTTTTAATACGATGGTGTCCCCGCGGGATCAAACTTCAGCGTCACAGCTGAGGACTGGCTTCGTGGTCCCTG
ATGGGAGAGC**ATG**AACAGGTGGTATGTGAAGCCCTTGGAGACCAGCTCTTCCAAAGTCAAAGCCAAGACCATTGT
GATGATTCCCGACTCCCAGAAGCTCCTGCGATGTGAACTTGAGTCACTCAAGAGCCAGTTACAGGCCCAGACCAA
GGCTTTCGAGTTCCTGAACCACTCAGTGACCATGTTGGAGAAGGAGAGCTGCTTGCAGCAAATCAAGATTCAGCA
GCTTGAAGAGGTGCTGAGCCCCACAGGCCGCCAGGGAGAGAAGGAGGAGCACAAGTGGGGCATGGAGCAGGGCCG
GCAGGAGCTGTATGGGGCCCTGACCCAAGGCCTTCAGGGGCTGGAGAAGACCCTGCGTGACAGTGAGGAGATGCA
GCGGGCCCGCACCACTCGCTGCCTGCAGCTGCTGGCCCAGGAGATCCGGGACAGCAAGAAGTTCCTGTGGGAGGA
GCTGGAACTGGTGCGGGAGGAGGTGACCTTCATCTATCAGAAGCTCCAAGCGCAGGAGGATGAGATCTCAGAGAA
CTTGGTGAACATTCAGAAAATGCAGAAAACGCAGGTGAAATGCCGCAAAATCCTGACCAAGATGAAGCAGCAGGG
TCATGAGACAGCCGCCTGTCCGGAGACTGAAGAGATACCGCAGGGAGCCAGTGGCTGCTGGAAGGATGACCTCCA
GAAGGAACTGAGTGATATATGGTCTGCTGTGCACGTGCTGCAGAACTCCATAGACAGCCTCACTTTGTGCTCGGG
GGCCTGTCCCAAGGCCTCGAGCCTAAGAGGCCACAAGGGGCACCAGTGCCTGAGCCCTCCACTCCCCTCCTGGGA
CTCTGACTCCGACTGTGACCAGGACCTCTCCCAGCCACCTTTCAGCAAGAGCGGCCGCTCCTTCCCACCCGCT**TG**
AGCAGCCGGGACTGCTCTCCCTGAAGACCCCTCCAGAGAGAAAATAAACTAGCCCAGACCCTCCTCTAGCCCCGA
CTGTTAGTCTTGCTGCTTCCTGTGCCTAGGAATCCCCCTGCCCTCCTAGTTTACCCCTCATTGTTGGGGGGGAGG
GGTGTAGAGACCCCAGGGGTCATTCGGGATGTGTGGGCTTGGAATCAGGGGACATCTGAAGCCAGATTTAATATA
TGACAAGGCAAGGAGTCATTCTGTCCAGACACGAGCAGCCAGACAGACTTCCACACTGGCCACAGAGCCTTCCTT
TCTGGGGGGCCCTGGCGAATGGGGAAACTGAGGCCCAGAGAGGGAGAGGCGCGGCCCAGGGACATACTCTGAAGC
CCCTCCCTCCTATTACCCTCGGAGCCCCGCCCACCCCAGGGTCCTCCCTCTCTACTTCCATTCTTGGTTCCTTCC
TACAATCGATGCTAACACGCCCCGCCTCCAAGATCACGGAGGCCCCGCCCC

FIGURE 359

AGTCTGCGCGGCGCGGCCAGGCCCGGCCGACCGCGTCTCGGTCTTCGCGTCTGCCAGCCTGGCTGGCAGTCCGTC
TGTCCATCCCGCCGCGCCGGGGCAGTCTAGGCGGAGCGGGGGCTCAGGCGGCGGCGGCCTCGACGCGAGTGAGTG
TCGTGGTTGGGGTGCTGGACCCAGAGTGCCTACCCTCGCCTGCCTGGGCCTCAGTTTCCACATCTGCACAATGGG
GGTGACCATCCCTGCCCTGCTGGCTGCCAGGAGCGGCTGTGAGTCTTCAGGCGTGGATGCAGCCTGGGGGAAGCC
ATAGGGCGCTTTCACAGGCCTGGCCTTCACC**ATG**GCGGGAGGGAGACCGCATCTGAAGAGGAGTTTCTCCATCAT
CCCCTGCTTTGTCTTCGTGGAGTCGGTGCTGCTGGGCATTGTGATCCTGCTTGCTTACCGCCTGGAGTTCACGGA
CACCTTCCCTGTGCACACCCAGGGATTCTTCTGCTATGACAGTACCTACGCCAAGCCCTACCCAGGGCCTGAGGC
TGCCAGCCGAGTGCCTCCTGCTCTTGTCTACGCACTGGTCACTGCCGGGCCCACCCTCACGATCCTGCTGGGAGA
GCTGGCGCGTGCCTTTTTCCCTGCACCACCTTCAGCCGTCCCAGTCATCGGGGAGAGCACCATCGTGTCTGGGGC
CTGCTGCCGCTTCAGCCCCCCAGTGCGGAGGCTGGTCCGCTTCCTGGGGGTCTACTCCTTCGGCCTCTTCACCAC
GACCATCTTCGCCAACGCGGGGCAGGTGGTGACCGGCAATCCCACGCCACACTTCCTGTCCGTGTGCCGCCCCAA
CTACACGGCCCTGGGCTGCCTGCCACCTTCTCCGGATCGGCCAGGTCCCGACCGCTTTGTCACTGACCAGGGTGC
CTGCGCTGGCAGTCCCAGCCTCGTGGCCGCCGCGCGCCGCGCCTTCCCCTGCAAGGATGCGGCCCTCTGCGCCTA
CGCGGTCACCTACACAGCGATGTACGTGACTCTCGTGTTCCGCGTGAAGGGCTCCCGCCTGGTCAAACCCTCGCT
CTGCCTGGCCTTGCTGTGCCCGGCCTTCCTGGTGGGCGTGGTCCGCGTGGCCGAGTACCGAAACCACTGGTCGGA
CGTGCTGGCTGGCTTCCTGACAGGGGCGGCCATCGCCACCTTTTTGGTCACCTGCGTTGTGCATAACTTTCAGAG
CCGGCCACCCTCTGGCCGAAGGCTCTCTCCCTGGGAGGACCTGGGCCAAGCCCCCACCATGGATAGCCCCCTCGA
AAAGAACCCGAGGTCTGCAGGCCGCATTCGACACCGGCACGGCTCACCCCATCCAAGTCGCAGAACTGCGCCCGC
CGTGGCCACC**TGA**TCCCCAGCTGTGTCTCCTCCAGGGCCCCAGCCATGTGTTCGTCGCCCCGTGTGCCCCGTCCT
CGATTGAGGTCTGAGCCGACGCCCTTGCCCCTGCCCCTACCCCTGCCAGCGCCCACCCCCAGCCAGGGCCCCTCG
CCTTCCTCCCCTGGACCTGGGGGGCCAGGCGGGGGTGGTGGACGTGGCCGGAAGCTGCTGCTGCCCACGCCCCTG
CTGCGGGACCTGTACACCCTGAGTGGACTCTATCCCTCCCCCTTCCACCGGGACAACTTCAGCCCTTACCTGTTT
GCCAGCCGTGACCACCTGCTGTGAGGCCCGACCACCCACCCAGAATCTGCCCAGTCCCCACTTCTTCCCTGCCAC
GCGTGTGTGTGCGTGTGCCACGTGAGTGCCAAAGTCCCCTGCCCCCCAAGCCAGCCAGACCCAGACATTAGAAGA
TGGCTAGAAGGACATTTAGGAGACATCTGCCTCTCTGGCCCTCTGAGATATCCCGATGGGCACAAATGGAAGGTG
CGCACTTGCCCCTACTATTGCCCTTTTAAGGGCCAAAGCTTGACCCCATTGGCCATTGCCTGGCTAATGAGAACC
CCTGGTTCTCAGAATTTTAACCAAAAGGAGTTGGCTCCAACCAATGGGAGCCTTCCCCTCACTTCTTAGAATCCT
CCTGCAAGAGGGCAACTCCAGCCAGTGTTCAGCGACTGAACAGCCAATAGGAGCCCTTGGTTTCCAGAATTTCTA
GAGTGGGTGGGCATGATTCCAGTCAATGGGGGACCGCCCGTGTCTAAGCATGTGCAAAGGAGAGGAGGGAGATGA
GGTCATTGTTTGTCATTGAGTCTTCTCTCAGAATCAGCGAGCCCAGCTGTAGGGTGGGGGGCAGGCTCCCCCATG
GCAGGGTCCTTGGGGTACCCCTTTTCCTCTCAGCCCCTCCCTGTGTGCGGCCTCTCCACCTCTCACCCACTCTCT
CCTAATCCCCTACTTAAGTAGGGCTTGCCCCACTTCAGAGGTTTTGGGGTTCAGGGTGCTGTGTCTCCCCTTGCC
TGTGCCCAGGTCATCCCAAACCCTTCTGTTATTTATTAGGGCTGTGGGAAGGGTTTTTCTTCTTTTTCTTGGAAC
CTGCCCCTGTTCTTCACACTGCCCCCCATGCCTCAGCCTCATACAGATGTGCCATCATGGGGGGCATGGGTGGAG
CAGAGGGGCTCCCTCACCCCGGGCAGGCAAAGGCAGTGGGTAGAGGAGGCACTGCCCCCCTTTCCTGCCCCCTCC
TCATCTTTAATAAAGACCTGGCTTCTCATCTTTAATAAAGACCTGTTTGTAACAG

FIGURE 360

ACTTAGAGGCGCCTGGTCGGGAAGGGCCTGGTCAGCTGCGTCCGGCGGAGGCAGCTGCTGACCCAGCTGTGGACT
GTGCCGGGGGCGGGGGACGGAGGGGCAGGAGCCCTGGGCTCCCCGTGGCGGGGGCTGTATC**ATG**GACCACCTCGG
GGCGTCCCTCTGGCCCCAGGTCGGCTCCCTTTGTCTCCTGCTCGCTGGGGCCGCCTGGGCGCCCCCGCCTAACCT
CCCGGACCCCAAGTTCGAGAGCAAAGCGGCCTTGCTGGCGGCCCGGGGGCCCGAAGAGCTTCTGTGCTTCACCGA
GCGGTTGGAGGACTTGGTGTGTTTCTGGGAGGAAGCGGCGAGCGCTGGGGTGGGCCCGGGCAACTACAGCTTCTC
CTACCAGCTCGAGGATGAGCCATGGAAGCTGTGTCGCCTGCACCAGGCTCCCACGGCTCGTGGTGCGGTGCGCTT
CTGGTGTTCGCTGCCTACAGCCGACACGTCGAGCTTCGTGCCCCTAGAGTTGCGCGTCACAGCAGCCTCCGGCGC
TCCGCGATATCACCGTGTCATCCACATCAATGAAGTAGTGCTCCTAGACGCCCCCGTGGGGCTGGTGGCGCGGTT
GGCTGACGAGAGCGGCCACGTAGTGTTGCGCTGGCTCCCGCCGCCTGAGACACCCATGACGTCTCACATCCGCTA
CGAGGTGGACGTCTCGGCCGGCAACGGCGCAGGGAGCGTACAGAGGGTGGAGATCCTGGAGGGCCGCACCGAGTG
TGTGCTGAGCAACCTGCGGGGCCGGACGCGCTACACCTTCGCCGTCCGCGCGCGTATGGCTGAGCCGAGCTTCGG
CGGCTTCTGGAGCGCCTGGTCGGAGCCTGTGTCGCTGCTGACGCCTAGCGACCTGGACCCCCTCATCCTGACGCT
CTCCCTCATCCTCGTGGTCATCCTGGTGCTGCTGACCGTGCTCGCGCTGCTCTCCCACCGCCGGGCTCTGAAGCA
GAAGATCTGGCCTGGCATCCCGAGCCCAGAGAGCGAGTTTGAAGGCCTCTTCACCACCCACAAGGGTAACTTCCA
GCTGTGGCTGTACCAGAATGATGGCTGCCTGTGGTGGAGCCCCTGCACCCCCTTCACGGAGGACCCACCTGCTTC
CCTGGAAGTCCTCTCAGAGCGCTGCTGGGGGACGATGCAGGCAGTGGAGCCGGGGACAGATGATGAGGGCCCCCT
GCTGGAGCCAGTGGGCAGTGAGCATGCCCAGGATACCTATCTGGTGCTGGACAAATGGTTGCTGCCCCGGAACCC
GCCCAGTGAGGACCTCCCAGGGCCTGGTGGCAGTGTGGACATAGTGGCCATGGATGAAGGCTCAGAAGCATCCTC
CTGCTCATCTGCTTTGGCCTCGAAGCCCAGCCCAGAGGGAGCCTCTGCTGCCAGCTTTGAGTACACTATCCTGGA
CCCCAGCTCCCAGCTCTTGCGTCCATGGACACTGTGCCCTGAGCTGCCCCCTACCCCACCCCACCTAAAGTACCT
GTACCTTGTGGTATCTGACTCTGGCATCTCAACTGACTACAGCTCAGGGGACTCCCAGGGAGCCCAAGGGGGCTT
ATCCGATGGCCCCTACTCCAACCCTTATGAGAACAGCCTTATCCCAGCCGCTGAGCCTCTGCCCCCCAGCTATGT
GGCTTGCTCT**TAG**GACACCAGGCTGCAGATGATCAGGGATCCAATATGACTCAGAGAACCAGTGCAGACTCAAGA
CTTATGGAACAGGGATGGCGAGGCCTCTCTCAGGAGCAGGGGCATTGCTGATTTTGTCTGCCCAATCCATCCTGC
TCAGGAAACCACAACCTTGCAGTATTTTTAAATATGTATAGTTTTTTT

FIGURE 361

GCTGCGCCGCCATTAAGAGCTAGCCCTCAGAACTATCCTCTCTAAGGTTTCACAGTCCTGCCCAAGATGGCCGTC
TCGGCTCTGGCACCGCCCCCACTCCTGCCTCTCCCAACATGGCGACCCTGAGTCTCCGTTCCCGGTGCGGAACGT
ACGACCGGAAGTGACGGGGTCCAGAAATTTCCGCTTTCTTTCTGCAGCAGGAACCGCGGCTGCTGGACAAGAGGG
GTGCGGTGGATACTGACCTTTGCTCCGGCCTCGTCGTGAAGACACAGCGCATCTCCCCGCTGTAGGCTTCCTCCC
ACAGAACCCGTTTCGGGCCTCAGAGCGTCTGGTGAGATGCTGTTGCCGCTGCTGCTGCTGCTACCCATGTGCTGG
GCCGTGGAGGTCAAGAGGCCCCGGGGCGTCTCCCTCACCAATCATCACTTCTACGATGAGTCCAAGCCTTTCACC
TGCCTGGACGGTTCGGCCACCATCCCATTTGATCAGGTCAACGATGACTATTGCGACTGCAAAGATGGCTCTGAC
GAGCCAGGCACGGCTGCCTGTCCTAATGGCAGCTTCCACTGCACCAACACTGGCTATAAGCCCCTGTATATCCCC
TCCAACCGGGTCAACGATGGTGTTTGTGACTGCTGCGATGGAACAGACGAGTACAACAGCGGCGTCATCTGTGAG
AACACCTCAGAGAGAAGGGCCGTAAGGAGAGAGAGTCCCTGCAGCAG**ATG**GCCGAGGTCACCCGCGAAGGGTTCC
GTCTGAAGAAGATCCTTATTGAGGACTGGAAGAAGGCACGGGAGGAGAAGCAGAAAAAGCTCATTGAGCTACAGG
CTGGGAAGAAGTCTCTGGAAGACCAGGTGGAGATGCTGCGGACAGTGAAGGAGGAAGCTGAGAAGCCAGAGAGAG
AGGCCAAAGAGCAGCACCAGAAGCTGTGGGAAGAGCAGCTGGCTGCTGCCAAGGCCCAACAGGAGCAGGAGCTGG
CGGCTGATGCCTTCAAGGAGCTGGATGATGACATGGACGGGACGGTCTCGGTGACTGAGCTGCAGACTCACCCGG
AGCTGGACACAGATGGGGATGGGGCGTTGTCAGAAGCGGAAGCTCAGGCCCTCCTCAGTGGGGACACACAGACAG
ACGCCACCTCTTTCTACGACCGCGTCTGGGCCGCCATCAGGGACAAGTACCGGTCCGAGGCACTGCCCACCGACC
TTCCAGCACCTTCTGCCCCTGACTTGACGGAGCCCAAGGAGGAGCAGCCGCCAGTGCCCTCGTCGCCCACAGAGG
AGGAGGAGGAGGAGGAGGAGGAGGAGGAAGAAGAGGCTGAAGAAGAGGAGGAGGAGGAGGATTCCGAGGTGCAGG
GGGAGCAGCCCAAGGAGGCCCCACCGCCACTGTCACCCCCGCAGCCGGCCAGCCCTGCTGAGGAAGACAAAATGC
CGCCCTACGACGAGCAGACGCAGGCCTTCATCGATGCTGCCCAGGAGGCCCGCAACAAGTTCGAGGAGGCCGAGC
GGTCGCTGAAGGACATGGAGGAGTCCATCAGGAACCTGGAGCAAGAGATTTCTTTTGACTTTGGCCCCAACGGGG
AGTTTGCTTACCTGTACAGCCAGTGCTACGAGCTCACCACCAACGAATACGTCTACCGCCTCTGCCCCTTCAAGC
TTGTCTCGCAGAAACCCAAACTCGGGGGCTCTCCCACCAGCCTTGGCACCTGGGGCTCATGGATTGGCCCCGACC
ACGACAAGTTCAGTGCCATGAAGTATGAGCAAGGCACGGGCTGCTGGCAGGGCCCCAACCGCTCCACCACCGTGC
GCCTCCTGTGCGGGAAAGAGACCATGGTGACCAGCACCACAGAGCCCAGTCGCTGCGAGTACCTCATGGAGCTGA
TGACGCCAGCCGCCTGCCCGGAGCCACCGCCTGAAGCACCCACCGAAGACGACCATGACGAGCTC**TAG**CTGGATG
GGCGCAGAGGTGGGCGGGGAGGTGGAGTCTCGTCGGCCTGCCCCAGCAAGGGGAGGCGGCGGGCCCTGAGGAAGA
TGGACCCACATGGCCACTCTATCAACCTGTGTCCCCATGTTCCCTGCTTTTTTGTTTTGTTTTTTTGAGGTGGAG
TCTCACTCTTTGGCCCAGGCTGGAGTGCAGTGATGCGACCTCAGCTGACTGCAACCTCTACCTCCCGGGTTCAAA
CAATTGTCTTGTCTCAGCCTCCCAAGTAGCTGGGATTACAGGTGTGCACCACCATGCCTGGCTAATTTTTAGTAG
AGATGGGGTTTCACCATGTTGGCCTGGATGGTCTCGAACTCCTGACCTCAGATGATCCACCTGCCTTGGCCTCCC
AAAGTGCTGGGATTACAGGCATGAGCCACCACACCCGGCCATCTCCTGCCTTTTTTTTTTTGGATGGAGTTTCAC
TCTTGTTGCCGAGATCATGCTACTGCACTCTCCAGCCTGGGCTACAGAGTGAGACTCTCAAAAAAAAAAAAATAAT
AATAATAAGAGAAAATAGACAAGGTCTCCAGGCTGGTCAACTCCTGGCCTCAAATGATCCTCCCACCTCAGCCTC
CCAAGCAGCCGGGACTACAGGCAAACATCACCATGTCCAGCTGTCCCCAGCTTTCTAATCTGGTCTTTCTCTTGC
CCCAGAACCTCAAGAAGGCATGAAGCCAGCCCCTGCAGTGCCGTCCACCCGCCCCTCTGGGCCTGCCTGTGGCTC
TGTTGCCCTCCTCTGTGGCGGCAGGACCTTTGTGGGGCTTCGTGCCCTGCTCTGGGGCCCAGGCGGGGCTGGTCC
ACATTCCCAGGCCCCAACAGCCTTCAAAGATGGGTAAAGGAGCTTGCCCTCCCTGGGCCCCCCACCTTGGTGACT
CGCCCCACCACCCCCAGCCCTGTCCCTGCCACCCCTCCTAGTGGGGACTAGTGAATGACTTGACCTGTGACCTCA
ATACAATAAATGTGATCCCCCACCC

FIGURE 362

CACAAAAAAAGACAAAAAAAAAAAAAGAAAATATTTTGGCAGGTTATGTTTACCAACTGGGGCGGGGGTGGGGGG
GGCCCAGGGAGCAGGGCTTAGGGGCTAGCAGCCCACGGGGCCACACAGAGAAACAACCACGCAGACAGTCACACC
ACGGGGACACACGGACAGACGCAGACGGACACAGCGACATGCCCCAGACACGTTAAGGGACTGGTTGGCCAAACT
CAGACACGTGGACAGGGATAGACAGAAAGAGACAGAAGCTGGGGCTACGTCCATGTGGACACAGACCACAG**ATGT**
GGGCACACGAATCCATCCACCTGTCCACGTGCACACGTGAATGTAGCGATAGATATTTGGACATCAAATTTGGAC
ACCAGGTCACGGAGAAACACAAACACCACCCAGGAACACGCAGACATATGCCCATAGCATCCCACAGGCCCAGGC
AGGAGGTCCCACCCCAGACCCTGCCCCAGACGCTCCCTCACCCTCTCGGCCCCCTCGCCCTGGCCCCCAGGTTCT
CTGCAGAGATCTCTCCTGGACCCCCAGCGGTCTCCTTGGCGCCCACGAACACAGGCGTGCACACGCAGCGCACAT
GCATTGAGACACACGATACCTCGTTCCACCTTGGCGTCACGGTGGGCTGGAGGCAGCCCCCCCCCCCACAACACT
TGAGGCCAAAGGACACCCCTGTCCCCGGGGCTCAGCCTCCCCCTGGGCCGAGGCCTTGGCCCACACAGCTGAGGG
AGAGGCCCAGCCCTGAGCCTCCCCCACCAGGACTGGGCCTCCCCGGCAGCAAGACCCCGGCACTCCCCGCCAGGC
CCAGGGTGGGGTGGATGGGCCCAAAGGCCCAGCCCCACACTCCTTTCCCGTCCACTTGTCACCTACCTATCCCCT
TTCGGTTTGTTGGGTTTTTCGTCTTTCCAGATTGCAGTGGACACAGCCCCCGATCTCGAGCCCCGGCCCCCGGCT
TCTGTCTGGACATTGCATCGCCC**TAG**TTTTCTTTCTTTAAAAAAAAAAAATTCCAACAGAAGCCACAGGCCGGAG
CCCCTGGGAGCCCTCGCACCGCTCCCCACCCCACTCAGCGGCCCCATCGGAACTGAGAATTGCAAAACCCCCGAC
TTTAGCTATAGTTAAGTTGCCTTCCCCCGGTGTCCCCACGTTTGGTGTCTGGCTATGGCGCCCCCATCTGACTGT
CCAGCTCTCTCTCCCCCACCCCTCCCGGTGTTGTTATTAAACGTCTGTGGAGCTTCTGCTGCAAGGAACAAAAAA
GAAAAAAATCAAAAAAGCGACAAAAAAAACACAAACAGAAGAGGAAAAAAAAGCAACAAAAAAAGAAAACACACAG
AAGAGATTTAAAAAAAAAAAAGGAAAAAAAAAAAAGACATAAACTGGCACCAGTTAACTTTCTTGTACTTTTTTG
CTGAATTTAGCTTCTTGTAGTTTTAACTTATTGCTATGTTAACTATTTATTCTCCTCGTTGCCCTGTAAGGACAT
CCGTGTATATTTCTGTTACTTCATCCGGTTTGCAAGTTAAAGGAACGACAATGTTCTCTTTGTTTCTTTAAGTTT
TGCCGAGACATGGTTATGCCTAATTTATTTATAAAAGGGGAAGTGGAATCATTAAAGTAATAATAATTATTAATA
ACAGTAATGGTAGCCGAGTGGCACGCGGGGGCGTGTGCTCTGCGGGACAGTCCCCACGGCCAGCGACGTCCAGGT
CACCAATGGGATTCTTTTTGCTCTTGTCTTGAGAATTTTTTCAGTCCTATTTAGCTGGTGAAATCCCTAGCTTGT
TCTTGATACACGAACCTATTTATTCTCGTGGTTTTAAGTCCTCCCTGCCCTCTCTCCTCTCCCCTGCAGCAGGGC
AGGGACCCCTCTCCCCTGCTGTCTCTTGGGGCTCTCTCCCCTCCGCCCTCTGCATTCGGGAACACGCACGTCCGC
GTGGGAAGCTTGCAGCAGGGCGTCCGAGCAATAAGGGCTGGGTTTGTCCCCCACCCTGGGGGGGGCCAGGCTCCA
GAGAGGGGGCACCTCCCCACACACCCCCCCCCCACCGAGGCCTAGGCCCCTGCCACCCCCAAGACTGGGAGGGGA
CTTCTTTTTCTAAAACACAAAACTCAGCCCAGCCAGGCCCCCTCCCTGGAGGCCAGCCCCTCCCCGCAGGGGGCC
AGGCCGGGGCTCCCAGGCGAGGGGGACTTGGGGCTTCCACGTCCCTGGGGGGCAGGGGCCAGGCCAGGGGGGAGG
GGGCTCAGCCCCTCCACCCCTCCCTTCATCCTGTTATTTATTCGGAAGGTTTCAAATCACGACAGAGTCCATGTT
GGAGGTGATAAAAAACTGTAAAAAAAAAAAAAAAAAAAAAAGACAAAACAAAAGACAAAAAAAAAAAAAAAA

FIGURE 363

AGAGCGCGGAGCGCGCAGCGCGGGCCGGAGGGAGGGAGGGAGGGTGGGCGAGGGGAGAGGACTTGAACACACGGG
ACCGGACAGGACCGACCGAGGGGCGGCGGCGAAAGGCAGAGCGCCGCGATCTCTGTCGGGAAGCGCAACCTCCCC
GGGCCCCGCGGGGCCGCGCAGGGGGCGTCCTCAACCCCGCGCCCGCTCCCTCTTTCCATCCCCTGCCGCCCGCAG
GCCACCCCGGGGCCCGGCCATCCGCGCGCGCATCCCCGGGTTCGGGCCCGTCCCTGGCCCTCGAGGGAGCCGCCG
CCTTCATCGCCACATCTGCAGCGGCCGCACCAGAGGCCGCCCGGGCGGGACCCCAGCGTGAGCATCGGGCGCCCC
CCTAGGAGTGCACCACCCCCGGAGCCCCCCTCAACACGGACCGCGCCCGCCGGGCACACAAGA**ATG**GTCACTCAG
ATACTGGGGGCCATGGAGTCTCAGGTGGGGGGGGGCCCGGCCGGCCCGGCCCTGCCCAACGGGCCACTCCTTGGT
ACAAATGGAGCCACTGACGACAGCAAGACCAACCTCATCGTCAACTACCTGCCCCAGAACATGACCCAGGATGAG
TTCAAGAGTCTCTTCGGCAGCATTGGCGACATCGAGTCCTGCAAGTTGGTTCGGGACAAGATCACAGGGCAGAGC
CTTGGCTACGGGTTTGTGAACTATTCTGACCCCAATGATGCAGACAAAGCCATCAACACCCTCAACGGCCTCAAA
TTACAGACGAAGACCATCAAGGTGTCCTATGCCAGACCCAGTTCAGCATCCATCCGGGATGCTAACCTGTACGTC
AGCGGGCTCCCCAAGACCATGAGCCAGAAAGAGATGGAGCAGCTCTTCTCCCAGTACGGCCGCATCATCACGTCC
CGCATCCTGGTGGACCAGGTCACAGGTGTCTCTCGGGGTGTGGGATTCATCCGCTTTGACAAGAGGATTGAGGCC
GAAGAGGCTATCAAAGGACTGAATGGGCAGAAGCCGCTGGGCGCAGCTGAGCCCATCACAGTCAAGTTCGCGAAC
AACCCAAGTCAGAAGACGGGGCAGGCGCTGCTCACCCACCTCTACCAGTCATCCGCCCGGCGCTACGCAGGCCCC
CTACACCATCAGACCCAGCGTTTCCGGCTGGACAATTTGCTCAACATGGCCTACGGCGTCAAGAGTCCCCTGTCG
CTCATCGCCAGGTTCTCGCCGATCGCCATCGATGGTATGAGCGGCCTGGCGGGCGTGGGCCTGTCGGGGGGCGCG
GCGGGCGCCGGCTGGTGCATCTTCGTGTACAACCTGTCACCGGAGGCAGACGAGAGCGTGCTGTGGCAGCTGTTC
GGGCCTTTTGGGGCAGTCACCAACGTCAAGGTCATCCGTGATTTCACCACCAACAAGTGCAAGGGTTTCGGCTTC
GTGACCATGACCAACTATGACGAGGCGGCCATGGCCATCGCCAGCCTGAACGGCTATCGCCTGGGCGAGCGCGTG
CTGCAGGTCTCCTTCAAGACCAGCAAACAGCACAAGGCG**TGA**GCCCACCCCGCCTGCCCTCCCACCCCCTCCCCG
GGCAGCAGAGAGAGAGAGAGAGAAAGAGAGAGAGAGAGAGAAGGGGCCCAAGAGAGACAGCACAGGCAGCCCC
ACGGACGACGCGAGGGCCCCACGTCCCTGCGGAAGCCACAGGGTGAGCACTCTGGGGGTGGGAGGGTCTGCAGGGA
ATTGGGGGGGGTGCCCGGGGATCCCCCGCCCCATCCTCCTGCCCCCACCCCAGGCTGGGCTGTTCACTCTCTCGTC
TTGGTTTGGTTCATGGTGAAGGTTTTTGTTTCTTTTTTCGGCTAAAAAGAATGCAGAGATGTGCCCCCACCCCCA
CCCTCGACCACCCCCGATGGGATGGCTTGGGGGGCTCCAGGGGGTGCCCTCCCAGACCCCCTTGCCCAGGCCTCC
CCAGCACCTAGGTGGGGCCTGGGGTAGGAGGAACAGGTTTAAAAATCCCCAAAAAAGCGAACCGTGAGGAGGGGT
GTGGGCACCCCCGGCCCAGTGCCCCCTGGTGGAATGCGGGGGAGCAGGCAGTGGGGCTGGAAGCAGAAACAAAAT
GAAAAAAAAAGGGGGGTGGGAGGGGAAGAAAAACTCTATTTTTGTAAAAAGGGAAAAAGACCTCGTGGAGAATTT
TTACTGGGGATTCTTGAACTTGAAAAAAAAAAACACAAAAAAAGAC

FIGURE 364

ACTTCCGGTCTGGCTCCTAACAACGGGGGAGGCTGGTAACCAGGGTGGGGGGGATGGCGGAGCGGGCGCTAGAGC
CCGAGGCGGAGGCGGAGGCTGAGGCGGGCGCGGGCGGGGAGGCAGCAGCCGAGGAGGGCGCAGCGGGCCGAAAGG
CGCGGGGCCGGCCGCGACTCACGGAGTCGGACCGGGCCCGGCGACGGCTCGAGTCCCGGAAGAAGTACGACGTGC
GGCGCGTGTACCTGGGCGAGGCGCACGGGCCCTGGGTGGACCTGCGGCGCCGCAGCGGCTGGAGCGACGCCAAGC
TCGCCGCCTACCTCATCTCTCTGGAGCGCGGCCAGCGGAGCGGCCGCCACGGGAAGCCTTGGGAGCAGGTCCCCA
AAAAGCCAAAGCGGAAGAAAAGGCGGCGACGCAACGTGAACTGCCTGAAGAACGTGGTGATCTGGTACGAGGACC
ACAAGCACCGCTGCCCGTACGAGCCGCACCTGGCGGAGCTAGACCCCACTTTTGGCCTGTACACCACGGCCGTGT
GGCAGTGCGAAGCTGGCCACCGCTACTTCCAGGACCTGCATTCGCCCCTGAAGCCCCTCAGCGACTCAGACCCTG
ACAGTGACAAAGTGGGCAATGGGCTGGTGGCTGGCAGCTCTGACTCATCCAGCTCTGGCTCTGCCTCTGACTCTG
AGGAGTCTCCTGAGGGCCAGCCGGTCAAGGCTGCGGCAGCGGCAGCGGCAGCGACGCCCACCAGCCCGGTGGGCA
GCAGCGGGCTCATCACTCAGGAGGGCGTGCACATTCCCTTTGACGTCCACCACGTGGAAAGCCTGGCCGAGCAGG
GTACCCCGCTGTGCTCCAACCCAGCAGGCAATGGGCCTGAAGCCCTGGAGACAGTGGTGTGCGTGCCGGTGCCTG
TGCAAGTGGGTGCGGGCCCCAGCGCCCTCTTTGAGAACGTGCCCCAGGAGGCCCTGGGTGAGGTGGTGGCCAGCT
GCCCCATGCCAGGCATGGTGCCCGGCTCACAGGTGATCATCATTGCGGGCCCTGGTTACGACGCTCTCACGGCCG
AGGGCATTCACCTCAACATGGCAGCAGGCAGCGGTGTCCCCGGCAGTGGACTGGGCGAGGAGGTGCCCTGTGCCA
TGATGGAGGGTGTGGCAGCCTACACCCAGACAGAGCCCGAGGGTAGCCAGCCTAGCACCATGGACGCCACCGCAG
TAGCAGGCATCGAGACCAAGAAAGAGAAGGAGGACCTGTGCTTGCTAAAGAAGGAGGAGAAGGAGGAGCCAGTAG
CCCCGGAGCTGGCAACAACGGTGCCTGAGAGCGCAGAGCCTGAGGCAGAGGCGGACGGGGAGGAGCTGGACGGCA
GCGACATGTCAGCCATCATCTATGAAATCCCCAAGGAGCCTGAGAAGAGGCGGCGGAGCAAGCGGTCGCGGGTGA
TGGATGCTGACGGCCTGCTCGAGATGTTCCACTGCCCATACGAGGGCTGCAGCCAAGTCTACGTGGCCCTCAGCA
GCTTCCAGAACCACGTCAATCTTGTGCATCGGAAAGGAAAGACCAAAGTGTGCCCTCATCCTGGCTGTGGCAAGA
AGTTCTATTTATCCAACCACCTGCGGCGGCACATGATCATCCATTCAGGTGTCCGTGAATTCACCTGCGAGACCT
GCGGCAAGTCCTTCAAGAGGAAGAACCACCTGGAGGTACATCGGCGCACCCACACCGGCGAGACCCCCCTGCAGT
GCGAGATCTGTGGCTACCAGTGCCGGCAGCGCGCGTCGCTCAACTGGCACATGAAGAAGCACACTGCGGAGGTGC
AGTACAACTTCACGTGCGATCGCTGCGGGAAGCGCTTCGAGAAGCTGGACAGCGTCAAGTTCCACACGCTCAAAA
GCCACCCGGATCACAAGCCCACCTGACCCACCTGACCACTGACCGCCCCTATTTATTCGTCCGCTCGGACACCAC
GCCCGGGCTTGCCGGGGCCTGGACAGCTGCGAGGGCCGCCCGGACCGCGGGCCGGAAGGAGGCGCCCCCGCCCCG
CCCCAGAGCTGGGCCCCCTGGGCAGGTTCCCCACCCCGCCCCACCGCATCCTTCTCGGAGCTGGTGCCTGGGGCT
GCATTGCTGGAACTGTGTCAAGAGAGCAGAGTGAGATTAAAGAGCGAGAAAGG

FIGURE 365

GATTTGCTACCTCCCTGGAGCTCCCTGACCCGGACGCTCTCTGGGCCAATATGGCAGCGCCCAGCAACAAGACAG
AGCTGGCCTGGAGTCCGCGGCTGGCCGCGTGAGTAGGTGATTGTCTGACAAGCAGAGGC**ATG**AGCTGGGTCCAGG
CCACCCTACTGGCCCGAGGCCTCTGTAGGGCCTGGGGAGGCACCTGCGGGGCCGCCCTCACAGGAACCTCCATCT
CTCAGGTCCCTCGCCGGCTCCCTCGGGGCCTCCACTGCAGCGCAGCTGCCCATAGCTCTGAACAGTCCCTGGTTC
CCAGCCCACCGGAACCCCGGCAGAGGCCCACCAAGGCTCTGGTGCCCTTTGAGGACCTGTTTGGGCAGGCGCCTG
GTGGGGAACGGGACAAGGCGAGCTTCCTGCAGACGGTGCAGAAATTTGCGGAGCACAGCGTGCGTAAGCGGGGCC
ACATTGACTTCATCTACCTGGCCCTGCGCAAGATGCGGGAGTATGGTGTCGAGCGGGACCTGGCTGTGTACAACC
AGCTGCTCAACATCTTCCCCAAGGAGGTCTTCCGGCCTCGCAACATCATCCAGCGCATCTTCGTCCACTACCCTC
GGCAGCAGGAGTGTGGGATTGCTGTCCTGGAGCAGATGGAGAACCACGGTGTGATGCCCAACAAGGAGACGGAGT
TCCTGCTGATTCAGATCTTTGGACGCAAAAGCTACCCCATGCTCAAGTTGGTGCGCCTGAAGCTGTGGTTCCCTC
GATTCATGAACGTCAACCCCTTCCCAGTGCCCCGGGACCTGCCCCAGGACCCTGTGGAGCTGGCCATGTTTGGCC
TGCGGCACATGGAGCCTGACCTTAGTGCCAGGGTCACCATCTACCAGGTTCCTTTGCCCAAAGACTCAACAGGTG
CAGCAGATCCCCCCCAGCCCCACATCGTAGGTAAGTCCGAGAGCATGGGGGCAGCCAAGTCTCTAACCTTACCCA
GGCCCTGCCAGGTTCTCGCTGGGCCTAGGCTGGGCTCCCTGGGCCTCTGGGCCGAGTCCCTTGCAGGGCACAGGG
CATGTATGTCTCCACACCAGGAATCCAGAGTCCCGATCAGCAGGCCGCCCTGGCCCGCCACAATCCAGCCCGGCC
TGTCTTTGTTGAGGGCCCCTTCTCCCTGTGGCTCCGCAACAAGTGTGTGTATTACCACATCCTCAGAGCTGACTT
GCTGCCCCCGGAGGAGAGGGAAGTGGAAGAGACGCCGGAGGAGTGGAACCTCTACTACCCGATGCAGCTGGACCT
GGAGTATG**TGA**GGAGTGGCTGGGACAACTACGAGTTTGACATCAATGAAGTGGAGGAAGGCCCTGTCTTCGCCAT
GTGCATGGCGGGTGCTCATGACCAGGCGACGATGGCTAAGTGGATCCAGGGCCTGCAGGAGACCAACCCAACCCT
GGCCCAGATCCCCGTGGTCTTCCGCCTCGCCGGGTCCACCCGGGAGCTCCAGACATCCTCTGCAGGGCTGGAGGA
GCCGCCCCTGCCCGAGGACCACCAGGAAGAAGACGACAACCTGCAGCGACAGCAGCAGGGCCAGAGCTAGTCTGA
GCCGGCGCGAGGGCACGGGCTGTGGCCCGAGGAGGCGGTGGACTGAAGGCATGAGATGCCCTTTGAGTGTACAGC
AAATCAATGTTTTCCTGCTTGGGGCTCTCTTCCCTCATCTCTAGCAGTATGGCATCCCCTCCCCAGGATCTCGGG
CTGCCAGCGATGGGCAGGCGAGACCCCTCCAGAATCTGCAGGCGCCTCTGGTTCTCCGAATTCAAATAAAAAGGG
GCGGGAGCGCTGTTGGTTGTGCGC

FIGURE 366

TGCAGACGGAACTTCAGCCGCTGCCTCTGTTCTCAGCGTCAGTGCCGCCACTGCCCCCGCCAGAGCCCACCGGCC
AGC**ATG**TCCTCTGCTCACTTCAACCGAGGCCCTGCCTACGGGCTGTCAGCCGAGGTTAAGAACAAGCTGGCCCAG
AAGTATGACCACCAGCGGGAGCAGGAGCTGAGAGAGTGGATCGAGGGGGTGACAGGCCGTCGCATCGGCAACAAC
TTCATGGACGGCCTCAAAGATGGCATCATTCTTTGCGAATTCATCAATAAGCTGCAGCCAGGCTCCGTGAAGAAG
ATCAATGAGTCAACCCAAAATTGGCACCAGCTGGAGAACATCGGCAACTTCATCAAGGCCATCACCAAGTATGGG
GTGAAGCCCCACGACATTTTTGAGGCCAACGACCTGTTTGAGAACACCAACCATACACAGGTGCAGTCCACCCTC
CTGGCTTTGGCCAGCATGGCGAAGACGAAAGGAAACAAGGTGAACGTGGGAGTGAAGTACGCAGAGAAGCAGGAG
CGGAAATTCGAGCCGGGGAAGCTAAGAGAAGGGCGGAACATCATTGGGCTGCAGATGGGCACCAACAAGTTTGCC
AGCCAGCAGGGCATGACGGCCTATGGCACCCGGCGCCACCTCTACGACCCCAAGCTGGGCACAGACCAGCCTCTG
GACCAGGCGACCATCAGCCTGCAGATGGGCACCAACAAAGGAGCCAGCCAGGCTGGCATGACTGCGCCAGGGACC
AAGCGGCAGATCTTCGAGCCGGGGCTGGGCATGGAGCACTGCGACACGCTCAATGTCAGCCTGCAGATGGGCAGC
AACAAGGGCGCCTCGCAGCGGGGCATGACGGTGTATGGGCTGCCACGCCAGGTCTACGACCCCAAGTACTGTCTG
ACTCCCGAGTACCCAGAGCTGGGTGAGCCCGCCCACAACCACCACGCACACAACTACTACAATTCCGCC**TAG**GGC
CACAAGGCCTTCCCTGTTTTCCCCCCAAGGGAGGCTGCTGCTGCTCTTGGCTGGACCCAGCCAGGCCCAGCCGAC
CCCCTCTCCCTGCATGGCATCCTCCAGCCCCTGTAGAACTCAACCTCTACAGGGTTAGAGTTTGGAGAGAGCAGA
CTGGCGGGGGGCCCATTGGGGGGAAGGGGACCCTCCGCTCTGTAGTGCTACAGGGTCCAACATAGAGCCGGGTGT
CCCCAACAGCGCCCAAAGGACGCACTGAGCAACGCTATTCCAGCTGTCCCCCCACTCCCTCACAAGTGGGTACCC
CCAGGACCAGAAGCTCCCCCAGCAAAGCCCCCAGAGCCCAGGCTCGGCCTGCCCCCACCCCATTCCCGCAGTGGG
AGCAAACTGCATGCCCAGAGACCCAGCGGACACACGCGGTTTGGTTTGCAGCGACTGGCATACTATGTGGATGTG
ACAGTGGCGTTTGTAATGAGAGCACTTTCTTTTTTTTCTATTTCACTGGAGCACAATAAATGGCTGTAAAATCT

FIGURE 495

GTCTCCCCCACTGTCAGCACCTCTTCTGTGTGGTGAGTGGACCGCTTACCCCACTAGGTGAAG**ATG**TCAGCCCAG
GAGAGCTGCCTCAGCCTCATCAAGTACTTCCTCTTCGTTTTCAACCTCTTCTTCTTCGTCCTCGGCAGCCTGATC
TTCTGCTTCGGCATCTGGATCCTCATTGACAAGACCAGCTTCGTGTCCTTTGTGGGCTTGGCCTTCGTGCCTCTG
CAGATCTGGTCCAAAGTCCTGGCCATCTCAGGAATCTTCACCATGGGCATCGCCCTCCTGGGTTGTGTGGGGGCC
CTCAAGGAGCTCCGCTGCCTCCTGGGCCTGTATTTTGGGATGCTGCTGCTCCTGTTTGCCACACAGATCACCCTG
GGAATCCTCATCTCCACTCAGCGGGCCCAGCTGGAGCGAAGCTTGCGGGACGTCGTAGAGAAAACCATCCAAAAG
TACGGCACCAACCCCGAGGAGACCGCGGCCGAGGAGAGCTGGGACTATGTGCAGTTCCAGCTGCGCTGCTGCGGC
TGGCACTACCCGCAGGACTGGTTCCAAGTCCTCATCCTGAGAGGTAACGGGTCGGAGGCGCACCGCGTGCCCTGC
TCCTGCTACAACTTGTCGGCGACCAACGACTCCACAATCCTAGATAAGGTGATCTTGCCCCAGCTCAGCAGGCTT
GGACACCTGGCGCGGTCCAGACACAGTGCAGACATCTGCGCTGTCCCTGCAGAGAGCCACATCTACCGCGAGGGC
TGCGCGCAGGGCCTCCAGAAGTGGCTGCACAACAACCTTATTTCCATAGTGGGCATTTGCCTGGGCGTCGGCCTA
CTCGAGCTCGGGTTCATGACGCTCTCGATATTCCTGTGCAGAAACCTGGACCACGTCTACAACCGGCTCGCTCGA
TACCGT**TAG**GCCCCGCCCTCCCCAAAGTCCCGCCCCGCCCCCGTCACGTGCGCTGGGCACTTCCCTGCTGCCTGT
AAATATTTGTTTAATCCCCAGTTCGCCTGGAGCCCTCCGCCTTCACATTCCCCTGGGGACCCACGTGGCTGCGTG
CCCCTGCTGCTGTCACCTCTCCCACGGGACCTGGGGCTTTCGTCCACAGCTTCCTGTCCCCATCTGTCGGCCTAC

FIGURE 496A

GAGGGAGCGCCGGGGCCCTGGGCTGCAGGAGGTTGCGGCGGCCGCGGCAGCATGGTGGTGCCGGAGAAGGAGCAG
AGCTGGATCCCCAAGATCTTCAAGAAGAAGACCTGCACGACGTTCATAGTTGACTCCACAGATCCGGGGAGCCTG
GATTGTCACTGGGGGTCTGCACACGGGCATCGGCCGGCATGTTGGTGTGGCTGTACGGGACCATCAG**ATG**GCCAG
CACTGGGGGCACCAAGGTGGTGGCCATGGGTGTGGCCCCCTGGGGTGTGGTCCGGAATAGAGACACCCTCATCAA
CCCCAAGGGCTCGTTCCCTGCGAGGTACCGGTGGCGCGGTGACCCGGAGGACGGGGTCCAGTTTCCCCTGGACTA
CAACTACTCGGCCTTCTTCCTGGTGGACGACGGCACACACGGCTGCCTGGGGGGCGAGAACCGCTTCCGCTTGCG
CCTGGAGTCCTACATCTCACAGCAGAAGACGGGCGTGGGAGGGACTGGAATTGACATCCCTGTCCTGCTCCTCCT
GATTGATGGTGATGAGAAGATGTTGACGCGAATAGAGAACGCCACCCAGGCTCAGCTCCCATGTCTCCTCGTGGC
TGGCTCAGGGGGAGCTGCGGACTGCCTGGCGGAGACCCTGGAAGACACTCTGGCCCCAGGGAGTGGGGGAGCCAG
GCAAGGCGAAGCCCGAGATCGAATCAGGCGTTTCTTTCCCAAAGGGGACCTTGAGGTCCTGCAGGCCCAGGTGGA
GAGGATTATGACCCGGAAGGAGCTCCTGACAGTCTATTCTTCTGAGGATGGGTCTGAGGAATTCGAGACCATAGT
TTTGAAGGCCCTTGTGAAGGCCTGTGGGAGCTCGGAGGCCTCAGCCTACCTGGATGAGCTGCGTTTGGCTGTGGC
TTGGAACCGCGTGGACATTGCCCAGAGTGAACTCTTTCGGGGGGACATCCAATGGCGGTCCTTCCATCTCGAAGC
TTCCCTCATGGACGCCCTGCTGAATGACCGGCCTGAGTTCGTGCGCTTGCTCATTTCCCACGGCCTCAGCCTGGG
CCACTTCCTGACCCCGATGCGCCTGGCCCAACTCTACAGCGCGGCGCCCTCCAACTCGCTCATCCGCAACCTTTT
GGACCAGGCGTCCCACAGCGCAGGCACCAAAGCCCCAGCCCTAAAAGGGGGAGCTGCGGAGCTCCGGCCCCCTGA
CGTGGGGCATGTGCTGAGGATGCTGCTGGGGAAGATGTGCGCGCCGAGGTACCCCTCCGGGGGCGCCTGGGACCC
TCACCCAGGCCAGGGCTTCGGGGAGAGCATGTATCTGCTCTCGGACAAGGCCACCTCGCCGCTCTCGCTGGATGC
TGGCCTCGGGCAGGCCCCCTGGAGCGACCTGCTTCTTTGGGCACTGTTGCTGAACAGGGCACAGATGGCCATGTA
CTTCTGGGAGATGGGTTCCAATGCAGTTTCCTCAGCTCTTGGGGCCTGTTTGCTGCTCCGGGTGATGGCACGCCT
GGAGCCTGACGCTGAGGAGGCAGCACGGAGGAAAGACCTGGCGTTCAAGTTTGAGGGGATGGGCGTTGACCTCTT
TGGCGAGTGCTATCGCAGCAGTGAGGTGAGGGCTGCCCGCCTCCTCCTCCGTCGCTGCCCGCTCTGGGGGGATGC
CACTTGCCTCCAGCTGGCCATGCAAGCTGACGCCCGTGCCTTCTTTGCCCAGGATGGGGTACAGTCTCTGCTGAC
ACAGAAGTGGTGGGGAGATATGGCCAGCACTACACCCATCTGGGCCCTGGTTCTCGCCTTCTTTTGCCCTCCACT
CATCTACACCCGCCTCATCACCTTCAGGAAATCAGAAGAGGAGCCCACACGGGAGGAGCTAGAGTTTGACATGGA
TAGTGTCATTAATGGGGAAGGGCCTGTCGGGACGGCGGACCCAGCCGAGAAGACGCCGCTGGGGGTCCCGCGCCA
GTCGGGCCGTCCGGGTTGCTGCGGGGGCCGCTGCGGGGGGCGCCGGTGCCTACGCCGCTGGTTCCACTTCTGGGG
CGCGCCGGTGACCATCTTCATGGGCAACGTGGTCAGCTACCTGCTGTTCCTGCTGCTTTTCTCGCGGGTGCTGCT
CGTGGATTTCCAGCCGGCGCCGCCCGGCTCCCTGGAGCTGCTGCTCTATTTCTGGGCTTTCACGCTGCTGTGCGA
GGAACTGCGCCAGGGCCTGAGCGGAGGCGGGGGCAGCCTCGCCAGCGGGGGCCCCGGGCCTGGCCATGCCTCACT
GAGCCAGCGCCTGCGCCTCTACCTCGCCGACAGCTGGAACCAGTGCGACCTAGTGGCTCTCACCTGCTTCCTCCT
GGGCGTGGGCTGCCGGCTGACCCCGGGTTTGTACCACCTGGGCCGCACTGTCCTCTGCATCGACTTCATGGTTTT
CACGGTGCGGCTGCTTCACATCTTCACGGTCAACAAACAGCTGGGGCCCAAGATCGTCATCGTGAGCAAGATGAT
GAAGGACGTGTTCTTCTTCCTCTTCTTCCTCGGCGTGTGGCTGGTAGCCTATGGCGTGGCCACGGAGGGGCTCCT
GAGGCCACGGGACAGTGACTTCCCAAGTATCCTGCGCCGCGTCTTCTACCGTCCCTACCTGCAGATCTTCGGGCA
GATTCCCCAGGAGGACATGGACGTGGCCCTCATGGAGCACAGCAACTGCTCGTCGGAGCCCGGCTTCTGGGCACA
CCCTCCTGGGGCCCAGGCGGGCACCTGCGTCTCCCAGTATGCCAACTGGCTGGTGGTGCTGCTCCTCGTCATCTT
CCTGCTCGTGGCCAACATCCTGCTGGTCAACTTGCTCATTGCCATGTTCAGTTACACATTCGGCAAAGTACAGGG
CAACAGCGATCTCTACTGGAAGGCGCAGCGTTACCGCCTCATCCGGGAATTCCACTCTCGGCCCGCGCTGGCCCC
GCCCTTTATCGTCATCTCCCACTTGCGCCTCCTGCTCAGGCAATTGTGCAGGCGACCCCGGAGCCCCCAGCCGTC
CTCCCCGGCCCTCGAGCATTTCCGGGTTTACCTTTCTAAGGAAGCCGAGCGGAAGCTGCTAACGTGGGAATCGGT
GCATAAGGAGAACTTTCTGCTGGCACGCGCTAGGGACAAGCGGGAGAGCGACTCCGAGCGTCTGAAGCGCACGTC
CCAGAAGGTGGACTTGGCACTGAAACAGCTGGGACACATCCGCGAGTACGAACAGCGCCTGAAAGTGCTGGAGCG
GGAGGTCCAGCAGTGTAGCCGCGTCCTGGGGTGGGTGGCCGAGGCCCTGAGCCGCTCTGCCTTGCTGCCCCCAGG
TGGGCCGCCACCCCCTGACCTGCCTGGGTCCAAAGAC**TGA**GCCCTGCTGGCGGACTTCAAGGAGAAGCCCCCACA
GGGGATTTTGCTCCTAGAGTAAGGCTCATCTGGGCCTCGGCCCCCGCACCTGGTGGCCTTGTCCTTGAGGTGAGC
CCCATGTCCATCTGGGCCACTGTCAGGACCACCTTTGGGAGTGTCATCCTTACAAACCACAGCATGCCCGGCTCC
TCCCAGAACCAGTCCCAGCCTGGGAGGATCAAGGCCTGGATCCCGGGCCGTTATCCATCTGGAGGCTGCAGGGTC

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FIGURE 367

GGCTCATCCACCTGCAGAC**ATG**GGGCGCAGAAAGTCAAAACGAAAGCCGCCTCCCAAGAAGAAGATGACAGGCAC
CCTCGAGACCCAGTTCACCTGCCCCTTCTGCAACCACGAGAAATCCTGTGATGTGAAAATGGACCGTGCCCGCAA
CACCGGAGTCATCTCTTGTACCGTGTGCCTAGAGGAATTCCAGACGCCCATAACGTATCTGTCAGAACCCGTGGA
TGTGTACAGTGATTGGATAGACGCCTGCGAGGCGGCCAATCAG**TAG**CGACACAGAGGACCCGCCCCCTGAGCAGC
CCCGCGTACTGTGGATCCAGCTGTTCGGTTCTGGTCCAGAGACATTCCAGGGGTCCAGGGTGTGGGTCCTGGGCT
GTCACAGCCGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTAGTGGGTGTGCGTGTG
GGTGTGGGTGTGAGTGAGTGTGGGTGTGTGTGGCTGCACGTGTCACTGGGGTGGCCGTGAGTGTGTGCTCACAGG
TACGCGGTGGTGTCGGGTTCCTGGGCCTGAGGGGCCTGAACTGATCTCACTTGGCTCCGAAAGCCTTTGCTGTGT
TCCCTGCAGCCCCTGGCCCCCCAGCCTTGGGGCTCTGGCTCCCCCCGGCGGAATTGGGGGACTGTTTCCTGACAT
CCTGGACAAGGGAAGCCCACTAGAGGCTGGAACAGGACCTCTCCAGCCTCCTCACCAGCACCGTGCCCATCTCAA
CTGGACTTCCCGCTCTCCTTCTCCACCTTCTAGTGCCCGTGGCCGGGGATTCAAAGCCGCCGTTCCCCAGGTCCC
TGGGCTGGGCCCTGACAGGGAGCCGCCCCCCTCCCCATGGTAACCAGGAAGCCCGTTTCATGTTCAGTTGCTTTT
GTAGAGGAAGCAAGGGCTGGGATGGGGACAGCTGTCAATCACAAGCCCTTAAATAAAGCAGCCAGCGCAC

FIGURE 368

CCCACCCGGGCTCGCGTCTCCGTTTCTCCGAGAGGCCCAAGGTGTCTCCGCCGCAGCCTCTGTCGCGCCGTGACC
TGTACAGGTCGCGGGAGTCGTAGGGAGGACGCCGGGACACCTGGAAGCCGAGAA**ATG**GATTCAGTGGCCTTTGAG
GATGTGGCTGTGAACTTCACCCTGGAGGAGTGGGCTTTGCTGGATCCTTCCCAGAAGAATCTCTACAGGGATGTG
ATGCGGGAAACCTTCAGGAACCTGGCTTCTGTAGGAAAACAATGGGAAGACCAGAACATTGAAGACCCATTCAAA
ATTCCCAGGAGAAATATAAGTCATATTCCAGAGAGACTCTGTGAAAGTAAAGAAGGTGGTCAAGGTGAAGAAACC
TTCAGCCAGATTCCAGATGGTATTCTGAACAAGAAAACTCCTGGAGTAAAACCGTGTGAAAGCAGTGTGTGTGGA
GAAGTTGGCATGGGTCCTTCATCACTTAATAGGCACATCAGAGATCACACTGGACGTGAACCAAATGAATATCAG
GAATATGGAAAGAAGTCATATACACGTAACCAGTGTGGACGAGCCTTGAGTTATCATCGCTCTTTTCCAGTACGT
GAAAGGACTCATCCTGGAGGAAAGCCCTATGATTGTAAGGAATGTGGAGAAACCTTTATTTCTCTTGTAAGCATT
CGAAGACACATGTTAACGCATAGGGGAGGTGTACCTTACAAATGTAAGGTGTGTGGGAAAGCCTTTGATTATCCC
AGTTTATTTCGTATACATGAAAGAAGTCACACTGGAGAGAAACCTTATGAATGCAAGCAATGTGGGAAAGCCTTC
AGTTGTTCCAGTTACATTAGAATACATGAAAGGACTCACACTGGAGATAAACCCTATGAATGCAAGCAGTGTGGG
AAAGCTTTCAGTTGTTCCAAGTACATTCGAATCCATGAACGAACTCACACAGGAGAGAAACCCTACGAATGTAAA
CAGTGCGGTAAAGCCTTTAGGTGCGCCAGTTCTGTTCGAAGTCACGAGAGGACTCACACCGGAGAGAAACTTTTT
GAATGTAAGGAATGCGGGAAGGCTTTGACTTGTCTTGCAAGTGTTAGAAGACACATGATAAAGCACACTGGCAAT
GGACCTTATAAATGTAAGGTGTGTGGGAAAGCCTTTGATTTCCCCAGTTCATTTCGAATCCATGAAAGGACCCAC
ACTGGAGAGAAACCCTATGATTGTAAGCAATGTGGGAAAGCCTTCAGTTGTTCCAGTTCGTTTCGAAAACATGAA
AGAATTCACACTGGAGAGAAACCCTATAAATGTACAAAATGTGGGAAAGCCTTCAGTCGTTCCAGTTACTTCCGA
ATCCATGAAAGAACTCACACTGGAGAGAAACCCTATGAATGTAAGCAATGTGGGAAAGCCTTCAGTCGATCCACT
TACTTTCGAGTACATGAAAAAATTCATACTGGAGAGAAACCCTATGAGAACCCTAACCCTAACGCTTCAGTTGTC
CCAGTTCTTTCA**TGA**GCATGAAAGGAGTCACATAGAGAAACCCCATGAAAGTAAGAAATTTGGGAAAGCCTTCAG
TCCTTTCTGTTTCTTTCAACTACGTGAAAGGATTCACAGTGGAGAAAGACCCTGTAAGATAATTGGCTTTAAATT
ACGAGAGACTTGTGATAGGACAGTAAAACCTAGAGTTGGAGTTGGATCTCTGGATTGTGTTATGTCAGTGTTGGT
AGGTTAGGAACTAGATTTCCCAGAATCCATTCCATTTGTGATTCCATGATACAATTCACCAGTAACCTATCTTAC
ATGAGATTCGGAAGTAAGTTAAGAAGGCATTAGTCATGGTTTGGAAGCACCATACAGGGAGACAGCTGTGTGAAT
ACAGGCTGTATGGACACTTGCTTCCATCCCATTTTCCTGCTTCTTTGGGTTGCCAATCAAGAGTATCCTCAAAAC
GACTTGACTTTAATTTTCTCGGAGGTGATAGGCTTCCACACAGGTCTCCAGAAGCCCTGCATTGAATATCCATCC
ACACTTTGGTTTTCCTTCAGACATTATTATGTCTGTACTAGGCAACTAATTCAGACTGTCCTGGTTGGGAATATT
CTGTGATGCTCTGACTCCCCTAGTCTGTAGACGGAATTGGCATACGGTCTAATTTGTGTAGTAAGCACCTTTGTT
CATACTAGTAGTGACTGTATTCTTGATTCAGCCTGATAGCTACCATGCTGCTGTCAAAACCAACCAGAGGGGAGC
TTGTTCTTCTGCTGTAGTGTGCAGTGACTGGCCTCACCCAGGACTTTGATGTGAGAATGAGCACTTTCCTCTATC
AGGAAATTTCAAGTGTTTCCTGTTATTCGTAGCTCAATGTAATGCCTCAGTTCATTTTCAGTTGTTTGATTATAT
GTGACTAATATGTATTTTTATTCAAACAAGACTTCTGTACATGTTTCTTCAAAACAGTTTATTAACTGTCTTCA
GTCTTGGATTACATCAAGTTTATAATTTTGGCAAATTGTTAAGACACTGTGAAGTCAGCGTTAACCATGTGCATA
CAACTTAAGGAATTTTTTCCTCCTCATGTAAATTTTACTTTTCATGCTTATATAGTTTCAACTTTTATCTTCATA
GTAATTTCTCATCTACTCATAATACCAAAAGTTAAGTCATGCTGTTTTGTGTGCTCTCTTGCTAAAGACCGCAGA
GACCATACCTGTTGTCAAAGAGGGTGTAATAAACTGTAATAATAATCATGACCAC

FIGURE 369

TTTCTGCCCGTGGACACCGCCGAAGAAGCATCGTTAAAGTCTCTCTTCACCCTGCCGTC**ATG**TCTAAGTCAGAGT
CTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACAACTGATGAGAGCCTGA
GGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAGGG
GCTTTGGGTTTGTCACGTATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGATG
GAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAGAAGATTCTCAAAGACCAGGTGCCCACTTAACTGTGAAAA
AGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAAGAGATTATTTTGAACAGTATGGAAAAA
TTGAAGTGATTGAAATCATGACTGACCGAGGCAGTGGCAAGAAAAGGGGCTTTGCCTTTGTAACCTTTGACGACC
ATGACTCCGTGGATAAGACTGTCATTCAGAAATACCATACTGTGAATGGCCACAACTGTGAAGTTAGAAAAGCCC
TGTCAAAGCAAGAGATGGCTAGTGCTTCATCCAGCCAAAGAGGTCGAAGTGGTTCTGGAAACTTTGGTGGTGGTC
GTGGAGGTGGTTTCGGTGGGAATGACAACTTCGGTCGTGGAGGAAACTTCAGTGGTCGTGGTGGCTTTGGTGGCA
GCCATGGTGGTGGTGGATATGGTGGCAGTGGGGATGGCTATAATGGATTTGGTAATGATGGAAGCAATTTTGGAG
GTGGTGGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAAATT
TTGGAGGCAGAAGCTCTGGCCCCTATGGCGGTGGAGGCCAATACTTTGCAAAACCACGAAACCAAGTGGCTATGG
CGGTTCCAGCAGCAGCAGTAGCTATGGCAGTGGCAGAAGATTTTAAT**TAG**GAAACAAAGCTTAGCAGGAGAGGAG
AGCCAGAGAAGTGACAGGGAAGCTACAGGTTACAATAGATTTGTGAACTCAGCCAAGCACAGTGGTGGCAGGGCC
TAGCTGCTACAAAGAAGACATGTTTTAGACAAATACTCATGTGTATGGGCAAAAAACTCGAGGACTGTATTTGTG
ACTAATTGTATAACAGGTTATTTTAGTTTCTGTTCTGTGGAAAGTGTAAAGCATTCCAACAAAGGGTTTTAACGT
AGATTTCTTTTTGCACCCCATGCTGTTGATTGCTAAATGTAATAGTCTGATCGTGATGCTGAATAAATGTCTTTT
TTTT

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FIGURE 370

CTGACAGACACCCACAGACGTGTCTGTAGCATCCTCTGTCACACTGGGACCCGTACTGGCAGCAGGAGCCGTAGG
GAGGACTGGGACACCTGGAAGCCAGGAATTGATTGTACGGGGGCCACTAGAGGGTCATGGGGGAAATCCTGCCTC
GAGTATGGGGTTCGTGTGAGAGGAGCTGACTCAGTGACCTTTGAGGATGTGGCTGTGAACTTCACCCAGGAGGAG
TGGGCTTTGCTGGGTCCTTCCCAGAAGAATCTCTACAGAGATGTG**ATG**TGGGAAACCTTCAGGAACCTGATGTCT
GTAGGAATAAAATGTGAAGACCAGATCATTGAAGATCAGTACAATAATTCCAAAAGAAATCTAAGCTATTGCCAC
TCCTTTCAAACACATGAAAGGCCTCACACTGGAAAGAAACTCCATGTAAGAAATGTGGAAAAACCTTCATTTCTG
TTCAAACCTTTTGAAGATACATGTGAAGATGAACCTTATAAATGTAAGTTTTGTGGGAAGGCCTTTGATAATCTA
CATTTATATCTTACACATGAAAGAACTCACACTGGAGAGAAACCCTATGAATGTAATAAATGTGGGAAAGCCTTC
AGTTGTTCCAGTTCCATTCGAAAACATGCAAGAATTCACACTGGAGAGAAACCCTATATATGTAAACAATGTGGC
AAAGCCTTTAGATATTCCAGTTCTATTCGAAATCATGAAAACACTCACACTGGTGAAAAACCCTGTGAATGTAAG
CAATGTGGGAAAGCCTTTAGTTATTCCAGTTACTTTCGAATACATGAAAGAATTCACACTGGAGAGCAGGTGTAT
AAATGTAAGGAATGTGGGAAAACATTCACTTATCCCAGTGCCTTTCATAAACATAAAAGTACCCACACTTCACAG
AAACTTTATGAATGTAAGGAATGTGGGAAAGCATTTGATTGTTTTAGTTCCTTTCATAGTCATGAAGGGGTTCAC
ACTGGAGAGAAACCCTATGAATGCAGAACGTGGAAAAGCCTTCAG**TAG**

FIGURE 371

GAGAGAGAGACGCCCTGGAAGGTCTGTATCAGCGTCTGTCGCGCTGGGACCCACACTGGCTTTTAAGGAGGACAC
CCGGACACCTGGAAGCTGGGAAATGAAGTCATACATGTGAAATTAAAGATGACAGTCAATGTGGAGAAACTTTTG
GCCAGATTCCAGATAGTATTGTGAACAAGAACACTCCTCGAGTAAATCCATGTGACAGTGGTGAGTGTGGAGAAG
TCGTCTTGGGTCATTCGTCTCTTAATTGCAACATCAGAGTTGACACTGGACACAAATCATGTGAGCATCAGGAAT
ATGGAGAGAAGCCATATACACATAAACAACGTGGGAAAGCCATCAGTCATCAGCACTCCTTCCAGACACATGAAA
GGCCCCCCACCGGAAAGAAACCCTTCGATTGTAAAGAATGTGCAAAAACCTTTAGTTCTCTTGGAAACCTCCGAA
GACACATGGCGGCACACCATGGAGATGGACCTTATAAATGTAAGTTGTGTGGGAAAGCCTTTGTTTGGCCCAGTT
TATTTCATTTGCACGAAAGAACACACACTGGAGAGAAACCGTATGAATGTAAGCAGTGTTCTAAAGCCTTTCCTT
TTTACAGTTCCTATC**TAA**GACATGAAAGAATCCACACGGGAGAGAAAGCGTATGAATGTAAGCAGTGTTCCAAAG
CCTTTCCTGATTACAGTACCTATCTAAGACATGAGAGAACTCACACCGGAGAGAAACCCTATAAATGTACACAAT
GTGGGAAAGCCTTCAGCTGTTACTATTACACTCGACTACATGAAAGGACTCACACGGGAGAACAACCCTATGCAT
GTAAGCAATGTGGGAAAACGTTTTATCATCACACAAGCTTTCGAAGACACATGATAAGGCACACTGGAGACGGAC
CACATAAATGTAAGATATGTGGGAAAGGCTTTGATTGTCCTAGTTCAGTTCGAAATCATGAAACTACTCACACTG
GAGAGAAACCCTATGAATGTAAGCAGTGTGGGAAAGTGTTATCTCATAGCTCGAGCTTTCGAAGTCACATGATAA
CACACACAGGAGATGGACCCCAGAAATGCAAGATATGTGGGAAAGCCTTTGGTTGTCCCAGTTTATTTCAAAGAC
ATGAAAGGACTCACACTGGAGAGAAACCCTATCAATGTAAACAATGTGGTAAAGCCTTCAGTCTTGCCGGTTCCC
TTCGAAGACATGAAGCAACTCACACTGGAGTGAAACCCTATAAATGTCAGTGTGGGAAAGCCTTTAGTGATCTCT
CTTCCTTTCAAAATCATGAGACAACTCACACTGGAGAGAAGCCATATGAGTGTAAGGAATGTGGGAAAGCATTCA
GTTGTTTCAAATACCTTTCTCAACATAAAAGGACCCACACAGTAGAAAAACCTTATGAGTGTAAAACATGTAGAA
AAGCCTTCAGTCATTTCAGTAACTTAAAAGTCCATGAAAGGATTCACTCTGGAGAGAAGCCATATGAATGTAAGG
AATGTGGAAAAGCATTCTCTTGGCTCACTTGCCTTCTACGACATGAAAGAATTC

FIGURE 372

ATGGACCTTACTACTGAATGTAGAAATGCATTTACTAGTCCTAATTCATTTCAGTTACATGAAAGATTTCAAACT
GCAGAGAACCACTATGAATGTAAACAATGTGAGTCTAGGCCCCCAGTGCTGTCACTCTCACCCATCCTCCTCTAC
ACATGTGAGATGTTTCAGGACCCAGTGGCCTTTGAGGATGTGGCTGTGAACTTCACCCAGGAGGAAAATTTTATG
GGAGAGAGACTCTTTGAGAGTGCAGAAGGTAGTCAGTGTGGAGAAACTTTCACCCAGGTTCCGGAAGACATGCTG
AACAAGAAAACTCTTCCTGGAGTAAAATCATGTGAAAGTGGTACATGTGGAGAAATCTTCATGGGATATTCATCC
TTTAATAGGAACATCAGAACTGACACTGGACACCAACCACATAAGTGTCAGAAATTTTTAGAGAAGCCATATAAA
CATAAACAACGTAGGAAAGCCTTGAGCCATAGCCACTGCTTTCGAACACATGAAAGGCCTCACACTAGAGAGAAA
CCTTTTGATTGTAAGGAATGTGAAAAATCTTTCATTTCTCCTGCAAGCATTCGAAGATATATGGTAACGCACAGT
GGAGATGGACCTTATAAATGTAAGTTTTGTGGGAAAGCCTTGGATTGTCTCAGTTTATACCTTACCCATGAACGA
ACTCACACTGGAGAGAAACGATATGAATGTAAACAATGTGGTAAAGCCTTCAGTTGGCACAGTTCTGTTCGAATC
CATGAAAGAACTCACACTGGGGAGAAGCCATATGAATGTAAGGAGTGTGGGAAATCATTCAATTTTTCCAGTTCC
TTTCGCAGACATGAAAGGACACACACAGGAGAGAAGCCGTACAAATGTAAGGAATGTGGGAAAGCCTTCAATTGT
CCCAGTTCTTTTCACAGGCATGAAAGGACTCACACAGGAGAAAAACCCTATGAATGTAAACTATATGGGAAAGCA
TTATCTCGCCTTATAAGCTTTCGAAGACACATGAGAATGCACACTGGAGAGAGGCCTCATAAATGTAAGATATGT
GGGAAAGCCTTTTACTCTCCCAGTTCATTTCAAAGGCATGAAAGAAGTCACACTGGAGAGAAACCCTACAAATGC
AAGCAATGTGGGAAAGCCTTCACTTGTTCCACTTCGTTTCAATATCATGAAAGGACTCACACTGGAGAGAAACCC
GATGGGTGTAAGCAATGTGGGAAAGCCTTCAGATCTGCCAAGTACATTCGAATACATGGAAGGACTCACACTGGT
GAGAAACCCTATGAATGTAAGCAATGTGGGAAAGCATTTCATTGTGTCAGCTCCTTTCATAGACATGAAAGGACT
CACGCTGGAGAAAAACCTTATGAATGTAAGCATTGTGGGAAAGCCTTCACTTGTTCCATATATATTAGAATACAT
GAAAGAATTCACACTGGAGAGAAACCTTACCAATGTAAGGAATGTGGGAAAGCCTTCATTCGTTCCAGTTACTGT
CGAAAACATGAAAGAACTCACACTATTAATATA**TGA**

FIGURE 373

ATGTTTCAGGACCCAGTGGCTTTTAAGGATGTGGCTGTGAACTTCACCCAGGAGGAGTGGGCTTTGCTGGATATT
TCCCAGAGGAAACTCTACAGGGAAGTGATGCTGGAAACTTTCAGGAACCTGACCTCTTTAGGAAAAAGGTGGAAA
GACCAGAACATTGAATATGAGCACCAAAACCCCAGGAGAAACTTCAGGAGTCTCATAGAAGAAAAAGTCAATGAA
ATTAAAGATGACAGTCATTGTGGAGAAACTTTTACCCCAGTTCCAGATGACAGACTGAACTTCCAGGAGAAGAAA
GCTTCTCCTGAAGTAAAATCATGTGAAAGCTTTGTGTGTGGAGAAGTTGGCCTAGGTAACTCATCTTTTAATATG
AACATCAGAGGTGACATTGGACACAAGGCATATGAGTATCAGGAATATGGACCAAAGCCATGTAAGTGTCAACAA
CCTAAAAAAAGCCTTCAGATACCGCCCCTCCTTTAGAACACAAGAAAGGGATCACACTGGAGAGAAACCCAATGCT
TGTAAAGTATGTGGAAAAACCTTTATTTCCCATTCAAGTGTTCGAAGACACATGGTAATGCACAGTGGGGATGGA
CCTTATAAATGTAAGTTTTGTGGGAAAGCATTCCATTGTCTCAGATTATATCTTATCCATGAAAGAATTCACACT
GGAGAGAAACCATGTGAATGTAAACAGTGTGGTAAATCCTTTAGTTATTCTGCTACCCATCGAATACATAAAAGA
ACTCACACTGGAGAAAAGCCTTATGAATATCAGGAGTGTGGGAAAGCATTTCATAGTCCCAGATCCTATCGTAGA
CATGAAAGGATTCACATGGGAGAAAAGGCTTATCAATGTAAGGAATGTGGAAAAGCATTCACGTGTCCCCGTTAT
GTTCGTATACATGAAAGGACCCACTCTAGGAAAAATCTCTATGAATGTAAGCAGTGTGGGAAAGCATTATCCTCT
CTTACAAGTTTTCAAACACACGTAAGATTGCACTCTGGAGAAAGACCTTATGAATGTAAGATATGTGGAAAAGAC
TTTTGTTCTGTGAATTCATTTCAAAGACATGAAAAAATTCACAGTGGAGAGAAACCCTATAAATGTAAGCAGTGT
GGTAAAGCCTTCCCTCATTCCAGTTCCCTTCGATATCATGAAAGGACTCACACTGGAGAGAAACCCTATGAGTGT
AAGCAATGTGGGAAAGCCTTCAGATCTGCCTCACACCTTCGAGTGCATGGTAGGACTCACACTGGAGAGAAACCG
TATGAATGTAAGGAATGTGGGAAAGCCTTCAGATATGTGAATAACCTTCAAAGTCATGAAAGGACACAAACACAC
ATAAGAATACACTCTGGAGAAAGACGTTATAAATGTAAGATATGTGGGAAAGGCTTTTATTGTCCCAAATCATTT
CAAAGACATGAAAAAACTCACACTGGAGAGAAACTCTATGAATGCAAGCAACGTTCAGTAGTTCCTTCAGTAGTT
CCAGTTCCTTTTGATATCATGAAAGGACTCACACTGGAGAGAAGCCCTATAAATGCGAGCAATGTGGGAAAGCCT
TCAGAGCTGTGTCAATCCTTTGAATGCATGGTAGGACTCACCCTGAAGAGAAACCCTATGAGTGTGAGCAATGAC
GGAAAGCCTTCAGATCTGCCCCACACCTTTGAATACGTGGTAGGACACACAATGGAGAGAAGCCCTATGCATAAC
CTTCGAATTCATGAAAGGACACAAACACACATAATGCACTCTGTAGAGAGACCTTATAAATGTAAGATATGTGGG
AGGGGCTTTTATTCTGCCAAGTCATTTCAAATACATGAAAAATCTTACACTGGAGAGAAACCCTATGAGTGTAAG
CAATGTGGGAAAGCCTTTGTTTCCTTCACTTCCTTTCGATATCATGAAAGGACTCACACTGGAGAGAACCCCTAT
GAGTGTAAGCAATTTGGGAAAGCCTTCAGATCTGTCAAAAATCTTCGATTTCATAAAAGGACACACACTGGAGAG
AAACCCTGTGAATACATGAAAAGACTCACACTGGAAGGAAACACTATGAATGCAAGCAATGTGGCAAAGCTTTCA
CTTCTTCCAGTTCTTTTCAATATCATGAAAGAACACACTAGGGAGAAACCCTATCAATGTAAGCAATGTGCAAAA
GCCTTTATTTCTTCCACTTCTTTTCAATATCATGAAAGGACTCACATGGGAGAGAAACCCTATGAGTGTATGCCA
AGTGGGAAAGCCTTCATTTCTTCTAGTTCCCTTCAATATCATGAAAGGACTCACACTGGAGAGAAGCCCTATGAA
TATAAGCAATGTGGGAAAGCCTTCAGATCAGCCTCGCACCTTCAAATGCATGGAAGGACTCACACTGGAGAAAAA
CCCTATGAATGTAAGCAGTATGGGAAAGCGTTCAGACCTGACAAGATTCTT**TGA**

FIGURE 374

AGAAGAGAAAGTCAATGAAATTAAAGAAGACAGTCATTGTGGAGAAACTTTTACCCCAGTTCCAGATGACAGGCT
GAACTTCCAGAAGAAGAAAGCTTCTCCTGAAGTAAAATCATGTGACAGCTTTGTGTGTGAAGTTGGCCTAGGTAA
CTCATCTTCTAAT**ATG**AACATCAGAGGTGACACTGGACACAAGGCATGTGAATGTCAGGAATATGGACCAAAGCC
ATGGAAGAGTCAACAACCTAAAAAAGCCTTCAGATATCACCCCTCCTTGAGAACACAAGAAAGGGATCACACTGG
AAAGAAACCCTATGCTTGTAAAGAATGTGGAAAAAACATTATTTACCATTCAAGCATTCAAAGACACATGGTAGT
GCACAGTGGGGATGGACCTTATAAATGTAAGTTTTGTGGGAAAGCATTCCATTGTCTCAGTTTATATCTTATCCA
TGAAAGAACTCACACTGGAGAGAAACCGTATGAATGTAAACAATGTGGTAAATCTTTTAGTTATTCTGCTACCCA
TCGAATACATGAAAGAACTCACATTGGAGAAAAGCCTTATGAATGTCAGGAATGTGGGAAAGCATTCCATAGTCC
CAGATCCTGTCACAGACATGAAAGGAGTCACATGGGAGAGAAGGCTTATCAATGTAAGGAATGTGGAAAAGCATT
CATGTGTCCCCGTTATGTTCGTAGACATGAAAGGACCCACTCTAGGAAAAAACTTTATGAATGTAAGCAGTGTGG
GAAAGCATTATCCTCTCTTACAAGTTTTCAAACACACATAAGAATGCACTCTGGAGAAAGACCTTATGAATGTAA
GACATGTGGGAAAGGCTTTTATTCTGCCAAGTCATTTCAAAGACATGAAAAAACTCACAGTGGAGAGAAACCGTA
TAAATGCAAGCAATGTGGTAAAGCCTTCACTCGTTCCGGTTCCTTTCGATATCATGAAAGGACTCACACTGGAGA
GAAACCCTATGAGTGTAAGCAATGTGGGAAAGCCTTCAGATCTGCCCCAAATCTTCAATTGCATGGTAGGACTCA
CACTGGAGAGAAACCGTATCAATGTAAGGAATGTGGGAAAGCTTTCAGATCTGCCTCACAACTTCGAATCCATCG
TAGGATTCACACTGGAGAGAAACCCTATGAATGTAAGAAATGTGGGAAAGCCTTCAGATATGTCCAGAACTTTCG
ATTTCATGAAAGGACACAAACACATAAGAATGCACTCTGGAGAAAGACCTTA**TAA**ATATAAGATATATGGGAAAC
ACTTTTATTCTGCCAAGTTATTTCAAACACATGAAAAAATTCACACTGGAGAGAAACCCTATAAATGCAAGCAAT
GTGGTAAAGCCTTAATTGTTCCAGTTCCTTTCGATATCTAAAAGGACTCACAGTGGAGAAAAACTCTATGAGTGT
AAGCAATGTGGGAAAGTCTTCAGATCTGTCAAGAACCTTTCAATTTATGAAAGGACACACACTGGAGAGAAACCC
TATGAATGTAAGAAATGTGGAAAAGCGTTCCATAATTTCTCTTCTTTTCAAATACATGAAAGTTGCACAGAGGAG
AGGCGCCCTAAGAATGTAAGCATTGTGGGAAAGCATTCATATCTGCCAAGATCGTTTGAATACATGCAAAACACA
CACTGGAGAGAAACCTATGAATGTAAGGAATGCAAACAAGCATTCAATTATTTTTCTTCCTTGCATATACATGAA
AGGACTCATACGAGAGAGAATCCGTATGAATGTAAGGATTGTGGGAAAGCATTCAGCTTGCTTAATTGCTTTCAT
AGACATGTAAAGACACACCAGAAGGAAACCCTATGAATGTAAGCAATGTGGCAAAAGCTTTCACTTCTTCCAGTT
CTTTTCAATATCATGAAAGGACTCACACTGGGGAGAAACCGTATCAATGTAAGCAATGTGGGAAAGCCGTCAGAT
CAGCCTCAAGACTTCAAATGCATGGAAGCACTCACACTTGGCAGAAACTCTATGAATGTAAGCAGTATGGGAAAG
CCTTCAGATCGGCTAGGATTCTTTGAATACAAATAATGAATGTAAACAATTAACTGTTTATAATAACTGTATACT
AACAAATGTTATTCTTTTTAAATAATTAAGAAGCTATAATAAAATATCCATTGGTGTCATGTATT

FIGURE 375

CGGAAATGGAGGGGGTCGCTTTCCTCACCTTCCTCGCTGCGCGGGCGGCGGTTGGTAACCGGTCAGACCAGCCCG
AGAGGGACCTGGTGCCTGTACCCAGGCTTCTGTCGCTCTGTCGCCTGCGCT**ATG**CCCTGCTGTAGTCACAGGAGC
TGTAGAGAGGACCCCGGTACATCTGAAAGCCGGGAAATGGACCCAGTGGCCTTTGAGGATGTGGCTGTGAACTTC
ACCCAGGAAGAGTGGACATTGCTGGATATTTCCCAGAAGAATCTCTTCAGGGAAGTGATGCTGGAAACTTTCAGG
AACCTGACCTCTATAGGAAAAAAATGGAGTGACCAGAACATTGAATATGAGTACCAAAACCCCAGAAGAAGCTTC
AGGAGTCTCATAGAAGAGAAAGTCAATGAAATTAAAGAAGACAGTCATTGTGGAGAAACTTTTACCCAGGTTCCA
GATGACAGACTGAACTTCCAGGAGAAGAAAGCTTCTCCTGAAGTAAAATCATGTGACAGCTTTGTGTGTGCAGAA
GTTGGCATAGGTAACTCATCTTTTAATATGAGCATCAGAGGTGACACTGGACACAAGGCATATGAGTATCAGGAA
TATGGACCAAAGCCATATAAGTGTCAACAACCTAAAAATAAGAAAGCCTTCAGGTATCGCCCATCCATTAGAACA
CAAGAAAGGGATCACACTGGAGAGAAACCCTATGCTTGTAAAGTCTGTGGAAAAACCTTTATTTTCCATTCAAGC
ATTCGAAGACACATGGTAATGCACAGTGGGGATGGAACTTATAAATGTAAATTTTGTGGGAAAGCCTTCCATTCT
TTCAGTTTATATCTTATCCATGAAAGAACTCACACTGGAGAGAAACCATATGAATGTAAACAATGTGGTAAATCC
TTTACTTATTCTGCTACCCTTCAAATACATGAAAGAACTCACACTGGGGAGAAGCCCTATGAATGTAGCAAATGT
GATAAAGCATTTCATAGTTCTAGTTCCTATCATAGACATGAAAGAAGTCACATGGGAGAGAAGCCTTATCAATGC
AAAGAATGTGGAAAAGCATTTGCATATACCAGTTCTCTTCGTAGACATGAAAGGACCCACTCTGGGAAAAAACCG
TATGAATGTAAGCAATATGGGGAAGGCTTATCCTATCTTATAAGTTTTCAAACACACATAAGAATGAACTCTGGA
GAAAGACCTTATAAATGTAAGATATGTGGGAAAGGCTTTTATTCTGCCAAGTCATTTCAAACACATGAAAAAACT
CACACTGGAGAGAAACGCTATAAATGCAAGCAATGTGGTAAAGCCTTCAATCTTTCCAGTTCCTTTCGATATCAT
GAAAGGATTCACACTGGAGAGAAACCCTATGAGTGTAAGCAGTGTGGGAAAGCCTTCAGATCTGCCTCACAGCTT
CGAGTGCACGGTGGGACTCACACTGGAGAGAAACCCTATGAATGTAAGGAATGTGGGAAAGCCTTCAGATCTACC
TCACACCTTCGAGTGCATGGTAGGACTCATACTGGAGAGAAACCCTATGAATGTAAGGAATGTGGGAAAGCCTTC
AGATATGTGAAGCACCTTCAAATTCATGAAAGGACAGAAAAACACATAAGAATGCCCTCTGGAGAAAGACCTTAT
AAATGTAGTATATGTGAGAAAGGCTTTTATTCTGCCAAGTCATTTCAAACACATGAAAAAACTCACACTGGAGAG
AAACCCTATGAATGCAACCAATGTGGTAAAGCCTTCAGATGTTGCAATTCCCTTCGATATCATGAAAGGACTCAC
ACTGGAGAGAAACCCTATGAGTGTAAGCAATGTGGGAAAGCCTTCAGATCTGCCTCACACCTTCGAATGCATGAA
AGGACTCACACTGGAGAGAAACCCTATGAGTGTAAGCAATGTGGGAAAGCCTTCAGTTGTGCCTCAAACCTTCGA
AAGCATGGTAGGACTCACACTGGAGAGAAACCCTATGAGTGTAAGCAATGTGGGAAAGCCTTCAGATCTGCCTCA
AACCTTCAGATGCATGAAAGGACTCACACTGGAGAGAAACCCTATGAATGTAAGGAATGCGAAAAAGCATTCTGT
AAATTCTCTTCTTTTCAAATACATGAAAGGAAGCACAGAGGAGAGAAGCCCTATGAATGTAAGCATTGTGGGAAT
GGATTCACATCTGCCAAGATTCTTCAAATACATGCAAGAACACACATTGGAGAGAAACACTATGAATGTAAGGAA
TGCGGAAAAGCATTCAATTATTTTTCTTCCTTGCATATACACGCAAGGACTCATATGGGAGAGAAGCCATATGAA
TGTAAGGATTGTGGGAAAGCATTCAGC**TAG**CCTGGTTCCTTTTATGGACATGAATAGACTCACACTGGAAGGAAG
CACTATGAATGCAAGCAATGTGGCAAAACTTTCACATTTTCCAGTTCTTTTCGATATCATGAAAGGACTCACACT
GGGGAGAAACCCTATCAATGTAAGCAGTGTGGGAAAGCCTTCATTCCTTTTACTTCTTTTCAATGTCATGAAAGG
ACTCACACGGGAGAGAAACCCTATGAGTGTATTCTAGTTCCGTTTGATATCATGAAAGGACTTACACTGGAGTGA
AACCCTATGAATGTAAGCAATGTGGGAAAGCCTTCAGATGTGCCTCGCACCTTCAACGGCATGGAAGGGTTCACA
CTTGGGAGAAACTCTATGAATGTAAGCAGTATGGGAAAGCCTTCAGATCTGCCAAGATTCTTTGAATACAGATAA
TTAATGTAAACAATTATCATAAGTATACTAACATGTTATTCTTTTTAAATAAGAAGGTATAATAAAATATCCCAT
TGGTTTTATGTATT

FIGURE 376A

ATGAAGGATGAAGGGGCAGGGACGGCCCACGGAGTGAGGAAGACAACAGTGTCCCTTCTAGCAGTTCGGAGCAAG
TTTGGCCGAAGGCAAATATTCGAAGTAAAGGATTCGGTGGCCTTTGAGGATGTGGCTGTGAACTTCACCCAGGAG
GAGTGGGCTTTGCTGGATCCTTCCCAGAAAAATCTCTACAGGGAAGTGATGCAGGAAACCTTGAGGAACCTGACC
TCCATAGGACTATTTTTCTGGGTCCGCATTTTAGGAAAAAAATGGAACAACCAGTACATTGAAGATGAGCACCAA
AATCCTAGGAGAAACCTAAGAAGACTTATAGGGGAGAGACTCTCTGAAAGTAAAGAAAGTCATCAGCATGGAGAA
GTTTTGACACAGGTTCCAGATGACACACTGAAGAAGAAAACTCCTGGAGTACAATCATATGAAAGCAGTGTGTGT
GGAGAAATCGGCATAGGTCTTTCATCCCTTAATAGGCACCTCAGAGCCTTTAGTTATTCCAGTAGCCTTGCAATA
CATGGAAGAACTCACACTGGGGAAAAGCCTTATGAATGTAAGGAATGTGGGAAAGCATTCAGGTTTCCCAGTTCT
GTTCGTAGACATGAAAGAATCCACTCTGCAAAAAAACCCTATGAATGTAAGCAGTGTGGGAAAGCATTCAGTTTT
CCCAGTTCTGTTCGTAGACATGAAAGAATCCACTCTGCAAAAAAACCCTATGAATGTAAGCAGTGTGGGAAAGCA
TTATCTTATCTTGTAAGCTTTCAGACACACATGAGAATGCACACTGGAGAGAGACCTCATAAATGTAACATATGT
GGGAAAGCCTTTTTTTCTCCCAGTTCGTTAAAAAGACACGAGAAAAGTCACACTGGAGAGAAACGCTATAAATGC
AAGCAATGTGATAAAGCCTTCAATTGTCCCAGTTCCTTTCAATATCATGAAAGGACTCACAGTGGAGAGAAACCC
TATGAGTGTACACAATGTAGGAAAGCCTTCAGATCTGTCAAGTACCTGCGAGTACATGAAAGAAAACACACTGGA
GAGAAACCCTATGAGTGTAAGCTATGTGGTAAGGGATTTATTTCTTCCACTTCCTTTCGCTATCATGAAAAGACT
CACACTGGAGAGAAACCTTATGAATGTAAAAAATGTGTGAAAGCCTTCAGTTTTGTCAAGGATCTTCGAATACAT
GAAAGGACACACACTGGAGAGAAACCCTTTGAATGTAAACAATGTGGGAAAACCTTCACTTCTTCCAATTCCTTT
CACTATCATGAAAGGACTCACACTGGAGAGAAACCCTATGAGTGTAAGCAATGTGGGAAAGCCTTCAGATCTGCC
TCAGTCCTTCAAAAGCACATACGAACTCACACAGGAGAGAAACCCTATGGATGTAAGCAATGTGGTAAAGTCTTT
AGAGTTGCCTCACAACTTAAAATGCATGAAAGGACTCACACAGGAGAGAAACCCTATGAGTGTAAGCAATGTGGA
AAAGCCTTCATTTCTTCTAATTCTATTCGCTATCATAAAAGGACTCACACTGGAGAGAAACCCTATAAATGTAAA
CAGTGTGGGAAAGCCTTCATTTCTTCCAACTCTTTTCTCTACCATGAAAGGATTCATACTGGAGAGAAACCCTAT
GAGTGTAAGCAATGTGGTAAAGCCTTTAGATCTGCCTCAATCCTTCAAAAGCATAGTATAGGCTTCCCAGTGATG
TTAGTCTTATCCATCCTCCTCTATACATGTGAGATGTTTCAGGATTCAGTGGCCTTTGAGGATGTGGCTGTGACC
TTCACCCAAGAGGAGTGGGCTTTGCTGGATCCTTCCCAGAAAAATCTCTGTAGAGATGTGATGCAAGAAACCTTC
AGGAACCTGGCCTCTATAGGGAAAAAATGGAAACCCCAGAACATATATGTAGAGTACGAAAATCTAAGGAGAAAC
CTAAGAATTGTGGGAGAGAGACTCTTTGAAAGTAAAGAAGGTCATCAGCATGGAGAAATTTTGACCCAGGTTCCA
GATGACATGCTGAAGAAAACAACTACTGGAGTAAAATCATGCGAAAGCAGTGTGTATGGAGAAGTAGGCAGTGCT
CATTCATCTCTTAATAGGCACATCAGAGATGACACTGGACACAAGGCATATGAGTATCAAGAATATGGACAGAAA
CCATATAAATGTAAATACTGTAAAAAACCTTTCAACTGTCTCTCCTCTGTTCAGACACATGAAAGGGCTCATAGT
GGAAGGAAACTCTATGTTTGTGAGGAATGCGGAAAAACATTTATTTCCCATTCAAACCTTCAAAGACACAGGATA
ATGCACCGTGGAGATGGACCTTATAAGTGTAAATTTTGTGGGAAAGCCTTGATGTTTCTCAGTTTGTATCTTATC
CACAAACGAACTCACACTGGAGAGAAACCATATCAATGTAAACAGTGTGGTAAAGCCTTTAGTCATTCTAGTAGC
CTTCGAATACATGAAAGAACTCACACTGGGGAGAAGCCTTATAAATGTAATGAATGTGGGAAAGCATTCCATAGT
TCCACATGCCTTCATGCTCATAAAAGAACTCACACTGGGGAGAAGCCATATGAATGTAAACAGTGTGGGAAAGCC
TTCAGCTCTTCCCATTCCTTTCAAATACATGAAAGAACTCACACGGGGGAGAAGCCATATGAATGTAAGGAATGT
GGAAAAGCATTCAAGTGTCCCAGTTCTGTTCGCAGACATGAAAGAACCCACTCTAGGAAAAAACCCTATGAATGT
AAACATTGTGGGAAAGTATTATCTTATCTTACCAGCTTTCAAAACCACTTGGGAATGCACACTGGAGAGATATCT
CATAAATGTAAGATATGTGGGAAAGCCTTTTATTCTCCCAGTTCACTTCAAACACATGAAAAAACTCACACTGGA
GAGAAACCCTATAAATGCAACCAATGTGGTAAAGCCTTTAATTCTTCCAGTTCCTTCCGATATCATGAAAGAACT
CACACTGGAGAGAAACCTTACGAGTGTAAGCAATGTGGGAAAGCCTTCAGATCTGCCTCACTCCTTCAAACACAT
GGTAGGACTCACACGGGAGAGAAACCCTATGCATGTAAGGAATGTGGAAAACCATTTAGTAATTTCTCTTTCTTT
CAAATACATGAAAGGATGCACAGAGAAGAGAAGCCGTATGAATGTAAGGGTTATGGGAAAACATTCAGTTTGCCC
AGTTTATTTCATAGACATGAAAGGACTCACACTGGAGGAAAAACCTATGAATGCAAGCAGTGTGGCAGATCCTTC
AACTGTTCGAGCTCCTTTCGATATCATGGAAGGACTCACACTGGAGAGAAACCCTATGAATGCAAGCAATGTGGA
AAAGCCTTCAGATCTGCCTCACAGCTTCAAATTCATGGAAGGACTCACACTGGAGAGAAACCTTATGAATGTAAG
CAGTGTGGGAAAGCCTTTGGATCTGCCTCACACCTTCAAATGCATGGAAGGACTCACACTGGAGAGAAACCCTAT
GAATGTAAGCAGTGTGGGAAGTCTTTTGGATGTGCCTCGCGACTTCAAATGCATGGAAGGACTCACACTGGAGAG

FIGURE 376B

AAACCGTATAAATGTAAGCAATGTGGGAAAGCTTTTGGATGTCCCTCAAACCTTCGAAGGCATGGAAGGACTCAC
ACTGGAGAGAAACCCTATAAATGTAACCAATGTGCAGCAATGACTTTAAAGGCCAGGGAGAGGTGGGAAAAGGTG
AGGGCTCCCAGGATGCAATGCCGGAGACATGGTGATGTCCTTAGGTCCAGGACTGCTGGGGGCAATGGCACC**TGA**

FIGURE 377A

CCATTCAAGCATTCAAAGACACATGATAATGCACAATGGAGATGGAACTTATAAATGTAAGTTTTGTGGGAAAGC
CTGCCCTTGTCTCAGCATATATCTTATACATGAACGAGTTCACACTGGAGAGAAACCATATAAATGTAAACAATG
TGGTAAAGCCTTTAGTTATTCAACTTCCCTTCAAATACATGAAAGAACTCACACTGGAGAGAAGCCTTATGAATG
TAAGGAATGTGGGAAAGCATTCGGTAGTCCCAATTCCCTTTATGAACATAGAAGAACTCACACTGGAGAGAAGCC
ATATGAATGCAAACAATGTGGAAAAGCCTTCAGATGGTTCCATTCCTTTCAAATACATGAAAGAACTCACAGTGA
GGAGAAGGCTTATGAATGTACCAAATGTGGGAAAGCATTCAAGTGTCCCAGTTATCTTTGTAGACATGAAGTGAC
CCACTCTGGGAAAAAGCCCTGTGAATGTAAACAATGTGGGAAAGCATTATCTTATCTTAACTTTCAAAGACACAT
GAAAATGCACACTAGAATGAGACCTTATAAATGTAAGACTGTGGAAAAGCCTTTGATTCTCCCAGTTCGTTTTGA
AGACATGAAAGAACTCACACTGGAGAGAAACCTTATGAATGCAAGCACTGTGGTAAAGCCTTCAATCGTTCCAGT
TCCTTTCACTATCATGAAAGGACTCACACTGGAGAGAAACCCTATGAATGTAAGCAGTGTAGTAAAGCCTTCATT
TCTTCCACTTCCTTTCGATATCATGAAAGGACTCACACTGGAGAGAAACCGTATGAGTGTAAGCAATGTGGGAAA
GCCTTCAGATCTGCCTCACACCTTCAAATGCATGGAAGGACTCACACTCAAGAGAAACCCTATGAATGTAAGCAG
TGTGGTAAAGCCTTCATTTTTTCCACTTCCTTTCGATATCATGAAAGGACTCACACTGGAGAGAAACCCTATGAG
TGTAAGCAATGTGGGAAAGCCTTCACATCTGCCTCACACCTTCAAATGCATGAAAGGACTCACACTGGAAAGCAA
CTGTATGAATCTAAACAATGTGAAAAAACCTTTGGATCTGTCAGAAACCTTCAAATTCATGAAAAGACACACCCT
GGAGAGAAACCCTATAAGGAATATGGAAAAGCATTCAACAATTTCTCTTCCTTTCAAATACATGCAACAATGCAC
AGAGGACAGAATGCCTATGAATGTAAAGAGTGTGACAAAGCATTCATATCTGCCAAGATCCTTCGAGTACATGCA
AGAACACACCCTGGAGAGAAACCCTATGAATGTAAGGAATGCGGAAAAGCGTTCAATTATTTTTCTTCTTTGCGT
ATACACAAAAGGATGCACACTGGAGAGAAACCATATTAATGTAAGGATTGTGGGAAAGCATTCAGTTTGCCTGGT
TCCTTTCGTAGACATAAAAGGGCTCACACTGGAGTGAAACCGTATGAATGCAAGGAATGTGGCAAAGCCTTCACT
TCTTCTGGTTCCTTTCAGTGTCATAAAAGGATTCACACTGGAGAGAAACCCTATGAGTGTAAGCAGTGTGGTAAA
GCCTTCATTTCTTCCACTGCCATTCGTAGACATGAAAGGACTCACACTGGAGAGAAACCCTATGAGTGTAAGCAA
TGTGGAAAAGCCTTTATTTCTTTCAGTTCCATTCAGTACCATGAAAGGACTCACACTGGAGAGAAACAGTATGAG
TGTAAGCAGTGTGGTAAAGCCTTCATGTCTTCTACTGCATTTCAGTATCATGAAAAGACCCACACCAGAGAGAAA
CACTATGAATGTAAGCAGTGTGGGAAAGCCTTCATTTCTTCCGGTAGCCTTCGATATCATGAAAGGACTCACACT
GGAGAGAAACCCTATGAATGTAAGCAGTGTGGTAAAGCCTTCAGATCTGCCACTCAACTTCAGATGCATAGAAAG
ATTCACACTGGCGAGAAACCCTATGAATGTAAGCAATGTGGGAAAGCCTACAGATCTGTCTCACAACTTCTGGTG
CATGAAAGGACTCACACTGTAGAGCAACCCTATGAATATAAGCAATATGGGAAAGCCTTCAGATTTGCTAAGAAC
CTTCAAATACAGACAATGAATGTAAACAATTAAATGTTTATAGCAGCTGCATACTAACATGTTATTCTGTATTTT
TTTTTTCTTTTTGAGACAGAGTCTCGCTCTGTCACCCAGGCTGGAGTGCAGTGGCGTGATCTCAGCTCACTGCAA
GCTCCACCTCCTGGGTTCACGCCATTCTCCTGCCTCAGTCTCCTGAGTAGCTGGGACTACAGGTGCCTGCCACCA
CACCCGGCTGATTTTTTGTATTTTTTAGTAGAGACGGAGTTTCATCGTGTTAGCCAGGATGGTCTCAATCTCCTG
ACCTCGTGATCTGCCCGCCTCAGTCTCCCAAAGTGCTGGGATTACAGGTATGAGCCACCGTGCCCGGCCGTTATT
CTCTATTTTTTGTTGTTGTTTGAGATGAGTCTTGTTCTGTTGCCCAGGCTGGAGTGCAGTGGCATGATCTCGCCT
CCGGGTTCAAGCAATTCTCCTGCCTCAGGCTCCTGAGGAAAAAGATTCCTAGGATTACAGGTGTGCACCACCACA
CTTGGCTAATTTTTATATTTTTAGTAGAGATGAGGTCTCACCCTATTGGCCACACTGGTCTTGAACTCCTGACCT
GAAGTGATCCACCTGCCTTAGCCTCCCAAAGTGCTGGGATGACAGGCATGAGCCACTGCACCCAGCTGTTATTCT
CTATTTAATTAATTGAGAAGCCATAATAAAATATCTCAGTGCCATCATGCATTAGATCAAGTTTATGTTACCACA
TTATTTTTTGGACATTGTGAGTCAATATTACCAAGTGGACAAAATCCCAGGCATCTTTTTCCTCATGTAAATTTT
AATTTTCATGCTTATATACTTAGAACATTTATCTTGGTCCTAATTTTTTGTTCATTCATAATACCAAAAGTTATC
TCATGTTCTTCAGAGTGACTTTGTGCCATATCCCACAGTGGCATACCTGTCTTCAAAGAGGGTATAATTCACAAA
AGGACTTACACTAGAGGAAAACCCTATGAATGTAAGCTGCGTGGGAAAGCATTTTCTGATCTGAGTGGCATTGAA
ACCCACATGGTATTGCACATGACAGATAGGCCTCTCTCCCCGTTCATTTCTTTTTTTTTGAGACGGAGTCTTGCT
CTGTCGCTGAGGCTGAGAACAGTGGTTCCATCTCTGTTCACTGCCACCTCCACCTCCTGGGTTCAAGTGATTCTC
CTGCCCCAGCCTCCCAAGTAGCTGGGATTACAGGTGACCGCCACCACGCCCAGCTAATTTTTGTATTTTTAGTAG
AGACGGGGCTTCACTATGTTGGCCAGGTTCGTCTCGAACTCCTGACCTCAGGTGATCCACCTGCCTCAGCCTCCC
AAAGTGCTGTGCATACAGGCATGAGCCACTGCACCCGGCCTTCTCCCCATTCATTTTCAAAGACATAAAAGGATG
CACAATAAAGAGAGACCCTCTGAATGCAAGCAATATGGAAAAGCATTCCATTGTATCAGATCCTTTTGTAGCCAT

FIGURE 377B

GAAAGAACTCGCTGAAGAGAAACCCTGTAAATGAAGGGAATGTGAAAAGCCTTCATTCCTGAAATGAAGCAATTC
ATACTATTAATATATGAGAGAAATCCTATTATAAGAAATTGATTGCTGTGCACGGTAGCTTACCTGTAATTCCAG
CACTTCCAGAGGCTAAGGCAGGTGGATCACTTGAGGTCAGGAGTTCAATACCAGCCTGGGCAACATAGTGAAACC
CTGTCTCTACCAAAAATACAAAAATTAGCCAGGCATGGTGGCGCGTGCCTGTAGTCCCAGCTACTCAGGAGGCTG
AGGCAGGAGAATCACTTGAACCCAGGAGCTGGATGTTGCAGTGACCCGAGATTACGCCACTGTACCCCAGCAGAG
TGAGACTCCATCTGAAAAAAAAAAGCAAGGGGCCGGCACGGTGGTTCACGCCTGTAATCCCAGCACTTTGGGAGAC
CAAGGCAGGCAGATCACCTGAGGTCAGGAGTTCGAGACCAGCCTGGCTAACATGGCAAAACCCCATCGCTACTAA
AAATACAAAAAATTAGATGGGCATGGTGGCACATGCCTGTAATCCCAGCTACATGGGAGACTGAGGCAGGAGAAT
TGCTTGAACCTGGGAGGCGGAGGTTGCAGTGAGCCAAGATCACAGCATTGCACTTCAGCCTGGGCAACAAGAGTG
AAACTCCATCTCAAAAAAAAAAAAAAAAAAAATTGAGGAAGCATTCAGTTGTCCCACTTCCTTTCAAACAGGAAG
AGACACTAGAGAGAAACCCTCTGAGATAACTGACTGTTGAATTAAGAAGAGAGGCCTGGCCGGACACAGTGGCTC
ACGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGTGGGCGGATCACGAGGTCAGGAGATCAAGACCATCCTGGCT
GACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAAACTAGCTGGGCGTGGTGGTGGGCGCCTGTAGTCCC
AGCTACTCGGGAGGCTGAAGCAGGAGAATGGCGTGAATCCAGGAGGCAGAGCTTGCAGTGAACCGAGATCGCGCC
ACTGCACTCCAGCGGCGACAGAGCAAGACTCCGTCTC

FIGURE 378

ATGCACACTGGAGAGAAGCCATATGAATGTAAGAATTGTGGGAAAGCCTTCACATCTGCCAAGAGCCTTCAAAAT
CATGGAAGGACACACACCGGAGAGAAACCATGTGAATGCAAGCAATGTGGCAAAGCTTTCATTTGTTCCAGTTCC
TGTACCACTGCAAATTTGCAGAGGGTAACAGAGGCTGAGGCCAGTATGGAGGCTGCAGAGGGAGGGAAATGGAGC
TCCCATGGGTGCTTCCTGGGCGGCCCAACCTATTCTGCATGTGGCCTCCAGCTGTTCAGAGCAGCTCCAGGAGTG
TGGATTCTGATAAGCCGCAGAGCCCTGGAAAGCAAGAGACTATGTGCAGATGTCCTTGGCAGGGCGCTGTCCCTT
CTGTGGTTGGACCTCTGGAGCCTGGGGCCATATTCGGGAACAGTGTTTTGGTTC**TGA**

FIGURE 379

CTACTCCGAGAGGCCCCGGGTCCCTCTGCCACAACTTCTGTCGCTCTGCCGCCTGCACCGTGACCCGCACTATTC
ACGGGAGCCCTAGAGAGGACACCGGGACACCCAGAAGCCGGGAA**ATG**ATGTTTCAGGATTCAGTGGCCTTTGAGG
ATGTGGCTGTCAGCTTCACCCAGGAGGAGTGGGCTTTGCTGGATCCTTCCCAGAAGAATCTCTACAGGGATGTGA
TGCAGGAAACCTTCAAGAACCTGACCTCTGTAGGAAAAACATGGAAAGTTCAGAACATTGAAGATGAGTACAAAA
ATCCCAGGAGAAATCTAAGTCTTATGAGAGAGAAACTCTGTGAAAGTAAAGAAAGTCATCACTGTGGAGAAAGCT
TCAACCAGATTGCAGATGACATGCTGAACAGGAAAACTCTTCCTGGAATAACACCATGTGAAAGCAGTGTGTGTG
GAGAAGTTGGCACGGGTCATTCATCTCTTAATACGCATATCAGAGCTGACACTGGACACAAGTCATCTGAGTATC
AGGAATATGGAGAGAATCCATATAGAAATAAGGAATGTAAGAAAGCCTTCAGTTATCTTGACTCCTTTCAATCAC
ATGATAAAGCTTGCACTAAAGAGAAACCCTATGATGGTAAAGAATGTACAGAAACCTTCATTTCCCATTCATGCA
TTCAAAGACACAGGGTAATGCACAGTGGAGATGGACCTTATAAATGTAAGTTTTGTGGGAAAGCCTTCTATTTTC
TCAATTTATGTCTTATCCATGAACGAATTCACACTGGTGTGAAACCATATAAGTGTAAACAATGTGGTAAGGCCT
TTACTCGTTCCACTACCCTTCCAGTACATGAAAGAACTCACACAGGAGTGAATGCCGATGAATGTAAAGAATGTG
GGAATGCATTCAGTTTTCCTAGTGAAATTCGTAGACATAAAAGGTCTCACACTGGAGAAAAACCCTATGAGTGTA
AGCAATGTGGGAAAGTCTTCATTTCTTTCAGTTCCATTCAGTATCATAAGATGACTCACACTGGAGAGAAACCCT
ATGAATGTAAGCAGTGTGGGAAAGCCTTTAGATGTGGCTCACACCTTCAAAAGCATGGAAGGACTCACACTGGAG
AGAAACCCTATGAATGTAGGCAATGTGGTAAAGCCTTCAGATGTACCTCGGACCTTCAAAGGCATGAAAAGACAC
ACACTGAGGATAAACCCTATGGATGTAAGCAGTGTGGGAAAGGCTTTAGATGTGCTTCACAACTTCAAATTCATG
AAAGGACGCACAGTGGAGAGAAACCCCATGAATGTAAGGAATGTGGAAAAGTATTCAAGTATTTTTCTTCCTTGC
GTATACATGAAAGGACGCACACTGGAGAGAAGCCCCATGAATGTAAGCAATGTGGAAAAGCATTCAGGTATTTCT
CTTCCTTGCATATACATGAAAGGACACACACTGGAGATAAGCCATATGAGTGTAAGGTATGTGGCAAAGCCTTCA
CTTGTTCCAGTTCCATTCGATATCATGAAAGGACTCACACTGGAGAGAAACCCTATGAATGTAAGCACTGTGGTA
AGGCCTTTATTTCCAATTACATTCGATATCATGAAAGGACTCACACTGGAGAGAAACCCTATCAATGCAAGCAAT
GTGGCAAAGCCTTTATTCGTGCCAGTTCATGTCGAGAACATGAAAGAACTCATACCATTAATAGA**TGA**GAAATCC
TTTTAGTGGAAGCAACGGGAGAAGCTTTCTGTTGTCCCACTTCCTTTGAAACACAAGAAAAGAGAGTGGTGAAAG
AACCTCTGGATAACTGCTTTTTGAATTGAGAAGAGAGACTTGCGATAGGACAATAAAATCTAGAAGAACTTGGAT
GGTTTCGTAATACAATTCACCTATAGCCAATCTTGCATGAGATTTCAAAGGCACAGAAAAGGAAGGCATCAGTCA
CATATTAGAGGCCCCACACAGGGAGAGAGGTGTGTGGCTACCCGCTTCCAGCCCATTTTCCTGATTCTTTGGCTT
GTTAATCGAGAATATCCCCCAAATCACTTGTCTCTGTTCCTCAGAGTTGTAGGTCTCCAGATATGTCCCCAGTGC
TCCACATTAAAGATACATGCCCACTTTGCTGTTTCTTCAGAAATGTTAAAATGTTTACCAGAGAACTAATAAATG
TTGTTATGGCTGGAAATACTCACTGATGCCCAACTCTTCTATAGATTGAGTTGGTTTAAGAGGTCTACTTTGTAT
TGCAAGCATTGTTGTTTCTACGGATTAGCGAGCCTGTTCTTGATTAAACCAACTAGATGGGAGCTTG

FIGURE 380

GGCGTCTTGCACCAAAGGGAGGTCGGGATCTCGGTTTTCCGGCCCCGAGAGGGACCAGGTGCCTCCGCCATAGCT
TCTGTCGCTCCATCGCCCGCACTGTGACTGGACTGTTAGAGGGATCCGTGGAGAGGAGGCCAGGACACCTGGAAG
CCGGGAAATGGATTCAGTGGTCTTTGAGGATGTAGATGTGAACTTCACCCAGGAGGAGTGGGCTTTGCTGGATCC
TTCCCAGAAGAATCTCTACAGAGATGTGATGCAGGAAACCTTCAGGAACCTGGCTTCTGAAAAAAATGGAAAGAT
CAGAAAATTGAAGATGAGTACAAAAATCCCAGGAGAAACCTAAGAGGTCTT**ATG**GGAGAGAGACTCTTAGAAAGT
AAGAAAGATCATCAGCATGGAGAAATTTTGACCCAGGTTCCAGATGACATGCTGAAGAAGAAAACTCCCCGAGTA
AAATCATGTGGAGAAGTCAGCGTGGGTCATGCATCCCTTAATAGGCACCACAGAGCTGACACTGGACACAAGCCA
TATGAGTATCAGGAATATGGACAGAAGCCATATAAATGTACATACTGTAAGAAAGCCTTCAGTGATCTCCCCTAC
TTTCGAACACATGAATGGGCTCACACTGGGGGGAAACCTTATGATTGTGAGGAATGTGGAAAAAGCTTTATTTCC
CGTTCAAGCATTCGAAGACACAGGATAATGCACAGTGGAGATGGACCCTACAAATGTAACTTTTGTGGGAAAGCC
TTGATGTGTCTCAGTTTGTATCTTATCCACAAACGAACTCACACTGGAGAGAAACCATATGAATGTAAACAGTGT
GGTAAAGCCTTTAGTCATTCTGGTAGCCTTCGAATACATGAAAGAACTCACACTGGAGAGAAGCCTTATGAATGC
AGTGAGTGTGGGAAAGCATTCCATAGTTCCACATGCCTCCATGCACATAAAATAACTCACACTGGGGAGAAGCCG
TATGAATGTAAACAGTGTGGGAAAGCCTTTGTTTCTTTCAATTCCGTTCGATATCATGAAAGAACTCACACTGGA
GAGAAGCCCTATGAATGTAAGCAATGTGGGAAAGCCTTCAGATCTGCCTCGCACCTTCGAACACATGGAAGGACT
CACACTGGAGAGAAACCCTATGAATGTAAACAATGTGGTAAAGCCTTTGGATGTGCCTCGAGCGTTAAAATCCAT
GAAAGGACTCACACTGGAGAAAAACCCTGTAGCTCCAACACTTCGAAAGGCCAAGGCGAGAAGATTGCT**TAA**TTC
ACATAAGATTCCTAGAAGCCACCGAATCCAATCATGGTAAAAATGTGTTTCCCTCAAATCATGGGAACCATCGCA
AAATTATTCTGAAGCTTCTGCAGTCACTGTCATTTGACAGCATTCAGAAATAAATGCCAGTAGCCCAGGAGCAAA
AATTTTTGGGAGTAGTTTAGCTGGGGCCTCACTCAGATACCTAGGACACAGAGTTGGAAATAACTCTTAAGAGAG
ACACACCTCCAGTAAGACCTTAAGACAGTTCTGTCATAAAAAAAATACGAGGTTTGGCCGGGTGCAGTGGCTCAT
GCCTATAATCCCAGCACTTTGGGAGGCCGAGGCAGGCGGACCACGAGGTCAGTAGTTCGAGACCAGCCTGGTCAA
TATGGTGAAACCCCATCTCTACTAAAAAATACAAAAA

FIGURE 381

CAGAGGCCCAGAGTGGCTCGCCTGGAGTCTCTGTGGCGCGGTTTCCTGTACCTGCCTTGGGATCCGGAGGGAGGA
AGCTGGGACACCCGGGAGTCAGGAA**ATG**GACTCGGTGGCTTTTGAGGATGTAGATGTGAACTTCACCCAGGAGGA
GTGGGCTTTGCTAGATCCTTCCCAGAAGAATCTCTACAGAGATGTGATGTGGGAAACCATGAGGAATCTGGCCTC
TATAGGGAAAAAATGGAAGGACCAGAACATTAAAGATCACTACAAACACCGAGGGAGAAATCTAAGAAGTCATAT
GTTAGAAAGACTCTATCAAACTAAGGATGGTAGTCAGCGTGGAGGAATTTTTAGCCAGTTTGCAAATCAGAATCT
GAGCAAGAAAATCCCTGGAGTGAAACTCTGTGAAAGCATTGTATATGGAGAAGTCAGCATGGGTCAGTCATCCCT
TAATAGACACATCAAAGATCACAGTGGACATGAACCAAAGGAATATCAGGAATATGGAGAGAAGCCAGATACACG
TAACCAGTGTTGGAAACCCTTCAGTTCTCACCACTCCTTTCGAACACATGAGATAATTCACACTGGAGAGAAACT
CTATGATTGTAAGGAATGTGGAAAAACCTTCTTTTCTCTCAAAAGAATTAGAAGACACATCATCACACACAGTGG
ATATACACCATATAAATGTAAGGTGTGTGGGAAAGCTTTTGATTATCCCAGTAGATTTCGAACACATGAAAGAAG
TCACACTGGAGAGAAACCCTATGAATGTCAGGAATGTGGAAAAGCCTTCACTTGTATCACAAGTGTTCGAAGACA
CATGATAAAGCACACTGGAGATGGACCTTATAAATGTAAGGTATGTGGGAAACCCTTTCATTCTCTGAGTTCATT
TCAAGTGCATGAAAGAATTCACACTGGAGAAAAACCCTTTAAATGTAAGCAATGTGGTAAAGCCTTCAGTTGTTC
CCCAACCTTACGAATACATGAAAGAACCCATACTGGAGAGAAACCTTATGAATGCAAGCAGTGTGGGAAGGCCTT
CAGTTATCTCCCCTCCCTTCGACTACATGAAAGAATTCACACTGGTGAGAAACCCTTCGTATGTAAACAATGTGG
TAAAGCCTTTAGATCTGCCAGTACCTTTCAAATACATGAAAGGACTCACACTGGAGAAAAACCTTATGAATGTAA
GGAATGTGGGGAAGCATTCAGTTGTATCCCAAGTATGCGAAGACACATGATAAAACATACTGGAGAAGGACCTTA
TAAATGTAAGGTATGTGGGAAACCCTTTCATTCTCTGAGTCCATTTCGAATACATGAAAGAACTCACACTGGAGA
GAAACCTTATGTATGTAAACATTGTGGTAAAGCTTTCGTTTCTTCAACATCAATTCGAATACATGAAAGAACTCA
TACTGGAGAGAAACCCTATGAGTGTAAGCAATGTGGGAAAGCCTTCAGTTATCTCAACTCCTTTCGAACACATGA
AATGATTCACACTGGTGAGAAACCCTTTGAATGTAAGCGATGTGGTAAAGCCTTTAGATCTTCTAGTTCCTTTCG
ACTACATGAAAGGACTCACACTGGACAGAAACCCTATCATTGCAAGGAATGTGGGAAAGCCTATTCTTGCCGTGC
CAGCTTTCAGAGACACATGTTAACACATGCTGAAGATGGACCACCTTATAAATGCATGTGGGAAAGCCTT**TAA**TG
CTCTGGGTTCATGTCAGATACATTAAAATACTCACTGAAGAGAAGCCCTATGAATGTAAGTAACGTGGGAAAGCA
TGAAATTCTGTCAGTGCCTTTTTTAATACATGAAAGAATTCTAGAGAGAAGCCATATACATGTAAGTAACATGGG
AAAGCTTTCAATCATTTTAGTTCCTTTCAAATACATGAAAGAACTCATCATGGAGAAAACCAAACAAATGCTTTT
TGGAAAGGAACCCATATTTGAGAGAAACCCTGGGTAAAGGGTGTAGGAAAGGTTTTGTCATCACACAACCCTGTC
ACACATGAATGTGTAGTGGAGAGAACCTTGGTAAATGTAAAGAGTGTGGGAGAGCCTTTAGTCATTTTAGTTCCA
CTTGAAGCCATGAAAGAACACACAAAAGAGAAAGCTCTTGAATATAAGCAATGTCCACACGTTTTTAGCCAGCCC
ACATGCTTTCAACAACATGTAAGAATGTACCCTGGATCAAAACACTATAAATGTGAAAACTACAAGGAAGGTTTT
CCATTATACTTTTAAAGTCATTTGAGGGCTCTGGCTCTGTGGCTTTGTGGGTTAAAGTACTTGTCTGGCAAACAG
GAGATGCTGGATTTCAATCCCAGCAGGGCCTCACTAGTTGAGGTATTGAATTTGAACAGATGTTTTGGCTCTGGC
TGGGTGTGGTGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCTGAGGCAGGAGGATCACTTGAGGTCAGGAGT
TTGAGACCAGTGTGCAAAACATAGCAAGACCTCATCTC

FIGURE 382

CATGAAGGAACTCACACTCTAGAGAAACCCTATGAATGTAAGCAATGTGGGAAATTGTTATCTCATCGCTCAAGC
TTTCGAAGACAC**ATG**ATGGCACACACTGGAGATGGCCCTCATAAATGCACAGTATGTGGGAAAGCCTTTGATTCT
CCTAGTGTATTTCAAAGACATGAAAGGACTCACACTGGAGAGAAACCCTATGAATGCAAGCAATGTGGGAAAGCC
TTCCGTACTTCCAGTTCCCTTCGAAAACATGAAACAACACACACTGGAGAGCAACCCTATAAATGTAAATGTGGA
AAAGCTTTTAGTGATTTATTTTCCTTTCAAAGTCATGAAACAACACACAGTGAAGAGGAGCCTTATGAATGTAAG
GAGTGTGGGAAAGCATTTAGTTCTTTTAAATACTTTTGTCGCCATGAAAGGACTCACAGTGAAGAAAAATCTTAT
GAGTGTCAAATTTGTGGCAAAGCCTTCAGTCGTTTCAGTTACTTAAAAACTCATGAAAGGACTCACACGGCAGAG
AAGCCATATGAATGTAAGCAATGCAGGAAAGCATTCTTTTGGCCCTCTTTCCTTCTAAGACATGAAAGGACTCAC
ACTGGAGAAAGACCCTATGAATGTAAACACTGTGGTAAAGCCTTCAGTCGTTCCAGTTTCTGTCGAGAACATGAA
AGAACTCACACTGGAGAGAAGCCCTATGAATGTAAGGAATGTGGGAAAGCCTTCAGTTCTCTCAGTTCCTTTAAT
AGACATAAAAGGACACACTGGAAGGATATTCTA**TAA**GTGTATGGAATGTGGGAAAGCATTCATTGGTTTTATCAC
ATTCAGATACTTGAAAGAAATAAATCCTGTGAATGTAAACGTGGTAAAGCCTTAAGAAGTTTCCAGGCTGGGCGC
AGCGGCTCACACCTGTAATCCCAGCACTTTGAGAGGCCGAGGAGGGCAGATCACGAGGCCAGGAGATCGAGACCA
GCCTGGCTAACATGGGAAACCCTGTCTCTACTAAAAATACGG

FIGURE 383

GCCAGGTTCAAAGAGCCCGCGGCGTCTTCACGCCCCTGCGCTCAGCTCTAGACTCAGTCGCTCGCTGAGAGACGC
CCTGGAACGTCTGTGTAGCCTCAGTCGCTGAGAGACGCCCTGGAACGTCTGTGGCAGCCTCTGTCACAGTGGGAC
CCGCACTGGCAGCGGGAGGCAGAGGGAGGACCCTGGAACATCCCGGAAGCCGGGAA**ATG**GACGCAGTGGCCTTTG
AGGATGTGGCTGTGAACTTCACCCAGGAGGAATGGGCTTTGCTGGGTCCATCACAGAAGAATTTATACAGATATG
TGATGCAAGAAACCATCAGGAACCTGGACTGTATAAGAATGATATGGGAAGAACAGAATACTGAAGATCAGTACA
AAAATCCTAGGAGAAATCTAAGATGTCATATGGTAGAGAGATTCAGTGAAAGTAAAGACAGTAGTCAGTGTGGAG
AAACATTTAGCCTCATTCGAGATAGTATTGTGAACAACAGCATTTGTCCTGGAGAAGATCCATGTCAAAGCGCTG
AGTGTGAAGAAGTCATAATGGGTCATTTATCCCTTAATAGCCACATCAGAGTTGATTCTGGACACAAACCACATG
AGTATCAGGAATATGGAGAGAAGCCACATACACATAAACAACGTGGGAAAGCCTTCAGTTACCATCACTCCTTTC
AGTCGCGTGGAAGGCCTCACACTGGAAAGAAACGCTATGAGTGTAAGGAATGTGGAAAAACCTTCAGTTCTCGTA
GAAACCTTCGAAGACACATGGTAGTGCAAGGTGGAAATAGACCTTATAAATGTAAGTTGTGTGGGAAAGCTTTTT
TTTGGCCCAGTTTATTACGTATGCATGAAAGAACTCACACTGGAGAGAAACCGTATGAATGTAAGCAGTGTTCTA
AAGCCTTTCCTTTTTACAGTTCCTATCGAAGACATGAGAGAATGCACACTGGGGAGAAACCGTATGAATGTAAGC
AGTGTTCTAAAGCCTTGCCTGATTCCAGTTCCTATATAAGACATGAAAGAACTCACACTGGAGAGAAACCATATA
CATGTAAACAGTGTGGGAAAGCCTTCAGTGTTTCCAGTTCCCTTCGAAGACATGAAACCACTCACAGTGCAGAGA
AACCCTATGAGTGTAAGCAATGCGGGAAAACATTTCATCATCTTGGAAGCTTTCAGATACACATGAAAAGGCACA
CTGGAGATCGACCTCATAAATGTAAGATATGTGGGAAAGGCTTTGATCGTCCCAGTTTAGTTCGATATCATGAAC
GAATTCACACTGGAGAGAAACCCTATGAATGCAAGCAGTGTGGGAAAACGTTATCTCATAGCTCAAGCTTTCGAA
GACACATGATAATGCACACTGGAGGTGGACCTCATAAATGCAAGATATGTGGGAAAGCTTTTGTTTATCCTAGTG
TATGTCAAAGACACGAAAAGTCTCACAGTGGAGAGAAACCCTATGAATGCAAGCAGTGTGGGAAAGCGTTATCTC
ATAGCTCAAGCTTTCGAAGACATATGGTAATGCATACGGGAGATGGGCCGAATAAATGCAAGGTATGTGGGAAAG
CCTTTGTTTATCCCAGTGTATGTCAAAGACATGAAAAGACTCACTGGAGAGAAACAATA**TGA**ATGTAAACTATTA
TAAAGCCTTCTATATTTCCAGTTCCCTTTGATATCATGAATAAACTTACACTGGACAGAAACCCTATAAATGTAA
ATGTGGGAAAGCCTTTCATAATTTTTATTCCTTTCAAAATCATGAAATATCTCACACTGGAGAGATGCTGTATGA
TATAAGGAATGTGGGAAAGTGATCGATTTTTTTTTAACACCATTGTCAACATAAAACAACTCACAGAGCAGAAAA
ACTCTGTGAGTGTAAAATATGTAGGGAAGCCTTCAGTCATTTTGGTAACTTAAAAGTACATGAGGCTGGGCACAG
TGGCTCACGCCTGTAATCCCAGCACTTAGGGTGGGCAAATTGCTTGACCTCAGGAATTTGAGGCCTGCCTGGGCA
AAATGGTGAAACCATGTCTCTACAAAAAATAGAAAAAGTAGCAGGTGTGGTGGTATGCCCCTGTAGTCCCAGCTA
CTTGGGAGGCTGAGGTGGGAAGATCTCTTGAGCCCAAGGGGTGGGGGTTGCAGTGAGCCAAGATGCACTGCACCC
CAGCCTGGGCGACAGAGCCAGACCCTGTCTCAAAAAAAAAAAAAAAAGTACATGAAAGGATTCACTCTGGAGAGAA
GTCATATGAATGTAAGAAATGTAGAAAAGCATTGAGTTCTCTCAGGTCCTTGCATAGACATAAAAGGACTCACTG
GAGAGATACTCTATAAATGTGTGAAATGTAGGGAAGTATTCTTTAATGTTATTTCATTTCAGATAGAAATAATTC
TCATTGGAGATAAACCCTATGAATGTAAACACATAGTAAAGCCTTAATTTTAAGCCTCAGTTTCTTTCAAATACA
GTTATCCCCTAATATTTGCAGGAGCGTGGTTCTACCACCCCCTGGGCATACATAAATCGACACATGCCAAGTCCT
TTTTTAAAAATGACATATTTGGTACAAAATTACCCGGATGTGATGGCACATGCCTGTAATCCCAGCTACTCAGGA
GGCTGAGGCAGGATAATCACTTGAATCCGGGAGGCGGAGGTTGCGGTGAGCCAAGATCGCGCCACTGCACTCCAG
CCTGGGCAGCAAGAGCAAAACAACCTCTGTCACACACACAAAAAAAAAAAAAAA

FIGURE 384

ATGGTGTTAATGACTTTGGGAGTTCATTTGTGTCAGAACCTTCATCTGAATCCAGCTGACAGTTTCGTCACTTAC
GAGAACCAGTGGGAAGGGGCATTCTCTGCTCCCGGAGTTCATTCCTGTGGCTGCTCAGAAGTAACACAAGGGATC
TCATTAACATCAGACTTAAAACCAGGAGAGCTGCAGCTACTTGAATTTGACAATCAAGTAGCCTTCCCCGTAGAA
ACATCAATTCAAATATTAAGTTCGTCGAAAGACATCCTACGCCTTTCTACAGTCAGTGCTCGGAAATCTGTGGAT
CTAATCATAGCTTCATACCCATTGTTCTTGAACTTGTTTAGTACCCCTAAAACACTTCGAAACTGCCTCAGTCAG
ATTTACATCTTGATTATATTAACCATTTTTGAATTCGTCATAGCTTTAATCCAAGCATATGTTTTTACACTACTA
TGGTTGGATGGCAAGCATGTGGTCTTTGGCAAGGTGAAAGAAGGCATGAATATTGTGGAGGCCGTGGAGTGTTTT
GGGTCCAAGAATGGCAAGACCAGCAAAAAGATCACCATTGCTCACTGTGGACAACTC**TAA**

FIGURE 385

ATGGACTCAGTGGCCTCTGAGGATGTGGCTGTGAACTTCACACTTGAGGAGTGGGCTTTGCTGGATCCTTCCCAG
AAGAAACTCTACAGAGATGTGATGCGGGAAACCTTTAGAAACCTGGCCTGTGTAGGAAAAAAATGGGAAGACCAG
AGCATTGAAGATTGGTACAAAAATCAGGGGAGAATTTTAAGAAATCATATGGAAGAGGGACTCAGTGAAAGTAAA
GAATATGATCAATGTGGAGAAGCCTTCAGTCAGATTCTCAATCTTAATCTGAACAAGAAAATTCCTACTATAGTA
AGACCATGTGAATGTAGTTTGTGTGGGAAAGTCTTCATGCATCATTCATCCCTTAGTAGGCACATCAGATCTCAC
CTTGGACACAAACCATATGACTATCAGGAATATGGAGAGAAACCATATAAATGTAAGCAGTGTGGGAAAGCCTTC
AGTTCTTGTCAATCCTTTCGAAGACATGAAAGAACTCACACTGGTGAGAAACCCTATGCATGTCCGGAATGTGGG
AAAGCCTTCATTTCTCTCCCAAGTGTTCGAAGACACATGATTAAGCACACTGGAGATGGACCATATAAATGTCAG
GAATGTGGGAAAGCCTTTGATCGCCCAAGTTTATTTCAGATACATGAAAGAACTCACACTGGAGAGAAACCCTAT
GAATGTCAGGAATGTGCAAAAGCTTTCATTTCTCTTCCAAGTTTTCAAAGACACATGATTAGGCACACTGGAGAT
GGACCTTATAAATGTCAGGAATGTGGAAAAGCCTTTGACCGCCCCAGTTTATTTCGAATACATGAAAGAACTCAT
ACTGGAGAGAAACCCCATGAATGTAAACAGTGTGGGAAGGCCTTCATTTCTTTCACAAATTTTCAAAGTCATATG
ATTAGGCACACTGGGGATGGACCTTATAAATGTAAAGTATGTGGGAGAGCCTTTATTTTTCCCAGTTATGTTCGA
AAGCATGAAAGAACTCATACTGGGGAGAAACCCTATGAATGTAATAAATGTGGTAAAACCTTCAGTTCTTCCAGT
AATGTTCGAACACATGAAAGGACTCACACTGGAGAGAAGCCCTATGAATGTAAGGAATGCGGGAAAGCCTTCATT
TCTCTCCCAAGTGTCCGAAGACACATGATAAAGCACACTGGAGATGGACCTTATAAATGTCAGGTATGTGGTAGA
GCCTTTGACTGTCCCAGTTCATTTCAAATACACGAAAGAACTCACACTGGAGAGAAACCCTATGAATGTCAGGTA
TGTGGGAAAGCCTTCATTTCTCTTAAAAGGATTAGAAAACATATGATACTGCACACTGGAGATGGACCTTATAAA
TGTCAGGTATGTGGTAAAGCCTTTGACTGTCCTAGTTCTGTCCGAACACATGAAAGAACTCATACTGGAGAAAAA
CCCTATGAATGTAAAGAATGTGGGAAAGCATTCAATTATGCCAGTTCCATTAGAATACATGAAAGAACTCATACC
GGAGAAAAACCCTATGAATGTAAGCAATGTGGAAAAACGTTCAGTTATTCCAGTTCCTTTCAAAGACATGAAAGA
GCTCATAATGGAGATAAACCTTACGTAAAGAATGTGGGAAAGCTTTCATTTATCACACAACCTTCGAATACCTGT
GAAAATGAA**TAG**

FIGURE 386A

CGCTTCCGCCGGTGGGACGGAACTGGTGCCCTCCGTGGACAATTGTGTTGAAGCAGAAATTGTTCCGGATCTCGG
GTCGGACACGGAAGTCTTCCTGCAGTGTTTCTGGATGCGGGGACAGGG**ATG**CGCAGGAATTCCAGTCTCAGTTTC
CAGATGGAGCGACCCCTCGAGGAGCAAGTCCAGAGCAAGTGGTCGTCTAGTCAAGGCCGCACAGGAACAGGAGGG
TCTGATGTCCTCCAGATGCAGAACAGTGAACACCATGGACAAAGCATCAAGACTCAAACTGACTCCATCTCCCTT
GAGGATGTGGCTGTGAACTTCACCCTGGAGGAGTGGGCTTTGCTGGATCCTGGCCAGAGGAATATCTACAGAGAT
GTGATGCGGGCAACCTTCAAGAACCTGGCCTGTATAGGGGAAAAATGGAAAGACCAGGATATTGAAGATGAACAC
AAAAACCAGGGAAGAAATCTAAGAAGTCCTATGGTTGAAGCACTCTGTGAAAATAAAGAAGATTGTCCATGTGGA
AAAAGCACTAGCCAGATTCCTGATCTTAATACGAACCTGGAAACTCCTACTGGATTAAAACCATGTGACTGCAGT
GTGTGTGGGGAAGTCTTCATGCATCAGGTCTCCCTTAATAGGCACATGAGATCTCACACTGAACAGAAACCAAAT
GAGTGTCACGAATATGGAGAGAAGCCACATAAATGCAAAGAATGTGGGAAAACCTTCACTCGCAGCTCCAGTATT
CGAACCCATGAAAGAATTCACACTGGAGAGAAACCCTATGAATGTAAGGAATGTGGCAAAGCCTTCGCATTTCTC
TTTTCCTTTCGAAACCATATAAGAATTCATACTGGAGAGACACCCTATGAATGTAAGGAATGTGGGAAGGCATTC
AGATATCTCACTGCTCTTCGGCGCCATGAAAAAAATCACACTGGAGAGAAACCCTACAAATGTAAACAGTGTGGA
AAAGCCTTTATATATTACCAGCCTTTTCTAACCCACGAAAGGACTCACACTGGAGAGAAACCTTATGAATGTAAG
CAATGTGGGAAAGCCTTCAGTTGTCCCACGTACTTACGGAGTCATGAGAAAACTCATACTGGAGAGAAACCTTTT
GTATGTAGGGAATGTGGGAGAGCCTTCTTTTCTCACTCAAGCCTTCGAAAACACGTGAAAACCCACACCGGAGTT
CAACCTTATACATGTAAGAAATGTGGGGAAGCCTTCAAGTCATCTAGTTCCTGTGAAGTGCACGAAAGAACTCAT
TTTGGAGAAAAACCCTATGAATGTAAACAATGTGGTAAAGCCTTCAATTCTTCAAGTTACCTTCAGTTGCACGAA
AGAGTTCACACTGGCGAGAAAACTTACGAATGTAAAGAATGTGGTAAAGCCTTTCTTTATTCCACTCACTTTCGA
ATCCATGAAAGAACCCATACTAGAGAGAAACCCTATGAATGCAAACAGTGTGGTCGGGTCTTCATTTACTTCAGT
CACCTTCGAAGGCACGAAAGAAGTCACACTGGAGTGAAACCATGTGAGTGTAAGCAGTGTGGCAAAGCTTTCACT
TGTTTAAATTCCCTGAAAGTACACAAAAGAATTCATACTGGAGAAAGACCCTTTCAGTGTAGACAATGTGGTAAA
GCCTTCAGTTACTCAAAGTCTTTGCACGTGCACGAAAGGACTCATAGTAGACAGAAGCCC**TAA**GAAAGTAAAGTG
TGGTAATGCTGTCAGTTGTATTAGTTCCTTTTGGATGTATGAGAGTACTTACGCTGGAGAGAAATTCAAGGAATG
TAAACGGTGTGATTAAGCCTTCAGTTGTCCTAATTCCCTTTGAAGACGTGACTCATGCGGCAATGAAATATTTAA
CAAATGGGGGAGGAACTTGCACTCTCCTGCGGGATTGCAGATATGTGAATGGACTCCATGGACAGAAAAGCTACG
AATGTATGGAGTGTAGGAAAGCCTTCACTTCACGTAATCTTTTAAAGACACCTGAGAATATATACTGGAGAGAAA
CTATAAAGAAAATTCTATATCCATCCCATCTTTTGTGGGGTTTGTTTTTTGTTTTTGTTTTTGTTGAGATGTAAT
TTTGCTCTTGTTGCCCAGGCTGGAGTGCAGTGGTGCGATCGCGGCTCACCGCAACCTCCGCCTCCCGGATTCAAG
CAATTCTCCTGCCGCAGCCTCCCAAGAAGCTGGGATTACAGGCATGCGCCACCACGCCTGGCTAATTTTGTAATT
TTAGTAGAGATGGGGTTTCTCCATGTTGGTCAGGCTGGTCTCAAACTCCTGACCTCAGGTGATCTGCCTGCCTCG
GCCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACAGCACCCAACCTTTTTTTCCCCGCCGCACCCCAAGATGG
TGTCTCACTCTGTTGCCCCAGGCTGGAGTGCAGTGGTGTGATCCTGGCTCACTGTAACCTCTGGGTTCAAGCAAT
TCTTCTGCCTCAGCCTTCCAAGTAGCTGGGATTACAAGTGCCCACCACCATGCCCAGCTAATTTTTATATTTTTA
GTAGAGACAGTGTTTCACCATGTTGACCAGGCTGATCTTAAACTCTTGACCTCAAATGATCCACCCACCTTGGCC
TCCCAAATTGTTCGTTTTACTTTTTTTTTTTTTTTTTTTGAGCTGGAGTCTTACTCTGTTGCCTAGGCTGGAGT
GAAAGTGGCGCAACCTCTGCCTCCCAGGTCAAAGCAATCCTGCCTCAGGCCCCCTAGTAGCTGGCATTACAGGCA
CATGCCACCACGCCCAACTAATTTTTATATTTTTAGTAGAGACGGGGTTTCACCATGTTGGCCAGGCTGGTCTTG
AACTCCTGACCTCAGGTAATCCACCTGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCACACCC
GGCCCCCAGTTCTTTTTTTTTTTTTTTGAGACGGAGTCCTTGCCCAGGCTGGAGTGCAGTGGCGCGATCTCAGCT
CACTGCAAGCTCCGCCTCCTGGGTTCACGCCATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGACTACAGGCGCC
CGCCACCACGCCCGGCTCATTTTTTGTATTTTTAGTGGAGACGGGGTTTCACCGTGTTAGCCAGGATAGTCTTGA
TCTCCTGACCTCGTGATCCGCCCTCCTCGGCCTCCCAAAGTGCTGGGATTATAGGCGTGAGCCACCGCGCCCGGC
CTCCAGTTCATTTTAAAACCATGAAACCACCCACACTGGAGAGCCACCTTCTTAAATGTAAGCAATATGGGAACA
TCTTCAATGACATCTGCAACCATTGTCGAGATTCTTCGTAGGAAGAATTAAAGGAATGGGGAAGAAGGACTTGGG
CCCCAGCAGGCCTTTTGTGGCATCCAGTCAGAAGTTAGGAAACACCCTCTAGGGCAGTGCCTGCCCTCAGCTCTC
ACACATGACTGGAGAGAAGTGAGAAGACTCCCAGAATCTGCCTTTTAAGTTTCCATCAGTGTCCTCGGGTCAGAC
TGTGGGAATGCTGTACTTCTAAGACAAAGGTTCGCATCTTACAGTTTTTCCCCAAGTGGGATCTGCCTATGCACA

FIGURE 386B

TCCTAATTCACAGACATTGTCAGCATTGCATTATTCCAGGGCTGTTTTGAGGTCATCTCCAGCTCCATTTCCCAT
CTCAAACCTACACTTTGGACACTTGTTTAAACATTCACATCTGAATTTCTCTGTGGCAACCGCAGGTGGCTCTGA
GGTGAGAGACTGAAGAAGCAGAGCCTGTATCATGGGACACACACCCCTTGACCACACAGCATCCACTCTCCTGCG
GTTACCAGCCCTGCACCAACCACCACAGTCAGAATAATCTCAAAACTGCTAGTGGAGTCACAGACACACTCTGCC
ATGTCTTAGCTGTAGGACACTCAGAATTCTTACCTCCCCTAACTTGCTTTCCCTGTTTTCTGGCACATTCTACCC
TGAGATATTCAGCGGCATATGCACTGATGATGCTCCGGCCTTCTCACGTCAGTGCATGTCACATGCATCCTGCTC
CAGGACTGGTTTCCTAGCCTCCCGCTAAGACTAGCACTTAGCTCTTCTTGGAAAAGGACCCACCCTGCAGCGCTC
CAGCTCTGTTGTGTATGGGAGGTGCTGGTGTCAGGGTTCACAAGCCATGGAACTACCTTGCTTCACATCACAAGG
CAAGGTGAACTCAACTCCCAATAAACTGCTTGCTGGAGCCTCCGAATTCTCCGTTTTCTGAATTGCATAGGCACG
ATAGGGGTCGGGTCTGTCCTTTGTTGGAGTCAGTCCCCCCTTTTCTTAGCAAGTCAGTGTGTTTTAGAAGGGAGG
TGGCAGCATTGAGGGAAACCAGGTCACCATCCACCCTCGTAACAACAGTCTCCCTGGGTGGGTCCCAGAAGTGAT
CTTTGTGTCGCTCGGGTCGGAACTCTTTAGGCCTCTGGCCTCCACCCTCCCCCAACAGCAGGGATGGGTCAGGTG
GCAGCATCCAAAACCACGGTGAAGATACTAGGGTCCAGAGGCCGACTGGAGCAAGGTTTGCTGGCAGATGAGGCC
TCAGTGGAAGTGACGGCTACTGTGGAGATGCAGTGGAGGACCTGGTGGCTGAGCCAGGAGATGCACACCTTCGCT
TCTCTCACCAGGAACATTCGCTTCTCTCACCAGGAACATTTATGGTAGTATGAGGGGTTGGAACATTATTACTCA
ACCCATTTCAGGTCCTTTCACATTCTTGAGCTGCCATGTTGTGCTTTTGTAGAGAGATGATTATTGTACTGTGGG
AGGTCAGGAAGTTCGAGATTCCTTCACTGTCAGAATGGGCTCAAGGAGCCATCTTTTGTGATAGGTATTGGGGAA
CTAAGGGGTATCTCTGCTACAGGAATGGGAGTGAGAACATTCACTTTTTGAAGGACAAGTATATGTGGGTCTATG
ATGATGTTTTTGTAAAACCCTTTTGTGTATGTGTCTGTGTGAGTCCTAATATTCAGTAAGTATTTTCCTCTGTGT
AACTCCCTCTAATAGGTGTAGTCAACAAAGCTGTGCTAATATCTCTGTCCCCTTGATCCTGGCATTCTGGAAGAC
ACGAAAGCAAGCAAGGATATATAAGGCACTGTGGTGGTTATTCCCGAGGAGCCAGAGAAACCTGGAGAAGAGATC
AGAACACCTGGGGTCCTTCTATTTGGGAGAATCTTTTAGTATCTGGGCTGTTACACCTGTGGGTTTGTGAATTTG
TGTCTGTCCACCTGTATGTACAGTGATAACGTGTGTGATTTTTGTATATTTGTCTAGAGGGCTGTGTGTATATAT
ATTTATATATATTTTTAAATATGGAATGCTTTTAGGTTTTTTTTTTTTTTTTTTTTTGAGATGGATTCTCACT
GTTGCCAGGCTGGAGTGCAGTGGCACAATCTTGGCTCACTGCAACCTCCACTTCTCAGGTTCAAGCAATTCTCCT
GCCTCAGCCTCCTGAGTAGCTGGGACTATAGGCGCGTGCCACCACAACCAGCTAAATTTTTTTGTATTTTTAGTA
GAGATGGGGTTTCACCATGTTGACCAGGATGGTCTCAATCTCCTGACCTTGTGATCCACCCACCTCGGTCTCCCC
AAAGTGCTGGGATTACAGGCGTGAGCCACTCTGCCTGGCTGGTTATTTTGTTTGTTTGTTGTTTTTTTGAGACAC
AGTCTCGCTCTGTCACCAAGCTGGACTGCAGTGGCATGATCTCGGCTCACTGCAATCTCTGCCTCCCAGGTTCAA
GCAATTCTCCTGTTTCAGCCTCCTGAGTAGCTGGGATTACAGGCGCGTGCCACCATACCGAGCTAGTTTTTTTAT
TTTTAGTAGAGACGGGGTTTCACCATGTTGGCCAGGATGGTCTCGCCCTCCTGACCTTGTGATCTGCCTGCCTCG
GCCTCTCAAAGTGCTGGGATTAGAGGCTTGAGCCACCAGGCCCGGCTGGAATGCTTGCATTTTCTTGCCTGATTT
CCCTGGGAGCACCCCCCTTAACACTGAATGGAGCTGGTGAGAGCAAATATCCTTGTTTCTGATATTAGATATTAA
AAATATGGTTTTTCACC

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FIGURE 387

CTCTTTCCCTTCAGTGTGCCACTGAAGATCCTGGTGTCGCC**ATG**GGCCGCCGCCCCGCCCGTTGTTACCGGTATT
GTAAGAACAAGCCGTACCCAAAGTCTCGCTTCTGCCGAGGTGTCCCTGATGCCAAGATTCGCATTTTTGACCTGG
GGCGGAAAAAGGCAAAAGTGGATGAGTTTCCGCTCTGTGGCCACATGGTGTCAGATGAATATGAGCAGCTGTCCT
CTGAAGCCCTGGAGGCTGCCCGAATTTGTGCCAATAAGTACATGGTAAAAAGTTGTGGCAAAGATGGCTTCCATA
TCCGGGTGCGGCTCCACCCCTTCCACGTCATCCGCATCAACAAGATGTCGTCCTGTGCTGGGGCTGACAGGCTCC
AAACAGGAATGCGAGGTGCCTTTGGAAAGCCCCAGGGCACTGTGGCCAGGGTTCACATTGGCCAAGTTATCATGT
CCATCCGCACCAAGCTGCAGAACAAGGAGCGTGTGATTGAGGCCCTGCGCAGGGCCAAGTTCAAGTTTCCTGGCC
GCCAGAAGATCCACATCTCAAAGAAGTGGGGCTTCACCAAGTTCAATGCTGATGAATTTGAAGACATGGTGGCTG
CTCTGGACAAGTGGTGGGCCCTGCACTCA**TGA**GGGCTTCCAATGTGCTGCCCCCCTCTTAATACTCACCAATAAA
TTCTACTT

FIGURE 388

GGTTGGAACTATTGAAGCCCGCTTTCAGGTTCTTTTCCCCATTTTCCCTTTGAAAGGAAGACTTCTGGCTTCTCC
TAAATCTCCGTTCTCTGGGTAAGGGGAGTCCAAGCCTCTGTCATGAGGAACGGAAATGCGAGGGCCTCGGGTGTT
ACTCTAAAATCCGCCCTCAGCTTGCACGCCGGAAGCTGCGATTCCTGCAGCGGAAGAGGCGTGATCTGGCCTTCG
ACTCGCT**ATG**TCCACTAACAATATGTCGGACCCACGGAGGCCGAACAAAGTGCTGAGGTACAAGCCCCCGCCGAG
CGAATGTAACCCGGCCTTGGACGACCCGACGCCGGACTACATGAACCTGCTGGGCATGATCTTCAGCATGTGCGG
CCTCATGCTTAAGCTGAAGTGGTGTGCTTGGGTCGCTGTCTACTGCTCCTTCATCAGCTTTGCCAACTCTCGGAG
CTCGGAGGACACGAAGCAAATGATGAGTAGCTTCATGCTGTCCATCTCTGCCGTGGTGATGTCCTATCTGCAGAA
TCCTCAGCCCATGACGCCCCCATGG**TGA**TACCAGCCTAGAAGGGTCACATTTTGGACCCTGTCTATCCACTAGGC
CTGGGCTTTGGCTGCTAAACCTGCTGCCTTCAGCTGCCATCCTGGACTTCCCTGAATGAGGCCGTCTCGGTGCCC
CCAGCTGGATAGAGGGAACCTGGCCCTTTCCTAGGGAACACCCTAGGCTTACCCCTCCTGCCTCCCTTCCCCTGC
CTGCTGCTGGGGGAGATGCTGTCCATGTTTCTAGGGGTATTCATTTGCTTTCTCGTTGAAACCTGTTGTTAATAA
AGTTTTTCACTCTG

FIGURE 389

GCAAGGAAGGAGTCCTGGGAGC**ATG**GCTTTCCCTGAGCCAAAGCCGCGGCCTCCAGAGCTGCCGCAGAAACGGTT
GAAGACGCTGGACTGCGGGCAGGGGGCAGTGCGAGCCGTACGATTTAATGTGGATGGCAATTACTGCCTGACGTG
CGGCAGTGACAAGACGCTGAAGCTGTGGAACCCGCTTCGGGGGACGCTGCTGCGGACGTACAGCGGCCACGGCTA
CGAGGTGCTGGATGCGGCCGGCTCCTTTGACAACAGTAGTCTCTGCTCCGGCGGCGGGGACAAGGCGGTGGTTCT
GTGGGATGTGGCATCAGGGCAGGTCGTGCGCAAATTCCGGGGCCACGCAGGGAAGGTGAACACGGTGCAGTTTAA
TGAAGAGGCCACAGTTATCCTGTCCGGCTCTATTGATTCCAGTATCCGCTGTTGGGATTGCCGCTCACGGAGGCC
TGAGCCAGTGCAGACGCTGGATGAGGCCAGAGATGGCGTGTCCAGTGTGAAGGTGTCAGACCACGAGATCCTGGC
AGGCTCCGTGGATGGCCGCGTGAGACGCTATGACCTAAGGATGGGGCAGCTCTTCTCAGACTACGTGGGCAGCCC
CATCACCTGCACCTGCTTCAGCCGGGATGGGCAGTGCACCCTGGTGTCCAGCCTGGACTCCACATTGCGGCTCCT
GGACAAAGACACAGGGGAGCTGCTGGGCGAGTACAAGGGCCATAAGAACCAGGAATACAAGCTGGACTGCTGCCT
GAGCGAGCGTGACACACATGTGGTCAGCTGTTCTGAGGACGGGAAGGTGTTCTTCTGGGACCTGGTGGAGGGTGC
GCTGGCTCTGGCCCTGCCTGTGGGTTCCGGTGTGGTGCAGTCGCTGGCCTACCACCCAACAGAGCCCTGCCTGCT
GACCGCCATGGGAGGCAGCGTCCAGTGCTGGCGAGAGGAGGCCTATGAGGCAGAGGATGGAGCAGGC**TGA**AGCCA
GGGGACCCACCAACAGGACCAAGGACCGAGACACAGACATGGAAGGACTTCAGATACCATCTTATTCTAGAGACG
TAGCTGACCAAAAAGTAGGGGAGGGGCTGGGTCTGCAAATTAATAAATAGAAGAGGGGGTAAGACCTTCCTGGGA
CCGC

FIGURE 390

CTCTTGCGGAGACGCGCGCGTCGGGGTTTAACGCGTTTCTGGGCCGCCGTAAGCCCGGCCTAGGGGCAGCTTTGA
CTCGAGAGCCGGCTATAGGCGC**ATG**GAAGGTTCCCTGGAACGGGAGGCGCCAGCGGGGGCGCTGGCCGCCGTGCT
AAAGCACAGCTCGACGTTGCCGCCCGAAAGCACCCAGGTCCGGGGCTACGACTTCAACCGCGGTGTGAATTACCG
CGCACTGCTGGAGGCCTTCGGCACCACCGGCTTCCAAGCAACCAACTTCGGGCGCGCTGTACAGCAAGTCAATGC
CATGATCGAGAAGAAGCTGGAACCACTGTCACAGGATGAAGACCAGCACGCGGACCTGACCCAGAGCCGCCGCCC
ACTTACCAGCTGCACCATTTTCCTGGGATATACATCCAACCTCATCAGTTCAGGCATCCGTGAGACCATTCGCTA
CCTTGTGCAGCACAACATGGTGGACGTATTGGTGACCACAGCTGGCGGCGTGGAGGAAGACCTCATCAAGTGCCT
GGCGCCCACATACTTGGGCGAGTTTAGCCTCAGGGGGAAGGAGCTCCGGGAGAACGGGATCAATAGGATCGGAAA
CCTGCTGGTGCCCAATGAGAATTACTGCAAGTTTGAGGACTGGCTGATGCCCATTCTGGACCAGATGGTGATGGA
GCAGAACACAGAGGGTGTAAAGTGGACGCCTTCTAAGATGATCGCCCGGCTGGGCAAGGAGATCAACAACCCAGA
GTCCGTGTATTACTGGGCCCAGAAGAACCACATCCCTGTGTTTAGTCCCGCACTTACAGACGGCTCGCTGGGCGA
CATGATCTTCTTCCATTCCTACAAGAACCCGGGCCTGGTCCTGGACATCGTTGAGGACCTGAGGCTCATCAACAC
ACAGGCCATCTTTGCCAAGTGCACTGGGATGATCATTCTGGGCGGGGGCGTGGTCAAGCACCACATTGCCAATGC
CAACCTCATGCGGAACGGGGCCGACTACGCTGTTTACATCAACACAGCCCAGGAGTTTGATGGCTCTGACTCAGG
TGCCCGACCAGACGAGGCTGTCTCCTGGGGCAAGATCCGGGTGGATGCACAGCCCGTCAAGGTCTATGCTGACGC
CTCCCTGGTCTTCCCCCTGCTTGTGGCTGAAACCTTTGCCCAGAAGATGGATGCCTTCATGCATGAGAAGAACGA
GGAC**TGA**GCGGCTGCGGTCCCAGGAAGGTCTTACCCCCTCTTCTATTTATTAATTTGCAGACCCAGCCCCTCCCC
TACTTTTTGGTCAGCTACGTCTCTAGAATAAGATGGTATCTGAAGTCCTT

FIGURE 391

GACAAGACGCGAGGCCGGCAGCGCCCACCCGGTCGCAATGGAGCTTCCCCTAGGGCGGTGCGATGATTCCCGCAC
CTGGGACGATGACTCGGACCCAGAGTCAGAGACAGACCCAGACGCGCAGGCCAAGGCCTACGTGGCCCGCGTTCT
CAGTCCGCCAAAATCCGGGCTGGCGTTCTCGCGCCCCTCGCAGCTATCCACACCCGCCGCGTCCCCGAGCGCTTC
GGAGCCTCGGGCCGCGTCCAGGGTTTCGGCCGTAAGTGAGCCGGGCCTTCTGAGCCTTCCCCCGGAGCTGCTGCT
CGAGATCTGCTCCTACCTGGACGCCCGCCTCGTGCTCCACGTCCTGTCGCGGGTGTGCCACGCGCTCCGCGACCT
CGTGTCTGACCATGTCACCTGGAGGCTACGCGCGCTACGCCGCGTACGCGCGCCCTACCCAGTGGTGGAAGAGAA
GAACTTTGACTGGCCGGCAGCCTGCATTGCGCTGGAGCAGCACCTGTCCCGCTGGGCAGAGGATGGGCGCTGGGT
CGAATACTTCTGCCTGGCCGAAGGCCACGTGGCTTCCGTTGACTCAGTGCTGCTGCTCCAGGGTGGGTCACTCTG
TCTGTCGGGCTCCCGAGATCGCAACGTCAACTTGTGGGACCTGCGGCAGCTGGGGACGGAGTCCAACCAGGTTCT
GATCAAGACCTTAGGCACTAAGCGAAATAGTACCCATGAGGGCTGGGTGTGGTCACTGGCAGCGCAGGACCACCG
CGTGTGCTCCGGCTCCTGGGACAGCACAGTGAAGCTCTGGGACATGGCAGCGGATGGGCAGCAGTTCGGCGAGAT
AAAGGCCAGCTCAGCCGTGCTGTGCCTCTCCTACCTGCCTGACATCCTGGTGACTGGCACCTATGACAAGAAGGT
GACCATCTACGACCCCAGAGCCGGCCCAGCCCTGTTGAAGCACCAGCAACTACACTCCAGACCCGTGCTGACCCT
GCTGGCGG**ATG**ACCGGCACATCATCTCAGGCAGCGAGGACCACACCCTGGTGGTGGTGGACCGCCGAGCCAACAG
CGTCCTGCAGCGTCTGCAGCTGGACTCCTACCTGCTCTGCATGTCCTACCAGGAACCCCAGCTCTGGGCTGGTGA
CAACCAGGGCCTGCTGCACGTCTTCGCCAACCGCAACGGCTGCTTCCAGCTTATCCGGTCCTTTGATGTGGGCCA
CAGCTTTCCCATCACTGGGATCCAGTACTCCGTGGGAGCCTTGTACACCACATCCACTGACAAGACCATCCGGGT
GCACGTGCCCACAGACCCACCAAGGACCATTTGCACCCGAAGGCATGACAATGGGCTCAATAGGGTCTGTGCTGA
GGGCAACCTGGTGGTGGCCGGCTCTGGAGACCTGTCGC**TAG**AGGTCTGGAGGCTGCAGGCCTGAGCAGGTGGGCG
TGGATGTGGATACTGCCTGCCGGAGGCTGGGCTTCCTCCTCTGTTCTTGGGGGACCATCCCCAATGTTGGTGCTG
CCTCCGCCCCGTGGGCCTAGGGCACAAGGAGTCCCAGCCACATTCGGGTGAGCGTCCTGGCCTGGGCCCTATGCC
CGGGGGAAGGGTGAAATTGGGGTTCAGGCCCACCCAGGGGGCCGCTTCCCACTCTTGGGCCCTGGTTTTGTTATG
ATTTGGATGCCCCGCTCTCAGTTGAGAGCGAAGGAGAAATAAACCTGACATGTTGGTGCTTGG

FIGURE 392

CTCTCTTTGGCTCCCTCCTTCCGCGCGAGTCTCTGGAGAAGCCGCAGCGCGAGTTGCCGCCGCTGCTGCCCGGGG
CCGGCTTGCCTTGCGCC**ATG**GACTGGCAGCCAGACGAGCAGGGCCTGCAGCAGGTCCTGCAGCTGCTCAAAGACT
CACAGTCGCCCAACACAGCCACTCAGCGCATCGTGCAGGATAAACTCAAACAACTCAATCAGTTTCCTGACTTCA
ACAACTACCTGATTTTCGTCCTGACCAGACTCAAGTCAGAAGATGAGCCAACGCGCTCTCTCAGTGGCCTCATCC
TCAAGAACAACGTGAAGGCACACTATCAGAGCTTCCCACCCCCTGTGGCAGACTTCATCAAACAGGAGTGTCTCA
ACAACATTGGCGATGCCTCCTCGCTCATCCGAGCCACCATTGGCATTCTCATCACCACCATCGCTTCCAAGGGTG
AGCTGCAGATGTGGCCCGAGCTGCTGCCCCAGCTCTGCAACCTGCTTAACTCGGAGGATTACAACACTTGTGAGG
GAGCCTTTGGAGCCCTGCAGAAGATCTGTGAAGACTCATCAGAGCTTCTGGACAGTGACGCCCTCAACAGGCCCC
TCAACATCATGATCCCCAAGTTCCTGCAGTTCTTCAAGCACTGCAGTCCCAAGATCCGGTCCCACGCCATCGCCT
GCGTGAACCAGTTCATCATGGACCGGGCCCAGGCGCTGATGGACAATATTGACACCTTCATCGAGCACCTATTTG
CCCTGGCTGTGGATGATGACCCCGAGGTGCGGAAGAATGTGTGCCGTGCCCTGGTGATGCTTCTGGAAGTGCGGA
TTGACAGGCTCATCCCCCACATGCACAGCATCATCCAGTACATGCTGCAGAGGACCCAGGACCATGATGAGAACG
TTGCCCTTGAGGCCTGTGAGTTCTGGCTGACGCTGGCCGAGCAGCCCATCTGCAAGGAAGTCCTGGCCTCCCATC
TGGTCCAGTTGATCCCCATCTTGGTGAATGGGATGAAGTACTCGGAAATTGACATCATCCTGCTCAAGGGGGATG
TGGAGGAGGATGAGGCTGTCCCCGACAGTGAGCAGGACATCAAGCCACGCTTCCACAAGTCACGCACGGTCACAC
TGCCCCACGAGGCTGAGCGGCCTGATGGCTCCGAGGACGCGGAGGATGACGATGATGATGATGCTCTGTCCGACT
GGAATTTGAGGAAGTGCTCAGCGGCTGCACTGGACGTCCTCGCCAATGTCTTCCGGGAGGAACTGCTGCCCCACC
TACTCCCACTACTCAAAGGCCTCCTCTTCCACCCCGAGTGGGTGGTCAAGGAGTCGGGCATCCTGGTGCTGGGCG
CCATTGCTGAGGGCTGCATGCAGGGCATGGTGCCCTACCTGCCTGAGCTGATCCCGCACCTGATCCAGTGCCTGT
CGGATAAGAAGGCCTTGGTCCGCTCCATCGCCTGCTGGACGCTGAGCCGCTATGCCCACTGGGTGGTCAGCCAGC
CACCCGACATGCACCTCAAGCCCCTGATGACAGAGCTGCTCAAACGCATCCTGGATGGCAACAAGAGGGTACAGG
AGGCGGCCTGCAGTGCTTTTGCCACCCTGGAGGAAGAGGCCTGCACGGAGCTGGTGCCCTACCTCAGCTACATCC
TGGACACCCTTGTCTTTGCCTTTGGGAAATACCAGCACAAGAACCTGCTCATCCTCTATGACGCCATTGGCACCC
TGGCCGACTCTGTAGGCCACCACCTCAACCAGCCGGAATACATCCAGAAGCTGATGCCCCCACTGATCCAGAAGT
GGAATGAGCTCAAGGACGAAGACAAGGACCTCTTCCCCCTGCTGGAGTGTCTGTCATCGGTGGCCACCGCCCTGC
AGAGTGGCTTCCTGCCTTACTGTGAGCCCGTCTACCAGCGCTGTGTCACCCTGGTGCAGAAGACACTGGCTCAGG
CCATGATGTACACCCAGCACCCTGAGCAGTATGAGGCTCCCGACAAGGACTTCATGATCGTAGCACTGGATCTGC
TCAGCGGCCTGGCCGAGGGCCTGGGTGGTCACGTGGAGCAGCTGGTGGCCCGCAGCAACATCATGACATTGCTGT
TCCAGTGCATGCAGGACTCGATGCCTGAGGTCCGGCAGAGCTCCTTTGCCCTCCTGGGAGACCTCACCAAAGCCT
GCTTCATCCATGTCAAGCCCTGTATCGCCGAGTTCATGCCCATTCTGGGCACCAACCTGAACCCAGAGTTCATCT
CCGTCTGCAACAACGCCACCTGGGCCATTGGTGAAATCTGCATGCAGATGGGGGCAGAGATGCAGCCTTATGTGC
AGATGGTCCTCAACAACCTGGTGGAAATCATTAACCGACCCAACACACCCAAGACACTGCTGGAAAACACAGGTC
GCCTGACGAGTCCCTCTGCCATTCCAGCCATCACCATCGGCCGCTTGGGCTACGTGTGCCCCCAGGAGGTGGCAC
CCATGCTGCAGCAGTTCATCCGGCCTTGGTGCACGTCCCTCAGGAACATCAGGGACAACGAGGAGAAGGACTCAG
CCTTCCGCGGCATCTGCATGATGATCGGTGTCAACCCGGGGGGCGTTGTGCAGGACTTTATTTTCTTCTGCGATG
CTGTAGCCTCCTGGGTGAGCCCGAAGGATGACCTTCGGGACATGTTTTATAAGATTCTCCACGGCTTCAAAGACC
AAGTTGGGGAAGATAACTGGCAGCAGTTCTCTGAGCAATTCCCGCCGCTGCTCAAGGAGAGGCTGGCGGCTTTCT
ATGGGGTC**TAG**GTGATCATGGAGACTGCCAGGTTTCTGTCTGCGTCGTCGTCGGAGGGATTACTGGGGAGTGCGC
TGCATCCGGAAGTCGCTGTGCCCTGGTTGAGGGGGGTTAGGGAGGAG

FIGURE 393

GCCAAGCGCGGGGCCGGAGCGGCCTTCCCGGAGTCCTTTGCGCGGCACCTGGCGACAAA**ATG**GCTGCCCGAGGGA
GACGGGCGGAGCCTCAGGGCCGGGAGGCTCCGGGCCCCGCGGGCGGTGGCGGTGGCGGGAGCCGTTGGGCTGAGT
CGGGATCGGGGACGTCGCCCGAGAGCGGGGACGAGGAGGTGTCGGGCGCGGGTTCGAGCCCGGTGTCGGGCGGCG
TGAACTTGTTCGCCAACGACGGCAGCTTCCTGGAGCTGTTCAAGCGGAAGATGGAGGAGGAGCAGCGGCAGCGGC
AGGAGGAGCCGCCCCCGGGTCCGCAGCGACCCGACCAGTCGGCCGCCGCCGCTGGCCCCGGGGATCCGAAGAGGA
AGGGCGGTCCGGGCTCCACACTTAGCTTCGTGGGCAAACGCAGAGGCGGGAACAAACTAGCCCTCAAGACGGGAA
TAGTAGCCAAGAAGCAGAAGACGGAGGATGAGGTATTAACAAGTAAAGGTGACGCGTGGGCCAAGTACATGGCAG
AAGTGAAAAAGTACAAAGCTCACCAGTGCGGTGACGATGATAAAACTCGGCCCCTGGTGAAA**TGA**CGCCCCTCCC
CCACCTGCCCATGGCCTGGGACTCTCTGCGATGTACATAACTATTTAATGCAGCGGCAGCGGCGACAGCCTTCCC
TGAGAGGACTTAAAAGCAGAAGGAAACCGAGATGCTTCCCGCAGCCGTGGACGATTCTCCAGGACTCTTTTTTTA
CCTTGAGCACTTGCCTCGTGAGACTTCATAGAACAGTGGTTTACTGTCCCCCCCTTCTCACCTCCTCATTCTCTC
TGGCTCTTTCTGTCTTCCTCTTCTCACCCTCCTCCCTCCCCTTAGCCATCACTTCTGGGAAGTAAAGAACTTGAC
TTAGTGCCGG

FIGURE 394

GCTGGATCACGTGAGCCAGTTCCAAA**ATG**GCGGCAGGGGTGGCCGGGTGGGGGGTTGAGGCAGAGGAGTTCGAAG
ATGCTCCTGATGTGGAGCCGCTGGAGCCTACACTTAGCAACATCATCGAGCAGCGCAGCCTGAAGTGGATCTTCG
TCGGGGGCAAGGGTGGTGTGGGCAAGACCACCTGCAGCTGCAGCCTGGCAGTCCAGCTCTCCAAGGGGCGTGAGA
GTGTTCTGATCATCTCCACAGACCCAGCACACAACATCTCAGATGCTTTTGACCAGAAGTTCTCAAAGGTGCCTA
CCAAGGTCAAAGGCTATGACAACCTCTTTGCTATGGAGATTGACCCCAGCCTGGGCGTGGCGGAGCTGCCTGACG
AGTTCTTCGAGGAGGACAACATGCTGAGCATGGGCAAGAAGATGATGCAGGAGGCCATGAGCGCATTTCCCGGCA
TCGATGAGGCCATGAGCTATGCCGAGGTCATGAGGCTGGTGAAGGGCATGAACTTCTCGGTGGTGGTATTTGACA
CGGCACCCACGGGCCACACCCTGAGGCTGCTCAACTTCCCCACCATCGTGGAGCGGGGCCTGGGCCGGCTTATGC
AGATCAAGAACCAGATCAGCCCTTTCATCTCACAGATGTGCAACATGCTGGGCCTGGGGGACATGAACGCAGACC
AGCTGGCCTCCAAGCTGGAGGAGACGCTGCCCGTCATCCGCTCAGTCAGCGAACAGTTCAAGGACCCTGAGCAGA
CAACTTTCATCTGCGTATGCATTGCTGAGTTCCTGTCCCTGTATGAGACAGAGAGGCTGATCCAGGAGCTGGCCA
AGTGCAAGATTGACACACACAATATAATTGTCAACCAGCTCGTCTTCCCCGACCCCGAGAAGCCCTGCAAGATGT
GTGAGGCCCGTCACAAGATCCAGGCCAAGTATCTGGACCAGATGGAGGACCTGTATGAAGACTTCCACATCGTGA
AGCTGCCGCTGTTACCCCATGAGGTGCGGGGGGCAGACAAGGTCAACACCTTCTCGGCCCTCCTCCTGGAGCCCT
ACAAGCCCCCCAGTGCCCAG**TAG**CACAGCTGCCAGCCCCAACCGCTGCCATTTCACACTCACCCTCCACCCTCCC
CACCCCCTCGGGGCAGAGTTTGCACAAAGTCCCCCCCCATAATACAGGGGGAGCCACTTGGGCAGGAGGCAGGGAG
GGGTCCATTCCCCCTGGTGGGGCTGGTGGGGAGCTGTAGTTGCCCCCTACCTCTCCCACCTCTTGCTCTTCAATA
AAATGATCTTAAACTGC

FIGURE 395

GGGAGGTCGGGGCTGCGGGCGCTCGCTGGTGGCGGACCCGGAGGCTGCTGCGGCGCCGGGGCTCCGTGGCCTGGA
TTGAATCCGATCGGGAGCC**ATG**AGCGTGGACAAAGCTGAGCTATGCGGGTCTCTGCTCACCTGGTTACAGACGTT
CCACGTTCCGTCTCCCTGTGCCAGCCCTCAGGACCTGAGCAGCGGCCTTGCCGTAGCCTATGTGCTGAACCAGAT
AGACCCCTCCTGGTTCAACGAGGCATGGCTCCAGGGCATCTCGGAAGATCCAGGTCCCAACTGGAAGCTGAAGGT
CAGCAATCTGAAGATGGTCTTACGGAGCCTAGTAGAGTACTCCCAGGATGTCCTGGCGCATCCTGTGTCAGAAGA
GCATCTCCCAGATGTGAGCCTCATTGGAGAGTTCTCAGACCCGGCAGAGCTCGGCAAGCTGCTTCAGCTGGTGCT
GGGCTGTGCCATCAGTTGCGAGAAAAAGCAGGACCACATCCAGAGAATCATGACGCTGGAAGAATCGGTTCAGCA
TGTGGTGATGGAAGCCATCCAAGAGCTCATGACCAAAGACACTCCTGACTCCCTGTCACCAGAGACGTATGGCAA
CTTTGACAGCCAGTCCCGCAGGTACTATTTCCTAAGTGAGGAGGCTGAGGAGGGGGACGAATTACAGCAGCGCTG
TCTGGATCTGGAGCGGCAGCTGATGCTCCTGTCAGAGGAGAAGCAGAGCCTGGCGCAAGAGAATGCAGGGCTGCG
GGAGCGGATGGGCCGGCCTGAAGGCGAGGGTACCCCAGGTCTCACTGCCAAGAAGCTGCTGCTGCTGCAATCCCA
GCTGGAGCAGTTGCAGGAGGAGAACTTCAGGCTGGAGAGTGGCAGGGAGGATGAGCGCCTGCGCTGTGCCGAGCT
GGAGAGGGAGGTTGCGGAGCTGCAGCACCGGAACCAGGCGCTGACTAGCCTGGCCCAGGAGGCACAGGCCCTGAA
GGATGAGATGGATGAACTACGGCAGTCTTCGGAGCGTGCTGGGCAGCTGGAGGCCACGCTGACCAGTTGCCGGCG
CCGCTTGGGCGAGCTGAGGGAGCTGCGGCGGCAGGTGCGGCAGCTGGAGGAACGCAACGCCGGCCACGCCGAGCG
CACGCGACAACTGGAGGATGAGCTACGCCGAGCGGGCTCCCTGCGCGCCCAGCTGGAGGCGCAGCGGCGGCAGGT
GCAGGAACTGCAGGGCCAGCGGCAGGAGGAGGCCATGAAGGCCGAGAAATGGCTATTTGAATGCCGCAACCTGGA
GGAAAAGTATGAGTCGGTGACAAAGGAGAAGGAGCGGCTGTTGGCGGAGCGGGACTCCTTGCGGGAGGCCAATGA
GGAGCTGCGCTGCGCCCAGCTGCAGCCGCGGGGGTTGACCCAGGCCGATCCCTCACTGGATCCCACCTCCACACC
CGTGGATAACTTAGCCGCAGAGATCCTGCCTGCGGAGCTCAGGGAGACGCTCCTGCGGCTTCAGCTGGAGAACAA
GCGGCTGTGCAGGCAGGAGGCGGCCGACCGGGAGCGGCAGGAGGAGCTGCAGCGCCACCTGGAGGATGCCAACCG
CGCGCGCCACGGGTTGGAGACGCAGCACCGGCTGAACCAGCAGCAGCTATCCGAGCTGCGGGCCCAGGTGGAGGA
CCTGCAGAAAGCCCTGCAGGAGCAGGGGGGCAAGACTGAAGATTCCATTTTGCTGAAAAGGAAGCTGGAGGAACA
TTTGCAGAAGCTTCATGAGGCAGATCTGGAGTTGCAGAGGAAGCGGGAGTACATTGAGGAGCTGGAGCCACCCAC
TGACAGCAGCACAGCCCGGCGGATCGAGGAGCTGCAGCATAACTTGCAGAAGAAGGACGCGGACTTGCGGGCCAT
GGAGGAGCGATACCGCCGCTACGTGGACAAGGCCCGCATGGTCATGCAGACCATGGAACCCAAGCAGCGGCCAGC
TGCGGGGGCACCTCCAGAACTCCATTCCCTGAGGACACAGCTCCGAGAACGGGATGTCCGCATCCGACACCTGGA
GATGGACTTTGAGAAAAGCCGAAGTCAGCGGGAGCAGGAAGAAAAGCTGCTCATCAGTGCCTGGTATAATATGGG
CATGGCCTTGCAGCAGCGAGCTGGGGAGGAGCGGGCGCCTGCCCATGCCCAGTCATTCCTGGCACAGCAGCGGCT
GGCAACCAATTCTCGCCGTGGACCCTTGGGACGCCTGGCATCTCTGAACCTTCGCCCCACTGACAAGCAC**TGA**CA
GACCTCACAATCAAGCCAGCCTGGGCTCCACCCACCCTGGCTTCCTCCAGCTCACATGGCGCCCAGCACTGGGCT
TCAGCCAGGTGCTCGAGAGCTTTGAGGCCATGATCTCTGCTCTTCCCTCTCCCAGATTGGTGGGGAGGGAGGGCG
GGAGGTAGATATAGGCCTGTTCTTTTTAGCAATGTGATTCTTGTTGTTGATTCTCTCTCTGGAGTTCATGTGCTG
CCTCAGGAGACTCTGATTTTATATTTGAGAAAAATAAAGGCGTTCAATCTGC

FIGURE 396

CCAGCAGGGAGCTGGGAGCTGGGGGAAACGACGCCAGGAAAGCTATCGCGCCAGAGAGGGCGACGGGGGCTCGGG
AAGCCTGACAGGGCTTTTGCGCACAGCTGCCGGCTGGCTGCTACCCGCCCGCGCCAGCCCCCGAGAACGCGCGAC
CAGGCACCCAGTCCGGTCACCGCAGCGGAGAGCTCGCCGCTCGCTGCAGCGAGGCCCGGAGCGGCCCCGCAGGGA
CCCTCCCCAGACCGCCTGGGCCGCCCGG**ATG**TGCACTAAAATGGAACAGCCCTTCTACCACGACGACTCATACAC
AGCTACGGGATACGGCCGGGCCCCTGGTGGCCTCTCTCTACACGACTACAAACTCCTGAAACCGAGCCTGGCGGT
CAACCTGGCCGACCCCTACCGGAGTCTCAAAGCGCCTGGGGCTCGCGGACCCGGCCCAGAGGGCGGCGGTGGCGG
CAGCTACTTTTCTGGTCAGGGCTCGGACACCGGCGCGTCTCTCAAGCTCGCCTCTTCGGAGCTGGAACGCCTGAT
TGTCCCCAACAGCAACGGCGTGATCACGACGACGCCTACACCCCCGGGACAGTACTTTTACCCCCGCGGGGGTGG
CAGCGGTGGAGGTGCAGGGGGCGCAGGGGGCGGCGTCACCGAGGAGCAGGAGGGCTTCGCCGACGGCTTTGTCAA
AGCCCTGGACGATCTGCACAAGATGAACCACGTGACACCCCCCAACGTGTCCCTGGGCGCTACCGGGGGGCCCCC
GGCTGGGCCCGGGGGCGTCTACGCCGGCCCGGAGCCACCTCCCGTTTACACCAACCTCAGCAGCTACTCCCCAGC
CTCTGCGTCCTCGGGAGGCGCCGGGGCTGCCGTCGGGACCGGGAGCTCGTACCCGACGACCACCATCAGCTACCT
CCCACACGCGCCGCCCTTCGCCGGTGGCCACCCGGCGCAGCTGGGCTTGGGCCGCGGCGCCTCCACCTTCAAGGA
GGAACCGCAGACCGTGCCGGAGGCGCGCAGCCGGGACGCCACGCCGCCGGTGTCCCCCATCAACATGGAAGACCA
AGAGCGCATCAAAGTGGAGCGCAAGCGGCTGCGGAACCGGCTGGCGGCCACCAAGTGCCGGAAGCGGAAGCTGGA
GCGCATCGCGCGCCTGGAGGACAAGGTGAAGACGCTCAAGGCCGAGAACGCGGGGCTGTCGAGTACCGCCGGCCT
CCTCCGGGAGCAGGTGGCCCAGCTCAAACAGAAGGTCATGACCCACGTCAGCAACGGCTGTCAGCTGCTGCTTGG
GGTCAAGGGACACGCCTTC**TGA**ACGTCCCCTGCCCCTTTACGGACACCCCCTCGCTTGGACGGCTGGGCACACGC
CTCCCACTGGGGTCCAGGGAGCAGGCGGTGGGCACCCACCCTGGGACCTAGGGGCGCCGCAAACCACACTGGACT
CCGGCCCTCCTACCCTGCGCCCAGTCCTTCCACCTCGACGTTTACAAGCCCCCCCTTCCACTTTTTTTTGTATGT
TTTTTTTCTGCTGGAAACAGACTCGATTCATATTGAATATAATATATTTGTGTATTTAACAGGGAGGGGAAGAGG
GGGCGATCGCGGCGGAGCTGGCCCCGCCGCCTGGTACTCAAGCCCGCGGGGACATTGGGAAGGGGACCCCCGCCC
CCTGCCCTCCCCTCTCTGCACCGTACTGTGGAAAAGAAACACGCACTTAGTCTCTAAAGAGTTTATTTTAAGACG
TGTTTGTGTTTGTGTGTGTTTGTTCTTTTTATTGAATCTATTTAAGTAAAAAAAAAATTGGTTCTTTATTAA

FIGURE 397

CGCGGCCCAGGGCTCACTTGGCGCTGAGAACGCGGGTCCACGCGTGTGATCGTCCGTGCGTCTAGCCTTTGCCCA
CGCAGCTTTCAGTC**ATG**GCCTCCGGTAACGCGCGCATCGGAAAGCCAGCCCCTGACTTCAAGGCCACAGCGGTGG
TTGATGGCGCCTTCAAAGAGGTGAAGCTGTCGGACTACAAAGGGAAGTACGTGGTCCTCTTTTTCTACCCTCTGG
ACTTCACTTTTGTGTGCCCCACCGAGATCATCGCGTTCAGCAACCGTGCAGAGGACTTCCGCAAGCTGGGCTGTG
AAGTGCTGGGCGTCTCGGTGGACTCTCAGTTCACCCACCTGGCTTGGATCAACACCCCCCGGAAAGAGGGAGGCT
TGGGCCCCCTGAACATCCCCCTGCTTGCTGACGTGACCAGACGCTTGTCTGAGGATTACGGCGTGCTGAAAACAG
ATGAGGGCATTGCCTACAGGGGCCTCTTTATCATCGATGGCAAGGGTGTCCTTCGCCAGATCACTGTTAATGATT
TGCCTGTGGGACGCTCCGTGGATGAGGCTCTGCGGCTGGTCCAGGCCTTCCAGTACACAGACGAGCATGGGGAAG
TTTGTCCCGCTGGCTGGAAGCCTGGCAGTGACACGATTAAGCCCAACGTGGATGACAGCAAGGAATATTTCTCCA
AACACAAT**TAG**GCTGGCTAACGGATAGTGAGCTTGTGCCCCTGCCTAGGTGCCTGTGCTGGGTGTCCACCTGTGC
CCCCACCTGGGTGCCCTATGCTGACCCAGGAAAGGCCAGACCTGCCCCTCCAAACTCCACAGTATGGGACCCTGG
AGGGCTAGGCCAAGGCCTTCTCATGCCTCCACCTAGAAGCTGAATAGTGACGCCCTCCCCCAAGCCCACCCAGCC
GCACACAGGCCTAGAGGTAACCAATAAAGTATTAGGG

FIGURE 398

CGCTCCTGCAGTATTAGTTCTTGCAGCTGGTGGTGGCGGCTGAGGCGGC**ATG**GATCTCAGCGAGCTGGAGAGAGA
CAATACAGGCCGCTGTCGCCTGAGTTCGCCTGTGCCCGCGGTGTGCCGCAAGGAGCCTTGCGTCCTGGGCGTCGA
TGAGGCGGGCAGGGGCCCCGTGCTGGGCCCCATGGTCTACGCCATCTGTTATTGTCCCCTGCCTCGCCTGGCAGA
TCTGGAGGCGCTGAAAGTGGCAGACTCAAAGACCCTATTGGAGAGCGAGCGGGAAAGGCTGTTTGCGAAAATGGA
GGACACGGACTTTGTCGGCTGGGCGCTGGATGTGCTGTCTCCAAACCTCATCTCTACCAGCATGCTTGGGCGGGT
CAAATACAACCTGAACTCCCTGTCACATGATACAGCCACTGGGCTTATACAGTATGCATTGGACCAGGGCGTGAA
CGTCACCCAGGTATTCGTGGACACCGTAGGGATGCCAGAGACATACCAGGCGCGGCTGCAGCAAAGTTTTCCCGG
GATTGAGGTGACGGTCAAGGCCAAAGCAGATGCCCTCTACCCGGTGGTTAGTGCTGCCAGCATCTGTGCCAAGGT
GGCCCGGGACCAGGCCGTGAAGAAATGGCAGTTCGTGGAGAAACTGCAGGACTTGGATACTGATTATGGCTCAGG
CTACCCCAATGATCCCAAGACAAAAGCGTGGTTGAAGGAGCACGTGGAGCCTGTGTTCGGCTTCCCCCAGTTTGT
CCGGTTCAGCTGGCGCACGGCCCAGACCATCCTGGAGAAAGAGGCGGAAGATGTTATATGGGAGGACTCAGCATC
CGAGAATCAGGAGGGACTCAGGAAGATCACATCCTACTTCCTCAATGAAGGGTCCCAAGCCCGTCCCCGTTCTTC
CCACCGATATTTCCTGGAACGCGGCCTGGAGTCAGCAACCAGCCTC**TAG**CAGCTGCCTCTACGCGCTCTACCTGC
TTCCCCAACCCAGACATTAAAATTGTTTAAGGAG

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FIGURE 399

GCGCGGACCCAACCTGGCTGCTGCAGTACTTGCTCTAACTTTGCCGCAGCTGCCTCCCTTCTCTCGGAACCCACT
CTCCTAACCCACCCCCGAGAGGCGGAGAGAATGTGGGAGCACTTCAGAGAGGCCTAGGCTCCGGAGATCGGGCCA
TCTGGGCTCTGAAAGCAAATTAGTTTTCCAACTCATGTCTGGCTCCGGCGTTACCCAGACGCCTGGAAGGTCCTT
CCTGCAGTCTGATCACCATTTTTCCTGCTGCACTGACCAATCAGCTCCCCTTGGCCTTCAACCTCGGGAATGATG
GATTAGGGGAGTCTAGAA**ATG**GACGAAGCCCTAGAAACGCAGCTGAAGACGAGCAGAGGACGCTTCTCGGCTACA
GAATCCCTCCCCACCTTGGAGCTCTTATCTCAGGTGGACATGGACTGCAGGGTCCACATGCGACCCATCGGCCTG
ACGTGGGTGCTGCAACTGACCTTGGCATGGATCCTGCTAGAAGCCTGTGGAGGGAGCCGCCCACTCCAAGCCAGG
TCCCAGCAACACCATGGGCTGGCAGCTGATCTGGGCAAAGGCAAGCTGCACCTGGCAGGACCTTGTTGTCCCTCA
GAGATGGACACAACAGAGACATCGGGCCCTGGAAACCATCCAGAACGCTGTGGAGTGCCGAGCCCTGAATGCGAA
TCCTTCCTGGAACACCTCCAACGTGCCCTTCGCAGTCGCTTCCGCCTGCGGCTATTGGGGGTACGCCAGGCACAG
CCGCTCTGCGAGGAGCTCTGCCAGGCCTGGTTCGCCAACTGCGAAGATGATATCACCTGCGGCCCGACTTGGCTC
CCACTCTCAGAAAAAAGGGGCTGTGAGCCCAGCTGCCTTACCTATGGACAGACCTTCGCAGACGGGACGGACCTT
TGTCGCTCGGCTCTGGGCCACGCCCTACCGGTGGCTGCTCCTGGAGCCCGTCACTGCTTCAACATCTCCATCTCC
GCGGTACCTCGTCCCAGACCAGGACGACGGGGCCGGGAAGCTCCCTCCCGGCGTTCCCGCAGCCCTCGCACCTCC
ATCCTGGACGCTGCGGGCAGCGGGAGTGGCAGTGGAAGCGGCAGCGGCCCC**TAG**CGGACGCGTGGCCCTGAGTTG
GGGGAGCGACCCTTCCCCCAGCCCCGCCCCTCAGGACACCCAGAACCCCACCCCTCGTCCTCTCGGCCTTCTGTA
ATAGTTTTGAGATGTCTGTCCCTCCTCCCTGGAGCTCCAGAGACCCACCCCTCTCCAGGTTATCCCAGAAATGAC
CCAACTCTCTCACTTTTCCCTCTCCCCTTTGAATAAAGTCGCCAGCTAGAGC

FIGURE 400A

TGCTCCCCGCGCCGCCGCCGCCGCCGCCTCCGCCGCTGCTGCCGCACCTGCCACCATGTCGCCGCCGCCGGGTCA
TGTCTGACTCTCTCTGGACCGCGCTTTCTAATTTCTCGATGCCCTCCTTCCCCGGCGGCAGTATGTTCCGCCGCA
CCAAGAGCTGCCGCACCAGTAATCGGAAAAGCCTCATCCTGACCAGCACTTCACCCACGCTACCGAGACCCCACT
CCCCGCTGCCAGGTCACCTAGGCAGCAGTCCCCTGGACAGCCCCCGAAACTTCTCCCCCAACACCCCCGCCCACT
TCTCGTTTGCCTCCTCCCGAAGGGCGGACGGACGCCGGTGGTCTCTGGCCTCGCTCCCTTCATCTGGCTATGGCA
CCAACACGCCCAGTTCCACCGTCTCGTCCTCCTGCTCCTCCCAGGAGCGCCTTCACCAGCTGCCCTACCAGCCCA
CGGTGGACGAGCTCCACTTCCTCTCCAAACACTTCGGGAGCACCGAGAGCATCACAGACGAGGATGGTGGCCGTC
GCTCCCCAGCCGTGCGGCCCCGCTCACGGAGCCTCAGCCCCGGGCGCTCCCCCTCCTCCTACGACAACGAGATCG
TGATGATGAATCACGTCTACAAGGAGAGGTTCCCGAAGGCCACTGCGCAGATGGAGGAGAAGCTGCGCGACTTTA
CCCGCGCCTACGAACCCGACAGCGTTCTGCCTCTGGCCGATGGCGTGCTCAGCTTCATCCACCACCAGATCATCG
AGCTGGCCCGGGACTGCCTGACCAAGTCCCGTGACGGCCTCATCACCACGGTCTACTTCTATGAATTGCAGGAGA
ACCTGGAGAAGCTCCTTCAAGACGCCTATGAACGCTCTGAGAGCTTGGAGGTGGCCTTCGTTACTCAGCTGGTGA
AGAAGTTGCTTATTATCATCTCACGCCCTGCGAGGCTGCTGGAGTGCCTGGAATTCAACCCCGAGGAGTTCTACC
ACCTGCTGGAGGCGGCCGAAGGACACGCCAAGGAGGGCCACCTTGTGAAGACGGACATCCCCCGCTACATCATCC
GCCAGCTGGGCCTCACCCGTGACCCCTTTCCAGATGTGGTGCATCTGGAGGAACAGGACAGTGGTGGTTCCAACA
CCCCTGAGCAAGACGATCTCTCTGAGGGCCGCAGCAGCAAGGCCAAGAAACCGCCGGGGGAGAATGACTTCGATA
CCATCAAGCTCATAAGCAACGGTGCCTACGGCGCTGTCTACCTGGTGCGGCACCGCGACACGCGGCAGCGCTTTG
CCATGAAAAAGATCAACAAGCAGAACTTGATCCTCCGCAACCAGATCCAGCAGGCCTTTGTGGAGCGCGATATCC
TCACCTTCGCCGAGAACCCGTTTGTGGTCGGCATGTTCTGCTCCTTTGAGACTCGGCGCCACCTCTGCATGGTCA
TGGAATATGTGGAAGGCGGCGACTGTGCCACCCTGCTGAAGAATATTGGAGCGCTGCCCGTAGAGATGGCCCGCA
TGTACTTTGCTGAGACGGTGCTAGCCCTGGAGTATTTGCACAACTATGGCATCGTGCACCGCGACCTCAAGCCTA
CAGCCTCCTTATCACCTCC**ATG**GGTCACATCAAGCTCACAGATTTCGGCCTCTCCAAGATGGGGCTCATGAGCCT
CACCACCAACTTATATGAAGGCCACATCGAGAAGGACGCCCGAGAGTTCCTGGACAAACAGGTGTGTGGGACCCC
AGAGTACATCGCGCCCGAGGTCATCCTGCGTCAAGGCTACGGCAAGCCAGTGGACTGGTGGGCTATGGGGATCAT
CCTCTACGAGTTCCTGGTGGGCTGTGTGCCCTTCTTCGGAGACACACCAGAGGAGCTATTTGGACAGGTCATCAG
TGATGACATCCTGTGGCCCGAGGGGGATGAGGCCCTACCTACGGAGGCCCAACTCCTCATATCCAGCCTCCTGCA
GACCAACCCTCTGGTCAGGCTTGGGGCAGGCGGCGCTTTTGAGGTGAAGCAGCACAGTTTCTTTCGAGACCTGGA
CTGGACAGGGCTGCTGAGGCAGAAGGCCGAGTTCATCCCCCACCTAGAGTCGGAAGATGACACTAGCTACTTTGA
CACCCGCTCAGACAGGTATCACCACGTGAACTCCTATGACGAGGATGACACGACGGAGGAGGAGCCCGTGGAAAT
CCGCCAGTTCTCTTCCTGCTCTCCGCGCTTCAGCAAGGTGTATAGCAGCATGGAGCAGCTGTCGCAGCACGAGCC
CAAGACCCCAGTAGCAGCTGCAGGGAGCAGCAAGCGGGAGCCGAGCACCAAGGGCCCCGAGGAGAAGGTGGCCGG
CAAGCGGGAGGGGCTGGGCGGCCTGACCCTGCGTGAGAAGACCTGGAGAGGGGGCTCTCCGGAGATCAAGCGATT
CTCCGCGTCCGAGGCCAGTTTCCTGGAGGGAGAGGCCAGTCCCCCTTTGGGCGCCCGCCGCCGTTTCTCGGCGCT
GCTGGAGCCCAGCCGCTTCAGCGCCCCCCAAGAGGACGAGGATGAGGCCCGGCTGCGCAGGCCTCCCCGGCCCAG
CTCCGACCCCGCGGGATCCCTGGATGCACGGGCCCCCAAAGAGGAGACTCAAGGGGAAGGCACCTCCAGCGCCGG
GGACTCCGAGGCCACTGACCGTCCACGCCCAGGTGACCTCTGCCCACCCTCGAAGGATGGGGATGCATCAGGCCC
AAGGGCTACCAATGACTTGGTTCTGCGCCGGGCGCGGCACCAGCAGATGTCAGGGGATGTGGCAGTAGAGAAGAG
GCCTTCTCGAACTGGGGGCAAAGTCATCAAATCAGCCTCAGCCACTGCCTTATCTGTCATGATTCCTGCAGTGGA
CCCACATGGAAGTTCACCCCTTGCTAGTCCCATGTCTCCACGATCTCTGTCCTCCAACCCATCCTCACGGGACTC
CTCACCCAGCCGGGACTACTCACCAGCTGTCAGTGGGCTCCGCTCCCCCATCACCATCCAGCGCTCGGGCAAGAA
GTATGGCTTCACACTGCGTGCCATCCGTGTCTACATGGGTGACACGGATGTCTATAGTGTCCACCACATTGTCTG
GCATGTGGAGGAAGGAGGCCCAGCCCAGGAGGCAGGACTCTGTGCTGGGGACCTCATCACCCACGTGAATGGGGA
GCCTGTGCATGGCATGGTGCATCCTGAGGTCGTGGAGCTGATCCTTAAGAGTGGCAACAAGGTAGCAGTGACCAC
AACGCCCTTCGAAAATACCTCTATCCGCATTGGTCCCGCAAGGCGCAGCAGCTACAAGGCTAAAATGGCTCGGAG
GAACAAGCGACCCTCCGCCAAGGAGGGCCAGGAGAGCAAGAAGCGCAGCTCCCTCTTCCGGAAGATCACGAAGCA
GTCGAACCTGCTGCATACTAGCCGCTCGCTGTCGTCGCTGAACCGCTCGCTGTCATCCAGCGATAGTCTCCCGGG
CTCGCCTACGCACGGGCTGCCGGCGCGCTCGCCCACGCACAGCTACCGCTCCACGCCTGACTCCGCCTACCTAGG
CGCCTCATCCCAGAGCAGCTCCCCAGCCTCGAGCACGCCCAACTCGCCTGCGTCGTCGGCGTCGCACCACATTCG

FIGURE 400B

GCCCAGCACGCTGCACGGACTGTCGCCAAAGCTCCATCGCCAGTACCGCTCTGCGCGATGCAAGTCGGCCGGCAA
CATCCCTCTATCGCCGCTGGCACACACGCCGTCCCCCACGCAGGCGTCACCGCCGCCACTGCCGGGCCACACGGT
GGGCAGCTCGCACACTACTCAGAGCTTCCCGGCCAAACTGCACTCATCGCCTCCCGTCGTGCGCCCGCGCCCCAA
GAGTGCCGAGCCCCCTCGCTCGCCGCTCCTCAAGCGCGTGCAGTCGGCCGAGAAGCTGGGAGCCTCTTTGAGTGC
GGACAAGAAGGGCGCGCTGCGCAAACACAGCCTCGAGGTGGGCCACCCGGATTTCCGCAAGGACTTCCATGGCGA
GCTGGCGCTGCATAGCCTTGCCGAGTCCGACGGTGAGACGCCCCCAGTCGAGGGCCTTGGCGCGCCCCGGCAGGT
CGCCGTCCGCCGCCTGGGCCGACAGGAGTCACCTTTGAGCCTGGGCGCGGACCCGTTGCTGCCCGAGGGTGCCTC
CAGGCCACCAGTGTCGAGCAAGGAGAAGGAATCCCCGGGGGGCGCCGAGGCGTGCACCCCACCCCGCGCGACGAC
CCCCGGTGGCCGGACCCTGGAGCGGGACGTCGGCTGCACGCGGCATCAGAGCGTGCAGACGGAGGATGGCACTGG
CGGGATGGCCAGGGCTGTGGCCAAGGCGGCGCTGAGCCCGGTGCAGGAACACGAGACAGGCCGGCGCAGCAGCTC
TGGCGAGGCGGGCACACCCCTGGTACCCATTGTCGTAGAGCCTGCGCGGCCCGGGGCTAAGGCTGTGGTGCCTCA
GCCTCTGGGCGCGGACTCCAAGGGGTTGCAGGAACCCGCACCCCTGGCGCCTTCCGTGCCCGAGGCCCCCCGGGG
CCGGGAGCGCTGGGTGTTGGAGGTGGTGGAGGAGCGCACCACGCTGAGCGGTCCTCGCTCCAAGCCCGCCTCCCC
AAAGCTCTCCCCGGAGCCCCAGACACCCTCCCTAGCCCCAGCGAAGTGCAGTGCACCCAGCAGTGCAGTGACCCC
AGTCCCACCCGCATCCCTCTTGGGCTCAGGCACCAAGCCTCAAGTGGGGCTGACCTCCCGGTGCCCTGCTGAAGC
TGTGCCCCCAGCAGGCCTGACCAAAAAAGGAGTGTCCAGTCCCGCACCCCCGGGACCA**TAG**CCAAGGGGGTCATC
GGCCCCGCGCTGTACAGCCTCCGTATACATATGTACACATATAAATAAAGTGCGTCCGTGCTGCG

FIGURE 401

GTGAAAGGCGCCAGGTGCCAGTCCTGGCCTCTGATGTAACCCAGCGCCCCGCAGTCCCGACACAGATTCCTGGAT
CTCAGCCCCATAGCAGCT**ATG**ATCCCGCTGCTGCTGGCAGCGCTGCTGTGCGTCCCCGCCGGGGCCCTGACCTGC
TACGGGGACTCCGGGCAGCCTGTAGACTGGTTCGTGGTCTACAAGCTGCCAGCTCTTAGAGGGTCCGGGGAGGCG
GCGCAGAGAGGGCTGCAGTACAAGTATCTGGACGAGAGCTCCGGAGGCTGGCGGGACGGCAGGGCACTCATCAAC
AGCCCGGAGGGGGCCGTGGGCCGAAGCCTGCAGCCGCTGTACCGGAGCAACACCAGCCAGCTCGCCTTCCTGCTC
TACAATGACCAACCGCCTCAACCCAGCAAGGCTCAGGACTCTTCCATGCGTGGGCACACGAAGGGTGTCCTGCTC
CTTGACCACGATGGGGGCTTCTGGCTGGTCCACAGTGTACCTAACTTCCCTCCACCGGCCTCCTCTGCTGCATAC
AGCTGGCCTCATAGCGCCTGTACCTACGGGCAGACCCTGCTCTGTGTGTCTTTTCCCTTCGCTCAGTTCTCGAAG
ATGGGCAAGCAGCTGACCTACACCTACCCCTGGGTCTATAACTACCAGCTGGAAGGGATCTTTGCCCAGGAATTC
CCCGACTTGGAGAATGTGGTCAAGGGCCACCACGTTAGCCAAGAACCCTGGAACAGCAGCATCACACTCACATCC
CAGGCCGGGGCTGTTTTCCAGAGCTTTGCCAAGTTCAGCAAATTTGGAGATGACCTGTACTCCGGCTGGTTGGCA
GCAGCCCTTGGTACCAACCTGCAGGTCCAGTTCTGGCACAAAACTGTAGGCATCCTGCCCTCTAACTGCTCGGAT
ATCTGGCAGGTTCTGAATGTGAACCAGATAGCTTTCCCTGGACCAGCCGGCCCAAGCTTCAACAGCACAGAGGAC
CACTCCAAATGGTGCGTGTCCCCAAAAGGGCCCTGGACCTGCGTGGGTGACATGAATCGGAACCAGGGAGAGGAG
CAACGGGGTGGGGGCACACTGTGTGCCCAGCTGCCAGCCCTCTGGAAAGCCTTCCAGCCGCTGGTGAAGAACTAC
CAGCCCTGTAATGGCATGGCCAGGAAGCCCAGCAGAGCTTATAAGATC**TAA**CCCTTATGGCCAGGTGCAGTGGCT
CACGTATGTAATCCCAGCACTTTGGGAAGCCAAGGAGGGAGGATCACTTGAACTCAGGAATTCGAGACCAGCCTG
GGCTACATAGTGAGACCACATCTCTACTAGAACTTAAAAAAAGTTAGCCAGGCACGGTGATAAATGCCTGTAGTC
CCAGCCACTGAAGCCAGAGGATCGATTGAACCAGGGAGATCATGGTCACAGTGAACTATGATTACGCCAACCTGG
GTCACATAGCAAGACTCTGTTTCAAAAAAAAAGGGGGGGCGGGGGACGGGTGGGTGCAGTGGCTCACATCTGTAA
CCCCAGCACTTTGGGAGGCTGAGATGGGCAGATCACTTGAGGTCAGGAGTTCGAGACCAGCCTGGCCAACATGGT
GAAACCCCATATCCATTAAAAATATTTAAAAATTAGCCAGACATGGTGGCACGCGTCTGTGGTCCTAGCTCCTCG
GGAGGCTGAGGCAGGAGAATCGCTTGAACTCGGGAGGCAGAGGTTGTCATGAGCTGAGCTAACACCACGGCACTT
CAGCCTGGGTGACAGAATGAGACTCTGTGTCAAAAAAATAAAAAATAAAAAATCTAAGGGCTCAGGAACCAGTTT
GGACTTGATTTTGAATCCCAGTTCATCCCCTTCCTAGCTGTATGACCTTGATTGTGTGCCTTAACCGCTCTGTGA
CACAGTCTACCTGTCTGCAAAATGGGAAACATAATACCTGCCATCAGGATTGTTGAGGAGTAAATAAATGGAAAT
TGGTG

FIGURE 402

GGTCGCCGTCGTTGCTCCGCTCGCTCTGAGAGAGCATGGCCCTGAGAGGCGTCTCCGTGCGGCTGCTGAGCCGCG
GACCCGGCCTGCACGTCCTTCGCACGTGGGTCTCGTCGGCGGCGCAGACCGAGAAAGGCGGGAGAACACAGAGCC
AACTGGCTAAGTCCTCGCGTCCCGAGTTTGACTGGCAGGACCCGCTGGTGCTGGAGGAGCAGCTGACCACAGATG
AGATCCTCATCAGGGACACCTTCCGCACCTACTGCCAGGAGAGACTCATGCCTCGCATCCTGTTGGCCAATCGCA
ACGAAGTTTTTCATCGGGAGATCATTTCGGAGATGGGGGAGTTGGGTGTGCTGGGCCCCACCATCAAAGGATATG
GCTGTGCTGGGGTTTCGTCTGTGGCCTATGGGCTCCTGGCCCGAGAGCTGGAGCGGGTGGACAGTGGCTACAGGT
CGGCGATGAGTGTCCAGTCCTCCCTCGTCATGCACCCTATCTATGCCTATGGCAGCGAGGAACAGCGGCAGAAGT
ACCTGCCCCAGCTGGCCAAGGGGGAGCTCCTGGGCTGCTTCGGGCTCACAGAGCCCAACAGCGGAAGTGACCCCA
GCAGCATGGAGACCAGAGCCCACTACAACTCATCCAACAAGAGCTACACCCTCAATGGGACCAAGACCTGGATCA
CGAACTCGCCTATGGCCGATCTGTTTGTAGTGTGGGCTCGGTGTGAAGATGGCTGCATTCGGGGCTTCCTGCTGG
AGAAGGGGATGCGGGGTCTCTCGGCCCCCAGGATCCAGGGCAAGTTCTCGCTGCGGGCCTCAGCCACAGGCATGA
TCATCATGGACGGTGTGGAGGTGCCAGAGGAGAATGTGCTCCCTGGTGCATCCAGCCTGGGGGGTCCCTTCGGCT
GCCTGAACAACGCCCGGTACGGCATCGCGTGGGGCGTGCTTGGAGCTTCGGAGTTCTGCTTGCACACAGCCCGGC
AGTACGCCCTCGACAGGATGCAGTTTGGTGTCCCACTGGCCAGGAACCAGCTGATTCAGAAGAAGCTGGCAGACA
TGCTCACTGAGATTACCCTGGGCCTTCACGCCTGCCTGCAGCTCGGCCGCTTGAAGGACCAGGACAAGGCTGCCC
CCGAGATGGTTTCTCTGCTGAAGAGGAATAACTGTGGGAAAGCCCTGGACATCGCCCGCCAGGCCCGAGACATGC
TGGGGGGGAATGGGATTTCTGACGAGTATCACGTGATCCGGCACGCCATGAACCTGGAGGCCGTGAACACCTACG
AAGGTACACATGACATTCACGCCCTGATCCTTGGGAGAGCTATCACGGGAATCCAGGCGTTCACGGCCAGCAAGTGAGCCGCTCCATCAGGGGCCCGAAACTCTCAAGCCCCTTTCTGGAGAGATGCCTGGCTGGACCGTAGGAGCGCTG
TGCTCTGAGCTTAGAAAGGGAGGTGGCGGATGGAGTGGGAAGTGAGAGACACTGATTTTTAAATATCAAAATTTC
CCTTCTGAAGTCGTTCAGATGTGTTCCTTAAAAAGAAGATGGAATTCTCTGTAGAGCGTCTCAATCCACTTTTAA
CCATGGATGAGAGCAGACTCCATTTACCCTGAAATAGCAGCTTCTCTTGAGAGGAGAGTGACATGGAAGCAACTC
CGTCTGCTGCAGCTGACCCCCTCACACTGAGTTCACAGTGCGCCCTCCCTCCCTCCCATCTGGGGGTAGTGCCTT
ATGCTGGGTGTTGGAGCAGAGTGAGGGAGAGGAAAATAAAGACCTGCACATCTG

FIGURE 403

CTGGAAGGAGTC**ATG**GCGGATGGTCAGGTGGCGGAACTGCTGCTCCGGCGGCTGGAGGCGTCTGATGGCGGCCTG
GACAGCGCCGAGTTGGCGGCTGAGCTGGGCATGGAGCACCAGGCGGTGGTGGGCGCCGTGAAGAGCCTTCAGGCG
CTGGGCGAGGTCATCGAGGCTGAACTTCGGTCCACCAAGCACTGGGAGCTTACTGCGGAGGGCGAGGAGATTGCC
CGGGAGGGCAGCCATGAGGCCCGTGTGTTTCGAAGCATTCCCCCAGAGGGCCTGGCCCAGAGCGAGCTTATGCGA
CTGCCCAGTGGCAAAGTGGGCTTCAGCAAGGCCATGTCCAACAAGTGGATTCGGGTGGACAAGAGTGCGGCTGAC
GGGCCCCGGGTGTTCCGAGTGGTGGACAGCATGGAGGATGAGGTGCAGCGGCGGCTCCAGCTGGTCCGGGGGGGA
CAGGCTGAGAAGCTGGGGGAGAAGGAGAGGAGCGAGCTGAGGAAGAGGAAGCTGTTGGCTGAAGTGACTCTGAAG
ACCTACTGGGTGAGCAAAGGCAGTGCCTTTAGTACCAGCATCTCCAAGCAAGAGACAGAGCTGAGCCCAGAGATG
ATCTCCAGTGGCTCTTGGCGGGACCGGCCCTTCAAGCCCTACAACTTCTTGGCCCACGGTGTCCTCCCCGACAGC
GGCCACCTTCACCCGCTGCTCAAGGTCCGCTCCCAGTTCCGACAGATCTTCCTGGAGATGGGGTTCACCGAGATG
CCGACTGATAACTTCATTGAGAGCTCCTTCTGGAACTTTGACGCCCTCTTCCAGCCCCAGCAGCACCCAGCCCGT
GACCAGCACGACACCTTCTTCCTTCGAGATCCAGCGGAGGCCCTGCAGCTCCCAATGGACTATGTCCAGCGGGTC
AAGCGGACCCACTCTCAGGGCGGCTACGGCTCACAGGGGTACAAGTATAACTGGAAGCTGGACGAGGCCCGGAAA
AACCTACTGCGAACCCACACCACATCAGCCAGCGCCCGTGCGCTCTACCGCCTTGCCCAGAAGAAGCCCTTCACT
CCGGTCAAGTACTTCTCCATCGACCGCGTATTCCGGAATGAGACCCTGGACGCCACGCACCTGGCTGAGTTCCAC
CAGATCGAGGGCGTGGTGGCGGATCATGGTCTCACCTTGGGCCACCTCATGGGCGTTCTGCGGGAGTTCTTCACC
AAGCTGGGTATCACGCAACTCCGCTTCAAGCCAGCCTACAACCCATACACAGAGCCCAGCATGGAGGTGTTCAGC
TACCACCAAGGCCTGAAGAAGTGGGTGGAGGTCGGAAACTCGGGGGTCTTCCGTCCAGAGATGCTGCTGCCCATG
GGGCTTCCCGAGAACGTGTCGGTCATTGCCTGGGGCCTCTCCCTGGAGCGCCCAACGATGATCAAATATGGCATC
AACAATATCCGGGAGCTGGTGGGCCACAAGGTGAACCTGCAGATGGTGTATGACAGTCCCCTGTGCCGCCTGGAT
GCCGAGCCGAGGCCCCCTCCCACACAGGAGGCTGCG**TGA**CATGGGCCACTCTAGGACAGGTCATCCTCCCCGAGT
CCCTGCTGCTGCGCTCCTTTGCATCCCTGGCCAGTGACCTTGTATTTATGAGGCCTCTGTGAGGCCAGCCCCCAC
CTTCCTCTTTCCCACCTGTCCCAGGACCAGAATCCCAGGGACAGAGGACTGGGTAGCAGGTTCCTTCTGTTGTCC
TGTGTGGTGTGTCTACTGTGAGGGTGGGCCCTGAGGAGACCTGTGGGCCACCTATTGTCTAATAAAGTGGGCAGT
TGCCCCCA

FIGURE 404

GTCCGTACTGCAGAGCCGCTGCCGGAGGGTCGTTTTAAAGGGCCCGCGCGTTGCCGCCCCCTCGGCCCGCC**ATG**C
TGCTATCCGTGCCGCTGCTGCTCGGCCTCCTCGGCCTGGCCGTCGCCGAGCCTGCCGTCTACTTCAAGGAGCAGT
TTCTGGACGGAGACGGGTGGACTTCCCGCTGGATCGAATCCAAACACAAGTCAGATTTTGGCAAATTCGTTCTCA
GTTCCGGCAAGTTCTACGGTGACGAGGAGAAAGATAAAGGTTTGCAGACAAGCCAGGATGCACGCTTTTATGCTC
TGTCGGCCAGTTTCGAGCCTTTCAGCAACAAAGGCCAGACGCTGGTGGTGCAGTTCACGGTGAAACATGAGCAGA
ACATCGACTGTGGGGGCGGCTATGTGAAGCTGTTTCCTAATAGTTTGGACCAGACAGACATGCACGGAGACTCAG
AATACAACATCATGTTTGGTCCCGACATCTGTGGCCCTGGCACCAAGAAGGTTCATGTCATCTTCAACTACAAGG
GCAAGAACGTGCTGATCAACAAGGACATCCGTTGCAAGGATGATGAGTTTACACACCTGTACACACTGATTGTGC
GGCCAGACAACACCTATGAGGTGAAGATTGACAACAGCCAGGTGGAGTCCGGCTCCTTGGAAGACGATTGGGACT
TCCTGCCACCCAAGAAGATAAAGGATCCTGATGCTTCAAAACCGGAAGACTGGGATGAGCGGGCCAAGATCGATG
ATCCCACAGACTCCAAGCCTGAGGACTGGGACAAGCCCGAGCATATCCCTGACCCTGATGCTAAGAAGCCCGAGG
ACTGGGATGAAGAGATGGACGGAGAGTGGGAACCCCCAGTGATTCAGAACCCTGAGTACAAGGGTGAGTGGAAGC
CCCGGCAGATCGACAACCCAGATTACAAGGGCACTTGGATCCACCCAGAAATTGACAACCCCGAGTATTCTCCCG
ATCCCAGTATCTATGCCTATGATAACTTTGGCGTGCTGGGCCTGGACCTCTGGCAGGTCAAGTCTGGCACCATCT
TTGACAACTTCCTCATCACCAACGATGAGGCATACGCTGAGGAGTTTGGCAACGAGACGTGGGGCGTAACAAAGG
CAGCAGAGAAACAAATGAAGGACAAACAGGACGAGGAGCAGAGGCTTAAGGAGGAGGAAGAAGACAAGAAACGCA
AAGAGGAGGAGGAGGCAGAGGACAAGGAGGATGATGAGGACAAAGATGAGGATGAGGAGGATGAGGAGGACAAGG
AGGAAGATGAGGAGGAAGATGTCCCCGGCCAGGCCAAGGACGAGCTG**TAG**AGAGGCCTGCCTCCAGGGCTGGACT
GAGGCCTGAGCGCTCCTGCCGCAGAGCTTGCCGCGCCAAATAATGTCTCTGTGAGACTCGAGAACTTTCATTTTT
TTCCAGGCTGGTTCGGATTTGGGGTGGATTTTGGTTTTGTTCCCCTCCTCCACTCTCCCCCACCCCCTCCCCGCC
CTTTTTTTTTTTTTTTTTAAACTGGTATTTTATCTTTGATTCTCCTTCAGCCCTCACCCCTGGTTCTCATCTTTC
TTGATCAACATCTTTTCTTGCCTCTGTCCCCTTCTCTCATCTCTTAGCTCCCCTCCAACCTGGGGGGCAGTGGTG
TGGAGAAGCCACAGGCCTGAGATTTCATCTGCTCTCCTTCCTGGAGCCCAGAGGAGGGCAGCAGAAGGGGGTGGT
GTCTCCAACCCCCCAGCACTGAGGAAGAACGGGGCTCTTCTCATTTCACCCCTCCCTTTCTCCCCTGCCCCCAGG
ACTGGGCCACTTCTGGGTGGGGCAGTGGGTCCCAGATTGGCTCACACTGAGAATGTAAGAACTACAAACAAAATT
TCTATTAAATTAAATTTTGTGTCTC

FIGURE 405

GCGCGGCGCGGCGCGCCTGGGCGCTAAGATGGCGGCGGCGTGAGTTGCATGTTGTGTGAGGATCCCGGGGCCGCC
GCGTCGCTCGGGCCCCGCC**ATG**GCCGTCACCATCACGCTCAAAACGCTGCAGCAGCAGACCTTCAAGATCCGCAT
GGAGCCTGACGAGACGGTGAAGGTGCTAAAGGAGAAGATAGAAGCTGAGAAGGGTCGTGATGCCTTCCCCGTGGC
TGGACAGAAACTCATCTATGCCGGCAAGATCTTGAGTGACGATGTCCCTATCAGGGACTATCGCATCGATGAGAA
GAACTTTGTGGTCGTCATGGTGACCAAGACCAAAGCCGGCCAGGGTACCTCAGCACCCCCAGAGGCCTCACCCAC
AGCTGCCCCAGAGTCCTCTACATCCTTCCCGCCTGCCCCCACCTCAGGCATGTCCCATCCCCCACCTGCCGCCAG
AGAGGACAAGAGCCCATCAGAGGAATCCGCCCCCACGACGTCCCCAGAGTCTGTGTCAGGCTCTGTTCCCTCTTC
AGGTAGCAGCGGGCGAGAGGAAGACGCGGCCTCCACGCTAGTGACGGGCTCTGAGTATGAGACGATGCTGACGGA
GATCATGTCCATGGGCTATGAGCGAGAGCGGGTCGTGGCCGCCCTGAGAGCCAGCTACAACAACCCCCACCGAGC
CGTGGAGTATCTGCTCACGGTGAGGTGGGGCTTCCGCCTCCCGGGGAGGCCT**TGA**GGGAGTACCCGGGCGTCACT
GCCCTGATGGGCGGTTGGGAAGGCAAAACCTGCCCTGAAAAGCCTTTGGGTAGTGATTCTAGCCACTAAAGGCTT
CCCACAGGAGGCTGGATGTGAGTGATGGGTGGGCCTCTGGAGGGCAGGGCCGAGGCCTCATCTGTGTCCTGCCAG
GGCATGGAGGAGGGTGGCAGCAGGAGGTCTGTGCATTAGAACTAAACAGGACCCCTGACAGGGAATTCCTGGGAG
CCCCGAGCCGGAACACGGTTCTGTCCAGGAGAGCCAGGTATCGGAGCAGCCGGCCACGGAAGCAGCAGGAGAGAA
CCCCCTGGAGTTCCTGCGGGACCAGCCCCAGTTCCAGAACATGCGGCAGGTGATTCAGCAGAACCCTGCGCTGCT
GCCCGCCCTGCTCCAGCAGCTGGGCCAGGAGAACCCTCAGCTTTTACAGCAAATCAGCCGGCACCAGGAGCAGTT
CATCCAGATGCTGAACGAGCCCCCTGGGGAGCTGGCGGACATCTCAGATGTGGAGGGGGAGGTGGGCGCCATAGG
AGAGGAGGCCCCGCAGATGAACTACATCCAGGTGACGCCGCAGGAGAAAGAAGCTATAGAGAGGTTGAAGGCCCT
GGGCTTCCCAGAGAGCCTGGTCATCCAGGCCTATTTCGCGTGTGAAAAAAATGAGAACTTGGCTGCCAACTTCCT
CCTGAGTCAGAACTTTGATGACGAGTGATGCCAGGAAGCCAGGCCACCGAAGCCCCCACCCTACCCTTATTCCAT
GAAAGTTTTATAAAAGAAAAAATATATATATATTCATGTTTATTTAAGAAATGGAAAAAAAAATCAAAAATCTTA
AAAAAACAAGCAAACAGTCCAGCTTCCTGTCCTCCTAAAGTGGCCCCTGTTCCCATCTCCCGGGCCAGACAGCTG
TCCCCCCGTCCTCCTCCCCAGCCCAGCCTGCTCAGAGAAGCTGGCAGGACTGGGAGGCGACAGATGGGCCCCTCT
TGGCCTCTGTCCCAGCTCTCTGCAGCCAGACGGAAAGGCGGCTGCTTGCCTCTCCATCCTCCGAAAAACCCCTGA
GGACCCCCCCCCATCCTCTTCTAGGATGAGGGGAAGCTGGAGCCCCAACTTTGATCCTCCATTGGAGTGGCCCAA
ATCTTTCCATCTAGGGCAAGTCCTGAAAGGCCCAAGGCCCCCTCCCCAGTCTAGCCTTGGCCTCCAGCCTGGAGA
AGGGCTAACATCAGCTCATTGTCAAGGCCACCCCCACCCCAGAACAGAACCGTGTCTCTGATAAAGGTTTTGAAG
TGAATAAAGTTTTAAAAACT

FIGURE 406

ATGGCGGCGTCCGTGCGACAGGCACGCAGCCTACTAGGTGTGGCGGCGACCCTGGCCCCGGGTTCCCGTGGCTAC
CGGGCGCGGCCGCCCCCGCGCCGCAGGCCGGGACCCCGGTGGCCAGACCCCGAGGACCTCCTGACCCCGCGGTGG
CAGCTGGGACCGCGCTACGCGGCTAAGCAGTTCGCGCGTTACGGCGCCGCCTCCGGGGTGGTCCCCGGTTCGTTA
TGGCCGTCGCCGGAGCAGCTGCGGGAGCTGGAGGCCGAAGAACGCGAATGGTACCCGAGCCTGGCGACCATGCAG
GAGTCGCTGCGGGTGAAGCAGCTGGCCGAAGAGCAGAAGCGTCGGGAGAGGGAGCAGCACATCGCAGAGTGCATG
GCCAAGATGCCACAGATGATTGTGAACTGGCAGCAGCAGCAGCGGGAGAACTGGGAGAAGGCCCAGGCTGACAAG
GAGAGGAGGGCCCGACTGCAGGCTGAGGCCCAGGAGCTCCTGGGCTACCAGGTGGACCCAAGGAGTGCCCGCTTC
CAGGAGCTGCTCCAGGACCTAGAGAAGAAGGAGCGCAAGCGCCTCAAGGAGGAAAAACAGAAACGGAAGAAGGAG
GCGCGAGCTGCTGCATTGGCTGCAGCTGTGGCTCAAGACCCAGCAGCCTCTGGGGCACCCAGCTCC**TGA**

FIGURE 407

TCGATAACAAAGCTGAAATCACATATTTAGGATTTAGGTCTGATTAAAAAATGTTGGGGTGGATGTTCCAACTGG
ATCAGGAGAAAAGAAAATGAAAACAGCCTGGGGAGAGGGAAGCCTGATCTGTTTCCTCACTCGCTTGCTCGTGGA
TGTCATTTTCTGTCTTCTTGGGGGCGGCCAAAAATCGACCGGTGTCGGGGACCAGAGGCGGCCCCGCACGCCCCC
GCGTGTGCGTCCACGGGCGTCTGTGCAGACGGACACTGTGCCGGGGCGAGCTGACAGGAGTTCACGGCTGCGATA
GAAC**ATG**GAGATGTCATGGGCGCGACAGAGCCTGGCGGGGATACCAGCAGCGTGTGATGAGTTCCACCCGTTCAT
CGAGGCACTGCTGCCTCACGTCCGCGCTTTCTCCTACACCTGGTTCAACCTGCAGGCGCGGAAGCGCAAGTACTT
CAAGAAGCATGAAAAGCGGATGTCGAAGGACGAGGAGCGGGCGGTGAAGGACGAGCTGCTGGGCGAGAAGCCCGA
GATCAAGCAGAAGTGGGCATCCCGGCTGCTGGCCAAGCTGCGCAAGGACATCCGGCCCGAGTTCCGCGAGGACTT
CGTGCTGACCATCACGGGCAAGAAGCCCCCCTGCTGCGTGCTCTCCAACCCCGACCAGAAGGGCAAGATCCGGCG
GATTGACTGCCTGCGCCAGGCTGACAAGGTGTGGCGGCTGGACCTGGTCATGGTGATTTTGTTTAAGGGGATCCC
CCTGGAAAGTACTGATGGGGAGCGGCTCTACAAGTCGCCTCAGTGCTCGAACCCCGGCCTGTGCGTCCAGCCACA
TCACATTGGAGTCACAATCAAAGAACTGGATCTTTATCTGGCTTACTTTGTCCACACTCCGGAATCCGGACAATC
AGATAGTTCAAACCAGCAAGGAGATGCGGACATCAAACCACTGCCCAACGGGCACTTAAGTTTCCAGGACTGTTT
TGTGACTTCCGGGGTCTGGAATGTGACGGAGCTGGTGAGAGTATCACAGACTCCTGTTGCAACAGCATCAGGGCC
CAACTTCTCCCTGGCGGACCTGGAGAGTCCCAGCTACTACAACATCAACCAGGTGACCCTGGGGCGGCGGTCCAT
CACCTCCCCTCCTTCCACCAGCACCACCAAGCGCCCCAAGTCCATCGATGACAGTGAGATGGAGAGCCCTGTTGA
TGACGTGTTCTATCCCGGGACAGGCCGTTCCCCAGCAGCTGGCAGCAGCCAGTCCAGCGGGTGGCCCAACGATGT
GGATGCAGGCCCGGCTTCTCTAAAGAAGTCAGGAAAGCTGGACTTCTGCAGTGCCCTCTCCTCTCAGGGCAGCTC
CCCGCGCATGGCTTTCACCCACCACCCGCTGCCTGTGCTTGCTGGAGTCAGACCAGGGAGCCCCCGGGCCACAGC
ATCAGCCCTGCACTTCCCCTCCACGTCCATCATCCAGCAGTCGAGCCCGTATTTCACGCACCCGACCATCCGCTA
CCACCACCACCACGGGCAGGACTCACTGAAGGAGTTTGTGCAGTTTGTGTGCTCGGATGGCTCGGGCCAGGCCAC
CGGACAGCCCAACGGTAGCGGCCAGGGCAAAGTCCCGGGGTCATTTTTGCTACCGCCGCCGCCTCCAGTGGCCAG
ACCTGTGCCCCTTCCTATGCCTGATTCCAAATCCACCAGCACTGCCCCAGACGGCGCCGCCTTGACTCCTCCATC
ACCTTCATTCGCAACGACAGGCGCCTCCTCTGCCAACCGGTTTGTCAGCATCGGACCCCGGGACGGCAACTTTCT
GAACATCCCACAGCAGTCTCAGTCCTGGTTCCTC**TGA**TAAGATCGACAAAAGAAAC

FIGURE 408

CCACCCCACCCTTGGGCTAAAAGCCCCCAGGCGGGCAGGGGGTGACCCCTGGAGCTAGTTGCGTGTCCCAGAATG
GAGGGTGTTCTGACACCCCACCCTGAGCCGCAAGAGCAGTCCTGGGGCCCTGGACCCCTCTGTACAGTCCGTAGG
AAAAAGTCGGA**ATG**CTCTCGACGGCCTCGTCCCAGCCTGGGACAGGCCCCCTTTCCCCTCTCTCTGCAGGCCAGG
AGGGCCTCCTTCCTGCCACGAGGGAGGGGAGTCGGGCCCCAGGTCGCCCCCGCCCCCAGCCCTGCATGCAGGTGC
CCTCGCTCCGCCCCATCAGTTCCTGCCCCTGCCCCTCATGCAGACTGCCCTGCTGGGGCCGGGCCGGAGGGTGGA
GCAGAAAGGGGACCCCGGAGCCGAGCGAGGAGGACCAGGCAGCCGCCGCTGCCGCGCTAAGCCACCACCTGCGCT
TAGGTAGGCGTCCTGCTCGCCGACTTTCAGTTCCTTGGGAGGGTGTTGGGTGTCGTCCTTTTCAAAAGTGTTTTG
GAGCTTTCTGTGCCCCCCGACTTTCCCCCGCCTCCCCGCCCCCGTCACTGCGCTTCTGTTATACCATCTTTGCC**T**
GACTCTCTCCGGCTTCTCCATTGAATGGCTAATGTGTATGTGAAATAAAGAAATAAAGAAAAAC

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FIGURE 409

CTAATTCGGGAAACGTGCACCTTGACTAATTCGGTTTTCTGTGGCTACGAGAGCAGGCTTGGCGGGCGGAGGCGC
CAGCGGATGTCTC**ATG**CAAGGATCGTCTCTGTGGCTAAGCCTCACTTTCCGCTCCGCCCGGGTGCTCTCTAGAGC
CCGGTTTTTCGAGTGGCAGTCTCCAGGGCTGCCGAATACAGCAGCGATGGAGAACGGCACCGGGCCCTACGGAGA
AGAACGTCCACGTGAAGTCCAGGAGACGACAGTCACCGAGGGGGCTGCCAAAATCGCCTTTCCCAGTGCCAACGA
GGTCTTTTATAACCCGGTGCAGGAATTCAATCGGGACCTGACATGTGCTGTGATCACCGAGTTTGCTCGCATTCA
GCTTGGGGCCAAAGGAATCCAGATCAAGGTTCCAGGAGAGAAGGACACGCAAAAAGTGGTCGTGGACTTGTCAGA
GCAAGAGGAGGAAAAGGTTGAACTGAAAGAGAGTGAAAACCTGGCCTCAGGAGACCAACCTCGCACAGCGGCCGT
GGGGGAGATCTGTGAGGAAGGCCTGCATGTGCTGGAAGGCCTGGCAGCTTCAGGCCTACGTTCCATTCGATTTGC
CCTAGAGGTGCCTGGGCTCAGATCTGTGGTTGCAAACGATGCCTCCACCCGGGCTGTGGATCTCATACGCCGGAA
TGTCCAGCTCAATGACGTGGCCCACCTGGTACAGCCGAGCCAAGCAGATGCCCGGATGCTGATGTACCAGCACCA
GAGGGTGTCGGAGAGGTTTGACGTCATCGATCTGGACCCCTATGGCAGCCCAGCCACCTTCCTGGATGCAGCTGT
GCAGGCTGTGAGTGAAGGAGGGTTGCTGTGTGTGACCTGCACAGACATGGCGGTGTTGGCGGGGAACAGCGGGGA
GACGTGCTACAGCAAGTACGGGGCCATGGCCCTCAAGAGCCGGGCCTGCCACGAGATGGCCCTGAGAATCGTCCT
GCACAGCCTGGACCTCCGCGCCAACTGCTACCAGCGCTTCGTGGTGCCGCTGCTCAGCATCAGCGCTGACTTCTA
CGTGCGTGTTTTTGTCCGTGTCTTCACCGGCCAGGCCAAGGTCAAGGCCTCAGCCAGCAAGCAGGCGCTGGTGTT
CCAGTGTGTGGGCTGCGGGGCCTTCCACCTTCAGCGTCTCGGCAAAGCGTCAGGAGTCCCCAGCGGCCGGGCCAA
GTTCTCTGCAGCCTGTGGTCCCCCTGTGACCCCCGAGTGTGAACACTGTGGGCAACGACACCAGCTTGGTGGCCC
CATGTGGGCAGAGCCCATCCATGACCTGGATTTTGTGGGCCGTGTCCTGGAGGCTGTGAGCGCTAACCCCGGCCG
CTTCCACACCTCGGAGCGGATCCGAGGGGTCCTGAGCGTCATCACTGAGGAGCTCCCGGACGTGCCTCTGTACTA
CACCCTGGACCAGCTGAGCAGCACCATCCACTGCAACACACCAAGCCTCCTGCAGTTGCGGTCGGCCCTCCTCCA
CGCTGACTTCCGGGTCTCACTCTCCCACGCCTGTAAGAACGCTGTGAAGACGGATGCCCCTGCCTCTGCCCTCTG
GGACATCATGCGTTGCTGGGAGAAGGAATGTCCGGTGAAACGGGAGCGACTATCAGAGACTAGCCCAGCGTTCCG
CATTCTCAGTGTGGAGCCCAGGCTGCAGGCCAACTTCACCATCCGGGAAGATGCCAACCCCAGCTCCCGACAGCG
AGGACTCAAGCGCTTCCAGGCTAACCCGGAGGCCAACTGGGGTCCCCGGCCTCGTGCCCGGCCAGGGGGCAAGGC
GGCCGACGAAGCTATGGAGGAGAGACGCAGGCTGCTTCAGAACAAGCGGAAGGAGCCGCCGGAAGATGTGGCCCA
GCGGGCTGCCCGGCTCAAGACATTTCCTTGCAAGAGGTTTAAGGAGGGCACCTGTCAACGCGGGGACCAGTGCTG
CTACTCCCACAGCCCCCCGACACCCAGGGTTTCTGCTGATGCTGCCCCTGACTGTCCAGAGACCTCCAACCAGAC
CCCCCCTGGACCTGGGGCTGCCGCTGGGCCAGGCATAGAC**TGA**ACCAATAAAGAGATGTCACGTCACCTTC

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FIGURE 410

AGGCCGCGGAGGCGGAGGCCGAGGCCCCGGCGCAGCGGGGCGCGCCCCGGGCCCAGGCCCGGCCCCAGCCGCCGC
TGCGGAGCCCGCCGGGACCCCCCGGAGCGCGGCCACGGCGCAGCCGCTGCC**ATG**GCCCAGACACTGCAGATGGAG
ATCCCGAACTTCGGCAACAGCATCCTGGAGTGCCTCAATGAACAGCGGCTGCAGGGCCTGTACTGTGACGTGTCA
GTGGTGGTCAAGGGCCATGCCTTCAAGGCCCACCGGGCCGTGCTTGCTGCCAGCAGCTCCTACTTCCGGGACCTG
TTCAACAACAGCCGCAGCGCCGTGGTGGAGCTGCCGGCGGCTGTGCAGCCCCAGTCTTTCCAGCAGATCCTCAGC
TTCTGCTACACGGGCCGGCTGAGCATGAACGTGGGCGACCAGTTCCTGCTCATGTACACGGCTGGCTTCCTGCAG
ATCCAGGAGATCATGGAGAAGGGCACCGAGTTCTTCCTCAAGGTGAGCTCCCCGAGCTGCGACTCCCAGGGCCTG
CATGCGGAGGAGGCCCCATCGTCGGAGCCCCAGAGCCCCGTGGCGCAGACATCGGGCTGGCCAGCCTGTAGCACC
CCGCTGCCCCTCGTGTCGCGGGTGAAGACGGAGCAGCAGGAGTCGGACTCCGTGCAGTGCATGCCCGTGGCCAAG
CGGCTGTGGGACAGTGGCCAGAAGGAGGCTGGGGGCGGCGGCAATGGCAGCCGCAAGATGGCCAAGTTCTCCACG
CCGGACCTGGCTGCCAACCGGCCTCACCAGCCCCCGCCACCCCAACAGGCTCCGGTGGTGGCAGCAGCCCAGCCC
GCCGTGGCTGCGGGAGCAGGGCAGCCAGCCGGTGGGGTGGCAGCAGCAGGGGGTGTGGTGAGTGGGCCCAGCACG
TCGGAGCGGACCAGCCCAGGCACCTCAAGCGCCTACACCAGCGACAGCCCTGGCTCCTACCACAATGAGGAGGAC
GAGGAGGAGGATGGTGGCGAGGAGGGCATGGATGAGCAGTACCGGCAGATCTGCAACATGTACACCATGTACAGC
ATGATGAACGTCGGCCAGACAGCCGAGAAGGTGGAGGCCCTCCCGGAGCAGGTAGCCCCCGAGTCCCGAAATCGC
ATCCGGGTTCGGCAAGACCTGGCGTCTCTCCCGGCTGAACTTATCAACCAGATTGGGAACCGCTGCCACCCCAAG
CTCTACGACGAGGGCGACCCCTCTGAGAAGCTGGAGCTGGTGACAGGCACCAACGTGTACATCACAAGGGCGCAG
CTGATGAACTGCCACGTCAGCGCAGGCACGCGGCACAAGGTCCTACTGCGGCGGCTCCTGGCCTCCTTCTTTGAC
CGGAACACGCTGGCCAACAGCTGCGGCACCGGCATCCGCTCTTCTACCAACGATCCCCGTCGGAAGCCCCTGGAC
AGCCGCGTGCTCCACGCTGTCAAGTACTACTGCCAGAACTTCGCCCCCAACTTCAAGGAGAGCGAGATGAATGCC
ATCGCGGCCGACATGTGCACCAACGCCCGCCGCGTCGTGCGCAAGAGCTGGATGCCCAAGGTCAAGGTGCTCAAG
GCTGAGGATGACGCCTACACCACCTTCATCAGTGAAACGGGCAAGATCGAGCCGGACATGATGGGTGTGGAGCAT
GGCTTCGAGACCGCCAGCCACGAGGGCGAGGCGGGTCCCTCGGCTGAAGCCCTGCAG**TAA**CCCGCCCAGCCTCCC
GCGGGGCCACACACTTCCCCTCCCAACACACACACACCTGCCATCTTGGTCATGAGCTACTGTCTGTCCCTCC
CCAG

FIGURE 411

ATGTCTCTCGAAGACCCCTTTTTTGTAGTCCGAGGCGAGGTGCAGAAGGCGGTGAACACGGCCCGCGGGCTGTAC
CAGCGCTGGTGCGAGCTCCTGCAGGAAAGCGCGGCGGTCGGACGCGAGGAGCTGGACTGGACGACCAATGAGCTG
CGGAATGGCCTGCGCAGCATCGAGTGGGACCTCGAGGACCTGGAAGAGACCATCGATATAGTGGAAGCCAACCCA
GGCAAGTTCAAGCTCCCAGCCGGGGACCTGCAGGAGAGAAAGGTGTTCGTGGAGCGGATGCGAGAGGCAGTCCAG
GAAATGAAGGACCATATGGTCAGCCCAACAGCCGTAGCATTTTTGGAGAGGAATAACAGAGAGATACTCGCAGGC
AAGCCAGCTGCCCAGAAGTCACCCAGCGACCTGCTGGATGCCAGCGCAGTCTCGGCCACATCTCGCTACATCGAG
GAGCAGCAGGCCACACAGCAGCTGATCATGGATGAACAGGATCAACAGCTGGAGATGGTGTCTGGGAGCATCCAG
GTTCTGAAGCACATGTCCGGCCGCGTTGGAGAAGAGCTGGACGAGCAGGGCATCATGCTGGATGCCTTCGCCCAA
GAGATGGACCACACCCAGTCCCGCATGGACGGGGTCCTCAGGAAGTTGGCCAAAGTATCCCACATGACGAGTGAC
CGCCGACAGTGGTGTGCCATCGCCGTGCTAGTGGGGGTGCTTCTCCTCGTTCTCATCTTACTATTCTCTCTC**TGA**

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FIGURE 412

GGTTTGTGTAGAGAGGCGTGAGCGAGCCCGTTGTCCGGAGTGCACCTGCTGCCTGTTCTGTCCCTCCCGGGAGCC
CCCGCCGCTGTCGCCGTCGAGTCGCC**ATG**GAAGTGCAGAAAGAGGCACAGCGCATCATGACCCTGTCGGTGTGGA
AGATGTATCACTCCCGCATGCAGCGCGGTGGCCTGCGGCTGCACCGGAGTCTGCAGCTGTCGCTGGTCATGCGCA
GCGCCCGGGAGCTCTACCTCTCGGCCAAGGTGGAGGCCCTCGAGCCCGAGGTGTCGTTGCCGGCCGCCCTCCCCT
CTGACCCTCGCCTGCACCCGCCCCGAGAAGCCGAGTCCACGGCCGAGACAGCGACCCCCGACGGTGAGCACCCGT
TTCCGGAGCCAATGGACACGCAGGAGGCGCCGACAGCCGAGGAGACCTCCGCCTGCTGTGCCCCGCGCCCCGCCA
AAGTCAGCCGCAAACGACGCAGCAGCAGCCTGAGCGACGGCGGGGACGCTGGACTGGTCCCGAGCAAGAAAGCCC
GTCTGGAAGAAAAGGAAGAAGAGGAGGGAGCGTCATCCGAAGTCGCCGATCGCCTGCAGCCCCCTCCGGCGCAAG
CGGAGGGCGCCTTTCCCAACCTGGCCCGCGTCCTGCAGAGGCGCTTCTCCGGCCTCCTGAACTGCAGCCCCGCGG
CCCCTCCGACGGCGCCGCCCGCGTGCGAGGCAAAGCCCGCTTGCCGCCCGGCGGACAGCATGCTCAACGTGCTCG
TGCGGGCCGTGGTGGCCTTC**TGA**GGACCCCGAGCGGCGCTGCCGGAGCCCAGAGCGCGCGTCGAACCGTCGGCCC
GAGGGCGCAGACCTGAGGCGAGGCCACCCCCCTCCATCCTGGGGGAAGCGCCCGCGAAAACCGTGGAGAGAAGCC
GCCGCCCGGGCTGCTGAGAGGCCCGGAGAGGGACTCTGTCCCCGGGGAGCCATCGCCTTCAGTGTGCAGGGACGG
CACCGAGGAGTCTGAGCCGGGGGCGCGGGCGCCTTCCGCAGAGACCTGCGCCCACAGGTGCTGTCTTAGTGGACT
GGGACGTGAACCTTTCGCTCTCCTTCTGGACTGGGAGAAGGGAGGCTTGGGTGTTGTGTTTTTTGTTTTGTTTGT
TTGTTTGTTTTTAAAGATCTCCTCAGGGTCGGACTTCATTTTGTACTGTGGGCTGTGCTGGCCCTTTCAAGGTTT
TTCAAGAGTTGGTTTTGCGTTTCCAACCTCGGAGAATTCCAGGCACTCCCCTTCCCCCTCCGCTGACATACTTGT
ATAAGCGGTCATCGTTGCGTCATGGGGCAGGCGTGGGGAGCTTCCTGTCGCCTTGCGTGGGTGTGGGGCCTGGGA
GGAGGTCCTGGGGCGTGCACCCGCCCTGGGCAGTGGGGAGGAGAGTGGCCTGAGTTACTTCACCCCCGCGTGCTG
CTGGTTAATGTCCCGCGTCTCTGCACCTTCGGGTGGGAGCGGGGACTGATCTACTTTCACATTCTCAAGTTTTTC
TCATCTGCATTAGAGGTGCCCAGTAGGTTCCCAGGTTCCAGCGTGCCCCTCCCTCAGACACACGGACACAATCAG
CCGAGAAGTTCCTGGTCTGAATCACGAGAATGTGGAGGGGTGGGGGGTGTCAGTGGAAAGGCATAAGGCTGAGCT
GAGACCAGTTGCTGGTGAAACTGGGCCAATCTGGGGAGGGGAACATCCTTGCCAGGGAGTTTCTGAGGGTCTGCT
TTGTTTACCTTTCGTGCGGTGGATTCTTTTTAACTCCGTCTACCTGGCGTTTTGTTAGAAATGTCAGATAGGAAA
ATAAAAACCATTTGAGT

FIGURE 413

CCCCTCTAGCCTAGGCGAGGACTTCTACCGCGAGGCCATCGAGCACTGCCGCAGTTACAACGCGCGCCTGTGCGC
CGAGCGCAGCCTGCGACTGCCCTTCCTCGACTCGCAGACCGGCGTGGCCCAGAACAACTGCTACATCTGG**ATG**GA
GAAGACCCACCGCGGGCCGGGTTTGGCCCCGGGACAGATTTACACGTACCCCGCCCGCTGTTGGAGGAAGAAACG
GAGACTCAACATCCTGGAGGACCCCAGACTCAGGCCCTGCGAGTACAAGATCGACTGTGAAGCACCCCTGAAGAA
GGAGGGTGGCCTCCCGGAAGGGCCGGTCCTCGAGGCTCTACTGTGTGCAGAGACGGGGGAGAAGAAGATTGAGCT
GAAGGAGGAGGAGACCATTATGGACTGTCAGAAACAGCAGTTGCTGGAGTTTCCGCATGACCTCGAGGTGGAAGA
CTTGGAGGATGACATTCCCAGGAGGAAGAACAGGGCCAAAGGAAAGGCATATGGCATCGGGGGTCTCCGGAAACG
CCAGGACACCGCTTCCCTGGAGGACCGAGACAAGCCGTATGTCTGTGATAAGTTTTACAAAGAATTGGCCTGGGT
CCCTGAGGCACAAAGGAAACACACAGCCAAGAAGGCGCCCGACGGCACTGTCATCCCCAACGGCTACTGTGACTT
CTGCCTGGGGGGCTCCAAGAAGACGGGGTGTCCCGAGGACCTCATCTCCTGTGCGGACTGTGGGCGATCAGGACA
CCCCTCGTGTTTACAATTCACGGTGAACATGACGGCAGCCGTGCGGACCTACCGCTGGCAGTGCATCGAGTGCAA
ATCCTGCAGCCTGTGCGGAACCTCCGAGAACGACGGTGCCAGCTGGGCGGGTCTCACCCCCCAGGACCAGCTGCT
GTTTTGTGATGACTGCGATCGGGGTTACCACATGTACTGCCTGAGTCCCCCCATGGCGGAGCCCCCGGAAGGGAG
CTGGAGCTGTCACCTCTGTCTCCGGCACCTGAAGGAAAAGGCTTCTGCTTACATCACCCTCACC**TAG**GCCGGCTC
GGCTCGCCGCGACTCTGGGGTGGTGCTCGCCTACCTGCCTCTCCGAGCTCCTCAATTCTCCCCCACCCTGAACAT
CCCGCAGGGGGAGGGGGAGAGGGGGAAGCCGAGAGGGGGCTGGGCCACCCCCTCCCCTCTGTGCAAGTGGAATGT
CTGCCCTGTGGGTGGGTGGGCCCGGCCAGGGCCTCTCCCTCCCTCCCTCCCTCTCTGTCCCTTGGCAAATGGACA
CCAGGGGCTTCTCCCCTCAAAGCCATACCCCGCCTCTGGGCGGGCATGGGGGGTGGTGGGTGCCAGCCAGGGGCA
TGGACAGAGCCTTTTTCTAAAGAAAAAGACAAAAAGTT

FIGURE 414

GCCTCAAGCCGACGCAGCGGCCTACTCTCGCACTGCAGACGGGGAAACTGAGGCCTGAGGCGGCCGGGGTGGGGC
AGACCTCCCGGCGAGCCCGAGCCCCCGCCCCCGGCTAGCCCCGCCCTGGCCCGTAAGAAGCACCCGGGGCGCGAG
GCGAAGGCGCACAGCGCGGGGCCAGGCTGGGTCCAGCAGCGCG**ATG**GCAGCTCAGCGGCTGGGCAAGCGCGTGCT
GAGCAAGCTGCAGTCTCCATCGCGGGCCCGCGGGCCAGGGGGCAGTCCCGGGGGGCTGCAGAAGCGGCACGCGCG
CGTCACCGTCAAGTATGACCGGCGGGAGCTGCAGCGGCGGCTGGACGTGGAGAAGTGGATCGACGGGCGCCTGGA
GGAGCTGTACCGCGGCATGGAGGCAGACATGCCCGATGAGATCAACATTGATGAATTGTTGGAGTTAGAGAGTGA
AGAGGAGAGAAGCCGGAAAATCCAGGGACTCCTGAAGTCATGTGGGAAACCTGTCGAGGACTTCATCCAGGAGCT
GCTGGCAAAGCTTCAAGGCCTCCACAGGCAGCCCGGCCTCCGCCAGCCAAGCCCCTCCCACGACGGCAGCCTCAG
CCCCCTCCAGGACCGGGCCCGGACTGCTCACCCC**TGA**CCCTCTTGCACTCTCCCTGCCCCCCGGACGCCGCCCAG
CTTGCTTGTGTATAAGTTGTATTTAATGGTTCTGTAACAATAA

FIGURE 415

GTTGGGAGGTGTAGCGCGGCTCTGAACGCGCTGAGGGCCGTTGAGTGTCGCAGGCGGCGAGGGCGCGAGTGAGGA
GCAGACCCAGGCATCGCGCGCCGAGAAGGCCGGGCGTCCCCACACTGAAGGTCCGGAAAGGCGACTTCCGGGGGC
TTTGGCACCTGGCGGACCCTCCCGGAGCGTCGGCACCTGAACGCGAGGCGCTCCATTGCGCGTGCGCGTTGAGGG
GCTTCCCGCACCTGATCGCGAGACCCCAACGGCTGGTGGCGTCGCCTGCGCGTCTCGGCTGAGCTGGCC**ATG**GCG
CAGCTGTGCGGGCTGAGGCGGAGCCGGGCGTTTCTCGCCCTGCTGGGATCGCTGCTCCTCTCTGGGGTCCTGGCG
GCCGACCGAGAACGCAGCATCCACGACTTCTGCCTGGTGTCGAAGGTGGTGGGCAGATGCCGGGCCTCCATGCCT
AGGTGGTGGTACAATGTCACTGACGGATCCTGCCAGCTGTTTGTGTATGGGGGCTGTGACGGAAACAGCAATAAT
TACCTGACCAAGGAGGAGTGCCTCAAGAAATGTGCCACTGTCACAGAGAATGCCACGGGTGACCTGGCCACCAGC
AGGAATGCAGCGGATTCCTCTGTCCCAAGTGCTCCCAGAAGGCAGGATTCTGAAGACCACTCCAGCGATATGTTC
AACTATGAAGAATACTGCACCGCCAACGCAGTCACTGGGCCTTGCCGTGCATCCTTCCCACGCTGGTACTTTGAC
GTGGAGAGGAACTCCTGCAATAACTTCATCTATGGAGGCTGCCGGGGCAATAAGAACAGCTACCGCTCTGAGGAG
GCCTGCATGCTCCGCTGCTTCCGCCAGCAGGAGAATCCTCCCCTGCCCCTTGGCTCAAAGGTGGTGGTTCTGGCG
GGGCTGTTCGTGATGGTGTTGATCCTCTTCCTGGGAGCCTCCATGGTCTACCTGATCCGGGTGGCACGGAGGAAC
CAGGAGCGTGCCCTGCGCACCGTCTGGAGCTCCGGAGATGACAAGGAGCAGCTGGTGAAGAACACATATGTCCTG
TGACCGCCCTGTCGCCAAGAGGACTGGGGAAGGGAGGGGAGACTATGTGTGAGCTTTTTTTAAATAGAGGGATTG
ACTCGGATTTGAGTGATCATTAGGGCTGAGGTCTGTTTCTCTGGGAGGTAGGACGGCTGCTTCCTGGTCTGGCAG
GGATGGGTTTGCTTTGGAAATCCTCTAGGAGGCTCCTCCTCGCATGGCCTGCAGTCTGGCAGCAGCCCCGAGTTG
TTTCCTCGCTGATCGATTTCTTTCCTCCAGGTAGAGTTTTCTTTGCTTATGTTGAATTCCATTGCCTCTTTTCTC
ATCACAGAAGTGATGTTGGAATCGTTTCTTTTGTTTGTCTGATTTATGGTTTTTTTAAGTATAAACAAAAGTTTT
TTATTAGCATTCTGAAAGAAGGAAAGTAAAATGTACAAGTTTAATAAAAAGGGGCCTTCCCCTTTAGAATAAATT
TCAGCATGTGCTTTC

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FIGURE 416

TGCCAGTCCATCTGACATCAAAGCCAGTGTCTCTAATGGTGACACCACCCTCCTCTGCAGCAGGAGGCAGAGCTG
TGGGATGA**ATG**AGGTTCGCCAGGTCTCCCTTACCTATCCTGGGTCCCCAGCTCCTTCTCACTCTCTTCCCTTGCA
GCCTCGAAGCGGAGGATCCCTGTGTCCCAGCCGGGCATGGCGACCCCCACCAGCTTTTCGATGACACAAGTTCAG
CCCAGAGCCGGGGCTATGGGGCCCAGCGGGCACCTGGTGGCCTGAGTTATCCTGCAGCCTCTCCCACGCCCCATG
CAGCCTTCCTGGCTGACCCGGTGTCCAACATGGCCATGGCCTATGGGAGCAGCCTGGCCGCGCAGGGCAAGGAGC
TGGTGGATAAGAACATCGACCGCTTCATCCCCATCACCAAGCTCAAGTATTACTTTGCTGTGGACACCATGTATG
TGGGCAGAAAGCTGGGCCTGCTGTTCTTCCCCTACCTACACCAGGACTGGGAAGTGCAGTACCAACAGGACACCC
CGGTGGCCCCCCGCTTTGACGTCAATGCCCCGGACCTCTACATTCCAGCAATGGCTTTCATCACCTACGTTTTGG
TGGCTGGTCTTGCGCTGGGGACCCAGGATAGGTTCTCCCCAGACCTCCTGGGGCTGCAAGCGAGCTCAGCCCTGG
CCTGGCTGACCCTGGAGGTGCTGGCCATCCTGCTCAGCCTCTATCTGGTCACTGTCAACACCGACCTCACCACCA
TCGACCTGGTGGCCTTCTTGGGCTACAAATATGTCGGGATGATTGGCGGGGTCCTCATGGGCCTGCTCTTCGGGA
AGATTGGCTACTACCTGGTGCTGGGCTGGTGCTGCGTAGCCATCTTTGTGTTCATGATCCGGACGCTGCGGCTGA
AGATCTTGGCAGACGCAGCAGCTGAGGGGGTCCCGGTGCGTGGGGCCCGGAACCAGCTGCGCATGTACCTGACCA
TGGCGGTGGCGGCGGCGCAGCCTATGCTCATGTACTGGCTCACCTTCCACCTGGTGCGG**TGA**GCGCGCCCGCTGA
ACCTCCCGCTGCTGCTGCTGCTGCTGGGGGCCACTGTGGCCGCCGAACTCATCTCCTGCCTGCAGGCCCCAAGGT
CCACCCTGTCTGGCCACAGGCACCGCCTCCATCCCATGTCCCGCCCAGCCCCGCCCCCAACCCAAGGTGCTGAGA
GATCTCCAGCTGCACAGGCCACCGCCCCAGGGCGTGGCCGCTGTTACAGAAACAATAAACCCTGATGGGCATGG

FIGURE 417

CGGGGCGGCAGGCTTCTCGAGCTCCGGGCCCGCGGCAACCTCGGGCGCTGTTCTGCAGGCCGCGACCGGC**ATG**TA
CGAGCAACTCAAGGGCGAGTGGAACCGTAAAAGCCCCAATCTTAGCAAGTGCGGGGAAGAGCTGGGTCGACTCAA
GCTAGTTCTTCTGGAGCTCAACTTCTTGCCAACCACAGGGACCAAGCTGACCAAACAGCAGCTAATTCTGGCCCG
TGACATACTGGAGATCGGGGCCCAATGGAGCATCCTACGCAAGGACATCCCCTCCTTCGAGCGCTACATGGCCCA
GCTCAAATGCTACTACTTTGATTACAAGGAGCAGCTCCCCGAGTCAGCCTATATGCACCAGCTCTTGGGCCTCAA
CCTCCTCTTCCTGCTGTCCCAGAACCGGGTGGCTGAGTTCCACACGGAGTTGGAGCGGCTGCCTGCCAAGGACAT
ACAGACCAATGTCTACATCAAGCACCCAGTGTCCCTGGAGCAATACCTGATGGAGGGCAGCTACAACAAAGTGTT
CCTGGCCAAGGGTAACATCCCCGCCGAGAGCTACACCTTCTTCATTGACATCCTGCTCGACACTATCAGGGATGA
GATCGCTGGGTGCATCGAGAAGGCCTACGAGAAAATCCTTTTCACTGAGGCCACCCGGATCCTCTTCTTCAACAC
ACCCAAAAAGATGACAGACTACGCCAAGAAGCGAGGGTGGGTCCTGGGCCCCAACAACTACTACAGTTTTGCCAG
CCAGCAGCAGAAGCCGGAAGACACCACCATTCCCTCCACAGAACTGGCCAAACAGGTCATCGAGTATGCCCGGCA
GCTGGAGATGATCGTC**TGA**GCCCCCCGGGCACTGGGTGGGGCAGGGCACGAGTTATTTAAAACAGTTACACTGCA
GGGTTTCGCCCAATAAAGGTGGACTGAC

FIGURE 418

GGAAGCGTGGGAGGGGGCCGCGGTGGCCCAGGACCTGCTGGCTCTGGGGTATGGAGGTGTCCCGGGGGCGGCGTC
GCGGGGCGCCTCATGCCCAGACTTCAGGGGGCTGTGCGTGCGGCTGGCGGCGGAGCTGGCGACGCTGGGCGCCCT
CGAGCAGCAGCGAGAGGCGGGCGCGGAGGTGCTGAGCGCCGGCGACGGCCCTGGCGCGGAGGAGGACTTTCTGCG
GCAGCTCGGCAGCCTGCTGCGGGAGCTGCACTGCCCGGATCGCGCGCTCTGCGGCGGGGATGGCGCGGCTGCGCT
TCGGGAACCCGGTGCCGGACTGCGCCTGCTGCTAGAGACACAGTTTCACCATGTTGGCCAGGCTGGTCTCCATCT
CCTGACCTCGTGATCCGCCCGCCTCTGCCTCCCAAAGTGCTGGGATTACAGGCTTTCTCTGCTCAGAGCTCCAAG
CCACCCGCCTCCTGTGCCTCCGCTCTCTGCTGGATCCGAGTCCTAGGCCACCCCTTGGTGAAGGGGTAGTGGAGG
GAGCCGGC**ATG**GTCCAAGAACTGGACCTTACCCTCCAAGCCCTGGGGCTGCCCAGACCTGCACCAGGGACCCCCG
CCAGCCAGCTGCTGCAGGAGTTGCATGCTAAGATCTCAGAGCTGCAGCCTTCTCTGCCCCCAGGGTCCCTGCAGC
CCCTCCTCAGCTGCTCGCTAGATGCACCCAGATGGGAAGCGTTGGAGTCTCTGTCCCAAAGCCTCAGAGATCAGT
ACCGCTGCCGCCGCTGCCTCCTCCTCAAGCGCCTTGACCTCACTACATCTGCTTTCCACTGGAGTGACCGGGCAG
AGGCCCAAGGAGAGGCCATGAGGGCAGTGCTGATCCCAATTCGAGAGGTTCTGACCCCAGAATCGGACATCTCCA
TTGCACACGTTCTGGCTGCCCGAGCCGACCTGTCTTGTCTCGTCCCAGCCACCAGCGTGGCTGTCCGCAGAGGGA
CCTGCTGTGCCATCAACAAGGTGCTTATGGGCAACGTTCCAGACCGGGGGGGCCGCCCAAATGAGCTGGAGCCTC
CCATGCCCACCTGGAGGAGCCGAAGAGAGGATGGAGGCCCCCAGTGTTGGGGTCGCAAGAAGAAGAAGAAGAAG**T**
AAAGGGGGACTGGTGGTCGGGGGCGGGGGGTCCTCCATGAGATGCTAATGCTATCGGTAATCTCTGGGGAGTCCG
TTTAAGGCTTTCCTTGGTATTTGGCACCCAAGCCCCCCATCTCCTATTCCTGAGTCCCCAAATGCCCTGCTCCCA
TTCACGTCAATACCAAGAACCATGTTCTCCAGAGAATAAATTTAATTTATGAC

FIGURE 419A

TCTACCTCGCGGGTGCCTCTGGTGTCTCCAGAGGTCTCCGACCCCAGCCCGCCCCCAGCCCTCCCGCCCAGCCCG
CAGCCCCCTCCCTCTGTTCCCCGACCTCAGACCCTGGGCTTCCGACCTCGACATC**ATG**GGTGACGCAGAAGGCGA
AGACGAGGTCCAGTTCCTGCGGACGGACGATGAGGTGGTCCTGCAGTGCAGCGCTACCGTGCTCAAGGAGCAGCT
CAAGCTCTGCCTGGCCGCCGAGGGCTTCGGCAACCGCCTGTGCTTCCTGGAGCCCACTAGCAACGCGCAGAATGT
GCCCCCCGATCTGGCCATCTGTTGCTTCGTCCTGGAGCAGTCCCTGTCTGTGCGAGCCCTGCAGGAGATGCTGGC
TAACACGGTGGAGGCTGGCGTGGAGTCATCCCAGGGCGGGGGACACAGGACGCTCCTGTATGGCCATGCCATCCT
GCTCCGGCATGCACACAGCCGCATGTATCTGAGCTGCCTCACCACCTCCCGCTCCATGACTGACAAGCTGGCCTT
CGATGTGGGACTGCAGGAGGACGCAACAGGAGAGGCTTGCTGGTGGACCATGCACCCAGCCTCCAAGCAGAGGTC
TGAAGGAGAAAAGGTCCGCGTTGGGGATGACATCATCCTTGTCAGTGTCTCCTCCGAGCGCTACCTGCACCTGTC
GACCGCCAGTGGGGAGCTCCAGGTTGACGCTTCCTTCATGCAGACACTATGGAACATGAACCCCATCTGCTCCCG
CTGCGAAGAGGGCTTCGTGACGGGAGGTCACGTCCTCCGCCTCTTTCATGGACATATGGATGAGTGTCTGACCAT
TTCCCCTGCTGACAGTGATGACCAGCGCAGACTTGTCTACTATGAGGGGGGAGCTGTGTGCACTCATGCCCGCTC
CCTCTGGAGGCTGGAGCCACTGAGAATCAGCTGGAGTGGGAGCCACCTGCGCTGGGGCCAGCCACTCCGAGTCCG
GCATGTCACTACCGGGCAGTACCTAGCGCTCACCGAGGACCAGGGCCTGGTGGTGGTTGACGCCAGCAAGGCTCA
CACCAAGGCTACCTCCTTCTGCTTCCGCATCTCCAAGGAGAAGCTGGATGTGGCCCCCAAGCGGGATGTGGAGGG
CATGGGCCCCCCTGAGATCAAGTACGGGGAGTCACTGTGCTTCGTGCAGCATGTGGCCTCAGGACTGTGGCTCAC
CTATGCTGCTCCAGACCCCAAGGCCCTGCGGCTCGGCGTGCTCAAGAAGAAGGCCATGCTGCACCAGGAGGGCCA
CATGGACGACGCACTGTCGCTGACCCGCTGCCAGCAGGAGGAGTCCCAGGCCGCCCGCATGATCCACAGCACCAA
TGGCCTATACAACCAGTTCATCAAGAGCCTGGACAGCTTCAGCGGGAAGCCACGGGGCTCGGGGCCACCCGCTGG
CACGGCGCTGCCCATCGAGGGCGTTATCCTGAGCCTGCAGGACCTCATCATCTACTTCGAGCCTCCCTCCGAGGA
CTTGCAGCACGAGGAGAAGCAGAGCAAGCTGCGAAGCCTGCGCAACCGCCAGAGCCTCTTCCAGGAGGAGGGGAT
GCTCTCCATGGTCCTGAATTGCATAGACCGCCTAAATGTCTACACCACTGCTGCCCACTTTGCTGAGTTTGCAGG
GGAGGAGGCAGCCGAGTCCTGGAAAGAGATTGTGAATCTTCTCTATGAACTCCTAGCTTCTCTAATCCGTGGCAA
TCGTAGCAACTGTGCCCTCTTCTCCACAAACTTGGACTGGCTGGTCAGCAAGCTGGATCGGCTGGAGGCCTCGTC
TGGCATCCTGGAGGTCCTGTACTGTGTCCTCATTGAGAGTCCAGAGGTTCTGAACATCATCCAGGAGAATCACAT
CAAGTCCATCATCTCCCTCCTGGACAAGCATGGGAGGAACCACAAGGTCCTGGACGTGCTATGCTCCCTGTGTGT
GTGTAATGGTGTGGCTGTACGCTCCAACCAAGATCTTATTACTGAGAACTTGCTGCCTGGCCGTGAGCTTCTGCT
GCAGACAAACCTCATCAACTATGTCACCAGCATCCGCCCCAACATCTTTGTGGGCCGAGCGGAAGGCACCACGCA
GTACAGCAAATGGTACTTTGAGGTGATGGTGGACGAGGTGACTCCATTTCTGACAGCTCAGGCCACCCACTTGCG
GGTGGGCTGGGCCCTCACCGAGGGCTACACCCCCTACCCTGGGGCCGGCGAGGGCTGGGGCGGCAACGGGGTCGG
CGATGACCTCTATTCCTACGGCTTTGATGGACTGCATCTCTGGACAGGACACGTGGCACGCCCAGTGACTTCCCC
AGGGCAGCACCTCCTGGCCCCTGAAGACGTGATCAGCTGCTGCCTGGACCTCAGCGTGCCGTCCATCTCCTTCCG
CATCAACGGCTGCCCCGTGCAGGGTGTCTTTGAGTCCTTCAACCTGGACGGGCTCTTCTTCCCTGTTGTCAGCTT
CTCGGCTGGTGTCAAGGTGCGGTTCCTCCTTGGTGGCCGCCATGGTGAATTCAAGTTCCTGCCCCCACCTGGCTA
TGCTCCATGCCATGAGGCTGTGCTCCCTCGAGAGCGACTCCATCTTGAACCCATCAAGGAGTATCGACGGGAGGG
GCCCCGGGGGCCTCACCTGGTGGGCCCCAGTCGCTGCCTCTCACACACCGACTTCGTGCCCTGCCCTGTGGACAC
TGTCCAGATTGTCCTGCCGCCCCATCTGGAGCGCATTCGGGAGAAGCTGGCGGAGAACATCCACGAGCTCTGGGC
GCTAACCCGCATCGAGCAGGGCTGGACCTACGGCCCGGTTCGGGATGACAACAAGAGGCTGCACCCGTGTCTTGT
GGACTTCCACAGCCTTCCAGAGCCTGAGAGGAACTACAACCTGCAGATGTCTGGGGAGACGCTCAAGACTCTGCT
GGCTCTGGGCTGCCACGTGGGCATGGCGGATGAGAAGGCGGAGGACAACCTGAAGAAGACAAAACTCCCCAAGAC
GTATATGATGAGCAATGGGTACAAGCCGGCTCCGCTGGACCTGAGCCACGTGCGGCTGACGCCGGCGCAGACGAC
ACTGGTGGACCGTCTGGCAGAAAATGGGCACAACGTGTGGGCCCGAGACCGCGTGGGCCAGGGCTGGAGCTACAG
CGCAGTGCAGGACATCCCAGCGCGCCGAAACCCTCGGCTGGTGCCCTACCGCCTGCTGGATGAAGCCACCAAGCG
CAGCAACCGGGACAGCCTCTGCCAGGCCGTGCGCACCCTCCTGGGCTACGGCTACAACATCGAGCCTCCTGACCA
GGAGCCCAGTCAGGTGGAGAACCAGTCTCGTTGTGACCGGGTGCGCATCTTCCGGGCAGAGAAATCCTATACAGT
GCAGAGCGGCCGCTGGTACTTCGAGTTTGAAGCAGTCACCACAGGCGAGATGCGCGTGGGCTGGGCGAGGCCCGA
GCTGAGGCCTGATGTAGAGCTGGGAGCTGACGAGCTGGCCTATGTCTTCAATGGGCACCGCGGCCAGCGCTGGCA
CTTGGGCAGTGAACCATTTGGGCGCCCCTGGCAGCCGGGCGATGTCGTTGGCTGTATGATCGACCTCACAGAGAA

FIGURE 419B

CACCATTATCTTCACCCTCAATGGCGAGGTCCTCATGTCTGACTCAGGCTCCGAAACAGCCTTCCGGGAGATTGA
GATTGGGGACGGCTTCCTGCCCGTCTGCAGCTTGGGACCTGGCCAGGTGGGTCATCTGAACCTGGGCCAGGACGT
GAGCTCTCTGAGGTTCTTTGCCATCTGTGGCCTCCAGGAAGGCTTCGAGCCATTTGCCATCAACATGCAGCGCCC
AGTCACCACCTGGTTCAGCAAAGGCCTGCCCCAGTTTGAGCCAGTGCCCCTTGAACACCCTCACTATGAGGTATC
CCGAGTGGACGGCACTGTGGACACGCCCCCCTGCCTGCGCCTGACCCACCGCACCTGGGGCTCCCAGAACAGCCT
GGTGGAGATGCTTTTCCTGCGGCTGAGCCTCCCAGTCCAGTTCCACCAGCACTTCCGCTGCACTGCAGGGGCCAC
CCCGCTGGCACCTCCTGGCCTGCAGCCCCCCGCCGAGGACGAGGCCCGGGCGGCGGAACCCGACCCTGACTACGA
AAACCTGCGCCGCTCAGCTGGGGGCTGGAGCGAGGCAGAGAACGGCAAAGAAGGGACTGCGAAGGAGGGCGCCCC
CGGGGGCACCCCGCAGGCGGGGGGAGAGGCGCAGCCCGCCAGGGCGGAGAATGAGAAGGATGCCACCACCGAGAA
GAACAAGAAGAGAGGCTTCTTATTCAAGGCCAAGAAGGTCGCCATGATGACCCAGCCACCGGCCACCCCCACGCT
GCCCCGACTCCCTCACGACGTGGTGCCTGCAGACAACCGCGATGACCCCGAGATCATCCTCAACACCACCACGTA
CTATTACTCCGTGAGGGTCTTTGCTGGACAGGAGCCCAGCTGCGTGTGGGCGGGCTGGGTCACCCCTGACTACCA
TCAGCACGACATGAGCTTCGACCTCAGCAAGGTCCGGGTCGTGACGGTGACCATGGGGGATGAACAAGGCAACGT
CCACAGCAGCCTCAAGTGTAGCAACTGCTACATGGTGTGGGGCGGAGACTTTGTGAGTCCCGGGCAGCAGGGCCG
GATCAGCCACACGGACCTTGTCATTGGGTGCCTGGTGGACTTGGCCACTGGCTTAATGACCTTTACAGCCAATGG
CAAAGAGAGCAACACCTTTTTCCAGGTGGAACCCAACACTAAGCTATTTCCTGCCGTCTTCGTCCTGCCCACCCA
CCAGAACGTCATCCAGTTTGAGCTGGGGAAGCAGAAGAACATCATGCCGTTGTCAGCCGCCATGTTCCAAAGCGA
GCGCAAGAACCCGGCCCCGCAGTGCCCACCGCGGCTGGAGATGCAGATGCTGATGCCAGTGTCCTGGAGCCGCAT
GCCCAACCACTTCCTGCAGGTGGAGACGAGGCGTGCCGGCGAGCGGCTGGGCTGGGCCGTGCAGTGCCAGGAGCC
GCTGACCATGATGGCGCTGCACATCCCCGAGGAGAACCGGTGCATGGACATCCTGGAGCTGTCGGAGCGCCTGGA
CCTGCAGCGCTTCCACTCGCACACCCTGCGCCTCTACCGCGCTGTGTGCGCCCTGGGCAACAATCGCGTGGCGCA
CGCTCTGTGCAGCCACGTAGACCAAGCTCAGCTGCTGCACGCCCTGGAGGACGCGCACCTGCCAGGCCCACTGCG
CGCAGGCTACTATGACCTCCTCATCAGCATCCACCTCGAAAGTGCCTGCCGCAGCCGCCGCTCCATGCTCTCTGA
ATACATCGTGCCCCTCACGCCTGAGACCCGCGCCATCACGCTCTTCCCTCCTGGAAGGAGCACAGAAAATGGTCA
CCCCCGGCATGGCCTGCCGGGAGTTGGAGTCACCACTTCGCTGAGGCCCCCGCATCATTTCTCGCCCCCCTGTTT
CGTGGCCGCTCTGCCAGCTGCTGGGGCAGCAGAGGCCCCGGCCCGCCTCAGCCCTGCCATCCCGCTGGAGGCCCT
GCGGGACAAGGCACTGAGGATGCTGGGGGAGGCGGTGCGCGACGGTGGGCAGCACGCTCGCGACCCCGTCGGGGG
CTCCGTGGAGTTCCAGTTTGTGCCTGTGCTCAAGCTCGTGTCCACCCTGCTGGTGATGGGCATCTTTGGCGATGA
GGATGTGAAACAGATCTTGAAGATGATTGAGCCTGAGGTCTTCACTGAGGAAGAAGAGGAGGAGGACGAGGAGGA
AGAGGGTGAAGAGGAAGATGAGGAGGAGAAGGAGGAGGATGAGGAGGAAACAGCACAGGAAAAGGAAGATGAGGA
AAAAGAGGAAGAGGAGGCAGCAGAAGGGGAGAAAGAAGAAGGCTTGGAGGAAGGGCTGCTCCAGATGAAGTTGCC
AGAGTCTGTGAAGTTACAGATGTGCCACCTGCTGGAGTATTTCTGTGACCAAGAGCTGCAGCACCGTGTGGAGTC
CCTGGCAGCCTTTGCGGAGCGCTATGTGGACAAGCTCCAGGCCAACCAGCGGAGCCGCTATGGCCTCCTCATAAA
AGCCTTCAGCATGACCGCAGCAGAGACTGCAAGACGTACCCGCGAGTTCCGCTCCCCACCCCAGGAACAGATCAA
TATGCTATTGCAATTCAAAGATGGTACAGATGAGGAAGACTGTCCTCTCCCTGAAGAGATTCGACAGGATTTGCT
TGACTTTCATCAAGACCTGCTGGCACACTGTGGAATTCAGCTAGATGGAGAGGAGGAGGAACCAGAGGAAGAGAC
CACCCTGGGCAGCCGCCTCATGAGCCTGTTGGAGAAAGTGCGGCTGGTGAAGAAGAAGGAAGAGAAACCTGAGGA
GGAGCGGTCAGCAGAGGAGAGCAAACCCCGGTCCCTGCAGGAGCTGGTGTCCCACATGGTGGTGCGCTGGGCCCA
AGAGGACTTCGTGCAGAGCCCCGAGCTGGTGCGGGCCATGTTCAGCCTCCTGCACCGGCAGTACGACGGGCTGGG
TGAGCTGCTGCGTGCCCTGCCGCGGGCGTACACCATCTCACCGTCCTCCGTGGAAGACACCATGAGCCTGCTCGA
GTGCCTCGGCCAGATCCGCTCGCTGCTCATCGTGCAGATGGGCCCCCAGGAGGAGAACCTCATGATCCAGAGCAT
CGGGAACATCATGAACAACAAAGTCTTCTACCAACACCCGAACCTGATGAGGGCGCTGGGCATGCACGAGACGGT
CATGGAGGTCATGGTCAACGTCCTCGGGGGCGGCGAGTCCAAGGAGATCCGCTTCCCCAAGATGGTGACAAGCTG
CTGCCGCTTCCTCTGCTATTTCTGCCGAATCAGCCGGCAGAACCAGCGCTCCATGTTTGACCACCTGAGCTACCT
GCTGGAGAACAGTGGCATCGGCCTGGGCATGCAGGGCTCCACGCCCCTGGACGTGGCTGCTGCCTCCGTCATTGA
CAACAATGAGCTGGCCTTGGCATTGCAGGAGCAGGACCTGGAAAAGGTTGTGTCCTACCTGGCAGGCTGTGGCCT
CCAGAGCTGCCCCATGCTTGTGGCCAAAGGGTACCCAGACATTGGCTGGAACCCCTGTGGTGGAGAGCGCTACCT
GGACTTCCTGCGCTTTGCTGTCTTCGTCAACGGCGAGAGCGTGGAGGAGAACGCCAATGTGGTGGTGCGGCTGCT

FIGURE 419C

CATCCGGAAGCCTGAGTGCTTCGGACCCGCCCTGCGGGGTGAGGGTGGCTCAGGGCTGCTGGCTGCCATCGAAGA
GGCCATCCGCATCTCCGAGGACCCTGCGAGGGATGGCCCAGGCATCCGCAGGGACCGGCGGCGCGAGCACTTTGG
TGAGGAACCGCCTGAAGAAAACCGGGTGCACCTGGGACACGCCATCATGTCCTTCTATGCCGCCTTGATCGACCT
GCTCGGACGCTGTGCACCAGAGATGCATCTAATCCAAGCCGGCAAGGGTGAGGCCCTGCGGATCCGCGCCATCCT
CCGCTCCCTTGTGCCCTTGGAGGACCTTGTGGGCATCATCAGCCTCCCACTGCAGATTCCCACCCTGGGCAAAGA
TGGGGCTCTGGTGCAGCCAAAGATGTCAGCATCCTTCGTGCCGGACCACAAGGCGTCCATGGTGCTCTTCCTGGA
CCGTGTGTATGGCATCGAGAACCAGGACTTCTTGCTGCACGTGCTGGACGTGGGGTTCCTGCCCGACATGAGGGC
AGCCGCCTCGCTGGACACGGCCACTTTCAGCACCACCGAGATGGCGCTGGCGCTGAACCGCTACCTGTGCCTGGC
CGTGCTGCCGCTCATCACCAAGTGTGCGCCGCTCTTTGCGGGCACAGAACACCGCGCCATCATGGTGGACTCTAT
GCTGCATACCGTGTACCGCCTGTCTCGGGGTCGTTCGCTCACCAAGGCGCAGCGTGACGTCATCGAGGACTGCCT
CATGTCGCTCTGCAGGTACATCCGCCCGTCGATGCTGCAGCACCTGTTGCGCCGCCTGGTGTTCGACGTGCCCAT
CCTCAACGAGTTCGCCAAGATGCCACTCAAGCTCCTCACCAACCACTATGAGCGCTGTTGGAAGTACTACTGCCT
ACCCACGGGCTGGGCCAACTTCGGGGTCACCTCAGAGGAGGAGCTGCACCTCACACGGAAACTCTTCTGGGGCAT
CTTTGACTCTCTGGCCCATAAGAAATACGACCCGGAGCTGTACCGCATGGCCATGCCTTGTCTGTGCGCCATTGC
CGGGGCTCTGCCCCCCGACTATGTGGATGCCTCATACTCATCTAAGGCAGAGAAAAAGGCCACAGTGGATGCTGA
AGGCAACTTTGATCCCCGGCCTGTGGAGACCCTCAATGTGATCATCCCGGAGAAGCTGGACTCCTTCATTAACAA
GTTTGCGGAGTACACACACGAGAAGTGGGCCTTCGACAAGATCCAGAACAACTGGTCCTATGGAGAGAACATAGA
CGAGGAGCTGAAGACCCACCCCATGCTGAGGCCCTACAAGACCTTTTCAGAGAAGGACAAAGAGATTTACCGCTG
GCCCATCAAGGAGTCCCTGAAGGCCATGATTGCCTGGGAATGGACGATAGAGAAGGCCAGGGAGGGTGAGGAGGA
GAAGACGGAAAAGAAAAAAACGCGGAAGATATCACAAAGTGCCCAGACCTATGATCCTCGAGAAGGCTACAACCC
TCAGCCCCCCGACCTTAGTGCTGTTACCCTGTCCCGGGAGCTGCAGGCCATGGCAGAACAACTGGCAGAAAATTA
CCACAACACGTGGGGACGGAAGAAGAAGCAGGAGCTGGAAGCCAAAGGCGGTGGGACCCACCCCCTGCTGGTCCC
CTACGACACGCTCACGGCCAAGGAGAAGGCACGAGATCGAGAGAAGGCCCAGGAGCTACTGAAATTCCTGCAGAT
GAATGGCTACGCGGTTACAAGAGGCCTTAAGGACATGGAACTGGACTCGTCTTCCATTGAAAAGCGGTTTGCCTT
TGGCTTCCTGCAGCAGCTGCTGCGCTGGATGGACATTTCTCAGGAGTTCATTGCCCACCTGGAGGCTGTGGTCAG
CAGTGGGCGAGTGGAAAAGTCCCCACATGAACAGGAGATTAAATTCTTTGCCAAGATCCTGCTCCCTTTGATCAA
CCAGTACTTCACCAACCACTGCCTCTATTTCTTGTCCACTCCGGCTAAAGTGCTGGGCAGCGGTGGCCACGCCTC
TAACAAGGAGAAGGAAATGATCACCAGCCTCTTCTGCAAACTTGCTGCTCTCGTCCGCCACCGAGTCTCTCTCTT
TGGGACAGACGCCCCAGCTGTGGTCAACTGTCTTCACATCCTGGCCCGCTCCCTGGATGCCAGGACAGTGATGAA
GTCAGGCCCTGAGATCGTGAAGGCTGGCCTCCGCTCCTTCTTCGAGAGTGCCTCGGAGGACATCGAGAAGATGGT
GGAGAACCTGCGGCTGGGCAAGGTGTCGCAGGCGCGCACCCAGGTGAAAGGCGTGGGCCAGAACCTCACCTACAC
CACTGTGGCACTGCTGCCGGTCCTCACCACCCTCTTCCAGCACATCGCCCAGCACCAGTTCGGAGATGACGTCAT
CCTGGACGACGTCCAGGTCTCTTGCTACCGAACGCTGTGCAGTATCTACTCCCTGGGAACCACCAAGAACACTTA
TGTGGAAAAGCTTCGGCCAGCCCTCGGGGAGTGCCTGGCCCGTCTGGCAGCAGCCATGCCGGTGGCGTTCCTGGA
GCCGCAGCTGAACGAGTACAACGCCTGCTCCGTGTACACCACCAAGTCTCCGCGGGAGCGGGCCATCCTGGGGCT
CCCCAACAGTGTGGAGGAGATGTGTCCCGACATCCCGGTGCTGGAGCGGCTCATGGCAGACATTGGGGGGCTGGC
CGAGTCAGGTGCCCGCTACACAGAGATGCCGCATGTCATCGAGATCACGCTGCCCATGCTATGCAGCTACCTGCC
CCGATGGTGGGAGCGCGGGCCCGAGGCACCCCCTTCCGCCCTGCCCGCCGGCGCCCCCCCACCCTGCACAGCTGT
CACCTCTGACCACCTCAACTCCCTGCTGGGGAATATCCTGAGAATCATCGTCAACAACCTGGGCATTGACGAGGC
CTCCTGGATGAAGCGGCTGGCTGTGTTCGCACAGCCCATTGTGAGCCGTGCACGGCCGGAGCTCCTGCAGTCCCA
CTTCATCCCAACTATCGGGCGGCTGCGCAAGAGGGCAGGGAAGGTGGTGTCCGAGGAGGAGCAGCTGCGCCTGGA
GGCCAAGGCGGAGGCCCAGGAGGGCGAGCTGCTGGTGCGGGACGAGTTCTCTGTGCTCTGCCGGGACCTCTACGC
CCTGTATCCGCTGCTCATCCGCTACGTGGACAACAACAGGGCGCAGTGGCTGACGGAGCCGAATCCCAGCGCGGA
GGAGCTGTTCAGGATGGTGGGCGAGATCTTCATCTACTGGTCCAAGTCCCACAACTTCAAGCGCGAGGAGCAGAA
CTTTGTGGTCCAGAATGAGATCAACAACATGTCCTTCCTGACTGCTGACAACAAAAGCAAAATGGCTAAGGCGGG
AGATATACAGTCCGGTGGCTCGGACCAGGAACGCACCAAGAAGAAGCGCCGGGGGGACCGGTACTCTGTGCAGAC
GTCACTGATCGTGGCCACACTGAAGAAGATGCTGCCCATCGGCCTGAATATGTGTGCGCCCACCGACCAAGACCT
CATCACGCTGGCCAAGACCCGTTACGCCCTGAAAGACACAGATGAGGAGGTCCGGGAATTTCTGCACAACAACCT

FIGURE 419D

TCACCTTCAGGGAAAGGTCGAAGGCTCCCCGTCTCTGCGCTGGCAGATGGCTCTGTACCGGGGCGTCCCGGGTCG
CGAGGAGGACGCCGATGACCCCGAGAAAATCGTGCGCAGAGTCCAGGAAGTGTCAGCCGTGCTCTACTACCTGGA
CCAGACCGAGCACCCTTACAAGTCTAAGAAGGCCGTGTGGCACAAGCTTTTGTCCAAACAGCGCCGGCGGGCAGT
CGTGGCCTGTTTCCGTATGACGCCCCTGTACAACCTGCCCACGCACCGGGCATGTAACATGTTCCTGGAGAGCTA
CAAGGCTGCATGGATCCTGACTGAAGACCACAGTTTTGAGGACCGCATGATAGATGACCTTTCAAAAGCTGGGGA
GCAGGAGGAGGAGGAGGAAGAGGTGGAAGAGAAGAAGCCAGACCCCCTGCACCAGTTGGTCCTGCACTTCAGCCG
CACTGCCCTGACGGAAAAGAGCAAACTGGATGAGGATTACCTGTACATGGCCTATGCTGATATCATGGCAAAGAG
CTGCCACCTGGAGGAGGGAGGGGAGAACGGTGAAGCTGAAGAGGAGGTTGAGGTCTCCTTTGAGGAGAAACAGAT
GGAGAAGCAGAGGCTCTTGTACCAGCAAGCACGGCTGCACACCCGGGGGGCGGCCGAGATGGTGCTGCAGATGAT
CAGTGCCTGCAAAGGAGAGACAGGTGCCATGGTGTCCTCCACCCTGAAGCTGGGCATCTCCATCCTCAATGGAGG
CAATGCTGAGGTCCAGCAGAAAATGCTGGATTATCTTAAGGACAAGAAGGAAGTTGGCTTCTTCCAGAGTATCCA
GGCACTGATGCAAACATGCAGCGTCCTGGATCTCAATGCCTTTGAGAGACAGAACAAGGCCGAGGGGCTGGGCAT
GGTGAATGAGGATGGCACTGTCATCAATCGCCAGAACGGAGAGAAGGTCATGGCGGATGATGAATTCACACAAGA
CCTGTTCCGATTCCTACAATTGCTCTGTGAGGGGCACAATAATGATTTCCAGAACTACCTACGGACACAGACAGG
GAACACGACCACTATTAACATCATCATTTGCACTGTGGACTACCTCCTGCGGCTGCAGGAATCCATCAGCGACTT
CTACTGGTACTACTCGGGCAAGGATGTCATTGAAGAGCAGGGCAAGAGGAACTTCTCCAAAGCCATGTCGGTGGC
TAAGCAGGTGTTCAACAGCCTCACTGAGTACATCCAGGGTCCCTGCACCGGGAACCAGCAGAGCCTGGCGCACAG
TCGCCTATGGGACGCAGTGGTGGGATTCCTGCACGTGTTCGCCCACATGATGATGAAGCTCGCTCAGGACTCAAG
CCAGATCGAGCTGCTGAAGGAGCTGCTGGATCTGCAGAAGGACATGGTGGTGATGTTGCTGTCGCTACTAGAAGG
GAACGTGGTGAACGGCATGATCGCCCGGCAGATGGTGGACATGCTCGTGGAATCCTCATCCAATGTGGAGATGAT
CCTCAAGTTCTTCGACATGTTCCTGAAACTCAAGGACATTGTGGGCTCTGAAGCCTTCCAGGACTACGTAACGGA
TCCCCGTGGCCTCATCTCCAAGAAGGACTTCCAGAAGGCCATGGACAGCCAGAAGCAGTTCAGCGGTCCAGAAAT
CCAGTTCCTGCTTTCGTGCTCCGAAGCGGATGAGAACGAAATGATCAACTGCGAAGAGTTCGCCAACCGCTTCCA
GGAGCCAGCACGCGACATCGGCTTCAACGTGGCGGTGCTGCTGACCAACCTGTCGGAGCATGTGCCGCATGACCC
TCGCCTGCACAACTTCCTGGAGCTGGCCGAGAGCATCCTTGAGTACTTCCGCCCCTACCTGGGCCGCATCGAGAT
CATGGGCGCGTCACGCCGCATCGAGCGCATCTACTTCGAGATCTCAGAGACCAACCGCGCCCAGTGGGAGATGCC
CCAGGTGAAGGAGTCCAAGCGCCAGTTCATCTTCGACGTGGTGAACGAGGGCGGCGAGGCTGAGAAGATGGAGCT
CTTCGTGAGTTTCTGCGAGGACACCATCTTCGAGATGCAGATCGCCGCGCAGATCTCGGAGCCCGAGGGCGAGCC
GGAGACCGACGAGGACGAGGGCGCGGGCGCGGCGGAGGCGGGCGCGGAAGGCGCGGAGGAGGGCGCGGCGGGGCT
CGAGGGCACGGCGGCCACGGCGGCGGCGGGGGCGACGGCGCGGGTTGTGGCGGCCGCAGGCCGGGCCCTGCGAGG
CCTCAGCTACCGCAGCCTGCGGCGGCGCGTGCGGCGGCTGCGGCGGCTTACGGCCCGCGAGGCGGCCACCGCAGT
GGCGGCGCTGCTCTGGGCAGCAGTGACGCGCGCTGGGGCCGCTGGCGCGGGGGCGGCGGCGGGCGCGCTGGGCCT
GCTCTGGGGCTCGCTGTTCGGCGGCGGCCTGGTGGAGGGCGCCAAGAAGGTGACGGTGACCGAGCTCCTGGCAGG
CATGCCCGACCCCACCAGCGACGAGGTGCACGGCGAGCAGCCGGCCGGGCCGGGCGGAGACGCAGACGGCGAGGG
TGCCAGCGAGGGCGCTGGAGACGCCGCGGAGGGCGCTGGAGACGAGGAGGAGGCGGTGCACGAGGCCGGGCCGGG
CGGTGCCGACGGGGCGGTGGCCGTGACCGATGGGGGCCCCTTCCGGCCCGAAGGGGCTGGCGGTCTCGGGGACAT
GGGGGACACGACGCCTGCGGAACCGCCCACACCCGAGGGCTCTCCCATCCTCAAGAGGAAATTGGGGGTGGATGG
AGTGGAGGAGGAGCTCCCGCCAGAGCCAGAGCCCGAGCCGGAACCAGAGCTGGAGCCGGAGAAAGCCGATGCCGA
GAATGGGGAGAAGGAAGAAGTTCCCGAGCCCACACCAGAGCCCCCCAAGAAGCAAGCACCTCCCTCACCCCCTCC
AAAGAAGGAGGAAGCTGGAGGCGAATTCTGGGGAGAACTGGAGGTGCAGAGGGTGAAGTTCCTGAACTACCTGTC
CCGGAACTTTTACACCCTGCGGTTCCTTGCCCTCTTCTTGGCATTTGCCATCAACTTCATCTTGCTGTTTTATAA
GGTCTCAGACTCTCCACCAGGGGAGGACGACATGGAAGGCTCAGCTGCTGGGGATGTGTCAGGTGCAGGCTCTGG
TGGCAGCTCTGGCTGGGGCTTGGGGGCCGGAGAGGAGGCAGAGGGCGATGAGGATGAGAACATGGTGTACTACTT
CCTGGAGGAAAGCACAGGCTACATGGAACCCGCCCTGCGGTGTCTGAGCCTCCTGCATACACTGGTGGCCTTTCT
CTGCATCATTGGCTATAATTGTCTCAAGGTGCCCCTGGTAATCTTTAAGCGGGAGAAGGAGCTGGCCCGGAAGCT
GGAGTTTGATGGCCTGTACATCACGGAGCAGCCTGAGGACGATGACGTGAAGGGGCAGTGGGACCGACTGGTGCT
CAACACGCCGTCTTTCCCTAGCAACTACTGGGACAAGTTTGTCAAGCGCAAGGTCCTGGACAAACATGGGGACAT
CTACGGGCGGGAGCGGATTGCTGAGCTACTGGGCATGGACCTGGCCACACTAGAGATCACAGCCCACAATGAGCG

FIGURE 419E

CAAGCCCAACCCGCCGCCAGGGCTGCTGACCTGGCTCATGTCCATCGATGTCAAGTACCAGATCTGGAAGTTCGG
GGTCATCTTCACAGACAACTCCTTCCTGTACCTGGGCTGGTATATGGTGATGTCCCTCTTGGGACACTACAACAA
CTTCTTCTTTGCTGCCCATCTCCTGGACATCGCCATGGGGGTCAAGACGCTGCGCACCATCCTGTCCTCTGTCAC
CCACAATGGGAAACAGCTGGTGATGACCGTGGGCCTTCTGGCGGTGGTCGTCTACCTGTACACCGTGGTGGCCTT
CAACTTCTTCCGCAAGTTCTACAACAAGAGCGAGGATGAGGATGAACCTGACATGAAGTGTGATGACATGATGAC
GTGTTACCTGTTTCACATGTACGTGGGTGTCCGGGCTGGCGGAGGCATTGGGGACGAGATCGAGGACCCCGCGGG
TGACGAATACGAGCTCTACAGGGTGGTCTTCGACATCACCTTCTTCTTCTTCGTCATCGTCATCCTGTTGGCCAT
CATCCAGGGTCTGATCATCGACGCTTTTGGTGAGCTCCGAGACCAACAAGAGCAAGTGAAGGAGGATATGGAGAC
CAAGTGCTTCATCTGTGGAATCGGCAGTGACTACTTTGATACGACACCGCATGGCTTCGAGACTCACACGCTGGA
GGAGCACAACCTGGCCAATTACATGTTTTTCCTGATGTATTTGATAAACAAGGATGAGACAGAACACACGGGTCA
GGAGTCTTATGTCTGGAAGATGTACCAAGAGAGATGTTGGGATTTCTTCCCAGCTGGTGATTGTTTCCGTAAGCA
GTATGAGGACCAGCTTAGC**TGA**CACACCCCCAGCTGGCCCTCCACCCCCACCTCAAGTGCCTTATTCTCACAGCA
AGCCCCTTAGTCCCCAAGCCCCTCCCCCTAAGGCAGCTGGGGGAGAGGTGACCTAGTAC

FIGURE 420

GGGCGCAGGCCCAGCTCAGGCCCCCAGGGATGGACGTCGTGGACCCTGACATTTTCAATAGAGACCCCCGGGACC
ACTATGACCTGCTACAGCGGCTGGGTGGCGGCACGTATGGGGAAGTCTTTAAGGCTCGAGACAAGGTGTCAGGGG
ACCTGGTGGCACTGAAGATGGTGAAGATGGAGCCTGATGATGATGTCTCCACCCTTCAGAAGGAAATCCTCATAT
TGAAAACTTGCCGGCACGCCAACATCGTGGCCTACCATGGGAGTTATCTCTGGTTGCAGAAACTCTGGATCTGCA
TGGAATTCTGTGGGGCTGGTTCTCTCCAGGACATCTACCAAGTGACAGGCTCCCTGTCAGAGCTCCAGATTAGCT
ATGTCTGCCGGGAAGTGCTCCAGGGACTGGCCTATTTGCACTCACAGAAGAAGATACACAGGGACATCAAGGGAG
CTAACATCCTCATCAATGATGCTGGGGAGGTCAGATTGGCTGACTTTGGCATCTCGGCCCAGATTGGGGCTACAC
TGGCCAGACGCCTCTCTTTCATTGGGACACCCTACTGGATGGCTCCGGAAGTGGCAGCTGTGGCCCTGAAGGGAG
GATACAATGAGCTGTGTGACATCTGGTCCCTGGGCATCACGGCCATCGAACTGGCCGAGCTACAGCCACCGCTCT
TTGATGTGCACCCTCTCAGAGTTCTCTTCCTCATGACCAAGAGTGGCTACCAGCCTCCCCGACTGAAGGAAAAAG
GCAAATGGTCGGCTGCCTTCCACAACTTCATCAAAGTCACTCTGACTAAGAGTCCCAAGAAACGACCCAGCGCCA
CCAAGATGCTCAGTCATCAACTGGTATCCCAGCCTGGGCTGAATCGAGGCCTGATCCTGGATCTTCTTGACAAAC
TGAAGAATCCCGGGAAAGGACCCTCCATTGGGGACATTGAGGATGAGGAGCCCAGCTACCCCCTGCTATCCCTCG
GCGGATCAGATCCACCCACCGCTCCAGCTCTCTGGGGATCCCAGATGCAGACTGCTGTCGGCGGCAC**ATG**GAGTT
CAGGAAGCTCCGAGGAATGGAGACCAGACCCCCAGCCAACACCGCTCGCCTACAGCCTCCTCGAGACCTCAGGAG
CAGCAGCCCCAGGAAGCAACTGTCAGAGTCGTCTGACGATGACTATGACGACGTGGACATCCCCACCCCTGCAGA
GGACACACCTCCTCCACTTCCCCCCAAGCCCAAGTTCCGTTCTCCATCAGACGAGGGTCCTGGGAGCATGGGGGA
TGATGGGCAGCTGAGCCCGGGGGGTGCTGGTCCGGTGTGCCAGTGGGCCCCCACCAAACAGCCCCCGTCCTGGGCC
TCCCCCATCCACCAGCAGCCCCCACCTCACCGCCCATTCAGAACCCTCACTCTGGAACCCACCCTCCCGGGAGCT
TGACAAGCCCCCACTTCTGCCCCCCAAGAAGGAAAAGATGAAGAGAAAGGGATGTGCCCTTCTCGTAAAGTTGTT
CAATGGCTGCCCCCTCCGGATCCACAGCACGGCCGCCTGGACACATCCCTCCACCAAGGACCAGCACCTGCTCCT
GGGGGCAGAGGAAGGCATCTTCATCCTGAACCGGAATGACCAGGAGGCCACGCTGGAAATGCTCTTTCCTAGCCG
GACTACGTGGGTGTACTCCATCAACAACGTTCTCATGTCTCTCTCAGGAAAGACCCCCCACCTGTATTCTCATAG
CATCCTTGGCCTGCTGGAACGGAAAGAGACCAGAGCAGGAAACCCCATCGCTCACATTAGCCCCCACCGCCTACT
GGCAAGGAAGAACATGGTTTCCACCAAGATCCAGGACACCAAAGGCTGCCGGGCGTGCTGTGTGGCGGAGGGTGC
GAGCTCTGGGGGCCCGTTCCTGTGCGGTGCATTGGAGACGTCCGTTGTCCTGCTTCAGTGGTACCAGCCCATGAA
CAAATTCCTGCTTGTCCGGCAGGTGCTGTTCCCACTGCCGACGCCTCTGTCCGTGTTCGCGCTGCTGACCGGGCC
AGGCTCTGAGCTGCCCGCTGTGTGCATCGGCGTGAGCCCCGGGCGGCCGGGGAAGTCGGTGCTCTTCCACACGGT
GCGCTTTGGCGCGCTCTCTTGCTGGCTGGGCGAGATGAGCACCGAGCACAGGGGACCCGTGCAGGTGACCCAGGT
AGAGGAAGATATGGTGATGGTGTTGATGGATGGCTCTGTGAAGCTGGTGACCCCGGAGGGGTCCCCAGTCCGGGG
ACTTCGCACACCTGAGATCCCCATGACCGAAGCGGTGGAGGCCGTGGCTATGGTTGGAGGTCAGCTTCAGGCCTT
CTGGAAGCATGGAGTGCAGGTGTGGGCTCTAGGCTCGGATCAGCTGCTACAGGAGCTGAGAGACCCTACCCTCAC
TTTCCGTCTGCTTGGCTCCCCCAGGCTGGAGTGCAGTGGCACGATCTCGCCTCACTGCAACCTCCTCCTCCCAGG
TTCAAGCAATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGCCTG**TAG**TGGTGGAGACACGCCCAGTG
GATGATCCTACTGCTCCCAGCAACCTCTACATCCAGGAATGAGTCCCTAGGGGGGTGTCAGGAACTAGTCCTTGC
ACCCCCTCCCCCATAGACACACTAGTGGTCATGGCATGTCCTCATCTCCCAATAAACATGACTTTAGCCTCTGC

FIGURE 421

GGAAAGCGTGGCGGCTGCTGCTAGAGCCTTTCCCTTTACCGCACCCAAGGAGCTGGAGCGACAACAACGACGTCG
TTTCCGTTTCCACCACCTCTTCCTGTTCCCGTCCTTGAGGACGCCGTGCCGGGTCAGTGTTAGCCTCCAGCCCTG
GTTGTGGAAGGCGACAGAAGTC**ATG**GCGATGTTTGAGCAGATGAGAGCCAACGTGGGCAAGTTGCTCAAGGGTAT
CGACAGGTACAATCCTGAGAACCTGGCCACCCTGGAGCGCTATGTAGAGACGCAGGCCAAGGAAAATGCCTATGA
TCTGGAAGCCAACCTGGCTGTCCTGAAGCTGTACCAGTTCAACCCAGCCTTCTTTCAGACCACGGTCACCGCCCA
GATCCTGCTGAAGGCCCTCACCAACTTGCCGCACACAGACTTCACCCTGTGCAAGTGCATGATCGACCAGGCACA
TCAAGAAGAACGGCCAATCCGACAGATTTTGTACCTCGGGGACCTGCTGGAGACCTGCCATTTCCAGGCCTTCTG
GCAAGCCCTGGATGAAAACATGGACCTCTTGGAAGGTATAACTGGCTTTGAAGACTCTGTCCGAAAGTTTATCTG
CCATGTTGTGGGTATCACTTACCAGCACATTGACCGCTGGCTGCTGGCCGAGATGCTCGGGGATCTGTCGGACAG
CCAGCTAAAGGTGTGGATGAGCAAATACGGCTGGAGTGCCGACGAGTCGGGGCAGATCTTCATCTGTAGCCAAGA
AGAGAGCATTAAACCCAAGAACATTGTGGAGAAGATTGACTTTGACAGTGTGTCCAGCATCATGGCCTCCTCCCA
G**TAA**CTTCAGGTGTTTAATAAAGATGTGTTGACTCAG

FIGURE 422

AGAGGGGCGGGAGCTGAGGCGGGAGCGGACAGGCTGGTGGGCGAGCGAGAGGCGGCGGA**ATG**GTGGACTACCACG
CGGCGAACCAGTCGTACCAGTACGGCCCCAGCAGCGCGGGCAATGGCGCTGGCGGCGGGGGCAGCATGGGCGACT
ACATGGCCCAGGAGGACGACTGGGACCGGGACCTGCTGCTGGACCCGGCCTGGGAGAAGCAGCAGCGCAAGACCT
TCACGGCATGGTGCAACTCCCACCTGCGGAAGGCAGGCACACAGATCGAGAACATTGATGAGGACTTCCGAGACG
GGCTCAAGCTCATGCTGCTCCTGGAGGTCATATCAGGGGAGCGGTTACCTAAGCCGGAGCGGGGGAAGATGAGAG
TGCACAAAATCAACAATGTGAACAAAGCGCTGGACTTTATTGCCAGCAAAGGCGTCAAGCTGGTCTCCATCGGGG
CAGAAGAGATTGTGGACGGCAACGCAAAGATGACCCTGGGAATGATCTGGACCATCATCCTTAGGTTCGCCATCC
AGGACATCTCCGTGGAAGAGACCTCGGCCAAGGAAGGGCTCCTTCTCTGGTGCCAGAGAAAGACAGCCCCGTATA
AGAACGTCAATGTGCAGAACTTCCACATCAGCTGGAAGGATGGTCTTGCCTTCAATGCCCTGATCCACCGGCACA
GACCAGAGCTGATTGAGTATGACAAGCTGAGGAAGGACGACCCTGTCACCAACCTGAACAATGCCTTCGAAGTGG
CTGAGAAATACCTCGACATCCCCAAGATGCTGGATGCAGAGGACATCGTGAACACGGCCCGGCCCGACGAGAAGG
CCATAATGACCTATGTGTCCAGCTTCTACCATGCCTTTTCAGGAGCGCAGAAGGCTGAAACTGCCGCCAACCGGA
TCTGTAAGGTGCTGGCTGTCAACCAAGAGAACGAGCACCTGATGGAGGACTACGAGAAGCTGGCCAGCGACCTCC
TGGAGTGGATCCGGCGCACCATCCCCTGGCTGGAGGACCGTGTGCCCCAAAAGACTATCCAGGAGATGCAGCAGA
AGCTGGAGGACTTCCGCGACTACCGGCGTGTGCACAAGCCGCCCAAGGTGCAGGAGAAGTGCCAGCTGGAGATCA
ACTTCAACACGCTGCAGACCAAGCTGCGCCTCAGCAACCGGCCCGCCTTCATGCCCTCCGAGGGCAAGATGGTCT
CGGACATCAACAATGGCTGGCAGCACTTGGAGCAGGCTGAGAAGGGCTACGAGGAGTGGCTGCTGAATGAGATCC
GCAGGCTGGAGCGGCTCGACCACCTGGCAGAGAAGTTCCGGCAGAAGGCCTCCATCCACGAGGCCTGGACTGACG
GGAAGGAAGCCATGCTGAAGCACCGGGACTACGAGACGGCCACACTATCGGACATCAAAGCCCTCATTCGCAAGC
ACGAGGCCTTCGAGAGCGACCTGGCTGCGCACCAGGACCGCGTGGAGCAGATCGCCGCCATTGCCCAGGAGCTCA
ACGAGCTGGATTACTACGACTCCCACAATGTCAACACCCGGTGCCAGAAGATCTGTGACCAGTGGGACGCCCTCG
GCTCTCTGACACATAGTCGCAGGGAAGCCCTGGAGAAAACAGAGAAGCAGCTGGAGGCCATCGACCAGCTGCACC
TGGAATACGCCAAGCGCGCGGCCCCCTTCAACAACTGGATGGAGAGCGCCATGGAGGACCTCCAGGACATGTTCA
TCGTCCATACCATCGAGGAGATTGAGGGCCTGATCTCAGCCCATGACCAGTTCAAGTCCACCCTGCCGGACGCCG
ATAGGGAGCGCGAGGCCATCCTGGCCATCCACAAGGAGGCCCAGAGGATCGCTGAGAGCAACCACATCAAGCTGT
CGGGCAGCAACCCCTACACCACCGTCACCCCGCAAATCATCAACTCCAAGTGGGAGAAGGTGCAGCAGCTGGTGC
CAAAACGGGACCATGCCCTCCTGGAGGAGCAGAGCAAGCAGCAGTCCAACGAGCACCTGCGCCGCCAGTTCGCCA
GCCAGGCCAATGTTGTGGGGCCCTGGATCCAGACCAAGATGGAGGAGATCGGGCGCATCTCCATTGAGATGAACG
GGACCCTGGAGGACCAGCTGAGCCACCTGAAGCAGTATGAACGCAGCATCGTGGACTACAAGCCCAACCTGGACC
TGCTGGAGCAGCAGCACCAGCTCATCCAGGAGGCCCTCATCTTCGACAACAAGCACACCAACTATACCATGGAGC
ACATCCGCGTGGGCTGGGAGCAGCTGCTCACCACCATTGCCCGCACCATCAACGAGGTGGAGAACCAGATCCTCA
CCCGCGACGCCAAGGGCATCAGCCAGGAGCAGATGCAGGAGTTCCGGGCGTCCTTCAACCACTTCGACAAGGATC
ATGGCGGGGCGCTGGGGCCCGAGGAGTTCAAGGCCTGCCTCATCAGCCTGGGCTACGACGTGGAGAACGACCGGC
AGGGTGAGGCCGAGTTCAACCGCATCATGAGCCTGGTCGACCCCAACCATAGCGGCCTTGTGACCTTCCAAGCCT
TCATCGACTTCATGTCGCGGGAGACCACCGACACGGACACGGCTGACCAGGTCATCGCTTCCTTCAAGGTCTTAG
CAGGGGACAAGAACTTCATCACAGCTGAGGAGCTGCGGAGAGAGCTGCCCCCCGACCAGGCCGAGTACTGCATCG
CCCGCATGGCGCCATACCAGGGCCCTGACGCCGTGCCCGGTGCCCTCGACTACAAGTCCTTCTCCACGGCCTTGT
ATGGCGAGAGCGACCTG**TGA**GGCCCCAGAGACCTGACCCAACACCCCCGACGGCCTCCAGGAGGGGCCTGGGCAG
CCCCACAGTCCCATTCCTCCACTCTGTATCTATGCAAAGCACTCTCTGCAGTCCTCCGGGGTGGGTGGGTGGGCA

FIGURE 423

GCCCCGCGAGGATGAGCCCAGGGCTCCACGGTCCCTACCTAGACCCCACGCGATTCCTCACCTGAGACCCCGTCC
CACACAGCCCCAGCTGGGGCAAACAGCCCCCTCCCCACTTCCCATCTGTAATTTGCAGGGAGATCGACGACGTGA
TCAGCGCAGACCTGCAGTCTCTCCAGGTGGGGACTGTTCCTGGAGGGGCGGC**ATG**GGGCGGGGATCTTGGCCAGC
GCTAAACTTCCGCCATGCGGCAGGGCCCCTACCTGCCCCTGGAGCTGGGGTTGGAGCAGCTGTTTCAGGAGCTGG
CTGGAGAGCCAGGGCCCATACCTCCACCCCCAGAGAGATCGGGCTCAGGACCTGTGAGCAGCTGCTGCAGTGTTT
CGGGCATGGGCAAAGCCTGGCCTTACACCACTTCCAGCAGCTCTGGGGCTACCTCCTGGAGTGGCAGGCCATATT
TAACAAGTTCGATGAGGACACCTCTGGAACCATGAACTCCTACGAGCTGAGGCTGGCACTGAATGCAGCAGGCTT
CCACCTGAACAACCAGCTGACCCAGACCCTCACCAGCCGCTACCGGGATAGCCGTCTGCGTGTGGACTTCGAGCG
GTTCGTGTCCTGTGTGGCCCACCTCACCTGCATCTTCTGCCACTGCAGCCAGCACCTGGATGGGGGTGAGGGGGT
CATCTGCCTGACCCACAGACAGTGGATGGAGGTGGCCACCTTCTCC**TAG**GATCTCCGGATGGGCGCACCTGCTGC
TCAGGGCAGGGTTGCTGAGCAAGACCACCTCCCTAGGCCTTGCCTGGCATGGGTGCCACTCTCTCTGGCATCCAC
CTGTCTGGGGCTAGTCTCTGGCCCTCACTGCTCACGGCCGGGTGACCACTCTGGCCTGCGTACTCCTCACTCAGA
AACAAGAACAGCGACAGCCCTTCTCGAGCAGATGACACGAGCTAGTCCACGTTGACAGCTTAAGACAGTGCTAGC
TCTGCCCTGGCTCTCCTAGAAGGTGGAGGACAGACACAGGAGAAATAAAAAAAGATGATGCTGCAGGAATCCTTC
TTAAAAATATTACATGTTTTATTATCCTGTCCCCAGAGGGTGGTTTATCCAGAAACCAAGAAAAAAAATCAATCA
GAATAAACTCAAAAAAAAAAGGTAGGGGGAGCAAAACCATCAACCACCAGGCAGCCAGGCCATCAGCCCACCTCC
ACCTCTGGAGGGTCCCCAGAGACCCACGCCCGACGCAGACCCGGAGGAGCATCAGCAAGGGGCCCGGGCAGAGAA
TCGGCTATGTCTTCATTATGAGAGCAGGAGAGACGGCAGAGATATGTTGCTAGGTGAATATATATTTATATAATA
AATCCGTAAGTTAATAAAGTAAATAGTAATTCTCTGAAA

FIGURE 424

ATGGCTCTGTACCTCTCCTGTGCTGGGAGCCATCTGGTGACCATGATGCCCTGCCCTGGCCCACGCCACTCAGAG
TCTGGATGGAGCAGTATTTCCCCCAAAGGACTCTGGAGCCATTGGAGGAAATGGGAGAAACAGAACTACCTGTCC
CGGAACTTTTATCCACTGCGGTTCCTTGCCCTCTTCTATGCATTTGCCATCAACTTCATCTTGCTATTTTATAAG
GTCTCAGACTCTCCACCAGGGGAGGACGACATGGAAGGCTCAGCTGCTGGGGATGTGTCAGGTGCAGGCTCTGGT
GGCAGCTCTGGCTGGGGCTTGGGGGCCGGAGAGGAGGCAGAGGGCGATGAGGATGAGAACATGGTGTACTACTTC
CTGGAGGAAAGCACAGGCTACATGGAACCCGCCCTGCGGTGTCTGAGCCTCCTGCATACACTGGTGGCCTTTCTC
TGCATCATTGGCTATAATTGTCTCAAGGTGCCCCTGGTAATCTTTAAGCGGGAGAAGGAGCTGGCCCGGAAGCTG
GAGTTTGATGGCCTGTACATCACGGAGCAGCCTGAGGACGATGACGTGAAGGGGCAGTGGGACCGACTGGTGCTC
AACACGCCG**TAA**

FIGURE 425

CCCGGTCCCAGCC**ATG**TCCAACGTCCCCCACAAGTCCTCACTGCCCGAGGGCATCCGCCCTGGCACGGTGCTGAG
AATTCGCGGCTTGGTTCCTCCCAATGCCAGCAGGTTCCATGTAAACCTGCTGTGCGGGGAGGAGCAGGGCTCCGA
TGCCGCCCTGCATTTCAACCCCCGGCTGGACACGTCGGAGGTGGTCTTCAACAGCAAGGAGCAAGGCTCCTGGGG
CCGCGAGGAGCGCGGGCCGGGCGTTCCTTTCCAGCGCGGGCAGCCCTTCGAGGTGCTCATCATCGCGTCAGACGA
CGGCTTCAAGGCCGTGGTTGGGGACGCCCAGTACCACCACTTCCGCCACCGCCTGCCGCTGGCGCGCGTGCGCCT
GGTGGAGGTGGGCGGGGACGTGCAGCTGGACTCCGTGAGGATCTTC**TGA**GCAGAAGCCCAGGCGGGCCCGGGGCC
TTGGCTGGCAAATAAAGCGTTAGCCCGCAGCGC

FIGURE 426

CCCGGTCCCAGCC**ATG**TCCAACGTCCCCCACAAGTCCTCACTGCCCGAGGGCATCCGCCCTGGCACGGTGCTGAG
AATTCGCGGCTTGGTTCCTCCCAATGCCAGCAGGTTCCATGTAAACCTGCTGTGCGGGGAGGAGCAGGGCTCCGA
TGCCGCCCTGCATTTCAACCCCCGGCTGGACACGTCGGAGGTGGTCTTCAACAGCAAGGAGCAAGGCTCCTGGGG
CCGCGAGGAGCGCGGGCCGGGCGTTCCTTTCCAGCGCGGGCAGCCCTTCGAGGTGCTCATCATCGCGTCAGACGA
CGGCTTCAAGGCCGTGGTTGGGGACGCCCAGTACCACCACTTCCGCCACCGCCTGCCGCTGGCGCGCGTGCGCCT
GGTGGAGGTGGGCGGGGACGTGCAGCTGGACTCCGTGAGGATCTTC**TGA**GCAGAAGCCCAGGCGGGCCCGGGGCC
TTGGCTGGCAAATAAAGCGTTAGCCCGCAGCGC

FIGURE 427

GAACGCAGTAGACGAAGGCGGCGGCG**ATG**GCGGCGGGGATAGTGGCTTCTCGCAGACTCCGCGACCTACTGACCC
GGCGACTGACAGGCTCCAACTACCCGGGACTCAGTATTAGCCTTCGCCTCACTGGCTCCTCTGCACAAGAGGAGG
CTTCCGGAGTAGCCCTCGGTGAAGCCCCAGACCACAGCTATGAGTCCCTTCGTGTGACGTCTGCGCAGAAACATG
TTCTGCATGTCCAGCTCAACCGGCCCAACAAGAGGAATGCCATGAACAAGGTCTTCTGGAGAGAGATGGTAGAGT
GCTTCAACAAGATTTCGAGAGACGCTGACTGTCGGGCGGTGGTGATCTCTGGTGCAGGAAAAATGTTCACTGCAG
GTATTGACCTGATGGACATGGCTTCGGACATCCTGCAGCCCAAAGGAGATGATGTGGCCCGGATCAGCTGGTACC
TCCGTGACATCATCACTCGATACCAGGAGACCTTCAACGTCATCGAGAGGTGCCCCAAGCCCGTGATTGCTGCCG
TCCATGGGGGCTGCATTGGCGGAGGTGTGGACCTTGTCACCGCCTGTGACATCCGGTACTGTGCCCAGGATGCTT
TCTTCCAGGTGAAGGAGGTGGACGTGGGTTTGGCTGCCGATGTAGGAACACTGCAGCGCCTGCCCAAGGTCATCG
GGAACCAGAGCCTGGTCAACGAGCTGGCCTTCACCGCCCGCAAGATGATGGCTGACGAGGCCCTGGGCAGTGGGC
TGGTCAGCCGGGTGTTCCCAGACAAAGAGGTCATGCTGGATGCTGCCTTAGCGCTGGCGGCCGAGATTTCCAGCA
AGAGCCCCGTGGCGGTGCAGAGCACCAAGGTCAACCTGCTGTATTCCCGCGACCATTCGGTGGCCGAGAGCCTCA
ACTACGTGGCGTCCTGGAACATGAGCATGCTGCAGACCCAAGACCTCGTGAAGTCGGTCCAGGCCACGACTGAGA
ACAAGGAACTGAAAACCGTCACCTTCTCCAAGCTC**TGA**GAGCCCTCGCGTCCCAGGCCCCAGCCAGGGGGCCGGC
CTTGTCCCGCCTCATCCACAGAAAGGGAGGATGGGCGATGACAGTTGTTTCTATGCCTTCTGACCCAGTTTCCCA
GTTTATAACTTTATGACAATGAGTTTCTCAAGCCCAAGGCCTTATCTTCACCCCACAAACAATAAAGCAAA

FIGURE 428

GGACGAGCAGCGGAGGCGGTCGGGAGCG**ATG**GTGAAGATGGCGGCGGCGGGCGGCGGAGGCGGCGGTGGCCGCTA
CTACGGCGGCGGCAGTGAGGGCGGCCGGGCCCCTAAGCGGCTCAAGACTGACAACGCCGGCGACCAGCACGGAGG
CGGCGGCGGTGGCGGTGGAGGAGCCGGGGCGGCGGGCGGCGGCGGCGGTGGGGAGAACTACGATGACCCGCACAA
AACCCCTGCCTCCCCAGTTGTCCACATCAGGGGCCTGATTGACGGTGTGGTGGAAGCAGACCTTGTGGAGGCCTT
GCAGGAGTTTGGACCCATCAGCTATGTGGTGGTAATGCCTAAAAAGAGACAAGCACTGGTGGAGTTTGAAGATGT
GTTGGGGGCTTGCAACGCAGTGAACTACGCAGCCGACAACCAAATATACATTGCTGGTCACCCAGCTTTTGTCAA
CTACTCTACCAGCCAGAAGATCTCCCGCCCTGGGGACTCGGATGACTCCCGGAGCGTGAACAGTGTGCTTCTCTT
TACCATCCTGAACCCCATTTATTCGATCACCACGGATGTTCTTTACACTATCTGTAATCCTTGTGGCCCTGTCCA
GAGAATTGTCATTTTCAGGAAGAATGGAGTTCAGGCGATGGTGGAATTTGACTCAGTTCAAAGTGCCCAGCGGGC
CAAGGCCTCTCTCAATGGGGCTGATATCTATTCTGGCTGTTGCACTCTGAAGATCGAATACGCAAAGCCTACACG
CTTGAATGTGTTCAAGAATGATCAGGATACTTGGGACTACACAAACCCCAATCTCAGTGGACAAGGTGACCCTGG
CAGCAACCCCAACAAACGCCAGAGGCAGCCCCCTCTCCTGGGAGATCACCCCGCAGAATATGGAGGGCCCCACGG
TGGGTACCACAGCCATTACCATGATGAGGGCTACGGGCCCCCCCCACCTCACTACGAAGGGAGAAGGATGGGTCC
ACCAGTGGGGGGTCACCGTCGGGGCCCAAGTCGCTACGGCCCCCAGTATGGGCACCCCCCACCCCCTCCCCCACC
ACCCGAGTATGGCCCTCACGCCGACAGCCCTGTGCTCATGGTCTATGGCTTGGATCAATCTAAGATGAACTGTGA
CCGAGTCTTCAATGTCTTCTGCTTATATGGCAATGTGGAGAAGGTGAAATTCATGAAAAGCAAGCCGGGGGCCGC
CATGGTGGAGATGGCTGATGGCTACGCTGTAGACCGGGCCATTACCCACCTCAACAACAACTTCATGTTTGGGCA
GAAGCTGAATGTCTGTGTCTCCAAGCAGCCAGCCATCATGCCTGGTCAGTCATACGGGTTGGAAGACGGGTCTTG
CAGTTACAAAGACTTCAGTGAATCCCGGAACAATCGGTTCTCCACCCCAGAGCAGGCAGCCAAGAACCGCATCCA
GCACCCCAGCAACGTGCTGCACTTCTTCAACGCCCCGCTGGAGGTGACCGAGGAGAACTTCTTTGAGATCTGCGA
TGAGCTGGGAGTGAAGCGGCCATCTTCTGTGAAAGTATTCTCAGGCAAAAGTGAGCGCAGCTCCTCTGGACTGCT
GGAGTGGGAATCCAAGAGCGATGCCCTGGAGACTCTGGGCTTCCTGAACCATTACCAGATGAAAAACCCAAATGG
TCCATACCCTTACACTCTGAAGTTGTGTTTCTCCACTGCTCAGCACGCCTCC**TAA**TTAGGTGCCTAGGAAGAGTC
CCATCTGAGCAGGAAGACATTTCTCTTTCCTTTATGCCATTTTTTGTTTTTGTTATTTGCAAAAGATCTTGTATT
CCTTTTTTTTTTTTTTTTTTTTTTTTTAAATGCTAGGTTTGTAGAGGCTTACTTAACCTTAATGGAAACGCTGG
AAATCTGCAGGGGGAGGGAGAGGGGAACTGTTATCTCCCAAGATTAACCTTCACTTTTAAAAAATTATTGTACAT
GTGATTTTTTTTTTCCTGTTCATACATTTGTGCTGCCCATGTACTCTTGGCACATTTCAATAAAATTGTTTGGA
AAATAAACACAGC

FIGURE 429

GTGTTGTACGAAAGCGCGTCTGCGGCCGCAATGTCTGCTGAGAGTTGTAGTTCTGTGCCCTATCACGGCCACTCC
CATTTCTGGTGCCGTCACGGGACAGAGCAGTCGGTGACAGGACAGAGCAGTCGGTGACGGGACACAGTGGTTGGT
GACGGGACAGAGCGGTCGGTGACAGCCTCAAGGGCTTCAGCACCGCGCCC**ATG**GCAGAGCCAGACCCCTCTCACC
CTCTGGAGACCCAGGCAGGGAAGGTGCAGGAGGCTCAGGACTCAGATTCAGACTCTGAGGGAGGAGCCGCTGGTG
GAGAAGCAGACATGGACTTCCTGCGGAACTTATTCTCCCAGACGCTCAGCCTGGGCAGCCAGAAGGAGCGTCTGC
TGGACGAGCTGACCTTGGAAGGGGTGGCCCGGTACATGCAGAGCGAACGCTGTCGCAGAGTCATCTGTTTGGTGG
GAGCTGGAATCTCCACATCCGCAGGCATCCCCGACTTTCGCTCTCCATCCACCGGCCTCTATGACAACCTAGAGA
AGTACCATCTTCCCTACCCAGAGGCCATCTTTGAGATCAGCTATTTCAAGAAACATCCGGAACCCTTCTTCGCCC
TCGCCAAGGAACTCTATCCTGGGCAGTTCAAGCCAACCATCTGTCACTACTTCATGCGCCTGCTGAAGGACAAGG
GGCTACTCCTGCGCTGCTACACGCAGAACATAGATACCCTGGAGCGAATAGCCGGGCTGGAACAGGAGGACTTGG
TGGAGGCGCACGGCACCTTCTACACATCACACTGCGTCAGCGCCAGCTGCCGGCACGAATACCCGCTAAGCTGGA
TGAAAGAGAAGATCTTCTCTGAGGTGACGCCCAAGTGTGAAGACTGTCAGAGCCTGGTGAAGCCTGATATCGTCT
TTTTTGGTGAGAGCCTCCCAGCGCGTTTCTTCTCCTGTATGCAGTCAGACTTCCTGAAGGTGGACCTCCTCCTGG
TCATGGGTACCTCCTTGCAGGTGCAGCCCTTTGCCTCCCTCATCAGCAAGGCACCCCTCTCCACCCCTCGCCTGC
TCATCAACAAGGAGAAAGCTGGCCAGTCGGACCCTTTCCTGGGGATGATTATGGGCCTCGGAGGAGGCATGGACT
TTGACTCCAAGAAGGCCTACAGGGACGTGGCCTGGCTGGGTGAATGCGACCAGGGCTGCCTGGCCCTTGCTGAGC
TCCTTGGATGGAAGAAGGAGCTGGAGGACCTTGTCCGGAGGGAGCACGCCAGCATAGATGCCCAGTCGGGGGCGG
GGGTCCCCAACCCCAGCACTTCAGCTTCCCCCAAGAAGTCCCCGCCACCTGCCAAGGACGAGGCCAGGACAACAG
AGAGGGAGAAACCCCAG**TGA**CAGCTGCATCTCCCAGGCGGGATGCCGAGCTCCTCAGGGACAGCTGAGCCCCAAC
CGGGCCTGGCCCCCTCTTAACCAGCAGTTCTTGTCTGGGGAGCTCAGAACATCCCCCAATCTCTTACAGCTCCCT
CCCCAAAACTGGGGTCCCAGCAACCCTGGCCCCCAACCCCAGCAAATCTCTAACACCTCCTAGAGGCCAAGGCTT
AAACAGGCATCTCTACCAGCCCCACTGTCTCTAACCACTCCTGGGCTAAGGAGTAACCTCCCTCATCTCTAACTG
CCCCCACGGGGCCAGGGCTACCCCAGAACTTTTAACTCTTCCAGGACAGGGAGCTTCGGGCCCCCACTCTGTCTC
CTGCCCCCGGGGGCCTGTGGCTAAGTAAACCATACCTAACCTACCCCAGTGTGGGTGTGGGCCTCTGAATATAAC
CCACACCCAGCGTAGGGGGAGTCTGAGCCGGGAGGGCTCCCGAGTCTCTGCCTTCAGCTCCCAAAGTGGGTGGTG
GGCCCCCTTCACGTGGGACCCACTTCCCATGCTGGATGGGCAGAAGACATTGCTTATTGGAGACAAATTAAAAAC
AAAAACAACTAAC

FIGURE 430

ATGGCTGGGGTCGCGTGCTTGGGAAAAGCTGCCGACGCAGATGAATGGTGCGACAGCGGCCTGGGCTCCCTGGGT
CCGGACGCAGCGGCCCCCGGAGGACCTGGGTTGGGCGCGGAGTTGGGCCCGGGGCTGTCGTGGGCTCCCCTCGTC
TTCGGCTACGTCACTGAGGATGGGGACACGGCACTGCACTTGGCTGTGATTCATCAGCATGAACCCTTCCTGGAT
TTTCTTCTAGGCTTCTCGGCCGGCACTGAGTACATGGACCTGCAGAATGACCTAGGCCAGACAGCCCTGCACCTG
GCAGCCATCCTGGGGGGAGACATCCACGGTGGAGAAGCTGTACGCAGCAGGCGCCGGGCTGTGTGTGGCGGAGCGT
AGGGGCCACACGGCGCTGCACCTGGCCTGCCGTGTGGGGGCACACGCCTGTGCCCGTGCCCTGCTTCAGCCCCGC
CCCCGGCGCCCCAGGGAAGCCCCCGACACCTACCTCGCTCAGGGCCCTGACCGTACTCCCGACACCAACCATACC
CCTGTCGCCTTGTACCCCGATTCCGACTTGGAGAAGGAAGAAGAGGAGAGTGAGGAGGACTGGAAGCTGCAGCTG
GAGGCTGAAAACTACGAGGGCCACACCCCACTCCACGTGGCCGTTATCCACAAAGATGTGGAGATGGTCCGGCTG
CTCCGAGATGCTGGAGCTGACCTTGACAAACCGGAGCCCACGTGCGGCCGGAGCCCCCTTCATTTGGCAGTGGAG
GCCCAGGCAGCCGATGTGCTGGAGCTTCTCCTGAGGGCAGGCGCGAACCCTGCTGCCCGCATGTACGGTGGCCGC
ACCCCACTCGGCAGTGCCATGCTCCGGCCCAACCCCATCCTCGCCCGCCTCCTCCGTGCACACGGAGCCCCTGAG
CCCGAGGGCGAGGACGAGAAATCCGGCCCCTGCAGCAGCAGTAGCGACAGCGACAGCGGAGACGAGGGCGTGAGT
CAGGAGGAGAGACAGGGCAGCCCAGCTGGGGGGTCAGGA**TAG**

FIGURE 431

TGAAGAGGCGGGACACAGACGACGATTGGGCGACGAAGGACTCTATCGCGGTCAACTTTCCTCAGGATCTGATTG
GCTCGTCACGGTCAGGTTCGCTGCCTTGCAATTGGTCTAAACGCGGAGTGGGCGGGACGAAGTGCCGCCTTGTTC
CCGGTCCAAG**ATG**GCTGCGTCCATGGCGCGGCGCTTGTGGCCTTTGCTGACTCGTCGGGGGTTCCGGCCCCGGGG
AGGCTGCATCTCCAACGATAGTCCAAGGAGAAGTTTCACTACAGAGAAACGAAACCGGAACCTCCTGTACGAGTA
TGCGCGCGAGGGCTACAGCGCACTCCCTCAGCTGGACATAGAGCGGTTCTGCGCATGCCCAGAAGAGGCCGCACA
CGCCCTGGAGCTCCGCAAGGGGGAGCTGCGCTCGGCGGACCTGCCCGCGATCATCTCGACATGGCAGGAGCTGAG
GCAGCTGCAGGAGCAGATCCGGAGCCTGGAGGAAGAGAAGGCAGCTGTGACTGAGGCAGTGCGGGCCCTGCTGGC
AAACCAGGACAGTGGTGAAGTGCAGCAGGACCCCAAGTACCAGGGTCTGCGGGCACGTGGCCGGGAGATCCGGAA
GGAGCTTGTTCACCTGTACCCCAGGGAGGCCCAGCTTGAGGAGCAGTTCTACCTGCAGGCGCTGAAGCTGCCCAA
CCAGACCCACCCAGACGTGCCCGTCGGGGATGAGAGCCAGGCTCGAGTGCTCCACATGGTCGGAGACAAGCCAGT
TTTCTCCTTCCAACCTCGGGGCCACCTGGAAATTGGCGAGAAACTCGACATCATCCGTCAGAAGCGCCTGTCCCA
CGTGTCTGGCCACCGGTCCTATTACCTGCGCGGGGCTGGAGCCCTCCTGCAGCACGGCCTGGTCAACTTCACATT
CAACAAGCTTCTCCGCCGGGGCTTCACCCCCATGACGGTGCCAGACCTTCTCCGCGGAGCAGTGTTTGAAGGCTG
TGGGATGACACCAAATGCCAACCCATCCCAAATTTACAACATCGACCCTGCCCGCTTCAAAGATCTCAACCTGGC
TGGAACAGCGGAGGTGGGGCTTGCAGGCTACTTCATGGACCACACCGTGGCCTTCAGGGACCTGCCAGTCAGGAT
GGTTTGCTCCAGCACCTGCTACCGGGCAGAGACAAACACGGGACAGGAACCCCGGGGGCTGTATCGAGTACACCA
CTTCACCAAGGTGGAGATGTTTGGGGTGACAGGCCCTGGGCTGGAGCAGAGCTCACAGCTGCTGGAGGAGTTCCT
GTCCCTTCAGATGGAGATCTTGACAGAGCTGGGCTTGCACTTCCGGGTCCTGGATATGCCCACCCAAGAACTGGG
CCTCCCCGCCTACCGCAAGTTTGACATTGAGGCCTGGATGCCAGGCCGAGGCCGCTTTGGAGAGGTCACCAGTGC
TTCCAACTGCACAGACTTCCAGAGCCGCCGCCTCCACATCATGTTCCAGACCGAGGCTGGGGAGCTGCAGTTTGC
CCACACGGTGAACGCCACCGCCTGTGCTGTCCCCCGCCTTCTCATCGCGCTCCTGGAGAGTAACCAGCAGAAGGA
CGGCTCAGTGCTCGTGCCCCCTGCCCTCCAGTCCTACCTCGGCACTGATCGGATCACAGCCCCTACCCACGTGCC
TCTCCAGTACATCGGCCCCAACCAGCCCCGGAAGCCTGGGCTGCCTGGCCAGCCTGCTGTAAGC**TAA**GAACCCAC
CCACAGCAGCCCTCGGGGGTGTCACTGCTTCCTGGAGTTCAGGAGACCCCGGACACCTGGGACCTGTGTTGCTGA
GCCCGTCCTGACATCTGTGTTCTTCCTGTCAGCTCCACGCCCGGGCCCCTGGACCACGGGGTCCACCTCTCCTCT
GTCCTTGCTGCCTCAGAGTCAGTCACTGACCCTGTTATCATTGAGGGTCCCAGTGGGAAGCAGGACGTCTGGGCT
TTACGGTTCTAGGGACAGGAGAAGCAGAGGAAGAGGCTTCCATCCCTCCTTCCTTCTTTCCTCCTACAGTGCTGA
GCAAAAAGTCCCCAATAAATGGTCAGGAC

FIGURE 432

AGCTGGATTCAGCGTGTCCGCGACCTCACCTTTAGGTCCTGTGAGGTCGGTGGAATCCTGGGGTCCTCCAAATCT
ACCAGGCCATCTCCCCAGTTTCCCAGTTCTTCCTGCGTGCGGGCGAGAGTGGTTGGGCCCTCGGGAACCCACTCA
GAGCGAGGCTAAATTTACGGAGGGACTTTCTGTTAGCAGCATGAGGGCCTGTGGTTAGACCTATAGAGGTATTTC
CTTTGATTTAAGCCAGAAAGTCCTGAGAGCGGATCGGGGAGCATTTGCGGATCGGTCACTTTTTCCTCCTTTCTG
AGTCTCTTATCCCCTACCACAGGGACGGCCCAGGTGGCAGG**ATG**TCCTGGTCTGGCCTTCTCCATGGCCTCAACA
CGTCCCTAACTTGTGGCCCAGCTCTGGTTCCCCGGCTCTGGGCTACCTGCTCCATGGCTACCCTGAACCAGATGC
ACCGCCTGGGGCCCCCCAAGCGGCCGCCTCGGAAGCTGGGCCCCACGGAAGGCCGGCCGCAGCTGAAGGGTGTGG
TCCTGTGCACGTTTACCCGCAAGCCGAAGAAGCCCAACTCAGCCAATCGCAAGTGCTGTCGAGTGCGGCTCAGCA
CTGGCCGCGAGGCCGTCTGCTTCATCCCTGGGGAGGGCCACACCCTGCAGGAGCACCAGATTGTCCTTGTGGAGG
GCGGCCGCACCCAGGACCTGCCAGGCGTCAAGCTCACCGTTGTGCGTGGCAAGTACGACTGTGGCCACGTGCAGA
AGAAG**TGA**CGGCTGGGGGCACAGTGGGCTGGGCGCCCCTGCAGAACATGAACCTTCCGCTCCTGGCTGCCACAGG
GTCCTCCGATGCTGGCCTTTGCGCCTCTAGAGGCAGCCACTCATGGATTCAAGTCCTGGCTCCGCCTCTTCCATC
AGGACCACTATTAAGCCATAGGAGTCCTGGGGGGTGCAAAGGGTGCCCCTCTGTCAACACCCTTGGCTCCTGTGTT
TAGAGGGGTGGCCTGAAGGACCTTTTCTGCTGGGACAAGACACTGTACTGCCCTCTGCTGGGAAGGGGTTTTAAT
AAACAGACCCTGGCGCTTGTGATGT

FIGURE 433

AGCCGCCACGCCCCGGGAGAGGACCGACCGCCCAGACCGCCGGTCCCGGGGCCCCCTGGGCCACGCCGATCACGG
GGAGCCCCTCGACTGCCTCCCAGAACAAAGTGGGAAAGGGAAGCTTAGCCCGCCGCTGCCGCCTCCGAGCAGCCC
GCCAGGACTCTGGCTACTGGAG**ATG**GGCGCCCGGCTATCGCGGCGACGGCTGCCGGCGGACCCATCCCTGGCCCT
GGACGCGCTGCCCCCGGAGCTGCTGGTGCAGGTGCTGAGCCACGTGCCGCCACGCTCCTTGGTCACGCGATGCCG
CCCAGTGTGCCGCGCCTGGCGCGACATAGTGGACGGGCCCACTGTGTGGCTGCTGCAGCTGGCCCGCGACCGCAG
CGCCGAGGGCCGCGCACTCTACGCAGTGGCTCAACGCTGCCTGCCCAGCAACGAAGACAAGGAGGAGTTCCCGCT
GTGCGCCCTGGCGCGCTACTGTCTGCGCGCGCCCTTCGGCCGCAATCTCATCTTCAACTCCTGCGGAGAGCAGGG
CTTCAGAGGCTGGGAGGTGGAGCATGGCGGGAACGGCTGGGCCATAGAAAAGAACCTAACACCGGTGCCTGGGGC
TCCTTCGCAGACCTGCTTCGTGACCTCTTTCGAATGGTGCTCCAAGAGGCAGCTTGTGGACCTGGTGATGGAAGG
GGTGTGGCAGGAGCTGCTGGACAGCGCCCAGATTGAGATCTGTGTGGCTGACTGGTGGGGCGCTCGAGAGAACTG
CGGCTGCGTCTACCAGCTCCGGGTCCGCCTTCTGGATGTGTATGAAAAGGAAGTGGTCAAGTTCTCAGCCTCACC
TGACCCGGTCCTTCAGTGGACTGAGAGGGGCTGCCGACAGGTCTCCCACGTCTTCACCAACTTTGGCAAGGGCAT
CCGCTACGTATCTTTTGAGCAGTACGGGAGAGACGTGAGTTCCTGGGTGGGGCACTATGGCGCCCTTGTGACCCA
CTCCAGTGTGAGGGTCAGGATCCGTCTGTCC**TAG**CGACTGGACTACTGCCTGACGTTGTCAGTCAAGACCAGCCT
TGCAGCCAGGTGCAGTGGCTCACACCTGTGGAATCCCAGCACTTCAGGAGGCCGAGGTGGGAGGATCACTGGAGC
TCGGGAGTTCAAGACCAGCCTGGGCAACATAGTGAAACCGTCTCCACAAATAATTTTTAAAAAATTAGCCAGGCA
TGGTGGTGCCGCCTGTAGTCCCAGCTACTCAGGAGGCTTGGGTGGGAGGATTGCCTGAGACCAGGAGGTTGAGGC
TGCAGTGAGCCGTGATTTCACCACCACTCCAGCCTGGGTGAGAAAGCAAGACCCTATATCAATGAAAAAAAAAAA
AAAAAAGACCAGCTTTGCAGCCAGAAGCCAGAGGATACCCAGGGACAGTAGGGCTCCCAGGTGGCTGGTTCTCAG
CACACCTTCCATGAATCTGCTTGCTGCTGCTTCAGTGTGGTGGCCATCATGCTGTGTGACAAACCAGGCTGTTCA
CAGCTTCCTCAGCCCCCCAGAAGGGGAGTGTCAGGAAGAGACATTTAGTTCATTTGCCTGCAAATTTTCTTCTCC
TGCAAGGATCTCGGTGGACTCAGTCACAAAACAAAGGCTAAACCAGGATTTATAAGAGAGGGCTTATAAATCCCT
CTGCCGACGCAGGGAGCAGAGACTTGCCGGCATGTTTTGGGGGTAATGATCGTGGGCAGGGAGCAGAGGTCCGCT
GAGGCAGTCTGTCCTTGAGACTAACAAAGTCATCTGCTGTTTGGGGAAATCTCTGGTGTTGGGAACAGGCCCCCA
AATCTGGCCATAAACTGGCCCCAAAACTGGCCATAAACAAAATATCTGCAGCACTGTGACATGTTTGTGATGGCC
ATGACCCCCACCCTGAAGGTTGTGGGTTTACTGGAACGAGGGCGAGGAACACCTGGCCCACCCAGGGCGGAAAAC
CGCTTAAAGGGGTTCCTGAACCACAAACCATAGCATAAGTGATCTGTGCCTTAACGACATGTTCCTGCTGCAGAT
AACTAGCCAGACCCATCCCTTTATTTCAGCCCATCCCTTTATTTCCTGTAAGAAATGTTTTTAGTTAATCTATAA
TCTATAGAAATAATGCTTATCACTGGCTTGCTGTCAATAAATATGTGGGTAAATCTCTGTTCAAGGCTCTCAGCT
CTGAAGGCCGTGAGACCCCTGATTTCCCACTCCACACC

FIGURE 434

GGGGAGCTTGCGGCACAGCTAGGGCATCCCGGCGAGGAGCGCCGCCAGGCCCCGGGCCACAGCCGGGCCTGGCGG
GGGGACC**ATG**GGCGCCTCGGTCTCCAGGGGCCGGGCCGCCCGGGTCCCCGCGCCGGAGCCGGAACCCGAAGAGGC
GCTGGACCTGAGCCAACTACCCCCAGAGCTGCTTCTGGTGGTGCTGAGCCACGTCCCCCCGCGCACGCTGCTCGG
GCGCTGCCGCCAAGTGTGCCGGGGCTGGCGAGCCCTGGTGGACGGCCAGGCCCTGTGGCTGCTGATCCTGGCCCG
CGACCACGGCGCCACCGGCCGCGCGCTGCTGCACCTCGCCCGCAGCTGCCAGTCTCCCGCCCGTAACGCCAGGCC
TTGCCCCCTGGGCCGCTTCTGCGCGCGCAGACCCATCGGACGCAACCTTATTCGCAACCCCTGCGGCCAAGAAGG
CCTCCGAAAGTGGATGGTGCAACACGGTGGGGACGGCTGGGTGGTGGAGGAAAACAGGACAACCGTGCCTGGGGC
CCCTTCTCAGACGTGCTTCGTGACTTCATTCAGCTGGTGTTGCAAGAAGCAGGTCTTGGACCTAGAGGAGGAGGG
TCTGTGGCCAGAACTGCTGGATAGTGGCAGGATTGAGATTTGTGTCTCTGACTGGTGGGGAGCCCGACACGACAG
CGGCTGTATGTACAGACTCCTCGTCCAACTTCTAGACGCCAACCAGACTGTTCTAGATAAATTCTCTGCTGTGCC
TGATCCCATCCCGCAGTGGAACAACAATGCCTGCCTTCACGTCACCCACGTGTTCTCCAACATCAAGATGGGCGT
CCGCTTTGTGTCTTTCGAACACCGGGGCCAGGACACACAGTTCTGGGCTGGCCACTATGGAGCCCGTGTGACCAA
CTCCAGTGTGATCGTGCGAGTCCGTCTGTCC**TAG**TCCAGCACTACCCTTCTTGCAAGACAGCCTGACTGTGCCTT
CCAGGGCCTGGGACCATTGGCTGGGACCCCTCATTAACCAACCAAGCACTTGTACCTCCCTGGCATACTGAGAAT
TCCTGGGTCCAATCAAAGGCCCTGACGGGCCCTGTCTTCAGGTTCTAGAAACTACCAGAAGAAGCTTCTTCCATC
TTATCTACCTACTGCAGCTGCTGCTTTGCGGGGGGGCCCTACTGTACTGAGGGGAAACCCACAAGTGAGCATGGG
GGAATGCCCATCCTGGAGAAGAATTCTTGCCCTCCCCTCTCTTCTCCTCCCAACCAAAACCCTCCGATCCAGCCC
CAGGCCCCTCTGTACCATCCCCTCCCCTCCGCACCACTGACCTCTTGTCTCCTGTTGTTTCTGCCACAGGGACTT
CCTTGGTCCCTTCAGGGAAGCCCTCAACTCATCTCTGAACTTAGAATCTCATCCTTAGGGCTCAGAGAGTCCCAG
CCCTAAGGGTGTGAACCTCACCTCCTGGGGCTTCCGAGCTACAGGGCTGGGACCAGGTCATGCAGCTGAAAGTCT
ACGTTAAAAAAAAAAAGTTTGGGCCAGGCACAGTGGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGCA
GGCGGATCACCTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATCCA
AAAAATTAGCCGGGCTTGGTGGTGTGCACCTGTAATTCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCTTGA
GCCCGGGAGGCAGAGGCTGCAGTGAACCAAGATCATGCCACTGCACTCCAGCCTGGGCAACACAGCGAGACTCCG
TCTCAAAAAGAAAAAGTTTGGATCAGGCAGGGTGGCTCACACCTGTAATCCCTGCACTTTGGGAGGCCAAGGTGG
GAGGATCAGTTGAGCCCCAGAGTTCAAGACCAGCCTGGGCAATGTAGTAAGACCCCCATCGCTACAAAAAATACA
AAAGTTAGCCAGGTACAGTAGTACACACCTGTAGTCCAAGCTACTTGGGAGGCTGAAGTGGGAGGATCATTTGTG
CCCAGGTTGAGGCTATAGTGAGCCATGATCATACCACTGCACTCCAGCCTGGGTGACAGAGCGAGACCCTGTCTC
AAAAAAAAAAAAGAATTTGGAGATGGTTCTGCCCACTCTGGTTTCTCTGAAAAAACGAGGTAATTCCCTGAGCCC
AACCCTGATCCTCAAGGACCTGTAATTGTGTGGTATTTAAAATTAAAATAACATTATTTTTATTTTGACTTTTTT
TCAAACAGTAAGAATAATATATCAGCAGCATGTATCTGCCAATCATATGTAATAAATTTCTTATTTTGCC

FIGURE 435A

GGGGATTCAACATGGCGGCGGGAGTGTCCGCGGTGGTGGCGGTGCAAGAGAGCTGAGGGAGGCGCGAGGGCGCGG
AGTTCCAGGTCGAGCAGTTAGGCCGCGAGCGACTGCGGCGCCGAGCCGATGAGTAACCCGAAGCCCCTAGAGGAG
TGGTCACCTGCCTGAGGGCACTTCTGTCCCACCAGCATCAGACCAGGCCGCACCGAGTCCCCGGCACC**ATG**TTTG
GGAAGAGGAAGAAGCGGGTGGAGATCTCCGCGCCGTCCAACTTCGAGCACCGCGTGCACACGGGCTTCGACCAGC
ACGAGCAGAAGTTCACGGGGCTGCCCCGCCAGTGGCAGAGCCTGATCGAGGAGTCGGCTCGCCGGCCCAAGCCCC
TCGTCGACCCCGCCTGCATCACCTCCATCCAGCCCGGGGCCCCCAAGACCATCGTGCGGGGCAGCAAAGGTGCCA
AAGATGGGGCCCTCACGCTGCTGCTGGACGAGTTTGAGAACATGTCGGTGACACGCTCCAACTCCCTGCGGAGAG
ACAGCCCGCCGCCGCCCGCCCGTGCCCGCCAGGAAAATGGGATGCCAGAGGAGCCGGCCACCACGGCCAGAGGGG
GCCCAGGGAAGGCAGGCAGCCGAGGCCGGTTCGCCGGTCACAGCGAGGCGGGTGGCGGCAGTGGTGACAGGCGAC
GGGCGGGGCCAGAGAAGAGGCCCAAGTCTTCCAGGGAGGGCTCAGGGGGTCCCCAGGAGTCCTCCCGGGACAAAC
GCCCCCTCTCCGGGCCTGATGTCGGCACCCCCCAGCCTGCTGGTCTGGCCAGTGGGGCGAAACTGGCAGCTGGCC
GGCCCTTTAACACCTACCCGAGGGCTGACACGGACCACCCATCCCGGGGTGCCCAGGGGGAGCCTCATGACGTGG
CCCCTAACGGGCCATCAGCGGGGGGCCTGGCCATCCCCCAGTCCTCCTCCTCCTCCTCCCGGCCTCCCACCCGAG
CCCGAGGTGCCCCCAGCCCTGGAGTGCTGGGACCCCACGCCTCAGAGCCCCAGCTGGCCCCTCCAGCCTGCACCC
CCGCCGCCCCTGCTGTTCCTGGGCCCCCTGGCCCCCGCTCACCACAGCGGGAGCCACAGCGAGTATCCCATGAGC
AGTTCCGGGCTGCCCTGCAGCTGGTGGTGGACCCAGGCGACCCCCGCTCCTACCTGGACAACTTCATCAAGATTG
GCGAGGGCTCCACGGGCATCGTGTGCATCGCCACCGTGCGCAGCTCGGGCAAGCTGGTGGCCGTCAAGAAGATGG
ACCTGCGCAAGCAGCAGAGGCGCGAGCTGCTCTTCAACGAGGTGGTAATCATGAGGGACTACCAGCACGAGAATG
TGGTGGAGATGTACAACAGCTACCTGGTGGGGGACGAGCTCTGGGTGGTCATGGAGTTCCTGGAAGGAGGCGCCC
TCACCGACATCGTCACCCACACCAGGATGAACGAGGAGCAGATCGCGGCCGTGTGCCTTGCAGTGCTGCAGGCCC
TGTCGGTGCTCCACGCCCAGGGCGTCATCCACCGGGACATCAAGAGCGACTCGATCCTGCTGACCCATGATGGCA
GGGTGAAGCTGTCAGACTTTGGGTTCTGCGCCCAGGTGAGCAAGGAAGTGCCCCGAAGGAAGTCGCTGGTCGGCA
CGCCCTACTGGATGGCCCCAGAGCTCATCTCCCGCCTTCCCTACGGGCCAGAGGTAGACATCTGGTCGCTGGGGA
TAATGGTGATTGAGATGGTGGACGGAGAGCCCCCCTACTTCAACGAGCCACCCCTCAAAGCCATGAAGATGATTC
GGGACAACCTGCCACCCCGACTGAAGAACCTGCACAAGGTGTCGCCATCCCTGAAGGGCTTCCTGGACCGCCTGC
TGGTGCGAGACCCTGCCCAGCGGGCCACGGCAGCCGAGCTGCTGAAGCACCCATTCCTGGCCAAGGCAGGGCCGC
CTGCCAGCATCGTGCCCCTCATGCGCCAGAACCGCACCAGA**TGA**GGCCCAGCGCCCTTCCCCTCAACCAAAGAGC
CCCCCGGGTCACCCCCGCCCCACTGAGGCCAGTAGGGGGCCAGGCCTCCCACTCCTCCCAGCCCGGGAGATGCTC
CGCGTGGCACCACCCTCCTTGCTGGGGGTAGATGAGACCCTACTACTGAACTCCAGTTTTGATCTCGTGACTTTT
AGAAAAACACAGGGACTCGTGGGAGCAAGCGAGGCTCCCAGGACCCCCACCCTCTGGGACAGGCCCTCCCCCATG
TTCTTCTGTCTCCAGGAAGGGCAGCGGCCCTCCCATCACTGGAAGTCTGCAGTGGGGGTCGCTGGGGGTGGAGAG
AACACTAAGAGGTGAACATGTATGAGTGTGTGCACGCGTGTGAGTGTGCATGTGTGTGTGTGCAAAGGTCCAGCC
ACCCCGTCCTCCAGCCTGCAAGGGGTGTCTGGCGCCTTGCCTGACACCCAGCCCCCTCTCCCCCTGAGCCATTGT
GGGGGTCGATCATGAATGTCCGAAGAGTGGCCTTTTCCCGTAGCCCTGCGCCCCCTTTCTGTGGCTGGATGGGGA
GACAGGTCAGGGCCCCCCACCCTCTCCAGCCCCTGCAGCAAATGACTACTGCACCTGGACAGCCTCCTCTTTTCT
AGAAGTCTATTTATATTGTCATTTTATAACACTCTAGCCCCTGCCCTTATTGGGGGACAGATGGTCCCTGTCCTG
CGGGGTGGCCCTGGCAGAACCACTGCCTGAAGAACCAGGTTCCTGCCCGGTCAGCGCAGCCCCAGCCCGCCCACC
CCTGCCTCGAGTTAGTTTTACAATTAAAACATTGTCTTGTTTTGTGTCTGTGTGCGATGTGTGGGGGGCAGGGGG
CCCTGCCCGGCTGTCTTGGGTGGGAATTTGCAGGGAGAGGGTCTGGATCTGGGAGCAAACCACGATTCCAGCCAA
GGCAGGGCAAGGGTGGGGTGGGGAGTGGGGAGTTCAGGTCATAGCAGCCAGTAAGCTCCCCCAGCCTGCCACTCC
CCAGAATGGGGCAGGATTGTCCCCACCCCTGGAAGCAGCCAGTTTGCCACAGTCCATGTGCAGACTGATCCCAGT
TTGCCAAATCTGCAATTTCCTGGAACCTTTTAAAGGCTGTCTTGAGCGCGTTTGGTGAGTAGGAGCTAACCCAAG
TTAGTAAATTGAAGGCCATTTGGCAAATTGGTCAGTGGGCAGATGGGCTTTTGGGGATTGACTGAGGCTGACTGG
CCTGGAGCTGCTGGCTTCGGAGAGACACCCTGTGAAGTGTGTCCTTCCACGCAGGAGCCCAGAGCCGAGCCCACG
CTGGGGGGAATCTGACTGGCATGGAGGTGGCCATGCCACCATCGCTGCTGCAGCTGCATCCTGGCACTTTGCGCC
TCAGGCCCTGTTGGGCTCCACTTTCTGCATCCTCCCCAGCCCCCAGGGAGGCAGTGGAGTGGGGAGAGAGCCAGG
AGTGAGCCTCCGTCCCCAAAGCCAGCCAGGCGTCATCAGCACCAGAGACCTCAGCCTGGTCCTCTCGGGAAGTGA
GTGGCCAGGGCAGAGATTCCAGGTTAGTCCACGCCTCCCACCCTTCACAGGTCCTGACCCCAAGAATCAGAGCAC

FIGURE 435B

TGTGTGTGTGGCAGGGCCTATGCCAAGTGCAAACACAGCCTAGATGGATCATCACAGAGTGAAACCCAGCGGTGC
AAGCAGCTGTGCTCTCTGCGATGTATTGGAGGCTTAGGTGAGGTGGATGCCTTTCTGGAAAAAAAAAAAATGCTA
ACATTGGCAAAAGAAGAAATAGAAAACAAGACCAAAATAACTGTCTCCTCACTGCACACACACTCCAGAATAAAT
AAAAGGTTTCAGGCTTGAATGCACTTTCAAATGAGATTTTTTTTTTTTTTTTGAGACGGAGTATCGCTCTGTCGC
CCAGGCTGGAGTGCAGTGGCACGATCTTGGCTCACTGCAACTTCTGCCTCCTGGGTTCAAGCGATTCTCCTGCCT
CAGCCTCCCAAGTAGCTGGGATTACAGGCGCTTGCCACCACGCCAGGCTAATTTTTTGTATTTTGAGTAGAGACT
GGATTTCGCCATCTTGGCCAGACTGGTCTTGAACTCCTGACCTCGTGATCCACCCACCTCAGCCTCCCAAAGTGC
TGGGATTACAGGCATGAGCCACCATGCCTGGCCTCAAATGAGGTTTACCAGACTTTGAAGGAGCAGGTAATTCCT
TCTACCTTGTGAACAAGTTGTTCCAGAAAGATAGCAGCTCAGGAGGCCTCTGTGACCATGGTTCCAGACCCAGAT
AAGGACGGCAAAGAACAGAGCATCTCAGAAACGCAAGGCTCACAGCCAGGGTGCCCGGCGACCCCACGGGCACTG
AGAACAGCTAGCTCTAGGAGCTCCACTCTCCTGCTGAAGAAACCACGGGCTCAGAGACGGGGAGCTCCCTCGCCC
AGCCACATCTGTGACCCCACGGTAACTCTGCTGGTTTTGGTGCCTTCAGTCACTCACTGCAGGTTTGTTTTGTTT
TGTTTTGTTTTGAGTTTTTTTGTTTTTTGTTTTTTGTTTTTAGAGACAAGATGTTGCTATGTTGCCTAGGCTGGT
TTCGAACTCCTGGCCTCAAGGGATCCTCCCTCCTTGGCCCCGCAAAGTGCTGGGATTACAGGCGTGAGCCACCGT
GCCCAGCCCGCTCACTGCAGTTTGAAGGCATGGCTTTGGGTGGCGTGGGGTGAAAGCTGCCCGAGGCCCCGTTCC
TCCCCACGTGGCTGCCTCCTGCCAGAGCCAGTCAGGAAAACAGACCCCAACTAGAGTTGTTTCAAATGGCAGGGA
TTTGGTACCGGTGGTTGGATCATGACAAAGCTCTGAGAAGGCTGGAGGAGCCACAGAGTGCCAAGTGCCCAGCAA
TCATTAGAGGAAGGAGGCTGCTGCCACCTGTGTGGCTAGAGGAACAGAGGGGCCAATGGCATTCCCCAAACCCCA
CTCTCGCCTCTGTCTGGCCAGAGCAGAATGGCTTCTTCCAGCTTCCCACCCTGGACTCCCACCCAGGAGCCTCCT
CCTGGCAGACCCTTCCTGACCCCACCGGCCCGGGGGGTCTACAGATCCATGTTTCAGGCGTCCGCCTGGAGCGGA
ACAGGGGAGTGCTTAGGACAAGGGTGGTGCCAGAGGATCCACTCTGCCCACATTTAGTTGACCAGCTGAGGCACT
CCACGGGAATGAATGACTCTCGACAGGTGCCGGAGGTGAGGAGGGGCCCGGAGGCCCAGGAGGGGCACAGGGATG
GATTCGTCCGCCTGGGGGCTGGAGGTGTGTTTACAGAGCCCCAAAATAAACAATGCAACCAGGTCAGACCAGCGG
TTCTCACAGTGTGGTTCCCAGACCAGCAGCATCACTGGGAGCTTACTGGACACGCAAATAAATCCCTGTGTGCCA
CCCCAGCTGCATCAGATGCTGGTGGGGCCCAGTGATCTGTATTTAACACACCCTCCGGGGGATGCCGGTGCCCAC
TCACGTTTGAGAACCCCTGCGATCCACGACTGCCCTCCCGTGTAAAAGGCCCACCTCTGTGGGACTCCAAGTCAT
CAGCACCCTAGGGTCCTTCCGTCTTTTTCCTTCCTCCTGGGACACCTGCCTCTCCCATGTCGTATTAGAGAATTC
CTTATGCTCCCAAGTGGGCACGGGGAGAGGAAGGCACTCCTCTTTAAGGACCGACCCAGAGGTTTTGCCATTGCT
TCACTGGCCAGAGCTTAGTCACGCAGCCTCACCCAGAGGCAAGGGAGGTTGGAAAATGTAGTGTTTGTGTGTGTC
TAACACAAATTCTATTACCATGCAGTCAGGATTCTCCACTCTTGCTCTTTCATTAGATTTGCTGGGCTTCACCCT
GGACTTTCTGATTTAGTGACAGAACAGAGAACCCAGAGGCAGACCCAGATGTGTACAAGGGCTTCATATACAATC
AGGAGATTTAATAATCATGCTAGGGGCCGGGTGCAGTGGCTCACGCCTGTAATCCCAAGCACTTTGGGGAGCCGA
GGCAGGCAGATCACTTGAGGTCAGGAGTTTGAGACCAGCCTGGGCAACAAAGTGAGACCCTGTCTCTACTAAAAA
TAACAAAAATTAGCCGGGCGTGGTGGTGGGCGCCTGTAATCCCAGCTCCTCGGGTGGCTGAGGCATGAGAATCAC
TTGAACCCAGGAGGCAGAGGTTTCAGTGAGCTGAGATCACATCACTGCACTCCAGCCTGGGTGACAGAGTGAGAT
TCTGTC

FIGURE 436

ATGGCTGCAGCTTGGACCGTGGTGCTGGTGACTTTGGTGCTAGGCTTGGCCGTGGCAGGCCCTGTCCCCACTTCC
AAGCCCACCACAACTGGGAAGGGCTGCCACATTGGCAGGTTCAAATCTCTGTCACCACAGGAGCTAGCGAGCTTC
AAGAAGGCCAGGGACGCCTTGGAAGAGTCACTCAAGCTGAAAAACTGGAGTTGCAGCTCTCCTGTCTTCCCCGGG
AATTGGGACCTGAGGCTTCTCCAGGTGAGGGAGCGCCCTGTGGCCTTGGAGGCTGAGCTGGCCCTGACGCTGAAG
GTCCTGGAGGCCGCTGCTGGCCCAGCCCTGGAGGACGTCCTAGACCAGCCCCTTCACACCCTGCACCACATCCTC
TCCCAGCTCCAGGCCTGTATCCAGCCTCAGCCCACAGCAGGGCCCAGGCCCCGGGGCCGCCTCCACCACTGGCTG
CACCGGCTCCAGGAGGCCCCCAAAAAGGAGTCCGCTGGCTGCCTGGAGGCATCTGTCACCTTCAACCTCTTCCGC
CTCCTCACGCGAGACCTCAAATATGTGGCCGATGGGAACCTGTGTCTGAGAACGTCAACCCACCCTGAGTCCACC
TGA

FIGURE 437

GGCTCACCGACAACTTCATCGCCGCCGTGCGCCGCCGAGACTTCGCCAAC**ATG**ACCAGCCTGGTGCACCTCACTC
TCTCCCGGAACACCATCGGCCAGGTGGCAGCTGGCGCCTTCGCCGACCTGCGTGCCCTCCGGGCCCTGCACCTGG
ACAGCAACCGCCTGGCGGAGGTGCGCGGCGACCAGCTCCGCGGCCTGGGCAACCTCCGCCACCTGATCCTTGGAA
ACAACCAGATCCGCCGGGTGGAGTCGGCGGCCTTTGACGCCTTCCTGTCCACCGTGGAGGACCTGGATCTGTCCT
ACAACAACCTGGAGGCCCTGCCGTGGGAGGCGGTGGGCCAGATGGTGAACCTAAACACCCTCACGCTGGACCACA
ACCTCATCGACCACATCGCGGAGGGGACCTTCGTGCAGCTTCACAAGCTGGTCCGTCTGGACATGACCTCCAACC
GCCTGCATAAACTCCCGCCCGACGGGCTCTTCCTGAGGTCGCAGGGCACCGGGCCCAAGCCGCCCACCCCGCTGA
CCGTCAGCTTCGGCGGCAACCCCCTGCACTGCAACTGCGAGCTGCTCTGGCTGCGGCGGCTGACCCGCGAGGACG
ACTTAGAGACCTGCGCCACGCCCGAACACCTCACCGACCGCTACTTCTGGTCCATCCCCGAGGAGGAGTTCCTGT
GTGAGCCCCCGCTGATCACACGGCAGGCGGGGGGCCGGGCCCTGGTGGTGGAAGGCCAGGCGGTGAGCCTGCGCT
GCCGAGCGGTGGGTGACCCCGAGCCGGTGGTGCACTGGGTGGCACCTGATGGGCGGCTGCTGGGGAACTCCAGCC
GGACCCGGGTCCGGGGGGACGGGACGCTGGATGTGACCATCACCACCTTGAGGGACAGTGGCACCTTCACTTGTA
TCGCCTCCAATGCTGCTGGGGAAGCGACGGCGCCCGTGGAGGTGTGCGTGGTACCTCTGCCTCTGATGGCACCCC
CGCCGGCTGCCCCGCCGCCTCTCACCGAGCCCGGCTCCTCTGACATCGCCACGCCGGGCAGACCAGGTGCCAACG
ATTCTGCGGCTGAGCGTCGGCTCGTGGCAGCCGAGCTCACCTCGAACTCCGTGCTCATCCGCTGGCCAGCCCAGA
GGCCTGTGCCCGGAATACGCATGTACCAGGTTCAGTACAACAGTTCCGTTGATGACTCCCTCGTCTACAGGATGA
TCCCGTCCACCAGTCAGACCTTCCTGGTGAATGACCTGGCGGCGGGCCGTGCCTACGACTTGTGCGTGCTGGCGG
TCTACGACGACGGGGCCACAGCGCTGCCGGCAACGCGAGTGGTGGGCTGTGTACAGTTCACCACCGCTGGGGATC
CGGCGCCCTGCCGCCCGCTGAGGGCCCATTTCTTGGGCGGCACCATGATCATCGCCATCGGGGGCGTCATCGTCG
CCTCGGTCCTCGTCTTCATCGTTCTGCTCATGATCCGCTATAAGGTGTATGGCGACGGGGACAGCCGCCGCGTCA
AGGGCTCCAGGTCGCTCCCGCGGGTCAGCCACGTGTGCTCGCAGACCAACGGCGCAGGCACAGGCGCGGCACAGG
CCCCGGCCCTGCCGGCCCAGGACCACTACGAGGCGCTGCGCGAGGTGGAGTCCCAGGCTGCCCCCGCCGTCGCCG
TCGAGGCCAAGGCCATGGAGGCCGAGACGGCATCCGCGGAGCCGGAGGTGGTCCTTGGACGTTCTCTGGGCGGCT
CGGCCACCTCGCTGTGCCTGCTGCCATCCGAGGAAACTTCCGGGGAGGAGTCTCGGGCCGCGGTGGGCCCTCGAA
GGAGCCGATCCGGCGCCCTGGAGCCACCAACCTCGGCGCCCCCTACTCTAGCTCTAGTTCCTGGGGGAGCCGCGG
CCCGGCCGAGGCCGCAGCAGCGCTATTCGTTCGACGGGGACTACGGGGCACTATTCCAGAGCCACAGTTACCCGC
GCCGCGCCCGGCGGACAAAGCGCCACCGGTCCACGCCGCACCTGGACGGGGCTGGAGGGGGCGCGGCCGGGGAGG
ATGGAGACCTGGGGCTGGGCTCCGCCAGGGCGTGCCTGGCTTTCACCAGCACCGAGTGGATGCTGGAGAGTACCG
TG**TGA**GCGGCGGGCGGGCGCCGGGACGCCTGGGTGCCGCAGACCAAACGCCCAGCCGCACGGACGCTGGGGCGGG
ACTGGGAGAAAGCGCAGCGCCAAGACATTGGACCAGAGTGGAGACGCGCCCTTGTCCCCGGGAGGGGGCGGGGCA
GCCTCGGGCTGCGGCTCGAGGCCACGCCCCCGTGCCCAGGGCGGGGTTCGGGGACCGGCTGCCGGCCTCCCTTCC
CCTATGGACTCCTCGACCCCCCTCCTACCCCTCCCCTCGCGCGCTCGCGGACCTCGCTGGAGCCGGTGCCTTACA
CAGCGAAGCGCGGGGAGGGGCAGGGCCCCCTGACACTGCAGCACTGAGACACGAGCCCCCTCCCCCAGCCCGTCA
CCCGGGGCCGGGGCGAGGGGCCCATTTCTTGTATCTGGCTGGACTAGATCCTATTCTGTCCCGCGGCGGCCTCCA
AAGCCTCCCACCCCACCCCACGCACATTCCTGGTCCGGTCGGGTCTGGCTTGGGGTCCCCCTTTCTCTGTTTCCC
TCGTTTGTCTCTATCCCGCCCTCTTGTCGTCTCTCTGTAGTGCCTGTCTTTCCCTATTTGCCTCTCCTTTCTCTC
TGTCCTGTCGTCTCTTGTCCCTCGGCCCTCCCTGGTTTTGTCTAGTCTCCCTGTCTCTCCTGATTTCTTCTCTTT
ACTCATTCTCCCGGGCAGGTCCCACTGGAAGGACCAGACTCTCCCAAATAAATCCCCACACGAACAAAATCCAAA
ACCAAATCCCCCTCCCTACCGGAGCCGGGACCCTCCGCCGCAGCAGAATTAAACTTTTTTCTGTGTCTGAGGCCC
TGCTGACCTGTGTGTGTGTCTGTATGTGTGTCCGCGTGTAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG
TGTGTGTTGGGGGAGGGTGACCTAGATTGCAGCATAAGGACTCTAAGTGAGACTGAAGGAAGATGGGAAGATGAC
TAACTGGGGCCGGAGGAGACTGGCAGACAGGCTTTTATCCTCTGAGAGACTTAGAGGTGGGGAATAATCACAAAA
ATAAAATGATCATAATAGCT

FIGURE 438

GGCGGCGGTGGTCGGTGCGGGAGGAGGGAGGGGAGCTTGCGGGCCCGAGAGGGGGCGACGGCGGCGGCGGTGGCC
TGAGGAGGCCCGAGCGGCGGCGGTGGCGGCGAAGGCCGAGGCGTCTAGGTGTTTTTGGAAGAGCTGAGGCCAGAG
CCGGGACCATGTGACGGCGCTGGCCCTCGCCACCGCCGTCCCCCGACCCTGGCCCCAGGCCCGGCACC**ATG**ATGT
TCCGAGACCAGGTGGGCATCCTCGCTGGCTGGTTCAAAGGCTGGAATGAGTGTGAGCAGACAGTGGCCCTCCTGT
CACTTCTGAAACGGGTCACCCGTACCCAGGCCCGCTTCCTGCAGCTCTGCCTGGAGCACTCACTGGCGGACTGCA
ATGACATCCACCTGCTGGAGTCGGAGGCCAACAGTGCTGCCATCGTCAGCCAGTGGCAGCAGGAGTCCAAAGAGA
AGGTGGTGTCCCTCCTGCTGTCCCACCTTCCCCTGCTTCAGCCAGGCAACACAGAGGCCAAGTCGGAGTACATGA
GGCTACTGCAGAAAGTGCTGGCCTACTCAATCGAGAGCAATGCTTTCATCGAGGAGAGTCGCCAGCTGCTTTCCT
ATGCCCTCATCCACCCAGCCACCACACTGGAGGACCGCAACGCACTGGCCCTCTGGCTGAGCCACCTGGAAGAGC
GGTTGGCTAGTGGCTTCCGCTCCCGGCCAGAGCCCTCCTACCATTCACGTCAAGGCTCAGATGAGTGGGGGGGCC
CTGCAGAGCTAGGCCCTGGGGAGGCAGGGCCAGGCTGGCAGGACAAGCCACCCCGGGAAAATGGACACGTGCCCT
TCCACCCATCCAGCTCAGTGCCGCCAGCCATCAACAGTATTGGGAGCAATGCAAACACAGGTCTCCCCTGCCAAA
TCCACCCTAGCCCACTGAAGCGCTCCATGTCACTCATCCCTACAAGCCCCCAGGTCCCTGGTGAGTGGCCGAGTC
CAGAGGAGCTTGGGGCCCGGGCTGCTTTTACCACGCCCGATCACGCACCTCTCTCGCCCCAGAGCAGCGTGGCCT
CCTCTGGCAGTGAGCAGACAGAGGAGCAGGGCTCCAGCCGGAACACCTTCCAGGAGGATGGCAGTGGCATGAAAG
ATGTGCCCTCATGGCTCAAGAGCCTCCGTTTGCACAAGTATGCAGCCCTCTTCTCACAGAATCAGCTT**TGA**GTAA
CTGTACAGTTTTTCTCGCTGTTGGAGAAGACTTATTTGTTGGAGTTTCACTTGTTTAATGGTCTGGGCTTATTTT
GGAAAAAAAAAAAACAAACAAAAAAAACGAATTCTGACCTT

FIGURE 439

AGTTGGTGGAACCGGAGCTTCGAGTCCGTCCCCGGTGCTGCCTGCGCGTTCACCTGAGTCTCGCTGGAGCTCTTC
TCGCCCGCCCACCTCATCTCAACCCACTTTCCGCGGGGAGCGGCGCCAAGCTGGGCCTTCCTCGGATCAGGCGTC
CCCTGAAGTCGGCACGCCCCTCTGCGTCCCCCTTCGGTCCCGCTAGGACCCCGTCCGGGCTGCCGTCGCCTCGTC
GCT**ATG**GCGCCCACCATCCAGACCCAGGCCCAGCGGGAGGATGGCCACAGGCCCAATTCCCACCGGACTCTGCCT
GAGAGGTCTGGAGTGGTCTGCCGAGTCAAGTACTGCAATAGCCTCCCTGATATCCCCTTCGACCCCAAGTTCATC
ACCTACCCCTTCGACCAGAACAGGTTCGTCCAGTACAAAGCCACTTCCTTGGAGAAACAGCACAAACATGACCTC
CTGACTGAGCCAGACCTGGGGGTCACCATCGATCTCATCAATCCTGACACCTACCGCATCGACCCCAATGTTCTT
CTAGATCCAGCTGATGAGAAACTTTTGGAAGAGGAGATTCAGGCCCCCACCAGCTCCAAGAGATCCCAGCAGCAC
GCGAAGGTGGTGCCATGGATGCGAAAGACAGAGTACATCTCCACTGAGTTCAACCGTTATGGCATCTCCAATGAG
AAGCCTGAGGTCAAGATTGGGGTTTCTGTGAAGCAGCAGTTTACCGAGGAAGAAATATACAAAGACAGGGATAGC
CAGATCACAGCCATTGAGAAGACTTTTGAGGATGCCCAGAAATCAATCTCACAGCATTACAGCAAACCCCGAGTC
ACACCGGTGGAGGTCATGCCTGTCTTCCCAGACTTTAAGATGTGGATCAATCCATGTGCTCAGGTGATCTTTGAC
TCAGACCCAGCCCCCAAGGACACGAGTGGTGCAGCTGCGTTGGAGATGATGTCTCAGGCCATGATTAGGGGCATG
ATGGATGAGGAAGGGAACCAGTTTGTGGCCTATTTCCTGCCTGTAGAAGAGACGTTGAAGAAACGAAAGCGGGAC
CAGGAGGAGGAGATGGACTATGCACCAGATGATGTGTATGACTACAAAATTGCTCGGGAGTACAACTGGAACGTG
AAGAACAAAGCTAGCAAGGGCTATGAGGAAAACTACTTCTTCATCTTCCGAGAGGGTGACGGGGTTTACTACAAT
GAGTTGGAAACCAGGGTCCGCCTTAGTAAGCGCCGGGCCAAGGCTGGGGTTCAGTCAGGCACCAACGCCCTGCTT
GTGGTCAAACATCGGGACATGAATGAGAAGGAACTGGAAGCTCAGGAGGCACGGAAGGCCCAGCTAGAAAACCAC
GAACCGGAGGAGGAAGAGGAAGAGGAGATGGAGACAGAAGAGAAAGAAGCTGGGGGCTCAGATGAGGAGCAGGAG
AAGGGCAGCAGCAGTGAGAAGGAGGGCAGTGAAGATGAGCACTCGGGCAGCGAGAGTGAACGGGAGGAAGGTGAC
AGGGACGAGGCCAGTGACAAGAGTGGCAGTGGTGAGGACGAGAGCAGCGAGGATGAGGCCCGGGCTGCCCGTGAC
AAAGAGGAGATCTTTGGCAGTGATGCTGATTCTGAGGACGATGCCGACTCTGATGATGAGGACAGAGGACAGGCC
CAAGGTGGCAGTGACAATGATTCAGACAGCGGCAGCAATGGGGGTGGCCAGCGGAGCCGGAGCCACAGCCGCAGC
GCCAGTCCCTTCCCCAGTGGCAGCGAGCACTCGGCCCAGGAGGATGGCAGTGAAGCTGCAGCTTCTGATTCCAGT
GAAGCTGATAGTGACAGTGAC**TGA**GTCCCAGGGCATTCAGGGCTGGTTCAGACACCATTATTGTGAGCAGCAAAG
CACTTTTCTAGTGGTCTGTTTGTGAGCCTTTCACTTGTTTGTTCCCCACCCCCAAACCTTTGCTGTTAATAAAGT
CAACTTCTCTTTA

FIGURE 440

GGGGTTTACTACAATGAGTTGGAAACCAGGGTCCGCCTTAGTAAGCGCCGGGCCAAGGCTGGGGTTCAGTCAGGC
ACCAACGCCCTGCTTGTGGTCAAACATCGGGAC**ATG**AATGAGAAGGAACTGGAAGCTCAGGAGGCACGGAAGGCC
CAGCTAGAAAACCACGAACCGGAGGAGGAAGAGGAAGAGGAGATGGAGACAGAAGAGAAAGAAGCTGGGGGCTCA
GATGAGGAGCAGGAGAAGGGCAGCAGCAGTGAGAAGGAGGGCAGTGAAGATGAGCACTCGGGCAGCGAGAGTGAA
CGGGAGGAAGGTGACAGGGACGAGGCCAGTGACAAGAGTGGCAGTGGTGAGGACGAGAGCAGCGAGGATGAGGCC
CGGGCTGCCCGTGACAAAGAGGAGATCTTTGGCAGTGATGCTGATTCTGAGGACGATGCCGACTCTGATGATGAG
GACAGAGGACAGGCCCAAGGTGGCAGTGACAATGATTCAGACAGCGGCAGCAATGGGGGTGGCCAGCGGAGCCGG
AGCCACAGCCGCAGCGCCAGTCCCTTCCCCAGTGGCAGCGAGCACTCGGCCCAGGAGGATGGCAGTGAAGCTGCA
GCTTCTGATTCCAGTGAAGCTGATAGTGACAGTGAC**TGA**GTCCCAGGGCATTCAGGGCTGGTTCAGACACCATTA
TTGTGAGCAGCAAAGCACTTTTCTAGTGGTCTGTTTGTGAGCCTTTCACTTGTTTGTTCCCCACCCCCAAACCTT
TGCTGTTAATAAAGTCAACTTCTCTTT

FIGURE 441

AGGCCCAGCGGGAGGATGGCCACAGGTCTGGAGTGGTCTGCCGAGTCAAGTACTGCAATAGCCTCCCTGATATCC
CCTTCGACCCCAAGTTCATCACCTACCCCTTCGACCAGAACAGGTTCGTCCAGTACAAAGCCACTTCCTTGGAGA
AACAGCACAAACATGACCTCCTGACTGAGCCAGACCTGGGGGTCACCATCGATCTCATCAATCCTGACACCTACC
GCATCGACCCCAATGTTCTTCTAGATCCAGCTGATGAGAAACTTTTGGAAGAGGAGATTCAGGCCCCCACCAGCT
CCAAGAGATCCCAGCAGCACGCGAAGGTGGTGCCATGG**ATG**CGAAAGACAGAGTACATCTCCACTGAGTTCAACC
GTTATGGCATCTCCAATGAGAAGCCTGAGGTCAAGATTGGGGTTTCTGTGAAGCAGCAGTTTACCGAGGAAGAAA
TATACAAAGACAGGGATAGCCAGATCACAGCCATTGAGAAGACTTTTGAGGATGCCCAGAAATCAATCTCACAGC
ATTACAGCAAACCCCGAGTCACACCGGTGGAGGTCATGCCTGTCTTCCCAGACTTTAAGATGTGGATCAATCCAT
GTGCTCAGGTGATCTTTGACTCAGACCCAGCCCCCAAGGACACGAGTGGTGCAGCTGCGTTGGAGATGATGTCTC
AGGCCATGATTAGGGGCATGATGGATGAGGAAGGGAACCAGTTTGTGGCCTATTTCCTGCCTGTAGAAGAGACGT
TGAAGAAACGAAAGCGGGACCAGGAGGAGGAGATGGACTATGCACCAGATGATGTGTATGACTACAAAATTGCTC
GGGAGTACAACTGGAACGTGAAGAACAAAGCTAGCAAGGGCTATGAGGAAAAC**TAA**TACTTCATCTTC

FIGURE 442

GTCGTAACGCACTTCCGGCGGTCTACGCGAGGAAG**ATG**GCTGCATCCCAGCAGCAAGCTTCAGCGGCTTCCTCAG
CTGCTGGTGTATCGGGTCCTAGTTCGGCTGGCGGCCCGGGTCCCCAGCAGCAGCCGCAACCGCCAGCACAACTGG
TGGGCCCTGCCCAGAGCGGCCTCCTGCAGCAACAGCAACAGGACTTCGATCCTGTGCAGCGTTATAAGATGCTCA
TCCCGCAGCTGAAGGAGAGTCTACAGACCTTGATGAAGGTTGCGGCCCAAAACTTGATTCAGAACACTAACATCG
ACAATGGACAAAAGAGCAGTGATGGACCCATACAGCGCTTTGACAAGTGCCTGGAAGAGTTCTATGCACTCTGTG
ACCAGCTGGAGCTGTGCCTGCGCCTGGCGCATGAGTGCCTGTCACAGAGTTGTGACAGTGCCAAGCACTCTCCAA
CGTTGGTGCCCACAGCCACCAAGCCCGACGCAGTGCAGCCTGACAGCCTCCCCTACCCACAGTACCTGGCGGTCA
TCAAAGCCCAGATTTCCTGTGCCAAGGACATTCACACCGCCCTGCTGGACTGTGCCAACAAGGTCACGGGCAAGA
CACCCGCACCACCTGCTGGCCCTGGGGGCACTCTG**TGA**AGTGGGGGACAGGGAGTGGGGCAGGCAGTGGTTGGTG
GGTGGTGTGCAAAGGGAATGAAGAGCGTCCTGGGCCTAAACACAGCAGCCTCCTCTCTTCCTGCCTGAGCACCGC
AGCGGGAGCCAGCAGGGGGCAGCAGAGGCCAACAGGGAGCTCGCAGGCCGGGCCCCTGCGTCCCTGCCCCTTCTT
CCTGCTCCCCCTCCTAGCCTAGGGTAGACTTTGAACTGTGTGTGTTGATGACTTCTCTGTTCCACAGGCCCTCCC
CCATTCTTGCCTGGGTGTGGAGCCCTGGCTGTCCCCTCTCCCTCAGTCCTTCCTGACTGTCTCCAGCTGGGAGGT
GGTCTCTGTGTGCCACTCCTCTGTGTCTCTATTACAGTTGTGTCTCTCTCATCCTGTCTCTTTTTCCCTTGTTTC
TCTGTTCCTGTTAATGTGTTTCTCCCCATGGTCCTATTTCTCTCACTCTGACCTCTCTCTCTTAGTCCCCTTTAG
CTGTCTTCTATCCCCAGCTCCTAACTGGGACTCTGTGTCTATGCAGGGGGCCAGCACCCCTGGGTTATCTGGGGC
TAAGGGAAGGGACTTCATTTCCAGGGGCCACAGCCAAGCCCAGAGTCCCCCAGCGGCTCGCATGTCAGCCCAGAC
CCCAGGGTCCTTGGCCTAGGAGAGGAGCAGTGGAGGGGCCCAGGCTCTGAGCTCCACAGGTCTGAGCTGGGAGCA
ACTCAGGCCCCCACCCAAGCCTGCGTCAGCGGAACTTGAGTGAGGGGCGTTGTGCAATTTGTGGCAAGGCTGGCC
CAGCTGGATGCCTGGGTCCCAGTATTTTTAGCCCCAAAGGAGAAGTGAAAAGGCCCCAGCCGGGGTGAATCATCA
GTCCTGGGGAAGAACCCAGGCGCCTGAGCCCCAGCTCCGGGAAGCAGGCACTGGGGAGGGGGCTTCAAGGAGGGA
GTGCCCCCTCAGACTCCCTGCTTCCCTGGAAGCTTCAGGAAGCTCAGCCTCAGCCTTCAGGCCTGAGCAAGTGCA
GGGCGGAGCTACCAGCCCAGGCTCAGATGTTGGGGTGTGAAAGCCTCAAGTGACTCAGCCTGGTTGGAGAACTGC
CCCACCCAGTATCTTCTGTGCCATGGTTCCCACATTCGCACTCCATGGCCTCCTGTCCTGGACCCCACGTCTGCA
AGGAAACCCTAGGACCATGGATACCTCTGTGATTCACGCTGAGCCCAAGTCCCCACACTGGAAAACTGGGAAATG
GCCAGCTGTGTGTCCCAGGAAATTCCTCCCCTTATTCTTCCTTGAAGTGCCCGAGCATGTAGGGCAAGAAGGAAG
GCTGAAGCGCTGTCCCTAGGAGGAATTTCTCCTTCAGGGAAGCCTCAGTTTTGCCCATTTATCTAATTGAATCAG
TTTTTTACCCAATCCCCCGATTTTGTAGGATAATCTCCCTTATCTAAAGTCAACTGATTATGGACTTTAATCACA
TCTACAAAACACTTCCATGGCGACAGCTAGATGAGTGTTTGAATAACTGGGACTGTAGCCCGTCCAAGTTGACAC
ATAAAACTGACCATCGGGCCGGGGGCGGTGGCTCACGCCTGTAATCCCAACACTTTGGGAGCCCGAGGCGGGCGG
ATCACAAGGTCAGGAGTTCGAGACCAGCCTGGCCAACACGGTGAAACCCCGACTCTACTAAAAATACAAAAAATT
AGCTGGGTGTGGTGGCACACACCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGTTTGAACCTGGG
AGGCAGAGGTTGCAGTGAGCCAAGATCACACTATTGCACTCCAGCCTGGGCGACAGGGCAAGACTCTGTCTCAAA
AAAAATAAAAAACTGACCATCTAGTCCTTGTCATCTGGGCACCCTCACACATCTCCTTAACCACACTTAATCTCC
AAATAAGTACGATAACATAGTCATAGTCCCACCCAACATGATGCAGTTATCTTGCATACAACTGAAGACAACTAA
CCCTTTCCCCAACAGAGCCCACCAGCAGTGGTGGAGATGTCGGTCCATGAGCGCACACACAAGACTGAGGGACTG
TCGGCCCTCCCAGGTGGTGTCAACACAACATCACACACAGGTGGGGGGGCCTGATAGCCCAGCACCCATGATACA
GGGCCTACCAATGCTTAAAACCACACCCAGGGAGCCCACAGAGGCACTCAGTGGGTGGTGGGGTGATGGATACAC
ATCTATCAGGCACAGGGCGGAGGTGGGCACCACTGAGTTGCACTCAGCAAACACATTGGGTATCTTGTGCCCAAG
GCCTGTATTTGTGGAGCTGATGTTCTAGTGAGAGACAGTAAATGTGACAAAAGTAAAATATATCAGATGGTGAGA
AAACAGAAAAATGAGATCAGAAGTGGAGATGTTGGGGCCAGGCACAGTGGCCCAGGCCTGTAATCCCATCACTTT
GGGAGGTGCAGGCAGGCAGATGGCTTGAGCCCAGGAATTCAAGACCAGTCCGAGCAACATAGCAAAAGCCCTTAT
CTGCAAAAAATTCAAAAATTAGCCAGGTGTGGTGGTGCGTGCCCAGGTTCCCAGGTACTCGGAGGCTGAGAGGTG
GGAGGATGCCTTGAGCTTGAGAGGTTGAAGCTGCAGTGAGCTGTGATCGCACCACTGCACTCCAGCTTGGTTCAT
GGAGACCCTGTTTTTTTAAAAAAAGAAGTGGAGGTGTTTACACCAGCAAAATACTCATTTTTTAAGTGTAATTAA
GTTGAAGATCAAAAAATGGAAATGTATAATTAAATCATACTTAGCAAATCTAACACATGAAATGTAACATCTGCA
TATGGAGAATCGTGTTACTTTATTGAAAAACATTAAAAGTTTGAGAACTT

FIGURE 443

AGCCTGACTTCAGCGCTCCCACTCTCGGCCGACACCCCTCATGGCCAACCGTTACACC**ATG**GATCTGACTGCCAT
CTACGAGAGCCTCCTGTCGCTGAGCCCTGACGTGCCCGTGCCATCCGACCATGGAGGGACTGAGTCCAGCCCAGG
CTGGGGCTCCTCGGGACCCTGGAGCCTGAGCCCCTCCGACTCCAGCCCGTCTGGGGTCACCTCCCGCCTGCCTGG
CCGCTCCACCAGCCTAGTGGAGGGCCGCAGCTGTGGCTGGGTGCCCCCACCCCCTGGCTTCGCACCGCTGGCTCC
CCGCCTGGGCCCTGAGCTGTCACCCTCACCCACTTCGCCCACTGCAACCTCCACCACCCCCTCGCGCTACAAGAC
TGAGCTATGTCGGACCTTCTCAGAGAGTGGGCGCTGCCGCTACGGGGCCAAGTGCCAGTTTGCCCATGGCCTGGG
CGAGCTGCGCCAGGCCAATCGCCACCCCAAATACAAGACGGAACTCTGTCACAAGTTCTACCTCCAGGGCCGCTG
CCCCTACGGCTCTCGCTGCCACTTCATCCACAACCCTAGCGAAGACCTGGCGGCCCCGGGCCACCCTCCTGTGCT
TCGCCAGAGCATCAGCTTCTCCGGCCTGCCCTCTGGCCGCCGGACCTCACCACCACCACCAGGCCTGGCCGGCCC
TTCCCTGTCCTCCAGCTCCTTCTCGCCCTCCAGCTCCCCACCACCACCTGGGGACCTTCCACTGTCACCCTCTGC
CTTCTCTGCTGCCCCTGGCACCCCCCTGGCTCGAAGAGACCCCACCCCAGTCTGTTGCCCCTCCTGCCGAAGGGC
CACTCCTATCAGCGTCTGGGGGCCCTTGGGTGGCCTGGTTCGGACCCCCTCTGTACAGTCCCTGGGATCCGACCC
TGATGAATATGCCAGCAGCGGCAGCAGCCTGGGGGGCTCTGACTCTCCCGTCTTCGAGGCGGGAGTTTTTGCACC
ACCCCAGCCCGTGGCAGCCCCCCGGCGACTCCCCATCTTCAATCGCATCTCTGTTTCTGAG**TGA**CAAAGTGACTG
CCCGGTCAGATCAGCTGGATCTCAGCGGGGAGCCACGTCTCTTGCACTGTGGTCTCTGCATGGACCCCAGGGCTG
TGGGGACTTGGGGGACAGTAATCAAGTAATCCCCTTTTCCAGAATGCATTAACCCACTCCCCTGACCTCACGCTG
GGGCAGGTCCCCAAGTGTGCAAGCTCAGTATTCATGATGGTGGGGGATGGAGTGTCTTCCGAGGTTCTTGGGGGA
AAAAAAATTGTAGCATATTTAAGGGAGGCAATGAACCCTCTCCCCCACCTCTTCCCTGCCCAAATCTGTCTCCTA
GAATCTTATGTGCTGTGAATAATAGGCCTTCACTGCCCCTCCAGTTTTTATAGACCTGAGGTTCCAGTGTCTCCT
GGTAACTGGAACCTCTCCTGAGGGGGAATCCTGGTGCTCAAATTACCCTCCAAAAGCAAGTAGCCAAAGCCGTTG
CCAAACCCCACCCATAAATCAATGGGCCCTTTATTTATGACGACTTTATTTATTCTAATATGATTTTATAGTATT
TATATATATTGGGTCGTCTGCTTCCCTTGTATTTTTCTTCCTTTTTTTTGTAATATTGAAAACGACGATATAATTA
TTATAAGTAGACTATAATATATTTAGTAATATATATTATTACCTTAAAAGTCTATTTTTGTGTTTTGGGCATTTT
TAAATAAACAATCTGAGTGT

FIGURE 444

GAATTAGGGGAACTCAGAAATCCATCCCCCACCCCACGGCCCTACCTAGAAGACTTAGGAATGTGGGTCCCCAGC
GCCGCCATCTGAGACTCCAGAGTCGAGGCTCCTAGCATCCCCTACGTAGAACACTGAGAAATTCCGACTGCGGGA
CCCCAGTCTCCGAGAGACCCCAGATTCTATTCCTGGAGCCTGAGAGCCCGAAGTTCACGCCCCTGAGTCTGGGCT
CCGCACCTCCCTGGGGACCGCGTCGGGGTCGCGCAGGAGCCGGGCTGCCTCGAGCCGGGGCTGGAGGCTCCCCGG
GAGGACTCTGCTGGGCCGCTCAGCC**ATG**CCTGAGGGAGCCCAAGGACTGAGCCTCTCCAAACCTAGCCCAAGCCT
CGGGTGTGGCCGAAGAGGTGAAGTGTGTGACTGTGGCACCGTGTGTGAGACTCGGACAGCTCCTGCAGCCCCCAC
CATGGCCTCCCCCCGAGGTTCTGGGAGCTCCACATCCCTGAGCACAGTGGGCTCTGAGGGGGATCCAGCCCCTGG
GCCCACTCCAGCCTGCTCAGCCTCCAGGCCAGAGCCCCTTCCAGGGCCTCCCATCCGCCTACATCTCTCTCCGGT
GGGGATCCCAGGTTCAGCCAGACCCTCAAGGCTGGAGCGTGTGGCCCGGGAGATCGTGGAGACAGAACGGGCCTA
TGTCAGGGACCTCCGCAGCATCGTGGAGGACTACCTGGGCCCTCTGCTGGACGGCGGGGTCCTGGGGCTGAGCGT
GGAGCAGGTGGGCACGCTGTTTGCCAACATTGAGGACATCTACGAGTTCAGCAGCGAGCTCCTGGAGGACTTGGA
GAACAGCAGCAGCGCCGGGGGTATTGCCGAGTGCTTCGTGCAGAGGAGCGAGGATTTTGACATCTACACATTGTA
CTGCATGAACTACCCGAGCTCCCTGGCCCTGCTCCGGGAGCTGTCGTTGTCTCCGCCAGCAGCCCTGTGGCTGCA
GGAGCGCCAGGCCCAGCTTCGCCACTCGCTGCCCCTGCAGAGCTTCCTGCTGAAACCTGTCCAGCGCATTCTCAA
GTACCATCTGCTGCTGCAGGAACTAGGGAAGCACTGGGCGGAGGGCCCAGGCACTGGGGGTCGCGAGATGGTGGA
GGAAGCTATTGTGTCCATGACAGCGGTTGCCTGGTACATCAACGACATGAAGCGCAAGCAGGAGCATGCAGCGCG
CCTCCAGGAAGTGCAGCGGCGGCTGGGTGGCTGGACCGGACCAGAGCTCAGTGCTTTTGGGGAACTGGTGTTGGA
GGGCGCGTTCCGAGGAGGCGGAGGGGGTGGCCCCCGGCTACGAGGGGGTGAGCGGCTGCTCTTCCTGTTCTCTCG
GATGCTGCTGGTGGCCAAGCGCAGGGGGCTGGAGTACACCTACAAAGGCCACATCTTCTGCTGCAACCTGAGCGT
GAGCGAGAGTCCCCGAGACCCTCTAGGGTTCAAGGTGTCTGATCTGACCATTCCCAAGCACAGACACCTGCTCCA
GGCCAAGAACCAAGAAGAGAAGAGGCTGTGGATTCACTGTCTCCAGCGCCTCTTCTTTGAGAACCACCCTGCCTC
CATCCCTGCCAAGGCAAAGCAAGTTCTCCTTGAAAACAGCCTGCATTGTGCCCCCAAAAGTAAGCCTGTCCTAGA
GCCCCTGACACCCCCACTTGGGTCTCCTCGACCTCGAGATGCTAGAAGTTTTACCCCTGGGCGAAGGAACACAGC
TCCATCTCCTGGGCCCTCTGTGATTCGCCGAGGCCGCAGGCAGTCTGAGCCGGTGAAGGACCCTTATGTCATGTT
CCCACAGAACGCTAAGCCTGGATTCAAGCACGCTGGCAGCGAAGGGGAACTCTACCCTCCAGAATCTCAGCCACC
AGTTTCAGGCTCTGCACCCCCTGAGGACCTGGAGGATGCTGGACCCCCAACACTGGACCCCTCTGGGACCTCAAT
CACTGAAGAAATCCTGGAACTGCTGAATCAGCGAGGCCTTCGAGATCCAGGGGAATCTATGGGCCTTCACAGGGC
CCAGGGGGCTCCTGATGCCCCCTTCCACATG**TGA**GCCAGGACATGAGGCTTCCCTGAAGCAAGGATTTCAGCCAG
ATGCCATAGACCCTCAGAACTTGACCTGGAAGTCCAGACACTGAACGCAGGCCTCAAAACTGCTGCGGCCTTCCA
ACTCCTGGTATCTGCATCGGCGAATGGCCCTTCTTGCCTTGATCCACAGGGATGGGGAAGGGAGGAATGTCATTA
ATGTTTTGTTAATACTGATTCTTTCATGC

FIGURE 445

GGTGGCCCCTAGCTTTCCTTTTCCGGTTGCGGCGCCGCGCGGTGAGGTTGTCTAGTCCACGCTCGGAGCC**ATG**CC
GTCCAAGGGCCCGCTGCAGTCTGTGCAGGTCTTCGGACGCAAGAAGACAGCGACAGCTGTGGCGCACTGCAAACG
CGGCAATGGTCTCATCAAGGTGAACGGGCGGCCCCTGGAGATGATTGAGCCGCGCACGCTACAGTACAAGCTGCT
GGAGCCAGTTCTGCTTCTCGGCAAGGAGCGATTTGCTGGTGTAGACATCCGTGTCCGTGTAAAGGGTGGTGGTCA
CGTGGCCCAGATTTATGCTATCCGTCAGTCCATCTCCAAAGCCCTGGTGGCCTATTACCAGAAATATGTGGATGA
GGCTTCCAAGAAGGAGATCAAAGACATCCTCATCCAGTATGACCGGACCCTGCTGGTAGCTGACCCTCGTCGCTG
CGAGTCCAAAAAGTTTGGAGGCCCTGGTGCCCGCGCTCGCTACCAGAAATCCTACCGA**TAA**GCCCATCGTGACTC
AAAACTCACTTGTATAATAAACAGTTTTTGAGGGATTTTAAAGTTTCAAAAAAAAAAAAAAAAAAAA

FIGURE 446A

AGAGAACAGATTCGGAAACTGGGGAGGTCTAGCATGTGGCGTAGGAGGGGGTCCTCACTCCGCTTCGCGATTGCC
AAAACGAGCCTGCCGGAAGCGCCCTAAGGGGTTTTCTTCTCCCAGGGAACCAGCGGGGAAACTGAGGCTCGGGGT
GGAGCGCAGGATTGTGGGACGCGCCAAGGCTGCTGTCTTTCCCAGCAGCAGCGGAAGATGTCGGACAGCGAGGAC
AGCAACTTTTCCGAGGAGGAGGACAGCGAGCGCAGCAGTGACGGCGAGGAGGCCGAGGTAGACGAAGAGCGGCGG
AGTGCAGCGGGCAGTGAGAAAGAAGAAGAGCCTGAGGACGAAGAGGAGGAGGAAGAGGAGGAGGAATACGATGAG
GAAGAGGAGGAAGAAGATGATGACCGACCCCCCAAGAAACCCCGCCATGGAGGCTTCATTCTGGACGAGGCTGAT
GTTGACGATGAGTATGAGGACGAGGACCAGTGGGAGGATGGAGCAGAGGACATTCTAGAGAAAGAAGAGATTGAA
GCCTCCAATATCGATAATGTTGTCCTGGATGAAGATCGTTCTGGGGCTCGCCGCCTGCAAAACCTCTGGAGGGAC
CAGCGAGAAGAAGAACTGGGCGAGTATTACATGAAGAAATACGCCAAGTCATCTGTGGGAGAGACGGTGTATGGA
GGATCTGATGAGCTCTCAGACGACATCACCCAGCAGCAGCTGCTCCCAGGAGTCAAGGATCCCAATCTGTGGACT
GTCAAATGTAAGATTGGGGAGGAACGGGCCACGGCCATTTCCTTGATGCGCAAGTTCATTGCCTACCAGTTCACA
GACACGCCCCTGCAGATCAAGTCAGTAGTGGCACCAGAGCATGTGAAGGGCTACATCTACGTGGAGGCCTACAAG
CAGACCCACGTGAAGCAGGCCATTGAGGGGGTGGGCAACCTGCGGCTTGGCTACTGGAACCAGCAGATGGTGCCC
ATCAAGGAGATGACAGACGTGCTCAAAGTGGTGAAGGAGGTGGCCAACCTGAAACCAAAGTCCTGGGTCCGCCTC
AAGCGGGGCATCTACAAGGATGACATTGCTCAGGTGGACTACGTGGAGCCCAGCCAGAACACCATCTCCCTGAAG
ATGATCCCACGCATCGACTACGATCGCATCAAGGCCCGCATGAGCTTGAAAGACTGGTTTGCCAAAAGGAAGAAG
TTTAAGCGGCCTCCACAGAGGCTGTTTGATGCTGAGAAGATCAGGTCCCTGGGGGGTGATGTTGCCTCTGATGGT
GACTTCCTCATCTTTGAGGGGAACCGTTACAGCCGGAAGGGCTTTCTGTTCAAGAGCTTCGCCATGTCTGCTGTG
ATCACGGAGGGTGTGAAGCCAACACTCTCTGAGCTGGAAAAGTTTGAGGACCAGCCAGAGGGCATTGACCTGGAG
GTGGTGACTGAGAGCACAGGGAAGGAGCGGGAGCACAACTTCCAACCTGGGGACAACGTGGAGGTCTGTGAGGGT
GAGCTCATCAACCTGCAGGGCAAGATCCTCAGCGTGGATGGCAACAAGATCACCATCATGCCCAAGCATGAGGAC
CTCAAGGACATGTTGGAGTTCCCAGCCCAGGAACTTAGAAAATACTTCAAGATGGGGGACCACGTGAAGGTGATT
GCTGGCCGATTCGAGGGCGACACAGGCCTCATTGTGCGGGTGGAGGAGAATTTCGTTATCCTGTTCTCTGACCTC
ACCATGCATGAGCTGAAGGTGCTCCCCCGGGACCTGCAGCTCTGCTCAGAGACAGCATCAGGTGTGGATGTTGGG
GGCCAGCATGAATGGGGCGAGCTGGTGCAGCTGGATCCCCAGACTGTGGGTGTCATCGTGCGACTAGAACGGGAG
ACCTTCCAGGTGCTGAACATGTACGGGAAGGTGGTGACTGTCAGACATCAGGCTGTGACCCGGAAGAAGGACAAC
CGCTTTGCTGTGGCCTTGGACTCAGAGCAGAACAACATCCATGTGAAAGACATCGTTAAGGTCATTGATGGCCCC
CACTCAGGCCGAGAAGGGGAGATTCGCCATCTCTTCCGAAGCTTCGCCTTCCTACATTGCAAGAAACTGGTGGAG
AACGGGGGCATGTTTGTCTGCAAGACCCGCCACCTGGTGCTGGCTGGGGGCTCAAAGCCCCGTGATGTGACCAAC
TTCACCGTGGGTGGCTTTGCGCCTATGAGTCCCCGGATCAGCAGCCCCATGCACCCCAGTGCTGGAGGTCAGCGT
GGCGGCTTTGGTAGCCCAGGTGGCGGCAGTGGTGGCATGAGCAGGGGCCGGGGCCGGAGGGACAACGAACTCATC
GGCCAGACCGTGCGCATCTCCCAGGGGCCCTACAAAGGCTACATCGGTGTGGTGAAAGATGCCACAGAGTCCACG
GCCCGTGTGGAGCTGCACTCCACCTGCCAGACCATCTCTGTGGACCGTCAGCGGCTCACCACGGTGGGCTCACGG
CGCCCGGGCGGCATGACCTCGACCTATGGGAGGACGCCCATGTATGGCTCCCAGACGCCCATGTATGGCTCTGGC
TCCCGAACACCCATGTACGGCTCACAGACACCCCTCCAGGATGGTAGCCGCACCCCACACTACGGCTCACAGACG
CCCCTGCATGATGGCAGCCGCACTCCTGCCCAGAGTGGGGCCTGGGACCCCAACAACCCCAACACGCCGTCACGG
GCTGAGGAAGAATATGAGTATGCTTTCGATGATGAGCCCACCCCGTCCCCGCAGGCCTATGGGGGAACCCCCAAT
CCCCAAACACCTGGCTACCCAGACCCCTCGTCCCCACAGGTCAACCCACAATACAACCCGCAGACGCCAGGGACG
CCGGCCATGTACAACACAGACCAGTTCTCTCCCTATGCTGCCCCCTCCCCACAAGGTTCCTACCAGCCCAGCCCC
AGCCCCCAGAGCTACCACCAGGTGGCGCCAAGCCCAGCAGGCTACCAGAATACCCACTCCCCAGCCAGCTACCAC
CCTACACCGTCGCCCATGGCCTATCAGGCTAGCCCCAGCCCGAGCCCCGTTGGCTACAGTCCTATGACACCTGGA
GCTCCCTCCCCTGGTGGCTACAACCCACACACGCCAGGCTCAGGCATCGAGCAGAACTCCAGCGACTGGGTAACC
ACTGACATTCAGGTGAAGGTGCGGGACACCTACCTGGATACACAGGTGGTGGGACAGACAGGTGTCATCCGCAGT
GTCACGGGGGGCATGTGCTCTGTGTACCTGAAGGACAGTGAGAAGGTTGTCAGCATTTCCAGTGAGCACCTGGAG
CCTATCACCCCCACCAAGAACAACAAGGTGAAAGTGATCCTGGGCGAGGATCGGGAAGCCACGGGCGTCCTACTG
AGCATTGATGGTGAGGATGGCATTGTCCGTATGGACCTTGATGAGCAGCTCAAGATCCTCAACCTCCGCTTCCTG
GGGAAGCTCCTGGAAGCCTGAAGCAGGCAGGGCCGGTGGACTTCGTCGGATGAAGAGTGATCCTCCTTCCTTCCC
TGGCCCTTGGCTGTGACACAAGATCCTCCTGCAGGGCTAGGCGGATTGTTCTGGATTTCCTTTTGTTTTTCCTTT

FIGURE 446B

TAGTTTTCCATCTTTTCCCTCCCTGGTGCTCATTGGAATCTGAGTAGAGTCTGGGGGGAGGGTCCCCACCTTCCTG
TACCTCCTCCCCACAGCTTGCTTTTGTTGTACCGTCTTTCAATAAAAAGAAGCTGTTTGGTCT

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FIGURE 447

CTCAGAGGCTGGAGGGATCCTCCGTATGCTGAACGCTGGTCCCCTGGGCCCCCTTTATTTCTTTCTCTATACTTT
GTTTCTGTGTCTTTTTCTCTTCCAAAGTCTCTCGTTCCACCTAACGAGAAACACCCACAGGTGTGGAGGGGCAAC
CCATCCCTTCAGACAATTGGGAGGTGAGGGCCGATTGCCTTACACGGTGAGACAAGCGGCCTGACTCGTGACTAT
TTTTTTGGACAAATCAGGCAGCCACTGACTCCCTTCATT**ATG**GCCTCAGCTTTATCTCTGGGCAATAAGTGTGAT
CCCTTCCTTCGCTGCGTCCTTTGCAGGGGCGGTGGCGCTCTGCAAGGCCCAAGGGGGCGTGGTCCAGATGACTTT
GAATCCCAGTTGTCGCCCCCAGGGTCAGCCAGGAGACTAGTCAGAAGCAAACGCGCCTGCGGCAATCCGCCCGAT
GCCTTTGGTCTCTCTCGGGCTTCCGTCCACCCGCCCCTCCCCCGCGTTTCCATTGGCTGTAGCTCCGGCCCGGGG
CGGGCGAAGAGGGAGCGAGTGGGCGGGGCCGCGTGGCGTCAGCGCAAGATGGCGGCCTCGGCAGCGGTGTTCTCG
CGCTTGCGAAGCGGGCTCCGGCTCGGCTCGCGGGGACTGTGCACGAGGTTGGCGACGCCGCCCCGCCGGGCCCCA
GATCAGGCCGCAGAGATCGGGAGCCGCGGGAGCACTAAGGCGCAAGGGCCACAGCAGCAGCCGGGCTCAGAGGGT
CCCAGCTATGCCAAAAAAGTTGCGCTCTGGCTTGCTGGGCTGCTTGGAGCTGGTGGGACTGTGAGCGTCGTCTAT
ATCTTTGGAAACAACCCGGTGGACGAAAATGGTGCCAAGATTCCTGATGAGTTCGACAATGATCCAATTCTGGTA
CAGCAGTTGCGCCGGACATACAAATATTTCAAAGATTATAGACAGATGATCATCGAGCCCACCAGCCCTTGCCTT
CTCCCAGACCCTCTGCAGGAACCGTACTACCAGCCACCCTACACGCTCGTTTTGGAGCTCACCGGCGTCCTCTTG
CATCCTGAGTGGTCGCTGGCCACTGGCTGGAGGTTTAAGAAGCGCCCAGGCATCGAGACCTTGTTCCAGCAGCTT
GCCCCTTTATATGAAATTGTCATCTTTACGTCAGAGACTGGCATGACTGCGTTTCCACTCATTGATAGTGTGGAC
CCCCATGGCTTCATCTCCTACCGCCTATTCCGGGACGCCACAAGATACATGGATGGACACCATGTAAAGGATATT
TCATGTCTGAATCGGGACCCAGCTCGAGTAGTAGTTGTGGACTGCAAGAAGGAAGCCTTCCGCCTGCAGCCCTAT
AACGGCGTTGCCCTGCGGCCCTGGGACGGCAACTCTGATGACCGGGTCTTGTTGGATCTGTCTGCCTTCCTCAAG
ACCATTGCACTGAATGGTGTGGAGGACGTGCGAACCGTGCTGGAGCACTATGCCCTGGAGGATGACCCGCTGGCG
GCTTTCAAACAGCGGCAAAGCCGGCTAGAGCAGGAGGAGCAGCAGCGCCTGGCCGAGCTCTCCAAGTCCAACAAG
CAGAACCTCTTCCTTGGCTCCCTCACCAGCCGCTTGTGGCCTCGCTCCAAACAGCCC**TGA**ACTCTGGGCCTCCTC
AAACTCAGTGCCTGGGTCCAGGGCCCCAGTGCTTCCAGACCAAGACTTGGGCCACCACTTGTCCAATAAAGTACA
TCCCAGACGCCACACCTGCTGTGTCCCGAGAGTCTCCAGATGGGGGCATCAGGGTGAGGTCCGGGACTCTTGGGT
CATCGTCCCACAGTGGCTGATCGGCTGCCAAGCACAGTGGGGGTGCTTTGTTGGATCAGAGCAGATTTTTCACCC
TGGTCTCGGAATCTAAAAACCCTCGCTGTGTCTTCCTGTGTGTTGCGTGATCTGTGAAAAATACATCTCCCTCTG
ACCACAGACTCCTCATCTGTGGAGAAGGGAAGAGAGGATGGCACTTGGCTTTAAAGACAGGTAGCTGCCAGGCTA
CTGTGGAGAGAATGTGTTATGGGCCTAGTGGGCCTCTGGTGGACCAGAGATTACCCCTCTCAACAGGCCAGCTGC
TGGTTGGCTCCAGCCAGTGTGGCCCTGGGGTAAAGGGGGCCTGGAGTTGCTTGACACGCCAGTTGTTCAAA

FIGURE 448

GAAGGCC**ATG**GTCTCCCCACGGATGTCCGGGCTCCTCTCCCAGACTGTGATCCTAGCGCTCATTTTCCTCCCCCA
GACACGGCCCGCTGGCGTCTTCGAGCTGCAGATCCACTCTTTCGGGCCGGGTCCAGGCCCTGGGGCCCCGCGGTC
CCCCTGCAGCGCCCGGCTCCCCTGCCGCCTCTTCTTCAGAGTCTGCCTGAAGCCTGGGCTCTCAGAGGAGGCCGC
CGAGTCCCCGTGCGCCCTGGGCGCGGCGCTGAGTGCGCGCGGACCGGTCTACACCGAGCAGCCCGGAGCGCCCGC
GCCTGATCTCCCACTGCCCGACGGCCTCTTGCAGGTGCCCTTCCGGGACGCCTGGCCTGGCACCTTCTCTTTCAT
CATCGAAACCTGGAGAGAGGAGTTAGGAGACCAGATTGGAGGGCCCGCCTGGAGCCTGCTGGCGCGCGTGGCTGG
CAGGCGGCGCTTGGCAGCCGGAGGCCCGTGGGCCCGGGACATTCAGCGCGCAGGCGCCTGGGAGCTGCGCTTCTC
GTACCGCGCGCGCTGCGAGCCGCCTGCCGTCGGGACCGCGTGCACGCGCCTCTGCCGTCCGCGCAGCGCCCCCTC
GCGGTGCGGTCCGGGACTGCGCCCCTGCGCACCGCTCGAGGACGAATGTGAGGCGCCGCTGGTGTGCCGAGCAGG
CTGCAGCCCTGAGCATGGCTTCTGTGAACAGCCCGGTGAATGCCGATGCCTAGAGGGCTGGACTGGACCCCTCTG
CACGGTCCCTGTCTCCACCAGCAGCTGCCTCAGCCCCAGGGGCCCGTCCTCTGCTACCACCGGATGCCTTGTCCC
TGGGCCTGGGCCCTGTGACGGGAACCCGTGTGCCAATGGAGGCAGCTGTAGTGAGACACCCAGGTCCTTTGAATG
CACCTGCCCGCGTGGGTTCTACGGGCTGCGGTGTGAGGTGAGCGGGGTGACATGTGCAGATGGACCCTGCTTCAA
CGGCGGCTTGTGTGTCGGGGGTGCAGACCCTGACTCTGCCTACATCTGCCACTGCCCACCCGGTTTCCAAGGCTC
CAACTGTGAGAAGAGGGTGGACCGGTGCAGCCTGCAGCCATGCCGCAATGGCGGACTCTGCCTGGACCTGGGCCA
CGCCCTGCGCTGCCGCTGCCGCGCCGGCTTCGCGGGTCCTCGCTGCGAGCACGACCTGGACGACTGCGCGGGCCG
CGCCTGCGCTAACGGCGGCACGTGTGTGGAGGGCGGCGGCGCGCACCGCTGCTCCTGCGCGCTGGGCTTCGGCGG
CCGCGACTGCCGCGAGCGCGCGGACCCGTGCGCCGCGCGCCCCTGTGCTCACGGCGGCCGCTGCTACGCCCACTT
CTCCGGCCTCGTCTGCGCTTGCGCTCCCGGCTACATGGGAGCGCGGTGTGAGTTCCCAGTGCACCCCGACGGCGC
AAGCGCCTTGCCCGCGGCCCCGCCGGGCCTCAGGCCCGGGGACCCTCAGCGCTACCTTTTGCCTCCGGCTCTGGG
ACTGCTCGTGGCCGCGGGCGTGGCCGGCGCTGCGCTCTTGCTGGTCCACGTGCGCCGCCGTGGCCACTCCCAGGA
TGCTGGGTCTCGCTTGCTGGCTGGGACCCCGGAGCCGTCAGTCCACGCACTCCCGGATGCACTCAACAACCTAAG
GACGCAGGAGGGTTCCGGGGATGGTCCGAGCTCGTCCGTAGATTGGAATCGCCCTGAAGATGTAGACCCTCAAGG
GATTTATGTCATATCTGCTCCTTCCATCTACGCTCGGGAGGTAGCGACGCCCCTTTTCCCCCCGCTACACACTGG
GCGCGCTGGGCAGAGGCAGCACCTGCTTTTTCCCTACCCTTCCTCGATTCTGTCCGTGAAA**TGA**ATTGGGTAGAG
TCTCTGGAAGGTTTTAAGCCCATTTTCAGTTCTAACTTACTTTCATCCTATTTTGCATCCCTCTTATCGTTTTGA
GCTACCTGCCATCTTCTCTTT

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FIGURE 449

GGGATGGGGGCGGAGTCCAGGGCGTGGGGGGGCCGGTTTGTTGTGGTCGCCATTTTGCTGGTTGCATTACTGGGT
AATCGGGGCCCTGGCTTGCCGCGTCCGCCGGATACCCTCAGCCAGTGGGCAGGTCTGAGCTCGGGCTCCCCGAGC
AGTTTGAGTCCCCTTGCCCGCTCCTTCAGGTCTCAGCGGCGGTGGCAGCCGAGGTGCAGGATGCAAGAAGGCGCC
CCCCGGCCGGGCTCCCGCTCCAGGCCTCGCTCCCCTGCGGCCCTCTGAGCCCACC**ATG**GCCGTCCCACCGGGCCA
TGGTCCCTTCTCTGGCTTCCCAGGGCCCCAGGAGCACACGCAGGTATTGCCTGATGTGCGGCTACTGCCTCGGAG
GCTGCCCCTGGCCTTCCGGGATGCAACCTCAGCCCCGCTGCGTAAGCTCTCTGTGGACCTCATCAAGACCTACAA
GCACATCAATGAGGTATACTATGCGAAGAAGAAGCGGCGGGCCCAGCAGGCGCCACCCCAGGATTCGAGCAACAA
GAAGGAGAAGAAGGTCCTGAACCATGGTTATGATGACGACAACCATGACTACATCGTGCGCAGTGGCGAGCGCTG
GCTGGAGCGCTACGAAATTGACTCGCTCATTGGCAAAGGCTCCTTTGGCCAGGTGGTGAAAGCCTATGATCATCA
GACCCAGGAGCTTGTGGCCATCAAGATCATCAAGAACAAAAAGGCTTTCCTGAACCAGGCCCAGATTGAGCTGCG
GCTGCTGGAGCTGATGAACCAGCATGACACGGAGATGAAGTACTATATAGTACACCTGAAGCGGCACTTCATGTT
CCGGAACCACCTGTGCCTGGTATTTGAGCTGCTGTCCTACAACCTGTACGACCTCCTGCGCAACACCCACTTCCG
CGGCGTCTCGCTGAACCTGACCCGGAAGCTGGCGCAGCAGCTCTGCACGGCACTGCTCTTTCTGGCCACGCCTGA
GCTCAGCATCATTCACTGCGACCTCAAGCCCGAAAACATCTTGCTGTGCAACCCCAAGCGCAGCGCCATCAAGAT
TGTGGACTTCGGCAGCTCCTGCCAGCTTGGCCAGAGGATCTACCAGTATATCCAGAGCCGCTTCTACCGCTCACC
TGAGGTGCTCCTGGGCACACCCTACGACCTGGCCATTGACATGTGGTCCCTGGGCTGCATCCTTGTGGAGATGCA
CACCGGAGAGCCCCTCTTCAGTGGCTCCAATGAGGTCGACCAGATGAACCGCATTGTGGAGGTGCTGGGCATCCC
ACCGGCCGCCATGCTGGACCAGGCGCCCAAGGCTCGCAAGTACTTTGAACGGCTGCCTGGGGGTGGCTGGACCCT
ACGAAGGACGAAAGAACTCAGGAAGGATTACCAGGGCCCCGGGACACGGCGGCTGCAGGAGGTGCTGGGCGTGCA
GACGGGCGGGCCCGGGGGCCGGCGGGCGGGGGAGCCGGGCCACAGCCCCGCCGACTACCTCCGCTTCCAGGACCT
GGTGCTGCGCATGCTGGAGTATGAGCCCGCCGCCCGCATCAGCCCCCTGGGGGCTCTGCAGCACGGCTTCTTCCG
CCGCACGGCCGACGAGGCCACCAACACGGGCCCGGCAGGCAGCAGTGCCTCCACCTCGCCCGCGCCCCTCGACAC
CTGCCCCTCTTCCAGCACCGCCAGCTCCATCTCCAGTTCTGGAGGCTCCAGTGGCTCCTCCAGTGACAACCGGAC
CTACCGCTACAGCAACCGATATTGTGGGGGCCCTGGGCCCCCTATCACAGACTGTGAGATGAACAGCCCCCAGGT
CCCACCCTCCCAGCCGCTGCGGCCCTGGGCAGGGGGTGATGTGCCCCACAAGACACATCAAGCCCCTGCCTCTGC
CTCGTCACTGCCTGGGACCGGGGCCCAGTTACCCCCCCAGCCCCGATACCTTGGTCGTCCCCCATCACCAACCTC
ACCACCACCCCCGGAGCTGATGGATGTGAGCCTGGTGGGCGGCCCTGCTGACTGCTCCCCACCTCACCCAGCGCC
TGCCCCCCAGCACCCGGCTGCCTCAGCCCTCCGGACTCGGATGACTGGAGGTCGTCCACCCCTCCCGCCTCCTGA
TGACCCTGCCACTCTGGGGCCTCACCTGGGCCTCCGTGGTGTACCCCAGAGCACAGCAGCCAGCTCG**TGA**CCCTG
CCCCCTCCCTGGGGCCCCTCCTGAAGCCATACCCTCCCCCATCTGGGGGCCCTGGGCTCCCATCCTCATCTCTCT
CCTTGACTGGAATTGCTGCTACCCAGCTGGGGTGGGTGAGGCCTGCACTGATTGGGGCCTGGGGCAGGGGGGTCA
AGGAGAGGGTTTTGGCCGCTCCCTCCCCACTAAGGACTGGACCCTTGGGCCCCTCTCCCCCTTTTTTTCTATTTA
TTGTACCAAAGACAGTGGTGGTCCGGTGGAGGGAAGACCCCCCCTCACCCCAGGACCCTAGGAGGGGGTGGGGGC
AGGTAGGGGGAGATGGCCTTGCTCCTCCTCGCTGTACCCCCAGTAAAGAGCTTTCTCACA

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FIGURE 450

CGGACTCCGGAGCCGCACAAACCAGGGCTCGCC**ATG**AAGCCAGGATTCAGTCCCCGTGGGGGTGGCTTTGGCGGC
CGAGGGGGCTTTGGTGACCGTGGTGGTCGTGGAGGCCGAGGGGGCTTTGGCGGGGGCCGAGGTCGAGGCGGAGGC
TTTAGAGGTCGTGGACGAGGAGGAGGTGGAGGCGGCGGCGGCGGTGGAGGAGGAGGAAGAGGTGGTGGAGGCTTC
CATTCTGGTGGCAACCGGGGTCGTGGTCGGGGAGGAAAAAGAGGAAACCAGTCGGGGAAGAATGTGATGGTGGAG
CCGCATCGGCATGAGGGTGTCTTCATTTGTCGAGGAAAGGAAGATGCACTGGTCACCAAGAACCTGGTCCCTGGG
GAATCAGTTTATGGAGAGAAGAGAGTCTCGATTTCGGAAGGAGATGACAAAATTGAGTACCGAGCCTGGAACCCC
TTCCGCTCCAAGCTAGCAGCAGCAATCCTGGGTGGTGTGGACCAGATCCACATCAAACCGGGGGCTAAGGTTCTC
TACCTCGGGGCTGCCTCGGGCACCACGGTCTCCCATGTCTCTGACATCGTTGGTCCGGATGGTCTAGTCTATGCA
GTCGAGTTCTCCCACCGCTCTGGCCGTGACCTCATTAACTTGGCCAAGAAGAGGACCAACATCATTCCTGTGATC
GAGGATGCTCGACACCCACACAAATACCGCATGCTCATCGCAATGGTGGATGTGATCTTTGCTGATGTGGCCCAG
CCAGACCAGACCCGGATTGTGGCCCTGAATGCCCACACCTTCCTGCGTAATGGAGGACACTTTGTGATTTCCATT
AAGGCCAACTGCATTGACTCCACAGCCTCAGCCGAGGCCGTGTTTGCCTCCGAAGTGAAAAAGATGCAACAGGAG
AACATGAAGCCGCAGGAGCAGTTGACCCTTGAGCCATATGAAAGAGACCATGCCGTGGTCGTGGGAGTGTACAGG
CCACCCCCCAAGGTGAAGAAC**TGA**AGTTCAGCGCTGTCAGGATTGCGAGAGATGTGTGTTGATACTGTTGCACGT
GTGTTTTTCTATTAAAAGACTCATCCGTC

FIGURE 451

CAACGGGGGCATCCACTACATCACCCTTGATGGCCGTGTCTACGACCTGCATGGCTCCTGCTCCTATGTCTTGGC
CCAAGTCTGCCACCCAAAGCCTGGGGACGAGGACTTTTCCATCGTGCTTGAGAAGAATGCAGCTGGAGATCTCCA
ACGCCTCCTGGTTACTGTGGCTGGCCAGGTTGTGAGCCTAGCTCAGGGGCAGCAGGTCACCGTGGACGGCGAGGC
TGTGGCCCTGCCTGTGGCTGTGGGCCGCGTGCGGGTGACCGCCGAGGGCCGAAAC**ATG**GTTCTGCAGACGACCAA
GGGGCTGCGGCTTCTCTTTGATGGCGATGCCCACCTCCTCATGTCCATCCCCAGCCCCTTCCGTGGACGGCTCTG
TGGCCTCTGTGGGAACTTCAATGGCAACTGGAGTGACGACTTTGTCCTGCCCAATGGCTCAGCAGCGTCCAGTGT
GGAGACCTTCGGGGCTGCATGGCGGGCGCCCGGCTCCTCCAAGGGCTGTGGCGAGGGCTGCGGGCCCCAAGGCTG
CCCAGTGTGCTTGGCAGAGGAGACTGCACCCTATGAGAGCAACGAGGCCTGCGGGCAGCTCCGGAACCCCCAGGG
CCCCTTCGCGACCTGCCAGGCGGTGCTGAGTCCCTCTGAGTACTTCCGCCAATGCGTATACGACCTGTGCGCGCA
AAAGGGTGACAAAGCCTTCCTGTGCCGCAGCCTGGCAGCCTACACGGCGGCCTGTCAGGCAGCTGGCGTGGCCGT
GAAGCCCTGGAGGACAGACAGCTTCTGCCCGCTCCATTGCCCCGCCCACAGCCACTACTCCATCTGCACTCGCAC
CTGCCAGGGATCCTGTGCGGCTCTCTCCGGCCTCACGGGCTGCACCACCCGCTGTTTTGAGGGCTGTGAGTGCGA
CGACCGCTTCCTGCTTTCCCAGGGTGTCTGCATCCCTGTCCAAGATTGTGGCTGCACCCATAATGGCCGATACTT
GCCGGTAAACTCCTCCCTGCTGACCTCAGACTGCAGCGAGCGCTGTTCCTGTTCCTCAAGCTCTGGCCTGACATG
CCAGGCAGCTGGCTGCCCACCAGGCCGTGTATGTGAGGTCAAGGCTGAAGCCCGGAACTGCTGGGCCACCCGTGG
TCTCTGTGTCCTGTCTGTGGGTGCCAACCTCACCACCTTTGATGGGGCCCGTGGTGCCACCACCTCTCCTGGTGT
CTATGAGCTCTCTTCCCGCTGCCCAGGACTACAGAATACCATCCCCTGGTACCGTGTAGTTGCCGAAGTCCAGAT
CTGCCATGGCAAAACGGAGGCTGTGGGCCAGGTCCACATCTTCTTCCAGGATGGGATGGTGACGTTGACTCCAAA
CAAGGGTGTGTGGGTGAATGGTCTCCGAGTGGATCTCCCAGCTGAGAAGTTAGCATCTGTGTCCGTGAGTCGTAC
ACCTGATGGCTCCCTGCTAGTCCGCCAGAAGGCAGGGGTCCAGGTGTGGCTTGGAGCCAATGGGAAGGTGGCTGT
GATTGTCAGCAATGACCATGCTGGGAAACTGTGTGGGGCCTGTGGAAACTTTGACGGGGACCAGACCAATGATTG
GCATGACTCCCAGGAGAAGCCAGCGATGGAGAAATGGAGAGCGCAGGACTTCTCCCCATGTTATGGC**TGA**TCAGT
CATCCACCAGGAACGAAGATTTCCTGAAGAAGACCTGGTCCCTCTGGAGGTTGCAGTGGCTGAAGGATGCATCAT
GTGCTCCTACCCTGCTCTACCGCTTTTCTGGGTCACAGAGGCCAAATGTGAGAGCATTGAATAAATATCTTAAGC
T

FIGURE 452A

CTGCAGCCATGGGTGCCCTATGGAGCTGGTGGATACTCTGGGCTGGAGCAACCCTCCTGTGGGGATTGACCCAGG
AGGCTTCAGTGGACCTCAAGAACACTGGCAGAGAGGAATTCCTCACAGCCTTCCTGCAGAACTATCAGCTGGCCT
ACAGCAAGGCCTACCCCCGCCTCCTTATCTCCAGTCTGTCAGAGAGCCCCGCTTCAGTCTCCATCCTCAGCCAGG
CAGACAACACCTCAAAGAAGGTCACAGTGAGGCCCGGGGAGTCGGTCATGGTCAACATCAGTGCCAAGGCTGAGA
TGATAGGCAGCAAGATCTTCCAGCATGCGGTGGTGATCCATTCTGACTATGCCATCTCTGTGCAGGCACTAAATG
CCAAGCCTGACACAGCGGAGCTGACACTGCTGCGGCCCATCCAGGCCCTAGGCACCGAGTATTTTGTGCTCACAC
CCCCCGGCACCTCAGCCAGGAATGTCAAGGAGTTTGCCGTGGTGGCCGGTGCCGCAGGTGCCTCGGTCAGTGTCA
CGCTGAAGGGGTCAGTGACATTCAATGGCAAGTTCTATCCAGCAGGCGATGTCCTAAGAGTGACTCTACAGCCCT
ACAATGTGGCCCAGCTACAGAGCTCAGTGGATCTCTCGGGGTCAAAGGTCACAGCTAGTAGCCCCGTGGCTGTCC
TCTCTGGCCACAGCTGTGCGCAGAAACATACGACCTGCAACCATGTGGTTGAGCAGCTGCTACCCACGTCTGCCT
GGGGCACCCACTATGTAGTACCCACGCTGGCCTCCCAATCTCGCTATGATTTGGCCTTCGTTGTGGCCAGCCAGG
CCACAAAGCTGACCTACAACCATGGGGGTATCACTGGCTCCCGTGGGCTCCAGGCAGGTGATGTGGTAGAGTTTG
AGGTCCGGCCATCCTGGCCACTCTACCTGTCTGCAAATGTGGGCATCCAGGTCCTGTTGTTTGGCACAGGTGCCA
TAAGGAATGAAGTGACTTATGACCCCTACCTGGTCCTGATCCCAGATGTGGCGGCCTACTGCCCAGCCTATGTGG
TCAAGAGTGTACCAGGCTGTGAGGGCGTGGCCCTGGTAGTGGCACAGACGAAGGCTATCAGCGGGCTGACCATAG
ATGGGCATGCAGTGGGGGCCAAGCTCACCTGGGAGGCTGTGCCAGGCAGTGAGTTCTCGTATGCTGAAGTGGAGC
TCGGCACAGCTGACATGATCCACACGGCCGAGGCCACCACCAACTTGGGACTGCTCACCTTCGGGCTGGCCAAGG
CTATAGGCTACGCAACAGCTGCTGATTGCGGCCGGACTGTACTGTCCCCAGTGGAGCCCTCCTGCGAAGGCATGC
AGTGCGCAGCCGGGCAGCGCTGCCAGGTGGTAGGCGGGAAGGCCGGGTGTGTGGCGGAGTCCACCGCTGTCTGCC
GCGCCCAGGGCGACCCCCATTACACCACCTTCGACGGCCGTCGCTACGACATGATGGGCACCTGTTCGTACACGA
TGGTGGAGCTGTGCAGCGAGGACGACACCCTGCCCGCCTTCAGCGTGGAGGCCAAGAACGAGCACCGGGGCAGCC
GCCGCGTCTCCTACGTGGGCCTCGTCACTGTGCGCGCCTACAGCCACTCTGTGTCGCTGACCCGCGGTGAAGTTG
GCTTCGTCCTGGTTGACAACCAGCGCTCGCGCCTGCCAGTCTCCCTGAGTGAGGGTCGCCTGCGTGTGTACCAGA
GCGGACCACGGGCCGTGGTGGAGCTGGTCTTTGGGCTGGTGGTCACTTATGACTGGGACTGCCAGCTGGCACTCA
GCCTGCCTGCACGCTTCCAAGACCAGGTGTGCGGGCTGTGTGGCAACTATAATGGTGACCCAGCAGACGACTTCC
TCACGCCTGACGGGGCTCTGGCTCCTGACGCTGTGGAGTTCGCAAGTAGCTGGAAGCTGGATGATGGGGACTACC
TGTGTGAGGATGGCTGCCAGAACAACTGTCCCGCCTGCACCCCAGGCCAGGCCCAACACTATGAGGGCGACCGAC
TCTGTGGCATGCTGACCAAGCTCG**ATG**GCCCCTTCGCTGTCTGCCATGACACCCTGGACCCCAGGCCCTTCCTGG
AGCAGTGTGTATATGACCTGTGTGTGGTCGGTGGGGAGCGGCTCAGCCTGTGCCGTGGCCTCAGCGCCTATGCCC
AGGCCTGTCTGGAGCTTGGCATCTCGGTTGGGGACTGGAGATCACCAGCCAACTGCCCCCTGTCCTGCCCTGCCA
ACAGCCGCTATGAGCTCTGCGGCCCTGCTTGCCCGACCTCCTGCAACGGGGCTGCGGCGCCGTCCAACTGCTCCG
GGCGCCCCTGCGTGGAGGGCTGCGTGTGCCTCCCAGGCTTCGTGGCCAGCGGCGGCGCCTGCGTGCCGGCCTCGT
CGTGTGGCTGCACCTTCCAGGGTCTCCAGCTCGCTCCGGGCCAGGAAGTGTGGGCGGACGAGTTGTGCCAAAGGC
GCTGCACCTGCAACGGCGCCACCCATCAGGTCACCTGCCGCGACAAGCAGAGCTGCCCGGCGGGTGAGCGCTGCA
GCGTCCAGAACGGCCTCCTGGGCTGCTACCCCGATCGCTTCGGGACCTGCCAGGGGTCCGGGGACCCACACTATG
TGAGCTTCGACGGCCGGCGCTTCGACTTCATGGGCACCTGCACGTACCTGCTGGTCGGCTCATGCGGCCAGAACG
CAGCGCTGCCTGCCTTCCGGGTGCTGGTGGAAAACGAGCATCGGGGCAGCCAGACTGTGAGCTACACGCGCGCCG
TGCGGGTGGAGGCCCGCGGGGTGAAGGTGGCCGTGCGCCGGGAGTACCCCGGGCAAGTGCTGGTGGATGACGTCC
TTCAGTATCTGCCCTTCCAAGCAGCAGATGGGCAGGTGCAGGTGTTCCGACAGGGCAGGGATGCCGTCGTGCGCA
CGGACTTTGGCCTGACTGTCACTTATGACTGGAATGCACGAGTGACTGCCAAGGTGCCCAGCAGCTATGCTGAGG
CCCTGTGTGGACTCTGTGGGAACTTCAACGGGGACCCAGCTGATGACCTGGCTCTGCGGGGTGGGGGTCAAGCTG
CCAATGCACTGGCCTTTGGGAACAGCTGGCAAGAAGAGACGAGGCCCGGCTGTGGAGCAACTGAACCGGGTGACT
GTCCCAAGCTGGACTCCCTGGTGGCCCAGCAGCTGCAGAGCAAGAATGAGTGTGGAATCCTTGCCGACCCCAAGG
GGCCCTTCCGGGAGTGCCATAGCAAGCTGGACCCCCAGGGTGCCGTGCGCGACTGTGTCTATGACCGCTGCCTGC
TGCCAGGCCAGTCTGGGCCACTGTGTGACGCACTGGCCACCTATGCTGCTGCATGCCAGGCTGCTGGAGCCACAG
TGCACCCCTGGAGGAGTGAAGAACTTTGCCCACTGAGCTGCCCACCCCACAGCCACTATGAGGCGTGTTCCTACG
GCTGCCCGCTGTCCTGTGGAGACCTCCCAGTGCCCGGGGGCTGTGGCTCAGAATGCCATGAGGGCTGCGTGTGCG
ATGAGGGCTTTGCGCTCAGTGGTGAGTCCTGCCTGCCCCTGGCCTCCTGTGGCTGCGTACACCAGGGCACCTACC

FIGURE 452B

ACCCACCAGGCCAGACCTTCTACCCTGGCCCCGGATGTGATTCCCTTTGCCACTGCCAGGAGGGCGGCCTGGTGT
CCTGTGAGTCCTCCAGCTGCGGACCGCACGAGGCCTGCCAGCCATCCGGTGGCAGCTTGGGCTGTGTGGCCGTGG
GCTCTAGCACCTGCCAGGCGTCAGGAGACCCCCACTACACCACCTTCGATGGCCGCCGCTTCGACTTCATGGGCA
CCTGCGTGTATGTGCTGGCTCAGACCTGCGGCACCCGGCCTGGCCTGCATCGGTTTGCCGTCCTGCAGGAGAACG
TGGCCTGGGGTAATGGGCGAGTCAGTGTGACCAGGGTGATCACGGTCCAGGTGGCAAACTTCACCCTGCGGCTGG
AGCAGAGACAGTGGAAGGTCACGGTGAACGGTGTGGACATGAAGCTGCCCGTGGTGCTGGCCAACGGCCAGATCC
GTGCCTCCCAGCATGGTTCAGATGTTGTGATTGAGACCGACTTCGGCCTGCGTGTGGCCTACGACCTTGTGTACT
ATGTGCGGGTCACCGTCCCCGGAAACTACTACCAGCAGATGTGTGGCCTGTGTGGGAACTACAACGGCGACCCCA
AGGATGACTTCCAGAAGCCCAATGGCTCACAGGCAGGCAACGCCAATGAGTTCGGCAACTCCTGGGAGGAGGTGG
TGCCCGACTCTCCCTGCCTGCCGCCCACCCCTTGCCCGCCGGGGAGCGAGGACTGTATCCCCAGCCACAAGTGTC
CTCCCGAGCTGGAGAAGAAGTATCAGAAGGAGGAGTTCTGTGGGCTCCTCTCCAGCCCCACAGGGCCACTGTCCT
CCTGCCACAAGCTGGTGGATCCCCAGGGTCCCTTGAAAGATTGCATCTTTGATCTCTGCCTGGGTGGTGGGAACC
TGAGCATTCTCTGCAGCAACATCCATGCCTACGTGAGTGCTTGCCAGGCGGCTGGAGGCCACGTGGAGCCCTGGA
GGACTGAAACTTTCTGTCCCATGGAGTGCCCTCCGAACAGTCACTACGAGCTCTGTGCGGACACCTGCTCCCTGG
GCTGCTCAGCTCTCAGTGCCCCTCCACAGTGCCAGGATGGGTGTGCTGAGGGCTGCCAGTGTGACTCCGGCTTCC
TCTACAATGGCCAAGCCTGCGTGCCCATCCAGCAATGCGGCTGCTACCACAATGGTGTCTACTATGAGCCGGAGC
AGACAGTCCTCATTGACAACTGTCGGCAGCAGTGCACGTGCCATGCGGGTAAAGGCATGGTGTGCCAGGAACACA
GCTGCAAGCCGGGGCAGGTGTGCCAGCCCTCCGGAGGCATCCTGAGCTGCGTCACCAAAGACCCGTGCCACGGCG
TGACATGCCGGCCACAGGAGACATGCAAGGAGCAGGGTGGCCAGGGCGTGTGCCTGCCCAACTATGAGGCCACGT
GCTGGCTGTGGGGCGACCCACACTACCACTCCTTCGATGGCCGGAAGTTTGACTTCCAGGGCACCTGTAACTATG
TGCTGGCAACAACTGGCTGCCCGGGGGTCAGCACCCAGGGCCTGACACCCTTCACCGTCACCACCAAGAACCAGA
ACCGGGGCAACCCTGCTGTGTCCTACGTGAGAGTCGTCACCGTGGCTGCCCTCGGCACCAACATCTCCATCCACA
AGGACGAGATCGGCAAAGTCCGGGTGAACGGTGTGCTCACAGCCTTGCCTGTCTCTGTGGCCGACGGGCGGATTT
CAGTGACCCAGGGTGCATCGAAGGCACTGCTGGTGGCTGACTTTGGACTGCAAGTCAGCTATGACTGGAACTGGC
GGGTAGACGTGACGCTGCCCAGCAGCTATCATGGCGCAGTGTGCGGGCTCTGCGGTAACATGGACCGCAACCCCA
ACAATGACCAGGTCTTCCCTAATGGCACACTGGCTCCCTCCATACCCATCTGGGGCGGCAGCTGGCGAGCCCCAG
GCTGGGACCCACTGTGTTGGGACGAATGTCGGGGGTCCTGCCCAACGTGCCCTGAGGACCGGTTGGAGCAGTACG
AGGGCCCTGGCTTCTGCGGACCCCTGGCCCCCGGCACAGGGGGCCCTTTCACCACCTGCCATGCTCATGTGCCAC
CTGAGAGCTTCTTCAAGGGCTGTGTTCTGGACGTCTGCATGGGTGGTGGGGACCGTGACATTCTTTGCAAGGCTC
TGGCTTCCTATGTGGCCGCCTGCCAGGCTGCTGGGGTTGTCATCGAAGACTGGCGGGCACAGGTTGGCTGTGAGA
TCACCTGCCCAGAAAACAGCCACTATGAGGTCTGTGGCTCACCCTGCCCGGCCAGCTGTCCGTCCCCTGCACCCC
TTACGACGCCAGCCGTATGTGAGGGCCCCTGTGTGGAGGGCTGCCAGTGCGACGCGGGTTTCGTGTTAAGTGCTG
ACCGCTGTGTTCCCCTCAACAACGGCTGCGGCTGCTGGGCCAATGGCACCTACCACGAGGCGGGCAGTGAGTTTT
GGGCTGATGGCACCTGCTCCCAGTGGTGTCGCTGCGGGCCTGGGGGTGGCTCGCTGGTCTGCACACCTGCCAGCT
GTGGGCTGGGTGAAGTGTGTGGCCTCCTGCCATCCGGCCAGCACGGCTGCCAGCCCGTCAGCACAGCTGAGTGCC
AGGCGTGGGGTGACCCCCATTACGTCACTCTGGATGGGCACCGATTCAATTTCCAAGGCACCTGCGAGTACCTGC
TGAGTGCACCCTGCCACGGACCACCCTTGGGGGCTGAGAACTTCACTGTCACTGTAGCCAATGAGCACCGGGGCA
GCCAGGCTGTCAGCTACACCCGCAGTGTCACCCTGCAAATCTACAACCACAGCCTGACACTGAGTGCCCGCTGGC
CCCGGAAGCTACAGGTGGACGGCGTGTTCGTCACTCTGCCCTTCCAGCTGGACTCGCTCCTGCACGCACACCTGA
GCGGCGCCGACGTGGTGGTGACCACAACCTCAGGGCTCTCGCTGGCTTTCGACGGGGACAGCTTCGTGCGCCTGC
GCGTGCCGGCGGCGTACGCGGGCTCTCTCTGTGGCTTATGCGGGAACTACAACCAGGACCCCGCAGACGACCTGA
AGGCGGTGGGCGGGAAGCCCGCCGGATGGCAGGTGGGCGGCGCCCAGGGCTGCGGGGAATGTGTGTCCAAGCCAT
GCCCGTCGCCGTGCACCCCAGAGCAGCAAGAGTCCTTCGGCGGCCCGGACGCCTGCGGCGTGATCTCCGCCACCG
ACGGCCCGCTGGCGCCCTGCCACGGCCTTGTGCCGCCCGCGCAGTACTTCCAGGGCTGCTTGCTGGACGCCTGCC
AAGTTCAGGGCCATCCTGGAGGCCTCTGTCCTGCAGTGGCCACCTACGTGGCAGCCTGTCAGGCCGCTGGGGCCC
AGCTCCGCGAGTGGAGGCGGCCGGACTTCTGTCCCTTCCAGTGCCCTGCCCACAGCCACTACGAGCTCTGCGGTG
ACTCCTGTCCTGGGAGCTGCCCGAGCCTGTCGGCACCCGAGGGCTGTGAGTCGGCCTGCCGTGAAGGCTGTGTCT
GCGATGCTGGCTTCGTGCTCAGTGGTGACACGTGTGTACCTGTGGGCCAGTGTGGCTGCCTCCACGATGACCGCT

FIGURE 452C

ACTACCCACTGGGCCAGACCTTCTACCCTGGCCCTGGGTGTGATTCCCTTTGCCGCTGCCGGGAGGGCGGTGAGG
TGTCCTGTGAGCCCTCCAGCTGCGGCCCGCATGAGACCTGCCGGCCATCCGGTGGCAGCTTGGGCTGCGTGGCCG
TGGGCTCTACCACCTGCCAGGCGTCGGGAGATCCCCACTACACCACCTTCGATGGCCGCCGCTTCGACTTCATGG
GCACCTGCGTGTATGTGCTGGCTCAGACCTGCGGCACCCGGCCTGGCCTACATCGGTTTGCCGTCCTGCAGGAGA
ACGTGGCCTGGGGTAATGGGCGAGTCAGTGTGACCAGGGTGATCACGGTCCAGGTGGCAAACTTCACCCTGCGGC
TGGAGCAGAGACAGTGGAAGGTCACGGTGAACGGTGTGGACATGAAGCTGCCCGTGGTGCTGGCCAACGGCCAGA
TCCGTGCCTCCCAGCATGGTTCAGATGTTGTGATTGAGACCGACTTCGGCCTGCGTGTGGCCTACGACCTTGTGT
ACTATGTGCGGGTCACCGTCCCTGGAAACTACTACCAGCTGATGTGTGGCCTGTGTGGGAACTACAACGGCGACC
CCAAGGATGACTTCCAGAAGCCCAATGGCTCGCAGGCAGGCAACGCCAATGAGTTCGGCAACTCCTGGGAGGAGG
TGGTGCCCGACTCTCCCTGCCTGCCGCCGCCCACCTGCCCGCCGGGGAGCGAGGGCTGTATCCCCAGCGAGGAGT
GTCCTCCCGAGCTGGAGAAGAAGTATCAGAAGGAGGAGTTCTGTGGGCTCCTCTCCAGCCCCACAGGGCCACTGT
CCTCTTGCCACAAGCTGGTGGATCCCCAGGGTCCCTTGAAAGATTGCATCTTTGATCTCTGCCTGGGTGGTGGGA
ACCTGAGCATTCTCTGCAGCAACATCCATGCCTACGTGAGTGCTTGCCAGGCAGCTGGAGGCCAGGTGGAGCCCT
GGAGGAATGAAACTTTCTGTCCCATGGAATGCCCTCAGAACAGTCACTACGAGCTCTGTGCGGACACCTGCTCCC
TGGGCTGCTCGGCTCTCAGTGCCCCTCTGCAGTGCCCAGATGGGTGTGCTGAGGGCTGCCAGTGTGACTCCGGCT
TCCTCTACAACGGCCAAGCCTGCGTGCCCATCCAGCAATGTGGCTGCTACCACAATGGTGCCTACTATGAGCCGG
AGCAGACAGTCCTCATTGACAACTGTCGGCAGCAGTGCACGTGCCATGTGGGTAAAGTCGTGGTGTGCCAGGAAC
ACAGCTGCAAGCCGGGGCAGGTGTGCCAGCCCTCCGGAGGCATCCTGAGCTGCGTCAACAAAG

FIGURE 453

GTCAACTTAGTGTACAATGCTGTCAGATGAACCTTACCCTTGTAAGGCTTGTAACTTGGTTCCTCCCTTTCTTAA
GCCCTTATTGGCTATCTTTCTTCTTTTAATATTTAAAGTTTTTAATCTTTAAATTTTTAATTTTTAAACCATGCT
TGTTTAACCTGCTGGTAAAATTCACGTCTTTCAGACTGTAATGCTTTCATGCCAAGTAAATGGTCTTGCCAGGCT
TCCAGCCTGTTTCAGAGACCACTAGCCCAGAGCCGTATCAGCCCCTTCAGCAAGCCATAAGAAATTTCTACTCCT
CCTGGAAATAGATGTAGAGACTATGTCCATGCTTAGCAGGAAGTAGTTCCAGAAGAGACCTTTGCTCCTTAAGAA
TAAGGAGAATGAGGACTGCGAAGGAGAACGCAGCAAGCCCAGGCGGCGGTGGAAAGGCTGGAGGACACACCTAAA
C**ATG**TGGAATCCCAATGCCGGGCAGCCAGGGCCAAATCCATATCCCCCCAATATTGGGTGCCCTGGAGGTTCCAA
TCCTGCCCACCCACCACCTATTAATCCACCCTTTCCCCCAGGCCCCTGTCCTCCTCCCCCAGGAGCTCCCCATGG
CAATCCAGCTTTCCCCCCAGGTGGGCCCCCTCATCCTGTGCCACAGCCAGGGTATCCAGGATGCCAACCGTTGGG
TCCCTACCCTCCTCCATACCCACCGCCTGCCCCTGGAATCCCTCCTGTGAATCCCTTGGCTCCTGGCATGGTTGG
ACCAGCAGTGATAGTGGACAAGAAGATGCAGAAGAAAATGAAGAAAGCTCATAAAAAGATGCACAAGCACCAAAA
GCACCACAAGTACCACAAGCATGACAAGCATTCCTCCTCTTCCTCCTCCTCTTCCAGCAGTGATTCTGAC**TGA**AT
ACAGGCCCTGGACCCTTCCCTCAAGTCCCACCAGTTCTGCTCTCCCATCAAGCTTCAGATGCCACGTTGTACTGG
GGGAATGTAGCCCTTGTGCTCCCCACCCCCTACCTCCACCTGAGCCTCACCCTGCTGTTGAGCCCTGAGTGGCTA
GGGGAAATAGGAAGAGGATTGCCATGGCCTGGCCATCTTGTTGCTGCTTGGAGAGATCATATAGCTAATGAATTA
GGCAGGGGAGCTATTTTTTGAAGATGATGAACTAAATGTTGAAGACAAGTTTGAGATCTGTAAAATGTGATTTTT
TACTTCCACTTATAATACTTGTGATTGGGGAGGTTTGTGGAAATTCAATTATGATGAAAAACCTCTATCTTTTTT
GTAATGTTGGCATACTTGGGGGATTTAGTGGCAAATACATTCCCCAGCAGGCCTTTTGTTGGTTGCACTAACTGC
AAGGTTGCTGGGAAGTAGAGTCCATTTGGTTGATGAGCTTTGACTGCGGTTTTGGAACCTTACCTCTCCTCCTTA
GCCCAATATGCTGTCTCGGGTCCTATTCAAATAAAGTTATTTCTCCTGGTCT

FIGURE 454

GGCTTGGTCACT**ATG**GAGGAGATAGGCATCTTGGTGGAGAAGGCTCAGGATGAGATCCCAGCACTGTCCGTGTCC
CGGCCCCAGACCGGCCTGTCCTTCCTGGGCCCTGAGCCTGAGGACCTGGAGGACCTGTACAGCCGCTACAAGAAG
CTGCAGCAAGAGCTGGAGTTCCTGGAGGTGCAGGAGGAATACATCAAAGATGAGCAAAAGAACCTGAAAAAGGAA
TTTCTCCATGCCCAGGAGGAGGTGAAGCGAATCCAAAGCATCCCGCTGGTCATCGGACAATTTCTGGAGGCTGTG
GATCAGAATACAGCCATCGTGGGCTCTACCACAGGCTCCAACTATTATGTGCGCATCCTGAGCACCATCGATCGG
GAGCTGCTCAAGCCCAACGCCTCAGTGGCCCTCCACAAGCACAGCAATGCACTGGTGGACGTGCTGCCCCCCGAA
GCCGACAGCAGCATCATGATGCTCACCTCAGACCAGAAGCCAGATGTGATGTACGCGGACATCGGAGGCATGGAC
ATCCAGAAGCAGGAGGTGCGGGAGGCCGTGGAGCTCCCGCTCACGCATTTCGAGCTCTACAAGCAGATCGGCATC
GATCCCCCCCGAGGCGTCCTCATGTATGGCCCACCTGGCTGTGGGAAGACCATGTTGGCAAAGGCGGTGGCACAT
CACACAACAGCTGCATTCATCCGGGTCGTGGGCTCGGAGTTTGTACAGAAGTATCTGGGTGAGGGCCCCCGCATG
GTCCGGGATGTGTTCCGCCTGGCCAAGGAGAATGCACCTGCCATCATCTTCATAGACGAGATTGATGCCATCGCC
ACCAAGAGATTCGATGCTCAGACAGGGGCCGACAGGGAGGTTCAGAGGATCCTGCTGGAGCTGCTGAATCAGATG
GATGGATTTGATCAGAATGTCAATGTCAAGGTAATCATGGCCACAAACAGAGCAGACACCCTGGATCCGGCCCTG
CTACGGCCAGGACGGCTGGACCGTAAAATTGAATTTCCACTTCCTGACCGCCGCCAGAAGAGATTGATTTTCTCC
ACTATCACTAGCAAGATGAACCTCTCTGAGGAGGTTGACTTGGAAGACTATGTGGCCCGGCCAGATAAGATTTCA
GGAGCTGATATTAACTCCATCTGTCAGGAGAGTGGAATGTTGGCTGTCCGTGAAAACCGCTACATTGTCCTGGCC
AAGGACTTCGAGAAAGCATACAAGACTGTCATCAAGAAGGACGAGCAGGAGCATGAGTTTTACAAG**TGA**CCCTTC
CCTTCCCTCCACCACACCACTCAGGGGCTGGGGCTTCTCTCGCACCCCCAGCACCTCTGTCCCAAAACCTCATTC
CCTTTTTTCTTTACCCAGGATTGGTTTCTTCAATAAATAGATAAGATCGAATCC

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FIGURE 455

GTTTTTTTTCTTGCTCCTGCGGAGGGCGCCCCAGCCATGGCCCTCAGGAGCTCCCTAGACCCCGCAGGGACTGCC
CTCCATCCCGGCCGCCGGGGCCCGCCCTCTGCATCCCGCGGGCAGCCTGTGTGAAGCGGCCTCCCGCAGCCCCCG
GCCCCTCCCCC**ATG**GAGGAGGAGGAGGGGGCGGTGGCCAAGGAGTGGGGCACGACCCCCGCGGGGCCCGTCTGGA
CCGCGGTGTTCGACTACGAGGCGGCGGGCGACGAGGAGCTGACCCTGCGGAGGGGCGATCGCGTCCAGGTGCTTT
CCCAAGACTGTGCGGTGTCCGGCGACGAGGGCTGGTGGACCGGGCAGCTCCCCAGCGGCCGCGTGGGCGTCTTCC
CCAGCAACTACGTGGCCCCCGGCGCCCCCGCTGCACCCGCGGGCCTCCAGCTGCCCCAGGAGATCCCCTTCCACG
AGCTGCAGCTAGAGGAGATCATCGGTGTGGGGGGCTTTGGCAAGGTCTATCGGGCCCTGTGGCGTGGCGAGGAGG
TGGCAGTCAAGGCCGCCCGGCTGGACCCTGAGAAGGACCCGGCAGTGACAGCGGAGCAGGTGTGCCAGGAAGCCC
GGCTCTTTGGAGCCCTGCAGCACCCCAACATAATTGCCCTTAGGGGCGCCTGCCTCAACCCCCCACACCTCTGCC
TAGTGATGGAGTATGCCCGGGGTGGTGCACTGAGCAGGGTGCTGGCAGGTCGCCGGGTGCCACCTCACGTGCTGG
TCAACTGGGCTGTGCAGGTGGCCCGGGGCATGAACTACCTACACAATGATGCCCCTGTGCCCATCATCCACCGGG
ACCTCAAGTCCATCAACATCCTGATCCTGGAGGCCATCGAGAACCACAACCTCGCAGACACGGTGCTCAAGATCA
CGGACTTCGGCCTCGCCCGCGAGTGGCACAAGACCACCAAGATGAGCGCTGCGGGGACCTACGCCTGGATGGCGC
CGGAGGTTATCCGTCTCTCCCTCTTCTCCAAAAGCAGTGATGTCTGGAGCTTCGGGGTGCTGCTGTGGGAGCTGC
TGACGGGGGAGGTCCCCTACCGTGAGATCGACGCCTTGGCCGTGGCGTATGGCGTGGCTATGAATAAGCTGACGC
TGCCCATTCCCTCCACGTGCCCCGAGCCCTTTGCCCGCCTCCTGGAGGAATGCTGGGACCCAGACCCCCACGGGC
GGCCAGATTTCGGTAGCATCTTGAAGCGGCTTGAAGTCATCGAACAGTCAGCCCTGTTCCAGATGCCACTGGAGT
CCTTCCACTCGCTGCAGGAAGACTGGAAGCTGGAGATTCAGCACATGTTTGATGACCTTCGGACCAAGGAGAAGG
AGCTTCGGAGCCGTGAGGAGGAGCTGCTGCGGGCGGCACAGGAGCAGCGCTTCCAGGAGGAGCAGCTGCGGCGGC
GGGAGCAGGAGCTGGCAGAACGTGAGATGGACATCGTGGAACGGGAGCTGCACCTGCTCATGTGCCAGCTGAGCC
AGGAGAAGCCCCGGGTCCGCAAGCGCAAGGGCAACTTCAAGCGCAGCCGCCTGCTCAAGCTGCGGGAAGGCGGCA
GCCACATCAGCCTGCCCTCTGGCTTTGAGCATAAGATCACAGTCCAGGCCTCTCCAACTCTGGATAAGCGGAAAG
GATCCGATGGGGCCAGCCCCCCTGCAAGCCCCAGCATCATCCCCCGGCTGAGGGCCATTCGCCTGACTCCCGTGG
ACTGTGGTGGCAGCAGCAGTGGCAGCAGCAGTGGAGGAAGTGGGACATGGAGCCGCGGTGGGCCCCCAAAGAAGG
AAGAACTGGTCGGGGGCAAGAAGAAGGGACGAACGTGGGGGCCCAGCTCCACCCTGCAGAAGGAGCGGGTGGGAG
GAGAGGAGAGGCTGAAGGGGCTGGGGGAAGGAAGCAAACAGTGGTCATCAAGTGCCCCCAACCTGGGCAAGTCCC
CCAAACACACACCCAGTCGCCGCTGGCTTCGCCAGCCTCAA**TGA**GATGGAGGAGTTCGCGGAGGCAGAGGATGGA
GGCAGCAGCGTGCCCCCTTCCCCCTACTCGACCCCGTCCTACCTCTCAGTGCCACTGCCTGCCGAGCCCTCCCCG
GGGGCGCGGGCGCCGTGGGAGCCGACGCCGTCCGCGCCCCCCGCTCGGTGGGGACACGGCGCCCGGCGGCGCTGC
GACCTGGCGCTGCTAGGCTGCGCCACGCTGCTGGGGGCTGTGGGCCTGGGCGCCGACGTGGCCGAGGCGCGCGCG
GCCGACGGTGAGGAGCAGCGGCGCTGGCTCGACGGCCTCTTCTTTCCCCGCGCCGGCCGCTTCCCGCGGGGCCTC
AGCCCACCCGCGCGTCCCCACGGCCGCCGCGAAGACGTGGGCCCCGGCCTGGGCCTGGCGCCCTCGGCCACCCTC
GTGTCGCTGTCGTCCGTGTCCGACTGCAACTCCACGCGTTCACTGCTGCGCTCTGACAGTGACGAGGCCGCACCG
GCCGCGCCCTCCCCACCACCCTCCCCGCCCGCGCCCACACCCACGCCCTCGCCCAGCACCAACCCCCTGGTGGAC
CTGGAGCTGGAGAGCTTCAAGAAGGACCCCCGCCAGTCGCTCACGCCCACCCACGTCACGGCTGCATGCGCTGTG
AGCCGCGGGCACCGGCGGACGCCATCGGATGGGGCGCTGGGGCAGCGGGGGCCGCCCGAGCCCGCGGGCCATGGC
CCTGGCCCTCGTGACCTTCTGGACTTCCCCCGCCTGCCCGACCCCCAGGCCCTGTTCCCAGCCCGCCGCCGGCCC
CCTGAGTTCCCAGGCCGCCCCACCACCCTGACCTTTGCCCCGAGACCTCGGCCGGCTGCCAGTCGCCCCCGCTTG
GACCCCTGGAAACTGGTCTCCTTCGGCCGGACACTCACCATCTCGCCTCCCAGCAGGCCAGACACTCCGGAGAGC
CCTGGGCCCCCCAGCGTGCAGCCCACACTGCTGGACATGGACATGGAGGGGCAGAACCAAGACAGCACAGTGCCC
CTGTGCGGGGCCCACGGCTCCCACTAAGGCCTGCCCACCACCGCCCGCCTGGGCAGCCATGAATGTAGCGCCCCA
GGCCCTGCCCCAGCCCGCCATGCCACAAGGTGGGGGAGGCCCTGGGCAGGATGTTCACTCTATTTATT

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FIGURE 456

AATGCAGCGCGGCGCGCTGTCCCCGGTGCTGATGCTCAGCGCTGCCCCGGAGCCTCCGCCGCGCCCGCCTCCCGC
CCTCTCCCCACCGGGCTCGGGCCCAGGCTCGGGCTCCCGCCATGGCTCGGCTCGTCCCGGTCCTACCCCAGAGCC
GTCGGGGAGCCTGGGCGCGGCGCTCGACAGCAGCCTGCGTGCCGCCGTGGCGTTCAAGGCAGAGGGCCAGCGCTG
CTATCGAGAGAAGAAGTTCCGGGAGGCCATCGGCAAGTACCACCGAGCGCTGCTGCAGCTGAAGGCGGCGCAGGG
GGCCCGCCCTAGCGGCCTGCCCGCCCCCGCCCCCGGGCCCACCAGCAGCCCCGGGCCGGCGCGCCTCAGCGAGGA
GCAGCGGCGCCTGGTGGAGAGCACGGAGGTGGAGTGTTACGACTCCCTCACGGGTACGCCGTCGGGGGGTGGGGG
GATGGGGCACGAGGGGAGGGGGCAATCGGGAGAGCTTGGCGACTTGGGGGCCAGGGGCCCTGGGGCTGAAGGGTC
CAGGGCTGTGGGCTTCTGGGGGAGCCTTCAGAGCTTGATCAAGGAAAGGGATTAGGGGTAGGGGATGACAGGGGT
CTGTGGCTGGAGGGAGCTGGGATGCAGGAAATGGTCTTTGGGTCGGGTATTCAGGGCCTCGCTTCCCCTGAGTCA
TTCTTTCCACCCCCTGGCCGCACGTGGACCCAAGGTGAGGAAGTCTGCCCTGAGCCAGGCTCTCGAGGTCCCGGC
CCTCGCCCCCGCGCGGGGCCTTAGTGCTCTTGCCCACCGACAGCTCTGGGTGGATCGCCCAGTGGCGCCTGTCCG
TGTTTTGGCGCCCCCTAGCAGCGGCGCAGTTGCGCCTGTTTCGATAGGCGAGCGGATTGGCGCCCCTGGTTGCCG
GAGCAATCCCTTAGGCCTGGTTCCCTGCCGCCTGGAGCCTCGGCTCCTCGCAGTCAGGTGGGTTCTGGGGGTGCC
AGCAGGCTCTGAGAGTGCCGGCCGCGGGGCCCTCGCAGCTTGCCTGCTGCAGTCGGAGCTGGTAAACTACGAGCG
CGTGCGCGAGTACTGTCTCAAGGTACTGGAGAAGCAGCAGGGCAACTTCAAGGCCACCTACCGTGCCGGCATTGC
CTTCTACCACCTGGGCGACTACGCACGCGCGCTGCGCTACCTGCAGGAGGCCCGCAGCCGGGAACCCACAGGTGA
GTGGCGGGGCGGGGCAGAGGTGAGGGCTGGGCCCAGGGCGGGGAAAGGGGCTGCAGCGGAGGGAACAGGCAGGAA
GATCAGGGCAGAATAGCAGAGCCCTCCTCCCGCGGAGCTGCTTCTAGGTAGGGCTGCGCCACCCACCTACTCCCT
ACACGCCCACTCATCCATTCATCCACCCCGCCCTTCACCCGCCATTCAAACATCCGTCCACCTATCGCTCCTCTG
ACATCTCCCCGGCCATTTCTCATCTACCGTCATTGCCACATCTGATATCTCCTATTCACCTGCTCAGTCACTTCC
CTATCCACCCACTGTCATCTCCATTACCCCGTCCCACCCCTGCCTACCGCACACACTCATTCCTCCACTCACCCA
TTCACGCACACCTATTCATTCACTTCCTGCACCATCCACTCATCCACTCGGGTGGGCGATGCCAGGAAATTGGGG
TGTGTGTGTGTGTGCGTGCATGTGTGCACTTACACACATGAGTGCAGGAGGGCAGACACAACACTCAGTTTTGTA
TTAAGAGCCAATGAAGAAGGAAGAGGGATTACAACAGGTGCAGGGTTGTGGGAGCCGAGACGAGATTAGTTTTCC
TGTTAAGTGGCTCGGAGAGAACAGACTTCTTGCAGATGTCGCTGGAGGATGAGAAGTGTGACGGGAGCCTCTGCG
AAGAGGCATTCCTGGCAGAGGGTGCCGCAAATACAGGCGCACAGAGGTGTGCGATGGCTCCGCTGTGACTGGGGA
CTGCCGACTGTGACTGGGGCTTTGGGGAAGGGCTCTGGCTCTACTGGCTGTGTGAGCGAGCTGCTGGATACTTCG
GAGAATGGGGTGTGAGCCAGGGAGGTGTGGAAGTCACCTGCTGCCCCGGGACACCCAGATGATGCCCTGCCCACC
TCCCCTGCAGACACCAATGTGCTCCGCTACATCCAGCTGACTCAGCTGAAGATGAATCGTTGCAGCCTCCAGCGG
GAAGACAGTGGGGCTGGGTCCCAGACTCGGGATGTAATTGGCTGAGGCCAATCCAGGGGGACCTCTCTATCCCTC
GCCCTCCCACCTCACCATGTAACTTCCCCCGACTCATGTGTTTGTTGGTAAAACACTTGTCACTGGTGATCAT

FIGURE 457

ACTGTGCCCTGTCCACGGTGCCTCCTGCATGTCCTGCTGCCCTGAGCTGTCCCGAGCTAGGTGACAGCGTACCAC
GCTGCCACC**ATG**AATGAGGTGTCTGTCATCAAAGAAGGCTGGCTCCACAAGCGTGGTGAATACATCAAGACCTGG
AGGCCACGGTACTTCCTGCTGAAGAGCGACGGCTCCTTCATTGGGTACAAGGAGAGGCCCGAGGCCCCTGATCAG
ACTCTACCCCCCTTAAACAACTTCTCCGTAGCAGAATGCCAGCTGATGAAGACCGAGAGGCCGCGACCCAACACC
TTTGTCATACGCTGCCTGCAGTGGACCACAGTCATCGAGAGGACCTTCCACGTGGATTCTCCAGACGAGAGGGAG
GAGTGGATGCGGGCCATCCAGATGGTCGCCAACAGCCTCAAGCAGCGGGCCCCAGGCGAGGACCCCATGGACTAC
AAGTGTGGCTCCCCCAGTGACTCCTCCACGACTGAGGAGATGGAAGTGGCGGTCAGCAAGGCACGGGCTAAAGTG
ACCATGAATGACTTCGACTATCTCAAACTCCTTGGCAAGGGAACCTTTGGCAAAGTCATCCTGGTGCGGGAGAAG
GCCACTGGCCGCTACTACGCCATGAAGATCCTGCGGAAGGAAGTCATCATTGCCAAGGATGAAGTCGCTCACACA
GTCACCGAGAGCCGGGTCCTCCAGAACACCAGGCACCCGTTCCTCACTGCGCTGAAGTATGCCTTCCAGACCCAC
GACCGCCTGTGCTTTGTGATGGAGTATGCCAACGGGGGTGAGCTGTTCTTCCACCTGTCCCGGGAGCGTGTCTTC
ACAGAGGAGCGGGCCCGGTTTTATGGTGCAGAGATTGTCTCGGCTCTTGAGTACTTGCACTCGCGGGACGTGGTA
TACCGCGACATCAAGCTGGAAAACCTCATGCTGGACAAAGATGGCCACATCAAGATCACTGACTTTGGCCTCTGC
AAAGAGGGCATCAGTGACGGGGCCACCATGAAAACCTTCTGTGGGACCCCGGAGTACCTGGCGCCTGAGGTGCTG
GAGGACAATGACTATGGCCGGGCCGTGGACTGGTGGGGGCTGGGTGTGGTCATGTACGAGATGATGTGCGGCCGC
CTGCCCTTCTACAACCAGGACCACGAGCGCCTCTTCGAGCTCATCCTCATGGAAGAGATCCGCTTCCCGCGCACG
CTCAGCCCCGAGGCCAAGTCCCTGCTTGCTGGGCTGCTTAAGAAGGACCCCAAGCAGAGGCTTGGTGGGGGGCCC
AGCGATGCCAAGGAGGTCATGGAGCACAGGTTCTTCCTCAGCATCAACTGGCAGGACGTGGTCCAGAAGAAGCTC
CTGCCACCCTTCAAACCTCAGGTCACGTCCGAGGTCGACACAAGGTACTTCGATGATGAATTTACCGCCCAGTCC
ATCACAATCACACCCCCTGACCGCTATGACAGCCTGGGCTTACTGGAGCTGGACCAGCGGACCCACTTCCCCCAG
TTCTCCTACTCGGCCAGCATCCGCGAG**TGA**GCAGTCTGCCCACGCAGAGGACGCACGCTCGCTGCCATCACCGCT
GGGTGGTTTTTTCCCCCT

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FIGURE 458

GTTGGCGCCGCCGGGAGGGAGGGCGGGCGGCGCGAGTGGGCGCGGGCCCGGTGGGCCAGGCTCCAGGGAGCAGTG
TCAGGGCCAGGGAGACG**ATG**GTCTCCGTGACTATGGCCACTTCCGAGTGGATCCAGTTCTTTAAGGAAGCCGGCA
TTCCTCCAGGACCTGCCGTCAATTATGCCGTGATGTTTGTGGATAATAGGATTCAGAAGAGCATGCTGCTGGATC
TCAATAAGGAGATAATGAATGAGCTGGGCGTGACCGTGGTGGGTGACATCATCGCCATTCTCAAGCATGCCAAAG
TGGTGCACCGTCAGGACATGTGCAAAGCTGCCACTGAGTCAGTACCCTGCAGCCCTAGCCCCCTTGCAGGCGAAA
TTCGCCGTGGCACCAGTGCTGCCTCCCGAATGATCACCAACAGCCTGAACCATGACTCTCCACCCAGCACACCCC
CCAGGCGCCCGGACACCAGCACCTCCAAGATCTCGGTCACTGTGTCCAACAAGATGGCAGCAAAGAGTGCCAAGG
CCACTGCAGCCCTGGCCCGCCGGGAGGAGGAGAGCCTGGCTGTTCCTGCCAAGCGGCGCCGGGTCACTGCTGAGA
TGGAGGGGAAGTACGTCATCAACATGCCCAAAGGCACCACACCCCGCACCCGCAAGATCCTGGAGCAGCAGCAGG
CTGCAAAAGGTCTCCATAGGACGTCTGTGTTTGACCGCCTCGGCGCCGAGACCAAGGCAGACACCACGACAGGGA
GTAAACCCACAGGAGTCTTCAGCCGCCTGGGGGCCACCCCAGAAACGGACGAGGATCTGGCTTGGGACAGCGACA
ATGACAGCAGCAGCTCTGTCTTGCAGTATGCCGGGGTCCTGAAGAAGCTAGGACGGGGCCCAGCCAAGGCCAGTC
CCCAGCCAGCACTGACTGTCAAAGCCAAGGCCACAAGCTCAGCGACAACGGCTGCTGCCCCGACACTGCGGCGCC
TGGCGCTTTCCTCACGGTCTGGGCTTGAGAGGAAGCCGGAGTCCTTGTCTAAAGTCAGCATCATCAAGAGACTGG
GCGCAGCTGCCCTTGTGCCCGAGGCCCAGGACAGCCAGGTCACCAGCACCAAGAGTAAGTCCTCAGCCGAGGTCA
AGGTCACCATTAAGAGGACTCTGGTGGGGCCCCGGGGGAGCAGCTCCAGCGAGGGCCTTGGTGCCCAGATGGACC
ACGCGGGCACTGTGAGCGTGTTCAAAAGACTGGGCCGCAGGACCTTC**TAG**CCCACCTGTGGGCGGGGTGCAGGCA
GCAGAGCCTGCGGGCATCTGCCCTGGCCGCCCCAGGCTCCTGGCTTCATCACGCCTCCCACCAGCTCCTGGATGA
CACAGCTTGTCTCCCTCGGGCTCTAGAGCTAGGCCCGAGCATTCGGGGGATCACCCCATTTCTCCTAGCCTGGGA
TGGTCGTCGCAGCTGGCCTGGCCTGCTCCAGGACTCCCCTTCTCTCATGTCCTCTGTGCTTTCTTCTCTGGCTGT
GGCCTTGGCAGAACCCACTTTTCTACCTCTCCCAAGTGCCAGGGGGCTTCTTCCTCTCCTACATTCCCCTTCTTC
CCCTGAGCAGGGTCTGCTGCCTCAGACCCCAGCTCATCAGCCTCCCTGTCCCCCTCAACTAAGTGGGTGTCACCT
GGTGGGCCTCCCTTCCC

FIGURE 459

GGCGGCGCTGCGGGACGAAGGCGAGGAGGAGGCGGAGGTGGAGCTGGCGGAGAGCGGGAGGCGGCTGCGACTGCC
GCGGGACCAGATCCAGCGCATGAACCCGCCCAAGTTCAGCAAGGCCGAGGACATGGCCGAGCTGACCTGCCTCAA
CGAGGCCTCGGTCCTGCACAACCTCCGGGAGCGGTACTACTCCGGCCTCATCTACACGTACTCCGGCCTTTTCTG
TGTGGTCATCAACCCGTACAAGCAGCTTCCCATCTACACAGAAGCCATTGTGGAGATGTACCGGGGCAAGAAGCG
CCACGAGGTGCCACCCCACGTGTACGCAGTGACCGAGGGGGCCTATCGGAGCATGCTGCAGGATCGTGAGGACCA
GTCCATTCTCTGCACTGGAGAGTCTGGAGCTGGGAAGACGGAAAACACCAAGAAGGTCATCCAGTACCTCGCCCA
CGTGGCGTCGTCTCCAAAGGGCAGGAAGGAGCCGGGTGTCCCCGCCTCCGTCAGCACCGTGTCTTATGGTGAGCT
GGAGCGGCAGCTGCTTCAGGCCAACCCCATCCTAGAGGCCTTTGGCAATGCCAAGACAGTGAAGAATGACAACTC
CTCCCGATTCGGCAAATTCATCCGCATCAACTTTGATGTTGCCGGGTACATCGTGGGCGCCAACATTGAGACCTA
CCTGCTGGAGAAGTCGCGGGCCATCCGCCAGGCCAAGGACGAGTGCAGCTTCCACATCTTCTACCAGCTGCTGGG
GGGCGCTGGAGAGCAGCTCAAAGCCGACCTCCTCCTCGAGCCCTGCTCCCACTACCGGTTCCTGACCAACGGGCC
GTCATCCTCTCCCGGCCAGGAGCGGGAACTCTTCCAGGAGACGCTGGAGTCGCTGCGGGTCCTGGGATTCAGCCA
CGAGGAAATCATCTCCATGCTGCGGATGGTCTCAGCAGTTCTCCAGTTTGGCAACATTGCCTTGAAGAGAGAACG
GAACACCGATCAAGCCACCATGCCTGACAACACAGCTGCACAGAAGCTCTGCCGCCTCTTGGGACTGGGGGTGAC
GGATTTCTCCCGAGCCTTGCTCACCCCTCGCATCAAAGTTGGCCGAGACTATGTGCAGAAAGCCCAGACTAAGGA
ACAGGCTGACTTCGCGCTGGAGGCCCTGGCCAAGGCCACCTACGAGCGCCTCTTCCGCTGGCTGGTTCTGCGCCT
CAACCGGGCCTTGGACCGCAGCCCCCGCCAAGGCGCCTCCTTCCTGGGCATCCTGGACATCGCGGGCTTTGAGAT
CTTCCAGCTGAACTCCTTCGAGCAGCTCTGCATCAACTACACCAACGAGAAGCTGCAGCAGCTCTTCAACCACAC
CATGTTCGTGCTGGAGCAGGAGGAGTACCAGCGTGAGGGCATCCCCTGGACCTTCCTCGACTTTGGCCTCGACCT
GCAGCCCTGCATCGACCTCATCGAGCGGCCGGCCAACCCCCCTGGACTCCTGGCCCTGCTGGATGAGGAGTGCTG
GTTCCCGAAGGCCACAGACAAGTCGTTTGTGGAGAAGGTAGCCCAGGAGCAGGGCGGCCACCCCAAGTTCCAGCG
GCCGAGGCACCTGCGGGATCAGGCCGACTTCAGTGTTCTCCACTACGCGGGCAAGGTCGACTACAAGGCCAACGA
GTGGCTGATGAAAAACATGGACCCTCTGAATGACAACGTCGCAGCCTTGCTCCACCAGAGCACAGACCGGCTGAC
GGCAGAGATCTGGAAAGACGTGGAGGGCATCGTGGGGCTGGAACAGGTGAGCAGCCTGGGCGACGGCCCACCAGG
TGGCCGCCCCCGTCGGGGTATGTTCCGGACAGTGGGACAGCTCTACAAGGAGTCCCTGAGCCGCCTCATGGCCAC
ACTCAGCAACACCAACCCCAGTTTTGTCCGGTGCATTGTCCCCAACCACGAGAAGAGGGCCGGGAAGCTGGAGCC
ACGGCTGGTGCTGGACCAGCTTCGCTGCAACGGGGTCCTGGAGGGCATCCGCATCTGTCGCCAGGGCTTCCCCAA
CCGCATCCTCTTCCAGGAGTTCCGGCAGCGATACGAGATCCTGACACCCAATGCCATCCCCAAGGGCTTCATGGA
TGGGAAGCAGGCCTGTGAAAAGATGATCCAGGCGCTGGAACTGGACCCCAACCTCTACCGCGTGGGACAGAGCAA
GATCTTCTTCCGGGCTGGGGTCCTGGCCCAGCTGGAAGAGGAGCGAGACCTGAAGGTCACCGACATCATCGTCTC
CTTCCAGGCAGCTGCCCGGGGATACCTGGCTCGCAGGGCCTTCCAGAAGCGCCAGCAGCAGCAGAGCGCCCTGAG
GGTGATGCAGCGGAACTGCGCGGCCTACCTCAAGCTGAGACACTGGCAGTGGTGGCGGCTGTTTACCAAGGTGAA
GCCACTGCTGCAGGTGACGCGGCAGG**ATG**AGGTGCTGCAGGCACGGGCCCAGGAGCTGCAGAAAGTGCAGGAGCT
ACAGCAGCAGAGCGCCCGCGAAGTTGGGGAGCTCCAGGGCCGAGTGGCACAGCTGGAAGAGGAGCGCGCCCGCCT
GGCAGAGCAATTGCGAGCAGAGGCAGAACTGTGTGCAGAGGCCGAGGAGACGCGGGGGAGGCTGGCAGCCCGCAA
GCAGGAGCTGGAGCTGGTGGTGTCAGAGCTGGAGGCTCGCGTGGGCGAGGAGGAGGAGTGCAGCCGTCAAATGCA
AACCGAGAAGAAGAGGCTGCAGCAGCACATACAGGAGC**TAG**AGGCCCACCTTGAGGCTGAGGAGGGTGCGCGGCA
GAAGCTGCAGCTGGAGAAGGTGACGACAGAGGCAAAAATGAAG

FIGURE 460A

GGGAAATAGAGTCCTGGCGCTGCCGCGGAGGATCCTGGGTGCAGCCGCTCAGAGAAGCTTCTCGCGCACAGGAAG
TCGCTGCGAGGAGGCGCGTGTGCGGGGAGTTGAATCTCCCGCTCCCTTGAGGCTGGGGTTGCGTCTGTTGACGCG
GCCGACTACAATCCCGAGCCCTGCCAGCCGGGAACACGGAGGGGAAGGAGGAGGAGCTTAAAAGAGGCTACTGAA
CCCCAGTTGGCC**ATG**GCTGAGGAATTTGTGACCCTCAAGGATGTCGGCATGGACTTCACCTTGGGAGACTGGGAG
CAGCTCGGGCTGGAACAGGGGGACACGTTCTGGGACACAGCGTTGGACAATTGCCAGGACCTCTTCCTGCTGGAC
CCCCCAAGACCCAACCTGACCTCCCACCCAGATGGCAGTGAAGATCTGGAGCCTCTGGCAGGAGGAAGCCCAGAA
GCAACAAGCCCTGATGTGACTGAGACCAAGAACTCTCCTCTGATGGAGGATTTCTTCGAAGAAGGATTCTCCCAG
GAGATTATAGAGATGTTATCCAAGGATGGCTTCTGGAACTCCAATTTCGGAGAAGCCTGTATAGAGGACACCTGG
TTAGATAGTTTGCTAGGCGATCCAGAAAGTCTTCTGAGGTCTGATATTGCCACCAACGGGGAAAGTCCCACGGAA
TGCAAGAGTCATGAATTAAAGAGAGGACTCAGTCCTGTGTCCACCGTTTCCACGGGAGAAGATTCCATGGTGCAT
AATGTTTCTGAAAAGACCCTCACACCAGCTAAGTCTAAGGAATATAGGGGTGAGTTTTTCTCCTACTCCGACCAC
AGCCAGCAGGATTCTGTTCAGGAAGGGGAGAAACCATATCAATGTAGTGAATGTGGGAAAAGCTTCAGTGGGAGT
TACCGTCTTACCCAGCACTGGATCACTCATACTAGGGAGAAACCCACTGTCCATCAAGAGTGTGAGCAAGGTTTT
GACCGGAATGCTTCCCTTTCTGTGTATCCGAAAACTCACACGGGCTACAAATTCTATGTGTGTAATGAATATGGG
ACAACTTTTAGTCAGAGTACATACCTGTGGCATCAGAAAACTCACACTGGAGAAAAACCATGTAAGAGTCAAGAT
AGTGACCACCCACCCAGTCATGACACACAGCCTGGTGAGCATCAGAAAACTCACACAGATAGTAAGTCCTACAAC
TGTAACGAATGCGGCAAGGCTTTTACCCGGATCTTCCACCTTACTCGGCACCAGAAGATCCACACTCGGAAACGC
TATGAGTGTTCCAAGTGCCAGGCGACCTTCAACTTGAGAAAACACCTCATCCAACATCAGAAAACTCACGCTGCA
AAAACTACCTCTGAGTGTCAGGAGTGTGGGAAGATTTTTAGGCACAGTTCGCTGCTCATTGAACACCAGGCTCTT
CATGCTGGAGAGGAGCCTTATAAGTGTAACGAACGTGGGAAATCCTTCAGGCATAACTCTACCCTAAAGATCCAT
CAGAGGGTTCACAGTGGAGAGAAGCCTTACAAATGCAGTGAGTGTGGGAAGGCCTTCCACCGGCACACTCACCTT
AATGAACATCGGCGAATTCATACAGGCTACAGACCCCACAAATGTCAGGAATGCGTCAGGAGTTTCAGCCGGCCC
TCACATCTGATGCGACATCAGGCCATTCACACCGCAGAAAAGCCCTATAGCTGTGCTGAATGCAAGGAGACTTTC
AGCGATAACAATCGCCTTGTGCAACACCAGAAAATGCACACTGTCAAAACCCCATATGAATGTCAGGAGTGCGGA
GAACGCTTCATTTGCGGCTCAACCCTGAAGTGCCACGAGAGTGTTCACGCCAGAGAAAAACAAGGATTTTTTGTG
AGTGGGAAGATCTTGGATCAGAACCCAGAACAGAAAGAGAAGTGCTTTAAGTGTAACAAATGTGAGAAAACCTTT
AGCTGCAGCAAATACCTAACTCAGCACGAGAGGATTCACACCAGGGGAGTGAAGCCCTTTGAATGTGACCAGTGT
GGGAAAGCCTTTGGCCAAAGTACTCGGCTCATTCACCATCAAAGAATCCACTCTAGAGTGAGGCTGTATAAATGG
GGTGAGCAAGGGAAAGCCATCAGCAGTGCCTCCCTTATCAAACTTCAGTCCTTCCACACAAAGGAGCACCCTTTT
AAATGTAACGAATGCGGAAAGACCTTCAGCCACAGTGCACACCTCTCAAAACATCAGTTAATTCACGCTGGAGAG
AATCCCTTTAAATGTAGTAAGTGTGACAGAGTCTTCACCCAGAGAAACTACCTTGTTCAGCATGAGCGAACTCAT
GCCAGAAAGAAGCCGTTGGTGTGTAACGAATGCGGGAAAACGTTCCGTCAGAGCTCATGCCTTTCTAAGCATCAG
AGAATTCACTCAGGTGAGAAGCCCTATGTATGTGATTACTGCGGGAAGGCCTTCGGCCTGAGTGCTGAGCTTGTC
CGCCACCAGAGAATTCACACTGGAGAAAAGCCTTATGTTTGTCAGGAATGCGGGAAAGCCTTCACCCAGAGCTCA
TGCCTTTCTATTCACCGGAGAGTTCACACTGGGGAGAAGCCCTACAGATGTGGTGAATGTGGGAAAGCCTTTGCC
CAGAAAGCAAATCTAACACAGCACCAGAGAATTCACACAGGGGAGAAGCCTTACTCCTGTAATGTGTGTGGCAAA
GCTTTTGTCCTCAGTGCCCATCTCAACCAGCACCTGAGAGTTCACACCCAGGAGACACTTTATCAGTGTCAACGT
TGCCAGAAAGCCTTTCGGTGCCACTCGAGCCTCAGCCGCCATCAGCGTGTACACAACAAGCAGCAATACTGCCTG
TAGCCATTGGGTGGCAGCAGAGTCCCAGAATATGAGACCGTTACTCGGATGTTGAAAGTTGGAAACTATCCCATT
GCAAGTTTCTCTCCAAATAAATGCATCTAAAGATTGATTAGAAAGTTTGTGCGCATGTTTTTCATTATAACAATG
AAAACACAAAAGTGGAGAAGCTGTACAACGTCAGGATTCAGAGGTAGGCTCTGGAGCCAGTCTACCTTGAGTTAA
ATCCCACCTCTGCCATCTACTACCTAAGTGACCTTGGGAAGGTCAGAAAAATCTCTCAGGGCCTCGGTGTCCTTA
TCTGTAAAATGGGCATCACCTACCTCAGAGGGCTTTTCTGAGGATTAAATAAATAAATGTGAAGCACTTAGAACT
GATGGCCAGCACATGAGGGCTCACCAAGTGTAAGCCACAAATACACATCAGCTATAGCACAAATATACTTGTGTT
ACAAGAAAGGAATTAGTAATCTGTGTTTACTGTAGTTAATGTTCTTACAATGTATCGCTTTTAATTTAAGTTTTC
CTTTTTTACAGTTTTTCTCCAGCACTTTACTCTTCTTAAGTGCCTGGCCTTTTTTGTCCCTTTATCTCTCCTGGT
TTTTTTCTTAAGCCCCAGAAAGCCAAAAAGAACATGTAAACTCTTCACCTCAACTAGCTACAACCTTCCACTCCT
AACCTCCCAAGCTTCTCACTTAAAGAGGACTCCCTATCCCACAAACACATGCTCCCTCTTCCTATGACCTTCCTC

FIGURE 460B

CATTTAACAGTGTTGGTTATGCAATAAGACACCCAATTTTTCATGGGAGTTGACACCAAAACACAGCTGGATTCC
ATCAGGAAAGCTGCATTGATCAGGGTGTTAACCGCATATGAAACAACCCATATGGAAGACATACTTAGGGGTCAA
ACCTGTGGTGTGTGGAAGTGACCACTGGGATGTCATCATTCACCATTTATCCAGGATGGCCGCTCACCAGGCAAT
TTGCTAGGCTCGGGGGCGGGTAGTATCCATACACTATGCACTACTGCTCTGAAGCTTCTGGAATCAGAAATGAAC
CCATTTTCATCGACGATTGCTGTTAGTTGACAAGTGACATCTTGAAAATGCCACATTCCCTCATGTCACAGGAAG
TTCTGGGATCACCAAGGATTGTTGGAGAGTCCAGTGAGATGGAACCACACAACCAGTTCCCTACCAGTGTCTTGT
CAGCTCTGGGTGTTTGTTCCCTGCCACTAAGTGGCTCAGTCACACCTTTGCTGAAACACAGTAGTCTTATGAAAA
GCACTGGACACATACTTTGAATACCTTTCATATTTTAGGTGCTGAAAATGGTGAGGGAGTGAGTGCTCTGCACCC
TTGGGCTTTTCAACTCTTGCACCTGGAGTTCTGCTGGTTAAGTTTGTTAAACTTAGTTGAAACTGGGAACCTGTT
GGCTAACCATTGGGGCCTTACACTGTTTTTCAAATGGTTGCAACATTTAACTTCTCGCACATGGTTCCCGTCCTC
TGGAGCTCTGTCTTGTCGGGGAGATGGGCATGTTGTATACCAAAAGAGTGTACAAAGTGTTGCAGGGCTGTGACA
CAATAGGGACTCTATGGAAAACTGGCAGCCATTGGGTGTGGGGGCAGTCTGTAAATCAGTCACCTGTGTTGCTGC
AGGCCAAGGTAGAAACGCCCTCCGTGTGTGCATATTTGTTGGTTCTCTGATTAAAGTTTTGAGTCT

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FIGURE 461

CCGAGGGTCAGGCTGCAGAAGCCCAGAATCCCACCCCAGTCCCCAAGTACAGAGGTCGCTGTCAAGATGGAGTTT
CCAACCCAGTAAATCCAAGGGCCAGACCGTGACCTCATAAAGC**ATG**ATCTCCTTCTGTCCAGACTGTGGCAAAAG
TATCCAAGCGGCATTCAAATTCTGCCCCTACTGTGGAAATTCTTTGCCTGTAGAGGAGCATGTAGGGTCCCAGAC
CTTTGTCAATCCACATGTGTCATCCTTCCAAGGCTCAAAGAGAGGGCTGAACTCCAGTTTTGAAACCTCTCCTAA
GAAAGTGAAATGGTCCAGCACCGTCACCTCTCCCCGATTATCCCTCTTCTCAGATGGTGACAGTTCTGAGTCTGA
AGATACTCTGAGTTCCTCTGAGAGATCCAAAGGCTCCGGGAGCAGACCCCCAACCCCCAAAAGCAGCCCTCAGAA
GACCAGGAAGAGCCCTCAGGTGACCAGGGGTAGCCCTCAGAAGACCAGCTGTAGCCCTCAGAAGACCAGGCAGAG
CCCTCAGACGCTGAAGCGGAGCCGAGTGACCACCTCACTTGAAGCTTTGCCCACAGGGACAGTGCTGACAGACAA
GAGTGGGCGACAGTGGAAGCTGAAGTCCTTCCAGACCAGGGACAACCAGGGCATTCTCTATGAAGCTGCACCCAC
CTCCACCCTCACCTGTGACTCAGGACCACAGAAGCAAAAGTTCTCACTCAAACTGGATGCCAAGGATGGGCGCTT
GTTCAATGAGCAGAACTTCTTCCAGCGGGCCGCCAAGCCTCTGCAAGTCAACAAGTGGAAGAAGCTGTACTCGAC
CCCACTGCTGGCCATCCCTACCTGCATGGGTTTCGGTGTTCACCAGGACAAATACAGGTTCTTGGTGTTACCCAG
CCTGGGGAGGAGCCTTCAGTCGGCCCTGGATGTCAGCCCAAAGCATGTGCTGTCAGAGAGGTCTGTGCTGCAGGT
GGCCTGCCGGCTGCTGGATGCCCTGGAGTTCCTCCATGAGAATGAGTATGTTCATGGAAATGTGACAGCTGAAAA
TATCTTTGTGGATCCAGAGGACCAGAGTCAGGTGACTTTGGCAGGCTATGGCTTCGCCTTCCGCTATTGCCCAAG
TGGCAAACACGTGGCCTACGTGGAAGGCAGCAGGAGCCCTCACGAGGGGGACCTTGAGTTCATTAGCATGGACCT
GCACAAGGGATGCGGGCCCTCCCGCCGCAGCGACCTCCAGAGCCTGGGCTACTGCATGCTGAAGTGGCTCTACGG
GTTTCTGCCATGGACAAATTGCCTTCCCAACACTGAGGACATCATGAAGCAAAAACAGAAGTTTGTTGATAAGCC
GGGGCCCTTCGTGGGACCCTGCGGTCACTGGATCAGGCCCTCAGAGACCCTGCAGAAGTACCTGAAGGTGGTGAT
GGCCCTCACGTATGAGGAGAAGCCGCCCTACGCCATGCTGAGGAACAACCTAGAAGCTTTGCTGCAGGATCTGCG
TGTGTCTCCATATGACCCCATTGGCCTCCCGATGGTGCCC**TAG**GTGGAATCCAGAACTTTCCATTTGCAGTGTGC
AACAGAAAAAAAAAAAATGAAGTAATGTGACTCAAGGCCTGCTGTTTAATCACAGATAAGCTTCTAGAACAAGCCC
TGGAATGTGCATTCCTGCCACTGGTTTCAGGATACTCATCAGTCCTGATTAGCCTCCCGGAGGGCCCCAGTTTCC
CTCCCGTGAATGTGAAGTTCCCCATCTTGGTGGCCTGCCCTTCAGCCAGTGTCCTAGCAAAGCTGGATGGGGTTG
GGCCGGCCCACAGGGGGGACCCCTCCTACCCTTGACACCTCTGTGCTTTGGTAATAAATTGTTTTACCAGAG

FIGURE 462

CACTCTGCCTAGGACGCACCTAATTGCCCAGCCACAGGCTGTGACAGTAC**ATG**GGAACTGTCCACCAGGAAGTTC
CTCAGAGGCTCAGTGCTCGGGGCTGTTATTGGGGAGTAGTCATGTGGCCCCCTCTGTCTGACATGTATCCGCATC
CCAGGTTCCCCAGAGGAAAGCAGGTGTTGCACAGAAACCACAGTGATTGCACAAGCAGTTTAGGCTCAGCGAGCC
CCACTCACTTAGGGGATTCTGGGAGCCCTCCCGGAATCCAGGGTCCCAGACCTTGCCAGGAGAGCCGTCTCAGGC
CTGCTGCATTAGCCCTTCCTGCATGGCTGGATAGTGACAGAGAGAAAGAGGAAGAAGAAGCTTATTTAAAACTAG
GAAGCAGCAAGTCG**TGA**GAGCCAAGAGTGCGCTTGACCTTGTTGGAACCAGGGCACCAGAGCCGCTTCTCATTGC
TGGGAAGTTTGGGGATGATGACCCTGACCTTCCGCGTGGTTATAACCTCACTCCCTTGTTTGTTCCCCCACAGCT
GCACCCACCTCCACCCTCACCTGTGACTCAGGACCACAGAAGCAAAAGTTCTCACTCAAACTGGTAAGTGACCCT
GCAGGTGGGGGGCAGCTTGGAGGGGAGGGACTTTCACAAACACATCCTTGACTTCTGAGCCCGTCTGTCAGCTGG
GAGAGCTCGGCCGGGGGCCAGGGTCCCCACCTGCAAGGAGTATTAAGACCGTGGGCGGGGCAGGCGCCCAGTTCT
CCATCATCCCAGGGTGTTGGAAACCCACAGTTGGATCCACCCAAGTCTGGCTCTGATGCTTCCCTGCTGTGTGAC
CTGGGCAAGCCCATCCCCCTCAGAGCTCAGTTTCCTCATCTGTGAAATGGAGCCACTAATACCCACAGGGTGTGG
CCCATCTGCCCCCTACCACCGGCCTCGCAGCGTGCTCGTATCGAGCACCTACTGTGTATCACCGTGCTGGGTGTG
GGGTCCAAAAGAGAACCCAGCAGATGGGGTCCCTGTGCTGAGGATTCAGTGAAATCACACATCGGGTGCCGAGCA
TGAGTCTCAGCAGACAGGACATGTGCACTCGAGGTTGGGGCTAAAAGGAAACAAATAGAGAAAGGGAGAGTGGCC
ACGAGGGTGAATCACGCCTTCCACACAGAGGAGGTGCCTAACAGAAGGGCATCGTGGTGGTTCATAGCCCCGCCA
TCATCCCTGGGTGCTGGGATTACAGGTGACTCTTATTTTCTTTTTGTTTATCAGAATTGTCTCACACCCCAGAAA
ACCAGGGACAGCTGGGTCAGTTGCCCTCCCTCCGCCCTAGGTGGAGGCCATGAGAGTGGGTCAGAGCGTGGGCTG
TGGAGCCGGGCTCACTAGTGGTGGGTAGCACCTGCTTTGAGAGCCTGGCATTGCCTGAGCCGGGCTGTGTTTCAT
AAGCACTGCTTCATTGAATCCTCCCAGTAGGGCAGCTACCGTGTCCCATTTAACACTTCTCTGCATGGTTCAGGT
GTGTCTGGCACAGTAGGCACCCCATCAACCTGAGCTGTTCCTGTTATTACTACTGTAATTATGCTCATCATCCTA
GAAATACAGCCTTGCTCTCTGTTCGTGCATCTGACCTCATCAACATTTCCTGAGGCTCAAAACTTGGTGATGATG
AGTTGGCCCCAGGCCCAGCCCTGGAGAGGCTCCCAGTCTGGCGGGAGCCATGTCATGTCCCAGTCCCATCGGGAA
GAGGGGTGGGCTGGGAGGGGAGCACAGGGCACTGGGCCAACCAGAAGACATTCACCCTCCCCATCCACTGGGAAG
GCAGCTCTGTTCTGAAGCATTCGAAAGGTCAGGGGCTGAATGCCCAGTGGTGTTCATCCATCCATTTATTCATTT
ATTCACCAAGCCTTTCCTGCAACCTCCTGTGAACTGAGTGCTGGGGACATCTGCAGAGATGGGTCAGACCCAATT
CCTGCCCTGAAGGAGCTGCCCCCTTGGGGGAGTGGGGCAGGCATGAATACCCCACATGAGATTGCTCAGGGCCTG
CATGGCTGTGCCCACGTCGCTCGCGTCAGTCACTATGGGCTTCGCCAGCATCGTGGGGAGGACTCCAGGACGC

FIGURE 463

CGAGGCTCCTCCTCTGTGGATGGTCACTGCCCCTCCACCAGGCTTCCTGCTGGAGGAGTTTCCTTCCCAGCCAGG
CCGGCCCAGAAGCCAGATGGTCCCGGGACAGGCCCAGCCCCAGAGCCCAGAG**ATG**CTGCTGCTGCCCCTGCTGCT
GCCCGTGCTGGGGGCGGGGTCCCTGAACAAGGATCCCAGTTACAGTCTTCAAGTGCAGAGGCAGGTGCCGGTGCC
GGAGGGCCTGTGTGTCATCGTGTCTTGCAACCTCTCCTACCCCCGGGATGGCTGGGACGAGTCTACTGCTGCTTA
TGGCTACTGGTTCAAAGGACGGACCAGCCCAAAGACGGGTGCTCCTGTGGCCACTAACAACCAGAGTCGAGAGGT
GGAAATGAGCACCCGGGACCGATTCCAGCTCACTGGGGATCCCGGCAAAGGGAGCTGCTCCTTGGTGATCAGAGA
CGCGCAGAGGGAGGATGAGGCATGGTACTTCTTTCGGGTGGAGAGAGGAAGCCGTGTGAGACATAGTTTCCTGAG
CAATGCGTTCTTTCTAAAAGTAACAGCCCTGACTAAGAAGCCTGATGTCTACATCCCCGAGACCCTGGAGCCCGG
GCAGCCGGTGACGGTCATCTGTGTGTTTAACTGGGCTTTCAAGAAATGTCCAGCCCCTTCTTTCTCCTGGACGGG
GGCTGCCCTCTCCCCTAGAAGAACCAGACCAAGCACCTCCCACTTCTCAGTGCTCAGCTTCACGCCCAGCCCCCA
GGACCACGACACCGACCTCACCTGCCATGTGGACTTCTCCAGAAAGGGTGTGAGCGCACAGAGGACCGTCCGACT
CCGTGTGGCCTATGCCCCCAAAGACCTTATTATCAGCATTTCACATGACAACACGTCAGCCCTGGAACTCCAGGG
AAACGTCATATATCTGGAAGTTCAGAAAGGCCAGTTCCTGCGGCTCCTCTGTGCTGCTGACAGCCAGCCCCCTGC
CACGCTGAGCTGGGTCCTGCAGGACAGAGTCCTCTCCTCGTCCCACCCCTGGGGCCCCAGAACCCTGGGGCTGGA
GCTGCGTGGGGTAAGGGCCGGGGATTCAGGGCGCTACACCTGCCGAGCGGAGAACAGGCTTGGCTCCCAGCAGCA
AGCCCTGGACCTCTCTGTGCAGTATCCTCCAGAGAACCTGAGAGTGATGGTTTCCCAAGCAAACAGGACAGTCCT
GGAAAACCTCGGGAACGGCACATCCCTCCCGGTCCTGGAGGGCCAAAGCCTGCGCCTGGTCTGTGTCACCCACAG
CAGCCCCCCAGCCAGGCTGAGCTGGACCCGGTGGGGACAGACCGTGGGCCCCTCCCAGCCCTCAGACCCCGGGGT
CCTGGAGCTGCCACCCATTCAAATGGAGCACGAAGGAGAGTTCACCTGCCACGCTCAGCACCCTCTGGGCTCCCA
GCACGTCTCTCTCAGCCTCTCCGTGCACTACCCTCCACAGCTGCTGGGCCCCTCCTGCTCCTGGGAGGCTGAGGG
TCTGCACTGCAGCTGCTCCTCCCAGGCCAGCCCGGCCCCCTCTCTGCGCTGGTGGCTTGGGGAGGAGCTGCTGGA
GGGGAACAGCAGTCAGGGCTCCTTCGAGGTCACCCCCAGCTCAGCCGGGCCCTGGGCCAACAGCTCCCTGAGCCT
CCATGGAGGGCTCAGCTCCGGCCTCAGGCTCCGCTGTAAGGCCTGGAACGTCCACGGGGCCCAGAGTGGCTCTGT
CTTCCAGCTGCTACCAGGGAAGCTGGAGCATGGGGGAGGACTTGGCCTGGGGGCTGCCCTGGGAGCTGGCGTCGC
TGCCCTGCTCGCTTTCTGTTCCTGCCTTGTCGTCTTCAGGGTGAAGATCTGCAGGAAGGAAGCTCGCAAGAGGGC
AGCAGCTGAGCAGGACGTGCCCTCCACCCTGGGACCCATCTCCCAGGGTCACCAGCATGAATGCTCGGCAGGCAG
CTCCCAAGACCACCCGCCCCCAGGTGCAGCCACCTACACCCCGGGGAAGGGGGAAGAGCAGGAGCTCCACTATGC
CTCCCTCAGCTTCCAGGGCCTGAGGCTCTGGGAGCCTGCGGACCAGGAGGCCCCCAGCACCACCGAGTACTCGGA
GATCAAGATCCACACAGGACAGCCCCTGAGGGGCCCAGGCTTTGGGCTTCAATTGGAGAGGGAGATGTCAGGGAT
GGTTCCAAAG**TGA**AGAGGTCTCCATGGCAACAGGACACCAGCAAGTGTGTGGGAGTCGCACTGGTGTGACGGCCA
GAACTGGACTCAGATTTCAGCCCCATCCCCAATGAAGAGCTTGAGTTTGAAGATTATACTTTTTTTGAGACAGGG
TCTGACTCTGTCCTCCAGGCCAGAGTCCAGTGGTGCAATCTCAGCTCACTGTAGCCTCAACCTGCCAGGTTGAAG
TGAGCCTCCCATTTCAGCCTCCCAAGTAGCTGGGACTACAATTGTGAGCCACCATGCCAGGCTCATTGTTATATT
TTTAGTAGAGACAGGGTTTTGCCATGTTTCCCTGGCTGGTCTCAGACTCCTGGGCTCAAGCAATCTGCCCGCCTC
TGCCTCCCAAAGTGCTGGGATTACAGACGTGAGCCACCACAGCTGGCTGAAGATTATACTTTCAATTCAGAGCGA
GTTTGAAGATGACACTTTGAGGCATCGTGTCTATGGTTCATTACTACAGAAGCTTCTCTGGATGTGTAAAGCACA
GGAAACCAGGCAGAGGAGGCACAGGGTGCTCTCCAGAACGAGAAGCCAGCTCCTGGAGTTGTTTGCTGCAACTGC
CATTCCCCGTTGATGACCATGCTCTTCCTTCAGAAGAGGGAGAGTGAGAGGACCAAGTCCAAGTGGTTCCCATTT
GAACATTTAAAAAAAAAAAAAAGGCTGGGCATGGTGGCTCACGCCTGTAATCTCAACACTTTGGGAGGCTGAAGT
GGGTGGATCACAAGTCAGGAGTTCAAGACCAGCCTGGGCAAGATGGTGAAACCCCATCTCTACTAAAAATACAAA
AATTAGCCGGGCATGGTGGCGGGCGCCTAAAATCCCAGCTACTCGGGAGACTAGGCAGAGAATTGGTTGAACCCG
GGAGGTGGAGGTTGCAGTGAGCCGAGATCGTCCCACTGCACTCCAGCCTGGGCAACAGAGTGAGACTCTGTTTCT
AAATAAATAAATGAATAAAT

FIGURE 464

TCATTCCCTGTCCTCGGATCACAGTCTCTTCTCACTACAGTGTCGCCGCCTCTGCCTGCGTAGCCCCGGCCATGG
CTCTGTAGCCTCGACCCCTTTGTGCCCCCGGCCCGTCTCCGCGCTCACCACGCCTGCGCTCTCCGCTCCCACCTT
CTTTCTTCAGCCGAGGCCGCCGCCGCCTCTCCTTGCTGCAGCCATGGAGTCTTCCACTTTCGCCTTGGTGCCTGT
CTTCGCCCACCTGAGCATCCTCCAGAGCCTCGTGCCAGCTGCTGGTGCAGCCTCTCCTGTTGCCATCAGTGCCCA
GCACCTGTGCTACAGCC**ATG**TCACTCCTGGCGACCCTGGGGCTGGAGCTGGACAGGGCCCTGCTCCCAGCTAGTG
GGCTGGGATGGCTCGTAGACTATGGGAAACTCCCCCCGGCCCCTGCCCCCCTGGCTCCCTATGAGGTCCTTGGGG
GAGCCCTGGAGGGCGGGCTTCCAGTGGGGGGAGAGCCCCTGGCAGGTGATGGCTTCTCTGACTGGATGACTGAGC
GAGTTGATTTCACAGCTCTCCTCCCTCTGGAGCCTCCCTTACCCCCCGGCACCCTCCCCCAACCTTCCCCAACCC
CACCTGACCTGGAAGCTATGGCCTCCCTCCTCAAGAAGGAGCTGGAACAGATGGAAGACTTCTTCCTAGATGCCC
CGCCCCTCCCACCACCCTCCCCGCCGCCACTACCACCACCACCACTACCACCAGCCCCCTCCCTCCCCCTGTCCC
TCCCCTCCTTTGACCTCCCCCAGCCCCCTGTCTTGGATACTCTGGACTTGCTGGCCATCTACTGCCGCAACGAGG
CCGGGCAGGAGGAAGTGGGGATGCCGCCTCTGCCCCCGCCACAGCAGCCCCCTCCTCCTTCTCCACCTCAACCTT
CTCGCCTGGCCCCCTACCCACATCCTGCCACCACCCGAGGGGACCGCAAGCAAAAGAAGAGAGACCAGAACAAGT
CGGCGGCTCTGAGGTACCGCCAGCGGAAGCGGGCAGAGGGTGAGGCCCTGGAGGGCGAGTGCCAGGGGCTGGAGG
CACGGAATCGCGAGCTGAAGGAACGGGCAGAGTCCGTGGAGCGCGAGATCCAGTACGTCAAGGACCTGCTCATCG
AGGTTTACAAGGCCCGGAGCCAGAGGACCCGTAGCTGC**TAG**AAGGGCAGGGGTGTGGCTTCTGGGGGCTGGTCTT
CAGCTCTGGCGCCTTCATCCCCCTGCCTCTACCTTCATTCCAAACCCCTCTCGGCCGGGTGCAGTGGCTTATGCT
TGTAATCCCAGCACTTTGGGAGGCCAAGGCAGGAGGATCGTTTGAGGCCAGGAGGTCAATACCAGCCTGGGCAAC
ATAGTAAGACCCTGTCTCTATTAAAAAAAAAAAATCAACCCTTCTTCCCCACCAAACCACCCAACTCCTCTCTAC
TCTTATCCTTTTATCCTCTGTCTCTGCTTATCACCTCTCTTGCGTATTTCTGGATCTCCTTCCCTCCTTTCTCGT
CCAAATCATGAAATGTTTGGCCTTAGTCAATGTCTATGCCCGTCACATAACAGCCGAGGCACCGAGGCCCACAGG
GAAGCAGCTGGGAGCTTGGAAACCTGGTCTCTTGAATTTCAAACCTGGTTTCTTACAGGTGGTTGTCTGGGGTGG
GTGGAGTGGCGACAGGATAGAGCTGAAGGACTATGCAAATGAGGAAGTAAGTCAGGGCGGGCTTTGAGAAGGGGA
CCCATATCCTACAGGCAAAAAGCAGGCTAGGTGACCTTGGGACACTACGCTAAGGGAGGGAGGCTAAAGGCGGCC
AGGTTTGCAGTGCGGGAAGATGAGCAGGCCAGTGGGAGGAGGGGCAGGGCAGGGCTGTAGTTGGTGACTGGGTGT
TCATTTTAGCTCTAAGAAAAAAAATCAGTGTTTCGTGAAGGTGTTGGAGAGGGGCTGTGTCTGGGTGAGGGATGG
CGGGGTACTGATTTTTTTGGGAGGTTATGAGCAAAAATAAAACGAAACATTTCCTCTG

FIGURE 465

GCGACCGTGATTCCCCGCTCGCGACTCCCCACCCCCCAGGGCTCCCTAAAGAGGGCCACGAGCTGCGAAAGGGCG
GGAAAGGCAGTTGGAGAAGAGGTAAGCGGTTACTCACTCCATGGCTGCAGCAAGGAGAGGCGGCGGCGGCCTCGG
CTGAAGAAAGAAGGTGGGAGCGGAGAGCGCAGGCGTGAAACCCACCTTGTCCCATCCACATCAGGACATCCCAGC
TGGAGTTCAACCTTCATCCCTTCTGTGGCAGTTAGGAGACTGAATCAAGGTCCAGAGAAGGTGGAGGAATCCTGA
TACTGAGCGGAAGAAAATACACAGATGTGCTTCCTTCCCAGTCCTGACAAATGGCCTTTCCTTAAGTTCCTCATT
AATTCATATGAAGACAACACATTTGGTGACTAAATTTGGAATCAGAGGCTTTTAAAGCCTCCCAGCTGCTCTGAC
CCCAATATCAGGAACTTGGCATCTCTGATCTAACAAGGGCACCACTAACAAGGACAAAGCCACCATCATTCACCT
TGATTCCGCACATGCCCAACGATGACTTCTGTCCTGGGCTAACCATCAAGGCCATGGGTGCTGAGAGAGCCCCCC
AGAGGCAGCCATGCACCCTGCACCTCCTCGTCCTCGTCCCCATCCTCCTCAGCCTGGTGGCCTCCCAGGACTGGA
AGGCTGAACGCAGCCAAGACCCCTTCGAGAAATGCATGCAGGATCCTGACTATGAGCAGCTGCTCAAGGTGGTGA
CCTGGGGGCTCAATCGGACCCTGAAGCCCCAGAGGGTGATTGTGGTTGGCGCTGGTGTGGCCGGGCTGGTGGCCG
CCAAGGTGCTCAGCGATGCTGGACACAAGGTCACCATCCTGGAGGCAGATAACAGGATCGGGGGCCGCATCTTCA
CCTACCGGGACCAGAACACGGGCTGGATTGGGGAGCTGGGAGCCATGCGCATGCCCAGCTCTCACAGGATCCTCC
ACAAGCTCTGCCAGGGCCTGGGGCTCAACCTGACCAAGTTCACCCAGTACGACAAGAACACGTGGACGGAGGTGC
ACGAAGTGAAGCTGCGCAACTATGTGGTGGAGAAGGTGCCCGAGAAGCTGGGCTACGCCTTGCGTCCCCAGGAAA
AGGGCCACTCGCCCGAAGACATCTACCAGATGGCTCTCAACCAGGCCCTCAAAGACCTCAAGGCACTGGGCTGCA
GAAAGGCGATGAAGAAGTTTGAAAGGCACACGCTCTTGGAATATCTTCTCGGGGAGGGGAACCTGAGCCGGCCGG
CCGTGCAGCTTCTGGGAGACGTGATGTCCGAGGATGGCTTCTTCTATCTCAGCTTCGCCGAGGCCCTCCGCGCAN
CAGCTGCCTCAGCGACAGACTCCAGTACAGCCGCATCGTGGGTGGCTGGGACCTG**ATG**CCGCGCGCGCTGCTGAG
CTCGCTGTCCGGGCTTGTGCTGTTGAACGCGCCCGTGGTGGCGATGACCCAGGGACCGCACGATGTGCACGTGCA
GATCGAGACCTCTCCCCCGGCGCGGAATCTGAAGGTGCTGAAGGCCGACGTGGTGCTGCTGACGGCGAGCGGACC
GGCGGTGAAGCGCATCACCTTCTCGCCGCCGCTGCCCCGCCACATGCAGGAGGCGCTGCGGAGGCTGCACTACGT
GCCGGCCACCAAGGTGTTCCTAAGCTTCCGCAGGCCCTTCTGGCGCGAGGAGCACATTGAAGGCGGCCACTCAAA
CACCGATCGCCCGTCGCGCATGATTTTCTACCCGCCGCCGCGCGAGGGCGCGCTGCTGCTGGCCTCGTACACGTG
GTCGGACGCGGCGGCAGCGTTCGCCGGCTTGAGCCGGGAAGAGGCGTTGCGCTTGGCGCTCGACGACGTGGCGGC
ATTGCACGGGCCTGTCGTGCGCCAGCTCTGGGACGGCACCGGCGTCGTCAAGCGTTGGGCGGAGGACCAGCACAG
CCAGGGTGGCTTTGTGGTACAGCCGCCGGCGCTCTGGCAAACCGAAAAGGATGACTGGACGGTCCCTTATGGCCG
CATCTACTTTGCCGGCGAGCACACCGCCTACCCGCACGGCTGGGTGGAGACGGCGGTCAAGTCGGCGCTGCGCGC
CGCCATCAAGATCAACAGCCGGAAGGGGCCTGCATCGGACACGGCCAGCCCCGAGGGGCACGCATCTGACATGGA
GGGGCAGGGGCATGTGCATGGGGTGGCCAGCAGCCCCTCGCATGACCTGGCAAAGGAAGAAGGCAGCCACCCTCC
AGTCCAAGGCCAGTTATCTCTCCAAAACACGACCCACACGAGGACCTCGCAT**TAA**AGTATTTTCGGAAA

FIGURE 466

GAAGAGGTAAGCGGTTACTCACTCCATGGCTGCAGCAAGGAGAGGCGGCGGCGGCCTCGGCTGAAGAAAGAAGAA
ATCTTCCCAAGGCTGCAGACACCGACGGATTTGCTTTGGGAGCCAGAGTAGCTGCCGCCACCAGAGTCCGGAGCC
ATGAGCGGGTTTAATTTTGGAGGCACTGGGGCCCCTACAGGCGGGTTCACGTTTGGCACTGCAAAGACGGCAACA
ACCACACCTGCTACAGGGTTTTCTTTCTCCACCTCTGGCACTGGAGGGTTTAATTTTGGGGCTCCCTTCCAACCA
GCCACAAGTACCCCTTCCACCGGCCTGTTCTCACTTGCCACCCAGACTCCGGCCACACAGACGACAGGCTTCACT
TTTGGAACAGCGACTCTTGCTTCGGGGGGAACTGGATTTTCTTTGGGGATCGGTGCTTCAAAGCTCAACTTGAGC
AACACAGCTGCCACCCCAGCCATGGCAAACCCCAGCGGCTTTGGGCTGGGCAGCAGCAACCTCACTAATGCCATA
TCGAGCACCGTCACCTCCAGCCAGGGCACAGCACCCACCGGCTTTGTGTTTGGCCCCTCCACCACCTCTGTGGCT
CCAGCTACCACATCTGGAGGCTTCTCATTCACTGGTGGAAGCACGGCCCAACCCTCCGGTTTCAACATTGGCTCA
GCAGGGAATTCAGCCCAGCCCACGGCACCTGCCACGTTGCCCTTCACTCCGGCCACGCCAGCAGCCACCACAGCA
GGTGCCACACAGCCAGCTGCTCCCACACCCACAGCCACCATCACCAGCACTGGGCCCAGCCTCTTTGCGTCAATA
GCAACTGCTCCAACCTCATCTGCCACCACTGGACTCTCCCTCTGTACCCCTGTGACCACAGCGGGCGCCCCCACT
GCTGGGACACAGGGCTTCAGCTTAAAGGCACCTGGAGCAGCTTCCGGCACCTCCACAACAACATCCACCGCTGCC
ACCGCCACCGCCACCACCACCAGCAGCAGCAGCACCACCGGCTTTGCCTTGAATTTAAAACCACTGGCGCCAGCC
GGGATCCCCAGCAATACAGCAGCTGCCGTGACCGCTCCACCTGGCCCTGGCGCAGCTGCAGGGGCGGCTGCCAGC
TCCGCCATGACCTACGCGCAGCTGGAGAGCCTGATCAACAAATGGAGCCTGGAGCTAGAGGACCAGGAGCGGCAC
TTCCTCCAGCAGGCCACCCAGGTCAACGCCTGGGACCGCACGCTGATCGAGAATGGAGAAAAGATCACCAGCCTG
CACCGCGAGGTGGAGAAGGTGAAGCTGGACCAGAAGAGGCTGGACCAGGAGCTCGACTTCATCCTGTCCCAGCAG
AAGGAGCTGGAAGACCTGCTGAGCCCACTGGAGGAGTTGGTCAAGGAGCAGAGCGGGACCATCTACCTGCAGCAC
GCGGATGAGGAGCGTGAGAAAACCTACAAGCTGGCTGAGAACATCGATGCACAGCTCAAGCGCATGGCCCAGGAT
CTCAAGGACATCATCGAGCACCTGAACACGTCCGGGGCCCCCGCCGACACCAGTGACCCACTGCAGCAGATCTGC
AAGATCCTCAATGCGCACATGGACTCACTGCAGTGGATCGACCAGAACTCGGCCCTGCTGCAGAGGAAGGTGGAG
GAGGTGACCAAGGTGTGCGAGGGCCGGCGCAAGGAGCAGGAGCGCAGCTTCCGGATCACCTTTGAC**TGA**GCGACA
GCAGCCCTGGGGCCCGCAGGTCCCTAGGGAGTTCATGAGGGGAATGCGCCCTGTTGTCTGTAGTTTGGGGTTGTG
GCAAGATACTTGTTTGTTTGTTTCTTTCTTTCACA

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FIGURE 467

GTGGAATAACCCCCTTCTGAAAAATGGTTTCACCCGCTCCGTCTCTAGAACGGGTCGGGCCGCTACCACTGTCCG
GCCCGGAGGGGAACTGTTTTCTCCGGAAGTGACAACACGCTGACTAGGAAAAGGAGGAGGCGGGGCAGTGGGGCC
TTCGGCGGCGACT**ATG**GAAGGAGCCGGCTACAGGGTGGTGTTTGAGAAGGGCGGAGTGTACCTGCACACCAGCGC
TAAGAAGTATCAGGACCGAGACTCTCTCATCGCTGGTGTCATCCGTGTCGTGGAAAAGGACAATGACGTCCTCCT
GCACTGGGCTCCTGTAGAGGAGGCTGGAGATTCCACCCAAATCCTCTTCTCCAAGAAGGACTCCAGTGGGGGTGA
CTCATGTGCTTCTGAGGAGGAACCAACCTTTGACCCCGGCTATGAACCTGACTGGGCTGTCATCAGCACTGTGCG
GCCACAGCCCTGCCACTCAGAGCCCACGAGAGGTGCAGAGCCCAGCTGCCCCCAGGGCTCCTGGGCCTTCTCAGT
GAGTCTGGGGGAGCTAAAGTCCATCCGCCGCTCCAAGCCAGGCCTCAGCTGGGCCTACCTGGTTCTGGTGACCCA
GGCTGGAGGTTCCCTGCCCGCACTGCACTTCCACCGCGGGGGCACCCGCGCCCTGCTCCGCGTCCTCAGCCGCTA
CCTGCTGTTGGCCAGCTCCCCGCAGGACTCCCGCCTCTACCTTGTCTTCCCCCACGACTCCTCTGCTCTCTCCAA
CTCCTTCCACCACCTGCAGCTCTTTGACCAGGACAGCTCCAATGTGGTGTCACGCTTCCTCCAGATCCCTACTCC
ACCAACTTCAGCAGCTTCTCCCGAG**TGA**CCAACTTCTTCCGGGGTGCCCTGCAGCCACAGCCTGAGGGAGCCGCC
TCCGACCTTCCCCCGCCACCCGACGATGAGCCCGAGCCTGGATTCGAGGTCATTTCCTGTGTGGAGCTGGGGCCT
CGGCCAACCGTGGAGCGGGGCCCTCCAGTTACAGAGGAGGAGTGGGCACGCCACGTGGGCCCTGAAGGTCGCCTG
CAGCAGGTCCCTGAGCTGAAGAACCGGATCTTCTCGGGGGGTCTGAGCCCCAGCCTGCGGCGCGAGGCCTGGAAG
TTCCTCCTAGGGTACCTCAGCTGGGAAGGCACAGCTGAGGAGCACAAGGCCCACATACGCAAGAAAACGGATGAG
TATTTCCGCATGAAGCTGCAGTGGAAATCTGTGAGCCCTGAGCAGGAGCGGAGAAACTCACTTCTGCATGGATAC
CGCAGCCTCATCG

FIGURE 468

CCGGTCAGCTAAGGCCATGTTAATACGGGGCTGTCCCATCTCTCTGCGGGGCGCGACAGCTGGAAGAGCCGAACG
GATAAGAGAAGAGGAGAGCGCGGATGGCGTCGGGGCGCCCCGAGGAGCTATGCTGCCCATGGTCGAGGAGCCCTG
GCGGAGGCAGCGCGCCGTTGCCTCCACGACATCGCACTGGCCCACAGGGCTGCCACTGCTGCTCGGCCTCCTGCG
CCCCCACCAGCACCACAGCCACCCAGTCCCACACCCAGCCCACCCCGGCCTACCCTGGCCAGAGAGGACAACGAG
GAGGACGAGGATGAGCCCACAGAGACAGAGACCTCCGGGGAGCAGCTGGGCATTAGTGATAATGGAGGGCTCTTT
GTG**ATG**GATGAGGACGCCACCCTCCAGGACCTTCCCCCCTTCTGTGAGTCAGACCCCGAGAGTACAGATGATGGC
AGCCTGAGCGAGGAGACCCCCGCCGGCCCCCCCACCTGCTCAGTGCCCCCAGCCTCAGCCCTACCCACACAGCAG
TACGCCAAGTCCCTGCCTGTGTCTGTGCCCGTCTGGGGCTTCAAGGAGAAGAGGACAGAGGCGCGGTCATCAGAT
GAGGAGAATGGGCCGCCCTCTTCGCCCGACCTGGACCGCATCGCGGCGAGCATGCGCGCGCTGGTGCTGCGAGAG
GCCGAGGACACCCAGGTCTTCGGGGACCTGCCACGGCCGCGGCTTAACACCAGCGACTTCCAGAAGCTGAAGCGG
AAATAT**TGA**AGTCCAGGGAGGGAGCGCCCCGGGCCGCGTCCGCCCCGTCCCACACTACGCCCCCGCCCCACTCCC
GGGGCCTGCTAATCTGAGGCCGATCCGGGACCGGCCTCCTTGCGTCTCCCATTCCCAAGATTGTCCCGCCTCTGC
CAATCCCCGCCGTCCTTCCAGCCCACGACCTGCCGCGCCGAGGAGCGGCATCTGTCCCGTTTCCCGATTGGGTCT
GTCGTCTCTCTCCGCCTAGCGACAGATTCCTTCTATTAAGGGATTGGCTCGCTGAGTTCTAAGCTCTAAATGGGT
CAACTCCTTTGTTTTCCGCCTAGCGACAAGGGATTTGCTCGCACGGCATTGGCTCCATCCCCTAGTCGCTGGACA
GCTCTTTTTTTGATTGGCTCAAATCCTGTAAAGGGCTTGACCAGTCTCTACATAGTCACCGTCCGCTTTTCCTGA
GTTCTCCCTCCCAATTGGCTCCAGCTTCCTGGGGGCGTGGCCAAGCCCTCCTCTTCCCAGAATTGGCCCGGGGCC
TTCAATTTACGTTCTTTACACTACGGGGACTGGGGTCGTCTTTGCCCACGTCCCGACAACTTGTTCCCTGACCCC
CTCAGGGATGGCCCCAAACTGTCCCTGCCTCTGGCACCCCCTTTCATTGGTTCCATCCATCCCCACAACAGCCTG
CCAATCGAAGCCCGTCCCTGCATCCAGGATGGTACCAGCTCCCGCCCCTCGCCCCCCACCTCCACAGGTGCCTTA
AAGGGCCCTCGTCCACCCAAGGTGGGGGGCAGGGGCCCTCACTCTCCGGCCCTGGTGTGGGGGAGAGAGTGAGGG
GTTGGGGGATCGGCAGTTGGGAGGGGCGCTCTGAGATTAAAGAGTTTTACCTCTGAGAT

FIGURE 469

GCCGGGTTGCAGGCGGGGCACCTCGGGCAGGACCTCCCTGGTCGGAAGTGGCCGTGAGCCCAAGCCGCGGTCCCG
GGCCGGCACCCAGGATGGGCGAGGTGGAGGCCCCGGGCCGCTTGTGGCTCGAGAGCCCCCTGGGGGAGCGCCCCC
CATCTTCCTGCCCTCGGACGGGCAAGCCCTGGTCCTGGGCAGGGGACCCCTGACCCAGGTTACGGACCGGAAGTG
CTCCAGAACTCAAGCCTGAAGCAGGCCACACTCCCCAGAAATGAGGGACCCAATCACACAAGG**ATG**CAAATCCTG
ACTCCACCCCTCCAATCCTCAGTGGAGCTGGTCGCAGATCCTGAGACCCGGACAGTGGCAGTGAAACAGCTGGGA
GTTAACCCCTCAACTACCGGGACCCAGGAGTTGAAGCCGGGGTTGGAGGGCTCTCTGGGGGTGGGGGACACACTG
TATTTGGTCAATGGCCTCCACCCACTGACCCTGCGCTGGGAAGAGACCCGCACACCAGAATCCCAGCCAGATACT
CCGCCTGGCACCCCTCTGGTGTCCCAAGATGAGAAGAGAGATGCTGAGCTGCCGAAGAAGCGTATGCGGAAGTCA
AACCCCGGCTGGGAGAACTTGGAGAAGTTGCTAGTGTTCACCGCAGCTGGGGTGAAACCCCAGGGCAAGGTGGCT
GGCTTTGATCTGGACGGGACGCTCATCACCACACGCTCTGGGAAGGTCTTTCCCACTGGCCCCAGTGACTGGAGG
ATCTTGTACCCAGAGATTCCCCGTAAGCTCCGAGAGCTGGAAGCCGAGGGCTACAAGCTGGTGATCTTCACCAAC
CAGATGAGCATCGGGCGCGGGAAGCTGCCAGCCGAGGAGTTCAAGGCCAAGGTGGAGGCTGTGGTGGAGAAGCTG
GGGGTCCCCTTCCAGGTGCTGGTGGCCACGCACGCAGGCTTGTACCGGAAGCCGGTGACGGGCATGTGGGACCAT
CTGCAGGAGCAGGCCAACGACGGCACGCCCATATCCATCGGGGACAGCATCTTTGTGGGAGACGCAGCCGGACGC
CCGGCCAACTGGGCCCCGGGGCGGAAGAAGAAAGACTTCTCCTGCGCCGATCGCCTGTTTGCCCTCAACCTTGGC
CTGCCCTTCGCCACGCCTGAGGAGTTCTTTCTCAAGTGGCCAGCAGCCGGCTTCGAGCTCCCAGCCTTTGATCCG
AGGACTGTCTCCCGCTCAGGGCCTCTCTGCCTCCCCGAGTCCAGGGCCCTCCTGAGCGCCAGCCCGGAGGTGGTT
GTCGCAGTGGGATTCCCTGGGGCCGGGAAGTCCACCTTTCTCAAGAAGCACCTCGTGTCGGCCGGATATGTCCAC
GTGAACAGGGACACGCTAGGCTCCTGGCAGCGCTGTGTGACCACGTGTGAGACAGCCCTGAAGCAAGGGAAACGG
GTCGCCATCGACAACACAAACCCAGACGCCGCGAGCCGCGCCAGGTACGTCCAGTGTGCCCGAGCCGCGGGCGTC
CCCTGCCGCTGCTTCCTCTTCACCGCCACTCTGGAGCAGGCGCGCCACAACAACCGGTTTCGAGAGATGACGGAC
TCCTCTCATATCCCCGTGTCAGACATGGTCATGTATGGCTACAGGAAGCAGTTCGAGGCCCCAACGCTGGCTGAA
GGCTTCTCTGCCATCCTGGAGATCCCGTTCCGGCTATGGGTGGAGCCGAGGCTGGGGCGGCTGTACTGCCAGTTC
TCCGAGGGC**TGA**GCCCCGCCCAGCTCCCCTCCACAATAAACGCTGTTTCTCCTTG

FIGURE 470

ATGGTCCGTCCGCGCCGTGCCCCGTACCGCTCCGGCGCCGGGGGCCCCCTCGGGGGTCGCGGCCGCCCTCCGCGG
CCCCTCGTGGTGCGCGCCGTCCGCTCGCGCTCCTGGCCTGCCAGCCCCCGAGGCCCGCAGCCTCCGCGGATCCGG
GCCCGCTCGGCCCCTCCCATGGAAGGTGCTCGGGTCTTCGGGGCACTGGGTCCCATCGGTCCCTCCTCACCTGGG
CTCACCCTCGGGGGTCTGGCCGTGAGCGAGCACCGGCTCAGCAACAAGCTGCTGGCTTGGAGCGGCAAGCGCAGA
CCCTACTCTGACTCCACTGCAAAGCTGAAGCGGACCCTGCCCTGCCAAGCCTACGTGAACCAAGGCGAGAACCTG
GAGACCGACCAGTGGCCGCAGAAGCTGATCATGCAGCTGATCCCTCAGCAGCTGCTGACCACCCTGGGCCCCCTG
TTCCGGAACTCCCAGTTGGCACAGTTCCACTTCACCAACAGAGACTGCGACTCGCTCAAGGGGCTCTGCCGCATC
ATGGGCAACGGCTTCGCGGGCTGCATGCTGTTCCCCCACATCTCCCCCTGTGAGGTGCGCGTGCTCATGCTCCTG
TACTCGTCCAAGAAGAAGATCTTCATGGGCCTCATCCCCTACGACCAGAGCGGCTTCGTCAGTGCCATCCGGCAG
GTCATCACCACCCGCAAGCAGGCAGTGGGACCTGGTGGTGTCAACTCAGGCCCAGTCCAGATCGTCAACAACAAG
TTTCTGGCATGGAGTGGTGTCATGGAGTGGCAGGAGCCCAGGCCTGAGCCCAACAGTCGGTCCAAGAGGTGGCTG
CCATCCCACGTCTACGTGAACCAGGGGGAGATCCTGAGGACCGAGCAGTGGCCAAGGAAGCTGTACATGCAGCTC
ATCCCGCAGCAGCTGCTGACCACCCTAGTGCCGCTGTTCCGGAACTCGCGCCTGGTCCAGTTCCACTTCACCAAG
GACCTGGAGACACTGAAGAGCCTGTGCCGGATCATGGACAATGGCTTCGCCGGCTGCGTGCACTTTTCCTACAAA
GCATCGTGTGAGATCCGCGTGCTTATGCTCCTGTACTCTTCAGAGAAGAAAATCTTCATTGGCCTCATCCCCCAT
GACCAGGGCAACTTTGTCAACGGCATCCGGCGTGTCATTGCCAACCAGCAGCAGGTCCTGCAGCGGAACCTGGAG
CAGGAGCAACAGCAACGAGGGATGGGGGGGTAGTGGTTACCCCGGGCTGGGCCCCTCCAGGAGTCACAGATGAGG
CCCCCGCAGAGACTGGTGACACGCTTCTGAGCAGGGGCCCCTGGGGACTTCAACTGCCCAGCAACATGGAGGATG
GTGTCCTGAGGCCTCCAAGGACGGTCCCCACCCCTCTACGTTTCCCCAATAAAGCCTTTTAAAAACC

FIGURE 471

ACAAGCTCCCGGGAAACCAGGAGTGACAAGGGCGCCTGTCCCTGAGGAGTGGAGAGCGCGGAGTTGGTGCTGAGT
CAGCCCTGATGTGGCAGAGGAGGAGCAGGCCCCCGCAGAACCAGGGCTCTTCAGTGTCTCCAGGTCCTTGGTGAA
GTGGAACTGGACCAGGCGCGAGTTCCGGAACAGCGGCACTAGGGTGGTCTGCGGGGAAGCGAGGGGACCCCCAGC
TCTGGCTTCTCCCACCACGGCCTCCCGGCTCCCAGCCCGCTGAGTCCCCCGGGCCCAGGACCAAACTGAGACTCC
CCTGTCCTCCCTACCTCAGGAAACGTCATCTCCACCGCTCAACCAGCCCAACCCTGGAGTGCTGTGGAAGCCGCT
CTCAGATCCCTTGGCAGCCCCCCAGGTGCAGGTCGTGGCTGCCCCTGCCCCGCTCAGTCCCTGCACAGCCACCAG
CTGGCTGCCTGGGACCCCTTGAAGCCAAGCCTGAGGAGCTACCCACCACACCTGCTTCAGCACCCTCAGCTCCGC
TCCCTCACAGCCAGCTCAGGCCACCTGGGGAGGCGCTCTTGCCCCCAGCCCCGCCCTCTGGAAGAGCTACTGCGT
GCAGGCTCCAGCACCCGGCCCCAGCCCCTCACCAGCAGCTGCTGCGGGATGAGCTGCATGTACAGCTTCCTTGGC
CACTGCTCGGTCCTCCTGTGGGGCACAAAGGGACGAGGGTCAGGAAGCCCCAGCTCCCCTGGATGCTGCCTCCAC
CCCCCAGCCCAGCACTCACAGGATCTCCCCCTGGTTCACGTAGACGTGGGATGGCAGCCACCTCTTGGACCGACT
GTTGGGCTCAGGCCTGGGCTTTTGGGGGAGAGGCAAAGAGGAGCCCTCAGGGCTGGAGACCCCCAATGCCAGTGT
CCCCTCCCAGCCACAGTCCGTGAGGATCTGGGGGTCCCAAGTCCCTGGGCTGCCGAGTGCTCACCTCCTGCCACT
CCATGACACCACTCCATGCCAGAAACTTGTTGTTGACGATCTGGACTGGGCCTGAGTTGACACCACCAGGTCCCA
CTGCCTGTTGGAAGGGAACGGGGTGGGAAGAGGGGCCCAGGCTCCTGGGAAACCTGTCTGTCTGTCCTGGGGCCT
GCCATCCCTCCCTCCGAGCCTTGGCCTGTTAGCCCCAGCTGGGTCCATTCTCTAGTCCCAGGGGAACAGGCCCTG
CCCCTCATCTGCTCACAGCCCCCC**ATG**GCTCCCCAGTGGCCTGAGACAGGTCCCGGCCCTCACCTGGTGCACAGG
ACCTGCAGAGTCTGCCTCAACTGGCAAGGCATGACCAGGACACGTGGTTACCAGGCAGGGCCTTCCAGCCGCAGG
ACGATCCCAACCCCTGCCCAGCTCCCCGCTCCGCTGGCTTCCCTGCCGCCGCGCCAAGACCCACCCTCCAGCCCT
GCAGAGCCGCCCAGTGGCCGCTTTTCCATGGAGCCCTGGTGGGAACCCGCCCGGCATCCTCCGGGCTCCCCTGCA
GCTCCTTGCTCCAGCCATCGCATCACACTCCGCCCACACCAAGTCTGGCTGCCCAACCAGGGCAGTGGGGTC**TAA**

TCCCCCTCTGTCCCCAGAGGGGCTGTGCTTGGCTGGCACACCTGCTTGCGGGTGGTGATGACCTGCCGGATGGCA
CTGACGAAGCCGCTCTGGTCGTAGGGGATGAGGCCCATGAAGATCTTCTTCTTGGACGAGTACAGGAGCATGAGC
ACGCGCACCTCACAGGGGGAGATGTGGGGGAACAGCATGCAGCCCGCCTGCGGGGGCCGCGGGTCAGGACCCTGT
GGTCACTGCCCGGGGCCACTGTGCCCCCACCACCCTGGACCGCCCCACCTGTAGGGGATGAAGGGAGATCATCGG
TGGACAGAGGCCCCCACAGTCAAGGCCATGGCCATAGGTGAGGGGCCTCTGAGAGCCCGTGCAGCGCCCATCGGC
ATCCCCCGACCCTGCCATGGCTGAGGTCAGAGTGGCACCCGGCACCCAGGCTGCGGTGAGAATGCCAAGAAGGCA
CTACCTCCCACCCACATCACCCCCTGCCGCCAGCCCTCCTGACTGCCTGATGGGGTGACTTGGCCTGGGGGTTAA
GAGCACAGGCAGCGCCCCACCGTTCTGCTGCCTCCTAGCTGTGTGACCTAACACCAGCCACCTCCTGCTTCTGGG
CCTCCATCATCTGTAAAACCGGGTAATAGTGCACACAGTTGGTGCCACATAAAGGCTCAACAGATAAA

FIGURE 472

GGCTGCGGCTGCAGTGGTGGTGGCGGGTACCGCACGGGGT**ATG**GTCCCCGGGTCCGAGGGCCCGGCCCGCGCCGG
GAGCGTGGTGGCCGACGTGGTGTTTGTGATTGAGGGTACGGCCAACCTGGGACCCTACTTCGAGGGGCTCCGCAA
GCACTACCTGCTCCCGGCCATCGAGTATTTTAATGGTGGTCCTCCTGCTGAGACGGACTTCGGGGGAGACTATGG
GGGGACCCAGTACAGCCTCGTGGTGTTCAACACAGTGGACTGCGCTCCCGAGTCCTACGTACAATGTCACGCTCC
CACCAGCAGCGCCTATGAGTTTGTCACCTGGCTCGATGGCATTAAGTTCATGGGCGGGGGTGGTGAGAGCTGCAG
CCTCATCGCGGAAGGACTCAGCACAGCCTTGCAGCTGTTTGATGACTTCAAGAAGATGCGCGAGCAGATTGGCCA
GACGCACCGGGTCTGCCTCCTCATCTGCAACTCACCCCCATACTTGTTGCCTGCTGTTGAGAGCACCACGTACTC
TGGATGCACAACTGAGAATCTTGTGCAGCAGATTGGGGAGCGGGGGATCCACTTCTCCATTGTGTCTCCCCGGAA
GCTGCCTGCGCTTCGGCTTCTGTTTGAGAAGGCAGCCCCCCCGGCCTTGCTGGAGCCGCTGCAGCCTCCGACAGA
TGTGAGCCAGGACCCGAGGCACATGGTGCTGGTTCGGGGACTCGTGCTGCCTGTTGGGGGTGGCTCAGCCCCAGG
CCCCCTCCAGTCAAAGCAGCCAGTCCCCCTGCCTCCCGCCGCACCCTCAGGTGCCACTCTCTCAGCAGCCCCCCA
GCAGCCTCTGCCCCCCCGTCCCCCCCGCAGTACCAGGTTCCCGGGAACCTGAGTGCAGCTCAGGTGGCCGCGCAGAA
TGCAGTGGAGGCTGCCAAGAACCAGAAGGCTGGGCTGGGCCCTCGCTTCTCGCCCATCACCCCTCTCCAACAAGC
TGCTCCCGGAGTGGGTCCCCCCTTCAGCCAGGCCCCAGCTCCCCAACTACCCCCAGGACCCCCTGGCGCCCCCAA
GCCACCACCTGCTTCCCAGCCCAGTCTGGTCTCCACTGTGGCCCCTGGCTCCGGCCTGGCTCCCACGGCACAGCC
CGGGGCACCGTCCATGGCAGGCACTGTGGCCCCAGGAGGGGTGAGCGGCCCTTCCCCAGCCCAGCTGGGAGCCCC
AGCCCTCGGTGGGCAGCAGTCAGTCTCCAATAAGCTTCTGGCCTGGAGCGGGGTCCTGGAGTGGCAAGAGAAACC
CAAACCTGCCTCAGTGGATGCCAACACCAAGCTGACGCGGTCACTGCCCTGCCAGGTCTACGTGAATCATGGCGA
GAACCTGAAGACGGAGCAGTGGCCCCAGAAGCTGATCATGCAGCTCATCCCCCAGCAGCTGCTGACCACCCTGGG
CCCTTTGTTCCGGAACTCAAGGATGGTCCAGTTCCATTTCACCAACAAGGACCTGGAGTCTCTCAAAGGCCTCTA
CCGCATCATGGGCAACGGCTTCGCGGGCTGCGTGCACTTCCCCCACACGGCGCCCTGTGAGGTGCGCGTGCTCAT
GCTCCTGTACTCGTCCAAGAAGAAGATCTTCATGGGCCTCATCCCCTACGACCAGAGCGGCTTCGTCAACGGCAT
CCGGCAGGTCATCACCAACCACAAGCAGGTCCAGCAGCAGAAGCTGGAGCAGCAGCAGCGAGGAATGGGGGGACA
GCAGGCACCCCCAGGGCTGGGGCCCATTCTGGAGGACCAAGCCAGGCCCTCACAGAATCTGCTCCAGCTCCGCCC
ACCGCAGCCCCAGCCTCAGGGTACCGTAGGGGCCTCTGGGGCCACGGGGCAGCCCCAGCCCCAAGGTACTGCCCA
GCCCCCGCCAGGTGCCCCTCAAGGCCCTCCTGGAGCAGCTTCTGGCCCACCCCCTCCTGGACCCATCCTTCGGCC
CCAGAACCCTGGGGCCAACCCTCAGCTGCGAAGCCTCCTCCTCAACCCACCACCGCCGCAGACTGGGGTGCCCCC
ACCCCAGGCCTCCCTCCACCACCTGCCCAGTCCTGGCCCGCACAACTTCCCCCTCGGGCTCCACTGCCAGGTAAG
GGGACCCGGGGGAGGGCAGAGGTCTGGACTGAGTGTCCCAGCAGCTCCTGGGCTAGAGCACCAAGACCGAGTGCT
CCTGGGAAGTAAAGACATAGGATCCAAGAATGAGGGTTCCCCCAGCCGGGCCTGCAGCCCAGCGTCATGGAGGAC
GACATCCTCATGGATCTCATCTGAATCCCCAACACCCAATAAAGTTCCTTTT**TAA**CAC

FIGURE 473

AGGGTTTGAGGGTCTGTTTGAGTTGGGTGAAGAAGGCGGGAAGTTAATCCTCTTCCAATCAGCTCCCCATCTCGC
CCTCTGGCGGCTCCGGACCACAGGCCGAGTTACTCTGATTACCGCCATGCTCCAAGACCCGCACTGACAGTCCCC
ACGTGAGGGACCGCGGTGGGAGTCCTAA**ATG**GGGGAGGAGGGGACGGGCGGCACTGTGCATCTGCTGTGCCTCGC
GGCCTCCAGCGGGGTCCCCCTATTCTGCAGGAGCAGTCGCGGCGGCGCCCCCGCCCGTCAGCAGCTCCCGTTCTC
TGTCATCGGTTCCCTCAATGGAGTCCACATGTTTGGGCAGAATCTGGAGGTGCAGCTGAGCTCTGCGAGGACCGA
GAACACGACTGTGGTGTGGAAAAGCTTCCATGACAGCATCACCCTCATTGTTCTGTCATCTGAGGTGGGCATCTC
TGAGCTGAGGCTGGAGAGACTACTCCAAATGGTGTTTGGAGCCATGGTCCTTCTTGTGGGACTTGAAGAACTGAC
CAATATCCGCAACGTGGAGAGACTGAAGAAGGACTTGAGGGCCAGTTATTGCCTCATCGACAGCTTCCTGGGGGA
CTCGGAGCTCATCGGGGACCTGACCCAGTGTGTGGACTGCGTGATTCCTCCAGAGGGGTCCCTCTTGCAGGAAGC
CCTCTCCGGGTTCGCTGAGGCCGCGGGCACGACCTTCGTCAGTCTGGTGGTGTCCGGCCGGGTGGTGGCAGCAAC
AGAGGGTTGGTGGCGGCTGGGGACGCCCGAGGCCGTGCTGCTCCCCTGGCTGGTGGGGTCCCTGCCGCCGCAGAC
CGCTCGCGACTACCCGGTGTACCTGCCGCACGGGAGCCCCACGGTCCCACACCGGCTCCTGACCCTGACTCTGCT
GCCGAGCCTGGAGCTGTGTCTACTCTGCGGGCCGAGCCCACCCCTCAGCCAGTTGTATCCACAGCTTCTGGAGCG
CTGGTGGCAGCCACTGCTGGACCCGTTGCGGGCCTGTCTGCCGTTGGGACCCCGGGCGCTGCCCAGTGGCTTCCC
CCTTCACACAGACATCCTCGGGCTGCTGCTCCTCCACCTGGAACTGAAGCGCTGCCTCTTCACCGTGGAGCCCTT
GGGGGATAAAGAGCCTTCACCAGAACAGCGCCGGCGCCTCCTCCGAAACTTCTATACCCTGGTCACCTCCACGCA
CTTCCCACCAGAGCCAGGGCCACCAGAGAAGACAGAAGATGAGGTCTACCAGGCCCAGCTGCCCAGAGCTTGCTA
CCTGGTGTTGGGGACTGAGGAACCAGGCACAGGAGTGCGTCTGGTGGCCTTGCAGCTGGGGCTTCGGCGGCTGCT
GCTGCTGCTGTCTCCCCAGAGTCCCACCCATGGGCTGCGAAGCCTGGCCACCCACACTCTGCATGCCCTCACCCC
ACTTCTT**TGA**CTACCTAGCAGTGGGTGATGGACACAGACATGGGGCTGTTAGCGTCTCTCTGTTTATTCGCTCAC
AATAATACACAGCCCCTGGATGGGGAGGGGGTAGGAGGGGCTACAACAGGGTGGGGTGGGAGGGGAGGAGACATC
CACTTCCCTGGCCCCTCTCCCCTCTGTGCTTGGGGGGGAAAGGGAGGGAGGGGGACTCCCCCTAACCCCCCAGAA
TGTAAACAGCAGCAGATGAACAAAAATAAAAATACAAAAGGCCGGAGGAAAGTCCCAGGCATCCCCC

FIGURE 474

CGCCCGGTCCCCGCTTGCCAGCCCCCGCTGCTCTGTGCCCTGTCCGGCCAGGCCTGGAGCCGACACCACCGCCAT
C**ATG**CCGGCCGTGTCCAAGGGCGATGGGATGCGGGGGCTCGCGGTGTTCATCTCCGACATCCGGAACTGTAAGAG
CAAAGAGGCGGAAATTAAGAGAATCAACAAGGAACTGGCCAACATCCGCTCCAAGTTCAAAGGAGACAAAGCCTT
GGATGGCTACAGTAAGAAAAAATATGTGTGTAAACTGCTTTTCATCTTCCTGCTTGGCCATGACATTGACTTTGG
GCACATGGAGGCTGTGAATCTGTTGAGTTCCAATAAATACACAGAGAAGCAAATAGGTTACCTGTTCATTTCTGT
GCTGGTGAACTCGAACTCGGAGCTGATCCGCCTCATCAACAACGCCATCAAGAATGACCTGGCCAGCCGCAACCC
CACCTTCATGTGCCTGGCCCTGCACTGCATCGCCAACGTGGGCAGCCGGGAGATGGGCGAGGCCTTTGCCGCTGA
CATCCCCCGCATCCTGGTGGCCGGGGACAGCATGGACAGTGTCAAGCAGAGTGCGGCCCTGTGCCTCCTTCGACT
GTACAAGGCCTCGCCTGACCTGGTGCCCATGGGCGAGTGGACGGCGCGTGTGGTACACCTGCTCAATGACCAGCA
CATGGGTGTGGTCACGGCCGCCGTCAGCCTCATCACCTGTCTCTGCAAGAAGAACCCAGATGACTTCAAGACGTG
CGTCTCTCTGGCTGTGTCGCGCCTGAGCCGGATCGTCTCCTCTGCCTCCACCGACCTCCAGGACTACACCTACTA
CTTCGTCCCAGCACCCTGGCTCTCGGTGAAGCTCCTGCGGCTGCTGCAGTGCTACCCGCCTCCAGAGGATGCGGC
TGTGAAGGGGCGGCTGGTGGAATGTCTGGAGACTGTGCTCAACAAGGCCCAGGAGCCCCCCAAATCCAAGAAGGT
GCAGCATTCCAACGCCAAGAACGCCATCCTCTTCGAGACCATCAGCCTCATCATCCACTATGACAGTGAGCCCAA
CCTCCTGGTTCGGGCCTGCAACCAGCTGGGCCAGTTCCTGCAGCACCGGGAGACCAACCTGCGCTACCTGGCCCT
GGAGAGCATGTGCACGCTGGCCAGCTCCGAGTTCTCCCATGAAGCCGTCAAGACGCACATTGACACCGTCATCAA
TGCCCTCAAGACGGAGCGGGACGTCAGCGTGCGGCAGCGGGCGGCTGACCTCCTCTACGCCATGTGTGACCGGAG
CAATGCCAAGCAGATCGTGTCGGAGATGCTGCGGTACCTGGAGACGGCAGACTACGCCATCCGCGAGGAGATCGT
CCTGAAGGTGGCCATCCTGGCCGAGAAGTACGCCGTGGACTACAGCTGGTACGTGGACACCATCCTCAACCTCAT
CCGCATTGCGGGCGACTACGTGAGTGAGGAGGTGTGGTACCGTGTGCTACAGATCGTCACCAACCGTGATGACGT
CCAGGGCTATGCCGCCAAGACCGTCTTTGAGGCGCTCCAGGCCCCTGCCTGTCACGAGAACATGGTGAAGGTTGG
CGGCTACATCCTTGGGGAGTTTGGGAACCTGATTGCTGGGGACCCCCGCTCCAGCCCCCCAGTGCAGTTCTCCCT
GCTCCACTCCAAGTTCCATCTGTGCAGCGTGGCCACGCGGGCGCTGCTGCTGTCCACCTACATCAAGTTCATCAA
CCTCTTCCCCGAGACCAAGGCCACCATCCAGGGCGTCCTGCGGGCCGGCTCCCAGCTGCGCAATGCTGACGTGGA
GCTGCAGCAGCGAGCCGTGGAGTACCTCACCCTCAGCTCAGTGGCCAGCACCGACGTCCTGGCCACGGTGCTGGA
GGAGATGCCGCCCTTCCCCGAGCGCGAGTCGTCCATCCTGGCCAAGCTGAAACGCAAGAAGGGGCCAGGGGCCGG
CAGCGCCCTGGACGATGGCCGGAGGGACCCCAGCAGCAACGACATCAACGGGGGCATGGAGCCCACCCCCAGCAC
TGTGTCGACGCCCTCGCCCTCCGCCGACCTCCTGGGGCTGCGGGCAGCCCCTCCCCCGGCAGCACCCCCGGCTTC
TGCAGGAGCAGGGAACCTTCTGGTGGACGTCTTCGATGGCCCGGCCGCCCAGCCCAGCCTGGGGCCCACCCCCGA
GGAGGCCTTCCTCAGCGAGCTGGAGCCGCCTGCCCCCGAGAGCCCCATGGCTTTGCTGGCTGACCCAGCTCCAGC
TGCTGACCCAGGTCCTGAGGACATCGGCCCTCCCATTCCGGAAGCCGATGAGTTGCTGAATAAGTTTGTGTGTAA
GAACAACGGGGTCCTGTTCGAGAACCAGCTGCTGCAGATCGGAGTCAAGTCAGAGTTCCGACAGAACCTGGGCCG
CATGTATCTCTTCTATGGCAACAAGACCTCGGTGCAGTTCCAGAATTTCTCACCCACTGTGGTTCACCCGGGAGA
CCTCCAGACTCAGCTGGCTGTGCAGACCAAGCGCGTGGCGGCGCAGGTGGACGGCGGCGCGCAGGTGCAGCAGGT
GCTCAATATCGAGTGCCTGCGGGACTTCCTGACGCCCCCGCTGCTGTCCGTGCGCTTCCGGTACGGTGGCGCCCC
CCAGGCCCTCACCCTGAAGCTCCCAGTGACCATCAACAAGTTCTTCCAGCCCACCGAGATGGCGGCCCAGGATTT
CTTCCAGCGCTGGAAGCAGCTGAGCCTCCCTCAACAGGAGGCGCAGAAAATCTTCAAAGCCAACCACCCCATGGA
CGCAGAAGTTACTAAGGCCAAGCTTCTGGGGTTTGGCTCTGCTCTCCTGGACAATGTGGACCCCAACCCTGAGAA
CTTCGTGGGGGCGGGGATCATCCAGACTAAAGCCCTGCAGGTGGGCTGTCTGCTTCGGCTGGAGCCCAATGCCCA
GGCCCAGATGTACCGGCTGACCCTGCGCACCAGCAAGGAGCCCGTCTCCCGTCACCTGTGTGAGCTGCTGGCACA
GCAGTTC**TGA**GCCCTGGACTCTGCCCCGGGGGATGTGGCCGGCACTGGGCAGCCCCTTGGACTGAGGCAGTTTTG
GTGGATGGGGGACCTCCACTGGTGACAGAGAAGACACCAGGGTTTGGGGGATGCCTGGGACTTTCCTCCGGCCTT
TTGTATTTTTATTTTTGTTCATCTGCTGCTGTTTACATTCTGGGGGGTTAGGGGGAGTCCCCCTCCCTCCCTTTC
CCCCCCAAGCACAGAGGGGAGAGGGGCCAGGGAAGTGGATGTCTCCTCCCCTCCCACCCCACCCTGTTGTAGCCC
CTCCTACCCCCTCCCCATCCAGGGGCTGTGTATTATTGTGAGCGAATAAACAGAGAGACGCT

FIGURE 475

AGGCGCAGACGGGGAAGCGGAGCCAAC**ATG**CCAGTGGCCCGGAGCTGGGTTTGTCACAAAACTTATGTGACCCCG
CGGAGACCCTTCGAGAAATCTCGTCTCGACCAAGAGCTGAAGCTGATCGGCAACGTCCTGCTGCGGCGGCTGCTC
CGCATTGGGGTGCTGGATGAGGGCAAGACGAAGCTGGATTACATCCTGGGCCTGAAGATAGAGGATTTCTTAGAG
AGACGCCTACAGACCCAGGTCTTCAAGCTGGGCTTGGCCAAGTCCATCCACCACGCTGGCGTACTGATCCGCCAG
CGCCGTGTCAGGGTCCGCAATCAGGTGGCGAACATCCCGTCCTTCATTGTCCGCCTGGATTCCCAGAAGCGCATC
GACTTGTCTCTGCGCTCTCCCTATGGGGTGGCCGCCCCGGCCGCG**TGA**AGAGGAAGAACGCCAAGAAGGGCCAGG
GTGAGGGTGGGGCTGGAGACGACGAGGAGGAGGATTAAGTCCACCTGTCCCTCCTGGGCTGCTGGATTGTCTCGT
TTTCCTGCCAAATAAACAGGATCAGCACTTTAC

FIGURE 476

GGAATCGGGGTTTCTGGGTGACGGTGATCTCGGGGTGGGCAGGACTCCAAAGGCCCGTCGACCCGGTGGTGGACT
CCTTGCACTGGGATTGGACATATGCAAGCGGGAGATTTGGGGCCGGCGCTCAAAATCGGGGGGCGGGGGTGGACT
CGGGTTTGGACCCCAGGATCCGATCAGCGGACCCTTGATTCAACGTGGGCTCCAGCGTGAC**ATG**GCTGAAGCGCA
CCAGGCCGTGGGCTTCCGACCCTCGCTGACCTCGGACGGGGCTGAAGTGGAACTCAGTGCCCCTGTGCTGCAGGA
GATCTACCTCTCTGGCCTGCGCTCCTGGAAAAGGCATCTCTCACGTTTCTGGAATGACTTTCTCACCGGTGTGTT
TCCTGCCAGCCCCCTCAGTTGGCTTTTCCTCTTCAGTGCCATCCAGCTTGCCTGGTTCCTCCAGCTGGATCCTTC
CTTAGGACTGATGGAGAAGATCAAAGAGTTGCTGCCTGACTGGGGTGGACAACACCACGGGCTCCGGGGGGTCCT
GGCAGCCGCGCTGTTTGCCTCGTGTTTGTGGGGAGCCCTGATCTTCACACTGCACGTGGCCCTGAGGCTGCTTCT
GTCCTACCACGGCTGGCTTCTTGAGCCCCACGGAGCCATGTCCTCCCCCACCAAGACCTGGCTGGCCCTGGTCCG
CATCTTCTCTGGCCGCCACCCGATGCTGTTCAGTTACCAGCGCTCCCTGCCACGCCAGCCCGTGCCCTCTGTGCA
GGACACCGTGCGCAAGTACCTGGAGTCGGTCCGGCCCATCCTCTCCGACGAGGACTTCGACTGGACCGCGGTCCT
GGCGCAGGAATTCCTGAGGCTGCAGGCGTCGCTGCTGCAGTGGTACCTGCGGCTCAAGTCCTGGTGGGCGTCCAA
TTATGTCAGTGACTGGTGGGAGGAATTTGTGTACCTGCGCTCCCGAAATCCGCTGATGGTGAACAGCAACTATTA
CATGATGGACTTCCTGTATGTCACACCCACGCCTCTGCAGGCAGCTCGCGCTGGGAATGCCGTCCATGCCCTCCT
CCTGTACCGCCACCGCCTGAACCGCCAGGAGATACCCCCGACTTTGCTGATGGGAATGCGCCCCTTATGCTCTGC
CCAGTACGAGAAGATCTTCAACACCACGCGGATTCCAGGGGTCCAAAAAGACTACATCCGCCACCTCCATGACAG
CCAACACGTGGCTGTCTTCCACCGGGGCCGATTCTTCCGCATGGGGACCCACTCCCGAAACAGCCTGCTTTCCCC
GAGAGCCCTGGAGCAGCAGTTTCAGAGAATCCTGGATGATCCCTCACCGGCCTGCCCCCACGAGGAACATCTGGC
AGCTCTGACAGCTGCTCCCAGGGGCACGTGGGCCCAGGTGCGGACATCCCTGAAGACCCAGGCAGCGGAGGCCCT
GGAGGCGGTGGAAGGGGCCGCTTTCTTTGTGTCACTGGATGCTGAGCCCGCGGGGCTCACCAGGGAGGACCCGGC
AGCGTCGTTGGATGCCTACGCCCATGCTCTGCTGGCCGGCCGGGGCCATGATCGCTGGTTTGACAAATCCTTCAC
CCTAATCGTCTTCTCTAACGGGAAGCTGGGCCTCAGCGTGGAGCACTCCTGGGCCGACTGCCCCATCTCAGGACA
CATGTGGGAGTTCACTCTGGCTACAGAATGCTTTCAGCTGGGCTACTCAACAGACGGCCACTGCAAGGGGCACCC
GGACCCCACACTACCCCAGCCCCAGCGGCTGCAATGGGACCTTCCAGACCAGATCCACTCCTCCATCTCTCTAGC
CCTGAGGGGAGCCAAGATCTTGTCTGAAAATGTCGACTGCCATGTCGTTCCATTCTCCCTATTTGGCAAGAGCTT
CATCCGACGCTGCCACCTCTCTTCAGACAGCTTCATCCAGATCGCCTTGCAACTGGCCCACTTCCGGGACAGGGG
TCAATTCTGCCTGACTTATGAGTCGGCCATGACTCGCTTATTCCTGGAAGGCCGGACGGAGACGGTGCGGTCTTG
CACGAGGGAGGCCTGCAACTTTGTCAGGGCCATGGAGGACAAAGAGAAGACGGACCCACAGTGCCTCGCCCTGTT
CCGCGTGGCAGTGGACAAGCACCAGGCTCTGCTGAAGGCAGCCATGAGCGGGCAGGGAGTTGACCGCCACCTGTT
TGCGCTGTACATCGTGTCCCGATTCCTCCACCTGCAGTCGCCCTTCCTGACCCAGGTCCATTCGGAGCAGTGGCA
GCTGTCCACCAGCCAGATCCCTGTTCAGCAAATGCATCTGTTTGACGTCCACAATTACCCGGACTATGTTTCCTC
AGGCGGTGGATTCGGGCCTGCTGATGACCATGGTTATGGTGTTTCTTATATCTTCATGGGGGATGGCATGATCAC
CTTCCACATCTCCAGCAAAAAATCAAGCACAAAAACGGATTCCCACAGGCTGGGGCAGCACATTGAGGACGCACT
GCTGGATGTGGCCTCCCTGTTCCAGGCGGGACAGCATTTTAAGCGCCGGTTCAGAGGGTCAGGGAAGGAGAACTC
CAGGCACAGGTGTGGATTTCTCTCCCGCCAGACTGGGGCCTCCAAGGCCTCAATGACATCCACCGACTTC**TGA**CT
CCTTCCAGCAGGCAGCTGGCCTCTCCAAGGAATAAGGGTGAAATTGCCACAGCTGGCTGACACAGGACAGGGGCA
ACTGGTTTGGCAACCCCACATCCAGGCCAATAAAGATGTGTGAGCTGGG

FIGURE 477

TCCTGGGTCTGCGCCCCTCCCCTCTGCGGTACCCGTGTCCTGCCTAGTAGGGGATGGGGGTGGCTTTCCAGCACA
GCCAGCCCTCAAGTTTCCCAGAACAGTCTCCCCACCTCCCCCCAACACTCGACATTGTTCCTCTCTGGCTGTTTT
TTCCTGTTCGGGTCCCTTCAAGGCCCAACTGTGCCCAGCCCTCTGCAGCTGGGGACACTGAGTGGGTTGGGGGTG
TATGTTTGCAAGGATAGAATTTCTCATGGGGGAGTGGCCCTGCTTCCTCCCCTAGAATGGCTTGGGGCTTAGGGC
TGGGGACTTGCCCTCCATGGAGGTCAGTGGGAGTTGCAGCTGTAAGGTGGCAGGGCCTACCCATCTTACAGAGGT
GAAGACGAGGTCCCTCTGCCTCTGCTGCAGACATGGCGTCTGCACCCACCCTTCCACCCTCAGGGCCTGGCCACG
GGGTCCTGGGTCCCCCACAATACTGTGCACTCGACCTGGTTGACCCAGGACACCCTCCTCGTTGAACAGCCCTGG
CTACACCTGCTTCAGTGCAACTGGAGCCCTCACCGGCGAGTGCCTGACACCTCGGCCTTTTCTCTTCCGGAGGGG
CGCTCCTCAGTGTGTTTGGGGTCTCCCTCGCTCCACGCCCTCCAGGGGGCCGCATGTGCACTTGCCCTGCATTGC
CTGGCCCCCGAGGTTCCAGGGTCCCAACTGTCTACTAACCGGCTTCCCGACAGGGTGAGGGTGAGGTCGCATCTA
CAACCAGAGCCAGCGCTTCCCCGCCGCCACCCCTTTTCTTGGAATCCCGCTGCTTAGCTACCTGCGGGTGTCATT
GGCCCCGCCCCATTTCCCCACGCTTTGAAGGGGGCGAGTCTCCACAGACCTCCTAGGGGGATAGACAGCAGCTGG
TGTGACCCCACACACCCAGTGAGGTCTCTGGAGCCGCGGTGCGGGAAGCGGGGACCCGGGTTTGAATCCTGCCCC
TCTGGTGTGGTGCGGCCTCTTCCCACAGACTTTTGGCCTCAGTGTTCCCCGCCTGGGAAGTGGGGACTGGCCCTG
GTACCTGGCTCCAGAGCTGCACCCAGAGGCGATCAGCCCGGTGCGGGAACGGGGCGGGGTGGCCGCAACTACGGG
CCACGGATCCTGACCCGCCCTGCCCACG**ATG**ACTATCCACATCCTCATCCTGCTGTTGCTCCTCGCCTTCTCCGC
CCAAGGGGACCTGGACACTGCAGCCAGGCGAGGCCAGCACCAGGTCCCCCAGCACCGCGGGCACGTCTGCTACCT
GGGCGTATGCCGGACCCACCGCCTGGCGGAGATCATATACTGGATTCGCTGTCTCCACCAAGGAGCCCTCGGGGA
AGGCCAGCCACGAGCCCCAGGACCCCTACAGCTATGGGCGCCGCCGGTGGCGCGAGGCGGAAGCCCGGCTCGGTT
CCCAGGATTCCGGCCTGCAGCGAGGGGGCTAGCGCAGTGCCCAGCTCGCTGGGTGACCTCGGGCACGGCTCGTCC
CCTCCTCGGCTTCAGTTTGCCTATCTGTATGTTGGAGCTTCTACTCCACATTTCTTCTCCCCTAACTCCAGCCCC
TGAAACCGTCTTCCCCAGTCCCTCCCCGGGCTGCGAC**TAG**GTTGGACCTAGAAGCACACGGGACCAGGCTGGGCG
AAGAACACTGACGCCCAGAGCCGAATAAACAAGAGTTCCGTGTTTCA

FIGURE 478

GGCAGCCGAGGCCGCGAACTGCATC**ATG**GAGAATTTTGTAGCCACCTTGGCTAATGGGATGAGCCTCCAGCCGCC
TCTTGAAGAAGTGTCCTGTGGCCAGGCGGAAAGCAGTGAGAAGCCCAACGCTGAGGACATGACATCCAAAGATTA
CTACTTTGACTCCTACGCACACTTTGGCATCCACGAGGAGATGCTGAAGGACGAGGTGCGCACCCTCACTTACCG
CAACTCCATGTTTCATAACCGGCACCTCTTCAAGGACAAGGTGGTGCTGGACGTCGGCTCGGGCACCGGCATCCT
CTGCATGTTTGCTGCCAAGGCCGGGGCCCGCAAGGTCATCGGGATCGAGTGTTCCAGTATCTCTGATTATGCGGT
GAAGATCGTCAAAGCCAACAAGTTAGACCACGTGGTGACCATCATCAAGGGGAAGGTGGAGGAGGTGGAGCTCCC
AGTGGAGAAGGTGGACATCATCATCAGCGAGTGGATGGGCTACTGCCTCTTCTACGAGTCCATGCTCAACACCGT
GCTCTATGCCCGGGACAAGTGGGCGCCCGATGGCCTCATCTTCCCAGACCGGGCCACGCTGTATGTGACGGCCAT
CGAGGACCGGCAGTACAAAGACTACAAGATCCACTGGTGGGAGAACGTGTATGGCTTCGACATGTCTTGCATCAA
AGATGTGGCCATTAAGGAGCCCCTAGTGGATGTCGTGGACCCCAAACAGCTGGTCACCAACGCCTGCCTCATAAA
GGAGGTGGACATCTATACCGTCAAGGTGGAAGACCTGACCTTCACCTCCCCGTTCTGCCTGCAAGTGAAGCGGAA
TGACTACGTGCACGCCCTGGTGGCCTACTTCAACATCGAGTTCACACGCTGCCACAAGAGGACCGGCTTCTCCAC
CAGCCCCGAGTCCCCGTACACGCACTGGAAGCAGACGGTGTTCTACATGGAGGACTACCTGACCGTGAAGACGGG
CGAGGAGATCTTCGGCACCATCGGCATGCGGCCCAACGCCAAGAACAACCGGGACCTGGACTTCACCATCGACCT
GGACTTCAAGGGCCAGCTGTGCGAGCTGTCCTGCTCCACCGACTACCGGATGCGC**TGA**GGCCCGGCTCTCCCGCC
CTGCACGAGCCCAGGGGCTGAGCGTTCCTAGGCGGTTTCGGGGCTCCCCCTTCCTCTCCCTCCCTCCCGCAGAAG
GGGGTTTTAGGGGCCTGGGCTGGGGGGATGGGGAGGGCACATCGTGACTGTGTTTTTCATAACTTATGTTTTTAT
ATGGTTGCATTTACGCCAATAAATCCTCAGCTGGG

FIGURE 479

AAGTAAGTATCCCCACTTTCAGGGTAGCATCCTCTTTCCCTAGTTATTTCAGTGCAGAATCGATTCACGTGTAAG
CCTCTACCTCCTGCACTTACCCCAATGTAGACCCCCTTCCACAGTCCCCCTACAGAAGATCTCCCAAAACATTTC
CAACACAGAACTTCCATTCAATTCCCCTCCGACTGCCCGCCTCCCTCCTCCAGGACAGAGCACGCCCCAGGTTTC
GAGACTGAACTACCCCCATCTACGGAGTCCACCCCTCCCTCTCTAGAACCCCCTCAGTGTAGACGCCTCCTCTTT
TCCTCTTTCCTCCCTACTTTTTCTAGTTTTTCTGCAGCCGACCTCCAGCGTCGGCCACTGTAGCTCCTTCCTTGC
TCCACTTTCCCCAGAGTACACAGCCTGCCTTTCCACTCTCCGTGCAGACCCATCCTCTTTCCCGCTCCTCGCTCT
CGGACGCCACCAACGCTCTCCCGGGCTCTTCCGCGTTACCTACGATGGAAGGTCGGGGCGTGCGGGCAGCTGGAA
CCCACCCCTGTCTTGGAGCTCCGGGTAGCTCTCAAACTCGAGGCTGCGCACCCCCTTTCCCGTCAGCTGAGCTCT
AGAGCGCTGGGGCTTTCTTTTTGATCGACTTCTTGAAATAAAACCAACTTTATCATTCTTTGGGTAACAGACCCA
AAAGCCG**ATG**GGACGGCCCGCTGGGCTGTTCCCGCCCCTATGCCCTTTTTTGGGTTTCCGGCCAGAGGCATGCTG
GGAGCGTCACATGCAAATTGAGCGTGCACCCAGCGTTCCGCCCTTTCTACGCTGGGCCGGTTATCGACCCGGCCC
AGTGCGCAGGCGCGGGAAAGTTGAACTAATAAAGTTTGTACGAGTTCAGTGGAGGAGACCGCAAGTTGAGTGGAG
GAGGCGGCGGTGGGGCCCCGGACCAGGTGCCTCCATGGCAGGCTCTGAAGAGCTGGGGCTCCGGGAAGACACGCT
GAGGGTCCTAGCTGCCTTCCTTAGGCGTGGTGAGGCTGCCGGGTCTCCTGTTCCAACTCCACCTAGAAGCCCTGC
CCAAGAAGAGCCAACAGACTTCCTGAGCCGCCTTCGAAGATGTCTTCCCTGCTCCCTGGGGCGAGGAGCAGCCCC
CTCTGAGTCCCCTCGGCCTTGCTCTCTGCCCATCCGCCCCTGCTATGGTTTAGAGCCTGGCCCAGCTACTCCAGA
CTTCTATGCTTTGGTGGCCCAGCGGCTGGAACAGCTGGTCCAAGAGCAGCTGAAATCTCCGCCCAGCCCAGAATT
ACAGGGTCCCCCATCGACAGAGAAGGAAGCCATACTGCGGAGGCTGGTGGCCCTGCTGGAGGAGGAGGCAGAAGT
CATTAACCAGAAGCTGGCCTCGGACCCCGCCCTGCGCAGCAAGCTGGTCCGCCTGTCCTCCGACTCTTTCGCCCG
CCTGGTGGAGCTGTTCTGTAGCCGGGATGACAGCTCTCGCCCAAGCCGAGCATGCCCCGGGCCCCCGCCTCCTTC
CCCGGAGCCCCTGGCCCGCCTGGCCCTAGCCATGGAGCTGAGCCGGCGCGTGGCCGGGCTGGGGGGCACCCTGGC
CGGACTCAGCGTGGAGCACGTGCACAGCTTCACGCCCTGGATCCAGGCCCACGGGGGCTGGGAGGGCATCCTGGC
TGTTTCACCCGTGGACTTGAACTTGCCATTGGAC**TGA**

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FIGURE 480

GGTTCCAGCTGCCCGCACGCCCCGACCTTCCATCGTAGGCCGGACC**ATG**GGAACCCCAAAGCCACGGATCCTGCC
CTGGCTGGTGTCGCAGCTGGACCTGGGGCAACTGGAGGGCGTGGCCTGGGTGAACAAGAGCCGCACGCGCTTCCG
CATCCCTTGGAAGCACGGCCTACGGCAGGATGCACAGCAGGAGGATTTCGGAATCTTCCAGGCCTGGGCCGAGGC
CACTGGTGCATATGTTCCCGGGAGGGATAAGCCAGACCTGCCAACCTGGAAGAGGAATTTCCGCTCTGCCCTCAA
CCGCAAAGAAGGGTTGCGTTTAGCAGAGGACCGGAGCAAGGACCCTCACGACCCACATAAAATCTACGAGTTTGT
GAACTCAGGAGTTGGGGACTTTTCCCAGCCAGACACCTCTCCGGACACCAATGGTGGAGGCAGTACTTCTGATAC
CCAGGAAGACATTCTGGATGAGTTACTGGGTAACATGGTGTTGGCCCCACTCCCAGATCCGGGACCCCCAAGCCT
GGCTGTAGCCCCTGAGCCCTGCCCTCAGCCCCTGCGGAGCCCCAGCTTGGACAATCCCACTCCCTTCCCAAACCT
GGGGCCCTCTGAGAACCCACTGAAGCGGCTGTTGGTGCCGGGGGAAGAGTGGGAGTTCGAGGTGACAGCCTTCTA
CCGGGGCCGCCAAGTCTTCCAGCAGACCATCTCCTGCCCGGAGGGCCTGCGGCTGGTGGGGTCCGAAGTGGGAGA
CAGGACGCTGCCTGGATGGCCAGTCACACTGCCAGACCCTGGCATGTCCCTGACAGACAGGGGAGTGATGAGCTA
CGTGAGGCATGTGCTGAGCTGCCTGGGTGGGGGACTGGCTCTCTGGCGGGCCGGGCAGTGGCTCTGGGCCCAGCG
GCTGGGGCACTGCCACACATACTGGGCAGTGAGCGAGGAGCTGCTCCCCAACAGCGGGCATGGGCCTGATGGCGA
GGTCCCCAAGGACAAGGAAGGAGGCGTGTTTGACCTGGGGCCCTTCATTGTAGATCTGATTACCTTCACGGAAGG
AAGCGGACGCTCACCACGCTATGCCCTCTGGTTCTGTGTGGGGGAGTCATGGCCCCAGGACCAGCCGTGGACCAA
GAGGCTCGTGATGGTCAAGGTTGTGCCCACGTGCCTCAGGGCCTTGGTAGAAATGGCCCGGGTAGGGGGTGCCTC
CTCCCTGGAGAATACTGTGGACCTGCACATTTCCAACAGCCACCCACTCTCCCTCACCTCCGACCAGTACAAGGC
CTACCTGCAGGACTTGGTGGAGGGCATGGATTTCCAGGGCCCTGGGGAGAGC**TGA**GCCCTCGCTCCTCATGGTGT
GCCTCCAACCCCCCTGTTCCCCACCACCTCAACCAATAAACTGGTTCCTGCTATGA

FIGURE 481A

CTGGGGTGTCTGTGCTGGGTCCAGCGCCCACCCAAGCACAGGGTGGAGTGGGAGGAGGTGGAGGAGAGGAGGGGT
GCCAGAGGGGATGCTGAGGGAGATAGTGTGGGGCCCTTGAGGTCTTC**ATG**TCTATCCTCTACTTCCATCCTTTCT
CCCGGGACCTCCACTCCAAACTCTCCCCCCTGGACCCCCAGGTGACCATGGAGGAAGAAGATGAGTCTCGAGGGA
AGACAGAGGAGTCGGGGGAGGATCGGGGCGATGGTCCGCCAGACAGAGACCCCACGCTTTCTCCTTCTGCCTTTA
TCCTGCGAGCCATCCAGCAGGCTGTGGGAAGCTCCCTGCAGGGGGACCTGCCCAATGATAAAGATGGCTCTCGGT
GTCATGGCCTTCGATGGCGGCGCTGCCGGAGTCCACGGTCAGAGCCCCGTTCCCAGGAATCAGGGGGCACTGACA
CGGCTACTGTGTTGGACATGGCCACGGACAGCTTCCTCGCAGGGCTGGTGAGTGTCCTGGATCCCCCGGATACCT
GGGTTCCCAGCCGCCTGGACCTGCGGCCTGGCGAAAGTGAGGACATGCTGGAGCTGGTGGCTGAGGTCCGAATCG
GGGACAGAGATCCCATCCCTCTGCCTGTGCCCAGCCTGCTGCCCCGTCTCAGGGCCTGGAGGACGGGCAAAACGG
TTTCTCCACAGTCGAACTCCTCTAGGCCCACCTGTGCCCGTCACCTCACCTTGGGCACGGGAGACGGGGGCCCTG
CCCCACCCCCTGCCCCCTCCTCTGCATCCTCCTCCCCTTCCCCTTCTCCCTCATCTTCCTCCCCTTCCCCTCCCC
CACCCCCACCGCCCCCTGCACCCCCAGCCCCACCTGCCCCCCGATTCGATATCTATGACCCCTTCCACCCCACCG
ACGAGGCCTACTCTCCACCGCCTGCTCCGGAGCAAAAGTACGACCCTTTTGAGCCCACCGGCTCCAACCCCAGCT
CATCAGCGGGGACCCCCTCACCTGAGGAGGAAGAGGAGGAGGAAGAGGAAGAAGAAGAGGAAGAGGAAGACGAGG
AGGAGGAGGAAGGCCTGTCCCAGAGCATCAGCCGCATCTCGGAGACCCTGGCGGGCATCTACGATGACAACAGCC
TGAGCCAGGACTTCCCAGGTGACGAGAGCCCCCGCCCGGACGCGCAGCCCACACAGCCGACTCCCGCCCCTGGAA
CGCCGCCCCCAGGTGGACTCCACCCGGGCTGATGGAGCCATGCGCCGGCGGGTCTTCGTGGTGGGGACCGAGGCAG
AGGCTTGTCGGGAAGGCAAGGTCTCGGTGGAGGTGGTGACCGCTGGTGGAGCCGCCCTCCCGCCGCCCCTGCTGC
CGCCCGGCGACTCGGAGATCGAGGAAGGGGAGATCGTCCAGCCGGAGGAGGAGCCCAGGCTGGCGCTGTCCCTCT
TCCGCCCCGGCGGCCGGGCCGCCCGGCCTACACCGGCCGCCTCGGCCACCCCCACGGCCCAGCCCCTTCCTCAGC
CTCCCGCTCCGCGGGCCCCCGAGGGGGACGACTTCTTGTCCCTGCATGCGGAGTCGGACGGCGAGGGCGCCCTGC
AGGTGGACCTAGGGGAGCCGGCTCCCGCGCCGCCCGCCGCCGACTCGCGCTGGGGCGGCCTGGACCTGCGCCGCA
AGATCCTGACCCAACGGCGGGAGCGCTACCGCCAGCGCTCGCCCTCCCCGGCGCCCGCGCCCGCCCCGGCCGCCG
CTGCTGGTCCGCCCACGCGCAAGAAGTCCAGGCGGGAACGCAAGCGCAGCGGCGAGGCCAAGGAGGCCGCCTCGT
CCTCGTCGGGCACCCAGCCAGCGCCGCCCGCCCCGGCCTCGCCCTGGGACTCCAAGAAGCACCGCTCGCGGGACC
GCAAGCCCGGCTCCCACGCCTCGTCGTCCGCCCGCCGCCGCTCCCGCTCCCGCTCCCGCTCCCGCTCCACCCGCC
GCCGCTCGCGCAGCACCGACCGCCGCCGCGGGGGCAGCCGCAGGTCGCGGTCCCGGGAGAAGCGGCGACGGCGGC
GGCGCTCCGCCTCCCCGCCCCCGGCCACTTCCTCATCGTCGTCCTCGAGGCGCGAGCGGCACCGCGGGAAACACC
GGGACGGTGGCGGCAGCAAGAAGAAGAAGAAGCGGTCGCGGTCCCGGGGTGAGAAGCGGTCTGGGGATGGCAGCG
AGAAGGCCCCGGCGCCCGCCCCGCCGCCCTCTGGCTCCACCTCGTGTGGTGACCGCGACAGCCGCCGCCGGGGGG
CCGTGCCACCCTCCATCCAGGACCTCACGGACCACGACCTCTTCGCCATCAAGCGGACCATCACGGTGGGCCGGC
TTGACAAGTCCGACCCCCGAGGACCCTCTCCTGCTCCGGCCTCCTCACCTAAGCGGGAGGTCCTGTACGACTCCG
AGGGACTGAGCGGCGAGGAGCGGGGCGGCAAGAGCAGCCAGAAGGATCGGCGCCGCTCGGGGGCCGCCTCCTCCT
CCTCCTCTTCCCGGGAGAAGGGGTCTCGTCGGAAGGCGCTGGACGGGGGTGACCGGGATCGGGACAGGGACAGAG
ATAGGGACAGGGACAGGTCATCCAAGAAGGCCCGGCCCCCCAAGGAGTCGGCGCCTTCCTCAGGGCCCCCGCCAA
AGCCACCAGTCAGCAGCGGCTCAGGCTCTTCATCCTCGTCGTCCTCCTGTTCTTCCCGGAAGGTGAAGCTGCAGT
CCAAGGTGGCGGTGCTGATCCGCGAGGGTGTCAGCAGCACCACCCCGGCCAAGGATGCCGCGTCAGCCGGCCTGG
GCTCCATTGGCGTCAAATTCAGCCGTGACCGCGAGAGTCGCTCCCCCTTCCTCAAACCTGACGAGCGGGCCCCCA
CTGAGATGGCCAAAGCAGCTCCGGGCAGCACCAAGCCCAAAAAGACCAAGGTCAAGGCCAAGGCAGGGGCCAAGA
AAACCAAGGGGACCAAGGGAAAGACCAAGCCATCCAAGACCAGGAAAAAGGTCCGCAGTGGAGGTGGCAGCGGGG
GCAGTGGTGGCCAGGTGTCGCTGAAGAAGTCCAAGGCGGATAGCTGCAGCCAGGCGGCAGGCACCAAGGGGGCGG
AGGAGACTTCCTGGTCCGGGGAGGAGCGGGCAGCCAAGGTTCCTAGCACCCCGCCCCCCAAGGCAGCCCCACCAC
CCCCTGCCCTCACTCCGGACTCGCAGACCGTGGACAGCAGCTGCAAGACACCTGAGGTCTCCTTCCTGCCCGAGG
AGGCCACTGAGGAGGCTGGGGTCCGAGGTGGGGCGGAGGAGGAGGAGGAGGAAGAAGAAGAGGAGGAGGAAGAGG
AAGAGGAGGAGGAGCAGCAGCCTGCTACCACCACGGCCACCAGCACTGCTGCAGCCGCCCCAAGCACTGCCCCCA
GCGCGGGGTCCACAGCCGGTGACTCGGGGGCGGAGGACGGGCCAGCTTCCCGTGTCTCCCAGCTGCCCACGTTGC
CCCCGCCCATGCCCTGGAATCTGCCAGCTGGTGTGGACTGCACCACCAGCGGCGTCCTGGCCTTGACTGCACTTC
TCTTCAAGATGGAAGAAGCCAACCTGGCGAGCCGAGCGAAGGCCCAGGAGCTGATCCAGGCCACCAACCAGATCC

FIGURE 481B

TCAGCCACAGAAAGCCACCCTCAAGTCTGGGGATGACCCCAGCTCCTGTGCCCACCTCTTTGGGTCTGCCCCCTG
GCCCCTCCAGCTACCTGCTTCCTGGCAGCCTCCCTCTGGGGGGCTGCGGTTCGACCCCCCCCCACCCCCACCGGGC
TGGCTGCCACGTCTGACAAGAGAGAGGGCAGCAGCAGCTCTGAGGGCCGTGGGGACACAGATAAGTATCTGAAGA
AGCTGCACACGCAGGAGCGGGCGGTGGAGGAGGTGAAGCTGGCCATCAAGCCATACTATCAGAAGAAGGACATCA
CCAAGGAGGAGTACAAGGACATCCTGAGGAAGGCCGTCCACAAGATCTGCCACAGCAAAAGTGGGGAAATCAACC
CAGTGAAGGTGAGCAACCTGGTGCGGGCCTACGTCCAGCGCTACCGCTACTTCCGCAAGCACGGTCGCAAGCCAG
GGGACCCCCCAGGGCCCCCACGGCCGCCCAAGGAGCCAGGGCCCCCAGACAAGGGTGGCCCGGGCCTGCCCCTGC
CCCCTCTC**TGA**GAGCCCTGGCCAGCTCTTCGCCCCTCACCTCTTTGAAACTCTGGACGTATTTATGGCTCCACCT
CCCCACCTCCCCTCCCCCGTCAGTGGGATGACTGGGGGAGGGTTGCTGCAGGGAAGAGGAGAGCCCCCTGCCCTGC
CCTGCCCCGTGTCCACCTCCCTTGCCCCCAAGCCTGTCCCCAGTGCCCCTCCCTTCTGTTTGTGCCCCTCTCCCC
AATTTCATTAAAGATTTCATGAAACATT

FIGURE 482

GGCTCCCCCGCAGGCGGTAGCGAAGGCAGCAGCAGCGGTGGCGAC**ATG**AGCAGCGGGGCGGCGTCCGGGACAGGG
CGGGGGCGGCCCCGGGGCGGGGGACCTGGGCCCGGGGACCCCCCGCCCAGCGAGACACACAAGCTGGTGGTCGTG
GGCGGCGGCGGCGTGGGCAAGAGCGCGCTGACCATCCAGTTCATCCAGTCCTACTTCGTGTCTGACTACGACCCC
ACTATTGAGGACTCCTACACGAAGATCTGCAGTGTGGATGGCATCCCAGCCCGGCTGGACATCCTGGACACCGCG
GGCCAGGAAGAGTTCGGGGCCATGAGAGAGCAGTACATGCGTGCTGGCCACGGCTTCCTGCTGGTGTTCGCCATT
AACGACCGGCAGAGTTTCAACGAGGTGGGCAAGCTCTTCACGCAGATTCTGCGGGTCAAGGACCGCGACGACTTC
CCCGTTGTGTTGGTCGGGAACAAGGCAGATCTGGAGTCACAGCGCCAGGTCCCCCGATCAGAAGCCTCTGCCTTC
GGCGCCTCCCACCACGTGGCCTACTTTGAGGCCTCGGCCAAACTGCGTCTCAACGTGGACGAGGCTTTTGAGCAG
CTGGTGCGGGCTGTCCGGAAATACCAGGAACAAGAGCTCCCACCGAGCCCTCCCAGTGCCCCCAGGAAGAAGGGC
GGGGGCTGCCCCTGCGTCCTCCTG**TAG**CCCAGGCAAGAGAGAAGCAACCACCACAAGCTCTCGGGACTAGCTGCC
TTCGCACCTTGCTGTGTGACCTGAGGCCCTCACTGAGCCTCAATTTCCTCATCTGGGTCTCCCAGGACACATCAC
ATACCCACCCTTACTTCCTGGCCTCTTCTGGGCTACTGCCACTGTGTGCCTTCTGCCAACGCCTCCTGTCCCCAC
CTAAGCCTGGTGGGGGTGAGGGGCTCCGGGTCACTGCTGTATATAACTCCCCTCCCCCAGAAAAATAAATGTCAC
TGCCAACGTC

FIGURE 483A

GTGGTT**ATG**GAGCAGCTGCCGGGGGTGCCACCAGGCCCCCCCCACCCCGTTCGACCGCCACCCCCGCCTCCACCA
CCCATGCCCCTGCAGCTCGAGGCCCACCTCCGCAGCCATGGCCTGGAGCCCGCGGCCCCCAGCCCCCGCCTGCGA
CCCGAGGAGAGCCTGGATCCGCCAGGCGCCATGCAGGAATTGCTCGGGGCTCTGGAGCCGCTGCCCCCGGCGCCT
GGGGATACTGGCGTAGGCCCACCAAACTCGGAGGGCAAGGATCCCGCAGGCGCCTACCGCAGCCCCAGCCCGCAA
GGCACCAAGGCGCCGCGTTTCGTGCCGCTCACCTCCATCTGCTTCCCTGACTCCTTGCTCCAAGACGAGGAGCGC
AGCTTCTTCCCCACCATGGAGGAGATGTTCGGTGGAGGGGCCGCGGACGACTACGGCAAGGCCGGGCCACCTGAG
GACGAGGGGGACCCCAAGGCTGGCGCTGGGCCACCCCCCGGCCCCCCTGCTTATGATCCCTATGGGCCCTACTGT
CCTGGCCGGGCGTCGGGAGCCGGGCCCGAGACACCGGGCCTGGGCCTGGACCCCAACAAACCGCCTGAACTGCCC
TCCACGGTCAACGCCGAGCCGCTGGGCCTGATCCAGAGTGGCCCCCACCAGGCGGCGCCACCACCCCCGCCTCCG
CCACCGCCGCCTCCCGCGCCGGCCTCCGAACCCAAGGGTGGCCTCACCTCGCCCATCTTCTGCTCTACCAAGCCA
AAGAAGCTGCTCAAGACATCCTCCTTCCACCTGCTGCGGCGCCGCGACCCACCCTTCCAGACCCCCAAGAAGCTG
TACGCCCAGGAGTACGAGTTCGAGGCGGACGAGGACAAGGCCGATGTTCCCGCCGACATCCGCCTCAACCCCCGG
CGCTTGCCTGACCTGGTCTCCAGCTGCCGCTCCCGTCCGGCCCTCTCGCCACTGGGGGACATCGACTTCTGCCCA
CCCAACCCAGGACCCGATGGCCCCCGGCGCCGTGGCCGCAAGCCCACGAAGGCGAAACGTGATGGGCCACCCCGG
CCACGGGGGAGGCCCCGGATCCGCCCCCTGGAGGTCCCGACCACTGCGGGGCCCGCCTCGGCCTCCACGCCCACC
GATGGCGCCAAGAAACCCCGGGGCCGGGGCCGAGGCCGGGGTCGAAAGGCTGAGGAGGCAGGGGGCACCCGGTTG
GAGCCCCTGAAGCCACTTAAGATCAAGCTGTCTGTGCCCAAGGCTGGCGAGGGTCTGGGAACCTCATCGGGTGAT
GCCATATCAGGCACTGACCACAACAGCCTGGACTCGAGCCTGACTCGGGAGAAGATCGAGGCCAAGATTAAGGAG
GTGGAGGAGAAGCAGCCGGAGATGAAGTCGGGTTTCATGGCCTCCTTCTTGGACTTCCTCAAGTCAGGCAAGCGC
CACCCACCACTCTACCAGGCGGGCCTGACGCCTCCGCTCAGCCCTCCCAAGAGTGTGCCACCCTCTGTGCCAGCC
CGAGGCCTGCAGCCCCAGCCCCCTGCCACCCCTGCTGTGCCACATCCCCCACCTTCCGGAGCCTTTGGGCTTGGG
GGCGCCCTGGAGGCTGCAGAGAGTGAGGGTCTGGGGCTTGGCTGCCCTTCACCCTGCAAGCGGCTTGATGAGGAG
CTGAAGCGGAACCTCGAGACGCTGCCCTCCTTCTCCTCGGATGAGGAAGACTCTGTCGCCAAGAACCGAGACCTG
CAGGAGAGCATCTCCTCCGCCATCTCTGCCCTCGATGACCCACCCCTTGCTGGGCCAAAAGACACTTCCACCCCA
GATGGGCCGCCCTTGGCCCCCGCGGCTGCAGTTCCAGGGCCACCCCCTCTTCCGGGGCTCCCCAGTGCCAACAGC
AATGGCACTCCCGAGCCCCCGCTGCTGGAGGAGAAACCCCCACCCACTCCACCTCCTGCCCCGACTCCTCAGCCT
CAGCCTCCGCCACCCCCTCCGCCGCCACAGCCAGCCCTGCCCTCGCCACCCCCGCTGGTGGCCCCCACGCCCAGC
TCACCACCGCCACCGCCGCTGCCGCCGCCACCTCCACCAGCCATGCCCTCGCCTCCACCACCACCCCCACCAGCC
GCTGCCCCACTGGCTGCTCCTCCTGAGGAGCCCGCCGCCCCGTCTCCCGAAGACCCCGAGCTGCCGGACACCCGG
CCCCTGCATCTGGCCAAAAAGCAGGAGACGGCGGCAGTGTGTGGGGAGACGGACGAGGAGGCCGGCGAGAGTGGC
GGAGAGGGCATCTTCCGGGAACGGGACGAGTTCGTCATCCGTGCTGAGGACATCCCTTCCCTCAAGCTGGCGTTG
CAGACGGGGCGTGAACCCCCACCCATCTGGCGAGTCCAGAAGGCCCTTCTGCAGAAATTCACTCCGGAGATCAAG
GACGGCCAGAGGCAGTTTTGTGCCACCAGTAATTATTTGGGGTATTTTGGGGATGCAAAAAATCGGTACCAGCGC
CTCTATGTAAAGTTCCTGGAAAATGTCAATAAGAAGGACTACGTGAGGGTCTGTGCTCGGAAACCCTGGCATCGG
CCCCCAGTGCCAGTCAGACGCTCTGGGCAGGCCAAGAACCCCGTATCTGCTGGGGGTAGCTCTGCACCTCCCCCT
AAGGCCCCAGCACCACCTCCCAAGCCTGAGACCCCTGAAAAGACGACATCTGAGAAGCCCCCAGAGCAGACTCCT
GAGACGGCCATGCCTGAGCCCCCTGCCCCCGAGAAGCCCTCCCTCCTGCGGCCTGTTGAGAAGGAAAAGGAGAAG
GAGAAGGTGACACGTGGAGAGCGGCCATTGCGGGGTGAGCGGGCCACCAGCGGACGGCAGACACGGCCAGAGCGG
AGTCTCGCCACGGGACAACCTGCCACATCCCGGCTGCCCAAAGCCCGGCCTACCAAGGTGAAGGCTGAACCGCCC
CCTAAGAAGAGGAAGAAATGGCTGAAGGAGGCAGGCGGCAACGCTACAGCAGGCGGGGGCCCACCAGGCAGCTCC
TCGGACTCGGAGTCCTCCCCTGGAGCCCCCAGCGAGGACGAGCGGGCAGTACCTGGGCGTCTGCTCAAAACCAGG
GCGATGCGGGAGATGTACCGGAGCTACGTGGAGATGTTGGTGAGCACAGCACTTGACCCAGACATGATCCAGGCC
CTGGAGGACACGCATGACGAGCTGTACCTGCCCCCCATGCGGAAGATAGACGGCCTGCTGAATGAGCACAAGAAG
AAAGTCCTGAAGCGGCTGTCGCTAAGCCCAGCCCTGCAGGATGCTCTGCACACGTTCCCACAGCTGCAAGTGGAG
CAGAGTGGGGAGGGCTCTCCGGAAGAGGGGGCTGTGCGGCTGCGGCCTGCTGGGGAACCCTACAACCGCAAGACG
CTCAGCAAGCTCAAGAGGAGCGTGGTCAGAGCCCAGGAGTTCAAGGTTGAGCTGGAAAAGTCGGGATACTATACA
CTCTACCATTCGCTCCACCACTATAAATACCACACCTTCCTGCGCTGCCGGGACCAGACCCTGGCCATCGAGGGC
GGCGCCGAGGACCTGGGCCAGGAGGAGGTGGTCCAGCAGTGCATGCGGAACCAGCCGTGGCTGGAACAGCTCTTT

FIGURE 483B

GACTCCTTCAGTGACCTGCTGGCCCAAGCACAGGCCCACAGCCGCTGCGGGTGACCCCGCCCCAGCTTGTGAGGG
GGGCGCCTCCTCCATGAACCGAGAATTGGGACAGAACCGTGTCCTCAGGAGCTAACACCTGGGCTCCATCGCCGG
GGAAAGGGGGTCATGGGTCAGGGTGTGTCTGTGCTGCCCCCTCCAGGGCAGGGTTCAAAGTCCGACTCCCCCCCT
CTCCCAAGCCCCCTCCACTCCCTCCCCATTCCTCCCACTGTTCGGTGTACAGAGAAATTATTTATATATATGTAT
AAATGTCTATTTAGTAACGGTTTCCCTCTCCCCTTGCCCCGACCCCCCCTCCACAGCCACAGCCCCCGCCCCCTC
CACCTTGTACATAATGTATAGGAAAAGTCTATGTATGGCTGGGGGGGGTGGGGTGGCTTCAGAGAGCTGGGGGAC
CCCTTCCCCCCAAGTCCCCCCTGCAGGCCAAGATCTTTGCTAAAGGCCATTCCCTCCGCAGGGCATTTGGCGTCG
GGTGGGAGGGGAAAACGCATCTTGTTAATTATTTTTAATCTTATTTATTGTACATACCTGGGGCAGGGGCTTGGG
GAGGTGGAGGGGGGAGAAGGGTCCCCTCTCTCTGCCCCTCCCACTCCTTTTCTACGGCGATTTGTCTGTGTCTGG
CCCCCACCCACTGCCCATCCCCCATTGTTGTCTGGATGTGGTTCTATTTTTTATCGGTCTCCTTTCCCCTCCTCC
CCGTTCTCGCCCCCGCCCCACCCCCTGCTCCCACTACCCTTTGTCTCTTGCTCTTTCTTGGGCTTCTGTACAACT
CAACTTGTATACACTGTGTACACACAACCAGCCAAACGAAAACCCAACGGCAAACACTTT

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FIGURE 484

CTGGAAAAT**ATG**AGGGGCCACCCCTCTCTGCTGCTGCTATATATGGCATTAACCACCTGCCTGGATACTTCACCC
AGTGAGGAGACAGACCAAGAAGTCTTCCTGGGTCCCCCAGAGGCCCAGAGCTTCCTGAGTAGCCATACCCGGATT
CCAAGAGCCAACCACTGGGACCTGGAGCTGCTCACACCAGGGAACCTGGAACGGGAGTGTCTGGAAGAGAGGTGT
TCCTGGGAAGAGGCCAGGGAGTATTTTGAGGACAACACTCTCACGGAGCGCTTTTGGGAGAGCTACATCTACAAT
GGCAAAGGAGGGCGTGGACGAGTGGATGTGGCCAGCCTGGCTGTGGGGCTGACAGGTGGCATCCTGCTCATTGTC
CTGGCCGGCCTGGGAGCCTTTTGGTATCTGCGCTGGCGACAGCACCGAGGCCAGCAGCCCTGTCCCCAAGAGGCC
GGGCTCATTAGCCCTCTGAGTCCTTTGAACCCTCTGGGCCCACCGACGCCCCTGCCTCCACCCCCACCCCCACCC
CCAGGCCTCCCCACCTATGAGCAGGCGCTGGCAGCCTCTGGGGTACACGACGCACCTCCACCCCCCTACACCAGC
CTCAGGAGGCCTCAC**TGA**AGAGCTGCTTTCGAGACCCGGCTCTCCGAACCGTGCCCCTGATTCATACCGGATTCC
GGAAGCCGCTAGGCCTCATAGACGCCGAAGCTGGACTTGGAGTGGGGAATGGTGGGAGTAGGGGTCATCCGGCCC
GAGGCCTGCCCTGGCACACGCGTTTCCGCCGCGTATGGATATACACATGTTTTCGGCAACGTGTTCCCGTGTCCT
GGCCCCTCACGGGCCCCCACACTCTCCTGACCGTGAGGGCACTGGTCAGTTCCGCCCCCGTGGTAGGCAGACGCG
CGGGGAAATTCGGACCCAGGAGCCCAGCCCCGGCTGTGCCATCTTGTGTATGGGCAGATATGACCTGACAGCCCC
CTCCAGTGCCACAGGGTACGCACACGCAGAGCCCCGCCTGTGCACACGCGTGTCTTCGTGCACTCCCCGTGCGGT
ACAGGGGCACTTCGTAACCCAGGGAAAGGGCGGGGGGCATATTTGCAAGCGCGCTCGGTGCGGGCAGGCTCGCAT
TGCACCCAGGGAGCTGGAGTTGAGCTGTTCCCCTAAATAAAAA

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FIGURE 485

GAAGCGACCGAGGGACTGGGAGTCGTTAGTGAGAGTTTCACTCTTGTTGCCTAGGCTGGAGTGCAATGGTGCGAT
CTTGGCTCATCACGACCTTCGCCTCCCAGGTTCAAGTGATTGTCCCATTTCAGCCTCCCGAGTAGCTGGGATTAC
AGG**ATG**ACGCGGCATGGCAAGAACTGCACCGCAGGGGCCGTCTACACCTACCACGAGAAGAAGAAGGACACAGCG
GCCTCGGGCTATGGGACCCAGAACATTCGACTGAGCCGGGATGCCGTGAAGGACTTCGACTGCTGTTGTCTCTCC
CTGCAGCCTTGCCACGATCCTGTTGTCACCCCAGATGGCTACCTGTATGAGCGTGAGGCCATCCTGGAGTACATT
CTGCACCAGAAGAAGGAGATTGCCCGGCAGATGAAGGCCTACGAGAAGCAGCGGGGCACCCGGCGCGAGGAGCAG
AAGGAGCTTCAGCGGGCGGCCTCGCAGGACCATGTGCGGGGCTTCCTGGAGAAGGAGTCGGCTATCGTGAGCCGG
CCCCTCAACCCTTTCACAGCCAAGGCCCTCTCGGGCACCAGCCCAGATGATGTCCAACCTGGGCCCAGTGTGGGT
CCTCCAAGTAAGGACAAGGACAAAGTGCTGCCCAGCTTCTGGATCCCGTCGCTGACGCCCGAAGCCAAGGCCACC
AAGCTGGAGAAGCCGTCCCGCACGGTGACCTGCCCCATGTCAGGGAAGCCCCTGCGCATGTCGGACCTGACGCCC
GTGCACTTCACACCGCTAGACAGCTCCGTGGACCGCGTGGGGCTCATCACCCGCAGCGAGCGCTACGTGTGTGCC
GTGACCCGCGACAGCCTGAGCAACGCCACCCCCTGCGCTGTGCTGCGGCCCTCTGGGGCTGTGGTCACCCTCGAA
TGCGTGGAGAAGCTGATTCGGAAGGACATGGTGGACCCTGTGACTGGAGACAAACTCACAGACCGCGACATCATC
GTGCTGCAGCGGGGCGGTACCGGCTTCGCGGGCTCCGGAGTGAAGCTGCAAGCGGAGAAATCACGGCCGGTGATG
CAGGCC**TGA**GTGTGTGCGGGAGACCAAATAAACCGGCTTGGGTGCGC

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FIGURE 486

AGCGGAGCGAAGCTGGATAACAGGGGACCG**ATG**ATGTGGCGACCATCAGTTCTGCTGCTTCTGTTGCTACTGAGG
CACGGGGCCCAGGGGAAGCCATCCCCAGACGCAGGCCCTCATGGCCAGGGGAGGGTGCACCAGGCGGCCCCCCTG
AGCGACGCTCCCCATGATGACGCCCACGGGAACTTCCAGTACGACCATGAGGCTTTCCTGGGACGGGAAGTGGCC
AAGGAATTCGACCAACTCACCCCAGAGGAAAGCCAGGCCCGTCTGGGGCGGATCGTGGACCGCATGGACCGCGCG
GGGGACGGCGACGGCTGGGTGTCGCTGGCCGAGCTTCGCGCGTGGATCGCGCACACGCAGCAGCGGCACATACGG
GACTCGGTGAGCGCGGCCTGGGACACGTACGACACGGACCGCGACGGGCGTGTGGGTTGGGAGGAGCTGCGCAAC
GCCACCTATGGCCACTACGCGCCCGGTGAAGAATTTCATGACGTGGAGGATGCAGAGACCTACAAAAAGATGCTG
GCTCGGGACGAGCGGCGTTTCCGGGTGGCCGACCAGGATGGGGACTCGATGGCCACTCGAGAGGAGCTGACAGCC
TTCCTGCACCCCGAGGAGTTCCCTCACATGCGGGACATCGTGATTGCTGAAACCCTGGAGGACCTGGACAGAAAC
AAAGATGGCTATGTCCAGGTGGAGGAGTACATCGCGGATCTGTACTCAGCCGAGCCTGGGGAGGAGGAGCCGGCG
TGGGTGCAGACGGAGAGGCAGCAGTTCCGGGACTTCCGGGATCTGAACAAGGATGGGCACCTGGATGGGAGTGAG
GTGGGCCACTGGGTGCTGCCCCCTGCCCAGGACCAGCCCCTGGTGGAAGCCAACCACCTGCTGCACGAGAGCGAC
ACGGACAAGGATGGGCGGCTGAGCAAAGCGGAAATCCTGGGTAATTGGAACATGTTTGTGGGCAGTCAGGCCACC
AACTATGGCGAGGACCTGACCCGGCACCACGATGAGCTG**TGA**GCACCGCGCACCTGCCACAGCCTCAGAGGCCCG
CACAATGACCGGAGGAGGGGCCGCTGTGGTCTGGCCCCCTCCCTGTCCAGGCCCCGCAGGAGGCAGATGCAGTCC
CAGGCATCCTCCTGCCCCTGGGCTCTCAGGGACCCCCTGGGTCGGCTTCTGTCCCTGTCACACCCCCAACCCCAG
GGAGGGGCTGTCATAGTCCCAGAGGATAAGCAATACCTATTTCTGACTGAGTCTCCCAGCCCAGACCCAGGGACC
CTTGGCCCCAAGCTCAGCTCTAAGAACCGCCCCAACCCCTCCAGCTCCAAATCTGAGCCTCCACCACATAGACTG
AAACTCCCCTGGCCCCAGCCCTCTCCTGCCTGGCCTGGCCTGGGACACCTCCTCTCTGCCAGGAGGCAATAAAAG
CCAGCGCCGGG

FIGURE 487

GAAGGATATTAAAGAGCACCTGCAGGAATTTTTTAAGGGGATGCCGGGGGAAGGGCTTGAAGGAGGAACTAAGGA
GGCTTCCAGAAGATTTTGATTAACAGCGAGCGCTAGGGAAGGCCACGGGGATACAGAGGGGTAGGAGGAGGATCC
AGAGACCTCCAAGTTGTGGACTCCGGAGGCATCGAGTTCCTTTCCCAGTTTTGTCAAGAATTCCCTGAGCGGCAG
ACACCCTCAAAGTAAAAAACGGGAACCACAGAGAAGGAAAAAGAAGAACCACAAGCGTTTTGAGAAACAAACAGG
CTGGGCCTAGGGCCTGGGGTGTGCCCTGCAACTGGGGGGTGGGGCTGGATGTTCTTGGAGTCAGGGAGCAGCAGC
CTCCCACAGGATGTGAGAGAGGAACTGGGGTCTCCAGTCACGGGAGCCAGGAGCCGGCCAGGGCCGCAGGCAGGA
AGCGGAGCGAGGCTGAAGGGAACTTCGTCCTCTCAGC**ATG**GGGGTCCCGCGGCCTCAGCCCTGGGCGCTGGGGCT
CCTGCTCTTTCTCCTTCCTGGGAGCCTGGGCGCAGAAAGCCACCTCTCCCTCCTGTACCACCTTACCGCGGTGTC
CTCGCCTGCCCCGGGGACTCCTGCCTTCTGGGTGTCCGGCTGGCTGGGCCCGCAGCAGTACCTGAGCTACAATAG
CCTGCGGGGCGAGGCGGAGCCCTGTGGAGCTTGGGTCTGGGAAAACCAGGTGTCCTGGTATTGGGAGAAAGAGAC
CACAGATCTGAGGATCAAGGAGAAGCTCTTTCTGGAAGCTTTCAAAGCTTTGGGGGGAAAAGGTCCCTACACTCT
GCAGGGCCTGCTGGGCTGTGAACTGGGCCCTGACAACACCTCGGTGCCCACCGCCAAGTTCGCCCTGAACGGCGA
GGAGTTCATGAATTTCGACCTCAAGCAGGGCACCTGGGGTGGGGACTGGCCCGAGGCCCTGGCTATCAGTCAGCG
GTGGCAGCAGCAGGACAAGGCGGCCAACAAGGAGCTCACCTTCCTGCTATTCTCCTGCCCGCACCGCCTGCGGGA
GCACCTGGAGAGGGGCCGCGGAAACCTGGAGTGGAAGGAGCCCCCCTCCATGCGCCTGAAGGCCCGACCCAGCAG
CCCTGGCTTTTCCGTGCTTACCTGCAGCGCCTTCTCCTTCTACCCTCCGGAGCTGCAACTTCGGTTCCTGCGGAA
TGGGCTGGCCGCTGGCACCGGCCAGGGTGACTTCGGCCCCAACAGTGACGGATCCTTCCACGCCTCGTCGTCACT
AACAGTCAAAAGTGGCGATGAGCACCACTACTGCTGCATTGTGCAGCACGCGGGGCTGGCGCAGCCCCTCAGGGT
GGAGCTGGAATCTCCAGCCAAGTCCTCCGTGCTCGTGGTGGGAATCGTCATCGGTGTCTTGCTACTCACGGCAGC
GGCTGTAGGAGGAGCTCTGTTGTGGAGAAGGATGAGGAGTGGGCTGCCAGCCCCTTGGATCTCCCTTCGTGGAGA
CGACACCGGGGTCCTCCTGCCCACCCCAGGGGAGGCCCAGGATGCTGATTTGAAGGATGTAAATGTGATTCCAGC
CACCGCC**TGA**CCATCCGCCATTCCGACTGCTAAAAGCGAATGTAGTCAGGCCCCTTTCATGCTGTGAGACCTCCT
GGAACACTGGCATCTCTGAGCCTCCAGAAGGGGTTCTGGGCCTAGTTGTCCTCCCTCTGGAGCCCCGTCCTGTGG
TCTGCCTCAGTTTCCCCTCCTAATACATATGGCTGTTTTCCACCTCGATAATATAACACGAGTTTGGGCCC

FIGURE 488

TTTCTTTTTTTCAGGCGGCCGGGAAG**ATG**GCGGACATTCAGACTGAGCGTGCCTACCAAAAGCAGCCGACCATCT
TTCAAAACAAGAAGAGGGTCCTGCTGGGAGAAACTGGCAAGGAGAAGCTCCCGCGGTACTACAAGAACATCGGTC
TGGGCTTCAAGACACCCAAGGAGGCTATTGAGGGCACCTACATTGACAAGAAATGCCCCTTCACTGGTAATGTGT
CCATTCGAGGGCGGATCCTCTCTGGCGTGGTGACCAAGATGAAGATGCAGAGGACCATTGTCATCCGCCGAGACT
ATCTGCACTACATCCGCAAGTACAACCGCTTCGAGAAGCGCCACAAGAACATGTCTGTACACCTGTCCCCCTGCT
TCAGGGACGTCCAGATCGGTGACATCGTCACAGTGGGCGAGTGCCGGCCTCTGAGCAAGACAGTGCGCTTCAACG
TGCTCAAGGTCACCAAGGCTGCCGGCACCAAGAAGCAGTTCCAGAAGTTC**TGA**GGCTGGACATCGGCCCGCTCCC
CACAATGAAATAAAGTTATTTTCTCATTCCCAGGCCAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 489

CTTTTCCAAGCGGCTGCCGAAG**ATG**GCGGAGGTGCAGGTCCTGGTGCTTGATGGTCGAGGCCATCTCCTGGGCCG
CCTGGCGGCCATCGTGGCTAAACAGGTACTGCTGGGCCGGAAGGTGGTGGTCGTACGCTGTGAAGGCATCAACAT
TTCTGGCAATTTCTACAGAAACAAGTTGAAGTACCTGGCTTTCCTCCGCAAGCGGATGAACACCAACCCTTCCCG
AGGCCCCTACCACTTCCGGGCCCCCAGCCGCATCTTCTGGCGGACCGTGCGAGGTATGCTGCCCCACAAAACCAA
GCGAGGCCAGGCCGCTCTGGACCGTCTCAAGGTGTTTGACGGCATCCCACCGCCCTACGACAAGAAAAAGCGGAT
GGTGGTTCCTGCTGCCCTCAAGGTCGTGCGTCTGAAGCCTACAAGAAAGTTTGCCTATCTGGGGCGCCTGGCTCA
CGAGGTTGGCTGGAAGTACCAGGCAGTGACAGCCACCCTGGAGGAGAAGAGGAAAGAGAAAGCCAAGATCCACTA
CCGGAAGAAGAAACAGCTCATGAGGCTACGGAAACAGGCCGAGAAGAACGTGGAGAAGAAAATTGACAAATACAC
AGAGGTCCTCAAGACCCACGGACTCCTGGTC**TGA**GCCCAATAAAGACTGTTAATTCCTCATGCGTTGCCTGCCCT
TCCTCCATTGTTGCCCTGGAATGTACGGGACCCAGGGGCAGCAGCAGTCCAGGTGCCACAGGCAGCCCTGGGACA
TAGGAAGCTGGGAGCAAGGAAAGGGTCTTAGTCACTGCCTCCCGAAGTTGCTTGAAAGCACTCGGAGAATTGTGC
AGGTGTCATTTATCTATGACCAATAGGAAGAGCAACCAGTTACTATGAGTGAAAGGGAGCCAGAAGACTGATTGG
AGGGCCCTATCTTGTGAGTGGGGCATCTGTTGGACTTTCCACCTGGTCATATACTCTGCAGCTGTTAGAATGTGC
AAGCACTTGGGGACAGCATGAGCTTGCTGTTGTACACAGGGTATTTCTAGAAGCAGAAATAGACTGGGAAGATGC
ACAACCAAGGGGTTACAGGCATCGCCCATGCTCCTCACCTGTATTTTGTAATCAGAAATAAATTGCTTTTAAAG

FIGURE 490

CGCAGTCTTCGCGGAAAGCGTTCGGGGTAGGCGATGGCTGCGACGCGTGCAGGGCCCCGCGCCCGCGAGATCTTC
ACCTCGCTGGAGTACGGACCGGTGCCGGAGAGCCACGCATGCGCACTGGCCTGGCTGGACACCCAGGACCGGTGC
TTGGGCCACTATGTGAATGGGAAGTGGTTAAAGCCTGAACACAGAAATTCAGTGCCTTGCCAGGATCCCATCACA
GGCTGGCCGAGGTGATCCAGAAGCACCAGCGGCTGCTGTGGACCCTGGAATCCCTGGTGACTGGGCGGGCTGTTC
GAGAGGTTCGAGACGGGGACGTCCAGCTGGCCCAGCAGCTGCTCCACTACCATGCAATCCAGGCATCCACCCAGG
AGGAGGCACTGGCAGGCTGGGAGCCC**ATG**GGAGTAATTGGCCTCATCCTGCCACCCACATTCTCCTTCCTTGAGA
TGATGTGGAGGATTTGCCCTGCCCTGGCTGTGGGCTGCACCGTGGTGGCCCTCGTGCCCCCGGCCTCCCCGGCGC
CCCTCCTCCTGGCCCAGCTGGCGGGGGAGCTGGGCCCCTTCCCGGGAATCCTGAATGTCCTCAGTGGCCCTGCGT
CCCTGGTGCCCATCCTGGCCTCCCAGCCTGGAATCCGGAAGGTGGCCTTCTGCGGAGCCCCGGAGGAAGGGCGTG
CCCTTCGACGGAGCCTGGCGGGAGAGTGTGCGGAGCTGGGCCTGGCGCTGGGGACGGAGTCGCTGCTGCTGCTGA
CGGACACGGCGGACGTAGACTCGGCCGTGGAGGGTGTCGTGGACGCCGCCTGGTCCGACCGCGGCCCGGGTGGCC
TCAGGCTCCTCATCCAGGAGTCTGTGTGGGATGAAGCCATGAGACGGCTGCAGGAGCGGATGGGGCGGCTTCGGA
GTGGCCGAGGGCTGGATGGGGCCGTGGACATGGGGGCCCGGGGGGCTGCCGCATGTGACCTGGTCCAGCGCTTTG
TGCGTGAGGCCCAGAGCCAGGGTGCACAGGTGTTCCAGGCTGGTGATGTGCCTTCGGAACGCCCATTCTATCCCC
CAACCTTGGTCTCCAACCTGCCCCCAGCCTCCCCATGTGCCCAGGTGGAGGTGCCGTGGCCTGTGGTCGTGGCCT
CCCCCTTCCGCACAGCCAAGGAGGCACTGTTGGTGGCCAACGGGACGCCCCGCGGGGGCAGCGCCAGTGTGTGGA
GCGAGAGGCTGGGGCAGGCGCTGGAGCTGGGCTATGGGCTCCAGGTGGGCACTGTCTGGATCAACGCCCACGGCC
TCAGAGACCCTTCGGTGCCCACAGGCGGCTGCAAGGAGAGTGGGTGTTCCTGGCACGGGGGCCCAGACGGGCTGT
ATGAGTATCTGCGGCCCTCAGGGACCCCTGCCCGGCTGTCCTGCCTCTCCAAGAACCTGAACTATGACACCTTTG
GCCTCGCTGTTCCCTCAACCCTGCCGGCTGGGCCTGAAATAGGGCCCAGCCCAGCACCCCCCTATGGGCTCTTCG
TTGGGGGCCGTTTCCAGGCTCCTGGGGCCCGAAGCTCCAGGCCCATCCGGGATTCGTCTGGCAACCTCCATGGCT
ACGTGGCTGAGGGTGGAGCCAAGGACATCCGAGGTGCTGTGGAGGCCGCTCACCAGGCTTTCCCTGGCTGGGCGG
GCCAGTCCCCAGGAGCCCGGGCAGCCCTGCTGTGGGCCCTGGCGGCTGCACTGGAGCGCCGGAAGTCTACCCTGG
CCTCGAGGCTGGAGAGGCAGGGAGCGGAGCTCAAGGCTGCGGAGGCGGAGGTGGAGCTGAGCGCAAGACGACTTC
GGGCGTGGGGGGCCCGGGTGCAGGCCCAAGGCCACACCCTGCAGGTAGCCGGGCTGAGAGGCCCTGTGCTGCGCC
TGCGGGAGCCGCTGGGTGTGCTGGCTGTGGTGTGTCCGGACGAGTGGCCCCTGCTTGCCTTCGTGTCCCTGCTGG
CTCCCGCCCTGGCCTACGGCAACACTGTGGTCATGGTGCCCAGTGCGGCCTGTCCTCTGCTGGCCCTGGAGGTCT
GCCAGGACATGGCCACCGTGTTCCCAGCAGGCCTGGCCAACGTGGTGACAGGAGACCGGGACCATCTGACCCGCT
GCCTGGCCTTGCACCAAGACGTCCAGGCCATGTGGTATTTCGGATCAGCCCAGGGTTCCCAGTTTGTCGAGTGGG
CCTCGGCAGGAAACCTCAAACCGGTGTGGGCGAGCAGGGGCTGCCCGCGGGCCTGGGACCAGGAGGCCGAGGGGG
CAGGCCCAGAGCTGGGGCTGCGAGTGGCGCGGACCAAGGCCCTGTGGCTGCCTATGGGGGAC**TGA**TGCCTGAGCG
CCACCTACTGCATTTTGGACACCTCACACCAAGGGGAGATGCACCCCACAGACACCTGGGACTTTCCCCTTCTGG
TTCCTGTGTCTCCCAATAAACTCTCTGACCAACCCTAGCTGTGCTTCTGCGAGAAGAAAGGGTGTAGCAACTTCT
GGCAGATATGAGGCTTTTTTCTTTTTTTTTTTTTTTTTGAGACAACGTCTGGCTCTGTCACCCAGGCTGGAGCG
CAGTGGCACAATCTCGGCCCACTGCAGCCTCGACCTCTGGGGCTCAAGGGATCCTCATGCCTCAGCCTCATATGT
AGCTGGGGCCACAGACATGCACCACCACACCTGGCTCGAGGCCATTTTAGTTCTGAGGTTGAGCAGCTCAGGAGC
CGGCTCCAGCACGGTGCTGTGTTTGTGAAACAGAGAAAGGGGACCCCCGAGGACCCCAGACAGGGCCTTAGGACT
CTCATATCTTCTTGTCTTCTCCATCTGGTGGCTCTTGCTCTCTGGTTTTCTCTACCTTTTCATGGCCCCAGAATC
CATATGCAGTAAAGGAACTCTCTGGAATAAAATTAAAGTCCTCCT

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FIGURE 491

ACAGTTCGGCACGTAGGACGGAGGGTAGTGCGTCTAGAGACACATATTCCCCACGGATTTGACGATGGTGTTCGG
TCTTGAATGGAAATGTAGTCTTAGGCCAGTCTTAGGTTTTTGAACAGGATAGTAGGTATCCGGAGTCGATTGAGG
GCCAGAGCAGGCACTGGGGTTCGGATCCTGGGCAAAGTTTCCCACGTTGAGGGTCTCGAGGACGCCTAGATCTCT
TTCCCAGGGCC**ATG**GCGAACCCGAAGCTGCTGGGAATGGGGCTAAGCGAGGCGGAGGCGATCGGTGCTGATTCGG
CGCGATTTGAGGAGCTGCTGCTGCAGGCCTCGAAGGAGCTCCAGCAAGCCCAGACAACCAGACCAGAATCGACAC
AAATCCAGCCTCAGCCTGGTTTCTGCATAAAGACCAACTCCTCGGAAGGGAAGGTTTTCATCAACATCTGCCACT
CCCCCTCTATCCCTCCTCCCGCCGACGTGACCGAGGAGGAGCTGCTTCAGATGCTAGAGGAGGACCAAGCTGGGT
TTCGCATCCCCATGAGTCTGGGAGAGCCTCATGCAGAACTGGATGCAAAAGGCCAGGGATGTACCGCCTACGACG
TAGCTGTCAACAGCGACTTCTACCGGAGGATGCAGAACAGCGATTTCTTGCGGGAGCTCGTGATCACCATCGCCA
GGGAGGGCCTTGAGGACAAATACAACTTGCAGCTGAATCCGGAATGGCGCATGATGAAGAACCGGCCATTCATGG
GCTCCATCTCGCAGCAGAACATCCGCTCGGAGCAGCGTCCTCGGATCCAGGAGCTGGGGGACCTGTACACGCCCG
CCCCCGGGAGAGCTGAGTCAGGGCCTGAAAAGCCTCACCTGAACCTGTGGCTGGAAGCCCCCGACCTCCTCTTGG
CCGAAGTTGACCTCCCCAAACTGGATGGAGCCCTGGGGCTGTCGCTGGAGATCGGGGAGAACCGCCTGGTGATGG
GGGGCCCCCAGCAGCTGTATCATCTAGACGCTTATATCCCGCTGCAGATCAACTCTCATGAGAGCAAGGCAGCCT
TCCACCGGAAGAGAAAGCAATTAATGGTGGCCATGCCGCTTCTGCCGGTGCCTTCT**TGA**TCAGGGTGTCTCCTTG
TGCTTCTGAGATGTGGAGAAGAGGCTGCTGGCTTCCCTAAAAGTTGAAATAAAAGATTTTTGCCTTT

FIGURE 492

CCGGCGGCAGGAGCCGCCACC**ATG**GAGTTCCGCCAGGAGGAGTTTCGGAAGCTAGCGGGTCGTGCTCTCGGGAAG
CTGCACCGCCTTCTGGAGAAGCGGCAGGAAGGCGCGGAGACGCTGGAGCTGAGTGCGGATGGGCGCCCGGTGACC
ACGCAGACCCGGGACCCGCCGGTGGTGGACTGCACCTGCTTCGGCCTCCCTCGCCGCTACATTATCGCCATCATG
AGTGGTCTGGGCTTCTGCATCAGCTTTGGCATCCGCTGCAACCTGGGCGTGGCCATCGTCTCCATGGTCAATAAC
AGCACGACCCACCGCGGGGGCCACGTGGTGGTGCAGAAAGCCCAGTTCAGCTGGGATCCAGAGACTGTCGGCCTC
ATACACGGCTCCTTTTTCTGGGGCTACATTGTCACTCAGATTCCAGGAGGATTTATCTGTCAAAAATTTGCAGCC
AACAGAGTTTTCGGCTTTGCTATTGTGGCAACATCCACTCTAAACATGCTGATCCCCTCAGCTGCCCGCGTCCAC
TATGGCTGTGTCATCTTCGTGAGGATCCTGCAGGGGTTGGTAGAGGGGGTCACATACCCCGCCTGCCATGGGATC
TGGAGCAAATGGGCCCCACCCTTAGAACGGAGTCGCCTGGCGACGACAGCCTTTTGTGGTTCCTATGCTGGGGCG
GTGGTCGCGATGCCCCTCGCCGGGGTCCTTGTGCAGTACTCAGGATGGAGCTCTGTTTTCTACGTCTACGGCAGC
TTCGGGATCTTCTGGTACCTGTTCTGGCTGCTCGTCTCCTACGAGTCCCCCGCGCTGCACCCCAGCATCTCGGAG
GAGGAGCGCAAGTACATCGAGGACGCCATCGGAGAGAGCGCGAAACTCATGAACCCCCTCACGAAGTTTAGCACT
CCCTGGCGGCGCTTCTTCACGTCTATGCCAGTCTATGCCATCATCGTGGCCAACTTCTGCCGCAGCTGGACGTTC
TACCTGCTGCTCATCTCCCAGCCCGCCTACTTCGAAGAAGTGTTCGGCTTCGAGATCAGCAAGGTAGGCCTGGTG
TCCGCGCTGCCCCACCTGGTCATGACCATCATCGTGCCCATCGGCGGCCAGATCGCGGACTTCCTGCGGAGCCGC
CGCATCATGTCCACCACCAACGTGCGCAAGTTGATGAACTGCGGAGGCTTCGGCATGGAAGCCACGCTGCTGTTG
GTGGTCGGCTACTCGCACTCCAAGGGCGTGGCCATCTCCTTCCTGGTCCTAGCCGTGGGCTTCAGCGGCTTCGCC
ATCTCTGGGTTCAACGTGAACCACCTGGACATAGCCCCGCGCTACGCCAGCATCCTCATGGGCATCTCCAACGGC
GTGGGCACACTGTCGGGCATGGTGTGCCCCATCATCGTGGGGGCCATGACTAAGCACAAGACTCGGGAGGAGTGG
CAGTACGTGTTCCTAATTGCCTCCCTGGTGCACTATGGAGGTGTCATCTTCTACGGGGTCTTTGCTTCTGGAGAG
AAGCAGCCGTGGGCAGAGCCTGAGGAGATGAGCGAGGAGAAGTGTGGCTTCGTTGGCCATGACCAGCTGGCTGGC
AGTGACGACAGCGAAATGGAGGATGAGGCTGAGCCCCCGGGGGCACCCCCTGCACCCCCGCCCTCCTATGGGGCC
ACACACAGCACATTTCAGCCCCCCAGGCCCCCACCCCCTGTCCGGGACTAC**TGA**CCATGTGCCTCCCACTGAATG
GCAGTTTCCAGGACCTCCATTCCACTCATCTCTGGCCTGAGTGACAGTGTCAAGGAACCCTGCTCCTCTCTGTCC
TGCCTCAGGCCTAAGAAGCACTCTCCCTTGTTCCCAGTGCTGTCAAATCCTCTTTCCTTCCCAATTGCCTCTCAG
GGGTAGTGAAGCTGCAGACTGACAGTTTCAAGGATACCCAAATTCCCCTAAAGGTTCCCTCTCCACCCGTTCTGC
CTCAGTGGTTTCAAATCTCTCCTTTCAGGGCTTTATTTGAATGGACAGTTCGACCTCTTACTCTCTCTTGTGGTT
TTGAGGCACCCACACCCCCCGCTTTCCTTTATCTCCAGGGACTCTCAGGCTAACCTTTGAGATCACTCAGCTCCC
ATCTCCTTTCAGAAAAATTCAAGGTCCTCCTCTAGAAGTTTCAAATCTCTCCCAACTCTGTTCTGCATCTTCCAG
ATTGGTTTAACCAATTACTCGTCCCCGCCATTCCAGGGATTGATTCTCACCAGCGTTTCTGATGGAAAATGGCGG
TTTCAAGTCCCCGATTCCGTGCCCACTTCACATCTCCCCTACCAGCAGATTCTGCGAAAGCACCAAATTTCTCAA
GACCCTCTTCTCCCTAGCTTAGCATAATGTCTGGGGAAACA

FIGURE 493

AGGGCCGCAATCAGAGAACACCGCCAGGACTTCCAGGACTTGGTCTCCAGGACTGAGGTCAACTGACGTGGGCGT
GGTCTGACTGTGTGGGCGTGGCCAGGGAATGAACTCACGGCTCTGGCTTAAGGGGTGTGGTGAACGAAGGATGGG
GCGTGGCTGTGTCACCAAGGGCGTGGTCATGGAGTAGAGGCCCGGGCTCCTGGGTGAGGCCGGCAAGTTTGGAGC
GTGGTCAGACAATAGGGGCGTGGCTACGGCTCGCGGAGCGCAACCAACGCTCTAGACCAGACCTGGGCTCGAGAC
CATAACTGTTTGGCTTTAACAGTACGTGGGCGGCCGGAATCCGGGAGTCCGGTGACCCGGGCTGTGGTCTAGCAT
AAAGGCGGAGCCCAGAAGAAGGGGCGGGGT**ATG**GGAGAAGCCTCCCCACCTGCCCCCGCAAGGCGGCATCTGCTG
GTCCTGCTGCTGCTCCTCTCTACCCTGGTGATCCCCTCCGCTGCAGCTCCTATCCATGATGCTGACGCCCAAGAG
AGCTCCTTGGGTCTCACAGGCCTCCAGAGCCTACTCCAAGGCTTCAGCCGACTTTTCCTGAAAGGTAACCTGCTT
CGGGGCATAGACAGCTTATTCTCTGCCCCCATGGACTTCCGGGGCCTCCCTGGGAACTACCACAAAGAGGAGAAC
CAGGAGCACCAGCTGGGGAACAACACCCTCTCCAGCCACCTCCAGATCGACAAGATGACCGACAACAAGACAGGA
GAGGTGCTGATCTCCGAGAATGTGGTGGCATCCATTCAACCAGCGGAGGGGAGCTTCGAGGGTGATTTGAAGGTA
CCCAGGATGGAGGAGAAGGAGGCCCTGGTACCCATCCAGAAGGCCACGGACAGCTTCCACACAGAACTCCATCCC
CGGGTGGCCTTCTGGATCATTAAGCTGCCACGGCGGAGGTCCCACCAGGATGCCCTGGAGGGCGGCCACTGGCTC
AGCGAGAAGCGACACCGCCTGCAGGCCATCCGGGATGGACTCCGCAAGGGGACCCACAAGGACGTCCTAGAAGAG
GGGACCGAGAGCTCCTCCCACTCCAGGCTGTCCCCCCGAAAGACCCACTTACTGTACATCCTCAGGCCCTCTCGG
CAGCTG**TAG**GGGTGGGGACCGGGGAGCACCTGCCTGTAGCCCCCATCAGACCCTGCCCCAAGCACCATATGGAAA
TAAAGTTCTTTCTTACATCTAA

FIGURE 494

CCCACTTTTCCCAAACAAAGCTCCCGGCAACTTTCTCCCTCGCAGCGCCCCGCCCGCCCGCGGCTCCCCAGCCCC
AGGCCGGGAGGCCCAG**ATG**GGGGAACCCCGGGCTGGGGCCGCCCTGGACGATGGCAGCGGCTGGACGGGCAGTGA
GGAAGGCAGTGAGGAGGGTACCGGCGGCAGTGAGGGGGCTGGGGGTGACGGGGGCCCGGATGCAGAGGGGGTGTG
GAGCCCAGACATTGAGCAGAGCTTCCAGGAGGCCCTGGCCATCTATCCACCCTGCGGCCGCCGGAAAATAATTTT
GTCTGATGAAGGCAAGATGTATGGTCGGAATGAACTGATCGCCCGCTACATCAAGCTGAGAACGGGGAAGACCCG
AACTCGAAAACAGGTTTCTAGTCACATCCAGGTTTTGGCCCGAAGGAAATCAAGGGAAATCCAGTCCAAGTTGAA
GGACCAGGTTTCCAAGGACAAGGCTTTCCAGACAATGGCAACCATGTCCTCTGCCCAGCTCATCTCCGCGCCTTC
TCTGCAGGCCAAACTGGGTCCCACTGGTCCTCAGGCCTCTGAGCTTTTCCAGTTTTGGTCTGGAGGATCTGGGCC
CCCCTGGAATGTTCCAGATGTGAAGCCATTCTCACAGACACCGTTCACCTTGTCACTGACTCCCCCATCTACTGA
CCTCCCAGGGTACGAGCCCCCCCAAGCCCTCTCACCCCTGCCCCCACCTACCCCATCGCCCCCAGCCTGGCAGGC
TCGGGGCCTGGGCACCGCCCGGTTGCAGCTGGTAGAGTTCTCAGCCTTCGTGGAACCGCCAGATGCAGTTGATTC
TTACCAGAGGCACCTGTTCGTGCACATCAGCCAGCACTGCCCCAGCCCCGGAGCGCCGCCGCTCGAGAGTGTGGA
CGTCCGGCAGATCTACGACAAATTCCCTGAGAAAAAGGGTGGCCTCCGAGAGCTATATGATCGTGGCCCCCCCCA
TGCCTTCTTCCTGGTCAAGTTCTGGGCGGACCTGAACTGGGGCCCAAGTGGTGAGGAGGCAGGGGCCGGTGGCAG
CATCAGCAGTGGTGGCTTCTACGGAGTGAGCAGCCAGTATGAGAGCCTGGAACACATGACCCTCACCTGTTCCTC
CAAGGTCTGCTCTTTTGGCAAGCAGGTGGTGGAGAAGGTGGAGACGGAACGGGCCCAGCTGGAGGACGGCAGATT
TGTGTACCGCCTGCTGCGCTCGCCCATGTGCGAGTACCTGGTGAATTTCTTGCACAAGTTGCGGCAGCTGCCTGA
GCGATACATGATGAACAGCGTCCTGGAAAACTTCACCATCCTCCAGGTGGTGACAAACAGAGACACCCAGGAACT
GCTGCTCTGCACCGCCTATGTCTTCGAGGTCTCCACCAGCGAGCGTGGGGCCCAGCATCACATTTACCGCCTGGT
CAGGGAC**TGA**AGGGGGACCCCAAAACTGGCTCACCCCCCAGAACACCCTCCTCCCAGGGAGGGTCCTCCAGCTCA
CCTCATGCTTCTTATTTGGGGAGAGGGCTGTGATGTAAAGGGGTTGACCTCAGAGGCCTAAGCAACTGGGGCCAT
CCCCCCCATTAGAGGGGCCCCCAAAACTTGGTTGGAGAGCTGAACAGGCTGGGACTGAGGAAAGGATAAACCCCG
ATATTGGGACCTCACAGTGGGTGTCTGAAAGGACAGATCACTCCGGAGTATCAGGGATTGTGGGGACAGGAGTGA
GACAACCCCCCAGGTACAGCACTGGCTTTTCTTTTCAGCCCCTGACAGGCCACCCCCACTCCTCTGCATGTCTTG
GAGAGCGCTAGTTACACATTGGCTTGTCCCCTTTACTTTTTCCCAGCCACCCCTCCCCCTGAAATTTCTGCCCCT
CTCTACCACCCTCACTCCATGACCTGTGAGATCACAAAGTGAAGATGAACCCTTTCTGTGCAGGAGCAGAGCCAG
GTGGGCCCTGGACATTTTTTTTTTTTTTAATATAACGAGATATTTATAAGTGGGTGCTAGGGTCTTGACTTTATC
TCCGCTGCACAAGCAGTGTGTTGAACTTTCTAATCTCATCCCTCTCCTAAGTGAGCCCTGAGCTAGACGGTTTCC
TTCCTCCCCTCTCAAAGTTTGTTTGTTTGTGTTCTGACAGAGGATAAAGCTATTTTACC

FIGURE 496B

CTTGGGGTAACAGGGACCACAGACCCCTCACCACTCACAGATTCCTCACACTGGGGAAATAAAGCCATTTCAGAG
G

FIGURE 497A

GTGGGATTTGGGGGGCGCTGGTGGGCACCCCTGGATCTGGCGGCTGCGGCCTCGCGGGGGGAGGCTGATCGGTGA
CAGGGGCAGGGGGCTATTTTGGGGGTAGAAGGCAGTGAGAGCGTGAGGGGGAGGGGGGTCCCCAGCGCCCAAGCC
GGAGCCAGAGACGCGGAGCCCGCGCGAGCGTCGGAGACAGGGCTCCAGGGCTCCGAAGCGACAGAGCCGGGCCCC
GGCCGCTGCCAGGGGCCCCGCCCGGCCCCCCCACTCCACCCCACGTCCCTCCTGCAGCCCAGCTCCGCCCGCAGC
CGCCGCGGACCAGGCAGGCCCGCACCGCCGCC**ATG**ATGTGCGAGGTGATGCCCACCATCAGCGAGGATGGCCGGC
GGGGCTCGGCGCTGGGCCCGGACGAGGCGGGCGGGGAGCTGGAGCGCCTCATGGTCACGATGCTCACGGAGCGCG
AGCGCCTGCTGGAGACGCTGCGCGAGGCACAGGACGGGTTGGCTACAGCGCAGCTGCGGCTGCGCGAGCTCGGCC
ACGAGAAGGACTCGCTGCAGCGCCAGCTCAGCATCGCGCTGCCCCAGGAGTTTGCAGCTCTGACGAAGGAGCTGA
ACTTATGTCGGGAGCAGCTGCTGGAGAGGGAGGAAGAGATTGCAGAGCTGAAGGCGGAACGGAACAACACGCGGC
TGCTCCTGGAACACCTGGAGTGCCTGGTGTCCAGGCACGAGAGGTCACTGCGCATGACCGTGGTGAAGCGCCAGG
CCCAGTCCCCGGGTGGGGTCTCCTCGGAGGTAGAAGTGCTCAAAGCTCTAAAGTCTCTCTTCGAGCACCACAAGG
CCCTGGATGAGAAGGTCCGGGAGCGGCTGCGGATGGCGCTGGAGCGCGTGGCAGTGCTCGAGGAGGAGCTGGAAC
TGAGCAATCAGGAGACTCTGAACCTTCGAGAACAGCTGTCTAGGCGGCGGTCAGGGCTGGAAGAGCCGGGCAAGG
ATGGGGATGGGCAGACTCTTGCCAATGGCCTGGGTCCTGGCGGGGATTCCAACCGGCGCACAGCAGAGCTGGAGG
AGGCCCTGGAGCGGCAGCGCGCCGAGGTGTGCCAGCTGCGGGAGCGCCTGGCGGTGCTGTGCCGTCAGATGAGCC
AGCTGGAGGAGGAGTTGGGCACCGCGCACCGTGAGCTGGGCAAGGCAGAGGAAGCCAACTCCAAGCTGCAGCGCG
ACCTCAAGGAGGCGCTGGCGCAGCGGGAAGATATGGAGGAGCGGATTACAACACTGGAGAAGCGCTACCTGAGCG
CCCAGCGGGAGGCCACGTCTCTGCACGACGCCAACGACAAACTGGAGAACGAGTTAGCTAGCAAGGAGTCGTTGT
ATCGGCAGAGTGAAGAGAAGAGCCGTCAGCTGGCCGAGTGGTTGGACGACGCCAAGCAGAAGCTGCAGCAGACGC
TGCAGAAAGCGGAGACCTTGCCCGAGATAGAGGCGCAGCTGGCGCAGCGCGTGGCGGCGCTCAACAAGGCCGAGG
AACGTCATGGGAATTTTGAGGAGCGGCTTCGGCAGCTGGAGGCCCAGCTGGAAGAGAAGAATCAAGAGCTGCAGC
GGGCCCGGCAGCGGGAGAAGATGAACGATGACCACAATAAGCGGCTGTCCGAGACGGTGGACAAGCTGCTGAGCG
AGTCCAACGAGCGCTTACAGCTTCACCTCAAGGAGCGCATGGGGGCGCTGGAGGAGAAGAACTCCCTGAGCGAGG
AGATAGCCAACATGAAGAAGCTTCAGGATGAGTTGCTGCTAAACAAGGAGCAGCTCTTGGCCGAAATGGAGCGGA
TGCAGATGGAGATCGACCAGCTGCGGGGGAGGCCACCATCCTCCTACTCCAGGTCTCTCCCTGGCAGTGCCCTGG
AGCTCCGTTACTCTCAGGCACCCACTTTACCTTCTGGTGCCCACCTGGATCCCTATGTGGCTGGCAGTGGTCGGG
CAGGCAAGAGGGGCCGCTGGTCAGGGGTCAAGGAGGAGCCCTCCAAGGATTGGGAGCGGTCTGCCCCTGCGGGCT
CCATACCACCCCCATTCCCTGGGGAACTGGACGGCTCCGATGAGGAGGAGGCAGAGGGGATGTTTGGGGCCGAGC
TGCTGTCCCCCAGTGGGCAGGCTGACGTGCAGACGCTGGCCATCATGCTTCAGGAGCAGCTGGAGGCCATCAACA
AGGAGATCAAGCTGATCCAAGAGGAGAAGGAGACAACAGAACAGAGGGCAGAGGAGCTGGAGAGTCGGGTGTCCA
GCTCTGGCTTGGACTCGTTGGGCCGCTACCGCAGCAGCTGCTCCCTGCCCCCCTCCCTCACCACCTCTACCCTTG
CCAGCCCCTCCCCTCCCAGCTCTGGCCACTCAACACCCCGCCTGGCACCCCCTAGCCCTGCCCGTGAGGGCACCG
ACAAGGCTAATCATGTCCCTAAGGAGGAAGCTGGAGCTCCACGAGGGGAGGGGCCGGCCATCCCAGGAGACACCC
CACCACCCACTCCCCGCTCTGCCCGTCTTGAGAGAATGACCCAGGCCTTGGCACTGCAGGCGGGGTCCCTGGAAG
ATGGGGGACCCCCACGGGGAAGTGAGGGCACCCCAGATTCTCTGCACAAAGCCCCCAAGAAGAAGAGCATCAAGT
CATCCATAGGCCGTCTCTTTGGCAAGAAAGAGAAGGGACGAATGGGACCCCCAGGCCGGGACAGCTCTTCTCTGG
CTGGAACACCCTCAGATGAGACACTGGCCACTGACCCTCTGGGGCTAGCCAAGCTGACAGGCCCAGGAGACAAGG
ACCGAAGGAACAAGAGGAAGCATGAACTCCTGGAGGAGGCCTGCCGCCAGGGCCTACCTTTTGCTGCCTGGGACG
GGCCCACCGTGGTGTCCTGGCTGGAGCTGTGGGTGGGCATGCCTGCCTGGTATGTGGCCGCCTGCCGGGCCAATG
TCAAGAGCGGTGCCATCATGGCCAACCTGTCAGACACGGAGATCCAGCGCGAGATCGGCATCAGCAACCCGCTGC
ACCGACTCAAGCTACGCCTCGCCATCCAGGAGATGGTCTCGCTCACCTCGCCCTCAGCCCCCGCCTCCTCCCGCA
CTTCCACAGGAAACGTGTGGATGACACACGAGGAGATGGAGTCCCTTACGGCCACGACCAAGCCCGAGACCAAGG
AGATCAGCTGGGAGCAGATCCTGGCATATGGCGACATGAACCACGAGTGGGTGGGGAACGACTGGCTGCCCAGCC
TGGGGCTGCCCCAATACCGCAGCTACTTCATGGAGTCGCTGGTGGACGCTCGAATGTTAGATCACCTTAACAAGA
AGGAGCTCCGGGGCCAACTCAAGATGGTGGACAGCTTTCACAGGGTGAGTCTACATTATGGGATTATGTGCCTGA
AACGGCTCAACTATGACCGGAAGGACCTGGAGCGGAGGCGGGAAGAAAGTCAGACCCAGATCCGAGACGTGATGG
TGTGGTCCAATGAGCGGGTCATGGGTTGGGTGTCCGGGCTGGGCCTGAAGGAATTTGCCACGAACCTCACGGAGA
GCGGGGTACACGGGGCACTGCTCGCCCTGGACGAGACCTTCGACTACTCCGACCTGGCCTTGCTCCTGCAGATCC

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FIGURE 497B

CCACGCAGAATGCACAGGCCCGGCAGCTTCTGGAGAAGGAATTCAGCAACCTTATCTCCTTAGGCACAGACAGGC
GGCTGGACGAGGACAGCGCCAAGTCTTTCAGCCGCTCCCCATCCTGGCGGAAGATGTTCCGGGAGAAGGACCTCC
GAGGCGTAACTCCCGACTCAGCTGAGATGTTGCCCCCCAACTTTCGTTCGGCTGCAGCGGGAGCCCTGGGCTCTC
CGGGGCTCCCTCTCCGCAAGCTGCAGCCAGAAGGCCAGACTTCTGGGAGTTCCCGGGCAGACGGCGTTTCGGTCC
GGACCTATTCCTGC**TAG**TGCAGGCCTCCAGGTGACCTCACTCGGACGGAAGAATCTTCCCGAGGCTGGGCTGTTC
CCTCTCCTGCCCGGACTGTGGCCTCGCCGGGGAGAGCGGGCGGGGGAGCTCGCGCCGAGGACTGGACCATCTGTA
CAGACCAGCGGGAGTGCGCGCGCCCGCCTCGCACAGGGCCGGGGCCTGGACCAAACCACATGAACTGGACTGAGA
GGGGGAAGAAGCGGGGAGGAAGAAATCCCGCCCCAAACGTCCGCTTTCCTTTTCTCTACTTTGTAATTTATTGAT
CAGTTTCTGTTGGGAGACGGGTGTCCTTTACCCGCGGGAAGGGGGCGGGGCTTCCCTCCCGGGCCGCATGCGGGG
AGAGGCTGCTCCCTCCCCTTTTTCCTGCCCAGTCGCGGGGCCCAAGTCTTCCTTCTTCGTCCGAAAGGAGGGGAG
GGGGGACTCGCTGCTACAAGCCTCGCCCCCTGTGCCACTCAGCTCCGCCCCGCCGCGTCCGGTCGCCGGTCCCCC
GGGTCATCTGCGGGCGGGTTCCCCTCTCCCTCCCCCGTGTCTCGTGTCCCCGGGGCCTCACCGCCCCCCGTGCTG
TGGCCGTGTCCGTGCCCCGGGGGTAGGGGGCGCAGAATGGCGCTTCCCCTTCTCCTCTGGCTCCGGGGTTTGCAT
GGGAGAATCCTCTTTCCACGATGCCGCTGGGCGACGTGGCGTGGGGGCAGGGGGACGGTGGGGGAGCCCTCGCCC
CCGACTCTCGGTCGGCCTCCCCGCCCCAGGCGTCACTCAGTGATCACGGGTAAAGAGAACTGTTTC

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FIGURE 498

GATGTCACCTGGAGCGAGTAGCGCGCGGCGTGGAACGCGAGTCGCGACCCCGGCTCCCGGCAGTGGCGCGCACTA
GCCCTCGCGCCGCACGGGACACGAGGGCTGGGCGGGCAGCGGG**ATG**AGGCTAAAGGTTGGATTTCAAGGCGGGGG
CTGCTTCCGGAAAGACGCGCTGTGTTTGGAAGGTGGAGTGAGCGCCCGGTGGGCGAGGGCACCTCATTCTGCACC
CCTGCGCCCGCCTCGGGAACTGCACGCGGCACCCCCACCCGCGACTCCCACGCAGACAGTAGTGCGGCCTGCAGG
GTTCCCCCGGCGGACGAGGCTAATGGTTCGCTCCGCCCCGCCCACACAGAGGCCGCCCACTGGCTCCGGCTGCGT
TTCAGGACTCTGGAGGAAGGGACTTGGCCTTCGCCCTCAGACGCTCTTAAGGGTAGGCAGCGTTGTCCTCAGTTC
TGCCCCAGCACTCAGACCCAGACTGGGTCCCTGCCTCCGCCCTCCGCCCTCGGAC**TAG**TCTCTTGGAAGCCGGCC
TGTCTCCGCCTTCAGACCTAGGGAGAGGTCTTAACCTCTGTTCTCAGACTCTGGAAAAGGCTTCTCAACGGCTTG
GCCTGACCTCAGCTCCTCGCATTCCCTCCACATCTCAAGACACCAACCCAGGGATGCAGGACAGACACACAGACA
CTCAGTGAGGGTCAAATATCTTTAAATAAAGTGCCAGGAACAATAAATACTGTACAGGAAGAGAGTGC

FIGURE 499

CATGGCTGCGCTGGTGGAGCCGCTGGGGCTGGAGCGGGACGTGTCCCGGGCGGTTGAGCTCCTCGAGCGGCTCCA
GCGCAGCGGGGAGCTGCCGCCGCAGAAGCTGCAGGCCCTCCAGCGAGTTCTGCAGAGCCGCTTCTGCTCCGCTAT
CCGAGAGGTGTATGAGCAGCTTTATGACACGCTGGACATCACCGGCAGCGCCGAGATCCGAGCCCATGCCACAGC
CAAGGCCACAGTGGCTGCCTTCACAGCCAGCGAGGGCCACGCACATCCCAGGGTAGTGGAGCTACCCAAGACGGA
TGAGGGCCTAGGCTTCAACATCATGGGTGGCAAAGAGCAAAACTCGCCCATCTACATCTCCCGGGTCATCCCAGG
GGGTGTGGCTGACCGCCATGGAGGCCTCAAGCGTGGGGATCAACTGTTGTCGGTGAACGGTGTGAGCGTTGAGGG
TGAGCAGCATGAGAAGGCGGTGGAGCTGCTGAAGGCGGCCCAGGGCTCGGTGAAGCTGGTTGTCCGTTACACACC
GCGAGTGCTGGAGGAGATGGAGGCCCGGTTCGAGAAGATGCGCTCTGCCCGCCGGCGCCAACAGCATCAGAGCTA
CTCGTCCTTGGAGTCTCGAGGTTGAAACCACAGATCTGGACGTTCACGTGCACTCTCTTCCTGTACAGTATTTAT
TGTTCCTGGCACTTTATTTAAAGATATTTGACCCTC

FIGURE 500

AAGTACCTATTGGATCACCAGCTGTGTGCCGGGCTTCTAGTTGAGCAACACAGAGGCAGCCTCTGCCCTCTGAGC
CTCCTGCATTCGGTCTCCTCATTGTCATTTGCTGTCTCAGGCAAGGTCAGTTTGGCTGCAAGTATCAGAAATAAA
CTTGAGCTTCCTGAAACATAAAGGGCCCTGTTGATGTAGAATCATGGGCATCCTTTGGAGTTCGGAGGTATGTGA
TGTCCGTGGACCTGAGAACCTGGTAGCTGACGCTGTTAAGAGCTGGGGCAACCAGGCCAGGCGTGGTGGCTCGCC
TGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCATGAGGTCAGGAGTTCGAGACCAGCCTGGCCAAGAT
GTTGAAACCGCATCTCTACTAAAAATACAAAAATTAACTGGGCGTGGTGGCGGGTGCCTGTAATCCCATCTACTC
GGGAGGCTGAGGCAGAGAATTGCTTAAACCTGGGAGGCAGAGGTTGCAGTGAGCCAAGATAGAGTCACTGCATTC
CATCCAGCCTGGGTGCCAGAGCAAGACTCTGTCTCAAAAAAAAAAACAAAAAACAAAAAAACTGGGGCGACCCAC
CTGTGATGTGTGACAGCCCACAGCTTGCTTCTGCCTCGTTTGCCTCCATGCAGCTAGGTCGGTCCCATGCCTCTT
TGCACTGGCCCAGCGCAGCAGGCCACAGGCCCCAGCTTTACACTCAGTCCTGGATGAGTCTCTTGTTTCGGGGTG
GGCACATTTGATTGACTCAGTGTTGGGCCTGGGGTCCTGTTGCTCAGGCATGCTTATTGAGGACTGAATCCTGCA
AAGCTGAGTGACAGTTGTCAGAGAAGATGATGGTCCCTGGGCAGACACCCAGGCAGTAGTAGCCACTTGGGGCTC
CTGTCCTGCCTCCCAGCCCTGTGTCCTGGCTCTGGACTCGCCTGTGCTAGGGAGACCACGCTCTCAGCTGCTGAG
CCTCGGAGCTTACCAGGCATGTTCTTACCTTACTCTGGTCTCTCTGGGGTGGAGTGGGTTCTTATAGCTCTGCTG
TTTCCTGTTGGGGCGGGAAAATGCTAGAATCTCAGTCTTTCCAGAATCTCAGAATCTTCTAGTTCAATTGCCATT
CAAACTTTTTGTTGGTGTTAGCCAATAACATCTTGACTCGGTGCACCCGCAGAAATACTGTAACCTAAAGTTTGA
GGAAACAGTTTTTTCTATGTAGTAAGTATATAGTTGTATTCTGCTGTTTTGTTTCTTAAGATGTTGGTTGCAACC
CATCAGATTGATGATGGGACTCATTTCTGGGTCATGACCTGAATATAGGAAAGGCTAGTCTAGCTGCCCTGTGCC
TGTGACATGGCAGGTGCCTGGTCCGCTGCCTGCTTCTATAAGAATGTCTCCCTGCAGCCTCTTTTCTATACAGAA
CTCAGCCCTGCCTCACGGAAGCTTTTCCAGGCAGTGCGAGATAGAGGAGCGCTTGAGAAGGCAGGTTTTGCAGCA
GACGGCAGTGACAGCCCAGTTCTGCACCTTCTTTGCTGAGTCACTGTGGGCCAGTGACTTGATCTGAGATTGTTT
CCCCATCAGAACCATGAGGTTATCATCTGTGCCTTGGGGCTGTTCATCTATCTATTCACTTGACACACACACATC
CACCTTTCTATACCAGCTGCAGCGCCACCTGCTGGTACCGTGAGCAAGAGCTGGGCATGCCCACGGTTCCGGTGC
CCTGCAGTCTGGTGGGAGAGGCAGGTAGGGGTCGACTCAGGTAGCAAACCTGAAACTCCAGGGGAAGGAAGCGTT
TCTGCAACTGTGAGTACATAGGACTGTGAGGAGAGACTTCCCGAGAAAGGATGTTCGGGCTAGCGTTAAGGGTGA
GCGTGAGTTCACCAGAGAAGGAAGGGGAGACCAGTCCAGGGCAAGGAGAATGCACAGACACTGGCAGGAAGGTGA
GCGTGGGGACACTGGGAAAGGCCTGGGACACGCAGCCAAGAGCCGCGGCTCAGACGCTAGCAGGGCCCGCTCTTG
CTGCCTCTACCACCAGTTGACGAGGAGTTTGGACCTTAGGCTGGGGGACGCCAGCAAAGGCTTCTAAGCAGATCA
CATTTTTGGGTGGAAAGATCATTGGCTTCGGGTTTCTGTGAGGGCGAGGATGATTGGAAGGGAGGGTTTTGAGGA
GGCTGTGAAGTGCGCTATGGTTAAGATGATGCGCTTTGGGGCCAGACATGGGTTCCAGTAACGGCTGTTGCCTAG
CGAACGCTTTGTGTGAGTTAATTAGAGAAGACGTGGCTGTCTTGTGATGGGAGTGCGCGGGATGAACTGCACGGG
GGGACCCGGCCCTGTGAACACTAAGCCAGGGGCTGCCTTCCTGCCCTTTGCTCTTGGAGTCGGCTCATTTCTGCT
CCTCCGGGCCCTGTCCCTGCCCAGATTCACCCTCTGTCCGTCTGCCCTGCCCCAGGAGGAGGCCTCGGTGGTACC
AGAAGAGGAGGGGCTGATGTGAACATCCGGCATTCAGGCCGCGATGACACCTCCCGCTACGATGAGAGGCCCGGC
CCCTCCCCGCTTCCGCACAGGGACCGGGACCGGGACCGTGAGCGGGAGCGCAGAGAGCGGAGCCGGGAGCGAGAC
AAGGAGCGAGAACGGCGACGCTCCCGCTCCCGGGACCGGCGGAGGCGCTCACGGAGTCGCGACAAGGAGGAGCGG
AGGCGCTCCAGGGAGCGGAGCAAGGACAAGGACCGGGACCGGAAGCGGCGAAGCAGCCGGAGTCGGGAGCGGGCC
CGGCGGGAGCGGGAGCGCAAGGAGGAGCTGCGTGGCGGCGGTGGCGAC**ATG**GCGGAGCCCTCCGAGGCGGGTGAC
GCGCCCCCTGATGATGGGCCTCCAGGGGAGCTCGGGCCTGACGGCCCTGACGGTCCAGAGGAAAAGGGCCGGGAT
CGTGACCGGGAGCGACGGCGGAGCCACCGGAGCGAGCGCGAGCGGCGCCGGGACCGGGATCGTGACCGTGACCGT
GACCGCGAGCACAAACGGGGGGAGCGGGGCAGTGAGCGGGGCAGGGATGAGGCCCGAGGTGGGGGCGGTGGCCAG
GACAACGGGCTGGAGGGTCTGGGCAACGACAGCCGAGACATGTACATGGAGTCTGAGGGCGGCGACGGCTACCTG
GCTCCGGAGAATGGGTATTTGATGGAGGCTGCGCCGGAG**TGA**AGAGGTCGTCCTCTCCATCTGCTGTGTTTGGAC
GCGTTCCTGCCCAGCCCCTTGCTGTCATCCCCTCCCCCAACCTTGGCCACTTGAGTTTGTCCTCCAAGGGTAGGT
GTCTCATTTGTTCTGGCCCCTTGGATTTAAAAATAAAATTAATTTCCTGTT

FIGURE 501

TCCAGCACCTTTCTCGGGTCACGGCCTCCTCCTGGTTCCCAAGACCCCACCATAGGCAGAGGCAGGCCTTCCTAC
ACCCTACTCTCTGTGCCTCCAGCCTCGACTAGTCCCTAGCACTCGACGACTGAGTCTCAGAGGTCACTTCACCGT
GGTCTCCGCCTCATCCTTGGCGCTAGACCACTGAGGGGAGAGGACTGGGGTGCTCCGCTGAGCCACTCCTGTGCC
TCCCTGGCCTTGTCTACTTCTCGCCCCCCGAAGGGTTAGTGTCCAGCTCACTCCAGCATCCTACAACCTCCTGGT
GGCCTTGACGCCCCCACAAACCCGAGGTATAAAGCCAGGTACACCAGGCAGGGGACGCACCAAGG**ATG**GAGATGT
TCCAGGGGCTGCTGCTGTTGCTGCTGCTGAGCATGGGCGGGACATGGGCATCCAGGGAGATGCTTCGGCCACGGT
GCCGCCCCATCAATGCCACCCTGGCTGTGGAGAAGGAGGGCTGCCCCGTGTGCATCACCGTCAACACCACCATCT
GTGCCGGCTACTGCCCCACCATGACCCGCGTGCTGCAGGGGGTCCTGCCGGCCCTGCCTCAGGTGGTGTGCAACT
ACCGCGATGTGCGCTTCGAGTCCATCCGGCTCCCTGGCTGCCCGCGCGGCGTGAACCCCGTGGTCTCCTACGCCG
TGGCTCTCAGCTGTCAATGTGCACTCTGCCGCCGCAGCACCACTGACTGCGGGGGTCCCAAGGACCACCCCTTGA
CCTGTGATGACCCCCGCTTCCAGGCCTCCTCTTCCTCAAAGGCCCCTCCCCCCAGCCTTCCAAGTCCATCCCGAC
TCCCGGGGCCCTCAGACACCCCGATCCTCCCACAA**TAA**AGGCTTCTCAATCCGCA

FIGURE 502

TCCAGCACCTTTCTCGGGTCACGGCCTCCTCCTGGCTCCCAGGACCCCACCATAGGCAGAGGCAGGCCTTCCTAC
ACCCTACTCCCTGTGCCTCCAGGCTCGACTAGTCCCTAGCACTCGACGACTGAGTCTCTGAGGTCACTTCACCGT
GGTCTCCGCCTCACCCTTGGCGCTGGACCAGTGAGAGGAGAGGGCTGGGGCGCTCCGCTGAGCCACTCCTGCGCC
CCCCTGGCCTTGTCTACCTCTTGCCCCCCGAAGGGTTAGTGTCGAGCTCACTCCAGCATCCTACAACCTCCTGGT
GGCCTTGCCGCCCCCACAACCCCGAGGTTTAAAGCCAGGTACACGAGGCAGGGGACACACCAAGG**ATG**GAGATGT
TCCAGGGGCTGCTGCTGTTGCTGCTGCTGAGCATGGGCGGGACATGGGCATCCAAGGAGCCGCTTCGGCCACGGT
GCCGCCCCATCAATGCCACCCTGGCTGTGGAGAAGGAGGGCTGCCCCGTGTGCATCACCGTCAACACCACCATCT
GTGCCGGCTACTGCCCCACCATGACCCGCGTGCTGCAGGGGGTCCTGCCGGCCCTGCCTCAGGTGGTGTGCAACT
ACCGCGATGTGCGCTTCGAGTCCATCCGGCTCCCTGGCTGCCCGCGCGGCGTGAACCCCGTGGTCTCCTACGCCG
TGGCTCTCAGCTGTCAATGTGCACTCTGCCGCCGCAGCACCACTGACTGCGGGGGTCCCAAGGACCACCCCTTGA
CCTGTGATGACCCCCGCTTCCAGGACTCCTCTTCCTCAAAGGCCCCTCCCCCCAGCCTTCCAAGTCCATCCCGAC
TCCCGGGGCCCTCGGACACCCCGATCCTCCCACAA**TAA**AGGCTTCTCAATCCGCA

FIGURE 503

TCCAGCACTTTGCTCGGGTCACGGCCTCCTCCTGGCTCCCAGGACCCCACCATAGGCAGAGGCAGGCCTTCCTAC
ACCCTACTCCCTGTGCCTCCAGGCTCGACTAGTCCCTAGCACTCGACGACTGAGTCTCTGAGATCACTTCACCGT
GGTCTCCGCCTCACCCTTGGCGCTGGACCAGTGAGAGGAGAGGGCTGGGGCGCTCCGCTGAGCCACTCCTGCGCC
CCCCTGGCCTTGTCTACCTCTTGCCCCCCGAAGGGTTAGTGTCGAGCTCACCCCAGCATCCTACAACCTCCTGGT
GGCCTTGCCGCCCCCACAACCCCGAGGTATAAAGCCAGGTACACGAGGCAGGGGACGCACCAAGG**ATG**GAGATGT
TCCAGGGGCTGCTGCTGTTGCTGCTGCTGAGCATGGGCGGGACATGGGCATCCAAGGAGCCGCTTCGGCCACGGT
GCCGCCCCATCAATGCCACCCTGGCTGTGGAGAAGGAGGGCTGCCCCGTGTGCATCACCGTCAACACCACCATCT
GTGCCGGCTACTGCCCCACCATGACCCGCGTGCTGCAGGGGGTCCTGCCGGCCCTGCCTCAGGTGGTGTGCAACT
ACCGCGATGTGCGCTTCGAGTCCATCCGGCTCCCTGGCTGCCCGCGCGGCGTGAACCCCGTGGTCTCCTACGCCG
TGGCTCTCAGCTGTCAATGTGCACTCTGCCGCCGCAGCACCACTGACTGCGGGGGTCCCAAGGACCACCCCTTGA
CCTGTGATGACCCCCGCTTCCAGGACTCCTCTTCCTCAAAGGCCCCTCCCCCCAGCCTTCCAAGTCCATCCCGAC
TCCCGGGGCCCTCGGACACCCCGATCCTCCCACAA**TAA**AGGCTTCTCAATCCGCA

FIGURE 504

CCCCAGGGCCAGTGAGGGCCCTGCGTTCCGTGGCGCCCCCTGGAGGGAGGAAGGGGAACTGCATCTGAGAGAGAG
CAGCCAATTGGGTCCGCTGACTCTGGCCAGGTTCCCGTGCCGCGTCCAACACCCCTCACTCCCTGTCTCACTCCC
CCACGGAGACTCAATTTACTTTCC**ATG**TCCACATTCCCAGTGCTTGCGGAAGATATCCCGCTAAGAGAGAGACAT
GTCAAAGAGGCTGCTGCTGTTGCTGCTGCTGAGCATGGGCGGGACATGGGCATCCAAGGAGCCGCTTCGGCCACG
GTGCCGCCCCATCAATGCCACCCTGGCTGTGGAGAAGGAGGGCTGCCCCGTGTGCATCACCGTCAACACCACCAT
CTGTGCCGGCTACTGCCCCACCATGACCCGCGTGCTGCAGGGGGTCCTGCCGGCCCTGCCTCAGGTGGTGTGCAA
CTACCGCGATGTGCGCTTCGAGTCCATCCGGCTCCCTGGCTGCCCGCGCGGCGTGAACCCCGTGGTCTCCTACGC
CGTGGCTCTCAGCTGTCAATGTGCACTCTGCCGCCGCAGCACCAC**TGA**CTGCGGGGGTCCCAAGGACCACCCCTT
GACCTGTGATGACCCCCGCTTCCAGGACTCCTCTTCCTCAAAGGCCCCTCCCCCCAGCCTTCCAAGTCCATCCCG
TCTCCCGGGGCCCTAGGACACCCCGATCCTCCCACAATAAAGGCTTCTCAATCCGCA

FIGURE 505

CCCCAGGGCCAGTGAGGGCCCTGCGTTCCGTGGCGCCCCCTGGAGGGAGGAAGGGGAACTGTATCTGAGAGAGAG
CAGCCAATTGGGTCCGCTGACTCCGGCCGGGTTCCCGTGCCGCGTCCAACACCCCTCACTCCCTGTCTCACTCCC
CCACGGAGACTCAATTTACTTTCC**ATG**TCCACATCCCCAGTGCTTGCGGAAGATATCCCGCTAAGAGAGAGACAT
GTCAAAGGGGCTGCTGCTGTTGCTGCTGCTGAGCATGGGCGGGACATGGGCATCCAAGGAGCCGCTTCGGCCACG
GTGCCGCCCCATCAATGCCACCCTGGCTGTGGAGAAGGAGGGCTGCCCCGTGTGCATCACCGTCAACACCACCAT
CTGTGCCGGCTACTGCCCCACCATGACCCGCGTGCTGCAGGGGGTCCTGCCGGCCCTGCCTCAGGTGGTGTGCAA
CTACCGCGATGTGCGCTTCGAGTCCATCCGGCTCCCTGGCTGCCCGCGCGGCGTGAACCCCGTGGTCTCCTACGC
CGTGGCTCTCAGCTGTCAATGTGCACTCTGCCGCCGCAGCACCAC**TGA**CTGCGGGGGTCCCAAGGACCACCCCTT
GACCTGTGATGACCCCCGCTTCCAGGCCTCCTCTTCCTCAAAGGCCCCTCCCCCCAGCCTTCCAAGCCCATCCCG
ACTCCCGGGGCCCTCAGACACCCCGATCCTCCCACAATAAAGGCTTCTCAATCCGCA

FIGURE 506

GCACCAAGG**ATG**GAGATGCTCCAGGGGCTGCTGCTGTTGCTGCTGCTGAGCATGGGCGGGGCATGGGCATCCAGG
GAGCCGCTTCGGCCATGGTGCCACCCCATCAATGCCATCCTGGCTGTCGAGAAGGAGGGCTGCCCAGTGTGCATC
ACCGTCAACACCACCATCTGTGCCGGCTACTGCCCCACCATGATGCGCGTGCTGCAGGCGGTCCTGCCGCCCCTG
CCTCAGGTGGTGTGCACCTACCGTGATGTGCGCTTCGAGTCCATCCGGCTCCCTGGCTGCCCGCGTGGTGTGGAC
CCCGTGGTCTCCTTCCCTGTGGCTCTCAGCTGTCGCTGTGGACCCTGCCGCCGCAGCACCTCTGACTGTGGGGGT
CCCAAAGACCACCCCTTGACCTGTGACCACCCCCAACTCTCAGGCCTCCTCTTCCTC**TAA**AGACCCTCCCCGCAG
CCTTCCAAGTCCATCCCGACTCCTGGAGCCCTGACACCCCGATCCTCCCACAATAAAGGCTTCTCAATCCGCA

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FIGURE 507

GTTGGTGAGCATC**ATG**GCAACCGTTACAGCCACAACCAAAGTCCCGGAGATCCGTGATGTAACAAGGATTGAGCG
AATCGGTGCCCACTCCCACATCCGGGGACTGGGGCTGGACGATGCCTTGGAGCCTCGGCAGGCTTCGCAAGGCAT
GGTGGGTCAGCTGGCGGCACGGCGGGCGGCTGGCGTGGTGCTGGAGATGATCCGGGAAGGGAAGATTGCCGGTCG
GGCAGTCCTTATTGCTGGCCAGCCGGGCACGGGGAAGACGGCCATCGCCATGGGCATGGCGCAGGCCCTGGGCCC
TGACACGCCATTCACAGCCATCGCCGGCAGTGAAATCTTCTCCCTGGAGATGAGCAAGACCGAGGCGCTGACGCA
GGCCTTCCGGCGGTCCATCGGCGTTCGCATCAAGGAGGAGACGGAGATCATCGAAGGGGAGGTGGTGGAGATCCA
GATTGATCGACCAGCAACAGGGACGGGCTCCAAGGTGGGCAAACTGACCCTCAAGACCACAGAGATGGAGACCAT
CTACGACCTGGGCACCAAGATGATTGAGTCCCTGACCAAGGACAAGGTCCAGGCCGGGGACGTGATCACCATCGA
CAAGGCGACGGGCAAGATCTCCAAGCTGGGCCGCTCCTTCACACGCGCCCGCGACTACGACGCTATGGGCTCCCA
GACCAAGTTCGTGCAGTGCCCAGATGGGGAGCTCCAGAAACGCAAGGAGGTGGTGCACACCGTGTCCCTGCACGA
GATCGACGTCATCAACTCTCGCACCCAGGGCTTCCTGGCGCTCTTCTCAGGTGACACAGGGGAGATCAAGTCAGA
AGTCCGTGAGCAGATCAATGCCAAGGTGGCTGAGTGGCGCGAGGAGGGCAAGGCGGAGATCATCCCTGGAGTGCT
GTTCATCGACGAGGTCCACATGCTGGACATCGAGAGCTTCTCCTTCCTCAACCGGGCCCTGGAGAGTGACATGGC
GCCTGTCCTGATCATGGCCACCAACCGTGGCATCACGCGAATCCGGGGCACCAGCTACCAGAGCCCTCACGGCAT
CCCCATAGACCTGCTGGACCGGCTGCTTATCGTCTCCACCACCCCCTACAGCGAGAAAGACACGAAGCAGATCCT
CCGCATCCGGTGCGAGGAAGAAGATGTGGAGATGAGTGAGGACGCCTACACGGTGCTGACCCGCATCGGGCTGGA
GACGTCACTGCGCTACGCCATCCAGCTCATCACAGCTGCCAGCTTGGTGTGCCGGAAACGCAAGGGTACAGAAGT
GCAGGTGGATGACATCAAGCGGGTCTACTCACTCTTCCTGGACGAGTCCCGCTCCACGCAGTACATGAAGGAGTA
CCAGGACGCCTTCCTCTTCAACGAACTCAAAGGCGAGACCATGGACACCTCC**TGA**GTTGGATGTCATCCCCCGAC
CCCACCCTGTTTTCCACCAGAGTTCTGACACTGTGACTCTGTATAAAATGGTTGGGAAGCTGC

FIGURE 508

CGCTTCGGGGCAGGGGTGCGGTCTTGCAATAGGAAGCCGAGCGTCTTGCAAGCTTCCCGTCGGGCACCAGCTACT
CGGCCCCGCACCCTACCTGGTGCATTCCCTAGACACCTCCGGGGTCCCTACCTGGAGATCCCCGGAGCCCCCCTT
CCTGCGCCAGCC**ATG**CCTTTAAACCGCACTTTGTCCATGTCCTCACTGCCAGGACTGGAGGACTGGGAGGATGAA
TTCGACCTGGAGAACGCAGTGCTCTTCGAAGTGGCCTGGGAGGTGGCTAACAAGGTGGGTGGCATCTACACGGTG
CTGCAGACGAAGGCGAAGGTGACAGGGGACGAATGGGGCGACAACTACTTCCTGGTGGGGCCGTACACGGAGCAG
GGCGTGAGGACCCAGGTGGAACTGCTGGAGGCCCCCACCCCGGCCCTGAAGAGGACACTGGATTCCATGAACAGC
AAGGGCTGCAAGGTGTATTTCGGGCGCTGGCTGATCGAGGGAGGCCCTCTGGTGGTGCTCCTGGACGTGGGTGCC
TCAGCTTGGGCCCTGGAGCGCTGGAAGGGAGAGCTCTGGGATACCTGCAACATCGGAGTGCCGTGGTACGACCGC
GAGGCCAACGACGCTGTCCTCTTTGGCTTTCTGACCACCTGGTTCCTGGGTGAGTTCCTGGCACAGAGTGAGGAG
AAGCCACATGTGGTTGCTCACTTCCATGAGTGGTTGGCAGGCGTTGGACTCTGCCTGTGTCGTGCCCGGCGACTG
CCTGTAGCAACCATCTTCACCACCCATGCCACGCTGCTGGGGCGCTACCTGTGTGCCGGTGCCGTGGACTTCTAC
AACAACCTGGAGAACTTCAACGTGGACAAGGAAGCAGGGGAGAGGCAGATCTACCACCGATACTGCATGGAAAGG
GCGGCAGCCCACTGCGCTCACGTCTTCACTACTGTGTCCCAGATCACCGCCATCGAGGCACAGCACTTGCTCAAG
AGGAAACCAGATATTGTGACCCCCAATGGGCTGAATGTGAAGAAGTTTTCTGCCATGCATGAGTTCCAGAACCTC
CATGCTCAGAGCAAGGCTCGAATCCAGGAGTTTGTGCGGGGCCATTTTTATGGGCATCTGGACTTCAACTTGGAC
AAGACCTTATACTTCTTTATCGCCGGCCGCTATGAGTTCTCCAACAAGGGTGCTGACGTCTTCCTGGAGGCATTG
GCTCGGCTCAACTATCTGCTCAGAGTGAACGGCAGCGAGCAGACAGTGGTTGCCTTCTTCATCATGCCAGCGCGG
ACCAACAATTTCAACGTGGAAACCCTCAAAGGCCAAGCTGTGCGCAAACAGCTTTGGGACACGGCCAACACGGTG
AAGGAAAAGTTCGGGAGGAAGCTTTATGAATCCTTACTGGTTGGGAGCCTTCCCGACATGAACAAGATGCTGGAT
AAGGAAGACTTCACTATGATGAAGAGAGCCATCTTTGCAACGCAGCGGCAGTCTTTCCCCCCTGTGTGCACCCAC
AATATGCTGGATGACTCCTCAGACCCCATCCTGACCACCATCCGCCGAATCGGCCTCTTCAATAGCAGTGCCGAC
AGGGTGAAGGTGATTTTCCACCCGGAGTTCCTCTCCTCCACAAGCCCCCTGCTCCCTGTGGACTATGAGGAGTTT
GTCCGTGGCTGTCACCTTGGAGTCTTCCCCTCCTACTATGAGCCTTGGGGCTACACACCGGCTGAGTGCACGGTT
ATGGGAATCCCCAGTATCTCCACCAATCTCTCCGGCTTCGGCTGCTTCATGGAGGAACACATCGCAGACCCCTCA
GCTTACGGTATCTACATTCTTGACCGGCGGTTCCGCAGCCTGGATGATTCCTGCTCGCAGCTCACCTCCTTCCTC
TACAGTTTCTGTCAGCAGAGCCGGCGGCAGCGTATCATCCAGCGGAACCGCACGGAGCGCCTCTCCGACCTTCTG
GACTGGAAATACCTAGGCCGGTACTATATGTCTGCGCGCCACATGGCGCTGTCCAAGGCCTTTCCAGAGCACTTC
ACCTACGAGCCCAACGAGGCGGATGCAGGCCCAGGGGTACCGCTACCCACGGCCAGCCTCGGTGCCACCGTCGCC
CTCGCTGTCACGACACTCCAGCCCGCACCAGAG**TGA**GGACGAGGAGGATCCCCGGAACGGGCCGCTGGAGGAAGA
CGGCGAGCGCTACGATGAGGACGAGGAGGCCGCCAAGGACCGGCGCAACATCCGTGCACCAGAGTGGCCGCGCCG
AGCGTCCTGCACCTCCTCCACCAGCGGCAGCAAGCGCAACTCTGTGGACACGGCCACCTCCAGCTCACTCAGCAC
CCCGAGCGAGCCCCTCAGCCCCACCAGCTCCCTGGGCGAGGAGCGTAACTAAGTCCGCCCCACCACACTCCCCGC
CTGTCCTGCCTCTCTGCTCCAGAGAGAGGATGCAGAGGGGTGCTGCTCCTAAACCCCCGCTCCAGATCTGCACTG
GGTGTGGCCCCGCAGTGCCCCCACCCAGTCCGCCAAACACTCCACCCCCTCCAGCTCCAGTTTCCAAGTTCCTGC
ACTCCAGAATCCACAAAGCCGTGCCTTTCTCTGGCTCCAGAATATGCATAATCAGCGCCCTGGAGTCCCCTGGGC
CTGGACCGCTTCCCAGAGGCCAGGAATCTGCCATTACTCTGCGGTGGTGCCAGAGGTTTTAGGAAACCTGGCATG
GTGCTTTCAGGTCTGGGGCTTTTAGAGCCCCCCGTGTGGCTTACAAATTCTACAGCATACAGAGCAGGCCACGCT
CAGGCCCGGCATGCGGGCCACCAAGTTCTGGAAACCACGTGGTGTCCCTGCGAATGGGGCGATCAAGTCCAGAGC
CGGGGCACTTTCAGAGTTTGAAGGTAACTGAGAGCAGATGGTCCTCCATTTCAACTCCAGAAGTGGGGCTCTGGG
AGGGATGTTCTAGCCCTCCCTGGCATGTCAGAGCCAGGCTCTGCCTGGAGGATCCCTCCATCCGGCTCCTGTCAT
CCCCTACACTTTGGCCAAGCAAGAGGTGGTAGAACCACTTGGCTGCTCATTCCTTCTGGAGGACACACAGTCTCA
GTCCAGATGCCTTCCTGTCTTTCTGGCCCTTTCTGGACCAGATCCTACTCTTCCTTTCTAAATCTGAGATCTCCC
TCCAGGGAATCCGCCTGCAGAGGACAGAGCTGGCTGTCTTCCCCCACCCCTAACCTGGCTTATTCCCAACTGCTC
TGCCCACTGTGAAACCACTAGGTTCTAGGTCCTGGCTTCTAGATCTGGAACCTTACCACGTTACTGCATACTGAT
CCCTTTCCCATGATCCAGAACTGAGGTCACTGGGTTCTAGAACCCCCACATTTACCTCGAGGCTCTTCCATCCCC
AAACTGTGCCCTGCCTTCAGCTTTGGTGAAAGGGAGGGCCCCTCATGTGTGCTGTGCTGTGTCTGCACCGCTTGG
TTTGCAGTTGAGAGGGGAGGGCAGGAGGGGTGTGATTGGAGTGTGTCCGGAGATGAGATGAAAAAAATACATCTA
TATTTAAG

FIGURE 509

ACCATAAAAGAAGCCGCCCTAGCCACGTCCCCTCGCAGTTCGGCGGTCCCGCGGGTCTGTCTCTTGCTTCAACAG
TGTTTGGACGGAACAGATCCGGGGACTCTCTTCCAGCCTCCGACCGCCCTCCGATTTCCTCTCCGCTTGCAACCT
CCGGGACCATCTTCTCGGCCATCTCCTGCTTCTGGGACCTGCCAGCACCGTTTTTGTGGTTAGCTCCTTCTTGCC
AACCAACC**ATG**AGCTCCCAGATTCGTCAGAATTATTCCACCGACGTGGAGGCAGCCGTCAACAGCCTGGTCAATT
TGTACCTGCAGGCCTCCTACACCTACCTCTCTCTGGGCTTCTATTTCGACCGCGATGATGTGGCTCTGGAAGGCG
TGAGCCACTTCTTCCGCGAATTGGCCGAGGAGAAGCGCGAGGGCTACGAGCGTCTCCTGAAGATGCAAAACCAGC
GTGGCGGCCGCGCTCTCTTCCAGGACATCAAGAAGCCAGCTGAAGATGAGTGGGGTAAAACCCCAGACGCCATGA
AAGCTGCCATGGCCCTGGAGAAAAAGCTGAACCAGGCCCTTTTGGATCTTCATGCCCTGGGTTCTGCCCGCACGG
ACCCCCATCTCTGTGACTTCCTGGAGACTCACTTCCTAGATGAGGAAGTGAAGCTTATCAAGAAGATGGGTGACC
ACCTGACCAACCTCCACAGGCTGGGTGGCCCGGAGGCTGGGCTGGGCGAGTATCTCTTCGAAAGGCTCACTCTCA
AGCACGAC**TAA**GAGCCTTCTGAGCCCAGCGACTTCTGAAGGGCCCCTTGCAAAGTAATAGGGCTTCTGCCTAAGC
CTCTCCCTCCAGCCAATAGGCAGCTTTCTTAACTATCCTAACAAGCCTTGGACCAAATGGAAATAAAGCTTTTTG
ATGC

FIGURE 510

CGGGGCATCTGCAGATCCCCTCGGTCAGGGGCTGCCCCGCCTGGGCTGTTCGGAGCAGCTCCTCTGTAGGGCAGG
GCCTGACCTCACCCCACACCCCAGTGGCTTCAGCTCCCTGCCCAGCGCACGGGCTGCCTCCATCAGGGCACTTAA
GTAGAGTCAAGGTTTGCGCCGACTCCGTCTCCCAGAAATCAACGTGGACCAGGCCCACTTAAAAAATATGCATTA
GTCGAAGACAGACGTCTCGTCCATAGGTCCCCAGACTGTTTGTCCACAACGCAGGGCTTCTCTTTGTGGGCCTGA
AGGAGCACACGTCAGGCAAGACACGAGGGCAACTTCAGAGACACTGTTCAGGGCCACGGAGAATTCTCGAAGTCT
GTGAGTTGTCTCCAAAACAGCCTCCAGGAA**ATG**CAATCCCAGAGACACCGCAAAGCTCAAAACAGACTTTTCATT
CCTCCCCATTTCCACTCCCAGAAAAAGCCTGGGCCCCTGAAAGAGCTCCAAGAGATCTCCAGGGGTCCAGAAATA
ACACCTCACAGCCTTCCAAGCTTCCCAAGGATCCGGAGACTCCTTATCTCGCAGCGCAAACCTCAGGCAACTACA
GGTCCTCCCTGCACCTTTGAGGTGCCCCTCCCCCCACTCAAGGTTCCAGAAAAATCCATGCCCTCGGAAACCCCA
GAATCTTACTTTCCCGAGGCACCCCAGGACCCCAGGGTCATCAGTTCACAGGGCTGT**TAG**TGCTCCCATAAAACT
CTAGCCTCC

FIGURE 511

ATGGACGGGTCCGGGGAGCAGCCCAGAGGCGGGGGGCCCACCAGCTCTGAGCAGATCATGAAGACAGGGGCCCTT
TTGCTTCAGGGTTTCATCCAGGATCGAGCAGGGCGAATGGGGGGGGAGGCACCCGAGCTGGCCCTGGACCCGGTG
CCTCAGGATGCGTCCACCAAGAAGCTGAGCGAGTGTCTCAAGCGCATCGGGGACGAACTGGACAGTAACATGGAG
CTGCAGAGGATGATTGCCGCCGTGGACACAGACTCCCCCCGAGAGGTCTTTTTCCGAGTGGCAGCTGACATGTTT
TCTGACGGCAACTTCAACTGGGGCCGGGTTGTCGCCCTTTTCTACTTTGCCAGCAAACTGGTGCTCAAGGCCCTG
TGCACCAAGGTGCCGGAACTGATCAGAACCATCATGGGCTGGACATTGGACTTCCTCCGGGAGCGGCTGTTGGGC
TGGATCCAAGACCAGGGTGGTTGGGTGAGACTCCTCAAGCCTCCTCACCCCCACCACCGCGCCCTCACCACCGCC
CCTGCCCCACCGTCCCTGCCCCCCGCCACTCCTCTGGGACCCTGGGCCTTCTGGAGCAGGTCACAGTGGTGCCCT
CTCCCCATCTTCAGATCATCAGATGTGGTCTATAATGCGTTTTCCTTACGTGTC**TGA**

FIGURE 512

ATAAGTGGGCGTGGTCTAGGGGGGAAGTCACCAAGAACGCACCGGAGGTCCTTGCCCGCCCTGGAAAACGCCCTC
TGCGGTGAAGGAGAGACCACACTGCC**ATG**CCTCCCTCTGGGCCCCGAGGAACCCTCCTTCTGTTGCCGCTGCTGC
TGCTGCTCCTGCTTCGCGCCGTGCTGGCTGTCCCCCTGGAGCGAGGGGCGCCCAACAAGGAGGAGACCCCTGCGA
CTGAGAGTCCCGACACAGGCCTGTACTACCACCGGTACCTCCAGGAGGTCATCGATGTACTGGAGACGGATGGGC
ATTTCCGAGAGAAGCTGCAGGCTGCCAATGCGGAGGACATCAAGAGCGGGAAGCTGAGCCGAGAGCTGGACTTTG
TCAGCCACCACGTCCGCACCAAGCTGGATGAGCTCAAGCGACAGGAGGTGTCACGGCTGCGGATGCTGCTCAAGG
CCAAGATGGACGCCGAGCAGGATCCCAATGTACAGGTGGATCATCTGAATCTCCTGAAACAGTTTGAACACCTGG
ACCCTCAGAACCAGCATACATTCGAGGCCCGCGACCTGGAGCTGCTGATCCAGACGGCCACCCGGGACCTTGCCC
AGTACGACGCAGCCCATCATGAAGAGTTCAAGCGCTACGAGATGCTTAAGGAACACGAGAGACGGCGTTATCTGG
AGTCACTGGGAGAGGAGCAGAGAAAGGAGGCGGAGAGGAAGCTGGAAGAGCAACAGCGCCGGCACCGCGAGCACC
CTAAAGTCAACGTGCCTGGCAGCCAAGCCCAGTTGAAGGAGGTGTGGGAGGAGCTGGATGGACTGGACCCCAACA
GGTTTAACCCCAAGACCTTCTTCATACTGCATGATATCAACAGTGATGGTGTCCTGGATGAGCAGGAGCTGGAGG
CACTCTTCACCAAGGAGCTGGAGAAAGTGTACGACCCAAAGAATGAGGAGGACGACATGCGGGAGATGGAGGAGG
AGCGACTGCGCATGCGGGAGCATGTGATGAAGAATGTGGACACCAACCAGGACCGCCTCGTGACCCTGGAGGAGT
TCCTCGCATCCACTCAGAGGAAGGAGTTTGGGGACACCGGGGAGGGCTGGGAGACAGTGGAGATGCACCCTGCCT
ACACCGAGGAAGAGCTGAGGCGCTTTGAAGAGGAGCTGGCTGCCCGGGAGGCAGAGCTGAATGCCAAGGCCCAGC
GCCTCAGCCAGGAGACAGAGGCTCTAGGGCGGTCCCAGGGCCGCCTGGAGGCCCAGAAGAGAGAGCTGCAGCAGG
CTGTGCTGCACATGGAGCAGCGGAAGCAGCAGCAGCAGCAGCAAGGCCACAAGGCCCCGGCTGCCCACCCTG
AGGGGCAGCTCAAGTTCCACCCAGACACAGACGATGTACCTGTCCCAGCTCCAGCCGGTGACCAGAAGGAGGTGG
ACACTTCAGAAAAGAAACTTCTCGAGCGGCTCCCTGAGGTTGAGGTGCCCCAGCATCTG**TGA**TCCTCCGGGACCC
CAGCCCTCAGGATTCCTGATGCTCCAAGGCGACTGATGGGCGCTGGATGAAGTGGCACAGTCAGCTTCCCTGGGG
GCTGGTGTCATGTTGGGCTCCTGGGGCGGGGGCACGGCCTGGCATTTCACGCATTGCTGCCACCCCAGGTCCACC
TGTCTCCACTTTCACAGCCTCCAAGTCTGTGGCTCTTCCCTTCTGTCCTCCGAGGGGCTTGCCTTCTCTCGTGTC
CAGTGAGGTGCTCAGTGATCGGCTTAACTTAGAGAAGCCCGCCCCCTCCCCTTCTCCGTCTGTCCCAAGAGGGTC
TGCTCTGAGCCTGCGTTCCTAGGTGGCTCGGCCTCAGCTGCCTGGGTTGTGGCCGCCCTAGCATCCTGTATGCCC
ACAGCTACTGGAATCCCCGCTGCTGCTCCGGGCCAAGCTTCTGGTTGATTAATGAGGGCATGGGGTGGTCCCTCA
AGACCTTCCCCTACCTTTTGTGGAACCAGTGATGCCTCAAAGACAGTGTCCCCTCCACAGCTGGGTGCCAGGGGC
AGGGGATCCTCAGTATAGCCGGTGAACCCTGATACCAGGAGCCTGGGCCTCCCTGAACCCCTGGCTTCCAGCCAT
CTCATCGCCAGCCTCCTCCTGGACCTCTTGGCCCCCAGCCCCTTCCCCACACAGCCCCAGAAGGGTCCCAGAGCT
GACCCCACTCCAGGACCTAGGCCCAGCCCCTCAGCCTCATCTGGAGCCCCTGAAGACCAGTCCCACCCACCTTTC
TGGCCTCATCTGACACTGCTCCGCATCCTGCTGTGTGTCCTGTTCCATGTTCCGGTTCCATCCAAATACACTTTC
TGGAAC

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FIGURE 513

CCCAGTTGTTGATCTTATGCAAGACGCTGCACGACCCCGCGCCCGCTTGTCGCCACGGCACTTGAGGCAGCCGGA
GATACTCTGAGTTACTCGGAGCCCGACGCCTGAGGGTGAGATGAACGCGCTGGCCTCCCTAACCGTCCGGACCTG
TGATCGCTTCTGGCAGACCGAACCGGCGCTCCTGCCCCCGGGGTGACGCGCAGCTCCCAGCCGCCCAGACAC**ATG**

GCCCCAGGCCAAGCACCCCATCAGGCTACCCCGTGGAGGGATGCCCACCCTTTCTTCCTCCTGTCCCCAGTGATG
GGCCTCCTCAGCCGCGCCTGGAGCCGCCTGAGGGGCCTGGGACCTCTAGAGCCCTGGCTGGTGGAAGCAGTAAAA
GGAGCAGCTCTGGTAGAAGCTGGCCTGGAGGGAGAAGCTAGGACTCCTCTGGCAATCCCCCATACCCCTTGGGGC
AGACGCCCTGAAGAGGAGGCTGAAGACAGTGGAGGCCCTGGAGAGGACAGAGAAACACTGGGGCTGAAAACCAGC
AGTTCCCTTCCTGAAGCCTGGGGACTTTTGGATGATGATGATGGCATGTATGGTGAGCGAGAGGCAACCAGTGTC
CCTAGAGGGCAGGGAAGTCAATTTGCAGATGGCCAGCGTGCTCCCCTGTCTCCCAGCCTTCTGATAAGGACACTG
CAAGGTTCTGATAAGAACCCAGGGGAGGAGAAAGCCGAGGAAGAGGGAGTTGCTGAAGAGGAGGGAGTTAACAAG
TTCTCTTATCCACCATCACACCGGGAGTGTTGTCCAGCCGTGGAGGAGGAGGACGATGAAGAAGCTGTAAAGAAA
GAAGCTCACAGAACCTCTACTTCTGCCTTGTCTCCAGGATCCAAGCCCAGCACTTGGGTGTCTTGCCCAGGGGAG
GAAGAGAATCAAGCCACGGAGGATAAAAGAACAGAAAGAAGTAAAGGAGCCAGGAAGACCTCCGTGTCCCCCCGA
TCTTCAGGCTCCGACCCCAGGTCCTGGGAGTATCGTTCAGGAGAGGCGTCCGAGGAGAAGGAGGAAAAGGCACAC
AAAGAAACTGGGAAAGGAGAAGCTGCCCCAGGGCCGCAATCCTCAGCCCCAGCCCAGAGGCCCCAGCTCAAGTCC
TGGTGGTGCCAACCCAGTGATGAAGAGGAGGGTGAGGTCAAGGCTTTGGGGGCAGCTGAGAAGGATGGAGAAGCT
GAGTGTCCTCCCTGCATCCCCCCACCAAGTGCCTTCCTGAAGGCCTGGGTGTATTGGCCAGGAGAGGACACAGAG
GAAGAGGAAGATGAGGAAGAAGATGAGGACAGTGACTCTGGATCAGATGAGGAAGAGGGAGAAGCTGAGGCTTCC
TCTTCCACTCCTGCTACAGGTGTCTTCTTGAAGTCCTGGGTCTATCAGCCAGGAGAGGACACAGAGGAGGAGGAA
GATGAGGACAGTGATACAGGATCAGCCGAGGATGAAAGAGAAGCTGAGACTTCTGCTTCCACACCCCCTGCAAGT
GCTTTCTTGAAGGCCTGGGTGTATCGGCCAGGAGAGGACACGGAGGAGGAGGAAGATGAGGATGTGGATAGTGAG
GATAAGGAAGATGATTCAGAAGCAGCCTTGGGAGAAGCTGAGTCAGACCCACATCCCTCCCACCCGGACCAGAGG
GCCCACTTCAGGGGCTGGGGATATCGACCTGGAAAAGAGACAGAGGAAGAGGAAGCTGCTGAGGACTGGGGAGAA
GCTGAGCCCTGCCCCTTCCGAGTGGCCATCTATGTACCTGGAGAGAAGCCACCGCCTCCCTGGGCTCCTCCTAGG
CTGCCCCTCCGACTGCAAAGGCGGCTCAAGCGCCCAGAAACCCCTACTCATGATCCGGACCCTGAGACTCCCCTA
AAGGCCAGAAAGGTGCGCTTCTCCGAGAAGGTCACTGTCCATTTCCTGGCTGTCTGGGCAGGGCCGGCCCAGGCC
GCCCGCCAGGGCCCCTGGGAGCAGCTTGCTCGGGATCGCAGCCGCTTCGCACGCCGCATCACCCAGGCCCAGGAG
GAGCTGAGCCCCTGCCTCACCCCTGCTGCCCGGGCCAGAGCCTGGGCACGCCTCAGGAACCCACCTTTAGCCCCC
ATCCCTGCCCTCACCCAGACCTTGCCTTCCTCCTCTGTCCCTTCGTCCCCAGTCCAGACCACGCCCTTGAGCCAA
GCTGTGGCCACACCTTCCCGCTCGTCTGCTGCTGCAGCGGCTGCCCTGGACCTCAGTGGGAGGCGTGGC**TGA**GAC
CAACTGGTTTGCCTATAATTTATTAACTATTTATTTTTTCTAAGTGTGGGTTTATATAAGGAATAAAGCCTTTTG
ATTTGT

FIGURE 514

AAACTGGGAGAGGGAGGAAGGGAGAAAGTGAGAAGGGAAATCGGAAAGAGAAAAGGGAGGAAACGGCAGAGCCAG
AGAGAAAGAGGAAGAGACTGAGTGTGAAGGAGAGAGGACACAGGGGATGACTGAGAGACAGAGAGAGAGAGAGAG
AGAGAATGAGACAGAGACTTAAGGAAGAGACCCTGTGAGTCTGACAATAAAAGATTTGGACAGAAACAGAAAGAT
TGGAGAGAGAGAGAGAGGGAGAGAATGAGTGAGAGAGAGACTGGAAGAGACAGAGATCAGAGGGAGACACAGAAA
GTGAGAGTGGGGAGAGAGGTAGTGTAAAAGGAAGAGAGAGAGAGAGACCGTAAGAGACAGGAGACAAAGAGAC
AAAAAGTGTGAGTGAGCAGGTGAGGAGAGAGATTGAGAACTATGAGAGACAGCAGCTAAGAGACAAAGGAGGCGG
GAGACTGCCTAGGTGCCGCAGCACCCACACCGTCCTCTTGCCCCCCCGTCACTGGGACCCCAGAGCTGGCCCTTG
ATGGAGGGGAGCCGACCTCGCAGCAGCCTGAGCCTGGCCAGCAGCGCCTCCACCATCTCCTCGCTCAGCAGCCTG
AGCCCCAAGAAGCCCACCCGGGCAGTAAACAAGATCCACGCCTTTGGGAAGAGAGGCAATGCGCTCAGGAGGGAT
CCCAACCTTCCCGTGCACATCCGAGGCTGGCTTCATAAGCAGGACAGCTCGGGGCTCCGTCTCTGGAAACGCCGC
TGGTTCGTCCTCTCCGGCCATTGCCTCTTTTATTACAAGGACAGCCGCGAGGAGAGTGTCCTAGGCAGCGTCCTG
CTCCCCAGCTACAATATTAGACCAGATGGGCCGGGAGCCCCCCGAGGGCGGCGCTTCACCTTCACCGCAGAGCAC
CCGGGCATGAGGACCTACGTTTTGGCCGCTGACACCTTAGAAGACCTGCGGGGCTGGCTACGGGCGCTGGGCCGG
GCCTCCCGTGCGGAGGGGGACGACTATGGGCAACCCAGGTCACCTGCACGACCCCAGCCCGGGGAGGGCCCCGGC
GGCCCCGGTGGTCCCCCGGAGGTGAGCAGAGGGGAAGAGGGGCGCATCTCAGAATCACCGGAAGTGACTCGACTC
TCCAGAGGTCGTGGTAGACCCAGGCTGCTCACTCCCAGCCCCACAACCGACCTCCACTCTGGACTCCAGATGCGG
AGGGCGAGGAGCCCCGACCTGTTCACCCCCCTCTCTCGCCCTCCCTCGCCTCTGAGCCTCCCCCGTCCCCGTTCT
GCCCCTGCGCGGCGACCCCCTGCCCCCTCAGGAGACACAGCACCCCCTGCCCGACCTCACACCCCGTTGAGTCGC
ATTGATGTCCGACCTCCTCTGGATTGGGGCCCCCAACGCCAGACCCTCTCCCGACCCCCTACTCCCCGCCGAGGA
CCTCCCTCTGAGGCTGGGGGAGGAAAGCCCCCCAGGAGTCCCCAGCACTGGAGTCAGGAGCCCAGAACACAGGCA
CACTCTGGCTCCCCCACTTATCTCCAGCTCCCCCCGCGGCCCCCTGGGACCCGGGCCTCCATGGTTTTATTGCCG
GGTCCTCCCCTGGAGTCAACTTTCCACCAAAGCTTGGAGACAGATACGCTGCTGACCAAGTTGTGCGGGCAGGAC
CGGCTTCTGCGGAGGCTGCAGGAGGAGATAGACCAGAAGCAGGAGGAGAAGGAGCAACTAGAAGCAGCTCTGGAG
TTGACCCGGCAACAGCTGGGCCAAGCCACCAGGGAGGCTGGGGCTCCCGGGAGGGCCTGGGGTCGCCAGCGCCTC
TTGCAGGACCGGCTGGTCAGTGTGAGGGCCACCCTCTGTCACTTGACTCAGGAGCGAGAGAGGGTTTGGGACACG
TACAGTGGCCTGGAGCAGGAGCTGGGCACCTTAAGAGAGACGCTGGAGTACCTGCTGCACCTTGGTTCTCCCCAG
GACAGAGTGTCTGCTCAGCAGCAGCTGTGGATGGTGGAAGACACGCTGGCAGGTCTGGGTGGCCCCCAGAAACCG
CCCCCACACACTGAGCCTGACTCCCCATCTCCCGTGCTCCAGGGCGAGGAGTCCTCAGAGAGGGAGAGCCTGCCA
GAGTCCTTGGAACTGAGCTCCCCTAGGTCCCCCGAGACTGACTGGGGGCGGCCTCCTGGAGGCGACAAAGACCTC
GCCAGCCCTCACTTAGGTCTTGGGTCTCCGAGGGTCTCCCGGGCTTCCAGCCCTGAGGGTCGCCACCTCCCTTCC
CCACAGCTAGGAACCAAGGCCCCGGTGGCCCGGCCCCGGATGAGTGCCCAGGAGCAGCTGGAGCGGATGCGCAGA
AACCAGGAATGTGGACGGCCCTTCCCTCGCCCGACCTCCCCCCGGCTTCTCACCCTGGGAAGGACACTGTCCCCA
GCCAGACGCCAGCCTGACGTGGAGCAAAGGCCTGTCGTAGGACACTCGGGAGCCCAGAAATGGCTCAGAAGCTCT
GGGTCCTGGAGTAGTCCAAGGAACACCACCCCTTACTTGCCGACTTCCGAAGGTCACCGGGAGCGGGTTCTCAGC
CTCTCCCAAGCCCTGGCTACTGAGGCGTCGCAGTGGCACAGAATGATGACAGGTGGAAATTTGGACTCCCAGGGA
GACCCTCTTCCCGGTGTGCCGCTGCCTCCTTCGGACCCCACGCGCCAGGAGACCCCTCCCCCCAGATCTCCCCCG
GTGGCTAATTCGGGTTCCACGGGGTTCTCTCGCCGAGGGAGTGGGCGTGGAGGAGGTCCCACCCCCTGGGGGCCC
GCGTGGGATGCCGGGATCGCCCCTCCGGTCCTGCCACAAGACGAGGGGGCATGGCCTCTGCGAGTCACTCTGCTA
CAATCCAGCTTC**TAA**TCCGCCCAAAAGCGGCAGCCAATCGGAGCGCGAGGACGTGGTCTGGAGGTACCGCCGGAG
ATCTGGGACCACTCAGGGCATCAGGGGGCGTGGTCTGGTCCCCATTGCGGGCCCGGGAGGGGAATGGTTTCTATG
GCCAAAGTTTGGTTTTCTCAACACTGTCTAAATTTGGATTAAAACTTTGAACTTTT

FIGURE 515

TCCAGCCTCTATTGAGGATTTGATGCGACGGCCTCACGGGGCTTTGGAGGTGAAAGAGGCCCAGAGTAGAGAGAG
AGAGAGACCGACGTACACGGG**ATG**GCTACGGGAACGCGCTATGCCGGGAAGGTGGTGGTCGTGACCGGGGGCGGG
CGCGGCATCGGAGCTGGGATCGTGCGCGCCTTCGTGAACAGCGGGGCCCGAGTGGTTATCTGCGACAAGGATGAG
TCTGGGGGCCGGGCCCTGGAGCAGGAGCTCCCTGGAGCTGTCTTTATCCTCTGTGATGTGACTCAGGAAGATGAT
GTGAAGACCCTGGTTTCTGAGACCATCCGCCGATTTGGCCGCCTGGATTGTGTTGTCAACAACGCTGGCCACCAC
CCACCCCCACAGAGGCCTGAGGAGACCTCTGCCCAGGGATTCCGCCAGCTGCTGGAGCTGAACCTACTGGGGACG
TACACCTTGACCAAGCTCGCCCTCCCCTACCTGCGGAAGAGTCAAGGGAATGTCATCAACATCTCCAGCCTGGTG
GGGGCAATCGGCCAGGCCCAGGCAGTTCCCTATGTGGCCACCAAGGGGGCAGTAACAGCCATGACCAAAGCTTTG
GCCCTGGATGAAAGTCCATATGGTGTCCGAGTCAACTGTATCTCCCCAGGAAACATCTGGACCCCGCTGTGGGAG
GAGCTGGCAGCCTTAATGCCAGACCCTAGGGCCACAATCCGAGAGGGCATGCTGGCCCAGCCACTGGGCCGCATG
GGCCAGCCCGCTGAGGTCGGGGCTGCGGCAGTGTTCCTGGCCTCCGAAGCCAACTTCTGCACGGGCATTGAACTG
CTCGTGACGGGGGGTGCAGAGCTGGGGTACGGGTGCAAGGCCAGTCGGAGCACCCCCGTGGACGCCCCCGATATC
CCTTCC**TGA**TTTCTCTCATTTCTACTTGGGGCCCCCTTCCTAGGACTCTCCCACCCCAAACTCCAACCTGTATCA
GATGCAGCCCCCAAGCCCTTAGACTCTAAGCCCAGTTAGCAAGGTGCCGGGTCACCCTGCAGGTTCCCATAAAAA
CGATTTGCAGCCAGAAG

FIGURE 516

ATGGCCGCAGCCGCTCTGGGGCAGATCTGGGCACGAAAGCTTCTCTCTGTCCCTTGGCTTCTGTGTGGTCCCAGA
AGATATGCCTCCTCCAGTTTCAAGGCTGCAGACCTGCAGCTGGAAATGACACAGAAGCCTCATAAGAAGCCTGGC
CCCGGCGAGCCCCTGGTGTTTGGGAAGACATTTACCGACCACATGCTGATGGTGGAATGGAATGACAAGGGCTGG
GGCCAGCCCCGAATCCAGCCCTTCCAGAACCTCACGCTGCACCCAGCCTCCTCCAGCCTCCACTACTCCCTGCAG
CTGTTTGAGGGCATGAAGGCGTTCAAAGGCAAAGACCAGCAGGTGCGCCTCTTCCGCCCCTGGCTCAACATGGAC
CGGATGCTGCGCTCAGCCATGCGCCTGTGCCTGCCGAGTTTCGACAAGCTGGAGTTGCTGGAGTGCATCCGCCGG
CTCATCGAAGTGGACAAGGACTGGGTCCCCGATGCCGCCGGCACCAGCCTCTATGTGCGGCCTGTGCTCATTGGG
AACGAGCCCTCGCTGGGTGTCAGCCAGCCCACGCGCGCGCTCCTGTTCGTCATTCTCTGCCCAGTGGGTGCCTAC
TTCCCTGGAGGCTCCGTGACCCCGGTCTCCCTCCTGGCCGACCCAGCCTTCATCCGGGCCTGGGTGGGCGGGGTC
GGCAACTACAAGTTAGGTGGGAATTATGGGCCCACCGTGTTAGTGCAACAGGAGGCACTCAAGCGGGGCTGTGAA
CAGGTCCTCTGGCTGTATGGGCCCGACCACCAGCTCACCGAGGTGGGAACCATGAACATCTTTGTCTACTGGACC
CACGAAGATGGGGTGCTGGAGCTGGTGACGCCCCCGCTGAATGGTGTTATCCTGCCTGGAGTGGTCAGACAGAGT
CTACTGGACATGGCTCAGACCTGGGGTGAGTTCCGGGTGGTGGAGCGCACGATCACCATGAAGCAGTTGCTGCGG
GCCCTGGAGGAGGGCCGCGTGCGGGAAGTCTTTGGCTCGGGCACCGCTTGCCAGGTCTGCCCAGTGCACCGAATC
CTGTACAAAGACAGGAACCTCCACATTCCCACCATGGAAAATGGGCCTGAGCTGATCCTCCGCTTCCAGAAGGAG
CTGAAGGAGATCCAGTACGGAATCAGAGCCCACGAGTGGATGTTCCCGGTGTGAAGCTGCAGGCTGTGCTCCAGA
TCCACCGACCCGTAGCATCTCGTCACGCCAGCACTCGCCTCCCTACCAATGACTCACCTGAAGTGCAATACGAAA
TAAAAGGCCAGCGGGCGGCGTCTGGGTCTCTGGCGCCCCCATGTGGTTGCGACACTCCCAAAGCCGTAAGGGCCG
ACCCAGGCATCTTGGCCCCCAGCCCCTCGTCGCGGGTTCAGGTCCGCCCATTACTCCTTGTCGTGCGGTCAAGGA
TACACCTTGGCCCCGATTCCGGATCTCTCCGTTCTCAGGCCAGACCCCTGGTGCTGCCGTTGATTTTTTTTTCTC
TGTCTTTGCTGCAATTTTGAAATAAAATGCCAAAGAACACA

FIGURE 517

ATGTCCTCTCTCCTCCCCACAGCCGTCAAGGGATTCTGGGCCACCCGCCCTTCCTTCTCCACCTTCTACTTCGTC
TTTGCCATTTTTGTGGTGTCCACCATCTTTCACTGCCACCAGCACCTGGCTCTGGTGCCTGCGCCCTGGGCATAC
TCAGCCCGTGTGGTCCTGGCCCCCAGACACCTGCCCCGGGAGGACCTGTTCACTATCAACTCCAAGGGCCGCCTG
GGGAACCAGATGGGCGAGTACGCCACACTGTACGCCCTGGCCAAGATGAACGGGCGGCCCGCCTTCATCCCGGCC
CAGATGCACAGCACCCTGGCCCCCATCTTCAGAATCACCCTGCCGGTGCTGCACAGCGCCACGGCCAGCAGGATC
CCCTGGCAGAACTACCACCTGAACGACTGGATGGAGGAGGAATACCGCCACATCCCGGGGGGAGTACGTCCGCTTC
ACCGGCTACCCCTGCTCCTGGACCTTCTACCACCACCTCCGCCAGGAGATCCTCCAGGAGTTCACCCTGCACGAC
CACGTGCGGGAGGAGGCCCAGAAGTTCCTGCGGGGCCTGCAGGTGAACGGGAGCCGGCCGGGCACCTTTGTAGGG
GTCCATGTTCGCCGAGGGGACTATGTCCATGTCATGCCAAAAGTGTGGAAGGGGGTGGTGGCCGACCGGCGATAC
CTACAGCAGGCCCTGGACTGGTTCCGAGCTCGCTACAGCTCCCTCATCTTCGTGGTCACCAGTAATGGCATGGCC
TGGTGTCGGGAGAACATTGACACCTCCCACGGTGATGTGGTGTTTGCTGGCGATGGCATTGAGGGCTCACCTGCC
AAAGATTTTGCTCTACTCACACAGTGTAACCACACCATCATGACCATTGGGACGTTCGGGATCTGGGCCGCATAC
CTCACGGGCGGAGACACCATCTACCTGGCCAATTACACCCTCCCCGACTCCCCTTTCCTCAAAATCTTTAAGCCA
GAGGCAGCCTTCCTGCCGGAGTGGACAGGGATTGCCGCAGACCTGTCCCCCTTACTCAAGCAC**TAA**

FIGURE 518

ATCCCACTCCACCCCTGCCCACTGGCTCAGCCCCGCCTTGTGGTGGCCGCCATCGCGATCGGGCAGGGGCTGACC
TTTGGGAGACAATCGCTGTTGGAAACTTTGCTCAGCCCCTGCCTCTGGCTGCGTGACCCCAAGCCAGCCCCTCCT
CCTCCTCTCTGGAACCTTTTGTCAGCTGTGGGTTCACCGAGCCTTAAGCCGTCAAGGGATTCTGGGCCACCCGCC
CTTCCTTCTCCACCTTCTACTTCGTCTTTGCCATTTTTGTGGTGTCCACCATCTTTCACTGCCACCAGCACCTGG
CTCTGGTGCCTGCGCCCTGGGCATACTCAGCCCGTGTGGTCCTGGCCCCCAGACACCTGCCCCGGGAGGACCTGT
TCACTATCAACTCCAAGGGCCGCCTGGGGAACCAG**ATG**GGCGAGTACGCCACGCTGTACGCCCTGGCCAAGATGA
ACGGGCGGCCCGCCTTCATCCCGGCCCAGATGCACAGCACCCTGGCCCCCATCTTCAGAATCACCCTGCCGGTGC
TGCACAGCGCCACGGCCAGCAGGATCCCCTGGCAGAACTACCACCTGAACGACTGGATGGAGGAGGAGTACCGCC
ACATCCCGGGGCGCTGTGTCCGCCTCACGGGCTACCCCTGCTCCTGGACCTTCTACCACCACCTCCGCCAGGAGA
TCCTCCAGGAGTTCACCCTGCACGACCACGTGCGCGAGGAGGCCCAGAAGTTCCTGCGGGGCCTGCAGGCCAAGT
GGGCAGGGCAGGCGACCTTCGTGGGGGTCCACGTGCGCCGGGGGGACTATGTCCGTGTCATGCCGCGCGTATGGA
AGGGGGTGCTGGCCGACCGGCTACCTGCAGCGGGCCCTGGACTGGTTCCGGGCCTGCTGCCGCCTCCCGGTCTTT
GTGGTCACCAGCGA**TGA**CATGGCCTGGTGCCGGGAGAGCATCAACAGCTCCCTTGGGGACGTGGTGTTCGCTGGC
AATGGCCTCCAGGGCTCACCTGCCAAGGACTTCGCACTGCTCACACAGTGCAACCACACCATCATCACCGTGGGC
ACCTTCGGGGTCTGGGCCGCGTACCTCGCGGGCGGGGACACTGTCTACCTGGCCAACTTCACCCTGCCCAACTCC
CCTTTCAACGTGGTCTTTAGGCCGTAAGCGGCCTTCCTGCCAGAGTGGGTGGGCCTTGCGGCTGACCTTGGACAG
GCTGGACAGAACGGCCTCTAGCCAGCCCTGCATGTGCCTGGTCCTCATCCTGTGACCCGAGGGGCAGTGAGTGGG
GCGTGCGGGGCATGGACTCACGGTCCCTCATGCAGTTTGGATCCAGGCTTATCTACTTCATAGCTGAGTGAGTTT
GGACAACTGACTCAACCTCTGTGCCTTAGTATGTCAACCACAAAATGCACAAACCACAGAACTAAACACCAGTAG
CAGCTGGTGGGAGCTGAGCAAATTCGCTTAGAGCCAGTGCCTTGTGACCGTGTGGGAGGTGTCGGCTGCTCACAT
GTATGCAGCACGTCAGGAACACTGGCATTGCTTTCCAATGGAAACGCAGTTTTGCCCTCTCCTTCCTGGCAGCAC
TGGTAGCACAGAGCCCAGATATTTTGCACTCACGTCCCAGGACGAAGCCATCCCTGCCCTGAAGGATAGGGGAAC
TCGATTTTCTGGGCAACTAGGAATTTTGGCTTTGGAGTTAGTGGGCCTTATCACAAAAGAATGTGAGGGAAGGGC
CGGGTGCGGTGGCACGCCTGTAATCCCAGCCCTTTGGGAAGCCAAGGCTGGTGGATCACTTGAGGTCAGGAGTTC
GAGACCAGCCTGGCCAACATGGCGAAACCCAGTCTCTACTAAAAATACAAAAAGCCAGGCACGGTGGTGCGTGCC
CCTAATCCCAGCTACTCCGGAGGCTGAAGCAGGAGGATAGCTTGAATTGGGAAGCAGAGGTTGCAGTAAACCGAG
ATCATACCACTGCACTCCAGCCTGGGCCACAGAGCGAGACTCCATCGCAA

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FIGURE 519

CTTGGGAGAGCTTAATGAAAAGAGAACGGAGAGGAGGTGTGGGTTAGGAACCAAGAGGTAGCCCTGGGGGCAGCA
GAAGGCTGAGAGGAGTAGGAAGATCAGGAGCTAGAGGGAGACTGGAGGGTTCCGGGAAAAGAGCAGAGGAAAGAG
GAAAGACACAGAGAGACGGGAGAGAGAAGAAGAGTGGGTTTGAAGGGCGGATCTCAGTCCCTGGCTGCTTTGGCA
TTTGGGGAACTGGGACTCCCTGTGGGGAGGAGAGGAAAGCTGGAAGTCCTGGAGGGACAGGGTCCCAGAAGGAGG
GGACAGAGGAGCTGAGAGAGGGGGGCAGGGCGTTGGGCAGGGGTCCCTCGGAGGCCTCCTGGGG**ATG**GGGGCTGC
AGCTCGTCTGAGCGCCCCTCGAGCGCTGGTACTCTGGGCTGCACTGGGGGCAGCAGCTCACATCGGACCAGCACC
TGACCCCGAGGACTGGTGGAGCTACAAGGATAATCTCCAGGGAAACTTCGTGCCAGGGCCTCCTTTCTGGGGCCT
GGTGAATGCAGCGTGGAGTCTGTGTGCTGTGGGGAAGCGGCAGAGCCCCGTGGATGTGGAGCTGAAGAGGGTTCT
TTATGACCCCTTTCTGCCCCCATTAAGGCTCAGCACTGGAGGAGAGAAGCTCCGGGGAACCTTGTACAACACCGG
CCGACATGTCTCCTTCCTGCCTGCACCCCGACCTGTGGTCAATGTGTCTGGAGGTCCCCTCCTTTACAGCCACCG
ACTCAGTGAACTGCGGCTGCTGTTTGGAGCTCGCGACGGAGCCGGCTCGGAACATCAGATCAACCACCAGGGCTT
CTCTGCTGAGGTGCAGCTCATTCACTTCAACCAGGAACTCTACGGGAATTTCAGCGCTGCCTCCCGCGGCCCCAA
TGGCCTGGCCATTCTCAGCCTCTTTGTCAACGTTGCCAGTACCTCTAACCCATTCCTCAGTCGCCTCCTTAACCG
CGACACCATCACTCGCATCTCCTACAAGAATGATGCCTACTTTCTTCAAGACCTGAGCCTGGAGCTCCTGTTCCC
TGAATCCTTCGGCTTCATCACCTATCAGGGCTCTCTCAGCACCCCGCCCTGCTCCGAGACTGTCACCTGGATCCT
CATTGACCGGGCCCTCAATATCACCTCCCTTCAGATGCACTCCCTGAGACTCCTGAGCCAGAATCCTCCATCTCA
GATCTTCCAGAGCCTCAGCGGTAACAGCCGGCCCCTGCAGCCCTTGGCCCACAGGGCACTGAGGGGCAACAGGGA
CCCCCGGCACCCCGAGAGGCGCTGCCGAGGCCCCAACTACCGCCTGCATGTGGATGGTGTCCCCCATGGTCGC**TG**
AGACTCCCCTTCGAGGATTGCACCCGCCCGTCCTAAGCCTCCCCACAAGGCGAGGGGAGTTACCCCTAAAACAAA
GCTATTAAAGGGACAGAATACTTCCTGTTT

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FIGURE 520

CCATCTTTAGGACCGCGGCCCCTTTAAGCGGCGCCCCTTTTCCCCCCATCACCCCCCTCGCCATCAGGCAGCACG
AGCAGAGCCATGTGCTTCCCCCTCCCGCCTGCCTCATTGGCCCAAACTGGGTCACGGTCCCGCCCCCCAGTACCG
CCTCCCATTGGGCAAATGTAGGTCAGTGTCCCGCCTCCCACCGAAAGGCAAGGCAACTTCACGCGCTGAGCCCCT
CACGCGCCCTCCTGGGCCCTGGCGGACCCAGAGGCCCCATTGGCTGTGCGTCTCAAGGTGTCGGAGACGATTGGT
CCGTGTTTGCAGCCGGAGGGAGGCACGCGGCTGGGTTGCATGCCCATAGAGGCTGGCGGGGCTGGACGCGCCGGG
CGGGGACCCGGAGGAGGGGCGCGCGCTGTGGCGTCGGGTGTTTTGGTTTGGATTTTTTTTTCCGCGAAAGAAGTT
TGCTTTGGCCACGCCTCAAGGCGGCCGCCTCCTCCTGCCCCCTCCTCCGCCCCTCCGCGCACACCTCTCGGTGCA
GATTGCAAAGCGCCTTCCGTTGCGAGAGCTGCAGATTTTGCAAGAGCCAGGCTCGCCCACCTTGTAGAAGGAGCG
CCTTGAGTCCCCTCTCACCCTCGGTTGCAAAGAGCCGACCGCTTGATCTGGACACCCCCTCGCCCAGATTGCATG
ATCTCCCGGGACCCTCTTGAGTTGCACGTTTCTGCACCGAGGACCTCAAATCCCCGTCGCTCCTAGGATTTGCAG
CGTTCTGGATACTGGAGGGTTGCAGGCTACACTCGCCCGCCCCTGGGCAGACACTCGTCCAAACCACTGGAGTGT
GCTGGTGACTGGCAGGCCAGCCCTTCGCCTCTCCATGAACCCGTGAGCCTGGGGGCAGGTGCCAGGCG**ATG**GCGC
GGCCTGTGAGCGACAGGACCCCGGCCCCCTCTGCTGCTGGGCGGCCCGGCCGGGACACCCCCTGGCGGGGGAGCGC
TGCTTGGGTTGCGGAGCCTTCTGCAGGGGACCAGCAAGCCCAAAGAGCCGGCCAGCTGTCTCCTGAAGGAAAAGG
AGCGCAAGGCGGCCCTGCCTGCAGCCACAACCCCTGGGCCAGGCCTGGAGACTGCGGGCCCGGCGGATGCCCCGG
CTGGGGCAGTGGTGGGCGGAGGGTCCCCGCGGGGGCGCCCGGGGCCGGTGCCCGCCCCGGGTCTGTTGGCGCCAC
TGCTGTGGGAGCGCACGCTGCCGTTCGGCGATGTGGAGTACGTAGACCTGGACGCCTTCCTGCTGGAGCACGGGC
TCCCGCCCAGCCCGCCGCCCCCCGGTGGCCCGTCGCCGGAGCCGTCGCCCGCGCGGACGCCCGCACCCTCCCCAG
GGCCGGGTTCGTGCGGCTCGGCTTCCCCCCGCTCCTCTCCTGGGCACGCCCCCGCCCGGGCTGCCCTCGGGACCG
CCAGCGGCCACCGCGCAGGCCTGACCTCTCGGGACACACCCAGCCCTGTGGACCCAGACACCGTGGAGGTGTTGA
TGACCTTTGAACCCGACCCAGCTGATCTTGCCCTATCAAGCATTCCTGGCCACGAGACCTTTGACCCTCGAAGAC
ATCGCTTCTCAGAAGAGGAACTTAAGCCCCAGCCAATCATGAAGAAGGCAAGAAAAATCCAGGTGCCGGAGGAGC
AGAAGGATGAGAAATACTGGAGCCGGCGGTACAAGAACAACGAGGCAGCCAAGCGGTCCCGTGACGCCCGGCGGC
TCAAGGAGAACCAGATATCGGTGCGGGCGGCCTTCCTGGAGAAGGAGAACGCCCTGCTGCGGCAGGAAGTTGTGG
CCGTGCGCCAGGAGCTGTCCCACTACCGCGCCGTGCTGTCCCGATACCAGGCCCAGCACGGGGCCCTG**TGA**GGCT
GCCCCACATCCCCACCTGGCGGAGCTCTCCTCCGCCTTGCTGAGACTTACGCCCTGTTCCCTTCCTGCCCTGTGG
CCCACGGGCCGGCCAGCTGGGTGCCCCAGGGACGTGATAATGCAGATAAATACATTTATATTTTTAAGAAAAAGC
GAGCCTCCCCCCTCCCTTGCGGGGGCGGGGAGGGTTCTCTGTGTGTGTCCCCGGCACGTCAGGGACCCTATCCTC
CCACCGCCTCCGTTAACACGATCCTGAATAAATCTTGAGAACCCCAGAGCCAGCTGTTGTGGAAGAAGAGGGCAG
CTCCCTGGCATACTGGCTGCAGCCCGTGGGCAGCTCCGGGCTGTCGTCCATAGAGGGCAGGCGCTGCTGGAAGTG
CTGGAGTCTGAGTCCTCCCGCGGGCTGTCGGATGGAGGAAGGGCAGAAGGTCTGAGAGGAATGAAGCGACTGCCT
TTATTGCATAGACCTTTTCAATTGCTTTTTAGATTGGGGACGGAGGACGCGCATGAGACGAACAGGGGATATGAA
TTTCCCCGCCCCCACCCGCGGGGAGAGGAACATTAGTGCAAATCCTAGCGCCGGCCCCGGGGAACCTGCCCCTCC
TGGGCTGATTGGCCAGCTAAATGGAGGCACCGGAGTGGATGGGGCGAGGCTGCGGGCCCTGACCGGCCGACTCAC
TGAGGCCTACCCCAGCCAGTACATTCCAGGTCCTGTCATTGGGCGACGCGTAAAATAGACTCCGCCCTCAGCCAT
CCTGGCCGGGTAGGAGCAGGTGGCAAGCGTCAGGACTGAGCCCTGCCCCGTAA

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FIGURE 521

GGGGAACAAAGGTGAGCGAAAGGAGGAGGCAGAATCCGGGCAGAGGGCAGGGAGAGGGCCTGTGGGGAAGGGACC
TCAGTCCTGCTCCCACCCGCTCCCTGGAGAGCAGGCGGCCAGACACCCAGAGGCCAGACCAGGAGCTGACCGGGA
GCTGGGGCCACGGGCCTAGGAGCACCCTGGTCAGGGCTAAGGCC**ATG**GCCCCGCCCCCACCGCCACTGGCTGCCA
GCACCCCGCTCCTCCATGGCGAGTTTGGCTCCTACCCAGCCCGAGGCCCACGCTTTGCCCTCACCCTTACATCGC
AGGCCCTGCACATACAGCGGCTGCGCCCCAAACCTGAAGCCAGGCCCCGGGGTGGCCTGGTCCCGTTGGCCGAGG
TCTCAGGCTGCTGCACCCTGCGAAGCCGCAGCCCCTCAGACTCAGCGGCCTACTTCTGCATCTACACCTACCCTC
GGGGCCGGCGCGGGGCCCGGCGCAGAGCCACTCGCACCTTCCGGGCAGATGGGGCCGCCACCTACGAAGAGAACC
GTGCCGAGGCCCAGCGCTGGGCCACTGCCCTCACCTGTCTGCTCCGAGGACTGCCACTGCCCGGGGATGGGGAGA
TCACCCCTGACCTGCTACCTCGGCCGCCCCGGTTGCTTCTATTGGTCAATCCCTTTGGGGGTCGGGGCCTGGCCT
GGCAGTGGTGTAAGAACCACGTGCTTCCCATGATCTCTGAAGCTGGGCTGTCCTTCAACCTCATCCAGACAGAAC
GACAGAACCACGCCCGGGAGCTGGTCCAGGGGCTGAGCCTGAGTGAGTGGGATGGCATCGTCACGGTCTCGGGAG
ACGGGCTGCTCCATGAGGTGCTGAACGGGCTCCTAGATCGCCCTGACTGGGAGGAAGCTGTGAAGATGCCTGTGG
GCATCCTCCCCTGCGGCTCGGGCAACGCGCTGGCCGGAGCAGTGAACCAGCACGGGGGATTTGAGCCAGCCCTGG
GCCTCGACCTGTTGCTCAACTGCTCACTGTTGCTGTGCCGGGGTGGTGGCCACCCACTGGACCTGCTCTCCGTGA
CGCTGGCCTCGGGCTCCCGCTGTTTCTCCTTCCTGTCTGTGGCCTGGGGCTTCGTGTCAGATGTGGATATCCAGA
GCGAGCGCTTCAGGGCCTTGGGCAGTGCCCGCTTCACACTGGGCACGGTGCTGGGCCTCGCCACACTGCACACCT
ACCGCGGACGCCTCTCCTACCTCCCCGCCACTGTGGAACCTGCCTCGCCCACCCCTGCCCATAGCCTGCCTCGTG
CCAAGTCGGAGCTGACCCTAACCCCAGACCCAGCCCCGCCCATGGCCCACTCACCCCTGCATCGTTCTGTGTCTG
ACCTGCCTCTTCCCCTGCCCCAGCCTGCCCTGGCCTCTCCTGGCTCGCCAGAACCCCTGCCCATCCTGTCCCTCA
ACGGTGGGGGCCCAGAGCTGGCTGGGGACTGGGGTGGGGCTGGGGATGCTCCGCTGTCCCCGGACCCACTGCTGT
CTTCACCTCCTGGCTCTCCCAAGGCAGCTCTACACTCACCCGTCTCCGAAGGGGCCCCCGTAATTCCCCCATCCT
CTGGGCTCCCACTTCCCACCCCTGATGCCCGGGTAGGGGCCTCCACCTGCGGCCCGCCCGACCACCTGCTGCCTC
CGCTGGGCACCCCGCTGCCCCCAGACTGGGTGACGCTGGAGGGGGACTTTGTGCTCATGTTGGCCATCTCGCCCA
GCCACCTAGGCGCTGACCTGGTGGCAGCTCCGCATGCGCGCTTCGACGACGGCCTGGTGCACCTGTGCTGGGTGC
GTAGCGGCATCTCGCGGGCTGCGCTGCTGCGCCTTTTCTTGGCCATGGAGCGTGGTAGCCACTTCAGCCTGGGCT
GTCCGCAGCTGGGCTACGCCGCGGCCCGTGCCTTCCGCCTAGAGCCGCTCACACCACGCGGCGTGCTCACAGTGG
ACGGGGAGCAGGTGGAGTATGGGCCGCTACAGGCACAGATGCACCCTGGCATCGGTACACTGCTCACTGGGCCTC
CTGGCTGCCCGGGGCGGGAGCCC**TGA**AACTAAACAAGCTTGGTACCCGCCGGGGGCGGGGCCTACATTCCAATGG
GGCGGAGCCTGAGCTAGGGGGTGTGGCCTGGCTGCTAGAGTTGTGGTGGCAGGGGCCCTGGCCCCGTCTCAGGAT
TGCGCTCGCTTTCATGGGACCAGACGTGATGCTGGAAGGTGGGCGTCGTCACGGTTAAAGAGAAATGGGCTCGTC
CCGAGGGTAGTGCCTGATCAATGAGGGCGGGGCCTGGCGTCTGATCTGGGGCCGCCCTTACGGGGCAGGGCTCAG
TCCTGACGCTTGCCACCTGCTCCTACCCGGCCAGGATGGCTGAGGGCGGAGTCTATTTTACGCGTCGCCCAATGA
CAGGACCTGGAATGTACTGGCTGGGGTAGGCCTCAGTGAGTCGGCCGGTCAGGGCCCGCAGCCTCGCCCCATCCA
CTCCGGTGCCTCCATTTAGCTGGCCAATCAGCCCAGGAGGGGCAGGTTCCCCGGGGCCGGCGCTAGGATTTGCAC
TAATGTTCCTCTCCCCGCGGGTGGGGGCGGGGAAATTCATATCCCCTGTTCGTCTCATGCGCGTCCTCCGTCCCC
AATCTAAAAAGCAATTGAAAAGGTCTATGCAATAAAGGCAGTCGCTTCATTCCTCTC

FIGURE 522

CTTTCCGGACCTGGCCGAGCAGGAGGCGCCATC**ATG**GGAGTGGACATCCGCCATAACAAGGACCGAAAGGTTCGG
CGCAAGGAGCCCAAGAGCCAGGATATCTACCTGAGGCTGTTGGTCAAGTTATACAGGTTTCTGGCCAGAAGAACC
AACTCCACATTCAACCAGGTTGTGTTGAAGAGGTTGTTTATGAGTCGCACCAACCGGCCGCCTCTGTCCCTTTCC
CGGATGATCCGGAAGATGAAGCTTCCTGGCCGGGAAAACAAGACGGCCGTGGTTGTGGGGACCATAACTGATGAT
GTGCGGGTTCAGGAGGTACCCAAACTGAAGGTATGTGCACTGCGCGTGACCAGCCGGGCCCGCAGCCGCATCCTC
AGGGCAGGGGGCAAGATCCTCACTTTCGACCAGCTGGCCCTGGACTCCCCTAAGGGCTGTGGCACTGTCCTGCTC
TCCGGTCCTCGCAAGGGCCGAGAGGTGTACCGGCATTTCGGCAAGGCCCCAGGAACCCCGCACAGCCACACCAAA
CCCTACGTCCGCTCCAAGGGCCGGAAGTTCGAGCGTGCCAGAGGCCGACGGGCCAGCCGAGGCTACAAAAAC**TAA**
CCCTGGATCCTACTCTCTTATTAAAAAGATTTTTGCTGAC

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FIGURE 523A

GTCTGCGTAACCGCACGGGAAACCCGCCACCACCTCCACCTCCCTGCCATCCTCGACAAG**ATG**CCTGCCCCCGGC
GCCCTCATCCTCCTTGCGGCCGTCTCCGCCTCCGGCTGCCTGGCGTCCCCGGCCCACCCCGATGGATTCGCCCTG
GGCCGGGCTCCTCTGGCTCCTCCCTACGCTGTGGTCCTCATTTCCTGCTCCGGCCTGCTGGCCTTCATCTTCCTC
CTCCTCACCTGTCTGTGCTGCAAACGGGGCGATGTCGGCTTCAAGGAATTTGAGAACCCTGAAGGGGAGGACTGC
TCCGGGGAGTACACTCCCCCTGCGGAGGAGACCTCCTCCTCACAGTCGCTGCCTGATGTCTACATTCTCCCGCTG
GCTGAGGTCTCCCTGCCAATGCCTGCCCCGCAGCCTTCACACTCAGACATGACCACCCCCCTGGGCCTTAGCCGG
CAGCACCTGAGCTACCTGCAGGAGATTGGGAGTGGCTGGTTTGGGAAGGTGATCCTGGGAGAGATTTTCTCCGAC
TACACCCCCGCCCAGGTGGTGGTGAAGGAGCTCCGAGCCAGCGCGGGGCCCCTGGAGCAACGCAAGTTCATCTCG
GAAGCACAGCCGTACAGGAGCCTGCAGCACCCCAATGTCCTCCAGTGCCTGGGTCTGTGCGTGGAGACGCTGCCG
TTTCTGCTGATTATGGAGTTCTGTCAACTGGGGGACCTGAAGCGTTACCTCCGAGCCCAGCGGCCCCCCGAGGGC
CTGTCCCCTGAGCTACCCCCTCGAGACCTGCGGACGCTGCAGAGGATGGGCCTGGAGATCGCCCGCGGGCTGGCG
CACCTGCATTCCCACAACTACGTGCACAGCGACCTGGCCCTGCGCAACTGCCTGCTGACCTCTGACCTGACCGTG
CGCATCGGAGACTACGGGCTGGCCCACAGCAACTACAAGGAGGACTACTACCTGACCCCAGAGCGCCTGTGGATC
CCACTGCGCTGGGCGGCGCCCGAGCTCCTCGGGGAGCTCCACGGGACCTTCATGGTGGTGGACCAGAGCCGCGAG
AGCAACATCTGGTCCCTGGGGGTGACCCTGTGGGAGCTGTTTGAGTTTGGGGCCCAGCCCTACCGCCACCTGTCA
GACGAGGAGGTCCTCGCCTTCGTGGTCCGCCAGCAGCATGTGAAGCTGGCCCGGCCGAGGCTCAAGCTGCCTTAC
GCGGACTACTGGTATGACATTCTTCAGTCCTGCTGGCGGCCACCTGCCCAGCGCCCTTCAGCCTCTGATCTCCAA
TTGCAGCTCACCTACTTGCTCTCCGAGCGGCCTCCCCGGCCCCCACCGCCGCCACCCCCACCCCGAGACGGTCCC
TTCCCCTGGCCCTGGCCCCCTGCACACAGTGCGCCCCGCCCGGGGACCCTCTCCTCACCGTTCCCCCTACTGGAT
GGCTTCCCTGGAGCCGACCCCGACGATGTGCTCACGGTCACCGAGAGTAGCCGCGGCCTCAACCTCGAGTGCCTG
TGGGAGAAGGCCCGGCGTGGGGCCGGCCGGGGTGGGGGGGCACCTGCCTGGCAGCCGGCGTCGGCCCCCCCGGCC
CCCCACGCCAACCCCTCCAACCCTTTCTACGAGGCGCTGTCCACGCCCAGCGTGCTGCCTGTCATCAGCGCCCGC
AGCCCCTCCGTGAGCAGCGAGTACTACATCCGCTTGGAGGAGCACGGCTCCCCTCCTGAGCCCCTCTTCCCCAAC
GACTGGGACCCCCTGGACCCAGGAGTGCCCGCCCCTCAGGCCCCCCAGGCCCCCTCCGAGGTCCCCCAGCTGGTG
TCCGAGACCTGGGCCTCCCCCCTCTTCCCTGCGCCCCGGCCCTTCCCAGCCCAGTCCTCAGCGTCAGGCAGCTTC
CTGCTGAGCGGCTGGGACCCCGAGGGCCGGGGCGCCGGGGAGACCCTGGCGGGAGACCCTGCCGAGGTCTTGGGG
GAGCGGGGGACCGCCCCGTGGGTGGAAGAAGAAGAGGAGGAGGAGGAGGGCAGCTCCCCAGGGGAAGACAGCAGC
AGCCTTGGAGGTGGCCCAAGCCGCCGGGGTCCCCTACCCTGTCCCCTGTGCAGCCGCGAGGGGGCCTGCTCCTGC
CTGCCACTGGAGCGGGGGGACGCCGTAGCAGGCTGGGGAGGCCACCCTGCTCTTGGCTGCCCCCACCCCCCCGAG
GACGACTCCTCGCTGCGGGCAGAGCGGGGCTCCCTGGCCGACTTGCCCATGGCCCCCCCCGCCTCGGCCCCCCCC
GAGTTTCTGGACCCCCTCATGGGGGCGGCGGCGCCCCAGTACCCCGGGCGGGGGCCACCTCCCGCTCCCCCCCCC
CCGCCGCCACCTCCTCGGGCCCCCGCGGACCCGGCCGCGTCCCCCGACCCCCCTTCGGCCGTGGCCAGTCCCGGT
TCAGGCCTCTCGTCGCCGGGCCCCAAGCCGGGGGACAGCGGCTACGAGACCGAGACCCCTTTTTCCCCAGAGGGA
GCCTTCCCAGGTGGGGGGGCGGCCGAGGAGGAAGGGGTCCCTCGGCCGCGGGCTCCCCCCGAGCCACCCGACCCA
GGAGCGCCCCGGCCACCTCCAGACCCGGGTCCGCTCCCACTCCCGGGGCCCCGGGAGAAGCCGACCTTCGTGGTT
CAAGTGAGCACGGAACAGCTGCTGATGTCCCTGCGGGAGGATGTGACAAGGAACCTCCTGGGGGAGAAGGGGGCG
ACAGCCCGGGAGACAGGACCCAGGAAGGCGGGGAGAGGCCCCGGGAACAGAGAGAAAGTCCCGGGCCTGAACAGG
GACCCGACAGTCCTGGGCAACGGGAAACAAGCCCCAAGCCTGAGCCTCCCAGTGAACGGGGTGACAGTGCTGGAG
AACGGGGACCAGAGAGCCCCAGGCATCGAGGAGAAGGCGGCGGAGAATGGGGCCCTGGGGTCCCCCGAGAGAGAA
GAGAAAGTGCTGGAGAATGGGGAGCTGACACCCCCAAGGAGGGAGGAGAAAGCGCTGGAGAATGGGGAGCTGAGG
TCCCCAGAGGCCGGGGAGAAGGTGCTGGTGAATGGGGGCCTGACACCCCCAAAGAGCGAGGACAAGGTGTCAGAG
AATGGGGGCCTGAGATTCCCCAGGAACACGGAGAGGCCACCAGAGACTGGGCCTTGGAGAGCCCCAGGGCCCTGG
GAGAAGACGCCCGAGAGTTGGGGTCCAGCCCCCACGATCGGGGAGCCAGCCCCAGAGACCTCTCTGGAGAGAGCC
CCTGCACCCAGCGCAGTGGTCTCCTCCCGGAACGGCGGGGAGACAGCCCCTGGCCCCCTTGGCCCAGCCCCCAAG
AACGGGACGCTGGAACCCGGGACCGAGAGGAGAGCCCCCGAGACTGGGGGGGCGCCGAGAGCCCCAGGGGCTGGG
AGGCTGGACCTCGGGAGTGGGGGCCGAGCCCCAGTGGGCACGGGGACGGCCCCCGGCGGCGGCCCCGGAAGCGGC
GTGGACGCAAAGGCCGGATGGGTAGACAACACGAGGCCGCAGCCACCGCCGCCACCGCTGCCACCGCCACCGGAG
GCACAGCCGAGGAGGCTGGAGCCAGCGCCCCCGAGAGCCAGGCCGGAGGTGGCCCCCGAGGGAGAGCCCGGGGCC

FIGURE 523B

CCAGACAGCAGGGCCGGCGGAGACACGGCACTCAGCGGAGACGGGGACCCCCCCAAGCCCGAGAGGAAGGGCCCC
GAGATGCCACGACTATTCTTGGACTTGGGACCCCCTCAGGGGAACAGCGAGCAGATCAAAGCCAGGCTCTCCCGG
CTCTCGCTGGCGCTGCCGCCGCTCACGCTCACGCCATTCCCGGGGCCGGGCCCGCGGCGGCCCCCGTGGGAGGGC
GCGGACGCCGGGGCGGCTGGCGGGGAGGCCGGCGGGGCGGGAGCGCCGGGGCCGGCGGAGGAGGACGGGGAGGAC
GAGGACGAGGACGAGGAGGAGGACGAGGAGGCGGCGGCGCCGGGCGCGGCGGCGGGGCCGCGGGGCCCCGGGAGG
GCGCGAGCAGCCCCGGTGCCCGTCGTGGTGAGCAGCGCCGACGCGGACGCGGCCCGCCCGCTGCGGGGGCTGCTC
AAGTCTCCGCGCGGGGCCGACGAGCCAGAGGACAGCGAGCTGGAGAGGAAGCGCAAGATGGTCTCCTTCCACGGG
GACGTGACCGTCTACCTCTTCGACCAGGAGACGCCAACCAACGAGCTGAGCGTCCAGGCCCCCCCCGAGGGGGAC
ACGGACCCGTCAACGCCTCCAGCGCCCCCGACACCTCCCCACCCCGCCACCCCCGGAGATGGGTTTCCCAGCAAC
GACAGCGGCTTTGGAGGCAGTTTCGAGTGGGCGGAGGATTTCCCCCTCCTCCCCCCCTCCAGGCCCCCCGCTGTGC
TTCTCCCGCTTCTCCGTCTCGCCTGCGCTGGAGACCCCGGGGCCACCCGCCCGGGCCCCCGACGCCCGGCCCGCA
GGCCCCGTGGAGAAT**TGA**TTCCCCGAAGACCCGACCCCGCTGCACCCTCAGAAGAGGGGTTGAGAATGGAATCCT
CTGTGGATGACGGCGCCACTGCCACCACCGCAGACGCCGCCTCTGGGGAGGCCCCCGAGGCTGGGCCCTCCCCCT
CCCACTCCCCTACCATGTGCCAAACGGGAGGCCCCGGGCCCCCGCCCCCCAGCCCCCCAGATGGCTCCCCTGACC
CCCCTGACCCCCTCGGAGCCAAATGAGGCAGGAATCCCCCCGCCCCTCCATAGAGAGCCGCCTTTCTCGGAACTG
AACTGAACTCTTTTGGGCCTGGAGCCCCTCGACACAGCGGAGGTCCCTCCTCACCCACTCCTGGCCCAAGACAGG
GGCCGCAGGCTTCGGGGACCCGGACCCCCCATTTCGCGTCTCCCCTTTCCCTCCCCAGCCCGGCCCCTGGAGGGG
CCTCTGGTTCAAACCTTCGCGTGGCATTTTCACATTATTTAAAAAAGACAAAAACAACTTTTTGGAGG

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FIGURE 524

GCAGAGGTGGCTGTACCGCGTGGCTCCGCCTCCGCGCGACACTTTTCCGGGGCTTCTCATTGGAGAGCAAGCCTG
TCAAGTGCTTTCTGTTGTTTCGGAGGCGGGGCCTGCTGCCCTGCCTGCACTCCGATTGGCCCCGCGGGCCGTCTA
CCTCTGGCCGGACATACCTACACCGGCTTTTTGTACGACTGTTGGCCCTGGAGAACGATCCTTTGGTGGCGAGGG
CGGGGAGGACGAAAGCGCCCACTGTGGATTGGACAGTGTCAAAAAGAGGGGCGGTCCCTACTGAAGGGGCGGTTG
GGCGACGAAGGGAAGAGTCTTTTCAGCGCTGAGGACTGGCGCTGAGGAGGCGGCGGTGGCTCCCGGGGCGTTTGA
GCGGGCTCACCCGAGCCCGCGGGCCAACGCGGATCCAGGCCCGACTGGCGGGACCGCCCCGGATTCCCCGCGGGC
CTTCCTAGCCGCC**ATG**GAGGACGGCGTCTATGAACCCCCAGACCTGACTCCGGAGGAGCGGATGGAGCTGGAGAA
CATCCGGCGGCGGAAGCAGGAGCTGCTGGTGGAGATTCAGCGCCTGCGGGAGGAGCTCAGTGAAGCCATGAGCGA
GGTGGAGGGGCTGGAGGCCAATGAGGGCAGTAAGACCTTGCAACGGAACCGGAAGATGGCAATGGGCAGGAAGAA
GTTCAACATGGACCCCAAGAAGGGGATCCAGTTCTTGGTGGAGAATGAACTGCTGCAGAACACACCCGAGGAGAT
CGCCCGCTTCCTGTACAAGGGCGAGGGGCTGAACAAGACAGCCATCGGGGACTACCTGGGGGAGAGGGAAGAACT
GAACCTGGCAGTGCTCCATGCTTTTGTGGATCTGCATGAGTTCACCGACCTCAATCTGGTGCAGGCCCTCAGGCA
GTTTCTATGGAGCTTTCGCCTACCCGGAGAGGCCCAGAAAATTGACCGGATGATGGAGGCCTTCGCCCAGCGATA
CTGCCTGTGCAACCCTGGGGTTTTCCAGTCCACAGACACGTGCTATGTGCTGTCCTTCGCCGTCATCATGCTCAA
CACCAGTCTCCACAATCCCAATGTCCGGGACAAGCCGGGCCTGGAGCGCTTTGTGGCCATGAACCGGGGCATCAA
CGAGGGCGGGGACCTGCCTGAGGAGCTGCTCAGGAACCTGTACGACAGCATCCGAAATGAGCCCTTCAAGATTCC
TGAGGATGACGGGAATGACCTGACCCACACCTTCTTCAACCCGGACCGGGAGGGCTGGCTCCTGAAGCTGGGAGG
GGGCCGGGTGAAGACGTGGAAGCGGCGCTGGTTTATCCTCACAGACAACTGCCTCTACTACTTTGAGTACACCAC
GGACAAGGAGCCCCGAGGAATCATCCCCCTGGAGAATCTGAGCATCCGAGAGGTGGACGACCCCCGGAAACCGAA
CTGCTTTGAACTTTACATCCCCAACAACAAGGGGCAGCTCATCAAAGCCTGCAAAACTGAGGCGGACGGCCGAGT
GGTGGAGGGAAACCACATGGTGTACCGGATCTCGGCCCCCACGCAGGAGGAGAAGGACGAGTGGATCAAGTCCAT
CCAGGCGGCTGTGAGTGTGGACCCCTTCTATGAGATGCTGGCAGCGAGAAAGAAGCGGATTTCAGTCAAGAAGAA
GCAGGAGCAGCCC**TGA**CCCCCTGCCCCCAACTCCATTATTTATTACGGAGCTGCCCCGCCTGGGTGGCCGGACCC
CTGGGCCTTGGGGCTGTGGATCCTGGTTCCCTGTTTGGAAAATTCACCACCTCTAGCTCCTCACTGTTCTTTGTA
ATTAACACGCTGTTGGTAATCTTATTAATTATTTAACCACTTGG

FIGURE 525

GTCAGGTGGAGGATCCCTTTCCCTCCCGCCCTGCTTTTGCTAGGGGAGGGGGGTGCCCTGAGCCTGAGTCGCAGC
CAGCCTGGGAGCTGGGCCATGTTGGCCGCAGATGGCCCCCTGGTGAAGGTTCCCGTTGGCTTTGGGAAGTAGACA
ACGGGTCTGCCTCACGGGGCTGAGGTGGGACTGGAGGATTTCGAGGGCAGAACTCTGGGAAGGAAAGAAAGGCTT
AGGACCCAACCAGCATTCCCCCTGGCACTGCGGGGGCCTGGCCAGCTCATGGCGTTCCCTGAGCCTGTTCCCCAA
CTGTGAAAGGGGGTGATGATCTTCACCTCCCGGCATCCTGAGCGGCCAAGCAGGTTGGGGGCGCCTGCCCCCCAC
TAGGCCAAGTGGAGGGGGTCCCTCCGTCCA**ATG**GGCCTGGCCAGGGCCCTACGCCGCCTCAGCGGCGCCCTGGAT
TCGGGAGACAGCCGGGCGGGCGATGAAGAGGAGGCCGGGCCCGGGTTGTGCCGCAACGGGTGGGCGCCGGCACCG
GTGCAGTCACCCGTGGGCCGGCGCCGCGGTCGCTTCGTCAAGAAAGACGGGCACTGCAACGTGCGTTTCGTAAAC
CTGGGTGGCCAGGGCGCGCGCTACCTGAGCGACCTGTTCACCACATGCGTGGACGTGCGCTGGCGCTGGATGTGC
CTGCTCTTCTCCTGCTCCTTCCTCGCCTCCTGGCTGCTCTTCGGCCTGGCCTTCTGGCTCATTGCCTCGCTGCAC
GGCGACCTGGCCGCCCCGCCACCGCCCGCGCCCTGCTTCTCACACGTGGCCAGCTTCCTGGCCGCCTTCCTCTTC
GCGCTGGAGACGCAGACGTCCATCGGCTACGGCGTGCGCAGCGTCACCGAGGAGTGCCCGGCCGCTGTGGCCGCC
GTGGTGCTGCAGTGCATTGCCGGCTGCGTGCTCGACGCCTTCGTCGTGGGTGCTGTCATGGCCAAGATGGCCAAA
CCCAAGAAGCGCAACGAGACGCTGGTCTTCAGCGAGAACGCCGTCGTGGCGCTGCGCGACCACCGCCTCTGCCTC
ATGTGGCGCGTCGGCAACCTGCGCCGCAGCCACCTGGTCGAGGCCCACGTGCGTGCCCAGCTGCTGCAGCCCCGT
GTGACCCCAGAGGGTGAGTACATCCCGCTGGACCACCAGGATGTGGATGTGGGCTTTGATGGAGGCACCGATCGT
ATCTTCCTCGTGTCCCCCATCACCATCGTCCATGAGATCGACTCTGCCAGTCCTCTGTATGAGCTAGGACGTGCC
GAGCTGGCCAGGGCTGACTTTGAGCTGGTGGTCATTCTCGAGGGGATGGTTGAGGCCACAGCCATGACCACACAG
TGTCGCTCGTCCTACCTCCCTGGTGAACTGCTCTGGGGCCATCGTTTTGAGCCAGTTCTCTTCCAGCGTGGCTCC
CAGTATGAGGTCGACTATCGCCACTTCCATCGCACTTATGAGGTCCCAGGGACACCGGTCTGCAGTGCTAAGGAG
CTGGATGAACGGGCAGAGCAGGCTTCCCACAGCCTCAAGTCTAGTTTCCCCGGCTCTCTGACTGCATTTTGTTAT
GAGAATGAACTTGCTCTGAGCTGCTGCCAGGAGGAAGATGAGGACGATGAGACTGAGGAAGGGAATGGGGTGGAA
ACAGAAGATGGGGCTGCTAGCCCCCGAGTTCTCACACCAACCCTGGCGCTGACCCTGCCTCCA**TGA**TGCAAACTG
ATGTCCCCTTCCCCGTGTATGCCCCCTTCCCCAAGGTAGCAAGATGGAGGGATGGGGCTCTCTCCTGGGATGGGG
GCAGGTGTTCCTGAATACCGACAGGCCTGCTGGGTAAATGACTAGGTGGTAAGGTTCTGCCATGCCTGGTGACCC
ACCATGGACATACTGGACCTTAATTCCTCTGCTTCTGTGCTCCCTCCTGAGAACCCTTTATGAGCCTGATTCCTC
AGTCTCACCAGAATTCTGGATCACCCAAGAGGAAAAGACTGGCAGTTCTAGATTCCTCTATATGGGGAGACCTGG
ATTGTTGACCAGGGTGAGAAGCCAATGGTATAGACTGCCTCTGGGGAAGCAAGTTGGCAGTTCTTGAACAGCATC
AGATATCAAGAGTTTGTAGGTCTGGATTCACCTAAGATTCAAGGGAGTGTTGCTTCTCAACTCAGCCAACTGAGT
AGCAAATCATTTGTTCTAGACCACCTAAGGAGGGAAGGTTATGGAATGCCCCAAGTATTCAAGATCATCTTGATT
GACCAAAGACCAAAAAAAAAAAAAAAGACCTGTGGTTCCAGAAAGCTCATTAGTTGAGATTCTGTGAGTCTAGGTT
GACCACAGAGGCAAGCACTGGTGAGTCTAGGACAGATTTTACGTGGAGAGTTGAACTACTCCAGAAACTAAAGAG
TAATGTTTCTAGAATGCACAAAACATTGTTAGTCTGTGGGTTTAGAAAGACTGAAGTGACAGATTAAGAGTTCTT
GATATTAGATAACTCCAACTTCTGGCTGTAGAGCACCCAGCCAAGAGAATAAGCAGTGCTTTGAAAGGATCCACT
GGGTGGGTTGTTTTTTTTTAAAGTGCCATTCTAGAATGTCCAAAGGGAATCAGGATTCTGTGGCTGTAGACTGAT
CACAGAGTCAAGGAAGCAGTGGCAATTCTAGATATCTGAGATTTTGCTGGTTCCAGTTTGCCCAATGGAGTTGAG
AATCTCAATGATTCTAGATGACTTCTTGTGGTTCTGTAATGCCAAAAGGAATGAAGGCTCCAGGGATACAGAGTT
GTCCATTACCAAAGCCTGGAAGTTCTCATCACCTCCAGGTGGACTGCTTGGCAGTGCTAGGAGGTGGACTCAGGA
CTTCAGAAGCAACATTTCTGGCCTGACCTGGAAGGTGAAGGTGAAGGTGAGACCCTGTAGGGCACAGGGCTAATT
AGTGGACAAGGGAAGGGGGAGGCCCAGG

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FIGURE 526

GAGGGTTCGAAG**ATG**GCGGCGCGCAAGGGTCGGCGGCGCACGTGTGAAACCGGGGAACCCATGGAAGCCGAGTCC
GGCGACACAAGTTCCGAGGGCCCGGCCCAGGTCTACCTGCCCGGCCGGGGGCCGCCGCTACGCGAAGGGGAGGAG
CTGGTCATGGACGAGGAGGCCTATGTGCTCTACCACCGAGCGCAGACTGGCGCCCCCTGTCTCAGCTTTGACATA
GTCCGGGATCACCTGGGAGACAACCGGACAGAGCTTCCTCTTACACTTTACTTGTGTGCTGGGACCCAGGCTGAG
AGCGCCCAGAGCAACAGACTGATGATGCTTCGGATGCACAATCTGCATGGGACAAAGCCCCCACCCTCAGAGGGC
AGTGATGAAGAAGAAGAGGAGGAAGATGAAGAGGATGAAGAAGAGCGGAAACCTCAGCTGGAGCTGGCCATGGTG
CCCCACTATGGTGGCATCAACCGAGTTCGGGTGTCATGGCTGGGTGAAGAGCCTGTGGCTGGGGTGTGGTCAGAG
AAGGGCCAGGTGGAGGTGTTTGCGCTGCGGCGGCTTCTGCAGGTGGTGGAGGAGCCCCAGGCCCTGGCAGCCTTC
CTCCGGGATGAGCAGGCCCAAATGAAGCCCATCTTCTCCTTCGCTGGACACATGGGCGAGGGCTTTGCCCTTGAC
TGGTCCCCCCGGGTGACCGGTCGCCTGCTGACCGGTGACTGTCAAAAGAACATCCACCTCTGGACACCTACGGAC
GGCGGCTCCTGGCACGTGGACCAGCGGCCATTCGTGGGCCACACACGCTCTGTGGAGGACCTGCAGTGGTCACCG
ACTGAGAACACGGTGTTTGCCTCCTGCTCAGCTGACGCCTCCATCCGCATCTGGGACATCCGGGCAGCCCCCAGC
AAGGCCTGCATGCTCACCACAGCCACCGCCCATGATGGGGACGTCAATGTCATCAGCTGGAGCCGCCGGGAGCCC
TTCCTGCTCAGTGGCGGGGATGATGGGGCCCTCAAGATCTGGGACCTTCGGCAGTTCAAGTCTGGTTCCCCAGTG
GCCACCTTCAAGCAGCACGTGGCCCCCGTGACCTCCGTCGAGTGGCACCCCCAGGACAGCGGGGTCTTTGCAGCC
TCGGGTGCAGACCACCAGATCACACAGTGGGACCTGGCAGTGGAGCGGGACCCTGAGGCGGGCGACGTGGAGGCC
GACCCCGGACTGGCCGACCTCCCGCAGCAGCTGCTGTTCGTGCACCAGGGCGAGACCGAGCTGAAGGAGCTGCAC
TGGCACCCGCAGTGCCCAGGGCTCCTGGTCAGCACGGCGCTGTCAGGCTTCACCATCTTCCGCACCATCAGCGTC
TGAGGCGTCCCACTGGCTCTGATCTTGCTTCCTGCTTGGAAACTGAAGTCGAATTGGGCTCCCCTGGAAGGGGTT
CATTCAGGTCTGTTGACTGAGACTGGCCGGCCTGTGGGCTGCCGTGATGGATTCTGTTTGACGTATTGTTCTCTA
GAAGGCCTGGCTCTGATCCAGTGACCCCTCTCACCAAAGAACTCGGTTTAACCAGGGCTCTGTAAGACCACTCCC
ACCCAGAGACTTGTGTGGCCTGGTGTGGCCTGTGTGTCGGATTCCTTCCTGTCAGCTGTGACCCATTTGACCTGT
GTCCCCAGAACCCAGTTTTTTGTTTGTTTGTTTGAGACGGAGTCTTGGTCTGTCGCCCAGGCTGGAGTGCAGTAG
CACGATCTTGGCTCACTGCAACCTCCGCCTCCTGGGTTAAAGTGATTCTCTCAGCTCAGTCTCCCAGGTAGCTGG
GATTACAGGCATGTGCCACCACACCCCGTTAATTTTTGTATTTTTAGTAGAGACGGGGTTTCACCATGTTGGCCA
GGCTGGTCTCAAATTCTTGATCTCAAGTGATCTGTCCGCCCCGGCCTCCCAGAGTGCTGGGTTGGGATTACAGGC
GTGAGCCACCGCGTCCGGCTCAGGACCCAGTTTTGGCTGCTGGTTCCCAGCAGGGGACTCGGGGGATATACAGTG
GCTGCACCAAATTGGAGGTGTGGGTTCCTCCAACACAATTTGCTTCTGCCCGTTGTCTTCCTGCCAGCTGGGTTT
GGCCAGGATTTCTCCGTGTGGGGGCTACATGCGACCCTCTCCCCTCCTCCCTGACTTTAGAGGCTGGTGCTGTGT
CGGGAGGAAGGTCAGGGCTCCTGAGCAGCAATAAAGGACCAGGAAGAGGCCTGAGGTGTA

FIGURE 527A

GGACGCCGGGTTCCGGTCCTGGCCCCCCCGCCATCCCCCCAACAGAACAGGGTCATGAAAAGAGGCCGCCCGGCG
GGGCCCGCAGGCG**ATG**CGCGGCGCCGGTGGCCCCCGCGGCCCTCGGGGCCCCGCTAAGATGCTGCTGCTGGC
GCTGGCCTGCGCCAGCCCGTTCCCGGAGGAGGCGCCGGGGCCGGGCGGGGCCGGTGGGCCCGGCGGCGGCCTCGG
CGGGGCGCGGCCGCTCAACGTGGCGCTCGTGTTCTCGGGGCCCGCGTACGCGGCCGAGGCGGCACGCCTGGGCCC
GGCCGTGGCGGCGGCGGTGCGCAGCCCGGGCCTAGACGTGCGGCCCGTGGCGCTGGTGCTCAACGGCTCGGACCC
GCGCAGCCTCGTGCTGCAGCTCTGCGACCTGCTGTCGGGGTTGCGCGTGCACGGCGTGGTCTTCGAAGACGACTC
GCGCGCGCCCGCCGTCGCGCCCATCCTCGACTTCCTGTCGGCGCAGACCTCGCTGCCCATCGTGGCCGTGCACGG
CGGCGCCGCGCTCGTGCTCACGCCCAAGGAGAAGGGCTCCACCTTCCTGCAGCTGGGCTCTTCCACCGAGCAACA
GCTTCAGGTCATCTTTGAGGTGCTGGAGGAGTATGACTGGACGTCCTTTGTAGCCGTGACCACTCGTGCCCCTGG
CCACCGGGCCTTCCTGTCCTACATTGAGGTGCTGACTGACGGTAGTCTGGTGGGCTGGGAGCACCGCGGAGCGCT
GACGCTGGACCCTGGGGCGGGCGAGGCCGTGCTCAGTGCCCAGCTCCGCAGTGTCAGCGCGCAGATCCGCCTGCT
CTTCTGCGCCCGAGAGGAGGCCGAGCCCGTGTTCCGCGCAGCTGAGGAGGCTGGCCTCACTGGATCTGGCTACGT
CTGGTTCATGGTGGGGCCCCAGCTGGCTGGAGGCGGGGGCTCTGGGGCCCCTGGTGAGCCCCCTCTTCTGCCAGG
AGGCGCCCCCCTGCCTGCCGGGCTGTTTGCAGTGCGCTCGGCTGGCTGGCGGGATGACCTGGCTCGGCGAGTGGC
AGCTGGCGTGGCCGTAGTGGCCAGAGGTGCCCAGGCCCTGCTGCGTGATTATGGTTTCCTTCCTGAGCTCGGCCA
CGACTGTCGCGCCCAGAACCGCACCCACCGCGGCGAGAGTCTGCATAGGTACTTCATGAACATCACGTGGGATAA
CCGGGATTACTCCTTCAATGAGGACGGCTTCCTAGTGAACCCCTCCCTGGTGGTCATCTCCCTCACCAGAGACAG
GACGTGGGAGGTGGTGGGCAGCTGGGAGCAGCAGACGCTCCGCCTCAAGTACCCGCTGTGGTCCCGCTATGGTCG
CTTCCTGCAGCCAGTGGACGACACGCAGCACCTCACGGTGGCCACGCTGGAGGAAAGGCCGTTTGTCATCGTGGA
GCCTGCAGACCCTATCAGCGGCACCTGCATCCGAGACTCCGTCCCCTGCCGGAGCCAGCTCAACCGAACCCACAG
CCCTCCACCGGATGCCCCCCGCCCGGAAAAGCGCTGCTGCAAGGGTTTCTGCATCGACATTCTGAAGCGGCTGGC
GCATACCATCGGCTTCAGCTACGACCTCTACCTGGTCACCAATGGCAAGCACGGAAAGAAGATCGATGGCGTCTG
GAACGGCATGATCGGGGAGGTGTTCTACCAGCGCGCAGACATGGCCATCGGCTCCCTCACCATCAACGAGGAGCG
CTCCGAGATCGTGGACTTCTCCGTCCCCTTCGTGGAGACCGGCATCAGCGTCATGGTGGCGCGCAGCAATGGCAC
GGTGTCCCCCTCGGCCTTCCTCGAGCCCTACAGCCCCGCCGTGTGGGTGATGATGTTCGTCATGTGCCTCACTGT
GGTCGCCGTCACTGTTTTCATCTTCGAGTACCTCAGTCCTGTTGGTTACAACCGCAGCCTGGCCACGGGCAAGCG
CCCTGGCGGTTCAACCTTCACCATTGGGAAATCCATCTGGCTGCTCTGGGCCCTGGTGTTCAATAATTCGGTGCC
CGTGGAGAACCCCCGGGGAACCACCAGCAAAATCATGGTGCTGGTGTGGGCCTTCTTCGCCGTCATCTTCCTCGC
CAGCTACACAGCCAACCTGGCCGCCTTCATGATCCAGGAGGAGTACGTGGATACTGTGTCTGGGCTCAGTGACCG
CAAGTTCCAGAGGCCCCAGGAGCAGTACCCGCCCCTGAAGTTTGGGACCGTGCCCAACGGCTCCACGGAGAAGAA
CATCCGCAGCAACTATCCCGACATGCACAGCTACATGGTGCGCTACAACCAGCCCCGCGTAGAGGAAGCGCTCAC
TCAGCTCAAGGCAGGGAAGCTGGACGCCTTCATCTACGATGCTGCAGTGCTCAATTACATGGCCCGCAAGGACGA
GGGCTGCAAGCTTGTCACCATCGGCTCCGGCAAGGTCTTCGCCACGACAGGCTATGGCATCGCCCTGCACAAGGG
CTCCCGCTGGAAGCGGCCCATCGACCTGGCGTTGCTGCAGTTCCTGGGGGGATGATGAGATCGAGATGCTGGAGCG
GCTGTGGCTCTCTGGGATCTGCCACAATGACAAAATCGAGGTGATGAGCAGCAAGCTGGACATCGACAACATGGC
GGGCGTCTTCTACATGCTCCTGGTGGCCATGGGCCTGTCCCTGCTGGTCTTCGCCTGGGAGCACCTGGTGTACTG
GCGCCTGCGGCACTGCCTGGGGCCCACCCACCGCATGGACTTCCTGCTGGCCTTCTCCAGGGGCATGTACAGCTG
CTGCAGCGCTGAGGCCGCCCCACCGCCCGCCAAGCCCCCGCCGCCGCCACAGCCCCTGCCCAGCCCCGCGTACCC
CGCGCCGCGGCCGGCTCCCGGGCCCGCACCTTTCGTGCCCCGCGAGCGCGCCTCAGTGGACCGCTGGCGCCGGAC
CAAGGGCGCGGGGCCGCCGGGGGGCGCGGGCCTGGCCGACGGCTTCCACCGCTACTACGGCCCCATCGAGCCGCA
GGGCCTAGGCCTCGGCCTGGGCGAAGCGCGCGCGGCACCGCGGGGCGCAGCCGGGCGCCCGCTGTCCCCGCCGGC
CGCTCAGCCCCCGCAGAAGCCGCCGCCCTCCTATTTCGCCATCGTACGCGACAAGGAGCCAGCCGAGCCCCCCGC
CGGCGCCTTCCCCGGCTTCCCGTCGCCGCCCGCGCCCCCCGCCGCCGCGGCCACCGCCGTCGGGCCGCCACTCTG
CCGCTTGGCCTTCGAGGACGAGAGCCCGCCGGCGCCCGCGCGGTGGCCGCGCTCGGACCCCGAGAGCCAACCCCT
GCTGGGGCCAGGCGCGGGCGGCGCGGGGGGCACGGGGGGCGCAGGCGGAGGAGCCCCGGCCGCTCCGCCCCCGTG
CCGCGCCGCGCCGCCCCCGTGCCCTTACCTCGATCTCGAGCCGTCGCCGTCGGACTCGGAGGACTCGGAGAGCCT
GGGCGGCGCGTCGCTGGGCGGCCTGGAGCCCTGGTGGTTCGCCGACTTCCCTTACCCGTATGCCGAGCGCCTCGG
GCCGCCGCCCGGCCGCTACTGGTCGGTCGACAAGCTCGGGGGCTGGCGCGCCGGGAGCTGGGACTACCTGCCCCC

FIGURE 527B

GCGCAGCGGTCCGGCCGCCTGGCACTGTCGGCACTGCGCCAGCCTGGAGCTGCTGCCGCCGCCGCGCCATCTCAG
CTGCTCGCACGATGGCCTGGACGGCGGCTGGTGGGCGCCACCGCCTCCACCCTGGGCCGCCGGGCCCCTGCCCCG
ACGCCGGGCCCGCTGCGGGTGCCCGCGGTCGCACCCGCACCGCCCGCGGGCCTCGCACCGCACGCCCGCCGCCGC
CGCGCCCCACCACCACAGGCACCGGCGCGCCGCTGGGGGGCTGGGACCTCCCGCCGCCCGCGCCCACCTCGCGCTC
GCTCGAGGACCTCAGCTCGTGCCCTCGCGCCGCCCCTGCGCGCAGGCTTACCGGGCCCTCCCGCCACGCTCGCAG
GTGTCCGCACGCCGCGCACTGGGGGCCGCCGCTGCCCACAGCTTCCCACCGGAGACACCGGGGCGGGGACCTGGG
CACCCGCAGGGGCTCGGCGCACTTCTCTAGCCTCGAGTCCGAGGTA**TGA**CGCGGCCCCGGGGGCCCCACCGCCCC
CTTGGTCAGCGCAGGCCACGGCCCGAGGGGGCGCCCGCAGTGGACAGGACCCGCGTGGGTTGGGAAGGAAAGCAG
TGGAACTGGCCGGACCCCGCCTGGAGCAGCGTCCTGCGCCCCCTGGTTCTGGAGGAACCGCAAGCCGGAGAGGAT
TTGGTCCCTCAACTATCACCCAG

FIGURE 528

GTCCCCTCCCCGGAGCGGAGCGCACCTAGGGTCCCTCTTCCGTCCCCCCAGCCCAGCTACCCGTTCAGACCAGCA
GCCTCGGGGGGCACCCCCCCGCCAGCCTGCCTCCCTCCCGCTCAGCCCTGCCAGGGTTCCCCAGCC**ATG**AATCTC
TTCCGATTCCTGGGAGACCTCTCCCACCTCCTCGCCATCATCTTGCTACTGCTCAAAATCTGGAAGTCCCGCTCG
TGCGCCGGAATTTCAGGGAAGAGCCAGGTCCTGTTTGCTGTGGTGTTCACTGCCCGATATCTGGACCTCTTCACC
AACTACATCTCACTCTACAACACGTGTATGAAGGTGGTCTACATAGCCTGCTCCTTCACCACGGTCTGGTTGATT
TATAGCAAGTTCAAAGCTACTTACGATGGGAACCATGACACGTTCAGAGTGGAGTTCCTGGTCGTTCCCACAGCC
ATTCTGGCGTTCCTGGTCAATCATGACTTCACCCCTCTGGAGATCCTCTGGACCTTCTCCATCTACCTGGAGTCA
GTGGCCATCTTGCCGCAGCTGTTCATGGTGAGCAAGACCGGCGAGGCGGAGACCATCACCAGCCACTACTTGTTT
GCGCTAGGCGTTTACCGCACGCTCTATCTCTTCAACTGGATCTGGCGCTACCATTTCGAGGGCTTCTTCGACCTC
ATCGCCATTGTGGCAGGCCTGGTCCAGACAGTCCTCTACTGCGATTTCTTCTACCTCTATATCACCAAAGTCCTA
AAGGGGAAGAAGTTGAGTTTGCCGGCA**TAG**CCCCGGTCCTCTCCATCTCTCTCCTCGGCAGCAGCGGGAGGCAGA
GGAAGGCGGCAGAAGATGAAGAGCTTTCCCATCCAGGGGTGACTTTTTTAAGAACCCACCTCTTGTGCTCCCCAT
CCCGCCTCCTGCCGGGTTTCAGGGGGACAGTGGAGGATCCAGGTCTTGGGGAGCTCAGGACTTGGGCTGTTTGTA
GTTTTTTGCCTTTTAGACAAGAAAAAAAAATCTTTCCACTCTTTAGTTTTTGATTCTGATGACTCGTTTTTCTTC
TACTCTGTGGCCCCAATTTTTATAAAGTG

FIGURE 529

GCCGAACCTCGGGAGCCCAGGACGCCCTCCTGCACATGCGCAGGAGGCTCA**ATG**ACAGTCGAGCTTTGGCTAAGG
CTCCGGGGAAAGGGTCTAGCCATGCTGCATGTGACCCGGGGGGTCTGGGGGTCCAGGGTCCGAGTATGGCCACTG
TTGCCCGCGCTCCTCGGGCCCCCCCGGGCCCTCTCATCGCTGGCAGCCAAAATGGGGGAGTATCGCAAGATGTGG
AACCCCAGGGAGCCCCGCGACTGGGCCCAGCAGTACCGCGAGCGCTTCATTCCCTTCTCCAAGGAGCAGCTGCTC
CGCCTCCTAATACAGGAATTCCACTCGAGTCCGGCAGAGAAGGCGGCTTTGGAGGCGTTCTCGGCCCACGTGGAC
TTCTGCACCCTGTTCCACTACCACCAAATCCTGGCCCGGCTGCAGGCCTTATATGACCCCATCAACCCTGACAGG
GAGACCCTCGATCAGCCATCACTAACGGATCCCCAGCGTCTGTCTAATGAGCAGGAGGTGCTTCGGGCTCTGGAG
CCCCTGCTGGCCCAGGCCAACTTCTCCCCGCTGTCTGAGGACACCCTGGCCTACGCGCTGGTGGTCCACCACCCT
CAGGATGAGGTCCAGGTGACAGTAAATTTGGATCAGTATGTCTACATTCACTTCTGGGCCCTGGGCCAGCGAGTC
GGGCAGATGCCCCTGAAGTCCAGCGTGGGCTCCAGGCGTGGCTTCTTCACCAAGCTGCCCCCTGCGGAGAGGAGA
TACTTTAAGCGGGTGGTCCTGGCAGCCCGGACCAAACGGGGACACCTGGTACTGAAGAGTTTCAAGGACACGCCG
CTGGAAGGCCTGGAGCAGCTGCTGCCGGAGCTGAAGGTGCGCACGCCCACCCTGCAGCGCGCCCTGCTCAACCTC
ATGCTGGTAGTCTCCGGCGTGGCGATCTTCGTCAACGTGGGCATGGTGGTGCTAACCGACCTCAAGGTGGCCACC
TCCCTGCTGCTGCTGCTCTTCGCCATCTTCATGGGCCTGCGGGCCTCCAAGATGTTCGGGCAGCGGCGCAGCGCG
CAGGCGTTGGAGCTGGCGCACATGCTGTACTATCGCAGTACGTCCAACAACTCGGAGCTGCTCAGCGCCCTGGCC
CTGCGCGCGCAGGACGAGCACACCAAGGAGGCGCTGCTGGCTCACAGCTTCCTGGCCCGGCGGCCAGGGGGCACT
CAAGGCTCGCCCGAAGAGACCTCCAGGTGGCTCCGGTCGGAGGTGGAGAACTGGCTCCTAGCCAAGTCAGGCTGT
GAGGTGACCTTCAACGGAACTCGGGCCCTGGCGCATCTGCAGGCCCTGACCCCCAGCATGGGATTGTACCCACCC
CCGGGTTTCCCCAAACTAGACCCAGTGGCTCCGATCACTTCCGAGCCCCCGCAAGCCACGCCCAGCAGTAACATC
TCC**TGA**GTAGAACCTACCTCCCTGCCCAGTCAGCAGGCTAGGAACTAAGCCCCGCCTCCTTCACGACAGGCTGTC
AATTACGGTTATTATACTTTTCACTCCAACTTCCAATAACTGACAGGTGATTATTTTTGCTGCACTGTGTGCTTA
AGCAAAGCAGCCAATCAAAGCAGCTAGCAGTTGTTAAGTCTTCCCCGCCCCTTCGATGAACAGCCAATCAAAGCG
ATTTAGCTCTGCTTCTGTTCCATTTCTTAGTCCCACCCTCACCATAAACATCCAAGTGTGGTTTGGCTGAGGAGC
TGAGGGTGTCTGCCAATCACAGCTGCTCAGCTCTGGCTTCTGTAAACCGCCAGGTAGAAGAGTTAAAGCTGCGCC
CTCCCGAGACTATATATCATTGTCTTTTTCAGCCCGCTCCGGGCAAACTGCCCATCATGTGCACCAAGGCCGTTA
GCCCTGCCTCCTGGCAAACGTCCAGTGACAGCTGCTGGGTTCCATCAACTTTGGGCAGCCGGTTGTCGCTGCAGG
GAAGGAACCAATAAGAATTTCTAAAGGAAACCTGATCTTGCTATCAATTGCTGCTGCTTAAATGGCAGGCCAACT
GGTCAGCTGCTGATCAGGGTGTCTAGGCTGAAGGAGTTGGAGACCTTGTGCTAGGTAGGTGAACCAGAAACCACC
CTCGCCACCAAGACTCGCTCCCAACCTGGCTCCCGGCAACCTCAGGTGCCTTCCTCGCCCAGGTCTTTCACCCTT
TCTACAGAAACTACCTCGGTCTGGATCTCCCCACCACCAGCAGCCTGTGCAATATTTATTGGTCTATCAATTTCT
CCCGTCTCCTGTCCCAAAGTAATAAATCATGTTTAATAAGTCTG

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FIGURE 530

GAAGGAGGCCCAGACAGTGAGGGCAGGAGGGAGAGAAGAGACGCAGAAGGAGAGCGAGCGAGAGAGAAAGGGTTC
TGGATTGGAGGGGAGAGCAAGGGAGGGAGGAAGGCGGTGAGAGAGGCGGGGGCCTCGGGAGGGTGAAAGGAGGGA
GGAGAAGGGCGGGGCACGGAGGCCCGAGCGAGGGACAAGACTCCGACTCCAGCTCTGACTTTTTTCGCGGCTCTC
GGCTTCCACTGCAGCC**ATG**TCACTCCTCTTGCTGGTGGTCTCAGCCCTTCACATCCTCATTCTTATACTGCTTTT
CGTGGCCACTTTGGACAAGTCCTGGTGGACTCTCCCTGGGAAAGAGTCCCTGAATCTCTGGTACGACTGCACGTG
GAACAACGACACCAAAACATGGGCCTGCAGTAATGTCAGCGAGAATGGCTGGCTGAAGGCGGTGCAGGTCCTCAT
GGTGCTCTCCCTCATTCTCTGCTGTCTCTCCTTCATCCTGTTCATGTTCCAGCTCTACACCATGCGACGAGGAGG
TCTCTTCTATGCCACCGGCCTCTGCCAGCTTTGCACCAGCGTGGCGGTGTTTACTGGCGCCTTGATCTATGCCAT
TCACGCCGAGGAGATCCTGGAGAAGCACCCGCGAGGGGGCAGCTTCGGATACTGCTTCGCCCTGGCCTGGGTGGC
CTTCCCCCTCGCCCTGGTCAGCGGCATCATCTACATCCACCTACGGAAGCGGGAG**TGA**GCGCCCCGCCTCGCTCG
GCTGCCCCCGCCCCTTCCCGGCCCCCCTCGCCGCGCGTCCTCCAAAAAATAAAACCTTAACCGCGG

FIGURE 531A

GTTCTCAACTTCTTTTGAAATAATGTTCATAGAGAAGGAGGGCTGTCTGAGATTCGAGGGAAACAAGCTCTCAGG
ACTTCCGGTCGCCATGATGGCTGTGGGCGGTAAACGCGGTTAGTGCAAGCATCTGGGCCATCTTCAATGGTAAAA
AAGATACAGTAAAGACATAAATACCACATTTGACAAATGGAAAAAAAGGAGTGTCCAGAAAAGAGTAGCAGCAGT
GAGGAAGAGCTGCCGAGACGGGTATACAGGGAGCTACCCTGTGTTTCTGAGACCCTTTGTGACATCTCACATTTT
TTCCAAGAAG**ATG**ATGAGACAGAGGCAGAGCCATTATTGTTCCGTGCTGTTCCTGAGTGTCAACTATCTGGGGGG
GACATTCCCAGGAGACATTTGCTCAGAAGAGAATCAAATAGTTTCCTCTTATGCTTCTAAAGTCTGTTTTGAGAT
CGAAGAAGATTATAAAAATCGTCAGTTTCTGGGGCCTGAAGGAAATGTGGATGTTGAGTTGATTGATAAGAGCAC
AAACAGATACAGCGTTTGGTTCCCCACTGCTGGCTGGTATCTGTGGTCAGCCACAGGCCTCGGCTTCCTGGTAAG
GGATGAGGTCACAGTGACGATTGCGTTTGGTTCCTGGAGTCAGCACCTGGCCCTGGACCTGCAGCACCATGAACA
GTGGCTGGTGGGCGGCCCCTTGTTTGATGTCACTGCAGAGCCAGAGGAGGCTGTCGCCGAAATCCACCTCCCCCA
CTTCATCTCCCTCCAAGGTGAGGTGGACGTCTCCTGGTTTCTCGTTGCCCATTTTAAGAATGAAGGGATGGTCCT
GGAGCATCCAGCCCGGGTGGAGCCTTTCTATGCTGTCCTGGAAAGCCCCAGCTTCTCTCTGATGGGCATCCTGCT
GCGGATCGCCAGTGGGACTCGCCTCTCCATCCCCATCACTTCCAACACATTGATCTATTATCACCCCCACCCCGA
AGATATTAAGTTCCACTTGTACCTTGTCCCCAGCGACGCCTTGCTAACAAAGGCGATAGATGATGAGGAAGATCG
CTTCCATGGTGTGCGCCTGCAGACTTCGCCCCCAATGGAACCCCTGAACTTTGGTTCCAGTTATATTGTGTCTAA
TTCTGCTAACCTGAAAGTAATGCCCAAGGAGTTGAAATTGTCCTACAGGAGCCCTGGAGAAATTCAGCACTTCTC
AAAATTCTATGCTGGGCAGATGAAGGAACCCATTCAACTTGAGATTACTGAAAAAAGACATGGGACTTTGGTGTG
GGATACTGAGGTGAAGCCAGTGGATCTCCAGCTTGTAGCTGCATCAGCCCCTCCTCCTTTCTCAGGTGCAGCCTT
TGTGAAGGAGAACCACCGGCAACTCCAAGCCAGGATGGGGGACCTGAAAGGGGTGCTCGATGATCTCCAAGACAA
TGAGGTTCTTACTGAGAATGAGAAGGAGCTGGTGGAGCAGGAAAAGACACGGCAGAGCAAGAATGAGGCCTTGCT
GAGCATGGTGGAGAAGAAAGGGGACCTGGCCCTGGACGTGCTCTTCAGAAGCATTAGTGAAAGGGACCCTTACCT
CGTGTCCTATCTTAGACAGCAGAATTTG**TAA**AATGAGTCAGTTAGGTAGTCTGGAAGAGAGAATCCAGCGTTCTC
ATTGGAAATGGATAAACAGAAATGTGATCATTGATTTCAGTGTTCAAGACAGAAGAAGACTGGGTAACATCTATC
ACACAGGCTTTCAGGACAGACTTGTAACCTGGCATGTACCTATTGACTGTATCCTCATGCATTTTCCTCAAGAAT
GTCTGAAGAAGGTAGTAATATTCCTTTTAAATTTTTTCCAACCATTGCTTGATATATCACTATTTTATCCATTGA
CATGATTCTTGAAGACCCAGGATAAAGGACATCCGGATAGGTGTGTTTATGAAGGATGGGGCCTGGAAAGGCAAC
TTTTCCTGATTAATGTGAAAAATAATTCCTATGGACACTCCGTTTGAAGTATCACCTTCTCATAACTAAAAGCAG
AAAAGCTAACAAAAGCTTCTCAGCTGAGGACACTCAAGGCATACATGATGACAGTCTTTTTTTTTTTTGTATGTT
AGGACTTTAACACTTTATCTATGGCTACTGTTATTAGAACAATGTAAATGTATTTGCTGAAAGAGAGCACAAAAA
TGGGAGAAAATGCAAACATGAGCAGAAAATATTTTCCCACTGGTGTGTAGCCTGCTACAAGGAGTTGTTGGGTTA
AATGTTCATGGTCAACTCCAAGGAATACTGAGATGAAATGTGGTAAATCAACTCCACAGAACCACCAAAAAGAAA
ATGAGGGTAATTCAGCTTATTCTGAGACAGACATTCCTGGCAATGTACCATACAAAAAATAAGCCAACTCTGACA
TTTGGATTCTACCATAGACTCTGTCATTTTGTAGCCATTTCAGCTGTCTTTTGATTAATGTTTTCGTGGCACACA
TATTTCCATCCTTTTATGTTTAATCTGTTTAAAACAAGTTCCTAGTAGACACCATCTGGTTGAGTCAGTTTTTTT
TATGGTGTATTTTGAACCCATTCTGATAGTCTCTTTTAACTGGAAGATTTCAATTACTTACGTTAATGTAATTAT
TAATATGTTAGGATTTATCCTCAGTCAGCCAGTTTGTTATGTCTTTTCTATTCTACTGTTATCACATTTGTACCA
CTTAAAGTGGAATCTAGGCACTTTATCACCATTTAGATCCTATTACCTTTTCTCATCTAGGATATAGTTATCTTC
TACATAATCTTTCTGTATCTTAAAACCCATCAATAAATTATTATATATTTTCTACTTTTAATCACTCAGAAGATT
TAAAAAACTCATGAGAAGAGTAATCTGTTATGTTTTTCCAGATATTTACCATTTCTGTTGCTCTTCCTTCATTAT
TTTCCAAATTTCGTTCTGCAAATTTCCACTTCCTCTGATAGACGTTTTTTAGTTCTTTTAGAGTGGTTCTGATAG
GTACAGATTCTCTTATTTTTTGCTTCCTCTGAGGACATCTTTTTCTCACCTTCATTCTCAGTGATGTTTTTTGCT
TGTAGTATTTTTAGTTGACATTGTTTTCTGTTCAGCAGTTTCCTTTTAGCTTCCGTATTTCCTGATGAGAAATCT
GCAGTCATTCAAATTGTTGTTTCCCTGTATGTAGTGTGTCATTTTTCTGTCAGATTTCAAGGTATTTATCTTTAG
TTTTTAGCCATTTCATTATGTTGGGGATGAGTTTCCTTGTTTTATTCCCTTTGGAATTTGCTCCAATTCATAAAT
TTGCAGTTTTATGTCTTTTACCAAACTTAGAGGTTTTCAGCCTAATTTCTAAAAATACTTTTTATTAGCCTGATT
TTCATCTTTATAGGAAATAGTTTAAGTGATGACAAGTTCCAATAGCTTATATGCCCAGAAGGCCTTCAAAATAAG
AATTTTGAAAGAATACAGAAAACAAACTTTTATATCCTTCTCATGTCTTCTACTGTAAAATTCATATGCTTTGCT
ACTCTAAACCTAGTTTGAAATCAACAGTCTTGAGAATAGATGAAAATTTTGATGAATAGTGGAATTCTTTTAAAT

FIGURE 531B

GGAAACCTCTTACATGTGATTTTCCTTGCCATCTAGAAATAAACCATAGTATTTATGTTGAATCAATCAATATTA
TATTTTGTTTTTTTCCTCCTCTTCTGAGACTCTTATTGTGGAAATGTTAGACTTTTATGTTTTCCTAAATGTCCC
TGATATTCTACTTATTTAGAACATCTTTTCATTTTTTCCATTATTCTGATTGGGTAATTTTAATTTGTCTATTTT
CAAATTTGCTGGAGTGTTCACCTGTTGTTATCTGTGTCGTCCCACTGAGTGCATTCACCACCTTTTAAATTTTGG
TCACTGTATGTATCAGTTCTAAAATTTCCATTTTGTTCTCTATATTTTAAATTTCTTGCCTTATATTCTATTTTC
CTGCAAATGTGTCAGCATTTGCTTGTTTGAGCTTTTTTTTTTTCAAGACAGGGTCTCAACTCTGTTACCCAGGCT
GGAGTGCAGTGGTGCGATCTCAGCTCACTGCAACCTCTGCCTCCTGGTTCAAGCGATTATTGTGCCTCAGCCTCC
AGAGTAGCTGGGATTACAGGCATGCACCACCACAGCCCAGCTAATTTTTTGTATTTTTAGTAGAGACAGAGTTTT
GCTATGTTGGCCAGGCTGGTTTTGAACTCCTGGCCTCAAGTGATCCACCCACCTCAGCCTCCCAAAGTGCTGGGA
TTACAGGCCACTACACCTGGCACATTTGAGTATTTTTTTTTTTTTTTTTTTTTTTTGAGATGGAGTCTCGCTCT
GTCATCTAGGCTGGAGTGCAGTGGTGTGATCTCAGCTCACTGCAGCCTCTGTCTCCCGGGCTCAAGCGATTCTCT
TGCCTCAGCCTCCTGAGTAGCTAGGACTACAGGTGCATGCCAACACGCCCGGCTAATTTTTTTTTAAAAATATTT
TTAGTAGAGACAGGGTTTCACCATTTTGGCCAGGATGGTCTTGATCTCCTGACCTCATGATCCACCCGCCTCGGC
CTTCCAAAGTGCTGGGATTACAGGCATGAGCCACCGTGCCTGGCCTCATTTGAGTATTTTTATAATGTCTCTTTT
AAAGTCTTTGTCAGATAATTTCACTGTACATGTTATTCAGTGTTTGGTGTCCACTGAGTTGTCATTTGCCAGACA
AGTGGAGATTTTTGCAGCTCATCCTTGTATTCTCAGTAGTTCCGATATGTACCCTCGAAATGTGAATGTTATCTT
ATGAGACTCTGTTTTATTTGTATCCAACAGAAGATGTTTATTATTTATTTGGCTTTCTGTGAACTGAGGTCTTAA
TATCAGCTCATTTTAAAAGTCTTTGCAGTGGTATTCGGATCTATCCTGTGTGTGCCTATGAGATTGGGTGCAGTG
TATCCTGTTAGCTCCATTCTCAGGGCGTTTGAATGTGAATTAGGACCAGCGCAATGAATGCTCAAGTTGGGGTTG
GGCGTTAGAATTCATAAAAGTCTTTATATGCTCAG

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FIGURE 532

GACGTCTGCGCGCGAATGCCGTGGCGCGAACTTGGGACTGCAGAGGCGCGCCTGGCGGATCTGAGTGTGTTGCCC
GGGCAGCGGCGCGCGGGACCAACGCAAGGAGCAGCTGACAGACGAAGAAAAGTGCTGGACAGGAAGGGAGAATTC
TGACGCCAAC**ATG**CAGCGAAGTATCATGTCATTTTTCCACCCCAAGAAAGAGGGTAAAGCAAAGAAGCCTGAGAA
GGAGGCATCCAATAGCAGCAGAGAGACGGAGCCCCCTCCAAAGGCGGCACTGAAGGAGTGGAATGGAGTGGTGTC
CGAGAGTGACTCTCCGGTGAAGAGGCCAGGGAGGAAGGCGGCCCGGGTCCTGGGCAGCGAAGGGGAAGAGGAGGA
TGAAGCCCTTAGCCCTGCTAAAGGCCAGAAGCCTGCCCTGGACTGCTCACAGGTCTCCCCGCCCCGTCCTGCCAC
ATCTCCTGAGAACAATGCTTCCCTCTCTGACACCTCTCCCATGGACAGTTCCCCATCAGGGATTCCGAAGCGTCG
CACAGCTCGGAAGCAGCTCCCGAAACGGACCATTCAGGAAGTCCTGGAAGAGCAGAGTGAGGACGAGGACAGAGA
AGCCAAGAGGAAGAAGGAGGAGGAAGAAGAGGAGACCCCGAAAGAAAGCCTCACAGAGGCTGAAGTGGCCACAGA
GAAGGAAGGAGAAGACGGGGACCAGCCCACCACGCCTCCCAAGCCCCTAAAGACCTCCAAAGCAGAGACCCCGAC
GGAAAGCGTTTCAGAGCCTGAGGTGGCCACGAAGCAGGAACTGCAGGAGGAGGAAGAGCAGACCAAGCCTCCCCG
CAGAGCTCCCAAGACGCTCAGCAGCTTCTTCACCCCCCGGAAGCCAGCAGTCAAAAAAGAAGTGAAGGAAGAGGA
GCCAGGGGCTCCAGGAAAGGAGGGAGCTGCTGAGGGACCCCTGGATCCATCTGGTTACAATCCTGCCAAGAACAA
CTATCATCCCGTGGAAGATGCCTGCTGGAAACCGGGCCAGAAGGTTCCTTACCTGGCTGTGGCCCGGACGTTTGA
GAAGATCGAGGAGGTGTCTGCTCGGCTCCGGATGGTGGAGACGCTGAGCAACTTGCTGCGCTCCGTGGTGGCCCT
GTCGCCTCCAGACCTCCTCCCTGTCCTCTACCTCAGCCTCAACCACCTTGGGCCACCCCAGCAGGGCCTGGAGCT
TGGCGTGGGTGATGGTGTCCTTCTCAAGGCAGTGGCCCAGGCCACAGGTCGGCAGCTGGAGTCCGTCCGGGCTGA
GGCAGCCGAGAAAGGCGACGTGGGGCTGGTGGCCGAGAACAGCCGCAGCACCCAGAGGCTCATGCTGCCACCACC
TCCGCTCACTGCCTCCGGGGTCTTCAGCAAGTTCCGCGACATCGCCAGGCTCACTGGCAGTGCTTCCACAGCCAA
GAAGATAGACATCATCAAAGGCCTCTTTGTGGCCTGCCGCCACTCAGAAGCCCGGTTCATCGCTAGGTCCCTGAG
CGGACGGCTGCGCCTTGGGCTGGCAGAGCAGTCGGTGCTGGCTGCCCTCTCCCAGGCAGTGAGCCTCACGCCCCC
GGGCCAAGAATTCCCACCAGCCATGGTGGATGCTGGGAAGGGCAAGACAGCAGAGGCCAGAAAGACGTGGCTGGA
GGAGCAAGGCATGATCCTGAAGCAGACGTTCTGCGAGGTTCCCGACCTGGACCGAATTATCCCCGTGCTGCTGGA
GCACGGCCTGGAACGTCTCCCGGAGCACTGCAAGCTGAGCCCAGGGATTCCCCTGAAACCAATGTTGGCCCATCC
CACCCGGGGCATCAGCGAGGTCCTGAAACGCTTTGAGGAGGCAGCTTTCACCTGCGAATACAAATATGACGGGCA
GAGGGCACAGATCCACGCCCTGGAAGGCGGGGAGGTGAAGATCTTCAGCAGGAATCAGGAAGACAACACTGGGAA
GTACCCGGACATCATCAGCCGCATCCCCAAGATTAAACTCCCATCGGTCACATCCTTCATCCTGGACACCGAAGC
CGTGGCTTGGGACCGGGAAAAGAAGCAGATCCAGCCATTCCAAGTGCTCACCACCCGCAAACGCAAGGAGGTGGA
TGCGTCTGAGATCCAGGTGCAGGTGTGTTTGTACGCCTTCGACCTCATCTACCTCAATGGAGAGTCCCTGGTACG
TGAGCCCCTTTCCCGGCGCCGGCAGCTGCTCCGGGAGAACTTTGTGGAGACAGAGGGCGAGTTTGTCTTCGCCAC
CTCCCTGGACACCAAGGACATCGAGCAGATCGCCGAGTTCCTGGAGCAGTCAGTGAAAGACTCCTGCGAGGGGCT
GATGGTGAAGACCCTGGATGTTGATGCCACCTACGAGATCGCCAAGAGATCGCACAACTGGCTCAAGCTGAAGAA
GGACTACCTTGATGGCGTGGGTGACACCCTGGACCTGGTGGTGATCGGCGCCTACCTGGGCCGGGGGAAGCGGGC
CGGCCGGTACGGGGGCTTCCTGCTGGCCTCCTACGACGAGGACAGTGAGGAGCTGCAGGCCATATGCAAGCTTGG
AACTGGCTTCAGTGACGAGGAGCTGGAGGAGCATCACCAGAGCCTCAAGGCCCTGGTGCTGCCCAGCCCACGCCC
TTACGTGCGGATAGATGGCGCTGTGATTCCCGACCACTGGCTGGACCCCAGCGCTGTGTGGGAGGTGAAGTGCGC
TGACCTCTCCCTCTCTCCCATCTACCCTGCTGCGCGGGGCCTGGTGGATAGTGACAAGGGCATCTCCCTTCGCTT
CCCTCGGTTTATTCGAGTCCGTGAAGACAAGCAGCCGGAGCAGGCCACCACCAGTGCTCAGGTGGCCTGTTTGTA
CCGGAAGCAAAGTCAGATTCAGAACCAACAAGGCGAGGACTCAGGCTCTGACCCTGAAGATACCTAC**TAA**GCCCT
CGCCCTCCTAGGGCCTGGGTACAGGGCATGAGTTGGACGGACCCCAGGGTTATTATTGCCTTTGCTTTTTAGCAA
ATCTGCTGTGGCAGGCTGTGGATTTTGAGAGTCAGGGGAGGGGTGTGTGTGTGAGGGGGTGGCTTACTCCGGAGT
CTGGGATTCATCCCGTCATTTCTTTCAATAAATAATTATCGGATAGCT

FIGURE 533

CAAGCAGGGCCTACAAGCCGAGGAGGGCTGTTTAAAGGCGCAGGGGCCATTTTACCCTCCAGGTTGGCCCTGCTC
AGGACCAGGAGGAAACACCTCCAGCCCGCGACCTCCTCCCACAGGGGGAAAAGGAAAGCAGGAGGACCACAGAAG
CTTTGGCACCGAGGATCCCCGCAGTCTTCACCCGCGGAGATTCCGGCTGAAGGAGCTGTCCAGCGACTACACCGC
TAAGCGCAGGGAGCCCAAGCCTCCGCACCGGATTCCGGAGCCCAAGCCTCCGCACCGGATTCCGGAGCACAAGCT
CCACCGCGCATGCGCACACGCCCCAGACCCAGGCTCAGGAGGACTGAGAATTTTCTGACCGCAGTGCACC**ATG**GG
AAGCTCTGAAGTTTCCATAATTCCTGGGCTCCAGAAAGAAGAAAAGGCGGCCGTGGAGAGACGAAGACTTCATGT
GCTGAAAGCTCTGAAGAAGCTAAGGATTGAGGCTGATGAGGCCCCAGTTGTTGCTGTGCTGGGCTCAGGCGGAGG
ACTGCGGGCTCACATTGCCTGCCTTGGGGTCCTGAGTGAGATGAAAGAACAGGGCCTGTTGGATGCCGTCACGTA
CCTCGCAGGGGTCTCTGGATCCACTTGGGCAATATCTTCTCTCTACACCAATGATGGTGACATGGAAGCTCTCGA
GGCTGACCTGAAACATCGATTTACCCGACAGGAGTGGGACTTGGCTAAGAGCCTACAGAAAACCATCCAAGCAGC
GAGGTCTGAGAATTACTCTCTGACCGACTTCTGGGCCTACATGGTTATCTCTAAGCAAACCAGAGAACTGCCGGA
GTCTCATTTGTCCAATATGAAGAAGCCCGTGGAAGAAGGGACACTACCCTACCCGATATTTGCAGCCATTGACAA
TGACCTGCAACCTTCCTGGCAGGAGGCAAGAGCACCAGAGACCTGGTTCGAGTTCACCCCTCACCACGCTGGCTT
CCCTGCACTGGGGGCCTTTGTTTCCATAACCCACTTCGGAAGCAAATTCAAGAAGGGAAGACTGGTCAGAACTCA
CCCTGAGAGAGACCTGACTTTCCTGAGAGGTTTATGGGGAAGTGCTCTTGGTAACACTGAAGTCATTAGGGAATA
CATTTTTGACCAGTTAAGGAATCTGACCCTGAAAGGTTTATGGAGAAGGGCTGTTGCTAATGCTAAAAGCATTGG
ACACCTTATTTTTGCCCGATTACTGAGGCTGCAAGAAAGTTCACAAGGGGAACATCCTCCCCCAGAAGATGAAGG
CGGTGAGCCTGAACACACCTGGCTGACTGAGATGCTCGAGAATTGGACCAGGACCTCCCTGGAAAAGCAGGAGCA
GCCCCATGAGGACCCCGAAAGGAAAGGCTCACTCAGTAACTTGATGGATTTTGTGAAGAAAACAGGCATTTGCGC
TTCAAAGTGGGAATGGGGGACCACTCACAACTTCCTGTACAAACACGGTGGCATCCGGGACAAGATAATGAGCAG
CCGGAAGCACCTCCACCTGGTGGATGCTGGTTTAGCCATCAACACTCCCTTCCCACTCGTGCTGCCCCCGACGCG
GGAGGTTCACCTCATCCTCTCCTTCGACTTCAGTGCCGGAGATCCTTTCGAGACCATCCGGGCTACCACTGACTA
CTGCCGCCGCCACAAGATCCCCTTTCCCCAAGTAGAAGAGGCTGAGCTGGATTTGTGGTCCAAGGCCCCCGCCAG
CTGCTACATCCTGAAAGGAGAAACTGGACCAGTGGTGATGCATTTTCCCCTGTTCAACATAGATGCCTGTGGAGG
TGATATTGAGGCATGGAGTGACACATACGACACATTCAAGCTTGCTGACACCTACACTCTAGATGTGGTGGTGCT
ACTCTTGGCATTAGCCAAGAAGAATGTCAGGGAAAACAAGAAGAAGATCCTTAGAGAGTTGATGAACGTGGCCGG
GCTCTACTACCCGAAGGATAGTGCCCGAAGTTGCTGCTTGGCA**TAG**ATGAGCCTCAGCTTCCAGGGCACTGTGGG
CCTGTTGGTCTACTAGGGCCCTGATGTCCACCTGGCCTTCCTGTTCTTCACTCCCTTCAGCCACACGCTTCATGG
CCTTGAGTTCACCTTGGCTGTCCTAACAGGGCCAATCACCAGTGACCAGCTAGACTGTGATTTTGATAGCGTCAT
TCAGAAGAAGGCGTCCAAGGAGCTGAAGGTGGTGAAATTTGTCCTGCAGGTCCCTCGGGAGATCCTGGAGCTGGA
GCATGAGTGTCTGACAATCAGAAGCATCATGTCCAATGTCCAGATGGCCAGAATGAATGTGATAGTTCAGACCAA
TGCCTTCCACTGCTCCTTTATGACTGCACTTCTAGCCAGTAGCTCTGCACAAGTTAGCTCTGTAGAAGTAAGAAC
TTGGGCTTAAATCATGGGCTATCTCTCCACAGCCAAGTGGAGCTCTGAGAATACAACAAGTGCTCAATAAATGCT
TGCTGATTGACTGATG

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FIGURE 534

GACCGTGGATCGGCTGGAGCGGGGCCGCCGCCGGCTGCAGCAGGAGCTGGACGACGCCACC**ATG**GACCTGGAGCA
GCAGCGGCAGCTTGTGAGCACCCTGGAGAAGAAGCAGCGCAAGTTTGACCAGCTTCTGGCAGAGGAGAAGGCAGC
TGTACTTCGGGCAGTGGAGGAACGTGAGCGGGCCGAGGCAGAGGGCCGGGAGCGTGAGGCTCGGGCCCTGTCACT
GACACGGGCACTGGAGGAGGAGCAGGAGGCACGTGAGGAGCTGGAGCGGCAGAACCGGGCCCTGCGGGCTGAGCT
GGAGGCACTGCTGAGCAGCAAGGATGACGTCGGCAAGAGCGTGCATGAGCTGGAACGAGCCTGCCGGGTAGCAGA
ACAGGCAGCCAATGATCTGCGAGCACAGGTGACAGAACTGGAGGATGAGCTGACAGCGGCCGAGGATGCCAAGCT
GCGTCTGGAGGTGACTGTGCAGGCTCTCAAGACTCAGCATGAGCGTGACCTGCAGGGCCGTGATGAGGCTGGTGA
AGAGAGGCGGAGGCAGCTGGCCAAGCAGCTGAGAGATGCAGAGGTGGAGCGGGATGAGGAGCGGAAGCAGCGCAC
TCTGGCCGTGGCTGCCCGCAAGAAGCTGGAGGGAGAGCTGGAGGAGCTGAAGGCTCAGATGGCCTCTGCCGGCCA
GGGCAAGGAGGAGGCGGTGAAGCAGCTTCGCAAGATGCAGGCCCAGATGAAGGAGCTATGGCGGGAGGTGGAGGA
GACACGCACCTCCCGGGAGGAGATCTTCTCCCAGAATCGGGAAAGTGAAAAGCGCCTCAAGGGCCTGGAGGCTGA
GGTGCTGCGGCTGCAGGAGGAACTGGCCGCCTCGGACCGTGCTCGGCGGCAGGCCCAGCAGGACCGGGATGAGAT
GGCAGATGAGGTGGCCAATGGTAACCTTAGCAAGGCAGCCATTCTGGAGGAGAAGCGTCAGCTGGAGGGGCGCCT
GGGGCAGTTGGAGGAAGAGCTGGAGGAGGAGCAGAGCAACTCGGAGCTGCTCAATGACCGCTACCGCAAGCTGCT
CCTGCAGGTAGAGTCACTGACCACAGAGCTGTCAGCTGAGCGCAGTTTCTCAGCCAAGGCAGAGAGCGGGCGGCA
GCAGCTGGAACGGCAGATCCAGGAGCTACGGGGACGCCTGGGTGAGGAGGATGCTGGGGCCCGTGCCCGCCACAA
GATGACCATTGCTGCCCTTGAGTCTAAGTTGGCCCAGGCTGAGGAGCAGCTAGAGCAAGAGACCAGAGAGCGCAT
CCTCTCTGGAAAGCTGGTGCGCAGAGCTGAGAAGCGGCTTAAAGAGGTGGTGCTCCAGGTGGAGGAGGAGCGGAG
GGTGGCTGACCAGCTCCGGGACCAGCTGGAGAAGGGAAACCTTCGAGTCAAGCAGCTGAAGCGGCAGCTGGAGGA
GGCCGAGGAGGAGGCATCCCGGGCTCAGGCCGGCCGCCGGAGGCTGCAGCGTGAGCTGGAAGATGTCACAGAGTC
GGCCGAGTCCATGAACCGTGAAGTGACCACACTGAGGAACCGGCTTCGACGCGGCCCCCTCACCTTCACCACCCG
CACGGTGCGCCAGGTCTTCCGACTAGAGGAGGGCGTGGCATCCGACGAGGAGGCAGAGGAAGCACAGCCTGGGTC
TGGGCCATCCCCGGAGCCTGAGGGGTCCCCACCAGCCCACCCCCAG**TGA**CCCTACCCTGTCCCCAGATGCACTAA
CAGATGGGGCCCAGCCCCCTTCCTCCCTGGACCCCACGGGCCCCTGTCCCAGGAACCCCGCCCTCTGACTTCTTG
CCCTTTGGAAATGGTGCAGCACTCTGGCATTTATCACCCCCACCTGGGTCCCCTGCAACCTCCCATCAAAGGATG
ACCCCTAAACACAGAGGAGCGGGGCAGGCAGGGAGGCAATGACTGGAGCTACCTTGCTTGTTGGGGGACTGGGTA
CAGTTGGCAAGCTGTGTTTCCATCAGCTCCCTGTCCTCCTTTCTTCCCTCGTTATTGATCTATAGACATTAGGAA
GGGAGTGAGACGGCTCCTCCACCATCCTCAGCCAGTGCAACCCATTCCCTCTGCTTCTCTCTCTCTCTCTCTC
TCCCTCCCTCTCCTTCCCTACCCTCTCACCATCTTTCTTGGCCTCTCTGAGGGTCTCTCTGTGCATCTTTTTAGG
AATCTCGCTCTCACTCTCTACGTAGCCACTCTCCTTCCCCCATTTCTGCGTCCACCCCTGAACTCCTGAGCGACA
GAAGCCCCAGGCCTCCACCAGCCTTGAACCCTTGCAAAGGGGCAGGACAAGGGGACCCCTCTCACTCCTGCTGCT
GCCCATGCTCTGCCCTCCCTTCTGGTTGCTCTGAGGGTTCGGAGCTTCCCTCTGGGACTAAAGGAGTGTCCTTTA
CCCTCCCAGCCTCCAGGCTCTGGCAGAAATAAACTCCAACCCGACTGG

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FIGURE 535

AAGAAGTGGCGAAGTTACTTTTGAGGGTATTTGAGTAGCGGCGGTGTGTCAGGGGCTAAAGAGGAGGACGAAGAA
AAGCAGAGCAAGGGAACCCAGGGCAACAGGAGTAGTTCACTCCGCGAGAGGCCGTCCACGAGACCCCCGCGCGCA
GCCATGAGCCCCGCCCCCCGCTGTTGCTTGGAGAGGGGCGGGACCTGGAGAGAGGCTGCTCCGTGACCCCACC**AT**
GTCCTCTCCTACCACGAGTTCCCTGGATACCCCCCTGCCTGGAAATGGCCCCCCTCAGCCTGGCGCCCCTTCTTC
TTCACCCACTGTAAAGGAGGAGGGTCCGGAGCCGTGGCCCGGGGGTCCGGACCCTGATGTCCCAGGCACTGATGA
GGCCAGCTCAGCCTGCAGCACAGACTGGGTCATCCCAGATCCCGAAGAGGAACCAGAGCGCAAGCGAAAGAAGGG
CCCAGCCCCGAAGATGCTGGGCCACGAGCTTTGCCGTGTCTGTGGGGACAAGGCCTCCGGCTTCCACTACAACGT
GCTCAGCTGCGAAGGCTGCAAGGGCTTCTTCCGGCGCAGTGTGGTCCGTGGTGGGGCCAGGCGCTATGCCTGCCG
GGGTGGCGGAACCTGCCAGATGGACGCTTTCATGCGGCGCAAGTGCCAGCAGTGCCGGCTGCGCAAGTGCAAGGA
GGCAGGGATGAGGGAGCAGTGCGTCCTTTCTGAAGAACAGATCCGGAAGAAGAAGATTCGGAAACAGCAGCAGGA
GTCACAGTCACAGTCGCAGTCACCTGTGGGGCCGCAGGGCAGCAGCAGCTCAGCCTCTGGGCCTGGGGCTTCCCC
TGGTGGATCTGAGGCAGGCAGCCAGGGCTCCGGGGAAGGCGAGGGTGTCCAGCTAACAGCGGCTCAAGAACTAAT
GATCCAGCAGTTGGTGGCGGCCCAACTGCAGTGCAACAAACGCTCCTTCTCCGACCAGCCCAAAGTCACGCCCTG
GCCCCTGGGCGCAGACCCCCAGTCCCGAGATGCCCGCCAGCAACGCTTTGCCCACTTCACGGAGCTGGCCATCAT
CTCAGTCCAGGAGATCGTGGACTTCGCTAAGCAAGTGCCTGGTTTCCTGCAGCTGGGCCGGGAGGACCAGATCGC
CCTCCTGAAGGCATCCACTATCGAGATCATGCTGCTAGAGACAGCCAGGCGCTACAACCACGAGACAGAGTGTAT
CACCTTCTTGAAGGACTTCACCTACAGCAAGGACGACTTCCACCGTGCAGGCCTGCAGGTGGAGTTCATCAACCC
CATCTTCGAGTTCTCGCGGGCCATGCGGCGGCTGGGCCTGGACGACGCTGAGTACGCCCTGCTCATCGCCATCAA
CATCTTCTCGGCCGACCGGCCCAACGTGCAGGAGCCGGGCCGCGTGGAGGCGTTGCAGCAGCCCTACGTGGAGGC
GCTGCTGTCCTACACGCGCATCAAGAGGCCGCAGGACCAGCTGCGCTTCCCGCGCATGCTCATGAAGCTGGTGAG
CCTGCGCACGCTGAGCTCTGTGCACTCGGAGCAGGTCTTCGCCTTGCGGCTCCAGGACAAGAAGCTGCCGCCTCT
GCTGTCGGAGATCTGGGACGTCCACGAG**TGA**GGGGCTGGCCACCCAGCCCCACAGCCTTGCCTGACCACCCTCCA
GCAGATAGACGCCGGCACCCCTTCCTCTTCCTAGGGTGGAAGGGGCCCTGGGCCGAGCCTGTAGACCTATCGGCT
CTCATCCCTTGGGATAAGCCCCAGTCCAGGTCCAGGAGGCTCCCTCCCTGCCCAGCGAGTCTTCCAGAAGGGGTG
AAAGGGTTGCAGGTCCCGACCACTGACCCTTCCCGGCTGCCCTCCCTCCCCAGCTTACACCTCAAGCCCAGCACG
CAGTGCACCTTGAACAGAGGGAGGGGAGGACCCATGGCTCTCCCCCCTAGCCCGGGAGACCAGGGCCTTCCTCTT
CCTCTGCTTTTATTTAATAAAAACTAAAAACAGAAA

FIGURE 536

AGTCAGGGGTCACGGCGGCGTAGGCTGTGGCGGGAAACGCTGTTTGAAGCGGGATGGATGGCAAGCGGCGGCCAG
GCCCAGGGCCCGGGGTGCCCCCAAAGCGGGCCCGTGGGGGCCTCTGGGATGATGATGATGCACCTCGGCCATCCC
AATTCGAGGAGGACCTGGCACTGATGGAGGAGATGGAGGCAGAACACAGGCTGCAGGAGCAGGAGGAGGAGGAGC
TGCAGTCAGTCCTGGAGGGGGTTGCAGACGGGCAGGTCCCACCATCAGCCATAGATCCTCGCTGGCTTCGGCCCA
CACCACCAGCGCTGGACCCCCAGACAGAGCCCCTCATCTTCCAACAGTTGGAGATTGACCATTATGTGGGCCCAG
CGCAGCCTGTGCCTGGGGGGCCCCCACCATCCCGCGGCTCCGTGCCTGTGCTCCGCGCCTTCGGGGTCACCGATG
AGGGGTTCTCTGTCTGCTGCCACATCCACGGCTTCGCTCCCTACTTCTACACCCCAGCGCCCCCTGGTTTCGGGC
CCGAGCACATGGGTGACCTGCAACGGGAGCTGAACTTGGCCATCAGCCGGGACAGTCGCGGGGGGGAGGGAGCTGA
CTGGGCCGGCCGTGCTGGCTGTGGAACTGTGCTCCCGAGAGAGCATGTTTGGGTACCACGGGCACGGCCCCTCCC
CGTTCCTGCGCATCACCGTGGCGCTGCCGCGCCTCGTGGCCCCGGCCCGCCGTCTCCTGGAACAGGGCATCCGTG
TGGCAGGCCTGGGCACGCCCAGCTTCGCGCCCTACGAGGCCAACGTCGACTTTGAGATCCGGTTCATGGTGGACA
CGGACATCGTCGGCTGCAACTGGCTGGAGCTCCCAGCTGGGAAATACGCCCTGAGGCTGAAGGAGAAGGCTACGC
AGTGCCAGCTGGAGGCGGACGTGCTGTGGTCTGACGTGGTCAGTCACCCACCGGAAGGGCCATGGCAGCGCATTG
CGCCCTTGCGCGTGCTCAGCTTCGATATCGAGTGCGCCGGCCGCAAAGGCATCTTCCCTGAGCCTGAGCGGGACC
CTGTCATCCAGATCTGCTCGCTGGGCCTGCGCTGGGGGGAGCCGGAGCCCTTCCTACGCCTGGCGCTCACCCTGC
GGCCCTGTGCCCCCATCCTGGGTGCCAAGGTGCAGAGCTACGAGAAGGAGGAGGACCTGCTGCAGGCCTGGTCCA
CCTTCATCCGTATCATGGACCCCGACGTGATCACCGGTTACAACATCCAGAACTTCGACCTTCCGTACCTCATCT
CTCGGGCCCAGACCCTCAAGGTACAAACATTCCCTTTCCTGGGCCGTGTGGCCGGCCTTTGCTCCAACATCCGGG
ACTCTTCATTCCAGTCCAAGCAGACGGGCCGGCGGGACACCAAGGTTGTCAGCATGGTGGGCCGCGTGCAGATGG
ACATGCTGCAGGTGCTGCTGCGGGAGTACAAGCTCCGCTCCTACACGCTCAATGCCGTGAGCTTCCACTTCCTGG
GCGAGCAGAAGGAGGACGTGCAGCACAGCATCATCACCGACCTGCAGAATGGGAACGACCAGACCCGCCGCCGCC
TGGCTGTGTACTGCCTGAAGGATGCCTACCTGCCACTGCGGCTGCTGGAGCGGCTCATGGTGCTGGTGAACGCCG
TGGAGATGGCGAGGGTCACTGGCGTGCCCCTCAGCTACCTGCTCAGTCGTGGCCAGCAGGTCAAGGTCGTATCCC
AGCTGTTGCGGCAGGCCATGCACGAGGGGCTGCTGATGCCCGTGGTGAAGTCAGAGGGCGGCGAGGACTACACGG
GAGCCACTGTCATCGAGCCCCTCAAAGGGTACTACGACGTCCCCATCGCCACCCTGGACTTCTCCTCGCTGTACC
CGTCCATCATGATGGCCCACAACCTGTGTTACACCACGCTCCTTCGGCCCGGGACTGCACAGAAACTGGGCCTGA
CTGAGGATCAGTTCATCAGGACCCCCACCGGGGACGAGTTTGTGAAGACCTCAGTGCGGAAGGGGCTGCTGCCCC
AGATCCTGGAGAACCTGCTCAGTGCCCGGAAGAGGGCCAAGGCCGAGCTGGCCAAGGAGACAGACCCCCTCCGGC
GCCAGGTCCTGGATGGACGGCAGCTGGCGCTGAAGGTGAGCGCCAACTCCGTATACGGCTTCACTGGCGCCCAGG
TGGGCAAGTTGCCGTGCCTGGAGATCTCACAGAGCGTCACGGGGTTCGGACGTCAGATGATCGAGAAAACCAAGC
AGCTGGTGGAGTCTAAGTACACAGTGGAGAATGGCTACAGCACCAGTGCCAAGGTGGTGTATGGTGACACTGACT
CCGTCATGTGCCGATTCGGCGTGTCCTCGGTGGCTGAGGCGATGGCCCTGGGGCGGGAGGCCGCGGACTGGGTGT
CAGGTCACTTCCCGTCGCCCATCCGGCTGGAGTTTGAGAAGGTCTACTTCCCATACCTGCTTATCAGCAAGAAGC
GCTACGCGGGCCTGCTCTTCTCCTCCCGGCCCGACGCCCACGACCGCATGGACTGCAAGGGCCTGGAGGCCGTGC
GCAGGGACAACTGCCCCCTCGTGGCCAACCTGGTCACTGCCTCACTGCGCCGCCTGCTCATCGACCGAGACCCTG
AGGGCGCGGTGGCTCACGCACAGGACGTCATCTCGGACCTGCTGTGCAACCGCATCGATATCTCCCAGCTGGTCA
TCACCAAGGAGCTGACCCGCGCGGCCTCCGACTATGCCGGCAAGCAGGCCCACGTGGAGCTGGCCGAGAGGATGA
GGAAGCGGGACCCCGGGAGTGCGCCCAGCCTGGGCGACCGCGTCCCCTACGTGATCATCAGTGCCGCCAAGGGTG
TGGCCGCCTACATGAAGTCGGAGGACCCGCTGTTCGTGCTGGAGCACAGCCTGCCCATTGACACGCAGTACTACC
TGGAGCAGCAGCTGGCCAAGCCCCTCCTGCGCATCTTCGAGCCCATCCTGGGCGAGGGCCGTGCCGAGGCTGTGC
TACTGCGGGGGGACCACACGCGCTGCAAGACGGTGCTCACGGGCAAGGTGGGCGGCCTCCTGGCCTTCGCCAAAC
GCCGCAACTGCTGCATTGGCTGCCGCACAGTGCTCAGCCACCAGGGAGCCGTGTGTGAGTTCTGCCAGCCCCGGG
AGTCTGAGCTGTATCAGAAGGAGGTATCCCATCTGAATGCCCTGGAGGAGCGCTTCTCGCGCCTCTGGACGCAGT
GCCAGCGCTGCCAGGGCAGCCTGCACGAGGACGTCATCTGCACCAGCCGGGACTGCCCCATCTTCTACATGCGCA
AGAAGGTGCGGAAGGACCTGGAAGACCAGGAGCAGCTCCTGCGGCGCTTCGGACCCCCTGGACCTGAGGCCTGGTGA
CCTTGCAAGCATCCCATGGGGCGGGGGCGGGACCAGGGAGAATTAATAAAGTTCTGGACTTTTGCT

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FIGURE 537

GCCTCCTTCCGTCTGTAACTCACCTAAAGACCCAAGACCTGCGACATCCGTAGACCGCGCCCGCTATGCACAGCT
AAAGAGCACTCACCCCTCGCGCACCAGTCCCGGCCCGGCAGCCGCTGCCCCGGGCTCGACTGGGCGCTGCTACCG
CCATCAGCAAGAGCAGGAGCAGCCGGGTTGCCCCAGCGCTGGCTGCCGCCATCTCGGCTTCTTCCCACCAGCGAA
GGGACGGCTGTGAGCCAAGAGCCGCGGAGCACGCCGGGAGGAACAGGCCGCATCCTGACGCCCGTGCGCCTGCGC
TGGGCCCCGGCACCTGCGCACTGGCACCCGTCCGCACCTGGGGCCTGACGTCAGCAGG**ATG**GGGCCGCCCCTTTG
GCCTGATCTCCAGGAGCCGCCCCCTCCAGGGACGTCATCACAAATCAGGAGCCCGCTCTTGTGTGACGTCATAAA
GCCCGCTCCGCATCATGACGTCACAGTGCGCGTAGTCCCGCCCCCTCGCTTTCTCCCTCTGCTCCTCCGTCCGCT
CCCGTCGGACGGGGACATTGCAATGAGGCGGGATCGCGGCCCTAAGCCGGCCCTGGGTGGAGCTGGCGAGGTGGA
ACCAGGTGGGATGGCAGCCTCTCCCACGGGCCGTCCCAGACGGCTCCAACGCTACCTCCAGAGCGGCGAATTCGA
CCAGTTTCGGGACTTCCCCATCTTTGAGAGCAACTTCGTACAGTTCTGCCCCGACATCTATCCTGCCCCGACCTC
TGACCTCTGGCCCCAGGTGACTCGGTTGGGAGAAGTTGCCAACGAGGTCACCATGGGGGTGGCAGCCTCCAGTCC
AGCCCTGGAGCTCCCGGACCTATTGCTTCTGGCCGGCCCTGCCAAGGAGAACGGACACCTGCAACTCTTCGGGCT
GTTCCCCTTGAAGTTCGTCCAGCTCTTTGTCCACGACAAAAGCCGGTGTCAGCTCGAGGTCAAGTTGAACACCAG
CCGCACCTTCTACTTGCAGCTGCGGGCCCCACTCAAGACCCGAGACCGAGAGTTCGGCCAGTGGGTGCGGCTGCT
CTACCGCCTGCGCTTCCTCTCTGCTTCTGCTGTGCCCTTCACGCAGGAG**TAA**GAGCCCCAAGGCGTGGAAGCCAG
ACTTGACCCCAAGACCTCTGAACTCTGGGGACTCTGAGTCTTCCAGCATCCTTCAAGGTCACCGAATGACCAGAG
ATCAAAGTACCTTGCCTCAGGGCCGGGCAGATGAGATATTAAAGTTAATAAAGGTCAGTCCATTAAGAACCAA

FIGURE 538

GCCGTCCCTTCGCTGGTGGGAAGAAGCCGAGATGGCGGCAGCCAGCGCTGGGGCAACCCGGCTGCTCCTGCTCTT
GCTGATGGCGGTAGCAGCGCCCAGTCGAGCCCGGGGCAGCGGCTGCCGGGCCGGGACTGGTGCGCGAGGGGCTGG
GGCGGAAGGTCGAGAGGGCGAGGCCTGTGGCACGGTGGGGCTGCTGCTGGAGCACTCATTTGAGATCGATGACAG
TGCCAACTTCCGGAAGCGGGGCTCACTGCTCTGGAACCAGCAGGATGGTACCTTGTCCCTGTCACAGCGGCAGCT
CAGCGAGGAGGAGCGGGGCCGACTCCGGGATGTGGCAGCCCTGAATGGCCTGTACCGGGTCCGGATCCCAAGGCG
ACCCGGGGCCCTGGATGGCCTGGAAGCTGGTGGCTATGTCTCCTCCTTTGTCCCTGCGTGCTCCCTGGTGGAGTC
GCACCTGTCGGACCAGCTGACCCTGCACGTGGATGTGGCCGGCAACGTGGTGGGCGTGTCGGTGGTGACGCACCC
CGGGGGCTGCCGGGGCCATGAGGTGGAGGACGTGGACCTGGAGCTGTTCAACACCTCGGTGCAGCTGCAGCCGCC
CACCACAGCCCCAGCCCTGAGACGGCGGCCTTCATTGAGCGCCTGGAGATGGAACAGGCCCAGAAGGCCAAGAAC
CCCCAGGAGCAGAAGTCCTTCTTCGCCAAATACTGGATGTACATCATTCCCGTCGTCCTGTTCCTCATGATGTCA
GGAGCGCCAGACACCGGGGGCCAGGGTGGGGGTGGGGGTGGGGGTGGTGGTGGGGGTAGTGGCCGGTGAGGGCCC
AGGCTGGTCAGCGTCCCGTCTTGCACACCCAGGGGCCTCCCTTTCTGCTGGAGTCCCCTGTGTCCTCAGCCATCC
CAAGAAGGGTTTGCTGGTCCCTCCTTTCCCCCCGTCCCACGAGGCCACCTGGGCCAGCCCCTTGTCCTCTGCCTT
CTGCTGGCAGAGGAGCAGCTGGACTGGGGCCTTTGGCACAGCAGCCGGTGTCTCCTGCGCCCGCCTCCCCCATGG
CCCCATGCAGCCCCAGGGGCTTCCCCCCTGCCCATGGAGTAGAGCCCGAGATCCTGGCCACTATGCCAGTTCTGA
CCTCGCATCCCCCTACCCCGAGCCCATGCAGTCTGGGAACATGCCGCCTTCTCTCCAGCCTCTGTGCCTTTGTTC
CAGGTGGTCTCACCCTCCTGTCCCTGGCTGGGCTAGGTGGTCCTGTCCAGGCTCCTGCAGCGCCCCCCTCACTTT
GACACTGGACTAGGATGCAGCCTCCCTTCTGTGTCCCCTTGAGGGTACCCTGGGTCCCCTCATCAGGGGCAGAGG
CATGAAAGAGTCGGGGCTGGATGGCCGGGGGCTTCTGGGCCCGACGCCTAGTGCAGCCCCTGGGGTCGTGGTTTG
ACATTTGTCTGCCTGGTGCAAACAAGGAATCCTTGCCTTTAAGGTGACAGGCCCTCCACAGGCTTCCAGACTTGA
AGGAAAAGGTTTAAGAAAGAAAACAAAACCAACAGTTAGTGGAGTCAAAGCCCAGACACTGTAAATAGAACCCCC
TCCACCACCCCCCGCCGCCCAGCATCCTACCTGGACTGCGGTGCTACGAGGGCCTGCGGGCCTTTGCTGTGTGCC
ACCCTCCCTGTAAGTCTATTTAAAAACATCGACGATACATTGAAATGTGTGAACGTTTTGAAAAGCTACAGCTTC
CAGCAGCCAAAAGCAACTGTTGTTTTGGCAAGACGGTCCTGATGTACAAGCTTGATTGAAATTCACTGCTCACTT
GATACGTTATTCAGAAACCCAAGGAATGGCTGTCCCCATCCTCATGTGGCTGTGTGGAGCTCAGCTGTGTTGTGT
GGCAGTTTATTAAACTGTCCCCCAGATCGACACGC

FIGURE 539

ATGGAGGGAAGTGTCCTGCAGGGGGCGCTGTTGGTCCTTCAGGCAAGGTCGGGTTCCCTCGAAGTCTCTGTCTTA
GCAGTTGCTGGTCTTCAGAAACATTGGGCACCAATTTTCTCATTTCTGAAATGGAATTCAGGGCGCAGCCACCCC
GGGGCCATCTCTGTGACCCAGGGAGAGAAAGGACAACGAATGGGACTAGACGAGGATGGGGAGGAACAGAGCAGC
TGTGGAAGGAGAGACCAAGCAAATCAGAAAGAGAAAGGAACTGGGGCAGAAGGGACAGGAAAGCAAGAAGGATGG
AAAGTGCAGACGCGGTTAGGGGAATTGCCTGCCAAGCATCAGGTGCTTAATAATTGCCCGTTTCTTCCATGGAAG
GAGCCAGAGGCACAGGAGGAACAAGTAGAGGGCGCCGAGGACGGCACACCCGAGGCGGGCACACCCGAGGACGGC
ACACCCGTGGCGGGAGATGGAGTGTCTCCCAGGCTGCCCTTGGAGGTCCCGCCTGGTTGGGTTCCTGGCCGGGAC
CCACCCTCCTCCTTCATCACCTCCTCAAATAACTCTGGCGATAAACAGCCGTGGCGTTCCAGGTCTCATCCGGGA
TGA

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FIGURE 540

CTTCAGGGCCACGCGGCCCGGGCGTTCCGTGTGGAGCAGGAGTCCCGCGGGGCCCCACGGGAGTCGTAGTCCGGC
GCGCGGGGATCACCGGGAGCTGTAGTCCGTCCCGCCTGCCCAGTCAGCGCGGTGTTGCCCGCCCCGCACTCGGAG
CCCAGAGCCGCCGCCCAGGAAGGGGATGCGGAAACCCCTGGCTCGGTGGAGCGGAGAGGCAGGCGGGCAGGAGCC
GAGGACGGC**ATG**TCCCAGGCCCCGGGAGCACAGCCGAGCCCACCCACCGTGTACCACGAACGGCAGCGCCTGGAG
CTGTGTGCTGTCCACGCCCTCAACAACGTTCTGCAGCAGCAGCTCTTTAGCCAGGAGGCTGCCGATGAGATCTGC
AAGAGGTTGGCCCCAGACTCCCGGCTGAACCCTCATCGCAGCCTCCTGGGCACCGGCAACTATGATGTCAATGTG
ATCATGGCCGCTCTGCAGGGGCTGGGCCTGGCCGCCGTGTGGTGGGACAGGAGGAGGCCCCTGTCCCAGCTGGCC
CTGCCCCAGGTACTGGGGCTGATCCTGAACCTGCCCTCGCCCGTGTCGCTGGGGCTGCTGTCACTGCCGCTGCGC
CGGCGGCACTGGGTGGCCCTGCGCCAGGTGGACGGTGTCTACTACAACCTGGACTCCAAGCTGCGGGCGCCCGAG
GCCCTGGGGGATGAGGACGGAGTCAGGGCCTTCCTGGCGGCTGCGCTGGCCCAGGGCCTGTGCGAGGTGCTGCTG
GTAGTGACCAAGGAGGTGGAGGAGAAGGGCAGCTGGCTGCGGACAGAC**TGA**CCATGGCTGACCATCGGCGCCCAC
AGCGCAGTCCCTGCGCATCCCCCTCCGGCTGCGCACACTGCATGCCTGGGAAAGGCCAGCACTTCATGGACCCTG
GGGAGGCCCCGCCCCCTCCCCACACCCCTGCTCCCCACTGCCGCTGCTGCCTCAATAAATCTGCTGATTTGC

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FIGURE 541

GCTGCCGCAGCCTGCGCCATTTCCGATGCCAGGCACCCTCAAGGCACAGAGGCTGGGGCTCATGTTGGGGGCACT
TGGCCTCTCCAGGCCTCGAAGGCTTCTCCTGGGCTGACGCGAGCTGGGGAACGGGAGGGACGGACGTGGGAGCGA
GAACGTCACACTGGAGGCAGCTGGTGGCACG**ATG**GGGGACAGAGTGAAAGGTAGCAAGTCAAGGCGCCCTGATCT
GGTTGTGGAAGTGGCCCATCCCAAAATAATCCATGAATCTGGGGCACAAATCCTGCGCCATGCCAATCTCCTGAG
CCTTCGTGTCACCATGGCCACACACCCCGATGGCTTCCGGCTTGAGGGACCCCTGGCTGCAGCCCACAGCCCTGG
GCCTTGCACTGTGCTCTACGAAGGCCCTGTCCGTGGGCTCTGCCCCTTTGCCCCGCGAAATTCCAACACCATGGC
GGCGGCTGCCCTGGCTGCCCCCAGCCTGGGCTTCGATGGGGTGATTGGGGTGCTCGTGGCTGATACCAGCCTCAC
GGACATGCACGTGGTGGATGTAGAGCTGAGCGGACCCCGGGGCCCCACGGGCCGAAGCTTTGCTGTGCACACCCG
CAGAGAGAACCCTGCCGAGCCAGGCGCGGTCACCGGCTCCGCCACCGTCACGGCCTTCTGGCAGAGCCTCCTGGC
CTGCTGCCAGCTCCCCTCCAGGCCGGGGATCCATCTCTGC**TGA**GAAGCCTCCTCCCTCCCGAGACAAGATCATCT
GCCTGGCCTCTCACCACCACCATCCCACCCCTGCCCTGCCCCACTTCCCCAGGGTCTCCCTTCTGACTCAGTAAA
GATCACCGCTGCCTCCCCC

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FIGURE 542

ATGGGGGTGGGGGGATGCGGGCTGGCAGCGGGAGAGCTGGGGACAGATGCGGAGCCCTCCCTTCACCTGCCCACA
CCTGTCACCTCCACGGTTGCCTTGTCTGCCACCTTACCTCTCTCTCCCTCAGATTCTCCCATGAGTCTGACTCAA
GTCTCTGAAGCTGCTGTGAGGCCCCCACAGGGCCTGGACAGGCCTCTCCCCCTTCTCTCCCCCACCCACAGCCCC
CCAGCGTCCACGCGGAGCATGAACATTGAGGATGGCGCGTGCCCGCGGCTCCCCGTGCCCCCCGCTGCCGCCCGC
AACCAGGCCAGCCGGGTGATCTGCACACGGAGAGACCTGGCCGAGGTCCCAGCCAGCATCCCGGTCAACACGCGG
TACCTGAACCTGCAAGAGAACGGCATCCAGGGTGGGAGGACTTGGCTGCTCCCATCTGACCATCCTGAGAGCCAG
ATTCAGGGAAGAAAAGGGACCTCTCAGGGGAGCAGTCCCTTCCTGGTGGCTGTGGGGCAAGGGCCAGCGAAGGGG
TCCAGAAACGGGTTCTTGCACCGCCCCCTGCCCCACCCAGAGACATGGATGGAGGGTGTGTTCGTCCAGTCCACG
AGAGTGGATGCTTCTGGGTCACTGCGTGCTGAGCGCCGAGCAGCCTCAGGCTGTCCGCCTGTGGCCACGCTGTTG
TCACGGTCCTCTGTCCAGAGGCACCAAGGAGACTTGGAAAACACTGTGGGCTGGAGCCCCAGGTGCACGCTCCCC
GGGACCGGCAGCCCTGCTGAGTCACTTGACTTCACCGAGCCTTGGTCTCCTGTCTCTGAAATGACGTGTGATGCT
CACCTCCAGGGCTGCCGGGGGAGTCAGCAGGAGCCTGGGGTGCCGCAGAGGCTCCGGGAGCTGCAGGCAGGAGCG
ATCAGTGATGACCGGGACCTCCTCCTCCTGTTACTATTATTGATGTTATTATTATTAATAGAAATAGCAACCGAG
TGCCTGCTTTATCAATCACCAGCATTTCCCAGGGAGGTGATAAGCTGCGTTTGGGCATGGTACAAGTTTCTCAAC
GCCAACGATAACGATAACAATGAGAATGACGACGTGCTGAGCACCCCTGAACACTGGGACCTCATCTCCTCTCCC
TCACCCTCTGAAGTGCTTTTCATCATCCTCCTCGTGGTGATCCGGACGGACACGTTCAAGCACCTGCGGCACCTG
GAGATTCTGCAGCTGAGCAAGAACCTGGTGCGCAAGATCGAGGTGGGCGCCTTCAACGGGCTGCCCAGCCTCAAC
ACGCTGGAGCTTTTTGACAACCGGCTGACCACGGTGCCCACGCAGGCCTTCGAGTACCTGTCCAAGCTGCGGGAG
CTCTGGCTGCGGAACAACCCCATCGAGAGCATCCCCTCCTACGCCTTCAACCGCGTGCCCTCGCTGCGGCGCCTG
GACCTGGGCGAGCTCAAGCGGCTGGAATACATCTCGGAGGCGGCCTTCGAGGGGCTGGTCAACCTGCGCTACCTC
AACCTGGGCATGTGCAACCTCAAGGACATCCCCAACCTGACGGCCCTGGTGCGCCTGGAGGAGCTGGAGCTGTCG
GGCAACCGGCTGGACCTGATCCGCCCGGGCTCCTTCCAGGGTCTCACCAGCCTGCGCAAGCTGTGGCTCATGCAC
GCCCAGGTAGCCACCATCGAGCGCAACGCCTTCGACGACCTCAAGTCGCTGGAGGAGCTCAACCTGTCCCACAAC
AACCTGATGTCGCTGCCCCACGACCTCTTCACGCCCCTGCACCGCCTCGAGCGCGTGCACCTCAACCACAACCCC
TGGCATTGCAACTGCGACGTGCTCTGGCTGAGCTGGTGGCTCAAGGAGACGGTGCCCAGCAACACGACGTGCTGC
GCCCGCTGTCATGCGCCCGCCGGCCTCAAGGGGCGCTACATTGGGGAGCTGGACCAGTCGCATTTCACCTGCTAT
GCGCCCGTCATCGTGGAGCCGCCCACGGACCTCAACGTCACCGAGGGCATGGCTGCCGAGCTCAAATGCCGCACG
GGCACCTCCATGACCTCCGTCAACTGGCTGACGCCCAACGGCACCCTCATGACCCACGGCTCCTACCGCGTGCGC
ATCTCCGTCCTGCATGACGGCACGCTTAACTTCACCAACGTCACCGTGCAGGACACGGGCCAGTACACTGGTGGT
GTTGGAGGGGGCAGTGGCGGCTACACCTACTTCACCACGGTGACCGTGGAGACCCTGGAGACGCAGCCCGGAGAG
GAGGCCCTGCAGCCGCGGGGGACGGAGAAGGAACCGCCAGGGCCCACGACAGACGGTGTCTGGGGTGGGGGCCGG
CCTGGGGACGCGGCCGGCCCTGCCTCGTCTTCTACCACGGCACCCGCCCCGCGCTCCTCGCGGCCCACGGAGAAG
GCGTTCACGGTGCCCATCACGGATGTGACGGAGAACGCCCTCAAGGACCTGGACGACGTCATGAAGACCACCAAA
ATCATCATCGGCTGCTTCGTGGCCATCACGTTCATGGCCGCGGTGATGCTCGTGGCCTTCTACAAGCTGCGCAAG
CAGCACCAGCTCCACAAGCACCACGGGCCCACGCGCACCGTGGAGATCATCAACGTGGAGGACGAGCTGCCCGCC
GCCTCGGCCGTGTCCGTGGCCGCCGCGGCCGCCGTGGCCAGTGGGGGTGGTGTGGGCGGGGACAGCCACCTGGCC
CTGCCCGCCCTGGAGCGAGACCACCTCAACCACCACCACTACGTGGCTGCCGCCTTCAAGGCGCACTACAGCAGC
AACCCCAGCGGCGGGGGCTGCGGGGGCAAAGGCCCGCCTGGCCTCAACTCCATCCACGAACCTCTGCTCTTCAAG
AGCGGCTCCAAGGAGAACGTGCAAGAGACGCAGATC**TGA**

FIGURE 543

ACTCTATGTCTCCTCTCGTTGGATTGTGACACCGGGAGGTCAGGGAACTCCAGGACCTTGTTCTCTGCTGGATTC
GCAGCAACCAGCACAGCACGTAGGGCGTAGTTGGTGCTGGATGGATGTTTGTTGAATGAATGAATGATGAATGGC
TGGCACCTTGTCTGCTCATCCCTAACTCCTGTTCCTTCATCTGTGCAGCCCTAATCTTTGTTTCCTCATCTGTCC
ATCCCTTTATTTGTGCATCCTCATTCTTAGCCCCTTCACTGCCCTTCTCCATCTCTTCCTCCTTGTTCATTTGTC
CCTGTTCTCTGTCCTCTACTCCACTCATGCCCATCTCTGTCCCCTTGACTTACCCAGTCCCTGCTACTATCTCCA
TCCCTAATTTCTGCCCTCTTGTCTGTCTACTCCTAATTCCTTTTCCTTGTCCATCCCTAATACCTGTCACCTTGT
CCTTCTTCCTCGAATCTCCATCCCTAATCCATCTGCCCCTAATCTCTGTCCCCTTTGCCCATCCTTCCTTTTCTC
GGTGTCTCTTTCCACCCTTATCTCCACACCTGCCCACCCTGCACTCCCATTCTGTTTCCCATCTGCACCCTTGCC
CCATCCCTCCCACACACAGGACCAGACGGCCACC**ATG**TCAGGAGACTACGAGGATGACCTCTGCCGGCGGGCACT
CATCCTGGTCTCGGACCTCTGTGCGCGGGTCCGAGATGCTGACACCAACGACAGGTGCCAGGAGTTCAATGACCG
AATCCGAGGCTATCCCCGGGGTCCAGATGCAGACATCTCCGTGAGCCTGCTGTCGGTCATCGTGACATTCTGTGG
CATTGTCCTTCTGGGTGTCTCTCTCTTCGTGTCCTGGAAGTTGTGCTGGGTGCCCTGGCGGGACAAGGGAGGCTC
GGCAGTGGGCGGTGGCCCCCTGCGCAAAGACCTAGGCCCTGGTGTCGGGCTGGCAGGCCTGGTAGGCGGAGGCGG
GCACCACCTGGCGGCTGGCCTGGGTGGCCATCCTCTGCTGGGCGGCCCACACCACCATGCCCATGCCGCCCACCA
TCCACCCTTTGCTGAGCTGCTGGAGCCAGGCAGCCTGGGGGGTTCTGACACCCCTGAGCCCTCCTACTTGGACAT
GGACTCGTATCCAGAGGCTGCAGCAGCAGCAGTGGCCGCTGGGGTCAAACCGAGCCAAACATCCCCTGAGCTGCC
CTCTGAGGGGGGAGCAGGCTCTGGGTTGCTCCTGCTGCCCCCCAGTGGTGGGGGCTTGCCCAGTGCCCAGTCACA
TCAGCAGGTCACAAGCCTGGCACCCACTACCAGGTACCCAGCCCTGCCCCGACCCCTCACCCAGCAGACTCTGAC
CTCCCAGCCGGACCCCAGCAGTGAGGAGCGGCCACCTGCCCTGCCCTTACCCCTGCCTGGAGGCGAGGAAAAAGC
CAAACTCATTGGGCAGATTAAGCCAGAGCTGTACCAGGGGACTGGCCCTGGTGGCCGGCGGAGCGGTGGGGGCCC
AGGCTCTGGAGAGGCAGGCACAGGGGCACCCTGTGGCCGTATCAGCTTCGCCCTGCGGTACCTCTATGGCTCGGA
CCAGCTGGTGGTGAGGATCCTGCAGGCCCTGGACCTCCCTGCCAAGGACTCCAACGGCTTCTCAGACCCCTACGT
CAAGATCTACCTGCTGCCTGACCGCAAGAAAAAGTTTCAGACCAAGGTGCACAGGAAGACCCTGAACCCCGTCTT
CAATGAGACGTTTCAATTCTCGGTGCCCCTGGCCGAGCTGGCCCAACGCAAACTGCACTTCAGCGTCTATGACTT
TGACCGCTTCTCGCGGCACGACCTCATCGGCCAGGTGGTGCTGGACAACCTCCTGGAGCTGGCCGAGCAGCCCCC
TGACCGCCCGCTCTGGAGGGACATCGTGGAGGGCGGCTCGGAAAAAGCAGATCTTGGGGAGCTCAACTTCTCACT
CTGCTACCTCCCCACGGCCGGGCGCCTCACCGTGACCATCATCAAAGCCTCTAACCTCAAAGCGATGGACCTCAC
TGGCTTCTCAGACCCCTACGTGAAGGCCTCCCTGATCAGCGAGGGGCGGCGTCTGAAGAAGCGGAAAACCTCCAT
CAAGAAGAACACGCTGAACCCCACCTATAATGAGGCGCTGGTGTTCGACGTGGCCCCCGAGAGCGTGGAGAACGT
GGGGCTCAGCATCGCCGTGGTAGACTACGACTGCATCGGGCACAACGAGGTGATCGGCGTGTGCCGTGTGGGCCC
CGACGCTGCCGACCCGCACGGCCGCGAGCACTGGGCAGAGATGCTGGCCAATCCCCGCAAGCCCGTGGAGCACTG
GCATCAGCTAGTGGAGGAAAAGACTGTGACCAGCTTCACAAAAGGCAGCAAAGGACTATCAGAGAAAGAGAACTC
CGAG**TGA**GGGGTCTGGCCTAGGCCCGGGATCGGACCAGGCTCCCTCAGGACCCCATCCTTTCCTGCCCGGACCGT
GAATTCATCTCCTTGAAGCCATAACGTCCGAGCTGCTGGTGCGGGGCAGCCCTGGCCCTAGGCTTCCTAACCCTG
GAAGCGAGAGGATGAGAGGAGGCCGGCCCAGCTCCTTCTTTCAGGGTGGGGGTCATTCAGCCTCCACTGTGTCTG
TCTTTTCTTCCCTGGGGCTCCCCCTCGAGGCGAGGGGCCATGCATGTCTGGGGGACCCCTGCCCCCCAAAACCCT
CTGTCTGTCTCTGTCTCTTTGCTGTTTGTCCAAGACTCAGTGTCCCGACCCTTGTTCTCGCCGTGAATGTCAATG
GGCCAATCCTCTCTGTCCTTTCAGACACACACACACCTGTGTCCACCCCTTCTGTTCGCCACACCCCTGCGTCTG
GCCGGTCCCCCCACTGCTGCTGCTATCAACGCCAGAATAAACACACTCTGTGGGTCTCACTCC

FIGURE 544A

GTCGCCCCGTGGCCCCACA**ATG**ACCCACAGCCCCGCGACAAGCGAGGACGAGGAACGCCACAGTGCCAGCGAGTG
TCCCGAGGGGGGCTCAGAGTCCGACAGCTCCCCAGACGGGCCAGGTCGAGGCCCCCGGGGGACCCGGGGCCAGGG
CAGTGGGGCACCTGGTAGCCTGGCCTCTGTTAGAGGCCTCCAGGGCCGCTCAATGTCCGTCCCAGACGACGCCCA
CTTCAGCATGATGGTCTTCAGGATTGGCATCCCGGACCTGCACCAGACAAAATGCCTTCGCTTCAACCCCGATGC
CACCATCTGGACGGCCAAGCAGCAGGTGCTCTGTGCCCTGAGCGAGAGCCTGCAGGATGTGCTCAACTATGGCCT
GTTCCAACCGGCCACCTCCGGCCGCGATGCCAACTTCCTGGAGGAGGAGAGGCTGCTGCGGGAGTACCCCCAGTC
CTTTGAGAAGGGGGTCCCCTACCTGGAGTTCCGATACAAGACCCGAGTTTACAAACAGACCAACCTGGATGAGAA
GCAGCTGGCCAAGTTGCACACGAAGACGGGGTTGAAGAAGTTCCTGGAGTATGTGCAGCTCGGGACATCTGACAA
GGTGGCGCGGCTGCTGGACAAGGGGCTGGACCCCAATTACCATGACTCGGATTCGGGAGAGACCCCCTTGACACT
GGCGGCCCAGACCGAAGGCTCTGTAGAGGTGATTCGAACCCTGTGCCTGGGCGGGGCCCACATTGACTTCCGGGC
CCGGGATGGCATGACCGCACTGCATAAGGCCGCATGCGCCCGACACTGCCTGGCACTCACGGCGCTCCTGGACCT
TGGGGGTTCCCCCAACTACAAGGACCGTCGGGGGCTGACCCCTCTGTTCCACACGGCCATGGTGGGTGGTGACCC
CCGATGCTGCGAGCTGCTCCTGTTCAACAGGGCCCAGCTGGGCATAGCTGATGAGAACGGCTGGCAGGAAATCCA
CCAGGCCTGCCAGCGGGGTCACTCTCAGCACCTGGAGCATCTGCTTTTCTACGGGGCTGAGCCTGGAGCCCAGAA
CGCCTCGGGGAACACGGCTCTGCACATCTGCGCCCTCTACAACAAGGAGACCTGTGCCAGGATCCTCCTGTATCG
AGGTGCCGACAAGGATGTGAAGAACAACAACGGACAGACCCCCTTCCAGGTGGCAGTGATTGCTGGGAATTTTGA
GCTGGGGGAGCTGATCCGAAACCACCGAGAACAGGATGTGGTGCCCTTCCAGGAGTCCCCCAAGTACGCGGCCCG
GCGACGGGGGCCCCCAGGCACAGGGCTGACGGTGCCCCCGGCGCTGCTGCGGGCCAACAGTGACACCAGCATGGC
GCTGCCCGACTGGATGGTGTTCTCCGCCCCGGGGGCCGCGTCCTCTGGGGCCCCTGGCCCTACCTCAGGGTCCCA
GGGCCAGTCGCAGCCCTCGGCCCCCACCACCAAGCTCAGCAGCGGGACCCTCCGAAGTGCCAGCAGCCCCCGGGG
TGCCAGGGCCCGCTCTCCATCCCGAGGGAGGCACCCTGAGGACGCCAAGAGGCAGCCCCGAGGCCGGCCCAGCTC
CAGCGGGACACCCCGGGAAGGGCCAGCCGGGGGCACGGGGGGCTCAGGGGGCCCCGGGGGCTCCCTGGGCAGCCG
CGGGAGGCGGAGGAAGCTCTACTCAGCGGTACCCGGACGCTCCTTCATGGCTGTGAAGTCCTACCAGGCCCAAGC
CGAGGGGGAGATCTCCCTGAGCAAGGGCGAGAAGATCAAAGTACTTAGCATCGGGGAAGGAGGCTTCTGGGAAGG
CCAGGTCAAAGGTCGTGTTGGCTGGTTCCCCTCTGACTGCCTGGAAGAAGTGGCGAATCGCTCTCAGGAGAGCAA
GCAAGAAAGCCGCAGTGACAAGGCAAAGAGACTCTTCCGGCATTATACCGTGGGCTCCTACGACAGCTTTGATGC
CCCAAGCTTAATGGATGGGATTGGCCCAGGGAGCGATTACATCATTAAGGAGAAGACAGTCTTGCTGCAGAAGAA
GGACAGTGAGGGGTTTGGGTTCGTGCTCCGGGGGGCCAAGGCGCAGACCCCCATCGAGGAGTTCACCCCCACCCC
GGCCTTCCCGGCGCTGCAGTACCTGGAGTCGGTGGACGAGGGTGGCGTGGCATGGCGAGCTGGACTGCGAATGGG
AGACTTCCTCATCGAGGTGAACGGGCAGAATGTGGTGAAGGTCGGCCACCGACAGGTGGTGAACATGATCCGCCA
AGGGGGCAACACGCTGATGGTGAAGGTGGTGATGGTCACCAGGCACCCGGACATGGATGAGGCAGTGCACAAGAA
AGCACCCCAGCAGGCCAAGCGGCTGCCGCCCCCAACCATCTCCCTGCGTTCCAAATCTATGACCTCAGAGCTGGA
GGAGATGGAGTACGAGCAGCAGCCGGCGCCGGTGCCCAGCATGGAGAAAAAGCGGACCGTGTATCAGATGGCTCT
CAACAAACTGGACGAAATCCTGGCCGCAGCTCAACAGACCATCAGTGCAAGCGAAAGCCCTGGTCCCGGTGGCCT
CGCGTCCCTGGGCAAACACCGACCCAAAGGTTTCTTTGCCACTGAGTCGAGCTTCGATCCCCACCACCGTGCCCA
GCCAAGTTACGAGCGTCCTTCTTTCCTGCCTCCAGGACCTGGGTTGATGCTCCGGCAAAAATCTATCGGTGCGGC
AGAAGATGACAGACCTTACCTAGCACCCCCAGCCATGAAATTCAGCCGCAGCCTGTCTGTGCCTGGTTCGGAGGA
CATTCCCCCGCCACCCACCACGTCCCCACCGGAGCCTCCCTACAGCACACCTCCAGTCCCCTCCTCCTCAGGGCG
CCTCACCCCCTCCCCTCGGGGAGGGCCCTTCAACCCTGGCTCTGGTGGCCCCCTCCCCGCCTCCTCCCCTGCATC
CTTTGACGGGCCCTCCCCTCCCGACACTCGCGTGGGGAGCCGCGAGAAGAGCCTGTACCACAGTGGGCCCCTGCC
CCCGGCCCACCACCACCCGCCCCACCACCACCACCACCACGCCCCGCCCCCTCAGCCCCACCACCACCACGCCCA
CCCCCCTCATCCTCCCGAGATGGAGACAGGCGGCTCTCCCGACGACCCTCCACCCCGCCTGGCTCTGGGGCCCCA
GCCCAGCCTGCGAGGCTGGAGGGGCGGCGGGCCCAGCCCGACCCCGGGGGCCCCGTCCCCATCGCACCACGGCAG
CGCGGGCGGGGGCGGCGGCTCCTCCCAGGGCCCGGCTCTACGCTATTTCCAGCTGCCCCCGCGGGCGGCCAGCGC
AGCCATGTACGTGCCCGCCCGCTCGGGCCGCGGCCGCAAGGGCCCGCTGGTCAAGCAGACCAAGGTGGAAGGCGA
GCCCCAGAAGGGCGGCGGCCTCCCGCCCGCGCCGTCGCCCACGTCCCCGGCCTCCCCGCAGCCGCCGCCCGCCGT
GGCCGCGCCCTCGGAGAAGAACTCCATCCCCATCCCCACCATCATCATCAAGGCCCCGTCCACCAGTAGCAGCGG
CCGCAGCAGCCAGGGCAGCAGCACCGAGGCGGAGCCCCCCACCCAGCCGGAGCCCACGGGAGGCGGCGGCGGCGG

FIGURE 544B

CGGCTCCTCGCCCAGCCCCGCCCCGGCCATGTCACCCGTGCCCCCGTCCCCCTCGCCCGTGCCCACCCCCGCCTC
GCCCAGCGGCCCGGCCACGCTGGACTTCACGAGCCAGTTCGGGGCCGCCCTGGTGGGGGCGGCCCGGAGGGAGGG
GGGCTGGCAGAATGAGGCGCGCCGGCGCTCCACGCTGTTCCTGTCCACCGACGCGGGGGACGAGGACGGCGGGGA
CGGCGGGCTGGGCACAGGGGCGGCCCCGGGCCCGCGGCTGCGCCACTCCAAATCCATCGACGAGGGCATGTTCTC
CGCCGAGCCCTACCTCCGACTGGAGTCTGCGGGCAGCGGCGCGGGCTACGGCGGCTACGGGGCCGGTAGCCGAGC
CTACGGGGGTGGCGGGGGCAGCAGCGCCTTCACCAGCTTCCTGCCCCCGCGACCCCTGGTGCACCCGCTGACCGG
CAAGGCCCTGGATCCCGCCTCCCCGCTGGGGCTGGCCCTGGCCGCCCGCGAGCGAGCGCTGAAGGAGTCCTCGGA
GGGCGGCGGGGCCCCCCAGCCGCCTCCCAGGCCCCCATCGCCCCGCTACGAGGCCCCGCCGCCCACCCCGCACCA
CCACTCGCCCCACGCCCACCACGAGCCAGTGCTGCGTCTCTGGGGGGCCTCCCCGCCGGACCCTGCGCGCCGGGA
GCTGGGGTACAGGGCCGGGCTGGGCAGCCAGGAGAAGTCCCTTCCCGCCAGCCCGCCCGCCGCCCGGCGTTCCCT
GCTACACCGCCTGCCGCCCACCGCTCCCGGGGTGGGGCCCCTCCTGCTGCAGCTGGGGACGGAGCCCCCGGCCCC
GCACCCCGGAGTAAGCAAGCCCTGGAGGTCCGCAGCCCCCGAAGAACCCGAGCGGCTGCCGCTGCACGTGCGGTT
CCTTGAAAACTGCCAGCCCCGGGCCCCTGTGACGAGCGGAAGGGGTCCCCCCTCGGAGGACGGGCCGGGGGTCCC
GCCGCCCAGCCCACGCCGGTCCGTGCCCCCCTCCCCGACCTCCCCGAGGGCCAGCGAAGAGAACGGGCTGCCCCT
GCTGGTCCTGCCGCCTCCCGCCCCCTCGGTGGATGTGGAAGATGGCGAATTCCTTTTCGTGGAACCGCTGCCTCC
GCCTCTGGAATTCTCCAACAGCTTCGAAAAGCCAGAGTCGCCCCTCACGCCTGGGCCTCCCCACCCGCTGCCCGA
CACACCTGCCCCTGCCACCCCGTTACCCCCTGTGCCACCCCCGGCTGTGGCCGCAGCCCCTCCCACCCTGGACTC
CACCGCATCCAGCCTGACATCCTATGACAGCGAGGTGGCCACCCTGACCCAGGGGGCCTCCGCCGCTCCTGGGGA
CCCCCATCCACCAGGCCCGCCTGCCCCAGCAGCACCGGCTCCCGCTGCCCCACAGCCTGGCCCGGACCCTCCGCC
TGGCACGGATTCTGGCATCGAGGAGGTGGACAGTCGGAGCAGCAGTGACCACCCACTGGAGACCATCAGCAGCGC
CTCCACGCTGAGCAGCCTATCTGCCGAAGGTGGTGGCAGCGCAGGGGGTGGGGGCGGGGCTGGGGCCGGTGTGGC
CAGTGGGCCGGAGCTTCTGGACACCTATGTGGCCTACCTGGACGGCCAGGCCTTTGGGGGCAGCAGTACTCCCGG
CCCGCCATACCCTCCTCAGCTCATGACTCCCTCTAAGCTCCGGGGCCGGGCGCTAGGAGCCAGCGGAGGCCTGCG
GCCTGGCCCCAGCGGGGGACTCCGAGACCCTGTTACCCCCACCAGCCCCACCGTCTCGGTGACAGGGGCTGGAAC
CGATGGGCTGCTGGCCCTGCGTGCTTGTTCAGGACCCCCCACGGCAGGCGTGGCGGGGGGTCCGGTGGCTGTAGA
GCCAGAAGTCCCACCGGTGCCCTTGCCGACGGCCTCCTCTCTGCCCCGGAAGCTGCTGCCCTGGGAGGAGGGCCC
GGGCCCACCGCCACCACCTCTGCCCGGGCCCTTGGCCCAGCCTCAGGCCTCAGCCTTGGCCACAGTAAAAGCCAG
CATCATCAGTGAACTCAGCTCCAAGCTTCAGCAGTTTGGGGGCTCCTCGGCAGCTGGCGGCGCTCTGCCCTGGGC
CCGAGGAGGCAGTGGGGGAGGCGGAGACAGCCACCACGGGGGAGCCAGCTATGTCCCCGAGAGGACCTCCTCCCT
GCAGCGGCAGAGACTCTCCGACGACTCCCAGTCCTCACTCCTCTCCAAGCCTGTCAGCAGCCTGTTTCAGAACTG
GCCCAAACCACCTCTGCCGCCACTCCCCACCGGAACAGGGGTCTCCCCTACAGCCGCTGCGGCCCCAGGGGCCAC
CTCACCCTCAGCCTCCTCCTCCTCCACGTCCACCCGCCACCTCCAGGGCGTGGAGTTCGAGATGCGGCCCCCTCT
GCTCCGCCGGGCCCCCAGCCCCTCGCTGCTGCCCGCCTCGGAGCACAAGGTCAGCCCTGCGCCCAGGCCCTCGTC
CCTGCCCATCCTGCCTTCCGGACCCCTCTACCCAGGCCTCTTTGACATCCGTGGCTCCCCAACTGGAGGGGCAGG
AGGCTCGGCTGACCCCTTCGCCCCAGTCTTTGTGCCGCCACACCCGGGGATATCCGGGGGGCTCGGGGGAGCCTT
GTCAGGGGCCTCGCGCTCCCTCTCACCGACCCGCCTGCTCTCGCTGCCCCCGGACAAGCCGTTTGGCGCTAAACC
TCTGGGGTTCTGGACCAAGTTCGACGTGGCTGATTGGCTGGAGTGGCTGGGTTTGGCGGAGCACCGAGCCCAGTT
CCTGGACCACGAGATCGATGGCTCCCACCTGCCCGCCTTGACCAAGGAGGACTACGTCGATCTAGGTGTGACCAG
GGTGGGCCACCGCATGAACATCGACCGGGCTCTCAAATTCTTCCTGGAGAGG**TGA**TGGCTGGCCTGGACGGACCA
GCCCCGTCCACAGAACTCTTGAGCCTGCTGGCCTCTTGACCTCTGACCCCTGACTGTCATTCTCTCCCCGGGCCA
GGGACTCTGTTCAAACTGCGCCCTGCCCTCATCTCCCAAGGCC

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FIGURE 545

GACCAACGGACCGGACAGAGACGAGGAGAGGAACAGGAAGAGAGAAGCTGGGAGAATCGGGAACCTGGGGGCTAG
TGACCTGCACACAGGGCAGGGGCACTCGGCAGTTCCCAGAGGCCACCCCTCCCACCCCAGACATCCAGACATCTG
GAACTTTGGGTGCCAAGAGTCCAGCTTA**ATG**CAGGCAGCCTGGCTTTTGGGGGCTTTGGTGGTCCCCCAGCTCTT
GGGCTTTGGCCATGGGGCTCGGGGAGCAGAGAGGGAGTGGGAGGGAGGCTGGGGAGGTGCCCAGGAGGAGGAGCG
GGAGAGGGAGGCCCTGATGCTGAAGCATCTGCAGGAAGCCCTAGGACTGCCTGCTGGGAGGGGGGATGAGAATCC
TGCCGGAACTGTTGAGGGAAAAGAGGACTGGGAGATGGAGGAGGACCAGGGGGAGGAAGAGGAGGAGGAAGCAAC
GCCAACCCCATCCTCCGGCCCCAGCCCCTCTCCCACCCCTGAGGACATCGTCACTTACATCCTGGGCCGCCTGGC
CGGCCTGGACGCAGGCCTGCACCAGCTGCACGTCCGTCTGCACGCGTTGGACACCCGCGTGGTCGAGCTGACCCA
GGGGCTGCGGCAGCTGCGGAACGCGGCAGGCGACACCCGCGATGCCGTGCAAGCCCTGCAGGAGGCGCAGGGTCG
CGCCGAGCGCGAGCACGGCCGCTTGGAGGGCTGCCTGAAGGGGCTGCGCCTGGGCCACAAGTGCTTCCTGCTCTC
GCGCGACTTCGAAGCTCAGGCGGCGGCGCAGGCGCGGTGCACGGCGCGGGGCGGGAGCCTGGCGCAGCCGGCAGA
CCGCCAGCAGATGGAGGCGCTCACTCGGTACCTGCGCGCGGCGCTCGCTCCCTACAACTGGCCCGTGTGGCTGGG
CGTGCACGATCGGCGCGCCGAGGGCCTCTACCTCTTCGAAAACGGCCAGCGCGTGTCCTTCTTCGCCTGGCATCG
CTCACCCCGCCCCGAGCTCGGCGCCCAGCCCAGCGCCTCGCCGCATCCGCTCAGCCCGGACCAGCCCAACGGTGG
CACGCTCGAGAACTGCGTGGCGCAGGCCTCTGACGACGGCTCCTGGTGGGACCACGACTGCCAGCGGCGTCTCTA
CTACGTCTGCGAGTTCCCCTTC**TAG**CGGGGCCGGTACCCCGCCTCCCTGCCCATCCCACCACCCGGCCTTTCCCT
GCGCCGTGCCCACCCTCCTCCGGAATCTCCCTTCCCTTCCTGGCCACGAATGGCAGCGTCCTCCCCGACCCCCAG
TCTGGGCGCTTCTGGGAGGGCTCTTGCGGTGCCGGCACTCCTCCTTGTTAGTGTCTTTCCTTGAAGGGGCGGGCA
CCAGGCTAGGTCCGGTGCCAATAAATCCTTGTGGAATCTG

FIGURE 546

CACTCATTAAGAACAGAGGAGGCTGCCTGTTACTCCTGGTGTTGCATCCCTCCAGACACTCTGCTGTTTCCTGCC
TAGGCGTGGCTGCAGCCATGGCTAGGAAAGCGCTGCCACCCACCCACCTGGGCCAGAGCTGGTTCTGCTCCTGCT
GCAGGGACACTGAGCTGGCTATCTCGGCGCTTCGGGCAAGAACTGCAACAGGCTCTCCTGGGTCCTGCAGGTGTA
CAGCCGGGCCCCTGCCTTGTGCCTCAGCTCTCGAGAGCTGCTGCTGCCGGGTGACCTGATCCAACCTGATAAGGT
GCCATCTTCAGCTACCACTGCAAGGCCCTGAGGGCAACAGCAGCACGGCACTGCCCACCCGGCTGCTGATGGCCT
GGTGCCAGCTGGGAGTCCTCCCGGCACTTCGAGGCCACTGAGCCACCCTTCCAGCCCCAGCCCACCATGGACAGG
GGTATCCAGCTTCCTCCTCAACCTCGTCCTCTGCCCCTGAGCCAGTGACGCCCAAGGACATGCCTGTTACCCAGG
TCCTGTACCAGCACTAGCTGGTCAAGGGC**ATG**ACAGTGCTGGAGGCCGTCTTGGAGATCCAGGCCATCACTGGCA
GCAGGCTGCTCTCCATGGTGCCAGGGCCCGCCAGGCCACCAGGCTCATGCTGGGACCCAACCCAGTGCACAAGGA
CTTGGCTGCTGAGCCACACACCCAGGAGAAGGTGGATAAGTGGGCTACCAAGGGCTTCCTGCAGGCTAGGGGAGG
AGCCACCCCCGCTTCCCTATTGTGACCAGGCCTATGGGGAGGAGCTGTCCATACGCCACCGTGAGACCTGGGCCT
GGCTCTCAAGGACAGACACCGCCTGGCCTGGTGCTCCAGGGGTGAAGCAGGCCAGAATCCTGGGGGAGCTGCTCC
TGGTT**TGA**GCTGCATTCAGGAAGTGCGGGACATGGTAGGGGAGGCAAAAAGCCTTGGGCACTACCCTCCCTGTGG
AGCTGTTCGGTGTCCGTCGAGCTAGCCACACCCTGACACCATGTTCAAGGGTACCGGAAGAGAAGGGTGTCTGCC
CCCAACCTCCCCTGTGGGTGTCACTGGCCAGATGTCATGAGGGAAGCAGGCCTTGTGAGTGGACACTGACCATGA
GTCCCTGGGGGGGAGTGATCCCCCAGGCATCGTGTGCCATGTTGCACTTCTGCCCAGGCAGCAGGGTGGGTGGGTA
CCATGGGTGCCCACCCCTCCACCACATGGGGCCCCAAAGCACTGCAGGCCAAGCAGGGCAACCCCACACCCTTGA
CATAAAAGCATCTTGAAGCTTTT

FIGURE 547

GTGGGATGTCTCTCTCTCCCCCACTCTCTGTTTCCCTTTCTTTTTTTGTCCCCTCTCTCCAGGGCTCCTGATTTC
TCTTCAGCCTGACGCTCTTTTCAGTTAACGGCAAGGCGGTGCACCCAAGTCCGGTGGTGTCCTACCTGGTGACCT
CCTACCTGTGCTGGGACGCCAGCGACTTGATGCTGCACTCCGGAGCCGTGTCCTACCTAAGCCCAGTGGGCATGT
GAAGCAGAGGGCAGCCCTTGAATGCGCGGCGGCTGAGCTACCGCGGGTGGGCCGTGCAGCAGGGCGCAGCGAGGC
GGACATCCAAACAGCGGAACTCAGACGCTGACTCCGAGCGCACCCCGGGCCTTCCCATTTCATACACCCTCGAGG
ATGAGACCCAAGCACCTCCAAGGAATAGCACCCGAGGTCTTCAGGACACCGACCGGTAGCCATGGCCAGATGCCC
GGCCAACCCCTTCAGCGTGGCCACGCCCTGGATATTCGACCTCCCCTGAGGCCCCACCCCCTGATATCAGGCCAC
GCCCTCCGAGGGGACCGGTGGCAAACTCCAGCCCTCGCTCTAGGGCCCGCCCTTTGCGGCTTTGTCCCTGCCCAC
TGGGTCCTCACAGTACCTCCACCCCAGAGGCCCAGCATCCCCTCCCGTTCTGCAGACACTTGTCCAGCGTCCCGC
TGAGCTCGGCAGTGTGGCTAGTTTGTGTGGCCCTGCCCCTGGTGCCCAGCCAGGGTGGTCTGCATGGAACTTCTT
TCCCGGAGTTCCGGCCTCAGCTCCGATGTCCACCCTTGTCCCCAGGTGGACACAGCACCGCCCAGCATTTGGTGC
AACTCCACCCTTCTGCAGAACGGGCCCCTCCCTGGGAAGGCATGGCTTGCAATAACATCCCTCTGTACCTTTTCT
GGCTTCCCCGCCACAATAAAACCTCTCAGCCTCAG

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FIGURE 548

AGCCCCAAGCTTACCACCTGCACCCGGAGAGCTGTGTCACCATGTGGGTCCCGGTTGTCTTCCTCACCCTGTCCG
TGACGTGGATTGGTGCTGCACCCCTCATCCTGTCTCGGATTGTGGGAGGCTGGGAGTGCGAGAAGCATTCCCAAC
CCTGGCAGGTGCTTGTGGCCTCTCGTGGCAGGGCAGTCTGCGGCGGTGTTCTGGTGCACCCCCAGTGGGTCCTCA
CAGCTGCCCACTGCATCAGGAACAAAAGCGTGATCTTGCTGGGTCGGCACAGCCTGTTTCATCCTGAAGACACAG
GCCAGGTATTTCAGGTCAGCCACAGCTTCCCACACCCGCTCTACGATATGAGCCTCCTGAAGAATCGATTCCTCA
GGCCAGGTGATGACTCCAGCCACGACCTCATGCTGCTCCGCCTGTCAGAGCCTGCCGAGCTCACGGATGCTGTGA
AGGTCATGGACCTGCCCACCCAGGAGCCAGCACTGGGGACCACCTGCTACGCCTCAGGCTGGGGCAGCATTGAAC
CAGAGGAGTTCTTGACCCCAAAGAAACTTCAGTGTGTGGACCTCCATGTTATTTCCAATGACGTGTGTGCGCAAG
TTCACCCTCAGAAGGTGACCAAGTTCATGCTGTGTGCTGGACGCTGGACAGGGGGCAAAAGCACCTGCTCGGGTG
ATTCTGGGGGCCCACTTGTCTGTAATGGTGTGCTTCAAGGTATCACGTCATGGGGCAGTGAACCATGTGCCCTGC
CCGAAAGGCCTTCCCTGTACACCAAGGTGGTGCATTACCGGAAGTGGATCAAGGACACCATCGTGGCCAACCCCT
GAGCACCCCTATCAACCCCCTATTGTAGTAAACTTGGAACCTTGGAAATGACCAGGCCAAGACTCAAGCCTCCCC
AGTTCTACTGACCTTTGTCCTTAGGTGTGAGGTCCAGGGTTGCTAGGAAAAGAAATCAGCAGACACAGGTGTAGA
CCAGAGTGTTTCTTAAATGGTGTAATTTTGTCCTCTCTGTGTCCTGGGGAATACTGGCCATGCCTGGAGACATAT
CACTCAATTTCTCTGAGGACACAGATAGGATGGGGTGTCTGTGTTATTTGTGGGGTACAGAGATGAAAGAGGGGT
GGGATCCACACTGAGAGAGTGGAGAGTGACATGTGCTGGACACTGTCCATGAAGCACTGAGCAGAAGCTGGAGGC
ACAACGCACCAGACACTCACAGCAAGGATGGAGCTGAAAACATAACCCACTCTGTCCTGGAGGCACTGGGAAGCC
TAGAGAAGGCTGTGAGCCAAGGAGGGAGGGTCTTCCTTTGGCATGGGATGGCATGAAGTAAGGAGAGGGACTGG
ACCCCCTGGAAGCTGATTCACTATGGGGGGAGGTGTATTGAAGTCCTCCAGACAACCCTCAGATTTGATGATTTC
CTAGTAGAACTCACAGAAATAAAGAGCTGTTATACTGTG

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FIGURE 549

GGCGGACAAAACCCGATTGTTCCTGGGCCCTTTCCCCATCGCGCCTGGGCCTGCTCCCCAGCCCGGGGCAGGGGC
GGGGGCCAGTGTGGTGACACACGCTGTAGCTGTCTCCCCGGCTGGCTGGCTCGCTCTCTCCTGGGGACACAGAGG
TCGGCAGGCAGCACACAGAGGGACCTACGGGCAGCTGTTCCTTCCCCCGACTCAAGAATCCCCGGAGGCCCGGAG
GCCTGCAGCAGGAGCGGCC**ATG**AAGAAGCTGATGGTGGTGCTGAGTCTGATTGCTGCAGCCTGGGCAGAGGAGCA
GAATAAGTTGGTGCATGGCGGACCCTGCGACAAGACATCTCACCCCTACCAAGCTGCCCTCTACACCTCGGGCCA
CTTGCTCTGTGGTGGGGTCCTTATCCATCCACTGTGGGTCCTCACAGCTGCCCACTGCAAAAAACCGAATCTTCA
GGTCTTCCTGGGGAAGCATAACCTTCGGCAAAGGGAGAGTTCCCAGGAGCAGAGTTCTGTTGTCCGGGCTGTGAT
CCACCCTGACTATGATGCCGCCAGCCATGACCAGGACATCATGCTGTTGCGCCTGGCACGCCCAGCCAAACTCTC
TGAACTCATCCAGCCCCTTCCCCTGGAGAGGGACTGCTCAGCCAACACCACCAGCTGCCACATCCTGGGCTGGGG
CAAGACAGCAGATGGTGATTTCCCTGACACCATCCAGTGTGCATACATCCACCTGGTGTCCCGTGAGGAGTGTGA
GCATGCCTACCCTGGCCAGATCACCCAGAACATGTTGTGTGCTGGGGATGAGAAGTACGGGAAGGATTCCTGCCA
GGGTGATTCTGGGGGTCCGCTGGTATGTGGAGACCACCTCCGAGGCCTTGTGTCATGGGGTAACATCCCCTGTGG
ATCAAAGGAGAAGCCAGGAGTCTACACCAACGTCTGCAGATACACGAACTGGATCCAAAAAACCATTCAGGCCAA
G**TGA**CCCTGACATGTGACATCTACCTCCCGACCTACCACCCCACTGGCTGGTTCCAGAACGTCTCTCACCTAGAC
CTTGCCTCCCCTCCTCTCCTGCCCAGCTCTGACCCTGATGCTTAATAAACGCAGCGACGTGAGGGTCCTGATTCT
CCCTGGTTTTACCCCAGCTCCATCCTTGCATCACTGGGGAGGACGTGATGAGTGAGGACTTGGGTCCTCGGTCTT
ACCCCCACCACTAAGAGAATACAGGAAAATCCCTTCTAGGCATCTCCTCTCCCCAACCCTTCCACACGTTTGATT
TCTTCCTGCAGAGGCCCAGCCACGTGTCTGGAATCCCAGCTCCGCTGCTTACTGTCGGTGTCCCCTTGGGATGTA
CCTTTCTTCACTGCAGATTTCTCACCTGTAAGATGAAGATAAGGATGATACAGTCTCCATAAGGCAGTGGCTGTT
GGAAAGATTTAAGGTTTCACACCTATGACATACATGGAATAGCACCTGGGCCACCATGCACTCAATAAAGAATGA
ATTTT

FIGURE 550

GTTCCCAGAAGCTCCCCAGGCTCTAGTGCAGGAGGAGAAGGAGGAGGAGCAGGAGGTGGAGATTCCCAGTTAAAA
GGCTCCAGAATCGTGTACCAGGCAGAGAACTGAAGTACTGGGGCCTCCTCCACTGGGTCCGAATCAGTAGGTGAC
CCCGCCCCTGGATTCTGGAAGACCTCACC**ATG**GGACGCCCCCGACCTCGTGCGGCCAAGACGTGGATGTTCCTGC
TCTTGCTGGGGGGAGCCTGGGCAGGACACTCCAGGGCACAGGAGGACAAGGTGCTGGGGGGTCATGAGTGCCAAC
CCCATTCGCAGCCTTGGCAGGCGGCCTTGTTCCAGGGCCAGCAACTACTCTGTGGCGGTGTCCTTGTAGGTGGCA
ACTGGGTCCTTACAGCTGCCCACTGTAAAAAACCGAAATACACAGTACGCCTGGGAGACCACAGCCTACAGAATA
AAGATGGCCCAGAGCAAGAAATACCTGTGGTTCAGTCCATCCCACACCCCTGCTACAACAGCAGCGATGTGGAGG
ACCACAACCATGATCTGATGCTTCTTCAACTGCGTGACCAGGCATCCCTGGGGTCCAAAGTGAAGCCCATCAGCC
TGGCAGATCATTGCACCCAGCCTGGCCAGAAGTGCACCGTCTCAGGCTGGGGCACTGTCACCAGTCCCCGAGAGA
ATTTTCCTGACACTCTCAACTGTGCAGAAGTAAAAATCTTTCCCCAGAAGAAGTGTGAGGATGCTTACCCGGGGC
AGATCACAGATGGCATGGTCTGTGCAGGCAGCAGCAAAGGGGCTGACACGTGCCAGGGCGATTCTGGAGGCCCCC
TGGTGTGTGATGGTGCACTCCAGGGCATCACATCCTGGGGCTCAGACCCCTGTGGGAGGTCCGACAAACCTGGCG
TCTATACCAACATCTGCCGCTACCTGGACTGGATCAAGAAGATCATAGGCAGCAAGGGC**TGA**TTCTAGGATAAGC
ACTAGATCTCCCTTAATAAACTCACAACTCTC

FIGURE 551

ACCAGCGGCAGACCACAGGCAGGGCAGAGGCACGTCTGGGTCCCCTCCCTCCTTCCTATCGGCGACTCCCAGATC
CTGGCC**ATG**AGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGCGCCCGGGCTCTGGCGAAGCTGCTGCCGCTG
CTGATGGCGCAACTCTGGGCCGCAGAGGCGGCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTAT
GGCTCCCCGTGCGCGCGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGGGCTCGAGTAGGGGAT
GACCACCTGCTGCTTCTTCAGGGAGAGCAGCTCCGCCGGACCACTCGCTCTGTTGTCCATCCCAAGTACCACCAG
GGCTCAGGCCCCATCCTGCCAAGGCGAACGGATGAGCACGATCTCATGTTGCTGAAGCTGGCCAGGCCCGTAGTG
CTGGGGCCCCGCGTCCGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
TGGGGCACCACGGCCGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATCACTATCCTGAGCCCT
AAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATGATATGTGCTGGACTGGACCGGGGCCAGGAC
CCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTAC
CCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
CGCTCCAAC**TGA**TCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGC
TCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCT
CCACACCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAA
TGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCTGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAA
CCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATA
TAACATGTGTATGTAAATCTTCATGGTGATTGTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAG
GTTACCTGTTGTCGTG

FIGURE 552

GGGCATCCCAGCACTGAGTTCTGCCCGGGAGAAGCCGACCCCTCCCGCA**ATG**CCCGCCCCGCCGTGCGCCTCCTG
CCATGCTGCACGCGCCGCCCTCCGCCGTCCGCTCTCGGGCCAAGCGCTGTGCGGTGCCTGCTTCTGCGCCGCCTT
CGAGGCCGAGGTGCTGCACACGGTGCTCGCCGGCCGCCTGCTGCCGCCCGGCGCGGTGGTGGCCGTGGGCGCCTC
GGGCGGCAAGGACTCCACGGTGCTGGCGCACGTGCTGCGCGCGCTGGCGCCGCGCCTGGGCATCTCACTGCAGCT
CGTGGCCGTCGATGAGGGCATCGGTGGCTACCGGGACGCGGCGTTGGCGGCCGTGCGGCGCCAGGCGGCGCGCTG
GGAGCTGCCGCTCACGGTCGTGGCCTACGAAGACCTCTTTGGGGGCTGGACGATGGACGCCGTGGCCCGCAGCAC
AGCCGGCTCCGGCCGCAGCCGCTCCTGCTGCACCTTCTGTGGAGTGCTGCGGCGCCGGGCGCTGGAGGAAGGGGC
GCGCCGCGTGGGAGCCACGCACATCGTGACAGGTCACAACGCCGACGACATGGCGGAGACCGTGCTCATGAACTT
CCTACGGGGCGACGCGGGGCGGCTGGCCCGGGGCGGGGGCCTGGGCTCTCCCGGCGAGGGGGGCGCCCTGCCGCG
CTGCCGCCCGCTGCAGTTCGCCTCGCAGAAGGAGGTGGTGCTGTACGCGCACTTCCGCCGCCTCGACTACTTCTC
CGAGGAGTGCGTCTACGCGCCCGAGGCCTTCCGCGGCCACGCCCGGGACCTGCTCAAGCGCCTGGAGGCGGCGCG
GCCGTCCGCGGTGCTGGACCTCGTGCACTCGGCCGAGCGCCTGGCGCTGGCCCCGGCCGCGCGGCCCCCGCGCCC
CGGCGCCTGCTCCCGCTGTGGGGCGCTGGCCAGCCGCGCGCTCTGCCAGGCCTGCGCGCTCCTGGACGGCCTGAA
CCGCGGCCGGCCCCGCCTGGCCATCGGCAAGGGCCGCCGGGGTCTGGACGAGGAGGCGACGCCGGGGACGCCCGG
GGATCCGGCCCGGCCCCCCGCCTCCAAGGCCGTCCCCACCTTC**TAG**CGACTTCGGGCCTCCCGCCGGGATCTGAT
GCCGCGGGGTGGGGGCTGCCTGTAAATGACACTGTGAATAAACCCGTTACCTT

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FIGURE 553

CGAGGTGGGGCTCGGCGACGAGGGCCTCTACACCTGCTCCTTCCAGACCCGCCACCAGCCGTACACCACTCAGGT
CTACCTCATTGTCCACGTCCCTGCCCGCATTGTGAACATCTCGTCGCCTGTGACGGTGAATGAGGGGGGCAATGT
GAACCTGCTTTGCCTGGCCGTGGGGCGGCCAGAGCCCACGGTCACCTGGAGACAGCTCCGAGACGGCTTCACCTC
GGAGGGAGAGATCCTGGAGATCTCTGACATCCAGCGGGGCCAGGCCGGGGAGTATGAGTGCGTGACTCACAACGG
GGTTAACTCGGCGCCCGACAGCCGCCGCGTGCTGGTCACAGTCAACTATCCTCCGACCATCACGGACGTGACCAG
CGCCCGCACCGCGCTGGGCCGGGCCGCCCTCCTGCGCTGCGAAGCC**ATG**GCGGTTCCCCCCGCGGATTTCCAGTG
GTACAAGGATGACAGACTGCTGAGCAGCGGCACGGCCGAAGGCCTGAAGGTGCAGACGGAGCGCACCCGCTCGAT
GCTTCTCTTTGCCAACGTGAGCGCCCGGCATTACGGCAACTATACGTGTCGCGCCGCCAACCGACTGGGAGCGTC
CAGCGCCTCCATGCGGCTCCTGCGCCCAGGATCCCTGGAGAACTCAGCCCCGAGGCCCCCAGGGCTCCTGGCCCT
CCTCTCCGCCCTGGGCTGGCTGTGGTGGAGAATG**TAG**GCGCAACCCAGTGGAGCTCACCTCCCCCTGCAGGGGGC
CTCAGGCCAAGAGTGAGAGAAACGGGGGAGCAAGAGCCGTGGGTCTCGTGGGGGCAGAAGAGCTCTCGGCCACCA
AGGAAGAAGAGAGAGGAGAAGAGGAGGAGGCAGAGGAAGAAAGATCTTCAGAGAACCCATCACTGTGAGGGATAA
CGCAAAATTATGCATCTTT

FIGURE 554

ACCCTGTAAGTGGCTGCGGCGGGAAG**ATG**GCGGAGCTGCGCGTGCTCGTAGCTGTCAAGAGGGTCATCGACTACG
CCGTGAAGATCCGAGTGAAGCCTGACAGGACCGGTGTGGTCACGGATGGTGTGAAGCACTCCATGAACCCCTTCT
GTGAGATCGCGGTGGAGGAGGCTGTGCGGCTCAAGGAGAAGAAGCTGGTGAAGGAGGTCATCGCCGTCAGCTGTG
GGCCTGCACAGTGCCAGGAGACGATTCGTACCGCCCTGGCCATGGGTGCAGACCGAGGTATCCACGTGGAGGTGC
CCCCAGCAGAAGCAGAACGCTTGGGTCCCCTGCAGGTGGCTCGGGTCCTGGCCAAGCTGGCAGAGAAGGAGAAGG
TGGACCTGGTGCTGCTGGGCAAACAGGCCATCGATGATGACTGTAACCAGACAGGGCAGATGACAGCTGGATTTC
TTGACTGGCCACAGGGCACATTCGCCTCCCAGGTGACGCTGGAGGGGGACAAGTTGAAAGTGGAGCGGGAGATCG
ATGGGGGCCTGGAGACCCTGCGCCTGAAGCTGCCAGCTGTGGTGACAGCTGACCTGAGGCTCAACGAGCCCCGCT
ACGCCACGCTGCCCAACATCATGAAAGCCAAGAAGAAGAAGATCGAGGTGATCAAGCCTGGGGACCTGGGTGTGG
ACCTGACCTCCAAGCTCTCTGTGATCAGTGTGGAGGACCCGCCCCAGCGCACGGCCGGCGTCAAGGTGGAGACCA
CTGAGGACCTGGTGGCCAAGCTGAAGGAGATTGGGCGGATT**TGA**GCCCCTCCCAGAGATGGCAATAAAACTGACT
CTCAACATC

FIGURE 555A

AGCGATCCGAGGCCCGGCCCCGGCCCCGCCCCGCGCCGCGCCGCGCCGCTTGCCGCCGGGCTAGCACTGACGTGT
CTCTCGGCGGAGCTGCTGTGCAGTGGAACGCGCTGGGCCGCGGGCAGCGTCGCCTCACGCGGAGCAGAGCTGAGC
TGAAGCGGGACCCGGAGCCCGAGCAGCCGCCGCC**ATG**GCAATCAAATTTCTGGAAGTCATCAAGCCCTTCTGTGT
CATCCTGCCGGAAATTCAGAAGCCAGAGAGGAAGATTCAGTTTAAGGAGAAAGTGCTGTGGACCGCTATCACCCT
CTTTATCTTCTTAGTGTGCTGCCAGATTCCCCTGTTTGGGATCATGTCTTCAGATTCAGCTGACCCTTTCTATTG
GATGAGAGTGATTCTAGCCTCTAACAGAGGCACATTGATGGAGCTAGGGATCTCTCCTATTGTCACGTCTGGCCT
TATAATGCAACTCTTGGCTGGCGCCAAGATAATTGAAGTTGGTGACACCCCAAAAGACCGAGCTCTCTTCAACGG
AGCCCAAAAGTTATTTGGCATGATCATTACTATCGGCCAGTCTATCGTGTATGTGATGACCGGGATGTATGGGGA
CCCTTCTGAAATGGGTGCTGGAATTTGCCTGCTAATCACCATTCAGCTCTTTGTTGCTGGCTTAATTGTCCTACT
TTTGGATGAACTCCTGCAAAAAGGATATGGCCTTGGCTCTGGTATTTCTCTCTTCATTGCAACTAACATCTGTGA
AACCATCGTATGGAAGGCATTCAGCCCCACTACTGTCAACACTGGCCGAGGAATGGAATTTGAAGGTGCTATCAT
CGCACTTTTCCATCTGCTGGCCACACGCACAGACAAGGTCCGAGCCCTTCGGGAGGCGTTCTACCGCCAGAATCT
TCCCAACCTCATGAATCTCATCGCCACCATCTTTGTCTTTGCAGTGGTCATCTATTTCCAGGGCTTCCGAGTGGA
CCTGCCAATCAAGTCGGCCCGCTACCGTGGCCAGTACAACACCTATCCCATCAAGCTCTTCTATACGTCCAACAT
CCCCATCATCCTGCAGTCTGCCCTGGTGTCCAACCTTTATGTCATCTCCCAAATGCTCTCAGCTCGCTTCAGTGG
CAACTTGCTGGTCAGCCTGCTGGGCACCTGGTCGGACACGTCTTCTGGGGGCCCAGCACGTGCTTATCCAGTTGG
TGGCCTTTGCTATTACCTGTCCCCTCCAGAATCTTTTGGCTCCGTGTTAGAAGACCCGGTCCATGCAGTTGTATA
CATAGTGTTCATGCTGGGCTCCTGTGCATTCTTCTCCAAAACGTGGATTGAGGTCTCAGGTTCCTCTGCCAAAGA
TGTTGCAAAGCAGCTGAAGGAGCAGCAGATGGTGATGAGAGGCCACCGAGAGACCTCCATGGTCCATGAACTCAA
CCGGTACATCCCCACAGCCGCGGCCTTTGGTGGGCTGTGCATCGGGGCCCTCTCGGTCCTGGCTGACTTCCTAGG
CGCCATTGGGTCTGGAACCGGGATCCTGCTCGCAGTCACAATCATCTACCAGTACTTTGAGATCTTCGTTAAGGA
GCAAAGCGAGGTTGGCAGCATGGGGGCCCTGCTCTTC**TGA**GCCCGTCTCCCGGACAGGTTGAGGAAGCTGCTCCA
GAAGCGCCTCGGAAGGGGAGCTCTCATCATGGCGCGTGCTGCTGCGGCATATGGACTTTTAATAATGTTTTTGAA
TTTCGTATTCTTTCATTCCACTGTGTAAAGTGCTAGACATTTTCCAATTTAAAATTTTGCTTTTTATCCTGGCAC
TGGCAAAAAGAACTGTGAAAGTGAAATTTTATTCAGCCGACTGCCAGAGAAGTGGGAATGGTATAGGATTGTCCC
CAAGTGTCCATGTAACTTTTGTTTTAACCTTTGCACCTTCTCAGTGCTGTATGCGGCTGCAGCCGTCTCACCTGT
TTCCCCACAAAGGGAATTTCTCACTCTGGTTGGAAGCACAAACACTGAAATGTCTACGTTTCATTTTGGCAGTAG
GGTGTGAAGCTGGGAGCAGATCATGTATTTCCCGGAGACGTGGGACCTTGCTGGCATGTCTCCTTCACAATCAGG
CGTGGGAATATCTGGCTTAGGACTGTTTCTCTCTAAGACACCATTGTTTTCCCTTATTTTAAAAGTGATTTTTTT
AAGGACAGAACTTCTTCCAAAAGAGAGGGATGGCTTTCCCAGAAGACACTCCTGGCCATCTGTGGATTTGTCTGT
GCACCTATTGGCTCTTCTAGCTGACTCTTCTGGTTGGGCTTAGAGTCTGCCTGTTTCTGCTAGCTCCGTGTTTAG
TCCACTTGGGTCATCAGCTCTGCCAAGCTGAGCCTGGCCAAGCTAGGTGGACAGACCCTTGCAGTGATGTCCGTT
TGTCCAGATTCTGCCAGTCATCACTGGACACGTCTCCTCGCAGCTGCCCTAGCAAGGGGAGACATTGTGGTAGCT
ATCAGACATGGACAGAAACTGACTTAGTGCTCACAAGCCCCTACACCTTCTGGGCTGAAGATCACCCAGCTGTGT
TCAGAATTTTCTTACTGTGCTTAGGACTGCACGCAAGTGAGCAGACACCACCGACTTCCTTTCTGCGTCACCAGT
GTCGTCAGCAGAGAGAGGACAGCACAGGCTCAAGGTTGGTAGTGAAGTCAGGTTCGGGGTGCATGGGCTGTGGTG
GTGTTGATCAGTTGCTCCAGTGTTTGAAATAAGAAGACTCATGTTTATGTCTGGAATAAGTTCTGTTTGTGCTGA
CAGGTGGCCTAGGTCCTGGAGATGAGCACCCTCTCTCTGGCCTTTAGGGAGTCCCCTCTTAGGACAGGCACTGCC
CAGCAGCAAGGGCAGCAGAGTTGGGTGCTAAGATCCTGAGGAGCTCGAGGTTTCGAGCTGGCTTTAGACATTGGT
GGGACCAAGGATGTTTTGCAGGATGCCCTGATCCTAAGAAGGGGGCCTGGGGGTGCGTGCAGCCTGTCGGGGAGA
CCCCACTCTGACAGTGGGCACACGGCAGCCTGCAAAGCACAGGGCCACCGCCACAGCCCGGCAGAGGGGCACACT
CTGGAGACCTTGCTGGCAGTGCTAGCCAGGAAACAGAGTGACCAAGGGACAAGAAGGGACTTGCCTAAAGCCACC
CAGCAACTCAGCAGCAGAACCAAGATGGGCCCCAGGCTCCTCCATATGGCCCAGGGCTTACCACCCTATCACACG
TGGCCTTGTCTAGACCCAGTCCTGAGCAGGGGAGAGGCTCTTGAGACCTGATGCCCTCCTACCCACATGGTTCTC
CCACTGCCCTGTCTGCTCTGCTGCTACAGAGGGGCAGGGCCTCCCCCAGCCCACGCTTAGGAATGCTTGGCCTCT
GGCAGGCAGGCAGCTGTACCCAAGCTGGTGGGCAGGGGGCTGGAAGGCACCAGGCCTCAGGAGGAGCCCCATAGT
CCCGCCTGCAGCCTGTAACCATCGGCTGGGCCCTGCAAGGCCCACACTCACGCCCTGTGGGTGATGGTCACGGTG
GGTGGGTGGGGGCTGACCCCAGCTTCCAGGGGACTGTCACTGTGGACGCCAAAATGGCATAACTGAGATAAGGTG

FIGURE 555B

AATAAGTGACAAATAAAGCCAGTTTTTTACAAGGT

FIGURE 556

ATGAAGATTGAGGAGGTGAAGAGCACTACGAAGACGCAGCGCATCGCCTCCCACAGCCACGTGAAAGGGCTGGGG
CTGGACGAGAGCGGCTTGGCCAAGCAGGCGGCCTCAGGGCTTGTGGGCCAGGAGAACGCGCGAGAGGTGTGGCCA
GTGGACCAGGGAGTTGGGGGCTGCAAGCAGGGCTGCTGCGGCGAGAGAGCTGCTGAAGTCGGGCCTGCAGGTGCT
CCAGGTCAGCGGGCGACTTTGGCCGCTGCAGAGACCGAGATACGCGGGGTAACAGCCCGTTCCGGAGCCGGTCAT
CAGGCGCCAAGCCCCGCTGGGCTCCTCGCAGCCGCGGGACCTTTCTCCGCCCTTCCCGAGGCTGAGTTTCCTGAA
CGGGAAGCTGCCGGCCCGCGGGGCAGCCGGGAGCAGCCAGGGCGTGAGGACGTGGGTTCCCGTCACCCCCGGCTT
GGAACAGCAGCGCCGCAACAACCGCTGGCGTTCATCGAGCCTCTCAGCAGCCCTGCGAGGCGATCCCGGGGAGAA
TCCCACGCCACAGCCGAGGAAACTGAGGCAGGCAGGGTGACACACAGCCCAGTAGTGGCGGGCGGGCGCCCAGGC
TGCCACCGCGCTGAGGACCGGCCCCTCTGCCAGCCGGGAGGCGTGGGGCAGGACAGCCGCGCTCTCGCCAGGGCC
CAGAGCCCCACTTTGCCAAGGAGCTGTCGCTGGAGCGGTGACTTTGTTCAGGGCCGAGAACCGGAGGAGGAGGCC
AGACTTGCTGCTGGGCAGCTGGCACATGGGACATGGGGTGTTATGACTCCAGCATTTATGGAGCGCCTGCTGTGT
GCTCTGCAGGTGAGCAATGTGAGGCTCAGAGAAGAGAAACAGAAAGCCCGGAGGCTTGAGTGGGTCAGACACCCA
TCAGGAGCTTGGCATGAGTATGACAGCTCCTTGACGCAAAGTCCAGGGGGCATGAGTGCTGGGGCCATTGCAGGC
ACCAGGACCCAAGCC**TAG**

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FIGURE 557

AGGTAAAGGGAGAAGATGAGGAAGAGAACAATTTGGAAGTACGTGAAACCAAAATTAAGGGTAAAAGTGGGAGAT
TCTTCACAGTCAAGCTCCCAGTTGCTCTTGATCCTGGGGCCAAGATTTCAGTCATTGTGGAAACAGTCTACACCC
ATGTGCTTCATCCATATCCAACCCAGATCACCCAGTCAGAGAAACAGTTTGTGGTGTTTGAGGGGAACCATTATT
TCTACTCTCCCTATCCAACGAAGACACAAACC**ATG**CGTGTGAAGCTTGCCTCTCGAAATGTGGAGAGCTACACCA
AGCTGGGGAACCCCACGCGCTCTGAGGACCTACTGGATTATGGGCCTTTCAGAGATGTGCCTGCCTATAGTCAGG
ATACTTTTAAAGTACATTATGAGAACAACAGCCCTTTCCTGACCATCACCAGCATGACCCGAGTCATTGAAGTCT
CTCACTGGGGTAATATTGCTGTGGAAGAAAATGTGGACTTAAAGCACACAGGAGCTGTGCTTAAGGGGCCTTTCT
CACGCTATGATTACCAGAGACAGCCAGATAGTGGAATATCCTCCATCCGTTCTTTTAAGACCATCCTTCCTGCTG
CTGCCCAGGATGTTTATTACCGGGATGAGATTGGCAATGTTTCTACCAGCCACCTCCTTATTTTGGATGACTCTG
TAGAGATGGAAATCCGGCCTCGCTTCCCTCTCTTTGGCGGGTGGAAGACCCATTACATCGTTGGCTACAACCTCC
CAAGCTATGAGTACCTCTATAATTTGGGTGACCAGTATGCACTGAAGATGAGGTTTGTGGACCATGTGTTTGATG
AACAAGTGATAGATTCTCTGACTGTGAAGATCATCCTGCCTGAAGGAGCCAAGAACATTGAAATTGATAGTCCCT
ATGAAATCAGCCGTGCCCCAGATGAGCTGCACTACACCTATCTGGATACATTTGGCCGCCCTGTGATTGTTGCCT
ACAAGAAAAATCTGGTAGAACAGCACATTCAGGACATTGTGGTCCACTACACGTTCAACAAGGTGCTCATGCTGC
AGGAGCCCCTGCTGGTGGTGGCGGCCTTCTACATCCTGTTCTTCACCGTTATCATCTATGTTCGGCTGGACTTCT
CCATCACCAAGGATCCAGCCGCAGAAGCCAGGATGAAGGTAGCCTGCATCACAGAGCAGGTCTTGACCCTGGTCA
ACAAGAGAATAGGCCTTTACCGTCACTTTGACGAGACCGTCAATAGGTACAAGCAATCCCGGGACATCTCCACCC
TCAACAGTGGCAAGAAGAGCCTGGAGACTGAACACAAGGCCTTGACCAGTGAGATTGCACTGCTGCAGTCCAGGC
TGAAGACAGAGGGCTCTGATCTGTGCGACAGAGTGAGCGAAATGCAGAAGCTGGATGCACAGGTCAAGGAGCTGG
TGCTGAAGTCGGCGGTGGAGGCTGAGCGCCTGGTGGCTGGCAAGCTCAAGAAAGACACGTACATTGAGAATGAGA
AGCTCATCTCAGGAAAGCGCCAGGAGCTGGTCACCAAGATCGACCACATCCTGGATGCCCTG**TAG**CCCCTGCCCG
CATCCTCCAGGGGGCCCAGGGTGCCTGCACTTTGCTGTGGCAGGCAGATTGGGTGGTAGTGGGAGGTTGTGCATG
GAGGCCAGTGAAAGCTGACATCTGTAAAAGGCCTTCAAGGAAGAGAAACCAGGCCCTGCGTCAGGCAGTGTGAGT
TTGCCGTTTGTCCTTAACTTTCTTTTTTTTTTTTTTTAAAAAAAGAAAACTTTAAAAAAACTCCCATTAAAAACA
AAACATCTTTGTGTTTTGAACAAAGGAATTTTCAATATTTGATTGGTATTCTGTTCTGAAGTCTAGGATATTTTT
CAGCCTATAAAGCCCCCTGTTTTATGCCCTTCTAATTCTGATGTTTGGGTATTGTGTGAGTGCATGTGTTTTTTT
TTTTTTTTTTTTAAAGCGTGTGTGAACAAATGGAAATAAAGCAGGGACTGTG

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FIGURE 558

CTGCTCTTCCCGGTC**ATG**GAGGCGCCAGCCGCCGGCTTGTTTCTGCTCCTGTTGCTTGGGACTTGGGCCCCGGCG
CCGGGCAGCGCCTCCTCCGAGGCACCGCCGCTGATCAATGAGGACGTGAAGCGCACAGTGGACCTAAGCAGCCAC
CTGGCTAAGGTGACGGCCGAGGTGGTCCTGGCGCACCTGGGCGGCGGCTCCACGTCCCGAGCTACCTCTTTCCTG
CTGGCTTTGGAGCCTGAGCTCGAGGCCCGGCTGGCGCACCTGGGCGTGCAGGTAAAGGGAGAAGATGAGGAAGAG
AACAATTTGGAAGTACGTGAAACCAAAATTAAGGGTAAAAGTGGGAGATTCTTCACAGTCAAGCTCCCAGTTGCT
CTTGATCCTGGGGCCAAGATTTCAGTCATTGTGGAAACAGTCTACACCCATGTGCTTCATCCGTATCCAACCCAG
ATCACCCAGTCAGAGAAACAGTTTGTGGTGTTTGAGGGGAACCATTATTTCTACTCTCCCTATCCAACGAAGACA
CAAACCATGCGTGTGAAGCTTGCCTCTCGAAATGTGGAGAGCTACACCAAGCTGGGGAACCCCACGCGCTCTGAG
GACCTACTGGATTATGGGCCTTTCAGAGATGTGCCTGCCTATAGTCAGGATACTTTTAAAGTACATTATGAGAAC
AACAGCCCTTTCCTGACCATCACCAGCATGACCCGAGTCATTGAAGTCTCTCACTGGGGTAATATTGCTGTGGAA
GAAAATGTGGACTTAAAGCACACAGGAGCTGTGCTTAAGGGGCCTTTCTCACGCTATGATTACCAGAGACAGCCA
GATAGTGGAATATCCTCCATCCGTTCTTTTAAGACCATCCTTCCTGCTGCTGCCCAGGATGTTTATTACCGGGAT
GAGATTGGCAATGTTTCTACCAGCCACCTCCTTATTTTGGATGACTCTGTAGAGATGGAAATCCGGCCTCGCTTC
CCTCTCTTTGGCGGGTGGAAGACCCATTACATCGTTGGCTACAACCTCCCAAGCTATGAGTACCTCTATAATTTG
GGTGACCAGTATGCACTGAAGATGAGGTTTGTGGACCATGTGTTTGATGAACAAGTGATAGATTCTCTGACTGTG
AAGATCATCCTGCCTGAAGGAGCCAAGAACATTGAAATTGATAGTCCCTATGAAATCAGCCGTGCCCCAGATGAG
CTGCACTACACCTATCTGGACACATTTGGCCGCCCTGTGATTGTTGCCTACAAGAAAAATCTGGTAGAACAGCAC
ATTCAGGACATTGTGGTCCACTACACGTTCAACAAGGTGCTCATGCTGCAGGAGCCCCTGCTGGTGGTGGCGGCC
TTCTACATCCTGTTCTTCACCGTTATCATCTATGTTCGGCTGGACTTCTCCATCACCAAGGATCCAGCCGCAGAA
GCCAGGATGAAGGTAGCCTGCATCACAGAGCAGGTCTTGACCCTGGTCAACAAGAGAATAGGCCTTTACCGTCAC
TTTGACGAGACCGTCAATAGGTACAAGCAATCCCGGGACATCTCCACCCTCAACAGTGGCAAGAAGAGCCTGGAG
ACTGAACACAAGGCCTTGACCAGTGAGATTGCACTGCTGCAGTCCAGGCTGAAGACAGAGGGCTCTGATCTGTGC
GACAGAGTGAGCGAAATGCAGAAGCTGGATGCACAGGTCAAGGAGCTGGTGCTGAAGTCGGCGGTGGAGGCTGAG
CGCCTGGTGGCTGGCAAGCTCAAGAAAGACACGTACATTGAGAATGAGAAGCTCATCTCAGGAAAGCGCCAGGAG
CTGGTCACCAAGATCGACCACATCCTGGATGCCCTG**TAG**CCCCTGCCCGCATCCTCCAGGGGGCCCAGGGTGCCT
GCACTTTGCTGTGGCAGGCAGATTGGGTGGTAGTGGGAGGTTGTGCATGGAGGCCAGTGAAAGCTGACATCTGTA
AAAGGCCTTCAAGGAAGAGAAACCAGGCCCTGCGTCAGGCAGTGTGAGTTTGCCGTTTGTCCTTAACTTTCTTTT
TTTTTTTTTTTAAAAAAAGAAAACTTTAAAAAAACTCCCATTAAAAACAAAACATCTTTGTGTTTTGAACAAAGG
AATTTTCAATATTTGATTGGTATTCTGTTCTGAAGTCTAAGATATTTTTCAGCCTATAAAGCCCCCTGTTTTATG
CCCTTCTAATTCTGATGTTTGGGTATTGTGTGAGTGCATGTGTTTTTTTTTTTTTTTTAAAGCGTGTGTGAACA
AATGGAAATAAAGCAGGGACTGTG

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FIGURE 559A

GGGCCGGCTCGCGGGCGCTGCCAGTCTCGGGCGGCGGTGTCCGGCGCGCGGGCGGCCTGCTGGGCGGGCTGAAGG
GTTAGCGGAGCACGGGCAAGGCGGAGAGTGACGGAGTCGGCGAGCCCCCGCGGCGACAGGTTCTCTACTTAAAAG
ACA**ATG**ACTACTGATGAAGGTGCCAAGAACAATGAAGAAAGCCCCACAGCCACTGTTGCTGAGCAGGGAGAGGAT
ATTACCTCCAAAAAAGACAGGGGAGTATTAAAGATTGTCAAAAGAGTGGGGAATGGTGAGGAAACGCCGATGATT
GGAGACAAAGTTTATGTCCATTACAAAGGAAAATTGTCAAATGGAAAGAAGTTTGATTCCAGTCATGATAGAAAT
GAACCATTTGTCTTTAGTCTTGGCAAAGGCCAAGTCATCAAGGCATGGGACATTGGGGTGGCTACCATGAAGAAA
GGAGAGATATGCCATTTACTGTGCAAACCAGAATATGCATATGGCTCGGCTGGCAGTCTCCCTAAAATTCCCTCG
AATGCAACTCTCTTTTTTGAGATTGAGCTCCTTGATTTCAAAGGAGAGGATTTATTTGAAGATGGAGGCATTATC
CGGAGAACCAAACGGAAAGGAGAGGGATATTCAAATCCAAACGAAGGAGCAACAGTAGAAATCCACCTGGAAGGC
CGCTGTGGTGGAAGGATGTTTGACTGCAGAGATGTGGCATTCACTGTGGGCGAAGGAGAAGACCACGACATTCCA
ATTGGAATTGACAAAGCTCTGGAGAAAATGCAGCGGGAAGAACAATGTATTTTATATCTTGGACCAAGATATGGT
TTTGGAGAGGCAGGGAAGCCTAAATTTGGCATTGAACCTAATGCTGAGCTTATATATGAAGTTACACTTAAGAGC
TTCGAAAAGGCCAAAGAATCCTGGGAGATGGATACCAAAGAAAAATTGGAGCAGGCTGCCATTGTCAAAGAGAAG
GGAACCGTATACTTCAAGGGAGGCAAATACATGCAGGCGGTGATTCAGTATGGGAAGATAGTGTCCTGGTTAGAG
ATGGAATATGGTTTATCAGAAAAGGAATCGAAAGCTTCTGAATCATTTCTCCTTGCTGCCTTTCTGAACCTGGCC
ATGTGCTACCTGAAGCTTAGAGAATACACCAAAGCTGTTGAATGCTGTGACAAGGCCCTTGGACTGGACAGTGCC
AATGAGAAAGGCTTGTATAGGAGGGGTGAAGCCCAGCTGCTCATGAACGAGTTTGAGTCAGCCAAGGGTGACTTT
GAGAAAGTGCTGGAAGTAAACCCCCAGAATAAGGCTGCAAGACTGCAGATCTCCATGTGCCAGAAAAAGGCCAAG
GAGCACAACGAGCGGGACCGCAGGATATACGCCAACATGTTCAAGAAGTTTGCAGAGCAGGATGCCAAGGAAGAG
GCCAATAAAGCAATGGGCAAGAAGACTTCAGAAGGGGTCACTAATGAAAAAGGAACAGACAGTCAAGCAATGGAA
GAAGAGAAACCTGAGGGCCACGTA**TGA**CGCCACGCCAAGGAGGGAAGAGTCCCAGTGAACTCGGCCCCTCCTCAA
TGGGCTTTCCCCCAACTCAGGACAGAACAGTGTTTAATGTAAAGTTTGTTATAGTCTATGTGATTCTGGAAGCAA
ATGGCAAAACCAGTAGCTTCCCAAAAACAGCCCCCCTGCTGCTGCCCGGAGGGTTCACTGAGGGGTGGCACGGGA
CCACTCCAGGTGGAACAAACAGAAATGACTGTGGTGTGGAGGGAGTGAGCCAGCAGCTTAAGTCCAGCTCATTTC
AGTTTCTATCAACCTTCAAGTATCCAATTCAGGGTCCCTGGAGATCATCCTAACAATGTGGGGCTGTTAGGTTTT
ACCTTTGAACTTTCATAGCACTGCAGAAACCTTTAAAAAAAAAATGCTTCATGAATTTCTCCTTTCCTACAGTTG
GGTAGGGTAGGGGAAGGAGGATAAGCTTTTGTTTTTTAAATGACTGAAGTGCTATAAATGTAGTCTGTTGCATTT
TTAACCAACAGAACCCACAGTAGAGGGGTCTCATGTCTCCCCAGTTCCACAGCAGTGTCACAGACGTGAAAGCCA
GAACCTCAGAGGCCACTTGCTTGCTGACTTAGCCTCCTCCCAAAGTCCCCCTCCTCAGCCAGCCTCCTTGTGAGA
GTGGCTTTCTACCACACACAGCCTGTCCCTGGGGGAGTAATTCTGTCATTCCTAAAACACCCTTCAGCAATGATA
ATGAGCAGATGAGAGTTTCTGGATTAGCTTTTCCTATTTTCGATGAAGTTCTGAGATACTGAAATGTGAAAAGAG
CAATCAGAATTGTGCTTTTTCTCCCCTCCTCTATTCCTTTTAGGGAATAATATTCAATACACAGTACTTCCTCCC
AGCATTGCTACTGCTCAGCTTCTTCTTTCATTCTAATCCTTGCTATTAAGAATTTAAGACTTGTGCTTACAATAT
TTTTGACCTGGAGTGGATCTATTTACATAGTCATTTAGGATCCATGCAGCTTTTTTTGTCTTTTTAAGATTATTG
GCTCATAAGCATATGTATACTGGTTTATGGAACTTTATTTACACTCCTCTATCATGCAAAAAAATTTTGACTTTT
TAGTACTAAGCTTAATTTTTAAAAACAAAATCTGTAGGGTTGACAAATAAATAGTTGCTCTTCTACACTAGGGGT
TTCACCTGCAGGTTTGACACGCAGTTGCTCGCTTTTCCTGCCCTGTCAAGCTTCTCTGTTCTGGCGTGAGTTGTG
AAAGAGTTGAAGACAGCTTCCCATGCCGGTACACAGCCAGTAGCCTAAATCTCCAGTACTTGAGCTGACCATTGA
ACTAGGGCAAGTCTTAAATGTGTACATGTAGTTGAATTTCAGTCCTTACGGGTAAACAGATTGAGCATGGCTCTC
TATTCCCTCAGCCTAAGAAACACTCATGGGAATGCATTTGGCAACCCAAGGAACCATTTGCTTAAACCTGGAACA
TCTCACCTTTTTAAATCCTAAAAAACACTGGCAGTTATATTTTAAATTAGTTTTTATTTTTATGATGGTTTTATC
AAAAGACTTTTATTATTAGATTGGGACCCCCTTCAAACCTAAAAATCAAGTTATTTCCTTTTATAATACTTTTCT
TCCCCATGGAACAAATGGGATCAATTTGTGAGTTTTTTCCTTTAATGATAACTAAAATCCCTCTAATTTCTCATT
TATGCTTTTGTCTTTTTTATGAAATATTTCTTTTAAAAGCCCCAGTCTCACCTACGAAATATGAAGAGCAAAAGC
TGATTTTGCTTACTTGCTAAACTGTTGGGAAAGCTCTGTAGAGCATGGTTCCAGTGAGGCCAAGATTGAAATTTG
ATACTAAAAAGGCCACCTAGCTTTTTGCAGATAACAAACAAGAAAGCTATTCCAAGACTCAGATGATGCCAGCTG
TCTCCCACGTGTGTATTATGGTTCACCAGGGGGAACTGGCAAAAGTGTGTGTGGGGAGGGGAAGGGTGTGTGAGT
GGTTCTGAGCAAATAACTACAGGGTGCCCATTACCACTCAAGAAGACACTTCACGTATTCTTGTATCAAATTCAA

FIGURE 559B

TAATCTTAAACAATTTGTGTAGAAGTCCACAGACATCTTTCAACCACCTTTTAGGCTGCATATGGATTGCCAAGT
CAGCATATGAGGAATTAAAGACATTGTTTTTAAAAAAAAAAAATCATTTAGATGCACTTTTTTGTGTGTTCTTTA
AATAAATCCAAAAAAAATGTG

FIGURE 560

CGCCACC**ATG**GTGTGCGTGAACGTCCTGGCCGATGCTCTCAAGAGCATCAACAATGCCGAAAAGAGAGGCAAACG
CCCAGTGCTTATTAGGCCGTGCTCCAAACTCATCGTCCGGTTTCTCACTGTGATGATGAAGCATGGTTACATTGG
CGAATTTGAAATCATTGATGATCGCAGAGCTGGGAAAATTGTTGCGAACCTCACAGGCAGGCTAAACAAGTGTGG
AGTGATCAGCCCCAGATTCGGTGTGCAACTCAAAGATCTAGAAAATGGCAGAATAATCTGCTTCCATCCCACCAG
TTTGGTTTCATTGTAC**TGA**CAACCTCAGCTGGCATCATGGACCATGAAGAAGCAAGACGAAAACACACAGGAGGG
AAAATCCTGGGATTCTTTTTCTAGGGATGTAATACATATATTTACAAATAAAATGTCTCATGGAAAAAAAAGAAA
AAAGACAGGAAAAAAAAAAAAAAAAAAAAAAAT

FIGURE 561

GCGGCGTGAGAAGCC**ATG**AGCAGCAAAGTCTCTCGCGACACCCTGTACGAGGCGGTGCGGGAAGTCCTGCACGGG
AACCAGCGCAAGCGCCGCAAGTTCCTGGAGACGGTGGAGTTGCAGATCAGCTTGAAGAACTATGATCCCCAGAAG
GACAAGCGCTTCTCGGGCACCGTCAGGCTTAAGTCCACTCCCCGCCCTAAGTTCTCTGTGTGTGTCCTGGGGGAC
CAGCAGCACTGTGACGAGGCTAAGGCCGTGGATATCCCCCACATGGACATCGAGGCGCTGAAAAAACTCAACAAG
AATAAAAAAACTGGTCAAGAAGCTGGCCAAGAAGTATGATGCGTTTTTGGCCTCAGAGTCTCTGATCAAGCAGATT
CCACGAATCCTCGGCCCAGGTTTAAATAAGGCAGGAAAGTTCCCTTCCCTGCTCACACACAACGAAAACATGGTG
GCCAAAGTGGATGAGGTGAAGTCCACAATCAAGTTCCAAATGAAGAAGGTGTTATGTCTGGCTGTAGCTGTTGGT
CACGTGAAGATGACAGACGATGAGCTTGTGTATAACATTCACCTGGCTGTCAACTTCTTGGTGTCATTGCTCAAG
AAAAACTGGCAGAATGTCCGGGCCTTATATATCAAGAGCACCATGGGCAAGCCCCAGCGCCTATAT**TAA**GGCACA
TTTGAATAAATTCTATTACCAGTTC

FIGURE 562

AACGGCTGCGGCTTCGGGCGGCCGGGTTTCTCCGGTCTCCCAACGCCGAGGAGAGCTTGTAACAGGCGCTGGAGC
TGGCCCGCCACCGCCGCGTCAGGGACGGCGCTGGAGTCCTCCGTTCCCCTCAGCCTCTGAGCTGAGGCCCCACAC
CAGAGTAGGGGGCGGCGCGGCACCCGTGCCCCGGC**ATG**GCGACACCGGACGCGGGGCTCCCTGGGGCTGAGGGCG
TGGAGCCGGCGCCCTGGGCGCAGCTGGAGGCCCCCGCCCGCCTCCTGCTGCAGGCGCTGCAGGCGGGGCCTGAGG
GGGCGCGGCGCGGCCTGGGGGTGCTCCGGGCGCTGGGCAGCCGCGGCTGGGAGCCCTTCGACTGGGGTCGCTTGC
TCGAGGCCCTGTGCCGGGAGGAGCCGGTCGTGCAGGGGCCTGACGGCCGTCTGGAGCTGAAACCACTGTTGCTGC
GATTGCCCCGGATATGCCAGAGGAACCTGATGTCCCTGCTGATGGCCGTTCGGCCATCGCTGCCGGAAAGTGGGC
TCCTCTCTGTGCTGCAGATTGCCCAGCAGGACCTAGCCCCTGACCCAGATGCCTGGCTCCGTGCCCTGGGGGAAT
TGCTGCGAAGGGATTTGGGGGTGGGGACCTCCATGGAGGGAGCTTCTCCACTGTCTGAAAGATGCCAGAGACAGC
TCCAAAGTCTATGTAGGGGGCTGGGCCTGGGGGGCAGGAGGTTGAAATCCCCCCAGGCTCCAGACCCTGAAGAAG
AGGAGAACAGGGACTCCCAGCAGCCTGGGAAACGCAGAAAGGACTCAGAGGAAGAGGCTGCCAGTCCTGAGGGGA
AGAGGGTCCCCAAAAGATTACGGTGTTGGGAAGAGGAAGAAGATCATGAGAAGGAGAGACCCGAACATAAGTCAC
TGGAATCCCTGGCAGATGGAGGAAGTGCATCTCCTATTAAGGACCAGCCTGTCATGGCAGTTAAGACTGGCGAGG
ACGGTTCGAATCTGGATGATGCTAAAGGTCTGGCTGAGAGTTTGGAGTTGCCCAAAGCTATCCAGGACCAGCTTC
CCAGGCTGCAGCAGCTGCTGAAGACCTTGGAGGAGGGGTTAGAGGGATTGGAGGATGCCCCCCCAGTTGAGCTAC
AGCTTCTTCACGAATGTAGTCCCAGCCAGATGGACTTGCTGTGTGCCCAGCTGCAGCTCCCTCAGCTCTCAGACC
TCGGTCTCCTGCGGCTCTGCACCTGGCTGCTGGCCCTTTCACCTGATCTCAGCCTCAGCAATGCTACTGTGCTGA
CCAGAAGCCTCTTTCTTGGACGGATCCTCTCCTTGACTTCCTCAGCCTCCCGCCTGCTTACAACTGCCCTGACCT
CCTTCTGTGCCAAATATACATACCCTGTCTGCAGCGCCCTCCTTGACCCTGTGCTCCAGGCCCCAGGCACAGGTC
CTGCTCAAACAGAGTTACTGTGTTGCCTTGTGAAGATGGAGTCCCTGGAGCCAGATGCACAGGTTCTAATGCTGG
GACAGATCTTGGAGCTGCCCTGGAAGGAGGAAACTTTCTTGGTGTTGCAGTCACTCCTAGAGCGGCAGGTGGAGA
TGACCCCTGAGAAGTTCAGTGTCTTAATGGAGAAGCTCTGTAAAAAGGGGCTGGCAGCCACCACCTCCATGGCCT
ATGCCAAGCTCATGCTGACAGTGATGACCAAGTATCAGGCTAACATCACTGAGACCCAGAGGCTGGGCCTGGCTA
TGGCCCTAGAACCTAACACCACCTTCCTGAGGAAGTCCCTGAAGGCCGCCTTGAAACATTTGGGCCCC**TGA**CCAT
CCACCAAGGGACCACCCTCTTGGTGCTCCATCACCAGCTTCCTGAAGGGCATTTCTTTCTTCACCACCTTGTCTT
GAGCCCTAGCCTGAGGATAAAGGCTGAGCCTGGCCATCCCAGATTGCAACTGCCTCCCTGTTACAGGCTGCATAG
GGAATATTGGCTTCCCAGCCAGCAGGGAGGCTCCTGGGCTAAGGGAGCTCAGCTATATTTTCTTTTTCATTTCTT
TTGTTTTTGAGAGAAGGTATTGCTCTGTCATCCAGGCTGGAGTGCAGTGATGCGATTGATCATGGCTCACTGTAA
CCTCTGCCTCCCAGGCTCGATCCTCCCATGTCAGCCTCCCAAGTAGCTGGGACTACATGCACATGACACTATGCC
CAGCTAATTTTTTATTTTGTAGATAATATGCTGGTCAGGGCTGGTCTTGAACTCCTGAGCTCAAGTGATCTTCCT
GCCTTGGCACCCAAAGTGTTGAGATTTACAGGTGTGAGCCACCACACCAGGCCAGAGCTATATTTCCAAAGGCTG
CTGGCCCCAGGCACACTCCTCATCAATTCTCAGGCTGCAGGGACAAACTTTCCGATAGGGCTCAGTAGGATCAAG
CCGACCCAGAGTGGGCATGGGATGCTCCAGGAGGTCTGGGGTACCAGTGGGCTCAGATGAAGCTCTTGTGCTCAT
GTATATTATGACCTTCTGTGTTTTTGTTTCTGACTTGAATAATTTATCAATGGTGTTGAATAAAAGCAAGTTCAA
TAATG

FIGURE 563

GAATTCTGCGGAGCCTGCGGGACGGCGGCGGTGGCGCCGTAGGCAGCCGGGACAGTGTTGTACAGTGTTTTGGGC
ATGCACGTGATACTCACACAGTGGCTTCTGCTCACCAACAGATGAAGACAGATGCACCAACGAGGGTCTGGAATG
GTCTGGAGTGGTCTGGAAAGCAGGGTCAGATACCCCTGGAAAACTGAAGCCCGTGGAGCAGTGATCTCTACAGGA
CTGCTTCAAGGCTGATGGGAACCACCCTGTAGAGGTCCATCTGCGTTCAGACCCAGACGATGCCAGAGCTATGAC
TGGGCCTGCAGGTGTGGCGCCGAGGGGAGATCAGCC**ATG**GAGCAGCCACAGGAGGAAGCCCCTGAGGTCCGGGAA
GAGGAGGAGAAAGAGGAAGTGGCAGAGGCAGAAGGAGCCCCAGAGCTCAATGGGGGACCACAGCATGCACTTCCT
TCCAGCAGCTACACAGACCTCTCCCGGAGCTCCTCGCCACCCTCACTGCTGGACCAACTGCAGATGGGCTGTGAC
GGGGCCTCATGCGGCAGCCTCAACATGGAGTGCCGGGTGTGCGGGGACAAGGCATCGGGCTTCCACTACGGTGTT
CATGCATGTGAGGGGTGCAAGGGCTTCTTCCGTCGTACGATCCGCATGAAGCTGGAGTACGAGAAGTGTGAGCGC
AGCTGCAAGATTCAGAAGAAGAACCGCAACAAGTGCCAGTACTGCCGCTTCCAGAAGTGCCTGGCACTGGGCATG
TCACACAACGCTATCCGTTTTGGTCGGATGCCGGAGGCTGAGAAGAGGAAGCTGGTGGCAGGGCTGACTGCAAAC
GAGGGGAGCCAGTACAACCCACAGGTGGCCGACCTGAAGGCCTTCTCCAAGCACATCTACAATGCCTACCTGAAA
AACTTCAACATGACCAAAAAGAAGGCCCGCAGCATCCTCACCGGCAAAGCCAGCCACACGGCGCCCTTTGTGATC
CACGACATCGAGACATTGTGGCAGGCAGAGAAGGGGCTGGTGTGGAAGCAGTTGGTGAATGGCCTGCCTCCCTAC
AAGGAGATCAGCGTGCACGTCTTCTACCGCTGCCAGTGCACCACAGTGGAGACCGTGCGGGAGCTCACTGAGTTC
GCCAAGAGCATCCCCAGCTTCAGCAGCCTCTTCCTCAACGACCAGGTTACCCTTCTCAAGTATGGCGTGCACGAG
GCCATCTTCGCCATGCTGGCCTCTATCGTCAACAAGGACGGGCTGCTGGTAGCCAACGGCAGTGGCTTTGTCACC
CGTGAGTTCCTGCGCAGCCTCCGCAAACCCTTCAGTGATATCATTGAGCCTAAGTTTGAATTTGCTGTCAAGTTC
AACGCCCTGGAACTTGATGACAGTGACCTGGCCCTATTCATTGCGGCCATCATTCTGTGTGGAGACCGGCCAGGC
CTCATGAACGTTCCACGGGTGGAGGCTATCCAGGACACCATCCTGCGTGCCCTCGAATTCCACCTGCAGGCCAAC
CACCCTGATGCCCAGTACCTCTTCCCCAAGCTGCTGCAGAAGATGGCTGACCTGCGGCAACTGGTCACCGAGCAC
GCCCAGATGATGCAGCGGATCAAGAAGACCGAAACCGAGACCTCGCTGCACCCTCTGCTCCAGGAGATCTACAAG
GACATGTAC**TAA**CGGCGGCACCCAGGCCTCCCTGCAGACTCCAATGGGGCCAGCACTGGAGGGGCCCACCCACAT
GACTTTTCCATTGACCAGCTCTCTTCCTGTCTTTGTTGTCTCCCTCTTTCTCAGTTCCTCTTTCTTTTCTAATTC
CTGTTGCTCTGTTTCTTCCTTTCTGTAGGTTTCTCTCTTCCCTTCTCCCTTGCCCTCCCTTTCTCTCTCCACCCC
CCACGTCTGTCCTCCTTTCTTATTCTGTGAGATGTTTTGTATTATTTCACCAGCAGCATAGAACAGGACCTCTGC
TTTTGCACACCTTTTCCCCAGGAGCAGAAGAGAGTGGGGCCTGCCCTCTGCCCCATCATTGCACCTGCAGGCTTA
GGTCCTCACTTCTGTCTCCTGTCTTCAGAGCAAAAGACTTGAGCCATCCAAAGAAACACTAAGCTCTCTGGGCCT
GGGTTCCAGGGAAGGCTAAGCATGGCCTGGACTGACTGCAGCCCCCTATAGTCATGGGGTCCCTGCTGCAAAGGA
CAGTGGGCAGGAGGCCCCAGGCTGAGAGCCAGATGCCTCCCCAAGACTGTCATTGCCCCTCCGATGCTGAGGCCA
CCCACTGACCCAACTGATCCTGCTCCAGCAGCACACCTCAGCCCCACTGACACCCAGTGTCCTTCCATCTTCACA
CTGGTTTGCCAGGCCAATGTTGCTGATGGCCCCTCCAGCACACACACATAAGCACTGAAATCACTTTACCTGCAG
GCTCCATGCACCTCCCTTCCCTCCCTGAGGCAGGTGAGAACCCAGAGAGAGGGGCCTGCAGGTGAGCAGGCAGGG
CTGGGCCAGGTCTCCGGGGAGGCAGGGGTCCTGCAGGTCCTGGTGGGTCAGCCCAGCACCTGCTCCCAGTGGGAG
CTTCCCGGGATAAACTGAGCCTGTTCATTCTGATGTCCATTTGTCCCAATAGCTCTACTGCCCTCCCCTTCCCCT
TTACTCAGCCCAGCTGGCCACCTAGAAGTCTCCCTGCACAGCCTCTAGTGTCCGGGGACCTTGTGGGACCAGTCC
CACACCGCTGGTCCCTGCCCTCCCCTGCTCCCAGGTTGAGGTGCGCTCACCTCAGAGCAGGGCCAAAGCACAGCT
GGGCATGCCATGTCTGAGCGGCGCAGAGCCCTCCAGGCCTGCAGGGGCAAGGGGCTGGCTGGAGTCTCAGAGCAC
AGAGGTAGGAGAACTGGGGTTCAAGCCCAGGCTTCCTGGGTCCTGCCTGGTCCTCCCTCCCAAGGAGCCATTCTG
TGTGTGACTCTGGGTGGAAGTGCCCAGCCCCTGCCCCTACGGGCGCTGCAGCCTCCCTTCCATGCCCCAGGATCA
CTCTCTGCTGGCAGGATTCTTCCCGCTCCCCACCTACCCAGCTGATGGGGGTTGGGGTGCTTCCTTTCAGGCCAA
GGCTATGAAGGGACAGCTGCTGGGACCCACCTCCCCCTCCCCGGCCACATGCCGCGTCCCTGCCCCGACCCGGGT
CTGGTGCTGAGGATACAGCTCTTCTCAGTGTCTGAACAATCTCCAAAATTGAAATGTATATTTTTGCTAGGAGCC
CCAGCTTCCTGTGTTTTTAATATAAATAGTGTACACAGACTGACGAAACTTTAAATAAATGGGAATTAAATATTT
AA

FIGURE 564

ATGGCCCTGCGCAAGGAACTGCTCAAGTCCATCTGGTACGCCTTTACCGCGCTGGACGTGGAGAAGAGTGGCAAA
GTCTCCAAGTCCCAGCTCAAGGTGCTGTCCCACAACCTGTACACGGTCCTGCACATCCCCCATGACCCCGTGGCC
CTGGAGGAACACTTCCGAGATGATGATGACGGCCCTGTGTCCAGCCAGGGATACATGCCCTACCTCAACAAGTAC
ATCCTGGACAAGGTGGAGGAGGGGGCTTTTGTTAAAGAGCACTTTGATGAGCTGTGCTGGACGCTGACGGCCAAG
AAGAACTATCGGGCAGATAGCAACGGGAACAGTATGCTCTCCAATCAGGATGCCTTCCGCCTCTGGTGCCTCTTC
AACTTCCTGTCTGAGGACAAGTACCCTCTGATCATGGTTCCTGATGAGGTGGAATACCTGCTGAAAAAGGTACTC
AGCAGCATGAGCTTGGAGGTGAGCTTGGGTGAGCTGGAGGAGCTTCTGGCCCAGGAGGCCCAGGTGGCCCAGACC
ACCGGGGGGCTCAGCGTCTGGCAGTTCCTGGAGCTCTTCAATTCGGGCCGCTGCCTGCGGGGCGTGGGCCGGGAC
ACCCTCAGCATGGCCATCCACGAGGTCTACCAGGAGCTCATCCAAGATGTCCTGAAGCAGGGCTACCTGTGGAAG
CGAGGGCACCTGAGAAGGAACTGGGCCGAACGCTGGTTCCAGCTGCAGCCCAGCTGCCTCTGCTACTTTGGGAGT
GAAGAGTGCAAAGAGAAAAGGGGCATTATCCCGCTGGATGCACACTGCTGCGTGGAGGTGCTGCCAGACCGCGAC
GGAAAGCGCTGCATGTTCTGTGTGAAGACAGCCAACCGCACGTATGAGATGAGCGCCTCAGACACGCGCCAGCGC
CAGGAGTGGACAGCTGCCATCCAGATGGCGATCCGGCTGCAGGCCGAGGGGAAGACGTCCCTACACAAGGACCTG
AAGCAGAAACGGCGCGAGCAGCGGGAGCAGCGGGAGCGGCGCCGGGCGGCCAAGGAAGAGGAGCTGCTGCGGCTG
CAGCAGCTGCAGGAGGAGAAGGAGCGGAAGCTGCAGGAGCTGGAGCTGCTGCAGGAGGCGCAGCGGCAGGCCGAG
CGGCTGCTGCAGGAGGAGGAGGAACGGCGCCGCAGCCAGCACCGCGAGCTGCAGCAGGCGCTCGAGGGCCAACTG
CGCGAGGCGGAGCAGGCCCGGGCCTCCATGCAGGCTGAGATGGAGCTGAAGGAGGAGGAGGCTGCCCGGCAGCGG
CAGCGCATCAAGGAGCTGGAGGAGATGCAGCAGCGGTTGCAGGAGGCCCTGCAACTAGAGGTGAAAGCTCGGCGA
GATGAAGAATCTGTGCGAATCGCTCAGACCAGACTGCTGGAAGAGGAGGAAGAGAAGCTGAAGCAGTTGATGCAG
CTGAAGGAGGAGCAGGAGCGCTACATCGAACGGGCGCAGCAGGAGAAGGAAGAGCTGCAGCAGGAGATGGCACAG
CAGAGCCGCTCCCTGCAGCAGGCCCAGCAGCAGCTGGAGGAGGTGCGGCAGAACCGGCAGAGGGCTGACGAGGAT
GTGGAGGCTGCCCAGAGAAAACTGCGCCAGGCCAGCACCAACGTGAAACACTGGAATGTCCAGATGAACCGGCTG
ATGCATCCAATTGAGCCTGGAGATAAGCGTCCGGTCACCAGCAGCTCCTTCTCAGGCTTCCAGCCCCCTCTGCTT
GCCCACCGTGACTCCTCCCTAAAGCGCCTGACCCGCTGGGGATCCCAGGGCAACAGGACCCCCTCGCCCAACAGC
AATGAGCAGCAGAAGTCCCTCAATGGTGGGGATGAGGCTCCTGCCCCGGCTTCCACCCCTCAGGAAGATAAACTG
GATCCAGCACCAGAAAAT**TAG**

FIGURE 565

GGTGGCCACAGAGCAACTTCCTCTAGAGGGAGCTGATTGGAGCCGGGTGCCGCTGGCACCTCTATGATCACTGGA
GTCTCGCGGGTCCCTCGGGCTGCACAGGGACAAGTAAAGGCTACATCCAGATGCCGGGAATGCACTGACGCCCAT
TCCTGGAAACTGGGCTCCCACTCAGCCCCTGGGAGCAGCAGCCGCCAGCCCCTCGGGACCTCCATCTCCACCCTG
CTGAGCCACCCGGGTTGGGCCAGGATCCCGGCAGGCTGATCCCGTCCTCCACTGAGACCTGAAAAATGGCTTCGG
GGCAAGGCCCAGGTCCTCCCAGGCAGGAGTGCGGAGAGCCTGCCCTGCCCTCTGCTTCTGCAGGAACAGGAGGCT
GAAGGGGTGGCTGCCCCTGCCGACCCAGAGATGGTCACCTTACCTCTGCAACCTACAGCACC**ATG**GGGCAGGTGG
GACGGCAGCTCGCCATCATCGGGGACGACATCAACCGACGCTATGACTCAGAGTTCCAGACCATGTTGCAGCACC
TGCAGCCCACGGCAGAGAATGCCTATGAGTACTTCACCAAGATTGCCACCAGCCTGTTTGAGAGTGGCATCAATT
GGGGCCGTGTGGTGGCTCTTCTGGGCTTCGGCTACCGTCTGGCCCTACACGTCTACCAGCATGGCCTGACTGGCT
TCCTAGGCCAGGTGACCCGCTTCGTGGTCGACTTCATGCTGCATCACTGCATTGCCCGGTGGATTGCACAGAGGG
GTGGCTGGGTGGCAGCCCTGAACTTGGGCAATGGTCCCATCCTGAACGTGCTGGTGGTTCTGGGTGTGGTTCTGT
TGGGCCAGTTTGTGGTACGAAGATTCTTCAAATCA**TGA**CTCCCAAGGGTGCCCTTTGGGGTCCCGGTTCAGACCC
CTGCCTGGACTTAAGCGAAGTCTTTGCCTTCTCTGTTCCCTTGCAGGGGTCCCCCCTCAAGAGTACAGAAGCTTT
AGCAAGTGTGCACTCCAGCTTCGGAGGGCCCCTGCGTGGGGGCCAGTCAGGCTGCAGAGGCACCTCAACATTGCA
TGGTGCTAGTGGGCCCTCTCTCTGGGCCCAGGGGCTGTGGCCGTCTCCTCCCTCAGCTCTCTGGGACCTCCTTAG
CCCTGTCTGCTAGGCGCTGGGGAGACTGATAACTTGGGGAGGCAAGAGACTGGGAGCCACTTCTCCCCAGAAAGT
GTTTAACGGTTTTAGCTTTTTATAATACCCTTGTGAGAGCCCATTCCCACCATTCTACCTGAGGCCAGGACGTCT
GGGGTGTGGGGATTGGTGGGTCTATGTTCCCCAGGATTCAGCTATTCTGGAAGATCAGCACCCTAAGAGATGGGA
CTAGGACCTGAGCCTGGTCCTGGCCGTCCCTAAGCATGTGTCCCAGGAGCAGGACCTACTAGGAGAGGGGGGCCA
AGGTCCTGCTCAACTCTACCCCTGCTCCCATTCCTCCCTCCGGCCATACTGCCTTTGCAGTTGGACTCTCAGGGA
TTCTGGGCTTGGGGTGTGGGGTGGGGTGGAGTCGCAGACCAGAGCTGTCTGAACTCACGTGTCAGAAGCCTCCAA
GCCTGCCTCCCAAGGTCCTCTCAGTTCTCTCCCTTCCTCTCTCCTTATAGACACTTGCTCCCAACCCATTCACTA
CAGGTGAAGGCTCTCACCCCCATCCCTGGGGGCCTTGGGTGAGTGGCCTGCTAAGGCTCCTCCTTGCCCAGACTA
CAGGGCTTAGGACTTGGTTTGTTATATCAGGGAAAAGGAGTAGGGAGTTCATCTGGAGGGTTCTAAGTGGGAGAA
GGACTATCAACACCACTAGGAATCCCAGAGGTGGGATCCTCCCTCATGGCTCTGGCACAGTGTAATCCAGGGGTG
TAGATGGGGGAACTGTGAATACTTGAACTCTGTTCCCCCACCCTCCATGCTCCTCACCTGTCTAGGTCTCCTCAG
GGTGGGGGGTGACAGTGCCTTCTCTATTGGGCACAGCCTAGGGTCTTGGGGGTCAGGGGGGAGAAGTTCTTGATT
CAGCCAAATGCAGGGAGGGGAGGCAGATGGAGCCCATAGGCCACCCCCTATCCTCTGAGTGTTTGGAAATAAACT
GTGCAATCCCCTC

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FIGURE 566A

GGCTCGGGGGGTGGCTCAGGGGGCAAGGGCAAAGGAGGTTGCCCGGCTGTGCGGCTGAAAGCACGTTACCAGACA
ATGAGCATCTTGCCCATGGAGCTATATAAAGAGTTTGCAGAGTATGTCACCAACCATTATCGGATGCTGTGTGCA
GTCTTGGAGCCCGCCCTGAATGTCAAAGGCAAGGAGGAGGTTGCCAGTGCACTAGTTCACATCCTGCAGAGTACA
GGCAAGGCCAAGGACTTCCTTTCAGACATGGCCATGTCTGAGGTAGACCGGTTCATGGAACGGGAGCACCTCATA
TTCCGCGAGAACACGCTTGCCACTAAAGCCATAGAAGAGTATATGAGACTGATTGGTCAGAAATACCTCAAGGAT
GCCATTGGAGAATTCATCCGTGCTCTGTATGAATCTGAGGAAAACTGCGAGGTAGACCCTATCAAGTGCACAGCA
TCCAGTTTGGCAGAGCACCAGGCCAACCTGCGAATGTGCTGTGAGTTGGCCCTGTGCAAGGTGGTCAACTCCCAC
TGCGTGTTCCCGAGGGAGCTGAAGGAGGTGTTTGCTTCGTGGCGGCTGCGCTGCGCAGAGCGAGGCCGGGAGGAC
ATCGCAGACAGGCTTATCAGCGCCTCACTCTTCCTGCGCTTCCTCTGCCCAGCGATTATGTCGCCCAGTCTCTTT
GGGCTTATGCAGGAGTACCCAGATGAGCAGACCTCACGAACCCTCACCCTCATTGCCAAGGTCATCCAGAACCTG
GCCAACTTTTCCAAGTTTACCTCAAAGGAGGACTTTCTGGGCTTCATGAATGAGTTTCTGGAGCTGGAATGGGGT
TCCATGCAGCAGTTTTTGTATGAGATCTCCAATCTGGACACGCTAACCAACAGCAGTAGCTTTGAGGGTTACATC
GACTTGGGCCGAGAGCTCTCCACACTGCATGCCCTACTCTGGGAGGTGCTGCCCCAGCTCAGCAAGGAAGCCCTC
CTGAAGCTGGGTCCACTGCCCCGGCTCCTCAACGACATCAGCACAGCTCTGAGGAACCCCAACATCCAAAGGCAG
CCAAGCCGCCAGAGTGAGCGGCCCCGGCCTCAGCCTGTGGTACTGCGGGGGCCATCGGCTGAGATGCAGGGCTAC
ATGATGCGGGACCTCAACAGCTCCATCGACCTTCAGTCCTTCATGGCTCGAGGCCTCAACAGCTCTATGGACATG
GCTCGCCTCCCCTCCCCAACCAAGGAAAAGCCACCCCCACCACCGCCTGGTGGTGGTAAAGACCTGTTCTATGTA
AGCCGTCCACCCCTGGCCCGTTCCTCACCAGCATACTGCACGAGCAGCTCGGACATCACAGAGCCAGAGCAGAAG
ATGCTGAGTGTCAACAAGAGTGTGTCCATGCTGGACTTACAGGGTGATGGGCCTGGTGGCCGCCTCAACAGCAGC
AGTGTTTCGAACCTGGCGGCCGTAGGGGACCTGCTGCACTCAAGCCAGGCCTCGCTGACAGCAGCCTTGGGGCTA
CGGCCTGCGCCTGCCGGACGCCTCTCCCAGGGGAGTGGCTCATCCATCACGGCGGCTGGCATGCGCCTCAGCCAG
ATGGGTGTCACCACAGACGGTGTCCCTGCCCAGCAACTGCGAATCCCCCTCTCCTTCCAGAACCCTCTCTTCCAC
ATGGCTGCTGATGGGCCAGGTCCCCCAGGCGGCCATGGAGGGGGCGGTGGCCATGGCCCACCTTCCTCCCATCAC
CACCACCACCACCATCACCACCACCGAGGTGGAGAGCCCCCTGGGGACACCTTTGCCCCATTCCATGGCTATAGC
AAGAGTGAGGACCTCTCTTCCGGGGTCCCCAAGCCCCCTGCTGCCTCCATCCTTCATAGCCACAGCTACAGTGAT
GAGTTTGGACCCTCTGGCACTGACTTCACCCGTCGGCAGCTTTCACTCCAGGACAACCTGCAGCACATGCTGTCC
CCTCCCCAGATCACCATTGGTCCCCAGAGGCCAGCCCCCTCAGGGCCTGGAGGTGGGAGCGGTGGGGGCAGCGGT
GGGGGTGGCGGGGGCCAGCCGCCTCCATTGCAGAGGGGCAAGTCTCAGCAGTTGACAGTCAGCGCAGCCCAGAAA
CCCCGGCCATCCAGCGGGAATCTATTGCAGTCCCCAGAGCCAAGTTATGGCCCCGCCCGTCCACGGCAACAGAGC
CTCAGCAAGGAGGGCAGCATTGGGGGCAGCGGGGGCAGCGGTGGCGGAGGGGGTGGGGGGCTGAAGCCCTCCATC
ACCAAGCAGCATTCTCAGACACCATCCACATTGAACCCCACAATGCCAGCCTCTGAGCGGACAGTGGCCTGGGTC
TCCAACATGCCTCACCTGTCGGCTGACATCGAGAGTGCCCACATCGAGCGGGAAGAGTACAAGCTCAAGGAGTAC
TCAAAATCGATGGATGAGAGCCGGCTGGATAGGGTGAAGGAGTACGAGGAGGAGATTCACTCACTGAAAGAGCGG
CTGCACATGTCCAACCGGAAGCTGGAAGAGTATGAGCGGAGGCTGCTGTCCCAGGAAGAACAAACCAGCAAAATC
CTGATGCAGTATCAGGCCCGACTGGAGCAGAGTGAGAAGAGGCTAAGGCAGCAGCAGGCAGAGAAGGATTCCCAG
ATCAAGAGCATCATTGGCAGGCTGATGCTGGTGGAGGAGGAGCTGCGCCGGGACCACCCCGCCATGGCTGAGCCG
CTGCCAGAACCCAAGAAGAGGCTGCTCGACGCTCAGGAGAGGCAGCTTCCCCCCTTGGGTCCAACAAACCCGCGT
GTGACGCTGGCCCCACCGTGGAATGGCCTGGCCCCCCCAGCCCCACCACCCCCACCCCGGCTGCAGATTACGGAG
AACGGCGAGTTCCGAAACACCGCAGACCAC**TAG**CCCACCCAGCATCAGAGACCTTCTCTTCCTTTCCTGTGCACC
CCACCCTGTAACAGCACCAACCACCAGGATTGGACATCACCGAGGAACAGCGGGATTGCCTCCCCGAATGCCTCC
CTGGGAGGCACACTGATTGCCCACCCCCACCACTGCACCATTTCCAGGAGGGAGAGTGGGGACCCTCAGCCGCCC
CCTTTTCCTTCCCATTGGGGTGCTGCCCTCTCTTTGACCCCCAGGGACCCTTGCCCCAGGACACCGCCTACCCCG
TACAGACCCCTTCACTCCGGGGTGCTATCCCCATCCTCTGCCTCATCGTTCCCCTGAGCACTGGGGGACAGACCC
TCACCCCCACCCTGGGGGGTGTGGCACCTCCAAACTTTCAACTTCAGGGTGATTTTTTTAGCAGTAACCAGAGCTG
ACAATCTAACTCCCCTCCACCGCCCCATTTTGGCCTCCCCTGCCCCCCTTGTTATGGGGAGGGGACCCCGGGTGA
GGGGGCCCTATTACCCCTTGATTTCTCAGGAGCGTCTGGGGGGGCTCAGCACGCACAAACTCCTTCTCCTTCTAC
CACTCTTAAATTTACTCCCTCCCCACCCAGAACCCAGATGGGGTGGAGGGGGCCACCGGGGCAGGGAGGGGGCGG
CAAGGGGGGAATGGGAGTTGTCTCCCCTTCTCCCCACACCTGATCTGCTCTCGGCTGGTCCCAGAGCGGGGTGAG

FIGURE 566B

GGGGCTTATGCCCCCCCCTCCCCCAGTGTGTTGGGTGGGGTGGAATTGAGGTTAGGGTGAGGGGTCAGGGTTTAG
GAGGGTGTGTATGTTGGGAGGACAGGCTAGTTGATCTGTCCTACTCTGACACACAGTCCCCTCTGCCCCTTCCTT
CTCTCTTCTTGGTCTCTACTCCCAGGGGGAGGGGGGAACTTACTCTAGGAAAAGCCATGTCTCTCTCCCCCAGGG
TGGGGGGACCTGTGTTGGAGGAGGGGTGTTGGGGGGCCCCCTTCCATGACTCTGTCCCCTGGGGGAGGTAGGACA
GGGCTGGGCTTCCCTCTCATCCTCCCCCTCCCAATCTCCTTCCACCTCCCTCCCTCCCGCCAGCTCCACGATTTT
TCGGTGTTTCTCTGTACATAGTTTTCTGGCGGGATAGGGGAGGTAGGATGGATGGGGTTTGGGGTGGGTAGGCCA
TGGGAGGGGAGAAGCCCCTCCTTGGCACCCCCTCTTCCCTGACTGCTGTCCCCTACCCAGCCTTGCCCCCTTCAT
CCTTTTGCGTTTGGTATTGAGACTCTCCTAGACTCTACTCCTCTTTCTTTTGTATGGACAGTTCCCCTTCAGTCC
CATCCCCCTACACATACACCCAGCCGGGGCCAAATTTATACTTATATAAAAGTTGTAAATATGTGAAATTTTATC
CCTGTGCCCTTTCCCCACCTCAGGCCCTACCCCTGGACCCTCCCCAACCTTCCTTCTCTCTTCTTTGGCTGTTGT
AATTATCTGGGGTTTGTACTGTACATATCCGGGGTGTGTGTGTGTGGGCTGGGGGCAACCCTTCTGTACAGAGCT
TCCTGGCCCCCTCCCCCCCCCGCCCCTCTGCTTCCCTCCCCACCCACCACCTCAAGGGTAGGGAGTTGCTCTTCCT
ACCTGTTTTATTTTGTTTTCTCGTTCTCCCTCCCCACCCCACTCCCAGCCTTATCTATCCCCCCTCACTGTCCCC
TTTTCTCCACTCCCAGCCCCATTTCCTTTTTTTCTGGAGTGTGTGGTGAAACAGAAAAAAACATGTTTAATAAAC
GGAGATTGTTCTTTTATCGCTGTGCCGACTTTCTTAGGCAGGGCTCTCCAGACCTGTACGGTGGTAAGATCTGCT
TTCTGAAAGGAAGCTGACAGCCTGAGAAGAAAACCGTATATCCCCACCTGATGCCACACTCTCCTCATAGAATGT
CACTCTCCCCTCCCAATGAGATTTTTTATATTTTAGAGCAGGAGTTTTGCACCGGCCAAACTTCTCCAATCTAAC
TCTCCCCTCACCACTGTGTCACTTAGTCCGAGGCCAGGAACAGCGGCGTTATCTGATAAAAGAGTTCATGTATAT
ATCCACATTTATCTCTTTTAAAAATTACCTAGAAATAAGGTTTCTTTAATTGCTGGTTAAAATGCTCCCGTGCAG
AAAACAGGAAAGAACCTGCCTGGTTCCTTAGCAAATCTGAGTTCCAGTCCCAGGTCCACTACTATTAGCTGAGTG
ACGCTTCCAGCCCGTTTCCCCCGCCTGGAAACTGAGGACGGCAACCCCCACCCTCGCAGGGCCGGTGGGAAGACA
CAAAGTGATGTGGGCAAGTGCCAGGCCCACATGGTAAGTACCCAACTAATCTCGCCCCTCTCAGGACCTACCGGG
GGCGGGTGCTACACTTAATCACCGGGAAACGCAGCTTTCCGGGGCGGCTGACGGCCCACCCCCTCCGACCGGGCT
GTTCTCTCCCGGGCCCTGCCTCTCTGTCCTCTGCAGCGGGGAGGACTTCAGCAGCTCCCCGGGACGCCCGTTGCG
AGGACACCCTGGGCCTGTGCCCTCCTACTAGCACCGCCCTCCTCGTCTGCAGTAGCCAATCAACACGAGGCTTGT
AGGCTGCCGTTCCTCGATTGGCTACGGCTCTAGCTCCGCCCGCCGCACTTGGCGACGGTGTCCGGCGGGGAGGCG
GCGGCTTCCGGTCTGGGACGGAGCTGTAGCGGCACTGTAACTGCGAGGGCAGCGCCGCGTGTGTAACGGCGGGGG
CGTGTCGGCGGGAAGGACAATCGGGCCGGGACTCGCGGTGTCCGGGTGACCGCGGCTTCCCGGGAGCAGACCTCT
GTGGGCACTGTGAGGCGGAACGGAGCGGCGGGGCAGGAGCTGTTCTGGGCAGGTGAAGGCAGGCTGGTGGCTGAA
GGACCTCCTTCTTATCTTCCACAGGGGCTGGAAGTTAAAACCCCTGTTGGTGTTTAGTGGTGGTGGTTGTTGTTG
TTTGTTTTTGCTTTCTTGGTGTGCGGGACTGATTTGCAGAAACCGCCACTGACTTAAAAGTTTCCAGTTATTGCT
CGTGGGGAGGGGGTTGTTTGAGAAGATGTGGCTCCCTTTATCCAGGGCTTCTGTGACCTCCATCTTTTTCCTCTG
CAGCCTTCATCCCGCGTGGAGTCTACCCCCAAGCCCTTCTCCTCTTCCCAATTCTTGTCACCTTCGAGGAGGCCA
TGGAAACCCCAACACCTTTGCCGCCTGTACCCGCCTCCCCGACCTGCAACCCAGCCCCACGGACAATCCAGATCG
AGTTCCCACAGCATAGCTCGTCGCTGCTGGAATCTCTGAACCGCCACAGGCTAGAGGGAAAGTTCTGTGATGTGT
CCCTCCTGGTGCAGGGCCGGGAACTTAGGGCTCATAAAGCAGTGTTAGCTGCTGCCTCTCCTTACTTCCATGACA
AGCTGCTTCTGGGGGGATGCGCCTCGTCTCACTCTACCGAGTGTCATTGAAGCCGATGCCTTCGAGGGGCTGCTCC
AGCTCATTTATTCAGGGCGTCTCCGCCTGCCACTGGATGCTCTTCCTGCTCATCTCCTTGTGGCCAGTGGCCTTC
AAATGTGGCAGGTAGTAGATCAGTGCTCAGAAATTCTTAGAGAATTAGAAACTTCAGGTGGTGGAATTTCAGCCC
GTGGAGGAAACTCCTACCATGCCCTTCTTTCCACTACATCCTCTACAGGAGGCTGGTGCATTCGCTCTTCGCCTT
TCCAGACCCCAGTACAGTCCTCTGCTTCTACTGAAAGCCCTGCTTCCACTGAGAGCCCTGTGGGAGGGGAGGGAA
GTGAACTGGGAGAAGTGCTGCAAATTCAGGTGGAAGAAGAAGAGGAGGAGGAGGAAGATGATGATGATGAGGACC
AGGGGTCAGCCACACTCTCTCAGACTCCTCAGCCCCAGAGAGTATCAGGGGTTTTTCCCCGTCCTCATGGACCCC
ACCCACTGCCCATGACTGCTACTCCCCGAAAGCTTCCAGAGGGTGAGAGTGCACCACTTGAGCTTCCTGCCCCTC
CTGCACTGCCCCCCAAAATCTTCTACATTAAGCAGGAACCCTTCGAGCCTAAGGAGGAGATATCAGGAAGCGGAA
CTCAGCCTGGAGGAGCAAAGGAGGAAACCAAAGTGTTTTCTGGAGGGGACACTGAAGGGAATGGGGAGCTAGGGT
TCTTGTTGCCTTCAGGGCCAGGGCCAACATCTGGGGGAGGGGGTCCATCCTGGAAACCAGTGGATCTTCATGGGA
ATGAAATCCTGTCAGGGGGTGGAGGACCTGGGGGAGCAGGCCAGGCCGTGCATGGGCCTGTGAAGCTAGGGGGGA

FIGURE 566C

CACCCCCTGCAGATGGAAAACGCTTTGGTTGCCTGTGTGGGAAGCGGTTTGCAGTGAAGCCAAAGCGTGACCGGC
ACATCATGCTGACCTTCAGCCTTCGGCCTTTTGGCTGTGGCATCTGCAACAAGCGCTTCAAGCTGAAGCACCATC
TGACAGAGCACATGAAGACCCATGCTGGAGCCCTGCATGCCTGTCCCCACTGTGGCCGTCGGTTCCGAGTCCATG
CCTGTTTTCTCCGCCACCGGGACCTATGCAAGGGCCAGGGCTGGGCCACTGCCCACTGGACTTACAAGTGACTGC
TGAGGCTATACACTAGCTTCTAGAACAAGATAACCACTGCTGCTGATGGATACTTTTCCCTCACTGCCATGGCAC
ACCAGTCATGGATCTTGTAATCATGCCAAGAGAATAGATACATTATGGACCTCTTGTTCTTAGATATGGGCCTCT
CAGCCTGGCAGATGTGGAAACTCAAATTTCTCGTCCCACTCCAGGTTTTGGCTAGCCAACCCTGCAGGAAAGTGG
TTTATAGGCCATTCATACTTAAGTTGATCACTTGCCCATGGTGGACATTTTTGTGGTGGTGATGTCCATTAAGGA
AACCAGATTTTCAATTATTTAGTGAGAGAAGAGTTAGAGCAAAAGACAGTGGTAAATGTTTTATTCCGTCTCCAT
GAGGAATTGAAGGAGTTGGTCTCCACCTAGAGATACATTTGATTTACAGCTTAAGTAATTCAGAGGCTAAGCTCT
AAGCTTTTTTCTCTCATTGCTGGAATGATTTAAGCAGAAGTCCTTTTGTGTACTTTTAAAATTGTATCTTTCCAG
GAGCCCCTCAGATTGTACCTTGCTTTCTCACCAATAGACACCTTCCCGACACTTTTTTAATGTTGTAGCTGAGCA
CTTTAACAAGTTGAGCATTCCATGTTTCATTCTTAGAACCTTCTTTAATAGAGGGTCTTCCCTCAACAGCCTGTG
CCTCTGGTCTACCTTTGACCACCACTGATAACTAATATATTGGTCACAATGACTGGAATGTGACTAGTGATCTCA
GGAGATGGCACTGTCCTAAAGTGCTGTCAGGGTGGCACCACTGCTCTCTGAACAACTTACCTTGGTCAGAGGGAC
TCAGGTTTGGGACAGCACAAGCTGAAGGCTGGAGAGTAACTTGCATAGTAGGACCATACCTCTTCCTTTCCCATC
CCACCCACATATGATAGACAGCCCCTCTGTTGAGATATGGAGGGGACAGATACTGGAATCGGGGGTGGGACTTGC
AGTTACTTAAAATTTTTTAATAAACTGTGCCCTGAAACCT

FIGURE 567

CGACCGCTACCCGCACCCTAAATCCCAGAGGTTGGCCCCCTGAGGTGTGAGTGAAATGAGCTTTTGCTTTATTTT
CCAAGTTTCTCTCTCACCTTCAGGGGCATTCTTCGGGGGTGCATCAGAGGGAGGGCAGAGCCTGAGGATCTAAGC
GAAGGCTTCCCCGGGTGTAATTTCCTGGGCTGTTTGTGAGGAGAGATCGAATTCGCCTCCTGCTCTCAGGCCTCT
CTGCTCCTGTCTTTTGTTTGG**ATG**CCGGCGCTGCTGCCTGTGGCCTCCCGCCTTTTGTTGCTACCCCGAGTCTTG
CTGACCATGGCCTCTGGAAGCCCTCCGACCCAGCCCTCGCCGGCCTCGGATTCCGGCTCTGGCTACGTTCCGGGC
TCGGTCTCTGCAGCCTTTGTTACTTGCCCCAACGAGAAGGTCGCCAAGGAGATCGCCAGGGCCGTGGTGGAGAAG
CGCCTAGCAGCCTGCGTCAACCTCATCCCTCAGATTACATCCATCTATGAGTGGAAAGGGAAGATCGAGGAAGAC
AGTGAGGTGCTGATGATGATTAAAACCCAAAGTTCCTTGGTCCCAGCTTTGACAGATTTTGTTCGTTCTGTGCAC
CCTTACGAAGTGGCCGAGGTAATTGCATTGCCTGTGGAACAGGGGAACTTTCCGTACCTGCAGTGGGTGCGCCAG
GTCACAGAGTCAGTTTCTGACTCTATCACAGTCCTGCCA**TGA**TGAGCCCTGTTCCTGCTCATCATGAAGATCCCC
GCGATACTTCAACGCCTTCTGACTTCCAGGTGATGACTGGGCCCCCAATAAATCCCGTCTTTGGGTCTCTCTGCC

FIGURE 568

CTCCTCCTGCCGCTGCCGCTGCTTTGGCTGCTGCGTCATACGCCCCAGAGCCGCCGGGACGGAGGGGCTGGGCCT
GGGGACCCCCCGGCCTCCGCCTGCACGCCCCCCCACGCCCGGACGTGCCCTCTCCGCGCGGGGGACTCGCCTAGG
TCTCCTACGTCTGCCCCTGCCCGGCTCCCGGCGGCCCCAGCTGTCACCGGCCCCCCCAGGATGCA**ATG**GCGCAGC
CCCCCCGGCTGAGCCGCTCTGGTGCCTCCTCACTTTGGGACCCAGCTTCTCCTGCTCCCACCTCTGGCCCCAGGC
CTCGGCTTTGGGAGGGTCAAGATGTGCTGGCCAGATGGACTGATGGGCTGCTATACTTGGGTACCATCAAAAAGG
TGGACAGTGCTAGGGAGGTGTGTCTGGTCCAGTTTGAGGATGATTCGCAGTTTCTGGTTCTATGGAAAGACATTA
GCCCTGCTGCCCTCCCTGGAGAGGAACTCCTCTGTTGTGTCTGTCGCTCTGAGACTGTGGTCCCTGGGAACCGGC
TGGTCAGCTGTGAGAAGTGTCGCCATGCTTATCACCAGGACTGCCATGTTCCCAGGGCTCCAGCCCCTGGAGAGG
GAGAGGGCACATCCTGGGTATGCCGCCAGTGTGTCTTTGCGATCGCCACCAAGAGGGGAGGTGCCCTGAAGAAGG
GCCCCTATGCCCGGGCCATGCTGGGTATGAAGCTTTCTCTGCCATATGGACTGAAGGGGCTGGACTGGGATGCTG
GACATCTGAGCAACCGACAGCAGAGTTACTGTTACTGTGGTGGCCCTGGGGAGTGGAACCTGAAAATGCTGCAGT
GCCGGAGCTGCCTGCAGTGGTTCCATGAGGCCTGCACCCAGTGTCTGAGCAAGCCCCTCCTCTATGGGGACAGGT
TCTATGAATTTGAATGCTGTGTGTGTCGCGGGGGCCCTGAGAAAGTCCGGAGACTACAGCTTCGCTGGGTGGATG
TGGCCCATCTTGTCCTGTATCACCTCAGTGTTTGCTGTAAGAAGAAATACTTTGATTTTGATCGTGAGATCCTCC
CCTTCACTTCTGAGAATTGGGACAGTTTGCTCCTGGGGGAGCTTTCAGACACCCCCAAAGGAGAACGTTCTTCCA
AGCTCCTCTCTGCTCTTAACAGCCACAAGGACCGTTTCATTTCAGGGAGAGAGATTAAGAAGAGGAAATGTTTGT
TTGGTCTCCATGCTCGGATGCCTCCCCCTGTGGAGCCCCCTACTGGAGATGGAGCACTCACCAGCTTCCCTTCAG
GGCAGGGCCCTGGGGGAGGGGTCTCACGTCCCCTGGGGAAGCGCCGGAGGCCGGAGCCAGAGCCCCTGAGGAGGA
GGCAGAAGGGGAAAGTGGAGGAGCTGGGGCCACCCTCAGCAGTGCGCAATCAGCCCGAGCCCCAGGAGCAGAGGG
AGCGGGCTCATCTGCAGAGGGCACTGCAGGCCTCAGTGTCTCCACCATCCCCCAGCCCTAACCAGAGTTACCAGG
GCAGCAGCGGCTACAACTTCCGGCCCACAGATGCCCGCTGCCTGCCCAGCAGCCCCATCCGGATGTTTGCTTCCT
TCCACCCTTCTGCCAGCACCGCAGGGACCTCTGGGGACAGTGGACCCCCAGACAGGTCACCCCTGGAACTTCACA
TTGGTTTCCCCACAGACATCCCTAAAAGTGCCCCCCACTCGATGACTGCCTCATCTTCCTCAGTTTCATCCCCAT
CCCCAGGTCTTCCTAGACGCTCAGCACCCCCTTCTCCCCTGTGCCGTAGTTTGTCTCCTGGGACTGGGGGAGGAG
TCCGAGGTGGGGTTGGTTACCTGTCCCGAGGGGACCCTGTCCGGGTCCTTGCTCGGAGAGTACGGCCTGATGGCT
CTGTGCAGTACCTGGTTGAGTGGGGAGGAGGGGGCATCTTC**TGA**ACAGCCTGCCTCTGCCCAGCTCCCCATTCAC
ACACACCGGCACTTTCATACCCTGACCTCTGACCTCACCTACAGCTGGGATGTACCTGGAGAGATAGGGGGTAGT
TCTCCCTACTGCCCAGGCTGGAATCCAAGAGTGGGGAGTGGGGAAGAGGCCCTCTTCTCTACCCTCCTTCATGAT
TCCTGACCCCTCCCATCCTTCCCATTTCCTTTGATGTTATTTTGTTACAGCTTTTTAAATATTTTTTAAAATTAT
TTAACCCCTGGGGGCAGAGACTGAGGAGGGAGGATGATAAGGGATCCCGGACTCTGTATGATTGAAATAAAGAGA
AATAAACAAA

FIGURE 569

GGCCGGAGCCGTGCGAGTTCTCTACCCTGCTTCGCGAGCGGGCGAGAGAACGCGAGTCCCAGGATCCCCGGCACC
CAGTTCTCTTCCACTGCATGATTTTTCCTTTGACCGGGTATTCCCACCAGGAAGTGGACAGGATGAAGTGTTTGA
AGAGATTGCCATGCTTGTCCAGTCAGCCCTGGATGGCTATCCAGTATGCATCTTTGCCTATGGCCAGACAGGCAG
TGGCAAGACCTTCACAATGGAGGGTGGGCCTGGGGGGAGACCCCCAGTTGGAGGGGCTGATCCCTCGGGCCCTGCG
GCACCTCTTCTCTGTGGCTCAGGAGCTGAGTGGTCAGGGCTGGACCTACAGCTTTGTAGCAAGCTACGTAGAGAT
CTACA**ATG**AGACTGTCCGGGACCTGCTGGCCACTGGAACCCGGAAGGGTCAAGGGGGCGAGTGTGAGATTCGCCG
TGCAGGGCCAGGGAGTGAGGAGCTCACTGTCACCAATGCTCGATATGTCCCTGTCTCCTGTGAGAAAGAAGTGGA
CGCCCTGCTTCATCTGGCCCGCCAGAATCGGGCTGTGGCCCGCACAGCCCAGAATGAACGGTCATCACGCAGCCA
CAGTGTATTCCAGCTACAGATTTCTGGGGAGCACTCCAGCCGAGGCCTGCAGTGTGGGGCCCCCCTCAGTCTTGT
GGACCTGGCCGGGAGTGAGCGACTTGACCCCGGCT**TAG**CCCTCGGCC

FIGURE 570

CTCTCGGCTTTCGGCTCGGAGGAGGCCAAGGTGCAACTTTCTTCGGTCATCCTGAATCTGGGTTCATCCGACACC
AGCTGCCTCCACC**ATG**CCACCGAAGTTCGACCCCAACGAGATCAAGGTCGTATACCTGAGGTGCACCAGAGGTGA
AGTCGGTGCCACTTCTGCCCTGGCCCCCAAGATCGGCCCCCTGGGTCTGTCTCCAAAAAAGGTTGGTGATGACAT
TGCCAAGGCAACGGGTGACTGGAAGGGCCTGAGGATTACAGTGAAACTGACCATTGAGAACAGACAGGCCCAGAT
TGAGGTGGTGCCTTCTGCCTCTGCCCCGATCATCAAAGCCCTCAAGAAACCACCAAGAGACAGAAAGAAACAGAA
AAACATTAAACACAATGGGAATATCACTTTTGATGAGATCGTCAACATTGCTCGACAGATGCGGCACCGATCCTT
AGCCAGAGAACTCTCTGGAACCATTAAAGAGATTCCGGGGACTGCCCAGTCTATGGGCTGTAATGTTGATGGCCA
CCACCCTCATGACATCATAGATGACATCAACAGTGGTGCTGTGGAATGCCCAGCTAGT**TAA**GCACAAAGGAAAAT
ATTTCAATAAAGGATCATTTGACAACTGGT

FIGURE 571

GTTCCGGCGGGGGCGGCCGAGGGGGAAGAGTGTGTGTCTGCGGGAGAAAGAGGAGAATCACCCAAGCGGCCTCAG
AAGTCCCAGGGAGTGGAGGCCCCTGCCATGGAGCCGTGTGGTGT**ATG**TGTGGTAACACCATGTCTGTGCCCCTGC
TCAACGATGCTGCCACCGTGTCTGGAGCTGAGCGGGAAACGGCCGTGGTTATTTTTTTACATGGACTTGGAGACA
CAGGGCACAGCTGGGCTGACGCCCTCTCCACCATTCGGCTCCCTCACGTCAAGTACATCTGTTCCCATGAGCCTA
GGATCCCTGTGACCCTCAACATGAAGATGGTGATGCCCTCCTGGTTTGACCTGATGGGGCTGAGTCCAGATGCCC
CAGAGGACGAGGCTGGCATCAAGAAGGCAGCAGAGAACATCAAGGCCTTGATTGAGCATGAAATGAAGAACGGGA
TCCCTGCCAATCAAATCATCCTGGGAGGCTTTTCACAGGGCCGGGCCCTGTCCCTCTACATGGCCCTCACCTGCC
CCCACCCTCTGGCTGGCATCCTGGCTTTGAGCTGCTGGCCGCCTCTGCACCGGGCCTTCCCCCAGGCAGCTAATG
GCAGTGCCAAGGACCTGGCCATCCTCCAGTGCCATGGGGAGCTGGACCCCATGGTGCCCGTACGGTTTGGGGCCC
TGATGGCTGAGAAGCTCCGGTCTGTTGTCACACCTGCCAGGGTCCAGTTCCAGACATACCTGGGTGTCATGCACA
GCTCCTGTCCTCAGGAGATGGCAGCTGTGAAGGAATTTCTTGAGAAGCTGCTGCCTCCTGTC**TAA**CTAGTCGCTG
GCCCCAGTGCAGTACCCCAGCTCATGGGGGACTCAGCAAGTAAGCATGGCACCATCTTGGGTCTGAGCTGGTCGA
GCCCCTGTCCCCACCCTTCCTGACCTGTCCTTTTCCCACAGGCCTCTAGGGGCAGGTGGCAAGGCCTGGCTGGGC
CTTCCTTCCTGGCCTCAGCCACCTGGCTCTGTCTGCAGTAGGGGCAGGCTGCTTTCTTATCCCATTTCCCTGGAG
GCGGGCCCCCCTGGCAGCAGTATTGGAGGGGCTACAGGCAGCTGGAGAAAGAGGCCCAGCCACTGACCCACTCAC
TCAGGACCTCACTCACTAGCCCCACTTTGGGCCCCCTCCTGTAACCTTAGGGTTTGGCCCATGGGGCCCTCCCAG
GCCCCTGCCCCAACTGATTCTGCCCAGATAATCTTGTGTCTCCTGCCTCCACTCAGCTGCTTCTCAGTCATGAAC
GTGGCCATGGCCCCGGGGGTCCCCTTGCTGCTGTGGGCTCCCTGTCCCTGGGCAGGAGTGCTGGTGAGGAGGTGG
AGCCTTTTGAGGGGGGCCTTCCCTCAGCTGTTTCCCCACACTGGGGGGCTGGGCCCTGCCTCCCCGTTACCCTCC
TTCCCTGCAGGCCTGGAGCCTGTAGGGCTGGACTGAGGTTCAGGTCTCCCCCCAGCTGTCTCACCCCCACTTTGT
CCCCACTCTAGAGCAGGGAGGCAGTGGGGGAGGAGTTGTGTCTTGTCTTCTGTCTCCATGTGGTTTTTGGGTGTT
TTTCTTCTTGTGTCCTGGATTCTGATAAAATTAAAGAAATTGCTTCCTC

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FIGURE 572

ACATGAAGATGGTGATGCCCTCCTGGTTTGACCTGATGGGGCTGAGTCCAGATGCCCCAGAGGACGAGGCTGGCA
TCAAGAAGGCAGCAGAGAACATCAAGGCCTTGATTGAGCATGAAATGAAGAACGGGATCCCTGCCAATCAAATCA
TCCTGGGAGGCTTTTCACAGGGCCGGGCCCTGTCCCTCTACATGGCCCTCACCTGCCCCCACCCTCTGGCTGGCA
TCCTGGCTTTGAGCTGCTGGCCGCCTCTGCACCGGGCCTTCCCCCAGGCAGCTAATGGCAGTGCCAAGGACCTGG
CCATCCTCCAGTGCCATGGGGAGCTGGACCCCATGGTGCCCGTACGGTTTGGGGCCCTGATGGCTGAGAAGCTCC
GGTCTGTTGTCACACCTGCCAGGGTCCAGTTCCAGACATACCTGGGTGTCATGCACAGCTCCTGTCCTCAGGAGA
TGGCAGCTGTGAAGGAATTTCTTGAGAAGCTGCTGCCTCCTGTCTAACTAGTCGCTGGCCCCAGTGCAGTACCCC
AGCTCATGGGGGACTCAGCAAGTAAGCATGGCACCATCTTGGGTCTGAGCTGGTCGAGCCCCTGTCCCCACCCTT
CCTGACCTGTCCTTTTCCCACAGGCCTCTAGGGGCAGGTGGCAAGGCCTGGCTGGGCCTTCCTTCCTGGCCTCAG
CCACCTGCCTCCACTCAGCTGCTTCTCAGTCATGAACGTGGCCATGGCCCCGGGGGTCCCCTTGCTGCTGTGGGC
TCCCTGTCCCTGGGCAGGAGTGCTGGTGAGGAGGTGGAGCCTTTTGAGGGGGGCCTTCCCTCAGCTGTTTCCCCA
CACTGGGGGGCTGGGCCCTGCCTCCCCGTTACCCTCCTTCCCTGCAGGCCTGGAGCCTGTAGGGCTGGACTGAGG
TTCAGGTCTCCCCCCAGCTGTCTCACCCCCACTTTGTCCCCACTCTAGAGCAGGGAGGCAGTGGGGGAGGAGTTG
TGTCTTGTCTTCTGTCTCCATGTGGTTTTTGGGTGTTTTTCTTCTTGTGTCCTGGATTCTGATAAAATTAAAGAA
ATTGCTTCCTC

FIGURE 573

GCGGTGGGAGTGGGAAGGAAGGCGGAGGGAACCATGCGAGGTTCTGAGAATTGCGGCGAGGGTCGCCTCGAGAGA
CGGTTTCTGAGCAGGAATTCTGAAATCCCCACCACTTCCTCCCTCCGGGGGGATTTGATCCCCT**ATG**GCCACCGCT
AACAGCATCATCGTGCTGGATGATGATGACGAAGATGAAGCAGCTGCTCAGCCAGGGCCCTCCCACCCACTCCCC
AATGCGGCCTCACCTGGGGCAGAAGCCCCTAGCTCCTCTGAGCCTCATGGGGCCAGAGGAAGCAGTAGTTCGGGC
GGCAAGAAATGCTACAAGCTGGAGAATGAGAAGCTGTTCGAAGAGTTCCTTGAACTTTGTAAGATGCAGACAGCA
GACCACCCTGAGGTGGTCCCATTCCTCTATAACCGGCAGCAACGTGCCCACTCTCTGTTTTTGGCCTCGGCGGAG
TTCTGCAACATCCTCTCTAGGGTCCTGTCTCGGGCCCGGAGCCGGCCAGCCAAGCTCTATGTCTACATCAATGAG
CTCTGCACTGTTCTCAAGGCCCACTCAGCCAAAAAGAAGCTGAACTTGGCCCCTGCCGCCACCACCTCCAATGAG
CCCTCTGGGAATAACCCTCCCACACACCTCTCCTTGGACCCCACAAATGCTGAAAACACTGCCTCTCAGTCTCCA
AGGACCCGTGGTTCCCGGCGGCAGATCCAGCGTTTGGAGCAGCTGCTGGCGCTCTATGTGGCAGAGATCCGGCGG
CTGCAGGAAAAGGAGTTGGATCTCTCAGAATTGGATGACCCAGACTCCGCATACCTGCAGGAGGCACGGTTGAAG
CGTAAGCTGATCCGCCTCTTTGGGCGACTATGTGAGCTGAAAGACTGCTCTTCACTGACCGGCCGTGTCATAGAG
CAGCGCATCCCCTACCGTGGCACCCGCTACCCAGAGGTTAACAGGCGCATTGAGCGGCTCATCAACAAGCCAGGG
CCTGATACCTTCCCTGACTATGGGGATGTGCTTCGGGCTGTAGAGAAGGCAGCTGCCCGACACAGCCTTGGCCTC
CCCCGACAGCAGCTCCAGCTCATGGCTCAGGATGCCTTCCGAGATGTGGGCATCAGGTTACAGGAGCGACGTCAC
CTCGATCTCATCTACAACTTTGGCTGCCACCTCACAGATGACTATAGGCCAGGCGTTGACCCTGCACTATCAGAT
CCTGTGTTGGCCCGGCGCCTTCGGGAAAACCGGAGTTTGGCCATGAGTCGGCTGGATGAGGTCATCTCCAAATAT
GCAATGTTGCAAGACAAAAGTGAGGAGGGCGAGAGAAAAAAGAGAAGAGCTCGGCTCCAAGGCACCTCTTCCCAC
TCTGCAGACACCCCCGAAGCCTCCTTGGATTCTGGTGAGGGCCCTAGTGGAATGGCATCCCAGGGGTGCCCTTCT
GCCTCCAGAGCTGAGACAGATGACGAAGACGATGAGGAGAGTGATGAGGAAGAGGAGGAGGAGGAGGAAGAAGAA
GAGGAGGAGGCCACAGATTCTGAAGAGGAGGAGGATCTGGAACAGATGCAGGAGGGTCAGGAGGATGATGAAGAG
GAGGACGAAGAGGAAGAAGCAGCAGCAGGTAAAGATGGAGACAAGAGCCCCATGTCCTCACTACAGATCTCCAAT
GAAAAGAACCTGGAACCTGGCAAACAGATCAGCAGATCTTCAGGGGAGCAGCAAAACAAAGGACGCATAGTGTCA
CCATCGTTACTGTCAGAAGAACCCCTGGCCCCCTCCAGCATAGATGCTGAAAGCAATGGAGAACAGCCTGAGGAG
CTGACCCTGGAGGAAGAAAGCCCTGTGTCTCAGCTCTTTGAGCTAGAGATTGAAGCTTTGCCCCTGGATACCCCT
TCCTCTGTGGAGACGGACATTTCCTCTTCCAGGAAGCAATCAGAGGAGCCCTTCACCACTGTCTTAGAGAATGGA
GCAGGCATGGTCTCTTCTACTTCCTTCAATGGAGGCGTCTCTCCTCACAACTGGGGAGATTCTGGTCCCCCCTGC
AAAAAATCTCGGAAGGAGAAGAAGCAAACAGGATCAGGGCCATTAGGAAACAGCTATGTGGAAAGGCAAAGGTCA
GTGCATGAGAAGAATGGGAAAAAGATATGTACCCTGCCCAGCCCACCTTCCCCCTTGGCTTCCTTGGCCCCAGTT
GCTGATTCCTCCACGAGGGTGGACTCTCCCAGCCATGGCCTGGTGACCAGCTCCCTCTGCATCCCTTCTCCAGCC
CGGCTGTCCCAAACCCCCCATTCACAGCCTCCTCGGCCTGGTACTTGCAAGACAAGTGTGGCCACACAATGCGAT
CCAGAAGAGATCATCGTGCTCTCAGACTCTGAT**TAG**CTGCCTCCCCTTCTCCCTGCCTCCAGAATGTTCTGGGAT
AACATTTGGAGGAAGGTGGGAAGCAGATGACTGAGGAAGGGATGGACTAAGCTAATCCCCTTTTGGTGGTGTTTC
TTT

FIGURE 574

GGGGCCCAGGTTGCTGCTCTGGCCGCCGAGTGAGGGGCGGGGGGGGCCCGGGGGCGCGCGGCCCGAGACCCCCCC
GGCCGCCCTCCTCCTTTCTTTGTTCCTGTGGCTGGGGGGGGTATCCCCTCCCTCCACAAC**ATG**GAGCCATCTCCTC
TGTCTCCCAGTGGGGCAGCACTTCCCCTGCCGCTGTCGCTGGCTCCGCCCCCACTACCCCTGCCAGCAGCTGCAG
TGGTACATGTGTCCTTCCCTGAGGTGACCAGTGCCCTCTTGGAGTCCCTCAATCAGCAGCGTCTGCAGGGCCAGC
TCTGCGATGTATCTATCAGAGTGCAGGGCCGGGAGTTCCGGGCTCATCGGGCTGTCCTGGCTGCCTCCTCCCCTT
ACTTCCATGATCAGGTCCTACTCAAAGGCATGACCTCCATCTCGCTGCCCAGTGTCATGGACCCAGGCGCCTTTG
AGACTGTCCTAGCCTCCGCTTACACTGGCCGCCTCAGCATGGCTGCTGCTGACATTGTCAACTTCCTTACAGTGG
GGTCTGTGCTCCAAATGTGGCACATTGTGGACAAGTGCACTGAACTACTCCGAGAAGGCCGGGCCTCAGCTACCA
CCACCATCACTACTGCTGCAGCCACCTCTGTCACTGTCCCTGGTGCTGGGGTGCCATCCGGGAGTGGGGGCACTG
TGGCCCCTGCTACCATGGGCTCTGCGCGCTCCCATGCCTCCAGCCGGGCCAGTGAGAATCAATCTCCCAGCAGCA
GCAACTACTTCAGCCCCAGGGAGTCCACTGATTTCTCATCTTCCTCCCAAGAGGCATTTGCAGCTTCTGCAGTGG
GCAGTGGGGAGCGTCGAGGAGGTGGCCCTGTATTCCCAGCCCCTGTCGTTGGCAGTGGAGGGGCCACATCTGGAA
AGCTGCTGCTGGAGGCAGATGAGCTGTGCGATGATGGTGGGGATGGGAGGGGGGCAGTGGTTCCTGGGGCTGGGC
TCCGGAGACCCACCTACACACCCCCTAGCATCATGCCACAGAAACACTGGGTATACGTGAAGCGAGGTGGTAATT
GCCCAGCGCCAACACCCCTGGTTCCCCAAGACCCAGATCTGGAGGAGGAAGAGGAGGAGGAAGATCTGGTGTTGA
CCTGTGAGGATGATGAAGATGAAGAACTAGGGGGTAGCTCCAGGGTTCCAGTGGGGGGAGGGCCTGAGGCTACCC
TCAGCATAAGTGATGTCCGTACCCTGAGTGAGCCCCCAGACAAGGGGGAGGAGCAGGTCAACTTCTGTGAGTCCT
CCAATGACTTTGGCCCATATGAGGGTGGGGGTCCTGTGGCAGGTCTTGATGACTCAGGGGGGCCAACTCCCTCTT
CCTATGCCCCCTCCCACCCTCCTCGACCGCTCCTTCCCTTGGACATGCAGGGCAACCAGATCCTGGTCTTCCCGT
CGTCGTCTTCATCCTCATCCTCACAGGCTCCTGGCCAACCACCAGGGAACCAAGCAGAACACGGGGCAGTGACCG
TGGGGGGCACGTCGGTGGGGAGCCTGGGTGTGCCGGGTAGCGTTGGTGGGGTCCCTGGAGGGACTGGCAGTGGGG
ACGGGAATAAGATCTTTCTGTGCCATTGTGGGAAGGCCTTCTCCCACAAGAGCATGCGGGACCGGCACGTGAACA
TGCACCTCAATCTGCGGCCGTTTGACTGCCCCGTGTGCAACAAAAAGTTCAAGATGAAGCACCATCTGACTGAGC
ACATGAAGACGCACACAGGTCTCAAGCCCTACGAGTGCGGAGTCTGCGCCAAGAAGTTCATGTGGCGAGACAGCT
TCATGCGCCACCGAGGACACTGTGAGCGCCGGCACCGCCTGGGCGGGGTCGGGGCCGTACCTGGGCCTGGGACTC
CCACGGGGCCATCCTTGCCGTCCAAGAGAGAGTCTCCCGGAGTGGGCGGGGGCAGCGGCGACGAAGCGAGTGCGG
CCACGCCCCCGTCCAGCAGACGTGTCTGGTCCCCACCCAGAGTCCACAAGGTGGAGATGGGCTTCGGTGGAGGTG
GAGGAGCAAAC**TGA**AGGGGCAGGCTACTGGGGTGGGGTAGCTTTCGGGAAAGGGAATAAGGAGCACGATGCAAGG
GCGCTGTGGCCCCCGGGTGATCTCCCACCACACTTACTGTCTTCCTTTATCTCTGTGGACTTGTATATATTCTGG
AAGGGGAACCACAGTTTCACCATCGCCCGCCCATTCTACTACTCAACCCCTCCCCCCCAAGGTATTTCCAGAACT
AAACCCTTCCTTTCCCTCTGATGGGTACACTGAAGCCCCTGCTCCACAGAGTAGATTGCACATGGAGGGAGGGAG
AGGGGGCGTGTTGAACATCCTGCAGTCACAGGGTCAGGGGTCAGGTGGTTGTAGTCTGTGCCTGAAGTCTGTGTT
TGTGTTGTCGTGGAGACAAGGCCTTTGAGCCCCACCCTTGTCCTAGAACCTACCCCCTCTCAAGGATGCGCTCTT
TATTTCTACCCTGTCTCTCCCCGCCACCCCCGACTTCCCGTGGAAATTCCCAACTCGGTTCTCATGGAGGAGTGG
GTGGAGACAAGGAGGGAGTAAGTCGTAGGAGTACAAGGTTTTTATTTTTTTTAACAGTGATTAAAATATTTATTG
GTCATTT

FIGURE 575

ACACCGGTCCCCCAGGCACCTTCACCTAACCAGAGCGGGGATTTCCACCGCCCCTCATGCCGCCCTTTGGAGGAA
AGTGAAAGTGAAAGGAGGAAGAGGAGGCTTCATGGCTGAGGAGGTCGCAGCGCC**ATG**AAGTCCCTGTCTCTGCTC
CTCGCTGTGGCTTTGGGCCTGGCGACCGCCGTCTCAGCAGGACCCGCGGTGATCGAGTGTTGGTTCGTGGAGGAT
GCGAGCGGAAAGGGCCTGGCCAAGAGACCCGGTGCACTGCTGTTGCGCCAGGGACCGGGGGGAACCGCCGCCCCGG
CCGGACCTCGACCCTGAGCTCTATCTCAGTGTACACGACCCCGCGGGCGCCCTCCAGGCTGCCTTCAGGCGGTAT
CCCCGGGGCGCCCCCGCACCACACTGCGAGATGAGCCGCTTCGTGCCTCTCCCCGCCTCTGCGAAATGGGCCAGC
GGCCTGACCCCCGCGCAGAACTGCCCGCGGGCCCTGGATGGGGCTTGGCTGATGGTCAGCATATCCAGCCCAGTC
CTCAGCCTCTCCAGCCTCTTGCGACCACAGCCAGAGCCTCAGCAGGAGCCTGTTCTCATCACCATGGCAACAGTG
GTACTGACTGTCCTCACCCACACCCCTGCCCCTCGAGTGAGACTGGGACAAGATGCTCTGCTGGACTTGAGCTTT
GCCTACATGCCCCCCACCTCCGAGGCCGCCTCATCTCTGGCTCCGGGTCCCCCTCCCTTTGGGCTAGAGTGGCGA
CGCCAGCACCTGGGTAAGGGACATCTGCTCCTGGCTGCAACTCCTGGGCTGAATGGCCAGATGCCAGCAGCCCAA
GAAGGGGCCGTGGCATTTGCTGCTTGGGATGATGATGAGCCATGGGGCCCATGGACCGGAAATGGGACCTTCTGG
CTGCCTACAGTTCAACCCTTTCAGGAGGGCACCTATCTGGCCACCATACACCTGCCATACCTGCAAGGACAGGTC
ACCCTGGAGCTTGCTGTGTACAAACCCCCCAAAGTGTCCCTGATGCCAGCAACCCTTGCACGGGCCGCCCCAGGG
GAGGCACCCCCGGAATTGCTCTGCCTTGTGTCCCACTTCTACCCTTCTGGGGGCCTGGAGGTGGAGTGGGAACTC
CGGGGTGGCCCAGGGGGCCGCTCTCAGAAGGCCGAGGGGCAGAGGTGGCTCTCGGCCCTGCGCCACCATTCCGAT
GGCTCTGTCAGCCTCTCTGGGCACTTGCAGCCGCCCCCAGTCACCACTGAGCAGCATGGGGCACGCTATGCCTGT
CGAATTCACCATCCCAGCCTGCCTGCCTCGGGGCGCAGCGCTGAGGTCACCCTGGAGGTAGCAGGTCTTTCAGGG
CCCTCCCTTGAGGACAGCGTAGGCCTTTTCCTGTCTGCCTTTCTTCTGCTTGGGCTCTTCAAGGCACTGGGCTGG
GCTGCTGTCTACCTGTCCACCTGCAAGGATTCAAAGAAGAAAGCAGAG**TGA**GGGCACTCACTGCCATCCTGTGGA
AGCCACCATCATCTCTGGCCCAAGCTTCTGTAGTAGCTCCCTAAAATAATACCCTATCATCTGCTCCT

FIGURE 576

ATGCTCCCGCGGCCCCTGCGGCTGCTTTTGGACACGAGCCCCCCCGGGGGAGTCGTACTGAGCAGCTTCCGAAGC
CGGGACCCCGAAGAGGGTGGGGGCCCAGGTGGCCTGGTCGTGGGCGGGGGGCAGGAGGAAGAGGAGGAGGAAGAA
GAAGAGGCCCCTGTGTCCGTCTGGGATGAGGAGGAGGATGGTGCCGTGTTTACCGTCACAAGCCGCCAATATCGA
CCTCTTGATCCCTTGGTCCCTATGCCTCCCCCACGTTCCTCCCGACGGCTCCGAGCTGGCACTCTGGAGGCCCTG
GTCAGACACCTACTGGATACCCGGACATCAGGGACTGATGTGAGCTTCATGTCAGCCTTCCTGGCTACCCACCGG
GCCTTCACCTCCACGCCTGCCTTGCTAGGGCTTATGGCTGACAGGCTGGAAGCCCTTGAATCTCATCCTACCGAC
GAACTAGAGAGGACAACAGAGGTAGCCATCTCTGTACTGTCAACCTGGCTGGCCTCTCACCCTGAGGATTTTGGC
TCTGAGGCCAAGGGTCAGCTTGACCGGCTTGAGAGCTTCTTACTTCAGACAGGGTATGCAGCAGGGAAGGGTGTT
GGGGGGGGCAGCGCTGACCTCATCCGCAATCTCCGGTCCCGGGTGGACCCCCAGGCCCCCGACCTTCCTAAGCCC
CTGGCCCTCCCCGGCGATCCCCCTGCTGACCCCACGGATGTCCTGGTGTTCCTCGCTGACCACTTGGCCGAACAG
CTGACCCTGCTAGATGCGGAACTTTTTCTCAATTTGATCCCCTCTCAGTGCCTGGGAGGCCTGTGGGGTCACAGA
GACCGGCCAGGACATTCTCACCTCTGCCCATCTGTCCGAGCTACTGTCACACAGTTTAACAAGGTGGCAGGGGCA
GTGGTTAGTTCTGTCCTGGGGGCTACTTCCACTGGAGAGGGACCTGGGGAGGTGACCATACGGCCACTCCGTCCC
CCACAGAGGGCCCGGCTCCTGGAGAAGTGGATCCGCGTGGCAGAGGAGTGCCGGCTGCTCCGAAACTTCTCTTCA
GTTTATGCCGTGGTGTCAGCCCTGCAGTCCAGCCCCATCCACAGGCTTCGGGCAGCCTGGGGGGAAGCAACCAGG
GACAGCCTCAGAGTCTTTTCCAGCCTCTGCCAGATTTTCTCCGAGGAGGATAATTATTCCCAGAGTCGGGAGCTG
CTCGTGCAGGAGGTGAAGCTGCAGTCTCCTCTGGAGCCACACTCCAAGAAGGCCCCGAGGTCTGGCTCCCGGGGT
GGGGGTGTGGTCCCATACCTTGGCACCTTCCTGAAGGACCTTGTGATGCTGGATGCAGCCTCCAAGGATGAGTTG
GAGAATGGATACATCAATTTTGACAAGCGGAGGAAGGAGTTTGCAGTCCTTTCTGAGTTGCGACGGCTCCAGAAT
GAATGTCGTGGCTATAACCTCCAACCTGACCATGATATCCAGAGGTGGCTACAGGGGCTCCGGCCACTGACAGAG
GCTCAGAGCCATCGTGTATCCTGTGAGGTGGAGCCACCTGGTTCCAGTGACCCTCCTGCCCCACGGGTGCTTCGG
CCAACATTGGTCATCTCGCAGTGGACAGAGGTTTTGGGCTCTGTTGGGGTCCCTACCCCGCTTGTGTCCTGTGAC
CGGCCCAGTACTGGGGGAGATGAGGCGCCTACAACTCCTGCTCCTCTGCTGACTCGGCTGGCCCAGCACATGAAG
TGGCCATCTGTCTCGTCACTAGACTCTGCCTTGGAAAGCAGTCCATCCCTGCACAGTCCAGCTGACCCCAGCCAC
CTCTCCCCACCAGCCTCCTCCCCTAGGCCTTCTCGAGGTCACCGCCGCTCAGCCTCCTGTGGCTCCCCGCTGAGT
GGGGGTGCAGAAGAGGCCTCCGGGGGGACTGGATATGGGGGAGAGGGATCTGGGCCAGGGGCCTCTGATTGCCGT
ATCATCCGAGTCCAGATGGAGTTGGGGGAAGATGGCAGTGTCTATAAGAGCATTTTGGTGACAAGCCAGGACAAG
GCTCCAAGTGTCATCAGTCGTGTCCTTAAGAAAAACAATCGTGACTCTGCAGTGGCTTCAGAGTATGAGCTGGTA
CAGCTGCTACCAGGGGAGCGAGAGCTGACTATCCCAGCCTCGGCTAATGTATTCTACGCCATGGATGGAGCTTCA
CACGATTTCCTCCTGCGGCAGCGGCGAAGGTCCTCTACTGCTACACCTGGCGTCACCAGTGGCCCGTCTGCCTCA
GGAACTCCTCCGAGTGAGGGAGGAGGGGGCTCCTTTCCCAGGATCAAGGCCACAGGGAGGAAGATTGCACGGGCA
CTGTTC**TGA**

FIGURE 577

ATGGCGGAGCTGATCCAGAAGAAGCTACAGGGAGAAGTGGAGAAATATCAACAGCTACAGAAGGACTTAAGTAAA
TCCATGTCGGGGAGGCAGAAACTTGAAGCACAACTAACAGAAAATAATATCGTGAAAGAGGAACTGGCCCTGCTG
GATGGGTCCAACGTGGTCTTTAAACTTCTGGGTCCGGTGCTAGTCAAACAGGAGCTGGGGGGAGGCTCGGGCCACA
GTAGGGAAGAGGCTGGACTATATCACAGCTGAAATTAAGCGATACGAATCCCAGCTTCGGGATCTTGAGCGGCAG
TCAGAGCAACAGAGGGAGACCCTTGCTCAGCTGCAGCAGGAGTTCCAGCGGGCCCAGGCAGCAAAGGCAGGGGCT
CCTGGCAAGGCC**TGA**

FIGURE 578

GCTGAGAGGAGTTTTGCACGTGGATCGCCGTTCGGGTGGGCGAGATGGAGACAGCCCCCAAGCCGGGCAAGGATG
TCCCGCCCAAGAAAGACAAACTTCAGACCAAGAGAAAGAAACCGCGGCGATACTGGGAGGAAGAGACCGTTCCGA
CCACAGCCGGAGCCTCTCCAGGGCCTCCTCGTAACAAGAAGAATCGGGAGCTCCGTCCTCAGAGACCAAAAAATG
CTTACATCTTAAAGAAGTCTCGGATCTCTAAGAAGCCTCAGGTCCCGAAGAAACCCCGAGAATGGAAGAACCCGG
AGTCCCAGCGCGGCTTGTCCGGGGCCCAAGATCCATTCCCAGGCCCCGCCCCCGTCCCTGTGGAAGTGGTCCAGA
AGTTCTGTCGCATTGACAAATCCCGAAAGCTACCACATTCTAAAGCCAAAACTCGAAGCCGACTTGAGGTGGCTG
AAGCTGAGGAAGAGGAAACAAGTATCAAAGCTGCTCGTTCTGAGCTGCTGCTTGCTGAAGAACCTGGGTTTCTGG
AAGGGGAGGATGGGGAAGACACAGCAAAGATATGCCAGGCTGACATTGTGGAGGCTGTGGACATTGCAAGTGCAG
CCAAGCACTTTGACTTGAATCTGCGGCAGTTTGGACCCTACAGACTAAACTACTCTCGAACTGGAAGACACCTGG
CTTTTGGAGGGCGCCGAGGTCATGTGGCTGCCCTTGATTGGGTAACAAAGAAGCTTATGTGCGAGATCAACGTCA
TGGAGGCGGTGCGGGACATCCGGTTTCTCCATTCTGAGGCACTGCTTGCTGTTGCTCAGAACCGCTGGCTCCACA
TCTATGACAATCAGGGCATTGAGCTCCACTGTATCCGCCGCTGTGACCGAGTAACACGGCTTGAGTTCCTGCCCT
TCCACTTCCTCCTGGCTACAGCTTCAGAAACAGGGTTTCTAACCTACCTGGATGTGTCAGTGGGGAAGATTGTGG
CAGCTCTGAATGCTCGAGCTGGGCGGCTCGATGTTATGAGTCAGAACCCTTACAATGCCGTCATCCATCTCGGAC
ACAGCAATGGTACTGTGTCTTTATGGAGTCCAGCTATGAAGGAGCCACTGGCAAAGATTCTCTGTCATCGTGGTG
GGGTCCGGGCTGTGGCAGTAGATTCTACAGGCACGTACATGGCCACCTCTGGCCTAGACCACCAGCTGAAGATCT
TTGACTTGCGAGGGACGTACCAGCCTCTGAGCACTCGGACCCTGCCCCATGGAGCAGGGCACCTGGCCTTCTCCC
AGAGGGGACTGCTGGTGGCGGGAATGGGTGACGTTGTCAACATCTGGGCAGGGCAGGGCAAGGCCAGCCCACCCT
CCCTTGAACAGCCCTACCTCACCCACCGGCTCTCAGGCCCTGTGCATGGCCTTCAGTTCTGCCCCTTTGAAGATG
TGCTGGGGGTGGGGCACACTGGGGGCATCACCAGCATGCTGGTCCCTGGGGCCGGTGAGCCCAACTTCGATGGCC
TGGAGAGTAATCCATACAGAAGCCGGAAGCAGCGCCAGGAGTGGGAGGTGAAGGCCCTGCTAGAGAAGGTACCTG
CAGAGCTTATTTGTCTGGACCCACGAGCCCTGGCCGAGGTGGATGTCATCTCCCTGGAGCAGGGAAAGAAGGAGC
AGATAGAGAGGCTGGGCTATGACCCGCAGGCTAAGGCTCCCTTCCAGCCAAAGCCAAAGCAGAAGGGCCGCAGCT
CCACGGCAAGCCTGGTGAAGAGGAAGAGGAAGGTCATGGATGAGGAACACAGGGACAAGGTCCGGCAGAGCCTTC
AGCAGCAGCATCATAAGGAGGCGAAGGCCAAGCCCACGGGGGCCCGGCCATCTGCCCTGGACAGATTTGTGCGCTG
AGCCAGACTCCAGGGTTGCCTGGGAACAGTCTCTCCCCAAGATCACCTGTAGGGAAATGAGTGTTCCCTGGAAC
AAGGAGGTGGGGGCAGTGTGGCCCCTTCCCCAACTGGGGGTGGACAGCTGTCTCCTGGGGTGGGTTGGTATTAAA
GAGGAAAGCGATTTTTTGG

FIGURE 579

GGATGGGAGCGCGCAACGCGGAAGCGGGCGGCAGACCGGCCGCCGGGGCGAGGCGGGGGAGGGGCCGTGAGTGCC
GCAGTCGGCCAGCCATGGAGCGGAGCTTGCTGGCGGCGAGGCCGCGGCGACAAGGTAGCCACCCCCGCAGCATGC
CTCGACCGCGGTCCGCAGCTGCACCGCCTCTCCCCGCCCCCCAGGGTGCGCTGGTCCCGGTCGCGCGCTCAGACC
TCCGCATCCCGGGCGTGGTCGGTTAAGTCCCCGGCCGTGACCCAGGCCCGGGGAGCTAGTCTCCGCCCTTCGCTC
TTACGGATCCCCTCGGAGTACGCCGCACC**ATG**CAGCTCAGGCTCTTCCGGCGCCTCCTTCTCGCCGCTTTGCTGC
TGGTGATCGTCTGGACCCTCTTCGGGCCTTCGGGGTTGGGGGAGGAGCTGCTGAGCCTCTCACTAGCCTCCCTGC
TCCCAGCCCCCGCCTCACCGGGGCCGCCCCTGGCCCTGCCCCGCCTCTTGATCCCCAACCAGGAAGCTTGCAGTG
GTCCCGGGGCCCCTCCCTTCCTGCTCATCCTGGTGTGCACGGCTCCGGAGAACCTGAACCAGAGAAACGCCATTC
GGGCTTCGTGGGGCGGGCTGCGCGAGGCCCGGGGGCTCAGGGTACAGACGCTATTCTTGCTGGGAGAGCCGAACG
CACAGCACCCCGTGTGGGGTTCCCAGGGGAGTGACCTGGCCTCGGAGTCAGCAGCCCAGGGGGATATCTTGCAGG
CCGCCTTCCAGGACTCCTACCGCAACCTCACCCTAAAGACCCTCAGCGGGCTGAACTGGGCTGAGAAACACTGCC
CCATGGCCCGATACGTCCTCAAGACGGACGATGATGTGTATGTCAACGTCCCTGAACTGGTATCAGAGCTGGTCT
TGCGAGGGGGCCGTTGGGGGCAATGGGAGAGAAGCACGGAACCCCAGAGAGAGGCTGAGCAGGAAGGAGGCCAGG
TTTTGCACAGCGAGGAAGTGCCTCTTCTGTACTTGGGCCGGGTGCACTGGCGCGTGAACCCCTCTCGGACACCGG
GGGGCAGGCACCGCGTATCAGAGGAGCAGTGGCCTCACACCTGGGGCCCCTTTCCACCCTATGCCTCAGGCACGG
GGTATGTGCTGTCAGCGTCTGCTGTGCAGCTCATTCTCAAGGTGGCCAGCCGGGCACCCCTTCTCCCATTAGAGG
ATGTCTTTGTGGGGGTAAGTGCCCGACGAGGAGGCCTCGCCCCAACACAGTGTGTCAAGCTGGCTGGTGCCACCC
ACTACCCGCTAGACCGGTGCTGCTATGGGAAATTCCTGCTGACGTCCCACAGGCTGGACCCCTGGAAGATGCAGG
AAGCCTGGAAGCTGGTGGGTGGCTCTGACGGGGAAAGGACTGCGCCCTTTTGCTCCTGGTTCCAGGGAGTCCTGG
GCATCCTGCGGTGTCGAGCAATAGCCTGGCTTCAGAGC**TGA**GAGTGCCTGGGGCCACAGGAAAGGCAGGAACAGG
ACCTTCTCTCTCCCAGGCCCAACGCAGGGGCCCTCACTGGCTGCAGCTGATCTGTTTCCTTATACCAGATCCTCA
GTCTCACTAAAGACAGCGATATGGGAGACACCCAGGGGCCTGGCCCGCCAGCCCAAAAGATGGTCATCGGGAAGA
GAAAAAGAAAAAAATGCTGCAGTTGTTCTCTCAAGCTAGGGCAGAAGAGGGGTGTCAAGCTCCTCAATAAACTTG
TCTCCACTT

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FIGURE 580

CTCTCTTCCACAGGAGGCCTACACGCCGCCGCTTGTGCTGCAGCC**ATG**TCTCTAGTGATCCCTGAAAAGTTCCAG
CATATTTTGCGAGTACTCAACACCAACATCGATGGGCGGCGGAAAATAGCCTTTGCCATCACTGCCATTAAGGGT
GTGGGCCGAAGATATGCTCATGTGGTGTTGAGGAAAGCAGACATTGACCTCACCAAGAGGGCGGGAGAACTCACT
GAGGATGAGGTGGAACGTGTGATCACCATTATGCAGAATCCACGCCAGTACAAGATCCCAGACTGGTTCTTGAAC
AGACAGAAGGATGTAAAGGATGGAAAATACAGCCAGGTCCTAGCCAATGGTCTGGACAACAAGCTCCGTGAAGAC
CTGGAGCGACTGAAGAAGATTCGGGCCCATAGAGGGCTGCGTCACTTCTGGGGCCTTCGTGTCCGAGGCCAGCAC
ACCAAGACCACTGGCCGCCGTGGCCGCACCGTGGGTGTGTCCAAGAAGAAA**TAA**GTCTGTAGGCCTTGTCTGTTA
ATAAATAGTTTATATAC

FIGURE 581

TCGTAAGGTTCATAGGTAAGAGAACAGCGAAGGTTCCGGGGCTAGTTTGTGTTTCAGACTTCCATATTTCCATTT
GCAGTTGGGTGAAGTGGTTAGAGCTGAAAGGGGACAGCTGGAGTCAAACAACTTAACTCAAATATCTGGGAACGA
TTTCGCGCTGAGGAAGACCCTTTGGGACTTGTAGCTCCACTCCGGGGAACGGACTCGCCGGGACTGACAGTTGCC
GGAAGTGAGGCTGCGGGGA**ATG**GCCGCCGCTGCGACCATGGCGGCTGCGGCCCGGGAACTGGTGTTGCGGGCTGG
GACCTCAGATATGGAGGAGGAAGAGGGCCCGCTGGCGGGTGGTCCTGGGCTCCAGGAACCACTGCAACTTGGGGA
GTTGGATATCACTTCTGATGAATTCATCCTGGATGAAGTGGATGTTCACATTCAGGCAAATCTGGAGGATGAGTT
AGTAAAGGAAGCTCTTAAAACGGGTGTAGATCTCCGTCACTATTCAAAGCAAGTTGAGCTGGAGCTACAGCAGAT
TGAACAGAAATCCATTCGGGATTATATTCAAGAGAGTGAGAATATAGCATCTCTACACAACCAGATCACAGCCTG
TGATGCTGTCCTGGAGCGAATGGAGCAGATGTTGGGAGCTTTTCAGAGTGACCTCAGCTCCATCAGCTCTGAGAT
CCGGACACTGCAGGAACAGTCAGGAGCCATGAACATTCGACTTCGAAATCGCCAGGCAGTTCGGGGGAAACTTGG
GGAGCTTGTTGATGGTCTGGTGGTGCCTTCTGCTCTGGTCACGGCAATTCTGGAGGCTCCAGTGACAGAGCCCAG
GTTCTTGGAGCAGCTACAGGAGCTGGATGCCAAGGCAGCCGCAGTCAGAGAGCAGGAAGCTAGAGGCACAGCAGC
CTGCGCAGATGTCAGAGGCGTGCTCGATCGGCTCCGGGTCAAGGCAGTGACGAAGATCCGAGAGTTTATCCTCCA
GAAGATTTATTCCTTCAGGAAACCCATGACCAACTATCAGATCCCCCAGACGGCCCTGCTGAAGTACAGGTTCTT
CTATCAGTTTCTGCTGGGCAATGAACGAGCAACAGCAAAGGAGATCAGGGATGAATATGTGGAGACGCTGAGCAA
GATTTACCTGTCTTACTACCGCTCTTACCTGGGGCGGCTCATGAAGGTGCAGTATGAGGAAGTCGCTGAGAAAGA
TGATCTAATGGGTGTGGAAGATACAGCAAAGAAAGGATTCTTCTCAAAGCCATCGCTCCGCAGCAGGAACACCAT
TTTCACCCTAGGAACCCGCGGCTCTGTCATCTCCCCCACTGAACTTGAGGCCCCCATCCTGGTGCCTCACACAGC
GCAGCGCGGAGAGCAGAGGTATCCATTTGAGGCCCTCTTCCGCAGCCAGCACTACGCCCTCCTAGACAATTCCTG
CCGCGAATACCTTTTCATCTGTGAATTTTTTGTTGTGTCTGGCCCAGCTGCACACGACCTGTTCCATGCTGTCAT
GGGCCGTACACTCAGCATGACCCTGAAACACCTGGATTCTTATCTAGCTGACTGCTACGATGCCATTGCTGTTTT
TCTCTGTATCCACATTGTTCTCCGGTTCCGTAACATTGCAGCAAAGAGGGATGTTCCTGCCCTGGACAGGTACTG
GGAACAGGTGCTTGCCTTGCTATGGCCACGGTTTGAACTGATCCTGGAGATGAATGTTCAGAGCGTCCGAAGCAC
TGACCCCCAGCGCCTAGGGGGGTTGGATACTCGGCCCCACTATATCACACGCCGCTATGCAGAGTTCTCCTCCGC
TCTTGTCAGTATCAACCAGACAATTCCTAATGAACGGACCATGCAATTGCTGGGACAGCTGCAGGTGGAGGTGGA
GAATTTTGTCCTCCGAGTGGCAGCTGAGTTCTCCTCAAGGAAGGAGCAGCTTGTGTTTCTGATCAACAACTATGA
CATGATGCTGGGTGTGCTGATGGAGCGGGCTGCAGATGACAGCAAAGAGGTTGAGAGCTTCCAGCAGCTGCTCAA
TGCTCGGACACAGGAATTCATTGAAGAGTTGCTGTCTCCCCCTTTTGGGGGTTTAGTGGCATTTGTGAAGGAGGC
TGAGGCTTTGATTGAGCGTGGACAGGCTGAGCGACTTCGAGGGGAAGAAGCCCGGGTAACTCAGCTGATCCGTGG
CTTTGGTAGTTCCTGGAAATCATCAGTGGAATCTCTGAGTCAGGATGTAATGCGGAGTTTCACCAACTTCAGAAA
TGGCACCAGTATCATTCAGGGAGCGCTGACCCAGCTGATCCAGCTCTATCATCGCTTCCACCGGGTGCTGTCCCA
GCCGCAGCTCCGAGCCCTCCCTGCCCGGGCTGAGCTCATCAACATTCACCACCTTATGGTGGAGCTCAAGAAGCA
TAAGCCCAACTTC**TGA**TGTGCCAGAAACCGCCCTGAGATCTGCCGGTCATCTCCATGGACTTCTGCACCCCATTC
CATACCCTTCTTCACCTGGGGTACCCCTTCCAGTTTTCCCCTTGCTTCCCAGGCCCTTGACATGGCTTACCTGCC
TTCACTCCCAGCACCTTGCCCAACAGGATAAGCTGGATCCCCTTGGCCTTCTGAATATCCCAGTGTCTTCAGGTT
TCCCAAGACCACTTCCCTGTGGGCTTCCAAAATGGCCTTTATCATTTCTCCAGTCTGTCACCCTCCTTTCCTGCT
CCCATACACCCAAGGCTTGTTTCTTCCCCTGTAAAAACCACTGCCTCAATCTCTGGTTCACTCAACTAGTCACCA
TGTCCTGAGGCATGAAGCCTCCTCAGCTCTTGGAATTGCTGGCAAGGGGTGACTGCCTCTGAGTCATTGTGTTTT
TCAAAGTGATTTCTTTTCTGTAGCTTTTTGACCTAAGATCTCAGCAATTTGAACACTAACCTCTCCCCTCCTGGC
TCAAGAATTACTCCGAAGTCAGTCTGCAGAAAATAAATATTTAGTATGACATGACACTTA

FIGURE 582

GGCTGCTGTTTCTAAAACCCCTTTCCCTCTAACCCACACCACCTTTCTACTCACTGATGCCTTCAGGAAGCCATA
ATGGATGGCACAGAGATTGCTGTTTCCCCTCGGTCACTGCATTCAGAACTCATGTGCCCTATCTGCCTGGACATG
CTGAAGAATACGATGACCACCAAGGAGTGCCTCCACAGATTCTGCTCTGACTGCATTGTCACAGCCCTACGGAGC
GGGAACAAGGAGTGTCCTACCTGCCGAAAGAAGCTGGTGTCCAAGCGATCCCTACGGCCAGACCCCAACTTTGAT
GCCCTGATCTCTAAGATCTATCCTAGCCGGGAGGAATACGAGGCCCATCAAGACCGAGTGCTTATCCGCCTGAGC
CGCCTGCACAACCAGCAGGCATTGAGCTCCAGCATTGAGGAGGGGCTACGCATGCAGGCCATGCACAGGGCCCAG
CGTGTGAGGCGGCCGATACCAGGGTCAGATCAGACCACAACGATGAGTGGGGGGGAAGGAGAGCCCGGGGAGGGA
GAAGGGGATGGAGAAGATGTGAGCTCAGACTCCGCCCCTGACTCTGCCCCAGGCCCTGCTCCCAAGCGACCCCGT
GGAGGGGGCGCAGGGGGGAGCAGTGTAGGGACAGGGGGAGGCGGCACTGGTGGGGTGGGTGGGGGTGCCGGTTCG
GAAGACTCTGGTGACCGGGGAGGGACTCTGGGAGGGGGAACGCTGGGCCCCCCAAGCCCTCCTGGGGCCCCCAGC
CCCCCAGAGCCAGGTGGAGAAATTGAGCTCGTGTTCCGGCCCCACCCCCTGCTCGTGGAGAAGGGAGAATACTGC
CAGACGAGGTATGTGAAGACAACTGGGAATGCCACAGTGGACCACCTCTCCAAGTACTTGGCCCTGCGCATTGCC
CTCGAGCGGAGGCAACAGCAGGAAGCAGGGGAGCCAGGAGGGCCTGGAGGGGGCGCCTCTGACACCGGAGGACCT
GATGGGTGTGGCGGGGAGGGTGGGGGTGCCGGAGGAGGTGACGGTCCTGAGGAGCCTGCTTTGCCCAGCCTGGAG
GGCGTCAGTGAAAAGCAGTACACCATCTACATCGCACCTGGAGGCGGGGCGTTCACGACGTTGAATGGCTCGCTG
ACCCTGGAGCTGGTGAATGAGAAATTCTGGAAGGTGTCCCGGCCACTGGAGCTGTGCTATGCTCCCACCAAGGAT
CCAAAG**TGA**CCCCACCAGGGGACAGCCAGAGGAAGGGGACCATGGGGTATCCCTGTGTCCTGGTCTATCACCCCA
GCTTCTTTGTCCCCCAGTACCCCCAGCCCAGCCAGCCAATAAGAGGACACAAATGAGGACACGTGGCTTTTATAC
AAAGTATCTATATGAGATTCTTCTATATTGTACAGAGTGGGGCAAAACACGCCCCCATCTGCTGCCTTTTCTATT
GCCCTGCAACGTCCCATCTATACGAGGTGTTGGAGAAGGTGAAGAACCCTCCCATTCACGCCCGCCTACCAACAA
CAAACGTGCTTTTTTCCTCTTTGAAA

FIGURE 583

GGAGAGGATCCCGGAGCCGGTGAGAATTCTCTGTTTTTTCTCTACCATCCTTTCCAGGCCTTTTCCTCACCTAAT
GAGTCGTAGAGACGAGGGCCCAGAGAGTCTGTAAAGTGGCTGGTGAAAGATTAGTGTCCCAGGGCCCTACATCCG
GGAGGTGGTTCGGGATAAAGAGAACTAGTCTTGGGAACAATGTAGGTGGGAACTTAAGGGAATGGGAGAGCGGCC
CATAGAGGTGGACGGAGGGCGCGATTGGAGTAAAGCGGACCCTGTGTAGGTATAGAGTTGAGTCAAGTGGAGTCA
CTGCCTCTGTCCCTCTGGTCAGCGTG**ATG**GCCAGAGGCCTGGGGGCCCCCCACTGGGTGGCCGTGGGACTGCTGA
CCTGGGCGACCTTGGGGCTTCTGGTGGCTGGACTCGGGGGTCATGACGACCTGCACGACGATCTGCAAGAGGACT
TCCATGGCCACAGCCACAGGCACTCACATGAAGATTTCCACCATGGCCACAGCCATGCCCATGGCCATGGCCACA
CTCACGAGAGCATCTGGCATGGACATACCCACGATCACGACCATGGACATTCACATGAGGATTTACACCATGGCC
ATAGCCATGGCTACTCCCATGAGAGCCTCTACCACAGAGGACATGGACATGACCATGAGCATAGCCATGGAGGCT
ATGGGGAGTCTGGGGCTCCAGGCATCAAGCAGGACCTGGATGCTGTCACTCTCTGGGCTTATGCACTGGGGGCCA
CAGTGCTGATCTCAGCAGCTCCATTTTTTGTCCTCTTCCTTATCCCCGTGGAGTCGAACTCTCCCCGGCATCGCT
CTCTACTTCAGATCTTGCTCAGTTTTGCTTCCGGTGGGCTCCTGGGAGATGCTTTCCTGCACCTCATTCCTCATG
CTCTTGAACCTCATTCTCACCACACTCTGGAGCAACCCGGACATGGACACTCCCACAGTGGCCAGGGCCCCATTC
TGTCTGTGGGACTGTGGGTTCTCAGTGGAATTGTTGCCTTTCTTGTCGTGGAGAAATTTGTGAGACATGTGAAAG
GAGGACATGGTCACAGTCATGGACATGGACACGCTCACAGTCATACACGTGGAAGTCATGGACATGGAAGACAAG
AGCGTTCTACCAAGGAGAAGCAGAGCTCAGAGGAAGAAGAAAAGGAAACAAGAGGGGTTCAGAAGAGGCGAGGAG
GGAGCACAGTACCCAAAGATGGGCCAGTGAGACCTCAGAACGCTGAAGAAGAAAAAAGAGGCTTAGACCTGCGTG
TGTCGGGGTACCTGAATCTGGCTGCTGACTTGGCACACAACTTCACTGATGGTCTGGCCATTGGGGCTTCCTTTC
GAGGGGGCCGGGGACTAGGGATCCTGACCACAATGACTGTCCTGCTACATGAAGTGCCCCACGAGGTCGGAGACT
TTGCCATCTTGGTCCAGTCTGGCTGCAGCAAAAAGCAGGCGATGCGTCTGCAACTACTGACAGCAGTAGGGGCAC
TGGCAGGCACAGCCTGTGCCCTTCTCACTGAAGGAGGAGCAGTGGGCAGTGAAATTGCAGGTGGTGCAGGTCCTG
GCTGGGTCCTGCCATTTACTGCAGGTGGCTTTATCTACGTAGCAACAGTGTCTGTGTTGCCCGAGCTGCTGAGGG
AGGCATCACCATTGCAATCACTTCTGGAGGTGCTGGGGCTGCTGGGGGGAGTTATCATGATGGTGCTGATTGCCC
ACCTTGAG**TGA**GGGGTGGATAAACTACCCCTGCCCCAAACCTCTACCCCTAACTCCAGGTCAGGGGTGCGTAGAG
GTTGGGGGCCCTGGCCAGGGACATCTGCCAAAGGAAGGAACTGTAGCCTGGGAGAATGGTTACTTTGGCATTAGG
GCCTTCAAGGGCTGGCAGTCTTACAGAGGCTGGAGCGGTGAGAATGAGAGGCCAGAGGGACCATAGTGTTGGGCA
CTGTCTGACCATGTTGCATTTGGAAGGCTAAATGGGGCCATGAAGAAGGCTGGAAGGGACAGGGGGTGATGGCAG
CCTACCTGGTGTCCCCTACCCCACCTGTTCTCGGAGAACCAAGTTGCTACACAGGAAGTTCTCCAAGGTCCAGTT
TCCTTTCTCCCACCAGTTGGTGGAGGCTTCAGGGAAGACCAGAGTCCTGGACAGAGAGGGTAACAGGAGGAGTCG
GGGATAAACATCAAACATCAATCGTGTGTCCTGATTTGGGAGTGATTGGGGGGATGGGGTGGGAGAGGGTTAGTT
GGTATTCTCATGGCCTGATTTTTTTTGTTTCTATTCCTTTTATATCACTGTGTTTGAATCGAGGGGGAGGGGTGG
TAACCGGAAATAAAGACCTCCGATCTTCCGCCCC

FIGURE 584

GGCTGCCACATTGGCGCTGTCATTTTGGTACTGAGCAGAGCGACGGGCTTAATTCGACCCAATCCAGGCCAGAGT
CTTTCTCTCAGGGGCTTCCTCGTGCTCAGCTAATCCTCCGATCAATCCTTGGGAATCCCTGGGACCTCTTCGGTA
TCCCTACTCTCAGCCAGGGATC**ATG**TCTTGGGCCGCTCGCCCGCCCTTCCTCCCTCAGCGGCATGCCGCAGGGCA
GTGTGGGCCGGTGGGGGTGCGAAAAGAAATGCATTGTGGGGTCGCGTCCCGGTGGCGGCGGCGACGGCCCTGGCT
GGATCCCGCAGCGGCGGCGGCGGCGGCGGTGGCAGGCGGAGAACAACAAACCCCGGAGCCGGAGCCAGGGGAGGC
TGGACGGGACGGGATGGGCGACAGCGGGCGGGACTCCCGAAGCCCAGACAGCTCCTCCCCAAATCCCCTTCCCCA
GGGAGTCCCTCCCCCTTCTCCTCCTGGGCCACCCCTACCCCCTTCAACAGCTCCATCCCTTGGAGGCTCTGGGGC
CCCACCCCCACCCCCGATGCCACCACCCCCACTGGGCTCTCCCTTTCCAGTCATCAGTTCTTCCATGGGGTCCCC
TGGTCTGCCCCCTCCAGCTCCCCCAGGATTCTCCGGGCCTGTCAGCAGCCCCCAGATTAACTCAACAGTGTCACT
CCCTGGGGGGTGGGTCTGGCCCCCCTGAAGATGTGAAGCCACCAGTCTTAGGGGTCCGGGGCCTGCACTGTCCACC
CCCTCCAGGTGGCCCTGGGGCTGGCAAACGGCTATGTGCAATCTGCGGGGACAGAAGCTCAGGCAAACACTACGG
GGTTTACAGCTGTGAGGGTTGCAAGGGCTTCTTCAAACGCACCATCCGCAAAGACCTTACATACTCTTGCCGGGA
CAACAAAGACTGCACAGTGGACAAGCGCCAGCGGAACCGCTGTCAGTACTGCCGCTATCAGAAGTGCCTGGCCAC
TGGCATGAAGAGGGAGGCGGTACAGGAGGAGCGTCAGCGGGGAAAGGACAAGGATGGGGATGGGGAGGGGGCTGG
GGGAGCCCCCGAGGAGATGCCTGTGGACAGGATCCTGGAGGCAGAGCTTGCTGTGGAACAGAAGAGTGACCAGGG
CGTTGAGGGTCCTGGGGGAACCGGGGGTAGCGGCAGCAGCCAAATGACCCTG**TGA**CTAACATCTGTCAGGCAGCT
GACAAACAGCTATTCACGCTTGTTGAGTGGGCGAAGAGGATCCCACACTTTTCCTCCTTGCCTCTGGATGATCAG
GTCATATTGCTGCGGGCAGGCTGGAATGAACTCCTCATTGCCTCCTTCTCACACCGATCCATTGATGTTCGAGAT
GGCATCCTCCTTGCCACAGGTCTTCACGTGCACCGCAACTCAGCCCATTCAGCAGGAGTAGGAGCCATCTTTGAT
CGGGTGCTGACAGAGCTAGTGTCCAAAATGCGTGACATGAGGATGGACAAGACAGAGCTTGGCTGCCTGAGGGCA
ATCATTCTGTTTAATCCAGATGCCAAGGGCCTCTCCAACCCTAGTGAGGTGGAGGTCCTGCGGGAGAAAGTGTAT
GCATCACTGGAGACCTACTGCAAACAGAAGTACCCTGAGCAGCAGGGACGGTTTGCCAAGCTGCTGCTACGTCTT
CCTGCCCTCCGGTCCATTGGCCTTAAGTGTCTAGAGCATCTGTTTTTCTTCAAGCTCATTGGTGACACCCCCATC
GACACCTTCCTCATGGAGATGCTTGAGGCTCCCCATCAACTGGCCTGAGCTCAGACCCAGACGTGGTGCTTCTCA
CACTGGAGGAGCACACATCCAAGAGGGACTCCAAGCCCTGGGGCAGGGTGGGGGGGCCATGTTCCCAGAACCTTGA
TGGGGTGAGAAGTACAGGGCAGAACCAAGAACATAAACCCTCCAAGGGATCTGCTTGATATCCCAAGTTGGAAGG
GACCCCAGATACCTGTGAGGACTGGTTGTCTCTCTTCGGTGGCCTTGAGTCTCTGAATTT

FIGURE 585A

CACACAGAAGCGGCAGCCACCGAGGAGGGAGCAGTGCCGGGAGCCCCGACGGCGCCTTGCTGCATGGAGCTGGGC
CGCTGACAGCTGTCGCTGCCCGCAGCCTCTGACCTCCCTGGGACCCCGGCGTCTGAGGCTCATAGTCTGCTCCCT
GTCTTCTGTCAGCCTCAGGGCATCCAGCGTCTCAGGCCGACCTGGGTCCCTGGGACCCGGCGTTTCGGCTTCTCA
GCC**ATG**GAGCGGTGCAGCCGCTGCCATCGCCTCCTCCTCCTCCTACCTCTGGTGCTGGGGCTGAGCGCGGCCCCA
GGCTGGGCAGGTGCACCCCCTGTGGATGTGCTCCGGGCCCTGAGGTTCCCCTCCCTCCCTGATGGTGTCCGGAGA
GCGAAAGGCATCTGTCCAGCTGATGTGGCCTACCGAGTGGCACGACCTGCCCAGCTCAGTGCACCCACTCGCCAG
CTTTTCCCAGGAGGATTTCCCAAAGATTTCTCTCTGCTGACTGTTGTCCGGACCCGCCCTGGTCTCCAAGCTCCC
CTCCTGACTCTCTACAGTGCCCAGGGTGTCCGACAGCTGGGCCTGGAGCTGGGCCGACCTGTCCGCTTCCTGTAT
GAAGACCAGACTGGGCGGCCTCAACCTCCCTCTCAGCCAGTCTTCCGAGGCCTCAGCCTAGCAGATGGCAAGTGG
CACCGTGTGGCTGTGGCTGTGAAGGGCCAGTCTGTCACCCTCATTGTTGACTGCAAGAAGCGAGTCACCCGGCCT
CTCCCCCGAAGTGCTCGTCCAGTATTGGACACCCATGGAGTGATCATCTTTGGTGCCCGTATTCTGGATGAAGAA
GTCTTTGAGGGTGATGTCCAGGAGCTGGCCATTGTCCCAGGGGTCCAGGCAGCCTATGAATCATGTGAACAGAAG
GAGCTGGAATGCGAGGGGGGCCAGAGGGAAAGACCCCAAAACCAACAGCCTCACAGAGCCCAGAGATCTCCACAG
CAGCAACCATCAAGACTTCACAGGCCACAAAATCAGGAACCCCAGAGCCAGCCCACTGAGTCTCTCTACTATGAC
TACGAGCCCCCCTATTATGATGTGATGACTACGGGGACAACCCCTGATTATCAGGACCCCACCCCAGGTGAAGAG
GAAGAAATCCTGGAGTCGAGCCTCTTGCCACCCCTTGAGGAGGAGCAGACAGATCTCCAGGTCCCCCCCACAGCC
GACAGGTTCCAGGCAGAGGAATATGGGGAGGGTGGCACAGACCCCCCTGAAGGGCCCTACGATTACACCTATGGC
TATGGGGATGATTATCGTGAGGAGACAGAGCTTGGCCCTGCCCTCTCTGCGGAGACAGCCCACTCAGGAGCCGCT
GCCCATGGACCCCGAGGGCTGAAGGGAGAGAAAGGAGAGCCTGCAGTGTTGGAACCTGGTATGCTCGTGGAGGGG
CCCCCTGGCCCAGAAGGCCCTGCGGGATTGATTGGTCCCCCTGGCATCCAGGGGAACCCAGGCCCAGTTGGAGAC
CCTGGAGAGAGGGGCCCCCCCTGGCCGAGCAGGGCTCCCTGGATCAGATGGGGCTCCTGGTCCTCCTGGCACATCT
CTCATGCTCCCATTCCGGTTTGGCAGTGGTGGGGGTGACAAGGGCCCTGTGGTGGCGGCCCAGGAGGCTCAGGCC
CAGGCGATCCTGCAGCAGGCGAGGCTGGCGCTCCGTGGACCCCCTGGCCCCATGGGATACACAGGGCGCCCTGGA
CCCTTGGGCCAACCTGGGAGCCCTGGCCTGAAAGGAGAGTCTGGAGACTTAGGACCTCAGGGCCCCAGAGGACCT
CAGGGCCTCACAGGCCCTCCTGGCAAGGCTGGGCGAAGGGGCCGGGCAGGTGCTGATGGAGCCCGAGGGATGCCT
GGAGATCCTGGAGTGAAGGGTGACCGAGGTTTTGATGGACTCCCAGGGCTCCCTGGAGAGAAGGGCCATAGGGGT
GATACTGGTGCCCAGGGCCTTCCTGGTCCCCCTGGTGAGGATGGAGAGAGGGGAGATGACGGGGAGATTGGGCCT
CGAGGGCTGCCTGGAGAGTCGGGACCTCGAGGTCTCCTTGGCCCCAAAGGCCCACCTGGTATTCCTGGACCCCCT
GGCGTCCGAGGCATGGATGGTCCCCAGGGCCCCAAAGGGAGCTTGGGACCCCAGGGAGAGCCAGGACCTCCTGGA
CAACAGGGCACCCCTGGGACCCAGGGTCTTCCCGGGCCCCAGGGTGCCATCGGCCCTCATGGAGAGAAGGGTCCT
CAAGGGAAGCCAGGGCTCCCCGGCATGCCTGGCTCAGACGGACCCCCGGGTCACCCAGGGAAGGAAGGTCCCCCT
GGAACCAAAGGAAACCAGGGTCCCTCTGGACCTCAGGGACCTCTAGGATACCCAGGACCTCGAGGGGTCAAGGGT
GTGGACGGAATTCGGGGTCTGAAGGGTCATAAGGGTGAGAAGGGTGAGGATGGCTTTCCTGGGTTCAAAGGTGAC
ATAGGCGTGAAAGGTGACAGGGGCGAAGTTGGAGTCCCTGGTTCCAGGGGAGAGGATGGTCCTGAGGGGCCAAAG
GGACGCACTGGACCGACTGGAGACCCTGGGCCCCCAGGGCTCATGGGCGAGAAGGGCAAGCTGGGTGTTCCTGGT
CTGCCTGGCTATCCTGGACGTCAGGGACCCAAGGGGTCCCTAGGATTTCCTGGCTTTCCTGGTGCCAGTGGAGAG
AAGGGAGCCCGGGGCCTGTCGGGGAAGTCAGGGCCTCGGGGAGAACGGGGCCCCACGGGTCCACGGGGTCAGCGG
GGACCCCGAGGTGCCACTGGGAAGTCTGGAGCTAAGGGAACATCTGGTGGTGATGGCCCCCATGGGCCCCCTGGA
GAGAGGGGCCTCCCTGGACCTCAGGGTCCCAACGGGTTTCCTGGACCGAAAGGACCCCCGGGCCCCCCTGGGAAG
GATGGGCTGCCGGGACACCCAGGCCAAAGAGGAGAAGTGGGTTTCCAAGGGAAGACCGGCCCCCCTGGTCCTCCA
GGAGTGGTGGGACCTCAGGGAGCAGCAGGAGAAACCGGCCCTATGGGGGAGAGAGGTCACCCAGGCCCCCCGGGG
CCCCCTGGAGAGCAGGGACTACCTGGGACAGCTGGAAAAGAAGGAACAAAGGGTGACCCTGGTCCCCCTGGGGCC
CCAGGGAAGGATGGTCCTGCTGGTCTGAGGGGATTCCCAGGAGAGAGAGGCCTCCCAGGCACTGCTGGTGGACCT
GGTTTGAAGGGGAATGAAGGTCCGTCTGGCCCCCCTGGCCCTGCAGGCTCCCCTGGGGAACGAGGTGCAGCAGGA
TCAGGGGGACCCATTGGTCCGCCAGGGCGCCCAGGCCCGCAGGGTCCCCCTGGAGCAGCAGGAGAGAAAGGTGTC
CCAGGTGAGAAGGGCCCCATTGGCCCGACTGGCCGAGATGGAGTGCAGGGTCCTGTGGGGCTTCCTGGTCCTGCT
GGGCCTCCAGGTGTGGCTGGAGAGGATGGAGACAAGGGTGAGGTGGGGGACCCCGGACAGAAGGGCACCAAAGGG
AACAAGGGTGAACATGGCCCTCCTGGACCCCCTGGACCCATTGGTCCTGTGGGGCAGCCTGGAGCAGCGGGAGCA

FIGURE 585B

GATGGGGAGCCCGGAGCTCGGGGACCCCAGGGACACTTTGGAGCCAAAGGTGATGAAGGAACAAGAGGATTCAAT
GGGCCCCCAGGACCCATTGGCCTACAGGGTTTGCCAGGCCCCTCTGGGGAGAAGGGAGAAACAGGAGATGTGGGT
CCTATGGGACCACCTGGCCCCCCAGGACCTCGAGGTCCAGCTGGACCCAATGGCGCTGATGGCCCACAAGGTCCC
CCAGGAGGTGTTGGGAACCTGGGTCCCCCTGGAGAGAAGGGGGAACCAGGAGAGTCAGGATCTCCAGGGATCCAG
GGCGAGCCAGGTGTCAAGGGTCCACGCGGGGAACGTGGAGAGAAAGGAGAGTCGGGGCAGCCAGGAGAGCCAGGG
CCACCAGGGCCTAAAGGCCCCACAGGCGATGATGGCCCCAAAGGGAACCCTGGTCCTGTTGGTTTTCCTGGTGAC
CCTGGCCCCCCTGGAGAAGGTGGCCCTCGGGGCCAGGATGGTGCTAAGGGTGACCGAGGCGAGGATGGTGAGCCA
GGACAGCCTGGATCCCCTGGTCCCACCGGGGAGAATGGACCCCCAGGGCCACTTGGAAAGCGAGGTCCTGCTGGC
TCGCCTGGTTCCGAGGGGCGACAAGGAGGGAAGGGAGCCAAGGGAGATCCTGGCGCTATAGGTGCCCCGGGGAAG
ACAGGCCCGGTGGGTCCTGCAGGCCCAGCAGGGAAACCTGGCCCTGATGGTCTGAGGGGGCTCCCAGGCTCAGTG
GGTCAGCAAGGCCGACCTGGAGCTACAGGCCAGGCTGGGCCCCCAGGTCCTGTGGGACCCCCAGGGCTGCCTGGT
CTCCGGGGCGATGCTGGAGCCAAGGGAGAGAAGGGCCACCCAGGTCTCATTGGACTGATTGGGCCCCCGGGTGAG
CAGGGAGAGAAGGGAGATCGGGGACTTCCTGGGCCTCAGGGCTCCCCTGGGCAGAAGGGTGAGATGGGTATCCCA
GGAGCATCCGGCCCCATTGGTCCTGGAGGTCCCCCCGGCCTCCCCGGACCTGCTGGCCCCAAAGGAGCCAAAGGA
GCCACAGGCCCAGGCGGACCCAAGGGAGAGAAGGGTGTGCAGGGCCCTCCAGGACACCCGGGTCCCCCAGGCGAG
GTGATCCAGCCACTGCCCATTCAGATGCCCAAGAAGACTCGGCGCTCGGTGGATGGAAGCCGTCTGATGCAGGAA
GATGAGGCCATACCGACCGGGGGAGCCCCCGGCAGTCCTGGGGGGCTGGAGGAGATCTTTGGCTCACTCGACTCC
CTGCGGGAGGAGATCGAGCAGATGAGGCGGCCAACAGGGACCCAGGACAGCCCTGCTCGCACCTGCCAGGACCTG
AAGCTGTGCCACCCAGAGCTTCCCGATGGAGAGTACTGGGTCGACCCCAACCAGGGCTGTGCTCGGGATGCCTTC
CGAGTTTTCTGCAACTTCACAGCAGGGGGTGAGACCTGTGTGACGCCTAGGGATGACGTCACGCAGTTCTCTTAC
GTGGACTCAGAGGGCTCCCCAGTGGGTGTGGTCCAGCTCACCTTCCTGCGGCTGCTCAGCGTCTCAGCCCACCAG
GACGTCTCCTACCCCTGCTCTGGAGCAGCCCGTGACGGTCCCCTGAGACTCCGTGGGGCCAATGAGGATGAGCTG
AGCCCGGAGACTAGCCCCTATGTCAAAGAATTCAGAGATGGCTGCCAGACACAGCAAGGCCGGACGGTGCTGGAG
GTGCGAACGCCTGTGCTGGAGCAGCTGCCAGTGCTGGATGCCTCCTTCTCAGACCTGGGAGCCCCACCGAGGCGG
GGAGGGGTGCTGCTGGGGCCTGTCTGCTTCATGGGA**TAG**GACCGTCTCTGTCTGATCCTGTCCATTCGGAACCAG
GCCCACCTGGAATCCCACAACATCAGCTCTGTGCCACCTCCCAAGAGGGCTCCTCACTATCTAGGGAGCCCTGGG
CCAGGGCGTGGAGAGCCCTCAGTCGGGGCAGGCCAGGGGAGGGGTGAAGTGGTTGCCTGGACACCCCACGGGAGG
AGTGGCATCTGGGGCTCTTGGCCCTCCCACCTGGAGCCTGTTACCCGTTAGAGAGCTGAGACCCTTATTTAAAAC
TCACCTCCCAATCACCCCAAACAAATGGAAGAGAAGAGAAAGGACATGGCGTATTTTGTATTTAAAAGTAATTGT
ATTAATTATTTAAAGTGTGGAAAGCAAAATAACAAAAAAGAGAAACGCCAACAAAAATCAGCAGATGTTGAAGAC
AGGGGTCTCGGGGGTGGGCTCCGGCACCCACATCCTGGAGTCAGGACTTTCCTCAGTGACTGTGTGTAGGGGGGT
TTCAGGGCTGAACCCCACCTCCCTCCCACCTTCCTCCCACCTCACCTGTCGCACCCACTGTGAAAGTTGGAATAT
GTGGTCTCCCTGGCCTCAGGGCTCTGACTCTGCCAGGGTGGGGCTCTCTAACCCACAGGTGTTGGCTGCCTGGCC
CATGTGCCCACTGTCTCTTCCACTTGGTCTGGGTTTGGCAGGCACTGCCTGCTACTTGAGGGCCAGGATGCTCCC
CCAGGGAAGAAACGGAATAGTGTGGGGTGTGTGCAGGGCTGCATCCCGCAGATGGCTGGAATATTAAAATTCTTC
TATATTGGCTGGTAAATTGCCATGGCCCTGAGCCACTGAGTATGTTCATTGCCACCCCTGTCCCTCCCCTGGGCA
CCCCTCACTTTCCCTGATCCTGCAATTAAAGGGTTAATGTGTGGCATATGGAAGGGACTCCCAGGACCCTGTGCC
CAGCTTCCATGCTGACTGATGGTTAAATAATGTGATTGTCTCCTCCCAGG

FIGURE 586

AGCGAGTCCTTCTTTTCCTGACTGCAGCTCTTTTCATTTTGCCATCCTTTTCCAGCTCC**ATG**ATGGTTCTGCAGG
TTTCTGCGGCCCCCCGGACAGTGGCTCTGACGGCGTTACTGATGGTGCTGCTCACATCTGTGGTCCAGGGCAGGG
CCACTCCAGAGAATTACCTTTTCCAGGGACGGCAGGAATGCTACGCGTTTAATGGGACACAGCGCTTCCTGGAGA
GATACATCTACAACCGGGAGGAGTTCGCGCGCTTCGACAGCGACGTGGGGGAGTTCCGGGCGGTGACGGAGCTGG
GGCGGCCTGCTGCGGAGTACTGGAACAGCCAGAAGGACATCCTGGAGGAGAAGCGGGCAGTGCCGGACAGGATGT
GCAGACACAACTACGAGCTGGGCGGGCCCATGACCCTGCAGCGCCGAGTCCAGCCTAGGGTGAATGTTTCCCCCT
CCAAGAAGGGGCCCTTGCAGCACCACAACCTGCTTGTCTGCCACGTGACGGATTTCTACCCAGGCAGCATTCAAG
TCCGATGGTTCCTGAATGGACAGGAGGAAACAGCTGGGGTCGTGTCCACCAACCTGATCCGTAATGGAGACTGGA
CCTTCCAGATCCTGGTGATGCTGGAAATGACCCCCCAGCAGGGAGATGTCTACACCTGCCAAGTGGAGCACACCA
GCCTGGATAGTCCTGTCACCGTGGAGTGGAAGGCACAGTCTGATTCTGCCCGGAGTAAGACATTGACGGGAGCTG
GGGGCTTCGTGCTGGGGCTCATCATCTGTGGAGTGGGCATCTTCATGCACAGGAGGAGCAAGAAAGTTCAACGAG
GATCTGCA**TAA**ACAGGGTTCCTGAGCTCACTGAAAAGACTATTGTGCCTTAGGAAAAGCATTTGCTGTGTTTCGT
TAGCATCTGGCTCCAGGACAGACCTTCAACTTCCAAATTGGATACTGCTGCCAAGAAGTTGCTCTGAAGTCAGTT
TCTATCATTCTGCTCTTTGATTCAAAGCACTGTTTCTCTCACTGGGCCTCCAACCATGTTCCCTTCTTCTTAGCA
CCACAAATAATCAAAACCCAACATGACTGTTTGTTTTCCTTTAAAAATATGCACCAAATCATCTCTCATCACTTT
TCTCTGAGGGTTTTAGTAGACAGTAGGAGTTAATAAAGAAGTTCATTTTGGTTTAAACATAGGAAAGAAGAGAAC
CATGAAAATGGGGATATGTTAACTATTGTATAATGGGGCCTGTTACACATGACACTCTTCTGAATTGACTGTATT
TCAGTGAGCTGCCCCCAAATCAAGTTTAGTGCCCTCATCCATTTATGTCTCAGACCACTATTCTTAACTATTCAA
TGGTGAGCAGACTGCAAATCTGCCTGATAGGACCCATATTCCCACAGCACTAATTCAACATATACCTTACTGAGA
GCATGTTTTATCATTACCATTAAGAAGTTAAATGAACATCAGAATTTAAAATCATAAATATAATCTAATACACTT
T

FIGURE 587

GCTCACAGTCATCAATTATAGACCCCACAAC**ATG**CGCCCTGAAGACAGAATGTTCCATATCAGAGCTGTGATCTT
GAGAGCCCTCTCCTTGGCTTTCCTGCTGAGTCTCCGAGGAGCTGGGGCCATCAAGGCGGACCATGTGTCAACTTA
TGCCGCGTTTGTACAGACGCATAGACCAACAGGGGAGTTTATGTTTGAATTTGATGAAGATGAGATGTTCTATGT
GGATCTGGACAAGAAGGAGACCGTCTGGCATCTGGAGGAGTTTGGCCAAGCCTTTTCCTTTGAGGCTCAGGGCGG
GCTGGCTAACATTGCTATATTGAACAACAACTTGAATACCTTGATCCAGCGTTCCAACCACACTCAGGCCACCAA
CGATCCCCCTGAGGTGACCGTGTTTCCCAAGGAGCCTGTGGAGCTGGGCCAGCCCAACACCCTCATCTGCCACAT
TGACAAGTTCTTCCCACCAGTGCTCAACGTCACGTGGCTGTGCAACGGGGAGCTGGTCACTGAGGGTGTCGCTGA
GAGCCTCTTCCTGCCCAGAACAGATTACAGCTTCCACAAGTTCCATTACCTGACCTTTGTGCCCTCAGCAGAGGA
CTTCTATGACTGCAGGGTGGAGCACTGGGGCTTGGACCAGCCGCTCCTCAAGCACTGGGAGGCCCAAGAGCCAAT
CCAGATGCCTGAGACAACGGAGACTGTGCTCTGTGCCCTGGGCCTGGTGCTGGGCCTAGTCGGCATCATCGTGGG
CACCGTCCTCATCATAAAGTCTCTGCGTTCTGGCCATGACCCCCGGGCCCAGGGGACCCTG**TGA**AATACTGTAAA
GGTGACAAAATATCTGAACAGAAGAGGACTTAGGAGAGATCTGAACTCCAGCTGCCCTACAAACTCCATCTCAGC
TTTTCTTCTCACTTCATGTGAAAACTACTCCAGTGGCTGACTGAATTGCTGACCCTTCAAGCTCTGTCCTTATCC
ATTACCTCAAAGCAGTCATTCCTTAGTAAAGTTTCCAACAAATAGAAATTAATGACACTTTGGTAGCACTAATAT
GGAGATTATCCTTTCATTGAGCCTTTTATCCTCTGTTCTCCTTTGAAGAACCCCTCACTGTCACCTTCCCGAGAA
TACCCTAAGACCAATAAATACTTCAGTATTTC

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FIGURE 588

CTTCTTCTTTACCTCCGCCTTGTTCCTGTCCTCACCACACGGACTGAGACTGATTTGATTAAAGCACCAGAGTGT
A**ATG**GCCCTCAGAGCAGGGCTGGTCCTGGGGTTCCACACCCTGATGACCCTCCTGAGCCCGCAGGAGGCAGGGGC
CACCAAGGCTGACCACATGGGCTCCTACGGACCCGCCTTCTACCAGTCTTACGGCGCCTCGGGCCAGTTCACCCA
TGAATTTGATGAGGAACAGCTGTTCTCTGTGGACCTGAAGAAAAGCGAGGCCGTGTGGCGTCTGCCTGAGTTTGG
TGACTTTGCCCGCTTTGACCCGCAGGGTGGGCTGGCCGGCATCGCCGCAATCAAAGCCCATCTGGACATCCTGGT
GGAGCGCTCCAACCGCAGCAGAGCCATCAACGTGCCTCCACGGGTGACCGTGCTCCCCAAGTCTCGGGTGGAGCT
GGGCCAGCCCAACATCCTCATCTGCATCGTGGACAACATCTTCCCCCCTGTGATCAATATCACCTGGCTACGCAA
CGGCCAAACTGTCACTGAGGGAGTGGCCCAGACCAGCTTCTATTCCCAGCCTGACCATTTGTTCCGCAAGTTCCA
CTACCTGCCCTTCGTGCCCTCAGCCGAGGACGTCTATGACTGCCAGGTGGAGCACTGGGGCCTGGATGCGCCACT
CCTCAGGCATTGGGAGCTCCAGGTGCCTATTCCACCACCAGATGCCATGGAGACCCTGGTCTGTGCCCTGGGTCT
GGCCATCGGCCTGGTGGGCTTCCTCGTGGGCACCGTCCTCATCATCATGGGCACATATGTGTCCAGTGTCCCCAG
G**TAA**TGATCCTTCTGAGAGAAATGACTTGTGGGAGACACCCTGCAGATCCTCATGGGTTTGTGACAGCCCCTGCG
TGCTCAGTGCCCTTTAAGTGCATCCCGCTGTGCTGACTTTGAGTGGGATCAACATCTGTCCTACGGGTCCCCTCT
TTTTTGGCCCCAGTATTCATGGCAGGGTTTGTTGGACACCTACTAGCTTCCCTTCCCATTCAACACAAACACACA
TTCTTGCTCTACCCAAAGCTCTGGCTGGCAGCACTAAATGCTTTGGTGGTGTTTGC

FIGURE 589A

GGACTGCGGGATAGGAAGCTGGGGATATGGACAAGCAGCAGCGTTATAGCGCTCTGGGTTTCGGGACATAGGCCT
GGGCCATGCGGCCCCCTTGGCCCCTTGGCGCGACCCCCAGGAACGTTCGGAAAGCTGGTCCTCGTGGCTGGGGGA
AAGGCGGGGGGTGGGGGGGAAGCGGGCACGTGACCCCGGTCAGCCAATCTGGGTGCTGCTGACGTACGCGCGCGG
CCCCGATGCTCTCCCCACCCCCCCAGCCCGTTCGGGAAGGGAGGGGCTGGGGGCTACGCCCCATCCCCCAGCACG
GCTTCGTTTTCTGGGGGGGGGTTGACACCCCGGATTACATACCCCGTACCAAGCCGAGGGCAACTTTGGAGGCCC
CCTGGAAGGCTTTAGGATCCAGATTCTTCGCTGCTGCTGCCTTACCGCCGAGAACCACCACCCGCCAGGCGTCTT
GCGGCCACACCCCTGGCGGGTTCAGGCAGGCTACGCCCACGCGACCCCTCCCGTTTCCCTGCTTTGGCCAATGGA
GGAGCTACGAATGGCACGACCTGCTCGAGCTTGGCAGTCTCCAGTTGGGCTGTGCATGGAAGCTTGGGAAGACTT
TGTTGGAAGGGGAGGCGGGGAGAGAGTGCTGGAGGCTCTGGGGCGATGGCTTCCGCACCTCTTCCAACCACCCTC
TTTCCCTGGAGTCGGCGGACCACAGCTCAGCCAATTGGCTTGGAGATGTGGCGGGTTGCCACTTCCCTGTGGGTC
TCTGCGGCACTCTTCTGCCTGGTGACTGACACCTTGGAAATGAAGTTTATGACGTCATCGTTGCGGCTGGCCAAT
AGAAAAAGCTCCCGCGGAGAGGTGTTCCTTCCCCTTCGACTCAGCTTCTTCACCCGCGTGAGCGAGCGCGCGCGC
GCGGAGGGGGTGGGGAAAATCTCAAGCAGGGTGGCGCGCATGAGCGGCGAAGCTCCTCCTCCCCGCCTATATATA
AAGGGCTGGCGCGGGGCTCGGCGGCGCCATTTCGTGCTGGAGTGGAGCAGCCTCTAGAACGAGCTGGAGGATTCT
GCCTACCGATACAGAGCCTTCGAGTCGTCCGGGGCCGCCATTACAATCCACCTCCATCCGCTTGGAAATGGCCTT
CGTCCCGGCCTATGACTGGTCCCAGCGGGCAGTACAGACCCCCTAGAAGCCCCTGGAGCTCCCCTTTTTCGGGCC
CCGCCCAATCCTCGGAGTCTGTCCACCCCCTCTACTCCGCCCTCAAGAGGATTTCAAAGATGGAGGCGGCGGCTC
CCTAAACCACTTTTCGTGTTCATCCGCCTCCATCCGAGATCGAAACGGGACCTCGTCGGCCCCGTAGGGGCCCGA
CAAGAAGAGGGAATCCCTGCAGACCAACAGCGGGCTATATTGACGACGGTGTCTGAGATCGGGGACCGTCTTTTG
AAGAGTCAGTCCCTCCTTAGTTGCCCGCCTCAGCTGAGGCCGCCGCCATTTTCTTGCTGTCCGCCGTCTGCAGAG
CGCGCCAAGCTGCCCGGAGCTCTCCGAGAGGCCCCAAAGAGACTGCTTTCGTGCCGGCCAGGCAGGGGGTTTGTC
GCCTGGAGGCCCAAGAGGAACGGCCTCCCCCCAACTTAGCGGGTTATGCTGGACCGGGCGGTGAGGGGAACCGAG
GCCACCCGGACTTTCCGCGGCTGAGGGCAGCGCCGGTTCCTTGCGGTCAAG**ATG**CTGCAAAACGTGACTCCCCAC
AATAAGCTCCCTGGGGAAGGGAATGCAGGGTTGCTGGGGCTGGGCCCAGAAGCAGCAGCACCAGGGAAAAGGATT
CGAAAACCCTCTCTCTTGTATGAGGGCTTTGAGAGCCCCACAATGGCTTCGGTGCCTGCTTTGCAACTTACCCCT
GCCAACCCACCACCCCCGGAGGTGTCCAATCCCAAAAAGCCAGGACGAGTTACCAACCAGCTGCAATACCTACAC
AAGGTAGTGATGAAGGCTCTGTGGAAACATCAGTTCGCATGGCCATTCCGGCAGCCTGTGGATGCTGTCAAACTG
GGTCTACCGGATTATCACAAAATTATAAAACAGCCTATGGACATGGGTACTATTAAGAGGAGACTTGAAAACAAT
TATTATTGGGCTGCTTCAGAGTGTATGCAAGATTTTAATACCATGTTCACCAACTGTTACATTTACAACAAGCCC
ACTGATGATATTGTCCTAATGGCACAAACGCTGGAAAAGATATTCCTACAGAAGGTTGCATCAATGCCACAAGAA
GAACAAGAGCTGGTAGTGACCATCCCTAAGAACAGCCACAAGAAGGGGGCCAAGTTGGCAGCGCTCCAGGGCAGT
GTTACCAGTGCCCATCAGGTGCCTGCCGTCTCTTCTGTGTCACACACAGCCCTGTATACTCCTCCACCTGAGATA
CCTACCACTGTCTTCAACATTCCCCACCCATCAGTCATTTCCTCTCCACTTCTCAAGTCCTTGCACTCTGCTGGA
CCCCCGCTCCTTGCTGTTACTGCAGCTCCTCCAGCCCAGCCCCTTGCCAAGAAAAAAGGCGTAAAGCGGAAAGCA
GATACTACCACCCCTACACCTACAGCCATCTTGGCTCCTGGTTCTCCAGCTAGCCCTCCTGGGAGTCTTGAGCCT
AAGGCAGCACGGCTTCCCCCTATGCGTAGAGAGAGTGGTCGCCCCATCAAGCCCCCACGCAAAGACTTGCCTGAC
TCTCAGCAACAACACCAGAGCTCTAAGAAAGGAAAGCTTTCAGAACAGTTAAAACATTGCAATGGCATTTTGAAG
GAGTTACTCTCTAAGAAGCATGCTGCCTATGCTTGGCCTTTCTATAAACCAGTGGATGCTTCTGCACTTGGCCTG
CATGACTACCATGACATCATTAAGCACCCCATGGACCTCAGCACTGTCAAGCGGAAGATGGAGAACCGTGATTAC
CGGGATGCACAGGAGTTTGCTGCTGATGTACGGCTTATGTTCTCCAACTGCTATAAGTACAATCCCCCAGATCAC
GATGTTGTGGCAATGGCACGAAAGCTACAGGATGTATTTGAGTTCCGTTATGCCAAGATGCCAGATGAACCACTA
GAACCAGGGCCTTTACCAGTCTCTACTGCCATGCCCCCTGGCTTGGCCAAATCGTCTTCAGAGTCCTCCAGTGAG
GAAAGTAGCAGTGAGAGCTCCTCTGAGGAAGAGGAGGAGGAAGATGAGGAGGACGAGGAGGAAGAAGAGAGTGAA
AGCTCAGACTCAGAGGAAGAAAGGGCTCATCGCTTAGCAGAACTACAGGAACAGCTTCGGGCAGTACATGAACAA
CTGGCTGCTCTGTCCCAGGGTCCAATATCCAAGCCCAAGAGGAAAAGAGAGAAAAAAGAGAAAAAGAAGAAACGG
AAGGCAGAGAAGCATCGAGGCCGAGCTGGGGCCGATGAAGATGACAAGGGGCCTAGGGCACCCCGCCCACCTCAA
CCTAAGAAGTCCAAGAAAGCAAGTGGCAGTGGGGGTGGCAGTGCTGCTTTAGGCCCTTCCGGCTTTGGACCTTCT
GGAGGAAGTGGCACCAAGCTCCCCAAAAAGGCCACAAAGACAGCCCCACCTGCCCTGCCTACAGGTTATGATTCA

FIGURE 589B

GAGGAGGAGGAAGAGAGCAGGCCCATGAGTTACGATGAGAAGCGGCAGCTGAGCCTGGACATCAACAAATTACCT
GGGGAGAAGCTGGGCCGAGTTGTGCATATAATCCAAGCCAGGGAGCCCTCTTTACGTGATTCAAACCCAGAAGAG
ATTGAGATTGATTTTGAAACACTCAAGCCATCCACACTTAGAGAGCTTGAGCGCTATGTCCTTTCCTGCCTACGT
AAGAAACCCCGGAAGCCCTACACCATTAAGAAGCCTGTGGGAAAGACAAAGGAGGAACTGGCTTTGGAGAAAAAG
CGGGAATTAGAAAAGCGGTTACAAGATGTCAGCGGACAGCTCAATTCTACTAAAAAGCCCCCCAAGAAAGCGAAT
GAGAAAACAGAGTCATCCTCTGCACAGCAAGTAGCAGTGTCACGCCTTAGCGCTTCCAGCTCCAGCTCAGATTCC
AGCTCCTCCTCTTCCTCGTCGTCGTCTTCAGACACCAGTGATTCAGACTCAGGC**TAA**GGGGTCAGGCCAGATGGG
GCAGGAAGGCTCCGCAGGACCGGACCCCTAGACCACCCTGCCCCACCTGCCCCTTCCCCCTTTGCTGTGACACTT
CTTCATCTCACCCCCCCCTGCCCCCCTCTAGGAGAGCTGGCTCTGCAGTGGGGGAGGGATGCAGGGACATTTACT
GAAGGAGGGACATGGACAAAACAACATTGAATTCCCAGCCCCATTGGGGAGTGATCTCTTGGACACAGAGCCCCC
ATTCAAAATGGGGCAGGGCAAGGGTGGGAGTGTGCAAAGCCCTGATCTGGAGTTACCTGAGGCCATAGCTGCCCT
ATTCACTTCTAAGGGCCCTGTTTTGAGATTGTTTGTTCTAATTTATTTTAAGCTAGGTAAGGCTGGGGGGAGGGT
GGGGCCGTGGTCCCCTCAGCCTCCATGGGGAGGGAAGAAGGGGGAGCTCTTTTTTTACGTTGATTTTTTTTTTC
TACTCTGTTTTCCCTTTTTCCTTCCGCTCCATTTGGGGCCCTGGGGGTTTCAGTCATCTCCCCATTTGGTCCCCT
GGACTGTCTTTGTTGATTCTAACTTGTAAATAAAGAAAATATT

FIGURE 590

GCTGGGTTGGTAGCTCCTACCTACTGTGTGGCAAGAAGGT**ATG**GGTCATGAACAGAACCAAGGAGCTGCGCTGCT
ACAGATGTTACCACTTCTGTGGCTGCTACCCCACTCCTGGGCCGTCCCTGAAGCTCCTACTCCAATGTGGCCAGA
TGACCTGCAAAACCACACATTCCTGCACACAGTGTACTGCCAGGATGGGAGTCCCAGTGTGGGACTCTCTGAGGC
CTACGACGAGGACCAGCTTTTCTTCTTCGACTTTTCCCAGAACACTCGGGTGCCTCGCCTGCCCGAATTTGCTGA
CTGGGCTCAGGAACAGGGAGATGCTCCTGCCATTTTATTTGACAAAGAGTTCTGCGAGTGGATGATCCAGCAAAT
AGGGCCAAAACTTGATGGGAAAATCCCGGTGTCCAGAGGGTTTCCTATCGCTGAAGTGTTCACGCTGAAGCCCCT
GGAGTTTGGCAAGCCCAACACTTTGGTCTGTTTTGTCAGTAATCTCTTCCCACCCATGCTGACAGTGAACTGGCA
GCATCATTCCGTCCCTGTGGAAGGATTTGGGCCTACTTTTGTCTCAGCTGTCGATGGACTCAGCTTCCAGGCCTT
TTCTTACTTAAACTTCACACCAGAACCTTCTGACATTTTCTCCTGCATTGTGACTCACGAAATTGACCGCTACAC
AGCAATTGCCTATTGGGTACCCCGGAACGCACTGCCCTCAGATCTGCTGGAGAATGTGCTGTGTGGCGTGGCCTT
TGGCCTGGGTGTGCTGGGCATCATCGTGGGCATTGTTCTCATCATCTACTTCCGGAAGCCTTGCTCAGGTGAC**TG**
ATTCTTCCAGACCAGAGTTTGATGCCAGCAGCTTCGGCCATCCAAACAGAGGATGCTCAGATTTCTCACATCCTG
CCCAGGATCTCCTCTTAGGGTAGAAGAAGTCTCTGGGACATCCCTGGGGTGTGTGTGTAGATTTCCCACCTGGGG
ACTCTGCTGTCCCTGGGCTTGCATCCCAGGGATCCCAGAGTGGCCTGCCTATCACAACCACATCCCTTCCCCCCA
CAAGGCAATAAATCTCATTTCTTT

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FIGURE 591

GGAAACCAGTGCCCCAGGCGGCGAGGAGAGCGGTGCCTTGCAGGG**ATG**CTGCGGGCGGGAGCACCAACCGGGGAC
TTACCCCGGGCGGGAGAAGTCCACACCGGGACCACCATCATGGCAGTGGAGTTTGACGGGGGCGTTGTGATGGGT
TCTGATTCCCGAGTGTCTGCAGGCGAGGCGGTGGTGAACCGAGTGTTTGACAAGCTGTCCCCGCTGCACGAGCGC
ATCTACTGTGCACTCTCTGGTTCAGCTGCTGATGCCCAAGCCGTGGCCGACATGGCCGCCTACCAGCTGGAGCTC
CATGGGATAGAACTGGAGGAACCTCCACTTGTTTTGGCTGCTGCAAATGTGGTGAGAAATATCAGCTATAAATAT
CGAGAGGACTTGTCTGCACATCTCATGGTAGCTGGCTGGGACCAACGTGAAGGAGGTCAGGTATATGGAACCCTG
GGAGGAATGCTGACTCGACAGCCTTTTGCCATTGGTGGCTCCGGCAGCACCTTTATCTATGGTTATGTGGATGCA
GCATATAAGCCAGGCATGTCTCCCGAGGAGTGCAGGCGCTTCACCACAGACGCTATTGCTCTGGCCATGAGCCGG
GATGGCTCAAGCGGGGGTGTCATCTACCTGGTCACTATTACAGCTGCCGGTGTGGACCATCGAGTCATCTTGGGC
AATGAACTGCCAAAATTCTATGATGAG**TGA**ACCTTCCCCAGACTTCTC

FIGURE 592

AGGGTGTGCGTGATGGAGAAAATTGGGCACCAGGGCTGCTCCCGAGATTCTCAGATCTGATTTCCACGCTTGCTA
CCAAAATAGTCTGGGCAGGCCACTTTTGGAAGTAGGCGTTATCTAGTGAGCAGGCGGCCGCTTTCGATTTCGCTT
TCCCCTAA**ATG**GCTGAGCTTCTCGCCAGCGCAGGATCAGCCTGTTCCTGGGACTTTCCGAGAGCCCCGCCCTCGT
TCCCTCCCCCAGCCGCCAGTAGGGGAGGACTCGGCGGTACCCGGAGCTTCAGGCCCCACCGGGGCGCGGAGAGTC
CCAGGCCCGGCCGGGACCGGGACGGCGTCCGAGTGCCAATGGCTAGCTCTAGGTGTCCCGCTCCCCGCGGGTGCC
GCTGCCTCCCCGGAGCTTCTCTCGCATGGCTGGGGACAGTACTGCTACTTCTCGCCGACTGGGTGCTGCTCCGGA
CCGCGCTGCCCCGCATATTCTCCCTGCTGGTGCCCACCGCGCTGCCACTGCTCCGGGTCTGGGCGGTGGGCCTGA
GCCGCTGGGCCGTGCTCTGGCTGGGGGCCTGCGGGGTCCTCAGGGCAACGGTTGGCTCCAAGAGCGAAAACGCAG
GTGCCCAGGGCTGGCTGGCTGCTTTGAAGCCATTAGCTGCGGCACTGGGCTTGGCCCTGCCGGGACTTGCCTTGT
TCCGAGAGCTGATCTCATGGGGAGCCCCCGGGTCCGCGGATAGCACCAGGCTACTGCACTGGGGAAGTCACCCTA
CCGCCTTCGTTGTCAGTTATGCAGCGGCACTGCCCGCAGCAGCCCTGTGGCACAAACTCGGGAGCCTCTGGGTGC
CCGGCGGTCAGGGCGGCTCTGGAAACCCTGTGCGTCGGCTTCTAGGCTGCCTGGGCTCGGAGACGCGCCGCCTCT
CGCTGTTCCTGGTCCTGGTGGTCCTCTCCTCTCTTGGGGAGATGGCCATTCCATTCTTTACGGGCCGCCTCACTG
ACTGGATTCTACAAGATGGCTCAGCCGATACCTTCACTCGAAACTTAACTCTCATGTCCATTCTCACCATAGCCA
GTGCAGTGCTGGAGTTCGTGGGTGACGGGATCTATAACAACACCATGGGCCACGTGCACAGCCACTTGCAGGGAG
AGGTGTTTGGGGCTGTCCTGCGCCAGGAGACGGAGTTTTTCCAACAGAACCAGACAGGTAACATCATGTCTCGGG
TAACAGAGGACACGTCCACCCTGAGTGATTCTCTGAGTGAGAATCTGAGCTTATTTCTGTGGTACCTGGTGCGAG
GCCTATGTCTCTTGGGGATCATGCTCTGGGGATCAGTGTCCCTCACCATGGTCACCCTGATCACCCTGCCTCTGC
TTTTCCTTCTGCCCAAGAAGGTGGGAAAATGGTACCAGTTGCTGGAAGTGCAGGTGCGGGAATCTCTGGCAAAGT
CCAGCCAGGTGGCCATTGAGGCTCTGTCGGCCATGCCTACAGTTCGAAGCTTTGCCAACGAGGAGGGCGAAGCCC
AGAAGTTTAGGGAAAAGCTGCAAGAAATAAAGACACTCAACCAGAAGGAGGCTGTGGCCTATGCAGTCAACTCCT
GGACCACTAGTATTTCAGGTATGCTGCTGAAAGTGGGAATCCTCTACATTGGTGGGCAGCTGGTGACCAGTGGGG
CTGTAAGCAGTGGGAACCTTGTCACATTTGTTCTCTACCAGATGCAGTTCACCCAGGCTGTGGAGGTACTGCTCT
CCATCTACCCCAGAGTACAGAAGGCTGTGGGCTCCTCAGAGAAAATATTTGAGTACCTGGACCGCACCCCTCGCT
GCCCACCCAGTGGTCTGTTGACTCCCTTACACTTGGAGGGCCTTGTCCAGTTCCAAGATGTCTCCTTTGCCTACC
CAAACCGCCCAGATGTCTTAGTGCTACAGGGGCTGACATTCACCCTACGCCCTGGCGAGGTGACGGCGCTGGTGG
GACCCAATGGGTCTGGGAAGAGCACAGTGGCTGCCCTGCTGCAGAATCTGTACCAGCCCACCGGGGGACAGCTGC
TGTTGGATGGGAAGCCCCTTCCCCAATATGAGCACCGCTACCTGCACAGGCAGGTGGCTGCAGTGGGACAAGAGC
CACAGGTATTTGGAAGAAGTCTTCAAGAAAATATTGCCTATGGCCTGACCCAGAAGCCAACTATGGAGGAAATCA
CAGCTGCTGCAGTAAAGTCTGGGGCCCATAGTTTCATCTCTGGACTCCCTCAGGGCTATGACACAGAGGTAGACG
AGGCTGGGAGCCAGCTGTCAGGGGGTCAGCGACAGGCAGTGGCGTTGGCCCGAGCATTGATCCGGAAACCGTGTG
TACTTATCCTGGATGATGCCACCAGTGCCCTGGATGCAAACAGCCAGTTACAGGTGGAGCAGCTCCTGTACGAAA
GCCCTGAGCGGTACTCCCGCTCAGTGCTTCTCATCACCCAGCACCTCAGCCTGGTGGAGCAGGCTGACCACATCC
TCTTTCTGGAAGGAGGCGCTATCCGGGAGGGGGGAACCCACCAGCAGCTCATGGAGAAAAAGGGGTGCTACTGGG
CCATGGTGCAGGCTCCTGCAGATGCTCCAGAA**TGA**AAGCCTTCTCAGACCTGCGCACTCCATCTCCCTCCCTTTT
CTTCTCTCTGTGGTGGAGAACCACAGCTGCAGAGTAGGCAGCTGCCTCCAGGATGAGTTACTTGAAATTTGCCTT
GAGTGTGTTACCTCCTTTCCAAGCTCCTCGTGATAATGCAGACTTCCTGGAGTACAAACACAGGATTTGTAATTC
CTTACTGTAACGGAGTTTAGAGCCAGGGCTGATGCTTTGGTGTGGCCAGCACTCTGAAACTGAGAAATGTTCAGA
ATGTACGGAAAGATGATCAGCTATTTTCAACATAACTGAAGGCATATGCTGGCCCATAAACACCCTGTAGGTTCT
TGATATTTATAATAAAATTGGTGTTTTGT

FIGURE 593

GAGCAACGCTAGGAAGGGCGGGCAGAAAGGGCACGCTCTTGTGGGTGACTACAGGTTAGGAGACCGTTGAACCTG
GAGGGGCCCTAGGATGGACCCCGTGGAAAGATTCAGAGACTGCGCCCTCTCCCTGGCGCCGCCTTCCCCTACACG
CGGCGGGTATATTCTGTTGCAGTTGGCCCAGGACCTGTTTCCAAGACTCTGCCCCCTCGCACTTCCGTCCCTCCT
GGTTTTGTAAAGTGATGCTCATAGGAACCCCCACCCCGCGTGACACTACTCCCAGCTCCTGGCTGACTTCTAGTC
TTCTGGTTGAAGCTGCGCCTTTAGATGACACGACCCTACCCACCCCTGTTTCCAGCGGATGCCCGGGCCTGGAGC
CCACAGAATTCTTCCAGTCCCTGGGTGGGGACGGAGAAAGGAACGTTCAGATTGAGATGGCCCATGGCACCACCA
CGCTCGCCTTCAAGTTCCAGCATGGAGTGATTGCAGCAGTGGATTCTCGGGCCTCAGCTGGGTCCTACATTAGTG
AGTGTATACGCTCCAGCAGGCAGAATCTGGGGAGCTGGGCTCTCCTTTCCACAGGAGGCCAACTCTGCAACAAAG
TGGAAGTGGATATTGATTTAGGACACACTGGGGGATCTATGGGGTCATCCCTTCTCTCCCAAAGCTCCATCTTCT
TCCAGGTGCCTTACGGGTGAACAAGGTGATTGAGATTAACCCTTACCTGCTTGGCACC**ATG**TCTGGCTGTGCAGC
AGACTGTCAGTACTGGGAGCGCCTGCTGGCCAAGGAATGCAGGCTGTACTATCTGCGAAATGGAGAACGTATTTC
AGTGTCGGCAGCCTCCAAGCTGCTGTCCAACATGATGTGCCAGTACCGGGGCATGGGCCTCTCTATGGGCAGTAT
GATCTGTGGCTGGGATAAGAAGGGTCCTGGACTCTACTACGTGGATGAACATGGGACTCGGCTCTCAGGAAATAT
GTTCTCCACGGGTAGTGGGAACACTTATGCCTACGGGGTCATGGACAGTGGCTATCGGCCTAATCTTAGCCCTGA
AGAGGCCTATGACCTTGGCCGCAGGGCTATTGCTTATGCCACTCACAGAGACAGCTATTCTGGAGGCGTTGTCAA
TATGTACCACATGAAGGAAGATGGTTGGGTGAAAGTAGAAAGTACAGATGTCAGTGACCTGCTGCACCAGTACCG
GGAAGCCAATCAA**TAA**TGGTGGTGGTGGCAGCTGGGCAGGTCTCCTCTGGGAGGTCTTGGCCGACTCAGGGACCT
AAGCCACGTTAAGTCCAAGGAGAAGAAGAGGCCTAGCCTGAGCCAAAGAGAGAGTACGGGCTCAGCAGCCAGAGG
AGGCCGGTGAAGTGCATCTTCTGCGTGTTCTCTATTTGAACAAGCATTTCCCCCAGGGAAGTTTCTGGGTGCCCC
ACTAAGTAGAATAAAGAAAAACGGTTATAAATA

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FIGURE 594A

GGACCAGAGCCGGTAGCGAGGTTGGGAGAGACGGAGCGGACCTCAGCGCTGAAGCAGAAGTCCCCGGAGCTGCGG
TCTCCCCGCCGCGGCTGAGCC**ATG**CGGCTCCCTGACCTGAGACCCTGGACCTCCCTGCTGCTGGTGGACGCGGCT
TTACTGTGGCTGCTTCAGGGCCCTCTGGGGACTTTGCTTCCTCAAGGGCTGCCAGGACTATGGCTGGAGGGGACC
CTGCGGCTGGGAGGGCTGTGGGGGCTGCTAAAGCTAAGAGGGCTGCTGGGATTTGTGGGGACACTGCTGCTCCCG
CTCTGTCTGGCCACCCCCCTGACTGTCTCCCTGAGAGCCCTGGTCGCGGGGGCCTCACGTGCTCCCCCAGCCAGA
GTCGCTTCAGCCCCTTGGAGCTGGCTGCTGGTGGGGTACGGGGCTGCGGGGCTCAGCTGGTCACTGTGGGCTGTT
CTGAGCCCTCCTGGAGCCCAGGAGAAGGAGCAGGACCAGGTGAACAACAAAGTCTTGATGTGGAGGCTGCTGAAG
CTCTCCAGGCCGGACCTGCCTCTCCTCGTTGCCGCCTTCTTCTTCCTTGTCCTTGCTGTTTTGGGTGAGACATTA
ATCCCTCACTATTCTGGTCGTGTGATTGACATCCTGGGAGGTGATTTTGACCCCCATGCCTTTGCCAGTGCCATC
TTCTTCATGTGCCTCTTCTCCTTTGGCAGCTCACTGTCTGCAGGCTGCCGAGGAGGCTGCTTCACCTACACCATG
TCTCGAATCAACTTGCGGATCCGGGAGCAGCTTTTCTCCTCCCTGCTGCGCCAGGACCTCGGTTTCTTCCAGGAG
ACTAAGACAGGGGAGCTGAACTCACGGCTGAGCTCGGATACCACCCTGATGAGTAACTGGCTTCCTTTAAATGCC
AATGTGCTCTTGCGAAGCCTGGTGAAAGTGGTGGGGCTGTATGGCTTCATGCTCAGCATATCGCCTCGACTCACC
CTCCTTTCTCTGCTGCACATGCCCTTCACAATAGCAGCGGAGAAGGTGTACAACACCCGCCATCAGGAAGTGCTT
CGGGAGATCCAGGATGCAGTGGCCAGGGCGGGGCAGGTGGTGCGGGAAGCCGTTGGAGGGCTGCAGACCGTTCGC
AGTTTTGGGGCCGAGGAGCATGAAGTCTGTCGCTATAAAGAGGCCCTTGAACAATGTCGGCAGCTGTATTGGCGG
AGAGACCTGGAACGCGCCTTGTACCTGCTCGTAAGGAGGGTGCTGCACTTGGGGGTGCAGATGCTGATGCTGAGC
TGTGGGCTGCAGCAGATGCAGGATGGGGAGCTCACCCAGGGCAGCCTGCTTTCCTTTATGATCTACCAGGAGAGC
GTGGGGAGCTATGTGCAGACCCTGGTATACATATATGGGGATATGCTCAGCAACGTGGGAGCTGCAGAGAAGGTT
TTCTCCTACATGGACCGACAGCCAAATCTGCCTTCACCTGGCACGCTTGCCCCCACCACTCTGCAGGGGGTTGTG
AAATTCCAAGACGTCTCCTTTGCATATCCCAATCGCCCTGACAGGCCTGTGCTCAAGGGGCTGACGTTTACCCTA
CGTCCTGGTGAGGTGACGGCGCTGGTGGGACCCAATGGGTCTGGGAAGAGCACAGTGGCTGCCCTGCTGCAGAAT
CTGTACCAGCCCACAGGGGGACAGGTGCTGCTGGATGAAAAGCCCATCTCACAGTATGAACACTGCTACCTGCAC
AGCCAGGTGGTTTCAGTTGGGCAGGAGCCTGTGCTGTTCTCCGGTTCTGTGAGGAACAACATTGCTTATGGGCTG
CAGAGCTGCGAAGATGATAAGGTGATGGCGGCTGCCCAGGCTGCCCACGCAGATGACTTCATCCAGGAAATGGAG
CATGGAATATACACAGATGTAGGGGAGAAGGGAAGCCAGCTGGCTGCGGGACAGAAACAACGTCTGGCCATTGCC
CGGGCCCTTGTACGAGACCCGCGGGTCCTCATCCTGGATGAGGCTACTAGTGCCCTAGATGTGCAGTGCGAGCAG
GCCCTGCAGGACTGGAATTCCCGTGGGGATCGCACAGTGCTGGTGATTGCTCACAGGCTGCAGACAGTTCAGCGC
GCCCACCAGATCCTGGTGCTCCAGGAGGGCAAGCTGCAGAAGCTTGCCCAGCTCTAGGAGGGACAGGACCTCTAT
TCCCGCCTGGTGCAGCAGCGGCTGATGGAC**TGA**GGCCCCAGGGATACTGGGCCCTCTTCTCAGGGGCGTCTCCAG
GACCCAGAGCTGTTCCTGCTTTGAGTTTCCCTAGAGCTGTGCGGCCAGATAGCTGTTCCTGAGTTGCAGGCACGA
TGGAGATTTGGACACTGTGTGCTTTTGGTGGGGTAGAGAGGTGGGGTGGGGTGGGGTGGGGGCTGTCTGTGTCCA
GGAAACTTAATTCCCTGGTGACTAGAGCTTTGCCTGGTGATGAGGAGTATTTTGTGGCATAATACATATATTTTA
AAATATTTTCCTTCTTACATGAACTGTATACATTCATATAGAAAATTTAGACAATATAAAAAAGTACAAAGAAGA
AAAGTAAAAGTACCCATTGTTTCACTTCCTGGAGATAACCATAGTTGCTATTTTGCTGCCTGTCCCATCAGTCGT
TTATCTGTTGTTTGAGATAGAAATTAACCAAAAATGACATAAATATTCATGAGATTGCCTTCCTATATCCTTCCT
TGTTCCTACCAGTGTCTGCTATTTTGAAGAAGCTAGGGTCTGGAGGGACAGAGAACAGTTCCCTGATTAACAGTA
TTAATAGCGACATTGGTAACAGCTACCATTTATAGAGTTTTAATGGGAGTAGGAGCTATGCTAAGTGTTTTTCAT
GTATTATCGTTTTTAATCATTATCCCCAACCCTATGAGGTTGGTTATTATCCCCATTTTACAGATGAGGAAACTG
AAGCTCAAAGAGGCTCAATGACTTTCCCAAGGTGGTCGTAGTGGTGGAGTTGGAGTTTGAACACAGGCCTGACCC
TAGAGTCCACACCCTGACCCAATCAATTATATTGCATCTTGGGTCCATAAACCCTAATCCATAATCCCATCAAGA
AAAGCTCTGCTGCTCTTAGCTCTAAATAATTCAGAATCTATTCTCTTCTCTCCAGTCCCGTTGTTATAGTCTTCA
CTCATAGACTTAAGATGATCCCATCACCAGAGAGGTTTCTCTACCATTAGCTTCCCTCTTCCGGCCATTCTTCAC
AAAGTCATTTTTCTAAATTCTGTGTCACATACGATGATGGCATTTCTGGAAATTCCTTCAGGTGCTCTCAAGCCC
TGCTGCAGAGATCCTTTTCAGAGCACACACTGTTCCAGCCCATCTGTCTCACCCTCTCCTGTTGTATCCAGCTCC
ACGACAAACTTTCTGCCTTCCCCAACACCTTTGTGCCTTTGCATATGGTGTTTTCTTGCCCATTTTCTGCTCGAC
TCGCCCCTGATTTTCAAGTTCAAGACTTAACTCAGGGTTCAGGTCTTCCAGGAGGCCTTACTTATGTCGTCAGTC
TGGGGAACTCTCCATGTGCTTCTATCACTGTGCGGTTACCTCTTTCACAGCCCTTTTAAAGTTCTATCTTCCCTT

FIGURE 594B

TCCCACCTTTTTTGACCTTCCACTAGACCATGAGCACCTGGGCGGAAAGCCATATATCTTATTAAGCTTTATATC
TGCTACCTGGCCGAGGGCTAATTCATAGTGGAG

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FIGURE 595

GCCTGCTCCTCTGGCCCCTGGTCCTGTCCTCTTCTCCAGC**ATG**GTGTGTCTGAAGCTCCCTGGAGGCTCCAGCTT
GGCAGCGTTGACAGTGACACTGATGGTGCTGAGCTCCCGACTGGCTTTCGCTGGGGACACCCGACCACGTTTCTT
GGAGCTGCGTAAGTCTGAGTGTCATTTCTTCAATGGGACGGAGCGGGTGCGGTACCTGGACAGATACTTCCATAA
CCAGGAGGAGTTCCTGCGCTTCGACAGCGACGTGGGGGAGTACCGGGCGGTGACGGAGCTGGGGCGGCCTGTCGC
CGAGTCCTGGAACAGCCAGAAGGACCTCCTGGAGCAGAAGCGGGGCCGGGTGGACAATTACTGCAGACACAACTA
CGGGGTTGGTGAGAGCTTCACAGTGCAGCGGCGAGTCCATCCTCAGGTGACTGTGTATCCTGCAAAGACCCAGCC
CCTGCAGCACCACAACCTCCTGGTCTGCTCTGTGAGTGGTTTCTATCCAGGCAGCATTGAAGTCAGGTGGTTCCG
GAACGGCCAGGAAGAGAAGGCTGGGGTGGTGTCCACGGGCCTGATCCAGAATGGAGACTGGACCTTCCAGACCCT
GGTGATGCTAGAAACAGTTCCTCGGAGTGGAGAGGTTTACACTTGCCAAGTGGAGCACCCAAGCGTAACGAGCGC
TCTCACAGTGGAATGGAGAGCACGGTCTGAATCTGCACAGAGCAAGATGCTGAGTGGAGTCGGGGGCTTTGTGCT
GGGCCTGCTCTTCCTTGGGGCCGGGCTGTTCATCTACTTCAGGAATCAGAAAGGACACTCTGGACTTCAGCCAAC
AGGATTCCTGAGC**TGA**AGTGCAGATGACAATTTAAGGAAGAATCTTCTGCCCCAGCTTTGCAGGATGAAAAGCTT
TCCCGCCTGGCTGTTATTCTTCCACGAGAGAGGGCTTTCTCAGGACCTAGTTGCTACTGGTTCAGCAACTGCAGA
AAATGTCCTCCCTTGTGGCTTCCTCAGTTCCTGCCCTTGGCCTGAAGTCCCAGCATTGATGGCAGCGCCTCATCT
TCAACTTTTGTGCTCCCCTTTGCCTAAACCCTATGGCCTCCTGTGCATCTGTACTCACCCTGTACCACAAACACA
TTACATTATTAAATGTTTCTCAAAGATGGAGTT

FIGURE 596

ATTCTTGTCTGTTCTGCCTCACTCCCGAGCTCTACTGACTCCCAACAGAGCGCCCAAGAAGAAA**ATG**GCCATAAG
TGGAGTCCCTGTGCTAGGATTTTTCATCATAGCTGTGCTGATGAGCGCTCAGGAATCATGGGCTATCAAAGAAGA
ACATGTGATCATCCAGGCCGAGTTCTATCTGAATCCTGACCAATCAGGCGAGTTTATGTTTGACTTTGATGGTGA
TGAGATTTTCCATGTGGATATGGCAAAGAAGGAGACGGTCTGGCGGCTTGAAGAATTTGGACGATTTGCCAGCTT
TGAGGCTCAAGGTGCATTGGCCAACATAGCTGTGGACAAAGCCAACCTGGAAATCATGACAAAGCGCTCCAACTA
TACTCCGATCACCAATGTACCTCCAGAGGTAACTGTGCTCACGAACAGCCCTGTGGAACTGAGAGAGCCCAACGT
CCTCATCTGTTTCATAGACAAGTTCACCCCACCAGTGGTCAATGTCACGTGGCTTCGAAATGGAAAACCTGTCAC
CACAGGAGTGTCAGAGACAGTCTTCCTGCCCAGGGAAGACCACCTTTTCCGCAAGTTCCACTATCTCCCCTTCCT
GCCCTCAACTGAGGACGTTTACGACTGCAGGGTGGAGCACTGGGGCTTGGATGAGCCTCTTCTCAAGCACTGGGA
GTTTGATGCTCCAAGCCCTCTCCCAGAGACTACAGAGAACGTGGTGTGTGCCCTGGGCCTGACTGTGGGTCTGGT
GGGCATCATTATTGGGACCATCTTCATCATCAAGGGATTGCGCAAAAGCAATGCAGCAGAACGCAGGGGGCCTCT
G**TAA**GGCACATGGAGGTGATGGTGTTTCTTAGAGAGAAGATCACTGAAGAAACTTCTGCTTTAATGGCTTTACAA
AGCTGGCAATATTACAATCCTTGACCTCAGTGAAAGCAGTCATCTTCAGCATTTTCCAGCCCTATAGCCACCCCA
AGAGTGGTTATGCCTCCTCGATTGCTCCATACTCTAACATCTAGCTGGCTTCCCTGTCTATTGCCTTTTCCTGTA
TCTATTTTCCTCTATTTCCTATCATTTTATTATCACCATGCAATGCCTCTGGAATAAAACATACAGGAGTCTGTC
TCTGCTATGGAATGCCCCATGGGGCATCTCTTGTGTACTTATTGTTTAAGGTTTCCTCAAACTGTGATTTTTCTG
AACACAATAAACTATTTTGAAGATCTTGGGTGGAA

FIGURE 597

GCCGTCTTATCTAAGTCAGAGTCTCCTAAAGAGCCAGAACAACTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTT
GAAACAACTGATGAGAGCCTGAGGAGCCATTTTGAGCAGTGAGGGACACTCCCGGACAGTGTGGTCATGAGAGAT
CCAAACCCAAGCGCTCCAGGGGCTTTGGATTTTTCACATATGCCACTGTGGAGGAGGTGGATGCAGCCGTGAATG
CAAGGCCACACAAGGTGGATGGAAGAGCTGTGGAACCAAAGAGAGCTGTCTCAAGAGAAGATTCTCAAATACCAG
GTGCCCACTTAACTGTGAAAAAGATATATGCTGGTGGCATTAAAGAAGACACTGAAGAAATCACCTAAGAAATTA
TTTTGAGTAGTATGGAAAAATTGAAGTGATTGAAAAC**ATG**ACTGACCGAGGCAGTTGCAAGAAAAGGGGCTTTGC
CTTTGTAACCTTTGATGACCATGACTCCGTGGATAAGACTGTCATTCAGAAATACCACAGTGTGAATGGCCACAA
CTGTGAAGTTAGGAAAGCCTGTCAAAGCAAGAGATGGCTAGTGCTCCATCCAGCCGAAGAGGTCGAAGTGGTTCT
GGAAACTTTGGTGGTGGTCATGGAGGTGGTTTCGGTGGGAATGACAACTTTGATCATGGAGGAAACTTCAGTGGT
TGTGGTAGCTTTGGTGGCAGCTGTGGTGGTGGTGGATATGGTGGCAGTGAGGATGGCTATAATGGATTTGGTAAT
GATGGGAGCAATTTTGGAGGTGGTGGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGA
CCCA**TGA**AGGGAGGAAACTTTGGAGGCAGAAGCTGTGGCCTCTATGGTGGTGGAGGCCAATACTTTGCCAAACCA
TGAAACCAAAGTGGCTATTGTGGTTCCAGTAGCAGCAGTAGCTATGGCAGTGGCAGAAGATTTTAATTAGGAAAC
AAAGCTTAGCAGGAGAGGAGAGCCAGAGAAGTGACAGGGAAGCTACAGGTTACAACAGATTTGTGAACTCAGCCA
AGCACAGTGGTGGCAGGGCCTAGCTGGTACAAAGAAGACATGTTTTAGACAAATACTCATGTGTATGGGCAAAAA
ACTCGAGGACTGTATTTGTGACTAATTGTATAACAGGTTATTTTAGTTTCTGTTCTGTGGAAAGTGTAAAGCATT
CCAACAAAGGGTTTTAATGTAGATTTTTTTTTGCACCCATGCTGTTTATTGCTAAATGTAATAGTCTGATCGTGA
CACTGAAAAAA

FIGURE 598A

CCTGCCCCAGTGAGAGCTCTGAGGGTCCCTGCCTGAAGAGGGACAGGGACTGGGGCTTGGAGAAGGGGCTGTGGA
ATGCAGCCCCCTTCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTATGTGTCTCAGTGGTCAGACCCAGAGGGCTG
CTGTGTGGGAGTTTCCCAGAACCCTGTGCCAATGGAGGCACCTGCCTGAGCCTGTCTCTGGGACAAGGGACCTGC
CAGTGTGCCCCTGGCTTCCTGGGTGAGACGTGCCAGTTTCCTGACCCCTGCCAGAACGCCCAGCTCTGCCAAAAT
GGAGGCAGCTGCCAAGCCCTGCTTCCCGCTCCCCTAGGGCTCCCCAGCTCTCCCTCTCCATTGACACCCAGCTTC
TTGTGCACTTGCCTCCCTGGCTTCACTGGCGAGAGATGCCAGGCCAAGCTTGAAGACCCTTGTCCTCCCTCCTTC
TGTTCCAAAAGGGGCCGCTGCCACATCCAGGCCTCGGGCCGCCCACAGTGCTCCTGCATGCCTGGATGGACAGGT
GAGCAGTGCCAGCTTCGGGACTTCTGTTCAGCCAACCCATGTGTTAATGGAGGGGTGTGTCTGGCCACGTACCCC
CAGATCCAGTGCCACTGCCCACCGGGCTTCGAGGGCCATGCCTGTGAACGTGATGTCAACGAGTGCTTCCAGGAC
CCAGGACCCTGCCCCAAAGGCACCTCCTGCCATAACACCCTGGGCTCCTTCCAGTGCCTCTGCCCTGTGGGGCAG
GAGGGTCCACGTTGTGAGCTGCGGGCAGGACCCTGCCCTCCTAGGGGCTGTTCGAATGGGGGCACCTGCCAGCTG
ATGCCAGAGAAAGACTCCACCTTTCACCTCTGCCTCTGTCCCCCAGGTTTCATAGGCCCGGGCTGTGAGGTGAAT
CCAGACAACTGTGTCAGCCACCAATGTCAGAATGGGGGCACTTGCCAGGATGGGCTGGACACCTACACCTGCCTC
TGCCCAGAAACCTGGACAGGCTGGGACTGCTCCGAAGATGTGGATGAGTGTGAGGCCCAGGGTCCCCCTCACTGC
AGAAACGGGGGCACCTGCCAGAACTCTGCTGGTAGCTTTCACTGCGTGTGTGTGAGTGGCTGGGGGGGCACAAGC
TGTGAGGAGAACCTGGATGACTGTATTGCTGCCACCTGTGCCCCGGGATCCACCTGCATTGACCGGGTGGGCTCT
TTCTCCTGCCTCTGCCCACCTGGACGCACAGGACTCCTGTGCCACTTGGAAGACATGTGTCTGAGCCAGCCGTGC
CATGGGGATGCCCAATGCAGCACCAACCCCCTCACAGGCTCCACACTCTGCCTGTGTCAGCCTGGCTATTCGGGG
CCCACCTGCCACCAGGACCTGGACGAGTGTCTGATGGCCCAGCAAGGCCCAAGTCCCTGTGAACATGGCGGTTCC
TGCCTCAACACTCCTGGCTCCTTCAACTGCCTCTGTCCACCTGGCTACACAGGCTCCCGTTGTGAGGCTGATCAC
AATGAGTGCCTCTCCCAGCCCTGCCACCCAGGAAGCACCTGTCTGGACCTACTTGCCACCTTCCACTGCCTCTGC
CCGCCAGGCTTAGAAGGGCAGCTCTGTGAGGTGGAGACCAACGAGTGTGCCTCAGCTCCCTGCCTGAACCACGCG
GATTGCCATGACCTGCTCAACGGCTTCCAGTGCATCTGCCTGCCTGGATTCTCCGGCACCCGATGTGAGGAGGAT
ATCGATGAGTGCAGAAGCTCTCCCTGTGCCAATGGTGGGCAGTGCCAGGACCAGCCTGGAGCCTTCCACTGCAAG
TGTCTCCCAGGCTTTGAAGGGCCACGCTGTCAAACAGAGGTGGATGAGTGCCTGAGTGACCCATGTCCCGTTGGA
GCCAGCTGCCTTGATCTTCCAGGAGCCTTCTTTTGCCTCTGCCCCTCTGGTTTCACAGGCCAGCTCTGTGAGGTT
CCCCTGTGTGCTCCCAACCTGTGCCAGCCCAAGCAGATATGTAAGGACCAGAAAGACAAGGCCAACTGCCTCTGT
CCTGATGGAAGCCCTGGCTGTGCCCCACCTGAGGACAACTGCACCTGCCACCACGGGCACTGCCAGAGATCCTCA
TGTGTGTGTGACGTGGGTTGGACGGGGCCAGAGTGTGAGGCAGAGCTAGGGGGCTGCATCTCTGCACCCTGTGCC
CATGGGGGGACCTGCTACCCCCAGCCCTCTGGCTACAACTGCACCTGCCCTACAGGCTACACAGGACCCACCTGT
AGTGAGGAGATGACAGCTTGTCACTCAGGGCCATGTCTCAATGGCGGCTCCTGCAACCCTAGCCCTGGAGGCTAC
TACTGCACCTGCCCTCCAAGCCACACAGGGCCCCAGTGCCAAACCAGCACTGACTACTGTGTGTCTGCCCCGTGC
TTCAATGGGGGTACCTGTGTGAACAGGCCTGGCACCTTCTCCTGCCTCTGTGCCATGGGCTTCCAGGGCCCGCGC
TGTGAGGGAAAGCTCCGCCCCAGCTGTGCAGACAGCCCCTGTAGGAATAGGGCAACCTGCCAGGACAGCCCTCAG
GGTCCCCGCTGCCTCTGCCCCACTGGCTACACCGGAGGCAGCTGCCAGACTCTGATGGACTTATGTGCCCAGAAG
CCCTGCCCACGCAATTCCCACTGCCTCCAGACTGGGCCCTCCTTCCACTGCTTGTGCCTCCAGGGATGGACCGGG
CCTCTCTGCAACCTTCCACTGTCCTCCTGCCAGAAGGCTGCACTGAGCCAAGGCATAGACGTCTCTTCCCTTTGC
CACAATGGAGGCCTCTGTGTCGACAGCGGCCCCTCCTATTTCTGCCACTGCCCCCCTGGATTCCAAGGCAGCCTG
TGCCAGGATCACGTGAACCCATGTGAGTCCAGGCCTTGCCAGAACGGGGCCACCTGCATGGCCCAGCCCAGTGGG
TATCTCTGCCAGTGTGCCCCAGGCTACGATGGACAGAACTGCTCAAAGGAACTCGATGCTTGTCAGTCCCAACCC
TGTCACAACCATGGAACCTGTACTCCCAAACCTGGAGGCTTCCACTGTGCCTGCCCTCCAGGCTTTGTGGGGCTA
CGCTGTGAGGGAGACGTGGACGAGTGTCTGGACCAGCCCTGCCACCCCACAGGCACTGCAGCCTGCCACTCTCTG
GCCAATGCCTTCTACTGCCAGTGTCTGCCTGGACACACAGGCCAGTGGTGTGAGGTGGAGATAGACCCCTGCCAC
AGCCAACCCTGCTTTCATGGAGGGACCTGTGAGGCCACAGCAGGATCACCCCTGGGTTTCATCTGCCACTGCCCC
AAGGGTTTTGAAGGCCCCACCTGCAGCCACAGGGCCCCTTCCTGCGGCTTCCATCACTGCCACCACGGAGGCCTG
TGTCTGCCCTCCCCTAAGCCAGGCTTCCCACCACGCTGTGCCTGCCTCAGTGGCTATGGGGGTCCTGACTGCCTG
ACCCCACCAGCTCCTAAAGGCTGTGGCCCTCCCTCCCCATGCCTATACAATGGCAGCTGCTCAGAGACCACGGGC
TTGGGGGGCCCAGGCTTTCGATGCTCCTGCCCTCACAGCTCTCCAGGGCCCCGGTGTCAGAAACCCGGAGCCAAG

FIGURE 598B

GGGTGTGAGGGCAGAAGTGGAGATGGGGCCTGCGATGCTGGCTGCAGTGGCCCGGGAGGAAACTGGGATGGAGGG
GACTGCTCTCTGGGAGTCCCAGACCCCTGGAAGGGCTGCCCCTCCCACTCTCGGTGCTGGCTTCTCTTCCGGGAC
GGGCAGTGCCACCCACAGTGTGACTCTGAAGAGTGTCTGTTTGATGGCTACGACTGTGAGACCCCTCCAGCCTGC
ACTCCAGCCTATGACCAGTACTGCCATGATCACTTCCACAACGGGCACTGTGAGAAAGGCTGCAACACTGCAGAG
TGTGGCTGGGATGGAGGTGACTGCAGGCCTGAAGATGGGGACCCAGAGTGGGGGCCCTCCCTGGCCCTGCTGGTG
GTACTGAGCCCCCCAGCCCTAGACCAGCAGCTGTTTGCCCTGGCCCGGGTGCTGTCCCTGACTCTGAGGGTAGGA
CTCTGGGTAAGGAAGGATCGTGATGGCAGGGACATGGTGTACCCCTATCCTGGGGCCCGGGCTGAAGAAAAGCTA
GGAGGAACTCGGGACCCCACCTATCAGGAGAGAGCAGCCCCTCAAACACAGCCCCTGGGCAAGGAGACCGACTCC
CTCAGTGCTGGGTTTGTGGTGGTCATGGGTGTGGATTTGTCCCGCTGTGGCCCTGACCACCCGGCATCCCGCTGT
CCCTGGGACCCTGGGCTTCTACTCCGCTTCCTTGCTGCGATGGCTGCAGTGGGAGCCCTGGAGCCCCTGCTGCCT
GGACCACTGCTGGCTGTCCACCCTCATGCAGGGACCGCACCCCCTGCCAACCAGCTTCCCTGGCCTGTGCTGTGC
TCCCCAGTGGCCGGGGTGATTCTCCTGGCCCTAGGGGCTCTTCTCGTCCTCCAGCTCATCCGGCGTCGACGCCGA
GAGCATGGAGCTCTCTGGCTGCCCCCTGGTTTCACTCGACGGCCTCGGACTCAGTCAGCTCCCCACCGACGCCGG
CCCCCACTAGGCGAGGACAGCATTGGTCTCAAGGCACTGAAGCCAAAGGCAGAAGTTGATGAGGATGGAGTTGTG
ATGTGCTCAGGCCCTGAGGAGGGAGAGGAGGTGGGCCAGGCTGAAGAAACAGGCCCACCCTCCACGTGCCAGCTC
TGGTCTCTGAGTGGTGGCTGTGGGGCGCTCCCTCAGGCAGCCATGCTAACTCCTCCCCAGGAATCTGAGATGGAA
GCCCCTGACCTGGACACCCGTGGACCTGATGGGGTGACACCCCTGATGTCAGCAGTTTGCTGTGGGGAAGTACAG
TCCGGGACCTTCCAAGGGGCATGGTTGGGATGTCCTGAGCCCTGGGAACCTCTGCTGGATGGAGGGGCCTGTCCC
CAGGCTCACACCGTGGGCACTGGGGAGACCCCCCTGCACCTGGCTGCCCGATTCTCCCGGCCAACCGCTGCCCGC
CGCCTCCTTGAGGCTGGAGCCAACCCCAACCAGCCAGACCGGGCAGGGCGCACACCCCTTCATGCTGCTGTGGCT
GCTGATGCTCGGGAGGTCTGCCAGCTTCTGCTCCGTAGCAGACAAACTGCAGTGGACGCTCGCACAGAGGACGGG
ACCACACCCTTGATGCTGGCTGCCAGGCTGGCGGTGGAAGACCTGGTTGAAGAACTGATTGCAGCCCAAGCAGAC
GTGGGGGCCAGAGATAAATGGGGGAAAACTGCGCTGCACTGGGCTGCTGCCGTGAACAACGCCCGAGCCGCCCGC
TCGCTTCTCCAGGCCGGAGCCGATAAAGATGCCCAGGACAACAGGGAGCAGACGCCGCTATTCCTGGCGGCGCGG
GAAGGAGCGGTGGAAGTAGCCCAGCTACTGCTGGGGCTGGGGGCAGCCCGAGAGCTGCGGGACCAGGCTGGGCTA
GCGCCGGCGGACGTCGCTCACCAACGTAACCACTGGGATCTGCTGACGCTGCTGGAAGGGGCTGGGCCACCAGAG
GCCCGTCACAAAGCCACGCCGGGCCGCGAGGCTGGGCCCTTCCCGCGCGCACGGACGGTGTCAGTAAGCGTGCCC
CCGCATGGGGGCGGGGCTCTGCCGCGCTGCCGGACGCTGTCAGCCGGAGCAGGCCCTCGTGGGGGCGGAGCTTGT
CTGCAGGCTCGGACTTGGTCCGTAGACTTGGCTGCGCGGGGGGGCGGGGCCTATTCTCATTGCCGGAGCCTCTCG
GGAGTAGGAGCAGGAGGAGGCCCGACCCCTCGCGGCCGTAGGTTTTCTGCAGGCATGCGCGGGCCTCGGCCCAAC
CCTGCGATAATGCGAGGAAGATACGGAGTGGCTGCCGGGCGCGGAGGCAGGGTCTCAACGGATGACTGGCCCTGT
GATTGGGTGGCCCTGGGAGCTTGCGGTTCTGCCTCCAACATTCCGATCCCGCCTCCTTGCCTTACTCCGTCCCCG
GAGCGGGGATCACCTCAACTTGACTGTGGTCCCCCAGCCCTCCAAGAAATGCCCATAAACCAAGGAGGAGAGGGT
AAAAAA**TAG**AAGAATACATGGTAGGGAGG

FIGURE 599

CCGGAGCGGGGATCACCTCAACTTGACTGTGGTCCCCCAGCCCTCCAAGAAATGCCCATAAACCAAGGAGGAGAG
GGTAAAAAATAGAAGAATACATGGAATTGGGGAGAAGAATGGGAAAAAAGATGGGAGTGACTGCATAATGTCAGC
ATTTTGTGCTTTTGGCTCAGCATTTGGATTGGATGGAGGATTTTCATCCTGAAACCAGCCCTCCGTCGCCACCGA
CCATGGAATAATTGTCTTCCACGAAACTCTTCCCTGGTGCCAAAAAGGGTTTTATGTATATATTTGAGAGCTCCA
CATCCCTGGATCTGAATCCTCCACTTCCCACTGGAACCATGCCCCTCCCAGTCCCGTTTCTCCCCTCTAGGGGATT
GGAGGCTGAGAGACCCCAGGAAGAAGAGGATGGTGAGCAGGGCCCCCCTCAGGATGAGGAAGGCTGGCCCCCTCC
AAACTCCACCACTCGGCCTTGGCGATCTGCTCCTCCATCCCCTCCTCCTCCAGGGACCCGCCACACAGCCCTGGG
ACCCCGCTCGGCCTCCCTGCTCTCCCTGCAGACTGAACTCCTTCTGGACCTGGTGGCTGAAGCCCAGTCCCGCCG
CCTGGAGGAGCAGAGGGCCACCTTCTACACCCCCCAAAACCCCTCAAGCCTAGCCCCTGCCCCACTCCGTCCTCT
CGAGGACAGAGAACAGCTTTACAGCACTATCCTCAGTCACCAGTGCCAGCGGATGGAAGCCCAGCGGTCAGAGCC
TCCCCTCCCTCCAGGGGGGCAAGAGCTCCTGGAGTTGCTGCTGAGAGTTCAGGGTGGGGGTCGAATGGAGGAGCA
AAGGTCCCGGCCCCCCACACACACCTGCTGAGACTTGAGCCCCAACCAGCCCTTCCTTGCCACTGGTCTCAAAGC
TGGGCAGCCCATTGCATGCCCTCAACTCTTGCTTGGCAGGGGTACCAGAGACTGAAAGACACGGCACAAATCTCA
ATATTCATCTCCCACATCACCTTCCCTGGGAACTGGACAGGGTGAAAGTCCTCAAACTCTGGGAACAGGCGAGAT
GGAACAGGGATTTAACTCCCCGCCCACAGGTCCATGGGAGCTTGAGGCAGTAAGGGGGATCCCAGGCACCCATCT
CAAGGAGTGGCTGGGAGTCTTTTCCCTAACTTGTGGGGACACCACCAGTTGTCAAGCTACTAGGCAGTAGGGTCT
GAGGGCTCAGGCCTCCACCTGAGAGGTTATAACCTGAGAGACAGCTCTACCCTTCCTCCCAGTAAGAAGGGAAGG
TGGGTGGGCACCTGAGAGATTAAGACTATTCTCCCAGTCCCACTACCAGCACCCCCGATCCCTGAGACTGAGGGG
TTTACGGGCTGTGAATGGACCTTCAGCCCTGCCCACCCTCCCTCCCCACTGCTGCTGAGTCTGTCTGATGTTTTG
GTTGTGTGAATAAATATAATTCCCCTCTGG

FIGURE 600

ATGGACGAACGGCTACTGGGGCCGCCCCCTCCAGGCGGGGGCCGGGGGGGCCTGGGATTGGTGAGTGGGGAGCCT
GGGGGCCCTGGCGAGCCTCCCGGTGGCGGAGACCCCGGTGGGGGTAGCGGGGGGGTCCCGGGAGGCCGAGGGAAG
CAAGACATCGGGGACATTCTGCAGCAGATAATGACCATCACCGACCAGAGCCTGGACGAGGCCCAGGCCAAGAAA
CACGCCCTAAACTGCCACCGAATGAAGCCTGCTCTCTTTAGCGTCCTGTGTGAAATCAAGGAGAAAACTGGCCTC
AGCATTCGGAGCTCCCAGGAGGAGGAGCCGGTGGACCCACAGCTGATGCGCTTGGACAACATGCTTCTGGCAGAG
GGTGTGGCTGGGCCCGAGAAAGGGGGCGGCTCAGCAGCAGCAGCTGCAGCCGCTGCAGCCTCTGGTGGTGGTGTG
TCCCCTGACAACTCCATCGAACACTCGGACTATCGCAGCAAACTTGCCCAGATCCGTCACATATACCACTCGGAG
CTGGAGAAGTATGAGCAGGCATGTAATGAGTTCACGACCCATGTCATGAACCTGCTGAGGGAGCAGAGCCGCACC
AGGCCCGTGGCCCCCAAAGAGATGGAACGCATGGTGAGCATCATCCATCGAAAGTTCAGCGCCATCCAGATGCAG
CTGAAGCAGAGCACCTGCGAGGCTGTGATGATCCTGCGCTCCCGTTTCCTGGATGCCAGACGAAAGCGCCGTAAC
TTCAGCAAACAGGCCACTGAGGTCCTAAATGAGTATTTCTACTCCCACCTGAGTAACCCATATCCTAGTGAGGAG
GCCAAGGAGGAGCTTGCCAAGAAGTGTGGCATCACCGTGTCTCAGGTCTCCAACTGGTTTGGCAACAAGAGGATT
CGCTATAAGAAAAACATCGGAAAGTTCCAAGAGGAGGCAAACATCTATGCTGTCAAGACCGCCGTGTCAGTCACC
CAGGGGGGCCACAGCCGCACCAGCTCCCCGACACCCCCTTCCTCTGCAGGCTCTGGCGGCTCTTTCAATCTCTCA
GGATCTGGAGACATGTTTCTGGGGATGCCTGGGCTCAACGGAGATTCCTATTCTGCTTCCCAGGTGGAATCACTC
CGACACTCGATGGGGCCAGGGGGCTATGGGGATAACCTCGGGGGAGGCCAGATGTACAGCCCACGGGAAATGAGG
GCAAATGGCAGCTGGCAAGAGGCTGTGACCCCCTCTTCAGTGACATCCCCAACGGAGGGACCAGGGAGTGTTCAC
TCTGATACCTCCAACTGATCTTGCCCCTCAGGGTCACAGGGGTGGGGGCTCTCACAAGGCGACTTGAAGAGGACG
CAGGCTTCCAGAGGACAAACCCCAATACAGGAGAAGCACAAGACAGAGAAGGGCCAATGGGGTCATCCCCTCCCT
AACGAGACTCTCTGTGCTGGGGGTGCTAATTACATGGCAGGAAGAATGGGGCCTCTAAGGGGAGTGTGGGGTCTG
TCTCTCCCTTTTTTCCATCTTTTTCCTCTCTCGCTTTCTTTCTTACACAGAAACATACACATACCGAGAAACCTA
TTTCTCAGACCCCTTTTTCTCCTCTGTCTTTCTCTCTCCCTCTCCCACACCTCACACACACATACTCCCACTTGC
AACTATTCTGTTTCTCTCCTGGGCTCCCCCACTTTCCCTTCCCCACCCCACTTGTATGCTCTGGAATCTGTGGAG
ACGCCAGCCCTGCCCAATCAGAGATGCCAAAAATGGGGACATGACTTCTGGACAGAGGACATGGGCCACGCCCCC
ATGCATCCCCACCCCCGCCCCTCCGGACGGCTTACTTACCTCATACGCAGCTCATCTTAAACCAATAGAATCGCT
CGGTGGACGAGAGTGTCTGACTCAGATATCTACCTCGGAGGGAGTTTCTGCTACTTTAGGGAATTATTGACTGGG
CTTTGGGGTTGAACTTTTTTTTTTTTAAAGAAAGAAAAAGAAACCCTGGGATCCATCTGTTTTTTTTGTTGTTGT
TGTTGTTTTTGTTGTTGTTGGTGGTGGTGGTGGTGGTGGTTCTTAATTTTTAATTTAGTTTGGGGAAGTAGCTTG
TTTTTTTTTTTATAAATATGTTGATTTCTTGTCTTTTTTTTTTATTTCTTACTTTCCCATATTAGGGGTGATAGC
CAAAGGGGTTCTGGTAAGAGAAAGGGGGACAAACAGAACTGGTAAAGAGGCCCCCCTGGCTCCAGGCCTGTCCAT
CAGGAAGTAAATTTTACAGGGCACCAAGCTTTGCCCCCTAAAATCCCTTAGGTGTTCTTTGTTCATGCAGGCAGG
TTTCTGCCGCATTTGATGTGGAGGCAGTGAAGGGCTTGCCCTGCTGGCCTCTCATCCCCCTTCTTCCCACAACCC
TTGGGCAGGGCTGGACTCAGTAATTTTGAGGAAATTGAAGATGCCATCTTCCCCTGTGAGTGACATGTCTTTAAT
TTTTTAAAAAACTACTATTTGAAAATTGGAGGGGGAAGAATGGGAAGGGAGTTATTGCCAAATATGTTAAATATG
GGTTGGGGTGCTTGTATATGTATCTTCCTCAATTTCCCCATAAATGAGGTATCTTTTTGTCACACCAAAATCAAG
GGGTAGGGAGAGGGAGGAGGTTGCAAAAAGCCAGATGTGGGGGAAAAGTAACATCAACACTGTCCCATCCTCAGC
CCTGAACTAGCTACCATCTGATCCCCTCAGACATTCTCAGGATTTTACAAGACTGTCAGAGTGGGGAACCCCTCC
CATTAAAGATCCGGGCAGGACTGGGGACAGGTTGGAAGTGTGATGGGTGGGGGGGTGGGAGGCATGGGCCGGGGG
CAGTTCTCTCCTCACTTGTAAACTTGTGTAGTTTCACAGAAAAAAAACAAAATGCAGTTTTAAATAAAGAAATTT
CTTTTT

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FIGURE 601

ATGGCAGCAGCGGAGGAGGAGGACGGGGGCCCCGAAGGGCCAAATCGCGAGCGGGGCGGGGCGGGCGCGACCTTC
GAATGTAATATATGTTTGGAGACTGCTCGGGAAGCTGTGGTCAGTGTGTGTGGCCACCTGTACTGTTGGCCATGT
CTTCATCAGTGGCTGGAGACACGGCCAGAACGGCAAGAGTGTCCAGTATGTAAAGCTGGGATCAGCAGAGAGAAG
GTTGTCCCGCTTTATGGGCGAGGGAGCCAGAAGCCCCAGGATCCCAGATTAAAAACTCCACCCCGCCCCCAGGGC
CAGAGACCAGCTCCGGAGAGCAGAGGGGGATTCCAGCCATTTGGTGATACCGGGGGCTTCCACTTCTCATTTGGT
GTTGGTGCTTTTCCCTTTGGCTTTTTCACCACCGTCTTCAATGCCCATGAGCCTTTCCGCCGGGGTACAGGTGTG
GATCTGGGACAGGGTCACCCAGCCTCCAGCTGGCAGGATTCCCTCTTCCTGTTTCTCGCCATCTTCTTCTTTTTT
TGGCTGCTCAGTATT**TGA**

FIGURE 602

ATGCCACCCGACCCTTACCTGCAGGAGACTCGCTTCGAGGGCCCACTTCCCCCGCCGCCGCCCGCTGCCGCCGCC
CCGCCCCCGCCGGCGCCAGCCCAGACTGCCCAGGCCCCTGGCTTCGTGGTGCCCACGCACGCGGGGACTGTGGGC
ACGCTGCCGCTGGGGGGGCTACGTAGCGCCCGGATACCCCCTGCAGCTGCAGCCTTGCACTGCTTACGTGCCGGTC
TACCCGGTGGGCACGCCATATGCAGGCGGGACCCCGGGGGGGAACAGGAGTGACCTCCACTCTCCCCCCGCCGCCC
CAGGGCCCAGGGCTGGCCCTACTGGAGCCGAGGCGCCCGCCACACGACTACATGCCCATCGCGGTGCTGACCACC
ATCTGTTGCTTCTGGCCTACTGGCATCATTGCCATCTTCAAGGCCGTGCAGGTGCGCACGGCCTTGGCCCGCGGA
GACATGGTGTCGGCCGAGATCGCTTCACGCGAGGCCCGGAACTTCTCCTTCATCTCCCTGGCCGTGGGCATCGCG
GCCATGGTGCTCTGTACCATCCTCACCGTAGTCATCATCATCGCCGCGCAGCACCACGAGAACTACTGGGATCCC
TAA

FIGURE 603

AACCGTCTCCTGGTTGGGGGGTGGGGGGGAAAG**ATG**GCGGAGCTGATGCTGCTCAGCGAGATTGCTGACCCGACG
CGTTTCTTCACCGACAACCTGCTTAGCCCGGAGGACTGGGACAGCACCTTGTATTCTGGCCTAGATGAAGTGGCC
GAGGAGCAGACGCAGCTCTTCCGTTGCCCGGAGCAGGATGTCCCGTTTGACGGCAGCTCCCTGGACGTGGGGATG
GATGTCAGCCCCTCTGAGCCCCCATGGGAACTCCTGCCGATCTTCCCAGATCTTCAGGTGAAGTCTGAGCCATCT
TCCCCCTGCTCTTCCTCCTCCCTCAGCTCCGAGTCATCGCGTCTCTCCACAGAGCCATCCAGCGAGGCTCTTGGG
GTAGGGGAGGTGCTCCATGTGAAGACAGAGTCCTTGGCACCCCCACTGTGTCTCCTGGGAGATGACCCAACATCC
TCATTTGAAACCGTCCAGATCAATGTTATCCCCACCTCTGATGATTCCTCAGATGTCCAGACCAAGATAGAACCT
GTCTCTCCATGTTCTTCCGTCAACTCTGAGGCCTCCCTGCTCTCAGCCGACTCCTCCAGCCAGGCTTTTATAGGA
GAGGAGGTCCTGGAAGTGAAGACAGAGTCCCTGTCCCCTTCAGGATGCCTCCTGTGGGATGTCCCAGCCCCCTCA
CTTGGAGCTGTCCAGATCAGCATGGGCCCATCCCTTGATGGCTCCTCAGGCAAAGCCCTGCCCACCCGGAAGCCG
CCACTGCAGCCCAAACCTGTAGTGCTAACCACTGTCCCAATGCCATCCAGAGCTGTGCCTCCCAGCACCACAGTC
CTTCTGCAGTCCCTCGTCCAGCCACCCCCAGTGTCCCCAGTTGTCCTCATCCAGGGTGCTATTCGAGTCCAGCCT
GAAGGGCCGGCTCCCTCTCTACCACGGCCTGAGAGGAAGAGCATCGTTCCCGCTCCTATGCCTGGAAACTCCTGC
CCGCCTGAAGTGGATGCAAAGCTGCTGAAGCGGCAGCAGCGAATGATCAAGAACCGGGAGTCAGCCTGCCAGTCC
CGGAGAAAGAAGAAAGAGTATCTGCAGGGACTGGAGGCTCGGCTGCAAGCAGTACTGGCTGACAACCAGCAGCTC
CGCCGAGAGAATGCTGCCCTCCGGCGGCGGCTGGAGGCCCTGCTGGCTGAAAACAGCGAGCTCAAGTTAGGGTCT
GGAAACAGGAAGGTGGTCTGCATCATGGTCTTCCTTCTCTTCATTGCCTTCAACTTTGGACCTGTCAGCATCAGT
GAGCCTCCTTCAGCTCCCATCTCTCCTCGGATGAACAAGGGGGAGCCTCAACCCCGGAGACACTTGCTGGGGTTC
TCAGAGCAAGAGCCAGTTCAGGGAGTTGAACCTCTCCAGGGGTCCTCCCAGGGCCCTAAGGAGCCCCAGCCCAGC
CCCACAGACCAGCCCAGTTTCAGCAACCTGACAGCCTTCCCTGGGGGCGCCAAGGAGCTACTACTAAGAGACCTA
GACCAGCTCTTCCTCTCCTCTGATTGCCGGCACTTCAACCGCACTGAGTCCCTGAGGCTTGCTGACGAGTTGAGT
GGCTGGGTCCAGCGCCACCAGAGAGGCCGGAGGAAGATCCCTCAGAGGGCCCAGGAGAGACAGAAGTCTCAGCCA
CGGAAGAAGTCACCTCCAGTTAAGGCAGTCCCCATCCAACCCCCTGGACCCCCAGAAAGGGATTCTGTGGGCCAG
CTGCAACTATATCGCCACCCAGACCGTTCGCAGCCAGCATTCTTGGATGCAATTGACCGACGGGAAGACACATTT
TATGTTGTCTCTTTCCGAAGGGACCACCTGCTGCTCCCAGCCATCAGCCACAACAAGACCTCCCGGCCCAAGATG
TCCCTGGTGATGCCTGCCATGGCCCCCAATGAGACCCTGTCAGGCCGTGGGGCCCCGGGGGACTATGAGGAGATG
ATGCAGATCGAGTGTGAGGTCATGGACACCAGGGTGATTCACATCAAGACCTCCACAGTGCCCCCCTCGCTCCGA
AAACAGCCATCCCCAACCCCAGGCAATGCCACAGGTGGCCCCTTGCCAGTCTCTGCAGCCAGCCAGGCCCACCAG
GCCTCCCACCAGCCCCTCTACCTCAATCATCCC**TGA**CCTCTGCCATTCACACTGACTTAGAACGGGGGGAGGGGG
TACCAGGTGGCCAGGTGGGACTGTTTCAAATTTCCCTGATCCCCAGGCTTGGGGCAATTGGTAAAGGAAAGAGCA
GGTGTGGGGGTTAAGCACTTATTTGAGGTGGGGGTGTTCACCTCTCTTCTCATCCCTTTTCAGAATATAGGGCTC
CTCTCATTCCTGTGAACCCCCAGTCCTGGCTTCTTTGTTTGAGGGGATTGTGTGAGGTTCAGTTGTGGGGTGGGT
GGTGAGCTGCTGCATATTTTTTATTTTGTTTCTCTAGTGTTATGGCAGTGGAGGTGGGAATTTAGTCCCCAGGTG
GGACAAGGGAAGTTTTTTCATTTTGGAGCTAGTTACTGGGAGTAAGGGAGGGTGGGGTGGGGGGGAGTTCAGGTT
TATGTGTGTGCATTTCTTTTTTATTATTATTAAATAAACAACTTGGAGGGAGTTGA

FIGURE 604A

GGTCCTCCCCTTCTCCTCCCCTGCTCGCTGCAGACTCCCTCCTCACTGTCGCTGCCGAGATCCACAGTCGGTTGT
GGCTCAGCCCCTGTTGCAGGGGACAAGTGAGGGAGACTTCCCTGTCCTGCCCTGAGACGCCGCCCTCCCGGGGTT
GGGGACAGAGCAGGTGCAGAGGCACTGCAGCTGCTCGGTTGCCCAGCCTCCTGA**ATG**ATGCCAGCCCAGTATGCT
CTAACCTCCAGCCTGGTTCTCCTGGTGCTGCTGAGCACAGCCAGAGCAGGCCCCTTCTCTTCACGGTCCAATGTG
ACACTGCCAGCCCCCCGGCCCCCTCCCCAGCCAGGGGGCCACACAGTGGGGGCTGGAGTGGGAAGCCCCTCTTCT
CAGCTTTACGAGCACACAGTGGAAGGAGGGGAGAAGCAGGTGGTATTCACCCACCGCATTAACCTGCCCCCTTCC
ACTGGCTGTGGCTGTCCCCCAGGCACCGAGCCCCCAGTCCTTGCTTCAGAGGTACAGGCCCTGAGGGTCCGTCTA
GAGATCCTGGAGGAGTTGGTGAAGGGGCTCAAGGAACAGTGCACTGGGGGATGTTGTCCTGCCTCTGCCCAAGCT
GGCACAGGTCAGACAGATGTGCGGACCCTCTGCAGTCTCCATGGTGTGTTTGATCTGAGCCGCTGCACCTGTTCC
TGTGAGCCAGGCTGGGGTGGGCCCACCTGCTCAGACCCCACAGATGCTGAGATCCCTCCCTCTTCCCCACCCTCA
GCCTCGGGGTCCTGCCCAGATGACTGCAATGATCAGGGTCGCTGTGTCCGTGGTCGTTGCGTGTGCTTTCCCGGC
TACACTGGCCCCAGCTGTGGCTGGCCATCCTGTCCCGGGGACTGCCAAGGCCGTGGGCGCTGCGTGCAGGGCGTG
TGTGTGTGCCGGGCAGGCTTCTCAGGCCCCGACTGCAGCCAGCGCTCCTGCCCTCGAGGTTGCAGCCAGAGGGGA
CGCTGTGAGGGTGGGCGCTGCGTGTGTGACCCAGGCTACACTGGTGACGACTGTGGCATGAGGAGCTGCCCTCGC
GGTTGCAGTCAGAGGGGGCGCTGTGAGAATGGGCGCTGCGTGTGTAACCCCGGCTACACTGGCGAGGACTGTGGG
GTGAGGAGCTGCCCTCGGGGCTGCAGCCAGCGGGGACGCTGCAAGGACGGGCGCTGCGTGTGTGACCCCGGCTAC
ACTGGCGAGGACTGTGGTACGCGGAGCTGCCCCTGGGACTGTGGCGAGGGCGGGCGCTGCGTGGACGGCCGCTGC
GTGTGCTGGCCCGGGTACACAGGCGAGGACTGCAGCACGCGGACATGTCCGAGGGACTGCCGGGGCCGCGGGCGC
TGCGAGGACGGCGAATGCATTTGCGACACGGGCTACAGCGGGGACGACTGCGGCGTGCGCAGCTGCCCTGGCGAC
TGCAACCAAAGGGGCCGCTGCGAGGACGGCCGCTGCGTGTGCTGGCCGGGGTACACTGGAACCGATTGCGGCTCG
CGCGCCTGCCCACGCGACTGTAGAGGTCGCGGGCGCTGCGAGAACGGCGTGTGTGTTTGCAATGCGGGCTACAGC
GGCGAGGACTGCGGTGTGCGCAGCTGTCCTGGGGACTGTCGTGGCCGGGGCCGCTGTGAGAGTGGCCGCTGCATG
TGTTGGCCGGGGTACACAGGCCGGGACTGCGGCACGCGCGCCTGTCCTGGCGACTGTCGCGGGCGCGGGCGCTGC
GTGGATGGCCGCTGCGTGTGCAACCCGGGCTTCACCGGTGAGGACTGTGGGAGCCGTCGCTGTCCCGGGGACTGC
CGTGGGCACGGCCTTTGCGAGGATGGCGTGTGCGTGTGTGACGCAGGCTACTCAGGGGAAGACTGCAGCACGCGC
AGCTGCCCCGGGGGCTGCCGAGGCCGCGGCCAGTGCCTAGATGGGCGGTGTGTGTGCGAGGACGGCTACTCTGGC
GAGGATTGCGGTGTGAGGCAGTGCCCGAATGACTGCAGCCAGCACGGCGTGTGCCAGGACGGTGTGTGCATCTGT
TGGGAAGGCTACGTGAGTGAGGACTGCAGCATCCGCACCTGCCCCTCCAACTGCCACGGGAGGGGCCGCTGTGAG
GAAGGGCGCTGCCTGTGCGACCCAGGCTACACCGGCCCTACCTGTGCCACCCGCATGTGCCCGGCTGACTGCCGG
GGACGTGGGCGGTGTGTGCAAGGAGTGTGCCTGTGCCACGTGGGCTATGGCGGTGAGGACTGCGGGCAGGAAGAG
CCTCCAGCCAGCGCCTGCCCTGGAGGCTGCGGGCCCCGGGAACTGTGCCGGGCAGGCCAGTGTGTGTGTGTAGAG
GGCTTCCGAGGCCCTGACTGTGCCATCCAGACATGCCCAGGGGACTGCCGTGGCCGAGGAGAGTGTCACGATGGC
AGCTGTGTCTGCAAAGATGGGTATGCTGGCGAAGACTGCGGAGAAGCACGGGTTCCAAGCTCTGCCTCAGCCTAT
GACCAGAGAGGACTGGCCCCTGGACAGGAGTACCAGGTCACTGTCCGAGCCCTTCGAGGGACCAGCTGGGGCCTT
CCTGCCTCCAAGACCATCACCACCATGATCGATGGGCCCCAGGACCTCCGAGTGGTGGCTGTGACACCGACAACA
CTGGAGCTTGGCTGGCTGCGTCCCCAGGCTGAGGTGGACCGATTTGTGGTGTCCTACGTCAGTGCCGGCAACCAG
AGGGTGAGGCTGGAAGTGCCCCCTGAAGCAGACGGGACGCTGCTGACTGACCTGATGCCAGGCGTAGAATATGTG
GTGACTGTCACAGCGGAGCGGGGCCGGGCAGTCAGCTACCCAGCTTCTGTCAGGGCCAACACAGAGGAAAGGGAG
GAGGAGTCCCCGCCCAGGCCAAGCCTGTCCCAGCCCCCACGGCGGCCTTGGGGCAACCTGACGGCCGAGCTGAGC
CGTTTCCGCGGCACGGTGCAGGACCTGGAGCGCCACCTGCGGGCTCACGGCTACCCACTGCGGGCCAACCAGACT
TACACGTCGGTGGCGCGCCACATCCATGAATACTTGCAGCGGCAGGTGCTGGGCAGTTCCGCCGATGGCGCGCTT
CTCGTGTCTCTCGACGGGCTCCGCGGCCAGTTCGAGCGCGTGGTGCTGCGCTGGCGGCCTCAGCCGCCTGCAGAG
GGCCCCGGCGGTGAGCTGACTGTGCCGGGCACCACGCGCACCGTCAGCCTGCCCGACCTCAGGCCCGGCACCACC
TACCACGTGGAGGTCCACGGGGTGCGGGCGGGGCAGACCTCCAAGTCCTACGCCTTCATCACCACCACAGGCCCC
TCGACGACGCAAGGGGCCCAGGCTCCTCTCCTGCAGCAGCGCCCCCAGGAGCTGGGAGAGTTGAGGGTGCTGGGC
AGAGATGAGACAGGGCGCCTCCGTGTGGTCTGGACCGCCCAGCCTGACACCTTTGCCTACTTCCAACTGCGCATG
CGGGTGCCCGAGGGGCCGGGGGCACATGAGGAAGTGCTGCCAGGGGACGTCCGCCAGGCTCTGGTGCCTCCACCC
CCTCCTGGAACCCCGTATGAGCTGTCACTTCATGGGGTCCCTCCTGGGGGCAAGCCCTCTGACCCCATCATCTAC

FIGURE 604B

CAAGGCATTATGGACAAGGATGAGGAGAAGCCTGGGAAGTCCTCAGGCCCACCACGCCTGGGTGAGCTGACGGTG
ACAGACAGGACCTCCGACTCCTTGCTCCTGCGCTGGACGGTCCCCGAGGGCGAGTTTGACTCCTTCGTGATCCAG
TACAAAGACAGGGACGGGCAGCCCCAGGTGGTGCCCGTGGAAGGACCCCAGCGCTCGGCCGTCATCACCTCCCTG
GATCCTGGCCGCAAGTACAAATTTGTCCTGTATGGGTTTGTTGGCAAGAAGAGGCATGGTCCGCTGGTGGCTGAA
GCCAAGATCTTGCCTCAGAGTGACCCAAGTCCAGGGACTCCACCCCACCTGGGAAACCTGTGGGTGACAGACCCT
ACCCCAGATTCACTGCACCTCTCCTGGACTGTCCCTGAGGGCCAGTTTGACACCTTCATGGTCCAGTACAGGGAC
AGGGATGGACGGCCCCAGGTGGTACCTGTGGAAGGGCCCGAGCGTTCATTTGTTGTCTCCTCACTGGACCCTGAC
CACAAGTACAGATTCACTCTGTTTGGAATTGCGAACAAGAAGCGGTATGGCCCCCTCACGGCCGATGGCACCACT
GCTCCAGAGAGGAAAGAGGAGCCCCCCCGCCCTGAGTTCCTGGAGCAGCCCCTCCTGGGGGGAACTGACAGTGACC
GGCGTGACCCCAGACTCCTTGCGTCTCTCATGGACAGTGGCCCAGGGCCCCTTCGACTCATTCATGGTCCAGTAC
AAGGATGCACAGGGGCAGCCCCAGGCAGTGCCTGTTGCGGGGGATGAGAATGAGGTTACTGTCCCCGGCCTGGAT
CCCGACCGGAAGTATAAGATGAACCTCTACGGGCTTCGTGGCAGGCAGCGTGTGGGGCCCGAGTCTGTGGTGGCC
AAGACTGCTCCTCAGGAGGATGTGGACGAGACCCCCAGCCCCACAGAACTGGGCACGGAGGCCCCGGAGTCCCCC
GAGGAGCCGCTCCTGGGGGAGCTGACAGTGACAGGATCCTCCCCTGATTCGCTGAGCCTCTTCTGGACCGTCCCC
CAGGGCAGCTTCGACTCTTTCACCGTGCAGTACAAGGACAGGGATGGGCGGCCCCGGGCGGTGCGTGTTGGGGGC
AAGGAGAGTGAGGTCACCGTGGGAGGCCTAGAGCCCGGGCACAAGTACAAGATGCACCTGTACGGCCTCCACGAG
GGGCAGCGCGTGGGCCCGGTGTCCGCCGTGGGCGTGACAGCCCCACAACAAGAAGAGACCCCTCCAGCCACTGAG
TCCCCGCTGGAGCCACGCCTAGGAGAGCTGACAGTGACAGATGTGACCCCCAACTCTGTGGGCCTCTCCTGGACA
GTCCCCGAGGGCCAGTTTGACTCCTTCATAGTCCAGTACAAGGACAAGGACGGGCAGCCCCAGGTGGTGCCGGTG
GCGGCAGACCAGCGAGAGGTCACAGTCTACAACCTGGAGCCTGAGAGAAAATATAAGATGAACATGTATGGACTA
CATGATGGGCAACGCATGGGCCCCCTGTCTGTGGTCATCGTGACGGCCCCAGCCACAGAGGCCTCCAAGCCTCCC
CTGGAGCCACGCCTAGGGGAGCTGACAGTGACGGATATAACCCCTGACTCTGTGGGCCTCTCATGGACAGTCCCT
GAGGGTGAATTCGACTCCTTTGTGGTTCAGTACAAGGACAGGGACGGGCAGCCCCAGGTGGTGCCCGTGGCTGCA
GATCAGCGGGAGGTCACTATCCCTGACCTGGAACCCTCCCGCAAGTACAAGTTCCTGCTCTTTGGGATCCAGGAT
GGGAAACGACGCAGCCCAGTCTCTGTGGAGGCAAAGACGGTTGCCCGAGGTGACGCCAGCCCAGGGGCCCCACCC
CGCCTTGGGGAGCTGTGGGTGACAGACCCCACCCCAGACTCACTGCGCCTCTCCTGGACGGTTCCTGAGGGCCAG
TTCGACTCTTTTGTGGTCCAGTTCAAGGACAAAGACGGGCCCCAGGTGGTGCCCGTGGAGGGCCATGAGCGCTCT
GTCACTGTCACCCCTCTGGATGCCGGCCGCAAGTACAGATTCCTCCTCTATGGCCTCCTGGGCAAGAAGCGCCAT
GGCCCTCTCACTGCCGACGGCACCACGGAAGCCCGGAGTGCTATGGATGATACTGGAACAAAGCGTCCCCCAAAA
CCCCGTCTGGGGGAGGAGCTGCAGGTGACCACCGTGACCCAGAACTCCGTGGGCCTCTCCTGGACAGTCCCTGAG
GGCCAGTTTGACTCCTTTGTGGTCCAGTACAAAGACAGGGACGGGCAGCCCCAGGTGGTGCCCGTGGAGGGCAGC
CTCAGGGAGGTCAGCGTGCCGGGCCTGGACCCTGCCCACAGGTACAAGCTGCTGCTCTACGGGCTGCACCACGGC
AAGCGTGTGGGCCCCATCTCGGCCGTCGCCATTACTGCCGGCAGGGAAGAAACGGAAACTGAGACCACGGCCCCG
ACCCCTCCAGCGCCTGAGCCCCACCTCGGGGAGTTGACAGTGGAGGAGGCCACGTCACACACCCTGCATCTCTCC
TGGATGGTGACTGAGGGAGAATTTGACTCCTTCGAAATCCAGTACACAGATAGAGACGGGCAACTCCAAATGGTC
CGCATAGGAGGTGACCGGAATGACATCACCCTCTCTGGCCTGGAATCCGACCACAGATACCTGGTGACCCTGTAT
GGTTTCAGTGATGGGAAGCATGTAGGTCCTGTCCATGTCGAGGCCCTGACAGTCCCGGAGGAGGAGAAGCCTTCA
GAACCTCCCACCGCAACCCCCGAGCCCCCCATCAAGCCTCGCCTGGGGGAGCTGACCGTGACAGATGCCACCCCT
GACTCCCTCAGCCTGTCCTGGACAGTTCCCGAGGGACAGTTTGACCACTTCCTGGTCCAGTACAGGAATGGAGAT
GGGCAGCCCAAGGCAGTGAGGGTGCCAGGGCACGAGGAAGGGGTCACCATCTCGGGCCTGGAGCCAGACCATAAA
TACAAGATGAACCTGTACGGCTTCCACGGTGGCCAGCGCATGGGCCCTGTGTCTGTCGTCGGGGTGACAGAACCC
AGCATGGAGGCCCCGGAGCCCGCTGAGGAGCCGCTCCTGGGGGAGCTAACAGTGACAGGATCCTCCCCTGACTCG
CTGAGCCTCTCCTGGACCGTCCCCCAGGGCCGCTTCGACTCCTTCACCGTGCAGTACAAGGACAGGGACGGGCGG
CCCCAGGTGGTGCGTGTTGGGGGCGAGGAGAGTGAAGTCACCGTGGGGGGCCTGGAGCCTGGGCGCAAGTACAAG
ATGCACCTGTACGGCCTCCACGAGGGGCGGCGCGTGGGCCCAGTGTCTGCTGTGGGCGTCACGGCCCCCGAAGAG
GAGTCCCCTGATGCTCCTCTTGCAAAGCTGCGCCTAGGGCAGATGACAGTGAGAGACATCACCTCCGACTCCCTC
AGCCTCTCCTGGACAGTCCCCGAGGGCCAGTTTGACCATTTCTTGGTCCAGTTTAAGAATGGGGACGGGCAGCCC
AAGGCGGTGCGGGTGCCGGGACACGAGGATGGGGTCACCATCTCGGGCCTGGAGCCAGACCACAAGTACAAGATG

FIGURE 604C

AACCTGTACGGCTTCCACGGTGGCCAGCGCGTGGGCCCCGTGTCTGCTGTTGGTTTAACTGCCTCGACAGAACCT
CCCACCCCTGAACCCCCCATCAAGCCTCGCCTGGAGGAGCTGACCGTGACAGATGCGACCCCTGACTCCCTCAGC
CTGTCCTGGACGGTTCCCGAGGGACAGTTTGACCACTTCCTGGTCCAGTACAAGAATGGGGATGGGCAGCCCAAG
GCAACACGGGTGCCAGGACATGAGGACAGGGTCACCATCTCCGGCCTGGAGCCAGACAACAAGTACAAGATGAAC
CTGTACGGCTTCCACGGTGGCCAGCGTGTGGGCCCCGTGTCTGCCATCGGGGTGACAGAGGAAGAGACCCCCAGC
CCCACAGAACCCAGCATGGAGGCCCCGGAGCCCCCTGAGGAGCCGCTCCTGGGGGAGCTAACAGTGACAGGATCC
TCCCCTGACTCGCTGAGCCTCTCCTGGACCGTCCCCCAGGGCCGCTTCGACTCCTTCACCGTGCAGTACAAGGAC
AGGGACGGGCGGCCCCAGGTGGTGCGTGTTGGGGGCGAGGAGAGCGAGGTCACCGTGGGGGGCCTGGAGCCTGGG
CGCAAATACAAGATGCACCTGTATGGCCTCCACGAGGGGCGGCGCGTGGGCCCGGTGTCCACCGTGGGCGTGACT
GCCCCACAAGAGGATGTGGACGAGACCCCCAGCCCTACAGAACCAGGCACAGAGGCCCCAGAGCCCCCCGAGGAG
CCTCTCCTGGGGGAGCTGACAGTGACAGGATCCTCCCCTGACTCGCTGAGCCTTTCCTGGACCGTCCCCCAGGGC
CGCTTTGACTCCTTCACCGTGCAGTACAAGGACAGGGACGGGCGGCCCCAGGCGGTGCGTGTTGGGGGCCAGGAG
AGCAAGGTCACTGTGAGGGGCCTGGAGCCTGGGCGCAAGTACAAGATGCACCTGTACGGCCTCCACGAGGGGCGG
CGCCTGGGCCCGGTGTCTGCCGTGGGCGTCACAGAGGATGAAGCCGAGACCACCCAAGCAGTGCCTACCATGACC
CCTGAGCCCCCCATCAAGCCTCGCCTGGGGGAGCTGACCATGACAGATGCCACCCCTGACTCCCTCAGCCTGTCC
TGGACGGTTCCCGAGGGCCAGTTTGACCACTTCCTGGTCCAGTACAGGAATGGGGATGGGCAGCCCAAGGCGGTG
CGGGTGCCGGGGCACGAGGACGGGGTCACCATCTCAGGCCTGGAGCCAGACCATAAATACAAGATGAACCTGTAC
GGCTTCCACGGTGGCCAGCGCGTGGGCCCCATCTCTGTCATTGGGGTGACGGAGGAAGAGACCCCCAGCCCCACG
GAACTCAGCACTGAGGCCCGGGAGCCCCCTGAGGAGCCGCTCCTGGGGGAGCTGACAGTGACAGGATCCTCCCCT
GACTCGCTGAGCCTCTCCTGGACCATCCCCCAGGGCCACTTCGACTCCTTCACCGTGCAGTACAAGGACAGGGAC
GGGCGGCCCCAGGTGATGCGTGTCAGGGGCGAGGAGAGCGAGGTCACCGTGGGGGGCCTGGAGCCCGGGCGCAAA
TACAAGATGCACCTGTACGGCCTCCACGAGGGGCGGCGTGTGGGCCCGGTGTCCACCGTGGGTGTGACAGTGCCC
ACCACAACCCCTGAGCCCCCCAACAAGCCTCGCCTCGGGGAGCTGACCGTGACAGATGCCACCCCTGACTCCCTC
AGCCTGTCCTGGATGGTCCCCGAGGGCCAGTTTGACCACTTCCTGGTCCAGTACAGGAATGGGGATGGGCAGCCC
AAGGTGGTGCGGGTGCCGGGGCACGAGGACGGGGTCACCATCTCAGGCCTGGAGCCAGACCACAAGTACAAGATG
AACCTGTACGGCTTCCACGGTGGCCAGCGCGTGGGCCCCATCTCTGTCATTGGGGTGACAGAGGAAGAAACTCCC
GCCCCCACAGAACCCAGCACGGAGGCCCCGGAGCCCCCTGAGGAGCCGCTCCTGGGGGAGCTGACAGTGACAGGA
TCCTCCCCTGACTCGCTGAGCCTCTCCTGGACCATCCCCCAGGGCCGCTTCGACTCCTTCACTGTGCAGTACAAG
GACAGGGACGGGCGGCCCCAGGTGGTGCGTGTCAGGGGCGAGGAGAGCGAGGTCACCGTGGGGGGCCTGGAGCCC
GGGTGCAAATACAAGATGCACCTGTACGGCCTCCACGAGGGGCAGCGCGTGGGCCCAGTGTCCGCTGTGGGTGTG
ACAGCTCCAAAGGATGAAGCCGAGACCACCCAAGCAGTGCCTACCATGACCCCTGAGCCCCCCATCAAGCCTCGC
CTGGGGGAGCTGACCGTGACAGATGCCACCCCCGACTCCCTCAGCCTGTCCTGGATGGTTCCCGAGGGCCAGTTT
GACCACTTCCTGGTCCAGTACAGGAATGGGGATGGGCAGCCCAAGGCGGTGCGGGTGCCGGGGCACGAGGACGGG
GTCACCATCTCAGGCCTGGAGCCAGACCATAAATACAAGATGAACCTGTACGGCTTCCACGGTGGCCAGCGCGTA
GGCCCTGTGTCTGCCATTGGGGTGACGGAGGAAGAGACCCCCAGCCCCACAGAACCCAGCACTGAGGCCCCGGAG
GCCCCTGAGGAGCCGCTCCTGGGGGAGTTGACAGTGACAGGATCCTCCCCTGACTCGCTGAGCCTCTCCTGGACC
GTCCCCCAGGGCCGCTTCGACTCCTTCACCGTGCAGTACAAGGACAGGGACGGGCAGCCCCAGGTGGTGCGTGTC
AGGGGCGAGGAGAGCGAGGTCACCGTGGGGGGCCTGGAGCCCGGGCGCAAATACAAGATGCATCTGTACGGCCTC
CACGAGGGGCAGCGCGTGGGCCCAGTGTCCACCGTGGGCATCACGGCGCCCCTGCCCACACCACTGCCGGTGGAG
CCCCGCCTGGGGGAGCTGGCGGTGGCGGCCGTGACCTCGGACTCAGTGGGCCTCTCATGGACGGTGGCCCAGGGC
CCCTTTGACTCCTTCCTGGTACAGTACAGGGACGCGCAGGGGCAGCCCCAGGCAGTGCCTGTGAGCGGAGACCTC
CGAGCGGTCGCCGTCTCGGGGCTGGACCCGGCCCGCAAGTACAAGTTCCTGCTCTTTGGACTCCAGAATGGGAAA
CGCCACGGCCCAGTCCCTGTGGAGGCCAGGACCGCCCCAGACACCAAACCGTCTCCCCGCCTGGGGGAGCTGACT
GTGACAGATGCGACCCCTGACTCCGTGGGCCTCTCGTGGACGGTCCCTGAGGGCGAATTCGACTCCTTCGTGGTC
CAGTACAAGGATAAGGATGGTCGGCTCCAGGTGGTGCCGGTGGCAGCCAACCAGCGGGAGGTCACAGTCCAGGGC
CTGGAGCCCAGTAGGAAATACAGGTTCCTGCTCTATGGTCTGTCAGGCAGGAAACGACTGGGCCCCATCTCTGCT
GACAGCACCACAGCTCCCCTGGAGAAGGAGCTACCTCCCCACCTGGGGGAACTGACCGTGGCTGAGGAGACCTCC
AGCTCTCTGCGCCTGTCCTGGACGGTAGCCCAGGGCCCCTTTGACTCCTTCGTGGTCCAGTACAGGGACACGGAC

FIGURE 604D

GGGCAGCCCAGGGCAGTGCCTGTGGCCGCAGACCAGCGCACAGTCACCGTAGAGGACCTGGAGCCTGGCAAGAAA
TACAAGTTTCTGCTCTACGGGCTCCTTGGGGGAAAGCGCCTGGGCCCGGTCTCTGCCCTGGGAATGACAGCCCCA
GAAGAGGACACACCAGCCCCAGAGTTAGCCCCAGAGGCCCCTGAGCCTCCTGAAGAGCCCCGCCTAGGAGTGCTG
ACCGTGACCGACACAACCCCAGACTCCATGCGCCTCTCGTGGAGCGTGGCCCAGGGCCCCTTTGATTCCTTCGTG
GTCCAGTATGAGGACACGAACGGGCAGCCCCAGGCCTTGCTCGTGGACGGCGACCAGAGCAAGATCCTCATCTCA
GGCCTGGAGCCCAGCACCCCCTACAGGTTCCTCCTCTATGGCCTCCATGAAGGGAAGCGCCTGGGGCCCCTCTCA
GCTGAGGGCACCACAGGGCTGGCTCCTGCTGGTCAGACCTCAGAGGAGTCAAGGCCCCGCCTGTCCCAGCTGTCT
GTGACTGACGTGACCACCAGTTCACTGAGGCTCAACTGGGAGGCCCCACCGGGGGCCTTCGACTCCTTCCTGCTC
CGCTTTGGGGTTCCATCACCAAGCACTCTGGAGCCGCATCCGCGTCCACTGCTGCAGCGCGAGCTGATGGTGCCG
GGGACACGGCACTCGGCCGTGCTCCGGGACCTGCGTTCCGGGACTCTGTACAGCCTGACACTGTATGGGCTGCGA
GGACCCCACAAGGCCGACAGCATCCAGGGAACCGCCCGCACCCTCAGCCCAGTTCTGGAGAGCCCCCGTGACCTC
CAATTCAGTGAAATCAGGGAGACCTCAGCCAAGGTCAACTGGATGCCCCCACCATCCCGGGCGGACAGCTTCAAA
GTCTCCTACCAGCTGGCGGACGGAGGGGAGCCTCAGAGTGTGCAGGTGGATGGCCAGGCCCGGACCCAGAAACTC
CAGGGGCTGATCCCAGGCGCTCGCTATGAGGTGACCGTGGTCTCGGTCCGAGGCTTTGAGGAGAGTGAGCCTCTC
ACAGGCTTCCTCACCACGGTTCCTGACGGTCCCACACAGTTGCGTGCACTGAACTTGACCGAGGGATTCGCCGTG
CTGCACTGGAAGCCCCCCCAGAATCCTGTGGACACCTATGACGTCCAGGTCACAGCCCCTGGGGCCCCGCCTCTG
CAGGCGGAGACCCCAGGCAGCGCGGTGGACTACCCCCTGCATGACCTTGTCCTCCACACCAACTACACCGCCACA
GTGCGTGGCCTGCGGGGCCCCAACCTCACTTCCCCAGCCAGCATCACCTTCACCACAGGGCTAGAGGCCCCTCGG
GACTTGGAGGCCAAGGAAGTGACCCCCCGCACCGCCCTGCTCACTTGGACTGAGCCCCCAGTCCGGCCCGCAGGC
TACCTGCTCAGCTTCCACACCCCTGGTGGACAGAACCAGGAGATCCTGCTCCCAGGAGGGATCACATCTCACCAG
CTCCTTGGCCTCTTTCCCTCCACCTCCTACAATGCACGGCTCCAGGCCATGTGGGGCCAGAGCCTCCTGCCGCCC
GTGTCCACCTCTTTCACCACGGGTGGGCTGCGGATCCCCTTCCCCAGGGACTGCGGGGAGGAGATGCAGAACGGA
GCCGGTGCCTCCAGGACCAGCACCATCTTCCTCAACGGCAACCGCGAGCGGCCCCTGAACGTGTTTTGCGACATG
GAGACTGATGGGGGCGGCTGGCTGGTGTTCCAGCGCCGCATGGATGGACAGACAGACTTCTGGAGGGACTGGGAG
GACTATGCCCATGGTTTTGGGAACATCTCTGGAGAGTTCTGGCTGGGCAATGAGGCCCTGCACAGCCTGACACAG
GCAGGTGACTACTCCATGCGCGTGGACCTGCGGGCTGGGGACGAGGCTGTGTTCGCCCAGTACGACTCCTTCCAC
GTAGACTCGGCTGCGGAGTACTACCGCCTCCACTTGGAGGGCTACCACGGCACCGCAGGGGACTCCATGAGCTAC
CACAGCGGCAGTGTCTTCTCTGCCCGTGATCGGGACCCCAACAGCTTGCTCATCTCCTGCGCTGTCTCCTACCGA
GGGGCCTGGTGGTACAGGAACTGCCACTACGCCAACCTCAACGGGCTCTACGGGAGCACAGTGGACCATCAGGGA
GTGAGCTGGTACCACTGGAAGGGCTTCGAGTTCTCGGTGCCCTTCACGGAAATGAAGCTGAGACCAAGAAACTTT
CGCTCCCCAGCGGGGGGAGGC**TGA**GCTGCTGCCCACCTCTCTCGCACCCCAGTATGACTGCCGAGCACTGAGGGG
TCGCCCCGAGAGAAGAGCCAGGGTCCTTCACCACCCAGCCGCTGGAGGAAGCCTTCTCTGCCAGCGATCTCGCAG
CACTGTGTTTACAGGGGGGAGGGGAGGGGTTCGTACAGGAGCAATAAAGGAGAAACTGAGGTACCCGG

FIGURE 605

TGGGAGGGTACCTGAAGGTGGGGTCAAGGGAGGCCCCAAAACAGTCTACACAGCAGGAGGGATGGCTGGGGCTCT
TGAGCTATAAGTGGCACCTCAGGGCCCTGACGGGCGTCTCGCC**ATG**CTGCTCCTGGGCCTGCTGCTGCTGCTGCC
CCTGCTGGCTGGCGCCCGCCTGCTGTGGAACTGGTGGAAGCTCCGGAGCCTCCACCTCCCGCCTCTTGCCCCGGG
CTTCTTGCACTTGCTGCAGCCCGACCTCCCAATCTATCTGCTTGGCCTGACTCAGAAATTCGGGCCCATCTACAG
GCTCCACCTTGGGCTGCAAGATGTGGTGGTGCTGAACTCCAAGAGGACCATTGAGGAAGCCATGGTCAAAAAGTG
GGCAGACTTTGCTGGCAGACCTGAGCCACTTACCTACAAGCTGGTGTCTAGGAACTACCCGGACCTGTCCTTGGG
AGACTACTCCCTGCTCTGGAAAGCCCACAAGAAGCTCACCCGCTCAGCCCTGCTGCTGGGCATCCGTGACTCCAT
GGAGCCAGTGGTGGAGCAGCTGACCCAGGAGTTCTGTGAGCGCATGAGAGCCCAGCCCGGCACCCCTGTGGCCAT
TGAGGAGGAATTCTCTCTCCTCACCTGCAGCATCATCTGTTACCTCACCTTCGGAGACAAGATCAAGGACGACAA
CTTAATGCCTGCCTATTACAAATGTATCCAGGAGGTGTTAAAAACCTGGAGCCACTGGTCCATCCAAATTGTGGA
CGTGATTCCCTTTCTCAGGTTCTTCCCCAATCCAGGTCTCCGGAGGCTGAAGCAGGCCATAGAGAAGAGGGATCA
CATCGTGGAGATGCAGCTGAGGCAGCACAAGGAGAGCCTCGTGGCAGGCCAGTGGAGGGACATGATGGACTACAT
GCTCCAAGGGGTGGCGCAGCCGAGCATGGAAGAGGGCTCTGGACAGCTCCTGGAAGGGCACGTGCACATGGCTGC
AGTGGACCTCCTGATCGGTGGCACTGAGACCACAGCAAACACCCTCTCCTGGGCCGTGGTTTTTTTGCTTCACCA
CCCTGAGATTCAGCAGCGACTGCAGGAGGAGCTAGACCACGAACTGGGCCCTGGTGCCTCCAGCTCCCGGGTCCC
CTACAAGGACCGTGCACGGCTGCCCTTGCTCAATGCCACCATCGCCGAGGTGCTGCGCCTGCGGCCCGTTGTGCC
CTTAGCCTTGCCCCACCGCACCACACGGCCCAGCAGCATCTCCGGCTACGACATCCCTGAGGGCACAGTCATCAT
TCCGAACCTCCAAGGCGCCCACCTGGATGAGACGGTCTGGGAGAGGCCACATGAGTTCTGGCCTGATCGCTTCCT
GGAGCCAGGCAAGAACTCCAGAGCTCTGGCCTTCGGCTGCGGTGCCCGCGTGTGCCTGGGCGAGCCGCTGGCGCG
CCTGGAGCTCTTCGTGGTGCTGACCCGACTGCTGCAGGCCTTCACGCTGCTGCCCTCCGGGGACGCCCTGCCCTC
CCTGCAGCCCCTGCCCCACTGCAGTGTCATCCTCAAGATGCAGCCTTTCCAAGTGCGGCTGCAGCCCCGGGGGAT
GGGGGCCCACAGCCCGGGCCAGAGCCAG**TGA**TGGGGCAGGACCGATGCCAGCCGGGTACCTCAGTTTCTCCTTTA
TTGCTCCTGTACGAACCCCTCCCCTCCCCCCTGTAAACACAGTGCTGCGAGATCGCTGGCAGAGAAGGCTTCCTC
CAGCGGCTGGGTGGTGAAGGACCCTGGCTCTTCTCTCGGGGCGACCCCTCAGTGCTCGGCAGTCATACTGGGGTG
CGAGAGAGGTGGGCAGCAGCTCAGCCTCCCCCCGCTGGGGAGCGAAAGTTTCTTGGTCTCAGCTTCATTTCCGTG
AAGGGCACCGAGAACTCGAAGCCCTTCCAGTGGTACCAGCTCACTCCCTGGGAAAGGGGTTGTCAAGAGAGAGTC
AAAGCCGGATGTCCCATCTGCTCCTCCCATTCCCCTTAAGGAGGTAGCTCCCAGCACTCAACCAACCTCCCCGCA
GAGCTCCCTTCCTGACCCTCCGCTGCAGAGGATTGAGGCTTAATTCTGAGCTGGCCCTTTCCAGCCAATAAATCA
ACTCCAGCTCCC

FIGURE 606A

AGAAGGTAGCAGACAGACAGACGGATCTAACCTCTCTTGGATCCTCCAGCC**ATG**AGGCTGCTCTGGGGGCTGATC
TGGGCATCCAGCTTCTTCACCTTATCTCTGCAGAAGCCCAGGTTGCTCTTGTTCTCTCCTTCTGTGGTTCATCTG
GGGGTCCCCCTATCGGTGGGGGTGCAGCTCCAGGATGTGCCCCGAGGACAGGTAGTGAAAGGATCAGTGTTCCTG
AGAAACCCATCTCGTAATAATGTCCCCTGCTCCCCAAAGGTGGACTTCACCCTTAGCTCAGAAAGAGACTTCGCA
CTCCTCAGTCTCCAGGTGCCCTTGAAAGATGCGAAGAGCTGTGGCCTCCATCAACTCCTCAGAGGCCCTGAGGTC
CAGCTGGTGGCCCATTCGCCATGGCTAAAGGACTCTCTGTCCAGAACGACAAACATCCAGGGTATCAACCTGCTC
TTCTCCTCTCGCCGGGGGCACCTCTTTTTGCAGACGGACCAGCCCATTTACAACCCTGGCCAGCGGGTTCGGTAC
CGGGTCTTTGCTCTGGATCAGAAGATGCGCCCGAGCACTGACACCATCACAGTCATGGTGGAGAACTCTCACGGC
CTCCGCGTGCGGAAGAAGGAGGTGTACATGCCCTCGTCCATCTTCCAGGATGACTTTGTGATCCCAGACATCTCA
GAGCCAGGGACCTGGAAGATCTCAGCCCGATTCTCAGATGGCCTGGAATCCAACAGCAGCACCCAGTTTGAGGTG
AAGAAATATGTCCTTCCCAACTTTGAGGTGAAGATCACCCCTGGAAAGCCCTACATCCTGACGGTGCCAGGCCAT
CTTGATGAAATGCAGTTAGACATCCAGGCCAGGTACATCTATGGGAAGCCAGTGCAGGGGGTGGCATATGTGCGC
TTTGGGCTCCTAGATGAGGATGGTAAGAAGACTTTCTTTCGGGGGCTGGAGAGTCAGACCAAGCTGGTGAATGGA
CAGAGCCACATTTCCCTCTCAAAGGCAGAGTTCCAGGACGCCCTGGAGAAGCTGAATATGGGCATTACTGACCTC
CAGGGGCTGCGCCTCTACGTTGCTGCAGCCATCATTGAGTATCCAGGTGGGGAGATGGAGGAGGCAGAGCTCACA
TCCTGGTATTTTGTGTCATCTCCCTTCTCCTTGGATCTTAGCAAGACCAAGCGACACCTTGTGCCTGGGGCCCCC
TTCCTGCTGCAGGCCTTGGTCCGTGAGATGTCAGGCTCCCCAGCTTCTGGCATTCCTGTCAAAGTTTCTGCCACG
GTGTCTTCTCCTGGGTCTGTTCCTGAAGTCCAGGACATTCAGCAAAACACAGACGGGAGCGGCCAAGTCAGCATT
CCAATAATTATCCCTCAGACCATCTCAGAGCTGCAGCTCTCAGTATCTGCAGGCTCCCCACATCCAGCGATAGCC
AGGCTCACTGTGGCAGCCCCACCTTCAGGAGGCCCCGGGTTTCTGTCTATTGAGCGGCCGGATTCTCGACCTCCT
CGTGTTGGGGACACTCTGAACCTGAACTTGCGAGCCGTGGGCAGTGGGGCCACCTTTTCTCATTACTACTACATG
ATCCTATCCCGAGGGCAGATCGTGTTCATGAATCGAGAGCCCAAGAGGACCCTGACCTCGGTCTCGGTGTTTGTG
GACCATCACCTGGCACCCTCCTTCTACTTTGTGGCCTTCTACTACCATGGAGACCACCCAGTGGCCAACTCCCTG
CGAGTGGATGTCCAGGCTGGGGCCTGCGAGGGCAAGCTGGAGCTCAGCGTGGACGGTGCCAAGCAGTACCGGAAC
GGGGAGTCCGTGAAGCTCCACTTAGAAACCGACTCCCTAGCCCTGGTGGCGCTGGGAGCCTTGGACACAGCTCTG
TATGCTGCAGGCAGCAAGTCCCACAAGCCCCTCAACATGGGCAAGGTCTTTGAAGCTATGAACAGCTATGACCTC
GGCTGTGGTCCTGGGGGTGGGGACAGTGCCCTTCAGGTGTTCCAGGCAGCGGGCCTGGCCTTTTCTGATGGAGAC
CAGTGGACCTTATCCAGAAAGAGACTAAGCTGTCCCAAGGAGAAGACAACCCGGAAAAAGAGAAACGTGAACTTC
CAAAAGGCGATTAATGAGAAATTGGGTCAGTATGCTTCCCCGACAGCCAAGCGCTGCTGCCAGGATGGGGTGACA
CGTCTGCCCATGATGCGTTCCTGCGAGCAGCGGGCAGCCCGCGTGCAGCAGCCGGACTGCCGGGAGCCCTTCCTG
TCCTGCTGCCAATTTGCTGAGAGTCTGCGCAAGAAGAGCAGGGACAAGGGCCAGGCGGGCCTCCAACGAGCCCTG
GAGATCCTGCAGGAGGAGGACCTGATTGATGAGGATGACATTCCCGTGCGCAGCTTCTTCCCAGAGAACTGGCTC
TGGAGAGTGGAAACAGTGGACCGCTTTCAAATATTGACACTGTGGCTCCCCGACTCTCTGACCACGTGGGAGATC
CATGGCCTGAGCCTGTCCAAAACCAAAGGCCTATGTGTGGCCACCCCAGTCCAGCTCCGGGTGTTCCGCGAGTTC
CACCTGCACCTCCGCCTGCCCATGTCTGTCCGCCGCTTTGAGCAGCTGGAGCTGCGGCCTGTCCTCTATAACTAC
CTGGATAAAAACCTGACTGTGAGCGTCCACGTGTCCCCAGTGGAGGGGCTGTGCCTGGCTGGGGGCGGAGGGCTG
GCCCAGCAGGTGCTGGTGCCTGCGGGCTCTGCCCGGCCTGTTGCCTTCTCTGTGGTGCCCACGGCAGCCGCCGCT
GTGTCTCTGAAGGTGGTGGCTCGAGGGTCCTTCGAATTCCCTGTGGGAGATGCGGTGTCCAAGGTTCTGCAGATT
GAGAAGGAAGGGGCCATCCATAGAGAGGAGCTGGTCTATGAACTCAACCCCTTGGACCACCGAGGCCGGACCTTG
GAAATACCTGGCAACTCTGATCCCAATATGATCCCTGATGGGGACTTTAACAGCTACGTCAGGGTTACAGCCTCA
GATCCATTGGACACTTTAGGCTCTGAGGGGGCCTTGTCACCAGGAGGCGTGGCCTCCCTCTTGAGGCTTCCTCGA
GGCTGTGGGGAGCAAACCATGATCTACTTGGCTCCGACACTGGCTGCTTCCCGCTACCTGGACAAGACAGAGCAG
TGGAGCACACTGCCTCCCGAGACCAAGGACCACGCCGTGGATCTGATCCAGAAAGGCTACATGCGGATCCAGCAG
TTTCGGAAGGCGGATGGTTCCTATGCGGCTTGGTTGTCACGGGGCAGCAGCACCTGGCTCACAGCCTTTGTGTTG
AAGGTCCTGAGTTTGGCCCAGGAGCAGGTAGGAGGATCGCCTGAGAAACTGCAGGAGACATCTAACTGGCTTCTG
TCCCAGCAGCAGGCTGACGGCTCGTTCCAGGACCTCTCTCCAGTGATACATAGGAGCATGCAGGGGGGTTTGGTG
GGCAATGATGAGACTGTGGCACTCACAGCCTTTGTGACCATCGCCCTTCATCATGGGCTGGCCGTCTTCCAGGAT
GAGGGTGCAGAGCCATTGAAGCAGAGAGTGGAAGCCTCCATCTCAAAGGCAAGCTCATTTTTGGGGGAGAAAGCA

FIGURE 606B

AGTGCTGGGCTCCTGGGTGCCCACGCAGCTGCCATCACGGCCTATGCCCTGACACTGACCAAGGCCCCTGCGGAC
CTGCGGGGTGTTGCCCACAACAACCTCATGGCAATGGCCCAGGAGACTGGAGATAACCTGTACTGGGGCTCAGTC
ACTGGTTCTCAGAGCAATGCCGTGTCGCCCACCCCGGCTCCTCGCAACCCATCCGACCCCATGCCCCAGGCCCCA
GCCCTGTGGATTGAAACCACAGCCTACGCCCTGCTGCACCTCCTGCTTCACGAGGGCAAAGCAGAGATGGCAGAC
CAGGCTGCGGCCTGGCTCACCCGTCAGGGCAGCTTCCAAGGGGGATTCCGCAGTACCCAAGACACGGTGATTGCC
CTGGATGCCCTGTCTGCCTACTGGATTGCCTCCCACACCACTGAGGAGAGGGGTCTCAATGTGACTCTCAGCTCC
ACAGGCCGGAATGGGTTCAAGTCCCACGCGCTGCAGCTGAACAACCGCCAGATTCGCGGCCTGGAGGAGGAGCTG
CAGTTTTCCTTGGGCAGCAAGATCAATGTGAAGGTGGGAGGAAACAGCAAAGGAACCCTGAAGGTCCTTCGTACC
TACAATGTCCTGGACATGAAGAACACGACCTGCCAGGACCTACAGATAGAAGTGACAGTCAAAGGCCACGTCGAG
TACACGATGGAAGCAAACGAGGACTATGAGGACTATGAGTACGATGAGCTTCCAGCCAAGGATGACCCAGATGCC
CCTCTGCAGCCCGTGACACCCCTGCAGCTGTTTGAGGGTCGGAGGAACCGCCGCAGGAGGGAGGCGCCCAAGGTG
GTGGAGGAGCAGGAGTCCAGGGTGCACTACACCGTGTGCATCTGGCGGAACGGCAAGGTGGGGCTGTCTGGCATG
GCCATCGCGGACGTCACCCTCCTGAGTGGATTCCACGCCCTGCGTGCTGACCTGGAGAAGCTGACCTCCCTCTCT
GACCGTTACGTGAGTCACTTTGAGACCGAGGGGCCCCACGTCCTGCTGTATTTTGACTCGGTCCCCACCTCCCGG
GAGTGCGTGGGCTTTGAGGCTGTGCAGGAAGTGCCGGTGGGGCTGGTGCAGCCGGCCAGCGCAACCCTGTACGAC
TACTACAACCCCGAGCGCAGATGTTCTGTGTTTTACGGGGCACCAAGTAAGAGCAGACTCTTGGCCACCTTGTGT
TCTGCTGAAGTCTGCCAGTGTGCTGAGGGGAAGTGCCCTCGCCAGCGTCGCGCCCTGGAGCGGGGTCTGCAGGAC
GAGGATGGCTACAGGATGAAGTTTGCCTGCTACTACCCCCGTGTGGAGTACGGCTTCCAGGTTAAGGTTCTCCGA
GAAGACAGCAGAGCTGCTTTCCGCCTCTTTGAGACCAAGATCACCCAAGTCCTGCACTTCACCAAGGATGTCAAG
GCCGCTGCTAATCAGATGCGCAACTTCCTGGTTCGAGCCTCCTGCCGCCTTCGCTTGGAACCTGGGAAAGAATAT
TTGATCATGGGTCTGGATGGGGCCACCTATGACCTCGAGGGACACCCCCAGTACCTGCTGGACTCGAATAGCTGG
ATCGAGGAGATGCCCTCTGAACGCCTGTGCCGGAGCACCCGCCAGCGGGCAGCCTGTGCCCAGCTCAACGACTTC
CTCCAGGAGTATGGCACTCAGGGGTGCCAGGTG**TGA**GGGCTGCCCTCCCACCTCCGCTGGGAGGAACCTGAACCT
GGGAACCATGAAGCTGGAAGCACTGCTGTGTCCGCTTTCATGAACACAGCCTGGGACCAGGGCATATTAAAGGCT
TTTGGCAGCAAAGTGTCAGTGTTGGC

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FIGURE 607

GTCCTCCAAATGCAGTGAGGTTAGGAAGGACGTCTGCGCTCAGATCAAGAATCCAGTTACCTCAAAGCTCCCCAA
CTTCCACCTCCGCAGAGCTATGACGTCATGGCAGGCACGCCAGAGGCCGAAGG**ATG**CAAAAGTGGTTTTCTGCTT
TCGATGATGCAATCATTCAGCGACAGTGGCGGGCAAACCCCTCCCGGGGCGGGGGAGGTGTGAGCTTCACGAAGG
AGGTTGACACCAACGTGGCCACCGGCGCCCCTCCACGCCGCCAACGAGTCCCCGGGCGTGCGTGCCCTTGGAGGG
AGCCAATCCGCGGCCGGCGTGGGGCCCGGCCTGGCGGAGGTGATGCTGGAGGGACGCCCGGGGAGACCGTACGTC
ACTGCTCTGCGCCGGAAGACCCTATTTTCAGGTTCTCTTCCCTCCATTCCTACCCCTTCCCCGGTACCATAAAAT
CCCGGGATATGAGCTGGAAGAGGCATCACCTGATCCCGGAGACCTTTGGAGTTAAGAGGCGGCGGAAGCGAGGGC
CTGTGGAGTCGGATCCTCTTCGGGGTGAGCCAGGGTCGGCGCGCGCGGCTGTCTCAGAACTCATGCAGCTGTTCC
CGCGAGGCCTGTTTGAGGACGCGCTGCCGCCCATCGTGCTGAGGAGCCAGGTGTACAGCCTTGTGCCTGACAGGA
CCGTGGCCGACCGGCAGCTGAAGGAGCTTCAAGAGCAGGGGGAGATCAGAATCGTCCAGCTGGGCTTCGACTTGG
ATGCCCATGGAATTATCTTCACTGAGGACTACAGGACCAGAGTATGTGACTGTGTCCTCAAGGCCTGTGATGGCC
GACCGTATGCTGGGGCAGTGCAGAAATTTCTAGCTTCAGTACTTCCAGCCTGTGGGGACCTTAGTTTCCAGCAGG
ACCAAATGACACAGACCTTTGGCTTCAGGGACTCAGAAATCACGCATCTGGTGAATGCTGGAGTCCTCACCGTCC
GAGATGCTGGGAGCTGGTGGCTAGCTGTGCCTGGAGCTGGGAGATTCATCAAGTACTTTGTTAAAGGGCGCCAGG
CTGTCCTTAGCATGGTCCGGAAGGCAAAGTACCGGGAACTGCTCCTATCAGAGCTCCTGGGCCGGCGGGCGCCTG
TCGTGGTGCGGCTTGGCCTCACCTACCATGTGCACGACCTCATTGGGGCCCAGCTAGTGGACTGCATCTCTACCA
CTTCAGGAACCCTCCTCCGCCTGCCAGAGACA**TGA**AGATTCTGCTCATCATTGCTCAGCTCCTCAGAGTGGGCCG
GGAGGGGACTAGAAGAGCTGCATGATGGTGGCTGAGACAGGGTCACCTTGGGAAGGCTTGGGAGCCAGGATGAGT
GTCGGGCTCTCGTGTGTGCAAAAGGTCAGATGTGACTGCTGCTGTTTGCCTGGTTTCTGACCCAGTGGTGGGGTT
TGAGCAATGCTTCTCTGCCCTTCCATGGAAAGTGGAACCAGAAATGGTGCCAAGGCTGTGGCTGTTCCCTTTCGT
GTAAAATGGTGCTGTTATTACTCTGTCTTGAAATAGGAAGGTGGGATTTCTGGGGAGGCTGGTGAAGGAGGGCAG
GGTTCTTTTCTCTACGTGTCATGTTAAAATTGCCAAATAAAGTACCTCTGCCTGTGA

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FIGURE 608

CCCGCCACTGTCGCTGAATGATTGCATCATCGAAAGCAGAAAACCACTTTTGCATCCTTCGGCCTCTGGCGTGCC
TGCCATGACGTCATAGCTCTGCGGAGGTGGAAGTTGGGGAGCTTTGAGGACCTC**ATG**GATCCCAGGGGGACCAAG
AGAGGAGCTGAGAAGACAGAGGTAGCTGAGCCTCGGAACAAACTACCTCGTCCAGCACCTTCTCTGCCCACAGAC
CCTGCCCTCTACTCTGGGCCCTTTCCTTTCTACCGGCGCCCTTCGGAACTGGGCTGCTTCTCCCTGGATGCTCAA
CGCCAGTACCATGGAGATGCCCGAGCCCTGCGCTACTATAGCCCACCCCCCACTAACGGTCCAGGCCCCAACTTT
GACCTCAGAGACGGATACCCGGATCGATACCAGCCCCGGGACGAGGAGGTCCAGGAAAGGCTGGACCACCTGCTG
TGCTGGCTCCTGGAACACCGAGGCCGGTTGGAGGGGGGTCCAGGCTGGCTGGCAGAGGCCATAGTGACGTGGCGG
GGGCACCTGACAAAACTGCTGACGACACCGTATGAGCGGCAGGAGGGCTGGCAGCTGGCAGCCTCCCGGTTCCAG
GGAACACTATACCTGAGTGAAGTGGAGACACCGAACGCTCGGGCCCAGAGGCTTGCTCGGCCACCGCTCCTCCGG
GAGCTTATGTACATGGGATACAAATTTGAGCAGTACATGTGTGCAGACAAACCTGGAAGCTCCCCAGACCCCTCT
GGGGAGGTTAACACCAACGTGGCCTTCTGCTCTGTGCTACGCAGCCGCCTGGGAAGCCACCCTCTGCTCTTCTCA
GGGGAGGTAGACTGCACAGACCCCCAAGCCCCATCCACACAGCCCCCAACCTGCTATGTGGAGCTCAAGACCTCC
AAGGAGATGCACAGCCCTGGCCAATGGAGGAGTTTCTACAGACACAAGCTCCTGAAATGGTGGGCTCAGTCATTC
CTCCCAGGGGTCCCGAATGTTGTTGCTGGCTTCCGTAACCCAGACGGTTTTGTCTCTTCCCTCAAGACCTTTCCT
ACCATGAAGATGTTTGAATATGTCAGGAATGACCGTGACGGCTGGAATCCCTCTGTGTGCATGAACTTCTGTGCC
GCCTTCCTTAGCTTTGCCCAGAGCACGGTTGTCCAGGATGACCCCAGGCTCGTTCATCTCTTCTCTTGGGAGCCT
GGCGGCCCAGTCACCGTGTCTGTACACCAAGATGCACCTTACGCCTTCCTGCCCATATGGTATGTGGAAGCTATG
ACTCAGGACCTCCCATCACCCCCCAAGACTCCCTCTCCCAAA**TAG**TAATGCTTTAGAGGGAGGCAGTCATATCTC
TGTGTGCAGATAATAAAAGCATATTTCTAAGAGGTT

FIGURE 609A

CGTAGCGCCCGCAGAGCAACGCAAAGAGGAAGAACAGAGAAACGGCTATGAGAAAAAGGGCCGAAGAGTGAGAAG
CAGAGGGCCTTACCCGAGGGGGCGGCAACCGGGGGCCCCACGGTCTCCGGCCGCGCCCGCGCTGGCCGCTGATAG
CGGGCTCACAACGATGACGTAGCGAGGAGCGGAAAACGCGGTAACCAAGGCGGCCCCAGGCGCGCACTTCCGCCC
GGCCTTCCACCGGTCCAGGTCTGCCCCTCCGCAGCGATAGTTCACGCTCTCGGCGGGGCTGTACCGGAAGTTGCC
TCTACTTCCGCCCGTTCCGGGGCGGGGCTTACTTCGCAGCGACTACTTGCCGCACTTCCGGGCTGCCAGGCAGCT
GCTGTGGCTCCAGG**ATG**ATGGAGACAGAGCGACTTGTGCTACCCCCTCCAGATCCCCTGGACCTACCCCTTCGGG
CCGTGGAGCTCGGATGCACGGGGCACTGGGAGCTGCTGAACTTGCCTGGAGCTCCAGAGAGTAGCCTTCCCCATG
GCCTCCCTCCTTGTGCCCCAGATCTGCAGCAAGAAGCAGAACAGTTGTTTCTGTCATCCCCAGCCTGGCTGCCTC
TGCATGGTGTGGAGCACTCAGCCCGAAAATGGCAGAGGAAGACGGATCCCTGGTCTCTTTTGGCTGTCCTGGGAG
CCCCAGTCCCATCCGACCTACAGGCCCAAAGACACCCAACCACAGGCCAGATACTGGGTTACAAAGAGGTCTTGC
TGGAGAACACAAATCTCTCGGCTACAACCTCCTTGTCTCTTCGCCGGCCTCCAGGGCCAGCCTCCCAGTCCTTAT
GGGGAAATCCAACTCGGTATCCCTTCTGGCCAGGGGGGATGGATGAACCCACCATAACAGATCTGAACACACGGG
AGGAGGCTGAGGAGGAGATAGACTTTGAGAAAGATCTTCTTACTATTCCACCTGGTTTCAAGAAAGGCATGGACT
TTGCACCAAAAGATTGTCCAACTCCAGCTCCTGGACTACTAAGCCTTAGCTGTCTGTTGGAGCCTCTGGATTTGG
GTGGGGGTGACGAGGATGAGAATGAGGCAGTGGGACAGCCAGGAGGTCCCAGAGGGGACACTGTTTCAGCCTCTC
CCTGCAGTGCTCCCCTGGCCCGAGCAAGCAGCTTGGAAGACCTAGTGTTGAAGGAAGCGTCCACAGCTGTATCCA
CCCCAGAGGCCCCAGAGCCTCCATCTCAGGAGCAGTGGGCCATCCCTGTGGACGCCACCTCCCCTGTTGGTGATT
TCTATCGCCTCATTCCCCAGCCAGCCTTCCAGTGGGCATTTGAGCCAGATGTGTTTCAGAAACAGGCCATCCTGC
ACTTGGAACGGCATGACTCTGTCTTTGTCGCAGCTCACACATCTGCAGGAAAAACAGTTGTGGCTGAATATGCCA
TTGCCCTGGCCCAGAAACACATGACACGCACCATCTACACTTCGCCCATCAAGGCCCTGAGCAACCAGAAGTTCC
GGGACTTCCGAAACACATTCGGGGATGTGGGGCTGCTCACCGGGGATGTACAGCTGCATCCGGAGGCCTCCTGCC
TCATCATGACCACAGAGATCCTTCGCTCCATGCTGTACAGTGGCTCAGATGTTATTCGGGACCTGGAGTGGGTCA
TCTTTGATGAGGTTCACTATATCAACGATGTCGAGCGTGGGGTCGTGTGGGAGGAGGTGCTTATCATGCTACCTG
ACCACGTTTCTATCATCCTTCTGAGTGCCACCGTCCCCAACGCCCTTGAGTTTGCTGACTGGATTGGGCGGCTGA
AGCGTCGTCAGATCTATGTGATTAGCACTGTAACCCGCCCCGTGCCCCTGGAGCACTATCTTTTCACAGGGAACA
GCTCCAAGACCCAGGGGGAGCTCTTTTTGTTGCTGGACTCCCGAGGAGCCTTCCATACAAAAGGGTACTATGCAG
CTGTGGAGGCCAAGAAGGAGAGAATGAGCAAACACGCCCAGACCTTTGGGGCCAAGCAGCCCACACATCAGGGGG
GCCCTGCACAGGACCGCGGAGTGTACCTGTCCCTCCTGGCCTCCCTCCGCACACGTGCCCAGTTGCCCGTGGTGG
TGTTCACCTTCTCCCGGGGCCGCTGTGATGAGCAGGCCTCAGGCCTCACCTCCCTTGACCTCACCACCAGTTCGG
AGAAGAGCGAGATCCACCTCTTCCTGCAGCGCTGCCTTGCTCGCCTCCGTGGCTCTGACCGCCAGCTGCCCCAGG
TCCTGCACATGTCAGAGCTCCTGAATCGCGGCCTGGGTGTGCACCATAGCGGCATCCTGCCCATCCTCAAGGAGA
TCGTGGAGATGCTCTTCAGCCGTGGCCTGGTCAAGGTCTTGTTTGCCACAGAGACCTTTGCCATGGGAGTAAACA
TGCCTGCTCGTACAGTAGTGTTTGACTCCATGCGCAAACACGATGGCTCCACCTTCCGGGACCTGCTCCCTGGGG
AGTATGTGCAGATGGCAGGCCGGGCAGGGCGGAGGGGCCTGGACCCCACAGGCACCGTTATCCTGCTCTGCAAGG
GCCGAGTGCCCGAGATGGCAGACCTGCACCGCATGATGATGGGGAAGCCGTCCCAGCTGCAGTCCCAGTTCCGCC
TCACGTACACTATGATCCTCAACTTGCTGCGAGTGGATGCCCTCAGGGTGGAGGACATGATGAAGAGGAGCTTCT
CTGAGTTTCCCTCCCGCAAAGACAGCAAGGCCCATGAACAGGCCCTGGCTGAACTGACCAAGAGGCTGGGAGCTT
TGGAGGAGCCTGACATGACTGGCCAACTGGTCGACCTGCCTGAATATTACAGCTGGGGGGAGGAACTGACAGAGA
CCCAGCACATGATCCAGCGACGCATCATGGAGTCTGTGAACGGGCTGAAGTCTCTCTCAGCAGGAAGGGTGGTGG
TTGTGAAGAATCAGGAGCATCACAACGCATTGGGAGTGATCCTACAGGTCTCCTCGAACTCCACCAGCAGAGTAT
TCACAACCCTGGTCTTGTGTGATAAGCCCTTGTCCCAGGACCCACAGGACAGGGGGCCAGCCACTGCAGAGGTGC
CCTATCCAGATGACCTCGTGGGATTCAAGCTGTTCCTGCCTGAAGGGCCTTGTGACCACACCATGGTCAAGCTCC
AGCCAGGAGATATGGCTGCCATCACCACCAAGGTGCTCCGGGTGAATGGGGAGAAGATCTTGGAGGACTTCAGCA
AGAGGCAGCAGCCAAAATTCAAGAAGGATCCTCCCCTTGCAGCCGTGACCACTGCTGTCCAGGAACTGCTGCGTC
TGGCTCAGGCCCACCCAGCCGGACCTCCCACCCTCGACCCTGTCAATGACCTGCAGCTCAAAGATATGTCAGTTG
TAGAGGGTGGGCTCCGGGCCCGGAAGCTGGAGGAGCTGATCCAGGGGGCTCAGTGTGTACACAGCCCCCGTTTTC
CTGCCCAGTACCTGAAGCTGCGGGAGCGAATGCAGATACAGAAGGAGATGGAGCGGCTGCGCTTCCTACTGTCGG
ATCAGTCATTGCTGCTGCTTCCTGAGTACCATCAGCGAGTAGAGGTGCTCCGAACCCTGGGTTACGTGGACGAGG

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FIGURE 609B

TGGGCACTGTGAAGCTGGCAGGGCGGGTGGCTTGTGCCATGAGCAGCCATGAGTTGCTCCTCACTGAGCTCATGT
TTGACAATGCACTGAGCACCCTGCGGCCTGAGGAGATTGCTGCCTTGCTCTCTGGCCTGGTCTGCCAGAGCCCTG
GGGACGCTGGGGATCAGCTCCCAAACACCCTCAAGCAGGGAATAGAACGTGTCCGGGCTGTGGCCAAGCGGATTG
GTGAGGTCCAGGTGGCTTGTGGCCTGAACCAGACGGTGGAGGAATTTGTGGGGGAGCTGAATTTTGGGCTGGTTG
AGGTTGTATATGAGTGGGCCCGGGGCATGCCCTTCTCCGAGTTGGCAGGGCTCTCAGGGACCCCTGAGGGCCTGG
TGGTCCGCTGCATTCAGCGCCTGGCTGAGATGTGTCGCTCACTGCGGGGGGCAGCCCGCCTGGTAGGAGAGCCTG
TGCTGGGTGCCAAGATGGAGACAGCGGCTACCTTGCTACGGCGGGACATCGTATTTGCGGCCAGCCTCTACACCC
AG**TGA**ATGCCCCATGTAAAAACATGATGATAAAACAGCAAAGCAC

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FIGURE 610

CGTTTTCCGCTCCTCGCTACGTCATCGTTGTGAGCCCGCTATCAGCGGCCAGCGCGGGCGCGGCCGGAGACCGTG
GGGCCCCCGGTTGCCGCCCCCTCGGGAGCCACC**ATG**TTGGTGATACCCCCCGGACTGAGCGAGGAAGAGGAGGCT
CTGCAGAAGAAATTCAACAAGCTCAAGAAAAAGAAAAAGGCATTGCTGGCTCTGAAGAAGCAAAGTAGCAGCAGC
ACAACCAGCCAAGGTGGTGTCAAACGCTCACTATCAGAGCAGCCTGTCATGGACACAGCCACAGCAACAGAGCAG
GCAAAGCAGCTGGTGAAGTCAGGAGCCATCAGTGCCATCAAGGCTGAGACCAAGAACTCAGGCTTCAAGCGTTCT
CGAACCCTTGAGGGGAAGTTAAAGGACCCCGAGAAGGGACCAGTCCCCACTTTCCAGCCGTTCCAGAGGAGCATA
TCTGCTGATGATGACCTGCAAGAGTCATCCAGACGTCCCCAGAGGAAATCTCTGTATGAGAGCTTTGTGTCTTCT
AGTGATCGACTTCGAGAACTAGGACCAGATGGAGAAGAGGCAGAGGGCCCAGGGGCTGGTGATGGTCCCCCTCGA
AGCTTTGACTGGGGCTATGAAGAACGCAGTGGTGCCCACTCCTCAGCCTCCCCTCCCCGAAGCCGCAGCCGGGAC
CGCAGCCATGAGAGGAACCGGGACAGAGACCGAGATCGGGAGCGGGATCGAGACCGGGATCGAGACAGAGACAGA
GAGCGGGACAGGGATCGGGATCGGGATCGAGATCGAGACCGGGAACGGGACAGGGATCGGGAGCGGGATCGAGAC
CGAGACCGAGAGGGTCCTTTCCGCAGGTCGGATTCATTCCCTGAACGGCGAGCCCCTAGGAAAGGGAATACTCTC
TATGTATATGGAGAAGACATGACACCCACCCTTCTCCGTGGGGCCTTCTCTCCTTTTGGAAACATCATTGACCTC
TCCATGGACCCACCCAGAAACTGTGCCTTCGTCACCTATGAAAAGATGGAGTCAGCAGATCAGGCCGTTGCTGAG
CTCAACGGGACCCAGGTGGAGTCTGTACAGCTCAAAGTCAACATAGCCCGAAAACAGCCCATGCTGGATGCCGCT
ACTGGCAAGTCTGTCTGGGGCTCCCTCGCTGTCCAGAACAGCCCTAAGGGTTGCCACCGGGACAAGAGGACCCAG
ATTGTCTACAGTGATGACGTCTACAAGGAAAACCTTGTGGATGGCTTC**TAG**GGAACAGAGCTGGATTCCTTGTGC
CTCATATGCCCCAATGCTGGTCTCAGTAAAACACTGAGGTGGAAGCTTACACATCTCCCTCAGCCTCTGGTTTTT
CAGCACTTGGGATTGGGGTTAAGCCTTTAAAAACGGCTGTCAGGTTTGATCTCAGTGTAACGACATGGCCAGTGC
CTGTTCCCCACTCCCTTGCCCCAAAAGGATCTGGAACAC

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FIGURE 611

AGGGGAAGGGAATGTGACCAGGTCTAGGTCTGGAGTTTCAGCTTGGACACTGAGCCAAGCAGACAAGCAAAGCAA
GCCAGGACACACCATCCTGCCCCAGGCCCAGCTTCTCTCCTGCCTTCCAACGCC**ATG**GGGAGCAATCTCAGCCCC
CAACTCTGCCTGATGCCCTTTATCTTGGGCCTCTTGTCTGGAGGTGTGACCACCACTCCATGGTCTTTGGCCCAG
CCCCAGGGATCCTGCTCTCTGGAGGGGGTAGAGATCAAAGGCGGCTCCTTCCGACTTCTCCAAGAGGGCCAGGCA
CTGGAGTACGTGTGTCCTTCTGGCTTCTACCCGTACCCTGTGCAGACACGTACCTGCAGATCTACGGGGTCCTGG
AGCACCCTGAAGACTCAAGACCAAAAGACTGTCAGGAAGGCAGAGTGCAGAGCAATCCACTGTCCAAGACCACAC
GACTTCGAGAACGGGGAATACTGGCCCCGGTCTCCCTACTACAATGTGAGTGATGAGATCTCTTTCCACTGCTAT
GACGGTTACACTCTCCGGGGCTCTGCCAATCGCACCTGCCAAGTGAATGGCCGGTGGAGTGGGCAGACAGCGATC
TGTGACAACGGAGCGGGGTACTGCTCCAACCCGGGCATCCCCATTGGCACAAGGAAGGTGGGCAGCCAGTACCGC
CTTGAAGACAGCGTCACCTACCACTGCAGCCGGGGGCTTACCCTGCGTGGCTCCCAGCGGCGAACGTGTCAGGAA
GGTGGCTCTTGGAGCGGGACGGAGCCTTCCTGCCAAGACTCCTTCATGTACGACACCCCTCAAGAGGTGGCCGAA
GCTTTCCTGTCTTCCCTGACAGAGACCATAGAAGGAGTCGATGCTGAGGATGGGCACGGCCCAGGGGAACAACAG
AAGCGGAAGATCGTCCTGGACCCTTCAGGCTCCATGAACATCTACCTGGTGCTAGATGGATCAGACAGCATTGGG
GCCAGCAACTTCACAGGAGCCAAAAAGTGTCTAGTCAACTTAATTGAGAAGGTGGCAAGTTATGGTGTGAAGCCA
AGATATGGTCTAGTGACATATGCCACATACCCCAAAATTTGGGTCAAAGTGTCTGAAGCAGACAGCAGTAATGCA
GACTGGGTCACGAAGCAGCTCAATGAAATCAATTATGAAGACCACAAGTTGAAGTCAGGGACTAACACCAAGAAG
GCCCTCCAGGCAGTGTACAGCATGATGAGCTGGCCAGATGACGTCCCTCCTGAAGGCTGGAACCGCACCCGCCAT
GTCATCATCCTCATGACTGATGGATTGCACAACATGGGCGGGGACCCAATTACTGTCATTGATGAGATCCGGGAC
TTGCTATACATTGGCAAGGATCGCAAAAACCCAAGGGAGGATTATCTGGATGTCTATGTGTTTGGGGTCGGGCCT
TTGGTGAACCAAGTGAACATCAATGCTTTGGCTTCCAAGAAAGACAATGAGCAACATGTGTTCAAAGTCAAGGAT
ATGGAAAACCTGGAAGATGTTTTCTACCAAATGATCGATGAAAGCCAGTCTCTGAGTCTCTGTGGCATGGTTTGG
GAACACAGGAAGGGTACCGATTACCACAAGCAACCATGGCAGGCCAAGATCTCAGTCATTCGCCCTTCAAAGGGA
CACGAGAGCTGTATGGGGGCTGTGGTGTCTGAGTACTTTGTGCTGACAGCAGCACATTGTTTCACTGTGGATGAC
AAGGAACACTCAATCAAGGTCAGCGTAGGAGGGGAGAAGCGGGACCTGGAGATAGAAGTAGTCCTATTTCACCCC
AACTACAACATTAATGGGAAAAAAGAAGCAGGAATTCCTGAATTTTATGACTATGACGTTGCCCTGATCAAGCTC
AAGAATAAGCTGAAATATGGCCAGACTATCAGGCCCATTTGTCTCCCCTGCACCGAGGGAACAACTCGAGCTTTG
AGGCTTCCTCCAACTACCACTTGCCAGCAACAAAAGGAAGAGCTGCTCCCTGCACAGGATATCAAAGCTCTGTTT
GTGTCTGAGGAGGAGAAAAAGCTGACTCGGAAGGAGGTCTACATCAAGAATGGGGATAAGAAAGGCAGCTGTGAG
AGAGATGCTCAATATGCCCCAGGCTATGACAAAGTCAAGGACATCTCAGAGGTGGTCACCCCTCGGTTCCTTTGT
ACTGGAGGAGTGAGTCCCTATGCTGACCCCAATACTTGCAGAGGTGATTCTGGCGGCCCCTTGATAGTTCACAAG
AGAAGTCGTTTCATTCAAGTTGGTGTAATCAGCTGGGGAGTAGTGGATGTCTGCAAAAACCAGAAGCGGCAAAAG
CAGGTACCTGCTCACGCCCGAGACTTTCACATCAACCTCTTTCAAGTGCTGCCCTGGCTGAAGGAGAAACTCCAA
GATGAGGATTTGGGTTTTCTA**TAA**GGGGTTTCCTGCTGGACAGGGGCGTGGGATTGAATTAAAACAGCTGCGACA
AC

FIGURE 612

GGCTCTCTACCTCTCGCCGCCCCTAGGGAGGACACC**ATG**GGCCCACTGATGGTTCTTTTTTGCCTGCTGTTCCTG
TACCCAGGTCTGGCAGACTCGGCTCCCTCCTGCCCTCAGAACGTGAATATCTCGGGTGGCACCTTCACCCTCAGC
CATGGCTGGGCTCCTGGGAGCCTTCTCACCTACTCCTGCCCCCAGGGCCTGTACCCATCCCCAGCATCACGGCTG
TGCAAGAGCAGCGGACAGTGGCAGACCCCAGGAGCCACCCGGTCTCTGTCTAAGGCGGTCTGCAAACCTGTGCGC
TGTCCAGCCCCTGTCTCCTTTGAGAATGGCATTTATACCCCACGGCTGGGGTCCTATCCCGTGGGTGGCAATGTG
AGCTTCGAGTGTGAGGATGGCTTCATATTGCGGGGCTCGCCTGTGCGTCAGTGTCGCCCCAACGGCATGTGGGAT
GGAGAAACAGCTGTGTGTGATAATGGGGCTGGCCACTGCCCCAACCCAGGCATTTCACTGGGCGCAGTGCGGACA
GGCTTCCGCTTTGGTCATGGGGACAAGGTCCGCTATCGCTGCTCCTCGAATCTTGTGCTCACGGGGTCTTCGGAG
CGGGAGTGCCAGGGCAACGGGGTCTGGAGTGGAACGGAGCCCATCTGCCGCCAACCCTACTCTTATGACTTCCCT
GAGGACGTGGCCCCTGCCCTGGGCACTTCCTTCTCCCACATGCTTGGGGCCACCAATCCCACCCAGAAGACAAAG
GAAAGCCTGGGCCGTAAAATCCAAATCCAGCGCTCTGGTCATCTGAACCTCTACCTGCTCCTGGACTGTTCGCAG
AGTGTGTCGGAAAATGACTTTCTCATCTTCAAGGAGAGCGCCTCCCTCATGGTGGACAGGATCTTCAGCTTTGAG
ATCAATGTGAGCGTTGCCATTATCACCTTTGCCTCAGAGCCCAAAGTCCTCATGTCTGTCCTGAACGACAACTCC
CGGGATATGACTGAGGTGATCAGCAGCCTGGAAAATGCCAACTATAAAGATCATGAAAATGGAACTGGGACTAAC
ACCTATGCAGCCTTAAACAGTGTCTATCTCATGATGAACAACCAAATGCGACTCCTCGGCATGGAAACGATGGCC
TGGCAGGAAATCCGACATGCCATCATCCTTCTGACAGATGGAAAGTCCAATATGGGTGGCTCTCCCAAGACAGCT
GTTGACCATATCAGAGAGATCCTGAACATCAACCAGAAGAGGAATGACTATCTGGACATCTATGCCATCGGGGTG
GGCAAGCTGGATGTGGACTGGAGAGAACTGAATGAGCTAGGGTCCAAGAAGGATGGTGAGAGGCATGCCTTCATT
CTGCAGGACACAAAGGCTCTGCACCAGGTCTTTGAACATATGCTGGATGTCTCCAAGCTCACAGACACCATCTGC
GGGGTGGGGAACATGTCAGCAAACGCCTCTGACCAGGAGAGGACACCCTGGCATGTCACTATTAAGCCCAAGAGC
CAAGAGACCTGCCGGGGGGCCCTCATCTCCGACCAATGGGTCCTGACAGCAGCTCATTGCTTCCGCGATGGCAAC
GACCACTCCCTGTGGAGGGTCAATGTGGGAGACCCCAAATCCCAGTGGGGCAAAGAATTCCTTATTGAGAAGGCG
GTGATCTCCCCAGGGTTTGATGTCTTTGCCAAAAAGAACCAGGGAATCCTGGAGTTCTATGGTGATGACATAGCT
CTGCTGAAGCTGGCCCAGAAAGTAAAGATGTCCACCCATGCCAGGCCCATCTGCCTTCCCTGCACGATGGAGGCC
AATCTGGCTCTGCGGAGACCTCAAGGCAGCACCTGTAGGGACCATGAGAATGAACTGCTGAACAAACAGAGTGTT
CCTGCTCATTTTGTCGCCTTGAATGGGAGCAAACTGAACATTAACCTTAAGATGGGAGTGGAGTGGACAAGCTGT
GCCGAGGTTGTCTCCCAAGAAAAAACCATGTTCCCCAACTTGACAGATGTCAGGGAGGTGGTGACAGACCAGTTC
CTATGCAGTGGGACCCAGGAGGATGAGAGTCCCTGCAAGGGAGAATCTGGGGGAGCAGTTTTCCTTGAGCGGAGA
TTCAGGTTTTTTCAGGTGGGTCTGGTGAGCTGGGGTCTTTACAACCCCTGCCTTGGCTCTGCTGACAAAAACTCC
CGCAAAAGGGCCCCTCGTAGCAAGGTCCCGCCGCCACGAGACTTTCACATCAATCTCTTCCGCATGCAGCCCTGG
CTGAGGCAGCACCTGGGGGATGTCCTGAATTTTTTACCCCTC**TAG**CCATGGCCACTGAGCCCTCTGCTGCCCTGC
CAGAATCTGCCGCCCCTCCATCTTCTACCTCTGAATGGCCACCCTTAGACCCTGTGATCCATCCTCTCTCCTAGC
TGAGTAAATCCGGGTCTCTAGGATGCCAGAGGCAGCGCACACAAGCTGGGAAATCCTCAGGGCTCCTACCAGCAG
GACTGCCTCGCTGCCCCACCTCCCGCTCCTTGGCCTGTCCCCAGATTCCTTCCCTGGTTGACTTGACTCATGCTT
GTTTCACTTTCACATGGAATTTCCCAGTTATGAAATTAATAAAAATCAATGGTTTCCAC

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FIGURE 613A

GCAAGCGGCG**ATG**GCGGCGGCGGCGGGAGCTGCAGCGGCGGCGGCCGCCGAGGGGGAGGCCCCCGCTGAGATGGG
GGCGCTGCTGCTGGAGAAGGAAACCAGAGGAGCCACCGAGAGAGTTCATGGCTCTTTGGGGGACACCCCTCGTAG
TGAAGAAACCCTGCCCAAGGCCACCCCCGACTCCCTGGAGCCTGCTGGCCCCTCATCTCCAGCCTCTGTCACTGT
CACTGTTGGTGATGAGGGGGCTGACACCCCTGTAGGGGCTACACCACTCATTGGGGATGAATCTGAGAATCTTGA
GGGAGATGGGGACCTCCGTGGGGGCCGGATCCTGCTGGGCCATGCCACAAAGTCATTCCCCTCTTCCCCCAGCAA
GGGGGGTTCCTGTCCTAGCCGGGCCAAGATGTCAATGACAGGGGCGGGAAAATCACCTCCATCTGTCCAGAGTTT
GGCTATGAGGCTACTGAGTATGCCAGGAGCCCAGGGAGCTGCAGCAGCAGGGTCTGAACCCCCTCCAGCCACCAC
GAGCCCAGAGGGACAGCCCAAGGTCCACCGAGCCCGCAAAACCATGTCCAAACCAGGAAATGGACAGCCCCCGGT
CCCTGAGAAGCGGCCCCCTGAAATACAGCATTTCCGCATGAGTGATGATGTCCACTCACTGGGAAAGGTGACCTC
AGATCTGGCCAAAAGGAGGAAGCTGAACTCAGGAGGTGGCCTGTCGGAGGAGTTAGGTTCTGCCCGGCGTTCAGG
AGAAGTGACCCTGACGAAAGGGGACCCCGGGTCCCTGGAGGAGTGGGAGACGGTGGTGGGTGATGACTTCAGTCT
CTACTATGATTCCTACTCTGTGGATGAGCGCGTGGACTCCGACAGCAAGTCTGAAGTTGAAGCTCTAACTGAACA
ACTAAGTGAAGAGGAGGAGGAGGAAGAGGAGGAAGAAGAAGAAGAGGAAGAGGAGGAGGAAGAGGAAGAAGAAGA
GGAAGATGAGGAGTCAGGGAATCAGTCAGATAGGAGTGGTTCCAGTGGCCGGCGCAAGGCCAAGAAGAAATGGCG
AAAAGACAGCCCATGGGTGAAGCCGTCTCGGAAACGGCGCAAGCGGGAGCCTCCGCGGGCCAAGGAGCCACGAGG
AGTGAATGGTGTGGGCTCCTCAGGCCCCAGTGAGTACATGGAGGTCCCTCTGGGGTCCCTGGAGCTGCCCAGCGA
GGGGACCCTCTCCCCCAACCACGCTGGGGTGTCCAATGACACATCTTCGCTGGAGACAGAGCGAGGGTTTGAGGA
GTTGCCCCTGTGCAGCTGCCGCATGGAGGCACCCAAGATTGACCGCATCAGCGAGAGGGCGGGGCACAAGTGCAT
GGCCACTGAGAGTGTGGACGGAGAGCTGTCAGGCTGCAATGCCGCCATCCTCAAGCGGGAGACCATGAGGCCATC
CAGCCGTGTGGCCCTGATGGTGCTCTGTGAGACCCACCGCGCCCGCATGGTCAAACACCACTGCTGCCCGGGCTG
CGGCTACTTCTGCACGGCGGGCACCTTCCTGGAGTGCCACCCTGACTTCCGTGTGGCCCACCGCTTCCACAAGGC
CTGTGTGTCTCAGCTGAATGGGATGGTCTTCTGTCCCCACTGTGGGGAGGATGCTTCTGAAGCTCAAGAGGTGAC
CATCCCCCGGGGTGACGGGGTGACCCCACCGGCCGGCACTGCAGCTCCTGCACCCCCACCCCTGTCCCAGGATGT
CCCCGGGAGAGCAGACACTTCTCAGCCCAGTGCCCGGATGCGAGGGCATGGGGAACCCCGGCGCCCGCCCTGCGA
TCCCCTGGCTGACACCATTGACAGCTCAGGGCCCTCCCTGACCCTGCCCAATGGGGGCTGCCTTTCAGCCGTGGG
GCTGCCACTGGGGCCAGGCCGGGAGGCCCTGGAAAAGGCCCTGGTCATCCAGGAGTCAGAGAGGCGGAAGAAGCT
CCGTTTCCACCCTCGGCAGTTGTACCTGTCCGTGAAGCAGGGCGAGCTGCAGAAGGTGATCCTGATGCTGTTGGA
CAACCTGGACCCCAACTTCCAGAGCGACCAGCAGAGCAAGCGCACGCCCCTGCATGCAGCCGCCCAGAAGGGCTC
CGTGGAGATCTGCCATGTGCTGCTGCAGGCTGGAGCCAACATAAATGCAGTGGACAAACAGCAGCGGACGCCACT
GATGGAGGCCGTGGTGAACAACCACCTGGAGGTAGCCCGTTACATGGTGCAGCGTGGTGGCTGTGTCTATAGCAA
GGAGGAGGACGGTTCCACCTGCCTCCACCACGCAGCCAAAATCGGGAACTTGGAGATGGTCAGCCTGCTGCTGAG
CACAGGACAGGTGGACGTCAATGCCCAGGACAGTGGGGGGTGGACGCCCATCATCTGGGCTGCAGAGCACAAGCA
CATCGAGGTGATCCGCATGCTACTGACGCGGGGCGCCGACGTCACCCTCACTGACAACGAGGAGAACATCTGCCT
GCACTGGGCCTCCTTCACGGGCAGCGCCGCCATCGCCGAAGTCCTTCTGAATGCGCGCTGTGACCTCCATGCTGT
CAACTACCATGGGGACACCCCCCTGCACATCGCAGCTCGGGAGAGCTACCATGACTGCGTGCTGTTATTCCTGTC
ACGTGGGGCCAACCCTGAGCTGCGGAACAAAGAGGGGGACACAGCATGGGACCTGACTCCCGAGCGCTCCGACGT
GTGGTTTGCGCTTCAACTCAACCGCAAGCTCCGACTTGGGGTGGGAAATCGGGCCATCCGCACAGAGAAGATCAT
CTGCCGGGACGTGGCTCGGGGCTATGAGAACGTGCCCATTCCCTGTGTCAACGGTGTGGATGGGGAGCCCTGCCC
TGAGGATTACAAGTACATCTCAGAGAACTGCGAGACGTCCACCATGAACATCGATCGCAACATCACCCACCTGCA
GCACTGCACGTGTGTGGACGACTGCTCTAGCTCCAACTGCCTGTGCGGCCAGCTCAGCATCCGGTGCTGGTATGA
CAAGGATGGGCGATTGCTCCAGGAATTTAACAAGATTGAGCCTCCGCTGATTTTCGAGTGTAACCAGGCGTGCTC
ATGCTGGAGAAACTGCAAGAACCGGGTCGTACAGAGTGGCATCAAGGTGCGGCTACAGCTCTACCGAACAGCCAA
GATGGGCTGGGGGGTCCGCGCCCTGCAGACCATCCCACAGGGGACCTTCATCTGCGAGTATGTCGGGGAGCTGAT
CTCTGATGCTGAGGCTGATGTGAGAGAGGATGATTCTTACCTCTTCGACTTAGACAACAAGGATGGAGAGGTGTA
CTGCATAGATGCCCGTTACTATGGCAACATCAGCCGCTTCATCAACCACCTGTGTGACCCCAACATCATTCCCGT
CCGGGTCTTCATGCTGCACCAAGACCTGCGATTTCCACGCATCGCCTTCTTCAGTTCCCGAGACATCCGGACTGG
GGAGGAGCTAGGGTTTGACTATGGCGACCGCTTCTGGGACATCAAAAGCAAATATTTCACCTGCCAATGTGGCTC
TGAGAAGTGCAAGCACTCAGCCGAAGCCATTGCCCTGGAGCAGAGCCGTCTGGCCCGCCTGGACCCACACCCTGA

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FIGURE 613B

GCTGCTGCCCGAGCTCGGCTCCCTGCCCCCTGTCAACACA**TGA**GAACGGACCACACCCTCTCTCCCCAGCATGGA
TGGCCACAGCTCAGCCGCCTCCTCTGCCACCAGCTGCTCGCAGCCCATGCCTGGGGGTGCTGCCATCTTCTCTCC
CCACCACCCTTTCACACATTCCTGACCAGAGATCCCAGCCAGGCCCTGGAGGTCTGACAGCCCCTCCCTCCCAGA
GCTGGTTCCTCCCTGGGAGGGCAACTTCAGGGCTGGCCACCCCCCGTGTTCCCCATCCTCAGTTGAAGTTTGATG
AATTGAAGTCGGGCCTCTATGCCAACTGGTTCCTTTTGTTCTCAATAAATGTTGGGTTTGGTAATAAA

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FIGURE 614

CGGGAAGCGCGGCGGGGCCTCCAGACCGGGGCGGGCTTAAGGGTGACATCTGCGCTTTAAAGGGTCCGGGTCAGC
TGACTCCCGACTCTGTGGAGTCTAGCTGCCAGGGTCGCGGCAGCTGCGGGGAGAGATGACTGGGGAGCGACCCAG
CACGGCGCTCCCGGACAGACGCTGGGGGCCGCGGATTCTGGGCTTCTGGGGAGGCTGTAGGGTTTGGGTGTTTGC
CGCGATCTTCCTGCTGCTGTCTCTGGCAGCCTCCTGGTCCAAGGCTGAGAACGACTTCGGTCTGGTGCAGCCGCT
GGTGACCATGGAGCAACTGCTGTGGGTGAGCGGGAGACAGATCGGCTCAGTGGACACCTTCCGCATCCCGCTCAT
CACAGCCACTCCGCGGGGCACTCTTCTCGCCTTTGCTGAGGCGAGGAAAATGTCCTCATCCGATGAGGGGGCCAA
GTTCATCGCCCTGCGGAGGTCCATGGACCAGGGCAGCACATGGTCTCCTACAGCGTTCATTGTCAATGATGGGGA
TGTCCCCGATGGGCTGAACCTTGGGGCAGTAGTGAGCGATGTTGAGACAGGAGTAGTATTTCTTTTCTACTCCCT
TTGTGCTCACAAGGCCGGCTGCCAGGTGGCCTCTACCATGTTGGTATGGAGCAAGGATGATGGTGTTTCCTGGAG
CACACCCCGGAATCTCTCCCTGGATATTGGCACTGAAGTGTTTGCCCCTGGACCGGGCTCTGGTATTCAGAAACA
GCGGGAGCCACGGAAGGGCCGCCTCATCGTGTGTGGCCATGGGACGCTGGAGCGGGACGGAGTCTTCTGTCTCCT
CAGCGATGATCATGGTGCCTCCTGGCGCTACGGAAGTGGGGTCAGCGGCATCCCCTACGGTCAGCCCAAGCAGGA
AAATGATTTCAATCCTGATGAATGCCAGCCCTATGAGCTCCCAGATGGCTCAGTCGTCATCAATGCCCGAAACCA
GAACAACTACCACTGCCACTGCCGAATTGTCCTCCGCAGCTATGATGCCTGTGATACACTAAGGCCCCGTGATGT
GACCTTCGACCCTGAGCTCGTGGACCCTGTGGTAGCTGCAGGAGCTGTAGTCACCAGCTCCGGCATTGTCTTCTT
CTCCAACCCAGCACATCCAGAGTTCCGAGTGAACCTGACCCTGCGATGGAGCTTCAGCAATGGTACCTCATGGCG
GAAAGAGACAGTCCAGCTATGGCCAGGCCCCAGTGGCTATTCATCCCTGGCAACCCTGGAGGGCAGCATGGATGG
AGAGGAGCAGGCCCCCCAGCTCTACGTCCTGTATGAGAAAGGCCGGAACCACTACACAGAGAGCATCTCCGTGGC
CAAAATCAGTGTCTATGGGACACTCTGAGCTGTGCCACTGCCACAGGGGTATTCTGCCTTCAGGACTCTGCCTTC
AGGAACACGGGTCTGTAGAGGGTCTGCTGGAGACGCCTGAAAGACAGTTCCATCTTCCTTTAGACTCCAGCCTTG
GCAAAATCACCTTCCCTTTACCAGGGAAATCACTTCCTTTAGGACTGAAAGCTAGGCGTCCTCTCCCACAAAAAA
GTCCTGCCCTCATCTGAGAATACTGTCTTTCCATATGGCTAAGTGTGGCCCCACCACCCTCTCTGCCCTCCCGGG
ACATTGATTGGTCCTGTCTTGGGCAGGTCTAGTGAGCTGTAGAATTGAATCAATGTGAACTCAGGGAACTGGGGA
AGGCTGAGCCTCCTCTTTGGTGTTGCGGTAAGATAACCGACAGGGCTGGTGAAAGTCCCCAGATGGCAGGATATT
TGGTTTCAGAGTAAGGACTAGGTGCACCACCATGACTGACTATCAATCAAAATGTTTGTAACTTAAAATTTTTAA
TGAAGGATAATGAATATTT

FIGURE 615

GGTCCCAAGGCTTTCCAGAGCGAACCTGTGCGGCTGCAGGCACCGGCGTGTTGAGTTTCCGGCGTTCCGAAGGAC
TGAGCTCTTGTCGCGGATCCCGTCCGCCGTTTCCAGCCCCCAGTCTCAGAGCGGAGCCCACAGAGCAGGGCACCG
GC**ATG**GCCAAAGCCGCGGCGATCGGCATCGACCTGGGCACCACCTACTCCTGCGTGGGGGTGTTCCAACACGGCA
AGGTGGAGATCATCGCCAACGACCAGGGCAACCGCACCACCCCCAGCTACGTGGCCTTCACGGACACCGAGCGGC
TCATCGGGGATGCGGCCAAGAACCAGGTGGCGCTGAACCCGCAGAACACCGTGTTTGACGCGAAGCGGCTGATCG
GCCGCAAGTTCGGCGACCCGGTGGTGCAGTCGGACATGAAGCACTGGCCTTTCCAGGTGATCAACGACGGAGACA
AGCCCAAGGTGCAGGTGAGCTACAAGGGGGAGACCAAGGCATTCTACCCCGAGGAGATCTCGTCCATGGTGCTGA
CCAAGATGAAGGAGATCGCCGAGGCGTACCTGGGCTACCCGGTGACCAACGCGGTGATCACCGTGCCGGCCTACT
TCAACGACTCGCAGCGCCAGGCCACCAAGGATGCGGGTGTGATCGCGGGGCTCAACGTGCTGCGGATCATCAACG
AGCCCACGGCCGCCGCCATCGCCTACGGCCTGGACAGAACGGGCAAGGGGGAGCGCAACGTGCTCATCTTTGACC
TGGGCGGGGGCACCTTCGACGTGTCCATCCTGACGATCGACGACGGCATCTTCGAGGTGAAGGCCACGGCCGGGG
ACACCCACCTGGGTGGGGAGGACTTTGACAACAGGCTGGTGAACCACTTCGTGGAGGAGTTCAAGAGAAAACACA
AGAAGGACATCAGCCAGAACAAGCGAGCCGTGAGGCGGCTGCGCACCGCCTGCGAGAGGGCCAAGAGGACCCTGT
CGTCCAGCACCCAGGCCAGCCTGGAGATCGACTCCCTGTTTGAGGGCATCGACTTCTACACGTCCATCACCAGGG
CGAGGTTCGAGGAGCTGTGCTCCGACCTGTTCCGAAGCACCCTGGAGCCCGTGGAGAAGGCTCTGCGCGACGCCA
AGCTGGACAAGGCCCAGATTCACGACCTGGTCCTGGTCGGGGGCTCCACCCGCATCCCCAAGGTGCAGAAGCTGC
TGCAGGACTTCTTCAACGGGCGCGACCTGAACAAGAGCATCAACCCCGACGAGGCTGTGGCCTACGGGGCGGCGG
TGCAGGCGGCCATCCTGATGGGGGACAAGTCCGAGAACGTGCAGGACCTGCTGCTGCTGGACGTGGCTCCCCTGT
CGCTGGGGCTGGAGACGGCCGGAGGCGTGATGACTGCCCTGATCAAGCGCAACTCCACCATCCCCACCAAGCAGA
CGCAGATCTTCACCACCTACTCCGACAACCAACCCGGGGTGCTGATCCAGGTGTACGAGGGCGAGAGGGCCATGA
CGAAAGACAACAATCTGTTGGGGCGCTTCGAGCTGAGCGGCATCCCTCCGGCCCCCAGGGGCGTGCCCCAGATCG
AGGTGACCTTCGACATCGATGCCAACGGCATCCTGAACGTCACGGCCACGGACAAGAGCACCGGCAAGGCCAGCA
AGATCACCATCACCAACGACAAGGGCCGCCTGAGCAAGGAGGAGATCGAGCGCATGGTGCAGGAGGCGGAGAAGT
ACAAAGCGGAGGACGAGGTGCAGCGCGAGAGGGTGTCAGCCAAGAACGCCCTGGAGTCCTACGCCTTCAACATGA
AGAGCGCCGTGGAGGATGAGGGGCTCAAGGGCAAGATCAGCGAGGCGGACAAGAAGAAGGTTCTGGACAAGTGTC
AAGAGGTCATCTCGTGGCTGGACGCCAACACCTTGGCCGAGAAGGACGAGTTTGAGCACAAGAGGAAGGAGCTGG
AGCAGGTGTGTAACCCCATCATCAGCGGACTGTACCAGGGTGCCGGTGGTCCCGGGCCTGGGGGCTTCGGGGCTC
AGGGTCCCAAGGGAGGGTCTGGGTCAGGCCCTACCATTGAGGAGGTGGAT**TAG**GGGCCTTTGTTCTTTAGTATGT
TTGTCTTTGAGGTGGACTGTTGGGACTCAAGGACTTTGCTGCTGTTTTCCTATGTCATTTCTGCTTCAGCTCTTT
GCTGCTTCACTTCTTTGTAAAGTTAAGTTGTAACCTGATGGTAATTAGCTGGCTTCATTATTTTTGTAGTACAAC
CGATATGTTCATTAGAATTCTTTGCATTTAATGTTGATACTGTAAGGGTGTTTCGTTCCCTTTAAATGAATCAAC
ACTGCCACCTTCTGTACGAGTTTGTTTTTTTTTTTTTTTTTTTTTTTTTTTTGCTTGGCGAAAACACTACAAAGGC
TGGGAATGTATGTTTTTATAATTTGTTTATTTAAATATGAAAAATAAAATGTTAAACTTT

FIGURE 616

ACTGCGCAGGCCCAGCAAGCCCCCACAATTAAAAGCCCAGCGCCGACCCTTCCTGTCAATTAGGCGCTGAAGCGC
AGGCGGTCAGCATCGCCATGGAGACCAACACCCTTCCCACCGCCACTCCCCCTTCCTCTCAGGGTCCCTGTCCCC
TCCAGTGAATCCCAGAAGACTCTGGAGAGTTCTGAGCAGGGGGCGGCACTCTGGCCTCTGATTGGTCCAAGGAAG
GCTGGGGGGGCAGGACGGGAGGCGAAACCCCTGGAATATTCCCGACCTGGCAGCCTCATCGAGCTCGGTGATTGGC
TCAGAAGGGAAAAGGCGGGTCTCCGTGACGACTTATAAAAGCCCAGGGGCAAGCGGTCCGGATAACGGCTAGCCT
GAGGAGCTGCTGCGACAGTCCACTACCTTTTTCGAGAGTGACTCCCGTTGTCCCAAGGCTTCCCAGAGCGAACCT
GTGCGGCTGCAGGCACCGGCGCGTCGAGTTTCCGGCGTCCGGAAGGACCGAGCTCTTCTCGCGGATCCAGTGTTC
CGTTTCCAGCCCCCAATCTCAGAGCCGAGCCGACAGAGAGCAGGGAACCGGC**ATG**GCCAAAGCCGCGGCGATCGG
CATCGACCTGGGCACCACCTACTCCTGCGTGGGGGTGTTCCAACACGGCAAGGTGGAGATCATCGCCAACGACCA
GGGCAACCGCACCACCCCCAGCTACGTGGCCTTCACGGACACCGAGCGGCTCATCGGGGATGCGGCCAAGAACCA
GGTGGCGCTGAACCCGCAGAACACCGTGTTTGACGCGAAGCGGCTGATCGGCCGCAAGTTCGGCGACCCGGTGGT
GCAGTCGGACATGAAGCACTGGCCTTTCCAGGTGATCAACGACGGAGACAAGCCCAAGGTGCAGGTGAGCTACAA
GGGGGACACCAAGGCATTCTACCCCGAGGAGATCTCGTCCATGGTGCTGACCAAGATGAAGGAGATCGCCGAGGC
GTACCTGGGCTACCCGGTGACCAACGCGGTGATCACCGTGCCGGCCTACTTCAACGACTCGCAGCGCCAGGCCAC
CAAGGATGCGGGTGTGATCGCGGGGCTCAACGTGCTGCGGATCATCAACGAGCCCACGGCCGCCGCCATCGCCTA
CGGCCTGGACAGAACGGGCAAGGGGGAGCGCAACGTGCTCATCTTTGACCTGGGCGGGGGCACCTTCGACGTGTC
CATCCTGACGATCGACGACGGCATCTTCGAGGTGAAGGCCACGGCCGGGGACACCCACCTGGGTGGGGAGGACTT
TGACAACAGGCTGGTGAACCACTTCGTGGAGGAGTTCAAGAGAAAACACAAGAAGGACATCAGCCAGAACAAGCG
AGCCGTGAGGCGGCTGCGCACCGCCTGCGAGAGGGCCAAGAGGACCCTGTCGTCCAGCACCCAGGCCAGCCTGGA
GATCGACTCCCTGTTTGAGGGCATCGACTTCTACACGTCCATCACCAGGGCGAGGTTCGAGGAGCTGTGCTCCGA
CCTGTTCCGAAGCACCCTGGAGCCCGTGGAGAAGGCTCTGCGCGACGCCAAGCTGGACAAGGCCCAGATTCACGA
CCTGGTCCTGGTCGGGGGCTCCACCCGCATCCCCAAGGTGCAGAAGCTGCTGCAGGACTTCTTCAACGGGCGCGA
CCTGAACAAGAGCATCAACCCCGACGAGGCTGTGGCCTACGGGGCGGCGGTGCAGGCGGCCATCCTGATGGGGGA
CAAGTCCGAGAACGTGCAGGACCTGCTGCTGCTGGACGTGGCTCCCCTGTCGCTGGGGCTGGAGACGGCCGGAGG
CGTGATGACTGCCCTGATCAAGCGCAACTCCACCATCCCCACCAAGCAGACGCAGATCTTCACCACCTACTCCGA
CAACCAACCCGGGGTGCTGATCCAGGTGTACGAGGGCGAGAGGGCCATGACGAAAGACAACAATCTGTTGGGGCG
CTTCGAGCTGAGCGGCATCCCTCCGGCCCCCAGGGGCGTGCCCCAGATCGAGGTGACCTTCGACATCGATGCCAA
CGGCATCCTGAACGTCACGGCCACGGACAAGAGCACCGGCAAGGCCAACAAGATCACCATCACCAACGACAAGGG
CCGCCTGAGCAAGGAGGAGATCGAGCGCATGGTGCAGGAGGCGGAGAAGTACAAAGCGGAGGACGAGGTGCAGCG
CGAGAGGGTGTCAGCCAAGAACGCCCTGGAGTCCTACGCCTTCAACATGAAGAGCGCCGTGGAGGATGAGGGGCT
CAAGGGCAAGATCAGCGAGGCCGACAAGAAGAAGGTGCTGGACAAGTGTCAAGAGGTCATCTCGTGGCTGGACGC
CAACACCTTGGCCGAGAAGGACGAGTTTGAGCACAAGAGGAAGGAGCTGGAGCAGGTGTGTAACCCCATCATCAG
CGGACTGTACCAGGGTGCCGGTGGTCCCGGGCCTGGGGGCTTCGGGGCTCAGGGTCCCAAGGGAGGGTCTGGGTC
AGGCCCCACCATTGAGGAGGTAGAT**TAG**GGGCCTTTCCAAGATTGCTGTTTTTGTTTTGGAGCTTCAAGACTTTG
CATTTCCTAGTATTTCTGTTTGTCAGTTCTCAATTTCCTGTGTTTGCAATGTTGAAATTTTTTGGTGAAGTACTG
AACTTGCTTTTTTTCCGGTTTCTACATGCAGAGATGAATTTATACTGCCATCTTACGACTATTTCTTCTTTTTAA
TACACTTAACTCAGGCCATTTTTTAAGTTGGTTACTTCAAAGTAAATAAACTTTAAAATTCAAGTGA

FIGURE 617

GGGCCAGTTTGGAAAAAGATTACTGAGTTGGAGCCGTCTCAAATTTGCAGGGAGGGACGGGGTGGGGGGTGGGGG
GACCCCGGTTGTGCAGTTTGATATTGAGGGAGCCCCCACCTACTCGCTGGGGCTGCGTAATCTGGACGTTTCCAA
ACTGAAGCGAAGGCGTCGGGAGACTAGGCCTCAGAGAACC**ATG**GCTACTGCCAAGGGAATCGCCATAGGCATCGA
CCTGGGCACCACCTACTCCTGTGTGGGGGTGTTCCAGCACGGCAAGGTGGAGATCATCGCCAACGACCAGGGCAA
CCGCACCACCCCCAGCTACGTGGCCTTCACAGACACCGAGCGGCTCATTGGGGATGCGGCCAAGAACCAGGTAGC
AATGAATCCCCAGAACACTGTTTTTGATGCTAAACGTCTGATCGGCAGGAAATTTAATGATCCTGTTGTACAAGC
AGATATGAAACTTTGGCCTTTTCAAGTGATTAATGAAGGAGGCAAGCCCAAAGTCCTTGTGTCCTACAAAGGGGA
GAATAAAGCTTTCTACCCTGAGGAAATCTCTTCGATGGTATTGACTAAGTTGAAGGAGACTGCTGAGGCCTTTTT
GGGCCACCCTGTCACCAATGCAGTGATTACCGTGCCAGCCTATTTCAATGACTCTCAACGTCAGGCTACTAAGGA
TGCAGGTGTGATTGCTGGACTTAATGTGCTAAGAATCATCAATGAGCCCACGGCTGCTGCCATTGCCTATGGTTT
AGATAAAGGAGGTCAAGGAGAACGACATGTCCTGATTTTTGATCTGGGTGGAGGCACATTTGATGTGTCAATTCT
GACCATAGATGATGGGATTTTTGAGGTAAAGGCCACTGCTGGGGACACTCACCTGGGTGGGGAGGACTTTGACAA
CAGGCTTGTGAGCCACTTCGTGGAGGAGTTCAAGAGGAAACACAAAAAGGACATCAGCCAGAACAAGCGAGCCGT
GAGGCGGCTGCGCACCGCCTGCGAGAGGGCCAAGAGGACCCTGTCGTCCAGCACCCAGGCCAACCTAGAAATTGA
TTCACTTTATGAAGGCATTGACTTCTATACATCCATCACCAGAGCTCGATTTGAAGAGTTGTGTGCAGACCTGTT
TAGGGGTACCCTGGAGCCTGTAGAAAAAGCGCTTCGGGATGCCAAGATGGATAAGGCTAAAATCCATGACATTGT
TTTAGTAGGGGGCTCCACCCGCATCCCCAAGGTGCAGCGGCTGCTTCAGGACTACTTCAATGGACGTGATCTCAA
CAAGAGCATCAACCCTGATGAGGCCGTAGCATATGGGGCTGCGGTACAAGCAGCCATCCTGATGGGGGACAAGTC
TGAGAAGGTACAGGACCTGCTGCTGCTGGACGTGGCTCCCCTGTCCCTGGGGCTGGAGACGGCTGGGGGCGTGAT
GACTGCCCTGATAAAGCGCAACTCCACCATCCCCACCAAGCAGACACAGATTTTCACCACCTACTCTGACAACCA
ACCCGGGGGTGCTGATCCAGGTGTATGAGGGCGAGAGGGCCATGACAAAGGACAACAACCTGCTGGGGCGGTTTGA
CCTGACTGGAATCCCTCCAGCACCCAGGGGAGTTCCTCAGATCGAGGTGACGTTTGACATTGATGCCAATGGTAT
TCTCAATGTCACAGCCATGGACAAGAGCACCGGCAAGGTGAACAAGATCACCATCACCAATGACAAGGGCCGCCT
GAGCAAGGAGGAGATTGAGCGCATGGTTCTGGATGCTGAGAAATATAAAGCTGAAGATGAGGTCCAGAGGGAGAA
AATTGCTGCAAAGAATGCCTTAGAATCCTATGCTTTTAACATGAAGAGTGTTGTGAGTGATGAAGGTTTGAAGGG
CAAGATTAGTGAGTCTGATAAAAATAAAATATTGGATAAATGCAACGAGCTCCTTTCGTGGCTGGAGGTCAATCA
ACTGGCAGAGAAAGATGAGTTTGATCATAAGAGAAAGGAATTGGAGCAGATGTGTAACCCTATCATCACAAAACT
CTACCAAGGAGGATGCACTGGGCCTGCCTGCGGAACAGGGTATGTGCCTGGAAGGCCTGCCACAGGCCCCACAAT
TGAAGAAGTAGAT**TAA**TTCTTTTTAGAACTGAAGCATCCTAGGATGCCTCTACATGTATTTCATTCCCCTCATCT
TCAAACATCATTATTATTCTTGACCAGACCTGAATCTAAGTTACCATCCCTTGGAAATTCTGGAGAAGGAGTCTC
ATGCACCACCTATCACACTCCCTCACATCCTGTTTCTGACTTTGGAATGGACTCAGGAAAACTAGGCCCCTCTTT
AAACCGTGTGATGTATTTGAATGTCTGTTATTTCCAGCCACCCTAACATTCTTCTTCCTGTGTGGATGCTTATTT
GTCAATCAGTAAATTTGTTCGTAAAG

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FIGURE 618

GGCTTCCTCCTCCCCTCTACTCTACCCAGCTTGCGCTCCCCAGCCGCAAGTCGGCCGCGCTTTGCCCGTCAGCGC
TTGGAGCTTTCTGCGTCGCTTCCCGCTGCGCCTGCGCGGTCCCGCCTCGCCCCACGCGCGGGCTCGCGCTTCGGT
TTCCCCAGACCTGCTCGCAGCACCCTGCTGTCTTCCCGGTCCGGCCCGCTGCCCGCGGCGCCAGCACC**ATG**CTCT
TCTATTCTTTTTTCAAGTCCCTTGTGGGCAAGGATGTGGTCGTGGAACTAAAGAATGACCTGAGCATCTGTGGAA
CCCTCCATTCTGTGGATCAGTATCTCAACATCAAACTAACTGACATCAGTGTCACAGACCCTGAGAAATACCCTC
ACATGTTATCAGTGAAGAACTGCTTCATTCGGGGCTCAGTGGTCCGATACGTGCAGCTGCCAGCAGATGAGGTCG
ACACACAGTTGCTACAGGATGCGGCAAGGAAGGAAGCCCTGCAGCAGAAACAG**TGA**TGGCTCCTCCTCCTCTTCC
CCTCCCTCTTTCATTGGTGACCCATAACCCCAAGTCCCAGCCCAGAACCCCTAACCCCCAATACTTGAAGGGGTT
TTGTTTTTTTACTAATGATGGTTTTGTGGGTTTTTTTTAAGGGATGAGTGGATGAGAGGAGTAATAGGGAACAGC
TATCCTCTCTTGAGAAGGGGAGGATAAGTAGGCTGGGAAACTTCAAAGCCTTCCCAGTCCCCAGCACCTGCCTTT
CTCACTACTTCTCTGGAGATGGTAGGAGAGTTTCCTAGGTCTTTCCAGGGCAGCATGTGATTCATTTGGGGATGG
AAGGAATCTGTCCCGCATCGGGAATAAAATTTATGATGC

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FIGURE 619A

GTCACAAAGGGGGGAACACGTGGGCGCCGGCTGCCGGGGCGGCGATCTTAGGGAACTAGGGTCACCTGGAGAGCC
GCCCACCGTCTCTGCCCGCTCGACTCCTCCGCCCGGGCCGCTCGGCCGGTCCAGCCGCGGCCGGCGCCTGGCTGT
GAGGTGGATTCCCGGCCCAGTCTGACCATCTCCCTCCAGTTTTTCCACTTCGTTCGGACCTTCTCATAACT**ATGT**
CCACCCTCTACGTCTCCCCTCACCCAGATGCCTTCCCCAGCCTCCGAGCCCTCATAGCCGCTCGCTATGGGGAGG
CTGGGGAGGGTCCCGGATGGGGAGGAGCCCACCCCCGCATCTGTCTCCAGCCACCCCCGACTAGCAGGACTCCCT
TTCCCCCACCCCGCCTGCCGGCCCTGGAGCAGGGGCCCGGTGGGCTCTGGGTGTGGGGGGCCACGGCTGTGGCCC
AGCTGCTGTGGCCAGCAGGCCTGGGGGGCCCAGGGGGCAGCCGGGCGGCTGTCCTTGTCCAACAGTGGGTCAGTT
ACGCCGACACGGAGTTAATACCAGCTGCCTGTGGAGCAACGCTGCCGGCCCTGGGACTCCGAAGCTCGGCCCAGG
ACCCCCAGGCTGTGCTGGGGGCCCTGGGCAGGGCCCTGAGCCCCTTGGAGGAGTGGCTTCGGCTGCACACCTACT
TGGCCGGGGAGGCCCCCACTCTGGCTGACCTGGCGGCTGTCACAGCCTTGCTGCTGCCTTTCCGATACGTCCTAG
ACCCACCTGCCCGCCGGATCTGGAATAATGTGACTCGCTGGTTTGTCACGTGTGTCCGGCAGCCAGAATTCCGAG
CCGTGCTAGGAGAAGTGGTTCTATACTCAGGAGCCAGGCCTCTCTCTCATCAGCCAGGCCCCGAGGCTCCTGCCC
TCCCAAAGACAGCTGCTCAGCTCAAGAAAGAGGCAAAGAAACGGGAGAAGCTAGAGAAATTCCAACAGAAGCAGA
AGATCCAACAGCAGCAGCCACCTCCAGGGGAGAAGAAACCAAAACCAGAGAAGAGGGAGAAACGGGATCCTGGGG
TCATTACCTATGACCTCCCAACCCCACCCGGGGAAAAGAAAGATGTCAGTGGCCCCATGCCCGACTCCTACAGCC
CTCGGTATGTGGAGGCTGCCTGGTACCCTTGGTGGGAGCAGCAGGGCTTCTTCAAGCCAGAGTATGGGCGTCCTA
ATGTGTCAGCAGCAAATCCCCGAGGTGTCTTCATGATGTGCATCCCACCCCCCAATGTGACAGGCTCCCTGCACC
TGGGCCATGCACTCACCAACGCCATCCAGGACTCCCTGACTCGATGGCACCGCATGCGTGGGGAGACCACCCTGT
GGAACCCTGGCTGTGACCATGCAGGTATTGCCACCCAGGTGGTGGTGGAGAAGAAGCTATGGCGTGAGCAGGGAC
TGAGCCGGCACCAGCTGGGCCGCGAGGCCTTTCTACAGGAAGTCTGGAAGTGGAAGGAGGAGAAAGGTGACCGGA
TTTACCACCAGTTGAAGAAGCTTGGCAGCTCCTTGGACTGGGATCGAGCCTGTTTCACCATGGACCCTAAACTCT
CAGCAGCTGTGACAGAGGCCTTTGTCCGGCTTCACGAGGAAGGCATCATCTATCGCAGTACCCGCCTTGTTAACT
GGTCCTGCACCCTCAACTCCGCCATCTCTGACATTGAGGTGGATAAGAAGGAGCTGACAGGTCGCACCCTGCTCT
CCGTGCCTGGCTACAAGGAGAAGGTGGAGTTCGGGGTCCTCGTGTCCTTTGCCTATAAGGTCCAAGGCTCAGATA
GCGACGAGGAGGTGGTGGTGGCAACAACTCGGATCGAGACAATGCTGGGAGATGTGGCTGTAGCTGTGCACCCCA
AAGATACCAGATACCAGCACCTGAAGGGGAAGAACGTGATCCACCCATTCCTGTCTCGGAGCCTTCCCATTGTCT
TCGATGAATTTGTGGACATGGACTTTGGCACAGGTGCTGTGAAGATCACCCCCGCACATGACCAAAATGACTATG
AAGTTGGGCAGCGGCACGGGCTGGAGGCCATCAGCATCATGGACTCCCGGGGGGCCCTCATCAATGTGCCTCCGC
CTTTCCTGGGCCTGCCCAGGTTTGAGGCCAGGAAAGCGGTGCTGGTGGCGCTGAAGGAGCGGGGACTGTTCCGTG
GCATTGAGGACAACCCCATGGTGGTGCCACTTTGCAACCGGTCGAAGGACGTGGTAGAGCCTCTGCTGCGGCCGC
AGTGGTACGTTCGCTGCGGGGAGATGGCCCAGGCTGCCAGCGCCGCTGTGACTCGGGGTGACCTCCGCATCCTGC
CTGAGGCCCATCAGCGCACATGGCATGCCTGGATGGACAACATCCGGGAGTGGTGCATTTCCAGGCAGCTGTGGT
GGGGCCATCGCATCCCAGCCTACTTTGTCACTGTCAGTGACCCAGCGGTGCCCCCTGGGGAGGACCCTGATGGGC
GGTACTGGGTGAGTGGACGCAATGAGGCGGAGGCCCGGGAGAAGGCAGCCAAGGAGTTCGGAGTGTCCCCTGACA
AGATCAGTCTCCAGCAAGATGAGGATGTATTGGATACCTGGTTCTCCTCTGGCCTCTTCCCCTTATCCATTTTGG
GCTGGCCCAACCAGTCAGAAGACCTGAGTGTGTTCTACCCCGGGACACTGCTGGAGACCGGTCATGACATCCTCT
TCTTCTGGGTGGCCCGGATGGTCATGCTGGGCCTGAAGCTCACGGGCAGGCTGCCCTTTAGAGAGGTCTACCTCC
ATGCCATCGTGCGAGATGCTCACGGCCGGAAGATGAGCAAGTCTCTAGGCAATGTCATCGATCCCCTGGATGTCA
TCTATGGAATCTCCCTGCAGGGCCTCCACAACCAGCTGCTGAACAGCAACCTGGATCCCAGCGAGGTGGAGAAGG
CCAAAGAAGGGCAGAAAGCTGACTTCCCAGCGGGGATTCCTGAATGTGGCACCGATGCTCTCCGGTTTGGATTAT
GTGCCTACATGTCCCAGGGTCGTGACATCAACCTGGATGTGAACCGGATACTGGGTTACCGCCACTTCTGCAACA
AGCTCTGGAATGCCACCAAGTTTGCCCTTCGTGGCCTTGGGAAGGGTTTTGTGCCCTCACCCACCTCCCAGCCCG
GAGGCCATGAGAGCCTGGTGGACCGCTGGATCCGCAGCCGCCTGACAGAGGCTGTGAGGCTCAGCAATCAAGGCT
TCCAGGCCTACGACTTCCCGGCCGTCACCACTGCCCAGTACAGCTTCTGGCTCTATGAGCTCTGTGATGTCTACT
TGGAGTGCCTGAAACCTGTACTGAATGGGGTGGACCAGGTGGCAGCTGAGTGTGCCCGCCAGACCCTGTACACTT
GCCTGGACGTTGGCCTGCGGCTGCTCTCACCCTTCATGCCCTTCGTGACGGAGGAGCTGTTCCAGAGGCTGCCCC
GGAGGATGCCGCAAGCTCCCCCTAGCCTCTGTGTTACCCCCTACCCGGAGCCCTCAGAGTGCTCCTGGAAGGACC
CCGAGGCAGAAGCCGCCCTTGAGCTGGCGCTAAGCATCACGCGAGCCGTGCGCTCCCTGCGGGCCGACTACAACC

FIGURE 619B

TCACCCGGATCCGGCCTGACTGTTTCCTGGAAGTGGCGGATGAGGCCACGGGCGCCCTGGCATCGGCGGTGTCGG
GCTACGTGCAGGCCCTGGCCAGCGCAGGTGTGGTGGCTGTTCTGGCCCTGGGGGCTCCCGCCCCCCAGGGTTGCG
CTGTGGCTCTGGCTTCTGATCGCTGCTCCATCCACCTGCAGCTTCAGGGGCTGGTGGACCCTGCACGGGAGCTGG
GCAAGCTGCAAGCCAAGCGAGTTGAGGCCCAGCGGCAGGCCCAGCGTCTGCGGGAACGCCGTGCTGCCTCGGGCT
ATCCTGTCAAGGTGCCGCTCGAAGTCCAGGAGGCAGATGAAGCCAAGCTCCAACAGACAGAAGCAGAGCTCAGGA
AGGTGGATGAGGCCATCGCCCTATTCCAGAAGATGCTG**TGA**TCCACCACCCAGCTTCACCCCTCACCCCCAGCGG
CTCACCATGGGGATGGCAGCAATAAAATATTTTCCCACAAAA

FIGURE 620

ATGGGGAGCCAGGGCTCTGGCGGGGGTGCCCTTGGTGCAGGCTCCCTACACAGTCCTGCTGCTGCCGCTGGGGACA
AGCCGCCAAGACCCAGGGGCCCAGAGCTTCTTCCTTTGGCTACGCAGGATGCAGGCTCTGGAGAGAGAACAGGAT
GCCCTGTGGCAGGGTCTGGAGCTGCTACAGCATGGCCAGGCCTGGTTTGAAGACCATCTGAGGGAGGCACAGCGA
CAGCAGCTGCATCTAGGGGCCCTTGGTGAGAATTTTCTAACAGATTTACACTCAGAGCCTGGTCGCCCCCCGTTA
GCCCAGATTCAAAAGGTGAACATCTGTTTGCAGAATCTGATTCATGAGAAGGAGTTGTCAAGGCAGCAGAAAGGA
GTCACCCAGCCAAAGGAGGAGATGGCTCAGCGGGGCTGCACCAAGGGGCCAAGAGGCCCTACCCGTGTC**TAA**

FIGURE 621

GCGGCTCTCTGATCCAGCCCGGGAGAGGACCGAGCTGGAGGAGCTGGGTGTGGGGTGCGTTGGGCTGGTGGGGAG
GCCTAGTTTGGGTGCAAGTAGGTCTGATTGAGCTTGTGTTGTGCTGAAGGGACAGCCCTGGGTCTAGGGGAGAGA
GTCCCTGAGTGTGAGACCCGCCTTCCCCGGTCCCAGCCCCTCCCAGTTCCCCCAGGGACGGCCACTTCCTGGTCC
CCGACGCAACC**ATG**GCTGAAGAACAACCGCAGGTCGAATTGTTCGTGAAGGCTGGCAGTGATGGGGCCAAGATTG
GGAACTGCCCATTCTCCCAGAGACTGTTCATGGTACTGTGGCTCAAGGGAGTCACCTTCAATGTTACCACCGTTG
ACACCAAAAGGCGGACCGAGACAGTGCAGAAGCTGTGCCCAGGGGGGCAGCTCCCATTCCTGCTGTATGGCACTG
AAGTGCACACAGACACCAACAAGATTGAGGAATTTCTGGAGGCAGTGCTGTGCCCTCCCAGGTACCCCAAGCTGG
CAGCTCTGAACCCTGAGTCCAACACAGCTGGGCTGGACATATTTGCCAAATTTTCTGCCTACATCAAGAATTCAA
ACCCAGCACTCAATGACAATCTGGAGAAGGGACTCCTGAAAGCCCTGAAGGTTTTAGACAATTACTTAACATCCC
CCCTCCCAGAAGAAGTGGATGAAACCAGTGCTGAAGATGAAGGTGTCTCTCAGAGGAAGTTTTTGGATGGCAACG
AGCTCACCCTGGCTGACTGCAACCTGTTGCCAAAGTTACACATAGTACAGGTGGTGTGTAAGAAGTACCGGGGAT
TCACCATCCCCGAGGCCTTCCGGGGAGTGCATCGGTACTTGAGCAATGCCTACGCCCGGGAAGAATTCGCTTCCA
CCTGTCCAGATGATGAGGAGATCGAGCTCGCCTATGAGCAAGTGGCAAAGGCCCTCAAA**TAA**GCCCCTCCTGGGA
CTCCCTCAACCCCCTCCATTTTCTCCACAAAGGCCCTGGTGGTTTCCACATTGCTACCCAATGGACACACTCCAA
AATGGCCAGTGGGCAGGGAATCCTGGAGCACTTGTTCCGGGATGGTGTGGTGGAAGAGGGGATGAGGGAAAGAAA
TGGGGGGCCTGGGTCAGATTTTTATTGTGGGGTGGGATGAGTAGGACAACATATTTCAGTAATAAAATACAGAAT
AAAAATCAAGTGTTTTT

FIGURE 622

CCGCTTAGACAATGCCCCGGAGCCGCCAGACCGTCGCGCCCCTGCCCCATCGTAGTATATGAGCTCGCCTACACA
AGGACCCCCGCTAAAAGCCAGAGCTCCCAGTCCCCGAGGCTTGAAGACGGGGACTCCCTTCTCCACCAACTCTGT
CCTCGGGGGGGTGGGGCCCCAGCCGAGATCACAGCGCGACAGGAGTGGGGGTGGCCGCTGGAGACAGGTGAAGAAA
CAAGAAAACTAAGAAATCCGAGCGGTTGGAGGGGGAGTCTGTGTGGATGGG**ATG**GGGACGCCGGGGGAGGGGCTG
GGCCGCTGCTCCCATGCCCTGATCCGGGGAGTCCCAGAGAGCCTGGCGTCGGGGGAAGGTGCGGGGGCTGGCCTT
CCCGCTCTGGATCTGGCCAAAGCTCAAAGGGAGCACGGGGTGCTGGGAGGTAAACTGAGGCAACGACTGGGGCTA
CAGCTGCTAGAACTGCCACCTGAGGAGTCATTGCCGCTGGGACCGCTGCTTGGCGACACGGCCGTGATCCAAGGG
GACACGGCCCTAATCACGCGGCCCTGGAGCCCCGCTCGTAGGCCAGAGGTCGATGGAGTCCGCAAAGCCCTGCAA
GACCTGGGGCTCCGAATTGTGGAAATAGGAGACGAGAACGCGACGCTGGATGGCACTGACGTTCTCTTCACCGGC
CGGGAGTTTTTCGTAGGCCTCTCCAAATGGACCAATCACCGAGGAGCTGAGATCGTGGCGGACACGTTCCGGGAC
TTCGCCGTCTCCACTGTGCCAGTCTCGGGTCCCTCCCACCTGCGCGGTCTCTGCGGCATGGGGGGACCTCGCACT
GTTGTGGCAGGCAGCAGCGACGCTGCCCAAAAGGCTGTCCGGGCAATGGCAGTGCTGACAGATCACCCATATGCC
TCCCTGACCCTCCCAGATGACGCAGCTGCTGACTGTCTCTTTCTTCGTCCTGGGTTGCCTGGTGTGCCCCCTTTC
CTCCTGCACCGTGGAGGTGGGGATCTGCCCAACAGCCAGGAGGCACTGCAGAAGCTCTCTGATGTCACCCTGGTA
CCTGTGTCCTGCTCAGAACTGGAGAAGGCTGGCGCCGGGCTCAGCTCCCTCTGCTTGGTGCTCAGCACACGCCCC
CACAGC**TGA**GGGCCTGGCCTTGGGGTACTGCTGGCCAGGGGTAGGATAGTATAGGAAGTAGAAGGGGAAGGAGGG
TTAGATAGAGAATGCTGAATAGGCAGTAGTTGGGAGAGAGCCTCAATATTGGGGGAGGGGAGAGTGTAGGGAAAA
GGATCCACTGGGTGAATCCTCCCTCTCAGAACCAATAAAATAGAATTGACCTTTT

FIGURE 623

GCTGGAAGAGCAGCGGCCCGAGCCGGGGCC**ATG**GCGAAGCTGCTGAGCTGCGTCCTAGGCCCCCGGCTCTACAAA
ATCTACCGGGAGAGGGACTCTGAAAGGGCCCCGGCCAGCGTCCCTGAGACGCCAACGGCAGTCACTGCCCCCCAT
TCCAGCTCCTGGGATACGTACTATCAGCCCCGTGCCCTGGAGAAACATGCTGACAGCATCCTGGCACTGGCTTCA
GTATTCTGGTCCATCTCTTATTACTCCTCTCCCTTCGCCTTCTTCTACTTGTACAGGAAAGGTTACTTGAGTTTG
TCCAAAGTGGTGCCGTTTTCTCACTATGCTGGGACATTGCTGCTACTTCTGGCAGGTGTGGCCTGCCTCCGAGGC
ATTGGCCGCTGGACCAACCCCCAGTACCGGCAGTTCATCACCATCTTGGAAGCAACACATCGGAACCAGTCTTCA
GAAAACAAGAGGCAGCTTGCCAACTACAACTTTGACTTCCGGAGCTGGCCAGTCGACTTCCACTGGGAAGAACCC
AGCAGCCGGAAGGAGTCTCGAGGGGGCCCTTCCCGCCGGGGTGTGGCCCTGCTTCGCCCAGAGCCCCTGCACCGG
GGGACAGCAGACACCCTCCTCAACCGGGTTAAGAAGCTGCCTTGTCAGATCACCAGCTACCTGGTGGCGCACACC
CTAGGGCGCCGGATGCTGTATCCAGGCTCTGTGTACCTGCTGCAGAAGGCCCTCATGCCTGTGCTGCTGCAGGGC
CAGGCCCGACTGGTGGAAGAGTGTAATGGGCGCCGGGCAAAGCTGCTGGCCTGTGATGGCAATGAGATTGACACC
ATGTTTGTGGACCGGCGGGGGACAGCTGAGCCCCAGGGACAGAAGCTGGTGATCTGCTGTGAGGGGAATGCTGGG
TTTTATGAGGTGGGCTGCGTCTCCACGCCCCTGGAAGCTGGATATTCAGTCCTGGGCTGGAATCATCCAGGCTTT
GCTGGAAGCACGGGGGTGCCATTCCCGCAGAATGAGGCTAATGCCATGGATGTGGTGGTCCAGTTTGCCATCCAC
CGCCTGGGCTTCCAGCCCCAGGACATCATCATCTACGCCTGGTCCATCGGCGGCTTCACTGCCACGTGGGCAGCC
ATGTCCTACCCAGATGTTAGTGCCATGATCCTGGATGCCTCCTTTGATGACCTGGTGCCCTTGGCCTTGAAGGTC
ATGCCAGACAGCTGGAGGGGCCTGGTGACCAGGACCGTGAGGCAGCATCTCAATCTAAACAACGCGGAGCAGCTG
TGCAGATACCAGGGTCCTGTACTGCTGATCCGGAGAACCAAGGATGAGATCATCACCACCACGGTTCCTGAGGAC
ATCATGTCCAACCGAGGCAATGACCTCCTGCTGAAGCTCCTGCAGCATCGGTATCCCCGGGTGATGGCAGAGGAG
GGTCTTCGAGTGGTGAGGCAGTGGTTGGAGGCCTCCTCACAGCTGGAGGAAGCCTCAATTTATAGCCGATGGGAG
GTGGAAGAGGACTGGTGTCTGTCTGTCCTCCGCTCCTACCAGGCAGAACACGGGCCCGACTTCCCCTGGAGCGTG
GGGGAGGACATGAGTGCAGATGGACGGCGGCAGCTGGCTTTGTTTCTGGCTCGGAAGCATCTGCACAACTTTGAG
GCCACTCACTGCACCCCACTCCCAGCCCAGAACTTCCAGATGCCCTGGCACCTC**TAG**GGACCAACTGGGACTCAT
TATGGAAGAATGGGGTGAGAGGAGACATGAGGAAAGACCCTCTTATTTGTGATTCTCTGTGTTCATGTTGCTGTT
TATAGTTTGTGGAAAGTGGGGGACCATCCCCCTTCTCACCACTGTTCCTCTTGCACGTTTCCCCTCATTCATGTG
GCTGTACTTAACCTTCTCCAACATACATCCTGCATTACATGAATGGATTATTCCTAATAATTAATAAAAAGGTAT
TTTTTCTACT

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FIGURE 624

GGAGGAAGCGACCAGGTCCGGCACGAAGGAGGGAGAGGTGGCCTGAGGAGCGGAGGGGGGATGTGTGGATTCCGG
TGAAAGGGACCTGACAATCGCCCCCAACCCCTGACGTGAAG**ATG**AGCAGCTCAGAGGAGGTGTCCTGGATTTCCT
GGTTCTGTGGGCTCCGTGGCAATGAATTCTTCTGTGAAGTGGATGAAGACTACATCCAGGACAAATTTAATCTTA
CTGGACTCAATGAGCAGGTCCCTCACTACCGACAAGCTCTAGACATGATCTTGGACCTGGAGCCTGATGAAGAAC
TGGAAGACAACCCCAACCAGAGTGACCTGATTGAGCAGGCAGCCGAGATGCTTTATGGATTGATCCACGCCCGCT
ACATCCTTACCAACCGTGGCATCGCCCAGATGTTGGAAAAGTACCAGCAAGGAGACTTTGGTTACTGTCCTCGTG
TGTACTGTGAGAACCAGCCAATGCTTCCCATTGGCCTTTCAGACATCCCAGGTGAAGCCATGGTGAAGCTCTACT
GCCCCAAGTGCATGGATGTGTACACACCCAAGTCATCAAGACACCATCACACGGATGGCGCCTACTTCGGCACTG
GTTTCCCTCACATGCTCTTCATGGTGCATCCCGAGTACCGGCCCAAGAGACCTGCCAACCAGTTTGTGCCCAGGC
TCTACGGTTTCAAGATCCATCCGATGGCCTACCAGCTGCAGCTCCAAGCCGCCAGCAACTTCAAGAGCCCAGTCA
AGACGATTCGC**TGA**TTCCCTCCCCCACCTGTCCTGCAGTCTTTGACTTTTCCTTTCTTTTTTGCCACCCTTTCAG
GAACCCTGTATGGTTTTTAGTTTAAATTAAAGGAGTCGTTATTGTGGTGGGAATATGAAATAAAGTAGAAGAAAA
GGCC

FIGURE 625

GTGACGTTATTTCATTACACGGCTTCTCGGCATTCCACAGGTTTCCCTCCGCCTCCTGAGGGCCTTTCCTAACCC
ACAGAGTGGATTCCTGGCTCCAGAAAATGGGCTTGGAGCGGGGGCCACGTTGAGGAAGGCGAAGGGCATTGTGGG
GGCGTTATGTAAAAGTAGGACCCCAACCGACAGATCCTAGTGCTCGCGCCACCTGGGCGCGCGGAGCTTTGCTCG
TTTACTATTGAAAAAGTTCCAGCGCGGGAAACTGAACCCGGAGCTTTGCGCACGCCCGAGCCCTCAAGTAATGTG
GGTTGTGGTTTTTGTTGTTGTTGTCGCCACGCATGCGTCTTCGTGCCGTGTGGCTATTTGATTGTGTCAACTCTT
CTGATTAGAATGGCGCCATTTTGCGGTACGGAAGCTACACAGCAACACGTATAGGAGACTCTCCCCGAGATCTTC
TAGGGAGTGACCCATCTATTTTTGTTTGGGAAGAGGAAACTCCGAAATGGGATCGCGGAAGACTTAAAGGGCCAG
GCTGATTTTTTTTTCCTACTGGTCTCTGAGGCTGTGGTTGCTACAGGGTCACCACGAGCTTGGCTTACTTGTCTC
ATCCTTCCCTTGCCTGGTATCATTTTCTCAGTTCTCCCAAAAGCC**ATG**TCCCGGCCCTTGCTCATCACCTTCACC
CCAGCCACTGACCCCAGCGACCTCTGGAAGGATGGGCAGCAGCAGCCACAGCCCGAGAAGCCAGAGTCCACCCTG
GATGGGGCTGCAGCCCGAGCTTTCTATGAGGCCCTGATTGGGGATGAGAGCAGCGCTCCTGACTCCCAGAGATCT
CAGACTGAACCTGCCAGAGAAAGAAAGAGAAAGAAAAGAAGAATAATGAAGGCACCAGCAGCAGAAGCAGTGGCA
GAAGGAGCATCAGGAAGACATGGACAAGGGAGATCCCTTGAGGCTGAGGATAAGATGACTCACCGGATACTGAGG
GCAGCCCAGGAGGGGGACCTGCCAGAACTTAGGAGACTGCTGGAACCGCATGAGGCAGGAGGAGCTGGGGGGAAT
ATCAACGCCCGGGATGCCTTCTGGTGGACCCCACTGATGTGTGCTGCTCGAGCGGGCCAGGGGGCAGCTGTGAGC
TATCTCCTGGGCCGTGGGGCTGCCTGGGTGGGGGTCTGTGAGCTGAGTGGCAGGGATGCGGCTCAGCTCGCTGAA
GAAGCTGGCTTCCCTGAGGTAGCCCGCATGGTCAGGGAGAGCCATGGAGAGACAAGGAGCCCGGAAAACCGGTCT
CCTACTCCCTCCCTCCAGTACTGCGAGAACTGTGACACCCACTTCCAAGATTCCAACCACCGCACATCCACTGCT
CACCTGCTGTCACTGTCGCAGGGTCCTCAGCCTCCCAACCTTCCACTTGGGGTGCCCATCTCCAGCCCGGGCTTC
AAACTGCTGCTGAGGGGGGGCTGGGAGCCAGGAATGGGGCTGGGACCCCGGGGTGAGGGCCGTGCCAATCCCATC
CCCACTGTCCTCAAGAGAGACCAGGAAGGACTAGGCTACAGATCAGCACCCCAGCCCCGAGTGACACATTTCCCA
GCTTGGGATACCCGAGCTGTGGCTGGGAGGGAGAGACCCCCTCGGGTGGCCACACTGAGCTGGAGGGAGGAGAGA
AGGAGGGAGGAGAAAGACAGGGCTTGGGAGCGGGATCTAAGGACTTACATGAACCTCGAGTTC**TGA**CTTTGGTAA
AGTCTGACCCTAGTCTGCTGCTGAAGTCTGAACTTGGGCCTCTGACCTGGGCCCTTTGACTTCCCCTTCCTGGGA
TCTGCCCAGATGCAGATCCTGAAGTTTTTGGTCAATAGGCTCTGTCTTCGTGAGAGACGGGCTGAGAGTCAGAAA
TAAATCAACCATTTGTGGTTT

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FIGURE 626

CCCAAGGCCGCGGCCCCGACGCTGGGCCCGGGAGCGGTCCCCGCGCACAGCGCCCGGACGCGTAGGTCCCGAAGT
AGGCCCGCGCTTTGCTTCGTAACTGGGGATCTCTGAGGACATCTTAGTTCTGACCTTGTGGAGGCCGCGTCTCTG
CTGCGTGTTCGCGGGCCAGTCGGGCCACTTTGTAGAAATCATAGCCCTCTAAATCAAGGGACGAACGCTGCTGGC
TGGAGTTTGCTGGACACTTTCATTCCACCTCCTAACAAAGAGAATTCCTATTCCTTGAGGTCCCTTGGGGCAGCA
GTTAAAGACTACACGATCCAGGAGCACCTAGGACCTGGGGCCACCTTCCTGCCCGCTTTATTGGATGGAGCACTG
CCTCCCCAGTTTCTGGGACACCGTGGGGTGTGGCCTTGGTGAGTGAAACTTGGGGTGCTGCCTGCTGGGAAGGAA
ATCCGGAAACGCAGAGAGGACTCTCTGGTGGTGACCCAGGCCTTGTCAGATCTGAGATTCTTGGAATCTCAGATT
GTGGGGGTGTGGATGGTGAATGAATTTGGGTATGCCCCCCTTTACCCCAGAACTGAAGAGGAAGCAAACTACTTG
CCACACTTGAGGCTGCATGACTATTCAGAGAAGGGAGGAGCCACTTCTGAATTCAGAGTAGGACTGCATCACCAG
GCAAATACCTGTTCTGAGCCAGAAAGACTCTGGCTTCTGAGGAGATCCTGAGAGTCTGAGTAGTGCCAGGAAGCA
GCCTCAGAATTTGGGGGCCCATTACACACCCCAGCC**ATG**TTCCTGCGACGGCTTGGTGGCTGGCTACCTCGCCCT
TGGGGCCGCCGGAAACCAATGAGGCCTGACCCGCCTTACCCAGAACCCAGACGGGTGGACAGCTCCTCGGAGAAT
TCAGGAAGTGACTGGGATAGTGCCCCAGAAACCATGGAAGATGTGGGGCATCCCAAGACTAAGGACTCGGGGGCA
TTGAGGGTTTCTAGGGCTGCTTCCGAACCAAGCAAGGAGGAGCCCCAAGTTGAGCAGCTAGGGAGCAAAAGAATG
GATTCCCTCAAGTGGGACCAGCCTATCTCTAGCACTCAAGAGTCTGGGAGACTGGAGGCTGGAGGGGCCAGTCCC
AAACTCAGATGGGATCATGTGGATTCAGGTGGCACCAGGAGACCAGGGGTGTCCCCTGAAGGGGGACTGAGCGTC
CCTGGGCCAGGAGCCCCATTGGAGAAACCTGGTAGGCGTGAGAAGCTGTTGGGCTGGCTGCGGGGGGAACCAGGA
GCTCCCTCCCGGTACTTGGGGGGCCCAGAAGAGTGTCTGCAGATCTCCACCAACCTGACCCTGCATCTTCTGGAG
CTGCTGGCCTCTGCCCTGCTGGCCCTGTGCTCACGACCACTGCGGGCAGCCTTGGACACACTGGGCCTGCGTGGA
CCGCTGGGCCTCTGGCTACATGGCCTACTGTCCTTCCTGGCTGCCCTGCATGGGCTCCATGCTGTTCTGAGCCTA
CTTACTGCCCACCCTTTGCACTTCGCCTGCCTCTTTGGTCTCCTGCAGGCCTTGGTGCTGGCTGTCAGCCTCCGG
GAGCCCAATGGGGATGAGGCGGCCACTGACTGGGAGAGTGAGGGGTTGGAGAGGGAAGGTGAGGAGCAGAGGGGA
GACCCGGGAAAGGGGCTG**TGA**CCGTGGGGTGGGGGCAAAGGGTGAAGAGAGTGTGGGCTTTAGGAGAAAAGTGTG
AGGCATGACCCAAATTGTAAGCATAGGGACCTCAGGGATGGGGAAGAAACCCGAGTACGAGGGTGCAGGGCCCCC
CTTCATACACAGGAGAGAACAGAACTATTTAGGGTGTTTGTGTTTATGGACAGTGAGGGCACTGCTCTTGGATTC
ACCAGCTGTTATTTTTGCTTTTACTTTTCTCCCACCTTCAGTTTTTTTTTTTTTTTCCACCTCCACTTTTTAAAA
GCAAAAAAAAAAAAAAGTATGATGGTGGTGAATAAAGACCAAAGGGTCCTCTCTACCTTTGAAAACTCTCCTGGG
GTGGAGGAGACCAGGGCAGGATAGACAGACCTCTGCAGTAAGAGAGTGGTTGGGAAACCCAGGGTGTTCCTTGGA
TCTCAGGATCTGAGCCATCGAGGGAAGAGTGGGGCTGCTAGGCAAGTGGATTAGGGGGTCTGGATAGGGCCCCAC
AGGTGACAGGGAGCCTGCAGGGCGGATCTGGTGATCATGGGAGCCAGAGGGAGTGGGGACAGTGCAGGCAGTATT
GGCAGGAGGGCCAGTGCAGAAGGGCTGGTAGCTCAGGCAGTGTGGGGGAAGCACTGAAGCCTGTAGTCCCCACTT
GGGGGCTAGGGGTTTGCTCACTCAGCAATAAATAACTGTGTCACATCAAATCCTAAATATACCACTACAAAGTGA
GAGTTACTGCCACTCTGTTCTTACTGACACCGTCCAG

FIGURE 627A

TAGTGCGACGCACGCAGGCGTAGTACGGTCCCCCGGGCGACAGCGGTGGCGGCTCCTCGGGGTGCTCGGCTCCCT
CCCACCTAGGCCGGCCCCGGCCCGACTCGCCCTCAGAAACTCACTGTTTGGGGCTGCGGACTTTCTCGTCGTGCC
CCACAAAAGTAAAGCTTGGGGACCTGGGGGGAGCCGGAAGTATCGCTTCGAGATCCCCAAATACTATCGGGGAAA
CGGAAGTGGCCGTCGGTGGCAGGTTTGGGGGAGACCGGAAGTGACGAGACCTGTCGGCC**ATG**GAGCCTAATGATA
GTACCAGTACCGCTGTGGAGGAGCCTGACAGCTTGGAGGTGTTGGTGAAGACCTTGGACTCTCAAACTCGTACCT
TTATTGTGGGGGCCCAGATGAATGTAAAAGAGTTTAAGGAGCACATTGCTGCCTCTGTCAGCATCCCATCTGAAA
AACAACGGCTCATTTACCAGGGACGAGTTCTGCAAGATGATAAGAAGCTTCAGGAATACAATGTTGGGGGAAAGG
TTATCCACCTGGTGGAACGGGCTCCTCCTCAGACTCACCTCCCTTCTGGGGCATCTTCTGGGACGGGGTCTGCCT
CAGCCACTCATGGTGGGGGATCCCCCCCTGGTACTCGGGGGCCTGGGGCCTCTGTTCATGACCGGAATGCCAACA
GCTATGTCATGGTTGGAACCTTCAATCTTCCTAGTGACGGCTCTGCTGTGGATGTTCACATCAACATGGAACAGG
CCCCGATTCAGAGTGAGCCCCGGGTACGGCTGGTGATGGCTCAGCACATGATCAGGGATATACAGACCTTACTAT
CCCGGATGGAGACTCTCCCCTACCTTCAGTGTCGAGGAGGGCCCCAACCGCAGCACAGTCAGCCGCCCCCGCAGC
CACCGGCTGTGACCCCGGAGCCAGTAGCCTTGAGCTCTCAAACATCAGAACCAGTTGAAAGTGAAGCACCTCCCC
GGGAGCCCATGGAGGCAGAAGAAGTGGAGGAGCGTGCCCCAGCCCAGAACCCGGAGCTCACTCCTGGCCCAGCCC
CAGCGGGCCCAACACCTGCCCCGGAAACAAATGCACCCAACCATCCTTCCCCTGCGGAGTATGTCGAGGTGCTCC
AGGAGCTACAGCGGCTGGAGAGTCGCCTCCAGCCCTTCTTGCAGCGCTACTACGAGGTTCTGGGTGCTGCTGCCA
CCACGGACTACAATAACAATCACGAGGGCCGGGAGGAGGATCAGCGGTTGATCAACTTGGTAGGGGAGAGCCTGC
GACTGCTGGGCAACACCTTTGTTGCACTGTCTGACCTGCGCTGCAATCTGGCCTGCACGCCCCCACGACACCTGC
ATGTGGTCCGGCCTATGTCTCACTACACCACCCCCATGGTGCTCCAGCAGGCAGCCATTCCCATACAGATCAATG
TGGGAACCACTGTGACCATGACAGGAAATGGGACTCGGCCCCCCCCAACTCCCAATGCAGAGGCACCTCCCCCTG
GTCCTGGGCAGGCCTCATCCGTGGCTCCGTCTTCTACCAATGTCGAGTCCTCAGCTGAGGGGGCTCCCCCGCCAG
GTCCAGCTCCCCCGCCAGCCACCAGCCACCCGAGGGTCATCCGGATTTCCCACCAGAGTGTGGAACCCGTGGTCA
TGATGCACATGAACATTCAAGATTCTGGCACACAGCCTGGTGGTGTTCCGAGTGCTCCCACTGGCCCCCTGGGAC
CCCCTGGTCATGGCCAAACCCTGGGACAGCAGGTGCCAGGCTTCCCAACAGCTCCAACCCGGGTGGTGATTGCCC
GGCCCACTCCTCCACAGGCTCGGCCTTCCCATCCTGGAGGGCCCCCAGTCTCTGGGACACTGCAGGGCGCCGGTC
TGGGTACCAATGCCTCGTTGGCCCAGATGGTGAGCGGCCTTGTGGGGCAGCTTCTTATGCAGCCAGTCCTTGTGG
CTCAGGGGACCCCAGGTATGGCTCCACCGCCAGCCCCTGCCACTGCTTCTGCCAGTGCTGGCACCACCAACACAG
CTACCACAGCTGGCCCCGCTCCTGGGGGGCCTGCCCAGCCTCCACCCACCCCTCAACCCTCCATGGCTGATCTTC
AGTTCTCTCAGCTTCTGGGGAACCTGCTAGGGCCTGCAGGGCCAGGGGCTGGAGGGTCTGGTGTGGCTTCTCCCA
CCATCACTGTGGCGATGCCTGGTGTCCCTGCCTTTCTCCAAGGCATGACTGACTTCTTGCAGGCAACACAGACAG
CCCCTCCACCACCCCCACCTCCTCCACCCCCACCACCTGCCCCAGAGCAGCAGACCATGCCCCCACCAGGCTCCC
CTTCTGGTGGCGCAGGGAGTCCTGGAGGCCTGGGTCTTGAGAGCCTGTCACCGGAGTTTTTTACCTCAGTGGTGC
AGGGTGTGCTCAGCTCCCTGCTGGGCTCCCTGGGGGCTCGGGCTGGCAGCAGTGAAAGTATTGCTGCCTTCATAC
AACGCCTCAGTGGATCCAGCAACATCTTTGAGCCTGGAGCTGATGGGGCCCTTGGATTCTTTGGGGCCTTGCTTT
CTCTTCTGTGCCAGAACTTCTCTATGGTGGACGTAGTGATGCTTCTCCATGGGCATTTCCAGCCACTACAACGGC
TCCAGCCCCAGCTGCGATCCTTCTTCCACCAGCACTACCTGGGTGGTCAGGAGCCCACACCCAGTAACATCCGGA
TGGCAACCCACACATTGATCACGGGGCTAGAAGAGTATGTGCGGGAGAGTTTTTCCTTGGTGCAGGTTCAGCCAG
GTGTGGACATCATCCGGACAAACCTGGAATTTCTCCAAGAGCAGTTTAATAGCATTGCTGCGCATGTGCTGCATT
GCACAGATAGTGGATTTGGGGCCCGGTTGCTGGAGTTGTGTAACCAAGGCCTGTTTGAATGCCTGGCCCTAAACC
TGCACTGCTTGGGGGGACAGCAGATGGAGCTTGCTGCTGTTATCAATGGCCGAATTCGTCGTATGTCTCGTGGGG
TGAATCCCTCCTTGGTGAGCTGGCTGACCACTATGATGGGACTGAGGCTTCAGGTGGTACTGGAGCACATGCCTG
TAGGCCCTGATGCCATTCTCAGATACGTTCGCAGGGTTGGTGATCCCCCCCAGCCACTTCCTGAGGAGCCAATGG
AAGTTCAGGGAGCAGAAAGAGCTTCCCCTGAGCCTCAGCGGGAGAATGCTTCCCCAGCCCCTGGAACAACAGCAG
AAGAGGCCATGTCCCGAGGTCCACCTCCTGCTCCTGAGGGGGGCTCCCGGGATGAACAGGATGGAGCTTCAGCTG
AGACAGAACCTTGGGCAGCTGCAGTCCCCCCAGAATGGGTCCCTATTATCCAGCAGGACATTCAGAGCCAGCGGA
AGGTGAAACCGCAGCCCCCTCTGAGTGATGCCTACCTCAGTGGTATGCCTGCCAAGAGACGCAAGACGATGCAGG
GTGAGGGCCCCCAGCTGCTTCTCTCAGAGGCTGTGAGCCGGGCAGCTAAGGCAGCCGGAGCTCGGCCCCTGACGA
GCCCCGAGAGCCTGAGCCGGGACCTGGAGGCACCAGAGGTTCAGGAGAGCTACAGGCAGCAGCTCCGGTCTGATA

FIGURE 627B

TACAAAAACGACTGCAGGAAGACCCCAACTACAGTCCCCAGCGCTTCCCCAATGCCCAGCGGGCCTTTGCTGATG
ATCCT**TAG**CTCTTTGCTCTATGGCCCTTCCTCATCAGGGGACCGTTTCCCCCCTCTTCCTTCACAGTATTTAAGA
AATAAAAGTCGGATTTTTCTGGC

FIGURE 628A

CCCTAGGCCCGGGTCCCGGATCCCCGCGCACCCGGCCAGGCTCTGGCACGTTTTGGGGGAGGTGCCTGCAGGACC
CAACATACTCAATGAGCTTCCAGCGCA**ATG**TCCGATCGCTCGGGGCCGACTGCCAAGGGAAAGGATGGAAAGAAG
TATTCCTCGCTCAACCTGTTTGATACGTATAAGGGCAAGTCCTTAGAGATCCAGAAACCCGCTGTTGCCCCTCGC
CATGGCCTGCAGAGTCTCGGGAAAGTTGCCATTGCCCGGCGTATGCCACCTCCAGCCAACCTTCCAAGCCTGAAA
GCCGAGAACAAAGGCAATGACCCCAATGTCTCACTAGTGCCAAAAGACGGAACAGGATGGGCAAGCAAACAGGAG
CAGTCCGACCCCAAGAGTTCCGATGCCTCAACCGCTCAGCCGCCGGAATCGCAGCCACTGCCGGCTTCACAGACG
CCTGCCTCCAACCAGCCGAAACGACCCCCAGCAGCCCCCGAGAACACTCCTTTGGTTCCAAGCGGGGTAAAGTCC
TGGGCACAAGCCAGCGTCACCCATGGAGCACATGGAGATGGTGGAAGGGCATCAAGCCTACTGTCACGATTCTCT
CGAGAGGAATTTCCGACCCTGCAGGCGGCTGGCGACCAGGACAAGGCTGCCAAGGAAAGGGAGTCTGCCGAACAG
TCGTCTGGGCCCGGACCAAGCCTCCGCCCCCAAAATTCTACAACTTGGAGGGACGGAGGTGGGCGTGGCCCTGAT
GAGCTGGAGGGCCCGGACTCCAAACTTCATCATGGTCATGATCCCCGGGGTGGGCTACAGCCTTCAGGCCCACCC
CAGTTCCCTCCCTACCGCGGAATGATGCCGCCTTTCATGTATCCCCCATATCTCCCGTTCCCTCCGCCCTATGGA
CCCCAGGGGCCTTACCGATACCCCACTCCTGATGGGCCCAGCCGTTTTCCCCGTGTGGCGGGCCCCCGAGGCTCA
GGGCCACCAATGCGCTTAGTAGAGCCTGTGGGTCGTCCCTCTATTCTCAAAGAGGATAATCTCAAAGAGTTTGAT
CAGTTGGATCAGGAGAATGATGATGGTTGGGCAGGGGCCCATGAAGAGGTTGACTACACTGAAAAGCTCAAGTTC
AGCGATGAGGAAGATGGGCGAGACTCTGATGAGGAGGGAGCTGAGGGCCACAGGGATTCCCAATCAGCTTCTGGT
GAGGAACGGCCCCCTGAAGCAGATGGCAAAAAGGGCAACTCCCCCAACAGCGAACCGCCCACTCCTAAGACGGCC
TGGGCAGAAACCTCTCGGCCTCCAGAGACAGAGCCGGGACCTCCTGCCCCAAAGCCTCCCCTACCCCCACCTCAC
CGGGGCCCCGCCGGGAACTGGGGCCCCCCTGGGGACTACCCAGATCGTGGGGGTCCTCCCTGCAAGCCCCCAGCA
CCTGAAGATGAGGATGAGGCATGGCGGCAGCGACGAAAGCAGTCGTCATCTGAGATTTCCCTGGCAGTGGAGCGG
GCCCGGCGACGGCGAGAAGAAGAGGAGCGGCGCATGCAAGAAGAGCGCCGGGCAGCCTGTGCTGAGAAGCTCAAG
CGACTCGATGAAAAGTTTGGGGCACCTGACAAGCGGCTCAAAGCAGAGCCTGCTGCCCCACCTGCTGCCCCTTCT
ACCCCAGCTCCACCACCTGCAGTCCCTAAAGAACTCCCTGCACCTCCAGCTCCACCTCCAGCATCAGCCCCAACA
CCAGAGAAAGAACCTGAAGAGCCAGCACAGGCCCCTCCTGCCCAATCTACTCCTACTCCAGGTGTGGCTGCGGCT
CCCACTCTGGTGAGTGGTGGTGGCAGTACCAGTAGCACCAGCAGTGGCAGCTTCGAAGCCAGCCCAGTGGAACCA
CAACTGCCCTCAAAAGAGGGTCCTGAACCACCAGAAGAGGTTCCTCCTCCTACCACACCCCCAGTTCCAAAGGTG
GAACCCAAGGGTGATGGGATTGGTCCCACCCGCCAGCCCCCTAGTCAGGGCTTGGGCTACCCCAAATATCAGAAG
TCGTTGCCTCCTCGTTTCCAGCGGCAGCAGCAGGAGCAGCTCCTGAAGCAGCAGCAGCAGCACCAGTGGCAGCAG
CATCAACAGGGCTCTGCCCCTCCTACCCCAGTGCCCCCATCACCACCACAGCCTGTGACCCTGGGGGCTGTGCCA
GCTCCACAGGCTCCACCCCCGCCCCCCAAGGCCCTGTACCCAGGTGCTCTGGGCCGGCCCCCACCCATGCCCCCA
ATGAACTTTGATCCCCGATGGATGATGATTCCTCCTTATGTGGACCCCCGGCTCCTCCAGGGTCGTCCCCCTCTA
GACTTCTACCCTCCTGGTGTGCATCCCTCTGGCCTAGTTCCCCGAGAGCGTTCAGACAGTGGGGGCTCAAGCTCA
GAGCCATTTGACCGTCATGCACCTGCTATGTTACGGGAACGGGGCACTCCACCGGTGGATCCAAAGTTGGCCTGG
GTAGGAGATGTCTTCACCGCCACACCCGCTGAACCCCGCCCACTTACCTCACCTCTGCGCCAGGCTGCGGATGAG
GATGACAAGGGGATGAGGAGCGAGACTCCTCCAGTACCTCCCCCACCACCCTATCTGGCCAGTTATCCAGGCTTT
CCTGAGAATGGAGCCCCTGGGCCCCCAATCTCTCGCTTTCCTCTGGAGGAACCAGGGCCCCGTCCACTCCCCTGG
CCCCCAGGCAGTGATGAAGTGGCCAAGATACAAACTCCACCACCCAAGAAGGAGCCCCCTAAGGAGGAGACTGCA
CAGCTGACGGGGCCAGAAGCAGGCCGAAAGCCTGCCCGCGGAGTCGGGAGTGGAGGCCAGGGCCCCCCACCACCA
CGCAGAGAGAGTCGCACAGAGACCCGCTGGGGCCCTCGTCCAGGGAGCAGTCGTCGTGGAATCCCTCCAGAGGAG
CCAGGGGCCCCACCCCGCCGGGCTGGGCCTATAAAGAAACCTCCACCACCTACAAAAGTAGAAGAGCTGCCTCCC
AAGCCCCTCGAACAGGGGGATGAAACCCCCAAACCCCCAAAGCCAGACCCACTCAAGATAACCAAGGGGAAGCTA
GGGGGCCCCAAGGAGACCCCACCCAATGGAAATCTTTCCCCTGCCCCAAGGCTTCGGAGGGACTATTCGTATGAA
AGAGTGGGTCCTACCTCTTGCCGGGGTCGGGGCCGAGGCGAGTATTTTGCCAGAGGGAGGGGTTTTCGGGGGACC
TATGGGGGACGAGGGCGGGGAGCCCGAAGCCGGGAATTCCGCAGTTACCGAGAGTTTCGAGGAGATGATGGGCGT
GGAGGTGGGACAGGGGGACCAAACCACCCTCCTGCTCCCCGAGGCCGCACTGCCAGCGAGACACGGAGCGAGGGT
TCAGAGTATGAGGAAATCCCCAAGCGGCGCCGGCAGCGGGGCTCAGAAACAGGCAGCGAGACCCATGAGAGTGAT
CTGGCTCCTTCAGACAAGGAGGCTCCCACACCCAAGGAGGGAACACTCACCCAGGTCCCTCTCGCTCCCCCACCA
CCAGGAGCCCCACCTTCACCAGCCCCAGCCCGCTTCACTGCCCGGGGTGGGCGAGTCTTCACTCCCAGAGGGGTG

FIGURE 628B

CCATCTCGCCGGGGCCGAGGAGGAGGGAGGCCCCCTCCTCAAGTTTGCCCAGGCTGGAGCCCTCCAGCCAAGTCT
CTGGCTCCCAAGAAACCTCCCACAGGCCCTTTGCCACCAAGTAAGGAGCCTTTGAAAGAGAAGTTGATCCCAGGG
CCTCTGTCCCCTGTGGCGCGCGGAGGCAGCAATGGAGGTAGCAATGTGGGCATGGAAGATGGGGAGCGACCCCGA
AGGAGGCGACATGGGAGGGCTCAGCAGCAGGATAAACCGCCTCGTTTCCGGAGGCTGAAGCAGGAACGGGAGAAT
GCCGCAAGGGGGTCTGAGGGCAAGCCCTCCCTAACCCTTCCAGCCTCCGCTCCTGCACCTGAGGAGGCCCTCACA
ACAGTCACAGTGGCCCCAGCACCTCGCCGGGCAGCTGCCAAGTCTCCTGATCTGTCAAACCAGAACTCAGACCAA
GCCAATGAGGAATGGGAGACTGCATCAGAGAGCAGTGACTTCACCAGTGAGCGCCGAGGGGACAAAGAGGCACCC
CCACCAGTACTGCTGACACCCAAGGCTGTGGGAACTCCTGGGGGAGGTGGAGGTGGAGCCGTACCAGGTATTTCA
GCCATGTCCCGCGGAGATCTGAGCCAGAGAGCCAAGGATTTGAGTAAACGGAGCTTCTCAAGTCAGCGGCCAGGC
ATGGAACGGCAGAATCGGCGCCCTGGCCCAGGGGGCAAGGCTGGCAGCAGTGGCAGCAGCAGTGGAGGAGGCGGT
GGGGGTCCTGGAGGAAGGACCGGGCCAGGACGAGGCGACAAGAGGAGCTGGCCCTCTCCCAAGAACCGAAGTCGT
CCTCCAGAGGAGCGTCCCCCGGGGCTTCCCCTGCCTCCCCCACCTCCCAGCAGTTCTGCTGTCTTCCGCCTGGAC
CAAGTTATCCACAGCAACCCTGCTGGCATCCAACAGGCTCTGGCCCAGCTTAGTAGCCGTCAAGGGAGTGTAACT
GCACCAGGGGGTCATCCAAGGCACAAGCCTGGGCCTCCCCAAGCCCCTCAGGGCCCCTCTCCTAGGCCCCCAACC
CGATACGAGCCCCAGAGGGTCAACAGCGGCCTCAGTTCTGACCCCCACTTTGAGGAGCCGGGGCCAATGGTGAGA
GGGGTGGGTGGGACTCCTCGGGACTCTGCCGGGGTTAGTCCCTTTCCCCCTAAACGTCGGGAGCGGCCTCCCAGA
AAACCAGAGCTGCTACAGGAGGAATCTTTGCCACCTCCTCATAGCTCTGGATTCTTGGGCTCTAAGCCTGAGGGC
CCAGGCCCTCAGGCAGAGTCCAGAGATACAGGCACAGAGGCCCTGACCCCTCACATCTGGAACCGTTTACATACT
GCCACTAGCCGAAAGAGTTACCGGCCCAGCTCCATGGAGCCTTGGATGGAGCCCCTGAGTCCTTTTGAGGATGTG
GCTGGCACAGAAATGAGTCAGTCTGACAGTGGGGTGGACCTGAGTGGGGATTCTCAGGTGTCATCAGGTCCCTGC
AGCCAGCGAAGTTCCCCTGATGGAGGACTCAAGGGGGCAGCAGAGGGACCCCCCAAGAGGCCTGGAGGCTCCTCA
CCCCTGAATGCTGTTCCTTGTGAGGGTCCACCTGGCTCTGAACCTCCTAGGAGACCACCACCTGCCCCCCACGAT
GGGGACAGAAAGGAGCTGCCCCGGGAGCAGCCTCTGCCCCCTGGCCCCATTGGCACAGAACGATCACAGCATACA
GACCGAGGCACAGAGCCTGGCCCCATTCGGCCATCCCATCGACCTGGTCCCCCAGTCCAGTTTGGCACTAGTGAC
AAGGACTCAGACTTACGCCTAGTGGTAGGAGACAGCTTGAAAGCAGAGAAGGAGCTAACAGCATCAGTCACTGAG
GCCATTCCTGTATCACGAGACTGGGAGCTGCTTCCCAGTGCTGCTGCCTCTGCTGAGCCACAATCCAAGAACCTG
GATTCTGGGCACTGTGTCCCGGAGCCCAGCTCCTCAGGCCAGCGCCTGTATCCTGAGGTTTTCTATGGCAGTGCT
GGGCCTTCCAGTTCTCAGATCTCTGGGGGAGCCATGGACTCTCAATTACATCCAAACAGTGGAGGCTTCCGCCCT
GGGACACCCTCACTGCACCCTTACAGATCACAGCCCCTATACCTACCCCCCGGCCCAGCCCCTCCCTCAGCACTG
CTCTCTGGGGTAGCTCTCAAGGGCCAGTTTCTGGATTTCTCCACAATGCAAGCTACAGAGCTGGGGAAGTTGCCG
GCTGGAGGAGTTCTCTACCCTCCACCTTCCTTCCTCTACTCTCCGGCTTTCTGCCCCAGTCCTTTGCCTGACACA
TCGTTGCTTCAGGTACGCCAGGATCTGCCATCCCCTTCGGATTTTTATTCTACTCCTCTGCAGCCTGGTGGCCAA
AGTGGCTTTCTCCCTTCAGGGGCTCCTGCCCAGCAGATGCTTCTACCCATGGTAGACTCACAGCTGCCTGTGGTG
AACTTTGGCTCCCTGCCGCCAGCACCACCTCCTGCCCCACCTCCCCTTTCTCTGTTACCTGTGGGCCCTGCTCTG
CAGCCCCCCAGCCTGGCTGTGCGGCCCCCACCTGCTCCTGCTACTCGGGTGCTGCCTTCACCTGCCAGGCCCTTC
CCCGCTAGCTTGGGGCGAGCAGAGCTGCATCCAGTGGAACTAAAGCCGTTCCAGGATTATCAAAAACTGAGCAGC
AACCTTGGGGGACCTGGATCATCACGGACTCCCCCAACTGGAAGGTCCTTCTCTGGCCTCAATTCCCGTCTCAAG
GCCACGCCTTCCACCTACAGTGGAGTCTTCCGCACCCAGCGCGTCGACCTTTACCAGCAGGCCTCCCCACCAGAT
GCCCTGCGCTGGATACCTAAGCCTTGGGAGCGGACAGGGCTGCCACCTCGAGAAGGGCCCTCCCGACGGGCAGAG
GAGCCTGGGTCCCGAGGGGACAAGGAGCCTGGGTTGCCCCCACCCCGC**TGA**GGGAGTTCCTCTTGCCCCCTACCC
CCGGGGCTTGTATATAGATTATAAATATATAAGGGGGAAAGGGGTGGGCGGGGAGGGGTTGTGGGGCTGGGGCCT
CACTTCCCCTCCTCCCCCTTCCCCTGGTCCCCTGTCCCTGGGGCTGTTTGTTAAAAAAGAGTAATAAAAGGATTT

FIGURE 629

GAGGAAAAGCTTTCAGACTGCTGAAGGCCCAGCAGGAAGAGAGGCTGGATGAGATCAACAAGCAATTCCTAGACG
ATCCCAAATATAGCAGTGATGAGGATCTGCCCTCCAAACTGGAAGGCTTCAAAGGTGAGGGGGAAACTGTAGGCG
GTGGAGACAGGGCTGGGGGTAGGAGGGTTAGGATTTCCACAAGAACAAGGCAGGAACAGCAGAGATAAAAAGTTT
ACTTTTGTGGTAGCAAAAGGGGAACCTGCCTTTATTGCCCTCCTGCCACACTGCGGTCCCTTTCCCGGGCCTGCC
TCTCTCAGCATCCCCTCTAGCTCCTTACACCCTAGCGGGGCCCCTCAACTCCCCAACCCCACTTCCTCTGCCTGC
CCCTCCTCCTCCTTCCACGTTGTCTCCTCCACCTAGCAGTTGGTTGGCAACCCCTTCCTCACTCACCCAGAGAAA
TAC**ATG**GAGTTTGACCTTAATGGAAATGGCGATATTGGTGAGAAACGGGTGATTTGCGGGGGCAGGGTGGTGTGC
AGGCCTAAGAAGACAGAGGTCTCTCCTACATGCTCCATTCCTCATGATTTGGGAGGGGGCCCACCTACCACAGTG
GGAGGAAGGAGAATGGGGATGCGGAAGTGGGAGAGGAGAGAGAGGGTCTCCCCACCTTCTCCCCATCCCCATCCT
CTGCCCCCAGATATCATGTCCCTGAAACGAATGCTGGAGAAACTTGGAGTCCCCAAGACTCACCTAGAGCTAAAG
AAATTAATTGGAGAGGTGTCCAGTGGCTCCGGGGAGACGTTCAGCTACCCTGACTTTCTCAGGATGATGCTGGGC
AAGAGATCTGCCATCCTAAAAATG**TGA**GTGTCAATTTCCAACCTCCCCTGTACTTACCTGTTTTCTCCTCCCCCA
TCCCTACCCTTGTCCACAGGCTCAACATTTCTACACGTTGCCCATCATCCCTTCTTCCATCCTTAGAGGGACCCT
TCCAAGGTCCCGACCCCATCCCTATCCATAGTCCTGGTCCCCAGAAACTCCAACCCCTGCCCTTCCTCTTCCCCC
TTCCACCCTCACATCCCCATCCCCTTCTAGCCTTTCCTAGCACCCTATGATTTATTCCCTTGAGAGGAGTGTTCC
CTGATCCCTGTGCCTCTTCCCATCTCAACCAGGATCCTGATGTATGAGGAAAAAGCGAGAGAAAAGGAAAAGCCA
ACAGGCCCCCCAGCCAAGAAAGCTATCTCTGAGTTGCCCTGATTTGAAGGGAAAAGGGATGATGGGATTGAAGGG
GCTTCTAATGACCCAGATATGGAAACAGAAGACAAAATTGTAAGCCAGAGTCAACAAATTAAATAAATTACCCCC
TCCTCCAGATCAA

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FIGURE 630

ACTTCAGCCCTAGCAGCATCTGCCTGTGGGAAGCAGCTCTCCACACCAGCCAAGGGGGCCCCCACACTCCCGCGC
TGCTCTGCGGCTCAGGGAGCAGCCCACCTGCTGGATGAGGAACTTGAGGCAAGTCACCAGCCCCTGATCATTTCG
CCTAAAAGAGCAAGGACTAGAGTTCCTGACCTCCAGGCCAGTCCCTGATCCCTGACCTAATGTTATCGCGGAATG
ATGATATATGTATCTACGGGGGCCTGGGGCTGGGCGGGCTCCTGCTTCTGGCAGTGGTCCTTCTGTCCGCCTGCC
TGTGTTGGCTGCATCGAAGAGCACCTTCTGTCCTGGTCCCAGGCCCAGGGCTCCTCAGAGCAGGAACTCCACTAT
GCATCTCTGCAGAGGCTGCCAGTGCCCAGCAGTGAGGGACCTGACCTCAGGGGCAGAGACAAGAGAGGCACCAAG
GAGGATCCAAGAGCTGACTATGCCTGCATTGCTGAGAACAAACCCACC**TGA**GCACCCCAGACACCTTCCTCAACC
CAGGCGGGTGGACAGGGTCCCCCTGTGGTCCAGCCAGTAAAAACCATGGTCCCCCCACTTCTGTGTCTCAGTCCT
CTCAGTCCATCTCGAGCCTCCGTTCAAATTGATCA

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FIGURE 631

CCCTGACAAGCTGCCAGGCAGGTTCTCTTCCTCTCACATACTGACCCACGGCTCCACCCTCTCTCCCCTGGAAAG
GACACC**ATG**AGCACTGAAAGCATGATCCGGGACGTGGAGCTGGCCGAGGAGGCGCTCCCCAAGAAGACAGGGGGG
CCCCAGGGCTCCAGGCGGTGCTTGTTCCTCAGCCTCTTCTCCTTCCTGATCGTGGCAGGCGCCACCACGCTCTTC
TGCCTGCTGCACTTTGGAGTGATCGGCCCCCAGAGGGAAGAGTTCCCCAGGGACCTCTCTCTAATCAGCCCTCTG
GCCCAGGCAGTCAGATCATCTTCTCGAACCCCGAGTGACAAGCCTGTAGCCCATGTTGTAGCAAACCCTCAAGCT
GAGGGGCAGCTCCAGTGGCTGAACCGCCGGGCCAATGCCCTCCTGGCCAATGGCGTGGAGCTGAGAGATAACCAG
CTGGTGGTGCCATCAGAGGGCCTGTACCTCATCTACTCCCAGGTCCTCTTCAAGGGCCAAGGCTGCCCCTCCACC
CATGTGCTCCTCACCCACACCATCAGCCGCATCGCCGTCTCCTACCAGACCAAGGTCAACCTCCTCTCTGCCATC
AAGAGCCCCTGCCAGAGGGAGACCCCAGAGGGGGCTGAGGCCAAGCCCTGGTATGAGCCCATCTATCTGGGAGGG
GTCTTCCAGCTGGAGAAGGGTGACCGACTCAGCGCTGAGATCAATCGGCCCGACTATCTCGACTTTGCCGAGTCT
GGGCAGGTCTACTTTGGGATCATTGCCCTG**TGA**GGAGGACGAACATCCAACCTTCCCAAACGCCTCCCCTGCCCC
AATCCCTTTATTACCCCCTCCTTCAGACACCCTCAACCTCTTCTGGCTCAAAAAGAGAATTGGGGGCTTAGGGTC
GGAACCCAAGCTTAGAACTTTAAGCAACAAGACCACCACTTCGAAACCTGGGATTCAGGAATGTGTGGCCTGCAC
AGTGAAGTGCTGGCAACCACTAAGAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCT
GACATCTGGAATCTGGAGACCAGGGAGCCTTTGGTTCTGGCCAGAATGCTGCAGGACTTGAGAAGACCTCACCTA
GAAATTGACACAAGTGGACCTTAGGCCTTCCTCTCTCCAGATGTTTCCAGACTTCCTTGAGACACGGAGCCCAGC
CCTCCCCATGGAGCCAGCTCCCTCTATTTATGTTTGCACTTGTGATTATTTATTATTTATTTATTATTTATTTAT
TTACAGATGAATGTATTTATTTGGGAGACCGGGGTATCCTGGGGGACCCAATGTAGGAGCTGCCTTGGCTCAGAC
ATGTTTTCCGTGAAAACGGAGCTGAACAATAGGCTGTTCCCATGTAGCCCCCTGGCCTCTGTGCCTTCTTTTGAT
TATGTTTTTTAAAATATTTATCTGATTAAGTTGTCTAAACAATGCTGATTTGGTGACCAACTGTCACTCATTGCT
GAGCCTCTGCTCCCCAGGGGAGTTGTGTCTGTAATCGCCCTACTATTCAGTGGCGAGAAATAAAGTTTGCTTAGA
AAAGAA

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FIGURE 632

CCGAGCTTCTTAAACACAGGCCTTGGGCCTACGGCTCTGGGGGTACTTGGGGGGGCGGGGGCAGGTCTG**ATG**AGT
AACCCCTCCCCCCAGGTTCCAGAGGAAGAAGCCTCCACATCTGTCTGCCGGCCCAAGAGTTCCATGGCCTCCACT
TCCCGCCGCCAACGCCGAGAACGTCGCTTTCGTCGTTACTTGTCTGCAGGACGGCTGGTCCGGGCCCAGGCCCTC
CTCCAGCGACACCCAGGCCTCGATGTAGATGCTGGGCAGCCCCCACCACTGCACCGGGCCTGTGCCCGCCACGAT
GCCCCTGCCCTGTGCCTGCTGCTTCGGCTCGGGGCTGACCCTGCCCACCAGGACCGCCATGGGGACACGGCACTG
CATGCTGCTGCCCGCCAGGGCCCAGATGCCTACACCGATTTCTTCCTCCCGCTGCTAAGCCGCTGTCCCTCCGCC
ATGGGAATAAAGAATAAGGATGGGGAGACCCCTGGCCAAATTTTGGGCTGGGGACCCCCCTGGGATTCTGCTGAA
GAGGAGGAAGAAGATGATGCCTCCAAGGAGCGGGAATGGAGACAGAAGCTCCAGGGTGAGCTGGAGGACGAGTGG
CAGGAAGTCATGGGGAGGTTTGAAGGTGATGCCTCCCATGAAACCCAGGAACCTGAGTCCTTCTCAGCCTGGTCA
GATCGCCTGGCCCGGGAACATGCCCAGAAGTGCCAGCAGCAGCAGCGAGAAGCAGAGGGATCCTGTCGACCCCCA
CGTGCTGAGGGCTCCAGCCAGAGCTGGCGACAGCAGGAGGAGGAGCAGCGGCTCTTCAGGGAGCGAGCCCGGGCC
AAGGAGGAAGAGCTGCGTGAGAGCCGAGCCAGGAGGGCGCAGGAGGCTCTAGGGGACCGAGAACCCAAGCCAACC
AGGGCCGGGCCCAGGGAAGAGCACCCCAGAGGAGCGGGGAGGGGCAGCCTCTGGCGATTTGGTGATGTGCCCTGG
CCCTGCCCTGGGGGAGGGGACCCAGAGGCCATGGCTGCAGCCCTGGTGGCCAGGGGCCCCCCTTTGGAGGAACAG
GGGGCTCTGAGGAGGTACTTGAGGGTCCAGCAGGTCCGCTGGCACCCTGACCGCTTCCTGCAGCGATTCCGAAGC
CAGATTGAGACCTGGGAGCTGGGCCGTGTGATGGGAGCAGTGACAGCCCTTTCTCAGGCCCTGAATCGCCATGCA
GAGGCCCTCAAG**TGA**CCCTAGGGAAGAAGCAAGAAACTTCGGGGCTGCAGCCTCAGGATGAGGCAGAAGGAAGGG
TAAGGGAAAGGATGGGGACCACAAGGAAGAGCCAGGTGCTGCTCAGCAGAGGATATGGGTGGGAGCGAAAGTTGT
AACAAGTGGGGGTGGGGGGTGCGGGCCGCCACCACTGCTCCTTGACTCTGCCGTTTCCTAATAAGACCTGGTTCC
ACATCTC

FIGURE 633

CAGCATCGGCCATAACAACAGAAATGGCCAGTCAGTCCCAAGGTATCCAGCAGCTTCTGCAAGCTGAGAAGCGGG
CAGCTGAGAAGGTGGCAGATGCCAGAAAGAGGAAGGCCCGGCGACTGAAGCAGGCAAAGGAGGAGGCACAGATGG
AGGTGGAGCAATACCGCAGAGAGCGAGAGCACGAATTCCAGAGCAAGCAGCAGGCGACAGGCATTTTCCAAAGGC
AAGCCTGGAGCGCACGGATCTGTATAACCGCGGAAGGCCCTGTTTCCGGTCCCTTGCGCCTGCGCTCTTGCAGCC
AAGAAGGCGGGAGGCTGGAGTAGAGGGAAGCCTGCAACCGGAAGTGAAGGCAGATTTCCCTCCTTCGTCGCTGTT
GCTGCCGCCATACGCGCTCTCCCTGTTTAGCTCTTCTGTTAGAAATAGTATCTTTGTTTTCCTTTGCTGTTCCTC
AATCCCCTACTCTTCACCCCTTGTTTTCACCTATTTTGCGAGAACCCATCCAGATCCCCCTTCCCTTCTTCCCCT
GCCGGCCCAGTT**ATG**GCAGAGAACGATGTGGACAATGAGCTCTTGGACTATGAAGATGATGAGGTGGAGACAGCA
GCTGGGGGAGATGGGGCTGAGGCCCCTGCCAAGAAGGATGTCAAGGGCTCCTATGTCTCCATCCACAGCTCTGGC
TTTCGTGACTTCCTGCTCAAGCCAGAGTTGCTCCGGGCCATTGTCGACTGTGGCTTTGAGCATCCGTCAGAAGTC
CAGCATGAGTGCATCCCTCAGGCCATTCTGGGAATGGATGTCCTGTGCCAGGCCAAGTCGGGCATGGGAAAGACA
GCAGTGTTTGTCTTGGCCACACTGCAACAGCTGGAGCCAGTTACTGGGCAGGTGTCTGTGCTGGTGATGTGTCAC
ACTCGGGAGTTGGCTTTTCAGATCAGCAAGGAATATGAGCGCTTCTCTAAATACATGCCCAATGTCAAGGTTGCT
GTTTTTTTTGGTGGTCTGTCTATCAAGAAGGATGAAGAGGTGCTGAAGAAGAACTGCCCGCATATCGTCGTGGGG
ACTCCAGGCCGTATCCTAGCCCTGGCTCGAAATAAGAGCCTCAACCTCAAACACATTAAACACTTTATTTTGGAT
GAATGTGATAAGATGCTTGAACAGCTCGACATGCGTCGGGATGTCCAGGAAATTTTTCGCATGACCCCCCACGAG
AAGCAGGTCATGATGTTCAGTGCTACCTTGAGCAAAGAGATCCGTCCAGTCTGCCGCAAGTTCATGCAAGATCCA
ATGGAGATCTTCGTGGATGATGAGACGAAGTTGACGCTGCATGGGTTGCAGCAGTACTACGTGAAACTGAAGGAC
AACGAGAAGAACCGGAAGCTCTTTGACCTTCTGGATGTCCTTGAGTTCAACCAGGTGGTGATCTTTGTGAAGTCT
GTGCAGCGGTGCATTGCCTTGGCCCAGCTACTAGTGGAGCAGAACTTCCCAGCCATTGCCATCCACCGTGGGATG
CCCCAGGAGGAGAGGCTTTCTCGGTATCAGCAGTTTAAAGATTTTCAACGACGAATTCTTGTGGCTACCAACCTA
TTTGGCCGAGGCATGGACATCGAGCGGGTGAACATTGCTTTTAATTATGACATGCCTGAGGATTCTGACACCTAC
CTGCATCGGGTGGCCAGAGCAGGCCGGTTTGGCACCAAGGGCTTGGCTATCACATTTGTGTCCGATGAGAATGAT
GCCAAGATCCTCAATGATGTGCAGGATCGCTTTGAGGTCAATATTAGTGAGCTGCCTGATGAGATAGACATCTCC
TCCTACATTGAACAGACACGG**TAG**AAGACTCGCCCATTTTGGAATGTGACCGTCTGTCCTTCAGGAGAGGACACC
AGGGTGGGGGTGAAGGAGACACTACTGCCCCCACCCCTGACAGCCCCCACCCCATGGCTTCCATCTTTTGCATCA
CCACCACTCCTGAACCCCCATTTCTGATTTGTCAGAATTTTTTTTTAACAAAACTAAAAATGAAACACATGTGTC
TGTGGTATCT

FIGURE 634

GGGCC**ATG**GGGCTGGGCCGGGTCCTGCTGTTTCTGGCCGTCGCCTTCCCTTTTGCACCCCCGGCAGCCGCCGCTG
AGCCCCACAGTCTTCGTTACAACCTCATGGTGCTGTCCCAGGATGGATCTGTGCAGTCAGGGTTTCTCGCTGAGG
GACATCTGGATGGTCAGCCCTTCCTGCGCTATGACAGGCAGAAACGCAGGGCAAAGCCCCAGGGACAGTGGGCAG
AAGATGTCCTGGGAGCTGAGACCTGGGACACAGAGACCGAGGACTTGACAGAGAATGGGCAAGACCTCAGGAGGA
CCCTGACTCATATCAAGGACCAGAAAGGAGGCTTGCATTCCCTCCAGGAGATTAGGGTCTGTGAGATCCATGAAG
ACAGCAGCACCAGGGGCTCCCGGCATTTCTACTACAATGGGGAGCTCTTCCTCTCCCAAAACCTGGAGACTCAAG
AATCGACAGTGCCCCAGTCCTCCAGAGCTCAGACCTTGGCTATGAACGTCACAAATTTCTGGAAGGAAGATGCCA
TGAAGACCAAGACACACTATCGCGCTATGCAGGCAGACTGCCTGCAGAAACTACAGCGATATCTGAAATCCGGGG
TGGCCATCAGGAGAACAGTGCCCCCCATGGTGAATGTCACCTGCAGCGAGGTCTCAGAGGGCAACATCACCGTGA
CATGCAGGGCTTCCAGCTTCTATCCCCGGAATATCACACTGACCTGGCGTCAGGATGGGGTATCTTTGAGCCACA
ACACCCAGCAGTGGGGGGATGTCCTGCCTGATGGGAATGGAACCTACCAGACCTGGGTGGCCACCAGGATTCGCC
AAGGAGAGGAGCAGAGGTTCACCTGCTACATGGAACACAGCGGGAATCACGGCACTCACCCTGTGCCCTCTGGGA
AGGCGCTGGTGCTTCAGAGTCAACGGACAGACTTTCCATATGTTTCTGCTGCTATGCCATGTTTTGTTATTATTA
TTATTCTCTGTGTCCCTTGTTGCAAGAAGAAAACATCAGCGGCAGAGGGTCCAGAGCTTGTGAGCCTGCAGGTCC
TGGATCAACACCCAGTTGGGACAGGAGACCACAGGGATGCAGCACAGCTGGGATTTCAGCCTCTGATGTCAGCTA
CTGGGTCCACTGGTTCCACTGAGGGCGCC**TAG**ACTCTACAGCCAGGCGGCCAGGATTCAACTCCCTGCCTGGATC
TCACCAGCACTTTCCCTCTGTTTCCTGACCTATGAAACAGAAAATAACATCACTTATTTATTGTTGTTGGATGCT
GCAAAGTGTTAGTAGGTATGAGGTGTTTGCTGCTCTGCCACGTAGAGAGCCAGCAAAGGGATCATGACCAACTCA
ACATTCCATTGGAGGCTATATGATCAAACAGCAAATTGTTTATCATGAATGCAGGATGTGGGCAAACTCACGACT
GCTCCTGCCAACAGAAGGTTTGCTGAGGGCATTCACTCCATGGTGCTCATTGGAGTTATCTACTGGGTCATCTAG
AGCCTATTGTTTGAGGAATGCAGTCTTACAAGCCTACTCTGGACCCAGCAGCTGACTCCTTCTTCCACCCCTCTT
CTTGCTATCTCCTATACCAATAAATACGAAGGGCTGTGGAAGATCAGAGCCCTTGTTCACGAGAAGCAAGAAGCC
CCCTGACCCCTTGTTCCAAATATACTCTTTTGTCTTTCTCTTTATTCCCACGTTCGCCCTTTGTTCAGTCCAATA
CAGGGTTGTGGGGCCCTTAACAGTGCCATATTAATTGGTATCATTATTTCTGTTGTTTTTGTTTTTGTTTTTGTT
TTTGTTTTTGAGACAGAGTCTCACTCTGTCACCCAGGCTGCAGTTCACTGGTGTGATCTCAGCTCACTGCAACCT
CTGCCTCCCAGGTTCAAGCACTTCTCGTACCTCAGACTCCCGAATAGCTGGGATTACAGACAGGCACCACCACAC
CCAGCTAATTTTTGTATTTTTTGTAGAGACGGGGTTTCGCCAAGTTGACCAGCCCAGTTTCAAACTCCTGACCTC
AGGTGATCTGCCTGCCTTGGCATCCCAAAGTGCTGGGATTACAAGAATGAGCCACCGTGCCTGGCCTATTTTATT
ATATTGTAATATATTTTATTATATTAGCCACCATGCCTGTCCTATTTTCTTATGTTTTAATATATTTTAATATAT
TACATGTGCAGTAATTAGATTATCATGGGTGAACTTTATGAGTGAGTATCTTGGTGATGACTCCTCCTGACCAGC
CCAGGACCAGCTTTCTTGTCACCTTGAGGTCCCCTCGCCCCGTCACACCGTTATGCATTACTCTGTGTCTACTAT
TATGTGTGCATAATTTATACCGTAAATGTTTACTCTTTAAAT

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FIGURE 635

CACTGCTTGAGCCGCTGAGAGGGTGGCGACGTCGGGGCC**ATG**GGGCTGGGCCCGGTCTTCCTGCTTCTGGCTGGC
ATCTTCCCTTTTGCACCTCCGGGAGCTGCTGCTGAGCCCCACAGTCTTCGTTATAACCTCACGGTGCTGTCCTGG
GATGGATCTGTGCAGTCAGGGTTTCTTGCTGAGGTACATCTGGATGGTCAGCCCTTCCTGCGCTATGACAGGCAG
AAATGCAGGGCAAAGCCCCAGGGACAGTGGGCAGAAGATGTCCTGGGAAATAAGACATGGGACAGAGAGACCAGG
GACTTGACAGGGAACGGAAAGGACCTCAGGATGACCCTGGCTCATATCAAGGACCAGAAAGAAGGCTTGCATTCC
CTCCAGGAGATTAGGGTCTGTGAGATCCATGAAGACAACAGCACCAGGAGCTCCCAGCATTTCTACTACGATGGG
GAGCTCTTCCTCTCCCAAAACCTGGAGACTGAGGAATGGACAGTGCCCCAGTCCTCCAGAGCTCAGACCTTGGCC
ATGAACGTCAGGAATTTCTTGAAGGAAGATGCCATGAAGACCAAGACACACTATCACGCTATGCATGCAGACTGC
CTGCAGGAACTACGGCGATATCTAGAATCCGGCGTAGTCCTGAGGAGAACAGTGCCCCCCATGGTGAATGTCACC
CGCAGCGAGGCCTCAGAGGGCAACATCACCGTGACATGCAGGGCTTCCAGCTTCTATCCCCGGAATATCATACTG
ACCTGGCGTCAGGATGGGGTATCTTTGAGCCACGACACCCAGCAGTGGGGGGATGTCCTGCCTGATGGGAATGGA
ACCTACCAGACCTGGGTGGCCACCAGGATTTGCCGAGGAGAGGAGCAGAGGTTCACCTGCTACATGGAACACAGC
GGGAATCACAGCACTCACCCTGTGCCCTCTGGGAAAGTGCTGGTGCTTCAGAGTCATTGGCAGACATTCCATGTT
TCTGCTGTTGCTGCTGGCTGCTGCTATTTTTGTTATTATTATTTTCTATGTCCGTTGTTG**TAA**GAAGAAAACATC
AGCTGCAGAGGGTCCAGAGCTCGTGAGCCTGCAGGTCCTGGATCAACACCCAGTTGGGACGAGTGACCACAGGGA
TGCCACACAGCTCGGATTTCAGCCTCTGATGTCAGCTCTTGGGTCCACTGGCTCCACTGAGGGCACCTAGACTCT
ACAGCCAGGCGGCTGGAATTGAATTCCCTGCCTGGATCTCACAAGCACTTTCCCTCTTGGTGCCTCAGTTTCCTG
ACCTATGAAACAGAGAAAATAAAAGCACTTATTTATTGTTGTTGGAGGCTGCAAAATGTTAGTAGATATGAGGCA
TTTGCAGCTGTGCCATATT

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FIGURE 636

AGACGCCGAG**ATG**CTGGTCATGGCGCCCCGAACCGTCCTCCTGCTGCTCTCGGCGGCCCTGGCCCTGACCGAGAC
CTGGGCCGGCTCCCACTCCATGAGGTATTTCGACACCGCCATGTCCCGGCCCGGCCGCGGGGAGCCCCGCTTCAT
CTCAGTGGGCTACGTGGACGACACGCAGTTCGTGAGGTTCGACAGCGACGCCGCGAGTCCGAGAGAGGAGCCGCG
GGCGCCGTGGATAGAGCAGGAGGGGCCGGAGTATTGGGACCGGAACACACAGATCTTCAAGACCAACACACAGAC
TGACCGAGAGAGCCTGCGGAACCTGCGCGGCTACTACAACCAGAGCGAGGCCGGGTCTCACACCCTCCAGAGCAT
GTACGGCTGCGACGTGGGGCCGGACGGGCGCCTCCTCCGCGGGCATAACCAGTACGCCTACGACGGCAAGGATTA
CATCGCCCTGAACGAGGACCTGCGCTCCTGGACCGCGGCGGACACCGCGGCTCAGATCACCCAGCGCAAGTGGGA
GGCGGCCCGTGTGGCGGAGCAGGACAGAGCCTACCTGGAGGGCACGTGCGTGGAGTGGCTCCGCAGATACCTGGA
GAACGGGAAGGACACGCTGGAGCGCGCGGACCCCCCAAAGACACACGTGACCCACCACCCCATCTCTGACCATGA
GGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGATGGCGAGGA
CCAAACTCAGGACACTGAGCTTGTGGAGACCAGACCAGCAGGAGATAGAACCTTCCAGAAGTGGGCAGCTGTGGT
GGTGCCTTCTGGAGAAGAGCAGAGATACACATGCCATGTACAGCATGAGGGGCTGCCGAAGCCCCTCACCCTGAG
ATGGGAGCCGTCTTCCCAGTCCACCGTCCCCATCGTGGGCATTGTTGCTGGCCTGGCTGTCCTAGCAGTTGTGGT
CATCGGAGCTGTGGTCGCTGCTGTGATGTGTAGGAGGAAGAGCTCAGGTGGAAAAGGAGGGAGCTACTCTCAGGC
TGCGTGCAGCGACAGTGCCCAGGGCTCTGATGTGTCTCTCACAGCT**TGA**AAAGCCTGAGACAGCTGTCTTGTGAG
GGACTGAGATGCAGGATTTCTTCACGCCTCCCCTTTGTGACTTCAAGAGCCTCTGGCATCTCTTTCTGCAAAGGC
ACCTGAATGTGTCTGCGTCCCTGTTAGCATAATGTGAGGAGGTGGAGAGACAGCCCACCCTTGTGTCCACTGTGA
CCCCTGTTCCCATGCTGACCTGTGTTTCCTCCCCAG

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FIGURE 637

GCGTG**ATG**TCTCACAGAAAGTTCTCCACTCCCAGACATGGGTCCCTCGGCTTCCTGCCTTGGAAGCGCAGCAGCA
GGCATTGTGGGAAGGTGAAGAGCTTCCCTAAGGATGACCCGTCCAAGCCGGTCCACCTCACAGCCTTCCTGGGAT
ACAAGGCTGGCATGACCCACATCGTGCGGGCTCTGGAGAAGATTGACCTTAAGTTCATTGACACCCCCTCCAAGT
TTGGCCATGGCCACTTCCAGACCATGGAGGAGAAGAAAGCATTCATGGGACCACTCAAGAAAGACCGAATTGCAA
AGGAAGAAGGAGCT**TAA**TGCTGGGAACAGATATTGCAACTGGTGGGATCTCAATAAAAGTTATTTTCCA

FIGURE 638

ATTCTCCCCAGAGGCCGAG**ATG**CGGGTCATGGCGCCCCGAGCCCTCCTCCTGCTGCTCTCGGGAGGCCTGGCCCT
GACCGAGACCTGGGCCTGCTCCCACTCCATGAGGTATTTCGACACCGCCGTGTCCCGGCCCGGCCGCGGAGAGCC
CCGCTTCATCTCAGTGGGCTACGTGGACGACACGCAGTTCGTGCGGTTCGACAGCGACGCCGCGAGTCCGAGAGG
GGAGCCGCGGGCGCCGTGGGTGGAGCAGGAGGGGCCGGAGTATTGGGACCGGGAGACACAGAACTACAAGCGCCA
GGCACAGGCTGACCGAGTGAGCCTGCGGAACCTGCGCGGCTACTACAACCAGAGCGAGGACGGGTCTCACACCCT
CCAGAGGATGTATGGCTGCGACCTGGGGCCCGACGGGCGCCTCCTCCGCGGGTATGACCAGTCCGCCTACGACGG
CAAGGATTACATCGCCCTGAACGAGGACCTGCGCTCCTGGACCGCCGCGGACACCGCGGCTCAGATCACCCAGCG
CAAGTTGGAGGCGGCCCGTGCGGCGGAGCAGCTGAGAGCCTACCTGGAGGGCACGTGCGTGGAGTGGCTCCGCAG
ATACCTGGAGAACGGGAAGGAGACGCTGCAGCGCGCAGAACCCCCAAAGACACACGTGACCCACCACCCCCTCTC
TGACCATGAGGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGA
TGGGGAGGACCAGACCCAGGACACCGAGCTTGTGGAGACCAGGCCAGCAGGAGATGGAACCTTCCAGAAGTGGGC
AGCTGTGGTGGTGCCTTCTGGACAAGAGCAGAGATACACGTGCCATATGCAGCACGAGGGGCTGCAAGAGCCCCT
CACCCTGAGCTGGGAGCCATCTTCCCAGCCCACCATCCCCATCATGGGCATCGTTGCTGGCCTGGCTGTCCTGGT
TGTCCTAGCTGTCCTTGGAGCTGTGGTCACCGCTATGATGTGTAGGAGGAAGAGCTCAGGGCATTTTCTTCCCAC
AGGTGGAAAAGGAGGGAGCTGCTCTCAGGCTGCGTGCAGCAACAGTGCCCAGGGCTCTGATGAGTCTCTCATCAC
TTGTAAAGCC**TGA**GACAGCTGCCTGTGTGGGACTGAGATGCAGGATTTCTTCACACCTCTCCTTTGTGACTTCAA
GAGCCTCTGGCATCTCTTTCTGCAAAGGCGTCTGAATGTGTCTGCGTTCCTGTTAGCATAATGTGAGGAGGTGGA
GAGACAGCCCACCCCCGTGTCCACCGTGACCCCTGTCCCCACACTGACCTGTGTTCCCTCCCCGATCATCTTTCC
TGTTCCAGAGAGGTGGGGCTGGATGTCTCCATCTCTGTCTCAAATTCATGGTGCACTGAGCTGCAACTTCTTACT
TCCCTAATGAAGTTAAGAACCTGAATATAAATTTGTGTTCTCAAATATTTGCTATGAAGCGTTGATGGATTAATT
AAATAAGTCAATTCCTAGAAGTTGAGAGAGCAAATAAAGACCTGAGAACCTTCCAG

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FIGURE 639

CTCATTTCACCAGGCCCCCGGCTTGGGGCGCCTTCCTTCCCC**ATG**GCGGGACACCTGGCTTCAGATTTTGCCTTC
TCGCCCCCTCCAGGTGGTGGAGGTGATGGGCCAGGGGGGCCGGAGCCGGGCTGGGTTGATCCTCGGACCTGGCTA
AGCTTCCAAGGCCCTCCTGGAGGGCCAGGAATCGGGCCGGGGGGTTGGGCCAGGCTCTGAGGTGTGGGGGATTCCC
CCATGCCCCCCGCCGTATGAGTTCTGTGGGGGGATGGCGTACTGTGGGCCCCAGGTTGGAGTGGGGCTAGTGCCC
CAAGGCGGCTTGGAGACCTCTCAGCCTGAGGGCGAAGCAGGAGTCGGGGTGGAGAGCAACTCCGATGGGGCCTCC
CCGGAGCCCTGCACCGTCACCCCTGGTGCCGTGAAGCTGGAGAAGGAGAAGCTGGAGCAAAACCCGGAGGAGTCC
CAGGACATCAAAGCTCTGCAGAAAGAACTCGAGCAATTTGCCAAGCTCCTGAAGCAGAAGAGGATCACCCTGGGA
TATACACAGGCCGATGTGGGGCTCACCCTGGGGGTTCTATTTGGGAAGGTATTCAGCCAAACGACCATCTGCCGC
TTTGAGGCTCTGCAGCTTAGCTTCAAGAACATGTGTAAGCTGCGGCCCTTGCTGCAGAAGTGGGTGGAGGAAGCT
GACAACAATGAAAATCTTCAGGAGATATGCAAAGCAGAAACCTTCGTGCAGGCCCGAAAGAGAAAGCGAACCAGT
ATCGAGAACCGAGTGAGAGGCAACCTGGAGAATTTGTTCCTGCAGTGCCCGAAACCCACACTGCAGCAGATCAGC
CACATCGCCCAGCAGCTTGGGCTCGAGAAGGATGTGGTCCGAGTGTGGTTCTGTAACCGGCGCCAGAAGGGCAAG
CGATCAAGCAGCGACTATGCACAACGAGAGGATTTTGAGGCTGCTGGGTCTCCTTTCTCAGGGGGACCAGTGTCC
TTTCCTCTGGCCCCAGGGCCCCATTTTGGTACCCCAGGCTATGGGAGCCCTCACTTCACTGCACTGTACTCCTCG
GTCCCTTTCCCTGAGGGGGAAGCCTTTCCCCCTGTCTCTGTCACCACTCTGGGCTCTCCCATGCATTCAAAC**TGA**

GGTGCCTGCCCTTCTAGGAATGGGGGACAGGGGGAGGGGAGGAGCTAGGGAAAGAAAACCTGGAGTTTGTGCCAG
GGTTTTTGGGATTAAGTTCTTCATTCACTAAGGAAGGAATTGGGAACACAAAGGGTGGGGGCAGGGGAGTTTGGG
GCAACTGGTTGGAGGGAAGGTGAAGTTCAATGATGCTCTTGATTTTAATCCCACATCATGTATCACTTTTTTCTT
AAATAAAGAAGCTTGGGACACAGTAGATAGA

FIGURE 640

GGAAAGGTGTACGCAGGCGCAGTGGCGTCTAAATTTGGGCCCACTAAATGCGTCGGAGCATCTCCGCGCCCAGGC
GGCTCCTCCTCACTGCGGCAACCCGGGAAAACTTGTGAACTAATCAGAAAAAGTGGAAGGCGGGAGATCTTGGGG
CGCTGTCCAATGGCGCGGAAGAGAACAA**ATG**AGCTGGCCAATCGGGAACGGCACGGGGGCGGGCTCGCTCGGCGC
GAAGTTCGGGCCCGGGAATTCCGAAGGAGGGGTAGGCGCTGCCCGCGCGCAGAGGCCGCGCCCCTCCTGGCCCCG
GCTTCTTGGCTGTCAAACAGATGCAGCAACGTCGGCTCCTGCCGAGGAGCCCAAGGGGTCCCGGGATCCGCCGCA
CAGGCTGGCACTGCTTGAAGAGGAGGCTACTCGGAGACTGCGCCGCGCGGGTAGATCCGAAACGGGGCTGGGGCG
GAGTGGGAAAAGGCCGGGTATGCCTTGCATGATCGCGGGGAGCTCCTTCCTGTTTTTATCCCACCTAGAGAAGCC
GGGAAGTAGGGGTTTAGGTCCAATTTGTTGGAGTACT**TAA**GGACTCGTTTGCACTTTCTTTTGGGGGATGACAGT
GGATTCATTGCCCTCGGAGGTTCAACCAGTTATGAGTGAGGGATTGGCCAGAAGATCGGGGCGCAGGCAAGCAGG
AGTGCTCTATTAGGATAAGCAAGTTTGACAGGAAGAAGCTGCTCTTCTCCGAATTACACAGAGGTGATGTGTTCG
TATTGCACGTAGACGTGTGTATAACAGGACCTCCTTCCCCGCGCCCCGCCACCCCGACACACACAGGAGCTGCCT
AAAGTATCCTTGCCTTGCAGATTGGAGGCTCCCCAAATATTTTGTGATCTGAGGATCCAGCTCAAGTGAGGTGCC
ATAGGACGTGTTCCTGAGTTTGCATTGCACGGAGACCTTCCTGGAATTTTTCATTTGCAAGTCGGCTTAACCAAT
TTTGCATTGAGTCCTAGGCTGCTTGCACTCTGAATTTGGGCTATTCAGGTAGTGTGCTCAAAGTTGAAACCGCAT
ACAGCACAACTCAAGTTTGCATCAGACTGGGAAGCGAACTTAAGCCAGCGGTGCGTGGCCCAGGAGTGGGAAAGG
AAATGGATGCCTGAAGTGGAAGAGGTGGTGCAGAGGGGGCACCGCCCATGCTGCCCTGCTTCCAACTGCTGCGCA
TAGGGGGCGGCAGGGGCGGTGATCTCTACACCTTCCACCCCCCCGCCGGGGCTGGCTGCACCTATCGCTTGGGCC
ACAGGGCCGACCTGTGTGATGTGGCCCTGCGGCCCCAGCAGGAGCCTGGCCTCATCTCTGGGATCCACGCCGAAC
TGCATGCCGAGCCCCGGGGTGATGACTGGAGGGTCAGCCTGGAAGACCACAGCAGCCAAGGTGAGCATTAAGCAG
GGCAGCTTTGCCCCTGGGTGGTTGAAGCGCCAGGCTGGAATGAGTAAGGTCTCCACAAGACCCTGCTGCCTGCCT
CCCATACTCCCATCAGATTGGATGGATAGTCGTGGTCCAGACCTTCATCTTCCCACCAGAAGTGTGCACAGTCAG
AAGCTCTCTGCCAGACTGACCCTTTTTGGTCCCGTTTAGCTCATACAGGACCTGGGATATCATCAGAAAGATATC
ACAGTGGGGATGTTCTGAGGCCACTAGAGGCCAAGTTTAGACTTGATTCAGTTTCCAGCTTTGCTGAGGCACTCT
GTTCCTGGGTTAGGGCAGTTCTATGTTGAATAATGTTTTTAATAATCTGGGCATGTCTTTCTCCGTGACTTGAGG
CAGTTAGCCTCAGAAAGCCTAGATTCACATTTGAGTTTTGCCACTGCCTCTTGGTAAAGTCAGCTGTAGGAGTGT
TATGGTTATTAGACTATAGTAGCCAACATTCATCTAGTGCTTACTGTTATGAGCCAGGCCCTATTTTAAGTGTAT
TGAATGTAGGTGGTACTAATATTATCCTCATTTACAGTAAAGGAAAATGAGGCACAAAGAGGTTAAGGAACTTGT
CCAGGGCTGGGCATGGTGGTTTACACCTATAATCCAGCACTTTGGGAGGCTAAGGCAGGGTGGATCACTTGAGCT
CAGGAGTTCGAGACCAGCCTGGGCAACATGGTGAAAACCTGTCTCTACCAAAAAATTAATTAATTTTTTAAAAAA
AGCCTGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGATGGGCAGATCACGAGGTCAGGA
GTTCGAGACCATCCTGACCAACATGTTGAAACCCCATCTGTGCTGAAAAAAAAATACAAAAATTAGCCAGGTGTG
GTGGCGTGCACCTGTAACCCCAGCTACTCAGGAGGCTGAAGCAGCAGAATCACTTGAACCCGGGAGGCGGAGGTT
GCAGTGAGCTGAGATCGCACCACTGCACTCCAGCTTGGGCGACAGAGCGAGACTCCATCTCAAACAAACAAACAA
ACCAAAAGCTTGCCCAGGGTCACATAACTGGTAAGTGGTAGAGCTAGGATCTGAACGAGCTGGAGCTGGGGGAGA
GTGAGCATGTTTGAAAACTGGACCTTAGGGCGGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGC
TGAGGCGGGCAGATCAGGAGGTCAGGAGTATGAGACCAGCCTGGCCAACATGGTAAAACCCTGTCTCTGCTAAAA
ATAAAAAAAATTAGCCAGACGTGGTGGCACATGCCTGTAATCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATTGC
TTGAACCTGGGAGGCGGTTCAAGCTTGGGCAATAGAGCAAAACTCCATC

FIGURE 641

AAAGCGCAGTAGGGGGCTCTCGCGGTTGGGGAACATAGATGGCTGAAGACAGAATCTAGAGCCTTCAAATAATGT
GGAG**ATG**TTTCCACCTTCAGGTTCCACTGGGCTGATTCCCCCCTCCCACTTTCAAGCTCGGCCCCTTTCAACTCT
GCCAAGAATGGCTCCCACCTGGCTCTCAGACATTCCCCTGGTCCAACCCCCAGGCCATCAAGATGTCTCAGAGAG
GCGGCTAGACACCCAGAGACCTCAAGTGACCATGTGGGAACGGGATGTTTCCAGTGACAGGCAGGAGCCAGGGCG
GAGAGGCAGGTCCTGGGGGCTGGAGGGGTCACAGGCCCTGAGCCAGCAGGCTGAGGTGATCGTTCGGCAGCTGCA
AGAGCTGCGGCGGCTGGAGGAGGAGGTCCGGCTCCTGCGGGAGACCTCGCTGCAGCAGAAGATGAGGCTAGAGGC
CCAGGCCATGGAGCTAGAGGCTCTGGCACGGGCGGAGAAGGCCGGCCGAGCTGAGGCTGAGGGCCTGCGTGCTGC
TTTGGCTGGGGCTGAGGTTGTCCGGAAGAACTTGGAAGAGGGGAGGCAGCGGGAGCTGGAAGAGGTTCAGAGGCT
GCACCAAGAGCAGCTGTCCTCTTTGACACAGGCTCACGAGGAGGCTCTTTCCAGTTTGACCAGCAAGGCTGAGGG
CTTGGAGAAGTCTCTGAGTAGTCTGGAAACCAGAAGAGCAGGGGAAGCCAAGGAGCTGGCCGAGGCTCAGAGGGA
GGCCGAGCTGCTTCGGAAGCAGCTGAGCAAGACCCAGGAAGACTTGGAGGCTCAGGTGACCCTGGTTGAGAATCT
AAGAAAATATGTTGGGGAACAAGTCCCTTCTGAGGTCCACAGCCAGACATGGGAACTGGAGCGACAGAAGCTTCT
GGACACCATGCAGCACTTGCAGGAGGACCGGGACAGCCTGCATGCCACCGCGGAGCTGCTGCAGGTGCGGGTGCA
GAGCCTCACACACATCCTCGCCCTGCAGGAGGAGGAGCTGACCAGGAAGGTTCAACCTTCAGATTCCCTGGAGCC
TGAGTTTACCAGGAAGTGCCAGTCCCTGCTGAACCGCTGGCGGGAGAAGGTGTTTGCCCTCATGGTGCAGCTAAA
GGCCCAGGAGCTGGAACACAGTGACTCTGTTAAGCAGCTGAAGGGACAGGTGGCCTCACTCCAGGAAAAAGTGAC
ATCCCAGAGCCAGGAGCAGGCCATCCTGCAGCGATCCCTGCAGGACAAAGCCGCAGAGGTGGAGGTGGAGCGTAT
GGGTGCCAAGGGCCTGCAGTTGGAGCTGAGCCGTGCTCAGGAGGCCAGGCGTCGGTGGCAGCAGCAGACAGCCTC
AGCCGAGGAGCAGCTGAGGCTTGTGGTCAATGCTGTCAGCAGCTCTCAGATCTGGCTCGAGACCACCATGGCTAA
GGTGGAAGGGGCTGCCGCCCAGCTTCCCAGCCTCAACAACCGACTCAGCTATGCTGTCCGCAAGGTCCACACCAT
TCGGGGCCTGATTGCTCGAAAGCTTGCCCTTGCTCAGCTGCGCCAGGAGAGCTGTCCCCTACCACCACCGGTCAC
AGATGTGAGCCTTGAGTTGCAGCAGCTGCGGGAAGAACGGAACCGCCTGGATGCAGAACTGCAGCTGAGTGCCCG
CCTCATCCAGCAGGAGGTGGGCCGGGCTCGGGAGCAAGGGGAGGCAGAGCGGCAGCAGCTGAGCAAGGTGGCCCA
GCAGCTGGAGCAGGAGCTGCAGCAGACCCAGGAGTCCCTGGCTAGCTTGGGGCTGCAGCTGGAGGTAGCACGCCA
GGGCCAGCAGGAGAGCACAGAGGAGGCTGCCAGTCTGCGGCAGGAGCTGACCCAGCAGCAGGAACTCTACGGGCA
AGCCCTGCAAGAAAAGGTGGCTGAAGTGGAAACTCGGCTGCGGGAGCAACTCTCAGACACAGAGAGGAGGCTGAA
CGAGGCTCGGAGGGAGCATGCCAAGGCCGTGGTCTCCTTGCGCCAGATTCAGCGCAGAGCCGCCCAGGAAAAGGA
GCGGAGCCAGGAACTCAGGCGTCTGCAGGAGGAGGCCCGGAAGGAGGAGGGGCAGCGACTGGCCCGGCGCTTGCA
GGAGCTAGAGAGGGATAAGAACCTCATGCTGGCCACCTTGCAGCAGGAAGGTCTCCTCTCCCGTTACAAGCAGCA
GCGACTGTTGACAGTTCTTCCTTCCCTACTGGATAAGAAGAAATCTGTGGTGTCCAGCCCCAGGCCTCCAGAGTG
TTCAGCATCTGCACCTGTAGCAGCAGCAGTGCCCACCAGGGAGTCCATAAAAGGGTCCCTCTCTGTCCTGCTCGA
TGACCTGCAGGACCTGAGTGAAGCCATTTCCAAAGAGGAAGCTGTTTGTCAAGGAGACAACCTTGACAGATGCTC
CAGCTCCAATCCCCAGATGAGCAGC**TAA**GCAGCTGACAGTTGGAGGGAAAGCCAGCCTGGGGGCTGGGAGGATCC
TGGAGAAGTGGGTGGGGACAGACCAGCCCTTCCCCATCCTGGGGTTGCCCTGGGGGATACCAGCTGAGTCTGAAT
TCTGCTCTAAATAAAGACGACTACAGAAGG

FIGURE 642

TTGGTGGATTCCTCAGTCCCTGCCGCCGCGGGGCGCCCTGGGATAGCGGCGGGGCCTCCTGAACAGATCTCGGCC
CCTTTCCAAACACTCCTG**ATG**CCTCATTTGCCTCTCGCTTCTTTTCGACCACCATTTTGGGGGCTGAGGCACTCA
CGGGGCCTCCCCAGGTTTCACTCCGTTTCTACACAGTCGGAGCCCCATGGATCTCCCATCTCCCGGAGGAACCGT
GAAGCCAAACAGAAGCGCCTGCGAGAGAAGCAGGCTACTCTGGAGGCTGAGATAGCAGGGGAGAGCAAGTCACCT
GCAGAATCCATTAAGGCCTGGAGGCCTAAGGAGTTAGTATTGTATGAAATCCCTACGAAACCCGGTGAAAAGAAA
GATGTCTCTGGGCCCCTGCCTCCTGCATACAGCCCCCGATATGTTGAGGCTGCCTGGTACCCGTGGTGGGTACGA
GAGGGCTTCTTCAAACCAGAATATCAGGCCCGGCTGCCCCAAGCTACAGGGGAGACCTTTTCCATGTGTATCCCA
CCTCCCAATGTCACTGGCTCCCTGCACATTGGCCACGCACTCACGGTGGCCATACAGGATGCCCTCGTGCGCTGG
CACCGGATGCGTGGGGATCAAGTGCTGTGGGTCCCTGGTTCAGATCATGCAGGAATTGCTACACAAGCTGTGGTG
GAGAAACAACTGTGGAAGGAACGGGGAGTGAGGAGACATGAGCTGAGCCGGGAGGCCTTCCTTAGGGAGGTGTGG
CAGTGGAAGGAGGCGAAAGGTGGAGAGATCTGTGAGCAGCTGCGAGCTCTGGGTGCCTCCCTGGACTGGGATCGA
GAGTGTTTTACCATGGATGTTGGCTCCTCAGTGGCTGTGACTGAAGCTTTTGTGCGGCTCTACAAGGCGGGGTTG
CTGTACCGGAACCATCAGCTTGTCAACTGGTCATGTGCTTTAAGATCAGCCATCTCGGACATTGAGGTGGAGAAC
CGGCCCCTGCCTGGCCACACACAGCTTCGACTGCCTGGCTGCCCCACCCCCGTGTCTTTTGGCCTCCTATTTTCT
GTTGCCTTCCCCGTGGATGGAGAGCCTGATGCAGAGGTTGTGGTAGGAACCACAAGGCCAGAGACGCTGCCTGGA
GATGTGGCTGTGGCCGTTCATCCAGACGACTCGCGATACACACATCTACACGGGCGACAGCTTCGTCACCCCTTG
ATGGGGCAGCCTCTTCCCCTCATCACAGACTATGCTGTTCAGCCACATGTGGGCACGGGGGCAGTGAAGGTGACT
CCAGCTCACAGTCCTGCCGATGCTGAGATGGGGGCCCGACATGGCTTGAGCCCCTTGAATGTCATTGCGGAGGAT
GGGACCATGACCTCCCTCTGCGGGGACTGGCTGCAGGGTCTTCACCGGTTTGTGGCCCGGGAAAAGATAATGTCT
GTGCTGAGTGAATGGGGCCTGTTCCGGGGCCTCCAGAACCACCCCATGGTACTGCCCATCTGCAGCCGTTCTGGG
GATGTGATAGAATACCTGCTGAAGAACCAGTGGTTTGTCCGCTGCCAGGAAATGGGGGCCCGAGCTGCCAAGGCT
GTGGAGTCGGGGGCCCTGGAGCTCAGTCCCTCCTTCCACCAGAAGAACTGGCAGCACTGGTTTTCCCATATTGGG
GACTGGTGTGTCTCCCGGCAGCTGTGGTGGGGCCATCAGATTCCAGCCTACCTGGTTGTAGAGGACCATGCGCAG
GGAGAAGAGGACTGTTGGGTGGTTGGGCGGTCAGAGGCTGAGGCCAGAGAGGTAGCAGCGGAACTGACAGGGAGG
CCAGGGGCAGAGCTGACCCTGGAGAGGGATCCTGATGTCCTAGACACATGGTTTTCTTCTGCCCTGTTCCCCTTT
TCTGCCCTGGGCTGGCCCCAAGAGACCCCAGACCTTGCTCGTTTCTACCCCCTGTCACTTTTGGAAACGGGCAGC
GACCTTCTGCTGTTCTGGGTGGGCCGCATGGTCATGTTGGGGACCCAGCTCACAGGGCAGCTGCCCTTCAGCAAG
GTGCTTCTTCATCCCATGGTTCGGGACAGGCAGGGCCGGAAGATGAGCAAGTCCCTGGGGAATGTGCTGGACCCA
AGAGACATCATCAGTGGGGTGGAGATGCAGGTGCTGCAGGAAAAGCTGAGAAGCGGAAATTTGGACCCTGCAGAG
CTGGCCATTGTGGCTGCAGCACAGAAAAAGGACTTTCCTCACGGGATCCCTGAGTGTGGGACAGATGCCCTGAGA
TTCACACTCTGCTCCCATGGAGTTCAGGCGGGCGACTTGCACCTGTCAGTCTCTGAGGTCCAGAGCTGCCGACAT
TTCTGCAACAAGATCTGGAATGCTCTTCGCTTTATCCTCAATGCTTTAGGGGAGAAATTTGTGCCACAGCCTGCT
GAGGAGCTGTCTCCCTCCTCCCCGATGGATGCCTGGATCCTGAGCCGCCTTGCCCTGGCTGCCCAGGAGTGTGAG
CGGGGCTTCCTCACCCGAGAGCTCTCGCTCGTCACTCATGCCCTGCACCACTTCTGGCTTCACAACCTCTGTGAC
GTCTACCTGGAGGCTGTGAAGCCCGTGCTGTGGCACTCGCCCCGCCCCCTGGGGCCCCCTCAGGTCCTGTTCTCC
TGCGCTGACCTCGGCCTCCGCCTCCTGGCCCCACTGATGCCCTTCCTGGCTGAAGAGCTCTGGCAGAGGCTGCCC
CCCAGGCCTGGTTGCCCCCCTGCCCCCAGCATCTCGGTTGCCCCCTACCCCAGCGCCTGCAGCTTGGAGCACTGG
CGCCAGCCAGAGCTGGAGCGGCGCTTCTCCCGGGTCCAAGAGGTCGTGCAGGTGCTAAGGGCTCTCCGAGCCACG
TACCAGCTCACCAAAGCCCGGCCCCGAGTGCTGCTGCAGAGCTCAGAGCCTGGGGACCAGGGCCTCTTCGAGGCC
TTCTTGGAGCCCCTGGGCACCCTGGGCTACTGTGGGGCTGTGGGCCTGTTACCCCCAGGCGCAGCAGCTCCCTCC
GGCTGGGCCCAGGCTCCACTCAGTGACACGGCTCAAGTCTACATGGAGCTGCAGGGCCTGGTGGACCCGCAGATC
CAGCTACCTCTGTTAGCCGCCCGAAGGTACAAGTTGCAGAAGCAGCTTGACAGCCTCACAGCCAGGACCCCATCA
GAAGGGGAGGCAGGGACTCAGAGGCAACAAAAGCTTTCTTCCCTCCAGCTGGAATTGTCAAAACTGGACAAGGCA
GCCTCTCACCTCCGGCAGCTGATGGATGAGCCTCCAGCCCCAGGGAGCCCGGAGCTC**TAA**CTCATCATCCCCATC
AGTTTTCCTCCCTCTCAGACCTGTCTTTGAGGACAAACAGATTTGTCAGCTGTCAGGGTGCAGTGGGACGTCAGA
GACTATGTGGTCCATCGCCTTCATTGTGTAAATGAGGACACAGACTGGCTTGGTCGCAGTGACTGTGGTGTCCTT
GAGATGCTCACATTACTGCCCGGCCTGCCTCCCACCTGGAAGTCTGGGAATGAGGAGATTGAGATAAACTTTTGA
AATCCC

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FIGURE 643

CCCATCTTTTCCTCGCATTTTTTCACCATCTTTCCCTCAATCTCCAGGAGCCAATGCGAGACTTTGGCTCCGATT
AAGCGACGGCCCGAGACTCGGGGTGCGCGAGGAGGATCGACAGAGTGGTG**ATG**GAGAGCACCCCTTCAAGGGGAC
TGAACCGAGTACACCTACAATGCAGGAATCTGCAGGAATTCTTAGGGGGCCTGAGCCCTGGGGTATTGGACCGAT
TGTATGGGCACCCTGCCACATGTCTGGCTGTCTTCAGGGAGCTCCCATCCTTGGCTAAGAACTGGGTGATGCGGA
TGCTCTTTCTGGAGCAGCCTTTGCCACAGGCTGCTGTAGCTCTGTGGGTAAAGAAGGAATTCAGCAAGGCTCAGG
AGGAAAGTACAGGGCTGCTGAGCGGCCTCCGGATCTGGCACACACAGCTGCTCCCAGGCGGGCTCCAGGGCCTCA
TCCTCAACCCCATTTTCCGCCAGAACCTCCGCATTGCCCTTCTGGGTGGGGGGAAGGCCTGGTCTGATGACACAA
GTCAGCTGGGACCAGACAAGCATGCCCGGGACGTTCCCTCCCTTGACAAGTACGCCGAGGAGCGATGGGAGGTGG
TCTTGCACTTCATGGTGGGCTCCCCCAGTGCAGCTGTCAGCCAGGACTTGGCTCAGCTCCTCAGCCAGGCTGGGC
TCATGAAGAGTACTGAACCTGGAGAGCCGCCCTGCATTACTTCCGCTGGCTTCCAGTTCCTGTTGCTGGACACCC
CGGCTCAGCTCTGGTACTTTATGTTGCAGTATTTGCAGACAGCCCAGAGCCGGGGCATGGACCTGGTAGAGATTC
TCTCCTTCCTCTTCCAGCTCAGCTTCTCTACTCTGGGCAAGGATTACTCTGTGGAAGGTATGAGTGATTCTCTGT
TGAACTTCCTGCAACATCTGCGTGAGTTTGGGCTTGTTTTCCAGAGGAAGAGGAAATCTCGGCGTTACTACCCCA
CACGCCTGGCCATCAATCTCTCATCAGGTGTCTCTGGAGCTGGGGGCACTGTGCATCAGCCAGGTTTCATTGTCG
TGGAAACCAATTACCGACTGTATGCCTACACGGAGTCGGAGCTGCAGATTGCCCTCATTGCCCTCTTCTCTGAGA
TGCTCTATCGGTTCCCCAACATGGTGGTGGCGCAGGTGACCCGGGAGAGTGTGCAGCAGGCAATCGCCAGTGGCA
TCACAGCCCAGCAGATAATCCATTTCCTAAGGACAAGAGCCCACCCAGTGATGCTCAAACAGACACCTGTGCTGC
CCCCCACCATCACCGACCAGATCCGGCTCTGGGAGCTGGAAAGGGACAGACTCCGGTTCACTGAGGGTGTCCTGT
ATAACCAGTTCCTGTCGCAAGTGGACTTTGAGCTGCTGCTGGCCCACGCGCGGGAGCTGGGCGTGCTCGTGTTCG
AGAACTCGGCCAAGCGGCTCATGGTGGTGACCCCGGCCGGGCACAGCGACGTCAAGCGCTTTTGGAAGCGGCAGA
AACATAGCTCC**TGA**GAGCGCGGGACTTGGACACGGACCTCGGCGGGCGGGACTGGGCGGGGCGGGGCATCAGAAC
TCAGGTGTTTTTTATTTACGCGTCAGGGCTTTTCTTGTTTAATAAAGTTATGATAGCT

FIGURE 644A

TTAGGAAGTTATTTAACTGATCTCTGCCCTAGTTTCTTCATGTGTTAAATATGGATAGTAATAGTATCTACCTTA
TGAAGTGACTGTGAAGATAAAATTATGGATTCTGTTTAAGGGTTTAGGCCAGTGTCTGGCACAGGGGAAGCATTC
TAAAAATATAGCTGATGCTGTTAAACAATGACTGTTGTTGTTGTTTTACTGTTATTATCCCCAAAGCGGCCCATT
CTGTCTGTTGCTGTCAGCTATGACTCAGTCCCCTGATTAACTTACGCACCACCCATTTTATCCCCTGCAGAGATG
CTGCCCCCACCCCCTTAGGCCCGAGGGATCAGGAGCT**ATG**GGACCAGAGGCCCTGTCATCTTTACTGCTGCTGCT
CTTGGTGGCAAGTGGAGATGCTGACATGAAGGGACATTTTGATCCTGCCAAGTGCCGCTATGCCCTGGGCATGCA
GGACCGGACCATCCCAGACAGTGACATCTCTGCTTCCAGCTCCTGGTCAGATTCCACTGCCGCCCGCCACAGCAG
GTTGGAGAGCAGTGACGGGGATGGGGCCTGGTGCCCCGCAGGGTCGGTGTTTCCCAAGGAGGAGGAGTACTTGCA
GGTGGATCTACAACGACTGCACCTGGTGGCTCTGGTGGGCACCCAGGGACGGCATGCCGGGGGCCTGGGCAAGGA
GTTCTCCCGGAGCTACCGGCTGCGTTACTCCCGGGATGGTCGCCGCTGGATGGGCTGGAAGGACCGCTGGGGTCA
GGAGGTGATCTCAGGCAATGAGGACCCTGAGGGAGTGGTGCTGAAGGACCTTGGGCCCCCCATGGTTGCCCGACT
GGTTCGCTTCTACCCCCGGGCTGACCGGGTCATGAGCGTCTGTCTGCGGGTAGAGCTCTATGGCTGCCTCTGGAG
GGATGGACTCCTGTCTTACACCGCCCCTGTGGGGCAGACAATGTATTTATCTGAGGCCGTGTACCTCAACGACTC
CACCTATGACGGACATACCGTGGGCGGACTGCAGTATGGGGGTCTGGGCCAGCTGGCAGATGGTGTGGTGGGGCT
GGATGACTTTAGGAAGAGTCAGGAGCTGCGGGTCTGGCCAGGCTATGACTATGTGGGATGGAGCAACCACAGCTT
CTCCAGTGGCTATGTGGAGATGGAGTTTGAGTTTGACCGGCTGAGGGCCTTCCAGGCTATGCAGGTCCACTGTAA
CAACATGCACACGCTGGGAGCCCGTCTGCCTGGCGGGGTGGAATGTCGCTTCCGGCGTGGCCCTGCCATGGCCTG
GGAGGGGGAGCCCATGCGCCACAACCTAGGGGGCAACCTGGGGGACCCCAGAGCCCGGGCTGTCTCAGTGCCCCT
TGGCGGCCGTGTGGCTCGCTTTCTGCAGTGCCGCTTCCTCTTTGCGGGGCCCTGGTTACTCTTCAGCGAAATCTC
CTTCATCTCTGATGTGGTGAACAATTCCTCTCCGGCACTGGGAGGCACCTTCCCGCCAGCCCCCTGGTGGCCGCC
TGGCCCACCTCCCACCAACTTCAGCAGCTTGGAGCTGGAGCCCAGAGGCCAGCAGCCCGTGGCCAAGGCCGAGGG
GAGCCCGACCGCCATCCTCATCGGCTGCCTGGTGGCCATCATCCTGCTCCTGCTGCTCATCATTGCCCTCATGCT
CTGGCGGCTGCACTGGCGCAGGCTCCTCAGCAAGGCTGAACGGAGGGTGTTGGAAGAGGAGCTGACGGTTCACCT
CTCTGTCCCTGGGGACACTATCCTCATCAACAACCGCCCAGGTCCTAGAGAGCCACCCCCGTACCAGGAGCCCCG
GCCTCGTGGGAATCCGCCCCACTCCGCTCCCTGTGTCCCCAATGGCTCTGCGTTGCTGCTCTCCAATCCAGCCTA
CCGCCTCCTTCTGGCCACTTACGCCCGTCCCCCTCGAGGCCCGGGCCCCCCCACACCCGCCTGGGCCAAACCCAC
CAACACCCAGGCCTACAGTGGGGACTATATGGAGCCTGAGAAGCCAGGCGCCCCGCTTCTGCCCCCACCTCCCCA
GAACAGCGTCCCCCATTATGCCGAGGCTGACATTGTTACCCTGCAGGGCGTCACCGGGGGCAACACCTATGCTGT
GCCTGCACTGCCCCCAGGGGCAGTCGGGGATGGGCCCCCCAGAGTGGATTTCCCTCGATCTCGACTCCGCTTCAA
GGAGAAGCTTGGCGAGGGCCAGTTTGGGGAGGTGCACCTGTGTGAGGTCGACAGCCCTCAAGATCTGGTTAGTCT
TGATTTCCCCCTTAATGTGCGTAAGGGACACCCTTTGCTGGTAGCTGTCAAGATCTTACGGCCAGATGCCACCAA
GAATGCCAGGAATGATTTCCTGAAAGAGGTGAAGATCATGTCGAGGCTCAAGGACCCAAACATCATTCGGCTGCT
GGGCGTGTGTGTGCAGGACGACCCCCTCTGCATGATTACTGACTACATGGAGAACGGCGACCTCAACCAGTTCCT
CAGTGCCCACCAGCTGGAGGACAAGGCAGCCGAGGGGGCCCCTGGGGACGGGCAGGCTGCGCAGGGGCCCACCAT
CAGCTACCCAATGCTGCTGCATGTGGCAGCCCAGATCGCCTCCGGCATGCGCTATCTGGCCACACTCAACTTTGT
ACATCGGGACCTGGCCACGCGGAACTGCCTAGTTGGGGAAAATTTCACCATCAAAATCGCAGACTTTGGCATGAG
CCGGAACCTCTATGCTGGGGACTATTACCGTGTGCAGGGCCGGGCAGTGCTGCCCATCCGCTGGATGGCCTGGGA
GTGCATCCTCATGGGGAAGTTCACGACTGCGAGTGACGTGTGGGCCTTTGGTGTGACCCTGTGGGAGGTGCTGAT
GCTCTGTAGGGCCCAGCCCTTTGGGCAGCTCACCGACGAGCAGGTCATCGAGAACGCGGGGGAGTTCTTCCGGGA
CCAGGGCCGGCAGGTGTACCTGTCCCGGCCGCCTGCCTGCCCGCAGGGCCTATATGAGCTGATGCTTCGGTGCTG
GAGCCGGGAGTCTGAGCAGCGACCACCCTTTTCCCAGCTGCATCGGTTCCTGGCAGAGGATGCACTCAACACGGT
G**TGA**ATCACACATCCAGCTGCCCCTCCCTCAGGGAGCGATCCAGGGGAAGCCAGTGACACTAAAACAAGAGGACA
CAATGGCACCTCTGCCCTTCCCCTCCCGACAGCCCATCACCTCTAATAGAGGCAGTGAGACTGCAGGTGGGCTGG
GCCCACCCAGGGAGCTGATGCCCCTTCTCCCCTTCCTGGACACACTCTCATGTCCCCTTCCTGTTCTTCCTTCCT
AGAAGCCCCTGTCGCCCACCCAGCTGGTCCTGTGGATGGGATCCTCTCCACCCTCCTCTAGCCATCCCTTGGGGA
AGGGTGGGGAGAAATATAGGATAGACACTGGACATGGCCCATTGGAGCACCTGGGCCCCACTGGACAACACTGAT
TCCTGGAGAGGTGGCTGCGCCCCCAGCTTCTCTCTCCCTGTCACACACTGGACCCCACTGGCTGAGAATCTGGGG
GTGAGGAGGACAAGAAGGAGAGGAAAATGTTTCCTTGTGCCTGCTCCTGTACTTGTCCTCAGCTTGGGCTTCTTC

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FIGURE 644B

CTCCTCCATCACCTGAAACACTGGACCTGGGGGTAGCCCCGCCCCAGCCCTCAGTCACCCCCACTTCCCACTTGC
AGTCTTGTAGCTAGAACTTCTCTAAGCCTATACGTTTCTGTGGAGTAAATATTGGGATTGGGGGGAAAGAGGGAG
CAACGGCCCATAGCCTTGGGGTTGGACATCTCTAGTGTAGCTGCCACATTGATTTTTCTATAATCACTTGGGGTT
TGTACATTTTTGGGGGGAGAGACACAGATTTTTACACTAATATATGGACCTAGCTTGAGGCAATTTTAATCCCCT
GCACTAGGCAGGTAATAATAAAGGTTGAGTTTTCCAC

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FIGURE 645

ACTTGGCCTTACACTCCGCTCGGCTCACC**ATG**TGTCACTCTCGCAGCTGCCACCCGACCATGACCATCCTGCAGG
CCCCGACCCCGGCCCCCTCCACCATCCCGGGACCCCGGCGGGGCTCCGGTCCTGAGATCTTCACCTTCGACCCTC
TCCCGGAGCCCGCAGCGGCCCCTGCCGGGCGCCCCAGCGCCTCTCGCGGGCACCGAAAGCGCAGCCGCAGGGTTC
TCTACCCTCGAGTGGTCCGGCGCCAGCTGCCAGTCGAGGAACCGAACCCAGCCAAAAGGCTTCTCTTTCTGCTGC
TCACCATCGTCTTCTGCCAGATCCTGATGGCTGAAGAGGGTGTGCCGGCGCCCCTGCCTCCAGAGGACGCCCCTA
ACGCCGCATCCCTGGCGCCCACCCCTGTGTCCCCCGTCCTCGAGCCCTTTAATCTGACTTCGGAGCCCTCGGACT
ACGCTCTGGACCTCAGCACTTTCCTCCAGCAACACCCGGCCGCCTTC**TAA**CTGTGACTCCCCGCACTCCCCAAAA
AGAATCCGAAAAACCACAAAGAAACACCAGGCGTACCTGGTGCGCGAGAGCGTATCCCCAACTGGGACTTCCGAG
GCAACTTGAACTCAGAACACTACAGCGGAGACGCCACCCGGTGCTTGAGGCGGGACCGAGGCGCACAGAGACCGA
GGCGCATAGAGACCGAGGCACAGCCCAGCTGGGGCTAGGCCCGGTGGGAAGGAGAGCGTCGTTAATTTATTTCTT
ATTGCTCCTAATTAATATTTATATGTATTTATGTACGTCCTCCTAGGTGATGGAGATGTGTACGTAATATTTATT
TTAACTTATGCAAGGGTGTGAGATGTTCCCCCTGCTGTAAATGCAGGTCTCTTGGTATTTATTGAGCTTTGTGGG
ACTGGTGGAAGCAGGACACCTGGAACTGCGGCAAAGTAGGAGAAGAAATGGGGAGGACTCGGGTGGGGGAGGACG
TCCCGGCTGGGATGAAGTCTGGTGGTGGGTCGTAAGTTTAGGAGGTGACTGCATCCTCCAGCATCTCAACTCCGT
CTGTCTACTGTGTGAGACTTCGGCGGACCATTAGGAATGAGATCCGTGAGATCCTTCCATCTTCTTGAAGTCGCC
TTTAGGGTGGCTGCGAGGTAGAGGGTTGGGGGTTGGTGGGCTGTCACGGAGCGACTGTCGAGATCGCCTAGTATG
TTCTGTGAACACAAATAAAATTGATTTACTGTCTGC

FIGURE 646

AGCAACGGGGTGCGGCAGGGTGGGGAACGCGGGAGCGGGGCCAGCTCCCAGGAAAGCTGGTCTGCGAGCGGCCCC
TGCCCGGCTCCCAGGTCCCTGCGCGACCCCGCCCTTCCCGAGACCCCAGCCGGGCTGCCGCCCGCGTCCCGGAAG
CTCCAGCCTGAACC**ATG**TTTTTCACTTGTGGCCCAAATGAGGCCATGGTGGTCTCCGGGTTCTGCCGAAGCCCCC
CAGTCATGGTGGCTGGAGGGCGTGTCTTTGTCCTGCCCTGCATCCAACAGATCCAGAGGATCTCTCTCAACACAC
TGACCCTCAATGTCAAGAGTGAAAAGGTTTACACTCGCCATGGGGTCCCCATCTCAGTCACTGGCATTGCCCAGG
TAAAAATCCAGGGGCAGAACAAGGAGATGTTGGCGGCCGCCTGTCAGATGTTCCTGGGGAAGACGGAGGCTGAGA
TTGCCCACATTGCCCTGGAGACGTTAGAGGGCCACCAGAGGGCCATCATGGCCCACATGACTGTGGAGGAGATCT
ATAAGGACAGGCAGAAATTCTCAGAACAGGTTTTCAAAGTGGCCTCCTCAGACCTGGTCAACATGGGCATCAGTG
TGGTTAGCTACACTCTGAAGGACATTCACGATGACCAGGACTATTTGCACTCTTTGGGGAAGGCTCGAACAGCTC
AAGTCCAAAAAGATGCACGGATTGGAGAAGCAGAGGCCAAGAGAGATGCTGGGATCCGGGAAGCTAAAGCCAAGC
AGGAAAAGGTGTCTGCTCAGTACCTGAGTGAGATCGAGATGGCCAAGGCACAGAGAGATTACGAACTGAAGAAGG
CCGCCTATGACATCGAGGTCAACACCCGCCGAGCACAGGCTGACCTGGCCTATCAGCTTCAGGTGGCCAAGACTA
AGCAGCAGATTGAGGAGCAGCGGGTGCAGGTGCAGGTGGTGGAGCGGGCCCAGCAGGTGGCAGTGCAGGAGCAGG
AGATCGCCCGGCGGGAGAAGGAGCTGGAGGCCCGGGTGCGGAAGCCAGCGGAAGCGGAGCGCTACAAGCTGGAGC
GCCTAGCCGAGGCAGAGAAGTCCCAACTAATTATGCAGGCGGAGGCAGAAGCCGCGTCTGTGCGGATGCGTGGGG
AAGCTGAGGCCTTTGCCATAGGGGCCCGAGCCCGAGCCGAGGCTGAGCAGATGGCCAAGAAGGCAGAAGCCTTCC
AGCTGTACCAAGAGGCTGCTCAGCTGGACATGCTGCTAGAGAAGCTGCCCCAGGTGGCAGAGGAGATCAGTGGTC
CCTTGACTTCAGCCAATAAGATCACACTGGTGTCCAGCGGCAGTGGGACCATGGGGGCAGCCAAAGTGACTGGGG
AAGTACTGGACATTCTAACTCGCCTGCCAGAGAGTGTGGAAAGACTCACAGGCGTGAGCATCTCCCAGGTGAATC
ACAAGCCTTTGAGAACAGCC**TGA**GCCTTCAGCCCTCACAGATGCCCAGCCTCATAGCTGAAGTTGCCTGAATGAT
CCTCCTGTTGCATGTAACCCACTGGCCTCCCTGAGCATGTCCATTGACAGTGAGGTCCCACCCCTCATCTCTCCT
TGCCAAATAGTTTGTGCCTTGTCTTGAAGGGGGTTGCTCCCCTTGCCAACCTCACACTGCTATGATTGCCAACTC
CAGCGGTCCCATGTCAGCCTTCTGATGATCCCACTCCACCCCACCTCAACTTATTTAACTTCCTAATTAAATCAG
ACTGTTTGAGCCTGTTGTCTAGAATATTTTCCTGACCAAGACTGAGGGATGGGCTGGAGGTTTTCAACTTTGCTA
CCCAAATAAATTGCTGTAAGTAAGTACT

FIGURE 647

CGCTGCTCCAGCCTCTGGGGCGCATTCCAACCTTCCAGCCTGCGACCTGCGGAGAAAAAAAAATTACTTATTTTCT
TGCCCCATACATACCTTGAGGCGAGCAAAAAAATTAAATTTTAACC**ATG**AGGGAAATCGTGCACATCCAGGCTGG
TCAGTGTGGCAACCAGATCGGTGCCAAGTTCTGGGAGGTGATCAGTGATGAACATGGCATCGACCCCACCGCTGT
CTTCCGTGGTCGGATGTCCATGAAGGAGGTCGATGAGCAGATGCTTAACGTGCAGAACAAGAACAGCAGCTACTT
TGTGGAATGGATCCCCAACAATGTCAAGACAGCCGTCTGTGACATCCCACCTCGTGGCCTCAAGATGGCAGTCAC
CTTCATTGGCAATAGCACAGCCATCCAGGAGCTCTTCAAGCGCATCTCGGAGCAGTTCACTGCCATGTTCCGCCG
GAAGGCCTTCCTCCACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCTGAGAGCAACATGAA
CGACCTCGTCTCTGAGTATCAGCAGTACCAGGATGCCACCGCAGAAGAGGAGGAGGATTTCGGTGAGGAGGCCGA
AGAGGAGGCC**TAA**GGCAGAGCCCCCATCACCTCAGGCTTCTCAGTTCCCTTAGCCGTCTTACTCAACTGCCCCTT
TCCTCTCCCTCAGAATTTGTGTTTGCTGCCTCTATCTTGTTTTTTGTTTTTTCTTCTGGGGGGGGTCTAGAACAG
TGCCTGGCACATAGTAGGCGCTCAATAAATACTTGTTTGTTGAATGTCTCCTCTCTCTTTCCACTCTGGGAAACC
TAGGTTTCTGCCATTCTGG

FIGURE 648A

AGATC**ATG**GAGGACACCCAGGCTATTGACTGGGATGTTGAAGAAGAGGAGGAGACAGAGCAATCCAGTGAATCCT
TGAGGTGTAACGTGGAGCCAGTAGGGCGGCTACATATCTTTAGTGGTGCCCATGGACCAGAAAAAGATTTCCCAC
TACACCTCGGGAAGAATGTGGTAGGCCGAATGCCTGACTGCTCTGTGGCCCTGCCCTTTCCATCTATCTCCAAAC
AACATGCAGAGATTGAAATCTTAGCCTGGGACAAGGCACCTATCCTCCGAGACTGTGGGAGCCTTAATGGTACTC
AAATCCTGAGACCTCCTAAGGTTTTGAGCCCTGGGGTGAGTCACCGTCTGAGGGACCAGGAATTGATTCTCTTTG
CTGACTTGCTCTGCCAGTACCATCGCCTGGATGTCTCTCTGCCCTTTGTCTCCCGGGGCCCTCTGACAGTAGAAG
AGACACCCAGAGTACAGGGAGAAACTCAACCCCAGAGGCTTCTGTTGGCTGAGGACTCGGAGGAGGAAGTAGATT
TTCTTTCTGAAAGGCGTATGGTAAAAAAATCAAGGACCACATCTTCCTCTGTGATAGTTCCAGAGAGTGATGAAG
AGGGGCATTCCCCGGTCCTGGGCGGCCTTGGGCCGCCTTTTGCCTTCAATTTGAACAGTGACACAGATGTGGAAG
AAGGTCAGCAACCAGCCACAGAGGAGGCCTCCTCAGCTGCCAGAAGAGGTGCCACTGTAGAGGCAAAGCAGTCTG
AAGCTAAAGTTGTAACTGAAATCCAGCTTGAAAAGGATCAGCCTTTAGTGAAGGAGAGGGACAATGATACAAAAG
TCAAGAGGGGTGCAGGGAATGGGGTGGTTCCAGCTGGGGTGATTCTGGAGAGGAGCCAACCTCCTGGAGAGGACA
GTGACACAGATGTGGATGATGACAGCAGGCCTCCTGGAAGGCCAGCTGAGGTCCATTTGGAAAGGGCTCAGCCTT
TTGGCTTCATCGACAGCGACACTGATGCGGAAGAAGAGAGGATCCCAGCAACCCCAGTTGTCATTCCTATGAAGA
AGAGGAAGATCTTCCATGGAGTAGGTACAAGGGGCCCTGGAGCACCAGGCCTGGCCCATCTGCAGGAGAGCCAGG
CTGGTAGTGATACAGATGTGGAAGAAGGCAAGGCCCCACAGGCTGTCCCTCTGGAGAAAAGCCAAGCTTCCATGG
TTATCAACAGCGATACAGATGACGAGGAAGAAGTCTCAGCAGCGCTGACTTTGGCACATCTGAAAGAGAGCCAGC
CTGCTATATGGAACAGAGATGCAGAAGAGGACATGCCCCAACGTGTGGTCCTTCTGCAGCGAAGCCAAACCACCA
CTGAGAGAGACAGTGACACAGACGTGGAGGAGGAAGAGCTCCCAGTGGAAAATAGAGAAGCTGTCCTCAAGGATC
ACACAAAGATTAGAGCCCTTGTTAGAGCACATTCAGAAAAGGACCAACCTCCTTTTGGGGACAGTGATGACAGTG
TGGAAGCAGATAAGAGCTCACCTGGGATCCACCTGGAGAGAAGCCAAGCCTCCACCACAGTGGACATCAACACAC
AAGTGGAGAAGGAAGTCCCGCCAGGGTCAGCCATTATACATATAAAGAAGCATCAGGTGTCTGTGGAGGGGACAA
ATCAAACAGATGTGAAAGCAGTTGGGGGACCAGCAAAGCTGCTTGTGGTATCTCTAGAGGAAGCCTGGCCTCTGC
ATGGGGACTGTGAAACAGATGCAGAGGAGGGCACCGCCCTAACAGCCTCAGTAGTTGCAGATGTAAGAAAGAGCC
AGCTTCCAGCAGAAGGGGATGCTGGGGCAGAGTGGGCTGCAGCTGTTCTTAAGCAGGAGAGAGCTCATGAGGTGG
GGGCCCAGGGTGGGCCACCTGTGGCACAAGTGGAGCAGGACCTCCCTATCTCAAGAGAGAACCTCACAGATCTGG
TGGTGGACACAGACACTCTAGGGGAATCCACCCAGCCACAGAGAGAGGGAGCCCAGGTCCCCACAGGAAGGGAGA
GAGAACAACATGTGGGTGGGACCAAGGACTCTGAAGACAACTATGGTGATTCTGAAGATCTGGACCTACAAGCTA
CCCAGTGCTTTCTGGAGAATCAGGGCCTGGAAGCAGTCCAGAGCATGGAGGATGAACCTACCCAGGCCTTCATGT
TGACTCCACCCCAAGAGCTTGGCCCTTCCCATTGCAGCTTCCAGACAACAGGTACCCTAGATGAACCATGGGAGG
TCCTGGCTACACAGCCATTCTGTCTGAGAGAGTCTGAGGACTCTGAGACCCAGCCTTTTGACACGCACCTTGAGG
CCTATGGACCTTGCCTGTCTCCACCTAGGGCAATACCAGGAGACCAACATCCAGAGAGCCCAGTTCACACAGAGC
CAATGGGGATTCAAGGCAGAGGGAGGCAGACTGTGGATAAAGTCATGGGTATACCAAAAGAAACAGCAGAGAGGG
TGGGCCCTGAGAGAGGGCCATTGGAGAGAGAAACTGAGAAACTGCTACCAGAAAGACAGACAGATGTGACAGGAG
AGGAAGAATTAACCAAGGGGAAACAGGACAGAGAACAAAAACAGTTGTTAGCTAGAGACACCCAGAGACAAGAAT
CTGACAAAAATGGGGAAAGTGCAAGTCCTGAAAGAGATAGGGAGAGTTTGAAGGTAGAAATTGAGACATCTGAGG
AAATACAAGAGAAACAAGTACAGAAGCAGACCCTTCCAAGCAAAGCATTTGAGAGAGAAGTAGAGAGACCAGTAG
CAAACAGAGAGTGCGATCCAGCCGAGTTAGAAGAGAAGGTGCCCAAAGTGATCCTGGAGAGAGATACACAGAGAG
GGGAGCCAGAGGGAGGGAGCCAGGACCAGAAAGGGCAGGCCTCCAGCCCAACACCAGAGCCTGGGGTGGGGGCGG
GGGACCTTCCGGGACCTACCTCAGCCCCCGTACCTTCTGGGAGCCAGTCAGGTGGAAGGGGATCCCCAGTGAGCC
CCAGGAGGCATCAGAAAGGCCTCCTGAATTGCAAGATGCCACCTGCTGAGAAGGCTTCCAGGATCAGAGCTGCTG
AGAAGGTTTCCAGGGGCGATCAGGAATCTCCAGATGCTTGTCTGCCTCCTACAGTACCTGAAGCCCCAGCCCCAC
CCCAAAAGCCCCTTAACTCTCAGAGCCAGAAACATCTTGCACCTCCGCCCCTTCTTTCTCCCCTTTTACCTTCTA
TCAAGCCAACCGTTCGTAAGACCAGGCAAGATGGGAGTCAGGAAGCTCCAGAGGCTCCCTTGTCCTCAGAGCTGG
AGCCTTTCCACCCAAAGCCTAAAATTAGAACTCGGAAGTCCTCCAGAATGACACCCTTTCCAGCTACCTCTGCTG
CCCCTGAGCCCCACCCTTCCACCTCCACAGCCCAGCCAGTCACTCCCAAGCCCACATCTCAGGCCACTAGGAGCA
GGACAAATAGGTCCTCTGTCAAGACCCCTGAACCAGTTGTCCCCACAGCCCCTGAGCTCCAGCCTTCCACCTCCA
CAGACCAGCCTGTCACCTCTGAGCCCACATCTCAGGTTACTAGGGGAAGAAAAAGTAGATCCTCTGTCAAGACCC

FIGURE 648B

CTGAAACAGTTGTGCCCACAGCCCTTGAGCTCCAGCCTTCCACCTCCACCGACCGACCTGTCACCTCTGAACCCA
CCTCTCAGGCTACTAGGGGAAGAAAAAATAGATCCTCTGTCAAGACCCCTGAACCAGTTGTCCCCACAGCCCCTG
AGCTCCAGCCTTCCACCTCCACAGACCAGCCTGTCACTTCTGAGCCCACATATCAGGCTACTAGGGGAAGAAAAA
ATAGATCCTCTGTCAAGACCCCTGAACCAGTTGTGCCCACAGCCCCTGAGCTCCGGCCTTCCACCTCCACAGACC
GACCTGTCACCCCCAAGCCCACATCTCGGACCACTAGGAGCAGGACAAATATGTCCTCTGTCAAGACCCCTGAAA
CAGTTGTCCCCACAGCCCCTGAGCTCCAGATTTCCACCTCCACAGACCAACCTGTCACCCCTAAGCCCACATCTC
GGACCACTAGGAGCAGGACAAATATGTCCTCTGTGAAGAACCCTGAATCAACTGTCCCTATAGCCCCTGAGCTCC
CACCTTCCACCTCCACAGAGCAGCCTGTCACCCCTGAGCCCACATCTCGGGCTACTAGGGGAAGAAAAAATAGAT
CCTCTGGCAAGACCCCTGAAACACTTGTCCCCACAGCCCCTAAGCTCGAGCCTTCCACTTCCACAGACCAACCTG
TCACTCCTGAGCCCACATCTCAGGCCACCAGGGGCAGGACAAATAGGTCCTCTGTGAAGACCCCTGAAACAGTTG
TCCCCACAGCCCCTGAGCTCCAGCCTTCCACCTCCACAGACCAGCCTGTTACCCCTGAGCCTACGTCTCAGGCTA
CTAGGGGAAGAACAGATAGATCCTCTGTCAAGACTCCTGAAACAGTTGTCCCCACAGCCCCTGAGCTACAGGCTT
CCGCCTCCACAGACCAGCCTGTCACCTCTGATCCCACATCTCGGACCACTAGGGGAAGAAAAAATCGGTCCTCTG
TCAAGACCCCTGAAACAGTTGTGCCCGCAGCCCCTGAGCTCCAGCCTCCCACCTCCACAGACCAACCTGTCACCC
CTGAGCCCACATCTCGGGCCACTAGGGGCAGGACAAATAGGTCCTCTGTCAAGACCCCTGAATCAATTGTCCCTA
TAGCCCCTGAGCTTCAGCCTTCCACCTCCAGAAACCAGCTTGTCACCCCTGAGCCCACATCTCGGGCCACTAGGT
GCAGGACAAATAGGTCCTCTGTCAAGACCCCTGAGCCAGTTGTCCCCACAGCCCCTGAGCCCCATCCTACCACCT
CCACAGACCAGCCTGTCACCCCCAAGCTCACATCTAGGGCCACTAGGAGAAAGACAAATAGGTCCTCTGTCAAGA
CTCCCAAACCAGTTGAACCAGCAGCCTCTGATCTTGAGCCTTTTACCCCCACAGACCAGTCCGTCACCCCTGAGG
CCATAGCTCAGGGTGGTCAGAGCAAAACACTGAGGTCTTCCACAGTAAGAGCTATGCCGGTTCCTACCACCCCTG
AATTCCAATCTCCTGTCACCACAGACCAGCCTATTTCCCCTGAGCCTATTACTCAACCCAGTTGCATCAAGAGGC
AGAGAGCCGCTGGGAACCCTGGCTCCCTCGCAGCTCCCATTGACCATAAGCCTTGCTCTGCACCCTTGGAACCTA
AATCCCAGGCCTCAAGGAACCAAAGATGGGGAGCAGTGAGAGCAGCTGAATCCCTTACAGCCATTCCTGAGCCTG
CCTCTCCCCAGCTTCTTGAGACACCAATTCATGCCTCCCAGATCCAAAAGGTGGAACCAGCAGGTAGATCTAGGT
TCACCCCGGAGCTCCAGCCTAAGGCCTCTCAAAGCCGCAAGAGGTCTTTAGCTACCATGGATTCACCACCACATC
AAAAACAGCCCCAAAGAGGGGAAGTCTCCCAGAAGACAGTGATTATCAAGGAAGAGGAAGAAGATACTGCAGAGA
AGCCAGGGAAGGAAGAGGATGTCGTGACTCCAAAACCAGGCAAGAGAAAGAGAGACCAGGCAGAGGAGGAGCCCA
ACAGAATACCAAGCCGCAGCCTCCGACGGACCAAACTTAACCAAGAATCAACAGCCCCCAAAGTGCTCTTCACAG
GAGTGGTGGATGCTCGGGGAGAGCGGGCTGTGCTGGCACTGGGGGGAAGTCTGGCTGGTTCAGCGGCAGAGGCTT
CCCACCTGGTCACTGATCGCATCCGCCGGACAGTCAAGTTCCTGTGTGCCCTGGGGCGGGGAATCCCCATTCTGT
CCCTGGACTGGCTGCATCAGTCCCGCAAGGCTGGTTTCTTCTTACCCCCGGATGAATATGTGGTGACCGACCCTG
AGCAAGAGAAGAACTTTGGCTTTAGCCTTCAAGACGCACTGAGCAGGGCTCGGGAGCGAAGGCTGCTAGAGGGCT
ATGAGATCTATGTGACCCCTGGAGTCCAGCCACCACCACCTCAGATGGGAGAGATTATTAGCTGCTGTGGAGGCA
CATACCTACCCAGCATGCCTCGGTCCTATAAGCCTCAGAGAGTTGTGATCACATGCCCTCAGGACTTCCCTCATT
GCTCCATTCCACTACGGGTTGGGCTGCCCCTCCTCTCGCCTGAGTTCCTGCTGACTGGAGTGCTGAAGCAGGAAG
CCAAGCCAGAGGCCTTTGTCCTCTCCCCTTTGGAGATGTCATCCACC**TGA**GAACTCCACTACCCTTTTCCCTCCC
AGACCACGAATTAGAAGATATGTGGAAGAAAGAACTCAGGGCGTTAGAAAGGATTGGGGTATATTGATACAACTT
GTCCTGGAACATGGGTGGGACCAGAAATCTTTATGAATAAATGAAAAGATAAGGGATTTGGAAGCCACAGGTTGT
TTTTTGTTTGTTTGTTTGTTTTTTTAATGGCCATTTTATTTTATTTGTATTTATAGTTTTTTATTTGTATAGATT
TAGGGGATACAAGATTTCTTACATGCATGTATTAAATGGCCATTTTAAAATTAGCTAGTTTCATGCTCAGATGTC
ATAAGTGGCAGCTATCTTTAGCCAGACTGTTGCAGTTATTGCTCGATGCCACTCATGGTGTCCTACCTCCTATTT
GGAAACCATCTCTATTTTTTTCTTACTGAGATTCTTACTTTGGGGTCAGGAACTTGAAGGGATGCTTGGAGTGAG
TAGATTTGAGGGTCCAGTTATGGAGTGCTACTAAAACATTTTCTTCTCTCCTGGCCTCTGGAAGCATCTTTAGCT
TTGACTTTGGGCAAGTCTCTGTACTTTTCTGGCCAGCTTTTCCAGGATTTATAAAATTAGAGCTTCGGCTTGACC
TCTGTGATAAATAAATATTCACTCTGTGCCTT

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FIGURE 649

ATGGCCCCTGCACTGCTCCTGATCCCTGCTGCCCTCGCCTCTTTCATCCTGGCCTTTGGCACCGGAGTGGAGTTC
GTGCGCTTTACCTCCCTTCGGCCACTTCTTGGAGGGATCCCGGAGTCTGGTGGTCCGGATGCCCGCCAGGGATGG
CTGGCTGCCCTGCAGGACCGCAGCATCCTTGCCCCCCTGGCATGGGATCTGGGGCTCCTGCTTCTATTTGTTGGG
CAGCACAGCCTCATGGCAGCTGAAAGAGTGAAGGCATGGACATCCCGGTACTTTGGGGTCCTTCAGAGGTCACTG
TATGTGGCCTGCACTGCCCTGGCCTTGCAGCTGGTGATGCGGTACTGGGAGCCCATACCCAAAGGCCCTGTGTTG
TGGGAGGCTCGGGCTGAGCCATGGGCCACCTGGGTGCCCCTCCTCTGCTTTGTGCTCCATGTCATCTCCTGGCTC
CTCATCTTTAGCATCCTTCTCGTCTTTGACTATGCTGAGCTCATGGGCCTCAAACAGGTATACTACCATGTGCTG
GGGCTGGGCGAGCCTCTGGCCCTGAAGTCTCCCCGGGCTCTCAGACTCTTCTCCCACCTGCGCCACCCAGTGTGT
GTGGAGCTGCTGACAGTGCTGTGGGTGGTGCCTACCCTGGGCACGGACCGTCTCCTCCTTGCTTTCCTCCTTACC
CTCTACCTGGGCCTGGCTCACGGGCTTGATCAGCAAGACCTCCGCTACCTCCGGGCCCAGCTACAAAGAAAACTC
CACCTGCTCTCTCGGCCCCAGGATGGGGAGGCAGAGTGAGGAGCTCACTCTGGTTACAAGCCCTGTTCTTCCTCT
CCCGCTGAATTCTAAATCCTTAACATCCAGGCCCTGGCTGCTTCATGCCAGAGGCCCAAATCCATGGACTGAAGG
AGATGCCCCTTCTACTACTTGAGACTTTATTCTCTGGGTCCAGCTCCATACCCTAAATTCTGAGTTTCAGCCACT
GAACTCCAAGGTCCACTTCTCACCAGCAAGGAAGAGTGGGGTATGGAAGTCATCTGTCCCTTCACTGTTTAGAGC
ATGACACTCTCCCCCTCAACAGCCTCCTGAGAAGGAAAGGATCTGCCCTGACCACTCCCCTGGCACTGTTACTTG
CCTCTGCGCCTCAGGGGTCCCCTTCTGCACCGCTGGCTTCCACTCCAAGAAGGTGGACCAGGGTCTGCAAGTTCA
ACGGTCATAGCTGTCCCTCCAGGCCCCAACCTTGCCTCACCACTCCCGGCCCTAGTCTCTGCACCTCCTTAGGCC
CTGCCTCTGGGCTCAGACCCCAACCTAGTCAAGGGGATTCTCCTGCTCTTAACTCGATGACTTGGGGCTCCCTGC
TCTCCCGAGGAAGATGCTCTGCAGGAAAATAAAAGTCAGCCTTTTTCTAC

FIGURE 650A

AGACAAAGCGGTCGCCGCCCCCGCCCGGCCCCCTGGTCTCTGTCTCCGTCCCTCCTCCTTTGCTGCCTCTTTCCC
TCCTCCTCTCCCTCCCTCCTCCCCTCCCTCCAGTCTCCGGATCTCCCTCGGTCCCTCTCTCCTCCTCTTCCTCTC
TCTGGACGCCCGGCTCCTCCGCACCCCCTCCCCCGGGGGTCCCGCGGCCTGTGAGTTGACTGAGGGGCTCAGACT
TGGGGAGTGGGTGTCTCCTCGCCCCTGTCCTTGCTCCCGTCCCTGGCCCGGACCTTGGCTGTCTCCTCTTTGTGC
CGAGATTGTCAGTCTGTGCGGCTACAGCGGGGTGGAGACGGCCGGCTCTGTCACGGCTTCATGAGAGCGGGGACG
GGGCGCAGGACTTGCAGGCGCCGGGGAGAAGAGACATGGAGCCGGCCCTTGGCACTCTGGGGTCGCGTGGGGCAG
TCGGTGGGGGAGGCAGGCGGTGGTGACAGGACAGGGTGGGGGTGGACGCCAGGGTTCTGGGAACGCGCTGGCAGC
CCTGACGCCCGGGTTCCGAAAGTCTCGGGGGTGGGTATTTCCCCCGACCCGCCTCGGGGGCGGAGTGCGGGGCAG
AGGGGTGGGGGCTGGGGAGAGGCGTGGCCCGAGCGGTGCTGGAAGCGGAGCCGGGACCTTTGGGGCCCGCGCTGA
GACGCGCCCGGCTGCTGCCGCCGCCCTCCTTTCCCCTCTTCCCTGGTTTCCCTTCTCCTCTAGACCTGTTCGCTC
TCCGCCCCTCCTTGCCTCCCCAACACCCCCTCAGGTCCCGTTGCCTCCTGGTCCTTTCAGGGATTCCTGGTCCTT
CCTTCCCACACTAGCCTCCCTGGGGTATCGCTGAGGCAGCCTGGCCTGCACCCAGGTTCCCCTCACCCCTGCCAC
ATTTCTCTCTTCTCCCTCACGCCAACTTTCCTTTTCGCCCTTCTCTCTCTTTCTCACATCCTAGAGACGGTCTTT
AATACGCATTAACCCTGTGCTGCCACATCTGGCTCCTGCCCTCATTGCCTCCAATCCGGACTCTTCCTCTCACAT
CACCCCCACCACCCCCAACTTGGGCTCACAACTTCTCTTCACTTTTTCCATTTCCCCAGTTCTCTGCCTTCCGTC
TTTCCCTCTGTCCTCATCCTTAGCCCCTCTGCCCTGCTTTGTGTCCCACCTCTCCCCCTCCACTTCCTCTCCTCC
CACCCTCAGTCTCACCCCCGGGCTGTCTCACTCTCTGGAGCCTCTCCTTCCTGTTCTCTGTCCCCAGTGCTCCCT
ACCCTCACCTCAAGACGACC**ATG**GCCACCATCCCAGACTGGAAGCTACAGCTGCTAGCCCGGCGCCGGCAGGAGG
AGGCGTCCGTTCGAGGCCGAGAGAAAGCAGAACGGGAGCGCCTGTCCCAGATGCCAGCCTGGAAACGAGGGCTCC
TGGAGCGCCGCCGGGCCAAGCTTGGGCTGTCCCCTGGGGAGCCTAGCCCTGTGCTAGGGACTGTAGAGGCTGGAC
CTCCAGACCCGGATGAGTCTGCGGTCCTTCTGGAGGCCATCGGGCCAGTGCACCAGAACCGATTCATCCGGCAGG
AGCGGCAGCAGCAGCAGCAGCAACAACAACGGAGTGAAGAGCTGCTAGCAGAGAGAAAGCCTGGGCCTCTGGAGG
CCCGGGAGCGGAGACCCAGCCCTGGGGAGATGCGGGATCAGAGCCCCAAGGGAAGAGAGTCAAGAGAAGAGAGAC
TAAGTCCGAGGGAGACCAGAGAGAGGAGGCTGGGGATAGGGGGAGCCCAAGAGTTGAGCCTGAGGCCTCTGGAGG
CTCGGGACTGGAGGCAAAGCCCAGGAGAGGTGGGAGACAGGAGCTCCCGACTGTCAGAGGCATGGAAATGGAGGC
TGAGTCCTGGAGAAACTCCAGAGCGGAGTCTGAGACTAGCAGAGTCTCGAGAGCAAAGCCCCAGGAGAAAAGAGG
TGGAAAGTAGACTGAGCCCAGGGGAATCTGCCTACCAGAAGTTGGGCCTGACAGAGGCCCATAAATGGAGACCTG
ACTCCAGAGAGTCTCAGGAACAGAGTTTGGTACAACTGGAGGCAACAGAGTGGAGGCTGAGGTCAGGAGAAGAAA
GACAAGACTACTCGGAAGAATGTGGGAGAAAAGAAGAGTGGCCAGTTCCAGGGGTAGCTCCAAAAGAGACTGCAG
AGCTGTCCGAGACCCTGACAAGGGAGGCCCAAGGCAACAGTTCCGCAGGAGTGGAGGCAGCAGAGCAGAGGCCTG
TGGAAGATGGCGAGAGGGGCATGAAGCCAACAGAAGGGTGGAAATGGACCCTGAACTCCGGGAAGGCTCGAGAAT
GGACACCCAGGGACATAGAGGCTCAAACTCAGAAACTAGAACCTCCAGAGTCAGCAGAGAAGCTTCTGGAATCTC
CCGGTGTGGAGGCTGGAGAAGGGGAGGCTGAGAAGGAGGAGGCGGGGGCTCAGGGCAGGCCTCTGAGAGCCCTGC
AGAACTGCTGCTCTGTGCCCTCCCCCCTCCCACCAGAGGACGCTGGGACTGGAGGCCTGAGACAGCAGGAAGAGG
AAGCAGTGGAGCTCCAGCCCCCACCACCAGCCCCTCTGTCTCCCCCACCCCCAGCCCCAACTGCCCCCCAACCTC
CTGGGGATCCCCTCATGAGCCGCCTGTTCTATGGGGTGAAGGCAGGGCCAGGGGTGGGGGCCCCCCGCCGCAGTG
GACACACCTTCACCGTCAACCCCCGGCGGTCTGTGCCCCCTGCGACCCCAGCCACCCCAACCTCTCCAGCCACAG
TTGATGCTGCAGTCCCGGGGGCTGGGAAGAAGCGGTACCCAACTGCCGAGGAGATCTTGGTTCTGGGGGGCTACC
TCCGTCTCAGCCGCAGCTGCCTTGCCAAGGGGTCCCCCGAAAGACACCACAAACAGCTTAAGATCTCCTTCAGCG
AGACAGCCCTGGAGACCACGTACCAATACCCCTCCGAGAGTTCGGTACTGGAGGAGCTGGGCCCGGAGCCTGAGG
TCCCCAGTGCCCCCAACCCTCCAGCAGCCCAACCCGACGACGAAGAGGATGAGGAAGAGCTGCTGCTGCTGCAGC
CAGAGCTCCAGGGCGGGCTGCGCACCAAGGCCCTGATTGTGGATGAGTCCTGCCGGCGG**TGA**CCATCTTCCAACA
TAGGGATATACCTCCCTCCTTCTTATAACTGAAGATCCTGGAGCCCGGAAGATTCAGGGCAGACAGACCCTGATA
ATGAGCCTGGCAGGGAAGGGCAACCAACATCTTGTAACTTGCTTTCCCCACCCTGTTTCTGGGGGCAGAGCCAAT
TGCCCAATTTCTACCCTAATCCAAAGTCCCTGGTGTGGGTGGGGTTAAACGTGCTGGTGCATCCTAGGTCATCCA
AGAGTGAGCGCCAAGTCCTGAGAAGGGGCACAGAACTCCCTGGAGGGTGGAGATGGAGCACCTGCCCCCCATGGC
AGGGTACACTCTCCCCACAGCCTTCCTCCCCACCATCCCGTGGGGACTCTCGGGATTTAAGCACTCGTCTCTCTG
GGAGGCCCAGACCCCACTCCATTTATAGGCACATCTCCTTCATTTCCTAGGTCACTGCCCCTTTGTTTACAGCTC

FIGURE 650B

CTGCCTCCTCCCTTGACCACAGCCTGGTTTACAAATTCCATCAGCTCCCAGCCCCACCTGCCAAAGTCCCAGGTT
TACAAGCCACGCTTACTTGCTGTGTCTGCGTGGAATTCTCTCCTCTGTCCCCTCCAGTCTCCTCATTGGAGTGAC
CTGAAGGTGTGGCTTCCTCCACTTTTTCTCAGTATTACTTTGCCTTAGTTTTCCCCAAGAGGGAAGGCTGGAACT
CTTAACTCTGTACCCCTTGATAGTTATTTAATTCTGTTTCTCCTAGTGGTTCACAATTGAACTGAATTGAGATGG
TGTCGGGTGGCTAAGGAGACACCTCACCTCTCCTTCCCCATTGTGCCGCCTTTATCAATTGCCTGTTTTGTTTTG
TTTGTTTTTTAACTTTCCATAATAAAATGGAGTTCTCTTC

FIGURE 651

GTCGGAAGATCCTAGAGGTCCCAAGGTAGCTGACTTGCGAAGCTGAGGCTCCAGCCGAGGGCTCCAGGCCTCTGA
CCGGCCCAGCAGTGAGCGCGGCTGCCCGACGCTTCAGGGCCGGGAGCAGGGAGCGTGAGTCGCC**ATG**GCGACGCC
GGCGGGTCTGGAGCGCTGGGTTCAGGACGAGCTGCACTCGGTGTTGGGGCTGAGCGAGCGGCACGTCGCCCAGTT
TCTGATCGGTACCGCACAGCGCTGCACCTCTGCCGAGGAGTTCGTGCAGCGCCTACGAGACACTGATACCTTGGA
TCTCAGTGGGCCGGCCCGGGACTTCGCCCTGAGACTCTGGAACAAGGTACCACGAAAGGCAGTGGTAGAAAAGCC
AGCTCGGGCAGCAGAGCGAGAGGCCCGGGCCCTGCTGGAGAAGAACCGATCTTATAGGTTACTGGAAGACAGTGA
AGAGAGCAGTGAGGAGACTGTGAGTAGGGCTGGAAGCAGCCTCCAGAAGAAACGTAAAAAGCGGAAACACCTCAG
GAAGAAGCGTGAGGAAGAAGAGGAGGAAGAGGCTTCTGAGAAAGGGAAGAAGAAAACAGGGGGGAGTAAACAGCA
GACAGAGAAGCCAGAGTCGGAAGATGAGTGGGAACGGACAGAGCGTGAACGCCTTCAGGACCTGGAGGAGCGTGA
TGCCTTTGCTGAGCGGGTTCGACAGCGGGACAAGGATCGGACTCGAAATGTCCTGGAACGGTCAGACAAGAAGGC
TTATGAAGAGGCTCAGAAGCGCCTCAAGATGGCCGAGGAAGACCGGAAGGCCATGGTCCCTGAGCTGCGGAAGAA
ATCTCGCCGAGAGTACCTGGCTAAGCGGGAGCGAGAGAAGCTTGAGGACCTGGAGGCGGAGCTGGCTGATGAGGA
GTTCCTTTTTGGGGACGTGGAGCTGAGCCGGCACGAGCGGCAGGAGCTCAAATATAAGCGGCGAGTGCGGGATCT
CGCCCGGGAGTACCGGGCAGCTGGGGAGCAGGAGAAGCTGGAGGCCACCAATCGCTACCACATGCCCAAGGAAAC
CCGAGGACAGCCAGCCCGAGCTGTGGATCTAGTGGAGGAGGAATCAGGAGCCCCTGGGGAGGAGCAGCGGCGCTG
GGAGGAGGCGCGGCTTGGGGCAGCGTCCCTGAAGTTTGGGGCCCGAGATGCTGCCTCTCAGGAGCCCAAGTATCA
ACTGGTGCTGGAGGAGGAGGAGACCATTGAGTTTGTCCGGGCCACTCAGCTCCAGGGTGATGAGGAGCCGTCAGC
TCCACCCACTTCAACTCAGGCCCAGCAGAAAGAGTCCATCCAGGCCGTCCGCCGCAGCCTCCCGGTGTTCCCATT
TCGAGAGGAGCTCCTGGCTGCTATTGCAAATCACCAAGTCCTCATCATTGAAGGCGAGACAGGCTCAGGGAAGAC
CACCCAGATCCCGCAGTATCTCTTTGAGGAGGGTTATACAAACAAGGGTATGAAGATTGCCTGCACCCAACCCCG
GAGAGTGGCTGCCATGAGTGTGGCCGCCCGAGTGGCCCGGGAGATGGGTGTGAAGCTTGGGAATGAGGTTGGCTA
CAGCATCCGCTTTGAGGACTGCACATCAGAGCGAACTGTCCTCCGCTACATGACAGATGGGATGCTTCTCCGGGA
GTTCCTCTCTGAGCCTGACCTGGCGAGTTACAGCGTGGTGATGGTGGATGAGGCACACGAAAGGACCCTACACAC
AGACATTCTCTTTGGATTGATCAAGGATGTTGCTCGCTTCCGACCTGAGCTCAAGGTCCTGGTGGCTTCAGCCAC
AATGGACACTGCCCGTTTTTCCACCTTCTTTGATGACGCCCCTGTGTTTCGAATCCCCGGACGCAGGTTTCCTGT
GGACATCTTCTACACCAAGGCTCCAGAGGCTGACTACTTGGAAGCTTGTGTAGTATCTGTGTTGCAGATCCATGT
GACCCAGCCCCCTGGGGATATCCTGGTGTTCCTGACAGGACAGGAGGAGATTGAGGCTGCCTGTGAGATGCTCCA
GGATCGCTGCCGCCGCCTGGGCTCCAAAATCCGGGAGCTCCTGGTGCTGCCCATTTATGCCAATCTGCCCTCTGA
CATGCAGGCCCGTATCTTCCAGCCCACACCACCTGGGGCACGAAAGGTGGTTGTGGCAACGAACATTGCTGAGAC
ATCACTCACCATTGAGGGCATCATTTATGTGCTGGATCCAGGGTTCTGTAAGCAGAAGAGCTACAACCCCCGCAC
AGGCATGGAATCGCTCACTGTCACACCCTGCAGCAAGGCCTCAGCCAATCAGCGAGCTGGCAGGGCAGGTCGGGT
GGCTGCAGGGAAGTGCTTCCGCCTGTATACCGCCTGGGCCTATCAGCACGAGCTTGAGGAAACCACAGTGCCTGA
GATCCAGAGGACCAGCTTGGGCAATGTCGTGTTGCTGCTCAAGAGCTTAGGGATCCATGACCTAATGCACTTTGA
TTTCCTGGACCCTCCACCATATGAGACACTGCTGCTGGCTTTGGAGCAGCTGTATGCTCTGGGAGCCCTCAACCA
CCTTGGGGAGCTCACCACGTCTGGTCGAAAGATGGCAGAGCTGCCGGTGGACCCCATGCTGTCCAAAATGATCTT
AGCCTCTGAGAAGTACAGCTGTTCAGAGGAGATCCTGACAGTGGCTGCCATGCTCTCTGTCAACAACTCCATCTT
CTACCGACCAAAGGACAAGGTCGTCCATGCTGACAATGCCCGTGTCAACTTCTTTCTCCCTGGCGGTGACCACCT
GGTTCTGCTAAATGTTTACACACAGTGGGCTGAGAGTGGTTACTCTTCCCAGTGGTGCTATGAGAACTTTGTACA
GTTCAGATCGATGCGCCGAGCCCGGGATGTGCGGGAACAGCTGGAAGGGCTCTTGGAACGTGTGGAAGTTGGTCT
CAGTTCCTGCCAGGGGGACTATATCCGTGTACGCAAGGCCATCACTGCTGGTTACTTTTACCACACGGCACGGTT
GACTCGGAGTGGCTACCGCACAGTGAAACAGCAGCAGACAGTCTTCATTCATCCCAACTCCTCCCTCTTTGAGCA
ACAGCCACGCTGGCTGCTCTACCACGAACTTGTCTTGACCACCAAAGAGTTCATGAGACAGGTACTGGAGATTGA
GAGCAGTTGGCTTCTGGAGGTGGCTCCCCATTATTATAAGGCCAAGGAGCTAGAAGATCCCCATGCTAAGAAAAT
GCCCAAAAAAATAGGCAAAACACGAGAAGAGCTAGGG**TAA**GAGAAGGACGTAAACAGAACCTGACACCAGCTCCT
TTTCCTTCTATACATTATTTAATACCTATTAAATAAAATTATTTTTGGAATAAAGCTTGTGGGAACATTTGGGAT
CT

FIGURE 652

CTTCACGAAGCCGGCTCTGGGGCGCGCTCACCCCTGTGAGGAGGCCGGAGGTCGGACTCAGGAGGCTCCTTCTCC
ACTCCCGGAAGATCATGTACCAGCCCAGCCGGGGTGCGGCCCGGCGTCTCGGCCCTTGCCTGCGCGCCTACCAGG
CTCGACCCCAGGACCAGCTTTATCCAGGGACTCTACCATTCCCACCCCTTTGGCCCCACTCCACGACAACCACTT
CCCCATCTTCTCCTCTATTCTGGTCTCCCCTGCCCCCACGCCTTCCCACCCAGCGTCTTCCCCAGGTTCCCCCAC
TACCTCTCCCTCAGATCCAGGCCCTCAGCTCAGCATGGGTGGTTCTCCCTCCAGGAAAGGGGGAGGAGGGACCAG
GACCTGAGTTGCATAGCGGCTGCCTGGATGGGCTTAGAAGCCTTTTTGAGGGACCTCCCTGCCCCTATCCTGGGG
CTTGGATACCTTTCCAAGTCCCTGGAACTGCCCACCCTTCCCCTGCCACCCCGTCAGGAGATCCTAGT**ATG**GAGG
AACATCTGTCTGTCATGTATGAGAGACTGAGACAAGAGCTTCCCAAGCTCTTCCTTCAGTCCCACGACTACAGTC
TGTATTCCTTGGATGTGGAATTCATCAATGAGATCCTCAACATACGTACCAAGGGCCGGACATGGTACATTCTTT
CACTGACCCTCTGCCGTTTCCTGGCCTGGAATTATTTTGCACACCTTCGTTTGGAGGTTTTACAGCTGACCCGCC
ACCCTGAGAACTGGACCCTGCAAGCCCGGTGGCGGCTTGTGGGGCTGCCCGTCCACTTGCTCTTTTTGCGGTTCT
ACAAGCGTGACAAAGACGAGCATTACCGGACCTATGATGCCTACTCCACTTTCTACCTGAATTCCAGTGGCCTCA
TTTGTCGCCATCGTCTAGATAAACTGATGCCTTCACACTCACCTCCAACGCCTGTGAAGAAGCTGCTAGTGGGAG
CCCTGGTGGCCCTGGGGCTGTCAGAGCCAGAACCTGACTTAAACCTGTGTTCCAAGCCC**TGA**TCCTTGACCTTGG
AGTGGAGGCAGCACTGAAGACTGCTACGCCCAAGAGAAGGAGGTGGAGGCAGCCAAGAATCTCAGGAGCCAGCTT
CCTCTCCTCGTTTCTCTCCTTCCTTCCTTTCCATCTCATGCTGTGTAAAGCTGCTGTGTAATTTAACTTGTAAAT
AATAAAGTTTAACTGACTATATG

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FIGURE 653

ACAATGGGCC**ATG**GAGTTCCCGTTCGATGTGGACGCGCTGTTCCCGGAGCGGATCACGGTGCTGGACCAGCACCT
GAGGCCCCCAGCCCGCCGACCCGGAACCACAACGCCGGCCCGTGTTGATCTACAGCAGCAAATTATGACCATTAT
AGATGAACTGGGCAAGGCTTCTGCCAAGGCCCAGAATCTTTCCGCTCCTATCACTAGTGCATCAAGGATGCAGAG
TAACCGCCATGTTGTTTATATTCTCAAAGACAGTTCAGCCCGACCGGCTGGAAAAGGAGCCATTATTGGTTTCAT
CAAAGTTGGATACAAGAAGCTCTTTGTACTGGATGATCGTGAGGCTCATAATGAGGTAGAACCACTTTGCATCCT
GGACTTTTACATCCATGAGTCTGTGCAACGCCATGGCCATGGGCGAGAACTCTTCCAGTATATGTTGCAGAAGGA
GCGAGTGGAACCGCACCAACTGGCAATTGACCGACCCTCACAGAAGCTGCTGAAATTCCTGAATAAGCACTACAA
TCTGGAGACCACAGTCCCACAGGTGAACAACTTTGTGATCTTTGAAGGCTTCTTTGCCCATCAACATCCTCCAGC
AAGGAAGCTGCCACCCAAGAGAGCAGAGGGAGACATCAAGCCATACTCCTCTAGTGACCGAGAATTTCTGAAGGT
AGCTGTGGAGCCTCCTTGGCCCCTAAACAGGGCCCCTCGCCGCGCCACACCTCCAGCCCACCCACCCCCCCGCTC
CAGCAGCCTGGGAAACTCACCAGAACGAGGTCCCCTCCGCCCCTTTGTGCCAGAGCAGGAGCTGCTGCGTTCCTT
GCGCCTCTGCCCCCCACACCCTACCGCCCGCCTTCTGTTGGCTGCTGACCCTGGGGGCAGCCCAGCTCAACGTCG
TCGCACCAGG**TAA**TAGGAGTTGAAGGGCTAAGGAGCCTCACAGCTATAAAAGAGGATGTTAGAAATGGCAAAGGG
CAATTTGAATCCATCAGAGAGATGGATCAATAAGATGGGTGGCTTGGGGGGGGTCCTGAAACCTTTCAAGAAAAA
TATTTGTGCAAGTGATCTGGGAAAAAAATGCAGTGAAGGAGCAGAATAGGACCTTATATGGAGCCTAGGGACCCT
GGCTTTAATGTGAGAGTTATGTGGAATGGTAGGAAGAACACCGAGATCCATCAAGTTGGGGGAACAGAGCCTTCT
AAGATTGGGAAAATCTTCGCTTAATACTTGCTGGGGAAGGGGCAGTGTCTGACAGAGAGTGGGAAGCCACTGGCT
TGTGTGCCAAGAGTCCATCGCAGCAGGCAGGGAGTGGGCATTTCCTTTATTTCTCTCCCTTTCTCTTCACCTCTG
ACTTCTCTGTTTTTCTCTCCCCCGCCCCCCGCCATTTCCCATCTCCCTTCCTCCCATCCATAACATCCTTCCACA
GCTCCCTTCCCCGCTCTGAGGAGAGTCGATACTAACAGCTACCCTCTCCCTGCCCTGGGAGACCTGGGGTGGGCA
GGGAACCCCTCCCTGAGAACCTCAGACCCACTCTTCCATTGCATCCTGTAGGACCCAGTGGAACCTGACAGAGCC
CATAGGATTCCCTCTTCTACTTTCTTAGACAGCAGGGATGTCAGGGTCTCAAACTGCCTAACACTTTGTAGCTTT
TCTTAACACAAAAGCACCCCTTCTCTCCTAACTTGGGCTCTGAATACTTTCCCAACAGGAAGTCTGATCTGTTGC
CAGACTTCTTAGTTAGATGGCTCATACATTTATCTAGAGAAGCACACTCTTGCTTGCTGTCAAACTTTAGAACAC
CATGGAAGGTCTAAGGGCATCCTGTGCCAGGGAAACTTTTTAAGGAATTTTATCTATGGGATAAACCCCATATTC
CCTCTAGTGTCTACTGGTGGCTCTAATACTGCTTTGTGCTGCCTGCCACACTTGCCCTTTGAGCCTGCGAATGGC
CGCTAGTGAGCAAGCTCTGCTTCAGAGCAGTCTAGTTAGGTAGAACAGGGACTTACCAGCTTCCCAAAGGGATCT
ACTCACCATTGCCAAACTCTTCATTTCCACATTTTGTGTAGGTGTCAGGGAACCCCAAACTGGTGTTGCTTTGGG
GTCTCTAAAGGAGATTGGCTGACACCACCATTTCCCCCAGATCCAGATTCTCTGAGGGAGGTTGTTTCTTGAGAG
TAGATCCAGAGTGTCAAGGATCTGTTAGATCCTGGAATCCCTTCTTGCATCCATCCCTCCCTGGTAGCTAGGTCC
CGATATACTCCTGTCTTGTGAGATTGTCGAGATGAGATGGGGGACCACTCTTCCTCTGTCCTTCCTCTCTCCTTT
CCTCCATAGCAAGGACGACCTTCCCTGCTCCATGCCCAGAGTATAGCTAGATCCCTTCCCCTCCCTACCCTCTGA
ATGTGTGCTAGATCAGGTGCCCCACTGTGTTTCCTGAAATCCTTGGGAGCCGGATCTCCCCATCTCCCCTACTCA
CTCTTCCCTTTTCTTCTCTCAGTGTTGTCTGAATAAAGTGTGAAATCTTTTGTGTTTTCTAAATTGACATTTTCA
ATGAAAAAAAGAATCAC

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FIGURE 654

GCCTTTCCGTCAATTCCTGTCCTGGGCGTACGTCAAG**ATG**GCGGCGTCTGTATTAAACACCGTGCTGAGGCGGCT
TCCTATGCTATCTCTCTTCCGAGGTTCTCACAGAGTTCAGGTTCCCCTCCAGACTCTTTGCACCAAAGCTCCCTC
TGAGGAAGATTCTTTGTCCTCAGTTCCCATTTCTCCTTATAAGGATGAGCCCTGGAAATATCTGGAATCAGAAGA
ATACCAGGAGCGATATGGTTCTCGCCCCGTCTGGGCTGACTACCGCCGCAACCACAAGGGTGGTGTACCCCCACA
GCGGACTCGGAAGACATGTATTCGTCGGAATAAAGTTGTTGGGAATCCCTGCCCCATCTGTCGAGATCACAAGTT
GCATGTTGACTTTAGGAACGTGAAGCTCTTGGAGCAATTTGTCTGCGCCCACACGGGTATCATCTTCTATGCTCC
ATACACAGGAGTCTGTGTGAAGCAGCACAAGCGGTTGACCCAGGCCATCCAGAAAGCCAGGGATCATGGTCTCCT
CATTTACCACATCCCCCAGGTTGAACCACGGGACCTTGACTTCAGTACCTCTCATGGGGCTGTGAGTGCTACTCC
GCCAGCCCCCACCCTGGTCTCAGGTGACCCCTGGTACCCATGGTACAACTGGAAACAGCCACCGGAGAGAGAACT
GTCTCGCCTTCGCCGGCTTTACCAGGGTCATCTCCAAGAAGAGAGTGGCCCCCCACCTGAGTCAATGCCCAAGAT
GCCCCCTAGAACACCAGCGGAAGCCTCCTCCACTGGGCAGACAGGCCCTCAGAGTGCTCTG**TAG**GAGCTGTAGAC
TGGGAAGAGAGGCCAGGCGTGGTGGCTCACTCCTGTAATCCCAGCACTTTGGGAAGCCAAGGTGGGCTGATCACT
TGATCCCAGGAGTTTGAGACCAGCCTGGGCACCATGGTGAAACCTCGTCTTTACCAAAAAATACAAAAATTAGCT
GGGTGTGGTGGTGCACACCTGTAGTCTCAACTATTGGGGAGGCTAAGGTAGGATCACTTGATCCCAGGAGGCGGA
GGTTGCAGTGAGTTGCAGTCACACCCCTGCACTCCAGCCTGGGTGACAGCTAGACCCTGTCTCAAAAAAAAAAAA
AAAGACTGGGAAGAGAGCTAGAGGGACTAGGAGATAATGTGTATGTAGGTTTATGTGATGGGATATCACCCTGAA
GAGTTGTGTCTTTTGTGGCCAGTGACAAATCCAGGAAATGAATGTTGCTGATAGGGATAAATCTTGAGGCTGAGG
GCGGGTGGTACAGATGTGTATGGGAAACCCCAACCCCTATATATTGTAAATAGATGGGCTGGGCTAAACATTGTT
GCCGTTTCATACTTCTACCAACTCAGCTTTTACACAATAAAGCTCTACTGTCTCTGG

FIGURE 655A

AGGTTTGAATTTTCTCGGAGAAAGACAGGCCGGCCACGAGGAAAACAGAAACAAGCCGCAGCAACATCTAAGCCC
TTGAAAGGATCCTGAGAGAGGGGGGAAAGGGAAAACAGCAGCCACCAGCCCAACCACTTGTGTCTTCTGCCCCTT
CCCACCTATCTTGCCCACCCCACCAGCCCACGCTGCTTGGGACTTGAAATCTGTGGCCGAAGGACCGTCACTACA
TAACTTCAAAAATAATCAACCACCCTCCCTTCCCAAACCACCCAAATTCACTCATCCAGCGTTTACTTTTTTGAA
TCCACTCAGAACTTTTTTCTGCGACCCCCCTCCCTAAATGGAGTTGGGTGGGGGGGGAAATGAATACTGAGTTGGC
CTTTATTTTTTAAAAGACTTTTTGATCCAATGAGGCCCCCTAAATAATTGAGTTTTGGGTCCTGGTTGGTTGTTT
TATTTTTTTTCCTCCAAAATTTTACCCCCTCCCCCCTGAGCCCGAGGTGCTGACGTCGCAAAAAAATTGGATAAA
ACCACCATC**ATG**GGTTCGGGTCCCATAGACCCCAAAGAACTTCTCAAGGGCCTGGACAGCTTCCTTAACCGAGAT
GGGGAAGTCAAAAGTGTGGATGGGATTTCCAAGATCTTCAGTTTGATGAAGGAAGCACGAAAGATGGTGAGTCGA
TGCACTTACTTGAACATTCTCCTGCAGACCCGTTCACCAGAAATATTGGTCAAATTTATTGACGTTGGCGGCTAC
AAACTTCTTAACAATTGGCTGACGTATTCAAAGACAACCAACAACATTCCCCTCCTCCAGCAAATTCTACTGACC
CTGCAGCATCTACCGCTCACTGTAGACCATCTCAAGCAGAACAACACAGCTAAACTGGTGAAGCAGCTGAGCAAG
TCAAGTGAGGATGAAGAGCTCCGGAAATTGGCCTCAGTCCTTGTCAGCGACTGGATGGCTGTCATCCGCTCTCAG
AGCAGTACCCAGCCTGCTGAGAAAGATAAGAAGAAACGTAAAGATGAAGGAAAAAGTCGAACTACCCTTCCTGAG
CGACCTTTGACAGAGGTGAAGGCTGAGACCCGGGCTGAGGAGGCCCCAGAGAAGAAGAGGGAGAAGCCCAAGTCT
CTTCGCACCACAGCACCCAGTCATGCCAAGTTCCGTTCCACTGGACTAGAGCTGGAGACACCATCCTTGGTGCCT
GTGAAGAAGAATGCCAGCACAGTGGTGGTTTCTGACAAGTACAACCTTAAACCCATCCCCCTCAAACGTCAGAGC
AACGTAGCTGCTCCAGGAGATGCCACTCCCCCTGCAGAGAAGAAATACAAGCCACTCAACACAACACCTAATGCC
ACCAAAGAGATCAAAGTGAAGATCATCCCGCCACAGCCTATGGAGGGCCTGGGCTTTCTGGATGCTCTTAATTCA
GCCCCTGTTCCAGGCATCAAAATTAAGAAGAAAAAAAAAAGTACTGTCACCTACGGCTGCCAAGCCAAGCCCCTTT
GAAGGGAAAACGAGCACAGAACCAAGCACAGCCAAACCTTCTTCCCCAGAACCAGCACCACCTTCTGAGGCAATG
GACGCAGACCGTCCAGGCACCCCGGTTCCCCCTGTTGAAGTCCCGGAGCTCATGGATACAGCCTCTTTGGAGCCA
GGAGCTCTGGATGCCAAGCCAGTGGAGAGTCCTGGAGATCCTAACCAACTGACCCGGAAAGGCAGGAAGAGGAAA
AGTGTGACATGGCCTGAGGAAGGCAAACTGAGAGAATATTTCTATTTTGAATTGGATGAAACTGAACGAGTAAAT
GTGAATAAGATCAAGGACTTTGGTGAGGCCGCTAAGCGAGAGATACTGTCAGACCGACATGCATTTGAGACAGCG
CGGCGTCTGAGCCATGATAACATGGAGGAGAAGGTGCCCTGGGTGTGCCCCCGGCCCCTGGTTCTGCCCTCACCT
CTTGTCACCCCTGGAAGCAATAGTCAGGAGCGATATATCCAGGCTGAGCGGGAGAAGGGAATCCTTCAGGAGCTC
TTCCTGAACAAGGAGAGTCCTCATGAGCCTGATCCTGAGCCCTACGAGCCCATACCCCCTAAACTCATCCCCCTA
GATGAGGAGTGTTCCATGGATGAGACTCCGTATGTTGAGACTCTGGAACCTGGGGGGTCAGGTGGCTCACCTGAT
GGGGCAGGAGGCTCCAAGTTGCCTCCAGTTCTGGCCAATCTTATGGGAAGCATGGGTGCTGGAAAGGGCCCCCAA
GGCCCTGGAGGAGGAGGCATTAATGTCCAAGAGATCCTCACCTCCATCATGGGTAGCCCAAACAGTCATCCTTCA
GAGGAACTACTGAAACAACCAGACTATTCGGACAAGATCAAGCAGATGCTGGTGCCACATGGACTCCTAGGCCCT
GGCCCAATAGCCAATGGTTTCCCACCAGGGGGTCCTGGGGGCCCCAAGGGCATGCAGCACTTTCCCCCTGGACCT
GGGGGACCTATGCCAGGTCCCCATGGAGGCCCTGGTGGGCCAGTGGGTCCACGTCTTCTGGGTCCTCCACCCCCT
CCCCGGGGAGGTGATCCCTTCTGGGATGGCCCGGGCGACCCTATGCGGGGTGGCCCAATGCGGGGGGGTCCAGGA
CCAGGTCCTGGACCATACCATAGAGGCCGAGGTGGCCGAGGAGGAAACGAACCTCCTCCTCCTCCTCCTCCATTC
CGAGGCGCCAGAGGAGGTCGCTCTGGAGGAGGACCCCCAAATGGACGAGGGGGCCCTGGTGGGGGCATGGTTGGA
GGTGGTGGGCATCGTCCTCACGAAGGCCCTGGTGGGGGCATGGGCAACAGCAGTGGACATCGTCCCCACGAAGGC
CCTGGCGGTGGCATGGGAAGTGGGCATCGCCCCCATGAAGGCCCTGGTGGTAGCATGGGTGGGGGTGGAGGACAT
CGTCCCCACGAAGGCCCTGGCGGTGGCATCAGTGGTGGCAGTGGCCATCGTCCCCATGAAGGCCCTGGCGGAGGA
ATGGGTGCCGGTGGTGGACATCGCCCCCACGAAGGCCCTGGCGGAAGCATGGGTGGAAGTGGTGGACATCGTCCC
CATGAAGGCCCTGGACACGGGGGGCCCCATGGCCACCGGCCTCATGATGTCCCTGGTCACCGAGGCCATGACCAT
CGAGGGCCGCCACCTCATGAGCACCGTGGCCATGATGGTCCTGGCCACGGGGGAGGGGGCCACCGAGGGCACGAT
GGAGGCCACAGCCATGGAGGAGACATGTCAAACCGCCCTGTCTGCCGACATTTCATGATGAAGGGCAACTGCCGC
TATGAGAACAACTGTGCCTTCTACCACCCGGGTGTCAATGGGCCCCCCCTGCCC**TAG**GGACCATTTGCCTGCCCT
GTTCACACAACCCCTGTGGACTGCAGCCTCGCTCTTTCCACCCTGTTATGGCTTCTGTGAGGCCCATTTTCCCTT
TTCCCCAGCTGATGAGGAGCCGGCCCCCTCAGTTCCCACTTGCTTGGGTTCCTGGGGGTTTTCTGATCACTGGTG
CGCATTGATGTACATATTTTCCTCCAGTCTGGGGAGGAGAGAGACTGGAAACGTTCCTGGACTGCTGAAGAGGAG

FIGURE 655B

ACCCAGTTGGCTTCACTTTTTGAGAAGATTCGCCCTGTACCCCAAACCCCTTTCCAGTATTACCCTTAATGCTTG
AGAACCTAAAGCTGGTTATCCTGGCGAACACCCCTACCCTTCTATTGCGGGTCCCCACATGCACACAGAACTCTG
ACACAGGATCAGCTGCACTTAAGAAATCATCCCAACTAAGTTCATTATTCCTCATGGGGTGGGGAGATGCTGAAA
GGGGTATTGTATATCCCACTGCACTGAGAGGGCTCAATCAGCTGGATTTGAGTTCTGGAACACACATCATCCCCA
CCCCTCCCCCAGCGTGGGCTCACCATTCTTAGTCCTTTCTCAAGTGGGACCTTCAACTTTCTGTGAACACCCAGT
CTGCGTCCTGGGTCTGCTAGGTTCGATGATGGCGAACTCGTATCTGCATCCGGTGCAAGTTTTAGCTGGCAGAGG
TGAGACCGGTGGTGCTGGTCTGCCTTTGCCAACTATAGCCAGTCTGGAGACTTGATAAAATACTTCAGTGAGACC
AGCTTCTCATCAACTTGGGCCCGGCGTGCTGGGCCTGAAAGTCACACTACATGCACTGCCTTTGGGAGTCAGCTC
ACTCCCTGCTCCCACCTGGAACCTTGCCAGCGTGAAGGAGGCTTCCAGGTACTTCACCCTGTCAACCACCTCTGA
ATCCCCACCAGGCGCCTTCCTGGGTGGATTCAACAAGATGATTTTGCCCTTTCCCAGTTCTCTCCTTCACTTTGG
CATCAGTTGTTTTCTATGAAAACAGTGGATTGGTTGGGTTTTGTGCAGGGTCTTGGGTTAGAGCCAAAATGGATT
TGAGGATGAGTATTTTTTTTTTTGGTTTTGTATATTTTGTACATTAATAATAAACAGTGGAAAGAGAAGCAGCTT

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FIGURE 656

CGGGGGCGGGGTTGGCCGCGCCAGCTTGGAGAGCCAGCCCCATCGGGGTTCCCCGCCGCCGGAAGCGGAAATAGC
ACCGGGCGCCGCCACAGTAGCTGTAACTGCCACCGCG**ATG**CCGAAGGCGCCCAAGCAGCAGCCGCCGGAGCCCGA
GTGGATCGGGGACGGAGAGAGCACGAGCCCATCAGACAAAGTGGTGAAGAAAGGGAAGAAGGACAAGAAGATCAA
AAAAACGTTCTTTGAAGAGCTGGCAGTAGAAGATAAACAGGCTGGGGAAGAAGAGAAAGTGCTCAAGGAGAAGGA
GCAGCAGCAGCAGCAACAGCAACAGCAGCAAAAAAAAAAGCGAGATACCCGAAAAGGCAGGCGGAAGAAGGATGT
GGATGATGATGGAGAAGAGAAAGAGCTCATGGAGCGTCTTAAGAAGCTCTCAGTGCCAACCAGTGATGAGGAGGA
TGAAGTACCCGCCCCAAAACCCCGCGGAGGGAAGAAAACCAAGGGTGGTAATGTTTTTGCAGCCCTGATTCAGGA
TCAGAGTGAGGAAGAGGAGGAGGAAGAAAAACATCCTCCTAAGCCTGCCAAGCCGGAGAAGAATCGGATCAATAA
GGCCGTATCTGAGGAACAGCAGCCTGCACTCAAGGGCAAAAAGGGAAAGGAAGAGAAGTCAAAAGGGAAGGCTAA
GCCTCAAAATAAATTCGCTGCTCTGGACAATGAAGAGGAGGATAAAGAAGAAGAAATTATAAAGGAAAAGGAGCC
TCCCAAACAAGGGAAGGAGAAGGCCAAGAAGGCAGAGCAGGGTTCAGAGGAAGAAGGAGAAGGGGAAGAAGAGGA
GGAGGAAGGAGGAGAGTCTAAGGCAGATGATCCCTATGCTCATCTTAGCAAAAAGGAGAAGAAAAAGCTGAAAAA
ACAGATGGAGTATGAGCGCCAAGTGGCTTCATTAAAAGCAGCCAATGCAGCTGAAAATGACTTCTCCGTGTCCCA
GGCGGAGATGTCCTCCCGCCAAGCCATGTTAGAAAATGCATCTGACATCAAGCTGGAGAAGTTCAGCATCTCCGC
TCATGGCAAGGAGCTGTTCGTCAATGCAGACCTGTACATTGTAGCCGGCCGCCGCTACGGGCTGGTAGGACCCAA
TGGCAAGGGCAAGACCACACTCCTCAAGCACATTGCCAACCGAGCCCTGAGCATCCCTCCCAACATTGATGTGTT
GCTGTGTGAGCAGGAGGTGGTAGCAGATGAGACACCAGCAGTCCAGGCTGTTCTTCGAGCTGACACCAAGCGATT
GAAGCTGCTGGAAGAGGAGCGGCGGCTTCAGGGACAGCTGGAACAAGGGGATGACACAGCTGCTGAGAGGCTAGA
GAAGGTGTATGAGGAATTGCGGGCCACTGGGGCGGCAGCTGCAGAGGCCAAAGCACGGCGGATCCTGGCTGGCCT
GGGCTTTGACCCTGAAATGCAGAATCGACCCACACAGAAGTTCTCAGGGGGCTGGCGCATGCGTGTCTCCCTGGC
CAGGGCACTGTTCATGGAGCCCACACTGCTGATGCTGGATGAGCCCACCAACCACCTGGACCTCAACGCTGTCAT
CTGGCTTAATAACTACCTCCAGGGCTGGCGGAAGACCTTGCTGATCGTCTCCCATGACCAGGGCTTCTTGGATGA
TGTCTGCACTGATATCATCCACCTCGATGCCCAGCGGCTCCACTACTATAGGGGCAATTACATGACCTTCAAAAA
GATGTACCAGCAGAAGCAGAAAGAACTGCTGAAACAGTATGAGAAGCAAGAGAAAAAGCTGAAGGAGCTGAAGGC
AGGCGGGAAGTCCACCAAGCAGGCGGAAAAACAAACGAAGGAAGCCCTGACTCGGAAGCAGCAGAAATGCCGACG
GAAAAACCAAGATGAGGAATCCCAGGAGGCCCCTGAGCTCCTGAAGCGCCCTAAGGAGTACACTGTGCGCTTCAC
TTTTCCAGACCCCCCACCACTCAGCCCTCCAGTGCTGGGTCTGCATGGTGTGACATTCGGCTACCAGGGACAGAA
ACCACTCTTTAAGAACTTGGATTTTGGCATCGACATGGATTCAAGGATTTGCATTGTGGGCCCTAATGGTGTGGG
GAAGAGTACGCTACTCCTGCTGCTGACTGGCAAGCTGACACCGACCCATGGGGAAATGAGAAAGAACCACCGGCT
GAAAATTGGCTTCTTCAACCAGCAGTATGCAGAGCAGCTGCGCATGGAGGAGACGCCCACTGAGTACCTGCAGCG
GGGCTTCAACCTGCCCTACCAGGATGCCCGCAAGTGCCTGGGCCGCTTCGGCCTGGAGAGTCACGCCCACACCAT
CCAGATCTGCAAACTCTCTGGTGGTCAGAAGGCGCGAGTTGTGTTTGCTGAGCTGGCCTGTCGGGAACCTGATGT
CCTCATCTTGGACGAGCCAACCAATAACCTGGACATAGAGTCTATTGATGCTCTAGGGGAGGCCATCAATGAATA
CAAGGGTGCTGTGATCGTTGTCAGCCATGATGCCCGACTCATCACAGAAACCAATTGCCAGCTGTGGGTGGTGGA
GGAGCAGAGTGTTAGCCAAATCGATGGTGACTTTGAAGACTACAAGCGGGAGGTGTTGGAGGCCCTGGGTGAAGT
CATGGTCAGCCGGCCCCGAGAG**TGA**AGCTTTCCTTCCCAGAAGTCTCCCGAGAGACATATTTGTGTGGCCTAGAA
GTCCTCTGTGGTCTCCCCTCCTCTGAAGACTGCCTCTGGCCTGCAGCTGACCTGGCAACCATTCAGGCACATGAA
GGTGGAGTGTGACCTTGATGTGACCGGGATCCCACTCTGATTGCATCCATTTCTCTGAAAGACTTGTTTGTTCTG
CTTCTCTTCATATAACTGAGCTGGCCTTATCCTTGGCATCCCCCTAAACAAACAAGAGGTGACCACCTTATTGTG
AGGTTCCATCCAGCCAAGTTTATGTGGCCTATTGTCTCAGGACTCTCATCACTCAGAAGCCTGCCTCTGATTTAC
CCTACAGCTTCAGGCCCAGCTGCCCCCCAGTCTTTGGGTGGTGCTGTTCTTTTCTGGTGGATTTAATGCTGACTC
ACTGGTACAAACAGCTGTTGAAGCTCAGAGCTGGAGGTGAGCTTCTGAGGCCTTTGCCATTATCCAGCCCAAGAT
TTGGTGCCTGCAGCCTCTTGTCTGGTTGAGGACTTGGGGCAGGAAAGGAATGCTGCTGAACTTGAATTTCCCTTT
ACAAGGGGAAGAAATAAAGGAAAGGAGTTGCTGCCG

FIGURE 657

AACCCAAGCGGGACAAGGACTTTTGGGGGGAGGTCAAAGGGCACGAAGTTGTGCCTGCAGCTGTTACCATAGTAA
CCGAGGACCGGATGTGGCGATCTTACGGTGCGACAGTCCTCTTCTCAGGCCCTCTGGCCCGAGAGCCTGTTGACT
CTGTGACACACTCTGAGGAGCTGGTTGTGGTGTTTTCCAGCGAGGGAAGAAAAGAGTAATTTTTTCAAAGCATTT
ATAGAAACGCAGCAAAGGGAAGGTGTGAGGTTGCCGCCATGCCTGGCAGAGACGGAGGGAGGCAGTTGGCTCCGG
AATGCGGCCGCCGCAGATGTTCTCCGCAACCTTCCGGAAGTGGAATGGCGGGAGCCTCAGCATTGCTGCCCACCG
ACCCCCCGGAAGCGGAAACAGAATCCCCGCGTGCCCCTTCCTCACTACCCTCCAAATCCCGCTGCAGCCATTGCC
GCAGACACGATGCCGAAACGAAAGAAGCAGAATCATCACCAGCCACCGACACAGCAGCAGCCCCCGCTGCCCGAG
CGGGAAGAGACTGGAGATGAGGAGGATGGGAGTCCCATCGGACCACCCAGCCTTCTGGGCCCTCCCCCCATGGCC
AATGGAAAACCTGGCGACCCTAAGTCAGCCCCAAACTGGATACCACCCACATGTCCATCATCAGTAGAATGGATA
AATAAATTGTTGTGTATGCATGCAATGGGACTACACTGCAACGAAAATGAATGAACTGCTGCTACAGGCAACCTG
GATGAATCTCACAAACATGATGTTGAGCGAAAGGAGCCAGACATAAAAGAATGCAGACTCTCTTCACAGAGGTCC
TCCAGGATCAAGGGGACCACTGATTCCACCACTGCTGAGTCTCCCACCTCCTCCTTGGGGTAGAGGCCCAATTCG
GAGAGGGCTTGGCCCCAGGTCTAGCCCATATGGTCGTGGTTGGTGGGGAGTCAATGCAGAACCTCCTTTTCCGGG
GCCAGGCCATGGGGGTCCCACCAGGGGAAGCTTTCACAAGGAACAGAGAAACCCTCGAAGGCTCAAAAGCTGGTC
TCTTATCAAGAATACCTGCCCGCCCAAGGATGACCCCCAGGTTATGGAAGACAAATCCGACCGCCCTGTCTGCCG
ACATTTTGCCAAAAAGGGCCACTGTCGATATGAGGACCTCTGTGCCTTCTACCACCCAGGCGTCAATGGACCTCC
TCTGTGAGACTGTGCCTTCCCATCCAGGCTGGAAGGAGCTCTCTGTGACCTAGCGGCCATTTATTTCTCTGTAGC
CCTATGATGGCTACTGTGAGGCTCTTCTAACACCCTCAGTCAGTGACACACCCATCCCATCCACCACTTCCCCCG
TGTGGGGTCCAGAGTGGTGTTGCATCACTGGTGCGCGGCATACGCGCTTTCTTCTGATCCAGCCTGTAGAGACTC
GCCTTTGGGACCCATCTTTGCTTCCTTTCAGTTGCCTCCTGGATCTTCTTTCCCGTCATCAAATGACTGCTGAAC
AGGAAACCTCTTTGGTGCTGTTTCTTGTGCATCTGTCCACCTGTTCCCCAGTATTGCCCTCAATTCCTGAGAGCC
CTGGAGCGGTTTCCTACCATTCCCTTCTTTTAGCTGCTTGTTTTAAGTCCTTTTTATGTGACATTCCCTACCCCC
AATGTTGTCAGCTGCTTGTGAAACTCAGCCAGGTTGTCTAACCTGGGGTCAAGTTTGGGTGACTGGTGCAGAGTT
ACTTCCTAAAAGGCCACICTCCCTGCCTTTGGATTTCATAGTTTCTCTGTCAGTAGCATGATCCCCACCGCTATG
GTCTATCTATGATCACCGTGCTTTGTGAAACTGTGCATCCCCTTGTAGCCTTTCTCAGTGTCCGTGGCATTTTTG
TGACTTCCCAGCACTAGAATAAGTTTTCCTGCCAAAATGAGTGAGGCGCTTGGTGCCCTCTGGACTTTCCCACTT
CCCAACATGGGAGAATTGTGAACTTTCCATCAGACTGCCTCCCTGGCCCTCCCCATTCTTCTCCTGTTGGTTATT
CTGAGTCTGACACAGACCCATGACATGTCTTATAAAGCCTCCAATGGCTTTATCCTACCTAGATCCCTTCCAGCC
CATTTTAATTAGACTATGTCATTGTGAGGCCACCAGTCCATTCATTTGAATTCTGTGAATCTCCACCTTGCCTAT
CTTTGGGTAGAAGCTGGACAGTACTGTTGCCCTCTTCCAATCCTCTTCCCCTACATCCCTGGCACTGGTTGTTTT
CTGTGAAAACAGCAGTGAACAGGTTCAGTTTTGAACTGGCCCTGAGGAAATGGGTCAGGAGTTGTATTGGCAAGA
GGGAGGGGTGAGAGCTGTTGGAGAACTGAGAATGAGGTTTTTTTTTTTTTTTCTTTTTAACTTTTTTTATATTA
GTAATAAATGCAGTGGAAACCAGCATTTTATTT

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FIGURE 658

GGGAGCTCGGCGGAGGGCGGGCCAGGTGACTGGTCCGGGCC**ATG**CCGAGGAAGAAGCCATTCAGCGTGAAGCAGA
AGAAGAAGCAGTTGCAGGACAAACGGGAGCGGAAGAGAGGGCTTCAAGATGGGCTGCGCTCCAGTTCCAACAGCC
GCAGCGGGAGCCGGGAGCGGCGAGAGGAACAGACCGACACCTCGGACGGGGAGTCTGTGACCCATCATATCCGCA
GGCTTAACCAGCAGCCTTCTCAGGGGCTGGGTCCACGAGGCTACGACCCAAATCGATACCGACTGCATTTTGAGA
GAGACAGCAGGGAGGAGGTAGAGAGGAGAAAGAGAGCAGCCCGGGAGCAAGTTCTACAGCCGGTCAGTGCTGAGT
TGTTGGAGCTGGACATCCGGGAGGTGTATCAGCCTGGCTCAGTTCTGGACTTTCCTCGACGTCCTCCTTGGAGCT
ATGAGATGTCCAAGGAGCAACTAATGAGCCAAGAGGAACGGAGCTTCCAAGACTATCTTGGGAAGATTCATGGGG
CTTACTCCTCTGAGAAACTCAGCTACTTTGAGCACAATCTGGAGACATGGAGGCAGCTGTGGCGGGTGTTAGAGA
TGTCTGACATCGTCCTGCTTATCACTGATATCCGACATCCAGTTGTGAATTTCCCGCCAGCACTTTATGAGTATG
TGACTGGAGAACTTGGACTGGCCCTGGTGCTGGTTTTGAACAAGGTGGATCTGGCCCCGCCAGCTCTTGTGGTTG
CCTGGAAGCATTATTTCCATCAACACTATCCCCAGCTCCACGTCGTCCTTTTCACCTCTTTTCCTCGGGACCCCC
GCACCCCACAGGATCCTAGTAGTGTCTTGAAGAAGAGTCGGAGGCGGGGGAGAGGATGGACTCGGGCCCTGGGGC
CAGAGCAGTTGCTGAGAGCCTGTGAAGCCATCACTGTGGGGAAAGTGGACTTGAGCAGCTGGCGGGAGAAGATTG
CTCGGGATGTGGCTGGGGCCACCTGGGGTAATGGCTCTGGGGAGGAGGAGGAAGAGGAGGATGGCCCAGCAGTCC
TGGTGGAGCAGCAGACTGATTCAGCAATGGAGCCAACTGGCCCAACCCAAGAGCGCTACAAGGATGGGGTGGTGA
CCATCGGCTGTGTGGGTTTCCCTAATGTGGGAAAGTCCTCGCTGATCAATGGGCTGGTGGGGCGGAAAGTCGTGA
GTGTCTCCAGAACCCCGGGCCATACCCGATACTTTCAGACCTACTTTCTTACCCCCTCTGTGAAGCTCTGTGACT
GCCCAGGCCTCATCTTCCCATCTCTTCTGCCTAGGCAGTTGCAGGTTCTGGCAGGGATCTACCCTATCGCCCAGA
TCCAGGAGCCCTACACTGCTGTGGGCTACCTGGCCTCCCGAATTCCCGTGCAGGCCCTGCTCCACCTGCGCCACC
CAGAGGCTGAGGACCCCTCAGCGGAACACCCCTGGTGTGCCTGGGACATCTGTGAAGCCTGGGCAGAGAAACGTG
GTTACAAGACAGCCAAGGCGGCTCGGAATGATGTGTACAGAGCAGCCAACAGTCTCTTGCGGCTGGCAGTGGACG
GCCGCCTCAGCCTGTGTTTTCATCCCCCAGGCTACAGTGAACAGAAAGGCACCTGGGAGTCCCATCCAGAGACCA
CGGAGCTGGTGGTTTTGCAGGGCAGGGTGGGGCCAGCAGGTGACGAGGAGGAGGAGGAAGAGGAAGAGCTGAGCA
GCTCCTGTGAGGAGGAGGGAGAGGAGGACCGGGATGCGGATGAGGAGGGAGAAGGGGATGAGGAGACCCCAACCT
CGGCTCCAGGGTCCAGCCTGGCTGGCCGAAACCCTTATGCCCTGCTGGGTGAGGATGAGTGC**TGA**GTTCCTCGCC
CAGCGCCATCTTCCCTCCCAGTATCTTTGCTTTTGGACTGACCTGGGGGTATCTCCCCTCTGCCACCCCAATTGT
GAATAAAGATTGTTTGCTTTGTAGCCCCTTCCCCAGATGAACTGAGGTGAGAGCGGCTGTTCCAGGCTAACAGCT
GTGGGAGGCTTCTCTCCTCTTCTCCCTTCTTTTTT

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FIGURE 659

GAATCCCGTTATCTACATGGGGAGGGGAGGTCTAAATCCAGCTCCCTTTTGGAGTTTGTGCCATTCTCCGATTTG
AGCAGCAGCCCTGTGTGCCCCCTGCCGCCAGACCTGCTCATTCCAGGAGCTTCTGGGAGAAGGAACAGGTTGCAA
AATTCAGAGGAGATTGGCGAGCATCCCTCTTGTCTGCCCCAC**ATG**TGTTTCTTTGCCAGAGGCCACCGTGGCGAG
CAGGGGCCTGTGACTGCCCCAACCAAAATTTTGGAAAGTCATTCTGGCGCTACCAGATGCCCCGAGGTTCCCAGG
TTGGAGTCTTTCTCTCCCACTGGGTTTCTCCTGCAACTCTTCCCAGCCCACTGGCCCCACTGCCAGAGCACACAG
GAGTCCGGACACACACCGCGGGACAGCCTGACTCGCTACTGCTCTCTGCACGTGCTATATGAGAGGGTTCTTTTG
AGAACAGAAAATGCAGTGACTGAGCAGGAAAGGGTGAAGGAGGAAAACCAGAGGTCGCATGCAGCCAACCAGGCA
TTACAAAAATGCCTTCTGGAAAAGTGCACTTGGAGTTGGTTTCCAGAGAAAATGAAAAGTCCCTCCAGAGAAATG
TAA

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FIGURE 660

GGGATC**ATG**GTAGATGGAACCCTCCTTTTACTCCTCTCGGAGGCCCTGGCCCTTACCCAGACCTGGGCGGGCTCC
CACTCCTTGAAGTATTTCCACACTTCCGTGTCCCGGCCCGGCCGCGGGGAGCCCCGCTTCATCTCTGTGGGCTAC
GTGGACGACACCCAGTTCGTGCGCTTCGACAACGACGCCGCGAGTCCGAGGATGGTGCCGCGGGCGCCGTGGATG
GAGCAGGAGGGGTCAGAGTATTGGGACCGGGAGACACGGAGCGCCAGGGACACCGCACAGATTTTCCGAGTGAAC
CTGCGGACGCTGCGCGGCTACTACAATCAGAGCGAGGCCGGGTCTCACACCCTGCAGTGGATGCATGGCTGCGAG
CTGGGGCCCGACAGGCGCTTCCTCCGCGGGTATGAACAGTTCGCCTACGACGGCAAGGATTATCTCACCCTGAAT
GAGGACCTGCGCTCCTGGACCGCGGTGGACACGGCGGCTCAGATCTCCGAGCAAAAGTCAAATGATGCCTCTGAG
GCGGAGCACCAGAGAGCCTACCTGGAAGACACATGCGTGGAGTGGCTCCACAAATACCTGGAGAAGGGGAAGGAG
ACGCTGCTTCACCTGGAGCCCCCAAAGACACACGTGACTCACCACCCCATCTCTGACCATGAGGCCACCCTGAGG
TGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCAGGATGGGGAGGGCCATACCCAGGAC
ACGGAGCTCGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAGTGGGCAGCTGTGGTGGTGCCTTCTGGA
GAGGAGCAGAGATACACGTGCCATGTGCAGCATGAGGGGCTACCCGAGCCCGTCACCCTGAGATGGAAGCCGGCT
TCCCAGCCCACCATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGATCTGTGGTCTCTGGAGCTGTG
GTTGCTGCTGTGATATGGAGGAAGAAGAGCTCAGGTGGAAAAGGAGGGAGCTACTCTAAGGCTGAGTGGAGCGAC
AGTGCCCAGGGGTCTGAGTCTCACAGCTTG**TAA**AGCCTGAGACAGCTGCCTTGTGTGCGACTGAGATGCACAGCT
GCCTTGTGTGCGACTGAGATGCAGGATTTCCTCACGCCTCCCCTATGTGTCTTAGGGGACTCTGGCTTCTCTTTT
TGCAAGGGCCTCTGAATCTGTCTGTGTCCCTGTTAGCACAATGTGAGGAGGTAGAGAAACAGTCCACCTCTGTGT
CTACCATGACCCCCTTCCTCACACTGACCTGTGTTCCTTCCCTGTTCTCTTTTCTATTAAAAATAAGAACCTGGG
CAGAGTGCGGCAGCTCATGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGAGGGCAGATCACGAGGTCAGGAGAT
CGAAACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAATTAGCTGGGCGCAGAGGCA
CGGGCCTGTAGTCCCAGCTACTCAGGAGGCGGAGGCAGGAGAATGGCGTCAACCCGGGAGGCGGAGGTTGCAGTG
AGCCAGGATTGTGCGACTGCACTCCAGCCTGGGTGACAGGGTGAAACGCCATCTCAAAAAATAAAAATTAAAAAA
TAAAAAAAGAACC

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FIGURE 661

CCTGAGTCAGACGGGCATGGAGACGCTTCTGGAAGGAACACCGCA**ATG**GCTGCGCAGGGACAGCCCCAGGTCCAG
TTCAAACTTGTATTGGTTGGTGATGGTGGTACTGGAAAAACGACTTTCGTGAAACATCATTTGACTGGTGAATTT
GAGAAGAAGTATGTAGCCACCTTGGGTGTTGAGGTTCATCCCCTAGTGTTCCATACCAACAGAGGACCTGTTAAG
TTCAATGTATGGGACACAGCCGGCCTGGAGAAATTCAGTGGACTGAGAGATGGCTATTATATCCAAGCCCAGAGT
ACCATCATAGTGTTTGATGTAACATCGAGAGTTACTTACAAGAATGTGCCTAACTGGCATAGAGATCTGGTATGA
GTGTGTGAAAACACCCCCACTGTGTTGAGTGGCAACAAAGTGGATATTAAGGACAGGAAAGTGAAGGCGAAATCC
ATTGTCTTCCACCGAAAGAAGAATCTTCAGTACTACGACATTTCTGCCAAAAGTAACTATAACTTTGAAAAGCCC
TTCCTCTGGCTTGCTAGGAAGCTCATTGGAGACCCTAACTTGGAATTTGTTGCCATGCCTGCTCTCGCCCCACCA
GAAGTTGTCATGGACCCAGCTTTGGCAGCACAGTATGAGCACGACTTAGAGGTTGCTCAGACAACTGCTCTCCCG
GACGAGGATGATGACCTG**TGA**GAATGAAGCTGGAGCCCAGCGTCAGAAGTCTAGTTTTATAGGCAGCTGTCCTGT
GATGTCAGTTGTGCAGCGTGTGTGCCACCTCATTATTATCTAGCTAAGCGGAACATGTGCTTCATCTGTGGGATG
CTGAAGGAGATGAGTGGGCTTCGCAGTGAATGTGGCAGTTCAAAAAATACCTTCATTGTTTGGACCTGCATATTT
AGCTGTTTTGGAACACAGTTGATTCCTTGAGTTTCAAATATAGACTGCTACAGTCACATCACAATATTCAGCGGT
GAAATCTTGTTTGTTACTGTCATTCCCATTCCTTTTCGTTTAGAATCAGAATAAAGTTGTATTTCAAATATCTAA

FIGURE 662

ATGTTCTTCCGCCCGCTGTTGGTGGCCGCCACCCTTCGGACCACACTGCGGGCTGCTGCTCAGGTTCTGGGAAGT
TCTGGATTGTTTAATAACCATGGACTCCAAGTACAGCAGCAACAGCAAAGGAATCTCTCACTACATGAATACATG
AGTATGGAATTATTGCAAGAAACTGGAAGTTTACATAGTGGGGCCAACATTGAAGATGTTGCTGCTGAGACTCCT
GAAGCAATAATTAAAGTACCTATTGATATTGTAGAAGCAGCAGAAAACATGATCAAGCTTTACAGCCTTTTTCTG
AAATACGATGCAACCATGATAGAAATAAATTCAATGGTGGAAGATTCAGATGGAGCTGCATTGTGTAAGGATGCA
AAGATCAATTTTGACTCTAATTCAGCCTATCGCCAAAAGAAAATGTTTGATCTACAGGACTGGACCCAGGAAGAT
GAAAGGAACAAAGATGCTGCTAAGGCAGATCTCAACTACACTGGCCTCGATGGAAGTATAGGCTGCCTAGTAAAT
GGTGCTGGTTTGGCTATGGCCACAATGGATATAATAAAACTTCATGGAGAGACTCCAGCTAATTTCCTTGTTGGT
GGTGGTGCTACAGTCCATCAAGTAACAGAAGCATTTAAGCCTATCACTTCAGATAAAAAGGTACTGGCTATTCTG
GTCAACATTTGTGGAGGAATCATGCACTGTGATATTACAGCAAAGGGTATAGTCATGGCAGTAAAAAGTTTGGAA
ATTAAAATACCTGTTGTGGTACAGTTACAAGGGAGTCTGGGCCAAAGCGCCAAAATCCGCCGCTGTCGCTCAGCT
GCAGCACGTTTCGCGCTGGGGAGCCTCTCCTGGTGGGCGACCGTCATGGACAATCGACAAGACCAGAAATTAGAT
TTGAGTCCAGAATCAAGGACCTTTAAGCAGGGATTGGAGATGGCAGGGGGCCAGGAT**TAA**

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FIGURE 663

AGCGCGGCGGTG**ATG**GCGGGGCCGGTGAAGGACCGCGAGGCCTTCCAGAGGCTCAACTTCCTGTACCAGGCCGCC
CATTGTGTCCTTGCCCAGGACCCCGAGAACCAGGCGCTGGCGAGGTTTTACTGCTACACTGAGAGGACCATTGCG
AAGCGGCTCGTCTTGCGGCGGGATCCCTCGGTGAAGAGGACTCTCTGTCGAGGCTGCTCTTCCCTCCTCGTCCCG
GGCCTCACCTGCACCCACCGCCAGAGACGCTGCAGGGGACAGCGCTGGACCGTACAGACCTGCCTAACATGCCAG
CGCAGCCAACGCTTCCTCAATGATCCCGGGCATTTACTCTGGGGAGACAGGCCTGAGGCCCAGCTCGGGAGCCAA
GCAGATTCCAAACCACTACAACCCTTGCCAAACACAGCCCACTCCATTTCAGACCGCCTTCCTGAGGAGAAAATG
CAGACTCAGGGTTCCAGTAACCAG**TGA**TGGATTCACCCCATCTCCCAAATAAAGTTTACTTGTTTTACATTC

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FIGURE 664

GCCATGGCTCCTGAAAGAAATAAAAGATGATCATCTTTCTAAAAAGTCTTAAGTCTGAATTATTAGTAACTTAAC
TGGAGAATCTCACTTTTCCTACTCTCGTATTTTAACCACAGTTGCTCTAACACAGACCTTTGAGGATCTTTTCAT
GACTTCATTCACAAATACCTATTTATGCTGTACAGATGCTACTAGGAAGGAAATAGGGATGTCTGTTTTGACTGT
GGAACTTAACTTGGTCTCGTCTCTTCGTGCATGCAACCCTGTCCTTGGGATAGCTTTCTTGAGCATATCTACTTA
TGTTCAAGAGGTAAATTGTCCTGAAACCCCCATTGCTATAAGTATTTATTTTATTACTCATAATACTTAATGCTC
CTAAAGTTGGGGTATTTTTTTTTTTGGATACCTAAACTTCATTGAGATACTTTGAACTATTTATAGAGAAAACGG
AACCTTCTAATACCTGGCTTCTATTTCTTAAAATGTTATGATCATACATGGCTTAGGGCTTTATGGCCAAATAAC
TTCACTGAACCCAGGAAAAAGAATAGATCCATCTGAAACAGACCTGTAGCTTCCAGAGGCCTAAATTTTCGGCTC
CATTTGTATCCTTCATTTTCTGTGAGGTAAAGAAGTGGAAGGAGACAAGCCTCAGCCCTTCCCCTGGCACCTTTA
CTCTTCGCCCTTCCTCCTGGCATGGTGGAAAGTGCACTGGAGGAGGAGTGAAGGGCCCTAGGTTTGCATCCATAT
TCTGCCACTTGCCAACCTTAATGGCCCTTACAATTGATTTACCCTCATGAAATTTGGAATGATTTCTAAAGTCTT
TCCTCGCCCTGAATGTTAACATTTTTTGATAGTCAGGACTTTCTGTAGCTTCACCTTCCTTATTTAGTGTTATTT
TTTTCTCAAGACTGAACAGAGAGGGAAGCTGTCAAAGTGTGCTGGGCACACACCCTGCAGTGGGGCAATGGCCAA
TTCTAATCTCAAGTCATTAGGCTGCAGTAGCATGACCACTGCTTCCTGTCTACCCTCAGAGGGTAGAGACAGCTG
AGCTCCTGTAGTTGGGGTCAGGCCCAGCCACTCTGTGGGGACAGTGATTAGTGTTGTGTCACCAATTCAGGGAAG
GAGCCACCTTGTCTTATTTTCCCTCTTGAATTATCTTGATATGACCCCATTATAAATTTCCTTTTGTAAACCTCT
GTCTCCCAATTTCTCCTTTTAGCTTACTTTCTATTGAAGTAGAGGAACAGAGTACAACTTCCATCCTCTTTCATC
AGCCCTGAGAGCAGAACGCAAGCGCCGTTACTGGGAACTATATCCTTGGCTCCCTGGATGTGGCTATTAACTTCT
GGCCTGCCACTCTATCACATACACATATGGAGATGGTGTCATCCATGTACCTTACCCCGTATTTACAACTTCTAT
CACCCAACAGTGCCAATGGCCCTGATGGTCCCTCTGGGAGGGAGAGAAGAGTAAGCTGGAGTCACCCCTTCCCTG
TACTTCCCACCTCGCCAGGCCTGTTGGTGTTAGTGTCCCTTCTGATCTTGGCCTGACCCCTGTGCCCTGGGCACT
GGGCTGCAGGTTGGAGAGGCAGCATGATGGAGTGGGGATAACACATACTCCAAAACCAAACAGAAGCCAGACCTG
GGTTGGGTCCTGGCGAAACAGTCTAGAGGCTTGGTGACCTTAACCTCCTAATTAATCTTCCTAAGCATAAGTTTC
CTTATCATAAGTTATGTATGATAAAATTTTCCTTGGATGCATTCATTTTAGCATGACTTGAAATTATGTGTGAAG
GAACCTGGCCCACGGAAGTTGCCCTGTAAATTCAGATTCACTTTCCCTTGGACATATGGATGACATTAGCTCATT
ACAGTTATGACCTCCCTAAAACTCCCAAATATTCTTTAAGTTCTTCTCTTATTTTCCCTTTAGTTTGTAGTCATA
TTTCTTAGTTCTTATATCAGTTGGGATTCCCACATCTTCTAGTTGGACAATATTGGAGAAGACACCACATTTTAA
CTGAGTTCCAGTGATATGACAGGCTTTCAATTCTCTAATCTCACAGAAGTTAGAAAAAAAGTAGATAATCAAAAT
CCACAGAAAATATAGAAGATTCCATTAACTCTGAGAATGATTCTCAGGTATCCTTAGGACCTCAAGAAAGCTGTT
CTCTCCTGGGCCTGTAGAGAGTTCAAGTGCCAGGAATCTACCACAAAGTAGCCGGGAGGTGCAGGGCAGCAGGGG
GCACAGTGAAGTGCTGAAGGGCTTCTCAGTCTTCTTTAATTAGAGTGAGAAGAAAAGAGCACCTCCTCATTTTAG
AGTACATGGTGTGAACTCACTCTCAGCTGCCAAGTGAGCTTCACCTTGGGCTGTTTTGCATGCTTTCTCCTAGTG
CTTTAAGCCACCCTGAGATGTACAGACCAATACTGGCCATCACAAAAATATACTCGAGTACATAGACCATTGACA
CTATAAAGCAAGTAAACAATGAAGTCTACATAACAGCCAAATAACAAC**ATG**ATGATAGGATCAAATCTGCACATA
TCAATATTAACCTTGAATGTAAATGAGCTAAATGCCTCAATTAATAGGCAGAGAGTGGCAAGTTGGACAGAGAAG
CAAGACCCAACTGTATGTCTTCAAGAGACCCATCTCATATGCAGGGACACCAATAGCCTCAAAGTAAGGGATGGA
GAAAGATCTATCAAGCAAATGGAAAACAAAAAACAGCACTCTCTGTCCAACAAAAACAGAATATACATTCTTTTC
AGCTGCACATGGTACATACTCTTAAAATCGACCACAATTGCTTTATTGGCCAGAAAGCAATTCTCAACAAATTCA
AGAAACCTGAAATACCGGCCAGGTGTAGTGGCTCACACCTGTAATCCCAACACTTTGGAAGGC**TGA**GGTGGGCAA
ATCACTTGAGGTCAAGAGTTTGAGACCAGCCTGGCCAACATGGCAAAAACCCATCTCTTCTAAAAAATATAAAAA
TTAGCCGTGCATGGTGGCATGCGCCTGTAATCCCAGCTACTTCGGAGGTTGAGTCACGAGAATTGCTTGAACCTG
GGAGGAGGAGGTTGCAGTGAGCTGAGATCACGCCATTGCACTCCAGTCTGGTTGACAGAGTGAGACTCATCTCAA
AAAAACAAAAAAACCCTGAAATACCAACCACACTCTTGGACCACAGTGCCATAAAAATAAATACCAAGAAGATCT
CTCAAAACCATATAATTAAGTGGAAATTAATCTACTCCTGAATGACTTGGGTAAACAAAGAGAAATTAAGGCAGA
AATCAAGAAATTGTTTACAACT

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FIGURE 665

GGAGTCAGGAATGGAGAGAAGGGTAATGGTGTTACCTCTTATTGTGGAAACCTGTTGAGATCACAGAGAATATAC
TGACGGCATAAAAGGGCAGAACCATAGCAGGGTGCGCGCTGCTGTAGTTGCCTTCCATGGATCTATAGGAGAGCA
AGTCCTCCAGGAGAAGAAGTCCTCACCAGTGAACGGAGACCTCTCTGAACTAAGAATACC**ATG**GCCACGTCAGCC
CCACTACGGAGCCTGGAAGAGGAGGTGACCTGCTCCATCTGTCTTGATTACCTGCGGGACCCTGTGACCATTGAC
TGTGGCCACGTCTTCTGCCGCAGCTGCACCACAGACGTCCGCCCCATCTCAGGGAGCCGCCCCGTCTGCCCACTC
TGCAAGAAGCCTTTTAAGAAGGAGAACATCCGACCCGTGTGGCAACTGGCCAGCCTGGTGGAGAACATTGAGCGG
CTGAAGGTGGACAAGGGCAGGCAGCCGGGAGAGGTGACCCGGGAGCAGCAGGATGCAAAGTTGTGCGAGCGACAC
CGAGAGAAGCTGCACTACTACTGTGAGGACGACGGGAAGCTGCTGTGCGTGATGTGCCGGGAGTCCCGGGAGCAC
AGGCCCCACACGGCCGTCCTCATGGAGAAGGCCGCCCAGCCCCACAGGGAAAAAATCCTGAACCACCTGAGTACC
CTAAGGAGAGACAGAGACAAAATTCAGGGCTTCCAGGCAAAGGGAGAAGCTGATATCCTGGCCGCGCTGAAGAAG
CTCCAGGACCAGAGGCAGTACATTGTGGCTGAGTTTGAGCAGGGTCATCAGTTCCTGAGGGAGCGGGAGGAACAC
CTGCTGGAACAGCTGGCGAAGCTGGAGCAGGAGCTCACGGAGGGCAGGGAGAAGTTCAAGAGCCGGGGCGTCGGG
GAGCTTGCCCGGCTGGCCCTGGTCATCTCCGAACTGGAGGGCAAGGCGCAGCAGCCAGCTGCAGAGCTCATGCAG
GACACGAGAGACTTCCTAAACAGGTATCCACGGAAGAAGTTCTGGGTTGGGAAACCCATTGCTCGAGTGGTTAAA
AAAAAGACCGGAGAATTCTCAGATAAACTCCTCTCTCTGCAACGAGGCCTGAGGGAATTCCAGGGGAAGCTGCTG
AGAGACTTGGAATATAAGACAGTGAGCGTCACCCTGGACCCACAGTCGGCCAGTGGGTACCTGCAGCTGTCAGAG
GACTGGAAGTGCGTGACCTACACCAGCCTGTACAAGAGTGCCTACCTGCACCCCCAGCAGTTTGACTGTGAGCCT
GGGGTGCTGGGCAGCAAGGGCTTCACCTGGGGCAAGGTCTACTGGGAAGTGGAAGTGGAGAGGGAGGGCTGGTCT
GAGGATGAAGAAGAGGGGGATGAGGAGGAAGAGGGAGAAGAGGAGGAGGAGGAAGAGGAGGCCGGCTATGGGGAT
GGATATGACGACTGGGAAACGGACGAAGATGAGGAATCGTTGGGCGATGAAGAGGAAGAAGAGGAGGAGGAAGAG
GAGGAAGTTCTGGAAAGCTGCATGGTGGGGGTGGCTAGAGACTCTGTGAAGAGGAAGGGAGACCTCTCCCTGCGG
CCAGAGGATGGCGTGTGGGCGCTGCGCCTCTCCTCCTCCGGCATCTGGGCCAACACCAGCCCCGAGGCTGAGCTT
TTCCCAGCACTGCGGCCCCGGAGAGTGGGCATCGCCCTGGATTATGAAGGGGGCACCGTGACTTTCACCAACGCA
GAGTCACAGGAACTCATCTACACCTTCACTGCCACCTTCACCCGGCGCCTGGTCCCCTTCCTGTGGCTCAAGTGG
CCAGGAACACGCCTCCTGCTAAGACCC**TGA**GCCCTGACATCTGCCCCCAGCCCCAACCCTCAGATGCTTCACTTC
TTTGGAATTCCAGGACTCTCAATGGGGGGACGGGATGCCTGGCCTAAGCACCTGGAGCAGGGGACCCCATATCCA
CTGGTAGCCACCTCCCCATTGCTGTGGCCCCCTGAAATCTCACTCAGTGCTGTTGCTCCATCTACTGCCCTAATG
GGGCTCTTTTCCCACCTCCTGCTGGTTTCCCGAGGGAACTTCTGACCCTGGAGTCCATGAGGGCTCCTTTCCTTT
TTGACCACGACCTTGGCCCTAGCTCTGCACTCTCTGGAATAAGGGCCCGATGCAGCATTTTCTTGCCCAGTGTGG
CAAGACCTCAGAAAAACCAGTCAATTACGCCTAAGATCATTTTGCTGTCCTTAAACCCCCCAGGTTCCTTCTTGC
ACAAATCCACTCTGCTGCCCACCTTCCCTGGCATTTTAAACAGACCTACCCCACCCCAACTCAGAGTTAAGCATA
CATGGCAATGCTGAAAATAAACAAAATCCACTGAGGCTTCCCAGGCCATTTAAAGCCTGGAGTACCAGCGCATAT
CATCTCATGGGGTCCAGAGTGGAGTCCAGGCTTCTCTGAAACCAGGGCTGAGCATATTTCCATAGCCAAGGAGGT
GGGACTCCCTGGAGCTATCTGTGGTCTTAGGGAAGGATCCAGACATACACGGCTTTGGGGTACAAGCTGTGATCA
CTGATCAATAAATTATCTCTAGATTGGTCCTTGTGAGGGGAGTTTTAAGAATCCAGAACATCTTGCTCTTGATCA
GCACATCCAAAAACACCAAGACAAACATCCAGTGGAGCAGAACCTCTCCTGCCTCGGGAGTTCTGACCGGGTTCC
CCAGCAGGGTGTTAAGCCTCTGTCTCTGGCCCTACCAGCATCCAGGTTCCACTTTCCTAGGAGAGAGTGGAGATG
GGAAGACAGGGAAAGGAAGGCAGCAGGAGGCCACAAGCCCACCAGGTCTTCATGTCAAGAGAGGGAGTAACATGT
CTTCTCATTGCCCACGGACCCAACCTCTGTCCAGGTGCCCCTCATCATCACAGTTTAACACAAGCTCCCCTGCTC
CAGCCAAATTGATCTCCCAGTCTTGTCCTTACCCATTCCAAGTGCTCTGCCAGCCCCTGTTCATCCAAGTTTTAA
GTCCTCCACCCTGTTATAAGAGACTGTTCCAACGGCTCTGGGCCTCAGTGGTCACTTGACCACCATTGTCTCAGA
GCTGCCCACTTTGTGTGTGTCACATGCTGCCTGAGTCACATGTACATCTTATTTCTGCCTCTAGTTTTGTAAGCT
CCTGGAGGGCGGATAACATCTTATACTACTCTTGTATTCTCATGGCACCTAGTGCAGTGCTGGGCACAGAGTAGG
TGCTCAATAAAGACTTGTTGAATGA

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FIGURE 666

GGCGTTACGCAAGGCCTGGTGTTTACCTCCCGTGGGAGCCTCCTCCCTCCCTATAAAGCCTG**ATG**TGGTGGAGAG
ATTTGACGAGACTGAGACTCTGGTTGAAGAGAGAGGCAATCCCAGGAGAGGGGCGGAAAGCGGCAAAAGTTAATG
CGGGAGTCGGAGAGAAGGGCATCTACACAGCAAGCAGCAGGGGCGGCCCGCCATCTGCGCGCTCGAAGGCGGTCA
CGGTGGTCGCGGAAGGGGCGGCGTCCAGATCCTGGCTTTCCATGGATGCGCCCGAGCTGGGCCCGGGGCTGGTGG
AGCGTCTGGAGCAGCTGGCGACGTGTCCTCTGTGCGGGGGCTCCTTCGAGGACCCGGTGCTTCTGGCGTGCGAGC
ACAGCTTCTGCCGCGCGTGTCTGGCCCGCCGCTGGGGGACTCCGCCGGCGACCGGCACCGAGGCTTCCCCCACCG
CCTGTCCCTGCTGCGGCCTGCCGTGTCCCCGCCGCAGCCTGAGGTCTAATGTGCGGCTGGCGGTGGAGGTGCGAA
TCAGCCGCGAGCTGCGAGAGAAGCTGGCTGAGCCTGGGGCCCGTGCGGGGAGACGCCGAGGGGGGCGCATCCCCA
CCATGGGCTGCCTGGACCTGCCCGGAGAGGATATGAGGAAGACATGGAGACGATTTGAAGTCCCAACATCCAAGT
CATCTAATTCAGAGGATGATCTCCCTGAAGATTATCCAGTGGTCAAAAAAATGCTTCATAGACTGACAGCCGACC
TGACCCTGGACCCTGGGACCGCACACCGCCGCCTGCTCATCTCCGCCGACCGCCGCAGCGTACAACTGGCCCCAC
CAGGGACGCCCGCGCCCCCTGACGGCCCCAAGCGCTTCAATCAGCTCCCAGCTGTGCTGGGTGCGCAGGGCTTCG
GGGCCGGCCGCCACTGCTGGGAGGTGGAGACTGCGGACGCCGCCTCCTGCAGAGACTCTTCTGGGGAGGATGCGG
ACGACGAGGAGAGCCACTATGCAGTGGGCGCGGCCGGGGAATCAGTGCAACGCAAGGGCTGCGTAAGGCTGTGCC
CTGCGGGGGCCGTGTGGGCCGTGGAGGGCCGCGGCGGCCGCCTGTGGGCCCTCACGGCACCCGAACCCACCCTGC
TGGGCGGTGTTGAGCCCCCGCCGCGGCGCATTCGCGTGGACCTGGACTGGGAGCGGGGCCGCGTGGCCTTCTACG
ACGGCCGCTCACTCGACCTGCTTTACGCCTTCCAGGCGCCTGGCCCCCTGGGGGAGCGCATCTTCCCGCTGTTCT
GCACCTGCGACCCTCGTGCTCCGCTCCGCATTGTACCAGCGGAAAGC**TGA**GTCTCGTCTCCAACTAGAAGTTTGG
CCCGGCCACTGGCCCTGCAGCTGCTTTTTGGGGGTGGAATTCCCCACTCATTTCTGGGAACACATTCACACGCCC
ATTGCAGGAGTATTAATAGCAACCCACATTTTCGCCCCAAAATAATGAGACCTCACCTGGTCTCCACGTTTCCAC
GTCCCTGCTCAAAACCAAATCCATTCCTGCCTTCTGGCTCTCAGAATCTTCTCTCCCCTACAGCTACTACAGTAC
TTCCTGACTTCTCCCATTCAAACCATTCTAGGCCTGCAATGGGGAACAGGCCCTCCCCATCAGTATTGGTAAAGT
GACCATGATTCCTACATAGAGGCTCTGCTGGTCAAATACTTGACTCCCACTCTTGCCACTCCTAGCTCCAGAAGG
GCTCAGGGCCTTCCCCACAGATCTAAGGACTGGGCTACCCTGCCTGTCCACTGAGGTTTCTCCTAAAACAAGAGG
CTTGACTCTGGTCTGGGCCCTGTGGCCCTCTGGGAAGCTTTGTACCTCTTTTGCAGGATCCGGGGGTGGGGAGGG
ACAAGCTAGTTCCCCAACCTCCTATGACTGCTTTCTATGCTCACAGCCTTTTTTCCATAAGAACCTTCTTGAAAC
TTCTCCCCGCACATACTCACGGAAAGGAACCAATGGTGCTATTTCCCCTCTCTCCTCCTCAACCTGGGAATACTT
CAGACATCTCCAAACTCATCCTTGTGTATAGTCTCACACCCTTCCCCATAAGTATAAATGGGCCCATATTTAACA
CATTTTGTGATTTTGGGTTATTTATTTTGTGCATCTGTGGCAATAAATGAGATCTCAGTGGTGGTA

FIGURE 667

CGGCGAGCCGGAAGTGGGGTTAGCCAGGTTATCCCCAGGGGTGGAGAAGCGGAGGCCCAGGAGGAGGGGGAATAA
AGAAGGTGGAGGATCCTGGCTACCACTCTGAATCCGATACCGCTTCTCTTAGACCTCAGCGACAGAAAAAGGGAA
GGGTGTCTCATCCCCCTTCCTCCTCTCCTCCCTGTCCTGAGCCTTAGCC**ATG**GCCGAGGCAGGGGCTGGGCTGAG
CGAGACCGTCACTGAGACAACGGTTACCGTGACAACCGAGCCCGAGAACCGGAGCCTTACCATCAAACTTCGGAA
ACGGAAGCCAGAGAAAAAGGTAGAATGGACAAGTGACACTGTGGACAATGAACACATGGGCCGCCGCTCATCCAA
ATGCTGCTGTATTTATGAGAAACCTCGGGCCTTTGGCGAGAGCTCCACGGAAAGTGATGAGGAGGAAGAAGAGGG
CTGTGGTCATACACACTGTGTACGTGGCCACCGCAAAGGACGGCGTCGTGCAACCCTAGGACCGACCCCCACCAC
CCCTCCCCAGCCTCCTGACCCTTCCCAGCCCCCTCCAGGGCCAATGCAGCAC**TAA**ATCCCTCTCTCCTCCAGCAT
TCCTGTGTCTGTCTGGCCCTAAATGTATCCATGTGGCTACTTCTCCAGCCCCCTCCTTCCCTCTCTTCTGCCTGA
TAGAGGGAAGAGGAAGAGGAGGACGAACAGAGATCCTGAAATTCTGACTTGCTGCTATTCCAGAACCCAGCCTCC
TGGGTTTCCCCAGTCCTCATTTTTCCTCCCAATACCCACCCTTCTCTCTCGAGGGATCTAGGCACCTTGGTCCCA
GTGTCTTCCTTTTGTTCTCACTGCCAAACTGCCTGTCCTGGGATCTAGTTATCTTGGCCCTGCACTCTCAACATG
AGTAGCGAACACTTAAATTGGGTTTTCAACAGTCCCAGCTTTCACTGCCAGGGTCCCAGTCAGATTCCAGGAATT
TGCGCCCTAACTTTGCTTGCTAATCCTGGTTTAGAGCTATCCCACTAAAATATTTAATCCTAATTCTTAGTCCTT
GCCTGTGAGATATGAGGTCTTACAGGAGACCTCAGAGCTCCCAGCCCTTCTCCTCCTGCTAACCCTTCTCACACC
CTCAAGAGGAGTTAGAAAAGAGGTCCTTGTCATTCTCACCTCTTATGGAAAATGGAATAAGAAATAATCATATCC
TTTCTTCCCACCCTTCTCCTGTTATTTAGGATTTCTGACAAAGCTGGCTTGAGATTGGTCACTTAGAGCCGACTG
TCTCCTCTGCCTTTTGTTTTTCAGCTTCAGAGACAGATCCAATATAGTCCCAGGGACCTGGGTCTCTGGGAGAGG
AAGGAAGAGGGAGGGAGCAAAGAGATTGGGGTATGTCCCCTGTAGTACACTCTTACCTCTTACTTCCTAGACTTT
GATTTCTCCGGCAGCCCAGATGTTCAGTTCTCTTGGCCCCTCTCTACCCCTTACTGGGATCTGGTTTTCATTTTC
CGGTCCTTTTGCCATACACAGTTACAGAGATCAGTCAAATCCATACCACCACTGAGATCTCATTTATTGCCACAG
ATGCACAAAATAAATAACCCAAAATCAC

FIGURE 668

GCAGAGCTGGCGCTCTAGCCCACGGAGTTGGTTAACTCCTCTCACCGGCCCCTGGAAAGGGTTCCAAGTCCTTTA
GTACCCGACGCTGTCTGGGAATTCCGGGCGTTTCGGCTCCTTGGTCGCAGAGGCAGGAGGCACCCGACCGC**ATG**T
CTGTCATGGACCTCGCCAATACTTGCTCCAGCTTTCAGTCGGACCTGGATTTCTGTTCAGATTGCGGCTCGGTCC
TGCCTCTGCCCGGGGCTCAGGATACGGTCACCTGTATTCGCTGTGGCTTCAACATCAACGTTCGGGACTTTGAGG
GGAAGGTTGTGAAGACTTCGGTTGTGTTCCACCAACTGGGGACAGCCATGCCTATGTCGGTGGAGGAAGGGCCTG
AGTGCCAGGGACCTGTGGTTGACAGGCGCTGCCCTCGATGTGGTCATGAAGGAATGGCATACCACACCAGACAGA
TGCGTTCAGCCGATGAAGGGCAAACTGTCTTCTACACCTGTACCAACTGCAAGTTCCAGGAGAAGGAAGACTCT**T**
GACCTTTTTCCTGGGCAACTCTACAGTCCCTCCCTCCTTTCGGAAGGTGAAGGATACTGGGTTTTTAGATGCCTT
GTCCATCCTGTCTGGTTGCAATGTTTTGCTCCCAGAAGAGAATCAGATCATCATGTGGGGATTACCATTGTTCCT
GGAGTACTCCTACCCTTAGTTGAATTTCCTTATTAAAGTTATATTTTTCTATAAGACCCTGA

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FIGURE 669

CGATGGGGTC**ATG**GCGCCCCGAACCCTCCTCCTGCTGCTCTCGGGGACCCTGGCCCTGGCCGAGACCTGGGCGGA
CCCCCCCCAAGACACACGTGACCCACCCCCCTCTCTGAACATGAGGCATAACGAGGTCCTGGGTTCTGGGCTTCT
ACCCTGCGGAGATCACATTGACCTGGCAGCGGGATGGGGAGGACCAGACCCAGGACATGGAGCTCGTGGAGACCA
GGCCCACAGGGGATGGAACCTTCCAGAAGTGGGCGGTTGTGGTAGTGCCTTCTGGAGAGGAACAGAGATACACAT
GCCATGTGCAGCACAAGGGGCTGCCCAAGCCCCTCATCCTGAGATGGGTCACACATTTCTGGAAACTTCTCGAGG
TTCCAAGACTAGGAGGTTCCTC**TAG**GACCTCATGGCCCTGCTACCTTCCTGGCCTCTCACAGGACGTTTTCTTCC
CGCAGATAGAAAAGGAGGGAGCTACTCTCAGGCTGCAAGTGTGAGACAGCTGCCTTGTGTGGGACTGAGAGGCAA
GATTTGTTCATGCCTTCCCTTTGTGACTTCAAGAACCCTGACTTCTCTTTCTGCAAAGGCATCTGAATGTGTCTG
TGTCCCTATAGGCATAATGTGAGGTGGTGGGGAGACCAGCCCACACCCGTGTCCACCATGACCCTGTTCCCCACA
CTGACCTACATTCCTTCCCCGATCACCTTTCCTGTTCCAGAGAAGTGGTGCTGGGATGTCTCCAT

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FIGURE 670

CCCCAGACGCCGAGG**ATG**GCCGTCATGGCGCCCCGAACCCTCCTCCTGCTACTCTCGGGGGCCCTGGCCCTGACC
CAGACCTGGGCGGGCTCCCACTCCATGAGGTATTTCTTCACATCCGTGTCCCGGCCCGGCCGCGGGGAGCCCCGC
TTCATCGCCGTGGGCTACGTGGACGACACGCAGTTCGTGCGGTTCGACAGCGACGCCGCGAGCCAGAGGATGGAG
CCGCGGGCGCCGTGGATAGAGCAGGAGGGGCCGGAGTATTGGGACCAGGAGACACGGAATGTGAAGGCCCAGTCA
CAGACTGACCGAGTGGACCTGGGGACCCTGCGCGGCTACTACAACCAGAGCGAGGCCGGTTCTCACACCATCCAG
ATAATGTATGGCTGCGACGTGGGGTCGGACGGGCGCTTCCTCCGCGGGTACCGGCAGGACGCCTACGACGGCAAG
GATTACATCGCCCTGAACGAGGACCTGCGCTCTTGGACCGCGGCGGACATGGCGGCTCAGATCACCAAGCGCAAG
TGGGAGGCGGCCCATGAGGCGGAGCAGTTGAGAGCCTACCTGGATGGCACGTGCGTGGAGTGGCTCCGCAGATAC
CTGGAGAACGGGAAGGAGACGCTGCAGCGCACGGACCCCCCCAAGACACATATGACCCACCACCCCATCTCTGAC
CATGAGGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGATGGG
GAGGACCAGACCCAGGACACGGAGCTCGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAGTGGGCGGCT
GTGGTGGTGCCTTCTGGAGAGGAGCAGAGATACACCTGCCATGTGCAGCATGAGGGTCTGCCCAAGCCCCTCACC
CTGAGATGGGAGCTGTCTTCCCAGCCCACCATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGAGCT
GTGATCACTGGAGCTGTGGTCGCTGCCGTGATGTGGAGGAGGAAGAGCTCAGATAGAAAAGGAGGGAGTTACACT
CAGGCTGCAAGCAGTGACAGTGCCCAGGGCTCTGATGTGTCCCTCACAGCTTGTAAAGTG**TGA**GACAGCTGCCTT
GTGTGGGACTGAGAGGCAAGAGTTGTTCCTGCCCTTCCCTTTGTGACTTGAAGAACCCTGACTTTGTTTCTGCAA
AGGCACCTGCATGTGTCTGTGTTCGTGTAGGCATAATGTGAGGAGGTGGGGAGACCACCCCACCCCCATGTCCAC
CATGACCCTCTTCCCACGCTGACCTGTGCTCCCTCCCCAATCATCTTTCCTGTTCCAGAGAGGTGGGGCTGAGGT
GTCTCCATCTCTGTCTCAACTTCATGGTGCACTGAGCTGTAACTTCTTCCTTCCCTATTAAAATTAGAACCTTAG
TATAAATTTACTTTCTCAAATTCTTGCCATGAGAGGTTGATGAGTTAATTAAAGGAGAAGATTCCTAAAATTTGA
GAGACAAAATAAATGGAAGACATGAGAAC

FIGURE 671

CAAGTCGCAGCCATACATTATCTGGAGGGTGTTAGACCCTGGCCCCGCCCCCGCGGTCAGCCCCGCCCACCGAGC
CCCGCCCCCGCCCCGACCAACCCGCGGGGATTTTGGCCTAAACGGAAAATGAAACCTGGTAAAGGCGCCTGGGCC
TCTCCCGGGTCGAGGATCTGGCGGGTCCCGCAGCCTCGGGGTGGATCTTGGAGCCGGAGACTCGCGGGGGGGACC
CGGGACGTCCGTGGGGG**ATG**AGGAGGGGTCGTGACCTTCGCCCCAGGCCGGGGTCATTCACCGGCCTAGCTCTGG
TGGTAGTAGCGGCGCGGCATGGGCAGGTTCACTCTTGTCAGTCTGTGCGCGGGCCTGATGTTCCGTGTGCTCCGG
TCCCAATACTCCGGTCCCTCCTGCTCCAACCACGGCGACTGCGGCTACATCCTCGGAGTCGCCGCGTCGCTGTCG
AACCGCACGAACTGCGTGTCGTCCACGTAGCCCACTGCGATGTACCGGGGCTCCCCGCGACCCGGCCGGGACACG
GCGGTGCTGAAATACCTTATGGAGTGGGTACCTGGGGGCGAGGAGGGGCTGAGACCCGTCCGACCCTCCTCCTTG
CGCTGCTCCCCGGGTCCTGCGCCCCAGTGCGCGGGCCCCTACCTCCTCCCCGCAGAGGCCATTTCCCTCCGGATC
CCGCACTCACCCGCCCAGGTCTCGGTCAGGGCCAGGGCCCCCAAGAGCAGCAGGAGGAGGGTTCGGGACGCCATG
ACCCCATCCTCGGCGTCTGGGGAGAATCTGAGTCCCAATGGGTTCGCGGGGACTTCTGGAACAGGGACCCCAGCG
ACGCCGATTGGCTTCGC**TAG**AAACCCGACACCAAATGGGGGTGAGAACTGAGTCCACATCCTGAGTGTCCAGGAA
GAAGGACCCTACATAAGTTGGGAGAGGGAGAAGAGAAACTGCGGAGATGGGGAATCCCCAACCCTGGGCCTCCCC
AATCAATACATCGCCTTCGGGGCCTGAAACCCTGAGAGCCACGCCTGGGGCCATAGGACTTCGCCCTGACCCCGC
TCCTCCTGTGCCAAGCGCTCTGTCTCAATGTCTCCCTGAGTCTTGGCCCAAGAGCTGTCTGAGAAACCAGGGAGA
AACCCTCGTCATGGGCCCCGTCCCTCTTCATTTTTCATCCCGGAATCCCCGTCCCAGAACTGGACTCCCTGCCTC
CCACTCCTTACCTATTTCCCTGAACTCTTCTAGAAAAAAACTCACCCCAGGGAGCTTGGTGACAGAGAGGGAGCT
CGCCGCCAGAGAGGGAGCTCGCCCTGGGAATGGAGGCGTAGAGACAGGTTTTTGTTTTTTTTTTCTTTAAATCCG
GAAAAGTTGTGCCTGAGTACATGAGACAGCATAGAGACAAGTTTTCTCTTTGTTTATTAACTACAGTGGGTAGCA
GAATCTTGGCAACCCCTAAATGATCAGGTATCTAATCGGTAAAAAAATGTAACTTTGGCCCCTTGATACATAAAT
GTGTCTGAAAGCATTACAACAGGACTCACAAAGCTACTAAGTTTGACTTTCGCAGACAATGTATCTGTGACTCCC
GCTTGTTTTTTACATTTACCTTCATTCCACAGCCCTGAGTTACTGGGTGAGTCCAAGACATCTCCTCAATATAAA
GTAGCACACTGCGTTACTATATGTTGCAACCGGGAGCCAGTACAGACTTTATTCACCTCACAGTTGCAAGTGTTC
AATGCAGTCACAATGCCCCTCAGCAGTGCTCATGTGCTGCCTGTTTTTAGGAAGTATTCACGTCTAAGTGGTGTG
TATATCTTATAGGAACACTTAGTATTTTTAAAACCTGATTAATTAAAAAAAATTAGTTTCTAGGCAGTCCCAAAT
ATAGTATTAAAGGCCAACTGCAAAGAAGGAACACTAAGTGTTTTTTAAACCTTATTAACATAAAAAACATTAGTT
TTTAGGCAGTCCTACATTAGGTATTAAAGGCCAACTGCAAAGAACACTGAGCGAGGCTCTGTAGATGGATGTAAT
AAAAATCTATAAAACAATGTGTTTAAACCTAAGAATTCTACTGCTTTCCAATTCCTTCCCTCTGCTCCTTTTCCT
AACCTCCTGCTTCTCCAGCCCTTCCCTCTGTCCCTTTCATCCCTCAGGCCCTCCTCTCCCCTTAGTCCCCACCAC
CCTGTCACTTCTAAATTGTGGCTCTAGCATTGTCCCATTACCTGCTACGTGACTGTTCTCTCCACAGTGGTCCTG
CTCCTGTGAGTCAGAGTGTGTCATTTCCTCACCTAAAACACTCCAGTGGCTCCACCTCGGTCTTGTGAAGCTTCT
AGAATGTCAGGCACGTGAGCATATGAGGGCATACCTGGTTCATCTTAGGCACTAAATTTTTGTTGACTGAATGAA
TGAAATATGAATGTATTAAATTGCATCACAGAAAGTTATAAAATGTAAAACACTG

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FIGURE 672

ATGGTGCTCATGGCGCCCCGAACCCTCCTCCTGCTGCTCTCAGGGGCCCTGGCCCTGACCCAGACCTGGGCGCGC
TCCCACTCCATGAGGTATTTCTACACCACCATGTCCCGGCCCGGCCGCGGGGAGCCCCGCTTCATCTCCGTCGGC
TACGTGGACGATACGCAGTTCGTGCGGTTCGACAGCGACGACGCGAGTCCGAGAGAGGAGCCGCGGGCGCCGTGG
ATGGAGCGGGAGGGGCCGGAGTATTGGGACCGGAACACACAGATCTGCAAGGCCCAAGCACGGACTGAACGAGAG
AACCTGCGGATCGCGCTCCGCTACTACAACCAGAGCGAGGGCGGTTCTCACACCATGCAGGTGATGTATGGCTGC
GACGTGGGGCCCGACGGGCGCTTCCTCTGCGGGTATGAACAGCACGCCTACGACGGCAAGGATTACATCGCTCTG
AACGAGGACCTGCGCTCCTGGACCGCGGCGGACATGGCAGCTCAGATCACCAAGCGCAAGTGGGAGGCGGCCCGT
CGGGCGGAGCAGCGGAGAGTCTACCTGGAGGGCGAGTTCGTGGAGTGGCTCCGCAGATACCTGGAGAACGGGAAG
GAGACGCTGCAGCGCGCGGACCCCCCCAAGACACATATGACCCACCACCCCATCTCTGACCATGAGGCCACCCTG
AGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGATGGGGAGGACCAGACCCAC
ACACGGAGCTCGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAAGCCATCTTCCCAGCCCACCATCCCC
ATCGTGGGCATCGTTGCTGGCCTGGTTCTACTTGTAGCTGTGGTCACTGGAGCTGTGGTCGCTGCTGTAATGTGG
AGGAAGAAGAGCTCAGATAGAAAAGGAGGGAGCTACTCTCAGGCTGCAAGGCCATCTTCCCAGCCCACATTCCTC
ATCATGGGCATCGTTACCGTCCTGGTTGTTCTAGGTGCTGTGGTCACTGCTGTGATGTGGAAGAATAAGACCCCA
GGTAGGAAAGGGGTGGCACAGGGCTTGACCATCACATTTGTGTCAGGTGACAATAATGCCAGGATCCTCAGTATG
GGCAGCATCGCTTTGAGGTCAGTGATAGAGGGCCTGGTCCAGCTCCAGCTGCTGTGCAAGCAACTCCTCAGCTTG
GGCCAGCTCAGCTGTGTGGGGGGCTCAGGGCCCTGGTCAGAGGGAGTGGAGGAGGGAGCATCAGCCAGGGTAGAG
GGGTTGAGGCCCTTGGAACCTGTGTTGCAAGATCTCATGCCCTGCATGCTGCAAGGGTTTGCCTTCTCTGACAGA
CCATCCACTCATAAGGAGGTCAAAAACAAGTTCCACACAGCACTGAGACACAACCACCTCATTGTCCTCACCTCC
ACGGACAGAGCCCAGGACTTTGATAAGCGGGGGGCCAAACCCACCGCTGGGGTGAATCCATATAGACTAGAAAAA
ATGATGCCTAACTCTCAACAAGGTAGACGTGACTTAGTTGCCCTGGAACTTGCACAGGATGGAATAACAAGGCTG
AGGGAAGTGGGCATGGTGAAGGCCCACCAGTACCATGCTCCACAAGACAGTCCAAAGGAAACACCTTCCACCAGA
GCCTCAGAAACG**TGA**

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FIGURE 673

CCCATTAGGTGACAGGTTTTTAGAGAAGCCAATCAGCGTCGCCGCGGTCCTGGTTCTAAAGTCCTCGCTCACCCA
CCCGGACTCATTCTCCCCAGACGCCAAGG**ATG**GTGGTCATGGCGCCCCGAACCCTCTTCCTGCTGCTCTCGGGGG
CCCTGACCCTGACCGAGACCTGGGCGGGCTCCCACTCCATGAGGTATTTCAGCGCCGCCGTGTCCCGGCCCGGCC
GCGGGGAGCCCCGCTTCATCGCCATGGGCTACGTGGACGACACGCAGTTCGTGCGGTTCGACAGCGACTCGGCGT
GTCCGAGGATGGAGCCGCGGGCGCCGTGGGTGGAGCAGGAGGGGCCGGAGTATTGGGAAGAGGAGACACGGAACA
CCAAGGCCCACGCACAGACTGACAGAATGAACCTGCAGACCCTGCGCGGCTACTACAACCAGAGCGAGGCCAGTT
CTCACACCCTCCAGTGGATGATTGGCTGCGACCTGGGGTCCGACGGACGCCTCCTCCGCGGGTATGAACAGTATG
CCTACGATGGCAAGGATTACCTCGCCCTGAACGAGGACCTGCGCTCCTGGACCGCAGCGGACACTGCGGCTCAGA
TCTCCAAGCGCAAGTGTGAGGCGGCCAATGTGGCTGAACAAAGGAGAGCCTACCTGGAGGGCACGTGCGTGGAGT
GGCTCCACAGATACCTGGAGAACGGGAAGGAGATGCTGCAGCGCGCGGACCCCCCCAAGACACACGTGACCCACC
ACCCTGTCTTTGACTATGAGGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCATACTGACCT
GGCAGCGGGATGGGGAGGACCAGACCCAGGACGTGGAGCTCGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCC
AGAAGTGGGCAGCTGTGGTGGTGCCTTCTGGAGAGGAGCAGAGATACACGTGCCATGTGCAGCATGAGGGGCTGC
CGGAGCCCCTCATGCTGAGATGGAAGCAGTCTTCCCTGCCCACCATCCCCATCATGGGTATCGTTGCTGGCCTGG
TTGTCCTTGCAGCTGTAGTCACTGGAGCTGCGGTCGCTGCTGTGCTGTGGAGAAAGAAGAGCTCAGAT**TGA**AAAG
GAGGGAGCTACTCTCAGGCTGCAAGTAAGTATGAAGGAGGCTGATCCCTGAGATCCTTGGGATCTTGTGTTTGGG
AGCCCATGGGGGGAGCTCACCCACCCCACAATTCCTCCTCTGGCCACATCTCCTGTGGTCTCTGACCAGGTGCTGT
TTTTGTTCTACTCTAGGCAGTGACAGTGCCCAGGGCTCTAATGTGTCTCTCACGGCTTGTAAATGTGACACCCCG
GGGGGCCTGATGTGTGTGGGTTGTTGAGGGGAACAGGGGACATAGCTGTGCTATGAGGTTTCTTTGACTTCAATG
TATTGAGCATGTGATGGGCTGTTTAAAGTGTCACCCCTCACTGTGACTGATATGAATTTGTTCATGAATATTTTT
CTGTAGTGTGAAACAGCTGCCCTGTGTGGGACTGAGTGGCAAGTCCCTTTGTGACTTCAAGAACCCTGACTCCTC
TTTGTGCAGAGACCAGCCCACCCCTGTGCCCACCATGACCCTCTTCCTCATGCTGAACTGCATTCCTTCCCCAAT
CACCTTTCCTGTTCCAGAAAAGGGGCTGGGATGTCTCCGTCTCTGTCTCAAATTTGTGGTCCACTGAGCTATAAC
TTACTTCTGTATTAAAATTAGAATCTGAGTATAAATTTACTTTTTCAAATTATTTCCAAGAGAGATTGATGGGTT
AATTAAAGGAGAAGATTCCTGAAATTTGAGAGACAAAATAAA

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FIGURE 674

ATGGCGCCCCGAAGCCTCCTCCTGCTGCTCTCAGGGGCCCTGGCCCTGACCGATACTTGGGCGGGCTCCCACTCC
TTGAGGTATTTCAGCACCGCTGTGTCGCGGCCCGGCCGCGGGGAGCCCCGCTACATCGCCGTGGAGTACGTAGAC
GACACGCAATTCCTGCGGTTCGACAGCGACGCCGCGATTCCGAGGATGGAGCCGCGGGAGCCGTGGGTGGAGCAA
GAGGGGCCGCAGTATTGGGAGTGGACCACAGGGTACGCCAAGGCCAACGCACAGACTGACCGAGTGGCCCTGAGG
AACCTGCTCCGCCGCTACAACCAGAGCGAGGCTGGGTCTCACACCCTCCAGGGAATGAATGGCTGCGACATGGGG
CCCGACGGACGCCTCCTCCGCGGGTATCACCAGCACGCGTACGACGGCAAGGATTACATCTCCCTGAACGAGGAC
CTGCGCTCCTGGACCGCGGCGGACACCGTGGCTCAGATCACCCAGCGCTTCTATGAGGCAGAGGAATATGCAGAG
GAGTTCAGGACCTACCTGGAGGGCGAGTGCCTGGAGTTGCTCCGCAGATACTTGGAGAATGGGAAGGAGACGCTA
CAGCGCGCAGATCCTCCAAAGGCACACGTTGCCCACCACCCCATCTCTGACCATGAGGCCACCCTGAGGTGCTGG
GCCCTGGGCTTCTACCCTGCGGAGATCACGCTGACCTGGCAGCGGGATGGGGAGGAACAGACCCAGGACACAGAG
CTTGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAGTGGGCCGCTGTGGTGGTGCCTCCTGGAGAGGAA
CAGAGATACACATGCCATGTGCAGCACGAGGGGCTGCCCCAGCCCCTCATCCTGAGATGGGAGCAGTCTCCCCAG
CCCACCATCCCCATCGTGGGCATCGTTGCTGGCCTTGTTGTCCTTGGAGCTGTGGTCACTGGAGCTGTGGTCGCT
GCTGTGATGTGGAGGAAGAAGAGCTCAGATAGAAACAGAGGGAGCTACTCTCAGGCTGCAGTCACTGACAGTGCC
CAGGGCTCTGGGGTGTCTCTCACAGCTAATAAAGTG**TGA**GACAGCTTCCTTGTGTGGGACTGAGAAGCAAGATAT
CAATGTAGCAGAATTGCACTTGTGCCTCACGAACATACATAAATTTTAAAAATAAAGAATAAA

FIGURE 675

ACATATTCCATGAACAAGCCTCTTCCTAAGGTCCTGTAAGTGATCCTGCCCCACTGATTAGCCCCTAGAAGACCC
TTCAAAGGTTGGATCTCCAGGAGGGAGTGGGGGAGGAAAGCCCTGTACCAGGCAGCCTCTGCTCCATTGCTCTGG
GGGGGTGGGGAAGGCAAACCCTGGTCATCCCCTCAGTCTGTAGCCCTTTTGTGTGAGTGCCTGGCAAGGGTGACG
TGGGGCTGTTTCTGCGGGCACAGCTGCAGCAATTACCGGAGTGGAGGCAGGGCCCAGGCAGCACTGCCCTCCAAG
ATCTTCCCTTGGGCTTTTCAGCAGTAAGGGGACATGCACCCCAAGGGCCTCCACTTGGCCTGACCTTGCTGCGGG
GGCTCTCTGTCCCCAGGAACAGTAGAG**ATG**GCAAGCTTATCGAGACCCTCTCTGCCCAGCTGCCTCTGCTCCTTC
CTCCTCCTCCTCCTCCTCCAAGTGTCTTCCAGCTATGCAGGGCAGTTCAGAGTGATAGGACCAAGACACCCTATC
CGGGCTCTGGTCGGGGATGAAGTGGAATTGCCATGTCGCATATCTCCTGGGAAGAACGCTACAGGCATGGAGGTG
GGGTGGTACCGCCCCCCCTTCTCTAGGGTGGTTCATCTCTACAGAAATGGCAAGGACCAAGATGGAGACCAGGCA
CCTGAATATCGGGGCCGGACAGAGCTGCTGAAAGATGCTATTGGTGAGGGAAAGGTGACTCTCAGGATCCGGAAT
GTAAGGTTCTCAGATGAAGGAGGTTTCACCTGCTTCTTCCGAGATCATTCTTACCAAGAGGAGGCAGCAATGGAA
TTGAAAGTAGAAGATCCTTTCTACTGGGTGAGCCCTGGAGTGCTGGTTCTCCTCGCGGTGCTGCCTGTGCTCCTC
CTGCAGATCACTGTTGGCCTCGTCTTCCTCTGCCTGCAGTACAGACTGAGAGGAAAACTTCGAGCAGAGATAGAG
AATCTCCACCGGACTTTTGATCCCCACTTTCTGAGGGTGCCCTGCTGGAAGATAACCCTGTTTGTAATTGTGCCG
GTTCTTGGACCCTTGGTTGCCTTGATCATCTGCTACAACTGGCTACATCGAAGACTAGCAGGGCAATTCCTTGAA
GAGCTACGAAATCCCTTC**TGA**GTGATGTCACATCTTGGCAGGGGTGGAGGAGAGCCTGGTTGCCCAGGGATTTGT
CCTTGGGGACATCTCATCCATCAAGTTGCACACTCACTGGCATCTTTGCTATGGGGACATTCCAATTTGCACTTT
CAGGAACACTCTGAATTCCAAGTAGAATTGATTTCCCTTCTTCTGTCATCTACCTTTTCTCTTCATTTTCCCATT
TTTATTACCCTTCTTTCCATTTCTCTCTCCAGTCTTCCACCTGGAAGCCCTCTCTGGCTAAGGACAGGCAGGTGC
CCCTCTCTCCATCAGAGGACACCTGTACTGGAGAGCAACACAGGATGGTCTCTGCCATGAACTGGAGGCCAGGAA
TCTCCTCACTGAAAATTACAGTATGGTAACTTTGCAAATGGTGGTTGTTTCTTCCAAGACTCCAGCCCTGATTGC
GCAAAACTGAAAGGCATGTGAAGGGAAGGAAGAGGAAGAGTGCAAAACATTGAAGAGAGAGCTGAGTGAGCTGAA
GAGTGAGGATATGAGTAGCCCCAACCCAAACCTGGAGATGGGGAGAAACCTACAGAATACTAGCCAGAGCTCCTC
CTTGTCTTGGCAGCCTACTAGGGACCTGGGGAAGCAAAAACGAAAGCTGGGCAACATGCCTGCTTTAGAATGTTT
TCCTTCTACTTACACATCTTCCACAGGTCTCAGAATCTTTCCTTCCTCTCATCCTTTTCTCCTATCTTCATATCT
ATCAGAGTATCCACTGTTTATTCAACAACTACTACTTGATGGTCAGACACAAACAAACAAGCTAGGTGCTAATTA
ATAAAGATACGAGTTTTGGCCGGGTGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCG
AATCACGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAATACAAACAAT
TAACTGAGCATAGTGGTGGGCACCTATAATACCAGCTACTCCGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAG
GAGGCAGAGGTTGCAGTGAGCTGAGATCGCGCCACTGCACTCTAGCCGGAGTGACAGAGTAAGACTCTGTCTCAA
AAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAAAAATAATAATACAAGTTTTC
ATAAGCACACTTCTA

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FIGURE 676

GAGAGCACGACGTGCGCGCACCCTCTCCCCTTGTCCACTGCTGCCGCCTCCTTCTTCTGCCGCTCCTGGTGCTGC
TTGTGTGCTCGTTTGGAGCGGACCTGGTACCTCTTTTGTGAAGCGGCAGCTGAGGAGACTCCGGCGCTCGCC**ATG**

GCCGAAGAAAAGCCCAAGGAAGGAGTCAAGACTGAGAACAACGATCATATTAATTTGAAGGTGGCGGGGCAGGAT
GGTTCTGTGGTGCAGTTTAAGATTAAGAGGCATACACCACTTAGTAAACTAATGAAAGCCTATTGTGAACGACAG
GGATTGTCAATGAGGCAGATCAGATTCCGATTCGACGGGCAACCAATGAAACAGACACACCTGCACAGTTGGAAA
TGGAGGATGAAGATACAATTGATGTGTTCCAACAGCAGACGGGAGGTGTCTACTGAAAAGGGAACCTGCTTCTTT
ACTCCAGAACTCTGTTCTTTAAAGACCAAGATTACATTCTCAATTAGAAAACTGCAATTTGCTTCCACCACATCC
TGACTACTACCGTATAGTTTTCTCTATTCTTTCATTTCCCCCTTCCCCATTCCTTTACTGTACATAAAGTAACTG
GTATATGTGCACAAGCATATTACTTTTTTTTTTTAAAACTAAACAGCCAATGGTATGTTTTGATTGACATCAAGT
GGAGACGGGGCGGAAAAATACTGATTCTGTGAAAATACCCCCTTTCTCCATTAGTGGCATGCTCATTCAGCTCTT
ATCTTTATATTCCAGTAAGTTATTTTGCTCTCACTGTTTTAACAACAACAACAAAAAAACAACAACATAAAAATC
CTTGCATACCTTGTTCAATTGGAGAATTTTAATGTTTTTCATTTATCATTGTAAAACCAAGGACAATTTTATAAC
TTTTTTGTACTTAGCTGTTACATGCAGAGCAATCTGTCTTTAAGTAGGGATAAATTACTCTAAAACAAAAAAGAA
TCCTAGATAGTTTTCCCTTCAAGTCAAGCGTCTTGTTGTTTAAATAAACTTCTTGTTTAAAA

FIGURE 677A

CGCTCCCCGCTCCCGTGGCTGCCGCCGCCCCGGGGAAGAAGAGACAGGGGTGGGGTTTGGGGGAAGCGAGAGAGG
AGGGGAGAGACCCTGGCCAGGCTGGAGCCTGGATTCGAGGGGAGGAGGGACGGGAGGAGGAGAAAGGTGGAGGAG
AAGGGAGGGGGGAGCGGGGAGGAGCGGCCGGGCCTGGGGCCTTGAGGCCCGGGGAGAGCCGGGGAGCCGGGCCCG
CGCGCCGAG**ATG**TTGCTGCTGCTGCTACTGGCGCCACTCTTCCTCCGCCCCCCGGGCGCGGGCGGGGCGCAGACC
CCCAACGCCACCTCAGAAGGTTGCCAGATCATACACCCGCCCTGGGAAGGGGGCATCAGGTACCGGGGCCTGACT
CGGGACCAGGTGAAGGCTATCAACTTCCTGCCAGTGGACTATGAGATTGAGTATGTGTGCCGGGGGGAGCGCGAG
GTGGTGGGGCCCAAGGTCCGCAAGTGCCTGGCCAACGGCTCCTGGACAGATATGGACACACCCAGCCGCTGTGTC
CGAATCTGCTCCAAGTCTTATTTGACCCTGGAAAATGGGAAGGTTTTCCTGACGGGTGGGGACCTCCCAGCTCTG
GACGGAGCCCGGGTGGATTTCCGGTGTGACCCCGACTTCCATCTGGTGGGCAGCTCCCGGAGCATCTGTAGTCAG
GGCCAGTGGAGCACCCCCAAGCCCCACTGCCAGGTGAATCGAACGCCACACTCAGAACGGCGCGCAGTGTACATC
GGGGCACTGTTTCCCATGAGCGGGGGCTGGCCAGGGGGCCAGGCCTGCCAGCCCGCGGTGGAGATGGCGCTGGAG
GACGTGAATAGCCGCAGGGACATCCTGCCGGACTATGAGCTCAAGCTCATCCACCACGACAGCAAGTGTGATCCA
GGCCAAGCCACCAAGTACCTATATGAGCTGCTCTACAACGACCCTATCAAGATCATCCTTATGCCTGGCTGCAGC
TCTGTCTCCACGCTGGTGGCTGAGGCTGCTAGGATGTGGAACCTCATTGTGCTTTCCTATGGCTCCAGCTCACCA
GCCCTGTCAAACCGGCAGCGTTTCCCCACTTTCTTCCGAACGCACCCATCAGCCACACTCCACAACCCTACCCGC
GTGAAACTCTTTGAAAAGTGGGGCTGGAAGAAGATTGCTACCATCCAGCAGACCACTGAGGTCTTCACTTCGACT
CTGGACGACCTGGAGGAACGAGTGAAGGAGGCTGGAATTGAGATTACTTTCCGCCAGAGTTTCTTCTCAGATCCA
GCTGTGCCCGTCAAAAACCTGAAGCGCCAGGATGCCCGAATCATCGTGGGACTTTTCTATGAGACTGAAGCCCGG
AAAGTTTTTTGTGAGGTGTACAAGGAGCGTCTCTTTGGGAAGAAGTACGTCTGGTTCCTCATTGGGTGGTATGCT
GACAATTGGTTCAAGATCTACGACCCTTCTATCAACTGCACAGTGGATGAGATGACTGAGGCGGTGGAGGGCCAC
ATCACAACTGAGATTGTCATGCTGAATCCTGCCAATACCCGCAGCATTTCCAACATGACATCCCAGGAATTTGTG
GAGAAACTAACCAAGCGACTGAAAAGACACCCTGAGGAGACAGGAGGCTTCCAGGAGGCACCGCTGGCCTATGAT
GCCATCTGGGCCTTGGCACTGGCCCTGAACAAGACATCTGGAGGAGGCGGCCGTTCTGGTGTGCGCCTGGAGGAC
TTCAACTACAACAACCAGACCATTACCGACCAAATCTACCGGGCAATGAACTCTTCGTCCTTTGAGGGTGTCTCT
GGCCATGTGGTGTTTGATGCCAGCGGCTCTCGGATGGCATGGACGCTTATCGAGCAGCTTCAGGGTGGCAGCTAC
AAGAAGATTGGCTACTATGACAGCACCAAGGATGATCTTTCCTGGTCCAAAACAGATAAATGGATTGGAGGGTCC
CCCCCAGCTGACCAGACCCTGGTCATCAAGACATTCCGCTTCCTGTCACAGAAACTCTTTATCTCCGTCTCAGTT
CTCTCCAGCCTGGGCATTGTCCTAGCTGTTGTCTGTCTGTCCTTTAACATCTACAACTCACATGTCCGTTATATC
CAGAACTCACAGCCCAACCTGAACAACCTGACTGCTGTGGGCTGCTCACTGGCTTTAGCTGCTGTCTTCCCCCTG
GGGCTCGATGGTTACCACATTGGGAGGAACCAGTTTCCTTTCGTCTGCCAGGCCCGCCTCTGGCTCCTGGGCCTG
GGCTTTAGTCTGGGCTACGGTTCCATGTTCACCAAGATTTGGTGGGTCCACACGGTCTTCACAAAGAAGGAAGAA
AAGAAGGAGTGGAGGAAGACTCTGGAACCCTGGAAGCTGTATGCCACAGTGGGCCTGCTGGTGGGCATGGATGTC
CTCACTCTCGCCATCTGGCAGATCGTGGACCCTCTGCACCGGACCATTGAGACATTTGCCAAGGAGGAACCTAAG
GAAGATATTGACGTCTCTATTCTGCCCCAGCTGGAGCATTGCAGCTCCAGGAAGATGAATACATGGCTTGGCATT
TTCTATGGTTACAAGGGGCTGCTGCTGCTGCTGGGAATCTTCCTTGCTTATGAGACCAAGAGTGTGTCCACTGAG
AAGATCAATGATCACCGGGCTGTGGGCATGGCTATCTACAATGTGGCAGTCCTGTGCCTCATCACTGCTCCTGTC
ACCATGATTCTGTCCAGCCAGCAGGATGCAGCCTTTGCCTTTGCCTCTCTTGCCATAGTTTTCTCCTCCTATATC
ACTCTTGTTGTGCTCTTTGTGCCCAAGATGCGCAGGCTGATCACCCGAGGGGAATGGCAGTCGGAGGCGCAGGAC
ACCATGAAGACAGGGTCATCGACCAACAACAACGAGGAGGAGAAGTCCCGGCTGTTGGAGAAGGAGAACCGTGAA
CTGGAAAAGATCATTGCTGAGAAAGAGGAGCGTGTCTCTGAACTGCGCCATCAACTCCAGTCTCGGCAGCAGCTC
CGCTCCCGGCGCCACCCACCGACACCCCCAGAACCCTCTGGGGGCCTGCCCAGGGGACCCCCTGAGCCCCCCGAC
CGGCTTAGCTGTGATGGGAGTCGAGTGCATTTGCTTTATAAG**TGA**GGGTAGGGTGAGGGAGGACAGGCCAGTAGG
GGGAGGGAAAGGGAGAGGGGAAGGGCAGGGGACTCAGGAAGCAGGGGGTCCCCATCCCCAGCTGGGAAGAACATG
CTATCCAATCTCATCTCTTGTAAATACATGTCCCCCTGTGAGTTCTGGGCTGATTTGGGTCTCTCATACCTCTGG
GAAACAGACCTTTTTCTCTCTTACTGCTTCATGTAATTTTGTATCACCTCTTCACAATTTAGTTCGTACCTGGCT
TGAAGCTGCTCACTGCTCACACGCTGCCTCCTCAGCAGCCTCACTGCATCTTTCTCTTCCCATGCAACACCCTCT
TCTAGTTACCACGGCAACCCCTGCAGCTCCTCTGCCTTTGTGCTCTGTTCCTGTCCAGCAGGGGTCTCCCAACAA
GTGCTCTTTCCACCCCAAAGGGGCCTCTCCTTTTCTCCACTGTCATAATCTCTTTCCATCTTACTTGCCCTTCTA

FIGURE 677B

TACTTTCTCACATGTGGCTCCCCCTGAATTTTGCTTCCTTTGGGAGCTCATTCTTTTCGCCAAGGCTCACATGCT
CCTTGCCTCTGCTCTGTGCACTCACGCTCAGCACACATGCATCCTCCCCTCTCCTGCGTGTGCCCACTGAACATG
CTCATGTGTACACACGCTTTTCCCGTATGCTTTCTTCATGTTCAGTCACATGTGCTCTCGGGTGCCCTGCATTCA
CAGCTACGTGTGCCCCTCTCATGGTCATGGGTCTGCCCTTGAGCGTGTTTGGGTAGGCATGTGCAATTTGTCTAG
CATGCTGAGTCATGTCTTTCCTATTTGCACACGTCCATGTTTATCCATGTACTTTCCCTGTGTACCCTCCATGTA
CCTTGTGTACTTTCTTCCCTTAAATCATGGTATTCTTCTGACAGAGCCATATGTACCCTACCCTGCACATTGTTA
TGCACTTTTCCCCAATTCATGTTTGGTGGGGCCATCCACACCCTCTCCTTGTCACAGAATCTCCATTTCTGCTCA
GATTCCCCCCATCTCCATTGCATTCATGTACTACCCTCAGTCTACACTCACAATCATCTTCTCCCAAGACTGCTC
CCTTTTGTTTTGTGTTTTTTTGAGGGGAATTAAGGAAAAATAAGTGGGGGCAGGTTTGGAGAGCTGCTTCCAGTG
GATAGTTGATGAGAATCCTGACCAAAGGAAGGCACCCTTGACTGTTGGGATAGACAGATGGACCTATGGGGTGGG
AGGTGGTGTCCCTTTCACACTGTGGTGTCTCTTGGGGAAGGATCTCCCCGAATCTCAATAAACCAGTGAACAGTG
TGACTCGGC

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FIGURE 678

CAGTAGTGCTAGCAGCTTCGCGGTTCGGTCCTCGGACCCGGCAGCCACCACTGGTGCTGAGCTGCTAGGAAGCCC
CTATCGGCGAGCTCTTTGGAGCTTGAACCCATTGTCACTCCTCCGACTCACCGGAAAAAACAAAAAATGGGTGAA
GCAGATCGCCTAGGAAAGTTTTTCATTGGTGGGCTTAATACGGAAACAAATAAGAAAGCTCTTGAAGCAGTATTT
GGCAAATATGGACAAATAGTGGAAGTACACTTGATGAAAGACTGTGAAACCAACAAATCAAGAGGATTTGCTTTT
ATCACCTTTGAAAGACCAGCAGACGCTAAGGATGCAGCCAGAGACATGAATGGAAAGTCATTAG**ATG**GAAAAGCC
ATCAAGGTGGAACAAGCCACCAAACCGTCATTTGAAAGTGGTAGACGTGGACCGCCTCCACCTCCAAGAAGTAGA
GGCCCTCCAAGAGTTCTTAGAGGTGGAAGAGGAGGAAGTGGAGGAACCAGGGAACCTCCCTCACGGGGAGGACAC
ATGGATGACTGGTGGATATTCCATGAATTTTAACATGAGTTCTTCCAGGGGACCACTCCCAGTAAAAAGAGGACC
ACCACCAAGAAGTGGGGGTCTTCCTCCTAAGAGATCTGCACCTTCAGGACCAGTTCGCAGTAGCAGTGGAATGGG
AGGAAGAGCTCCTGTATCACGTGGAAGAGATAGTTACCGAGGTCCACCTCGAAGGGAATCGCTGCCCTCTTGTAG
AGAGCTCCACCTACACGAGGGCGCCCCCATCTTATGGTGGAAGCAGTCGCTA**TGA**TGATTACAGCAGCTCACGTG
ACGGATATGGTGGAAGTCGAGACAGTTACTCAAGCAGTCGAAGTGATCTCTACTCAAGTGGTCGTGATCAGGTTG
GCAGACAAGAAAGAGGGCTTCCCCCTTCTATGGAAAGGGGGTACCCTCCTCCACGTGATTCCTACAGCAGTTCAA
GCCGTGGAACACCAAGAGGTGGTGGCCGTGGAGGAAGCCGATCTGATAGAGGGGGAGGCAGAAGCAGATACTAGA
AACAAACAAAACTTTGTACCAAAATCCCAGTTCAAAGAAACAAAAAGTGGAAACTATTCTATCATAACTACCCAA
GAACTACTAAAAGGAAAAATTGTGTTACCTTTTTTAAAATTCCCTGTTAAGCTCCCCTCCATAATTTTTATGTTC
TTGTGAGGAAAAAAAGTAAAACATGTTTAATTTTATTTGACTTTTGCATTGCTTTTCAACAAGCAAATGTTAAAT
GTGTTAAGACTTATACTAGTGTTGTAACTTTCCAAGTAAAAGTATCCCTAAAGGCCACTTCCTATCTGATTTTTC
CCAGTAAATGAGGCAGGCAATTCTAAGATCTTCCACAAAACATCTAGCCATCTAAAATGGAGAGATGAATCATTC
TACCTACACAAACAAGCTAGCTATTAGAGGGTGGTTGGGATATGCTACTCATAAGATTTCAGGGTGTCTTCCAAC
TGAAATCTCAATGTTCTTAGTATGAAAAACCTGAAATCGCATGCCTATTCACCCAGTAAACCCAAAAAAGCAAAT
GGATAATGCTGGCCATTCTGCCTTTCTGACATTTCCTTGGGAATCTGCAAGAACCTCCCCTTTCCCCTCCCCCAA
TAAGACCATTTAAGTGTGTGCTAAACAACTAAGAATACTAAATAAAATGTTTGGCCAAAACC

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FIGURE 679A

GGCCAGCCGAATCCAAGCCGTGTGTACTGCGTGCTCAGCACTGCCCGACAGTCCTAGCTAAACTTCGCCAACTCC
GCTGCCTTTGCCGCCACC**ATG**CCCAAAACGATCAGTGTGCGTGTGACCACCATGGATGCAGAGCTGGAGTTTGCC
ATCCAGCCCAACACCACCGGGAAGCAGCTATTTGACCAGGTGGTGAAAACTATTGGCTTGAGGGAAGTTTGGTTC
TTTGGTCTGCAGTACCAGGACACTAAAGGTTTCTCCACCTGGCTGAAACTCAATAAGAAGGTGACTGCCCAGGAT
GTGCGGAAGGAAAGCCCCCTGCTCTTTAAGTTCCGTGCCAAGTTCTACCCTGAGGATGTGTCCGAGGAATTGATT
CAGGACATCACTCAGCGCCTGTTCTTTCTGCAAGTGAAAGAGGGCATTCTCAATGATGATATTTACTGCCCGCCT
GAGACCGCTGTGCTGCTGGCCTCGTATGCTGTCCAGTCTAAGTATGGCGACTTCAATAAGGAAGTGCATAAGTCT
GGCTACCTGGCCGGAGACAAGTTGCTCCCGCAGAGAGTCCTGGAACAGCACAAACTCAACAAGGACCAGTGGGAG
GAGCGGATCCAGGTGTGGCATGAGGAACACCGTGGCATGCTCAGGGAGGATGCTGTCCTGGAATATCTGAAGATT
GCTCAAGATCTGGAGATGTATGGTGTGAACTACTTCAGCATCAAGAACAAGAAAGGCTCAGAGCTGTGGCTGGGG
GTGGATGCCCTGGGTCTCAACATCTATGAGCAGAATGACAGACTAACTCCCAAGATAGGCTTCCCCTGGAGTGAA
ATCAGGAACATCTCTTTCAATGATAAGAAATTTGTCATCAAGCCCATTGACAAAAAAGCCCCGGACTTCGTCTTC
TATGCTCCCCGGCTGCGGATTAACAAGCGGATCTTGGCCTTGTGCATGGGGAACCATGAACTATACATGCGCCGT
CGCAAGCCTGATACCATTGAGGTGCAGCAGATGAAGGCACAGGCCCGGGAGGAGAAGCACCAGAAGCAGATGGAG
CGTGCTATGCTGGAAAATGAGAAGAAGAAGCGTGAAATGGCAGAGAAGGAGAAAGAGAAGATTGAACGGGAGAAG
GAGGAGCTGATGGAGAGGCTGAAGCAGATCGAGGAACAGACTAAGAAGGCTCAGCAAGAACTGGAAGAACAGACC
CGTAGGGCTCTGGAACTTGAGCAGGAACGGAAGCGTGCCCAGAGCGAGGCTGAAAAGCTGGCCAAGGAGCGTCAA
GAAGCTGAAGAGGCCAAGGAGGCCTTGCTGCAGGCCTCCCGGGACCAGAAAAAGACTCAGGAACAGCTGGCCTTG
GAAATGGCAGAGCTGACAGCTCGAATCTCCCAGCTGGAGATGGCCCGACAGAAGAAGGAGAGTGAGGCTGTGGAG
TGGCAGCAGAAGGCCCAGATGGTACAGGAAGACTTGGAGAAGACCCGTGCTGAGCTGAAGACTGCCATGAGTACA
CCTCATGTGGCAGAGCCTGCTGAGAATGAGCAGGATGAGCAGGATGAGAATGGGGCAGAGGCTAGTGCTGACCTA
CGGGCTGATGCTATGGCCAAGGACCGCAGTGAGGAGGAACGTACCACTGAGGCAGAGAAGAATGAGCGTGTGCAG
AAGCACCTGAAGGCCCTCACTTCGGAGCTGGCCAATGCCAGAGATGAGTCCAAGAAGACTGCCAATGACATGATC
CATGCTGAGAACATGCGACTGGGCCGAGACAAATACAAGACCCTGCGCCAGATCCGGCAGGGCAACACCAAGCAG
CGCATTGACGAATTTGAGTCTATG**TAA**TGGGCACCCAGCCTCTAGGGACCCCTCCTCCCTTTTTCCTTGTCCCCA
CACTCCTACACCTAACTCACCTAACTCATACTGTGCTGGAGCCACTAACTAGAGCAGCCCTGGAGTCATGCCAAG
CATTTAATGTAGCCATGGGACCAAACCTAGCCCCTTAGCCCCCACCCACTTCCCTGGGCAAATGAATGGCTCACT
ATGGTGCCAATGGAACCTCCTTTCTCTTCTCTGTTCCATTGAATCTGTATGGCTAGAATATCCTACTTCTCCAGC
CTAGAGGTACTTTCCACTTGATTTTGCAAATGCCCTTACACTTACTGTTGTCCTATGGGAGTCAAGTGTGGAGTA
GGTTGGAAGCTAGCTCCCCTCCTCTCCCCTACCACTGTCTTCTTCAGGGTCCTGAGATTTACACGGTTGGAGTGT
TATGCGGTCTAGGGAATGAGACAGGACCTAGGATATCTTCTCCAGGATGTCAACTGACCTAAAATTTGCCCTCCC
ATCCCGTTTAGAGTTATTTAGGCTTTGTAACGATTGGGGGATAAAAAGATGTTCAGTCATTTTTGTTTCTACCTC
CCAGATCGGATCTGTTGCAAACTCAGCCTCAATAAGCCTTGTCGTTGACTTTAGGGACTCAATTTCTCCCCAGGG
TGGATGGGGGAAATGGTGCCTTCAAGACCTTCACCAAACATACTAGAAGGGCATTGGCCATTCTATTGTGGCAAG
GCTGAGTAGAAGATCCTACCCCAATTCCTTGTAGGAGTATAGGCCGGTCTAAAGTGAGCTCTATGGGCAGATCTA
CCCCTTACTTATTATTCCAGATCTGCAGTCACTTCGTGGGATCTGCCCCTCCCTGCTTCAATACCCAAATCCTCT
CCAGCTATAACAGTAGGGATGAGTACCCAAAAGCTCAGCCAGCCCCATCAGGACTCTTGTGAAAAGAGAGGATAT
GTTCACACCTAGCGTCAGTATTTTCCCTGCTAGGGGTTTTAGGTCTCTTCCCCTCTCAGAGCTACTTGGGCCATA
GCTCCTGCTCCACAGCCATCCCAGCCTTGGCATCTAGAGCTTGATGCCAGTAGGCTCAACTAGGGAGTGAGTGCA
AAAAGCTGAGTATGGTGAGAGAAGCCTGTGCCCTGATCCAAGTTTACTCAACCCTCTCAGGTGACCAAAATCCCC
TTCTCATCACTCCCCTCCAAAGAGGTGACTGGGCCCTGCCTCTGTTTGACAAACCTCTAACCCAGGTCTTGACAC
CAGCTGTTCTGTCCCTTGGAGCTGTAAACCAGAGAGCTGCTGGGGATTCTGGCCTAGTCCCTTCCACACCCCCAC
CCCTTGCTCTCAACCCAGGAGCATCCACCTCCTTCTCTGTCTCATGTGTGCTCTTCTTCTTTCTACAGTATTATG
TACTCTACTGATATCTAAATATTGATTTCTGCCTTCCTTGCTAATGCACCATTAGAAGATATTAGTCTTGGGGCA
GGATGATTTTGGCCTCATTACTTTACCACCCCCACACCTGGAAAGCATATACTATATTACAAAATGACATTTTGC
CAAAATTATTAATATAAGAAGCTTTCAGTATTAGTGATGTCATCTGTCACTATAGGTCATACAATCCATTCTTAA
AGTACTTGTTATTTGTTTTTATTATTACTGTTTGTCTTCTCCCCAGGGTTCAGTCCTCAAGGGGCCATCCTGTCC
CACCATGCAGTGCCCCTAGCTTAGAGCCTCCCTCAATTCCCCCTGGCCACCACCCCCCACTCTGTGCCTGACCTT

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FIGURE 679B

GAGGAGTCTTGTGTGCATTGCTGTGAATTAGCTCACTTGGTGATATGTCCTATATTGGCTAAATTGAAACCTGGA
ATTGTGGGGCAATCTATTAATAGCTGCCTTAAAGTCAGTAACTTACCCTTAGGGAGGCTGGGGGAAAAGGTTAGA
TTTTGTATTCAGGGGTTTTTTGTGTACTTTTTGGGTTTTTTAAAAATTGTTTTTGGAGGGGTTTATGCTCAATCC
ATGTTCTATTTCAGTGCCAATAAAATTTAGGAAGACTTC

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FIGURE 680

GTGCGGAGCGGCGCGGCACAGAGCCTGTTGTTGAGCTCAGT**ATG**TCGTGGGAATCCGGGGCCGGGCCAGGTCTAG
GTTCCCAGGGGATGGATCTCGTGTGGAGTGCGTGGTACGGAAAGTGCGTTAAAGGGAAAGGGTCGTTGCCACTCT
CGGCCCACGGCATCGTGGTCGCCTGGCTCAGCAGGGCCGAGTGGGACCAGGTGACGGTTTATCTGTTCTGTGACG
ACCATAAGTTGCAGCGGTACGCGCTTAACCGCATCACGGTGTGGAGGAGCAGGTCAGGCAACGAACTCCCTCTGG
CAGTGGCTTCTACTGCTGACCTGATACGCTGTAAGCTCTTGGATGTAACTGGTGGCTTGGGCACTGATGAACTTA
GACTGCTCTATGGCATGGCATTGGTCAGGTTTGTGAATCTTATCTCAGAGAGGAAGACAAAGTTTGCCAAGGTCC
CCCTCAAGTGTCTGGCTCAAGAGGTAAATATTCCGGATTGGATTGTTGACCTTCGCCATGAGTTGACCCACAAGA
AAATGCCCCATATAAATGACTGCCGCAGAGGCTGCTACTTTGTCCTGGATTGGCTCCAGAAGACCTATTGGTGCC
GCCAACTGGAGAACAGCCTGAGAGAGACCTGGGAGTTGGAGGAGTTCAGGGAAGGGATAGAGGAAGAGGATCAAG
AGGAAGATAAGAACATTGTTGTTGATGACATCACAGAACAGAAACCAGAGCCTCAGGATGATGGGAAAAGTACGG
AGTCAGATGTAAAGGCCGATGGAGACAGCAAAGGCAGCGAAGAGGTGGATTCTCATTGCAAAAAGGCCCTGAGTC
ATAAAGAGCTATATGAAAGAGCCCGAGAACTGCTGGTATCATACGAAGAGGAGCAGTTTACGGTGCTGGAGAAAT
TTAGGTATTTACCTAAGGCCATTAAGGCGTGGAATAACCCGTCCCCACGTGTAGAATGTGTCCTGGCAGAGCTCA
AGGGCGTTACATGCGAGAACAGGGAGGCTGTGCTGGATGCTTTTCTGGATGATGGCTTCCTTGTCCCCACATTTG
AACAGTTGGCAGCTTTGCAGATAGAATATGAAGATGGTCAGACTGAGGTCCAGAGAGGGGAAGGTACTGACCCAA
AGTCACACAAAAACGTGGACTTGAATGACGTCCTGGTGCCAAAGCCGTTCTCTCAGTTCTGGCAGCCCCTGCTCA
GGGGCCTGCACTCCCAGAACTTCACGCAGGCCCTATTGGAGAGGATGCTCTCTGAACTGCCAGCCTTGGGGATCA
GCGGGATCCGGCCTACCTACATCCTCAGATGGACCGTTGAACTGATCGTGGCCAACACCAAGACTGGACGGAATG
CTCGCCGATTTTCTGCAGGCCAGTGGGAAGCAAGAAGGGGCTGGAGGCTGTTCAACTGCTCCGCCTCCCTTGACT
GGCCCCGGATGGTTGAGTCCTGCTTGGGCTCACCTTGCTGGGCCAGCCCCCAACTCCTTCGGATCATCTTCAAAG
CCATGGGGCAGGGCCTGCCAGACGAGGAGCAGGAGAAGCTGCTGCGCATCTGTTCCATTTATACCCAGAGTGGAG
AAAACAGCCTGGTGCAGGAGGGCTCTGAGGCCTCCCCCATTGGGAAGTCTCCATATACACTAGACAGCCTGTATT
GGAGCGTCAAGCCAGCCAGCTCCAGCTTCGGGTCTGAAGCAAAGGCCCAGCAACAGGAGGAGCAGGGCAGTGTTA
ATGATGTCAAGGAAGAGGAGAAGGAGGAGAAAGAGGTCTTGCCAGACCAGGTAGAGGAGGAGGAAGAAAATGATG
ACCAAGAGGAGGAAGAGGAGGATGAAGATGATGAAGATGATGAAGAGGAAGACAGAATGGAGGTGGGGCCTTTCT
CTACAGGGCAAGAGTCCCCCACTGCCGAGAATGCTAGGCTTCTGGCCCAGAAAAGAGGAGCTTTGCAGGGCTCTG
CATGGCAGGTTAGCTCAGAAGACGTGCGATGGGACACATTTCCCCTAGGCCGAATGCCAGGTCAGACCGAGGACC
CAGCAGAGCTCATGCTGGAGAATTATGACACCATGTATCTTTTGGACCAGCCTGTGCTAGAGCAGCGGCTGGAAC
CCTCAACATGCAAGACTGACACCTTGGGCCTGAGCTGTGGTGTCGGCAGTGGCAACTGCAGCAACAGCAGCAGCA
GCAACTTCGAGGGCCTTCTCTGGAGCCAGGGGCAGCTGCATGGGCTCAAAACTGGCCTGCAGCTCTTC**TGA**TGGC
CATCCCTGGTGCAAGTGTTCATCCAGCCGTGCCAGGGCAACAGCCCACCCCCTAGTACAACTGATGCTCCCTGAG
ACAACCTGGGAGACAGCCTGGATCAGCCACATCAACTCAGTTGTCCACCACAGGGGAATTTTGAATGTCTTTTGT
TTTTGTTTTGTTTTGAAAAATAATAAACAGGCAACTGT

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FIGURE 681

CTACAGCTCCTCAACTCCAGTGACTTTCATTCTCCACTACACTCAGCAACCCATTTCCATCATTCGGAGCTATTC
CACCTCTGAAAGCTCACATCCCAGCATCCCACTCGGTGACCACCACTTCTCGTCCTTCTAGTTCTCACCCTTGCA
TCCCATGACATCTGCTCTTTGCCTGCATCCAGATCTCCATCCCTCCATTTCCTGCATCCCTTGACCTTGCTTCCT
CTCTATCCTGTCTGTGGTTGCTCAGTTCGGCCACTCATCATCAGCACCTTCAGCTTTGCCCATCCTTTGGCCATA
TCTGACTTGCAAACCCCTGAGCTGGAATTGATCCTCCCCATTCTGCTTCCCCTGCTCCTCAGCCCGGGTAGCTGA
GCTCTGCTGGAGAAAACCACATAGCCCTGCGGATTGCTGCCACTGCAGAGCCCCTCCCCCTCTCCCATTTCACCC
TAGCTTCCTCGAGCACATGGAGGCATCCGGCAGGGCCCCCTCGACCTGAGGTCCAGCCCTCGTGAACTGATCTGC
GGCTGCACTCAACCTTCTCGCCAGTCTCAGG**ATG**AGGTGGCCTTGCCCCACCTCAAAGCCTGCTCCTCCACCTGT
GCTCTGGAGCCACCTCTGCCAGCATCGCTGGGGCCTCACCCCAGCCTCTACCTTGCTCTGCTGGCTCTTGCTCTT
CAACCTAGGAACGTGCCTGAGCTTTTCTCATCTTAAACAAAACAACAATAACAGCAACACAAGCAAAATCTCCTT
TGACCCTGCATCCCTCTGTTGGGTTATCATCAGCTTATCATTCCCACCCTTCCCATCAAAACATCTCAAAAGAGT
AGTCTACACTCAACACTCTCCATTTCCTCACTACCCTCTTACTCCTCAACCTGCTGCAATT**TGA**CATTCACCCCC
AGAGTTGCTTTGACCTCCTAATTACCAAATCAGTGGGCCCTTGTCAGTCTCTGTGTCTGCTGCATTGATGCTGTT
TACCACCCCCTCCTCAAAAAATGCCTGTGCTTATTACTAGTTCCTATAAAGTGCTGAAACCCAAATCTGTCTAGC
CCTGGCCCCTCCCCCAAGATTCAGCCTCCTGTACTCGACTACATGTCAGACATCTCCCCTTGGATGGCCCACAGG
CACCTTACTGTGACCAAAAGAGAATTGGTCGTCTCAGTCCCCATCTCAACTCTAAAGTGATCTTCCTCCTCTGTT
CCCTATCTCACTTGGTGGCGGCACCATCTACCCTGTCCTGTTGACTCTCGAATACTTCCCAAATCTGAGGTTTTG
TGTTGCCGTGTCTACTTCCCTTAGTGTCTCCTTCCCTCTATCAGACTAAGCTTTTCAAGGGCAAGGACTCTACAT
CAGCTGTCCGTGCCCTAGCACACCACACAAGTCTAGGCACCAAACAGGCCTCAGTAAATGTCGTTGAATTGAACC
GTGCTCTGCTCTCTCATTCCCAGCAGTGCTGTCCTTGGTGGGAGCTGACCCAGTGCCTGGGGAATGAATGAAGTG
GGAGTCTGGATGCCAAGACCCTCTTAGTCCCTGATCCCCCTATTGAGTCCAAAAGTCTTTCTTTAACCCTGATGG
CATTTGGGACACAGAGGTATTTGTAAGGTTTTAAAAGTGGCTTTGTAGACAAAGTCAGTCAAGGCAAGACTTCCA
GGAGTTGGAACTGAACAGCCACATTGCCAGATGTGTGCTCCAGACTAGAAGTGATGTGGATGGGTGGGCAATTGG
GAGGAGAACCAAAAGGGCCTGGATGAGTCAGAGTTTCAAGAGGAGGCATTTGAACAATTCAAGCAGGAGAAAGAA
TAAAGCAAGTTTCAAAGTCCAGAAGGAACATGGCATGTGTATATAATGGGAGGGAGGGAGTGACAAGAGCAGCAT
GGAGAGGTTTGGATAGGTGGCCTTCAAGGTACTTTCCAATCCTAAGTGCCTGCAGAGTGGAAGCTGCTGGTCTCG
GAGAAGTCTGGACCACAGAGATCTTCTCCCAACCCAAGCATACCAGAGGGATGCGACACATGCCGGCAGTAACAG
CGGCTCACTTGGGTACGATTTCTTGTGCACAGATCCTGCCTTTCCCAGATAAGCAGTGAATCTAGTCCTAATCAC
CCCGTTACACAGAGTGGAGAACAGAGGGGGTTTGCCCAGGTATTATGCTGCAAGTCAGAGCTGGGGCCAGAATCC
AGATAGCCTGTCCTTAGTCCCATGCTCTTCTGTAATACTCCACTAGATTGTATTATTGCAGAAAGCATCTGTTAA
ACACAGAACTTGGCTTTTGTTTTCCCCAGAGAAAAAATAAAAGATACTATTGGAAATTAAGTGTCAGG

FIGURE 682

ATGAACAGCCCGGACCTCCGTCGTCCCGCGGCGACCAAAATCTCCGCTGGCCGCACCGCTGTGACTACTCCGGAC
TCGCCGGCAGAGTTTGCCCGCCGGGGAGGGTGGCCGATTGGCGGAGCGCACTCCTGCTGTTTCTCCCACCATCTC
GTGGATGTCGTCCCTCGGGTGGTGAGAGAACTTTGCAGTGGGCTGGAGCGCCCTTTGCGGAGAAGCACACGAAGT
TGGAAATTGACCGGAGAATTGAGTTGCCGGGGAACAGAGCCCCGGCCGCCGCCAGCGCGATGTTCCCGCAGAGCC
GGCACCCGACGCCGCACCAGGCTGCAGGCCAGCCCTTCAAGTTCAGTATCGCGGAGTCCCTGGACCGGATTAAAG
AGGAATTCCAGTTCCTGCAGGCGCAGTATCACAGCCTTAAATTGGAATGAACATCAACAACAGGTGGCCCAGGCT
GTCGAACGTGCCAAACAGGTGACCATGGCAGAGTTGAATGCCATCATCGGGCAGCAGCAGTTGCAAGCTCAGCAT
CTTTCTTATGGCCACGGACCCCCAGTTCCCCTTACGCCTCACCCTTCGGGACTTCAGCCTCCTGGAATCCCGCCC
CTCGGGGGCAGTGCCGGTCTTCTTGCACTGTCTAGTGCTCTGAGTGGGCAATCTCACTTGGCAATAAAAGATGAC
AAGAAGCATCAAGATGCAGAGCACCACAGAGATGAGAGGCCCGGCAAGCCAGAT**TAG**

FIGURE 683

CCGCGGGAAACCAAAATGGCGAGGGGCTGTATTGAAGTGGGCTGTGTTTGAGGCCGGTGTAAGAACGCTCATTCT
ACCCCCAACCCTTGTCTCCAAGGACCTCGGTTTGTGCGTGCATATGTGCCGGGTACCCGGTGGGGCGGGTGCCCA
GTAAGTGCTCGGACTCGCAGGGGAAGCGCCCACGGGGACGGATTGGTTGTTTTTTCCTGTATGAAGCGGTTGGCA
CCACTGAAGTGACCGA**ATG**AGAGACTCTACAGGGGCAGGTAATTCACTGGTCCACAAGCGGTCTCCTTTACGTCG
AAACCAAAAGACCCCAACATCCTTGACCAAGCTGTCTTTACAGGATGGACATAAAGCCAAAAAGCCAGCATGTAA
ATTTGAAGAGGGTCAGGATGTCCTAGCTAGATGGTCAGATGGCTTGTTTTATCTTGGCACTATCAAAAAGATAAA
CATATTGAAACAGAGCTGCTTCATCATATTTGAAGACAGTTCTAAATCCTGGGTTCTCTGGAAGGACATTCAAAC
AGGAGCCACTGGAAGTGGGGAAATGGTCTGTACAATATGTCAAGAAGAGTATTCAGAAGCTCCCAATGAAATGGT
TATATGTGACAAGTGTGGCCAAGGATATCATCAGTTGTGTCACACACCTCATATTGATTCCAGTGTGATTGATTC
AGATGAAAAATGGCTCTGTCGGCAGTGTGTTTTTGCAACAACAACAAAGAGGGGTGGTGCACTTAAGAAAGGACC
AAATGCCAAAGCATTGCAAGTCATGAAGCAGACATTACCCTATAGTGTGGCAGACCTTGAATGGGATGCAGGTCA
TAAAACCAATGTCCAGCAGTGTTACTGCTATTGTGGAGGCCCTGGAGACTGGTATTTGAAGATGCTACAGTGCTG
CAAATGTAAGCAGTGGTTTCATGAGGCTTGTGTGCAATGCCTTCAAAAGCCAATGCTATTTGGAGACAGATTTTA
TACGTTTATATGCTCTGTCTGCAGTTCTGGACCAGAATACCTCAAACGTCTACCATTACAGTGGGTAGATATAGC
ACACCTATGCCTTTACAACCTAAGTGTTATTCATAAGAAGAAATACTTTGATTCTGAACTTGAGCTTATGACATA
CATTAATGAAAACTGGGATAGATTGCACCCTGGAGAGCTGGCAGACACACCAAAATCTGAAAGATATGAGCATGT
TCTGGAGGCATTAAATGATTACAAGACCATGTTTATGTCTGGGAAAGAAATAAAGAAGAAGAAGCATTTGTTTGG
GTTGCGAATTCGTGTTCCTCCTGTGCCACCAAATGTGGCTTTCAAAGCAGAGAAAGAACCTGAAGGAACATCTCA
TGAATTTAAAATTAAAGGCAGAAAGGCATCCAAACCTATATCTGATTCAAGGGAAGTAAGCAATGGCATAGAAAA
AAAAGGAAAGAAAAAATCTGTAGGTCGTCCACCTGGCCCATATACAAGAAAAATGATTCAAAAAACTGCTGAGCC
ACTTTTGGATAAGGAATCAATTTCAGAGAATCCTACTTTGGATTTACCTTGTTCTATAGGGAGAACTGAGGGAAC
TGCACATTCATCCAATACCTCAGATGTGGATTTCACGGGTGCTTCCAGTGCAAAAGAAACTACCTCGTCTAGCAT
TTCCAGGCATTATGGATTATCTGACTCCAGAAAAAGAACGCGTACAGGAAGATCTTGGCCTGCTGCAATACCACA
TTTGCGGAGAAGAAGAGGTCGTCTTCCAAGAAGAGCACTCCAGACTCAGAACTCAGAAATTGTAAAAGATGATGA
AGGCAAAGAAGATTATCAGTTTGATGAACTCAACACAGAGATTCTGAATAACTTAGCAGATCAGGAGTTACAACT
CAATCATCTAAAGAACTCCATTACCAGTTATTTTGGTGCTGCAGGTAGAATAGCATGTGGCGAAAAATACCGAGT
TTTGGCACGTCGGGTGACACTTGATGGAAAGGTGCAGTATCTTGTGGAATGGGAAGGAGCAACTGCATCC**TGA**CT
GTAGGACTGAACATTATGTTCACTGCACTCTGATTTTCTGTAGGTACAGTTCAAAGCCCTAAAGGAGTCTGGCTT
TTACTATCTTTCTTAAAAAAAAAAAAAAAGTCAAAAAAATTCAAAAAAGGGGATGATACTAGCCTTAACATGTACC
TGTCAATGTTATGGATATTGTCATAAAAAGGTATCTTTTAAAAATCAGAACAGAGACTTAATTTTTTAAATCTTA
AGATTTGTAGAATGTTTCTAGGATAGGATATTAAAAATGATTGAAACCCATGCATGGTGTTAGACAATTTTTCTA
ATTATTCCATTGAGTCAGTTTTTTGTGATTAGTGATTATCAGAGCAAACATCATGTAGATAGCACAAGTATTTGG
AGAAACGTTGTTTGTTTTG

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FIGURE 684

GTTACTCAAAGACTACCTACTGCGTGGTGCTCCAAGTGAAATTCGTGAAGAATTAGAAAAGCAGCTTTATTCTTG
TATTGCTCTCAAAGTCACAGCAAATCAAATGGAAATGGAACATTCTTTGATACTAAATAACCTAAAAACATTATT
GTGGAAGAAAATTTCCTACACTAATGACTCTTAGTTCATTTGGACATAATTACCATTTTAAGAAACCTGCCACTT
TTAAAGAACAATTTTGAGCATTAAAAAAAAATGGCTTCAAATTCCGGCCAGTTACACAAAACTCCTTCCCCCCAG
GCCTGAGAAGCCATCAGTATGTGATCACTGAAGTAATGGCAGGTGTAGGATCAACAGGTCCCCAAGATGTCATTC
CTGCCCTTTTAGAAGCCCTGTTACATCTCCGAAGTACATTCATTGTGTAACTATTTTGACTGACTTTAAAAACCA
ATGCTGTGAAAAGCTTCATTCCATAAACATCAACAGTGAGTGATTTGTAGATTTACCTTAGCCAAAATACCAATG
CTGGAAGCATTGTGTTTGCATTGAAGCTGCTGTTCAACAAGAAAATTTATAAATTTACTAATGTCTTAGCATGGT
AAAGTTTGCACATTAACAGAAATTAAGACTGCAAAGCAGGTTAAACTTGCTTCTTTATAAAACAGATGTTGGGTT
AATAGCATGGTTTACTGTATTAAAGACTTATACACCCATTTTTAACCTCATTCAGACATCAAGTTATGTGTAGCT
TCACAATGGTTCAAGTGGCTTACTTCAAGAAATCTTATACTTGACAGTACACCAATTTTATTGACTAAAAATGGA
TGAACTTTCCTAAAGATTCAAAGGGCCCATCTTAGTATCACGCAGCTGACTGAGCCCTTCAAAACTGACATCTTA
AGGCCCAATCAAGATCCACATATCCTGATTTTGAACTATGTGAAAGTGGGACTGTAAGTGCAAGACTAAAATAAA
TTATAGCAGACTTTTTAGTAATAACTTTCCATTTTCAAACAGTATATCCTGTGGGCCAAAGGGCTATTTCTTAAA
GAGGCATGTAAATGTATTTATTTATCTA**ATG**TTTTTTTCCCCATGTAAACTTGATATACAAGGTTTAGTATTTGC
TCCTCTTTCATATTATTTTCACACGTATACTCAGATTTGGCATGTACCTTTCAACATCTCCATAAAATTAAACAC
CTTTTGGAGAAAAGAACCACTATTTTCTGCTCAAAGGTTTCGCCTACCTAAAGTGGAACATGTTAAAAATCTATG
TGACCATCACTGGACAGCTTTCTCTCAAAACTTTCCTTCAACGCCATGGATTAGCACCAGTTTTGTTTACTTTAA
GGTACTTTTCCCATTCATCATCTGGTTA**TAA**TAAATGGATGGAAGAAATATTTCCCACTGATGGTTGGTCTGTTG
CTTGCCAAATTTTTAGGGAGAGCTGTTCATCATACAACATAAGGGATAATGACTCCTGTCAGGTAAAACAGAAGC
CCAAGAAATAACAACTTTTTTTCTTAAAAAGTTAGTTACACTTGTTTTCTTGGAGAAAAAAACCTGTCAACTCCT
TTGCTTTTCCAAAATATTTCAGGGTATTTCCTATAAGGTTCATAAGAATAAGAGCTTAACACAGAAATAGTTGCT
GTTCATAAGTTTATTATCTATATCTGAAAAAATCATAGAAAATTGCTGGGTTTAGCTCTCAGCAGCCCGCTCCTG
AGCTCTGAGGAAGCTTGCCTTCTTTTGAGCTACCCGATCCTTCTTCTGAGCAAGGGACATTTTGGGACGGTTCCA
CCTACAAAAGATAGGAATATATATTTTTTAAACTATAACTGAAGAGAATAGAATATTTAATTTAAAATTTTAATA
AAATTTAATTTTGATAGAGAATATTTAAGACTTTGCAATCAGAAGGTTAAATAATCCAAGTTCAAATACATTTAC
TTATGTATGATCTTAAGCTAACTTTCCCAAACCCCAACTTCTGTGATGTCCTACTACCATAGGGCCAAAAGTCAA
ATAGAAGACATGTTAGATTCAGTAATACCACTTCTAGGTATTTGCCCAAATGTTTTGAAATCAGTTTGTCCAAGA
GAGTGGCACTCCCATGTTCATTGCAGCACTATATATTAATAGCAACAGATAAATGGATAAAGGAAATGTGGTATA
CATATACATAATGGATTATTACCCAGTCTTTAAAAATGATGGAAATTCTGTCATTTGCAACATGAATGAAGTGGA
GAATATTGTGCTCAGTGAAATAAGCCAGGCACAAAAAGACAAATACTTCATATTCATATAGAATCTAAAACAATG
GAACTCACAGAAGCAGAGAGCAGAATGGTGGTTACAGAGGCTGGTGGGTGCAAAGAATGGGCAGATGATAGTCAA
GTATAAAATCTCCAACAGGAGGAGTATGATTTTGTTTTTAGTTCTATTGCACAGCATGATGAATATAGAATATCG
TACATTTCACAATTAAGAGAATAAATTTCAAATGTTGTTGCCACAAAGTGTTAAGTATTTGAGGTGAATATGTTA
AATACATTGATTTAATTACTATACATTGTATTTGTGGGCCATCACATCACTTTATGCTTACATGTTCATTAAGTA
TTACTTTCTATTCCATTTAAAGATCAAAACATGAAAGATCAACAAAAAGCAACTTGTCAGCCAATAAAAAAATGC
AGTAACCAGTACTTAGACTGTACTAGGATAGAAAGAACCACCTCAGTAGTGTCTGAGGCTAACACATTTCCATCA
CCACAGTTACTTTTGCAAACCTGGTTCCCTTCGCTTCTGCCACATCACGCAGAGCTAGTGATCGAGTTTGCACAA
TTACACCAACAGTCTGCCCCACGTGGGAACCATTCCCAACCTGTTTTCTTGAAAAGACAAAAAAAAAGACGACAT
ACCTCTTCTTTTTAACTTCTTTCTTGGGCTTCTTTTCATAGACTGGATTCTCTCGTATAGCAGCATGAGCTTTCT
TATACATCTCCTCCATCTGAAACAAAGGAAAGCAAACAGTACTTGGTTTCATTTCATGTGCCCTACTATATTAAT
GCAACCATAACTTATCTTGTCCTTCTAAGCCAGATTCTCAAAAGGAACTAAACTAAATCAATGTTGGTAAACACT
TTAACTTCTAAATGTAACTCACCTTTTCCTAACAAATTCCCAATTTTCACCTTATGCAATGTGAATTATCACTAC
AGAACTCCATCTTACTCAAGAAAAAAATCAGGCCAGGTGTGGTGGTTCATGCCTGTAATCTCAAGCACTTTGGGA
GTCTGAAGTGGGAGGATCACTTCAGCCCAGGAGTTTGAGACCAGCTAAGGCAACACAGTGAGACCTGTCTCCATA
AAAAAACTAATTAGCCAGGTGGCAATTATTAATGGTGGCATGCACCTGTAGTCCCAGCTACAGGACTACACGTGA
GTCCAGGAGGTCAAGGCTGCAGTGGCACAATCACAGCTCACTGGACCCCAGCCTAGATGACAGAATGAGACCTCA
TCTCTACCAAAAATTAAAAAAAAAAAAAAAAAATTAGCAGGG

FIGURE 685

CCTAGCGCCGCTGGGCCTGCAGGTCTCTGTCGAGCAGCGGACGCCGGTCTCTGTTCCGCAGG**ATG**GGGTTTGTTA
AAGTTGTTAAGAATAAGGCCTACTTTAAGAGATACCAAGTGAAATTTAGAAGACGACGAGAGGGTAAAACTGATT
ATTATGCTCGGAAACGCTTGGTGATACAAGATAAAAATAAATACAACACACCCAAATACAGGATGATAGTTCGTG
TGACAAACAGAGATATCATTTGTCAGATTGCTTATGCCCGTATAGAGGGGGATATGATAGTCTGCGCAGCGTATG
CACACGAACTGCCAAAATATGGTGTGAAGGTTGGCCTGACAAATTATGCTGCAGCATATTGTACTGGCCTGCTGC
TGGCCCGCAGGCTTCTCAATAGGTTTGGCATGGACAAGATCTATGAAGGCCAAGTGGAGGTGACTGGTGATGAAT
ACAATGTGGAAAGCATTGATGGTCAGCCAGGTGCCTTCACCTGCTATTTGGATGCAGGCCTTGCCAGAACTACCA
CTGGCAATAAAGTTTTTGGTGCCCTGAAGGGAGCTGTGGATGGAGGCTTGTCTATCCCTCACAGTACCAAACGAT
TCCCTGGTTATGATTCTGAAAGCAAGGAATTTAATGCAGAAGTACATCGGAAGCACATCATGGGCCAGAATGTTG
CAGATTACATGCGCTACTTAATGGAAGAAGATGAAGATGCTTACAAGAAACAGTTCTCTCAATACATAAAGAACA
GCGTAACTCCAGACATGATGGAGGAGATGTATAAGAAAGCTCATGCTGCTATACGAGAGAATCCAGTCTATGAAA
AGAAGCCCAAGAAAGAAGTTAAAAAGAAGAGGTGGAACCGTCCCAAAATGTCCCTTGCTCAGAAGAAGGATCGGG
TAGCTCAAAAGAAGGCAAGCTTCCTCAGAGCTCAGGAGCGGGCTGCTGAGAGC**TAA**ACCCAGCAATTTTCTATGA
TTTTTTCAGATATAGATAATAAACTTATGAACAGCAACT

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FIGURE 686

CTTCTCCGCTCCTTCTAGGATATCCGCCTGGTTTGGCCCGCCTGCCTCCACTCCTGCCTTCACC**ATG**TCCATCAG
GGTGACCCAGAAGTCCTACAAGTTGTCCACCTCTGGTCCCCGGGCCTTCAGCAGCCACTCCTACTCGAGTGGGCC
CAGTGCCTGCATCAGCTCCTTGAGCTTCTCCCAAGTGGGCAGCAGCAGCTTTCGGGGTGGCCTGGGTGGCGGTTA
TGGTGGGGCCAGCGGCATGGGAGGCATCACCGCAGTCATGGTCAACCAGAACCTGCTGAGCCCCCTTGTCCTGGA
GGTGGACCCCAACATCCAGGCCGTGTGCACCCAGGAGAAGGAGCCGATCAAGACCCTCAACAACAAGTTTGCCTC
CTTCATAGACAAGGTACGGTTCCTGGAGCAGCAGAACAAGATGCCGGAGACCAAGTGGAGCCTCCTGCAGCAGCA
GAAGACGGCTCGGAGCAACATGGACAAGTTCGAGAGCTACATCAACAACCTTAGGCAGCAGCTGGAGATTCTGGG
CCAGGAGAAGCTGAAGCTGGAGGCGGAGCTTGGCAACATGCAGGGGCTGGTGGAGGACTTCAAGAACAAGTATGA
GGATGAGATCAATAAGCGTACAGAGATGGAGAATGAATTTGTGCTCACCAAGAAGGATGTGGATGAAGCTTACAT
GAACAAGGTAGAGCTGGAGTCTCGCCTGGAAGGGCTTACTGAAGAGATCAGCTTCCTCAGGCAGCTGTATGAAGA
GGAGATCCGGGAGCTGCAGTCCCAGATCTCAGACACATCTGTGGTGCTGTCCATGGACAACAGCCACTCCCTGGA
CATGGACAGCGTCATTGCTGAGGTCAAGGCACAGTACGAGGACCGCCAGCCGCAGCCAGGC**TGA**GGCTGAGAGCA
TGTACCAGATCAAGAATGAGGAGCTGCAAGAGCCTGGCTGGGAAGCACGGGGATGACCTGTGGCGCACAAAGACT
GAGATCTCCTAGATAAACCGGAACATCAGCCGGCTCCAGGCTGAGATTGAGGGCCCCAAAGGCCAGAGGGCTTCC
CTGGAGGCCGCCATTGCAGATGCACAGCAGCGCGGAGAGCTGACTATTAAGTATGCCAACGCCAAGTTGTCCGAG
CTGGAGGCCGCCCTGCAGCGGGCCAAGCAGGACATGTTGCGGCAGCTGCGTGAGTACCAGCAGCTGATGAACGTC
AAGCTGGTCCTAGACGTCGAGATCGCCACCTACAGGAAGCTACTGGAGGGCGAGGAGAGCCGGCTGGAGTCTGGG
ATGCAGAACATGAGTATTCACACGAAGACCACCAGCGGCTATGCAGGTGGTCTGAGCTCGGCCTATGGGGGCCTC
ACAAGCCCCAGCCTCAGCTATGGCCTGGGCTCCAGCTTTGGCTCTGGCGCGGGCTCCAGCTCCTTCAGCCGCACC
AGCTCCTCGAGGGCCGTGGTTGTGAAGAAGATCGAGACACGTGATAGGAAGCTGGTGTCCGAGTCCTCCGACTCC
TGCCCAAGTGAACAGCTGAGGCAGCCCCTCCCAGCCTGCCCCTTCTGCGCTGCCCCAGAGCCTGGGAGGGAGGCC
ACTAT

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FIGURE 687

GGGAGAACTGGGGCCTGCTCCCAGAGAGATACAGCTACGTTGATCAAAACTGAATCTTCGGATGTGATCCACCTT
ATCATGCAGTACTTGAAGGAGAACGGTTTACATCGGGCATTAGCCACCTTGCAGGAGGAGACTACTGTGTCTCTG
AATGCTGTGGACAGCATTGAGAGTTTTGTGGCTGACATTAACAGTGGCCATTGGGATACTGTGTTGCAGGCTATA
CAGTCTCTGAAATTGCCAGACAAAACCCTCATTGACCTCTATGAACAGATTGTTCTGGAATTGATAGAGCTCCGT
GAATTGGGTGCTGCCAAGTCACTATTGAGACAGACTGATCCCATGATCATGTTAAAACAAACATAGCCAGAGCAA
TATATTCATCTGGAGAACCTTTTGGCCAGGTCTTACTTTGATCCTCGTGAGGCATACCCAGATGGAAGTAGCAAA
GAAAAGAGAAGAGCAGCAATTGCCCAGGCCTTAGCTGGTGAAGTCAGCGTGGTGCCTCCATCTCGTCTCATGGCA
CTGCTGGGACAGGCACTGAAGTGGCAGCAGCATCAGGGATTGCTTCCTCCTGGTATGACCATAGATTTGTTTTGA
GGCAAAGCAGCTGTCAAAGATGTGGAAGAAGAAAAGTTTCCTACACAACTGAGCAGGCATATTAAGTTTGGTCAG
AAATCACAAGTGGAGTGTGCTCGATTTTCTCCAGATGGTCACTATTTGGTCACTGGGTCTGTTGATGGACTCACT
GAAGTATGGAACTTTACTACTGGAAAAATCAGAAAGGATCTTAAGTACCAGGCCCAGGATAACTTT**ATG**ATGATG
GATGATGCTGTCCTCTGCATGTGTTTCAGCAGAGATACAGAAATGTTAGCAACTGGGGCCCAAGATGGAAAAATC
AAGGTATGGAAGATTCAGAGTAGACAATATTTAAGGAGATATGAGAGGGCACACAGTAAGGGTGTCACGTGTCTA
AGCTTTTCTAAGGATAGCAGTCAGATCCTTAGTGCTTCTTTTGACCAGACAATTAGAATTCATGGTTTAAAATCT
GGGAAAACCCTGAAGGAATTTTGTAGCCATTCCTCCTTTGTTAACAAAGCAACATTTACACAAGATGGACATTAT
ATTATTAGTGCATCCTCTGATGGCACTGTAAAGATCTGGAATATGAAGACCACAGAATGTTCAGATACCTTTAAA
TCCCTGGGCAGCACTGCAGGGACAGATATTACCGTCAACAGTGTGATTCTACTTCCTAAAAATCCTGAGCACTTT
GTGGTGTGCAACAGATCAAACACAGTGGTCATCATGAACATGCAGGGGCAGATTGTCAGAAACTTCAGTTCTGGT
AAAAGAGAAGGTGGGGACTTTTCTGTGCCCTCTCTCCCCGTGGTGAATGGATCTACTGTG**TAG**GGGAGGACTTTG
TGCTCTACTGTTTCAGTACAGCCACTGGCAAACTGGAAAGAACTTTGACAGTGCACGAGAAGGATGTGATTGGTA
TTGCACATCACCCTCATCAGAACCTGATTGCTACCTACAGTGAAGATGGACTCCTAAAGCTCTGGAAACCATAAT
TCAACTTTTCTTTTTAAATCAGCTTGAAAGCACGTACTTAAATGAAGGCATATTCATGTAATGTGCTTTTTTTTT
TTTTGCCAGCTTTTCTAAGCAAATAGATTGTCTGAATTAGTCACA

FIGURE 688A

AATTGGCTCATTTAAGAATTTCAAAACATTTAATGTAAAAGCTTTTTTTTTTTTTAAGGAAGTCCATAAATTTTGG
TTCCCAGGGTTGCACTGGACTTGGAAGGAGTGCTGTTGTGTACATACTATTGTATGGTTTTATTTATTATTTTAC
TGTACAAATCAGCCGAAAGAATTTTTCCAAGTGCCATTTCGGATTTATTAATCCTTTTTTTTTTCCTTTCCTCAA
AGATATTTGCTGTTGTCATATTAAGCATTGGAGACTAGAAAATTACTTTCCCCCTTTGAGCTAGAGGGTCTCTTG
CCAACAGAAGGACAGCTGAGAAAGCTGGATTTAAAGGATGGTTTTATCTGTACTTTGCAGTTAACAGTGATATTT
TGAAGGCACATTTTTCTGTGATTCATTTTTTTTTGGCCATAGTGCTAACCTTGAAGAGATTCGTGGCTGGGTTTT
TGGTTTCTGAGAAGGTCGTAGTTTTTCCTCTTTTCCTTTTTTTTTTCTTTTTTCTTTTCTTTTCTTTTTTTTTAAA
GCGGGGGAGGGGAAGAGGGGCTGAGAAAGGAAATCATGTTCACTGGTAGAAGTAGAGTGGAGCATCAGTTACCAG
GGTCCTGAGAGCTGGAGGAGAAAGGATTCTATCTTCAAGTTGGGAGGCCCTCCTCTCACCTTGCTCAAAAATTGC
AAGCGATTCAATCCTGATCAAGACACCAAAGCTACAGGATTCTGGAACCGTGGAGACACCGAGAAACC**ATG**AGTG
TAAGGTTACCCCAGAGTATAGACAGGTTAAGTAGCCTGTCTTCTCTGGGAGATTCTGCACCAGAGCGCAAGTCCC
CTTCCCACCATCGCCAGCCTTCGGATGCCTCTGAGACAACAGGTCTCGTTCAACGCTGTGTCATTATCCAAAAGG
ACCAGCATGGCTTCGGCTTCACAGTCAGTGGGGATCGCATTGTTCTGGTGCAGTCTGTGCGGCCTGGAGGTGCAG
CCATGAAGGCCGGTGTGAAAGAGGGCGACCGGATCATCAAAGTCAACGGCACCATGGTGACCAATAGCTCACACC
TGGAAGTGGTAAAGCTGATCAAATCTGGCGCCTATGTCGCACTCACCCTCCTGGGCTCTTCACCTTCATCCATGG
GCATCTCTGGGCTCCAGCAGGACCCATCCCCAGCAGGAGCTCCCCGAATCACGTCAGTGATCCCCTCACCACCAC
CTCCTCCACCTCTACCACCTCCACAACGCATCACAGGACCCAAACCTCTGCAGGATCCCGAAGTTCAAAAACATG
CCACCCAGATCCTCAGGAATATGCTGAGGCAGGAAGAAAAAGAATTACAGCGTATCTGTGAGGTCTATAGCCGGA
ACCCCGCCAGCCTACTGGAAGAGCAGATCGAAGGTGCCCGGCGGCGAGTCACTCAGTTACAGCTGAAGATCCAGC
AGGAGACTGGTGGCTCAGTGGACATACTTCCACTATATGGTGACACCAGCCAGAGACCATCAGAAGGCCGGCTCT
CTCTGGATTCCCAGGAGGGGGACAGTGGCTTGGACTCTGGGACAGAACGCTTTCCTTCCCTCAGTGAGTCATTGA
TGAATCGGAACTCGGTACTGTCAGACCCTGGGCTAGACAGTCCTCGAACCTCCCCTGTGATCATGGCCAGGGTGG
CCCAGCACCACAGGCGGCAGGGCTCGGATGCAGCAGTCCCCTCAACCGGTGACCAGGGTGTAGATCAAAGCCCAA
AGCCTTTAATTATTGGCCCAGAGGAAGACTATGACCCGGGTTATTTCAACAACGAGAGCGACATCATATTCCAGG
ATCTGGAGAAACTGAAGTCTCGGCCAGCTCACCTGGGGGTTTTTCTACGTTACATCTTCTCTCAGGCGGACCCCA
GTCCACTGCTTTTTTACCTGTGTGCAGAAGTTTATCAGCAGGCAAGCCCCAAGGATTCCCGAAGCTTGGGGAAAG
ACATCTGGAATATTTTCCTGGAGAAAAATGCGCCTCTGAGAGTGAAGATCCCTGAGATGCTACAGGCTGAAATTG
ACTCGCGCCTGCGGAACAGCGAAGATGCCCGTGGTGTTCTCTGTGAAGCTCAAGAGGCAGCCATGCCTGAGATCC
AAGAGCAGATCCACGACTACAGAACGAAGCGCACACTGGGGCTGGGCAGCCTGTATGGTGAAAATGACCTGCTGG
ACCTGGATGGGGACCCTCTCCGAGAGCGCCAAGTGGCTGAGAAGCAGCTGGCTGCCCTTGGAGATATTTTGTCCA
AGTATGAGGAAGACAGGAGCGCCCCCATGGACTTCGCCCTCAATACCTACATGAGCCATGCTGGGATCCGTCTTC
GAGAGGCACGACCTTCCAACACAGCTGAAAAGGCCCAGTCTGCTCCTGACAAGGACAAGTGGCTACCGTTCTTCC
CTAAGACCAAGAAGAGCAGCAATTCCAAGAAAGAAAAGGATGCCTTGGAGGACAAGAAGCGAAACCCTATCCTCA
AATACATTGGGAAGCCCAAAAGCTCTTCTCAAAGCACATTTCATATTCCCTTGTCCCCTGTGGAAGTCAAACCAG
GCAATGTGAGGAACATCATTCAGCACTTTGAGAACAACCAGCAGTATGATGCCCCAGAACCTGGGACACAACGAC
TCTCGACCGGAAGCTTTCCTGAGGACCTGCTGGAGAGTGACAGTTCACGCTCAGAGATTCGCCTGGGCCGCTCTG
AAAGCCTCAAGGGCCGGGAAGAGATGAAACGGTCTCGAAAGGCAGAGAACGTGCCCCGCTCTCGCAGTGATGTTG
ACATGGATGCTGCTGCGGAGGCTACTCGCCTGCACCAGTCAGCCTCGTCCTCTACCTCCAGCCTCTCCACCAGGT
CTCTTGAGAACCCAACCCCTCCATTCACTCCCAAAATGGGCCGCAGGAGCATTGAGTCCCCCAGTTTGGGGTTCT
GCACAGATACCCTCCTTCCCCACCTCCTAGAGGATGATCTGGGCCAGCTGTCTGACCTGGAGCCAGAGCCAGATG
CCCAAAATTGGCAGCATACAGTGGGCAAGGATGTGGTGGCTGGGCTAACCCAGCGGGAGATTGACCGGCAAGAGG
TCATCAATGAGCTGTTTGTGACTGAAGCTTCCCACCTGCGCACACTCCGGGTCCTGGACCTGATCTTCTACCAGC
GAATGAAGAAGGAGAACCTGATGCCCCGGGAGGAGCTGGCCCGGCTCTTCCCGAACCTGCCTGAACTCATAGAGA
TTCACAATTCCTGGTGTGAAGCCATGAAGAAGCTCCGGGAGGAAGGCCCCATCATCAAAGAGATCAGTGACCTCA
TGCTGGCCCGGTTTGATGGCCCTGCCCGAGAGGAACTCCAGCAAGTGGCTGCACAGTTCTGTTCCTATCAGTCAA
TAGCCCTAGAGCTAATCAAGACCAAGCAACGCAAGGAGAGTCGATTCCAGCTCTTCATGCAGGAGGCTGAGAGCC
ACCCTCAGTGTCGGCGGCTGCAGCTGAGAGACCTCATCATCTCTGAGATGCAGCGGCTCACCAAGTACCCGCTGC
TGCTGGAGAGCATCATCAAGCACACAGAGGGTGGCACCTCTGAGCATGAGAAGCTGTGCCGGGCCCGGGACCAGT

FIGURE 688B

GCCGGGAGATTCTCAAGTATGTGAATGAAGCGGTAAAACAAACAGAGAACCGCCACCGTTTAGAGGGCTACCAGA
AACGCCTGGATGCCACCGCCCTGGAGAGGGCCAGCAACCCCCTGGCAGCAGAGTTCAAGAGCCTGGATCTTACAA
CCAGAAAAATGATCCATGAGGGACCCCTGACCTGGAGGATCAGCAAGGATAAGACCTTGGACCTCCACGTGCTGC
TGCTGGAGGACCTCCTAGTGCTGCTACAGAAACAGGATGAGAAGCTATTGCTGAAGTGCCACAGCAAGACTGCTG
TGGGCTCCTCAGACAGCAAGCAGACCTTCAGCCCCGTGCTCAAGCTCAATGCTGTGCTCATCCGCTCTGTGGCCA
CAGATAAACGGGCCTTCTTCATCATCTGCACCTCCAAGCTGGGCCCACCCCAGATCTATGAGCTGGTTGCATTGA
CGTCATCAGACAAGAACACATGGATGGAGCTCTTAGAAGAGGCCGTGCGGAATGCCACCAGGCACCCCGGAGCTG
CCCCAATGCCCGTCCATCCTCCACCCCCAGGTCCCCGGGAGCCAGCCCAGCAGGGCCCCACACCCAGCAGGGTAG
AACTGGATGACTCAGACGTGTTCCATGGTGAACCTGAACCTGAGGAGCTGCCTGGAGGCACTGGGTCCCAGCAGA
GGGTCCAAGGGAAGCACCAGGTCCTGCTAGAGGACCCTGAGCAGGAGGGCAGTGCAGAGGAAGAGGAACTGGGTG
TCCTGCCTTGCCCTTCCACATCCCTGGATGGAGAGAACAGGGGCATCAGGACAAGGAACCCCATCCACTTGGCCT
TCCCAGGCCCTCTGTTCATGGAAGGGCTCGCTGACTCCGCTCTGGAAGATGTGGAGAACCTGCGACATCTGATCC
TGTGGAGCCTGCTGCCAGGTCACACCATGGAAACTCAGGCTGCCCAGGAGCCCGAGGACGACCTGACACCCACAC
CTTCTGTCATCAGCGTCACCTCTCACCCCTGGGACCCAGGCTCCCCAGGGCAAGCACCCCCTGGGGGTGAAGGGG
ACAACACCCAGCTTGCAGGGCTGGAGGGGGAACGGCCAGAGCAGGAAGACATGGGTCTCTGTTCTCTGGAACACC
TACCCCCAAGGACCAGAAATTCTGGGATATGGGAGTCTCCAGAACTGGACAGGAATCTGGCTGAAGATGCTTCAA
GCACAGAGGCAGCAGGAGGTTACAAAGTTGTGAGAAAAGCTGAGGTGGCAGGCAGCAAGGTTGTCCCTGCACTAC
CAGAGAGTGGCCAGTCAGAGCCTGGGCCACCTGAAGTGGAAGGCGGAACAAAGGCTACGGGGAACTGCTTTTATG
TCAGCATGCCATCAGGACCCCCGGACTCAAGCACCGACCACTCAGAGGCACCCATGAGCCCCCCTCAGCCTGACA
GCCTCCCTGCAGGGCAGACAGAGCCTCAGCCTCAGCTGCAGGGAGGCAACGATGATCCAAGACGCCCCAGCCGCT
CTCCTCCAAGCCTGGCCCTCAGGGACGTGGGCATGATCTTCCATACCATTGAGCAGCTCACTCTCAAGCTCAACA
GGCTCAAGGATATGGAGCTGGCCCACAGAGAGCTGCTCAAGTCCCTTGGGGGAGAGTCATCTGGTGGCACCACGC
CTGTGGGCAGTTTCCACACAGAAGCAGCTAGATGGACAGATGGCTCCCTCTCACCTCCCGCTAAGGAGCCCCTAG
CTTCTGACTCCAGGAACAGCCATGAACTGGGGCCCTGCCCTGAGGATGGCTCTGACGCCCCCCTGGAAGACAGCA
CAGCAGACGCAGCCGCGTCACCAGGACCA**TAA**CCGTACAAACCACCAAATCCTCTGCGTCCCCACTCCTCCTTCA
GGGACTGGCCTGAGACCGGGGCACAGGGTAGGGGGGATCCCAACACTCCTCCCTGTGGAGGAGGCAGTTAGGGAA
ACTAGGATCCAGCCAAGGCCCGGGGGGAGACCCGCATGTTGCTTGGTCTGCTCAAGTCGGAGTCAGGTTTCAGTG
TCTTTTCCCTCCCTTAGCCCAACCCTCCAAGGCCTCATGTCTCCTAAGCATGCTGACTGCATCCGAAAGGCCCCC
ACTCACCATGGTCTGCCCTCACCCCACATATGTGTGTACACGCGCACGCCTGTATGTGCGCTGCCCTCAGACATG
CAAGTGAAAGGAGGAGGCTTCTGTGTAAATGCACTTTCTTCCTCCCCTCTTTCTCCATAAGACCCCAGGCAGAGG
TGGGTGCCTCCCCTCCCCTCTTTGTCACTTTGGTTTCCTATAAATATGTATGTATCGT

FIGURE 689

CTGCGGCAAAGAACCGGGCTGTGTCCAAAGTGTTCTCTGGAAGTTGTAGTTCCTGTATTGGTGAGGCAAGGAGGA
GGCGGAGTGACTCGGCGGCCATTAGCTGTGTGTAGTTGCCCGGGACTAGGAGCTTAAGTGAAGAGGTACGCCTTG
TTCGGTGGAAATCAGCCGTAGCCATGAGTTTCTGCCGGGGCTAGCCCTAGAGTACGGAGCAGGCGGACTTTTCGG
TTCCCCGCCCCCGCCAGGTGGCGGGGCCTACTAGGCCTCCGGGCATCCCCGGTCTCAAGTAGGCCTCATCTGCCGG
CAAGGGCGCCCGAAACGCGGGAGGCGCC**ATG**TCGCTGGTTGCTTACGCCAGCAGCGATGAGAGCGAGCCGGATGA
GGCTGAGCCCGAGCCGGAGGAAGAGGAGGCGGTGGCTCCTACATCTGGGCCCGCTTTAGGGGGCTTGTTCGCTTC
TCTCCCTGCGCCCAAGGGTCCGGCCTTGCTGCCTCCGCCCCCTCAGATGCTGGCGCCAGCCTTTCCCCCGCCGCT
GTTGCTTCCCCCACCCACCGGAGACCCCAGGCTTCAGCCTCCTCCCCCCTTGCCCTTCGGCCTGGGAGGCTTCCC
CCCACCTCCAGGCGTGAGCCCGGCTGAAGCGGCGGGAGTTGGGGAGGGACTGGGATTGGGGTTGCCCTCGCCCCG
AGGCCCTGGCCTCAATCTGCCCCCTCCAATTGGCGGTGCCGGTCCCCCGCTGGGGCTTCCCAAGCCAAAGAAGAG
GAAAGAGCCCGTGAAGATCGCGGCGCCGGAGTTGCATAAGGGAGATTCAGATTCTGAGGAAGATGAACCCACAAA
GAAGAAAACTATCCTTCAGGGATCCAGTGAGGGGACTGGTTTGTCTGCCTTGCTTCCCCAACCTAAAAACCTGAC
TGTGAAAGAGACTAACAGGTTGCTCCTGCCCCATGCCTTCTCCCGCAAACCCTCGGATGGCTCCCCTGATACTAA
GCCCTCCAGACTGGCTTCTAAGACCAAGACTTCCTCTCTTGCCCCTGTTGTGGGCACCACAACCACCACTCCGTC
GCCCTCTGCTATCAAGGCTGCTGCCAAGAGTGCTGCCCTGCAGGTGACAAAGCAGATCACGCAGGAAGAAGACGA
CAGTGATGAGGAAGTAGCCCCCGAAAACTTTTTCTCCCTCCCTGAAAAGGCTGAGCCACCTGGAGTTGAGCCATA
CCCTTACCCCATCCCCACTGTCCCTGAAGAGCTGCCTCCAGGCACGGAACCAGAGCCGGCTTTCCAGGACGATGC
AGCCAATGCCCCCCTTGAATTCAAGATGGCAGCAGGTTCAAGTGGGGCCCCTTGGATGCCTAAGCCTGGGGACGA
CTACAGCTACAATCAGTTTTCCACATATGGCGATGCCAATGCCGCTGGTGCTTATTATCAGGATTATTACAGTGG
TGGCTACTATCCTGCACAGGACCCGGCCCTGGTCCCCCCCCCAGGAAATTGCCCCAGATGCCTCCTTCATCGATGA
CGAAGCATTTAAGCGGCTGCAGGGCAAGAGGAACCGAGGGAGAGAAGAAATCAACTTTGTGGAGATCAAAGGTGA
TGACCAGCTCAGTGGGGCCCAGCAATGGATGACTAAGTCATTGACAGAAGAGAAAACCATGAAGTCATTCAGCAA
AAAGAAAGGTGAGCAGCCAACAGGCCAGCAGCGGCGGAAACACCAGATCACATATCTTATTCATCAGGCCAAGGA
GCGGGAGCTGGAACTGAAGAACACCTGGTCAGAGAACAAGCTCAGCCGCCGTCAGACCCAAGCCAAATATGGATT
C**TAG**GGCTCTGGAACTGATTGCTCCCAGGATCTCCTGCCAGCCCAGCTGGCCTGGCCCCCAGCTTCACCTCTGGG
ACCCCAGCTGCTCTAAGCCCAGGATCTCTTTCCCCAAGGACCCAGCCCTCGCCTCTGCGAGAATGAACATATTTG
ATAGATTTTTCTTAACAAGTTAGAAAATTCAGCTCCTTTCTGTCCTGGAGCTAGCAAAGACTTGTGTGATGCCTC
CGAAGGGGCTCTGAGTTCTGGGGTGGGAGTTTTGCTCTCTGTCAGGTGTGATAAAATGTTGAACCCTCCCCACCA
CCACTTTTTTTTTTTTAAACCAGGGATGTCTGTTGAAATAAAACATTCAGTCTGAC

FIGURE 690

GAGGAGGAGTGGGGACCGGGCGGGGGGTGGAGGAAGAGGCCTCGCGCAGAGGAGGGAGCAATTGAATTTCAAACA
CAAACAACTGCACGAGCGCGCACCCACCGCGCCGGAGCCTTGCCCCGATCCGCGCCCGCCCCGTCCGTGCGGCGC
GCGGGCGGAGACGCCGTGGCCGCGCCGGAGCTCGGGCCGGGGGCCACCATCGAGGCGGGGGCCGCGCGAGGGCCG
GAGCGGAGCGGCGCCGCCACCGCCGCACGCGCAAACTTGGGCTCGCGCTTCCCGGCCCGGCGCGGAGCCCGGGGC
GCCCGGAGCCCCGCC**ATG**TCGCGATCCAACCGGCAGAAGGAGTACAAATGCGGGGACCTGGTGTTCGCCAAGATG
AAGGGCTACCCACACTGGCCGGCCCGGATTGACGAGATGCCTGAGGCTGCCGTGAAATCAACAGCCAACAAATAC
CAAGTCTTTTTTTTCGGGACCCACGAGACGGCATTCCTGGGCCCCAAAGACCTCTTCCCTTACGAGGAATCCAAG
GAGAAGTTTGGCAAGCCCAACAAGAGGAAAGGGTTCAGCGAGGGGCTGTGGGAGATCGAGAACAACCCTACTGTC
AAGGCTTCCGGCTATCAGTCCTCCCAGAAAAAGAGCTGTGTGGAAGAGCCTGAACCAGAGCCCGAAGCTGCAGAG
GGTGACGGTGATAAGAAGGGGAATGCAGAGGGCAGCAGCGACGAGGAAGGGAAGCTGGTCATTGATGAGCCAGCC
AAGGAGAAGAACGAGAAAGGAGCGTTGAAGAGGAGAGCAGGGGACTTGCTGGAGGACTCTCCTAAACGTCCCAAG
GAGGCAGAAAACCCTGAAGGAGAGGAGAAGGAGGCAGCCACCTTGGAGGTTGAGAGGCCCCTTCCTATGGAGGTG
GAAAAGAATAGCACCCCCTCTGAGCCCGGCTCTGGCCGGGGGCCTCCCCAAGAGGAAGAAGAGGAGGAGGATGAA
GAGGAAGAGGCTACCAAGGAAGATGCTGAGGCCCCAGGCATCAGAGATCATGAGAGCCTG**TAG**CCACCAATGTTT
CAAGAGGAGCCCCCACCCTGTTCCTGCTGCTGTCTGGGTGCTACTGGGGAAACTGGCCATGGCCTGCAAACTGGG
AACCCCTTTCCCACCCCAACCTGCTCTCCTCTTCTACTCACTTTTCCCACTCCAAGCCCAGCCCATGGAGATTGA
CCTGGATGGGGCAGGCCACCTGGCTCTCACCTCTAGGTCCCCATACTCCTATGATCTGAGTCAGAGCCATGTCTT
CTCCCTGGAATGAGTTGAGGCCACTGTGTTCCTTCCGCTTGGGAGGGGCAATCCTCAAATGCGGGGTGGGGGCAG
CACAGGAGGGCGGCCTCCTTCTGAGCTCCTGTCCCCTGCTACACCTATTATCCCAGCTGCCTAGATTCAGGGAAA
GTGGGACAGCTTGTAGGGGAGGGGCTCCTTTCCATAAATCCTTGATGATTGACAACACCCATTTTTCCTTTTGCC
GACCCCAAGAGTTTTGGGAGTTGTAGTTAATCATCAAGAGAATTTGGGGCTTCCAAGTTGTTCGGGCCAAGGACC
TGAGACCTGAAGGGTTGACTTTACCCATTTGGGTGGGAGTGTTGAGCATCTGTCCCCCTTTAGATCTCTGAAGCC
ACAAATAGGATGCTTGGGAAGACTCCTAGCTGTCCTTTTTCCTCTCCACACAGTGCTCAAGGCCAGCTTATAGTC
ATATATATCACCCAGACATAAAGGAAAAGACACATTTTTTAGGAAATGTTTTTAATAAAAGAAAATTACAAAAAA
AAATTTTAAAGACCCCTAACCCTTTGTGTGCTCTCCATTCTGCTCCTTCCCCATCGTTGCCCCCATTTCTGAGGT
GCACTGGGAGGCTCCCCTTCTATTTGGGGCTTGATGACTTTCTTTTTGTAGCTGGGGCTTTGATGTTCCTTCCAG
TGTCATTTCTCATCCACATACCCTGACCTGGCCCCCTCAGTGTTGTCACCAGATCTGATTTGTAACCCACTGAGA
GGACAGAGAGAAATAAGTGCCCTCTCCCACCCTCTTCCTACTGGTCTCTCTATGCCTCTCTACAGTCTCGTCTCT
TTTACCCTGGCCCCTCTCCCTTGGGCTCTGATGAAAAATTGCTGACTGTAGCTTTGGAAGTTTAGCTCTGAGAAC
CGTAGATGATTTCAGTTCTAGGAAAATAAAACCCGTTGATTACT

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FIGURE 691

GCGGGGGAGGGGACGCTGAGGGCCCATGTGCTGAAAATCCGAAGTGCCGCGGAAAGTGGAGAGCTGACAAGGAAG
GTTTCGAGCGTTTTGCTGGCAAAGGGATTTCTTACAACCTCCAGGC**ATG**CGTCTTTCTGCCCTGCTGGCCTTGGC
ATCCAAGGTCACTCTGCCCCCCCCATTACCGCTATGGGATGAGCCCCCCAGGCTCTGTTGCAGACAAGAGGAAGAA
CCCCCCATGGATCAGGCGGCGCCCAGTGGTTGTGGAACCCATCTCTGATGAAGACTGGTATCTGTTCTGTGGGGA
CACGGTGGAGATCCTAGAAGGCAAGGATGCCGGGAAGCAGGGCAAAGTGGTTCAAGTTATCCGGCAGCGAAACTG
GGTGGTCGTGGGAGGGCTGAACACACATTACCGCTACATTGGCAAGACCATGGATTACCGGGGAACCATGATCCC
TAGTGAAGCCCCCTTGCTCCACCGCCAGGTCAAACTTGTGGATCCTATGGACAGGAAACCCACTGAGATCGAGTG
GAGATTTACTGAAGCAGGAGAGCGGGTACGAGTCTCCACACGATCAGGGAGAATTATCCCTAAACCCGAATTTCC
CAGAGCTGATGGCATCGTCCCTGAAACGTGGATTGATGGCCCCAAAGACACATCAGTGGAAGATGCTTTAGAAAG
AACCTATGTGCCCTGTCTAAAGACACTGCAGGAGGAGGTGATGGAGGCCATGGGGATCAAGGAGACCCGGAAATA
CAAGAAGGTCTATTGGTAT**TGA**GCCTGGGGCAGAGCAGCTCCTCCCCAACTTCTGTCCCAGCCTTGAAGGCTGAG
GCACTTCTTTTTCAGATGCCAATAAAGAGCACTTTATGAGTC

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FIGURE 692

CTGGGAGGTAGGTTTGTGAGCGTGAGAGATCGATCTGTACCGCGGGGATCCGAAGTATGCTTATCCAGGTGGGCT
GCCTCAAGCCTCGATCCCACCCCCGCGCTGGTAGATGGTGTCAAGGTCCTTGCGTGGGAGAAGGACTTGGGTGAG
ATGCATGCGGAGATTGCCCCCAATTCCGGCCTGGAGCCAAGGGAAAGGGATGCCTGGATTTGTGTCTCTATTGGT
GGTCCACGCTGCGGATGCCTGGGTAGCCCAGAGGTTATCTACGCCATACTTCTCACTGTTTTTGAGCATACCTAG
ATGTTCCTTTCCTAGGCGGAGTATAGATCGCACGTGTTCTAGCCTCTTAGACTCAGAGGGTTCGAGCTCTATAAG
CCCCTCCACTCCCTTCATTTTACAAATGAGACTCAAACCTAGAGCGCGGTAATGACCTTACTAAGACCAAATGGC
TGGTGAATTGGGCTTCACTAGAATCCAGGCTTGCTGGCTAACACCAATGCTCCCTCCATCATTTCATGTTATGTT
TTCATTTCCCCTCTGTCTGAGAGATTGCTCTGATGTCTTTCCTTCCATAAGTCCTACGGAGATCGAGCTTACCTC
ATTTTTCTCCCAGGCCTAGGAGCTCAATTACCAGGATCACTTTCTTCCCCAGGGTGTACTACAGACCTCCACATG
TTGGACAGTAGGATTCAGCAGAGAATGAGTCCCACATCCTCTTTTCATCCATAAGCCACTCTTCCCAACTACTCT
TCCGCCTTCCATTGTCCCT**ATG**TCTACTTTACTGCTCAATCTGGATTTTGGGGAACCTCCTCCCAAAAAGGCATT
AGAAGGAAATGCCAAGCACCGAAATTTTGTCAAGAAGCGGAGGCTCTTAGAACGGAGAGGCTTTCTGAGTAAAAA
GAACCAACCCCCTAGCAAGGCGCCTAAGTTGCACTCTGAACCTTCAAAGAAAGGGGAAACTCCTACGGTCGATGG
CACTTGGAAGACCCCTTCCTTCCCAAAAAAGAAGACAGCTGCTTCCAGCAATGGGTCAGGACAGCCCCTGGACAA
GAAAGCTGCAGTGTCTTGGTTGACCCCTGCCCCTTCAAAAAAGGCTGATTCTGTTGCTGCTAAAGTAGATTTGCT
GGGGGAGTTCCAGAGTGCCCTTCCAAAGATCAATAGCCACCCAACCCGCTCTCAGAAGAAGAGCTCCCAGAAGAA
ATCCTCTAAAAAGAACCATCCTCAGAAGAATGCCCCACAGAACTCCACCCAAGCTCATTCAGAGAATAAATGCTC
CGGAGCATCCCAGAAGTTGCCACGGAAGATGGTGGCAATTGACTGTGAGATGGTGGGCACAGGACCAAAGGGGCA
TGTTAGTTCCTTGGCTCGATGTAGCATTGTCAACTACAACGGAGATGTGCTTTATGACGAGTACATTCTTCCCCC
CTGCCACATTGTGGACTACCGAACCAGGTGGAGTGGTATCCGGAAGCAGCACATGGTGAATGCCACACCCTTCAA
GATTGCTCGAGGCCAGATCTTGAAGATACTCACAGGGAAGATAGTGGTGGGGCATGCCATCCACAACGACTTCAA
AGCCCTTCAGTACTTTCACCCCAAGTCCCTCACCCGTGACACCTCCCATATCCCCCCCCTCAACCGGAAGGCTGA
CTGCCCGGAGAATGCCACCATGTCTCTGAAGCATCTCACCAAGAAGCTGCTAAACCGGGATATCCAGGTTGGGAA
GAGCGGACATTCCTCTGTGGAAGATGCCCAGGCCACCATGGAGCTATATAAGTTGGTTGAAGTCGAGTGGGAAGA
GCACCTAGCCCGGAATCCCCCTACAGAC**TAG**TGGCAGTGGGGACGCTGGTGATATGAGGAGGCAGAGGCAGCACC
CAGGAGAAACAGGGCAGTGGACCAATGGACAGCTCCACCAGCTCCACATCTTTGGAAGCTAGATTTGGGGAGAGA
GAAGCTCTACCCCAGACTTAATACCCATTGAAATTTCACCTCAGGTGTTGTGTCCTGTGTCTGGTTAAGTGTCCC
ATGGAAGGGGAAAGCCTTCACGTCAGAACCCAACCCTATACCTTTTACTTCTTAAATGGTGCTAACCACAGGTGT
CCCAGGGTGCTCTGTGCCAGTTAAGATTTTTAACTTTCAAGGGGCAGGGCATACTGGGAAATGTAGTTTCCCAAA
CTGCCTTATCACTTGGGTGGACATATGTCTCCTTTTATGCCTTTTGGTCTTGAGTAATTAACAGCATCCTCTTCC
ACGCTCAGAAGTGTTCTGGTTGGGGCCAGGCATGGTGGCTCACACCTGTAGTCCCAACACTTAGGGAGGCCGAGG
CGGGCGGATCACCTGAGATCAGGAGTTCAAGACCAGCCTGGCCAACATGGCGAATTCCCGTTCTCTACTAAAAAT
ACAAAAAATGTGTGGGGTGTGGTGGCAGGAGCCTGTAATCCTAGCTACTCAGGAGGCTGAGGCAGGAGAATCGCT
TGAGCCCAGGAGGCGGAGATTGCAGTGAGCCGAGATCGTGTCACTGCACTCCAGCCTGGGTGACAAGAGTGAGAC
TCCGTCTCCAAAAAAAAAAAAAAAAGAATTTATTAACCTGGTTGGTTAATAAATTGTGTGGTCCCTGCCGGGCGTG
GTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGACGGGCAGATCACGAGGTCAGGAGATCGAGACCAT
CCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCAGGCGTGGTGGCGGGCACCTGTA
GTTCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCAGGAGGCGGAGCTTGCAGTGAGCCGAGATT
GTGCCACTGCACTCCAGCCTGGGCCACGGCCACAGAGCGAGACTCTGTCTC

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FIGURE 693

AGCTTTGGGGTTGTCCCTGGACTTGTCTTGGTTCCAGAACCTGACGACCCGGCGACGGCGACGTCTCTTTTGACT
AAAAGACAGTGTCCAGTGCTCCAGCCTAGGAGTCTACGGGGACCGCCTCCCGCGCCGCCACC**ATG**CCCAACTTCT
CTGGCAACTGGAAAATCATCCGATCGGAAAACTTCGAGGAATTGCTCAAAGTGCTGGGGGTGAATGTGATGCTGA
GGAAGATTGCTGTGGCTGCAGCGTCCAAGCCAGCAGTGGAGATCAAACAGGAGGGAGACACTTTCTACATCAAAA
CCTCCACCACCGTGCGCACCACAGAGATTAACTTCAAGGTTGGGGAGGAGTTTGAGGAGCAGACTGTGGATGGGA
GGCCCTGTAAGAGCCTGGTGAAATGGGAGAGTGAGAATAAAATGGTCTGTGAGCAGAAGCTCCTGAAGGGAGAGG
GCCCCAAGACCTCGTGGACCAGAGAACTGACCAACGATGGGGAACTGATCCTGACCATGACGGCGGATGACGTTG
TGTGCACCAGGGTCTACGTCCGAGAG**TGA**GTGGCCACAGGTAGAACCGCGGCCGAAGCCCACCACTGGCCATGCT
CACCGCCCTGCTTCACTGCCCCCTCCGTCCCACCCCCTCCTTCTAGGATAGCGCTCCCCTTACCCCAGTCACTTC
TGGGGGTCACTGGGATGCCTCTTGCAGGGTCTTGCTTTCTTTGACCTCTTCTCTCCTCCCCTACACCAACAAAGA
GGAATGGCTGCAAGAGCCCAGATCACCCATTCCGGGTTCACTCCCCGCCTCCCCAAGTCAGCAGTCCTAGCCCCA
AACCAGCCCAGAGCAGGGTCTCTCTAAAGGGGACTTGAGGGCCTGAGCAGGAAAGACTGGCCCTCTAGCTTCTAC
CCTTTGTCCCTGTAGCCTATACAGTTTAGAATATTTATTTGTTAATTTTATTAAAATGCTTTAAAAAAA

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FIGURE 694

AGTCGCTCAGGCTACTCCCACCCCGCCCCGCCCCGTCATTGTCCCCGTCGGTCTCTTTTCTCTTCCGTCCTAAAA
GCTCTGCGAGCCGCTCCCTTCTCCCGGTGCCCCGCGTCTGTCCATCCTCAGTGGGTCAGACGAGCAGGATGGAGG
GCTGCAGAACTGGCTCAGGAAAGCCCTCCTGGG**ATG**GCTGGAGTGGAAAATGAGGATGAGGCAGAGCTGAATCTG
AGGGAGCAGGATGGCTTCACTGGGAAGGAGGAGGTGGTAGAGCAGGGAGAGCTGAATGCCACAGAGGAGGTCTGG
ATCCCAGGCGAGGGGCACCCAGAGAGCCCTGAGCCCAAAGAGCAGAGAGGCCTGGTTGAGGGAGCCAGTGTGAAG
GGAGGGGCTGAGGGCCTCCAGGACCCTGAAGGGCAATCACAACAGGTGGGGGCCCCAGGCCTCCAGGCTCCCCAG
GGGCTGCCAGAGGCGATAGAGCCCCTGGTGGAAGATGATGTGGCCCCAGGGGGTGACCAAGCCTCCCCAGAGGTC
ATGTTGGGGTCAGAGCCTGCCATGGGTGAGTCTGCTGCGGGAGCTGAGCCAGGCCCGGGGCAGGGGGTGGGAGGG
CTGGGGGACCCAGGCCATCTGACCAGGGAAGAGGTGATGGAACCACCCCTGGAAGAGGAGAGTTTGGAGGCAAAG
AGGGTTCAGGGCTTGGAAGGGCCTAGAAAGGACCTAGAGGAGGCAGGTGGTCTGGGGACAGAGTTCTCCGAGCTG
CCTGGGAAGAGCAGAGACCCTTGGGAGCCTCCCAGGGAGGGTAGGGAGGAGTCAGAGGCTGAGGCCCCCAGGGGA
GCAGAGGAGGCGTTCCCTGCTGAGACCCTGGGCCACACTGGAAGTGATGCCCCTTCACCTTGGCCTCTGGGGTCA
GAGGAAGCTGAGGAGGATGTACCACCAGTGCTGGTCTCCCCCAGCCCAACGTACACCCCGATCCTGGAAGATGCC
CCTGGGCCTCAGCCTCAGGCTGAAGGGAGTCAGGAGGCTAGCTGGGGGGTGCAGGGGAGGGCTGAAGCCCTGGGG
AAAGTAGAGAGCGAGCAGGAGGAGTTGGGTTCTGGGGAGATCCCCGAGGGCCCCCAGGAGGAAGGGGAGGAGAGC
AGAGAAGAGAGCGAGGAGGATCAGGAGGAGGGGAGGGAGCCAGGGGCTGGGCGGTGGGGGCCAGGGTCTTCTGTT
GGCAGCCTCCAGGCCCTGAGTAGCTCCCAGAGAGGGGAATTCCTGGAGTCTGATTCTGTGAGTGTCAGTGTCCCC
TGGGATGACAGCTTGAGGGGTGCAGTGGCTGGTGCCCCCAAGACTGCCCTGGAAACGGAGTCCCAGGACAGTGCT
GAGCCTTCTGGCTCAGAGGAAGAGTCTGACCCTGTTTCCTTGGAGAGGGAGGACAAAGTCCCTGGCCCTCTAGAG
ATCCCCAGTGGGATGGAGGATGCAGGCCCAGGGGCAGACATCATTGGTGTTAATGGCCAGGGTCCCAACTTGGAG
GGGAAGTCACAGCATGTGAATGGGGGAGTGATGAACGGGCTGGAGCAGTCTGAGGAAGTGGGGCAAGGAATGCCG
CTAGTCTCTGAGGGAGACCGAGGGAGCCCCTTTCAGGAGGAGGAGGGGAGTGCTCTGAAGACCTCTTGGGCAGGG
GCTCCTGTTCACCTGGGCCAGGGTCAGTTCCTGAAGTTCACTCAGAGGGAAGGAGATAGAGAGTCCTGGTCCTCA
GGGGAGGAC**TAG**GAAAAGACCATCTGCCCGGCACTGGGGACTTAGGGGTGCGGGGAGGGGAAGGACGCCTCCAAG
CCCGCTCCCTGCTCAGGAGCAGCACTCTTAACTTACGATCTCTTGACATATGGTTTCTGGCTGAGAGGCCTGGCC
CGCTAAGGTGAAAAGGGGTGTGGCAAAGGAGCCTACTCCAAGAATGGAGGCTGTAGGAATATAACCTCCCACCCT
GCAAAGGGAATCTCTTGCCTGCTCCATCTCATAGGCTAAGTCAGCTGAATCCCGATAGTACTAGGTCCCCTTCCC
TCCGCATCCCGTCAGCTGGAAAAGGCCTGTGGCCCAGAGGCTTCTCCAAAGGGAGGGTGACATGCTGGCTTTTGT
GCCCAAGCTCACCAGCCCTGCGCCACCTCACTGCAGTAGTGCACCATCTCACTGCAGTAGCACGCCCTCCTGGGC
CGTCTGGCCTGTGGCTAATGGAGGTGACGGCACTCCCATGTGCTGACTCCCCCCATCCCTGCCACGCTGTGGCCC
TGCCTGGCTAGTCCCTGCCTGAATAAAGTAATGCCTCCGCTTC

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FIGURE 695

GGCGGCGCACAAGTCAGGTCCGGCACATGTTTCCGCGGAGCGGACCCAGCAATGACGGATGATATCACCTCTTCT
TCTCTGGTGAGAGTCTGAGGATAGAGACTTTTTTCTCACC**ATG**AATGTCACCCCAGAGGTCAAGAGTCGTGGGAT
GAAGTTTGCTGAGGAGCAGCTGCTAAAGCATGGATGGACTCAAGGCAAAGGCCTCGGCCGGAAGGAGAATGGTAT
CACTCAGGCTCTCAGGGTGACACTGAAGCAAGACACTCATGGGGTAGGACATGACCCTGCCAAGGAGTTCACAAA
CCACTGGTGGAATGAGCTCTTCAACAAGACTGCGGCCAACTTGGTAGTGGAAACTGGGCAGGATGGAGTACAGAT
AAGGAGCCTTTCTAAGGAGACCACCCGTTATAATCATCCCAAGCCCAACTTGCTGTATCAGAAGTTTGTGAAGAT
GGCTACATTGACTTCAGGTGGAGAGAAGCCAAACAAAGACTTGGAGAGCTGCAGTGATGACGACAACCAGGGGTC
CAAGTCCCCAAAGATTCTGACTGATGAGATGCTGCTCCAAGCCTGTGAGGGGCGAACAGCACACAAGGCTGCCCG
TCTTGGGATCACAATGAAGGCCAAGCTTGCTCGCCTAGAGGCCCAGGAGCAGGCCTTCCTGGCTCGTCTCAAAGG
CCAGGACCCTGGGGCCCCTCAACTGCAGTCAGAGAGCAAGCCCCCCAAAAAAAAGAAAAAGAAAAGGAGGCAGAA
AGAGGAGGAAGAAGCTACAGCATCTGAAAGGAATGATGCAGATGAGAAGCACCCAGAACATGCTGAGCAGAACAT
CAGAAAAAGCAAGAAGAAGAAAAGGCGACATCAAGAAGGAAAGGTCTCAGATGAAAGAGAGGGTACAACTAAAGG
GAATGAGAAGGAGGACGCTGCAGGAACAAGTGGGCTTGGGGAATTGAATAGCAGAGAGCAAACCAATCAGTCCCT
CAGGAAAGGGAAGAAAAAGAAGAGGTGGCACCATGAAGAGGAGAAGATGGGGGTCTTGGAGGAAGGAGGAAAAGG
CAAGGAGGCTGCAGGCAGTGTCAGGACAGAGGAGGTAGAGAGCAGGGCATATGCTGACCCATGCAGCCGAAGAAA
GAAGAGGCAGCAACAGGAGGAGGAGGACTTGAACCTAGAAGATAGAGGTGAGGAAACTTTTAGGTGGTGGAACCA
GGGAAGCAGAGAGCAGAGCATGCAG**TGA**TGGAAGAAGCAGGAAAAGCAAGAAGAAAAGACAGCAGCATCAAGAGG
AGGAGGACATCTTGGATGTAAGGGATGAGAAGGATGGCGGGGCTAGGGAAGCAGAGAGCAGAGCACACACTGGCT
CAAGCAGCAGAGGTAAGAGGAAGAGGCAGCAGCATCCCAAGAAGGAAAGAGCTGGAGTCAGCACTGTCCAGAAAG
CCAAAAAGAAACAGAAGAAGAGAGACTAAAGGTCTGGTAAAGGTAGGGCTCAATTGATTGATTTTCAGGAGTTGA
AGCCTCAAAGACCAGGGTTGATGCAGGTCTGCAGGTCTTCTGCACCCCCCTCAATGAGGAGTCCCTCCCAGAAAG
GAAACTGATCTCTGGGACGTCAGCTGCTGAGAGGAGCAAGCGGTAGTACCACCCCTTAGTTGAGGGAGTCAGCAC
AGTCCTTTCTGCAGCTTCTAACCCAGGACCATGAACTCAGGTGCCTAGAGAAGCCAGGCAGCTAAAGGACAAGGA
ATGCTGGGGGCTGTGGGAACAGGAATGCAGATACCCTTTGAAGGAGCATTCCTGCTAAAAGAAGCTGAAAATGTA
GACCTATGTGAAGTGCTCTGATTTCTAAATATTGTGAAGGTTAAGAAAAACATAAATTTAGGTCTATGGGCTAGA
TTTAGCCCACAGTTGCCAGTTTCTAGCGCTACCAAATGAATGAATAAACATGAGCTTGCGCTCCTAGCCTAGAGA
TAAATCCTGACTGGCATCTCTGTTCCCAGCCTGGGAAGGTCCTGAATACAAATTAGAAGATATTCCTTGGAGGCC
TTTGAAGAAATTCCTTCGGTTAACCTCTTTGTAGTCTTGCTACACTGATAAGTAGAAGTAGCTCCCTGTCTGTGT
CCCAAATGAATAAGAATTGTGTAAAGGACAGCA

FIGURE 696

ATAAGGCCTTCTCAACACCATCACCATCCCTATTCCCTTGTGGAAGCCCCCTAAGAATTTATAGCTCCAGGCAGT
GGTTTGCCAGCCCCCACCATTGCTCCTTGAGGAGCCACAGGGAGGTGTGCCATCCTGCATACTCGAACTTGGATA
GGAGATGGGCTGCTGCTGCTGGGATGTGCAGCAGCTTTGGCCTCTCTCACCCACAGCTGGCTGGTGAGCAGAACA
AGAAGAGGAAATGCTCTGGTTCATCAGGTCTTCACAGTGGACAAGTGCCAGTGACTGACAGTAAAGATGCCCCGC
TCCACCCCGACCATAGTACCTGTTCACAGTACCTTCATTTAATCAGATTAATTGAGAGTCTACTATGGGCCAAGG
AGTTGGGGATTCAGAGTGGAATAAGAATGAGATGGGCCCAGCCCAGATGGAATCTACATAGGCAATTATGAATGGA
AGTGTTGCCTGTGATAGAGGAAGGGTACTCAACTCAGACTTCAGAGAATGGCTTCTAAAAGTAACTGATGTATAA
GCTGAGCTCTGGAGGATAAGAGAAACTCAGAAGGTAAAGGGGGAAAGGGAGAAGAATGTCCCAAGCAGAGGGAGC
AACATGTGCAATAACCTGAAGATGGAAGACTGTCGTACCTTCAAAGAAAAGAAACAGATTGGAATCTGTTATGCT
AATGGTTAGGCTAAAGTAGTGGTCCTGGAGAAAAGTGAAGAGATGAGGCTGGAGATGGCAGGAACAGGCATGCAG
AGCCATATAAGCCAGTCCGATAAATCTGGATTGTGTCATCCTAGGTCAAACAAGACCCAGTGACATGATGACATT
TATGTTTTAGAGAGAACACTGGATGCTTTGTGGAGAAGTCCATCCTCCACAAAGGTTGGGGTGGGGAGTGAGACT
ACAGGTGTTCTTAGGAGGCTGCTGGAGAAAGAAATTAGGCAAGAGATGATGATGGCCCGAAGTGGGGTAGTAGAT
GGTAACAGAGATGTAGAGAAATGGGAAAGATTTGCTAGGTAACATGTATAGCCCTTAGCACATAATGACCATTAC
ATGTTAGCTTCCTCCTATTGGTACAGTAGAAAGTGGAGGCCTGAAGTCCTGGGTTCCAGTCCTGTTTGCCATTAC
TAGCCAGCTGTGGGCTCTTCAGCAAACCACTTTTCACCCTTTTAGCCACATCTGCAAAGCAGGGATGGTCCAGAT
AATCTCTCAGGTCTCCTCTGGCTTCTAAGTCCTTTGAATTAGATGTCCCCTGGCCCCCCCAAAATTTGGCAGCTC
CTGACTTAAGAGACTGTACCCTACCTCCCACGCCCTATTGCTGCTCCCTTAACAGATGGCAGGATCCACGGAACC
TGAAGATCTCAATTCCTGCTGAGGGTCTGGGCAGTCTAAGTAAGCAACAGCAAGGCTGGTCACAGGATCCCACTA
TGTTAGGAAAGTTCTGAGAATTGATAAGGCATACAAGGCAACTGTTCAGGCCCCAGGGAAACCAGGGAAGAGAAA
AAGGATGGACTCTGTTACCCACAGCCTCTAATACCTTCACAAACTTCTGATACAGCAAGTTGGGCTTGGGATGAT
TATAACGGGTGGTCTCCTTAGAAAGGCTCCTTATCTGTACTCCATCCTGTAGAGAATTATCAGTACCAGTGAATG
GGTGACATATCATGACTGCCTACGCCACAGGTCCCAGGCCCTCTGTTTCATGTGCCCATCTATCAAGAGCTCATA
CCTGCCCAGTTTCCACTACCAAGTTGGCCGCAGTCTTGTTGAAGAGCTCATTCCACCAGTGGTTTGTGAACTCCT
TGGCAGGGTCATGTCCTACCTGCCAGGGGAATAAATATGAGCTCTGAGTGCCTGCCTCACCTGCCCTCAAGGGTC
CCCTCTCCCACACATGCTAACCTTCCTCAGTCCACCCAGTCTTACCCCATGAGTGTCTTGCTTCAGTGTCACCCT
GAGAGCCTGAGTGATACCATTCTCCTTCCGGCCGAGGCCTTTGCCTGCAGAGGACAGTGAGCGATTTGGCTTATT
CTCCTGCCTGCTGTGAGACCTCACAAGGCACCCCCCACACAGGCCTCTTGCCATTCCACACACCTGACATTGGGG
TATACTCTGTACCTCTCAGAAGACCTCCTAGCGCACTTCTTTCTAGTACCACTCCATATAGTCCCCTGCCTTTGT
GTGAGCCTGAACTATCTCTTCCTTCAAATTCTTTTGGTAGAGAGCCCATATCTCTTTTTCCCTCCCCTAGTCCTC
CCAACCACCACTTCTTCATTATCCACTGTCAAATTTCTTCCTTTCTTCCCTTTTCTGGGAAAGTTAGAAATTTTC
TTCTGCAAATTTCCCTTTAAACTAGCTTTTCCTCCTTTAATTAAATGGACTACATGGGGGGGTAATCCAGGATGA
TGGCTTTCCCCTGGGCAGATGGTAGGCAGGGAGCTGGGGGATGTGGAAGAGGCCCCATGGGGATCACCTTGAGTC
CATCCATGCTTTAGCAGCTGCTCCTCAGCAAACTTCATCCCACGACTCTTGACCTCTGGGGTGACATTCATGGTG
AGAAAAAAGTCTCTATCCTCAGACTCTCACCAGAGAAGAAGAGGTGATATCATCCTTTTAAGAAGAAAGTAGAAA
GTGCCCAAACAGCCATCAGTTCCATCCTGACTGCTTGTTAAGAATTCTCTGCTAGTTGGGTGCAGTGGCACACAC
CTGTAGTCCCAGCTACATGGGAGGCTGAGGCGGGATTGCTTGAGTCCAGCCTGGGCAGTATAGCAAGACCCTCTC
TCATAAAAAGAATAAAGCGGCCAGGCACAGTGGTTCACATTTGTAATCCCAGCACTTTGGAAGGCCAAGGTAGAA
GAATCACTTGAGCCCAGGAGTTCCAGACCAGTGTGGGCAACGTAGTGAAACCCTGCCTCTAGAAAAAATAAAAAA
TTAAAAAG

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FIGURE 697

GGGCCGGGGGCGCGCGCTCTGCGAGCTGG**ATG**TCCAGGCTGCGGGCGCTGCTGGGCCTCGGGCTGCTGGTTGCGG
GCTCGCGCGTGCCGCGGATCAAAAGCCAGACCATCGCCTGTCGCTCGGGACCCACCTGGTGGGGACCGCAGCGGC
TGAACTCGGGTGGCCGCTGGGACTCAGAGGTCATGGCGAGCACGGTGGTGAAGTACCTGAGCCAGGAGGAGGCCC
AGGCCGTGGACCAGGAGCTATTTAACGAATACCAGTTCAGCGTGGACCAACTTATGGAACTGGCCGGGCTGAGCT
GTGCTACAGCCATCGCCAAGGCATATCCCCCCACGTCCATGTCCAGGAGCCCCCCTACTGTCCTGGTCATCTGTG
GCCCGGGGAATAATGGAGGAGATGGTCTGGTCTGTGCTCGACACCTCAAACTCTTTGGCTACGAGCCAACCATCT
ATTACCCCAAAAGGCCTAACAAGCCCCTCTTCACTGCATTGGTGACCCAGTGTCAGAAAATGGACATCCCTTTCC
TTGGGGAAATGCCCGCAGAGCCCATGACGATTGATGAACTGTATGAGCTGGTGGTGGATGCCATCTTTGGCTTCA
GCTTCAAGGGCGATGTTCGGGAACCGTTCCACAGCATCCTGAGTGTCCTGAAGGGACTCACTGTGCCCATTGCCA
GCATCGACATTCCCTCAGGATGGGACGTGGAGAAGGGAAATGCTGGAGGGATCCAGCCAGACTTGCTCATATCCC
TCACAGCCCCCAAAAAATCTGCAACCCAGTTTACCGGTCGCTACCATTACCTGGGGGGTCGTTTTGTGCCACCTG
CTCTGGAGAAGAAGTACCAGCTGAACCTGCCACCCTACCCTGACACCGAGTGTGTCTATCGTCTGCAG**TGA**GGGA
AGGTGGGTGGGTATTCTTCCCAATAAAGACTTAGAGCCCCTCTCTTCCAGAACTGTGGATTCCTGGGAGCTCCTC
TGGCAATAAAAGTCAGTGAATGGTGGAAGTCAGAGACCAACCCTGGGGATTGGGTGCCATCTCTCTAGGGGTAAC
ACAAAGGGCAAGAGGTTGCTATGGTATTTGGAAACAATGAAAATGGACTGTTAGATGCC

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FIGURE 698

CAGGGGCGAGGGCTACCCGCTCTTTGCCGTGACAACACCGTTCCCCCAGCCGGGCTGGAGGCTGTGCAGAAGGTA
TCCTGCAGACCATGAACTGAGCACTGTTCCCAGACCGTTCATGAGCACAGTGTAAGGTGTGCCGAGACCCACCAC
CCAGCGAGCCCCTCCCCTCCGTAGCACTGAGGACCCCCGGAGAAG**ATG**GGGAGGAAAAAGATTCAGATCCAGCGA
ATCACCGACGAGCGGAACCGACAGGTGACTTTCACCAAGCGGAAGTTTGGCCTGATGAAGAAGGCGTATGAGCTG
AGCGTGCTATGTGACTGCGAGATCGCACTCATCATCTTCAACCACTCCAACAAGCTGTTCCAGTACGCCAGCACC
GACATGGACAAGGTGCTGCTCAAGTACACGGAGTACAATGAGCCACACGAGAGCCGCACCAACGCCGACATCATC
GAGACCCTGAGGAAGAAGGGCTTCAACGGCTGCGACAGCCCCGAGCCCGACGGGGAGGACTCGCTGGAACAGAGC
CCCCTGCTGGAGGACAAGTACCGACGCGCCAGCGAGGAGCTCGACGGGCTCTTCCGGCGCTATGGGTCAACTGTC
CCGGCCCCCAACTTTGCCATGCCTGTCACGGTGCCCGTGTCCAATCAGAGCTCACTGCAGTTCAGCAATCCCAGC
GGCTCCCTGGTCACCCCTTCCCTGGTGACATCATCCCTCACGGACCCGCGGCTCCTGTCCCCCCAGCAGCCAGCA
CTACAGAGGAACAGTGTGTCTCCTGGCCTGCCCCAGCGGCCAGCTAGTGCGGGGGCCATGCTGGGGGGTGACCTG
AACAGTGCTAACGGAGCCTGCCCCAGCCCTGTTGGGAATGGCTACGTCAGTGCTCGGGCTTCCCCTGGCCTCCTC
CCTGTGGCCAATGGCAACAGCCTAAACAAGGTCATCCCTGCCAAGTCTCCACCCCCACCTACCCACAGCACCCAG
CTTGGAGCCCCCAGCCGCAAGCCCGACCTGCGAGTCATCACTTCCCAGGCAGGAAAGGGGTTAATGCATCACTTG
ACTGAGGACCATTTAGATCTGAACAATGCCCAGCGCCTTGGGGTCTCCCAGTCTACTCATTCGCTCACCACCCCA
GTGGTTTCTGTGGCAACGCCGAGTTTACTCAGCCAGGGCCTCCCCTTCTCTTCCATGCCCACTGCCTACAACACA
GATTACCAGTTGACCAGTGCAGAGCTCTCCTCCTTACCAGCCTTTAGTTCACCTGGGGGGCTGTCGCTAGGCAAT
GTCACTGCCTGGCAACAGCCACAGCAGCCCCAGCAGCCGCAGCAGCCACAGCCTCCACAGCAGCAGCCACCGCAG
CCACAGCAGCCACAGCCACAGCAGCCTCAGCAGCCGCAACAGCCACCTCAGCAACAGTCCCACCTGGTCCCTGTA
TCTCTCAGCAACCTCATCCCGGGCAGCCCCCTGCCCCACGTGGGTGCTGCCCTCACAGTCACCACCCACCCCCAC
ATCAGCATCAAGTCAGAACCGGTGTCCCCAAGCCGTGAGCGCAGCCCTGCGCCTCCCCCTCCAGCTGTGTTCCCA
GCTGCCCGCCCTGAGCCTGGCGATGGTCTCAGCAGCCCAGCCGGGGGATCCTATGAGACGGGAGACCGGGATGAC
GGACGGGGGGACTTCGGGCCCACACTGGGCCTGCTGCGCCCAGCCCCAGAGCCTGAGGCTGAGGGCTCAGCTGTG
AAGAGGATGCGGCTTGATACCTGGACATTAAAG**TGA**CGATTCCCACTCCCCTCCTCTCAGCCTCCCTGATGAAGA
GTTGACAATCTCACCGCCCGCCCTTCCCTGCCCCGGGCTCCTCCCGCTCGACCCCCACTTCCTTTCTTGTGCTTC
GTGTCCTGTTGACGGTTACATTTGTGTATAATTATTATATTATT

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FIGURE 699

TTGCGTAGGGGGCGGGACTAAGGCTGTCAATTGGTCTGTTTTTGTGCCGATCAATGAGATGGGTGCGGTGATTGG
CGACTACCTTGAGAGTAGCGGGTTGAGGTGTAAGCCCTGAGGAGGCAGCGTTTTCTGGGCTTCTGTCTGGTTCTC
TCTCTCCAGAAGGTTCTGCCGGTTCCCCCAGCTCTGGGTACCCGGCTCTGCATCGCGTCGCCATG**ATG**GGCCATC
GTCCAGTGCTCGTGCTCAGCCAGAACACAAAGCGTGAATCCGGAAGAAAAGTTCAATCTGGAAACATCAATGCTG
CCAAGACTATTGCAGATATCATCCGAACATGTTTGGGACCCAAGTCCATGATGAAGATGCTTTTGGACCCAATGG
GAGGCATTGTGATGACCAATGATGGCAATGCCATTCTTCGAGAGATTCAAGTCCAGCATCCAGCGGCCAAGTCCA
TGATCGAAATTAGCCGGACCCAGGATGAAGAGGTTGGAGATGGGACCACATCAGTAATTATTCTTGCAGGGGAAA
TGCTGTCTGTAGCTGAGCACTTCCTGGAGCAGCAGATGCACCCAACAGTGGTGATCAGTGCTTACCGCAAGGCAT
TGGATGATATGATCAGCACCCTAAAGAAAATAAGTATCCCAGTCGACATCAGTGACAGTGATATGATGCTGAACA
TCATCAACAGCTCTATTACTACCAAAGCCATCAGTCGGTGGTCATCTTTGGCTTGCAACATTGCCCTGGATGCTG
TCAAGATGGTACAGTTTGAGGAGAATGGTCGGAAAGAGATTGACATAAAAAAATATGCAAGAGTGGAAAAGATAC
CTGGAGGCATCATTGAAGACTCCTGTGTCTTGCGTGGAGTCATGATTAACAAGGATGTGACCCATCCACGTATGC
GGCGCTATATCAAGAACCCTCGCATTGTGCTGCTGGATTCTTCTCTGGAATACAAGAAAGGAGAAAGCCAGACTG
ACATTGAGATTACACGAGAGGAGGACTTCACCCGAATTCTCCAGATGGAGGAAGAGTACATCCAGCAGCTCTGTG
AGGACATTATCCAACTGAAGCCCGATGTGGTCATCACTGAAAAGGGCATCTCAGATTTAGCTCAGCACTACCTTA
TGCGGGCCAATATCACAGCCATCCGCAGAGTCCGGAAGACAGACAATAATCGCATTGCTAGAGCCTGTGGGGCCC
GGATAGTCAGCCGACCAGAGGAACTGAGAGAAGATGATGTTGGAACAGGAGCAGGCCTGTTGGAAATCAAGAAAA
TTGGAGATGAATACTTTACTTTCATCACTGACTGCAAAGACCCCAAGGCCTGCACCATTCTCCTCCGGGGGGCTA
GCAAAGAGATTCTCTCGGAAGTAGAACGCAACCTCCAGGATGCCATGCAAGTGTGTCGCAATGTTCTCCTGGACC
CTCAGCTGGTGCCAGGGGGTGGGGCCTCCGAGATGGCTGTGGCCCATGCCTTGACAGAAAAATCCAAGGCCATGA
CTGGTGTGGAACAATGGCCATACAGGGCTGTTGCCCAGGCCCTAGAGGTCATTCCTCGTACCCTGATCCAGAACT
GTGGGGCCAGCACCATCCGTCTACTTACCTCCCTTCGGGCCAAGCACACCCAGGAGAACTGTGAGACCTGGGGTG
TAAATGGTGAGACGGGTACTTTGGTGGACATGAAGGAACTGGGCATATGGGAGCCATTGGCTGTGAAGCTGCAGA
CTTATAAGACAGCAGTGGAGACGGCAGTTCTGCTACTGCGAATTGATGACATCGTTTCAGGCCACAAAAAGAAAG
GCGATGACCAGAGCCGGCAAGGCGGGGCTCCTGATGCTGGCCAGGAG**TGA**GTGCTAGGCAAGGCTACTTCAATGC
ACAGAACCAGCAGAGTCTCCCCTTTTCCTGAGCCAGAGTGCCAGGAACACTGTGGACGTCTTTGTTCAGAAGGGA
TCAGGTTGGGGGGCAGCCCCCAGTCCCTTTCTGTCCCAGCTCAGTTTTCCAAAAGACACTGACATGTAATTCTTC
TCTATTGTAAGGTTTCCATTTAGTTTGCTTCCGATGATTAAATCTAAGTCATTTG

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FIGURE 700

GAATTGCGGCCGT**ATG**CGCGGCTCTGTGGAGTGCACCTGGGGTTGGGGGCACTGTGCCCCCAGCCCCCTGCTCCT
TTGGACTCTACTTCTGTTTGCAGCCCCATTTGGCCTGCTGGGGGAGAAGACCCGCCAGGTGTCTCTGGAGGTCAT
CCCTAACTGGCTGGGCCCCCTGCAGAACCTGCTTCATATACGGGCAGTGGGCACCAATTCCACACTGCACTATGT
GTGGAGCAGCCTGGGGCCTCTGGCAGTGGTAATGGTGGCCACCAACACCCCCCACAGCACCCTGAGCGTCAACTG
GAGCCTCCTGCTATCCCCTGAGCCCGATGGGGGCCTGATGGTGCTCCCTAAGGACAGCATTCAGTTTTCTTCTGC
CCTTGTTTTTACCAGGCTGCTTGAGTTTGACAGCACCAACGTGTCCGATACGGCAGCAAAGCCTTTGGGAAGACC
ATATCCTCCATACTCCTTGGCCGATTTCTCTTGGAACAACATCACTGATTCATTGGATCCTGCCACCCTGAGTGC
CACATTTCAAGGCCACCCCATGAACGACCCTACCAGGACTTTTGCCAATGGCAGCCTGGCCTTCAGGGTCCAGGC
CTTTTCCAGGTCCAGCCGACCAGCCCAACCCCCTCGCCTCCTGCACACAGCAGACACCTGTCAGCTAGAGGTGGC
CCTGATTGGAGCCTCTCCCCGGGGAAACCGTTCCCTGTTTGGGCTGGAGGTAGCCACATTGGGCCAGGGCCCTGA
CTGCCCCTCAATGCAGGAGCAGCACTCCATCGACGATGAATATGCACCGGCCGTCTTCCAGTTGGACCAGCTACT
GTGGGGCTCCCTCCCATCAGGCTTTGCACAGTGGCGACCAGTGGCTTACTCCCAGAAGCCGGGGGGCCGAGAATC
AGCCCTGCCCTGCCAAGCTTCCCCTCTTCATCCTGCCTTAGCATACTCTCTTCCCCAGTCACCCATTGTCCGAGC
CTTCTTTGGGTCCCAGAATAACTTCTGTGCCTTCAATCTGACGTTCGGGGCTTCCACAGGCCCTGGCTATTGGGA
CCAACACTACCTCAGCTGGTCGATGCTCCTGGGTGTGGGCTTCCCTCCAGTGGACGGCTTGTCCCCACTAGTCCT
GGGCATCATGGCAGTGGCCCTGGGTGCCCCAGGGCTCATGCTGCTAGGGGGCGGCTTGGTTCTGCTGCTGCACCA
CAAGAAGTACTCAGAGTACCAGTCCATAAAT**TAA**GGCCCGCTCTCTGGAGGGAAGGACATTACTGAACCTGTCTT
GCTGTGCCTCGAAACTCTGGAGGTTGGAGCATCAAGTTCCAGCCGGCCCCTTCACTCCCCCATCTTGCTTTTCTG
TGGAACCTCAGAGGCCAGCCTCGACTTCCTGGAGACCCCCAGGTGGGGCTTCCTTCATACTTTGTTGGGGGACTT
TGGAGGCGGGCAGGGGACAGGGCTATTGATAAGGTCCCCTTGGTGTTGCCTTCTTGCATCTCCACACATTTCCCT
TGGATGGGACTTGCAGGCCTAAATGAGAGGCATTCTGACTGGTTGGCTGCCCTGGAAGGCAAGAAAATAGATTTA
TTTTTTTTC

FIGURE 701A

GTCGCGGGCAGCCGCCTCACAGCGATGGCGGCCGAGCAGGGCCGGTGGCGGCGGCGGCTGCGGCTACGGCCGGAG
ACGGCAGTGTTGGCGGTAGTGGTGGGTGGCAGGGGCCTGTGACCGGGAGCTGCCCCCGGACCCGGGCACC**ATG**AG
CCAAGGCCCCCCCACAGGGGAGAGCAGCGAGCCCGAAGCAAAAGTCCTCCACACTAAGCGGCTTTACCGGGCTGT
GGTGGAGGCTGTGCATCGACTTGACCTCATCCTTTGCAACAAAACTGCTTATCAAGAAGTATTCAAACCAGAAAA
CATTAGCCTGAGGAACAAGCTGCGTGAGCTCTGCGTCAAGCTTATGTTCCTGCACCCAGTGGACTATGGGAGAAA
GGCTGAGGAGCTGCTGTGGAGAAAGGTATACTATGAAGTTATCCAGCTTATCAAGACTAACAAAAAGCACATCCA
CAGCCGGAGCACTTTGGAATGTGCCTACAGGACGCACCTGGTTGCTGGTATTGGCTTCTACCAGCATCTCCTTCT
CTATATCCAGTCCCACTACCAGCTGGAACTGCAGTGCTGCATCGACTGGACCCATGTCACTGACCCCCTCATAGG
ATGCAAGAAGCCAGTGTCTGCCTCAGGGAAGGAGATGGATTGGGCACAGATGGCATGTCACCGATGTCTGGTGTA
TCTGGGGGATTTGTCCCGATATCAGAATGAATTAGCTGGCGTAGATACCGAGCTGCTAGCCGAGAGATTTTACTA
CCAAGCCCTGTCAGTAGCTCCTCAGATTGGAATGCCCTTCAATCAGCTGGGCACCCTGGCAGGCAGCAAGTACTA
TAATGTGGAAGCCATGTATTGCTACCTGCGCTGCATCCAGTCAGAAGTGTCCTTTGAGGGAGCCTATGGGAACCT
CAAGCGGCTGTATGACAAGGCAGCCAAAATGTACCACCAACTGAAGAAGTGTGAGACTCGGAAACTGTCTCCTGG
CAAAAAGCGATGTAAAGACATTAAAAGGTTGCTAGTGAACTTTATGTATCTGCAAAGCCTCCTACAGCCCAAAAG
CAGCTCCGTGGACTCAGAGCTGACCTCACTTTGCCAGTCAGTCCTGGAGGACTTCAACCTCTGCCTCTTCTACCT
GCCCTCCTCACCCAACCTCAGCCTGGCCAGTGAGGATGAGGAGGAGTATGAGAGTGGATATGCTTTCCTCCCGGA
CCTTCTCATCTTTCAAATGGTCATCATCTGCCTTATGTGTGTGCACAGCTTGGAGAGAGCAGGATCCAAGCAGTA
CAGTGCAGCCATTGCCTTCACCCTGGCCCTCTTTTCCCACCTCGTCAATCATGTCAACATACGGCTGCAGGCTGA
GCTGGAAGAGGGCGAGAATCCCGTCCCGGCATTCCAGAGTGATGGCACAGATGAACCAGAGTCCAAGGAACCTGT
GGAGAAAGAGGAGGAGCCAGATCCTGAGCCTCCTCCTGTAACACCCCAAGTGGGTGAGGGCAGAAAGAGCCGTAA
GTTCTCTCGCCTCTCCTGTCTCCGCCGTCGCCGCCACCCACCCAAAGTTGGTGATGACAGTGACCTGAGTGAAGG
CTTTGAATCGGACTCAAGCCATGACTCAGCCCGGGCCAGTGAGGGCTCAGACAGTGGCTCTGACAAGAGTCTTGA
AGGTGGGGGAACGGCCTTTGATGCTGAAACAGACTCGGAAATGAATAGCCAGGAGTCCCGATCAGACTTGGAAGA
TATGGAGGAAGAGGAGGGGACACGGTCACCAACCCTGGAGCCCCCTCGGGGCAGATCAGAGGCTCCCGATTCCCT
CAATGGCCCACTGGGCCCCAGTGAGGCTAGCATTGCCAGCAATCTACAAGCCATGTCCACCCAGATGTTCCAGAC
TAAGCGCTGCTTCCGACTGGCCCCCACCTTTAGCAACCTGCTCCTCCAGCCCACCACCAACCCTCATACCTCGGC
CAGCCACAGGCCTTGCGTCAATGGGGATGTAGACAAGCCTTCAGAGCCAGCCTCTGAGGAGGGCTCTGAGTCGGA
GGGGAGTGAGTCCAGTGGACGCTCCTGTCGGAATGAGCGCAGCATCCAGGAGAAGCTTCAGGTCCTGATGGCCGA
AGGTCTGCTTCCTGCTGTGAAAGTCTTCCTGGACTGGCTTCGGACCAACCCCGACCTCATCATCGTGTGTGCGCA
GAGCTCTCAAAGTCTGTGGAACCGCCTGTCTGTGTTGCTGAATCTGTTGCCTGCTGCTGGTGAACTCCAGGAGTC
TGGCCTGGCCTTGTGTCCTGAGGTCCAAGATCTTCTTGAAGGTTGTGAACTGCCTGACCTCCCCTCTAGCCTTCT
GCTCCCAGAGGACATGGCTCTTCGTAACCTGCCCCCGCTCCGAGCTGCCCACAGACGCTTTAACTTTGACACGGA
TCGGCCCCTGCTCAGCACCTTAGAGGAGTCAGTGGTGCGCATCTGCTGCATCCGCAGCTTTGGTCATTTCATCGC
CCGCCTGCAAGGCAGCATCCTGCAGTTCAACCCAGAGGTTGGCATCTTCGTCAGCATTGCCCAGTCTGAGCAGGA
GAGCCTGCTGCAGCAGGCCCAGGCACAGTTCCGAATGGCACAGGAGGAAGCTCGTCGGAACAGGCTCATGAGAGA
CATGGCTCAGCTACGACTTCAGCTCGAAGTGTCTCAGCTGGAGGGCAGCCTGCAGCAGCCCAAGGCCCAGTCAGC
CATGTCTCCCTACCTCGTCCCTGACACCCAGGCCCTCTGCCACCATCTCCCTGTCATCCGCCAACTGGCCACCAG
TGGCCGCTTCATTGTCATCATCCCAAGGACAGTGATCGATGGCCTGGATTTGCTGAAGAAGGAACACCCAGGGGC
CCGGGATGGGATTCGGTACCTGGAGGCAGAGTTTAAAAAAGGAAACAGGTACATTCGCTGCCAGAAAGAGGTGGG
AAAGAGCTTTGAGCGGCATAAGCTGAAGAGGCAGGATGCAGATGCCTGGACTCTCTATAAGATCCTAGACAGCTG
CAAACAGCTGACTCTGGCCCAGGGGGCAGGTGAGGAGGATCCGAGTGGCATGGTGACCATCATCACAGGCCTTCC
ACTGGACAACCCCAGCGTGCTTTCAGGCCCCATGCAGGCAGCCCTGCAGGCCGCTGCCCACGCCAGTGTGGACAT
CAAGAATGTTCTGGACTTCTACAAGCAGTGGAAGGAAATTGGT**TGA**TACTGACCCCCAGGCCCTGCAGTGGGGCT
GACTCCAGATCTCTCCTGCCCTCCCTGGCAGCCAGGACCAGCACCTGTAGTCACCCCACCACACGCAGACTCATG
CACGCACACAGGAGGGAGGCCTAGCTGCTCAGAGGCTGCAGGGAGGGCCCAGGAGCCGGCTGGGAGGGTGGGGTC
CCTTTGTTGCCAAGACGTTAGGAAAGCGAGGAAAGTGCTTGGATTAGGAGAGTCTTGTGGGCCCCTGGCCAGCCT
TCCTGCCTCAGCTCCCCTGCTGTCTCCAGGGGCAGGTGGTAGGCATGGGTACCTGCATTTCACTGGAATGGGTTC
TTGGATCTCTGAGGGGAAGGAACAGCAAAAGAGGCCCTTCTTCCTCACCCAAGATGCAGGGTGGTTGGGGCCAGG

FIGURE 701B

AGTTTGGACCCTCTAGGTCTTGGGGGAAGAGCTGGGTAATACCTGGTGTCTGAGTGATTCTCTGCAGACCCTTCC
CCTCCTCAAGGATCACCCATCCTCCTTTCAGCCCCCTTTATGGGGACCAGGCAGCTCTGGAGCCAGCCACAGGGG
CTGTTAGAGAAGCAAGGCCTGGAGTGGCCTGCACCGAGTAGCAGGGTCAGGGTTCGTGTGCTCCTCCTCCTGCTG
CAGGGGCTGCACATCCCATTGCCCCACTTCTGCTTTGTGTCTCCCTCTGTCTAGCTTCCAGGGCAGGGAGCAGGC
CCCACCTAGGGCTGCAGGCAGTCTGGCCTGTGCCAGCACGGTCTCCTGTGCCCACCAGCCCCACAGGTGCTGTGC
TTTGTGCTCTTGGCTGCTGTGCTGGGACAGAATGGGATGCCAGGAAGAGAAGAAAGGGGGTGCAGTCTGAGGCCA
CCACCCCCCTTCCTATCTAAGGGAGGGCTGAAGACAAGGGGCCGGCATTCAGTGGGCAGCAGAAAGGAGAGGCTC
CTTGAAGCTGCTCAGTCAGAGGCCCCCGTCCCTCCTTTTGCCTTCCGCAGGACTGAAGACCTGAAGGGGCTGGCT
TTTGGAGTGTTGAGGTGAATATCTGGGAGCAGAGATCATGAATAGCTCAGGGCAGTGAATGGCGCACCAAGAGCA
GGGCTGTGTGTGGGAGGCTGCAGCCAGGATTGCCTCAGCTCCTCCCCCTCAGGCTGGGAGGATAGCACAGGCTAG
GGGCTCGGGGTGGAGGGTCTCAGCTCTGCTGCCCCCACCCCAGTACTAGCCTAGCTTCCCAAGCTGTGGCTTAGA
GGATAGTTGGCTTCCTGCCTCTCTCCTCTAAAATAGCAAGTCTGGGAAATCCTGGGGTGAGTGGAGTCACCCCAC
TCCCAGTTGCTGGCAGAGACTGAGACTAAAGCATCACTTAATAAACCCCCCAAGCCC

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FIGURE 702

GCAAGTAGCGCCAATCTAGGCAGCGGCTGTGAGGAAAAAAGGCATGAGGGGTCGTCTTCGGAATCTGTGCCACCC
GGCACTACCATTTCGAGGGTGAAGCTCCTCGACACC**ATG**GTGGACACTTTTCTTCAGAAGCTGGTCGCCGCCGGC
AGCTACCAGAGATTCACTGACTGCTATAAGTGCTTCTACCAGTTGCAGCCTGCGATGACACAGCAAATCTATGAC
AAGTTTATAGCTCAGTTGCAGACATCTATCCGGGAGGAAATCTCTGACATCAAAGAGGAGGGGAACCTAGAAGCT
GTCTTGAATGCCTTGGATAAAATTGTGGAAGAAGGCAAAGTCCGCAAAGAGCCAGCCTGGCGCCCCAGCGGGATC
CCAGAGAAGGATCTGCACAGTGTTATGGCACCCTACTTCCTGCAGCAACGGGACACCCTGCGGCGCCATGTGCAG
AAACAGGAGGCCGAGAACCAGCAGCTGGCAGATGCCGTCCTGGCAGGGCGGAGGCAGGTGGAGGAGCTGCAGCTA
CAGGTCCAGGCCCAGCAGCAGGCCTGGCAGGCTCTACACAGAGAACAGAGGGAGCTGGTTGCTGTGCTGAGGGAG
CCTGAG**TGA**GGAGACCGCCAGCCCCAGAAGCAGAGGGCAGTCAAGGTCAAGAGCCTGTGGTCCAGCATGCCTGGC
CTGGGCGGGCTACCTCTGAGAACGGCTGAAATGGTGCCCAGTCCATCAGCAGTGATGGAATTTGCTGGAGGACTA
GGCCAGAGCAAGCCTCACTGCCACTGTGCCTTTGGGGCACCCTTGGGGTTGGACATACACCCCCTTTAGATTCCT
CTGTTTCTTCTACCTGGATAATTCTTGGCCATGTTCTCTCTTCTCTAGGTTCAGGTCAGCTCTGCCCCTCCGCCC
CCCTCCTGCTGGTTCCCCAGCCCTTTTCCCTGGCCCTGGCTTGGAGAATCTGTTTTCAATCTCCACTGATTGCCC
CCTTGCTGGCCAGCCCAGGGGCCTTTACCATGTTCTCTCCACATCCGTAAATAAACTTCCTTCACTAC

FIGURE 703A

AAACAAGAAGAATGGGATTGATATTTCCGCAGGAAGTTTGGAAGTTATGTAACAGAGCAGGTTGAGATCCTACCT
TTTAGGAGCAGCCTGCCCCTTTTGAAGGGGTAAAGGGAGTGGGTGCAGTGCCCTCTCTTCTGTTGTAGTGGCTTA
TCCCTCTAAGGCATGACCCTTGGATAGGGGTTACCTGCCTCGGAAAGTCCCCACTTCCTTGTGGGAGTTTAAAAT
AGATTGGCATATGTGAGAGATGGAGACAAGGTGGGAAATCGGATCCTGTCTTAGGATTTCTCATCAGGAGATGCT
GATACTTGGTGTTTCAGCTTGATAAATTGAGAAGGTGCCATGAAACCAGGTCCTGGAACAGAATCCCTGGTTGCT
CTGTCTTTTAGCTGCTCTGACCCTCTGCCCTGCAGAGCATGCATTTTGCATGTGCCTGGCAGGAGGCCCTCCTGC
TTGAGCCCTGCTGTATTTGTCTGTGTTGACAACGTGACTGCCAGCCATTAAGCTTGGTCAGTCCACAGACACACT
AGGAAAGCAGAGGCAGCTCTTGGTTTCTCTGGAACAGAGCTGCAAGAAGTCTCTGGGCATCTGCATGGCCAGGAG
CTTATGCTTAACTGTTGAGTGACCTGCAGCCATAAGGGCATTAATTCTGCCTTCCAGAGGTGGGAATGACTTGGC
TTTAAACAGTGATTTGTGTGAGAATTCTTCAAATCCCATAAGGTAGAAGGCATGGTGGAGTAGAGGAGAAATCTT
GGCTCATATCTGCCTCTTCCATTGACCAGCTGTGTGACCTTGGGCCTGTTACTTTTAACCTACCTGACCCTCCAT
TTCCTCATTTATCAGAAGTGTCTAACTGTACACAAGTTAAACTGTAAGGATTACATGAGGTAGTAGTCAATCCTG
GTGTTTCTCTGTATCTTCTCACTTCTCACTGGTGTTGGAAATATGATCTTGCGACCCTAGATGGCAGCCACTCTG
GGGCAGAAGAGACAGTGACCACCTTTTGAAGAGCTCAAAGGAGAATATTGCCCCACAGGGCTTAGTGGGTCCCCC
AGGCTGAGGCTGGGGAGGAGGGCCACCTTTGCCTACAGCAAGTGGCATATCATTGTTCTAGGGGTTCTCTTGACG
GCAGAACTTTGCCTCTAGCTCATTTTCCACAGCCTAGATTTTCCAATCTTGCCAATCCAGTTGACTTCTGTCTTC
TCATTTCCAAGCCATTGTTCTCTCTCTTTCACTATCTACATGGATTATCCTTCATTCAAACTGCTTTGTCCCGGC
TGGGTGCGGTGGCTCATGCCTGTAATCCTAGCACTTTGGGAAGCCGAGGCGGGTGGATCACGAGGTCAGGAGATC
GAGACCATCCTGGCTAACATGGTGAAACCCCGTCTCTACTAAAATTAAAAAAATTAGCCGGGCGTGGTGGCAGGC
GCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCATGAACCCGGGAGGTGGAGCTTGCAGTGGGT
GGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTGAAAAAAAAAACAAAAAAACTGCT
TTGTCCTGTAGGAATCCTGTGCGGGTTATGTGCACCTCCCTCAATCCTTACCTTGAAGCTAAGGTTTCCCCTCAG
CTCTCAAGTACTCAGTTTGCACTGCAGGTAGTCCCTATTTTAACGAAAGTTATACGGTCCAGCTCAGGGAATCCT
GAAAAGCTGCCCTTGCTTCCATGGTAATCAAAAGGCAGTTCTCATGGAATAAAAGCTACCTGAAGCCTGAGTTGG
GACCTTTGGCTGGGGAAGGTGGTTGAGGACGTTCTCTGATTAGATGCTTGGCATGAGGTTTGCTACTGGAACTGC
TAGTGTAGAATGTTTCAGCCCCCTAGAGTTGTCCCTGTGATGTGGCTACCTCCTTTCTCTGGGATTTCTCTTAAA
GTCTGGGGAGCCCCTGCTTCTCATTTCCTGGAATTTATCTTCCCAGTCTCCCTTTCTGGCTGAAAATTTCTAGTA
TCTTACAGAACAGCGGTGGGATACACTGGAGCACATCATATTACCACTAAGTATGTCTAATAAATGATGTCCTCT
GATTTGACATTTCCTAAATGTGAAGCTCCTGATTTTATACAATTTTGAAATTAGTAAGCTTGTTAGTTTTGTTTG
AAATTCTAGGCATTGGATACACTTAACATGAGGGCTACATGTGCATCAACATACTCTGGTTTCCTTCCCTCTGTA
TCTTTTTTTTTTTTGAGATGGAGTCTCACTGTCTCCTAGGCTGGAGTGCAGTGGTGTGATCATGGCTCACTGCAG
CCCCAACCTTCAGGGCTCAGGTGATCCTCCCACCTCAGCCACCCAAGTAGCTGGGACCACAGGTGCATGCCACCA
TGCCTGGCTAACTTATTTTTATATATTGTAGAGACGGAGTCTCCCTATGTTGCCTAGGCTGACCTTGAGCTCTTG
GGCTCAGGTGATCCTCCCACCTTGGCCTCCCAAAGTGTTGGGATTATAGGCGTGAGCCACTGTGTCCAGCCTTTT
CCTCTGTATCTTGTATCCATTCCCCAGAGCGATACTGTGTATCCTTGAACAGACGGTTTCTTGAAGTCAGAGTCT
ATCTCCTCTGTCACTTCTCCCCCTTCATTATCTAAGACTGAGGTTGTGGTTTATATGCTTAGAGTTGAAAGCATG
GGGTCCAACGTGTTCTGTACTCTGTAGTTCCCCAGACTCTTCAGGGAAACTACTTAGCTCTCAGGTGGTTCTTTT
CTGTTTTTCTCAGAGCAAGTTATCTAATAACTGAAGAGGACTCTGCCCTTTGGCCTGTTCCTGACTTTCTAACTC
CTTTTGCTGGAGGAAGGGGAGGTTGAGGGGGGTGCCCTGTGGTGTGAAAGCCCCACTTGCCCTCTCCTCTATACT
TTCTTCCAATGCAGACGGGAGAAAGTATCATAAATGTAGTGACTGTGGGTCAGGGGAGCTCTGAGAGGCCAGCAC
AGGAAACCAGAAACAAAATGAGTCAGTTCGTAGGTGGCGATCAGAGGCACCCTGCTGAGGGTGCAAGGCCACAGG
TGATGCCTCCTCAGTAGGCCCAGGAGCATCAAAACGGGAACAGTCCCTTTCAGCCTTCAGGAGCCTCCCAAATGT
CACTTAGTGATGTCCCATTCACCTGCTTAAAGGCCCTGCATCCTGCCAGGTAGTTGGTTTGTCCATAGCATCCTG
AGCTCTGCTTGGGTGAGCCAGACAAAAAGAATGATTCCTGGCCAGAGTAGTGATACCAGGGCCCAGACAGAGGCA
GAGAGTCCGGATAGAAGATCCTGTAAGCTGGGGTAGGGAGCCGAGGAGGCCATGGAGCCAGGGGAATCATTGAAG
TGAGGGACAATTTCTGGAGGAGGGAAACTGAGTAAGGAAGGCCTGGCCAAGGACCAAGAAGGGGACAGTATCCTG
ATCTATGAAAGAAGACTCAAGTGGGGATTGACAGAGCCAGATTGGGTGGAGTCCAAGCTTTGGGCAGGTGAGTGT
CCAGGAG**ATG**AGGGCTGAGAATGGGCCTTCAGAGCCCAGCCAGAAGGGGAAAGCACAAAGCTCCACCCTCCTTCT

FIGURE 703B

TCACATCCCTCCATACTGCTCAAATCCCAGGTCTTCAGGCACCATGGAGGACAAACGCAACATCCAGATCATCGA
GTGGGAACACCTGGACAAGAAGAAGTTCTACGTGTTTGGTGTGGCAATGACAATGATGATCCGTGTCAGTGTCTA
CCCATTCACCCTCATCCGCACCCGGTTGCAAGTTCAGAAGGGGAAGAGCCTCTACCATGGGACCTTCGATGCCTT
CATCAAGATCCTGCGAGCAGATGGTATCACTGGCCTCTACCGAGGGTTCCTGGTCAATACCTTCACCCTCATCTC
TGGCCAGTGTTATGTCACCACTTATGAGCTCACCCGGAAGTTTGTAGCTGACTACAGCCAGAGTAACACAGTCAA
ATCACTGGTGGCTGGTGGCTCAGCCTCCCTTGTGGCCCAGAGCATCACAGTGCCCATTGATGTAGTCTCCCAGCA
CCTGATGATGCAACGCAAGGGTGAGAAAATGGGCCGCTTTCAGGTGCGGGGGAACCCAGAGGGACAAGGGGTAGT
TGCCTTTGGCCAAACCAAGGACATCATCAGGCAGATCCTGCAGGCTGATGGACTTCGCGGCTTCTATCGAGGCTA
TGTGGCTTCACTGCTTACCTATATCCCAAACAGTGCTGTCTGGTGGCCCTTCTATCACTTCTATGCAGAGCAGCT
CTCCTACCTGTGTCCTAAGGAGTGCCCTCACATTGTCTTTCAAGCTGTCTCGGGGCCCCTGGCTGCAGCCACTGC
CTCCATCCTCACCAATCCCATGGATGTCATACGAACCCGTGTGCAGGTTGAGGGCAAGAACTCCATCATCCTGAC
CTTCAGACAGCTGATGGCAGAAGAAGGGCCTTGGGGCCTCATGAAGGGCCTCTCGGCCAGAATCATCTCAGCCAC
ACCTTCCACCATTGTCATTGTGGTGGGCTATGAGAGCCTCAAGAAACTCAGCCTCCGACCTGAGCTGGTGGACTC
GAGACACTGG**TAA**CCAGTGGTGGGGAGAGAAGCCTGCTGTTTTCCACACTACCGTGGGTCAGGGGCAGAGTGGAG
AGGACAGCACCCTCTCCAGGTGCTCCCACCACACACCCAGCCCTGCCCTGGGCCAAGTGGCCTATCTGGGATAGG
GATAGAGACTTTGAACTGCTCTTGCTGAAGAGGCTCCACGCCTGGATCCCTTGCCCCCACTATTTAAAATTCTCT
TCTGAGCTGGGCTCCCTCACTCAGTCCCTGTATTTGATACTGGCCTAAAGACCCCACCCCCCACCCTGCCAGCCC
TTCTTCTGGCTTCCCCTTCCATCTGTGTCCCTGAGACCCTGAGAAGAGCTGTACATAGAGCTTGCTTACTACCAC
TGGTTCTTCCTCTTGGGCTTTCAGCCCAGACTCCAAGCAGCTGCTATCAACCCTCTCTCCCTTCATCTCTTAGCC
TTGCTTATTTTTATTTTGGGACCGAGCTGCCCACTAGATGACTCTGCTTTTCCCTGCATTTGGGGCTAAGGTGCC
AGGTACTTATTTGCACAGGGAGCAGGAGCAGCAAAAAATCTCTGGTTCTCCAGAGCACTCGTCCTCTCTTTGGAG
GGGTTATTAGGTTGGGAGAAATGTTGATACTTTTGTTTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT
GTGTGTGTTTTAACATCTGTGAACCAGGCTATTAGTCCTGCTAAAGCGCCAATCCTGCTGTCAGAGCTCACCCCC
TTCCTAAGACAGGTAGAAAAATGTAATGTAGCTTTTTCCACAAGCCACTTCCCTGTCCCTTCAGTCTCAGGAGCC
CTAGGAGAGTCTAAGCTGGGGCATCCCCTGGCCCAGAGGACTCCCGTGGTGGGCACAGTTCTAAGTGGATCAGGC
TGTCTTGGGTGCACTGGACTTGGAGCACTACCTTGAGAAGTCAGGTTGAGAAAGTAGTTGATCTAGAAGGCAACA
AGTGGGCATGTGTTCCCCAGCACATTACCCAGGCCAGCAGAGCCAAACCTAGGAGAGGGCAGTGGGTAGATTCTC
TGCCCCAGGCAGCCATGACATACACATAAATACCCCAATCACTCAGACTTACGGCAACAAGTGTTGTCTCACTAT
GGTGATCTCTAAGATCCACATCACTGGATGCGTAGTCATCCCAGTCATGGTACCCTGTGGAGGAATGCTGGAAGA
ACATAAAGAGCAGTTCAGAAAGTCACCCAATACCAGGACCACTGCATTTACCAGCCTGATACTGCCAAGATTATC
TGATGCTCTCCTCAGGAGCTAGGAGAGGAGTGCTCCTTCCTCCCTACCGCTACTCTCCCCAAGCCTGTGTTGCAG
GTAGAGAGGTGCAGCAAATAGAGAAGGCATGTCAAACCCTGCATTTCTACCTGAGACGTGTGACCTGGATGATCC
TCCAAACCCTATTGGTCCCACCCCCTGGGAAAGGCCATGGTGCCAGTTTGAAAGGTGCTAGCTACCTGAAGCCTT
GATATTTCTTCATGGCTGCCGCACATTCTTCCACCTTGGCCAGAACAGGTTCTGAAAACCACTTCTCTACCTTCA
CCACCACCACTGCCCATCTTGATCTCTTTGAGGGTTTTCCCATTTCACTTGATCTTATTTTTGTTTATCCCTTCC
TGCACTTTGTCAAGAGAGTCCTCCAGTTTCTATCCAGGAATGTTCACATCCAAAGGGTTGGACCCACGGATCATT
CTGAATCTTCCTGCCCCTCCTCACTGCTTAACCCTGAGAACCACAAATATAATGGAAGCAGTTCCCCCCACCCTC
ACCCCATCTCTTTAAGCTCATCCTAGCAAGACCTCTAGAGACCCTAGAGACTCGACTTTAGTCCTTCCCCGCCAT
GGCACAGTGGGGAAGGTGTCAATGGGGAGTGTCACGGACAGGAGGTAGGATCCTGCCGCTCGCGTCTTAGTGTTT
CTCCCTCAAGACTTTCCTTCTGTTTTGTTGTCTTGTGCAGTATTTTACAGCCCCTCTTGTGTTTTTCTTTATTTC
TCGTACACACACGCAGTTTTAAGGGTGATGTGTGTATAATTAAAAGGACCCTTGGCCCATACTTTCCTAATTCTT
TAGGGACTGGGATTGGGTTTGACTGAAATATGTTTTGGTGGGGATGGGACGGTGGACTTCCATTCTCCCTAAACT
GGAGTTTTGGTCGGTAATCAAAACTAAAAGAAACCTCTGGGAGACTGGAAACCTGATTGGAGCACTGAGGAACAA
GGGAATGAAAAGGCAGACTCTCTGAACGTTTGATGAAATGGACTCTTGTGAAAATTAACAGTGAATATTCACTGT
TGCACTGTACGAAGTCTCTGAAATGTAATTAAAAGTTTTTATTGAGCCCCCG

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FIGURE 704

GATGAGCAAGTGGTGGGGACGCCCCTGCTGGTGAAATCTGGCGTGGAGTATACACGGCTTGCAGTGGAGACAGCC
CAGGGCCTTGATGGGCACAGCCATCTTGTC**ATG**TACCTGGGAACCACCACAGGGTCGCTCCACAAGGCTGTGGTA
AGTGGGGACAGCAGTGCTCATCTGGTGGAAGAGATTCAGCTGTTCCCTGACCCTGAACCTGTTCGCAACCTGCAG
CTGGCCCCCACCCAGGGTGCAGTGTTTGTAGGCTTCTCAGGAGGTGTCTGGAGGGTGCCCCGAGCCAACTGTAGT
GTCTATGAGAGCTGTGTGGACTGTGTCCTTGCCCGGGACCCCCACTGTGCCTGGGACCCTGAGTCCCGAACCTGT
TGCCTCCTGTCTGCCCCCAACCTGAACTCCTGGAAGCAGGACATGGAGCGGGGGAACCCAGAGTGGGCATGTGCC
AGTGGCCCCATGAGCAGGAGCCTTCGGCCTCAGAGCCGCCCGCAAATCATTAAAGAAGTCCTGGCTGTCCCCAAC
TCCATCCTGGAGCTCCCCTGCCCCCACCTGTCAGCCTTGGCCTCTTATTATTGGAGTCATGGCCCAGCAGCAGTC
CCAGAAGCCTCTTCCACTGTCTACAATGGCTCCCTCTTGCTGATAGTGCAGGATGGAGTTGGGGGTCTCTACCAG
TGCTGGGCAACTGAGAATGGCTTTTCATACCCTGTGATCTCCTACTGGGTGGACAGCCAGGACCAGACCCTGGCC
CTGGATCCTGAACTGGCAGGCATCCCCCCGGGAGCATGTGAAGGTCCCGTTGACCAGGGTCAGTGGTGGGGCCGCC
CTGGCTGCCCAGCAGTCCTACTGGCCCCACTTTGTCACTGTCACTGTCCTCTTTGCCTTAGTGCTTTCAGGAGCC
CTCATCATCCTCGTGGCCTCCCCATTGAGAGCACTCCGGGCTCGGGGCAAGGTTCAGGGCTGTGAGACCCTGCGC
CCTGGGGAGAAGGCCCCGTTAAGCAGAGAGCAACACCTCCAGTCTCCCAAGGAATGCAGGACCTCTGCCAGTGAT
GTGGACGCTGACAACAACTGCCTAGGCACTGAGGTAGCT**TAA**ACTCTAGGCACAGGCCGGGGCTGCGGTGCAGGC
ACCTGGCCATGCTGGCTGGGCGGCCCAAGCACAGCCCTGACTAGGATGACAGCAGCACAAAAGACCACCTTTCTC
CCCTGAGAGGAGCTTCTGCTACTCTGCATCACTGATGACACTCAGCAGGGTGATGCACAGCAGTCTGCCTCCCCT
ATGGGACTCCCTTCTACCAAGCACATGAGCTCTCTAACAGGGTGGGGGCTACCCCCAGACCTGCTCCTACACTGA
TATTGAAGAACCTGGAGAGGATCCTTCAGTTCTGGCCATTCCAGGGACCCTCCAGAAACACAGTGTTTCAAGAGA
CCCTAAAAAACCTGCCTGTCCCAGGACCCTATGGTAATGAACACCAAACATCTAAACAATCATATGCTAACATGC
CACTCCTGGAAACTCCACTCTGAAGCTGCCGCTTTGGACACCAACACTCCCTTCTCCCAGGGTCATGCAGGGATC
TGCTCCCTCCTGCTTCCCTTACCAGTCGTGCACCGCTGACTCCCAGGAAGTCTTTCCTGAAGTCTGACCACCTTT
CTTCTTGCTTCAGTTGGGGCAGACTCTGATCCCTTCTGCCCTGGCAGAATGGCAGGGGTAATCTGAGCCTTCTTC
ACTCCTTTACCCTAGCTGACCCCTTCACCTCTCCCCCTCCCTTTTCCTTTGTTTTGGGATTCAGAAAACTGCTTG
TCAGAGACTGTTTATTTTTTATTAAAAATATAAGGCTT

FIGURE 705

ACTCAGTGTTCGCGGGAGCGCCGCACCTACACCAGCCAACCCAGATCCCGAGGTCCGACAGCGCCCGGCCCAGAT
CCCCACGCCTGCCAGGAGCAAGCCGAGAGCCAGCCGGCCGGCGCACTCCGACTCCGAGCAGTCTCTGTCCTTCGA
CCCGAGCCCCGCGCCCTTTCCGGGACCCCTGCCCCGCGGGCAGCGCTGCCAACCTGCCGGCC**ATG**GAGACCCCGT
CCCAGCGGCGCGCCACCCGCAGCGGGGCGCAGGCCAGCTCCACTCCGCTGTCGCCCACCCGCATCACCCGGCTGC
AGGAGAAGGAGGACCTGCAGGAGCTCAATGATCGCTTGGCGGTCTACATCGACCGTGTGCGCTCGCTGGAAACGG
AGAACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTGGTCAGCCGCGAGGTGTCCGGCATCAAGGCCG
CCTACGAGGCCGAGCTCGGGGATGCCCGCAAGACCCTTGACTCAGTAGCCAAGGAGCGCGCCCGCCTGCAGCTGG
AGCTGAGCAAAGTGCGTGAGGAGTTTAAGGAGCTGAAAGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTG
CTCAGGCTCGGCTGAAGGACCTGGAGGCTCTGCTGAACTCCAAGGAGGCCGCACTGAGCACTGCTCTCAGTGAGA
AGCGCACGCTGGAGGGCGAGCTGCATGATCTGCGGGGCCAGGTGGCCAAGCTTGAGGCAGCCCTAGGTGAGGCCA
AGAAGCAACTTCAGGATGAGATGCTGCGGCGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAACTGG
ACTTCCAGAAGAACATCTACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTCATGAGACCCGACTGGTGGAGATTG
ACAATGGGAAGCAGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAACTGCGGGCCCAGCATGAGGACC
AGGTGGAGCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAGTCTGCTGAGA
GGAACAGCAACCTGGTGGGGGGCTGCCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATCGACAGCCTCTCTGCCC
AGCTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGACCTGGAGGACTCACTGGCCCGTG
AGCGGGACACCAGCCGGCGGCTGCTGGCGGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCAAGGATGCAGCAGC
AGCTGGACGAGTACCAGGAGCTTCTGGACATCAAGCTGGCCCTGGACATGGAGATCCACGCCTACCGCAAGCTCT
TGGAGGGCGAGGAGGAGAGGCTACGCCTGTCCCCCAGCCCTACCTCGCAGCGCAGCCGTGGCCGTGCTTCCTCTC
ACTCATCCCAGACACAGGGTGGGGGCAGCGTCACCAAAAAGCGCAAACTGGAGTCCACTGAGAGCCGCAGCAGCT
TCTCACAGCACGCACGCACTAGCGGGCGCGTGGCCGTGGAGGAGGTGGATGAGGAGGGCAAGTTTGTCCGGCTGC
GCAACAAGTCCAATGAGGACCAGTCCATGGGCAATTGGCAGATCAAGCGCCAGAATGGAGATGATCCCTTGCTGA
CTTACCGGTTCCCACCAAAGTTCACCCTGAAGGCTGGGCAGGTGGTGACGATCTGGGCTGCAGGAGCTGGGGCCA
CCCACAGCCCCCCTACCGACCTGGTGTGGAAGGCACAGAACACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTC
TCATCAACTCCACTGGGGAAGAAGTGGCCATGCGCAAGCTGGTGCGCTCAGTGACTGTGGTTGAGGACGACGAGG
ATGAGGATGGAGATGACCTGCTCCATCACCACCACGTGAGTGGTAGCCGCCGC**TGA**GGCCGAGCCTGCACTGGGG
CCACCCAGCCAGGCCTGGGGGCAGCCTCTCCCCAGCCTCCCCGTGCCAAAAATCTTTTCATTAAAGAATGTTTTG
GAACTTT

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FIGURE 706

GCGCAGACGCCCCAGCCCCCCACCGCCCCCAAAGGGGCGAGCGACGCCAAGCTCTGCGCTCTCTACAAAGAGGCC
GAGCTGCGCCTGAAGGGCAGCAGCAACACCACGGAGTGTGTTCCCGTGCCCACCTCCGAGCACGTGGCCGAGATC
GTGGGCAGGCAAGGCTGCAAGATTAAGGCCTTGAGGGCCAAGACCAACACCTACATCAAGACACCGGTGAGGGGC
GAGGAACCAGTGTTC**ATG**GTGACAGGGCGACGGGAGGACGTGGCCACAGCCCGGCGGGAAATCATCTCAGCAGCG
GAGCACTTCTCCATGATCCGTGCCTCCCGCAACAAGTCAGGCGCCGCCTTTGGTGTGGCTCCTGCTCTGCCCGGC
CAGGTGACCATCCGTGTGCGGGTGCCCTACCGCGTGGTGGGGCTGGTGGTGGGCCCCAAAGGGGCAACCATCAAG
CGCATCCAGCAGCAAACCAACACATACATTATCACACCAAGCCGTGACCGCGACCCCGTGTTCGAGATCACGGGT
GCCCCAGGCAACGTGGAGCGTGCGCGCGAGGAGATCGAGACGCACATCGCGGTGCGCACTGGCAAGATCCTCGAG
TACAACAATGAAAACGACTTCCTGGCGGGGAGCCCCGACGCAGCAATCGATAGCCGCTACTCCGACGCCTGGCGG
GTGCACCAGCCCGGCTGCAAGCCCCTCTCCACCTTCCGGCAGAACAGCCTGGGCTGCATCGGCGAGTGCGGAGTG
GACTCTGGCTTTGAGGCCCCACGCCTGGGTGAGCAGGGCGGGGACTTTGGCTACGGCGGGTACCTCTTTCCGGGC
TATGGCGTGGGCAAGCAGGATGTGTACTACGGCGTGGCCGAGACTAGCCCCCCGCTGTGGGCGGGCCAGGAGAAC
GCCACGCCCACCTCCGTGCTCTTCTCCTCTGCCTCCTCCTCCTCCTCCTCTTCCGCCAAGGCCCGCGCTGGGCCC
CCGGGCGCACACCGCTCCCCTGCCACTTCCGCGGGACCCGAGCTGGCCGGACTCCCGAGGCGCCCCCCGGGAGAG
CCGCTCCAGGGCTTCTCTAAACTTGGTGGGGGCGGCCTGCGGAGCCCCGGCGGCGGGCGGGATTGCATGGTCTGC
TTTGAGAGCGAAGTGACTGCCGCCCTTGTGCCCTGCGGACACAACCTGTTCTGCATGGAGTGTGCAGTACGCATC
TGCGAGAGGACGGACCCAGAGTGTCCCGTCTGCCACATCACAGCCACGCAAGCCATCCGAATATTCTCC**TAA**GCC
CCGTGCCCCATGCCTCCGGGGCCCACTCCACTGGGCCCACCCTGGACCTGTTTTCCACTAAAGCCTTTTGGAAAG
CGGTGATTTGAGGGGCAAGGTGCTTAGAGATACTCGCTCGCTGGGGAAGGGGGGAGGGAGGCAGTGGTGGCTGGA
GGGTGCGCCACTTTCAGAGCCTCTGGTCACCCTGTCCTGGAAAGATTGGGAGGGGGCCAGACTGAAAATTTTACT
AGAGTTACAACTCTGATACCTCAACACACCCTTAAATCTGGAAGCAGCTAAGAGAAACTTTTGTTTTGCCAGAGG
TGGCCACTAAGGCATTCTGACGCCCTCTGCCCACCTCCCCCGCTGTGTGTCACTCCACCCCTTCTTCCGAGGAGG
GGGTGGGTAAAAGGGAGAGGGAGAATTACCACCTGTATCTAGAGGTGCTCTTTGCAATCCCTAAGCCCTCTGGTC
CTGACCTCCCACCTCCCAGCTCTGTCTTGTTCCTTGTCTTTGTCTTTCTTCCCTTCCCCCTGCCCCTGCCCCTAC
CAGCCCAGCTTTGGGGACACCATCCTTCTGGGGAGAAGTAGGGGGAGGAATATTTGGATGGTCCCTCCATTCCTC
TTCAGGCATCTGGAGGCCCTCTCCCCCACTCCTCCAAAGAAACATCTCAAATTATTGATGGAATGTATCCCCATT
CTCAGTGAAAATGTGAGGAGGGGACTAATACTGGGGTAAAGGGTCAAACCCCCACCTTCATCACTATGGGCATTA
TATTTAGGGAGTAGTTCTTGGGCTGGATTTTCTGGTTGTGGAAGTGGGGGCGCCAGAGTAGTGTGTCTGCTATTT
AAAGGAGCAGGAAAGGGCGTGAGGCAGGAGGAGAGACTGGTGGAGGGAAGAGCTGCTCCTCCCATGCAGTGCCCG
ACTCCCTGCACCCCTCTCAACCTGACCTGAACCTTTATTGAATCCTTATTAGCTTGAATCCTTATTAGCTTGAAT
CCTCCATGCAAATCATGGAGTCTGTGTCCCACCTGATGTGGTTGAGGAGAAGCCAGGTCTTCAAAGAGGGGTCAG
CCTGGGGCAAAGCAGGACTGGGGGGAGGTGGGCAGCAGGGCCTATTCTGAGAATCACATATTGTTACAGGCCTTG
CACCCCCTTTGCTGCTTCCCTCCTGCTCATTTGGGGCTGCCACCAGCTCTCCACCCTCCTGGTTCCGCTGGCCGG
GCCAAGAGAGGATGGAGGGATGGGAGTCCCAGGAGATCCTTGTAAATAGTGGGGTGGGACTGTTCTGAGTGATCA
CCCGAGCACTTAAAGCTCCAGAGTCCCATTCTTCCTGGATGGAGCAGGTGGAGGTGCAGAGGGGATTTCCTCCTC
TCCTTCCTCCTGTCGAGAATTAACACCTCTCCACAGCCTTCCCCTCCAGAACACCAGCCAGGGAGGGGTGGGGAA
GGAGGTCACAGCCAAGAAAACTGCCCTGTGACGACTTCCCTCCTTCCCGCCTATGTGAGCCATCCTGAGATGTCT
GTACAATAGAAACCAAACCAAATGGGCACCCTCGGTTGCCGGGGGGCAGGTGGGGAGGGGGGTGGGAAGAAGGGA
TGTCTGTCTGTCGTCCCCCTCCCCCTCTCCACTCTTTACCCACAAAGGCAGAAGACTGTTACACTAGGGGGCTCA
GCAAATTCAATCCCACCCTTACCAATTGAGCCAAACCTAGAAACAAACACAAAACACGAATAGTGAGAGACAAAA
TAGAGGAGAGAAAGAGAGCATGAGAGGGAGCGAGACAGGCGACCAACACAGAGGAGAGAAAACAAAAATAGC

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FIGURE 707

CTCTGCTTCCTTACAGCACCCCCACCTGCCAGAGCTGATCCTCCCTAGGCCCTGCCTAACCTTGAGTTGGCCCCC
AATCCCTCTGGCTGCAGAAGTCCCCTTACCCCCAATGAGAGGAGGGGCAGGACCAGATCTTTTGAGAGCTGAGGG
TTGAGGGCATTGAGCCAACACACAGATTTGTCGCCTCTGTCCCCGAAGACACCTGCACCCTCCATGCGGAGCCAA
G**ATG**GGGAATGGAACTGAGGAAGATTATAACTTTGTCTTCAAGGTGGTGCTGATCGGCGAATCAGGTGTGGGGAA
GACCAATCTACTCTCCCGATTCACGCGCAATGAGTTCAGCCACGACAGCCGCACCACCATCGGGGGTTGAGTTCTC
CACCCGCACTGTGATGTTGGGCACCGCTGCTGTCAAGGCTCAGATCTGGGACACAGCTGGCCTGGAGCGGTACCG
AGCCATCACCTCGGCGTACTATCGTGGTGCAGTGGGGGCCCTCCTGGTGTTTGACCTAACCAAGCACCAGACCTA
TGCTGTGGTGGAGCGATGGCTGAAGGAGCTCTATGACCATGCTGAAGCCACGATCGTCGTCATGCTCGTGGGTAA
CAAAAGTGACCTCAGCCAGGCCCGGGAAGTGCCCACTGAGGAGGCCCGAATGTTCGCTGAAAACAATGGACTGCT
CTTCCTGGAGACCTCAGCCCTGGACTCTACCAATGTTGAGCTAGCCTTTGAGACTGTCCTGAAAGAAATCTTTGC
GAAGGTGTCCAAGCAGAGACAGAACAGCATCCGGACCAATGCCATCACTCTGGGCAGTGCCCAGGCTGGACAGGA
GCCTGGCCCTGGGGAGAAGAGGGCCTGTTGCATCAGCCTC**TGA**CCTTGGCCAGCACCACCTGCCCCCACTGGCTT
TTTGGTGCCCCTTGTCCCCACTTCAGCCCCAGGACCTTTCCTTGCCCTTTGGTTCCAGATATCAGACTGTTCCCT
GTTCACAGCACCCTCAGGGTCTTAAGGTCTTCATGCCCTATCACAAATACCTCTTTTATCTGTCCACCCCTCACA
GACTAGGACCCTCAAATAAAGCTGTTTTATATC

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FIGURE 708

GGAAGCAGCGGGCAGCGGCCCGCGGGAGGCACCTCGGAGATCTGGGTGCAAAAGCCCAGGGTTAGGAACCGTAGG
C**ATG**CTGCGCCCCAAGGCTTTGACCCAGGTGCTAAGCCAAGCCAACACTGGAGGCGTCCAGAGCACCCTGCTGCT
GAATAACGAGGGATCACTGCTGGCCTACTCTGGTTACGGGGACACTGACGCCCGGGTCACCGCTGCCATAGCCAG
TAACATCTGGGCCGCCTACGACCGGAACGGGAACCAAGCGTTTAATGAAGACAATCTCAAATTCATCCTCATGGA
CTGCATGGAGGGCCGTGTAGCCATCACCCGAGTGGCCAACCTTCTGCTGTGTATGTATGCCAAGGAGACCGTGGG
CTTTGGAATGCTCAAGGCCAAGGCCCAGGCTTTGGTGCAGTACCTGGAGGAGCCCCTCACCCAAGTGGCGGCATC
T**TAA**CGGCATTGGTGGAAGCTGGGGTCAGAAAAGAGAAATGACCATTTGGAGGGGCGGGGCCTCCTAGAAGAACC
TTCTTAGACAATGGGGGGAGGATGGGACTTTGTTTTTTCCAAGAATAAACTTCAACTCCTGT

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FIGURE 709

GGAGGAGCCGGGCGGGCTGGCGGGCGGCCGGGTGGCGGCGGCGGC**ATG**GCGGAGCCGAGCGGGGCCGAGACGAGG
CCCCCCATTCGGGTCACCGTCAAGACCCCCAAGGACAAGGAGGAAATTGTGATCTGCGATCGAGCCTCGGTCAAG
GAGTTCAAAGAGGAAATCTCCCGGAGGTTTAAGGCTCAGCAGGATCAGCTGGTCCTGATCTTCGCAGGCAAGATC
CTCAAGGATGGGGACACACTGAACCAGCACGGAATCAAGGACGGGCTCACTGTCCATCTGGTCATCAAGACCCCT
CAGAAGGCTCAAGATCCAGCTGCTGCCACTGCTTCTTCCCCCTCCACACCTGACCCTGCCTCAGCACCCTCCACC
ACGCCTGCTTCACCCGCCACCCCTGCCCAGCCCTCCACCTCTGGCAGTGCCTCTTCAGATGCTGGCAGTGGAAGC
CGGAGGAGCAGTGGTGGGGGGCCCTCTCCGGGGGCTGGGGAGGGATCCCCCAGTGCTACTGCGTCCATACTCTCT
GGCTTTGGGGGCATCCTGGGGCTGGGCAGCCTAGGCCTGGGCTCTGCCAACTTCATGGAGCTGCAGCAGCAGATG
CAGCGGCAGCTGATGTCCAATCCTGAGATGCTGTCACAGATCATGGAGAACCCCCTGGTCCAGGATATGATGTCT
AACCCTGATCTGATGCGTCACATGATTATGGCCAACCCCCAGATGCAGCAGTTGATGGAGCGGAACCCTGAGATC
AGCCACATGCTCAATAACCCTGAACTCATGAGGCAGACAATGGAGCTTGCTCGGAATCCAGCCATGATGCAAGAG
ATGATGCGGAACCAGGACCGGGCCCTGAGCAACCTTGAGAGCATCCCTGGAGGGTATAATGCCCTCCGCCGCATG
TACACGGACATCCAGGAGCCCATGTTCAGTGCTGCCCGGGAACAGTTTGGCAACAATCCCTTCTCTTCCCTGGCC
GGGAACTCCGACAGCTCATCCTCCCAGCCTCTGCGGACTGAGAATCGAGAGCCCCTCCCTAACCCCTGGAGCCCC
TCGCCCCCCACCTCCCAGGCCCCCGGGTCCGGTGGGGAGGGCACCGGAGGATCGGGGACCAGCCAGGTGCACCCG
ACAGTCTCGAACCCCTTTGGGATCAATGCGGCTAGCCTGGGGTCAGGGATGTTCAATAGCCCAGAAATGCAAGCC
CTCCTCCAGCAGATCTCTGAGAACCCCCAGCTGATGCAGAATGTGATCTCAGCACCCTACATGCGCAGCATGATG
CAGACGCTTGCCCAGAACCCCGACTTTGCTGCTCAGATGATGGTGAATGTGCCGCTCTTCGCGGGGAACCCCCAA
CTGCAGGAGCAGCTCCGCCTGCAGCTCCCAGTCTTCCTGCAGCAGATGCAGAACCCAGAGTCACTCTCCATCCTT
ACCAATCCCCGAGCCATGCAGGCATTGCTGCAGATCCAGCAGGGACTACAGACCTTGCAGACCGAGGCCCCTGGG
CTGGTACCCAGCCTTGGCTCCTTTGGGATATCCCGGACCCCAGCACCCTCAGCAGGCAGCAACGCAGGGTCTACG
CCCGAGGCCCCCACTTCCTCACCAGCCACGCCAGCCACATCTTCTCCAACAGGGGCTTCCAGCGCCCAGCAGCAA
CTCATGCAGCAGATGATCCAGCTTTTGGCTGGAAGTGGAAACTCACAGGTGCAGACGCCAGAAGTGAGATTTCAG
CAGCAGCTGGAGCAGCTCAACTCCATGGGCTTCATCAATCGTGAGGCTAACCTGCAGGCCCTGATTGCCACAGGA
GGGGACATCAACGCAGCTATCGAGAGACTGCTGGGCTCCCAGCTCTCC**TAA**TCCCTCGGCCCATGCCTCCTGCCT
CTCCCCTCCCTCGATGTCAGCATTCGGTTCTTCTGTCAATCCTTACCCTCTGCAGCTTGTCCTCCCTTCCGTCTT
CTCCCTCATCCTTTCCAAACAGCAGGGTGACTTTAGAGGCATGGGCTCCAACCCCTTAGCTCTGTCTGAGAATTA
TGGTTTTACTGCTACGTCTCTAACAGACTCTTCTCTCCTGGTCTCCTTGAGCAGTGCTACTTAAACAGTTTTCAC
AGTTTCATTGATTGACTCTACCTCCTTGCCCCACACCACTTTTGCAATCTTTAAACTTTCAGTGGCTGTGCAGAG
TCGAGGGAGGAACCAGCTCTCTGGTTTACTGGAACATAGTCTTCCATCTATACCACTAGGGTTTTGTCTTATGTT
TACTTTTGGTAACTCTCTTCCTTCTTTTTCTCCCTACCCCCCAACCCCTAGCCCAACCAATGCTAGAATTTCTTG
CTCTGAAGGAGGAGCAGGTGAAACAGGTGGTAATTTTCCTTCTCGGCCCCTATTCTGGTTCATTCAGCACTTTTT
GGTGGGAACTGTTGGAAATTCCAGGGTAAGGAGGAAGATGCCTGTTCTCCCTGTCTGAAGAGGGAGATGAGACAG
CTCTCTGGACAGGAATTAACAAACGCTGGAGCAGCCCAGAGGAAATTCGTGTGAAAGAGGAGGGAATGAGATTAT
TCGGAGGAAGGGAATGGGGGAGACAGCCTGAGTAAAAGGCTTGGAAGTTGGAATTAACAGTGGGGAGCAGAAGCA
CTCATAGCTCTTTTAGGCAGAAGAATCCAGGCCCGAGCTGGCAGAAGAGACTTAGAGATGCTAATGGAATTTAAA
CTGAAAAAAGGAGCCCAATGAAGCTAAGCGCCACGCCCCACAAGGGGTCATATTGGCTTTAGTTCCTCAAGCATA
TGTGCTTATATGCACACACACACACATTTCCATGGACCCAGGTCTTGCTTGTGTCCCCAGGCACCAGTAGTTTGA
GCCCCCCTCAAAAGACATGAAGGGGGTTGGGGTCTGTGTGAGTAGTGGGGAGGTGCATGTGTATCCACATGTGTG
CATACACTCTTAAGTTGGGTGGGAAGTGGATTCCTTGTTGGTTTCTGGTTCAGAGTGCTCTCCCACCACCAGAGA
CAAGTGGGTAAAAAGGTCAGTCCATTGCAGGAATATATATCCGGGAGAGCTAGGTCCCTTGGGGCTCTGGATGCT
GGGTAACCCAGAGGTAATGTGGGTACCCTTTCTGAAGCTGTCAGGGCTGTGACTAGCACCCTTATCACCCCTCAC
TGCCTTGTGGGAATAGTAGAGGGTTTTTTTCCTCCAGAGCCCCTGGCCTTTCAGTTCTTAACTATTTCCCTCCAG
GCCAGAAAGTTTTCTTTGAGGAAGGAGAGGAGAGGGTGGCAATGATGCCTTTGATCTGGAATTGGACATTTCTCT
GTCAGAGCACAGAGGAGGCTCATATCACCTCTTCCCTCTCCTACTTGGCCCAGCTGCTTGGAGGACCGACCCCAT
GGCTGAGAATATGACGGCAAGAGGAACAGAGTTTGCTCCAAGTGGGAAAGGGTCCCAAGCAGTCCAGAGAAGATG
TCTGTGTGGCTTTCCCTCCCTGCCTCCCCCAGCTCCCACACTGGCCTTTGTAAATAAATGGCGTGGTCTTTGTTG
TG

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FIGURE 710

GCTCTCTTCCTGTCTTTGTGGCTCCGGAAAGGCGTTTGGGATGCCAACG**ATG**AGGCTGCTGTCATTTGTGGTGTT
GGCTCTATTTGCTGTCACTCAAGCAGAGGAAGGAGCCAGGCTTTTGGCTTCCAAATCACTGCTGAACAGATACGC
CGTGGAGGGACGAGACCTGACCTTGCAGTACAACATCTACAATGTTGGCTCAAGTGCTGCATTAGACGTGGAACT
ATCTGATGATTCCTTCCCTCCAGAAGACTTTGGCATTGTGTCTGGAATGCTCAATGTCAAATGGGACCGGATTGC
CCCTGCTAGCAATGTCTCCCACACTGTGGTCCTGCGCCCTCTCAAGGCTGGTTATTTCAACTTCACCTCGGCAAC
AATTACTTACCTGGCCCAGGAGGATGGGCCCGTTGTGATTGGCTCTACCAGTGCACCTGGACAGGGAGGAATCCT
GGCTCAGCGGGAGTTTGACAGGCGATTCTCCCCTCATTTTCTGGACTGGGCAGCCTTTGGGGTCATGACCCTTCC
CTCCATCGGCATCCCCCTGCTATTGTGGTACTCCAGCAAGAGGAAATATGACACTCCCAAAACGAAGAAGAAC**TG**
ATTGGGGCTTCCACAGCCCTCCTCTCCCAAGAAATCCAGGCTCCTCTCCCAAGAAATCCAGGTGCTTTCCAGACT
CCAAAGGGTATCTTAAATGCAATCTCTTCTCTCTTAGCCCTTGGCCACTTTCTCCTGGATCCTGCCCTGCTCTCA
GCCATAGTGAAGGACCAGCCCTAGGAGTCTGCGAGAGCCTCCTTGGTTCCATCGTGAAGCCATAAACAGGAATGC
CTTTGGCAATAGCCTTGAGCCTAGAGGGCCCTCTGATGCCCCACTGAGGTGCTGTTGGTTTATTGCTGGCAACGT
GAATTCTCTCAGGGGTCTAGGAGGGGCATTTTGGAGACTGCCTGACACCACCCCTATCCCCTGCCTCCCCCTCTC
AGAAGAGGGTGGAAGATGAAATGAAAGCTATGGGACTCTTGGAGGATACCCAGTGTCTATTCTGGGTTAGAGAAG
TGCTTACTAAGGGGTTTTCTAATAAAAACAAATGCCACATTG

FIGURE 711A

GAGACCAACGCGTGCGGGCCGAACCCCTCCCCCCGCCTTCCCCCAACAATACAGGACGCCGGGGTCCGCGCCGCG
TCCTCCCTGGTCCCCCCGTCCGATTATGTCTCGGATCGAATCCCTCACGCGGGCGCGGATCGACCGGAGCAGAGA
GCTGGCGAGCAAGACCCGGGAAAAGGAGAAA**ATG**AAGAAAGCCAAGGATGCCCGCTATACAAATGGGCACCTCTT
CACCACCATTTCAGTTTCAGGCATGACCATGTGCTATGCCTGTAACAAGAGCATCACAGCCAAGGAAGCCCTCAT
CTGCCCAACCTGCAATGTGACTATCCACAACCGCTGTAAAGACACCCTCGCCAACTGTACCAAGGTCAAGCAGAA
GCAACAGAAAGCGGCCCTGCTGAAGAACAACACCGCCTTGCAGTCCGTTTCTCTTCGAAGTAAGACAACCATCCG
GGAGCGGCCAAGCTCGGCCATCTACCCCTCCGACAGCTTCCGGCAGTCCCTCCTGGGCTCCCGCCGTGGCCGCTC
CTCCTTGTCTTTAGCCAAGAGTGTTTCTACCACCAACATTGCTGGACATTTCAATGATGAGTCTCCCCTGGGGCT
GCGCCGGATCCTCTCACAGTCCACAGACTCCCTCAACATGCGGAACCGAACCCTATCCGTGGAATCCCTCATTGA
CGAAGAGGTAATCTACAGTGAGCTGATGAGTGACTTTGAGATGGATGAGAAGGACTTTGCAGCTGACTCTTGGAG
TCTTGCTGTGGACAGCAGCTTCCTGCAGCAGCATAAAAAGGAGGTGATGAAGCAGCAAGATGTCATCTATGAGCT
AATCCAGACAGAGCTGCACCATGTGAGGACACTGAAGATCATGACCCGCCTCTTCCGCACGGGGATGCTGGAAGA
GCTACACTTGGAGCCAGGAGTGGTCCAGGGCCTGTTCCCCTGCGTGGACGAGCTCAGTGACATCCATACACGCTT
CCTCAGCCAGCTATTAGAACGCCGACGCCAGGCCCTGTGCCCTGGCAGCACCCGGAACTTTGTCATCCATCGCTT
GGGTGATCTGCTCATCAGCCAGTTCTCAGGTCCTAGTGCGGAGCAGATGTGTAAGACCTACTCGGAGTTCTGCAG
CCGCCACAGCAAGGCCTTAAAGCTCTATAAGGAGCTGTACGCCCGAGACAAACGCTTCCAGCAATTCATCCGGAA
AGTGACCCGCCCCGCCGTGCTCAAGCGGCACGGGGTACAGGAGTGCATCCTGCTGGTGACTCAGCGCATCACCAA
GTACCCGTTACTCATCAGCCGCATCCTGCAGCATTCCCACGGGATCGAGGAGGAGCGCCAGGACCTGACCACAGC
ACTGGGGCTAGTGAAGGAGCTGCTGTCCAATGTGGACGAGGGTATTTATCAGCTGGAGAAAGGGGCCCGTCTGCA
GGAGATCTACAACCGCATGGACCCTCGGGCCCAAACCCCAGTGCCTGGCAAGGGCCCCTTTGGCCGAGAGGAACT
TCTGAGGCGCAAACTCATCCACGATGGCTGCCTGCTCTGGAAGACAGCGACGGGGCGCTTCAAAGATGTGCTAGT
GCTGCTGATGACAGATGTACTGGTGTTTCTCCAGGAAAAGGACCAGAAGTACATCTTTCCTACCCTGGACAAGCC
TTCAGTGGTATCGCTGCAGAATCTAATCGTACGAGACATTGCCAACCAGGAGAAAGGGATGTTTCTGATCAGCGC
AGCCCCACCTGAGATGTACGAGGTGCACACAGCATCCCGGGATGACCGGAGCACCTGGATCCGGGTCATTCAGCA
GAGCGTGCGCACATGCCCATCCAGGGAGGACTTCCCCCTGATTGAGACAGAGGATGAGGCTTACCTGCGGCGAAT
TAAGATGGAGTTGCAGCAGAAGGACCGGGCACTGGTGGAGCTGCTGCGAGAGAAGGTCGGGCTGTTTGCTGAGAT
GACCCATTTCCAGGCCGAAGAGGATGGTGGCAGTGGGATGGCCCTGCCCACCCTGCCCAGGGGCCTTTTCCGCTC
TGAGTCCCTTGAGTCCCCTCGTGGCGAGCGGCTGCTGCAGGATGCCATCCGTGAGGTGGAGGGTCTGAAAGACCT
GCTGGTGGGGCCAGGAGTGGAACTGCTCTTGACACCCCGAGAGCCAGCCCTGCCCTTGGAACCAGACAGCGGTGG
TAACACGAGTCCTGGGGTCACTGCCAATGGTGAGGCCAGAACCTTCAATGGCTCCATTGAACTCTGCAGAGCTGA
CTCAGACTCTAGCCAGAGGGATCGAAATGGAAATCAGCTGAGATCACCGCAAGAGGAGGCGTTACAGCGATTGGT
CAATCTCTATGGACTTCTACATGGCCTACAGGCAGCTGTGGCCCAGCAGGACACTCTGATGGAAGCCCGGTTCCC
TGAGGGCCCTGAGCGGCGGGAGAAGCTGTGCCGAGCCAACTCTCGGGATGGGGAGGCTGGCAGGGCTGGGGCTGC
CCCTGTGGCCCCTGAAAAGCAGGCCACGGAACTGGCATTACTGCAGCGGCAACATGCGCTGCTGCAGGAGGAGCT
ACGGCGCTGCCGGCGGCTAGGTGAAGAACGGGCAACCGAAGCTGGCAGCCTGGAGGCCCGGCTCCGGGAGAGTGA
GCAGGCCCGGGCACTGCTGGAGCGTGAGGCCGAAGAGGCTCGAAGGCAGCTGGCCGCCCTGGGCCAGACCGAGCC
ACTCCCAGCTGAGGCCCCCTGGGCCCGCAGACCTGTGGATCCTCGGCGGCGCAGCCTCCCCGCAGGCGATGCCCT
GTACTTGAGTTTCAACCCCCCACAGCCCAGCCGAGGCACTGACCGCCTGGATCTACCTGTCACTACTCGCTCTGT
CCATCGAAACTTTGAGGACCGAGAGAGGCAGGAACTGGGGAGCCCCGAAGAGCGGCTGCAAGACAGCAGTGACCC
TGACACTGGCAGCGAGGAGGAAGGTAGCAGCCGTCTGTCTCCGCCCCACAGTCCACGAGACTTTACCAGAATGCA
GGACATCCCGGAGGAGACGGAGAGCCGCGACGGGGAGGCTGTAGCCTCCGAGAGC**TAA**GGGGGCCCCTCCCCCCT
GCCCCGTGCCCCACTGAAGAACATTACTGAGGGGGCTAACCTTGGGGACTCCAATTTGCCAATGATGAGGGAACA
TTTGAAAGAACTGCAAATTGTCCTTGCCAGCTCTTGGGATCCTTGGATACCTGGGGCCATTTAAGAAGCTAGGGG
AATTAGGCCACAACACCCCCTGGGACATCCGAAAGCTACACCACAGATGCCAGTGGTTCATGCCTTCTTCCCGCA
ACTTTAGGAAAATTTATTTATTTATTGTTTATTAGTTATGGGGGGAGAGGGGAGATTTAAAGGACCAGGGACATG
GGAACCAAGCCATAGGGATCAGAGGGCCTTGTCCTTGAACACTACTGGGGTATATTCAGGCTCATCCACGCAGCT
GCTGGGTTCTTGCCCTAACGGCCCTCCCCTGCAACATCCGTCTTGGAGGAGAGGCTGCAGCCACAGCACCCTACT
GCCCTTTAAATAAAGGAGGGCTGTGGGCAGGGCCATGTCCCTTTCTCCTCTCCCCTCAACCTCTTACTGCTGTTC

FIGURE 711B

TCCCTTTCTCCGTCCTTCATGGAAGCCCTGGGAGATAACCTGGCTTCCTGGAGTTGATGGAATAAAGGTTGGGGT
GGCCATAATGGTTTGTTGGGGGTGAGGGAAAAAACCCACAGGGACCAGAATGTTTTGTTGTTCTTTTGTTTTCTT
TTTTGTACCAAAGTCAACTGCACGTGTTTTATATTTTTAAGAGATCGTAGGCAATTAGAGATCGAAGCCTCCTAT
CTCCACATCTCTGAAGAAGTTGAGGGGTGGGGGAGAGAATGACTTCTGCCTTCATCTGCAGTAACGGGGGGACCT
ATACTGACCTCTTCCCCAGCCATTTAGAAACAAGTTCTAGGGTGGGTTGGAAAATCTCCAAGAGCCCTGACCTCA
TCTTCCACCTCAGCAACCATGACCTGAAACCTCAGCGTGAATTTGGGGGATTTTTCAGTGGAACCCTTGCCCCCA
AATGTCGACCAGCCCCCAAATGTCGAAGAATTTTCTTCTTGCCAATTTTGTTGTTTAAAAAAAAAATTCAGGGAA
AATTAAAAACCTGGAACTCCA

FIGURE 712A

CGGGTGGTTGAGTAGAAGCGGTCGCC**ATG**TCCGCGGGGAGCGCGACACATCCTGGAGCTGGCGGGCGCCGCAGCA
AATGGGACCAACCAGCTCCAGCCCCACTTCTCTTCCTCCCGCCAGCGGCCCCAGGTGGGGAGGTCACCAGCAGTG
GGGGAAGTCCTGGGGGCACCACAGCTGCTCCTTCAGGAGCCTTGGATGCTGCTGCTGCTGTGGCTGCCAAGATTA
ATGCCATGCTCATGGCAAAAGGGAAGCTGAAACCAACTCAGAATGCTTCTGAGAAGCTTCAGGCTCCTGGCAAAG
GCCTAACTAGCAATAAAAGCAAGGATGACCTGGTGGTAGCTGAAGTAGAAATTAATGATGTGCCTCTCACATGTA
GGAACTTGCTGACTCGAGGACAGACTCAAGACGAGATCAGCCGACTTAGTGGGGCTGCAGTATCAACTCGAGGGA
GGTTCATGACAACTGAGGAAAAAGCCAAAGTGGGACCAGGGGATCGTCCATTATATCTTCATGTTCAGGGCCAGA
CACGGGAATTAGTGGACAGAGCTGTAAACCGGATCAAAGAAATTATCACCAATGGAGTGGTAAAAGCTGCCACAG
GAACAAGTCCAACTTTTAATGGTGCAACAGTAACTGTCTATCACCAGCCAGCACCCATCGCTCAGTTGTCTCCAG
CTGTTAGCCAGAAGCCTCCCTTCCAGTCAGGGATGCATTATGTTCAAGATAAATTATTTGTGGGTCTAGAACATG
CTGTACCCACTTTTAATGTCAAGGAGAAGGTGGAAGGTCCAGGCTGCTCCTATTTGCAGCACATTCAGATTGAAA
CAGGTGCCAAAGTCTTCCTGCGGGGCAAAGGTTCAGGCTGCATTGAGCCAGCATCTGGCCGAGAAGCTTTTGAAC
CTATGTATATTTACATCAGTCACCCCAAACCAGAAGGCCTGGCTGCTGCCAAGAAGCTTTGTGAGAATCTTTTGC
AAACAGTTCATGCTGAATACTCTAGATTTGTGAATCAGATTAATACTGCTGTACCTTTACCAGGCTATACACAAC
CCTCTGCTATAAGTAGTGTCCCTCCTCAACCACCATATTATCCATCCAATGGCTATCAGTCTGGTTACCCTGTTG
TTCCCCCTCCTCAGCAGCCAGTTCAACCTCCCTACGGAGTACCAAGCATAGTGCCACCAGCTGTTTCATTAGCAC
CTGGAGTCTTGCCGGCATTACCTACTGGAGTCCCACCTGTGCCAACACAATACCCGATAACACAAGTGCAGCCTC
CAGCTAGCACTGGACAGAGTCCGATGGGTGGTCCTTTTATTCCTGCTGCTCCTGTCAAAACTGCCTTGCCTGCTG
GCCCCCAGCCCCAGCCCCAGCCCCAGCCCCCACTCCCAAGTCAGCCCCAGGCACAGAAGAGACGATTCACAGAGG
AGCTACCAGATGAACGGGAATCTGGACTGCTTGGATACCAGCATGGACCCATTCATATGACTAATTTAGGTACAG
GCTTCTCCAGTCAGAATGAGATTGAAGGTGCAGGATCGAAGCCAGCAAGTTCCTCAGGCAAAGAGAGAGAGAGGG
ACAGGCAGTTGATGCCTCCACCAGCCTTTCCAGTGACTGGAATAAAAACAGAGTCCGATGAAAGGAATGGGTCTG
GGACCTTAACAGGGAGCCATGGTGAGTGTGATATAGCTGGGGGAACAGGGGAGTGGCTAAGACTGGTC**TAA**AGCT
ATTAGTTTTCTCAGCCGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGGGCAGATCA
CCTAAGGTCAGGAGTTCAAGACCAGCTTGGCCAACATAGTGAAATCCCATCTCTACTAAAAATACAAAAACTAGC
GGGCATGGTGGTGGGCGCCTGTAATTCCAGCTACTCAGGGGGTTGAGGCAGGAGAATCGCTTCAACCTGGGAGGC
AGAGGTTGCAGTGAGCCAAGATCAGACCACTGCCCTCCAGCCTGGGCAATAGAGCAAGACTCCATCTCATAAATA
AATAAATACATAAATAAAGCTATTAATTTTCTAACCTGATGTTCATTCAGGTGTTTAATCCAACCTCTATAATCT
GTTGGCCAGTGAAAATACTTTTGGGCTGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGG
TGGGCGGATAACCTGAGGTCAGGAGTTTGAGACCAGCGTGGCTAACATGGTGAAACCCCGTCTCTACTAAAAATA
GAAAAATTAAGCTGGGCATGGTGGTGCATGCCTGTAATTCCAGCGGCTTGGAAGGCTGAGGCAGGAGAATCACTT
GAACTTGGGAGGTGGAGGTTGCAGTGAGCCAAGATCACACCACTGCATTCCAGCCTGGGCACTAGAGTGAGACTC
TGTCTCAAAAAAAAAGAAAGAGAAAGAGAAAATAGTTTCTAAAAAATTGTATACAGACAACCTTTTATTTCCAAC
AAACGTGTGCCGAGAGAGAGAGAGAGAAAATAGTTTTAAAAAAATTGTATACAGACAACCTTTTGTTTCCAACCA
ACGTGTATCTAGAAAAGAGTTAGTCGACTTATTTTATACATAGCATCAGTGAATAGTAATGAGTGGTAGGTCATT
TCAAAATCCTGTTGCCTATATTATGTGAATACCAGGAGGTCATCTGATACGGACTTAATAAAGGTTGATTTTGCT
TTATATTGGGAGCTGAGCCACACCTCCCCTTATAACTCTATTGGTCAGTAATGGTCAGTTTGTGGCTGTTAGGAA
AATGTTGCCTTTTAGCATTCCAGAACTCTAAATCCTGTAGAGGTACATGGGATATTTTATTCTTTGCCTGTACTC
ATAAAAATGAACAGAAGAAAATACGTTTTTTTCTTTTCTTAACTTCTTTTCTTTTAACTCTTTAAAAGGTGAAAT
ATCAGCCCTCAAGAGACTCACTTGCTAACTTTCCTTTTTTTCTTTTTTTTTCTTTTTTTGTGTTTCTTTTTTCTT
TCTCTGTTTTCTTACATGGTTCTGGTGGATTCACATTTGCTGATGCTGGTGCTGTTTTTCGTGTGATCTTCAACG
TTTTTGGGTGACCATTGACCCTGTGACCTCAAAATGGTGTCCAACTAACCACTTAAAATTAACATCTTTTTTTTA
ATTAACGAATTTATGGTATTTTTTTTTTTCCCTTGGCGGGGATGGGGTTGGGGTTGTTTTTTCTCTATTCTAGAT
TATCCAGCCAAGAAGATGAAAACTACAGAGAAGGGATTTGGCTTGGTGGCTTATGCTGCAGATTCATCTGATGAA
GAGGAGGAACATGGAGGTCATAAAAATGCAAGTAGTTTTCCACAGGGCTGGAGTTTGGGATACCAATATCCTTCA
TCACAACCACGAGCTAAACAACAGATGCCATTCTGGATGGCTCCCTAGGAAACAGTGGAACAGAGTTTTGACCCT
CAGTGACTCTTCTTAGCAATAATGCATGCATTTGATTTAACAAGACTCTGGGGCCTGTGCTGGGAACCATCTGGA
CCTTTGCAGAAGTTAGAGATTCAGTGCCCCCCTTTCTTAAAGGGGTTCCTTAACAACCACAAAAATCCTTATTTC

FIGURE 712B

TGCAGTGGCATAGAATCTGTTAAAATTTAATTAGAATCACAAATTTATCTCAGAAGCTTTTTAACAGTTGGTGAA
ATGTGCTTGTCCAACAAAGCATCCTAACAGGGTCGTTCCCATACACATTTGACCTGGTCAGCCTTTTCCAGGTGA
ATAGCCCCAGTTCTGACATAAAGAAAGTTTTATTTGTATTTTACTACTGTTTGGTCAATTTTGATATATAACTGG
TTACAAACAGAGCCTTACTATTTATTAGTGGGGAAATGATTTTAAGACCGTCCTTTTCAGTATTTAATTCTGACA
GATCTGCATCCCTGTTTTGTTTTGGATTATTTCTGTTTTGGAAAATGCTGTCTCATTTAAAACTGTTGGATATAG
CTGGATCCTGGATAGGAAAATGAAATTATTTTTTCATTGTGTTTTTTAATTGGGGTGATCCAAAGCTGGCACCTT
CAGGCACATTGGTCTCATAGCCATTACTGTTTTTTATTGCCCTTCTAAGATCCTGTCTTCAGCTGGGTCAGAGAAA
ACTTCTTGACTAAAACTGGTCAGAACTCATCACAGAAATGAAATACAGTGGTCTCTCTCTCCCAGAACTGGTTGC
AGCTAAAACAGAGAGATCTGACTGCTGGCTATAGGATTTTGGACTTAATGACTGAAATTGCAAATTGTCCTTTTT
CTTGGCATTACAGATTTTGCCAAAATAACTTTTTGTATCAAATATTGATGTGTGAAAGTGAAGGAGCTAGTCTGC
TGAACCAGGAATAGTTTGAGATATTGAACTGTCATTTTTGCACATTTGAATACTTTGCAGGCTGGCTTTGTATAA
ACTTATCCTCTGGTTTCCTATATGTTGTAAATATTTAGACCATAATTTCATTATAAATAAATCTATAAATATTC

FIGURE 713

CGCGAGTGAAGGAAGACGAAGTGCGTGACCCGACCGGCTGTGGTGTTCCAGTCCCCACTGACCAGTAGGAGCAGC
AGGGCGTCGGCTTGTGAGGTGGCTTTTCCTCGGGGCAACCGAGGAAGGCCCCAAGAGGACA**ATG**GATTCTGGAAC
TCGCCCAGTTGGTAGCTGCTGTAGCAGCCCCGCTGGGCTCTCACGGGAGTACAAACTAGTGATGCTGGGTGCTGG
TGGTGTAGGGAAGAGTGCCATGACCATGCAGTTCATCAGCCACCGATTCCCAGAAGATCATGATCCCACCATTGA
AGATGCTTATAAGATCAGGATCCGTATTGATGATGAGCCTGCCAATCTGGACATTTTGGATACAGCTGGACAGGC
AGAGTTTACAGCCATGCGGGACCAGTATATGAGGGCAGGAGAAGGGTTTATCATCTGTTACTCTATCACGGATCG
TCGAAGTTTCCATGAAGTTCGTGAGTTTAAACAGCTTATTTATCGAGTCCGACGTACTGACGATACACCTGTGGT
TCTTGTGGGAAACAAGTCAGACCTCAAACAGCTAAGACAGGTCACCAAGGAAGAAGGATTGGCCTTGGCCCGAGA
ATTCAGCTGTCCCTTTTTTGAGACATCTGCTGCATACCGCTACTATATTGATGATGTTTTCCATGCCCTTGTACG
GGAGATACGTAGGAAAGAAAAGGAGGCAGTACTGGCCATGGAGAAAAAATCTAAGCCCAAAAACAGTGTATGGAA
GAGGCTAAAATCACCATTCCGGAAGAAGAAAGATTCAGTAACT**TGA**AGAGAAGATGTGAAGTGTTTATCTGTGAA
CTGCAGTGCTGTATCAAAGCAGTCCAGTAACCTGCAGTACTGAGTATGGTGCTTGCTCTTTCACTTAACTGATAA
GAGGGACATGCCTACTAGGAGTTTTTAATGATGTGGTATTTAAAGTATTGTCTCTTAGTTAAGTATGATTTATTA
ACCCAGTGGAGCACTGTCTGCTTTTAAATTGTCACATTAGAATTTGTTCTACC

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FIGURE 714

CT**ATG**ATGAAAGCAGCCATCAGTGAGACGGAAGATATGCCAATGTTTGAGCCTAAAATGACACGCTCTAAACTGA
AGGAAGTAGTGGAAAAAGGAGTGGTAATTCCAACATGGAATATTTCACCAATTAAGAAGGCCAATGAAATTAAGC
CTCCTCAGTTTGTGGATATCCACCTTGAAGAAGATGATTCCTCAGATGAAGAATACCAGCCGGATGATGAAGAAG
AAGATGAAACTGCTGAAGAGAGCTTATTGGAAAGTGATGTTGAAAGCACTGCTTCATCTCCACGTGGGGCAAAGA
AATCCAGATTGAGGCAGTCTTCTGAGATGACTGAAACAGATGAGGAGAGTGGCATATTATCAGAGGCTGAGAAAG
TCACCACACCAGCCATCAGGCACATCAGTGCTGAGGTAGTGCCCATGGGGCCCCCGCCCCCTCCAAAGCCGAAAC
AGACCAGAGATAGTACTTTCATGGAGAAGTTACATGCGGTAGATGAGGAGCTGGCTTCCAGTCCAGTCTGCATGG
ATTCTTTCCAGCCCATGGATGACAGTCTCATTGCATTTCGAACGCGTTCTAAGATGCCCCTGAAAGATGTTCCCC
TGGGCCAATTAGAGGCAGAGCTCCAAGCTCCAGACATCACTCCAGATATGTATGACCCCAATACGGCAGATGATG
AGGACTGGAAGATGTGGCTGGGGGGACTTATGAATGATGATGTGGGGAATGAAGATGAAGCAGATGATGATGATG
ATCCAGAATATAATTTCCTGGAAGACCTCGATGAACCAGACACAGAGGATTTCCGGACTGACCGGGCAGTGAGAA
TCACCAAAAAGGAAGTAAATGAGCTGATGGAAGAGCTGTTTGAAACTGTGAGTAATGATCCTCGAGTGAGAACAC
GGGATTTTAAGTCAGTTCTCCAGCAAGATGTGTCATTTGGTCTCTGTGATGCTCCCTCTAGGAGAGGGGGTCTGA
CTGAACCAATTCTCCTTTTAGTCTACCTGGGAAAGAATATAATGACAAGGGAATTTTGC**TAA**CTACTAGACTCTT
GATTATATACATGTATGTTGTTCTTATTAACATTTTCCTTGAAACTTCTTTTTGTTTGAGGGGGTTCTTGCTCCA
TCACCCAAGCCAGAGTGCAGTGGTGAAATTACAGCTCACAGCAGCCTTGACCTTCTAGGCTCAAGCAGTCCTTCG
TCTAAGCCTCCTGAGTAGCTGGGACATACCAACACACCCAGCTAATTATTTTATTTGTAGAGACAGGGTCTTACC
ACATTGCTCAGGTTGTTCTGGAACTTCTGGGCTCAAGCAATTTTCCTGCCTTGGGCCTCCCAGTGCTGGAATTAT
AGGTGTGAGCCAGCATGCCTGGCCCCTGGAAAACTTTTGATGACTTCCCCTACTGTCATTTGGTGTGTCCTTAAA
GATTGTCAACTAGTTTTAAACTACTTTGTGTACAAATAATTACCTTTTTCATAAATTTGTTTCAAAAGATTTTTC
ATTTTAAGAGATTGATCATTTTGAGGCTGGGTGCAGTGGCTCACGCTTGTAATCCCAGCACTTTGGGAGGCCACG
GCAGGTGGATCATCTGAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGATGAAACCCTGTCTCTATTAAAAAT
ACAAAAATTAGGCATGGTGGCGGGCACCTGTAGTCACGGTTACTGCAGAGGCTGAGGCAGGAAAATTGCTTGAAC
CTGGGAGGCGGAGGTTGCAGTAAGCCCAGATTGTGCCACTGCACTCCAGCCTGGGCAATAGAGCAAGACTGCAAG
ACTCTGTCTC

FIGURE 715

AGAAATCTTCAGCCAAACAGCTGCAGGAAGTAGAGAAGGTTAAACCCCAGAGTGAGAAAGTTCATCAGACTCTGA
TTCTGGACCCAGCACAGAGGAAGAGACTCCAGCAGCAG**ATG**CAGCAGCACGTTCAGCTCTTGACCCAAATCCACC
TTCTTGCCACCTGCAACCCCAACCTCAATCCGGAGGCCACTACCACCAGGATATTTCTTAAAGAGCTGGGAACCT
TTGCTCAAAGCTCCATCGCCCTTCACCATCAGTACAACCCCAAGTTTCAGACCCTGTTCCAACCCTGTAACTTGA
TGGGAGCTATGCAGCTGATTGAAGACTTCAGCACACATGTCAGCATTGACTGCAGCCCTCATAAAACTGTCAAGA
AGACTGCGAATGAATTTCCCTGTTTGCCAAAGCAAGTGGCTTGGATTCTGGCCACAAGCAAGGTTTTCATGTATC
CAGAGTTACTTCCAGTGTGTTCCCTGAAGGCAAAGAATCCCCAGGATAAGATCGTCTTCACCAAGGCTGAGGACA
ATTTGTTAGCTTTAGGACTGAAGCATTTTGAAGGAACTGAGTTTCCTAATCCTCTAATCAGCAAGTACCTTCTAA
CCTGCAAAACTGCCCACCAACTGACAGTGAGAATCAAGAACCTCAACATGAACAGAGCTCCTGACAACATCATTA
AATTTTATAAGAAGACCAAACAGCTGCCAGTCCTAGGAAAATGCTGTGAAGAGATCCAGCCACATCAGTGGAAGC
CACCTATAGAGAGAGAAGAACACCGGCTCCCATTCTGGTTAAAGGCCAGTCTGCCATCCATCCAGGAAGAACTGC
GGCACATGGCTGATGGTGCTAGAGAGGTAGGAAATATGACTGGAACCACTGAGATCAACTCAGATCGAAGCCTAG
AAAAAGACAATTTGGAGTTGGGGAGTGAATCTCGGTACCCACTGCTATTGCCTAAGGGTGTAGTCCTGAAACTGA
AGCCAGTTGCCACCCGTTTCCCCAGGAAGGCTTGGAGACAGAAGCGTTCATCAGTCCTGAAGCCCCTCCTTATCC
AACCCAGCCCCTCTCTCCAGCCCAGCTTCAACCCTGGGAAAACACCAGCCCGATCAACTCATTCAGAAGCCCCTC
CGAGCAAAATGGTGCTCCGGATTCCTCACCCAATACAGCCAGCCACTGTTTTACAGACAGTTCCAGGTGTCCCTC
CACTGGGGGTCAGTGGAGGTGAGAGTTTTGAGTCTCCTGCAGCACTGCCTGCTGTGCCCCCTGAGGCCAGGACAA
GCTTCCCTCTGTCTGAGTCCCAGACTTTGCTCTCTTCTGCCCCTGTGCCCAAGGTAATGCTGCCCTCCCTTGCCC
CTTCTAAGTTTCGAAAGCCATATGTGAGACGGAGACCCTCAAAGAGAAGAGGAGTCAAGGCCTCTCCCTGTATGA
AACCTGCCCCTGTTATCCACCACCCTGCATCTGTTATCTTCACTGTTCCTGCTACCACTGTGAAGATTGTGAGCC
TTGGCGGTGGCTGTAACATGATCCAGCCTGTCAATGCGGCTGTGGCCCAGAGTCCCCAGACTATTCCCATCACTA
CCCTCTTGGTTAACCCTACTTCCTTCCCCTGTCCATTGAACCAGTCCCTTGTGGCCTCCTCTGTCTCACCCTTAA
TTGTTTCTGGCAATTCTGTGAATCTTCCTATACCATCCACCCCTGAAGATAAGGCCCACGTGAATGTGGACATTG
CTTGTGCTGTGGCTGATGGGGAAAATGCCTTTCAGGGCCTAGAACCCAAATTAGAGCCCCAGGAACTATCTCCTC
TCTCTGCTACTGTTTTCCCGAAAGTGGAACATAGCCCAGGGCCTCCACTAGCAGATGCAGAGTGCCAAGAAGGAT
TGTCAGAGAATAGTGCCTGTCGCTGGACCGTTGTGAAAACAGAGGAGGGGAGGCAAGCTCTGGAGCCGCTCCCTC
AGGGCATCCAGGAGTCTCTAAACAACCCTACCCCTGGGGATTTAGAGGAAATTGTCAAGATGGAACCTGAAGAAG
CTAGAGAGGAAATCAGTGGATCCCCTGAGCGTGATATTTGTGATGACATCAAAGTGGAACATGCTGTGGAATTGG
ACACTGGTGCCCCAAGCGAGGAGTTGAGCAGTGCTGGAGAAGTAACGAAACAGACAGTCTTACAGAAGGAAGAGG
AGAGGAGTCAGCCAACTAAAACCCCTTCATCTTCTCAAGAGCCCCCTGATGAAGGAACCTCAGGGACAGATGTGA
ACAAAGGATCATCAAAGAATGCTTTGTCCTCAATGGATCCTGAAGTGAGGCTTAGTAGCCCCCCAGGGAAGCCAG
AAGATTCATCCAGTGTTGATGGTCAGTCAGTGGGGACTCCAGTTGGGCCAGAAACTGGAGGAGAGAAGAATGGGC
CAGAAGAAGAGGAAGAAGAGGACTTTGATGACCTCACCCAAGATGAGGAAGATGAAATGTCATCAGCTTCTGAGG
AATCTGTGCTTTCTGTCCCAGAACTCCAGGTGAGAGCTGGAGAATATTCTCAAGTATTTCGTGGACTCAGTAATA
TGTATCACTTATTGATATGCCACCTGCTTGCTTGCTGCACTATGGATAGTCCTAAAATCATTTGTATT**TGA**TTTG
TGAATGCATTATGGGACATGATTGTGGAGTTGAGGTGAAATGAGATGGAAAGGATGAAATTTTACTTATTATATT
AAACTCGTTTACACATTAAA

FIGURE 716

ATGAAATGACGGATGAAGCAGTTGGAGACTCTGCTGAGAAGCCTCCTACTTTTGCTTCACCTGAGACTGCTCCAG
AAGTGGAGACCAGCAGAACTCCACCAGGAGAGAGCATCAAAGCTGCTGGAAAAGGCCGGAACAATCATCGAGCTC
GCAACAAGCGGGGAAGTCGGGCTCGGGCCAGCAAGGACACCTCCAAGCTGCTGTTGCTGTATGATGAGGACATTC
TCGAGCGAGATCCACTCAGGGAGCAGAAGGACTTGGCCTTTGCCCAAGCTTATCTGACCAGGGTGCGAGAAGCCC
TACAACATATCCCTGGCAAGTATGAAGACTTCCTTCAAGTCATCTATGAATTTGAGTCAAGTACCCAGAGACGGA
CGGCTGTAGATCTCTACAAAAGCCTGCAAATTCTGCTCCAAGACTGGCCTCAGCTGTTGAAAGACTTTGCTGCTT
TCCTGTTACCTGAGCAAGCTCTGGCCTGTGGATTATTTGAGGAGCAGCAGGCTTTTGAGAAGAGCCGCAAGTTCC
TTCGGCAGCTGGAGATTTGCTTTGCAGAGAACCCCTCACACCACCAGAAGATTATCAAGGTCCTCCAAGGCTGTG
CAGACTGCCTTCCCCAGGAGATCACCGAGCTCAAGACACAGATGTGGCAGCTCCTCAAGGGCCACGACCACCTGC
AGGATGAGTTTTCTATCTTCTTTGACCACTTGCGCCCAGCAGCTAGCCGGATGGGTGACTTTGAAGAGATCAATT
GGACTGAGGAAAAGGAGTATGAGTTTGATGGCTTTGAAGAAGTGGCCCTGCCTGATGTGGAAGAAGAGGAGGAGC
CTCCCAAGATACCCACAGCCTCAAAGAACAAGAGGAAAAAAGAGATCGGGGTCCAAAATCATGATAAGGAGACTG
AATGGCCAGATGGGGCCAAGGACTGTGCCTGCTCCTGCCATGAAGGAGGTCCAGATTCCAAGCTGAAGAAGAGCA
AAAGGCGGAGCTGTAGCCACTGTAGCAGCAAGGTCTGTGACAGCAAATCCTACAAGAGCAAGGAGCCCCATGAGT
TGGTGGGCAGCAGCCCCCACCGAGAGGCTAGTCCTATGCCTGGTGCTAAGGAAGCTGGGCAGGGCAAGGATATGA
TGGAAGAGGAAGCCCCAGAGGAGCGGGAGAGCACTGAGGCCACCCAGAGCAGGACTGTCAGGACCACCAGAAAGG
GAGAGATGCCTGTTTCAGGATTGGCAGTGGGGAGCACTTTGCCATCCCCTCGAGAAGTGACTGTTACAGAACGGC
TCCTCCTGGATGGCCCACCACCTCATTCACCAGAGACTCCTCAATTTCCCCCCACAACTGGAGCTGTACTGTACA
CTGTTAAGAGAAACCAGGTTGGGCCTGAGGTTCGCTCCTGCCCCAAGGCATCCCCCAGACTTCAGAAAGAGAGGG
AGGGCCAAAAGGCAGTGAGTGAGTCAGAGGCTTTGATGCTGGTCTGGGATGCATCAGAAACTGAGAAATTGCCTG
GTACCGTGGAACCCCCTGCTTCCTTCCTGAGTCCTGTTTCCTCAAAGACCAGAGATGCAGGGAGAAGACATGTGT
CCGGGAAACCAGACACTCAAGAGAGATGGCTGCCCTCAAGCAGAGCTCGGGTGAAGACAAGAGACAGGACGTGCC
CTGTCCATGAATCTCCATCAGGAATTGACACCTCAGAGACTTCTCCCAAAGCCCCTAGAGGGGGTTTGGCTAAAG
ACAGTGGAACACAGGCCAAGGGTCCAGAGGGGGAGCAGCAGCCAAAGGCCGCAGAAGCTACGGTGTGTGCCAACA
ACAGCAAGGTCAGCTCCACTGGGGAAAAGGTTGTCCTGTGGACAAGGGAAGCTGACCGTGTGATCCTCACCATGT
GCCAGGAGCAAGGGGCACAGCCACAGACCTTCAACATCATCTCCCAGCAGCTGGGAAATAAGACCCCTGCTGAGG
TTTCCCACCGTTTTCGAGAACTCATGCAGCTCTTCCACACTGCCTGTGAAGCCAGCTCTGAGGATGAGGATGATG
CAACCAGTACCAGCAATGCAGACCAGCTGTCTGACCATGGGGACCTTCTGTCTGAAGAGGAGCTGGATGAATGAG
ACTCTGGGAATCATCTACACAGGACCAAACCCAACAGGCGCCCTGGCACCGGGGAGGGGGTAGTTGTACTCTGCT
TGTACAGTCCTTGAGCCCAGTTTACAGATCTGGAGAGCAGGAGGCCAGGACAAGGACAAAGGCTGGAGGATGGAG
TAGGACCCAGGGGCTCTGCCATCCTAGGCATCATTCAAGGTCTTTTATGAAGACTTTACAGATGTCCTCTGTAAA
TAGCATCGAGAGTGGAGTTCAGCTCCTTTCTCTACTTTTTTTTGGTCTGATGGCACATATTTATTGTTCTGTGGT
CTAATCACAGTGTTTCTAAATGTAAAAAGTGCATATGTTGGTGTAGCTAGTCCCGCGACATTGAGCTCCTCTGCA
TGAAGACACTGGGCTCCTGCATCCAGCTGTTTTTATTGCAAACTAGCTCCTTTCTCCCACACTGGGAACTTTAGT
CCACGAGGCTGTCACCACCCTGGTAGCACTGGGCCAGGCTTTGTAGCTCCTGCAGCAGCTCTGCTACGTCATCGT
GCTCCACTCCAGCATCCATGAAGCTGGCCCAGCGCCGCAAGTCGAGTTTGGTGAGGTCTCTGGCCAAGGCTTCCA
GGGTCTGGTGCAGGGACGAAGAGGAACACAGTGCCCCAAACACTGGGATGCTCTCCACTGCTGTGGAGGGAGAGG
AAACAGAGACCTGTAGATGGATGATTATTCTGCCCTGGGACTCGCCAAACTGATAAGGAAGTCCAACCTTAGTAG
ACTTGATTGTAAACTCAACAAATTTGGTGTATTGTCCCCTTAGTACACCAGTACTCCAGAGGAAGAATGCTTTTC
TTGGGAGCCATAGGGTGAATAAAGGAATGTTTAACTGTGG

FIGURE 717

CCTTTTTTGCAGTCTCAGGACGGGCGCTTTGGAGCCGGCCCCAGGCAGCGTGTGTCGGTCGCCTAGTCTGGAGAA
CTAGTCCTCGACTCACGGTGAGGGAATGGACCGACACGGGTATTGTACCGCTGAGGGAAAGGAGCGGGACTCCGG
ACCTCCAGGAGTGCAAGG**ATG**ATGCTGAAAGGAATAACAAGGCTTATCTCTAGGATCCATAAGTTGGACCCTGGG
CGTTTTTTACACATGGGGACCCAGGCTCGCCAAAGCATTGCTGCTCACCTAGATAACCAGGTTCCAGTTGAGAGT
CCGAGAGCTATTTCCCGCACCAATGAGAATGACCCGGCCAAGCATGGGGATCAGCACGAGGGTCAGCACTACAAC
ATCTCCCCCCAGGATTTGGAGACTGTATTTCCCCATGGCCTTCCTCCTCGCTTTGTGATGCAGGTGAAGACATTC
AGTGAAGCTTGCCTGATGGTAAGGAAACCAGCCCTAGAACTTCTGCATTACCTGAAAAACACCAGTTTTGCTTAT
CCAGCTATACGATATCTTCTGTATGGAGAGAAGGGAACAGGAAAAACCCTAAGTCTTTGCCATGTTATTCATTTC
TGTGCAAAACAGGACTGGCTGATACTACATATTCCAGATGCTCATCTTTGGGTGAAAAATTGTCGGGATCTTCTG
CAGTCCAGCTACAACAAACAGCGCTTTGATCAACCTTTAGAGGCTTCAACCTGGCTGAAGAATTTCAAAACTACA
AATGAGCGCTTCCTGAACCAGATAAAAGTTCAAGAGAAGTATGTCTGGAATAAGAGAGAAAGCACTGAGAAAGGG
AGTCCTCTGGGAGAAGTGGTTGAACAGGGCATAACACGGGTGAGGAACGCCACAGATGCAGTTGGAATTGTGCTG
AAAGAGCTAAAGAGGCAAAGTTCTTTGGGTATGTTTCACCTCCTAGTGGCCGTGGATGGAATCAATGCTCTTTGG
GGAAGAACCACTCTGAAAAGAGAAGATAAAAGCCCGATTGCCCCCGAGGAATTAGCACTTGTTCACAACTTGAGG
AAAATGATGAAAAATGATTGGCATGGAGGCGCCATTGTGTCGGCTTTGAGCCAGACTGGGTCTCTCTTTAAGCCC
CGGAAAGCCTATCTGCCCCAGGAGTTGCTGGGAAAGGAAGGATTTGATGCCCTGGATCCCTTTATTCCCATCCTG
GTTTCCAACTATAACCCAAAGGAATTTGAAAGTTGTATTCAGTATTATTTGGAAAACAATTGGCTTCAACATGAG
AAAGCTCCTACAGAAGAAGGGAAAAAAGAGCTGCTGTTCCTAAGTAACGCGAACCCCTCGCTGCTGGAGCGGCAC
TGTGCCTACCTC**TAA**GCCAAGATCACAGCATGTGAGGAAGACAGTGGACATCTGCTTTATGCTGGACCCAGTAAG
ATGAGGAAGTCGGGCAGTACACAGGAAGAGGAGCCAGGCCCTTGTACCTATGGGATTGGACAGGACTGCAGTTGG
CTCTGGACCTGCATTAAAATGGGTTTCACTGTGAATGCGTGACAATAAGATATTCCCTTGTTCCTAAAACTTTAT
ATCAGTTTATTGGATGTGGTTTTTCACATTTAAGATAATTATGGCTCTTTTCCTAAAAAATAAAATATCTTTCT

FIGURE 718

CAAACAGCAGAAGGAGGTAGAGAAGGTTAAACCCCAGTGTAAGGAAGTTCATCAGACCCTGATTCTGGACCCAGC
ACAAAGGAAGAGACTCCAGCAGCAG**ATG**CAGCAGCATGTTCAGCTCTTGACACAAATCCACCTTCTTGCCACCTG
CAACCCCAATCTCAATCCGGAGGCCAGTAGCACCAGGATATGTCTTAAAGAGCTGGGAACCTTTGCTCAAAGCTC
CATCGCCCTTCACCATCAGTACAACCCCAAGTTTCAGACCCTGTTCCAACCCTGTAACTTGATGGGAGCTATGCA
GCTGATTGAAGACTTCAGCACACATGTCAGCATTGACTGCAGCCCTCATAAAACTGTCAAGAAGACTGCCAATGA
ATTTCCCTGTTTGCCAAAGCAAGTGGCTTGGATCCTGGCCACAAGCAAGGTTTTCATGTATCCAGAGTTACTTCC
AGTGTGTTCCCTGAAGGCAAAGAATCCCCAGGATAAGATCCTCTTCACCAAGGCTGAGGACAATTTGTTAGCTTT
AGGACTGAAGCATTTTGAAGGGACTGAGTTTCTTAACCCTCTAATCAGCAAGTACCTTCTAACCTGCAAGACTGC
CCGCCAACTGACAGTGAGAATCAAGAACCTCAACATGAACAGAGCTCCTGACAACATCATTAAATTTTATAAGAA
GACCAAACAGCTGCCAGTCCTAGGAAAATGCTGTGAAGAGATCCAGCCACATCAGTGGAAGCCACCTATAGAGAG
AGAAGAACACCGGCTCCCATTCTGGTTAAAGGCCAGTCTGCCATCCATCCAGGAAGAACTGCGGCACATGGCTGA
TGGTGCTAGAGAGGTAGGAAATATGACTGGAACCACTGAGATCAACTCAGATCAAGGCCTAGAAAAAGACAACTC
AGAGTTGGGGAGTGAAACTCGGTACCCACTGCTATTGCCTAAGGGTGTAGTCCTGAAACTGAAGCCAGTTGCCGA
CCGTTTCCCCAAGAAGGCTTGGAGACAGAAGCGTTCATCAGTCCTGAAACCCCTCCTTATCCAACCCAGCCCCTC
TCTCCAGCCCAGCTTCAACCCTGGGAAAACACCAGCCCAATCAACTCATTCAGAAGCCCCTCCGAGCAAAATGGT
GCTCCGGATTCCTCACCCAATACAGCCAGCCACTGTTTTACAGACAGTTCCAGGTGTCCCTCCACTGGGGGTCAG
TGGAGGTGAGAGTTTTGAGTCTCCTGCAGCACTGCCTGCTATGCCCCCTGAGGCCAGGACAAGCTTCCCTCTGTC
TGAGTCCCAGACTTTGCTCTCTTCTGCCCCTGTGCCCAAGGTAATGATGCCCTCCCCTGCCTCTTCCATGTTTCG
AAAGCCATATGTGAGACGGAGACCCTCAAAAAGAAGGGGAGCCAGGGCCTTTCGCTGTATCAAACCTGCCCCTGT
TATCCACCCTGCATCTGTTATCTTCACTGTTCCTGCTACCACTGTGAAGATTGTGAGCCTTGGCGGTGGCTGTAA
CATGATCCAGCCTGTCAATGCGGCTGTGGCCCAGAGTCCCCAGACTATTCCCATCGCCACCCTCTTGGTTAACCC
TACTTCCTTCCCCTGTCCATTGAACCAGCCCCTTGTGGCCTCCTCTGTCTCACCCTTAATTGTTTCTGGCAATTC
TGTGAATCTTCCTATACCATCCACCCCTGAAGATAAGGCCCACATGAATGTGGACATTGCTTGTGCTGTGGCTGA
TGGGGAAAATGCCTTTCAGGGCCTAGAACCCAAATTAGAGCCCCAGGAACTATCTCCTCTCTCTGCTACTGTTTT
CCCCAAAGTGGAACATAGCCCAGGGCCTCCACCAGTCGATAAACAGTGCCAAGAAGGATTGTCAGAGAACAGTGC
CTATCGCTGGACCGTTGTGAAAACAGAGGAGGGAAGGCAAGCTCTGGAGCCGCTCCCTCAGGGCATCCAGGAGTC
TCTAAACAACTCTTCCCCTGGGGATTTAGAGGAAGTTGTCAAGATGGAACCTGAAGATGCTACAGAGGAAATCAG
TGGATTTCTT**TGA**GCTAGGAGAATAAGAGTCTGGAGACTGGGAGCCTTCACTTCGGCCTCCGATTGGTGGCGCAT
AGGGTGTAACCAATAGGAAACCCCTAAAGGGTACTTAAACCCCAGATTTTGCAACTGGGGCTCTTGAGCAGCTTG
CTTTAGCCTGCTCCCACTCTGTGGAATATACTTTTGCTTCAATAAATCTGTGCTTTTATTGC

FIGURE 719

AGCGCAGT**ATG**GCGGGCGGGGCCCGGGAGGTGCTCACACTGCAGTTGGGACATTTTGCCGGTTTCGTGGGCGCGC
ACTGGTGGAACCAGCAGGATGCTGCGCTGGGCCGAGCGACCGATTCCAAGGAGCCCCCGGGAGAGCTGTGCCCCG
ACGTCCTGTATCGTACGGGCCGGACGCTGCACGGCCAGGAGACCTACACGCCGCGACTCATCCTCATGGATCTGA
AGGGTAGTTTGAGCTCCCTAAAAGAGGAAGGTGGACTCTACAGGGACAAACAGTTGGATGCTGCAATAGCATGGC
AGGGGAAGCTCACCACACACAAAGAGGAACTCTATCCCAAGAACCCTTATCTCCAAGACTTTCTGAGTGCAGAGG
GAGTGCTGAGTAGTGATGGTGTCTGGAGGGTCAAATCCATTCCCAATGGCAAAGGTTCCTCACCACTCCCCACCG
CTACAACTCCAAAACCACTTATCCCTACAGAGGCCAGCATCAGGGTCTGGTCAGACTTCCTCAGAGTCCATCTCC
ATCCCCGGAGCATCTGTATGATTCAGAAGTACAACCACGATGGGGAAGCAGGTCGGCTGGAGGCTTTTGGCCAAG
GGGAAAGTGTCCTAAAGGAACCCAAGTACCAGGAAGAGCTGGAGGACAGGCTGCATTTCTACGTGGAGGAATGTG
ACTACTTGCAGGGCTTCCAGATCCTGTGTGACCTGCACGATGGCTTCTCTGGGGTAGGCGCGAAGGCGGCAGAGC
TGCTACAAGATGAATATTCAGGGCGGGGAATAATAACCTGGGGCCTGCTACCTGGTCCCTACCATCGTGGGGAGG
CCCAGAGAAACATCTATCGTCTATTAAACACAGCTTTTGGTCTCGTGCACCTGACTGCTCACAGCTCTCTTGTCT
GCCCCTTGTCCTTGGGTGGGAGCCTGGGCCTGCGACCCGAGCCACCTGTCAGCTTCCCTTACCTGCATTATGATG
CC**TGA**GGCCAAGTGCCCATCTTGGTGTCTTCTTACAGGCCACTCTGCCCTTCCACTGCAGTGCCATCCTGGCTAC
AGCCCTGGACACAGTCACTGTTCCTTATCGCCTGTGTTCCTCTCCAGTTTCCATGGTTCATCTGGCTGACATGCT
GAGCTTCTGTGGGAAAAAGGTGGTGACAGCAGGAGCAATCATCCCTTTCCCCTTGGCTCCAGGCCAGTCCCTTCC
TGATTCCCTGATGCAGTTTGGAGGAGCCACCCCATGGACCCCACTGTCTGCATGTGGGGAGCCTTCTGGAACACG
TTGCTTTGCCCAGTCAGTGGTGCTGAGGGGTATAGACAGAGCATGCCACACAAGCCAGCTCACCCCAGGGACACC
TCCACCCTCTGCCCTTCATGCATGTACCACTGGGGAAGAAATCTTGGCTCAGTATTTACAACAGCAGCAGCCTGG
AGTCATGAGTTCTTCCCATCTGCTGCTGACTCCCTGCAGGGTGGCTCCTCCTTACCCCCACCTCTTCTCAAGCTG
CAGTCCACCGGGTATGGTTCTGGATGGTTCCCCCAAGGGAGCAGCAGTGGAGAGCATCCCAGTGTTTGGGGCACT
GTGTTCCTCTTCGTCCCTGCACCAGACCCTGGAAGCCTTGGCCAGAGACCTCACCAAACTCGACTTGCGGCGCTG
GGCCAGCTTCATGGATGCTGGAGTGGAGCACGATGACGTAGCAGAGCTGCTGCAGGAGCTACAAAGCCTGGCCCA
GTGCTACCAGGGTGGTGACAGCCTCGTGGACTAAAGTTCCCAGTGTGGGAGAAAGGAGCTAGTTTGCAATAAAAA
CAGCTGGATGCAGGAGCCCAGTGTCTTCATGCAGAGGAGCTCAATGTCGCGGGACTAGCTACACCAACATATGCA
CTTTTTACATTTAGAAACACTGTGATTAGACCACAGAACAATAAATATGTGCCATCAGACC

FIGURE 720

AGGAATTTCGCATATCTCCTTCGCAGTGCAGCTCCTTCAATCTCACCATGGCCTCTGCCAGAATGCAGATCCTGG
GAGTCGTCCTGACACTGCTGGGCTGGGTGAATGGCCTGGTCTCCTGCGTCCTGCCCATGTGGAAAGTGACCACTT
TCATCGGCAACAGCATCGTGGTGGCCAGGTGGTGTGGGAGGGCCTGTGGATGTCCTGAGTGGTGCAGAGCACTAG
CCAG**ATG**CAGTGCAAGGTGTACGACTCACTGCTGGCGCTGCCACAGGACCTGCAGGCTGCACGTGCCGTCTGTGT
CATCACCCTCCTTGTGGCCCTGTTCGGCTTGCTGGTCTACCTTGCTGGGGCCAAGTGTACCACCTGTGTGGAGGA
GAAGGATTCCAAGGCCCGCCTGGTGCTCACCTCTGGGATTGTCTTTGTCACCTCAGGGGTCCTGACACTAATCCC
CGTTTGCTGGACGGCGCATGCCATCATCTGGGACTTCTATAACCCCCTGGTGGCTGAGGCCCAAAAGTGGGAGCT
GGGGGCCTCCCTCTACTTGGGCTGGGCGGCCTCAGGCCTTTTGTTGCTGGGTGGCAGGCTGCTGTGCTGCACTTG
CCCCTCCGGGGGGTCACGGGGCCCCAGCCATTACATGGCCCGCTACTGGACATCTGCCCCTGCCATCTCTCGGGG
GACCTCTGAGTACCCTACCAAGAATTACGTC**TGA**CATGGAAGTGAATGGGGGCTCCGCTGGCACTAGAGCCATCC
AGAAGTGGCAGTGCCCAA

FIGURE 721A

CGCCTCCCCTCAGTTTGCCCCCTTTAGCCTTCCACCTTTCCCTTCTCCTCTCTCGCATTTCCGCCAGTCAGCTTA
CCCGCTGGCCGCCTCCTGACAAGCGGGAGGGATCCGCCGTGGACCCAGGGAAGCGGAGGAGCCTGGCGGCCACCC
CCTCTTCCCCACTTCCCTGCACTCTCATCGCTCTCGGCCTCGGCCTCGGCCTCCGACACGAGAAAGATGCTGGTT
TCGAGTTTTGGAGATCCTTGTTTTTTATGGAACACAGTTCTGTAAAATTTTCATAAGATTCCTTGGCAATAACAT
ACGCTTGTG**ATG**GACCCTAGAAATACTGCTATGTTAGGATTGGGTTCTGATTCCGAAGGTTTTTCAAGAAAGAGT
CCTTCTGCCATCAGTACTGGCACATTGGTCAGTAAGAGAGAAGTAGAGCTAGAAAAAAACACAAAGGAGGAAGAG
GACCTTCGCAAACGGAATCGAGAAAGAAACATCGAAGCTGGGAAAGATGATGGTTTGACTGATGCACAGCAACAG
TTTTCAGTGAAAGAAACAAACTTTTCAGAGGGAAATTTAAAATTGAAAATTGGCCTCCAGGCTAAGAGAACTAAA
AAACCTCCAAAGAACTTGGAGAACTATGTATGTCGACCTGCCATAAAAACAACTATTAAGCACCCAAGGAAAGCA
CTTAAAAGTGGAAAGATGACGGATGAAAAGAATGAACACTGTCCTTCAAAACGAGACCCTTCAAAGTTGTACAAG
AAAGCAGATGATGTTGCAGCCATTGAATGCCAGTCTGAAGAAGTCATCCGTCTTCATTCACAGGGAGAAAACAAT
CCTTTGTCTAAGAAGCTGTCTCCAGTACACTCAGAAATGGCAGATTATATTAATGCAACGCCATCTACTCTTCTT
GGTAGCCGGGATCCTGATTTAAAGGACAGAGCATTACTTAATGGAGGAACTAGTGTAACAGAAAAGTTGGCACAG
CTGATTGCTACCTGTCCTCCTTCCAAGTCTTCCAAGACAAAACCGAAGAAGTTAGGAACTGGCACTACAGCAGGA
TTGGTTAGCAAGGATTTGATCAGGAAAGCAGGTGTTGGCTCTGTAGCTGGAATAATACATAAGGACTTAATAAAA
AAGCCAACCATCAGCACAGCAGTTGGATTGGTAACTAAAGATCCTGGGAAAAAGCCAGTGTTTAATGCAGCAGTA
GGATTGGTCAATAAGGACTCTGTGAAAAAACTGGGAACTGGCACTACAGCGGTATTCATTAATAAAAACTTAGGC
AAAAAGCCAGGAACTATCACTACAGTAGGACTGCTAAGCAAAGATTCAGGAAAGAAGCTAGGAATTGGTATTGTT
CCAGGTTTAGTGCATAAAGAGTCTGGCAAGAAGTTAGGACTTGGCACTGTGGTTGGACTGGTTAATAAAGATTTG
GGAAAGAAATTGGGTTCTACTGTTGGCCTAGTGGCCAAGGACTGTGCAAAGAAGATTGTAGCAAGTTCAGCAATG
GGATTGGTTAATAAGGACATTGGAAAGAAACTAATGAGTTGTCCTTTGGCAGGTCTGATCAGTAAAGATGCCATA
AACCTTAAAGCCGAAGCACTGCTCCCCACTCAGGAACCGCTTAAGGCTTCTTGTAGTACAAACATCAATAATCAG
GAAAGTCAGGAACTTTCTGAATCCCTGAAAGATAGTGCCACCAGCAAAACTTTTGAAAAGAATGTTGTACGGCAG
AATAAAGAAAGCATATTGGAAAAGTTCTCAGTACGAAAAGAAATCATTAATTTGGAGAAAGAAATGTTTAATGAA
GGAACATGCATTCAGCAAGACAGTTTCTCATCCAGTGAAAAGGGATCTTATGAAACCTCAAAGCATGAAAAGCAG
CCTCCTGTATATTGCACTTCTCCGGACTTTAAAATGGGAGGTGCTTCTGATGTATCTACCGCTAAATCCCCATTC
AGTGCAGTAGGAGAAAGCAATCTCCCTTCCCCATCACCTACTGTATCTGTTAATCCTTTAACCAGAAGTCCCCCT
GAAACTTCTTCACAGTTGGCTCCTAATCCATTACTTTTAAGTTCTACTACAGAACTAATCGAAGAAATTTCTGAA
TCTGTTGGAAAGAACCAGTTTACTTCTGAAAGTACCCACTTGAACGTTGGTCATAGGTCAGTTGGTCATAGTATA
AGTATTGAATGTAAAGGGATTGATAAAGAGGTAAATGATTCAAAAACTACCCATATAGATATTCCAAGAATAAGC
TCTTCCCTTGGAAAAAAGCCAAGTTTGACTTCTGAATCCAGCATTCATACTATTACTCCTTCAGTTGTTAACTTC
ACTAGTTTATTTAGTAATAAGCCTTTTTTAAAACTGGGTGCAGTATCTGCATCAGACAAACACTGCCAAGTTGCT
GAAAGCCTAAGTACTAGTTTGCAGTCCAAACCATTAAAAAAAAGAAAAGGAAGAAAACCTCGGTGGACTAAAGTG
GTGGCAAGAAGCACATGCCGGTCTCCAAAAGGGCTAGAATTAGAAAGATCAGAGCTTTTTAAAAACGTTTCATGT
AGCTCACTATCAAATAGTAATTCTGAGCCAGCCAAGTTTATGAAAAACATTGGACCCCCTTCATTTGTAGATCAT
GACTTCCTTAAACGCCGATTGCCAAAGTTGAGCAAATCCACAGCTCCATCTCTTGCTCTCTTAGCTGATAGTGAA
AAACCATCTCATAAGTCTTTTGCTACTCACAAACTATCCTCCAGTATGTGTGTCTCTAGTGACCTTTTGTCTGAT
ATTTATAAGCCCAAAAGAGGAAGGCCTAAATCTAAGGAGATGCCTCAACTGGAAGGGCCACCTAAAAGGACTTTA
AAAATCCCTGCTTCTAAAGTGTTTTCTTTACAGTCTAAGGAAGAACAAGAACCCCCAATTTTACAGCCAGAAATT
GAAATCCCTTCCTTCAAACAAGGTCTGTCTGTGTCTCCTTTTCCAAAAAAGAGAGGCAGGCCTAAGAGGCAAATG
AGGTCACCAGTCAAGATGAAGCCACCTGTACTGTCAGTGGCTCCATTTGTTGCCACTGAAAGTCCAAGCAAGCTA
GAATCTGAAAGTGACAACCATAGAAGTAGCAGTGATTTCTTTGAGAGCGAGGATCAACTTCAGGATCCAGATGAC
CTAGATGACAGTCATAGGCCAAGTGTCTGTAGTATGAGTGACCTTGAGATGGAACCAGATAAAAAAATTACCAAG
AGAAACAATGGACAATTAATGAAAACAATTATCCGCAAAATAAATAAAATGAAGACTTTAAAGAGAAAGAAACTG
TTGAATCAGATTCTTTCAAGTTCTGTAGAATCAAGTAATAAAGGGAAAGTGCAATCCAAACTCCATAATACGGTA
TCAAGTCTTGCTGCCACATTTGGCTCTAAATTGGGCCAACAGATAAATGTCAGCAAGAAAGGAACCATTTATATA
GGAAAGAGAAGAGGTCGCAAACCAAAAACTGTCTTAAATGGTATTCTTTCTGGTAGTCCTACTAGCCTTGCTGTT
CTTGAGCAAACAGCTCAACAGGCAGCTGGGTCAGCATTAGGACAGATTCTTCCCCCATTACTGCCTTCATCTGCT

FIGURE 721B

AGTAGTTCTGAGATTCTTCCATCACCTATTTGCTCTCAGTCTTCTGGGACTAGTGGAGGTCAGAGCCCTGTAAGT
AGTGATGCAGGTTTTGTTGAACCCAGTTCAGTGCCATATTTGCATTTACACTCCAGACAGGGCAGTATGATTCAG
ACTCTTGCAATGAAGAAGGCCTCAAAGGGGAGGAGGCGGTTATCTCCTCCTACTTTGTTGCCAAATTCTCCTTCG
CACTTGAGTGAACTCACATCTCTAAAAGAAGCTACTCCTTCCCCAATCAGTGAGTCTCATAGTGATGAGACCATT
CCCAGTGATAGTGGAATTGGAACAGATAATAACAGCACATCAGACAGGGCAGAGAAATTTTGTGGGCAAAAAAAG
AGGAGGCATTCTTTTGAGCATGTTTCTCTGATTCCCCCTGAAACCTCTACAGTGCTAAGCAGTCTTAAAGAAAAA
CATAAACACAAATGTAAGCGCAGGAATCATGATTACCTCAGCTATGACAAGATGAAAAGGCAGAAACGAAAACGG
AAAAAGAAATATCCCCAGCTTCGAAATAGACAGGATCCAGACTTTATTGCAGAGCTGGAGGAACTAATAAGTCGC
CTAAGTGAAATTCGGATCACTCATCGAAGTCATCATTTTATCCCCCGAGATCTTCTGCCAACTATCTTTCGAATC
AACTTTAATAGTTTCTATACACATCCTTCTTTCCCCTTAGACCCTTTGCACTACATTCGAAAACCTGACTTAAAA
AAGAAAAGAGGGAGACCCCCTAAGATGAGGGAGGCAATGGCTGAAATGCCTTTTATGCACAGCCTTAGTTTTCCT
CTTTCTAGTACTGGATTCTATCCATCTTATGGTATGCCTTACTCTCCTTCACCCCTTACAGCTGCTCCCATAGGA
TTAGGTTACTATGGAAGGTATCCTCCCACTCTTTATCCACCTCCTCCATCTCCTTCTTTCACCACGCCACTTCCA
CCTCCTTCCTATATGCATGCTGGTCATTTACTTCTCAATCCTGCCAAATACCATAAGAAAAAGCATAAGCTACTT
CGACAGGAGGCCTTTCTTACAACCAGCAGGACTCCCCTCCTTTCCATGAGTACCTACCCCAGTGTTCCTCCTGAG
ATGGCCTATGGTTGGATGGTTGAGCACAAACACAGGCACCGTCACAAACACAGAGAACACCGTTCTTCTGAACAA
CCCCAGGTTTCTATGGACACTGGCTCTTCCCGATCTGTCCTGGAATCTTTGAAGCGCTATAGATTTGGAAAGGAT
GCTGTTGGAGAGCGATATAAGCATAAGGAAAAGCACCGTTGTCACATGTCCTGCCCTCATCTCTCTCCTTCAAAA
AGCTTAATAAACAGAGAGGAACAGTGGGTCCACCGAGAGCCTTCAGAATCTAGTCCATTGGCCTTGGGATTGCAG
ACACCTTTACAGATTGACTGTTCAGAAAGTTCTCCAAGCTTATCCCTTGGAGGATTCACTCCCAACTCTGAGCCA
GCCAGCAGTGATGAACATACAAACCTTTTCACAAGTGCAATAGGCAGCTGCAGAGTTTCAAACCCTAACTCCAGT
GGCCGGAAGAAATTAACTGACAGCCCTGGACTCTTTTCTGCACAGGACACTTCACTAAATCGGCTTCACAGAAAG
GAGTCACTGCCTTCTAACGAAAGGGCAGTACAGACTTTGGCAGGCTCCCAGCCAACCTCTGATAAACCCTCCCAG
CGGCCATCAGAGAGCACAAATTGTAGCCCTACCCGGAAAAGGTCTTCATCTGAGAGTACTTCTTCAACAGTAAAC
GGAGTTCCCTCTCGAAGTCCAAGATTAGTTGCTTCTGGGGATGACTCTGTGGATAGTCTGCTGCAGCGGATGGTA
CAAAATGAGGACCAAGAGCCCATGGAGAAAAGTATTGATGCTGTGATTGCAACTGCCTCTGCACCACCTTCTTCC
AGTCCAGGCCGTAGCCACAGCAAGGACCGAACCCTGGGAAAACCAGACAGCCTTTTAGTGCCTGCAGTCACAAGT
GACTCTTGCAATAATAGCATCTCACTCCTATCTGAAAAGTTGACAAGCAGCTGTTCCCCCCATCATATCAAGAGA
AGTGTAGTGGAAGCTATGCAACGCCAAGCTCGGAAAATGTGCAATTACGACAAAATCTTGGCCACAAAGAAAAAC
CTAGACCATGTCAATAAAATCTTAAAAGCCAAAAAACTTCAAAGGCAGGCCAGGACAGGGAATAACTTTGTGAAA
CGTAGGCCAGGTCGACCTCGGAAATGTCCCCTTCAGGCTGTCGTATCAATGCAAGCATTCCAGGCTGCTCAGTTT
GTCAACCCAGAATTGAACAGAGACGAGGAAGGAGCAGCACTGCACCTCAGTCCTGACACAGTTACAGATGTAATT
GAGGCTGTTGTTCAGAGTGTAAATCTGAACCCAGAACATAAAAAGGGGTTGAAGAGAAAAGGTTGGCTATTGGAA
GAACAGACCAGAAAAAAGCAGAAGCCATTACCAGAGGAAGAAGAGCAAGAGAATAATAAAAGCTTTAATGAAGCA
CCAGTTGAGATTCCCAGTCCTTCTGAAACCCCAGCTAAACCTTCTGAACCTGAAAGTACCTTGCAGCCTGTGCTT
TCTCTCATCCCAAGGGAAAAGAAGCCCCCACGTCCCCCAAAGAAGAAGTATCAGAAAGCAGGGCTGTATTCTGAC
GTTTACAAAACTACAGACCCAAAGAGTCGATTGATCCAATTAAAGAAAGAGAAGCTGGAGTATACTCCAGGAGAG
CATGAATATGGATTATTTCCAGCGCCCATTCATGTTGTGTTTTTTGTTTCAGGAAAGTATCTAAGACAAAAGAGA
ATTGACTTCCAGCTTCCTTATGATATCCTTTGGCAGTGGAAACACAATCAGCTATACAAAAAGCCAGATGTCCCA
CTATATAAGAAAATTCGTTCAAATGTCTACGTTGATGTCAAACCCCTTTCTGGTTACGAAGCTACCACCTGTAAC
TGTAAGAAGCCAGATGATGACACCAGGAAGGGCTGTGTTGATGACTGCCTCAATAGAATGATCTTTGCTGAGTGT
TCCCCCAACACTTGCCCATGTGGCGAGCAATGCTGTAACCAGAGGATACAGAGGCATGAATGGGTGCAATGTCTA
GAACGATTTCGAGCTGAGGAAAAAGGTTGGGGAATCAGAACCAAAGAGCCCCTAAAAGCTGGGCAGTTCATCATT
GAATACCTAGGGGAGGTCGTCAGTGAACAGGAGTTCAGGAACAGGATGATTGAGCAGTATCATAATCACAGTGAC
CACTACTGCCTGAACCTGGATAGTGGGATGGTGATTGACAGTTACCGCATGGGAAATGAGGCCCGATTCATCAAC
CATAGCTGTGACCCAAATTGTGAAATGCAGAAATGGTCTGTTAATGGAGTATACCGGATTGGACTCTATGCTCTT
AAAGACATGCCAGCTGGGACTGAACTCACTTATGATTATAACTTTCATTCCTTCAATGTGGAAAAACAGCAACTT
TGTAAGTGTGGCTTTGAGAAATGTCGAGGAATCATCGGAGGCAAGAGTCAGCGTGTGAATGGACTCACCAGCAGC

FIGURE 721C

AAAAACAGCCAGCCCATGGCCACACACAAAAAATCTGGACGGTCAAAAGAGAAGAGAAAGTCTAAGCACAAGCTG
AAGAAAAGGAGAGGCCATCTCTCTGAGGAACCCAGTGAAAATATCAACACCCCAACTAGATTGACCCCCCAATTA
CAGATGAAGCCAATGTCCAATCGTGAAAGGAACTTTGTGTTAAAGCATCATGTATTCTTGGTCCGAAACTGGGAG
AAGATTCGTCAAAAACAGGAGGAAGTAAAGCACACCAGTGATAATATTCACTCAGCATCATTATATACCCGTTGG
AATGGGATCTGCCGAGATGATGGGAATATCAAGTCTGATGTCTTCATGACCCAGTTCTCTGCCCTGCAGACAGCT
CGATCTGTTCGAACAAGACGGTTGGCAGCTGCAGAGGAAAATATTGAAGTGGCTCGGGCAGCCCGCCTAGCCCAG
ATCTTCAAAGAAATTTGTGATGGTATCATCTCTTATAAAGATTCTTCCCGGCAAGCACTGGCAGCTCCACTTTTG
AACCTTCCCCCAAAGAAAAAGAATGCTGATTATTATGAGAAGATCTCTGATCCCCTAGATCTTATCACCATAGAG
AAGCAGATCCTCACTGGTTACTATAAGACAGTGGAAGCTTTTGATGCTGACATGCTCAAAGTCTTTCGGAATGCT
GAGAAGTACTATGGGCGTAAATCCCCAGTTGGGAGAGATGTTTGTCGTCTACGAAAGGCCTATTACAATGCCCGG
CATGAGGCATCAGCCCAGATTGATGAGATTGTGGGAGAGACAGCAAGTGAGGCAGACAGCAGTGAGACCTCAGTC
TCTGAAAAGGAGAATGGGCATGAGAAGGACGACGATGTTATTCGCTGTATCTGTGGCCTCTACAAGGATGAAGGT
CTCATGATCCAGTGTGACAAGTGCATGGTATGGCAGCACTGTGATTGTATGGGAGTGAACTCAGATGTGGAGCAC
TACCTTTGTGAGCAGTGTGACCCAAGGCCTGTGGACAGGGAGGTTCCCATGATCCCTCGGCCCCACTATGCCCAA
CCTGGCTGTGTCTACTTCATCTGTTTGCTCCGAGATGACTTGCTGCTTCGTCAGGGTGACTGTGTGTATCTGATG
AGGGATAGTCGGCGCACCCCTGATGGCCACCCGGTCCGTCAGTCCTATCGACTGTTATCTCACATTAACCGAGAT
AAACTTGACATCTTTCGCATTGAGAAGCTTTGGAAGAATGAAAAAGAGGAACGGTTTGCCTTTGGTCACCATTAT
TTCCGTCCCCACGAAACACACCACTCTCCATCCCGTCGGTTCTATCATAATGAACTATTTCGGGTGCCACTCTAT
GAGATCATTCCCTTGGAGGCTGTAGTGGGGACCTGCTGTGTGTTGGACCTTTATACGTATTGTAAAGGGAGACCC
AAAGGAGTAAAGGAGCAAGATGTGTACATCTGTGATTATCGGCTTGACAAGTCAGCACACCTGTTTTACAAGATC
CACCGGAACCGCTATCCTGTCTGCACCAAACCCTATGCTTTTGATCACTTCCCCAAGAAGCTCACTCCCAAAAAA
GATTTCTCGCCTCATTACGTCCCAGACAACTACAAGAGGAATGGAGGACGATCATCCTGGAAGTCTGAGCGCTCA
AAGCCACCCCTAAAAGACTTGGGCCAGGAGGATGATGCTCTACCCTTGATTGAAGAGGTTCTAGCCAGTCAAGAG
CAAGCAGCCAATGAGATACCCAGCCTGGAGGAGCCAGAACGGGAAGGGGCCACTGCTAACGTCAGTGAGGGTGAA
AAAAAAACAGAGGAAAGTAGTCAAGAACCCCAGTCAACCTGTACCCCTGAGGAACGACGGCATAACCAACGGGAA
CGACTCAACCAGATCTTGCTCAATCTCCTTGAAAAAATCCCTGGAAAAAATGCCATTGATGTGACCTACTTGCTG
GAGGAAGGATCAGGCAGGAAACTGCGAAGGCGTACTTTGTTTATCCCAGAAAACAGCTTTCGAAAG**TGA**CCCTCA
AAGAATGAGAACCTCAAGCATCTGGGATCCAGTGGAGCTAATCAGTCCTGCCTCCTGCTCTCTGGGTATAGACAG
GGGTGGGAAGGGTCCATCTGGGCAAGGGGAATGGGGCCATGTTGTTGACATTAGGTACTTAATAAGCCTTGGAGC
TAGTGGAGAGGGAGAGGAAAGGGTTCTGTCCAAGACAGTTCAGGTTAATTAATTTTCTTCTCCATTGCTTCACCT
TAAGGGTTAATAATGTAGAGAGGAGGGAGGACCACATTGATGACCAGAACCTACTGGTACTTTATAGCATTTGCC
CCACCCCACAGCTTAGGTTTTTCTGTCATCCTCAGATCCCACAGGCATTGCGAAGAAGCTGCTTCCTATACCCAG
GTATAACTCAAAATCCAAAGGGATAGGGCCAGGATCCCTATTCCTACCCCATCTATTCTCTGTTGGCTCCAAGAG
CTACCCCAGAGACCTTAAACAGAAACAGTAGCTGAGGCTTCTTCCTAGATACCTGACTAGGGAAGTTTGTCTCTC
CTTTCTTGCCCAACCAGGTCAAAGTAAAATGTGAGTTGACAGCTCAAAGCACTTGTAACTGCTGCCCCCTCCCTA
CCTCTACTCCCCAAAATGGAATCATGGGATAGGGAAGGCCCCCATGGGGTCAGAAGGGCACGGTAGTTCTTGCAA
TTATTTTTGTTTTACCCTTCATAACC

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FIGURE 722

CGCCCTACAGGCCCTAGCAGGGCAGGCGGGAGGTGAGCGCGGCCATCCCGCTCCCGGAGTTCCGGGATCCTGGAG
TCCGTAGTTCGTGGTCCTTCGCCGGTGTCCCCGGAGCCCAGCGGCTGTGG**ATG**GCAGAAGCCCAGAGTGGGACTG
GTCAGCTGCAGGAGCAGAAGAAAGGTCTTCTGATAGCCGTCAGCGTCTCCGTTGATAAAATCATCTCGCATTTCG
GGGCCGCCCGGAACTTGGTGCAGAAGGCCCAGTTGGGTGATAGCCGGCTGAGCCCGGATGTGGGGCACCTGGTGC
TGACCACCCTCTGCCCGGCCCTCCACGCCCTGGTGGCGGACGGGCTGAAGCCTTTCCGGAAGGACCTCATCACCG
GGCAGCGCAGGAGCAGCCCCTGGAGCGTGGTGGAGGCGTCGGTGAAGCCAGGCTCCAGCACCCGCTCCCTTGGAA
CCCTGTATAGCCAGGTCAGCCGTCTAGCCCCGCTGAGCAGCAGCCGTAGCCGCTTCCATGCCTTTATCCTGGGCC
TCCTCAACACCAAGCAGTTGGAGCTGTGGTTTTCCAGTCTCCAGGAAGATGCAGGCCTGCTCTCCCTCCTGTACC
TGCCAACAGGATTTTTCTCCCTGGCCCGCGGTGGTTGTCCCTCCCTGTCCACAGAGCTGCTGCTCCTGCTGCAGC
CATTGTCGGTGCTCACTTTCCACCTGGACCTGCTCTTTGAGCACCACCACCACCTGCCCCTGGGCCCACCTCAGG
CCCCTGCCCCTCCAGGCCCACCTCCAGCTCTGCAGCAGACTATGCAAGCCATGCTGCACTTTGGGGGCCGGCTGG
CCCAGAGCCTTCGGGGGACTTCCAAGGAAGCTGCTTCAGACCCCTCTGACTCTCCAAACCTTCCCACACCAGGGA
GCTGGTGGGAGCAGTTGACCCAGGCCTCCCGGGTCTATGCCTCTGGGGGCACTGAGGGCTTTCCTCTTTCCCGAT
GGGCACCGGGGCGTCATGGGACTGCAGCTGAAGAAGGTGCACAGGAGAGACCCCTGCCCACAGATGAGATGGCAC
CAGGCAGGGGCCTCTGGTTGGGAAGACTATTTGGAGTGCCTGGGGGCCCCGCAGAAAATGAGAATGGAGCCCTAA
AGTCCAGGAGACCATCTAGCTGGCTGCCCCCGACAGTGAGTGTGTTGGCTCTTGTGAAGCGGGGGGCACCTCCCG
AGATGCCTTCTCCTCAGGAGCTTGAGGCCTCAGCACCCAGGATGGTGCAAACCCATAGGGCAGTGCGGGCTCTCT
GTGATCACACTGCTGCAAGACCTGACCAGTTGAGCTTCCGGCGTGGGGAAGTGCTGCGTGTCATCACCACAGTGG
ATGAGGACTGGCTCCGCTGTGGGCGGGATGGCATGGAGGGTCTGGTGCCTGTGGGGTATACCTCCCTTGTTCTG**T**
AGCCCTGGGACCCTTTCCTGCGTATGTGTCTCCTTCCTGTCACCTGGGAATGGAATGGCCAGTGAACACCATCCC
AGAAGCATTTTCCCTCTGCAAAATGACGTTTCTTCCCACGTCTGTTTCTGCTAATATTTAAAATAAACTTTCCTT
CTTCCCTCCTATACCCACCTGTAAGGTGAAATCTGCTCTTCTTCCAAATATATAAAAAAGGAATTGCCCTCCAGG
TAATCCCTTTCCTTTTTCCCGTCTATATAAGGGAATGTCTTCCTTCCTATCTATCTGCAAAATGGAAATCTAGAC
CTCCTTCTTCATCCATAAGTGGACTGTGCCAGTACAATACATGCCTCAGCCCCCAAGCCTAGAAGGACCTCTAGT
CTCCTTCCTGTGTGGAATCTTCCCCACTCCATCCCTCCCAAGTTGCCTGTATTGATAATGTACTCACTCATGCTG
TACTAGGTGCTGAAGCCTGGACACCCTTGGTGGGTGGGCCTGTGGTGATGGTTTGCATCCTTCCTCCTTTGTCCC
AATAAAGTATGGGAGTTG

FIGURE 723

AGGTGAGAGAGGATGTGTGCTGGGCCTTGGAGGAAGGGGGCCGAGACCGGGCCTTACTTCTGTAACGATACTGTG
AGGCATCGGAAGGCCAGCCTGTTGTGTCCGTTTTGAAGG**ATG**CCCCTGTCCCGCTGGTTGAGATCTGTGGGGGTC
TTCCTGCTGCCAGCCCCCTACTGGGCACCCCGGGAGAGGTGGCTGGGTTCCCTACGGCGGCCCTCCCTGGTGCAC
GGGTACCCAGTCCTGGCCTGGCACAGTGCCCGCTGCTGGTGCCAAGCGTGGACAGAGGAACCTCGAGCCCTTTGC
TCCTCCCTCAGAATGAACGGAGACCAGAATTCAGATGTTTATGCCCAAGAAAAGCAGGATTTCGTTCAGCACTTC
TCCCAGATCGTTAGGGTGCTGACTGAGGATGAGATGGGGCACCCAGAGATAGGAGATGCTATTGCCCGGCTCAAG
GAGGTCCTGGAGTACAATGCCATTGGAGGCAAGTATAACCGGGGTTTGACGGTGGTAGTAGCATTCCGGGAGCTG
GTGGAGCCAAGGAAACAGGATGCTGATAGTCTCCAGCGGGCCTGGACTGTGGGCTGGTGTGTGGAACTGCTGCAA
GCTTTCTTCCTGGTGGCAGATGACATCATGGATTCATCCCTTACCCGCCGGGGACAGATCTGCTGGTATCAGAAG
CCGGGCGTGGGTTTGGATGCCATCAATGATGCTAACCTCCTGGAAGCATGTATCTACCGCCTGCTGAAGCTCTAT
TGCCGGGAGCAGCCCTATTACCTGAACCTGATCGAGCTCTTCCTGCAGAGTTCCTATCAGACTGAGATTGGGCAG
ACCCTGGACCTCCTCACAGCCCCCCAGGGCAATGTGGATCTTGTCAGATTCACTGAAAAGAGGTACAAATCTATT
GTCAAGTACAAGACAGCTTTCTACTCCTTCTACCTTCCTATAGCTGCAGCCATGTACATGGCAGGAATTGATGGC
GAGAAGGAGCACGCCAATGCCAAGAAGATCCTGCTGGAGATGGGGGAGTTCTTTCAGATTCAGGATGATTACCTT
GACCTCTTTGGGGACCCCAGTGTGACCGGCAAAATTGGCACTGACATCCAGGACAACAAATGCAGCTGGCTGGTG
GTTCAGTGTCTGCAACGGGCCACTCCAGAACAGTACCAGATCCTGAAGGAAAATTACGGGCAGAAGGAGGCTGAG
AAAGTGGCCCGGGTGAAGGCGCTATATGAGGAGCTGGATCTGCCAGCAGTGTTCTTGCAATATGAGGAAGACAGT
TACAGCCACATTATGGCTCTCATTGAACAGTACGCAGCACCCCTGCCCCCAGCCGTCTTTCTGGGGCTTGCGCGC
AAAATCTACAAGCGGAGAAAG**TGA**CCTAGAGATTGCAAGGGCGGGGAGAGGAGGCTCTCAATAAATAATCGTGTA
ACCTT

FIGURE 724

TCCCAGGGTCCCGGGTTGGGGGGGTGGAGCAGCATTTCGTCGCCGCGGGGGTGCCGGGACTCCGGCCGCAGTGTC
GCCGCCATCACGGACTTCCTGTGGGACAAGCGCACGGGCCTCGCCGCCAGAACG**ATG**CCGCATCCTCGAAGGTAC
CACTCCTCAGAGCGAGGCAGCCGGGGGAGTTACCGTGAACACTATCGGAGCCGAAAGCATAAGCGACGAAGAAGT
CGCTCCTGGTCAAGTAGTAGTGACCGGACACGACGGCGTCGGCGAGAGGACAGCTACCATGTCCGTTCTCGAAGC
AGTTATGATGATCGTTCGTCCGACCGGAGGGTGTATGACCGGCGATACTGTGGCAGCTACAGACGCAACGATTAT
AGCCGGGATCGGGGAGATGCCTACTATGACACAGACTATCGGCATTCCTATGAATATCAGCGGGAGAACAGCAGT
TACCGCAGCCAGCGCAGCAGCCGGAGGAAGCACAGACGGCGGAGGAGGCGCAGCCGGACATTTAGCCGCTCATCT
TCGCAGCACAGCAGCCGGAGAGCCAAGAGTGTAGAGGACGACGCTGAGGGCCACCTCATCTACCACGTCGGGGAC
TGGCTACAAGAGCGATATGAAATCGTTAGCACCTTAGGAGAGGGGACCTTCGGCCGAGTTGTACAATGTGTTGAC
CATCGCAGGGGTGGGGCTCGAGTTGCCCTGAAGATCATTAAGAATGTGGAGAAGTACAAGGAAGCAGCTCGACTT
GAGATCAACGTGCTAGAGAAAATCAATGAGAAAGACCCTGACAACAAGAACCTCTGTGTCCAGATGTTTGACTGG
TTTGACTACCATGGCCACATGTGTATCTCCTTTGAGCTTCTGGGCCTTAGCACCTTCGATTTCCTCAAAGACAAC
AACTACCTGCCCTACCCCATCCACCAAGTGCGCCACATGGCCTTCCAGCTGTGCCAGGCTGTCAAGTTCCTCCAT
GATAACAAGCTGACACATACAGACCTCAAGCCTGAAAATATTCTGTTTGTGAATTCAGACTATGAGCTCACCTAC
AACCTAGAGAAGAAGCGAGATGAGCGCAGTGTGAAGAGCACAGCTGTGCGGGTGGTAGACTTTGGCAGTGCCACC
TTTGACCATGAGCACCATAGCACCATTGTCTCCACTCGCCATTACCGAGCACCAGAAGTCATCCTTGAGTTGGGC
TGGTCACAGCCTTGTGATGTGTGGAGTATAGGCTGCATCATCTTTGAATACTATGTGGGATTCACCCTCTTCCAG
ACCCATGACAACAGAGAGCATCTAGCCATGATGGAAAGGATCTTGGGTCCTATCCCTTCCCGGATGATCCGAAAG
ACAAGAAAGCAGAAATATTTTTACCGGGGTCGCCTGGATTGGGATGAGAACACATCAGCTGGGCGCTATGTTCGT
GAGAACTGCAAACCGCTGCGGCGGTATCTGACCTCAGAGGCAGAGGAACACCACCAGCTCTTCGATCTGATTGAA
AGCATGCTAGAGTATGAACCAGCTAAGCGGCTGACCTTGGGTGAAGCCCTTCAGCATCCTTTCTTCGCCCGCCTT
CGGGCTGAGCCGCCCAACAAGTTGTGGGACTCCAGTCGGGATATCAGTCGG**TGA**CGATCAGGCCCTGGGCCCCCC
TGCATCTTTTATAGCAGTGGGTGTCCAGTCCAGGACACTGGTGCTTTTTTATACAAGAGAACGAGCCAGAGTTCA
CTCCTTCCTCCTGGCTCTCTATATACCTGTGAATATGTGAAATAGTGTAAATATGAAAGAACTTGTACCTATCAC
TTCAACCCCTGCCTTGTACATAATACTATTCCATCCACACAGTTTCCACCCTCACCTGCCCCCTCATACGGAGTT
GGATGGGGGCCGAGTGAGGTAACCAGGTGGCATCTACCCCATGTTTTATAAGGAATTTTGTACAGTCTTTGTGAA
ATAAAATAACGTGCTTCATTTGA

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FIGURE 725

GGTAGTTGGTTGTGGGCACTGGGTTAGAGGTATCACGTGGGGGCACTTTCGTCTTAGCTTTTGGACAAGACGCAG
GCGCAACCCACGGCTGCTGCGGGGATCCTTGTGGCCCTTCCGGTCGGTGGAACCAATCCGTGCACAGAGAAGCGG
GGCGAACTGAGGCGAGTGAAGTGGACTCTGAGGGCTACCGCTACCGCCACTGCTGCGGCAGGGGCGTGGAGGGCA
GAGGGCCGCGGAGGCCGCAGTTGCAAAC**ATG**GCTCAGAGCAGAGACGGCGGAAACCCGTTCGCCGAGCCCAGCGA
GCTTGACAACCCCTTTCAGGACCCAGCTGTGATCCAGCACCGACCCAGCCGGCAGTATGCCACGCTTGACGTCTA
CAACCCTTTTGAGACCCGGGAGCCACCACCAGCCTATGAGCCTCCAGCCCCTGCCCCATTGCCTCCACCCTCAGC
TCCCTCCTTGCAGCCCTCGAGAAAGCTCAGCCCCACAGAACCTAAGAACTATGGCTCATACAGCACTCAGGCCTC
AGCTGCAGCAGCCACAGCTGAGCTGCTGAAGAAACAGGAGGAGCTCAACCGGAAGGCAGAGGAGTTGGACCGAAG
GGAGCGAGAGCTGCAGCATGCTGCCCTGGGGGGCACAGCTACTCGACAGAACAATTGGCCCCCTCTACCTTCTTT
TTGTCCAGTTCAGCCCTGCTTTTTCCAGGACATCTCCATGGAGATCCCCCAAGAATTTCAGAAGACTGTATCCAC
CATGTACTACCTCTGGATGTGCAGCACGCTGGCTCTTCTCCTGAACTTCCTCGCCTGCCTGGCCAGCTTCTGTGT
GGAAACCAACAATGGCGCAGGCTTTGGGCTTTCTATCCTCTGGGTCCTCCTTTTCACTCCCTGCTCCTTTGTCTG
CTGGTACCGCCCCATGTATAAGGCTTTCCGGAGTGACAGTTCATTCAATTTCTTCGTTTTCTTCTTCATTTTCTT
CGTCCAGGATGTGCTCTTTGTCCTCCAGGCCATTGGTATCCCAGGTTGGGGATTCAGTGGCTGGATCTCTGCTCT
GGTGGTGCCGAAGGGCAACACAGCAGTATCCGTGCTCATGCTGCTGGTCGCCCTGCTCTTCACTGGCATTGCTGT
GCTAGGAATTGTCATGCTGAAACGGATCCACTCCTTATACCGCCGCACAGGTGCCAGCTTTCAGAAGGCCCAGCA
AGAATTTGCTGCTGGTGTCTTCTCCAACCCTGCGGTGCGAACCGCAGCTGCCAATGCAGCCGCTGGGGCTGCTGA
AAATGCCTTCCGGGCCCCG**TGA**CCCCTGACTGGGATGCCCTGGCCCTGCTACTTGAGGGAGCTGACTTAGCTCCC
GTCCCTAAGGTCTCTGGGACTTGGAGAGACATCACTAACTGATGGCTCCTCCGTAGTGCTCCCAATCCTATGGCC
ATGACTGCTGAACCTGACAGGCGTGTGGGGAGTTCACTGTGACCTAGTCCCCCCATCAGGCCACACTGCTGCCAC
CTCTCACACGCCCCAACCCAGCTTCCCTCTGCTGTGCCACGGCTGTTGCTTCGGTTATTTAAATAAAAAGAAAGT
GGAACTGGAACTGAC

FIGURE 726

CCTGCGGCAGCCGGAGCTCGGGGAGCGGAGCGTGGTGGGGAGGGGAGCGGGACAGGCGACACAGGAGACAGCGGC
GCCGCGGCCTCTCCCCACCAGGCGGCCCCGGATCCTACTGGACGCCCTGAGGGCACACCGACCGCGCCTCTAGAG
TCACCCCACGCCGACCCCTCCCCTCTTCTCTAGACTTATTTCCATCCTTCCCGCTTTTACCCTCCCCACCCCTCC
CTGGGCTCCAGGCCGCCGCCCCCTCCTCACTCCTGGACCGGCCCTTCTCGGTGCCCCTCTTCCCTAGGGAGATGC
GATGAGCCGGTGCCCCCGCGTCCTCATCGTCGCCCCGGGCACGGTGCCCGTCCAGTGCCCGTGGTGGGGAGGGAG
CACTCCGCGGTCCCTCCGTGACGCCCCTCGCTTGGCCCCCCCCACAGCTGGCGTCCCTCGGCCATGCCCCAGGGG
ACCCAGCCAGGGGGTGGGCTCTAGAGCGAGTGGGGTGGAGAGGAGAAAGGACGGGGCCTTGGGCGCCTCTGAGAT
GCTCCCAAGTGCCAGGGAGGGCCGAGCGAGGCGCAGGCAACCGGGCAGCAGGC**ATG**ATGCCCTCGCCTAGTGACT
CCAGCCGCTCGCTGACCAGCCGGCCCAGCACCAGGGGCCTTACCCACCTCCGCCTCCACCGACCCTGGCTGCAGG
CCCTGCTTACGCTGGGGCTGGTCCAAGTGCTCCTGGGCATCCTGGTGGTCACCTTCAGCATGGTGGCCTCTTCCG
TCACCACCACCGAGAGCATCAAGAGGTCCTGCCCGTCTTGGGCTGGGTTCTCGCTGGCGTTCTCCGGGGTGGTTG
GCATTGTGTCCTGGAAGCGGCCATTCACTCTAGTGATCTCCTTCTTCTCCTTGCTTTCGGTGCTCTGTGTCATGC
TTAGCATGGCTGGCTCTGTTCTCTCCTGTAAGAATGCTCAACTGGCCCGAGACTTCCAACAGTGCTCTCTGGAAG
GAAAGGTCTGTGTGTGCTGTCCCTCTGTTCCCCTCCTCCGGCCCTGTCCAGAGTCGGGGCAGGAACTGAAAGTTG
CCCCTAACTCCACCTGTGATGAAGCCCGAGGGGCCCTCAAGAACCTGCTCTTCAGCGTCTGTGGGCTCACCATTT
GTGCCGCTATAATCTGTACACTCTCTGCTATTGTCTGCTGCATCCAAATCTTCTCCCTGGACCTCGTGCATACGC
AGCTGGCCCCTGAGCGGTCAGTCTCAGGCCCACTGGGACCTCTGGGCTGCACGTCCCCGCCCCCAGCCCCTCTCC
TACACACCATGCTGGACCTGGAGGAATTTGTCCCGCCTGTGCCCCCACCGCCCTACTATCCCCCAGAGTATACCT
GCAGCTCAGAAACAGATGCACAGAGCATCACGTACAATGGCTCCATGGACAGCCCAGTGCCCTTGTACCCTACCG
ATTGCCCCCCTTCTTATGAGGCAGTCATGGGACTACGAGGAGACAGCCAGGCCACTCTCTTTGACCCTCAGCTTC
ACGATGGCTCGTGCATCTGTGAACGAGTGGCCTCCATTGTAGACGTGTCCATGGACAGCGGGTCTCTGGTGCTGT
CAGCCATTGGTGACCTCCCTGGGGGCTCTAGCCCGTCGGAGGACTCGTGCCTGCTGGAGCTGCAGGGCTCCGTGC
GCTCCGTGGACTACGTTCTCTTTCGCTCCATCCAGCGCAGCCGTGCCGGCTACTGCCTCAGCCTGGACTGTGGCC
TGCGGGGCCCCTTCGAGGAAAGCCCCCTGCCACGGCGCCCCCCACGGGCTGCCCGCTCCTATTCCTGCTCTGCCC
CTGAAGCTCCACCCCCACTGGGTGCCCCCACAGCTGCCCGCAGCTGCCACCGGTTGGAGGGCTGGCCGCCCTGGG
TGGGACCCTGCTTCCCCGAGCTGAGGCGGCGGGTCCCCCGGGGAGGGGGCCGCCCAGCCGCAGCCCCGCCCACCC
GAGCCCCGACTCGTCGCTTCAGCGATAGCTCAGGTTCCCTCACCCCACCGGGGCACCGGCCTCCTCATCCGGCAT
CCCCACCACCGCTGCTGCTGCCACGGTCCCACAGCGACCCAGGCATCACGACCTCCAGTGACACTGCTGACTTCA
GGGACCTTTATACCAAAGTGCTTGAGGAAGAAGCTGCTTCTGTTTCCTCTGCAGATACAGGGCTCTGCTCTGAAG
CCTGCCTCTTCCGCCTAGCCCGCTGCCCTTCCCCCAAGTTGCTACGTGCCCGGTCAGCCGAGAAACGGCGCCCTG
TGCCCACCTTCCAAAAAGTTCCCCTGCCCTCGGGCCCTGCACCTGCCCACTCCCTGGGGGACCTAAAGGGCAGCT
GGCCAGGTCGGGGCCTGGTCACTCGTTTCCTCCAGATATCCAGGAAAGCCCCAGACCCCAGTGGGACTGGAGCTC
ATGGACATAAGCAGGTGCCCCGGAGCCTGTGGGGCCGGCCTGGCCGAGAGAGCCTCCACCTTCGCAGCTGCGGAG
ATCTGAGCTCTAGCTCTTCCCTGCGGCGTCTCCTGTCTGGCCGCAGGCTGGAGCGTGGTACCCGCCCCCACAGCC
TCAGCCTCAACGGGGGCAGCCGGGAGACTGGGCTC**TGA**CCTAGGCTTCTTGTCACACTGAACACATCCAGCCACA
GGCACCAGCTGGTTGGGACCAGCAGCCCCCAGCATCCTCTTGCACTGGCTGGCACAAAAAGAAACCTGCTGTATA
CCCCCCAAAGTGTCCCTTTCCCTCCTACCTCTGGGGTCTCTTGCTGCTTGCCTCTGCTGCTCTGGACTGGGAGAG
CTTCTGTCCTGTGCTGCATGGGTATTTAGACTGTGGGGGAGATGCCCCTTCTTATAGCACTGGAGGAGGAAAACA
AATTCTTGTCCCCCTCAGAATGAGAGTGGCTCTTTCTGATTTGCAAGGGCACTATGGTCAGGGCAAAGGCATGGC
CCAGGTGTTTAAGTACAGGGTGACGTGTGCCTATGCAATGGGGTGGTAAGGCAGGCACGAAGAGTCCAAAAAATC
TAGGTGGCCTCTCAGCTCTGCCACCTCTAGCTGCATGACCTTGGGCAAGCTATGTAACCCCAATTGCCTGCTCCA
TTAAAGACTGTGAAGGTAGAATGTTTGTAAAGCTCTTAACAGTATGTAAGCCTTCAATAAATTTCAGTTTTCCCC
TT

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FIGURE 727

AATCCAGGTCCCGCCCCGACTCCCCAGGGCTGCTTTTCTCGCGGCTGCGGGTGGTCGGGCTGCATCCTGCCTTCA
GAGTCTTACTGCGCGGGGCCCCAGTCTCCAGTCCCGCCCAGGCGCCTTTGCAGGCTGCGGTGGGATTTCGTTTTG
CCTCCGGTTGGGGCTGCTGTTTCTCTTCGCCGACGAGACGGGGTTTCACCATGTTGGTCAGGCTGGTCTCCAATT
CCTGACCTCGTGATCCGCCCGCCTCGGCCTGCCAAACAGCTGTGATTATAGGCGTGAGCCACCGCGCCCGGCCAA
CCATCATTATTATTTTTAACGAGACTCTGGAACCCCTGTGGTCTTCTCTTCATCTAATGACCCTGAGGGG**ATG**GA
GTTTTCAAGTCCTTCCAGAGAGGAATGTCCCAAGCCTTTGAGTAGGGTAAGCATCATGGCTGGCAGCCTCACAGG
ATTGCTTCTACTTCAGGCAGTGTCGTGGGCATCAGGTGCCCGCCCCTGCATCCCTAAAAGCTTCGGCTACAGCTC
GGTGGTGTGTGTCTGCAATGCCACATACTGTGACTCCTTTGACCCCCCGACCTTTCCTGCCCTTGGTACCTTCAG
CCGCTATGAGAGTACACGCAGTGGGCGACGGATGGAGCTGAGTATGGGGCCCATCCAGGCTAATCACACGGGCAC
AGGCCTGCTACTGACCCTGCAGCCAGAACAGAAGTTCCAGAAAGTGAAGGGATTTGGAGGGGCCATGACAGATGC
TGCTGCTCTCAACATCCTTGCCCTGTCACCCCCTGCCCAAAATTTGCTACTTAAATCGTACTTCTCTGAAGAAGG
AATCGGATATAACATCATCTGGGTACCCATGGCCAGCTGTGACTTCTCCATCCGCACCTACACCTATGCAGACAC
CCCTGATGATTTCCAGTTGCACAACTTCAGCCTCCCAGAGGAAGATACCAAGCTCAAGATACCCCTGATTCACCG
AGCCCTGCAGTTGGCCCAGCGTCCCGTTTCACTCCTTGCCAGCCCCTGGACATCACCCACTTGGCTCAAGACCAA
TGGAGCGGTGAATGGGAAGGGGTCACTCAAGGGACAGCCCGGAGACATCTACCACCAGACCTGGGCCAGATACTT
TGTGAAGTTCCTGGATGCCTATGCTGAGCACAAGTTACAGTTCTGGGCAGTGACAGCTGAAAATGAGCCTTCTGC
TGGGCTGTTGAGTGGATACCCCTTCCAGTGCCTGGGCTTCACCCCTGAACATCAGCGAGACTTCATTGCCCGTGA
CCTAGGTCCTACCCTCGCCAACAGTACTCACCACAATGTCCGCCTACTCATGCTGGATGACCAACGCTTGCTGCT
GCCCCACTGGGCAAAGGTGGTACTGACAGACCCAGAAGCAGCTAAATATGTTCATGGCATTGCTGTACATTGGTA
CCTGGACTTTCTGGCTCCAGCCAAAGCCACCCTAGGGGAGACACACCGCCTGTTCCCCAACACCATGCTCTTTGC
CTCAGAGGCCTGTGTGGGCTCCAAGTTCTGGGAGCAGAGTGTGCGGCTAGGCTCCTGGGATCGAGGGATGCAGTA
CAGCCACAGCATCATCACGAACCTCCTGTACCATGTGGTCGGCTGGACCGACTGGAACCTTGCCCTGAACCCCGA
AGGAGGACCCAATTGGGTGCGTAACTTTGTCGACAGTCCCATCATTGTAGACATCACCAAGGACACGTTTTACAA
ACAGCCCATGTTCTACCACCTTGGCCACTTCAGCAAGTTCATTCCTGAGGGCTCCCAGAGAGTGGGGCTGGTTGC
CAGTCAGAAGAACGACCTGGACGCAGTGGCACTGATGCATCCCGATGGCTCTGCTGTTGTGGTCGTGCTAAACCG
CTCCTCTAAGGATGTGCCTCTTACCATCAAGGATCCTGCTGTGGGCTTCCTGGAGACAATCTCACCTGGCTACTC
CATTCACACCTACCTGTGGCGTCGCCAG**TGA**TGGAGCAGATACTCAAGGAGGCACTGGGCTCAGCCTGGGCATTA
AAGGGACAGAGTCAGCTCACACGCTGTCTGTGACTAAAGAGGGCACAGCAGGGCCAGTGTGAGCTTACAGCGACG
TAAGCCCAGGGGCAATGGTTTGGGTGACTCACTTTCCCCTCTAGGTGGTGCCAGGGGCTGGAGGCCCCTAGAAAA
AGATCAGTAAGCCCCAGTGTCCCCCCAGCCCCCATGCTTATGTGAACATGCGCTGTGTGCTGCTTGCTTTGGAAA
CTGGGCCTGGGTCCAGGCCTAGGGTGAGCTCACTGTCCGTACAAACACAAGATCAGGGCTGAGGGTAAGGAAAAG
AAGAGACTAGGAAAGCTGGGCCCAAAACTGGAGACTGTTTGTCTTTCCTGGAGATGCAGAACTGGGCCCGTGGAG
CAGCAGTGTCAGCATCAGGGCGGAAGCCTTAAAGCAGCAGCGGGTGTGCCCAGGCACCCAGATGATTCCTATGGC
ACCAGCCAGGAAAAATAGCAGCTCATATGGGAGAAATGTTTGAGCC

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FIGURE 728

CAGTGCCCCACAGCTCTTCAGGCCCTTCCTGTGCCTGGCTGCCCTCCCACCCTACCCTTTTGTACCTCTGAGAAG
GCTCTGGCCCCACGCACAGCCCCACTGTCACCAGGGCCAGTATCTGTCTCAGGGACCTCCTATCCAGAGCCTGAG
CCAGCCCCAGCCCCAGCCCCAGCTCCAGCTGCTCCATCTGAACCTGTATCTTCTTCCAAGCCACCCATTACCCTC
TTGGAGTCAGACTCACGCATCTCCAAAGAAGAACTTTTGAGAGCCCAGGCGCTGAGAGAGCAGGGTCAGACACTC
CCGAGCCTCTCGGTACAGCTGTAGGGGCGACACAGGTAGGCTTGCAGCTGCGGGAACAGTGCCACCTCCGCACCT
AAGCACTCCCATTCCTGGCCAGCATCCTTGGGGCTCATCTCATACAATAGCCCCCGGTCTCAGAGCTACCTCCTT
CTCCAGCTCTTCCTCGTCCTCAGGCCTGTGCTCCCCAGTCAGCAGCTGTAGCCGTTCCATGTACTGCCGCTGCAT
GCGGCCAGGCAGGAAGAAGTTGAGGGGAAAGGGCATAGCCTCTGCATACCACTTCCGGGTCACTTCTACGTAGTT
CTTGGTGTCTATCCAAAAAGTATGTACCTGGATTGGGTGGGCAGGAAGAAACAGGCAGGTCTGAGCCAGTGCACC
TGTCTGATTCAAGGTGGGCTTCTGACCTCCATGCTCTCCTGAGTCTCTGTGTGGGTCTGTGTGTTCCCGTCCCCT
CCCCGGCTGGCCATGGATGCTGGGAGGTCTGGGCACACTCACCAGCACCGGGATCAACTTCTCCTCCAGGAGAGA
CATGAAGGCCAGGGTGTCTGCCCCTTGCTGAGCTGACAGATCATAATCAGCATTGTACTTCTGTGGAGGAAATAT
CC**ATG**GCGTGGACGCTGGGGAGCTGCAAGGGCACTTCACCAGGGAGGAAGGAGTCCTGTCTGGTACCCCCCTCAC
TGGCCTCTGAGTGCAGTGGAGGTACAGCAAGGAACTTTTCCTGCCAAGGCCCCCTTGCCTGGGCCCAGCCAGTAG
CCTGTTGCTGTTGGCAAAAAGCCTGGGCCTTGGAGCCCGCTGGCCGTCAAGGTCCTGGGCCCATTGAGAAGAAGG
AAGAAAGGTTGGGCCGCAAACTAGGAGCAGCTCCCAGAATTTCCATGGAAAGCTGGAACAATGCCTGC**TGA**CAGC
AACTTTCTAACAGTAACTTTCCCGACCCAGACACCACAAAGCTAGCACAACGGAGCTCAGATGCAGGCTAGGACT
CGGTCCATGCCTCAGGAACCAGGGAAAGCCATCCTCACACTCCCTGGATCCAGGGAACCCACGCCCAGGGCCCCC
CAGCTTGTTCCCTCAGTGCCCAGCTCTTGGCTATTTCTTTCACTTCATTCCATCGCCCAGACACCATTACCACAT
ACACATTCCATCCATACCCCCAGGTCTCAGCCTGCCCTACCTTCCCAGGCTCCAGTCCCTGTTCCTCAGCATCCC
CCACCACATCCTGAGTAAGCTTTGTCCCCAGATAACCTCTTCAGCATGATCCTTAAATCTCCCTAAGCCTCAGTT
TCTCCCCTGTGGAATGGGGGTAAGAATCTCTTTCTCTGAATGCCCCTGTGTTAGGAAATAATTTAGAATACTTCG
GAAACAAAAAGCTCTGTTCACACCTAAGCAATCAGGGCAGTGGCCCTGGCCTTGCCAGGAACTTAGGCTTTTATC
TGGATCCTCTTTCCAGGCCTCTCAATTAATTCCCCAGGTCCTTAACCTTTGGGAAATTAGAAATTAGGAAGAGTG
TCCCACTTCTGACACTGTGTTCCCTCTTGGAACCTGACCGTCAATGCTAGAAGAACCCTTGGAAAACATGCTGGC
CCAGCCCTCTAGTTTTACAAATAAGGGAGTGCACAGCCCTGAGAGGTTACATGGCCTGCCCAAGATCACGCAGTC
AATGGCAGAGTAAAGAGCATAGCCTAGGCCTCCCCACTCCTCTAGTAATGCTCTTTCATCTTCTCCAACCTGGCT
CTAAGCCTTGTCCATCCTGAGCCCCATATCTAGCCCAACCTAGTCCCTGAAAACAAGAAGTGGCCCTTAGAAATC
TCTCTCCAGTCCCACTATCAGAGGCCAACTGCTGTCTTCCAGTCTCCTTCAGCCTGTGCTCCTCTCCCTCCCTGA
CTGACAGGCAGAAGGTACCGTGCCTCTGGATATCCCCACAGTGCCCTGAGCTGCATCTCTTGCCGACTGCTTTAA
TACATCACAGTGACATTGTGTGTGTCTCTGCCACCAGACTATTGCTCCTTGATGCTCTGGGTCACCTGCATCTAG
CATGGCATATATCTAGTGCTCAATAAATGTGTATTGTACGG

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FIGURE 729

AAGCCCCAGCCCGGCCTCCGCTCCGGCCGCCGCCACCGCCCCTGTTTTGTTTCCATGGCGACAGGCGGCGCAGGG
CCCGCTCCAAACATAACGCGCTGTGGAAAACATGCTGCTCGGGGGACCCCCCCGCAGTCCCCGCTCGGGGACGAG
CCCCAAGGGGCCCTGGAGCAGTACAGGCCACGTGCAGTTTGGCAAGAGCCCCCAGACCTGGCCCAGGCGCACAAG
ACCCCGCTCTCCAGAGCCTGCCGCGCCTTCAAGGGTTCGGGGCTCCACTTGGACGAGGCGCCGTGACTCTCCGAG
GCGCGCCGGGCCGACAGCGCTGTCCCGCTACGTGGGCCACCTCTGGATGGGCCGGCGGCCGCCCTCCCCCGAGGC
CCGCGGCCCAGTCCCCCGCAGTTCAGCTGCCAGTCGGGCCAGAAGAAGCCTCGCCTCCCCGGGGATCTCCCCAGG
CCCCCTGACCGCAACGATCGGAGGGGCGGTGGCGGGGGGCGGGCCCAGGCAGGGGAGGGCAGAAGCACACAAGGA
AGTGTTTCCGGGACAGAGGGTGGGCAAGATGGCGGCGCCCATGGAGCTGTTCTGCTGGTCAGGGGGCTGGGGGCT
GCCGTCAGTGGACCTGGACAGCCTGGCCGTGCTGACCTATGCCAGATTTACTGGTGCTCCACTGAAGGTACACAA
GATCAGCAACCCCTGGCAGAGCCCTTCAGGAACTCTGCCTGCCCTTCGGACCAGTCATGGAGAGGTCATCTCAGT
TCCACACAAGATCATCACCCACCTTCGAAAAGAGGTACATACTTTTTGGATAGACACCAAGAACTACGTGGAAGT
GACCCGGAAGTGGTATGCAGAGGCTATGCCCTTTCCCCTCAACTTCTTCCTGCCTGGCCGCATGCAGCGGCAGTA
CATGGAACGGCTACAGCTGCTGACTGGGGAGCACAGGCCTGAGGACGAGGAAGAGCTGGAGAAGGAGCTGTACCG
AGAGGCTCGGGAGTGTCTGACCCTGCTCTCTCAGCGCCTGGGCTCTCAAAAGTTCTTCTTTGGAGATGCCCCTGC
CTCCTTGGACGCCTTCGTCTTCAGCTACTTGGCCCTGCTGCTGCAGGCAAAGCTGCCCAGTGGGAAGCTGCAGGT
CCACCTGCGTGGGCTGCACAACCTCTGTGCCTATTGTACCCACATTCTCAGTCTCTACTTCCCCTGGGATGGAGC
TGAGGTACCACCGCAACGCCAGACACCAGCAGGCCCAGAGACTGAGTGAGTGAGCCATACCGGCGCCGGAACCAG
ATCCTATCTGTGCTGGCAGTGACTGGCAGCCATGGTGGGCTACGCCTTGCTCAGCGGCATTGTCTCCATCCAGCG
GGCAACGCCTGCTCGTGGCCCCAGGCACCCGGACCCTGGGCATGGCTGAGGAGGATGAAGAGGAATGATTTGTCC
TCACGCTCCCAAGACTGGTTTTTCTACTCTCATGCATTCCAGAGGCCCCCGTGCCTCCTCGTTGTTGGTACAGCC
GGACACGGGGTGTGCCACCCAGAATAAAGCCACTCACACTG

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FIGURE 730

ATGGAGACGCAGGAACTTCGGGGGGCCCTGGCTCTTCTCCTCCTTTGCTTTTTCACATCTGCCAGTCAGGATCTG
CAGGTAATTGACCTGCTGACTGTGGGCGAGTCTCGGCAGATGGTAGCTGTGGCAGAGAAGATCCGGACAGCCTTG
CTCACTGCTGGGGACATCTACCTCTTATCCACCTTCCGCCTGCCCCCCAAGCAGGGTGGTGTCCTCTTTGGCCTC
TATTCTCGCCAAGACAACACTCGATGGCTGGAGGCCTCTGTTGTAGGCAAGATCAACAAAGTACTGGTGCGATAC
CAGCGGGAGGATGGCAAAGTCCACGCCGTGAACCTACAGCAAGCGGGCCTGGCTGATGGGCGCACACACACAGTT
CTCCTGCGACTCCGAGGTCCCTCCAGACCCAGCCCTGCCCTACATCTCTACGTGGACTGCAAACTGGGTGACCAA
CATGCAGGCCTTCCAGCACTGGCCCCCATTCCTCCAGCGGAGGTCGATGGGCTGGAGATTAGGACTGGACAGAAG
GCGTATTTGAGGATGCAGGGCTTTGTGGAATCTATGAAAATTATTCTGGGTGGGTCCATGGCCCGGGTAGGAGCC
CTGAGTGAGTGTCCATTCCAAGGGGACGAGTCCATCCACAGTGCAGTGACCAATGCACTGCACTCCATTCTAGGG
GAGCAGACCAAGGCGCTGGTCACCCAACTCACCCTCTTCAACCAGATCCTGGTGGAGCTGCGGGATGATATACGA
GACCAGGTGAAGGAAATGTCCCTGATCCGAAACACCATTATGGAGTGTCAGGTGTGCGGCTTCCATGAGCAGCGT
TCCCACTGCAGCCCCAATCCCTGCTTCCGAGGTGTGGACTGCATGGAAGTGTACGAGTACCCAGGCTACCGCTGT
GGGCCCTGCCCCCCTGGCCTGCAGGGCAACGGCACCCACTGCAGTGACATCAATGAGTGTGCTCACGCTGACCCC
TGTTTCCCGGGCTCCAGCTGCATCAACACCATGCCCGGCTTCCACTGTGAGGCCTGTCCTCGAGGGTACAAGGGC
ACACAGGTGTCTGGTGTGGGCATTGACTATGCCCGGGCCAGCAAACAGGTCTGCAATGACATCGATGAATGCAAC
GATGGCAACAATGGTGGCTGTGACCCAAACTCCATCTGCACCAACACTGTGGGCTCTTTCAAGTGTGGTCCCTGC
CGCCTGGGTTTCCTGGGCAACCAGAGCCAGGGCTGCCTCCCAGCCCGGACCTGCCACAGCCCAGCCCACAGCCCC
TGCCACATCCATGCTCACTGTCTCTTTGAACGCAATGGTGCAGTGTCCTGCCAGTGTAACGTGGGCTGGGCTGGG
AATGGGAACGTGTGTGGGACTGACACAGACATCGATGGCTACCCAGACCAAGCACTGCCCTGCATGGACAACAAC
AAACACTGCAAACAGGACAACTGCCTTTTGACACCCAACTCTGGGCAGGAAGATGCTGATAATGATGGTGTGGGG
GACCAGTGTGATGATGATGCTGATGGGGATGGGATCAAGAATGTTGAGGACAACTGCCGGCTGTTCCCCAACAAA
GACCAGCAGAACTCAGATACAGATTCATTTGGTGATGCCTGTGACAATTGCCCCAACGTTCCCAACAATGACCAG
AAGGACACAGATGGCAATGGGGAAGGAGATGCCTGTGACAACGACGTGGATGGGGATGGCATCCCCAATGGATTG
GACAATTGCCCTAAAGTCCCCAACCCACTACAGACAGACAGGGATGAGGACGGGGGTGGGAGATGCTTGCGACAGC
TGCCCTGAAATGAGCAATCCTACCCAGACAGATGCAGACAGCGACCTGGTGGGGGGATGTCTGTGATACTAATGAA
GACAGCGATGGGGATGGGCATCAGGACACCAAGGACAACTGCCCACAGCTGCCAAATAGCTCCCAGCTGGACTCT
GATAACGATGGACTTGGAGATGAGTGTGATGGGGATGATGACAATGATGGCATCCCAGATTATGTGCCTCCTGGT
CCCGATAACTGCCGCCTGGTACCCAATCCCAATCAGAAGGACTCAGATGGCAATGGCGTTGGTGATGTGTGTGAG
GATGACTTTGACAATGATGCTGTGGTCGACCCCCTGGATGTGTGTCCTGAAAGTGCAGAGGTAACGCTTACGGAT
TTTCGGGCCTATCAGACCGTCGTCCTGGATCCTGAGGGTGATGCTCAGATTGACCCAAACTGGGTTGTGCTCAAC
CAGGGCATGGAAATCGTTCAGACCATGAACAGTGACCCTGGCTTGGCAGTTGGATACACGGCCTTCAATGGTGTG
GACTTTGAAGGCACCTTCCATGTGAACACAGTGACTGATGATGACTACGCAGGCTTTCTCTTCAGTTATCAAGAC
AGTGGCCGCTTCTACGTAGTCATGTGGAAGCAGACCGAGCAGACCTACTGGCAGGCTACACCCTTCCGGGCGGTT
GCCCAGCCCGGGCTGCAGCTCAAGGCAGTGACATCAGTGTCTGGCCCAGGTGAGCACCTCCGAAATGCCCTGTGG
CATACTGGCCACACCCCTGATCAGGTACGACTGCTGTGGACAGACCCACGAAATGTGGGCTGGCGGGACAAGACC
TCCTATCGCTGGCAGCTTCTGCACCGGCCTCAAGTTGGCTACATTCGGGTGAAGCTCTATGAGGGACCCCAGCTT
GTGGCGGATTCTGGGGTGATCATTGACACATCCATGCGAGGGGGGCGTCTTGGTGTATTCTGCTTCTCCCAAGAA
AACATAATTTGGTCCAATCTCCAGTATCGATGCAATGACACAGTGCCTGAGGACTTTGAGCCATTCCGGAGGCAG
CTGCTCCAGGGAAGGGTG**TGA**

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FIGURE 731

CGCTCCACCTCTCAAGCAGCCAGCGCCTGCCTGAATCTGTTCTGCCCCCTCCCCACCCATTTCACCACCACC**ATG**

ACACCGGGCACCCAGTCTCCTTTCTTCCTGCTGCTGCTCCTCACAGTGCTTACAGTTGTTACAGGTTCTGGTCAT
GCAAGCTCTACCCCAGGTGGAGAAAAGGAGACTTCGGCTACCCAGAGAAGTTCAGTGCCCAGCTCTACTGAGAAG
AATGCTGTGAGTATGACCAGCAGCGTACTCTCCAGCCACAGCCCCGGTTCAGGCTCCTCCACCACTCAGGGACAG
GATGTCACTCTGGCCCCGGCCACGGAACCAGCTTCAGGTTCAGCTGCCACCTGGGGACAGGATGTCACCTCGGTC
CCAGTCACCAGGCCAGCCCTGGGCTCCACCACCCCCCCAGCCCACGGTGTCACCTCGGCCCCGGACACCAGGCCG
GCCCGGGGCTCCACCGCCCCCCCAGCCCACGGTGTCACCTCGGCCCCGGACACCAGGCCGGCCCCGGGCTCCACC
GCCCCCCCAGCCCATGGTGTCACCTCGGCCCCGGACAACAGGCCCGCCTTGGGCTCCACCGCCCCTCCAGTCCAC
AATGTCACCTCGGCCTCAGGCTCTGCATCAGGCTCAGCTTCTACTCTGGTGCACAACGGCACCTCTGCCAGGGCT
ACCACAACCCCAGCCAGCAAGAGCACTCCATTCTCAATTCCCAGCCACCACTCTGATACTCCTACCACCCTTGCC
AGCCATAGCACCAAGACTGATGCCAGTAGCACTCACCATAGCACGGTACCTCCTCTCACCTCCTCCAATCACAGC
ACTTCTCCCCAGTTGTCTACTGGGGTCTCTTTCTTTTTCCTGTCTTTTCACATTTCAAACCTCCAGTTTAATTCC
TCTCTGGAAGATCCCAGCACCGACTACTACCAAGAGCTGCAGAGAGACATTTCTGAAATGTTTTTGCAGATTTAT
AAACAAGGGGGTTTTCTGGGCCTCTCCAATATTAAGTTCAGGCCAGGATCTGTGGTGGTACAATTGACTCTGGCC
TTCCGAGAAGGTACCATCAATGTCCACGACGTGGAGACACAGTTCAATCAGTATAAAACGGAAGCAGCCTCTCGA
TATAACCTGACGATCTCAGACGTCAGCGTGAGTGATGTGCCATTTCCTTTCTCTGCCCAGTCTGGGGCTGGGGTG
CCAGGCTGGGGCATCGCGCTGCTGGTGCTGGTCTGTGTTCTGGTTGCGCTGGCCATTGTCTATCTCATTGCCTTG
GCTGTCTGTCAGTGCCGCCGAAAGAACTACGGGCAGCTGGACATCTTTCCAGCCCGGGATACCTACCATCCTATG
AGCGAGTACCCCACCTACCACACCCATGGGCGCTATGTGCCCCCTAGCAGTACCGATCGTAGCCCCTATGAGAAG
GTTTCTGCAGGTAATGGTGGCAGCAGCCTCTCTTACACAAACCCAGCAGTGGCAGCCACTTCTGCCAACTTG**TAG**

GGGCACGTCGCCCGCTGAGCTGAGTGGCCAGCCAGTGCCATTCCACTCCACTCAGGTTCTTCAGGGCCAGAGCCC
CTGCACCCTGTTTGGGCTGGTGAGCTGGGAGTTCAGGTGGGCTGCTCACAGCCTCCTTCAGAGGCCCCACCAATT
TCTCGGACACTTCTCAGTGTGTGGAAGCTCATGTGGGCCCCTGAGGGCTCATGCCTGGGAAGTGTTGTGGTGGGG
GCTCCCAGGAGGACTGGCCCAGAGAGCCCTGAGATAGCGGGGATCCTGAACTGGACTGAATAAAACGTGGTCTCC
CACTG

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FIGURE 732

GC**ATG**CGCATAGCTAACCGCACCCGGTTCAGCTCGCCTTTCTTGGCCAGAGGCGCCGGTTGGACTCACGGGCGGG
GCATGATGGTGGTGGGTACGGGCACCTCGCTGGCGCTCTCCTCCCTCCTGTCCCTGCTGCTCTTTGCTGGGATGC
AGATGTACAGCCGTCAGCTGGCCTCCACCGAGTGGCTCACCATCCAGGGCGGCCTGCTTGGTTCGGGTCTCTTCG
TGTTCTCGCTCACTGCCTTCAATAATCTGGAGAATCTTGTCTTTGGCAAAGGATTCCAAGCAAAGATCTTCCCTG
AGATTCTCCTGTGCCTCCTGTTGGCTCTCTTTGCATCTGGCCTCATCCACCGAGTCTGTGTCACCACCTGGTATC
TTCATCTTCTCCATGGTTGGTCTGTACTACATCAACAAGATCTCCTCCACCCTGTACCAGGCAGCAGCTCCAGTC
CTCACACCAGCCAAGGTCACAGGCAAGAGCAAGAAGAGAAACTGACCCTGAATGTTCAA**TAA**AGTTGATTCTTTG
T

FIGURE 733

GCCACCACC**ATG**CCCAAGGGAAAGGCTGAAGGGGATCCTAAAGGAGATAAAGCCAAGGTGAAGGACGAACCACAA
AGGAGATCCGCGAGGTTGTCTGCTAAACCTTCTTCTCCAAAGCCAGAGCCCAAGCCTAAAAAGGCCCCTGCAAAG
AAGGGAGAGAAGGTACTCAAAGAGAAGAAGGGAAAAGCTGATGCTGGAAAGGAGGGGAATAACCCTGCAGAAAAT
GGAGATGCCAAAACAGACCAGGAACAGAAAGCTGAAGGTGCTGGAGATGCCAGAGGAAGTGTGTGCATTTTTGAT
AACTGTGTACTTCTGGTGAGTGTACAGTTTGAAATACTATTTTGTATCAAGTTTTATAAAAATGCAGATTTTTCA
GATTTTTTTTTTTTTTTTAAGCTATGTTGT**TAG**CACACAGAACACTTCATTGTTGCTTTTAGGAGAAGGAGCAAA
TGTCACTAATAGAATGTCTCTGAAGCTGGATTGATATGGGGAAATCGTCTTTTCCTTCTAGTTCCGAGAGACTTC
CTCTTGGCTCCCAGGAGGAGGGATTCCCTGACTTTGACACACATGGCCACCTTGGCACAAAAGCCTTGTGAAAGG
GAAAAGCAAATTTGTTTTTATGTCCTCTTCTCCCTTTCCATCTTTCAGCATAGACTTAACTCCCTTAAGCCCAGA
CATCTATTGGAACCTGACCTCCAATCATTGGTTACTAGTGTGTCAGGCAATCTGGACTTTCCAGTGATGTCACTG
AGATGGCACCTGTCAAAAAAGTAGTGGTTCTGTTTCTAGATTGTAGATCTTCAGATAAATTCTGCCATTTTAATT
TCACTTCCTGAAAGTCAGGGTTGACTTGTGAAAAGTTGTTAAACAACATGCTAAATGTGAAATGTCAACTCTCAC
TCTAAACTTTCCCTGTTCAGATCATCAGATGAAGACTTCATTGGGTTTTATAGTGGCTTTCTGATTTCTGGTAGT
CCATTGAAGAAGGGAGTTTGAAAGTTGTTGTATACTGTTAATGATTGTCTGCCCATGTCCTGCCTGAAATACCAT
GATTGTTTATGCAAAGTATCTTTAATAAAACTGGATACAGTTAGGCTTGG

FIGURE 734

GGCCCTTCCACCTTTTGTGGGCACTCAAGTTCGGACCTCTGGGATCGGCGATTCCCCTCTGGCCAGGGCTGGTTT
TA**ATG**CTCTCCGTGGGCGGGCTTCGGTTGAGTTTGGTCCGCTTTTCCTTTCTGCTCCTCAGGGGAGCATTGCTTC
CTTCTCTCGCAGTGACCATGACGAAATTAGCGCAGTGGCTTTGGGGACTAGCGATCCTGGGCTCCACCTGGGTGG
CCCTGACCACGGGAGCCTTGGGCCTGGAGCTGCCCTTGTCCTGCCAGGAAGTCCTGTGGCCACTGCCCGCCTACT
TGCTGGTGTCCGCCGGCTGCTATGCCCTGGGCACTGTGGGCTATCGTGTGGCCACTTTTCATGACTGCGAGGACG
CCGCACGCGAGCTGCAGAGCCAGATACAGGAGGCCCGAGCCGACTTAGCCCGCAGGGGGCTGCGCTTC**TGA**CAGC
CTAACCCCATTCCTGTGCGGACAGCCCTTCCTCCCATTTCCCATTAAAGAGCCAGTTTATTTTCT

FIGURE 735

GTAGGTCCCGGCAACCGCAGGCTCGCGGCGGGCGCTGGGCGCGGGATCCGACTCCAGTCGTA**ATG**GAGGCGGGCG
GCTTTCTGGACTCGCTCATTTACGGAGTCATGCACATGCGAATGACCCGGAGTGTGGACAACGTCCAGTTCCTGC
CCTTTCTCACCACGGAAGTCAACAACCTGGGCTGGCTGAGTTATGGGGCTTTGAAGGGAGACGGGATCCTCATCG
TCGTCAACACAGTGGGTGCTGCGCTTCAGACCCTGTATATCTTGGCATATCTGCATTACTGCCCTCGGAAGCGTG
TTGTGCTCCTACAGACTGCAACCCTGCTAGGGGTCCTTCTCCTGGGTTATGGCTACTTTTGGCTCCTGGTACCCA
ACCCTGAGGCCCGGCTTCAGCAGTTGGGCCTCTTCTGCAGTGTCTTCACCATCAGCATGTACCTCTCACCACTGG
CTGACTTGGCTAAGGTGATTCAAACTAAATCAACCCAATGTCTCTCCTACCCACTCACCATTGCTACCCTTCTCA
CCTCTGCCTCCTGGTGCCTCTATGGGTTTCGACTCAGAGATCCCTATATCATGGTGTCCAACTTTCCAGGAATCG
TCACCAGCTTTATCCGCTTCTGGCTTTTCTGGAAGTACCCCCAGGAGCAAGACAGGAACTACTGGCTCCTGCAAA
CC**TGA**GGCTGCTCATCTGACCACTGGGCACCTTAGTGCCAACCTGAACCAAAGAGACCTCCTTGTTTCAGCTGGG
CCTGCTGTCCAGCTTCCCAGGTGCAGTGGGTTGTGGGAACAAGAGATGACTTTGAGGATAAAAGGACCAAAGAAA
AAGCTTTACTTAGATGATTGATTGGGGCCTAGGAGATGAAATCACTTTTTATTTTTTAGAGATTTTTTTTTTTAA
TTTTGGAGGTTGGGGTGCAATCTTTAGAATATGCCTTAAAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAG
CACTTTGGGAGGCCAAGGTGGGCGGATCGCCTGAGGTCAGGAGTTCAAGACCAACCTGACTAACATGGTGAAACC
CCATCTCTACTAAAAATACAAAATTAGCCAGGCATGATGGCACATGCCTGTAATCCCAGATACTTGGGAGGCTGA
GGCAGGAGAATTGCTTGAACCCAGGAGGTGGAGGTTGCAGTGAGCTGAGATCGTGCCATTGTGATATGAATATGC
CTTATATGCTGATATGAATATGCCTTAAAATAAAGTGTTCCCCACCCCTG

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FIGURE 736

CCCAGGTTCCGGAATGAGGACTACACCATACATGTGCAGCTGAATGACTACGTGGACATCATCTGTCCGCACTAT
GAAGATCACTCTGTGGCAGACGCTGCC**ATG**GAGCAGTACATACTGTACCTGGTGGAGCATGAGGAGTACCAGCTG
TGCCAGCCCCAGTCCAAGGACCAAGTCCGCTGGCAGTGCAACCGGCCCAGTGCCAAGCATGGCCCGGAGAAGCTG
TCTGAGAAGTTCCAGCGCTTCACACCTTTCACCCTGGGCAAGGAGTTCAAAGAAGGACACAGCTACTACTACATC
TCCAAACCCATCCACCAGCATGAAGACCGCTGCTTGAGGTTGAAGGTGACTGTCAGTGGCAAAATCACTCACAGT
CCTCAGGCCCATGACAATCCACAGGAGAAGAGACTTGCAGCAGATGACCCAGAGGTGCGGGTTCTACATAGCATC
GGTCACAGTGCTGCCCCACGCCTCTTCCCACTTGCCTGGACTGTGCTGCTCCTTCCACTTCTGCTGCTGCAAACC
CCG**TGA**AGGTGTATGCCACACCTGGCCTTAAAGAGGGACAGGCTGAAGAGAGGGACAGGCACTCCAAACCTGTCT
TGGGGCCACTTTCAGAGCCCCCAGCCCTGGGAACCACTCCCACCACAGGCATAAGCTATCACCTAGCAGCCTCAA
AACGGGTCAGTATTAAGGTTTTCAACCGGAAGGAGGCCAACCAGCCCGACAGTGCCATCCCCACCTTCACCTCGG
AGGGATGGAGAAAGAAGTGGAGACAGTCCTTTCCCACCATTCCTGCCTTTAAGCCAAAGAAACAAGCTGTGCAGG
CATGGTCCCTTAAGGCACAGTGGGAGCTGAGCTGGAAGGGGCCACGTGGATGGGCAAAGCTTGTCAAAGATGCCC
CCTCCAGGAGAGAGCCAGGATGCCCAGATGAACTGACTGAAGGAAAAGCAAGAAACAGTTTCTTGCTTGGAAGCC
AGGTACAGGAGAGGCAGCATGCTTGGGCTGACCCAGCATCTCCCAGCAAGACCTCATCTGTGGAGCTGCCACAGA
GAAGTTTGTAGCCAGGTACTGCATTCTCTCCCATCCTGGGGCAGCACTCCCCAGAGCTGTGCCAGCAGGGGGGCT
GTGCCAACCTGTTCTTAGAGTGTAGCTGTAAGGGCAGTGCCCATGTGTACATTCTGCCTAGAGTGTAGCCTAAAG
GGCAGGGCCCACGTGTATAGTATCTGTATATAAGTTGCTGTGTGTCTGTCCTGATTTCTACAACTGGAGTTTTTT
TATACAATGTTCTTTGTCTCAAAATAAAGCAATGTGTTTTTTCGG

FIGURE 737A

CGCCGGCCGAGGAGGAGGGGTGGGGGTAGCGGCGGCGCCCGCGGCCCGGAGCGGGGGTTGGGGGAGTAGAGAAAG
CGGGGCGCGCGGAGGAACGCTGGGTCCCCGGCGCCGCGGGAGCTGGGAGGACCGAGCCGGCCGAGCGAGCAGCGC
GGCAGCACAGTCCCCGCGTGGCGCAGCGCGGCGGGGACGCGGGGACCGCCCGGATCTCCTTCCACTGCGCCCCGC
GCTCTGCGGTCCTCGGCCGCCTCTTCTTCCTTCACTCACTGCCCGGGCGGGAGCGGCGCCCAAGTCGGGTGCGCC
ATGTCTGGGGCCGGGTAGCCCCGCCGCCCGCCGGCCCGCCAGCTCGCCCTCCGAGCCACCCGCCAGCGGGCCGGC
CGGCCGGGAAGCGCGGGACAGGCAGATGCAGTGAGTGAGGGGGGGGCCATGGCGGAGGAGCGGCCCCCCCGGCTG
GTGGATTACTTCGTGGTAGCTGGGCTTGCAGGGAACGGAGCACCCATCCCTGAGGAAACGTGGGTTCCTGAACCC
AGTGGGCCCCTGCGCCCTCCCCGGCCAGCTGAGCCCATCACAG**ATG**TGGCAGTCATCGCTAGGGCACTGGGCGAG
GAAGTGCCCCAGGGCTACACATGCATCCAGGCTTCTGCTGGGGGCCACCCCTTGGAACTCAGTGCTGGACTTCTG
GGTGGAACTCAACCCGTCATCTGCTACCGCAGGGGCCGTGACAAGCCCCCCCTCGTTGAGCTGGGGGTGTTGTAT
GAGGGGAAGGAACGTCCCAAGCCTGGCTTCCAAGTGCTTGACACGACACCCTACAGCCACTCAGCAAACCTGGCC
CCTCCAGGCCCCGGGCACCCCCGCACCTACCTCACTTACCGGCGGGCAGCAGAGGGGGCAGGGCTGCATGCCCTG
GGCATCACTGACCTCTGCCTGGTGCTGCCCAGTAAGGGCGAGGGCACTCCTCATACTTACTGCCGGCTGCCCCGC
AACCTCAACCCTGGCATGTGGGGCCCAGCAGTGTACCTGTGCTATAAGGTGGGCCTGGCGAAGGCCAACACGCTG
GTGTACGAGGCAGTTCTACGAGGCGTTCCCAAGGGCCAGGCTATCAGAGCGACAGGCACGGGCACTGGGCCTGCT
GAGCGCCGTGGAGCGGGGTCGGGCACTGGGGGGCAGAGCTGTGCGCAGCCGGCGTGCCATCGCTGTGCTGTCCCG
CTGGCCTGCCTTCCCTGCCTTCCGCGCCTTCCTCACCTTCCTTTACCGCTACTCCGTCTCAGGCCCCCACCGCCT
ACCCTTGGAAGCGCACATCTCCCACTTCATTCACAACGTTCCCTTCCCTTCCCCACAGAGACCCCGCATCCTAGT
GCAGATGTCTCCCTATGACAACTTGCTCCTCTGTCAGCCTGTATCCTCACCCCTGCCCCTCAGTGGTGCCAGCTT
CCTGCAGCTGCTGCAGAGCCTGGGCCCTGAGCTGGCTATCACACTGCTGCTGGCTGTGCTCACAGAGCACAAGCT
GCTAGTCCACTCGCTGCGGCCAGACCTGCTCACCAGCGTCTGTGAGGCCCTCGTCTCGATGATCTTCCCACTGCA
CTGGCAGTGCCCCTACATTCCTCTGTGCCCGCTGGTGCTGGCAGATGTGCTGAGTGCCCCAGTGCCCTTCATTGT
GGGTATCCACTCCAGCTACTTTGATCTGCATGACCCGCCTGCTGATGTCATCTGTGTAGACCTTGATACCAACAC
GCTCTTCCAGACTGAGGAAAAGAAGCTCCTCTCCCCTCGGACCCTGCCCCGCAGACCCTACAAGGTTCTGCTGGC
CACACTGACAAACCTGTACCAGCAGCTGGACCAGACATACACTGGACCTGAGGAGGAAGCATCCCTGGAGTTCCT
ACTGACAGACTACGAGGCAGTGTGTGGCCGCAGGGCCCGGCTGGAGCGCGAAGTCCAAGGAGCCTTCCTCCGCTT
CATGGCCTGTCTGCTCAAGGGCTACCGGGTCTTCCTGCGCCCACTCACCCAGGCCCCCTCCGAGGGAGCTCGTGA
TGTTGACAACCTTTTCTTCCTGCAGGGCTTCCTCAAATCCCGGGAACGCTCCAGCCACAAACTTTACTCTCAGCT
GCTGCACACACAGATGTTCTCACAGTTCATTGAGGAGTGCTCTTTTGGCTCTGCTCGCCATGCTGCCCTTGAATT
CTTTGACTCTTGTGTTGAAAAGGTCCACCCAGAGCAGGAGAAGCCTGAGCCGACACCCTTAGTGGAGCTAGAGGA
GCTGTCAGGAAGTGAGCTCACTGTCTTTATCACACCTCCCGAGGAGCCTGCCTTACCAGAGGGCAGTGAATCCAC
TCCCCAGTACTGCTATGATGGATTCCCAGAGCTACGGGCTGAGTTGTTTGAGTCTCTTCAAGAGCAACCTGGGGC
CCTGCCTGTGCCAGGCCCTTCCCGTAGCGCCCCCAGCAGTCCTGCTCCTCGCCGTACCAAACAGGAGATGAAAGT
TGCACAGCGGATGGCACAGAAGTCAGCAGCTGTGCCTGAGCTGTGGGCCCGGTGCCTGCTGGGGCACTGCTATGG
GCTGTGGTTCCTGTGTCTGCCTGCCTATGTGCGGTCGGCACCCTCCCGAGTGCAGGCACTGCACACAGCCTACCA
TGTGCTGCGCCAGATGGAGAGCGGCAAGGTGGTGCTCCCTGATGAGGTGTGTTACCGGGTACTGATGCAGCTCTG
CTCACACTATGGGCAGCCTGTGCTGTCTGTGCGGGTCATGCTGGAGATGCGTCAGGCAGGCATTGTGCCCAACAC
CATCACCTATGGCTACTACAATAAGGCTGTGTTGGAAAGCAAGTGGCCGTCTGGCACACCAGGTGGGCGTCTGCG
CTGGGCCAAGCTCCGGAATGTTGTCCTGGGGGCTGCTCAGTTCCGCCAGCCCTTGAGAGAACGGCAACAGCAGCA
GCAGCAGCAACAGCAGCAGCAGCAGCAGCAGCAGCAGGAGCAGGTGTCAGCACATCAAGAGGCAGGCAGCTCCCA
GGCAGAGCCCTATTTGGAGCGCCCTTCCCCTACTCGCCCTCTTCAGCGCCAGACTACTTGGGCTGGGCGAAGTCT
GAGAGACCCAGCCTCACCCCCTGGACGCCTGGTGAAGAGTGGTAGCCTGGGCAGTGCCCGAGGGGCACAGCCCAC
TGTGGAGGCCGGTGTGGCCCACATGATAGAGGCCTTGGGGGTCCTGGAACCCCGGGGATCACCTGTGCCCTGGCA
CGATGGAAGTCTCTCAGACCTGAGCCTGACAGGGGAGGAGCCGCTCCCTGGAGGCAGCCCAGGGGGCTCAGGCTC
AGCCCTGAGTGCCCAGTCCACTGAGGCCCTGGAAGGGCTAAGTGGGCGGGGACCCAAGGCTGGTGGGCGACAGGA
TGAGGCAGGCACCCCCCGACGAGGGCTGGGTGCCCGCCTCCAACAGCTGCTCACTCCTTCCCGCCACTCCCCTGC
CTCCCGCATTCCCCCACCTGAGCTGCCTCCTGACCTGCCACCCCCAGCCCGCCGCAGCCCCATGGACAGTCTTCT
GCACCCCCGGGAGCGCCCTGGATCCACTGCCTCCGAGAGCTCAGCCTCTCTGGGCAGTGAGTGGGACCTCTCAGA

FIGURE 737B

ATCTTCTCTCAGCAACCTGAGTCTTCGCCGTTCCTCAGAGCGCCTCAGTGACACCCCTGGATCCTTCCAGTCACC
TTCCCTGGAAATTCTGCTGTCCAGCTGCTCCCTGTGCCGTGCCTGTGATTCGCTGGTGTATGATGAGGAAATCAT
GGCTGGCTGGGCACCTGATGACTCTAACCTCAACACAACCTGCCCCTTCTGCGCCTGCCCCTTTGTGCCCCTGCT
CAGTGTCCAGACCCTTGATTCCCGGCCCAGTGTCCCCAGCCCCAAATCTGCTGGTGCCAGTGGCAGCAAAGATGC
TCCTGTCCCTGGTGGTCCTGGCCCTGTGCTCAGTGACCGAAGGCTCTGCCTTGCTCTGGATGAGCCCCAGCTCTG
CAACGGGCACATGGGGGGAGCCTCCCGGCGGGTTGAGAGTGGGGCATGGGCATACCTGAGCCCCCTGGTGCTGCG
TAAGGAGCTGGAGTCGCTGGTAGAGAACGAGGGCAGTGAGGTGCTGGCGTTGCCTGAACTGCCCTCTGCCCACCC
CATCATCTTCTGGAACCTTTTGTGGTATTTCCAACGGCTACGCCTGCCCAGTATTCTACCAGGCCTGGTGCTGGC
CTCCTGTGATGGGCCTTCGCACTCCCAGGCCCCATCTCCTTGGCTAACCCCTGATCCAGCCTCTGTTCAGGTACG
GCTGCTGTGGGATGTACTGACCCCTGACCCCAATAGCTGCCCACCTCTCTATGTGCTCTGGAGGGTCCACAGCCA
GATCCCCCAGCGGGTGGTATGGCCAGGCCCTGTACCTGCATCCCTTAGTTTGGCACTGTTGGAGTCAGTGCTGCG
CCATGTTGGACTCAATGAAGTGCACAAGGCTGTGGGGCTCCTGCTGGAAACTCTAGGGCCCCCACCCACTGGCCT
GCACCTGCAGAGGGGAATCTACCGTGAGATATTATTCCTGACAATGGCTGCTCTGGGCAAGGACCACGTGGACAT
AGTGGCCTTCGATAAGAAGTACAAGTCTGCCTTTAACAAGCTGGCCAGCAGCATGGGCAAGGAGGAGCTGAGGCA
CCGGCGGGCGCAGATGCCCACTCCCAAGGCCATTGACTGCCGAAAATGTTTTGGAGCACCTCCAGAATGC**TAG**AG
ACCTTAAGCTTCCCTCTCCAGCCTAGGGTGGGGAAGTGAGGAAGAAGGGATTCTAGAGTTAAACTGCTTCCCTGT
TGCCTTCATGGAGTTGGGAACAGGCTGGGAAGGATGCCCAGTCAAAGGCTCCAAGCGAGGACAACAGGAAGAGGG
ATCCACTGTTACCAAAAGTCCTGATTCCCCCATCACCAACCTACCCAGTTTGTTCGTGCTGATGTTGGGGGAGAT
CTGGGGGGAGTTGGTACAGCTCTGTTCTTCCCTTGTCCTATACCGGGAACTCCCCTCCAGGGTACCCACAGATCT
GCATTGCCCTGGTCATTTTAGAAGTTTTTGTTTTAAAAAACAACTGGAAAGATGCAGAGCTACTGAGCCTTTGCC
CTGAATGGGAGGTAGGGATGTCATTCTCCACCAATAATGGTCCCTCTTCCCTGACGTTGCTGAAGGAGCCCAAGG
CTCTCCATGCCTTTCTACCTAAGTGTTTGTATTTTATTTTAAATTATTTATTCTGGAGCCACAGCCCCCTTGCTT
ATGAGGTTCTTATGGAGAGTGAGAAAGGGAAGGGAAATAGGGCACCATGGTCCGGTGGTTTGTAGTTCCTTCAAA
GTCAGGCACTGGGAGCTAGAGGAGTCTCAAGCTCCCCTTAGGAAGAACTGGTGCCCCCTCCAGTCCTAATTTTTC
TTGCCTGCCCCGCCTTGGGGAATGCCTCACCCACCCAGGTCCTGACCTGTGCAATAAGGATTGTTCCCTGCGAAG
TTTTGTTGGATGTAAATATAGTAAAAGCTGCTTCTGTCTTTTTC

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FIGURE 738

ATCCACCTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCATACCCGGCCTCC**ATG**GAGCTATT
TAAAGCAGGTAGGCAAGTGAGCACTGCAGCCAATGCCACTGTATCCCTTGCAGGTATTCTGGATGGTGAAATGGA
CCCCAAAGGTATGTGTTCCTCACTGCTGTGGGTACTGAATGCCAAAGAATTTCTGGGCTGGTGTTGGGATTGTGT
GCAGGTTCAGGGAGCAGGACTCCTTCCCACCTGCTTCTGCTTCCTGTCCTGCCTTACTGGCTCTTTCTCCAACTC
TCCCATCACCAGTCTTTCTCTTTCAAGTACCTGCTAT**TGA**GGAGAACTTGCTAGATGACAAGCATTTGCTGAAGC
CATGGGATGCTAAGAAGCTATCCTCATCCTCTTCCCGACCTCGGTCCTGTGAAGTCCCTGGAATTAACATCTTTC
CATCTCCTGACCAGCCTGCCAATGTGCCTGTCCTCCCACCTGCCATGAACACGGGGGGCTCCCTACCTGACCTCA
CCAACCTGCACTTTCCCCCACCACTGCCCACCCCCCTGGACCCTGAAGAGACAGCCTACCCTAGCCTGAGTGGGG
GCAACAGTACCTCCAATTTGACCCACACCATGACTCACCTGGGCATCAGCAGGGGCATGGGCCTGGGCCCAGGCT
ATGATGCACCAGGACTTCATTCACCTCTCAGCCACCCATCCCTGCAGTCCTCCCTAAGCAATCCCAACCTCCAGG
CTTCCCTGAGCAGTCCTCAGCCCCAGCTTCAGGGCTCCCACAGCCACCCCTCTCTGCCTGCCTCCTCCTTGGCCC
GCCATGTACTGCCCACCACCTCCCTGGGCCACCCCTCACTCAGTGCTCCGGCTCTCTCCTCCTCCTCTTCCTCCT
CCTCCACTTCATCTCCTGTTTTGGGCGCCCCCTCTTACCCTGCTTCTACCCCTGGGG

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FIGURE 739

GCCGGAAGCGCGCGGAGACCATGTAGTGAGACCCTCGCGAGGTCTGAGAGTCACTGGAGCTACCAGAAGCATCATG
GGGGCCCTGGGGAGAGCCAGAGCTCCTGGTGTGGCGCCCCGAGGCGGTAGCTTCAGAGCCTCCAGTGCCTGTGGG
GCTGGAGGTGAAGTTGGGGGCCCTGGTGCTGCTGCTGGTGCTCACCCTCCTCTGCAGCCTGGTGCCCATCTGTGT
GCTGCGCCGGCCAGGAGCTAACCATGAAGGCTCAGCTTCCCGCCAGAAAGCCCTGAGCCTAGTAAGCTGTTTCGC
GGGGGGCGTCTTTTTGGCCACTTGTCTCCTGGACCTGCTGCCTGACTACCTGGCTGCCATAGATGAGGCCCTGGC
AGCCTTGCACGTGACGCTCCAGTTCCCACTGCAAGAGTTCATCCTGGCCATGGGCTTCTTCCTGGTCCTGGTGAT
GGAGCAGATCACACTGGCTTACAAGGAGCAGTCAGGGCCGTCACCTCTGGAGGAAACAAGGGCTCTGCTGGGAAC
AGTGAATGGTGGGCCGCAGCATTGGCATGATGGGCCAGGGGTCCCACAGGCGAGTGGAGCCCCAGCAACCCCCTC
AGCCTTGCGTGCCTGTGTACTGGTGTTCTCCCTGGCCCTCCACTCCGTGTTCGAGGGGCTGGCGGTAGGGCTGCA
GCGAGACCGGGCTCGGGCCATGGAGCTGTGCCTGGCTTTGCTGCTCCACAAGGGCATCCTGGCTGTCAGCCTGTC
CCTGCGGCTGTTGCAGAGCCACCTTAGGGCACAGGTGGTGGCTGGCTGTGGGATCCTCTTCTCATGCATGACACC
TCTAGGCATCGGGCTGGGTGCAGCTCTGGCAGAGTCGGCAGGACCTCTGCACCAGCTGGCCCAGTCTGTGCTAGA
GGGCATGGCAGCTGGCACCTTTCTCTATATCACCTTTCTGGAAATCCTGCCCCAGGAGCTGGCCAGTTCTGAGCA
AAGGATCCTCAAGGTCATTCTGCTCCTAGCAGGCTTTGCCCTGCTCACTGGCCTGCTCTTCATCCAAATCTAGGG
GGCTTCAAGAGAGGGGCAGGGGAGATTGATGATCAGGTGCCCCTGTTCTCCCTTCCCTCCCCCAGTTGTGGGGAA
TAGGAAGGAAAGGGGAAGGGAAATACTGAGGACCAAAAAGTTCTCTGGGAGCTAAAGATAGAGCCTTTGGGGCTA
TCTGACTAATGAGAGGGAAGTGGGCAGACAAGAGGCTGGCCCCAGTCCCAAGGAACAAGAGATGGTCAAGTCGCT
AGAGACATATCAGGGGACATTAGGATTGGGGAAGACACTTGACTGCTAGAATCAGAGGTTGGACACTATACATAA
GGACAGGCTCACATGGGAGGCTGGAGGTGGGTACCCAGCTGCTGTGGAACGGGTATGGACAGGTCATAAACCTAG
AGTCAGTGTCCTGTTGGTCCTAGCCCATTTCAGCACCCTGCCACTTGGAGTGGACCCCTCCTACTCTTCTTAGCG
CCTACCCTCATACCTATCTCCCTCCTCCCATCTCCTAGGGGACTGGCGCCAAATGGTCTCTCCCTGCCAATTTTG
GTATCTTCTCTGGCCTCTCCAGTCCTGCTTACTCCTCTATTTTTAAAGTGCCAAACAAATCCCCTTCCTCTTTCT
CAAAGCACAGTAATGTGGCACTGAGCCCTACCCAGCACCTCAGTGAAGGGGGCCTGCTTGCTCTTTATTTTGGTC
CCGGATCCTGGGGTGGGGCAGAAATATTTTCTGGGCTGGGGTAGGAGGAAGGTTGTTGCAGCCATCTACTGCTGC
TGTACCCTAGGAATATGGGGACATGGACATGGTGTCCCATGCCCAGATGATAAACACTGAGCTGCCAAAACATTT
TTTTAAATACACCCGAGGAGCCCAAGGGGGAAGGGCAATGCCTACCCCCAGCGTTATTTTTGGGGAGGGAGGGCT
GTGCATAGGGACATATTCTTTAGAATCTATTTTATTAACTGACCTGTTTTGGGACCTGTTACCCAAATAAAAGAT
GTTTCTAG

FIGURE 740

AGAAAGAAAAGGTGTAGTGTTTGGGGAGGTCAACGGGCTATGCTGGCTTGACAGGGCTGGGCTCTTCAGAACAGA
AGC**ATG**GATCTCGGAATCCCTGACCTGCTGGACGCGTGGCTGGAGCCCCCAGAGGATATCTTCTCGACAGGATCC
GTCCTGGAGCTGGGACTCCACTGCCCCCCTCCAGAGGTTCCGGTAACTAGGCTACAGGAACAGGGACTGCAAGGC
TGGAAGTCCGGTGGGGACCGTGGCTGTGGCCTTCAAGAGAGTGAGCCTGAAGATTTCTTGAAGCTTTTCATTGAT
CCCAATGAGGTGTACTGCTCAGAAGCATCTCCTGGCAGTGACAGTGGCATCTCTGAGGACCCCTGCCATCCAGAC
AGTCCCCCTGCCCCCAGGGCAACCAGTTCTCCTATGCTCTATGAGGTTGTCTATGAGGCAGGGGCCCTGGAGAGG
ATGCAGGGGGAAACTGGGCCAAATGTAGGCCTTATCTCCATCCAGCTAGATCAGTGGAGCCCAGCATTTATGGTG
CCTGATTCCTGCATGGTCAGTGAGCTGCCCTTTGATGCTCATGCCCACATCCTGCCCAGAGCAGGCACCGTAGCC
CCAGTGCCCTGTACAACCCTGCTGCCCTGTCAAACCCTGTTCCTGACCGATGAGGAGAAGCGTCTGCTGGGGCAG
GAAGGGGTTTCCCTGCCCTCTCACCTGCCCCTCACCAAGGCAGAGGAGAGGGTCCTCAAGAAGGTCAGGAGGAAA
ATCCGTAACAAGCAGTCAGCTCAGGACAGTCGGCGGCGGAAGAAGGAGTACATTGATGGGCTGGAGAGCAGGGTG
GCAGCCTGTTCTGCACAGAACCAAGAATTACAGAAAAAAGTCCAGGAGCTGGAGAGGCACAACATCTCCTTGGTA
GCTCAGCTCCGCCAGCTGCAGACGCTAATTGCTCAAACTTCCAACAAAGCTGCCCAGACCAGCACTTGTGTTTTG
ATTCTTCTTTTTTCCCTGGCTCTCATCATCCTGCCCAGCTTCAGTCCATTCCAGAGTCGACCAGAAGCTGGGTCT
GAGGATTACCAGCCTCACGGAGTGACTTCCAGAAATATCCTGACCCACAAGGACGTAACAGAAAATCTGGAGACC
CAAGTGGTAGAGTCCAGACTGAGGGAGCCACCTGGAGCCAAGGATGCAAATGGCTCAACAAGGACACTGCTTGAG
AAGATGGGAGGGAAGCCAAGACCCAGTGGGCGCATCCGGTCCGTGCTGCATGCAGATGAGATG**TGA**GCTGGAACA
GACCTTCCTGGCCCACTTCCTGATCACAAGGAATCCTGGGCTTCCTTATGGCTTTGCTTCCCACTGGGATTCCTA
CTTAGGTGTCTGCCCTCAGGGGTCCAAATCACTTCAGGACACCCCAAGAGATGTCCTTTAGTCTCTGCCTGAGGC
CTAGTCTGCATTTGTTTGCATATATGAGAGGGTACCTCAAATACTTCTGTTATGTATCTGTGATTTTATTTCTTC
TTTGGGTATAGGGTTGAGGGGAAATAAGTTTTGAGTGAGAAATAAACGTTTTAGCTGAAATTGT

FIGURE 741

GCGAGGCGCCACCGACGCGGAAGACTATAAGCCCCAGCGGGCGACGACCGAACGCCCCCGGGAACACCGGGCCCC
GAGCTCGGTCCCGCGCCCGAGGATCCTCCACGGGGCTAGATGGCTGCGTCGGGGGCGGGAGCGGAGGTGAGCGGG
CGCTAGGGCCGCGAGCCCCCGCCGGCCCTTCCTCCAGCGCCCTGCGGACCCCGCAGAAGGCGCTCGCCTCCCTAG
CCCGCAAAAACATATCGATTTTTCTCGCTGTGGCAACGGGGACGTCCTGATAGATCCTCTGCTCCAATAGGCAAC
TCCGGCCTTCCCTGCCCTGACCTGGAACCTCTGGGAGGGCTGCAGAGTAAGTGCCGCCTCTGCGCTCCGACGGAG
GCACGAGGCCTGTGGAGTAGGTCCCTCTGTTCCGACAGGTGCGACACTTGGCGCTCC**ATG**CTTGCGGGTGCCGGG
AGGCCTGGCCTCCCCCAGGGCCGCCACCTCTGCTGGTTGCTCTGTGCTTTCACCTTAAAGCTCTGCCAAGCAGAG
GCTCCCGTGCAGGAAGAGAAGCTGTCAGCAAGCACCTCAAATTTGCCATGCTGGCTGGTGGAAGAGTTTGTGGTA
GCAGAAGAGTGCTCTCCATGCTCTAATTTCCGGGCTAAAACTACCCCTGAGTGTGGTCCCACAGGATATGTAGAG
AAAATCACATGCAGCTCATCTAAGAGAAATGAGTTCAAAAGCTGCCGCTCAGCTTTGATGGAACAACGCTTATTT
TGGAAGTTCGAAGGGGCTGTCGTGTGTGTGGCCCTGATCTTCGCTTGTCTTGTCATCATTCGTCAGCGACAATTG
GACAGAAAGGCTCTGGAAAAGGTCCGGAAGCAAATCGAGTCCATA**TAG**CTACATTCCACCCTTGTATCCTGGGTC
TTAGAGACCCTATCTCAGACAGTGAAAGTGAAATGGACTGATTTGCACTCTTGGTTCTTTGGAGCCTTGTGGTGG
AATCCCCTTTTCCCCATCTTCTTCTTTCAGATCATTAATGAGCAGAATAAAAAGAGTAAAATGGT

FIGURE 742

GGGAGGAAAACTTCTTCCTGGCCTGGGCTCCGTGCCGCTCTGTTTGCCAACCGTCCAGTCCCGCCTACCAGTGCC
GGGCGCTCCCCACCCCTCCCCCGGCTCCCCCGGTGTCCGCC**ATG**GCCAAAGCCTACGACCACCTCTTCAAGTTGC
TGCTGATCGGGGACTCGGGGGTGGGCAAGACTTGTCTGATCATTCGCTTTGCAGAGGACAACTTCAACAACACTT
ACATCTCCACCATCGGAATTGATTTCAAGATCCGCACTGTGGATATAGAGGGGAAGAAGATCAAACTACAAGTCT
GGGACACGGCTGGCCAAGAGCGGTTCAAGACAATAACTACTGCCTACTACCGTGGAGCCATGGGCATTATCCTAG
TATACGACATCACGGATGAGAAATCTTTCGAGAATATTCAGAACTGGATGAAAAGCATCAAGGAGAATGCCTCGG
CTGGGGTGGAGCGCCTCTTGCTGGGGAACAAATGTGACATGGAGGCCAAGAGGAAGGTGCAGAAGGAGCAGGCCG
ATAAGTTGGCTCGAGAGCATGGAATCCGATTTTTCGAAACTAGTGCTAAATCCAGTATGAATGTGGATGAGGCTT
TTAGTTCCCTGGCCCGGGACATCTTGCTCAAGTCAGGAGGCCGGAGATCAGGAAACGGCAACAAGCCTCCCAGTA
CTGACCTGAAAACTTGTGACAAGAAGAACACCAACAAGTGCTCCCTGGGC**TGA**GGACCCTTTCTTGCCTCCCCAC
CCCGGAAGCTGAACCTGAGGGAGACAACGGCAGAGGGAGTGAGCAGGGGAGAAATAGCAGAGGGGCTTGGAGGGT
CACATAGGTAGATGGTAAAGAGAATGAGGAGAAAAAGGAGAAAAGGGAAAAGCAGAAAGGAAAAAAAGGAAGAGA
GAGGAAGGGAGAAGGGAGAGGAATGAATTGAGGAAGTGAAAGAAGGCAAGGAGGTAGGAAGAGAGGGAGGAGGAA
AGGAAGGAGAGATGCCTCAGGCTTCAGACCTTACCTGGGTTTTCAGGGCAAACATAAATGTAAATACACTGATTT
ATTCTGTTACTAGATCAGGTTTTAGGGTCCTGCAAAAGGCTAGCTCGGCACTACACTAGGGAATTTGCTCCTGTT
CTGTCACTTGTCATGGTCTTTCTTGGTATTAAAGGCCACCATTTGCACAAAAAAAAAAAAAAA

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FIGURE 743

CCTTTCCGGCGGTGACGACCTACGCACACGAGAAC**ATG**CCTCTCGCAAAGGATCTCCTTCATCCCTCTCCAGAAG
AGGAGAAGAGGAAACACAAGAAGAAACGCCTGGTGCAGAGCCCCAATTCCTACTTCATGGATGTGAAATGCCCAG
GATGCTATAAAATCACCACGGTCTTTAGCCATGCACAAACGGTAGTTTTGTGTGTTGGCTGCTCCACTGTCCTCT
GCCAGCCTACAGGAGGAAAAGCAAGGCTTACAGAAGGATGTTCCTTCAGGAGGAAGCAGCAC**TAA**AAGCACTCTG
AGTCAAGATGAGTGGGAAACCATCTCAATAAACACATTTTGGAT

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FIGURE 744

ACTCAGGCAGCAGCCCCTTCTTTCTTGCCCCAGTCTCCAGTTCTCCAGTGTTCACAGGTGAGCCTACCAACAGCC
ACTGCTC**ATG**ATGGAGGCCATCAAGAAAAAGATGCAGATGCTGAAGTTAGACAAGGAGAATGCTCTGGATCGGGC
AGAGCAAGCTGAAGCTGAGCAGAAGCAGGCAGAAGAAAGAAGTAAACAGCTGGAGGATGAGCTGGCAGCCATGCA
GAAGAAGCTGAAAGGGACAGAGGATGAGCTGGACAAGTATTCTGAAGCTTTGAAGGATGCCCAGGAGAAGCTGGA
ACTGGCAGAGAAGAAGGCTGCTGATGCTGAGGCTGAGGTGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGA
AGAGCTGGACCGTGCTCAGGAGCGCCTGGCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAAAGCTGCTGATGA
GAGTGAGAGAGGTATGAAGGTTATTGAAAACCGGGCCTTAAAAGATGAAGAAAAGATGGAACTCCAGGAAATCCA
ACTCAAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGATCAT
TGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGGCAGAGTCTAAGTGTTCTGAGCTGGAGGAGGAGCT
GAAGAATGTCACCAACAACCTCAAGTCTCTTGAGGCTCAGGCGGAGAAGTACTCTCAAAAAGAAGATAAATATGA
GGAAGAAATCAAGATTCTTACTGATAAACTCAAGGAGGCAGAGACCCGTGCTGAGTTTGCTGAGAGATCGGTAGC
CAAGCTGGAAAAGACAATTGATGACCTGGAAGATGAGCTCTATGCCCAGAAACTGAAGTACAAGGCCATTAGCGA
GGAGCTGGACCACGCCCTCAATGACATGACCTCTATA**TAA**TTATCACCGTTTCTGCTCTGTTCTGGATCTGCCCC
CTTTACTCCTCGGGGAACCCAAGGCCCCACTCTCGCTCTGGATTCCATTTGGGTCAGCCTGGCTGGTCCCCAAGG
CATTAGGATGGGGGAGCAAAAAGCAACTTATGTATTTTCTTCCACCCCCACCCCAAATTAAAATGTTAAGCTGCT
GGA

FIGURE 745

GTCAGGGGGAAGCTGGAAGGCGTCGTTCTCCTTTCCCAGCTCTCCTGCCTGTCCGCCATGTTTTCAGGCCGGGTC
TGGCTTGGTCTTCCCCCGTAAGGAAATGGCCGGGGAGCTCCAGGGGACCCAGGCGCCGTCGCTTCGGCGGAGCCT
GGGCTGACCAGCCAGGACAGCGGGGTAAACCCGAACAATTCTGCGCGAGGTAGGGAGGCC**ATG**GCGTCCGGCAGT
AACTGGCTCTCCGGGGTGAATGTCGTGCTGGTGATGGCCTACGGGAGCCTGGACTTGAAAGAGGAGATTGATATT
CGACTCTCCAGGGTTCAGGATATCAAGTATGAGCCCCAGCTCCTTGCAGATGATGATGCTAGACTACTACAACTG
GAAACCCAGGGAAATCAAAGTTGCTACAACTATCTGTATAGGATGAAAGCTCTGGATGCCATTCGTACCTCTGAG
ATCCCATTTCATTCTGAAGGCCGGCATCCCCGTTCCTTAATGGGCAAGAATTTCCGCTCCTACCTGCTGGATCTG
CGAAACACTAGTACGCCTTTCAAGGGTGTACGCAAAGCACTCATTGATACCCTTTTGGATGGCTATGAAACAGCC
CGCTATGGGACAGGGGTCTTTGGCCAGAATGAGTACCTACGCTATCAGGAGGCCCTGAGTGAGCTGGCCACTGCG
GTTAAAGCACGAATTGGGAGCTCTCAGCGACATCACCAGTCAGCAGCCAAAGACCTAACTCAGTCCCCTGAGGTC
TCCCCAACAACCATCCAGGTGACATACCTCCCCTCCAGTCAGAAGAGTAAACGTGCCAAGCACTTCCTTGAATTG
AAGAGCTTTAAGGATAACTATAACACATTGGAGAGTACTCTG**TGA**CGGAGCTGAAGGACTCTTGCCGTAGATTAA
GCCAGTCAGTTGCAATGTGCAAGACAGGCTGCTTGCCGGGCCGCCCTCGGAACATCTGGCCCAGCAGGCCCAGAC
TGTATCCATCCAAGTTCCCGTTGTATCCAGAGTTCTTAGAGCTTGTGTCTAAAGGGTAATTCCCCAACCCTTCCT
TATGAGCATTTTTAGAACATTGGCTAAGACTATTTTCCCCCAGTAGCGCTTTTTTCTGGATTTGCATTCAGGTGT
TATTCTTAATGTTTCTGTCAAAGCTTCTTAAAAATCTTCACTTGGTTTCAGCCATAGTTCACCTTCCCTGTTCCA
GGTTTATTTAATTCCAAAGGTGAGAGTTGGAGTGAGATGTCTTCCATATCTATACCTTTGTGCACAGTTGAATGG
GAACTGTTTGGGTTTAGGGCATCTTAGAGTTGATTGATGGAAAAAGCAGACAGGAACTGGTGGGAGGTCAAGTGG
GGAAGTTGGTGAATGTGGAATAACTTACCTTTGTGCTCCACTTAAACCAGATGTGTTGCAGCTTTCCTGACATGC
AAGGATCTACTTTAATTCCACACTCTCATTAATAAATTGAATAAAAGGGAATGTTTTGGCACCTGATATAATCTG
CCAGGCTATGTGACAGTAGGAAGGAATGGTTTCCCCTAACAAGCCCAATGCACTGGTCTGACTTTATAAATTATT
TAATAAAATGAACTATTATCAAATAAAACGTATGAATCAGT

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FIGURE 746

CCCGACTAAGTGACTTAAACTCCCACCTACTCCTGGAATAAGGAGTCAAAGCCCGGATAGGCGCAGTATTCTACC
TTGTAAATACTGTTATTTGTATATACTGTAA**ATG**ATGACATCGGTGGGCACTAACCGAGCCCGGGGAAACTGGGA
ACAACCTCAAAACCAAAACCAGACACAGCACAAGCAGCGGCCACAGGCCACTGCAGAACAAATTAGACTTGCACA
GATGATTTCGGACCATAATGATGCTGACTTTGAGGAGAAGGTGAAACAATTGATTGATATTACAGGCAAGAACCA
GGATGAATGTGTGATTGCTTTGCATGACTGCAATGGAGATGTCAACAGAGCTATCAATGTTCTTCTGGAAGGAAA
CCCAGACACGCATTCCTGGGAGATGGTCGGGAAGAAGAAGGGAGTCTCAGGCCAGAAGGATGGTGGCCAGACGGA
ATCCAATGAGGAAGGCAAAGAAAATCGAGACCGGGACAGAGACTATAGTCGGCGACGTGGTGGGCCACCAAGACG
GGGGAGAGGTGCCAGCCGTGGACGAGAGTTTCGAGGTCAGGAAAATGGATTGGATGGCACCAAGAGTGGAGGGCC
TTCTGGAAGAGGAACAGAAAGAGGCAGAAGGGGCCGTGGCCGAGGCAGAGGTGGCTCTGGTAGGCGAGGAGGAAG
GTTTTCTGCTCAAGGAATGGGAACCTTTAACCCAGCTGATTATGCAGAGCCAGCCAATACTGATGATAACTATGG
CAATAGCAGCGGCAATACGTGGAACAACACTGGCCACTTTGAACCAGATGATGGGACGAGTGCATGGAGGACTGC
AACAGAGGAGTGGGGGACTGAAGATTGGAATGAAGATCTTTCTGAGACCAAGATCTTCACTGCCTCTAATGTGTC
TTCAGTGCCTCTGCCTGCGGAGAATGTGACAATCACTGCTGGTCAGAGAATTGACCTTGCTGTTCTGCTGGGGAA
GACACCATCTACAATGGAGAATGATTCATCTAATCTGGATCCGTCTCAGGCTCCTTCTCTGGCCCAGCCTCTGGT
GTTCAGTAATTCGAAGCAGACTGCCATATCACAGCCTGCTTCAGGGAACACATTTTCTCATCACAGTATGGTGAG
CATGTTAGGGAAAGGATTTGGTGATGTCGGTGAAGCTAAAGGCGGCAGTACTACAGGCTCCCAGTTCTTGGAGCA
ATTCAAGACTGCCCAAGCCCTGGCTCAGTTGGCAGCTCAGCATTCTCAGTCTGGAAGCACCACCACCTCCTCTTG
GGACATGGGCTCGACGACACAATCCCCATCACTGGTGCAGTATGATTTGAAGAACCCAAGTGATTCAGCAGTGCA
CAGCCCCTTTACAAAGCGCCAGGCTTTTACCCCATCTTCAACCATGATGGAGGTGTTCCTTCAGGAGAAGTCACC
TGCAGTGGCTACCTCCACAGCTGCACCTCCACCTCCGTCTTCTCCTCTGCCAAGCAAATCCACATCGGCTCCACA
GATGTCGCCTGGATCTTCAGACAACCAGTCCTCTAGCCCTCAGCCGGCTCAGCAGAAACTGAAACAGCAGAAGAA
AAAAGCCTCCTTGACTTCTAAGATTCCTGCTCTGGCTGTGGAGATGCCTGGCTCAGCAGATATCTCAGGGCTAAA
CCTGCAGTTTGGGGCATTGCAGTTTGGGTCAGAGCCTGTCCTTTCTGATTATGAGTCCACCCCCACCACGAGCGC
CTCTTCAAGCCAGGCTCCAAGTAGCCTGTATACCAGCACGGCCAGTGAATCATCCTCTACAATTTCATCTAACCA
GAGTCAGGAGTCTGGTTATCAGAGCGGCCCAATTCAGTCGACAACCTATACCTCCCAAAATAATGCTCAGGGCCC
TCTTTATGAACAGAGATCCACACAGACTCGGCGGTACCCCAGCTCCATCTCTTCATCACCCCAAAAGGACCTGAC
TCAGGCAAAGAATGGCTTCAGTTCTGTGCAGGCCACGCAGTTACAGACCACACAATCTGTTGAAGGTGCTACAGG
CTCTGCAGTGAAATCTGATTCACCTTCCACTTCTAGCATCCCCCCTCTCAATGAAACGGTATCTGCAGCTTCCTT
ACTGACGACAACCAATCAGCATTCATCCTCCTTGGGTGGCTTGAGCCACAGTGAGGAGATTCCAAATACTACCAC
CACACAACACAGCAGCACGTTATCTACGCAGCAGAATACCCTTTCATCATCAACATCTTCTGGGCGCACTTCGAC
ATCCACTCTTTTGCACACAAGTGTGGAGAGTGAGGCGAATCTCCATTCTTCCTCCAGCACTTTTTCCACCACATC
CAGCACAGTCTCTGCACCTCCCCCAGTGGTCAGTGTCTCCTCCAGTCTCAATAGTGGCAGTAGCCTGGGCCTCAG
CCTAGGCAGCAACTCCACTGTCACAGCCTCGACTCGAAGCTCAGTTGCTACGACTTCAGGAAAAGCTCCTCCCAA
CCTCCCTCCTGGGGTCCCGCCGTTGTTGCCTAATCCGTATATTATGGCTCCAGGGCTGTTACATGCCTACCCGCC
ACAAGTATATGGTTATGATGACTTGCAGATGCTTCAGACAAGATTTCCATTGGATTACTACAGCATCCCATTTCC
CACACCCACTACTCCGCTGACTGGGAGGGATGGTAGCCTGGCCAGCAACCCTTATTCTGGTGACCTCACAAAGTT
CGGCCGTGGGGATGCCTCCTCCCCAGCCCCGGCCACAACCTTGGCCCAACCCCAACAGAACCAGACGCAGACTCA
CCATACCACGCAGCAGACATTCCTGAACCCGGCGCTGCCTCCTGGCTACAGTTACACCAGCCTGCCATACTATAC
AGGGGTCCCGGGCCTCCCCAGCACCTTCCAGTATGGGCCTGCTGTGTTCCCTGTGGCTCCTACCTCTTCCAAGCA
GCATGGTGTGAATGTCAGTGTGAATGCATCGGCCACCCCTTTCCAACAGCCGAGTGGATATGGGTCTCATGGATA
CAACACTGGAAGAAAATATCCACCCCCTTACAAGCATTTCTGGACGGCTGAGAGC**TAA**TTTGGCCCAAGGCTGGG
GGCTGTGTTTTGTGTGTGTGTATAAATTTGCACTGAAGTCTTGTTTCAGAAACCAGACCACTGAGGAGAGCCTGC
TGAGCTGAGGCCATGGCCTGCGTGGCTTGGGGAAATGAGTTGGTGGATACCTTCTGGGCTTTTGAACTTGCCCCT
CCCCCATTTCCCTCTCCCCCATGTGTCTGACCCTGTCTTACCCATTTCAAGTTCAAGCGGTGCAGCACCTTCGAA
GCATCAATGCACACACCTGCTGTTGCTTTTGATTTCTGGAAGGCATGTAGTTTCAACTTGTAACAAAAATATTTG
TAGTCTTCAATAAACTGTGGTATTTCTTTAGCTAAC

FIGURE 747

GTCCGGCTTACCGTCGTTTACGACAGTGTCAGGATCGCGGGCTTGCTTTCCGGTAGCGTGGGCTGACGCCTCGCT
CAATTTCTCACAGGGCTGCGCAGGTTTCCCCCGTCTGCGAATGGACCACTGGAGGGGTTCAAAGGTTCGCGTCCC
AGTACGGGA**ATG**AGCCTCTTTGATCTCTTCCGGGGCTTTTTCGGCTTTCCTGGACCTCGGAGCCACAGAGATCCC
TTTTTTGGAGGGATGACTCGAGATGAAGATGATGATGAGGAAGAAGAAGAAGAAGGGGGCTCATGGGGCCGTGGG
AACCCAAGGTTCCATAGTCCTCAGCACCCCCCTGAGGAATTTGGCTTCGGCTTCAGCTTCAGCCCAGGAGGAGGG
ATACGTTTCCACGATAACTTCGGCTTTGATGACCTAGTACGAGATTTCAATAGCATCTTCAGCGATATGGGGGCC
TGGACCTTGCCTTCCCATCCTCCTGAACTTCCAGGTCCTGAGTCAGAGACACCTGGTGAGAGACTACGGGAGGGA
CAGACACTTCGGGACTCAATGCTTAAGTATCCAGATAGTCACCAGCCCAGGATCTTTGGGGGGGTCTTGGAGAGT
GATGCAAGAAGTGAATCCCCCCAACCAGCACCAGACTGGGGCTCCCAGAGGCCATTTCATAGGTTTGATGATGTA
TGGCCTATGGACCCCCATCCTAGAACCAGAGAGGACAATGATCTTGATTCCCAGGTTTCCCAGGAGGGTCTTGGC
CCGGTTCTACAGCCCCAGCCCAAATCCTATTTCAAGAGCATCTCTGTGACCAAGATCACTAAACCAGATGGGATA
GTGGAGGAGCGCCGGACTGTGGTGGACAGTGAGGGCCGGACAGAGACTACAGTAACCCGACACGAAGCAGATAGC
AGTCCTAGGGGTGATCCAGAATCACCAAGACCTCCAGCCCTGGATGATGCCTTTTCCATCCTGGACTTATTCCTG
GGACGTTGGTTCCGGTCCCGG**TAG**CCTTGTTAACCCTCAGAGGCCTTCAAGTCCTTTCCACCTCTCACCCATTGC
CCACCATTAATAAGCTTAGCTTCTCTTGCCACCTCAGGGGCTTGGATATGTGGAATAGTGAACTGGGGCCATGTC
AGTTTGTCACTCACCCAAACTGACCAATAAAACCTTTATTTATGCT

FIGURE 748A

AGCTCGCGGTGTCCCCGAGCGCCGGCGGCCGGGAGGATGGCCTGGGCTGCGGGTGGGGCGCGCGCCCGACGGCTG
GGGCTCCCCTCTGAGCGGCTGCGGCTCCTGCACCTCCCCGGGGAGCCGCCCCGTCGATGCCACTAAGGCCAAGGA
CATATAGACGGTCTGCCCTCCCCCACTCAAACCGGGATCATGACGGTCCCCAAGGAGATGCCCGAGAAGTGGGCC
CGGGCCCAGGCGCCTCCCTCTTGGAGCCGAAAGAAGCCCTCTTGGGGGACAGAAGAAGAAAGGAGGGCGCGGGCT
AATGACCGAGAATACAATGAGAAATTCCAGTATGCGAGTAACTGCATCAAGACCTCCAAGTACAATATTCTCACC
TTCCTGCCTGTCAACCTCTTTGAGCAGTTCCAGGAAGTTGCCAACACTTACTTCCTGTTCCTCCTCATTCTGCAG
TTGATCCCCCAGATCTCTTCCCTGTCCTGGTTCACCACCATTGTGCCTTTGGTTCTTGTCCTCACCATCACAGCT
GTTAAAGATGCCACTGATGACTATTTCCGCCACAAGAGCGATAACCAGGTGAATAACCGCCAGTCTCAGGTGCTG
ATCAATGGAATCCTCCAGCAGGAGCAGTGGATGAATGTCTGTGTTGGTGATATTATCAAGCTAGAAAATAACCAG
TTTGTGGCGGCGGATCTCCTCCTCCTTTCCAGCAGTGAGCCCCATGGGCTGTGTTACATAGAGACAGCAGAACTT
GATGGCGAGACCAACATGAAAGTACGTCAGGCGATTCCAGTCACCTCAGAATTGGGAGACATCAGTAAGCTTGCC
AAGTTTGACGGTGAAGTGATCTGTGAACCTCCCAACAACAAACTGGACAAATTCAGCGGAACCCTCTACTGGAAG
GAAAATAAGTTCCCTCTGAGCAACCAGAACATGCTGCTGCGGGGCTGTGTGCTGCGAAACACCGAGTGGTGCTTC
GGGCTGGTCATCTTTGCAGGTCCCGACACTAAGCTGATGCAAAACAGCGGCAGAACAAAGTTCAAAAGAACGAGT
ATCGATCGCCTAATGAATACCCTGGTGCTCTGGATTTTTGGATTCCTGGTTTGCATGGGGGTGATCCTGGCCATT
GGCAATGCCATCTGGGAGCACGAGGTGGGGATGCGTTTCCAGGTCTACCTGCCGTGGGATGAGGCAGTGGACAGT
GCCTTCTTCTCTGGCTTCCTCTCCTTCTGGTCCTACATCATCATCCTCAACACCGTTGTGCCCATTTCACTCTAT
GTCAGTGTGGAGGTCATCCGTCTGGGCCACAGCTACTTCATCAACTGGGATAAGAAGATGTTCTGCATGAAGAAG
CGGACGCCTGCAGAAGCCCGCACCACCACCCTAAACGAGGAGCTGGGCCAGGTGGAGTACATCTTCTCCGACAAG
ACGGGCACCCTCACCCAGAACATCATGGTTTTCAACAAGTGCTCCATCAATGGCCACAGCTATGGTGATGTGTTT
GACGTCCTGGGACACAAAGCTGAATTGGGAGAGAGAGGCCTGAACCTGTTGACTTCTCCTTCAATCCTCTGGCTG
ACAAGAAGTTCTTATTTTGGGACCCCAGCCTGCTGGAGGCTGTCAAGATCGGGGACCCCCACACGCATGAGTTCT
TCCGCCTCCTTTCCCTGTGTCATACTGTC**ATG**TCAGAAGAAAAGAACGAAGGAGAGCTGTACTACAAAGCTCAGT
CCCCAGATGAGGGGGCCCTGGTCACCGCAGCCAGGAACTTTGGTTTTGTTTTCCGCTCTCGCACCCCCAAAACAA
TCACCGTCCATGAGATGGGCACAGCCATCACCTACCAGCTGCTGGCCATCCTGGACTTCAACAACATCCGCAAGC
GGATGTCGGTCATAGTGCGGAATCCAGAGGGGAAGATCCGACTCTACTGCAAAGGGGCTGACACTATCCTACTGG
ACAGACTGCACCACTCCACTCAAGAGCTGCTCAACACCACCATGGACCACCTTAATGAGTACGCAGGGGAAGGGC
TGAGGACCCTGGTGCTGGCCTACAAGGATCTGGATGAAGAGTACTACGAGGAGTGGGCTGAGCGACGCCTCCAGG
CCAGCCTGGCCCAGGACAGCCGGGAGGACAGGCTGGCTAGCATCTATGAGGAGGTTGAGAACAACATGATGCTGC
TGGGTGCAACGGCCATTGAGGACAAACTTCAGCAAGGGGTTCCAGAGACCATTGCCCTCCTGACACTGGCCAACA
TCAAGATTTGGGTGCTAACCGGAGACAAGCAAGAGACGGCTGTGAACATCGGCTATTCCTGCAAGATGCTGACGG
ATGACATGACTGAGGTTTTCATAGTCACTGGCCATACTGTCCTGGAGGTGCGGGAGGAGCTCAGGAAAGCCCGGG
AGAAGATGATGGACTCATCCCGCTCCGTAGGCAACGGCTTCACCTATCAGGACAAGCTTTCTTCTTCCAAGCTAA
CTTCTGTCCTGGAGGCCGTTGCTGGGGAGTACGCCCTGGTCATAAATGGTCACAGCCTGGCCCACGCACTGGAGG
CAGACATGGAGCTGGAGTTTCTGGAGACAGCGTGTGCCTGCAAAGCTGTCATCTGCTGCCGGGTGACCCCCTTGC
AGAAGGCACAGGTGGTAGAACTGGTCAAGAAGTACAAGAAGGCTGTGACGCTTGCCATTGGAGACGGAGCCAATG
ATGTCAGCATGATCAAAACGGCTCACATTGGTGTGGGGATCAGTGGGCAGGAAGGGATCCAGGCTGTCTTGGCCT
CCGATTACTCCTTCTCCCAGTTCAAGTTCCTGCAGCGCCTCCTGCTGGTGCATGGGCGCTGGTCCTACCTGCGAA
TGTGCAAGTTTCTTTGCTATTTCTTCTACAAAAACTTTGCTTTCACCATGGTCCACTTCTGGTTTGGCTTCTTCT
GTGGCTTCTCAGCCCAGACCGTCTATGACCAGTATTTCATCACCCTGTATAACATCGTGTACACCTCCCTGCCAG
TCCTGGCTATGGGGGTCTTTGATCAGGATGTCCCCGAGCAGCGGAGCATGGAGTACCCTAAGCTGTATGAGCCGG
GCCAGCTGAACCTTCTCTTCAACAAGCGGGAGTTCTTCATCTGCATCGCCCAGGGCATCTACACCTCCGTGCTCA
TGTTCTTCATTCCCTATGGGGTGTTTGCTGATGCCACCCGGGATGATGGCACTCAGCTGGCTGACTACCAGTCCT
TTGCAGTCACTGTGGCCACATCCTTGGTCATTGTGGTTAGCGTGCAGATTGGGCTCGACACAGGCTACTGGACGG
CCATCAACCACTTCTTCATCTGGGGAAGCCTTGCTGTTTACTTTGCCATCCTCTTTGCCATGCACAGCAATGGGC
TCTTCGACATGTTTCCCAACCAGTTCCGGTTTGTGGGGAATGCCCAGAACACCTTGGCCCAGCCCACGGTGTGGC
TGACCATTGTGCTCACCACAGTCGTCTGCATCATGCCCGTGGTTGCCTTCCGATTCCTCAGGCTCAACCTGAAGC
CGGATCTCTCCGACACGGTCCGCTACACACAGCTCGTGAGGAAGAAGCAGAAGGCCCAGCACCGCTGCATGCGGC

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FIGURE 748B

GGGTTGGCCGCACTGGCTCCCGGCGCTCCGGCTATGCCTTCTCCCATCAGGAGGGCTTCGGGGAGCTCATCATGT
CTGGCAAGAACATGCGGCTGAGCTCTCTCGCGCTCTCCAGCTTCACCACCCGCTCCAGCTCCAGCTGGATTGAGA
GCCTGCGCAGGAAGAAGAGTGACAGTGCCAGTAGCCCCAGTGGCGGTGCCGACAAGCCCCTCAAGGGC**TGA**AGGC
CGAGGATGGATGCCCTGTGCCAGTGACCAGAGCACCCAGGGCTGGCCAGTCACTGAGGGAACAGCGTCTCGGAAC
TGCTGGTCCTCATTCCTTGCTTCCCGTCCCCCCGGTAGACTCTGTCCTGCTGGTCCCACCACACATGGCTGGGAC
ATCTGTTCCCAGCTGTAGGCCCTTCCACCAGCTGGGGAGCTAGAGGGAGCAGGCCCAAGGGCAGAGCAGAGGCTG
AGGCACGGGGAGCCAGCCCCACTCGGGGACCAGAAGTGGAACCAAAAACAAGAAAAAACTGTGAGAGATTGTGTC
TGCCCCTGCCCTGCCTGGGACCCACAGGGAGACTATAATCTCCTTATTTTTTTACTCCTACTCCCCAGAGGGGCC
CTAGTGCCTCTGTTCCTGAATTACATAAGAATGTACCATGCCGGGAAGCCAGAGACCTGCAGGGGCCTCGGCCCC
TCACATCGTGTATGTCTCTCCTTGATTTGTGTTGTGTCCAGTTTGGTTTTGTCTTTTTTTATTTGGCAAGTGGAG
GAGGCTTTTATGTGACTTTTATGTTGTGGTTGGTGTCTTAACTCTCCTGGGAAAAGGAGGCTGGCACACACTGGG
ATGCCGCAGCCTGGCCGGCTGTGGGGTGGTTTGGGAGGATCCATGTCGGCTCTGCCTGCAGTGACCAGTGCTCTG
TGGGGCAGAGGAGCTGACCAGGGAGGGAGGTACCCATGAGCAGAGGGTAGTGGGAGAGTGTAAAGGAGGGTTTGG
TCCTGTCTGCTTCCTCACCTTGAGAGTAAAGTGCTGCCCTCTGCCCCCAACACACACACATATCAATTCCTGGAT
TCCTTAGTCCTGCTGGCCTTGGGCTGGAGCCTAGGAAAGTGGCCCCCAAATCCTTAGTGAGCTAAAGCTGGGTCT
GAAATTTGGTCAGTGGGGAGGGGTAGTTTTCTTTTCTTTTTTCTTTTTCTTTTTTTCTTTTTTTTTTTGAGATGG
AGTCTCACTCTTGTCACCTAGGCAAGAGTGCAATGGCACAATCTCAGCTCACTGCAACCTCCACCTCCTGGGTTC
AAGCGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAGGCACACACCACCACGCTTGGTTAATTTTTGT
ATTTTTAGTAGAGATGTTTCACCATGTTGGCCAGGCTAGTCTTGAATTCCTGACCTCCTGACCTGCCCACCTCAA
CCTCCCAAAGTGCTGAGATTACAGGCGTGAGCCACCACACCCAGCTCAGGGAGGCGTAGTTTTCTTTAATTTTAA
ATTTAAACCCAAGTTTATTGGCAGACTCCCTTTTGACCTCCCTTTGCCTCCCCATCTGGTGCTTTCTTGCATCTA
CACCCCAGGGCCCTGTGGTGGGGCTGCAGGGGGAAGCTGTGCACCTGAGATGAGGCTGGAACGGGAATTGGCCTC
TCTGCTCCCTTCTTCAGTAAGCAAGGAGCCCCGCCCCTCAGGCCCAGCCTCTGGCAAGAGGTGGTGGAATCCTTG
TGCCGGGTAGTAGAGGAGGATAAGGGCAAAACCAGGCCCAGGCCAGTGCCTGGCTTGGTCTGGATGGGACACTGT
CAGAGTTTGGCCACAGCCTGTCCTTTACTTCATCCACACCTATGAAGCTATTCCCTAAATAAGGCATTTCCCAAG
TTAGTCGCTACCTAATCAGCCTTGAGAAGAATCCTTTCCTCTTCTTTGATAGTGGGTCGGGGGATTCTTCAGGAA
TGGTTTGGAGCTGGGAGTGGGTAGGGGGATTTTAAATGTTCCATATGGGAGCCCCAAAGGAACTGGATGGGCTGC
AGTGAGGTGGGGGCGGGTGGGCAGGGAATGGGAGAGGGGAAGTCTTGGCAGGGAAATCCCTTTTGGCCACACAGT
TTACAAACCCAGTATCATGTCTGTCTGTGTGTCTCTCAAGGTGAGAGTCTGATTTTTATACCAAAGAGGAAATGA
TTTTTTTTCATATTTTGTTTGTCTATATTATATAAATATATATATACAGTTATATATATATATATTATTTTTTGG
TTCTCTCTCGTTTTTTAGGGAGGGAAGAAAGTACCAAGTTGCATTGAGCTGTAATTAAGGAACATTATAATTTAT
GACACATTTCTATACTTGCAAAAATTATATCATTTTATGGATATAAGAGAAAAATGCCTTTTTATAAAATTTCAA
TTTCTGA

FIGURE 749

CCTACAGAGGGGTCCATACCGTGTTGTTCTGGATTCCCGTTGTAACTTAAAGGGAAATTTTCACA**ATG**TCCAGAG
CCCTTGATGTCCTGCAAATGAAGGAGGAGGATGTCCTTAAGTTCCTTGCAGCAGGAACCCACTTAGGTGGCACTA
ATCTTGACTTCCAGATGGAACAGTACATCTATAAAAGGAAAAGTGATGGCATCTACATCATAAATCTGAAGAGGA
CCTGGGAGAAGCTTCTGCTGGCAGCTCGTGCCATTGTTGCCATTGAAAACCCTGCTGATGTCAGTGTTATATCCT
CCAGGAATACTGGCCAGAGGGCCATGCTGAAGTTTGCTGCTGCCACTGGAGCCACTCCAATTGCTGGCCACTTCA
CTCCTGGAACCTTCACTAACCGGATCCAGGCAGCCTTCCGGGAGCCACAGCTTCCTGTGGTTACTGACCCCAGGG
CTGACCACCAGCCTCTCACGGAGGTATCTTATGTTAACTTACCTACCATTGCGCTGTGTAACACAGATTCTCCTC
TGCGCTATGTGGACATTGCCATCCCATGCAACAATAAGGGAGCTCACTCAGTGGGTTGGATGTGGTGGATGCTGG
CTCAGGAAGTTCTGCGCATGCGTGGCACCATTTCCCGTGAACACCCATGGGAGGTCATGCCTGATCTCTGCTTCT
ACAGAGATCCTGAAGAGATTGAAAAAGAAGAGCAGGCTGCTGCTGAAGAGGCAGTGACCAAGGAGGAATTTCAGG
GTGAATGGACTGCTCCAGCTCCTGAGTTCACTGCTACTCAGCCTGAGGTTGCAGACTGGTCTGAAGGTCTGCAGG
TGCCCTCTGTGTCTATTCAG**TAG**TTCCCTACTGAAGACTGGAGCGCTCAGCCTGCCACGGAAGACTGGTCTGCAG
CTCCCACTGCTCAGGCCACTGAATGGGTAGGAGCAACCACTGAATGGTCTTAAGCTGTTCTTGCATGGGCTCTTA
AGCAACATGGAAAAATGGTTGATGGAAAATAAATAAACATCAGTTTCT

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FIGURE 750

GGCGGTCCCCTGTTCTCCCCGCTCAGGTGCGGCGCTGTGGCAGGAAGCCACCCCCTCGGTCGGCCGGTGCGCGGG
GCTGTTGCGCCATCCGCTCCGGCTTTCGTAACCGCACCCTGGGACGGCCCAGAGACGCTCCAGCGCGAGTTCCTC
AAATGTTTTCCTGCGTTGCCAGGACCGTCCGCCGCTCTGAGTCATGTGCGAGTGGGAAGTCGCACTGACACTGAG
CCGGGCCAGAGGGAGAGGAGCCGAGCGCGGCGCGGGGCCGAGGGACTCGCAGTGTGTGTAGAGAGCCGGGCTCCT
GCGGATGGGGGCTGCCCCCGGGGCCTGAGCCCGCCTGCCCGCCCACCGCCCCGCCCCGCCCCTGCCACCCCTGCC
GCCCGGTTCCCATTAGCCTGTCCGCCTCTGCGGGACCATGGAGTGGTAGCCGAGGAGGAAGC**ATG**CTGGCCGTCG
GCTGCGCGCTGCTGGCTGCCCTGCTGGCCGCGCCGGGAGCGGCGCTGGCCCCAAGGCGCTGCCCTGCGCAGGAGG
TGGCGAGAGGCGTGCTGACCAGTCTGCCAGGAGACAGCGTGACTCTGACCTGCCCGGGGGTAGAGCCGGAAGACA
ATGCCACTGTTCACTGGGTGCTCAGGAAGCCGGCTGCAGGCTCCCACCCCAGCAGATGGGCTGGCATGGGAAGGA
GGCTGCTGCTGAGGTCGGTGCAGCTCCACGACTCTGGAAACTATTCATGCTACCGGGCCGGCCGCCCAGCTGGGA
CTGTGCACTTGCTGGTGGATGTTCCCCCCGAGGAGCCCCAGCTCTCCTGCTTCCGGAAGAGCCCCCTCAGCAATG
TTGTTTGTGAGTGGGGTCCTCGGAGCACCCCATCCCTGACGACAAAGGCTGTGCTCTTGGTGAGGAAGTTTCAGA
ACAGTCCGGCCGAAGACTTCCAGGAGCCGTGCCAGTATTCCCAGGAGTCCCAGAAGTTCTCCTGCCAGTTAGCAG
TCCCGGAGGGAGACAGCTCTTTCTACATAGTGTCCATGTGCGTCGCCAGTAGTGTCGGGAGCAAGTTCAGCAAAA
CTCAAACCTTTCAGGGTTGTGGAATCTTGCAGCCTGATCCGCCTGCCAACATCACAGTCACTGCCGTGGCCAGAA
ACCCCCGCTGGCTCAGTGTCACCTGGCAAGACCCCCACTCCTGGAACTCATCTTTCTACAGACTACGGTTTGAGC
TCAGATATCGGGCTGAACGGTCAAAGACATTCACAACATGGATGGTCAAGGACCTCCAGCATCACTGTGTCATCC
ACGACGCCTGGAGCGGCCTGAGGCACGTGGTGCAGCTTCGTGCCCAGGAGGAGTTCGGGCAAGGCGAGTGGAGCG
AGTGGAGCCCGGAGGCCATGGGCACGCCTTGGACAGAATCCAGGAGTCCTCCAGCTGAGAACGAGGTGTCCACCC
CCATGCAGTGCAAGATTCTTCTTCAGTACCACTGCCCACATTCCTGGTTGCTGGAGGGAGCCTGGCCTTCGGAAC
GCTCCTCTGCATTGCCATTGTTC**TGA**GGTTCAAGAAGACGTGGAAGCTGCGGGCTCTGAAGGAAGGCAAGACAAG
CATGCATCCGCCGTACTCTTTGGGGCAGCTGGTCCCGGAGAGGCCTCGACCCACCCCAGTGCTTGTTCCTCTCAT
CTCCCCACCGGTGTCCCCCAGCAGCCTGGGGTCTGACAATACCTCGAGCCACAACCGACCAGATGCCAGGGACCC
ACGGAGCCCTTATGACATCAGCAATACAGACTACTTCTTCCCCAGATAGCTGGCTGGGTGGCACCAGCAGCCTGG
ACCCTGTGGATGATAAAACACAAACGGGCTCAGCAAAAGATGCTTCTCACTGCCATGCCAGCTTATCTCAGGGGT
GTGCGGCCTTTGGCTTCACGGAAGAGCCTTGCGGAAGGTTCTACGCCAGGGGAAAATCAGCCTGCTCCAGCTGTT
CAGCTGGTTGAGGTTTCAAACCTCCCTTTCCAAATGCCCAGCTTAAAGGGGCTAGAGTGAACTTGGGCCACTGTG
AAGAGAACCATATCAAGACTCTTTGGACACTCACACGGACACTCAAAAGCTGGGCAGGTTGGTGGGGGCCTCGGT
GTGGAGAAGCGGCTGGCAGCCCACCCCTCAACACCTCTGCACAAGCTGCACCCTCAGGCAGGTGGGATGGATTTC
CAGCCAAAGCCTCCTCCAGCCGCCATGCTCCTGGCCCACTGCATCGTTTCATCTTCCAACTCAAACTCTTAAAAC
CCAAGTGCCTTAGCAAATTCTGTTTTTCTAGGCCTGGGGACGGCTTTTACTTAAACCGCCAAGGCTGGGGGAAGA
AGCTCTCTCCTCCCTTTCTTCCCTACAGTTGAAAAACAGCTGAGGGTGAGTGGGTGAATAATACAGTATCTCAGG
GCCTGGTCGTTTTCAACAGAATTATAATTAGTTCCTCATTAGCATTTTGCTAAATGTGAATGATGATCCTAGGCA
TTTGCTGAATACAGAGGCAACTGCATTGGCTTTGGGTTGCAGGACCTCAGGTGAGAAGCAGAGGAAGGAGAGGAG
AGGGGCACAGGGTCTCTACCATCCCCTGTAGAGTGGGAGCTGAGTGGGGGATCACAGCCTCTGAAAACCAATGTT
CTCTCTTCTCCACCTCCCACAAAGGAGAGCTAGCAGCAGGGAGGGCTTCTGCCATTTCTGAGATCAAAACGGTTT
TACTGCAGCTTTGTTTGTTGTCAGCTGAACCTGGGTAACTAGGGAAGATAATATTAAGGAAGACAATGTGAAAAG
AAAAATGAGCCTGGCAAGAATGTGTTTAAACTTGGTTTTTAAAAAACTGCTGACTGTTTTCTCTTGAGAGGGTGG
AATATCCAATATTCGCTGTGTCAGCATAGAAGTAACTTACTTAGGTGTGGGGGAAGCACCATAACTTTGTTTAGC
CCAAAACCAAGTCAAGTGAAAAAGGAGGAAGAGAAAAAATATTTTCCTGCCAGGCATGGTGGCCCACGCACTTCG
GGAGGTCGAGGCAGGAGGATCACTTGAGTCCAGAAGTTTGAGATCAGCCTGGGCAATGTGATAAAACCCCATCTC
TACAAAAAGCATAAAAATTAGCCAAGTGTGGTAGAGTGTGCCTGAAGTCCCAGATACTTGGGGGGCTGAGGTGGG
AGGATCTCTTGAGCCTGGGAGGTCAAGGCTGCAGTGAGCCGAGATTGCACCACTGCACTCCAGCCTGGGTGACAG
AGCAAGTGAGACCCTGTCTC

FIGURE 751

GGGGGGGGCCTGTCCCGGAGGTGGCGGCGGCGCCATCTTGGCGAAGGGGGGATCAGGAAGTGCGGACCGCGGCGG
CGGCGGCGGCGGCGGCGGCGGCGGCGGAGCCCGGAGCGCAGGCCGGAGGCTCCCGGCCCGCCGGCCCCGGAGCGG
AGCGGAGCGGAGGATGCAGCAGCCGCAGCCGCAGGGGCAGCAGCAGCCGGGGCCGGGGCAGCAGCTGGGGGGCCA
GGGGGCGGCGCCGGGGGCCGGGGGCGGCCCAGGGGGGGGCCCGGGGCCGGGGCCCTGCCTGAGGCGAGAGCTGAA
GCTGCTCGAGTCCATCTTCCACCGCGGCCACGAGCGCTTCCGCATTGCCAGCGCCTGCCTGGACGAGCTGAGCTG
CGAGTTCCTGCTGGCTGGGGCCGGAGGGGCCGGGGCGGGGGCCGCGCCCGGACCGCATCTCCCCCCACGGGGGTC
GGTGCCTGGGGATCCTGTCCGCATCCACTGCAACATCACGGAGTCATACCCTGCTGTGCCCCCCATCTGGTCGGT
GGAGTCTGATGACCCTAACTTGGCTGCTGTCTTGGAGAGGCTGGTGGACATAAAGAAAGGGAATACTCTGCTATT
GCAGCATCTGAAGAGGATCATCTCCGACCTGTGTAAACTCTATAACCTCCCTCAGCATCCAGATGTGGAGATGCT
GGATCAACCCTTGCCAGCAGAGCAGTGCACACAGGAAGACGTGTCTTCAGAAGATGAAGATGAGGAGATGCCTGA
GGACACAGAAGACTTAGATCACTATGAAATGAAAGAGGAAGAGCCAGCTGAGGGCAAGAAATCTGAAGATGATGG
CATTGGAAAAGAAAACTTGGCCATCCTAGAGAAAATTAAAAAGAACCAGAGGCAAGATTACTTAAATGGTGCAGT
GTCTGGCTCGGTGCAGGCCACTGACCGGCTGATGAAGGAGCTCAGGGATATATACCGATCACAGAGTTTCAAAGG
CGGAAACTATGCAGTCGAACTCGTGAATGACAGTCTGTATGATTGGAATGTCAAACTCCTCAAAGTTGACCAGGA
CAGCGCTTTGCACAACGATCTCCAGATCCTCAAAGAGAAAGAAGGAGCCGACTTCATTCTACTTAACTTTTCCTT
TAAAGATAACTTTCCCTTTGACCCACCATTTGTCAGGGTTGTGTCTCCAGTCCTCTCTGGAGGGTATGTTCTGGG
CGGAGGGGCCATCTGC**ATG**GAACTTCTCACCAAACAGGGCTGGAGCAGTGCCTACTCCATAGAGTCAGTGATCAT
GCAGATCAGTGCCACACTGGTGAAGGGGAAAGCACGAGTGCAGTTTGGAGCCAACAAATCTCAATACAGTCTGAC
AAGAGCACAGCAGTCCTACAAGTCCTTGGTGCAGATCCACGAAAAAAAACGGCTGGTACACACCCCCAAAAGAAGA
CGGC**TAA**CCCTGGAGTATCACCCTTCCTCCCTCCCCAGGCACCACTGGACCAATTACCTTTGAATGCTGTATTTG
GATCTCACGCTGCCTCTGTGGTTCCCTCCCTCATTTTTCCTGGACGTGATAGCTCTGCCTATTGCAGGACAATGA
TGGCTATTCTAAACGCTAAGGAAAAAAAACAAACACAGAACTGTTTCAAGTACTCAAGACTGACTTACAGACCAA
CCAACCACCTTGCTGGAACCCTTGCTAGCAGGCATTCTTATAAAAGAAACTTTCGAGCCTCCTTATATTGCTGGA
AACTCAGCTGTGCTCCAGACTAGAGCCTCCTTACCTATGCTATGGATTTTTAATTTATTTTCTCTTATTTCATGT
ACACTGCTTTTTTTGGTTACAGTGTATGATGGATGTGTATGAAAAAAATGTATCTTTGGGAAAACAATTACAGTT
TGTTAATTTGAAGATGCTGGTCTTGACTCATCTTTATTTTTATTCGCACATCCCACCCCATCCCCTGAACTACTT
GGGAGGTGGGGAGGGGTACGAGTCCACTGTTGCTTTGGTAGAGATGAGAGGCCGCATTTTGCTGCTAAAGCAAGA
GAAACTTGGAGCTGAAGCACACACCTGGTCTGCCCCTAGATTTCTCCTCAAGGCCTCTGGAGCAACCAGCACTTG
CCCCCTTGGAATGCAGAGCCTGGCCTGCCAAACTACAATGTGGTAGGCTGAAACGATGGTGTTAATTCTTAGGAC
TACTTTTCTAGTCACAGATGTTTTCAAATTTCTAAGAAAAAGAAAATGAGGCTCAAGAGGCTGCTTCGTAGAATT
CCTTTTGAATGAATTGAGTGGGGATGGGGACACAGTCTCCAAGTGTGTATGTGGTCTTTTCTGATCTCAGCTGTG
TGGCTGCAACTCTTCGCTGTTCATTGGTTCCTCTCCTGGAAAGTGGCTTCTAACCAGCACTGGATGGTGATCATT
GGTAAGCTTTGCTCACCTCCCTCTCTCTTGCTTCATTTGGCTTTATCAAAAAGAACAGACCTAGCTCTGAATTTG
TTTGGCTTGGGAAATTATGGATTCTTTCAAGCCACTCCCACAAGGTGGGTCCTACTAGAAAGGGTTAGCATTTTA
AGGGGGGTTGTTCTATACACCTGTGTCCTTACCCCAGGCTCAGGAACTGCCAGGGAGGGAAGATGAGGTGGGGAG
TCTGTACTGAGATGGAACTGTCAGTGCTGTGTTGTATGTACTTGCTGTTGTAAAAGTTTGGGCATGACTTTGCAT
CTAGCGGGTGCTGCCTGCATCTCTTTGTCTGTAAGCTTGCTCTGGGACTCAGCCTCTTAGGACCTACGATGCCAG
CAGCTCTCATTAACAGTGAAATGACAGAGGCCAAAGATGGCCAAGTGAAGACCCAAGTCTCAGAAAACCCAGACT
TGGGACAACTGCCTGGGAACTAGGATGCTAGAGCAGTTCTGTAATGCTTTGAGACACAGCAATTTTCACATTGGC
CATTCTTTCCCCTCCCCTACCCCTTTTCTTTTGAGGGACTTTTAATGTTTGCTGCTTTAGGTGGATGGAGAGTCC
ACCAGTCCCACTCAATGCTGCTCTAACTCTACCCACACCCACCTAATTAGGGGTGCTAATAAAACATGCTGAGGT
TGAGATAAAGACGGGACATAAGGGGAAAATTCATTCCATAGAGCTGAAATCTGGTTTTCAAGGCCTCTGTGGCTT
TCTTCTGAACTTACCACCAGCCCTGGCTGGAATGTAGATTGTGTTTTTAGTAATGTGTACTGTGAGCTGTCTTCT
GTATAATGTATTTTGTAATGTATTTTTCTCATCTACCAAAGGATGAAACAAATAAAATTATTTAAATA

FIGURE 752A

CGAAATTGAACCGGAGCCATCTTGGGCCCGGCGCGCAGACCCGCGGAGTTTCCCGTGCCGACGCCCCGGGGCCAC
TTCCAGTGCGGAGTAGCGGAGGCGTGGGGGCCTCGAGGGGCTGGCGCGGCCCAGCGGTCGGGCCAGGGTCGTGCC
GCCGGCGGGTCGGGCCGGGCAATGCCTCGCGGGCGCA**ATG**AATCCGCGGCAGGGGTATTCCCTCAGCGGATACTA
CACCCATCCATTTCAAGGCTATGAGCACAGACAGCTCAGGTACCAGCAGCCTGGGCCAGGATCTTCCCCCAGTAG
TTTCCTGCTTAAGCAAATAGAATTTCTCAAGGGGCAGCTCCCAGAAGCACCGGTGATTGGAAAGCAGACACCGTC
ACTGCCACCTTCCCTCCCAGGACTCCGGCCAAGGTTTCCAGTACTACTTGCCTCCAGTACCAGAGGCAGGCAAGT
GGACATCAGGGGTGTCCCCAGGGGCGTGCATCTCAGAAGTCAGGGGCTCCAGAGAGGGTTCCAGCATCCTTCACC
ACGTGGCAGGAGTCTGCCACAGAGAGGTGTTGATTGCCTTTCCTCACATTTCCAGGAACTGAGTATCTACCAAGA
TCAGGAACAAAGGATCTTAAAGTTCCTGGAAGAGCTTGGGGAAGGGAAGGCCACCACAGCACATGATCTGTCTGG
GAAACTTGGGACTCCGAAGAAAGAAATCAATCGAGTTTTATACTCCCTGGCAAAGAAGGGCAAGCTACAGAAAGA
GGCAGGAACACCCCCTTTGTGGAAAATCGCGGTCTCCACTCAGGCTTGGAACCAGCACAGCGGAGTGGTAAGACC
AGACGGTCATAGCCAAGGAGCCCCAAACTCAGACCCGAGTTTGGAACCGGAAGACAGAAACTCCACATCTGTCTC
AGAAGATCTTCTTGAGCCTTTTATTGCAGTCTCAGCTCAGGCTTGGAACCAGCACAGCGGAGTGGTAAGACCAGA
CAGTCATAGCCAAGGATCCCCAAACTCAGACCCAGGTTTGGAACCTGAAGACAGCAACTCCACATCTGCCTTGGA
AGATCCTCTTGAGTTTTTAGACATGGCCGAGATCAAGGAGAAAATCTGCGACTATCTCTTCAATGTGTCTGACTC
CTCTGCCCTGAATTTGGCTAAAAATATTGGCCTTACCAAGGCCCGAGATATAAATGCTGTGCTAATTGACATGGA
AAGGCAGGGGGATGTCTATAGACAAGGGACAACCCCTCCCATATGGCATTTGACAGACAAGAAGCGAGAGAGGAT
GCAAATCAAGAGAAATACGAACAGTGTTCCTGAAACCGCTCCAGCTGCAATCCCTGAGACCAAAAGAAACGCAGA
GTTCCTCACCTGTAATATACCCACATCAAATGCCTCAAATAACATGGTAACCACAGAAAAAGTGGAGAATGGGCA
GGAACCTGTCATAAAGTTAGAAAACAGGCAAGAGGCCAGACCAGAACCAGCAAGACTGAAACCACCTGTTCATTA
CAATGGCCCCTCAAAAGCAGGGTATGTTGACTTTGAAAATGGCCAGTGGGCCACAGATGACATCCCAGATGACTT
GAATAGTATCCGCGCAGCACCAGGTGAGTTTCGAGCCATCATGGAGATGCCCTCCTTCTACAGTCATGGCTTGCC
ACGGTGTTCACCCTACAAGAAACTGACAGAGTGCCAGCTGAAGAACCCCATCAGCGGGCTGTTAGAATATGCCCA
GTTCGCTAGTCAAACCTGTGAGTTCAACATGATAGAGCAGAGTGGACCACCCCATGAACCTCGATTTAAATTCCA
GGTTGTCATCAATGGCCGAGAGTTTCCCCCAGCTGAAGCTGGAAGCAAGAAAGTGGCCAAGCAGGATGCAGCTAT
GAAAGCCATGACAATTCTGCTAGAGGAAGCCAAAGCCAAGGACAGTGGAAAATCAGAAGAATCATCCCACTATTC
CACAGAGAAAGAATCAGAGAAGACTGCAGAGTCCCAGACCCCCACCCCTTCAGCCACATCCTTCTTTTCTGGGAA
GAGCCCCGTCACCACACTGCTTGAGTGTATGCACAAATTGGGGAACTCCTGCGAATTCCGTCTCCTGTCCAAAGA
AGGCCCTGCCCATGAACCCAAGTTCCAATACTGTGTTGCAGTGGGAGCCCAAACTTTCCCCAGTGTGAGTGCTCC
CAGCAAGAAAGTGGCAAAGCAGATGGCCGCAGAGGAAGCCATGAAGGCCCTGCATGGGGAGGCGACCAACTCCAT
GGCTTCTGATAACCAGCCTGAAGGTATGATCTCAGAGTCACTTGATAACTTGGAATCCATGATGCCCAACAAGGT
CAGGAAGATTGGCGAGCTCGTGAGATACCTGAACACCAACCCTGTGGGTGGCCTTTTGGAGTACGCCCGCTCCCA
TGGCTTTGCTGCTGAATTCAAGTTGGTCGACCAGTCCGGACCTCCTCACGAGCCCAAGTTCGTTTACCAAGCAAA
AGTTGGGGGTCGCTGGTTCCCAGCCGTCTGCGCACACAGCAAGAAGCAAGGCAAGCAGGAAGCAGCAGATGCGGC
TCTCCGTGTCTTGATTGGGGAGAACGAGAAGGCAGAACGCATGGGTTTCACAGAGGTAACCCCAGTGACAGGGGC
CAGTCTCAGAAGAACTATGCTCCTCCTCTCAAGGTCCCCAGAAGCACAGCCAAAGACACTCCCTCTCACTGGCAG
CACCTTCCATGACCAGATAGCCATGCTGAGCCACCGGTGCTTCAACACTCTGACTAACAGCTTCCAGCCCTCCTT
GCTCGGCCGCAAGATTCTGGCCGCCATCATTATGAAAAAAGACTCTGAGGACATGGGTGTCGTCGTCAGCTTGGG
AACAGGGAATCGCTGTGTGAAAGGAGATTCTCTCAGCCTAAAAGGAGAAACTGTCAATGACTGCCATGCAGAAAT
AATCTCCCGGAGAGGCTTCATCAGGTTTCTCTACAGTGAGTTAATGAAATACAACTCCCAGACTGCGAAGGATAG
TATATTTGAACCTGCTAAGGGAGGAGAAAAGCTCCAAATAAAAAAGACTGTGTCATTCCATCTGTATATCAGCAC
TGCTCCGTGTGGAGATGGCGCCCTCTTTGACAAGTCCTGCAGCGACCGTGCTATGGAAAGCACAGAATCCCGCCA
CTACCCTGTCTTCGAGAATCCCAAACAAGGAAAGCTCCGCACCAAGGTGGAGAACGGAGAAGGCACAATCCCTGT
GGAATCCAGTGACATTGTGCCTACGTGGGATGGCATTCGGCTCGGGGAGAGACTCCGTACCATGTCCTGTAGTGA
CAAAATCCTACGCTGGAACGTGCTGGGCCTGCAAGGGGCACTGTTGACCCACTTCCTGCAGCCCATTTATCTCAA
ATCTGTCACATTGGGTTACCTTTTCAGCCAAGGGCATCTGACCCGTGCTATTTGCTGTCGTGTGACAAGAGATGG
GAGTGCATTTGAGGATGGACTACGACATCCCTTTATTGTCAACCACCCCAAGGTTGGCAGAGTCAGCATATATGA
TTCCAAAAGGCAATCCGGGAAGACTAAGGAGACAAGCGTCAACTGGTGTCTGGCTGATGGCTATGACCTGGAGAT

FIGURE 752B

CCTGGACGGTACCAGAGGCACTGTGGATGGGCCACGGAATGAATTGTCCCGGGTCTCCAAAAAGAACATTTTTCT
TCTATTTAAGAAGCTCTGCTCCTTCCGTTACCGCAGGGATCTACTGAGACTCTCCTATGGTGAGGCCAAGAAAGC
TGCCCGTGACTACGAGACGGCCAAGAACTACTTCAAAAAAGGCCTGAAGGATATGGGCTATGGGAACTGGATTAG
CAAACCCCAGGAGGAAAAGAACTTTTATCTCTGCCCAGTA**TAG**TATGCTCCAGTGACAGATGGATTAGGGTGTGT
CATACTAGGGTGTGAGAGAGGTAGGTCGTAGCATTCCTCATCACATGGTCAGGGGATTTTTTTTTCTCCTTTTTT
TTTCTTTTTAAGCCATAATTGGTGATACTGAAAACTTTGGGTTCCCATTTATCCTGCTTTCTTTGGGATTGCTAG
GCAAGGTCTGGCCAGGCCCCCCTTTTTTCCCCCAAGTGAAGAGGCAGAAACCTAAGAAGTTATCTTTTCTTTCTA
CCCAAAGCATACATAGTCACTGAGCACCTGCGGTCCATTTCCTCTTAAAAGTTTTGTTTTGATTTGTTTCCATTT
CCTTTCCCTTTGTGTTTGCTACACTGACCTCTTGCGGTCTTGATTAGGTTTCAGTCAACTCTGGATCATGTCAGG
GACTGATAATTTCATTTGTGGATTACGCAGACCCCTCTACTTCCCCTCTTTCCCTTCTGAGATTCTTTCCTTGTG
ATCTGAATGTCTCCTTTTCCCCCTCAGAGGGCAAAGAGGTGAACATAAAGGATTTGGTGAAACATTTGTAAGGGT
AGGAGTTGAAAACTGCAGTTCCCAGTGCCACGGAAGTGTGATTGGAGCCTGCAGATAATGCCCAGCCATCCTCCC
ATCCTGCACTTTAGCCAGCTGCAGGGCGGGCAAGGCAAGGAAAGCTGCTTCCCTGGAAGTGTATCACTTTCTCCG
GCAGCTGGGAAGTCTAGAACCAGCCAGACTGGGTTAAGGGAGCTGCTCAAGCAATAGCAGAGGTTTCACCCGGCA
GGATGACACAGACCACTTCCCAGGGAGCACGGGCATGCCTTGGAATATTGCCAAGCTTCCAGCTGCCTCTTCTCC
TAAAGCATTCCTAGGAATATTTTCCCCGCCAATGCTGGGCGTACACCCTAGCCAACGGGACAAATCCTAGAGGGT
ATAAAATCATCTCTGCTCAGATAATCATGACTTAGCAAGAATAAGGGCAAAAAATCCTGTTGGCTTAACGTCACT
GTTCCACCCGGTGTAATATCTCTCATGACAGTGACACCAAGGGAAGTTGACTAAGTCACATGTAAATTAGGAGTG
TTTTAAAGAATGCCATAGATGTTGATTCTTAACTGCTACAGATAACCTGTAATTGAGCAGATTTAAAATTCAGGC
ATACTTTTCCATTTATCCAAGTGCTTTCATTTTTCCAGATGGCTTCAGAAGTAGGCTCGTGGGCAGGGCGCAGAC
CTGATCTTTATAGGGTTGACATAGAAAGCAGTAGTTGTGGGTGAAAGGGCAGGTTGTCTTCAAACTCTGTGAGGT
AGAATCCTTTGTCTATACCTCCATGAACATTGACTCGTGTGTTCAGAGCCTTTGGCCTCTCTGTGGAGTCTGGCT
CTCTGGCTCCTGTGCATTCTTTGAATAGTCACTCGTAAAAACTGTCAGTGCTTGAAACTGTTTCCTTTACTCATG
TTGAAGGGACTTTGTTGGCTTTTAGAGTGTTGGTCATGACTCCAAGAGCAGAGCAGGGAAGAGCCCAAGCATAGA
CTTGGTGCCGTGGTGATGGCTGCAGTCCAGTTTTGTGATGCTGCTTTTACGTGTCCCTCGATAACAGTCAGCTAG
ACACACTCAGGAGGACTACTGAGGCTCTGCGACCTTCAGGAGCTGAGCCTGCCTCTCTCCTTTAGATGACAGACC
TTCATCTGGGAACGTGCTGAGCCAGCACCCTCAGATGATTTCCCTCCAAACTGCTGACTAGGTCATCCTCTGTCT
GGTAGAGACATTCACATCTTTGCTTTTATTCTATGCTCTCTGTACTTTTGACCAAAAATTGACCAAAGTAAGAAA
ATGCAAGTTCTAAAAATAGACTAAGGATGCCTTTGCAGAACACCAAAGCATCCCAAGGAACTGGTAGGGAAGTGG
CGCCTGTCTCCTGGAGTGGAAGAGGCCTGCTCCCTGGCTCTGGGTCTGCTGGGGGCACAGTAAATCAGTCTTGGC
ACCCACATCCAGGGCAGAGAGGTCTGTGGTTCTCAGCATCAGAAGGCAGCGCAGCCCCTCTCCTCTTCAGGCTAC
AGGGTTGTCACCTGCTGAGTCCTCAGGTTGTTTGGCCTCTCTGGTCCATCTTGGGCATTAGGTTCTCCAGCAGAG
CTCTGGCCAGCTGCCTCTTCTTTAACTGGGAACACAGGCTCTCACAAGATCAGAACCCCCACTCACCCCCAAGAT
CTTATCTAGCAAGCCTGTAGTATTCAGTTTCTGTTGTAGGAAGAGAGCGAGGCATCCCTGAATTCCACGCATCTG
CTGGAAACGAGCCGTGTCAGATCGCACATCCCTGCGCCCCCATGCCCCTCTGAGTCACACAGGACAGAGGAGGCA
GAGCTTCTGCCCACTGTTATCTTCACTTTCTTTGTCCAGTCTTTTGTTTTTAATAAGCAGTGACCCTCCCTACTC
TTCTTTTTAATGATTTTTGTAGTTGATTTGTCTGAACTGTGGCTACTGTGCATTCCTTGAATAATCACTTGTAAA
AATTGTCAGTGCTTGAAGCTGTTTCCTTTACTCACATTGAAGGGACTTCGTTGGTTTTTTGGAGTCTTGGTTGTG
ACTCCAAGAGCAGAGTGAGGAAGACCCCCAAGCATAGACTCGGGTACTGTGATGATGGCTGCAGTCCAGTTTTAT
GATTCTGCTTTTATGTGTCCCTTGATAACAGTGACTTAACAATATACATTCCTCATAAATAAAAAAAAAACAAGA
ATCTGAATTCTT

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FIGURE 753

GAAGGTTCTGGGCGGGGCTGGACTGTTCTAAGTGAGTTCGGGTGGGGGAGCTTCACGAGGGGAGGCTGCTCTGTG
AAGGAACCGCCTTTCTCTCCGCGTGTCTCACCCTTTTCTCCCCATATCTGTTTGGACATGAGCTGAGGGCACGGT
CGCGGGCGGTCAGCCCTGTTCGCAGCTACGGCGAGGAGGGGCGCGATTGTTCCTTGTTGCCGCTCCGCTTAGTGG
CCGCGTCCATTCCGCGCGGTGTCCCGATTTTAGGGGTAGGGAGAAGTGTCAGCTTCAGGCATCGCGAGGCGTGGC
GGCCCC**ATG**GCCCCGCTGGGAGGCGCCCCGCGGCTGGTACTGCTGTTCAGCGGCAAGAGGAAATCCGGGAAGGAC
TTCGTGACCGAGGCGCTGCAGAGCAGACTTGGAGCTGATGTCTGTGCTGTCCTCCGGCTCTCTGGTCCACTCAAG
GAACAGTATGCTCAGGAGCATGGCTTGAACTTCCAGAGACTCCTGGACACCAGCACCTACAAGGAGGCCTTTCGG
AAGGACATGATCCGCTGGGGAGAGGAGAAACGCCAGGCTGACCCAGGCTTCTTTTGCAGGAAGATTGTGGAGGGC
ATCTCCCAGCCCATCTGGCTGGTGAGTGACACACGGAGAGTGTCTGACATCCAGTGGTTTCGGGAGGCCTATGGG
GCCGTGACGCAGACGGTCCGCGTTGTAGCGTTGGAGCAGAGCCGACAGCAGCGGGGCTGGGTGTTCACGCCAGGG
GTGGACGATGCTGAGTCAGAATGTGGCCTGGACAACTTCGGGGACTTTGACTGGGTCATCGAGAACCATGGAGTT
GAACAGCGCCTGGAGGAGCAGTTGGAGAACCTGATAGAATTTATCCGCTCCAGACTT**TAG**TCACTAGGTTCTAGG
AGTGAGCTGGGGCCTGCTGAGGTGGGGGTGGGGCTGACTCTGCAAAATGGGGGTGTCCCCCGATCCTGGCCGAGG
TGAGGAACAGACAGGGGGGGTCTAGATTCTGAGGGGGTTGGTGGATATTGGGCAAGGCAGGAAACCTCTGGAGAC
CTCATTTTCTCCATGGGGAAGACAGCCATGCTCTTCAGGAGGAGACTCCAAGGGCAAAGGAGGGTGTCTTGGCTG
TGCTTGAAGGCGAAACCCTGCCATATCCCCAGTGCCAGTCCCCTCAGCCTGTGGTGGCCTTGCATCCTGACTGGA
TGTTCTCAGCCCCTTGTTCTGGGCAAGAACCCAGAGCTCCCCAGTGTGGATACTAATAAACCTCTTGGAGCACAC
TCTCAG

FIGURE 754

AAAGGGAAGCCTGCAACAAGTTAAGCTGAAGACCGAAGCAAGAGCTGGTTCAGGTGGCAGCCACAGCAGCCTCAG
GGACCTCAGCAACT**ATG**GCCTCCTGCCCAGACTCTGATAATAGCTGGGTGCTTGCTGGCTCCGAGAGCCTGCCAG
TGGAGACACTGGGCCCGGCATCCAGGATGGACCCAGAATCTGAGAGAGCCCTGCAGGCCCCTCACAGCCCCTCCA
AGACAGATGGGAAAGAATTAGCTGGGACCATGGATGGAGAAGGGACGCTCTTCCAGACTGAAAGCCCTCAGTCTG
GCAGCATTCTAACAGAGGAGACTGAGGTCAAGGGCACCCTGGAAGGTGATGTTTGTGGTGTGGAGCCTCCTGGCC
CAGGAGACACAGTAGTCCAGGGAGACCTGCAGGAGACCACCGTGGTGACAGGCCTGGGACCAGACACACAGGACC
TGGAAGGCCAGAGCCCTCCACAGAGCCTGCCTTCAACCCCCAAAGCAGCTTGGATCAGGGAGGAGGGCCGCTGCT
CCAGCAGTGACGATGACACCGACGTGGACATGGAGGGTCTGCGGAGACGGCGGGGCCGGGAGGCCGGCCCACCTC
AGCCCATGGTGCCCCTGGCTGTGGAGAACCAGGCTGGGGGTGAGGGTGCAGGCGGGGAGCTGGGCATCTCCCTCA
ACATGTGCCTCCTTGGGGCCCTGGTTCTGCTTGGCCTGGGGGTCCTCCTCTTCTCAGGTGGCCTCTCAGAGTCTG
AGACTGGGCCCATGGAGGAAGTGGAGCGGCAGGTCCTCCCAGACCCCGAGGTGCTGGAAGCTGTGGGGGACAGGC
AGGATGGGCTAAGGGAACAGCTGCAGGCCCCAGTGCCTCCTGACAGTGTCCCCAGCCTGCAAAACATGGGTCTTC
TGCTGGACAAGCTGGCCAAGGAGAACCAGGACATCCGGCTGCTGCAGGCCCAGCTGCAGGCCCAAAAGGAAGAGC
TTCAGAGCCTGATGCACCAGCCCAAAGGGCTAGAGGAGGAGAATGCCCAGCTCCGGGGGGCTCTGCAGCAGGGCG
AAGCCTTCCAGCGGGCTCTGGAGTCAGAGCTGCAGCAGCTGCGGGCCCGGCTCCAGGGGCTGGAGGCCGACTGTG
TCCGGGGCCCAGATGGGGTGTGCCTCAGTGGGGGTAGAGGCCCACAGGGTGACAAGGCCATCAGGGAGCAAGGCC
CCAGGGAGCAGGAGCCAGAACTCAGCTTCCTGAAGCAGAAGGAACAGCTGGAGGCTGAGGCACAGGCATTAAGGC
AAGAGTTAGAGAGGCAGCGACGGCTGCTGGGGTCTGTACAGCAGGATCTGGAGAGGAGCTTGCAGGATGCCAGCC
GCGGGGACCCAGCTCATGCTGGCTTGGCTGAGCTGGGCCACAGATTGGCCCAGAAACTGCAGGGCCTGGAGAACT
GGGGCCAGGACCCTGGGGTCTCTGCCAATGCCTCAAAGGCCTGGCACCAGAAGTCCCACTTCCAGAATTCTAGGG
AGTGGAGTGGAAAGGAAAAGTGGTGGGATGGGCAGAGAGACCGGAAGGCTGAGCACTGGAAACATAAGAAGGAAG
AATCTGGCCGGGAAAGGAAGAAGAACTGGGGAGGTCAGGAGGACAGGGAGCCAGCAGGAAGGTGGAAGGAGGGCA
GGCCAAGGGTGGAGGAGTCGGGGAGCAAGAAGGAGGGCAAGCGACAGGGCCCGAAGGAACCCCCAAGGAAAAGTG
GTAGCTTCCACTCCTCTGGAGAAAAGCAGAAGCAACCTCGGTGGAGGGAAGGGACTAAGGACAGCCATGACCCCC
TGCCATCCTGGGCAGAGCTGTTGAGGCCCAAGTACCGGGCACCCCAGGGCTGCTCAGGTGTGGACGAGTGTGCCC
GGCAGGAGGGCCTGACTTTCTTTGGCACAGAGCTAGCCCCAGTGCGGCAACAGGAGCTGGCCTCTCTGCTAAGAA
CATACTTGGCACGGCTGCCCTGGGCTGGGCAGCTGACCAAGGAGCTACCCCTCTCACCTGCTTTCTTTGGTGAGG
ATGGCATCTTCCGTCATGACCGCCTCCGCTTCCGGGATTTTGTGGATGCCCTGGAGGACAGCTTGGAGGAGGTGG
CTGTGCAACAGACAGGTGATGATGATGAAGTAGATGACTTTGAGGACTTCATCTTCAGCCACTTCTTTGGAGACA
AAGCACTGAAGAAGAGGTCAGGGAAGAAGGACAAGCACTCACAGAGCCCAAGAGCTGCGGGGCCCAGGGAGGGGC
ACAGCCATAGCCACCACCACCACCACCGGGGC**TGA**CACCCTGCCCCACAGGGAATGGCCTTGGCCTGGCCCAGCC
CAAGATCCCAGCGTTATCTAACTCCTGGAGGGTGGACTCTGTCCTGGCTTGTTTGGTGTCCTCAGATATCTTTCA
CACAGTAGAGCAAAATCACCAGCCCTGCACTGATGTCACTTTATGTAGAAAAAGGCCTTAGCTGGACCTGCGTTG
CCGTCTATGCAAATGCATGCAAATACTCCAGGCCCTGGGATGTGGGCTTGTGTTTTGTCACTGTGAAGGGGGAGA
TGGGAGAGGAGCCTGTTTTGGGGTGGGGTCTGGGGAAGGCAATCTGATTCTGAAGCTAAAGAGCTTTCATCCTCT
TGAGTGTATGTCCCCATAGTGGGCCCCTTGACCCACATGCTGACCGGTGCCTTGGGATTTGACTAGAGTTGCTGG
CTCGAGGCCCAGCACGAGGACTTACCCTGGGGTTTTGTTAGGTTTGGAAGCAGCTGTCCCTAGGGGGTGAAGTCC
CCCCCCTTTTTTTTTTTACCCCTGCTTCTCCCACGGCTTCACCTCCCTATGTGAACTGTAGACTCAGATCCCAAT
AAAGTGCTGTTGCAGCTATGATGCTAGGTGGTTTCTAAGCACAGGGGACACCCCACACCCCCTGCCTGAATGGAT
GGGTCCATCCCAGGCACTGGTACTTGCCCCCTTGTTCTGTATCCCCCTTTGCCCTTGCCTTGCCCTTCCAACAAA
CCCTAGGCCCTTGAGAAGCTGATACTTCTCCTTTTGCTCACAGCTGCCTTGGCCCCACCCCTGGGAGATGTAGCA
AATTGAGTGTGGGTTTTGGAGTCTGAGCCTCAGGCTCAAATCCAGGCCAAGTGATCTTGGGCAAGTTAATCTCTG
GGAACTTTGGGTTTCTTATCCTCAAAAAAGGCGATGGAAGGGCTGGGGAAGTGATTAAATAAAAGCAACGCAAGA
AAAATGCC

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FIGURE 755

GTCTGGAGAGAGCGCGCAGTTTGCGCGGCGGCTCGGCGCTTCCCTGTCGTCGCACTTTGTGGTTGCTGCAGCTCG
GGGGCCTGGGCTGCCCCTGACACCCCTTCTGGGCGATGGTGCAGCCCAAGGGCGCCTCCATCCCCCGCCGCTGCC
GCTAACCCGGGTCCCCCACTCC**ATG**GCCGCCTCGGCGCCGCCCCCACCGGACAAGCTGGAGGGAGGTGGCGGCCC
CGCACCGCCCCCTGCGCCGCCCAGCACCGGGAGGAAGCAGGGCAAGGCCGGTCTGCAAATGAAGAGTCCAGAAAA
GAAGCGAAGGAAGTCAAATACTCAGGGCCCTGCATACTCACATCTGACGGAGTTTGCACCACCCCCAACTCCCAT
GGTGGATCACCTGGTTGCATCCAACCCTTTTGAAGATGACTTCGGAGCCCCCAAAGTGGGGGTTGCAGCCCCTCC
ATTCCTTGGCAGTCCTGTGCCCTTCGGAGGCTTCCGTGTGCAGGGGGGCATGGCGGGCCAGGTACCCCCAGGCTA
CAGCACTGGAGGTGGAGGGGGCCCCCAGCCACTCCGTCGACAGCCACCCCCCTTCCCTCCCAATCCTATGGGCCC
TGCTTTCAACATGCCCCCCCAGGGTCCTGGCTACCCACCCCCAGGCAACATGAACTTTCCCAGCCAACCCTTCAA
CCAGCCTCTGGGTCAAAACTTTAGTCCTCCCAGTGGGCAGATGATGCCGGGCCCAGTGGGGGGATTTGGTCCCAT
GATCTCACCCACCATGGGACAGCCTCCCAGAGCAGAGCTGGGCCCACCTTCTCTGTCCCAACGATTTGCTCAGCC
AGGGGCTCCTTTTGGCCCTTCTCCTCTCCAGAGACCTGGTCAGGGGCTCCCCAGCCTGCCGCCTAACACAAGTCC
CTTTCCTGGTCCGGACCCTGGCTTTCCTGGCCCTGGTGGTGAGGATGGGGGGAAGCCCTTGAATCCACCTGCTTC
TACTGCTTTTCCCCAGGAGCCCCACTCAGGCTCCCCGGCTGCTGCTGTTAATGGGAACCAGCCCAGTTTCCCCCC
GAACAGCAGTGGGCGGGGTGGGGGCACTCCAGATGCCAACAGCTTGGCACCCCCTGGCAAGGCAGGTGGGGGCTC
CGGGCCCCAGCCTCCCCCAGGCTTGGTGTACCCATGTGGTGCCTGTCGGAGTGAGGTGAACGATGACCAGGATGC
CATTCTGTGTGAGGCCTCCTGCCAGAAATGGTTCCACCGTGAGTGCACAGGCATGACTGAGAGCGCCTATGGGCT
GCTGACCACTGAAGCTTCTGCCGTCTGGGCCTGCGATCTCTGCCTCAAGACCAAGGAGATCCAGTCTGTCTACAT
CCGTGAGGGCATGGGGCAGCTGGTGGCTGCTAACGATGGG**TGA**CGCTGGTGAAGTGGCCCAGGGAAGTGCACATG
TCTCTCCCTGCTCTTCCAGGGTGATTTTTTTGATGTTTGGCTCTTGGTCCTTGTTTCCACTGGCTTTCCATCCCC
ATGGGGCAGAAACAGTGGCTCCTGGGAGCAGAAAAGGAATTGAGGTGGGCAGGCAGAAGAGCCTGGATTGCTCAC
TGTTTTGGGAAACTTACATGTTGAGATCTACAGAGATCCAGGAAACCAAAGCCCTGCTGAGCAGAGCCATTTTGT
GGCTATTTCTGGAGGCCCAGGAGTGTGGCTGCAAGAGAAAAGGGGCTGGAGGAAGATCCGGAGGGCAGGGGTGTT
CCCTCTGCTGATGATGGATGCCCCTAACACCTGTGCCTAACACCCCTACTGAACCCCACAGCTCCAGCCTTAGTT
TTTGGAGTCAAGTGTTAAAGGTTTCTGGCCAGAGGAATTGGGGTCTTGCCATCCCTGCAATAGCCCTTTTATGGG
CTCTGGGAGACAGCTTTAGGGAATAAATGGGGATTTTCCCCTTTTTCTACCCACTCCTTTGCTTCCTCCAAGACT
TACCCAACTCCTTCCCCCTCAGAGAACCAAATAGCCTGAGGAAGCAGGAGAGTTCCTGGTTATGGCAGTTTCTTG
GTGATTTGGGGCTTCAAGACAGTAGGTGAGAGATGCTGTCAGGACGTATCTTCTTCATACCAAAGTCACTGGTCC
TTTCTCAGCCTCTCTCGTGCTTTTCTCCTAATGACCATATTTTTGCCAAAAATTGGGATATGTTATCTGACAGAC
CAGAATATTTGAAGTTTGGGCTGTCCTGAAAGTCTGGACTTTGGTGGTACCCTCCTCCCCCAGCCCATCTGTTGC
ACATTATACTCCGTGTGTTCTTCAACTTTCGGCGCCCTTATTCCCCTGCCTTCCTGGCTTGATTGAAGGAAAGCT
TGAAAAGGCGCAGAGCCCTATACCTCATTTCCTCCATGATAAAAGGATCCAAGTGAGGCCCTGTCACAGCCTGTG
GGTAGGGGATGCGGCGGGATCCTCATTGCCATGGTACTCAAAGGTAGAAGAGCCTGGAGTTTGTTGCTTCTCTTT
GCTATTCTTTCATATCCTCTTGGGCCTGGTGATTAATTAGCAATTCTCATTCCTCTCAGCCAAAGGCCTGCACTG
GGCTTTATTTGTCTTTTTTTATTTTTTAAGCACTGCCTGCCAGAGATGGGCCTGGGGCCTGATGAGGACCTTAGC
GCTGCTCGTTCTCCTTTTCTGTTCATGCACACATTCCTCCATGGGGTGGGGAAGGCAGGCATGGGGTGTGGCCCT
CGGAGAAGTTAGGAGTCCCCCAGCTCAAGATACAGTGGCAAAGACCTAGTGGTCCCCTACCCCCACTTCTCTCAG
TTCCTGGCATGAGGAGAGAAGACCCTGCTCTGGTGGAGCTGACAACCTTTGAGGCTGGGAGGAGAGCAGCCTCTG
GGCATCGTTCCCAGTGTCCCTCACACTAAAACGGCGTAGATGGCAACCCCCCACCCCCACCCCGCTGCTCAACTC
TTGTGTTTGTTGTTCTGTTTGCCCCATTTATCTGTTGCTGTTTTTGTGTTGTCTTCCCCTGCTCCGCATTTTGTA
AAATGGCCCCTGGGGGAGTGTTTTTGCTGGATCTGCTCCCTCTCGCTCTCTCACTCCACTACTTTTTGGAACAAA
GTGATGGCAGAATGCGGTGGTGGTGGGGGTCTTTTGTACTGTTGGATTAATAAAATGATTTTAAAATCCC

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FIGURE 756

ATGGGGCCTGAAACTGTCTGGGTCTGAGCTGGGGAGCGGAAGCCACTTGTCCCTCTCCCTCCCCAGGACTTCTGT
GACTCCTGGGCCACAGAGGTCCAACCAGGCTAAGGGCCTGGGGATACCCCCTGCCTGGCCCCCTTGCCCAAACTG
GCAGGGGGGCCAGGCTGGGCAGCAGCCCCTCTTTCACCTCAACT**ATG**GATCTCCTGCCCCCCAAGCCCAAGTACA
ATCCACTCCGGAATGAGTCTCTGTCATCGCTGGAGGAAGGGGCTTCTGGGTCCACCCCCCCGGAGGAGCTGCCTT
CCCCATCAGCTTCATCCCTGGGGCCCATCCTGCCTCCTCTGCCTGGGGACGATAGTCCCACTACCCTGTGCTCCT
TCTTCCCCCGGATGAGCAACCTGAGGCTGGCCAACCCGGCTGGGGGGCGCCCAGGGTCTAAGGGGGAGCCAGGAA
GGGCAGCTGATGATGGGGAGGGGATCGTAGGGGCAGCCATGCCAGACTCAGGCCCCCTACCCCTCCTCCAGGACA
TGAACAAGCTGAGTGGAGGCGGCGGGCGCAGGACTCGGGTGGAAGGGGGCCAGCTTGGGGGCGAGGAGTGGACCC
GCCACGGGAGCTTTGTCAATAAGCCCACGCGGGGCTGGCTGCATCCCAACGACAAAGTCATGGGACCCGGGGTTT
CCTACTTGGTTCGGTACATGGGTTGTGTGGAGGTCCTCCAGTCAATGCGTGCCCTGGACTTCAACACCCGGACTC
AGGTCACCAGGGAGGCCATCAGTCTGGTGTGTGAGGCTGTGCCGGGTGCTAAGGGGGCGACAAGGAGGAGAAAGC
CCTGTAGCCGCCCGCTCAGCTCTATCCTGGGGAGGAGTAACCTGAAATTTGCTGGAATGCCAATCACTCTCACCG
TCTCCACCAGCAGCCTCAACCTCATGGCCGCAGACTGCAAACAGATCATCGCCAACCACCACATGCAATCTATCT
CATTTGCATCCGGCGGGGATCCGGACACAGCCGAGTATGTCGCCTATGTTGCCAAAGACCCTGTGAATCAGAGAG
CCTGCCACATTCTGGAGTGTCCCGAAGGGCTTGCCCAGGATGTCATCAGCACCATTGGCCAGGCCTTCGAGTTGC
GCTTCAAACAATACCTCAGGAACCCACCCAAACTGGTCACCCCTCATGACAGGATGGCTGGCTTTGATGGCTCAG
CATGGGATGAGGAGGAGGAAGAGCCACCTGACCATCAGTACTATAATGACTTCCCGGGGAAGGAACCCCCCTTGG
GGGGGGTGGTAGACATGAGGCTTCGGGAAGGAGCCGCTCCAGGGGCTGCTCGACCCACTGCACCCAATGCCCAGA
CCCCCAGCCACTTGGGAGCTACATTGCCTGTAGGACAGCCTGTTGGGGGAGATCCAGAAGTCCGCAAACAGATGC
CACCTCCACCACCCTGTCCAGGCAGAGAGCTTTTTGATGATCCCTCCTATGTCAACGTCCAGAACCTAGACAAGG
CCCGGCAAGCAGTGGGTGGTGCTGGGCCCCCCAATCCTGCTATCAATGGCAGTGCACCCCGGGACCTGTTTGACA
TGAAGCCCTTCGAAGATGCTCTTCGCGTGCCTCCACCTCCCCAGTCGGTGTCCATGGCTGAGCAGCTCCGAGGGG
AGCCCTGGTTCCATGGGAAGCTGAGCCGGCGGGAGGCTGAGGCACTGCTGCAGCTCAATGGGGACTTCCTGGTAC
GGGAGAGCACGACCACACCTGGCCAGTATGTGCTCACTGGCTTGCAGAGTGGGCAGCCTAAGCATTTGCTACTGG
TGGACCCTGAGGGTGTGGTTCGGACTAAGGATCACCGCTTTGAAAGTGTCAGTCACCTTATCAGCTACCACATGG
ACAATCACTTGCCCATCATCTCTGCGGGCAGCGAACTGTGTCTACAGCAACCTGTGGAGCGGAAACTG**TGA**TCTG
CCCTAGCGCTCTCTTCCAGAAGATGCCCTCCAATCCTTTCCACCCTATTCCCTAACTCTCGGGACCTCGTTTGGG
AGTGTTCTGTGGGCTTGGCCTTGTGTCAGAGCTGGGAGTAGCATGGACTCTGGGTTTCATATCCAGCTGAGTGAG
AGGGTTTGAGTCAAAAGCCTGGGTGAGAATCCTGCCTCTCCCCAAACATTAATCACCAAAGTATTAATGTACAGA
GTGGCCCCTCACCTGGGCCTTTCCTGTGCCAACCTGATGCCCCTTCCCCAAGAAGGTGAGTGCTTGTCATGGAAA
ATGTCCTGTGGTGACAGGCCCAGTGGAACAGTCACCCTTCTGGGCAAGGGGGAACAAATCACACCTCTGGGCTTC
AGGGTATCCCAGACCCCTCTCAACACCCGCCCCCCCCATGTTTAAACTTTGTGCCTTTGACCATCTCTTAGGTCT
AATGATATTTTATGCAAACAGTTCTTGGACCCCTGAATTCAATGACAGGGATGCCAACACCTTCTTGGCTTCTGG
GACCTGTGTTCTTGCTGAGCACCCTCTCCGGTTTGGGTTGGGATAACAGAGGCAGGAGTGGCAGCTGTCCCCTCT
CCCTGGGGATATGCAACCCTTAGAGATTGCCCCAGAGCCCCACTCCCGGCCAGGCGGGAGATGGACCCCTCCCTT
GCTCAGTGCCTCCTGGCCGGGGCCCCTCACCCCAAGGGGTCTGTATATACATTTCATAAGGCCTGCCCTCCCATG
TTGCATGCCTATGTACTCTACGCCAAAGTGCAGCCCTTCCTCCTGAAGCCTCTGCCCTGCCTCCCTTTCTGGGAG
GGCGGGGTGGGGGTGACTGAATTTGGGCCTCTTGTACAGTTAACTCTCCCAGGTGGATTTTGTGGAGGTGAGAAA
AGGGGCATTGAGACTATAAAGCAGTAGACAATCCCCACATACCATCTGTAGAGTTGGAACTGCATTCTTTTAAAG
TTTTATATGCATATATTTTAGGGCTGTAGACTTACTTTCCTATTTTCTTTTCCATTGCTTATTCTTGAGCACAAA
ATGATAATCAATTATTACATTTATACATCACCTTTTTGACTTTTCCAAGCCCTTTTACAGCTCTTGGCATTTTCC
TCGCCTAGGCCTGTGAGGTAACTGGGATCGCACCTTTTATACCAGAGACCTGAGGCAGATGAAATTTATTTCCAT
CTAGGACTAGAAAAACTTGGGTCTCTTACCGCGAGACTGAGAGGCAGAAGTCAGCCCGAATGCCTGTCAGTTTCA
TGGAGGGGAAACGCAAAACCTGCAGTTCCTGAGTACCTTCTACAGGCCCGGCCCAGCCTAGGCCCGGGGTGGCCA
CACCACAGCAAGCCGGCCCCCCCTCTTTTGGCCTTGTGGATAAGGGAGAGTTGACCGTTTTCATCCTGGCCTCCT
TTTGCTGTTTGGATGTTTCCACGGGTCTCACTTATACCAAAGGGAAAACTCTTCATTAAAGTCCGTATTTCTTCT

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FIGURE 757

GAGCGATC**ATG**TCGCACAAACAAATTTACTATTCGGACAAATACGACGACGAGGAGTTTGAGTATCGACATGTCA
TGCTGCCCAAGGACATAGCCAAGCTGGTCCCTAAAACCCATCTGATGTCTGAATCTGAATGGAGGAATCTTGGCG
TTCAGCAGAGTCAGGGATGGGTCCATTATATGATCCATGAACCAGAACCTCACATCTTGCTGTTCCGGCGCCCAC
TACCCAAGAAACCAAAGAAA**TGA**AGCTGGCAAGCTACTTTTCAGCCTCAAGCTTTACACAGCTGTCCTTACTTCC
TAACATCTTTCTGATAACATTATTATGTTGCCTTCTTGTTTCTCACTTTGATATTTAAAAGATGTTCAATACACT
GTTTGAATGTGCTGGTAACTGCTTTGCTTCTTGAGTAGAGCCACCACCACCATAGCCCAGCCAGATGAGTGCTCT
GTGGACCCACAGCCTAAGCTGAGTGTGACCCCAGAAGCCACGATGTGCTCTGTATCCAGAACACACTTGGCAGAT
GGAGGAAGCATCTGAGTTTGAGACCATGGCTGTTACAGGGATCATGTAAACTTGCTGTTTTTGTTTTTTCCTGCC
GGGTGTTGTATGTGTGGTGACTTGCGGATTTATGTTTCAGTGTACTGGAAACTTTCCATTTTATTCAAGAAATCT
GTTCATGTTAAAAGCCTTGATTAAAGAGGAAGTTTTTATAAT

FIGURE 758

GAAAGAGCCGGTGAAGGGGCAGAACAGGCAGGTTCCCTCGACCCAGGACCCCCTGTTCCCAGGCTATGGCCCCCA
GTGCCCTGTAGACCTGGCAGGCCCCCCGTGCTTGCGACCCCTATTTGGGGGTCTGGGTGGCTACTGGAGGGCCTT
GCAGAGGGGCAGAGAAGGCAGGACCATGACATCTAGGGCCTCTGAACTTTCTCCGGGGCGCAGCGTGACGGCTGG
CATCATCATTGTTGGAGATGAGATCCTTAAGTTGGAAACAACAAATGGCTTTTGAGTCCAAGAGTGATGCAATCA
CAGTGACGCATTAAAACGGTTACTCCGGAGACATCAGAGCACTGTGGCTGGAGGCTGGGAGCCTGGCCAGGAAGC
TGTCGCCATTGTCCAGGTGAAAGGTGCTAAGGACCTGCTTGGTGGCAGTGGGGACAGAAAGAAGAAAGCAGGCCA
GGCGTGGTGGCTCACACCTATAATTCCAGCACTTTGGGAGGCTGAGGCAGGAGGATCACTTGAGACCAGGAATTC
AACACCAGCCTGGGCAACATGGCAAGACCCCATTTCTACAAAAAAAATTTAAAATGAGCTGAATGTGGTGGCACG
CGCCTGTAGTCCCAGCTACTCGGAAGGCTGGGGTGGCCCTTGAAGCCAGGAGGTTGAGGCTGCAGTGAACTGTGA
CTGAGCCACTATACTCCAGCCTGGGTGACAGAGACCCAGCTTTAAAACCAAACAAATGGATTTTCCCACTCTTGT
GTCCAGTCCAGGCCCCTCAGCAGCCTGAGGTGGTGTCCTTCAAAGAGCAGAGCACTGCATCATCAGGTGG**ATG**CA
GCCATCATCTTCAACCCCTCCCCTTCATCCCTACAGTACTGATGGCCTCATCTTCCCCTTCAACCCCCAGGGACA
CACTCAGGACACCAACACCTTCTTTCTGTGCCGGACACTGCGCTCCCTAGGGGTCCAGGTTTGCCGAGTCTCAGT
TGTACCTGATGAGGTAGCCACCATTGCAGCTGAGGTCACTTCTTTCTCCAACCGCTTCACCCATGTCCTCACAGC
AGGGGGCATCGGCCCCACTCATGATGATGTGACCTTTGAGGCAGTGGCACAGGCCTTTGGAGATGAGCTGAAGCC
ACACCCCAAGTTGGAAGCAGCCACCAAAGCCCTAGGAGGGGAAGGCTGGGAGAAGCTATCATTGGTGCCCTCCTC
TGCCCGCCTGCATTATGGCACAGATCCTTGCACTGGTCAACCTTTCAGATTCCCTCTGGTCTCCGTCCGAAACGT
CTACCTCTTCCCAGGCATTCCAGAGCTGCTGCGGCGGGTGCTGGAGGGGATGAAGGGACTATTCCAAAACCCAGC
TGTTCAGTTCCACTCAAAGGAGCTATATGTGGCTGCTGATGAAGCCTCCATCGCCCCCATTCTGGCTGAGGCCCA
GGCCCACTTTGGACGTAGGCTTGGCCTGGGTTCCTACCCTGACTGGGGCAGCAACTACTATCAGGTGAAGCTGAC
TCTAGACTCAGAGGAAGAAGGACCCCTGGAGGAATGCTTGGCCTACCTGACTGCCCGTTTGCCCCAGGGATCGCT
GGTCCCCTACATGCCCAACGCTGTGGAGCAGGCCAGTGAGGCTGTATACAAACTCGCTGAATCAGGTAGGGACCT
TATGGAGGAGGGGCATTATGCCCAAAGCCATTGGTGGCACCCCAGATCTCAG**TAA**TGCAGGGGCTGTTGGGTGCT
TCCTGCAAATCCCTGAGAGGGCAGAAGATAGCTTCTGTTAATTCATTATTCTTCCAATAAATGTTGATTGAGTAC
CT

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FIGURE 759

AGCTGGAGGACAGGTGAGACAGCAGGACAGGACCGGAGCAGGGCCCCAAGCCCCCGGGCCTGGTGGGGGACGCGC
TTCTTCCCACACTGTGAGCCTCAGCAGCTCCAGCCAGCGGACCCGACGGCTGAGAGGAGAAG**ATG**GGGAGCCCCG
AGGATGACCTGATTGGGATTCCATTCCCGGACCACAGCAGTGAGCTCCTGAGCTGCCTCAATGAGCAGCGCCAGC
TGGGCCACCTATGTGACCTCACCATCCGGACGCAGGGCCTTGAATACCGCACCCACAGGGCTGTGCTAGCTGCCT
GTAGCCACTACTTCAAGAAGCTTTTCACTGAGGGCGGTGGCGGAGCTGTCATGGGGGCCGGGGGTAGCGGGACGG
CCACTGGGGGAGCAGGGGCCGGTGTGTGTGAGCTGGACTTTGTAGGGCCAGAGGCACTAGGCGCCCTCCTTGAAT
TTGCCTATACAGCCACACTGACCACCAGCAGCGCCAACATGCCAGCTGTGCTCCAGGCTGCCCGCCTGCTGGAGA
TCCCGTGTGTCATCGCTGCTTGCATGGAGATTCTGCAGGGCAGTGGGCTAGAAGCTCCCAGCCCGGACGAGGATG
ACTGTGAGCGAGCCCGCCAGTATCTGGAGGCCTTTGCCACAGCCACGGCCTCTGGAGTTCCCAATGGTGAAGACA
GTCCTCCACAGGTGCCCCTCCCACCACCTCCGCCACCGCCACCTCGGCCTGTTGCCCGCCGCAGCCGCAAGCCCC
GGAAAGCTTTCCTGCAAACCAAGGGGGCCAGAGCAAACCACCTAGTCCCTGAGGTGCCCACAGTGCCCGCCCATC
CCTTGACCTATGAGGAGGAGGAGGTGGCGGGCAGAGTGGGCAGCAGTGGGGGCAGTGGGCCGGGGGACAGCTACA
GCCCTCCCACAGGAACTGCCTCCCCTCCTGAGGGTCCCCAGAGCTACGAACCCTATGAGGGTGAGGAAGAAGAAG
AGGAGCTGGTATATCCCCCAGCCTATGGGCTGGCGCAGGGTGGCGGGCCCCCGCTGTCCCCAGAGGAGCTGGGCT
CAGATGAGGATGCCATCGATCCTGACCTGATGGCCTACCTAAGCTCCCTGCACCAGGACAACCTGGCACCAGGCC
TGGACAGCCAAGACAAGCTGGTGCGCAAACGCCGCTCCCAGATGCCTCAGGAGTGCCCTGTCTGCCACAAGATCA
TCCATGGGGCAGGCAAACTGCCTCGCCACATGAGGACCCACACAGGCGAGAAGCCCTTTGCCTGCGAGGTCTGCG
GTGTTCGATTCACCAGGAACGACAAGCTGAAGATCCACATGCGGAAGCACACGGGAGAGCGCCCCTACTCATGCC
CGCACTGCCCAGCCCGCTTCCTGCACAGCTACGACCTCAAGAACCACATGCACCTGCACACAGGGGACCGGCCCT
ATGAGTGCCACCTGTGCCACAAGGCTTTCGCCAAGGAGGACCACCTGCAGCGCCACCTCAAAGGCCAGAACTGCC
TGGAGGTGCGCACCCGACGGCGCCGCAAGGACGATGCACCACCCCACTACCCACCACCCTCTACCGCTGCTGCAT
CCCCCGCTGGCCTCGACCTCTCCAATGGCCACCTGGACACCTTCCGCCTCTCTCTAGCTCGATTCTGGGAGCAGT
CAGCCCCCACTGGGCCCCCGGTCTCTACCCCAGGGCCCCCTGATGACGATGAGGAGGAAGGGGCACCCACCACAC
CCCAGGCTGAAGGTGCCATGGAGTCCTCT**TAA**AGAGGGACGAGGGCCAGACTGAAGCAGCACAAGGCCGGGGACA
CCCATGCCAAGCAGTGGGAGCACGCAGGACAGACACAGCAGGGGTCTGGGGCACGGAGCCTTGCTGGCATCAGCA
TCAGCCCTTCCTCCCAGAGCCCTCATTCCAATTCCAAGCTAAGAAGGTATTGGGGCAGAGGCTCCCCAAATTGGG
GTGATCCCCCAAGGAGTGATACATATATTGTGTATATATTTACAGCTGTATTGTAAAAGTGGGGTCCCTGTCCCC
AGCTGCTCCTGGGGAGTAGAAGCAATAATGTATTTCTAATTTGTGGGTCCC

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FIGURE 760

CGCTGCCATGCGGCTGGCGCTGCTCTGGGCCCTGGGGCTCCTGGGCGCGGGCAGCCCTCTGCCTTCCTGGCCGCT
CCCAAATATAGGTGGCACTGAGGAGCAGCAGGCAGAGTCAGAGAAGGCCCCGAGGGAGCCCTTGGAGCCCCAGGT
CCTTCAGGACGATCTCCCAATTAGCCTCAAAAAGGTGCTTCAGACCAGTCTGCCTGAGCCCCTGAGGATCAAGTT
GGAGCTGGACGGTGACAGTCATATCCTGGAGCTGCTACAGAATAGGGAGTTGGTCCCAGGCCGCCCAACCCTGGT
GTGGTACCAGCCCGATGGCACTCGGGTGGTCAGTGAGGGACACACTTTGGAGAACTGCTGCTACCAGGGAAGAGT
GCGGGGATATGCAGGCTCCTGGGTGTCCATCTGCACCTGCTCTGGGCTCAGAGGCTTGGTGGTCCTGACCCCAGA
GAGAAGCTATACCCTGGAGCAGGGGCCTGGGGACCTTCAGGGTCCTCCCATTATTTCGCGAATCCAAGATCTCCA
CCTGCCAGGCCACACCTGTGCCCTGAGCTGGCGGGAATCTGTACACACTCAGACGCCACCAGAGCACCCCCTGGG
ACAGCGCCACTTCGCCGGAGGCGGGATGTGGTAACAGAGACCAAGACTGTGGAGTTGGTGATTGTGGCTGATCAC
TCGGAGGCCCAGAAATACCGGGACTTCCAGCACCTGCTAAACCGCACACTGGAAGTGGCCCTCTTGCTGGACACA
TTCTTCCGGCCCCTGAATGTACGAGTGGCACTAGTGGGCCTGGAGGCCTGGACCCAGCGTGACCTGGTGGAGATC
AGCCCAAACCCAGCTGTCACCCTCGAAAACTTCCTCCACTGGCGCAGGGCACATTTGCTGCCTCGATTGCCCCAT
GACAGTGCCCAGCTGGTGACTGGTACTTCATTCTCTGGGCCTACGGTGGGCATGGCCATTCAGAACTCCATCTGT
TCTCCTGACTTCTCAGGAGGTGTGAACATGGACCACTCCACCAGCATCCTGGGAGTCGCCTCCTCCATAGCCC**AT**
GAGTTGGGCCACAGCCTGGGCCTGGAGCCATGATTTGCCTGGGAATAGCTGCCCCTGTCCAGGTCCAGCCCCAGC
CAAGACCTGCATCATGGAGGCCTCCACAGACTTCCTACCAGGCCTGAACTTCAGCAACTGCAGCCGACGGGCCCT
GGAGAAAGCCCTCCTGGATGGAATGGGCAGCTGCCTCTTCGAACGGCTGCCTAGCCTACCCCCTATGGCTGCTTT
CTGCGGAAATATGTTTGTGGAGCCGGGCGAGCAGTGTGACTGTGGCTTCCTGGATGACTGCGTCGATCCCTGCTG
TGATTCTTTGACCTGCCAGCTGAGGCCAGGTGCACAGTGTGCATCTGACGGACCCTGTTGTCAAAATTGCCAGCT
GCGCCCGTCTGGCTGGCAGTGTCGTCCTACCAGAGGGGATTGTGACTTGCCTGAATTCTGCCCAGGAGACAGCTC
CCAGTGTCCCCCTGATGTCAGCCTAGGGGATGGCGAGCCCTGCGCTGTCGGGCAAGCTGTGTGCATGCACGGGCG
TTGTGCCTCCTATGCCCAGCAGTGCCAGTCACTTTGGGGACCTGGAGCCCAGCCCGCTGCGCCACTTTGCCTCCA
GACAGCTAATACTCGGGGAAATGCTTTTGGGAGCTGTGGGCGCAACCCCAGTGGCAGTTATGTGTCCTGCACCCC
TAGAGATGCCATTTGTGGGCAGCTCCAGTGCCAGACAGGTAGGACCCAGCCTCTGCTGGGCTCCATCCGGGATCT
ACTCTGGGAGACAATAGATGTGAATGGGACTGAGCTGAACTGCAGCTGGGTGCACCTGGACCTGGGCAGTGATGT
GGCCCAGCCCCTCCTGACTCTGCCTGGCACAGCCTGTGGCCCTGGCCTGGTGTGTATAGACCATCGATGCCAGCG
TGTGGATCTCCTGGGGGCACAGGAATGTCGAAGCAAATGCCATGGACATGGGGTCTGTGACAGCAACAGGCACTG
CTACTGTGAGGAGGGCTGGGCACCCCCTGACTGCACCACTCAGCTCAAAGCAACCAGCTCCCTGACCACAGGGCT
GCTCCTCAGCCTCCTGGTCTTATTGGTCCTGGTGATGCTTGGTGCCAGCTACTGGTACCGTGCCCGCCTGCACCA
GCGACTCTGCCAGCTCAAGGGACCCACCTGCCAGTACAGGGCAGCCCAATCTGGTCCCTCTGAACGGCCAGGACC
TCCGCAGAGGGCCCTGCTGGCACGAGGCACTAAGTCTCAGGGGCCAGCCAAGCCCCCACCCCCAAGGAAGCCACT
GCCTGCCGACCCCCAGGGCCGGTGCCCATCGGGTGACCTGCCCGGCCCAGGGGCTGGAATCCCGCCCCTAGTGGT
ACCCTCCAGACCAGCGCCACCGCCTCCGACAGTGTCCTCGCTCTACCTC**TGA**CCTCTCCGGAGGTTCCGCTGCCT
CCAAGCCGGACTTAGGGCTTCAAGAGGCGGGCGTGCCCTCTGGAGTCCCCTACCATGACTGAAGGCGCCAGAGAC
TGGCGGTGTCTTAAGACTCCGGGCACCGCCACGCGCTGTCAAGCAACACTCTGCGGACCTGCCGGCGTAGTTGCA
GCGGGGGCTTGGGGAGGGGCTGGGGGTTGGACGGGATTGAGGAAGGTCCGCACAGCCTGTCTCTGCTCAGTTGCA
ATAAACGTGACATCTTGGGAGCGTT

FIGURE 761

AGTGGTGGAGGAACTTCCGGCAGCGGCAGCTCAAGTGGCCAAGGCAAG**ATG**GGTCAAAGTCAGAGTGGTGGTCAT
GGTCCTGGAGGTGGCAAGAAGGATGACAAGGACAAGAAAAAGAAATATGAACCTCCTGTACCAACTAGAGTGGGG
AAAAAGAAGAAGAAAACAAAGGGACCAGATGCTGCCAGCAAACTGCCACTGGTGACACCTCACACTCAGTGCCGG
TTAAAATTACTGAAGTTAGAGAGAATTAAAGACTATCTTCTCATGGAGGAAGAATTCATTAGAAATCAGGAACAA
ATGAAACCATTAGAAGAAAAGCAAGAGGAGGAAAGATCAAAAGTGGATGATCTGAGGGGGACCCCGATGTCAGTA
GGAACCTTGGAAGAGATCATTGATGACAATCATGCCATCGTGTCTACATCTGTGGGCTCAGAACACTACGTCAGC
ATTCTTTCATTTGTAGACAAGGATCTGCTGGAACCTGGCTGCTCGGTCCTGCTCAACCACAAGGTGCATGCCGTG
ATAGGGGTGCTGATGGATGACACGGATCCCCTGGTCACAGTGATGAAGGTAGAAAAGGCCCCCCAGGAGACCTAT
GCAGATATTGGGGGGTTGGACAACCAAATTCAGGAAATTAAGGAATCTGTGGAGCTTCCTCTCACCCATCCTGAA
TATTATGAAGAGATGGGTATAAAGCCTCCTAAGGGGGTCATTCTCTATGGTCCACCTGGCACAGGTAAAACCTTG
TTAGCCAAAGCAGTAGCAAACCAAACCTCAGCCACTTTCTTGAGAGTGGTTGGCTCTGAACTTATTCAGAAGTAC
CTAGGTGATGGGCCCAAACTCGTACGGGAATTGTTCCGAGTTGCTGAAGAACATGCACCGTCCATCGTGTTTATT
GATGAAATTGACGCCATTGGGACAAAAAGATATGACTCCAATTCTGGTGGTGAGAGAGAAATTCAGCGAACAATG
TTGGAACTGCTGAACCAGTTGGATGGATTTGATTCTAGGGGAGATGTGAAAGTTATCATGGCCACAAACCGAATA
GAAACTTTGGATCCAGCACTTATCAGACCAGGCCGCATTGACAGGAAGATTGAGTTCCCCCTGCCTGATGAAAAG
ACGAAGAAGCGCATCTTTCAGATTCACACAAGCAGGATGACGCTGGCTGATGATGTAACCCTGGACGACCTGATC
ATGGCTAAAGATGACCTCTCTGGTGCTGACATCAAGGCAATCTGTACAGAAGCTGGTCTGATGGCCTTAAGAGAA
CGTAGAATGAAAGTAACAAATGAAGACTTCAAAAAATCTAAAGAAAATGTTCTTTATAAGAAACAGGAAGGCACC
CCTGAGGGGCTGTATCTC**TAA**TGAACCATGGCTGTCATCAGGAAAATGGTTGGGAGATTTCTCAATCCCTGAAAG
GGATGAGGTTGGGGGAGTTGCCCAGAGGAATCCCTGTTCCCACTGATTTTTATTAGCAAAACATCCTGTGTCTTT
TGGAGTACGATGTGTAAGTGCCCATTGGGTGGCCTGTTGGTCACTGTGCAGCAGTCTGCTTCCCAATAAAGCGTG
CTCTTTCACAA

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FIGURE 762A

TTTGCATCCCAATAATACAGCCCTTTGGCAGAAATACCTTTTATTTTGCCAGAGCCAGTTTAGTACCTTTTCGAT
ATCAAAAATTCACAGTCTTTATGGAAAATGCTTGAGCACTTTGTCTGCTGTTAAGGACGGCAGCATCTTATCTCA
CCCTGCGTTGCCTGGCACGGAAGAGGCC**ATG**TTTGCACTCTTTCTTCAGCAGTGCCACTTTCTGCGGCAGGCTGG
CCACTCTGAGAAGGCCATCTCATTGTTCCAGGCCATGGTGGACTTCACCTTCTTCAAACCCGACAGCGTGAAAGA
TCTGCCTACCAAAGGACAGGTGGAATTCTTTGAACCCTTTTGGGACAGTGGAGAGCCCCGGGCTGGGGAGAAGGG
AGCCCGAGGCTGGAAGGCGTGGATGCACCAGCAGGAACGAGGTGGCTGGGTGGTCATCAACCCAGATGAGGATGA
CGATGAACCAGAAGAGGATGACCAGGAAATAAAAGATAAGACTCTGCCCAGGTGGCAGATCTGGCTTGCTGCTGA
GCGTTCCCGTGACCAGAGGCACTGGCGGCCCTGGCGCCCTGATAAGACCAAGAAGCAAACCGAGGAAGACTGTGA
GGATCCCGAGAGACAGGTGTTGTTTGATGATATTGGGCAATCTTTGATCAGACTTTCCAGCCATGATCTTCAGTT
CCAGCTGGTGGAGGCCTTCCTGCAGTTCTTGGGTGTGCCTTCTGGCTTTACTCCTCCAGCCTCCTGTCTTTATCT
GGCCATGGATGAGAACAGCATCTTTGATAATGGACTTTATGATGAAAAGCCCTTGACTTTTTTCAACCCTTTGTT
TTCTGGGGCTAGCTGTGTTGGCCGCATGGATAGGTTGGGCTATCCTCGCTGGACCAGGGGTCAGAACCGAGAGGG
CGAGGAGTTCATCCGCAATGTCTTCCACCTTGTCATGCCTTTATTTTCAGGCAAAGAGAAGTCCCAGCTCTGCTT
CTCCTGGTTACAGTATGAGATTGCAAAGGTCATTTGGTGCCTGCACACTAAAAACAAGAAGAGATTAAAGTCTCA
AGGGAAGAACTGCAAAAAACTAGCCAAGAATCTCCTTAAGGAGCCAGAAAACTGCAACAACTTTTGCCTGTGGAA
GCAGTATGCACATCTGGAGTGGTTGCTTGGCAACACGGAGGATGCCAGAAAAGTTTTTGACACAGCACTTGGCAT
GGCAGGAAGCAGAGAACTGAAAGACTCTGACCTCTGTGAGCTCAGTCTGCTCTATGCTGAGCTGGAGGTGGAGCT
GTCGCCAGAAGTGAGAAGGGCTGCCACAGCTCGAGCTGTTCACATATTAACCAAGCTGACTGAGAGCAGCCCCTA
TGGGCCCTACACTGGACAGGTGTTGGCTGTTCACATTTTGAAAGCGCGAAAGGCTTATGAGCACGCACTGCAGGA
CTGTTTGGGTGACAGCTGTGTCTCCAATCCAGCTCCCACCGATTCCTGTAGCCGCCTAATTAGCCTGGCTAAATG
CTTCATGCTCTTCCAGTATTTGACCATAGGGATTGATGCTGCTGTGCAGATATACGAACAGGTGTTTGCAAAACT
GAACAGTTCTGTTTTCCCAGAAGGCTCTGGCGAGGGGGACAGTGCCAGCTCCCAGAGTTGGACCAGTGTTCTCGA
AGCCATCACACTGATGCACACGAGCCTGCTGAGATTCCACATGAAAGTGAGTGTTTACCCGCTGGCCCCTCTGCG
AGAGGCACTCTCACAGGCTTTAAAGTTGTATCCAGGCAACCAGGTTCTTTGGAGGTCCTATGTACAGATTCAGAA
TAAGTCCCACAGTGCCAGCAAAACCAGGAGATTTTTTGACACAATCACCAGGTCTGCCAAACCCTTGGAGCCTTG
GTTGTTTGCAATTGAAGCTGAGAAACTGAGGAAGAGACTGGTGGAAACTGTCCAGAGGTTAGACGGTAGAGAGAT
CCACGCCACAATTCCTGAGACCGGCTTAATGCATCGGATCCAAGCCCTGTTTGAAAATGCCATGCGCAGCGACAG
TGGCAGCCAGTGCCCCTTGCTGTGGAGGATGTATTTGAACTTTCTGGTTTCCTTAGGAAATAAAGAAAGAAGCAA
AGGTGTATTCTACAAAGCACTTCAGAATTGCCCTTGGGCAAAGGTGTTGTACCTGGACGCCGTGGAGTATTTCCC
CGATGAGATGCAGGAGATCCTGGACCTGATGACTGAGAAGGAGCTCCGGGTGCGCCTGCCGCTGGAGGAGCTGGA
GCTGCTGCTGGAGGAT**TAG**AGAGCAGCGGGAAAACGGGCTGTGCCTGCGAGGCCAAGTTGCCCACCCTGCGGAGC
TAGGAGGCGCGAGCAGAGAACGTGTGTGTTAGGAGAACTCGGCTTTTGAAATGTTCTTTCTCGATAGTAATAATG
TGGGCTGCCAGCCTCTCACATCTTGCACACTTTTTGGGTGTGTAAATGACACAAAAGTTATTTACATATTATATA
TGTGAATATGTGTATATATGTACATAGCCAGAGAGTCATGCCACGTGGTCATTAAACCGATGATGATTGAGGCGT
GGCAGCGTCCTTGCTCATTCTCTCCCTGTGCGCAGCCAGCACTGGCCCCCGCACGGTGAATGTGTTCCCTCCGCT
GGTGTCGTGGTGGTCCTGCCAGGCCCTCTCTGAGATAAAGGTCTGGTTTTTCAGCACTAGGATGTCTTCCCCAGG
CTGGTGAGCAGGAGATTTTGCTCTTGTGTTGAGACCCGCAGTTAACGCTTGGTGTTCTGGCCTGCACGCAGTGTG
TGGCAAGTTCCCTGAGTTTACCTCGGCGGCGATGCCTCCGCCTGGAGCTGGAGGGGCAGCGTGCCCTGGGGCTGC
TGAAAAACTCAGGCCTGTGGAGTCAGAACCCGCTCTTCAGCAGGTCCCAGGCCACTTGAGTGTGGAAGGCTGCCC
GGGGCACTGGCAGCCTCTGGGGGAAGCCTGCTCCCAAGCCGTCTAGGAGCCGAGCACGCTGTACCGCCAGCCCCA
GCCCTGCCTGCATGAGGGGCCCGGCACGCTTGTGCAGCAACGCTGCTTACACTATGAAGGCCAAGGCTGGCCTGG
TTCTGGTGTTGCATTCGAGGGCTGTGAACAGAATGAAATGTCAACATCCATTTTTCAGACTTGTTCTGCCTCCGA
AGAGATTTTTAGTGCTGAGTGATTTTCACTATTAACATATGGCTGGAAGGAATGGTTTTCTTATCTTCTCCGAGC
TCTAGACTGGCTAGCTTCTCTCTGGCTTTTTTTGTTTTGTTTTCCTCTCTTTAGAATTGCTGTATACTTGTATCT
CCTCAGCACATTTAGAAAAGCCAGTGTATAATTTTGGCTGGCAACTGACGGACGCAGCGGGCAGCAGCAGGCAGG
GCAGCGCACGAGAGCACCTCCCAGGGCACGGTGGGAAACTGGCCAGCCCAGCCCCACTACTGCCCTCTCCTGCTC
GTCCCCAGTCCCTGAGCTACAGGTGGCTGTAGGCAGAAGCCCACCGGGTGTTCCTTAGCGACAGACAGGTCGTCA
GCTGCTCCCCTTGATGCCTTTTCACAGAAACAACCCTCAACTTGAGGAAGTTGAGAGCTCCACTCCGAGGTGGAC

FIGURE 762B

TTGCTCCCCCTCCCTGAGAGCTAACTGGCTTGAACTGTCATGAGTTCCTGGCTGCCCACAAAGAGGGACCTTCTC
CACCCTTGTCCTCTGCGTGGGGCAGACATCAGCCAGACATGTCACCGACCTGATTGGGGGCAGGGAGTAGGAAGT
CCAGGACCAAACCATGCTCCCCATGACAGCAGCTGGCGCCTCAGTCCCCATCTGACTCATGTCTCTTCTCATCTG
GTTCAGAACTTAGAAGGGCGTGGCCTCTGATCAGCTGGTTCCCTCCAAACCCCAGTGGCAACCTGTCCCTTGAGA
GCCAGGAATGGCTCTTAGCAGTGGGCAGTGAGCCCCCGAGAGGATAAAGCGGCTGCTCGAACAGATTGCGAGCAC
ATTACTTGCTGCATGGGAGGAGGTTTAAAACAAATCAAAGATTCCTTGAGGGCATTTTACAGAAAACAAGATGTC
AAGAGCATCACTGTTGTTATTTAAAAGCCCATTTGAGGCCAGGCGCGGTGGCTCACGTCTGTAATCCCAGCACTT
TGGGAGGCCGAGGCGGACGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACATGGTGAAACCCCCGTCT
CTACTAAAAATACAAAAAATTAGCCGGGCGTGGTGGCTGGCGCCTGTAGTCCCAGCTACTCGGAAGGCTAAGGCA
GGAGAATGGCGTGAACCTGGGAGGCAGAGCTTGCAGTGAGCCAAGATCGCGCCACTGCACTCCAGCCTGGGCGAC
ACAGCAAGACTCCGTCTCG

FIGURE 763

CCTTTCGGCCGGAACCGCCATGTTCCAGTAATTCGCCAAA**ATG**ACGAACACAAAGGGAAAGAGGAGAGGCACCCG
ATATATGTTCTCTAGGCCTTTTAGAAAACATGGAGTTGTTCCTTTGGCCACATATATGCGAATCTATAAGAAAGT
TGATATTGTAGACGTCAAGGGAATGGGTACTGTTCAAAAAGGAATGCCCCACAAGTGTTACCATGGCAAAACTGG
AAGAGTCTACAGTGTTACCCAGCATGCTGTTGGCATTGTTGTAAACAAACAAGTTAAGGGCAAGATTCTTGCCAA
GAGAATTAATGTGCGTATTAAGCACATTAAGCACTCTAAGAGCCAAGATAGCTTCCTGAAACGCGTGAAGGAAAA
TGATCCTCCACCCAGAGAAGCACACTTTGTGAGAACCAGTGGGAAGGAGCCTGAGCTGCTGGAACCTATTCCCTG
TGAATTCATGGCA**TAA**TAGGTGTT

FIGURE 764

AGTGGTGCTGGGAGTGTCGTGGACGCCGTGCCGTTACTCGTAGTCAGGCGGCGGCGCAGGCGGCGGCGGCGGCAT
AGCGCACAGCGCGCCTTAGCAGCAGCAGCAGCAGCAGCGGCATCGGAGGTACCCCCGCCGTCGCAGCCCCCGCGC
TGGTGCAGCCACCCTCGCTCCCTCTGCTCTTCCTCCCTTCGCTCGCACC**ATG**GCTGATCAGCTGACCGAAGAACA
GATTGCTGAATTCAAGGAAGCCTTCTCCCTATTTGATAAAGATGGCGATGGCACCATCACAACAAAGGAACTTGG
AACTGTCATGAGGTCACTGGGTCAGAACCCAACAGAAGCTGAATTGCAGGATATGATCAATGAAGTGGATGCTGA
TGGTAATGGCACCATTGACTTCCCCGAATTTTTGACTATGATGGCTAGAAAAATGAAAGATACAGATAGTGAAGA
AGAAATCCGTGAGGCATTCCGAGTCTTTGACAAGGATGGCAATGGTTATATCAGTGCAGCAGAACTACGTCACGT
CATGACAAACTTAGGAGAAAAACTAACAGATGAAGAAGTAGATGAAATGATCAGAGAAGCAGATATTGATGGAGA
CGGACAAGTCAACTATGAAGAATTCGTACAGATGATGACTGCAAAA**TGA**AGACCTACTTTCAACTCCTTTTTCCC
CCCTCTAGAAGAATCAAATTGAATCTTTTACTTACCTCTTGCAAAAAAAAGAAAAAAGAAAAAAGTTCATTTATT
CATTCTGTTTCTATATAGCAAAACTGAATGTCAAAAGTACCTTCTGTCCACACACACAAAATCTGCATGTATTGG
TTGGTGGTCCTGTCCCCTAAAGATCAAGCTACACATCAGTTTTACAATATAAATACTTGTACTACCTTAATGATA
AGGACTCCTTAAAGTTCCATTTGCTAATGATTAATACACTGTTTGGGCTGGCCAGTTTTTCATGCATGCAGCTTG
ACGATTGAGCACAGTCAGGCCTTTGTATTAAAAATGAAAAATGAAAAAACAAATTCAAAACCTATTCAAATGGGT
TCTAGTTCAATTTGTTTAGTATAAATTGTCATAGCTGGTTTACTGAAAACAAACACATTTAAAATTGGTTTACCT
CAGGATGACGTGCAGAAAAATGGGTGAAGGATAAACCGTTGAGACGTGGCCCCACTGGTAGGATGGTCCTCTTGT
ACTTCGTGTGCTCCGACCCATGGTGACGATGACACACCCTGGTGGCATGCCCGTGTATGTTGGTTTAGCGTTGTC
TGCATTGTTCTAGAGTGAAACAGGTGTCAGGCTGTCACTGTTCACACAAATTTTTAATAAGAAACATTTACCAAG
GGAGCATCTTTGGACTCTCTGTTTTTAAAACCTTCTGAACCATGACTTGGAGCCGGCAGAGTAGGCTGTGGCTGT
GGACTTCAGCACAACCATCAACATTGCTGTTCAAAGAAATTACAGTTTACGTCCATTCCAAGTTGTAAATGCTAG
TCTTTTTTTTTTTTTTTCCAATAAA

FIGURE 765

CAAGCCCCAGCTGACTGAGGTCCGCAAGCATCTGACCGCCGCCCTGGACCGAGGGAACCTTAAGTCAGAATTCCT
ACAAGAATCCAATCTGATC**ATG**GCCAAGTTGAATTATGTGGAAGGTGATTATAAAGAAGCTCTGAACATTTACGC
CCGGGTGGGCCTGGACGATCTGCCACTGACAGCTGTCCCGCCCTACAGGCTGCGGGTGATCGCAGAAGCCTACGC
TACCAAAGGACTTTGTTTGGAGAAGCTGCCTATTTCTTCTTCTACCAGTAATCTCCATGTGGACCGGGAACAGGA
TGTCATCACCTGTTATGAGAAAGCAGGGGACATCGCACTCCTGTATCTCCAAGAGATAGAAAGGGTAATACTTTC
TAATATTCAAAACAGAAGCCCTAAGCCTGGCCCTGCTCCCCACGATCAAGAACTAGGTTTTTTCCTAGAAACAGG
ACTTCAGAGAGCCCATGTCCTCTATTTCAAAAATGGAGGGACAGATGGCAATATTAAAGAGCCGAGAATGTGGTT
CAGAGTCATAGAACAGGACGAAACCAGGAACTTGACAAGAGGAGTCGGAAGATTTAGAGAGCTTCTCAGAGCAGT
TGAAACAAGAACGACTCAAAACCTGCGAATGACAATAGCCAGGCAGCTGGCAGAGATCTTGTTGCGGGGTATGTG
TGAGCAGAGCTACTGGAACCCTCTGGAGGATCCACCGTGCCAGTCACCTCTGGACGATCCTCTCCGCAAAGGAGC
AAACACAAAAACCTACACTCTCACTCGGAGAGCCCGTGTCTACTCAGGAGAGAACATTTTTTGTCCTCAAGAAAA
TACGGAAGAAGCCCTGTTGTTATTGCTGATTAGTGAATCAATGGCCAACCGGGACGCTGTGCTGAGCAGGATACC
TGAACACAAGAGTGACCGCCTCATCAGTCTGCAGAGTGCATCTGTGGTCTATGACTTACTCACCATTGCTCTTGG
AAGAAGAGGCCAGTATGAGATGCTGTCAGAGTGCCTAGAAAGAGCCATGAAGTTTGCCTTTGAGGAATTCCACCT
GTGGTACCAGTTTGCTCTGTCCCTGATGGCTGCTGGAAAATCTGCCCGTGCCGTGAAGGTGCTGAAAGAGTGTAT
CCGCCTGAAGCCAGACGATGCCACCATCCCTCTCCTCGCTGCCAAGCTCTGCATGGGCTCCCTGCACTGGTTGGA
AGAGGCTGAAAAGTTTGCCAAAACTGTCGTTGATGTGGGAGAGAAAACGTCAGAGTTCAAGGCCAAAGGCTACTT
AGCTCTGGGGCTCACGTACAGTCTGCAGGCCACTGACGCTTCTTTGCGAGGGATGCAGGAGGTCCTACAGAGAAA
GGCGCTTCTTGCATTTCAGAGGTATAATCACAAAAATGAAATCATCTGGAAGCATAGCCCCATGATG**TGA**AATCC
AGCATGGGTATTGATCCTGTCACTTTAAATATATCTGAGTTACACTGATTTCTTGGAACTGTATTAGAAACTTAG
TTACGAATATTTCATGAGGCCTTCCCAATACCTGACAAGCTTCGTTAGACTCTTTCCTTAGAACTGGGGCTGCCT
ACTGATTTATCATGGTGTCC

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FIGURE 766

GGCCAGTGGTCTTGGTGTGCTGACTTTGGAC**ATG**AAGGCCCCAGGAGTGGCACAGCCCTCTATGGGCCCGAATCT
TCTTCAGTCGCTCCCCATCCTTTACATCCTTCTGTGTGTTCAAGAACCAGTCTGGGATCTTGTACTGGCATGGAT
TCTGCATAATGGTGATCACACGTTCCACCTCATCCTCAGTGAGTTCTCCCGCCCTCTTGGTGCAGTCAATGTCTG
CTTTCCTCAACACCACATGAACATATCTTTGGCCCACACCCTTAATGGCAGGGATGGTAAAGGCTGTTTTCCACT
GCCCATCGATGATGGTGTTGAGTACTCACAAAATATGCTGGAACTTTTCAGGGATCAC**TAG**AGACATGGCGGCAG

FIGURE 767

CTCTTACAGTGGTCCCTGCTGGCCCTTGGTGACGGGTCGCGTCAGTTCCGACCCGGACCCGTACGCTGCTGCGCT
GACGTGGCTCCTGGAAGCAGGGCTGGCGTAGGGCCGCC**ATG**TTGCAGCAGGATAGTAATGATGACACTGAAGATG
TTTCACTGTTTGATGCGGAAGAGGAGACGACTAATAGACCAAGAAAAGCCAAAATCAGACATCCAGTAGCATCGT
TTTTCCACTTATTCTTTCGAGTCAGTGCAATCATCGTCTGTCTTCTCTGTGAGTTGCTCAGCAGCAGCTTTATTA
CCTGTATGGTTACAATTATCTTGTTGTTGTCGTGTGACTTTTGGGCAGTGAAGAATGTCACAGGTAGACTAATGG
TTGGCCTACGTTGGTGGAATCACATTGATGAAGATGGAAAGAGCCATTGGGTGTTTGAATCTAGAAAGGAGTCCT
CTCAAGAGAATAAAACTGTGTCAGAGGCTGAATCAAGAATCTTTTGGTTGGGACTTATTGCCTGTTCAGTACTGT
GGGTGATATTTGCCTTTAGTGCACTCTTCTCCTTCACAGTAAAGTGGCTGAGACGGTCTCGCCACATTGCCCAGA
CTGGTCTGAAAGTCTTGGGCTCAAGAGATCCTCCCGCTTCCGCCTTCCAAAGCGCTGGGATAACAGGCGTGAGCC
GCTGCCCGGGCCATCCCTCGAGGAAGTTTCATCAGGTAGACATTAATTCTTTCACGAGGATCACGGATCGAGCTC
TTTACTGGAAACCTGCGCCCCGCCTTAGTTCTCCACCTCTTCGTGCGGCTCCAGGCAACTGCCAACAGATGGCGC
CCGCCCGCCTATTTCTCTCCTTGCGGCTTTGGGCCTGGAGGGGAGGTGGGGAGAGTCCCAATAGCAGAGGAACTG
GTGAGCCCGGGCCAAAATTTCATCTGGCATCCGGAATGCAT**TAA**AAACAACCCACAAATCTGAAGCTCCTCGCAG
GAGAGAGAGAGAGAGAGAGAGAGGAGAGAGAGGAGAGAGGAGAGAGGGAGGGAAGAGAGTGACGGAGAAGGAGAG
AAAGAGACGGGAGAGAGGAGAGAGAAAGAGAGAGAGAGGAGAGAGAGAAAGAACGAACGAACAGGGAACTTGTAA
AACTAAGGGGAAAAGGGCAGAAGAGAGGCAGCAGCGTGGTCCCTGCAAGCGTCCGCTTTCCTGGCCAAGCAGCCC
CCAGCACGCCTGCTTTGTGGGGCAGGGCCATGCGGCCCCGAGGAAGGATGCGGTGAGCCAGAGGGTTCCAGACAA
AGGAGGGGATCCCCAAGGCTCTGGGCCAGCCAGTCCCTGTTTTACTGGCACCACGGTCCCTCCTAGGCGAGGACG
AAGAGGGAAGGGGTGGAGACCTCCACCTTCTCTGCGTGTGGCTGCGTCCCTTTACAGAATGACAGGCCCTTACTT
CCGAGGGCGGGGACTAATGTGTAAGGCTTAACAGATCCAATTCCAGAAATTATCTGTGTTTTTTTCAATCACCCT
CTTGTGCCCCCCCACCCCCCATTAAATTTCATCTTTTATCTTT

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FIGURE 768

GCTGTCCTGAGCCTGAGTACTCTAGCTGCCTTGTCGTCATCGCATCTGGCTGCCATCCAGCGCCAGCACACAGTA
ATGAGTGGCCGAGCTTCCTCTGGGAGGGAGGAAACAGTTAAAATCTTGCAGCAGCTGCAATCATCTAGGCGTGGT
TCTCTTGTCTGACTTGGGCTGCACAGATCCTGGGCCAAGGGACAGAAGAAAGACAGCCTAGGAGCAGAGCCTCCC
AGATGGCTGAGTTGGATCTAATGGCTCCAGGGCCACTGCCCAGGGCCACTGCTCAGCCCCCAGCCCCTCTCAGCC
CAGACTCTGGGTCACCCAGCCCAGATTCTGGGTCAGCCAGCCCAGTGGAAGAAGAGGACGTGGGCTCCTCGGAGA
AGCTTGGCAGGGAGACGGAGGAACAGGACAGCGACTCTGCAGAGCAGGGGGATCCTGCTGGTGAGGGGAAAGAGG
TCCTGTGTGACTTCTGCCTTGATGACACCAGAAGAGTGAAGGCAGTGAAGTCCTGTCTAACCTGCATGGTGAATT
ACTGTGAAGAGCACTTGCAGCCGCATCAGGTGAACATCAAACTGCAAAGCCACCTGCTGACCGAGCCAGTGAAGG
ACCACAACTGGCGATACTGCCCTGCCCACCACAGCCCACTGTCTGCCTTCTGCTGCCCTGATCAGCAGTGCATCT
GCCAGGACTGTTGCCAGGAGCACAGTGGCCACACCATAGTCTCCCTGGATGCAGCCCGCAGGGACAAGGAGGCTG
AACTCCAGTGCACCCAGTTAGACTTGGAGCGGAAACTCAAGTTGAATGAAAATGCCATCTCCAGGCTCCAGGCTA
ACCAAAAGTCTGTTCTGGTGTCGGTGTCAGAGGTCAAAGCGGTGGCTGAAATGCAGTTTGGGGAACTCCTTGCTG
CTGTGAGGAAGGCCCAGGCCAATGTGATGCTCTTCTTAGAGGAGAAGGAGCAAGCTGCGCTGAGCCAGGCCAACG
GTATCAAGGCCCACCTGGAGTACAGGAGTGCCGAGATGGAGAAGAGCAAGCAGGAGCTGGAGAGGATGGCGGCCA
TCAGCAACACTGTCCAGTTCTTGGAGGAGTACTGCAAGTTTAAGAACACTGAAGACATCACCTTCCCTAGTGTTT
ACGTAGGGCTGAAGGATAAACTCTCGGGCATCCGCAAAGTTATCACGGAATCCACTGTACACTTAATCCAGTTGC
TGGAGAACTATAAGAAAAAGCTCCAGGAGTTTTCCAAGGAAGAGGAGTATGACATCAGAACTCAAGTGTCTGCCG
TTGTTCAGCGCAAATATTGGACTTCCAAACCTGAGCCCAGCACCAGGGAACAGTTCCTCCAATATGCGTATGACA
TCACGTTTGACCCGGACACAGCACACAAGTATCTCCGGCTGCAGGAGGAGAACCGCAAGGTCACCAACACCACGC
CCTGGGAGCATCCCTACCCGGACCTCCCCAGCAGGTTCCTGCACTGGCGGCAGGTGCTGTCCCAGCAGAGTCTGT
ACCTGCACAGGTACTATTTTGAGGTGGAGATCTTCGGGGCAGGCACCTATGTTGGCCTGACCTGCAAAGGCATCG
ACCGGAAAGGGGAGGAGCGCAACAGTTGCATTTCCGGAAACAACTTCTCCTGGAGCCTCCAATGGAACGGGAAGG
AGTTCACGGCCTGGTACAGTGACATGGAGACCCCACTCAAAGCTGGCCCTTTCCGGAGGCTCGGGGTCTATATCG
ACTTCCCGGGAGGGATCCTTTCCTTCTATGGCGTAGAGTATGATACCATGACTCTGGTTCACAAGTTTGCCTGCA
AATTTTCAGAACCAGTCTATGCTGCCTTCTGGCTTTCCAAGAAGGAAAACGCCATCCGGATTGTAGATCTGGGAG
AGGAACCCGAGAAGCCAGCACCGTCCTTGGTGGGGACTGCTCCCTAGACTCCAGGAGCCATATCCCAGACCTTTG
CCAGCTACAGTGATGGGATTTGCATTTTAGGGTGATTTGGGGGCAGAAATAACTGCTGATGGTAGCTGGCTTTTG
AAATCCTATGGGGTCTCTGAATGAAAACATTCTCCAGCTGCTCTCTTTTGCTCCATATGGTGCTGTTCTCTATGT
GTTTGCAGTAATTCTTTTTTTTTTTTTTGAGACGGAGTCTCGCACTGTTGCCCAGGCTGGAGAGCAGTGGCGCGA
TCTTGGCTCACTGCAAGCTCCGCCTCCCGAGTTCAAGCAATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTA
CAGGTGCCTGCCACCACACCCAGCTAATGTTTTGTATTTTTAGTAGAGATGGGGTTTCACCATGTTGGCCAGGCA
GATCTCAAACTCCTGACCTCGTGATGCACCCACCTCGGCCTCCCAAAGTGCTGGGATTACATGCGTGAGCCACTG
CGCCCTGCCTGTTTGTAGTAATTTTTAGGCACCAAATCTCCCTCATCTTCTAGTGCCATTCTCCTCTCTGTTCAG
GTAAATGTCACACTGTGCCCAGAATGGATGACCAGGAACCTTAAAGAGTGGCTGAAAAGATTGCAGAGTTATCAT
AATAAATTGCTAACTTGCGT

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FIGURE 769

GGCGGACCGAAGAACGCAGGAAGGGGGCCGGGGGGACCCGCCCCCGGCCGGCCGCAGCC**ATG**AACTCCAACGTGG
AGAAACTGCCCCCGCACATCATCCGCCTGGTGTACAAGGAGGTGACGACACTGACCGCAGACCCACCCGATGGCA
TCAAGGTCTTTCCCAACGAGGAGGACCTCACCGACCTCCAGGTCACCATCGAGGGCCCTGAAGGGACCCCATATG
CTGGAGGTCTGTTCCGCATGAAACTCCTGCTGGGGAAGGACTTCCCTGCCTCCCCACCCAAGGGCTACTTCCTGA
CCAAGATCTTCCACCCGAACGTGGGCGCCAATGGCGAGATCTGCGTCAACGTGCTCAAGAGGGACTGGACGGCTG
AGCTGGGCATCCGACACGTACTGCTGACCATCAGGTGCCTGCTGATCCACCCTAACCCCGAGTCTGCACTCAACG
AGGAGGCGGGCCGCCTGCTCTTGGAGAACTCCGAGGAGTATGCGGCTCGGGCCCGTCTGCTCACAGAGATCCACG
GGGGCGCCGGCGGGCCCAGCGGCAGGGCCGAAGCCGGGCGGGCCCTGGCCAGTGGCACTGCAGCTTCCTCCACCG
ACCCTGGGGCCCCAGGGGGCCTGGGAGGGGCTGAGGGTCCCATGGCCAAGAAGCATGCTGGCGAGCGCGATAAGA
AGCTGGCGGCCAAGAAAAAGACGGACAAGAAGCGGGCGCTGCGGCGGCTG**TAG**TGGGCTCTCTTCCTCCTTCCAC
CGTGACCCCAACCTCTCCTGTCCCCTCCCTCCAACTCTGTCTCTAAGTTATTTAAATTATGGCTGGGGTCGGGGA
GGGTACAGGGGGCACTGGGACCTGGATTTGTTTTTCTAAATAAAGTTGGAAAAGCA

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FIGURE 770

GGCCGACGGGTCTGGCCCAGACTGGCGCCTGAGTGAAAGCCAATGGAAAAAGTGTGACATTTAGAAGCAGAAGAC
TTAGCTTCAAATCCCTACTCTTTCACTTACTAATTTTGTGATTTGGAAATATCTGCGCAAGATGTTGACGTTGCA
GACTTGGCTAGTGCCAGCTTTATTTTCCTCACCACTGAATCTATAGGTGAACTTCTAGATCCATGTGGTTATATC
AGTCCCGAATCTCCAGTTGTACAACTTCATTCTAATTTCACTGCAGTTTGTGTGCTAAAGGAAAAATGT**ATG**GAT
TATTTTCATGTAAATGCTAATGACATTGTCTGGAAAACAAACCATTTTGCTATTCTTAAGGAGCAATATATTATC
ATAAACAGAACAGCATCCAGTGTCACCTTTACACATATAGCTTCATTAAATATTCAACTCCCTTGCAACATTCTT
ACATTCGGACAGCTTGAACAGAATGTTTATGGAATCACAATAATTTCAGGCTTGCCTCCAGAAAAACCTAAAAAT
TTGAGTTGCATTGTGAATGAGGGAAACAAAATGAGGTGTGAGTGGGATCGTGGAAGGGAAACACACTTGGAGACA
AACTTCACTTTAAACTCTGAATGGGCAACACACAAGTTTGCTGATTGCAACCAAAATGTGACACCCCCACCTCAT
GCACCATTGATTATTCTACTGTGTATTTTGTCAACATTGAAGTCTGGG**TAG**AAGCAGAGAATGCCCTTGGGAAGG
CTACATCAGATCATATCAATTTTGATGCTGTATATAAAGTGAAGCCTAATCTGCCACATAATTTATCAGTGATCA
ACTCAGAGGAACTGTCTAGTATCTTAAA

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FIGURE 771

CGTAGTGTTGCCGGCGGTTGTGGAGGAGCTCCTGAGCGAG**ATG**GCGGCGGCGGTGCAGGAGAGCGCGCGAATTCC
TGATGAATATCTGTTATCGCTGAAGTTTCTCTTTGGCTCATCAGCCACCCAGGCCTTGGACCTAGTTGATCGACA
GTCCATCACCTTAATCTCATCACCCAGTGGAAGGCGTGTTTACCAGGTCCTTGGAAGTTCCAGTAAAACATACAC
ATGTTTGGCTTCTTGTCATTACTGTTCATGTCCTGCATTTGCATTCTCAGTGCTACGGAAGAGTGACAGCATCCT
GTGCAAGCATCTCTTGGCAGTTTACCTGAGTCAGGTTATGAGGACCTGTCAGCAGCTAAGTGTCTCTGACAAGCA
GTTGACTGACATATTATTGATGGAGAAGAAACAAGAAGCA**TAA**AAGGACTGCAGGAGGTGCTGTGGGTTGGAGCC
GTGGGCTGTGGAGGGTTTGTGTATGATGAGAAGCCCTGTACAGTCTTGTCAAGAAATACCCTGAGCCAGTCTCTG
AGACGCTTCGATGGAGTCTCACTTTGTCGCCCAGGCTGGGGTGCAGTGGCGTGATCTCAGCTCACT

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FIGURE 772

AGCATT**ATG**AAAGATGAGCCAGAAGAGGCTGAGTTAATTTTGCATGACGCTCTTCGTCTCGCCTATCAGACTGAT
AACAAGAAGGCCATCACTTACACTTATGATTTGATGGCCAACTTAGCATTTATACGGGGTCAGCTTGAAAATGCT
GAACAACTTTTTAAAGCAACAATGAGTTACCTCCTTGGAGGGGGCATGAAGCAGGAGGACAATGCAATAATTGAA
ATTTCCCTAAAGCTGGCCAGTATCTATGCTGCGCAGAACAGACAGGAATTTGCTGTTGCTGGCTATGAATTCTGC
ATTTCAACTCTAGAGGAAAAAATTGAAAGAGAAAAGGAATTAGCAGAAGACATTATGTCAGTGGAAGAGAAAGCC
AATACCCACCTCCTCTTGGGCATGTGCTTAGACGCCTGTGCTCGCTACCTTCTGTTCTCCAAGCAGCCGTCACAG
GCACAAAGGATGTATGAAAAAGCTCTGCAGATTTCTGAAGAAATACAAGGAGAAAGACACCCACAGACCATTGTG
CTGATGAGTGACCTGGCTACTACCCTGGATGCACAGGGCCGCTTTGATGAGGCCTATATTTATATGCAAAGGGCA
TCAGATCTGGCAAGACAGATAAATCATCCTGAGCTACACATGGTACTCAGTAATCTAGCTGCAGTTTTGATGCAC
AGAGAACGATATACACAAGCAAAAGAGATCTACCAGGAAGCACTGAAGCAAGCAAAGCTGAAAAAAGATGAAATT
TCTGTACAACACATCAGGGAAGAGTTGGCTGAGCTGTCAAAGAAAAGTAGACCTTTGACAAATTCTGTCAAGCTC
TAAATCCATTTTTGTGTAGGGAGAATAATGTCTAGTAATGTGGAAGAATAGCTATCATTCCTGTCTCTGTGGCAC
CCGATCAATGGCTTAAATCTGTCGTTTTTGATATTCAGGTTTCCTCAATTTAGCCTTAGTGAAGGAGGGGTTGTA
CACACTGCCATTTTTGTATTTTAAAGGAAAAATGACTTTCATTCCCAACTGATTATGACCTTTCAGGATGTCGTC
AAGTGATGCTTTCAGTTGTAACACGTGACTTGGTGCTGTCCCTGCTGGTCTAAGTAGAACTGTAGATTCATATGG
GCTGGTGTTCCTGTGCGCTGTGGGTGTGGTGATTCAGCCTGGCATTTCTACCATAAGTTTTTGGTCTGCTGATTT
GCTGCCCTGTCTTCTCTTACTTTACTTTATCAATACCTGGCAAACTGACCAGAATTACCTTCCTCATGGCAAAGG
GGGATTATGGTGAATTGTTGTTCTTATAGTCTGTTTCATGAAGCACAAGTGGAATTTAATACATAAAAGAGAAAA
ATATCTTAGTTTGCTACCAGCATCCAGCATGAAGTTGTAAAGTGGGGATTAGGCACGTGACAGTATAGCACCCAT
TTGAATTTAAATAAAAGTGAACCATATTTATCTGGTTATATAAAACTAAAAATGGGGGTGTTTATATAAAACTAA
AAACTAAGAATGATGTAACCTTTTGTCTGTGTTATCTGAACACTCTACTTCCTTTGCAGCCTTAGTCACACAACT
GAGTCATCTCAAGTACTCTTTAAGGACACACAGCCCAGGCTGTTCTGAGTCAGAATAGGCCCCTACAGGTATATT
TTAAAACTCTTCGTAATTCTAATGTGTACTGCTGGTATAGCTGAACTACTGACCTGGATCTTAGTCCTAGCCTTT
TTGCTTTTGCAATTTCAGTATCTTCATCTCTAAACTAGGGAAACACTGGGATTCTTTCTTAGCTGTGGGGGAAGG
TATTTGGTTAGATGACTTTGAATGAATAGACTGCTGTGCTGAAAGAGCTTTATCACACTGTCTCAAAGTATGTAA
AGATACATAGGTGGATGCTCTTACTGCAGCAGTCATGAATACATTTTTAGCCATTTACCTAAGGAAAAAGACAGT
TTTTCTAGGTACCATGAAGGAAGATTGACCCTGTTGGTATGCCTGTGGGGGTGGGATGTGAGTGGGACTGATAAA
CTGATACTTTTGGTTCGTATGTACATACTGGAAGAATCTTCATAATAAATGAGACTACACA

FIGURE 773A

CAAGATGGCGGCCAAGGTGGCGAAGCAGCAGCCGCGGCGGCGGCGGCGGCTGGAGTGAGCGTCCGACTCGCCGCG
CCGAACGAGGTCCCGGTGTAGGGCCGCGCGCCGTGGCCGCGTCCCACTCCTCAGGCCGGGGCGCACGTCGGCTCC
CACGCTTAGCCAGCTCCCGGTGGTTTCCTAGAAACATGATTGTTTATTGGCATTGATCTCACAGTCTGGTGAGGA
CTTCTTTACTGATA**ATG**TCAAGTTCAGGTTATCCTCCCAACCAAGGAGCATTCAGCACAGAACAAAGTCGTTATC
CTCCTCACTCTGTCCAGTATACATTTCCCAACACCCGCCACCAGCAGGAGTTCGCAGTCCCTGATTATCGTTCCT
CTCATCTTGAAGTGAGTCAGGCATCACAGCTTTTGCAGCAACAGCAGCAGCAACAGCTTCGAAGGCGACCTTCCT
TGCTTTCAGAATTTCACCCAGGTTCTGACAGGCCTCAAGAAAGGAGAACTAGTTATGAACCGTTTCATCCAGGCC
CATCCCCAGTGGATCATGATTCACTGGAATCGAAGCGACCACGTCTGGAACAGGTTTCTGATTCTCATTTTCAGC
GTGTCAGTGCTGCGGTTTTGCCTTTAGTGCACCCGCTGCCAGAAGGGCTGAGGGCTTCTGCAGATGCTAAGAAGG
ATCCAGCATTCGGAGGCAAACATGAAGCTCCATCCTCTCCAATTTCGGGGCAACCATGTGGAGATGATCAAAATG
CTTCACCTTCAAAACTCTCAAAGGAAGAGTTAATACAGAGTATGGATCGTGTAGATCGAGAAATTGCAAAAGTAG
AACAGCAGATCCTTAAACTGAAAAAGAAACAACAACAGCTTGAAGAAGAGGCAGCTAAACCTCCTGAGCCTGAGA
AGCCCGTGTCCCCTCCTCCTGTGGAGCAGAAACACCGCAGTATTGTCCAAATTATTTATGATGAGAATCGGAAAA
AAGCAGAAGAAGCTCATAAAATTTTTGAAGGTCTTGGCCCAAAAGTTGAACTGCCACTGTATAACCAGCCATCAG
ATACCAAGGTGTACCATGAGAACATCAAGACAAACCAGGTGATGAGGAAAAAACTCATTTTATTTTTTAAAAGAA
GAAATCATGCAAGAAAACAAAGGGAACAAAAAATCTGCCAGCGTTATGATCAGCTCATGGAGGCATGGGAGAAAA
AAGTGGACAGAATAGAAAATAATCCTCGGAGGAAAGCTAAAGAAAGCAAAACAAGGGAATACTATGAAAAGCAGT
TTCCAGAAATTCGAAAACAAAGAGAACAGCAAGAAAGATTTCAGCGAGTTGGGCAGAGGGGAGCTGGTCTTTCAG
CCACCATTGCTAGGAGTGAGCATGAGATTTCTGAAATTATTGATGGGCTCTCTGAGCAGGAGAATAATGAGAAAC
AAATGCGGCAGCTCTCTGTGATTCCACCTATGATGTTTGATGCAGAACAAAGACGAGTCAAGTTCATTAACATGA
ATGGGCTTATGGAGGACCCTATGAAAGTGTATAAAGATAGGCAGTTTATGAATGTTTGGACTGACCATGAAAAGG
AGATCTTTAAGGACAAGTTTATCCAGCATCCAAAAAACTTTGGACTAATTGCATCATACTTGGAGAGGAAGAGTG
TTCCTGATTGTGTTTTGTATTACTATTTAACCAAGAAAAATGAGAATTATAAAGCCCTCGTCAGAAGGAATTATG
GGAAACGCAGAGGCAGAAACCAGCAAATTGCTCGACCCTCGCAAGAAGAAAAAGTAGAAGAAAAAGAAGAGGATA
AAGCAGAAAAAACAGAAAAAAAAGAAGAAGAAAAGAAAGATGAAGAGGAAAAAGATGAAAAAGAAGACTCCAAAG
AAAATACCAAGGAAAAGGACAAGATAGATGGTACAGCAGAAGAAACTGAGGAAAGAGAGCAAGCCACACCCCGGG
GGCGAAAGACTGCCAACAGTCAGGGCCGCCGTAAGGGCCGGATCACCAGGTCCATGACAAACGAAGCTGCAGCTG
CCAGTGCTGCAGCCGCAGCGGCTACTGAAGAGCCCCCACCACCTCTGCCACCGCCACCAGAACCCATTTCTACAG
AGCCTGTGGAGACCTCTCGATGGACAGAAGAAGAAATGGAAGTTGCTAAAAAAGGTCTAGTAGAACATGGTCGTA
ACTGGGCAGCAATTGCTAAAATGGTGGGAACGAAAAGTGAAGCTCAATGTAAAAACTTCTATTTTAACTATAAAA
GGCGACACAATCTTGACAACCTCTTACAGCAGCATAAACAGAAAACTTCACGAAAACCTCGTGAAGAGCGAGATG
TGTCTCAATGTGAAAGTGTCGCTTCCACTGTTTCTGCTCAGGAGGATGAAGATATTGAAGCCTCCAATGAAGAAG
AAAATCCAGAAGACAGCGAAGTTGAAGCTGTCAAGCCCAGCGAGGACAGTCCTGAAAATGCTACTTCTCGAGGAA
ACACAGAACCTGCGGTTGAGCTTGAGCCCACCACGGAAACTGCACCCAGTACATCTCCCTCCTTAGCAGTTCCAA
GTACAAAACCAGCTGAAGATGAAAGTGTGGAGACCCAGGTGAATGACAGCATCAGTGCTGAGACAGCAGAGCAGA
TGGATGTAGATCAGCAGGAGCACAGTGCTGAAGAGGGTTCTGTTTGTGATCCCCCACCCGCTACCAAAGCTGACT
CTGTGGACGTTGAAGTGAGGGTGCCAGAAAACCATGCATCTAAAGTTGAAGGTGATAATACCAAAGAAAGAGACT
TGGATAGAGCCAGTGAGAAGGTGGAACCTAGAGATGAAGATTTGGTGGTAGCTCAGCAAATAAATGCCCAAAGGC
CCGAGCCCCAGTCAGACAATGATTCCAGTGCCACGTGCAGCGCTGATGAGGATGTGGATGGAGAGCCAGAGAGGC
AGAGAATGTTTCCTATGGACTCAAAGCCTTCACTGTTAAACCCCACTGGATCTATACTCGTCTCATCTCCGTTAA
AACCAAATCCACTGGATCTGCCACAGCTTCAGCATCGAGCTGCTGTTATCCCACCAATGGTATCCTGCACCCCAT
GTAACATACCAATTGGAACCCCAGTGAGCGGCTATGCTCTCTACCAGCGACACATTAAAGCAATGCATGAGTCAG
CACTCCTGGAGGAGCAGCGGCAGAGACAAGAACAGATAGATTTGGAATGTAGAAGTTCTACAAGTCCATGTGGCA
CATCCAAGAGTCCAAACAGAGAGTGGGAAGTCCTTCAGCCTGCTCCACATCAAGTGATAACTAATCTCCCTGAAG
GCGTTCGGCTTCCGACAACTCGACCAACCAGGCCACCGCCCCCTCTCATCCCGTCATCCAAAACCACAGTGGCTT
CAGAAAAACCATCTTTTATAATGGGAGGCTCCATCTCACAGGGAACACCAGGCACTTATTTGACTTCTCATAATC
AGGCTTCCTACACTCAAGAAACACCCAAGCCGTCAGTGGGATCTATCTCTCTTGGACTGCCACGGCAACAGGAAT
CTGCCAAATCAGCTACTTTGCCCTACATCAAGCAGGAAGAATTTTCTCCCCGAAGCCAAAACTCACAACCTGAGG

FIGURE 773B

GTCTGTTGGTCAGGGCCCAACATGAAGGTGTAGTCAGAGGTACCGCAGGAGCCATACAAGAAGGAAGTATAACTC
GGGGAACTCCAACCAGCAAAATTTCAGTGGAGAGCATTCCATCCCTACGGGGCTCTATCACTCAGGGCACCCCGG
CTCTGCCCCAGACTGGCATACCAACAGAGGCTTTGGTGAAGGGGTCCATTTCGAGAATGCCCATTGAAGACAGCA
GTCCTGAGAAAGGCAGAGAGGAAGCTGCATCCAAAGGCCATGTTATTTATGAAGGCAAAAGTGGACATATCTTGT
CATATGATAATATTAAGAATGCCCGAGAAGGGACTAGGAGTCCAAGAACAGCTCATGAAATCAGTTTAAAGAGAA
GCTATGAATCAGTGGAAGGAAATATAAAGCAAGGGATGTCAATGAGGGAGTCTCCTGTATCAGCACCGTTAGAGG
GGCTGATATGCCGAGCATTACCCAGGGGGAGTCCTCATTCTGACCTCAAAGAAAGGACTGTATTGTCTGGCTCCA
TAATGCAGGGGACACCAAGAGCAACAACTGAAAGCTTTGAAGATGGCCTTAAATATCCCAAACAAATTAAAAGGG
AAAGTCCTCCCATACGAGCATTTGAAGGTGCCATTACCAAAGGAAAACCATATGATGGCATCACCACCATCAAAG
AAATGGGGCGTTCCATTCATGAGATTCCAAGGCAAGATATTTTAACTCAGGAAAGTCGGAAAACTCCAGAAGTGG
TCCAGAGCACACGGCCGATAATTGAGGGTTCCATTTCCCAGGGCACACCAATAAAGTTTGACAACAACTCAGGTC
AATCTGCCATCAAACACAATGTCAAATCCTTAATCACGGGGCCTAGCAAACTATCCCGTGGAATGCCTCCGCTGG
AAATTGTGCCAGAGAACATAAAAGTGGTAGAACGGGGAAAATATGAGGATGTGAAAGCAGGCGAGACCGTGCGTT
CCCGGCACACGTCAGTGGTAAGCTCTGGCCCCTCCGTTCTTAGGTCCACACTGCATGAAGCTCCCAAAGCACAAC
TGAGCCCTGGGATTTATGATGACACCAGTGCACGGAGGACCCCTGTGAGTTATCAAAACACCATGTCCAGAGGCT
CACCCATGATGAACAGAACTTCTGATGTTACAATTTCTTCTAACAAGTCTACCAATCATGAAAGGAAATCGACAC
TGACCCCTACCCAGAGGGAAAGTATCCCAGCGAAGTCTCCAGTGCCTGGGGTGGACCCTGTCGTGAGCCACAGTC
CGTTTGATCCCCATCACAGAGGCAGCACTGCAGGCGAGGTTTATCGGAGCCACCTGCCCACGCACTTGGATCCAG
CCATGCCTTTTCACAGGGCTTTGGATCCTGCAGCGGCTGCTTACCTGTTTCAGAGACAGCTTTCACCAACTCCAG
GTTACCCAAGTCAGTATCAGCTTTACGCAATGGAGAACACAAGACAGACAATCTTAAATGATTACATTACCTCAC
AACAGATGCAAGTGAACTTGCGTCCAGATGTGGCCAGAGGACTCTCCCCAAGAGAGCAGCCACTGGGTCTCCCAT
ACCCAGCAACGAGAGGAATCATTGACCTGACCAATATGCCTCCAACAATTTTAGTGCCTCATCCAGGGGGAACAA
GCACTCCTCCCATGGACAGAATCACTTATATTCCTGGTACACAGATTACTTTCCCTCCCAGGCCGTACAACTCTG
CTTCCATGTCTCCAGGACACCCAACACACCTTGCAGCTGCTGCAAGTGCTGAGAGGGAACGGGAACGGGAGCGGG
AGAAGGAGCGGGAGCGGGAACGGATTGCTGCAGCTTCCTCCGACCTCTACCTGCGGCCAGGCTCAGAACAGCCTG
GCCGACCTGGCAGTCATGGATATGTTCGCTCCCCTTCCCCTTCAGTAAGAACTCAGGAGACCATGTTGCAACAGA
GACCCAGTGTTTTCCAAGGAACCAATGGAACCAGTGTAATCACACCTTTGGATCCAACTGCTCAGCTACGAATCA
TGCCACTGCCTGCTGGGGGCCCTTCAATAAGCCAAGGCCTGCCAGCCTCCCGTTACAACACTGCTGCGGATGCCC
TGGCTGCTCTTGTGGATGCTGCAGCTTCTGCACCCCAGATGGATGTGTCCAAAACAAAAGAGAGTAAGCATGAAG
CTGCCAGGTTAGAAGAAAATTTGAGAAGCAGGTCAGCAGCAGTTAGTGAACAGCAGCAGCTAGAGCAGAAAACCC
TGGAGGTGGAGAAGAGATCTGTTCAGTGTTTATACACTTCTTCAGCCTTTCCAAGTGGCAAGCCCCAGCCTCATT
CTTCAGTAGTTTATTCTGAGGCTGGGAAAGATAAAGGGCCTCCTCCAAAATCCAGATATGAGGAAGAGCTAAGGA
CCAGAGGGAAGACTACCATTACTGCAGCTAACTTCATAGACGTGATCATCACCCGGCAAATTGCCTCGGACAAGG
ATGCGAGGGAACGTGGCTCTCAAAGTTCAGACTCTTCTAGTAGCTTATCTTCTCACAGGTATGAAACACCTAGCG
ATGCTATTGAGGTGATAAGTCCTGCCAGCTCACCTGCGCCACCCCAGGAGAAACTGCAGACCTATCAGCCAGAGG
TTGTTAAGGCAAATCAAGCGGAAAATGATCCTACCAGACAATATGAAGGACCATTACATCACTATCGACCACAGC
AGGAATCACCATCTCCCCAACAACAGCTGCCCCCTTCTTCACAGGCAGAGGGAATGGGGCAAGTGCCCAGGACCC
ATCGGCTGATCACACTTGCTGATCACATCTGTCAAATTATCACACAAGATTTTGCTAGAAATCAAGTTTCCTCGC
AGACTCCCCAGCAGCCTCCTACTTCTACATTCCAGAACTCACCTTCTGCTTTGGTATCTACACCTGTGAGGACTA
AAACATCAAACCGTTACAGCCCAGAATCCCAGGCTCAGTCTGTCCATCATCAAAGACCAGGTTCAAGGGTCTCTC
CAGAAAATCTTGTGGACAAATCCAGGGGAAGTAGGCCTGGAAAATCCCCAGAGAGGAGTCACGTCTCTTCGGAGC
CCTACGAGCCCATCTCCCCACCCCAGGTTCCGGTTGTGCATGAGAAACAGGACAGCTTGCTGCTCTTGTCTCAGA
GGGGCGCAGAGCCTGCAGAGCAGAGGAATGATGCCCGCTCACCAGGGAGTATAAGCTACTTGCCTTCATTCTTCA
CCAAGCTTGAAAATACATCACCCATGGTTAAATCAAAGAAGCAGGAGATTTTTCGTAAGTTGAACTCCTCTGGTG
GAGGTGACTCTGATATGGCAGCTGCTCAGCCAGGAACTGAGATCTTTAATCTGCCAGCAGTTACTACGTCAGGCT
CAGTTAGCTCTAGAGGCCATTCTTTTGCTGATCCTGCCAGTAATCTTGGGCTGGAAGACATTATCAGGAAGGCTC
TCATGGGAAGCTTTGATGACAAAGTTGAGGATCATGGAGTTGTCATGTCCCAGCCTATGGGAGTAGTGCCTGGTA
CTGCCAACACCTCAGTTGTGACCAGTGGTGAGACACGAAGAGAGGAAGGGGACCCATCACCTCATTCAGGAGGAG

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FIGURE 773C

TTTGCAAACCAAAGCTGATCAGCAAGTCAAACAGCAGGAAATCTAAGTCTCCTATACCTGGGCAAGGCTACTTAG
GAACGGAACGGCCCTCTTCAGTCTCCTCTGTACATTCAGAAGGGGATTACCATAGGCAGACGCCAGGGTGGGCCT
GGGAAGACAGGCCCTCTTCAACAGGCTCAACTCAGTTTCCTTATAACCCTCTGACTATGCGGATGCTCAGCAGTA
CTCCACCAACACCGATTGCATGTGCTCCCTCTGCGGTGAACCAAGCAGCTCCTCACCAACAGAACAGGATCTGGG
AGCGAGAGCCTGCCCCACTGCTCTCAGCACAGTACGAGACCCTGTCGGATAGTGATGAC**TGA**ACTGCACAAAGTG
AGGGGAACAGGGTGCAGGAGAGGGATCTCTAGTTTTTGTGGTTTAATTTTTAGTAGCAGGTCAAAAACCTGCCCT
CCTGTGACTTATTCCCTGAGACTTTTCAGGAGAGCCAGCCCACAGATGATGAAGAAATGATGGAAGTTCATTTGG
AGAGTCAAATGGGAAAAAAACAAACAAAAAACTGCCTTTGATACAGGCAATTCAGTGGACTATAATAATAGTGGA
GGGTTGAGATGTAGAGTTTTTAAAAAGTGAACAGTTGCTGTTCTTACATCTGTAAAGAAAACCATAATGTCTTTA
AATCACTCTTCTGTAAATAGATGACCTTTTTGCAGTGTA

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FIGURE 774

CTGAAGTCCAGCGCTTCTCTTCACTGTAAAGAACTGAGGGGTGGGCAGTACAGACCTGTCTGTTGGTCCTGTGTT
CTGAGCATTGCAGAACCTCGACTGCTGACTTGGGACCCCCCTGGGCTCTGCTGTACCTGCAAACCAGAGGCACTG
CTATCCAGGCCTTTGCCCCAGCTCCTCGGCCCTGGATGGTGCTGAAAGGGGCATCATCTGTGGGGTCGGCTGGCT
CTCATGGCTGGGCCGCTCAGGCATAGAGG**ATG**CAGGTGGCTGCTCACAATCTGGAATTTGCTCTGTCTTTCTGTA
GTTGCAGCATTTGCAAGAAGAAGCAGAATAGACACTTCATTGTTCCAGCTTCTCGCTTCAAGCTCCTGAAGGGAG
CTGAGCACATAACGACTTACACGTTCAATACTCACAAAGCCCAGCATACCTTCTGTAAGAGATGTGGCGTTCAGA
GCTTCTATACTCCACGATCAAACCCCGGAGGCTTCGGAATTGCCCCCCACTGCCTGGATGAGGGCACTGTGCGGA
GTATGGTCACTGAGGAATTCAATGGCAGCGATTGGGAGAAGGCCATGAAAGAGCACAAGACCATCAAGAACATGT
CTAAAGAG**TGA**GCTTCTGCCTCTCCTGCCCTGAAAAGGAGGAATGATTGGGGCCAGCAACTTTGCTCTCCCTGCC
GTGCCTCGGTGGTGCTCCTGAATGTGGCTGACCTGGGCTGCTGGTTCCGTTGACTAGGGTCATCTTGATCTCTGC
AGTTTGCTCCAGCTACCAGTTTCTTTAGGCAGCTCTTTGTCCTCCCTCTGCCCAGATTTTGATGTAGTCTAATTG
ACATCCTTCTCTTCCCAACTTTTGTGTGATCTTTTAGGAAAAAAAATAAATATTTTTAACATT

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FIGURE 775

GGGCGGTTGGCTTTGTTGGGTGAGCTTGTTTGTGTCCCTGTGGGTGGACGTGGTTGGTGATTGGCAGGATCCTGG
TATCCGCTAACAGGTCAAA**ATG**CAGATCTTCGTGAAAACCCTTACCGGCAAGACCATCACCCTTGAGGTGGAGCC
CAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAGGATAAGGAAGGCATTCCCCCCGACCAGCAGAGGCTCAT
CTTTGCAGGCAAGCAGCTGGAAGATGGCCGTACTCTTTCTGACTACAACATCCAGAAGGAGTCGACCCTGCACCT
GGTCCTGCGTCTGAGAGGTGGTATGCAGATCTTCGTGAAGACCCTGACCGGCAAGACCATCACCCTGGAAGTGGA
GCCCAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAGGATAAAGAAGGCATCCCTCCCGACCAGCAGAGGCT
CATCTTTGCAGGCAAGCAGCTGGAAGATGGCCGCACTCTTTCTGACTACAACATCCAGAAGGAGTCGACCCTGCA
CCTGGTCCTGCGTCTGAGAGGTGGTATGCAGATCTTCGTGAAGACCCTGACCGGCAAGACCATCACTCTGGAGGT
GGAGCCCAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAAGATAAAGAAGGCATCCCCCCCGACCAGCAGAG
GCTCATCTTTGCAGGCAAGCAGCTGGAAGATGGCCGCACTCTTTCTGACTACAACATCCAGAAAGAGTCGACCCT
GCACCTGGTCCTGCGCCTGAGGGGTGGCTGT**TAA**TTCTTCAGTCATGGCATTCGCAGTGCCCAGTGATGGCATTA
CTCTGCACTATAGCCATTTGCCCCAACTTAAGTTTAGAAATTACAAGTTTCAGTAATAGCTGAACCTGTTCAAAA
TGTTAATAAAGGTTTCGTTGCATGGTA

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FIGURE 776

CTCTGGTGGCTAGCCTGTCCTGACAGGGGAGAGTTAAGCTCCCGTTCTCCACCGTGCCGGCTGGCCAGGTGGGCT
GAGGGTGACCGAGAGACCAGAACCTGCTTGCTGGAGCTTAGTGCTCAGAGCTGGGGAGGGAGGTTCCGCCGCTCC
TCTGCTGTCAGCGCCGGCAGCCCCTCCCGGCTTCACTTCCTCCCGCAGCCCCTGCTACTGAGAAGCTCCGGGATC
CCAGCAGCCGCCACGCCCTGGCCTCAGCCTGCGGGGCTCCAGTCAGGCCAACACCGACGCGCAGCTGGGAGGAAG
ACAGGACCCTTGACATCTCCATCTGCACAGAGGTCCTGGCTGGACCGAGCAGCCTCCTCCTCCTAGG**ATG**ACCTC
ACCCTCCAGCTCTCCAGTTTTCAGGTTGGAGACATTAGATGGAGGCCAAGAAGATGGCTCTGAGGCGGACAGAGG
AAAGCTGGATTTTGGGAGCGGGCTGCCTCCCATGGAGTCACAGTTCCAGGGCGAGGACCGGAAATTCGCCCCTCA
GATAAGAGTCAACCTCAACTACCGAAAGGGAACAGGTGCCAGTCAGCCGGATCCAAACCGATTTGACCGAGATCG
GCTCTTCAATGCGGTCTCCCGGGGTGTCCCCGAGGATCTGGCTGGACTTCCAGAGTACCTGAGCAAGACCAGCAA
GTACCTCACCGACTCGGAATACACAGAGGGCTCCACAGGTAAGACGTGCCTGATGAAGGCTGTGCTGAACCTTAA
GGACGGAGTCAATGCCTGCATTCTGCCACTGCTGCAGATCGACAGGGACTCTGGCAATCCTCAGCCCCTGGTAAA
TGCCCAGTGCACAGATGACTATTACCGAGGCCACAGCGCTCTGCACATCGCCATTGAGAAGAGGAGTCTGCAGTG
TGTGAAGCTCCTGGTGGAGAATGGGGCCAATGTGCATGCCCGGGCCTGCGGCCGCTTCTTCCAGAAGGGCCAAGG
GACTTGCTTTTATTTCGGTGAGCTACCCCTCTCTTTGGCCGCTTGCACCAAGCAGTGGGATGTGGTAAGCTACCT
CCTGGAGAACCCACACCAGCCCGCCAGCCTGCAGGCCACTGACTCCCAGGGCAACACAGTCCTGCATGCCCTAGT
GATGATCTCGGACAACTCAGCTGAGAACATTGCACTGGTGACCAGCATGTATGATGGGCTCCTCCAAGCTGGGGC
CCGCCTCTGCCCTACCGTGCAGCTTGAGGACATCCGCAACCTGCAGGATCTCACGCCTCTGAAGCTGGCCGCCAA
GGAGGGCAAGATCGAGATTTTCAGGCACATCCTGCAGCGGGAGTTTTCAGGACTGAGCCACCTTTCCCGAAAGTT
CACCGAGTGGTGCTATGGGCCTGTCCGGGTGTCGCTGTATGACCTGGCTTCTGTGGACAGCTGTGAGGAGAACTC
AGTGCTGGAGATCATTGCCTTTCATTGCAAGAGCCCGCACCGACACCGAATGGTCGTTTTGGAGCCCCTGAACAA
ACTGCTGCAGGCGAAATGGGATCTGCTCATCCCCAAGTTCTTCTTAAACTTCCTGTGTAATCTGATCTACATGTT
CATCTTCACCGCTGTTGCCTACCATCAGCCTACCCTGAAGAAGCAGGCCGCCCCTCACCTGAAAGCGGAGGTTGG
AAACTCCATGCTGCTGACGGGCCACATCCTTATCCTGCTAGGGGGGATCTACCTCCTCGTGGGCCAGCTGTGGTA
CTTCTGGCGGCGCCACGTGTTCATCTGGATCTCGTTCATAGACAGCTACTTTGAAATCCTCTTCCTGTTCCAGGC
CCTGCTCACAGTGGTGTCCCAGGTGCTGTGTTTCCTGGCCATCGAGTGGTACCTGCCCCTGCTTGTGTCTGCGCT
GGTGCTGGGCTGGCTGAACCTGCTTTACTATACACGTGGCTTCCAGCACACAGGCATCTACAGTGTCATGATCCA
GAAGGTCATCCTGCGGGACCTGCTGCGCTTCCTTCTGATCTACTTAGTCTTCCTTTTCGGCTTCGCTGTAGCCCT
GGTGAGCCTGAGCCAGGAGGCTTGGCGCCCCGAAGCTCCTACAGGCCCCAATGCCACAGAGTCAGTGCAGCCCAT
GGAGGGACAGGAGGACGAGGGCAACGGGGCCCAGTACAGGGGTATCCTGGAAGCCTCCTTGGAGCTCTTCAAATT
CACCATCGGCATGGGCGAGCTGGCCTTCCAGGAGCAGCTGCACTTCCGCGGCATGGTGCTGCTGCTGCTGCTGGC
CTACGTGCTGCTCACCTACATCCTGCTGCTCAACATGCTCATCGCCCTCATGAGCGAGACCGTCAACAGTGTCGC
CACTGACAGCTGGAGCATCTGGAAGCTGCAGAAAGCCATCTCTGTCCTGGAGATGGAGAATGGCTATTGGTGGTG
CAGGAAGAAGCAGCGGGCAGGTGTGATGCTGACCGTTGGCACTAAGCCAGATGGCAGCCCCGATGAGCGCTGGTG
CTTCAGGGTGGAGGAGGTGAACTGGGCTTCATGGGAGCAGACGCTGCCTACGCTGTGTGAGGACCCGTCAGGGGC
AGGTGTCCCTCGAACTCTCGAGAACCCTGTCCTGGCTTCCCCTCCCAAGGAGGATGAGGATGGTGCCTCTGAGGA
AAACTATGTGCCCGTCCAGCTCCTCCAGTCCAAC**TGA**TGGCCCAGATGCAGCAGGAGGCCAGAGGACAGAGCAGA
GGATCTTTCCAACCACATCTGCTGGCTCTGGGGTCCCAGTGAATTCTGGTGGCAAATATATATTTTCACTAACT

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FIGURE 777

AGGTAGGCTCTCTAGGAATCTGGGAGTAGTAGCTGGGGGGCAAGAGCAAATAAAGAGCTCGAGCTTCTGTGGTCT
CTGGGGAG**ATG**TTCCCGGGAAGCCTGTCTAGAGGGCGGAGGGCAGCTGTTGAGATGGCGTGGCTCCCCGGCTCCT
GCGCCCGCGTGGCTTTCGCGGCGGGCGCTGCGGCCCGGTATTGGACAGCCTGGCAGGGCAGCGCGGGGCCGAATC
CGGCTGCCGTGGCTGAGGCTCATGGATCACTCTTTTGTGGTAGGGCCACATCTGCCAGAGCCTGGAGTCTGCGAA
GGCCGGGACCCGGTTCCCCGGCCCACAGTGGGGGTGTGCAAACCCGAGAGAACTGGATTGCGTACCCACTGCAGA
GTGCTGAAGACGGGGTAGCCACGAGGTTGCAAATTCGTGAAGAATCAGCATCATGTTTGGCAGCTGAGTATTGGA
GCCAGGAGCCTGCCATGAGGTTT**TGA**GAACAGAGTGCTGTTTTAGAGCTGGCAGCAGCATCTCAGCCCAAGAGAA
GGTTATATTCCCAGAGGATGTCAGTCCCAAGGACCAGTAGCTGCCATCAGTTTGGATTCTGAAAACTAACTGGCA
TCAACACTGGGTGTAGAAACATGCTTGCCTTATGTATCAGAGGACATGCTCAGCAGATCCAAGAGATATATTTGG
CAACTTTTTCTAGAAAAGGCACATTGGGTATCATTCATTACATTCTTGAGT

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FIGURE 778

CTCGGCCGCCACTATGGTGTGAGGCGCGTGTTCGGGCTCTTGCCGTCCCCGCACCCGCACCGCGGCTACTGGCTT
GCGGTCCGCCGTTCCACAACCAGCCCTTGGGCCCCCGCCCGCCACGGACATGCCGCGCGTCTACATAGGACGCCT
AAGCTACAACGTCCAGGAGAAGGCCATCCAGCGCTTTTTCAGTGGCTATGGCCGCCTCCTCGAAGTAGACCTCAA
AAATGGCTACGGCTTCGTGGAGTTCGAGGACTCCCGCGACACCGACGACGCCCTTTACGAGCTGAACAGCGAGGA
GCTCTGCGGCGAGCGCGTGATCGTAGAGCACGCCCGGGGCCCGCGTCGCAATCGCGACAGCTACAGCTACGGAAG
CCGCCGTGGTGGAGGTGGATACAGCAGTCGGAGACATCTGGCAGAGACAAATACGGACCACCTGTTCGTACAGAA
TACAGGCTTATTGTAGAAAATCTTTCTAGTCTGTGCAGTTGGAGAGATTTAAAGGATTTTATGCGACAAGCAGGT
TAAGTAACCTGTGCGGATGCCCACAAGGAAGGAACAAATGAGGGTGTAATTGAGTTTCGCTCCTACTCTGACATG
AAGCGTGCTTTGGACAAACTGGATGGCACAGAAATAA**ATG**GCAGAAATATTAGGCTTATTGAAGATAAGCCACGC
ACAAGCCATAGGCGATCTTACTCTGGAAGCAGATCCAGGTCTCGATCTAGAAGATGGTCACGAAGTAGGAGTCGC
AGGAGCAGCCGCAGTAGATCTGGAAGTGTCTCAAAAAGTCGCTCCCGTTCCAGGTCGCGGAGCAAAGGTCGATCA
CGTTCTCGATCAAAAGGCAGGAAATCTAGATCAAAGAGCAAATCTAAGCCCAAGTCTGATCGGGGCTCCCATTCA
CATTCTCGAAGCAGATCTAAGGATGAGTATGAGAAATATCGAAGCAGGTCTCGGTCCGGATCCCCCAAAGAAAAT
GGAAAGGGTCATACAAAGTCAAAATCCAGATCAAGGAGCCAGTCCCGTTCCAATTCGCCGCTACCTGGTCCACCC
TGAAAGGCCCGCTCTGTGTCCCCTCCACCAAAAAGAGCTACTTCAAGATCCTGTTCTAGATCTCGCTCAAAGTCA
AGATCAAGGTCCAGGTCGAGTTCCAGGGATTAACTCAGAACTCTCTTGTTGTCTGCACACTATTATGGAACACTT
TCCTGCT**TAG**GCAGTTACTCTTCCATGTTTATACTTGGTCTCTTCTGCAAGAGGAATCTCTTGAAAACAGGGGCA
CACAGAAATTTGATATGTGGCCAAATTGGATGAAAAAGATGAGGTTTAAGGAAATGGTGGCATGAAGACCCTCTC
CCTTCTTTGTAGAATTAAGATAACTATGATTTTATAGCTTTTGAGCTAACATAACTTTTGTAAAGATTAAGCTCA
TTTAGTTTTTGTTTGTTTGTTTGTTTGTTTTAAGTATTTCAGCCAGATCTGCTGGCAGGGTTTTTTTGTTGTTTT
ATTTGTTTGCTTATTTTTAAATTAACTGTTTTGAGCTTTGAATGCTTAAGGCTTTAGAGGGAGAACCCAATTTTC
AATTATGTTGGCTTTTTATAAAGCTTGAGTTATGTAAGATTTAAATAGAAGTTTGCTACC

FIGURE 779

GGGAGTCAAAATGCTTCCTGGTGCCGGGAGTGAGCGATGAGCCGGCTTCTGTCCCTGGCGGCAGAGTCGCCTTGG
CCGCCTTGCCCTGCCGCCGCTCTCGCGGGTTCGGGATGTTCTATGCCGTGAGGAGGGGCGGCAAGTCCGCGGTCT
TTCTGACCGGGAATGAGTGCAAAGCACAGGTGGACCGGTTTCCTGCTGCCAGATTTAAGAAGTTTGCCACAGAGG
ATGAGGCCTGGGACTTTGTCAGGAAATCTGCAAGCCCGGAAGTTTCAGAAGGGCAGGAAAATCAACATGGACAAG
AATCGGAGACGAAAGCCAGCAAGCGACTCCGTGAGCCACTGGATGGAGATGGAGATGAAAGCGCAGAGCCATATG
CAAGCAC**ATG**AAGCCGAGCGTGAAGCCGAGCGTGAAGCCGAGCGTGAAGCCGGCGCCTCCAGTTAGCAGAGACAC
GTTTTCCTACATGGGAGACTTCGTCGTCGTCTACGCTGATGGCTGCTGCTCCAGTAATGGGCGTAGAAAGCCACG
AGCAGGAATCCGCGTTTACTGGGGGCCGGGCTATCCTTTAACTGTAGGCATTAGACTTCCTGGGTGGCAGACAAA
CCAAAGAGCGGAAATTCATGCAGCCTGCAAGGCCATTGAACAAGCACAGACTCAGAAAATCAATAAACTGGTTCT
GTATACAGACAGTATGTTTACGATAAATGGTATAACTAACTGGGTTCAAGGTTGGAAGAAAAATGGGTGGAAGAC
AAGTGCAGGGAAAGAGGTGATCAACAAAGAGGACTTCGTGGCACTGGAGAGGCTGACCCAGGGGATGGACATTCA
GTGG

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FIGURE 780

GTTGTAGATGAGCATGAGAGTGTGGAGCAGAGTCGGCGAGCGCAAGTCGAGCCCATCAACCTGGACAGCTGTCTC
CGTGCTTTCACCGGTGAGGAAGAGCTAGGGGAAGATGAG**ATG**TACTACTGTTCCAAGTGTAAGACCCACTGCTTA
GCAACAAAGAAGCTGGATCTCTGGAGGCTTCCACCCTTCCTGAAAATTGTCAAATTTCCTCGGGAAAGTTTTGAC
CTGAGTGCTTTTTTGGTACCACGAGACCCGGCTCTCTGCCAGCATCAACCACTCACACCCCAGGGGGATGAGCTC
TCCAAGCCCAGGATTCTGGCAAGAGAGGACATGCTCCTGAGCAAAAGCCCATCCTCACTCAGCGCTAACATCAGC
AGCAGCCCAAAAGGTTCTCCTTCTTCATCAAGAAAAAGTGGAACCAGCTGTCCCTCCAGCAAAAACAGCAGCCCT
AATAGCAGCCCACGGACTTTGGGGAGGAGCAAAGGGAGGCTCTGGCTGCCCCAGATTGGCAGCAAAAATAAACTG
TCAAGTAGTAAGAAGAACTTGGATGCCAGCAAAGAGAATGGGGCTGGGCAGATCTGTGAGCTGGCTGACGCCTTG
AGCCGAGGGCATATGCGGGGGGTGGGCAGCCAACCAGAGCTGGTCACTCCTCAGGACCATGAGTGCCATTCAGGA
ATTCTGAGTGGGGGCCATTACGTCACTTATGCCAAAAACCCAAACTGCAAGTGGTACTGCTACAATGGCAGCATC
TGTGAGGAACGTCACCCTGATGAAATTGACACCAACTCTGCCTACATTCTTTTCTATGAGCAGCAGAGGATAGAC
TACGCACAATTTCTGCCAAAGATTGATGGCAAAAAGATGGCAGACACAAGCAGTATGGATGAAGACTTTGAGTCT
GATTACAAAAAGATACTTCAAGTATCCTCAGAAATGTATTCTGCACCCCCGGCCCCGCCCATGCTGAGGGAAGGG
GAGCAGTTGCCAATATTTGCACCATCTTCACATGCACATGTTGCAACAAGAGCTTCTGGGAAGTCCTCAGAGTAC
AGCAAGTGGAAGTTCACCAACAGCCCCACGTTCCTGGAGCTGCTGGAGGAGTTCCCATCCCTGCAGGTGTCTGCT
GGCTTCCTGCTCTCCCTGCTCCCCATTCTGAAGCCCAGGTTTTACTCCATCAGCTCCTCCCAGGATCACACGCCC
ACAGCGATCCACCTGACTGTGGCCGTGCTCATGTACCACACTCGAGGGCTCAGGGTCTGCCCTCTGAGCCCCAAC
TTCAACACCTCCCATGGGAACCCTCCAAAGAATGAACCAGGAATGGAAACCATAGAGCCCACGGCACCCCGGCAC
CTGAGACCCAATGAGAATCAACACTGCCTCTCCAGCCAACATGCAAGGCTGCAGCCTGGACCCAGTGCCAGCATC
CCAAATGCAGGCCCTCCATTTGGGGAGTGGATGGAG**TAG**

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FIGURE 781

TCCAGCCCTTCTCCTGTGTGCCTGCCTCCTGCCGCCGCCACC**ATG**ACCACCTCCATCCGCCAGTTCACCTCCTCC
AGCTCCATCAAGGGCTCCTCTGGCCTGGGGGGCGGCTCGTCCCGCACCTCCTGCCAGCTGTCTGGCGGCCTGGGT
GCCGGCTCCTGCAGGCCGGGATCTGCTGGTGGCCTGGGCAGCGCCCTCGGGGGTAGCAGCTACTCCAGCTGCTAC
AGCTTTGGCTCTGGCGGTGGCTATGGCAGCAGCAGCTTTGAGGGCGTTGATGGGCTGCTGGTCGGAGGTGAGAAG
GCCACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTGCGTGCCCTGGAGGAGGCCGACACT
GAGCTGGAGGTAAAGATCCGTGACTGGTACCAGAGGCAGGCCCCGGGGCCCGCCCGTGACTACAGCCAGTACTAC
AGGATAATCGAGGAGCTGCAGAACAAGATCCTCACAGCCACCGTGGACAATGCCAACATCCTGCTACATATTGAC
AATGCCCATCTGGCTGCTGCTGACTTCCGCACCAAGTTTGAGACAGAGCAGGCCCTGTGCCTGAGTGTGGAGGCC
GACATCAATGGCCCGTGCAGGGTGCTGGATGAGCTGACCCTGGCCAGAGCCGACCTGGAGATGCACATTGAGAAC
CTCAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGAGGAGATGAACGCCCCGCGAGGCCAGGTGGGCGGT
GAGATCAATGTGGAGATGGGCGCTGCCCCAGGTGTGGACCTGAGCCGCATCCTGAATGAGATGCGTGAGCAGTAT
GAGAAGATGGCAGAGAAGAACCGCAAGGATGCCGAGGATTGGTTCTTCAGCAAGACAGAGGAGCTGAACCGCGAG
GTGGCTACCAACAGTGAGCTGGTCCAGAGCGGCAAGAGCGAGATTTCGGAGCTCCGGTGCACCATGCAGGCCTTG
GAGATCGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCTGGAGGGCAACCTGGCGGAGACAGAGAACCGCTAC
TGCATGCAGCTGTCCCAGATCCAGGGGCTGATCGGCAGTGTGGAGGAGCGGCTGGCCCAGCTTCTCTGCGAGATG
GAGCAGCAGAACCAGGAGTACAAGATCCTCCTGGACATGAAGATGCGGCTGGAGCTGGAGATCACCACCTACCAC
CGCCTGCTGGAGGGCGAGGATGCCCACCTGACTCAGTACAAGAAAGAACCGGTGACCACCTGTCAGGTGCCTACC
ATTGTGGAAGAGGTCCAGGATGGTAAGGTCATCTCCTCCCGCGAGCAGGTCCGCCAGACCACCCGC**TGA**GCACTC
AGCTTTCCTGGCCGGCCCCCCAGGAGGCAGGGAGGCAGCGGTCCCATCTGCCCCGCGGTCTCCGGCCTCTCCACC
CTCAGCCCCCTGCTTCAGTCCCTTCCCCATGCTTCCCTGCGTGATGACAATAAAGCTCGTTGACTCAGCT

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FIGURE 782

CTTTCCGCTCGGCTGTTTTCCTGCTCAGGAGCCGCAGGGCCGTAGGCAGCC**ATG**ACGCCCAGCCGGAATGGCATG
GTCTTGAAGCCCCACTTCCACAAGGACTGGCAGCGGCGCGTGGCCACGTGGTTCAACCAGCCGGCCCGGAAGATC
CGCAGACGTAAGGCCCGGCAAGCCAAGGCGCGCCGCATCGCCCCGCGCCCCGCGTCGGGGCCCATCCGGCCCATC
GTGTGCTGCCCCACGGTTCGGTACCACACGAAGGTGCGCGCCGGCCGCGGCTTCAATCTGGAGGAGCTCAGGGTG
GCCGGCATTCACAAGAAGGTGGCCCGGACCATCGGCATTTCTGTGGATCCGAGGAGGCGGAACAAGTCCACGGAG
TCCCTGCAGGCGAACGTGCAGCGGCTGAAGGAGTACCGCTCCAAACTCATCCTCTTCCCCAGGAAGCCCTCGGCC
CCCAAGAAGGGAGACAGTTCTGCTGAAGAACTGAAACTGGCCACCCAGCTGACCGGACCGGTCATGCCCATCCGG
AATGTCTATAAGAAGGAGAAAGCTCGAGTGATCACTGAGGAAGAGAAGAATTTCAAAGCCTTCGCTAGTCTCCGT
ATGGCCCGTGCCAACGCCCGGCTCTTCGGCATACGGGCAAAAAGAGCCAAGGAAGCCGCAGAACAGGATGTTGAA
AAGAAAAAAA**TAA**AGCCCTCCTGGGGACTTGGAAT

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FIGURE 783

GCGCGTGTTCCTTTAGGGACCGCGCGCGCCGCGGCCTCGCTCTGGGGCCGGTACTTGCGCGCCCGCACCCCGCGC
TCCCCGCCCCGCTCCCCGTCCCGCGCTCCACGCGCGCCCCAGCGTTGGGGGCTTCTCCTCCGCGGCGGGAATGTC
TGGCCGGCTCCGGCAGCACGGCGCGGCCCAGGTCCCCGCGCCCACGACGGGCCAGCGCGCTGGGCC**ATG**ATCCGG
CTGGGCGGCTGGTGTGCGCGGCGGCTCTGCAGCGCGGCGGTTCCCGCGGGGCGGCGCGGGGCGGCGGGCGGGCTG
GGCCTGGCGGGAGGCCGCGCCCTACGGGTGCTGGTGGACATGGACGGCGTGCTGGCTGACTTCGAGGGCGGATTC
CTCAGGAAGTTCCGCGCGCGCTTTCCCGACCAGCCCTTCATCGCGCTGGAGGACCGGCGCGGCTTCTGGGTGTCG
GAGCAGTACGGCCGCCTGCGGCCAGGGCTGAGCGAGAAGGCCATCAGCATTTGGGAGTCAAAGAATTTCTTTTTT
GAACTTGAGCCTCTGCCAGGGGCCGTGGAAGCTGTCAAGGAGATGGCCAGCCTACAAAACACTGACGTCTTCATC
TGCACAAGCCCCATCAAGATGTTCAAGTACTGTCCCTATGAGAAGTATGCCTGGGTGGAGAAGTACTTTGGCCCT
GACTTTCTGGAGCAGATTGTGCTGACCAGAGACAAGACCGTGGTCTCTGCTGACCTTCTCATAGACGACCGGCCG
GACATCACAGGGGCCGAGCCAACCCCCAGCTGGGAGCATGTCCTCTTCACCGCCTGCCACAACCAGCACCTGCAG
CTGCAGCCCCCCCGCCGCAGGCTGCACTCGTGGGCGGACGACTGGAAGGCCATTCTGGACAGCAAGCGGCCCTGC
TGAGCTGGACTGTGCTTCGGGCTCCTCTGTGGGGCTCTGACCTCAGGGCTCCCAGCTCGGGGCCTGTGGGGCCAG
TATGCTGGTCTGGGAGTCCCTCCTAGACTCCTGGGCCCCATGACCTCCTGCTGCATGTCCCTTCCCTTCCCCAGC
CCTGCCAGGCCTTAACCTGATCACGGGGCAGGGCTGGGCCCTCTGGGCGCTTGGACATAGACACGTGGTCCCAGG
CCGTTCAGCCTGACCTCAGGCAGCAGGCACCAAGCTGCCAGAAGCCCAGGGGCTCAGGACAGGGAGGAGTTGAGG
CCACTGTTCAGGGGGCTGGTGGCCGTCTCCACTCCCTAGGCAAGTTCTCTGAGGCAGAAGGGGGTTCCCTGTTCC
CAGAGTCTGCAGCCATCAGCAAGGAGGACCAGGAACCCGGCGACTGAGGTGCTTCCAGGTGGGGACAAGCCCCTC
TTGGTCTCAGCCACAGCACCCCTTATTCCAGCTGCCCTGCCCAACCTGCTCACCCCACATGACCTTCTGTGTATT
CAGCAAACACTCACTAGGTGACAGCGGCCACCAGGCTCTGTGCTGGGGGACGATACTGGCCCTGGCCTCGACCAG
CTTAGAGGTTTCTCACACCTCTGTTCCCAGGGCCCCGCTCAGGGCCCAGCAGAGAGTCCGTAGGCTTGAACATGT
GTTGAGTGCATGAAAAATAAATGCTGTTCATGTGTGTAGCTC

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FIGURE 784

GGGAAAACATGGCGTCTGCCCTGGAGCAGTTCGTGAACAGTGTCCGACAGCTCTCAGCTCAAGGGCAAATGACAC
AGCTTTGTGAACTGATCAACAAGAGTGGGGAACTCCTTGCGAAGAACTTATCCCATCTGGACACTGNTGCTCGGG
GCTCTGGATGTACAAGAACACTCCTTGGGCGTCCTTGCTGTTTTGTTTGTGAAGTTTTCT**ATG**CCCAGTGTTCCT
GACTTCGAAACGCTATTCTCACAGGTTCAGCTCTTCATCAGCACTTGTAATGGGGAGCACATTCGATATGCAACA
GACACTTTTGCTGGGCTTTGCCATCAGCTAACAAATGCACTTGTGGAAAGAAAACAGCCCCTGCGAGGAATTGGC
ATCCTTAAGCAAGCCATAGACAAGATGCAGATGAATACAAACCAGCTGACCTCAATACATGCTGATCTCTGCCAG
GCTATAACTACTCCTGCCATGGCGGTCAGTCATATCATGTTGGAATCATATAAAAAGTATATTTTAGTGTCTTTG
ATATTACTTGGCAAAGTACAACAGCTACCAAAATATACATCTCAAATTGTGGGTAGATTCATTAAGCCTCTTAGC
AATGCATACCACGAGTTAGCACAAGTGTATTCAACCAACAACCCCTCAGAACTCCGAAACCTGGTGAATAAGCAC
AGTGAAACCTTCACTCGCGATAACAACATGGGGCTGGTGAAGCAATGCTTGTCATCTCTTTATAAGAAGAATATT
CAGAGGCTAACAAAGACCTTTTTAACTCTATCATTACAAGATATGGCAAGTCGTGTGCAGTTGTCTGGACCTCAG
GAGGCAGAGAAATACGTTCTGCACATGATAGAAGATGGTGAGATTTTTGCAAGTATTAACCAGAAGGACGGTATG
GTCAGTTTCCATGATAACCCTGAAAAATATAATAACCCAGCCATGCTTCATAACATTGATCAGGAGATGCTGAAG
TGCATTGAGCTGGATGAGCGGCTGAAAGCCATGGACCAGGAGATCACAGTGAACCCTCAGTTTGTACAAAAGAGT
ATGGGCTCACAAGAAGATGATTCAGGAAACAAACCATCCAGTTATTCT**TGA**AACTAACATCCATCCTGAGCTAAA
CAAGAGAAACTACCATCTTGGCCAGTGACAAGTGTTCGGAGGGCAGCAGAGAGGACCAAGCCTGTGTCACCTGGA
GACTAAGAAATTAAGTTTTGTTTTGACATCTTCAGTCCTGTGTGCTTTCAGAAAACCATTTTCTCTGCAAAGAAA
GGAAACAGATTTGCAAACTTTAAAGTCTGTCGTGGATTTATTTATCCTCAGATTATTGTTACTGCATTAAATCTA
CCTTTTTGTTTTA

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FIGURE 785

CACAGGGCTCCCCCCCGCCTCTGACTTCTCTGTCCGAAGTCGGGACACCCTCCTACCACCTGTAGAGAAGCGGGA
GTGGATCTGAAATAAAATCCAGGAATCTGGGGGTTCCTAGACGGAGCCAGACTTCGGAACGGGTGTCCTGCTACT
CCTGCTGGGGCTCCTCCAGGACAAGGGCACACAACTGGTTCCGTTAAGCCCCTCTCTTGCTCAGACGCC**ATG**GAG
CTGGATCTGTCTCCACCTCATCTTAGCAGCTCTCCGGAAGACCTTTGCCCAGCCCCTGGGACCCCTCCTGGGACT
CCCCGGCCCCCTGATACCCCTCTGCCTGAGGAGGTAAAGAGGTCCCAGCCTCTCCTCATCCCAACCACCGGCAGG
AAACTTCGAGAGGAGGAGAGGCGTGCCACCTCCCTCCCCTCTATCCCCAACCCCTTCCCTGAGCTCTGCAGTCCT
CCCTCACAGAGCCCAATTCTCGGGGGCCCCTCCAGTGCAAGGGGGCTGCTCCCCCGCGATGCCAGCCGCCCCCAT
GTAGTAAAGGTGTACAGTGAGGATGGGGCCTGCAGGTCTGTGGAGGTGGCAGCAGGTGCCACAGCTCGCCACGTG
TGTGAAATGCTGGTGCAGCGAGCTCACGCCTTGAGCGACGAGACCTGGGGGCTGGTGGAGTGCCACCCCCACCTA
GCACTGGAGCGGGGTTTGGAGGACCACGAGTCCGTGGTGGAAGTGCAGGCTGCCTGGCCCGTGGGCGGAGATAGC
CGCTTCGTCTTCCGGAAAAACTTCGCCAAGTACGAACTGTTCAAGAGCTCCCCACACTCCCTGTTCCCAGAAAAA
ATGGTCTCCAGCTGTCTCGATGCACACACTGGTATATCCCATGAAGACCTCATCCAGAACTTCCTGAATGCTGGC
AGCTTTCCTGAGATCCAGGGCTTTCTGCAGCTGCGGGGTTCAGGACGGAAGCTTTGGAAACGCTTTTTCTGCTTC
TTGCGCCGATCTGGCCTCTATTACTCCACCAAGGGCACCTCTAAGGATCCGAGGCACCTGCAGTACGTGGCAGAT
GTGAACGAGTCCAACGTGTACGTGGTGACGCAGGGCCGCAAGCTCTACGGGATGCCCACTGACTTCGGTTTCTGT
GTCAAGCCCAACAAGCTTCGAAATGGCCACAAGGGGCTTCGGATCTTCTGCAGTGAAGATGAGCAGAGCCGCACC
TGCTGGCTGGCTGCCTTCCGCCTCTTCAAGTACGGGGTGCAGCTGTACAAGAATTACCAGCAGGCACAGTCTCGC
CATCTGCATCCATCTTGTTTGGGCTCCCCACCCTTGAGAAGTGCCTCAGATAATACCCTGGTGGCCATGGACTTC
TCTGGCCATGCTGGGCGTGTCATTGAGAACCCCCGGGAGGCTCTGAGTGTGGCCCTGGAGGAGGCCCAGGCCTGG
AGGAAGAAGACAAACCACCGCCTCAGCCTGCCCATGCCAGCCTCCGGCACGAGCCTCAGTGCAGCCATCCACCGC
ACCCAACTCTGGTTCCACGGGCGCATTTCCCGTGAGGAGAGCCAGCGGCTTATTGGACAGCAGGGCTTGGTAGAC
GGCCTGTTCCTGGTCCGGGAGAGTCAGCGGAACCCCCAGGGCTTTGTCCTCTCTTTGTGCCACCTGCAGAAAGTG
AAGCATTATCTCATCCTGCCGAGCGAGGAGGAGGGCCGCCTGTACTTCAGCATGGATGATGGCCAGACCCGCTTC
ACTGACCTGCTGCAGCTCGTGGAGTTCCACCAGCTGAACCGCGGCATCCTGCCGTGCTTGCTGCGCCATTGCTGC
ACGCGGGTGGCCCTC**TGA**CCAGGCCGTGGACTGGCTCATGCCTCAGCCCGCCTTCAGGCTGCCCGCCGCCCCTCC
ACCCATCCAGTGGACTCTGGGGCGCGGCCACAGGGGACGGGATGAGGAGCGGGAGGGTTCCGCCACTCCAGTTTT
CTCCTCTGCTTCTTTGCCTCCCTCAGATAGAAAACAGCCCCCACTCCAGTCCACTCCTGACCCCTCTCCTCAAGG
GAAGGCCTTGGGTGGCCCCCTCTCCTTCTCCTAGCTCTGGAGGTGCTGCTCTAGGGCAGGGAATTATGGGAGAAG
TGGGGGCAGCCCAGGCGGTTTCACGCCCCACACTTTGTACAGACCGAGAGGCCAGTTGATCTGCTCTGTTTTATA
CTAGTGACAATAAAGATTATTTTTTGATAC

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FIGURE 786

CGAGACCAGCCTGACCAACATGGAGAAACCCTGTCTCTACTAAAAATACAAAATTAGCCAGGCGTGGTGGCACAT
GCCTGTAATCCCAGCTAATTTTTGTACTTTTTGTAGAGACAGGGTCTCACCATGTTGCCCAGGCTGGTCCTGAAC
TCCTGGGCTCAAGTAATCTGCCCACCTCAGCCTCCCAAAGTGTTGGGGTTACAGGCGTGAGGCACCGCGGCTGGC
CTGAGTTTCTTCTTAATACTGTATCACAATTGTGGGCTGTCTTATGTGTTGATATCGATTGAGCTATTTGAAATA
GGAATGTTAATGGGTGTATTAAATTTTTGTAAGGATATAACAATATCTACCTTCCAAGGATGTTGTGAGGTTTTC
CATGATTTTGTATATGAGCTAATGTTACCTTTGAGGGGTGGTGTGCATTATGTTGGATGATTGTAAATTTTCAGT
GGAAAATGTACCGTGTCCTAAATTTAAAGACATGAAAAATATCCCAAGATCATACTAGATCATAATAGCAATTCC
TTTACAAATGAATTATGGAGGTAACTGATCTCTAACAGTTTCCTTCATGTTGTTTTA**ATG**CACAAGGGCAGAGGA
TCTGCTGACCCTTGGAACCAGCGTGAGCTAACCACGTGCTATAGACACTTCATGGTGTCGCACCCAGGGAAGTCA
AAGCGCTTTGCTCCCTCACTGTCTGTGAGTCCTCAGCCATTAGTACCCCACCCCCCGCTGCTCCAAAACTTGAGT
TATTTCAAATGTTTCTCACTGTTCATCTCTCCACTGACCCCACTCCAGAAAGCCTGGAGAGAGTCCCAAGATGCC
ACCCACCTTCCCCAATCCCTCGCCACAGATCTGTGTCTATCTCACACTCTG**TAA**GTGCCGCTTTGCTTCTTCCTC
TCTTGAAAAGACTGAGAACACACATTTTAACATGTTAGGAAAATGGGGCAGCCTAAAAAATGACTGATCCCACCG
CCAGTGACTCATGTATACTCCAGGCTAGCAGACAAGGCCCTTTTTGGTGGGCCTGCTTCTGTGGGTTCACAGAAA
CCAAATTACTGTGGGTTGCAAAGAATTAGCAGGTCATTTACAAAGCAGACATCCCTTCACCCAGACTGTGGTTTT
GCATGCTCAGGTTCTCAGTCTATGAGCTTTGGTGCAGGATCATTTTGGCTACTGGAAAAACCATAGCTTATTTTA
AATTTCTGGTTGCCAAAGCCACCACACGTGTGGTCTGTGGATGACCATTGTCTGCAGAATGACGAGGAAGGAACA
GAATGTGGTTTGGGGCTCAGGGTGGCCTTCCCACTGGGAGGGAAGGCGGGAGGGAGCCCTTGCCCTGGGTTTTGA
CACAGCCTGTGCTCACAGCCTCTCCTCTCATCTGCATTTCTCAGAAATGCCCTCCCTGCCCAGTGGTGACTTTCC
CTCGTCACTCCTATGGAGTTCTACCTGGAGCCCAGCCATGTGTGGAACTGTGAAGTTTACTCCTCTGTAAAGATG
GTTTAAAGAAAGTCAGCTTCTGAAATGTAACAATGCTAACCCTTGCTGGAACCCTGTAAGAAATAGCCCTGCTGA
TAGTTTTCTAGGTTTATCATGTTTGATTTTTACACTGAAAAATAAAAAAATCCTGGTATGTTTG

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FIGURE 787

GGCCGCG**ATG**AGCGGGGAGCCGGGGCAGACGTCCGTAGCGCCCCCTCCCGAGGAGGTCGAGCCGGGCAGTGGGGT
CCGCATCGTGGTGGAGTACTGTGAACCCTGCGGCTTCGAGGCGACCTACCTGGAGCTGGCCAGTGCTGTGAAGGA
GCAGTATCCGGGCATCGAGATCGAGTCGCGCCTCGGGGGCACAGGTGCCTTTGAGATAGAGATAAATGGACAGCT
GGTGTTCTCCAAGCTGGAGAATGGGGGCTTTCCCTATGAGAAAGATCTCATTGAGGCCATCCGAAGAGCCAGTAA
TGGAGAAACCCTAGAAAAGATCACCAACAGCCGTCCTCCCTGCGTCATCCTG**TGA**CTGCACAGGACTCTGGGTTC
CTGCTCTGTTCTGGGGTCCAAACCTTGGTCTCCCTTTGGTCCTGCTGGGAGCTCCCCCTGCCTCTTTCCCCTACT
TAGCTCCTTAGCAAAGAGACCCTGGCCTCCACTTTGCCCTTTGGGTACAAAGAAGGAATAGAAGATTCCGTGGCC
TTGGGGGCAGGAGAGAGACACTCTCCATGAACACTTCTCCAGCCACCTCATACCCCCTTCCCAGGGTAAGTGCCC
ACGAAAGCCCAGTCCACTCTTCGCCTCGGTAATACCTGTCTGATGCCACAGATTTTATTTATTCTCCCCTAACCC
AGGGCAATGTCAGCTATTGGCAGTAAAGTGGCGCTACAAACACT

FIGURE 788A

CGCGCGCCCGGCCCCCACCCCTCGCAGCACCCCGCGCCCCGCGCCCTCCCAGCCGGGTCCAGCCGGAGCCATGGG
GCCGGAGCCGCAGTGAGCACC**ATG**GAGCTGGCGGCCTTGTGCCGCTGGGGGCTCCTCCTCGCCCTCTTGCCCCCC
GGAGCCGCGAGCACCCAAGTGTGCACCGGCACAGACATGAAGCTGCGGCTCCCTGCCAGTCCCGAGACCCACCTG
GACATGCTCCGCCACCTCTACCAGGGCTGCCAGGTGGTGCAGGGAAACCTGGAACTCACCTACCTGCCCACCAAT
GCCAGCCTGTCCTTCCTGCAGGATATCCAGGAGGTGCAGGGCTACGTGCTCATCGCTCACAACCAAGTGAGGCAG
GTCCCACTGCAGAGGCTGCGGATTGTGCGAGGCACCCAGCTCTTTGAGGACAACTATGCCCTGGCCGTGCTAGAC
AATGGAGACCCGCTGAACAATACCACCCCTGTCACAGGGGCCTCCCCAGGAGGCCTGCGGGAGCTGCAGCTTCGA
AGCCTCACAGAGATCTTGAAAGGAGGGGTCTTGATCCAGCGGAACCCCCAGCTCTGCTACCAGGACACGATTTTG
TGGAAGGACATCTTCCACAAGAACAACCAGCTGGCTCTCACACTGATAGACACCAACCGCTCTCGGGCCTGCCAC
CCCTGTTCTCCGATGTGTAAGGGCTCCCGCTGCTGGGGAGAGAGTTCTGAGGATTGTCAGAGCCTGACGCGCACT
GTCTGTGCCGGTGGCTGTGCCCGCTGCAAGGGGCCACTGCCCACTGACTGCTGCCATGAGCAGTGTGCTGCCGGC
TGCACGGGCCCCAAGCACTCTGACTGCCTGGCCTGCCTCCACTTCAACCACAGTGGCATCTGTGAGCTGCACTGC
CCAGCCCTGGTCACCTACAACACAGACACGTTTGAGTCCATGCCCAATCCCGAGGGCCGGTATACATTCGGCGCC
AGCTGTGTGACTGCCTGTCCCTACAACTACCTTTCTACGGACGTGGGATCCTGCACCCTCGTCTGCCCCCTGCAC
AACCAAGAGGTGACAGCAGAGGATGGAACACAGCGGTGTGAGAAGTGCAGCAAGCCCTGTGCCCGAGTGTGCTAT
GGTCTGGGCATGGAGCACTTGCGAGAGGTGAGGGCAGTTACCAGTGCCAATATCCAGGAGTTTGCTGGCTGCAAG
AAGATCTTTGGGAGCCTGGCATTTCTGCCGGAGAGCTTTGATGGGGACCCAGCCTCCAACACTGCCCCGCTCCAG
CCAGAGCAGCTCCAAGTGTTTGAGACTCTGGAAGAGATCACAGGTTACCTATACATCTCAGCATGGCCGGACAGC
CTGCCTGACCTCAGCGTCTTCCAGAACCTGCAAGTAATCCGGGGACGAATTCTGCACAATGGCGCCTACTCGCTG
ACCCTGCAAGGGCTGGGCATCAGCTGGCTGGGGCTGCGCTCACTGAGGGAACTGGGCAGTGGACTGGCCCTCATC
CACCATAACACCCACCTCTGCTTCGTGCACACGGTGCCCTGGGACCAGCTCTTTCGGAACCCGCACCAAGCTCTG
CTCCACACTGCCAACCGGCCAGAGGACGAGTGTGTGGGCGAGGGCCTGGCCTGCCACCAGCTGTGCGCCCGAGGG
CACTGCTGGGGTCCAGGGCCCACCCAGTGTGTCAACTGCAGCCAGTTCCTTCGGGGCCAGGAGTGCGTGGAGGAA
TGCCGAGTACTGCAGGGGCTCCCCAGGGAGTATGTGAATGCCAGGCACTGTTTGCCGTGCCACCCTGAGTGTCAG
CCCCAGAATGGCTCAGTGACCTGTTTTGGACCGGAGGCTGACCAGTGTGTGGCCTGTGCCCACTATAAGGACCCT
CCCTTCTGCGTGGCCCGCTGCCCCAGCGGTGTGAAACCTGACCTCTCCTACATGCCCATCTGGAAGTTTCCAGAT
GAGGAGGGCGCATGCCAGCCTTGCCCCATCAACTGCACCCACTCCTGTGTGGACCTGGATGACAAGGGCTGCCCC
GCCGAGCAGAGAGCCAGCCCTCTGACGTCCATCATCTCTGCGGTGGTTGGCATTCTGCTGGTCGTGGTCTTGGGG
GTGGTCTTTGGGATCCTCATCAAGCGACGGCAGCAGAAGATCCGGAAGTACACGATGCGGAGACTGCTGCAGGAA
ACGGAGCTGGTGGAGCCGCTGACACCTAGCGGAGCGATGCCCAACCAGGCGCAGATGCGGATCCTGAAAGAGACG
GAGCTGAGGAAGGTGAAGGTGCTTGGATCTGGCGCTTTTGGCACAGTCTACAAGGGCATCTGGATCCCTGATGGG
GAGAATGTGAAAATTCCAGTGGCCATCAAAGTGTTGAGGGAAAACACATCCCCCAAAGCCAACAAAGAAATCTTA
GACGTAAGCATACGTGATGGCTGGTGTGGGCTCCCCATATGTCTCCCGCCTTCTGGGCATCTGCCTGACATCCAC
GGTGCAGCTGGTGACACAGCTTATGCCCTATGGCTGCCTCTTAGACCATGTCCGGGAAAACCGCGGACGCCTGGG
CTCCCAGGACCTGCTGAACTGGTGTATGCAGATTGCCAAGGGGATGAGCTACCTGGAGGATGTGCGGCTCGTACA
CAGGGACTTGGCCGCTCGGAACGTGCTGGTCAAGAGTCCCAACCATGTCAAAATTACAGACTTCGGGCTGGCTCG
GCTGCTGGACAT**TGA**CGAGACAGAGTACCATGCAGATGGGGGCAAGGTGCCCATCAAGTGGATGGCGCTGGAGTC
CATTCTCCGCCGGCGGTTCACCCACCAGAGTGATGTGTGGAGTTATGGTGTGACTGTGTGGGAGCTGATGACTTT
TGGGGCCAAACCTTACGATGGGATCCCAGCCCGGGAGATCCCTGACCTGCTGGAAAAGGGGGAGCGGCTGCCCCA
GCCCCCCATCTGCACCATTGATGTCTACATGATCATGGTCAAATGTTGGATGATTGACTCTGAATGTCGGCCAAG
ATTCCGGGAGTTGGTGTCTGAATTCTCCCGCATGGCCAGGGACCCCCAGCGCTTTGTGGTCATCCAGAATGAGGA
CTTGGGCCCAGCCAGTCCCTTGGACAGCACCTTCTACCGCTCACTGCTGGAGGACGATGACATGGGGGACCTGGT
GGATGCTGAGGAGTATCTGGTACCCCAGCAGGGCTTCTTCTGTCCAGACCCTGCCCCGGGCGCTGGGGGCATGGT
CCACCACAGGCACCGCAGCTCATCTACCAGGAGTGGCGGTGGGGACCTGACACTAGGGCTGGAGCCCTCTGAAGA
GGAGGCCCCCAGGTCTCCACTGGCACCCTCCGAAGGGGCTGGCTCCGATGTATTTGATGGTGACCTGGGAATGGG
GGCAGCCAAGGGGCTGCAAAGCCTCCCCACACATGACCCCAGCCCTCTACAGCGGTACAGTGAGGACCCCACAGT
ACCCCTGCCCTCTGAGACTGATGGCTACGTTGCCCCCCTGACCTGCAGCCCCCAGCCTGAATATGTGAACCAGCC
AGATGTTCGGCCCCAGCCCCCTTCGCCCCGAGAGGGCCCTCTGCCTGCTGCCCGACCTGCTGGTGCCACTCTGGA

FIGURE 788B

AAGGCCCAAGACTCTCTCCCCAGGGAAGAATGGGGTCGTCAAAGACGTTTTTGCCTTTGGGGGTGCCGTGGAGAA
CCCCGAGTACTTGACACCCCAGGGAGGAGCTGCCCCTCAGCCCCACCCTCCTCCTGCCTTCAGCCCAGCCTTCGA
CAACCTCTATTACTGGGACCAGGACCCACCAGAGCGGGGGGCTCCACCCAGCACCTTCAAAGGGACACCTACGGC
AGAGAACCCAGAGTACCTGGGTCTGGACGTGCCAGTGTGAACCAGAAGGCCAAGTCCGCAGAAGCCCTGATGTGT
CCTCAGGGAGCAGGGAAGGCCTGACTTCTGCTGGCATCAAGAGGTGGGAGGGCCCTCCGACCACTTCCAGGGGAA
CCTGCCATGCCAGGAACCTGTCCTAAGGAACCTTCCTTCCTGCTTGAGTTCCCAGATGGCTGGAAGGGGTCCAGC
CTCGTTGGAAGAGGAACAGCACTGGGGAGTCTTTGTGGATTCTGAGGCCCTGCCCAATGAGACTCTAGGGTCCAG
TGGATGCCACAGCCCAGCTTGGCCCTTTCCTTCCAGATCCTGGGTACTGAAAGCCTTAGGGAAGCTGGCCTGAGA
GGGGAAGCGGCCCTAAGGGAGTGTCTAAGAACAAAAGCGACCCATTCAGAGACTGTCCCTGAAACCTAGTACTGC
CCCCCATGAGGAAGGAACAGCAATGGTGTCAGTATCCAGGCTTTGTACAGAGTGCTTTTCTGTTTAGTTTTTACT
TTTTTTGTTTTGTTTTTTTAAAGATGAAATAAAGACCCAGGGGGAGAATGGGTGTTGTATGGGGAGGCAAGTGTG
GGGGGTCCTTCTCCACACCCACTTTGTCCATTTGCAAATATATTTTGGAAAAC

FIGURE 789

ATACTCCTAAGCTCCTCCCCCGGCGGCGAGCCAGGGAGAAAGGATGGCCGGCCTGGCGGCGCGGTTGGTCCTGCT
AGCTGGGGCAGCGGCGCTGGCGAGCGGCTCCCAGGGCGACCGTGAGCCGGTGTACCGCGACTGCGTACTGCAGTG
CGAAGAGCAGAACTGCTCTGGGGGCGCTCTGAATCACTTCCGCTCCCGCCAGCCAATCTACATGAGTCTAGCAGG
CTGGACCTGTCGGGACGACTGTAAGTATGAGTGTATGTGGGTCACCGTTGGGCTCTACCTCCAGGAAGGTCACAA
AGTGCCTCAGTTCCATGGCAAGTGGCCCTTCTCCCGGTTCCTGTTCTTTCAAGAGCCGGCATCGGCCGTGGCCTC
GTTTCTCAATGGCCTGGCCAGCCTGGTGATGCTCTGCCGCTACCGCACCTTCGTGCCAGCCTCCTCCCCCATGTA
CCACACCTGTGTGGCCTTCGCCTGGGTGTCCCTCAATGCATGGTTCTGGTCCACAGTTTTCCACACCAGGGACAC
TGACCTCACAGAGAAAATGGACTACTTCTGTGCCTCCACTGTCATCCTACACTCAATCTACCTGTGCTGCGTCAG
GTGAGCCTGCCTGGGTGGCTGCAGGGGCAAAATCGAACCCTGGGGGCAGAAAGGGGTCACCCAGCCTTCCCCTGG
GGGCCTTCTTCACTAGTCTCCCAACACCTANCGCCCCCCAANCCCCCAACACATCAGCTGTCCTGGGTGAGGACT
CTGGGGTAGGACTGGGGGCCCTGGCTCCTGACAAGGAGCTGTAGCACTTGCTGCCCAGCTGTGGCCTGTTTGGTG
GGGAGAGGGGTAGTGACTTCAGGGGCCATGCACCAATGTTGGGGGGAGGAGATGCTTCAGGGAATGCTGCTCTGG
GGATGGGCCACCTGCCCTCTGAGCAACCCTGGACGGTGGGGCAGGACCGTGGGGCTGCAGCACCCAGCTGTGGTC
AGTGCCTTCCGGGCTCTCCTGCTGCTCATGCTGACCGTGCACGTCTCCTACCTGAGCCTCATCCGCTTCGACTAT
GGCTACAACCTGGTGGCCAACGTGGCTATTGGCCTGGTCAACGTGGTGTGGTGGCTGGCCTGGTGCCTGTGGAAC
CAGCGGCGGCTGCCTCACGTGCGCAAGTGCGTGGTGGTGGTCTTGCTGCTGCAGGGGCTGTCCCTGCTCGAGCTG
CTTGACTTCCCACCGCTCTTCTGGGTCCTGGATGCCCATGCCATCTGGCACATCAGCACCATCCCTGTCCACGTC
CTCTTTTTCAGCTTTCTGGAAGATGACAGCCTGTACCTGCTGAAGGAATCAGAGGACAAGTTCAAGCTGGACTGA
AGACCTTGGAGCGAGTCTGCCCCAGTGGGGATCCTGCCCCCGCCCTGCTGGCCTCCCTTCTCCCCTCAACCCTTG
AGATGATTTTCTCTTTTCAACTTCTTGAACTTGGAC**ATG**AAGGATGTGGGCCCAGAATCATGTGGCCAGCCCACC
CCCTGTTGGCCCTCACCAGCCTTGGAGTCTGTTCTAGGGAAGGCCTCCCAGCATCTGGGACTCGAGAGTGGGCAG
CCCCTCTACCTCCTGGAGCTGAACTGGGGTGGAACTGAGTGTGCTCTTAGCTCTACCGGGAGGACAGCTGCCTGT
TTCCTCCCCATCAGCCTCCTCCCCACATCCCCAGCTGCCTGGCTGGGTCCTGAAGCCCTCTGTCTACCTGGGAGA
CCAGGGACCACAGGCCTTAGGGATACAGGGGGTCCCCTTCTGTTACCACCCCCCACCCTCCTCCAGGACACCACT
AGGTGGTGCTGGATGCTTGTTCTTTGGCCAGCCAAGGTTCACGGCGATTCTCCCCATGGGATCTTGAGGGACCAA
GCTGCTGGGATTGGGAAGGAGTTTCACCCTGACCATTGCCCTAGCCAGGTTCCCAGGAGGCCTCACCATACTCCC
TTTCAGGGCCAGGGCTCCAGCAAGCCCAGGGCAAGGATCCTGTGCTGCTGTCTGGTTGAGAGCCTGCCACCGTGT
GTCGGGAGTGTGGGCCAGGCTGAGTGCATAGGTGACAGGGCCGTGAGCATGGGCCTGGGTGTGTGTGAGCTCAGG
CCTAGGTGCGCAGTGTGGAGACGGGTGTTGTCGGGGAAGAGGTGTGGCTTCAAAGTGTGTGTGTGCAGGGGGTGG
GTGTGT**TAG**CGTGGGTTAGGGGAACGTGTGTGCGCGTGCTGGTGGGCATGTGAGATGAGTGACTGCCGGTGAATG
TGTCCACAGTTGAGAGGTTGGAGCAGGATGAGGGAATCCTGTCACCATCAATAATCACTTGTGGAGCGCCAGCTC
TGCCCAAGGCGCCACCTGGGCGGACAGCCAGGAGCTCTCCATGGCCAGGCTGCCTGTGTGCATGTTCCCTGTCTG
GTGCCCCTTTGCCCGCCTCCTGCAAACCTCACAGGGTCCCCACACAACAGTGCCCTCCAGAAGCAGCCCCTCGGA
GGCAGAGGAAGGAAAATGGGGATGGCTGGGGCTCTCTCCATCCTCCTTTTCTCCTTGCCTTCGCATGGCTGGCCT
TCCCCTCCAAAACCTCCATTCCCCTGCTGCCAGCCCCTTTGCCATAGCCTGATTTTGGGGAGGAGGAAGGGGCGA
TTTGAGGGAGAAGGGGAGAAAGCTTATGGCTGGGTCTGGTTTCTTCCCTTCCCAGAGGGTCTTACTGTTCCAGGG
TGGCCCCAGGGCAGGCAGGGGCCACACTATGCCTGCGCCCTGGTAAAGGTGACCCCTGCCATTTACCAGCAGCCC
TGGCATGTTCCTGCCCCACAGGAATAGAATGGAGGGAGCTCCAGAAACTTTCCATCCCAAAGGCAGTCTCCGTGG
TTGAAGCAGACTGGATTTTTGCTCTGCCCCTGACCCCTTGTCCCTCTTTGAGGGAGGGGAGCTATGCTAGGACTC
CAACCTCAGGGACTCGGGTGGCCTGCGCTAGCTTCTTTTGATACTGAAAACTTTTAAGGTGGGAGGGTGGCAAGG
GATGTGCTTAATAAATCAATTCCAAGCCTC

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FIGURE 790

GCTACTGAGGCCGCGGAGCCGGACTGCGGTTGGGGCGGGAAGAGCCGGGGCCGTGGCTGACATGGAGCAGCCCTG
CTGCTGAGGCCGCGCCCTCCCCGCCCTGAGGTGGGGGCCCACCAGG**ATG**AGCAAGCTGCCCAGGGAGCTGACCCG
AGACTTGGAGCGCAGCCTGCCTGCCGTGGCCTCCCTGGGCTCCTCACTGTCCCACAGCCAGAGCCTCTCCTCGCA
CCTCCTTCCGCCGCCTGAGAAGCGAAGGGCCATCTCTGATGTCCGCCGCACCTTCTGTCTCTTCGTCACCTTCGA
CCTGCTCTTCATCTCCCTGCTCTGGATCATCGAACTGAATACCAACACAGGCATCCGTAAGAACTTGGAGCAGGA
GATCATCCAGTACAACTTTAAAACTTCCTTCTTCGACATCTTTGTCCTGGCCTTCTTCCGCTTCTCTGGACTGCT
CCTAGGCTATGCCGTGCTGCGGCTCCGGCACTGGTGGGTGATTGCGGTCACGACGCTGGTGTCCAGTGCATTCCT
CATTGTCAAGGTCATCCTCTCTGAGCTGCTCAGCAAAGGGGCATTTGGCTACCTGCTCCCCATCGTCTCTTTTGT
CCTCGCCTGGTTGGAGACCTGGTTCCTTGACTTCAAAGTCCTACCCCAGGAAGCTGAAGAGGAGCGATGGTATCT
TGCCGCCCAGGTTGCTGTTGCCCGTGGACCCCTGCTGTTCTCCGGTGCTCTGTCCGAGGGACAGTTCTATTCACC
CCCAGAATCCTTTGCAGGGTCTGACAATGAATCAGATGAAGAAGTTGCTGGGAAGAAAAGTTTCTCTGCTCAGGA
GCGGGAGTACATCCGCCAGGGGAAGGAGGCCACGGCAGTGGTGGACCAGATCTTGGCCCAGGAAGAGAACTGGAA
GTTTGAGAAGAATAATGAATATGGGGACACCGTGTACACCATTGAAGTTCCCTTTCACGGCAAGACGTTTATCCT
GAAGACCTTCCTGCCCTGTCCTGCGGAGCTCGTGTACCAGGAGGTGATCCTGCAGCCCGAGAGGATGGTGCTGTG
GAACAAGACAGTGACTGCCTGCCAGATCCTGCAGCGAGTGGAAGACAACACCCTCATCTCCTATGACGTGTCTGC
AGGGGCTGCGGGCGGCGTGGTCTCCCCAAGGGACTTCGTGAATGTCCGGCGCATTGAGCGGCGCAGGGACCGATA
CTTGTCATCAGGGATCGCCACCTCACACAGTGCCAAGCCCCCGACGCACAAATATGTCCGGGGAGAGAATGGCCC
TGGGGGCTTCATCGTGCTCAAGTCGGCCAGTAACCCCCGTGTTTGCACCTTTGTCTGGATTCTTAATACAGATCT
CAAGGGCCGCCTGCCCCGGTACCTCATCCACCAGAGCCTCGCGGCCACCATGTTTGAATTTGCCTTTCACCTGCG
ACAGCGCATCAGCGAGCTGGGGGCCCGGGCG**TGA**CTGTGCCCCCTCCCACCCTGCGGGCCAGGGTCCTGTCGCCA
CCACTTCCAGAGCCAGAAAGGGTGCCAGTTGGGCTCGCACTGCCCACATGGGACCTGGCCCCAGGCTGTCACCCT
CCACCGAGCCACGCAGTGCCTGGAGTTGACTGACTGAGCAGGCTGTGGGGTGGAGCACTGGACTCCGGGGCCCCA
CTGGCTGGAGGAAGTGGGGTCTGGCCTGTTGATGTTTACATGGCGCCCTGCCTCCTGGAGGACCAGATTGCTCTG
CCCCACCTTGCCAGGGCAGGGTCTGGGCTGGGCACCTGACTTGGCTGGGGAGGACCAGGGCCCTGGGCAGGGCAG
GGCAGCCTGTCACCCGTGTGAAGATGAAGGGGCTCTTCATCTGCCTGCGCTCTCGTCGGTTTTTTTAGGATTATT
GAAAGAGTCTGGGACCCTTGTTGGGGAGTGGGTGGCAGGTGGGGGTGGGCTGCTGGCCATGAATCTCTGCCTCTC
CCAGGCTGTCCCCCTCCTCCCAGGGCCTCCTGGGGGACCTTTGTATTAAGCCAATTAAAAACATGAATTT

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FIGURE 791

TTCATTTCTCACAAGGACTGGGTGAAGAGTTCTGCAGCCTTACAGAGACTGGAAAAGAAGCCCAAACCAAGGCCC
CCAGAGAGGTCCCCCAGGCCCCTTTGGGTCCCTGAGCCTCAGCTGGAGGTGGGGGGTGCCTGCAGTGCGCTGGCT
CAGTCTCCTTCTGAAAAGCTGGATCCAGCTTGTTTGAAGCCCTTGAGCTGATCTTAGATCCGGCGCAGGAGACCA
ACGCCTGCC**ATG**CTGTTCCGGCTCTCAGAGCACTCCTCACCAGAGGAGGAAGCCNTCCCCCCACCAGAGAGCCTC
AGGAGAGGGGCACCATCTCAAGTCGAAGAGACCCAACCCCTGTGCCTACACACCACCTTCGCTGAAAGCTGTGCA
GCGCATTGC**TGA**GTCTCACCTGCAGTCTATCAGCAATTTGAATGAGAACCAGGCCTCAGAGGAGGAGGATGAGCT
GGGGGAGCTTCGGGAGCTGGGTTATCCAAGAGAGGAAGATGAGGAGGAAGAGGAGGATGATGAAGAAGAGGAAGA
AGAAGAGGACAGCCAGGCTGAAGTCCTGAAGGTCATCAGGCAGTCTGCTGGGCAAAAGACAACCTGTGGCCAGGG
TCTGGAAGGGCCCTGGGAGCGCCCACCCCCTCTGGATGAGTCCGAGAGAGATGGAGGCTCTGAGGACCAAGTGGA
AGACCCAGCACTAAGTGAGCCTGGGGAGGAACCTCAGCGCCCTTCCCCCTCTGAGCCTGGCACATAGGCACCCAG
CCTGCATCTCCCAGGAGGAAGTGGAGGGGACATCGCTGTTCCCCAGAAACCCACTCTATCCTCACCCTGTTTTGT
GCTCTTCCCCTCGCCTGCTAGGGCTGCGGCTTCTGACTTCTAGAAGACTAAGGCTGGTCTGTGTTTGCTTGTTTG
CCCACCTTTGGCTGATACCCAGAGAACCTGGGCACTTGCTGCCTGATGCCCACCCCTGCCAGTCATTCCTCCATT
CACCCAGCGGGAGGTGGGATGTGAGACAGCCCACATTGGAAAATCCAGAAAACCGGGAACAGGGATTTGCCCTTC
ACAATTCTACTCCCCAGATCCTCTCCCCTGGACACAGGAGACCCACAGGGCAGGACCCTAAGATCTGGGGAAAGG
AGGTCCTGAGAACCTTGAGGTACCCTTAGATCCTTTTCTACCCACTTTCCTATGGAGGATTCCAAGTCACCACTT
CTCTCACCGGCTTCTACCAGGGTCCAGGACTAAGGCGTTTTTCTCCATAGCCTCAACATTTTGGGAATCTTCCCT
TAATCACCCTTGCTCCTCCTGGGTGCCTGGAAGATGGACTGGCAGAGACCTCTTTGTTGCGTTTTGTGCTTTGAT
GCCAGGAATGCCGCCTAGTTTATGTCCCCGGTGGGGCACACAGCGGGGGGCGCCAGGTTTTCCTTGTCCCCCAGC
TGCTCTGCCCCTTTCCCCTTCTTCCCTGACTCCAGGCCTGAACCCCTCCCGTGCTGTAATAAATCTTTGTAAATA
AC

FIGURE 792A

CTTTTTTCCCTTCTTCAGGTCAGGGGAAAGGGA**ATG**CCCAATTCAGAGAGACATGGGGGCAAGAAGGACGGGAGT
GGAGGAGCTTCTGGAACTTTGCAGCCGTCATCGGGAGGCGGCAGCTCTAACAGCAGAGAGCGTCACCGCTTGGTA
TCGAAGCACAAGCGGCATAAGTCCAAACACTCCAAAGACATGGGGTTGGTGACCCCCGAAGCAGCATCCCTGGGC
ACAGTTATCAAACCTTTGGTGGAGTATGATGATATCAGCTCTGATTCCGACACCTTCTCCGATGACATGGCCTTC
AAACTAGACCGAAGGGAGAACGACGAACGTCGTGGATCAGATCGGAGCGACCGCCTGCACAAACATCGTCACCAC
CAGCACAGGCGTTCCCGGGACTTACTAAAAGCTAAACAGACCGAAAAAGAAAAAAGCCAAGAAGTCTCCAGCAAG
TCGGGATCGATGAAGGACCGGATATCGGGAAGTTCAAAGCGTTCGAATGAGGAGACTGATGACTATGGGAAGGCG
CAGGTAGCCAAAAGCAGCAGCAAGGAATCCAGGTCATCCAAGCTCCACAAGGAGAAGACCAGGAAAGAACGGGAG
CTGAAGTCTGGGCACAAAGACCGGAGTAAAAGTCATCGAAAAAGGGAAACACCCAAAAGTTACAAAACAGTGGAC
AGCCCAAAACGGAGATCCAGGAGCCCCCACAGGAAGTGGTCTGACAGCTCCAAACAAGATGATAGCCCCTCGGGA
GCTTCTTATGGCCAAGATTATGACCTTAGTCCCTCACGATCTCATACCTCGAGCAATTATGACTCCTACAAGAAA
AGTCCTGGAAGTACCTCGAGAAGGCAGTCGGTCAGTCCCCCTTACAAGGAGCCTTCGGCCTACCAGTCCAGCACC
CGGTCACCGAGCCCCTACAGTAGGCGACAGAGATCTGTCAGTCCCTATAGCAGGAGACGGTCGTCCAGCTACGAA
AGAAGTGGCTCTTACAGCGGGCGATCGCCCAGTCCCTATGGTCGAAGGCGGTCCAGCAGCCCTTTCCTGAGCAAG
CGGTCTCTGAGTCGGAGTCCACTCCCCAGTAGGAAATCCATGAAGTCCAGAAGTAGAAGTCCTGCATATTCAAGA
CATTCATCTTCTCATAGTAAAAAGAAGAGATCCAGTTCACGCAGTCGTCATTCCAGTATCTCACCTGTCAGGCTT
CCACTTAATTCCAGTCTGGGAGCTGAACTCAGTAGGAAAAAGAAGGAAAGAGCAGCTGCTGCTGCTGCAGCAAAG
ATGGATGGAAAGGAGTCCAAGGGTTCACCTGTATTTTTGCCTAGAAAAGAGAACAGTTCAGTAGAGGCTAAGGAT
TCAGGTTTGGAGTCTAAAAAGTTACCCAGAAGTGTAAAATTGGAAAAATCTGCCCCAGATACTGAACTGGTGAAT
GTAACACATCTAAACACAGAGGTAAAAAATTCTTCAGATACAGGGAAAGTAAAGTTGGATGAGAACTCCGAGAAG
CATCTTGTTAAAGATTTGAAAGCACAGGGAACAAGAGACTCTAAACCCATAGCACTGAAAGAGGAGATTGTTACT
CCAAAGGAGACAGAAACATCAGAAAAGGAGACCCCTCCACCTCTTCCCACAATTGCTTTTCCCCCAACCCCCCTT
TACCAACTACTACCCCTCCACCTCAGACACCCCCTTTGCCACCTTTGCCTCCAATACCAGCTCTTCCACAGCAAC
CACCTCTGCCTCCTTCTCAGCCAGCATTTAGTCAGGTTCCTGCTTCCAGTACTTCAACTTTGCCCCCTTCTACTC
ACTCAAAGACATCTGCTGTGTCCTCTCAGGCAAATTCTCAGCCCCCTGTACAGGTTTCTG**TGA**AGACTCAAGTAT
CTGTAACAGCTGCTATTCCACACCTGAAAACTTCAACGTTGCCTCCTTTGCCCCTCCCACCCTTATTACCTGGAG
ATGATGACATGGATAGTCCAAAAGAAACTCTTCCTTCAAAACCTGTGAAGAAAGAGAAGGAACAGAGGACACGTC
ACTTACTCACAGACCTTCCTCTCCCTCCAGAGCTCCCTGGTGGAGATCTGTCTCCCCCAGACTCTCCAGAACCAA
AGGCAATCACACCACCTCAGCAACCATATAAAAAGAGACCAAAAATTTGTTGTCCTCGTTATGGAGAAAGAAGAC
AAACAGAAAGCGACTGGGGGAAACGCTGTGTGGACAAGTTTGACATTATTGGGATTATTGGAGAAGGAACCTATG
GCCAAGTATATAAAGCCAAGGACAAAGACACAGGAGAACTAGTGGCTCTGAAGAAGGTGAGACTAGACAATGAGA
AAGAGGGCTTCCCAATCACAGCCATTCGTGAAATCAAAATCCTTCGTCAGTTAATCCACCGAAGTGTTGTTAACA
TGAAGGAAATTGTCACAGATAAACAAGATGCACTGGATTTCAAGAAGGACAAAGTGGGCAAATCAAACTAGCAGA
TTTTGGACTTGCTCGGCTCTATAACTCTGAAGAGAGATGTATTCTTGGGGAACTATTCACAAAGAAGCCTATTTT
TCAAGCCAATCTGGAACTGGCTCAGCTAGAACTGATCAGCCGACTTTGTGGTAGCCCTTGTCCAGCTGTGTGGCC
TGATGTTATCAAACTGCCCTACTTCAACACCATGAAACCGAAGAAGCAATATCGAAGGCGTCTACGAGAAGAATT
CTCTTTCATTCCTTCTGCAGCACTTGATTTATTGGACCACATGCTGACACTAGATCCTAGTAAGCGGTGCACAGC
TGAACAGACCCTACAGAGCGACTTCCTTAAAGATGTCGAACTCAGCAAAATGGCTCCTCCAGACCTCCCCCACTG
GCAGGATTGCCATGAGTTGTGGAGTAAGAAACGGCGACGTCAGCGACAAAGTGGTGTTGTAGTCGAAGAGCCACC
TCCATCCAAAACTTCTCGAAAAGAAACTACCTCAGGGACAAGTACTGAGCCTGTGAAGAACAGCAGCCCAGCACC
ACCTCAGCCTGCTCCTGGCAAGGTGGAGTCTGGGGCTGGGGATGCAATAGGCCTTGCTGACATCACACAACAGCT
GAATCAAAGTGAATTGGCAGTGTTATTAAACCTGCTGCAGAGCCAAACCGACCTGAGCATCCCTCAAATGGCACA
GCTGCTTAACATCCACTCCAACCCAGAGATGCAGCAGCAGCTGGAAGCCCTGAACCAATCCATCAGTGCCCTGAC
GGAAGCTACTTCCCAGCAGCAGGACTCAGAGACCATGGCCCCAGAGGAGTCTTTGAAGGAAGCACCCTCTGCCCC
AGTGATCCTGCCTTCAGCAGAACAGACGACCCTTGAAGCTTCAAGCACACCAGCTGACATGCAGAATATATTGGC
AGTTCTCTTGAGTCAGCTGATGAAAACCCAAGAGCCAGCAGGCAGTCTGGAGGAAAACAACAGTGACAAGAACAG
TGGGCCACAGGGGCCCCGAAGAACTCCCACAATGCCACAGGAGGAGGCAGCAGCATGTCCTCCTCACATTCTTCC
ACCAGAGAAGAGGCCCCCTGAGCCCCCCGGACCTCCACCGCCGCCACCTCCACCCCCTCTGGTTGAAGGCGATCT

FIGURE 792B

TTCCAGCGCCCCCCAGGAGTTGAACCCAGCCGTGACAGCCGCCTTGCTGCAACTTTTATCCCAGCCTGAAGCAGA
GCCTCCTGGCCACCTGCCACATGAGCACCAGGCCTTGAGACCAATGGAGTACTCCACCCGACCCCGTCCAAACAG
GACTTATGGAAACACTGATGGGCCTGAAACAGGGTTCAGTGCCATTGACACTGATGAACGAAACTCTGGTCCAGC
CTTGACAGAATCCTTGGTCCAGACCCTGGTGAAGAACAGGACCTTCTCAGGCTCTCTGAGCCACCTTGGGGAGTC
CAGCAGTTACCAGGGCACAGGGTCAGTGCAGTTTCCAGGGGACCAGGACCTCCGTTTTGCCAGGGTCCCCTTAGC
GTTACACCCGGTGGTCGGGCAACCATTCCTGAAGGCTGAGGGAAGCAGCAATTCTGTGGTACATGCAGAGACCAA
ATTGCAAAACTATGGGGAGCTGGGGCCAGGAACCACTGGGGCCAGCAGCTCAGGAGCAGGCCTTCACTGGGGGGG
CCCAACTCAGTCTTCTGCTTATGGAAAACTCTATCGGGGGCCTACAAGAGTCCCACCAAGAGGGGGAAGAGGGAG
AGGAGTTCCTTACTAACCCAGAGACTTCAGTGTCCTGAAAGATTCCTTTCCTATCCATCCTTCCATCCAGTTCTC
TGAATCTTTAATGAAATCATTTGCCAGAGCGAGGTAATCATCTGCATTTGGCTACTGCAAAGCTGTCCGTTGTAT
TCCTTGCTCACTTGCTACTAGCAGGCGACTTACGAAATAATGATGTTGGCACCAGTTCCCCCTGGATGGGCTATA
GCCAGAACATTTACTTCAACTCTACCTTAGTAGATACAAGTAGAGAATATGGAGAGGATCATTACATTGAAAAGT
AAATGTTTTATTAGTTCATTGCCTGCACTTACTGATCGGAAGAGAGAAAGAACAGTTTCAGTATTGAGATGGCTC
AGGAGAGGCTCTTTGATTTTTAAAGTTTTGGGGTGGGGGGTTGTGTGTGGTTTCTTTCTTTTGAATTTTAATTTA
GGTGTTTTGGGTTTTTTTCCTTTAAAGAGAATAGTGTTCACAAAATTTGAGCTGCTCTTTGGCTTTTGCTATAAG
GGAAACAGAGTGGCCTGGCTGATTTGAATAAATGTTTCTTTCCTCTCCACCATCTCACATTTTGCTTTTAAGTGA
ACACTTTTTCCCCATTGAGCATCTTGAACATACTTTTTTTCCAAATAAATTACTCATCCTTAAAGTTTACTCCAC
TTTGACAAAAGATACGCCCTTCTCCCTGCACATAAAGCAGGTTGTAGAACGTGGCATTCTTGGGCAAGTAGGTAG
ACTTTACCCAGTCTCTTTCCTTTTTTGCTGATGTGTGCTCTCTCTCTCTCTTTCTCTCTCTCTCTCTCTCTCT
CTCTCTCTGTCTGTCTCGCTTGCTCGCTCTCGCTGTTTCTCTCTCTTTGAGGCATTTGTTTGGAAAAAATCGTTG
AGATGCCCAAGAACCTGGGATAATTCTTTACTTTTTTTGAAATAAAGGAAAGGAAATTC

FIGURE 793A

GGGAAGATGGCGGCGGCCTCGAGCACCCTTCTCTTCTTGCCGCCGGGGACTTCAGATTGATCCTTCCCGGGAAGA
GTAGGGACTGCTGGTGCCCTGCGTCCCGGGATCCCGAGCCAACTTGTTTCCTCCGTTAGTGGTGGGGAAGGGCTT
ATCCTTTTGTGGCGGATCTAGCTTCTCCTCGCCTTCAGGATGAAAGCTCAGGGGGAAACCGAGGAGTCAGAAAAG
CTGAGTAAGATGAGTTCTCTCCTGGAACGGCTCCATGCAAAATTTAACCAAAATAGACCCTGGAGTGAAACCATT
AAGCTTGTGCGTCAAGTCATGGAGAAGAGGGTTGTGATGAGTTCTGGAGGGCATCAACATTTGGTCAGCTGTTTG
GAGACATTGCAGAAGGCTCTCAAAGTAACATCTTTACCAGCAATGACTGATCGTTTGGAGTCCATAGCAAGACAG
AATGGACTGGGCTCTCATCTCAGTGCCAGTGGCACTGAATGTTACATCACGTCAGATATGTTCTATGTGGAAGTG
CAGTTAGATCCTGCAGGACAGCTTTGTGATGTAAAAGTGGCTCACCATGGGGAGAATCCTGTGAGCTGTCCGGAG
CTTGTACAGCAGCTAAGGGAAAAAAATTTTGATGAATTTTCTAAGCACCTTAAGGGCCTTGTTAATCTGTATAAC
CTTCCAGGGGACAACAAACTGAAGACTAAAATGTACTTGGCTCTCCAATCCTTAGAACAAGATCTTTCTAAAATG
GCAATTATGTACTGGAAAGCAACTAATGCTGGTCCCTTGGATAAGATTCTTCATGGAAGTGTTGGCTATCTCACA
CCAAGGAGTGGGGGTCATTTAATGAACCTGAAGTACTATGTCTCTCCTTCTGACCTACTGGATGACAAGACTGCA
TCTCCCATCATTTTGCATGAGAATAATGTTTCTCGATCTTTGGGCATGAATGCATCAGTGACAATTGAAGGAACA
TCTGCTGTGTACAAACTCCCAATTGCACCATTAATTATGGGGTCACATCCAGTTGACAATAAATGGACCCCTTCC
TTCTCCTCAATCACCAGTGCCAACAGTGTTGATCTTCCTGCCTGTTTCTTCTTGAAATTTCCCCAGCCAATCCCA
GTATCTAGAGCATTTGTTCAGAAACTGCAGAACTGCACAGGAATTCCATTGTTTGAAACTCAACCAACTTATGCA
CCCCTGTATGAACTGATCACTCAGTTTGAGCTATCAAAGGACCCTGACCCCATACCTTTGAATCACAACATGAGA
TTTTATGCTGCTCTTCCTGGTCAGCAGCACTGCTATTTCCTCAACAAGGATGCTCCTCTTCCAGATGGCCGAAGT
CTACAGGGAACCCTTGTTAGCAAAATCACCTTTCAGCACCCTGGCCGAGTTCCTCTTATCCTAAATCTGATCAGA
CACCAAGTGGCCTATAACACCCTCATTGGAAGCTGTGTCAAAAGAACTATTCTGAAAGAAGATTCTCCTGGGCTT
CTCCAATTTGAAGTGTGTCCTCTCTCAGAGTCTCGTTTCAGCGTATCTTTTCAGCACCCTGTGAATGACTCCCTG
GTGTGTGTGGTAATGGATGTGCAGGACTCAACACATGTGAGCTGTAAACTCTACAAAGGGCTGTCGGATGCACTG
ATCTGCACAGATGACTTCATTGCCAAAGTTGTTCAAAGATGTATGTCCATCCCTGTGACGATGAGGGCTATTCGG
AGGAAAGCTGAAACCATTCAAGCCGACACCCCAGCACTGTCCCTCATTGCAGAGACAGTTGAAGACATGGTGAAA
AAGAACCTGCCCCCGGCTAGCAGCCCAGGGTATGGCATGACCACAGGCAACAACCCAATGAGTGGTACCACTACA
CCAACCAACACCTTTCCGGGGGGTCCCATTACCACCTTGTTTAATATGAGCATGAGCATCAAAGATCGGCATGAG
TCGGTGGGCCATGGGGAGGACTTCAGCAAGGTGTCTCAGAACCCAATTCTTACCAGTTTGTTGCAAATCACAGGG
AACGGGGGGTCTACCATTGGCTCGAGTCCGACCCCTCCTCATCACACGCCGCCACCTGTCTCTTCGATGGCCGGC
AACACCAAGAACCACCCGATGCTCATGAACCTTCTTAAAGATAATCCTGCCCAGGATTTCTCAACCCTTTATGGA
AGCAGCCCTTTAGAAAGGCAGAACTCCTCTTCCGGCTCACCCCGCATGGAAATATGCTCGGGGAGCAACAAGACC
AAGAAAAAGAAGTCATCAAGATTACCACCTGAGAAACCAAAGCACCAGACTGAAGATGACTTTCAGAGGGAGCTA
TTTTCAATGGATGTTGACTCACAGAACCCTATCTTTGATGTCAACATGACAGCTGACACGCTGGATACGCCACAC
ATCACTCCAGCTCCAAGCCAGTGTAGCACTCCCCCAACAACTTACCCACAACCAGTACCTCACCCCCAACCCAGT
ATTCAAAGGATGGTCCGACTATCCAGTTCAGACAGCATTGGCCCAGATGTAACTGACATCCTTTCAGACATTGCA
GAAGAAGCTTCTAAACTTCCCAGCACTAGTGATGATTGCCCAGCCATTGGCACCCCTCTTCGAGATTCTTCAAGC
TCTGGGCATTCTCAGAGTACCCTGTTTGACTCTGATGTCTTTCAAACTAACAATAATGAAAATCCATACACTGAT
CCAGCTGATCTTATTGCAGATGCTGCTGGAAGCCCCAGTAGTGACTCTCCTACCAATCATTTTTTTCATGATGGA
GTAGATTTCAATCCTGATTTATTGAACAGCCAGAGCCAAAGTGGTTTTGGAGAAGAATATTTTGATGAAAGCAGC
CAAAGTGGGGATAATGATGATTTCAAAGGATTTGCATCTCAGGCACTAAATACTTTGGGGGTGCCAATGCTTGGA
GGTGATAATGGGGAGACCAAGTTTAAGGGCAATAACCAAGCCGACACAGTTGATTTCAGTATTATTTCAGTAGCC
GGCAAAGCTTTAGCTCCTGCAGATCTTATGGAGCATCACAGTGGTAGTCAGGGTCCTTTACTGACCACTGGGGAC
TTAGGGAAAGAAAAGACTCAAAAGAGGGTAAAGGAAGGCAATGGCACCAGTAATAGTACTCTCTCGGGGCCCGGA
TTAGACAGCAAACCAGGGAAGCGCAGTCGGACCCCTTCTAATGATGGGAAAAGCAAAGATAAGCCTCCAAAGCGG
AAGAAGGCAGACACTGAGGGAAAGTCTCCATCTCATAGTTCTTCTAACAGACCTTTTACCCCACCTACCAGTACA
GGTGGATCTAAATCGCCAGGCAGTGCAGGAAGATCTCAGACTCCCCCAGGTGTTGCCACACCACCCATTCCCAAA
ATCACTATTCAGATTCCTAAGGGAACAGTGATGGTGGGCAAGCCTTCCTCTCACAGTCAGTATACCAGCAGTGGT
TCTGTGTCTTCCTCAGGCAGCAAAAGCCACCATAGCCATTCTTCCTCCTCTTCCTCATCTGCTTCCACCTCAGGG
AAGATGAAAAGCAGTAAATCAGAAGGTTCATCAAGTTCCAAGTTAAGTAGCAGTATGTATTCTAGCCAGGGGTCT

FIGURE 793B

TCTGGATCTAGCCAGTCCAAAAATTCATCCCAGTCTGGGGGGAAGCCAGGCTCCTCTCCCATAACCAAGCATGGA
CTGAGCAGTGGCTCTAGCAGCACCAAGATGAAACCTCAAGGAAAGCCATCATCACTTATGAATCCTTCTTTAAGT
AAACCAAACATATCCCCTTCTCATTCAAGGCCACCTGGAGGCTCTGACAAGCTTGCCTCTCCAATGAAGCCTGTT
CCTGGAACTCCTCCATCCTCTAAAGCCAAGTCCCCTATCAGTTCAGGTTCTGGTGGTTCTCATATGTCTGGAACT
AGTTCAAGCTCTGGCATGAAGTCATCTTCAGGGTTAGGATCCTCAGGCTCGTTGTCCCAGAAAACTCCCCCATCA
TCTAATTCCTGTACGGCATCTTCCTCCTCCTTTTCCTCAAGTGGCTCTTCCATGTCATCCTCTCAGAACCAGCAT
GGGAGTTCTAAAGGAAAATCTCCCAGCAGAAACAAGAAGCCGTCCTTGACAGCTGTCATAGATAAACTGAAGCAT
GGGGTTGTCACCAGTGGCCCTGGGGGTGAAGACCCACTGGACGGCCAGATGGGGGTGAGCACAAATTCTTCCAGC
CATCCTATGTCCTCCAAACATAACATGTCAGGAGGAGAGTTTCAGGGCAAGCGTGAGAAAAGTGATAAAGACAAA
TCAAAGGTTTCCACCTCCGGGAGTTCAGTGGATTCTTCTAAGAAGACCTCAGAGTCAAAAAATGTGGGGAGCACA
GGTGTGGCAAAAATTATCATCAGTAAGCATGATGGAGGCTCCCCTAGCATTAAAGCCAAAGTGACTTTGCAGAAA
CCTGGGGAAAGTAGTGGAGAAGGGCTTAGGCCTCAAATGGCTTCTTCTAAAAACTATGGCTCTCCACTCATCAGT
GGTTCCACTCCAAAGCATGAGCGTGGCTCTCCCAGCCATAGTAAGTCACCAGCATATACCCCCCAGAATCTGGAC
AGTGAAAGTGAGTCAGGCTCCTCCATAGCAGAGAAATCTTATCAGAATAGTCCCAGCTCAGACGATGGTATCCGA
CCACTTCCAGAATACAGCACAGAGAAACATAAGAAGCACAAAAAGGAAAAGAAGAAAGTAAAAGACAAAGATAGG
GACCGAGACCGGGACAAAGACCGAGACAAGAAAAAATCTCATAGCATCAAGCCAGAGAGTTGGTCCAAATCACCC
ATCTCTTCAGACCAGTCCTTGTCTATGACAAGTAACACAATCTTATCTGCAGACAGACCCTCAAGGCTCAGCCCA
GACTTTATGATTGGGGAGGAAGATGATGATCTTATGGATGTGGCCCTGATTGGGAAT**TAG**GAACCTTATTTCCTA
AAAGAAACAGGGCCAGAGGAAAAAAAACTATTGATAAGTTTATAGGCAAACCACCATAAGGGGTGAGTCAGACAG
GTCTGATTTGGTTAAGAATCCTAAATGGCATGGCTTTGACATCAAGCTGGGTGAATTAGAAAGGCATATCCAGAC
CCTATTAAAGAAACCACAGGGTTTGATTCTGGTTACCAGGAAGTCTTCTTTGTTCCTGTGCCAGAAAGAAAGTTA
AAATACTTGCTTAAGAAAGGGAGGGGGGTGGGAGGGGTGTAGGGAGAGGGAAGGGAGGGAAACAGTTTTGTGGGA
AATATTCATATATATTTTCTTCTCCCTTTTTCCATTTTTAGGCCATGTTTTAAACTCATTTTAGTGCATGTATAT
GAAGGGCTGGGCAGAAAATGAAAAAGCAATACATTCCTTGATGCATTTGCATGAAGGTTGTTCAACTTTGTTTGA
GGTAGTTGTCCGTTTGAGTCATGGGCAAATGAAGGACTTTGGTCATTTTGGACACTTAAGTAATGTTTGGTGTCT
GTTTCTTAGGAGTGACTGGGGGAGGGAAGATTATTTTAGCTATTTATTTGTAATATTTTAACCCTTTATCTGTTT
GTTTTTATACAGTGTTTCGTTCTAAATCTATGAGGTTTAGGGTTCAAAATGATGGAAGGCCGAAGAGCAAGGCTT
ATATGGTGGTAGGGAGCTTATAGCTTGTGCTAATACTGTAGCATCAAGCCCAAGCAAATTAGTCAGAGCCCGCCT
TTAGAGTTAAATATAATAGAAAAACCAAAATGATATTTTTATTTTAGGAGGGTTTAAATAGGGTTCAGAGATCAT
AGGAATATTAGGAGTTACCTCTCTGTGGAGGTAT

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FIGURE 794

GAGAGCCGAGCTAGCGACGAGCAGTCGTTGCGGCCGCCGGCGCCGCGGGAGGTGGTGGAGGCCTAGCCGGAGCCG
AGAGGTCTCTTGTTCCCGTCCCACGGTCCCGGCGTCACCCCTCCGGCGCCCAGTCCCCGTCCCGGAACTCCCGGG
CCTGTCCTGGGCCCCCGGTCTGTGCACTCCGCTCGCCGCAGCGCCCGGCCCGGGCCGCACCCGCCGGCCCCATGA
GGAGGGACGTGAACGGAGTGACCAAGAGCAGGTTTGAG**ATG**TTCTCAAATAGTGATGAAGCTGTAATCAATAAAA
AACTTCCCAAAGAACTCCTGTTACGGATATTTTCTTTTCTAGATGTTGTTACCCTGTGCCGCTGTGCTCAGGTCT
CCAGGGCCTGGAATGTTCTGGCTCTGGATGGCAGTAACTGGCAGCGAATTGACCTATTTGATTTCCAGAGGGATA
TTGAGGGCCGAGTAGTGGAGAATATTTCAAAACGATGTGGGGGCTTTTTACGAAAGTTAAGTCTTCGTGGATGTC
TTGGAGTGGGAGACAATGCATTAAGAACCTTTGCACAAAACTGCAGGAACATTGAAGTACTGAATCTAAATGGGT
GTACAAAGACAACAGACGCTACATGTACTAGCCTTAGCAAGTTCTGTTCCAAACTCAGGCACCTTGACTTGGCTT
CCTGTACATCAATAACAAACATGTCTCTAAAAGCTCTGAGTGAGGGATGTCCACTGTTGGAGCAGTTGAACATTT
CCTGGTGTGACCAAGTAACCAAGGATGGCATTCAAGCACTAGTGAGGGGCTGTGGGGGTCTCAAGGCCTTATTCT
TAAAAGGCTGCACGCAGCTAGAAGATGAAGCTCTCAAGTACATAGGTGCACACTGCCCTGAACTGGTGACTTTGA
ACTTGCAGACTTGCTTGCAAATCACAGATGAAGGTCTCATTACTATATGCAGAGGGTGCCATAAGTTACAATCCC
TTTGTGCCTCTGGCTGCTCCAACATCACAGATGCCATCCTGAATGCTCTAGGTCAGAACTGCCCACGGCTTAGAA
TATTGGAAGTGGCAAGATGTTCTCAATTAACAGATGTGGGCTTTACCACTCTAGCCAGGAATTGCCATGAACTTG
AAAAGATGGACCTGGAAGAGTGTGTTCAGATAACAGATAGCACATTAATCCAACTTTCTATACACTGTCCTCGAC
TTCAAGTATTGAGTCTGTCTCACTGTGAGCTGATCACAGATGATGGAATTCGTCACCTGGGGAATGGGGCCTGCG
CCCATGACCAGCTGGAGGTGATTGAGCTGGACAACTGCCCACTAATCACAGATGCATCCCTGGAGCACTTGAAGA
GCTGTCATAGCCTTGAGCGGATAGAACTCTATGACTGCCAGCAAATCACACGGGCTGGAATCAAGAGACTCAGGA
CCCATTTACCCAATATTAAAGTCCACGCCTACTTCGCACCTGTCACTCCACCCCCATCAGTAGGGGGCAGCAGAC
AGCGCTTCTGCAGATGCTGCATCATCCTA**TGA**CAATGGAGGTGGTCAACCTTGGCGAACTGAGTATTTAATGACA
CTTCTAGAGCTACCGTGGAGTCTCTCCAGTGGAAGCAACCCCAGTGTTCTGAGCAAGGGTTACAAAGTGAGGGAG
GGCAGTGTCCAGATCCCCAGAGCCACACATACATACACATACACACCCTTACCCCCATCCACTCTAGCTTTGTGA
CCATGGGACTGAAGTTTGTGATGGCTTTTTTATCAAGTAGATTGGTAAAATTTAACCATTCCTGTTGAGGTGCCC
ATAAGAAAATCATAGGCCAAGATAGGGAGGGGCATTCCAGCAAACCCCGTGTTAATGCTACTGTGGTTTTTAAAT
TTTTGTCTAGGGGTTTCTTTGGGGATTTTAGAACAGCATCTGCTGTCCTCCGGGGTCAAGAAAAGCATGGAAAGA
CAATATATGATGTACCCAGGGACCAGAAAGAAAATTTCTTTGCATCTTAGAAATGGTAGACATTCATTGTGACTA
AAGAGCTTCTATGCTTCCTTGTTTCCATGCCAACATGCTGAGCATGCTCACAAAGAAGGCTCGTCCATTCCTCCT
GTGTTTTAGTATTTGGCCCAGAGGTTTCCTAAATGGTTGCCTTGAAATCACTGTGGTCCAAATGTAATTCTTACA
CACTCAAATTATCACTGTCTGTAGCACACTTGTGCACCTGTCTTACATTCTCTGTTGCTCCCCCCCACACTCTTG
CTCAGTCTGTCACCTGTTCAGTCTGCTTACTCACTCAATTGTTACCCTTTTGCTGTTGTCGTGTTTACAGTTTGC
ATTTTGAATGATTAGTTGGGATTACCAAACATTTTTTAAAAAGATATTATCAATAAATATTTTTTTAATTCTAAA
TTTT

FIGURE 795

GGTGGTTTATTGCTGTTTTACAAAGAACCATGAACAAGCAAAATCCTATCAATAGTCCTTTCTGTTTTATGTTTT
ATAGTCTTATTTTGAAGAATCGGCATGGTAAAATGATAGACAAGTTTCAAATAAAGCAGATAATTAGCTCTAGAA
TTGGGGTACTTTGCCTCAGGTACAGCATCTGTCTTGAATACATAGTGATGGCTGTGTCACACATGGGTACATTTA
CTTTCCTCTCTGATCAACTGCACCCCTTTTTACTGGCAAAGAGGGCTCCTACTTTCTACACACTTAACCAGTCAA
ACAGATAGGTTTTGGCACCACCGAAAGAACCACAAGTGCACCCCAGCTGCATCTGGGCATGGTTTTGGTACTAGG
ACTAGAGAAGTGAGCAGTAAATGACAGTCCTTACCCTAGGAAGAGATGGGAGAAGAGAGGTGTCCAGACATATTT
ACCTTTTCTCTTCTGTCATGCCCCAAGAACCAAGGATCATCTTTGAAGTGACGTCTTTTTTGTTAAATTGGAAGA
AGAAAACTTTGCAGCCAGGCGTGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCA
CAAAGTGTCAGGAGTTTGAGAACAGCCTGGCCAACATGGTGAAACCCCATCTCTACTGAAAATACAAAATCCCAG
CTACTTGGGAGGCTGAGGCAAGAGAATCACTTGAACCTGGGAGGCGGATGTTGCAGTGAGCCGAGATCACGCCAC
TGCACTCCAGCCTGGGCAACGGAGTGAGACTCCATCTCACAAAAAAGAGAAAAGAAAAGAAAACTTTGCTTCACT
AAGTTTCTCTTGCCATTATCTCATTAATTCAGATCTGTACCTCATTGCTGCTCACACATATATGTTTCTTACCTT
AGCCTGAACCTTCTCAGGCCTTGAAGTCATTATTCTACTCTTTTTTTTTCTTTTCCTTTTTTATGGCACTAGAGA
ATGAAAACCTAAGGTCTTAGAAAATCTTAACTTGAAAAAGTCTCTAACTGGCATGATTTGATTACTTTTTTCCCC
TGTGGACAAATAATTTTCTTTCCTATATAATAGATTTTTAGTAAGTGAAACCTTTGCTGCTGCTTTCCTGGGTTT
ACATTAGTTTTTTCCTGCCCTTAAGAATAATTTATCTGTGCTTCTCTGATGACTGTTAATTTCTAATAGTGCAGG
AAGGGATGAGCTTTTGATTTCTTCTCACTCCCCTCCTCACCCTACTTCCAAATTACACACTAACTTCTAACCCTT
ACAGCCTGTTGGCACATACACAAGATCCACGAGACCATGCTCCTCAGAAGCTACCCATGTCCTTTCTCACCATGG
TGTGGCTCTTGGAGCCCTGAGTATCTGTGACTACCCACTCCAAAGGTTGACTGTAAGAGGAGAGCGGCCTTCTTA
ATTTTGCATTTCTTAATTTTGTTTTTCTCCATTCCTGTTTT**ATG**ACTTGGCCTTCAGATGCTTCCTACTCTGGCC
TCCTCCTTTTTTCTCCTAGGAATTGTTTCCAGGTAACCTACCATGTGCACTTCTCAGCTGCTCTGCTCACCTTTG
CCCACCTTCCCGTGACCCTGAGAGTACAGATCCGAATAATGTGGCCTGTGCAGAGCTCAGAGAACTGTGAGGACT
ACCCATGCCTGTCAGACTCTGCTCAGGGACAGAGATGGATGGGTAAATGGTGCTGTTGGAGACATTTTTATCTTC
ATACCAGGCTCTGTTTCATCCCTGCACCCCGCACCCCCACTCACTCCCCTGAGGGGGTAAAATGCAGAGGTGGT**T**
GACCTGAAGGGTCTGATTCCCTCCTTCCCAAGCCTTAGGGCCTACCCTGGAGTGCTGCAGTGTGTGAGAGCTGCT
GCTTGCTTGTTTCTCCACTAGGCCTGCTCCAAATGCTTAGCCAATCTCTGGAGCCGACACAGTTGCCTACGGGGT
GACTTAGCACCAGGTTCCATTAGCTCTCCAAGTGACTGTTTCCACCCAGTACTTTTGGCGCTTGAGGATGGGGGG
AGGGGGATTATTTAAAATAAATAAAATCCGAGGTGGCAGTAGAGGATTCCTTTTGCTTTAAAAATCTTTGGACTA
AAAAAAAAAAAAAAAAGTTTTTTATATATAAATATATAAAGTAAATTGTTATGTAACTATTATTGTTTCTTGTAT
GTTCTAATTTTGTTTTATGATGTAATTAAAGAAAGTAAGCTGTGAAGACTTTTCATTTTCCTGTGGAAA

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FIGURE 796

ATGACCGAGATGAGCGAGAAGGAGAACGAACCGGATGACGCGGCCACCCACAGCCCCCCAGGGACCGTCTCCGCC
CTCCAGGAAACCAAGCCCTGTTGGGCTCGGGGACGCGAGGCCGCGGCCGGGGGTGCGCAGCTGCGGAGTCCGCGA
GGGGGCCTGCAGCAGCGCCGGCCGTCGGTCACGGGCGAGGACGGGGGCCTGCGGTTGTGGCTCCAGACCAGAAAG
ACAGGCAGCCCCGCGCCCCACCACGGGAGCGGGACCAGAGGAGGGGGAGCGGAAGCTCCTGTCTCCAGACTGTGG
GTGGAGATGGAAGAGTACAGTTGGGTGCCGCCCACCAAGCTCAGTGTGAGGCAGCTCCAGCGATTCAAGCGCTCC
CTCTCCCTCAAGACCATCCTCCGAAGTAAGAGCTTGGAGAACTTCTTCCTTCGCTCGGGCTCTGAGCTCAAGTGC
CCCACCGAGGTGCTGCTGACGCCCCCAACCCCACTGCCCCCTCCCTCCCCACCACCCACAGCCTCGGACAGGGGC
CTGGCTACCCCATCCCCCTCCCCATGCCCAGTCCCACGCCCCCTGGCAGCGCTCAAACCAGTGAGGCTGCACAGC
TTCCAGGAACATGTCTTCAAGCGAGCTAGCCCTTGTGAGCTGTGCCACCAGCTCATCGTAGGAAACTCCAAACAG
GGCTTGCGATGTAAGATGTGCAAAGTCAGCGTCCACCTCTGGTGCTCTGAGGAGATCTCCCACCAGCAATGCCCA
GGCAAGACGTCCACCTCCTTCCGCCGCAACTTCAGTTCCCCTCTCCTGGTGCATGAGCCGCCACCAGTCTGTGCC
ACAAGCAAAGAGTCCCCACCCACTGGGGACAGTGGGAAGGTGGACCCTGTCTACGAGACCCTGCGCTATGGCACC
TCCCTGGCACTGATGAACCGCTCCAGTTTCAGCAGCACCTCTGAGTCCCCGACAAGGAGCCTGAGTGAGCGGGAT
GAGCTGACCGAGGATGGGGAAGGCAGCATCCGCAGCTCTGAGGAGGGGCCTGGTGACAGTGCATCTCCAGTATTC
ACAGCCCCAGCAGAGAGTGAAGGGCCAGGACCAGAGGAGAAGAGTCCTGGACAGCAGCTCCCCAAAGCCACCCTG
CGGAAGGATGTGGGGCCCATGTACTCCTACGTTGCACTCTACAAGTTTCTGCCCCAGGAGAACAATGATCTGGCT
CTGCAGCCTGGAGATCGGATCATGCTGGTGGATGACTCTAACGAGGACTGGTGGAAGGTGACTTGGCAGGGTGGG
GAGTGGAGGGACACTGCTTTGTCCCTCTGCTCACCTTATGCTATTCCTGGCCCAGAAGCCACCTGGCTGGGGGCT
GGAATCCGGAGAGCCCTAGATCTGGAGGATGATGGCATTGGTGCTGAGTGGGAACCGGGTCTGGAGAAAGCAGTG
GGCAAGATCGGCGACCGGGTTGGCTTCTTCCCAGCTAATTTTGTGCAACGGGTGAGGCCAGGCGAGAATGTTTGG
CGCTGCTGCCAACCCTTCTCCGGGAACAAGGAACAGGGTTACATGAGCCTCAAGGAGAACCAGATCTGCGTGGGC
GTGGGCAGAAGCAAGGATGCTGACGGCTTCATCCGCGTCAGCAGTGGCAAGAAGCGGGGCCTGGTGCCAGTCGAC
GCCCTGACTGAGATC**TGA**

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FIGURE 797

CTTTCCTTTCGCTGCTGCGGCCGCAGCC**ATG**AGTATGCTCAGGCTTCAGAAGAGGCTCGCCTCTAGTGTCCTCCG
CTGTGGCAAGAAGAAGGTCTGGTTAGACCCCAATGAGACCAATGAAATCGCCAATGCCAACTCCCGTCAGCAGAT
CCGGAAGCTCATCAAAGATGGGCTGATCATCCGCAAGCCTGTGACGGTCCATTCCCGGGCTCGATGCCGGAAAAA
CACCTTGGCCCGCCGGAAGGGCAGGCACATGGGCATAGGTAAGCGGAAGGGTACAGCCAATGCCCGAATGCCAGA
GAAGGTCACATGGATGAGGAGAATGAGGATTTTGCGCCGGCTGCTCAGAAGATACCGTGAATCTAAGAAGATCGA
TCGCCACATGTATCACAGCCTGTACCTGAAGGTGAAGGGGAATGTGTTCAAAAACAAGCGGATTCTCATGGAACA
CATCCACAAGCTGAAGGCAGACAAGGCCCGCAAGAAGCTCCTGGCTGACCAGGCTGAGGCCCGCAGGTCTAAGAC
CAAGGAAGCACGCAAGCGCCGTGAAGAGCGCCTCCAGGCCAAGAAGGAGGAGATCATCAAGACTTTATCCAAGGA
GGAAGAGACCAAGAAA**TAA**AACCTCCCACTTTGTCTGTACATACTGGCCTCTGTGATTACATAGATCAGCCATTA
AAATAAAACAAGCCTTAATCTGC

FIGURE 798A

AGCTCCGCTCGCGCTCTCGCCGCTCCTGCCGGCTCGCCCGGCCCCGCGCTCCGCCGTCTCCTCGCCGCCCGCCCC
TCCGCCAGCCCCGGGGACCGCGCGGCCGCAGCCTGAGCCAGGGCCCCCTCCCTCGTCAGGACCGGGGCAGCAAGC
AGGCCGGGGGCAGGTCCGGGCACCCACC**ATG**CGAGGCGAGCTCTGGCTCCTGGTGCTGGTGCTCAGGGAGGCTGC
CCGGGCGCTGAGCCCCCAGCCCGGAGCAGGTCACGATGAGGGCCCAGGCTCTGGATGGGCTGCCAAAGGGACCGT
GCGGGGCTGGAACCGGAGAGCCCGAGAGAGCCCTGGGCATGTGTCAGAGCCGGACAGGACCCAGCTGAGCCAGGA
CCTGGGTGGGGGCACCCTGGCCATGGACACGCTGCCAGATAACAGGACCAGGGTGGTGGAGGACAACCACAGCTA
TTATGTGTCCCGTCTCTATGGCCCCAGCGAGCCCCACAGCCGGGAACTGTGGGTAGATGTGGCCGAGGCCAACCG
GAGCCAAGTGAAGATCCACACAATACTCTCCAACACCCACCGGCAGGCTTCGAGAGTGGTCTTGTCCTTTGATTT
CCCTTTCTACGGGCATCCTCTGCGGCAGATCACCATAGCAACTGGAGGCTTCATCTTCATGGGGGACGTGATCCA
TCGGATGCTCACAGCTACTCAGTATGTGGCGCCCCTGATGGCCAACTTCAACCCTGGCTACTCCGACAACTCCAC
AGTTGTTTACTTTGACAATGGGACAGTCTTTGTGGTTCAGTGGGACCACGTTTATCTCCAAGGCTGGGAAGACAA
GGGCAGTTTCACCTTCCAGGCAGCTCTGCACCATGACGGCCGCATTGTCTTTGCCTATAAAGAGATCCCTATGTC
TGTCCCGGAAATCAGCTCCTCCCAGCATCCTGTCAAAACCGGCCTATCGGATGCCTTCATGATTCTCAATCCATC
CCCGGATGTGCCAGAATCTCGGCGAAGGAGCATCTTTGAATATCACCGCATAGAGCTGGACCCCAGCAAGGTCAC
CAGCATGTCGGCCGTGGAGTTCACCCCATTGCCGACCTGCCTGCAGCATAGGAGCTGTGACGCCTGCATGTCCTC
AGACCTGACCTTCAACTGCAGCTGGTGCCATGTCCTCCAGAGATGCTCCAGTGGCTTTGACCGCTATCGCCAGGA
GTGGATGGACTATGGCTGTGCACAGGAGGCAGAGGGCAGGATGTGCGAGGACTTCCAGGATGAGGACCACGACTC
AGCCTCCCCTGACACTTCCTTCAGCCCCTATGATGGAGACCTCACCACTACCTCCTCCTCCCTCTTCATCGACAG
CCTCACCACAGAAGATGACACCAAGTTGAATCCCTATGCAGGAGGAGACGGCCTTCAGAACAACCTGTCCCCCAA
GACAAAGGGCACTCCTGTGCACCTGGGCACCATCGTGGGCATCGTGCTGGCAGTCCTCCTCGTGGCGGCCATCAT
CCTGGCTGGAATTTACATCAATGGCCACCCCACATCCAATGCTGCGCTCTTCTTCATCGAGCGTAGACCTCACCA
CTGGCCAGCCATGAAGTTTCGCAGCCACCCTGACCATTCCACCTATGCGGAGGTGGAGCCCTCGGGCCATGAGAA
GGAGGGCTTCATGGAGGCTGAGCAGTGC**TGA**GAACACCAAGTCTCCCCTTTGAAGACTTTGAGGCCACAGAAAAG
ACAGTTAAAGCAAAGAAGAGAAGTGACTTTTCCTGGCCTCTCCCAGCATGCCCTGGGCTGAGATGAGATGGTGGT
TTATGGCTCCAGAGCTGCTGCTCGCTTCGTCAGCACACCCCGAATATTGAAGAGGGGGCCAAAAAACAACCACAT
GGATTTTTTATAGGAACAACAACCTAATCTCATCCTGTTTTGATGCAAGGGTTCTCTTCTGTGTCTTGTAACCAT
GAAACAGCAGAAGAACTAACATAACTAACTCCATTTTTGTTTAAGGGGCCTTTACCTATTCCTGCACCTAGGCTA
GGATAACTTTAGAGCACTGACATAAAACGCAAAAACAGGAATCATGCCGTTTGCAAAACTAACTCTGGGATTAAA
GGGGAAGCATGTAAACAGCTAACTGTTTTTGTTAAAGATTTATAGGAATGAGGAGGTTTGGCTATTGTCACATGA
CAGACTGTTAGCCAAGGACAAAGAAGTTCTGCAAACCTCCCCTGGACCCTTGCTGGTGTCCAGATGTCTGCGGTT
GTCAGCCCCTTCCTTTCCCCCGACCTAAACATAAAAGACAAGGCAAAGCCCGCATAATTTTAAGACGGTTCTTTA
GGACATTAGTCCACCATCTTCTTGGTTTGCTGGCTCTCCGAAATAAAGTCCCTTTCCTTGCTCCAACTCCTTGTC
TCTCAACGTATTGGCTATGACGCAGCAAGCAGAATGAATTTGGACTCAGTTACAGGCTGTCAATGGTCTGCTCTG
TAGCAGTCTCAGAGCCTCCCCGACCCACTACCTGGAGATAGCCAGATAGCCAGATGCCCTGCTCCTGGCCACCTT
TAAAGCCCCTGCATATGACACAGGTTAACTAAAGTCAAGATTGGGGCTGCTGCATTCCAGGTTCCCTAGACTCAC
AAGCTGGTCCTTGGCCAGGTGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGCAGGCGGATCA
CCTGAAGTCAGAAGTTTGAGACCAGCCTGGCCAACATAATTAAAATGTCTCTACTAAAAATACAAAAAATTAGCT
GGGTGTGGTGACGCTTGCCTGTATCCCAGCTACTCAGGAAGCTGAGACACGAGAATCACTTGAACCTGGGAGGCA
GAGGTTGCAGTGAGCTCAGATAGTGCCACTGCACTCCAGCCTGGGTGACAGAGCGAGACTCCGTCTCAAAAAAAA
AAAAAGAAAGCAGATCCTCATGGCTATAGAGTTGGCATTTTAGCCCCAGCTTCTGTAGCTCTGAAAGCCTAAAGA
AGGTATTCTCTCCATCTGTTAAACACAGTATAGTGGCTCTCAGCCCTTGGGGCATGTTATCATGGGAGGGAAGTC
AAATAAGAGGAGAGAAAAGAACTCAAGGGGGAAACTGCATTTTTAGGCTTTGCTCTCTTACCTTGCCCTTTCTAC
TCAGAACCAATAACTTCTGCATCAAAACATGTTACAGCCTGCATCAAGGGCTTTACCCCAACCTGCAGCCCAGCC
TTCCCTGGGTGAGCTTGCTATGCGCAGCCACATTTACCATGTGGGGCTCCCTATTCTGATGGCCTGTTCGGTGCC
GGGTTTACTCACTGCCCTGTTCTGATGTCAGTGCCTGTACATACCTCCAAAGGCAGGACTTGCCTGATAAATATT
TTTCCTCCTCTGAACTGGATTTTATAGGCATTAAAGACAAGTCGGGTGGCTAGAGGGCTCCTTGAGACATACCTA
GCAGGGAACTGCAGGTGGATTCTGTTGAGAGGCAAAGCACCTGAGTGGTTGGGACACAGGCAGCTGGCATGGGAG
GGACTTTTTTTGAGACAGGGTCTCACTGTGTCGCCCAGGGCAAGGATGCCCAAAGACACCAGGTTGGAGAGGCAC

FIGURE 798B

CTGCCAACTACTTGCTTTCCCTGGAGCCTGCATGTGCCTGTGGGGTGGGGAGGCGTAGGGGTCTACGGCTGCCTG
AGATGGGTGTGCACAGTGTGTGAAGTACCTACCTCCTTGCCTTGCTGGACTGTCAGCCAGTCGCAGGGCCGGCCA
CAAGACCCATGTCTCCATCTGGTCATACTCCATAGCTACCAAGTTAACCTGCTCTAAACTTTGGAGAACTGGATC
TGTCCAATAAACGCTTATTTGGCCAAGCCTGATGGCTCGTGCCTGTACTCCCAGCACTTTGGGAGGCTGAGGTGG
GAGGGTTGCTTGAGCCCAGGGGTTTGAGACCAGCTTGGGCAACAACAACAAAAATGCCAGGTGTGGTGGGGTGCA
CCTGTAGTCCCAGCTACTAGGGAGGCTGAGCCAGGAGGATCACTTGAGCCCGGGAGGTTGAGGCTGCAGTGGGGG
GTCATAATCATGCCACTGTACTCCAGCCTGGGTGACAGAGTGAGACCCTGTCTCCGAAAAAAAAAAAAAAAAAAA
GAACGGAAAAAGAAATGCTTACATTGTCAGGGATCCTGTAGACAATCATTAACTCTATGAGATGCTTGGTTCTAT
TTTTTTGGGAGACTTTGTCCAAGTGTTTTGGCTTAAGAAATCCATAGGCCTCTCTTGGTGACACATCTCTAGTAC
TTTTTGTCATAAACAAACAGGCCATCTGCCGCCAAATACATCCACTCCCCATGCCACTGACATCCTATGGGTCAG
CCAGGCTTGCTTTGACTGAGGCCGAGGCATCTGGAACTTTCTCTGCCTGCAGGGGCTAGCAGCAGAGGCTTCACC
GCATCACCACCCCTTCCTCCACTCCTGACATTCTTTCCCTTCAGGGATCCAAAATGGTTGGCCGAGCTCCCAGTG
GGAAAACGTGTGCTAGAGTTGGGGAGTGAGATGAGTGGTGCTGTCCATGGAATCAGGCCACAGCAGGAACTGCCC
CACTGGCCATTTGAGACACACACAGGTGGTAAATGCTCTGCTGGTGGGCTGTGCTTCCCTCATTCAGAGAGCTCT
GTTACAGCCCACTGTGTCCTTTAGAAGCTTGAAAGGAACCCAACTCTTTGCTGCACTGTCCTTTTTCTTCCTCAA
ATTCAGACCCTCCTTCCACCGGCACCCCCCTACTCCACCCTCAGCTCTTCCTTGCCTGGTTTATCAAGCAGAGCT
GAGGCCCCACGTTTCCAACTCTGATTGTCACTTGCATCTTCACAAAGGATAAACCACGGAGCAACTGGAAAACCA
TCAGCCAAGCGTTCGGATGAGTCTGGTTATTGGTCCACCCCCGACCAGATTCCCTTACACTTAACTCACTTCTTT
CTTTGGCAATGACCCTCATGACATGTATAAATGGGTATGACTAAGAAGAGGCTGTGATCTAACATTTATTTGCTG
CCATTTTTTACTCTGGGGAGAAGCAGCCCCAACTCATCACTGGGAAAGAACTCCCCCTGCAAACCAGCTAAATTT
GATAATTTAAACCCCCTGCCCCTAAAACTTCTCACAGAGCTGGGGAGTTGGTGGCAACTTTCCAAGTCAAGGTCT
TGCTTAGAAAGTCCTTCACTACATGGCCAGGTGCAGTGGCTCACGCCTGTAGTCCCAGGTACTTGGGAGCCTGAG
GCAGGAGGATTGCTTGAGCTCAGGAGTTCAAGGCTGCAGAGAGCTATGATCATCCCACTGCATTTGTTTAAAAAT
AAATTTTTAAAATTTGTGTGTTTTATCAGGGGTCTCCTGTACAGTGTATCTGTGTATGTTTGTGTGTGTTTTGT
ATACAGCCTTGTTTAATGTTTTGAGCAATAAGATATGCACACACAGGTATTTTGTTGCTAAAGAGATTGGACAAG
GTTGTAGCTGTGCTCAGGCTTCAGCTTGGTTTGTTAAATTGAGAGATAAACAATGACAAGAGCTGCCAGCCAACC
ACACTATTCAAAAAGCAAAGTGTTCACCACTAAAGCTAACCATTCATCTGGTTGCAGGCAAGGCTAAGGCTCTCT
CTCCTCTAGTTCCTGGAACAGACTCACAGATTGGCATGAAGCACTGATCAGGGGCTGCACTCAGACTCCCTGGCC
AAGCAAACCTACACCAGAAGAGTCAGTGTCACAGATATGATGCGGCCAATCTCTGTCTCCAAAAACCTACCTGAA
CTTAATGGTAGAATTCAAAGATCTGGGGACTGAGGGCACCCAGCCTTCTAAAACACAATGTATTCATGTGTTTAG
TGTAAACTCTCTGCATGGATTCTCAGTGTTAATAATAAAAGGAAGCATTCTTTTACAACTCCTGCTGTGTGCAAA
AGAAAGTGCAAAGGATTTGGAGTGGCATTCCGAAGATCACCACACATACCTTGGTTCTGATGGCTGCTGAACTCC
GACTTCTTCGCTGAGACATGACTGTGGGAACAGCCTCCAGCTATCTGCTCATCAGAGGTGCTTTCCTCAACCTCC
TGCACCACCTCCAAGAGAAACAGCCTAAAAAGAAACCCCAGCTGTTTACTTATATTGGTCTGTAAATCCCTGGAA
GTAAACCCCATGCATTTTTATCTACTGTCTGAGGACATACAATAAATCTGAGAAAGTCTATGCTGTCA

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FIGURE 799

ATGGAGACATCAGCCAGACAACGTTACACCATCCAGGCCTGCGGATCCACCAGGGGGCTCCGTTCCTTCTGGGCC
AAAGCTGAAGAAGCGGCTGCTGCACCAGAGAAGTGCATCTGGATGAAGGCTCAGGCCGACAAAAGTGGAGGTGTG
ACGAACCTAGGGTTGTTTCGAAGTGTCTTGGTTACGGTATATGTGGAAGATTTTAGAGCTTGTTGTAAAAACATG
ATGACCCATTGCTCTCCAGGCTGGAGTGACAAAACCTTGCTAGTGTGGGAGCTGAGCTCTGGACCCACGGCCGAC
GCTTTGCATGTGAGCCTGGGCCAGGCATTTTCCCAGTTTGACCTTTTGTATTCAGTCCGGGTCTTCCCAAATGCT
GCAGTGGCCCATTCTGGTTTCTATGGCGTCATTAAGTTTTATTCAGCAATGGCTGTCCACGGAGCCCAAAAGGCA
TGCCACCGGAAGCAGCTTTTTCAGACATCTCCTGTCAAGGTGGCTCCAAATATGGAATTCCTAGCTCCGCTGAAA
TGA

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FIGURE 800A

AGCTCCAGCCGCCGTCGCTGCTGCCTGTGTAGTTGCAGCCGCGGCCGCCTCCCGCCAGCTCGCCTCGGGGAACAG
GACGCGCGTGAGCTCCAGGGCNTCCCCGCCCCAGCTTTTCTCGGAACC**ATG**AACCCCAACTGCGCCCGGTGCGGC
AAGATCGTGTATCCCACGGAGAAGGTGAACTGTCTGGATAAGTTCTGGCATAAAGCATGCTTCCATTGCGAGACC
TGCAAGATGACACTGAACATGAAGAACTACAAGGGCTACGAGAAGAAGCCCTACTGCAACGCACACTACCCCAAG
CAGTCCTTCACCATGGTGGCGGACACCCCGGAAAACCTTCGCCTCAAGCAACAGAGTGAGCTCCAGAGTCAGGTG
CGCTACAAGGAGGAGTTTGAGAAGAACAAGGGCAAAGGTTTCAGCGTAGTGGCAGACACGCCCGAGCTCCAGAGA
ATCAAGAAGACCCAGGACCAGATCAGTAACATAAAATACCATGAGGAGTTTGAGAAGAGCCGCATGGGCCCTAGC
GGGGGCGAGGGCATGGAGCCAGAGCGTCGGGATTCACAGGACGGCAGCAGCTACCGGCGGCCCCTGGAGCAGCAG
CAGCCTCACCACATCCCGACCAGTGCCCCGGTTTACCAGCAGCCCCAGCAGCAGCCGGTGGCCCAGTCCTATGGT
GGCTACAAGGAGCCTGCAGCCCCAGTCTCCATACAGCGCAGCGCCCCCATCTGTCTTCAGCACATTCCACGGCAT
CGCATCCGTCCTGGGCGTGACCCGTCCATTCTTCAGTGTCTCTGTTTTTTAAAACCTGCGACAGCTTGTGATTCC
TACCCCTCTTCCAGCTTCTTTTGCCAACTGAAGCCTTCTTCTGCCACTTCTGCGGGCTCCCTCCTCTGGCAGGCT
TCCCCCTTGATCGACTTCTTGGTTTTCTCTCTGGATGGAACGGGCATGGGCCTCTCTGGGGGAGGCAGGGCTGGA
ATGGGAGACCTGTTGGCCTGTGGGCCTCACCTGCCCCTCTGTTCTCTCCCCTCACATCCTCCTGCCCAGCTCCTC
ACATACCCACACATTCCAGGGCTGGGG**TGA**GCCTGACTGCCAGGACCCCAGGTCAGGGGCTCCCTACATTCCCCA
GAGTGGGATCCACTTCTTGGTTCCTGGGATGGCGATGGGGACTCTGCCGCTGTGTAGGGACCAGTGGGATGGGCT
CTACCTCTCTTTCTCAAAGAGGGGGCTCTGCCCACCTGGGGTCTCTCTCCCTACCTCCCTCCTCAGGGGCAACAA
CAGGAGAATGGGGTTCCTGCTGTGGGGCGAATTCATCCCCTCCCCGCGCGTTCCTTCGCACACTGTGATTTTGCC
CTCCTGCCCACGCAGACCTGCAGCGGGCAAAGAGCTCCCGAGGAAGCACAGCTTGGGTCAGGTTCTTGCCTTTCT
TAATTTTAGGGACAGCTACCGGAAGGAGGGGAACAAGGAGTTCTCTTCCGCAGCCCCTTTCCCCACGCCCACCCC
CAGTCTCCAGGGACCCTTGCCTGCCTCCTAGGCTGGAAGCCATGGTCCCGAAGTGTAGGGCAAGGGTGCCTCAGG
ACCTTTTGGTCTTCAGCCTCCCTCAGCCCCCAGGATCTGGGTTAGGTGGCCGCTCCTCCCTGCTCCTCATGGGAA
GATGTCTCAGAGCCTTCCATGACCTCCCCTCCCCAGCCCAATGCCAAGTGGACTTGGAGCTGCACAAAGTCAGCA
GGGACCACTAAATCTCCAAGACCTGGTGTGCGGAGGCAGGAGCATGTATGTCTGCAGGTGTCTGACACGCAAGTG
TGTGAGTGTGAGTGTGAGAGATGGGGCGGGGGTGTGTCTGTAGGTGTCTCTGGGCCTGTGTGTGGGTGGGGTTAT
GTGAGGGTATGAAGAGCTGTCTTCCCCTGAGAGTTTCCTCAGAACCCACAGTGAGAGGGGAGGGCTCCTGGGGCA
GAGAAGTTCCTTAGGTTTTCTTTGGAATGAAATTCCTCCTTCCCCCCATCTCTGAGTGGAGGAAGCCCACCAATC
TGCCCTTTGCAGTGTGCAGGGTGGAAGGTAAGAGGTTGGTGTGGAGTTGGGGCTGCCATAGGGTCTGCAGCCTGC
TGGGGCTAAGCGGTGGAGGAAGGCTCTGTCACTCCAGGCATATGTTTCCCCATCTCTGTCTGGGGCTACAGAATA
GGGTGGCAGAAGTGTCACCCTGTGGGTGTCTCCCTCGGGGGCTCTTCCCCTAGACCTCCCCCTCACTTACATAAA
GCTCCCTTGAAGCAAGAAAGCTCTCTGCTCATGGGTGGCTGTGACAACCCTGGCCTCACTTGATTCATCTCTGGT
TTTCTTGCCACCCTCTGGGAGTCCCCATCCCATTTTCATCCTGAGCCCAACCAGGCCCTGCCATTGGCCTCTTGT
CCCTTGGCACACTTGTACCCACAGGTGAGGGGCAGGACCTGAAGGTATTGGCCTGTTCAACAATCAGTCATCATG
GGTGTTTTTGTCAACTGCTTGTTAATTGATTTGGGGATGTTTGCCCCGAATGAGAGGTTGAGGAAAAGACTGTGG
GTGGGGAGGCCCTGCCTGACCCATCCCTTTTCCTTTCTGGCCCCAGCCTAGGTGGAGGCAAGTGGAATATCTTAT
ATTGGGCGATTTGGGGGCTCGGGGAGGCAGAGAATCTCTTGGGAGTCTTGGGTGGCGCTGGTGCATTCTGTTTCC
TCTTGATCTCAAAGCACAATGTGGATTTGGGGACCAAAGGTCAGGGACACATCCCCTTAGAGGACCTGAGTTTGG
GAGAGTGGTGAGTGGAAGGGAGGAGCAGCAAGAAGCAGCCTGTTTTCACTCAGCTTAATTCTCCTTCCCAGATAA
GGCAAGCCAGTCATGGAATCTTGCTGCAGGCCCTCCCTCTACTCTTCCTGTCCTAAAAATAGGGGCCGTTTTCTT
ACACACCCCCAGAGAGAGGAGGGACTGTCACACTGGTGCTGAGTGACCGGGGGCTGCTGGGCGTCTGTTCTTTAC
CAAAACCATCCATCCCTAGAAGAGCACAGAGCCCTGAGGGGCTGGGCTGGGCTGGGCTGAGCCCCTGGTCTTCTC
TACAGTTCACAGAGGTCTTTCAGCTCATTTAATCCCAGGAAAGAGGCATCAAAGCTAGAATGTGAATATAACTTT
TGTGGACCAATACTAAGAATAACAAGAAGCCCAGTGGTGAGGAAAGTGCGTTCTCCCAGCACTGCCTCCTGTTTT
CTCCCTCTCATGTCCCTCCAGGGAAAATGACTTTATTGCTTAATTTCTGCCTTTCCCCCCTCACACATGCACTTT
TGGGCCTTTTTTTATAGCTGGAAAAAACAAAATACCACCCTACAAACCTGTATTTAAAAAGAAACAGAAATGACC
ACGTGAAATTTGCCTCTGTCCAAACATTTCATCCGTGTGTATGTGTATGTGTGTGAGTGTGTGAAGCCGCCAGTT
CATCTTTTTATATGGGGTTGTTGTCTCATTTTGGTCTGTTTTGGTCCCCTCCCTCGTGGGCTTGTGCTCGGGATC
AAACCTTTCTGGCCTGTTATGATTCTGAACATTTGACTTGAACCACAAGTGAATCTTTCTCCTGGTGACTCAAAT

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FIGURE 800B

AAAAGTATAATTTTTACCTGC

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FIGURE 801

CTTTTTTCTTTTTTCCGGCGTTCAAG**ATG**TCGAAGCGAGGACGTGGTGGGTCCTCTGGTGCGAAATTCCGGATTT
CCTTGGGTCTTCCGGTAGGAGCTGTAATCAATTGTGCTGACAACACAGGAGCCAAAAACCTGTATATCATCTCCG
TGAAGGGGATCAAGGGACGGCTGAACAGACTTCCCGCTGCTGGTGTGGGTGACATGGTGATGGCCACAGTCAAGA
AAGGCAAACCAGAGCTCAGAAAAAAGGTACATCCAGCAGTGGTCATTCGACAACGAAAGTCATACCGTAGAAAAG
ATGGCGTGTTTCTTTATTTTGAAGATAATGCAGGAGTCATAGTGAACAATAAAGGCGAGATGAAAGGTTCTGCCA
TTACAGGACCAGTAGCAAAGGAGTGTGCAGACTTGTGGCCCCGGATTGCATCCAATGCTGGCAGCATTGCA**TGA**T
TCTCCAGTATATTTGTAAAAAATAAAAAAAAACTAAACCCATT

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FIGURE 802

CCGGAAGTGACCTCTAGAGCGGTGGTGAAACTGGCAGTTGACGGCTCCTGGGACTAGATCCCGCGAGGTAGCCCC
CGAACTATTTCTCTACGTTTTCTCTTGATCCTCCCGAAATCTTCCAGATCCGCGTAGTGAGGAATCGTCTCCACC
GTC**ATG**GGGGGCGGAGACCTGAATCTGAAGAAGAGCTGGCACCCGCAGACCCTCAGGAATGTGGAGAAAGTGTGG
AAGGCCGAGCAGAAGCATGAGGCTGAGCGGAAGAAGATTGAGGAGCTTCAGCGGGAGCTGCGAGAAGAGAGAGCC
CGGGAAGAGATGCAGCGCTATGCGGAGGATGTTGGGGCCGTCAAGAAAAAAGAAGAAAAGTTGGACTGGATGTAC
CAGGGTCCTGGTGGGATGGTGAACCGTGACGAGTACCTGCTGGGGCGCCCCATTGACAAATATGTTTTTGAGAAG
ATGGAGGAGAAGGAGGCAGGCTGCTCTTCTGAAACAGGACTTCTCCCAGGCTCTATCTTTGCCCCATCAGGTGCC
AATTCCCTTCTTGACATGGCCAGCAAGATCCGGGAGGACCCACTCTTCATCATCAGGAAGAAGGAGGAGGAGAAA
AAACGAGAGGTATTAAATAATCCAGTGAAAATGAAGAAAATCAAAGAATTGTTGCAAATGAGTCTGGAAAAAAAG
GAGAAGAAGAAAAAGAAGGAGAAGAAAAAGAAGCACAAGAAACATAAGCACAGAAGCTCGAGTAGTGATCGTTCC
AGCAGCGAGGATGAGCACAGTGCAGGGAGATCACAGAAGAAGATGGCAAATTCCTCCCCTGTTTTGTCCAAAGTC
CCTGGATATGGCTTACAGGTCCGGAACTCTGACCGTAACCAGGGTCTTCAGGGTCCTCTGACAGCAGAGCAAAAG
AGAGGGCATGGGATGAAGAACCATTCCAGATCCAGAAGCTCCTCCCACTCACCCCCAAGACATGCCAGCAAGAAG
AGCACCAGGGAAGCAGGGTCCCGGGACAGGAGGTCTCGATCCCTGGGCAGAAGGTCACGGTCCCCAAGACCCAGC
AAACTGCACAACTCTAAGGTGAACAGGAGAGAGACAGGCCAAACTAGGAGCCCATCACCTAAAAAAGAGGTCTAC
CAAAGGCGACATGCTCCCGGATACACCAGAAAACTCTCTGCAGAGGAATTAGAGCGAAAACGGCAAGAGATGATG
GAAAACGCCAAATGGAGGGAGGAGGAGAGACTGAACATCCTCAAGAGGCATGCTAAGGATGAGGAACGGGAGCAG
AGGCTAGAGAAGCTGGACTCCCGGGATGGGAAGTTCATCCACCGCATGAAGCTGGAGAGTGCATCTACTTCCTCC
CTGGAGGATCGGGTGAAGCGGAATATCTACTCTTTACAGAGAACTTCGGTAGCTCTGGAGAAGAACTTTATGAAA
AGA**TGA**AAACTGTCCCCTCTCTTATTGGTTTTCCTGCATTTTCCAGGGAAGCTGCTGACCCCTTAATTCTCTTTA
TAAGAGTTCAAATGACTTCTTTCACAGATGTCAAACCACCAGTGTTCAAAGTGACCCTGCTTCATTGAGTCCTGA
AACAGCTCACTTCCTTTGAGAGCTAGTGTGACTTGCTTTGTGGGACACTCAGTAACTTTGGGTTTTGACTCTTTA
ACGGGTGGGCACTGGACCATCTCGGTGGGAGTGCTTGTGCCACTCTGGAAGGCTGTTCCCTGGGGTTGTGATGTT
TATCATGCCACTTCCTTCTTACCTGTGCCAACAGACCTATTTCACTGCCTCAGCGTACACCAGACCCTTCAGAAA
CCTCTCTGGTGTCACCCAGATAGATTGTGCTTACTGAGACAAATGAACGTTTACTTGATTTAGAAGATAATGTGA
CAGAATGATGTCAGGTTAGGTCAAAGCCAAGGGAGTGACAGAATCTGGAAAATCAAACAATACAAAAAGCCCTAA
ATGAACTGTTAACTATTTGATCTTTGGATGTAAAATTGTAATGCGTATATGTACAAATGTACAATTTTTACATGC
TTTTAAAAAAGGTTAGCTTTGTGAAAATACCTTGTTTGGTCAATGACTTTACTGGGTAATAGAACCACATTGAAC
CTTGATGGCAAGTAATACAATAAGGCAGGCCAGCTCGTTTTTCTCTCTGAATCTGGCTGGTTTAGGAGGAGCCTG
GGTTTATCGACGAGATCTGGAGTATCTATTCTTTTCCACTGCTTGCAGTCTCCAATGTAGGCAGTGTAAAGGTAT
AGTAAAATGATTTTAGGAGTCAGAACCAAATTGCCAATATGCTCCATGGCTCCTAAAGGAAAATAAAATGGAAGT
TTTT

FIGURE 803A

TTGCGGGAAAGAGCCAAACCCTGGCGTTGGGGGGCCCGGGCGGGGAGCCCCTCCCGCGGTCCACAGCGACGCCTG
CCCAGCCCTCCTCCCCTTCCGGCTCCGGCACGGGGCCCCGAGGCGTTCGGAGGCCAGGCGGGTTTCTGTCAGGCC
CGGGGAGGAGGGGCGGGCGGGGCGGCCGCTGCCTCCCCGGGACGGGCCGTACCACGCGGACGGGGAGGACGGGGC
CAGGGGACTGCAGGGCGGCTGCACCGCCCGGGGGCGGGGTGCGGAGCGGGCCGGCGGGCTCCCCGGGGCGGGGCG
GGAGGGCGGGGCGTGGGGCGGACGGAACCACCGGGGCGGGGTGGGAGGTAACGGGACGGGCGCGACCATGGCGCG
GTGAGGGAGCGGGGGTGGGGATCGGTCCGGGGGAGGCCTGAGGCCGCTGGCTTGTGCGCTGTCTCCGCCGCCCCC
CTCTTTCGCCGCCGCCGCCGCCGCCCCGGGC**ATG**TCGTCCAACTGCACCAGCACCACGGCGGTGGCGGTGGCGCC
GCTCAGCGCCAGCAAGACCAAGACCAAGAAGAAGCATTTCGTGTGCCAGAAAGTGAAGCTATTCCGGGCCAGCGA
GCCGATCCTCAGCGTCCTGATGTGGGGGGTGAACCACACGATCAATGAGCTGAGCAATGTTCCTGTTCCTGTCAT
GCTAATGCCAGATGACTTCAAAGCCTACAGCAAGATCAAGGTGGACAATCATCTCTTCAATAAGGAGAACCTGCC
CAGCCGCTTTAAGTTTAAGGAGTATTGCCCCATGGTGTTCCGAAACCTTCGGGAGAGGTTTGGAATTGATGATCA
GGATTACCAGAATTCAGTGACGCGCAGCGCCCCCATCAACAGTGACAGCCAGGGTCGGTGTGGCACGCGTTTCCT
CACCACCTACGACCGGCGCTTTGTCATCAAGACTGTGTCCAGCGAGGACGTGGCGGAGATGCACAACATCTTAAA
GAAATACCACCAGTTTATAGTGGAGTGTCATGGCAACACGCTTTTGCCACAGTTCCTGGGCATGTACCGCCTGAC
CGTGGATGGTGTGGAAACCTACATGGTGGTTACCAGGAACGTGTTCAGCCATCGGCTCACTGTGCATCGCAAGTA
TGACCTCAAGGGTTCTACGGTTGCCAGAGAAGCGAGCGACAAGGAGAAGGCCAAGGACTTGCCAACATTCAAAGA
CAATGACTTCCTCAATGAAGGGCAGAAGCTGCATGTGGGAGAGGAGAGTAAAAAGAACTTCCTGGAGAAACTGAA
GCGGGACGTTGAGTTCTTGGCACAGCTGAAGATCATGGACTACAGCCTGCTGGTGGGCATCCACGACGTGGACCG
GGCAGAGCAGGAGGAGATGGAGGTGGAGGAGCGGGCAGAGGACGAGGAGTGTGAGAATGATGGGGTGGGTGGCAA
CCTACTCTGCTCCTATGGCACACCTCCGGACAGCCCTGGCAACCTCCTCAGCTTTCCTCGGTTCTTTGGTCCTGG
GGAATTCGACCCCTCTGTTGACGTCTATGCCATGAAAAGCCATGAAAGTTCCCCCAAGAAGGAGGTGTATTTCAT
GGCCATCATTGATATCCTCACGCCATACGATACAAAGAAGAAAGCTGCACATGCTGCCAAAACGGTGAAACACGG
GGCAGGGGCCGAGATCTCGACTGTGAACCCTGAGCAGTACTCCAAACGCTTCAACGAGTTTATGTCCAACATCCT
GACG**TAG**TTCTCTTCTACCTTCAGCCAGAGCCAGAGAGCTGGATATGGGGTCGGGGATCGGGAGTTAGGGAGAAG
GGTGTATTTGGGCTAGATGGGAGGGTGGGAGCAGAGTCGGGTTTGGGAGGGCTTTAGCAATGAGACTGCAGCCTG
TGACACCGAAAGAGACTTTAGCTGAAGAGGAGGGGGATGTGCTGTGTGTGCACCTGCTCACAGGATGTAACCCCA
CCTTCTGCTTACCCTTGATTTTTTCTCCCCATTTGACACCCAGGTTAAAAAGGGGTTCCCTTTTTGGTACCTTGT
AACCTTTTAAGATACCTTGGGGCTAGAGATGACTTCGTGGGTTTATTTGGGTTTTGTTTCTGAAATTTCATTGCT
CCAGGTTTGCTATTTATAATCATATTTCATCAGCCTACCCACCCTCCCCATCTTTGCTGAGCTCTCAGTTCCCTT
CAATTAAAGAGATACCCGGTAGACCCAGCACAAGGGTCCTTCCAGAACCAAGTGCTATGGATGCCAGATTGGAGA
GGTCAGACACCTCGCCCTGCTGCATTTGCTCTTGTCTGGATTAACTTTGTAATTTATGGAGTATTGTGCACAACT
TCCTCCACCTTTCCCTTGGATTCAAGTGAAAACTGTTGCATTATTCCTCCATCCTGTCTGGAATACACCAGGTCA
ACACCAGAGATCTCAGATCAGAATCAGAGATCTCAGAGGGGAATAAGTTCATCCTCATGGGATGGTGAGGGGCAG
GAAAGCGGCTGGGCTCTTGGACACCTGGTTCTCAGAGAACCCTGTGATGATCACCCAAGCCCCAGGCTGTCTTAG
CCCCTGGAGTTCAGAAGTCCTCTCTGTAAAGCCTGCCTCCCACTAGGTCAAGAGGAACTAGAGTACCTTTGGATT
TATCAGGACCCTCATGTTTAAATGGTTATTTCCCTTTGGGAAAACTTCAGAAACTGATGTATCAAATGAGGCCCT
GTGCCCTCGATCTATTTCCTTCTTCCTTCTGACCTCCTCCCAGGCACTCTTACTTCTAGCCGAACTCTTAGCTCT
GGGCAGATCTCCAAGCGCCTGGAGTGCTTTTTAGCAGAGACACCTCGTTAAGCTCCGGGATGACCTTGTAGGAGA
TCTGTCTCCCTGTGCCTGGAGAGTTACAGCCAGCAAGGTGCCCCCATCTTAGAGTGTGGTGTCCAAACGTGAGGT
GGCTTCCTAGTTACATGAGGATGTGATCCAGGAAATCCAGTTTGGAGGCTTGATGTGGGTTTTGACCTGGCCTCA
GCCTTGGGGCTGTTTTTCCTTGTTGCCCCGCTCTAGACTTTTAGCAGATCTGCAGCCCACAGGCTTTTTTGGAAG
GAGTGGCTTCCTGCAGGTGTTCCACCTGCCTTCGGAGCCTGCCACCCAGGCCCTCAGAACTGAGCCACAGGCTGC
TCTGGCCAGGAGAGAAACAGCTCTGTTGTTCTGCATTGGGGGAGGTACATTCCTGCATCTTCTCACCCCCTCAAC
CAGGAACTGGGGATTTGGGATGAGATATGGTCAGACTTGTAGATAACCCCAAAGATGTGAAGATCGCTTGTGAAA
CCATTTTGAATGAATAGATTGGTTTCCTGTGGCTCCCTCCAAACCTGGCCAAGCCCAGCTTCCGAAGCAGGAACC
AGCACTGTCTCTGTGCCTGACTCACAGCATATAGGTCAGGAAAGAATGGAGACGGCATTCTTGGACTTCACTGGG
GCTGCTGGATTGGATGGGAAACCTTCTGGAAGAGGCAGATGGGGGTCAAACCACTGCCTTGGCCCCAGGAAGGGG
CCATAGGTAGGTCTGAACAACTGCCGCAAGACCACTACATGACTTAGGGAACTTGAAACCAACTGGCTCATGGAG

FIGURE 803B

AAAACAAATTTGACTTGGGAAAGGGATTATGTAGGAATAATGTTTGGACTTGATTTCCCCACGTCATAATGAAGA
ATGGAAGTTTGGATCTGCTCCTCGTCAGGCGCAGCATCTCTGAAGCTTGGAAAGCTGTCTTCCAG

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FIGURE 804

CCTAGTACACCGCAATC**ATG**TCTATTATGTCCTATAACGGAGGGGCCGTCATGGCCATGAAGGGGAAGAACTGTG
TGGCCATCGCTGCAGACAGGCGCTTCGGGATCCAGGCCCAGATGGTGACCACGGACTTCCAGAAGATCTTTCCCA
TGGGTGACCGGCTGTACATCGGTCTGGCCGGGCTCGCCACTGACGTCCAGACAGTTGCCCAGCGCCTCAAGTTCC
GGCTGAACCTGTATGAGTTGAAGGAAGGTCGGCAGATCAAACCTTATACCCTCATGAGCATGGTGGCCAACCTCT
TGTATGAGAAACGGTTTGGCCCTTACTACACTGAGCCAGTCATTGCCGGGTTGGACCCGAAGACCTTTAAGCCCT
TCATTTGCTCTCTAGACCTCATCGGCTGCCCCATGGTGACTGATGACTTTGTGGTCAGTGGCACCTGCGCCGAAC
AAATGTACGGAATGTGTGAGTCCCTCTGGGAGCCCAACATGGATCCGGATCACCTGTTTGAAACCATCTCCCAAG
CCATGCTGAATGCTGTGGACCGGGATGCAGTGTCAGGCATGGGAGTCATTGTCCACATCATCGAGAAGGACAAAA
TCACCACCAGGACACTGAAGGCCCGAATGGAC**TAA**CCCTGTTCCCAGAGCCCACTTTTTTTTCTTTTTTTGAAAT
AAAATAGCCTGTCTTTC

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FIGURE 805

GAGAGCCCGAACAGGAAGAGGGTACAGCTTTGTGCAGGTCACATGCCCACTGCAGCCCTCCAGCCTCTGGTCCCC
AGAGCGGACTTTGGAAGCTGAACTGCTTTTGTTGCTGGAAGACTTATGTTATAATTTACCCTGGGTGGACCAGGG
TCGTACAAAAGGGCAACGCTCCCCAGTCCCCCCACCCCCGACCCCGGAATC**ATG**CATCGGACTACACGGATCAAA
ATCACAGAGCTGAACCCCCACCTCATGTGTGCCCTCTGCGGGGGGTACTTCATCGACGCCACCACTATCGTGGAG
TGCCTGCATTCCTTCTGCAAAACCTGCATCGTGCGCTACCTGGAGACCAACAAATACTGCCCCATGTGTGACGTG
CAGGTCCATAAAACCCGGCCGCTGCTGAGCATCAGGTCTGACAAAACACTTCAAGACATTGTCTACAAATTGGTC
CCTGGGCTTTTTAAAGATGAGATGAAACGGCGGCGGGATTTCTATGCAGCGTACCCCCTGACGGAGGTCCCCAAC
GGCTCCAATGAGGACCGCGGCGAGGTCTTGGAGCAGGAGAAGGGGGCTCTGAGTGATGATGAGATTGTCAGCCTC
TCCATCGAATTCTACGAAGGTGCCAGGGACCGGGACGAGAAGAAGGGCCCCCTGGAGAATGGGGATGGGGACAAA
GAGAAAACAGGGGTGCGCTTCCTGCGATGCCCAGCAGCCATGACCGTCATGCATCTTGCCAAGTTTCTCCGCAAC
AAGATGGATGTGCCCAGCAAGTACAAGGTGGAGGTTCTGTACGAGGACGAGCCACTGAAGGAATACTACACCCTC
ATGGACATCGCCTACATCTACCCCTGGCGGCGGAACGGGCCTCTCCCCCTCAAGTACCGTGTCCAGCCAGCCTGC
AAGCGGCTCACCCTAGCCACGGTGCCCACCCCCTCCGAGGGCACCAACACCAGCGGGGCGTCCGAGTGTGAGTCA
GTCAGCGACAAGGCTCCCAGCCCTGCCACCCTGCCAGCCACCTCCTCCTCCCTGCCCAGCCCAGCCACCCCATCC
CATGGCTCTCCCAGTTCCCATGGGCCTCCAGCCACCCACCCTACCTCCCCCACTCCCCCTTCGACAGCCAGTGGG
GCCACCACAGCTGCCAACGGGGGTAGCTTGAACTGCCTGCAGACACCATCCTCCACCAGCAGGGGGCGCAAGATG
ACTGTCAACGGCGCTCCCGTGCCCCCCTTAACT**TGA**GGCCAGGGACCCTCTCCCTTCTTCCAGCCAAGCCTCTCC
ACTCCTTCCACTTTTTCTGGGCCCTTTTTTCCACCTCTTCTACTTTCCCCAGCTCTTCCCACCTTGGGGGTGGGG
GGCGGGTTTTATAAATAAATATATATATATATGTACATAGGAAAAACCAAATATACATACTTATTTTCTATGGAC
CAACCAGATTAATTTAAATGCCACAGGAAACAAACTTTATGTGTGTGTGTATGTGTGGAAAATGGTGTTCATTTT
TTTTGGGGGGGGGTCTTGTGTAATTTGCTGTTTTTGGGGGTGCCTGGAGATGAACTGGATGGGCCACTGGAGTCTC
AATAAAGCTCTGCACCATCCTCGCTGTTTCCCAAGGCAGGTGGTGTGTTGGGGGCCCCTTCAGACCCAAAGCTTT
AGGCATGATTCCAACTGGCTGCATATAGGAGTCAGTTAGAATCGTTTCTTTCTCTCCCCGTTTCTCTCCCCATCT
TGGCTGCTGTCCTGCCTCTGACCAGTGGCCGCCCCCCACGTTGTTGAATGTCCAGAAATTGCTAAGAACAGTGCC
TTTTACAAATGCAGTTTATCCCTGGTTCTGAGGAGCAAGTGCAGGGTGGAGGTGGCACCTGCATCACCTCCTCCT
CTTGCAGTGGAAACTTTGTGCAAAGAATAGATAGTTCTGCCTCTTTTTTTTTTTTCCTGTGTGTGTGGCCTTTG
CATCATTTATCTTGTGGAAAAGAAGATTCAGGCCCTGAGAGGTCTCAGCTCTTGGAGGAGGGCTAAGGCTTTAGC
ATTGTGAAGCGCTGCACCCCCACCAACCTTACCCTCACCGGGGAACCCTCACTAGCAGGACTGGTGGTGGAGTCT
CACCTGGGGCCTAGAGTGGAAGTGGGGGTGGGTTAACCTCACACAAGCACAGATCCCAGACTTTGCCAGAGGCAA
ACAG

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FIGURE 806

GCGGGCGGGCGCGGCGCGGGAGGCGACC**ATG**CGCGGCGCGGGGGCGATCCTGCGGCCGGCGGCGCGTGGTGCCCG
GGACCTGAACCCGCGGCGGGACATCTCCTCCTGGCTGGCCCAGTGGTTCCCTAGAACCCCAGCCAGGTCCGTGGT
GGCCCTGAAGACCCCCATCAAGGTGGAGCTGGTGGCAGGGAAAACCTACAGGTGGTGTGTGTGTGGCCGCAGCAA
GAAGCAGCCCTTCTGTGACGGCTCCCACTTCTTCCAACGCACTGGCCTATCTCCACTCAAGTTCAAGGCCCAAGA
GACCCGCATGGTGGCACTCTGTACCTGCAAGGCCACTCAGAGGCCCCCGTACTGCGATGGCACCCACAGGAGTGA
GCGCGTGCAGAAGGCAGAAGTGGGCTCCCCACTC**TGA**GGGGGCTGCTGCTGTCCAGCCACAGGTGGCCTTGGCTC
CAGGCCTCTGACAGGCACCCCCTTCTGTGGGAAAGGAAACAGGTGCTGAGCCCAAGAGACTCTGGTACCCACTGC
TGGCTCATGAAGGAAGAATTATTCCTTATAACCTAAAAGTCTCCAGTCTGGGGCAGGCGGGAGTGGGCCCTGGTT
CAATGTTTGCTGATGGGGAAGATGGCAAAAACAAGCCTGCCCAACCAGACTGGTAGTCCTGCAGTCACTGCTATG
AGGCCCACGTGCTGCCTCCTGCTCCAGATTTTAACCTCTCTGTGGGCTGGGGGCACCTGACCAGCCACAGGAGAG
GGCAGTTCAGATTCATTCTGTATGGGGTCCCCAAGCCAGGCTAAACCCAGAGATGAGAGGCACCCTTCCCTTCTT
CCCTCCACCCCAAAGAACTACAGGCTCCAGAAAGTATGCAGCATTTATTACAAAGCCAAGAGATACAGATGTCCC
AGGGCAAAGGAGGGTACAGTCACAGGACCTCAGACACAGGACAAGGTGCAAACACAGACAAGCCCATCAGGGGGC
TCCCAACCCCACACACCTACGCTATGATGGAATCTCGAGTCTCGACTCCCG

FIGURE 807

ATGAAGGAGATGGTAGGAGGCTGCTGCGTATGTTCGGACGAGAGGGGCTGGGCCGAGAACCCGCTGGTCTACTGC
GATGGGCACGCGTGCAGCGTGGTCGTCCACCAAGCTTGCTATGGCATCGTTCAGGTGCCAACGGGACCCTGGTTC
TGCCGGAAATGTGAATCTCAGGAGCGAGCAGCCAGGGTGAGGTGTGAGCTGTGCCCACACAAAGACGGGGCATTG
AAGAGGACTGATAATGGAGGCTGGGCACACGTGGTGTGTGCCCTCTACATCCCCGAGGTGCAATTTGCCAACGTG
CTCACCATGGAGCCCATCGTGCTGCAGTACGTGCCTCATGATCGCTTCAACAAGACCTGTTACATCTGCGAGGAG
CAGGGCCGGGAGAGCAAGGCGGCCTCGGGAGCCTGCATGACCTGTAACCGCCATGGATGTCGACAAGCTTTCCAC
GTCACCTGTGCCCAAATGGCAGGCTTGCTGTGTGAGGAAGAAGTGCTGGAGGTGGACAACGTCAAGTACTGCGGC
TACTGCAAATACCACTTCAGCAAGATGAAGACATCCCGGCACAGCAGCGGGGGAGGCGGAGGAGGCGCTGGAGGA
GGAGGTGGCAGCATGGGGGGAGGTGGCAGTGGTTTCATCTCTGGGAGGAGAAGCCGGTCAGCCTCACCATCCACG
CAGCAGGAGAAGCACCCCACCCACCACGAGAGGGGCCAGAAGAAGAGTCGAAAGGACAAAGAACGCCTTAAGCAG
AAGCACAAGAAGCGGCCTGAGTCGCCCCCCAGCATCCTCACCCCGCCCGTGGTCCCCACTGCTGACAAGGTCTCC
TCCTCGGCTTCCTCTTCCTCCCACCACGAGGCCAGCACGCAGGAGACCTCTGAGAGCAGCAGGGAGTCAAAGGGG
AAAAAGTCTTCCAGCCATAGCCTGAGTCATAAAGGGAAGAAACTGAGCAGTGGGAAAGGTGTGAGCAGTTTTACC
TCCGCCTCCTCTTCTTCCTCCTCCTCTTCCTCCTCCTCTGGGGGGCCCTTCCAGCCTGCAGTCTCGTCCCTGCAG
AGCTCCCCTGACTTCTCTGCATTCCCCAAGCTGGAGCAGCCAGAGGAGGACAAGTACTCCAAGCCCACAGCCCCC
GCCCCTTCAGCCCCTCCTTCTCCCTCAGCTCCCGAGCCCCCCAAGGCTGACCTTTTTGAGCAGAAGGTGGTCTTC
TCTGGCTTTGGGCCCATCATGCGCTTCTCCACCACCACCTCCAGCTCAGGCCGGGCCCGGGCGCCCTCCCCTGGG
GACTATAAGTCTCCCCACGTCACGGGGTCTGGGGCCTCGGCAGGCACCCACAAACGGATGCCCGCACTGAGTGCC
ACCCCTGTGCCTGCTGATGAGACCCCTGAGACAGGCCTGAAGGAGAAGAAGCACAAAGCCAGCAAGAGGAGCCGC
CATGGGCCAGGCCGTCCCAAGGGCAGCCGGAACAAGGAGGGCACTGGGGGCCCAGCTGCCCCATCCTTGCCCAGT
GCCCAGCTGGCTGGCTTTACCGCCACTGCTGCCTCACCCTTCTCTGGAGGTTCCCTGGTCAGCTCCGGCCTGGGA
GGTCTGTCCTCCCGAACCTTTGGGCCTTCTGGGAGCTTGCCCAGCTTGAGCCTGGAGTCCCCCTTACTAGGGGCA
GGCATCTACACCAGTAATAAGGACCCCATCTCCCACAGTGGCGGGATGCTGCGGGCTGTCTGCAGCACCCCTCTC
TCCTCCAGCCTCCTGGGGCCCCCAGGGACCTCGGCCCTGCCCCGCCTCAGCCGCTCCCCGTTCACCAGCACCCTC
CCCTCCTCTTCTGCTTCTATCTCCACCACTCAGGTGTTTTCTCTGGCTGGCTCTACCTTTAGCCTCCCTTCTACC
CACATCTTTGGAACCCCCATGGGTGCCGTTAATCCCCTCCTCTCCCAAGCTGAGAGCAGCCACACAGAGCCAGAC
CTGGAGGACTGCAGCTTCCGGTGTCGGGGGACCTCCCCTCAGGAGAGTCTGTCTTCCATGTCCCCCATCAGCAGC
CTCCCCGCACTCTTCGACCAGACAGCCTCTGCACCCTGTGGGGGCGGCCAGTTAGACCCGGCGGCCCCAGGGACG
ACTAACATGGAGCAGCTTCTGGAGAAGCAGGGCGACGGGGAGGCCGGCGTCAACATCGTGGAGATGCTGAAGGCG
CTGCACGCGCTGCAGAAGGAGAACCAGCGGCTGCAAGAGCAGATCCTGAGCCTGACGGCCAAAAAGGAGCGGCTG
CAGATTCTCAACGTGCAGCTCTCTGTGCCCTTCCCTGCCCTGCCTGCTGCCCTGCCTGCCGCCAACGGCCCTGTC
CCTGGGCCCTATGGCCTGCCTCCCCAAGCCGGCAGCAGCGACTCCTTGAGCACCAGCAAGAGCCCTCCGGGAAAG
AGCAGCCTCGGCCTGGACAACTCGCTGTCCACTTCTTCTGAGGACCCACACTCAGGCTGCCCGAGCCGCAGCAGC
TCGTCGCTGTCCTTCCACAGCACGCCCCCACCGCTGCCCCTCCTCCAGCAGAGCCCTGCCACTCTGCCCCTGGCC
CTGCCTGGGGCCCCTGCCCCACTCCCGCCCCAGCCGCAGAACGGGTTGGGCCGGGCACCCGGGGCAGCGGGGCTG
GGGGCCATGCCCATGGCTGAGGGGCTGTTGGGGGGGCTGGCAGGCAGTGGGGGCCTGCCCCTCAATGGGCTCCTT
GGGGGGTTGAATGGGGCCGCTGCCCCCAACCCCGCAAGCTTGAGCCAGGCTGGCGGGGCCCCCACGCTGCAGCTG
CCAGGCTGTCTCAACAGCCTTACAGAGCAGCAGAGACATCTCCTTCAGCAGCAAGAGCAGCAGCTCCAGCAACTC
CAGCAGCTCCTGGCCTCCCCGCAGCTGACCCCGGAACACCAGACTGTTGTCTACCAGATGATCCAGCAGATCCAG
CAGAAACGGGAGCTGCAGCGCCTGCAGATGGCTGGGGGCTCCCAGCTGCCCATGGCCAGCCTGCTGGCAGGAAGC
TCCACCCCGCTGCTGTCTGCGGGTACCCCTGGCCTGCTGCCCACAGCGTCTGCTCCACCCCTGCTGCCCGCTGGA
GCCCTAGTGGCTCCCTCGCTTGGCAACAACACAAGTCTCATGGCCGCAGCAGCTGCAGCTGCAGCAGTAGCAGCA
GCAGGCGGACCTCCAGTCCTCACTGCCCAGACCAACCCCTTCCTCAGCCTGTCGGGAGCAGAGGGCAGTGGCGGT
GGCCCCAAAGGAGGGACCGCTGACAAAGGAGCCTCAGCCAACCAGGAAAAAGGC**TAA**

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FIGURE 808

GTGGAATGTCATCAGTTAAGGCTATTTTCATTTCTTTTGTGGATCTTCAGTTGCTTCAGGCCATCTGGATGTATA
CATGCAGGTCACAGGGAATATGATGGCTTAGCTTGGGTTCAGAGGCCTGACACCTCAGGCTGCCAAATGTGGAAG
ATTTAAATACTTGAACCAATACCCTCCTCCCAAAAACTGAAATTGGCTTCTGTTTCTGAGTTGGTCCAGGCGCA**A**
TGTTCAGCGTATTTGAGGAAATCACAAGAATTGTAGTTAAGGAGATGGATGCTGGAGGGGATATGATTGCCGTTA
GAAGCCTTGTTGATGCTGATAGATTCCGCTGCTTCCATCTGGTGGGGGAGAAGAGAACTTTCTTTGGATGCCGGC
ACTACACAACAGGCCTCACCCTGATGGACATTCTGGACACAGATGGGGACAAGTGGTTAGATGAACTGGATTCTG
GGCTCCAAGGTCAAAAGGCTGAGTTTCAAATTCTGGATAATGTAGACTCAACGGGAGAGTTGATAGTGAGATTAC
CCAAAGAAATAACAATTTCAGGCAGTTTCCAGGGCTTCCACCATCAGAAAATCAAGATATCGGAGAACCGGATAT
CCCAGCAGTATCTGGCTACCCTTGAAAACAGGAAGCTGAAGAGGGAACTACCCTTTTCATTCCGATCAATTAATA
CGAGAGAAAACCTGTATCTGGTGACAGAAACTCTGGAGACGGTAAAGGAGGAAACCCTGAAAAGCGACCGGCAAT
ATAAATTTTGGAGCCAGATCTCTCAGGGCCATCTCAGCTATAAACACAAGGGCCAAAGGGAAGTGACCATCCCCC
CAAATCGGGTCCTGAGCTATCGAGTAAAGCAGCTTGTCTTCCCCAACAAGGAGACGATGAGAAAGTCTTTGGGTT
CGGAGGATTCCAGAAACATGAAGGAGAAGTTGGAGGACATGGAGAGTGTCCTCAAGGACCTGACAGAGGAGAAGA
GAAAAGATGTGCTAAACTCCCTCGCTAAGTGCCTCGGCAAGGAGGATATTCGGCAGGATCTAGAGCAAAGAGTAT
CTGAGGTCCTGATTTCCGGGGAGCTACACATGGAGGACCCAGACAAGCCTCTCCTAAGCAGCCTTTTTAATGCTG
CTGGGGTCTTGGTAGAAGCGCGTGCAAAAGCCATTCTGGACTTCCTGGATGCCCTGCTAGAGCTGTCTGAAGAGC
AGCAGTTTGTGGCTGAGGCCCTGGAGAAGGGGACCCTTCCTCTGTTGAAGGACCAGGTGAAATCTGTCATGGAGC
AGAACTGGGATGAGCTGGCCAGCAGTCCTCCTGACATGGACTATGACCCTGAGGCACGAATTCTCTGTGCGCTGT
ATGTTGTTGTCTCTATCCTGCTGGAGCTGGCTGAGGGGCCTACCTCTGTCTCTTCC**TAA**CTACAAAAGCCCTTTC
TCCCCACAAGCCTCTGGGTTTTCCCTTTACCAGTCTGTCCTCACTGCCATCGCCACTACCATCCTGTCACCAGTG
GGACCTCTTTAAAACAAGCAGCCAACCATTCTTTGATGTATCCCATTCGCTCCATGTTAACATCCAAAACCAGCC
TGGATTTCATACATGGACTTCTGATTAAAAGTGGCAGGTTGTGCATGTT

FIGURE 809

TGGGGCCACATAGCAGCAGAGGACTGGTGTAAGGGAGGGAGGGGTAGGGACAGAAGCTAGACCCAATCTCCTTTG
GGATGTGGGCAGGGAGGGAAGCAGGCTTGGAGGGTTAATTTACCCACAGAATGTGATAGTAATAGGGGAGGGAGG
CTGCTGTGGGTTTAACTCCTGGGTTGGCTGTTGGGTAGACAGGTGGGGAAAAGGCCCGTGAGTCATTGTAAGCAC
AGGTCCAACTTGGCCCTGACTCCTGCGGGGGTATGGGGAAGCTGTGACAGAAACG**ATG**GGTGCTGTGGTCCTCTG
CAGGCCCTCACCCCTTAACTTCCTCATACAGACTGGCACTGGGCAGGGCCTCTCATGTGGCAGCCACATGTGGCG
TTGTGAGGCCACCCCATGTGGGGTCTGTGGTGAGAGTCCTGTAGGATCCCTGCTCAAGCAGCACAGAGGAAGGGG
CAAGACGTGGCCTGTAGGCACTGTCTCAGCCTGCAGAGAAGAAAGTGAGGCCGGGAGCCTGAGCCTGGGCTGGAG
CCTTCTCCCCTCCCCAGTTGGACTAGGGGCAGTGTTAATTTTGAAAAGGTGTGGGTCCCTGTGTCCTCTTCCAGG
GGTCCAAGGGAACGGGAGAGGTCACTGGGCCTGTTTTCTCCCTCCTGACCCTGCATCTCCCACCCCGTGTATCAT
AGGGAACTTTCACCTTAAAATCTTTCTAAGCAAAGTG**TGA**ATAGGATTTTTACTCCCTTTGTACAGTATTCTGAG
AAACGCAAATAAAAGGGCAACATGTTTCTGTT

FIGURE 810

TGCCAGCGGGGAGGCTGCAGCCGCGGGTTGTTACAGCTGCTGGAGCAGCAGCGGCCCCCGCTCCCGGGAACCGTT
CCCGGGCCGTTGATCTTCGGCCCCACACGAACAGCAGAGAGGGGCAGCAGG**ATG**AATGTGGGCACAGCGCACAGC
GAGGTGAACCCCAACACGCGGGTGATGAACAGCCGTGGCATCTGGCTCTCCTACGTGCTGGCCATCGGTCTCCTC
CACATCGTGCTGCTGAGCATCCCGTTTGTGAGTGTCCCTGTCGTCTGGACCCTCACCAACCTCATTCACAACATG
GGCATGTATATCTTCCTGCACACGGTGAAGGGGACACCCTTTGAGACCCCGGACCAGGGCAAGGCGAGGCTGCTA
ACCCACTGGGAGCAGATGGATTATGGGGTCCAGTTCACGGCCTCTCGGAAGTTCTTGACCATCACACCCATCGTG
CTGTACTTCCTCACCAGCTTCTACACTAAGTACGACCAGATCCATTTTGTGCTCAACACCGTGTCCCTGATGAGC
GTGCTTATCCCCAAGCTGCCCCAGCTCCACGGAGTCCGGATTTTTGGAATCAATAAGTAC**TGA**GAGTGCAGCCCC
TTCCCCTGCCCAGGGTGGCAGGGGAGGGGTAGGGTAAAAGGCATGTGCTGCAACACTGAAGACAGAAAGAAGAAG
CCTCTGGACACTGCCAGAGATGGGGGTTGAGCCTCTGGCCTAATTTCCCCCCTCGCTTCCCCCAGTAGCCAACTT
GGAGTAGCTTGTAGTGGGGTTGGGGTAGGCCCCCTGGGCTCTGACCTTTTCTGAATTTTTTGATCTTTTCCTTTT
GCTTTTTGAATAGAGACTCCATGGAGTTGGTCATGGAATGGGCTGGGCTCCTGGGCTGAACATGGACCACGCAGT
TGCGACAGGAGGCCAGGGGAAAAACCCCTGCTCACTTGTTTGCCCTCAGGCAGCCAAAGCACTTTAACCCCTGCA
TAGGGAGCAGAGGGCGGTACGGCTTCTGGATTGTTTCACTGTGATTCCTAGGTTTTTTCGATGCCACGCAGTGTG
TGCTTTTGTGTATGGAAGCAAGTGTGGGATGGGTCTTTGCCTTTCTGGGTAGGGAGCTGTCTAATCCAAGTCCCA
GGCTTTTGGCAGCTTCTCTGCAACCCACCGTGGGTCCTGGTTGGGAGTGGGGAGGGTCAGGTTGGGGAAAGATGG
GGTAGAGTGTAGATGGCTTGGTTCNCAGAGGTGAGGGGGCCAGGGCTGCTGCCATCCTGGCCTGGTGGAGGTTGG
GGAGCTGTAGGAGAGCTAGTGAGTCGAGACTTAGAAGAATGGGGCCACATAGCAGCAGAGGACTGGTGTAAGGGA

FIGURE 811

CCCAACCTCCACCAGGCCAGG**ATG**GCAGCAGCCCTGGCCCCCTCACCTCTGNGAACCAAGCCATCTACACTCTAC
CCCATCTTTCCCCAACCTGACCCTCCCCACTCCCAACCAGGACCCACGGTGGGTTGCAGAGAAGCTGCCAAAAGC
CTGGGACTTGGATTAGACAGCTCCCTACCCAGAAAGGCAAAGACCCATCCCACACTTGCTTCCATACACAAAAGC
ACACACTGCGTGGCATCGAAAAAACCTAGGAATCACAGTGAAACAATCCAGAAGCCGTACCGCCCTCTGCTCCCT
ATGCAGGGGTTAAAGTGCTTTGGCTGCCTGAGGGCAAACAAG**TGA**GCAGGGGTTTTTCCCCTGGCCTCCTGTCGC
AACTGCGTGGTCCATGTTCAGCCCAGGAGCCCAGCCCATTCCATGACC

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FIGURE 812

GGTTTGCAGCTGCTCCGTCATCGTGCGGCCCGACGCTATCTCGCGCTCGTGTGCAGGCCCGGCTCGGCTCCTGGT
CCCCGGTGCGAGGGTTAACGCGAGGCCCCGGCCTCGGTCCCCGGACTAGGCCGTGACCCCGGGTGCC**ATG**AAGCA
GGAGGGCTCGGCGCGGCGCCGCGGCGCGGACAAGGCGAAACCGCCGCCCGGCGGAGGAGAACAAGAACCCCCACC
GCCGCCGGCCCCCCAGGATGTGGAGATGAAAGAGGAGGCAGCGACGGGTGGCGGGTCGACGGGGGAGGCAGACGG
CAAGACGGCGGCGGCAGCGGCTGAGCACTCCCAGCGAGAGCTGGACACAGTCACCTTGGAGGACATCAAGGAGCA
CGTGAAACAGCTAGAGAAAGCGGTTTCAGGCAAGGAGCCGAGATTCGTGCTGCGGGCCCTGCGGATGCTGCCTTC
CACATCACGCCGCCTCAACCACTATGTTCTGTATAAGGCTGTGCAGGGCTTCTTCACTTCAAATAATGCCACTCG
AGACTTTTTGCTCCCCTTCCTGGAAGAGCCCATGGACACAGAGGCTGATTTACAGTTCCGTCCCCGCACGGGAAA
AGCTGCGTCGACACCCCTCCTGCCTGAAGTGGAAGCCTATCTCCAACTCCTCGTGGTCATCTTCATGATGAACAG
CAAGCGCTACAAAGAGGCACAGAAGATCTCTGATGATCTGATGCAGAAGATCAGTACTCAGAACCGCCGGGCCCT
AGACCTTGTAGCCGCAAAGTGTTACTATTATCACGCCCGGGTCTATGAGTTCCTGGACAAGCTGGATGTGGTGCG
CAGCTTCTTGCATGCTCGGCTCCGGACAGCTACGCTTCGGCATGACGCAGACGGGCAGGCCACCCTGTTGAACCT
CCTGCTGCGGAATTACCTACACTACAGCTTGTACGACCAGGCTGAGAAGCTGGTGTCCAAGTCTGTGTTCCCAGA
GCAGGCCAACAACAATGAGTGGGCCAGGTACCTCTACTACACAGGGCGAATCAAAGCCATCCAGCTGGAGTACTC
AGAGGCCCGGAGAACGATGACCAACGCCCTTCGCAAGGCCCCTCAGCACACAGCTGTCGGCTTCAAACAGACGGT
GCACAAGCTTCTCATCGTGGTGGAGCTGTTGCTGGGGGAGATCCCTGACCGGCTGCAGTTCCGCCAGCCCTCCCT
CAAGCGCTCACTCATGCCCTATTTCCTTCTGACTCAAGCTGTCAGGACAGGAAACCTAGCCAAGTTCAACCAGGT
CCTGGATCAGTTTGGGGAGAAGTTTCAAGCAGATGGGACCTACACCCTAATTATCCGGCTGCGGCACAACGTGAT
TAAGACAGGTGTACGCATGATCAGCCTCTCCTATTCCCGAATCTCCTTGGCTGACATCGCCCAGAAGCTGCAGTT
GGATAGCCCCGAAGATGCAGAGTTCATTGTTGCCAAGGCCATCCGGGATGGTGTCATTGAGGCCAGCATCAACCA
CGAGAAGGGCTATGTCCAATCCAAGGAGATGATTGACATCTATTCCACCCGAGAGCCCCAGCTAGCCTTCCACCA
GCGCATCTCCTTCTGCCTAGATATCCACAACATGTCTGTCAAGGCCATGAGGTTTCCTCCCAAATCGTACAACAA
GGACTTGGAGTCTGCAGAGGAACGGCGTGAGCGAGAACAGCAGGACTTGGAGTTTGCCAAGGAGATGGCAGAAGA
TGATGATGACAGCTTCCCT**TGA**GCTGGGGGGCTGGGGAGGGGTAGGGGGAATGGGGACAGGCTCTTTCCCCCTTG
GGGGTCCCCTGCCCAGGGCACTGTCCCCATTTTCCCACACACAGCTCATATGCTGCATTCGTGCAGGGGGTGGGG
GTGCTGGGAGCCAGCCACCCTGACCTCCCCCAGGGCTCCTCCCCAGCCGGTGACTTACTGTACAGCAGGCAGGAG
GGTGGGCAGGCAACCTCCCNCCNNGGCAGGGTCCTGGCCAGCAGTGTGGGAGCAGGAGGGGAAGGATAGTTCTGT
GTACTCCTTTAGGGAGTGGGGGACTAGAACTGGGATGTCTTGGCTTGTATGTTTTTTGAAGCTTCGATTATGATT
TTTAAACAATAAAAAGTTCTCC

FIGURE 813

CCAAACCGGCCTCCGTCCGGGCCCTGCTGTTTGACATCTCCTTCCTCATGCTGTGCCATGTGGCCCAGACCTATG
GTTCAGAGGTGATTCTGTCCGAGTCGCGCACAGGAGCTGAGGTGCCCTTCTTCGAGACCTGGATGCAGACCTGCA
TGCCTGAGGAGGGCAAGATCCTGAACCCTGACCACCCCTGCTTCCGCCCCGACTCCACCAAAGTGGAGTCCCTGG
TGGCCCTGCTCAACAACTCCTCGGAGATGAAGCTAGTGCAGATGAAGTGGCATGAGGCCTGTCTCAGCATCTCAG
CCGCCATCTTGGAAATCCTCAATGCCTGGGAGAATGGGGTCCTGGCCTTCGAGTCCATCCAGAAAATCACTGATA
ACATCAAAGGGNAAGGTATGCAGTCTGGCGGTGTGTGCTGTGGCTTNGGCTTGTGGCCCACGTCCGGATGCTGGG
GCTGGATGAGCGTGAGAAGTCGCTGCAGATGATCCGCCAGCTGGCAGGGCCNACTGTTTAGTGAGAACACCCTGC
AGTTCTACAATGAGAGGGTGGTGATC**ATG**AACTCGATCCTGGAGCGCATGTGTGCCGACGTGCTGCAGCAGACAG
CCACGCAGATCAAGTTTCCCTCCACCGGGGTGGACACAATGCCCTACTGGAACCTGCTGCCCCCCAAGCGGCCCA
TCAAAGAGGTGCTGACGGACATTTTTGCCAAGGTGCTGGAGAAGGGCTGGGTGGACAGCCGCTCCATCCACATCT
TTGACACCCTGCTGCACATGGGCGGCGTCTACTGGTTCTGCAACAACCTGATTAAGGAGCTGCTGAAGGAGACGC
GGAAGGAGCACACGCTGCGGGCAGTGGAGCTGCTCTACTCCATCTTCTGCCTGGACATGCAGCAAGTGACCCTGG
TCCTGCTGGGCCACATCCTACCTGGCCTGCTCACTGACTCCTCCAAGTGGCACAGCCTCATGGACCCCCCGGGCA
CTGCTCTTGCCAAGCTGGCCGTGTGGTGTGCCCTCAGTTCCTACTCCTCCCACAAGGGACAGGCGTCCACCCGCC
AGAAGAAGAGACACCGCGAAGACATTGAGGATTATATCAGCCTCTTCCCCCTGGACGATGTGCAGCCTTCGAAGT
TGATGCGACTGCTGAGCTCTAATGAGGACGATGCCAACATCCTTTCGAGCCCCACAGACCGATCCATGAGCAGCT
CCCTCTCAGCCTCTCAGCTCCACACGGTCAACATGCGGGACCCTCTGAACCGAGTCCTGGCCAACCTGTTCCTGC
TCATCTCCTCCATCCTGGGGTCTCGCACCGCTGGCCCCCACACCCAGTTCGTGCAGTGGTTCATGGAGGAGTGTG
TGGACTGCCTGGAGCAGGGTGGCCGTGGCAGCGTCCTGCAGTTCATGCCCTTCACCACCGTGTCGGAACTGGTGA
AGGTGTCAGCCATGTCCAGCCCCAAGGTGGTTCTGGCCATCACGGACCTCAGCCTGCCCCTGGGCCGCCAGGTGG
CTGCTAAAGCCATTGCTGCACTC**TGA**GGGGCTTGGCATGGCCGCAGTGGGGGCTGGGGACTGGCGCAGCCCCAGG
CGCCTCCAAGGGAAGCAGTGAGGAAAGATGAGGCATCGTGCCTCACATCCGCTCCACATGGTGCAAGAGCCTCTA
GCGGCTTCCAGTTCCCCGCTCCTGACTCCTGACCTCCAGGATGTCTCCCGGTTTCTTCTTTCAAAATTTCCTCTC
CATCTGCTGGCACCTGAGGAGAGTGAGCAGCCTGGACCACAAGCCCAGTGGTCACCCCTGTGTGCGCCCGCCCCA
GCCCAGGAGTAGTCTTACCTCTGAGGAACTTTCTAGATGCAAAGTGTGTATGTGTGTGTGTGTGTGTGTGTGT
GTGTTTGTGTGTATTTTGTAATATGTGAGGGAAATCTACCTTCGTTCATGTATAAATAAAGCTCCTCGTGGCTCC
CTT

FIGURE 814A

CACACACACACACACACACACACACCCCAACACACACACACACCCCAACACACACACACACACACACAC
ACACACACACACACACACACACACACACACACAGCGGGATGGCCGAGCGCCGCACGCGTAGCACGCCGGGACTAG
CTATCCAGCCTCCCAGCAGCCTCTGCGACGGGCGCGGTGCGTAAGTACCTCGCCGGTGGTGGCCGTTCTCCGTAA
G**ATG**GCGGACCGGCGGCGGCAGCGCGCTTCGCAAGACACCGAGGACGAGGAATCTGGTGCTTCGGGCTCCGACAG
CGGCGGCTCCCCGTTGCGGGGAGGCGGGAGCTGCAGCGGTAGCGCCGGAGGCGGCGGCAGCGGCTCTCTGCCTTC
ACAGCGCGGAGGCCGAACCGGGGCCCTTCATCTGCGGCGGGTGGAGAGCGGGGGCGCCAAGAGTGCTGAGGAGTC
GGAGTGTGTGAGTGAAGATGGCATTGAAGGTGATGCTGTTCTCTCGGATTATGAAAGTGCAGAAGACTCGGAAGG
TGAAGAAGGTGAATACAGTGAAGAGGAAAACTCCAAAGTGGAGCTGAAATCAGAAGCTAATGATGCTGTTAATTC
TTCAACAAAAGAAGAGAAGGGAGAAGAAAAGCCTGACACCAAAAGCACTGTGACTGGAGAGAGGCAAAGTGGGGA
CGGACAGGAGAGCACAGAGCCTGTGGAGAACAAAGTGGGTAAAAAGGGCCCTAAGCATTTGGATGATGATGAAGA
TCGGAAGAATCCAGCATACATACCTCGGAAAGGGCTCTTCTTTGAGCATGATCTTCGAGGGCAAACTCAGGAGGA
GGAAGTCAGACCCAAGGGGCGTCAGCGAAAGCTATGGAAGGATGAGGGTCGCTGGGAGCATGACAAGTTCCGGGA
AGATGAGCAGGCCCCAAAGTCCCGACAGGAGCTCATTGCTCTTTATGGTTATGACATTCGCTCAGCTCATAATCC
TGATGACATCAAACCTCGAAGAATCCGGAAACCCCGATATGGGAGTCCTCCACAAAGAGATCCAAACTGGAACGG
TGAGCGGCTAAACAAGTCTCATCGCCACCAGGGTCTTGGGGGCACCCTACCACCAAGGACATTTATTAACAGGAA
TGCTGCAGGTACCGGCCGTATGTCTGCACCCAGGAATTATTCTCGATCTGGGGGCTTCAAGGAAGGTCGTGCTGG
TTTTAGGCCTGTGGAAGCTGGTGGGCAGCATGGTGGCCGGTCTGGTGAGACTGTTAAGCATGAGATTAGTTACCG
GTCACGGCGCCTAGAGCAGACTTCTGTGAGGGATCCATCTCCAGAAGCAGATGCTCCAGTGCTTGGCAGTCCTGA
GAAGGAAGAGGCAGCCTCAGAGCCACCAGCTGCTGCTCCTGATGCTGCACCACCACCCCCTGATAGGCCCATTGA
GAAGAAATCCTATTCCCGGGCAAGAAGAACTCGAACCAAAGTTGGAGATGCAGTCAAGCTTGCAGAGGAGGTGCC
CCCTCCTCCTGAAGGACTGATTCCAGCACCTCCAGTCCCAGAAACCACCCCAACTCCACCTACTAAGACTGGGAC
CTGGGAAGCTCCGGTGGATTCTAGTACAAGTGGACTTGAGCAAGATGTGGCACAACTAAATATAGCAGAACAGAA
TTGGAGTCCGGGGCAGCCTTCTTTCCTGCAACCACGGGAACTTCGAGGTATGCCCAACCATATACACATGGGAGC
AGGACCTCCACCTCAGTTTAACCGGATGGAAGAAATGGGTGTCCAGGGTGGTCGAGCCAAACGCTATTCATCCCA
GCGGCAAAGACCTGTGCCAGAGCCCCCCGCCCCTCCAGTGCATATCAGTATCATGGAGGGACATTACTATGATCC
ACTGCAGTTCCAGGGACCAATCTATACCCATGGTGACAGCCCTGCCCCGCTGCCTCCACAGGGCATGCTTGTGCA
GCCAGGAATGAACCTTCCCCACCCAGGTTTACATCCCCACCAGACACCAGCTCCTCTGCCCAATCCAGGCCTCTA
TCCCCCACCAGTGTCCATGTCTCCAGGACAGCCACCACCTCAGCAGTTGCTTGCTCCTACTTACTTTTCTGCTCC
AGGCGTCATGAACTTTGGTAATCCCAGTTACCCTTATGCTCCAGGGGCACTGCCTCCCCCACCACCGCCTCATCT
GTATCCTAATACACAGGCCCCATCACAGGTATATGGAGGAGTGACCTACTATAACCCCGCCCAGCAGCAGGTGCA
GCCAAAGCCCTCCCCACCCCGGAGGACTCCCCAGCCAGTCACCATCAAGCCCCCTCCACCTGAGGTTGTAAGCAG
GGGTTCCAGT**TAA**TACAAGTTTCTGAATATTTTAAATCTTAACATCATATAAAAAGCAGCAGAGGTGAGAACTCA
GAAGAGAAATACAGCTGGCTATCTACTACCAGAAGGGCTTCAAAGATATAGGGTGTGGCTCCTACCAGCAAACAG
CTGAAAGAGGAGGACCCCTGCCTTCCTCTGAGGACAGGCTCTAGAGAGAGGGAGAAACAAGTGGACCTCGTCCCA
TCTTCACTCTTCACTTGAGTTGGCTGTGTTCGGGGGAGCAGAGAGAGCCAGACAGCCCCAAGCTTCTGAGTCTAG
ATACAGAAGCCCATGTCTTCTGCTGTTCTTCACTTCTGGGAAATTGAAGTGTCTTCTGTTCCCAAGGAAGCTCCT
TCCTGTTTGTTTTGTTTTCTAAGATGTTCATTTTTAAAGCCTGGCTTCTTATCCTTAATATTATTTTAATTTTTT
CTCTTTGTTTCTGTTTCTTGCTCTCTCTCCCTGCCTTTAAATGAAACAAGTCTAGTCTTCTGGTTTTCTAGCCCC
TCTGGATTCCCTTTTGACTCTTCCGTGCATCCCAGATAATGGAGAATGTATCAGCCAGCCTTCCCCACCAAGTCT
AAAAAGACCTGGCCTTTCACTTTTAGTTGGCATTTGTTATCCTCTTGTATACTTGTATTCCCTTAACTCTAACCC
TGTGGAAGCATGGCTGTCTGCACAGAGGGTCCCATTGTGCAGAAAAGCTCAGAGTAGGTGGGTAGGAGCCCTTCT
CTTTGACTTAGGTTTTTAGGAGTCTGAGCATCCATCAATACCTGTACTATGATGGGCTTCTGTTCTCTGCTGAGG
GCCAATACCCTACTGTGGGGAGAGATGGCACACCAGATGCTTTTGTGAGAAAGGGATGGTGGAGTGAGAGCCTTT
GCCTTTAGGGGTGTGTATTCACATAGTCCTCAGGGCTCAGTCTTTTGAGGTAAGTGGAATTAGAGGGCCTTGCTT
CTCTTCTTTCCATTCTTCTTGCTACACCCCTTTTCCAGTTGCTGTGGACCAATGCATCTCTTTAAAGGCAAATAT
TATCCAGCAAGCAGTCTACCCTGTCCTTTGCAATTGCTCTTCTCCACGTCTTTCCTGCTACAAGTGTTTTAGATG
TTACTACCTTATTTTCCCCGAATTCTATTTTTGTCCTTGCAGACAGAATATAAAAACTCCTGGGCTTAAGGCCTA
AGGAAGCCAGTCACCTTCTGGGCAAGGGCTCCTATCTTTCCTCCCTATCCATGGCACTAAACCACTTCTCTGCTG

FIGURE 814B

CCTCTGTGGAAGAGATTCCTATTACTGCAGTACATACGTCTGCCAGGGGTAACCTGGCCACTGTCCCTGTCCTTC
TACAGAACCTGAGGGCAAAGATGGTGGCTGTGTCTCTCCCCGGTAATGTCACTGTTTTTATTCCTTCCATCTAGC
AGCTGGCCTAATCACTCTGAGTCACAGGTGTGGGATGGAGAGTGGGGAGAGGCACTTAATCTGTAACCCCCAAGG
AGGAAATAACTAAGAGATTCTTCTAGGGGTAGCTGGTGGTTGTGCCTTTTGTAGGCTGTTCCCTTTGCCTTAAAC
CTGAAGATGTCTCCTCAAGCCTGTGGGCAGCATGCCCAGATTCCCAGACCTTAAGACACTGTGAGAGTTGTCTCT
GTTGGTCCACTGTGTTTAGTTGCAAGGATTTTTCCATGTGTGGTGGTGTTTTTTGTTACTGTTTTAAAGGGTGCC
CATTTGTGATCAGCATTGTGACTTGGAGATAATAAAATTTAGACTATAAACTTG

FIGURE 815

ATGAGATCCGCGGTGTTCAAGGCGGCCGCGGCCCCTGCCGGCGGCAATCCTGAGCAGCGACTGGACTACGAGCGG
GCTGCGGCGCTGGGCGGGCCCGAGGACGAGCCTGGGGCGGCCGAAGCCCACTTCCTCCCCCGGCACCGTAAGCTC
AAGGAGCCGGGGCCCCCGCTGGCCTCCTCCCAGGGCGGGAGCCCCGCGCCTTCCCCGGCCGGCTGCGGCGGCAAG
GGCCGGGGCTTGTTACTCCCGGCCGGGGCGGCCCCCGGGCAGCAGGAAGAGAGCTGGGGCGGTTCGGTGCCCTTG
CCCTGTCCGCCCCCGGCCACCAAGCAAGCCGGCATTGGGGGGGAGCCTGCCGCAGCCGGAGCCGGCTGCAGCCCC
CGGCCCAAGTATCAGGCGGTGCTGCCCATTCAGACGGGCTCTCTCGTGGCGGCGGCCAAAGAGCCTACGCCCTGG
GCTGGGGACAAGGGTGGGGCGGCCTCCCCCGCTGCCACCGCCTCGGACCCGGCGGGACCCCCACCACTACCTCTG
CCCGGGCCGCCACCCCTCGCGCCCACCGCCACCGCCGGGACCCTGGCGGCCAGCGAGGGCAGATGGAAGAGTATG
AGGAAGAGCCCTCTCGGGGGTGGTGGCGGCTCGGGAGCCTCCAGTCAGGCCGCCTGCCTCAAACAGATCCTTCTG
CTGCAATTGGACCTCATCGAACAGCAGCAGCAGCAGCTGCAGGCCAAGGAAAAGGAGATCGAGGAGCTGAAGTCA
GAGAGAGACACGCTCCTTGCTCGGATTGAACGTATGGAAAGGCGGATGCAGCTGGTAAAGAAGGATAACGAGAAA
GAAAGGCACAAGCTGTTTCAGGGCTATGAAACTGAAGAGAGAGAGGAAACAGAGCTATCTGAGAAAATTAAACTG
GAGTGCCAGCCGGAGCTTTCCGAGACATCCCAGACTCTGCCTCCCAAGCCCTTCTCATGTGGGCGGAGTGGAAAG
GGACATAAAAGGAAATCCCCATTTGGAAGTACAGAAAGAAAGACTCCTGTTAAAAAGCTGGCTCCTGAATTTTCA
AAAGTCAAAACAAAAACTCCTAAGCACTCTCCTATTAAAGAGGAACCCTGTGGTTCCTTATCTGAAACTGTTTGT
AAACGTGAATTGAGGAGCCAAGAAACCCCAGAAAAGCCCCGGTCTTCAGTGGACACCCCACCAAGACTCTCCACT
CCCCAAAAGGGACCCAGCACCCATCCCAAGGAGAAAGCCTTCTCAAGTGAGATAGAAGATTTGCCGTACCTTTCC
ACCACAGAAATGTATTTGTGTCGTTGGCACCAGCCTCCCCCATCACCGTTACCATTACGGGAATCCTCTCCAAAG
AAGGAGGAGACTGTAGCAAGTAAGGCA**TAG**AGAACACTTGCTCTTATACCCTAGTGGTGGCGGTCAAGCTAACAA
GTGTGAAAATGCCTTTGGCATTTTTAAAAAAGTGCAATCAATAAAGCAGAGTTCTGTCAAGAATGAGTAAGTTAA
CAGCCAGAGACAGACACTGTGCAGGCATTGCAAATAGATGGAATTACAGCAAAATGTGCTCAATGTATTTGCCTG
CTTACAACACTGGGAGATGTGTTTGCCAGTAAGTTGCTCATCACAAGAGCACCAGACTTGGGGGTGTAATCTCCG
GCAACTTGCATGCCCTCTGAAAGAAGGGTTTTCTGTGCTGTGAAATGCATAGAACTATACTTTGCCATGCACGAC
TGTTCCTGCAATTGATATTGTGTGAAATCT

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FIGURE 816

CGAGGCGCTCCCTGGGATCACATGGTACCTGCTCCAGTGCCGCGTGCGGCCCGGGAACCCTGGGCTGCTGGCGCC
TGCGCAGAGCCCTCTGTCCCAGGGAAAGGCTCGGGCAAAAGGCGGCTGAGATTGGCAGAGTGAAATATTACTGCC
GAGGGAACGTAGCAGGGCACACGTCTCGCCTCTTTGCGACTCGGTGCCCCGTTTCTCCCCATCACCTACTTACTT
CCTGGTTGCAACCTCTCTTCCTCTGGGACTTTTGCACCGGGAGCTCCAGATTCGCCACCCCGCAGCGCTGCGGAG
CCGGCAGGCAGAGGCACCCCGTACACTGCAGAGACCCGACCCTCCTTGCTACCTTCTAGCCAGAACTACTGCAGG
CTGATTCCCCCTACACACTCTCTCTGCTCTTCCCATGCAAAGCAGAACTCCGTTGCCTCAACGTCCAACCCTTCT
GCAGGGCTGCAGTCCGGCCACCCCAAGACCTTGCTGCAGGGTGCTTCGGATCCTGATCGTGAGTCGCGGGGTCCA
CTCCCCGCCCTTAGCCAGTGCCCAGGGGGCAACAGCGGCGATCGCAACCTCTAGTTTGAGTCAAGGTCCAGTTTG
AATGACCGCTCTCAGCTGGTGAAGAC**ATG**ACGACCCTGGACTCCAACAACAACACAGGTGGCGTCATCACCTACA
TTGGCTCCAGTGGCTCCTCCCCAAGCCGCACCAGCCCTGAATCCCTCTATAGTGACAACTCCAATGGCAGCTTCC
AGTCCCTGACCCAAGGCTGTCCCACCTACTTCCCACCATCCCCCACTGGCTCCCTCACCCAAGACCCGGCTCGCT
CCTTTGGGAGCATTCCACCCAGCCTGAGTGATGACGGCTCCCCTTCTTCCTCATCTTCCTCGTCGTCATCCTCCT
CCTCCTTCTATAATGGGAGCCCCCCTGGGAGTCTACAAGTGGCCATGGAGGACAGCAGCCGAGTGTCCCCCAGCA
AGAGCACCAGCAACATCACCAAGCTGAATGGCATGGTGTTACTGTGTAAAGTGTGTGGGGACGTTGCCTCGGGCT
TCCACTACGGTGTGCACGCCTGCGAGGGCTGCAAGGGCTTTTTCCGTCGGAGCATCCAGCAGAACATCCAGTACA
AAAGGTGTCTGAAGAATGAGAATTGCTCCATCGTCCGCATCAATCGCAACCGCTGCCAGCAATGTCGCTTCAAGA
AGTGTCTCTCTGTGGGCATGTCTCGAGACGCTGTGCGTTTTGGGCGCATCCCCAAACGAGAGAAGCAGCGGATGC
TTGCTGAGATGCAGAGTGCCATGAACCTGGCCAACAACCAGTTGAGCAGCCAGTGCCCGCTGGAGACTTCACCCA
CCCAGCACCCCACCCCAGGCCCCATGGGCCCCTCGCCACCCCCTGCTCCGGTCCCCTCACCCCTGGTGGGCTTCT
CCCAGTTTCCACAACAGCTGACGCCTCCCAGATCCCCAAGCCCTGAGCCCACAGTGGAGGATGTGATATCCCAGG
TGGCCCGGGCCCATCGAGAGATCTTCACCTACGCCCATGACAAGCTGGGCAGCTCACCTGGCAACTTCAATGCCA
ACCATGCATCAGGTAGCCCTCCAGCCACCACCCCACATCGCTGGGAAAATCAGGGCTGCCCACCTGCCCCCAATG
ACAACAACACCTTGGCTGCCCAGCGTCATAACGAGGCCCTAAATGGTCTGCGCCAGGCTCCCTCCTCCTACCCTC
CCACCTGGCCTCCTGGCCCTGCACACCACAGCTGCCACCAGTCCAACAGCAACGGGCACCGTCTATGCCCCACCC
ACGTGTATGCAGCCCCAGAAGGCAAGGCACCTGCCAACAGTCCCCGGCAGGGCAACTCAAAGAATGTTCTGCTGG
CATGTCCTATGAACATGTACCCGCATGGACGCAGTGGGCGAACGGTGCAGGAGATCTGGGAGGATTTCTCCATGA
GCTTCACGCCCGCTGTGCGGGAGGTGGTAGAGTTTGCCAAACACATCCCGGGCTTCCGTGACCTTTCTCAGCATG
ACCAAGTCACCCTGCTTAAGGCTGGCACCTTTGAGGTGCTGATGGTGCGCTTTGCTTCGTTGTTCAACGTGAAGG
ACCAGACAGTGATGTTCCTAAGCCGCACCACCTACAGCCTGCAGGAGCTTGGTGCCATGGGCATGGGAGACCTGC
TCAGTGCCATGTTCGACTTCAGCGAGAAGCTCAACTCCCTGGCGCTTACCGAGGAGGAGCTGGGCCTCTTCACCG
CGGTGGTGCTTGTCTCTGCAGACCGCTCGGGCATGGAGAATTCCGCTTCGGTGGAGCAGCTCCAGGAGACGCTGC
TGCGGGCTCTTCGGGCTCTGGTGCTGAAGAACCGGCCCTTGGAGACTTCCCGCTTCACCAAGCTGCTGCTCAAGC
TGCCGGACCTGCGGACCCTGAACAACATGCATTCCGAGAAGCTGCTGTCCTTCCGGGTGGACGCCCAG**TGA**CCCG
CCCGGCCGGCCTTCTGCCGCTGCCCCCTTGTACAGAATCGAACTCTGCACTTCTCTCTCCTTTACGAGACGAAAA
GGAAAAGCAAACCAGAATCTTATTTATATTGTTATAAAATATTCCAAGATGAGCCTCTGGCCCCCTGAGCCTTCT
TGTAAATACCTGCCTCCCTCCCCCATCACCGAACTTCCCCTGCTCCTTTTTTTAAACCACTCTGTCTCCCCCACA
ACCCTCCCCTGGCCCTCTGATTTGTTCTGTTCCTGTCTCAAATCCAATAGTTCACAGCTGAGCTGG

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FIGURE 817

AGGGCTTCTTTCGCCGCACAATCCAGAAGAACCTNCCATCCCACCTATTCCTGCAAATATGACAGCTGCTGTGTC
ATTGACAAGATCACCCGCAATCAGTGCCAGCTGTGCCGCTTCAAGAAGTGCATCGCCGTGGGC**ATG**GCCATGGAC
TTGGTTCTAGATGACTCGAAGCGGGTGGCCAAGCGTAAGCTGATTGAGCAGAACCGGGAGCGGCGGCGGAAGGAG
GAGATGATCCGATCACTGCAGCAGCGACCAGAGCCCACTCCTGAAGAGTGGGATCTGATCCACATTGCCACAGAG
GCCCATCGCAGCACCAATGCCCAGGGCAGCCATTGGAAACAGAGGCGGAAATTCCTGCCCGATGACATTGGCCAG
TCACCCATTGTCTCCATGCCGGACGGAGACAAGGTGGACCTGGAAGCCTTCAGCGAGTTTACCAAGATCATCACC
CCGGCCATCACCCGTGTGGTGGACTTTGCCAAAAAACTGCCCATGTTCTCCGAGCTGCCTTGCGAAGACCAGATC
ATCCTCCTGAAGGGGTGCTGCATGGAGATCATGTCCCTGCGGGCGGCTGTCCGCTACGACCCTGAGAGCGACACC
CTGACGCTGAGTGGGGAGATGGCTGTCAAGCGGGAGCAGCTCAAGAATGGCGGCCTGGGCGTAGTCTCCGACGCC
ATCTTTGAACTGGGCAAGTCACTCTCTGCCTTTAACCTGGATGACACGGAAGTGGCTCTGCTGCAGGCTGTGCTG
CTAATGTCAACAGACCGCTCGGGCCTGCTGTGTGTGGACAAGATCGAGAAGAGTCAGGAGGCGTACCTGCTGGCG
TTCGAGCACTACGTCAACCACCGCAAACACAACATTCCGCACTTCTGGCCCAAGCTGCTGATGAAGGAGAGAGAA
GTGCAGAGTTCGATTCTGTACAAGGGGGCAGCGGCAGAAGGCCGGCCGGGCGGGTCACTGGGCGTCCACCCGGAA
GGACAGCAGCTTCTCGGAATGCATGTTGTTCAGGGTCCGCAGGTCCGGCAGCTTGAGCAGCAGCTTGGTGAAGCG
GGAAGTCTCCAAGGGCCGGTTCTTCAGCACCAGAGCCCGAAGAGCCCGCAGCAGCGTCTCCTGGAGCTGCTCCAC
CGAAGCGGAATTCTCCATGCCCGAGCGGTCTGTGGGGAAGACGACAGCAGTGAGGCGGACTCCCCGAGCTCCTCT
GAGGAGGAACCGGAGGTCTGCGAGGACCTGGCAGGCAATGCAGCCTCTCCC**TGA**AGCCCCCCAGAAGGCCGATGG
GGAAGGAGAAGGAGTGCCATACCTTCTCCCAGGCCTCTGCCCCAAGAGCAGGAGGTGCCTGAAAGCTGGGAGCGT
GGGCTCAGCAGGGCTGGTCACCTCCCATCCCGTAAGACCACCTTCCCTTCCTCAGCAGGCCAAACATGGCCAGAC
TCCCTTGCTTTTTGCTGTGTAGTTCCCTCTGCCTGGGATGCCCTTCCCCCTTTCTCTGCCTGGCAACATCTTACT
TGTCCTTTGAGGCCCCAACTCAAGTGTCACCTCCTTCCCCAGCTCCCCCAGGCAGAAATAG

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FIGURE 818

ATGAAGGATCCCAAACAGATGATCCGAGACATGGAGAAATTGGATGAAATGGAGTTTAACCCAGTGCAACAGCCA
CAATTAAATGAGAAAGTACTGAAAGACAAGCGTGAGATGAAGGCATGGTACATAGTCCTGAAATTGCCCAGCGAG
GTCATGATGATGATGTTTTTAGCACCAGTGAAGATGATGGCTATCCTGAGGACGTGGATCAAGATAAGCATGATG
ACAGTACTGATGACAGTGACACCGACGGATCAGATTGAGAAAGTGTGCGCCATGATGATGAAGTCAGGTCTGAGT
GTACGGTTTGCAGATATGCCTGGAAAATCAAGGAAGAAAAAAACCATGAAGGAACTGACTCCTCTTCAAGCCACG
ATGCTTCGTATGGCAGGTCAAGAAATCCCTGAGGAGGGACGGGAAGTAGAGGAATTTTCAGAGGACAATGATGAA
GATGATTCTGATGACTCTAAAGCAGAAAAACAATCACAAAAACACAATCAAGAGGAACTGCATTCTGATGGCACA
TCCACTGCTTCTTCACAGCAGCAGGCTCCCCGGCAGTCTGTTCCTCCTTCTCAGGAGCTCCTCCTGAGACCACCT
GGAATGCCAGGACTCGGCCTTTACCCTGACTTTTACCTCCACGACCACCGACTTTTACTACCTCCCCCACGTCTA
CCTCCAAGTCTGCCCCCTGGTCCCCCTCCTCGGGAACCCCCACCAAGGATACCTCCCCCTGCACCTCCAGCTCCC
TTGCTGAACCCTGAGATTTTAAGTGCCCCACCCGGCTTGATTCAGCGATCCAAGGTAGATAATACAAGTGCAGCC
ACCGTTGAGAAGAAAGCCACAGCAACCGTCACTGCCAAACCACAGATCACTAATCCCAAGGCAGAGATTACTCGA
TTTGTGCCCAGTGCATTGAGAGTACGTCGGGAGAATAAAAGGGCTACTGCTGCTTCCCAAAGAAAGTCAGAGGAT
AATTCTGCTGTGCCTCTTGCCAAAGCAGCACCCAAATCTGGTCCTTCTGTTCCTGTCTCAGTACAAACTAAGGAT
GATGTCTATGAGGATTTCATGAAAGAGATGGAAGGGCTACTG**TGA**

FIGURE 819

GCGGGTGGTGCCGGTGGCGGCGGCGGGGGAGCGCGGGACAGGAGGCTTCGGGGAAG**ATG**GACCCGGCGCCCTCGC
TGGGCTGCAGCCTCAAGGATGTGAAGTGGAGCTCGGTGGCCGTGCCGCTCGACCTCCTGGTCAGCACTTACCGGC
TGCCCCAGATCGCGCGCCTGGACAACGGAGAGTGCGTAGAAGGGCTGCGGGAAAATGACTATCTGCTGATTCATT
CCTGCCGCCAGTGGACCACCATCACTGCCCACAGCTTGGAGGAGGGTCACTATGTCATTGGGCCAAAGATAGAGA
TTCCGGTACATTATGCAGGGCAATTCAAGCTGCTGGAACAAGACCGAGATATAAAGGAGCCAGTGCAATATTTCA
ACAGTGTGGAGGAGGTGGCTAAGGCATTTCCTGAACGCGTGTACGTCATGGAGGATATCACATTCAACGTGAAGG
TTGCTTCAGGTGAATGCAATGAAGACACTGAAGTTTACAACATCACCCTGTGTACTGGGGATGAACTCACTCTAA
TGGGGCAGGCAGAAATCCTTTATGCAAAGACATTCAAGGAAAAGTCACGACTCAACACAATCTTCAAAAAGATTG
GGAAGCTCAATTCCATCAGCAAGCTGGGAAAAGGCAAAATGCCGTGCCTCATTTGTATGAATCACCGGACCAACG
AAAGCATTAGCCTTCCATTCCAGTGCAAGGGCAGATTTAGCACCCGAAGTCCCCTGGAACTTCAGATGCAAGAGG
GCGAACACACCATCCGCAACATTGTGGAGAAAACCAGGCTTCCTGTGAATGTGACTGTGCCAAGCCCTCCACCGA
GAAACCCATACGACCTCCACTTCATCCGTGAGGGGCACCGCTATAAGTTTGTGAACATCCAGACCAAGACGGTGG
TGGTTTGCTGTGTGCTGCGGAACAACAAGATCCTCCCCATGCACTTTCCTTTGCACTTGACTGTCCCCAAGTTCA
GCCTCCCAGAACACCTGGTGAAGGGAGAGAGCTGGCCCGAAACCCTGGTCCATCACTGGCTAGGTATCTGCCAAG
AACAGTTCGACATCGATGAGTATTCACGGGCTGTCCGTGATGTGAAAACCGACTGGAATGAAGAATGCAAGAGCC
CCAAGAAGGGTCGGTGCTCTGGCCACAACCACGTGCCCAATTCGCTCAGCTACGCCCGCGATGAGCTCACCCAGT
CCTTCCACCGACTCTCGGTCTGTGTGTATGGCAACAATCTCCATGGCAACAGTGAGGTGAACCTTCATGGTTGCA
GGGACCTGGGGGGGAGATTGGGCTCCCTTTCCTCATGACATCCTGCCCTATCAGGACTCTGGAGATAGTGGGAGCG
ACTACCTTTTCCCAGAAGCTAGTGAAGAATCAGCAGGCATCCCGGGAAAGTCAGAACTTCCCTACGAAGAGCTGT
GGCTGGAGGAAGGCAAGCCCAGCCATCAGCCTCTCACTCGCTCTCTGAGCGAGAAGAACAGATGTGATCAGTTTA
GAGGTTCTGTCCGATCCAAATGTGCGACTTCTCCTCTTCCCATCCCTGGGACTCTGGGAGCAGCAGTGAAGTCTT
CAGATACTGCCCTACCTCCACCTCCAGTGCCTCCCAAATCTGAAGCCGTCAGAGAAGAATGCCGGCTCCTGAACG
CCCCACCTGTTCCACCCCGAAGCGCAAAGCCTTTGTCCACCAGTCCCTCCATCCCTCCTCGCACAGTCAAGCCAG
CGCGGCAACAGACTCGCTCTCCCAGCCCCACCTTGTCCTACTATTCTTCAGGGCTACACAACATCGTCACTAAAA
CTGACACAAATCCTTCTGAAAGCACTCCTGTTTCCTGCTATCCATGTAACCGAGTGAAAACTGATTCTGTGGACC
TGAAATCCCCGTTTGGAAGTCCTTCTGCTGAAGCTGTGTCCTCTCGGCTCTCATGGCCTAACCATTATTCAGGAG
CATCAGAAAGCCAGACCAGGAGTGACTTCCTGCTGGATCCAAGCAGGAGTTATAGTTACCCTAGACAAAAGACGC
CAGGCACACCAAAGAGAAACTGCCCAGCACCTTTTGATTTTGATGGCTGTGAGCTCCTGGCCAGCCCCACTAGCC
CAGTCACTGCAGAATTCAGTAGCAGCGTCTCTGGTTGTCCCAAGTCAGCCAGCTACTCTCTGGAGAGCACAGATG
TGAAATCTCTTGCAGCTGGTGTGACAAAGCAGAGTACGTCATGCCCTGCCTTACCCCCCAGGGCTCCAAAACTAG
TGGAAGAGAAGGTCGCCTCCGAAACATCTCCTTTGCCTCTGAAAATTGATGGTGCTGAGGAAGACCCCAAGTCTG
GGTCACCAGATCTCTCGGAGGACCAGTATTTTGTTAAAAAGGGCATGCAGGACATCTTCTCTGCCTCCTACCCTT
TCTCATCTCCGCTCCATCTCCAGCTGGCCCCCAGATCCTGTGGCGACGGTTCCCCATGGCAGCCACCTGCTGACC
TATCAGGACTCTCTATAGAGGAAGTGTCCAAGTCACTACGGTTCATTGGTTTGTCCGAAGATGTCATATCATTCT
TTGTTACTGAAAAGATTGATGGGAACCTGCTTGTTCAGCTAACGGAAGAAATCCTCTCAGAGGATTTCAAATTGA
GCAAATTGCAGGTGAAGAAGATAATGCAATTCATTAATGGCTGGAGGCCCAAAATA**TAG**CCAAATAACCCCCGGC
CAGCATGGAACAAAACTGATCAATGCGTGTGCTAGAAGGGGTGGGCTGGGACACAATTTCATGTTTTTGCACTAA
AAACCTTCTCTGTAAATAGGGATAAGAGAAACTCTTACTATGCAGATTACGTTTTTGAATGGTGAACAGGCTATT
TTGTACATCAATAAAAATGCTGTACAGAACACTTGGAGGTGTGCCTTGTACGTCACTCAACAAACACTCAGCAGC
TGCTAAAAGAAAAAAAGGCATGTGCAGAGAAATCATTCTTACCCAAGTAGGTTTATGTGAGAAGGTATGATATTT
ATTACAAAATAGCCAAAGCTGGAAGACATAAAAATCTTTAAAAAAAAAAAAAAAA

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FIGURE 820

CCTTTCTGCCCGTGGACGCCGCCGAAGAAGCATCGTTAAAGTCTCTCTTCACCCTGCCGTC**ATG**TCTAAGTCAGA
GTCTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACAACTGATGAGAGCCT
GAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAG
GGGCTTTGGGTTTGTCACATATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGA
TGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAGAAGATTCTCAAAGACCAGGTGCCCACTTAACTGTGAA
AAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAAGAGATTATTTTGAACAGTATGGAAA
AATTGAAGTGATTGAAATCATGACTGACCGAGGCAGTGGCAAGAAAAGGGGCTTTGCCTTTGTAACCTTTGACGA
CCATGACTCCGTGGATAAGATTGTCATTCAGAAATACCATACTGTGAATGGCCACAACTGTGAAGTTAGAAAAGC
CCTGTCAAAGCAAGAGATGGCTAGTGCTTCATCCAGCCAAAGAGGTCGAAGTGGTTCTGGAAACTTTGGTGGTGG
TCGTGGAGGTGGTTTCGGTGGGAATGACAACTTCGGTCATGGAGGAAACTTCAGTGGTCGTGGTGGCTTTGGTGG
CAGCCGTGCTGGTGGTAGATATGGTGGCAGTGGGGATGGCTCTAATGGATTTGGTAATGATGGAAGCAATTTTGG
AGGTGGTGGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAAA
TTTTGGAGGCAGAAACTCTGGCCCCTATGGCGGTGGAGGCCAGTACTTTGCAAAACCACGAAACCAAGGTGGCTA
TGGCGGTTCCAGCAGCAGCAGTAGCTGTGTCAGTGGCAGAAGATTT**TAA**TTAGGAAACAAAGCTTAGCAGGAGAG
GAGAGCCAGAGAAGTGACAGGGAAGCCACAGGTTACAACAGATTTGTGAACTCAGCCAAGCACAGTGGTGGCAGG
GCCTAGCTGCTACAAAGAAGACATGTTTTAGACAAATACTCATGTGTATGGGCAAAAAACTCGAGGACTGTGTTT
GTGACTAATTGTATAACAGGTTATTTTAGTTTCTGTTCTGTGGAAAGTGTAAAGCATTCCAACAAAGCGTTTTAA
TGTAGATTTTTTTTTTTTGCACCCATGCTGTTGATTGCTAAATGTAATAGTCTGATCGTGACGCTGAATAAATGT
CTTTTTTTTTTTAATGTGCTGTGTAAAGTTAGTCTACTCTGAAGCCATCTTGGTAAATTTCCCCAACAGTGTGAA
GTTAGAATTCCTTCAGGGTGATGCCAGGTTCTATTTGGAATTTATATACAACCTGCTTGGGTGGAGAAGCCATTG
TCTTCGGAAACCTTGGTGTAGTTGAACTGATAGTTACTGTTGTGACCTGAAGTTCACCATTAAAAGGGATTACCC
AAACAAAGTCATGGAATGGTTATAAAAGTGATTGTTGGCACATCCTATGCAATATATCTAAATTGAATAATGGTA
CCAGATAAAATTATAGATGGGAATGAAGCTTGTGTATCATCCATTATCATGTGTAATCAATAAACAATTTAATTC
TCTTGAA

FIGURE 821

AAGTCTCTCTTCACCCTGCCGTC**ATG**TCTAAGTCAGAGTCTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCA
TTGGAGGGTTGAGCTTTGAAACAACTGATGAGAGCCTGAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACT
GTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAGGGGCTTTGGGTTTGTCACATATGCCACTGTGGAGGAGG
TGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGATGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAG
AAGATTCTCAAAGACCAGGTGCCCACTTAACTGTGAAAAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAG
AACATCACCTAAGAGATTATTTTGAACAGTATGGAAAAATTGAAGTGATTGAAATCATGACTGACCGAGGCAGTG
GCAAGAAAAGGGGCTTTGCCTTTGTAACCTTTGACGACCATGACTCCGTGGATAAGATTGTCATTCAGAAATACC
ATACTGTGAATGGCCACAACTGTGAAGTTAGAAAAGCCCTGTCAAAGCAAGAGATGGCTAGTGCTTCATCCAGCC
AAAGAGGTCGAAGTGGTTCTGGAAACTTTGGTGGTGGTCGTGGAGGTGGTTTCGGTGGGAATGACAACTTCGGTC
ATGGAGGAAACTTCAGTGGTCGTGGTGGCTTTGGTGGCAGCTCTAATGGATTTGGTAATGATGGAAGCAATTTTG
GAGGTGGTGGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAA
ATTTTGGAGGCAGAAACTCTGGCCCCTATGGCGGTGGAGGCCAGTACTTTGCAAAACCACGAAACCAAGGTGGC

FIGURE 822A

ATTCCATCCCATCACCCCATGATCCTTCCCCATTGTCCCATGACCAGCCCCCGCAGGACCCTCCCCTGCTCCATG
TGACCCTCCCTCTGCCTCCTCCATGAAGGTCTCCTGGATTTCCCCACTCGCCTCTCACAGCCCTCCATTGTCTCT
GCAGACGTTGCCCCATCTGACGCTCGGCTCGAGGCCTCTCTGTGAGGGACCGGGGGGCCATCCCCCTCCAGGGCG
GAGATCGGAGGTCGCTGCCAAGCATGGCGCCCACCTGGGGCCCTGGCATGGTGTCTGTGGTTGGTCCCATGGGCC
TCCTTGTGGTCCTGCTCGTTGGAGGCTGTGCAGCAGAAGAGCCCCCCAGGTTTATCAAAGAACCCAAGGACCAGA
TCGGCGTGTCGGGGGGGTGTGGCCTCTTTCGTGTGTCAGGCCACGGGTGACCCCAAGCCACGAGTGACCTGGAACA
AGAAGGGCAAGAAGGTCAACTCTCAGCGCTTTGAGACGATTGAGTTTGATGAGAGTGCAGGGGCAGTGCTGAGGA
TCCAGCCGCTGAGGACACCGCGGGATGAAAACGTGTACGAGTGTGTGGCCCAGAACTCGGTTGGGGAGATCACAG
TCCATGCCAAGCTTACTGTCCTCCGAGAGGACCAGCTGCCCTCTGGCTTCCCCAACATCGACATGGGCCCACAGT
TGAAGGTGGTGGAGCGGACACGGACAGCCACCATGCTCTGTGCAGCCAGCGGCAACCCTGACCCTGAGATCACCT
GGTTCAAGGACTTCCTGCCTGTGGATCCTAGTGCCAGCAATGGACGCATCAAACAGCTGCGATCAGGAGCCCTGC
AGATTGAAAGCAGTGAGGAAACCGACCAGGGCAAATATGAGTGTGTGGCCACCAACAGCGCCGGCGTGCGCTACT
CCTCACCTGCCAACCTCTACGTGCGAGTCCGCCGCGTGGCCCCGCGCTTCTCCATCCTGCCCATGAGCCACGAGA
TCATGCCAGGGGGCAACGTGAACATCACCTGCGTGGCCGTGGGCTCGCCCATGCCATACGTGAAGTGGATGCAGG
GGGCCGAGGACCTGACCCCCGAGGATGACATGCCCGTGGGTCGGAACGTGCTGGAACTCACAGATGTCAAGGACT
CGGCCAACTACACCTGCGTGGCCATGTCCAGCCTGGGCGTCATTGAGGCGGTTGCTCAGATCACGGTGAAATCTC
TCCCCAAAGCTCCCGGGACTCCCATGGTGACTGAGAACACAGCCACCAGCATCACCATCACGTGGGACTCGGGCA
ACCCAGATCCTGTGTCCTATTACGTCATCGAATATAAATCCAAGAGCCAAGACGGGCCGTATCAGATTAAAGAGG
ACATCACCACCACACGTTACAGCATCGGCGGCCTGAGCCCCAACTCGGAGTACGAGATCTGGGTGTCGGCCGTCA
ACTCCATCGGCCAGGGGCCCCCCAGCGAGTCCGTGGTCACCCGCACAGGCGAGCAGGCCCCGGCCAGCGCGCCGC
GGAACGTGCAAGCCCGGATGCTCAGCGCGACCACCATGATTGTGCAGTGGGAGGAGCCGGTGGAGCCCAACGGCC
TGATCCGCGGCTACCGCGTCTACTACACCATGGAACCGGAGCACCCCGTGGGCAACTGGCAGAAGCACAACGTGG
ACGACAGCCTGCTGACCACCGTGGGCAGCCTGCTGGAGGACGAGACCTACACCGTGCGGGTGCTCGCCTTCACCT
CCGTCGGCGACGGGCCCCTCTCGGACCCCATCCAGGTCAAGACGCAGCAGGGAGTGCCGGGCCAGCCCATGAACC
TGCGGGCCGAGGCCAGGTCGGAGACCAGCATCACGCTGTCCTGGAGCCCCCCGCGGCAGGAGAGTATCATCAAGT
ACGAGCTCCTCTTCCGGGAAGGCGACCATGGCCGGGAGGTGGGAAGGACCTTCGACCCGACGACTTCCTACGTGG
TGGAGGACCTGAAGCCCAACACGGAGTACGCCTTCCGCCTGGCGGCCCGCTCGCCGCAGGGCCTGGGCGCCTTCA
CCCCCGTGGTGCGGCAGCGCACGCTGCAGTCCAAACCGTCAGCCCCCCCTCAAGACGTTAA**ATG**TGTCAGCGTGC
GCTCCACGGCCATTTTGGTAAGTTGGCGCCCGCCGCCGCCGGAAACGCACAACGGGGCCCTGGTGGGCTACAGCG
TCCGCTACCGACCGCTGGGCTCAGAGGACCCGGAACCCAAGGAGGTGAACGGCATCCCCCCGACCACCACTCAGA
TCCTGCTGGAGGCCTTGGAGAAGTGGACCCAGTACCGCATCACGACTGTCGCTCACACAGAGGTGGGACCAGGGC
CCGAGAGCTCGCCCGTGGTCGTCCGCACCGACGAGGATGTGCCCAGCGCGCCGCCGCGGAAGGTGGAGGCGGAGG
CGCTCAACGCCACGGCCATCCGCGTGCTGTGGCGCTCGCCCGCGCCCGGCCGGCAGCACGGCCAGATCCGCGGCT
ACCAGGTCCACTACGTGCGCATGGAGGGCGCCGAGGCCCGCGGGCCGCCGCGCATCAAGGACGTCATGCTGGCCG
ATGCCCAGGAGATGGTCATCACAAACTTGCAGCC**TGA**GACCGCGTACTCCATCACGGTAGCCGCCTACACCATGA
AGGGCGATGGCGCTCGCAGCAAACCCAAGGTGGTTGTGACCAAGGGAGCAGTGCTGGGCCGCCCAACCCTGTCGG
TGCAGCAGACCCCCGAGGGCAGCCTGCTGGCACGCTGGGAGCCCCCGGCTGGCACCGCGGAGGACCAGGTGCTGG
GCTACCGCCTGCAGTTTGGCCGTGAGGACTCGACGCCCCTGGCCACCCTGGAGTTCCCGCCCTCCGAGGACCGCT
ACACGGCATCAGGCGTGCACAAGGGGGCCACGTATGTGTTCCGGCTTGCGGCCCGGAGCCGCGGCGGCCTGGGCG
AGGAGGCAGCCGAGGTCCTGAGCATCCCGGAGGACACGCCCCGTGGCCACCCGCAGATTCTGGAGGCGGCCGGCA
ACGCCTCGGCCGGGACCGTCCTTCTCCGCTGGCTGCCACCCGTGCCCGCCGAGCGCAACGGGGCCATCGTCAAAT
ACACGGTGGCCGTGCGGGAGGCCGGTGCCCTGGGCCCTGCCCGAGAGACTGAGCTGCCGGCAGCGGCTGAGCCGG
GCGCGGAGAACGCGCTCACGCTGCAGGGCCTGAAGCCCGACACGGCCTATGACCTCCAAGTGCGAGCCCACACGC
GCCGGGGCCCTGGCCCCTTCAGCCCCCCCGTCCGCTACCGGACGTTCCTGCGGGACCAAGTCTCGCCCAAGAACT
TCAAGGTGAAAATGATCATGAAGACATCAGTTCTGCTCAGCTGGGAGTTCCCTGACAACTACAACTCACCCACAC
CCTACAAGATCCAGTACAATGGGCTCACACTGGATGTGGATGGCCGTACCACCAAGAAGCTCATCACGCACCTCA
AGCCCCACACCTTCTACAACTTTGTGCTGACCAATCGCGGCAGCAGCCTGGGCGGCCTCCAGCAGACGGTCACCG
CCTGGACTGCCTTCAACCTGCTCAACGGCAAGCCCAGCGTCGCCCCCAAGCCTGATGCTGACGGCTTCATCATGG

FIGURE 822B

TGTATCTTCCTGACGGCCAGAGCCCCGTGCCTGTCCAGAGCTATTTCATTGTGATGGTGCCACTGCGCAAGTCTC
GTGGAGGCCAATTCCTGACCCCGCTGGGTAGCCCAGAGGACATGGATCTGGAAGAGCTCATCCAGGACATCTCAC
GGCTACAGAGGCGCAGCCTGCGGCACTCGCGTCAGCTGGAGGTGCCCCGGCCCTATATTGCAGCTCGCTTCTCTG
TGCTGCCACCCACGTTCCATCCCGGCGACCAGAAGCAGTATGGCGGCTTCGATAACCGGGGCCTGGAGCCCGGCC
ACCGCTATGTCCTCTTCGTGCTTGCCGTGCTTCAGAAGAGCGAGCCTACCTTTGCAGCCAGTCCCTTCTCAGACC
CCTTCCAGCTGGATAACCCGGACCCCCAGCCCATCGTGGATGGCGAGGAGGGGCTTATCTGGGTGATCGGGCCTG
TGCTGGCCGTGGTCTTCATAATCTGCATTGTCATTGCTATCCTGCTCTACAAGAACAAACCCGACAGTAAACGCA
AGGACTCAGAACCCCGCACCAAATGCCTCCTGAACAATGCCGACCTCGCCCCTCACCACCCCAAGGACCCTGTGG
AAATGAGACGCATTAACTTCCAGACTCCAGGCATGCTTAGCCACCCGCCAATTCCCATCGCAGACATGGCGGAGC
ACACGGAGCGGCTCAAGGCCAACGACAGCCTCAAGCTCTCCCAGGAGTATGAGTCCATCGACCCTGGACAGCAGT
TCACATGGGAACATTCCAACCTGGAAGTGAACAAGCCGAAGAACCGCTATGCCAACGTCATCGCCTATGACCACT
CCCGTGTCATCCTCCAGCCCATTGAAGGCATCATGGGCAGTGATTACATCAATGCCAACTACGTGGACGGCTACC
GGTGTCAGAACGCGTACATTGCCACGCAGGGGCCGCTGCCTGAGACCTTTGGGGACTTCTGGCGTATGGTGTGGG
AGCAGCGGTCGGCGACCATCGTCATGATGACGCGGCTGGAGGAGAAGTCACGGATCAAGTGTGATCAGTATTGGC
CCAACAGAGGCACGGAGACCTACGGCTTCATCCAGGTCACGTTGCTAGATACCATCGAGCTGGCCACATTCTGCG
TCAGGACATTCTCTCTGCACAAGAATGGCTCCAGTGAGAAACGCGAGGTCCGCCAGTTCCAGTTTACGGCGTGGC
CGGACCATGGCGTGCCCGAATACCCAACGCCCTTCCTGGCTTTCCTGCGGAGAGTCAAGACCTGCAACCCGCCAG
ATGCCGGCCCCATCGTGGTTCACTGCAGTGCCGGTGTGGGCCGCACAGGCTGCTTTATCGTCATCGACGCCATGC
TTGAGCGGATCAAGCCAGAGAAGACAGTCGATGTCTATGGCCACGTGACGCTCATGAGGTCCCAGCGCAACTACA
TGGTGCAGACGGAGGACCAGTACAGCTTCATCCACGAGGCCCTGCTGGAGGCCGTGGGCTGTGGCAACACAGAAG
TGCCCGCACGCAGCCTCTATGCCTACATCCAGAAGCTGGCCCAGGTGGAGCCTGGCGAACACGTCACTGGCATGG
AACTCGAGTTCAAGCGGCTGGCTAACTCCAAGGCCCACACGTCACGCTTCATCAGTGCCAATCTGCCTTGTAACA
AGTTCAAGAACCGCCTGGTGAACATCATGCCCTATGAGAGCACACGGGTCTGTCTGCAACCCATCCGGGGTGTGG
AGGGCTCTGACTACATCAACGCCAGCTTCATTGATGGCTACAGGCAGCAGAAGGCCTACATCGCGACACAGGGGC
CGCTGGCGGAGACCACGGAAGACTTCTGGCGCATGCTGTGGGAGAACAATTCGACGATCGTGGTGATGCTGACCA
AGCTGCGGGAGATGGGCCGGGAGAAGTGTCACCAGTACTGGCCGGCCGAGCGCTCTGCCCGCTACCAGTACTTTG
TGGTAGATCCGATGGCAGAATACAACATGCCTCAGTATATCCTGCGAGAGTTCAAGGTCACAGATGCCCGGGATG
GCCAGTCCCGGACTGTCCGGCAGTTCCAGTTCACAGACTGGCCGGAACAGGGTGTGCCAAAGTCGGGGGAGGGCT
TCATCGACTTCATTGGCCAAGTGCATAAGACTAAGGAGCAGTTTGGCCAGGACGGCCCCATCTCTGTCCACTGCA
GTGCCGGCGTGGGCAGGACGGGCGTCTTCATCACGCTTAGCATCGTGCTGGAGCGGATGCGGTATGAAGGCGTGG
TGGACATCTTTCAGACGGTGAAGATGCTACGAACCCAGCGGCCGGCCATGGTGCAGACAGAGG

FIGURE 823

GTGAAATTCCACC**ATG**GCGTACCGTGGCCAGGGCCAGAAAGTGCAGAAGGTTATGGTGCAGCCCATCAGCCTCAT
CTTCAGATACTTACAAAATAGATCGCGGATTCAGGTGTGGCTCTATGAGCAAGTGAATATGCGGATAGAAGGCTG
TATCATTGGTTTTGATGAGTATATGAACCTTGTATTAGATGATGCAGAAGAGATTCATTCTAAAACAAAGTCAAG
AAAACAACTGGGTCGGATCATGCTAAAAGGAGGTAATATTACTCTGCTGCAAAGTGTCTCCAAC**TAG**AAATGATC
AATGAAGTGAGAAATTGTTGAGAAGGATACAGTTTGTTTTTAGATGTCCTTTGTCCAATGTGAAGATTTATTCAT
ATTGTTTTGATTACCGTTGTGTTACTACAAGATGGCAATAAATACTATGGGATTGTTTGTGTTAAAAAA

FIGURE 824

TGCGACTGAGTCGGTGGCGAAGACGGGAACGCGACG**ATG**GCGGAGACTCTGCCCGGGTCGGGCGACTCGGGCCCT
GGCACGGCTTCTCTCGGCCCGGGCGTTGCGGAGACTGGGACGAGGCGGCTCAGCGAGCTGCGGGTGATCGATCTG
CGGGCGGAGCTGAAGAAGCGGAACCTGGACACGGGCGGCAACAAGAGCGTCCTGATGGAGCGGCTCAAGAAGGCG
GTTAAAGAAGAGGGGCAAGATCCTGATGAAATTGGCATCGAGTTAGAAGCCACCAGCAAGAAGTCAGCCAAGAGA
TGTGTTAAAGGACTGAAGATGGAGGAGGAAGGCACAGAAGATAATGGCCTGGAAGACGATTCCAGAGACGGGCAG
GAGGACATGGAAGCAAGTCTGGAGAACCTGCAGAATATGGGCATGATGGACATGAGTGTGCTAGACGAAACTGAA
GTGGCGAATAGCAGTGCTCCAGATTTTGGGGAGGATGGCACGGACGGCCTTCTCGATTCCTTTTGTGATAGTAAA
GAATACGTGGCTGCACAGCTGAGACAGCTCCCGGCTCAGCCCCCAGAGCATGCTGTGGATGGGGAAGGATTTAAG
AACACTTTGGAAACTTCATCGTTGAACTTCAAAGTAACTCCGGACATTGAAGAATCCCTTTTGGAGCCAGAAAAT
GAGAAAATACTCGACATTTTGGGGGAAACTTGTAAATCTGAGCCAGTAAAAGAAGAAAGTTCCGAGCTGGAGCAG
CCATTTGCACAGGACACAAGTAGCGTGGGGCCAGACAGAAAGCTTGCGGAGGAAGAGGACCTATTTGACAGCGCC
CATCCGGAAGAGGGTGATTTAGATTTGGCCAGCGAGTCAACAGCACACGCTCAGTCGAGCAAGGCAGACAGCCTG
TTAGCGGTAGTGAAAAGGGAGCCCGCGGAGCAGCCAGGCGATGGCGAGAGGACGGACTGTGAGCCTGTAGGGCTA
GAGCCGGCAGTTGAGCAGAGTAGTGCGGCCTCCGAGCTCGCGGAGGCCTCTAGCGAGGAGCTCGCAGAAGCACCC
ACGGAAGCCCCAAGCCCAGAAGCCAGAGATAGCAAAGAAGACGGGAGGAAGTTTGATTTTGACGCTTGTAATGAA
GTCCCTCCGGCTCCTAAAGAGTCCTCAACCAGTGAGGGCGCTGATCAGAAAATGAGCTCTTTTAAGGAAGAAAAA
GATATAAAGCCAATCATTAAAGATGAAAAAGGTCGGGTCGGCAGCGGTTCTGGTCGGAACCTGTGGGTCAGCGGG
CTGTCCTCCACAACACGCGCTACGGATCTCAAGAACCTTTTCAGCAAGTATGGGAAGGTTGTCGGGGCCAAAGTG
GTAACGAACGCCCGCAGCCCGGGGGCTCGATGCTATGGATTCGTCACCATGTCGACATCTGACGAGGCGACCAAG
TGCATCAGCCATCTCCACAGAACTGAGCTGCATGGACGAATGATCTCCGTAGAGAAGGCCAAAAATGAGCCTGCT
GGGAAAAAGCTTTCCGACAGAAAAGAGTGCGAAGTGAAGAAGGAAAAATTATCGAGTGTCGACAGACATCATTCT
GTGGAGATCAAAATTGAAAAAACTGTAATTAAGAAGGAAGAGAAGATTGAGAAGAAGGAGGAAAAAAAGCCTGAA
GACATTAAGAAGGAAGAAAAAGACCAGGATGAGCTGAAACCCGGACCTACAAATCGGTCTAGAGTCACCAAATCA
GGAAGCAGAGGAATGGAGCGGACGGTCGTGATGGATAAATCGAAAGGAGAGCCCGTCATTAGCGTGAAAACCACA
AGCAGGTCCAAAGAGAGAAGCTCCAAGAGTCAGGATCGCAAGTCAGAAAGCAAAGAAAAGAGAGACATCTTGTCG
TTTGATAAAATCAAAGAACAAAGGGAGAGAGAGCGCCAGAGGCAGCGGGAACGGGAGATCCGCGAAACGGAGAGG
CGGCGGGAGCGCGAGCAGCGGGAGCGGGAGCAACGCCTCGAGGCCTTCCATGAGCGGAAGGAGAAGGCCCGGCTA
CAGCGGGAACGCCTGCAGCTCGAGTGCCAGCGCCAGCGGCTGGAGCGGGAGCGCATGGAGCGGGAGCGGCTGGAG
CGCGAGCGCATGCGCGTGGAGCGTGAGCGCAGGAAGGAGCAGGAGCGCATCCACCGCGAGCGCGAGGAGCTGCGG
CGCCAGCAGGAGCAGCTGCGTTACGAGCAGGAGCGGCGGCCCGGGCGGAGGCCCTACGACCTGGACCGACGAGAT
GATGCCTATTGGCCAGAAGGAAAGCGTGTGGCAATGGAGGACCGATATCGTGCAGACTTTCCCCGGCCAGACCAC
CGCTTTCACGACTTCGATCATCGAGACCGGGGCCAGTACCAGGACCACGCCATCGACAGGCGGGAGGGTTCGAGG
CCAATGATGGGAGACCACCGGGATGGGCAGCACTATGGAGATGACCGCCATGGCCACGGAGGACCCCCAGAGCGC
CACGGCCGGGACTCCCGTGATGGCTGGGGGGGCTACGGCTCCGACAAGAGGCTGAGTGAAGGCCGGGGGCTGCCC
CCTCCCCCCCAGGGGTGGCCGTGACTGGGGAGAGCACAACCAGCGGCTAGAGGAGCACCAGGCACGCGCCTGGCAG
GGTGCCATGGACGCAGGCGCGGCTAGCCGGGAGCACGCCAGGTGGCAAGGTGGCGAGAGGGGCCTGTCTGGGCCC
TCGGGGCCGGGGCACATGGCAAGCCGCGGTGGAGTGGCGGGGCGAGGCGGCTTTGCACAAGGTGGACATTCCCAG
GGCCACGTGGTGCCAGGTGGCGGACTGGAAGGTGGCGGAGTGGCCAGCCAGGACCGGGGCAGCAGAGTCCCTCAC
CCACACCCTCATCCCCCCCCGTACCCCCACTTCACCCGCCGCTAC**TAA**GTCCCACTCGCTGCGAGTTTTCGGGTG
GGCAGACGCACTGTTGAATCTGGTAGCCAGGGTTCCCTCGAACTTGGGGGATCTTTTTAAAAGCAAAGTAAATCC
TGCCACCATGTTGTAGCTCAATACAATGTGAACTCACTTTTTTTTTTTTTTAAATAAATGTGTTCTTGTTCTGC
CATTTTTAAATCAAGGTTTCTGTTAACGAGGCATTCCATTTTCCATTAATAAAGTTTACCATTCGCA

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FIGURE 825

GACCGGGGCGTGCGGAGGGATGTGGCCCGGAATATTGGTAGGGGGGGCCCGGGTGGCGTC**ATG**CAGGTACCCCGC
GCTGGGGCCTCGCCTCGCCGCTCACTTTCCAGCGCAGCGGCGCCGCAGCGGACACTCCAGAACGGCCTGGCCCTG
CAGCGGTGCCTGCACGCGACGGCGACCCGGGCTCTCCCGCTCATTCCCATCGTGGTGGAGCAGACGGGTCGCGGC
GAGCGCGCCTATGACATCTACTCGCGGCTGCTGCGGGAGCGCATCGTGTGCGTCATGGGCCCGATCGATGACAGC
GTTGCCAGCCTTGTTATCGCACAGCTCCTCTTCCTGCAATCCGAGAGCAACAAGAAGCCCATCCACATGTACATC
AACAGCCCTGGTGGTGTGGTGACCGCGGGCCTGGCCATCTACGACACGATGCAGTACATCCTCAACCCGATCTGC
ACCTGGTGCGTGGGCCAGGCCGCCAGCATGGGCTCCCTGCTTCTCGCCGCCGGCACCCCAGGCATGCGCCACTCG
CTCCCCAACTCCCGTATCATGATCCACCAGCCCTCAGGAGGCGCCCGGGGCCAAGCCACAGACATTGCCATCCAG
GCAGAGGAGATCATGAAGCTCAAGAAGCAGCTCTATAACATCTACGCCAAGCACACCAAACAGAGCCTGCAGGTG
ATCGAGTCCGCCATGGAGAGGGACCGCTACATGAGCCCCATGGAGGCCCAGGAGTTTGGCATCTTAGACAAGGTT
CTGGTCCACCCTCCCCAGGACGGTGAGGATGAGCCCACGCTGGTGCAGAAGGAGCCTGTAGAAGCAGCGCCGGCA
GCAGAACCTGTCCCAGCTAGCACC**TGA**GAGCTGGGCCTCCTCTCCAGAATCATGTGGAGGGGCCAGAGGCCTGCC
AGACCCCCAGCTGGGCCCTGCTCACCCCTTGTTGCTGGGCTTGGAGGGGCCTCTTGAGGAACTTTTAATTTGCAG
GGGTGCCCGCTATGGACGGGGCATTCCAGCTGAGACACTGTGATTTTAAATTAAATCTTTGTGGTCTT

FIGURE 826

AGCTATGAGCGAGAGGCGGGACTCTGAGGGAAGTCAATCGCTGCCGCAGGTACCGCCAATGGCTTTTGGCGGGGG
CGTTCCCCAACCCTGCCCTCTCTCATGACCCCGCTCCGGGATT**ATG**GCCGGGACTGGGCTGCTGGCGCTGCGGAC
GCTGCCAGGGCCCAGCTGGGTGCGAGGCTCGGGCCCTTCCGTGCTGAGCCGCCTGCAGGACGCGGCCGTGGTGCG
GCCTGGCTTCCTGAGCACGGCAGAGGAGGAGACGCTGAGCCGAGAACTGGAGCCCGAGCTGCGCCGCCGCCGCTA
CGAATACGATCACTGGGACGCGGCCATCCACGGCTTCCGAGAGACAGAGAAGTCGCGCTGGTCAGAAGCCAGCCG
GGCCATCCTGCAGCGCGTGCAGGCGGCCGCCTTTGGCCCCGGCCAGACCCTGCTCTCCTCCGTGCACGTGCTGGA
CCTGGAAGCCCGCGGCTACATCAAGCCCCACGTGGACAGCATCAAGTTCTGCGGGGCCACCATCGCCGGCCTGTC
TCTCCTGTCTCCCAGCGTTATGCGGCTGGTGCACACCCAGGAGCCGGGGGAGTGGCTGGAACTCTTGCTGGAGCC
GGGCTCCCTCTACATCCTTAGGGGCTCAGCCCGTTATGACTTCTCCCATGAGATCCTTCGGGATGAAGAGTCCTT
CTTTGGGGAACGCCGGATTCCCCGGGGCCGGCGCATCTCCGTGATCTGCCGCTCCCTCCCTGAGGGCATGGGGCC
AGGGGAGTCTGGACAGCCGCCCCCAGCCTGC**TGA**CCCCCAGCTTTCTACAGACACCAGATTTGTGAATAAAGTTG
GGGAATGGACAGCCTAACTGGGACATTGCAGTGGCTGCTTGCTGGGGCCGGGATTTGCAGGGGAACCCAGGATGG
CACTGGCCCATAGGGAGCTCCAGGTGTGGCTGGCTGGACACATGGTCAAAGTCACAAGGCCGGGAGAGTGGTGTC
CTTTATTGCACTCACTGCTGGTCGCCCCAGCCCACTCCCCTCCTCGTTGTCTCTGCATCCAGGTCTCCAATAAAT
AAGTCAGCCGAG

FIGURE 827

CTTGAGCGCCTCTTCCGGTTACCTTTTCCCAGCGCCAGAGGCGCCTAGGGTTGGGGTCCTCGCTCAGGCACAGAG
ACCCGACACCGAGCGGCGGCTTCCCCGGGATCGAGGGACGCGCACGCCAGAGGAGACGAAAGGAACCCGGGTCGG
ACCAGATCGGAACCACTGACCATTGCCC**ATG**GCGGCCCTAGGCCCTAGCAGCCAGAATGTCACTGAATACGTCGT
TCGAGTTCCTAAGAATACAACCAAAAAATATAACATCATGGCTTTTAATGCAGCCGACAAAGTCAACTTTGCTAC
GTGGAATCAGGCTCGGCTGGAGCGGGACTTGAGCAACAAGAAAATCTACCAAGAGGAGGAGATGCCCGAATCGGG
CGCGGGCAGTGAGTTCAACCGCAAGCTTCGGGAGGAGGCTCGGAGGAAGAAGTACGGCATCGTCCTCAAGGAGTT
CCGGCCCGAGGACCAGCCCTGGCTGCTCCGGGTCAACGGCAAATCAGGCAGGAAGTTCAAGGGCATCAAGAAGGG
AGGCGTAACAGAGAACACGTCCTACTACATCTTCACCCAGTGCCCCGACGGGGCCTTCGAGGCCTTCCCCGTGCA
CAACTGGTACAATTTCACACCGCTGGCCCGGCATCGCACGCTCACTGCCGAGGAGGCCGAGGAGGAGTGGGAGAG
GAGGAACAAGGTGCTGAACCACTTCAGCATCATGCAGCAGCGGCGGCTCAAGGATCAGGACCAGGACGAGGATGA
GGAGGAGAAGGAGAAACGTGGCCGCAGGAAGGCGAGCGAGCTGCGCATCCACGACCTGGAGGACGACCTGGAGAT
GTCGTCCGATGCCAGTGATGCCAGTGGTGAGGAGGGGGGCAGAGTCCCCAAGGCCAAGAAGAAGGCGCCGCTGGC
CAAGGGCGGCAGGAAAAAGAAGAAGAAGAAGGGTTCAGACGACGAGGCCTTCGAGGACAGCGATGATGGGGACTT
CGAGGGCCAAGAGGTGGACTACATGTCAGACGGCTCCAGTAGCTCCCAAGAAGAGCCTGAGAGCAAGGCCAAGGC
GCCGCAGCAGGAGGAGGGGCCCAAGGGTGTCGATGAGCAGAGCGACAGTAGTGAGGAGAGTGAGGAGGAGAAGCC
GCCTGAGGAGGACAAGGAGGAGGAGGAGGAGAAGAAGGCACCCACCCCGCAGGAGAAGAAGCGCAGGAAAGACAG
CAGCGAGGAGTCGGACAGCTCAGAGGAGAGCGACATTGACAGCGAGGCCTCCTCAGCCCTCTTCATGGCGAAGAA
GAAGACGCCACCCAAGAGAGAGCGGAAGCCGTCGGGAGGGAGCTCAAGGGGCAACAGCCGCCCAGGCACGCCCAG
CGCAGAGGGTGGCAGCACCTCCTCCACCCTGCGGGCGGCTGCCAGCAAACTCGAGCAAGGGAAGCGGGTGAGCGA
GATGCCTGCAGCCAAGCGGTTGCGGCTGGACACGGGACCCCAGAGCCTGTCTGGGAAGTCGACACCCCAGCCACC
ATCAGGCAAGACAACACCCAACAGCGGCGACGTGCAGGTGACTGAGGATGCCGTGCGCCGCTACCTGACACGGAA
GCCCATGACCACTAAGGACCTGCTGAAAAAGTTCCAGACCAAGAAGACAGGGCTGAGCAGCGAGCAGACAGTGAA
CGTGTTGGCCCAGATCCTCAAGCGACTCAACCCCGAGCGCAAGATGATCAACGACAAAATGCACTTCTCCCTCAA
GGAG**TGA**GGCTTGGTCCAATACATGGCTCTGCCCCCCAGAACTTAAGGCTCTCACTGCCCCTTCGCCATCCTAGA
GTGAGGCTCTGTCCAATACATGGCTCTGCCCTCCAGAACTTCAGGCTCTCAGTGACCCTTCGACATCCTGCTTGC
TCCCTGACTCCCAGGGCCCCGTAGTTAGCAATTCTGGAAAAGTTAAGCCATCTCCTCCTCTGGCCCTTCCTTCTG
GAATCTTCAGATGCCTGTTAGGCCTTCTTATTGTCCTCCTCCTCCTGGCTCGGCCTCCCTCACACTGACCAAGGG
CCTGTGCTGCCCACTGGGTAACTTCTACAGTTCTCCCTTCCACTTCCCTAAGTCTCTCTTCAGCTGTGACTTATC
CACCACATAGCCCAGTAAGTCTTCAGTTTTGGCTGGGCATGATGGTGAGCGCCTGCAGTCCCAGCTACTTGGGAG
GCTAAGCCCAGTTCAAGGCTGCAGTGAACTATGATGGTGCCACTGCATTCCAGCCTGGGTGACAGAATGAAATCC
TGGCACAAAAAAAAAAAAAAAGTAGCCAGGCATGGTGGCGGGAGCCTGTTGTCCCAGCTGTTCCGTAGGCTGAGG
CACGAGATTCACTTGAACCTGGGAGGTGGAGGTTGCTGTGAGCTGACACCACGCCACTGCACTCCAGCCTGGGTG
ACAGTGAGACTCTGTCTCAATAAATAAAAAATAATAATAAATT

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FIGURE 828

TGTGGAGCGAGGCCTTGTTCCCGCGTTGAGCCGCCGCCGCCGCCGCCGCCTCCTCAGCTTCAGCCTCCGCGCCAG
GCCCGGCCCCGCCGCGCC**ATG**TCGGACTACAGCACGGGAGGACCCCCGCCCGGGCCGCCGCCGCCCGCCGGCGGG
GGCGGGGGAGCCGGAGGCGCCGGGGGGAGGCCCTCCGCCGGGCCCGCCAGGCGCGGGGGACCGGGGCGGCGGCGGT
CCCGGCGGCGGCGGCCCGGGCGGGGGGTCGGCCGGGGGCCCCTCTCAGCCACCCGGCGGAGGCGGCCCGGGAATC
CGCAAGGACGCTTTCGCCGACGCCGTGCAGCGGGCCCGCCAGATTGCAGCCAAAATTGGAGGCGATGCTGCCACG
ACAGTGAATAACAGCACTCCTGATTTTGGTTTTGGGGGCCAAAAGAGACAGTTGGAAGATGGAGATCAACCGGAG
AGCAAGAAGCTGGCTTCCCAGGGAGACTCAATCAGTTCTCAACTTGGACCCATCCATCCTCCCCCAAGGACTTCA
ATGACAGAAGAGTACAGGGTCCCAGACGGCATGGTGGGCCTGATCATTGGCAGAGGAGGTGAACAAATTAACAAA
ATCCAACAGGATTCAGGCTGCAAAGTACAGATTTCTCCAGACAGCGGTGGCCTACCCGAGCGCAGTGTGTCCTTG
ACAGGAGCCCCAGAATCTGTCCAGAAAGCCAAGATGATGCTGGATGACATTGTGTCTCGGGGTCGTGGGGGCCCC
CCAGGACAGTTCCACGACAACGCCAACGGGGGCCAGAACGGCACCGTGCAGGAGATCATGATCCCCGCGGGCAAG
GCCGGCCTGGTCATTGGCAAGGGCGGGGAGACCATTAAGCAGCTGCAGGAACGCGCTGGAGTGAAGATGATCTTA
ATTCAGGACGGATCTCAGAATACGAATGTGGACAAACCTCTCCGCATCATTGGGGATCCTTACAAAGTGCAGCAA
GCCTGTGAGATGGTGATGGACATCCTCCGGGAACGTGACCAAGGCGGCTTTGGGGACCGGAATGAGTACGGATCT
CGGATTGGCGGAGGCATCGATGTGCCAGTGCCCAGGCATTCTGTTGGCGTGGTCATTGGCCGGAGTGGAGAGATG
ATCAAGAAGATCCAGAATGATGCTGGCGTGCGGATACAGTTCAAGCAAGATGACGGGACAGGGCCCGAGAAGATT
GCTCATATAATGGGGCCCCCAGACAGGTGCGAGCACGCAGCCCGGATCATCAACGACCTCCTCCAGAGCCTCAGG
AGTGGTCCCCCAGGTCCTCCAGGGGGTCCAGGCATGCCCCCGGGGGGGCCGAGGCCGAGGAAGAGGCCAAGGCAAT
TGGGGTCCCCCTGGCGGGGAGATGACCTTCTCCATCCCCACTCACAAGTGTGGGCTGGTCATCGGCCGAGGTGGC
GAGAATGTGAAAGCCATAAACCAGCAGACGGGAGCCTTCGTAGAGATCTCCCGGCAGCTGCCACCCAACGGGGAC
CCCAACTTCAAGTTGTTCATCATCCGGGGTTCACCCCAGCAGATTGACCACGCCAAGCAGCTTATCGAGGAAAAG
ATCGAGGGTCCTCTCTGCCCAGTTGGACCAGGCCCAGGTGGCCCAGGCCCTGCTGGCCCAATGGGGCCCTTCAAT
CCTGGGCCCTTCAACCAGGGGCCACCCGGGGCTCCCCCACATGCCGGGGGGCCCCCTCCTCACCAGTACCCACCC
CAGGGCTGGGGCAATACCTACCCCCAGTGGCAGCCGCCTGCTCCTCATGACCCAAGCAAAGCAGCTGCAGCGGCC
GCGGACCCCAACGCCGCGTGGGCCGCCTACTACTCACACTACTACCAGCAGCCCCCGGGCCCCGTCCCCGGCCCC
GCACCGGCCCCTGCGGCCCCACCGGCTCAGGGTGAGCCCCCTCAGCCCCCACCCACCGGCCAGTCGGACTACACT
AAGGCCTGGGAAGAGTATTACAAAAAGATCGGCCAGCAGCCCCAGCAGCCCGGAGCACCCCCACAGCAGGACTAC
ACGAAGGCTTGGGAGGAGTACTACAAGAAGCAAGCGCAAGTGGCCACCGGAGGGGGTCCAGGAGCTCCCCCAGGC
TCCCAGCCAGACTACAGTGCCGCCTGGGCGGAATATTACAGACAGCAGGCCGCTTACTACGGACAGACCCCAGGT
CCTGGCGGCCCCCAGCCGCCGCCCACGCAGCAGGGACAGCAGCAGGCTCAA**TGA**ATCGAATGAATGTGAACTTCT
TCATCTGTGAAAAATCTTTTTTTTTTCCATTTTGTTCTGTTTGGGGGCTTCTGTTTTGTTTGGCGAGAGAGCGAT
GGCTGCCGTGGGGAGTACTGGGGAGCCCTCGCGGCAAGCAGGGTGGGGGGGACTTGGGGGCATGCCGGGCCCTCA
CTCTCTCGCCTGTTCTGTGTCTCACATGCTTTTTCTTTCAAAATTGGGATCCTTCCATGTTGAGCCAGCCAGAGA
AGATAGCGAGATCTAAATCTCTGCCAAAAAAAAAAAAAAACTTAAAAATTAAAAACACAAAGAGCAAAGCAGAAC
TTATAAAATTATATATATATATATTAAAAAGTCTCTATTCTTCACCCCCCAGCCTTCCTGAACCTGCCTCTCTGA
GGATAAAGCAATTCATTTTCTCCCACCCTCGGCCCTCTTGTTTTTAAAATAAACTTTTAAAAAGGAAAAAAAAAA
GTCACTCTTGCTATTTCTTTTTTTTAGTTAGAGGTGGAACATTCCTTGGACCAGGTGTTGTATTGCAGGACCCCT
TCCCCCAGCAGCCAAGCCCCCTCTTCTCTCCCTCCCGCCCTGGCTCAGCTCCCGCGGCCCCGCCCGTCCCCCCTC
CCAGGACTGGTCTGTTGTCTTTTCATCTGTTCAAGAGGAGATTGAAACTGAAAACAAAATGAGAACAACAAAAAA
AATTGTATGGCAGTTTTTACTTTTTATCGCTCGTTTTTAACTTCACAAATAAATGATAACAAAACCTC

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FIGURE 829

GTCACCACCTCCCGCAAGTGCCAGAGCCGAGCGGACTGCGCGGAGGCTGCGGAGCCGGCGGCCGCGGGAGCTGAC
CCTGCGGGGTCCCGGGGGGGGAGGGGGAGCCGCGAAGCCCCCACTGAGGCCGCCGCTGCCGGGCCTCCCCTCCCC
CCCGGGCGGGCGCC**ATG**CGGGGGAGCCCGGGCGACGCGGAGCGGCGGCAGCGCTGGGGTCGCCTGTTCGAGGAGC
TGGACAGTAACAAGGATGGCCGCGTGGACGTGCACGAGTTGCGCCAGGGGCTGGCCAGGCTGGGCGGGGGCAACC
CAGACCCCGGCGCCCAACAGGGTATCTCCTCTGAGGGTGATGCTGACCCAGATGGCGGGCTCGACCTGGAGGAAT
TTTCCCGCTATCTGCAGGAGCGGGAACAGCGTCTGCTGCTCATGTTTCACAGTCTTGACCGGAACCAGGATGGTC
ACATTGATGTCTCTGAGATCCAACAGAGTTTCCGAGCTCTGGGCATTTCCATCTCGCTGGAGCAGGCTGAGAAAA
TTTTGCACAGCATGGACCGAGACGGCACAATGACCATTGACTGGCAAGAATGGCGCGACCACTTCCTGTTGCATT
CGCTGGAAAATGTGGAGGACGTGCTGTATTTCTGGAAGCATTCCACGCTCTCTTCTGCTGGGTTCTCTGCCTGGA
TAAAAGATTCTACGGCTGAACAGAATCGTTCAAAAACCACGGTCTTGGCCAGGCGCAGTGGCTCACACCTAAAAT
CCCAGCACTTTGGGAGGCCGAAGTGGGCGGATCACGAGGTCCTGGACATTGGCGAGTGCCTGACAGTGCCGGACG
AGTTCTCAAAGCAAGAGAAGCTGACGGGCATGTGGTGGAAACAGCTGGTGGCCGGCGCAGTGGCAGGTGCCGTGT
CACGGACAGGCACGGCCCCTCTGGACCGCCTCAAGGTCTTCATGCAGGTCCATGCCTCAAAGACCAACCGGCTGA
ACATCCTTGGGGGGCTTCGAAGCATGGTCCTTGAGGGAGGCATCCGCTCCCTGTGGCGCGGCAATGGTATTAATG
TACTCAAGATTGCCCCCGAGTCAGCTATCAAGTTCATGGCCTATGAACAGATCAAGAGGGCCATCCTGGGGCAGC
AGGAGACACTGCATGTGCAGGAGCGCTTCGTGGCTGGCTCCCTGGCTGGTGCCACAGCCCAAACCATCATTTACC
CTATGGAGGTGCTGAAGACGCGGCTGACCTTGCGCCGGACGGGCCAGTATAAGGGGCTGCTGGACTGCGCCAGGC
GTATCCTGGAGAGGGAGGGGCCCCGTGCCTTCTACCGCGGCTACCTCCCCAACGTGCTGGGCATCATCCCCTATG
CGGGCATCGACCTGGCCGTCTACGAGACTCTGAAGAACTGGTGGCTTCAGCAGTACAGCCACGACTCGGCAGACC
CAGGCATCCTCGTGCTCCTGGCCTGCGGTACCATATCCAGCACCTGCGGCCAGATAGCCAGTTACCCGCTGGCCC
TGGTCCGGACCCGCATGCAGGCACAAGCCTCCATCGAGGGTGGCCCCCAGCTGTCCATGCTGGGTCTGCTACGTC
ACATCCTGTCCCAGGAGGGCATGCGGGGCCTCTACCGGGGGATCGCCCCCAACTTCATGAAGGTTATTCCAGCTG
TGAGCATCTCCTATGTGGTCTACGAGAACATGAAGCAGGCCTTGGGGGTCACGTCCAGG**TGA**GGGACCCGGAGCC
CGTCCCCCCAATCCCTCACCCCCCACACCTCAGCCACTGGAGACTGATGATCCAACCACAGGATCCCTACTCTTT
GGCCACGAGATCCCAGTACCCAGATCCTGGATCCTAGACTCCTATGCCCCAACCATTGGGTCATGGGATCCCAGC
ATCCAGATCCTGGATCCTAGACTCCTATGCCCCAACCACTGGGTCATGCGATCCCCACCCTTCAGCCACTAGATC
CCAGATCCCCCTGTAACCATAACTGTGGATCCCTTACTTCAGCAACTCAAGTCTGCTACCCTAACCACAAGATTC
AAGATTATCCACACCCCAGCCCTTAATCCCCATCCCCCAAATCACTGGATCCTGCAGCCCCACATCCTAAGGTGG
ATCCCACGCTTCCCTGTGCCCCCTACTGGATCCTGGACCTCTACGTCTTAACCACTGGATCCCACACAAATCAGT
GAATGGATCCCAACACCCCAACCACAGGAGCACGGATTCCCTGTACCTCAACACCCAGACCCTGCCTCCCTCAGG
CACCAGATCCAGTGTCCTAGTGAAACGCTGGATCCTAGATCCCCAACCCCAGATCCCCATGCCTCGAGCCCTGGA
TCTCCAAGCTCAGCTGCTGGATTCTGGATGTCAACAAACCTCACCACTGGATCCTGACAACCACAATGCCTGGAT
CCTGGGGCCCCCATCACTGGATCCCAGATCCCCTCACTCCACCCACTGGATTCCTGCATTGGTTTTTGGTTTTTT
GTTTTTTTTTAACCTCGACACTGGGTCTCAGATCCTTCTGCTGACTGCCAGATCCCTGCATTTCAAGCACTACGC
CTTCCACCCCCAGGCACTGGATCCCAGATTCCCAAGCCTTCACCCACCAGATTCTGGCTCCTAAAACAAGTGCGG
GGGCCCCAGTGGCACAGCAAGTGGATCCTGGCAACTGCAGCTGCTGGATTCCAGATTCTGGGTCCCCAATCCCTC
TGCCCAGTCCCTCAATGTTGAAACCTCATCTCTTGAAGGCAGATCCTGATATTCCAAGGCACTGAATCCCAAGCC
CTGAATCCCCGGTTTCTGATCTGAATCTTCCAGGCGCCGGGTCCCAAATGTTCAGGCCCCAAGTCTAGATCCTGG
CAGCCCAGTCACAGAGTATCCCACACACACTGGTGCCCAGAGCCGGCTTCTCATGACATGAAATTGCATGGTCGA
GGGAGTCTGTGGGGAAGGAAGCCCAGGTCCTGGCTGCAACCTGCACGGATGCTGGATTCCCCCTCACCCCACCTC
TGCATGGCCACCCCCTCCCAGCCCTGTGGGGAAACTGTTCCCTGGAACCACTCCACTCCCTGCATCCCCACACTT
CACAGCATCTTCCATCCCCCTCCCACCTTCTAGGCGAATAGTCCCCAGAGCTGTGTTCCTCCAAGGGGTCCGAGG
AATCACTCACTCCTGGAGGCTGGCAAGGAGACAGTCTGAGGCCAGGGACACATGAAGGGATGTCCCCACCCCAGC
ACTATCAGGGCCTCCCCAGGCTTCCAGAGTTGAAAGCCAGGAGAAAATCGGCAAAGACCACCCTTCCCTAAACCC
AAGCACCCAATGATGCAAAAAAC

FIGURE 830

ATGCGGGAGATCGTGCACCTGCAGGCCGGCCAGTGCGGCAACCAGATCGGGGCCAAGTTTTGGGAGGTTATCAGT
GACGAACATGGCATCGACCCCACAGGCACATACCATGGGGACAGTGACCTGCAACTGGAGAGGATCAACGTGTAC
TACAACGAGGCCACAGGAGGAAATTATGTCCCCAGAGCGGTGCTGGTGGACCTGGAACCCGGCACCATGGACTCT
GTCCGTTCTGGCCCCTTCGGTCAGATCTTTCGGCCGGACAACTTCGTGTTTGGCCAATCCGGAGCCGGCAACAAC
TGGGCAAAGGGGCACTACACGGAGGGCGCAGAGCTGGTGGACGCTGTCCTGGACGTAGTCCGGAAGGAGGCCGAG
AGCTGCGACTGCCTTCAGGGCTTCCAGCTGACCCACTCGCTGGGGGGTGGCACGGGGTCCGGAATGGGCACGCTG
CTCATCAGTAAGATCCGCGAGGAGTTCCCAGACCGCATCATGAACACCTTCAGCGTGGTGCCCTCGCCCAAAGTG
TCAGACACGGTGGTGGAGCCCTACAACGCCACGCTGTCTGTGCACCAGCTGGTGGAGAATACGGATGAGACCTAC
TGCATCGACAACGAGGCACTCTACGACATCTGTTTCCGCACCCTCAAGCTGACCACCCCCACCTACGGGGACCTC
AACCACCTGGTGTCGGCCACCATGAGCGGGGTCACCACCTGCCTGCGCTTCCCGGGCCAGCTGAACGCCGACCTG
CGCAAGCTGGCCGTCAACATGGTTCCCTTTCCTCGCCTGCACTTCTTCATGCCCGGCTTCGCACCCCTGACCAGC
CGGGGCAGCCAGCAGTACCGGGCCCTGACGGTGCCCGAGCTCACCCAGCAGATGTTCGATGCCAAGAACATGATG
GCGGCGTGCGACCCGCGCCACGGCCGCTACCTGACCGTGGCCGCCGTGTTCCGGGGCCGCATGTCCATGAAGGAG
GTGGACGAGCAGATGCTGAGCGTGCAGAGCAAGAACAGCAGCTACTTCGTGGAGTGGATCCCCAACAACGTGAAG
ACGGCCGTGTGCGACATCCCGCCCCGCGGCCTGAAGATGGCCGCGACCTTCATCGGCAACAGCACGGCCATCCAG
GAGCTGTTCAAGCGCATCTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCTTGCACTGGTACACGGGC
GAGGGCATGGACGAGATGGAGTTCACCGAGGCCGAGAGCAACATGAATGACCTGGTATCTGAGTACCAGCAGTAC
CAGGACGCCACGGCCGAGGAGGGCGAGTTCGAGGAGGAGGCGGAGGAGGAGGTGGCC**TAG**

FIGURE 831

GTC**ATG**GAATACGCCTCTGACGCTTCACTGGACCCCGAAGCCCCGTGGCCTCCCGCGCCCCGCGCTCGCGCCTGC
CGCGTACTGCCTTGGGCCCTGGTCGCGGGGCTGCTGCTGCTGCTGCTGCTCGCTGCCGCCTGCGCCGTCTTCCTC
GCCTGCCCCTGGGCCGTGTCCGGGGCTCGCGCCTCGCCCGGCTCCGCGGCCAGCCCGAGACTCCGCGAGGGTCCC
GAGCTTTCGCCCGACGATCCCGCCGGCCTCTTGGACCTGCGGCAGGGCATGTTTGCGCAGCTGGTGGCCCAAAAT
GTTCTGCTGATCGATGGGCCCCTGAGCTGGTACAGTGACCCAGGCCTGGCAGGCGTGTCCCTGACGGGGGGCCTG
AGCTACAAAGAGGACACGAAGGAGCTGGTGGTGGCCAAGGCTGGAGTCTACTATGTCTTCTTTCAACTAGAGCTG
CGGCGCGTGGTGGCCGGCGAGGGCTCAGGCTCCGTTTCACTTGCGCTGCACCTGCAGCCACTGCGCTCTGCTGCT
GGGGCCGCCGCCCTGGCTTTGACCGTGGACCTGCCACCCGCCTCCTCCGAGGCTCGGAACTCGGCCTTCGGTTTC
CAGGGCCGCTTGCTGCACCTGAGTGCCGGCCAGCGCCTGGGCGTCCATCTTCACACTGAGGCCAGGGCACGCCAT
GCCTGGCAGCTTACCCAGGGCGCCACAGTCTTGGGACTCTTCCGGGTGACCCCCGAAATCCCAGCCGGACTCCCT
TCACCGAGGTCGGAA**TAA**CGTCCAGCCTGGGTGCAGCCCACCTGGACAGAGTCCGAATCCTACTCCATCCTTCAT
GGAGACCCCTGGTGCTGGGTCCCTGCTGCTTTCTCTACCTCAAGGGGCTTGGCAGGGGTCCCTGCTGCTGACCTC
CCCTTGAGGACCCTCCTCACCCACTCCTTCCCCAAGTTGGACCTTGATATTTATTCTGAGCCTGAGCTCAGATAA
TATATTATATATATTATATATATATATATATTTCTATTTAAAGAGGATCCTGAGTTTGTGAATGGACTTTTTTAG
AGGAGTTGTTTTGGGGGGGGGGGGGTCTTCGACATTGCCGAGGCTGGTCTTGAACTCCTGGACTTAGACGATCCT
CCTGCCTCAGCCTCCCAAGCAACTGGGATTCATCCTTTCTATTAATTCATTGTACTTATTTGCTTATTTGTGTGT
ATTGAGCATCTGTAATGTGCCAGCATTGTGCCCAGGCTAGGGGGCTATAGAAACATCTAGAAATAGACTGAAAGA
AAATCTGAGTTATGGTAATACGTGAGGAATTTAAAGACTCATCCCCAGCCTCCACCTCCTGTGTGATACTTGGGG
GCTAGCTTTTTTCTTTCTTTCTTTTTTTTGAGATGGTCTTGTTCTGTCAACCAGGCTAGAATGCAGCGGTGCAAT
CATGAGTCAATGCAGCCTCCAGCCTCGACCTCCCGAGGCTCAGGTGATCCTCCCATCTCAGCCTCTCGAGTAGCT
GGGACCACAGTTGTGTGCCACCACACTTGGCTAACTTTTTAATTTTTTTGCGGAGACGGTATTGCTATGTTGCCA
AGGTTGTTTACATGCCAGTACAATTTATAATAAACACTCATTTTTCC

FIGURE 832A

CTCCTCCCCATCCTCTCCCTCTGTCCCTCTGTCCCTCTGACCCTGCACTGTCCCAGCACC**ATG**GGACCCACCTCA
GGTCCCAGCCTGCTGCTCCTGCTACTAACCCACCTCCCCCTGGCTCTGGGGAGTCCCATGTACTCTATCATCACC
CCCAACATCTTGCGGCTGGAGAGCGAGGAGACCATGGTGCTGGAGGCCCACGACGCGCAAGGGGATGTTCCAGTC
ACTGTTACTGTCCACGACTTCCCAGGCAAAAAACTAGTGCTGTCCAGTGAGAAGACTGTGCTGACCCCTGCCACC
AACCACATGGGCAACGTCACCTTCACGATCCCAGCCAACAGGGAGTTCAAGTCAGAAAAGGGGCGCAACAAGTTC
GTGACCGTGCAGGCCACCTTCGGGACCCAAGTGGTGGAGAAGGTGGTGCTGGTCAGCCTGCAGAGCGGGTACCTC
TTCATCCAGACAGACAAGACCATCTACACCCCTGGCTCCACAGTTCTCTATCGGATCTTCACCGTCAACCACAAG
CTGCTACCCGTGGGCCGGACGGTCATGGTCAACATTGAGAACCCGGAAGGCATCCCGGTCAAGCAGGACTCCTTG
TCTTCTCAGAACCAGCTTGGCGTCTTGCCCTTGTCTTGGGACATTCCGGAACTCGTCAACATGGGCCAGTGGAAG
ATCCGAGCCTACTATGAAAACTCACCACAGCAGGTCTTCTCCACTGAGTTTGAGGTGAAGGAGTACGTGCTGCCC
AGTTTCGAGGTCATAGTGGAGCCTACAGAGAAATTCTACTACATCTATAACGAGAAGGGCCTGGAGGTCACCATC
ACCGCCAGGTTCCTCTACGGGAAGAAAGTGGAGGGAACTGCCTTTGTCATCTTCGGGATCCAGGATGGCGAACAG
AGGATTTCCCTGCCTGAATCCCTCAAGCGCATTCCGATTGAGGATGGCTCGGGGGAGGTTGTGCTGAGCCGGAAG
GTACTGCTGGACGGGGTGCAGAACCCCCGAGCAGAAGACCTGGTGGGGAAGTCTTTGTACGTGTCTGCCACCGTC
ATCTTGCACTCAGGCAGTGACATGGTGCAGGCAGAGCGCAGCGGGATCCCCATCGTGACCTCTCCCTACCAGATC
CACTTCACCAAGACACCCAAGTACTTCAAACCAGGAATGCCCTTTGACCTCATGGTGTTCGTGACGAACCCTGAT
GGCTCTCCAGCCTACCGAGTCCCCGTGGCAGTCCAGGGCGAGGACACTGTGCAGTCTCTAACCCAGGGAGATGGC
GTGGCCAAACTCAGCATCAACACACACCCCAGCCAGAAGCCCTTGAGCATCACGGTGCGCACGAAGAAGCAGGAG
CTCTCGGAGGCAGAGCAGGCTACCAGGACCATGCAGGCTCTGCCCTACAGCACCGTGGGCAACTCCAACAATTAC
CTGCATCTCTCAGTGCTACGTACAGAGCTCAGACCCGGGGAGACCCTCAACGTCAACTTCCTCCTGCGAATGGAC
CGCGCCCACGAGGCCAAGATCCGCTACTACACCTACCTGATCATGAACAAGGGCAGGCTGTTGAAGGCGGGACGC
CAGGTGCGAGAGCCCGGCCAGGACCTGGTGGTGCTGCCCCTGTCCATCACCACCGACTTCATCCCTTCCTTCCGC
CTGGTGGCGTACTACACGCTGATCGGTGCCAGCGGCCAGAGGGAGGTGGTGGCCGACTCCGTGTGGGTGGACGTC
AAGGACTCCTGCGTGGGCTCGCTGGTGGTAAAAAGCGGCCAGTCAGAAGACCGGCAGCCTGTACCTGGGCAGCAG
ATGACCCTGAAGATAGAGGGTGACCACGGGGCCCGGGTGGTACTGGTGGCCGTGGACAAGGGCGTGTTCGTGCTG
AATAAGAAGAACAAACTGACGCAGAGTAAGATCTGGGACGTGGTGGAGAAGGCAGACATCGGCTGCACCCCGGGC
AGTGGGAAGGATTACGCCGGTGTCTTCTCCGACGCAGGGCTGACCTTCACGAGCAGCAGTGGCCAGCAGACCGCC
CAGAGGGCAGAACTTCAGTGCCCGCAGCCAGCCGCCCGCCGACGCCGTTCCGTGCAGCTCACGGAGAAGCGAATG
GACAAAGTCGGCAAGTACCCCAAGGAGCTGCGCAAGTGCTGCGAGGACGGCATGCGGGAGAACCCCATGAGGTTC
TCGTGCCAGCGCCGGACCCGTTTCATCTCCCTGGGCGAGGCGTGCAAGAAGGTCTTCCTGGACTGCTGCAACTAC
ATCACAGAGCTGCGGCGGCAGCACGCGCGGGCCAGCCACCTGGGCCTGGCCAGGAGTAACCTGGATGAGGACATC
ATTGCAGAAGAGAACATCGTTTCCCGAAGTGAGTTCCCAGAGAGCTGGCTGTGGAACGTTGAGGACTTGAAAGAG
CCACCGAAAAATGGAATCTCTACGAAGCTCATGAATATATTTTTGAAAGACTCCATCACCACGTGGGAGATTCTG
GCTGTGAGCATGTCGGACAAGAAAGGGATCTGTGTGGCAGACCCCTTCGAGGTCACAGTAATGCAGGACTTCTTC
ATCGACCTGCGGCTACCCTACTCTGTTGTTCGAAACGAGCAGGTGGAAATCCGAGCCGTTCTCTACAATTACCGG
CAGAACCAAGAGCTCAAGGTGAGGGTGGAACTACTCCACAATCCAGCCTTCTGCAGCCTGGCCACCACCAAGAGG
CGTCACCAGCAGACCGTAACCATCCCCCCCAAGTCCTCGTTGTCCGTTCCATATGTCATCGTGCCGCTAAAGACC
GGCCTGCAGGAAGTGGAAGTCAAGGCTGCTGTCTACCATCATTTCATCAGTGACGGTGTCAGGAAGTCCCTGAAG
GTCGTGCCGGAAGGAATCAGAATGAACAAAACTGTGGCTGTTCGCACCCTGGATCCAGAACGCCTGGGCCGTGAA
GGAGTGCAGAAAGAGGACATCCCACCTGCAGACCTCAGTGACCAAGTCCCGGACACCGAGTCTGAGACCAGAATT
CTCCTGCAAGGGACCCCAGTGGCCCAGATGACAGAGGATGCCGTCGACGCGGAACGGCTGAAGCACCTCATTGTG
ACCCCCTCGGGCTGCGGGGAACAGAACATGATCGGCATGACGCCCACGGTCATCGCTGTGCATTACCTGGATGAA
ACGGAGCAGTGGGAGAAGTTCGGCCTAGAGAAGCGGCAGGGGGCCTTGGAGCTCATCAAGAAGGGGTACACCCAG
CAGCTGGCCTTCAGACAACCCAGCTCTGCCTTTGCGGCCTTCGTGAAACGGGCACCCAGCACCTGGCTGACCGCC
TACGTGGTCAAGGTCTTCTCTCTGGCTGTCAACCTCATCGCCATCGACTCCCAAGTCCTCTGCGGGGCTGTTAAA
TGGCTGATCCTGGAGAAGCAGAAGCCCGACGGGGTCTTCCAGGAGGATGCGCCCGTGATACACCAAGAAATGATT
GGTGGATTACGGAACAACAACGAGAAAGACATGGCCCTCACGGCCTTTGTTCTCATCTCGCTGCAGGAGGCTAAA
GATATTTGCGAGGAGCAGGTCAACAGCCTGCCAGGCAGCATCACTAAAGCAGGAGACTTCCTTGAAGCCAACTAC

FIGURE 832B

ATGAACCTACAGAGATCCTACACTGTGGCCATTGCTGGCTATGCTCTGGCCCAGATGGGCAGGCTGAAGGGGCCT
CTTCTTAACAAATTTCTGACCACAGCCAAAGATAAGAACCGCTGGGAGGACCCTGGTAAGCAGCTCTACAACGTG
GAGGCCACATCCTATGCCCTCTTGGCCCTACTGCAGCTAAAAGACTTTGACTTTGTGCCTCCCGTCGTGCGTTGG
CTCAATGAACAGAGATACTACGGTGGTGGCTATGGCTCTACCCAGGCCACCTTCATGGTGTTCCAAGCCTTGGCT
CAATACCAAAAGGACGCCCCTGACCACCAGGAACTGAACCTTGATGTGTCCCTCCAACTGCCCAGCCGCAGCTCC
AAGATCACCCACCGTATCCACTGGGAATCTGCCAGCCTCCTGCGATCAGAAGAGACCAAGGAAAATGAGGGTTTC
ACAGTCACAGCTGAAGGAAAAGGCCAAGGCACCTTGTCGGTGGTGACAATGTACCATGCTAAGGCCAAAGATCAA
CTCACCTGTAATAAATTCGACCTCAAGGTCACCATAAAACCAGCACCGGAAACAGAAAAGAGGCCTCAGGATGCC
AAGAACACTATGATCCTTGAGATCTGTACCAGGTACCGGGGAGACCAGGATGCCACTATGTCTATATTGGACATA
TCCATGATGACTGGCTTTGCTCCAGACACAGATGACCTGAAGCAGCTGGCCAATGGTGTTGACAGATACATCTCC
AAGTATGAGCTGGACAAAGCCTTCTCCGATAGGAACACCCTCATCATCTACCTGGACAAGGTCTCACACTCTGAG
GATGACTGTCTAGCTTTCAAAGTTCACCAATACTTTAATGTAGAGCTTATCCAGCCTGGAGCAGTCAAGGTCTAC
GCCTATTACAACCTGGAGGAAAGCTGTACCCGGTTCTACCATCCGGAAAAGGAGGATGGAAAGCTGAACAAGCTC
TGCCGTGATGAACTGTGCCGCTGTGCTGAGGAGAATTGCTTCATACAAAAGTCGGATGACAAGGTCACCCTGGAA
GAACGGCTGGACAAGGCCTGTGAGCCAGGAGTGGACTATGTGTACAAGACCCGACTGGTCAAGGTTCAGCTGTCC
AATGACTTTGACGAGTACATCATGGCCATTGAGCAGACCATCAAGTCAGGCTCGGATGAGGTGCAGGTTGGACAG
CAGCGCACGTTCATCAGCCCCATCAAGTGCAGAGAAGCCCTGAAGCTGGAGGAGAAGAAACACTACCTCATGTGG
GGTCTCTCCTCCGATTTCTGGGGAGAGAAGCCCAACCTCAGCTACATCATCGGGAAGGACACTTGGGTGGAGCAC
TGGCCCGAGGAGGACGAATGCCAAGACGAAGAGAACCAGAAACAATGCCAGGACCTCGGCGCCTTCACCGAGAGC
ATGGTTGTCTTTGGGTGCCCCAAC**TGA**CCACACCCCCATTCC

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FIGURE 833

GTCGGGGAGGAGGTGGCTCCAGAG**ATG**GCAGTGAGCGAGAGGAGGGGGCTCGGCCGCGGGAGCCCCGCGGAGTGG
GGGCAGCGGCTACTTCTGGTGCTGCTGCTGGGTGGCTGCTCCGGGCGCATCCACCAGCTGGCGCTGACGGGGGAG
AAGCGAGCGGACATCCAGCTGAACAGCTTCGGTTTCTACACCAATGGCTCTCTGGAGGTGGAGTTGAGCGTCCTG
CGGCTGGGCCTCCGGGAGGCAGAAGAGAAGTCCCTGCTGGTGGGGTTCAGTCTCAGCCGGGTTCGGTCTGGCAGA
GTTCGCTCCTATTCAACCCGGGATTTCCAGGACTGCCCTCTCCAGAAAAACAGTAGCAGTTTCCTGGTCCTGTTC
CTCATCAACACCAAGGATCTGCAGGTCCAGGTGCGGAAGTATGGAGAGCAGAAGACGTTGTTTATCTTTCCCGGG
CTCCTCCCGGAAGCACCCTCCAAACCAGGGCTCCCGAAGCCACAGGCCACAGTCCCCCGCAAGGTGGATGGCGGA
GGGACCTCTGCAGCCAGCAAGCCCAAGTCAACACCCGCAGTGATTCAGGGTCCTAGTGGGAAGGACAAGGACCTG
GTGTTGGGCCTGAGCCACCTCAACAACTCCTACAACTTCAGTTTCCACGTGGTGATCGGCTCTCAGGCGGAAGAA
GGCCAGTACAGCCTGAACTTCCACAACTGCAACAATTCAGTGCCAGGAAAGGAGCATCCATTCGACATCACGGTG
ATGATCCGGGAGAAGAACCCCGATGGCTTCCTGTCGGCAGCGGAGATGCCCCTTTTCAAGCTCTACATGGTCATG
TCCGCCTGCTTCCTGGCCGCTGGCATCTTCTGGGTGTCCATCCTCTGCAGGAACACGTACAGCGTCTTCAAGATC
CACTGGCTCATGGCGGCCTTGGCCTTCACCAAGAGCATCTCTCTCCTCTTCCACAGCATCAACTACTACTTCATC
AACAGCCAGGGCCACCCCATCGAAGGCCTTGCCGTCATGTACTACATCGCACACCTGCTGAAGGGCGCCCTCCTC
TTCATCACCATCGCCCTGATTGGCTCAGGCTGGGCCTTCATCAAGTACGTCCTGTCGGATAAGGAGAAGAAGGTC
TTTGGGATCGTGATCCCCATGCAGGTCCTGGCCAACGTGGCCTACATCATCATCGAGTCCCGCGAGGAAGGCGCC
AGCGACTACGTGCTGTGGAAGGAGATTTTGTTCCTGGTGGACCTCATCTGCTGTGGTGCCATCCTGTTCCCCGTA
GTCTGTGGCAGTGAACCTGGCCAAGCTGAAGCTGTTCCGGCATTACTATGTCATGTCCTGGCCCCACGCCTGCTC
GCGCCCCTGCAGGTCATCTGCTACGTCTACTTCACCCGCATCATCGCCATCCTGCTGCAGGTGGCTGTGCCCTTT
CAGTGGCAGTGGCTGTACCAGCTCTTGGTGGAGGGCTCCACCCTGGCCTTCTTCGTGCTCACGGGCTACAAGTTC
CAGCCCACAGGAAACAACCCGTACCTGCAGCTGCCCCAGGAGGACGAGGAGGATGTTCAGATGGAGCAAGTAATG
ACGGACTCTGGGTTCCGGGAAGGCCTCTCCAAAGTCAACAAAACAGCCAGCGGGCGGGAACTGTTA**TGA**TCACCT
CCACATCTCAGACCAAAGGGTCGTCCTCCCCCAGCATTTCTCACTCCTGCCCTTCTTCCACAGCGTATGTGGGGA
GGTGGAGGGGGTCCATGTGGACCAGGCGCCCAGCTCCCCGGGACCCCGGTTCCCGGACAAGCCCATTTGGAAGAA
GAGTCCCTTCCTCCCCCCAAATATTGGGCAGCCCTGTCCTTACCCCGGGACCACCCCTCCCTTCCAGCTATGTGT
ACAATAATGACCAATCTGTTTGGCTACGCCGTTGTCTTGCCTTTTTGGGGGTTGGGGTCTACACGGAGGTTGTGT
TTACAATGTAGAAACCTGTTTTCGCTGTGTGTGGCGGGGGCGCGGGCACAGGGTCCGTGTCTTTGTATATTCAAT
AAATATTCATTCAGTAA

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FIGURE 834

GCGGTGGTGGCTGCGGCGGCGGCGGCGGGAGCAGC**ATG**GATTGGGGCACTGAGCTGTGGGATCAGTTCGAGGTGC
TCGAGCGCCACACGCAGTGGGGGCTGGACCTGTTGGACAGATATGTAAAGTTCGTGAAAGAACGCACCGAAGTGG
AACAGGCTTACGCCAAACAACTGCGGAGCCTGGTGAAAAAATATCTGCCCAAGAGACCTGCCAAGGATGATCCTG
AGTCCAAATTCAGCCAGCAACAGTCCTTCGTACAGATTCTCCAGGAGGTGAATGACTTTGCAGGCCAGCGGGAGC
TGGTGGCTGAGAACCTCAGTGTCCGTGTATGTCTTGAGCTGACCAAGTACTCACAAGAGATGAAACAGGAGAGGA
AGATGCACTTCCAAGAAGGGCGGCGGGCCCAGCAGCAGCTGGAAAATGGCTTTAAACAGCTGGAGAATAGTAAGC
GTAAATTTGAGCGGGACTGCCGGGAGGCAGAGAAGGCAGCCCAGACTGCTGAACGGCTAGACCAGGATATCAACG
CCACCAAGGCTGATGTGGAGAAGGCCAAGCAGCAAGCCCACCTTCGGAGTCACATGGCCGAAGAAAGCAAAAACG
AATATGCGGCTCAACTGCAGCGCTTCAACCGAGACCAAGCCCACTTCTATTTTTCACAGATGCCCCAGATATTCG
ATAAGCTCCAAGACATGGATGAACGCAGGGCCACCCGCCTGGGTGCCGGGTATGGGCTCCTGTCGGAGGCCGAGC
TGGAGGTGGTGCCCATAATAGCCAAGTGCTTGGAGGGCATGAAGGTGGCTGCAAATGCTGTGGATCCCAAGAACG
ACTCCCACGTCCTTATAGAGCTGCACAAGTCAGGTTTTGCCCGCCCGGGCGACGTGGAATTCGAGGACTTCAGCC
AGCCCATGAACCGTGCACCCTCCGACAGCAGTCTGGGCACCCCCTCGGATGGACGGCCTGAACTCCGAGGCCCGG
GTCGCAGCCGCACCAAGCGCTGGCCTTTTGGCAAGAAGAACAAGACAGTGGTGACCGAGGATTTTAGCCACTTGC
CCCCAGAGCAGCAGCGAAAACGGCTTCAACAGCAGTTGGAAGAACGCAGTCGTGAACTTCAGAAGGAGGTTGACC
AGAGGGAAGCCCTAAAGAAAATGAAGGATGTCTATGAGAAGACACCTCAGATGGGGGACCCCGCCAGCTTGGAGC
CCCAGATCGCTGAAACCCTGAGCAACATTGAACGGCTGAAATTGGAAGTGCAGAAGTATGAGGCGTGGCTGGCAG
AAGCTGAAAGTCGAGTCCTTAGCAACCGGGGAGACAGCCTGAGCCGGCACGCCCGGCCTCCCGACCCCCCCGCTA
GCGCCCCGCCAGACAGCAGCAGCAACAGCGCATCACAGGACACCAAGGAGAGG**TGA**GGGGTGACGTCAGAGTGGG
TCTGTTCCCAGGGTCCCAGGAGGGCCTGTCTTTATCTGCCGAATTATCCCCAAACAGCTCTGAAGAGCCTCCCTC
AGAAGAGAGCCAGGACACCCCCATTTACACGGAGTTTGATGAGGATTTCGAGGAGGAACCCACATCCCCCATAGG
TCACTGTGTGGCCATCTACCACTTTGAAGGGTCCAGCGAGGGCACTATCTCTATGGCCGAGGGTGAAGACCTCAG
TCTTATGGAAGAAGACAAAGGGGACGGCTGGACCCGGGTCAGGCGGAAAGAGGGAGGCGAGGGCTACGTGCCCAC
CTCCTACCTCCGAGTCACGCTCAATTGAACCCTGCCAGAGACGGGAAGAGGGGGGCTGTCGGCTGCTGCTTCTGG
GCCACGGGGAGCCCCAGGACCTATGCACTTTATTTCTGACCCCGTGGCTTCGGCTGAGACCTGTGTAACCTGCTG
CCCCCTCCACCCCCAACCCAGTCCTACCTGTCACACCGGACGGACCCGCTGTGCCTTCTACCATCGTTCCACCAT
TGATGTACATACTCATGTTTTACATCTTTTCTTTCTGCCGCTCGGCTCCGGCCATTTTGTTTTATACAAAAATGG
GAAAAAAAAAAAAGAAATTATATAAAGTTCCTAGAGTCGGTGT

FIGURE 835

AGGGAAGACACGCGTGACCCGGAAGGTCTTCCCGCCACACTCCAGAGCGGATGTGAGGGGCGCCG**ATG**GCGGAGG
GAACGGCGGAGGCTCCTCTAGAGAATGGTGGTGGTGGCGACTCGGGAGCCGGAGCTTTGGAACGAGGAGTGGCGC
CCATTAAGCGTCAATACCTCACCACCAAGGAGCAGTTTCACCAATTCCTGGAAGCCAAAGGGCAGGAGAAGACTT
GCCGGGAAACCGAGCTGGACATCCGTGGCAAACTTTACCTGGCCCCCCTCACCACGTGTGGGAACCTGCCCTTCC
GACGGATCTGCAAGCGCTTCGGGGCGGATGTGACATGTGGAGAGATGGCCGTCTGCACCAACCTGCTGCAGGGCC
AGATGTCCGAGTGGGCCCTACTCAAACGCCACCAGTGTGAGGACATCTTTGGCGTCCAGCTGGAGGGCGCCTTCC
CCGACACCATGACCAAGTGTGCCGAGCTGCTGAGCCGCACCGTGGAGGTGGACTTTGTGGACATCAACGTCGGCT
GCCCCATCGACCTCGTGTACAAGAAGGGTGGGGGCTGTGCCCTCATGAATCGCTCCACCAAGTTCCAGCAGATCG
TCCGTGGCATGAACCAGGTGCTGGATGTGCCGCTGACTGTGAAGATCCGCACAGGCGTCCAGGAGCGTGTGAACC
TGGCGCACCGCCTGCTGCCCGAGCTGCGGGACTGGGGCGTGGCACTCGTCACGCTCCACGGCCGCTCTCGGGAGC
AGCGCTACACCAAGCTAGCCGACTGGCAGTACATCGAGGAGTGCGTGCAGGCCGCCAGCCCCATGCCCCTGTTCG
GAAATGGGGACATCTTGTCATTTGAGGATGCCAACCGCGCCATGCAGACTGGTGTCACCGGGATCATGATTGCCC
GTGGCGCCCTGCTCAAGCCGTGGCTCTTCACGGAGATCAAGGAGCAGCGGCACTGGGACATCTCGTCGTCCGAGC
GCCTGGACATCCTGCGGGACTTCACCAACTACGGCCTGGAGCACTGGGGCTCGGACACGCAGGGCGTGGAGAAGA
CCCGGCGCTTTCTGCTCGAGTGGCTGTCCTTCCTGTGCCGGTACGTGCCCGTGGGGCTGCTGGAGCGGCTCCCAC
AGAGGATCAACGAGCGGCCGCCCTACTACCTGGGCCGCGACTACCTGGAGACGCTGATGGCCAGCCAGAAGGCAG
CCGACTGGATCCGCATCAGCGAGATGCTCCTTGGGCCAGTGCCCCCCAGCTTCGCCTTCTTGCCGAAGCACAAGG
CCAACGCGTACAAG**TAG**CCTCAGGCTTTCCCAGGGGCACCCTGGGGCGAGGAGAGTACAATAAATTTTATTCTTT
T

FIGURE 836

CGAACTCCGCCCCCTCTTCTCCGCGTAGGCCCAGCTCCCTGAAGCGGCTGTTTCGAGCCACGCGCCCATCGGGTA
CCGAGGCACGCGCCGGGCGTCACGTGCGTTTCGCGGCGAGCGGAAATGACGCGAGTTGTGTGAGCCGCCAGTATG
GCCGGGCT**ATG**GCGGCGAGCACTGGCTACGTGCGACTGTGGGGAGCGGCGCGGTGCTGGGTGCTGCGGCGGCCGA
TGCTGGCCGCCGCCGGGGGGCGGGTTCCCACTGCAGCAGGAGCGTGGTTGCTCCGAGGCCAGCGGACCTGCGACG
CCTCTCCTCCTTGGGCACTGTGGGGCCGAGGCCCGGCAATTGGGGGCCAATGGCGGGGGTTTTGGGAAGCGAGCA
GCCGCGGCGGAGGCGCATTCTCGGGGGGCGAGGACGCCTCCGAGGGCGGCGCGGAGGAAGGAGCCGGCGGCGCGG
GGGGCAGCGCGGGCGCCGGGGAAGGCCCGGTCATAACGGCGCTCACGCCCATGACGATCCCCGATGTGTTTCCGC
ACCTGCCGCTCATCGCCATCACCCGCAACCCGGTGTTCCCGCGCTTTATCAAGATTATCGAGGTTAAAAATAAGA
AGTTGGTTGAGCTGCTGAGAAGGAAAGTTCGTCTCGCCCAGCCTTATGTCGGCGTCTTTCTAAAGAGAGATGACA
GCAATGAGTCGGATGTGGTCGAGAGCCTGGATGAAATCTACCACACGGGGACGTTTGCCCAGATCCATGAGATGC
AGGACCTTGGGGACAAGCTGCGCATGATCGTCATGGGACACAGAAGAGTCCATATCAGCAGACAGCTGGAGGTGG
AGCCCGAGGAGCCGGAGGCGGAGAACAAGCACAAGCCCCGCAGGAAGTCAAAGCGGGGCAAGAAGGAGGCGGAGG
ACGAGCTGAGCGCCAGGCACCCGGCGGAGCTGGCGATGGAGCCCACCCCTGAGCTCCCGGCTGAGGTGCTCATGG
TGGAGGTAGAGAACGTTGTCCACGAGGACTTCCAGGTCACGGAGGAGGTGAAAGCCCTGACTGCAGAGATCGTGA
AGACCATCCGGGACATCATTGCCTTGAACCCTCTCTACAGGGAGTCAGTGCTGCAGATGATGCAGGCTGGCCAGC
GGGTGGTGGACAACCCCATCTACCTGAGCGACATGGGCGCCGCGCTCACCGGGGCCGAGTCCCATGAGCTGCAGG
ACGTCCTGGAAGAGACCAATGTGGAGGAGAAGATCAAGCAGACCCACCGTAAGTACCTGCTGCAGGAGCAGCTAA
AGATCATCAAGAAGGAGCTGGGCCTGGAGAAGGACGACAAGGATGCCATCGAGGAGAAGTTCCGGGAGCGCCTGA
AGGAGCTCGTGGTCCCCAAGCACGTCATGGATGTTGTGGACGAGGAGCTGAGCAAGCTGGGCCTGCTGGACAACC
ACTCCTCGGAGTTCAATGTCACCCGCAACTACCTAGACTGGCTCACGTCCATCCCTTGGGGCAAGTACAGCAACG
AGAACCTGGACCTGGCGCGGGCACAGGCAGTGCTGGAGGAAGACCACTACGGCATGGAGGACGTCAAGAAACGCA
TCCTGGAGTTCATTGCCGTTAGCCAGCTCCGCGGCTCCACCCAGGGCAAGATCCTCTGCTTCTATGGCCCCCCTG
GCGTGGGTAAGACCAGCATTGCTCGCTCCATCGCCCGCGCCCTGAACCGAGAGTACTTCCGCTTCAGCGTCGGGG
GCATGACTGACGTGGCTGAGATCAAGGGCCACAGGCGGACCTACGTGGGCGCCATGCCCGGGAAGATCATCCAGT
GTTTGAAGAAGACCAAGACGGAGAACCCCCTGATCCTCATCGACGAGGTGGACAAGATCGGCCGAGGCTACCAGG
GGGACCCGTCGTCGGCACTGCTGGAGCTGCTGGACCCAGAGCAGAATGCCAACTTCCTGGACCACTACCTGGACG
TGCCCGTGGACTTGTCCAAGGTGCTGTTCATCTGCACGGCCAACGTCACGGACACCATCCCCGAGCCGCTGCGAG
ACCGTATGGAGATGATCAACGTGTCGGGCTACGTGGCCCAGGAGAAGCTGGCCATTGCGGAGCGCTACCTGGTGC
CCCAGGCTCGCGCCCTGTGTGGCTTGGATGAGAGCAAGGCCAAGCTGTCATCGGACGTGCTGACGCTGCTCATCA
AGCAGTACTGCCGCGAGAGCGGTGTCCGCAACCTGCAGAAGCAAGTGGAGAAGGTGTTACGGAAATCGGCCTACA
AGATTGTCAGCGGCGAGGCCGAGTCCGTGGAGGTGACGCCCGAGAACCTGCAGGACTTCGTGGGGAAGCCCGTGT
TCACCGTGGAGCGCATGTATGACGTGACACCGCCCGGCGTGGTCATGGGGCTGGCCTGGACCGCAATGGGAGGCT
CCACGCTGTTTGTGGAGACATCCCTGAGACGGCCACAGGACAAGGATGCCAAGGGTGACAAGGATGGCAGCCTGG
AGGTGACAGGCCAGCTGGGGGAGGTGATGAAGGAGAGCGCCCGCATAGCCTACACCTTCGCCAGAGCCTTCCTCA
TGCAGCACGCCCCCGCCAATGACTACCTGGTGACCTCACACATCCACCTGCATGTGCCCGAGGGCGCCACCCCCA
AGGACGGCCCAAGCGCAGGCTGCACCATCGTCACGGCCCTGCTGTCCCTGGCCATGGGCAGGCCTGTCCGGCAGA
ATCTGGCCATGACTGGCGAAGTCTCCCTCACGGGCAAGATCCTGCCTGTTGGTGGCATCAAGGAGAAGACCATTG
CGGCCAAGCGCGCAGGGGTGACGTGCATCGTCCTGCCAGCCGAGAACAAGAAGGACTTCTACGACCTGGCAGCCT
TCATCACCGAGGGCCTGGAGGTGCACTTCGTGGAACACTACCGGGAGATCTTCGACATCGCCTTCCCGGACGAGC
AGGCAGAGGCGCTGGCCGTGGAACGG**TGA**CGGCCACCCCGGGACTGCAGGCGGCGGATGTCAGGCCCTGTCTGGG
CCAGAACTGAGCGCTGTGGGGAGCGCGCCCGGACCTGGCAGTGGAGCCACCGAGCGAGCAGCTCGGTCCAGTGAC
CCAGATCCCAGGGACCTCAGTCGGCTTAATCAGAGTGTGGCATAGAAGCTATTTAATGATTAAAGTCATTTGCAG
T

FIGURE 837

CGCCGCCATCCGGACTCCCGGGTCCTCTGTGCAGGTTGGAGGATGGTTGGTTGTGGCGAGCGAGGCTGAAGGAGC
CGGGACGCGGGGCTCTGGGCCTCGGGAACTGAGCCGGTACTCACCTCCGCCCCTTCTCCCCGTCGCTGTCCGCAG
CC**ATG**GCCCTACGCTACCCTATGGCCGTGGGCCTCAACAAGGGCCACAAAGTGACCAAGAACGTGAGCAAGCCCA
GGCACAGCCGACGCCGCGGGCGTCTGACCAAACACACCAAGTTCGTGCGGGACATGATTCGGGAGGTGTGTGGCT
TTGCCCCGTACGAGCGGCGCGCCATGGAGTTACTGAAGGTCTCCAAGGACAAACGGGCCCTCAAATTTATCAAGA
AAAGGGTGGGGACGCACATCCGCGCCAAGAGGAAGCGGGAGGAGCTGAGCAACGTACTGGCCGCCATGAGGAAAG
CTGCTGCCAAGAAAGAC**TGA**GCCCCTCCCCTGCCCTCTCCCTGAAATAAAGAACAGCTTGACAG

FIGURE 838A

GGGAGCCGGAGGAGGAGCGGCCGCCGCCGCCACCGCCGCCGCCATAGAGACTGTAGCCGTGGAGACTGTTACTTA
CCAACGGGGACCAACACGCAGCAGCCGCTGCCGCCGCCGCGGGAGCCGCTGCCCGAACTCCCGGCCCGAACTCCA
GACCTGAGC**ATG**CAGAATTCCGAGGGTGGAGCGGATTCGCCAGCGTCCGTGGCTCTGCGTCCCTCGGCGGCAGCC
CCGCCTGTGCCAGCCTCCCCGCAGAGGGTGTTGGTCCAGGCAGCCAGCTCCAATCCCAAAGGGGCCCAGATGCAG
CCGATCTCCCTCCCCAGAGTTCAGCAGGTACCCCAGCAGGTGCAGCCGGTGCAGCACGTGTATCCTGCCCAGGTG
CAGTACGTGGAAGGGGGAGACGCCGTCTACACCAATGGAGCCATACGAACAGCCTACACCTACAACCCCGAGCCT
CAGATGTACGCCCCCAGCAGCACGGCTTCTTACTTCGAGGCCCCAGGCGGTGCCCAGGTGACCGTGGCAGCCTCG
TCCCCGCCAGCGGTCCCCTCCCACAGCATGGTGGGCATCACCATGGATGTCGGGGGGAGCCCCATCGTCTCCAGC
GCGGGAGCCTATCTCATCCACGGGGGGATGGACAGCACCAGACACTCCCTGGCCCACACCTCCCGCTCATCGCCC
GCCACGCTTGAAATGGCGATTGAAAACCTCCAAAAAAGCGAAGGAATCACATCACACAAAAGCGGTTTACTCAAC
AGCCATCTCCAGTGGCTGTTGGATAATTATGAAACAGCGGAAGGTGTGAGTCTCCCCAGAAGTTCTCTTTACAAC
CACTACCTTCGGCACTGCCAGGAGCACAAGCTAGACCCAGTGAACGCCGCCTCCTTCGGGAAACTGATCCGTTCT
GTGTTTATGGGGCTGAGAACGCGGCGGCTGGGCACCAGGGGCAACTCGAAGTACCATTACTATGGGATTCGTCTG
AAGCCGGACTCACCACTGAACCGGCTGCAGGAGGACACGCAGTACATGGCCATGCGGCAGCAGCCCATGCACCAG
AAGCCCAGGTACCGGCCAGCCCAGAAGACGGACAGCCTCGGGGACAGCGGCTCCCACAGCGGCCTGCACAGCACT
CCGGAACAGACCATGGCCGTGCAGAGCCAGCACCACCAGCAGTACATAGATGTCTCCCACGTCTTCCCCGAGTTC
CCAGCGCCCGACCTGGGCAGCTTCCTGCTGCAGGACGGCGTCACACTGCACGACGTCAAGGCCCTGCAGCTGGTG
TACAGACGGCACTGCGAGGCAACTGTAGATGTGGTGATGAACCTCCAGTTCCACTACATCGAGAAGCTGTGGCTC
TCCTTCTGGAACTCTAAGGCCTCCTCCAGCGACGGCCCCACCTCTCTTCCTGCCAGTGACGAAGACCCCGAGGGC
GCCGTCCTGCCCAAGGACAAGCTTATCTCCCTGTGTCAGTGCGACCCCATCCTCAGGTGGATGAGGAGCTGCGAC
CACATCCTCTACCAGGCGCTGGTGGAGATTCTCATCCCCGACGTGCTGAGGCCGGTCCCCAGTACCTTGACACAG
GCCATCCGTAACTTTGCCAAGAGCTTGGAAGGCTGGTTGACAAATGCCATGAGTGACTTCCCACAACAGGTCATC
CAGACCAAGGTGGGCGTCGTCAGTGCCTTCGCCCAGACGCTGCGGCGCTACACGTCCCTCAACCACCTGGCGCAG
GCGGCCCGGGCGGTGCTGCAGAACACGTCCCAGATCAACCAGATGCTCAGCGACCTCAACCGCGTGGACTTTGCC
AACGTGCAGGAGCAGGCCTCGTGGGTGTGCCAGTGCGAGGAGAGTGTGGTGCAGCGGCTGGAGCAGGATTTCAAG
CTGACCCTGCAGCAGCAGAGCTCCCTGGACCAGTGGGCCAGCTGGCTGGACAGTGTGGTCACCCAGGTCCTGAAG
CAGCATGCCGGCAGCCCCAGCTTCCCCAAGGCCGCCCGGCAGTTCTTGCTGAAATGGTCCTTTTACAGCTCCATG
GTGATCCGGGACCTGACCCTGCGCAGCGCTGCCAGCTTCGGCTCCTTCCACCTCATCCGCCTGCTCTACGACGAG
TACATGTTCTACCTGGTGGAGCACCGCGTCGCGGAGGCCACCGGAGAGACGCCGATCGCTGTGATGGGAGAGTTC
AACGATCTCGCCTCTCTGTCGCTGACGCTGCTCGACAAAGATGACATGGGCGATGAGCAGCGTGGCAGCGAGGCG
GGCCCAGACGCCCGCAGCCTGGGTGAGCCCCTGGTAAAGCGGGAGCGCAGTGACCCCAACCACTCCCTGCAGGGC
ATC**TAG**CAGCCCCGGCCGGCGCCTCCTCGAGGTTCCAAAAGATGCCGCCTGGTCACTCTGGGAACCTGGATTTCA
CCGGCTCCACCAAATTAGTGCCTCTTAGATGATGTGATGTTTACTTTGACTCAAGCGGGGGCTCCCGGGGTCAGT
GTTCAAGAAGGAAAGCAGTTGTTGAAGCTACAGAAGCCCAGGCCAGGGCTCCCACTGGCTGTAGCTGTGCTCTGG
GTCCCCAGGTCCCTGCGCAGCCACCAGGGCCCCACCAGACCATGGGTTCCTTATTCTGGACAAACCCTCCTCTGC
TGGAACCCTGGACTTTGGCCCCAGTCCCTTTAAGAGCTGAAAGGGCTGTGCTGAGAGCACTGGCCTCTGCACTCA
ACTGGAACCAATTTTCACCATGATTTTAAAAATTAAAAAAACCTGGCAGAGCCCGACTAGAAAGGGACGGCCTCT
CCCCTCCTACCTGCCACCGCTGGGGAGGCACAGAGCTCGCCAGCGTCCCTGGAGTCCCCTCAGGAATGGAAAGTG
GAGTGCCCTTGTCTGGTAGCACCATGTGGGAGGGACCCAGCTGGGCGCAGCGCCCTGTGGCCTTTTAGATCCAGA
CCTCCCTGCCGGATGCCCCGAGGCGGGAGGCCGGCTGTGCTGCAGGAACCCATCTCCAGATGCCAAAGGACTTGA
GGGGCAGCTGACAATCGCTGTGTCCCGGCAGATCCGCAGCTCGAAAAAGAACAAGCCACAGAAACGGGCTCGCTC
GTGCCAGGACACAGCAGTGTCTTTCAAAAAATCAAAACCAGAAGTTTTATCAGCAGCAGGAAGGATGTGGGACTC
TGTCCAAGTTCACCGTCACCATCAAGCCACTGGCTGTGGAAGGAGTTTGTCCAACAGGGTCAGTGTCACAGCCAC
AACTTCAGAAAGCAGCCATCCCGCGTGTCGTCCAAACAGCAGTGCCTGCGTCCCGCTCCACGGAGTCTTCCAGAA
CACCTCCCTCTGAACTAATCCCGGAGCACCCCACCCCCAGCGAGTCCCACCTGGACCTCTTCAAAGTCAAAACTC
TTCTCTCGGGACAAACAAATATTCGGGACTTTCGAAGCCCTGAACTTGAGACACCAAGTTTGTCTCCATGGAAAC
ACGTAGCCGCTGCAGTTGGACAGCTGCGTGCTGGAGTTCTGTCCCCAAACCAACTGCAGAGAAGAAAGACGAGCC
TCGGCCCAGGACGCGATTTCTAACGAAATGCAATAGTTTTCTCTTTTTGGAAAAATGTTTATACCAATAGTTTTG

FIGURE 838B

TGCGCTAATTGTTATTAGAACGTTTCTTATGAATGTGTACATTGCAGTATATTCAGTCCCAAATGTTTTGTTCTC
ATTCACACAGAAGGTACTAATGTCAGCTCACGTGGCCTTTAAAAACCTACTTCCCCGCCCGCAGGAGCTCAGAGC
ATCGCTGGGCCTGCGCCAGAGTGAGGGGTGCAGGAAGACAAAGACGCGTGCTCACTTTAGAAACGAAAAGCTGGG
AATAATCACACTGTTTGTCTGGTCGTATAGCCCAAACCTTAGTTGAAATCAGACAGAAAGAATGTCTTTAAAATA
TACATCTCCTCTCCTTGGAGACACTGAAGCTCACAGTTAACGGATTGTAATGCCCGGCTTTTCCTCACTCCTGGT
AACCAATACAAGCTGGTTTCTGCCTTA

FIGURE 839A

AAAAGCCTGCCATTGCTCCGCCCGTCTTTGTGTTTCAGAAGGATAAAGGACAAAAGTCCCCTGCAGAGCAAAAAA
ACTTGTCGGATTCGGGAGAGGAGCCTCGGGGGGAGGCTGAGGCCCCCCACCATGGCACGGGTCACCCCGAGTCAG
CTGGCGAGCATGCCCTAGAACCTCCTGCCCCTGCTGGCGCCTCAGCCAGCACTCCTCCGCCTCCCGCTCCTGAAG
CCCAGCTTCCTCCTTTTCCGCGAGAACTGGCAGGGAGGTCAGCTGGCGGCTCCAGTCCTGAAGGCGGAGAAGATT
CTGACAGAGAAGATGGAAATTACTGCCCTCCTGTCAAGCGAGAAAGAACATCCTCTTTAACCCAGTTCCCACCCT
CACAGTCAGAGGAAAGGAGCAGTGGCTTCCGGTTGAAGCCACCAACGCTGATCCACGGCCAAGCCCCCAGCGCAG
GTCTGCCAAGCCAGAAGCCCAAGGAGCAGCAGCGGAGCGTGCTTCGCCCGGCAGTGTTACAAGCTCCGCAGCCAA
AGGCGCTGTCCCAGACTGTCCCCAGCAGTGGCACCAACGGGGTCAGCCTCCCAGCAGACTGCACGGGGGCAGTGC
CCGCAGCATCCCCTGACACTGCTGCATGGAGAAGTCCTTCCGAAGCTGCCGATGAGGAGAAAGAGCCCCAGAAAA
ATGAGTCCAGCAATGCCTCTGAAGAGGAAGCCTGTGAGAAAAAAGACCCCGCCACACAGCAAGCCTTTGTATTTG
GGCAGAACTTGAGGGACAGAGTTAAGCTGATAAATGAGAGCGTGGACGAAGCCGACATGGAGAATGCTGGACACC
CCAGCGCAGACACGCCAACCGCAACGAACTATTTCCTCCAGTATATCAGTTCCAGGTGTGTGTCTCGGTGTCAGC
GGCCAGCCTGGCATGGCGATGCAGGTGGCCGCGAGGGCTTCTGCCAGAGAGGGGTCTGTGGTCCCCGTGCCCGAC
TCAGGCCCAGAATCCAGGTTGCTCTCAGGCCCCTCTCTCTCATTCCCCACTCTGGGCACAACCTTGGGTGGGCCA
GGGTGGTGGGCCTTGTCCTGGGATTCACTGGACGCCTGAGACAGGACCAGAGTTCTGTGGGGTTGTCCAGGGGCC
CATGGAGGCTACAGCCCAGCCCTTGGAGTGTGCCCTCTGTCTTGTGGACCTCATGCCCAGAGCAGAACAGAGCAG
GCCAGAGGCGACTCAGGCGCCCCCTTATTCTGGGTTTGGGCACCTGGGGCAAAGACCTCATCATGTCCTTGACTG
ACATGGCTGGGGGTAATGCTACCCACGGACCAGCTGCCCCTCCAGGTGTCTCAGAAGAAAGCGTGTCCCGACTGG
GAGATGGGCGGGTAGAGCAGGTGGAAGGTGGCTTCCCTCATGCTGTGGGGCCCCTCCATCAGGGCGAGCTAAGGG
TTAATGTTTTCAATGGCACAGGGAGGTGTGTGGCTTCCTGCCTCTGACACGCCACCCCGTGCACAGTGGCGGAGG
CCCCTCCACTGTGCCCTCTGTGTCAGTGTGTGCTCCATGGGTACCCATACATTTGCCTGGCCACGTTCCCACGTG
ACGCCCCACACTCATTGCACATCTTCTCTTCAGTTTAGAGAACTCAACCAATAGTGCCGACGCCTCCAGCAACAA
ATTTGTATTTGGCCAGAACATGAGCGAGCGAGTTTTGAGCCCCCCAAAATTAAACGAGGTCAGTTCAGATGCCAA
CAGGGAAAATGCAGCTGCCGAGTCAGGGTCTGAGTCCTCGTCCCAGGAGGCCACCCCTGAGAAAGAGTCCCTGGC
TGAGTCGGCAGCCGCCTACACCAAGGCAACAGCGCGGAAGTGTTTGTTGGAAAAAGTGGAAGTCATCACCGGGGA
GGAGGCGGAGAGCAATGTGTTACAGATGCAGTGCAAGCTGTTTGTCTTTGACAAGACCTCACAGTCCTGGGTGGA
GAGAGGCCGGGGGCTGCTCAGACTCAATGACATGGCGTCCACCGATGACGGCACACTACAGTCCCGACTAGTGAT
GCGGACCCAGGGGAGCCTGCGACTGATCCTCAACACCAAGCTGTGGGCCCAGATGCAGATCGACAAGGCCAGCGA
GAAGAGCATTCGCATCACAGCCATGGACACCGAGGACCAGGGCGTGAAGGTCTTCCTGATCTCGGCCAGCTCCAA
GGACACAGGTCAGTTGT**ATG**CAGCCCTGCACCACCGCATCCTGGCCCTGCGCAGCCGCGTGGAGCAGGAGCAGGA
GGCCAAGATGCCCGCGCCTGAGCCTGGGGCAGCCCCATCCAACGAGGAGGACGACAGCGACGATGACGATGTCCT
GGCTCCTTCAGGGGCCACCGCAGCTGGTGCTGGTGACGAAGGGGACGGGCAGACGACCGGGAGCACATAGCGGCC
GGGAGCCCGGCTGCACACCAGGCTGCTGCTTTGTCCGTCTATCCACCCGCCCACCCGCCCCCACCCCACCGGCAG
CGTCCAGGTGCGGGGCCGGGAACCACACACCCCACTGGGCCGGCCACAGTCTGGACCCGCACGTCCTGTTCAAAA
GCAGACTCGGGAACTGCCTGAATGTGGTTTGGGACACGAGACCTCATCATATTGATGAGCGAACAAACAAGAACA
TTTCCTCCCTCCCCTCCTTTGAATTGAAATGGCACATTAAGACTTGTCACGGCTTCTCACTGGGACTGGAGACCT
CGTTCCTTCACCCCGCGTGTCGCCAGCCTCTGGGTCCAGCCAGAGCCCCTGGCTTCTCCGCCACCCACACCCTTC
CCACCCTGCTGTGGGGCCCTGCCTTTGTGGGGAGCAGCCAGCCCTCTGCCCCTGCCCAGGGCTCCCCAACTATAG
GCCTGGGACCCCCGCCCAGCTTGGGGGGCTGCTCGTACGAGTGTAGACACTGGGCCCATTGGACGTGCTGT**TAA**C
TACTATCTTCATTTCCCACTTCCCCTCTCTGATTGGGGGTGTATATTTTACATCTTTTTTTCTTTTTATTTTCGA
AGGCTTTGTTTTGGTTTCTTAGGTTAAGATGCTCTCGAGCGTTGAGCAGGCACAGCTCTGTCGAGGTCCCTGTCC
CCCACCTGTGGTTCTGGCCTCTGAGGTTGGGGGACTACTTGTTTCCCACCCCAGGTTCCTCCAGGCCAAGTCATG
GGGTGATGAGGAGTTGGGGCCCTGTCTGTCCTAGGCCTGGAGAGTGCCTGTCTGGGAAAAGGTCACTGGACCTGG
AAGGGTCCCCAGGGTCCCCTGACTCCCGTCTCCATCTGTCACGTGGTTCACCATCATCAGGCACCAGGCGCAAAC
TGCTTCCCGCTGTTGGCCATCCCTTCCCCAGCCACAGGTGTCCCTGCCCCCAGGACAGTCCAGGGCCAGGGGCTT
CTGTGAGAGGCAGAGGGGGACCCTCACCAAATCTTGGTGGAAGAGCCCAGGGGCTGGTCCCAGAACAGGCAGTCT
CACAAGCACGCAGCACACTGGAGTGGACGCCTGTGCCCACCCGAGCCTGGAGCATGGCCAAGAGCCAGCTTGCAC
CACCCACCTGGGAGGCCGAGGAGGAGGTCCCCTGGGCACAGGGCCTCTTTGGGACTTCAGAGGAAATCTCCCAGT

FIGURE 839B

CCCACTCTCGGAGGGTTAAGAGAAGGCCTCCTGCAGCTGTGCCGTCCACACCTCTAGGTCGCCAGAGCCCTGGCC
CCCAGCCCCCAGCAAGCCTGAGCCCGGGAAGAACCAGAGGCCCTCCCGAGAGACCCAGTCACACGTCTCTGCTTT
AAGCCTTAGCCAGCTAGTGACGAGTACAACGAGATAACGCCCATGTGTTTTGGAACATTTATGTAAGATTGTCAT
ATGAAATGTATTTGGGAACTACATTAAACTTTTAACT

FIGURE 840A

GCTCTGCCGGAAGCACAAGGTGGGCATCCTCTATTGCAAGGCCGGCCAGAGCTCCGAGGAGGAG**ATG**TACAACAA
TGAGGAGGCCGGCCCCGCCTTTGAGGAGTTCCTCTCCCTCATCGGCGAGAAGGTCTGCCTGAAGGGCTTCACCAA
GTACGCTGCCCAGCTGGACGTCAAGACCGACTCCACGGGAACCCACTCCCTCTACACGATGTACCAGGACTACGA
GATCATGTTCCATGTCTCCACCCTGCTCCCTTACACCCCCAACAACAGGCAGCAGCTGCTACGGAAGAGGCACAT
AGGAAATGACATCGTGACGATCATCTTCCAGGAGCCTGGCGCGCTACCGTTCACCCCCAAGAACATCCGCTCCCA
CTTCCAGCACGTCTTCATCATTGTCCGAGTCCACAACCCCTGCACTGATAACGTCTGTTACAGTATGGCTGTGAC
CCGATCCAAAGACGCTCCTCCTTTCGGCCCCCCCATCCCCAGTGGAACCACATTCCGCAAATCCGACGTCTTCAG
AGACTTCTTGCTGGCCAAGGTGATTAACGCTGAGAACGCCGCGCACAAGTCCGACAAGTTCCACACCATGGCCAC
CAGGACCCGCCAGGAGTATCTCAAGGACCTGGCCGAAAACTGTGTCTCCAACACCCCCATCGACTCCACCGGCAA
ATTCAACCTCATCTCCCTGACCTCCAAGAAGAAGGAAAAGACAAAAGCACGGGCTGGCGCTGAGCAGCACAGTGC
AGGGGCCATCGCCTGGAGGGTGGTGGCCCAGGACTACGCCCAGGGGGTGGAAATCGACTGCATTTTGGGAATTTC
CAATGAGTTTGTGGTGCTCCTGGACTTACGCACCAAGGAGGTGGTGTTCAACTGCTACTGCGGGGATGTCATTGG
CTGGACTCCAGACTCCTCCACACTCAAAATCTTCTATGGACGAGGAGACCACATCTTCCTACAGGCGACAGAGGG
TTCTGTGGAGGACATAAGGGAGATAGTGCAGAGACTGAAGGTGATGACCAGTGGCTGGGAGACGGTGGACATGAC
GCTTCGGCGGAACGGGCTCGGGCAGCTGGGCTTCCACGTGAAGTACGACGGCACGGTGGCCGAGGTTGAGGACTA
TGGGTTCGCCTGGCAGGCCGGCCTCCGGCAGGGCAGCCGACTAGTGGAGATCTGCAAGGTGGCCGTGGTCACACT
GACCCACGACCAGATGATCGACCTGCTGCGCACCTCTGTCACTGTGAAGGTGGTCATCATCCCGCCTTTTGAGGA
CGGCACTCCCCGGAGGGGTTGGCCGGAGACCTACGACATGAATACCTCGGAGCCCAAGACGGAGCAGGAAAGCAT
CACTCCTGGGGGCCGGCCCCCCTACCGCAGCAATGCTCCCTGGCAGTGGAGCGGGCCCGCATCCCATAACTCTCT
ACCAGCCTCCAAGTGGGCCACTCCAACCACTCCCGGCCATGCCCAGTCCCTGAGCCGGCCCCTGAAGCAGACCCC
CATAGTCCCCTTCCGGGAGTCCCAGCCACTGCACAGCAAGAGGCCTGTCAGCTTCCCAGAAACCCCTTACACAGT
ATCACCAGCAGGGGCCGACAGAGTCCCTCCCTACCGACAGCCTTCTGGGAGCTTCTCCACCCCCGGTTCGGCCAC
CTACGTGAGATACAAGCCATCCCCAGAAAGGTACACGGCTGCCCCACACCCCCTGCTATCTCTTGATCCCCACTT
CAGCCACGATGGGACGTCCAGCGGCGACTCCTCTTCCGGCGGCCTGACCAGCCAGGAGAGCACCATGGAACGCCA
GAAGCCAGAGCCTTTGTGGCATGTGCCTGCCCAGGCCAGGCTCTCAGCCATAGCCGGAAGCAGCGGGAACAAGCA
CCCGTCCAGGCAGGATGCAGCAGGCAAAGATTCTCCCAACAGGCATTCCAAAGGAGAACCTCAATACTCAAGTCA
TTCCAGCAGCAACACCCTCTCCAGCAACGCATCCAGCAGCCACAGCGACGACCGCTGGTTCGACCCCCTGGACCC
CCTGGAGCCAGAGCAAGACCCCCTCTCCAAGGGTGGCTCTAGTGACAGCGGCATCGACACCACCCTCTACACCTC
CAGCCCTAGCTGCATGTCCCTGGCCAAGGCTCCACGGCCCGCCAAGCCACACAAGCCCCCTGGAAGTATGGGCCT
TTGTGGCGGGGGTCGCGAGGCCGCTGGGAGGTCCCACCACGCAGACAGGCGGCGGGAGGTCTCCCCTGCCCCCGC
AGTTGCCGGCCAAAGCAAGGGCTACCGACCGAAGCTGTACTCCTCCGGCTCCAGCACCCCCACGGGACTGGCGGG
GGGCAGCCGAGACCCACCGAGGCAGCCCAGTGACATGGGCTCGAGGGTTGGCTACCCCGCTCAGGTTTACAAAAC
TGCCAGTGCAGAGACTCCTCGGCCCTCCCAGCTGGCCCAGCCCAGCCCCTTTCAGCTCTCCGCCTCCGTCCCCAA
GTCCTTCTTCTCCAAGCAGCCTGTACGCAATAAGCACCCAACAGGGTGGAAGAGAACGGAGGAGCCCCCACCACG
GCCACTCCCCTTCAGTGACCCAAAGAAGCAGGTGGACACGAACACCAAAAATGTCTTTGGGCAACCGAGGTTGAG
GGCATCCCTCCGAGACCTCCGGTCACCACGGAAGAACTACAAATCCACCATCGAGGATGACCTGAAGAAACTCAT
CATCATGGACAACCTGGGGCCAGAGCAGGAGAGAGACACGGGACAGTCACCGCAGAAGGGCCTGCAGCGGACGCT
GTCGGACGAGAGCCTGTGCAGCGGGCGCCGGGAGCCCAGCTTCGCCAGCCCCGCTGGCCTAGAGCCAGGGCTGCC
CAGCGACGTGCTCTTCACCAGCACCTGCGCCTTCCCGTCCAGCACGCTGCCTGCACGCCGCCAGCACCAGCACCC
CCACCCGCCCGTCGGCCCCGGTGCCACCCCTGCCGCCGGCAGCGGCTTTCCCGAGAAGAAATCCACCATCTCAGC
CTCGGAGCTCTCGCTGGCTGATGGGCGGGACCGCCCCCTGCGGCGCCTGGACCCTGGGCTGATGCCCCTGCCTGA
CACAGCTGCTGGCCTCGAGTGGTCCAGCCTGGTGAACGCAGCCAAGGCATACGAAGTGCAAAGAGCCGTCTCACT
CTTCTCTCTGAACGACCCGGCCCTGAGCCCGGACATCCCGCCTGCACACAGTCCTGTCCACAGCCACCTGAGCCT
GGAGAGGGGACCCCCGACCCCCAGGACCACCCCTACCATGAGCGAGGAGCCACCCCTGGATCTGACAGGCAAGGT
GTACCAGCTGGAGGTGATGCTGAAACAGCTGCACACTGACCTGCAGAAGGAGAAGCAGGACAAGGTGGTGCTCCA
GTCAGAGGTGGCCAGCCTGCGGCAGAACAACCAGCGGCTGCAGGAGGAGTCGCAGGCCGCCAGCGAGCAGCTGCG
CAAGTTTGCGGAGATCTTCTGCAGGGAGAAGAAGGAGCTC**TGA**GGTGGGAGGCCGCCGCCCGCCTTCGCTCCTTC
CCCTCAGGCCGTGGCCCTGCTGCCTCTCTCCCTCCACTCAGCTCCCAGCTGCCGGTGTGACCAAGATGACCCATC

FIGURE 840B

CAGGGCCCTCCCCATGGACACGGAAACTCCGATGGCCTCACTAGGGCTGTGAGTCAGGGTCAGCGCGCACAGCCC
TCATGCCCCAGAGGGCGAAGTGGTCTCAGGCCTCCCTCCAAGCTGCCCAGCTGTGGTCCCGGTGAGCTGGGCTGT
GCTTACACCGCTCCCGGGCCTGCCCCGCTGTCCCCATCTAGCCTCTTCCTGGGACCAGCCCTTCGAAGCTGATGG
GGACGGAGAGAGGAGCCAGTCTCCAGACGCCTCGGCTCCAGGAGGTCACACAGCAGGTTTCTGCACCACGCACAA
CAAAGTTGCGGCTTGTGGGGCCGAGGCCCCTGCATGAAAAGTACAGCGTGAAAGCAACCCTTTCTTCCCCACACC
CAGAGAGGTGAGGCCCGCGTGGACACAGACCAGGGCGCCTCGGTCCCTAGCACGTGAGCTCCAAAAAGCACGAAC
ATGATCCCCTCCCTAACCCCCTCCTCCCAAAAAGCAGCCAGGAGCACTTTCTTAGAGTTTAAATTATTTTCTTGG
GGGCCTGAGGATAGAGAGAGGCAAGGCTAGCCTCCAGAGCCGATTTATTTGAGAGAGAAACTCTATTTGGATCTC
CAGGACGGTTTATACGATCTTTTTCTATCAGCTCCTCTTCCGCCAGAGGCCACTGCACCTGGGCTAGGGGTCCAC
AGGCCCCTCCACCTTCCAGCTAACCAGGCCAGGCCGGGGCGGTGGAGCCACCACACAGCCGACTCTCTCCTCCTC
CTCCCGGCACGACCTGGCCCTGACCAGCAGCCTCGGCCTCTTCTGGGTTCCAGGAGGGGCTCCCGAAGCCCTCAG
GACAGGGCTGGAGGAGAACAGCCTTCATCTCCTCCTCTGGTTTTTTTTTCCTTTGCAAGTCTCCCAGCCCATCTC
TCCGAGCAGCGGCCACCAGACCCCCTCACCATGCTCCCCGGGGAGCACTGCACCCCGCGAACCCCACTGGACGCT
GGTTCTCTAAAGGCAATAAGGGGCGGCCATGCCGGTGTGGTACCACGCTGTTCCTCCAGGAAACCGTTTCTTTTT
TTCCTTCTTTAAAAGCAAACAGAAAAAGATATATATATATATATATATATATTTATTTTTTCATGTAGAGTTGGC
GCCAGAACAAGCCTGTATGGCCACAGTCTGTGGATTCATCCCCCCAACCTCAAGCTGAGGACCAAGGCGTGTCCC
CTGTGGGCTGGGGGTCAGTGGGAGGACCAGAGGGATGAAGTCAGGGCAGGCCGGTGCCCTTTTTGGGAGGCACCA
GGCGGGGAGGAGTTGGCGGAGCAGGTCTGGCTGTGAGCCAGCACCAGGCAACCCGGCCCTTGTCCAGGGACCTCT
GCTGCCTTCTCTCTGGGGTCAGGAACCTCAGAGGAGGGGGCTCTGGGGACTGCATAGGACGCAGGCACTCGGAGG
TGCCGGTGTGGATGGGTGGGGGTGAGAGAAGAGGGTTCTTATCGCGTCTCCTGTGATCAGCCTCTGGCCCCCTGG
AGGAGGAAACCTCAGCGCTGCCCCTGCCCCCACCCTCACCCCCAACACCAAGAGTGAGGTGGGCGTGCCCCAGGC
AGCGTCCTCAGCCCTGGCCAGCTACTGTGATGCCATCTTCTCCCCCATCCCCTTCTCTGGGGGGCCCACCCGTCC
CCCACCCCCACCCCTTAGACCCTCATCGGGTCCCTTTTTTTTTTTTTTTTCAGTTGTCTCCTCCCATCTTCAGA
TCATTCGAATCATTTTGGGGACTTAATCATGTACATGGACAAGTGTAAATTATGATTTTTGGTTTTGTTTTCTGT
TATTTTTTAAGGATTTCTGCAAAAACAGATCTATTTAATTTGAGGTTGATGTTCTATCCAATGGCCGAAGATAGC
AGCAGGTTTTTTTTTTCATATGTTGATTTGTTTCATTTGGATTTTTTTTTTATTATTCTTTATTGTCTTTTTTTT
TTCCCCATCCCTGTCTTGAGATTTTCTGGCATGTTTCTGGAGGTTTCAAAGGAAATAAAGGTTTCATAG

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FIGURE 841

GCCTCAAGCCGACGCAGCGGCCTACTCTCGCACTGCAGACGGGGAAACTGAGGCCTGAGGCGGCCGGGGTGGGGC
AGACCTCCCGGCGAGCCCGAGCCCCCGCCCCCGGCTAGCCCCGCCCTGGCCCGTAAGAAGCACCCGGGGCGCGAG
GCGAAGGCGCACAGCGCGGGGCCAGGCTGGGTCCAGCAGCGCG**ATG**GCAGCTCAGCGGCTGGGCAAGCGCGTGCT
GAGCAAGCTGCAGTCTCCATCGCGGGCCCGCGGGCCAGGGGGCAGTCCCGGGGGGCTGCAGAAGCGGCACGCGCG
CGTCACCGTCAAGTATGACCGGCGGGAGCTGCAGCGGCGGCTGGACGTGGAGAAGTGGATCGACGGGCGCCTGGA
GGAGCTGTACCGCGGCATGGAGGCAGACATGCCCGATGAGATCAACATTGATGAATTGTTGGAGTTAGAGAGTGA
AGAGGAGAGAAGCCGGAAAATCCAGGGACTCCTGAAGTCATGTGGGAAACCTGTCGAGGACTTCATCCAGGAGCT
GCTGGCAAAGCTTCAAGGCCTCCACAGGCAGCCCGGCCTCCGCCAGCCAAGCCCCTCCCACGACGGCAGCCTCAG
CCCCCTCCAGGACCGGGCCCGGACTGCTCACCCC**TGA**CCCTCTTGCACTCTCCCTGCCCCCCGGACGCCGCCCAG
CTTGCTTGTGTATAAGTTGTATTTAATGGTTCTGTAACAATAA

FIGURE 842

GTTGGGAGGTGTAGCGCGGCTCTGAACGCGCTGAGGGCCGTTGAGTGTCGCAGGCGGCGAGGGCGCGAGTGAGGA
GCAGACCCAGGCATCGCGCGCCGAGAAGGCCGGGCGTCCCCACACTGAAGGTCCGGAAAGGCGACTTCCGGGGGC
TTTGGCACCTGGCGGACCCTCCCGGAGCGTCGGCACCTGAACGCGAGGCGCTCCATTGCGCGTGCGCGTTGAGGG
GCTTCCCGCACCTGATCGCGAGACCCCAACGGCTGGTGGCGTCGCCTGCGCGTCTCGGCTGAGCTGGCC**ATG**GCG
CAGCTGTGCGGGCTGAGGCGGAGCCGGGCGTTTCTCGCCCTGCTGGGATCGCTGCTCCTCTCTGGGGTCCTGGCG
GCCGACCGAGAACGCAGCATCCACGACTTCTGCCTGGTGTCGAAGGTGGTGGGCAGATGCCGGGCCTCCATGCCT
AGGTGGTGGTACAATGTCACTGACGGATCCTGCCAGCTGTTTGTGTATGGGGGCTGTGACGGAAACAGCAATAAT
TACCTGACCAAGGAGGAGTGCCTCAAGAAATGTGCCACTGTCACAGAGAATGCCACGGGTGACCTGGCCACCAGC
AGGAATGCAGCGGATTCCTCTGTCCCAAGTGCTCCCAGAAGGCAGGATTCTGAAGACCACTCCAGCGATATGTTC
AACTATGAAGAATACTGCACCGCCAACGCAGTCACTGGGCCTTGCCGTGCATCCTTCCCACGCTGGTACTTTGAC
GTGGAGAGGAACTCCTGCAATAACTTCATCTATGGAGGCTGCCGGGGCAATAAGAACAGCTACCGCTCTGAGGAG
GCCTGCATGCTCCGCTGCTTCCGCCAGCAGGAGAATCCTCCCCTGCCCCTTGGCTCAAAGGTGGTGGTTCTGGCG
GGGCTGTTCGTGATGGTGTTGATCCTCTTCCTGGGAGCCTCCATGGTCTACCTGATCCGGGTGGCACGGAGGAAC
CAGGAGCGTGCCCTGCGCACCGTCTGGAGCTCCGGAGATGACAAGGAGCAGCTGGTGAAGAACACATATGTCCTG
TGACCGCCCTGTCGCCAAGAGGACTGGGGAAGGGAGGGGAGACTATGTGTGAGCTTTTTTTAAATAGAGGGATTG
ACTCGGATTTGAGTGATCATTAGGGCTGAGGTCTGTTTCTCTGGGAGGTAGGACGGCTGCTTCCTGGTCTGGCAG
GGATGGGTTTGCTTTGGAAATCCTCTAGGAGGCTCCTCCTCGCATGGCCTGCAGTCTGGCAGCAGCCCCGAGTTG
TTTCCTCGCTGATCGATTTCTTTCCTCCAGGTAGAGTTTTCTTTGCTTATGTTGAATTCCATTGCCTCTTTTCTC
ATCACAGAAGTGATGTTGGAATCGTTTCTTTTGTTTGTCTGATTTATGGTTTTTTTAAGTATAAACAAAAGTTTT
TTATTAGCATTCTGAAAGAAGGAAAGTAAAATGTACAAGTTTAATAAAAAGGGGCCTTCCCCTTTAGAATAAATT
TCAGCATGTGCTTTC

FIGURE 843

ATTCCTCCAACGGGCAGGTCTCAGCGCTCCTCCCCCTGCTCCGCTCCTCTGCAGGGCCCAGGCGCCCTTGGCCTT
AGGACCCAACTTCTCTTACCGCC**ATG**GAGTTCGACCTGGGAGCAGCCCTGGAGCCCACCTCCCAGAAGCCCGGTG
TGGGGGCGGGCCACGGGGGAGATCCCAAGCTCAGTCCCCACAAAGTTCAGGGCCGGTCGGAGGCAGGGGCAGGTC
CGGGTCCAAAGCAAGGACACCACAGCTCTTCCGACTCCAGCAGCAGCTCCAGCGATTCGGACACGGATGTGAAGT
CCCACGCTGCTGGCTCCAAGCAGCACGAGAGCATCCCGGGCAAGGCCAAGAAGCCCAAAGTGAAGAAGAAGGAGA
AGGGCAAGAAGGAGAAGGGCAAGAAGAAGGAGGCTCCCCAC**TGA**AGGGCCCTGGACAGGGCTCATTAAACCTTCC
TCTCTGCCTTC

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FIGURE 844

TGCCAGTCCATCTGACATCAAAGCCAGTGTCTCTAATGGTGACACCACCCTCCTCTGCAGCAGGAGGCAGAGCTG
TGGGATGA**ATG**AGGTTCGCCAGGTCTCCCTTACCTATCCTGGGTCCCCAGCTCCTTCTCACTCTCTTCCCTTGCA
GCCTCGAAGCGGAGGATCCCTGTGTCCCAGCCGGGCATGGCGACCCCCACCAGCTTTTCGATGACACAAGTTCAG
CCCAGAGCCGGGGCTATGGGGCCCAGCGGGCACCTGGTGGCCTGAGTTATCCTGCAGCCTCTCCCACGCCCCATG
CAGCCTTCCTGGCTGACCCGGTGTCCAACATGGCCATGGCCTATGGGAGCAGCCTGGCCGCGCAGGGCAAGGAGC
TGGTGGATAAGAACATCGACCGCTTCATCCCCATCACCAAGCTCAAGTATTACTTTGCTGTGGACACCATGTATG
TGGGCAGAAAGCTGGGCCTGCTGTTCTTCCCCTACCTACACCAGGACTGGGAAGTGCAGTACCAACAGGACACCC
CGGTGGCCCCCCGCTTTGACGTCAATGCCCCGGACCTCTACATTCCAGCAATGGCTTTCATCACCTACGTTTTGG
TGGCTGGTCTTGCGCTGGGGACCCAGGATAGGTTCTCCCCAGACCTCCTGGGGCTGCAAGCGAGCTCAGCCCTGG
CCTGGCTGACCCTGGAGGTGCTGGCCATCCTGCTCAGCCTCTATCTGGTCACTGTCAACACCGACCTCACCACCA
TCGACCTGGTGGCCTTCTTGGGCTACAAATATGTCGGGATGATTGGCGGGGTCCTCATGGGCCTGCTCTTCGGGA
AGATTGGCTACTACCTGGTGCTGGGCTGGTGCTGCGTAGCCATCTTTGTGTTCATGATCCGGACGCTGCGGCTGA
AGATCTTGGCAGACGCAGCAGCTGAGGGGGTCCCGGTGCGTGGGGCCCGGAACCAGCTGCGCATGTACCTGACCA
TGGCGGTGGCGGCGGCGCAGCCTATGCTCATGTACTGGCTCACCTTCCACCTGGTGCGG**TGA**GCGCGCCCGCTGA
ACCTCCCGCTGCTGCTGCTGCTGCTGGGGGCCACTGTGGCCGCCGAACTCATCTCCTGCCTGCAGGCCCCAAGGT
CCACCCTGTCTGGCCACAGGCACCGCCTCCATCCCATGTCCCGCCCAGCCCCGCCCCCAACCCAAGGTGCTGAGA
GATCTCCAGCTGCACAGGCCACCGCCCCAGGGCGTGGCCGCTGTTACAGAAACAATAAACCCTGATGGGCATGG

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FIGURE 845

TGCCGCGCCTGTAGCACTCCCGGAACTGGAACTAGGTGCCAGACGGTCCGGAGGCGGGGGCCACGTCAGCGGGGC
CACCCAGGGCTCGCGGGGTCCCGGTGGGTGCCATGCGGAGGGGCGCGCTTCTGGCGGGCGCCTTGGCCGCGTACG
CCGCGTACCTGGTGCTGGGCGCGCTGTTGGTGGCGCGGCTGGAGGGGCCGCACGAAGCCAGGCTCCGAGCCGAGC
TGGAGACGCTGCGGGCGCAGCTGCTTCAGCGCAGCCCGTGTGTGGCTGCCCCCGCCCTGGACGCCTTCGTGGAGC
GAGTGCTGGCGGCCGGACGGCTGGGGCGGGTCGTGCTTGCTAACGCTTCGGGGTCCGCCAACGCCTCGGACCCCG
CCTGGGACTTCGCCTCTGCTCTCTTCTTCGCCAGCACGCTGATCACCACCGTGGGCTATGGGTACACAACGCCAC
TGACTGATGCGGGCAAGGCCTTCTCCATCGCCTTTGCGCTCCTGGGCGTGCCGACCACCATGCTGCTGCTGACCG
CCTCAGCCCAGCGCCTGTCACTGCTGCTGACTCACGTGCCCCTGTCTTGGCTGAGCATGCGTTGGGGCTGGGACC
CCCGGCGGGCGGCCTGCTGGCACTTGGTGGCCCTGTTGGGGGTCGTAGTGACCGTCTGCTTTCTGGTGCCGGCTG
TGATCTTTGCCCACCTCGAGGAGGCCTGGAGCTTCTTGGATGCCTTCTACTTCTGCTTTATCTCTCTGTCCACCA
TCGGCCTGGGCGACTACGTGCCCGGGGAGGCCCCTGGCCAGCCCTACCGGGCCCTCTACAAGGTGCTGGTCACAG
TCTACCTCTTCCTGGGCCTGGTGGCCATGGTGCTGGTGCTGCAGACCTTCCGCCACGTGTCCGACCTCCACGGCC
TCACGGAGCTCATCCTGCTGCCCCCTCCGTGCCCTGCCAGTTTCAATGCGGATGAGGACGATCGGGTGGACATCC
TGGGCCCCCAGCCGGAGTCGCACCAGCAACTCTCTGCCAGCTCCCACACCGACTACGCTTCCATCCCCAGGTAGC
TGGGGCAGCCTCTGCCAGGCTTGGGTGTGCCTGGCCTGGGACTGAGGGGTCCAGGCGACCAGAGCTGGCTGTACA
GGAATGTCCACGAGCACAGCAGGTGATCTTGAGGCCTTGCCGTCCACCGTCTCTCCTTTGTTTCCCAGCATCTGG
CTGGGATGTGAAGGGCAGCACTCCCTGTCCCCATGTCCCGGGCTCCACTGGGCACCAACATAACCTTGTTCTCTG
TCCTTTCTCTCATCCTCTTTACACTGTGTCTCTCTGGCTCTCTGGCATTCTCGCTGCCTCTGTCTTTCCCTCTTG
CTGTCTCTGTTTCTCATTCTCTTTCATGTTCCGTCTGTGTCTCTCAATTAACCACTCGTCAACTGCTGATTCTAC
TGGGCTGTGGGCTCAGACCTCATTTCAGGCACCAGATTGGTCGCTACACCCTGGACAAGTGACTGCCCGTCTCTG
AGCCTTGATTTCCTCAGCTGCCAAATGGGAAGAATAGAAGAATTTGCCCCTAAACCCCTCCTGTGTGCTGGCCCT
GTGCTAGACAGTGCTGGAGACATAGTTGGGGGTGGAGAACTGCCCTTATGGAGCTTGCAGTCCAGTGAGGTGGAC
AGACCTGTCCCCAGACAGTGATGGCCCAAAATGGTCAGGACTTTAATGGAGGAGGTGAGGTGTTGAAAGCACAGG
CAGAGTGGTCAGGGCTGAAGTCGGAGAAGCATAGGGACTAGGCCCAATCCAGCCTGGAAAGTCAGGGAGGACTTC
CTAGAGGAAGGGACATCGAACTAAGACCTGAACTATGAGAAATAGGCAGGAAGAAGTTGTACCTGACTCATTTTT
CTCAGGTGTCTCCAGGGAGCAGGACCCATGGAGGGACCCCTGGTGTAGGCCTGGGCGATAGACTCTTCCTCAGCA
GCCTGGCAGGCAGGAAACAGACATAGGACCCCAGCCCAGATCTGAATGGCATGGGAGGTGCTGCCCTTAACCATG
ACACCATTGTAAGAGCTGTCCACATTTGTATGTTGTGCCCTGGAATCAGCCTGGTTGAGCTCAAATCCCAACTTA
GCCACGTCTGGCCTGTGTCCTTGGGCAGTCACACTACCTCTCTGATTTTGTTTCCTTATCTGTAAAATGGTGATC
ATCATAATACAACTTCAAAAGGATTTCAGGCTGAGTGTGGTGGCTCACGCCTATACACCCAGCACTTTGGAAGGC
TGAGGAAGGAGGATCGCTTGAGGCCAGGAGTTTGAGACTAGCCTAGGCAACACAGTGAGGCCTTATCTCAACAAC
AACCACAAAATCTAAAAATTAGCTGGGTGTGGTGGTGCATGCCTGTGATCCTGGCTACTTCAGAGGCTGAGGTGG
AAGGATCACTTGAGGCCAGGAGTTTGAGGCTGCAGTGAGTTATGATGGCACTGCTGCACTCCAGCCTGCGGGACA
GAGTGAGACCCTGTCTGAAAGAAAGAGAGAAAGAAAGAAAGAAAGAGAGAGAAAGAAAGAAAGAAAGAAAGGGAA
AGATGGAAGGAAGGAAGGAAAAAGAAAGAGAAAGAGAGAGAGAGAGAAAGAAAAAGAAAGAAAAGTAAGAAAGAA
AAAAGAAAAAGAAAGAAAAGTAAGAAAG

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FIGURE 846

CGGGGCGGCAGGCTTCTCGAGCTCCGGGCCCGCGGCAACCTCGGGCGCTGTTCTGCAGGCCGCGACCGGC**ATG**TA
CGAGCAACTCAAGGGCGAGTGGAACCGTAAAAGCCCCAATCTTAGCAAGTGCGGGGAAGAGCTGGGTCGACTCAA
GCTAGTTCTTCTGGAGCTCAACTTCTTGCCAACCACAGGGACCAAGCTGACCAAACAGCAGCTAATTCTGGCCCG
TGACATACTGGAGATCGGGGCCCAATGGAGCATCCTACGCAAGGACATCCCCTCCTTCGAGCGCTACATGGCCCA
GCTCAAATGCTACTACTTTGATTACAAGGAGCAGCTCCCCGAGTCAGCCTATATGCACCAGCTCTTGGGCCTCAA
CCTCCTCTTCCTGCTGTCCCAGAACCGGGTGGCTGAGTTCCACACGGAGTTGGAGCGGCTGCCTGCCAAGGACAT
ACAGACCAATGTCTACATCAAGCACCCAGTGTCCCTGGAGCAATACCTGATGGAGGGCAGCTACAACAAAGTGTT
CCTGGCCAAGGGTAACATCCCCGCCGAGAGCTACACCTTCTTCATTGACATCCTGCTCGACACTATCAGGGATGA
GATCGCTGGGTGCATCGAGAAGGCCTACGAGAAAATCCTTTTCACTGAGGCCACCCGGATCCTCTTCTTCAACAC
ACCCAAAAAGATGACAGACTACGCCAAGAAGCGAGGGTGGGTCCTGGGCCCCAACAACTACTACAGTTTTGCCAG
CCAGCAGCAGAAGCCGGAAGACACCACCATTCCCTCCACAGAACTGGCCAAACAGGTCATCGAGTATGCCCGGCA
GCTGGAGATGATCGTC**TGA**GCCCCCCGGGCACTGGGTGGGGCAGGGCACGAGTTATTTAAAACAGTTACACTGCA
GGGTTTCGCCCAATAAAGGTGGACTGAC

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FIGURE 847

GGAAAGCGTGGCGGCTGCTGCTAGAGCCTTTCCCTTTACCGCACCCAAGGAGCTGGAGCGACAACAACGACGTCG
TTTCCGTTTCCACCACCTCTTCCTGTTCCCGTCCTTGAGGACGCCGTGCCGGGTCAGTGTTAGCCTCCAGCCCTG
GTTGTGGAAGGCGACAGAAGTC**ATG**GCGATGTTTGAGCAGATGAGAGCCAACGTGGGCAAGTTGCTCAAGGGTAT
CGACAGGTACAATCCTGAGAACCTGGCCACCCTGGAGCGCTATGTAGAGACGCAGGCCAAGGAAAATGCCTATGA
TCTGGAAGCCAACCTGGCTGTCCTGAAGCTGTACCAGTTCAACCCAGCCTTCTTTCAGACCACGGTCACCGCCCA
GATCCTGCTGAAGGCCCTCACCAACTTGCCGCACACAGACTTCACCCTGTGCAAGTGCATGATCGACCAGGCACA
TCAAGAAGAACGGCCAATCCGACAGATTTTGTACCTCGGGGACCTGCTGGAGACCTGCCATTTCCAGGCCTTCTG
GCAAGCCCTGGATGAAAACATGGACCTCTTGGAAGGTATAACTGGCTTTGAAGACTCTGTCCGAAAGTTTATCTG
CCATGTTGTGGGTATCACTTACCAGCACATTGACCGCTGGCTGCTGGCCGAGATGCTCGGGGATCTGTCGGACAG
CCAGCTAAAGGTGTGGATGAGCAAATACGGCTGGAGTGCCGACGAGTCGGGGGCAGATCTTCATCTGTAGCCAAGA
AGAGAGCATTAAACCCAAGAACATTGTGGAGAAGATTGACTTTGACAGTGTGTCCAGCATCATGGCCTCCTCCCA
G**TAA**CTTCAGGTGTTTAATAAAGATGTGTTGACTCAG

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FIGURE 848

AGAGGGGCGGGAGCTGAGGCGGGAGCGGACAGGCTGGTGGGCGAGCGAGAGGCGGCGGAATGGTGGACTACCACG
CGGCGAACCAGTCGTACCAGTACGGCCCCAGCAGCGCGGGCAATGGCGCTGGCGGCGGGGGCAGCATGGGCGACT
ACATGGCCCAGGAGGACGACTGGGACCGGGACCTGCTGCTGGACCCGGCCTGGGAGAAGCAGCAGCGCAAGACCT
TCACGGCATGGTGCAACTCCCACCTGCGGAAGGCAGGCACACAGATCGAGAACATTGATGAGGACTTCCGAGACG
GGCTCAAGCTCATGCTGCTCCTGGAGGTCATATCAGGGGAGCGGTTACCTAAGCCGGAGCGGGGGAAGATGAGAG
TGCACAAAATCAACAATGTGAACAAAGCGCTGGACTTTATTGCCAGCAAAGGCGTCAAGCTGGTCTCCATCGGGG
CAGAAGAGATTGTGGACGGCAACGCAAAGATGACCCTGGGAATGATCTGGACCATCATCCTTAGGTTCGCCATCC
AGGACATCTCCGTGGAAGAGACCTCGGCCAAGGAAGGGCTCCTTCTCTGGTGCCAGAGAAAGACAGCCCCGTATA
AGAACGTCAATGTGCAGAACTTCCACATCAGCTGGAAGGATGGTCTTGCCTTCAATGCCCTGATCCACCGGCACA
GACCAGAGCTGATTGAGTATGACAAGCTGAGGAAGGACGACCCTGTCACCAACCTGAACAATGCCTTCGAAGTGG
CTGAGAAATACCTCGACATCCCCAAGATGCTGGATGCAGAGGACATCGTGAACACGGCCCGGCCCGACGAGAAGG
CCATAATGACCTATGTGTCCAGCTTCTACCATGCCTTTTCAGGAGCGCAGAAGGCTGAAACTGCCGCCAACCGGA
TCTGTAAGGTGCTGGCTGTCAACCAAGAGAACGAGCACCTGATGGAGGACTACGAGAAGCTGGCCAGCGACCTCC
TGGAGTGGATCCGGCGCACCATCCCCTGGCTGGAGGACCGTGTGCCCCAAAAGACTATCCAGGAGATGCAGCAGA
AGCTGGAGGACTTCCGCGACTACCGGCGTGTGCACAAGCCGCCCAAGGTGCAGGAGAAGTGCCAGCTGGAGATCA
ACTTCAACACGCTGCAGACCAAGCTGCGCCTCAGCAACCGGCCCGCCTTCATGCCCTCCGAGGGCAAGATGGTCT
CGGACATCAACAATGGCTGGCAGCACTTGGAGCAGGCTGAGAAGGGCTACGAGGAGTGGCTGCTGAATGAGATCC
GCAGGCTGGAGCGGCTCGACCACCTGGCAGAGAAGTTCCGGCAGAAGGCCTCCATCCACGAGGCCTGGACTGACG
GGAAGGAAGCCATGCTGAAGCACCGGGACTACGAGACGGCCACACTATCGGACATCAAAGCCCTCATTCGCAAGC
ACGAGGCCTTCGAGAGCGACCTGGCTGCGCACCAGGACCGCGTGGAGCAGATCGCCGCCATTGCCCAGGAGCTCA
ACGAGCTGGATTACTACGACTCCCACAATGTCAACACCCGGTGCCAGAAGATCTGTGACCAGTGGGACGCCCTCG
GCTCTCTGACACATAGTCGCAGGGAAGCCCTGGAGAAAACAGAGAAGCAGCTGGAGGCCATCGACCAGCTGCACC
TGGAATACGCCAAGCGCGCGGCCCCCTTCAACAACTGGATGGAGAGCGCCATGGAGGACCTCCAGGACATGTTCA
TCGTCCATACCATCGAGGAGATTGAGGGCCTGATCTCAGCCCATGACCAGTTCAAGTCCACCCTGCCGGACGCCG
ATAGGGAGCGCGAGGCCATCCTGGCCATCCACAAGGAGGCCCAGAGGATCGCTGAGAGCAACCACATCAAGCTGT
CGGGCAGCAACCCCTACACCACCGTCACCCCGCAAATCATCAACTCCAAGTGGGAGAAGGTGCAGCAGCTGGTGC
CAAAACGGGACCATGCCCTCCTGGAGGAGCAGAGCAAGCAGCAGTCCAACGAGCACCTGCGCCGCCAGTTCGCCA
GCCAGGCCAATGTTGTGGGGCCCTGGATCCAGACCAAGATGGAGGAGATCGGGCGCATCTCCATTGAGATGAACG
GGACCCTGGAGGACCAGCTGAGCCACCTGAAGCAGTATGAACGCAGCATCGTGGACTACAAGCCCAACCTGGACC
TGCTGGAGCAGCAGCACCAGCTCATCCAGGAGGCCCTCATCTTCGACAACAAGCACACCAACTATACCATGGAGC
ACATCCGCGTGGGCTGGGAGCAGCTGCTCACCACCATTGCCCGCACCATCAACGAGGTGGAGAACCAGATCCTCA
CCCGCGACGCCAAGGGCATCAGCCAGGAGCAGATGCAGGAGTTCCGGGCGTCCTTCAACCACTTCGACAAGGATC
ATGGCGGGGCGCTGGGGCCCGAGGAGTTCAAGGCCTGCCTCATCAGCCTGGGCTACGACGTGGAGAACGACCGGC
AGGGTGAGGCCGAGTTCAACCGCATCATGAGCCTGGTCGACCCCAACCATAGCGGCCTTGTGACCTTCCAAGCCT
TCATCGACTTCATGTCGCGGGAGACCACCGACACGGACACGGCTGACCAGGTCATCGCTTCCTTCAAGGTCTTAG
CAGGGGACAAGAACTTCATCACAGCTGAGGAGCTGCGGAGAGAGCTGCCCCCCGACCAGGCCGAGTACTGCATCG
CCCGCATGGCGCCATACCAGGGCCCTGACGCCGTGCCCGGTGCCCTCGACTACAAGTCCTTCTCCACGGCCTTGT
ATGGCGAGAGCGACCTGTGAGGCCCCAGAGACCTGACCCAACACCCCCGACGGCCTCCAGGAGGGGCCTGGGCAG
CCCCACAGTCCCATTCCTCCACTCTGTATCTATGCAAAGCACTCTCTGCAGTCCTCCGGGGGTGGGTGGGTGGGCA

FIGURE 849

GCCCCGCGAGGATGAGCCCAGGGCTCCACGGTCCCTACCTAGACCCCACGCGATTCCTCACCTGAGACCCCGTCC
CACACAGCCCCAGCTGGGGCAAACAGCCCCCTCCCCACTTCCCATCTGTAATTTGCAGGGAGATCGACGACGTGA
TCAGCGCAGACCTGCAGTCTCTCCAGGTGGGGACTGTTCCTGGAGGGGCGGC**ATG**GGGCGGGGATCTTGGCCAGC
GCTAAACTTCCGCCATGCGGCAGGGCCCCTACCTGCCCCTGGAGCTGGGGTTGGAGCAGCTGTTTCAGGAGCTGG
CTGGAGAGCCAGGGCCCATACCTCCACCCCCAGAGAGATCGGGCTCAGGACCTGTGAGCAGCTGCTGCAGTGTTT
CGGGCATGGGCAAAGCCTGGCCTTACACCACTTCCAGCAGCTCTGGGGCTACCTCCTGGAGTGGCAGGCCATATT
TAACAAGTTCGATGAGGACACCTCTGGAACCATGAACTCCTACGAGCTGAGGCTGGCACTGAATGCAGCAGGCTT
CCACCTGAACAACCAGCTGACCCAGACCCTCACCAGCCGCTACCGGGATAGCCGTCTGCGTGTGGACTTCGAGCG
GTTCGTGTCCTGTGTGGCCCACCTCACCTGCATCTTCTGCCACTGCAGCCAGCACCTGGATGGGGGTGAGGGGGT
CATCTGCCTGACCCACAGACAGTGGATGGAGGTGGCCACCTTCTCC**TAG**GATCTCCGGATGGGCGCACCTGCTGC
TCAGGGCAGGGTTGCTGAGCAAGACCACCTCCCTAGGCCTTGCCTGGCATGGGTGCCACTCTCTCTGGCATCCAC
CTGTCTGGGGCTAGTCTCTGGCCCTCACTGCTCACGGCCGGGTGACCACTCTGGCCTGCGTACTCCTCACTCAGA
AACAAGAACAGCGACAGCCCTTCTCGAGCAGATGACACGAGCTAGTCCACGTTGACAGCTTAAGACAGTGCTAGC
TCTGCCCTGGCTCTCCTAGAAGGTGGAGGACAGACACAGGAGAAATAAAAAAAGATGATGCTGCAGGAATCCTTC
TTAAAAATATTACATGTTTTATTATCCTGTCCCCAGAGGGTGGTTTATCCAGAAACCAAGAAAAAAAATCAATCA
GAATAAACTCAAAAAAAAAAGGTAGGGGGAGCAAAACCATCAACCACCAGGCAGCCAGGCCATCAGCCCACCTCC
ACCTCTGGAGGGTCCCCAGAGACCCACGCCCGACGCAGACCCGGAGGAGCATCAGCAAGGGGCCCGGGCAGAGAA
TCGGCTATGTCTTCATTATGAGAGCAGGAGAGACGGCAGAGATATGTTGCTAGGTGAATATATATTTATATAATA
AATCCGTAAGTTAATAAAGTAAATAGTAATTCTCTGAAA

FIGURE 850

ATCTCCCACTCCTGCAGCTCTTCTCACAGGACCAGCCACTAGCGCAGCCTCGAGCG**ATG**GCCTATGTCCCCGCAC
CGGGCTACCAGCCCACCTACAACCCGACGCTGCCTTACTACCAGCCCATCCCGGGCGGGCTCAACGTGGGAATGT
CTGTTTACATCCAAGGAGTGGCCAGCGAGCACATGAAGCGGTTCTTCGTGAACTTTGTGGTTGGGCAGGATCCGG
GCTCAGACGTCGCCTTCCACTTCAATCCGCGGTTTGACGGCTGGGACAAGGTGGTCTTCAACACGTTGCAGGGCG
GGAAGTGGGGCAGCGAGGAGAGGAAGAGGAGCATGCCCTTCAAAAAGGGTGCCGCCTTTGAGCTGGTCTTCATAG
TCCTGGCTGAGCACTACAAGGTGGTGGTAAATGGAAATCCCTTCTATGAGTACGGGCACCGGCTTCCCCTACAGA
TGGTCACCCACCTGCAAGTGGATGGGGATCTGCAACTTCAATCAATCAACTTCATCGGAGGCCAGCCCCTCCGGC
CCCAGGGACCCCCGATGATGCCACCTTACCCTGGTCCCGGACATTGCCATCAACAGCTGAACAGCCTGCCCACCA
TGGAAGGACCCCCAACCTTCAACCCGCCTGTGCCATATTTCGGGAGGCTGCAAGGAGGGCTCACAGCTCGAAGAA
CCATCATCATCAAGGGCTATGTGCCTCCCACAGGCAAGAGCTTTGCTATCAACTTCAAGGTGGGCTCCTCAGGGG
ACATAGCTCTGCACATTAATCCCCGCATGGGCAACGGTACCGTGGTCCGGAACAGCCTTCTGAATGGCTCGTGGG
GATCCGAGGAGAAGAAGATCACCCACAACCCATTTGGTCCCGGACAGTTCTTTGATCTGTCCATTCGCTGTGGCT
TGGATCGCTTCAAGGTTTACGCCAATGGCCAGCACCTCTTTGACTTTGCCCATCGCCTCTCGGCCTTCCAGAGGG
TGGACACATTGGAAATCCAGGGTGATGTCACCTTGTCCTATGTCCAGATC**TAA**TCTATTCCTGGGGCCATAACTC
ATGGGAAAACAGAATTATCCCCTAGGACTCCTTTCTAAGCCCCTAATAAAATGTCTGAGGGTGTCTC

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FIGURE 851

GAACGCAGTAGACGAAGGCGGCGGCG**ATG**GCGGCGGGGATAGTGGCTTCTCGCAGACTCCGCGACCTACTGACCC
GGCGACTGACAGGCTCCAACTACCCGGGACTCAGTATTAGCCTTCGCCTCACTGGCTCCTCTGCACAAGAGGAGG
CTTCCGGAGTAGCCCTCGGTGAAGCCCCAGACCACAGCTATGAGTCCCTTCGTGTGACGTCTGCGCAGAAACATG
TTCTGCATGTCCAGCTCAACCGGCCCAACAAGAGGAATGCCATGAACAAGGTCTTCTGGAGAGAGATGGTAGAGT
GCTTCAACAAGATTTCGAGAGACGCTGACTGTCGGGCGGTGGTGATCTCTGGTGCAGGAAAAATGTTCACTGCAG
GTATTGACCTGATGGACATGGCTTCGGACATCCTGCAGCCCAAAGGAGATGATGTGGCCCGGATCAGCTGGTACC
TCCGTGACATCATCACTCGATACCAGGAGACCTTCAACGTCATCGAGAGGTGCCCCAAGCCCGTGATTGCTGCCG
TCCATGGGGGCTGCATTGGCGGAGGTGTGGACCTTGTCACCGCCTGTGACATCCGGTACTGTGCCCAGGATGCTT
TCTTCCAGGTGAAGGAGGTGGACGTGGGTTTGGCTGCCGATGTAGGAACACTGCAGCGCCTGCCCAAGGTCATCG
GGAACCAGAGCCTGGTCAACGAGCTGGCCTTCACCGCCCGCAAGATGATGGCTGACGAGGCCCTGGGCAGTGGGC
TGGTCAGCCGGGTGTTCCCAGACAAAGAGGTCATGCTGGATGCTGCCTTAGCGCTGGCGGCCGAGATTTCCAGCA
AGAGCCCCGTGGCGGTGCAGAGCACCAAGGTCAACCTGCTGTATTCCCGCGACCATTCGGTGGCCGAGAGCCTCA
ACTACGTGGCGTCCTGGAACATGAGCATGCTGCAGACCCAAGACCTCGTGAAGTCGGTCCAGGCCACGACTGAGA
ACAAGGAACTGAAAACCGTCACCTTCTCCAAGCTC**TGA**GAGCCCTCGCGTCCCAGGCCCCAGCCAGGGGGCCGGC
CTTGTCCCGCCTCATCCACAGAAAGGGAGGATGGGCGATGACAGTTGTTTCTATGCCTTCTGACCCAGTTTCCCA
GTTTATAACTTTATGACAATGAGTTTCTCAAGCCCAAGGCCTTATCTTCACCCCACAAACAATAAAGCAAA

FIGURE 852

GGACGAGCAGCGGAGGCGGTCGGGAGCG**ATG**GTGAAGATGGCGGCGGCGGGCGGCGGAGGCGGCGGTGGCCGCTA
CTACGGCGGCGGCAGTGAGGGCGGCCGGGCCCCTAAGCGGCTCAAGACTGACAACGCCGGCGACCAGCACGGAGG
CGGCGGCGGTGGCGGTGGAGGAGCCGGGGCGGCGGGCGGCGGCGGCGGTGGGGAGAACTACGATGACCCGCACAA
AACCCCTGCCTCCCCAGTTGTCCACATCAGGGGCCTGATTGACGGTGTGGTGGAAGCAGACCTTGTGGAGGCCTT
GCAGGAGTTTGGACCCATCAGCTATGTGGTGGTAATGCCTAAAAAGAGACAAGCACTGGTGGAGTTTGAAGATGT
GTTGGGGGCTTGCAACGCAGTGAACTACGCAGCCGACAACCAAATATACATTGCTGGTCACCCAGCTTTTGTCAA
CTACTCTACCAGCCAGAAGATCTCCCGCCCTGGGGACTCGGATGACTCCCGGAGCGTGAACAGTGTGCTTCTCTT
TACCATCCTGAACCCCATTTATTCGATCACCACGGATGTTCTTTACACTATCTGTAATCCTTGTGGCCCTGTCCA
GAGAATTGTCATTTTCAGGAAGAATGGAGTTCAGGCGATGGTGGAATTTGACTCAGTTCAAAGTGCCCAGCGGGC
CAAGGCCTCTCTCAATGGGGCTGATATCTATTCTGGCTGTTGCACTCTGAAGATCGAATACGCAAAGCCTACACG
CTTGAATGTGTTCAAGAATGATCAGGATACTTGGGACTACACAAACCCCAATCTCAGTGGACAAGGTGACCCTGG
CAGCAACCCCAACAAACGCCAGAGGCAGCCCCCTCTCCTGGGAGATCACCCCGCAGAATATGGAGGGCCCCACGG
TGGGTACCACAGCCATTACCATGATGAGGGCTACGGGCCCCCCCCACCTCACTACGAAGGGAGAAGGATGGGTCC
ACCAGTGGGGGGTCACCGTCGGGGCCCAAGTCGCTACGGCCCCCAGTATGGGCACCCCCCACCCCCTCCCCCACC
ACCCGAGTATGGCCCTCACGCCGACAGCCCTGTGCTCATGGTCTATGGCTTGGATCAATCTAAGATGAACTGTGA
CCGAGTCTTCAATGTCTTCTGCTTATATGGCAATGTGGAGAAGGTGAAATTCATGAAAAGCAAGCCGGGGGCCGC
CATGGTGGAGATGGCTGATGGCTACGCTGTAGACCGGGCCATTACCCACCTCAACAACAACTTCATGTTTGGGCA
GAAGCTGAATGTCTGTGTCTCCAAGCAGCCAGCCATCATGCCTGGTCAGTCATACGGGTTGGAAGACGGGTCTTG
CAGTTACAAAGACTTCAGTGAATCCCGGAACAATCGGTTCTCCACCCCAGAGCAGGCAGCCAAGAACCGCATCCA
GCACCCCAGCAACGTGCTGCACTTCTTCAACGCCCCGCTGGAGGTGACCGAGGAGAACTTCTTTGAGATCTGCGA
TGAGCTGGGAGTGAAGCGGCCATCTTCTGTGAAAGTATTCTCAGGCAAAAGTGAGCGCAGCTCCTCTGGACTGCT
GGAGTGGGAATCCAAGAGCGATGCCCTGGAGACTCTGGGCTTCCTGAACCATTACCAGATGAAAAACCCAAATGG
TCCATACCCTTACACTCTGAAGTTGTGTTTCTCCACTGCTCAGCACGCCTCC**TAA**TTAGGTGCCTAGGAAGAGTC
CCATCTGAGCAGGAAGACATTTCTCTTTCCTTTATGCCATTTTTTGTTTTTGTTATTTGCAAAAGATCTTGTATT
CCTTTTTTTTTTTTTTTTTTTTTTTTTTAAATGCTAGGTTTGTAGAGGCTTACTTAACCTTAATGGAAACGCTGG
AAATCTGCAGGGGGAGGGAGAGGGGAACTGTTATCTCCCAAGATTAACCTTCACTTTTAAAAAATTATTGTACAT
GTGATTTTTTTTTTCCTGTTCATACATTTGTGCTGCCCATGTACTCTTGGCACATTTCAATAAAATTGTTTGGA
AAATAAACACAGC

FIGURE 853

GTGTTGTACGAAAGCGCGTCTGCGGCCGCAATGTCTGCTGAGAGTTGTAGTTCTGTGCCCTATCACGGCCACTCC
CATTTCTGGTGCCGTCACGGGACAGAGCAGTCGGTGACAGGACAGAGCAGTCGGTGACGGGACACAGTGGTTGGT
GACGGGACAGAGCGGTCGGTGACAGCCTCAAGGGCTTCAGCACCGCGCCC**ATG**GCAGAGCCAGACCCCTCTCACC
CTCTGGAGACCCAGGCAGGGAAGGTGCAGGAGGCTCAGGACTCAGATTCAGACTCTGAGGGAGGAGCCGCTGGTG
GAGAAGCAGACATGGACTTCCTGCGGAACTTATTCTCCCAGACGCTCAGCCTGGGCAGCCAGAAGGAGCGTCTGC
TGGACGAGCTGACCTTGGAAGGGGTGGCCCGGTACATGCAGAGCGAACGCTGTCGCAGAGTCATCTGTTTGGTGG
GAGCTGGAATCTCCACATCCGCAGGCATCCCCGACTTTCGCTCTCCATCCACCGGCCTCTATGACAACCTAGAGA
AGTACCATCTTCCCTACCCAGAGGCCATCTTTGAGATCAGCTATTTCAAGAAACATCCGGAACCCTTCTTCGCCC
TCGCCAAGGAACTCTATCCTGGGCAGTTCAAGCCAACCATCTGTCACTACTTCATGCGCCTGCTGAAGGACAAGG
GGCTACTCCTGCGCTGCTACACGCAGAACATAGATACCCTGGAGCGAATAGCCGGGCTGGAACAGGAGGACTTGG
TGGAGGCGCACGGCACCTTCTACACATCACACTGCGTCAGCGCCAGCTGCCGGCACGAATACCCGCTAAGCTGGA
TGAAAGAGAAGATCTTCTCTGAGGTGACGCCCAAGTGTGAAGACTGTCAGAGCCTGGTGAAGCCTGATATCGTCT
TTTTTGGTGAGAGCCTCCCAGCGCGTTTCTTCTCCTGTATGCAGTCAGACTTCCTGAAGGTGGACCTCCTCCTGG
TCATGGGTACCTCCTTGCAGGTGCAGCCCTTTGCCTCCCTCATCAGCAAGGCACCCCTCTCCACCCCTCGCCTGC
TCATCAACAAGGAGAAAGCTGGCCAGTCGGACCCTTTCCTGGGGATGATTATGGGCCTCGGAGGAGGCATGGACT
TTGACTCCAAGAAGGCCTACAGGGACGTGGCCTGGCTGGGTGAATGCGACCAGGGCTGCCTGGCCCTTGCTGAGC
TCCTTGGATGGAAGAAGGAGCTGGAGGACCTTGTCCGGAGGGAGCACGCCAGCATAGATGCCCAGTCGGGGGCGG
GGGTCCCCAACCCCAGCACTTCAGCTTCCCCCAAGAAGTCCCCGCCACCTGCCAAGGACGAGGCCAGGACAACAG
AGAGGGAGAAACCCCAG**TGA**CAGCTGCATCTCCCAGGCGGGATGCCGAGCTCCTCAGGGACAGCTGAGCCCCAAC
CGGGCCTGGCCCCCTCTTAACCAGCAGTTCTTGTCTGGGGAGCTCAGAACATCCCCCAATCTCTTACAGCTCCCT
CCCCAAAACTGGGGTCCCAGCAACCCTGGCCCCCAACCCCAGCAAATCTCTAACACCTCCTAGAGGCCAAGGCTT
AAACAGGCATCTCTACCAGCCCCACTGTCTCTAACCACTCCTGGGCTAAGGAGTAACCTCCCTCATCTCTAACTG
CCCCCACGGGGCCAGGGCTACCCCAGAACTTTTAACTCTTCCAGGACAGGGAGCTTCGGGCCCCCACTCTGTCTC
CTGCCCCCGGGGGCCTGTGGCTAAGTAAACCATACCTAACCTACCCCAGTGTGGGTGTGGGCCTCTGAATATAAC
CCACACCCAGCGTAGGGGGAGTCTGAGCCGGGAGGGCTCCCGAGTCTCTGCCTTCAGCTCCCAAAGTGGGTGGTG
GGCCCCCTTCACGTGGGACCCACTTCCCATGCTGGATGGGCAGAAGACATTGCTTATTGGAGACAAATTAAAAAC
AAAAACAACTAAC

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FIGURE 854

ATGGCTGGGGTCGCGTGCTTGGGAAAAGCTGCCGACGCAGATGAATGGTGCGACAGCGGCCTGGGCTCCCTGGGT
CCGGACGCAGCGGCCCCCGGAGGACCTGGGTTGGGCGCGGAGTTGGGCCCGGGGCTGTCGTGGGCTCCCCTCGTC
TTCGGCTACGTCACTGAGGATGGGGACACGGCACTGCACTTGGCTGTGATTCATCAGCATGAACCCTTCCTGGAT
TTTCTTCTAGGCTTCTCGGCCGGCACTGAGTACATGGACCTGCAGAATGACCTAGGCCAGACAGCCCTGCACCTG
GCAGCCATCCTGGGGGGAGACATCCACGGTGGAGAAGCTGTACGCAGCAGGCGCCGGGCTGTGTGTGGCGGAGCGT
AGGGGCCACACGGCGCTGCACCTGGCCTGCCGTGTGGGGGCACACGCCTGTGCCCGTGCCCTGCTTCAGCCCCGC
CCCCGGCGCCCCAGGGAAGCCCCCGACACCTACCTCGCTCAGGGCCCTGACCGTACTCCCGACACCAACCATACC
CCTGTCGCCTTGTACCCCGATTCCGACTTGGAGAAGGAAGAAGAGGAGAGTGAGGAGGACTGGAAGCTGCAGCTG
GAGGCTGAAAACTACGAGGGCCACACCCCACTCCACGTGGCCGTTATCCACAAAGATGTGGAGATGGTCCGGCTG
CTCCGAGATGCTGGAGCTGACCTTGACAAACCGGAGCCCACGTGCGGCCGGAGCCCCCTTCATTTGGCAGTGGAG
GCCCAGGCAGCCGATGTGCTGGAGCTTCTCCTGAGGGCAGGCGCGAACCCTGCTGCCCGCATGTACGGTGGCCGC
ACCCCACTCGGCAGTGCCATGCTCCGGCCCAACCCCATCCTCGCCCGCCTCCTCCGTGCACACGGAGCCCCTGAG
CCCGAGGGCGAGGACGAGAAATCCGGCCCCTGCAGCAGCAGTAGCGACAGCGACAGCGGAGACGAGGGCGTGAGT
CAGGAGGAGAGACAGGGCAGCCCAGCTGGGGGGTCAGGA**TAG**

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FIGURE 855

TGAAGAGGCGGGACACAGACGACGATTGGGCGACGAAGGACTCTATCGCGGTCAACTTTCCTCAGGATCTGATTG
GCTCGTCACGGTCAGGTTCGCTGCCTTGCAATTGGTCTAAACGCGGAGTGGGCGGGACGAAGTGCCGCCTTGTTC
CCGGTCCAAG**ATG**GCTGCGTCCATGGCGCGGCGCTTGTGGCCTTTGCTGACTCGTCGGGGGTTCCGGCCCCGGGG
AGGCTGCATCTCCAACGATAGTCCAAGGAGAAGTTTCACTACAGAGAAACGAAACCGGAACCTCCTGTACGAGTA
TGCGCGCGAGGGCTACAGCGCACTCCCTCAGCTGGACATAGAGCGGTTCTGCGCATGCCCAGAAGAGGCCGCACA
CGCCCTGGAGCTCCGCAAGGGGGAGCTGCGCTCGGCGGACCTGCCCGCGATCATCTCGACATGGCAGGAGCTGAG
GCAGCTGCAGGAGCAGATCCGGAGCCTGGAGGAAGAGAAGGCAGCTGTGACTGAGGCAGTGCGGGCCCTGCTGGC
AAACCAGGACAGTGGTGAAGTGCAGCAGGACCCCAAGTACCAGGGTCTGCGGGCACGTGGCCGGGAGATCCGGAA
GGAGCTTGTTCACCTGTACCCCAGGGAGGCCCAGCTTGAGGAGCAGTTCTACCTGCAGGCGCTGAAGCTGCCCAA
CCAGACCCACCCAGACGTGCCCGTCGGGGATGAGAGCCAGGCTCGAGTGCTCCACATGGTCGGAGACAAGCCAGT
TTTCTCCTTCCAACCTCGGGGCCACCTGGAAATTGGCGAGAAACTCGACATCATCCGTCAGAAGCGCCTGTCCCA
CGTGTCTGGCCACCGGTCCTATTACCTGCGCGGGGCTGGAGCCCTCCTGCAGCACGGCCTGGTCAACTTCACATT
CAACAAGCTTCTCCGCCGGGGCTTCACCCCCATGACGGTGCCAGACCTTCTCCGCGGAGCAGTGTTTGAAGGCTG
TGGGATGACACCAAATGCCAACCCATCCCAAATTTACAACATCGACCCTGCCCGCTTCAAAGATCTCAACCTGGC
TGGAACAGCGGAGGTGGGGCTTGCAGGCTACTTCATGGACCACACCGTGGCCTTCAGGGACCTGCCAGTCAGGAT
GGTTTGCTCCAGCACCTGCTACCGGGCAGAGACAAACACGGGACAGGAACCCCGGGGGCTGTATCGAGTACACCA
CTTCACCAAGGTGGAGATGTTTGGGGTGACAGGCCCTGGGCTGGAGCAGAGCTCACAGCTGCTGGAGGAGTTCCT
GTCCCTTCAGATGGAGATCTTGACAGAGCTGGGCTTGCACTTCCGGGTCCTGGATATGCCCACCCAAGAACTGGG
CCTCCCCGCCTACCGCAAGTTTGACATTGAGGCCTGGATGCCAGGCCGAGGCCGCTTTGGAGAGGTCACCAGTGC
TTCCAACTGCACAGACTTCCAGAGCCGCCGCCTCCACATCATGTTCCAGACCGAGGCTGGGGAGCTGCAGTTTGC
CCACACGGTGAACGCCACCGCCTGTGCTGTCCCCCGCCTTCTCATCGCGCTCCTGGAGAGTAACCAGCAGAAGGA
CGGCTCAGTGCTCGTGCCCCCTGCCCTCCAGTCCTACCTCGGCACTGATCGGATCACAGCCCCTACCCACGTGCC
TCTCCAGTACATCGGCCCCAACCAGCCCCGGAAGCCTGGGCTGCCTGGCCAGCCTGCTGTAAGC**TAA**GAACCCAC
CCACAGCAGCCCTCGGGGGTGTCACTGCTTCCTGGAGTTCAGGAGACCCCGGACACCTGGGACCTGTGTTGCTGA
GCCCGTCCTGACATCTGTGTTCTTCCTGTCAGCTCCACGCCCGGGCCCCTGGACCACGGGGTCCACCTCTCCTCT
GTCCTTGCTGCCTCAGAGTCAGTCACTGACCCTGTTATCATTGAGGGTCCCAGTGGGAAGCAGGACGTCTGGGCT
TTACGGTTCTAGGGACAGGAGAAGCAGAGGAAGAGGCTTCCATCCCTCCTTCCTTCTTTCCTCCTACAGTGCTGA
GCAAAAAGTCCCCAATAAATGGTCAGGAC

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FIGURE 856

AGCTGGATTCAGCGTGTCCGCGACCTCACCTTTAGGTCCTGTGAGGTCGGTGGAATCCTGGGGTCCTCCAAATCT
ACCAGGCCATCTCCCCAGTTTCCCAGTTCTTCCTGCGTGCGGGCGAGAGTGGTTGGGCCCTCGGGAACCCACTCA
GAGCGAGGCTAAATTTACGGAGGGACTTTCTGTTAGCAGCATGAGGGCCTGTGGTTAGACCTATAGAGGTATTTC
CTTTGATTTAAGCCAGAAAGTCCTGAGAGCGGATCGGGGAGCATTTGCGGATCGGTCACTTTTTCCTCCTTTCTG
AGTCTCTTATCCCCTACCACAGGGACGGCCCAGGTGGCAGGATGTCCTGGTCTGGCCTTCTCCATGGCCTCAACA
CGTCCCTAACTTGTGGCCCAGCTCTGGTTCCCCGGCTCTGGGCTACCTGCTCCATGGCTACCCTGAACCAGATGC
ACCGCCTGGGGCCCCCCAAGCGGCCGCCTCGGAAGCTGGGCCCCACGGAAGGCCGGCCGCAGCTGAAGGGTGTGG
TCCTGTGCACGTTTACCCGCAAGCCGAAGAAGCCCAACTCAGCCAATCGCAAGTGCTGTCGAGTGCGGCTCAGCA
CTGGCCGCGAGGCCGTCTGCTTCATCCCTGGGGAGGGCCACACCCTGCAGGAGCACCAGATTGTCCTTGTGGAGG
GCGGCCGCACCCAGGACCTGCCAGGCGTCAAGCTCACCGTTGTGCGTGGCAAGTACGACTGTGGCCACGTGCAGA
AGAAGTGACGGCTGGGGGCACAGTGGGCTGGGCGCCCCTGCAGAACATGAACCTTCCGCTCCTGGCTGCCACAGG
GTCCTCCGATGCTGGCCTTTGCGCCTCTAGAGGCAGCCACTCATGGATTCAAGTCCTGGCTCCGCCTCTTCCATC
AGGACCACTATTAAGCCATAGGAGTCCTGGGGGTGCAAAGGGTGCCCCTCTGTCAACACCCTTGGCTCCTGTGTT
TAGAGGGGTGGCCTGAAGGACCTTTTCTGCTGGGACAAGACACTGTACTGCCCTCTGCTGGGAAGGGGTTTTAAT
AAACAGACCCTGGCGCTTGTGATGT

FIGURE 857

AGCCGCCACGCCCCGGGAGAGGACCGACCGCCCAGACCGCCGGTCCCGGGGCCCCCTGGGCCACGCCGATCACGG
GGAGCCCCTCGACTGCCTCCCAGAACAAAGTGGGAAAGGGAAGCTTAGCCCGCCGCTGCCGCCTCCGAGCAGCCC
GCCAGGACTCTGGCTACTGGAG**ATG**GGCGCCCGGCTATCGCGGCGACGGCTGCCGGCGGACCCATCCCTGGCCCT
GGACGCGCTGCCCCCGGAGCTGCTGGTGCAGGTGCTGAGCCACGTGCCGCCACGCTCCTTGGTCACGCGATGCCG
CCCAGTGTGCCGCGCCTGGCGCGACATAGTGGACGGGCCCACTGTGTGGCTGCTGCAGCTGGCCCGCGACCGCAG
CGCCGAGGGCCGCGCACTCTACGCAGTGGCTCAACGCTGCCTGCCCAGCAACGAAGACAAGGAGGAGTTCCCGCT
GTGCGCCCTGGCGCGCTACTGTCTGCGCGCGCCCTTCGGCCGCAATCTCATCTTCAACTCCTGCGGAGAGCAGGG
CTTCAGAGGCTGGGAGGTGGAGCATGGCGGGAACGGCTGGGCCATAGAAAAGAACCTAACACCGGTGCCTGGGGC
TCCTTCGCAGACCTGCTTCGTGACCTCTTTCGAATGGTGCTCCAAGAGGCAGCTTGTGGACCTGGTGATGGAAGG
GGTGTGGCAGGAGCTGCTGGACAGCGCCCAGATTGAGATCTGTGTGGCTGACTGGTGGGGCGCTCGAGAGAACTG
CGGCTGCGTCTACCAGCTCCGGGTCCGCCTTCTGGATGTGTATGAAAAGGAAGTGGTCAAGTTCTCAGCCTCACC
TGACCCGGTCCTTCAGTGGACTGAGAGGGGCTGCCGACAGGTCTCCCACGTCTTCACCAACTTTGGCAAGGGCAT
CCGCTACGTATCTTTTGAGCAGTACGGGAGAGACGTGAGTTCCTGGGTGGGGCACTATGGCGCCCTTGTGACCCA
CTCCAGTGTGAGGGTCAGGATCCGTCTGTCC**TAG**CGACTGGACTACTGCCTGACGTTGTCAGTCAAGACCAGCCT
TGCAGCCAGGTGCAGTGGCTCACACCTGTGGAATCCCAGCACTTCAGGAGGCCGAGGTGGGAGGATCACTGGAGC
TCGGGAGTTCAAGACCAGCCTGGGCAACATAGTGAAACCGTCTCCACAAATAATTTTTAAAAAATTAGCCAGGCA
TGGTGGTGCCGCCTGTAGTCCCAGCTACTCAGGAGGCTTGGGTGGGAGGATTGCCTGAGACCAGGAGGTTGAGGC
TGCAGTGAGCCGTGATTTCACCACCACTCCAGCCTGGGTGAGAAAGCAAGACCCTATATCAATGAAAAAAAAAAA
AAAAAAGACCAGCTTTGCAGCCAGAAGCCAGAGGATACCCAGGGACAGTAGGGCTCCCAGGTGGCTGGTTCTCAG
CACACCTTCCATGAATCTGCTTGCTGCTGCTTCAGTGTGGTGGCCATCATGCTGTGTGACAAACCAGGCTGTTCA
CAGCTTCCTCAGCCCCCCAGAAGGGGAGTGTCAGGAAGAGACATTTAGTTCATTTGCCTGCAAATTTTCTTCTCC
TGCAAGGATCTCGGTGGACTCAGTCACAAAACAAAGGCTAAACCAGGATTTATAAGAGAGGGCTTATAAATCCCT
CTGCCGACGCAGGGAGCAGAGACTTGCCGGCATGTTTTGGGGGTAATGATCGTGGGCAGGGAGCAGAGGTCCGCT
GAGGCAGTCTGTCCTTGAGACTAACAAAGTCATCTGCTGTTTGGGGAAATCTCTGGTGTTGGGAACAGGCCCCCA
AATCTGGCCATAAACTGGCCCCAAAACTGGCCATAAACAAAATATCTGCAGCACTGTGACATGTTTGTGATGGCC
ATGACCCCCACCCTGAAGGTTGTGGGTTTACTGGAACGAGGGCGAGGAACACCTGGCCCACCCAGGGCGGAAAAC
CGCTTAAAGGGGTTCCTGAACCACAAACCATAGCATAAGTGATCTGTGCCTTAACGACATGTTCCTGCTGCAGAT
AACTAGCCAGACCCATCCCTTTATTTCAGCCCATCCCTTTATTTCCTGTAAGAAATGTTTTTAGTTAATCTATAA
TCTATAGAAATAATGCTTATCACTGGCTTGCTGTCAATAAATATGTGGGTAAATCTCTGTTCAAGGCTCTCAGCT
CTGAAGGCCGTGAGACCCCTGATTTCCCACTCCACACC

FIGURE 858

GGGGAGCTTGCGGCACAGCTAGGGCATCCCGGCGAGGAGCGCCGCCAGGCCCCGGGCCACAGCCGGGCCTGGCGG
GGGGACC**ATG**GGCGCCTCGGTCTCCAGGGGCCGGGCCGCCCGGGTCCCCGCGCCGGAGCCGGAACCCGAAGAGGC
GCTGGACCTGAGCCAACTACCCCCAGAGCTGCTTCTGGTGGTGCTGAGCCACGTCCCCCCGCGCACGCTGCTCGG
GCGCTGCCGCCAAGTGTGCCGGGGCTGGCGAGCCCTGGTGGACGGCCAGGCCCTGTGGCTGCTGATCCTGGCCCG
CGACCACGGCGCCACCGGCCGCGCGCTGCTGCACCTCGCCCGCAGCTGCCAGTCTCCCGCCCGTAACGCCAGGCC
TTGCCCCCTGGGCCGCTTCTGCGCGCGCAGACCCATCGGACGCAACCTTATTCGCAACCCCTGCGGCCAAGAAGG
CCTCCGAAAGTGGATGGTGCAACACGGTGGGGACGGCTGGGTGGTGGAGGAAAACAGGACAACCGTGCCTGGGGC
CCCTTCTCAGACGTGCTTCGTGACTTCATTCAGCTGGTGTTGCAAGAAGCAGGTCTTGGACCTAGAGGAGGAGGG
TCTGTGGCCAGAACTGCTGGATAGTGGCAGGATTGAGATTTGTGTCTCTGACTGGTGGGGAGCCCGACACGACAG
CGGCTGTATGTACAGACTCCTCGTCCAACTTCTAGACGCCAACCAGACTGTTCTAGATAAATTCTCTGCTGTGCC
TGATCCCATCCCGCAGTGGAACAACAATGCCTGCCTTCACGTCACCCACGTGTTCTCCAACATCAAGATGGGCGT
CCGCTTTGTGTCTTTCGAACACCGGGGCCAGGACACACAGTTCTGGGCTGGCCACTATGGAGCCCGTGTGACCAA
CTCCAGTGTGATCGTGCGAGTCCGTCTGTCC**TAG**TCCAGCACTACCCTTCTTGCAAGACAGCCTGACTGTGCCTT
CCAGGGCCTGGGACCATTGGCTGGGACCCCTCATTAACCAACCAAGCACTTGTACCTCCCTGGCATACTGAGAAT
TCCTGGGTCCAATCAAAGGCCCTGACGGGCCCTGTCTTCAGGTTCTAGAAACTACCAGAAGAAGCTTCTTCCATC
TTATCTACCTACTGCAGCTGCTGCTTTGCGGGGGGGCCCTACTGTACTGAGGGGAAACCCACAAGTGAGCATGGG
GGAATGCCCATCCTGGAGAAGAATTCTTGCCCTCCCCTCTCTTCTCCTCCCAACCAAAACCCTCCGATCCAGCCC
CAGGCCCCTCTGTACCATCCCCTCCCCTCCGCACCACTGACCTCTTGTCTCCTGTTGTTTCTGCCACAGGGACTT
CCTTGGTCCCTTCAGGGAAGCCCTCAACTCATCTCTGAACTTAGAATCTCATCCTTAGGGCTCAGAGAGTCCCAG
CCCTAAGGGTGTGAACCTCACCTCCTGGGGCTTCCGAGCTACAGGGCTGGGACCAGGTCATGCAGCTGAAAGTCT
ACGTTAAAAAAAAAAAGTTTGGGCCAGGCACAGTGGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGCA
GGCGGATCACCTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATCCA
AAAAATTAGCCGGGCTTGGTGGTGTGCACCTGTAATTCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCTTGA
GCCCGGGAGGCAGAGGCTGCAGTGAACCAAGATCATGCCACTGCACTCCAGCCTGGGCAACACAGCGAGACTCCG
TCTCAAAAAGAAAAAGTTTGGATCAGGCAGGGTGGCTCACACCTGTAATCCCTGCACTTTGGGAGGCCAAGGTGG
GAGGATCAGTTGAGCCCCAGAGTTCAAGACCAGCCTGGGCAATGTAGTAAGACCCCCATCGCTACAAAAAATACA
AAAGTTAGCCAGGTACAGTAGTACACACCTGTAGTCCAAGCTACTTGGGAGGCTGAAGTGGGAGGATCATTTGTG
CCCAGGTTGAGGCTATAGTGAGCCATGATCATACCACTGCACTCCAGCCTGGGTGACAGAGCGAGACCCTGTCTC
AAAAAAAAAAAAGAATTTGGAGATGGTTCTGCCCACTCTGGTTTCTCTGAAAAAACGAGGTAATTCCCTGAGCCC
AACCCTGATCCTCAAGGACCTGTAATTGTGTGGTATTTAAAATTAAAATAACATTATTTTTATTTTGACTTTTTT
TCAAACAGTAAGAATAATATATCAGCAGCATGTATCTGCCAATCATATGTAATAAATTTCTTATTTTGCC

FIGURE 859A

GGGGATTCAACATGGCGGCGGGAGTGTCCGCGGTGGTGGCGGTGCAAGAGAGCTGAGGGAGGCGCGAGGGCGCGG
AGTTCCAGGTCGAGCAGTTAGGCCGCGAGCGACTGCGGCGCCGAGCCGATGAGTAACCCGAAGCCCCTAGAGGAG
TGGTCACCTGCCTGAGGGCACTTCTGTCCCACCAGCATCAGACCAGGCCGCACCGAGTCCCCGGCACC**ATG**TTTG
GGAAGAGGAAGAAGCGGGTGGAGATCTCCGCGCCGTCCAACTTCGAGCACCGCGTGCACACGGGCTTCGACCAGC
ACGAGCAGAAGTTCACGGGGCTGCCCCGCCAGTGGCAGAGCCTGATCGAGGAGTCGGCTCGCCGGCCCAAGCCCC
TCGTCGACCCCGCCTGCATCACCTCCATCCAGCCCGGGGCCCCCAAGACCATCGTGCGGGGCAGCAAAGGTGCCA
AAGATGGGGCCCTCACGCTGCTGCTGGACGAGTTTGAGAACATGTCGGTGACACGCTCCAACTCCCTGCGGAGAG
ACAGCCCGCCGCCGCCCGCCCGTGCCCGCCAGGAAAATGGGATGCCAGAGGAGCCGGCCACCACGGCCAGAGGGG
GCCCAGGGAAGGCAGGCAGCCGAGGCCGGTTCGCCGGTCACAGCGAGGCGGGTGGCGGCAGTGGTGACAGGCGAC
GGGCGGGGCCAGAGAAGAGGCCCAAGTCTTCCAGGGAGGGCTCAGGGGGTCCCCAGGAGTCCTCCCGGGACAAAC
GCCCCCTCTCCGGGCCTGATGTCGGCACCCCCCAGCCTGCTGGTCTGGCCAGTGGGGCGAAACTGGCAGCTGGCC
GGCCCTTTAACACCTACCCGAGGGCTGACACGGACCACCCATCCCGGGGTGCCCAGGGGGAGCCTCATGACGTGG
CCCCTAACGGGCCATCAGCGGGGGGCCTGGCCATCCCCCAGTCCTCCTCCTCCTCCCGGCCTCCCACCCGAG
CCCGAGGTGCCCCCAGCCCTGGAGTGCTGGGACCCCACGCCTCAGAGCCCCAGCTGGCCCCTCCAGCCTGCACCC
CCGCCGCCCCTGCTGTTCCTGGGCCCCCTGGCCCCCGCTCACCACAGCGGGAGCCACAGCGAGTATCCCATGAGC
AGTTCCGGGCTGCCCTGCAGCTGGTGGTGGACCCAGGCGACCCCCGCTCCTACCTGGACAACTTCATCAAGATTG
GCGAGGGCTCCACGGGCATCGTGTGCATCGCCACCGTGCGCAGCTCGGGCAAGCTGGTGGCCGTCAAGAAGATGG
ACCTGCGCAAGCAGCAGAGGCGCGAGCTGCTCTTCAACGAGGTGGTAATCATGAGGGACTACCAGCACGAGAATG
TGGTGGAGATGTACAACAGCTACCTGGTGGGGGACGAGCTCTGGGTGGTCATGGAGTTCCTGGAAGGAGGCGCCC
TCACCGACATCGTCACCCACACCAGGATGAACGAGGAGCAGATCGCGGCCGTGTGCCTTGCAGTGCTGCAGGCCC
TGTCGGTGCTCCACGCCCAGGGCGTCATCCACCGGGACATCAAGAGCGACTCGATCCTGCTGACCCATGATGGCA
GGGTGAAGCTGTCAGACTTTGGGTTCTGCGCCCAGGTGAGCAAGGAAGTGCCCCGAAGGAAGTCGCTGGTCGGCA
CGCCCTACTGGATGGCCCCAGAGCTCATCTCCCGCCTTCCCTACGGGCCAGAGGTAGACATCTGGTCGCTGGGGA
TAATGGTGATTGAGATGGTGGACGGAGAGCCCCCCTACTTCAACGAGCCACCCCTCAAAGCCATGAAGATGATTC
GGGACAACCTGCCACCCCGACTGAAGAACCTGCACAAGGTGTCGCCATCCCTGAAGGGCTTCCTGGACCGCCTGC
TGGTGCGAGACCCTGCCCAGCGGGCCACGGCAGCCGAGCTGCTGAAGCACCCATTCCTGGCCAAGGCAGGGCCGC
CTGCCAGCATCGTGCCCCTCATGCGCCAGAACCGCACCAGA**TGA**GGCCCAGCGCCCTTCCCCTCAACCAAAGAGC
CCCCCGGGTCACCCCCGCCCCACTGAGGCCAGTAGGGGGCCAGGCCTCCCACTCCTCCCAGCCCGGGAGATGCTC
CGCGTGGCACCACCCTCCTTGCTGGGGGTAGATGAGACCCTACTACTGAACTCCAGTTTTGATCTCGTGACTTTT
AGAAAAACACAGGGACTCGTGGGAGCAAGCGAGGCTCCCAGGACCCCCACCCTCTGGGACAGGCCCTCCCCCATG
TTCTTCTGTCTCCAGGAAGGGCAGCGGCCCTCCCATCACTGGAAGTCTGCAGTGGGGGTCGCTGGGGGTGGAGAG
AACACTAAGAGGTGAACATGTATGAGTGTGTGCACGCGTGTGAGTGTGCATGTGTGTGTGTGCAAAGGTCCAGCC
ACCCCGTCCTCCAGCCTGCAAGGGGTGTCTGGCGCCTTGCCTGACACCCAGCCCCCTCTCCCCCTGAGCCATTGT
GGGGGTCGATCATGAATGTCCGAAGAGTGGCCTTTTCCCGTAGCCCTGCGCCCCCTTTCTGTGGCTGGATGGGGA
GACAGGTCAGGGCCCCCCACCCTCTCCAGCCCCTGCAGCAAATGACTACTGCACCTGGACAGCCTCCTCTTTTCT
AGAAGTCTATTTATATTGTCATTTTATAACACTCTAGCCCCTGCCCTTATTGGGGGACAGATGGTCCCTGTCCTG
CGGGGTGGCCCTGGCAGAACCACTGCCTGAAGAACCAGGTTCCTGCCCGGTCAGCGCAGCCCCAGCCCGCCCACC
CCTGCCTCGAGTTAGTTTTACAATTAAAACATTGTCTTGTTTTGTGTCTGTGTGCGATGTGTGGGGGGCAGGGGG
CCCTGCCCGGCTGTCTTGGGTGGGAATTTGCAGGGAGAGGGTCTGGATCTGGGAGCAAACCACGATTCCAGCCAA
GGCAGGGCAAGGGTGGGGTGGGGAGTGGGGAGTTCAGGTCATAGCAGCCAGTAAGCTCCCCCAGCCTGCCACTCC
CCAGAATGGGGCAGGATTGTCCCCACCCCTGGAAGCAGCCAGTTTGCCACAGTCCATGTGCAGACTGATCCCAGT
TTGCCAAATCTGCAATTTCCTGGAACCTTTTAAAGGCTGTCTTGAGCGCGTTTGGTGAGTAGGAGCTAACCCAAG
TTAGTAAATTGAAGGCCATTTGGCAAATTGGTCAGTGGGCAGATGGGCTTTTGGGGATTGACTGAGGCTGACTGG
CCTGGAGCTGCTGGCTTCGGAGAGACACCCTGTGAAGTGTGTCCTTCCACGCAGGAGCCCAGAGCCGAGCCCACG
CTGGGGGGAATCTGACTGGCATGGAGGTGGCCATGCCACCATCGCTGCTGCAGCTGCATCCTGGCACTTTGCGCC
TCAGGCCCTGTTGGGCTCCACTTTCTGCATCCTCCCCAGCCCCCAGGGAGGCAGTGGAGTGGGGAGAGAGCCAGG
AGTGAGCCTCCGTCCCCAAAGCCAGCCAGGCGTCATCAGCACCAGAGACCTCAGCCTGGTCCTCTCGGGAAGTGA
GTGGCCAGGGCAGAGATTCCAGGTTAGTCCACGCCTCCCACCCTTCACAGGTCCTGACCCCAAGAATCAGAGCAC

FIGURE 859B

TGTGTGTGTGGCAGGGCCTATGCCAAGTGCAAACACAGCCTAGATGGATCATCACAGAGTGAAACCCAGCGGTGC
AAGCAGCTGTGCTCTCTGCGATGTATTGGAGGCTTAGGTGAGGTGGATGCCTTTCTGGAAAAAAAAAAAATGCTA
ACATTGGCAAAAGAAGAAATAGAAAACAAGACCAAAATAACTGTCTCCTCACTGCACACACACTCCAGAATAAAT
AAAAGGTTTCAGGCTTGAATGCACTTTCAAATGAGATTTTTTTTTTTTTTTGAGACGGAGTATCGCTCTGTCGC
CCAGGCTGGAGTGCAGTGGCACGATCTTGGCTCACTGCAACTTCTGCCTCCTGGGTTCAAGCGATTCTCCTGCCT
CAGCCTCCCAAGTAGCTGGGATTACAGGCGCTTGCCACCACGCCAGGCTAATTTTTTGTATTTTGAGTAGAGACT
GGATTTCGCCATCTTGGCCAGACTGGTCTTGAACTCCTGACCTCGTGATCCACCCACCTCAGCCTCCCAAAGTGC
TGGGATTACAGGCATGAGCCACCATGCCTGGCCTCAAATGAGGTTTACCAGACTTTGAAGGAGCAGGTAATTCCT
TCTACCTTGTGAACAAGTTGTTCCAGAAAGATAGCAGCTCAGGAGGCCTCTGTGACCATGGTTCCAGACCCAGAT
AAGGACGGCAAAGAACAGAGCATCTCAGAAACGCAAGGCTCACAGCCAGGGTGCCCGGCGACCCCACGGGCACTG
AGAACAGCTAGCTCTAGGAGCTCCACTCTCCTGCTGAAGAAACCACGGGCTCAGAGACGGGGAGCTCCCTCGCCC
AGCCACATCTGTGACCCCACGGTAACTCTGCTGGTTTTGGTGCCTTCAGTCACTCACTGCAGGTTTGTTTTGTTT
TGTTTTGTTTTGAGTTTTTTTGTTTTTTGTTTTTTGTTTTTAGAGACAAGATGTTGCTATGTTGCCTAGGCTGGT
TTCGAACTCCTGGCCTCAAGGGATCCTCCCTCCTTGGCCCCGCAAAGTGCTGGGATTACAGGCGTGAGCCACCGT
GCCCAGCCCGCTCACTGCAGTTTGAAGGCATGGCTTTGGGTGGCGTGGGGTGAAAGCTGCCCGAGGCCCCGTTCC
TCCCCACGTGGCTGCCTCCTGCCAGAGCCAGTCAGGAAAACAGACCCCAACTAGAGTTGTTTCAAATGGCAGGGA
TTTGGTACCGGTGGTTGGATCATGACAAAGCTCTGAGAAGGCTGGAGGAGCCACAGAGTGCCAAGTGCCCAGCAA
TCATTAGAGGAAGGAGGCTGCTGCCACCTGTGTGGCTAGAGGAACAGAGGGGCCAATGGCATTCCCCAAACCCCA
CTCTCGCCTCTGTCTGGCCAGAGCAGAATGGCTTCTTCCAGCTTCCCACCCTGGACTCCCACCCAGGAGCCTCCT
CCTGGCAGACCCTTCCTGACCCCACCGGCCCGGGGGGTCTACAGATCCATGTTTCAGGCGTCCGCCTGGAGCGGA
ACAGGGGAGTGCTTAGGACAAGGGTGGTGCCAGAGGATCCACTCTGCCCACATTTAGTTGACCAGCTGAGGCACT
CCACGGGAATGAATGACTCTCGACAGGTGCCGGAGGTGAGGAGGGGCCCGGAGGCCCAGGAGGGGCACAGGGATG
GATTCGTCCGCCTGGGGGCTGGAGGTGTGTTTACAGAGCCCCAAAATAAACAATGCAACCAGGTCAGACCAGCGG
TTCTCACAGTGTGGTTCCCAGACCAGCAGCATCACTGGGAGCTTACTGGACACGCAAATAAATCCCTGTGTGCCA
CCCCAGCTGCATCAGATGCTGGTGGGGCCCAGTGATCTGTATTTAACACACCCTCCGGGGGATGCCGGTGCCCAC
TCACGTTTGAGAACCCCTGCGATCCACGACTGCCCTCCCGTGTAAAAGGCCCACCTCTGTGGGACTCCAAGTCAT
CAGCACCCTAGGGTCCTTCCGTCTTTTTCCTTCCTCCTGGGACACCTGCCTCTCCCATGTCGTATTAGAGAATTC
CTTATGCTCCCAAGTGGGCACGGGGAGAGGAAGGCACTCCTCTTTAAGGACCGACCCAGAGGTTTTGCCATTGCT
TCACTGGCCAGAGCTTAGTCACGCAGCCTCACCCAGAGGCAAGGGAGGTTGGAAAATGTAGTGTTTGTGTGTGTC
TAACACAAATTCTATTACCATGCAGTCAGGATTCTCCACTCTTGCTCTTTCATTAGATTTGCTGGGCTTCACCCT
GGACTTTCTGATTTAGTGACAGAACAGAGAACCCAGAGGCAGACCCAGATGTGTACAAGGGCTTCATATACAATC
AGGAGATTTAATAATCATGCTAGGGGCCGGGTGCAGTGGCTCACGCCTGTAATCCCAAGCACTTTGGGGAGCCGA
GGCAGGCAGATCACTTGAGGTCAGGAGTTTGAGACCAGCCTGGGCAACAAAGTGAGACCCTGTCTCTACTAAAAA
TAACAAAAATTAGCCGGGCGTGGTGGTGGGCGCCTGTAATCCCAGCTCCTCGGGTGGCTGAGGCATGAGAATCAC
TTGAACCCAGGAGGCAGAGGTTTCAGTGAGCTGAGATCACATCACTGCACTCCAGCCTGGGTGACAGAGTGAGAT
TCTGTC

FIGURE 860

GGCGGCGGTGGTCGGTGCGGGAGGAGGGAGGGGAGCTTGCGGGCCCGAGAGGGGGCGACGGCGGCGGCGGTGGCC
TGAGGAGGCCCGAGCGGCGGCGGTGGCGGCGAAGGCCGAGGCGTCTAGGTGTTTTTGGAAGAGCTGAGGCCAGAG
CCGGGACCATGTGACGGCGCTGGCCCTCGCCACCGCCGTCCCCCGACCCTGGCCCCAGGCCCGGCACC**ATG**ATGT
TCCGAGACCAGGTGGGCATCCTCGCTGGCTGGTTCAAAGGCTGGAATGAGTGTGAGCAGACAGTGGCCCTCCTGT
CACTTCTGAAACGGGTCACCCGTACCCAGGCCCGCTTCCTGCAGCTCTGCCTGGAGCACTCACTGGCGGACTGCA
ATGACATCCACCTGCTGGAGTCGGAGGCCAACAGTGCTGCCATCGTCAGCCAGTGGCAGCAGGAGTCCAAAGAGA
AGGTGGTGTCCCTCCTGCTGTCCCACCTTCCCCTGCTTCAGCCAGGCAACACAGAGGCCAAGTCGGAGTACATGA
GGCTACTGCAGAAAGTGCTGGCCTACTCAATCGAGAGCAATGCTTTCATCGAGGAGAGTCGCCAGCTGCTTTCCT
ATGCCCTCATCCACCCAGCCACCACACTGGAGGACCGCAACGCACTGGCCCTCTGGCTGAGCCACCTGGAAGAGC
GGTTGGCTAGTGGCTTCCGCTCCCGGCCAGAGCCCTCCTACCATTCACGTCAAGGCTCAGATGAGTGGGGGGGCC
CTGCAGAGCTAGGCCCTGGGGAGGCAGGGCCAGGCTGGCAGGACAAGCCACCCCGGGAAAATGGACACGTGCCCT
TCCACCCATCCAGCTCAGTGCCGCCAGCCATCAACAGTATTGGGAGCAATGCAAACACAGGTCTCCCCTGCCAAA
TCCACCCTAGCCCACTGAAGCGCTCCATGTCACTCATCCCTACAAGCCCCCAGGTCCCTGGTGAGTGGCCGAGTC
CAGAGGAGCTTGGGGCCCGGGCTGCTTTTACCACGCCCGATCACGCACCTCTCTCGCCCCAGAGCAGCGTGGCCT
CCTCTGGCAGTGAGCAGACAGAGGAGCAGGGCTCCAGCCGGAACACCTTCCAGGAGGATGGCAGTGGCATGAAAG
ATGTGCCCTCATGGCTCAAGAGCCTCCGTTTGCACAAGTATGCAGCCCTCTTCTCACAGAATCAGCTT**TGA**GTAA
CTGTACAGTTTTTCTCGCTGTTGGAGAAGACTTATTTGTTGGAGTTTCACTTGTTTAATGGTCTGGGCTTATTTT
GGAAAAAAAAAAAACAAACAAAAAAAACGAATTCTGACCTT

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FIGURE 861

AGTTGGTGGAACCGGAGCTTCGAGTCCGTCCCCGGTGCTGCCTGCGCGTTCACCTGAGTCTCGCTGGAGCTCTTC
TCGCCCGCCCACCTCATCTCAACCCACTTTCCGCGGGGAGCGGCGCCAAGCTGGGCCTTCCTCGGATCAGGCGTC
CCCTGAAGTCGGCACGCCCCTCTGCGTCCCCCTTCGGTCCCGCTAGGACCCCGTCCGGGCTGCCGTCGCCTCGTC
GCT**ATG**GCGCCCACCATCCAGACCCAGGCCCAGCGGGAGGATGGCCACAGGCCCAATTCCCACCGGACTCTGCCT
GAGAGGTCTGGAGTGGTCTGCCGAGTCAAGTACTGCAATAGCCTCCCTGATATCCCCTTCGACCCCAAGTTCATC
ACCTACCCCTTCGACCAGAACAGGTTCGTCCAGTACAAAGCCACTTCCTTGGAGAAACAGCACAAACATGACCTC
CTGACTGAGCCAGACCTGGGGGTCACCATCGATCTCATCAATCCTGACACCTACCGCATCGACCCCAATGTTCTT
CTAGATCCAGCTGATGAGAAACTTTTGGAAGAGGAGATTCAGGCCCCCACCAGCTCCAAGAGATCCCAGCAGCAC
GCGAAGGTGGTGCCATGGATGCGAAAGACAGAGTACATCTCCACTGAGTTCAACCGTTATGGCATCTCCAATGAG
AAGCCTGAGGTCAAGATTGGGGTTTCTGTGAAGCAGCAGTTTACCGAGGAAGAAATATACAAAGACAGGGATAGC
CAGATCACAGCCATTGAGAAGACTTTTGAGGATGCCCAGAAATCAATCTCACAGCATTACAGCAAACCCCGAGTC
ACACCGGTGGAGGTCATGCCTGTCTTCCCAGACTTTAAGATGTGGATCAATCCATGTGCTCAGGTGATCTTTGAC
TCAGACCCAGCCCCCAAGGACACGAGTGGTGCAGCTGCGTTGGAGATGATGTCTCAGGCCATGATTAGGGGCATG
ATGGATGAGGAAGGGAACCAGTTTGTGGCCTATTTCCTGCCTGTAGAAGAGACGTTGAAGAAACGAAAGCGGGAC
CAGGAGGAGGAGATGGACTATGCACCAGATGATGTGTATGACTACAAAATTGCTCGGGAGTACAACTGGAACGTG
AAGAACAAAGCTAGCAAGGGCTATGAGGAAAACTACTTCTTCATCTTCCGAGAGGGTGACGGGGTTTACTACAAT
GAGTTGGAAACCAGGGTCCGCCTTAGTAAGCGCCGGGCCAAGGCTGGGGTTCAGTCAGGCACCAACGCCCTGCTT
GTGGTCAAACATCGGGACATGAATGAGAAGGAACTGGAAGCTCAGGAGGCACGGAAGGCCCAGCTAGAAAACCAC
GAACCGGAGGAGGAAGAGGAAGAGGAGATGGAGACAGAAGAGAAAGAAGCTGGGGGCTCAGATGAGGAGCAGGAG
AAGGGCAGCAGCAGTGAGAAGGAGGGCAGTGAAGATGAGCACTCGGGCAGCGAGAGTGAACGGGAGGAAGGTGAC
AGGGACGAGGCCAGTGACAAGAGTGGCAGTGGTGAGGACGAGAGCAGCGAGGATGAGGCCCGGGCTGCCCGTGAC
AAAGAGGAGATCTTTGGCAGTGATGCTGATTCTGAGGACGATGCCGACTCTGATGATGAGGACAGAGGACAGGCC
CAAGGTGGCAGTGACAATGATTCAGACAGCGGCAGCAATGGGGGTGGCCAGCGGAGCCGGAGCCACAGCCGCAGC
GCCAGTCCCTTCCCCAGTGGCAGCGAGCACTCGGCCCAGGAGGATGGCAGTGAAGCTGCAGCTTCTGATTCCAGT
GAAGCTGATAGTGACAGTGAC**TGA**GTCCCAGGGCATTCAGGGCTGGTTCAGACACCATTATTGTGAGCAGCAAAG
CACTTTTCTAGTGGTCTGTTTGTGAGCCTTTCACTTGTTTGTTCCCCACCCCCAAACCTTTGCTGTTAATAAAGT
CAACTTCTCTTTA

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FIGURE 862

GGGGTTTACTACAATGAGTTGGAAACCAGGGTCCGCCTTAGTAAGCGCCGGGCCAAGGCTGGGGTTCAGTCAGGC
ACCAACGCCCTGCTTGTGGTCAAACATCGGGAC**ATG**AATGAGAAGGAACTGGAAGCTCAGGAGGCACGGAAGGCC
CAGCTAGAAAACCACGAACCGGAGGAGGAAGAGGAAGAGGAGATGGAGACAGAAGAGAAAGAAGCTGGGGGCTCA
GATGAGGAGCAGGAGAAGGGCAGCAGCAGTGAGAAGGAGGGCAGTGAAGATGAGCACTCGGGCAGCGAGAGTGAA
CGGGAGGAAGGTGACAGGGACGAGGCCAGTGACAAGAGTGGCAGTGGTGAGGACGAGAGCAGCGAGGATGAGGCC
CGGGCTGCCCGTGACAAAGAGGAGATCTTTGGCAGTGATGCTGATTCTGAGGACGATGCCGACTCTGATGATGAG
GACAGAGGACAGGCCCAAGGTGGCAGTGACAATGATTCAGACAGCGGCAGCAATGGGGGTGGCCAGCGGAGCCGG
AGCCACAGCCGCAGCGCCAGTCCCTTCCCCAGTGGCAGCGAGCACTCGGCCCAGGAGGATGGCAGTGAAGCTGCA
GCTTCTGATTCCAGTGAAGCTGATAGTGACAGTGAC**TGA**GTCCCAGGGCATTCAGGGCTGGTTCAGACACCATTA
TTGTGAGCAGCAAAGCACTTTTCTAGTGGTCTGTTTGTGAGCCTTTCACTTGTTTGTTCCCCACCCCCAAACCTT
TGCTGTTAATAAAGTCAACTTCTCTTT

FIGURE 863

AGGCCCAGCGGGAGGATGGCCACAGGTCTGGAGTGGTCTGCCGAGTCAAGTACTGCAATAGCCTCCCTGATATCC
CCTTCGACCCCAAGTTCATCACCTACCCCTTCGACCAGAACAGGTTCGTCCAGTACAAAGCCACTTCCTTGGAGA
AACAGCACAAACATGACCTCCTGACTGAGCCAGACCTGGGGGTCACCATCGATCTCATCAATCCTGACACCTACC
GCATCGACCCCAATGTTCTTCTAGATCCAGCTGATGAGAAACTTTTGGAAGAGGAGATTCAGGCCCCCACCAGCT
CCAAGAGATCCCAGCAGCACGCGAAGGTGGTGCCATGG**ATG**CGAAAGACAGAGTACATCTCCACTGAGTTCAACC
GTTATGGCATCTCCAATGAGAAGCCTGAGGTCAAGATTGGGGTTTCTGTGAAGCAGCAGTTTACCGAGGAAGAAA
TATACAAAGACAGGGATAGCCAGATCACAGCCATTGAGAAGACTTTTGAGGATGCCCAGAAATCAATCTCACAGC
ATTACAGCAAACCCCGAGTCACACCGGTGGAGGTCATGCCTGTCTTCCCAGACTTTAAGATGTGGATCAATCCAT
GTGCTCAGGTGATCTTTGACTCAGACCCAGCCCCCAAGGACACGAGTGGTGCAGCTGCGTTGGAGATGATGTCTC
AGGCCATGATTAGGGGCATGATGGATGAGGAAGGGAACCAGTTTGTGGCCTATTTCCTGCCTGTAGAAGAGACGT
TGAAGAAACGAAAGCGGGACCAGGAGGAGGAGATGGACTATGCACCAGATGATGTGTATGACTACAAAATTGCTC
GGGAGTACAACTGGAACGTGAAGAACAAAGCTAGCAAGGGCTATGAGGAAAAC**TAA**TACTTCATCTTC

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FIGURE 864

GTCGTAACGCACTTCCGGCGGTCTACGCGAGGAAG**ATG**GCTGCATCCCAGCAGCAAGCTTCAGCGGCTTCCTCAG
CTGCTGGTGTATCGGGTCCTAGTTCGGCTGGCGGCCCGGGTCCCCAGCAGCAGCCGCAACCGCCAGCACAACTGG
TGGGCCCTGCCCAGAGCGGCCTCCTGCAGCAACAGCAACAGGACTTCGATCCTGTGCAGCGTTATAAGATGCTCA
TCCCGCAGCTGAAGGAGAGTCTACAGACCTTGATGAAGGTTGCGGCCCAAAACTTGATTCAGAACACTAACATCG
ACAATGGACAAAAGAGCAGTGATGGACCCATACAGCGCTTTGACAAGTGCCTGGAAGAGTTCTATGCACTCTGTG
ACCAGCTGGAGCTGTGCCTGCGCCTGGCGCATGAGTGCCTGTCACAGAGTTGTGACAGTGCCAAGCACTCTCCAA
CGTTGGTGCCCACAGCCACCAAGCCCGACGCAGTGCAGCCTGACAGCCTCCCCTACCCACAGTACCTGGCGGTCA
TCAAAGCCCAGATTTCCTGTGCCAAGGACATTCACACCGCCCTGCTGGACTGTGCCAACAAGGTCACGGGCAAGA
CACCCGCACCACCTGCTGGCCCTGGGGGCACTCTG**TGA**AGTGGGGGACAGGGAGTGGGGCAGGCAGTGGTTGGTG
GGTGGTGTGCAAAGGGAATGAAGAGCGTCCTGGGCCTAAACACAGCAGCCTCCTCTCTTCCTGCCTGAGCACCGC
AGCGGGAGCCAGCAGGGGGCAGCAGAGGCCAACAGGGAGCTCGCAGGCCGGGCCCCTGCGTCCCTGCCCCTTCTT
CCTGCTCCCCCTCCTAGCCTAGGGTAGACTTTGAACTGTGTGTGTTGATGACTTCTCTGTTCCACAGGCCCTCCC
CCATTCTTGCCTGGGTGTGGAGCCCTGGCTGTCCCCTCTCCCTCAGTCCTTCCTGACTGTCTCCAGCTGGGAGGT
GGTCTCTGTGTGCCACTCCTCTGTGTCTCTATTACAGTTGTGTCTCTCTCATCCTGTCTCTTTTTCCCTTGTTTC
TCTGTTCCTGTTAATGTGTTTCTCCCCATGGTCCTATTTCTCTCACTCTGACCTCTCTCTCTTAGTCCCCTTTAG
CTGTCTTCTATCCCCAGCTCCTAACTGGGACTCTGTGTCTATGCAGGGGGCCAGCACCCCTGGGTTATCTGGGGC
TAAGGGAAGGGACTTCATTTCCAGGGGCCACAGCCAAGCCCAGAGTCCCCCAGCGGCTCGCATGTCAGCCCAGAC
CCCAGGGTCCTTGGCCTAGGAGAGGAGCAGTGGAGGGGCCCAGGCTCTGAGCTCCACAGGTCTGAGCTGGGAGCA
ACTCAGGCCCCCACCCAAGCCTGCGTCAGCGGAACTTGAGTGAGGGGCGTTGTGCAATTTGTGGCAAGGCTGGCC
CAGCTGGATGCCTGGGTCCCAGTATTTTTAGCCCCAAAGGAGAAGTGAAAAGGCCCCAGCCGGGGTGAATCATCA
GTCCTGGGGAAGAACCCAGGCGCCTGAGCCCCAGCTCCGGGAAGCAGGCACTGGGGAGGGGGCTTCAAGGAGGGA
GTGCCCCCTCAGACTCCCTGCTTCCCTGGAAGCTTCAGGAAGCTCAGCCTCAGCCTTCAGGCCTGAGCAAGTGCA
GGGCGGAGCTACCAGCCCAGGCTCAGATGTTGGGGTGTGAAAGCCTCAAGTGACTCAGCCTGGTTGGAGAACTGC
CCCACCCAGTATCTTCTGTGCCATGGTTCCCACATTCGCACTCCATGGCCTCCTGTCCTGGACCCCACGTCTGCA
AGGAAACCCTAGGACCATGGATACCTCTGTGATTCACGCTGAGCCCAAGTCCCCACACTGGAAAACTGGGAAATG
GCCAGCTGTGTGTCCCAGGAAATTCCTCCCCTTATTCTTCCTTGAAGTGCCCGAGCATGTAGGGCAAGAAGGAAG
GCTGAAGCGCTGTCCCTAGGAGGAATTTCTCCTTCAGGGAAGCCTCAGTTTTGCCCATTTATCTAATTGAATCAG
TTTTTTACCCAATCCCCCGATTTTGTAGGATAATCTCCCTTATCTAAAGTCAACTGATTATGGACTTTAATCACA
TCTACAAAACACTTCCATGGCGACAGCTAGATGAGTGTTTGAATAACTGGGACTGTAGCCCGTCCAAGTTGACAC
ATAAAACTGACCATCGGGCCGGGGGCGGTGGCTCACGCCTGTAATCCCAACACTTTGGGAGCCCGAGGCGGGCGG
ATCACAAGGTCAGGAGTTCGAGACCAGCCTGGCCAACACGGTGAAACCCCGACTCTACTAAAAATACAAAAAATT
AGCTGGGTGTGGTGGCACACACCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGTTTGAACCTGGG
AGGCAGAGGTTGCAGTGAGCCAAGATCACACTATTGCACTCCAGCCTGGGCGACAGGGCAAGACTCTGTCTCAAA
AAAAATAAAAAACTGACCATCTAGTCCTTGTCATCTGGGCACCCTCACACATCTCCTTAACCACACTTAATCTCC
AAATAAGTACGATAACATAGTCATAGTCCCACCCAACATGATGCAGTTATCTTGCATACAACTGAAGACAACTAA
CCCTTTCCCCAACAGAGCCCACCAGCAGTGGTGGAGATGTCGGTCCATGAGCGCACACACAAGACTGAGGGACTG
TCGGCCCTCCCAGGTGGTGTCAACACAACATCACACACAGGTGGGGGGGCCTGATAGCCCAGCACCCATGATACA
GGGCCTACCAATGCTTAAAACCACACCCAGGGAGCCCACAGAGGCACTCAGTGGGTGGTGGGGTGATGGATACAC
ATCTATCAGGCACAGGGCGGAGGTGGGCACCACTGAGTTGCACTCAGCAAACACATTGGGTATCTTGTGCCCAAG
GCCTGTATTTGTGGAGCTGATGTTCTAGTGAGAGACAGTAAATGTGACAAAAGTAAAATATATCAGATGGTGAGA
AAACAGAAAAATGAGATCAGAAGTGGAGATGTTGGGGCCAGGCACAGTGGCCCAGGCCTGTAATCCCATCACTTT
GGGAGGTGCAGGCAGGCAGATGGCTTGAGCCCAGGAATTCAAGACCAGTCCGAGCAACATAGCAAAAGCCCTTAT
CTGCAAAAAATTCAAAAATTAGCCAGGTGTGGTGGTGCGTGCCCAGGTTCCCAGGTACTCGGAGGCTGAGAGGTG
GGAGGATGCCTTGAGCTTGAGAGGTTGAAGCTGCAGTGAGCTGTGATCGCACCACTGCACTCCAGCTTGGTTCAT
GGAGACCCTGTTTTTTTAAAAAAAGAAGTGGAGGTGTTTACACCAGCAAAATACTCATTTTTTAAGTGTAATTAA
GTTGAAGATCAAAAAATGGAAATGTATAATTAAATCATACTTAGCAAATCTAACACATGAAATGTAACATCTGCA
TATGGAGAATCGTGTTACTTTATTGAAAAACATTAAAAGTTTGAGAACTT

FIGURE 865

AGCCTGACTTCAGCGCTCCCACTCTCGGCCGACACCCCTCATGGCCAACCGTTACACC**ATG**GATCTGACTGCCAT
CTACGAGAGCCTCCTGTCGCTGAGCCCTGACGTGCCCGTGCCATCCGACCATGGAGGGACTGAGTCCAGCCCAGG
CTGGGGCTCCTCGGGACCCTGGAGCCTGAGCCCCTCCGACTCCAGCCCGTCTGGGGTCACCTCCCGCCTGCCTGG
CCGCTCCACCAGCCTAGTGGAGGGCCGCAGCTGTGGCTGGGTGCCCCCACCCCCTGGCTTCGCACCGCTGGCTCC
CCGCCTGGGCCCTGAGCTGTCACCCTCACCCACTTCGCCCACTGCAACCTCCACCACCCCCTCGCGCTACAAGAC
TGAGCTATGTCGGACCTTCTCAGAGAGTGGGCGCTGCCGCTACGGGGCCAAGTGCCAGTTTGCCCATGGCCTGGG
CGAGCTGCGCCAGGCCAATCGCCACCCCAAATACAAGACGGAACTCTGTCACAAGTTCTACCTCCAGGGCCGCTG
CCCCTACGGCTCTCGCTGCCACTTCATCCACAACCCTAGCGAAGACCTGGCGGCCCCGGGCCACCCTCCTGTGCT
TCGCCAGAGCATCAGCTTCTCCGGCCTGCCCTCTGGCCGCCGGACCTCACCACCACCACCAGGCCTGGCCGGCCC
TTCCCTGTCCTCCAGCTCCTTCTCGCCCTCCAGCTCCCCACCACCACCTGGGGACCTTCCACTGTCACCCTCTGC
CTTCTCTGCTGCCCCTGGCACCCCCCTGGCTCGAAGAGACCCCACCCCAGTCTGTTGCCCCTCCTGCCGAAGGGC
CACTCCTATCAGCGTCTGGGGGCCCTTGGGTGGCCTGGTTCGGACCCCCTCTGTACAGTCCCTGGGATCCGACCC
TGATGAATATGCCAGCAGCGGCAGCAGCCTGGGGGGCTCTGACTCTCCCGTCTTCGAGGCGGGAGTTTTTGCACC
ACCCCAGCCCGTGGCAGCCCCCCGGCGACTCCCCATCTTCAATCGCATCTCTGTTTCTGAG**TGA**CAAAGTGACTG
CCCGGTCAGATCAGCTGGATCTCAGCGGGGAGCCACGTCTCTTGCACTGTGGTCTCTGCATGGACCCCAGGGCTG
TGGGGACTTGGGGGACAGTAATCAAGTAATCCCCTTTTCCAGAATGCATTAACCCACTCCCCTGACCTCACGCTG
GGGCAGGTCCCCAAGTGTGCAAGCTCAGTATTCATGATGGTGGGGGATGGAGTGTCTTCCGAGGTTCTTGGGGGA
AAAAAAATTGTAGCATATTTAAGGGAGGCAATGAACCCTCTCCCCCACCTCTTCCCTGCCCAAATCTGTCTCCTA
GAATCTTATGTGCTGTGAATAATAGGCCTTCACTGCCCCTCCAGTTTTTATAGACCTGAGGTTCCAGTGTCTCCT
GGTAACTGGAACCTCTCCTGAGGGGGAATCCTGGTGCTCAAATTACCCTCCAAAAGCAAGTAGCCAAAGCCGTTG
CCAAACCCCACCCATAAATCAATGGGCCCTTTATTTATGACGACTTTATTTATTCTAATATGATTTTATAGTATT
TATATATATTGGGTCGTCTGCTTCCCTTGTATTTTTCTTCCTTTTTTTGTAATATTGAAAACGACGATATAATTA
TTATAAGTAGACTATAATATATTTAGTAATATATATTATTACCTTAAAAGTCTATTTTTGTGTTTTGGGCATTTT
TAAATAAACAATCTGAGTGT

FIGURE 866

GAATTAGGGGAACTCAGAAATCCATCCCCCACCCCACGGCCCTACCTAGAAGACTTAGGAATGTGGGTCCCCAGC
GCCGCCATCTGAGACTCCAGAGTCGAGGCTCCTAGCATCCCCTACGTAGAACACTGAGAAATTCCGACTGCGGGA
CCCCAGTCTCCGAGAGACCCCAGATTCTATTCCTGGAGCCTGAGAGCCCGAAGTTCACGCCCCTGAGTCTGGGCT
CCGCACCTCCCTGGGGACCGCGTCGGGGTCGCGCAGGAGCCGGGCTGCCTCGAGCCGGGGCTGGAGGCTCCCCGG
GAGGACTCTGCTGGGCCGCTCAGCC**ATG**CCTGAGGGAGCCCAAGGACTGAGCCTCTCCAAACCTAGCCCAAGCCT
CGGGTGTGGCCGAAGAGGTGAAGTGTGTGACTGTGGCACCGTGTGTGAGACTCGGACAGCTCCTGCAGCCCCCAC
CATGGCCTCCCCCCGAGGTTCTGGGAGCTCCACATCCCTGAGCACAGTGGGCTCTGAGGGGGATCCAGCCCCTGG
GCCCACTCCAGCCTGCTCAGCCTCCAGGCCAGAGCCCCTTCCAGGGCCTCCCATCCGCCTACATCTCTCTCCGGT
GGGGATCCCAGGTTCAGCCAGACCCTCAAGGCTGGAGCGTGTGGCCCGGGAGATCGTGGAGACAGAACGGGCCTA
TGTCAGGGACCTCCGCAGCATCGTGGAGGACTACCTGGGCCCTCTGCTGGACGGCGGGGTCCTGGGGCTGAGCGT
GGAGCAGGTGGGCACGCTGTTTGCCAACATTGAGGACATCTACGAGTTCAGCAGCGAGCTCCTGGAGGACTTGGA
GAACAGCAGCAGCGCCGGGGGTATTGCCGAGTGCTTCGTGCAGAGGAGCGAGGATTTTGACATCTACACATTGTA
CTGCATGAACTACCCGAGCTCCCTGGCCCTGCTCCGGGAGCTGTCGTTGTCTCCGCCAGCAGCCCTGTGGCTGCA
GGAGCGCCAGGCCCAGCTTCGCCACTCGCTGCCCCTGCAGAGCTTCCTGCTGAAACCTGTCCAGCGCATTCTCAA
GTACCATCTGCTGCTGCAGGAACTAGGGAAGCACTGGGCGGAGGGCCCAGGCACTGGGGGTCGCGAGATGGTGGA
GGAAGCTATTGTGTCCATGACAGCGGTTGCCTGGTACATCAACGACATGAAGCGCAAGCAGGAGCATGCAGCGCG
CCTCCAGGAAGTGCAGCGGCGGCTGGGTGGCTGGACCGGACCAGAGCTCAGTGCTTTTGGGGAACTGGTGTTGGA
GGGCGCGTTCCGAGGAGGCGGAGGGGGTGGCCCCCGGCTACGAGGGGGTGAGCGGCTGCTCTTCCTGTTCTCTCG
GATGCTGCTGGTGGCCAAGCGCAGGGGGCTGGAGTACACCTACAAAGGCCACATCTTCTGCTGCAACCTGAGCGT
GAGCGAGAGTCCCCGAGACCCTCTAGGGTTCAAGGTGTCTGATCTGACCATTCCCAAGCACAGACACCTGCTCCA
GGCCAAGAACCAAGAAGAGAAGAGGCTGTGGATTCACTGTCTCCAGCGCCTCTTCTTTGAGAACCACCCTGCCTC
CATCCCTGCCAAGGCAAAGCAAGTTCTCCTTGAAAACAGCCTGCATTGTGCCCCCAAAAGTAAGCCTGTCCTAGA
GCCCCTGACACCCCCACTTGGGTCTCCTCGACCTCGAGATGCTAGAAGTTTTACCCCTGGGCGAAGGAACACAGC
TCCATCTCCTGGGCCCTCTGTGATTCGCCGAGGCCGCAGGCAGTCTGAGCCGGTGAAGGACCCTTATGTCATGTT
CCCACAGAACGCTAAGCCTGGATTCAAGCACGCTGGCAGCGAAGGGGAACTCTACCCTCCAGAATCTCAGCCACC
AGTTTCAGGCTCTGCACCCCCTGAGGACCTGGAGGATGCTGGACCCCCAACACTGGACCCCTCTGGGACCTCAAT
CACTGAAGAAATCCTGGAACTGCTGAATCAGCGAGGCCTTCGAGATCCAGGGGAATCTATGGGCCTTCACAGGGC
CCAGGGGGCTCCTGATGCCCCCTTCCACATG**TGA**GCCAGGACATGAGGCTTCCCTGAAGCAAGGATTTCAGCCAG
ATGCCATAGACCCTCAGAACTTGACCTGGAAGTCCAGACACTGAACGCAGGCCTCAAAACTGCTGCGGCCTTCCA
ACTCCTGGTATCTGCATCGGCGAATGGCCCTTCTTGCCTTGATCCACAGGGATGGGGAAGGGAGGAATGTCATTA
ATGTTTTGTTAATACTGATTCTTTCATGC

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FIGURE 867

GGTGGCCCCTAGCTTTCCTTTTCCGGTTGCGGCGCCGCGCGGTGAGGTTGTCTAGTCCACGCTCGGAGCC**ATG**CC
GTCCAAGGGCCCGCTGCAGTCTGTGCAGGTCTTCGGACGCAAGAAGACAGCGACAGCTGTGGCGCACTGCAAACG
CGGCAATGGTCTCATCAAGGTGAACGGGCGGCCCCTGGAGATGATTGAGCCGCGCACGCTACAGTACAAGCTGCT
GGAGCCAGTTCTGCTTCTCGGCAAGGAGCGATTTGCTGGTGTAGACATCCGTGTCCGTGTAAAGGGTGGTGGTCA
CGTGGCCCAGATTTATGCTATCCGTCAGTCCATCTCCAAAGCCCTGGTGGCCTATTACCAGAAATATGTGGATGA
GGCTTCCAAGAAGGAGATCAAAGACATCCTCATCCAGTATGACCGGACCCTGCTGGTAGCTGACCCTCGTCGCTG
CGAGTCCAAAAAGTTTGGAGGCCCTGGTGCCCGCGCTCGCTACCAGAAATCCTACCGA**TAA**GCCCATCGTGACTC
AAAACTCACTTGTATAATAAACAGTTTTTGAGGGATTTTAAAGTTTCAAAAAAAAAAAAAAAAAAAA

FIGURE 868A

AGAGAACAGATTCGGAAACTGGGGAGGTCTAGCATGTGGCGTAGGAGGGGGTCCTCACTCCGCTTCGCGATTGCC
AAAACGAGCCTGCCGGAAGCGCCCTAAGGGGTTTTCTTCTCCCAGGGAACCAGCGGGGAAACTGAGGCTCGGGGT
GGAGCGCAGGATTGTGGGACGCGCCAAGGCTGCTGTCTTTCCCAGCAGCAGCGGAAGATGTCGGACAGCGAGGAC
AGCAACTTTTCCGAGGAGGAGGACAGCGAGCGCAGCAGTGACGGCGAGGAGGCCGAGGTAGACGAAGAGCGGCGG
AGTGCAGCGGGCAGTGAGAAAGAAGAAGAGCCTGAGGACGAAGAGGAGGAGGAAGAGGAGGAGGAATACGATGAG
GAAGAGGAGGAAGAAGATGATGACCGACCCCCCAAGAAACCCCGCCATGGAGGCTTCATTCTGGACGAGGCTGAT
GTTGACGATGAGTATGAGGACGAGGACCAGTGGGAGGATGGAGCAGAGGACATTCTAGAGAAAGAAGAGATTGAA
GCCTCCAATATCGATAATGTTGTCCTGGATGAAGATCGTTCTGGGGCTCGCCGCCTGCAAAACCTCTGGAGGGAC
CAGCGAGAAGAAGAACTGGGCGAGTATTACATGAAGAAATACGCCAAGTCATCTGTGGGAGAGACGGTGTATGGA
GGATCTGATGAGCTCTCAGACGACATCACCCAGCAGCAGCTGCTCCCAGGAGTCAAGGATCCCAATCTGTGGACT
GTCAAATGTAAGATTGGGGAGGAACGGGCCACGGCCATTTCCTTGATGCGCAAGTTCATTGCCTACCAGTTCACA
GACACGCCCCTGCAGATCAAGTCAGTAGTGGCACCAGAGCATGTGAAGGGCTACATCTACGTGGAGGCCTACAAG
CAGACCCACGTGAAGCAGGCCATTGAGGGGGTGGGCAACCTGCGGCTTGGCTACTGGAACCAGCAGATGGTGCCC
ATCAAGGAGATGACAGACGTGCTCAAAGTGGTGAAGGAGGTGGCCAACCTGAAACCAAAGTCCTGGGTCCGCCTC
AAGCGGGGCATCTACAAGGATGACATTGCTCAGGTGGACTACGTGGAGCCCAGCCAGAACACCATCTCCCTGAAG
ATGATCCCACGCATCGACTACGATCGCATCAAGGCCCGCATGAGCTTGAAAGACTGGTTTGCCAAAAGGAAGAAG
TTTAAGCGGCCTCCACAGAGGCTGTTTGATGCTGAGAAGATCAGGTCCCTGGGGGGTGATGTTGCCTCTGATGGT
GACTTCCTCATCTTTGAGGGGAACCGTTACAGCCGGAAGGGCTTTCTGTTCAAGAGCTTCGCCATGTCTGCTGTG
ATCACGGAGGGTGTGAAGCCAACACTCTCTGAGCTGGAAAAGTTTGAGGACCAGCCAGAGGGCATTGACCTGGAG
GTGGTGACTGAGAGCACAGGGAAGGAGCGGGAGCACAACTTCCAACCTGGGGACAACGTGGAGGTCTGTGAGGGT
GAGCTCATCAACCTGCAGGGCAAGATCCTCAGCGTGGATGGCAACAAGATCACCATCATGCCCAAGCATGAGGAC
CTCAAGGACATGTTGGAGTTCCCAGCCCAGGAACTTAGAAAATACTTCAAGATGGGGGACCACGTGAAGGTGATT
GCTGGCCGATTCGAGGGCGACACAGGCCTCATTGTGCGGGTGGAGGAGAATTTCGTTATCCTGTTCTCTGACCTC
ACCATGCATGAGCTGAAGGTGCTCCCCCGGGACCTGCAGCTCTGCTCAGAGACAGCATCAGGTGTGGATGTTGGG
GGCCAGCATGAATGGGGCGAGCTGGTGCAGCTGGATCCCCAGACTGTGGGTGTCATCGTGCGACTAGAACGGGAG
ACCTTCCAGGTGCTGAACATGTACGGGAAGGTGGTGACTGTCAGACATCAGGCTGTGACCCGGAAGAAGGACAAC
CGCTTTGCTGTGGCCTTGGACTCAGAGCAGAACAACATCCATGTGAAAGACATCGTTAAGGTCATTGATGGCCCC
CACTCAGGCCGAGAAGGGGAGATTCGCCATCTCTTCCGAAGCTTCGCCTTCCTACATTGCAAGAAACTGGTGGAG
AACGGGGGCATGTTTGTCTGCAAGACCCGCCACCTGGTGCTGGCTGGGGGCTCAAAGCCCCGTGATGTGACCAAC
TTCACCGTGGGTGGCTTTGCGCCTATGAGTCCCCGGATCAGCAGCCCCATGCACCCCAGTGCTGGAGGTCAGCGT
GGCGGCTTTGGTAGCCCAGGTGGCGGCAGTGGTGGCATGAGCAGGGGCCGGGGCCGGAGGGACAACGAACTCATC
GGCCAGACCGTGCGCATCTCCCAGGGGCCCTACAAAGGCTACATCGGTGTGGTGAAAGATGCCACAGAGTCCACG
GCCCGTGTGGAGCTGCACTCCACCTGCCAGACCATCTCTGTGGACCGTCAGCGGCTCACCACGGTGGGCTCACGG
CGCCCGGGCGGCATGACCTCGACCTATGGGAGGACGCCCATGTATGGCTCCCAGACGCCCATGTATGGCTCTGGC
TCCCGAACACCCATGTACGGCTCACAGACACCCCTCCAGGATGGTAGCCGCACCCCACACTACGGCTCACAGACG
CCCCTGCATGATGGCAGCCGCACTCCTGCCCAGAGTGGGGCCTGGGACCCCAACAACCCCAACACGCCGTCACGG
GCTGAGGAAGAATATGAGTATGCTTTCGATGATGAGCCCACCCCGTCCCCGCAGGCCTATGGGGGAACCCCCAAT
CCCCAAACACCTGGCTACCCAGACCCCTCGTCCCCACAGGTCAACCCACAATACAACCCGCAGACGCCAGGGACG
CCGGCCATGTACAACACAGACCAGTTCTCTCCCTATGCTGCCCCCTCCCCACAAGGTTCCTACCAGCCCAGCCCC
AGCCCCCAGAGCTACCACCAGGTGGCGCCAAGCCCAGCAGGCTACCAGAATACCCACTCCCCAGCCAGCTACCAC
CCTACACCGTCGCCCATGGCCTATCAGGCTAGCCCCAGCCCGAGCCCCGTTGGCTACAGTCCTATGACACCTGGA
GCTCCCTCCCCTGGTGGCTACAACCCACACACGCCAGGCTCAGGCATCGAGCAGAACTCCAGCGACTGGGTAACC
ACTGACATTCAGGTGAAGGTGCGGGACACCTACCTGGATACACAGGTGGTGGGACAGACAGGTGTCATCCGCAGT
GTCACGGGGGGCATGTGCTCTGTGTACCTGAAGGACAGTGAGAAGGTTGTCAGCATTTCCAGTGAGCACCTGGAG
CCTATCACCCCCACCAAGAACAACAAGGTGAAAGTGATCCTGGGCGAGGATCGGGAAGCCACGGGCGTCCTACTG
AGCATTGATGGTGAGGATGGCATTGTCCGTATGGACCTTGATGAGCAGCTCAAGATCCTCAACCTCCGCTTCCTG
GGGAAGCTCCTGGAAGCCTGAAGCAGGCAGGGCCGGTGGACTTCGTCGGATGAAGAGTGATCCTCCTTCCTTCCC
TGGCCCTTGGCTGTGACACAAGATCCTCCTGCAGGGCTAGGCGGATTGTTCTGGATTTCCTTTTGTTTTTCCTTT

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FIGURE 868B

TAGTTTTCCATCTTTTCCCTCCCTGGTGCTCATTGGAATCTGAGTAGAGTCTGGGGGGAGGGTCCCCACCTTCCTG
TACCTCCTCCCCACAGCTTGCTTTTGTTGTACCGTCTTTCAATAAAAAGAAGCTGTTTGGTCT

FIGURE 869

CTCAGAGGCTGGAGGGATCCTCCGTATGCTGAACGCTGGTCCCCTGGGCCCCCTTTATTTCTTTCTCTATACTTT
GTTTCTGTGTCTTTTTCTCTTCCAAAGTCTCTCGTTCCACCTAACGAGAAACACCCACAGGTGTGGAGGGGCAAC
CCATCCCTTCAGACAATTGGGAGGTGAGGGCCGATTGCCTTACACGGTGAGACAAGCGGCCTGACTCGTGACTAT
TTTTTTGGACAAATCAGGCAGCCACTGACTCCCTTCATT**ATG**GCCTCAGCTTTATCTCTGGGCAATAAGTGTGAT
CCCTTCCTTCGCTGCGTCCTTTGCAGGGGCGGTGGCGCTCTGCAAGGCCCAAGGGGGCGTGGTCCAGATGACTTT
GAATCCCAGTTGTCGCCCCCAGGGTCAGCCAGGAGACTAGTCAGAAGCAAACGCGCCTGCGGCAATCCGCCCGAT
GCCTTTGGTCTCTCTCGGGCTTCCGTCCACCCGCCCCTCCCCCGCGTTTCCATTGGCTGTAGCTCCGGCCCGGGG
CGGGCGAAGAGGGAGCGAGTGGGCGGGGCCGCGTGGCGTCAGCGCAAGATGGCGGCCTCGGCAGCGGTGTTCTCG
CGCTTGCGAAGCGGGCTCCGGCTCGGCTCGCGGGGACTGTGCACGAGGTTGGCGACGCCGCCCCGCCGGGCCCCA
GATCAGGCCGCAGAGATCGGGAGCCGCGGGAGCACTAAGGCGCAAGGGCCACAGCAGCAGCCGGGCTCAGAGGGT
CCCAGCTATGCCAAAAAAGTTGCGCTCTGGCTTGCTGGGCTGCTTGGAGCTGGTGGGACTGTGAGCGTCGTCTAT
ATCTTTGGAAACAACCCGGTGGACGAAAATGGTGCCAAGATTCCTGATGAGTTCGACAATGATCCAATTCTGGTA
CAGCAGTTGCGCCGGACATACAAATATTTCAAAGATTATAGACAGATGATCATCGAGCCCACCAGCCCTTGCCTT
CTCCCAGACCCTCTGCAGGAACCGTACTACCAGCCACCCTACACGCTCGTTTTGGAGCTCACCGGCGTCCTCTTG
CATCCTGAGTGGTCGCTGGCCACTGGCTGGAGGTTTAAGAAGCGCCCAGGCATCGAGACCTTGTTCCAGCAGCTT
GCCCCTTTATATGAAATTGTCATCTTTACGTCAGAGACTGGCATGACTGCGTTTCCACTCATTGATAGTGTGGAC
CCCCATGGCTTCATCTCCTACCGCCTATTCCGGGACGCCACAAGATACATGGATGGACACCATGTAAAGGATATT
TCATGTCTGAATCGGGACCCAGCTCGAGTAGTAGTTGTGGACTGCAAGAAGGAAGCCTTCCGCCTGCAGCCCTAT
AACGGCGTTGCCCTGCGGCCCTGGGACGGCAACTCTGATGACCGGGTCTTGTTGGATCTGTCTGCCTTCCTCAAG
ACCATTGCACTGAATGGTGTGGAGGACGTGCGAACCGTGCTGGAGCACTATGCCCTGGAGGATGACCCGCTGGCG
GCTTTCAAACAGCGGCAAAGCCGGCTAGAGCAGGAGGAGCAGCAGCGCCTGGCCGAGCTCTCCAAGTCCAACAAG
CAGAACCTCTTCCTTGGCTCCCTCACCAGCCGCTTGTGGCCTCGCTCCAAACAGCCC**TGA**ACTCTGGGCCTCCTC
AAACTCAGTGCCTGGGTCCAGGGCCCCAGTGCTTCCAGACCAAGACTTGGGCCACCACTTGTCCAATAAAGTACA
TCCCAGACGCCACACCTGCTGTGTCCCGAGAGTCTCCAGATGGGGGCATCAGGGTGAGGTCCGGGACTCTTGGGT
CATCGTCCCACAGTGGCTGATCGGCTGCCAAGCACAGTGGGGGTGCTTTGTTGGATCAGAGCAGATTTTTCACCC
TGGTCTCGGAATCTAAAAACCCTCGCTGTGTCTTCCTGTGTGTTGCGTGATCTGTGAAAAATACATCTCCCTCTG
ACCACAGACTCCTCATCTGTGGAGAAGGGAAGAGAGGATGGCACTTGGCTTTAAAGACAGGTAGCTGCCAGGCTA
CTGTGGAGAGAATGTGTTATGGGCCTAGTGGGCCTCTGGTGGACCAGAGATTACCCCTCTCAACAGGCCAGCTGC
TGGTTGGCTCCAGCCAGTGTGGCCCTGGGGTAAAGGGGGCCTGGAGTTGCTTGACACGCCAGTTGTTCAAA

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FIGURE 870

CGGACTCCGGAGCCGCACAAACCAGGGCTCGCC**ATG**AAGCCAGGATTCAGTCCCCGTGGGGGTGGCTTTGGCGGC
CGAGGGGGCTTTGGTGACCGTGGTGGTCGTGGAGGCCGAGGGGGCTTTGGCGGGGGCCGAGGTCGAGGCGGAGGC
TTTAGAGGTCGTGGACGAGGAGGAGGTGGAGGCGGCGGCGGCGGTGGAGGAGGAGGAAGAGGTGGTGGAGGCTTC
CATTCTGGTGGCAACCGGGGTCGTGGTCGGGGAGGAAAAAGAGGAAACCAGTCGGGGAAGAATGTGATGGTGGAG
CCGCATCGGCATGAGGGTGTCTTCATTTGTCGAGGAAAGGAAGATGCACTGGTCACCAAGAACCTGGTCCCTGGG
GAATCAGTTTATGGAGAGAAGAGAGTCTCGATTTCGGAAGGAGATGACAAAATTGAGTACCGAGCCTGGAACCCC
TTCCGCTCCAAGCTAGCAGCAGCAATCCTGGGTGGTGTGGACCAGATCCACATCAAACCGGGGGCTAAGGTTCTC
TACCTCGGGGCTGCCTCGGGCACCACGGTCTCCCATGTCTCTGACATCGTTGGTCCGGATGGTCTAGTCTATGCA
GTCGAGTTCTCCCACCGCTCTGGCCGTGACCTCATTAACTTGGCCAAGAAGAGGACCAACATCATTCCTGTGATC
GAGGATGCTCGACACCCACACAAATACCGCATGCTCATCGCAATGGTGGATGTGATCTTTGCTGATGTGGCCCAG
CCAGACCAGACCCGGATTGTGGCCCTGAATGCCCACACCTTCCTGCGTAATGGAGGACACTTTGTGATTTCCATT
AAGGCCAACTGCATTGACTCCACAGCCTCAGCCGAGGCCGTGTTTGCCTCCGAAGTGAAAAAGATGCAACAGGAG
AACATGAAGCCGCAGGAGCAGTTGACCCTTGAGCCATATGAAAGAGACCATGCCGTGGTCGTGGGAGTGTACAGG
CCACCCCCCAAGGTGAAGAAC**TGA**AGTTCAGCGCTGTCAGGATTGCGAGAGATGTGTGTTGATACTGTTGCACGT
GTGTTTTTCTATTAAAAGACTCATCCGTC

FIGURE 871

CAACGGGGGCATCCACTACATCACCCTTGATGGCCGTGTCTACGACCTGCATGGCTCCTGCTCCTATGTCTTGGC
CCAAGTCTGCCACCCAAAGCCTGGGGACGAGGACTTTTCCATCGTGCTTGAGAAGAATGCAGCTGGAGATCTCCA
ACGCCTCCTGGTTACTGTGGCTGGCCAGGTTGTGAGCCTAGCTCAGGGGCAGCAGGTCACCGTGGACGGCGAGGC
TGTGGCCCTGCCTGTGGCTGTGGGCCGCGTGCGGGTGACCGCCGAGGGCCGAAAC**ATG**GTTCTGCAGACGACCAA
GGGGCTGCGGCTTCTCTTTGATGGCGATGCCCACCTCCTCATGTCCATCCCCAGCCCCTTCCGTGGACGGCTCTG
TGGCCTCTGTGGGAACTTCAATGGCAACTGGAGTGACGACTTTGTCCTGCCCAATGGCTCAGCAGCGTCCAGTGT
GGAGACCTTCGGGGCTGCATGGCGGGCGCCCGGCTCCTCCAAGGGCTGTGGCGAGGGCTGCGGGCCCCAAGGCTG
CCCAGTGTGCTTGGCAGAGGAGACTGCACCCTATGAGAGCAACGAGGCCTGCGGGCAGCTCCGGAACCCCCAGGG
CCCCTTCGCGACCTGCCAGGCGGTGCTGAGTCCCTCTGAGTACTTCCGCCAATGCGTATACGACCTGTGCGCGCA
AAAGGGTGACAAAGCCTTCCTGTGCCGCAGCCTGGCAGCCTACACGGCGGCCTGTCAGGCAGCTGGCGTGGCCGT
GAAGCCCTGGAGGACAGACAGCTTCTGCCCGCTCCATTGCCCCGCCCACAGCCACTACTCCATCTGCACTCGCAC
CTGCCAGGGATCCTGTGCGGCTCTCTCCGGCCTCACGGGCTGCACCACCCGCTGTTTTGAGGGCTGTGAGTGCGA
CGACCGCTTCCTGCTTTCCCAGGGTGTCTGCATCCCTGTCCAAGATTGTGGCTGCACCCATAATGGCCGATACTT
GCCGGTAAACTCCTCCCTGCTGACCTCAGACTGCAGCGAGCGCTGTTCCTGTTCCTCAAGCTCTGGCCTGACATG
CCAGGCAGCTGGCTGCCCACCAGGCCGTGTATGTGAGGTCAAGGCTGAAGCCCGGAACTGCTGGGCCACCCGTGG
TCTCTGTGTCCTGTCTGTGGGTGCCAACCTCACCACCTTTGATGGGGCCCGTGGTGCCACCACCTCTCCTGGTGT
CTATGAGCTCTCTTCCCGCTGCCCAGGACTACAGAATACCATCCCCTGGTACCGTGTAGTTGCCGAAGTCCAGAT
CTGCCATGGCAAAACGGAGGCTGTGGGCCAGGTCCACATCTTCTTCCAGGATGGGATGGTGACGTTGACTCCAAA
CAAGGGTGTGTGGGTGAATGGTCTCCGAGTGGATCTCCCAGCTGAGAAGTTAGCATCTGTGTCCGTGAGTCGTAC
ACCTGATGGCTCCCTGCTAGTCCGCCAGAAGGCAGGGGTCCAGGTGTGGCTTGGAGCCAATGGGAAGGTGGCTGT
GATTGTCAGCAATGACCATGCTGGGAAACTGTGTGGGGCCTGTGGAAACTTTGACGGGGACCAGACCAATGATTG
GCATGACTCCCAGGAGAAGCCAGCGATGGAGAAATGGAGAGCGCAGGACTTCTCCCCATGTTATGGC**TGA**TCAGT
CATCCACCAGGAACGAAGATTTCCTGAAGAAGACCTGGTCCCTCTGGAGGTTGCAGTGGCTGAAGGATGCATCAT
GTGCTCCTACCCTGCTCTACCGCTTTTCTGGGTCACAGAGGCCAAATGTGAGAGCATTGAATAAATATCTTAAGC
T

FIGURE 872

GTCAACTTAGTGTACAATGCTGTCAGATGAACCTTACCCTTGTAAGGCTTGTAACTTGGTTCCTCCCTTTCTTAA
GCCCTTATTGGCTATCTTTCTTCTTTTAATATTTAAAGTTTTTAATCTTTAAATTTTTAATTTTTAAACCATGCT
TGTTTAACCTGCTGGTAAAATTCACGTCTTTCAGACTGTAATGCTTTCATGCCAAGTAAATGGTCTTGCCAGGCT
TCCAGCCTGTTTCAGAGACCACTAGCCCAGAGCCGTATCAGCCCCTTCAGCAAGCCATAAGAAATTTCTACTCCT
CCTGGAAATAGATGTAGAGACTATGTCCATGCTTAGCAGGAAGTAGTTCCAGAAGAGACCTTTGCTCCTTAAGAA
TAAGGAGAATGAGGACTGCGAAGGAGAACGCAGCAAGCCCAGGCGGCGGTGGAAAGGCTGGAGGACACACCTAAA
C**ATG**TGGAATCCCAATGCCGGGCAGCCAGGGCCAAATCCATATCCCCCCAATATTGGGTGCCCTGGAGGTTCCAA
TCCTGCCCACCCACCACCTATTAATCCACCCTTTCCCCCAGGCCCCTGTCCTCCTCCCCCAGGAGCTCCCCATGG
CAATCCAGCTTTCCCCCCAGGTGGGCCCCCTCATCCTGTGCCACAGCCAGGGTATCCAGGATGCCAACCGTTGGG
TCCCTACCCTCCTCCATACCCACCGCCTGCCCCTGGAATCCCTCCTGTGAATCCCTTGGCTCCTGGCATGGTTGG
ACCAGCAGTGATAGTGGACAAGAAGATGCAGAAGAAAATGAAGAAAGCTCATAAAAAGATGCACAAGCACCAAAA
GCACCACAAGTACCACAAGCATGACAAGCATTCCTCCTCTTCCTCCTCCTCTTCCAGCAGTGATTCTGAC**TGA**AT
ACAGGCCCTGGACCCTTCCCTCAAGTCCCACCAGTTCTGCTCTCCCATCAAGCTTCAGATGCCACGTTGTACTGG
GGGAATGTAGCCCTTGTGCTCCCCACCCCCTACCTCCACCTGAGCCTCACCCTGCTGTTGAGCCCTGAGTGGCTA
GGGGAAATAGGAAGAGGATTGCCATGGCCTGGCCATCTTGTTGCTGCTTGGAGAGATCATATAGCTAATGAATTA
GGCAGGGGAGCTATTTTTTGAAGATGATGAACTAAATGTTGAAGACAAGTTTGAGATCTGTAAAATGTGATTTTT
TACTTCCACTTATAATACTTGTGATTGGGGAGGTTTGTGGAAATTCAATTATGATGAAAAACCTCTATCTTTTTT
GTAATGTTGGCATACTTGGGGGATTTAGTGGCAAATACATTCCCCAGCAGGCCTTTTGTTGGTTGCACTAACTGC
AAGGTTGCTGGGAAGTAGAGTCCATTTGGTTGATGAGCTTTGACTGCGGTTTTGGAACCTTACCTCTCCTCCTTA
GCCCAATATGCTGTCTCGGGTCCTATTCAAATAAAGTTATTTCTCCTGGTCT

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FIGURE 873

GGCTTGGTCACT**ATG**GAGGAGATAGGCATCTTGGTGGAGAAGGCTCAGGATGAGATCCCAGCACTGTCCGTGTCC
CGGCCCCAGACCGGCCTGTCCTTCCTGGGCCCTGAGCCTGAGGACCTGGAGGACCTGTACAGCCGCTACAAGAAG
CTGCAGCAAGAGCTGGAGTTCCTGGAGGTGCAGGAGGAATACATCAAAGATGAGCAAAAGAACCTGAAAAAGGAA
TTTCTCCATGCCCAGGAGGAGGTGAAGCGAATCCAAAGCATCCCGCTGGTCATCGGACAATTTCTGGAGGCTGTG
GATCAGAATACAGCCATCGTGGGCTCTACCACAGGCTCCAACTATTATGTGCGCATCCTGAGCACCATCGATCGG
GAGCTGCTCAAGCCCAACGCCTCAGTGGCCCTCCACAAGCACAGCAATGCACTGGTGGACGTGCTGCCCCCCGAA
GCCGACAGCAGCATCATGATGCTCACCTCAGACCAGAAGCCAGATGTGATGTACGCGGACATCGGAGGCATGGAC
ATCCAGAAGCAGGAGGTGCGGGAGGCCGTGGAGCTCCCGCTCACGCATTTCGAGCTCTACAAGCAGATCGGCATC
GATCCCCCCCGAGGCGTCCTCATGTATGGCCCACCTGGCTGTGGGAAGACCATGTTGGCAAAGGCGGTGGCACAT
CACACAACAGCTGCATTCATCCGGGTCGTGGGCTCGGAGTTTGTACAGAAGTATCTGGGTGAGGGCCCCCGCATG
GTCCGGGATGTGTTCCGCCTGGCCAAGGAGAATGCACCTGCCATCATCTTCATAGACGAGATTGATGCCATCGCC
ACCAAGAGATTCGATGCTCAGACAGGGGCCGACAGGGAGGTTCAGAGGATCCTGCTGGAGCTGCTGAATCAGATG
GATGGATTTGATCAGAATGTCAATGTCAAGGTAATCATGGCCACAAACAGAGCAGACACCCTGGATCCGGCCCTG
CTACGGCCAGGACGGCTGGACCGTAAAATTGAATTTCCACTTCCTGACCGCCGCCAGAAGAGATTGATTTTCTCC
ACTATCACTAGCAAGATGAACCTCTCTGAGGAGGTTGACTTGGAAGACTATGTGGCCCGGCCAGATAAGATTTCA
GGAGCTGATATTAACTCCATCTGTCAGGAGAGTGGAATGTTGGCTGTCCGTGAAAACCGCTACATTGTCCTGGCC
AAGGACTTCGAGAAAGCATACAAGACTGTCATCAAGAAGGACGAGCAGGAGCATGAGTTTTACAAG**TGA**CCCTTC
CCTTCCCTCCACCACACCACTCAGGGGCTGGGGCTTCTCTCGCACCCCCAGCACCTCTGTCCCAAAACCTCATTC
CCTTTTTTCTTTACCCAGGATTGGTTTCTTCAATAAATAGATAAGATCGAATCC

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FIGURE 874

ATGCTTCAGCTTTGGAAACTTGTTCTCCTGTGCGGCGTGCTCACTGGGACCTCAGAGTCTCTTCTTGACAATCTT
GGCAATGACCTAAGCAATGTCGTGGATAAGCTGGAACCTGTTCTTCACGAGGGACTTGAGACAGTTGACAATACT
CTTAAAGGCATCCTTGAGAAACTGAAGGTCGACCTAGGAGTGCTTCAGAAATCCAGTGCTTGGCAACTGGCCAAG
CAGAAGGCCCAGGAAGCTGAGAAATTGCTGAACAATGTCATTTCTAAGCTGCTTCCAACTAACACGGACATTTTT
GGGTTGAAAATCAGCAACTCCCTCATCCTGGATGTCAAAGCTGAACCGATCGATGATGGCAAAGGCCTTAACCTG
AGCTTCCCTGTCACCGCGAATGTCACTGTGGCCGGGCCCATCATTGGCCAGATTATCAACCTGAAAGCCTCCTTG
GACCTCCTGACCGCAGTCACAATTGAAACTGATCCCCAGACACACCAGCCTGTTGCCGTCCTGGGAGAATGCGCC
AGTGACCCAACCAGCATCTCACTTTCCTTGCTGGACAAACACAGCCAAATCATCAACAAGTTCGTGAATAGCGTG
ATCAACACGCTGAAAAGCACTGTATCCTCCCTGCTGCAGAAGGAGATATGTCCACTGATCCGCATCTTCATCCAC
TCCCTGGATGTGAATGTCATTCAGCAGGTCGTCGATAATCCTCAGCACAAAACCCAGCTGCAAACCCTCATC**TGA**

AGAGGACGAATGAGGAGGACCACTGTGGTGCATGCTGATTGGTTCCCAGTGGCTTGCCCCACCCCCTTATAGCAT
CTCCCTCCAGGAAGCTGCTGCCACCACCTAACCAGCGTGAAAGCCTGAGTCCCACCAGAAGGACCTTCCCAGATA
CCCCTTCTCCTCACAGTCAGAACAGCAGCCTCTACACATGTTGTCCTGCCCCTGGCAATAAAGGCCCATTTCTGC

FIGURE 875

GAGAGGAGCGGGCCGAGGACTCCAGCGTGCCCAGGTCTGGCATCCTGCACTTGCTGCCCTCTGACACCTGGGAAG
ATGGCCGGCCCGTGGACCTTCACCCTTCTCTGTGGTTTGCTGGCAGCCACCTTGATCCAAGCCACCCTCAGTCCC
ACTGCAGTTCTCATCCTCGGCCCAAAAGTCATCAAAGAAAAGCTGACACAGGAGCTGAAGGACCACAACGCCACC
AGCATCCTGCAGCAGCTGCCGCTGCTCAGTGCCATGCGGGAAAAGCCAGCCGGAGGCATCCCTGTGCTGGGCAGC
CTGGTGAACACCGTCCTGAAGCACATCATCTGGCTGAAGGTCATCACAGCTAACATCCTCCAGCTGCAGGTGAAG
CCCTCGGCCAATGACCAGGAGCTGCTAGTCAAGATCCCCCTGGACATGGTGGCTGGATTCAACACGCCCCTGGTC
AAGACCATCGTGGAGTTCCACATGACGACTGAGGCCCAAGCCACCATCCGCATGGACACCAGTGCAAGTGGCCCC
ACCCGCCTGGTCCTCAGTGACTGTGCCACCAGCCATGGGAGCCTGCGCATCCAACTGCTGCATAAGCTCTCCTTC
CTGGTGAACGCCTTAGCTAAGCAGGTCATGAACCTCCTAGTGCCATCCCTGCCCAATCTAGTGAAAAACCAGCTG
TGTCCCGTGATCGAGGCTTCCTTCAATGGCATGTATGCAGACCTCCTGCAGCTGGTGAAGGTGCCCATTTCCCTC
AGCATTGACCGTCTGGAGTTTGACCTTCTGTATCCTGCCATCAAGGGTGACACCATTCAGCTCTACCTGGGGGCC
AAGTTGTTGGACTCACAGGGAAAGGTGACCAAGTGGTTCAATAACTCTGCAGCTTCCCTGACAATGCCCACCCTG
GACAACATCCCGTTCAGCCTCATCGTGAGTCAGGACGTGGTGAAAGCTGCAGTGGCTGCTGTGCTCTCTCCAGAA
GAATTCATGGTCCTGTTGGACTCTGTGCTTCCTGAGAGTGCCCATCGGCTGAAGTCAAGCATCGGGCTGATCAAT
GAAAAGGCTGCAGATAAGCTGGGATCTACCCAGATCGTGAAGATCCTAACTCAGGACACTCCCGAGTTTTTTATA
GACCAAGGCCATGCCAAGGTGGCCCAACTGATCGTGCTGGAAGTGTTTCCCTCCAGTGAAGCCCTCCGCCCTTTG
TTCACCCTGGGCATCGAAGCCAGCTCGGAAGCTCAGTTTTACACCAAAGGTGACCAACTTATACTCAACTTGAAT
AACATCAGCTCTGATCGGATCCAGCTGATGAACTCTGGGATTGGCTGGTTCCAACCTGATGTTCTGAAAAACATC
ATCACTGAGATCATCCACTCCATCCTGCTGCCGAACCAGAATGGCAAATTAAGATCTGGGGTCCCAGTGTCATTG
GTGAAGGCCTTGGGATTCGAGGCAGCTGAGTCCTCACTGACCAAGGATGCCCTTGTGCTTACTCCAGCCTCCTTG
TGGAAACCCAGCTCTCCTGTCTCCCAG**TGA**AGACTTGGATGGCAGCCATCAGGGAAGGCTGGGTCCCAGCTGGGA
GTATGGGTGTGAGCTCTATAGACCATCCCTCTCTGCAATCAATAAACACTTGCCTGTGA

FIGURE 876

GTATGAACGCAGCGGCGGACCTGTGAGGGGATCCGACTTGCCGGCAGAACTTACGCTGCGGGACCCCGGGCACTG
TTGCTGCTGCGGGAGACTGTGGGCTGTTTAGTGCC**ATG**CACCCTTTACAGTGTGTCCTCCAAGTGCAGAGGTCTC
TGGGGTGGGGACCATTGGCCTCTGTGTCTTGGCTGTCGCTGAGGATGTGCAGGGCACACAGCAGTCTCTCTAGTA
CCATGTGTCCCAGTCCAGAGAGGCAGGAGGATGGAGCTCGGAAGGATTTCAGCTCCAGGCTGGCTGCTGGACCGA
CTTTTCAACATTTTTTAAAAAGTGCCTCAGCTCCTCAGGAGAAGCTGTCTTCAGAAGTGGAAGACCCACCTCCCT
ATCTCATGATGGATGAACTTCTTGGAAGGCAGAGAAAAGTCTACCTCGAGACCTATGGCTGCCAGATGAATGTGA
ATGACACAGAGATAGCCTGGTCCATCTTACAGAAGAGTGGCTACCTGCGGACCAGTAACCTCCAAGAGGCAGATG
TGATTCTCCTTGTCACATGCTCTATCAGGGAGAAGGCTGAGCAGACCATCTGGAACCGTTTACATCAGCTTAAAG
CCTTGAAGACAAGGCGGCCCCGCTCCCGGGTTCCTCTGAGGATTGGAATTCTAGGCTGCATGGCTGAGAGGTTGA
AGGAGGAGATTCTCAACAGAGAGAAAATGGTAGATATTTTGGCTGGTCCTGATGCCTACCGGGACCTTCCCCGGC
TGCTGGCTGTTGCTGAGTCGGGCCAGCAAGCTGCCAACGTGCTGCTCTCTCTGGACGAGACCTATGCTGATGTCA
TGCCAGTCCAGACAAGCGCCAGTGCCACGTCTGCCTTTGTGTCAATCATGCGAGGCTGTGACAACATGTGTAGCT
ACTGCATTGTTCCTTTCACCCGGGGCAGGGAGAGGAGTCGGCCTATTGCCTCCATTCTAGAGGAAGTGAAGAAGC
TTTCTGAGCAGGGGCTGAAAGAAGTGACACTTCTTGGTCAGAATGTTAATAGTTTTCGGGACAATTCGGAGGTCC
AGTTCAACAGTGCAGTGCCTACCAATCTCAGTCGTGGCTTTACCACCAACTATAAAACCAAGCAAGGAGGACTTC
GTTTTGCTCATCTTCTGGATCAGGTCTCCAGAGTAGATCCTGAAATGAGGATCCGTTTTACCTCTCCCCACCCCA
AGGATTTTCCTGATGAGGTTCTGCAGCTGATTCATGAGAGAGATAACATCTGTAAACAGATCCACCTGCCAGCCC
AGAGTGGAAGCAGCCGTGTGTTGGAGGCCATGCGGAGGGGATATTCAAGAGAAGCTTATGTGGAGTTAGTTCACC
ATATTAGAGAATCTATTCCAGGTGTGAGCCTCAGCAGCGATTTCATTGCTGGCTTTTGTGGTGAGACGGAGGAAG
ATCACGTCCAGACAGTCTCTTTGCTCCGGGAAGTTCAGTACAACATGGGCTTCCTCTTTGCCTACAGCATGAGAC
AGAAGACACGGGCATATCATAGGCTGAAGGATGATGTCCCGGAAGAGGTAAAATTAAGGCGTTTGGAGGAACTCA
TCACTATCTTCCGAGAAGAAGCAACAAAAGCCAATCAGACCTCTGTGGGCTGTACCCAGTTGGTGCTAGTGGAAG
GGCTCAGTAAACGCTCTGCCACTGACCTGTGTGGCAGGAATGATGGAAACCTTAAGGTGATCTTCCCTGATGCAG
AGATGGAGGATGTCAATAACCCTGGGCTCAGGGTCAGAGCCCAGCCTGGGGACTATGTGCTGGTGAAGATCACCT
CAGCCAGTTCTCAGACACTTAGGGGACATGTTCTCTGCAGGACCACTCTGAGGGACTCTTCTGCATATTGC**TGA**C
CTGAGAGGATGGCCTCAGAGCTGACTTGGGCAATCCTCCCCAACAGGAAGGGGAGACATTGCCTGCCACTGAGGA
AACAGGTCATGAAGGTGGAGATAAGCTGCAAGGGGCGAAGCAACTTTATGTCAGTGGAAAACGTGTCTCTTTAAA
GCTGCTATGTGAACAGCTTTTACAGTCATTAAATTTACCTAAACTAAGGTT

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FIGURE 877A

GGAAGGGTAGTGGAGAGAGAGGAAGCAGGAGGGAGGGAGAAAAAGAGAGAGACTGACTGTATCTGGGGATTCTGG
CAAGGTGAAGAGCTGGTCTGTTTGGCAGGACCTTCCCATCTGGGATCCATCTGTGTTTCCCTGGAATGGGACAGG
CAGCTCTAGTCAGTGAGAAATCGCAGATGTGAGAGAGCTGACACATGTCCAGCTAATGAAAGGAGGAGGAAGGCT
GGTCTCCGATTGAGCTTTGAAGATTAGGAGGAGAAAAAGAGGAGCTTTGGAATATCTATTTCAAATAAATTTGGT
GTATTTAAGAATCTGGATTGTTTATAATTTGGGCATTTGGGTTGGTCCTGAGAAAAGGGTGCCAGCG**ATG**CCTGG
ATCGCCTGTGGAAGTGAAGATACAGTCCAGATCCTCACCTCCCACCATGCCACCCCTCCCACCAATAAATCCTGG
AGGACCGAGGCCAGTGTCCTTCACTCCTACTGCATTAAGCAATGGCATCAACCATTCTCCTCCTACCCTGAATGG
TGCCCCATCACCGCCACAGAGATTCAGCAATGGTCCTGCCTCCTCCACATCATCTGCACTCACAAATCAGCAATT
GCCAGCCACTTGTGGTGCTCGACAACTCAGCAAGTTGAAACGCTTTCTTACCACTCTGCAACAGTTTGGCAATGA
CATCTCCCCTGAGATTGGGGAGAAGGTGCGGACTCTTGTTCTTGCACTGGTGAACTCAACAGTGACAATTGAGGA
ATTCCACTGTAAGCTCCAAGAAGCCACAAACTTTCCCCTTCGTCCTTTTGTGATTCCATTTCTCAAGGCCAACCT
GCCCCTGCTGCAGCGGGAACTGCTGCACTGCGCTCGGGCGGCCAAGCAGACCCCATCCCAGTACCTGGCTCAGCA
CGAACACCTTCTGCTCAACACAAGCATTGCATCGCCTGCTGACTCGTCAGAGTTGCTCATGGAGGTGCACGGAAA
TGGGAAGAGGCCCAGTCCAGAGAGGAGAGAAGAGAATAGTTTTGATAGAGACACAATTGCTCCTGAGCCTCCTGC
CAAGAGAGTATGTACCATCAGCCCTGCTCCTCGGCACAGTCCTGCTCTCACTGTGCCCCTCATGAATCCCGGGGG
CCAATTCCATCCTACCCCTCCACCTCTTCAGCATTACACCTTAGAGGATATTGCAACTTCTCACCTGTATCGGGA
ACCCAACAAGATGCTAGAGCATCGAGAAGTTCGTGATAGACACCACAGTCTTGGTCTAAATGGAGGCTATCAAGA
TGAGTTGGTAGATCATCGTTTGACAGAAAGGGAATGGGCTGATGAATGGAAACATCTTGACCATGCGCTGAATTG
CATTATGGAAATGGTAGAGAAAACAAGGCGCTCTATGGCAGTTCTGCGGCGCTGTCAGGAATCAGATCGTGAAGA
ACTCAACTACTGGAAAAGACGGTACAATGAAAACACAGAGCTGAGGAAAACGGGGACCGAGTTGGTCTCCAGGCA
GCACAGCCCTGGGAGTGCAGATTCTCTCAGCAATGATTCTCAGAGAGAGTTCAACAGCAGGCCAGGTACAGGATA
CGTACCTGTGGAGTTTTGGAAAAAAACAGAAGAAGCTGTGAATAAGGTGAAAATTCAGGCCATGTCAGAAGTACA
GAAGGCCGTCGCTGAGGCAGAGCAGAAAGCCTTTGAAGTGATTGCAACAGAGAGAGCACGAATGGAGCAAACCAT
AGCGGATGTCAAGCGGCAGGCCGCAGAGGATGCTTTCCTCGTCATCAATGAGCAAGAGGAGTCCACGGAGAACTG
CTGGAACTGTGGCCGCAAAGCCAGCGAGACATGCAGTGGCTGCAATATCGCGCGATACTGTGGCTCTTTCTGCCA
GCACAAGGACTGGGAGCGGCACCACCGCCTCTGTGGTCAGAACCTGCATGGCCAGAGCCCCCACGGCCAGGGCCG
GCCGCTGCTTCCTGTAGGCAGGGGCTCCTCTGCCAGGTCCGCCGACTGCAGCGTGCCCAGCCCAGCCCTCGACAA
GACCTCGGCAACCACATCGCGTTCCTCAACACCTGCTTCTGTGACAGCTATCGACACCAACGGACTC**TGA**GCCCC
GGACTCTGCTTACCCTGATGGCTGCTCAGCACCACAGAGTGCTTGGGCTGAGGGACTGACTGTTGGAACCCGTGC
ATGTAGCTGCCGGGTCATCAGCAAGAAATGAATTGGAGGCAGGAAGAGTCCAAGCCTGAATAATAACACCCCACA
GCCTCTCTGTGCACTTGCTGTCTGCGGAGCCAGTGTGCCATTCTCTGCACATGGGCAGCCAGCCTGAGCTGCCTC
CTCCATGGCTTTCCTGGTTTGTTCCTCTCTCCACTGAAGCTGACTTAGCCGGCCCCTTTTCAGTGTAGACCACCA
GCTCCCCTCCCCATCTCCTTGAGTCAGCAGACTGTCCAATGTGCTCAGCCAGGCTGGAGGCGGCAGGCGGCAGGC
AGCAGGCTGTGGAGGAGGCCCCTCGGTCAGGGAGCGGCCTGCCTCACCCCTGAATAGCTCCTTCGGCCCCATCTC
CATCCTCAGCAGATGACACTGATTGGCCTCACGGGGACTTGGGTAAGCAACAGGCGGCATTCAGGACTCTTCTCA
ACCCTGCTGTTCAGACTTGATAAGATCTCAGAGTCCACAGGAAAGAAGTCACTGTTGCAATAAAAGCACCCGTAG
TAGCAAAAACATAAAACAAATAAAACTTCCCCCACATCACAGATGATTTTGGACAAGATTTTCCAACCTTGCTGG
CTACTTTAGTTTGGGACCTGTTTTTTTTCTCATTTGATTTTGCTTGTGCAGAAAATAGTTTCCAGCACATGGATT
GATCTGAGAGAGAATGAGGCTCAGTTGTGGATAGTCTGTTTTCTCTGAGCATGTTGGCCAACTAGTATCGTCAAA
TTATTGAGTGGATCATCTCTTGGAAATGCAGAACTTCTGCCACCACTTGGCTATTTGCACAGTCATCTTGTTCTG
TGTCCTTTTATCTCTCAGACCACACACATCTGGAACGCTGTGGGCATCTTCTGCCCATGGGCTCCATTTGGCACC
TGCTGAGCCACAGTTGTCCTGCTGGATGTGCTGTGCAGGTTGGTAGGACTTGCCCCCACTGTCAAGGCCTGGTCT
CATCTGAAAAGCCCTCCTGGACCTCAAAGAATTCTTCAGACCTCATAGTTACAGGTCATTATATCTACTATGTTG
ATTTATCATCAGGCACACAACTTCTGTTTCCTTCTCTTGTGTTATCTGATAGCGTCCCTCCTTGAGCTCATCAGA
AAGGTTTTATGAAATGTGAACCATTTTGGGAAAAGCTGATCAATTTTTCTTCCTAGCTTCCCATTTTCAAATGGG
ACATCACTCATATCCCTTTCAGAATGTTAGGAACTGCCTCCCACATTCTTCCCTGTCTTTTTGGGTTTTGTTTTT
TGTTGTTGTGGTGGTTTTTTAACACAAACCTGGGCAACAGAGCAAAACTCTGTCTCAAAAAAAAAAAAAAAAAGG
CAAAATTAAAGAATTTCAAGTCCCTAATTTACTCTAACCAAGCATTTTCAGTCTTACAAAGAAATCTAGTGCACG

FIGURE 877B

ACACCTTTAAAATGCCTAGATTTCCATTGCCTAAAGTAAGGTGTGACCAGTGAAACAACAGCAGAGAATCATGTT
CCTTTGCTGTGGAACACATAAGCCCCACAGTTTTCCAGTCAGCCTAATACATGGGTATCCCCCGACCCCATCTGC
CTCCTTAAGCCACAGTCCTTGGTGGGGAACTCTAAGGGGGACGGAGTCAGTACCCCGGACAGGGCCACATTTGCA
TGAGACATGGCTGTCTCACAGGTCACAGAGCCATTACAACAGCTTACTAGTTTTTCATGGATTTGTTGGATTAAC
ACCTTAAGCAGGTTTTTTATTGTTATTTTGTTTGTTTGTTTGTTTTGAGACGGGAGTTTCTCTCTTGTCTCCCAG
GCTGGAGTGCAATCGCGCAATCTCGGCTCACGGTAACCTCTGCCTCCCAGGTTCAAGCGAGTCTCCTGCCTCAGC
CTTCTGAGTAGCTGGGATTACAGGCATGCGCCACCACGCCCAACTAATTTTGTATTTTTAGTAGAGACGGGGTTT
CTCCTTGTTGGTCAGGCTGGTCTCAAACCCCGGACCTCAGGTGATCCCCCCACCTTGGCCTCCCAAAGTGCCAGG
ATTACAGGCATGAGCCACTGTGTCCGGTCTTGAGCAGGTTTTTAAAATCTCCAGTGGCCATAAAACTAGCCAGGG
TAGCTCATGCTTTTACTGGTTGGAATAAGGAGCCAAAACCAACAAAATAATATTTATTAGGGCTCGATGCCCATT
TCTGTGGCTAAGGCTTAGGTTTGGTGTGCAGAGCCTGGCCTGCTCTTGTGGGCTGTGGTTGCTGTGACAGTTTCG
TTTTCTGAATCTTTGTAATGCTCTTCCACCCTGCTCGTGCTGCCCAGAGGCTGATCTGCAAACCTGGGCAGTATT
CCACACTGAAGCTCAGTTTGCAAACCTTCTGCTGTGTTAATTCTGGTCAGTTTCACACAGAAGTCACGAGGGCCT
CTGCCCAGGACCTTCTATTCACATTTCAAGAATCCCTTTCTGAAATTCTCCAACTCTCTGGTCAGGAGGAGGAGC
ACCATTGGGGCGGGGTAGGCAGCTAGAGGCGCAGGAGCGAATCCAGGTTCCTTGCGTGGTTCCCAGCCTCTGCTG
ACAGCACCTCAGCTACCAGGTGGGGAGTGGAAATTCAGCCTGCTTAGAGGACTGACCTCTACAGTTCATATTTGC
AGTGACATAAAAGGCAAAGAGGAGCTGGCATGGTGGTACAGAAGGTATCAGTCAAGCGCAGGCTCTTCAGAAACC
TAGAAACTAAAAAGAGATGCAACATGTGACTGGCCATCAGCCAGACATGTCTAGGGTGAGACCAGTGCTCAGCAC
CACCCGCCAAGGAACACTGATGAGTTGTGGGACATTATGGTCGGCCAAGTGAGGAATGATTGCAGGGACCAGAGA
AGACCAAAGATGCCAGATGTCCCCAGAGTTTCTTGAGGGCTGGGTTTCACGTCTTTGCTTGTCCTTTTTGTCCCC
ACTTGCCTGCACCGTGCCTGACTCATCCAGTGGGGAAGGTGACTCAAGAAGTTGTTTAAGCCTAGGCCTAGGCAG
TCCACTTCGGGAGGTGGGGGCACTCCACACTGGGGGGCCCTGCAGCTCCAGGGCTGGTGCTCTAGCAGATCCGCT
CAGGCACGGTTGGGTGACCGTGGGGTCACCGATTGCGTAGATTATTTCTAGGGCAGTGCTGGGTTAGAAATGTCT
GTCTGGAAACAGGACACATCTTGCCACCACAAGTCCACACCTGGCCTTGGCTGCTGCCCGCTCTCTGCAGCGTGG
ATTTCCTTTGCCCATTTGGGCCAGAAGGTCACCAGGAGTTCATCACTGCTTAGTGTCAACTTGACATCTTCAGCT
TCCAGACAGAAAACCCATGCTTTACTTTGTACAGCCCTGTCCCAGAGTTAGTAAGCCTCGGCTTGTCACCTGCTT
GCAAAGGGTATAGACATCATTCTGGGTAGTTCTAGAGGATATCGCAACAAGTGCGTTTGAAGGTTCAGCACAGCT
GGAATTGTACGGTAGTGAGCTCTTCAAAATGAAAACAGAATGACCGGATGGCCATCTGTCCTGGAAACTGTAGAA
TTGAATAAATCACTGAAAATAGAACACTTCTTGGAGGCTTTCTTCAGAACTGAACTAGAAACAAGGTTTCCAGGC
TCCCAGGTCAGTAGACCAAACCAACTTCCTTAGATTTTTTTTTTTAAGCTGTTTGCAGAAAACTGGGTGGTAGCG
TGTCTGAACCAAACGGAAGAATAGCCAGCGGAGCATGGACTGTTCCAGCACGGGCCAGATGGCCAGCTGTCGAGA
GCAGCCCTGCCCAGATTGCGGTGGGGGCTGTGCCAGCGGCTCCGCAGGGCCCTTCCAACTCTGGAGTGTCTGTAG
TTCTTGTGAAACCAAAACGTTGACTACCTGCCTCTTTCCTCGGGCATCGACGTGCTCATTTCCAAAGATGATGGT
GCAGGTGACCTTTTCCATCGTGAGCTAAGAGAAGGTTAGGAGGCCTGAGGGGCGGGCCTTGTGTCCCCTCCTCCC
CCTCCACAGCCCCTGAGGTGGAGCTTCCCTCACAGACCCCATCTGGTCGAGCCTACGGCTGCCCAGTGTACACTC
AGTGATGCTTATACCAAATAGGGCATGTGCGCTGGTGTCTGTTGGGGACAGCCCCATCCCTACCTTGGAGTCGGC
AGAGAAGCAGCAATAAGCATTAGGCGAATGATTGAAAGGGCTGCTGCGCCAAGAGGCCTTCAGTCCCCTTAACGT
GGCTTTCCAACTTCCTGACGAGGCTACAAAGGCTCCGCTCACAAAAGAAAGCCAATAATGTAAATAAATAGAAAA
CGAAGCCTCCACGCGTGGTTTTTAAAGGGGGATGATGAATGTGACACCACCCACAGAATGCATTAGAATCTGGTT
TTTCTGTGCTTTGTCATTTTACTCTGATAGGAATTTTTGTTACCTAACTCTGTGCATAACTTATTTAATGTACTG
TATAAATGAACCAAAACTGTTAAATATGTATTTAGTTTGTTCTACTTAAAGTAGTCAATAAAAAGGCTATATTCC
T

FIGURE 878

GGCGCCGGCGCCAAGGGGCGGCCTCTAGCCACACCGAGTCCGCCGCGGCGTCCAGGGTCGGCAGCAACCGCAGCC
GAGCCCGAGCGGGTGGCGGCGCC**ATG**GCGTGCGCGGGGCTGCTCACCGTGTGCCTGCTCCGGCCGCCCGCGCCCC
AGCCCCAGCCCCAGACCCCGCGGCACCCCCAGCTCGCGCCCGACCCGGGGCCCGCCGGACACACGCTCTTCCAGG
ACGTTTTCCGCAGAGCAGACAAGAATGATGATGGGAAGCTCTCATTTGAGGAATTCCAGAATTACTTTGCCGATG
GGGTTCTCAGCCTGGGGGAGCTGCAGGAACTGTTCAGCGGCATTGATGGGCATCTCACCGACAATTTAGAAACAG
AAAAACTGTGTGACTACTTCTCAGAGCACCTGGGTGTCTACCGGCCGGTGCTGGCTGCATTGGAATCGCTGAACC
GTGCAGTGCTCGCTGCCATGGATGCCACCAAGCTGGAGTACGAGAGGGCCTCCAAAGTGGACCAGTTTGTGACGC
GCTTCCTGCTGCGGGAGACGGTGAGCCAGCTGCAAGCCCTTCAGAGCTCGCTGGAGGGGGCGTCAGATACCCTGG
AGGCCCAGGCCCATGGCTGGCGGTCAGATGCAGAGAGCGTGGAGGCGCAGAGCAGGCTCTGCGGCAGCCGGCGGG
CAGGACGCCGAGCCCTGAGGAGTGTCAGCCGGTCATCCACCTGGTCCCCCGGCTCTTCTGACACAGGGCGCAGCT
CAGAGGCCGAGATGCAGTGGCGGCTCCAGGTGAACCGCCTCCAGGAGCTCATCGACCAGCTCGAGTGCAAGGCCC
CCCGGCTGGAACCCCTGCGTGAAGAGGACCTGGCCAAGGGGCCTGACTTGCACATCCTCATGGCCCAGAGGCAGG
TCCAGGTGGCAGAGGAAGGCCTGCAGGACTTCCACCGAGCCCTGCGCTGCTATGTGGACTTCACAGGGGCCCAGA
GCCATTGTCTGCAG**TGA**GTCCGCCCAGAAGATGCTGGACGGTGCCTCCTTCACCCTGTATGAGTTCTGGCAGGAT
GAGGCCTCCTGGAGAAGGCACCAGCAGTCGCCTGGCAGCAAGGCCTTCCAGCGCATCCTCATCGACCACCTGCGG
GCCCCGGACACCCTCACCACTGTGTTCTTCCCAGCCTCCTGGTGGATAATGAATAACAACTGAGCCAGACCTGCA
CACGCCGAGGGCCCCGGGACCCTGCCTGCCTCCCTCTGGAGCCTTCTGGACTGGCCAGCCCAGCGCAAAGACCAG
GACTTGTCTCCTCCTGGACTTGGGCCTGGTGGAAGGGCTCTCAGCCCAGGGATCAGGGACTGGGCTGCTTGCTTT
CTATTTATTATTGATTTATTTATCCCTGTATTTTATTGTTTGTCACTTCAGCCTCCAAGCTACTTTGGCTTCTGC
CTGGCTCAGGAGACCTGGATTCTGGTCCCTGCTGTCCCTGCCTGGCTGAGCGACCCAGGGCAGGTCCCGTCCCTG
TCTGGGTGGGCCTCAGGCCATCTGGCCGCCTAGCGAGGGTCCTGCTTTCTTCCTGCTGTCTTGGGACCAGGCTTC
TGCTCCTCCTCAGCCAGCGGCAGAAGCAGGGCTGATGCTCAGGGACCCCCCAACCCTCAAACCTTGCCTCCGAGG
CTGGGCCTGAGCTGGGTGCCCCGTCGCCCTCCCAGGCCACTAGGCTCTGACTCTTCCAGCACCCATGGATGTGCC
AGAGGCCTCTGGGTTGGTTTGCATGTCATTTGCATATCGTTTGCATGCCCTCATCCCACCCATTCTCAGGGCAGT
ATGGGAAGCCCCAAGGTGACCTGGCCAAGTAGCAATAATTTGGGTCCAGGGTCACCTATTGCCCCCAGAGGCCTC
TGAACCCCAGGCTGGGACCCCAGCACAGAGGCAATAAAGGCAGTGGTCCCTTCC

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FIGURE 879

GA**ATG**GACAATCAGACCGTTCTGGCTGTCCAGTCATTATTGGATGGCCAAGGAGCAGTCCCTGATCCGACAGGCC
AGAGTGTCAATGCGCCCCCTGCTATCCAGCCATTGGATGACGAGGATGTATTTCTCTGCGGGAAGTGTAAGAAGC
AATTCAACTCGCTGCCAGCGTTTATGACCCACAAGCGGGAACAGTGCCAGGGGAATGCCCCCGCCCTGGCCACAG
TCTCACTGGCCACCAACAGCATCTACCCACCTTCGGCAGCACCCACAGCGGTCCAGCAGGCCCCAACTCCTGCCA
ATCGCCAGATCTCCACATACATCACAGTGCCCCCGTCCCCACTGATCCAGACCCTGGTGCAGGGGAACATCTTGG
TGAGCGATGATGTGCTCATGTCTGCCATGTCAGCCTTCACATCCCTGGACCAGCCCATGCCCCAGGGCCCCCCAC
CTGTGCAGGTGCCAAACCAGTGTGTGGAGCCTCCAGTATATCCCACCCCCACAGTGTACAGCCCTGGCAAACAGG
GATTCAAACCCAAAGGACCAAACCCCGCCGCCCCCATGACCAGCGCCACCGGGGGCACGGTGGCCACCTTTGACT
CTCCAGCAACGCTGAAGACCCGACGAGCTAAAGGTGCCAGGGGACTCCCGGAAGCTGCAGGGAAGCCAAAGGCTC
AGAAACTCAAGTGCTCATACTGTGACAAGTCATTCACCAAAAACTTTGACCTGCAGCAGCACATCCGAAGGTACA
CATGCGTGGAGGGCACTGACAAGCTTGTCTTCCACAGCCACACCGGTGAGAAGCCCTTCCAGTGCATTGCATGTG
GCCGTGCCTTTGCCCAGAAGTCTAATGTTAAGAAACACATGCAGACCCACAAGGTGTGGCCTCCAGGACACAGTG
GTGGCACCGTGTCTCGAAACTCTGTGACCGTACAGGTCATGGCCCTGAACCCCAGCAGGCAGGAGGACGAGGAAA
GCACAGGGTTGGGCCAGCCCCTGCCGGGTGCGCCACAGCCCCAGGCCTTGTCCACAGCTGGTGAGGAAGAGGGGG
ACAAGCCGGAGTCCAAGCAGGTGGTCCTCATCGACAGCTCCTACCTGTGCCAATTCTGCCCCAGCAAATTCAGCA
CCTACTTCCAGCTCAAGTCTCACATGACCCAGCATAAGAATGAGCAGGTGTACAAGTGTGTGGTCAAAAGCTGTG
CCCAGACGTTCCCAAAGCTCGACACATTTCTGGAGCACATCAAGAGCCACCAGGAGGAGCTGAGCTACCGCTGCC
ACCTCTGCGGCAAGGACTTCCCCTCGCTGTACGACCTGGGCGTGCACCAGTACTCCCACAGCCTCCTGCCACAGC
ACAGCCCCAAGAAGGACAATGCCGTCTACAAGTGTGTCAAATGTGTCAACAAATACTCCACCCCTGAGGCCCTGG
AGCACCACCTGCAGACCGCCACTCACAACTTCCCCTGCCCACACTGCCAGAAGGTGTTTCCTTGTGAACGCTACC
TGCGGCGTCATCTGCCCACCCACGGCAGCGGGGGCAGGTTCAAGTGCCAAGTGTGCAAGAAGTTCTTCCGGCGGG
AGCATTATCTCAAACTGCATGCTCACATCCACTCGGGTGAGAAGCCCTACAAATGCTCAGTGTGCGAGTCTGCGT
TCAACCGCAAGGACAAACTGAAGAGACACATGTTGATCCACGAGCCCTTCAAGAAATACAAATGCCCTTTCTCGA
CGCACACAGGCTGCAGTAAGGAGTTCAACCGGCCGGACAAGCTGAAGGCCCACATCCTCTCCCACTCTGGCATGA
AGCTCCACAAATGCGCCCTGTGCAGCAAGTCCTTCAGCCGCCGTGCCCACCTCGCCGAGCATCAGCGCGCCCACA
CGGGCAACTACAAGTTCCGCTGTGCTGGCTGCGCCAAGGGCTTTTCCCGCCACAAATACCTCAAAGATCACCGCT
GTCGTCTCGGCCCCCAAAAGGACAAGGACCTGCAAACCCGGCGGCCCCCCCAGAGGAGGGCAGCCCCCCGCAGTT
GCGGCAGTGGTGGGCGCAAGGTGCTGACCCCCTTGCCTGACCCGCTGGGGCTGGAGGAGCTGAAGGACACAGGGG
CTGGGCTGGTGCCCGAGGCTGTCCCCGGCAAGCCGCCCTTCGCAGAGCCGGACGCGGTGCTGTCCATCGTTGTGG
GTGGTGCGGTGGGCGCGGAAACTGAGCTGGTGGTACCTGGACACGCTGAGGGGCTGGGCTCCAACCTGGCTCTGG
CGGAGCTGCAGGCTGGGGCCGAGGGCCCATGTGCCATGCTCGCTGTGCCCGTCTACATCCAGGCCTCCGAG**TGA**

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FIGURE 880

CAGCTGCGGGGCGGAGGCGGAGGCGGAGGAGAGGCCTGCGGCGGCAGGGAGCGGCGGGACTGGGAGCGGGCGCCG
GAGCCGACCCGAGCCGAGCCGAGCCGAGCCGAGCCGGAGCGGGCGGCGAAGGCCGGCGCGGCGAGCAGCAACC**AT**
GTCGGTGTTCGGGAAGCTGTTCGGGGCTGGAGGGGGTAAGGCCGGCAAGGGCGGCCCGACCCCCCAGGAGGCCAT
CCAGCGGCTGCGGGACACGGAAGAGATGTTAAGCAAGAAACAGGAGTTCCTGGAGAAGAAAATCGAGCAGGAGCT
GACGGCCGCCAAGAAGCACGGCACCAAAAACAAGCGCGCGGCCCTCCAGGCACTGAAGCGTAAGAAGAGGTATGA
GAAGCAGCTGGCGCAGATCGACGGCACATTATCAACCATCGAGTTCCAGCGGGAGGCCCTGGAGAATGCCAACAC
CAACACCGAGGTGCTCAAGAACATGGGCTATGCCGCCAAGGCCATGAAGGCGGCCCATGACAACATGGACATCGA
TAAAGTTGATGAGTTAATGCAGGACATTGCTGACCAGCAAGAACTTGCAGAGGAGATTTCAACAGCAATTTCGAA
ACCTGTAGGGTTTGGAGAAGAGTTTGACGAGGATGAGCTCATGGCGGAATTAGAAGAACTAGAACAGGAGGAACT
AGACAAGAATTTGCTGGAAATCAGTGGACCCGAAACAGTCCCTCTACCAAATGTTCCCTCTATAGCCCTACCATC
AAAACCCGCCAAGAAGAAAGAAGAGGAGGACGACGACATGAAGGAATTGGAGAACTGGGCTGGATCCATG**TAA**TG
GGGTCCAGCGCTGGCTGGGCCCAGACAGACTGTGGTGGCCTGCGCAGCGAGCAGGCGTGTGCGTGTGTGGGGCAG
GCAGGATGTGGTGCAGGCAGGTTCCATCGCTTTCGACTCTCACTCCAAAGCAGTAGGGCCGCGTTGCTGCTCACT
CTCTGCATAGCATGGTCTGCACCTGGGAGATGGGCGGGGGGAGGGGGGCGGGCGGGGTGGGAAGTGCCTGCTGTT
TATAATGTTGAATTTCTGTAAAATAAACTGTATTTGCAAATCCAACATTGAGCTTCTGGACTACGCTGACTCCAC
TGCTGAATCCTCAATGGAAAGGGTCGACTGGTTGCAGTTGAAATGACCTGAAATGTAGCCTCTGTCCTTGTAAGT
CAGTTGACTTGCCGCACATCTCTTTGTGTACTTGTACGGTACTGGCAGAAAAGTCATTTTTCAAAAGCCATAGGC
TTTTCCTTGCCCTTAGCTGTAATAATGCATCTGATTTTGATTTCCTCCAGAGCTGTGTTTCTGTCCATCACCTGT
GTATTGGCCCTGTGTTTACCACTCTGGCCCACTCCTCACCCCCTTGCTCCCCTGGTCTTCTGGAGTTTGTGACAT
TGATTTGAAATGGATGGTGTTCTCTTGAGAGCAAGTGAGATTGTTAGAATTAAGTTCCAACTATACAGTTTTCTA
ACATAGCTATAAGGTCCTTGTTGCTGTTTGTGATAACTGATAGATAACTCATTGGAAACGTGCATACATTTATAT
TCAGATGAAATTATGGTTTGCACTGTCTATTAAATATCTCGATTAATTTTC

FIGURE 881

CGCGCGAGCGGCGCCAGCTCGGGGCAGCGGAACCCAGAGAAGCTGAGGGGGCGGTAGCGGCGGCGACGGCGACGA
CGACGACTCCCGCGCGTGTGCCCAGCCTCTTCCCGCCGCAGCCGCCCTTTTCCTCCCTCCCTTACGTCCCCGAGT
GCGGCAGTACCGCCTCCTTCCCAGCCGCGCGGCTTCCTCCAGACCTCTCGGCGCGGGTGAGCCCTATTCCCAGAG
GCAGGTGGTGCTGACCCTGTAACCCAAAGGAGGAAACAGCTGGCTAAGCTCATCATTGTTACTGGTGGGCACC**AT**
GTCCTTGAAGCTTCAGGCAAGCAATGTAACCAACAAGAATGACCCCAAGTCCATCAACTCTCGAGTCTTCATTGG
AAACCTCAACACAGCTCTGGTGAAGAAATCAGATGTGGAGACCATCTTCTCTAAGTATGGCCGTGTGGCCGGCTG
TTCTGTGCACAAGGGCTATGCCTTTGTTCAGTACTCCAATGAGCGCCATGCCCGGGCAGCTGTGCTGGGAGAGAA
TGGGCGGGTGCTGGCCGGGCAGACCCTGGACATCAACATGGCTGGAGAGCCTAAGCCTGACAGACCCAAGGGGCT
AAAGAGAGCAGCATCTGCCATATACAGTGGCTACATCTTTGACTATGATTACTACCGGGACGACTTCTACGACAG
GCTCTTCGACTACCGGGGCCGTCTGTCGCCCGTGCCAGTGCCCAGGGCGGTCCCTGTGAAGCGACCCCGGGTCAC
AGTCCCTTTGGTCCGGCGTGTCAAAACTAACGTACCTGTCAAGCTCTTTGCCCGCTCCACAGCTGTCACCACCAG
CTCAGCCAAGATCAAGTTAAAGAGCAGTGAGCTGCAGGCCATCAAGACGGAGCTGACACAGATCAAGTCCAATAT
CGATGCCCTGCTGAGCCGCTTGGAGCAGATCGCTGCGGAGCAAAAGGCCAATCCAGATGGCAAGAAGAAGGGTGA
TGGAGGTGGCGCCGGCGGCGGCGGCGGTGGTGGTGGCAGCGGTGGCGGTGGCAGTGGTGGTGGCGGTGGCGGTGG
CAGCAGCCGGCCACCAGCCCCCCAAGAGAACACAACTTCTGAGGCAGGCCTGCCCCAGGGGGAAGCACGGACCCG
AGACGACGGCGATGAGGAAGGGCTCCTGACACACAGCGAGGAAGAGCTGGAACACAGCCAGGACACAGACGCGGA
TGATGGGGCCTTGCAG**TAA**GCAGCCTGACAGGAGCAATGGCCACCAGCAGGTGAAGGGCATCGCTGCCCCAGGCC
TCAAGCCGGGCACCCAACCCTGGATGCCACCCCCCAGCGGGTACCAGAGGAAAGCTGGCAGCAGGCGCCTCCTCC
CCCAACGCATCCCAGCCAGTGCCATGTCCTCTGCAGGTGGAGTTACTGGCCTACTCCTTCCCCATGAGCCCTCCC
TGTCTGCACTGCCCAGGCCAGAGGGTAGAGCACAGGGGTTTCCCCATACTACCTCCCCTCCCCAGGACACTCCCA
GGCTTGGGTTTTTTCTATAGGTTTGGCGGGGGGCCACAGGGAGGGGACCCTGACAATAAAGAGATTGGATCCC

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FIGURE 882

GGTGGTGGGAGAGGTATCGGCAGGGGCAGCGCTGCCGCCGGGGCCTGGGGCTGACCCGTCTGACTTCCCGTCCGT
GCCGAGCCCACTCGAGCCGCAGCC**ATG**TCTGGGGACGAGATGATTTTTGATCCTACTATGAGCAAGAAGAAAAAG
AAGAAGAAGAAGCCTTTTATGTTAGATGAGGAAGGGGATACCCAAACAGAGGAAACCCAGCCTTCAGAAACAAAA
GAAGTGGAGCCAGAGCCAACTGAGGACAAGGATTTGGAAGCTGATGAAGAGGACACTAGGAAAAAAGATGCTTCT
GATGATCTAGATGACTTGAACTTCTTTAATCAAAAGAAAAAGAAGAAAAAAACTAAAAAGATATTTGATATTGAT
GAAGCTGAAGAAGGTGTAAAGGATCTTAAGATTGAAAGTGATGTTCAAGAACCAACTGAACCAGAGGATGACCTT
GACATTATGCTTGGCAATAAAAAGAAGAAAAAGAAGAATGTTAAGTTCCCAGATGAGGATGAAATACTAGAGAAA
GATGAAGCTCTAGAAGATGAAGACAACAAAAAAGATGATGGTATCTCATTCAGTAATCAGACAGGCCCTGCTTGG
GCAGGCTCAGAAAGAGACTACACATACGAGGAGCTGCTGAATCGAGTGTTCAACATCATGAGGGAAAAGAATCCA
GATATGGTTGCTGGGGAGAAAAGGAAATTTGTCATGAAACCTCCACAAGTCGTCCGAGTAGGAACCAAGAAAACT
TCTTTTGTCAACTTTACAGATATCTGTAAACTATTACATCGTCAGCCCAAACATCTCCTTGCATTTTTGTTGGCT
GAATTGGGTACAAGTGGTTCTATAGATGGTAATAACCAACTTGTAATCAAAGGAAGATTCCAACAGAAACAGATA
GAAAATGTCTTGAGAAGATATATCAAGGAATATGTCACTTGTCACACATGCCGATCACCGGACACAATCCTGCAG
AAGGACACACGACTCTATTTCCTACAGTGCGAAACTTGTCATTCTAGATGTTCTGTTGCCAGTATCAAAACCGGC
TTCCAGGCTGTCACGGGCAAGCGAGCACAGCTCCGTGCCAAAGCTAAC**TAA**TTTGCTAATCACTGATTTTGCAAA
GCTTGTTGTGGAGATGTGGCTGGACAGGTTTGCCATCAGAGTGGATATACCGTTGTATTAAAAACAAGATAAAAA
AGCTGCCAAGATTTTTGGCGAGTGGTTGGTCTGAAGTCCTTGCAAGACGCTGATGCTCAAGCTGTTGACATACTC
ATTGCCTACTTTAACACCTGTCAGAGAAACGTGATATGGGGTAAGGAGGTGCTTTTTTAAAATCGTTCATAGACT
TCTGTAAAATGCAAGATAAATTAAAGTTATTATAACAGTGATTCTTTCA

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FIGURE 883

AGATGTTTATAAATTCTTCTGTGGGATCAGAGGGCAAGCCTATTATAACCAGAAAACTCCAAGTATAGCAGCAAG
GATGGATAAACAGGCTCTATTAGGGCTAAATCCAAATGCTGATTCAGACTTTAGACTAAGGGCCCTGGCCTATTT
TGAGCAGTTAAAGATTTCCCCAGATGCCTGGCAGGTGTGTGCAGAAGCTCTAGCCCAGAGGACATATAGTGATGA
TCATGTAAAGTTTTTCTGCTTTCAAGTACTGGAACATCAAGTTAAATACAAATATTCAGAACTAACCACTGTTCA
ACAACAACTAATTAGGGAGACGCTCATATCATGGCTGCAAGCTCAGATGCTGAATCCCCAACCAGAGAAGACCTT
TATACCAAATAAAGCCGCCCAAGTCCTCGCCTTGCTTTTTGTTGCAGAATATCTCACTAAGTGGCCCAAGTTTTT
TTTTTGACATTCTCTCAGTAGTGGACCTAAATCCAAGGGGAGTAGATCTGTACCTGCGAATCCTC**ATG**GCTATCA
ACTCAGAGTTGGTGGATCGTGATGTGGTGCATACATCAGAGGAGGCTCACAGGAATACTCTCATAAAAGATACCA
TGAGGGAACAGTGCATTCCAAATCTGGTGGAATCATGGTACCAAATATCACAAAATTATCAGTATACTAATTCTG
AAGTGATGTGTCAGTGCCTTGAAGTAGTTGGGGCTTATGTCTCTTGGATTGACTTATCCCTTTTAGCCAATGATA
GGTTTATAAATATGCTGCTAGGTCATATGTCAATAGAAGTTCTACGGGAAGAAGCATGTGACTGTTTATTTGAAG
TTGTAAATAAAGGAATGGACCCTGTTGATAAAATGAAACTAGTAGAATCTTTGTGTCAAGTATTACAGTCTGCTG
GCTTTTTCAGCATTGACCAGGAAGAAGATGTTGACTTCTTTTCAGCATTGACCAGGAAGAAGATGTTGGCCAGAT
TTTCTAAGCCGGTAAACGGAATGGGACAGTCATGGATAGTTAGTTGGAGTAAATTAACTAAGAATGGGAATATTA
AGAATGCTCAAGAGGCACTACAAGCTATTGAAACAAAAGTGGCACTGATGTTGCAGCTACTAATTCATGAGGATG
ATGATATTTCTTCTAATATTGGATTTTGTTATGATTATCTTCATATTTTGAAACAGCTTACAGTGCTCTCGGATC
AGCAAAAAGCTAATGTGGAGGCAATCATGTTGGCCGTTATGAAAAAATTGACTTATGATGAAGAATATAACTTTG
AAAATGAGGGTCAAGATAAAGCCATGTTTGTAGAATATAGAAAACAACTGAAGTTAGTGTTGGACAGGCTTGCTC
AAGTTTCACGAGAGTTACTACTGGCCTCTGTTCGCAGAGTTTTTAGTTCTACACTGCAGAATTGGCAGACTACAC
GGTTCATGGAAGTTGAAGTAGCAATAAGATTGCTGTATATGTTGGCAGAAGCTCTTCCAGTATCTATCTCATGGT
GCTCACTTCTCAGG**TGA**TGTTTCAAAAGCTAGTGCTTTGCAGGGTATGATGCGAACTCTGGTAACATCAGGAGTC
AGTTCCTATCAGCATACATCTGTGACGTTGGAGTTCTTCGAAACTGTTGTTAGATATGAAAAGTTTTTCACAGTT
GAACCTCAGCACGTTCCATGTGTACTAATGGCTTTCTTAGATCACAGAGGTCTGCGTCATTCCAGTGCAAAAGTT
CAGAGCAAGATGGCTTACCTGTTTTCTAGATTTGTCAAATCTCTCAATAAGCAAATGAATCCTTTCATTGAGGAT
ATTTTGAATAGAATACAAGATTTATTAAAGCTTTCTCCACCTGAGAATGGCCACCAGTCCTTCCTGAGCAGCGAT
GATCAAATTTTATTTATGAGACAGTTGGAGTGATGATTGTTAATAATGAATACCCGGCAGAAAGGAAAGAAGCCT
TAATGAGGAATCTGTTGACTCCACTAATGGAGAAGTTTAAAATTCTGTTAGAAAATTTGATGCTGGCACAAGATG
AAGAAAGGCAAGCCTCTCTAGCAGACTGTCTCAACCATGCTGTTGGATTTGCAAGTCGAACTAGTAAAGCTTTCA
GCAACAAGCAGACTGTGAAACAGTGTGGCTGTTCCGAAGTTTATCTGGACTGTTTACAGACATTCTTGCTGGCCC
TCAGTTGTCCCTTACAAAAGGGTATTCTCAGAAGTGGAGTCTGTACTTTCCTTCATCGAATGATTATTTGCCTGG
AGGAAGAAGTTTTTCCGTTCATCCCATCTGCTTCAGAACATATACTCAAAGATTGTGAAGCAAAAGACCTCCAGG
AGTTCATTCCTCTTATCAACCAGATTACGGCCAAATTCAAGGTACAAGTATCCCCGTTTTTACAACAGATGTTCA
TGCCCCTGCTTCATGCAATTTTTGAAGTGCTACTCTGGCCCGCAGAAGAAAATGACCAGTCTGCTGCTTTAGAGA

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FIGURE 884

CTGAGGCCCAGCCCCCTTCGCCCGTTTCCATCACGAGTGCCGCCAGC**ATG**TCTGACAAACTGCCCTACAAAGTCG
CCGACATCGGCCTGGCTGCCTGGGGACGCAAGGCCCTGGACATTGCTGAGAACGAGATGCCGGGCCTGATGCGTA
TGCGGGAGCGGTACTCGGCCTCCAAGCCACTGAAGGGCGCCCGCATCGCTGGCTGCCTGCACATGACCGTGGAGA
CGGCCGTCCTCATTGAGACCCTCGTCACCCTGGGTGCTGAGGTGCAGTGGTCCAGCTGCAACATCTTCTCCACCC
AGGACCATGCGGCGGCTGCCATTGCCAAGGCTGGCATTCCGGTGTATGCCTGGAAGGGCGAAACGGACGAGGAGT
ACCTGTGGTGCATTGAGCAGACCCTGTACTTCAAGGACGGGCCCCTCAACATGATTCTGGACGACGGGGGCGACC
TCACCAACCTCATCCACACCAAGTACCCGCAGCTTCTGCCAGGCATCCGAGGCATCTCTGAGGAGACCACGACTG
GGGTCCACAACCTCTACAAGATGATGGCCAATGGGATCCTCAAGGTGCCTGCCATCAATGTCAATGACTCCGTCA
CCAAGAGCAAGTTTGACAACCTCTATGGCTGCCGGGAGTCCCTCATAGATGGCATCAAGCGGGCCACAGATGTGA
TGATTGCCGGCAAGGTAGCGGTGGTAGCAGGCTATGGTGATGTGGGCAAGGGCTGTGCCCAGGCCCTGCGGGGTT
TCGGAGCCCGCGTCATCATCACCGAGATTGACCCCATCAACGCACTGCAGGCTGCCATGGAGGGCTATGAGGTGA
CCACCATGGATGAGGCCTGTCAGGAGGGCAACATCTTTGTCACCACCACAGGCTGTATTGACATCATCCTTGGCC
GG**TAG**GTGCCAGATGGGGGGTCCCGGGGAGTGAGGGAGGAGGGCAGAGTTGGGACAGCTTTCTGTCCCTGACAAT
CTCCCACGGTCTTGGGCTGCCTGACAGGCACTTTGAGCAGATGAAGGATGATGCCATTGTGTGTAACATTGGACA
CTTTGACGTGGAGATCGATGTCAAGTGGCTCAACGAGAACGCCGTGGAGAAGGTGAACATCAAGCCGCAGGTGGA
CCGGTATCGGTTGAAGAATGGGCGCCGCATCATCCTGCTGGCCGAGGGTCGGCTGGTCAACCTGGGTTGTGCCAT
GGGCCACCCCAGCTTCGTGATGAGTAACTCCTTCACCAACCAGGTGATGGCGCAGATCGAGCTGTGGACCCATCC
AGACAAGTACCCCGTTGGGGTTCATTTCCTGCCCAAGAAGCTGGATGAGGCAGTGGCTGAAGCCCACCTGGGCAA
GCTGAATGTGAAGTTGACCAAGCTAACTGAGAAGCAAGCCCAGTACCTGGGCATGTCCTGTGATGGCCCCTTCAA
GCCGGATCACTACCGCTACTGAGAGCCAGGTCTGCGTTTCACCCTCCAGCTGCTGTCCTTGCCCAGGCCCCACCT
CTCCTCCCTAAGAGCTAATGGCACCAACTTTGTGATTGGTTTGTCAGTGTCCCCCATCGACTCTCTGGGGCTGAT
CACTTAGTTTTTGGCCTCTGCTGCAGCCGTCATACTGTTCCAAATGTGGCAGCGGGAACAGAGTACCCTCTTCAA
GCCCCGGTCATGATGGAGGTCCCAGCCACAGGGAACCATGAGCTCAGTGGTCTTGGAACAGCTCACTAAGTCAGT
CCTTCCTTAGCCTGGAAGTCAGTAGTGGAGTCACAAAGCCCATGTGTTTTGCCATCTAGGCCTTCACCTGGTCTG
TGGACTTATACCTGTGTGCTTGGTTTACAGGTCCAGTGGTTCTTCAGCCCATGACAGATGAGAAGGGGCTATATT
GAAGGGCAAAGAGGAACTGTTGTTTGAATTTTCCTGAGAGCCTGGCTTAGTGCTGGGCCTTCTCTTAAACCTCAT
TACAATGAGGTTAGTACTTTTAGTCCCTGTTTTACAGGGGTTAGAATAGACTGTTAAGGGGCAACTGAGAAAGAA
CAGAGAAGTGACAGCTAGGGGTTGAGAGGGGCCAGAAAAACATGAATGCAGGCAGATTTCGTGAAATCTGCCACC
ACTTTATAACCAGATGGTTCCTTTCACAACCCTGGGTCAAAAAGAGAATAATTTGGCCTATAATGTTAAAAGAAA
GCAGGAAGGTGGGTAAATAAAAATCTTGGTGCCTGG

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FIGURE 885

AGTAGCTGTGGTCGGGGCTCGGGACCGGCTGCCATCTTAGTCTAGGGACTGAGGAGTCGCCGCCGCCCCGAGTCC
CGGTACCATGCATTTCACGGTGGCCTTGTGGAGACAACGCCTTAACCCAAGGAAGTGACTCAAACTGTGAGAACT
TCAGGTTTTCCAACCTATTGGTGGT**ATG**TCTGACAGTGGATCACAACTTGGTTCAATGGGTAGCCTCACCATGAA
ATCACAGCTTCAGATCACTGTCATCTCAGCAAAACTTAAGGAAAATAAGAAGAATTGGTTTGGACCAAGTCCTTA
CGTAGAGGTCACAGTAGATGGACAGTCAAAGAAGACAGAAAAATGCAACAACACAAACAGTCCCAAGTGGAAGCA
ACCCCTTACAGTTATCGTTACCCCTGTGAGTAAATTACATTTTCGTGTGTGGAGTCACCAGACACTGAAATCTGA
TGTTTTGTTGGGAACTGCTGCATTAGATATTTATGAAACATTAAAGTCAAACAATATGAAACTTGAAGAAGTAGT
TGTGACTTTGCAGCTTGGAGGTGACAAAGAGCCAACAGAGACAATAGGAGACTTGTCAATTTGTCTTGATGGGCT
ACAGTTAGAGTCTGAAGTTGTTACCAATGGTGAAACTACATGTTCAGAAAGTGCTTCTCAGAATGATGATGGCTC
CAGATCCAAGGATGAAACAAGAGTGAGCACAAATGGATCAGATGACCCTGAAGATGCAGGAGCTGGTGAAAATAG
GAGAGTCAGTGGGAATAATTCTCCATCACTCTCAAATGGTGGTTTTAAACCTTCTAGACCTCCAAGACCTTCACG
ACCACCACCACCCACCCCACGTAGACCAGCATCTGTCAATGGTTCACCATCTGCCACTTCTGAAAGTGATGGGTC
TAGTACAGGCTCTCTGCCGCCGACAAATACAAATACAAATACATCTGAAGGAGCAACATCTGGATTAATAATTCC
TCTTACTATATCTGGAGGCTCAGGCCCTAGGCCATTAAATCCTGTAACTCAAGCTCCCTTGCCACCTGGTTGGGA
GCAGAGAGTGGACCAGCACGGGCGAGTTTACTATGTAGATCATGTTGAGAAAAGAACAACATGGGATAGACCAGA
ACCTCTACCTCCTGGCTGGGAACGGCGGGTTGACAACATGGGACGTATTTATTATGTTGACCATTTCACAAGAAC
AACAACGTGGCAGAGGCCAACACTGGAATCCGTCCGGAACTATGAACAATGGCAGCTACAGCGTAGTCAGCTTCA
AGGAGCAATGCAGCAGTTTAACCAGAGATTCATTTATGGGAATCAAGATTTATTTGCTACATCACAAAGTAAAGA
ATTTGATCCTCTTGGTCCATTGCCACCTGGATGGGAGAAGAGAACAGACAGCAATGGCAGAGTATATTTCGTCAA
CCACAACACACGAATTACACAATGGGAAGACCCCAGAAGTCAAGGTCAATTAAATGAAAAGCCCTTACCTGAAGG
TTGGGAAATGAGATTCACAGTGGATGGAATTCCATATTTTGTGGACCACAATAGAAGAACTACCACCTATATAGA
TCCCCGCACAGGAAAATCTGCCCTAGACAATGGACCTCAGATAGCCTATGTTCGGGACTTCAAAGCAAAGGTTCA
GTATTTCCGGTTCTGGTGTCAGCAACTGGCCATGCCACAGCACATAAAGATTACAGTGACAAGAAAAACATTGTT
TGAGGATTCCTTTCAACAGATAATGAGCTTCAGTCCCCAAGATCTGCGAAGACGTTTGTGGGTGATTTTTCCAGG
AGAAGAAGGTTTAGATTATGGAGGTGTAGCAAGG**TAG**TGATAATATGAATACTCAGAACTTAGTTCCTTTCCTCC
AAAGAGAATGGTTCTTTCTTTTGTCACATGAAGTGTTGAACCCAATGTATTGCCTGTTTGAATATGCAGGGAAGG
ATAACTACTGCTTGCAGATAAACCCCGCTTCTTACATCAATCCAGATCACCTGAAATATTTTCGTTTTATTGGCA
GATTTATTGCCATGGCTCTGTTCCATGGGAAATTCATAGACACGGGTTTTTCTTTACCATTCTATAAGCGTATCT
TGAACAAACCAGTTGGACTCAAGGATTTAGAATCTATTGATCCAGAATTTTACAATTCTCTCATCTGGGTTAAGG
AAAACAATATTGAGGAATGTGATTTGGAAATGTACTTCTCCGTTGACAAAGAAATTCTAGGTGAAATTAAGAGTC
ATGATCTGAAACCTAATGGTGGCAATATTCTTGTAACAGAAGAAAATAAAGAGGAATACATCAGAATGGTAGCTG
AGTGGAGGTTGTCTCGAGGTGTTGAAGAACAGACACAAGCTTTCTTTGAAGGCTTTAATGAAATTCTTCCCCAGC
AATATTTGCAATACTTTGATGCAAAGGAATTAGAGGTCCTTTTATGTGGAATGCAAGAGATTGATTTGAATGACT
GGCAAAGACATGCCATCTACCGTCATTATGCAAGGACCAGCAAACAAATCATGTGGTTTTGGCAGTTTGTTAAAG
AAATTGATAATGAGAAGAGAATGAGACTTCTGCAGTTTGTTACTGGAACCTGCCGATTGCCAGTAGGAGGATTTG
CTGATCTCATGGGGAGCAATGGACCACAGAAATTCTGCATTGAAAAAGTTGGGAAAGAAAATTGGCTACCCAGAA
GTCATACCTGTTTTAATCGCCTGGACCTGCCACCATACAAGAGCTATGAGCAACTGAAGGAAAAGCTGTTGTTTG
CCATAGAAGAAACAGAAGGATTTGGACAAGAGTAACTTCTGAGAACTTGCACCATGAATGGGCAAGAACTTATTT
GCAATGTTTGTCCTTCTCTGCCTGTTGCACATCTTGTAAAATTGGACAATGGCTCTTTAGAGAGTTATCTGAGTG
TAAGTAAATTAATGTTCTCATTTAGATTTATCTCCCAGTGATTTCTACTCAGCGTTTCCAGAAATCAGGTCTGCA
AATGACTAGTCAGAACCTTGCTTAACATGAGATTTTAACACAACAATGAAATTTGCCTTGTCTTATTCCACTAGT
TTATTCCTTTAACAACAATATTTTATGTGTGTCAAAAGTCTCACTTGGGAGTAGTGTTTTTTTCTTTTAGACATT
CTGCAGACATGCAGGGAAGTCCTTTGGTAACTGCAATATACAAGATTTTCCTATTAAGCCTCTTGGTAAGAGGCA
TTTGTTAAAAGTGCAAGCTTACTCCTGCTTCTGGGGATGTGAGCAAAATTCGGGCTTGTGTTCTCCCTCTCATTT
TAGTCTGACTTGACTATTGTTTTTCCTTTCTGGCGCATGAATCCATACATCATTCCTGGAAGTGAGGCAAGACTC
TTGCATCTCTACAAAGTAGTTTTGTCAATTTGAAT

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FIGURE 886

AGTTCCCGACCGCGGGCG**ATG**GCTGCCGCTGGGGGCGCCCGGCTGCTGCGCGCCGCTTCTGCGGTCCTCGGCGAC
CCGGCCGGCCGGTGGCTGCACCACGCCGGGTCCCGCGCTGGAGCCAGCGGCCTGCTGAGGAGCCGGGGACCGGGC
CGGAGCGCGGAGGCGAGCCGGCCGCTGAGCGTGTCGGCAGGGGCGCGGAGCAGCTCAGAAGATAAAGTGACAGTC
CACTTTATAAACTGTGATGGTGAAACATTAACAACCAAAGGAAAAGTTGGTGATTCTCTGCTAGACGTTGTGGTT
GAAAATAATCCAGATATTGATGGCTTTGGTGCATGTGAGGGAACTCTGGCTTGTTTAACCTGTCATCTCATCTTT
GAAGATCACATATATGAGAAGTTAGATGCAATCACTGATGAGGAGAATCACATGCTCGATCTGGCATATGGACTA
ACAGATCACAGTTGGGCTGCCAAATCTGTT**TGA**CAAAATCTATGGACAATATGACTGTTCGAGTGCCTGAAACAG
TGGCTGATGCCAGACAATCCATTGATGTGGGCAAGACCTCCTGAACTAGAACAAATAGGAATATTTTCATGGAAT
TTTACCTATTTTTATAATTATTATTTAAGTGATAAAATGAGTACATGGATGAGTGGATTCTGTATTATGACTAGC
TTTACTATTTTAATTCACCTTGTATAACTACTAAATTTTGTCATTCTTGAAAGTATGCAATTTTTATTTTGGTTA
TATTACAAAAATGTCAGTCAGATATTAAAAAATAGTTAATGTGATAGAAAAACCTTACATATTTTTTCTTATGTT
TGTTTAGCGACTTTAGCAAAATGTTTTCATATAATCTCATCTGTTTACCTAGAAGATAGGTTAAGGAAATATATT
ATTATTCCTGTTTGATGTAGGTGAAGGCAGAGATCTAACCTGGCTTGTTTAGGGCCATACCACTAATTGGAAAAT
CTGTACTAGAACCTGTGTCTTATTACTATAAGCTATTATGTTCAGACTGAAACTGGAGAAATTACGACAATTTAT
AGCAGTAGTTAAATCTGAATGTGTATGGACAAAAATATTTAATTGCTCAGTAAACTGCTTAACTTCAAAGATAGT
TATTAACCTCATAAATATTTCAAAATTTTGATTCTGAAGTCTAAGTCTGAACACAGACATAACACTATCAAAGAA
GTTTGATCTCTGTTTTGACTCAACTAGAGGAAAAATGATTGGATGGGTTTATTCTTTTCTAAGCAGAATGGTTTA
ACTTTGTACTCTTTGAAAAACAATGCTGATTTCTAAATCTCTGCCTATAACAGAATGG

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FIGURE 887

GATTCAGTGGTCCCAATTTAAAGGCTATTTTATTTTCAAACTGGAGAAAGTG**ATG**GATGATTTCAGAACTTCAGC
TCCTGAGCCAAGAGGTCCTCCCAACCCTAATGTCGAATATATTCCCTTTGATGAAATGAAGGAAAGAATACTGAA
AATTGTCACTGGATTTAATGGTATCCCTTTTACTATTCAGCGACTATGTGAATTGTTAACAGATCCAAGGAGAAA
CTATACAGGAACAGACAAATTTCTCAGAGGAGTAGAAAAGAATGTGATGGTTGTTAGCTGTGTTTATCCTTCTTC
AGAGAAAAACAATTCCAATAGTTTAAATCGAATGAATGGTGTTATGTTTCCTGGAAATTCACCAAGCTATACTGA
GAGGTCTAATATAAATGGGCCTGGGACACCCAGGCCACTTAATCGACCAAAGGTTTCTTTGTCAGCCCCCATGAC
AACAAATGGGTTGCCTGAGAGCACAGACAGCAAAGAGGCAAATTTGCAGCAAAATGAGGAGAAAAATCACAGTGA
CTCTTCGACCTCTGAATCAGAAGTTTCCTCAGTGAGCCCTTTGAAAAATAAACATCCAGATGAAGATGCTGTGGA
AGCTGAGGGGCATGAGGTAAAAAGACTCAGGTTTGACAAAGAAGGTGAAGTCAGAGAAACAGCCAGTCAAACGAC
TTCCAGCGAAATTTCTTCAGTTATGGTAGGAGAAACAGAAGCATCATCTTCATCTCAGGATAAAGACAAAGATAG
CCGTTGTACCCGGCAGCACTGTACAGAAGAGGATGAAGAAGAGGATGAAGAGGAAGAAGAAGAGTCTTTTATGAC
ATCAAGAGAAATGATCCCAGAAAGAAAAAATCAAGAAAAAGAATCTGATGATGCCTTAACTGTGAATGAAGAGAC
TTCTGAGGAAAATAATCAAATGGAGGAATCTGATGTGTCTCAAGCTGAGAAAGATTTGCTACATTCTGAAGGTAG
TGAAAACGAAGGCCCTGTAAGTAGTAGTTCTTCTGACTGCCGTGAAACAGAAGAATTAGTAGGATCCAATTCCAG
TAAAACTGGAGAGATTCTTTCAGAATCATCCATGGAAAATGATGACGAAGCCACAGAAGTCACCGATGAACCAAT
GGAACAAGAC**TAA**CTATTTAGAAACATTTAGATGCAGTATTTTACATACAGTTCTGGTTTTAACACTGTATAAAA
CTTTTGTGTAATAAAATGGACCTTTAGTTTTACAAGAGAAGCAGGTTGTAAAATAAAGTACTTTATGGATAATTC
CTGAAAG

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FIGURE 888

AGGTCAACGGCAGAGACTTATCCAGAGCAACTCATGACCAGGCTGTGGAAGCTTTCAAGACAGCCAAGGAGCCCA
TAGTGGTGCAGGTGTTGAGAAGAACACCAAGGACCAAA**ATG**TTCACGCCTCCATCAGAGTCTCAGCTGGTGGACA
CGGGAACCCAAACCGACATCACCTTTGAACATATCATGGCCCTCACTAAGATGTCCTCTCCCAGCCCACCCGTGC
TGGATCCCTATCTCTTGCCAGAGGAGCATCCCTCAGCCCATGAATACTACGATCCAAATGACTACATTGGAGACA
TCCATCAGGAGATGGACAGGGAGGAGCTGGAGCTGGAGGAAGTGGACCTCTACAGAATGAACAGCCAGGACAAGC
TGGGCCTCACTGTGTGCTACCGGACGGACGATGAAGACGACATTGGGATTTATATCAGTGAGATTGACCCTAACA
GCATTGCAGCCAAGGATGGGCGCATCCGAGAAGGAGACCGCATTATCCAGATTAATGGGATAGAGGTGCAGAACC
GTGAAGAGGCTGTGGCTCTTCTAACCAGTGAAGAAAATAAAAACTTTTCATTGCTGATTGCAAGGCCTGAACTCC
AGCTGGATGAGGGCTGGATGGATGATGACAGGAACGACTTTCTGGATGACCTGCACATGGACATGCTGGAGGAGC
AGCACCACCAGGCCATGCAATTCACAGCTAGCGTGCTGCAGCAGAAGAAGCACGACGAAGACGGTGGGACCACAG
ATACAGCCACCATCTTGTCCAACCAGCACGAGAAGGACAGCGGTGTGGGGCGGACCGACGAGAGCACCCGTAATG
ACGAGAGCTCGGAGCAAGAGAACAATGGCGACGACGCCACCGCATCCTCCAACCCGCTGGCGGGGCAGAGGAAGC
TCACCTGCAGCCAGGACACCTTGGGCAGCGGCGACCTGCCCTTCAGCAACGAGTCTTTCATTTCGGCCGACTGCA
CGGACGCCGACTACCTGGGGATCCCGGTGGACGAGTGCGAGCGCTTCCGCGAGCTCCTGGAGCTCAAGTGCCAGG
TGAAGAGCGCCACCCCTTACGGCCTGTACTACCCTAGCGGCCCCCTGGACGCCGGCAAGAGTGACCCTGAGAGCG
TGGACAAGGAGCTGGAGCTGCTGAACGAAGAGCTGCGCAGCATCGAGCTGGAGTGCCTGAGCATCGTGCGCGCCC
ACAAGATGCAGCAGCTCAAGGAGCAGTACCGCGAGTCCTGGATGCTGCACAACAGCGGCTTCCGCAACTACAACA
CCAGCATCGACGTGCGCAGACACGAGCTCTCAGATATCACCGAGCTCCCGGAGAAATCCGACAAGGACAGCTCGA
GCGCCTACAACACAGGCGAGAGCTGCCGCAGCACCCCGCTCACCCTGGAGATCTCCCCCGACAACTCCTTGAGGA
GAGCGGCGGAGGGCATCAGCTGCCCGAGCAGCGAAGGGGCTGTGGGGACCACGGAAGCCTACGGGCCAGCCTCCA
AGAATCTGCTCTCCATCACGGAAGATCCCGAAGTGGGCACCCCTACCTATAGCCCGTCCCTGAAGGAGCTGGACC
CCAACCAGCCCCTGGAAAGCAAAGAGCGGAGAGCCAGCGACGGGAGCCGGAGCCCCACGCCCAGCCAGAAGCTGG
GCAGCGCCTACCTGCCCTCCTATCACCACTCCCCATACAAGCACGCGCACATCCCGGCGCACGCCCAGCACTACC
AGAGCTACATGCAGCTGATCCAGCAGAAGTCGGCCGTGGAGTACGCGCAAAGCCAGATGAGCCTGGTGAGCATGT
GCAAGGACCTGAGCTCTCCCACCCCGTCGGAGCCGCGCATGGAGTGGAAGGTGAAGATCCGCAGCGACGGGACGC
GCTACATCACCAAGAGGCCCGTGCGGGACCGCCTGCTGCGGGAGCGCGCCCTGAAGATCCGGGAAGAGCGCAGCG
GCATGACCACCGACGACGACGCGGTGAGCGAGATGAAGATGGGGCGCTACTGGAGCAAGGAGGAGAGGAAGCAGC
ACCTGGTGAAGGCCAAGGAGCAGCGGCGGCGGCGCGAGTTCATGATGCAGAGCAGGTTGGATTGTCTCAAGGAGC
AGCAAGCAGCCGATGACAGGAAGGAGATGAACATTCTCGAACTGAGCCACAAAAAGATGATGAAGAAGAGGAATA
AGAAAATCTTCGATAACTGGATGACGATCCAAGAACTCTTAACCCACGGCACAAAATCCCCGGACGGCACTAGAG
TATACAATTCCTTCCTATCGGTGACTACTGTA**TAA**TTTTCACTTCTGCATTATGTACATAAAGGAGACCACTACC
ACTGGGGTAGAAATTCCTGCCTCGTTCAATGCGGCAAGTTTTTGTATATAAGATAAGTACGGTCTTCATGTTTAT
AGTCCAAATTTGCAAACCCTACAACTCTGGGTGTCATAGGTCTATTTTAAGGGAAGAGAGAGAAAAACACCCTTA
CTATCTTGGAAGGCAATATTAACAAACAGAGCTTTTTTCAAATAGCAATTGTACTTTTCTACCTGTACCCTTTTA
CATAAAGTGTTTAAATTTCAGAAAGATCTTTTATTAAGCATACTTTCACAGAATAACTTGTTTAAACTATATTCA
TATAAAAAAGTTAAACACGCTTTTTTTCCTGCCTAAAACACAAATACAACTGCCAGTATGTATTTTTAATGGAAC
CCTATTTTATAATGGTACGTTACTGAATGTGTTTCATATGCGTGACCGTTAAGATATTATCATTTAGGTGAAGGT
TTCAACTCAAAACCACCCAACCCGGTGGTTAACGATTTAATACATATAACCAAACCGGCAGCGTTTAGAGTTGGG
ATATACATTTAAACATTTTCCTGGTTAAGGTTCCCAAGAGAGTGTAAAGGTTTTAGCAGAAAGCAAAATATCTTG
CATCTTTATGGAAGTTTAAAGCATGTTTGCAAATATTGCAGCCCATTGAAAGAATTTGCATGTACAGGAAAGTTG
TGGATGGAGACGGTTTGTGGAATTTTAAGTGCTCATTGTAGTAAACTTTTGCTTTGTAGATTTGAAGGTACAGAC
TTATACAGGCAAGTTCACAAAATCATGATTAGTTACAAACAGTAAAATGAAGTTAAAATAAATTATTATTTTCT

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FIGURE 889

ATGAGCCAGAATTTTAGAAGAACCATCTTGAACAAAGCCATCATTGCTTTGCTCAACTCAGAAGCAATCAGAATC
TTGTTTGCAAAGACTAAACTGATCAGAAGAGGCTACTTCATTGATTGGTGCATGCCTGAATGCAGCCATGACATT
GGTACACCCTGCTCTTTGTTAGAACGTCACAAAAATGAATATGTGATTTTAAAGGATGTGGACTCACTTCTCTAC
GTGGACACCGATGTCCTCTTTCTGAGACCTGTTGATGACATCTGGAAGCTTCTGAGGCTGTTTAATTCCACCCAG
CTTGCAGCCATGGCCCCTGAGCACGAAATCCCCAAGATTGGCTGGTACAGCCGCTTTGCTAGGCATCCTTTCTAT
GGCTCTGCAGGAGTTAATTCAGGAGTCATGTTAATGAATTTAACTCGGATAAGAAGTACCCAGTTCAAGAACAGC
ATGATTCCAACAGGCCTGGCTTGGGAGGACATGTTGTACCCTCTGTACCAGAAGTACAAGAATGCCATCACGGAC
TATGTATGTGCAAATGTTCAGTGGAACTACCGTCCCGATCACTGCATGTACGGAAGCAACTGCAGAGAGGCTGAG
CATGAAGGTGTGTCTGTTCTGCATGGAAACCGAGGCGTCTACCATGACGATAAGCAACCAACGTTCAGAGCACTC
TATGAAGCAATACGGGATGTAAGTGTGCCCTTGCTGCTGTTAGCAGATGTGCTTATCAGCATGAAGCAATATTGG
CGCTTTAGTCACCTGTCCCTT**TGA**

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FIGURE 890

ATGCCTTCAAAGGAAAAGCAAGGGACACTCACCTTGCAAAACCATCAAAACTATTCCCACAGACGCCACATGAGC
CCCCATTTATCTGACTTAAAAGAAGCAGGGTCTGCTGGGATTCGAATCCTCTGGTTCCAGAGAGAGAAGCTCTTT
CAAAGACTGGATTCTGGCCCACAAAAGAAGGTTCCTGCTTACTGGAATCAAGAGGTCAAAGATTTTTCTGAATCA
TGCATCCACGGAGAAGAGCCCATTAGGGCTATTCCAGCAGACAGCAGTAAGGATGTCCATGAGCTTTATGTTGTT
GTTGGGAGCTGGGATTCTACTCTTCCAGAAGAATATGACCTCAAAAGGAGCCACCACAGAACGAGCTCGGCACCC
ATCTACGAATGTATTGCTAAGGATCATTGGGGATGGGGTGACCCAGAAGTGAACTGGCTCCATGATCCATTAAAC
AATCACCCTGAAATCCACAGTGCCAGTCAACTAATGGGGCTTGGAGCCATCATTAGGTCACTGGAAAATGATATC
TTCCTGGAGGTTGATACTGGCTTCACCATCCTGAGAGCAGAAGGCTTGAGGGAGGAACAGCCTCCTGGGCATGGA
GGCACCTGCCATCCCACATCAAATCACAGAGCCATGCTTAAAAGGGCCAGGTGGATGACTTATGTGGAAGAAGTG
AGCCGGGTGAGGATTTCTACTTCGAGAAACCTTGCTCGAAGCGCTTTCATCATTCTCTCCTACACAACAAACCCT
GAACTCTTAGAAGCAGCTCTTGGCACAGGAGCCTCCAACCCGTTTTTCAGCCGGCTTTCTCTACTTGTTTCTCAT
TCCATGATCACAGAAAACAGCTCCATTAAGACTCTTTTCAGGTCTACCAAAGAGCTAGTGATTGCACTCAATCGA
TGTTTCTTCGGCATTACTCAAAGTGCAGCTACACTCAGCCCACAGCTTCACATCAGATTTATCAGCAGAGAACAA
AAGAAGTACTTGAAATTGCCACTTACAACGTTTATGAGTAAACTGGAATCCAAAGTCTGGCCTCTAGCCAAGCGG
TTACGCCAGTGGCCTGACTCATATACAAAGAAGTTTGAGCACAGAATCTACCCCATCACATTTTCTGTTGGAAAC
CCTCAGGAGTGGAAGAAATTGTTCAAACCCTGTGCTGCCCAGAGACTCTTTCTTCCGATCAACCTGGAGCTCTAC
GCCTCCTACGTTTACCTGTCCATGTCTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAACTTTGCCAAATAC
TTTCTTCACCAATCTCATGAGGAGAGGGAACATGCCGAGAAACTGATGACGTTGCAGAACCAACGAGGTGGCCGA
ATCTTCCTTCAGGATATCAAGAAACCAGACTGTGACGACTGGGAGAGCGGGCTGAATGCGATGGATGACAAAAAT
GACCCCCATTTGTGTGACTTCATTGAGACACATTACCTGAATGAGCAGGTGAAAGCCATCAAAGAATTGGGTGGC
CACGTGACCAACTTGTGCAAGATGGGAGCACCCGAATCTGGCTCGGCAGAATATCTCTTTGACAAGCACACGCTG
GGAGACAGTGATAACGAAAGC**TAA**

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FIGURE 891

ATGCTGACCCCGGCGTTCGACCTCAGCCAGGATCCGGACTTCCTGACTATCGCCATCCGCGTGCCCTACGCCCGG
GTCTCCGAGTTCGACGTCTACTTCGAGGGGTCTGACTTCAAGTTCTACGCCAAGCCATACTTTCTCAGGCGAGTT
CGGGGAATTTTTACCATTCGCCTGCCCAAAGAAACCCCTGGCCAGCATTTTGAGGGGCTGAACATGTTAACTGCT
CTTCTGGCACCAAGAAAATCCAGGACAGCAAAACCACTTGTGGAAGAAATAGGTGCTTCTGAGATTCCTGAGGAA
GTAGTTGACGATGAAGAGTTTGATTGGGAAATTGAGCAGACACCCTGTGAAGAGGTATCAGAAAGTGCTTTGAAT
CCGCAGTGCCACTATGGATTTGGAAACTTACGATCAGGAGTGTTGCAACGGTTACAGCTGCTGTTTATGGCAGCC
GTAACAAGTGGTTCAAAACTGAGTGATCATGATGAACTGAGTGATGTTATTGATATTAAGGATCCAGATTTCACC
CCTGCAGCTGAACGAAGACAGAAGCGCCTGGCCGCTGAGCTGGCCAAGTTTGATCCTGATCATTATCTAGCTGAC
TTTTTTGAAGATGAGGCGATTGAACAGATTTTGAAGTATAATCCTTGGTGGACTGACAAATATTCAAAAATGATG
GCCTTTTTGGAAAAGAGTCAGGAACAAGAAAATCATGCTACATTAGCGTGGGCTGTTGTCTGTTTAACACCTCCT
CATCAGGTGTCGCCAGGCAGATACAACAGTGCAGTGCCTCCCTATTCTGTGATCTTAAAAGTGTACACCCTTGCC
ACAACCATAGCATTTGCTCAGTACTCTCAACATAAACCAAGCTTAGATCGCAATGAAACTGCGGACCTGCAGGCT
GCCTTGCTTCAC**TGA**

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FIGURE 892

ATGATCTTTAATTTTGCCCTGAATACCTTGGTTGCAATCACTGTGCTTGTTTATCCAAACGGCATTCAGGAATAC
ATACGACAACTGCCTCCGAATTTTCCCTACAGAGATGATGTCATGAGGCCTGGAGAACCCAGGAGTTTCCAAGCT
GTGCTGCCACCCGAGCTCTGGATCCACCTGGCTGTGGTGGCCTGTGGCAATCGGCTGGAGGAGACGCTGGTCATG
CTCAAATCAGCTGTGCTTTTTAGCCACAGGAAGATCCAATTCCACATCTTCACTGAAGACTCTCTGAAGCCCGAG
TTTGATAAGCAGTTACGCCAGTGGCCTGACTCATATACAAAGAAGTTTGAGCACAGAATCTACCCCATCACATTT
TCTGTTGGAAACCCTCAGGAGTGGAAGAAATTGTTCAAACCCTGTGCTGCCCAGAGACTCTTTCTTCCGATCAAC
CTGGAGCTCTACGCCTCCTACGTTTACCTGTCCATGTCTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAAC
TTTGCCAAATACTTTCTTCACCAATCTCATGAGGAGAGGGAACATGCCGAGAAACTGATGACGTTGCAGAACCAA
CGAGGTGGCCGAATCTTCCTTCAGGATATCAAGAAACCAGACTGTGACGACTGGGAGAGCGGGCTGAATGCGATG
GATGACAAAAATGACCCCCATTTGTGTGACTTCATTGAGACACATTACCTGAATGAGCAGGTGAAAGCCATCAAA
GAATTGGGTGGCCACGTGACCAACTTGTGCAAGATGGGAGCACCCGAATCTGGCTCGGCAGAATATCTCTTTGAC
AAGCACACGCTGGGAGACAGTGATAACGAAAGC**TAA**

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FIGURE 893

GTCCCTCACACCGAGAGTTCCTGCGCGTGGGGAGTTGGAGAGTTTGCGTGGCGGGAACGCGGCGGCAGTGAGAGC
GAGCGGCGCCGGCCCTTGCGTCCGGTGCGGCG**ATG**CTGACCCCGGCGTTCGACCTCAGCCAGGATCCGGACTTCC
TGACTATCGCCATCCGCGTGCCCTACGCCCGGGTCTCCGAGTTCGACGTCTACTTCGAGGGGTCTGACTTCAAGT
TCTACGCCAAGCCATACTTTCTCAGATTAACCCTTCCTGGAAGAATTGTAGAAAATGGAAGTGAGCAAGGGTCCT
ATGATGCAGATAAAGGAATTTTTACCATTCGCCTGCCCAAAGAAACCCCTGGCCAGCATTTTGAGGGGCTGAACA
TGTTAACTGCTCTTCTGGCACCAAGAAAATCCAGGACAGCAAAACCACTTGTGGAAGAAATAGGTGCTTCTGAGA
TTCCTGAGGAAGTAGTTGACGATGAAGAGTTTGATTGGGAAATTGAGCAGACACCCTGTGAAGAGGTATCAGAAA
GTGCTTTGAATCCGCAGTGCCACTATGGATTTGGAAACTTACGATCAGGAGTGTTGCAACGGTTACAGGATGAAC
TGAGTGATGTTATTGATATTAAGGATCCAGATTTCACCCCTGCAGCTGAACGAAGACAGAAGCGCCTGGCCGCTG
AGCTGGCCAAGTTTGATCCTGATCATTATCTAGCTGACTTTTTTGAAGATGAGGCGATTGAACAGATTTTGAAGT
ATAATCCTTGGTGGACTGACAAATATTCAAAAATGATGGCCTTTTTGGAAAAGAGTCAGGAACAAGAAAATCATG
CTACATTAGTGTCTTTTTCTGAAGAAGAGAAGTATCAGCTACGAAAATTTGTCAATAAATCTTATCTGCTGGACA
AGAGAGCCTGTCGTCAAGTGTGCTACAGTTTGATTGATATCCTTCTGGCATATTGCTATGAAACCCGTGTCACTG
AAGGAGAGAAGAATGTTGAATCTGCATGGAATATCAGGAAACTGAGTCCAACACTATGCTGGTTTGAGACTTGGA
CTAACGTTCATGATATCATGGTGTCTTTTGGAAGAAGGGTGTTGTGTTACCCACTCTATCGCCATTTCAAGCTGG
TGATGAAGGCCTACAGGGACACTATAAAGATATTGCAACTGGGTAAAAGTGCAGTTTTAAAGTGTCTCCTGGATA
TTCACAAAATTTTTCAGGAAAATGACCCAGCGTACATACTGAATGATCTCTACATCTCAGACTACTGTGTGTGGA
TTCAGAAAGTCAAATCCAAAAAGTTGGCAGCTCTTGCAGAAGCCTTAAAGGAAGTCTCCCTTACAAAGGCCCAGC
TGGGGTTAGAACTGGAAGAACTAGAAGCAGCAGCACTGCTTGTCCAGGAGGAAGAAACTGCATTAAAAGCAGCCC
ATTCAGTTTCTGGGCAGCAGACACTTTGCTCCAGCTCTGAGGCAAGTGATTCGGAGGACTCAGACAGCAGCGTGT
CATCTGGAAACGAAGACTCAGGCTCAGATTCAGAACAAGATGAACTCAAAGATAGTCCATCTGAGACAGTCAGTT
CTTTGCAAGGTCCCTTTCTTGAAGAAAGCAGTGCCTTTCTTATTGTTGATGGTGGAGTACGCAGAAACACAGCCA
TCCAGGAGTCTGATGCCAGTCAGGGAAAGCCACTTGCCTCTTCCTGGCCTCTTGGAGTGTCTGGGCCTCTGATAG
AGGAGCTTGGGGAACAACTGAAGACTACAGTTCAGGTTTCTGAACCCAAGGGCACCACTGCTGTAAACCGCAGCA
ATATTCAGGAGAGAGACGGCTGTCAGACACCAAATAAT**TGA**CTCTTAGGTGGTTTTATTCATTGTTGAGAAATAT
GGTAGATTGGGTTTCATTTACCGAATGAGAATTCTTCATTTTCACTTTGTAATTTTTCTTAGTATATAGTCAGCC
CACTGTATTTGTGTGTTCCACATCTGTGGATTCAACCAACTGCAGATCAAAAATATTGAAGAAAAAATCGCATCT
GTACCAAACATGTACAGACTTTTTTCTTGTTATTATTCTCTAAATAATACAGTATGACAACTATTTCCACAGCAT
TTACATTGTATTGGGTAATATAAGTAATCTAGTGATGATTTAAACTGTGCAGGAGGATGTGGGTAGGTTATATGC
AAATACTGCACCATTTTTTATCAGGGGCTTGAGCATCTGAGGATTTTAGTATCCTCAGGAGTCCTGGAACCAACC
CCCCACAGATACGGGGACAACTTTATGACATTGTTTTTCAACCAATGAATGTTTATACCTTTTGTTTTCCTTGCC
GCGACTGTGAAGATAAAGTTCAAAAGTATTTTTACCAAAGTGTAGCTAATATTTCAAGCTGAAAATAATAGTTCT
ACTGCCCGTGTCTCCAGAATGTAGAGCCCATCAATATTTTTATTTTAGGAGGTGTACTTGACACCCAATAAACTG
CACGTATCAAAAGTGTACAATGTGTTGGCGTATGTATACCCTGCGTAAAACTATCACCACAACTGAAGTGAGGAA
CGGACCCATCATTCCCAAGTGCCCTTGTGCCCTGTTATTAGTTTGCATGTCCTAGAATTCTATGTAAATTGAATC
ATACAATATGTATCCCTTTTTTGGTCAGGCATATTTTACTCAGTATAGTTATTTTGAGATTCATCCATGTGGTAG
CATGTGTCACGAGTTTTTGTTTTTATGTTTTTCATTGCTGAGTACTGCTTCATTGAATAGATTTGTTCATTGACC
TATCGATGGACACCTGGGTTGTTT

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FIGURE 894

CGGAGTGCAAGTGAGCTTCTCGGCTGCCCCGCGGGCCGGGGTGCGGAGCCGAC**ATG**CGCCCGCTTCTCGGCCTCC
TTCTGGTCTTCGCCGGCTGCACCTTCGCCTTGTACTTGCTGTCGACGCGACTGCCCCGCGGGCGGAGACTGGGCT
CCACCGAGGAGGCTGGAGGCAGGTCGCTGTGGTTCCCCTCCGACCTGGCAGAGCTGCGGGAGCTCTCTGAGGTCC
TTCGAGAGTACCGGAAGGAGCACCAGGCCTACGTGTTCCTGCTCTTCTGCGGCGCCTACCTCTACAAACAGGGCT
TTGCCATCCCCGGCTCCAGCTTCCTGAATGTTTTAGCTGGTGCCTTGTTTGGGCCATGGCTGGGGCTTCTGCTGT
GCTGTGTGTTGACCTCGGTGGGTGCCACATGCTGCTACCTGCTCTCCAGTATTTTTGGCAAACAGTTGGTGGTGT
CCTACTTTCCTGATAAAGTGGCCCTGCTGCAGAGAAAGGTGGAGGAGAACAGAAACAGCTTGTTTTTTTTCTTAT
TGTTTTTGAGACTTTTCCCCATGACACCAAACTGGTTCTTGAACCTCTCGGCCCCAATTCTGAACATTCCCATCG
TGCAGTTCTTCTTCTCAGTTCTTATCGGTTTGATCCCATATAATTTCATCTGTGTGCAGACAGGGTCCATCCTGT
CAACCCTAACCTCTCTGGATGCTCTTTTCTCCTGGGACACTGTCTTTAAGCTGTTGGCCATTGCCATGGTGGCAT
TAATTCCTGGAACCCTCATTAAAAAATTTAGTCAGAAACATCTGCAATTGAATGAAACAAGTACTGCTAATCATA
TACACAGTAGAAAAGACACA**TGA**TCTGGATTTTCTGTTTGCCACATCCCTGGACTCAGTTGCTTATTTGTGTAAT
GGATGTGGTCCTCTAAAGCCCCTCATTGTTTTTGATTGCCTTCTATAGGTGATGTGGACACTGTGCATCAATGTG
CAGTGTCTTTTCAGAAAGGACACTCTGCTCTTGAAGGTGTATTACATCAGGTTTTCAAACCAGCCCTGGTGTAGC
AGACACTGCAACAGATGCCTCCTAGAAAATGCTGTTTGTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCA
CTTTGGGAGGCCGAGGCCGGTGATTCACAAGGTCAGGAGTTCAAGACCAGCCTGGCCAAGATGGTGAAATCCTGT
CTCTAATAAAAATACAAAAATTAGCCAGGCGTGGTGGCAGGCACCTGTAATCCCAGCTACTCGGGAGGCTGAGGC
AGGAGAATTGCTTGAACCAAGGTGGCAGAGGTTGCAGTAAGCCAAGATCACACCACTGCACTCCAGCCTGGGTGA
TAGAGTGAGACACTGTCTTGAC

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FIGURE 895

ATTCCCAGAGTTCGAGGTGGTGGGACTCACCGCTCTGGCCAGGGTGCTTTTGGAAAC**ATG**TGTCGTGGAGGCCGA
AGGTTTGCACCAACCAAAACCTGGCGCCGTTGGCATCGTAGAGTGAACACAACCCAAAAACGATATGCCATCTGT
TCTGCCCTGGCTGCCTCAGCCCTACCAGCACTGGTCATGTCTAAAGGTCATCGTATTGAGGAAGTTCCTGAACTT
CCTTTGGTATTTGAAGATAAAGTTGAAGGCTACAAGAAGACCAAGGAAGCTGTTTTGCTCCTTAAGAAACTTAAA
GCCTGGAATGATATCGAAAAGGTCTATGCCTCTCAGCGAATGAGAGCTGGCAAAGGCAAGAAGCCTGTGGTAGGT
AAGAAAGGAAAGAAGGCTGCTGTTGGTGTTAAGAAGCAGAAGAAGCCTCTGGTGGGAAAAAAGGCAGCAGCTACC
AAGAAACCAGCCCCTGAAAAGAAGCCTGCAGAAAAGAAACCTACTACAGAGGAAAAGAAGCCTGCTGCA**TAA**ACT
CTTAAATTTGATTATTCCATAAAGGTCAAATCATTTTGGACAGCTTCTTTTGAATAAAGACCTGATTATACAGGC
AGTGAGGAA

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FIGURE 896

GTCATTAATTTTTAC**ATG**AATCTTCTGGTGGAAAGAAATAAAAAGCAAGGCTATCCAGCACTTCATGTATTCAGT
ACTTTCTTCTATCCTAAATTAAAGTCTGGGGGTTACCAAGCAGTGAAACGATGGACCAAAGGGGTAAATCTCTTT
GAACAAGAAATTATTCTGGTGCCTATTCATCGGAAGGTACATTGGAGCCTGGTGGTGATTGACCTAAGAAAAAAG
TGTCTTAAATATCTGGATTCTATGGGACAAAAGGGCCACAGGATCTGTGAGATTCTCCTTCAGTATTTACAGGAT
GAAAGTAAGACCAAAAGAAATAGTGATCTGAATCTTTTAGAGTGGACCCATCACAGCATGAAACCACACGAGATT
CCTCAACAGCTGAATGGGAGTGATTGTGGAATGTTTACTTGTAAATATGCAGATTATATTTCTAGGGACAAACCT
ATCACATTTACTCAGCACCAGATGCCTCTCTTCCGGAAGAAGATGGTGTGGGAAATCCTTCATCAGCAGTTGCTG
TGAGAAAACTTTGCCTGGTCCCTCTAGCTGCTGGTGGTTCTTTCACAGACATTTCCATATACCTCATGCATTGTG
GGTTAAAAAGTCCCTGCATCACTTCTGTTCTCACAGGTACTGAGCTGTCAAAAGTGCATGAAGGCCTCTCACTGT
ACTCTAGTCCTGACTTGGGGTGCAGAGGGCTGCTTGCAATCCTGTTTGTAAGGCTGTGCCTGCTCAGAGCTTTGG
ACTGTTCAACCCACACAAGAACAAACGCTAACTAATATTTTTTTTAAGAGATTCTTTTCCCTATGAATGTGGGAA
ATGCAGGATTTATTCTGTGAATTGTTTGTTTCTGTGTGTTTGTTCAGCGTATTCATTCACTCACTCGTTTGCAAA
CATAATGGGCAGTGGTCATTTACTGCTGCTCTTTTACAGTTAGCTCTAAATTACTTGTTTGAACTATTTATTTCT
GAAAGGAATGTTACTCAAGCTGCCACTCCCTGCTGAAGAGCAGGAGGGAACTCTCACTGGGGGCGGAAGGAAGTG
GAGCTGGAGCAGTAACTGCCA

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FIGURE 897A

CGGAGGAGGCGAGGAGCGCCGGGTACCGGGCCGGGGGAGCCGCGGGCTCTCGGGGAAGAGACGG**ATG**ATGAACAA
GCTTTACATCGGGAACCTGAGCCCCGCCGTCACCGCCGACGACCTCCGGCAGCTCTTTGGGGACAGGAAGCTGCC
CCTGGCGGGACAGGTCCTGCTGAAGTCCGGCTACGCCTTCGTGGACTACCCCGACCAGAACTGGGCCATCCGCGC
CATCGAGACCCTCTCGGGTAAAGTGGAATTGCATGGGAAAATCATGGAAGTTGATTACTCAGTCTCTAAAAAGCT
AAGGAGCAGGAAAATTCAGATTCGAAACATCCCTCCTCACCTGCAGTGGGAGGTGTTGGATGGACTTTTGGCTCA
ATATGGGACAGTGGAGAATGTGGAACAAGTCAACACAGACACAGAAACCGCCGTTGTCAACGTCACATATGCAAC
AAGAGAAGAAGCAAAAATAGCCATGGAGAAGCTAAGCGGGCATCAGTTTGAGAACTACTCCTTCAAGATTTCCTA
CATCCCGGATGAAGAGGTGAGCTCCCCTTCGCCCCCTCAGCGAGCCCAGCGTGGGGACCACTCTTCCCGGGAGCA
AGGCCACGCCCCTGGGGGCACTTCTCAGGCCAGACAGATTGATTTCCCGCTGCGGATCCTGGTCCCCACCCAGTT
TGTTGGTGCCATCATCGGAAAGGAGGGCTTGACCATAAAGAACATCACTAAGCAGACCCAGTCCCGGGTAGATAT
CCATAGAAAAGAGAACTCTGGAGCTGCAGAGAAGCCTGTCACCATCCATGCCACCCCAGAGGGGACTTCTGAAGC
ATGCCGCATGATTCTTGAAATCATGCAGAAAGAGGCAGATGAGACCAAACTAGCCGAAGAGATTCCTCTGAAAAT
CTTGGCACACAATGGCTTGGTTGGAAGACTGATTGGAAAAGAAGGCAGAAATTTGAAGAAAATTGAACATGAAAC
AGGGACCAAGATAACAATCTCATCTTTGCAGGATTTGAGCATATACAACCCGGAAAGAACCATCACTGTGAAGGG
CACAGTTGAGGCCTGTGCCAGTGCTGAGATAGAGATTATGAAGAAGCTGCGTGAGGCCTTTGAAAATGATATGCT
GGCTGTTAACCAACAAGCCAATCTGATCCCAGGGTTGAACCTCAGCGCACTTGGCATCTTTTCAACAGGACTGTC
CGTGCTATCTCCACCAGCAGGGCCCCGCGGAGCTCCCCCCGCTGCCCCCTACCACCCCTTCACTACCCACTCCGG
ATACTTCTCCAGCCTGTACCCCCATCACCAGTTTGGCCCGTTCCCGCATCATCACTCTTATCCAGAGCAGGAGAT
TGTGAATCTCTTCATCCCAACCCAGGCTGTGGGCGCCATCATCGGGAAGAAGGGGGCACACATCAAACAGCTGGC
GAGATTCGCCGGAGCCTCTATCAAGATTGCCCCTGCGGAAGGCCCAGACGTCAGCGAAAGGATGGTCATCATCAC
CGGGCCACCGGAAGCCCAGTTCAAGGCCCAGGGACGGATCTTTGGGAAACTGAAAGAGGAAAACTTCTTTAACCC
CAAAGAAGAAGTGAAGCTGGAAGCGCATATCAGAGTGCCCTCTTCCACAGCTGGCCGGGTGATTGGCAAAGGTGG
CAAGACCGTGAACGAACTGCAGAACTTAACCAGTGCAGAAGTCATCGTGCCTCGTGACCAAACGCCAGATGAAAA
TGAGGAAGTGATCGTCAGAATTATCGGGCACTTCTTTGCTAGCCAGACTGCACAGCGCAAGATCAGGGAAATTGT
ACAACAGGTGAAGCAGCAGGAGCAGAAATACCCTCAGGGAGTCGCCTCACAGCGCAGCAAG**TGA**GGCTCCCACAG
GCACCAGCAAAACAACGGATGAATGTAGCCCTTCCAACACCTGACAGAATGAGACCAAACGCAGCCAGCCAGATC
GGGAGCAAACCAAAGACCATCTGAGGAATGAGAAGTCTGCGGAGGCGGCCAGGGACTCTGCCGAGGCCCTGAGAA
CCCCAGGGGCCGAGGAGGGGCGGGGAAGGTCAGCCAGGTTTGCCAGAACCACCGAGCCCCGCCTCCCGCCCCCCA
GGGCTTCTGCAGGCTTCAGCCATCCACTTCACCATCCACTCGGATCTCTCCTGAACTCCCACGACGCTATCCCTT
TTAGTTGAACTAACATAGGTGAACGTGTTCAAAGCCAAGCAAAATGCACACCCTTTTTCTGTGGCAAATCGTCTC
TGTACATGTGTGTACATATTAGAAAGGGAAGATGTTAAGATATGTGGCCTGTGGGTTACACAGGGTGCCTGCAGC
GGTAATATATTTTAGAAATAATATATCAAATAACTCAACTAACTCCAATTTTTAATCAATTATTAATTTTTTTTT
CTTTTTAAAGAGAAAGCAGGCTTTTCTAGACTTTAAAGAATAAAGTCTTTGGGAGGTCTCACGGTGTAGAGAGGA
GCTTTGAGGCCACCCGCACAAAATTCACCCAGAGGGAAATCTCGTCGGAAGGACACTCACGGCAGTTCTGGATCA
CCTGTGTATGTCAACAGAAGGGATACCGTCTCCTTGAAGAGGAAACTCTGTCACTCCTCATGCCTGTCTAGCTCA
TACACCCATTTCTCTTTGCTTCACAGGTTTTAAACTGGTTTTTTGCATACTGCTATATAATTCTCTGTCTCTCTC
TGTTTATCTCTCCCCTCCCTCCCCTCCCCTTCTTCTCCATCTCCATTCTTTTGAATTTCCTCATCCCTCCATCTC
AATCCCGTATCTACGCACCCCCCCCCCCCCAGGCAAAGCAGTGCTCTGAGTATCACATCACACAAAAGGAACAAA
AGCGAAACACACAAACCAGCCTCAACTTACACTTGGTTACTCAAAAGAACAAGAGTCAATGGTACTTGTCCTAGC
GTTTTGGAAGAGGAAAACAGGAACCCACCAAACCAACCAATCAACCAAACAAAGAAAAAATTCCACAATGAAAGA
ATGTATTTTGTCTTTTTGCATTTTGGTGTATAAGCCATCAATATTCAGCAAAATGATTCCTTTCTTTAAAAAAAA
AAAATGTGGAGGAAAGTAGAAATTTACCAAGGTTGTTGGCCCAGGGCGTTAAATTCACAGATTTTTTTAACGAGA
AAAACACACAGAAGAAGCTACCTCAGGTGTTTTTACCTCAGCACCTTGCTCTTGTGTTTCCCTTAGAGATTTTGT
AAAGCTGATAGTTGGAGCATTTTTTTATTTTTTTAATAAAAATGAGTTGGAAAAAAAATAAGATATCAACTGCCA
GCCTGGAGAAGGTGACAGTCCAAGTGTGCAACAGCTGTTCTGAATTGTCTTCCGCTAGCCAAGAACCTATATGGC
CTTCTTTTGGACAAACCTTGAAAATGTTTATTTAAAAAAAAAAAAGATGACAAAGAAAAACAGAGAGAGAGAATA
TTGGAGATGTCCTGAATTTTAATAGGGTACGCGCCATTAGGGCTTTTTGCGCTAAAGGATGAACATGTACTGGTT
TATGTGGACAAGCCATTATACCACCAGACTGCAATGCCAGTTTCCTCTACTGCAAACAGTGTTCTGTGACAAAAA

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FIGURE 897B

AAAAAAAAAAAAAAAGAAAAAAAAAGAAAAAA

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FIGURE 898

GGGCGACCGGCGCGTCGTGCGGGGCTGCGGCGGAGCCTCCTTAAGGAAGGTGCAAGAGGTTGGCAGCTTCGATTG
AAGCACATCGACCGGCGACAGCAGCCAGGAGTC**ATG**AGCGACAGCGGCGAGCAGAACTACGGCGAGCGGGAATCC
CGTTCTGCTTCCAGAAGTGGAAGTGCTCACGGATCGGGGAAATCTGCAAGGCATACCCCTGCAAGGTCTCGCTCC
AAGGAAGATTCCAGGCGTTCCAGATCAAAGTCCAGGTCCCGATCTGAATCTAGGTCTAGATCCAGAAGAAGCTCC
CGAAGGCATTATACCCGGTCACGGTCTCGCTCCCGCTCCCATAGACGATCACGTAGCAGGTCTTACAGTCGAGAT
TATCGTAGACGGCACAGCCACAGCCATTCTCCCATGTCTACTCGCAGGCGTCATGTTGGGAATCGGGCAAATCCT
GATCCTAACTGTTGTCTTGGAGTATTTGGGCTGAGCTTGTACACCACAGAAAGAGATCTAAGAGAAGTGTTCTCT
AAATATGGTCCCATTGCCGATGTGTCTATTGTATATGACCAGCAGTCTAGGCGTTCAAGAGGATTTGCCTTTGTA
TATTTTGAAAATGTAGATGATGCCAAGGAAGCTAAAGAACGTGCCAATGGAATGGAGCTTGATGGGCGTAGGATC
AGAGTTGATTTCTCTATAACAAAAAGACCACATACGCCAACACCAGGAATTTACATGGGGAGACCTACCTATGGC
AGCTCTCGCCGTCGGGATTACTATGACAGAGGATATGATCGGGGCTATGATGATCGGGACTACTATAGCAGATCA
TACAGAGGAGGAGGTGGAGGAGGAGGAGGATGGAGAGCTGCCCAAGACAGGGATCAGATTTATAGAAGGCGGTCA
CCTTCTCCTTACTATAGTCGTGGAGGATACAGATCACGTTCCAGATCTCGATCATACTCACCTCGTCGCTAT**TAA**

AGCATGAAGACTTTCTGAAACCTGCCCTAGAGCTGGGATATTGTTTGTGGGCAATATTTTTTATTGTCTCTTGTT
TAAAAAGTGAACAGTGCCTAGTGAAGTTAGGTGACTTTTACACCTTTTACGATGACTACTTTTGGTGGAGTTGAA
ATGCTGTTTTCATTCTGCATTTGTGTAGTTTGGTGCTTTGTTCCAAGTTAAGTGTTTTCAGAAAAGTATGTTTTG
CATGTATTTTTTTACAGTCTAAATTTTGACTGCTGAGAAGTTTCTATTGTACAAAACTTCATTTAAAAGGTTTTT
CTACTGAATCCAGGGTATTCTGAAGATCGAAGCCTGTGTAAAATGCTACCAAATGGCAAAAAGCAACAATAAACA
GTTTGATTTTTACTTTTCTTTCTAACATATCAATGCTTAGCAGAACTATTCAGATTGTCAGTAGTAAATTTAAAG
ACAAATGCCCGTTTTCCTCCAGTCCATGAAACATACCATACTTATATACCTGCAACTAAGTGTTTAAAATTATGC
TCTGTAACTCTGTACTGCTAGTATTAGAACTAAAAATCTTAAAATACAGCCAGTGCTTAATGCTTATATCAATGT
GGATTTGTCGGCTTTTATGTAATCTGTAATATGTATAGCAGGAAATACGAAGAGTTACACAGTGTATGCCTTAAA
AGGCTGTTTCTTAAAGGTGTTACAAGGGGATAATGGTATTTCAACTAGTTATCAGCAAGTGACAATACATTCCAC
CACAAATACACTCTTGTTCTTCTAGCTTTTAGACTATATGAAAAAACCGGGTGCTTCAAAGTACATGATAAGGGA
ACACTATACCTGTCATGGATGAACTGAAGACTTTGCCTGTTCATTTTTTAAATATTATTTTCAGGTCCTTTGCTT
ACCAAAGGAGGCCCAATTTCACTCAAATGTTTTGAGAACTGTGTTTAAATAAACGCAAATGAAAAG

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FIGURE 899

AGATTTCAGAGACAACTGTCTGAACCCTGCCACCCCTTCCCTCCTCAGCCAGGAGTTCCTGGAGATAATCGCCCC
AGTTACCATCGGCAA**ATG**TCAGAACCTATTGTCCCTGCAGCTCCCCCGCCCCCTCAGGGATTCAAACAAGAATAC
CATGACCCACTCTATGAACATGGGGTCCCGGGCATGCCAGGGCCCCCAGCACACGGGTTCCAGTCACCAATGGGA
ATCAAGCAGGAGCCTCGGGATTACTGCGTCGATTCAGAAGTGCCTAACTGCCAGTCATCCTACATGAGAGGGGGT
TATTTCTCCAGCAGCCATGAAGGTTTTTCATATGAAAAAGATCCCCGATTATACTTTGACGACACTTGTGTTGTG
CCTGAGAGACTGGAAGGCAAAGTCAAACAGGAGCCTACCATGTATCGAGAGGGGCCCCCTTACCAGAGGCGAGGT
TCCCTTCAGCTGTGGCAGTTCCTGGTCACCCTTCTTGATGACCCAGCCAATGCCCACTTCATTGCCTGGACAGGT
CGAGGCATGGAGTTCAAGCTGATAGAACCGGAAGAGGTTGCTCGGCGCTGGGGCATCCAGAAGAACCGGCCAGCC
ATGAACTATGACAAGCTGAGCCGCTCTCTCCGCTATTACTATGAAAAGGGCATCATGCAGAAGGTGGCTGGAGAG
CGATACGTCTACAAATTTGTCTGTGACCCAGATGCCCTCTTCTCCATGGCTTTCCCGGATAACCAGCGTCCGTTC
CTGAAGGCAGAGTCCGAGTGCCACCTCAGCGAGGAGGACACCCTGCCGCTGACCCACTTTGAAGACAGCCCCGCT
TACCTCCTGGACATGGACCGCTGCAGCAGCCTCCCCTATGCCGAAGGCTTTGCTTAC**TAA**GTTTCTGAGTGGCGG
AGTGGCCAAACCCTAGAGCTAGCAGTTCCCATTCAGGCAAACAAGGGCAGTGGTTTTGTTTGTGTTTTTGGTTGT
TCCTAAAGCTTGCCCTTTGAGTATTATCTGGAGAACCCAAGCTGTCTCTGGATTGGCACCCTTAAAGACAGATAC
ATTGGCTGGGGAGTGGGAACAGGGAGGGGCAGAAAACCACCAAAAGGCCAGTGCCTCAACTCTTGATTCTGATGA
GGTTTCTGGGAAGAGATCAAAATGGAGTCTCCTTACCATGGACAATACATGCAAAGCAATATCTTGTTCAGGTTA
GTACCCGCAAAACGGGACATAGTATGTGACAATCTGCATCGATCATGGACTACTAAATGCCTTTACATAGAAGGG
CTCTGATTTGCACAATTTGTTGAAAAATCACAAACCCATAGAAAAGTAAGTAGGCTAAGTTGGGGAGGCTCAAAC
CATTAAGGGTTAAAAATACATCTTAAACATTGGAAAGCTCTTCTAGCTGAATCTGAAATATTACCCCTTGTCTAG
AAAAAGGGGGGCAGTCAGAACAGCTGTTCCCCACTCCGTGGTTCTCAAAATCATAAACCATGGCTACTCTTGGGA
ACCACCCGGCCATGTGGTCGCCAAGTAGAGCAAGCCCCCTTTCTCTTCCCAATCACGTGGCTGAGTGTGGATGAC
TTTTATTTTAGGAGAAGGGCGATTAACACTTTTGACAGTATTTTGTTTTGCCCTGATTTGGGGGATTGTTTTGTT
TTGGTGGTTGTTTTGGAAAAACAGTTTATAAACTGATTTTTGTAGTTTTGGTATTTAAAGCAAAAAAACGAAAAA
CAAAAAACAAAAACAAACCTTTTGGTAACTGTGCACTGTGTCCTTTAGCCAGGGCCGTGCCAACTTATGAAGACA
CTGCAGCTTGAGAGGGGCTTTGCTGAGGCTTCCCCTTGGCCATGTGAAAGCCCGCCTTGTTGCCTGCTTTGTGCT
TTCTGCACCAGACAACCTGATGGAACATTTGCACCTGAGTTGTACATTTTTGAAGTGTGCAGGGCAGCCTGGACA
CAAGCTTAGATTCTCTATGTATAGTTCCCCGTGTTCACTAACATGCCCTCTCTGGAAAGCATATGTATATAACAT
GTGTCATGTCCTTTGGAAACCTGGTCACCTGGTGAAAACCCTTGGGATTCTTCCCTGGGCATGACTGATGACAAT
TTCCATTTCATCAGTTTGTTTTGTTTTCCTTTTTCTTTAAATCTTGGACTTTAAACCCTACCTGTGTGATTCAGT
AGGGTTTGAGACTTACGTGTGATACTGACAGGTAAGCAACAGTGCTAGCATTCTAGATTCCTGCCTTTTTTTAAA
AAGAAATTATTCTCATTGCTGTATTATATTGGAAAAGTTTTAAACAACCAAGCTAAAGCTATGTGAAAGTTGAGC
TCAAAGTAGAGGAAAAGTTACTGGTGGTACCTTGCTGCCTGCTCTGCTGGTAGAATTCTGTGCTCCCCGTGACAC
TTAGTACATTAAGAATGACTACACTGTTCCTCGTATGTGAAGGAGGCAGTGCTGACTCCGTGAGTGTGAGACACG
TGCTTTGAACTGCTTTTCTATTCATGGAGCACTCCATAGTCTCAAACTGTCCCCCTTATGACCAACAGCACATTT
GTGAAGAGGTTCGCAGGGATAAGGGGTGCACTTTATAGCTATGGAAACATGAGATTCTCCTCTATTGGAAGCTAA
TTAGCCCACAAAGGTGGTAAACCTGTAGATTGGGCCTTAATTAGCATTGTACTCTAATCAAAGGACTCTTTCTAA
ACCATATTTATAGCTTTCTTAACCTACACATAGTCTATACATAGATGCATATTTTACCCCCAGCTGGCTAGAGAT
TTATTTGTTGTAAATGCTGTATAGATTTGGTTTTCCTTTCTTTACTTACCCTGGTTTGGATTTTTTTTTTTTTTC
TTTTGAATGGATTTATGCTGTCTTAGCAATATGACAATAATCCTCTGTAGCTTGAGCTACCCCTCCCCTGCTGTA
ACTTACGTGACCTGTGCTGTCACTGGGCATAGGACAGCGGCATCACGGTTGCATTCCCATTGGACTCATGCACCT
CCCGGATGGTTTTTGTTTTTTTCGGGGGTTCTTTGGGGTTTGTTTGTTTGCTTCTTTTCCAGAGTGTGGAAAGTC
TACAGTGCAGAAAGGCTTGAACCTGCCAGCTGATTTGAAATACTTTCCCCTGCGCAGGGCCGTATGCATCCTGCC
AAGCTGCGTTATATTCTGTACTGTGTACAATAAAGAAGTTTGCTTTTCGTTTA

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FIGURE 900

CCAAAG**ATG**TTGACCAGGAAGATCAAGCTGTGGGACATCAACGCCCACATCACCTGCCGCCTGTGCAGCGGGTAC
CTCATCGACGCCACCACGGTGACCGAGTGTCTGCACACCTTCTGCAGGAGCTGCCTGGTGAAGTACCTGGAGGAG
AACAACACCTGCCCCACCTGCAGGATTGTGATCCACCAGAGCCACCCCCTGCAGTACATCGGTCATGACAGAACC
ATGCAAGATATTGTTTACAAATTGGTACCAGGCCTCCAAGAAGCGGAAATGAGAAAGCAGAGGGAGTTCTATCAC
AAATTGGGCATGGAGGTGCCGGGAGACATCAAGGGGGAGACCTGCTCTGCAAAACAGCACTTAGATTCCCATCGG
AATGGTGAAACCAAAGCAGACGACAGTTCAAACAAAGAGGCCGCGGAGGAGAAGCCGGAGGAGGACAACGACTAC
CACCGCAGCGACGAGCAGGTGAGCATCTGCCTGGAGTGTAACAGCAGCAAACTGCGCGGGCTGAAGCGGAAGTGG
ATCCGCTGCTCAGCCCAGGCGACCGTCTTGCATCTGAAGAAGTTCATCGCCAAAAAACTCAACCTTTCATCCTTT
AACGAGCTGGACATTTTATGCAACGAGGAGATCCTGGGCAAGGACCACACACTCAAGTTCGTGGTTGTCACTAGG
TGGAGATTCAAGAAGGCGCCGCTCCTGCTGCACTACAGACCCAAGATGGACTTGCTG**TGA**ATGGTGCCACACAGC
GCCCACAGACTGGGCCCTCGCACCCTTGGGTGCTCCCGGCCGCCGCGCTTAAGAACATTGCCTCTGGGTGTCATG
TGGACCAGACTTCTGAATAGAGAATATTTATAACTTTTGTATGAGAGAG

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FIGURE 901

ATCCTGGGTTTGAGCAGTTTAAA**ATG**TCAGAAAGATTGCATGGGAACTGGATCAGACTGTACTTGGAGGAAAAGC
ATTCAGAAGTCCTATTCAACCTGGGCTCCAAGGTTCTCAGGCAGTACCTGGATGCTCTGAAGACGCTGAGCTTGT
CCCTGAGTGCACAAGTGGCCCAGTACGACATCTATTCGATGATGGTTCTCACCCTGCTCCTGCTCAGCGTCCCAC
AGGCACTGCGCAGAAAGGCTGAGCTGGAAGTCCCACTGTCATCTCCTGGGTTTTCTCTGCTCTTTTATTTGGTGA
TCCTGGTTCTTTCGGCCGTTCACGTCATTGTGTGCACCTCAGCTGAAAGTTCGTGCTACTTCTGTGGCCTCTCGT
GGCTGGCGGCAGGTGGGGTGATGGTGCTGGCCTCGGCGCTGCTGTGTGTGATTGTGTCTGTTCTGACCAACGTGC
TCGTGGGTGGAAACACCCCAAGGAAGACTCTGGTTGAACACCTGGTGTGTGCCACGTGCTGGCAGTGCCCTGGAC
AGGGGGCCTCAGGGAAGGACGTGGAGCAGCCTTATCCCAGGCCTCTGGGTGTCCCGACACAGGTGTTCACATCTG
TGCTGTCAGGTCAGATGCCTCAGTTCTTGGAAAGC**TAG**GTTCCTGCGACTGTTACCAAGGTGATTGTAAAGAGCT
GGCGGTCACAGAGGAACAAGCCCCCCCGCTGAGGGGGTGTGTGAATCGGACAGCCTCCCAGCAGAGGTGTGGGAG
CTGCAGCTGAGGG

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FIGURE 902

GGCTTGTGCGGCATCCTGCTCCGTCTGCAGGTTGTGCTTCCGGTGCGGAGGTCAGGGACAAG**ATG**GTGCCACCGG
TGCAGGTCTCTCCGCTCATCAAGCTCGGCCGCTACTCCGCCCTGTTCCTCGGTGTGGCCTACGGAGCCACGCGCT
ACAATTACCTAAAACCTCGGGCAGAAGAGGAGAGGAGGATAGCAGCAGAAGAGAAGAAGAAGCAGGATGAACTGA
AACGGATTGCCAGAGAATTGGCAGAAGATGACAGCATATTAAAG**TGA**GTGACCCTGCGACCCACTCTTTGGACCA
GCAGCGGATGAATAAAGCTTCCTGTGTTGTGTGAT

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FIGURE 903

GGAGTGGCAGCCGGAGTCTGAACTGTCCTGGGGGACCAAGCAGGAGCTTAAGATGGGCAAGACCTGGGGCCCTGG
GCAGACGCATCAAAGCAGGCAGAAGCAGGC**ATG**GCCAGCAGGAAGACCAAGAAGAAGGAAGGGGGTGCCCTCCGG
GCCCAGAGAGCCTCATCCAATGTCTTCTCCAACTTTGAGCAGACTCAGATCCAGGAGTTCAAGGAGGCATTCACA
CTCATGGATCAGAACCGAGATGGCTTCATTGACAAGGAGGACCTGAAGGACACCTATGCCTCCCTGGGCAAGACC
AACGTCAAGGACGACGAGCTGGACGCCATGCTCAAAGAGGCCTCGGGGCCCATCAACTTCACCATGTTTCTGAAC
CTGTTTGGGGAGAAGCTGAGCGGTACCGACGCCGAGGAGACCATTCTTAACGCCTTCAAGATGCTGGACCCGGAC
GGGAAAGGGAAAATCAACAAGGAGTACATCAAGCGTCTGCTGATGTCCCAGGCTGACAAGATGACGGCGGAAGAG
GTGGACCAGATGTTCCAGTTCGCCTCCATCGATGTGGCGGGCAACCTGGACTACAAGGCGCTCAGCTACGTGATC
ACCCACGGGGAGGAGAAGGAGGAG**TGA**GACCCAGCCGGGTCAATAAACCTGGACGCTTGGA

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FIGURE 904

GTAGTCCTTGGGGCGGAACTGGCCCCCCGTGGCCCGGCCCGGCCCGGCCCCACCTCCGCCCGCAGGCGGTCCCGG
CCCACGCGGGAAGGTCCTTAAGCCCGGGCGGCCGGCGGGACCGGCGGAGACCCGTGGAGGCCGCCGACG**ATG**GCG
GGGCCGACGGAGGCCGAGACGGGGTTGGCCGAGCCCCGGGCCCTGTGCGCGCAGCGGGGCCACCGCACCTACGCG
CGCCGCTGGGTGTTCCTGCTCGCGATCAGCCTGCTCAACTGCTCCAACGCCACGATCAACTGGCTGTCACTGGTC
TACCTCGTGGTATCCACCCCATTTGGCGTGGCGGCCATCTGGATCCTGGACTCCGTCGGGCTCCGTGCGGCGCTC
GGTGTCTATACCATCCCTGCTGGCGTCGTCTGCCTGCTGTCCACCATCTGCCTGTGGGAGAGTGTGCCCCCCACC
CCGCCCTCTGCCGGGGCTGCCAGCTCCACCTCAGAGAAGTTCCTGGATGGGCTCAAGCTGCAGCTCATGTGGAAC
AAGGCCTATGTCATCCTGGCTGTGTGCTTGGGGGGAATGATCGGGATCTCTGCCAGCTTCTCAGCCCTCCTGGAG
CAGATCCTCTGTGCAAGCGGCCACTCCAGTGGGTTTTCCGGCCTCTGTGGCGCTCTCTTCATCACGTTTGGGATC
CTGGGGGCACTGGCTCTCGGCCCCTATGTGGACCGGACCAAGCACTTCACTGAGGCCACCAAGATTGGCCTGTGC
CTGTTCTCTCTGGCCTGCGTGCCCTTTGCCCTGGTGTCCCAGCTGCAGGGACAGACCCTTGCCCTGGCTGCCACC
TGCTCGCTGCTCGGGCTGTTTGGCTTCTCGGTGGGCCCCGTGGCCATGGAGTTGGCGGTCGAGTGTTCCTTCCCC
GTGGGGGAGGGGGCTGCCACAGGCATGATCTTTGTGCTGGGGCAGGCCGAGGGAATACTCATCATGCTGGCAATG
ACGGCACTGACTGTGCGACGCTCGGAGCCGTCCTTGTCCACCTGCCAGCAGGGGGAGGATCCACTTGACTGGACA
GTGTCTCTGCTGCTGATGGCCGGCCTGTGCACCTTCTTCAGCTGCATCCTGGCGGTCTTCTTCCACACCCCATAC
CGGCGCCTGCAGGCCGAGTCTGGGGAGCCCCCCTCCACCCGTAACGCCGTGGGCGGCGCAGACTCAGGGCCGGGT
GTGGACCGAGGGGGAGCAGGAAGGGCTGGGGTCCTGGGGCCCAGCACGGCGACTCCGGAGTGCACGGCGAGGGGG
GCCTCGCTAGAGGACCCCAGAGGGCCCGGGAGCCCCCACCCAGCCTGCCACCGAGCGACTCCCCGTGCGCAAGGC
CCAGCAGCCACCGACGCGCCCTCCCGCCCCGGCAGACTCGCAGGCAGGGTCCAAGCGTCCAGGTTTATTGACCCG
GCTGGGTCTCACTCCTCCTTCTCCTCCCCGTGGGTGATCACG**TAG**CTGAGCGCCTTGTAGTCCAGGTTGCCCGCC
ACATCGATGGAGGCGAACTGGAACATCTGGTCCACCTGCGGGCGGGGGCGAAAGGGCTCCTTGCGGGCTCCGGGA
GCGAATTACAAGCGCGCACCTGC

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FIGURE 905

GGCGCGGGGACGCGGGTTTCTGCCTCAGGCCCTGCCCTGCTCTACTCTGCGCTCTCTGCCCGCGCCGCCGCCGCC
TCAGCCTCGGCCCTGCGCTGCGCGCCCGGCCCGTGCTGCC**ATG**GCCTGCCGCCCGCGAAGCCCGCCGAGGCATCA
GAGCCGCTGCGACGGTGACGCCAGCCCGCCGTCCCCCGCGCGATGGAGCCTGGGACGGAAGCGCAGAGCCGACGG
CAGGCGCTGGAGGCCCGAAGACGCCGAGGAGGCAGAGCACCGCGGCGCCGAGCGCAGACCCGAGAGCTTTACCAC
TCCTGAAGGCCCTAAACCCCGTTCCAGATGCTCTGACTGGGCAAGTGCAGTTGAAGAAGATGAAATGAGGACCAG
AGTTAACAAAGAAATGGCAAGATATAAAAGGAAACTCCTCATCAATGACTTTGGAAGAGAGAGAAAATCATCATC
AGGAAGTTCTGATTCAAAGGAGTCTATGTCTACTGTGCCGGCTGACTTTGAGACAGATGAAAGTGTCCTAATGAG
GAGACAGAAGCAGATCAACTATGGGAAGAACACAATTGCCTACGATCGTTATATTAAAGAAGTCCCAAGACACCT
TCGACAACCTGGCATTCATCCCAAGACCCCTAATAAATTTAAGAAGTATAGTCGACGTTCATGGGACCAGCAAAT
CAAACTCTGGAAGGTGGCTCTGCATTTTTGGGATCCTCCAGCGGAAGAAGGATGTGATTTGCAAGAAATACACCC
TGTAGACCTTGAATCTGCAGAAAGCAGCTCCGAGCCCCAGACCAGCTCTCAGGATGACTTTGATGTGTACTCTGG
CACACCCACCAAGGTGAGACACATGGACAGTCAAGTGGAGGATGAGTTTGATTTGGAAGCTTGTTTAACTGAACC
CTTGAGAGACTTCTCAGCCATGAGC**TAA**CTGCCCCCTGGCGGCCAGGAAGAGAAACAGCTCCTCCCCGACTAGGT
GGAAGGCTGGCCAGGCACCAAGCATGTGTGTGCACTTGTACCTGGTGGTTTCTCTGTTAGCAGTCCATTAGCTCA
TGCTGAATTATTTTTGCCTTACTTTCTTAAGAAACATTAATTTTATGTATAGTGAGTATATTTTGCATGTTTTAA
ATTGTAAATGGAGCTAAGTCCAAGAAAGTACTTGAAGCTCTCTTCCAGCGAGCTTAATTGCGTAATCCCTGTTGT
CCTCCAGGGTAAGCTGACACGTCTACATAACTGGTTTTCCACAGGCATCTTCAGTTATTGCTTGTCAGGTGGACT
GTTTTGGATTTAACCATGTAATCCATGGGACCAATTGAGAGTCAGCTACTTTTATAGGCATCAAAGTATTCTCAG
ACACCTTTAATATCTTTATGGAAACTTAATTTTTGGCCTTTTATCAATATGTCATAACAGCATTCTGAAGTCAGA
CATTGTTAAATTGAGCTATTAAACTAATGAGTTTTATGTAAGTTATATGGTCTTAATTTGGTACTTGTAAATAGC
ACTAGTTAGACTCTTTAGAATACTCCAAGAGTTAGGGCAGCAGAGTGGAGCGATTTAGAAAGAACATTTTAAAAC
AATCAGTTAATTTACCATGTAAAATTGCTGTAAATGATAATGTGTACAGATTTTCTGTTCAAATATTCAATTGTA
AACTTCTTGTTAAGACTGTTACGTTTCTATTGCTTTTGTATGGGATATTGCAAAAATAAAAAGGAAAGAACCCTC

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FIGURE 906

GGTTCCGTTTCCGGAGTGGAGGGCACGCCAGGGTGTCTGAAGCTGAGACCCCGGGCTCGCAGTCGCCCCATGAAT
TTCGAGTTCCGCAACTGACGCTACTGGGCGGGGCTTCATGGCCAGGGCCTCGCTCAGGCCTAAGTTTCCCCACCT
GTGCTCAATGCACAGGTGCGGTGCCGCCTCCAGGGCCGGCCGAGAAGAGAGGCCGCACCCGCACGGGGACTGCAT
CTCCCAGAGCGCCCCGCGAGCGGCCGAGCGGCGGGACTCCATGCCCTAGAGTGCCCCGCGGGCGGCCGGGCGGCG
GGACTCCATGTCCTAGAGTGCCCCGCGGGCGGCCGGGCGGCGGGACTCCATGTCCTAGAGTGCCCCGCGGGCGGC
CGGGCGGCGGGACTCCATGTCCTAGAGTGCCCCGCGGGCGGCCGGGCGGCGGCCGCCGCAACCGACAGGTCCGGG
ACTGGGCGCTGCGGCCTCGTCCGCGCGCCGGGGCGGGGGCCTAGCTCGACAGCTTCCCGGCGGCTGCGCG**ATG**GA
CAGCCCCGAGGTGACCTTCACTCTCGCCTATCTGGTGTTCGCCGTGTGCTTCGTGTTCACGCCCAACGAGTTCCA
CGCGGCGGGGCTCACGGTGCAGAACCTGCTGTCGGGCTGGCTGGGCAGCGAGGACGCCGCCTTCGTGCCCTTCCA
CTTGCGCCGCACGGCCGCCACGCTGTTGTGCCACTCGCTGCTGCCGCTCGGCTACTATGTGGGCATGTGCCTTGC
GGCTTCAGAAAAGCGGCTCCACGCCCTCAGCCAGGCCCCTGAGGCCTGGCGGCTCTTCCTGCTGCTGGCCGTGAC
CCTCCCCTCCATCGCCTGCATCCTGATCTACTACTGGTCCCGTGACCGGTGGGCCTGCCACCCACTGGCGCGCAC
CCTGGCCCTCTACGCCCTCCCACAGTCTGGCTGGCAGGCTGTTGCCTCCTCTGTCAACACTGAGTTCCGGCGGAT
TGACAAGTTTGCCACCGGTGCACCAGGTGCCCGTGTGATTGTGACAGACACGTGGGTGATGAAGGTAACCACCTA
CCGAGTGCACGTGGCCCAGCAGCAGGACGTGCACCTGACTGTGACGGAGTCTCGGCAGCATGAGCTCTCGCCAGA
CTCGAACTTGCCCGTGCAGCTCCTCACCATCCGTGTGGCCAGCACCAACCCTGCTGTGCAGGCCTTTGACATCTG
GCTGAACTCCACTGAGTACGGGGAGCTCTGCGAGAAGCTCCGGGCACCCATCCGCAGGGCAGCCCATGTGGTCAT
CCACCAGAGCCTGGGCGACCTGTTCCTGGAGACATTTGCCTCCCTGGTAGAGGTCAACCCGGCCTACTCAGTGCC
CAGCAGCCAGGAGCTGGAGGCCTGCATAGGCTGCATGCAGACACGTGCCAGCGTGAAGCTGGTGAAGACCTGCCA
GGAGGCAGCCACAGGCGAGTGCCAGCAGTGTTACTGCCGCCCCATGTGGTGCCTCACCTGCATGGGCAAGTGGTT
CGCCAGCCGCCAGGACCCCCTGCGCCCTGACACCTGGCTGGCCAGCCGCGTGCCCTGCCCCACCTGCCGCGCACG
CTTCTGCATCCTGGATGTGTGCACCGTGCGC**TGA**GTGGGCTGGGGCCTTGAGGTGACTCTGTGTCTCCCCCCAAA
GCCACAGGGCAGGGAAGGGGGTGGCTGGGCCTCCTGGCTGGCAAAGGGCTCTACTTAAAGCACATGATGTAGAGC
AACTCGCCTCTGCCCTGGGTCTGCAGAAGGCTGAGGACTTTTGGTTAAAAGCAATCCTCATGAAAACACCCCACC
CTGCTTGGCAGCCAGGGTACAAGTCCTGGGCACCTCCTCTTTGCCTCCCTCCTGCCCCTTTCCTGCTGGTGGGGG
CAGATCCTGCACACACAGACACAGCGTCTGCCCCCGAGCCATTCCCTGGAGACCCTGGGTCTACCCCAGGTGGTC
GTCATCTGGGCCATTTGCCTTACTTCTCTGGAGCATACCCACCCTCAGTTACGTGCCAGACCTGGACCGCATTCT
CCTGCCCTGTCCTGGAGCTGGCCCCTGGCTGCCTGGAGGACCCTGGGTAGGTCCTGAGGGTGGGATGGAGAAGAG
GGCACTGCTGTGGTGTGGGAGCAGTCCTGGGGCTTCCTGGTGGCTGTGACCAGTTGAGGGGCTGTTCCTGGGTGG
GGTGGCAATGGGAGGACAGGTCAGAGCGCCCTCATTTGTGGGGCTGCCCCTCCGGGTTTCTCATCCTGTCCTTGG
TGCCTTTTTCTGCCCAACAAGTCCAGGGAAGGCCGAGGTCTCAGACTCCTGGGTAGGGGTGGGGGTTTGAGTTGA
GGACCAAAGTGCCATAGCGACATCCAGAACACAAGCCCACCAGGGGTCCAGCCCAGGCTACCCACTCCCCTAGGG
TCTCCCAGGCTCAGAAGGGGATGCACGCCCCCTGTGGTCAAGCCTCTGGTGGGCGTCTTGCCCAGTTCCTGATGG
TTCAAGGGGAGGGGGGATGTTGGCCAGGCCCCAGGGCACAGCCCTGACACAGGTGTGGCTACTGGAGGGGCCTTC
ATACCTGCGGCCCCAAAGCCCCTGGGCTTGGCTGTTTGAGGCAGAGGTGATGGACTCCGGGGGCCTGACACTTGG
GATTTGGGAGGCTTCCTAGAGCGCTCAGCAGGTGAAGGCAGCAGGGGCCATGGCCGGGAGCCAGGCCTAGCTTTG
AACTGAGTTTCAAGGGCTGCCAAAGAGGGGCAGTGGGTTGGGGTTGTTTTTACTACAAAATAAGTTACTTAGTTT
TATAAAGACAAACCGATTGTAGCCAAATGACACCATATTTAATAAAATTTAGTCTGAAGTG

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FIGURE 907

CGGCGGTAGCAGCTAGGCTTGGCCCCCGGCGTGGAGCAGACGCGGACCCCTCCTTCCTGGCGGCGGCGGCGCGGG
CTCAGAGCCCGGCAACGGGCGGGCGGGCAGA**ATG**AGTCTGCAGGTCTTAAACGACAAAAATGTCAGCAATGAAAA
AAATACAGAAAATTGCGACTTCCTGTTTTCGCCACCAGAAGTTACCGGAAGATCGTCTGTTCTTCGTGTGTCACA
GAAAGAAAATGTGCCACCCAAGAACCTGGCCAAAGCTATGAAGGTGACTTTTCAGACACCTCTGCGGGATCCACA
GACGCACAGGATTCTAAGTCCTAGCATGGCCAGCAAACTTGAGGCTCCTTTCACTCAGGATGACACCCTTGGACT
GGAAAACTCACACCCGGTCTGGACACAGAAAGAGAACCAACAGCTCATCAAGGAAGTGGATGCCAAAACTACTCA
TGGAATTCTACAGAAACCAGTGGAGGCTGACACCGACCTCCTGGGGGATGCAAGCCCAGCCTTTGGGAGTGGCAG
CTCCAGCGAGTCTGGCCCAGGTGCCCTGGCTGACCTGGACTGCTCAAGCTCTTCCCAGAGCCCAGGAAGTTCTGA
GAACCAAATGGTGTCTCCAGGAAAAGTGTCTGGCAGCCCTGAGCAAGCCGTGGAGGAAAACCTTAGTTCCTATTC
CTTAGACAGAAGAGTGACACCCGCCTCTGAGACCCTAGAAGACCCTTGCAGGACAGAGTCCCAGCACAAAGCGGA
GACTCCGCACGGAGCCGAGGAAGAATGCAAAGCGGAGACTCCGCACGGAGCCGAGGAGGAATGCCGGCACGGTGG
GGTCTGTGCTCCCGCAGCAGTGGCCACTTCGCCTCCTGGTGCAATCCCTAAGGAAGCCTGCGGAGGAGCACCCCT
GCAGGGTCTGCCTGGCGAAGCCCTGGGCTGCCCTGCGGGTGTGGGCACCCCCGTGCCAGCAGATGGCACTCAGAC
CCTTACCTGTGCACACACCTCTGCTCCTGAGAGCACAGCCCCAACCAACCACCTGGTGGCTGGCAGGGCCATGAC
CCTGAGTCCTCAGGAAGAAGTGGCTGCAGGCCAAATGGCCAGCTCCTCGAGGAGCGGACCTGTAAAACTAGAATT
TGATGTATCTGATGGCGCCACCAGCAAAAGGGCACCCCCACCAAGGAGACTGGGAGAGAGGTCCGGCCTCAAGCC
TCCCTTGAGGAAAGCAGCAGTGAGGCAGCAAAAGGCCCCGCAGGAGGTGGAGGAGGACGACGGTAGGAGCGGAGC
AGGAGAGGACCCCCCCATGCCAGCTTCTCGGGGCTCTTACCACCTCGACTGGGACAAAATGGATGACCCAAACTT
CATCCCGTTCGGAGGTGACACCAAGTCTGGTTGCAGTGAGGCCCAGCCCCCAGAAAGCCCTGAGACCAGGCTGGG
CCAGCCAGCGGCTGAACAGTTGCATGCTGGGCCTGCCACGGAGGAGCCAGGTCCCTGTCTGAGCCAGCAGCTGCA
TTCAGCCTCAGCGGAGGACACGCCTGTGGTGCAGTTGGCAGCCGAGACCCCAACAGCAGAGAGCAAGGAGAGAGC
CTTGAACTCTGCCAGCACCTCGCTTCCCACAAGCTGTCCAGGCAGTGAGCCAGTGCCCACCCATCAGCAGGGGCA
GCCTGCCTTGGAGCTGAAAGAGGAGAGCTTCAGAGACCCCGCTGAGGTTCTAGGCACGGGCGCGGAGGTGGATTA
CCTGGAGCAGTTTGGAACTTCCTCGTTTAAGGAGTCGGCCTTGAGGAAGCAGTCCTTATACCTCAAGTTCGACCC
CCTCCTGAGGGACAGTCCTGGTAGACCAGTGCCCGTGGCCACCGAGACCAGCAGCATGCACGGTGCAAATGAGAC
TCCCTCAGGACGTCCGCGGGAAGCCAAGCTTGTGGAGTTCGATTTCTTGGGAGCACTGGACATTCCTGTGCCAGG
CCCACCCCCAGGTGTTCCCGCGCCTGGGGGCCCACCCCTGTCCACCGGACCTATAGTGGACCTGCTCCAGTACAG
CCAGAAGGACCTGGATGCAGTGGTAAAGGCGACACAGGAGGAGAACCGGGAGCTGAGGAGCAGGTGTGAGGAGCT
CCACGGGAAGAACCTGGAACTGGGGAAGATCATGGACAGGTTCGAAGAGGTTGTGTACCAGGCCATGGAGGAAGT
TCAGAAGCAGAAGGAACTTTCCAAAGCTGAAATCCAGAAAGTTCTAAAAGAAAAAGACCAACTTACCACAGATCT
GAACTCCATGGAGAAGTCCTTCTCCGACCTCTTCAAGCGTTTTGAGAAACAGAAAGAGGTGATCGAGGGCTACCG
CAAGAACGAAGAGTCACTGAAGAAGTGCGTGGAGGATTACCTGGCAAGGATCACCCAGGAGGGCCAGAGGTACCA
AGCCCTGAAGGCCCACGCGGAGGAGAAGCTGCAGCTGGCAAACGAGGAGATCGCCCAGGTCCGGAGCAAGGCCCA
GGCGGAAGCGTTGGCCCTCCAGGCCAGCCTGAGGAAGGAGCAGATGCGCATCCAGTCGCTGGAGAAGACAGTGGA
GCAGAAGACTAAAGAGAACGAGGAGCTGACCAGGATCTGCGACGACCTCATCTCCAAGATGGAGAAGATC**TGA**CC
TCCACGGAGCCGCTGTCCCCGCCCCCCTGCTCCCGTCTGTCTGTCCTGTCTGATTCTCTTAGGTGTCATGTTCTT
TTTTCTGTCTTGTCTTCAACTTTTTTAAAAACTAGATTGCTTTGAAAACATGACTCAATAAAAGTTTCCTTTCAA
TTT

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FIGURE 908A

GAACCGGTAGTCCGCGGTGGCGCGGTCCGCCCCTCACCTGGCCAGCGGCGGGCGCTGAGGGGCCCAATGGGAGCC
GCGGCCTGGCCGCCCCGCCCCGCGCCTCCGGACGTCTGTGCCGGGACAAGGCCGCCGCTGGTGCCGGGTCCTTGA
GGAGAGCGCCTCCCGTCCGAGGCCAGCCGCCTCTGTCAGCCGTCCGCGCGGGCCGGGTCTGAAGCGCCGCCGGGA
CGGCGAAGAGCCGCGGCCGCCGCGGAGAAGGAGGCAGCGCAGGAGGCCGGAGCGGCCGCCGCGCCCGAGCAC**ATG**

GCGTCCATCTTACTGAGGAGCTGCCGCGGCCGGGCGCCCGCCCGCCTCCCGCCGCCGCCTCGGTACACCGTCCCG
CGGGGTAGTCCAGGGGATCCTGCTCATCTCAGCTGTGCCAGCACCCTGGGGTTGAGGAACTGCCTGAATGTTCCA
TTTGGCTGCTGCACTCCCATCCACCCTGTGTACACATCCTCCAGAGGCGATCACCTCGGCTGTTGGGCTCTGAGG
CCCGAGTGCCTTCGCATAGTGTCGAGAGCGCCATGGACCTCTACCTCTGTGGGTTTTGTGGCTGTGGGACCTCAG
TGCCTTCCTGTGCGTGGCTGGCACTCTTCGCGCCCTGTTCGCGATGACTCGGTAGTAGAGAAGTCCCTCAAGTCC
TTGAAGGACAAGAACAAGAAGCTGGAGGAAGGCGGCCCGGTGTACAGCCCCCCCGCAGAGGTGGTGGTGAAGAAG
TCCCTGGGGCAGCGGGTGCTGGACGAGCTGAAGCACTACTACCATGGCTTCCGCCTGCTATGGATCGACACCAAG
ATCGCGGCACGCATGCTCTGGCGCATCCTCAACGGCCACAGCCTGACCCGCCGGGAGCGCAGGCAGTTTCTCCGG
ATCTGCGCTGACCTCTTCCGCCTGGTGCCGTTCCTTGTGTTCGTGGTGGTGCCGTTCATGGAGTTTCTGCTGCCT
GTTGCTGTGAAGCTCTTCCCCAACATGTTGCCATCCACATTTGAGACTCAGTCACTCAAGGAGGAGAGGCTGAAG
AAGGAGCTTCGGGTCAAGCTGGAGCTGGCCAAGTTCCTCCAGGACACCATCGAGGAGATGGCCTTGAAGAACAAG
GCAGCCAAGGGCAGCGCCACCAAAGACTTCTCTGTGTTTTTCCAGAAGATCCGGGAAACAGGGGAGAGGCCCAGC
AATGAGGAAATCATGCGTTTTTCCAAATTATTTGAGGATGAGCTGACCCTGGACAACCTGACACGGCCGCAGCTG
GTGGCCCTGTGCAAGCTGCTGGAGCTACAGTCCATCGGCACCAACAACTTCCTGCGCTTCCAGCTTACCATGCGG
CTGCGCTCCATAAAGGCAGACGACAAGCTGATTGCTGAGGAAGGGGTGGACAGCCTGAATGTCAAGGAGCTGCAG
GCAGCGTGTCGGGCACGAGGCATGCGGGCCCTGGGCGTCACGGAAGACCGCCTGAGGGGTCAGCTGAAGCAGTGG
CTGGACCTGCACCTGCATCAGGAGATCCCCACATCGCTGCTCATCCTGTCCCGGGCCATGTACCTCCCGGACACC
CTCTCTCCAGCCGACCAGCTCAAGTCCACACTGCAGACCCTCCCAGAGATTGTGGCAAAGGAAGCACAGGTGAAA
GTGGCCGAGGTGGAGGGCGAGCAGGTGGACAACAAGGCCAAGCTGGAGGCCACGCTGCAGGAGGAGGCGGCCATC
CAGCAGGAGCACCGTGAGAAGGAGCTGCAGAAGCGCTCGGAGGTGGCGAAGGATTTTGAGCCCGAACGTGTGGTA
GCTGCTCCCCAAAGGCCGGGGACCGAGCCACAGCCAGAAATGCCTGACACAGTCCTGCAGTCAGAGACCTTGAAG
GACACTGCCCCGGTGCTGGAGGGCTTGAAGGAGGAAGAGATCACGAAGGAGGAAATCGACATCCTCAGCGATGCC
TGCTCTAAGCTGCAGGAGCAGAAGAAGTCACTCACCAAGGAGAAGGAGGAGCTGGAGCTGCTGAAGGAGGATGTG
CAGGACTACAGCGAGGACTTGCAGGAGATCAAGAAGGAACTTTCAAAGACTGGTGAAGAAAAGTACGTGGAAGAA
TCTAAAGCCAGCAAGAGATTGACAAAAAGGGTGCAGCAAATGATCGGGCAGATCGATGGCTTGATCTCGCAGCTG
GAGATGGACCAGCAGGCTGGCAAGCTGGCCCCGGCCAACGGCATGCCCACGGGGGAGAACGTCATCAGTGTCGCT
GAGCTCATCAACGCCATGAAGCAAGTCAAGCACATTCCCGAAAGCAAGCTCACCAGCCTGGCCGCAGCACTGGAT
GAAAACAAGGATGGCAAGGTCAACATCGACGACCTCGTCAAGGTGATTGAGCTGGTGGACAAAGAAGATGTTCAC
ATCTCCACCAGCCAGGTGGCTGAGATTGTAGCAACACTGGAAAAAGAGGAGAAGGTGGAGGAGAAGGAGAAGGCC
AAAGAGAAGGCAGAGAAGGAGGTCGCAGAGGTGAAGAGC**TAG**AACCACTGGCCTGGGCACCTGTCCTCCTGCTGT
GCCGTCACCCTGGCAAGGGCCGTGAGGGCGATTGCTTTGTGGTGATTCTCAGTGGCTCATCTAATATTTTGGCTG
GAATAAATCAGAGACTTCCATAATCAAGTAAATTTTAATTTTCATCATTCCACGGAGATTCAGTCTGTCTGGAAT
CCCGGAACCCCTCCACAGAATCGTGTCTGGATCCACACTGTGGTGTGGCTGCCACGGCCTCCTGGCTCCAGAGGC
AGCTGGGCTGGGCCAAGGCAGGAAGGCGCCCCCATGTGTGTGGCCTCAGTCTCAGCATCTGACTGTGCTGCCCTG
TCCCCAGGGAAGAGAATGAGGACCACGTGGACTCCGCCCACACAGAGCTGGCTGCTGTGCCCACCCTCAGGGGCG
TCAGGAGACACAGCCTGGCCTCCTCAGGGCTGAAGATGCCTCCATTCGCCTGTGGACCTTGATTTCTAGATTTCA
GTGTCAATAGACCTGTCTTCCTGCACACTTTCAGTTGGATGTGGGTCATTGTGGAGACAGAGGTGTCTGCCATCT
CTGTGGCCTCTGGAGAGTGACGTCTCCCTGCTGGGAGTGCTGGTTCTCACGTGCGGTTTCCCTTGTGTATCGGAG
CTCTTTCTCGGCTTTCTATTTCCCCCAGTTCTTTAAGCAGTCAATTGGCACAGAGTTTCCCACGGGGGCTGCAGT
GGATTCACTGTGTCAGGGATGAGCCTGGCTTGGGGGTTGGTGGGGCTCTGAAGCGCATTTGGGGTTCTTTGTAGC
TTCTAATGTGAGGTTTGAGTCCAGTGCGCCCACAGCAGCATGCCCTTCTCACCCCTTGCAGTGTTGCAGGCTCAG
GCCCCTGGGCTCCTTCAGCAAGCAGGCTAGTCAATGAGGCATGAGGATCCGGCACAGGGCATCCCCTGGGGCTTC
AAGGGCAATACCCCCGTGCTTAGGGTTTGCCCTGTGCCCTCTGGGTGGGGTGGCCTCCCCGCACTCGGCAGCATG
GCCAGGCTGGCCAGGGCGTGGGCAGGTGGTGTCCTGTGGCACCTCCATCCTCCTGCCCAGCCGGCTGTGTCACAC

FIGURE 908B

TCATCTTTTTAAGGTCAGGTTGGTTCCTGGCAAAAATGTACCTCCAGGGGCCTCCAAGCATAGGATTTGGAAGAC
AGGAACGGCACAGGCGTCCAGGAAAGCAGCTGCACTCAGACAATGCCTTCTCCATTACTTGAAGCTTCTTTCTGT
TCAGCCATTAAAGAAACTTGACAAAATAGGAACAGGAGATATTTCTCAATTGTAAACCTTTGTGCAGGGACAGTT
GGCTTCCAGAGGCTTTCAGCTTTCAGTTATTTGAGAAGTTTGTTTTAGATCCTTAACTAATATTTATGAATTCTC
TCACCCTG

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FIGURE 909A

GAGACAAGATTTCGCCATGTTGCCCAGGCTGGTCTCGAACTTCTGAGCTCAAGCGATCTACCTGCCTCGTCCTCC
CAAAGTGTTGGAATTGCAGGTGTGAGCCACTGCACCCGGCCCTTGCCTCATGTTTGAATGATAATTTACCTGGGC
ATAAAATTCTGGACACTTGTGGTGGCACGAGCTGTCTGCTTTTCTGTGGAGACTGCGGGTTGCAGACACCAGCAG
CCCCCTATTGCTGCACGTCAGGTGTCCTCCACCTCAGTACTGTGGACATCTCGGGCCGCATAGCCCTGTTGCGCG
GGCATCCTGTGCGTTGCAGGAGATGCAGCAGCATCCATGACCGCAACCCATCAGAGTGTTCTAAGAACGGAAGCA
TCTGGGCTGG**ATG**GAATTTAGCATCAAGCAGAGTCCCCTTTCTGTTCAGAGTGTTGTAAAGTGCATAAAGATGAA
GCAGGCACCAGAAATCCTCGGCAGTGCCAACGGGAAGACTCCGAGCTGCGAGGTGAACCGCGAGTGTTCTGTGTT
CCTCAGCAAAGCCCAGCTCTCCAGTAGCCTGCAGGAGGGGGTCATGCAGAAGTTTAACGGCCACGACGCCCTGCC
CTTTATTCCAGCCGACAAGCTGAAAGATCTTACTTCCCGGGTGTTTAATGGAGAACCCGGCGCACACGATGCCAA
ACTGCGTTTTGAGTCCCAGGAAATGAAAGGGATTGGGACACCCCCTAACACTACCCCTATCAAAAATGGCTCTCC
AGAAATTAAGCTGAAAATCACCAAAACATACATGAATGGGAAGCCTCTCTTTGAATCTTCCATTTGTGGTGACAG
TGCTGCTGATGTGTCTCAGTCAGAAGAAAATGGACAAAAACCAGAAAACAAGGCGAGAAGGAACAGGAAGAGGAG
CATAAAATATGACTCCTTGCTGGAGCAGGGCCTTGTCGAAGCAGCTCTTGTGTCTAAGATCTCAAGTCCTTCAGA
TAAAAAGATTCCAGCTAAGAAAGAGTCTTGTCCAAACACTGGAAGAGACAAAGACCACCTGTTGAAATACAACGT
TGGTGATTTGGTGTGGTCCAAAGTGTCGGGTTACCCTTGGTGGCCTTGCATGGTTTCTGCAGATCCACTCCTTCA
CAGCTATACCAAACTTAAAGGTCAGAAAAAGAGTGCACGCCAGTATCACGTACAGTTCTTTGGTGACGCCCCAGA
AAGAGCTTGGATATTTGAGAAGAGCCTCGTAGCTTTTGAAGGAGAAGGACAGTTTGAAAAATTATGCCAGGAAAG
TGCCAAGCAGGCACCCACGAAAGCTGAGAAAATTAAGCTATTGAAACCAATTTCAGGGAAATTGAGGGCCCAGTG
GGAAATGGGCATTGTTCAAGCAGAAGAAGCTGCAAGCATGTCAGTGGAGGAGCGGAAAGCCAAGTTCACCTTTCT
CTATGTGGGGGACCAGCTTCATCTCAACCCTCAAGTAGCCAAGGAGGCTGGCATTGCTGCAGAGTCTTTGGGAGA
AATGGCAGAATCCTCAGGAGTCAGTGAAGAAGCTGCTGAAAACCCCAAGTCTGTGAGAGAAGAGTGCATTCCCAT
GAAGAGAAGGCGGAGGGCCAAACTGTGTAGCTCTGCAGAGACCCTGGAGAGTCACCCCGACATAGGGAAGAGTAC
TCCTCAAAAGACGGCAGAGGCTGACCCCAGAAGAGGAGTAGGGTCTCCTCCTGGGAGGAAGAAGACCACAGTCTC
CATGCCACGAAGCAGGAAGGGAGATGCAGCATCCCAGTTTTTGGTCTTCTGTCAAAAACACAGGGATGAGGTGGT
AGCTGAGCACCCAGATGCTTCAGGTGAGGAGATTGAAGAGCTGCTCAGGTCACAGTGGAGTCTGCTGAGTGAGAA
GCAGAGAGCACGCTACAACACCAAGTTTGCCCTGGTGGCCCCTGTCCAGGCTGAAGAAGACTCTGGTAATGTAAA
TGGGAAAAAAAGAAACCACACAAAGAGGATACAGGACCCTACAGAAGATGCTGAAGCTGAGGACACACCCAGGAA
AAGACTCAGGACGGACAAGCACAGTCTTCGGAAGAGAGACACAATCACTGACAAAACGGCCAGAACAAGCTCTTA
CAAGGCCATGGAGGCAGCCTCCTCGCTCAAGAGCCAGGCAGCAACGAAAAATCTGTCTGATGCATGTAAACCACT
GAAGAAGCGAAATCGGGCTTCCACGGCAGCATCTTCAGCTCTTGGGTTTAGCAAAAGTTCATCTCCTTCTGCATC
CTTAACTGAGAATGAGCTTTTGTGGGAGCCCACACCAGTCAAGTTGGATTTGAACCCAGCTGCTCTGTACTGCAC
T**TAG**AATGATGTAATATTCCAGGATGCTGCTGCAGGTGGCGTATCATCGTACACACTCAGTGACATTTCTATCAC
AATCATTTTATGGAAGATGTGTGATAATCTGTTTTTACTGGTATTAATAAACACATACAATGAAGAAAACAGATA
ACAAATTTTAAGACCAAGGTAAGATAACTAATCAAGGCCATTTAATCCGTCACATTCATCTCATAATAGAAACAC
GTTCATATTCCAGTGGTCAATGTAGATTTCAAGTTGAAAGGCAGTCCCTTTAGTTGGGGGCTGTCCAGAGCTGCA
GCAGGGCTTTGCACGGAAGGGGTGGCCCTGTTAGAGTTGCTTCTCCTCTAGTTTGTAACTTACTGGACTTTTGTG
GAAAATATCAGCGTCGCTACCCTCAGAAACAAACTAACAGCACACGTTAGGAGGAGTCCTCATCAGCTGTTCTCA
TTGCCAGTGAGATATATTCAGTATTGTAGATACTACACTAATTTCCAACATAAGAGGCAGGAAGAGTTTTGATTC
TATCCTTTTTTACTAAACAGTTTTATTATGACACTAGATACAGTAAATTTTTAGAAAAAAATACCATTTACAGTA
TTATTGTGAACCATTTAACCCTTTTGATCCAAGGCCCCGGACCAAGGGGATACTGTAATCAGGTTATGTACACCA
ACCTCTGCATCAGTTGCTTCTATAGAGCATCAGCCCTCATGTTTCATTGTCTTAATGTCGGGGAGCAGCCTGGTG
TCCTGCCCCAGGTGTCCGCATTTTTGCATGGTAAGGAAAAGGCTTACTTGCCCTTCAGCTCATAAAAGCAGAAGG
TGTGCTATTCACAGTACCATGCGAGTAGCCCACAGTTAATTCCCGGCAGATTCTTTGGCTGTGTTTTATCTTTAA
TGAACGTTTCTGACTAATATTTTGTTGTAAACCATTAAGTAATGTAACGCATGTAAGATGCTTAGGGTGCCTGGC
CAGGACTCCGTGGTTTCCTGTTGTGACAGTAATAATGGTTATAATAATAAAAATGATAAAATTGCCATCATTCTA
TTTTTATCCAAAAGTATAAATTTTGCTTTGGCATGAAAAGTGGTCCTCTTGACTGCATTATGCATGCGAGGATGA
AATAAACCTAGAAGTGGCAGAACACTGGATTTGTGTGTGTGGCGCTTTAGGGTGCTGGACTGTATGGCTGAGGGC
TGGTTGGGTTCCTCTATTGGCTCTGCTCAAATGTTGCAGGATACATAGCCCCAAAGATGGTCTAGGAGCAATCTA

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FIGURE 909B

AGCTGTGTTACTCCAAAGGACATGAAAAAGCTCAAGAGTAAAATTAAAATTCTCAAAAAAAAACCCCACGAAATT
TAAAGATGGGGAAAAAAAGATGGTATAAAAATGGCTCTGGTTCAATAAGCAGTCACCCAAAGTAAAGACTCTATC
TTGAAAGGCTTTTGGTGAAAATGAAGGGATTTCATTTGAAATTACAGCATGATGAATTTTGCATGGGTGGCCAGC
CAGCTAGCCCATAACTGATAGATGCATTAGAAGTCAGCCAGCGCATAGGTGCTCCCTCTATATTATGGAGAAAGC
AAAACCCTGCAAATGACCAAATGGTGTCCAAAGAGCAGCATGACATTGGCATCAGCTGAATAACCAGGGGCACAT
GGGGGAACGTGGATGGGAATGATAGTGTATCTCAGCGGGGGGTGGGGTGACATCGTTCCCTGGGGACATTGGGAA
GGTGGGCAGGGGCAAGTGAACTCAGCACTCTGCAGTGAGAGGGACAGTCCCATGTGTGGCAGCATTGTCCCACTT
CAGATGCCAGGAGTGGGCTCATCCTAGAGGAGCGGAGTTTTCCGAGAGGACCATCTCCTGGTTTCCTGAAGGAGG
TGGGTGGAAACGGCTCTTGTTTGAAAGAACTTAGGGAGGACCATTGGCTTGCCAAGAGTACAGAAATTCATTATG
CTGCTAATTTAACGTGGAATTCCTTCATTTCATAAGAACCTCAAAATAATGGTGATACATTCTAGCCTTAAGACA
TTTGAATTGCCGGTTGTTGAGGTGAATTTTGTTTGTCATACATGGAACCATTTTAGTCCCATTTGACTCACTTCA
GACCATCTTCCACACACTATGTCTGTGCTTGGAGAGGGGAGGTGGCTCTCCAGTGTAAAACTTGAGGCATTCACT
AGAGGTGAAAACTTGTCAGAATATATAAAAGCTTAGATTGTAGCTGTTCTAAAAACGTAAGTACTCCATTGTAAT
AGGGTGGCATCTTCAGGTAGTGCACATATTGGCAATAGAGGTCCTGAATTGTTTTTCTAAGACTGATCTGAGAGC
CATTGGGCCATCAAGCCTTTATATATCTGCTTCTAAAATTGCCCCACCTGCTCTAGATGGATCTTTGGGCCTTTC
CTCAGTGTTCATGCAAAAATTAAATGTCTTTTTTCAGCATACTGACTCCAGGTGTAGTTACATCTCAGTGCTGTC
TTGAGTATATATTTTATCTCTTATACCTGTATCTCCCAACTAGAAACAGCTCCAGTGTTTTTAAGAGAATGTTTC
TTAAAACCAATAGGAAACTTAAGCGAGGTTTCATGACACAACCTTTCATGTCGTGAAAGGCAGAGGGTGACTGTG
TGTGATGTGCAGAGTCCTTGGACAGGAGTCGGGGGCTCCTCTGTCCCACTGCTGCTTCTTGAGTGGGTGGAGTGG
TGCTTAGAGGATCTCCGAGAGGTCCCCGCAGCTCTAGGGAGATCTGATTTTGTGTTTTTTGTTTAAGTACTTCAC
ACAGAAGCCTAGGTAGATTTAAAATGGGGTGCTCAGGGACTGGGGAACAAGACGGGGTGGGGTGGGGAGATGGGC
ATTTGGAGAGTCTCATGTAGCTGGAGACGTTAAGAGCTGAGCACACCACAGGAAAGGAGGGAGGATGCTGTGTGA
GAGCCATGCTGTCAGGAGCAAGCTTGCTGCTCCTGTGCTGCCCTGGCCCTGGCCTTGCTTGCCCATGGTGTGTGT
GTCCAGAGGTGTGTGTGAGGCTGCCAGAACAAGTGCTGGGTCTGTCACAGAGAAGTTTAAAAAAGAAAACTAAGA
TTATAAATTAGCATCTAGTTCCAAAACCAAAAAAAGTGCCTGTGGATGTATATAAAATTAAGATGATAAGAAAGT
GCTCCTGAGAAGGCTCTTGCCAGAAGCCTGATGTGAGTGTGTGGCACCTGTGATGGCAGGGCTGTGAGCTGGGCT
TCTGTCCTCCTCTGTGTCCCGGCATGGAAGCCAGTATAAGCATTTCCAAATGAGGGAAAAGTCCTTGGCTCGTTT
GATCCAGTTGAGTTGAAAGGGTTGCCTTGGCAGCAGAGGCTCCTCTGATGGCTGACATCAGTCACTGCGTCTGGG
CCTGAGACGTGCATGGAGGGCTGTAAAGCCACGGATTCCCCTCGCTGGAGAGGCTCCTGTCTGATAGCGGTAGAT
GAAAAATAAGGTCGTTATGACTTTGGCAACTTGCTTCATTTCTTTTTCATTTGACTTACAACACACTTCTCTAAC
ATCTAGCCCTTTTAAATTTTTAATTAATTTCAAAGCTTCCTCTGGCCAGGTAGACTTTTGTATACAGACCAGGTG
AGAGCCCTTTTGCCTTAGTGTGAAAATGTAACATTTTATGCTTTTAAAATCAATAGATTCATCACCTTAGTTTTT
TAAAAAAAATCTATAAATAGGGTAATTGCTGAGGTGTGCGGTTTATCTTTGAGATGATAAAGCTAAATTATAGTC
TTTTGCCAGAGAAACTGAGGTAACTGTCATTAGAAAAGGTTTCTTAAAATACTCACAAAGCTGTTATTGGCTTCT
TAACTTCTAAAATTTGGGGGGTCTTGCATTTATTTATTATTTATTTATTTATTTAGAGACAGAGTCTCACC
CTGTTGGCCAGGCTGGAGTGCAGTAAGTGGCACAATCTCGGCTCACTGCAACCTCCGCCTCCTTGGTTCCAGCAA
TTCTTCTGCCTCAGCCTCCCGAGTAGCTGGGACTACAAGCGGCTGCCACCACACCTGGCTATTTTTTTTTGTATT
TTTAGTAGAGACAGGGTTTCGCCATATTGGCCAGGCTGGTCTTGAACTCCTGACCTCGTGATCCACCCGCCTCAC
CCTCCCAAAATGCTGGGATTACAGGCGTAAGCCACTGCACCTGGCGGGGTCTTGCTTATTTTAAAAGAAATATTC
TGATTCATATTTTAGGACTTTTTGTCAACGAAATTGGTTTTGATCCCTTTGGGTACCATTTTTATTGTTTTATGT
AGAATGTTAGAAATTACCACTAATTTACCTGGCAGTGATGTCAAATTGACTGTAATTAGCAGGTAGAAAATTATT
TGTATTATATTCATCTGATTCCTATACTGGATGAGCAAGGAGCATGCTTCCTTTGGGACATTCTTACAGCAGGGT
GTCTCTCCAACAGCCCGACAGCCTCATCTTTTTGGTTGGATACCTTTGAACTCCATGGTTACGTGTTAGGTCCAC
ATTTGTGTTTTTTTCTAGCCTACCTATAGTTGTTGGCCTTTTTGCATATAACTCTCGGGTAATATTTTGAAGCAT
GCTGACCATCCAGGCATATAGTATTTTCAAGAAATGACTGAGGTAGGGGTGGGGGTCCTGGTCCGGCTGATGGGG
GTTTGCTCAGCACTGTGCCAGTGGAAGCAGGTGTATTGTGGGCAGTTTTGTCATTGTCCTCAAGTCCTTCGCAGA
CAGTGCACAGCCTGCTGTCTGCAGTCGGCCAGACCAGGCTCCTCCCCAGCACACTCCCTGTGGGATGGCCGCTGC
TCAGGACACAGTGGGACAAAGTTGGGTTGATAGGATATTTTAGATTCATTTTACCTTTGACAAGGGCAGGCCTTG

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FIGURE 909C

AATTGGGAGCAGCAGCCACCTGGCCTCACTCTGGCCACAGGTGACACTTGGTCCTTGCTGCCACCTGCTTGGGGC
TATGTGGCTACGGCTACACAAAAGCCTGTGCAGGTTAGAAGACGACTGTGGTGTGCAGTGGTGCTCTGGGAGTGG
AGACTTCCTCTGTTCTCAGAGACTCACCCCCAGCCCTGACCCTAGAATTTAGGGATAGCCAGGAAGTTTCTAGTT
TGTGTAACCTAGAAGGGTCACTTTAATAAAAATTGTTATGAACTATAGTATTTTAGATGATGAGTGACTTATTTT
AATTCCACTTTAACATTTTACTGTGCTGTTAACTTGGAAGACCTGTTTGAAATTAGTCTTGATTTCACACTCATT
TAATCTGCTGAGCACAGGGCTGTTGTCATTTGTAAACGCAAACACTGTGGAGGTACTTCTCGCCATCAGCTTCCT
TCTTTACAAAACCATCATTTCAACATGAAAATTATGTCAGTTTATAGAAATATTTATTGTTCAAGGTCTGTAATT
GTATTTCAAAAACGATGTCGTATTCAAGTTGTGAAGGGATTTGTTTTGTCAAAAAATTAAAAACTCAATGTGTAT
GACGCCACTCTGAAGAGTAGGTGAGCGCTTTGCAGTCACAGAAGGTGGCATCTGACTGCGGCTCATACAGGTCAC
CCTGAAGGGCCACGTGCTTTTAGCAGTTGGCTGGAATGTGTTCACTAGGTTCCGTTATGTTTGGTAATATCATCT
TGAAAAGTCCCTGTAATAGATCAAGGAGACTGCATTCCCTGCCCTGAAGGAATGTATTTCTAAGGCAAATAGGCA
ACTTGGTACTATCTTATTCTGAGTAGAGAGTGGAGAAAGTATTTTCAGACTGAAGAAAACTTTGAAAAGTCAGGA
GCTAAGCTGCTCGGAGCTCAGTGCCGCAGCATGGCTGTGGTGGACGCGGGAAACAACGGGAAAGTTCTTGACAGA
GTCTGTGTCCGCTCAGTCCCTGCACTTTTCCTTTCCAAATGCATCTCGTTGGATATGGAATAGATCGTAGATGTT
GTAGACTGAGATTTGGGACTATGTTGGGACCGTACAGGTGAATGTGCCACCTCCACAAATGGCTTCTCCGAGTGA
GTCACGTCACCTGGTGCGTGGAGGTGGAGCCTGCGGCTGGAGTAAGGCTTGCTGTGGGACGCCCTCGTACTTTGC
TCTCCTTGCGGGTGGTTGCCGAGCCGAGAGCATTGGATCCTCCCCGACTGTGGCTAGTTGTCTGTCCGGTGGCTG
GGAGGGGGTGTGGTGGGAAAAAGTCGGAATCTCTGCAATCTGTGTCATGGACTGTACTATTGTAAGGTCTATATT
CTGTATGTGGGTCCCAGACCCTGATCAGGAAATGAGCCTCATGTGTGTCGTTAACATTTATATATTTCCATTCAA
AATATGTATTCAGTGTTTATTTCCTCAAAACAGACTTTGTTAATGTAGGAAATCTCTCCAAGTGGAAACGTGCTA
ACTTTTTCTGTAAATCTGAAATAAAAGGTGCTGTTCCTTCCTCTG

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FIGURE 910

AGTGCGAGGCGCGCGGGGCACGGAGGGCGGTGGCGGCGGGCTCCTGCGAGAAGCAAGCGGAACTTCCTGAGGTGA
CTGACGCGGGCCTCGGTTCTGGGCGCAGGGGTGTGGGGCTGGAGGAGTGGCCGCGATCCCCGTCTGCACCCAGGT
GCCTCTTTTTTTTCCTGCGCTCCTGGGGGCTCCTTCCAGGTGCTCCAGCAGCTGCCCGGGGATCAGGGCCCGGTC
CGCTGGGCGAGGAGCTGGGGCGGGGGCTGTGCGGGGCCTGTCACCCCCGTCTTCTGCAGCTCGGTGTCGACGGCG
ATTCGGTGGGCTTGTGCGTTTGTTTTGTCAGCGTGCTTAGGTGTCACAGCTGGGTGACCCTCCGAAGGAAGGTTT
TGCCGCTGGCGCGTCTGGTGTATCGCGGCCTTGGGGCCGCGGATCCCTGGGGCTTGCCGCTGCCTCTGGGGTTCG
CGCGGCCCTGGCGTCGGGGCTGCCTCAGCGCTGGCTGAAGGCCGGCCCGAAGCACCCTTAATTGTGGCCGCGCGC
TTCCCTGCTGCTCCTGCTGTTCTCCGCGTCGCGGTGGTGGACTCTGGAGGTGGAGCCTTGCCCGGCGAGACGTTG
AGGAGGAATCATTATAGATTCTAAAAATATATTTTCCCTTCTCTGTGGACTTGGTATAAAACGTAGCTTTTTTTC
TGCTTGGATTTATTTTCTAAAAATCAACACCGTAAACCCATATCAGATACAACAAAATTGGGGTAGTTAAAACC**A**
TGAGTTGTGGAAATGAGTTTGTGGAAACATTAAAAAAAATTGGTTATCCCAAAGCTGATAATCTTAATGGAGAAG
ACTTTGACTGGTTGTTTGAGGGCGTTGAAGATGAATCGTTTCTGAAGTGGTTTTGTGGGAATGTGAATGAACAGA
ACGTGTTGTCTGAAAGAGAATTGGAAGCTTTTAGCATTCTTCAGAAATCAGGCAAGCCTATTCTAGAAGGGGCGG
CATTGGATGAAGCTCTTAAAACGTGTAAAACTTCTGATTTGAAGACACCTAGACTGGATGATAAAGAGCTGGAGA
AATTAGAGGATGAGGTTCAAACTCTACTGAAATTAAAGAACCTAAAAATTCAGCGACGTAATAAATGTCAATTGA
TGGCTTCAGTAACTAGCCACAAATCTCTGAGGTTAAATGCTAAAGAAGAAGAAGCCACTAAAAAGCTGAAGCAGA
GTCAAGGAATTCTAAATGCAATGATCACTAAGATCAGTAATGAACTTCAGGCTCTTACTGATGAAGTTACACAAT
TGATGATGTTCTTCAGACATTCTAATTTAGGTCAAGGGACAAATCCACTGGTATTTTTATCGCAATTTTCCTTGG
AAAAATACCTAAGTCAGGAAGAGCAAAGCACAGCAGCATTAACTTTGTATACCAAAAAACAGTTCTTTCAGGGTA
TACATGAAGTAGTTGAAAGTTCAAATGAAGACAATTTTCAACTTTTAGATATACAGACACCATCTATTTGTGATA
ATCAAGAAATCCTTGAGGAGAGACGACTAGAGATGGCTAGACTGCAGCTCGCATACATTTGTGCTCAACATCAGT
TAATTCACTTAAAAGCAAGTAATTCGAGCATGAAGTCAAGTATAAAATGGGCAGAGGAGAGTCTTCACAGCCTAA
CCAGCAAGGCTGTGGACAAAGAAAATTTGGATGCTAAAATTTCTAGCTTGACCAGTGAGATTATGAAACTTGAAA
AAGAGGTCACTCAAATAAAAGACAGAAGTTTACCTGCTGTGGTAAGAGAGAATGCCCAGTTATTGAATATGCCAG
TGGTAAAGGGAGATTTTGATCTGCAGATTGCTAAACAAGATTATTATACAGCAAGACAAGAGTTAGTTTTAAATC
AATTAATAAAACAAAAGGCATCATTTGAACTTCTACAGTTATCATATGAAATTGAATTAAGAAAGCATCGGGACA
TATATCGTCAACTTGAAAATTTGGTTCAAGAACTTAGTCAAAGTAACATGATGCTCTACAAGCAATTAGAAATGT
TAACAGATCCATCAGTTTCTCAACAGATAAATCCAAGGAATACCATTGATACTAAGGATTATTCTACTCATAGGC
TTTACCAAGTTTTGGAGGGAGAGAATAAGAAAAAAGAATTGTTTCTAACTCATGGAAACCTTGAGGAAGTGGCTG
AGAAATTGAAACAGAATATTTCTTTAGTACAAGATCAGTTGGCAGTATCTGCTCAAGAACATTCTTTCTTTCTGT
CCAAACGGAATAAGGATGTGGACATGCTTTGTGATACTTTGTATCAAGGAGGAAATCAGCTTTTGCTTAGTGATC
AGGAGTTAACAGAGCAGTTTCATAAAGTTGAATCTCAACTGAATAAGCTAAATCATCTCCTCACTGATATTCTTG
CTGATGTGAAGACAAAAAGAAAAACTTTGGCAAATAATAAATTACATCAAATGGAAAGAGAATTCTATGTATATT
TTTTAAAAGATGAAGATTATCTGAAAGATATTGTGGAGAATTTAGAAACTCAATCAAAGATTAAGGCTGTTAGTC
TTGAAGAT**TGA**AAATTACTGAAAACTGAATCTTTATTACGTGTCCTCTTTTATTTATTAGAAGACTGTGTATAAT
AAACACTACTAAATTTTT

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FIGURE 911

GGAGGGGGCTCCGGGCGCCGCGCAGCAGACCTGCTCCGGCCGCGCGCCTCGCCGCTGTCCTCCGGGAGCGGCAGC
AGTAGCCCGGGCGGCGAGGGCTGGGGGTTCCTCGAGACTCTCAGAGGGGCGCCTCCCATCGGCGCCCACCACCCC
AACCTGTTCCTCGCGCGCCACTGCGCTGCGCCCCAGGACCCGCTGCCCAAC**ATG**GATTTTCTCCTGGCGCTGGTG
CTGGTATCCTCGCTCTACCTGCAGGCGGCCGCCGAGTTCGACGGGAGGTGGCCCAGGCAAATAGTGTCATCGATT
GGCCTATGTCGTTATGGTGGGAGGATTGACTGCTGCTGGGGCTGGGCTCGCCAGTCTTGGGGACAGTGTCAGCCT
GTGTGCCAACCACGATGCAAACATGGTGAATGTATCGGGCCAAACAAGTGCAAGTGTCATCCTGGTTATGCTGGA
AAAACCTGTAATCAAGCCGTAGGTTTTGAAAGATGTATGGTTCCAGCCGGGCGCCGTGGCTCTACCCTG**TAA**TCC
CAGCACTTTGGAAGGCCGAGGCGGGCGGATCACGAGGTCAGGATATCGAGACCATCCTGGCTAACACGGTGAAAC
CCCATCTCTACTAAAAATACAAAAAAAAAAAAAAAAA

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FIGURE 912

ATGGAGATTGTTGACTTCTATGTGGCTCATGTAGCATTGCATGCTTGTGGAGTGGCAACAGACATGGTGATTGAG
CACTGTATCAAAACACGGGCTTCCTTCGTCACATGCCCTTGCTGTTATGGTTTCATTCAGAACACCTCAAAGTTC
AATTTTCCAAAAAGTGAACAATTCAAGAAAACTTTATCATACAAGGAACACATGATTCTGTGCAGATTTGCAGAC
CAGACAGCTGTCCAGCTCCCACCCCAACGAAGGCTCATAGGAAAACAGTGCATGTGCTTGGTGGATCTGGATCGA
GCAAGAGCTGCAGAAGAATGTGGATACTCCGTTCAAGTGATATCCATGGAGCCAGAGAGCTGCTCTCCCAAAAAT
AACATGATTGTGGGAGTCCCCATT**TAA**

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FIGURE 913

ACTTCCCTTTTTCCGGTCCGCCGGATTATGAATGACGGCCGGCGCGAGTATTTTCCACATAAGGTGGCTGTCGTT
TTTCTCCTGGCGTCTGTGGAGGCGAGTGGTCTGCGGGCAGCAGCTCCCAGAGGCAGCCTTGGAATTCCAGCTCGG
ACTGGGCGGGAAGGCGCAGGCGGCCCAGGTCGCCGACACGCTCACGCACCCTCCCTGCCTGGCCGCGCCTCTGCG
ACCAGGTGACCCAATGAAAGAAGAAA**ATG**AAAGCCATAAAGAAAAGTCTTACAGAAGAAGAATACCTGTACCTGG
ACTTTTCTCACCAAACAGAAGGATGCATCTTTCCTCTTCATACATCTGTAACTTTATTTCTGTTATCTTACTGTG
ACTGTAAAATCTTTAAAATTTGCTTAGTTGTCACCAAAGAGGTGAGTAGAGATAGTTCACTACTAAGAGATGACC
TGATCCAGGATGTTGAAATACAGATTATTTCAAGGCAGGAGCTCCCACCAATAGTCCAAAATTGCTGTTTGCCTG
CAGTAGTAGAACGATCAGACAATTTTTGTAGAGCAGGACTTGCTGTTGTATTGAGACACATAATCCAGAAATCCT
ATGAAGCAGACCCCTTAAAGAAGGAACTTTTGGAACTTCTGGGCTTTAAAAAGACTTGCTTGAAAGCCTGTGCTG
AAGTTAGTCAGTGGACCAGGCTATGTGAACTCACCATCCCTTTGGCTATTGAGAATTTTCTCAGAGAATCTTCTG
ACCAGCCCCCAACTATACCTGTAGAAATACTACAGCTAGAGAAAAAGCTTAGTGAGCCTGTTAGAGTGCATAATG
ATGATAAACTCCGCAGGCAGAAGCTCAAGCAACAGAAGGCTGATGGAGTTGGGCCTCCCCTTACTAAGGGAAAGG
CAAAGAGCAAGGTCCACACACAGGAAACATCTGAAGGGTTGGATTCTTCATCCAAGAGTCTGGAACTGAAAGTGG
CATTCTCAAAGCTCACAGTACAGGAAGAACCAGCTACTACCAACAGAGAGCCTTCTCACATCAGAAAAGCAAAAG
CCTCCGACCTTCCACCTCTGGAGCATGTGTTTGCAGAAGGGCTTTACTTCACTCTGGCAGATATTGTGCTCTTGC
CCTGTATCCATCATTTCTTGGTAATTATCAGCAGGAAATTTTCTGAGAAGCTGGTAGAATTTCCATTGCTAGCCT
CTTGGTACCAGAGGATTCAGGAAGTGCCAGGAGTAAAAACAGCAGCTTCTAAGTGTGGGATCCAATTTCTCCATT
TACCAAAGTTGTTGACAACCTCAACTGAACAGCATCCAAACTTATGTGAAGTCCCAGGTGTAGAAGAGCAAAGCG
ATCCTTTATTTATAGGAGGACCAAGACCAACCATGGCCAAGTTAATGGAAAAGGGCATTGAAGTGATGTTTTCTC
CCCACCCTTGCCCTACTTGGACTCTTGATTGGAATGTTCTCCCTGCAGCAGTCAGCCCAAAGGAAGGTAAAATGT
CCAGTGATCGAGCTTTGAGGAAGCAGCAACAGTTGAACAACCTTGTCTATGTGGTAACAAATCAGGCCAAACCTG
GTGACAGAATTGTGGATTTCTGCAGCGGTGGGGTATTTTATCTCTCCTTTCATCCTTTT**TAG**TCTTTCTAAGATT
ATGAGACTTTTCTATATTACATTCAAGGTCATGTTTTTATTTGGCAAGATTGTGGTTTCAGAATGAGGAAAAGCT
GTGGGGACCAAAGCTAACTTGTTTGTCTTACTGACTTTTTCAGGGCCATGTTGGAATTGTCCTTGCTCACATGCT
GCCATCATGTCAGGTAAAGCCAGAATAAGAGATAAAAGGAAATATTTTAAAATTATACAGTTCAGCTAGCCAAAT
TTGGTTTATCCCGCTCTTGGAGTTTCTAGTCACTCACCCAAGTCAAATATGTGGCACAGGCATTGTCTTTTCTTT
GAAATAAACTTTCAAGACTCAGAATCTTAAGGAAAAAAAAGTAAAGTAAGATCATAAAACATTTATCAATTTTTA
AAAGAGGTTTATAGGTTTAAGTAATTTTTCAAAGAAGTAGCTATTTTATTGCTAAATAAAATAATTATGATTCAA
CTAGTTTAATTTTCAATATAATTTTAAATGGAAATATTGACCTCTGAAACTTGCTGAGCATATTCTTTTGGTATC
TTGATTTTGATCCATTGCATCAAAATTATAACAATAGCAAAATTTTTTAAAGC

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FIGURE 914

GTGAGTTGACCAGAGAAGGATGAGAGAATTGCCAAGTTGTACTGAACGCCAAGCTGAGAATGGTGATTCTGAAGA
TAGAATGCGTTTGCA**ATG**GCTGCTACTGTGAACTTGGAACTTGATCCCATTTTTTTGAAAGCACTAGGTTTCTTG
CATTCAAAGAGTAAAGATTCTGCTGAAAAGCTAAAAGCACTGCTTGATGAATCTTTGGCTCGGGGCATTGATTCC
AGTTACCGTCCATCTCAAAAGGATGTGGAGCCACCCAAAATTTCAAGCACAAAAAACATTTCCATTAAGCAAGAG
CCCAAAATATCATCCAGTCTTCCTTCTGGTAATAATAATGGCAAGGTCCTCACAACTGAAAAGGTAAAGAAGGAA
GCTGAAAAGAGACCTGCTGATAAAATGAAATCAGACATCACTGAAGGAGTTGATATTCCAAAGAAACCTAGATTG
GAGAAACCAGAAACACAGTCATCTCCCATTACTGTCCAAAGTAGCAAGGATTTACCTATGGCTGACCTTTCCAGT
TTTGAGGAGACCAGTGCTGATGATTTTGCCATGGAGATGGGATTGGCCTGCGTTGTTTGTAGGCAAATGATGGTG
GCATCTGGCAATCAATTAGTAGAATGTCAGGAGTGCCATAATCTCTACCACCGAGATTGTCATAAACCCCAGGTG
ACAGACAAGGAAGCGAATGACCCTCGCCTGGTGTGGTATTGTGCCCGATGTACCAGACAAATGAAAAGAATGGCT
CAAAAAACTCAGAAACCACCGCAGAAACCAGCCCCTGCAGTTGTTTCTGTAACTCCAGCTGTCAAAGATCCATTG
GTTAAGAAACCAGAAACTAAACTGAAACAAGAGACAACTTTTCTAGCGTTTAAGAGAACAGAAGTCAAGACATCC
ACAGTTATTTCAGGAAATTCTTCTAGTGCCAGCGTTTCCTCGTCAGTAACTAGTGGCTTAACTGGATGGGCAGCT
TTTGCAGCCAAAACTTCCTCTGCTGGTCCTTCAACAGCAAAATTGAGTTCAACAACACAAAACAATACTGGGAAA
CCTGCTACTTCGTCAGCTAACCAGAAACCTGTGGGTTTGACTGGTCTGGCAACATCATCCAAAGGTGGAATAGGT
TCCAAAATAGGTTCCAATAACAGCACTACGCCCACTGTACCTTTAAAACCACCTCCACCTCTAACCTTGGGTAAA
ACTGGCCTTAGTCGCTCAGTTAGTTGTGACAATGTCAGCAAAGTAGGTCTTCCTAGTCCAAGTAGTTTAGTTCCA
GGAAGCAGCAGCCAACTAAGTGGGAATGGAAATAGTGGAACATCAGGACCTAGTGGAAGTACTACCAGCAAAACT
ACTTCAGAATCCAGCAGCTCTCCCTCAGCATCCCTTAAAGGCCCAACTTCACAAGAATCACAGCTCAATGCTATG
AAGCGATTACAGATGGTCAAGAAGAAAGCTGCCCAAAAGAAACTCAAGAAG**TAA**TGTGGCCAAGTAGGTTTTTGT
ATCATATTAGCCTAAAGATGAAAGGCTTATTATTATGATATAATCTGTAATACACTGTAATTTAATAAAAGTCTT
CATAATC

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FIGURE 915

TGGCCACAACACCGACACAGTAGCATTTGTGCCAGTTTCTGGTTGGA**ATG**GTGACAACACGCTGGAGCCAAGTGC
TAACATGCCTTGGTTCAAGGGATGGAAAGTCACCCGTAAGGATGGCAATGCCAGTGGAACCACGCTGCTTGAGGC
TCTTGACTGCATCCTACCACCAACTCGTCCAACTGACAAGCCCTTGTGCCTGCCTCTCCAGGATGTCTACAAAAT
TGGTGGTATTGGTACTGTTCCTGTTGGCTGAGTGGAGACTGGTGTTCTCAAACCTGGTATGGTGGTCACCTTTGC
TCCAGTCAACGTTGCAACAGAAG**TAA**AATCTGTTGAAATGCACCATGAAGCAGAAGGCTAAATAAATATTATCCC
TACTACCTGCCACCCCACTGTTAATCAGTGGTGGAAGAATGGTCTCAGAACTGTTTGTTTCAATTGGCCATTGAA
GTTTAGTAGTAAAAGACTGGTTAATGATAACAATGCATCATAAAACCTTCAGAAGGAAAGGAGAATGTTTTGTGG
ACCACTTTGGTTTTCTTTCTTTGCATGTGGCAGTTTTAAGTTATTAGTTTTTAAAATCAGTACTTTTTACTGGAA
ACAACTTGACCAAAAATTTGTCACAGAATTTTGAGACCCATTAAAAAAGTTTAATGAAAAAA

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FIGURE 916

GAAAAATTTGAGAAGGAGGCTGCTGAG**ATG**GGAAAGTGCTCCTTCAAGTATGCCTGGGTCTTGGATAAACTGAAA
GCTGAGCGTGAACATGGTATCACCATTGATATCTCTTTGTGGAAATTTGAGACCAGCAAGTACTATGTGACTATC
ATTGATGCCCCAGGACACAGAGACCTCATCAAAAACATGATTACAGGGACATCTCAGGCTGACTGTGCTGTCTTG
ATTGTTGCTGCTGGTTTTGGTGAATTTGAAGCTGGTATCTCCAAGAATGGGCAGACCCGAGAGCACGCCCTTCTG
GCTTACACACTGGGTGTGAAACAACTAATTGTTGGTGTTAACAAAATGGATTCCACTGAGCCACCCTACAGCCAT
AAGAGATATGAGGAAATTGTTAAGGAAGTCAGCACTTACATTAAGAAAATTGGCCACAACACCGACACAGTAGCA
TTTGTGCCAGTTTCTGGTTGGAATGGTGACAACACGCTGGAGCCAAGTGCTAACATGCCTTGGTTCAAGGGATGG
AAAGTCACCCGTAAGGATGGCAATGCCAGTGGAACCACGCTGCTTGAGGCTCTTGACTGCATCCTACCACCAACT
CGTCCAACTGACAAGCCCTTGTGCCTGCCTCTCCAGGATGTCTACAAAATTGGTGGTATTGGTACTGTTCCTGTT
GGC**TGA**GTGGAGACTGGTGTTCTCAAACCTGGTATGGTGGTCACCTTTGCTCCAGTCAACGTTGCAACAGAAGTA
AAATCTGTGTCAAGGATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAAGGACCCACCAATGGAAGCAGCTG
GCTTCACTGCTCAGGTGATTATCCTG

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FIGURE 917

GCGCGCTGCTGCGGCTGCTGCGCACGGGTGCCCCAGCCGCTGCGTGCCTGCGGTTGGGGACCAGTGCAGGGACCG
GGTCGCGCCGTGCT**ATG**GCCCTGTACCACACTGAGGAGCGCGGCCAGCCCTGCTCGCAGAATTACCGCCTCTTCT
TTAGGCCCTCAGCGGTAGCCGCGCGGTCCAGGCCACCTTACTTCCCGCGGGAGCGCGCACCGAGTCACGAGAACT
GCCAGCGAGGAGGCGGCGGATCAAGACCCCAAAGCGGAGAGCAGAGGCGCAGGGCTGCCGGCTGGGGGGTAGATA
GCGCCCTGTGCCCTGCCAGCCGCCCTCCCCGAGGGGTAGGCAGAGTGCAAGCGGCCACCCCGCGGCGGCCTGCAG
CCATTAGCCGGCCCGGCCGCCGTTCCCGGTTCACACAACTCAGTGAGGAAGGGAAGGCAGAGCCCGCCCACACGC
CGGCCTTCCTAGAGGCG**TAA**GAAACCTCCTACTGCGGGAGCTCCCTGACGTCGGAGAGGCAGGCGGAACTTTGCG
GATGCCTAATCCAGCGCGTCTTCTTTTTTTGGAGGGACTCTGATGAAGGTTCTTTCCCCAGAAGCTTGACTTGGT
ACGCACAAGTTTACACCCTGAGTGTGATCCACCATCCAAAGCCTCGTTGGTTCCGGAGCAGCCCCTTTTCCTCCC
CAAGCTGAACAAGCCCAGAAGGCTAAGCGACTTCGGGGGGGTCCCTGAGTTGCCGAGCTCAGAGAAAGGACCCAG
GTCTTCGTGACTCATTGTTCCGTGTACCCCATTGTTTCACTGTGTACGTTAACCGTAACAGAAAATAGCGATGTC
GGTCGCTTGCCTTCACTCCCCACTGACTGCAGAGCCTTGGAGTGGTAGTATCAAAGTGGGCCTTGCATTATCGCT
CCCCTTTTCGGAGCACTGGCTCTGGAGGCTTTCAGTTCTAAGCAGGCCCTCGAGTTCTTCACGTCTTAACTCTGT
GACCCCGGACGAGTTTAAGTTGCTAAGCCTTGTTTTTTCTCATCCGTAAAATAGGGCTGCAAGTATTACATGACA
TTATATATGTAAACTGATTAGTCACAGGGCCTAAAATATAAATTACTATTGTTAATACCGATAATCATTATAGAT
ATTTGTAATTTATGAGAGATTTGCAGTTATGCTACATGAGTTTAGGGTCGAGGATTATTTTGTGGGAAAGAAGAG
TTTGCCTAAAGTCGTGTGATTATAATGCAACTAGTACTAGAATTTCTATTTTCTTCAAAATTGGTTGCAGTTTTC
ACCCTATGCCACATATTTTCTTCTATCTTTGGTTAAGACTGATCAGGTGAACAGGAAGTCTCAAATTTCTGAATG
GATTATGTTCTAAAAGGTTACCATGTGATGATTAATGGGAATAGTCAGAAAAAATTATGAAGTGGCAGTTCGCTT
TTTAAGCAGATTGAAAAAAGGCCTGTCTACTGCAAGTATTCTAGATTTGCAATAAGTACGGTAATTAATAGATAC
CCAAATAATAAATATTTATGAAGTGTGCTAGACACTGTTAGGCATAGTACAGAGATTCACAATATTACTATAATT
ATGGAAAAAGTAAATACACTGGTTGAGCAAAAACAGGCTTGAGAAGCCAGGAGCGCACAGAGTAGTTGACCCAGT
ACCGGATTTGGAATGGGGAGTCCTAGGCCATAATCTTGGCTCTGCCGTTAACTCGCTGTGTGCTGTTGGGTGGGT
GGTTACTTCAGTTCTTTCTCACAGAGCCAGTTTCTTCAGCTGTAAAATGAAGCTTTTGACCTTGAAACGATGATC
CTCAAGGTCCTTCTCAGCACTGGTATTCCCTGAAGGCATTGGATGAATAACGGAGATTCTAACAGTCTCTGTTAA
GACAGGATGTCGAATGGGGGCATTTTTGGGAGTATGTTGGCCTCTTATTGTTGGTTTGTTTCTTTAGCTGCAAAT
GTACTTAGGACTCATGATTTTTCTGTAACTAGAGTGCCACAAATAAAATACGTTTTTCATTCAGTTGGATAAACA
GGGCAGGAAAGAAGAAAACCCGATTTTACTAAGGTAAATGGGC

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FIGURE 918A

GGTGGTTCGCAGAAGCAGCAGTGAAGAGAAGCTACTGTGTTTGGTGCGGGAGCGAGCTGGCCACACCTGTGAGGC
TGCAGTGATTGTGATTCTCATCCTGGTGTGGGAAGGAATCCCGCTGTCTCTGGCTGACAAACTCTACTCGGAGCT
TACCGAGACGCTGAGGAAATACGGCACGCTCACCAATCGCCGGTGTGCCTTGAATGAAGAGAGAACTTGCGCCTG
TCAGGGGCTGGATCCAGAAACCTGTGGTGCCTCCTTCTCTTTTGGTTGTTCATGGAGC**ATG**TACTACAATGGATG
TAAGTTTGCCAGAAGCAAGATCCCAAGGAAGTTTAAGCTGCTTGGGGATGACCCAAAAGAGGAAGAGAAACTGGA
GTCTCATTTGCAAAACCTGTCCACTCTTATGGCACCAACATATAAGAAACTTGCACCTGATGCATATAATAATCA
GATTGAATATGAACACAGAGCACCAGAGTGCCGTCTGGGTCTGAAGGAAGGCCGTCCATTCTCAGGGGTCACTGC
ATGTTTGGACTTCTGTGCTCATGCCCACAGAGACTTGCACAACATGCAGAATGGCAGCACATTGGTATGCACTCT
CACTAGAGAAGACAATCGAGAATTTGGAGGAAAACCTGAGGATGAGCAGCTTCACGTTCTGCCTTTATACAAAGT
CTCTGACGTGGATGAGTTTGGGAGTGTGGAAGCTCAGGAGGAGAAAAAACGGAGTGGTGCCATTCAGGTACTGAG
TTCTTTTCGGCGAAAAGTCAGGATGTTAGCAGAGCCAGTCAAGACTTGCCGACAAAGGAAACTAGAAGCCAAGAA
AGCTGCAGCTGAAAAGCTTTCCTCCCTGGAGAACAGCTCAAATAAAAATGAAAAGGAAAAGTCAGCCCCATCACG
TACAAAACAAACTGAAAACGCAAGCCAGGCTAAACAGTTGGCAGAACTTTTGCGACTTTCAGGACCAGTCATGCA
GCAGTCCCAGCAGCCCCAGCCTCTACAGAAGCAGCCACCACAGCCCCAGCAGCAGCAGAGACCCCAGCAGCAGCA
GCCACATCACCCTCAGACAGAGTCTGTCAACTCTTATTCTGCTTCTGGATCCACCAATCCATACATGAGACGGCC
CAATCCAGTTAGTCCTTATCCAAACTCTTCACACACTTCAGATATCTATGGAAGCACCAGCCCTATGAACTTCTA
TTCCACCTCATCTCAAGCTGCAGGTTCATATTTGAATTCTTCTAATCCCATGAACCCTTACCCTGGGCTTTTGAA
TCAGAATACCCAATATCCATCATATCAATGCAATGGAAACCTATCAGTGGACAACTGCTCCCCATATCTGGGTTC
CTATTCTCCCCAGTCTCAGCCGATGGATCTGTATAGGTATCCAAGCCAAGACCCTCTGTCTAAGCTCAGTCTACC
ACCCATCCATACACTTTACCAGCCAAGGTTTGGAAATAGCCAGAGTTTTACATCTAAATACTTAGGTTATGGAAA
CCAAAATATGCAGGGAGATGGTTTCAGCAGTTGTACCATTAGACCAAATGTACATCATGTAGGGAAATTGCCTCC
TTATCCCACTCATGAGATGGATGGCCACTTCATGGGAGCCACCTCTAGATTACCACCCAATCTGAGCAATCCAAA
CATGGACTATAAAAATGGTGAACATCATTCACCTTCTCACATAATCCATAACTACAGTGCAGCTCCGGGCATGTT
CAACAGCTCTCTTCATGCCCTGCATCTCCAAAACAAGGAGAATGACATGCTTTCCCACACAGCTAATGGGTTATC
AAAGATGCTTCCAGCTCTTAACCATGATAGAACTGCTTGTGTCCAAGGAGGCTTACACAAATTAAGTGATGCTAA
TGGTCAGGAAAAGCAGCCATTGGCACTAGTCCAGGGTGTGGCTTCTGGTGCAGAGGACAACGATGAGGTCTGGTC
AGACAGCGAGCAGAGCTTTCTGGATCCTGACATTGGGGGAGTGGCCGTGGCTCCAACTCATGGGTCAATTCTCAT
TGAGTGTGCAAAGCGTGAGCTGCATGCCACAACCCCTTTAAAGAATCCCAATAGGAATCACCCCACCAGGATCTC
CCTCGTCTTTTACCAGCATAAGAGCATGAATGAGCCAAAACATGGCTTGGCTCTTTGGGAAGCCAAAATGGCTGA
AAAAGCCCGTGAGAAAGAGGAAGAGTGTGAAAAGTATGGCCCAGACTATGTGCCTCAGAAATCCCATGGCAAAAA
AGTGAAACGGGAGCCTGCTGAGCCACATGAAACTTCAGAGCCCACTTACCTGCGTTTCATCAAGTCTCTTGCCGA
AAGGACCATGTCCGTGACCACAGACTCCACAGTAACTACATCTCCATATGCCTTCACTCGGGTCACAGGGCCTTA
CAACAGATATATA**TGA**TATCACCCCCTTTTGTTGGTTACCTCACTTGAAAAGACCACAACCAACCTGTCAGTAGT
ATAGTTCTCATGACGTGGGCAGTGGGGAAAGGTCACAGTATTCATGACAAATGTGGTGGGAAAAACCTCAGCTCA
CCAGCAACAAAAGAGGTTATCTTACCATAGCACTTAATTTTCACTGGCTCCCAAGTGGTCACAGATGGCATCTAG
GAAAAGACCAAAGCATTCTATGCAAAAAGAAGGTGGGGAAGAAAGTGTTCCGCAATTTACATTTTTAAACACTGG
TTCTATTATTGGACGAGATGATATGTAAATGTGATCCCCCCCCCCCGCTTACAACTCTACACATCTGTGACCACT
TTTAATAATATCAAGTTTGCATAGTCATGGAACACAAATCAAACAAGTACTGTAGTATTACAGTGACAGGAATCT
TAAAATACCATCTGGTGCTGAATATATGATGTACTGAAATACTGGAATTATGGCTTTTTGAAATGCAGTTTTTAC
TGTAATCTTAACTTTTATTTATCAAAATAGCTACAGGAAACATGAATAGCAGGAAAACACTGAATTTGTTTGGAT
GTTCTAAGAAATGGTGCTAAGAAAATGGTGTCTTTAATAGCTAAAAATTTAATGCCTTTATATCATCAAGATGCT
ATCAGTGTACTCCAGTGCCCTTGAATAATAGGGGTACCTTTTCATTCAAGTTTTTATCATAATTACCTATTCTTA
CACAAGCTTAGTTTTTAAAATGTGGACATTTTAAAGGCCTCTGGATTTTGCTCATCCAGTGAAGTCCTTGTAGGA
CAATAAACGTATATATGTACATATATACACAAACATGTATATGTGCACACACATGTATATGTATAAATATTTTAA
ATGGTGTTTTAGAAGCACTTTGTCTACCTAAGCTTTGACAACTTGAACAATGCTAAGGTACTGAGATGTTTAAAA
AACAAGTTTACTTTCATTTTAGAATGCAAAGTTGATTTTTTTAAGGAAACAAAGAAAGCTTTTAAAATATTTTTG
CTTTTAGCCATGCATCTGCTGATGAGCAATTGTGTCCATTTTTAACACAGCCAGTTAAATCCACCATGGGGCTTA
CTGGATTCAAGGGAATACGTTAGTCCACAAAACATGTTTTCTGGTGCTCATCTCACATGCTATACTGTAAAACAG

FIGURE 918B

TTTTATACAAAATTGTATGACAAGTTCATTGCTCAAAAATGTACAGTTTTAAGAATTTTCTATTAACTGCAGGTA
ATAATTAGCTGCATGCTGCAGACTCAACAAAGCTAGTTCACTGAAGCCTATGCTATTTTATGGATCATAGGCTCT
TCAGAGAACTGAATGGCAGTCTGCCTTTGTGTTGATAATTATGTACATTGTGACGTTGTCATTTCTTAGCTTAAG
TGTCCTCTTTAACAAGAGGATTGAGCAGACTGATGCCTGCATAAGATGAATAAACAGGGTTAGTTCCATGTGAAT
CTGTCAGTTAAAAAGAAACAAAAACAGGCAGCTGGTTTGCTGTGGTGGTTTTAAATCATTAATTTGTATAAAGAA
GTGAAAGAGTTGTATAGTAAATTAAATTGTAAACAAAACTTTTTTAATGCAATGCTTTAGTATTTTAGTACTGTA
AAAAAATTAAATATATACATATATATATATATATATATATATATATATATATGAGTTTGAAGCAGAATTCACATCAT
GATGGTGCTACTCAGCCTGCTACAAATATATCATAATGTGAGCTAAGAATTCATTAAATGTTTGAGTGATGTTCC
TACTTGTCATATACCTCAACACTAGTTTGGCAATAGGATATTGAACTGAGAGTGAAAGCATTGTGTACCATCATT
TTTTTCCAAGTCCTTTTTTTTATTGTTAAAAAAAAAAGCATACCTTTTTTCAATACTTGATTTCTTAGCAAGTAT
AACTTGAACTTCAACCTTTTTGTTCTAAAAATTCAGGGATATTTCAGCTCATGCTCTCCCTATGCCAACATGTCA
CCTGTGTTTATGTAAAATTGTTGTAGGTTAATAAATATATTCTTTGTCAGGGATTTAACCCTTTTATTTTGAATC
CCTTCTATTTTACTTGTACATGTGCTGATGTAACTAAAACTAATTTTGTAAATCTGTTGGCTCTTTTTATTGTAA
AGAAAAGCATTTTAAAAGTTTGAGGAATCTTTTGACTGTTTCAAGCAGGAAAAAAAAATTACATGAAAATAGAAT
GCACTGAGTTGATAAAGGGAAAAATTGTAAGGCAGGAGTTTGGCAAGTGGCTGTTGGCCAGAGACTTACTTGTAA
CTCTCTAAATGAAGTTTTTTTGATCCTGTAATCACTGAAGGTACATACTCCATGTGGACTTCCCTTAAACAGGCA
AACACCTACAGGTATGGTGTGCAACAGATTGTACAATTACATTTTGGCCTAAATACATTTTTGCTTACTAGTATT
TAAAATAAATTCTTAATCAGAGGAGGCCTTTGGGTTTTATTGGTCAAATCTTTGTAAGCTGGCTTTTGTCTTTTT
AAAAAATTTCTTGAATTTGTGGTTGTGTCCAATTTGCAAACATTTCCAAAAATGTTTGCTTTGCTTACAAACCAC
ATGATTTTAATGTTTTTTGTATACCATAATATCTAGCCCCAAACATTTGATTACTACATGTGCATTGGTGATTTT
GATCATCCATTCTTAATATTTGATTTCTGTGTCACCTACTGTCATTTGTTAAACTGCTGGCCAACAAGAACAGGA
AGTATAGTTTGGGGGGTTGGGGAGAGTTTACATAAGGAAGAGAAGAAATTGAGTGGCATATTGTAAATATCAGAT
CTATAATTGTAAATATAAAACCTGCCTCAGTTAGAATGAATGGAAAGCAGATCTACAATTTGCTAATATAGGAAT
ATCAGGTTGACTATATAGCCATACTTGAAAATGCTTCTGAGTGGTGTCAACTTTACTTGAATGAATTTTTCATCT
TGATTGACGCACAGTGATGTACAGTTCACTTCTGAAGCTAGTGGTTAACTTGTGTAGGAAACTTTTGCAGTTTGA
CACTAAGATAACTTCTGTGTGCATTTTTCTATGCTTTTTTAAAAACTAGTTTCATTTCATTTTCATGAGATGTTT
GGTTTATAAGATCTGAGGATGGTTATAAATACTGTAAGTATTGTAATGTTATGAATGCAGGTTATTTGAAAGCTG
TTTATTATTATATCATTCCTGATAATGCTATGTGAGTGTTTTTAATAAAATTTATATTTATTTAATGCACTCT

FIGURE 919

TTTACGATATCCAAATAAACTGGACACCATCACATGGACGTGGCAAGGACCTGGAGCGCTGGAAATCCTGTGGCT
CACGCTGTGTCAGTTTCACAACCAAGTGGAAATCGAGTTCCTTCCTGTGTACAGCCCTTCTGAGGAGGAGAAGAG
GAACCCCGCGCTGTATGCCAGCAACGTGCGGCGAGTCATGGCCGAGGCCTTGGGTGTCTCCGTGACTGACTACAC
GTTCGAGGACTGCCAGCTGGCCCTGGCGGAAGGACAGCTCCGTCTCCCCGCTGACACTTGCCTTTTAGAATTTGC
CAGGCTCGTGCGGGGCCTCGGGCTAAAACCAGAAAAGCTTGAAAAAGATCTGGACAGATACTCAGAAAGAGCCAG
GATGAAGGGAGGAGAGAAGATAGGTATTGCGGAGTTTGCCGCCTCCCTGGAAGTCCCCGTTTCTGACTTGCTGGA
AGACATGTTTTCACTGTTCGACGAGAGCGGCAGCGGCGAGGTGGACCTGCGAGAGTGTGTGGTTGCCCTGTCTGT
CGTCTGCCGGCCGGCCCGGACCCTGGACACCATCCAGCTGGCTTTCAAGATGTACGGAGCGCAAGAGGACGGCAG
CGTCGGCGAAGGTGACCTGTCCTGCATCCTCAAGACGGCCCTGGGGGGTGGCAGAGCTCACCGTGACCGACCTATT
CCGAGCCATTGACCAAGAGGAGAAGGGGAAGATCACATTCGCTGACTTCCACAGGTTTGCAGAAATGTACCCTGC
CTTCGCAGAGGAATACCTGTACCCGGATCAGACACATTTCGAAAGCTGTGCAGAGACCTCACCTGCGCCAATCCC
AAACGGCTTCTGTGCCGATTTCAGCCCGGAAAACTCAGACGCTGGGCGGAAGCCTGTTCGCAAGAAGCTGGATTA
GGACCCAGGGTTGCGGAGAGACGCGGCCCCTCCCGCGTGGACATCACCGCCATGAGCCTCTTTGCGAGTGACCTC
TGGGCTCCGCTCCTCACTCCTGCTGTACAGGCACTGTCTTCAGCCCGAGTTCCAGGGGCCTCGGGGGCTGTTTGT
ATCTTGTTCCTTTGTGAAGTGTGTTGCAGAACCGACGCTTACTGTGCGAGAATCGGAGGGCGCGCACGCGGATCC
CCCGCCTGGCCTGGACCCCGTGGGGTCAGGTTCCCTGCCGGGCGGGGGGCACCGGTGCCGCCCCGTGTTCTCCCA
CGGGGCCCTGGTTTCGAGTCTCTGTCACAGCCTCTTCCGGCGGCAGCGTGCACCGGGCGGGCCTCCGTGCACACT
CAGCACACGCCTGCCACACAGCGTGCGCTTGCGTGTCACTCTGGCACGAAACCTGTCTGCCTCTGTGGATCCACA
GCCTGGCAGAGCCGAGCCGTCACCTGATTTTTCAGTGTTTCTACCTGTGTGCTGGAGCTCATGAGTATTTTATAA
ACTCCATTTAGGTACTTCAGGAAACATGCAGCATTTTTTAAAAAATGAAAATTGTTTTTCTACTTCATTTTTCCT
TTTAGAGTCAAAGGATATTTATTTATAGGCCTTTTTTTTTTTAATATAGAATCTGAGGCTGTTTGGGCTTTGACT
TAAATTTCCATCAGGCCTCTCTCCAGCAGGTAATCCCTCTCCTTCCGCTGGGTCCCCTGGGGAGGTGTGAACTCA
AGGGCCTAGCCCCAAAACACTTTTTCTGCTTTTCTTAATCCTTTTCCAGTCCCCTCTTTTTTTATAAACGTTGGC
AGTTTGATGTTTCTGTTTCGGCATAACGTAATCCATTTCACTGTAGCCTAAACTCCAGTCCGAGGTTGGATATTG
TTCAAATGAGCAGGGCCCGAGCTGGAAGCGCAAGGCAGCCGCCGCCGTGCCGCTCCTCCCTTGCCCTCAGGCCAG
GTCCCTGCTGGAAGCGGCTGCATCTTCCTGTCAGCCCTGGTTTCCATGGTGACTGGCGTCACGCTGCCACCCGAG
TATGGCTGACCTTCCTGCAGAGAGAGGAGCCGCAGTCTTTTGCTTGTGGAAGGAGACGCTGGGCTGTGCGGTGCG
GAGGGTGATGAGGATGTCTGGTGACAGCCGTGCGGACACCACTCCTCTCTGCAGCACTGCCTCCCAGCGCCAGGG
TCGCGGGCACATCCCACTGAGAGCGGGGGTCCTGCCCCATCTTAGAGTCAAAGGCAGAGGGGCTTCCAGGCCCTG
GATGGGGTATTTTGGTGTCACCTGAAGTCCCTCTGACATCACCTTGTTTCATCATTTTTTATGACAGAATTAGAA
ACCCATCCTTCAAGCACAATAATCATCACAGACTTGAGTTTGCTTCCTAAAGCAAAGGCTCCGGGTTTGTTTGGA
AAATTTTTTTGATTTCTGAAATGAATTGATTTTTATATTTGGGGCATCTCTATAGAAAGTGACCACCAAGGCCAG
TAAGTACGGGAAAAAATGTTTACTAACTTCCTCAGAGATTCGTGATACGCGTTTCTCCACTGACAGACATTTAAA
AACAACCTTCAGCTCCGTTTCAATCAATCACCTCGACTTGTTTTTTAGCATGGACACTGCCAGCAGGACAGACAG
GGATGGAGTAAACCGAAGTCAATTTCAGGGCTCTTGGCGTGTTGGACACAGAAGAAATCCTAGTGCAGCCTTTGG
TAGCTAACAGTCACTGATTTTATAATTGGAGAATGCGTAAAGATTCATTTTTCAAGGAGAAGAGCCTGCAAATGG
CCAATGAAGGAGGTAAATAAACTAAGATATTCCGAGGGAAGGGACCCAGGCCACCTCCCTTCCGCAGGTCTGCAG
ATGAAGGGTTTTTTGAATGAAATGCCACTGTGCATTTTCAGAAAAAAAAAATCTCTGATAAACAGACTTTGAATGG
ATGTTTGTTCCTCCTGATTCTCTTTTCTCTTCGTGGCGACTTAGAGTTGGCGGATATTCGGAACTGTGAATGTAC
ATAGCGTTGAGTTAAACCCCTTGTGTGTGAGACAGGACGCAGCGGGCCCCTGGTGGCCTGGGGGCCAGACCCGTG
GGCAGGTGGGGCATGGGCCCTGGCCTGCGGGGACCTGCTGGGGTGTGAGGGCAGAGGGAGGGTTGCCATGAAGGA
ACTTGGGATTTTCAATGGAATAAGTAAAACATAAAGTCTATACTTGGG

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FIGURE 920

CAGCTCCTTCACCAGCTTGGTGGTGGGCGTGTTCGTGGTCTACGTGGTGCACACCTGCTGGGTC**ATG**TACGGCAT
CGTCTACACCCGCCCGTGCTCCGGCGACGCCAACTGCATCCAGCCCTACCTGGCGCGGCGGCCCAAGCTGCAGCT
GAGCGTGTACACCACGACGAGGTCCCACCTGGGTGCTGAGAACAACATCGACCTGGTCTTGAATGTGGAAGACTT
TGATGTGGAGTCCAAATTTGAAAGGACAGTTAATGTTTCTGTACCAAAGAAAACGAGAAACAATGGGACGCTGTA
TGCCTACATCTTCCTCCATCACGCTGGGGTCCTGCCGTGGCACGACGGGAAGCAGGTGCACCTGGTCAGTCCTCT
GACCACCTACATGGTCCCCAAGCCAGAAGAAATCAACCTGCTCACCGGGGAGTCTGATACACAGCAGATCGAGGC
GGAGAAGAAGCCGACGAGTGCCCTGGATGAGCCAGTGTCCCACTGGCGACCGCGGCTGGCGCTGAACGTGATGGC
GGACAACTTTGTCTTTGACGGGTCCTCCCTGCCTGCCGATGTGCATCGGTACATGAAGATGATCCAGCTGGGGAA
AACCGTGCATTACCTGCCCATCCTGTTCATCGACCAGCTCAGCAACCGCGTGAAGGACCTGATGGTCATAAACCG
CTCCACCACCGAGCTGCCCCTCACCGTGTCCTACGACAAGGTCTCACTGGGGCGGCTGCGCTTCTGGATCCACAT
GCAGGACGCCGTGTACTCCCTGCAGCAGTTCGGGTTTTCAGAGAAAGATGCTGATGAGGTGAAAGGAATTTTTGT
AGATACCAACTTATACTTCCTGGCGCTGACCTTCTTTGTCGCAGCGTTCCATCTTCTCTTTGATTTCCTGGCCTT
TAAAAATGACATCAGTTTCTGGAAGAAGAAGAAGAGCATGATCGGCATGTCCACCAAGGCAGTGCTCTGGCGCTG
CTTCAGCACCGTGGTCATCTTTCTGTTCCTGCTGGACGAGCAGACGAGCCTGCTGGTGCTGGTCCCGGCGGGTGT
TGGAGCCGCCATTGAGCTGTGGAAAGTGAAGAAGGCATTGAAGATGACTATTTTTTGGAGAGGCCTGATGCCCGA
ATTTCAGTTTGGCACTTACAGCGAATCTGAGAGGAAAACCGAGGAGTACGATACTCAGGCCATGAAGTACTTGTC
ATACCTGCTGTACCCTCTCTGTGTCGGGGGTGCTGTCTATTCACTCCTGAATATCAAATATAAGAGCTGGTACTC
CTGGTTAATCAACAGCTTCGTCAACGGGGTCTATGCCTTTGGTTTCCTCTTCATGCTGCCCCAGCTCTTTGTGAA
CTACAAGTTGAAGTCAGTGGCACATCTGCCCTGGAAGGCCTTCACCTACAAGGCTTTCAACACCTTCATTGATGA
CGTCTTTGCCTTCATCATCACCATGCCCACGTCTCACCGGCTGGCCTGCTTCCGGGACGACGTGGTGTTTCTGGT
CTACCTGTACCAGCGGTGGCTTTATCCTGTGGATAAACGCAGAGTGAACGAGTTTGGGGAGTCCTACGAGGAGAA
GGCCACGCGGGCGCCCCACACGGAC**TGA**AGGCCGCCCGGGCTGCCGCCAGCCAAGTGCAACTTGAATTGTCAATG
AGTATTTTTGGAAGCATTTGGAGGAATTCCTAGACATTGCGTTTTCTGTGTTGCCAAAATCCCTTCGGACATTTC
TCAGACATCTCCCAAGTTCCCATCACGTCAGATTTGGAGCTGGTAGCGCTTACGATGCCCCCACGTGTGAACATC
TGTCTTGGTCACAGAGCTGGGTGCTGCCGGTCACCTTGAGCTGTGGTGGCTCCCGGCACACGAGTGTCCGGGGTT
CGGCCATGTCCTCACGCGGGCAGGGGTGGGAGCCCTCACAGGCAAGGGGGCTGTTGGATTTCCATTTCAGGTGGT
TTTCTAAGTGCTCCTTATGTGAATTTCAAACACGTATGGAATTCATTCCGCATGGACTCTGGGATCAAAGGCTCT
TTCCTCTTTTGTTTG

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FIGURE 921

CGGCGGCCGCGCCCTGGTTGGGTCCCCACTGCTCTCGGGGGCGCC**ATG**GACGAGGCCGTGGGCGACCTGAAGCAG
GCGCTTCCCTGTGTGGCCGAGTCGCCAACGGTCCACGTGGAGGTGCATCAGCGCGGCAGCAGCACTGCAAAGAAA
GAAGACATAAACCTGAGTGTTAGAAAGCTACTCAACAGACATAATATTGTGTTTGGTGATTACACATGGACTGAG
TTTGATGAACCTTTTTTGACCAGAAATGTGCAGTCTGTGTCTATTATTGACACAGAATTAAAGGTTAAAGACTCA
CAGCCCATCGATTTGAGTGCATGCACTGTTGCACTTCACATTTTCCAGCTGAATGAAGATGGCCCCAGCAGTGAA
AATCTGGAGGAAGAGACAGAAAACATAATTGCAGCAAATCACTGGGTTCTACCTGCAGCTGAATTCCATGGGCTT
TGGGACAGCTTGGTATACGATGTGGAAGTCAAATCCCATCTCCTCGATTATGTGATGACAACTTTACTGTTTTCA
GACAAGAACGTCAACAGCAACCTCATCACCTGGAACCGGGTGGTGCTGCTCCACGGTCCTCCTGGCACTGGAAAA
ACATCCCTGTGTAAAGCGTTAGCCCAGAAATTGACAATTAGACTTTCAAGCAGGTACCGATATGGCCAATTAATT
GAAATAAACAGCCACAGCCTCTTTTCTAAGTGGTTTTCGGAAAGTGGCAAGCTGGTAACCAAGATGTTTCAGAAG
ATTCAGGATTTGATTGATGATAAAGACGCCCTGGTGTTCGTGCTGATTGATGAGGTGGAGAGTCTCACAGCCGCC
CGAAATGCCTGCAGGGCGGGCACCGAGCCATCAGATGCCATCCGCGTGGTCAATGCTGTCTTGACCCAAATTGAT
CAGATTAAAAGGCATTCCAATGTTGTGATTCTGACCACTTCTAACATCACCGAGAAGATCGACGTGGCCTTCGTG
GACAGGGCTGACATCAAGCAGTACATTGGGCCACCCTCTGCAGCAGCCATCTTCAAAATCTACCTCTCTTGTTTG
GAAGAACTGATGAAGTGTCAGATCATATACCCTCGCCACCACCTGCTGACCCTCCGAGAGCTAGAGATGATTGGC
TTCATTGAAAACAACGTGTCAAAATTGAGCCTTCTTTTGAATGACATTTCAAGGAAGAGCGAGGGCCTCAGCGGC
CGGGTCCTGAGAAAACTCCCCTTTCTGGCTCATGCGCTGTATGTCCAGGCCCCCACCGTCACCATAGAGGGGTTC
CTCCAGGCCCTGTCTCTGGCAGTGGACAAGCAGTTTGAAGAGAGAAAGAAGCTTGCAGCTTACATC**TGA**TCCTGG
GCTTCCCCATCTGGTGCTTTTCCCATGGAGAACACACAACCAGTAAGTGAGGTTGCCCCACACAGCCGTCTCCCA
GGGAATCCCTTCTGCAAACCAAACGTTACTTAGACTGCAAGCTAGAAAGCCACCAAGGCCAGGCTTTGTTAAAAG
AAGTGTATTCTATTTATGTTGTTTTAAAATGCATACTGAGAGACAAACATCTTGTCATTTTCACTGTTTGTAAAA
GATAATTCAGATTGTTTGTCTCCTTGTGAAGAACCATCGAAACCTGTTTGTTCCCAGCCCACCCCCAGTGGATGG
GATGCATAATGCCAGCAAGTTTTGTTTAACAGCAAAAAAGGAAGATTAATGCAGGTGTTATAGAAGCCAGAAGAG
AAACTGTGTCACCCTAAAGAAGCATATAATCATAGCATTAAAAATGCACACATTACTCCAGGTGGAAGGTGGCAA
TTGCTTTCTGATATCAGCTCGTTTGATTTAGTGCAAAAATGTTTTCAAGACTATTTAATGGATGTAAAAAAGCCT
ATTTCTACATTATACCAACTGAGAAAAAAATGGTCGGTAAAGTGTTCTTTCATAATAAATAATCAGACATGGTCC
CATTTGCAGGAAAAGTGCAGACTCTGAGTGTTCCAGGGAAACACATGCTGGACATCCCTTGTAACCCGGTATGGG
CGCCCCTGCATTGCTGGGATGTNTCTGCCCACGGTTTTGTTTGTGCAATCACGCTATCACATTTCTAATGAGGAT
TCACATTAATATAATATAAAATAAATAGGTCAGTTACTGGTCTCTTTCTCCGAATGTTATGTTTTGCTTTTATCT
CACAGTAAAATAAATATAATTAA

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FIGURE 922

TTTCCGGCGCGGCCCAGCGAGCTCGGCAACCTCGGCGCAGCGAGCGCGGGCGGCCAGCCAGGGCCAGGGGGCGGT
GGCGGCCAAGGTCCGACCGGGTGCCAGCTGTTCCCAGCCCCCGCCTCGGGCCCGCCGCCGGCGCCGCCATGGGCA
AGAAGCACAAGAAGCACAAGGCCGAGTGGCGCTCGTCCTACGAGGATTATGCCGACAAGCCCCTGGAGAAGCCTC
TAAAGCTAGTCCTGAAGGTCGGAGGAAGTGAAGTGACTGAACTCTCAGGATCCGGCCACGACTCCAGTTACTATG
ATGACAGGTCAGACCATGAGCGAGAGAGGCACAAAGAAAAGAAAAAGAAGAAGAAGAAGTCCGAGAAGGAGA
AGCATCTGGACGATGAGGAAAGAAGGAAGCGAAAGGAAGAGAAGAAGCGGAAGCGAGAGAGGGAGCACTGTGACA
CGGAGGGAGAGGCTGACGACTTTGATCCTGGGAAGAAGGTGGAGGTGGAGCCGCCCCCAGATCGGCCAGTCCGAG
CGTGCCGGACACAGCCAGTTCTCGGTGGAACTTAAAATGCTGTGAGACACCAGACAGACAGATACTGTGAACTTG
GAGCTCTCTA**ATG**AAGGGATACCAAAGTCTTGTATTCAATTTTTTTTCCTTAAATTGTCAGCCGAAAATGAGAG
CACACCTATTCAGCAACTCCTGGAACACTTCCTCCGCCAGCTTCAGAGAAAAGATCCCCATGGATTTTTTGCTTT
TCCTGTCACGGATGCAATTGCTCCTGGATATTCAATGATAATAAAACATCCCATGGATTTTGGCACCATGAAAGA
CAAAATTGTAGCTAATGAATACAAGTCAGTTACGGAATTTAAGGCAGATTTCAAGCTGATGTGTGATAATGCAAT
GACATACAATAGGCCAGATACCGTGTACTACAAGTTGGCGAAGAAGATCCTTCACGCAGGCTTTAAGATGATGAG
CAAAGAGCGGCTGTTAGCTTTGAAGCGCAGCATGTCGTTTATGCAGGACATGGATTTTTCTCAGCAGGCAGCTCT
TTTGGGCAATGAAGATACAGCTGTTGAGGAACCTGTCCCTGAAGTTGTACCAGTACAAGTAGAAACTGCCAAGAA
ATCCAAAAAGCCGAGTAGAGAAGTTATCAGCTGCATGTTTGAGCCTGAAGGGAATGCCTGCAGCTTGACGGACAG
TACCGCAGAGGAGCACGTGCTGGCGCTGGTGGAGCACGCAGCTGACGAAGCTCGGGACAGGATCAACCGGTTCCT
CCCAGGCGGCAAGATGGGCTATCTGAAGAGGAACGGGGACGGGAGCCTGCTCTACAGCGTGGTCAACACGGCCGA
GCCGGACGCTGATGAGGAGGAGACCCACCCGGTGGACTTGAGCTCGCTCTCCAGTAAGCTACTCCCAGGCTTCAC
CACGCTGGGCTTCAAAGACGAGAGAAGAAACAAAGTCACCTTTCTCTCCAGTGCCACTACTGCGCTTTCGATGCA
GAATAATTCAGTATTTGGCGACTTGAAGTCGGACGAGATGGAGCTGCTCTACTCAGCCTACGGAGATGAGACAGG
CGTGCAGTGTGCGCTGAGCCTGCAGGAGTTTGTGAAGGATGCTGGGAGCTACAGCAAGAAAGTGGTGGACGACCT
CCTGGACCAGATCACAGGCGGAGACCACTCTAGGACGCTCTTCCAGCTGAAGCAGAGAAGAAATGTTCCCATGAA
GCCTCCAGATGAAGCCAAGGTTGGGGACACCCTAGGAGACAGCAGCAGCTCTGTTCTGGAGTTCATGTCGATGAA
GTCCTATCCCGACGTTTCTGTGGATATCTCCATGCTCAGCTCTCTGGGGAAGGTGAAGAAGGAGCTGGACCCTGA
CGACAGCCATTTGAACTTGGATGAGACGACGAAGCTCCTGCAGGACCTGCACGAAGCACAGGCGGAGCGCGGCGG
CTCTCGGCCGTCGTCCAACCTCAGCTCCCTGTCCAACGCCTCCGAGAGGGACCAGCACCACCTGGGAAGCCCTTC
TCGCCTGAGTGTCGGGGAGCAGCCAGACGTCACCCACGACCCCTATGAGTTTCTTCAGTCTCCAGAGCCTGCGGC
CTCTGCCAAGACC**TAA**CTCTAGACCACCTTCAGCTCTTTTATTTTATTTTTTTAGTTTTATTTTGCACGTGTAGA
GTTTTTGTCATCAGACAAGGACTTTGATCCTGTCCCCTTTGGCATGCGGGAAGCAGCCGCGGGGAGGTAATGAAT
TGTCTGTGGTATCATGTCAGCAGAGTCTCCAAGCCCCACGAACCCTGAGGAGTGGAGTCATACGCGAAGGCCATA
TGGCCATCGTGTCAGCAGAGAGAGTCTCTGTACACAGCCCCGTGAACCCTGAGGAGTGGAGTCATACACGAAGGG
CGTGTGGCCATCGTGTCAGCAGAGAGAGTCTCTGTACACAGCCCCGTGAACCCTGAGGAGTGGAGTCATACGCGA
AGGGTGTGTGGCCAGGCTGCAGAGCTGCGTGCCGTTTGTGTCCGAGCATCACGTGTGGCTCCAGCCCTTGTTTCT
GCCAGTGTAGACACCTCTGTCTGCCCCACTGTCCTGGGGTCGCTCTTGGGAGGCACAGGCATGGGTGTGTCTGGC
CTCATTCTGTATCAGTCCAGTGTGTTCCTGTCATAGTTTGTGTCTCCCAGGCAGGCCATGGTAGGGGCCTCGCAG
GGGCCATTGGGGAGCACAGGGCCAGGCTGGGGTGAGGAGAGCTCCCCTGTTTTCTGTTTAATTGATGAGCCTGGG
AAAGGAGTGTGTTCTGCCTGCCCGTTACAGTGGAGCGTTCCGTGTCCATAAAACGTTTTCTAACTGGG

FIGURE 923A

GCC**ATG**CCCACCAACTTCACCGTGGTGCCCGTGGAGGCTCACGCCGACGGCGGCGGGGACGAGACTGCCGAGCGG
ACGGAGGCTCCGGGCACCCCCGAGGGCCCCGAGCCCGAGCGCCCCAGCCCGGGAGATGGAAATCCAAGAGAAAAC
AGCCCATTCCTCAACAATGTCGAGGTGGAACAAGAGAGCTTCTTTGAAGGGAAGAACATGGCACTTTTCGAGGAG
GAGATGGACAGTAACCCCATGGTGTCCTCGCTGCTCAACAAGCTGGCCAACTACACCAACCTGAGCCAGGGCGTG
GTGGAGCACGAGGAGGACGAGGAGAGCCGGCGGCGGGAGGCCAAGGCTCCGCGCATGGGCACCTTCATCGGCGTC
TACCTGCCGTGCCTGCAGAACATCCTGGGCGTCATCCTCTTCCTGCGCCTGACGTGGATCGTGGGGGTGGCTGGT
GTCCTGGAGTCCTTCCTCATCGTGGCCATGTGCTGCACATGTACAATGCTGACCGCCATTTCCATGAGTGCGATC
GCTACCAACGGTGTGGTCCCAGCTGGCGGGTCCTACTACATGATATCGCGCTCGCTGGGACCCGAGTTTGGAGGC
GCTGTCGGCCTCTGCTTCTACCTGGGCACGACGTTTGCAGGGGCCATGTATATTTTGGGGACCATCGAGATTTTT
CTGACGTACATCTCCCCGGGTGCGGCCATCTTCCAGGCGGAGGCTGCAGGTGGCGAGGCGGCCGCCATGCTGCAC
AACATGCGTGTGTACGGCACGTGCACGCTCGTGCTCATGGCCCTGGTGGTCTTCGTGGGCGTCAAGTATGTCAAC
AAGCTGGCGCTGGTCTTCCTGGCCTGCGTCGTGCTGTCCATCCTGGCCATCTATGCCGGCGTCATCAAGTCTGCC
TTCGACCCCCCGGACATCCCGGTCTGCCTCCTGGGGAACCGCACGCTGTCACGGCGCAGCTTCGATGCCTGCGTC
AAGGCCTACGGCATCCACAACAACTCAGCCACCTCCGCGCTCTGGGGCCTCTTCTGCAACGGCTCCCAGCCCAGC
GCCGCCTGTGACGAGTACTTCATCCAGAACAACGTCACCGAAATCCAGGGCATCCCGGGCGCGGCCAGTGGTGTC
TTCCTGGAGAACCTGTGGAGTACGTACGCGCACGCGGGGGCGTTTGTGGAGAAGAAAGGTGTGCCCTCGGTGCCC
GTGGCAGAGGAGAGCCGTGCCAGCGCACTGCCCTACGTGCTCACCGACATCGCGGCCTCCTTCACCCTGCTGGTT
GGCATCTACTTCCCTTCCGTGACCGGTATCATGGCGGGTTCAAACCGGTCCGGGGACCTCAAGGATGCACAGAAG
TCCATCCCCACGGGGACCATCCTGGCCATAGTGACGACGTCTTTCATCTATCTCTCCTGCATTGTGCTGTTTGGG
GCCTGCATTGAAGGCGTGGTCTTACGAGATAAGTTCGGGGAGGCCCTGCAGGGGAACCTGGTCATCGGCATGCTG
GCCTGGCCCTCCCCCTGGGTCATCGTCATCGGCTCCTTCTTCTCCACCTGCGGTGCCGGCCTGCAGAGCCTCACG
GGGGCACCGCGCCTACTGCAGGCCATTGCCCGTGACGGCATCGTCCCCTTCCTGCAGGTGTTTGGCCACGGGAAG
GCCAACGGGGAGCCCACGTGGGCGCTGCTGCTGACAGTCCTCATCTGCGAGACTGGCATCCTCATCGCCTCTCTG
GACAGCGTGGCCCCGATCCTCTCCATGTTCTTCCTCATGTGCTACCTGTTCGTGAACCTGGCCTGCGCCGTGCAG
ACCCTGCTACGTACCCCCAACTGGCGTCCACGCTTCAAGTTCTACCACTGGACCCTGTCCTTTCTGGGTATGAGC
CTGTGCCTGGCGCTGATGTTCATCTGCTCCTGGTACTACGCGCTGTCCGCCATGCTCATCGCTGGCTGCATCTAC
AAGTACATCGAGTACCGCGGGGCCGAGAAGGAGTGGGGCGATGGCATCCGTGGCCTATCCCTGAACGCCGCCCGC
TACGCCCTGCTGCGCGTGGAGCACGGTCCCCCCCACACCAAGAACTGGAGGCCCCAGGTGCTGGTGATGCTGAAC
CTGGACGCGGAGCAGGCCGTGAAGCACCCCCGCCTGCTGTCCTTCACGTCGCAGCTGAAGGCCGGCAAGGGCCTG
ACCATCGTGGGCTCGGTGCTGGAGGGGACGTACCTGGACAAGCACATGGAGGCTCAGCGGGCCGAGGAGAACATA
CGGTCCCTAATGAGCACAGAGAAGACCAAGGGCTTCTGCCAGCTGGTGGTCTCGTCCAGCCTGCGGGATGGCATG
TCCCACCTGATCCAGTCGGCCGGCCTGGGCGGCCTGAAGCACAACACGGTGCTCATGGCCTGGCCCGCATCCTGG
AAGCAGGAGGACAACCCCTTCTCCTGGAAGAACTTTGTAGACACCGTCCGCGACACCACCGCCGCGCACCAGGCT
CTGCTGGTGGCCAAGAACGTCGACTCGTTTCCGCAAAACCAGGAGCGCTTCGGCGGGGGCCACATCGACGTGTGG
TGGATCGTGCACGACGGCGGCATGCTCATGCTGCTGCCCTTCCTGCTGCGCCAGCACAAGGTGTGGAGGAAGTGC
CGGATGCGTATCTTCACCGTGGCCCAGGTGGACGACAACAGCATCCAGATGAAGAAGGACCTGCAGATGTTCTTG
TACCACTTGCGCATCAGCGCCGAGGTGGAGGTGGTGGAGATGGTTGAAAACGACATATCTGCTTTCACCTACGAG
AGGACACTAATGATGGAGCAGAGGTCGCAGATGCTGAAGCAGATGCAGCTGTCCAAGAACGAGCAGGAGCGAGAG
GCCCAGCTGATCCACGACAGGAACACCGCGTCCCACACCGCGGCGGCAGCCAGGACCCAAGCGCCGCCTACGCCA
GACAAGGTGCAGATGACCTGGACCAGGGAGAAGCTGATCGCTGAGAAGTACAGGAGCAGAGACACCAGCCTATCT
GGTTTCAAAGACCTCTTCAGCATGAAGCCGGACCAGTCCAACGTCAGGCGGATGCACACGGCTGTGAAGCTCAAT
GGCGTCGTCCTCAACAAGTCCCAGGATGCGCAGCTGGTCCTGCTCAACATGCCAGGTCCTCCCAAAAACCGGCAG
GGAGACGAGAACTACATGGAGTTTCTTGAAGTCCTGACCGAGGGGCTGAACAGAGTCCTCCTGGTCAGGGGTGGC
GGCCGGGAGGTGATCACCATCTACTCC**TAA**TGCCCAACAGCATCACGGCACTCTGGGACAGGCACGGAGGACGGC
GTGGGCAGCCTGGGCCTGGGCTTGGCCCAGGGAAACAGACGGCAGACACACCTGTCCCCCAGTGATGCCACCCAA
GCTGCCCATGGGGCTTCCTACGGAAGTTTCTAGGCCCGTCACCTAGGGCTCTCCTGTTCAGCCTTAACAGGCTCA
GCAAATCAGGGCGTGGCTGGACGATTTCCTTGCATCTGAGGGCAGACGCTGCTACCGGAGTGACCTGGACGTGGC
CAGATCTTCTCGCAGGTCACAAGAAGCCAGTGAGCCCTTGCCTTGGTTTCTGGAAGTTCTTTTCCTTGGCTGGAT

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FIGURE 923B

TTACCCAGTGGTTAGGTTGCATTTCTACCCCATCCAGAACATTCTTGGAAGAGCACCCGGAGCTGAAGCTGTCCC
TGATGATGAAGGTGAAACGTCAGCCCTGGCCATGGCTCCGCTCAGGGCCCCGGTCACCTCCGAGTCACTCTGTTC
CTTGACTGTCTTTGTGTTTCTGTACCTCAAGGCACTGAAGCTGGAGGACTCTGTCCATGCCCGTGTCACCCTCGT
GTGGGAGCCTCTGGGCTCGGCAGGTCCACATTTCATGAGCTGAGGCGTGGGCCAGGGCCATCTGGAAAGGGAACT
CGGCTTTTCCAGAACGTGGTGGATCATCTGTCGGGTGTGTGGTGAACACGTTCAGTTCATCAGGGCCTACGCTCC
GGGAAGGGGCCCCCAGCTGTGGCTCTGCCATGCCGGGCTGTGTTTGCAGCTGTCCGAGTCTCCATCCACCTTTAG
AAAACCAGCCACTTCTTTTCATAAGCACTGACAGGGCCCAGCCCACAGCCACAGGTGCGATCAGTGCCTCACGCA
GGCAAATGCACTGAAACCCAGGGGCACACGCGCGCAGAGTGAACAGTGAGTTCCCCCGACAGCCCACGACAGCCA
GGACTGCCCTCCCCACCCCACCCCACCCCAGGAGCACGGCACACAGTTCAGCCTCTGAGCTGGCTCACACGTGCC
ATCCCCACCCCGGTGCTCCAGGGAAGGAGGACACGGACCCGACGTGGGAGGTCCTCAGGCAGCAGTGGCGCCTGG
TGTCAGGTCTGTCTGGCTGAGTCCCGGGCGTCCCCTGCCATGGCCTGTGCCTTGCATGGAGGCGGCGGTGGCACT
GAAGAGATAGCTTTCAAGGGCCCAACACTTTGCACTTCGGCTGGCTGTGAGTTTCTGCTTTGTAGGTTGTGGTCA
CATTTGCAGGCTGCGGGCAGTGGCACCGACTTGGGCCTCCCTTTCTATGTGGCATATTTATTTATTTAAACACCC
CAGGGAGTTACGTGGTAACAAGGTTGTCCATAAAGAGGTTGCTTCTATATACTAGAGGCCCCAGATGGCCAGGCC
TTGGGCTACGTCTGGCTTGCATGGTCTCCCAAGGGAATCAGCCCCATCAACAAAGTTCAAATCGGGGCAGAGGCT
GCACTTGTGCCCCCAGATGTTTCTGAGGAGCCAGACTAGGGCTGGCATTGCTGTAGAGTGACGGCTGCTGCCCAG
AGCGTGTCCCAGACATCACAGCGGGGCTCAGCAGTTCCCACAGCCTCTGCCTGCCTTGGCTAAGCATGAGTTAAG
CAGCAAAACGCTCCTCCATGTCTGGATGGGGCCGGCAGGTCCTGTGTCCCCTGCACCTGGAGGAGAGCAGGCTAG
AGGCACAGCGGCCACATGGTGCTGGCTCTGAACGTTGGTTGGTGGCTGGAAAACAGCCCTGCTTCTGAGGGCCGC
TCAGTTCTGCACACGAAACCACCTCCTGAGGGCTCAGCTCTGCCCCCGCCCTGGGCTGCAGCCTCTGCACGCAAG
CACCAGGCATCCTTTGTGTTGTCAACTCCGTGTAACCAGTAACTACAGCCATTTACAATTGACTCCGTTTCCTTT
TGTAGGTTTCCCTGTCTGTCTGTGTTAGTAGAAAAATAAAATCCTATGAAATCTG

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FIGURE 924

ATGTGCCCAGCACTCCCAGGCCTGTGCCCGCCATCCCAGTTGTGCCTGTACTCCCAGGCCTGTGTCTTGCATCCA
GATGTGCACCTGCACCCTCTCCCACTGGCCGGCACCTCCCTGGCACAGCCCGAGGGAGAACCTGTCTCTGCGGAG
AAAGACACTCTGATGGCAGCCGACTGGATTCCACCAGAACCCGAGGGCAAGCATTCCTTGGGAAGTGACCAGGCT
GGGAGCATCAGGCACGCACGCCACACACTCAACCCAAACCTTCTGTTAACTCAGGGCACTGGCATCCAGGGAGCT
GTGAAGGGCACGCTGTGTTGCAAGCTGATTGGGAAACAGGTTGGAGGGGTGGGGGCCGAGGCGCTCAGCAGTATT
CAGGCATCTCTCAGCTGGCGACAGGAGCTGTCCCAGGCCCTGCAGGGCCAGACCCCACTGCCGGAACAGGACCCT
CTCGTGCCTGCAGATGGCAAAGCTCCTGAGGGCCTGATGGACCCTCCAATGTCCCACGGCCACAGTTTCCACCTT
GACGCCGAAGCCCTGGGATGGCCCCTCTGCAACGCCCAGTGCTCCATCATGACCTGGCCCCAGGACGCTGAC**TGA**

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FIGURE 925A

AAAGTCCAGAGGGCGTCCCTGCGCCCTGACACCGGTGCCCCCACCACTGCCTCAGCCCTGCACACTGGCAGTCCC
CTCCCCTGGCCGGGGCCAGGCCCAGGGCTCCTGGGAAGAGCATCCTGAGGCGCCCCCAGGGCCACCACGCACCCT
CCCCAGCCTAAAGCTCCATCTAAGGTCAGAGGCTCTGCAGTGGGGAGGGAGCGGCTGTCGCACGACTGCTGTGGA
CCCTCCCAGAGGAAGGCAGCACGTCACAGACCCTGGGGAGTGCGTGATCCCGAGGTGTCCTCCAGAGCTGCAGAG
CGGGCGTCCACAGGAGGGACAGTGGAACTGCGGCGGGGAGGGGACCCGGAATAGGCTCTGATGCTGCCAGTCACA
CACTGAGCCTCCTAGGCCTGGAGCCCCTGGCACCCAGCTCAGCTCCCACCCTGGGCTCTGCGTGCTGCTGGCTTT
ATTTGGCTTAGGGGGTCCTTGGCCCAATGATGGCAGTGGGCAAGGCCTCGCTTGGCTCCACTCTGCCCGGGGCTG
GACATGCGTGCCTGCGGGGCAGCTGGCTCCAAGGGTCTGAGGGGCCTCACGCCCAGCCCCAGGAGGGCCTGCCCA
TCTCAGCCCTCGCCACGTCCTGGTGCTCATTGGTACGGCGGGGTTTCCTGGGCTGCACCCGGCTCAGCTGGGACA
TGGCCCGGGTGACACCTTTCTCCTCTCCTTCCTCCATAGCAAC**ATG**GCTGACAAGGCCAAGCCTGCCAAAGCTGC
CAACAGGACGCCCCCCAAGTCCCCGGGGGACCCCTCGAAGGACCGGGCAGCCAAGAGGCTGTCGCTGGAATCGGA
GGGTGCTGGTGAGGGGGCAGCCGCATCCCCTGAGCTCAGTGCCCTGGAGGAGGCCTTCCGGCGCTTTGCCGTGCA
CGGGGACGCCAGGGCCACCGGGAGGGAGATGCACGGCAAGAACTGGTCGAAGCTGTGCAAGGACTGCCAGGTGAT
CGACGGCAGGAACGTGACCGTCACTGACGTGGACATCGTCTTCAGCAAGATCAAAGGGAAGTCTTGCCGGACCAT
CACCTTTGAGCAGTTCCAGGAGGCGCTGGAGGAGCTCGCCAAGAAGCGATTCAAAGACAAGAGCAGCGAGGAGGC
CGTTCGCGAGGTGCACAGGCTCATCGAGGGCAAGGCGCCCATCATCTCAGGGGTGACGAAAGCCATCTCGTCGCC
CACAGTGTCGAGGCTCACGGACACCACCAAGTTCACGGGCTCCCACAAGGAGCGCTTCGACCCCTCTGGCAAGGG
CAAGGGCAAGGCTGGCCGCGTGGATCTGGTGGACGAGTCAGGCTATGTGTCCGGCTACAAGCACGCAGGCACCTA
CGACCAGAAGGTGCAAGGGGGCAAG**TAG**CCCCCGCTCCATGCCTCGCGGCACTGCCGGTGTCCCCAGAGCAGGGA
CTCTGTCACCTCGCACTTCATTACATTCCTGTACTAACTGGGGCAGAACTCAGACGGGTGCCCCAGAGGGGGCTG
GGGGGCGGCCAGGCCCAGGCCTCCCTCCTGCCCCTCCTCCTACCGGATGCCCCCAGCACTCCCCTCTCAAACCAG
GTTTGGGCCCCAGTTCGCTGACCCTCCTAATACACCTGCCTCGTCCTCAGCCATTTCCAAAGTGTCTCGCGGATC
ACACCACACTGGGCACGTGGTTTGCAGGTCAAAGGGGCGTTTTAAAGCAGCTGGCTGTCATGGCAACAGGAGGCT
GTGCTGACCTCCTGAGCGGCAGACACCTTCCAGGAGCCCTGAGGGTGGCAGGAGCTAACCCCAACCAGCAGGCAA
CTAACACGGAATTGGCCCCACACCGGACGTGGGAGGTGTCTGTGGGGCCCGAGGCCTGTCCTGTGTGCAGCGGAC
ACCACGGGGCCTTCCTGCTTTCCTGGGCAGAGGGCAGAGTGAGGCCACCTGGCGGGGGTGCTGGGCGCCTGGCAC
ATGTGTGGGGAAGCCGGTCACATGGACACACCTGTGCACACATGCCTACAGGCCAGCTCTGTGCCAAGGGCAACC
TAGGTAAAACGAAAGCCGTCAGGGGCAGTGGGCGGCTTCCCGGCTGACCACAGTGGCTTGGACTGTGAGGGTAGA
GTAGGCTCGCTTTGCTTTCCTGAGAAGATGCGGTGGCTGCCTATGTTCTCAGAGCGGGTCTGGGAAGATTCAGAA
TGTCCGGTCCCTGTGGTGTTGCCAGGCAAGAGACACGAAGTGCCGAGACACTCCTCGCCTCACCGCGTGACAGAG
CCTCTGCCCGGCCCTCCCGTTCGCCCGTCCTCACTAGCTGCACCCTGTTTGCTCGCAGACCTCCCATTGCCACAG
CCCAAGCACCTTCTTCAACTCTCCCAAAATGGCTCAGCCTAACCTCTCCTGGCCAATCCCCCCCGCCGGAGAGCA
GGACACTAGGGAGGACCCCCAGTCCTGCAGTGTCTGTGGGGGTTTCTCTGCCAGCAGGGGGCTGAGCAGAGCCCA
TCCAGGACACTCCACACTGCCAGGACACACCCAGGCGGCCCGCCCTTGCCTGTCTGCACCTGGGGAGAAGCCGGC
GCTCCTGCTCCCTCCTGGGGAGGCTGACGGGTGTGGCCACCCGCTGTCACAATGGCACACTGCCACTGTCCCTTG
GCACGCACACAGCCACAGCCACACGTGTGACCTGCTGGGCCGTGGTTCTGGAGTCTACCTGCGGATGAGCCTGCG
GCAGTCCTGGGGAAACTTTTCCAGAGCCTGTTAGCCCGTGGCTACGGTCAGGCTCTGGCCAGGGCAGAGGGCTGC
CCAGGGCCAGGCTCACAGTACAGGAGGGTGGCGAGGCCCCTCCCTCACTGGCACGCATGAGCACCACCCGCCTCC
CCGACTCCCAAGAGTGCACCTGCTGCGGCCACAGCTCCGTGGAAGGACTCCCCCTACCTGAGCAGAGCAGAAGCC
CCAGGGCGGAGCTCCCAGCCAGCATGGTCCGCTGAGGGCTGGGGGGCGGTCTCCGAGGCCCCTCAACAGAGAAGC
CTCCACCTGAGGATGGGGAGGACCTGGCAGGCAGCTTCCACGGCAGGGCTGGGAAGTTCAGTGCCTGGAAATAAA
GAGCAAGGAAAAATGGACCTCAGGCTTCGTGGCTCCTTTAGGATGTCACCTCACCGGCCTGGGGAAGGCGGGGGG
TGCCCAAGCCCAGCCCTGTGCCCCCGCTGAACCTGGCTGGACCGCGTGTGAAAGGCAGAACTAACGTGCGGAAAC
ATTTGAAAACAACTCTGAATGTGCGGTTCGGAATCACCCGATCACAGACGAGCGGTCACCGGAATCGCCCGGTCA
CAGACGAGCAGTCATCGGACTCACCCGATCACAGACGAGCGGTCACCGGAATCGCCCGATCACAGACGAGCGGCC
ACCGGAATCGCCCAATCACAGACAAGCAGTCATCGGAATCACCCGATCACAGACGAGCAGTCATCGGACTCACCC
GATCACAGACGAGCGGTCACCAGACTCGCCCGATCACAGACGAGCAGTCATCGGAATCACCCGATCACAGACGAG
CAGTCATCGGACTCACCCGATCACAGACGAGCGGTCACCAGAATCGCCCGATCACAGACGAGCAGTCATCGGAAT

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FIGURE 925B

CACCCGATCACAGACGAGTGGCCACCGGAATCACCCGATAACAGCCCATCACAACTCCAAAGCCCTTGTGTTGAA
AAGGCCGAGGACGAGTGGTCACCAAACAGGGTGGCTCCCCAGGTCCCGAAGCCTGAGACCCGGAAGGCCCTGGCA
CCCTTACACCCTCGGACTCCTGCCCTCCTCGGCCTCCCTGGCCCCAGCGCGGCTCCACCCTGGGCTGCGTCTCCT
GGTCACAGGCTGCGTTTCTCCTTTCTGTCCGTGGGCAGCCCAGTCCCCACAGTCACGGCCAAGCCACGCAGAACG
AACATGACTCCAGAGGACCTCGCCCTGGAGCTGAGCCTGGCGCCGGGTCAGGACGGAGGGAAGGGCGGGTTGGGG
TCCGCGGGTCCTCACACCGCACGGCAGGCACAGAGGCTCGCCAGGCCCTGATCCGGTCTGTGGGGACGAGGGACA
CTGAGGAGAGGTGCTGGGCACCAGGACGCTGCCTCCTGGTCCCTGGTTGGCCTCAGACAAGCACGGCCTCGAGAA
AAGAGCCAAGCGCATCGGGAGCACACCAGAAACCGGCCCTGAGCACGAGAAGAGCCTCCGCCCGGCCCGGGCACC
ACCCGACCTCGCAGGGAGCAGGCCCTGTCACCGACGGGTCACCTCGCCCACACGGCCAGCACCGACTCACCACAG
CCCTTCCCAGACCTGGCTGGAGTGGCCGGAGCGGCGGGGCTCATGGCTCCCATCTTGGCCCCTGGAGGTGAGCTC
ATTCACAGAAGTGGTCCCTTCACTCTGAGAGAGAAAATCGTGGCGTGCATCCCAAACCCTAGGCCACGCCTGTGG
GTTTCGTGAATGAGATCGAGGCTGCTGTGGCACCCTGCCCGTCCTGGCCTGGAGCACCCTGGGATCCTGGAGGGA
GAGGCCCCACGCCCCCACTCTCCCTCCACACTTCCAGGGTTGGTGCCCACGAGTTAGAGGCACGCCCTCCCCCAG
CGGCCCTCAGGCTTTTCTCAGACATGCGGGAGCCAGGAGAGCACCCTTCTCCACTCAGCTCCAAAGCGAATCTTT
GAAAACACCCACTCGGCTCCCATCTCTGTCACCTAGCCAGGAGGGGTAGCAAAAATAAAGTCACGAGGACATAGT
GGTCACCACTGTCAGTTACAACTTGTCTGTGGAATCCGTAATTGCATCTGTGTGCCGCCTCCGAACACAGAACAT
TGTTTGGACGGCAGCCCCACTGCACATAACAGACCCGTGCATCTTCCTCAGTCAGTTTCTGAATATTGTGAATTC
AGGCAGGTGTGTGTTCTCTTCTGCATGTTTTTATGCACTGCCAATTAGCTTCTACTAACCACGGTTCAACAGAAA
ATAAATGTGTATTTGTGAATAACAAACTGCACAACCTGCAAACCAGGAGAGAGGGACAGGTTCTGTCAGGGGTGA
CACCAGGACACAGGGACAGGTTCTGTCGGGGGTGACACCAGGACACAGGGACAGGTTCTGTCATGGGTGACACGA
GGACACAGGGACAGGTTCTATCATGGGTGACACCAGGAGAGAGGGACAGGTTCTGTTGGGGGTGACAAGAGGAGA
CAGGGACAGGTTCTGTCGGGGGTGACACCAGGAGAGAGGGACAGGTTCTGTCAGGGGTGACACCAGGAGAGAGGG
ACAGGTTCTGTTGGGGGTGACACCAGGACACAGGAATAGGTTCTGTCGGGAGGACAGTGCTGATCGTGTCTCAGC
ATCAGGAAAGGAGAAAGGCAGAGGGAGAGCGCTGAGAAGACTGTTCACGCCAGAGTGCTTATTTATTTTTAATTT
ACTGCTATAGGATAAGCAACCAGGTAGTGTTCCTAACAATTAGCGTTACCAAAATTAAAGTTCAAATTATATGTT
TAAAATATTGTAGAAGATATATATTTATACTGGACTACTTTTACACCTTCTAATATCCTGTCCAAGTTTGGGCGC
AGATGGTGGAGTTGGGCTGGCATCATGTCCTGTGGCCGCCCCACTTGCCTGTTGGTGCCACTCCATCCCGGGCCC
CAGGGATGCCAGCTCAGGGCTGACCACAGCAGCCCTGCGTGGGCATCACCTCCTACCCCAGCCCCCATCCTGGGC
TGCT

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FIGURE 926

GTATAGCAGCAGAAGAGACAACTTGGAAAAAGTGAAGAAGAAGGAAGCAGAGGAATTGGCCCGGAACATGGCCAT
CCAGCAAGAGCTGGAAAAGGAAAAACAGAGGGTAGCACAACAGAAGCAGCAGCAATTGGAACAGGAACAGTTCCA
TGCCTTCGAGGAGATGATCCGGAACCAGGAGCTAGAAAAAGAGCGACTGAAAATTGTACAGGAGTTTGGGAAGGT
AGACCCTGGCCTAGGTGGCCCGCTAGTGCCTGACTTGGAGAAGCCCTCCTTAGATGTGTTCCCCACCTTAACAGT
CTCATCCATACAGCCTTCAGACTGTCACACAACTGTAAGGCCAGCTAAGCCACCTGTGGTGGACAGGTCCTTGAA
ACCTGGAGCACTGAGCAACTCAGAAAGTAGCTGTGACATACCAGGGATGTTGCCAACGAGCTGGTCTAATCTGGG
GTGA

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FIGURE 927

CTTCAAGGAAACTGGGGAGTCAGAAAATTGGGAACTCATATCAAC**ATG**GCAAACCTATTGAAAACAGTGGTGACT
GGCTGCTCGTGTCCTCTACTTAGCAATTTGGGGTCCTGTAAGGGTCTACGTGTGAAGAAGGATTTTTTACGAACA
TTTTATACTCACCAAGAACTGTGGTGTAAAGCGCCTGTAAAACCAGGAATTCCATATAAGCAACTGACTGTTGGA
GTCCCCAAAGAGATATTCCAAAATGAGAAGCGAGTGGCATTGTCTCCTGCTGGTGTTCAGAACTTGGTCAAGCAG
GGTTTTAATGTTGTCGTGGAATCGGGTGCGGGCGAAGCTTCCAAGTTCTCAGATGATCACTATAGAGTGGCAGGT
GCCCAAATCCAAGGGGCAAAGGAAGTGCTGGCTTCTGATTTGGTGGTCAAAGTGCGAGCCCCTATGGTTAATCCA
ACATTAGGTGTTCATGAAGCTGACCTTTTAAAGACATCAGGAACGCTGATTAGTTTTATTTACCCAGCCCAAAAT
CCAGAGTTGCTAAATAAACTTTCCCAAAGAAAAACTACAGTTCTGGCAATGGACCAGGTTCCAAGAGTCACAATT
GCTCAGGGATATGATGCGCTAAGCTCCATGGCCAACATTGCGGGTTATAAGGCTGTTGTCCTAGCAGCAAATCAT
TTTGGACGTTTTTTTACTGGTCAGATCACAGCTGCTGGAAAAGTTCCTCCAGCTAAGATTCTGATAGTTGGTGGT
GGTGTTGCTGGGCTTGCTTCTGCAGGCGCAGCAAAGTCGATGGGTGCAATTGTTCGAGGATTTGACACAAGAGCT
GCAGCTTTGGAACAGTTCAAGTCTCTTGGTGCTGAGCCCTTGGAGGTGGACTTGAAGGAATCTGGTGAGGGACAA
GGAGGATATGCAAAAGAGATGTCCAAAGAGTTCATTGAAGCTGAAATGAAACTCTTTGCTCAACAATGCAAGGAG
GTAGACATCCTTATCAGCACAGCACTTATTCCAGGTAAAAAAGCTCCAGTTTTATTTAATAAAGAAATGATTGAG
TCAATGAAGGAAGGTTCAGTTGTTGTGGATTTAGCTGCTGAGGCTGGTGGAAACTTTGAAACCACTAAGCCAGGA
GAACTCTACATTCATAAGGGAATTACTCACATAGGCTACACAGACCTGCCCAGCCGAATGGCCACTCAGGCCAGC
ACCCTATATTCCAACAACATCACCAAACTCCTGAAGGCCATCAGCCCGGACAAAGATAATTTTTATTTTGATGTG
AAAGATGACTTTGACTTTGGTACGATGGGTCATGTCATTAGAGGAACTGTAGTGATGAAAGATGGTAAAGTGATT
TTCCCAGCTCCCACACCGAAAAATATTCCTCAAGGTGCCCCAGTAAAACAGAAGACAGTGGCTGAGCTGGAAGCT
GAAAAAGCAGCTACCATTACACCCTTCAGGAAGACAATGTCAACGGCTTCTGCATATACAGCAGGTCTCACAGGG
ATACTGGGTTTGGGCATTGCGGCTCCCAATCTAGCCTTTTCTCAGATGGTGACCACTTTTGGCTTGGCTGGCATT
GTGGGGTATCATACCGTCTGGGGAGTGACCCCTGCTCTCCACTCACCACTGATGTCTGTGACAAATGCAATCTCA
GGGCTGACTGCAGTTGGTGGGTTGGCACTGATGGGAGGACATTTGTATCCTTCCACAACTTCTCAGGGCCTTGCT
GCTCTTGCTGCATTCATATCCTCTGTCAACATTGCAGGTGGCTTTCTGGTGACTCAGAGAATGCTGGACATGTTC
AAGCGTCCCACTGACCCCCCAGAATACAACTACCTGTACCTGCTCCCTGCCGGCACCTTTGTTGGTGGATATTTA
GCTGCCCTCTACAGTGGTTATAACATTGAACAGATCATGTACCTAGGCTCGGGTTTGTGCTGTGTCGGTGCCTTG
GCTGGCCTCTCCACCCAGGGAACAGCACGTCTTGGCAATGCACTGGGCATGATTGGGGTTGCTGGAGGACTGGCA
GCCACCCTCGGAGTCCTAAAACCGGGCCCAGAATTACTAGCTCAGATGTCTGGAGCGATGGCTTTGGGTGGTACC
ATTGGATTGACAATTGCCAAACGCATCCAGATTTCTGATTTACCTCAATTAGTTGCTGCTTTTCACAGTTTAGTG
GGTTTGGCAGCTGTACTTACTTGCATAGCTGAGTACATTATAGAATATCCACATTTTGCTACGGATGCAGCAGCA
AATCTCACCAAGATTGTGGCCTACCTCGGCACTTACATTGGTGGCGTCACCTTTAGTGGGTCTCTCATTGCCTAT
GGAAAATTGCAGGGTCTCCTGAAATCTGCCCCTCTCCTACTGCCTGGAAGGCACTTACTCAATGCAGGCTTACTG
GCTGCTAGTGTGGGCGGGATAATCCCATTCATGGTGGACCCAAGCTTTACTACTGGCATCACCTGTCTGGGTTCA
GTGTCTGCTCTCTCTGCTGTCATGGGTGTGACTTTGACAGCTGCTATTGGGGGTGCTGACATGCCCGTCGTTATC
ACTGTGCTGAACAGCTACTCAGGCTGGGCCCTGTGTGCAGAGGGCTTCCTGCTCAACAACAATCTGCTGACCATC
GTGGGTGCACTCATAGGCTCGTCTGGTGCTATCCTGTCATACATCATGTGTGTGGCAATGAATCGCTCCCTGGCT
AATGTGATTCTTGGAGGCTATGGCACCACTTCAACAGCTGGTGGAAAACCCATGGAAATTTCTGGCACACATACG
GAAATCAACCTTGACAATGCAATTGACATGATTCGAGAAGCTAATAGCATTATTATTACACCAGGCTATGGTCTC
TGTGCAGCCAAAGCTCAATACCCCATTGCTGATTTGGTAAAGATGCTCACTGAGCAAGGCAAAAAAGTCAGGTTT
GGAATTCACCCAGTTGCAGGCCGAATGCCTGGTCAGCTTAATGTGCTGCTGGCTGAGGCTGGTGTGCCATATGAC
ATTGTGTTGGAAATGGATGAGATCAACCATGATTTTCCAGATACTGATTTGGTCCTTGTAATTGGAGCTAATGAC
ACTGTTAATTCAGCAGCTCAAGAAGATCCCAACTCTATTATTGCAGGCATGCCAGTCCTTGAGGTCTGGAAATCA
AAGCAGGTGATTGTTATGAAGAGGTCTTTGGGTGTTGGCTATGCTGCAGTGGACAATCCAATCTTCTACAAACCT
AACACGGCCATGCTTCTAGGTGATGCCAAGAAAACATGTGACGCGCTCCAGGCGAAAGTTAGAGAATCCTATCAG
AAG**TAA**ATATTAAGGATCAAGCTGTTAGCTAATAATGCCACCTCTGCAGTTTTGGGAACAGGCAAATAAAGTATC
AGTATACATGGTGATGTACATCTGTAGCAAAGCTCTTGGAGAAAATGAAGACTGAAGAAAGCAAAGCAAAAACTG
TATAGAGAGATTTTTCAAAAGCAGTAATCCCTCAATTTTAAAAAAGGATTGAAAATTCTAAATGTCTTTCTGTGC
ATATTTTTTGTGTTAGGAATCAAAAGTATTTTATAAAAGGAG

FIGURE 928

GGGTGCTCGGGCTGCCGTCCGCTCCGCCAGAAGCACCGAGCAGCCGAGCCGGGGCCCGCCGCCCTCCTCCTCCAT
GAGGCCCGAGTGAGGCGCGGCGGCTATAGCCGACCCGCGGCGCCTTCCCCCCGCGTCCTATCGCGAGCGCAGCGG
CAGCGGCCCCTGGAGGAGGAGGCGGAGGAGGAGGAGC**ATG**TCGGACGGTTTCGATCGGGCCCCAGGTGCTGGTCG
GGGCCGGAGCCGGGGCCTGGGCCGCGGAGGGGGCGGGCCTGAGGGCGGCGGTTTCCCGAACGGAGCGGGGCCTGC
TGAGCGGGCGCGGCACCAGCCGCCGCAACCCAAAGCCCCGGGCTTCCTGCAGCCACCGCCGCTGCGCCAGCCCAG
GACGACCCCGCCGCCAGGGGCCCAGTGCGAGGTCCCCGCCAGCCCCCAGCGGCCTTCCCGGCCCGGGGCGCTCCC
AGAGCAAACGAGGCCCCTGAGAGCTCCACCTAGTTCACAGGATAAAATCCCACAGCAGAACTCGGAGTCAGCAAT
GGCTAAGCCCCAGGTGGTTGTAGCTCCTGTATTAATGTCTAAGCTGTCTGTGAATGCCCCTGAATTTTACCCTTC
AGGTTATTCTTCCAGTTACACAGAATCCTATGAGGATGGTTGTGAGGATTATCCTACTCTATCAGAATATGTTCA
GGATTTTTTGAATCATCTTACAGAGCAGCCTGGCAGTTTTGAAACTGAAATTGAACAGTTTGCAGAGACCCTGAA
TGGTTGTGTTACAACAGATGATGCTTTGCAAGAACTTGTGGAACTCATCTATCAACAGGCCACATCTATCCCAAA
TTTCTCTTATATGGGAGCTCGCCTGTGTAATTACCTGTCCCATCATCTGACAATTAGCCCACAGAGTGGCAACTT
CCGCCAATTGCTACTTCAAAGATGTCGGACTGAATATGAAGTTAAAGATCAAGCTGCAAAAGGGGATGAAGTTAC
TCGAAAACGATTTCATGCATTTGTACTCTTTCTGGGAGAACTTTATCTTAACCTGGAGATCAAGGGAACAAATGG
ACAGGTTACAAGAGCAGATATTCTTCAGGTTGGTCTTCGAGAATTGCTGAATGCCCTGTTTTCTAATCCTATGGA
TGACAATTTAATTTGTGCAGTAAAATTGTTAAAGTTGACAGGATCAGTTTTGGAAGATGCTTGGAAGGAAAAAGG
AAAGATGGATATGGAAGAAATTATTCAGAGAATTGAAAACGTTGTCCTAGATGCAAACTGCAGTAGAGATGTAAA
ACAGATGCTCTTGAAGCTTGTAGAACTCCGGTCAAGTAACTGGGGCAGAGTCCATGCAACTTCAACATATAGAGA
AGCAACACCAGAAAATGATCCTAACTACTTTATGAATGAACCAACATTTTATACATCTGATGGTGTTCCTTTCAC
TGCAGCTGATCCAGATTACCAAGAGAAATACCAAGAATTACTTGAAAGAGAGGACTTTTTTCCAGATTATGAAGA
AAATGGAACAGATTTATCCGGGGCTGGTGATCCATACTTGGATGATATTGATGATGAGATGGACCCAGAGATAGA
AGAAGCTTATGAAAAGTTTTGTTTGGAATCAGAGCGTAAGCGAAAACAG**TAA**AGTTAAATTTCAGCATATCAGTT
TTATAAAGCAGTTTAGGTATGGTGATTTAGCAGAACACAAGAGAGCAAGAAAATGTCACATCTATACCAAATTAA
GGATGTTGAGTTATGTTACTAATGTATGCAACTTTAATTTTGTTTAACACTATCTGCCAAAATAAACTTTATTCC
CTATAACTTAAAATGTGTATATATATATAATAGTTTATTATGTACAGTTAATTCTACTGTTTTGGCTGCAATAAA
ATCGATTTTGAAATAAATGAAATGTTGAAAATTTTGCTAGTTGGTTAGATGCTTATCCTTTAAATTCTACTTTTC
TTGAGGGGAAAAAGTCTTCTTCTGGAAATACATATTACTGCAAAAATGTAGCATCCTTTTTTAGGTAGGAGTATT
ATAGCTTTCATTTTAGTTTGACATTTAGTGTCCCAATGAATTGAATTTCAAATATGAATCATAATCTTGAAAATC
TTTAGCACTAAAGTCTTGGAATATATCAACAACTGATTTACATATGCAGATGCTATTTGATACCAAGGGCTTTTT
AAATGTCATGGGGGGGAAAAACCCAACTTGGTGAACTCCCAGCTAAACAACCAAGACTTCACTGAAGATTTATTC
CAATTCTAGAATTGTTCTTTTTTATTTTTATTTTTTCAACTGACTAACTTCATTACCTTAAAGGCTAGAACATTA
TTCTGCTTTATTTATATGGCTTTCTCACTTTTATTTTGTAGCATGGGTTGCATCGACTTTTTTACTAGAGAATTT
TACTAGATATTTGTCATTCAAGTTTTCATCTGCTTTATAATTGATACACCTTGAGGGTCACTTTTCTAATACTTT
TACTATAATGTGGTACCACCTCAGCCCTAATAAATAATATTTTTACCTAATGTCAAATCTTTTTCCAGCTAACTA
AAAACTGTGTACAAAAGGATTGCTTGTAAATATGCATGTAAATAGTTCTGTTAATAACCCACTGTTTTACATTTG
GTACATCTGTGTCTGCTAATACAGTTAGCTTTCTCACTTTTCTGCTTGTTTGTTCAGTCTGAATTAAAATTAGAC
TTTGAAAATAAAGCTTAAATAGTTGTTTCCTCTA

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FIGURE 929

GCGGAGCTCTGAAGCGGCTCCCTGAGGGCGCTGGTTTTGAACTGGTCTTGTGCGGTTTGCGCTTTCTCTTAGTGG
TTACAGTTGGCGCTGTCTCCGCTTTCCTGTTTCGTGGCGGGCATCTTGGCCAAAACACTCTCCCTGCCACCTTAT
TCCTCTAGGGTTGTGATTTTTTTCTTTCACCAAGAAATATCACTCGCTGGTAATTTGTCAAACTGAAGAAACCCC
TGAAGAAGCAGTCGTGGGCAGGCGCCGACGCTGCGGCTTCCAGAGCATTTTGGCAAATCAAAGCCAGGGACCGTT
GCTGGGCCTCATTTCCGCAACTTTTCGGCTCCGAACTGCTTCTTTGACTTAGAAGATATCTTATCCTGCCGTTGT
A**ATG**GCAGCTGAACTGCGAATGATACTTTATGAAGATGATTCAGTACAAGTACAATATGTTGATGGTTCCACATT
GCAACTTTCTCCCTGTGGCACTGAATTTTTATTTGAAAAGTCACCACCTGTTTCAGCACATCCTTTAGAACAACC
AGAAAGAATTCGTCAAAGGACACATTTTGTCATTAGCACTTACAGAGAGCAACTACAGCGAGCCCTAGATTTTCG
AAACTCTTCAGCTACTTGCCCTTTTTTATCTGAAACCATCATACCTTCTGAAAGAAAAAAGCATATCTTCATTGA
CATAACAGAAGTGAGATGGCCCAGTCTTGATACAGATGGTACCATGATATATATGGAGAGTGGCATTGTGAAGAT
AACATCTTTAGATGGTCATGCATACCTCTGCCTGCCCAGATCTCAGCATGAATTTACAGTACATTTTTTGTGTAA
AGTTAGCCAGAAGTCAGACTCATCTGCAGTGTTGTCAGAAACAAATAATAAAGCCCCAAAAGATAAACTAGTTGA
AAAAACTGGCAAAATCTGTATACGTGGAAATTTACCAGGACAGAGACTGAAGAATAAAGAAAATGAGTTTCATTG
CCAGATCATGAAATCCAAAGAAACTTTAAAGAAGATGAGTTGTGTAAATGGAACTGAAGGGAGGGAAGAGCTGCC
TTCGCCTGGTACAAAGCACACATGTGTATACACATGGGTCAAGCAGTGCTGGTCTGTGGCTGCCTGTCCAGAGGA
ATGGAAATATCCTTTGTCTTTAGCACTTCATTTTCATAATAAAATCAGCAATATGTCTAAAATTGATGCACATAT
AACTCAGAGTAGATTTTTAACTTCTGATATTTCAGAGGAAAGAGGAAAAGTGGTTTCTGTTCTTCCCAGGGCCCT
GTCACTCAGCTGTCCAGTCCCACACCTACACAGGTGGAATTTTTGTGATTCACTTTTACAGAGACAATCTGATGA
ATATTCCTATCCTGAACTAGTGAAAATGGTTTGGTACAAAGGTGTTACATATAGACTTACCCATCAAAATATGAA
CTCAATAGAGATTTATTCTGGGGATGGATCTGTTTTCAAATCAGAAGGGGCTTATTTTGGGAACTATTTTACTTA
TTATTCTATTCAAGAAGGATCAGGAAAGAGAGAAGAGAAAACTTACTCAGTAAATAACCTTCCTCCAGATAGACC
GGGAAGTCCATTCACTGTCGGTTCTCTAATTAAACAGGCAACAAGAATTCTTCAACATTGTGTGAAGATGAGACT
TTCTTTAAGCCATAACTATCGTATATGCTGCTGGAAAATGGTACCTGGGATAAACGATAGCAATATACTGCCTTT
GGTTTTGAAAGAGTCACTCATACCCAGTGTGGGAAGATTTCTTGCCTACTCTGATGACAAAGTACATGCTATCTT
TTTAGATGGCATTACTCTAACCCTAAATTGGAATTTCAGCTCTCCTATTGAGAAGAGACAGGTAAATCAAGGTCT
TAACTTAGGTTGGTGTAAGTTAACTTTTCCTGATGGACAAGAGCAGTTAATTCAGATTGAACACCCTGAACCATA
TGAAAGATATGTGACAACAGTAACATCATGGTGCAGGAGACTGACCCAGACTAGTCCCAGAGAGATGCCCACTCA
TTCGTCATCTTCTGTTCTCCAAGAAAATTGGTCTGTTGCTTCTGAACTTGAAAAGATACAGAAGTTTAACTTGCT
ACTAGAAAATAGTGGTATCCTAAACCAGATTTCTAACAAGAAAAATGAACAACAGTCTTTTGATCATTATAAACC
AGGATCTTCAGAAACCTTGCTAGGAGAAGTTAATGAAAATAGAGTATCAATAGCATTGAAAAAAACCTCTGAAAT
CCTTCACGATATTGACTGTCTTCTATCAAACTCTAAAAAG**TGA**AAAATGGAATTATTACAACATATTATTAAAGT
TTAAGGATGTTGTTTCAAGTGACTGGTATAAAATTACTAGTAAGCCAAGATATTGTACGTATTACCCCGGCACAA
TGATTGTGAAAGAACTGACATTTAACTTTGAAGGTATTTTTAACTTGTACATTTTTAAAATATGTATTTATATCT
TAATAATAAATATTTCGAAGTTTT

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FIGURE 930

CAATGGGTTTGCCACCAGAACACAGGTGTTGTGAAAACTACCCCTAAAAGCCAAAATGGGAAAGGAAAAGACTCA
TATCAACATTGTCGTCATTGGACACGTAAATTCGGGCAAGTCCACCACTACTGGCCATCTGACCTACAAATGTGG
TGGCATCGACAAAAGAACCATTGAAAAATTTGAGAAGGAGGCTGCTGAGATGGGAAAGGACTCCTTCAAGTATGC
CTGGGTCTTGCATAAACTGAAAGCTGAGCGTGAACGTGGTATCACCATTGATATCTCCTTGTGGAAATTTGAGAC
CAGCAAGTACTATGTGACTATCATTGATGCCCCAGGACTCAGAGACTTCATCAAAAACATGATTACAGGGACATC
TCAGGCTGTGCTGTCCTGATGGTTGCTGCTGGTGTTGGCGAATTTGAAACTGGTATCTCCAAGAATGGGCAGACC
TGAGAGCATGCCCTTCTGGCTTACACACTGGGTGTGAAACAACTAATTGTTGGTGTTAACAAA**ATG**GATTCCACT
GAGCCACCCTACAGCCAGAAGAGAGAAGAGGAAATTGTTAAGGAAGTCAGCACTTACATTAAGAAAATTGGTTAC
AACCCTGACACAGTAGCATTTGTGCCAATTTCTGGTTGGAATGGTGACAACATGCTGGAGCCGAGTGCTAACATG
CCTTGGCTCAAGGGATGGAAAGCCACCCGTAAGGATGGCAGTGCCAGCGGCACCATGCTGCTTGAGGCTCTGGAC
TGCATCCTACCACCAACTCATCCAACTGACAAGCCCTTGCGCCTGCCTCTCCAGGATGTCTACAAAATTGGTGGT
ATTGGTACTGTTCCTGTTGGCCGAGTGGAGACTGGTGTTCTCAAACCTGGTGTGGTGGTCACCTTTGCTCCAGTC
AACATTACAACAGAAGTAAAATCTGTCGAAATGCACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATGTG
GGCTTCAATGTCAAGAATGTGTCTGTCAAGGATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAATGACCCA
CCAATGGAAACAGCTGACTTCATTGCTCAGGTAATTATCCTGAACCATCCAGGCCAAATAAGCGCTGGCTATGCC
CCTATATTGGATTGCCACGCGGCTCACATTGCATGCAAGTTTGCTGAGCTGAAGGAAAAGATTGATCGCGGTTCT
GGTAAAAAGCTGGAAGATGGCCCTAAATTCTTGAAGTCTGGTGATGCTGCCATTGTTGATATGGTTCCTGGCAAG
CCCATTGTTGAGAGCTTCTCAGACTATCCACCTTTGGGTCATTTTGCTGTTCGTGATATGAGACAGACAGTTGCG
GTGGGTGTCATCAAAGCAGTGGACAAGAAGGCTGCTGGAGGTGGCAAGGTCACGAAGTCTGCCCAGACAGCTCAG
AAGGCTAAA**TGA**ATATTATCCCTAATACCTGCCACCCAACTCTTAATCAGTGGTGGAAGAATGGTCTCAGAACTG
TTTGTTTCAATTGGCCATTTAAGTTTAGTAGTGAAAGACTGGTTAATGATAACAATGCATCGTAAAACCTTCAGA
AGGAAAGGAGAATGTTTTGTGGACCACTTTGGTTTTCTTTTTTGCATGTGGTAGTTTTAAGTTATTAGTTTTTAA
AATCAGTACTTTTTAATGGAAACAACTTGACCAAAAATTTGTCACAGAATTTTGAGACC

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FIGURE 931

AAATTGTTAAGGAAGTCAGCACTTACATTAAGAAAATTGGTTACAACCCTGACACAGTAGCATTTGTGCCAATTT
CTGGTTGGAATGGTGACAAC**ATG**CTGGAGCCGAGTGCTAACATGCCTTGGCTCAAGGGATGGAAAGCCACCCGTA
AGGATGGCAGTGCCAGCGGCACCATGCTGCTTGAGGCTCTGGACTGCATCCTACCACCAACTCATCCAACTGACA
AGCCCTTGCGCCTGCCTCTCCAGGATGTCTACAAAATTGGTGGTATTGGTACTGTTCCTGTTGGCCGAGTGGAGA
CTGGTGTTCTCAAACCTGGTGTGGTGGTCACCTTTGCTCCAGTCAACATTACAACAGAAGTAAAATCTGTCGAAA
TGCACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATGTGGGCTTCAATGTCAAGAATGTGTCTGTCAAGG
ATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAATGACCCACCAATGGAAACAGCTGACTTCATTGCTCAGG
TAATTATCCTGAACCATCCAGGCCAAATAAGCGCTGGCTATGCCCCTATATTGGATTGCCACGCGGCTCACATTG
CATGCAAGTTTGCTGAGCTGAAGGAAAAGATTGATCGCGGTTCTGGTAAAAAGCTGGAAGATGGCCCTACCACCT
TTGGGTCATTTTGCTGTTCG**TGA**TATGAGACAGACAGTTGCGGTGGGTGTCATCAAAGCAGTGGACAAGAAGGCT
GCTGGAGGTGGCAAGGTCACGAAGTCTGCCCAGACAGCTCAGAAGGCTAAATGAATATTATCCCTAATACCTGCC
ACCCAACTCTTAATCAGTGGTGGAAGAATGGTCTCAGAACTGTTTGTTTCAATTGGCCATTTAAGTTTAGTAGTG
AAAGACTGGTACTTTTTAATGGAAACAACTTGACCAAAAATTTGTCACAGAATTTTGAGACCTGTTAAAAAAGTT
TAATGAG

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FIGURE 932

CTCAGAGAAGCCGGGGTGTTGAATGTTTGTTTTCTAAAGGAGACAATGATTCATAATTTGTGACACTGTAAATCC
TGAGGTTTATAGAAAGGATTCATGACTTTGTAATGGAGTTTTGATGCTTGAGTAACCTGCAGGAGAGGATGACAC
TTTCGATGTCAGAGCTGCACTTGTGGGCCCAGGATTTGGAGAAGTGGAGAGAAGGTCTGATGGGAGTTGAAGGAG
CTGCAGGTCCAGCTTCTTCCCCATGCCAGCAAGGGTGCTGGAAATGTAAACAAGAATAGACTGTTCATTCCTGAT
GGCTTTTAGTCTATACTAACATATTGTTTGTC**ATG**GCATCCGAGACTGAAAAGACCCATGCTTTACTGCAGACTT
GTAGCACTGAATCTCTTATTTCCAGCCTTGGTCTGGGGGCATTTTGCCTCGTAGCTGACAGACTTCTTCAGTTTT
CCACAATTCAGCAAAATGACTGGCTTCGTGCTCTCTCAGATAATGCAGTACATTGTGTAATTGGCATGTGGTCAT
GGGCGGTAGTCACTGGAATCAAGAAGAAGACTGACTTTGGAGAAATCATTTTAGCTGGATTTTTAGCCTCTGTTA
TTGATGTAGACCACTTTTTTCTAGCTGGATCCATGTCTTTAAAGGCTGCTTTGACTCTCCCGCGAAGACCTTTCC
TTCACTGTTCTACTGTGATTCCCGTTGTGGTTCTGACCCTGAAATTTACTATGCACCTTTTCAAGCTCAAAGACT
CATGGTGCTTTCTTCCCTGGATGTTATTTATATCCTGGACTTCACATCATATCCGAGATGGGATTCGTCATGGTT
TGTGGATATGCCCATTTGGAAAAACTTCTCCTTTGCCATTCTGGCTTTATGTAATAATCACATCATCTTTACCTC
ACATCTGTTCATTCGTTATGTATTTAACAGGAACCAGACAAATGATGTCTTCAAAACATGGAGTTCGTATTGATG
TC**TGA**GGTACACGGCAGTCTTAGAGAAGCAAATGGCTCAGATGATGATAATTAAGAGTAGCCAACATTAAAGTTA
ATTTTTAAAAATACAGTTAGGTGTTTATATTATTTAGTTATTATAATTCTGCAATCCTCTTGCTCAGGAAGTGTA
TACAACTTTTTTAAAAATTATACTTGTTATTATTCTACTTCTCTCTTCTATGACAACTCTAGTGCAATATTAGAG
TTTCATTTATTCCACAATATATTTTTACTGTTTTTTTCTATTTATCTGGCTTTACTAGTAGTTCTTTTAGATTAA
CATCCAGTTCATTTTCTGGAAATATACCTGGAATTTAGTCCATTTCCTAATGAAAAACAGCTCAAATTTTAGGGT
AACTAATTTGTAAAGAGTTAACATTATATTTGGATCCAATTTTCCTGAGATATTGAAATAGTGAAATCACCAAAT
AAATGATATGAATCATTTAACTATACAAATGTATAGTTAATGCTAACATGTATTTATTTTCATATATGTTGATCC
TGAGTGAAATTTAATTTGCAGAATGCTTTATGAGTTATGATTACTGGCAAAACCTTCAGAGCACTTGTGACACAT
CATTATAATATCCAGTAGCTAACATTAGATCTAGCTTATTATTTCAGAAATTAATTTAGGAAATAATTATTAAAA
CATGTTGGCTACAGTAGCACTTTACTGAAGTAGTATTTTTTGGTATCTCTAGCCTAGAATCTCGTGTGTTAGTTT
TAACTGTTTTGAAAATAATAAGTAACATTAACAAAATGTTGATATTTGGATCATAACCGTAACATTTGAATTTAT
GCAAAAAAAAAGACCAGAAATGTCATTTCAAATGTAAATTCCTGAATGTACCATTAAAATTATTTTAGTTGCTATC
AGTTTGTTTATATACTATTTTATATACTATTCTAAAATATTTTACTCTGCCTGATACTGAAAGACAGCATATATT
TTTTTCAAAATAAAGTTTTAGGAAATTTGCTTTTTCCTTTTTCTTTCAGGTTGATCTTCTATTAAAATGATTCCT
CTTTATTAGAGAAGGAAAATTTAGTTGCTATACATCTTATATTTGCACAGTTTATTAAAGTCAGTGCCCTAAAGG
TACCTGCTTTTCTTTGTGGCATATATGGCATCTGCTGTCTTCAGATTTTCTTACACTTTTGTGATTTATAATGTT
AGTGATTGGTGCCTTATTCTCTGAGGAAAGATGGAGGGTTCATAAAGCAATGCCTTATCCACAGCAGATTTTCTT
GTATATTAAGTTAAACAGAATTCTGTAAATTATTATGAAGGTTCAAGCTCTTTAGGGGAGTTTTTTTTCTTGTTG
TTAACAAATTGGTTGCAATCTATTATATTTTGCAATTGATTAGATATTACAGTCTACTTATTTTTCAAGAGTAAT
TATTGTATAAGTTTGGTTGGTATAATGGTAAATATTATATAGTGGGGGTAAATTTGATTAGAGTTTTTTTTTTAA
GCACTGGCTTCAGAAATCCATGGAAATAAAGTCTGTATCTTGTGTAACAATTCCTGACTAAATTGCAAAACCTTT
TCTACTTTTTCTTTCTTCATATTAAACAAATAAATATTATTAAAAATATAGGGCCTTATTTAAGAATGCTACATA
GTGACCGGACGTGGTGGCTCACGCCTGTAATCCCAACACTTTGGGAGGCCGAGGCAGGCAGGTCACTTGAGGTCA
GGAGTTCGAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAACTGGGCGTGCT
GGTGTGCACCTGTAGTTTCAGCTATTCGGGAGGCTGAGGCAGACAATGGCTTGAACCTGGGAGGCAGAGGTTGTA
GTGAGCTGAGATGGGGCCACTGCACTGCAGCCTGTGTGACAGAGGGAGACTGTCTTAAAAAATAAACATAAAATA
AATAAATAAGAATGCTACATAGGC

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FIGURE 933

AATGGAGGAGTCGGAACCCGAACGGAAGCGGGCTCGCACCGACGAGGTGCCTGCCGGAGGAAGCCGCTCCGAGGC
GGAAGATGAGGACGACGAGGACTACGTGCCCTATGTGCCGTTACGGCAGCGCCGGCAGCTACTGCTCCAGAAGCT
GCTGCAGCGAAGACGCAAGGGAGCTGCGGAGGAAGAGCAGCAGGACAGCGGTAGTGAACCCCGGGGAGATGAGGA
CGACATCCCGCTAGGCCCTCAGTCCAACGTCAGCCTCCTGGATCAGCACCAGCACCTTAAAGAGAAGGCTGAAGC
GCGCAAAGAGTCTGCCAAGGAGAAGCAGCTGAAGGAAGAAGAGAAGATCCTGGAGAGTGTTGCCGAGGGCCGAGC
ATTGATGTCAGTGAAGGAGATGGCTAAGGGCATTACGTATGATGACCCCATCAAAACCAGCTGGACTCCACCCCG
TTATGTTCTGAGCATGTCTGAAGAGCGACATGAGCGCGTGCGGAAGAAATACCACATCCTGGTGGAGGGAGACGG
TATCCCACCACCCATCAAGAGCTTCAAGGAAATGAAGTTTCCTGCAGCCATCCTGAGAGGCCTGAAGAAGAAAGG
CATTCACCACCCAACACCCATTCAGATCCAGGGCATCCCCACCATTCTATCTGGCCGTGACATGATAGGCATCGC
TTTCACGGGTTCAGGCAAGACACTGGTGTTCACGTTGCCCGTCATCATGTTCTGCCTGGAACAAGAGAAGAGGTT
ACCCTTCTCAAAGCGCGAGGGGCCCTATGGACTCATCATCTGCCCCTCGCGGGAGCTGGCCCGGCAGACCCATGG
CATCCTGGAGTACTACTGCCGCCTGCTGCAGGAGGACAGCTCACCACTCCTGCGCTGCGCCCTCTGCATTGGGGG
CATGTCCGTGAAAGAGCAGATGGAGACCATCCGACACGGTGTACACATGATGGTGGCCACCCCGGGGCGCCTCAT
GGATTTGCTGCAGAAGAAGATGGTCAGCCTAGACATCTGTCGCTACCTGGCCCTGGACGAGGCTGACCGCATGAT
CGACATGGGCTTCGAGGGTGACATCCGTACCATCTTCTCCTACTTCAAGGGCCAGCGACAGACCCTGCTCTTCAG
TGCCACCATGCCGAAGAAGATTCAGAACTTTGCTAAGAGTGCCCTTGTAAAGCCTGTGACCATCAATGTGGGGCG
CGCTGGGGCTGCCAGCCTGGATGTCATCCAGGAGGTAGAATATGTGAAGGAGGAGGCCAAGATGGTGTACCTGCT
CGAGTGCCTGCAGAAGACACCCCCGCCTGTACTCATCTTTGCAGAGAAGAAGGCAGACGTGGACGCCATCCACGA
GTACCTGCTGCTCAAGGGGGTTGAGGCCGTAGCCATCCATGGGGGCAAAGACCAGGAGGAACGGACTAAGGCCAT
CGAGGCATTCCGGGAGGGCAAGAAGGATGTCCTAGTAGCCACAGACGTTGCCTCCAAGGGCCTGGACTTCCCTGC
CATCCAGCACGTCATCAATTATGACATGCCAGAGGAGATTGAGAACTATGTACACCGGATTGGCCGCACCGGGCG
CTCGGGAAACACAGGCATCGCCACTACCTTCATCAACAAAGCGTGTGATGAGTCAGTGCTGATGGACCTCAAAGC
GCTGCTGCTAGAAGCCAAGCAGAAGGTGCCGCCCGTGCTGCAGGTGCTGCATTGCGGGGATGAGTCCATGCTGGA
CATTGGAGGAGAGCGCGGCTGTGCCTTCTGCGGGGGCCTGGGTCATCGGATCACTGACTGCCCCAAACTCGAGGC
TATGCAGACCAAGCAGGTCAGCAACATCGGTCGCAAGGACTACCTGGCCCACAGCTCCATGGACTTCTGAGCCGA
CAGTCTTCCCTTCTCTCCAAGAGGCCTCAGTCCCCAAGACTGCCACCAGTCTACACATACAGCAGCCCCCTGGAC
AGAATCAGCATTTCAGCTCAGCTGGCCTGGGATGGGCCAGGCTGGTCCTGGCTGCCTGTTCCCTGTGCTCTTCAG
AATTACTGTTTTTGTTTCCTTTTACCCCAGCTGCCATTAAAGCCCAAACCTCTAGCCC

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FIGURE 934

GCAAGATGGCTGTGGAGCTGGGCGTGCTGCTCGTCCGGCCCCGGCCCGGAACCGGGCTGGGTAGAGTG**ATG**CGGA
CCCTCCTGCTGGTGCTGTGGCTGGCGACGCGCGGAAGCGCGCTCTACTTTCACATCGGAGAGACGGAGAAGAAGT
GCTTTATTGAGGAGATCCCGGACGAGACCATGGTCATAGGAAACTACCGGACGCAGCTGTATGACAAGCAGCGGG
AGGAGTACCAGCCGGCCACCCCGGGGCTTGGCATGTTTGTGGAGGTGAAGGACCCAGAGGACAAGGTCATCCTGG
CCCGGCAGTATGGCTCCGAGGGCAGGTTCACTTTCACTTCCCATACCCCTGGTGAGCACCAGATCTGTCTTCACT
CCAATTCCACCAAGTTCTCCCTCTTTGCTGGAGGCATGCTGAGAGTTCACCTGGACATCCAGGTAGGTGAACATG
CCAATGACTATGCAGAAATTGCTGCTAAAGACAAGTTGAGTGAGTTGCAGCTACGAGTGCGACAGCTGGTGGAAC
AAGTGGAGCAGATCCAGAAAGAGCAGAACTACCAGCGGTGGCGAGAGGAGCGCTTCCGGCAGACCAGTGAGAGCA
CCAACCAGCGGGTGCTGTGGTGGTCCATTCTGCAGACCCTCATCCTCGTGGCCATCGGTGTCTGGCAGATGCGGC
ACCTCAAGAGCTTCTTTGAAGCCAAGAAGCTTGTG**TAG**CTGTCCCAGGCGTCACAACCCATCCTCCCAGGCTGGG
GGAGGGGAATGGGCAGGCAAGCCAGTCTTCTGTCTTCCTTT

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FIGURE 935

GGGCGGAGCGGGAGGCGGAGGCGCCGCGTAGGCCCGGGAGGCCGGGCCGGCCGGGCTGCGAGCGCCTGCCCCATG
CGCCGCCGCCTCTCCGCACG**ATG**TTCCCCTCGCGGAGGAAAGCGGCGCAGCTGCCCTGGGAGGACGGCAGGTCCG
GGTTGCTCTCCGGCGGCCTCCCTCGGAAGTGTTCCGTCTTCCACCTGTTCGTGGCCTGCCTCTCGCTGGGCTTCT
TCTCCCTACTCTGGCTGCAGCTCAGCTGCTCTGGGGACGTGGCCCGGGCAGTCAGGGGACAAGGGCAGGAGACCT
CGGGCCCTCCCCGTGCCTGCCCCCCAGAGCCGCCCCCTGAGCACTGGGAAGAAGACGCATCCTGGGGCCCCCACC
GCCTGGCAGTGCTGGTGCCCTTCCGCGAACGCTTCGAGGAGCTCCTGGTCTTCGTGCCCCACATGCGCCGCTTCC
TGAGCAGGAAGAAGATCCGGCACCACATCTACGTGCTCAACCAGGTGGACCACTTCAGGTTCAACCGGGCAGCGC
TCATCAACGTGGGCTTCCTGGAGAGCAGCAACAGCACGGACTACATTGCCATGCACGACGTTGACCTGCTCCCTC
TCAACGAGGAGCTGGACTATGGCTTTCCTGAGGCTGGGCCCTTCCACGTGGCCTCCCCGGAGCTCCACCCTCTCT
ACCACTACAAGACCTATGTCGGCGGCATCCTGCTGCTCTCCAAGCAGCACTACCGGCTGTGCAATGGGATGTCCA
ACCGCTTCTGGGGCTGGGGCCGCGAGGACGACGAGTTCTACCGGCGCATTAAGGGAGCTGGGCTCCAGCTTTTCC
GCCCCTCGGGAATCACAACTGGGTACAAGACATTTCGCCACCTGCATGACCCAGCCTGGCGGAAGAGGGACCAGA
AGCGCATCGCAGCTCAAAAACAGGAGCAGTTCAAGGTGGACAGGGAGGGAGGCCTGAACACTGTGAAGTACCATG
TGGCTTCCCGCACTGCCCTGTCTGTGGGCGGGGCCCCCTGCACTGTCCTCAACATCATGTTGGACTGTGACAAGA
CCGCCACACCCTGGTGCACATTCAGC**TGA**GCTGGATGGACAGTGAGGAAGCCTGTACCTACAGGCCATATTGCTC
AGGCTCAGGACAAGGCCTCAGGTCGTGGGCCCAGCTCTGACAGGATGTGGAGTGGCCAGGACCAAGACAGCAAGC
TACGCAATTGCAGCCACCCGGCCGCCAAGGCAGGCTTGGGCTGGGCCAGGACACGTGGGGTGCCTGGGACGCTGC
TTGCCATGCACAGTGATCAGAGAGAGGCTGGGGTGTGTCCTGTCCGGGACCCCCCCTGCCTTCCTGCTCACCCTA
CTCTGACCTCCTTCACGTGCCCAGGCCTGTGGGTAGTGGGGAGGGCTGAACAGGACAACCTCTCATCACCCCCAC
TTTTGTTCCTTCCTGCTGGGCTGCCTCGTGCAGAGACACAGTGTAGGGGCCATGCAGCTGGCGTAGGTGGCAGTT
GGGCCTGGTGAGGGTTAGGACTTCAGAAACCAGAGCACAAGCCCCACAGAGGGGGAACAGCCAGCACCGCTCTAG
CTGGTTGTTGCCATGCCGGAATGTGGGCCTAGTGTTGCCAGATCTTCTGATTTTTCGAAAGAAACTAGAATGCTG
GATTCTTAAGTGATATCTTCTGATTTTTTAAATGATAGCACCTAAATGAAACTTTCAAAAAGT

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FIGURE 936

GCCTCCGCCCCCGCCGCGGACCCTCCGCGGTACACCTTGCACCCAGCGTCTCCCTCTACAAGACGGCCCGGCCCT
TTGGTGCGCCCCCGCCCGCTGACAGCGCCCCGCAGCAGAATGGACAGCCGCTCCGACCGCTGGTCCCAGATGCCA
GCAAGCAGCGGCTG**ATG**GAGAACACAGAGGACTGGCGGCCGCGGCCGGGGACAGGCCAGTCGCGTTCCTTCCGCA
TCCTTGCCCACCTCACAGGCACCGAGTTCATGCAAGACCCGGATGAGGAGCACCTGAAGAAATCAAGCCAGGTGC
CCAGGACAGAAGCCCCAGCCCCAGCCTCATCTACACCCCAGGAGCCCTGGCCTGGCCCTACCGCCCCCAGCCCTA
CCAGCCGCCCGCCCTGGGCTGTGGACCCTGCGTTTGCCGAGCGCTATGCCCCGGACAAAACGAGCACAGTGCTGA
CCCGGCACAGCCAGCCGGCCACGCCCACGCCGCTGCAGAGCCGCACCTCCATTGTGCAGGCAGCTGCCGGAGGGG
TGCCAGGAGGGGGCAGCAACAACGGCAAGACTCCCGTGTGTCACCAGTGCCACAAGGTCATCCGGGGCCGCTACC
TGGTGGCGCTGGGCCACGCGTACCACCCGGAGGAGTTTGTGTGTAGCCAGTGTGGGAAGGTCCTGGAAGAGGGTG
GCTTCTTTGAGGAGAAGGGCGCCATCTTCTGCCCACCATGCTATGACGTGCGCTATGCACCCAGCTGTGCCAAGT
GCAAGAAGAAGATTACAGGCGAGATCATGCACGCCCTGAAGATGACCTGGCACGTGCACTGCTTTACCTGTGCTG
CCTGCAAGACGCCCATCCGGAACAGGGCCTTCTACATGGAGGAGGGCGTGCCCTATTGCGAGCGAGACTATGAGA
AGATGTTTGGCACGAAATGCCATGGCTGTGACTTCAAGATCGACGCTGGGGACCGCTTCCTGGAGGCCCTGGGCT
TCAGCTGGCATGACACCTGCTTCGTCTGTGCGATATGTCAGATCAACCTGGAAGGAAAGACCTTCTACTCCAAGA
AGGACAGGCCTCTCTGCAAGAGCCATGCCTTCTCTCATGTG**TGA**GCCCCTTCTGCCCACAGCTGCCGCGGTGGCC
CCTAGCCTGAGGGGCCTGGAGTCGTGGCCCTGCATTTCTGGGTAGGGCTGGCAATGGTTGCCTTAACCCTGGCTC
CTGGCCCGAGCCTGGGGCTCCCTGGGCCCTGCCCCACCCACCTTATCCTCCCACCCCACTCCCTCCACCACCACA
GCACACCGGTGCTGGCCACACCAGCCCCCTTTCACCTCCAGTGCCACAATAAACCTGTACCCAGCTG

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FIGURE 937

CTGCGAGCGCCTGCCCCATGCGCCGCCGCCTCTCCGCACG**ATG**TTCCCCTCGCGGAGGAAAGCGGCGCAGCTGCC
CTGGGAGGACGGCAGGTCCGGGTTGCTCTCCGGCGGCCTCCCTCGGAAGTGTTCCGTCTTCCACCTGTTCGTGGC
CTGCCTCTCGCTGGGCTTCTTCTCCCTACTCTGGCTGCAGCTCAGCTGCTCTGGGGACGTGGCCCGGGCAGTCAG
GGGACAAGGGCAGGAGACCTCGGGCCCTCCCCGCGCCTGCCCCCCAGAGCCGCCCCCTGAGCACTGGGAAGAAGA
CGCATCCTGGGGCCCCCACCGCCTGGCAGTGCTGGTGCCCTTCCGCGAACGCTTCGAGGAGCTCCTGGTCTTCGT
GCCCCACATGCGCCGCTTCCTGAGCAGGAAGAAGATCCGGCACCACATCTACGTGCTCAACCAGGTGGACCACTT
CAGGTTCAACCGGGCAGCGCTCATCAACGTGGGCTTCCTGGAGAGCAGCAACAGCACGGACTACATTGCCATGCA
CGACGTTGACCTGCTCCCTCTCAACGAGGAGCTGGACTATGGCTTTCCTGAGGCTGGGCCCTTCCACGTGGCCTC
CCCGGAGCTCCACCCTCTCTACCACTACAAGACCTATGTCGGCGGCATCCTGCTGCTCTCCAAGCAGCACTACCG
GCTGTGCAATGGGATGTCCAACCGCTTCTGGGGCTGGGGCCGCGAGGACGACGAGTTCTACCGGCGCATTAAGGG
AGCTGGGCTCCAGCTTTTCCGCCCCTCGGGAATCACAACTGGGTACAAGACATTTCGCCACCTGCACGACCCAGC
CTGGCGGAAGAGGGACCAGAAGCGCATCGCAGCTCAAAAACAGGAGCAGTTCAAGGTGGACAGGGAGGGAGGCCT
GAACACTGTGAAGTACCATGTGGCTTCCCGCACTGCCCTGTCTGTGGGCGGGGCCCCCTGCACTGTCCTCAACAT
CATGTTGGACTGTGACAAGACCGCCACACCCTGGTGCACATTCAGC**TGA**GCTGGATGGACAGTGAGGAAGCCTGT
ACCTACAGGCCATATTGCTCAGGCTCAGGACAAGGCCTCAGGTCGTGGGCCCAGCTCTGACAGGATGTGGAGTGG
CCAGGACCAAGACAGCAAGCTACGCAATTGCAGCCACCCGGCCGCCAAGGCAGGCTTGGGCTGGGCCAGGACACG
TGGGGTGCCTGGGACGCTGCTTGCCATGCACAGTGATCAGAGAGAGGCTGGGGTGTGTCCTGTCCGGGACCCCCC
CTGCCTTCCTGCTCACCCTACTCTGACCTCCTTCACGTGCCCAGGCCTGTGGGTAGTGGGGAGGGCTGAACAGGA
CAACCTCTCATCACCCCCACTTTTGTTCCTTCCTGCTGGGCTGCCTCGTGCAGAGACACAGTGTAGGGGCCATGC
AGCTGGCGTAGGTGGCAGTTGGGCCTGGTGAGGGTTAGGACTTCAGAAACCAGAGCACAAGCCCCACAGAGGGGG
AACAGCCAGCACCGCTCTAGCTGGTTGTTGCCATGCCGGAATGTGGGCCTAGTGTTGCCAGATCTTCTGATTTTT
CGAAAGAAACTAGAATGCTGGATTCTTAAGTGATATCTTCTGATTTTTTAAATGATAGCACCTAAATGAAACTTT
CAAAAAGT

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FIGURE 938

AGGTGGAGCAAGATGGCTGTGGAGCTGGGCGTGCTGCTCGTCCGGCCCCGGCCCGGAACCGGGCTGGGTAGAGTG
ATGCGGACCCTCCTGCTGGTGCTGTGGCTGGCGACGCGCGGAAGCGCGCTCTACTTTCACATCGGAGAGACGGAG
AAGAAGTGCTTTATTGAGGAGATCCCGGACGAGACCATGGTCATAGGAAACTACCGGACGCAGCTGTATGACAAG
CAGCGGGAGGAGTACCAGCCGGCCACCCCGGGGCTTGGCATGTTTGTGGAGGTGAAGGACCCAGAGGACAAGGTC
ATCCTGGCCCGGCAGTATGGCTCCGAGGGCAGGTTCACTTTCACTTCCCATACCCCTGGTGAGCACCAGATCTGT
CTTCACTCCAATTCCACCAAGTTCTCCCTCTTTGCTGGAGGCATGCTGAGAGTTCACCTGGACATCCAGGTAGGT
GAACATGCCAATGACTATGCAGAAATTGCTGCTAAAGACAAGTTGAGTGAGTTGCAGCTACGAGTGCGACAGCTG
GTGGAACAAGTGGAGCAGATCCAGAAAGAGCAGAACTACCAGCGGTGGCGAGAGGAGCGCTTCCGGCAGACCAGT
GAGAGCACCAACCAGCGGGTGCTGTGGTGGTCCATTCTGCAGACCCTCATCCTCGTGGCCATCGGTGTCTGGCAG
ATGCGGCACCTCAAGAGCTTCTTTGAAGCCAAGAAGCTTGTG**TAG**CTGTCCCAGGCGTCACAACCCATCCTCCCA
GGCTGGGGGAGAAAGGACCTCCTGGAACTGACTTCTTCTGTCAGGAGGACTGGTTTCCAGCCATACCTGTTCTGG
AAGGGAGAGGGGCTGGAGGCACCCACAGGCACAAGCTGAAGGCAGCAGCTTGGCTAATACTGAGCAGGTAGTGGG
GCAAATTCCTGCCCTCTCTCTCTGGCCTCTGGGCCGTTTGGTAGTAATCACCCAGGGGCTGGTAAAGCCCCTCCT
CTTGGCACCTCAGAATCACAGTGTTACTGATCAGGGATGTGAGGCTGCTGTTGGGGGTGGGGGGAGGGGAATGGG
CAGGCAAGCCAGTCTTCTGTCTTCCTTTGCTAACTTAGGGTTTTGAGCAGGTTGGGGTATGGTGCCTGTCATACC
CACCTGCCACCCTGGGAACCTCACTGTTCTCTCTTTCAGCCTAGACCTGCTGATCCAGGGTGTGTGTGAGTTGAG
GGTGGGTGGAGGGGTTTGCAGTGTGGGAATGTGGCCCTGCAGTTGACCTGAGCTGCTTCACATGGTTGTCCATTC
TGGGGCTTAAAGAACTGGGACCAGACCAAGTAGAGGCCTTGGTGCTGGTTGGGGTGGGGCCTGCAGAGTCTTAGT
TACTGATTTCATTTTCAATAAATGTAGGTTTGTTACATGAGTTTCCCAATAAAAAAAAAAATG

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FIGURE 939

AATGGAGGAGTCGGAACCCGAACGGAAGCGGGCTCGCACCGACGAGGTGCCTGCCGGAGGAAGCCGCTCCGAGGC
GGAAGATGAGGACGACGAGGACTACGTGCCCTATGTGCCGTTACGGCAGCGCCGGCAGCTACTGCTCCAGAAGCT
GCTGCAGCGAAGACGCAAGGGAGCTGCGGAGGAAGAGCAGCAGGACAGCGGTAGTGAACCCCGGGGAGATGAGGA
CGACATCCCGCTAGGCCCTCAGTCCAACGTCAGCCTCCTGGATCAGCACCAGCACCTTAAAGAGAAGGCTGAAGC
GCGCAAAGAGTCTGCCAAGGAGAAGCAGCTGAAGGAAGAAGAGAAGATCCTGGAGAGTGTTGCCGAGGGCCGAGC
ATTGATGTCAGTGAAGGAGATGGCTAAGGGCATTACGTATGATGACCCCATCAAAACCAGCTGGACTCCACCCCG
TTATGTTCTGAGCATGTCTGAAGAGCGACATGAGCGCGTGCGGAAGAAATACCACATCCTGGTGGAGGGAGACGG
TATCCCACCACCCATCAAGAGCTTCAAGGAAATGAAGTTTCCTGCAGCCATCCTGAGAGGCCTGAAGAAGAAAGG
CATTCACCACCCAACACCCATTCAGATCCAGGGCATCCCCACCATTCTATCTGGCCGTGACATGATAGGCATCGC
TTTCACGGGTTCAGGCAAGACACTGGTGTTCACGTTGCCCGTCATCATGTTCTGCCTGGAACAAGAGAAGAGGTT
ACCCTTCTCAAAGCGCGAGGGGCCCTATGGACTCATCATCTGCCCCTCGCGGGAGCTGGCCCGGCAGACCCATGG
CATCCTGGAGTACTACTGCCGCCTGCTGCAGGAGGACAGCTCACCACTCCTGCGCTGCGCCCTCTGCATTGGGGG
CATGTCCGTGAAAGAGCAGATGGAGACCATCCGACACGGTGTACACATGATGGTGGCCACCCCGGGGCGCCTCAT
GGATTTGCTGCAGAAGAAGATGGTCAGCCTAGACATCTGTCGCTACCTGGCCCTGGACGAGGCTGACCGCATGAT
CGACATGGGCTTCGAGGGTGACATCCGTACCATCTTCTCCTACTTCAAGGGCCAGCGACAGACCCTGCTCTTCAG
TGCCACCATGCCGAAGAAGATTCAGAACTTTGCTAAGAGTGCCCTTGTAAAGCCTGTGACCATCAATGTGGGGCG
CGCTGGGGCTGCCAGCCTGGATGTCATCCAGGAGGTAGAATATGTGAAGGAGGAGGCCAAGATGGTGTACCTGCT
CGAGTGCCTGCAGAAGACACCCCCGCCTGTACTCATCTTTGCAGAGAAGAAGGCAGACGTGGACGCCATCCACGA
GTACCTGCTGCTCAAGGGGGTTGAGGCCGTAGCCATCCATGGGGGCAAAGACCAGGAGGAACGGACTAAGGCCAT
CGAGGCATTCCGGGAGGGCAAGAAGGATGTCCTAGTAGCCACAGACGTTGCCTCCAAGGGCCTGGACTTCCCTGC
CATCCAGCACGTCATCAATTATGACATGCCAGAGGAGATTGAGAACTATGTACACCGGATTGGCCGCACCGGGCG
CTCGGGAAACACAGGCATCGCCACTACCTTCATCAACAAAGCGTGTGATGAGTCAGTGCTGATGGACCTCAAAGC
GCTGCTGCTAGAAGCCAAGCAGAAGGTGCCGCCCGTGCTGCAGGTGCTGCATTGCGGGGATGAGTCCATGCTGGA
CATTGGAGGAGAGCGCGGCTGTGCCTTCTGCGGGGGCCTGGGTCATCGGATCACTGACTGCCCCAAACTCGAGGC
TATGCAGACCAAGCAGGTCAGCAACATCGGTCGCAAGGACTACCTGGCCCACAGCTCCATGGACTTCTGAGCCGA
CAGTCTTCCCTTCTCTCCAAGAGGCCTCAGTCCCCAAGACTGCCACCAGTCTACACATACAGCAGCCCCCTGGAC
AGAATCAGCATTTCAGCTCAGCTGGCCTGGAATGGGCCAGGCTGGTCCTGGCTGCCTGTTCCCTGTGCTCTTCAG
AATTACTGTTTTTGTTTCCTTTTACCCCAGCTGCCATTAAAGCCCAAACCTCTAGCCC

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FIGURE 940

ATGACTCGGGGAGCCAGACTGCGATCAGACGCGCGTGCCCAGCTGAACCAGCTGTCTCTGGACGGAGGGACGGGA
AGTGGCCAGAAGGGGAAGTGTGAGGAGTTCCCGTCCAGCCTGTCATCAGTCTCCCCAGGTCTTGAAGCGGCGGCC
CTGCTCCTGGCCGTGACCATGGACCCTCTGGAGACCCCTATCAAGGATGGCATCCTCTACCAGCAGCATGTCAAG
TTTGGCAAGAAGTGCTGGCGGAAGGTGTGGGCTCTGCTGTATGCAGGAGGCCCATCAGGCGTGGCACGGCTGGAG
AGCTGGGAGGTCCGGGATGGTGGCCTGGGAGCAGCGGGTGACAGGTCGGCAGGGCCTGGCCGGCGAGGGGAGCGA
CGGGTCATCCGCCTGGCTGACTGTGTGTCCGTGCTGCCGGCTGACGGCGAGAGCTGCCCCCGGGACACCGGTGCC
TTCCTGCTCACCACCACCGAGCGAAGCCATCTACTGGCTGCTCAGCACCGCCAGGCCTGGATGGGCCCCATCTGC
CAGCTGGCCTTCCCGGGGACAGGGGAGGCCTCCTCAGGATCCACAGATGCCCAGTCTCCCAAGAGGGGCCTGGTC
CCCATGGAGGAAAACTCCATCTACTCCTCCTGGCAGGAAGTGGGCGAGTTTCCCGTGGTGGTGCAGAGGACTGAG
GCCGCCACCCGCTGCCAGCTGAAGGGGCCGGCCCTGCTGGTGCTGGGCCCAGACGCCATCCAGCTGAGGGAGGCC
AAGGGCACCCAGGCCCTCTACAGCTGGCCCTACCACTTCCTGCGCAAGTTCGGCTCCGACAAGGGCGTGTTCTCC
TTTGAGGCCGGCCGTCGCTGCCACTCGGGTGAGGGCCTCTTTGCCTTCAGCACCCCCTGTGCCCCTGACCTGTGC
AGGGCTGTGGCCGGGGCCATCGCCCGCCAGCGGGAGCGGCTGCCAGAGCTGACCAGGCCCCAGCCCTGCCCCCTG
CCACGGGCCACCTCTCTGCCCTCCCTGGACACCCCCGGAGAGCTTCGGGAGATGCCACCAGGACCTGAGCCACCC
ACGTCCAGGAAAATGCACCTGGCCGAGCCCGGACCCCAGAGCCTGCCGCTACTGCTAGGCCCGGAGCCCAACGAT
CTGGCGTCCGGGCTCTACGCTTCAGTGTGCAAGCGTGCCAGTGGGCCCCCAGGCAATGAGCACCTCTATGAGAAC
CTGTGTGTGCTGGAGGCCAGCCCCACGCTGCACGGTGGGGAACCTGAGCCGCACGAGGGCCCCGGCAGCCGCAGC
CCCACAACCAGTCCCATCTACCACAACGGCCAGGACTTGAGCTGGCCCGGCCCGGCCAACGACAGTACCCTGGAG
GCCCAGTACCGGCGGCTGCTGGAGCTGGATCAGGTGGAGGGCACAGGCCGCCCTGACCCTCAGGCAGGTTTCAAG
GCCAAGCTGGTGACCCTGCTGAGTCGTGAGCGGAGGAAGGGCCCAGCCCCTTGTGACCGGCCC**TGA**ACGCCCAGC
AGAGTGGTGGCCAGAGGGGAGAGGTGCTCCCCCTGGGACAGGAGGGTGGGCTGGTGGGCAAACATTGGGCCCATG
CAGACACACGCCTGTGTCCACCCTGGCCTGCAGGAACAAGGCAGGCCGCCTGTGGAGGACCTCAGCCCTGCCCTG
CCCTCCTCATGAATAGTGTGCAGACTCACAGATAATAAAGCTCAGAGCAGCTCCCGGCAGGGGCACTCACGGC

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FIGURE 941

CCCAACGAGGCTCCCTGGAGCCCGACGCAGAGCAGCGCCCTGGCCGGGCCAAGCAGGAGCCGGCATC**ATG**GATTC
CTTCAAAGTAGTGCTGGAGGGGCCAGCACCTTGGGGCTTCCGGCTGCAAGGGGGCAAGGACTTCAATGTGCCCCT
CTCCATTTCCCGGCTCACTCCTGGGGGGCAAAGCGGCGCAGGCCGGAGTGGCCGTGGGTGACTGGGTGCTGAGCAT
CGATGGCGAGAATGCGGGTAGCCTCACACACATCGAAGCTCAGAACAAGATCCGGGCCTGCGGGGAGCGCCTCAG
CCTGGGCCTCAGCAGGGCCCAGCCGGTTCAGAGCAAACCGCAGAAGGCCTCCGCCCCCGCCGCGGACCCTCCGCG
GTACACCTTTGCACCCAGCGTCTCCCTCAACAAGACGGCCCGGCCCTTTGGGGCGCCCCCGCCCGCTGACAGCGC
CCCGCAGCAGAATGGACAGCCGCTCCGACCGCTGGTCCCAGATGCCAGCAAGCAGCGGCTGATGGAGAACACAGA
GGACTGGCGGCCGCGGCCGGGGACAGGCCAGTCGCGTTCCTTCCGCATCCTTGCCCACCTCACAGGCACCGAGTT
CATGCAAGACCCGGATGAGGAGCACCTGAAGAAATCAAGCCAGGTGCCCAGGACAGAAGCCCCAGCCCCAGCCTC
ATCTACACCCCAGGAGCCCTGGCCTGGCCCTACCGCCCCCAGCCCTACCAGCCGCCCGCCCTGGGCTGTGGACCC
TGCGTTTGCCGAGCGCTATGCCCCGGACAAAACGAGCACAGTGCTGACCCGGCACAGCCAGCCGGCCACGCCCAC
GCCGCTGCAGAGCCGCACCTCCATTGTGCAGGCAGCTGCCGGAGGGGTGCCAGGAGGGGGCAGCAACAACGGCAA
GACTCCCGTGTGTCACCAGTGCCACAAGGTCATCCGGGGCCGCTACCTGGTGGCGCTGGGCCACGCGTACCACCC
GGAGGAGTTTGTGTGTAGCCAGTGTGGGAAGGTCCTGGAAGAGGGTGGCTTCTTTGAGGAGAAGGGCGCCATCTT
CTGCCCACCATGCTATGACGTGCGCTATGCACCCAGCTGTGCCAAGTGCAAGAAGAAGATTACAGGCGAGATCAT
GCACGCCCTGAAGATGACCTGGCACGTGCACTGCTTTACCTGTGCTGCCTGCAAGACGCCCATCCGGAACAGGGC
CTTCTACATGGAGGAGGGCGTGCCCTATTGCGAGCGAGACTATGAGAAGATGTTTGGCACGAAATGCCATGGCTG
TGACTTCAAGATCGACGCTGGGGACCGCTTCCTGGAGGCCCTGGGCTTCAGCTGGCATGACACCTGCTTCGTCTG
TGCGATATGTCAGATCAACCTGGAAGGAAAGACCTTCTACTCCAAGAAGGACAGGCCTCTCTGCAAGAGCCATGC
CTTCTCTCATGTG**TGA**GCCCCTTCTGCCCACAGCTGCCGCGGTGGCCCCTAGCCTGAGGGGCCTGGAGTCGTGGC
CCTGCATTTCTGGGTAGGGCTGGCAATGGTTGCCTTAACCCTGGCTCCTGGCCCGAGCCTGGGGCTCCCTGGGCC
CTGCCCCACCCACCTTATCCTCCCACCCCACTCCCTCCACCACCACAGCACACCGGTGCTGGCCACACCAGCCCC
CTTTCACCTCCAGTGCCACAATAAACCTGTACCCAGCTG

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FIGURE 942

GGCGGCCGGACGCGGCCCGGAGGCGCGGGGTCCCGATGTGGGGCCCGGGCCGCGTGGCCTGCGGGAGCCCATCCC
CCACCCTACCCCCCGGGCCCGGGGGACAGGTGTGCACGGGGCGGCCAAGGGCACCTTCGCCACCTTCGAGCGGGC
GAGGTCCGGGCGGGGACGGGGCGGGGACCGAGCTAGCGGAGCCAGCGCAGCCTGCCCGGCTCAGCCCGGCCCGGC
CACAGCACAAAGGAAAGCGAGGGCGGGGGAGGAGCGGAGCGGGCTGGGGGCCGGGCGCCCCGCCCACCGGGGGGC
CTCTCGGAGTGGGCCGCCCTCCCCCCGAAACCTGGGCTGGAGTGAGGTGGAAGGATGTTTGCTGCCACATGGCGA
CCGCGAAGTGACTCCCTTACCGCCGCGGGTCGCGGAGGAGGCAGGGGGAAGGTGCCCATCTGGTTCCTAGGCCTC
CTCTCCCTGCTGGCAGATGGGAACAGGTTCTTCTTGAGGAAACTGAGGCAAAGAGGAGGGCAGGTCTGAGGGACC
CCGCTTGGGCTGGCCTCACCCGCACACTGGGAGGGCAGCCAGGTGGGGACTCTGACCTGGGGGCTTCTGGAGGAG
AGGATGAG**ATG**GCTGGGCATCCATGGCATGGTACTGCAGCACTGGCCAGCAGCCAGGCCTGGAGGGATGGACGCG
AGAGACAAGCTCTCGTGTCCTGCAGGGCTCTGTACACATATGAAGATGGCTCCGATGACCTCAAGCTTGCAGCAT
CAGGAGAAGGGGGCTTGCAGGAGCTTTCGGGACACTTTGAGAACCAGAAGGTGATGTACGGCTTCTGCAGTGTCA
AGGACTCCCAAGCTGCTCTGCCAAAATACGTGCTCATCAACTGGGTGGGCGAAGATGTGCCTGATGCCCGCAAGT
GCGCTTGTGCCAGCCACGTGGCTAAGGTGGCGGAGTTCTTCCAGGGTGTCGACGTGATCGTGAACGCCAGCAGCG
TGGAAGACATAGACGCGGGTGCCATCGGGCAGCGGCTCTCTAACGGGCTGGCGCGACTCTCCAGCCCTGTGCTGC
ACCGACTGCGGCTGCGAGAGGATGAGAACGCAGAGCCCGTGGGCACCACCTACCAGAAGACGGATGCAGCTGTGG
AAATGAAGCGGATTAACCGAGAGCAGTTCTGGGAGCAGGCCAAGAAGGAAGAAGAGCTGCGGAAGGAGGAGGAGC
GGAAGAAGGCCCTGGATGAGAGGCTCAGGTTCGAGCAGGAGCGGATGGAGCAGGAGCGGCAGGAGCAAGAGGAGC
GCGAGCGGCGCTACCGGGAGCGGGAGCAGCAGATCGAGGAGCACAGGAGGAAACAGCAGACTTTAGAAGCGGAAG
AGGCCAAGAGGCGGTTGAAGGAGCAGTCTATCTTTGGTGACCATCGGGATGAGGAGGAAGAGACCCACATGAAGA
AGTCAGAGTCGGAGGTGGAGGAGGCAGCAGCTATTATTGCCCAGCGGCCTGACAACCCAAGGGAGTTCTTCAAGC
AGCAGGAAAGAGTCGCATCGGCCTCTGCGGGCAGCTGTGATGTACCCTCGCCCTTCAACCATCGACCAGGCAGCC
ACCTGGACAGCCACCGGAGGATGGCGCCCACTCCCATCCCCACGCGGAGCCCGTCTGACTCCAGCACCGCCTCCA
CCCCTGTCGCTGAGCAGATAGAGCGGGCCCTGGATGAGGTCACCTCCTCGCAGCCTCCACCACTGCCACCGCCAC
CCCCACCAGCCCAAGAGACCCAGGAGCCCAGCCCCATCCTAGACAGTGAGGAGACCAGAGCAGCAGCCCCTCAGG
CCTGGGCCGGCCCCATGGAGGAGCCCCCTCAGGCACAGGCGCCTCCCCGGGGGCCAGGCAGCCCTGCAGAGGACT
TGATGTTCATGGAGTCTGCAGAGCAGGCTGTCCTGGCTGCTCCCGTGGAGCCTGCCACAGCTGACGCCACGGAGA
TCCACGATGCAGCTGACACCATTGAAACTGACACTGCCACTGCTGACACCACTGTTGCCAACAACGTACCCCCCG
CCGCCACCAGCCTCATTGACCTATGGCCTGGCAACGGGGAAGGGGCCTCCACACTCCAGGGTGAGCCCAGGGCCC
CCACGCCACCCTCGGGTACTGAGGTCACCCTGGCAGAGGTGCCCCTGCTGGATGAGGTGGCTCCGGAGCCACTGC
TGCCAGCAGGCGAAGGCTGTGCCACCCTTCTCAACTTTGATGAGCTGCCTGAGCCGCCAGCCACCTTCTGTGACC
CAGAGGAAGTGGAAGGGGAGCCCCTGGCTGCCCCCCAGACCCCAACTCTGCCCTCAGCCCTTGAGGAGCTGGAGC
AAGAGCAGGAGCCGGAGCCCCACCTGCTAACCAATGGCGAGACCACCCAGAAGGAGGGGACCCAGGCCAGTGAGG
GGTACTTCAGTCAATCACAGGAGGAGGAGTTTGCCCAATCGGAAGAGCTCTGTGCCAAGGCTCCGCCTCCTGTGT
TCTACAACAAGCCTCCAGAGATCGACATCACATGCTGGGATGCAGACCCAGTTCCAGAAGAGGAGGAGGGCTTCG
AGGGTGGTGAT**TAG**CGGTGGCGCCAGCCCTAGGCTACCCTTGCCAAGGCCGCCCACCTGCATCAGCCTCTGGCCA
GACGGCCCGCCGTGCCTGCATTCGCAGCAGCTCCGCCTGGCACCCACTCCGGATTCCGGCCCTGGCTGGGGACTT
GGCCGCTTCCCTACCCACAGGGCCTGACTTTTACAGCTTTTCTCTTTTTTTAAAAAGTTGATAGGAGACTTGTAC
AGTTGACTGGCTTTCCTCTCGTTGGTAGTTGAGACGCTGTTGCAAATTCCACCCCTCCTTCCCTGGTCCAGATTG
TAGCTCTTAGTCCTCCCTGCTCAGCTGGCCGGGTTGGAGGCCTCACCCTGCTTGGGGCCTGGCGTGGGGGGAGCT
CTGGTGGGAAAATGTCCCCCACCTCTTTTCCTAGTTTTATGTTTCTTGGGAAAATATCACTTTGTATTCTCTGTC
CAGGGCTTCAGATATTTTGCACGAATTTTAAAACATGGCAATAAATGGCTCGTGGGCTCTGGCTCCCTGGGACCC
CCTCCCCGCCCTTCTTTTGACCCCTTCCTGTCTGGCCCAAAGGAAGTAGCAGGCCCAGCTGGGGCCCCTCGGCTA
CCCCCCGTCTCCTGCCGGGCAGGTCCCAGGTTGGAGGCCCTAGGCGCGGTTCAGGTCAGGGCTATGGATGGGGCC
CAGGGGCTTTGGTGGCCCCTCCCCAACTCCTTCCTCTTTGCTTGGGTTCCTTTTTCACGTTTAGTAACTGTTTTT
TTTTTTTTTTTTTTTTTTTTTTGGAAAGCACAAACTTCTGTAACGGGTCGTGCTCATGTCTGTTAATAAAGAAA
TCCAGATCC

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FIGURE 943

GCCCAGCGCTCGGAGCCGCTTTCGCTGCCACTGTCTGCTCCCCCGGGCCGCCGCCGCCTCCCCCCGCAGGCCCGG
GGCTCTGTCCGCTGGGCCCGCGCTGCTCGCCCCGAGCCAGGAGAACGAGCTCGAGGAGGATGCCTGGGCCCGTCC
CGCGCGGCCCCGGGTGAGGCACGCCCGCGCGCCCGCCGGCGCCATGGGAAGGAGCGGGCGCCGCTGCTGTCCCCC
GCCGGCGCGCGCACGACTTGAGACCTGCCACGGGCAGCCCCCGGCCGCGGGTCCCCGAGTGACGCTGGCGGCACC
TGAGAGTGTGGCGCGGGCCCGGGGCCACGCAGCGGAGCCCAGTGTCCAGTGAAGCGTCTGAGGACCCGCCGCCCG
TGCCGCCGCC**ATG**GTGATGTCCCAGGGCACCTACACGTTCCTCACGTGCTTCGCCGGCTTCTGGCTCATCTGGGG
TCTCATCGTCCTGCTCTGCTGCTTCTGCAGCTTCCTGCGCCGCCGCCTCAAACGGCGCCAGGAGGAGCGACTGCG
CGAGCAGAACCTGCGCGCCCTAGAGCTGGAGCCCCTCGAACTCGAGGGCAGTCTGGCCGGGAGCCCCCCGGGCCT
GGCGCCGCCGCAGCCACCACCACACCGTAGCCGCCTGGAGGCGCCGGCTCACGCGCACGCGCACCCACACCCGCA
CCACCACGCGCTCCCGCACCCGCCGCCTACGCACCTGTCGGTGCCGCCACGGCCCTGGAGCTACCCGCGCCAAGC
GGAATCGGACATGTCCAAACCACCGTGTTACGAAGAGGCGGTGCTGATGGCAGAGCCGCCGCCGCCCTATAGCGA
GGTGCTCACGGACACGCGCGGCCTCTACCGCAAGATCGTCACGCCCTTCCTGAGTCGCCGCGACAGCGCGGAGAA
GCAGGAGCAGCCGCCTCCCAGCTACAAGCCGCTCTTCCTGGACCGGGGCTACACCTCGGCGCTGCACCTGCCCAG
CGCCCCTCGGCCCGCGCCGCCCTGCCCAGCCCTCTGCCTGCAGGCCGACCGTGGCCGCCGGGTCTTCCCCAGCTG
GACCGACTCAGAGCTCAGCAGCCGCGAGCCCCTGGAGCACGGAGCTTGGCGTCTGCCGGTCTCCATCCCCTTGTT
CGGGAGGACTACAGCCGTA**TAG**AGGGGCGCCCGGCGCCCCGGGCCCCACCGGCGGACTCCTGGCCTGACTGCGGG
GCTTTTTAAATGCTTCCCTGGACTGCGGGGAGGGGCGGGGGGAGGGAGGGATTTCTTATCCCGTTTGTTACATTT
TGAGGATAATAAAGGTGTGTGATCTGGTTTGGT

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FIGURE 944

GCACCCTGATTTCA**ATG**GGGGAATCACTGCCCCACGGGTGCCATCCTGGTGAAACTGTGAACCCAAGTGCCCTGC
TCCCTGACAGTGCACAGCAGGCAGGTGAATGTCCACTTCGAGGCCGGCTCAACCACCGTCTTCAGAGAACTCTCC
CACACTGGCCACAGCCTATCTGCCAGCGTCACCCACTGTCTAGGTCTTTGCCCATAATGTGTCAAGGGCAAAACA
GAGGGGTGGATATGATGCACGTGCCTCAGCCCGGGGCCCGTACATGGCTGGCGTCCAGGCAGCCAGGCCACCTTA
GCCTTGGAGGGGAGGACACCAACGGGGCCCGCCTTACCAGCAGTCAGAAACAGACCCACATCCCAGTGGGTACCC
AAGGCTTCTTTCCT**TAG**

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FIGURE 945

CGGCACTCGCGCGCGATCCCGGCCGGCGGCGCGGCCCGGCGGGCCAGGCGGCGCCACAGCCC**ATG**GAGCTCGAGA
ACATCGTAGCGAACACGGTGCTACTCAAGGCCCGGGAAGGTGGCGGTGGAAATCGCAAAGGCAAAAGCAAGAAAT
GGCGGCAGATGCTCCAGTTCCCTCACATCAGCCAGTGCGAAGAGCTGCGGCTCAGCCTCGAGCGTGACTATCACA
GCCTGTGCGAGCGGCAGCCCATTGGGCGCCTGCTGTTCCGAGAGTTCTGTGCCACGAGGCCGGAGCTGAGCCGCT
GCGTCGCCTTCCTGGATGGGGTGGCCGAGTATGAAGTGACCCCGGATGACAAGCGGAAGGCATGTGGGCGGCAGC
TAACGCAGAATTTTCTGAGCCACACGGGTCCTGACCTCATCCCTGAGGTCCCCCGGCAGCTGGTGACGAACTGCA
CCCAGCGGCTGGAGCAGGGTCCCTGCAAAGACCTTTTCCAGGAACTCACCCGGCTGACCCACGAGTACCTGAGCG
TGGCCCCTTTTGCCGACTACCTCGACAGCATCTACTTCAACCGTTTCCTGCAGTGGAAGTGGCTGGAAAGGCAGC
CAGTGACCAAAAACACCTTCAGGCAATACCGAGTCCTGGGCAAAGGTGGCTTTGGGGAGGTGTGCGCCTGCCAGG
TGCGGGCCACAGGTAAGATGTATGCCTGCAAGAAGCTAGAGAAAAAGCGGATCAAGAAGCGGAAAGGGGAGGCCA
TGGCGCTGAACGAGAAGCAGATCCTGGAGAAAGTGAACAGTAGGTTTGTAGTGAGCTTGGCCTACGCCTATGAGA
CCAAGGACGCGCTGTGCCTGGTGCTGACACTGATGAACGGGGGCGACCTCAAGTTCCACATCTACCACATGGGCC
AGGCTGGCTTCCCCGAAGCGCGGGCCGTCTTCTACGCCGCCGAGATCTGCTGTGGCCTGGAGGACCTGCACCGGG
AGCGCATCGTGTACAGGGACCTGAAGCCCGAGAACATCTTGCTGGATGACCACGGCCACATCCGCATCTCTGACC
TGGGACTAGCTGTGCATGTGCCCGAGGGCCAGACCATCAAAGGGCGTGTGGGCACCGTGGGTTACATGGCTCCGG
AGGTGGTGAAGAATGAACGGTACACGTTCAGCCCTGACTGGTGGGCGCTCGGCTGCCTCCTGTACGAGATGATCG
CAGGCCAGTCGCCCTTCCAGCAGAGGAAGAAGAAGATCAAGCGGGAGGAGGTGGAGCGGCTGGTGAAGGAGGTCC
CCGAGGAGTATTCCGAGCGCTTTTCCCCGCAGGCCCGCTCACTTTGCTCACAGCTCCTCTGCAAGGACCCTGCCG
AACGCCTGGGGTGTCGTGGGGGCAGTGCCCGCGAGGTGAAGGAGCACCCCCTCTTTAAGAAGCTGAACTTCAAGC
GGCTGGGAGCTGGCATGCTGGAGCCGCCGTTCAAGCCTGACCCCCAGGCCATTTACTGCAAGGATGTTCTGGACA
TTGAACAGTTCTCTACGGTCAAGGGCGTGGAGCTGGAGCCTACCGACCAGGACTTCTACCAGAAGTTTGCCACAG
GCAGTGTGCCCATCCCCTGGCAGAACGAGATGGTGGAGACCGAGTGCTTCCAAGAGCTGAATGTCTTTGGGCTGG
ATGGCTCAGTTCCCCCAGACCTGGACTGGAAGGGCCAGCCACCTGCACCTCCTAAAAAGGGACTGCTGCAGAGAC
TCTTCAGTCGCCAAGATTGCTGTGGAAACTGCAGCGACAGCGAGGAAGAGCTCCCCACCCGCCTC**TAG**CCCCCAG
CCCGAGGCCCCCACCAGCAGTTGGCGGTAGCAGCTACTCCGAGCGCCGTTTACAGTTTTGCACAGTGATCTTCCC
CATTGTCCACTCAAGTCGTGGCCTGGGGAACACAGACGGAGCTGTCCCCAGTGTCCTCCGTCCCTCAGCCCCTGG
CCTGGCTGAGTTTGGCAGGGCCTGGGCCATCCCTGGGACAAAGGTGCGTCCCTTCAGCTCTTCTCCGTGGAGCTC
GGGGCTTTCTGTATTTATGTATTTGTACGAATGTATATAGCGACCAGAGCATTCTTAATTCCCGCCGCAGACCTG
GCGCCCCTGCCTTGGCTCCTGGGGGCAGCCAGCCCTGGCTGGGAGAGCGGGAGCTGGCAGAGGAGCCACTGCCAA
ACTCAAGGCTCCTCTGGCCCAGCTTGGATGGCTGAGGGTGGTCACACCCCTGAGCCTTCAGCACTGTGCTGGCCA
CCCCGGCCTCTGAGTAAGACTCGTGCCTCCCCCTGCTGCCCTGGGCTCAGGCTGCTACCCTCTGGGGCCCAAAGC
TGTCCCTTCTCAGTGCTTGTCAGCGCTGGGTCTGGGGCCTCTGTATGCCCTAGGCCTGTGCCAAAGTGGCCAGAG
ATTGGGCTGCCTGTGATACCCATCAGCCCACTGCCCCGGCCGGCCCAGATAGGTCTGCCTCTGCCTTCCAGCTCC
CACAGCCTGGTCCCTGATACTGGGCTCTGTCCTGCAGACACCTCTTTCAGAAACGCCCAAGCCCAGCCCCTAGGA
GGGGGTGGGGCATCCCTGGTCAACCCTCAAACATTCCGGACTCCCCTCATAACAATAGACACATGTGCCCAGCAA
TAATCCGCCCCTTCCTGTGTGCGCCTGTGGGGTGCGTGCGCGCGCGTGTGTACCTGTGTGGGTGAAGGGGATAGG
GCGAGGCTGTGCCTGTGCCCCAGGTCCCAGCCCTGGCCCTTCCCAGACTGTGATGGCCATCCTGGTCCCAGTGTT
AGGGTAGCATGGGATTACAGGGCCCTGTTTTTTCCATATTTAAAGCCAATTTTTATTACTCGTTTTGTCCAACGT
AA

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FIGURE 946

ATGGCGGCGGAAGGCTGGATTTGGCGTTGGGGCTGGGGCCGGCGGTGCCTGGGAAGGCCTGGGCTTCTCGGCCCC
GGCCCTGGCCCCACTACACCTCTCTTTCTTCTTTTGTTGTTGGGGTCTGTGACTGCGGATATAACTGACGGCAAC
AGTGAACATCTCAAGCGGGAGCATTCGCTCATTAAGCCCTACCAAGGGGTCGGTTCCAGCTCTATGCCCCTCTGG
GACTTCCAGGGCAGCACTATGCTCACGAGCCAGTACGTACGTCTGACCCCTGACGAGCGCAGCAAAGAGGGCTCT
ATCTGGAACCACCAGCCGTGCTTCCTCAAAGACTGGGAAATGCACGTCCACTTCAAAGTCCACGGCACAGGGAAG
AAGAACCTCCATGGAGACGGCATCGCCTTGTGGTACACCCGGGACCGCCTCGTGCCAGGGCCTGTGTTTGGAAGC
AAAGATAACTTCCACGGCTTAGCCATCTTCCTGGACACCTACCCCAATGATGAGACCACTGAGCGCGTGTTCCCG
TACATCTCGGTGATGGTGAACAATGGCTCCCTGTCCTACGACCACAGCAAGGATGGGCGCTGGACCGAGCTGGCG
GGCTGCACGGCTGACTTCCGCAACCGCGATCACGACACCTTCCTGGCTGTGCGCTACTCCCGGGGCCGTCTGACG
GTGATGACCGACCTGGAGGACAAGAACGAGTGGAAGAACTGCATTGACATCACGGGAGTGCGCCTGCCCACCGGC
TACTACTTCGGGGCCTCCGCCGGCACCGGCGACCTGTCTGACAATCATGACATCATCTCCATGAAGCTGTTCCAG
CTGATGGTGGAGCACACGCCCGACGAGGAGAGCATCGACTGGACCAAGATCGAGCCCAGCGTCAACTTCCTCAAG
TCGCCCAAAGACAACGTGGACGACCCCACGGGGAACTTCCGCAGCGGGCCCCTGACGGGGTGGCGGGTGTTCCTG
CTGCTGCTGTGCGCTCTCCTGGGCATCGTTGTCTGCGCCGTGGTGGGGGCCGTGGTGTTCCAGAAGCGGCAGGAG
CGGAACAAGCGCTTCTAC**TGA**GTGGCGCCTCCGGCGGGGCCTGTCCCTGGGCCCAGGAGCCAATGTGAACTTTTT
TTTTTACCGGGATTATAAAAGAACAACAAGATGACCTTATTTCTTAACTGTTTCAAATAAATGATTAAAGTATTT
TCATACATTTTGCTTCTTGCCCAGCAGGGACAGGTGGCAGAGCCGAGGCTTAGGGTCTGGCACCCCCCACAGCTG
GAGACGGAGGCTCTCCTGGGGCTGGTGTCTCAGGAGCAGGGGTCTGTGTCTACAGATGGGCTGTGGCCCCTGCAG
GCAGCTGTTGAACACTGGAGGGTCCCCCGGACCACACTGGGGTGGGCTCCTGAGGAC

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FIGURE 947

CAACTCATGGCGGCGGCGGCGGCGGCGGCAGCTGCTTGGGCGCGGTGCGGTGGTGACTGAGCTACGAGCCTGGCG
GCGGGTGTGCGCCGAGCCCCGGCCCGGCCCGGCCCTCGCGTGCCTCCCAGGCTCCGCACCCCTGATGCTGCGCGG
GTGCTGAGCCCGCTTCGGCCGGGACG**ATG**GTGAAGTATTTCCTGGGCCAGAGCGTGCTCCGGAGTTCCTGGGACC
AAGTGTTCGCCGCCTTCTGGCAGCGGTACCCGAATCCCTATAGCAAACATGTCTTGACGGAAGACATAGTACACC
GGGAGGTGACCCCTGACCAGAAACTGCTGTCCCGGCGACTCCTGACCAAGACCAACAGGATGCCACGCTGGGCCG
AGCGACTATTTCCTGCCAATGTTGCTCACTCGGTGTACGTCCTGGAGGACTCTATTGTGGACCCACAGAATCAGA
CCATGACTACCTTCACCTGGAACATCAACCACGCCCGGCTGATGGTGGTGGAGGAACGATGTGTTTACTGTGTGA
ACTCTGACAACAGTGGCTGGACTGAAATCCGCCGGGAAGCCTGGGTCTCCTCTAGCTTATTTGGTGTCTCCAGAG
CTGTCCAGGAATTTGGTCTTGCCCGGTTCAAAAGCAACGTGACCAAGACTATGAAGGGTTTTGAATATATCTTGG
CTAAGCTGCAAGGCGAGGCCCCTTCCAAAACACTTGTTGAGACAGCCAAGGAAGCCAAGGAGAAGGCAAAGGAGA
CGGCACTGGCAGCTACAGAGAAGGCCAAGGACCTCGCCAGCAAGGCGGCCACCAAGAAGCAGCAGCAGCAGCAAC
AGTTTGTG**TAG**CCAGTCTACCACCACCACAGCACCCCAGACAGCTAGGCTTAGCCCCTCTGCCCTCCCTTCATTG
TACTTTATCATTAAAAATCAACTTCCAGCCCTGTCTGCTGTCTACGTGGTGGGTTGTGGGGATGCAGTTTGGCAT
CTGCAGTACACCAAGCACATGATTCATGTCTGAGCCAGGTCTGCTTATTCTCCCATTGGGCAGCTGAGGACCGAG
GCACAGAGGTGCGGTGACTTGCCCGGGGCTCCAGGTAGCCTGCAGGTTAACTGGCGGTAAGTGCTAGACTGTAAG
CCCGACAAGGGCAGGGCTTTTGGTTTTGTTCTCTGATGTGTCTCAGTATCTAGCACATAATAGACACTCAATAAA
TACTTGTTGAATTCA

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FIGURE 948

AGGAGCCGGGTTGCGGGAGACCCCAGGTTCGGTTGGGATTCCCAGCCAGAACGGAGCTTAAGCCGGGCAGGCGAG
CGAATGACGGAGTAGCGAGCTGCACGGCGGCGTGCTGCGCTGTTGAGGACGCTGTCCCGCGCGCTCCCAGGCCGC
CCCGAGGCTTGGGGTCTTCGAAGGATAATCGGCGCCCGGGGCCGAACAGCGGGGGCACACGGGGCGCTGCCGAAG
TGCAAGGCCACGGCCAGAGCTCGAGCCCGACGCGCTGTCTGGAGTCGTAGGTTGGCGCCGTTTGGGGTCGGGGTC
TGAGGCTTGGGCGCTGCCTGGGCCGAGCGGAGATCGGGGTTTGCCTCCCGTCCCCGCTCAGGACCCTGACGTGGC
TGAAGCGGCCCCGGGAGCATGAGCGGGCAGCGCGTGGACGTCAAGGTGGTGATGCTGGGCAAGGAGTACGTGGGC
AAGACTAGCCTGGTGGAGCGCTACGTGCACGACCGCTTTCTGGTGGGGCCTTATCAGAACGTGAGTGCATCCGGA
GGGGCCAGGCACGGTGGGCGGGGGAGTGGGGGGCCGGTAATCTGCACCT**ATG**GCCCCGATCTCTTCCCTCTCGTT
GCAGACCATCGGGGCCGCCTTCGTGGCCAAGGTGATGTCGGTCGGAGACCGGACTGTGACATTAGGTATTTGGGA
CACAGCAGGCTCTGAGCGCTATGAGGCCATGAGTAGAATCTACTATCGGGGTGCCAAGGCTGCCATCGTCTGCTA
TGACCTCACAGACAGCAGCAGCTTTGAGCGAGCAAAGTTCTGGGTGAAGGAACTGCGCAGCCTAGAGGAGGGCTG
CCAAATCTACTTATGTGGCACCAAGAGTGACCTGCTGGAAGAAGACCGGAGGCGTCGACGTGTGGACTTCCACGA
CGTCCAGGACTATGCAGACAGTAGCTGCTCCTCAGCCCTTTGGGGGGTGGGGGTGTGTGGCTGTCTGGGTGGATC
AAAGAAAATAGGGACTGCCTTGGCTGCCAGGGCAAGGTGCTCTAGGAGGTCTTCCTGGCCTCCT**TGA**ACTGTGGG
GTCCAGGAGACTCCCTGAACTGCTAGCCCTCCCTTTTGTCTGTTTATCTAATTCTCAGGTATGAGGCTTTAGTCA
CTTCTCTTTACAGATATCAAAGCTCAGCTCTTTGAAACATCCAGCAAGACAGGCCAGAGTGTGGACGAGCTCTTC
CAGAAAGTGGCAGAGGATTACGTCAGTGTGGCTGCCTTCCAGGTGATGACAGAGGACAAGGGCGTGGATCTGGGC
CAGAAGCCAAACCCCTACTTCTACAGCTGTTGTCATCACTGAGTCAGCACTCACCTGGCCTGGGGGAATTAAAGG
AATTCCCCGTAAGGGCTGGACCCAGCTCCTTTCTGGGCTTGGGTAGTCAAATGTCTGAGCTACCCCAGGTCCTCA
TGTCAGCAGAGTGGCGCCTGCCTGTGCTGGCCCATGGAACGGAGACAGCATTGGGCTGACTGTGGGCATGAGGAG
GGATAAGGCTGATTTGGACCCCAGGCTTCTGCCCTGGACAGCACTTGTGTCTGCAGATTATTTAAGTGGCTTTTG
ATCTGTAAATAAAATCAGTGCACTGTGAATCAC

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FIGURE 949A

AGGGGGGTGCGGCGAGCGGCCCCGCTCTCTCCCCACCGCTCCGCTCGCACCCCAGTGTAATGAGGGTCACCCCCT
CCCCCCAGCTGGCCCGGGAGGGGGCGCGGGGCACGGTTGATGCCGGCCCAGG**ATG**GATCAGACCTGTGAACTACC
CAGAAGAAATTGTCTGCTGCCCTTTTCCAATCCAGTGAATTTAGATGCCCCTGAAGACAAGGACAGCCCTTTCGG
TAATGGTCAATCCAATTTTTCTGAGCCACTTAATGGGTGTACTATGCAGTTATCGACTGTCAGTGGAACATCCCA
AAATGCTTATGGACAAGATTCTCCATCTTGTTACATTCCACTGCGGAGACTACAGGATTTGGCCTCCATGATCAA
TGTAGAGTATTTAAATGGGTCTGCTGATGGATCAGAATCCTTTCAAGACCCTGAAAAAAGTGATTCAAGAGCTCA
GACGCCAATTGTTTGCACTTCCTTGAGTCCTGGTGGTCCTACAGCACTTGCTATGAAACAGGAACCCTCTTGTAA
TAACTCCCCTGAACTCCAGGTAAAAGTAACAAAGACTATCAAGAATGGCTTTCTGCACTTTGAGAATTTTACTTG
TGTGGACGATGCAGATGTAGATTCTGAAATGGACCCAGAACAGCCAGTCACAGAGGATGAGAGTATAGAGGAGAT
CTTTGAGGAAACTCAGACCAATGCCACCTGCAATTATGAGACTAAATCAGAGAATGGTGTAAAAGTGGCCATGGG
AAGTGAACAAGACAGCACACCAGAGAGTAGACACGGTGCAGTCAAATCGCCATTCTTGCCATTAGCTCCTCAGAC
TGAAACACAGAAAAATAAGCAAAGAAATGAAGTGGACGGCAGCAATGAAAAAGCAGCCCTTCTCCCAGCCCCCTT
TTCACTAGGAGACACAAACATTACAATAGAAGAGCAATTAAACTCAATAAATTTATCTTTTCAGGATGATCCAGA
TTCCAGTACCAGTACATTAGGAAACATGCTAGAATTACCTGGAACTTCATCATCATCTACTTCACAGGAATTGCC
ATTTTGTCAACCTAAGAAAAAGTCTACGCCACTGAAGTATGAAGTTGGAGATCTCATCTGGGCAAAATTCAAGAG
ACGCCCATGGTGGCCCTGCAGGATTTGTTCTGATCCGTTGATTAACACACATTCAAAAATGAAAGTTTCCAACCG
GAGGCCCTATCGGCAGTACTACGTGGAGGCTTTTGGAGATCCTTCTGAGAGAGCCTGGGTGGCTGGAAAAGCAAT
CGTCATGTTTGAAGGCAGACATCAATTCGAAGAGCTACCTGTCCTTAGGAGAAGAGGGAAACAGAAAGAAAAAGG
ATATAGGCATAAGGTTCCTCAGAAAATTTTGAGTAAATGGGAAGCCAGTGTTGGACTTGCAGAACAGTATGATGT
TCCCAAGGGGTCAAAGAACCGAAAATGTATTCCTGGTTCAATCAAGTTGGACAGTGAAGAAGATATGCCATTTGA
AGACTGCACAAATGATCCTGAGTCAGAACATGACCTGTTGCTTAATGGCTGTTTGAAATCACTGGCTTTTGATTC
TGAACATTCTGCAGATGAGAAGGAAAAGCCTTGCGCTAAATCTCGAGCCAGAAAGAGCTCTGATAATCCAAAAAG
GACTAGTGTGAAAAAGGGCCACATACAATTTGAAGCACATAAAGATGAACGGAGGGGAAAGATTCCAGAGAACCT
TGGCCTAAACTTTATCTCTGGGGATATATCTGATACGCAGGCCTCTAATGAACTTTCCAGGATAGCAAATAGCCT
CACAGGGTCCAACACTGCCCCAGGAAGTTTTCTGTTTTCTTCCTGTGGAAAAAACACTGCAAAGAAAGAATTTGA
GACTTCAAATGGTGACTCTTTATTGGGCTTGCCTGAGGGTGCTTTGATCTCAAAGTGTTCTCGAGAGAAGAATAA
ACCCCAACGAAGCCTGGTGTGTGGTTCAAAAGTGAAGCTCTGCTATATTGGAGCAGGTGATGAGGAAAAGCGAAG
TGATTCCATTAGTATCTGTACCACTTCTGATGATGGAAGCAGTGACCTGGATCCCATAGAACACAGCTCAGAGTC
TGATAACAGTGTCCTTGAAATTCCAGATGCTTTCGATAGAACAGAGAACATGTTATCTATGCAGAAAAATGAAAA
GATAAAGTATTCTAGGTTTGCTGCCACAAACACTAGGGTAAAAGCAAAACAGAAGCCTCTCATTAGTAACTCACA
TACAGACCACTTAATGGGTTGTACTAAGAGTGCAGAGCCTGGAACCGAGACGTCTCAGGTTAATCTCTCTGATCT
GAAGGCATCTACTCTTGTTCACAAACCCCAGTCAGATTTTACAAATGATGCTCTCTCTCCAAAATTCAACCTGTC
ATCAAGCATATCCAGTGAGAACTCGTTAATAAAGGGTGGGGCAGCAAATCAAGCTCTATTACATTCGAAAAGCAA
ACAGCCCAAGTTCCGAAGTATAAAGTGCAAACACAAAGAAAATCCAGTTATGGCAGAACCCCCAGTTATAAATGA
GGAGTGCAGTTTGAAATGCTGCTCTTCTGATACCAAAGGCTCTCCTTTGGCCAGCATTTCTAAAAGTGGGAAAGT
GGATGGTCTAAAACTACTGAACAATATGCATGAGAAAACCAGGGATTCAAGTGACATAGAAACAGCAGTGGTGAA
ACATGTTTTATCCGAGTTGAAGGAACTCTCTTACAGATCCTTAGGTGAGGATGTCAGTGACTCTGGAACATCAAA
GCCATCAAAACCATTACTTTTCTCTTCTGCTTCTAGTCAGAATCACATACCTATTGAACCAGACTACAAATTCAG
TACATTGCTAATGATGTTGAAAGATATGCATGATAGTAAGACGAAGGAGCAGCGGTTGATGACTGCTCAAAACCT
GGTCTCTTACCGGAGTCCTGGTCGTGGGGACTGTTCTACTAATAGTCCTGTAGGAGTCTCTAAGGTTTTGGTTTC
AGGAGGCTCCACACACAATTCAGAGAAAAAGGGAGATGGCACTCAGAACTCCGCCAATCCTAGCCCTAGTGGGGG
TGACTCTGCATTATCTGGCGAGTTGTCTGCTTCCCTACCTGGCTTACTGTCCGACAAGAGAGACCTCCCTGCTTC
TGGTAAAAGTCGTTCAGACTGTGTTACTAGGCGCAACTGTGGACGATCAAAGCCTTCATCCAAATTGCGAGATGC
TTTTTCAGCCCAAATGGTAAAGAACACAGTGAACCGTAAAGCCTTAAAGACCGAGCGCAAAAGAAAACTGAATCA
GCTTCCAAGTGTGACTCTTGATGCTGTACTGCAGGGAGACCGAGAACGTGGAGGTTCATTGAGAGGTGGGGCAGA
AGATCCTAGTAAAGAGGATCCCCTTCAGATAATGGGCCACTTAACAAGTGAAGATGGTGACCATTTTTCTGATGT
GCATTTCGATAGCAAGGTTAAGCAATCTGATCCTGGTAAAATTTCTGAAAAAGGACTCTCTTTTGAAAACGGAAA
AGGCCCAGAGCTGGACTCTGTAATGAACAGTGAGAATGATGAACTCAATGGTGTAAATCAAGTGGTGCCTAAAAA

FIGURE 949B

GCGGTGGCAGCGTTTAAACCAAAGGCGCACTAAACCTCGTAAGCGCATGAACAGATTTAAAGAGAAAGAAAACTC
TGAGTGTGCCTTTAGGGTCTTACTTCCTAGTGACCCTGTGCAGGAGGGGCGGGATGAGTTTCCAGAGCATAGAAC
TCCTTCAGCAAGCATACTTGAGGAACCACTGACAGAGCAAAATCATGCTGACTGCTTAGATTCAGCTGGGCCACG
GTTAAATGTTTGTGATAAATCCAGTGCCAGCATTGGTGACATGGAAAAGGAGCCAGGAATTCCCAGTTTGACACC
ACAGGCTGAGCTCCCTGAACCAGCTGTGCGGTCAGAGAAGAAACGCCTTAGGAAGCCAAGCAAGTGGCTTTTGGA
ATATACAGAAGAATATGATCAGATATTTGCTCCTAAGAAAAAACAAAAGAAGGTACAGGAGCAGGTGCACAAGGT
AAGTTCCCGCTGTGAAGAGGAAAGCCTTCTAGCCCGAGGTCGATCTAGTGCTCAGAACAAGCAGGTGGACGAGAA
TTCTTTGATTTCAACCAAAGAAGAGCCTCCAGTTCTTGAAAGGGAGGCTCCGTTTTTGGAGGGCCCCTTGGCTCA
GTCAGAACTTGGAGGTGGACATGCTGAGTTGCCGCAGCTGACCTTGTCTGTGCCTGTGGCTCCGGAAGTCTCTCC
ACGGCCTGCCCTTGAGTCTGAGGAATTGCTAGTTAAAACGCCAGGAAATTATGAAAGTAAACGTCAAAGAAAACC
AACTAAGAAACTTCTTGAATCCAATGATTTAGACCCTGGATTTATGCCCAAGAAGGGGGACCTTGGCCTTTCTAA
AAAGTGCTATGAAGCTGGTCACCTGGAGAATGGCATAACTGAATCTTGTGCCACATCTTATTCAAAAGATTTTGG
TGGAGGCACTACCAAGATATTTGACAAGCCAAGGAAGCGAAAACGACAGAGGCATGCTGCAGCCAAGATGCAGTG
TAAAAAAGTGAAAAATGATGACTCGTCAAAAGAGATTCCAGGCTCAGAGGGAGAACTAATGCCTCACAGGACGGC
CACAAGCCCCAAGGAGACTGTTGAGGAAGGTGTAGAACACGATCCCGGGATGCCTGCCTCTAAAAAAATGCAGGG
TGAACGCGGTGGAGGAGCTGCACTCAAGGAGAATGTCTGTCAGAATTGTGAAAAATTGGGTGAGCTGCTGTTATG
TGAGGCTCAGTGCTGTGGGGCTTTCCACCTGGAGTGCCTTGGATTGACTGAGATGCCAAGAGGAAAATTTATCTG
CAATGAATGTCGCACAGGAATCCATACCTGTTTTGTATGTAAGCAGAGTGGGGAAGATGTTAAAAGGTGCCTTCT
ACCCTTGTGTGGAAAGTTTTACCATGAAGAGTGTGTCCAGAAGTACCCACCCACTGTTATGCAGAACAAGGGCTT
CCGGTGCTCCCTCCACATCTGTATAACCTGTCATGCTGCTAATCCAGCCAATGTTTCTGCATCTAAAGGTCGGTT
GATGCGCTGTGTCCGCTGTCCTGTGGCATACCACGCCAATGACTTTTGCCTGGCTGCTGGGTCAAAGATCCTTGC
ATCTAATAGTATCATCTGCCCTAATCACTTTACCCCTAGGCGGGGCTGCCGAAATCATGAGCATGTTAATGTTAG
CTGGTGCTTTGTGTGCTCAGAAGGAGGCAGCCTTCTGTGCTGTGATTCTTGCCCTGCTGCTTTTCATCGTGAATG
CCTGAACATTGATATCCCTGAAGGAAACTGGTATTGCAATGACTGTAAAGCAGGCAAAAAGCCACACTACAGGGA
GATTGTCTGGGTAAAAGTTGGACGATACAGGTGGTGGCCAGCTGAGATCTGCCATCCTCGAGCTGTTCCTTCCAA
CATTGATAAGATGAGACATGATGTGGGAGAGTTCCCAGTCCTCTTTTTTGGATCTAATGACTATTTGTGGACTCA
CCAGGCCCGAGTCTTCCCTTACATGGAGGGTGACGTGAGCAGCAAGGATAAGATGGGCAAAGGAGTGGATGGGAC
ATATAAAAAAAGCTCTTCAGGAAGCTGCAGCAAGGTTTGAGGAATTAAAGGCCCAAAAAGAGCTAAGACAGCTGCA
GGAAGACCGAAAGAATGACAAGAAGCCACCACCTTATAAACATATAAAGGTAAACCGTCCTATTGGCAGGGTACA
GATCTTCACTGCAGACTTATCTGAAATACCCCGTTGCAACTGTAAAGCTACTGATGAGAACCCCTGTGGGATAGA
CTCTGAATGCATCAACCGCATGCTGCTCTATGAGTGCCACCCCACAGTGTGTCCTGCCGGAGGGCGCTGTCAAAA
CCAGTGCTTTTCCAAGCGCCAATATCCAGAGGTTGAAATTTTCCGCACATTACAGCGGGGTTGGGGTCTACGGAC
AAAAACAGATATTAAAAAGGGTGAATTTGTGAATGAGTATGTGGGTGAGCTTATAGATGAAGAAGAATGCAGAGC
TCGAATTCGCTATGCTCAAGAACATGATATCACTAATTTCTATATGCTCACCCTAGACAAAGACCGAATCATTGA
TGCTGGTCCCAAAGGAAACTATGCTCGGTTCATGAATCATTGCTGCCAGCCCAACTGTGAAACACAGAAGTGGTC
TGTGAATGGAGATACCCGTGTAGGCCTTTTTGCACTAAGTGACATTAAAGCAGGCACTGAACTTACCTTCAACTA
CAACCTAGAATGTCTTGGGAATGGAAAGACTGTTTGCAAATGTGGAGCCCCGAACTGCAGTGGCTTCTTGGGTGT
AAGGCCAAAGAATCAACCCATTGCCACGGAAGAAAAGTCAAAGAAATTCAAGAAGAAGCAACAGGGAAAGCGCAG
GACCCAGGGTGAAATCACAAAGGAGCGAGAAGATGAGTGTTTTAGTTGTGGGGATGCTGGCCAGCTCGTCTCCTG
CAAGAAACCAGGCTGCCCAAAAGTTTACCACGCAGACTGTCTCAATCTGACCAAGCGACCAGCAGGGAAATGGGA
ATGTCCGTGGCATCAGTGTGACATCTGCGGGAAGGAAGCAGCCTCCTTCTGTGAGATGTGCCCCAGCTCCTTTTG
TAAGCAGCATCGAGAAGGGATGCTTTTCATTTCCAAACTGGATGGGCGTCTGTCTTGTACTGAGCATGACCCCTG
TGGGCCCAATCCTCTGGAACCTGGGGAGATCCGTGAGTATGTGCCTCCCCCAGTACCGCTGCCTCCAGGGCCAAG
CACTCACCTGGCAGAGCAATCAACAGGAATGGCTGCTCAGGCACCCAAAATGTCAGATAAACCTCCTGCTGACAC
CAACCAGATGCTGTCGCTCTCCAAAAAAGCTCTGGCAGGGACTTGTCAGAGGCCACTGCTACCTGAAAGACCTCT
TGAGAGAACTGACTCCAGGCCCCAGCCTTTAGATAAGGTCAGAGACCTCGCTGGGTCAGGGACCAAATCCCAATC
CTTGGTTTCCAGCCAGAGGCCACTGGACAGGCCACCAGCAGTGGCAGGACCAAGACCCCAGCTAAGCGACAAACC
CTCTCCAGTGACCAGCCCAAGCTCCTCACCCTCAGTCAGGTCCCAACCACTGGAAAGACCTCTGGGGACGGCTGA

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FIGURE 949C

CCCAAGGCTGGATAAATCCATAGGTGCTGCCAGCCCAAGGCCCCAGTCACTGGAGAAAACCTCAGTTCCCACTGG
CCTGAGACTTCCGCCGCCAGACAGACTGCTCATTACTAGCAGTCCCAAACCCCAGACTTCAGACAGGCCTACTGA
CAAACCCCATGCCTCTTTGTCCCAGAGACTCCCACCTCCTGAGAAAGTACTATCAGCTGTGGTCCAGACCCTTGT
AGCTAAAGAAAAAGCACTGAGGCCTGTGGACCAGAATACTCAGTCAAAAAATAGAGCTGCTTTGGTGATGGATCT
CATAGACCTAACTCCTCGCCAGAAGGAGCGGGCAGCTTCACCTCATCAGGTCACACCACAGGCTGATGAGAAGAT
GCCAGTGTTGGAGTCAAGTTCATGGCCTGCCAGCAAAGGTCTGGGGCATATGCCGAGAGCTGTTGAGAAAGGCTG
TGTGTCAGATCCTCTTCAGACATCTGGGAAAGCAGCAGCCCCTTCAGAGGACCCCTGGCAAGCTGTTAAATCACT
CACCCAGGCCAGACTTCTTTCTCAGCCTCCTGCCAAGGCCTTTTTATATGAGCCAACAACTCAGGCCTCAGGAAG
AGCTTCTGCAGGGGCTGAGCAGACCCCAGGGCCTCTTAGCCAATCCCCGGGCCTGGTGAAGCAGGCGAAGCAGAT
GGTCGGAGGCCAGCAACTACCTGCACTTGCCGCCAAGAGTGGGCAATCTTTTAGGTCTCTCGGGAAGGCCCCAGC
CTCCCTCCCCACTGAAGAAAAGAAGTTGGTAACCACAGAGCAAAGTCCCTGGGCCCTGGGAAAAGCCTCATCACG
GGCAGGGCTCTGGCCCATAGTGGCTGGACAGACACTGGCACAGTCTTGCTGGTCTGCTGGGAGCACACAGACATT
GGCACAGACTTGCTGGTCTCTTGGAAGAGGGCAAGACCCCAAACCAGAGCAAAATACACTTCCAGCTCTTAACCA
GGCTCCTTCCAGTCACAAGTGTGCAGAATCAGAACAGAAG**TAG**TACCAATCAATGTCACATGAACAAACAAGCTG
CCCCCAGGGTACCATTTGGGGAGGGGAAATCTTTTCTTTCTTTCCCCCTTAAAAAAAAACACATCTGCCCCGAAC
ACTTTCCCACTGTTATTCTTTCCTCATATCCCAACACTCAGAACTCTTGTGACATTAGCCAGTGGGGGCTTATGG
TTGTGTGAACCATGTATGAAAATCCAGTGGGCCCCAACCAAGGAGACAGACAGACTTGGGTCTCTTTCCCCCAAC
TTTTCCACATGGTCATCGTGAAATAAAAAGTCCACTCTGG

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FIGURE 950

CCGAGGAGCGCTCGGGCTGTCTGCGGACCCTGCCGCGTGCAGGGGTCGCGGCCGGCTGGAGCTGGGAGTGAGGCG
GCGGAGGAGCCAGGTGAGGAGGAGCCAGGAAGGCAGTTGGTGGGAAGTCCAGCTTGGGTCCCTGAGAGCTGTGAG
AAGGAG**ATG**CGGCTGCTGCTGGCCCTGTTGGGGGTCCTGCTGAGTGTGCCTGGGCCTCCAGTCTTGTCCCTGGAG
GCCTCTGAGGAAGTGGAGCTTGAGCCCTGCCTGGCTCCCAGCCTGGAGCAGCAAGAGCAGGAGCTGACAGTAGCC
CTTGGGCAGCCTGTGCGTCTGTGCTGTGGGCGGGCTGAGCGTGGTGGCCACTGGTACAAGGAGGGCAGTCGCCTG
GCACCTGCTGGCCGTGTACGGGGCTGGAGGGGCCGCCTAGAGATTGCCAGCTTCCTACCTGAGGATGCTGGCCGC
TACCTCTGCCTGGCACGAGGCTCCATGATCGTCCTGCAGAATCTCACCTTGATTACAGGTGACTCCTTGACCTCC
AGCAACGATGATGAGGACCCCAAGTCCCATAGGGACCCCTCGAATAGGCACAGTTACCCCCAGCAAGCACCCTAC
TGGACACACCCCCAGCGCATGGAGAAGAAACTGCATGCAGTACCTGCGGGGAACACCGTCAAGTTCCGCTGTCCA
GCTGCAGGCAACCCCACGCCCACCATCCGCTGGCTTAAGGATGGACAGGCCTTTCATGGGGAGAACCGCATTGGA
GGCATTCGGCTGCGCCATCAGCACTGGAGTCTCGTGATGGAGAGCGTGGTGCCCTCGGACCGCGGCACATACACC
TGCCTGGTAGAGAACGCTGTGGGCAGCATCCGCTATAACTACCTGCTAGATGTGCTGGAGCGGTCCCCGCACCGG
CCCATCCTGCAGGCCGGGCTCCCGGCCAACACCACAGCCGTGGTGGGCAGCGACGTGGAGCTGCTGTGCAAGGTG
TACAGCGATGCCCAGCCCCACATCCAGTGGCTGAAGCACATCGTCATCAACGGCAGCAGCTTCGGAGCCGACGGT
TTCCCCTATGTGCAAGTCCTAAAGACTGCAGACATCAATAGCTCAGAGGTGGAGGTCCTGTACCTGCGGAACGTG
TCAGCCGAGGACGCAGGCGAGTACACCTGCCTCGCAGGCAATTCCATCGGCCTCTCCTACCAGTCTGCCTGGCTC
ACGGTGCTGCCAGAGGAGGACCCCACATGGACCGCAGCAGCGCCCGAGGCCAGGTATACGGACATCATCCTGTAC
GCGTCGGGCTCCCTGGCCTTGGCTGTGCTCCTGCTGCTGGCCGGGCTGTATCGAGGGCAGGCGCTCCACGGCCGG
CACCCCCGCCCGCCCGCCACTGTGCAGAAGCTCTCCCGCTTCCCTCTGGCCCGACAGTTCTCCCTGGAGTCAGGC
TCTTCCGGCAAGTCAAGCTCATCCCTGGTACGAGGCGTGCGTCTCTCCTCCAGCGGCCCCGCCTTGCTCGCCGGC
CTCGTGAGTCTAGATCTACCTCTCGACCCACTATGGGAGTTCCCCCGGGACAGGCTGGTGCTTGGGAAGCCCCTA
GGCGAGGGCTGCTTTGGCCAGGTAGTACGTGCAGAGGCCTTTGGCATGGACCCTGCCCGGCCTGACCAAGCCAGC
ACTGTGGCCGTCAAGATGCTCAAAGACAACGCCTCTGACAAGGACCTGGCCGACCTGGTCTCGGAGATGGAGGTG
ATGAAGCTGATCGGCCGACACAAGAACATCATCAACCTGCTTGGTGTCTGCACCCAGGAAGGGCCCCTGTACGTG
ATCGTGGAGTGCGCCGCCAAGGGAAACCTGCGGGAGTTCCTGCGGGCCCGGCGCCCCCCAGGCCCCGACCTCAGC
CCCGACGGTCCTCGGAGCAGTGAGGGGCCGCTCTCCTTCCCAGTCCTGGTCTCCTGCGCCTACCAGGTGGCCCGA
GGCATGCAGTATCTGGAGTCCCGGAAGTGTATCCACCGGGACCTGGCTGCCCGCAATGTGCTGGTGACTGAGGAC
AATGTGATGAAGATTGCTGACTTTGGGCTGGCCCGCGGCGTCCACCACATTGACTACTATAAGAAAACCAGCAAC
GGCCGCCTGCCTGTGAAGTGGATGGCGCCCGAGGCCTTGTTTGACCGGGTGTACACACACCAGAGTGACGTGTGG
TCTTTTGGGATCCTGCTATGGGAGATCTTCACCCTCGGGGGCTCCCCGTATCCTGGCATCCCGGTGGAGGAGCTG
TTCTCGCTGCTGCGGGAGGGACATCGGATGGACCGACCCCCACACTGCCCCCCAGAGCTGTACGGGCTGATGCGT
GAGTGCTGGCACGCAGCGCCCTCCCAGAGGCCTACCTTCAAGCAGCTGGTGGAGGCGCTGGACAAGGTCCTGCTG
GCCGTCTCTGAGGAGTACCTCGACCTCCGCCTGACCTTCGGACCCTATTCCCCCTCTGGTGGGGACGCCAGCAGC
ACCTGCTCCTCCAGCGATTCTGTCTTCAGCCACGACCCCCTGCCATTGGGATCCAGCTCCTTCCCCTTCGGGTCT
GGGGTGCAGACA**TGA**GCAAGGCTCAAGGCTGTGCAGGCACATAGGCTGGTGGCCTTGGGCCTTGGGGCTCAGCCA
CAGCCTGACACAGTGCTCGACCTTGATAGCATGGGGCCCCTGGCCCAGAGTTGCTGTGCCGTGTCCAAGGGCCGT
GCCCTTGCCCTTGGAGCTGCCGTGCCTGTGTCCTGATGGCCCAAATGTCAGGGTTCTGCTCGGCTTCTTGGACCT
TGGCGCTTAGTCCCCATCCCGGGTTTGGCTGAGCCTGGCTGGAGAGCTGCTATGCTAAACCTCCTGCCTCCCAAT
ACCAGCAGGAGGTTCTGGGCCTCTGAACCCCCTTTCCCCACACCTCCCCCTGCTGCTGCTGCCCCAGCGTCTTGA
CGGGAGCATTGGCCCCTGAGCCCAGAGAAGCTGGAAGCCTGCCGAAAACAGGAGCAAATGGCGTTTTATAAATTA
TTTTTTTGAAATAAA

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FIGURE 951

AGGCAGGCGGATCACTTGAGGCCAGGAGTTCGAGACCAGCCTGGCCAACATGGTGATACCCGTCTCTACTAAAAA
CACAAAAATTAGCCAGGCATGGTGGCACACGCCTGTAATCCCAGGTACTTGGAAGGCTGAGGCAGGAGAATCATC
TGAACCCAGGAGACAGGTTGCAGTGAGCCGAGATCATGCCACTGCACTCCAGCCTGGGCATGAGACTCTGTCTCA
AATAAATAGATAAATAAATGATTTTAAAAAAATAAAAGCTGAGGAGTGACTTGGTTAGATCCGTAGTTTAAAGAA
GTCATTTTGGGGCCAGGCACGGTGGCTCACGCCTATAATCCCAGCACTTTGGGAGGCTGAGGCAGGTGGATCACC
TGAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAGCTCCGTCTCTACTAAAAATACAAAAAATTACCC
AGCCGTGGTGGCTTACACCTGTAATCCCAGCTACTCAGGAGGGTGAGGCAGGAGATTTGCTTGAACCTGGGAGGT
GGAGGTTGCAGCGAGCCAAGATCATGCCACTGCACTGCAGCCCGGGCGACAGAGAGACTCAAAAAAAAAAAAAAG
TCGTTTTGGGAACCAGTCACCGCTTCTTTTTGATAGCCCCTGGTTTTGTTAGGGGAAGCAAGGGGTTCAGCAAAA
TGAATATACTTCCTGGCTTCCTTTGCAGCTAGGGGTGGCCGTGTCACAGTCTGGCCAAGGAAATGAAATTGGGAG
TTGCTGTGTGGAAACTCAACTCTCTGGAACTTCTTCCTTCCTCCTGCCTCTGCACAAATGTGACGGCAGCAGCTG
AAGCCAACATCTTGCGACCATGAGAGAAAAACCTGGAGAACGGACGAGTCCTCAACCCTGACTTCAGACCAACCT
ACACCCACCTCTGGACGTGGGGCTAAGTGAGAG**ATG**GATACACTGTTTCATTTAGGCCCTGCTCACTTAGGTTTC
TGTTATTCACACCCCAACGAAACCCTCCATGGTCCAGGGCACCGGGCAAAGTACAGAAGGGCACGAGTTTACTTC
CCGCTTCCCTGGAGACCACCAACCCTCTCACCCTTCCAGCCCAGCCTCTGCCACTTCCCAGCTGTCGGTCCTCCT
CCAAACAGACGTGCATGCCAACACCCGGTGGGTGTGAGGCTTGTAGGCCCAAGTCTAGAGAGGCTGAGTCTGGCA
AAGCCTGAAAGCCCCTGTCCTAGCAAGCCAGGCCACAGGTCTAGAGTATCCGAGACCAGTGAA**TAA**GGGGACGGG
GGGTGCTACTGAGGCTGTGAGAAGCCCCAGGACCAGCCCAGGGTAGTTAGAACTGAGTGAGGTTAGCCGGGACTA
ACCTCACTCAGATCCCTCCTCCCCAGTTCCCCTCCATCCACTTTGGTTTGGAAGCCTCCCCAGAGCTCTCCCAGG
CTGTCATCAGCTCTAAACTCTCTGCCTCCACAAAAATGCCCTGGGCAACCTGTAACTCACAGCCCTGCTGTCTTC
AGAGTATAAACTGGAGACAGATGTACCCAGAATTGAGGACGGGTGGGAAATGAGGAGAAATGAAGGCTGAGGAGG
GGTCATTCTCACAGTCCCTCCCTTTCGGTCACAGGAGGGTGTTGCCCATGCTTTTGGGTGGGTCCCAGGCCCATA
GCTGCAAATATTCATATTGGCTACTCTTCAGTGAGCAAGGGGTATATGCCAGGCACTGGCATTGTGCTTGACATA
CATCATCATACTGAGTCCTCACGGAAGATGTATTATTCCCATTTCACAGAAGATGAAACTGAGGCTTGAGGTTAA
GTGATTTGTCCGTGACCACAAAGAGTTTTCGGGACTCAAACCCAGATCTGTCACTGGGCAAGGTGGCTCACACCT
ATAATCCCAGCCCTTTGGGAGACTGAGGCCAGCAGATCTCCTGTGGCCAGGAGTTCAAGCCTGGCCAACAATGGC
AAAACCCCGTCTCTACCAAAAATACAAAAATTAGCTGGGCGTGGTGGCACACACCCGTAATCCCAGCTACTCAGG
TGGCTGAGGCAGGAGAATCACTTGAACCCAGGAGGTGGTGGTTGCAGTGAGCCTAGATCGTGCCACTGCATTCCA
GCCTGAGCGACAGAGTAAGACTCTGTCTCCAAAAAAAACCCAGATCTGTCCGACTCTGACACCCAACCTTTAATC
ACTCACTTTCTGTCAATGTCACCTCCGTTTTGACCAGCCAAGCTAGACCTCCCTGGAGCCTGTGGAGAAGCCAAG
GTAGAAAAGGGTTGGAAAAGAATGATAAAATAGGCCAGGTGCGGTGGCTCAAGCCTGTACTCCCAGCACTTTTGG
AGGCCGAGACAGGCAGATTGCTTGAGCCCAGGAGTTCAAGACCAGCCTGGGCAACATAATGAGACCCTGTTTCAA
CTTAAAAAAAAGAAATGGTAATGAACAATTGTCAATTCTGAGCAGCTGGGTATGGTATGACCCTGTGTACTTTTT
CTGTATTTTAAAATGTTCTCAAAATAAAACTTGTTT

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FIGURE 952

AGGCTCTCTACCGGTGAGGGTTTGCGGGGAAG**ATG**GAGTATCCCGCGCCGGCCACGGTGCAGGCCGCGGACGGCG
GAGCGGCCGGGCCTTACAGCAGCTCGGAGTTGCTGGAGGGCCAGGAGCCGGACGGGGTGCGCTTTGACCGCGAGA
GGGCGCGCCGCCTGTGGGAAGCCGTGTCCGGTGCCCAGCCGGTGGGTAGAGAGGAAGTGGAGCACATGATCCAGA
AGAACCAATGTCTCTTCACCAACACCCAGTGTAAGGTTTGCTGCGCCTTGCTTATTTCTGAGTCCCAGAAGCTGG
CACATTACCAGAGCAAAAAACATGCCAACAAAGTGAAGAGATACCTAGCAATCCATGGAATGGAGACATTAAAGG
GGGAAACGAAGAAGCTAGACTCAGATCAGAAGAGCAGCAGAAGCAAAGACAAGAACCAGTGCTGCCCCATCTGTA
ACATGACCTTTTCCTCCCCTGTCGTGGCCCAGTCGCACTACCTGGGGAAGACCCACGCAAAGAACTTAAAGCTGA
AGCAGCAGTCCACTAAGGTGGAAGCCTTGCACCAGAATAGAGAGATGATAGACCCAGACAAGTTCTGCAGCCTCT
GCCATGCAACTTTCAACGACCCTGTCATGGCTCAACAACATTATGTGGGCAAGAAACACAGAAAACAGGAGACCA
AGCTCAAACTAATGGCACGCTATGGGCGGCTGGCGGACCCTGCTGTCACTGACTTTCCAGCTGGAAAGGGCTACC
CCTGCAAAACATGTAAGATAGTGCTGAACTCCATAGAACAGTACCAAGCTCATGTCAGCGGCTTCAAACACAAGA
ACCAGTCACCAAAAACAGTGGCATCATCCCTGGGCCAGATTCCAATGCAAAGGCAACCCATTCAGAAAGACTCAA
CCACCTTGGAAGAC**TAG**AGGTGATTCTGCCCAGCATCCCATATT

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FIGURE 953

GGAGGAGGAAGAAGAGGAGCTCTTGAGGAAAGCCATTGCTGAAAGCCTGAATAGTTGCCGGCCTTCTG**ATG**CTTC
CGCTACCAGATCTCGACCTCTGGCCACTGGACCGTCTTCCCAGTCCCATCAAGAGAAAACCACAGACTCTGGGCT
CACTGAAGTCTTCCCAAGGGATTGTTGAAGAAACTTCTGAAGAGGGAAACTCTGTACCTGCTTCACAAAGTGTTG
CTGCTTTGACCAGTAAGAGAAGCTTAGTCCTTATGCCAGAGAGTTCTGCAGAAGAAATCACTGTTTGTCCTGAGA
CCCAGCTAAGTTCCTCTGAAACTTTTGACCTTGAAAGAGAAGTCTCTCCAGGTAGCAGAGATATCTTGGATGGAG
TCAGAATAATAATGGCAGATAAGGAGGTTGGTAACAAGGAAGATGCTGAGAAGGAAGTAGCTATTTCTACCTTCT
CATCCAGTAACCAGGTATCCTGCCCGCTATGTGACCAATGCTTTCCACCCACAAAGATTGAACGACATGCCATGT
ACTGCAATGGTCTGATGGAGGAAGATACAGTATTGACTCGGAGACAAAAAGAGGCCAAGACCAAGAGTGACAGTG
GGACAGCTGCCCAGACTTCTCTAGACATTGACAAGAATGAGAAGTGTTACCTCTGTAAATCCCTGGTCCCATTTA
GAGAGTATCAGTGTCATGTGGACTCCTGTCTCCAGCTTGCAAAGGCTGACCAAGGAGATGGACCTGAAGGGAGTG
GAAGAGCATGTTCAACTGTGGAGGGGAAGTGGCAGCAGAGGCTGAAGAACCCAAAGGAAAAAGGCCACAGTGAAG
GCCGACTCCTTAGTTTCTTGGAACAGTCTGAGCACAAGACTTCAGATGCAGACATCAAGTCTTCAGAAACAGGAG
CCTTCAGGGTGCCTTCACCAGGGATGGAAGAGGCAGGCTGCAGCAGAGAGATGCAGAGTTCTTTCACACGTCGTG
ACTTAAATGAATCTCCCGTCAAGTCTTTTGTTTCCATTTCAGAAGCCACAGATTGCTTAGTGGACTTTAAAAAGC
AAGTTACTGTCCAGCCAGGTAGTCGGACACGGACCAAAGCTGGCAGAGGAAGAAGGAGAAAATTC**TGA**ATTTCTA
GGGTCCAAAAGTTGACAAAACCATTAGTAGGAGGGGTGGGCCATGTTCATTAAGCCATAGTGGTCCCTAGTTCAT
TGTTGAGCAAGTTTTAGCCCTGCAGTTTTCACCACCAGCACCTACCCAGCATTCTGGTTTTTATGTTTTTTATGA
TCTATGCAGACAACTGTGTATTCTGTTTTATAACAGTTTGTTTGAATTTACTTACAGTTAAAAAATTTAAATAT

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FIGURE 954

GAGGCCATGAAGCCGCAGCCGCCCGGCTAGGCCCCGGGCGGCTCTAGCCCAGGGCGGCCCGCGGGGCGCTGGGCC
TGGCTCCCGGCTCCGGTTTCCGGGCCGGCGGGTGGCCGCTCACC**ATG**CCCGGCAAGCACCAGCATTTCCAGGAAC
CTGAGGTCGGCTGCTGCGGGAAATACTTCCTGTTTGGCTTCAACATTGTCTTCTGGGTGCTGGGAGCCCTGTTCC
TGGCTATCGGCCTCTGGGCCTGGGGTGAGAAGGGCGTTCTCTCGAACATCTCAGCGCTGACAGATCTGGGAGGCC
TTGACCCCGTGTGGCTGTTTGTGGTAGTTGGAGGCGTCATGTCGGTGCTGGGCTTTGCTGGCTGCATTGGGGCCC
TCCGGGAGAACACCTTCCTGCTCAAGTTTTTCTCCGTGTTCCTCGGTCTCATCTTCTTCCTGGAGCTGGCAACAG
GGATCCTGGCCTTTGTCTTCAAGGACTGGATTCGAGACCAGCTCAACCTCTTCATCAACAACAACGTCAAGGCCT
ACCGGGACGACATTGACCTCCAGAACCTCATTGACTTTGCTCAGGAATACTGGTCTTGCTGCGGAGCCCGAGGCC
CCAATGACTGGAACCTCAATATCTACTTCAACTGCACTGACTTGAACCCCAGCCGGGAGCGCTGCGGGGTGCCCT
TCTCCTGCTGCGTCAGGGACCCTGCGGAGGATGTCCTCAACACCCAGTGTGGCTACGACGTCCGGCTCAAACTGG
AGCTGGAGCAGCAGGGCTTCATCCACACCAAAGGCTGCGTGGGCCAGTTTGAGAAGTGGCTGCAGGACAACCTGA
TTGTGGTGGCGGGAGTCTTCATGGGCATCGCCCTCCTCCAGATCTTTGGCATCTGCCTGGCCCAGAACCTCGAGC
AAATGGAA**TGA**TGACTTTGAAAACCACTGGCTTACGCCCACCATTTCCGAGGTCCTGTCCACGGCGGGGCCTCAG
CAGAACTCTCTGACTGGGGCCCCTGGCCCGGCCCCACCCAGCCGACATGTTTTCTTTGGCCTGGGTGGTTTATAC
CCTGAGCCAACCTTTAAAAATTGGTAGATTTCACATAAAAGTCCAGATCCACAGCTTCTCTTGAAGAATGACCAC
CTGGCTACGCCGGCTCTTCGGTGGCAACACTACCTGGGACACTGCCTCCCCAGTCACCAAGGGCCCCAGCTGGCC
CGTTCTACTCACCTAAGTGCCGCCTGACCCTTGTACACTAGGAGCTGGCCTCCCACCTCTGCAGGGTTATTCCCT
GCACCTCGAGGCCGCTGCGGGCCAATCTGGAGTGAAACACGGGGACCTGAAGGATGGAGAGGCTGGACCCCGCTT
TGAAGAGGGTGCAGCCTGGGAAGGGCGGCCTTGCTGGGGACTGCGGTGGGAGTAGAGTGCCCAGGAGAGGGTCTG
AGGGGTGGGATGGGGGTCAGGACAATTTTGCAAAAGAAGTAGCTGGAAGCCATGGGACTGGCGGGAGCCTGTTTG
GGGGATCTGGATGGTTGACTCCTAGGAGTCAAGTTCAGCATCTTCACCGTGGCTGCAGAGCTGCCTGATGGGCAC
TAGAGGGCATGCCAGCCCCACACTCCCTGGGTCTGGCTTCCTCCCGCAACCTCACTCTAGTAGAGCCTGTGCCTG
CCTACTAGCGCTCTGGGGTTCGGAGAGTTTGGGAATTTCTCAGAGCCAACTGGCTCAGGCTTGGGAAGGCTGGCT
GCTGCCCTCAGCTCCGCCTCATCAGCTATGTGAAGGGGTGTGTGTGGAGTGATCCTGCCGCCCCCTCCCTGGGCT
CGTCCAGAGATCTCAAACTCCGATGCCCCTGGGGCCACGTATGTTGTATAAATGGATGAAACAGGCCCTTGAGTT
GGGAGCCTGCTTCACTTTGACTTTCCCACTGTTGCTGGAGACAAAGACATCGTGATGAGAGAAAGTTCGCACAAT
CTAGTCGGTAACAGCCACTTTCCTTGAGACCAAGAGAGTGCGGTGGGGATGGGGGGGAGAGCACGGGTCCCCGTC
TGACAGTGGCCGCTGCCATATTCAGGTGTAGCTAATTGCTCTGGTGTGGGAATGCAGGCCTAATGACAGAAATCT
GGAGAAGCCAGAAATACAGATTTGTATGTGAGATGTCCTGATTTTTTAAGTTGTTGGCAGAAATTAATTCAGAAA
TCAAATCTGCAGGCCAAACAAGGTGCAGGACCCAGCTTTGGCCCCATGCCCCTGTAGGTCCCTCTGGGACAGTCA
CCGCTGGGGTCCTGGCTGCTCTGTCATTGAGGGATGCTGGGCACTGCTGCCGGGTGGCCAGGGTATGGGGCATGT
GCCCAGCAATGTGGCTCCTTGGCCCCGCTGGCCAGTGTCCTGGGCCCCTGACAGGCGCTGGCTGTGAGTGGTTTG
TACATGCTACAATAAATGCAGCTGGCAGC

FIGURE 955

CTGGGGACGGCGGCGCCGAGTCTGCGGGTCCTCCCGCCAGCCCGGCCGGAGGCAGCCGAGGCCGCTCGGGCGGCG
GCGGCGGCGGCGGCGGGAGCCGGAGCGCATCTCGCCCAGGAGCCGGAGCAGCGGCACTGCCTGAACCAGACAGCA
GCCTTGGGTGCAGGCGTGGTCATGAGGGCAG**ATG**GACACTGCTGAAGACCCGGCCTGGCTCCAGCTGCTTCAAAA
GGATTCCAGCCCCCCAGGACCCCGACCCACAGCCTTCTTCTGCCCACAGGATGGGAGCCTGGGGGCTGGCAGCTC
GGCTATGAGGGATTACTGCCCCTCCCAGCAAAAGGCAAGCCCTGCACCCCCCAGGCACACCCCTGACCAAAGCCC
AGGCATGGAGTCTAGACACAGAAGCCCCAGTGGGGCTGGGGAAGGGGCCTCCTGCTCTGACGGCCCCAGAGGGAG
CCTGGCCTGCCCCTCCCCAACCTGCTTCTCTCCCCAGGAGTCACCCTCCAAGGAGACATTGGAGGCACATGGAGC
CTCCATCTCAGGGACACCAGAAGCCACCACGTCTGGGAAGCCAGAGCCTGTGTCCTCCGTGAAAACTGAGCCCAA
ATCCTCAGATGACAGAAATCCCATGTTCTTAGAGAAGATGGATTTCAAGTCCTCAAAGCAGGCCGATTCCACTTC
CATAGGAAAGGAGGATCCTGGGTCCTCACGGAAGGCAGATCCCATGTTTACAGGAAAGGCAGAGCCTGAAATCTT
GGGAAAGGGGGATCCTGTGGCTCCTGGAAGGATGGATCCCATGACTGTAAGAAAGGAAGATCTTGGATCCCTGGG
AAAAGTAGATCCTTTGTGCTCCAGCAAGACGTATACAGTGTCACCGAGGAAGGAGGATCCTGGGTCTTTGAGAAA
GGTGGATCCTGTGTCCTCAGACAAAGTGGACCCTGTATTCCCAAGAAAGGAGGAGCCCAGGTATTCAGGAAAAGA
GCATCCTGTGTCCTCAGAAAAGGTCGCTCCTACATCTGCAGAAAAGGTAGATCTTGTATTGTCGGGAAAGAGAGA
TCCTGGGCCCTCGGGAAAGGCAGATCCCATGCCCTTGGAAAGCATGGATTCTGCGTCCACAGGAAAGACAGAGCC
GGGGCTCCTGGGCAAGCTGATTCCAGGCTCATCAGGCAAGAATGGGCCTGTATCCTCTGGGACCGGGGCTCCTGG
GTCCTTGGGAAGGCTGGATCCCACATGCTTGGGGATGGCAGATCCCGCATCTGTGGGAAATGTAGAAACTGTGCC
TGCCACAAAAGAGGACTCCCGGTTCCTGGGAAAGATGGACCCTGCCTCCTCAGGAGAGGGGCGTCCTGTGTCTGG
CCACACGGATACTACGGCTTCAGCAAAGACAGATCTCACATCTTTGAAAAATGTGGATCCCATGTCTTCAGGCAA
GGTGGATCCAGTTTCTCTGGGAAAGATGGACCCCATGTGCTCAGGAAAGCCAGAGCTCTTGTCTCCTGGACAGGC
AGAGCGTGTGTCTGTGGGAAAGGCAGGAACTGTATCCCCAGGAAAAGAGGACCCGGTGTCCTCCAGAAGGGAGGA
CCCCATATCTGCTGGAAGTAGAAAGACATCATCTGAAAAAGTGAATCCTGAGTCTTCAGGAAAGACAAACCCTGT
GTCTTCAGGTCCAGGCGATCCCAGGTCCTTGGGGACAGCAGGTCCCCCATCTGCAGTAAAGGCTGAGCCAGCGAC
GGGGGGAAAAGGAGATCCCCTGTCCTCGGAGAAGGCAGGTCTGGTGGCCTCTGGAAAGGCGGCTCCCACAGCCTC
AGGGAAGGCCGAGCCCCTCGCGGTGGGCAAGGAGGACCCTGTGAGCAAGGGAAAGGCAGACGCTGGCCCCTCTGG
ACAAGGGGACTCTGTGTCTATAGGTAAAGTGGTCTCAACTCCAGGAAAAACAGTCCCGGTGCCCTCGGGGAAGGT
GGATCCCGTGTCCCTGGGAAAAGCAGAAGCTATCCCAGAGGGAAAAGTGGGTTCTCTGCCTCTAGAGAAGGGGAG
TCCTGTTACCACCACAAAGGCGGATCCCAGGGCCTCGGGGAAAGCACAGCCGCAGTCTGGTGGCAAAGCAGAAAC
AAAGCTCCCTGGGCAAGAGGGCGCTGCAGCACCAGGGGAAGCAGGGGCTGTGTGTTTGAAAAAGGAGACACCACA
GGCCTCAGAGAAGGTGGATCCTGGATCCTGCAGAAAAGCAGAGCCCCTTGCCTCAGGGAAGGGAGAGCCTGTGTC
CCTGGGGAAAGCCGACTCTGCACCTTCCAGAAAAACGGAGTCCCCATCCTTGGGGAAGGTGGTCCCCCTGAGTCT
GGAGAAGACCAAGCCGTCCTCCTCCTCCAGGCAGTTAGACCGCAAAGCCCTCGGCTCAGCCCGGTCTCCCGAGGG
TGCCAGGGGCAGTGAAGGCCGCCAAGCGTCCGCCCGGCCTGTTCCGCGCGCTGCTGCAGAGTGTGCGCCGGCCGC
GGTGCTGCTCGCGGGCGGGACCCACGGCCGAGTGATCTGCCCCCATTTTGTACGCCCGAGTTTCCGACCTTCTCA
GGCTCCCTTCTTGATCACAGGCCCC**TAG**AAGGGGTCCCCTCTGCGTGCCACAGGCCTCCGAGGGGTTGTGCAGCC
TCTAGGGCTGTTGCGTCCCCGTCTTTCCAGCCCCTCCCATCACAAATACAGAAGAACCCCTTCTACCAAGCTCCC
TCGTGGCCACGAGGCCACGAACCCGGCCAGCCCTGACGCCCCACTGTCCCCTCACAGCCCTCAGCTCTACTCCCG
GTCACACTGGGCGACCACGGGGGCCTGCTCAGCACCCTCACCTCCCACCCCCTGAGAGCTGGGGCAGGCTCCTGA
GATGTCTAGACTGGTGCGTTGTGGTCTCCGGTGGGGCCAGATCCCCAGAACAGGGAGAGACTGCATACAAGTCTG
AGTGGCAGAAGCTTCAAGTGGGTGAGGATCGGTGTGTGAGACCCGCGAGTGGGCACGTCTCTGAATGTGAGGTCT
CGGGCAGCACGTGAGGTAGAACGAGTGTGAGCGTCTCCACGCAGTGGCTGGCCCCGTGGCCGGGGCGTCTCTTGC
ATGCTGTTGGTGGTCCTTCCCCAGTTCCTATCTCCCACCCGCCTGGTTCCAGCCCCATCCCCTCTCCCACTGAGT
CACAGGTTTGAGATTCCCAGAGAGGCCAAAGACAGCTACAGGAAGTACCCTGGGGGCTCAGCTGAGAGAGAGTCA
CAGAAAGGCCAGAGGGTCTCAGGAAGGTCTGGAGGTCACAGCTGGGCTCACAGAAGCTCTTGGGCCCTGGCATCC
TGGGTGACCGGTGTTCTTGGGTATTGGGGACAGGACAGAGAGCTCATTCTATAACCACAGTTGTCTTTTAAAGGC
CACCCTCTCCAGCCCCTTGTCCCCCCTGTGCTGTGAGCCCAAGTCCCTTGTGACCACTCAGTGTCCCGTCCCCAC
CCCTCCAGCCGCAGTTTTTGGCTACAAACTGTCACAGTATACATTGGTAATAAAATATTTCCCC

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FIGURE 956A

ATCAAATGTGGGGTTTGTTACATTCCGCTGCCGCCGCGGACAGTTCTTAAAGGGCCAGCCGCCGGCTGCCGCGCA
GACCCAGCTGCGTCCTGCGCCGCCTCCCGCTCCCTGAGGGCCTGGGCCGAGAGAGACTGATCGCGCGTGGGCCTC
GCGAGGCAGACGCCGTCGGGCGGACAACAAAGAGAGAGGCCCCGGAAGGAGCCGGGCTGCCCCCGGACCCGGGGG
TGGGGAGGGGAGCACATTGTTCCGCAGGGCGGGAGCTCTTAAAGGATCCAGACAGGCACCCCCCCCCCTCCCCCG
CCCCCTGCCCAGTTTGGCCGTCCTAGATCGGGAACAAAGGAGTCAACGTGTGGCCGGGCGGCCAAAGGGTTGTGA
GTCCCGGCCCAGCCCCTCCACCCCCCTGCCCCCCCG**ATG**CGACCATGGGCTCTGGCAGTGACTAGGTGGCCACCC
TCCGCCCCCGTGGGCCAGCGGCGATTCTCTGCGGGACCTGGCAGCACCCCGGGCCAGCTCTGGGGAAGCCCTGGC
CTCGAGGGCCCCCTGGCCAGCCCGCCTGCCCGGGATGAGCGCTTACCCTCCCAGCAGCCGCCGTCCCGACCTCCA
CACCTCCCCGTAGAGGAGCGCCGAGCCTCGGCTCCTGCCGGCGGGAGCCCCCGAATGCTGCACCCAGCCACCCAG
CAGAGCCCGTTCATGGTTGATCTCCACGAGCAGGTGCACCAGGGACCTGTCCCTCTGTCCTACACGGTCACCACA
GTGACGACCCAAGGCTTCCCCTTGCCTACAGGCCAGCACATCCCTGGCTGCAGTGCCCAGCAGCTCCCAGCATGC
TCCGTGATGTTCAGTGGGCAGCATTACCCCCTCTGCTGCCTCCCGCCCCCGCTTATCCAGGCGTGCACCATGCAG
CAGCTGCCTGTGCCCTATCAGGCCTACCCCCACCTCATCTCCAGTGACCACTACATCCTGCACCCCCCACCACCG
GCCCCACCCCCCCAGCCCACCCACATGGCGCCCCTGGGGCAGTTTGTGTCTCTGCAGACCCAGCACCCTCGGATG
CCCCTCCAGCGGCTCGACAACGACGTGGACCTGCGTGGGGACCAGCCCTCCCTGGGCAGCTTCACCTACTCCACC
TCTGCGCCTGGCCCAGCCCTTTCCCCGTCGGTGCCCCTGCACTACCTGCCCCACGATCCGCTGCACCAGGAGCTG
TCCTTTGGTGTGCCATATTCTCACATGATGCCACGGAGACTGAGCACCCAGAGATACCGCCTGCAGCAGCCACTG
CCCCCGCCGCCCCCACCCCCACCCCCACCACCCTACTACCCCAGCTTCCTGCCCTACTTCCTCTCGATGCTGCCA
ATGTCACCAACAGCAATGGGGCCCACCATCAGCCTGGACCTGGACGTGGATGATGTGGAGATGGAGAACTATGAG
GCCCTCCTGAACCTGGCCGAGCGGCTGGGAGATGCCAAGCCCCGGGGGTCTCACCAAAGCAGACATAGAGCAGCTC
CCGTCGTACCGCTTTAACCCGGACAGCCATCAGTCGGAGCAGACGCTGTGTGTGGTCTGCTTCAGTGACTTCGAG
GCGCGGCAGCTGCTCCGAGTCCTCCCCTGCAACCATGAGTTCCACACCAAGTGTGTTGACAAGTGGTTGAAGGCC
AACCGGACGTGTCCCATCTGCCGGGCCGACGCCTCCGAGGTGCCCAGGGAGGCTGAG**TGA**GGCCACGCAGCCGCC
TGCCCGGGAGAACCCTGCCTGAAGCTCTGGAAACTTGTGGGTGGGGCCCAGGGAGGATGGGGAGGGAGTGGCCCA
GGCCTGCCCCTTCGCTCCTGCCTGCATTTCCAGAGCTGGTGCCAGGGTCAGCCCAGCGAGGAGTCCCTGCAATAA
GCCCCTGCATTTGCCAAGCTCCAAAGACTCCCTCCCTAGTCTGCCTGCCTGCCCGCCCGCCACGGAGCTGCCTGA
GTGTCCCTGATCGGGTCTCCCTCCTGTGCACCCTCAGGTCCCTCCTTTTCCTGCTGGCACTGAGTGCCAGGGGTC
CGCTCCCTCAGTGGGGCCGGTGGAGATCCTTGGCCCCAGGATGGGCAGACAGAGCACCATCCTGGGTCAGAAGGT
CTCATGCTCTGAAATGGCGTGCCCTCTGCCCAGGTGGCACTGCCAGGTGCGTAGACAGACGGTGTCACGAGCCAT
TTCCTGAGCCCCAGGGCTGAATCCCCCCTCCTTGACCCCGAACAGTGAACTCAGGCAGCTGGCTCTGTGTTGGCT
GCTGTGAGGGCTGAGTCTGGTTCCCTAGGGGACCCTCATCCCAGGAACAACATTCCAGCCCCACCCTCAGGCTGG
AGGGCGTCCCAGCCTAATCCCGAGCTGGGGCACACGTATCCTGAGGGGCTTGGGCCATACGGGGAGAGGGAGCCC
TGTGTTCCCGGTGGTTGTCCCTCCCAGGGATGCAGCCAGACCCGTGCCCAATCTCCTCTCCCTCTGTTGTTTTGC
ATGAACGTGAGGAGCAGCAGTTTTTGTTCATTCATTTGGCCCAAAATCACGTGTAGGATTTGGGGATGTGGATAT
TTAAGACAATTTCTTTTTTCTTTTGGTTTAATAGGGGCGGGTATAGGGACCAACTGGGACCGAGTGCCCAGGGGG
CCGAGCACGGTCATGCTGGCCGGCCTGCATGCATGCGTGTGCCGGGCTGGGCTGGGCGGCCGGCGGTCGTGGGGC
AGGGTTGGGGGTCTGTGCTCAGCTGATAACTGCCATGCACTGTACTGCACACGTCCCTAGAGCCTACCGGGACCC
GACGCTTTTCAGGGCATTTCTCCCTCCAGCCAGGGCCCAACTCCCACCTGCCTGGGCGAATCTCCTCCAAGGAAG
TCCCAGGAGGATGGGGACCAGGAAGGCTGTGGACCCCCATCTCCAGGGGGCCTTCCCAGCCTGATCCCTGTCCTC
CAAGTTCTGGAGGAGGCCGCTGTAGGGTCTGGCTGAGCTTCCCACCCACTTTCCCTGGTCCCAATCCTTTCTTGT
CCTATACCCAGCTGGGGTTGCTGCCCTGAACGAACTGCGTGTGGGGCCGGCACATCCTAGCAGGCAGCCCCTGGC
GCCTGCTGCCTCAGGGATGCTCCAACCACCCTCGTTCTCCTCGCAGTGGCCCTGGCTCCCACCTCCCGCCCCAGC
CTGCCGTGGGGCCCGTCAGCCTGGTCCCACCCCCATGGAGAACCCAAAGTCTTACTGTATATAACTCCAGGTGAC
GTTTCTATATTTATAGCAGTGTTGAAAACCCACGTGTTTTACACAGAACCACCCTCTCCAACCCCTCCCTTCCCG
ACCCCAACAAAACGTTTTCAAACCCCTTACAGTTCCTGGGGCAGGCGGAAACAGGCTCACAGATTGTGTGTCGGC
TGCAGCAGTGATTCCAACAAGCAGCTATTGGGGGGGAAACACAGCATTTAAAAAGATCATCATTAAAAAACAAGA
TTTATACAACAATTACTTAGGATGTTTGTGATCTGCCGACCTTGCTATAGATGCCATGTTACCAATGATTTCCTG
TGGTGGGGGCTTGCCATTGTTTACTCTCTTATTTACCAACTTCTGGCCTAGGCATGACAGTGGGCACCTTCCCCC

FIGURE 956B

AGCCCTGGCTGGGCCCAGCGCCTGTGTTCTGTGTTAGAAAGGTTTTATATATATATAAAATTACATATATATGTA
GAAATATATGTAATTTTGGGGGCCCTGTTCCTTGCACATTTTACAGTTACCTCATTTTTCCCATGTATGTATTTG
AGAAAATGCTAATATATAGAGAAAAAAATGGTTCTTAAAGCTTAAATGTGTGGTTTTTTCCATTCCATGGGATTC
ACATTGGTTTGTAGCATTTAACATAACTAGTATGTTGTATTATATATATGTGTATACTGATTGAAATTTTTAACA
GATTTGTACTTTTTTTAAAATGAAAGTTGCTAGTTCTGCTTGACCAAGTAGTGCAATCATTATTTTTTTTAATAT
TGTTGCTGATTTCAGAGGGATATTCACTAATAAATGTATGATGTATACC

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FIGURE 957A

AGTTCCGGCGGGTGACGGTGCGGACGGGTCAGGAGCGTAGAGGCGGCGGCAAA**ATG**GCGGCGCCTGAGGAGCGGG
ATCTAACCCAGGAGCAGACAGAGAAGCTGCTGCAGTTTCAGGATCTCACTGGCATCGAATCTATGGATCAGTGTC
GCCATACCTTGGAACAGCATAACTGGAACATAGAGGCTGCTGTACAGGACAGATTGAATGAGCAAGAGGGCGTAC
CTAGTGTTTTCAACCCACCTCCATCACGACCCCTGCAGGTTAATACAGCTGACCACAGGATCTACAGCTATGTTG
TCTCAAGACCTCAACCAAGGGGGCTGCTTGGATGGGGTTATTACTTGATAATGCTTCCATTCCGGTTTACCTATT
ACACGATACTTGATATATTTAGGTTTGCTCTTCGTTTTATACGGCCTGACCCTCGCAGCCGGGTCACTGACCCCG
TTGGGGACATTGTTTCATTTATGCACTCTTTTGAAGAGAAATATGGGAGGGCACACCCTGTCTTCTACCAGGGAA
CGTACAGCCAGGCACTTAACGATGCCAAAAGGGAGCTTCGCTTTCTTTTGGTTTATCTTCATGGAGATGATCACC
AGGACTCTGATGAGTTTTGTCGCAACACACTCTGTGCACCTGAAGTTATTTCACTAATAAACACTAGGATGCTCT
TCTGGGCATGCTCTACAAACAAACCTGAGGGATACAGGGTCTCACAGGCTTTACGAGAGAACACCTATCCATTCC
TGGCCATGATTATGCTGAAGGATCGAAGGATGACTGTGGTGGGACGGCTAGAAGGCCTCATTCAACCTGATGACC
TCATTAACCAACTGACATTTATCATGGATGCTAACCAGACTTACCTGGTGTCAGAACGCCTAGAAAGGGAAGAAA
GAAACCAGACCCAAGTGCTGAGACAACAGCAGGATGAGGCCTACCTGGCCTCTCTCAGAGCTGACCAGGAGAAAG
AAAGAAAGAAACGGGAGGAGCGGGAGCGTAAGCGGCGGAAGGAGGAGGAGGTGCAACAGCAAAAGTTGGCAGAGG
AGAGACGGCGGCAGAATTTACAGGAGGAAAAGGAAAGGAAGTTGGAATGCCTGCCCCCTGAACCTTCCCCTGATG
ACCCTGAAAGTGTCAAGATCATCTTCAAATTACCTAATGATTCTCGAGTAGAGAGACGATTCCACTTTTCACAGT
CTCTAACAGTAATCCACGACTTCTTATTCTCCTTGAAGGAAAGCCCAGAAAAGTTTCAGATTGAAGCCAATTTTC
CCAGGCGAGTGCTGCCCTGCATCCCTTCAGAGGAGTGGCCCAATCCCCCTACGCTACAGGAGGCCGGACTCAGCC
ACACAGAAGTTCTTTTTGTTCAGGACCTAACTGACGAA**TGA**CATTTTTTTCTTCCTGTCCCCTCCTACCCCAGTC
CCTAAAAGAAATGGGGAAAAAAGAAAACAACAGCAAGTCAGAAAAAAAAAAACAAGAGAGAGAAATTCATATTATT
ATTATTATTATAATACAATATTTTTTTAAAAGACTGCTGCATCCTTAGGAAGGATCAGAAACCATGCTGCCCGT
AAGAGTCACAACCTGTGTGTGCGCGCAAGGTTAGCAACAAACGTACCCGCTTGGCAAGCCCACCCTTCCTGTGGC
CTCTGTGCACGCACCTTCCAGTGAACAGAGACTCTTCACCTTCGACCCATCCATTGTCCCAGCTGGGAAGGGGAC
ATTCCCACTAGTTCTCATTCATTCTTGCTTTTATGAAAAATAAAAGTGAAAAACCTCCATCAACCAGCTACTTGC
AGCATCTCCTGAGGACTTGCTTCTCCTGCCTCTGGGGAAGAGAGGGAAGAGAAAGCACAGAGCAGAGAAGCAGAG
ATGTTCCTTGAACTGCCCACAAGTTTTCAATAACTTTTATTTCTGTTTTGTAATGACCAAAGGAATGAGGCTGAC
ATAGGTATATATATATATTTTTTTCCTTTATTTGATAAAGAGCCAATTCTTTAAACCCATGAGTTTATGCCCTGG
GCTCCTTAGCCCACAATAGTGTAATAAAAGTGCCCCGGGCTGGTTTGTGCTTATTTCTGCCATTGTCCCTCTCAC
GTTCCCAGAGAGGTCATTCTTTTTGGTCCAACTCTTGCTGTCCTTTCTTACCACCTGTGCACCCCACTTGGAGCA
GTGGGAGGAAATCTGGGTTTGTGGCCCCACAAAGGCTGTATATGTAAAGATACACCTATGTATGTGGTGGAACTC
ACCTTTACACACAACTGCAGCTTTTCCTTGGAGTCTGTACCAGGTGGTGGTTATGGGGTCTGAACCAAAGGATAG
CAGCTCTTCATTCCTCTTCTGACATGTGCATGCTGCTCCCCCCAGCCCTGGGCTTTCCTGAATTGCCAAGCCTGG
TGCCTTTCCAAAGGACTAGCAGGGCCTGTGGTGGAGCCAGCAGAACCACAGGAGAGTGCCCTGCCTGTCTCAGTG
GAAGTGTATTATTGTTTTAAGGATAGAACCAGAGGCCTTGAAGGGAGCCAAGACAGAACTCCCAGCCTGTGTAAT
CTATTGGAAGGCACATTTTCATTTCTGATGCAGCCACCTTCTGGAGGCAGCTTTTATCCTTTCTCTCTATTGCTA
TGTTGAAGTAATAGGGTTTTTTTTAACCTCTGGATGTCTCGTCTGTGGTTGAGTTTATGGTAATGGGTACATGGG
TCAGGCCATGTATTAACAGATGCCAGTGCGCTCTGACAAGTATTCCAAAGTGTTCTGTAGCTAGACTGGTGCAGG
CTCGTTGTACCACTGCAACCGACTGACGTTACTGTAGTTCCTAGAATGCTGTGAGGGCGGGGGGTTCAGATCAAC
ATAAAGCCTAACTTGCTGGAGTTGTAGTCTCAAGGCTTTCTCTCTTGCTTAACTAAAACCTAAGGACCACTGTTT
TTGGTAGCAATTATATGGTTACTATCCACTGCAGTCCTCAGTTGTTGGGGTAAATCCCACATGGCAGAGTAAGGC
ACCCCACAGAAATTAACTTGGAGAGCCTGAGAAATTCCCAGTGGCCTTGGCATAGCTGTCTAGAACACCATCTCT
AGGAAAATTTAATTCTGTCCCTGGCCAGCTATTGTTCTTCCACTTCGTTTTCTGCTGTCCCAAGGCCAGATGAGT
GGAATCACCATCTGACTGCTGTCAATAAAATGTATCTGGCGTGAACAGCAGGATAACCCATGTTCTCCACATAAG
GATAACCTTACGTGAAACCTTCCTGCTGACAACCATGCAGAGGAATTTTTCCACTTAAGTCAGAGCCTTCCTCCC
CATCTGGAATTCACAGCTGTTCCCTGGCAGCACACAGGAGGGTATTAAGGACCTTTGTGAGGCTAGGTACACTGT
CCACACCTCTTTGGGGAAGTTACGATTTTTTTTTTCCATCATAATTCAGTCTCTTCTTATTCTACAGTGTGCACT
TTATGCCTCTCGCCTTTTGATAATAGTTGTTCAGTGAAGGAAGTCAGCTGCCAGAATATTAAGAAGGGTCTCCCT
TTATGTCAGTACAACTGTTAGGGCGGCCTTCCCATTTACTTTAGGTTTCAAGAGGATTCACCGGAAGCACATGCC

FIGURE 957B

CCGGTCTAGTCCCATTTGAAACAGTTCTGCTTTACTGAGACCCTAGGCCGGTCTCCTTGCTGACCCTAGCGCTGC
TGCCTAGGTGCCATTTCCTTTCCTCCTCAGTCAAATACAGGCTGCACATTTTGTCACTTAATGCCAGTACAATCT
GTGTTACTCCTAAGGACTTTTGGGATTTTGATGAGACCTGCGAGGGAGAAGACACTGAGAAGCCAGTGATCTGCA
AGCATTTGCTCTTGTTTCCACATCACCTCTGGGATATTTCAGCTGTTGTTTCCAAATGGCAAATCATCAACTAAA
AGCACTTGTTTCAAGTTTTGTTCTGCACTCCCACGACTGAAGTTGTAGATTGAGCTGAATAACCATGGGAAGTGA
CCAAGCAAAGACACTCGATTGGAGTCAGTTGAATATTTGTACCCTCAGTGGAGCCCTTCTGGTCTTTTCTTCCAC
TTCTGCAGAATTTCCTCTAGCAAATACTTCTTTCTCCTTGCTTGCCTCCACCATGATATTTGAATAAGAGATGGC
CAGAGGATAACACTTGTCTCTTAAAAACTAAGCTAAAAAGAACCTAGAACCTTCAATTGAGCAGTTGTGAAAATT
GCTAATGGTGCCAAGGCCAAGCAAAGAGTTTCAGAAAATGACTGAGAAGGAGCGATAACCCCCAGAATGCAAAAT
CAGGGGCATCATTATCCGGTGCTTGAACAAGGAGCTCCGCTCTACAACTGGTTTTTTTAGGACTTGTGAGGAACA
CAGCAACGGAAATCCATCCACAAAGGATGCAGTGCCCCAACTTGTACTGCGCCTGAATAGTCATGTGATAATTTA
CTGAAGAAATCTAGTGTACTTTAAATTTTTTTCATAAAAGTTTACATTGTATTGTAGGTTAACATTAAATGTTTT
ATAGCAAAAACTTC

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FIGURE 958

GCGGCCGCCGTGGCCAGGCAACCTATGGGTACCACCGGGTTCTCGCGGGTCTTGCGAACGAACTTTTCCTTGAAA
CTCTCTGGATTCCTGTAAACAGTGGGGCTCAGCCCCTCAATGACTGGAGGCTTCGATGGTTCAAAGGGGACCTCC
GGAATCACAGGGCCGGGAGTCGCCATGTCCGGGCCACAGCAGCAGGAGAAAATCGGGACTCCGACCTCAGCCTCC
CGGTGAAGGTCATGAAAGGGGCGGGGAAACGAATAAATTGAGCCTTGTACGCAGGCGCAAATGCTCGTTGCATCC
TGGGAGTCGTAGTGCTCAGCACGGTAGTGCTACAAAAGGACTACATTTCCCCAAATGCCCGCAAAGCCTTGTGCA
CGCCTTCCGGAAGGAGTTTGTTACACGAGGTCTGAGAGACAGAGGCAGCGTGTTTGAGCTGCTGGTGCGGTGGTC
AGCGCG**ATG**CCCAAGGCCAAGGGCAAAACCCGGAGGCAGAAGTTTGGTTACAGTGTCAACCGAAAGCGTCTGAAC
CGGAATGCTCGACGGAAGGCAGCGCCGCGGATCGAATGCTCCCACATCCGACATGCCTGGGACCACGCTAAATCG
GTACGGCAGAACCTGGCCGAGATGGGGTTGGCTGTGGACCCCAACAGGGCGGTGCCCCTCCGTAAGAGAAAGGTG
AAGGCCATGGAGGTGGACATAGAGGAGAGGCCTAAAGAGCTTGTACGGAAGCCCTATGTGCTGAATGACCTGGAG
GCAGAAGCCAGCCTTCCAGAAAAGAAAGGAAATACTCTGTCTCGGGACCTCATTGACTATGTACGCTACATGGTA
GAGAACCACGGGGAGGACTATAAGGCCATGGCCCGTGATGAGAAGAATTACTATCAAGATACCCCAAAACAGATT
CGGAGTAAGATCAACGTCTATAAACGCTTTTACCCAGCAGAGTGGCAAGACTTCCTCGATTCTTTGCAGAAGAGG
AAGATGGAGGTGGAG**TGA**CTGGTTTACATCACAGCTGCCCCAGGCTGAGGCGTCCCCCGGACCAGTGAAGCTGGA
GCCAGGGTGTAAGGCAAGGAGGTGCTGTGTGGCTCCAGAGGAGCTGGCCAGGTCCCATGGAATCAGAAGGTTACA
CACACACGTGCACACTCCCCGCTCTGGGGAAGGAACTGTTCTCAGAGGCTCCAATTTATATTCATCTGGGGGTTC
ACGGAAAAGCCAGAACCTGCTGTTTTCAGGGTGGGTGATGTAAATATAGTGTGTACATAATAAAGCAAATATATT
TT

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FIGURE 959

CTGAGAGATGCGGCTACACACCCCACAAGGCCCTCACCACCGAGGAGACCAAGTACCTTCGAGTGCCCGAAGCAC
TCCACAAACTAAAGTTACAGAGTGGAGAGGTAACAAAAGAAGAGAGGCAGCCTGCATCAGCCCAGTCCACCCCAA
GCACCACTCCGCACTCTTCACCTAAGCAGAGGCCCAGGGGCTGGTTCACTTCTGGTTCTTCCACAGCCTTACCTG
GCCCAAATCCTAGCACC**ATG**GACTCTGGAAGTGGGGATAAGGACAGAAACTTGTCAGATAAGTGGAGCCTCTTTG
GACCGAGATCCCTTCAGAAGTACGATTCTGGAAGTTTTGCCACCCAGGCCTACCGAGGAGCCCAGAAGCCCTCTC
CATTGGAACTGATACGTGCCCAGGCCAACCGAATGGCTGAAGATCCAGCAGCCTTGAAGCCCCCCAAGATGGACA
TCCCAGTGATGGAAGGAAAGAAACAGCCACCACGGGCCCATAACCTCAAACCCCGTGACCTGAATGTGCTCACAC
CCACTGGCTTC**TAG**AGCCCTCTTTCCAGGGATTCTGGTAAAGGTGGTTTCTTGCATCCCACTCCCCTTTTACCTT
GGCTTTGACATAGGAAAGGTATATTTAAAAACTTAATCAGCTGGGCGTGGTGGCTCACGCCTGTAATCCCAGCAC
TTTGGGAGGCCAAGGTAGGTGGATACCTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCGT
CTCTACTAAAAATACAAAAATTAGCTGGGCGTGGTGGTGGGCGCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGC
AGGAGAATCGCCTGAACCCAGGAAGCAGATGTTGTACCGAGCTGAGATCATGCCATTACACTCCAGCCTGGGCGA
CAGAACGAGACGCCATCAATAAATAAATAAATAAAGTAAAGTAAAAAACCTATTAAATTGAGGCTAGAGCTGGAG
ATGTAATTGGTTTTTGAGAAACATTAGTATAAAGCTTGCCCTTGTTGTGTGGAAGAAGCCATTTTGTACTGCTTT
AAAGTTAGACTAATATTCTCAGCACGGGTGTATGGGGACCTCATTACCTATTTTTTTCATCATTTACCCTAGGTA
AGAACTTTGATCACTGCTTACTAGGTAAAGAATGTTTGTACTGTTCCAAAACCCAGGCTTCTTTATTCCTTTACC
ACTATCCATGTGAGCATTGACAAATCATGGCTTAGAGGTGCTCACTGACTCGCTAAGACGACTTTGGCCCTGTTG
ATGACTGGTGCTGTGCTCCAGCCTTATCAGTTAGGGGACCCAAGGTTTGTTTGGGACCTGGGTACAGGTAAAAGC
CAGACTTGGCAGGGACCCCTCTTTCTAGGCTGAACCTTGAGTCCCCCTGCTTTTTGGCAGACCTAATGGATCACT
GTCTTGCAGCTAGTTCTTCATGTGGGGCCTCTTAGGCCAGTGCCGGAGGAGGCATGCTCCTCTTTCTATGCCACA
GAACAAACACTACTCTAGCAGAGCCTTTCTTGCACTTTAAAGTGAGATTAATTTAGCTGTAATTTGGTTAAAAAC
TTCCTAAGAGAGAAAATTAAGTCTACTGATTTGGTATAGGTAAATGGACATTAAACTTTTTTAAAGTAAAGGAGA
TGGTAGATACCGTTAGATTATAGTCTTGAGGTTCATGTGAAGCCAGTGGTGTTAACTTACTTTGATTTCCTTGTT
CAGGTCAGGGCCTGGAACGCCTGTGCGGGGAGGTCACTCAATTCAAAATTTTCTGTATGAAAGCATTTTTCACCA
AAATGAGCCTCATCCCTTTATGCAACACATAACCTTACTGAGGGAGGGAAATACAGAAGCCACCTTTTTATTTCT
CTTCACTGTGTACAAGTTCACTTGTTGTCTTGAACACTGTCTCAAATACCTGCTTTTTGTTTTGGATAGTACCTT
GTCTGTATAAGAAGCTGGCCTTTCCATAGAGAGGCCCTGGAGTCTAAAATTATGAGAACAATTAATTTATTTGTG
TCTTCTATTATGATCTCGTTTTGACAATAAAAATCCTTACTACTTTCTC

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FIGURE 960

CGCCGTCGGGGCGGAGCCGGGTCGCGAGGCTGCATCCCGGCCGGCGGTTCCGGAGCCTCGCGGCTGGGGAGGCGC
GGCCCGGGACGCTCGAGCTTAGGGAGATCTGCCTTCTGGAGACTGCGCCGTCCTCCCGGGAGAGCCAGAAAGAGG
ACATGGCTGCTGGGCAGCGGGAAGCGAGGCCCCAGGTGTCACTGACGTTTGAGGATGTGGCTGTGCTGTTTACCC
GAGATGAGTGGAGAAAGCTGGCCCCTTCTCAGAGAAACTTGTACCGGGATGTGATGCTGGAGAACTATAGGAACC
TGGTCTCACTGGGGCTCCCATTTACCAAACCAAAAGTGATCTCCCTGTTGCAGCAAGGAGAAGATCCCTGGGAGG
TGGAGAAAGACGGTTCTGGCGTCTCCTCTCTAGGATCGAAGAGCAGTCATAAAACCACAAAGTCAACGCAAACAC
AAGACTCTTCATTTCAGGGACTGATACTGAAAAGATCCAACAGGAATGTACCTTGGGATTTGAAATTAGAAAAGC
CTTACATATATGAAGGCAGATTAGAGAAAAAGCAGGATAAAAAGGGAAGTTTTCAGATAGTTTCAGCCACCCACA
AAAAAATCCCCACTATAGAAAGAAGCCATAAAAATACTGAATTGAGCCAAAACTTCAGCCCAAAGTCAGTGCTTA
TTAGGCAACAGATACTTCCCAGAGAAAAAACACCACCAAAATGTGAAATACAAGGAAACAGCCTCAAACAGAATT
CACAATTACTTAATCAACCAAAAATTACAGCAGATAAACGCTATAAATGTAGTCTGTGTGAAAAAACCTTCATTA
ACACTTCATCCCTTCGTAAACATGAGAAAAACCATAGTGGAGAGAAACTATTTAAGTGTAAAGAATGTTCAAAAG
CCTTTAGCCAAAGTTCAGCTCTTATTCAACATCAAATAACGCATACTGGAGAGAAACCCTACATATGTAAAGAAT
GTGGGAAAGCCTTTACTCTCAGTACATCCCTTTATAAACATCTAAGAACCCATACTGTGGAGAAATCCTACAGAT
GTAAAGAATGTGGTAAATCCTTCAGCCGAAGGTCAGGCCTTTTTATACATCAAAAAATTCATGCTGAAGAAAACC
CTTGTAAGTATAATCCGGGTAGGAAGGCATCTAGTTGCAGCACATCCCTTTCTGGATGTCAAAGAATTCATTCTA
GAAAGAAGTCCTACTTATGTAATGAATGTGGCAACACCTTTAAGTCTAGCTCATCCCTTCGTTATCATCAGAGAA
TTCACACTGGAGAGAAGCCTTTTAAATGTAGTGAATGTGGGAGAGCCTTCAGCCAGAGTGCCTCTCTTATTCAAC
ATGAAAGAATTCACACCGGAGAAAAGCCCTATAGATGCAATGAATGTGGGAAAGGCTTTACTTCTATTTCACGAC
TTAATAGACACCGAATCATTCATACTGGAGAGAAGTTTTATAATTGTAATGAATGTGGTAAAGCCTTAAGCTCCC
ACTCAACACTTATTATTCACGAGCGAATTCATACTGGAGAAAAACCATGTAAATGTAAAGTATGTGGAAAAGCCT
TCAGACAGAGTTCAGCTCTCATTCAACATCAGAGAATGCATACTGGAGAAAGACCCTATAAATGTAACGAGTGTG
GGAAAACATTCAGGTGTAACTCATCACTTAGTAATCACCAGAGAATTCATACTGGAGAGAAACCATATCGATGTG
AGGAATGTGGGATATCTTTTGGCCAAAGTTCAGCTCTTATTCAGCATCGAAGGATTCATACAGGAGAAAAACCCT
TTAAATGTAATACATGTGGAAAAACTTTTAGACAAAGCTCATCACGTATTGCACATCAGAGAATTCATACTGGAG
AGAAACCCTATGAATGTAATACATGTGGGAAACTTTTCAACCATAGGTCATCCCTTACTAATCATTATAAAATTC
ATATCGAAGAGGACCCCTAGAAAGTAGATTTGTATGTGTGAAAGCCTTAAACCAAAGCTCATCGAAGAATACATC
CTTGAGAGAGATGTAATAAATGTAATGGATGTGAAAAAAACTGTAATAATTTAGCCCTCATTAGGTATTTAATTC
CATGGATAAACCTCAGCTATATAATAGATATGAGGAAAGTGTTTGTGCCTGTCAGACACTTAAAAAAATAACCTG
AGATGAAGAATTTACAATTGAAGACATTGACTTTAGCCATTTGTGAAATGGGTTTGCTTTTTCCCTTTTCCTACA
GACGTATATGCTAGATGTCACGTGATCATCAGAAACAGATATCCGAGTGGGTGGGGAGGTGTGCTTTAGATTTCT
CATTAGAAGACCACCAAACTGGTAATATTTTTATAGCATTTTAATAGCTTGATCAAATTGTACCTTTTTAGAGAA
AAGGACCAAAATAAAAGAAAAATGAATTATGAACT

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FIGURE 961

GCCCCTCGCTCGGCTGCTGGAGGCGAGGGCTTCGGAAGTCTTCATGCTAGTCTCGTGGGGTTCCGCGGTGTCGTC
GCTGGCTGTGCGCGTCATTTCCGGGCGTCACGTAACGGAGTGGCCAACGGCCTGCAGAGCAACATGCCCAAGTTT
TATTGTGACTACTGCGATACATACCTCACCCATGACTCTCCATCTGTGAGAAAGACACACTGCAGTGGAAGGAAA
CACAAAGAGAATGTGAAAGACTATTATCAGAAATGGATGGAAGAGCAGGCTCAGAGCCTGATTGACAAAACAACG
GCTGCATTTCAACAAGGAAAGATACCTCCTACTCCATTCTCTGCTCCTCCTCCTGCAGGGGCGATGATACCACCT
CCCCCCAGCCTTCCGGGTCCTCCTCGCCCTGGTATGATGCCAGCACCCCATATGGGGGGCCCTCCCATGATGCCA
ATGATGGGCCCTCCTCCTCCTGGGATGATGCCAGTGGGACCTGCTCCTGGAATGAGGCCGCCCATGGGAGGCCAT
ATGCCAATGATGCCTGGGCCCCCAATGATGAGACCTCCTGCCCGTCCCATGATGGTGCCCACTCGGCCCGGAATG
ACTCGACCAGACAGATAAGGATAGAGGGGAGGCCTTATTGTATCGGTTTTATATTACCTGTTCTGCTTCACCAGG
AGATCATGCTGCTGTGATACTGAGTTTTCTAAACAGCATAAGGAAGACTTGCTCCCCTGTCCTATGAAAGAGAAT
AGTTTTGGAGGGGAGAAGTGGGACAAAAAAGATGCAGTTTTCCTTTGTATTGGGAAATGTGAAAATAAAATTGTC
AACTCTTTCAGTTAAAAGTGTGTTCCCTTTTTCCTCCTCTCTGTGTTCTC

FIGURE 962

GGCGGAGTGGCGAGAGGCGAGAGGCGGCGGAGGCGGCGGAGCTGGGGGGGGGTGGGAGGGGGGGGAGAGTGAGTGA
GTGGCAGAGTGAGTTTACCCCTATGAGACTGTGAGAGGCCCGGGGCCTACCTCAAAGGAGCGGGGTCGCGAAGCT
AGCTAGCAGCGGCCCCCCTCCAGGTCCCCGGGCCCGGCGGCGCGGCGGCGGCTTGGTTGTGAAGAGGCGGGGAAG
CGGGTGTCCGGTCCCCGCC**ATG**GAGGGCATGGACGTAGACCTGGACCCGGAGCTGATGCAGAAGTTCAGCTGCCT
GGGCACCACCGACAAGGACGTGCTCATCTCCGAGTTCCAGAGGCTGCTCGGCTTCCAGCTCAATCCTGCCGGTTG
CGCCTTCTTCCTGGACATGACCAACTGGAACCTACAAGCAGCAATTGGCGCCTATTATGACTTTGAGAGCCCAAA
CATCAGTGTGCCCTCTATGTCCTTTGTTGAAGATGTCACCATAGGAGAAGGGGAGTCAATACCTCCGGATACTCA
GTTTGTAAAAACATGGCGGATCCAGAATTCTGGGGCAGAGGCCTGGCCTCCAGGGGTTTGTCTTAAATATGTCGG
GGGAGACCAATTTGGACATGTGAACATGGTGATGGTGAGATCGCTAGAGCCCCAAGAGATTGCAGATGTCAGCGT
CCAGATGTGCAGCCCCAGCAGAGCAGGAATGTATCAGGGACAGTGGCGGATGTGCACTGCTACAGGACTCTACTA
TGGAGATGTCATCTGGGTGATTCTCAGTGTGGAGGTGGGTGGACTTTTAGGAGTAACGCAGCAGCTGTCATCTTT
TGAAACGGAGTTCAACACACAGCCGCATCGTAAGGTAGAAGGAAACTTCAACCCTTTTGCCTCTCCCCAAAAGAA
CCGACAATCAGATGAAAACAACTTAAAAGACCCTGGGGGCTCCGAGTTCGACTCGATCAGCAAAAACACATGGGC
TCCTGCTCCTGACACATGGGCTCCTGCTCCTGACCAAACTGAGCAAGACCAGAATAGACTGTCACAGAACTCTGT
AAATCTGTCTCCCAGCAGTCACGCAAACAACTTATCAGTAGTGACTTACAGTAAGGGGCTCCATGGGCCTTACCC
CTTCGGCCAGTCT**TAA**ACGGGTGTCAGCAAGAAGAAAAATTAACAAAAGACAGAAGGCCTGACTTTGGGGGGTTA
GGGCAAGGGGTTCCTCTGGATTGCAGACCACATCGCACAGACCCCTGGCTCTGACCCCCTCTCATCCCGGAAGAA
GAGGAAGAAGCAGAACAGACTAGTTTTGAGTAAACTCAGTATGCATGTGTGAATGCTGAATCACAGGAATGGTGT
TGAGGCTACCAAGAAGAAATCCATGCAGCCACTTTGGGTTTTGTTATAGGCATCAGTCTAACAAGTCATTAGGTC
ACTCGGGAAGGGGGAAAAAGTTTAAAATGGGGGAAAAAAAGCCATCTTTTTAAACAAAAATTATTTTGCCTACAG
AAAGGTTGTAGTTTTGAGCACATGTTAATTTTTTTCCCTCTTTCCCCACTTTTATTTTTTTAAATAAGGGATAAC
ATATTCTTTATAGAATAGTGCTTGTTCTGGAAGAGATTCAGGTGAAAAGTTGGCGTGGCATGTTTGAGGACTCTG
CGGATCAGTGCTACAGGAGTACATCTGCCCTGCCACATGACTCCAGAAGTCTCTGACCCCATTTGTTTTTAATGG
CATCAGCCAATGAGTTATCACCCTTTTCCTCCTCTTTTCTCTTTAATCTTCTGTTGATTTACACCTTTGACATTT
GTATTCGTCAACCCTGTGGCTTGTTAGCATCAGAACCTCTCTGAAGACCAAACTTCCCTGTGTGGCCAGCAGAGG
AAGCCTTGAGGATAGATCTCGGGTGACGTGGGATTTTCTAAGCCTGAGAGGTGTCCTTCTGCACACCCTTGTAAC
AATTAAAATTGCTTTTCTTCCATGTTTCTCTTGGCAGAGAGAAATGCCATCATGCTTACTGCTCTTTTGGATTCT
TCATGCAGTGGCTTCCCATTTGCTCTGGGAACAGTGCCTCTGTGCTGGTTATATGTATGCACCACATGTGCACAC
ACGGGTGTTGGTGCAACTCACCAGCAGGTGTGCAGTAGGCAAGCTTGAAGGTGGCCCATGCTTCTCTGTTGTCAC
ACAACACCTTTCCCTGTTTCTCTTCAGTTGTCCTCTGATATTTTCACAGCCTGTTAGTGGCGGCTGATCTGTAGA
GGTATGAAAATACAGCCCCAAAGGGGGAATTTGTCATGGGGAAGGGCCAGCCACTGACTACTTGATCTTGGAGAC
CACATTTAGATGGAAATGAGAGGACCTCCACAGCCCCGCCTCCCTGCCAGGATGCTAGATTATTGGCTGGGAGGT
GGGCAAGTGGCAGCCCAGCTGAAGCAAGAGGCTGATTGACTGGCTGCTCACTCAGGCAGGTGGCCTGCCCTGGCA
TCCTGTAGATTCTGAGCAGGTTGAGATGTGGATATCTCCATGGGAAGCTTGAACCAGGCTAGAACAGCTGTCTGC
CAAAGATACAAGAATATGCAAAGTCCCTCTTACCCCCCTCCTTCCCTCAAGTCTTAGTTGGTTTGAGAGCCAGGG
ATATGGATCCAGGGTGCTGTTGCAGGGTCACCTGCCTGTTACCACACCCCCATCCAGCTGGGTGGTGGGTGAGGG
TGTGAGACAGGCAGGGAGACCAGGTAATGAGTGGCTGCAAGGAGTCATATAGCCTGGGTGTGGGTGAGGGTCTGC
CTGCCTGTTTCTGTCTGGGTGTCTGAGTTCCAAAAAATGTGTGTTGTTTGTTCCTCCTC

FIGURE 963

GTCTGACTTCCTCCCAGCACATTCCTGCACTCTGCCGTGTCCACACTGCCCCACAGACCCAGTCCTCCAAGCCTG
CTGCCAGCTCCCTGCAAGCCCCTCAGGTTGGGCCTTGCCACGGTGCCAGCAGGCAGCCCTGGGCTGGGGGTAGGG
GACTCCCTACAGGCACGCAGCCCTGAGACCTCAGAGGGCCACCCCTTGAGGGTGGCCAGGCCCCCAGTGGCCAAC
CTGAGTGCTGCCTCTGCCACCAGCCCTGCTGGCCCCTGGTTCCGCTGGCCCCCCAGATGCCTGGCTGAGACACGC
CAGTGGCCTCAGCTGCCCACACCTCTTCCCGGCCCCTGAAGTTGGCACTGCAGCAGACAGCTCCCTGGGCACCAG
GCAGCTAACAGACACAGCCGCCAGCCCAAACAGCAGCGGC**ATG**GGCAGCGCCAGCCCGGGTCTGAGCAGCGTATC
CCCCAGCCACCTCCTGCTGCCCCCCGACACGGTGTCGCGGACAGGCTTGGAGAAGGCGGCAGCGGGGGCAGTGGG
TCTCGAGAGACGGGACTGGAGTCCCAGTCCACCCGCCACGCCCGAGCAGGGCCTGTCCGCCTTCTACCTCTCCTA
CTTTGACATGCTGTACCCTGAGGACAGCAGCTGGGCAGCCAAGGCCCCTGGGGCCAGCAGTCGGGAGGAGCCACC
TGAGGAGCCTGAGCAGTGCCCGGTCATTGACAGCCAAGCCCCAGCGGGCAGCCTGGACTTGGTGCCCGGCGGGCT
GACCTTGGAGGAGCACTCGCTGGAGCAGGTGCAGTCCATGGTGGTGGGCGAAGTGCTCAAGGACATCGAGACGGC
CTGCAAGCTGCTCAACATCACCGCAGATCCCATGGACTGGAGCCCCAGCAATGTGCAGAAGTGGCTCCTGTGGAC
AGAGCACCAATACCGGCTGCCCCCCATGGGCAAGGCCTTCCAGGAGCTGGCGGGCAAGGAGCTGTGCGCCATGTC
GGAGGAGCAGTTCCGCCAGCGCTCGCCCCTGGGTGGGGATGTGCTGCACGCCCACCTGGACATCTGGAAGTCAGC
GGCCTGGATGAAAGAGCGGACTTCACCTGGGGCGATTCACTACTGTGCCTCGACCAGTGAGGAGAGCTGGACCGA
CAGCGAGGTGGACTCATCATGCTCCGGGCAGCCCATCCACCTGTGGCAGTTCCTAAGGAGTTGCTACTCAAGCCC
CACAGCTACGGCCGCTTCATTAGGTGGCTCAACAAGGAGAAGGGCATCTTCAAAATTGAGGACTCAGCCCAGGTG
GCCCGGCTGTGGGGCATCCGCAAGAACCGTCCCGCCA**TGA**ACTACGACAAGCTGAGCCGCTCCATCCGCCAGTAT
TACAAGAAGGGCATCATCCGGAAGCCAGACATCTCCCAGCGCCTCGTCTACCAGTTCGTGCACCCCATCTGAGTG
CCTGGCCCAGGGCCTGAAACCCGCCCTCAGGGGCCTCTCTCCTGCCTGCCCTGCCTCAGCCAGGCCCTGAGATGG
GGGAAAACGGGCAGTCTGCTCTGCTGCTCTGACCTTCCAGAGCCCAAGGTCAGGGAGGGGCAACCAACTGCCCCA
GGGGGATATGGGTCCTCTGGGGCCTTCGGGACCCTGGGGCAGGGGTGCTTCCTCCTCAGGCCCAGCTGCTCCCCT
GGAGGACAGAGGGAGACAGGGCTGCTCCCCAACACCTGCCTCTGACCCCAGCATTTCCAGAGCAGAGCCTACAGA
AGGGCAGTGACTCGACAAAGGCCACAGGCAGTCCAGGCCTCTCTCTGCTCCATCCCCCTGCCTCCCATTCTGCAC
CACACCTGGCATGGTGCAGGGAGACATCTGCACCCCTGAGTTGGGCAGCCAGGAGTGCCCCCGGGAATGGATAAT
AAAGATACTAGAGAACTG

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FIGURE 964

ATTTTTAGTTTATAAATTACAGTCATTGGGGAAACACTAGTAAGGTCATGTGATCTTTTGGACCAGGATTTTCTC
TCTGTCTTCTCTCTGGGTGTGTGTGTGTGTATGTACAGAAGGGCTACCAGGAAGTGTCAACCATGTTAGATTTTC
TGTAGTCTTCCAGAAACAGTGCAGCCCATACAACAGGAATCTTAATTTTCCTCACAGCAAATATAACAGGATGGA
ACAGTTAGTGTTTTGTTTTCACAAGTGTCCACCACTCCATCTGCCCTGCATGGAGAGGGCTCTCTCACTGCTAGA
TCTAGGCTGAGCCATCTGGAAGGATCAAAGGGTGTGGGAGTATCACCCCCTCTCAGGCTGCAGAAGGTCTCGAGG
GTGGCGTCACAGCAGGATTTCCGCCTTCTGCATTGCACTGCACAGCCCCATGGAACATGAGGCACTTGAGGCCTT
GCTTCTTGGAGCCTCTGGGGAGCAGAGTAGGTCACTGCCCTCTGGGAGTGTTTTGCAGTAGTTTTGTAAATGTGT
TGCTACATAGTCAAGTTCCTTTGTGGCAAAGAAATATTTTGTTTTGATATTAGGAGCCAGCCCATGTAATGCCTC
TCAGGCTTGCTTGCTTAGAAGAAAAAAGTCACCCTTTGTGGTTTTTAAGAAAAAAATTCTGTGCAGATCTGTTCC
TCCTCCTGCTCCTTCCCTTTTCTCTACATACAGTGCTCATTGGAGGCTCCTGCTAAACCTTCTTAACCAGAGAAA
TAATAGGTATTTGTTAGACCTGAGTGTACATTTCACATGTTATCCTTCACATATTTCTCATTTTCATCTAGTACT
TTCTTAATGCCTTTGTTGGAGTCCGCATCCTCATCTTTAAAAAAAAAAAAAAAAAAAACAGCTTAGCCTAAGCCAC
ATTCACTTTTTTTAGTTCACAAAAAGGATTTAATAGCCACAATGTGATTTTTGCCACAACTGTGTGATTTTAATA
TTCTCTAATATCAAGGGCGGATTTAGAATTGCAGGAAATACCTGGAGAAATCACAGTGGAATGAATTTTTGCTTT
AAGAGAAATGAGAGTTGGCTGTCTCTGTAATTGATAATACAGCTTCATCCTAGTCCCATCTGCATTTCAGAAAAT
AACCCTCATCTTTACAAAACACAGGACACTTGTGGGACAGTTAACTCAAGCAGCTATGGGGAGGGAGGAGATTAT
TGAATGGTGATTAAATAATGCAAATGGCTCTTCTGTTTCTTAAAGACTGTGGAAGAGGTCAGACTGCCCAGTTGA
GGTGGGCAGTTCATACTGCTCAGTTGAGGTGGCAGTCATTTATTCTGAGTCCTGTTGGATAGAGCCTATCTCCTC
AAGGCTACAGAGGCTTCCAGGAT**ATG**GAGCTGTGCATGTTAATGGCTCAGCCTTGCCTCCATCAGGGCACCTGCC
TAACTTGGAGCAAGTGGGAGAGCACCCTAGAGTCATCCTCTGTGCTGTTTCGTGAGTTTTGCAGCGGAGACTTCA
CCATCCGGAGGAGCTGTGTTTCTGTGTCACTTGGGATATCACCTAAAAATGAAACATTTGATATTTTAAGGTATA
AAAAAAAAGTAAATTGGGGAACATTGGCTGCAGTCCCTAAAAGATACTGTTGTCTGTGCATCAGGTTAGCT**TGA**G
GTCACCACAGGTCCTGGGAGCCCAGAGAGTTTAGGCATACTCTCCTTTGGAGGCCAGCAGCCTTTCACAAACCCT
GCCTCTAAAAGGGCGGTTTCACATTTGACCATGTTTTTGCATTAGCCTCAGAAACTCTTGTCTTTAGCTGATAAC
CTTTGAGGGATGTGAGAAGCCTAGTTGGAGCATCTGAGAAAATGATACCTCTCACCTTCAAATTAATCAAATAGT
TTGTCCTTCTAGTCCCCTTATAAATTAATAAATGGAGGGCTGGTCATGGTGGCTCACGCCTGTAATCCCAGCACT
TTGGGAGGCCGAGGCGGGTGGATCACAAGGTCAGGAGTTCAAGACCAGCCTGACCAATATGGTGAAACCCCATCT
CTACTAAAAATACAAAAATTAGCCAGGTGTAGTGGCACGCTCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAG
GAGAATCGCTTGAACCCAGGAGGTGGATGTTGCAGTGAGCCGAGATCCCGCCACTGCACTGCAGCCTAGGCGACA
GAGCAAGACTCCGTCTC

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FIGURE 965

CTTTGATCACGCGCCTGACGGCTTTTCCGGGGCCCGGGAGCCAACCGAGGGCGTTCCTGTCGGGGCTGCAGCGGC
GGGAGGGAGCCCAGTGGAGGCGCCCTCCCGAAGCGCCACTGCCCATGCTGACCACCCAGCCCTCCGGCTGCTGAT
GTCATGAGTAACACCACTGTGCCCAATGCCCCCCAGGCCAACAGCGACTCCATGGTGGGCTATGTGTTGGGGCCC
TTCTTCCTCATCACCCTGGTCGGGGTGGTGGTGGCTGTGGTAATGTATGTACAGAAGAAAAAGCGGGTGGACCGG
CTGCGCCATCACCTGCTCCCCATGTACAGCTATGACCCAGCTGAGGAACTGCATGAGGCTGAGCAGGAGCTGCTC
TCTGACATGGGAGACCCCAAGGTGGTACATGGCTGGCAGAGTGGCTACCAGCACAAGCGGATGCCACTGCTGGAT
GTCAAGACGTGACCTGACCCCCTTGCCCCACCCTTCAGAGCCTGGGGTCCTGGACTGCCTGGGGCCCTGCCATCT
GCTTCCCCTGCTGTCACCTGGCTCCCCCTGCTGGGTGCTGGGTCTCCATTTCTCCCTCCACCCACCCTCAGCAGC
ATCTGCTTCCCATGCCCTCACCATCACCTCACTGCCCCCAGGCCTTCTGCCCTTTGTGGGTGTTGAGCTCACCGC
CCACCCACAGGCACTCATGGGAAGAGGCTTTCCTTCTGGGATGGGGGCGGCTGGTAGACACCTTTGCTTTCTCTAG
GCCCTCCTGGGCTGGGCTTGGGCACAAATCCCCAGGCAGGCTTTGGAGTTGTTTCCATGGTGATGGGGCCAGATG
TATAGTATTCAGTATATATTTTGTAAATAAAATGTTTTGTGGCT

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FIGURE 966

CGGCGGCCGAGCTCGCGCATCCCAGCCATCACTCTTCCACCTGCTCCTTAGAGAAGGGAAG**ATG**AGTGAGTCGAG
CTCGAAGTCCAGCCAGCCCTTGGCCTCCAAGCAGGAAAAGGACGGCACTGAGAAGCGGGGCCGGGGCAGGCCGCG
CAAGCAGCCTCCGGTGAGTCCCGGGACAGCGCTGGTAGGGAGTCAGAAGGAGCCCAGCGAAGTGCCAACACCTAA
GAGACCTCGGGGCCGACCAAAGGGAAGCAAAAACAAGGGAGAAGGAGGAAGAGGAGGGCATCTCGCAGGAGTCCT
CGGAGGAGGAGCAGTGACCCATGCGTGCCGCCTGCTCCTCACTGGAGGAGCAGCTTCCTTCTGGGACTGGACAGC
TTTGCTCCGCTCCCACCGCCCCCACCCCTTCCCCAGGCCCACCATCACCACCGCCTCTGGCCGCCACCCCCATCT
TCCACCTGTGCCCTCACCACCACACTACACAGCACACCAGCCGCTGCAGGGCTCCCATGGGCTGAGTGGGGAGCA
GTTTTCCCCTGGCCTCAGTTCCCAGCTCCCCCCGCCCACCCACGCATACACACATGCCCTCCTGGACAAGGCTAA
CATCCCACTTAGCCGCACCCTGCACCTGCTGCGTCCCCACTCCCTTGGTGGTGGGGACATTGCTCTCTGGGCTTT
TGGTTTGGGGGCGCCCTCTCTGCTCCTTCACTGTTCCCTCTGGCTTCCCATAGTGGGGCCTGGGAGGGTTCCCCT
GGCCTTAAAAGGGGCCCAAGCCCCATCTCATCCTGGCACGCCCTACTCCACTGCCCTGGCAGCAGCAGGTGTGGC
CAATGGAGGGGGGTGCTGGCCCCCAGGATTCCCCCAGCCAAACTGTCTTTGTCACCACGTGGGGCTCACTTTTCA
TCCTTCCCCAACTTCCCTAGTCCCCGTACTAGGTTGGACAGCCCCCTTCGGTTACAGGAAGGCAGGAGGGGTGAG
TCCCCTACTCCCTCTTCACTGTGGCCACAGCCCCCTTGCCCTCCGCCTGGGATCTGAGTACATATTGTGG**TGA**TG
GAGATGCAGTCACTTATTGTCCAGGTGAGGCCCAAGAGCCCTGTGGCCGCCACCTGAGGTGGGCTGGGGCTGCTC
CCCTAACCCTACTTTGCTTCCGCCACTCAGCCATTTCCCCCTCCTCAGATGGGGCACCAATAACAAGGAGCTCAC
CCTGCCCGCTCCCAACCCCCCTCCTGCTCCTCCCTGCCCCCCAAGGTTCTGGTTCCATTTTTCCTCTGTTCACAA
ACTACCTCTGGACAGTTGTGTTGTTTTTTGTTCAATGTTCCATTCTTCGACATCCGTCATTGCTGCTGCTACCAG
CGCCAAATGTTCATCCTCATTGCCTCCTGTTCTGCCCACGATCCCCTCCCCCAAGATACTCTTTGTGGGGAAGAG
GGGCTGGGGCATGGCAGGCTGGGTGACCGACTACCCCAGTCCCAGGGAAGGTGGGGCCCTGCCCCTAGGATGCTG
CAGCAGAGTGAGCAAGGGGGCCCAAATCGACCATAAAGGGTGTAGGGGCCACCTCCTCCCCCTGTTCTGTTGGGG
AGGGGTAGCCATGATTTGTCCCAGCCTGGGGCTCCCTCTCTGGTTTCCTATTTGCAGTTACTTGAATAAAAAAAA
TATCCTTTTCTGG

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FIGURE 967

ATGGGTGATGTTGAGAAAGGCAAGAAGATTTTTATTATGAAGCGTTCCCAGTGCCACATTGTTGAAAAGGGAGGC
AAGCATAAGACTGGGCCAAATCTCCATGGTCTCTTCGGGCGGAAGACAGGTCAGGCCCCTGGACACTCTTACATA
GCCACCATTAAGAACAAAGACATCATCTGGGGAGAGGATACACTGATGGAGTATTTGGAGAATCCCAAGAAGTAC
ATCCCTGGAACAAAAATGATCTTTGTCGGCATTAAGAAGGAGGAAGAAAGGGCAGACTTGATAGCTTATCTCAAA
AAAGCTACTAATGAG**TAA**

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FIGURE 968

AACAGCTGCTGCTGGCTCTTCCTCTTGCGGCCTTTTCCTGAAACGGATTCTTCTTTCGGGGAACAGAAAGCGCCA
GCCATGCAGCCTTGGCACGGAAAGGCCATGCAGAGAGCTTCCGAGGCCGGAGCCACTGCCCCCAAGGCTTCCGCA
CGGAATGCCAGGGGCGCCCCGATGGATCCCACCGAGTCTCCGGCTGCCCCCGAGGCCGCCCTGCCTAAGGCGGGA
AAGTTCGGCCCCGCCAGGAAGTCGGGATCCCGGCAGAAAAAGAGCGCCCCGGACACCCAGGAGAGGCCGCCCGTC
CGCGCAACTGGGGCCCGCGCCAAAAAGGCCCCTCAGCGCGCCCAGGACACGCAGCCGTCTGACGCCACCAGCGCC
CCTGGGGCAGAGGGGCTGGAGCCTCCTGCGGCTCGGGAGCCGGCTCTTTCCAGGGCTGGTTCTTGCCGCCAGAGG
GGCGCGCGCTGCTCCACGAAGCCAAGACCTCCGCCCGGGCCCTGGGACGTGCCCAGCCCCGGCCTGCCGGTCTCG
GCCCCCATTCTCGTACGGAGGGATGCGGCGCCTGGGGCCTCGAAGCTCCGGGCGGTTTTGGAGAAGTTGAAGCTC
AGCCGCGATGATATCTCCACGGCGGCGGGGATGGTGAAAGGGGTTGTGGACCACCTGCTGCTCAGACTGAAGTGC
GACTCCGCGTTCAGAGGCGTCGGGCTGCTGAACACCGGGAGCTACTATGAGCACGTGAAGATTTCTGCACCTAAT
GAATTTGATGTCATGTTTAAACTGGAAGTCCCCAGAATTCAACTAGAAGAATATTCCAACACTCGTGCATATTAC
TTTGTGAAATTTAAAAGAAATCCGAAAGAAAATCCTCTGAGTCAGTTTTTAGAAGGTGAAATATTATCAGCTTCT
AAGATGCTGTCAAAGTTTAGGAAAATCATTAAGGAAGAAATTAACGACATTAAAGATACAGATGTCATCATGAAG
AGGAAAAGAGGAGGGAGCCCTGCTGTAACACTTCTTATTAGTGAAAAAATATCTGTGGATATAACCCTGGCTTTG
GAATCAAAAAGTAGCTGGCCTGCTAGCACCCAAGAAGGCCTGCGCATTCAAAACTGGCTTTCAGCAAAAGTTAGG
AAGCAACTACGACTAAAGCCATTTTACCTTGTACCCAAGCATGCAAAGGAAGGAAATGGTTTCCAAGAAGAAACA
TGGCGGCTATCCTTCTCTCACATCGAAAAGGAAATTTTGAACAATCATGGAAAATCTAAAACGTGCTGTGAAAAC
AAAGAAGAGAAATGTTGCAGGAAAGATTGTTTAAAACTAATGAAATACCTTTTAGAACAGCTGAAAGAAAGGTTT
AAAGACAAAAAACATCTGGATAAATTCTCTTCTTATCATGTGAAAACTGCCTTCTTTCACAGACTCTACTGATAT
ATTTCCAAGTATTAGGTCACTTGATAAGTGATCCGCACTGAAGCAAAAGATAAACTCAGCATTCTTAGGTGCTTA
TTCTAATGCCACCAGTTTTACTTCTGTTAGCAAAAATCTAAAGTAACATAACAGACTTATCACCCCCATTTGGAA
TTAGTATACAAATAGAAATGATCCTAATCAATTTAATTAATTATAATGGACACACAAGAAAAAATACCTACACAG
CTTTTCGAGAAACGAAGACAATGACTTTGTCTGTGGATGACATACTCTGTAGAAAAGTTTGCATGTGACTCCATT
TCTCTTCCTCGGTGGTTACAATTATATTTTGCTTCACTGAACTTACAGCCTAAAGGATTCAAAGAACATAGTTCA
TCAAGGTCATCATGATTGAGGGTGAGACCGCATACATCAGCTCAAAATGCATCTTCTCTCTCATTGGTTAATGTT
TTTAATAAACTGCTAAGCAAAATGGCAGACGTCCTAAAAAAA

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FIGURE 969

GGCCGCGCCCTGCAGATTGTCTCTTGTTGCGTAAGTTTTTTTGACCGTCACTCGTGTCAGCTTCAAAGTCAGATA
GATTTTTCTCCCAGC**ATG**TTCTACTTCCGAGGCTGTGGCCGTTGGGTCGCGGTTTCCTTCACCAAGCAGCAATTT
CCGTTGGCACGGTTGAGCAGTGACAGCGCGGCGCCCCGGACTCCGCACTTCGACGTGATAGTCATTGGTGGAGGA
CATGCCGGGACTGAGGCAGCCACCGCCGCCGCTCGGTGCGGCTCTCGGACTCTGCTCCTCACTCACCGCGTGGAC
ACGATCGGTCAGATGTCATGTAATCCTTCCTTTGGTGGCATCGGAAAGGGACATTTAATGAGGGAAGTAGATGCC
TTGGATGGCCTGTGTTCTCGCATCTGTGACCAGTCTGGTGTACATTATAAAGTATTAAACCGGCGTAAGGGACCA
GCTGTGTGGGGTCTGAGAGCTCAGATTGATAGGAAACTCTATAAACAGAACATGCAGAAAGAAATCTTGAATACA
CCACTGCTTACTGTTCAGGAGGGAGCTGTAGAAGATCTTATTCTTACAGAACCAGAGCCTGAACACACTGGGAAA
TGCCGTGTCAGTGGGGTTGTTTTGGTGGATGGAAGCACAGTATATGCAGAGAGTGTGATTCTGACTACTGGGACA
TTTCTGAGAGGCATGATTGTAATTGGATTGGAGACGCATCCAGCAGGACGTTTAGGGGATCAGCCTTCTATAGGA
TTGGCTCAGACACTGGAGAAGTTAGGGTTTGTGGTGGGAAGGTTGAAGACTGGGACTCCACCCCGAATTGCCAAA
GAGTCCATTAATTTCAGTATTCTAAACAAGCATATACCGGACAATCCATCCATACCATTCAGCTTTACCAATGAG
ACAGTATGGATTAAGCCAGAAGATCAGCTGCCATGTTACTTGACTCACACCAACCCTAGAGTGGATGAGATTGTC
CTTAAGAACCTTCACCTTAATAGTCATGTTAAAGAAACGACAAGAGGACCTCGATACTGTCCCTCCATTGAATCA
AAAGTTTTGCGTTTTCCAAACCGTCTACATCAGGTTTGGTTGGAACCTGAAGGAATGGATTCTGACCTTATCTAC
CCACAGGGGTTATCTATGACGCTACCAGCTGAGTTACAAGAGAAAATGATCACATGCATCAGAGGCTTGGAGAAA
GCTAAAGTGATTCAGCCAGACGGAGTTTTGCTCTTGTTGCCCAGGATGGAGTGCAATGGTGCGATCTCGGCTCAC
CACAACCTCCCCCTGCCAGGCTACGGTGTTCAGTATGATTACTTAGATCCCCGTCAGATCACCCCTTCCTTGGAG
ACTCATTTGGTTCAACGACTCTTCTTTGCTGGACAGATCAATGGCACCACTGGTTATGAGGAAGCTGCAGCTCAA
GGTGTGATAGCCGGAATCAACGCCAGTCTTCGGGTCAGTCGCAAGCCTCCCTTTGTGGTTAGCCGAACAGAAGGT
TACATAGGAGTCTTGATTGATGACCTCACTACTCTGGGCACCAGTGAACCATACCGCATGTTTACCAGCCGAGTA
GAGTTCCGTTTGTCACTGCGCCCTGATAATGCTGACAGCCGGCTCACACTGCGAGGGTATAAAGACGCTGGCTGT
GTGTCCCAACAACGATATGAAAGAGCTTGTTGGATGAAGTCTTCTTTAGAAGAAGGCATTTCTGTGTTGAAATCT
ATTGAGTTTTTGAGCTCTAAATGGAAAAAATTAATCCCAGAGGCTTCTATAAGTACTAGTAGAAGTCTGCCTGTC
AGAGCTCTCGATGTTCTGAAGTATGAGGAAGTTGACATGGATTCATTAGCCAAGGCTGTTCCAGAGCCCTTGAAG
AAGTATACTAAATGTAGAGAGCTGGCTGAAAGACTGAAAATAGAAGCCACTTATGAATCAGTGTTGTTCCATCAA
CTACAAGAAATAAAGGGAGTTCAGCAAGATGAAGCTCTCCAACTGCCAAAAGACCTAGATTATTTGACTATCAGG
GATGTGTCTTTGTCCCATGAAGTTCGAGAGAAACTACATTTTAGTCGTCCACAGACGATCGGGGCTGCTAGTCGC
ATACCCGGAGTAACACCTGCCGCCATCATCAATCTGCTGAGATTTGTGAAGACCACTCAACGAAGACAGTCGGCT
ATGAATGAATCATCCAAGACTGATCAATACTTATGTGATGCAGACAGACTTCAAGAGAGAGAGTTA**TAG**CTTTCA
ATTCATAAAAGATTTTTAAAGAGCATATAAATAATTTGATCAATACAACAGTATAGATAAAAGAATTATTTAGCA
CATGTTAAAATAGCTTTATTAGGTTACTATGGGTTTGCCATTAATTTCTGAGTGGGACAGAAATTATAATTGTGC
TTTTTCGTGTATATGAAAAAACTAGTCGTAAACAATTTGTACTCTTTCTTTAAGGAGCTGTAATACAAATAACTT
TGTGCAGTGTTCATCAAAGAGAGAGACAGTGAACCTAAAACTGAACCTGGAATAAAACTCAACATGCAGATTTGC
CTACTCATAGGGACTTTGCCTATTAAGTCTACCAAATTAAAAGTCTTATCATTCAGCGTGTTTTGAGAGTTAATA
ATCTTTTGCTTGGTTATACTAGGCTAGGAAGCAATATCAAAGCCCTTAAATTCTCAAGACTAAAGACTTGAGATT
ATATAAAATTATCCAGAATCATTCAGCTAATACTATTGGAATATAGTATGTAGGGTGAAAGTTGACAGAAATCTG
TACTTCTTCAGGAAATCCTCACTGGTAATTGTTTTGAACATTAATGAAAGCCCTATAAAATAGAAAGATTGGAAA
TCACCATTGTTTCCTATTATCCACAGTGTGGATGGATACTTATTTGGTGACCTAGTTATGGGAGAATTGAGTAAC
GTTAGTTATTTTATATCATACCATAAAAATATTTTC

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FIGURE 970

CTCATTTAACTTTTTTAATGGGTCTCAAAATTCTGTGACAAATTTTTGGTCAAGTTGTTTCCATTAAAAAGTACT
GATTTTAAAAACTAATAACTTAAAACTGCCACACGCAAAAAAGAAAACCAAAGTGGTCCACAAAACATTCTCCTT
TCCTTCTGAAGGTTTTACGATGCATTGTTATCATTAACCAGTCTTTTACTACTAAACTTAAATGGCCAATTGAAA
CAAACAGTTCTGAGACCGTTCTTCCACCACTGATTAAGAGTGGGGTGGCAGGTATTAGGGATAATATTCATTTAG
CCTTCTGAGCTTTCTGGGCAGACTTGGTGACCTTGCCAGCTCCAGCAGCCTTCTTGTCCACTGCTTTGATGACAC
CCACCGCAACTGTCTGTCTCATATCACGAACAGCAAAGCGACCCAAAGGTGGATAGTCTGAGAAGCTCTCAACAC
ACATGGGCTTGCCAGGAACCATATCAACAATGGCAGCATCACCAGACTTCAAGAATTTAGGGCCATCTTCCAGCT
TTTTACCAGAACGGCGATCAATCTTTTCCTTCAGCTCAGCAAACTTGCATGCAATGTGAGCCGTGTGGCAATCCA
ATACAGGGGCATAGCCGGCGCTTATTTGGCCTGGATGGTTCAGGATAATCACCTGAGCAGTGAAGCCAGCTGCTT
CCATTGGTGGGTCATTTTTGCTGTCACCAGCAACGTTGCCACGACGAACATCCTTGACAGACACATTCTTGACAT
TGAAGCCCACATTGTCCCCAGGAAGAGCTTCACTCAAAGCTTCATGGTGCATTTCGACAGATTTTACTTCCGTTG
TAACGTTGACTGGAGCAAAGGTGACCACCATACCGGGTTTGAGAACACCAGTCTCCACTCGGCCAACAGGAACAG
TACCAATACCACCAATTTTGTAGACATCCTGGAGAGGCAGGCGCAAGGGCTTGTCAGTTGGACGAGTTGGTGGTA
GGATGCAGTCCAGAGCCTCAAGCAGCGTGGTTCCACTGGCATTGCCATCCTTACGGGTGACTTTCCATCCCTTGA
ACCAAGGCATGTTAGCACTTGGCTCCAGCATGTTGTCACCATTCCAACCAGAAATTGGCACAAATGCTACTGTGT
CGGGGTTGTAGCCAATTTTCTTAATGTAAGTGCTGACTTCCTTAACAATTTCCTCATATCTCTTCTGGCTGTAGG
GTGGCTCAGTGGAATCCATTTTGTTAACACCGACAATTAGTTGTTTCACACCCAGTGTGTAAGCCAGAAGGGC**AT**
GCTCTCGGGTCTGCCCATTCTTGGAGATACCAGCTTCAAATTCACCAACACCAGCAGCAACAATCAGGACAGCAC
AGTCAACCTGAGATGTCCCTGTAATCATGTTTTTGATAAAGTCTCTGTGTCCTGGGGCATCAATGATAGTCACAT
AGTACTTGCTGGTCTCAAATTTCCACAAGGAGATATCAATGGTGATACCACGTTCACGCTCAGCTTTCAGTTTAT
CCAAGACCCAGGCATACTTGAAGGAGCCCTTTCCCATCTCAGCAGCCTCCTTCTCAAATTTTTCAATGGTTCTTT
TGTCGATGCCACCGCATTTATAGATCAGATGGCCAGTAGTGGTGGACTTGCCCGAATCTACGTGTCCAATGACGA
CAATGTTGATATGAGTCTTTTCCTTTCCCATTTTGGCTTT**TAG**GGGTAGTTTTCACGACACCTGTGTTCTGGCGG
CAAACCCG

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FIGURE 971

ACGGGTTTGCCGCCAGAACACAGGTGTCGTGAAAACTACCCCTAAAAGCCAAA**ATG**GGAAAGGAAAAGACTCATA
TCAACATTGTCGTCATTGGACACGTAGATTCGGGCAAGTCCACCACTACTGGCCATCTGATCTATAAATGCGGTG
GCATCGACAAAAGAACCATTGAAAAATTTGAGAAGGAGGCTGCTGAGATGGGAAAGGGCTCCTTCAAGTATGCCT
GGGTCTTGGATAAACTGAAAGCTGAGCGTGAACGTGGTATCACCATTGATATCTCCTTGTGGAAATTTGAGACCA
GCAAGTACTATGTGACTATCATTGATGCCCCAGGACACAGAGACTTTATCAAAAACATGATTACAGGGACATCTC
AGGCTGACTGTGCTGTCCTGATTGTTGCTGCTGGTGTTGGTGAATTTGAAGCTGGTATCTCCAAGAATGGGCAGA
CCCGAGAGCATGCCCTTCTGGCTTACACACTGGGTGTGAAACAACTAATTGTCGGTGTTAACAAAATGGATTCCA
CTGAGCCACCCTACAGCCAGAAGAGATATGAGGAAATTGTTAAGGAAGTCAGCACTTACATTAAGAAAATTGGCT
ACAACCCCGACACAGTAGCATTTGTGCCAATTTCTGGTTGGAATGGTGACAACATGCTGGAGCCAAGTGCTAACA
TGCCTTGGTTCAAGGGATGGAAAGTCACCCGTAAGGATGGCAATGCCAGTGGAACCACGCTGCTTGAGGCTCTGG
ACTGCATCCTACCACCAACTCGTCCAACTGACAAGCCCTTGCGCCTGCCTCTCCAGGATGTCTACAAAATTGGTG
GTATTGGTACTGTTCCTGTTGGCCGAGTGGAGACTGGTGTTCTCAAACCCGGTATGGTGGTCACCTTTGCTCCAG
TCAACGTTACAACGGAAGTAAAATCTGTCGAAATGCACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATG
TGGGCTTCAATGTCAAGAATGTGTCTGTCAAGGATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAATGACC
CACCAATGGAAGCAGCTGGCTTCACTGCTCAGGTGATTATCCTGAACCATCCAGGCCAAATAAGCGCCGGCTATG
CCCCTGTATTGGATTGCCACACGGCTCACATTGCATGCAAGTTTGCTGAGCTGAAGGAAAAGATTGATCGCCGTT
CTGGTAAAAAGCTGGAAGATGGCCCTAAATTCTTGAAGTCTGGTGATGCTGCCATTGTTGATATGGTTCCTGGCA
AGCCCATGTGTGTTGAGAGCTTCTCAGACTATCCACCTTTGGGTCGCTTTGCTGTTCGTGATATGAGACAGACAG
TTGCGGTGGGTGTCATCAAAGCAGTGGACAAGAAGGCTGCTGGAGCTGGCAAGGTCACCAAGTCTGCCCAGAAAG
CTCAGAAGGCTAAA**TGA**ATATTATCCCTAATACCTGCCACCCCACTCTTAATCAGTGGTGGAAGAACGGTCTCAG
AACTGT

FIGURE 972

GGCTCACTTTGCGCCAATCCTACGAGAACTCCCAGAACTCCGCTTCCCTAGTCCAACCCAAGCCAGAGTTGCCCA
CACCTAAGATGGCGGCGGGGGCGGAGTCGGCGCGGCCGCCTCTGGGCGGGACCGCGGGGACTAGACGTGGCCGCG
GGGCGGTGTCATCGCCCCCGCCCCGCCCGGTCCAGCCAGCTCGGCCCGGGGGCTTCGGGCTGTCGGGCCGGCGCT
CCCTTCTCTGCCAGGTGGCGAGTACACCTGCTCACGTAGGCGTC**ATG**AGGTCTCCGGTTCGAGACCTGGCCCGGA
ACGATGGCGAGGAGAGCACGGACCGCACGCCTCTTCTACCGGGCGCCCCACGGGCCGAAGCCGCTCCAGTGTGCT
GCTCTGCTCGTTACAACTTAGCAATTTTGGCCTTTTTTGGTTTCTTCATTGTGTATGCATTACGTGTGAATCTGA
GTGTTGCGTTAGTGGATATGGTAGATTCAAATACAACTTTAGAAGATAATAGAACTTCCAAGGCGTGTCCAGAGC
ATTCTGCTCCCATAAAAGTTCATCATAATCAAACGGGTAAGAAGTACCAATGGGATGCAGAAACTCAAGGATGGA
TTCTCGGTTCCTTTTTTTATGGCTACATCATCACACAGATTCCTGGAGGATATGTTGCCAGCAAAATAGGGGGGA
AAATGCTGCTAGGATTTGGGATCCTTGGCACTGCTGTCCTCACCCTGTTCACTCCCATTGCTGCAGATTTAGGAG
TTGGACCACTCATTGTACTCAGAGCACTAGAAGGACTAGGAGAGGGTGTTACATTTCCAGCCATGCATGCCATGT
GGTCTTCTTGGGCTCCCCCTCTTGAAAGAAGCAAACTTCTTAGCATTTCATATGCAGGAGCACAGCTTGGGACAG
TAATTTCTCTTCCTCTTTCTGGAATAATTTGCTACTATATGAATTGGACTTATGTCTTCTACTTTTTTGGTACTA
TTGGAATATTTTGGTTTCTTTTGTGGATCTGGTTAGTTAGTGACACACCACAAAAACACAAGAGAATTTCCCATT
ATGAAAAGGAATACATTCTTTCATCATTAAGAAATCAGCTTTCTTCACAGAAGTCAGTGCCGTGGGTACCCATTT
TAAAATCCCTGCCACTTTGGGCTATCGTAGTTGCACACTTTTCTTACAACTGGACTTTTTATACTTTATTGACAT
TATTGCCTACTTATATGAAGGAGATCCTAAGGTTCAATGTTCAAGAGAATGGGTTTTTATCTTCATTGCCTTATT
TAGGCTCTTGGTTATGTATGATCCTGTCTGGTCAAGCTGCTGACAATTTAAGGGCAAAATGGAATTTTTCAACTT
TATGTGTTCGCAGAATTTTTAGCCTTATAGGAATGATTGGACCTGCAGTATTCCTGGTAGCTGCTGGCTTCATTG
GCTGTGATTATTCTTTGGCCGTTGCTTTCCTAACTATATCAACAACACTGGGAGGCTTTTGCTCTTCTGGATTTA
GCATCAACCATCTGGATATTGCTCCTTCGTATGCTGGTATCCTCCTGGGCATCACAAATACATTTGCCACTATTC
CAGGAATGGTTGGGCCCGTCATTGCTAAAAGTCTGACCCCTGATAACACTGTTGGAGAATGGCAAACCGTGTTCT
ATATTGCTGCTGCTATTAATGTTTTTGGTGCCATTTTCTTTACACTATTCGCCAAAGGTGAAGTACAAAACTGGG
CTCTCAATGATCACCATGGACACAGACAC**TGA**AGGAACCAATAAATAATCCTGCCTCTATTAATGTATTTTTATT
TATCATGTAACCTCAAAGTGCCTTCTGTATTGTGTAAGCATTCTATGTCTTTTTTTAATTGTACTTGTATTAGAT
TTTTAAGGCCTATAATCATGAAATATCACTAGTTGCCAGAATAATAAAATGAACTGTGTTTAATTATGAATAATA
TGTAAGCTAGGACTTCTACTTTAGGTTCACATACCTGCCTGCTAGTCGGGCAACATGAAGTAGGACAGTTCTGTT
GATTTTTTAGGGCCATACTAAAGGGAATGAGCTGAAACAGACCTCCTGATACCTTTGCTTAATTAAACTAGATGA
TAATTCTCAGGTACTGATAAACACCTGTTGTTGTTCACTTTCCTCATAAAAATTGTCAGCTCTCTCTGACACTTA
GACCTCAAACTTTAGCATCTCTGTGGAGCTGCCATCCACTGTATAATTTCGCCTGGCAACTGGACTGAGGGGAGT
GTGCCCAGGCAGCTGCCAAGCACTCCCTCCCTGGCTTCAGGGTCAGAGTGCCCAGCGTTTATCAGAGGCAGCATC
CAAGCCCAGAGCCAGTGTCGACTCTTCGGCTGGTGCCTTTCCTCTGAGGGGCTATCAATGTGTAGATAAAGCCCT
GAGTAGGCAAGAGCAGTGAGATCCACTGCTATGGTCTTGATACATCCTCAAACTTTCCCTTCCCAGCACAGAGGA
ATATTGGCTGGCATGCAACCTGCAAAAGAAAAATGC

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FIGURE 973

ACTGGACTCTGAAATGGGCATGTACAGAGACGAAGAGACCCCAACATGCTTCAGGCTTTGAGTGGAGAGGACACA
GCCTCTGCTGGGACAGGGAATAGAGGGATGTGGAGTCCCTGAAGATGCTTTTGGACAATGGTCTGAGGTTGGGAC
AGTGGCAGGAGATACCATTCACCCAGGATCTCCAGGACAAGAGATCAGCCTGGCAGTTACATGTGTTTTTTTTCA
AACTGGTTGCCAGGTTGGCATGAACGATGACATCAGAGATTCCGACCTTCCTGATTGGAGGGACCGGACTCCGTG
GTGCCTGGAGATCAGTTGGACAACAGTATCTTCTCAGAGCTGTTCTCTACTCCTGACTTCTCCTAGGCTTGAGAA
TTGATAACATACTCTTCTGGATCCTAGAAGTGTCCAGAAGAAGGCC**ATG**GACAGAACGGAGACTAGGTTCCGTAA
GAGGGGACAGATTACGGGAAAGATCACGACCAGCCGTCAACCGCACCCCCAGAATGAGCAGAGTCCCCAGCGGAG
CACCTCGGGGTACCCCCTCCAGGAGGTGGTGGATGATGAAATGTTGGGACCATCAGCCCCTGGGGTAGATCCCAG
CCCCCCATGTAGGTCCCTTGGCTGGAAAAGGAAGAGGGAGTGGTCAGATGAATCTGAGGAGGAGCCGGAGAAGGA
GCTCGCCCCTGAGCCTGAGGAGACCTGGGTAGTGGAGATGCTGTGTGGGCTCAAGATGAAGCTGAAGCAACAGCG
AGTGTCATCCATCCTCCCTGAGCACCACAAGGACTTCAACAGTCAGCTTGCCCCTGGGGTAGATCCCAGCCCCCC
GCATAGGTCCTTTTGCTGGAAAAGGAAGATGGAGTGGTGGGACGAATCTGAGGAGTCGTTGGAGGAGGAGCCACG
GAAGGTGCTCGCCCCTGAGCCTGAGGAGATCTGGGTGGCGGAGATGCTGTGTGGCCTCAAGATGAAGCTGAAGCG
ACGGCGAGTGTCGCTCGTGCTCCCTGAGCACCACGAGGCCTTCAACAGGCTGCTTGAGGATCCTGTCATTAAAAG
ATTCTTGGCCTGGGACAAAGATCTGAGGGTGTCGGACAAGTATCTCCTGGCTATGGTCATAGCGTATTTCAGCCG
GGCTGGCTTCCCCTCCTGGCAATACCAACGCATTCATTTCTTCCTGGCTCTCTACCTGGCCAATGACATGGAGGA
GGACGACGAGGACTCCAAACAAAACATCTTCCACTTCCTGTATAGGAAGAACCGCTCTCGCATACCCTTGCTCCG
TAAGCGTCGGTTCCAGTTATACCGTTCCACGAACCCGAGGGCCAGGAAGAACCGCTCTCGCATACCCTTGCTCCG
TAAGCGTCGGTTCCAGTTATACCGTTCCATGAACTCGAGGGCCAGGAAGAACCGCTCTCAGATAGTCCTGTTCCA
GAAACGACGGTTCCACTTCTTCTGTTCCATGAGCTGCAGGGCTTGGGTTTCCCCAGAGGAGTTGGAGGAGATCCA
GGCTTATGACCCAGAGCACTGGGTGTGGGCGCGAGATCGCGCTCACCTTTCC**TAG**AGCTCCAGGGACCGGGGAGG
CCTGAGGTCATCGGCCTGAGAGAAGAACACTGGACCCAGGGGAGATGTGGATTTTCAGCAGGAACTTTATTCCAA
TGCTAATGGCAGACACCAGGCAGGAGGAGAGGAACCATTTGTGCAGATCATCTAGAAGAACCTGGACCATTCTTG
ATGGAGCTGAATACAGTGATCACGTTGTCCTCCTAGGAGCAGGGGTGGGGGGAGGGGGGTGGGGTCCTTCTAGGA
GTCCTTGGAGAAAAGTAAGAAACCAGGAGCGTTTCCAGTTCCACCCTTTCCTGCGGCACCACCACCCTTTTTATA
TTGCTGAATTCCAACCTCCCTGGGGCGGAACCTGGAGGTCCTGTTTCTTACGGACTTGCAGTCCAGGAGGATTTG
AAGGCACAATGCAGGGGCTCAGATTGGGACAGAATTCTTTTGTGAAATATCAGTGCCACAGATTGTAACAGATAG
CTTCATGCACACTCTGCATTTTATTGGTTTGTTTGGAAAATGTCGGCCATTGAATTATTCATAGATTTATTTCAA
ATAGTTTGGAAATTGTTGTACTTTTGAAAACATGCTGTTCCTGTAGTTTTTTGATGAGAGTTATAGTTGTTATAT
ATACATAAAGATAATTTTCTTTTCATTTTTAAGAGACAATTCTTTTATCCTAAATATTTTATTATCTTTAAATTT
GTTTCTGTATTATTATATGTGCTCCTGAAGCGAGCACTCTTTTTATCTATGATACTTCCATAATAATCTCTTCTA
TTTATAGCTATTGGTAGTTCCCCACCAGAAAAATACATAATTCTGGTGATAGAAATTTTTATTTGCTGTTTAGGT
TTGTGACTGAATTGTGAGAATTCAGTTGTGATTTTTAACATGTCTCAGATATATATACTAACACGTCTAATATAT
ACTATCTATTTTATTGGTTTATTTTGAAAAACATGGGTATAGAATTATTTAAATATTATTTTATTTATTTAAATA
TTTATTAAATATATTTATTTATTTAAATATTATTTTTACATTAAATATTATTTTAAATATTTTGGAAATACTGGT
ATTTTTGAATAGATGCTGTTTCTACAAAGCTGTGTGATGGGTATTATAACTGTTATATACACATACATATAATTT
TGTTTTCCTTTTTAAGAGAGGATTCTTTTCATCCTAAATCTTTTACCTTTCAATCTTTGTATCTATTATTACACG
TGCTGCTGAAGGGAGCATGGATTTTATCTATGATACTTAGTTAACATATATATTACATTTATAGCTATGTAGTAG
TTCCCCTAAATTCTTGTAAAAATAAATTTTTATTTGATATTTCATATATGTTTGAAATGTGAGAATTCAGATGTA
ATTTTTTACCTTGTTTTGGCATGTTTGTATATTACTTTAAAGAGAATGTGTGTTCTAAAGGAGGACATGAGCTGT
GTGTTTTCAAGAGAACAATAGAGTGGGTCTCTTGGGGAAACATAATAAAAATGAACTTTTCTCACCTTC

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FIGURE 974

ATACTTGCGCGCCGACGCCGCCGCTCGCTTGTGAAACTGGAAGGCTGCC**ATG**GCTAGCCCAGCCGCCTCCTCGGT
GCGACCACCGAGGCCCAAGAAAGAGCCGCAGACGCTCGTCATCCCCAAGAATGCGGCGGAGGAGCAGAAGCTCAA
GCTGGAGCGGCTCATGAAGAACCCGGACAAAGCAGTTCCAATTCCAGAGAAAATGAGTGAATGGGCACCTCGACC
TCCCCCAGAATTTGTCCGAGATGTCATGGGTTCAAGTGCTGGGGCCGGCAGTGGAGAGTTCCACGTGTACAGACA
TCTGCGCCGGAGAGAATATCAGCGACAGGACTACATGGATGCCATGGCTGAGAAGCAAAAATTGGATGCAGAGTT
TCAGAAAAGACTGGAAAAGAATAAAATTGCTGCAGAGGAGCAGACCGCAAAGCGCCGGAAGAAGCGCCAGAAGTT
AAAAGAGAAGAAATTACTGGCAAAGAAGATGAAACTTGAACAGAAGAAACAAGAAGGACCCGGTCAGCCCAAGGA
GCAGGGGTCCAGCAGCTCTGCGGAGGCATCTGGAACAGAGGAGGAGGAGGAAGTGCCCAGTTTCACCATGGGGCG
A**TGA**CAATGTTTGCCACAGCCTCTGCCTGGAACCTGGCTCGTGCTGTGACCAGAAGGGAAAGGCGGCTGTTTGGC
TCTTTCTCCCCCGCAAGGACCCGCTGACCCGCTGGATGGAGAGCAAAGGAGACCCCTCCCGAGCCGCTCACAGTC
CTGTATTTGGCAGGTTTGGGAGCCTGAGGGGCCATCTCCCTGACACTCAGAGGCACTGCCTTGCAGACACCATCC
GTGCTCCTGGTAAAGGGGGACAGAGAGCCTCACCTTGCCACATATTTGAACAGTGATGAGTTTGGGGCTGGTTTC
TGGGAAGGGAACGTTTATTTAGTAAAGAGCAGAACACCCTTGCGTTTTGTTGGGACATGTGGACCGTGAGTCGCA
AACACTCTGGAGAAGGCTGAGATGCCACCATTCCCACGGGGACTGAAGACACATTACGTGGACCTGGTCCCAGGC
TCAGTGAGGAGATGGCCTCAGCTGTGGGGCTGGTCCATGTTGCCCACTCACTCCAGTGGGAAGTGGGGACCACGC
CATAGAGGGTCTGCTCCCACTGCAGCTCCCGGTGCTCTCGTGTTCTGGGAAGGCCTGGGTGTGTGCACAAGGAGG
CCCGGGCCAGGGACTTCACCAGGGGCTGGGTCACAAGGGCACAGGGTGTGTGGAAAGCGCTGTGGGGGAAGAGCC
GGTCACCGGAGAGTGAGCAGGCGGAGACTCCAAGCTGGGCTGAGCCAGAGCAGAAGGCGAGGGATTCCCAGCCGG
ACGGGGGTTCTCTCACCAACAGCTGTGATTTCATCCCGAAGTGGAAGGGGGTCTAAACAGAACAGGCTGAGAGAG
GCGGGACTGGGTCAAGTGGGTGGAGCTCCTCCTTGCATGACTGCAACTGTCGGGGCTTTCCGCCGGCTCACAGCA
GTTGGGGCCAGCGGGGAGAAGAGAGGCGGAACTGCTGTGTCCTCATGTGGCGCAGCCTCAAACTGGCATCCAGGC
ACTGGGCCCATGCAGAGAAGGCACCTGCAGAGAGCAGGGCAGCCCGGCGCAGGGGCATGCGCCTAGAATCCCAGC
TACTCGGAAGGCCAAGGCAGGAGGACCGCTTGAGTCCAGGGATTCAAGGCCAACCTGGGCAATAGAGCGAGACCC
TGTCTCTTAAAAAACGATGATGATGAACACAGAGGACGGGGCACTGTGCTGGGAGCCAGGGGGCCTGGGAGGAGC
CGAGACCAGCCTTTTACCTCGGGGTTTTGAGGCCAACAGGGACGACAGAGACAGTTTCTAGTTAGAGCCTTGGCT
CCATTTTTGGATGATTTAGCCCCGAGTTCCTGAGTCTATTTTATGCCCCTTACGTACTTTGATAGAACTAAGGAA
ATAGTGGTTTTGAGTGAAGGGAAAGGAAACCCAGAAACATTTTACGTTGCTTTTACTTCTGTAGTGTAGATTGCC
CCGGCCCCTCTCTGAGCCCTGTAGCATCTGTGATAGCTTCTGTCCCTTCATCGGTTCATGTCACAGGGATTTTCT
TTCCCAGGAAGCGGACACGGAGAGTCAGCCCTAATAAATGAGCACATGCCCTGGCTGTACATTTTGAAACCTG

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FIGURE 975

CCTTCCGGTCGTTAACGCCCACGGGCTCGCGCGGCGCCGCCTCCTGGGCTCAGTTACCGCGGACGCCAGTGCCGG
GCTCCAGGAGACGCAGGGCGACGCCACACGCCGGGGTGGCCGACTGGGTCAGCGCGGGCTGCGCCTCCTCGCCATG
GGGCCCCCTCTCGGCGCGGCTGCTAATGCAGCGCGGGCGCCCCAAGAGCGACCGGCTGGGGAAGATCCGGAGTCT
GGACCTGTCAGGATTGGAGCTGCTTTCCGAGCACCTGGACCCCAAACTCCTGTGCCGCCTGACGCAGCTGCAGGA
GCTTGACCTGTCTAACAACCACCTGGAGACGCTGCCGGACAACCTGGGCCTGTCCCACCTGCGTGTCCTCCGCTG
CGCCAACAACCAGCTGGGGGATGTTACTGCCTTGTGCCAGTTCCCCAAGCTCGAGGAACTCAGCCTGGAGGGCAA
CCCCTTCCTGACGGTCAATGACAACCTGAAAGTCTCCTTTCTCCTGCCCACGCTCCGTAAGGTCAATGGCAAGGA
TGCGTCCTCAACTTACTCTCAGGTGGAGAACCTGAATCGGGAGCTGACCAGCAGGGTCACAGCTCACTGGGAGAA
GTTCATGGCCACACTGGGTCCTGAAGAGGAGGCTGAGAAGGCCCAGGCGGACTTTGTGAAGTCGGCTGTCAGGGA
TGTCCGCTACGGGCCCGAGTCCCTCAGCGAGTTCACCCAGTGGCGGGTGCGGATGATCTCTGAGGAGCTGGTGGC
CGCCAGTAGGACCCAGGTGCAAAAGGCTAACAGCCCAGAGAAGCCCCCAGAAGCTGGAGCTGCCCACAAGCCCAG
GGCCAGACTGGCGGCCTTGAAACGGCCAGACGACGTCCCACTCAGCCTCTCTCCCAGCAAGCGGGCGTGTGCCTC
CCCGTCGGCCCAGGTGGAGGGCAGCCCTGTGGCAGGCTCCGATGGCAGCCAGCCTGCTGTGAAGCTGGAGCCCCT
GCACTTCCTGCAGTGCCACAGCAAGAACAACAGCCCCCAGGACCTCGAGACCCAGCTGTGGGCCTGTGCCTTCGA
GCCGGCCTGGGAGGAGGGGGCCACATCCCAGACCGTGGCCACGTGCGGCGGGGAGGCTGTGTGCGTAATTGATTG
CCAGACGGGCATCGTGCTCCACAAGTACAAGGCACCCGGCGAGGAGTTCTTTTCTGTGGCCTGGACCGCTCTGAT
GGTGGTCACACAGGCTGGCCACAAGAAGCGCTGGAGTGTGCTGGCGGCTGCAGGCCTACGGGGCCTGGTCCGGCT
GCTGCACGTGCGTGCCGGCTTCTGCTGCGGGGTCATCCGAGCCCACAAGAAGGCCATCGCCACCCTGTGCTTCAG
CCCCGCCCACGAGACCCATCTCTTCACGGCCTCCTATGACAAGCGGATCATCCTCTGGGACATCGGGGTGCCCAA
CCAGGACTACGAATTCCAGGCCAGCCAGCTGCTCACACTGGACACCACCTCTATCCCCCTGCGCCTCTGCCCTGT
CGCCTCCTGCCCGGACGCCCGCCTGCTGGCCGGCTGCGAGGGCGGCTGCTGCTGCTGGGACGTGCGGCTGGACCA
GCCCCAAAAGAGGAGGGTGTGTGAAGTGGAATTCGTCTTCTCTGAGGGCTCCGAGGCATCTGGACGGAGAGTGGA
TGGGCTGGCATTTGTGAATGAGGACATCGTGGCCTCCAAGGGGAGCGGCCTGGGCACCATCTGCCTGTGGAGCTG
GAGGCAGACGTGGGGGGGCCGGGGCAGCCAGTCCACGGTGGCAGTGGTGGTCCTGGCGCGGCTGCAATGGTCGTC
CACCGAGTTGGCCTACTTCTCGCTCAGCGCCTGCCCTGATAAGGGGATTGTGCTCTGTGGGGATGAGGAGGGCAA
CGTGTGGCTCTACGACGTCAGCAACATCCTGAAGCAGCCACCCCTGCTGCCGGCAGCCCTGCAGGCCCCCACACA
GCCCTCCCCTCTCTCCCCACCAGATCCTGAAGTGGCCCCAGCCCTGGGCCCTTGGCCAGGTGGTGACCAAGACCA
TGGTGAACACAGTGGTGGCCAATGCCTCCTTCACCTACCTCACCGCCCTGACGGACTCCAACATCGTAGCCATCT
GGGGGAGGATGTAGCCTCACACCATCGCAAAGGACCAGGGACACAGCTAACTAACTTATTCAGCTTTGGGCCGAT
GGGGGTGGGGGGGGGTCTTTCAGTGAATATTTTTATTAAACTCTACTGTGGACAAGAAGCCTGTGGAAAGGTGTT
TCGAGTTATGCAGGAAGAAGTGTTCCTGCTTTGACTGACAGGCAGGCCCAGGAGTTGAGGCTTCTAGAGCAGAGA
CTCTTGGGAGCTCATGGGTTTGCACACTTCTCTCCGGCTCAGCACAGCCCCCGCAGCAGCCCCTGGACCCCGGAT
CTTTGGTCCAGAATGAATTCATCCCTGCCAGCCGGACGCCCCTGAAACAGGTCATCTGCCTGCATCAAGCCTGAC
AATCCATTTGCTTGCGAAGTCACCGCTGCTCAAGTCCACATCCAGGTCTCTCCCGCTATACTTTATTAGGAATAT
AAAACCTAAT

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FIGURE 976

GTGGCGGCGGCGGCGGACCCTTGGGGTCTGGACGCAACGGCGGCGGGAGC**ATG**AACGCCCCTCCAGCCTTCGAGT
CGTTCTTGCTCTTCGAGGGCGAGAAGAAGATCACCATTAACAAGGACACCAAGGTACCCAATGCCTGTTTATTCA
CCATCAACAAAGAAGACCACACACTGGGAAACATCATTAAATCACAACTCCTAAAAGACCCGCAAGTGCTATTTG
CTGGCTACAAAGTCCCCCACCCCTTGGAGCACAAGATCATCATCCGAGTGCAGACCACGCCGGACTACAGCCCCC
AGGAAGCCTTTACCAACGCCATCACCGACCTCATCAGTGAGCTGTCCCTGCTGGAGGAGCGCTTTCGGGTGGCCA
TAAAAGACAAGCAGGAAGGAATTGAG**TAG**GGGCCAGAGGGGGCTCTGCTCGGCCTGTGAGCCCCGTTCCTACCTG
TGCCTGACCCTCCGCTCCAGGTACCACACCGAGGAGAGCGGCCGGTCCCAGCCATGGCCCGCCTTGTGGCCACCC
CTCACCCTGACACCGACGTGTCCTGTACATAGATTAGGTTTTATATTCCTAATAAAGTATAGCGGGAGAGA

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FIGURE 977

GGAAATTTGAACACTAATCAACTATAGGATGATTGGAATTATTAATTTTGTAAAGGTGTGATAAGATACTGCACT
TGGCTGGGCACAGTGGCACATGCCTGTAATCCCAGCTACTTGGCAGGCTGAGGTGGGAGAATCGCTTGAGCTCAG
GAGTTCGAGACCAGCCTGGGCAACGTGGCGAAATCCCCGTCTTTACAAAAACAAACAAACAAACAAAAAAGATAT
TGCAGTTGTGTTGTAAGCGTCCTTATCTTTCAGAGCTACATAGTGGAATGTTTATGGAATATTTAGGATAAATGA
TATAGGCATTTGGGATTTGCTGCAAA**ATG**ACCCAGAGGCAGGGGTCAGGGGGAGAGGTAGAGATGAGACAAGAGG
TAGAGGGGAGAGGTAGAGGTAGCCACGAGCTGATAATTACAGACAAGAGATGCGGAGTATGTGGGGGCTCATTAT
CCTGCATAGTCTATCTTTGTATATCTTTGAACTTTTCAAGAATAAAAAAGCTTAAAAAGTATACATGGCCTGGTC
CTACCAGAGACTCACCCAATGCCAGCCTCCAGCCAGGGAGAGCCAAGTTTGCATTTTCACACGCATCTCACACTC
CTCTGCACTCTCAACTTGGAGAGCTCCAAACAGGGAAACCCCAAGCCTTGCTGGCTTCTGCCAACCCCCTGAGCA
GAAGCATGGGTCCCCCTGATCACCACCTCACCACCCTCATCCTGATCTCACTGTACACTCCCTTTCCTGGTCTGC
TAAGTAGCGGGTGTTTTTCCTTGACACTAACGCTACAGCTAGACCACGGTGGGCTTGGCAACAGGTGTCTTCCCA
GATGCTGGCGTTACCGC**TAG**ACCAAGGAGCCCTCTGGTGGCCCTGTCCGGGCATAACAGAAAGCTCGCACTCTTG
TCTTCTGGTCACTCCTCATTGTCCCCTCAGCTCCTATCTCTGTATGGCCTGGTGTTTCCTAGGTTATGATTGTAG
AGCGAGGATTATTATAATATTGGAATAAAGAATAATTACTACAAACTAATGATTAATGATTCATATATAATCATA
TCTAAGATCTATATCTAGTATAACTATTCTTATTTTATATATTTTATTATACTGGAACAGCTCGTGCCCTCGGTC
TCTTGCCTCGGCACCTGGGTGGCTTGCTGCCCACATCCACCAAGTGCACTTTGGGAGGCTGAGGCTGGAGGACTG
CTGGAGGCCAGGAGTTCAATACCAGCCTGGGCAACATAGGGAGACCCCCCCCCCCCACCATCTCC

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FIGURE 978

GTGGCGGCGGTGGCGGACACTTGGGGTCTGGACGCAACGGCGGCGGGAGC**ATG**AACGCCCCTCCAGCCTTCGAGT
CGTTCTTGCTCTTCGAGGGCGAGAAGATCACCATTAACAAGGACACCAAGGTACCCAATGCCTGTTTATTCACCA
TCAACAAAGAAGACCACACACTGGGAAACATCATTAAATCACGTGCCTGCTTCCCCTTCGCCTTCTGCCGTGATT
GTCAGTTTCCTGAGGCCTCCCCAGCCACGCTTCCTGTACAGCCTGCAGAACTCTGCCCCAGAGCACATCAGCTAT
GTGCCCCAGCTCTCAAACGACACCTTGGCGGGGAGGCTCACCCTGTCCACCTTCACGCTGGAGCAGCCTCTAGGC
CAGTTCAGCAGCCACAACATCTC**TGA**

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FIGURE 979

GCTTCCTGGTTCACCCCACCCTCAGCAGAGACAGACCCCAGATCTGGGCCCAGGACTTTGTGCAGGGAGGGGAAA
TACTGGACTCTGAAATGGGCATGTACAGAGACGAAGAGACCCCAACATGCTTCAGGCTTTGAGTGGAGAGGACAC
AGCCTCTGCTGGGACAGGGAATAGAGGGATGTGGAGTCCCTGAAGATGCTTTTGGACAATGGTCTGAGGTTGGGA
CAGTGGCAGGAGATACCATTCACCCAGGATCTCCAGGACAAGAGATCAGCCTGGCAGTTACATGTGTTTTTTTC
AAACTGGTTGCCAGGTTGGCATGAACGATGACATCAGAGATTCCGACCTTCCTGATTGGAGGGACCGGACTCCGT
GGTGCCTGGAGATCAGTTGGACAACAGTATCTTCTCAGAGCTGTTCTCTACTCCTGACTTCTCCTAGGCTTGAGA
ATTGATAACATACTCTTCTGGATCCTAGAAGTGTCCAGAAGAAGGCC**ATG**GACAGAACGGAGACTAGGTTCCGTA
AGAGGGGACAGATTACGGGAAAGATCACGACCAGCCGTCAACCGCACCCCCAGAATGAGCAGAGTCCCCAGCGGA
GCACCTCGGGGTACCCCCTCCAGGAGGTGGTGGATGATGAAATGTTGGGACCATCAGCCCCTGGGGTAGATCCCA
GCCCCCCATGTAGGTCCCTTGGCTGGAAAAGGAAGAGGGAGTGGTCAGATGAATCTGAGGAGGAGCCGGAGAAGG
AGCTCGCCCCTGAGCCTGAGGAGACCTGGGTAGTGGAGATGCTGTGTGGGCTCAAGATGAAGCTGAAGCAACAGC
GAGTGTCACCCATCCTCCCTGAGCACCACAAGGACTTCAACAGTCAGCTTGCCCCTGGGGTAGATCCCAGCCCCC
CGCATAGGTCCTTTTGCTGGAAAAGGAAGATGGAGTGGTGGGACGAATCTGAGGAGTCGTTGGAGGAGGAGCCAC
GGAAGGTGCTCGCCCCTGAGCCTGAGGAGATCTGGGTGGCGGAGATGCTGTGTGGCCTCAAGATGAAGCTGAAGC
GACGGCGAGTGTCGCTCGTGCTCCCTGAGCACCACGAGGCCTTCAACAGGCTGCTTGAGGATCCTGTCATTAAAA
GATTCTTGGCCTGGGACAAAGATCTGAGGGTGTCGGACAAGTATCTCCTGGCTATGGTCATAGCGTATTTCAGCC
GGGCCGGCTTCCCCTCCTGGCAATACCAACGCATTCATTTCTTCCTGGCTCTCTACCTGGCCAATGACATGGAGG
AGGACGACGAGGACTCCAAACAAAACATCTTCCACTTCCTGTATAGGAAGAACCGCTCTCGCATACCCTTGCTCC
GTAAGCGTCGGTTCCAGTTATACCGTTCCACGAACCCGAGGGCCAGGAAGAACCGCTCTCGCATACCCTTGCTCC
GTAAGCGTCGGTTCCAGTTATACCGTTCCATGAACTCGAGGGCCAGGAAGAACCGCTCTCAGATAGTCCTGTTCC
AGAAACGACGGTTCCACTTCTTCTGTTCCATGAGCTGCAGGGCTTGGGTTTCCCCAGAGGAGTTGGAGGAGATCC
AGGCTTATGACCCAGAGCACTGGGTGTGGGCGCGAGATCGCGCTCACCTTTCC**TAG**AGCTCCAGGGACCGGGGAG
GCCTGAGGTCATCGGCCTGAGAGAAGAACACCGGACCCAGGGGAGATGTGGATTTTCAGCGGGAACTTTATTCCA
ATGCTAATGGCAGACACCAGGCAGGAGGAGAGGAACCATTTGTGCAGATCATCTAGAAGAACCTGGACCATTCTT
GATGGAGCTGAATACAGTGATCACGTTGTCCTCCTAGGAGCAGGGGTGGGGGGAGGGGGGTGGGGTCCTTCTAGG
AGTCCTTGGAGAAAAGTAAGAAACCAGGAGCGTTTCCAGTTCCACCCTTTCCTGCGGCACCACCACCCTTTTTAT
ATTGCTGAATTCCAACCTCCCTGGGGCGGAACCTGGAGGTCCTGTTTCTTACGGACTTGCAGTCCAGGAGGATTT
GAAGGCACAATGCAGGGGCTCAGATTGGGACAGAATTCTTTTGTGAAATATCAGTGCCACAGATTGTAACAGATA
GCTTCATGCACACTCTGCATTTTATTGGTTTGTATGGAAAATGTCGGCCATTGAATTATTCATAGATTTATTTCA
AATAGTTTGGAAATTGTTGTACTTTTGAAAACATGCTGTTCCTGTAGTTTTTTGATGAGAGTTATAGTTGTTATA
TATACATAAAGCTAATTTTCTTTTCATTTTTAAGAGACAATTCTTTTTATCCTAAATATTTTATTATCTTTAAAT
TTGTTTCTGTATTATTACATGTGCTCCTGAAGCGAGCACTCTTTTTATCTATGATACTTCCATAATAATCTCTTC
TATTTATAGCTATTGGTAGTTCCCCACCAGAAAAAAACATAATTCTGGTGATAGAAATTTTTATTTGCTGTTTAG
GTTTGTGACTGAATTGTGAGAATTCAGTTGTGATTTTTAACATGCCTCAGATATATATACTAACACGTCTAATAT
ATACTATCTATTTTATTGGTTTATTTTGAAAAACATGGGTATAGAATTATTTAAATATTATTTTATTTATTTAAA
TATTTATTAAATATATTTATTTATTTAAATATTATTATTACTTTAAATATTATTTTAAATATTTTGGAAATACTG
GTATTTTTGAATAGATGCTGTTTCTATAAAGCTGTGTGATGGATATTATAACTGTTATATACACATACATATAAT
TTTGTTTTCCTTTTTAAGAGAGGATTCTTTTCATCCTAAATCTTTTACCTTTCAATCTTTGTATCTATTATTACA
CGTGCTGCTGAAGGGAGCATGGTTTTTATCTATGATACTTAGTTAACATATATATTACATTTATAGCTATGTAGT
AGTTCCCCTAAATTCTTGTAAAAATAAATTTTTATTTGATATTTCATATATATTTGAAATGTGAGAATTCAGATG
TAATTTTTTACCTTGTTTTGGCATGTTTGTATGTTACTTTAAAGAGGATGTGTGTTCTAAAGGAGGACATGAGCT
GTGTGTTTTCAAGAGAACAATAGAGTGCGTCTCTTGGGGAAACATAATAAAAATGAACTTTTCTCACCTTC

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FIGURE 980

ATGGCCAAGCGCAGCTCGCTGTACATCCGCATCGTGGAGGGGAAGAACCTTCCCGCCAAGGACATCACTGGCAGC
AGCGACCCCTACTGCATCGTGAAGGTGGACAATGAGCCCATCATCAGGTACCGCCCCCACCCCCAGGACCGAGGG
GCGCTCAGCCTCTCATCGGCCCGCGCTCTCCCCGCAAAGGGGACAGCCACAGTGTGGAAGACCCTGTGCCCCTTC
TGGGGTGAGGAGTACCAAGTGCACCTGCCGCCCACCTTCCACGCTGTGGCTTTCTATGTCATGGATGAGGATGCC
CTCAGCCGGGACGACGTTATCGGAAAGGTCTGCCTTACAAGGGACACCATAGCCTCTCACCCTAAGGGTTTCAGC
GGGTGGGCCCACCTGACGGAGGTCGACCCCGATGAGGAGGTGCAGGGCGAGATCCACCTGCGGCTGGAAGTGTGG
CCAGGGGCCCGGGCCTGCCGGCTACGCTGCTCTGTGCTGGAGGCCAGGGATCTGGCCCCAAAGGACCGCAATGGC
ACATCTGACCCCTTCGTCCGAGTGCGCTACAAGGGCCGGACACGGGAGACCTCGATCGTGAAGAAGTCATGCTAC
CCACGCTGGAATGAGACGTTTGAATTTGAGCTGCAGGAGGGGGCCATGGAGGCGCTGTGCGTGGAGGCCTGGGAC
TGGGACCTCGTCAGCCGAAACGACTTCCTGGGCAAAGTGGTGATTGATGTCCAGAGACTGCGGGTGGTGCAGCAG
GAGGAGGGCTGGTTCCGGCTGCAGCCCGACCAGTCCAAGAGCCGGCGGCATGACGAGGGCAACCTGGGCTCCTTG
CAGCTGGAGGTGCGGCTGCGGGACGAGACGGTGCTGCCCTCCAGCTACTACCAGCCACTGGTGCACCTGCTGTGC
CACGAGGTCAAGCTGGGCATGCAGGGCCCAGGGCAGCTGATCCCACTCATCGAGGAGACAACCAGCACCGAGTGT
CGCCAGGACGTGGCCACGAACCTGCTCAAGCTCTTCCTGGGGCAGGGGCTGGCCAAGGACTTCCTGGACCTGCTC
TTCCAGCTGGAGCTGAGTCGCACCAGTGAGACCAACACCCTGTTCCGGAGCAACTCTCTGGCCTCAAAGTCCATG
GAGTCTTTTCTGAAGGTGGCCGGGATGCAGTACCTGCACGGCGTCCTGGGCCCCATCATCAACAAGGTGTTTGAG
GAGAAGAAGTACGTGGAGCTGGACCCCAGCAAAGTGGAAGTTAAGGATGTAGGGTGCTCCGGGCTGCACCGCCCG
CAGACCGAGGCCGAGGTGCTGGAGCAGAGCGCGCAGACGCTGCGCGCCCACCTGGGGGCCCTGCTGAGCGCGCTC
AGCCGCTCGGTTCGCGCGTGCCCCGCCGTGGTGCGCGCCACCTTCCGCCAGCTCTTCCGGCGCGTGCGCGAGCGC
TTCCCCGGCGCCCAGCACGAGAATGTACCGTTCATCGCCGTCACCAGCTTCCTGTGCCTGCGCTTCTTCTCTCCC
GCCATCATGTCGCCCAAGCTCTTCCACCTGCGGGAGCGCCACGCGGACGCCCGCACCAGCCGCACCCTGCTCCTG
TTGGCCAAGGCAGTCCAGAACGTGGGCAACATGGACACGCCGGCTTCCAGGGCCAAGGAGGCTTGGATGGAGCCG
CTGCAGCCCACCGTGCGCCAGGGCGTGGCGCAGCTGAAGGACTTCATCACCAAGCTCGTGGACATCGAGGAGAAG
GACGAGCTGGACCTGCAGCGGACGCTGAGTTTGCAGGCGCCACCTGTGAAGGAGGGGCCACTCTTCATCCACAGG
ACCAAGGGCAAGGGCCCCCTCATGTCCTCCTCCTTCAAGAAGCTCTACTTCTCCCTCACTACCGAGGCCCTCAGC
TTCGCGAAGACGCCCAGCTCCAAGAAAAGCGCCCTCATCAAGTTAGCCAACATCCGGGCAGCGGAAAAGGTTGAG
GAAAAGAGCTTTGGCGGCTCGCACGTCATGCAGGTCATCTACACGGACGACGCCGGCAGGCCCCAGACTGCCTAC
CTGCAGTGCAAGTGTGTGAATGAGCTTAACCAGTGGCTGTCTGCGCTGCGGAAGGTGAGCATCAACAACACCGGA
CTGCTGGGCTCCTACCACCCTGGCGTCTTCCGTGGGGACAAGTGGAGCTGCTGCCACCAAAAAGAGAAGACAGGT
CAGGGCTGCGATAAGACCCGGTCACGGGTGACCCTGCAGGAGTGGAATGACCCTCTTGACCATGACCTTGAGGCC
CAGCTCATCTACCGGCACCTGCTGGGCGTGGAGGCCATGCTGTGGGAGAGGCACCGGGAGCTGAGCGGGGGCGCA
GAGGCAGGCACGGTGCCCACGAGCCCTGGCAAAGTCCCCGAGGACTCATTGGCCCGGCTGCTCCGGGTGCTGCAG
GACCTCCGCGAGGCCCATAGCTCCAGCCCGGCCGGCTCCCCACCCTCAGAGCCCAACTGCCTCCTGGAGCTGCAG
ACG**TGA**

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FIGURE 981

CTTAGGCAAGGGGTCCAGGTCAGAGTTTAGAGCTTTCAAATCCCAACTTGCCCCTGGGGATTGCGCGGCTGATGT
TTAGAACGCCTAGTCAAGCCAACCGGCTCGCTCTTGTTTCAGCAAACCCTGACTTACGTCTCCTATTTGACTTGA
GGCGGCACAGTGGCCAAGTCGATTGGCCGTGGCAAGTGACCCTCCCTGTGGCTGAAGTGTTCTGAGGACTGGCGA
GAGAGGCGCGCC**ATG**CTTGCCCCCTGCTCAGGTTGGGAGCTTGGCTGCTTCCGTCTCTGTCTCCGTCAGGTCCGA
CTGTGGGCTGGCGCTGGGCGCTGGGCTTGCTGGGCTTGCCAAGCCAGGCCGTACAGCTCAGGTGGGAGCGAGCGC
TGGCCCGGATCGGAGACTGAGGTCCCTCCGCCTGGCCCGGGGCGCCGAACTCTGAAGGAGTGGACACTGCAGGTG
AGCCCGTTTGGTCGGCTGCGGGCGCGGCTCCCGTGCCACCTGGCCGTGAGGCCCCTGGACCCCCTCACCTACCCG
GATGGCGACCGCGTGCTGGTCGCGGTGTGCGGCGTGGAGGGCGGCGTGCGGGGCCTGGACGGCCTGCAGGTGAAG
TACGACGAGGATCTGGAGGAGATGGCCATTGTGTCTGATACTATCCACCCCCAGGCGTCCGTGGAGGTT**TAG**ATA
TCAAGTCATCAGGGTCTGGCTGTGTAAAAGTTCAAAGTATTGAGGGTGATAATTGCAAAATTGAAACAGAGCATG
GGACTAGTATCTTGCAGTCTGTTAAGGTAATATAACATTACAAAGCAAGATGGGTAACATCACAGTAGATTCGTC
TTCTGGATGTCTAAAAGCCTCAACTAATCAGGGTGCCATAGATGTTTATGTCAGCCAACTGGGGAAAGTGGAATT
GAAATCCCATAAAGGTTCTATTATTGTCAAGGTCCCATCTTCACTTCAAGCTCATTTACAGTTATCAGGGAAAGA
GGTTGATGTGAACTCAGAAGTCCATGTTCAGGAAATGGCTGAAGTTCGTAAAGATGATGTTGTAACAGTGACTGG
ACTCATGAATCAAGCAAGCAAACGTGAAAAATGGATTAAGGCTGATGCCCCAAAAGGCACTGTAAGTTTTAGAAG
GCAAAGTTGGTTTCAGTCCCTGAAACTGCAGGACTAAAACTGATTTGAGTTGGATTTATGATTTTTAACAATGAT
TCGCAGATCTGTGACTACAAAAATGTAAATCCCACCATTCATATAAAGGTTGAAAACAACAAATTGAGAATGAAT
ACTGGTGAACTGTTTTGGGAGGCTTTTTCAAAATTTGTGCTTTGCTATTGTATTCATTTTCTACTGCTCTGTAAC
AAATTACCACAAATTTAGCAGCATAAAATAATACTCATTTACAGCTATGTCTAGGTTCTCCGCTCAGGGAATCAC
AAGGCTAGAAATCAAGATTTTGGCCAGGCTGAGTTCTCATCTGGAGTCTCTGGGAAGAAATCTACTTCCAACTTC
ATTCAGATTATTGGGAAAATCCAGTTCCTTGTGACTGGATGACTGAGGTCTCCATTTTCTTGCTGGCTGTCAGCC
AGCAATCACTCTAAGCTTCTAGAGGCCACCCACATGCCTTCTCATGTTGCCCCTCCATCTTCAAGCCAGCAGTGA
TGCGCTGAGTTCTTCTCATGCTTTGAATATCTGACTTCTTCTGCAGCCAGCTGGAAGAATATATACTTTTAAAGG
GCTCACTTGATTAGGTCAGGCCCACCCAGGATAACCTTTGTTTTGCCATATAATGTAACATTCATAGGAGTGATG
GCCCATCACATTCAGTTTTCACTCCCACTCAAGGAAAGGAGATTATACAAAGGCATCCATCATGTGGGGACAATT
AGCTTAGAATTCTTTATAATGTAGCTCTCACATGACAGGTTTTCTACTTAGTACCTTTTATGGCATCAATGTAAA
TTTAAGCTGTAAATAAAAAACAAATATGTGAAGC

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FIGURE 982

GGGAGAATCTTTCAAAAACAAAATGAACACAAATGAAAGGAAGGCTGATAACCATCATTTTACTCGTTACTTCCA
TTTTCTTCTACCTCAGTTTAAAAGATGTGATAATATGTGGTCAAGTTAATCATGCCTGGATGTTGATGACACAAC
TAAACTCACTGTGGAATGCTATTGATTTTTCCTCAGTGAAAAATGTGATTCCAGATAAATATATAGTGTCTACTT
TGCAAAGGTGGCGTTTAAATGTGCTGCGTTTGAATTTTCGTGGTTGTCTTCTCCGACCCAAAACTTTCAGATCTG
TCAGCCACTGTAGGAACTTGCAAGAGTTGAATGTCTCTGACTGCCCAACATTCACAGATGAATCAATGAGACACA
TTTCTGAGGGCTGCCCGGGGGTCCTGTGTCTCAATCTGTCTAACACAACTATCACCAACAGGACG**ATG**CGACTCC
TGCCGAGGCACTTCCACAACTTACAGAATCTTAGTTTGGCTTATTGCAGACGGTTCACAGACAAAGGCTTACAGT
ACCTGAACTTGGGGAATGGATGCCACAAGCTCATCTATCTGGACCTCTCTGGCTGCACCCAGATTTCAGTCCAAG
GCTTCAGGTACATTGCAAACAGCTGCACTGGAATTATGCATCTTACCATTAATGACATGCCAACTCTGACGGACA
ACTGTGTAAAAGCTTTAGTTGAAAAATGCTCTCGTATTACATCGCTGGTTTTCACTGGTGCACCGCATATCTCCG
ATTGTACTTTCAGAGCTCTTTCTGCTTGTAAACTCAGAAAGATCCGATTTGAAGGAAATAAAAGGGTTACTGATG
CATCCTTCAAATTTATAGACAAGAATTATCCAAATCTCAGTCACATTTATATGGCTGACTGCAAGGGAATAACAG
ACAGCAGCCTCAGATCCCTTTCACCTTTGAAGCAACTGACTGTGTTGAATTTGGCAAATTGTGTAAGAATTGGTG
ATATGGGACTAAAGCAATTTCTTGATGGTCCTGCAAGCATGAGGATAAGAGAGCTAAATTTAAGCAACTGTGTGC
GGCTAAGTGATGCCTCTGTTATGAAACTATCTGAGCGCTGCCCTAATTTAAACTACTTGAGTTTACGAAATTGTG
AACATTTGACTGCCCAAGGAATTGGATATATTGTAAACATCTTTTCCTTGGTATCAATAGATCTCTCTGGAACAG
ACATCTCTAATGAGGGTTTGAATGTGCTTTCCAGACATAAAAAATTGAAGGAACTTTCTGTATCTGAATGTTATA
GAATCACTGATGATGGAATTCAGGCATTCTGCAAAAGCTCACTGATCTTGGAACATTTGGATGTCTCTTATTGCT
CCCAGCTGTCAGATATGATTATCAAAGCACTGGCCATTTACTGCATTAACCTCACATCTCTCAGCATTGCTGGCT
GTCCAAAGATTACTGACTCAGCAATGGAGATGTTATCGGCAAAATGCCATTACCTGCACATTTTGGATATCTCTG
GTTGTGTCTTGCTTACTGACCAAATCCTTGAGGACCTTCAGATAGGCTGCAAACAACTCCGGATCCTTAAGATGC
AATACTGCACAAATATTTCCAAGAAGGCAGCTCAAAGAATGTCATCTAAAGTTCAGCAGCAGGAATACAACACTA
ATGACCCTCCACGTTGGTTTGGCTATGATAGGGAAGGAAACCCTGTTACAGAGCTTGACAACATAACATCATCTA
AAGGAGCCTTAGAATTAACAGTGAAAAAGTCAACATACAGCAGTGAAGACCAAGCAGCG**TGA**CCTTCAGCCTCAA
GCAGGAAGAACAAAAAATCAAGAACTTGGCAAGTTTTCTCCATTTGTTGCAAGTATGTTTACTAGCTGAATCTCA
ATAACAATGTAAACAAGC

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FIGURE 983

TATAACGTGAGGGCTGAATGCAGCCCATTCTCTGGAGAACTTCCTCACACACCGCAGCAAAGAGAAGACTGAAAG
ACAAACCTGGGTGCAGCCAGAGAGGTCCAGATAGATGAGCTTGTGGCATCCATTCCCCAAGTTCAGCCTAGGGAC
TCCACGTACCCCAGCTGGGTCTCATTGTTCCAGAACTGCATTAGTTAAGATTACCCAGACTTGGATTTCAAAGGA
ATACTTTCATTGTTCCGTCTGTAACACGAAGTAATTGGGGCCAGCTGGATGTCAGG**ATG**CGTGTGGTTACCATTG
TAATCTTGCTCTGCTTTTGCAAAGCGGCTGAGCTGCGCAAAGCAAGCCCAGGCAGTGTGAGAAGCCGAGTGAATC
ATGGCCGGGCGGGTGGAGGCCGGAGAGGCTCCAACCCGGTCAAACGCTACGCACCAGGCCTCCCGTGTGACGTGT
ACACATATCTCCATGAGAAATACTTAGATTGTCAAGAAAGAAAATTAGTTTATGTGCTGCCTGGTTGGCCTCAGG
ATTTGCTGCACATGCTGCTAGCAAGAAACAAGATCCGCACATTGAAGAACAACATGTTTTCCAAGTTTAAAAAGC
TGAAAAGCCTGGATCTGCAGCAGAATGAGATCTCTAAAATTGAGAGTGAGGCGTTCTTTGGTTTAAACAAACTCA
CCACCCTCTTACTGCAGCACAACCAGATCAAAGTCTTGACGGAGGAAGTGTTCATTTACACACCTCTCTTGAGCT
ACCTGCGTCTTTATGACAACCCCTGGCACTGTACTTGTGAGATAGAAACGCTTATTTCAATGTTGCAGATTCCCA
GGAACCGGAATTTGGGGAACTACGCCAAGTGTGAAAGTCCACAAGAACAAAAAAATAAAAAACTGCGGCAGATAA
AATCTGAACAGTTGTGTAATGAAGAAGAAAAGGAACAATTGGACCCGAAACCCCAAGTGTCAGGGAGACCCCCAG
TCATCAAGCCTGAGGTGGACTCAACTTTTTGCCACAATTATGTGTTTCCCATACAAACACTGGACTGCAAAAGGA
AAGAGTTGAAAAAAGTGCCAAACAACATCCCTCCAGATATTGTTAAACTTGACTTGTCATACAATAAAATCAACC
AACTTCGACCCAAGGAATTTGAAGATGTTCATGAGCTGAAGAAATTAAACCTCAGCAGCAATGGCATTGAATTCA
TCGATCCTGGGTCTTTGAGA**TGA**AACCCTGCAAGTAGACTTACGTGAATGATTTTTGCTGTGCCGCTTTTTTAGG
GCTCACACATTTAGAAGAATTAGATTTATCAAACAACAGTCTGCAAAACTTTGACTATGGCGTATTAGAAGACTT
GTATTTTTTGAAACTCTTGTGGCTCAGAGATAACCCTTGGAGATGTGACTACAACATTCACTACCTCTACTACTG
GTTAAAGCACCACTACAATGTCCATTTTAATGGCCTGGAATGCAAAACGCCTGAAGAATACAAAGGATGGTCTGT
GGGAAAATATATTAGAAGTTACTATGAAGAATGCCCCAAAGACAAGTTACCAGCATATCCTGAGTCATTTGACCA
AGACACAGAAGATGATGAATGGGAAAAAAAACATAGAGATCACACCGCAAAGAAGCAAAGCGTAATAATTACTAT
AGTAGGATAAGGTAGAAATTGTTCTGATTGTAATTAGTTTTGTATTTTCTATACTGGTGTTAGAAAACATATGTT
TACATTTGATTAACTGTGTTGCCTATTTATGCAGGGTAATCCAGCTAAAGGAAGCTTTCTTTAATTATAAGTATT
ATTGTGACTATTATAGTAATCAAGAGAATGCTATCATCCTGCTTGCCTGTCCATTTGTGGAACAGCATCTGGTGA
TATGCAATTCCACACTGGTAACCTGCAGCAGTTGGGTCCTAATGATGGCATTAGACTTTCATAATGTCCTGTATA
AATGTTTTTACTGCTTTTAGAAAATAAAGAAAAAAAACTTGGTTCATGTTTA

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FIGURE 984

GTCAGGTGGCGTTTGCTGTGGCGGCTAGGCCCGCGTGCGCTGGAGACCTCCGCGCTGGCCCCCGCGAGCCTCCTG
CCCTGGCCCGGCGCTGCGGCTCTGCCGCGGCGGCAGC**ATG**GGTGGCCCCCGGGGCGCGGGCTGGGTGGCGGCGGG
CCTGCTGCTCGGCGCGGGCGCCTGCTACTGCATTTACAGGCTGACCCGGGGTCGGCGGCGGGGCGACCGCGAGCT
CGGGATACGCTCTTCGAAGTCCGCAGAAGACTTAACTGATGGTTCATATGATGATGTTCTAAATGCTGAACAACT
TCAGAAACTCCTTTACCTGCTGGAGTCAACGGAGGATCCTGTAATTATTGAAAGAGCTTTGATTACTTTGGGTAA
CAATGCAGCCTTTTCAGTTAACCAAGCTATTATTCGTGAATTGGGTGGTATTCCAATTGTTGCAAACAAAATCAA
CCATTCCAACCAGAGTATTAAAGAGAAAGCTTTAAATGCACTAAATAACCTGAGTGTGAATGTTGAAAATCAAAT
CAAGATAAAGATATACATCAGTCAAGTATGTGAGGATGTCTTCTCTGGTCCTCTGAACTCTGCTGTGCAGCTGGC
TGGACTGACATTGTTGACAAACATGACTGTTACCAATGACCACCAGCACATGCTTCACAGTTACATTACAGACCT
GTTCCAGGTGTTACTTACTGGAAATGGAAACACGAAGGTGCAAGTTTTGAAACTGCTTTTGAATTTGTCTGAAAA
TCCAGCCATGACAGAAGGACTTCTCCGTGCCCAAGTGGATTCATCATTCCTTTCCCTTTATGACAGCCACGTAGC
AAAGGAGATTCTTCTTCGAGTACTTACGCTATTTCAGAATATAAAGAACTGCCTCAAAATAGAAGGCCATTTAGC
TGTGCAGCCTACTTTCACTGAAGGTTCATTGTTTTTCCTGTTACATGGAGAAGAATGTGCCCAGAAAATAAGAGC
TTTAGTTGATCACCATGATGCAGAGGTGAAGGAAAAGGTTGTAACAATAATACCCAAAATC**TGA**TTGGTCATATT
TTTCCAAAGAGTAATGCAGTCTGGATATAAACGTATTTTCTGTCTTCCTTATAAGGGGATTCTCCCAGCTGCTAA
ATTTAAACAGTAAATATCACATTTTGTCATTAACACAG

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FIGURE 985

ATGGCAAAAATCTCCAGCCCTACAGAGACTGAGCGGTGCATTGAGTCCCTGATTGCTGTTTTCCAGAAGTATGCT
GGAAAGGATGGTTACAACCGCAATCTCTCCAAGACGGAGTTCCTAAGCTTCATGAATACAGAGCTGGCTGCCTTT
ACAAAGAACCAGAAGGACCCCGGTGTCCTTGACCACATGAAGAAACTGGATGTCAGCAGTGATGGGCAGTTAGAT
TTCCCAAAATTTCTTAATCTGATTGGTGGCCTAGCTGTGGCTTGCCATGACTCCTTCCTCAAGGCTGTCCCCTCC
CAGAAG**TAG**

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FIGURE 986

TAGCAGAA**ATG**GCGGCTGCGGCGGCTCGAGTGGTGTTGTCATCCGCGGCGCGGCGGCGGCTCTGGGGTTTCAGCG
AGAGTCTTCTAATCCGAGGCGCTGCGGGACGGTCATTATATTTTGGAGAGAACAGATTAAGAAGTACACAGGCTG
CTACCCAAGTTGTTCTGAATGTTCCTGAAACAAGAGTAACATGTTTAGAAAGTGGACTCAGAGTAGCTTCGGAAG
ACTCTGGGCTCTCAACATGCACAGTTGGACTCTGGATTGATGCTGGAAGTAGATACGAAAATGAGAAGAACAATG
GAACAGCACACTTTCTGGAGCATATGGCTTTCAAGGGCACCAAGAAGAGATCCCAGTTAGATCTGGAACTTGAGA
TTGAAAATATGGGTGCTCATCTCAATGCCTATACCTCCAGAGAGCAGACTGTATACTATGCCAAAGCATTCTCTA
AAGACTTGCCAAGAGCTGTAGAAATTCTTGCTGATATAATACAAAACAGCACATTGGGAGAAGCAGAGATTGAAC
GTGAGCGTGGAGTAATCCTTAGAGAGATGCAGGAAGTTGAAACCAATTTACAAGAAGTTGTTTTTGATTATCTTC
ATGCCACAGCTTATCAAAATACTGCACTTGGACGGACAATTTTGGGACCAACTGAAAATATCAAATCTATAAGTC
GTAAGGACTTAGTGGATTATATAACCACACATTATAAGGGGCCAAGAATAGTGCTTGCTGCTGCTGGAGGTGTTT
CCCATGATGAATTGCTTGACTTAGCAAAGTTTCATTTCGGTGACTCTTTATGCACACACAAAGGAGAAATACCAG
CTCTGCCTCCCTGCAAATTCACAGGAAGTGAGATTCGTGTGAGGGATGACAAGATGCCTTTGGCGCACCTTGCAA
TAGCTGTTGAAGCTGTTGGTTGGGCACATCCAGATACAATCTGTCTCATGGTTGCAAACACGCTGATTGGCAACT
GGGATCGCTCTTTTGGGGGAGGAATGAATTTATCTAGCAAGCTGGCCCAGCTCACTTGTCATGGCAATCTTTGCC
ATAGCTTTCAGTCTTTCAACACTTCCTACACAGATACAGGATTATGGGGACTGTATATGGTTTGTGAATCATCCA
CTGTTGCAGACATGCTACATGTTGTTCAAAAAGAATGGATGCGACTCTGTACAAGTGTCACAGAAAGTGAGGTTG
CACGAGCCAGAAATCTTCTGAAAACAAACATGTTGTTGCAGCTTGATGGTTCAACTCCAATTTGTGAAGATATTG
GTAGGCAAATGTTATGCTATAATAGAAGGATTCCCATCCCTGAGCTTGAAGCAAGAATTGATGCTGTGAATGCTG
AGACAATTCGAGAAGTATGTACCAAATACATTTATAATAGGAGTCCAGCTATTGCTGCTGTTGGTCCCATTAAGC
AACTACCAGATTTTAAACAGATACGCAGTAACATGTGTTGGCTTCGTGAT**TAA**AATGCTCCTAATCAAGATTGTT
TGAACACATGTATTTATAAAACAGAGCTAGAGAAAAATAAAAATGAACATGTATATACATTTGGAAATTTGAATT
AAATACTGTATCATACTTTCAAAGGATAAAAAGACTACCCCTCTGAAGGTTGTTTTGTATTAATGGTCAGTCTTT
GTTCTCTGAGAAATTATGTTGGAAGCAGCATACTTTCAAATTATTACCATGAGTATAATTTTAAGAATGAAAATG
TTTACAGTATTTTCAGTTTTATTATAAAAATGCACACACAA

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FIGURE 987

GTGAGACTGGCCTCCACACCACGAAAGATCCATCCCGGAAGTGCTTACTGGTCGTCTCCATGCGCCGGTTCCTGG
GCGTCTTAGAGCCAAGGCGCGAGGCTCGGAGTGAGAGGTAGAGCTGGAGGGGACCCTAAGCGCCCTCCGCCCGGG
ACGTGAGCCGCTGCGCCCACCGGGCTAGACCCGGCGCCATC**ATG**CTGCTTCTGCCAAGCGCCGCGGACGGCCGGG
GCACCGCCATCACCCACGCTCTGACCTCTGCCTCTACACTCTGTCAAGTTGAACCTGTGGGAAGATGGTTTGAAG
CTTTTGTTAAGAGGAGAAACAGAAATGCTTCTGCCTCTTTTCAGGAACTGGAGGATAAGAAAGAGTTATCCGAGG
AATCAGAAGATGAAGAATTGCAGTTGGAAGAGTTTCCCATGCTGAAAACACTTGATCCCAAAGACTGGAAGAACC
AAGATCATTATGCAGTTCTTGGACTTGGCCATGTGAGATACAAGGCTACACAGAGACAGATCAAAGCAGCTCATA
AAGCAATGGTTTTAAAACATCACCCAGACAAACGGAAAGCAGCTGGTGAACCAATAAAAGAAGGAGATAATGACT
ACTTCACTTGCATAACTAAAGCTTATGAAATGTTATCTGATCCAGTGAAAAGACGAGCATTTAACAGTGTAGATC
CTACTTTTGATAACTCAGTTCCTTCTAAAAGTGAAGCAAAGGATAATTTCTTCGAAGTGTTTACCCCAGTGTTTG
AAAGGAATTCCAGATGGTCAAATAAAAAAAATGTTCCTAAACTTGGTGATATGAATTCATCATTTGAAGATGTAG
ATATATTTTATTCTTTCTGGTATAATTTTGATTCTTGGAGAGAATTTTCTTATTTAGATGAAGAAGAAAAAGAAA
AAGCAGAATGTCGTGATGAGAGGAGATGGATTGAAAAGCAGAACAGAGCAACAAGAGCACAAAGAAAAAAAGAAG
AAATGAACAGAATAAGAACATTAGTTGACAATGCATACAGCTGTGATCCAAGGATAAAAAAGTTCAAGGAAGAAG
AAAAAGCCAAGAAAGAAGCAGAAAAGAAAGCAAAAGCAGAAGCTAAACGGAAGGAGCAAGAAGCTAAAGAAAAAC
AAAGACAAGCTGAATTAGAAGCTGCTCGGTTAGCTAAGGAGAAAGAAGAGGAGGAAGTCAGACAGCAAGCATTGC
TGGCAAAGAAGGAAAAAGATATCCAGAAAAAAGCCATTAAGAAGGAAAGGCAAAAACTTCGAAACTCATGCAAGA
CCTGGAATCATTTTTCTGATAATGAGGCAGAGCGGGTTAAAATGATGGAAGAAGTGGAAAAACTTTGTGATCGGC
TTGAACTGGCAAGCTTACAGTGCTTGAATGAAACACTCACATCATGCACAAAAGAAGTAGGAAAGGCTGCTTTGG
AAAAACAGATAGAAGAAATAAATGAGCAAATCAGAAAAGAGAAAGAGGAAGCTGAGGCTCGTATGCGACAAGCAT
CTAAGAACACAGAGAAATCAACTGGTGGAGGTGGAAATGGAAGTAAAAATTGGTCAGAAGATGATCTACAATTAC
TAATTAAAGCTGTGAATCTGTTCCCTGCTGGAACAAATTCAAGATGGGAAGTTATTGCTAATTACATGAACATAC
ATTCTTCCTCTGGAGTCAAAAGAACTGCCAAAGATGTTATTGGCAAAGCAAAGAGTCTCCAAAAACTTGACCCTC
ATCAAAAAGATGACATAAATAAAAAGGCATTTGATAAGTTCAAAAAAGAACATGGAGTGGTACCTCAAGCAGACA
ACGCAACGCCTTCAGAACGATTTGAAGGTCCATATACAGACTTCACCCCTTGGACAACAGAAGAACAGAAGCTTT
TGGAACAAGCTTTGAAAACATACCCAGTAAATACACCTGAAAGATGGGAAAAAATAGCAGAAGCGGTGCCTGGCA
GGACAAAGAAGGACTGCATGAAACGATACAAGGAACTTGTCGAGATGGTAAAAGCAAAGAAAGCTGCTCAAGAAC
AAGTGCTGAATGCAAGTAGAGCCAAGAAA**TGA**CAATCTTTGTTGTGTGTGCATTTTTATAATAAAACTGAAAATA
CTGTAAACATTTTCATTCTTAAAATTATACTCATGGTAATAATTTGAAAGTATGCTGCTTCCAACATAATTTCTC
AGAGAACAAAGACTGACCATTAATACAAAACAACCTTCAGAGGGGTAGTCTTTTTATCCTTTGAAAGTATGATAC
AGTATTTAATTCAAATTTCCAAATGTATATACATGTTCATTTTTATTTTTCTCTAGCTCTGTTTTATAAATACAT
GTGTTCAAAC

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FIGURE 988

GGAAGGTGCTGTGTAATCATTAAGGAGCGGAGGCTTTTGGAGCTGCTAAA**ATG**CCGGATTACCTCGGTGCCGATC
AGCGGAAGACCAAAGAGGATGAGAAGGACGACAAGCCCATCCGAGCTCTGGATGAGGGGGATATTGCCTTGTTGA
AAACTTATGGTCAGAGCACTTACTCTAGGCAGATCAAGCAAGTTGAAGATGACATTCAGCAACTTCTCAAGAAAA
TTAATGAGCTCACTGGTATTAAAGAATCTGACACTGGCCTGGCCCCACCAGCACTCTGGGATTTGGCTGCAGATA
AGCAGACACTCCAGAGTGAACAGCCTTTACAGGTTGCCAGGTGTACAAAGATAATCAATGCTGATTCGGAGGACC
CAAAATACATTATCAACGTAAAGCAGTTTGCCAAGTTTGTGGTGGACCTTAGTGATCAGGTGGCACCTACTGACA
TTGAAGAAGGGATGAGAGTGGGCGTGGATAGAAATAAATATCAAATTCACATTCCATTGCCTCCTAAGATTGACC
CAACAGTTACCATGATGCAGGTGGAAGAGAAACCTGATGTCACATACAGTGATGTTGGTGGCTGTAAGGAACAGA
TTGAGAAACTGCGAGAAGTAGTTGAAACCCCATTACTTCATCCAGAGAGGTTTGTGAACCTTGGCATTGAGCCTC
CCAAGGGCGTGCTGCTCTTTGGTCCACCCGGTACAGGCAAGACACTCTGTGCGCGGGCAGTTGCTAATCGGACTG
ATGCGTGCTTCATTCGAGTTATTGGATCTGAGCTTGTACAGAAATACGTCGGTGAGGGGGCTCGAATGGTTCGTG
AACTCTTTGAAATGGCCAGAACAAAAAAAGCCTGCCTTATCTTCTTTGATGAAATTGATGCTATTGGAGGGGCTC
GTTTTGATGATGGTGCTGGAGGTGACAATGAAGTGCAGAGAACAATGTTGGAACTGATCAATCAGCTTGATGGTT
TTGATCCTAGAGGCAATATTAAAGTGCTGATGGCCACTAACAGACCTGATACTTTGGATCCAGCACTGATGAGGC
CAGGGAGATTGGATAGAAAAATTGAATTTAGCTTGCCCGATCTAGAGGGTCGGACCCACATATTTAAGATTCACG
CTCGTTCAATGAGTGTTGAAAGAGATATCAGATTTGAACTGTTAGCACGACTGTGTCCAAATAGCACTGGTGCTG
AGATTAGAAGCGTCTGCACAGAGGCTGGTATGTTTGCCATCAGAGCACGGCGAAAAATTGCTACCGAGAAGGATT
TCTTGGAAGCTGTAAATAAGGTCATTAAGTCTTATGCCAAATTCAGTGCTACTCCTCGTTACATGACATACAAC**T**
GAACCCTGAAGGCTTTCAAGTGAAAACTTTAAATTGGAATCCTAACCTTATATAGACTTGTTAATAACCAATTCA
TAAACAAATAAATGGCTTCAA

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FIGURE 989

AGAGAGCTGTTTACTAGGCACGACTGCGAAGGCAAGGGGGCACCAGCTCAGGACTGCATCTGCCTGCCATTTCCC
TTCCACTCCTCCTTTCTGGAGTCTGACATTAGAAAGCCAGCGAGAAGGAAGATTCAAACAACCAACCCTGATTTC
CTGCTTCTCCTTTTCATGAGTGTTCCTGTGGTCTCTGCACCTCCTTTCTGTCCCCCGGCAGAGGGCAGTAGAG**AT**
GGCCGGCCCAAGGCCTCGGTGGCGCGACCAGCTGCTGTTCATGAGCATCATAGTCCTCGTGATTGTGGTCATCTG
CCTGATGTTTTACGCTCTTCTCTGGGAGGCTGGCAACCTCACTGACCTGCCCAACCTGAGAATCGGCTTCTATAA
CTTCTGCCTGTGGAATGAGGACACCAGCACCCTACAGTGTCACCAGTTCCCTGAGCTGGAAGCCCTGGGGGTGCC
TCGGGTTGGCCTGGGCCTGGCCAGGCTTGGCGTGTACGGGTCCCTGGTCCTCACCCTCTTTGCCCCCCAGCCTCT
CCTCCTAGCCCAGTGCAACAGTGATGAGAGAGCGTGGCGGCTGGCAGTGGGCTTCCTGGCTGTGTCCTCTGTGCT
GCTGGCAGGCGGCCTGGGCCTCTTCCTCTCCTATGTGTGGAAGTGGGTCAGGCTCTCCCTCCCGGGGCCTGGGTT
TCTAGCTCTGGGCAGCGCCCAGGCCTTACTCATCCTCTTGCTTATAGCCATGGCTGTGTTCCCTCTGAGGGCTGA
GAGGGCTGAGAGCAAGCTTGAGAGCTGC**TAA**AGGCTTACGTGATTGCAAGGGTTCAGTTCCAACCATGGTCAGAG
GTGGCACATCTGCTCAGCCATCTCATTTTACAGCTAACGCTGATCTCCAGCTCCAGCGATGGAACCCACTACAGA
GGAGGTGGGGCCCCTGTGTCAAAGAGGCCGAGGGGCAGCAAGGGCAGCCAGGGCACCTGTGACTTCTTAGTACAA
GATTGTCTGTCCTTCAGGACTTCCAAGGCTCCCAAAGACTCCCTAAACCATGCAGCTCATTGTCACACCAATTCC
TGCTTTAATTAATGGATCTGAGCAAATCTTCCTCTAGCTTCAGGAGGGTGGGGAGGGAGTGATTGCTGTCATGGG
GCCAGACTTCCAGGCTGATTTGCCAAATGCCAAAATGAAACCTAGCAAAGAACTTACGGCAACAAACGAGGACAT
TAAAAGAGCGAGCACCTCAGTGTCTCTGGGGACATGGTTAAGGAGCTTCCACTCAGCCCACCATAGTGAGTGGGC
CGCCATAAGCCATCACTGGAACTCCAACCCCAGAGGTCCAGGAGTGATCTCTGAGTGACTCAACAAAGACAGGAC
ACATGGGGTACAAAGACAAGGCTTGACTGCTTCAAAGCTTCCCTGGACCTGAAGCCAGACAGGGCAGAGGCGTCC
GCTGACAAATCACTCCCATGATGAGACCCTGGAGGACTCCAAATCCTCGCTGTGAACAGGACTGGACGGCTGCAC
ACAAACAAACGCTGCCACCCTCCACTTCCCAACCCAGAACTTGGAAAGACATTAGCACAACTTACGCATTGGGGA
ATTGTGTGTATTTTCTAGCACTTGTGTATTGGAAAACCTGTATGGCAGTGATTTATTCATATATTCCTGTCCAAA
GCCACACTGAAAACAGAGGCAGAGACATGT

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FIGURE 990

CAGAGTTTGGGCGCCAGGCGAGACGGCAGGGCTTAAAGTTCCGGGAATCAAAGATCAACTCCCACTGAGGACAAA
TGGACCTGTAATTCCGGGTGTGACGAGAGAACGAGATTTACCTTCCTGAATTAAAAAACAGGTCATTAAGCTTGG
GCCCTGACTCTTCTTTGTGAGAAGGTACAGAGATGGAAACCTTACAATCCGAGACTAAAACGAGGGTCCTTCCCT
CATGGCTGACAGCCCAGGTGGCTACAAAGAATGTGGCACCA**ATG**AAGGCCCCCAAGAGGATGAGAATGGCAGCAG
TGCCAGTGGCAGCAGCAAGACTCCCTGCGACAAGGACTGTGTACTGCATGAATGAGGCTGAGATAGTTGATGTTG
CTCTGGGAATCCTGATTGAGAGCCGCAAACAGGAAAAGGCCTGCGAGCAGCCGGCCCTGGCGGGGGCTGATAACC
CAGAGCACTCCCCTCCCTGCTCCGTGTCGCCTCACACAAGTTCTGGGAGCAGCAGTGAGGAAGAGGACAGTGGGA
AACAGGCACTGGCTCCAGGCCTCAGCCCTTCCCAGAGGCCGGGGGGTTCCAGCTCTGCCTGTAGCAGGAGCCCTG
AGGAGGAGGAGGAAGAGGATGTGCTGAAATACGTCCGGGAGATCTTTTTCAGC**TAG**GGCATAAACTGTGCACTGA
ACTGTCTGCCGAGAGCAGCTGGAGGACAGCTGAGCTTCCACTGGTGCTGCTGGGCCGCCCGCCTGTGGGAATGGG
GCTCTCTGTGCTCCTACCTTTGTGCCTTCTTGGGCCTGGCAGATTCACCTCAGGCCAGAAGCCCCTGGACACTCC
GGGCCTTGGGGCTGCCGTTCTGAGTGTGCGGAAGGCAGGACTCAAAATGAGATCCCATTTGACTCCCTCTGTATG
TACTGTGCCCTCTCCTGGCTCTTGAGGCTCTGGAGTCCCAATTGTCTGTGTTAGTCAGTGACCAGGTTCCAGGGA
AAATGATGTCATGTGGTGGTCCAACTTACTGGAACCAAAGAGACAGTACTTTGCAAAGAAAAGGATCACTGCCAG
GTGCACTGGAATTGCTACAGTTTAGTCCGCATGATCTCTCCTGAAGGAGGAAGCCTGTTTCAAAAATAGTTTCCA
TCATGAGTCTATCAATGAGCTCCCACCTCTCCAGCCAGCCTAGAAAGCAAACGAGCTGCCCACAGTTCTCTGCCC
TGTCTGGGAGGTTGAGGCCACAGTGTATAGACTGGTAAGCCAGACAGGCCTCCTCCCGCAAGCTGCTACCTTGCT
TTCACCTGTACCTTGGTCCCCGGGCAGCTAGCTATAAAGCAAGAGGGACAGGAGCCCAGAAGAGACACTGAGGAC
AAGAGATCACACCAGAGTACATGTCTCTGCCTCTGTTTTCAGTGTGGCTTTGGACAGGAATATATGAATAAATCA
CTGCCATACAGGTTTTCCAATACACAAGTGCTAGAAAATACACACAATTCCCCAATG

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FIGURE 991

AAGACGCTAGCGCTGCGATGGCGGAGGCCGTGGAGCGCACTGACGAGCTGGTCCGGGAGTACCTGCTCTTCCGCG
GGTTCACGCACACACTGCGGCAGCTGGACGCCGAGATCAAGGCGGACAAGGAGAAGGGGTTCCGGGTGGATAAGA
TTGTGGACCAGCTGCAGCAGTTA**ATG**CAGGTGTATGACTTGGCTGCCCTTCGGGATTATTGGAGCTACTTGGAGC
GTCGGCTCTTCAGCCGCTTGGAGGATATATACAGACCCACAATCCACAAGCTGAAAACCAGCCTGTTTCGATTTT
ATCTTGTCTACACAATCCAGACAAACAGAAATGACAAGGCTCAGGAGTTCTTTGCAAAGCAGGCCACGGAACTCC
AGAACCAGGCTGAGTGGAAGGATTGGTTTGTCCTGCCCTTCCTGCCATCCCCGGACACCAACCCCACCTTTGCTA
CCTACTTTTCTCGACAGTGGGCTGACACCTTCATTGTGTCCCTGCACAACTTCCTGAGCGTCCTGTTTCAGTGCA
TGCCAGTCCCTGTGATCCTGAACTTTGATGCGGAGTGTCAGAGGACTAACCAGGTTCAAGAAGAAAATGAAGTTC
TGCGTCAGAAGCTTTTTGCATTGCAAGCTGAAATCCACCGACTGAAGAAAGAGGAGCAACAGCCAGAAGAGGAAG
AGGCCTTGGTCCAACACAAATTGCCTCCTTATGTCTCCAACATGGACCGCCTGGGGGACTCGGAACTTGCCATGG
TGTGCAGCCAAAGGAATGCCTCCCTCTCCCAGTCACCTCGTGTGGGCTTCCTGTCCTCGCTGCTGCCTCAGAGTA
AGAAGAGCCCCTCAAGGTTGTCGCCTGCTCAGGGCCCTCCTCAACCTCAGAGCTCGGCCAAGAAAGAGTCCTTCG
GTGGTCAGGGCACCAAGGGAAAGGACCCGACGTCCGGAGCCAAGGATGGGAAGAGCCTCCTCAGCGGGCTGGCCA
CTGGGGAGTCCGGTTGGTCACAGCACCGGCAGCGGCGCCTGCAGGACCATGGCAAGGAGAGGAAGGAGCTTTTCT
CCACAACCACTTCCCAGTGTGCAGAGAAGAAACCAGAAGCCAGTGGCCCAGAGGCTGAGCCCTGCCCAGAGCTCC
ACACGGAGCCAGTGGAGCCACTGACTCGGGCATCCTCGGCAGGCCCTGAGGGTGGAGGAGTCCGCCCCGAGCAGC
CCTTTATTGTGCTGGGACAGGAGGAGTACGGGGAACACCACTCATCCATCATGCACTGCAGAGTGGACTGCTCTG
GGAGGAGAGTCGCCAGCTTAGACGTAGATGGGGTCATCAAAGTGTGGTCCTTCAACCCCATCATGCAGACCAAAG
CATCCTCCATTTCCAAATCACCGCTGCTGTCTTTGGAATGGGCCACCAAACGGGACAGACTGCTCTTGCTGGGCA
GTGGTGTGGGAACAGTGCGTCTCTATGACACGGAAGCCAAGAAGAATCTCTGTGAAATCAATATCAACGACAACA
TGCCCAGAATCCTGTCTCTTGCGTGCAGCCCCAACGGGGCCTCTTTCGTCTGTTCGGCAGCAGCTCCGAGCCTCA
CTTCCCAGGTGGACTTCTCAGCACCAGACATCGGCAGCAAGGGCATGAACCAGGTTCCTGGCAGGCTGCTGCTGT
GGGACACGAAAACCATGAAGCAGCAGCTCCAGTTCTCCCTGGATCCAGAACCCATTGCTATCAACTGTACAGCCT
TCAATCACAACGGGAACCTGCTGGTCACAGGGGCAGCTGATGGCGTCATCCGGCTGTTTGACATGCAGCAGCATG
AGTGCGCGATGAGCTGGAGGGCCCACTACGGGGAGGTCTACTCTGTGGAGTTCAGCTATGATGAGAACACCGTGT
ACAGCATCGGCGAGGACGGGAAGTTCATCCAGTGGAACATCCACAAGAGTGGCCTCAAGGTATCCGAGTACAGCC
TCCCCTCAGATGCCACGGGCCCCTTTGTGCTGTCTGGATACAGCGGCTACAAGCAGGTTCAAGTCCCCAGGGGCC
GACTCTTCGCTTTTGACTCGGAGGGAAATTACATGCTGACATGTTCTGCCACAGGCGGCGTCATCTACAAGCTGG
GTGGCGATGAGAAGGTTCTGGAGAGCTGCTTGAGCCTAGGTGGCCACCGAGCCCCTGTGGTCACCGTGGACTGGA
GCACTGCCATGGACTGTGGGACCTGCCTCACCGCCTCCATGGATGGCAAGATCAAGCTGACCACCCTCCTGGCCC
ATAAAGCC**TGA**TGACTTGCCCCAAGGGCCACCCGAGGAAGCAGTATTATCTGCGGTGGGGGGAGGAGATATAGGA
CAGGAAAACCACGTGCTCCACTCCAGCTCCCTGCCAGTGCAGTGACTCTGCAGGGAAAGACTGGCAAGGAGGCTC
AGGTGCTTCCATCTGTGGTGACTGGAATGGGACCCACGTGGAGTAGGTGACATATGCTTCCCAGAGACTGGTATT
GTGGCTGTGCCAGGAGTACATGTGAGACTATGGGAGGAAAGCTCCGGAAGAAGGAGAAACATTGCAGTGGCTACT
GTGTTGGCCCAGTAGAAATTGACAGTATTTTGTATATATGTGCCCATTTATCTTTTTCTTTTTTAAAAAAAGAGA
ATACTCTTGTGGTCCCCTGATGTCTCTTTCTAGGATGTGTGTCACTTTGCTTCAGTGACAGCCCTCCCACCCAGC
CTGGCTCTGCTGGCCCTGAACTGAACCTCTCCAGGCTCTCCTGTTGCTTTGCCATGGAGCCAGGTCAGCTCTCTG
TCTGTTCTGCTGGGTAACAAGGTTTGGCAGTTCCTGTTTCTCTGGGCTTAAGTCAAGGCCACAGAATTCTTTTTC
TTCCCTGAAAGCTGGCAGCTTTTGTTACAGAAGATTCTCAGGATGAAGGCAGGGGCTGAGGCCTCTGCTACTGGC
TGCCCCTTTCCATCCAGTGGCTGCTGTTTCCCAAGACAGGCTAAGCGTTTCTTATCTGAAATGCTTGGGACAGGA
GTGTTACAGATTTTGGATTTTTTCAGACTTTGGAATATTTGCATATATACATAATGAGGTATCTTGGTAGGTCTC
ATGTCTAAACATGAAATTCATTCATGTTTTATATATACCTTATACATGTAGCCTGAAGGTAACTCTATACAGTAT
TTTAAATAATTTTGTACATGAAACAAAGT

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FIGURE 992

TGGTGGCCCGTCTGGCTGTGGAACCCACCGAAAGCTGAGAGTCTCTCTCTCAGCCGTAAAGGTCGGACTCGCTGA
AGCAATCAGGCCCGGTTCTGAAGAGTTTTTTCCCCGACGCTCGTTCGGTGGTTTCTTGTGAGGACGCGGCAGCCC
GTGGAGTCGGCTGAGGGAAAAGCGAGGCAAGGCAGGCGGGTCGTCAAAGTCCTACATTTTAGCTTTCAGTGCTGA
ACTTCCTTCTCCCTTAAATTATTATAAACTTTTGCTGCTGTTTAATAAACGTGAAG**ATG**TCTCGCAGTCCTGATG
CGAAGGAAGACCCTGTGGAGTGCCCTCTTTGCATGGAGCCCTTGGAGATAGATGATATCAACTTTTTCCCTTGCA
CCTGTGGCTACCAGATTTGCCGATTTTGTTGGCATCGAATTCGCACTGATGAAAATGGGCTTTGTCCTGCATGTA
GAAAGCCATATCCAGAAGACCCAGCAGTTTATAAACCACTCTCCCAGGAAGAGCTGCAAAGGATAAAGAATGAGA
AAAAACAGAAACAAAATGAGAGAAAACAGAAAATATCAGAAAATCGCAAACATTTGGCTAGTGTACGTGTCGTAC
AAAAAAACCTCGTCTTTGTTGTAGGTTTATCTCAGCGCCTAGCAGACCCAGAGGTTTTAAAACGACCAGAATATT
TTGGGAAGTTTGGTAAAATACATAAAGTTGTCATCAATAATAGCACATCATATGCAGGCTCACAGGGTCCAAGTG
CCAGTGCTTATGTAACCTATATCCGGTCAGAAGACGCTCTCAGAGCCATACAGTGTGTCAACAATGTGGTAGTAG
ATGGCAGAACACTTAAGGCATCTCTAGGTACAACAAAATACTGCAGTTACTTCTTAAAGAATATGCAGTGTCCAA
AACCTGACTGCATGTATCTTCATGAATTGGGGGATGAGGCGGCCAGCTTCACAAAAGAGGAAATGCAGGCGGGTA
AACACCAAGAATATGAACAGAAGCTACTTCAAGAATTATATAAATTAAATCCCAATTTTCTTCAGCTATCTACGG
GTTCAGTTGATAAAAATAAGAACAAAGTGACACCACTGCAGAGGTACGATACCCCCATTGACAAACCTTCAGATT
CTCTCAGTATAGGGAACGGTGATAATTCCCAGCAGATATCTAACAGTGATACGCCTTCACCACCACCTGGTTTGT
CAAAATCCAATCCAGTCATCCCCATCAGTTCATCCAATCACAGTGCACGGTCCCCTTTTGAAGGGGCAGTAACAG
AGTCACAGTCGTTATTCTCAGACAATTTTCGCCATCCCAACCCTATCCCAAGTGGGCTTCCTCCTTTCCCCAGCT
CCCCACAGACATCCAGTGACTGGCCTACAGCACCAGAACCACAGAGCCTCTTCACATCAGAAACAATCCCAGTAT
CATCCTCTACAGACTGGCAAGCAGCTTTTGGCTTTGGTTCTTCTAAACAACCAGAGGATGACTTGGGTTTTGATC
CCTTCGATGTCACTCGAAAAGCCTTAGCAGACCTGATTGAGAAGGAACTGTCCGTTCAAGACCAACCTTCCCTTT
CGCCCACATCTCTTCAGAACTCCTCTTCACACACTACAACCGCCAAAGGTCCAGGCTCTGGATTCCTGCATCCTG
CTGCAGCTACAAATGCCAATTCTCTCAATAGTACCTTTTCAGTCTTGCCCCAGAGGTTCCCTCAATTTCAGCAGC
ACCGAGCGGTTTATAATTCATTCAGTTTTCCAGGCCAGGCAGCCCGCTATCCTTGGATGGCCTTTCCACGCAATA
GCATCATGCACTTGAACCACACAGCAAACCCCACCTCAAATAGTAATTTCTTGGACTTGAATCTCCCGCCACAGC
ACAACACAGGTCTGGGAGGGATCCCTGTAGCAGGTATTCCAGCGTCTTCAGGAAACAGTTTAGACTCTCTTCAAG
ATGACAATCCTCCACACTGGCTAAAATCCCTTCAGGCCCTCACAGAGATGGACGGCCCCAGCGCTGCTCCATCAC
AGACCCACCACAGCGCCCCCTTCAGCACACAGATCCCGCTGCACAGAGCCAGTTGGAATCCCTACCCTCCTCCTT
CAAACCCTTCCAGCTTCCACTCCCCACCCCCAGGCTTTCAGACAGCCTTCAGACCCCCCAGCAAAACCCCCACAG
ATTTACTACAGAGTTCAACACTGGACCGCCAT**TAG**GCAAAGAGGAGCAACCATTAGAAAATGCAGGATTTGTCCC
ACTCTGTTTTCTCCCTCTCAGCCCACCACCCACAGCTCCCTTCTCATCTCTTATGTTCTGAAGAATCCAGTACCT
GATCAATTTTTTTTCTCCCTAACCCCAGATGCAATGCGATCACAGGGTCATTACCATCTCTTTATTAATTGTAAA
AATTTTTGTTGATCCAGCATTTGAGTGACACTGTTGAATGTTTCTAAAAATGCCTTTTTAAGGAGAGAAAAAAAA
ATCAAAGGGCAGTCTCAATACTTAGAAAATTATTGTTTGTCTGTTGCGCATAATAATGACATAATCTGCTTAGCA
GAAAATGACGATTAATCTATAGGAAAGCTCAAGTAAATGCATTATCAACTGCAGAAGTTTGAAAACCAGGTTCAT
TTACGTGAGATTGCTAAATGCATGGGGGAAAGCAGTGGTCCTAGCATCCATCTTGTATTCAGCTTATCATTATTG
CAGGGAAAATGCTTTTAATTTAAATTAATTTTTAATTCTTTTGGCAAGTTGATGGCAAGGACTTGATTGTGTCAT
TAAGCAAAAGAATGTATTGGAAGTTGATGGAAAGACAAATTCATCTGTAGTAGTAACTGGCCGATTGCTAAAGAG
TTCATAAGGAGGTGAGAAGTAATTTTTTTAAAGGAGAAAAATTTTTTGGCTTTAGATTTAAAGTAAATTGAAATG
TTTTAAAGAAAAAAGTATTCACAGATTTAATACCTATTAATAATATAAGAGCTGAAATGTAAGTCATTTCTTCAG
TCCTTCTCCTCTGTCGGAATCTTTTTTGTTTTACCATAAATTCACCTGACGAGGGCACTCTGAGATAGCACTGCT
CTGGGGCCATCTGATCACCATCGGGAGCAAATCTCTGACCTCCTTGCCTGCAGCTTTTACTTAACCCTGTAGTTT
CTGGACGTTTGTGCAGTATTGAAAAGACAGGAGAAAAGAAAACAGAAACCTGGTTATAACCTGACGCTAAAACTA
AAAACAAGGAAATGTACCTCTTTCTTCAGAATTAAAACTAAAATCTTAAATAAAACAGAAAACTTGATG

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FIGURE 993A

CTGCTAGTCTATGGGGTCCTTACAAAGACATTTGGCATAAAGTGGGAAATGCTCTTTGGAGAAGACAACCTGAAG
CTGTTCACCTTCTTGATAAGATTTTGAAGAAACACAAACCTGACTTCATCTCATTGTTCAAAAATCCGCCAAAAA
ATGTTCAACAGCATGAGAAGGTTCAGAAAGCCAGTACAGAGGGAGTCGCCATTCAGGGTCAACAGGGAACTCGAC
TTCTTCCTGAACAGCTCATTAAAGAAGCCTTTATTCTCAGTGACCTTTTTGATATTGGAGAATTGGCAGCTGTTG
AGCTTCTTCTTGCTGGAGAGCATCAACAGCCACATTTTCCTGGCCTTACCAGAGGATTAGTAGCTGTTCTTCTGT
ACTGGGATGGAAAGCGATGCATTGCGAATTCCTTGAAAGCCTTGATACAGTCTAGACGGGGAAAGACATGGACCC
TAGAACTCAGTCCAGAGCTGGCTTCC**ATG**ACAACACGCTTTACAGATGAGCTGATGGAGCAAGGATTGACTTATA
AAGTTCTTACGCTGGTGTCACAGATTGATGTGAATAATGAGTTTGAGAAACTACAGCGAGAGAGAGGTTTGGGCA
GTGAAAAACATCGCAAAGAGGTTTCTGATCTCATTAAGGAGTGCAGGCAGTCTCTTGCAGAAAGCCTTTTTGCCT
GGGCTTGCCAGTCACCTTTAGGCAAAGAAGACACTCTCCTCCTCATTGGACATTTGGAAAGAGTGACAGTTGAGG
CTAATGGCTCACTGGATGCAGTGAATCTGGCTCTTCTTATGGCGCTTCTATACTGTTTTGATATCAGTTTTATAG
AGCAAAGCACAGAGGAACGAGATGATATGATTCATCAACTTCCACTGTTGACAGAAAAACAGTACATTGCAACAA
TTCACTCTCGTCTTCAGGACTCACAGCTTTGGAAACTGCCTGGGCTCCAAGCCACTGTTAGACTTGCCTGGGCGC
TGGCATTGAGGGGAATATCCCAGCTACCTGATGTGACAGCTCTGGCAGAATTCACAGAGGCAGATGAAGCAATGG
CAGAACTCGCAATTGCTGACAACGTTTTCCTGTTCCTCATGGAATCTGTAGTGGTATCAGAATACTTTTATCAGG
AAGAATTTTATATTCGCAGAGTCCATAATCTCATCACAGATTTCCTTGCACTTATGCCAATGAAGGTGAAACAGC
TGAGGAATCGGGCAGATGAAGATGCTCGAATGATTCACATGAGTATGCAGATGGGTAATGAACCCCCCATTTCAC
TTAGAAGGGACCTGGAACACTTAATGCTTTTGATTGGCGAGCTATATAAAAAGAACCCTTTTCATCTGGAGCTTG
CTCTAGAATATTGGTGTCCCACAGAGCCTCTTCAGACTCCGACTATCATGGGCTCTTATCTAGGGGTGGCTCATC
AGCGGCCCCCTCAACGCCAGGTTGTCTTGTCAAAGTTTGTTAGGCAAATGGGTGACCTGTTGCCTCCAACTATTT
ATATTCCTTATTTGAAGATGCTCCAGGGATTGGCCAATGGGCCTCAGTGTGCCCACTACTGTTTCAGCCTGCTCA
AAGTCAATGGTAGTAGTCATGTTGAAAATATTCAGGGAGCAGGTGGCAGTCCTGTTTCCTGGGAACATTTCTTTC
ACTCCTTGATGCTTTACCACGAACACCTTCGGAAGGATCTTCCAAGTGCAGATAGTGTCCAGTACCGTCACCTTC
CTTCCCGTGGCATCACCCAGAAGGAGCAAGATGGATTGATTGCTTTTTTGCAGCTCACGTCTACCATCATTACTT
GGAGTGAAAATGCTCGCTTGGCACTCTGTGAACACCCTCAGTGGACCCCTGTTGTGGTGATTCTGGGACTCCTCC
AATGCAGTATTCCCCCTGTCCTAAAAGCTGAGCTACTGAAGACACTCGCAGCTTTTGGAAAATCTCCTGAAATTG
CTGCTTCCCTCTGGCAGTCATTGGAATACACTCAGATACTGCAGACCGTGAGGATTCCAAGCCAAAGGCAAGCTA
TTGGTATTGAGGTTGAACTAAATGAAATAGAATCCCGGTGTGAAGAATACCCATTGACTCGGGCCTTTTGCCAGC
TTATTAGTACTCTGGTGGAGAGCTCATTTCCTTCTAATTTGGGTGCTGGACTGCGGCCCCCTGGCTTTGACCCTT
ATTTGCAGTTCCTTAGAGACTCTGTGTTTCTACGATTCCGTACAAGAGCTTACCGGAGAGCAGCTGAAAAGTGGG
AAGTTGCTGAGGTGGTTTTGGAGGTGTTTTATAAATTGCTCAGAGATTATGAGCCTCAGCTTGAAGATTTTGTAG
ACCAGTTTGTGGAACTACAAGGAGAAGAAATCATAGCCTATAAGCCACCTGGATTTAGTCTGATGTATCATCTGC
TGAATGAGTCACCAATGTTGGAGCTTGCTCTCAGTTTACTGGAAGAAGGAGTTAAGCAGCTTGACACCTATGCCC
CCTTTCCTGGGAAAAAACACCTGGAGAAAGCAGTACAGCATTGCCTTGCACTTCTCAATCTTACTCTGCAAAAGG
AAAATCTTTTTATGGACCTTCTAAGAGAGAGTCAACTGGCTCTAATAGTCTGTCCTTTAGAACAGCTTTTGCAGG
GAATTAATCCCAGAACTAAGAAGGCAGATAATGTGGTAAACATTGCCAGATACCTATATCATGGCAATACTAATC
CAGAATTGGCTTTTGAAAGTGCCAAGATCCTCTGTTGTATCTCTTGCAACTCTAATATTCAGATAAAGTTGGTTG
GAGATTTCACACATGACCAGAGTATAAGTCAGAAACTAATGGCTGGATTTGTGGAGTGTTTGGATTGTGAAGATG
CAGAAGAATTTGTACGTCTGGAAGAGGGATCAGAACTTGAAAAGAAATTAGTTGCAATTCGTCATGAAACAAGAA
TCCACATCTTGAATCTTCTCATTACCTCTCTGGAATGCAATCCACCCAATCTTGCTCTCTACCTGTTGGGCTTTG
AATTGAAAAAACCTGTCAGTACTACAAACCTACAAGATCCAGGAGTGTTAGGTTGCCCTCGGACATGCCTTCACG
CCATTCTAAACATCTTGGAGAAAGGAACGGAAGGGAGAACAGGCCCAGTGGCGGTGCGAGAATCTCCTCAGCTGG
CTGAGCTATGTTACCAGGTCATATATCAGTTATGTGCATGCTCTGATACATCTGGTCCTACTATGAGGTACTTGA
GAACCAGCCAGGATTTCTTATTTTCCCAGTTGCAGTATCTACCATTTTCTAACAAAGAATATGAAATATCTATGC
TGAACCAGATGTCATGGCTTATGAAAACTGCCTCAATAGAGCTAAGGGTAACCTCTCTGAATCGTCAGCGGTCAC
ATACCCAGAGGCTCCTACACCTCTTACTGGATGACATGCCAGTGAAACCATACTCAGATGGTGAAGGAGGAATAG
AAGATGAAAACAGGTCTGTTTCTGGGTTCCTTCACTTTGACACTGCTACAAAAGTACGTCGAAAAATTCTAAATA
TTCTTGACTCGATTGACTTCAGTCAGGAGATCCCTGAGCCTTTGCAGTTGGATTTTTTTGATCGGGCCCAGATTG

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FIGURE 993B

AACAAGTTATTGCTAACTGTGAACACAAGAATTTACGGGGACAGACAGTCTGCAATGTCAAGCTTCTTCATAGGG
TTCTTGTAGCTGAAGTAAATGCCCTTCAGGGTATGGCAGCCATAGGACAGAGACCTCTACTAATGGAGGAAATCA
GCACTGTACTTCAGTATGTGGTAGGAAGAAATAAATTGCTGCAGTGTCTTCATGCAAAACGTCATGCTCTGGAGT
CGTGGAGGCAACTAGTAGAAATTATACTGACAGCTTGTCCCCAGGACCTCATTCAGGCAGAGGATCGACAACTGA
TTATTCGTGATATTTTACAAGATGTGCATGATAAGATACTGGATGATGAAGCTGCGCAAGAGTTAATGCCTGTGG
TCGCCGGGGCAGTGTTCACACTGACTGCTCACCTAAGCCAGGCCGTCCTCACTGAACAGAAGGAAACATCAGTCT
TGGGACCAGCAGAGGCCCATTACGCTTTTATGCTTGATAGTTGCTTCACCTCACCTCCTCCTGAAGAGAACCCAT
TAGTGGGTTTTGCTTCTATTGGAGATTCTTCACTTTACATCATATTGAAGAAACTGTTAGACTTCATTTTGAAGA
CAGGTGGTGGATTCCAACGAGTGAGGACTCACTTGTATGGCTCTCTGCTTTATTACTTACAGATTGCCCAGAGAC
CTGATGAACCAGACACCTTAGAAGCAGCCAAGAAAACCATGTGGGAAAGGCTGACAGCCCCTGAAGATGTATTTA
GCAAATTACAGCGAGAAAACATAGCCATTATTGAAAGTTATGGCGCCGCCCTCATGGAAGTGGTCTGTCGAGATG
CTTGTGATGGTCATGAGATTGGAAGGATGCTGGCCCTGGCTCTACTTGATAGAATTGTCTCCGTGGATAAACAGC
AGCAGTGGCTTTTGTATCTTTCTAACAGTGGCTACTTGAAGGTCCTCGTAGACAGCTTGGTAGAAGATGACCGTA
CTTTGCAGAGCTTACTCACCCCACAGCCTCCCCTTTTAAAAGCACTTTATACTTATGAATCTAAAATGGCATTTC
TCACAAGAGTGGCAAAGATACAGCAGGGTGCATTAGAGCTGCTAAGATCAGGGGTGATTGTGAGACTAGCTCAAT
GCCAAGTCTATGACATGCGCCCAGAAACGGACCCGCAGAGCATGTTTGGCATGAGAGACCCTCCAATGTTCATCC
CTACCCCAGTGGATCGCTACCGCCAGATTCTCCTCCCAGCTCTCCAGCTGTGCCAGGTCATCCTCACATCTAGTA
TGGCCCAGCACTTGCAGGCAGCAGGGCAGGTATTGCAGTTTCTTATTTCACATTCTGATACCATACAAGCAATTC
TGCGCTGTCAGGATGTTAGTGCTGGGTCTTTGCAGGAATTGGCTCTGCTGACAGGAATTATAAGTAAAGCAGCAC
TTCCTGGAATATTAAGTGAACTTGACGTTGATGTAAATGAAGGGTCTCTAATGGAGCTACAGGGACATATTGGAA
GATTCCAGCGCCAGTGCTTAGGACTACTAAGTCGCTTTGGTGGCTCTGACAGACTGCGTCAGTTTAAATTTCAAG
ACGATAATGTGGAGGGAGATAAAGTAAGCAAGAAAGATGAGATTGAACTGGCTATGCAGCAGATTTGTGCCAATG
TAATGGAATATTGCCAGTCACTCATGTTACAGAGTTCCCCTACCTTCCAGCATGCTGTGTGTCTCTTCACTCCTA
GCCTTTCAGAAACAGTTAATAGAGATGGACCGCGGCAAGATACCCAAGCTCCAGTGGTTCCATACTGGCGCCTGC
CTGGTTTAGGCATTATCATCTACCTGCTGAAACAGAGTGCTAATGATTTCTTCAGCTATTATGACAGTCATCGAC
AGAGTGTCAGCAAGCTACAAAATGTAGAGCAGCTTCCCCCAGATGAGATAAAAGAGTTGTGTCAGTCTGTGATGC
CTGCTGGTGTTGATAAAATCTCCACTGCTCAGAAATATGTTCTAGCAAGACGGCGCTTGGTGAAGGTGATCAACA
ATCGAGCTAAACTGCTTTCCCTTTGTTCTTTTATCATAGAGACCTGCCTATTTATTCTTTGGCGCCATCTGGAGT
ACTACTTGTTACATTGCATGCCCACGGATTCTCAAGATTCCTTATTTGCCTCGAGAACCTTGTTTAAAAGCAGAA
GACTGCAAGATTCCTTCGCCTCAGAAACCAATCTAGATTTTAGAAGTGGGCTGGCTATAGTGAGCCAACATGATT
TAGACCAGCTTCAGGCTGATGCAATCAACGCTTTTGGAGAATCACTACAAAAGAAACTTCTGGACATTGAAGGAT
TATATTCAAAAGTTCGATCTCGATATAGTTTCATACAGGCTCTTGTCAGACGTATCCGTGGCCTCTTGAGGATAT
CAAGGAAC**TGA**GAGCCCGTGCTTATGCTCTTCTATGAGAGAGATGAATTGGGGAGAATTGTCTCCATTTTATAGA
TTAGTTTCTTTCTAAATTATGACCAAAAATATTTTGCTATTTCTTTCTTTGTATATGGACATCTTTTCTGTAAAC
TTCTTCCCCTAGTTCCATCCTCACTAGTAAAAAATAAATACTTTTTAAAAAAAC

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FIGURE 994

GAGGTAGGCTCGGACCGGCCCGCGGAGCTGCTGCAGTCCTTCGCGCCCTCCTCGCCCTCCCCACCGACATCATGC
TCCAGTTCCTGATACCAAACCTGGCTAAAAAACTTGAAGAAATTAAAAAGGACTTGGATGCCAAGAAGAAACCCC
CTAGTGCATGAGACTGCCTCCAGCACTGCCTTCAGGATATACTGATTCTACTGCTCTTGAGGGCCTCGTTTACTA
TCTGAACCAAAAGCTTTTGTTTTCGTCTCCAGCCTCAGCACTTCTCTTCTTTGCTAGACCCTGTGTTTTTTGCTT
TAAAGCAAGCAAAATGGGGCCCCAATTTGAGAACTACCCGACATTTCCAACATACTCACCTCTTCCCATAATCCC
TTTCCAACTGCATGGGAGGTTCTAAGACTGGAATTATGGTGCTAGATTAGTAAACATGACTTTTAATGAGTAGTG
TCTTCTTTATCGTTTGCGATTTTTACTACCTTTTTTCAAAAGAAAAATTGATGAGTTTTGTATAGCTGGTCAGAT
ACAAATAATAGTGACTTCACAGTTTAGTAATTATAATGGGTACTTGTTAAACATTTGGTACTAAATTATGTTGCT
GCAAAGTAATTAAAATTAGTATCTAGAGCTAGTTTCTGGTGAATTATTCATTTATTTTGTACTGTTGTTAGGCAG
CTCTGTAGTTGCTAATTTAACCAATAAGTCAATTTGCTATTCATGAAGAAACGATTCTGAGAATCCTGTCAGGAA
TTGGGGAATGAAAAAATACACAAAATAATGGTCTTTGTCCCAGTAGAGTTCATAGTCTATTTAGTGTGCATGTTT
TTCCTTAATGATGTATTTGATCTGACTTTTTTCCTTCTCAAAAGAATCATACTTGGGATTACAGGTACATTTGAT
GTTATATGATGGATAAGTGAAAAGTTTTTAAAGGAGATTTTATACCTTTTCACATTAAAAAAGGTATTTATATTA
TTACTTTGTAGTGATTGTCTTAAGAAAAAATATAGCCCAAATGTATAGTAAAATCAGCAGCTCAAGAAGAATTTC
TGCTTCTCTTTGTAGTTGATGCTTTGTTTTTTCCTGCAGTCAGAAATTCCTTGTATTTGTCAAATGTATAATCAG
CTTGTATTGTTTTTAAATTAAAAAAAATTTGAATAATTAACTTTTGCCATGGGACAAGATACAAAAGTAATTTCA
TATAAAGGGCCTCTCCCACCCCTGTTCTCTGGCTCCTGGCTCCTGTTTGACAAGTTACTGTTACCACTTCGCCTT
ATACTTTTGAGAAAGAGTCTGTGCCTAAACAAACACGTGTAACACAAATAGTAACTATACATGGAGGTCTAGCCC
TCACCTTTTTTTTTCTTTTTTTTCTTTTTTAATGGAGATCATTCTATACCAGCATGTAAGTAGCAAGGAACCTCA
TTCTTTTTTTGGCTGCCTAAAATTTTTTTGAATAGATATAACATAATTGATTTAATCTGCTACTGGTGAATGCTT
AGGTTGTTCTTTTGCTATTACAGTGATAACTTCAATCCTAATGTTATTAAGCATATCGATTCAGGGTATAGCTAT
AAGATGAAGTCCTAAAAGTATAATTTAGACTAAATACAAATACCCATTTCGCTAGCTGTTTTGTTTCAGAGGACT
TGTTGAGCAGCTTCACTAATAATGCCATTTTTGAAGAC**ATG**GCAGGTTCAGAATCAATAAACTGGAAGAATTGTT
CAGAGCATCTTTTTTCAGACAGTGATGACATTGATTCTGTATATGATAAAGTGATTCTGCTTCTCTTTGACAACT
TGCATCTCTCCTACATGGAAGTAAGTTTTATTCCTGTCAATGTTGTCTTTGTGTGTGACAGATTAGGATTAAATT
ATGGTTTGACTTTTCCTAGCAGCGTGATCATGGGCAAGTGGCTTATTTTTTTTTTTTTTTTGAGACAGAGTCTC
ACTCTGCTGCCCAGGCTGGAGTGCAGTGGCACAGTCTTGGCTCACTGCAACTCCTGCCTCCCGGTCCAAGTGATT
CTCGTGCTGCAGCTTCTCAAGTAGCTGGCATCACCACCACACCTGGC**TAA**TTTTTGTATTTTTAGTAACGACGAG
GTTTCACCATGTTGGCAAAGCTGGTCTCAAATTCCTGGCCTCAAGTGATCTGCCCACTTCAGCCTCCCAAAGTGT
TGGGATTACAGGCGTGAGCCACTGCGCCCGGCTTTTTTAAACTTTTAGATTCATTTAATAGGTAAATTGCATGTC
ACGGGTTTGTAGCTTATTCTTTCAGAAACTCTTGCATTATCTGTAGACGTGGACGTAAATATCCACCTCATAGGG
TTTTCATAAAAAATAATTGAGATAATGTATGTAATGTTTCACAGTGCTTTGCAGACTATCTAATAAATAGTAGCT
ATTAGTACAAA

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FIGURE 995

CCCCAAG**ATG**GCTGCTGAGGACGAGTTACAGCTGCCGCGGCTCCCCGAGCTGTTCGAAACTGGTAGACAGTTACT
GGACGAAGTAGAAGTGGCGACTGAACCCGCCGGTTCCCGGATAGTCCAGGAGAAGGTGTTCAAGGGCTTGGACCT
CCTTGAGAAGGCTGCCGAAATGTTATCGCAGCTCGACTTGTTCAGCCGAAATGAAGATTTGGAAGAGATTGCTTC
CACCGACCTGAAGTACCTTTTGGTGCCAGCGTTTCAAGGAGCCCTCACCATGAAACAAGTCAACCCCAGCAAGCG
TCTAGATCATTTGCAGCGGGCTCGAGAACACTTTATAAACTACTTAACTCAGTGCCATTGCTATCATGTGGCAGA
GTTTGAGCTGCCCAAAACCATGAACAACTCTGCTGAAAATCACACTGCCAATTCCTCCATGGCTTATCCTAGTCT
CGTTGCTATGGCATCTCAAAGACAGGCTAAAATACAGAGATACAAGCAGAAGAAGGAGTTGGAGCATAGGTTGTC
TGCAATGAAATCTGCTGTGGAAAGTGGTCAAGCAGATGATGAGCGTGTTCGTGAATATTATCTTCTTCACCTTCA
GAGGTGGATTGATATCAGCTTAGAAGAGATTGAGAGCATTGACCAGGAAATAAAGATCCTGAGAGAAAGAGACTC
TTCAAGAGAGGCATCAACTTCTAACTCATCTCGCCAGGAGAGGCCTCCAGTGAAACCCTTCATTCTCACTCGGAA
CATGGCTCAAGCCAAAGTATTTGGAGCTGGTTATCCAAGTCTGCCAACTATGACGGTGAGTGACTGGTATGAGCA
ACATCGGAAATATGGAGCATTACCGGATCAGGGAATAGCCAAGGCAGCACCAGAGGAATTCAGAAAAGCAGCTCA
GCAACAGGAAGAACAAGAAGAAAAGGAGGAAGAGGATGATGAACAAACACTCCACAGAGCCCGGGAGTGGGATGA
CTGGAAGGACACCCATCCTAGGGGCTATGGGAACCGACAGAACATGGGC**TGA**TCTTCCCACAACACCACAGGACT
GCAGGGTGCACAACTCCCCTGCCAAGGAAAACCATGCAGTCCTCCCCTCCCTGGTCTCCTGCTTCAGCTCTGTAC
AACGAGGGCAAAGATGCTAAATCTTGCTTTGCATTCAGTAAAGTGTCAAGTGATTAAGTGTGTATTTGTACCCTA
GATGATATGAACCAGCAGTCTTGTTTTGGCATCATCCTCATCATGTTGTATTCCAGCTTCTTAAGTGGAAGGAAA
AGAGTGCTGAGAAATGGCTCTGTATAATCTATGGCTATCCGAATTC

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FIGURE 996

ATGGACAGCCGGATTCCTTATGATGACTACCCGGTGGTTTTCTTGCCTGCCTATGAGAATCCTCCAGCATGGATT
CCTCCTCATGAGAGGGTACACCACCCGGACTACAACAATGAGTTGACCCAGTTTCTGCCCCGAACCATCACACTG
AAGAAGCCTCCTGGAGCTCAGTTGGGATTTAACATCCGAGGAGGAAAGGCCTCCCAGCTAGGCATCTTCATCTCC
AAGGTGATTCCTGACTCTGATGCACATAGAGCAGGACTGCAGGAAGGGGACCAAGTTCTAGCTGTGAATGATGTG
GATTTCCAAGATATTGAGCACAGCAAGGCTGTTGAGATCCTGAAGACAGCTCGTGAAATCAGCATGCGTGTGCGC
TTCTTTCCCTACAATTATCATCGCCAAAAAGAGAGGACTGTGCAC**TAG**

FIGURE 997A

GGGAGGCCCAGGGAGAACGGGGAAGGGACATTTAGTTTGAGACGGTGCTGAGATAGGATC**ATG**AAGGAAGAGGTG
AAGGGAATTCCCGTAAGAGTGGCGCTGCGTTGTCGCCCTCTGGTCCCCAAAGAGATTAGCGAGGGCTGCCAGATG
TGCCTTTCCTTCGTGCCCGGAGAGCCTCAGGTGGTGGTTGGTACAGATAAATCCTTCACCTACGATTTTGTATTT
GATCCCTCTACTGAACAGGAAGAAGTCTTCAATACAGCAGTAGCGCCACTCATAAAAGGTGTATTTAAAGGATAT
AATGCAACGGTCCTGGCCTATGGGCAGACTGGCTCTGGAAAAACCTATTCAATGGGAGGTGCATATACTGCAGAG
CAAGAGAATGAACCAACAGTTGGGGTTATTCCTAGGGTAATACAACTGCTCTTCAAAGAAATTGATAAAAAGAGT
GACTTTGAATTTACTCTGAAAGTGTCTTACTTAGAGATTTACAATGAAGAAATTTTGGATCTTCTATGCCCATCT
CGTGAGAAAGCTCAAATAAATATACGAGAGGATCCTAAGGAAGGCATAAAGATTGTGGGACTCACTGAGAAGACT
GTTTTGGTTGCCTTGGATACTGTTTCCTGTTTGGAACAGGGCAACAACTCTAGGACTGTGGCCTCCACGGCTATG
AACTCCCAGTCGTCCCGATCTCATGCCATCTTTACAATCTCCTTAGAGCAAAGAAAGAAAAGTGACAAGAATAGC
AGCTTTCGCTCCAAGCTGCATCTTGTAGACCTCGCTGGATCAGAAAGACAGAAGAAAACCAAGGCTGAAGGGGAT
CGTCTAAAAGAGGGTATTAATATTAACCGAGGCCTCCTATGCTTGGGAAATGTAATCAGTGCTCTTGGAGATGAC
AAAAAGGGTGGCTTTGTGCCCTACAGAGATTCCAAGTTGACTCGACTGCTTCAAGATTCTCTAGGAGGTAATAGC
CATACTCTTATGATAGCCTGTGTGAGTCCTGCTGACTCCAATCTAGAGGAAACATTAAATACCCTTCGCTATGCT
GACAGAGCAAGAAAAATCAAGAACAAACCTATTGTTAATATTGATCCCCAGACAGCTGAACTTAATCATCTAAAG
CAACAGGTACAACAGCTACAAGTCTTGTTGCTACAGGCCCATGGAGGTACCCTGCCTGGATCTATAACTGTGGAA
CCATCAGAGAATCTACAATCCCTGATGGAGAAGAATCAGTCCCTGGTAGAGGAGAATGAAAAATTAAGTCGTGGT
CTGAGCGAGGCAGCTGGTCAGACAGCCCAGATGTTGGAGAGGATCATTTTGACAGAGCAAGCGAATGAAAAAATG
AACGCCAAGCTAGAAGAGCTCAGGCAGCATGCGGCCTGCAAACTGGATCTTCAAAAGCTAGTGGAGACTTTGGAA
GACCAGGAATTGAAAGAAAATGTAGAGATAATTTGTAACCTGCAGCAATTGATTACCCAGTTATCGGATGAAACT
GTTGCTTGCATGGCTGCAGCCATTGATACTGCGGTGGAGCAAGAAGCCCAAGTAGAAACCAGTCCAGAGACGAGC
AGGTCTTCTGACGCTTTTACCACTCAGCATGCTCTCCGTCAAGCGCAGATGTCTAAGGAGCTGGTTGAGTTGAAT
AAAGCGCTTGCACTGAAAGAGGCCCTGGCTAGGAAGATGACTCAGAATGACAGCCAACTGCAGCCCATTCAGTAC
CAATACCAGGATAACATAAAAGAGCTAGAATTAGAAGTCATCAATCTGCAAAAGGAAAAGGAAGAATTGGTTCTT
GAACTTCAGACAGCAAAGAAGGATGCCAACCAAGCCAAGTTGAGTGAGCGCCGCCGCAAACGTCTCCAGGAGCTG
GAGGGTCAAATTGCTGATCTGAAGAAGAAACTGAATGAGCAGTCCAAACTTCTGAAACTAAAGGAATCCACAGAG
CGTACTGTCTCCAAACTGAACCAGGAGATACGGATGATGAAAAACCAGCGGGTACAGTTAATGCGTCAAATGAAA
GAAGATGCTGAGAAGTTTAGACAGTGGAAGCAGAAAAAAGACAAAGAAGTAATACAGTTAAAAGAACGAGACCGT
AAGAGGCAATATGAGCTGCTGAAACTTGAAAGAAACTTCCAGAAACAATCCAATGTGCTCAGACGTAAAACGGAG
GAGGCAGCAGCTGCCAACAAGCGTCTCAAGGATGCTCTCCAGAAACAACGGGAGGTTGCAGATAAGCGGAAAGAG
ACTCAGAGCCGTGGAATGGAAGGCACTGCAGCTCGAGTGAAGAATTGGCTTGGAAACGAAATTGAGGTTATGGTC
AGTACTGAGGAAGCCAAACGCCATCTGAATGACCTCCTTGAAGATAGAAAGATCCTGGCTCAAGATGTGGCTCAA
CTCAAAGAAAAAAAGGAATCTGGGGAGAATCCACCTCCTAAACTCCGGAGGCGTACATTCTCCCTTACTGAAGTG
CGTGGTCAAGTTTCGGAGTCAGAAGATTCTATTACAAAGCAGATTGAAAGCCTAGAGACTGAAATGGAATTCAGG
AGTGCTCAGATTGCTGACCTACAGCAGAAGCTGCTGGATGCAGAAAGTGAAGACAGACCAAAACAACGCTGGGAG
AATATTGCCACCATTCTGGAAGCCAAGTGTGCCCTGAAATATTTGATTGGAGAGCTGGTCTCCTCCAAAATACAG
GTCAGCAAACTTGAAAGCAGCCTGAAACAGAGCAAGACCAGCTGTGCTGACATGCAGAAGATGCTGTTTGAGGAA
CGAAATCATTTTGCCGAGATAGAGACAGAGTTACAAGCTGAGCTGGTCAGAATGGAGCAACAGCACCAAGAGAAG
GTGCTGTACCTTCTCAGCCAGCTGCAGCAAAGCCAAATGGCAGAGAAGCAGTTAGAGGAATCAGTCAGTGAAAAG
GAACAGCAGCTGCTGAGCACACTGAAGTGTCAGGATGAAGAACTTGAGAAAATGCGAGAAGTGTGTGAGCAAAAT
CAGCAGCTTCTCCGAGAGAATGAAATCATCAAGCAGAAACTGACCCTCCTCCAGGTAGCCAGCAGACAGAAACAT
CTTCCTAAGGATACCCTTCTATCTCCAGACTCTTCTTTTGAATATGTCCCACCTAAGCCAAAACCTTCTCGTGTT
AAAGAAAAGTTCCTGGAGCAAAGCATGGACATCGAGGATCTAAAATATTGTTCAGAGCATTCTGTGAATGAGCAT
GAGGATGGTGATGGTGATGATGATGAGGGGGATGACGAGGAATGGAAGCCAACAAAATTAGTTAAGGTGTCCAGG
AAGAACATCCAAGGGTGTTCCTGCAAGGGCTGGTGTGGAAACAAGCAGTGTGGGTGCAGGAAGCAAAAGTCAGAC
TGTGGTGTGGACTGTTGCTGTGACCCCACAAAGTGTCGGAACCGCCAGCAAGGCAAGGATAGCTTGGGCACTGTT
GAACGGACCCAGGATTCCGAAGGCTCCTTCAAACTGGAGGATCCTACCGAGGTGACCCCAGGATTGAGCTTCTTT
AATCCCGTCTGTGCCACCCCCAATAGCAAGATCCTGAAAGAGATGTGCGATGTGGAGCAGGTGCTGTCAAAGAAG

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FIGURE 997B

ACTCCCCCAGCTCCCTCCCCTTTTGACCTCCCAGAGTTGAAACATGTAGCAACAGAATACCAAGAAAACAAGGCT
CCAGGGAAGAAAAAGAAACGGGCTCTGGCCAGCAACACCAGCTTCTTCTCTGGCTGCTCCCCTATCGAAGAAGAG
GCCCAC**TGA**AGTTGGAGTCATCATCTCTACCCCCAGTCTGGCTTGGGAGATGCTTTCAGGTTGCAGCCAGAAGGG
GTTTTTTAAATGACTTCTCTGGATTTCAGGTTTCTTGCTGTTGAAAAAAGGAACAAAGCGTTACTGAAAAGAAGG
TAACCTTTGTTGGATGTGGGCCTTAGCCTCCAGGTCCAGACTACTACTCTATGTTCTCCAGAAGGGTGCTAAGTC
ACCTACTGAAGAGAGAACCAACTGACTTTCCTATTGACTCATCAGGAACCAGTCCTCAGTCTGGTCAAGTTGTTT
CTTATTTGTGAGCAGTTCAGGCTATCTCCTGATGGGGATGAGGCCAAGGCTTTCTTATCTTTTGGTTGTCTCTGC
TTAATGGAGGAGCCTGGCCTAGGATGGAGGCCTGGCTTAGATCTTTCATTCCACCTCAGGAATGAGGTTGTGATC
TTTCCTGTCCTGACCCTCTCTGAATTATGTTTCAATAGTACTCTTGATTGTCTGCCATGTTGTTGAAGCAAATGA
ATTATTTTTAAATGTTAAGTAAGTAAATAAACCTTAGCCCGTCT

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FIGURE 998

AGTCTTCTATGCCAGGGCTAGGAAAGCTGCCTTCCAAAATTTGGTCTGGGAAGACATTATCCTGGGAATGAGAAG
CAAAGCCTCAGCTCTAGAAGCCCAAATAATAGCAGATGACCCAGGCTTTCACTGGCACCCAGTACAGGCAGCAGG
CTGCACCAAGAAGGCTGGCAGTGCCTCTTGAGGAATCCCTTGGCAGTGCAGGAGCCTAGCTGGACTCAAGAATAT
TTTGCCAAGGGCACCCAGCAGAACCAATGGAAGCAGAATCACAGAAATAGGAGAAGAGGACAAAGATACTCAGAG
AGAAAAAGTAAAAGACCGAAGAAGGAGGCTGGAGAGACCAGGATCCTTCCAGCTGAACAAAGTCAGCCACAAAGC
AGACTAGCCAGCCGGCTACAATTGGAGTCAGAGTCCCAAAGAC**ATG**GGCTTGTTAGAGTGCTGTGCAAGATGTCT
GGTAGGGGCCCCCTTTGCTTCCCTGGTGGCCACTGGATTGTGTTTCTTTGGGGTGGCACTGTTCTGTGGCTGTGG
ACATGAAGCCCTCACTGGCACAGAAAAGCTAATTGAGACCTATTTCTCCAAAAACTACCAAGACTATGAGTATCT
CATCAATGTGATCCATGCCTTCCAGTATGTCATCTATGGAACTGCCTCTTTCTTCTTCCTTTATGGGGCCCTCCT
GCTGGCTGAGGGCTTCTACACCACCGGCGCAGTCAGGCAGATCTTTGGCGACTACAAGACCACCATCTGCGGCAA
GGGCCTGAGCGCAACGGTAACAGGGGGCCAGAAGGGGAGGGGTTCCAGAGGCCAACATCAAGCTCATTCTTTGGA
GCGGGTGTGTCATTGTTTGGGAAAATGGCTAGGACATCCCGACAAGTTTGTGGGCATCACCTATGCCCTGACCGT
TGTGTGGCTCCTGGTGTTTGCCTGCTCTGCTGTGCCTGTGTACATTTACTTCAACACCTGGACCACCTGCCAGTC
TATTGCCTTCCCCAGCAAGACCTCTGCCAGTATAGGCAGTCTCTGTGCTGATGCCAGAATGTATGGTGTTCTCCC
ATGGAATGCTTTCCCTGGCAAGGTTTGTGGCTCCAACCTTCTGTCCATCTGCAAAACAGCTGAGTTCCAAATGAC
CTTCCACCTGTTTATTGCTGCATTTGTGGGGGCTGCAGCTACACTGGTTTCCCTGCTCACCTTCATGATTGCTGC
CACTTACAACTTTGCCGTCCTTAAACTCATGGGCCGAGGCACCAAGTTC**TGA**TCCCCCGTAGAAATCCCCCTTTC
TCTAATAGCGAGGCTCTAACCACACAGCCTACAATGCTGCGTCTCCCATCTTAACTCTTTGCCTTTGCCACCAAC
TGGCCCTCTTCTTACTTGATGAGTGTAACAAGAAAGGAGAGTCTTGCAGTGATTAAGGTCTCTCTTTGGACTCTC
CCCTCTTATGTACCTCTTTTAGTCATTTTGCTTCATAGCTGGTTCCTGCTAGAAATGGGAAATGCCTAAGAAGAT
GACTTCCCAACTGCAAGTCACAAAGGAATGGAGGCTCTAATTGAATTTTCAAGCATCTCCTGAGGATCAGAAAGT
AATTTCTTCTCAAAGGGTACTTCCACTGATGGAAACAAAGTGGAAGGAAAGATGCTCAGGTACAGAGAAGGAATG
TCTTTGGTCCTCTTGCCATCTATAGGGGCCAAATATATTCTCTTTGGTGTACAAAATGGAATTCATTCTGGTCTC
TCTATTACCACTGAAGATAGAAGAAAAAAGAATGTCAGAAAAACAATAAGAGCGTTTGCCCAAATCTGCCTATTG
CAGCTGGGAGAAGGGGGTCAAAGCAAGGATCTTTCACCCACAGAAAGAGAGCACTGACCCCGATGGCGATGGACT
ACTGAAGCCCTAACTCAGCCAACCTTACTTACAGCATAAGGGAGCGTAGAATCTGTGTAGACGAAGGGGGCATCT
GGCCTTACACCTCGTTAGGGAAGAGAAACAGGGTGTTGTCAGCATCTTCTCACTCCCTTCTCCTTGATAACAGCT
ACCATGACAACCCTGTGGTTTCCAAGGAGCTGAGAATAGAAGGAAACTAGCTTACATGAGAACAGACTGGCCTGA
GGAGCAGCAGTTGCTGGTGGCTAATGGTGTAACCTGAGATGGCCCTCTGGTAGACACAGGATAGATAACTCTTTG
GATAGCATGTCTTTTTTTCTGTTAATTAGTTGTGTACTCTGGCCTCTGTCATATCTTCACAATGGTGCTCATTTC
ATGGGGGTATTATCCATTCAGTCATCGTAGGTGATTTGAAGGTCTTGATTTGTTTTAGAATGATGCACATTTCAT
GTATTCCAGTTTGTTTATTACTTATTTGGGGTTGCATCAGAAATGTCTGGAGAATAATTCTTTGATTATGACTGT
TTTTTAAACTAGGAAAATTGGACATTAAGCATCACAAATGATATTAAAAATTGGCTAGTTGAATCTATTGGGATT
TTCTACAAGTATTCTGCCTTTGCAGAAACAGATTTGGTGAATTTGAATCTCAATTTGAGTAATCTGATCGTTCTT
TCTAGCTAATGGAAAATGATTTTACTTAGCAATGTTATCTTGGTGTGTTAAGAGTTAGGTTTAACATAAAGGTTA
TTTTCTCCTGATATAGATCACATAACAGAATGCACCAGTCATCAGCTATTCAGTTGGTAAGCTTCCAGGAAAAAG
GACAGGCAGAAAGAGTTTGAGACCTGAATAGCTCCCAGATTTCAGTCTTTTCCTGTTTTTGTTAACTTTGGGTTA
AAAAAAAAAAAAGTCTGATTGGTTTTAATTGAAGGAAAGATTTGTACTACAGTTCTTTTGTTGTAAAGAGTTGTG
TTGTTCTTTTCCCCCAAAGTGGTTTCAGCAATATTTAAGGAGATGTAAGAGCTTTACAAAAAGACACTTGATACT
TGTTTTCAAACCAGTATACAAGATAAGCTTCCAGGCTGCATAGAAGGAGGAGAGGGAAAATGTTTTGTAAGAAAC
CAATCAAGATAAAGGACAGTGAAGTAATCCGTACCTTGTGTTTTGTTTTGATTTAATAACATAACAAATAACCAA
CCCTTCCCTGAAAACCTCACATGCATACATACACATATATACACACACAAAGAGAGTTAATCAACTGAAAGTGTT
TCCTTCATTTCTGATATAGAATTGCAATTTTAACACACATAAAGGATAAACTTTTAGAAACTTATCTTACAAAGT
GTATTTTAT

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FIGURE 999

CACGTCGGCTGCTGGGAAGATCTGGATTCTCGTTTCAGGTCACCATCAGAAAAGCTAAGTTTGCTGTATAGTGAG
GATCAGGAGATCTGATCCTGATTGCAGAACCTTCCCTGATTACAGAATCTTGGATGATTTCACAAAAGTTCATCT
TCATTGCAGATACCTGCCTTTCTTTCTAGGTTGTATCTCCCACTTCACCCTTCTAGACCATCCCAGAAGATCTAT
AAGATTTCATCTGGGAAATCACTAGGAGTTCTTGGAAGGGAAAGAAGGAAGATTGTTGGTTGGAATAAAAACAGG
GTTGA**ATG**AGTTCCAGAAAGCAGGGTTCTCAACCTCGTGGACAGCAATCTGCAGAAGAAGAGAACTTCAAAAAAC
CAACTAGAAGCAACATGCAGAGAAGTAAAATGAGAGGGGCCTCCTCAGGAAAGAAGACAGCTGGTCCACAGCAGA
AAAATCTTGAACCAGCTCTCCCAGGAAGATGGGGTGGTCGCTCTGCAGAGAACCCCCCTTCAGGATCCGTGAGGA
AGACCAGAAAGAACAAGCAGAAGACTCCTGGAAACGGAGATGGTGGCAGTACCAGCGAAGCACCTCAGCCCCCTC
GGAAGAAAAGGGCCCGGGCAGACCCCACTGTTGAAAGTGAGGAGGCGTTTAAGAATAGAATGGAGGTTAAAGTGA
AGATTCCTGAAGAATTAAAACCATGGCTTGTTGAGGACTGGGACTTAGTTACCAGGCAGAAGCAGCTGTTTCAAC
TCCCTGCCAAGAAAAATGTAGATGCAATTCTGGAGGAGTATGCAAATTGCAAGAAATCGCAGGGAAATGTTGATA
ATAAGGAATATGCGGTTAATGAAGTTGTGGCAGGAATAAAAGAATATTTCAATGTGATGTTGGGCACTCAGCTGC
TCTACAAATTTGAGAGGCCCCAGTATGCTGAAATCCTCTTGGCTCACCCTGATGCTCCAATGTCCCAGGTTTATG
GAGCACCACACCTACTGAGATTATTTGTAAGAATTGGAGCAATGTTGGCCTATACGCCCCTTGATGAGAAAAGCC
TTGCATTATTGTTGGGCTATTTGCATGATTTCCTAAAATATCTGGCAAAGAATTCTGCATCTCTCTTTACTGCCA
GTGATTACAAAGTGGCTTCTGCTGAGTACCACCGCAAAGCCCTG**TGA**GCGTCTACAGACAGCTCACCATTTTTGT
CCTGTATCTGTAAACACTTTTTGTTCTTAGTCTTTTTCTTGTAAAATTGATGTTCTTTAAAATCGTTAATGTATA
ACAGGGCTTATGTTTCAGTTTGTTTTCCGTTCTGTTTTAAACAGAAAATAAAAGGAGTGTAAGCTCCTTTTCTCA
TTTCAAAGTTGCTACCAGTGTATGCAGTAATTAGAACAAAGAAGAAACATTCAGTAGAACATTTTATTGCCTAGT
TGACAACATTGCTTGAATGCTGGTGGTTCCTATCCCTTTGACACTACACAATTTTCTAATATGTGTTAATGCTAT
GTGACAAAACGCCCTGATTCCTAGTGCCAAAGGTTCAACTTAATGTATATACCTGAAAACCCATGCATTTGTGCT
CTTTTTTTTTTTTTATGGTGCTTGAAGTAAAACAGCCCATCCTCTGCAAGTCCATCTATGTTGTTCTTAGGCATT
CTATCTTTGCTCAAATTGTTGAAGGATGGTGATTTGTTTCATGGTTTTTGTATTTGAGTCTAATGCACGTTCTAA
CATGATAGAGGCAATGCATTATTGTGTAGCCACGGTTTTCTGGAAAAGTTGATATTTTAGGAATTGTATTTCAGA
TCTTAAATAAAATTTGTTTCTAAATTTC

FIGURE 1000

GCCTGTCCACCATCTCCCTATTACCCTTTGGTCGAGAGGGAAAGCAGAAGAAGTCTGCTGGTCACAGCGGGGCAC
CTCGAGGAGAGGACGACTAGGAGCACACGGCCCGGAAAGGTCCAGGTCAGGGAAGGGAATAACTGTGCTTGAAGA
AGAAAATTCCCAAC**ATG**GACAAACCACGCAAAGAAAATGAAGAAGAGCCGCAGAGCGCGCCCAAGACCGATGAGG
AGAGGCCTCCGGTGGAGCACTCTCCCGAAAAGCAGTCCCCCGAGGAGCAGTCTTCGGAGGAGCAGTCCTCGGAGG
AGGAGTTCTTTCCTGAGGAGCTCTTGCCTGAGCTCCTGCCTGAGATGCTCCTCTCGGAGGAGCGCCCTCCGCAGG
AGGGTCTTTCCAGGAAGGACCTGTTTGAGGGGCGCCCTCCCATGGAGCAGCCTCCTTGTGGAGTAGGAAAACATA
AGCTTGAAGAAGGAAGCTTTAAAGAAAGGTTGGCTCGTTCTCGCCCGCAATTTAGAGGGGACATACATGGCAGAA
ATTTAAGCAATGAGGAGATGATACAGGCAGCAGATGAGCTAGAAGAGATGAAAAGAGTAAGAAACAAACTGATGA
TAATGCACTGGAAGGCAAAACGGAGCCGTCCTTATCCTATT**TAA**TGTGTTCGGCCTTTAATTCTGTTTTGCCTGC
TAATAGTATTGCCATTGCCACCTGGACTTTCTGTTTGCATTTTCTTAATGCCTTTTCCCATATTCTGAATTTTAA
CTTTTTGTGAGGCTTTATTTTAGATGTTTAGCATGTAACTCGCTTAAAGTTGAGGTTTCCCCCTAAAATCTACAA
GTTTCCCTCTTTCAGTCATGAGCCCTACACATTTGCATGAAAGATGTACATTATATATTGTGAAACGAAAAAAGC
AATTTTCAAATGGTATATATTGTATCCCATTTTTGTAAAAAAAATGTATATTTATATATTAATATGCAAAGAAAA
AGCTAAAAGTATAGACTTCAAAGGCATAACAGTGGTTGTGTGGTAAGATAATAGGTGATTTTTTAAATTTTTGTT
TTATCTGAATTTCTCATTTTTTCAGGACAAACGTTTTACTTGTGTTGCAAAAATATATAATGAAAAAATCACACA
ATTTTGAAGAAAACTGTCAATCAGCTTATAACGACAATGTGGCACTTAATAAATACTTGTCAG

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FIGURE 1001

GTGGGCACCAGCCCCCGCGCCCGCCCGCCCGCCCTGCGGTCCGGTCCTGGCGCCCGCGCAGAACCAGCTGTCTGA
GCTGCCCGGGCAGCGGGGGAGCAGCGAGCGGGCTTCCGCGAGCCGGAGAAGGCACAGGCCTGTCCCGGGTCCCGG
CAGGTCTGCGCGTCTGTTCCCAGCGCTCTGCGAGGCCTAAAAAGGAGGAGCAACCTGTCCAGAATCCCTGCAGGA
CAGGAAAAGGAGGGGAAATCTCGAC**ATG**GAAAAACCCTACAATAAAAATGAAGGAAACCTGGAAAACGAGGGAAA
GCCAGAAGATGAAGTAGAGCCTGATGATGAAGGAAAGTCAGACGAGGAAGAAAAGCCAGACGTGGAGGGGAAGAC
AGAATGCGAGGGAAAGAGAGAGGATGAGGGAGAGCCAGGTGATGAGGGACAACTGGAAGATGAGGGAAGCCAGGA
AAAGCAGGGCAGGTCCGAAGGTGAGGGCAAGCCACAAGGCGAGGGCAAGCCAGCCTCCCAGGCAAAGCCAGAGAG
CCAGCCGCGGGCCGCCGAAAAGCGCCCGGCTGAAGATTATGTGCCCCGGAAAGCAAAAAGAAAAACGGACAGGGG
GACGGACGATTCCCCCAAGGACTCTCAGGAGGACTTACAGGAAAGGCATCTGAGCAGTGAGGAGATGATGAGAGA
ATGTGGAGATGTGTCAAGGGCTCAAGAGGAGCTAAGGAAAAAACAGAAAATGGGTGGTTTTCATTGGATGCAAAG
AGATGTACAGGATCCATTCGCCCCAAGGGGACAACGGGGTGTCAGGGGAGTGAGGGGTGGAGGTAGGGGCCAGAG
GGGCTTACACGATATCCCATACCTT**TAA**TGCCTTTGGCCTTCCATTCTGATTTCTCTGATGAGAATATTGCTGGC
CCTGCTTTCCCTGGTAGGTATTTGCCAGGCCCAATGCTTTAACCTTAAGCTGATACTTTGCTTTAGATGTCAGTC
TCGTTACCAGCAGCCTTTTGACCCAACTACGGCGCTCTATATTTTAGTAGAGGATTTTCACCCATGTGCATGGAA
AAGATGTTCATGGTACATTGTAAAAAAATAAAATTAAAATTAAAAAAAGTTTGCAGAACCGCA

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FIGURE 1002

CTGCACGGGCGCAGATGTAGGCACCGGTCCGAGTGCCTGCCCTCTGTCCCCGCGGCTGGGTCTCGTCTGCTCCGG
TTCCTGGGCTCCTAATTCTTGGTCCAGCTTCTTCCAGGTCTGCGCGTCTGTTGTTCCCAGCGCTCTGCGAAGCCT
GAAAAGGAGGAGCAACCTGTCCAGAATCCCCGCAGGACAGGAAAAGGAGGGGAAATCTCGAC**ATG**GAAAAACTCT
ACAGTGAAAATGAAGGAATGGCTTCAAACCAAGGAAAGATGGAAAATGAAGAACAGCCACAAGACGAGAGAAAGC
CAGAAGTAACTTGTACTCTGGAAGACAAGAAGTTAGAAAACGAGGGAAAGACAGAAAACAAGGGCAAAACAGGAG
ATGAGGAAATGTTAAAGGATAAAGGAAAGCCAGAGAGTGAGGGAGAGGCAAAAGAAGGAAAGTCAGAGAGGGAGG
GAGAGTCAGAGATGGAGGGAGGATCAGAGAGAGAGGGAAAACCAGAGATAGAGGGAAAGCCAGAGAGTGAAGGAG
AGCCAGGGAGTGAAACAAGGGCTGCAGGAAAGCGCCCAGCTGAGGATGATGTACCCAGGAAAGCCAAAAGAAAAA
CTAATAAGGGGCTGGCTCATTACCTCAAGGAGTATAAAGAGGCCATACATGATATGAATTTCAGCAATGAGGACA
TGATAAGAGAATTTGACAATATGGCTAAGGTGCAGGATGAGAAGAGAAAAAGCAAACAGAAATTGGGGGCGTTTT
TGTGGATGCAAAGAAATTTACAGGACCCCTTCTACCCTAGAGGTCCAAGGGAATTCAGGGGTGGCTGCAGGGCCC
CACGAAGGGACATTGAAGACATTCCTTATGTG**TAG**TGTCCCTGGCAGGCATTTACCAGGCCATGTGCTTTAACGT
TACGGTAATACTTTACTTTAGGCATCCCTCCTGTTGCTAGCAGCCTTTTGACCTATCTGCAATGCAGTGTTCTCA
GTAGGAAATGTTCATCTGTTACATGGAAAAAATGTTGATGGTGCATTGTAAAATTAAAAAACACAACTTGCAGAA
CCAAATATATGGCATCAGTACATTTTTGTAAAACTACAAAGATACTTACCTAGTAATATAGTATAGAAAACAATT
CTGAAAGCTGTGTCCACTAAAAGATTAACAGTGGTTATCTCTGGGTGATTTTTTCTGTTCTTTTTTGTTCATCTG
TCCATTTTTCTCCTAAAAACAGATTTCTTTAGTCATAAAAATAATAAAATATAAAGTATTGG

FIGURE 1003

ACCCCATCCCCCACTCCTATACCGGTCCTCCATTTTGGTGCCTGCAAAGCTCTGGGAAAGAATCCCGGGAAACGA
AAAATGGTGGGTTTGGGGGAAGGGAGGTAAGGGGAGAAAGCTGGAGGGAGGGGCTTTAATTGGAGGCCCCGTAGA
GGACGCGCGGAACTTCTAAGGTGGGAAAAAACGAAATTAAAAAATCCTTTGATATCAGGGCTCTGAATCCTGCTG
GTCAGAGCACCAAGCATTCAGTCTCTCTCCTTGCCTTTGTCTTACTTGTGTTCAAAGAAAAACAACCAGAAAAAA
AAAATCTCATC**ATG**GCAAATATTCACCAGGAAAACGAAGAGATGGAGCAGCCTATGCAGAATGGAGAGGAAGACC
GCCCTTTGGGAGGAGGTGAAGGCCACCAGCCTGCAGGAAATCGACGGGGACAGGCTCGCCGACTTGCCCCTAATT
TTCGATGGGCCATACCCAATAGGCAGATCAATGATGGGATGGGTGGAGATGGAGATGATATGGAAATATTCATGG
AGGAGATGAGAGAAATCAGAAGAAAACTTAGGGAGCTGCAGTTGAGGAATTGTCTGCGTATCCTTATGGGGGAGC
TCTCTAATCACCATGACCATCATGATGAATTTTGCCTTATGCCT**TGA**CTCCTGCCATTTATCATGAGATTAATAC
TGTGATTCCCGCTGTTTTCTTTTTCCTTGCATTTTCCTAATATGCCTTTACTGATCCGTTTGCTGTGAACCCTAT
GTTATTTCCATGTGTCAAGTGGGTCTTGTGTTGCCAGCTTCTATTTGAAGATTGCCTTTGCACTCAGTGTAAGTT
TCTGTCAGCAGTAGTTTCACCCATTTGCATGGAAAAATTTAAAGCTAATAAAGCAATTTAAAAAGC

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FIGURE 1004

GAAGTCCTGGTAATCTGGTCCTTGTTCCCGTCTGGATACCAGCTTCCTTCAGCAGCGCAGGCGGTGGTCCCTGAG
GCCCGTGGAAGGAGTCAAACTTGCGGGAATTTTGCAGTTTATCTGCAGGGCTGTTGTTTCCAGCAAGACCCAAAG
CTAGAAAAGGAGGAGGAAGAAACTGACCCGATCAGTGCCAGAAGTCATTGTATTCAAAGAAGAATAAGCAAGAAA
GAAAAGAAGGAAGGAAGAGAGGTAGACAGATACAAG**ATG**AAATCCTGTCAAAAAATGGAAGGAAAACCAGAAAAT
GAGAGTGAACCAAAGCATGAGGAAGAGCCAAAGCCTGAGGAAAAGCCAGAAGAGGAGGAGAAGCTAGAGGAGGAG
GCCAAAGCAAAAGGAACTTTTAGAGAAAGGCTGATTCAATCTCTCCAGGAGTTTAAAGAAGATATACACAACAGG
CATTTAAGCAATGAAGATATGTTTAGAGAAGTGGATGAAATAGATGAGATAAGGAGAGTCAGAAACAAACTTATA
GTGATGCGTTGGAAGGTTAATCGAAACCATCCTTACCCCTATTTAATG**TAG**TTTACCTTGATTTTTATCTGATAT
TAACAATACCATATAGCTTGCTTTTTATTAGCATTTCCTGATATTCCTTTGTCCATATTTCTACTTATAACCTGT
TGCTATTAATGGTTTTAGATGTATCTCTTGTTATCTGCATCTCATTGTTTATTGTATTTTGAACCAATCTACAAG
TCTCTGTCTTTTAATAAAAGAACTTTACACATTTGTAAAAAAGAGGTTCTTGGTAAGATATAAAATGGAAAAAGG
CTAAGTAATATGTGAATATCATATTTTTGAAAGGTAAAAAGTACATTTGTATATTACATATATGGACATAACTTG
TGAAGGATGAAAGAAAGTACAGCCTCTCGGTGGTGGGATTATGAATGATTTTTCTCCTTTTGCTTGTTTGTATTT
TCTATATTCCTAAAATTAACACACATTATTATTGCTAGAATAATAAAAGTTTTAT

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FIGURE 1005

GGAAGCGGAGGGGGAGCAGGTTTGCGGGGCCAAGTGTTGCGGCGACGCACCTCACGTCGAGAATCGGGAGGAGGA
GACTGCAAGGATAGGCCCAGGAGTA**ATG**GAGTCCAAAGAGGAACGAGCGTTAAACAATCTCATCGTGGAAAATGT
CAACCAGGAAAATGATGAAAAAGATGAAAAGGAGCAAGTTGCTAATAAAGGGGAGCCCTTGGCCCTACCTTTGAA
TGTTAGTGAATACTGTGTGCCTAGAGGAAACCGTAGGCGGTTCCGCGTTAGGCAGCCCATCCTGCAGTATAGATG
GGACATAATGCATAGGCTTGGAGAGCCACAGGCAAGGATGAGAGAGGAGAATATGGAAAGGATTGGGGAGGAGGT
GAGACAGCTGATGGAAAAGCTGAGGGAAAAGCAGTTGAGTCATAGTTTGCGGGCAGTCAGCACTGATCCCCCTCA
CCATGACCATCACGATGAGTTTTGCCTTATGCCC**TGA**ATCCTGATGGTTTCCCTGAAGTTAATAGGGAGACCCCT
GCTTCCTAAACTTACACATTTGTGGTGTACCTTTGTCGTAAACGTTTTGATGTTACCTATTTCTTGTGGGTCTCC
TATTACCAGCTTCTAAATGAATGTTGTTTTTGACCCAGTTTGTAAGTTTCTGTCAGCAGGAGAGTTTTACCTATT
GCATGGAAAGATGCTCATTATATATTGTGAAGTTAATAAAACAGTTTTAAAAAGC

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FIGURE 1006

GACGTGTGCAGAAGTCCTTATAGTCCAGGGCCTGTTTCCCTGTAGCAGCTCCTTATTGCTGGAGAAGGAGAAAAG
TGCCCAAGATCCTTTCAGGATTAATTTATTCAAAAAGGAAATAAAAAATACTCAAT**ATG**CAAAAGTCTTGTGAAG
AAAATGAGGGAAAACCACAGAACATGCCAAAGGCCGAGGAAGATCGCCCTTTGGAGGATGTACCACAGGAGGCAG
AAGGAAATCCTCAACCTTCCGAAGAAGGCGTAAGCCAGGAAGCAGAAGGAAACCCCAGAGGAGGGCCGAATCAGC
CTGGCCAGGGATTTAAAGAGGACACACCCGTTAGGCATTTGGACCCTGAAGAAATGATAAGAGGAGTAGATGAGC
TTGAAAGGCTTAGGGAAGAGATAAGAAGAGTAAGAAACAAGTTTGTGATGATGCATTGGAAGCAAAGACATTCAC
GCAGCCGTCCTTATCCTGTGTGCTTTAGGCCT**TGA**ATTCATTTTTGCCTAATATTAAAATCTGGCCCCAGCTTTC
TTTCTGTTAGCATTTTCTGATGTATCTTTGACCTCCATTTTACTTTTAATCATCTGATGAAATTTTGTTTTAGGT
AATTTCCTTGGTACCAGCATCTCATTGGATTTTGGATTTTGACCCATTTTCCAGGTCTATTTTTCAATTGGAAAC
TTTCACACATTTGCATGGGAATATGTTCATTCCATGTTGTAAAGTAAAACATAACAGGTTATGGCAAAGCAGCAT
ATTTAATATCAGCTCACATATGTAGGATAAAATTCCAAACTTTGTGTGTGTGCGTGTGTGTATACATACATCCAT
ATAACATATATCACAAACTTAACCAAGCTTATTTCTGTGTGGTGTGAAATTTTATTTGTTTTCTTCTTTTTGTTC
TTTTTGCTTATATGTACTTTTTAATGAACACGTGTCTCACACACAAAAAGAATTAAGGATTTTTTTTACAAGTAA
GAGTCAAATAATTTGCAACCAGCTTATGAGGGCAATGGGGGCACCTAAACTCTTGATGAAAGAACTTTAAAAAGA
AATGTAAACCTCAAATTACCTCTGGATCTCTTAGCCAGAGGAATAAACTGGCAATTATTACAGAT

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FIGURE 1007

ACTCGTGTCTCGCTACCAGCTCCCCGCTGCCCTGCGCTCGGCGGGCTGGCATCCGGCCCGGGGGAAAGCGGACCA
GCCCTTCTGCAGGTCTGCGGGGCCAAGTGTCCCGGCGGCGCACCTCGTGGCGAGAATCGGGAGAAGGAGGAGACT
ACAAGGATAGGCCCAGGAGTA**ATG**GAGTCCAAAGAGAAACGAGCAGTAAACAGTCTCAGCATGGAAAATGCCAAC
CAAGAAAATGAAGAAAAGGAGCAAGTTGCTAATAAAGGGGAGCCCTTGGCCCTCCCTTTGGATGCTGGTGAATAC
TGTGTGCCTAGAGGAAATCGTAGGCGGTTCCGCGTTAGGCAGCCCATCCTGCAGTATAGATGGGATATGATGCAT
AGGCTTGGAGAACCACAGGCAAGGATGAGAGAAGAGAATATGGAAAGGATTGGGGAGGAGGTGAGACAGCTGATG
GAAAAGCTGAGGGAAAAGCAGTTGAGTCATAGTCTGCGGGCAGTCAGCACTGACCCCCCTCACCATGACCATCAT
GATGAGTTTTGCCTTATGCCC**TGA**ATCCTGATGGTTTCCCTAAAGTTATTACGGAAACAGACCCCTGCTTTCGAA
TTTACATGTTCATGATGTGCCCTTGTTGTAAACCTTTACCTGTCACTTGTTTACGTGGGTCTCCTATTACCAGCT
TCTAATTGAATATTGTGTTTTTGAACCAGTCTGTAAGATTTTTGTTAGCAGAAGAATTTTACCTATTGCATGGAA
AGATGCTCATTATAGTGAAGTTAATAAAGCACCTTTAAAAA

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FIGURE 1008

GGCAAGCGCCGGTGGGGCGGCGGCGCCAGAGCTGCTGGAGCGCTCGGGGTCCCCGGGCGGCGGCGGCGGCGCAGA
GGAGGAGGCAGGCGGCGGCCCCGGTGGCTCCCCCCCGGACGGTGCGCGGCCCGGCCCGTCTCGCGAACTCGCGGT
GGTCGCGCGGCCCCGCGCTGCTCCGACCCCGGGCCCCTCCGCCGCCGCC**ATG**GCTCGGCCGCTAGTGCCCAGCTC
GCAGAAGGCGCTGCTGCTGGAGCTCAAGGGGCTGCAGGAAGAGCCGGTCGAGGGATTCCGCGTGACACTGGTGGA
CGAGGGCGATCTATACAACTGGGAGGTGGCCATCTTCGGGCCCCCCAACACCTACTACGAGGGCGGCTACTTCAA
GGCGCGCCTCAAGTTCCCCATCGACTACCCATACTCTCCACCAGCCTTTCGGTTCCTGACCAAGATGTGGCACCC
TAACATCTACGAGACGGGGGACGTGTGTATCTCCATCCTCCACCCGCCGGTGGACGACCCCCAGAGCGGGGAGCT
GCCCTCAGAGAGGTGGAACCCCACGCAGAACGTCAGGACCATTCTCCTGAGTGTGATCTCCCTCCTGAACGAGCC
CAACACCTTCTCGCCCGCAAACGTGGACGCCTCCGTGATGTACAGGAAGTGGAAAGAGAGCAAGGGGAAGGATCG
GGAGTACACAGACATCATCCGGAAGCAGGTCCTGGGGACCAAGGTGGACGCGGAGCGTGACGGCGTGAAGGTGCC
CACCACGCTGGCCGAGTACTGCGTGAAGACCAAGGCGCCGGCGCCCGACGAGGGCTCAGACCTCTTCTACGACGA
CTACTACGAGGACGGCGAGGTGGAGGAGGAGGCCGACAGCTGCTTCGGGGACGATGAGGATGACTCTGGCACGGA
GGAGTCC**TGA**CACCACCAGAATAAACTTGCCGAGTTTACCTCACTAGGGCCGGACCCGTGGCTCCTTAGACGACA
GACTACCTCACGGAGGTTTTGTGCTGGTCCCCGTCTCCTCTGGTTGTTTCGTTTTGGCTTTTTCTCCCTCCCCAT
GTCTGTTCTGGGTTTTCACGTGCTTCAGAGAAGAGGGGCTGCCCCACCGCCACTCACGTCACTCGGGGCTCGGTG
GACGGGCCCAGGGTGGGAGCGGCCGGCCCACCTGTCCCCTCGGGAGGGGAGCTGAGCCCGACTTCTACCGGGGTC
CCCCAGCTTCCGGACTGGCCGCACCCCGGAGGAGCCACGGGGGCGCTGCTGGGAACGTGGGCGGGGGGCCGTTTC
CTGACACTACCAGCCTGGGAGGCCCAGGTGTAGCGGTCCGAGGGGCCCGGTCCTGCCTGTCAGCTCCAGGTCCTG
GAGCCACGTCCAGCACAGAGTGGACGGATTCACCGTGGCCGACTCTTTTCCCTGCTTTGGTTTGTTTGAAATCTA
AATAAAACTACTTTATGAG

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FIGURE 1009

GCCGCGGGCGGCGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATC**ATG**GCGGCTGCGCTGTTC
GTGCTGCTGGGATTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAA
GACCTTGGCTCCAAGATACTCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTG
AAGGGGGGCGTGGTGCTGAAGGAGGACGCGCTGCCCGGCCAGAAAACGGAGTTCAAGGTGGACTCCGACGACCAG
TGGGGAGAGTACTCCTGCGTCTTCCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCCAGA
GTGAAGGCTGTGAAGTCGTCAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTG
CCACCTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGC
AGGTTCTTCGTGAGTTCCTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGC
CAGTACCGGTGCAACGGCACCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTG
GCCGCCCTCTGGCCCTTCCTGGGCATCGTGGCTGAGGTGCTGGTGCTGGTCACCATCATCTTCATCTACGAGAAG
CGCCGGAAGCCCGAGGACGTCCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAG
AATGACAAAGGCAAGAACGTCCGCCAGAGGAACTCTTCC**TGA**GGCAGGTGGCCCGAGGACGCTCCCTGCTCCACG
TCTGCGCCGCCGCCGGAGTCCACTCCCAGTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCC
GTAGATTCCCATCATACACTTCCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTCAGGATTCTGTTCCTTAGGT
TTTTTTCCTTCTGAAGTGTTTCACGAGAGCCCGGGAGCTGCTGCCCTGCGGCCCCGTCTGTGGCTTTCAGCCTCT
GGGTCTGAGTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCTTGCCCTTTG
TGGAAAGTCACAGGTCACACGAGGGGCCCCGTGTCCTGCCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTT
TGTGCTTTTATGTTTAATTTTATGAGGGCCACGGGTCTGTGTTCGACTCAGCCTCAGGGACGACTCTGACCTCTT
GGCCACAGAGGACTCACTTGCCCACACCGAGGGCGACCCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTT
GTCTGTGCATCCGGGGGCAGCTCTGGAGGGGGTTTGCTGGGGAACTGGCGCCATCGCCGGGACTCCAGAACCGCA
GAAGCCTCCCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCC
ACCCACCGCCACAATAAAGATCGCCCCCACCTCCACCCTC

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FIGURE 1010

CGGGCGGCGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATC**ATG**GCGGCTGCGCTGTTCGTGC
TGCTGGGATTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAAGACC
TTGGCTCCAAGATACTCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTGAAGG
GGGGCGTGGTGCTGAAGGAGGACGCGCTGCCCGGCCAGAAAACGGAGTTCAAGGTGGACTCCGACGACCAGTGGG
GAGAGTACTCCTGCGTCTTCCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCCAGAGTGA
AGGCTGTGAAGTCGTCAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTGCCAC
CTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGCAGGT
TCTTCGTGAGTTCCTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGCCAGT
ACCGGTGCAACGGCACCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTGGCCG
CCCTCTGGCCCTTCCTGGGCATCGTGGCTGAGGTGCTGGTGCTGGTCACCATCATCTTCATCTACGAGAAGCGCC
GGAAGCCCGAGGACGTCCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAGAATG
ACAAAGGCAAGAACGTCCGCCAGAGGAACTCTTCC**TGA**GGTGGCCCGAGGACGCTCCCTGCTCCACGTCTGCGCC
GCCGCCGGAGTCCACTCCCAGTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCCGTAGATTC
CCATCATACACTTCCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTCAGGATTCTGTTCCTTAGGTTTTTTTCC
TTCTGAAGTGTTTCACGAGAGCCCGGGAGCTGCTGCCCTGCGGCCCCGTCTGTGGCTTTCAGCCTCTGGGTCTGA
GTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCTTGCCCTTTGTGGAAAGT
CACAGGTCACACGAGGGGCCCCGTGTCCTGCCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTTTGTGCTTT
TATGTTTAATTTTATGAGGGCCACGGGTCTGTGTTCGACTCAGCCTCAGGGACGACTCTGACCTCTTGGCCACAG
AGGACTCACTTGCCCACACCGAGGGCGACCCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTTGTCTGTGC
ATCCGGGGGCAGCTCTGGAGGGGGTTTGCTGGGGAACTGGCGCCATCGCCGGGACTCCAGAACCGCAGAAGCCTC
CCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCCACCCACCG
CCACAATAAAGATCGCCCCCACCTCCACCCTC

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FIGURE 1011A

AGGCGGCGCGGGCGCATGCGCAGGCGCGGGCCGGTGGGGTGGCCTGGAGCGGCGTGCGTA**ATG**TCGGCACTTTGC
TGGGGCCGCGGAGCGGCGGGGCTCAAACGAGCCCTACGGCCTTGCGGCCGCCCGGGACTCCCCGGCAAAGAAGGG
ACCGCCGGTGGCGTCTGCGGCCCCAGGAGGAGCTCGTCCGCCAGCCCCCAGGAGCAAGACCAAGACCGCAGGAAG
GACTGGGGCCACGTGGAGCTGCTGGAGGTGCTCCAGGCGCGGGTGCGGCAGCTGCAGGCTGAGAGCGTGTCGGAG
GTGGTGGTGAACAGGGTGGATGTGGCGCGGCTCCCAGAATGTGGCAGTGGAGATGGTAGCCTCCAGCCACCCAGG
AAGGTCCAGATGGGGGCCAAGGATGCCACCCCGGTGCCCTGTGGCCGCTGGGCAAAGATACTGGAGAAGGATAAG
CGGACCCAGCAGATGCGTATGCAGCGGTTGAAGGCGAAGCTGCAGATGCCATTCCAGAGCGGGGAGTTCAAGGCG
CTGACCAGGCGCCTGCAGGTGGAGCCCCGGCTCCTGAGCAAGCAGATGGCCGGGTGCCTGGAGGACTGCACGCGC
CAGGCCCCCGAGAGCCCCTGGGAGGAGCAGCTGGCCCGGCTGCTGCAGGAGGCCCCTGGGAAGCTGAGCCTCGAT
GTGGAGCAGGCCCCGTCGGGGCAGCACTCGCAGGCCCAGCTCTCAGGTCAGCAGCAGAGGCTCCTGGCCTTCTTC
AAGTGCTGCCTGCTCACTGACCAGCTGCCCCTCGCCCACCACCTGCTGGTCGTCCACCACGGCCAGCGGCAGAAG
CGGAAGCTGCTCACGCTGGACATGTACAACGCCGTGATGCTTGGCTGGGCGCGGCAGGGTGCCTTCAAGGAGCTG
GTATATGTGTTATTCATGGTGAAGGATGCCGGCTTGACTCCGGACCTGCTGTCCTATGCGGCTGCCCTCCAGTGC
ATGGGGAGGCAGGACCAGGACGCCGGGACCATCGAAAGGTGTCTGGAACAGATGAGCCAGGAGGGGCTGAAGCTG
CAGGCACTCTTCACCGCCGTTCTGCTGTCTGAGGAGGATCGGGCCACTGTTCTGAAGGCCGTGCACAAGGTGAAG
CCCACCTTCAGCCTCCCGCCGCAGCTGCCGCCCCCCGGTCAACACCTCCAAGCTGCTCAGGGACGTGTATGCCAAG
GATGGGCGTGTGTCCTACCCGAAGCTGCACCTGCCCTTGAAGACCCTGCAGTGCCTCTTTGAGAAGCAGCTCCAC
ATGGAGCTGGCCAGCAGGGTGTGCGTGGTGTCCGTGGAGAAGCCCACGTTGCCAAGCAAGGAGGTCAAGCACGCG
CGGAAGACCCTGAAGACCCTGCGGGACCAATGGGAGAAAGCACTGTGCCGGGCGCTGCGGGAGACCAAGAACCGC
CTAGAGCGCGAGGTGTACGAGGGCCGGTTCTCACTTTACCCCTTCCTGTGCCTGCTGGACGAGCGCGAGGTGGTG
CGGATGCTCCTGCAGGTCCTGCAGGCGCTGCCCGCCCAAGGTGAGTCCTTCACCACCCTGGCCCGGGAGCTGAGT
GCGCGCACTTTCAGCCGGCACGTGGTGCAGAGGCAGCGGGTCAGTGGCCAGGTGCAGGCGCTGCAGAACCACTAC
AGGAAGTACCTCTGCTTGCTGGCCTCCGACGCCGAGGTGCCCGAGCCCTGCCTGCCGCGGCAGTACTGGGAGGAG
CTGGGGGCGCCCGAGGCCCTGCGGGAGCAGCCCTGGCCCCTGCCAGTGCAGATGGAGCTGGGCAAGCTGCTGGCG
GAGATGCTGGTGCAGGCTACGCAGATGCCATGCAGCCTGGACAAGCCGCATCGTTCCTCTCGGCTTGTCCCCGTG
CTCTACCACGTGTATTCCTTCCGCAACGTCCAGCAGATCGGCATCCTGAAGCCGCACCCGGCCTACGTGCAGCTG
CTGGAGAAGGCCGCGGAGCCCACGCTGACCTTCGAGGCGGTGGATGTACCCATGCTTTGCCCCCCGCTGCCCTGG
ACATCGCCGCACTCTGGTGCTTTCCTGCTCAGCCCCACCAAGCTGATGCGCACGGTGGAAGGCGCCACGCAGCAC
CAGGAGCTGCTGGAAACCTGCCCGCCCACCGCGCTGCATGGCGCACTGGACGCCCTCACCCAACTGGGCAACTGC
GCCTGGCGCGTCAACGGGCGCGTGCTGGACCTGGTGCTGCAGCTCTTCCAGGCCAAGGGCTGCCCCCAGCTAGGC
GTGCCGGCCCCGCCCTCCGAGGCGCCCCAGCCGCCCGAGGCCCACCTGCCGCACAGCGCCGCGCCCGCCCGCAAG
GCCGAGCTGCGCCGTGAGCTGGCGCACTGCCAGAAGGTGGCCCGGGAGATGCACAGCCTGCGGGCGGAGGCGCTG
TACCGCCTCTCGCTGGCGCAGCACCTGCGGGACCGCGTCTTCTGGCTGCCGCACAACATGGACTTCCGCGGCCGC
ACCTACCCCTGCCCGCCGCACTTCAACCACCTGGGCAGCGACGTGGCGCGGGCCCTGCTGGAGTTCGCCCAGGGC
CGCCCGCTCGGCCCGCACGGCCTGGATTGGCTCAAGATCCACCTGGTCAATCTCACGGGGTTGAAGAAGCGGGAG
CCGCTGCGGAAGCGCCTGGCCTTTGCGGAGGAGGTGATGGATGACATCCTGGACTCCGCGGACCAACCCTTGACG
GGCCGAAAGTGGTGGATGGGCGCGGAGGAACCCTGGCAGACGCTGGCCTGCTGTATGGAGGTGGCGAACGCTGTG
CGCGCCTCCGACCCTGCCGCCTATGTCTCCCACCTCCCCGTCCATCAGGACGGCTCTTGCAACGGCCTGCAGCAT
TATGCTGCTCTGGGCCGCGACAGCGTGGGCGCCGCCTCCGTCAACCTGGAGCCCTCGGATGTGCCGCAGGACGTG
TACAGCGGCGTGGCCGCGCAGGTGGAGGTGTTCCGTAGGCAGGACGCCCAGCGGGGCATGCGGGTGGCACAGGTG
CTGGAAGGTTTCATCACCCGCAAGGTGGTGAAGCAGACGGTGATGACGGTGGTGTACGGGGTCACGCGCTATGGC
GGGCGCCTGCAGATTGAGAAGCGCCTCCGGGAGCTGAGCGACTTTCCCCAGGAGTTCGTGTGGGAGGCCTCTCAC
TATCTCGTACGCCAGGTCTTCAAGAGTCTACAGGAGATGTTCTCGGGGACCCGGGCCATCCAGCACTGGCTGACC
GAGAGTGCCCGCCTCATCTCCCACATGGGCTCTGTGGTGGAGTGGGTCACACCCCTGGGCGTCCCCGTCATCCAG
CCCTATCGCCTGGACTCCAAGGTCAAGCAAATAGGAGGTGGAATTCAGAGCATCACCTACACCCACAACGGAGAC
ATCAGCCGAAAGCCCAACACACGTAAGCAGAAGAACGGCTTCCCGCCCAACTTCATCCACTCGCTGGACTCCTCC
CACATGATGCTCACCGCCCTGCACTGCTACAGGAAGGGCCTGACCTTCGTCTCTGTGCACGACTGTTACTGGACT
CACGCAGCTGATGTCTCCGTCATGAACCAGGTGTGCCGGGAGCAGTTTGTCCGCTTGCACAGCGAGCCCATCCTG

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FIGURE 1011B

CAGGACCTGTCCAGATTCCTGGTCAAGCGGTTCTGCTCTGAGCCCCAGAAGATCTTGGAGGCCAGCCAGCTGAAG
GAGACACTGCAGGCGGTGCCCAAGCCAGGGGCCTTCGACCTGGAGCAGGTGAAGCGTTCCACCTACTTCTTCAGC
TGACACCCCGTGAGCCTTGTCAGTGTGTAAATAAAGCTCTTTTGCCACCCCC

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FIGURE 1012

AGCAAACGGCCGGCGGCGGGTGCCGCGCGGGGGGCGGGCGGCGCGGAGTAGGTGGCGGCGGCC**ATG**GCCGAGGCG
TCGCCGCATCCCGGACGGTACTTCTGCCACTGCTGCTCCGTGGAGATCGTCCCGCGCCTGCCGGATTATATCTGT
CCAAGATGCGAGTCTGGTTTTATCGAGGAGCTTCCGGAAGAGACCAGGAGCACAGAAAATGGTTCTGCCCCCTCC
ACAGCTCCCACAGACCAGAGCCGGCCACCGTTGGAGCACGTGGACCAGCACCTGTTCACGCTGCCGCAGGGCTAC
GGACAGTTTGCTTTCGGCATCTTCGATGACAGCTTCGAGATCCCCACGTTCCCTCCTGGGGCGCAGGCTGACGAC
GGCAGGGACCCTGAGAGCCGGCGGGAGAGAGACCATCCGTCCCGGCACCGGTACGGCGCCCGACAGCCCCGCGCC
CGCCTCACCACGCGGCGGGCCACCGGCCGGCACGAAGGCGTCCCCACGCTGGAAGGGATCATCCAGCAGCTCGTC
AACGGCATCATCACGCCCGCCACCATCCCCAGCCTGGGCCCCTGGGGAGTCCTGCACTCAAACCCTATGGACTAC
GCCTGGGGGGCCAACGGCCTGGATGCCATCATCACACAGCTCCTCAATCAGTTTGAAAACACAGGCCCCCCACCG
GCAGATAAAGAGAAAATCCAGGCCCTCCCCACCGTCCCCGTCACTGAGGAGCACGTAGGCTCCGGGCTCGAGTGC
CCTGTGTGCAAGGACGACTACGCGCTGGGTGAGCGTGTGCGGCAGCTGCCCTGCAACCACCTGTTCCACGACGGC
TGCATCGTGCCCTGGCTGGAGCAGCACGACAGCTGCCCCGTCTGCCGAAAAAGCCTCACGGGACAGAACACGGCC
ACGAACCCCCCTGGCCTCACTGGGGTGAGCTTCTCCTCCTCGTCGTCATCGTCCTCCTCCAGCTCGCCCAGCAAC
GAGAACGCCACAAGCAACTCG**TGA**GCCCACGTCGGCCGTCGGGAAAGCACGGGGCCTTTCCCACCCACCCTCAGC
CAGCGCCACACGGCACCCACAGACTGGGTGCCCCGGCGGCGCCACGCTTGGCTGGTCAGCGCTGCAGGTCCCGCC
TGTTCCAGGGCAGGACCCGGGCCCGGCCCACCGGCCCCCTGGCTTGGGAAGGCGTGGGCCACATGGTCCCCTCTG
GGGCGTCCCCAGCCTCCCCGTCCTCTGTCTAACCTCACCCTCTAAACGTTCAGCGGTGGAAAGATTTTTATAATT
TTAAATTATTACTGCTTTGAAATAAACGGACGTTTGAGCTCACGTGGCGGCCATGCATGGTTTGTGGCGGAAGAC
GGGGCCCAGCGGCTCCCCCAGCGCTGAAGCACGGGGTTCAGCGGCTCCCCCAGTGCTGCAGGTGCCGCCAGGACG
GGCCACGTGGGCCCCCAGCCTCCCCCTCGGCCGCCTCCACGACCCGGAGTAGGGGGGCTCGGGACCATGAGGATG
ACCAGCAAAATTCAAGAACAAAACTGCTCCAACAGACTTTTTTAAAGGAAAAAATATGTGTATCTTGAAAGCTAT
TTAAAATACACTACTTACAAAGAG

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FIGURE 1013

GTTCGCC**ATG**CGTCCCGGGGCGCCAGGGCCACTCTGGCCTCTGCCCTGGGGGGCCCTGGCTTGGGCCGTGGGCTT
CGTGAGCTCCATGGGCTCGGGGAACCCCGCGCCCGGTGGTGTTTGCTGGCTCCAGCAGGGCCAGGAGGCCACCTG
CAGCCTGGTGCTCCAGACTGATGTCACCCGGGCCGAGTGCTGTGCCTCCGGCAACATTGACACCGCCTGGTCCAA
CCTCACCCACCCGGGGAACAAGATCAACCTCCTCGGCTTCTTGGGCCTTGTCCACTGCCTTCCCTGCAAAGATTC
GTGCGACGGCGTGGAGTGCGGCCCGGGCAAGGCGTGCCGCATGCTGGGGGGCCGCCCGCGCTGCGAGTGCGCGCC
CGACTGCTCGGGGCTCCCGGCGCGGCTGCAGGTCTGCGGCTCAGACGGCGCCACCTACCGCGACGAGTGCGAGCT
GCGCGCCGCGCGCTGCCGCGGCCACCCGGACCTGAGCGTCATGTACCGGGGCCGCTGCCGCAAGTCCTGTGAGCA
CGTGGTGTGCCCGCGGCCACAGTCGTGCGTCGTGGACCAGACGGGCAGCGCCCACTGCGTGGTGTGTCGAGCGGC
GCCCTGCCCTGTGCCCTCCAGCCCCGGCCAGGAGCTTTGCGGCAACAACAACGTCACCTACATCTCCTCGTGCCA
CATGCGCCAGGCCACCTGCTTCCTGGGCCGCTCCATCGGCGTGCGCCACGCGGGCAGCTGCGCAGGCACCCCTGA
GGAGCCGCCAGGTGGTGAGTCTGCAGAAGAGGAAGAGAACTTCGTG**TGA**GCCTGCAGGACAGGCCTGGGCCTGGT
GCCCGAGGCCCCCCATCATCCCCTGTTATTTATTGCCACAGCAGAGTCTAATTTATATGCCACGGACACTCCTTA
GAGCCCGGATTCGGACCACTTGGGGATCCCAGAACCTCCCTGACGATATCCTGGAAGGACTGAGGAAGGGAGGCC
TGGGGGCCGGCTGGTGGGTGGGATAGACCTGCGTTCCGGACACTGAGCGCCTGATTTAGGGCCCTTCTCTAGGAT
GCCCCAGCCCCTACCCTAAGACCTATTGCCGGGGAGGATTCCACACTTCCGCTCCTTTGGGGATAAACCTATTAA
TTATTGCTACTATCAAGAGGGCTGGGCATTCTCTGCTGGTAATTCCTGAAGAGGCATGACTGCTTTTCTCAGCCC
CAAGCCTCTAGTCTGGGTGTGTACGGAGGGTCTAGCCTGGGTGTGTACGGAGGGTCTAGCCTGGGTGAGTACGGA
GGGTCTAGCCTGGGTGAGTACGGAGGGTCTAGCCTGGGTGAGTACGGAGGGTCTAGCCTGGGTGTGTATGGAGGA
TCTAGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGTGTATGGAGGGTCT
AGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGTGTATGGAGGGTCTAGCCTGGGTGAGTATGGAGGGTCTAGC
CTGGGTGTGTACGGAGGGTCTAGTCTGAGTGCGTGTGGGGACCTCAGAACACTGTGACCTTAGCCCAGCAAGCCA
GGCCCTTCATGAAGGCCAAGAAGGCTGCCACCATTCCCTGCCAGCCCAAGAACTCCAGCTTCCCCACTGCCTCTG
TGTGCCCCTTTGCGTCCTGTGAAGGCCATTGAGAAATGCCCAGTGTGCCCCCTGGGAAAGGGCACGGCCTGTGCT
CCTGACACGGGCTGTGCTTGGCCACAGAACCACCCAGCGTCTCCCCTGCTGCTGTCCACGTCAGTTCATGAGGCA
ACGTCGCGTGGTCTCAGACGTGGAGCAGCCAGCGGCAGCTCAGAGCAGGGCACTGTGTCCGGCGGAGCCAAGTCC
ACTCTGGGGGAGCTCTGGCGGGGACCACGGGCCACTGCTCACCCACTGGCCCCGAGGGGGGTGTAGACGCCAAGA
CTCACGCATGTGTGACATCCGGAGTCCTGGAGCCGGGTGTCCCAGTGGCACCACTAGGTGCCTGCTGCCTCCACA
GTGGGGTTCACACCCAGGGCTCCTTGGTCCCCCACAACCTGCCCCGGCCAGGCCTGCAGACCCAGACTCCAGCCA
GACCTGCCTCACCCACCAATGCAGCCGGGGCTGGCGACACCAGCCAGGTGCTGGTCTTGGGCCAGTTCTCCCACG
ACGGCTCACCCTCCCCTCCATCTGCGTTGATGCTCAGAATCGCCTACCTGTGCCTGCGTGTAAACCACAGCCTCA
GACCAGCTATGGGGAGAGGACAACACGGAGGATATCCAGCTTCCCCGGTCTGGGGTGAGGAATGTGGGGAGCTTG
GGCATCCTCCTCCAGCCTCCTCCAGCCCCCAGGCAGTGCCTTACCTGTGGTGCCCAGAAAAGTGCCCCTAGGTTG
GTGGGTCTACAGGAGCCTCAGCCAGGCAGCCCACCCCACCCTGGGGCCCTGCCTCACCAAGGAAATAAAGACTCA
A

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FIGURE 1014

ATGCCCAGCTCTTCACCCACCGCCCCACGTGCCCACCATGCCAGGCTTCGGTCCCCGCCATGCCCAGCTCTTCAC
GCACCGCCCCACGGAATGCTGCTCACAGGACCCCTATACGGGTTTGCAGGAGGTCAAGGCTCTGTGACCGTGATG
GCCCGTCCGGGGCAGAGACCTCATGATGCGGGTGGCACAGAGCAGCTGCGTGTTGGCGACAAACAGCCCACAATT
CTCAAATGGCGGATCCTATCGGCCACCAACGATCTGGACCGTGTGTCGGCCGTGGCGCTGCCCAAGCTGCCCATC
TCGCTCACCAACACCGACCTCAAGGTGGCCAGCGACACACAGTTCTACCCTGGCCTCGGGCTGGCCCTGGCCTTC
CACGACGGCAGCGTCCACATCGTGCACCGGCTCTCACTGCAGACCATGGCCGTCTTCTACAGCTCCGCGGCCCCG
AGGCCTGTGGATGAGCCGGCCATGAAGCGCCCCCGCACCGCGGGCCCCGCCGTCCACTTAAAGGCTATGCAGCTA
TCGTGGACGTCACTGGCCCTGGTGGGGATTGACAGCCACGGGAAGCCAGGGGAAGGCGAGCTGCTGGGGCACGTG
GGGCTGGGGCTGGTGGGCATTGACAACCAGGGGAAGGCGAGCTGCTGGGCATTGACAACCAGGGGAAGGCGAGCT
GCTGGGGCACGTGGGGCTGGGGCTGGGGAAGGCGAGCTGCTGGGCATTGACAACCAGGGGAAGGCGAGCTGCTGG
GGCATGGCCCTGGTGGGCATTGACAACCAGGGAAAGCTGAGCGTGCTCCGCCTCTCACCTTCCATGGGCCACCCG
CTGGAGGTGGGGCTGGCGCTGCGGCACCTGCTCTTCCTGCTGGAGTACTGCATGGTGACCGGCTACGACTGGTGG
GACATCCTGCTGCACGTGCAGCCCAGAAGGAACTGCTGGACCAGCAGAATGAGGGGCCAACGCCAGGGGCAGCAC
TGCCCGGCCACAGAGGACTGTGGCCCCACAGATGACACCCTCAGCTACCAGCTCCTGCATCTGGAAGATGACCAG
GAGGAGGAAGGACGGTCTGCAAGTGTTCAAAGCCCATCAAAACCAGAGCAAACTGGTACCTGTGATACAGCCTCC
ACTCCAGCCCCAGGGCCCAGCCCCAGGCCACCCGAGCCGGCTGCCGCTGACCCTGTGGTCGGGCTGATCAAATTC
TGCCTCCTCAGCGAGGCCTTCCTGACCCTCCCGGGCCCTTCCTGCCTTTCTCTCTGGCTGCGGCTGTTTCCTGCG
GGGCTGGCTGCAGCTCCCGGCGGCGCCCTGTCCTGTACCTGTTTCATGTCCATCGTCGGCAACCCCTGGCTTCTA
ACACAGCTCATTGCCCGCAGGACCTCCCAGCAGGAGCAGGGACCCAGCTCAGAGTATCATTTTCAAAATGGTAAC
CAGCAAACCAACGTGATTCTCGCACAAAGGCAAGTCGGGATTCGCTGTTCCGGGGCGAACAAAGAACGGTCGGGG
GTGACCCCGGATCATGGCGCGCCCGCAGTATCTGTGGCCACTGTGGAAACAGCCCTGGCGTGTCCGGGACGCGAC
GCGGCCTTTCCCTCCCCGCGCGATCACCCAGATGTGAGCGCTCAGTTTGAATCGGACTTTTTGGCCATGTGCCCA
CAACCAACATGGAGCCCTGAGGGTTTCCTGCCCGACTCCAAGATGGCGATGCGACTCCCTTTGCCCTCACGGCCC
AGGCGGGCGGGTCCTGCCCACTTGCAAGATGGCGGCAGCCTGGGCAAAGCACGCTTCCCGCCGCCTGACTCGCCA
CGTACCCACTCTCAAGATGGCGTCTCCCGCAAAGCCACGCGCCAGCTGACTGGCTCAGACGCCGTCACG**TGA**

FIGURE 1015

TTGTGAGTCTATAACTCGGAGCCGTTGGGTCGGTTCCTGCTATTCCGGCGCCTCCACTCCGTCCCCCGCGGGTCT
GCTCTGTGTGCC**ATG**GACGGCATTGTCCCAGATATAGCCGTTGGTACAAAGCGGGGATCTGACGAGCTTTTCTCT
ACTTGTGTCACTAACGGACCGTTTATCATGAGCAGCAACTCGGCTTCTGCAGCAAACGGAAATGACAGCAAGAAG
TTCAAAGGTGACAGCCGAAGTGCAGGCGTCCCCTCTAGAGTGATCCACATCCGGAAGCTCCCCATCGACGTCACG
GAGGGGGAAGTCATCTCCCTGGGGCTGCCCTTTGGGAAGGTCACCAACCTCCTGATGCTGAAGGGGAAAAACCAG
GCCTTCATCGAGATGAACACGGAGGAGGCTGCCAACACCATGGTGAACTACTACACCTCGGTGACCCCTGTGCTG
CGCGGCCAGCCCATCTACATCCAGTTCTCCAACCACAAGGAGCTGAAGACCGACAGCTCTCCCAACCAGGCGCGG
GCCCAGGCGGCCCTGCAGGCGGTGAACTCGGTCCAGTCGGGGAACCTGGCCTTGGCTGCCTCGGCGGCGGCCGTG
GACGCAGGGATGGCGATGGCCGGGCAGAGCCCCGTGCTCAGGATCATCGTGGAGAACCTCTTCTACCCTGTGACC
CTGGATGTGCTGCACCAGATTTTCTCCAAGTTCGGCACAGTGTTGAAGATCATCACCTTCACCAAGAACAACCAG
TTCCAGGCCCTGCTGCAGTATGCGGACCCCGTGAGCGCCCAGCACGCCAAGCTGTCGCTGGACGGGCAGAACATC
TACAACGCCTGCTGCACGCTGCGCATCGACTTTTCCAAGCTCACCAGCCTCAACGTCAAGTACAACAATGACAAG
AGCCGTGACTACACACGCCCAGACCTGCCTTCCGGGGACAGCCAGCCCTCGCTGGACCAGACCATGGCCGCGGCC
TTCGGTGCACCTGGTATAATCTCAGCCTCTCCGTATGCAGGAGCTGGTTTCCCTCCCACCTTTGCCATTCCTCAA
GCTGCAGGCCTTTCCGTTCCGAACGTCCACGGCGCCCTGGCCCCCCTGGCCATCCCCTCGGCGGCGGCGGCAGCT
GCGGCGGCAGGTCGGATCGCCATCCCGGGCCTGGCGGGGGCAGGAAATTCTGTATTGCTGGTCAGCAACCTCAAC
CCAGAGAGAGTCACACCCCAAAGCCTCTTTATTCTTTTCGGCGTCTACGGTGACGTGCAGCGCGTGAAGATCCTG
TTCAATAAGAAGGAGAACGCCCTAGTGCAGATGGCGGACGGCAACCAGGCCCAGCTGGCCATGAGCCACCTGAAC
GGGCACAAGCTGCACGGGAAGCCCATCCGCATCACGCTCTCGAAGCACCAGAACGTGCAGCTGCCCCGCGAGGGC
CAGGAGGACCAGGGCCTGACCAAGGACTACGGCAACTCACCCCTGCACCGCTTCAAGAAGCCGGGCTCCAAGAAC
TTCCAGAACATATTCCCGCCCTCGGCCACGCTGCACCTCTCCAACATCCCGCCCTCAGTCTCCGAGGAGGATCTC
AAGGTCCTGTTTTCCAGCAATGGGGGCGTCGTCAAAGGATTCAAGTTCTTCCAGAAGGACCGCAAGATGGCACTG
ATCCAGATGGGCTCCGTGGAGGAGGCGGTCCAGGCCCTCATTGACCTGCACAACCACGACCTCGGGGAGAACCAC
CACCTGCGGGTCTCCTTCTCCAAGTCCACCATC**TAG**GGGCACAGGCCCCCACGGCCGGGCCCCCTGGCGACAACT
TCCATCATTCCAGAGAAAAGCCACTTTAAAAACAGCTGAAGTGACCTTAGCAGACCAGAGATTTTATTTTTTTAA
AGAGAAATCAGTTTACCTGTTTTTAAAAAAATTAAATCTAGTTCACCTTGCTCACCCTGCGGTGACAGGGACAGC
TCAGGCTCTTGGTGACTGTGGCAGCGGGAGTTCCCGGCCCTCCACACCCGGGGCCAGACCCTCGGGGCCATGCCT
TGGTGGGGCCTGTGTCGGGCGTGGGGCCTGCAGGTGGGCGCCCCGACCACGACTTGGCTTCCTTGTGCCTTAAAA
AACCTGCCTTCCTGCAGCCACACACCCACCCGGGGTGTCCTGGGGACCCAAGGGGTGGGGGGGTCACACCAGAGA
GAGGCAGGGGGCCTGGCCGGCTCCTGCAGGATCATGCAGCTGGGGCGCGGCGGCCGCGGCTGCGACACCCCAACC
CCAGCCCTCTAATCAAGTCACGTGATTCTCCCTTCACCCCGCCCCCAGGGCCTTCCCTTCTGCCCCCAGGCGGGC
TCCCCGCTGCTCCAGCTGCGGAGCTGGTCGACATAATCTCTGTATTATATACTTTGCAGTTGCAGACGTCTGTGC
CTAGCAATATTTCCAGTTGACCAAATATTCTAATCTTTTTTCATTTATATGCAAAAGAAATAGTTTTAAGTAACT
TTTTATAGCAAGATGATACAATGGTATGAGTGTAATCTAAACTTCCTTGTGGTATTACCTTGTATGCTGTTACTT
TTATTTTATTCCTTGTAATTAAGTCACAGGCAGGACCCAGTTTCCAGAGAGCAGGCGGGGCCGCCCAGTGGGTCA
GGCACAGGGAGCCCCGGTCCTATCTTAGAGCCCCTGAGCTTCAGGGAAGGGGCGGGCGTGTCGCCGCCTCTGGCA
TCGCCTCCGGTTGCCTTACACCACGCCTTCACCTGCAGTCGCCTAGAAAACTTGCTCTCAAACTTCAGGGTTTTT
TCTTCCTTCAAATTTTGGACCAAAGTCTCATTTCTGTGTTTTGCCTGCCTCTGATGCTGGGACCCGGAAGGCGGG
CGCTCCTCCTGTCTTCTCTGTGCTCTTTCTACCGCCCCCGCGTCCTGTCCCGGGGGCTCTCCTAGGATCCCCTTT
CCGTAAAAGCGTGTAACAAGGGTGTAAATATTTATAATTTTTTATACCTGTTGTGAGACCCGAGGGGCGGCGGCG
CGGTTTTTTATGGTGACACAAATGTATATTTTGCTAACAGCAATTCCAGGCTCAGTATTGTGACCGCGGAGCCAC
AGGGGACCCCACGCACATTCCGTTGCCTTACCCGATGGCTTGTGACGCGGAGAGAACCGATTAAAACCGTTTGAG
AAACTCCTCCCTTGTCTAGCCCTGTGTTCGCTGTGGACGCTGTAGAGGCAGGTTGGCCAGTCTGTACCTGGACTT
CGAATAAATCTTCTGTATCCTCGCTCCGTTCCGCCTT

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FIGURE 1016

ATGTGTGATTTGCGGCGGCCAGCGGCAGGTGGGATGATGGACTTGGCCTACGTCTGTGAGTGGGAGAAATGGTCC
AAGAGCACCCACTGCCCATCGGTGCCCCTGGCCTGCGCCTGGTCCTGCCGAAATCTCATCGCCTTCACCATGGAC
CTGCGCAGCGATGACCAGGACCTGACCCGCATGATCCACATCCTGGACACGGAGCACCCCTGGGACCTGCACTCG
ATCCCCTCAGAGCACCACGAGGCTATCACCTGCCTGGAGTGGGACCAGTCAGGCTCCCGGCTCCTGTCAGCAGAT
GCCGACGGGCAGATCAAGTGCTGGAGCATGGCGGACCACCTGGCTAATAGCTGGGAGAGCTCAGTGGGCAGCCTA
GTGGAGGGGGACCCCATTGTGGCCCTGTCCTGGCTGCACAATGGTGTGAAACTGGCCCTGCACGTGGAGAAGTCG
GGCGCCTCCAGCTTCGGGGAGAAGTTCTCCCGAGTCAAGTTCTCACCGTCGCTCACGCTGTTCGGCGGCAAGCCC
ATGGAGGGCTGGATCGCGGTGACGGTCAGCGGCCTGGTCACCGTGTCCCTGCTGAAGCCCAGCGGGCAGGTGCTG
ACGTCCACCGAGAGCCTGTGCCGGCTGCGCGGCCGCGTGGCCCTGGCGACATCGCCTTCACCGGCGGCGGCAACA
TCGTGGTGGCCACGGCGGACGGCAGCAGCGCGTCGCCCGTGCAGTTCTACAAGGTGTGCGTGAGCGTGGTGAGCG
AGAAGTGCCGTATCGACACGGAGATCCTGCCCTCCCTGTTC**ATG**CGCTGCACCACCGACCTCAACCGCAAGGACA
AGTTCCCCGCCATCACCCACCTCAAGTTCCTGGCCCGGGACATGTCGGAGCAGGTGCTTTTGTGCGCGTCCAGCC
AGACCAGCAGCATCGTGGAGTGCTGGTCCCTGCGCAAGGAGGGACTCCCCGTGAACAACATCTTCCAGCAGATCT
CCCCCGTGGTTGGCGACAAACAGCCCACAATTCTCAAATGGCGGATCCTATCGGCCACCAACGATCTGGACCGTG
TGTCGGCCGTGGCGCTGCCCAAGCTGCCCATCTCGCTCACCAACACCGACCTCAAGCTGAGCGTGCTCCGCCTCT
CACCTTCCATGGGCCACCCGCTGGAGGTGGGGCTGGCGCTGCGGCACCTGCTCTTCCTGCTGGAGTACTGCATGG
TGACCGGCTACGACTGGTGGGACATCCTGCTGCACGTGCAGCCCAGTATGGTACAGAGCCTGGTGGAGAAGCTGC
ACGAGGAGTACACGCGCCAGACCGCTGCCCTGCAGCAGGTCCTCTCCACCCGGATCCTGGCCATGAAGGCCTCGC
TCTGCAAGCTGTCGCCCTGCACGGTGACTCGCGTGTGCGACTACCACACCAAGCTCTTCCTCATCGCCATCAGCT
CCACCCTGAAGTCGCTGCTGCGCCCCCACTTTCTCAACACGCCTGACAAGAGCCCCGGCGACCGGCTGACCGAGA
TCTGCACCAAGATCACCGACGTCGACATTGACAAGGTCATGATCAACCTCAAGACGGAGGAATTTGTGCTGGACA
TGAACACACTGCAGGCGCTGCAGCAGCTCTTGCAGTGGGTGGGCGACTTCGTGCTGTACCTGCTGGCCAGCCTAC
CCAACCAGGGTTCCCTGCTGAGGCCGGGCCACAGCTTTCTGCGGGACGGCACCTCGCTGGGCATGCTTCGGGAAT
TGATGGTGGTCATCCGCATCTGGGGCCTTCTGAAGCCCAGCTGCCTGCCCGTGTATACGGCCACTTCGGATACCC
AGGACAGCATGTCCCTGCTCTTCCGCCTGCTCACCAAGCTCTGGATCTGCTGTCGCGATGAGGGCCCAGCGAGCG
AGCCGGACGAGGCGCTGGTGGATGAATGCTGCCTGCTGCCCAGCCAGCTGCTTATCCCCAGCCTGGACTGGCTGC
CAGCCAGCGACGGCCTGGTCAGCCGCCTGCAGCCCAAGCAGCCCCTTCGTCTGCAGTTTGGCCGGGCGCCCACGC
TGCCTGGCAGTGCTGCCACCCTGCAGCTCGACGGCCTCGCCAGGGCCCCAGGCCAGCCCAAGATCGACCACCTGC
GGAGGCTGCACCTTGGCGCTTGCCCCACGGAGGAATGCAAGGCCTGCACCAGGTGCGGCTGTGTCACCATGCTCA
AGTCGCCCAACAGAACCACGGCGGTGAAGCAGTGGGAGCAGCGCTGGATCAAGAACTGCCTGGCTGTTGAAGGCC
GTGGGCCGGACGCCTGCGTGACCAGCAGAGCTTCTGAGGAAGCCCCTGCCTTTGTCCAGCTGGGCCCGCAGTCCA
CACACCACTCTCCCAGGACCCCCAGATCCCTGGACCATCTGCATCCAAAGGACCGTCCG**TGA**

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FIGURE 1017

GAAGGCCCTGCCGGGCGGCGGCGGCGGCGACAGCGTGCGAGCCATGGTCGCGCTGGAGAACCCCGAGTGCGGCCC
GGAGGCGGCGGAGGGCACCCCGGGCGGGCGGCGGCTGCTGCCCCTTCCCAGCTGCCTGCCTGCCCTAGCCAGCTC
CCAGGTGAAGAGACTCTCGGCTTCCAGGCGGAAACAGCACTTCATCAACCAGGCAGTGCGGAACTCAGACCTCGT
GCCCAAGGCCAAGGGGCGGAAGAGCCTCCAGCGCCTGGAGAACACCCAGTACCTCCTGACCCTGCTGGAGACAGA
CGGGGGCCTGCCTGGCCTGGAGGATGGGGACTTGGCACCCCCTGCATCACCAGGCATCTTTGCCGAGGCCTGCAA
CAACGCCACCTATGTGGAGGTCTGGAACGATTTCATGAACCGCTCCGGGGAGGAGCAGGAGCGGGTTCTTCGCTA
CCTGGAGGATGAGGGCAGGAGCAAGGCGCGGAGGAGGGGCCCTGGCCGTGGGGAGGACCGGAGGAGAGAGGACCC
CGCCTATACACCCCGCGAGTGCTTCCAGCGCATCAGCCGGCGTCTGCGAGCCGTCCTCAAGCGCAGCCGCATCCC
CATGGAAACGCTGGAGACCTGGGAGGAGCGGCTGCTTCGGTTCTTCTCCGTGTCCCCCCAGGCCGTGTACACAGC
AATGCTAGACAACAGCTTCGAGAGGCTTCTGCTGCACGCTGTCTGCCAGTACATGGACCTCATCTCAGCCAGTGC
TGACCTGGAGGGGAAGCGGCAGATGAAGGTCAGTAATCGGCACCTGGATTTCCTGCCGCCGGGGCTGCTCCTGTC
CGCCTACCTGGAGCAGCACAGCTGATGGCGGCCCCGCGGAGACCCCGCTGCCACCTCGCCCAGCCATCAAGCCCT
CCGATACCTTCGGCTAAAATATCTTTCATATTTTTAGAATTTGTCCTCGGAAACCTTTTTCGCTTGGGGTGGTCT
CTCTCACTCTGCCCCCTCCTCACGCAGCTCTTGGCAGTCAACAGACGCTGGCGGCTGGGGCTGCCCATGCCATCC
CAGCTCCAAGCTTCCCACTCCAGGACTTGTGTTTGGGTGGGGAGACCTGACCTGGGCATGTTCCTGTTTCTTCAT
CGTTGAGCTTTTCTGGCCCGGTCTGAAGCTCAAGTGAGGAGGGGGAGGCTGGGTTTTTATCACTTTTAATGAATT
TGGTGTGATTTGTTGTAGATTTTTAAATTTCCCTTTTGGAGAGAAAAACCAAAAAAACTCGCCCCACTGGTAAAA
CATGGGTCTTGGTCCCAGCCCCTGCTCAGCCCCTCCCAGTTTTTAGCTTGA**ATG**AGGGTGGGGTCTCTGGGACCC
TGCCCCTCATGCCAGAAGCATCTTGTGTTGTATATGTGTGCGCGCGTGTGCCCTGAGACCCAGGACAGAAGCCAC
GGTCCTAAGAGCCGGTTTTATCCTCGTCATTCTGCGTGTCCTCCCCCACGCCACCTGTGTCGGGGCTCAGGGTCT
CCTGCTTTATATGAGCCCCCTTCCTTTCCTCCCCTCCTTTATGCTGGGGGTCCAGGACTTCCAGCCAGAAGCCTC
TGCCCTTGCACTACCTTGTCTGTCACCCCATCCCGTGTCCCCTCGTCCCCCAGCCTGACTCCTGCC**TGA**TAGCTC
CTGTGTCCCCATGCTGGTCCTCCTGGCCCAGGCTGCAGGAGCCAGGCTGGGGGGCCTCCGCACCCCCTTGCTGCG
TGTGGGTAATTGTGTTTTGGGGGAAAGTGGGGAATTTAATAAATTTCTGGTGCTC

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FIGURE 1018

GCATGCCCCATCAGCCTTCAGCTTGAGCCCGGCGGCCCCCGCCCCCGCCCCCTGCCACCCTGCACTGCCCCGGCT
CCCCCGCGGCCCCCACGCTGCAGTGCGGCCGGGCCCCCTCCCCGCAGGGGCCGCCCCCGCCGCCCACCCCTAGCG
CCCGTGGTGGTGGTGGTGGTGGTGGTGGTGGCCCGGGCCGCAGGGCC**ATG**AAACTACAGGCCGTGATGGAGA
CGCTGTTGCAGCGGCAGCAGCGGGCGCGCCAGGAGCTGGAGGCCCGGCAGCAGCTGCCCCCCGATCCCCCTGCTG
CACCCCCCGGCCGGGCCCGGGCTGCCCCCGACGAGGACAGAGAGCCCGAGAGTGCCCGGATGCAGCGGGCTCAGA
TGGCCGCACTGGCAGCCATGCGGGCTGCAGCTGCGGGCCTGGGACACCCAGCCAGCCCCGGCGGCTCTGAGGATG
GGCCCCCAGGCTCGGAGGAGGAGGACGCGGCCCGGGAGGGGACACCGGGCTCACCCGGGCGAGGCAGAGAAGGGC
CAGGAGAGGAGCACTTTGAGGACATGGCCTCCGACGAGGACATGAAGCCCAAATGGGAGGAGGAGGAGATGGAGG
AAGACCTCGGGGAGGATGAGGAGGAGGAGGAGGAGGATTACGAGGATGAGGAGGAGGAGGAGGACGAGGAGGGGC
TGGGCCCCCCAGGCCCTGCCAGCTTGGGCACCACGGCACTGTTCCCCCGAAAGGCCCAGCCACCCCAGGCCTTCC
GCGGCGATGGCGTTCCCAGGGTGCTGGGGGGCCAGGAGCGGCCGGGGCCTGGCCCTGCCCACCCCGGAGGGGCCG
CCCACGTAGCCCCGCAGCTGCAGCCGCCTGACCACGGCGACTGGACTTACGAGGAGCAGTTTAAGCAGCTCTACG
AACTCGACGGGGACCCCAAGAGGAAGGAATTCCTGGATGACTTGTTCAGCTTCATGCAGAAGCGAGGGACACCTG
TGAACCGCATCCCCATCATGGCCAAACAGGTCCTTGACCTGTTCATGCTGTACGTGCTGGTGACGGAGAAGGGCG
GCCTCGTGGAGGTCATCAACAAGAAGCTGTGGCGTGAGATCACCAAGGGCCTCAACCTGCCCACGTCCATCACCA
GTGCAGCCTTCACCCTGCGGACCCAATACATGAAGTACCTGTACCCCTACGAGTGTGAGAAGCGGGGCCTCAGTA
ACCCCAATGAGCTCCAGGCAGCCATAGACAGCAACCGACGGGAGGGCCGGCGCCAGAGCTTTGGTGGCTCCCTCT
TTGCCTACTCGCCAGGCGGGGCACACGGCATGCTCTCCTCACCCAAGCTACCCGTGTCCTCCCTGGGCCTGGCCG
CAAGCACCAATGGCAGCTCCATCACCCCCGCCCCTAAGATCAAGAAAGAGGAGGACTCAGCCATCCCCATCACAG
TCCCTGGCCGCCTGCCTGTGTCCCTGGCGGGCCACCCTGTGGTGGCAGCCCAGGCAGCAGCTGTGCAAGCAGCAG
CCGCCCAAGCAGCTGTGGCCGCACAGGCAGCTGCCCTGGAACAGCTGCGGGAGAAGCTGGAGTCTGCAGAGCCTC
CGGAGAAGAAGATGGCCCTGGTGGCCGATGAGCAGCAACGGCTGATGCAACGTGCACTCCAGCAGAACTTCCTGG
CCATGGCGGCCCAGCTGCCCATGAGCATTCGGATCAACAGCCAAGCCTCCGAAAGCCGCCAGGACTCTGCTGTGA
ACCTGACGGGCACCAACGGCAGCAACAGCATCAGCATGTCGGTGGAGATCAACGGCATCATGTACACAGGAGTTC
TGTTTGCTCAGCCGCCGGCCCCCACGCCAACCTCTGCTCCCAACAAAGGAGGCGGCGGCGGCGGCGGCAGCAGCA
GCAACGCAGGCGGCCGGGGAGGAAACACCGGAACCAGCGGCGGCCAGGCTGGGCCAGCGGGGCTGTCCACACCCT
CCACATCTACCTCAAATAACTCGTTGCCT**TAA**CCGCATCACTCCCCACCCGCCACCCACCCTGGAGCCCGCCGGC
CTGGGCAGGGGGTCCAGGTGGGCCACACAGGGGCCAGGATGGCGGAAGATACGGGTGGGGAGGGAAGATATCCAG
AAAGGAGCCACAGCTGACGCCAAAAAGAAAAGAAAAAAGATATATATATATATATATATATATACACGTATATAT
ATAAAGAGAATTTAATAAAACAGGGGAAAACCAAGGAACACTTGAATTTCTCAGGTTTTGGACATTCAGAGAGAT
GAATTGTGAGAACAGCAAAGAAATCCATCAGAAAAACAGAAAGAGGCAGACGTTTCCCAGGGCGTTCAGGCAGCC
CTGATGGACCGAAGGCTCTGGTGTCTGGTTTGGCCCCACAGCAGTGTGGGCCGATCCTGTTTACCTCATACATCC
CTGCACTGTGTGTTTTCATTTTTGTCTGCTTTAGTTCTCTTTTATTTTCTATTCACCACACACTCACCACTCCCA
GCTTCTCGTGTCCAGTGAAACCCCTGAACCAAGATCACTGAATTTTTGTTTTTTTCTTGTTGCTTTGGGAAATTT
TTTTTTCTCTGTAGGGTTTTTAAGAGGTTTCGGGGGTTTTGTTGTGTAAATATTCTATTTTATTCTTGGGGGGAT
CAAACCTTAGGAAAAGGATATCTATATATCTATATAGCTATATATTTGTGTTCCTTCAGGGAAACTGGTCTTGAA
AAAGCAAGAAAAAAAAGCAAAAAA

FIGURE 1019

AAGATCACCAGGCCCCGGAACGTCTTCCAGAGGGGAAAGAGGCTCCGTCTGGGGTACAAGGAGCCAGGAGGTCCC
CCAGCGCCCCCCCCCACCCACAGGTTCGGGCGGGCAGGGTGGGGGAAAGCCGGCAGGGATAATTAGAAAGCGGAG
TTCAGGCGGGGGCCAATTTGCCGAGGAGGAGCTGCGACAAATACCAGGCTGCCAATTAAGCTCGGGGGAATGTGG
CTGGCTGGGCAGTGGGGAGCCTTGAAACCACCAATTAGGCCTCAGCTGGGATGATCGGTCATTAGGGCCCAGAAG
GAGACCCACGCCCAGCCCCTGCTGCTGCGGGGACATCCCAGGTGCTGGGGAGGCCGGCCAAAGGCCCCATCACCC
TGCAGCCGTCCTGCCCCTCTCTGGGCCTCAGTTTCCCCGTCTGTGTATTGGAGGCCCAGTGAGGCCTTCCGGGAA
GGGGCTGGGGGGGCAGCCAGGAGTCCTGACCTCTGCCCTGGGTGGTCGAGGCTGCCCGAGGTCCAGCTGCCTGGT
CTTTGTCTCCGCCCCAACCCGGCCAGCGCCAGACTGGCCAGCCTGCATTCCTGCGCTGATTTATGGTGGCCGGGG
AGGCCCTTTCCCCTTCAGCTGCCTGAGGGGTGTGGGGCCCTCAGGTAGACCCGGCTGGCCGGGCCGGTGGGTCCC
ATGAGCACAGGCACGCACACATGGCCACACGCCCGGCCTCGTCCTCTGACCCCGGCCCGGCTGCCGCCCCCTCCC
CTCCACGTTCTTCCTCCGAGACCCCGTCCATCACCGAGTCACGGATCTAGGAGTGTATCTGGGGTTTAGTCTGTT
TTGTTCCCAGAGTCTGGAATCAGCCGAGCACACAGCAGTTGCCTAATAAATGCTCGTTACTTGAACCTTGATTTT
CTCAGCTGCAAAAGTGAGCCGGGCAGGGCGGAGAGGGGGACAGGGCGGAGAGGGGGACAGGACGAGCTTGCCAGG
GAAACGCCTGAGGCAGCAGGTACTGGAATGGGGAGGACTTCACCGCTGGGGCTGTCCTGGGGTGAACGCCATCCC
CCACCCAAATTCACATCGGCCCAGAACCTCAGAACGAGACGTTATTTGGAAAAAGGGCCTTTGCAGACGTGATCA
AATTGAGAAAAAGTCACAGTGAAGGCCGGTGGGCACTGGAGACGGTCGCACAGAGACAGAGGCCGGCCACATGTC
AAGGGACTCCTGGAGCCCCCAGGAGCTGGGAGAGGCGGAAGGCTCCTCCTGCAGCCCCTGGAGGGAGCGCAGCCC
TGCGGACGCCTCGATTTTGGACTCTGGGCTCCAGGACGGAGGGAGAACAGGTTTCGTTTGTTTTACGCCCGCGGT
TTGAGGTCCTTCGTTACGCAGCCCCCCGGCTAAGAACCGCACGTAGAGGCCAGCACACCTTGGGCCCTTCCAGGG
CGAGCGGAAGGTCCTCTCCTCTGAGATTCTGACCCGGTATTACGGGGTCTACCCTGCCTGGACCCCCCCTTCCCT
GGCACAGCCCCTACAAGAAACCTCACCGCACCTCCTGCCTCAGTTTCCCCATCTCTCAAATAGAGTGTGTGAGAA
AACACAGCAGCTTTACCCCAAGCACCTGGCGCCCCAGCTACCCTCACATCCCGGATGGGGAAACCGAGGCGCCAG
GCAGCAATCAGCTGCCCCATGTACAGCCAGCCAAGGTTGGGGTTGGAGAGGGGAGCCATTAACTCCCAGGCCAAA
TGGTGGGCGAACTGGGCCGGTGGCGAGGCACGGTCAGACCCCTGTGGGGCCGGGGCACTGATGCGTGGCAGTAAA
GGGAGGACCTGCGGGGGCCCCAGCTGCTGGCGGGGGAGGCGGCTCTAATGGCCGTTGCTGTGGGCAGCCAGCAAC
AAAGCCAGCAGTAAAGGCCGCCTGGGCTTTATGGGTCTCTGGCCCCCGGTTCCGCTCCCCTGTGGGGGGCGCCCC
GCCCTGGCCAGCTGGCCGAGGCCCCAGGG**ATG**GGAAAGCAGGGGACGGTGTCCAGGCTGCCCATGGCGGTGTCCA
GGCCCCCCTTGTGGGCCAGATCCCGGGTTGAACTGCTGGGCCACAGCACACCCCATGGCAAACCCAGGCCTTGGT
TCTCACCTGGGTTCTGTGGCCGAAACCCTGCCCCTCTGAAACGTCAACCAGAAAGCTCTGAAATCAGCCGCCCAC
CACACACCCACAGGAGCCCTAAACCCAGGCTGGAGATTGGGCAAAATCTCCGGAAACTCCCTCCCCAGGGGCTGA
GGGCCGAGATAAGCGGCCCGCACTCCCCTCCACGCCGCCTGACCTCCCTGGGGCCTGCTCTGATCACGGGAGGGG
TCGGGTGTGAAGTTCTGAAGGTGCCCCTCCGC**TGA**GACCCCCACCGCCCCCCATCAGCCCCG

FIGURE 1020

GGTCACCGCAGCTGAGCTGGGGGGTTATTTTGGCTGGAGCTGCTGGAGCAGAAAGGCTGGGTCTGAAATGCCCAG
CAGGGTCTGGGGACTTCGTTGGACCCGCGTGGTGTTGGGCGGGGCTGTCGTGTCCTACACGGGAGCTCTGGGCTT
TCATTTCTCTTGGGGTGCAGTGGGGATTAACTCAGCTATTCCCAGGGTAAGCCTGGGTCTCTAATTGGGCCCTGG
GAGCCCTGTTAGGCCACCGGCATGGGGGCTTGGTGAGGAAGGGGACTCCCCAGCTCCCCCCACTCCCAACCACCT
CCCCATTGCCTTGGAGACCCCTGGGGAGGGGGCTGGGGGGCTTCTGAGCCCCTGAGTCTAGGTTCACTTTCCCGT
CGGGCTGTGGGAGGGGACTGTCACTTTCCTGTGTCTTTGGGGAGGGGACCCCCACTTCCTTCTCGGATCTCAGGG
CCGTGGACACACACCCCCTTTCCAGGAGGGGGTGGTGGGCGTCTAGGTTTTCCTTGTCCCTTCCTGGGGCCAGCA
CCGTAGCAGCACAATCACCCCGGGAAGGGGGTGTCTGTTTGCCTCCAGACACAATCGGGCCCCACTCGCAGAACC
ACCTGGACTCTGTCCGTGTCTGTCCCCCGGCCTCCAGGGCTCCTCTCCCGGGACCCCCGTCCCACGCCTGGGCCC
CGCGCCGGGGGAAGCGCCTGCTGCCTATCTCTGTCTACCTCAGGTCTGACTTTTG**ATG**CCAAAATCTGAGCCCCT
GGGGTGCCTCTCCCCCGCCTCCCGTGCACCAGGGTCTGCAGCAGCCACTGGGGCCTGGCTGCCTGCTGCATCTGG
CGGCCCTGGACCCCTGGGGCCCCCGTGCACCTGCCCACCTCGGAGCCTGGGGAGGGGCCGTGCAGGGTCGAGGGC
TGGGTCGTCTCCCTCGGGCTGCGTGTGTGTGTCGGGAATCCTGCGTGTCGTGTCTGTGGGCGATCCGGCCTCCCG
GCGGTGGGTGGACCTGGATTCTAACTCAGAGGACTTGAGCCTGCTGTTAACTCCGATGATTGTAGGGACAGGCGG
GGTGGGTGGGGGGTGGGCGCGAGGCTGGGTCCCGGCCCAGGAGAAGGAAGTCGCTGAAGGCAGTGGCCATGCTGG
CCGTGGAAATGGGAGGCGGTTGCAGAGGGTCTATGGGGCCCGGTCCTGGATACTCGGCAGGAAGCCGTGTCTGCA
GAGGCTCCTCCCTGCCTCAGGTGGCCCCGTTCAACCCCAGCCGTGCCCATCTCCTGCCACCGCCTGTCGGTGGGG
GTTTAAATTCGGTGTGGCTTTCTGGGGTGCAGCTCAGCACCCCCCCTTATGCAGACTGGGAGGGGGTCGGGCAGT
CCCCTCAGCCACGAGGACCCTGGATGGGTTC**TAG**TTCACTTGGGACCGTGGGGCCTGGCTGCGTACTGAGTGGGT
GCCCCACAGTCAAGGCCAACGGGGGCTCCCCCTGCTCTGAGATGTTGGGAGAAAGGCGGCTTCTGGAACCTTCCG
TGGGACCCGTAAGTGGCTGTCCAGAAAGGCGGGAGGGTGGGCACGGGGCACGGGGGGCAGCTGGGGTCGTTGTTA
AGGGTCACGCATCTGTACAGTTGAATTTCCTTTCTCTTATCATGTTTTACCCACCTTGTCCCTTTTTTCCCCAAT
TGTGCTTTTGCATTTTTTTCCTTGGCAAATGTAAACTCAGCCTTTCATTCATGACGTGTGAAATTTCAGTTTCTC
TGGAGTTTGTCAGACGGCGTGGGAACCACGCCTGAAACTCAGGTAATAGGAGGAAAAAAAAAAAAACTTAAAAAA
ATTTTTAAAAAACATAAAACTACTCTCTACCTCTGGCTGGGCCCAGCCTGTCTCGCCCTGGCCGCGGCAGGGTGG
CCTGTAACAATTTCAGTTTTCGCAGAACATTCAGGTATTAAAAGGAAAAAA

FIGURE 1021

GGCAAG**ATG**GCGGCGCCCATGGAGGTGGCCGTGTGTACGGACTCGGCGGCCCCGATGTGGAGCTGCATCGTGTGG
GAACTTCACTCGGGCGCCAACCTGCTCACCTACCGCGGCGGCCAGGCGGGACCCCGCGGCCTGGCGCTGCTCAAT
GGCGAGTATCTGCTGGCGGCGCAGCTGGGCAAGAATTACATCAGCGCCTGGGAGCTCCAGCGGAAGGACCAGCTC
CAGCAGAAGATCATGTGCCCCGGGCCTGTCACCTGTCTGACTGCATCACCCAATGGTCTCTACGTCCTGGCAGGA
GTTGCAGAAAGCATCCACCTGTGGGAGGTCTCCACCGGGAACCTTCTGGTCATCCTGAGTCGACACTACCAGGAC
GTCTCCTGCCTTCAGTTCACAGGGGACAGCAGCCACTTCATCTCAGGGGGCAAGGACTGCCTGGTGCTGGTTTGG
AGCCTCTGCAGCGTGCTGCAGGCCGACCCCTCCAGGATTCCGGCGCCCAGGCACGTCTGGTCTCACCACGCGCTC
CCCATCACGGACCTGCACTGCGGCTTTGGGGGCCCCCTGGCCCGGGTGGCCACCTCCTCACTGGACCAGACGGTG
AAGCTATGGGAGGTCTCCTCGGGGGAGCTGCTGCTCTCCGTCCTCTTTGACGTGTCCATCATGGCAGTGACCATG
GACCTGGCTGAGCACCATATGTTCTGCGGGGGCAGTGAGGGCTCCATCTTCCAGGTCGACCTCTTCACCTGGCCC
GGACAGAGGGAGAGGAGCTTCCACCCAGAGCAGGACGCCGGGAAGGTCTTCAAAGGGCACAGGAACCAGGTGACT
TGCCTGTCAGTGTCCACTGACGGCAGCGTGCTGCTCTCAGGCTCCCACGACGAGACCGTGCGCCTCTGGGACGTG
CAGAGCAAGCAGTGCATCCGGACGGTGGCCCTCAAAGGCCCAGTCACCAATGCCGCCATCCTGCTGGCGCCCGTC
AGCATGCTGAGCTCAGACTTCAGGCCCAGCCTGCCGCTGCCCCACTTCAACAAGCACCTGCTGGGCGCCGAGCAC
GGGGACGAGCCGCGCCACGGGGGCCTCACTCTGCGCCTGGGCCTCCACCAGCAGGGCTCGGAGCCCAGCTACCTG
GACCGCACGGAGCAGCTGCAGGCCGTCCTGTGCAGCACCATGGAGAAGAGCGTGCTCGGCGGCCAGGACCAGCTG
CGCGTCCGTGTGACGGAGCTGGAGGACGAGGTGCGCAACCTGCGCAAGATCAATCGGGACCTGTTCGACTTCTCC
ACGCGCTTCATCACGCGGCCGGCCAAG**TGA**GGCCCGGAGACCCCGGCCCGAGGCGCCCAGGCCTGAGCCCCATGC
CTCCCAGCAACCAGGGCCCGCGGGTGTGGCCCCCACCAGCCCAGGCCTGGACTCTCCTCAGTTCTGTGTCGTGTT
CGGGTTTTTCCTCTGTGACTGGGCCGTCTTGGTGTCTCGTGGCACGCGTCACAGTGGTGCTAGTCTGTTTTTAAC
AAAAGAGGATGAAAAGCC

FIGURE 1022

GCTCTTGCCCGGCGTGGCGACTCGCTAGCGTCAGCAGCGCCGCAGCCGGACGAGAAAGCGGAAGATGGCGGCGGC
GGCCGGGAGGCCGTGAGGAGAGCGGCGGCTGCGAGGGCGGCCGATGGCGGCCGGGAGGCGCCCTCGGACACTTGC
GGGTCGTTAGGGCGCGACGCTGGGAGGCATGTCGGAGCACGTGGAGCCCGCAGCTCCGGGGCCCGGGCCCAACGG
CGGCGGCGGCGGCCCGGCCCCCGCGCGCGGGCCTCGCACCCCCAATCTCAACCCCAACCCCCTCATCAACGTGCG
CGACCGGCTCTTCCACGCGCTGTTCTTCAAGATGGCTGTCACCTATTCGCGGCTCTTCCCGCCCGCCTTCCGCCG
TCTCTTCGAGTTCTTCGTGCTGCTCAAGGCCCTGTTTGTGCTCTTCGTCCTGGCCTACATCCACATCGTCTTCTC
CCGCTCGCCCATCAACTGCCTGGAGCATGTGCGTGACAAGTGGCCGCGTGAGGGCATCCTGCGTGTGGAAGTGCG
GCACAACTCGAGCCGCGCGCCCGTCTTCCTACAGTTCTGTGACAGCGGCGGCCGCGGGAGCTTCCCGGGCCTGGC
CGTGGAACCAGGCAGCAACCTGGACATGGAAGATGAGGAGGAGGAAGAGCTGACCATGGAGATGTTTGGGAACAG
CTCCATCAAGTTTGAGCTGGACATCGAGCCCAAGGTGTTCAAGCCGCCGAGTAGCACAGAGGCCCTGAATGACAG
CCAGGAGTTCCCCTTCCCCGAGACGCCCACCAAAGTGTGGCCGCAGGACGAGTACATCGTGGAGTACTCACTAGA
GTATGGCTTCCTTCGCCTGTCGCAGGCCACCCGCCAGCGCCTGAGCATCCCCGTCATGGTGGTCACCCTGGGTGA
GTCTGAGCTGCTGGGCTTGGGGAGCTCCATGGCGGGGCCTCCCCTCCTCCCTCGGGTCTCCTCCTGCTGGTGCGG
GACGGGGGGCTGTGCAGGAAGCACTGGGGTCTGCCCCGCCCCAGGCACGCTTCCCAGGGCTGGGGTCCTGG**ATG**G
GTTTCCTAAGAATGGGCAGGGCCAGGAAGCAGGCCAGGCCTCAGCAATGGAGCCAGCTGGGGCAGGGCCCAGGGG
GTGGCCTGGGCGGGGCTCCCGGCTCCCTGATTCACCCACCCGCAGACCCCACGCGGGACCAGTGCTTCGGGGACC
GCTTCAGCCGCCTGCTGCTGGATGAGTTCCTGGGCTACGATGACATCCTCATGTCCAGCGTGAAGGGCCTGGCCG
AGAACGAGGAGAACAAGGGCTTCCTGCGGAATGTGGTGTCGGGCGAGCACTACCGCTTTGTGAGCATGTGGATGG
CGCGGACGTCCTACCTGGCCGCCTTCGCCATCATGGTCATCTTCACGCTGAGCGTGTCCATGCTGCTGCGGTACT
CACACCACCAGATCTTCGTCTTCATCGTGGACCTGCTGCAGATGCTGGAGATGAACATGGCCATCGCCTTCCCCG
CAGCGCCCCTGCTGACCGTCATCCTGGCCCTCGTCGGGATGGAGGCCATCATGTCGGAGTTCTTCAACGACACCA
CCACCGCCTTCTACATCATCCTCATCGTGTGGCTCGCGGACCAGTATGACGCCATCTGCTGCCACACCAGCACCA
GCAAGCGGCATTGGCTGCGGTTCTTCTATCTCTACCACTTCGCCTTCTATGCCTATCACTACCGCTTCAATGGGC
AGTATAGCAGCCTGGCCCTGGTCACCTCCTGGCTCTTCATCCAGCATTCCATGATCTACTTCTTCCACCACTACG
AGCTGCCTGCCATCCTGCAGCAGGTCCGCATCCAGGAGATGCTGCTTCAGGCGCCGCCACTGGGCCCCGGGACCC
CCACGGCGCTGCCCGATGACATGAACAACAACTCGGGCGCCCCGGCTACAGCCCCTGACTCTGCCGGCCAGCCCC
CCGCCCTGGGCCCCGTCTCGCCTGGGGCCAGCGGGAGTCCCGGGCCTGTGGCAGCGGCGCCCAGCTCCCTGGTGG
CCGCGGCAGCCTCAGTGGCAGCAGCTGCCGGTGGTGACCTGGGTTGGATGGCAGAGACCGCTGCCATCATCACAG
ACGCCTCCTTCCTGTCCGGCCTGAGCGCCTCCCTCCTGGAGCGGCGTCCAGCCAGCCCGCTGGGCCCTGCTGGGG
GCCTCCCCCACGCCCCCCAGGACAGTGTCCCCCCGAGTGACTCCGCAGCTTCTGACACAACTCCCCTGGGGGCTG
CGGTAGGCGGGCCTAGCCCGGCCTCCATGGCCCCAACGGAGGCGCCCTCGGAGGTGGGGTCC**TGA**GCCGCACAGC
TGAGCCGCCTCTGACCCCTGCTGGCTGGGCCTGACCTTCCCGAGCCCGTGGGGGTGGGGGAGGCCAGCCACCTCC
TTCCTCTGGGACTGCCCAGCCTGTGTCGGGGGCTTTCAGGGTTTCGTGGGGTTTGCCCGGAAGGCGGCTTTCCTC
CCCCTGGTGTGAGGTCGCGCCCGAGGCTTGTACCCGCTAGTGAGGTGTTTGAGCTGGTCAGCAAGGAGAGGGGGT
GGGGTTCCGCGGAAGGTTCTGGAGGGGTCTTGGTAGGTCTGCAGTGAACCGTCCTGAGGATGGAGTGGGGTCCCA
TGGTGCAGGTCTCTGAGCAAGGCGGAGGTGTGGAGGAGAGGCCGGCTTGGGGTGGGGCCTCGCGCCCTAGTGCCG
GCCGGCCTCAGCCCGGCTCTGCCTGGTGCTCCCTGCAGTGCCTTCTCCATGGCCCCGCCCTCCCCGCGTGTGCGC
CAGGCTTGGGGTCCCCGGGAGAGCAGAGCTTGCGCCTCGGGCATAGGGACGTGGGGTGCAGGCGCCAACATCAGT
GGCAGCAGCCAGGGCCGTGGTCCAGTCCCACTCGGGGATGGAGTGGGCCGGCGGCCAAACCAGTCACTCGGGGAG
GAATGCGGAGGAGCGCTCATTCCATTCTATTTAATTGCAGTGTACAAAATTGTGTTTGTATATAGAATAAACTGT
CTGTTGACAGCGGC

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FIGURE 1023

ATGAGCTCCACGCAGTTCAACAAGGGCCCCTCGTACGGGCTGTCGGCCGAGGTCAAGAACCGGGCTCCCGCGAAT
CTTGGGGAGCACCCAGGTCTGAGATCTGGGGGACGAGTGACCCATTCCCCCCCCCAACATCTAGGGGTAGTTGGG
TCTGACTTCGTCCCCTCGCCATGGCCCCAGGACCCCCACGTGTCCTTACAGCTGACTTCTGCAGGGGAAACTGCC
TCTGCACGCTCTGAGGGCACCGGCCCTGCCAGCCCCAACAGCCACCTGCCCGGCGGCACTCCAGGGCCGGCAGAC
TGGAGGGAGAATTCCTGCTTCCCCGCTGGGCCATCTGCACCCTGCATTCATAGAGCCCCCCGTGCAGTGGGGTGG
GCACCCTGCCGCACCCTGCATACAGCCGGC**TAA**

FIGURE 1024

ACCAGCTCCTGTCCAAATATGACCCCCAGAAGGAGGCAGAGCTCCGCACCTGGATCGAGGGACTCACCGGCCTCT
CCATCGGCCCCGACTTCCAGAAGGGCCTGAAGGATGGAACTATCTTATGCACACTC**ATG**AACAAGCTACAGCCGG
GCTCCGTCCCCAAGATCAACCGCTCCATGCAGAACTGGCACCAGCTAGAAAACCTGTCCAACTTCATCAAGGCCA
TGGTCAGCTACGGCATGAACCCTGTGGACCTGTTCGAGGCCAACGACCTGTTTGAGAGTGGGAACATGACGCAGG
TGCAGGTGTCTCTTCTCGCCCTGGCGGGGAAGGCCAAGACTAAGGGGCTGCAGAGCGGGGTGGACATTGGCGTCA
AGTACTCGGAGAAGCAGGAGCGGAATTTCGACGATGCCACCATGAAGGCTGGCCAGTGCGTCATCGGGCTGCAGA
TGGGCACCAACAAATGCGCCAGCCAGTCGGGCATGACTGCCTACGGCACGAGAAGGCATCTCTATGACCCCAAGA
ACCATATCCTGCCCCCCATGGACCACTCGACCATCAGCCTCCAGATGGGCACGAACAAGTGTGCCAGCCAGGTGG
GCATGACGGCTCCCGGGACCCGGCGGCACATCTATGATACCAAGCTGGGAACCGACAAGTGTGACAACTCCTCCA
TGTCCCTGCAGATGGGCTACACGCAGGGCGCCAACCAGAGCGGCCAGGTCTTCGGCCTGGGCCGGCAGATATATG
ACCCCAAGTACTGCCCGCAAGGCACAGTGGCCGATGGGGCTCCCTCGGGCACCGGCGACTGCCCGGACCCGGGGG
AGGTCCCTGAATATCCCCCTTACTACCAGGAGGAGGCCGGCTAC**TGA**GGCTCCCAGCACGCTCTCTCCCCACATC
GTCTGCCCATCTGGGTTTTTGGGTTTTTCTGTGTTTTCATCTTTTTTTTTTTTTTCTTAACCCGTTCAGTGCTGC
CAGTCAACCAAGGGTCTGTGAGTGTCAGCGTGGGATCAGGCAGCAGAGCTTTTTTCCCCTTTGCCTTGATCCTTC
GCAAGGCTGAGCCACTGGGCTGTGGGGGAAGGGGTCAAGGCCATATCCCAATACGTGTAGGGCGAGGGTCCCTGC
TGGCACATTCAGGCTGTGCTGGGAAGAAGAGACCTGGGCTTGGAAGGAACCGGTCCCCGACGGTTTCTGCTTGCC
TCGCCTCTTCCCCCTTTTGTCAGCTGAGCAGTTTGTGGTTTCTATGCCCGCAAGTTTCAGGAAGTATTCACAAAA
GAAAAATACATTTTTTCCCCCAGGGGTGGGGCAAGGACAGTGGAGAGAGTGCTAGGAAATGAGTCCCCTGGGAAA
GGGGACCGGGCCGTGATGTTAAATATCTCCGGCTCCCAAGTGACTGGATTTGCCTAGGACCTTCAGACCAACAGA
CTTCAGACCCTCAGACCTGCCCCGGGGCCAGGTGGAGAAAGTGAGGGCCGTACAAGGAAGTGAAATTCTGAGTTG
TTGGGGCTAAGCCTGACCCCCTCTCCATGCTCCCCGCCCCAACCCACTCTGGCCTCAGTAGATTTTTTTTTCAGT
TGTGGTTGTTGCCCAGGCTGGAGTGCAGTGGCGCCATCTTGGCTCACTGCACCTCCACCTTCCGGGCTCAAGCGA
TTCTCCAGCCTCAGCCTCCTGAGTAGCTAGGACTGCAGGTGCTCCACCACGCCCGGCTAATTTTTGTATTTTTAG
TAGAGATGGGGTTTCCCCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCTCAGGTGTGATCCGCCCGCCTCCGC
CTCCCCAAGCGCTGAGATTACAGGTGTGAGCCACCGTGCCCAGCCCCTCAGTAGGTTTTAAGGAGCCCCCAGCCC
TCCTCCCTTCTGGGCCCGACCAGCTTATACTGCTCCATCTTCCCCGGCCACATGCCCCGCCAAGTACTGCACAGG
GACCCCCCACCCAGGGGACCTGCTCCGTGAGATAATGTGAAATACGACTGTGGACCAAACGCAATAAAACCTCTG
TTTGTACGAAG

FIGURE 1025

GGCGGCGGCGGCGGAGGCTGCC**ATG**GACGACGAGGAGGAGACGTACCGGCTCTGGAAAATCCGCAAGACCATCAT
GCAGCTGTGCCACGACCGTGGCTATCTGGTGACCCAGGACGAGCTTGACCAGACCCTGGAGGAGTTCAAAGCCCA
ATCTGGGGACAAGCCGAGTGAGGGGCGGCCGCGGCGCACGGACCTCACCGTGCTGGTGGCCCACAACGATGACCC
CACCGACCAGATGTTTGTGTTCTTTCCAGAGGAGCCCAAGGTGGGCATCAAGACCATCAAGGTGTACTGCCAGCG
CATGCAGGAGGAGAACATCACACGGGCTCTCATCGTGGTGCAGCAGGGCATGACACCCTCCGCCAAGCAGTCCCT
GGTCGACATGGCCCCCAAGTACATCCTGGAGCAGTTTCTGCAGCAGGAGCTGCTCATCAACATCACGGAGCACGA
GCTAGTCCCTGAGCACGTCGTCATGACCAAGGAGGAGGTGACAGAGCTGCTGGCCCGATATAAGCTCCGAGAGAA
CCAGCTGCCCAGGATCCAGGCGGGGGACCCTGTGGCGCGCTACTTTGGGATAAAGCGTGGGCAGGTGGTGAAGAT
CATCCGGCCCAGTGAGACGGCTGGCAGGTACATCACCTACCGGCTGGTGCAG**TAG**CTACCGCCTGACAGCCCCTA
GAGGCGGACACACAGCGACCCCCATCCCTGCAGGACAAACGCCCCTGCCCTGCCAGAATCCGGCCCCCACAGCTC
TCACGGCTGCTGCTCCTCTGGACTCCCCAAGGCAGGTGGCCTCCACCCACGTTCTCCCGTCCTGGGGGTGAGGCTT
CCTGTGGCCCAGCCCGCCCCATTCACCTGTGGATTTGTGCGAGATGCAGCCTCAGAAGGAACAAGGCCCCCAGAG
GGAGGTCACCTGGGGGCAGCTGGTGCCGGGTCTTCACCCAGACCACGCTGGGTCCCCTCTGTTGGGGGTTTGGGG
TCCGGGTCTCCCACCAGCCACTGCTTCCTCCTGGGCCCTCGGCCTTCCACCCCTCGTCTTCCCTCCCTCGGGGGC
CCTGATGCGTGGCGGCCCCCGCCCGGCCTCGGCTCTTTACTCCATTCACAGCCATGCACGCGCTCAAGCCACCAG
GGTGCGAGATGCCAGCTCTGGAGTTCTCGGTTGTTGTAGGAGGTTGGGTGTTTTCAAATGGTAAAGATGTTTTGA
GCAAATAAATTTGCTTGATACAG

FIGURE 1026

GGAGGCGCGGAAAGCCGACGCGCGTCCATTGGTCGGCTGGACGAGGGGAGGAGCCGCTGGCTCCCAGCCCCGCCG
CG**ATG**AGCCTCGGCCGCCTTTGCCGCCTACTGAAGCCGGCGCTGCTCTGTGGGGCTCTGGCCGCGCCTGGCCTGG
CCGGGACCATGTGCGCGTCCCGGGACGACTGGCGCTGTGCGCGCTCCATGCACGAGTTTTCCGCCAAGGACATCG
ACGGGCACATGGTTAACCTGGACAAGTACCGGGGCTTCGTGTGCATCGTCACCAACGTGGCCTCCCAGTGAGGCA
AGACCGAAGTAAACTACACTCAGCTCGTCGACCTGCACGCCCGATACGCTGAGTGTGGTTTGCGGATCCTGGCCT
TCCCGTGTAACCAGTTCGGGAAGCAGGAGCCAGGGAGTAACGAAGAGATCAAAGAGTTCGCCGCGGGCTACAACG
TCAAATTCGATATGTTCAGCAAGATCTGCGTGAACGGGGACGACGCCCACCCGCTGTGGAAGTGGATGAAGATCC
AACCCAAGGGCAAGGGCATCCTGGGAAATGCCATCAAGTGGAACTTCACCAAGTTCCTCATCGACAAGAACGGCT
GCGTGGTGAAGCGCTACGGACCCATGGAGGAGCCCCTGGTGATAGAGAAGGACCTGCCCCACTATTTC**TAG**CTCC
ACAAGTGTGTGGCCCCGCCCGAGCCCCTGCCCACGCCCTTGGAGCCTTCCACCGGCACTCATGACGGCCTGCCTG
CAAACCTGCTGGTGGGGCAGACCCGAAAATCCAGCGTGCACCCCGCCGGAGGAAGGTCCCATGGCCTGCTGGGCT
TGGCTCGGCGCCCCCACCCCTGGCTACCTTGTGGGAATAAACAGACAAATTAG

FIGURE 1027A

GCCCGAAACCCGGAAGTGAGCGGCGGCAGCTGCGAGGCTCGGAGAAACAGGCGCCGCGGGCTCCGCGCCCGGCCG
GACCCGGGCCCGAGATCATGATGCTGCCGCCACCGCCGCCACCACGGAGCGAGAAGCCCAGATAGACGCCCCGGC
GGCCCCGGGTCCTGGAGTCCCGCCGCCTGCTGCCCGGCCGAGGACCCCACCCCGCCTGCCGCCCG**ATG**CTTGCAG
TGGGGCCCGCCATGGACAGGGATTACCCGCAGCATGAACCCCCGCCGGCGGGCAGCCTCCTGTACAGCCCGCCGC
CCCTGCAGAGCGCCATGCTGCACTGCCCCTACTGGAACACCTTCTCGCTGCCGCCATACCCTGCCTTCTCCAGCG
ACAGCCGCCCGTTCATGAGCTCCGCCTCCTTCCTCGGCAGCCAGCCCTGCCCAGACACCAGCTATGCCCCCGTGG
CCACCGCCTCCAGCTTGCCACCAAAGACCTGCGACTTTGCTCAGGACTCCTCCTATTTTGAGGACTTCTCCAACA
TCTCCATCTTCTCCTCGTCCGTGGACTCCCTGTCGGACATCGTGGACACGCCCGACTTCCTGCCGGCTGACAGCC
TCAACCAGGTGTCCACCATCTGGGACGATAACCCTGCCCCCTCCACCCACGATAAGCTGTTCCAGCTCAGCAGGC
CGTTTGCAGGCTTCGAGGACTTTCTGCCCTCCCACAGCACCCCGCTTCTCGTCAGCTACCAGGAGCAGAGTGTGC
AGAGCCAGCCAGAGGAGGAGGACGAGGCTGAGGAGGAGGAGGCGGAGGAGCTGGGGCACACAGAGACCTACGCCG
ACTACGTGCCGTCCAAGTCCAAGATCGGGAAGCAGCACCCAGACCGCGTGGTGGAGACCAGCACACTGTCCAGCG
TCCCACCCCCAGACATCACCTACACCCTGGCCCTGCCCTCGGACAGCGGGGCCCTGTCTGCCCTGCAGCTAGAGG
CCATCACCTACGCCTGCCAGCAACACGAGGTCCTGCTCCCCAGCGGGCAGCGCGCGGGCTTTCTCATCGGCGATG
GGGCCGGCGTGGGCAAAGGCCGGACGGTGGCCGGAGTCATCCTGGAGAACCACCTGCGCGGCCGGAAGAAAGCAT
TGTGGTTCAGCGTCTCCAACGACCTCAAGTACGATGCGGAGCGCGACCTGCGGGACATCGAAGCCACGGGCATCG
CGGTGCACGCGCTCAGCAAGATCAAGTACGGTGACACCACTACCTCAGAGGGCGTCCTCTTCGCCACCTACTCCG
CCCTGATTGGGGAGAGCCAGGCCGGCGGCCAGCACCGCACTCGCCTCCGGCAGATCCTGGACTGGTGTGGGGAGG
CCTTCGAGGGCGTCATCGTGTTCGACGAGTGTCACAAAGCCAAGAATGCCGGCTCCACCAAGATGGGCAAGGCTG
TGCTAGACCTGCAGAACAAGCTGCCCCTGGCCCGCGTGGTCTACGCCAGCGCCACAGGTGCCTCTGAGCCTCGGA
ACATGATCTACATGAGCCGCTTGGGTATCTGGGGCGAGGGCACACCCTTCCGGAACTTTGAGGAGTTCCTGCACG
CCATCGAGAAGAGGGGCGTTGGCGCCATGGAGATCGTGGCCATGGACATGAAGGTCAGCGGCATGTACATCGCAC
GCCAGCTCAGCTTCTCCGGCGTCACCTTCCGCATCGAGGAGATCCCGCTGGCCCCAGCCTTCGAGTGCGTCTACA
ACCGCGCGGCCCTGCTGTGGGCCGAGGCCCTGAACGTGTTCCAGCAGGCGGCCGACTGGATCGGCCTGGAGTCGC
GCAAGTCCCTGTGGGGCCAGTTCTGGTCGGCACACCAGCGCTTCTTCAAGTATCTGTGCATCGCAGCCAAGGTGC
GCCGGCTGGTGGAGCTGGCCCGAGAGGAGCTGGCGCGAGACAAGTGCGTGGTCATCGGGCTGCAGTCCACGGGCG
AGGCGCGCACGCGGGAGGTGCTGGGGGGAGAACGATGGGCACCTCAACTGCTTCGTCTCGGCCGCTGAAGGCGTGT
TCCTGTCGCTAATTCAGAAGCACTTTCCGTCCACCAAGAGAAAGCGGGACAGAGGAGCGGGCAGCAAGCGGAAAC
GGCGACCTCGGGGACGCGGGGCCAAAGCCCCCCGGCTGGCGTGCGAGACAGCGGGCGTCATCCGCATCAGTGACG
ACAGCAGCACGGAGTCGGACCCTGGCCTGGACAGCGACTTCAACTCCTCCCCCGAGTCCCTGGTGGATGACGACG
TTGTCATCGTTGATGCAGTCGGGCTCCCCAGTGACGACCGGGGACCCCTGTGCCTCCTGCAGAGAGACCCGCATG
GCCCCGGGGTCCTGGAGCGGGTGGAGCGGCTGAAGCAGGATCTGCTGGACAAAGTGCGGCGGCTGGGCCGGGAAC
TGCCAGTCAACACCCTGGACGAGCTCATCGACCAGCTGGGCGGCCCCCAGCGGGTGGCGGAGATGACCGGCAGGA
AAGGCCGCGTGGTGTCCAGGCCCGACGGGACGGTGGCCTTCGAGTCGCGGGCAGAGCAGGGTCTGTCCATCGACC
ACGTGAACCTCAGGGAGAAGCAGCGCTTCATGAGCGGCGAGAAGCTCGTGGCCATCATCTCGGAGGCCTCCAGCT
CGGGTGTCTCCCTCCAAGCCGACCGCCGTGTCCAGAACCAGCGGCGCCGCGTGCACATGACCTTGGAGCTGCCGT
GGAGCGCCGACCGCGCCATCCAGCAGTTCGGCCGCACCCACCGGTCCAACCAGGTCTCCGCGCCAGAGTATGTCT
TCCTCATCTCGGAGCTGGCCGGGGAGCGCCGGTTCGCCTCCATCGTGGCCAAGCGCCTGGAGAGTCTGGGGGCCC
TGACCCACGGAGACCGCCGCGCCACGGAGTCCCGTGACCTCAGCAAGTACAACTTTGAGAACAAGTATGGCACCC
GGGCCCTGCACTGTGTCCTCACCACCATCCTGAGCCAGACTGAGAACAAAGTGCCTGTGCCCCAGGGATACCCTG
GAGGGGTCCCCACCTTCTTCCGGGACATGAAGCAGGGCCTGCTGTCTGTGGGCATTGGTGGCCGGGAGTCCCGGA
ATGGCTGCCTGGACGTGGAGAAGGACTGTTCCATCACCAAGTTCCTGAACCGCATCCTGGGGCTGGAGGTGCACA
AGCAGAACGCCCTGTTCCAGTACTTCTCAGACACCTTCGACCACCTCATCGAGATGGACAAGCGGGAGGGCAAAT
ACGACATGGGCATCCTGGACCTTGCTCCCGGTATCGAGGAGATCTACGAGGAGAGCCAGCAGGTGTTCCTGGCTC
CCGGGCACCCGCAGGACGGGCAGGTGGTCTTCTACAAGATCAGCGTGGACCGCGGCCTGAAGTGGGAGGACGCCT
TTGCCAAGTCGCTGGCGCTGACGGGCCCCTATGACGGCTTCTACCTCTCCTACAAGGTCCGCGGTAACAAGCCCA
GCTGCCTGCTGGCGGAGCAGAACCGCGGCCAGTTCTTCACGGTGTACAAGCCCAACATCGGCCGGCAGAGCCAGC
TGGAGGCCCTGGACAGCCTCCGCCGCAAGTTCCACCGGGTCACCGCGGAGGAGGCCAAGGAGCCCTGGGAGAGTG

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FIGURE 1027B

GCTACGCTTTGTCGCTGACGCACTGCAGCCACAGCGCCTGGAACCGGCACTGCCGGCTGGCGCAGGAGGGTAAGG
ACTGCCTGCAGGGGCTGCGGCTGCGGCACCACTACATGCTGTGCGGCGCGCTGCTGCGCGTGTGGGGCCGCATCG
CCGCCGTCATGGCCGACGTCAGCAGCAGCAGCTACCTGCAGATCGTGCGGCTGAAGACCAAGGACAGGAAGAAGC
AAGTGGGCATCAAGATCCCCGAGGGCTGCGTGCGCCGGGTGCTGCAGGAGCTGCGGCTGATGGATGCGGACGTGA
AGCGCAGGCAGGCGCCCGCCCTGGGCTGCCCCGCCCCGCCCGCCCCGCGCCCGCTGGCGCTGCCTTGCGGCCCCG
GAGAGGTGCTGGACCTCACCTACAGCCCCCCGGCCGAGGCCTTCCCGCCGCCCCCGCACTTCTCTTTCCCGGCGC
CGCTGTCCCTGGACGCCGGCCCCGGCGTCGTGCCGCTGGGCACCCCCGACGCCCAGGCCGACCCTGCGGCCCTCG
CGCACCAGGGCTGCGACATCAACTTCAAGGAGGTGCTGGAGGACATGCTGCGCTCGCTGCACGCGGGGCCGCCCT
CCGAGGGCGCGCTGGGGGAGGGCGCGGGGGCGGGGGGCGCGGCGGGCGGTGGTCCCGAGCGGCAGAGCGTGATCC
AGTTCAGCCCACCCTTCCCCGGCGCCCAGGCTCCTCTC**TGA**CACGCCTTTAGGCGAAACATGCCCCAAGACACAG
GGACCGTTTCTCCCCTAGGAGCAGCGGTGGGGAGCAGGGCCAAGGTCCCCTGACCACTGCTCAGAGGAGCCCTAG
GCCCTGGCCGCAGTGCCTTCAGCGCCCGACCCGGGCCCCCACCTGGTCAGCCCTGGCGGGGCCCACTCAGGACAG
CTGGGGGCCGGGGCGTGGCAGGGCCCTCTCTGTGCCTCTCCTCCCAAGTAGGAAGGGGCTCCGGGTGGCTGCTCT
GGGACTGGGCACCCACAAGGGCTCAGTGGGCCCAAACCCTTGAAATCCGTGAAACCGGGTGGTCCCAAGAGCTAG
AAACTCAGGAAACCCCAGGTGCTCAGGGCCCCGCGTCTCGGGGGCTCCGTGGGGCAGACCCCTGCTAATATATGC
AATTCTCCCTCCCCCAGCCCTTCCCTGACCCCTAAGTTATTGCCCGCTCACCTCTCCCAGGCCCCAGGCCGCGGA
GCTGGCAGGGTGGCGCCTGCGGTTTCTATGTATTTATAGCAAGTTCTGATGTACATATGTAAAGGACTTTTTTAA
AT

FIGURE 1028

CCCAGGGTCCCCGAGGACGAAGTTGACCCTGACCGGGCCGTCTCCCAGTTCTGAGGCCCGGGTCCCACTGGAACT
CGCGTCTGAGCCGCCGTCCCGGACCCCCGGTGCCCGCCGGTCCGCAGACCCTGCACCGGGCTTGGACTCGCAGCC
GGGACTGACGTGTAGAACAATCGTTTCTGTTGGAAGAAGGGTTTTTCCCTTCCTTTTGGGGTTTTTGTTGCCTTT
TTTTTTTCTTTTTTCTTTGTAAAATTTTGGAGAAGGGAAGTCGGAACACAAGGAAGGACCGCTCACCCGCGGACT
CAGGGCTGGCGGCGGGACTCCAGGACCCTGGGTCCAGC**ATG**GAGGTGGTGGACCCGCAGCAGCTGGGCATGTTCA
CGGAGGGCGAGCTGATGTCGGTGGGTATGGACACGTTCATCCACCGCATCGACTCCACCGAGGTCATCTACCAGC
CGCGCCGCAAGCGGGCCAAGCTCATCGGCAAGTACCTGATGGGGGACCTGCTGGGGGAAGGCTCTTACGGCAAGG
TGAAGGAGGTGCTGGACTCGGAGACGCTGTGCAGGAGGGCCGTCAAGATCCTCAAGAAGAAGAAGTTGCGAAGGA
TCCCCAACGGGGAGGCCAACGTGAAGAAGGAAATTCAACTACTGAGGAGGTTACGGCACAAAAATGTCATCCAGC
TGGTGGATGTGTTATACAACGAAGAGAAGCAGAAAATATATATGGTGATGGAGTACTGCGTGTGTGGCATGCAGG
AAATGCTGGACAGCGTGCCGGAGAAGCGTTTCCCAGTGTGCCAGGCCCACGGGTACTTCTGTCAGCTGATTGACG
GCCTGGAGTACCTGCATAGCCAGGGCATTGTGCACAAGGACATCAAGCCGGGGAACCTGCTGCTCACCACCGGTG
GCACCCTCAAAATCTCCGACCTGGGCGTGGCCGAGGCACTGCACCCGTTCGCGGCGGACGACACCTGCCGGACCA
GCCAGGGCTCCCCGGCTTTCCAGCCGCCCGAGATTGCCAACGGCCTGGACACCTTCTCCGGCTTCAAGGTGGACA
TCTGGTCGGCTGGGGTCACCCTCTACAACATCACCACGGGTCTGTACCCCTTCGAAGGGGACAACATCTACAAGT
TGTTTGAGAACATCGGGAAGGGGAGCTACGCCATCCCGGGCGACTGTGGCCCCCCGCTCTCTGACCTGCTGAAAG
GGATGCTTGAGTACGAACCGGCCAAGAGGTTCTCCATCCGGCAGATCCGGCAGCACAGCTGGTTCCGGAAGAAAC
ATCCTCCGGCTGAAGCACCAGTGCCCATCCCACCGAGCCCAGACACCAAGGACCGGTGGCGCAGCATGACTGTGG
TGCCGTACTTGGAGGACCTGCACGGCGCGGACGAGGACGAGGACCTCTTCGACATCGAGGATGACATCATCTACA
CTCAGGACTTCACGGTGCCCGGACAGGTCCCAGAAGAGGAGGCCAGTCACAATGGACAGCGCCGGGGCCTCCCCA
AGGCCGTGTGTATGAACGGCACAGAGGCGGCGCAGCTGAGCACCAAATCCAGGGCGGAGGGCCGGGCCCCCAACC
CTGCCCGCAAGGCCTGCTCCGCCAGCAGCAAGATCCGCCGGCTGTCGGCCTGCAAGCAGCAG**TGA**GGCTGGCCGC
CTGCAGCCCGTGTCCAGGAGCCCCGCCAGGTGCCCGCGCCAGGCCCTCAGTCTTCCTGCCGGTTCCGCCCGCCCT
CCCGGAGAGGTGGCCGCCATGCTTCTGTGCCGACCACGCCCCAGGACCTCCGGAGCGCCCTGCAGGGCCGGGCAG
GGGGACAGCAGGGACCGGGCGCAGCCCTCCCCCCTCGGCCGCCCGGCAGTGCACGCGGCTTGTTGACTTCGCAGC
CCCGGGCGGAGCCTTCCCGGGCGGGCGTGGGAGGAGGGAGGCGGCCTCCATGCACTTTATGTGGAGACTACTGGC
CCCGCCCGTGGCCTCGTGCTCCGCAGGGCGCCCAGCGCCGTCCGGCGGCCCCGCCGCAGACCAGCTGGCGGGTGT
GGAGACCAGGCTCCTGACCCCGCCATGCATGCAGCGCCACCTGGAAGCCGCGCGGCCGCTTTGGTTTTTTGTTTG
GTTGGTTCCATTTTCTTTTTTTCTTTTTTTTTTTAAGAAAAAATAAAAGGTGGATTTG

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FIGURE 1029

GTCCTCCTCGCCCTCCAGGCCGCCCGCGCCGCGCCGGAGTCCGCTGTCCGCCAGCTACCCGCTTCCTGCCGCCCG
CCGCTGCC**ATG**CTGCCCGCCGCGCTGCTCCGCCGCCCGGGACTTGGCCGCCTCGTCCGCCACGCCCGTGCCTATG
CCGAGGCCGCCGCCGCCCCGGCTGCCGCCTCTGGCCCCAACCAGATGTCCTTCACCTTCGCCTCTCCCACGCAGG
TGTTCTTCAACGGTGCCAACGTCCGGCAGGTGGACGTGCCCACGCTGACCGGAGCCTTCGGCATCCTGGCGGCCC
ACGTGCCCACGCTGCAGGTCCTGCGGCCGGGGCTGGTCGTGGTGCATGCAGAGGACGGCACCACCTCCAAATACT
TTGTGAGCAGCGGTTCCATCGCAGTGAACGCCGACTCTTCGGTGCAGTTGTTGGCCGAAGAGGCCGTGACGCTGG
ACATGTTGGACCTGGGGGCAGCCAAGGCAAACTTGGAGAAGGCCCAGGCGGAGCTGGTGGGGACAGCTGACGAGG
CCACGCGGGCAGAGATCCAGATCCGAATCGAGGCCAACGAGGCCCTGGTGAAGGCCCTGGAG**TAG**GCGGTGCGTA
CCCGGTGTCCCGAGGCCCGGCCAGGGGCTGGGCAGGGATGCCAGGTGGGCCCAGCCAGCTCCTGGGGTCCCGGCC
ACCTGGGGAAGCCGCGCCTGCCAAGGAGGCCACCAGAGGGCAGTGCAGGCTTCTGCCTGGGCCCCAGGCCCTGCC
TGTGTTGAAAGCTCTGGGGACTGGGCCAGGGAAGCTCCTCCTCAGCTTTGAGCTGTGGCTGCCACCCATGGGGCT
CTCCTTCCGCCTCTCAAGATCCCCCCAGCCTGACGGGCCGCTTACCATCCCCTCTGCCCTGCAGAGCCAGCCGCC
AAGGTTGACCTCAGCTTCGGAGCCACCTCTGGATGAACTGCCCCCAGCCCCCGCCCCATTAAAGACCCGGAAGCC
TG

FIGURE 1030

CAGCAGCGGGCGGCCGCGGCGTGACATCGGCACCATCCTGCAGATCCTGAACGACCTCCTGAGCGCCACCCGGCA
CTACCAGGGCATGCCCCCTTCGCTGGCCCAGCTCCGCTGCCACGCCCAGTGCTCCCCGGCCTCACCGGCCCCCGA
CCTGGCCCCCAGAACTACCTCCTGCGAGAAGCTCACGGCTGCCCCCTCAGCCTCCCTGCTGCAGGGCCAGAGCCA
GATCCGCATGTGCAAGCCCCCGGGGGACCGGCTTCGGCAGACAGAAAACCGCGCCACGCGCTGCAAGGTGGAACG
GCTGCAGCTGCTTCTGCAGCAGAAACGGCTCCGTAGAAAGGCCCGGCGGGACGCGCGGGGTCCGTACCACTGGTC
ACCCAGCCGCAAGGCCGGCCGCAGCGACAGCAGTAGCAGCGGGGGCGGCGGCAGCCCCAGCGAGGCCTCCGGCTT
GGGCCTCGACTTCGAGGACTCCGTGTGGAAGCCAGAAGTCAACCCTGACATCAAGTCAGAGTTCGTGGTGGCTTA
GGATCTTCGGATCGGCCACCCTCGCCCCTCGCACCCCAGCCCAGGGCGGCGGGGACTCCGAGAGCCCCGGAGAGA
ACGTGGCCCAGCCCTGGAGGGCAGGCGGCCACTCCCCCAGCCAGAAGTCTTTTTTTCTTTTCTTCTTTTTTATTA
TTTTTTTCTTTTTTTAAAAAGTTCTGACCGTGGTTTCCTGGACTCTTC**ATG**GGCTTTGCTTCCTACCTCCTTCAC
CCTTCACTCCTGCCCTCCTCTTCCTCCTCCTCCTCCTCCTCCGTCTGTCTCCTTTCACCTCTGCGCCAGGTCGGT
CCTCCCTGCCAACCTTCCCCAGCTCCAATATGTAGCAGTCTCTCTGGATGGCGGAGAGTGAAGGAGACGGAGAAA
CGCGCCCCATCCCTTCCGCCGCCTCCTTTCCCCCCCGACCCTATTCAGGTTTTAAGTCAAAAATGTCGATATGTC
ATTATGCACTTTACAGATGAGGGGAGGGGCCGCAGTGCGCAGAACCCACCCCACCCCCCAGTGCAGACTTCGGGG
TCTCCACCCCAGGCCAGCAGCGCCCACTGGGCTACAGCAAGCCAACAGGTCACAGAAGCCAACGAGGGGACTGTT
TCTCTTCCACTCCTATCCTCTTTTCTTGATCTTTTTTTTGCATTTTCCTTCATTTCTTTAACAAGGAGAGCAAAG
CTGTTT**TAG**CAGAGGCTGGGGCTGAGGTCCCCATGGGGTTTGGGTGCAGGGGCATGGCACCCTTTCCTGTCGGGA
AGGGAGAGGGGAACTACCCCCCCAGCCTGCCCTCCGCCCCGCCCCAGCCGGCGGACTGTGCTGTTTCCTCCGCCC
CCACTCCCGTGTTTTCTGACCTCCTGCCTGAGTTTGGGGTATTTATAGACTATTAATTTTCTGACTGAGCCAATA
GTGGTTGGGGAACTCTTGAAAAAGGGGAGAGAATGGCTGGGTGCTGGGGAGTTCCCCCCTCCGAGCCCTCCTTCC
CGGCCCAACCTGAGGGATGTGGATTTGGGACTGTCTGGGGGCCCCTCCTGCAGCGAGGATGGGAGGGGGTGCTGA
GCTGTGAATCCCCTGGGCAGGGGGCGACAACTCCGTGTAGCATTAACCCCCGTGGCGGGGTCCGCTGCTGGTCTA
ATTTGGACCCCCTGCCTCTCAGTGCCCCTGCCCTAGGGGTGTCTGTCTCCAGAGGGGAGGGACAAATCCCCTACT
GGGGCCATTTCAATGGGGTAGTTTTTGGATTTTTTTCCCCACTCACTTTTTATTTTTTAATGATAATGGAGATGT
CTGGACCCTTCCTCACCCCACCTGTCGGTCTTGTCCTGGCTCTGCCTGTCCCCCACCGTTGTTCTCGTAGGTGAA
CCCCAGGTCCTCAACTCCCCCCCTTTATGTGTTGAAAGTTAATGGTTTCAGATGTGAACATCACGTGTTATAACT
GTAGCGCTGTAAATTTTTTTGTGGGAGGGTGGGCAGGGAGGGGTCCCAGAGGGTAGAGCTCAAGGATTTTGGGTT
TTGTTTTGTTTTCATTTTTCCAAAAAAAAAAGAAAAAAAAATAGAAAAAAAAGGAGTAAAAGGGGCGGGTTTGTT
TTTTGAAGAACTGTCTTGGATACCTATTTAAATGTGTGTTCTGTTTTGTTTTTTAACGATTTTTAAATAACGTCT
GTGCCTCCACTGGTTGAGGGTGGAACCTCCAGGCAGGAACCGGCTCGCCACCCTCTGCCCGGTAAGGGCTGCCCA
AGAAAGCATTACCCGCCCTCGGGGGGTCGGGCTGTGGGGGTCCCGGCACCTGGCGTGAGTTTCATGTATGAAAAC
ATAAAATTGAAAAAAAAAAAAAAAACCTACACGAGCACCGTGATTTCAAGTAATAAACAGAAAATGAAACAC

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FIGURE 1031

GAGGCTCGGGTCGTTGTGGTGCGCTGTCTTCCCGCTTGCGTCAGGGACCTGCCCGACTCAGTGGCCGCC**ATG**GCA
TCAGATGAAGGCAAACTTTTTGTTGGAGGGCTGAGTTTTGACACCAATGAGCAGTCGCTGGAGCAGGTCTTCTCA
AAGTACGGACAGATCTCTGAAGTGGTGGTTGTGAAAGACAGGGAGACCCAGAGATCTCGGGGATTTGGGTTTGTC
ACCTTTGAGAACATTGACGACGCTAAGGATGCCATGATGGCCATGAATGGGAAGTCTGTAGATGGACGGCAGATC
CGAGTAGACCAGGCAGGCAAGTCGTCAGACAACCGATCCCGTGGGTACCGTGGTGGCTCTGCCGGGGGCCGGGGC
TTCTTCCGTGGGGGCCGAGGACGGGGCCGTGGGTTCTCTAGAGGAGGAGGGGACCGAGGCTATGGGGGGAACCGG
TTCGAGTCCAGGAGTGGGGGCTACGGAGGCTCCAGAGACTACTATAGCAGCCGGAGTCAGAGTGGTGGCTACAGT
GACCGGAGCTCGGGCGGGTCCTACAGAGACAGTTATGACAGTTACGCTACACACAACGAG**TAA**AAACCCTTCCTG
CTCAAGATCGTCCTTCCAATGGCTGTGTGTTTAAAGATTGTGGGAGCTTCGCTGAACGTTAATGTGTAGTAAATG
CACCTCCTTGTATTCCCACTTTCGTAGTCATTTCGGTTCTGATCTTGTCAAACCCAGCCTGACCGCTTCTGACGC
CGGGATGGCCTCGTTACTAGACTTTTCTTTTTAAGGAAGTGCTGTTTTTTTTTGAGGGTTTTCAAAACATTTTGA
AAAGCATTTACTTTTTTGACCACGAGCCATGAGTTTTCAAAAAAATCGGGGGTTGTGTGGGTTTTTGGTTTTTGT
TTTAGTTTTTGGTTGCGTTGCCTTTTTTTTTTTAGTGGGGTTGGCCCCATGAAGTGGGTGCCCCACTCACTTCTC
TGAGATCGAACGGACTGTGAATCCGCTCTTTGTCGGAAGCTGAGCAAGCTGTGGCTTTTTTCCAACTCCGTGTGA
CGTTTCTGAGTGTAGTGTGGTAGGACCCCGGCGGGTGTGGCAGCAACTGCCCTGGAGCCCCAGCCCCTGCGTCCA
TCTGTGCTGTGCGCCCCACAGTAGACGTGCAGACGTCCCTGAGAGGTTCTTGAAGATGTTTATTTATATTGTCCT
TTTTTACTGGAAGACGTACGCATACTCCATCGATGTTGTATTTGCAGTGGCTGAGGAATTCTTGTACGCAGTTTT
CTTTGGCTTTACGAAGCCGATTAAAAGACCGTGTGAAATG

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FIGURE 1032

CAGCGGAGGCGATACGGCCTCCTCGCCAACACTGAGGACCCCACGGAGGCGGCCCTTCCAGCAGCC**ATG**AGGGAA
GGACAGGAGATGGGGCCCACCCCAGTGCCCAGCAACCCCCTGCTCCACCGCTCATTCCCCTGCTGGCCCCGGGGC
TGGTCTCACCCAGTGCCAACCCGAGAGCTCCTTTTGGAACCTGCACAGCCCGCCGACCTGTTGCCACCTGCACCC
ACCGCTGGACCATGCAGCCTCGCCTCCTGGATGCTGTCCCAGCCTGGCCGAGGGTCCCAGGTGAAGACTGGAGGG
ACCCCAACAGCCACCGCCCAGGACGCTGAGGCTCCCTTGCCTGACTGTGACTTGTGCCTCTCTCCTGCCCCCGTG
GGGACATGGCAGCCCAGAGCCAAGGCTGGGTGGGCAGGTGACCCAAGGAACCTTTCTGGGAACACCTTCTCGCCG
GGCTGGGAACAA**TAA**ATGCAGCCATGTCTCTGC

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FIGURE 1033

CCAAG**ATG**GCGGTGCTGTCAGCTCCTGGCCTGCGCGGCTTCCGGATCCTTGGTCTGCGCTCCAGCGTGGGCCCGG
CTGTGCAGGCACGAGGTGTCCATCAGAGCGTGGCCACCGATGGCCCAAGCAGCACCCAGCCTGCCCTGCCAAAGG
CCAGAGCCGTGGCTCCCAAACCCAGCAGCCGGGGCGAGTATGTGGTGGCCAAGCTGGATGACCTCGTCAACTGGG
CCCGCCGGAGTTCTCTGTGGCCCATGACCTTCGGCCTGGCCTGCTGCGCCGTGGAGATGATGCACATGGCAGCAC
CCCGCTACGACATGGACCGCTTTGGCGTGGTCTTCCGCGCCAGCCCGCGCCAGTCCGACGTCATGATCGTGGCCG
GCACACTCACCAACAAGATGGCCCCAGCGCTTCGCAAGGTCTACGACCAGATGCCGGAGCCGCGCTACGTGGTCT
CCATGGGGAGCTGCGCCAACGGAGGAGGCTACTACCACTATTCCTACTCGGTGGTGAGGGGCTGCGACCGCATCG
TGCCCGTGGACATCTACATCCCAGGCTGCCCACCTACGGCCGAGGCCCTGCTCTACGGCATCCTGCAGCTGCAGA
GGAAGATCAAGCGGGAGCGGAGGCTGCAGATCTGGTACCGCAGG**TAG**CGCCGCCGCCGCCGCCGCCGGAGCCTGT
CGCCGTCCTGTCCCCAGCCTGCTTGTGTCCCGTGAGGTTGTCAATAAACCTGCCCTCGGGCTGCCGCC

FIGURE 1034

GGAAGCTCTTCGTGGGCGGTCTTGACTGGAGCACGACCCAAGAGACTCTGCGCAGCTACTTTTCCCAATATGGAG
AAGTCGTAGATTGTGTTATC**ATG**AAAGATAAAACCACCAACCAGTCTCGAGGCTTTGGGTTTGTCAAATTTAAAG
ACCCAAACTGTGTGGGGACGGTGCTGGCCAGCAGACCGCACACGCTAGATGGCCGAAACATCGACCCCAAGCCAT
GCACACCCCGGGGGATGCAGCCGGAGAGAACACGGCCGAAGGAAGGATGGCAGAAAGGACCCAGGAGCGATAACA
GTAAATCAAATAAGATATTTGTCGGTGGAATTCCTCACAATTGTGGTGAGACAGAGCTCAGGGAATACTTCAAGA
AGTTCGGAGTGGTCACGGAGGTAGTCATGATCTATGACGCCGAGAAGCAGAGGCCCCGAGGTTTTGGATTTATTA
CTTTCGAGGACGAACAATCAGTGGACCAGGCTGTCAACATGCATTTTCACGACATCATGGGCAAAAAAGTGGAAG
TTAAACGAGCTGAGCCTCGGGACAGCAAGAGCCAAGCGCCGGGACAGCCAGGTGCCAGCCAGTGGGGGAGCCGGG
TTGTGCCCAACGCTGCCAATGGCTGGGCAGGCCAGCCCCCGCCCACGTGGCAGCAAGGATATGGCCCGCAAGGAA
TGTGGGTGCCGGCAGGACAGGCGATTGGTGGCTATGGACCGCCCCCTGCAGGAAGAGGAGCCCCCCCGCCACCCC
CACCGTTCACCTCCTACATCGTGTCCACCCCTCCTGGAGGCTTTCCCCCTCCCCAGGGCTTCCCTCAGGGCTACG
GTGCCCCGCCACAGTTCAGTTTTGGCTACGGGCCTCCACCTCCACCGCCAGATCAGTTTGCCCCTCCGGGGGTTC
CTCCTCCACCAGCCACTCCCGGGGCAGCACCTCTGGCTTTCCCACCGCCTCCGTCTCAGGCTGCCCCGGACATGA
GCAAGCCCCCGACAGCTCAGCCAGACTTCCCCTATGGTCAGTATGGCCTGGGTTCCTATTCTCCAGCCCCGCCGG
GCTGCGGCCCACACTTTGTTTACAGTCTTATGGTCAGGCTGAGCAGTGATGTGGCC**TAG**CAGGTTACGGGCAGGA
CTTGAGTGGCTTCGGACAGGGCTTCTCAGACCCCAGCCAGCAGCCTCCTTCCTACGGGGGTCCCTCCGTGCCAGG
GTCGGGGGGCCCCCCCCGCCGGCGGCAGCGGCTTTGGACGAGGGCAGAACCACAACGTGCAAGGGTTCCACCCCTA
CCGACGCTAGCCCGCGGCGCCGCGACGTCTGCACGGCCCAGACCCAGGATTCCAAACTTGTGAACTCGTGACAAT
CACAAACTTGGCGGCAAAGTGGCGACTCAACCTTGGGGGGGGGGGCGGGGGGAGGGCGCGAGGCTTTTGGAGCGG
CTGTGGGTGTCGTCTGGACTGAGGTTTTTAAATATTTCTTTCTCTAACCCATCAGCACAATAAAAAAAAGTCACT
GGTTCAACAACAGGGTTTAAAAAAAATGTCTTCAGCTTTAATTCAAAACTTCAGGTTTCTTTTTCTTCCTTTTTT
TTGGAAATTATTTTCCTGAGCCTTTTGTTTTACGGTATATTGTAAACTTTTATGTTAAAGAAAAAATATACATTT
ACAAATTGTGAGATTTTTAAGAGAAATTTTCTACGATGTATACTGGCTTATTTTTTAATTTAAAACGGGGTTTCC
GTCGGCACTGGTGGAGGGGGTGCGCTGTTAGTCCCCTCGCTCCTGGCTTTGGGGGTTGGGACTTGGTGGTCCAGA
AACTCTGGGAGCTTCTAGAAGAAATCTACTGAGTGTATTTCTGTTTTTTGTTTAATTCCTTGCTTTTGTCGACTG
ACCTGCTTGGTAGTGTCTGAGGTGAACTGTGGGGGTTGCGCACAGCCAGCCGCGTGGATCCCACGCAGCGCTGAA
CCGAACCGAGTAGGAAGCCTTTCTCCCCAGGCACGTGGCTTCAGGGCGTTTCCCATTGACCAGTTTGACCCTGGT
TTGAATAAAGAGAAGTGCGTTTGGATTAG

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FIGURE 1035

CTGCGCAGGCGCGGACCAAAGCGATCTCTTCTGAGGATCCGGCAAG**ATG**GCAGAAGTAGAGCAGAAGAAGAAGCG
GACCTTCCGCAAGTTCACCTACCGCGGCGTGGACCTCGACCAGCTGCTGGACATGTCCTACGAGCAGCTGATGCA
GCTGTACAGTGCGCGCCAGCGGCGGCGGCTGAACCGGGGCCTGCGGCGGAAGCAGCACTCCCTGCTGAAGCGCCT
GCGCAAGGCCAAGAAGGAGGCGCCGCCCATGGAGAAGCCGGAAGTGGTGAAGACGCACCTGCGGGACATGATCAT
CCTACCCGAGATGGTGGGCAGCATGGTGGGCGTCTACAACGGCAAGACCTTCAACCAGGTGGAGATCAAGCCCGA
GATGATCGGCCACTACCTGGGCGAGTTCTCCATCACCTACAAGCCCGTAAAGCATGGCCGGCCCGGCATCGGGGC
CACCCACTCCTCCCGCTTCATCCCTCTCAAG**TAA**TGGCTCAGCTAATAAAGGCGCACATGACTCC

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FIGURE 1036A

GGGTTTGGGGAGCAGGAGGCAGACATGTGTTGCTTTGCACGTCATCTGGTCCTTCCACCTGGCTGGGCATGGGAT
GGTGACCTCAGCTGGAACATGGGGCTCGAGCCAGACCCCAGGGTCTCCCTGCGTGTAGCCCCCAACCCCAAGCCT
GATCCCCACTGGAGACCTGAACAGCCTTGGACATCATCGGATCAGGGTGGGAGGTGCCAGCCTCTGCCACCTGAC
TTCCAGTCCCTGTGCCCCTCCCACCCTGCCCTTGGGCACTCCTGCCCTGCAGGTTCCTCAGAGGGGCAACCCAAA
GCCAGAGAGGGGCGGGTCTTGTCGGGCCTCCAGCCTGGACTTCCCAGCCCCTCTGGGGCAGCATCTGGGTGCCAG
ACCTCGGTTCCTAGGGCCTCGTTTCTCCCTCTGGGAACAGCCAAATGGTGGTCCCTGAGACTCAGGACAGACCAA
GAAGGAGCCGGATGACATGGCAAGCCACACACTGCGTCCCCTGAGCAGGACGGGACAGCCCGACTCCATCCTCCC
ACCTGCGACTGAGCCCCCACCCCTACTCCTGTCCCAGCCGTGCCCCTGGTGACATTTGGGTGGGAGGGGAGGGGA
TGAGGGGGCACCTGGGGGTCAGAGAACAAATGACGGGTGAATACATGTGTGTGGCCAGGTGGAGGAGGGAGGGGA
GGAGCAGGTGGGCTGGACAGGGCCGGTGTGAGGAAGGGGCTCAGGCTGGCAGGGGGAGGTGGCAGAGGGATGGGC
TGCCATTGGTGCGTCTGAGACAAAGGCGGAGGGAGGAGGCGAGCGCTGATGGGAAAGGAACAAAGAGGGAAGGGG
GGCGTGAAGGGGGGCTCCGGCGGGAGGGCCGAGCCGAGGGAGGAGGCGCCGGCCAGCTGGACAGAGGGAGGAGGC
CAGGCCAGAGCCAGAAGACGGCCAGAGGCACAAAGAAGCCAGCGCGCTGGCAGAGTCAAGGGATGGGGCAGGGGC
TGCCGGGGCCAGCAGGGACCAGCTGAAGGCTGCGCAGGGGGTGCGGGCCACACAGGTAGCCACCCTGAGCTCAGC
CACCGATGGAGGGTCGTGGGGCTGCTGCGGTGATGGCGGTGGGCTTGGGTCCATCTGTCCTGCCGTTTCTGCACA
GCTTAGGTGTCACCCACTGGCCTTCGTGGTGTTTTCATTGTCCATCGGCAGGGACAGCTGGTGGTCTGTCCGCCC
CGCGTGTCTGGCTGTCAGCCTCTGGGCAGGCTTGCTTTTATGGGGGAGGGTCCTGTCTGTCTGTCTGTCGCCCTC
TCTGGCTGTGAGCCTGGGGGTGCTGGGCTGGCCAGTCGGCTTGCTGGGTTAGGCTGTCCCAGCTGTCTGTGTGTT
TGTCCGGCTGTCAGGATGTGTCCTGGGGGCTGGGAAGGAGAGGCCGACCCATCGTCTGTCGGTCGACTGGTCAGT
TGGACGTTCAGCTGTCTGTACGTCTGTCTGCTGGCCCCTCTGTCTCCCCTTGGGGCCACCTCTCACTCCACCTGC
CCCTCTGCGCCCCGGATTGCCTGGCCACCACCACGTGGGCCTGTACTTGTCCACACCAGTGACTCCTGCCTGAGA
CCCCCCCCAACCCAGGATCAGGCAGGACGGCTGGGGCTTAGGTCAGGGGCCGTCTGTCCGGAAGGCATCACCGCG
CCCTCCCCAGACCATCAGCTGAACCCTCTGACCCTGTGATCCCAGACGCTGCAGGAGCTGAAG**ATG**GCGAGCTCC
GTGGCGCCCTACGAGCAGCTGGTGAGGCAGGTGGAGGCCTTGAAGGCTGAGAACAGCCACCTGAGGCAGGAGCTA
AGGGACAACTCCAGCCACCTGTCCAAGCTGGAGACAGAGACGTCGGGCATGAAGGAGGTCCTGAAGCACCTACAG
GGAAAACTGGAGCAGGAGGCCCGAGTGCTGGTGTCCTCGGGGCAGACGGAGGTGCTGGAGCAGCTGAAGGCCCTA
CAGATGGACATCACCAGCCTGTACAACCTCAAGTTCCAGCCGCCCACCCTGGGCCCGGAGCCTGCCGCCCGGACC
CCCGAGGGCAGCCCAGTACACGGCTCCGGGCCCTCCAAGGACAGCTTTGGGGAGCTGAGCCGGGCCACCATCCGG
CTGCTGGAGGAACTGGACCGGGAACGGTGTTTCCTGCTGAATGAGATTGAGAAGGAGGAGAAGGAGAAGCTCTGG
TACTACTCTCAGCTGCAGGGCCTGTCCAAGCGCCTGGACGAGCTGCCGCACGTGGAGACGCAGTTCTCGATGCAG
ATGGACCTGATCCGGCAGCAGCTTGAGTTCGAGGCCCAGCACATCCGCTCGCTGATGGAGGAGCGCTTCGGCACC
TCGGACGAGATGGTGCAGCGGGCACAGATCCGCGCCTCGCGCCTGGAGCAGATTGACAAGGAGCTGCTGGAGGCG
CAGGACCGAGTGCAGCAGACGGAGCCCCAGGCCTTGCTGGCGGTGAAGTCGGTGCCGGTGGACGAGGACCCCGAG
ACAGAGGTCCCCACACACCCTGAGGATGGCACCCCTCAGCCGGGCAACAGCAAGGTGGAGGTGGTCTTCTGGCTG
TTGTCCATGTTGGCGACGCGCGACCAGGAGGATACAGCGCGCACGCTGCTGGCCATGTCCAGCTCGCCCGAGAGC
TGCGTGGCCATGCGCCGCTCGGGCTGTCTGCCTCTGCTGCTGCAAATCCTCCACGGCACCGAGGCCGCGGCCGGG
GGTCGCGCCGGGGCCCCAGGGGCACCGGGCGCCAAGGACGCACGCATGCGCGCCAACGCGGCGCTGCACAACATC
GTCTTCTCGCAGCCGGACCAGGGCCTGGCGCGCAAGGAGATGCGCGTCCTGCACGTGCTGGAGCAGATCCGGGCC
TACTGCGAGACCTGCTGGGACTGGCTGCAGGCCCGAGACGGCGGGCCCGAGGGAGGTGGCGCCGGCAGCGCCCCG
ATCCCCATCGAGCCGCAGATCTGCCAGGCCACCTGTGCTGTTATGAAGCTGTCCTTTGATGAGGAGTACCGCCGT
GCCATGAACGAGCTAGGTGGGCTGCAGGCCGTGGCAGAGCTGCTGCAGGTTGACTATGAGATGCACAAGATGACC
CGGGACCCGCTGAACCTGGCGCTGCGCCGCTACGCGGGCATGACCCTCACCAACCTCACCTTTGGGGACGTTGCC
AACAAGGCCACCCTGTGTGCGCGCCGCGGCTGCATGGAGGCCATCGTGGCCCAGCTGGCCTCCGACAGTGAGGAG
CTCCACCAGGTGGTGTCCAGCATCCTTCGGAACTTGTCCTGGAGGGCCGACATCAACAGCAAGAAGGTGCTGAGG
GAGGCGGGCAGCGTGACTGCCCTGGTGCAGTGTGTCCTGCGGGCCACCAAGGAGTCCACCCTGAAGAGCGTGCTG
AGCGCCCTGTGGAATCTGTCTGCACACAGCACAGAGAACAAGGCGGCCATCTGCCAGGTGGATGGCGCCCTGGGC
TTCCTGGTGAGCACCCTGACCTACAAGTGTCAGAGCAACTCGCTGGCCATCATCGAGAGCGGCGGCGGCATCCTC
CGCAATGTGTCCAGCCTCGTCGCCACCCGTGAGGACTACAGGCAGGTGCTCCGGGATCACAACTGTCTGCAGACG

FIGURE 1036B

CTGCTGCAGCATCTGACTTCGCACAGCCTGACCATCGTGAGCAACGCGTGCGGCACGCTCTGGAACCTGTCGGCC
CGCAGCGCCCGTGACCAGGAGCTGCTGTGGGACCTGGGCGCCGTGGGCATGCTGCGTAATCTGGTGCACTCCAAG
CACAAGATGATCGCCATGGGCAGCGCCGCCGCCCTGCGCAACCTGCTGGCCCATCGGCCCGCCAAGCACCAGGCG
GCCGCCACCGCCGTGTCCCCAGGCAGCTGCGTGCCCAGCCTGTACGTGCGCAAGCAGCGGGCGCTGGAGGCCGAG
CTGGACGCACGGCACCTCGCGCAGGCGCTGGAGCACCTGGAGAAGCAGGGCCCGCCGGCAGCCGAGGCCGCCACT
AAGAAGCCGCTGCCGCCCCTGCGACACCTGGACGGCCTGGCCCAAGACTATGCTTCCGATTCGGGCTGCTTTGAC
GACGACGATGCACCGTCATCCCTGGCTGCGGCCGCGGCCACCGGGGAGCCAGCCAGCCCTGCCGCGCTGTCCCTC
TTCCTGGGCAGCCCCTTCCTGCAGGGGCAGGCGCTGGCTCGCACCCCGCCCACCCGCCGAGGCGGCAAGGAGGCA
GAGAAGGACACCAGTGGGGAGGCAGCCGTGGCGGCCAAGGCCAAGGCCAAGCTGGCGCTTGCAGTGGCGCGCATC
GACCAGCTGGTGGAGGACATCTCCGCCCTGCACACCTCGTCCGACGATAGCTTCAGCCTCAGCTCTGGAGACCCG
GGACAGGAGGCGCCACGGGAGGGCCGCGCCCAGTCCTGCTCGCCATGCCGCGGCCCGGAGGGCGGGCGGCGAGAG
GCAGGAAGCCGGGCGCACCCGCTGCTGCGGCTCAAGGCGGCCCACGCCAGCCTCTCCAACGACAGCCTCAACAGC
GGCAGTGCCAGCGACGGGTACTGCCCACGCGAACATATGCTGCCCTGCCCGCTGGCCGCACTGGCTTCGCGCCGC
GAGGACCCCAGGTGTGGGCAGCCTCGGCCCAGCCGGCTTGACCTTGACCTGCCCGGCTGCCAGGCCGAGCCCCCG
GCCCGCGAGGCCACCTCCGCCGACGCCCGCGTGCGCACCATCAAGCTGTCGCCTACCTATCAGCACGTGCCACTG
CTTGAGGGTGCCTCAAGGGCGGGTGCAGAGCCCCTCGCGGGGCCTGGAATCTCTCCAGGGGCCCGGAAGCAGGCC
TGGCTGCCGGCAGACCACCTGAGCAAGGTTCCCGAGAAGCTGGCGGCTGCCCCGCTGTCTGTGGCCAGCAAGGCA
CTGCAGAAACTGGCGGCGCAAGAGGGGCCACTCTCGCTGTCCCGATGCAGCTCCCTTTCCTCGCTGTCCTCGGCC
GGCCGCCCAGGCCCCAGCGAGGGTGGTGACCTGGATGACAGTGACTCCTCCCTGGAGGGGCTGGAGGAGGCCGGC
CCCAGCGAGGCTGAGCTGGACAGCACGTGGCGGGCGCCCGGGGCCACCTCGCTGCCCGTAGCCATTCCGGCTCCC
CGGCGTAACCGAGGCCGGGGCCTGGGGGTGGAAGACGCCACGCCGTCCAGCTCGTCGGAGAACTACGTGCAGGAG
ACACCGCTTGTGCTGAGCCGCTGCAGCTCTGTGAGCTCGCTGGGCAGCTTCGAGAGCCCGTCCATCGCCAGCTCC
ATCCCCAGTGAACCTTGCAGCGGGCAGGGCAGCGGCACCATCAGCCCTAGCGAGCTGCCCGACAGCCCCGGACAG
ACCATGCCTCCCAGCCGGAGCAAGACGCCACCGCTGGCGCCCGCGCCACAGGGTCCCCCCGAGGCCACCCAGTTC
AGCCTGCAGTGGGAGAGCTACGTGAAGCGCTTCCTGGACATCGCCGACTGCCGGGAGCGCTGCCGGCTGCCATCT
GAGCTGGACGCAGGCAGCGTGCGCTTTACCGTGGAGAAGCCAGACGAGAACTTCTCGTGCGCCTCCAGCCTCAGC
GCGCTGGCCTTGCACGAGCACTACGTGCAGCAGGACGTGGAGCTGCGGCTGCTGCCCTCGGCCTGCCCCGAGCGC
GGCGGGGGCGCCGGGGGCGCCGGCCTCCACTTTGCAGGGCACCGGCGGCGGGAGGAGGGGCCGGCGCCCACGGGT
TCTCGCCCTCGCGGCGCCGCGGACCAGGAGCTGGAACTGCTGCGGGAGTGCCTGGGAGCCGCCGTGCCTGCCCGG
CTGCGCAAGGTGGCCTCCGCGCTGGTGCCAGGTCGCCGCGCACTCCCCGTGCCCGTCTACATGTTGGTGCCCGCC
CCGGCCCCGGCCCAGGAGGACGACTCCTGCACTGACTCCGCGGAGGGCACGCCGGTCAACTTCTCTAGCGCCGCC
TCGCTCAGCGACGAGACGCTGCAGGGACCCCCCAGGGACCAGCCCGGGGGACCAGCGGGCAGGCAAAGACCCACC
GGCCGCCCCACCTCTGCCAGACAGGCCATGGGGCACCGGCACAAGGCGGGAGGCGCCGGCCGCAGCGCGGAGCAG
TCTCGGGGCGCGGGCAAGAACAGAGCAGGGCTGGAGCTGCCCCTGGGCCGGCCCCCGAGCGCCCCCGCAGACAAG
GACGGCTCAAAGCCCGGCCGGACCCGCGGGGACGGGGCGCTCCAGTCGCTGTGCCTCACGACGCCCACTGAGGAG
GCCGTGTACTGCTTCTACGGCAACGACTCGGACGAGGAGCCCCCGGCGGCCGCGCCCACGCCAACCCACCGGCGC
ACATCGGCCATCCCTCGCGCTTTTACGCGGGAGCGTCCGCAGGGCCGGAAGGAGGCCCCTGCCCCGTCCAAGGCT
GCACCAGCTGCCCCGCCGCCCGCCCGGACCCAGCCCAGCCTCATTGCTGACGAGACCCCGCCCTGCTACTCCCTG
AGCTCCTCCGCCAGCTCCCTCAGCGAGCCCGAGCCCTCGGAGCCGCCGGCCGTCCATCCACGAGGCCGGGAGCCC
GCGGTCACCAAGGACCCGGGCCCAGGAGGCGGACGCGACAGCTCGCCCAGCCCGCGGGCCGCGGAGGAGCTTCTG
CAGCGGTGCATCAGCTCGGCCCTGCCCAGGCGCCGGCCCCCCGTGTCTGGCCTGCGGCGCCGCAAGCCCCGAGCC
ACCCGGCTGGATGAGCGGCCCGCAGAGGGGTCCCGGGAACGCGGCGAGGAGGCAGCGGGCTCGGACCGGGCCTCC
GACCTGGATAGCGTGGAGTGGCGCGCCATCCAGGAGGGCGCCAATTCAATTGTCACGTGGCTGCACCAGGCAGCA
GCTGCCACGCGGGAGGCCTCGTCCGAGTCCGACTCCATCCTGTCCTTCGTATCCGGGCTGTCAGTGGGATCCACC
CTACAGCCCCCCAAGCACAGGAAGGGACGACAGGCGGAGGGAGAAATGGGCAGTGCCCGGCGGCCAGAGAAAAGG
GGCGCAGCCTCAGTCAAGACCAGCGGGAGCCCCCGTTCCCCTGCAGGCCCCGAGAAGCCACGTGGCACACAGAAG
ACCACGCCCGGGGTGCCAGCTGTGCTCCGGGGACGAACAGTGATCTACGTCCCCAGCCCGGCACCCCGTGCCCAG
CCCAAAGGGACCCCCGGCCCCCGCGCCACACCGCGGAAGGTGGCGCCCCCTTGCCTGGCACAGCCCGCGGCTCCA

FIGURE 1036C

GCCAAAGTCCCGAGCCCCGGGCAGCAGCGGTCGCGGAGCCTACACCGGCCTGCCAAGACCTCGGAGCTGGCGACG
CTGAGCCAGCCCCCCAGAAGCGCCACACCGCCCGCCCGCCTCGCCAAGACCCCCTCCTCCAGCTCCTCCCAGACC
TCGCCCGCCTCCCAGCCCCTGCCCAGAAAGCGCCCCCCGGTCACCCAGGCTGCTGGGGCCCTGCCCGGCCCCGGA
GCCTCCCCGGTGCCCAAAACGCCGGCGCGCACCCTTCTGGCGAAGCAGCACAAGACGCAGAGATCGCCCGTGCGG
ATCCCGTTCATGCAGAGGCCGGCCCGGCGTGGGCCGCCACCGCTGGCTCGGGCAGTCCCGGAGCCGGGCCCCAGG
GGCCGGGCGGGGACCGAGGCGGGCCCGGGGGCGCGCGGGGGCCGCCTGGGCCTGGTGCGTGTGGCCTCAGCCCTC
TCCAGCGGCAGCGAGTCCTCCGACCGCTCGGGCTTCCGGCGACAGCTAACCTTCATCAAGGAGTCGCCGGGCTTG
CGGCGCCGCCGCTCCGAGCTGTCCTCGGCCGAGTCCGCGGCCTCTGCCCCCCAGGGCGCCTCGCCCCGCCGCGGC
CGGCCCGCGCTGCCCGCCGTCTTCCTCTGCTCCTCGCGCTGCGAAGAGCTCCGAGCGGCACCCCGGCAGGGCCCG
GCCCCGGCCCGGCAGCGGCCCCCCGCGGCCCGACCCAGCCCTGGCGAGCGCCCTGCCCGGCGCACCACCTCCGAG
AGCCCGTCCCGCCTGCCTGTGCGCGCGCCCGCCGCCCGGCCGGAGACTGTCAAGCGCTACGCGTCGCTGCCGCAC
ATCAGCGTGGCCCGCAGGCCCGACGGCGCCGTCCCCGCGGCCCCTGCCTCAGCCGACGCCGCGCGCCGCAGCAGC
GACGGGGAGCCCCGGCCGCTCCCCAGGGTGGCCGCGCCGGGCACGACCTGGCGGCGCATCCGAGATGAGGACGTG
CCCCACATCCTGCGCAGCACGCTTCCCGCCACGGCCCTGCCACTGCGGGGCTCCACGCCCGAGGACGCCCCGGCC
GGGCCCCCGCCGCGCAAGACCAGCGACGCCGTGGTCCAGACCGAGGAGGTCGCCGCCCCCAAGACCAACTCCAGC
ACGTCCCCGAGCCTGGAGACCAGGGAGCCCCCCGGGGCCCCCGCCGGCGGCCAGCTCTCCCTCCTCGGCAGCGAC
GTGGACGGTCCCAGCCTCGCCAAGGCTCCCATCTCCGCACCCTTCGTGCACGAGGGCCTGGGGGTCGCCGTGGGG
GGCTTCCCCGCCAGCCGGCACGGCTCCCCCAGCCGCTCGGCCCGAGTACCCCCCTTCAACTATGTGCCCAGCCCC
ATGGTGGTCGCAGCCACCACCGACTCGGCCGCGGAGAAAGCCCCGGCCACTGCCTCCGCCACCCTCCTGGAA**TAG**

TGGCCTAGGCCGGCCTTCTGGAACGTTCTCTCCCGGCCCTGCGGCGCGGTCTGGCTGCCCCATGGGCCTGCGCTG
TAGACGTCCCCCATAGGTCGCCCCAGGGCCTCTGCCCACCCGAGCCCCACCACTCTCAGAACCCCCGCCCAGCGC
ACGGCGACCTCGCGCCTCACCGGAAGACCTTGCCTCTGTGCCGCGGAGGTCCAGGAGGAAACGGGGCGGCCGCTA
GGCCTCAAGTCCCGACCGTGGAGCGCTGGCAAGGGCGTCCTGGCCCAGCCCTGAGCGCGCGGCCCTTCCCCTGTC
GGAAGCCGTTGCTTGACCCCGGGCGAGGGAGGCGGTAGCCTCCGGGTCCGGGTCTGGGTCTGGGTCCGCTGCTTC
GCAGGGACAGCGCTGGGGAGGTGACGGCGCCCGCCGCAGGTGGGGCGAGGCTGGGGGAGGGCGGCGCCGCGGCGG
GCCTGCCAGCTGGGGGCCTTTGCGGCGCGCAGGGGCGAAGCCTGTAATCACTGCAGCCGCCGGTAATTCGCTAAT
GAGGGCTTTGCAGGGATTGTTTTCATTCTCAGCCCCAGCTGTGGGAGTGCGGGTGGGGGTGTGGCCGAGCCCCGG
CAGGAAGCCCCGCCCAGACGGTGTTCAGGGAACCCGGAGCCCAAGCGCTCCGGCGGAGCCCAAAAGGGTGGGGGT
GGGAGGGGCAGAGGCCAACGGATCCCCCTGCCTGTCGCACCCCTTGGCGGGAGACGGGAAGGCAGCGGGCTGCGT
ACGATGGGACCCTGGTGCAGACGCCGGGCCGGCTGACATTTGGACCCCATCCCAGAGGAGATGCTGGCTACCAGC
TGGGGCGACCCCAAGGGTCGCTGGAGTCAGTATCGGCCCGGCGCAGCCGCGGCGGGCGAGGCCAATGGAAAGGAG
ACTGAGGGGAGTCCCGGCAGTGAGCCCGAGGCCCTGGGACCTGGAGCCCGCGCTGGCCTCTCCCCAGCGGAGCCT
GCACGTTACGGAGACCATCACATGTGGGCGTGGTCAGTGCCCAGGACCGCACCGCTGCTCATCTTGTCCCTTTTC
AATTCCCTTCTGGTTCATGATGCATAAAGCGCTAGGCCCTAGAACTCCAGAAACAGCACAGCTGGGGCGGGGACC
CAGCCTTGCCCTCCACCCGAGGCTCTGGGACAAGGCGGGAGGTTCGGGGGCCTTCCGGCAGGTGAACGCAGGGCT
GGAGAGTATTTGGTGCCAGATGAGGTGAAAGCTTATAGAAGGGCCTGAGGGGCTCGGCTGCCTCATCCCCTGGCG
GGGGAGGCTGGGAGCTGGGCCTCCTGCGTGGGGTGGGACTCGCAGGGGCCGGGTCTCCGTGACTGGGGCAACGCC
TCGTCCTGCAGAGGGAGCCGACGACCTCTTTTCTGCAGAAAAGCTCCAGCAGGCGCTGCCTTCACCCACGGATCT
GCCCAGGCTGAAGGCACACGCTCAATGCCCCACGTGCCTTCTCCAGGAGGAACGAAGCAGGGTTTGAGGGTTGGG
TGGATGGAGCTCAGAAGGAAACCCCAGCCCCACCACGGATGACACCATCCCTCCCGTCCCATCCCCAGCATGGGC
AAGGCCAGCCTTTCTGGCAGAAGGAGCTGTCCTCAACTCAGGGCCGCTGTGAGCAAAGCTGACCCCAGCCCCCAC
CCCCAGTTAACACTGCTGCTTCTCTGAATGCATGTCACGCTGCACCCCATGCTCCGGGCCCACACCCTGCAGGAC
AAGGAGCTCCAGACAGGACGTCCATAAGTCACCGAGGTGTGCCACCCAGCAGGTGCTGGAGGTGCCCAATGCTCC
CTCCTAGGACCTCGCAGCCAGGCAAGGCTGTCAGGTTGTTTTGGGGGAAGAGGGGGTCATGGATGGCTGAGCAGA
GAGCGGGGAAAATGCAGGCTGAGTGGGGCGACCTCCTGCCTGCCAGGAGCCCCCTTTCAGGACACAGCGGGGGTC
TCACACTTGCTGTCCCCATCCATGGCCCGAGGGGGAACCTGGTGGTCTCTTCTGAGCTTTTGGACTTGGGGATGC
CAAACACGTGCTCACCCTCACACTCGCCCCGGCCCGCTGCGCCCCTAATTGCCAAAGGGTAGGGAAATGGCGAAG
CCAGCCACCAGGTCGCTGGTGACAGGGCCAGGGTTATGCAGGAAGGTGGTGCGGCATTGCCTTCCACATATGTAA

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FIGURE 1036D

GTCTCTGGGCGGCGCCCTCCCAGCTCCCTGCCTCTGTTTCCCCATGTGGGCCGTGGGGAACTCCCAGAGCTACCT
CTTGGGGGAGCGTGGTGGCAGCGATGATGGGGAGACGCCTGGAAGCTCACAGAACTTGGGTCTGGCTGGCTCCTG
CCCGTGACGCCTTGCCCAGCAGCAAGGTGCGCAACATGGCTGCCAGCCCCGCCTCCCACCCCCACCCCGAGTCCT
GAGCTCACTTTCGCCTTCTCCATCCCCTGCCGTGGGGGCCACAGCCACACCTCACCGCCCAGTCCAGCTGTCTCC
AGAAGGGGACAGGCAGTCCGCGGTCTCTGGACAATCAACTCAAGGTACGCCCACTGCAAGGCCTCCCTCCCACCG
CGGCCCCTGCCTGGCCACCTGGCCTCTCTGCACCAGGGTGACAAGGGGTCCTCGTCTGCCCCCCAATGCTCCAGG
GCCAGTCCTAAGGAGCTGAGGGTCTGAGGACGCAGGGAGGGTGGAGGTGTCCTGAGGCTGATGGACAGTGACCGC
CACTGGCCCCCAACATGACCACACGTGGGTGCTGAACTCGGGGCGCCGTGCCCACCGGCATGGTCCTCCCGAGCT
CCGACAGCATTACCTCACCCGGCCCCATCTGTTGCCCCGGTCCAGCCCTGATGGCGCGCGCCTGGTCTGTCTGAT
TCCCCTAGCCGCCACCCCACGTTTCTGTACCGGGTCTCTGCAGTGTTAAACGGACGTGTAAATAGTGGTAAATAG
TGAAAGCCTGTCCTTCCCTAAATGTAAAGCCATCTGTCCGGCGTAAGGACGACACCGTCAGCTGTCCGACTCGCA
CACATTTAATAAACTGAGCTCTTGC

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FIGURE 1037

CGCGGGGAAACTGAGGCAGAGAG**ATG**GGCTCCAAGGCAAAGAAGCGCGTGCTGCTGCCCACCCGCCCAGCGCCCC
CCACGGTGGAGCAGATCCTGGAGGATGTGCGGGGTGCGCCGGCAGAGGATCCAGTGTTCACCATCCTGGCCCCGG
AAGGTAGGGGGAGCCCGGTCCCGGGGAAAAGCGGACCTGAGACCCCGGCAGCAAGGGGACGGGAGAGAAGCACAC
CCCTAACTCCTGACCCCACGCCCTGGGAACCCCCGCAACATGGGCACGGTCCGTATCCTCTCCGAGTCTCCCTCT
ACTCCTCCGTAGAGTGGGACCGATTTTCAGAGGGTTCTTCTGACAGGGGTGGAGGCCGGGCGCTGTGGTTCAGGC
CTGTAAGCCCAGCACTTTCGGAGGATGAGGCGGGAGGATCGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGCCAA
CATGG**TGA**AACCCCGTCTCTGCTAAAAATGAAAAAACAAAAC

FIGURE 1038

GCGGGCCGAGGAGCCGGGCGCA**ATG**GAGCGGAAGAGGTGGGAGTGCCCGGCGCTCCCGCAGGGCTGGGAGAGGGA
AGAAGTGCCCAGAAGGTCGGGGCTGTCGGCCGGCCACAGGGATGTCTTTTACTATAGCCCGAGCGGGAAGAAGTT
CCGCAGCAAGCCGCAGCTGGCGCGCTACCTGGGCGGCTCCATGGACCTGAGCACCTTCGACTTCCGCACGGGCAA
GATGCTGATGAGCAAGATGAACAAGAGCCGCCAGCGCGTGCGCTACGACTCCTCCAACCAGGTCAAGGGCAAGCC
CGACCTGAACACGGCGCTGCCCGTGCGCCAGACGGCGTCCATCTTCAAGCAGCCGGTGACCAAGATTACCAACCA
CCCCAGCAACAAGGTCAAGAGCGACCCGCAGAAGGCGGTGGACCAGCCGCGCCAGCTCTTCTGGGAGAAGAAGCT
GAGCGGCCTGAACGCCTTCGACATTGCTGAGGAGCTGGTCAAGACCATGGACCTCCCCAAGGGCCTGCAGGGGGT
GGGACCTGGCTGCACGGATGAGACGCTGCTGTCGGCCATCGCCAGCGCCCTGCACACTAGCACCATGCCCATCAC
GGGACAGCTCTCGGCCGCCGTGGAGAAGAACCCCGGCGTATGGCTCAACACCACGCAGCCCCTGTGCAAAGCCTT
CATGGTGACCGACGAGGACATCAGGAAGCAGGAAGAGCTGGTGCAGCAGGTGCGGAAGCGGCTGGAGGAGGCGCT
GATGGCCGACATGCTGGCGCACGTGGAGGAGCTGGCCCGTGACGGGGAGGCGCCGCTGGACAAGGCCTGCGCTGA
GGACGACGACGAGGAAGACGAGGAGGAGGAGGAGGAGGAGCCCGACCCGGACCCGGAGATGGAGCACGTC**TAG**GG
CAGGTGCTGCGGGGCCACGGGGGCTCCCTGGAGTCGGGTCCTGGCAGTGGGGACTGCCTGGTGAACACAGATGTG
CTTGGGATGACGGGTGCCTCCCAAGAGCTTCCCATCTCCCTAGAAGAGCCCAAGCGTCCCCGTCCCGTGGAGTCG
CTAAAGCCAGCCCTCCCTGTCCTTTCCAGAGGCCCTGCCGAGAGCCCGTGCTGCCTGCTGGAGCCGCCTGCAGAC
GCGGTCCTCGGCCCCACGTGAACCAGGCTCGGCGGCGAAGCCCAGCCTTGGAGACACCCAGGAGGAAGGCCGTGC
TCCTGGCTCCCTCCTCGGCCCGTCCCCACTTCCCGGGGCCTCGGGGCACACAGCTGGGGCTGCCCCCACCCGAAA
GACCCTCCACGCTCGTCCTCTACAGAGTCCGGCTTCGGGAAGTGCCGGGTGCTCCTGGGCCCTGCCTGGCTCCCT
ACGACCTTTGGGCTCGAGGCCAGCTCCTCCCCATGCCCGCTGTCCCAGCTCCTTGAGACTGGAGAGCAGCCAGCA
GGTGCCCGGCAGCTCGGCGCCACGGCTTGCTGACAGCTGGGAGGGTTTCTCGGTCTGGAGGCGTAGTTTTGAAAC
TCACATCACCCACTGTGCAGCGTGAGGACGGGACTCTGGTCTGCTGTGGGGGGCATGCAGGACGGCGCCACTCTC
TGCCCTGCCATGCGGCTGGTGGTGCCACAGAGCCTCACCGTGCCTGAGTGGCATGCCCAGGAGGCCGCTCTCCTT
CAGTAAATGTAACACAGTCGAGGCACGTCATCGGGCAGCCTTCCCTGTGTGCCAACGCCAGCCTTCGCTTCTGAA
AACCAAACTCCAGCCGCTGCCAGTCGGGACTTGGTCGCCCGGCGCTGCCAGAATGCTCCACTGCCAGCCGGCCCC
CCTGCCTCGGTTTCCCTTCTGTTTAGTGGCGACACAGGCACCCAGCTTTGGGGTGGTGCTGACGCTCCCAGGGGT
GCCAGGAGCCACTGGGACAGGGTGAGGCTCCCAGACGCTCCTCGAGGTGCCCAGCTCTCCAGGGAGCTTCTGGCC
CAAGGCCGTCTGAGGGATCTGCTCCTTAACCCCCCAGTGCCTTGGCGAGGGCAGGTTCCAAGCCACAGACGCCTG
CCCCGAGTGGACTCTGCGGCCAGTCCCTGGTGCCCTCCTGGCCCTGCTGCCCAGTGAGGGCTCCTACGGGTGGGT
TCATTGGCCTGGGCCCAGCGAGCCCCCACCTGCATTGACCTTAGGCCCATAGAGAGGGCCTGTCCCGGTGCTGCC
CCAGCCAGGATCTGGTCGCTGCCCCAGGGGGACTGATGGGCAGAGTCGCCCCTGTGGCTGGACTGTGACCATCCC
TGATGGGGCCTGACCGCGGGAGCTGAGGAAGCGCCGCTCCACCGTCTGCCCTCCAAGGACCCGCATGGAGGCAGT
GGGCTGGCAGCTTCCTGCTGCTCCCTGTCAGAGTCAAAGCACAAATCCTCAGGACGGGCTCAAGGGCCAGGGCAG
CCGAGGGAAGCTCCAGGTGGGGACCACGTCTTCCTGAGGTTGGTGCCCACTGGCTGGGACCCTTTGCAGTGGGGT
GGCCTCCCCTCTGTCTGCCTGGTGGAGGGAGCCGTGGGCGTGGGGACGTGACTGAATAAAGCCACCATGGGTGGA
TGTGCTTGG

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FIGURE 1039

AGTGTAGCCGGGTCAGCTGGACAGGGTCATCCTGAGGGTGCGACTCCGCCGCG**ATG**GTGACCCGGTTCCTGGGCC
CACGCTACCGGGAGCTGGTCAAGAACTGGGTCCCGACGGCCTACACATGGGGCGCTGTGGGCGCCGTGGGGCTGG
TGTGGGCCACCGATTGGCGGCTGATCCTGGACTGGGTACCTTACATCAATGGCAAGTTTAAGAAGGATAAT**TAA**T
TACACAAACCCTTCACAGACTGCTCTGGTGCCTGGTGGTGCTAGCTCCTCCCACCTCAGCACCTGCTGCATCTGG
AGCAGCCCAAGCCTCAGGATGGACAAGAGGAAACCCACAGCTCAGCTTCAGGCTTCTTATGTTTCTGAAAACAGC
TTGGATATTTTAATGCACGTTGCATTAAACCTCACTGAAACCTGCTCCGTGCCCGGATGTTGATCATGCTGGTGG
CTTGGTTACTGTGACTGTAGCTGGAGTGGCACAGGTGACCCAGGCGTCCTTTCAGCTCCAGAATGTTGCAAGTCT
AGGAGAGTGTTCCAATGGCTGACAGAAACTGCCTATTTGAAATGGCTCATAAGTAGTATCTGCAGTGTGTTCATC
CGTTGCTGCCTTAACAAGTCACCCACACGTAGTGGCTTAAAGCAACGAACATTCACTCTCTCACAGTCTGTGTCA
GTCGGGGATTTGGGAGTGATGTATCTGGGTGGTTGTGGCCCAGAGTCTCTCATGAGGTTGCAGTTAAGACATCAG
CCAAGGCCACTTCGTCTGAGGAAGGCTCAACTGGGGCTGGAGCCACTTCCAAGCCAGTGCCCTCACGTGGCTGTC
GGTGACAGCCACAGTTCCTTCCCATGGGGGCCCCTACACGAAGCTGCTTGAGCATCCTCACGGCATGGCCTCTGC
CTTCCCCAGAGCAGGTGAACCAAGGGAGAGGAAGGAGCAAGCCACAGTGCTTCTATGAGCCACCCTGAGAAGTCT
CACGTGATCACTTCCGCCACAGCCTGTTTATCAAAAGCAAGCCCCCCAGGCCCAGCCCACGTGCAGAGGGAGGAG
AATGAGGTTCTGTGTTTTGAAGGGAAGAATATCAGAATTGGTAGACATTTCAAACTGTCACATTAGGGATACAAA
AATGAACAGGCTGGGAGTGGTGGCTCAGCCTACAATCCCAACACTTTGGGAGGCTGAGGAAGGGGCATCACTTGA
ACCAGGAGTTCAGTACTAACCTGGGCAACAAAGAGGCCCCTGTCTCTGATAAAAAGAAAAAAAATGAAAAAATAA
AAATGAACAGGTATAAAAAG

FIGURE 1040A

GCGGGCGGCGGCGACCGCGGCGCCAGTGAGGGGGCCCTGGGGCCCGGGCGGCTCCGGGCCGGGGCCCCGCCGCGG
GACGGACC**ATG**CTACGCTCCACTGGCTTCTTCCGGGCCATTGACTGCCCCTATTGGTCTGGGGCGCCCGGGGGGC
CCTGCCGGCGGCCCTACTGCCACTTCCGGCACCGCGGGGCCCGGGGCTCCGGCGCGCCCGGTGACGGCGGAGAGG
CGCCCCCCGCAGCAGGGCTGGGTTACGACCCCTACAACCCTGAGCTGCCCAAGCCCCCCGCGCAGAGGGAGAATG
GCACCCTGGGCCTGGGGGAGGAGCCGCGCCCGGATGTGCTGGAGTTGGAGCTGGTCAACCAGGCCATCGAGGCCG
TGCGCAGTGAGGTGGAGCTGGAGCAGCGGCGCTACCGGGAGCTGCTGGAGACGACCCGTGAGCACCGCTCCGCCG
AGGCCCCCGCCCTGGCGCCCCGCGGCCCCAACGCCAGCCCCACTGTGGGCCCGGACGAGGATGCCTTCCCACTGG
CCTTCGACTACAGCCCCGGCAGCCACGGCCTATTAAGCCCTGATGCCGGCTACCAGCCCACCCCACTGGCCGCCC
CTGCCGAGCCGGGCAGCAAGTACTCGCTGGCGTCCCTGGACAGGGGTCAGGGCAGAGGTGGAGGGGGTGGCGGTG
CCCTGGAATACGTCCCCAAGGCTGTGAGCCAGCCCCGGCGGCACAGCCGCCCCGTTCCCAGTGGCAAGTACGTGG
TGGACAACTCCAGGCCACCCACAGACCTGGAGTATGACCCTCTCTCCAACTACTCGGCCCGGCACCTCAGCAGGG
CCAGCTCCCGGGATGAGCGGGCCGCCAAGCGGCCCCGGGGCTCCCGCGGCAGTGAGCCCTACACACCTGCTCCCA
AGAAGCTCTGTGACCCCTTTGGCAGTTGCGATGCAAGGTTCTCAGACTCAGAAGATGAGGCCGCCACGGTCCCAG
GTAACGAGCCCACCACGGCCAGCACCCCCAAAGCCAGGGCCGACCCTGAGATCAAGGCCACCGGGCAGCCACCCT
CCAAAGAGGGCCTGGAGGCCGAGGGGGGCGGCCTGCGGGAGACCAAGGAGACGGCCGTGCAGTGCGACGTGGGGG
ACCTCCAGCCGCCCCCAGCCAAGCCCGCCTCCCCAGCCCAGGTCCAGTCCTCACAGGATGGGGGCTGCCCCAAGG
AGGGAAAACCCAAGAAGAAAAAAACCGGGGCCCCACCTGCCCCCAGCTGCAAAGACGGGGCCCAGGGGAAGGACA
AGACCAAGGACAAGGGCCGAGGGCGGCCTGTGGAGAAGCCCCGTGCGGACAAGAAGGGCCCGCAGGCCAGCAGCC
CCCGGCGCAAGGCAGAGCGGCCGGAAGGGACCAAGAAGAAGCCATCTTCGGCCACTCCTGTGGCCACCTCAGGGA
AAGGGAGGCCTGACCGGCCAGCGCGGCGGCCGAGCCCCACAAGCGGGGACTCCCGACCGGCGGCCGGCAGAGGCC
CACCCCGCCCCCTCCAGCTGCCCGACAGGAAGAGCACCAAGGCCCCGTCGGGGAAGCTAGTGGAGCGGAAAGCCC
GCTCACTAGACGAGGGCGCCTCCCAGGACGCCCCCAAGCTGAAGAAGCGGGCCCTGAGCCACGCCGACCTCTTTG
GGGACGAGAGTGAGGACGAGGCCGCAGGGCCAGGGGTGCCGAGCGTGTGGCCCTCTGCCCTCCCCAGCCTCAGCT
CGGACTCAGACTCCGACTCAGACTCCAGCCTGGGCTTCCCGGAGGCGCAGGGGCCGCCCAAGCGGCTCAAGGCCT
CCCCGCCCCCCTCCCCCGCCCCATCCTCCTCCTCCTCCTCCTCCTCCTCCACCTCCAGCGCGGGGGCGGATGTGG
ACTACTCGGCCCTGGAGAAGGAGGTGGACTTTGACTCCGACCCCATGGAGGAGTGCCTGCGGATCTTCAACGAGT
CCACCAGCGTCAAGACGGAGGACAGAGGCCGGCTGGCCCGGCAGCCCCCCAAGGAAGAGAAGAGTGAGGAGAAGG
GGCTTTCGGGTCTGACCACTCTGTTCCCCGGGCAGAAGAGGAGGATCTCCCACCTTTCCAAGCAAGGCCAGGAGG
TGGAGCCCCCGAGGAGGGGTCCCGCGGTGCCCCCGGCCCGGCCCCCGACGGCGCAGGAGGTGTGCTACCTGCGGG
CCCAGCAGGCGCAGAGGGCATCGGCGAGCTTGCTGCAGGCCCCCGCCAGGCTGGCAGAGAAGTCGCCCTCCGTCC
ACATTTCCGCCCCTGGCGAGAAGAGGAGGATCGCCCACATCCCCAACCCCCGCCTGGCTGCAGCCCCCACAGGTG
CCAAGAGGACCCTTGCGGCCAGCGGCAGCCAGTCCTCCAACGGCCCTGAGCCAGGTGGCCAGCAGCTGAAAACAC
GCACATTGTCGGGGATGGCGTCCAAGACTACCACCACCATCATCCCTAAGCGAATCGCCCACAGTCCATCCTTAC
AGAGTTTAAAGAAACCCATTATCCCCAAAGAGTTTGGGGGCAAAGTCCCCACCGTCATCCGCCAGCGCTATCTCA
ACCTGTTCATCGAGGAGTGTCTCAAGTTCTGTACCTCCAACCAGGAGGCCATAGAGAAGGCACTGAACGAGGAGA
AGGTGGCCTATGACCGCAGCCCCAGCAAGAACATCTACCTGAATGTGGCCGTGAACACCCTCAAGAAGCTCAGGG
GCCTGGCCCCCAGCGCTGTGCCCGGCCTCAGCAAAACCAGTGGCCGCAGGGTTGTGTCCCACGAGGTGGTGTTGG
GGGGCAGGTTGGCCGCCAAGACCAGCTTCTCGCTCAGCCGTCCAAGCAGCCCCCGGGTGGAGGACCTGAAAGGGG
CTGCCCTGTACAGCCGCCTCAGGGAGTACCTGCTCACCCAGGACCAGCTCAAGGAGAACGGCTACCCCTTCCCGC
ACCCAGAGCGGCCCGGGGGCGCAATCATCTTCACAGCTGAGGAGAAGAGGCCCAAGGACTCTTCCTGCAGGACCT
GCTGCCGCTGTGGCACCGAGTACCTCGTGTCCTCTTCAGGCCGCTGCATCCGGGACGAGGAGTGTTATTACCACT
GGGGACGGCTGCGCCGGAACCGGGTGGCCGGAGGCTGGGAGACCCAGTACATGTGCTGCTCGGCTGCCGCCGGCT
CTGTCGGCTGCCAAGTCGCAAAGCAACACGTGCAGGATGGCCGGAAGGAGCGCCTTGAGGGCTTCGTGAAGACCT
TTGAGAAAGAGCTCTCAGGAGACACCCACCCGGGGATCTACGCCCTGGACTGCGAGATGTCCTACACCACATATG
GCCTGGAGCTGACGCGCGTCACGGTGGTCGACACGGACGTGCACGTGGTTTATGACACCTTCGTGAAGCCTGACA
ACGAGATCGTGGACTACAACACCAGGTTTTCGGGGGTGACGGAGGCTGACCTTGCCGACACAAGTGTCACGCTGC
GTGACGTCCAGGCCGTTCTGCTGAGCATGTTCAGCGCTGACACCATCCTCATCGGACACAGCCTGGAGAGCGACC
TCCTGGCCCTGAAGGTCATCCACAGCACCGTGGTGGACACGTCTGTGCTCTTCCCCCACCGCCTGGGCCTCCCCT

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FIGURE 1040B

ACAAGCGGTCCCTGCGGAACCTCATGGCCGACTACCTCAGACAGATCATCCAGGACAATGTGGATGGGCACAGCT
CCAGCGAGGACGCCGGCGCCTGCATGCACCTGGTGATCTGGAAGGTTCGAGAAGACGCCAAGACCAAGCGA**TGA**C
GCCTGCCCGCCTCCCACCCGCCTCTCCTGCCGTCCCGCTGGTCCTTAGCCCCATGCCTCTTCCAAAACAGTGCAA
TAAATCTCCGGTAACCCGTCCACCTGGCCGAGGCAGCCCAGAGCAGCGGGATGAGCTGGCGGCCAGAGAACGCCC
AGCCCAGCCCACCCCCGCTCACGTCCTGCCGCACCCCTCCGCCGGTCCCCACCCTCTGCCCCCCAGCCCTCTGGC
GTCTCTAGAAACTGCTGCTGATGGAGACCAGGACAGAGCCCGCCCCCACCCGGCCCGCAGCCCCTCCTGCCCCTC
CTGCCAGGCCCTCCCTCCCGGGTGGTGGCCGGCACCTCTGCTCCTCACGTGGGTCGCGGGGCGGGCTTGTCCCAG
GTTTGTTTGAGACAGTCTTTTTTTATTTTGTATTGTTATTTTTATTATTTTTAATTTAAACCTGATGACTTGCAC
AGCATCTTTCCCACCGGGAAGAGCGGGCCTGCTGCCTTCCCTCCTGCGGGGTGGGGGTGGGACAGACCCCAGTGG
GGGCCAGGGCCACACTCAGCGCAGTGTGGGCTGGACCCGCCTCTGTGCTCCAGGGGCTGGCCGGTCTTCGGGGGC
GCCGGCTTCCACCACTCGCCGCCCCACCCCTGCACTCCGTGACCTCTGAGAACCCAGCTGGCCCCTCGTTAGCCC
CAGGGTCTGCCGTCTAGAGGGAGCCCACCGGCCTCCGGACACTGTCTTCCCGCTAGAGCCCCGTCCTCCTCTGCG
GGGCTCTCCGGACCCCCTTCCCCCTCACCTCCAGGCAGGGACAGAATAAATGTTTGTATGGATTTT

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FIGURE 1041

ATGTCGGCGGCCGTGGCGTGCGTGGATTACTTCGCCGCCGACGTGCTCATGGCCATCTCTTCGGGCGCCGTGGTG
CACCGCGGGCGGCCCGGCCCCGAGGGCGCGGGCCCCGCCGCCGGCCTGG**ATG**TGCGCGCGGCGCGCCGCGAGGCC
GCCTCACCCCGGGACCCCGGGGCCACCCCCGCCGCCCCCCGCCGCTTCTGGCCCGGGCCCCGGCGCCGCCGCGGC
GCCCCACCTGCTGGCCGCCAGCATCCTGGCCGACCTGCGCGGCGGACCCGGAGCCGCCCCGGGGGGCGCCTCGCC
CGCCTCCTCCTCCTCAGCCGCCTCGTCCCCGTCCTCGGGCCGCGCCCCCGGCGCCGCGCCCTCCGCCGCCGCCAA
GAGCCACCGCTGTCCCTTCCCGGACTGCGCCAAAGCCTACTACAAGTCCTCGCACCTAAAGTCGCACCTGCGGAC
GCACACAGGGGAACGCCCTTTTGCTTGTGACTGGCAGGGCTGCGACAAGAAGTTCGCCCGCTCCGACGAGCTGGC
CCGCCACCACCGGACGCACACGGGCGAGAAGCGCTTCTCCTGCCCTCTGTGCTCCAAGCGCTTCACCCGCAGTGA
CCACCTGGCCAAGCACGCCCGCCGCCACCCCGGCTTCCACCCGGACCTGCTCCGGCGCCCTGGTGCCCGCAGTAC
CTCCCCCAGCGACTCGCTGCCCTGCAGCCTGGCCGGGAGCCCTGCGCCCAGCCCCGCGCCCAGCCCAGCCCCCGC
AGGCCTG**TAG**GGCCCTCGTGCAGCCCACCCTGACCGCCAGGATGCTTCTGCCATCCAGGGGTGTAGTGAGGACCC
ACGGGGAGCCTGGGCCCCTTCCAGCCGTGGGCAAACCCTGAAGACACCCCTGCCCCCCTCCAGAGAGTGAGGAGG
GGGCCTGAGACTGGACCTGGGTCTGCCTGACCTCAGAGTGTCCAGGGGCTTGGAGAGACCTGCGCCCACCCCTCC
ACTCTCCCAGGAGTCGCTGATCACTGGGACCTGGTTCCAGCCGTTTGCAGGGGAGGCGGCTCCGAGAGGCGTGTG
CTTTCCGTGGGTGGCGCCCCTCCCCCGCCCTGCCTGGCCTCATCCTTGTATTTAATTAATTAAACAAGCCCCTTT
TTAAACCCT

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FIGURE 1042

ATGAGGACGCCAGGCGTGGGGGCCCTGCTGCCATCGCGGGACTGCCCCCTCGACAGCTTCCCGTCAGTCCTACTG
CAGAGGGGCCAGGACAGCGCACTCTGGGTCCTGAGGCCCGTGGGGGCCGCCGCGGGGTCGGGGCTGCGAGGCAGC
GCCCGCCGTTCCATGCGCGGCTCACGTTTCGGAACACGTCTGCCTTTCATGCCTCCCGAAGAGCCTCCCCGCATC
CCGTGCCCCCTGCTCGCTGCTGCCGCTGACCCTTGGGCGCTGCGCTGGTCCAGAGCGTGTTGTCCTCTGACGCCG
TCAGAACCTGAGCTCCCTGCGAGCTGGGACTCCGCCGTGTCTTCATTGCCTCCAGTGCAAAGCAACTGCTTGCAA
GAGAACAAAATTCCACAAGACACTGTGATGAAGAGGATTTTGGAAATCGAAGTATTTGGGGCCGCCCCTCCCTCC
CTGCGGGCTGTGGATATTCACGGGCGCCTGGGGGCTGAGTCTCTGGTCCACCCTGTGTCACCTGCTCCTGGTACA
CCCCAGCACGGGGCCCTGGGTGACGGGACAGACACCAGCCAGGATGGAGGAGGCCTTGGTGTCCCTGAAGCAGCT
CCTAGCATGGATGCCGTGGACCCCAGAGATGCTCCCTGCAGGACCCCACGCAGGGGCTTCCTTGCAGTCGGCCAG
CAGGGTGACCTCGCTGTGTCCTCCGGTTGGAGGGTGGCAGCTGCTGCCCCACCTTCCCACCTGGCTGGTGGAACC
TTGTCCTCTGTCCCCCAGGAGCTTGCAGCTGCCCCCCCGCCCCCCACCGTGCGTGGTGGCCCCCCTGGACTGGAC
CATGGCCTGTCCGGAGGTGGCTTCCACAGGTTGGCAAAGGTCATCCGTGAA**TAA**

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FIGURE 1043

GGCTGCTGTCTGGGGCGGTAGCTGGGGGGGCGCTCTCCCCCCTGCCCGCGACTCGGAGCACCCCCACCCCTCCCC
TGCCGGGCCAGGCCGGGCGGCGTTGTTGGCGGGGGCCCCGGTGGAGGCCCGGCCTGGGCGGCGCCCGCC**ATG**AAT
GGGCTGTCGCTGAGTGAGCTCTGCTGCCTCTTCTGCTGCCCGCCCTGCCCCGGCCGCATCGCTGCCAAGCTCGCC
TTCCTGCCGCCGGAGGCCACCTACTCCCTGGTGCCTGAGCCCGAGCCGGGGCCTGGTGGGGCCGGGGCCGCCCCC
TTGGGGACCCTGAGAGCCTCCTCGGGCGCACCCGGGCGCTGGAAGCTGCACCTGACGGAGCGTGCCGACTTCCAG
TACAGCCAGCGCGAGCTGGACACCATCGAGGTCTTCCCCACCAAGAGCGCCCGCGGCAACCGCGTCTCCTGCATG
TATGTTCGCTGCGTGCCTGGTGCCAGGTACACGGTCCTCTTCTCGCACGGCAATGCCGTGGACCTGGGCCAGATG
AGCAGCTTCTACATTGGCCTGGGCTCCCGCCTCCACTGCAACATCTTCTCCTACGACTACTCCGGCTACGGTGCC
AGCTCGGGCAGGCCTTCCGAGAGGAACCTCTATGCCGACATCGACGCCGCCTGGCAGGCCCTGCGCACCAGGTAC
GGCATCAGCCCGGACAGCATCATCCTGTACGGGCAGAGCATCGGCACGGTGCCCACCGTGGACCTGGCCTCGCGC
TACGAGTGTGCCGCGGTGGTGCTGCACTCGCCGCTCACCTCGGGCATGCGCGTCGCCTTCCCCGACACCAAGAAG
ACCTACTGCTTCGACGCCTTCCCTAAG**TGA**GCGGCCCGGGCGGGGACGGGGGCGGGGCGGGGCCCGGGCCGGGCG
CGAAGTCTCACCGGCTCCACGACCCTCCCGCAGCATCGAGAAGGTGTCCAAGATCACGTCTCCCGTGCTCATCAT
CCACGGCACGGAGGACGAGGTGATCGACTTCTCGCACGGGCTGGCGCTCTACGAGCGCTGCCCCAAGGCGGTGGA
GCCGCTGTGGGTGGAGGGCGCCGGGCACAACGACATCGAGCTCTACAGCCAGTACCTGGAGCGCCTGCGTCGCTT
CATCTCCCAGGAGCTGCCCAGCCAGCGCGCCTAGCGGCGGCCCCAACCGGCCGGACCTCAGCAATAAGGCGGCCC
CCGGACCTCACCCCGCGCCGGCCCCCACCCAGGGGCTGCATGTGGACCCCCCGGGCGGCCCAGGGGACCCCGCCC
CGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACGCACTCCTTTCCTTTTGGAAGCAAGAAGAAAATA
CGTGAAAACGGAAATTAAAGATTTAAAATTTT

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FIGURE 1044

AGACTTGGCGAAGCGCTGCGCTCGCGCCCGGATCCCTCAGGCGGCTGCAGGCTTCAGCCTGCGCTGGTTGGTGAA
ACAGAG**ATG**TCAGAAAAGGAGAACAACTTCCCGCCACTGCCCAAGTTCATCCCTGTGAAGCCCTGCTTCTACCAG
AACTTCTCCGACGAGATCCCAGTGGAGCACCAGGTCCTGGTGAAGAGGATCTACCGGCTGTGGATGTTTTACTGC
GCCACCCTCGGCGTCAACCTCATTGCCTGCCTGGCCTGGTGGATCGGCGGAGGCTCGGGGACCAACTTCGGCCTG
GCCTTCGTGTGGCTGCTCCTGTTCACGCCTTGCGGCTACGTGTGCTGGTTCCGGCCTGTCTACAAGGCCTTCCGA
GCCGACAGCTCCTTTAATTTCATGGCGTTTTTCTTCATCTTCGGAGCCCAGTTTGTCCTGACCGTCATCCAGGCG
ATTGGCTTCTCCGGCTGGGGCGCGTGCGGCTGGCTGTCGGCAATTGGATTCTTCCAGTACAGCCCGGGCGCTGCC
GTGGTCATGCTGCTTCCAGCCATCATGTTCTCCGTGTCGGCTGCCATGATGGCCATCGCGATCATGAAGGTGCAC
AGGATCTACCGAGGGGCTGGCGGAAGCTTCCAGAAGGCACAGACGGAGTGGAACACGGGCACTTGGCGGAACCCA
CCGTCGAGGGAGGCCCAGTACAACAACTTCTCAGGCAACAGCCTGCCCGAGTACCCCACTGTGCCCAGCTACCCG
GGCAGTGGCCAGTGGCCT**TAG**AGGGAGCCTGCCCTGCCCCCACCGCCCACCACCTCCTCCCCTTCATTCCTGCTG
CTACCCCTGGTCCCGAGGGCTGGGAGTACCTGGGGCCCCATCCCCCCAGCTGGGATGGTGGAAGCCGGTGGTGGC
CACGGACCGCCCCCCTCCTGCCAGGGCCACAGAACCCGTGTTCATCTCATCCGAGAGCGGAGTTCCTCACAAGCA
CTCCCCAGCAGCCCTTGGCCTCTGCCGTCCACAGGACGCCCTCTTGCTCCCGGAAACGTGTGGTCACCCGCCGTC
CACTGCACGGCTGGTACGGCCTTGTCTTCAGGTCTCGAGGCCTGACTCCGGGGGACAGGTGGCAGCAGGTCGGCC
GCCCTCCCGTCCTCCCAGAGCTGCTGGCGCTGAGGTCAGAGCGGGTCTGATGGGGAGCTCCGTCTCACCGGCCAC
CCGCCGTCACCATGGCAGATGCCCTTGGCCGGAACTAATAAGAGGCGTCGGGGCCAGCTTCCGGTCCCCTGCAGT
GATAGAGGGCTTGGTGCCTAGCTGAGTCCTCGCTGTCCCCGCCATCCCCTGATCTGTGCGGCTCCAGCCTCGCCC
CCTCCCCACGTGCACCATACCTGGGGAGTTCCTGGTCCAGGGTATCCTGGGGCCACCCTCCCTGCCTCCAAAACA
GGGATCCCTGGCAGGCTGTCTTTCCACGCCCCTGAGTTCAGAGTCGGGGACCCAGGCCAGGTCGGGAGCACAGCC
GCTCCCCAAACCCAGCAAACCGGCAGAGAGCCGGTTTCCCAGCAGCCGGAGCCCTGCAGGAGAGGCCTTTGTGTT
TTGTTTTGTTTTGTTTTTTCTCTTTTGAGACAAGAGTTTCACTCTGTCGCCCAGGCTGGAGTGCAGTGGTGTGAT
CTCGGCTCACTGCAACCTCTGCCTCCCGTGTTCAAGCAGTTCTCCTGCCTCAGCCTCCCAAATAGCTGGGATTAC
AGTTGCCTGCCACCACGCCCAGCTAATTTTTATATTTTTAGTACAGATGGGGTTTCACCATGTTGGCCAGGCTGG
TCTCGAACTCCTGACCTCAAGTGATCCACCCGCCTTGGCCTCCCAAAGTGCTGGGATAATAGGTGTCAGCCACCG
CGCCCAGCCTGGAGTGGCCTTTTATGAGAGGGGACCCGTCAAATCTGTGCCTTATGGAGGGGTCCGGCAGCGGCC
ACAATTGTCTTGTCCCCTCACCCCCCAACTCCCCCTGGAACACCTCTCCCAGGCAAGACATTTTCACAGCACCAT
TCACAACGGTTGGGCCAAAAAGAAACTTTTCCTTCATCATTTCCTGCACTCGCTGACCACAACTTTGGACACCCC
AGGCTGCCACCCCTCCCCACCCGTTCACCCCCAGGATGCTGTTGCTGTAGGACGCCTGCTGCCCTGGAGCCCTCC
CCAGGATGTGAGCCAGTCCCCTCGCTGGTACGGAATGCCGCTGGGTGCCCGGAGGCGGCCATGGTGTCTCGATGG
ACGGCAGCCAGGATGGAGCACCCATGGGTCTCACGGCCATGCTTCAGGGTCTTCAGGTCCTGCCCCCGGCCAGTC
TGCCAAGAGGCACCCCCTTCCCCAGCCTCTCGCCTGCACTGATGCAGACAAAATCTCACCTGGCAGGCCCAACCC
CCCCCCACCCCTCCCCCGCCGTGTGTGGCCCCTCGCCGCATCGTTGGGGTTTTGTTATGTGAAAATATCCTGGAA
ATAAATACATGTTTCTGCACTTAG

FIGURE 1045

CAGCAGAATGTCTCCTGCCCCCGAGAGCGACCCCGAGGCCACTGAGAAGAGCAGCGCGGCCTGGCCGGCCCGAAC
GCCTGCGTCTCAGTAGCTGGGAGCCACGGGCCCACGCCCGCCCACCGGCCGCAGTGATGTTCTAGCCACAGAGGA
GCCAAGACCTCAGGTTTCCAGAGACTTGGGATTTGCACGGCAGCAGAGTCACCGTGGAGAGGCCAGGGTATCACA
AACTT**ATG**GATTTTGACAAGAAAGGAGGGAAAGGGGAGACGGAGGAGGGCCGGAGAATGTCCAAGGCCGGCGGGG
GCCGGAGCAGCCACGGCATCCGGAGCTCGGGGACCAGCTCGGGGGTCCTGATGGTGGGCCCCAACTTCCGCGTCG
GCAAGAAGATCGGCTGCGGCAACTTCGGGGAGCTCCGCCTAGGAAAGAATCTCTATACAAATGAATACGTGGCTA
TCAAATTGGAGCCGATCAAGTCCCGGGCCCCGCAGCTGCACCTGGAGTACCGGTTCTACAAGCAGCTCAGCGCCA
CAGAGGGCGTCCCTCAGGTCTACTACTTCGGTCCGTGCGGGAAGTACAACGCCATGGTGCTGGAGCTGCTGGGGC
CCAGCCTGGAGGACCTGTTCGACCTGTGCGACCGGACCTTCACGCTCAAGACGGTGCTGATGATCGCCATCCAGC
TGATCACGCGCATGGAGTATGTGCACACCAAGAGCCTAATCTACCGGGACGTGAAGCCCGAGAACTTCCTGGTGG
GCCGCCCGGGGACCAAGCGGCAGCATGCCATCCACATCATCGACTTCGGGCTGGCCAAGGAGTACATCGACCCCG
AGACCAAGAAGCACATCCCGTACCGCGAGCACAAGAGCCTGACGGGCACGGCGCGCTACATGAGCATCAACACGC
ACCTGGGCAAGGAGCAGAGCCGCCGCGACGACCTGGAGGCGCTGGGCCACATGTTCATGTACTTCCTGCGCGGCA
GCCTCCCCTGGCAGGGGCTCAAGGCCGACACGCTCAAGGAGCGGTACCAGAAGATCGGGGACACCAAACGCGCCA
CGCCCATCGAGGTGCTCTGCGAGAACTTCCCAGAGGAGATGGCCACGTACCTGCGCTATGTGCGGCGCCTGGACT
TCTTCGAGAAGCCCGACTATGACTACCTGCGGAAGCTCTTCACCGACCTCTTCGACCGCAGTGGCTTCGTGTTCG
ACTATGAGTACGACTGGGCCGGGAAGCCCCTGCCGACCCCCATCGGCACCGTCCACACCGACCTGCCCTCCCAGC
CTCAGCTCCGGGACAAAACCCAGCCGCACAGCAAAAACCAGGCGTTGAACTCCACCAACGGGGAGCTGAATGCGG
ACGACCCCACGGCCGGCCACTCCAACGCCCCGATCACAGCGCCTGCAGAGGTGGAGGTGGCCGATGAAACCAAAT
GCTGCTGTTTCTTCAAGAGGAGAAAGAGAAAATCGCTGCAGCGACACAAG**TGA**CCCTGGGCGCGTGCAGCCCCCT
GAATCTTCTCCGTGCAGCCCCTTGGGGCGCGACCTTGTGCGAGGCCCTCGGGGCCCACCCACAGCGGCCCAGGGC
CAGACCCTGGCTGGAAGCCAGAACGCAGACTGCAGGGGCCGCGCCTGGCTCAGGCGGCCCCACCCCCGGGACGTG
GGGTCACTTCCTTCATGTAAGACTTTGGCCGAAATTTCTACACCTGTGTCTAGTCCTCCCCTCCAAGAGCATTAA
CTATTTAAAACAAGGAAAAGAGGAAAAAAAAAACAGAGGCCCGCCCTACCCCACTCCTGCCCCTCCGTTTCTTTG
CTGAAGTGAGTAGTGTGATCCTGGAGGCCCCCCGGCCTGGCCCCGCCCCGCCAGCCGCCCCCGTTAGCGTCATAA
AGTCCAGCTTGTCTCCCTCGATCCAAAGGCCGTTTTCTCGAGGGGAGGGCAGGCCCGGCCTGGAGGGGTGCTGTG
GAGCTGTCTTGCCCAGGCCCTCCTGGGAGGGGGACAGGCATTGTTGCCAGGGGTGAGGCCGTGCCCCAGGCCTCC
CCGAAACCAAAGGGGAAGGCAGGGGTGGGGCCGTGGCTGAAGCCGGCTCCCCAACCAAAATGCTGCACCAAAGCT
CGGGCGCCGCGGGCACGGCTGCTGCAGTCTCTTCCCAGCCTGGCCCTGGCAAGGGGCGGGTGGGCGCTGCCAGGC
GGGTGCTTCTCGACGCACTTGCTCCCGGAGGCTGCGCCCCGGCGCCTGGAACCCGAGGTGGGAGGACCGGTTGGT
GTCACCCTGCTCGGCCCTCAGCCCTGCCGCGTGGGGCGCGTGGGCACGGAGCTTCCTGCCTCTCTGCTCCGACAC
CCGGCAAGCAGCCGGAGACAAAACGCCTTAAAGCCCCCGGCCCAGCCCTGCAGGTATATTGCAGGGGCCTGGGGG
CGGCCCTGGACTGGCGGGCGGTTCCCCAGTGGGGTGCCCTGGAGGCTGCCGGGCAGAGTGGAGCAGCTTGGGGCC
GTGCCCAGGGCGGTGGCTGTGAGTCTAGTTTTTGCTTTACCAAGTGTACAGAAATGGCATTTACGTTTCTCTGAT
GCTCCCTTGAAGCCATAGAATTTAGGGGCTTTTTTAAAAAAATAAAAGAAAAATGAAACC

FIGURE 1046

ATGGCGGCGGGTGGGAGCGGCGGGCGTGCGTCGTGCCCGCCGGGGGTCGGGGTCGGCCCGGGCACGGGGGGCAGT
CCCGGGCCCAGCGCCAACGCCGCCGCCACCCCGGCCCCCGGCAACGCGGCCGCCGCCGCCGCCGCCGCCGCC
GCCGCCGCCGCCCCTGGGCCGACGCCGCCCGCCCCGCCGGGCCCCGGGACAGACGCGCAGGCCGCGGGCGCGGAG
CGGGCGGAGGAGGCGGCGGGCCCGGGGGCGGCGGCGCTGCAGCGCGAGGCCGCGTACAACTGGCAGGCCAGCAAG
CCCACCGTGCAGGAGCGCTTCGCCTTCCTCTTCAACAACGAGGTGCTGTGCGACGTGCACTTCCTGGTGGGCAAG
GGGCTCAGCTCGCAGCGCATCCCCGCGCACAGGTTCGTGCTGGCCGTGGGCAGCGCCGTCTTTGATGCCATGTTC
AACGGGGGAATGGCCACAACATCCACGGAGATTGAGCTGCCCGACGTGGAACCCGCTGCCTTCCTCGCACTGCTC
AAGTTTCTCTACTCGGACGAGGTGCAGATTGGCCCGGAGACGGTGATGACCACGCTATACACCGCCAAGAAGTAC
GCGGTGCCAGCGCTCGAGGCCCATTGCGTGGAGTTCCTGAAGAAGAACCTGCGAGCCGACAACGCCTTCATGCTG
CTCACGCAGGCGCGACTCTTCGATGAACCGCAGCTGGCCAGCCTGTGCCTGGAGAACATCGACAAAAACACTGCA
GACGCCATCACCGCGGAGGGCTTCACCGACATTGACCTGGACACGCTGGTGGCTGTCCTGGAGCGCGACACACTG
GGCATCCGTGAGGTGCGGCTGTTCAATGCCGTTGTCCGCTGGTCCGAGGCCGAGTGTCAGCGGCAGCAGCTGCAG
GTGACGCCAGAGAACAGGCGGAAGGTTCTGGGCAAGGCCCTGGGCCTCATTCGCTTCCCGCTCATGACCATCGAG
GAGTTCGCTGCAGGTCCCGCACAGTCGGGCATCCTGGTGGACCGCGAGGTGGTCAGCCTCTTCCTGCACTTCACC
GTCAACCCCAAGCCACGAGTGGAGTTCATTGACCGGCCCCGCTGCTGCCTGCGTGGGAAGGAGTGCAGCATCAAC
CGCTTCCAGCAGGTGGAGAGTCGCTGGGGCTACAGCGGGACCAGTGACCGCATCAGGTTCTCAGTCAACAAGCGC
ATCTTCGTGGTGGGATTTGGGCTGTATGGATCCATCCACGGGCCCACCGACTACCAAGTGAACATCCAGATTATT
CACACCGATAGCAACACCGTCTTGGGCCAGAACGACACGGGCTTCAGCTGCGACGGCTCAGCCAGCACCTTCCGC
GTCATGTTCAAGGAGCCGGTGGAGGTGCTGCCCAACGTCAACTACACGGCCTGTGCCACGCTCAAGGGCCCAGAC
TCCCACTACGGCACCAAAGGCCTGCGCAAGGTGACACACGAGTCGCCCACCACGGGCGCCAAGACCTGCTTCACC
TTTTGCTACGCGGCCGGGAACAACAATGGCACATCCGTGGAGGACGGCCAGATCCCCGAGGTCATCTTCTACACC
TAGGCTGCCCGACACCGACACCGCCCTCCCTCCGTGGGGATAGCCGCAGCCCCAGGCCATCATCTGCTGCTGGGG
CCCCCCCACCACGCGGTGCCAGGCCCAGTGTCCCCCAGGCCGTCTGTCCACTCCATGCCACCTTTCTCAGCATCA
GGACGGGGTTGCCCTGTGTTCACCACGAGTGTGGCTGCTGGATCAGGGCAGCCGGGGAGGTGGCCAGGCCAGTGG
CCAGGCCCTGTGGAGACAATCCCTCAGGACTAGGGACAGGGCTGTGCCGGCCTGGGCCAGGGCCCACGGACCCGC
AGCTCAGGGCGCCTGCCCACGTCGTCTGCCGGCGGTGCGCCGCGGGCGTCCCTCGCGTCTCTTCACTGCACATTG
CAATGCATTTGCGATTCCCATTTCTCTGCTAGGAGCCAGCCTGGGTGGCGCTGCTCCCAGAGCCGTGGGTCCCAG
ACCTTGCGTTCCTTTTGTTCCTGTCCGTTTATCAGGACACGGGCCCCACCTGTCACGTGCCCGAGGCCACCCAAG
CCCAGCCTGCGGGGCGTTCCCACTGCCTGGATGCCGGCTTGAGTTCTGCGCACGCAGGATTCAGTGTGGGGACGG
CCCCTGCCGGATAGGCCTAGCCCTGGCCCAGGTGGTGAGCGGTTTGCAGTGTCCGTTCTCATCCACCTGATGGGC
CCAGATAAAGGCCCCCGCTGTCCAGCCTCCCTGGACGGCCCTCGCGGTCCCTGCAGCCCAAGATGGGACTCAGAC
CCTGTGCCCCAGAGCTCCCCTGCCGCAGAATGGGGCCCCAGCCGGCCCCGACCGGGTCCAGGAGCACTGCTCGCC
TGTACATACTGTTGCCCTAGCCCACCTGGTGCCGTGGGAGCCACCCCCAGGTGCTGGGGGCACAGCCCCTCCCCA
CTCCGGCCACGCCCCCACCCACCCCGCGTGTTTCTGCCCTGTGACTCCTGGAACCTGCGTCCTCCCCAAAGCCAT
GGGAGGGGTGTCCTCCTCAGACCATGCCCCCAGATGATTTTTTTAAATAAAGAAACAAATGCACCTGC

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FIGURE 1047

GCTGGCGGGGCCCGGACAGAAG**ATG**GTGCAGAAGAAACCAGCCGAACTTCAGGGTTTCCACCGTTCGTTCAAGGG
GCAGAACCCCTTCGAGCTGGCCTTCTCCCTAGACCAGCCCGACCACGGAGACTCTGACTTTGGCCTGCAGTGCTC
AGCCCGCCCTGACATGCCCGCCAGCCAGCCCATTGACATCCCGGACGCCAAGAAGAGGGGCAAGAAGAAGAAGCG
CGGCCGGGCCACCGACAGCTTCTCGGGCAGGTTTGAAGACGTCTACCAGCTGCAGGAAGATGTGCTGGGGGAGGG
CGCTCATGCCCGAGTGCAGACCTGCATCAACCTGATCACCAGCCAGGAGTACGCCGTCAAGATCATTGAGAAGCA
GCCAGGCCACATTCGGAGCAGGGTTTTCAGGGAGGTGGAGATGCTGTACCAGTGCCAGGGACACAGGAACGTCCT
AGAGCTGATTGAGTTCTTCGAGGAGGAGGACCGCTTCTACCTGGTGTTTGAGAAGATGCGGGGAGGCTCCATCCT
GAGCCACATCCACAAGCGCCGGCACTTCAACGAGCTGGAGGCCAGCGTGGTGGTGCAGGACGTGGCCAGCGCCTT
GGACTTTCTGCATAACAAAGGCATCGCCCACAGGGACCTAAAGCCGGAAAACATCCTCTGTGAGCACCCCAACCA
GGTCTCCCCCGTGAAGATCTGTGACTTCGACCTGGGCAGCGGCATCAAACTCAACGGGGACTGCTCCCCTATCTC
CACCCCGGAGCTGCTCACTCCGTGCGGCTCGGCGGAGTACATGGCCCCGGAGGTAGTGGAGGCCTTCAGCGAGGA
GGCTAGCATCTACGACAAGCGCTGCGACCTGTGGAGCCTGGGCGTCATCTTGTATATCCTACTCAGCGGCTACCC
GCCCTTCGTGGGCCGCTGTGGCAGCGACTGCGGCTGGGACCGCGGCGAGGCCTGCCCTGCCTGCCAGAACATGCT
GTTTGAGAGCATCCAGGAGGGCAAGTACGAGTTCCCCGACAAGGACTGGGCCCACATCTCCTGCGCTGCCAAAGA
CCTCATCTCCAAGCTGCTGGTCCGTGACGCCAAGCAGAGGCTGAGTGCCGCCCAAGTCCTGCAGCACCCCTGGGT
TCAGGGGTGCGCCCCGGAGAACACCTTGCCCACTCCCATGGTCCTGCAGAGGTGGGACAGTCACTTCCTCCTCCC
TCCCCACCCCTGTCGCATCCACGTGCGACCTGGAGGACTGGTCAGAACCGTTACTGTGAATGAG**TGA**AGATCCTG
GAGGACCCTGGGCCCCAGGCCAGCTCCCATCGCTGGGGGACGGTGAACGGCCATGTGTTAATGTTACGATGTTTT
TAAAAGACAAAAAAAAAAAAAAAACCTCAAAAGTTTTTTTAAAGTGGGGGAAAAACATCCAAGCACTTTAATTCC
AATGTACCAGGTGAACTGACGGAGCTCAGAAGTTTTCCTTTACACCAACTGTCAATGCCGGAATTTTGTATTCTG
TTTTGTAAAGATTTAATAAAAGTCAAAAAACTTGC

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FIGURE 1048

GGAATTCTGAGAGCTGATTCCTGCCTTGTCTTCTCCACTGTTCCTGGAGGAATCCGAGAAGAGCAGAGCGGAGGG
AGCCCCAGACACGGTCCGCGGGAGAGCTGTGGGGCTTGGTGAGTGTTTCGTGGCCTCTCGGGTTGGTCAGCACCC
CCAGCCAGCTGGCCCAGGACCCCTCTACAGAAGTCCAGGAGAGCAGGCGTCACCAAG**ATG**TCCAACCCCTTCCTG
AAGCAAGTCTTCAACAAGGACAAGACATTCCGCCCCAAGCGCAAGTTTGAGCCAGGCACCCAGCGCTTCGAGCTG
CACAAGAAGGCGCAGGCGTCGCTGAACGCCGGGCTGGACCTGCGGCTGGCCGTGCAGTTGCCCCCGGGCGAGGAC
CTGAACGACTGGGTGGCTGTTCACGTGGTGGACTTCTTTAACCGCGTCAACCTCATCTACGGCACCATCAGCGAC
GGCTGCACGGAGCAGTCCTGCCCCGTCATGTCGGGGGGCCCCAAGTATGAGTACCGCTGGCAGGATGAGCATAAG
TTCCGGAAGCCCACGGCACTCTCCGCGCCCAGGTACATGGACCTGCTGATGGACTGGATCGAGGCGCAGATCAAC
AACGAGGACCTCTTCCCCACCAACGTTGGCACTCCGTTTCCCAAGAACTTCCTGCAGACGGTGCGGAAGATCCTG
TCGCGGCTGTTCCGCGTGTTCGTGCACGTCTACATCCACCACTTTGACCGCATCGCGCAGATGGGCTCCGAGGCC
CACGTGAACACCTGCTACAAGCACTTCTACTATTTCGTCAAGGAGTTCGGCCTCATCGACACCAAGGAGCTGGAG
CCACTGAAAGAAATGACCGCCCGGATGTGCCAC**TGA**GAGCCCCGCGGGTCTCCCGGTGCCCGAACCGCCGCTGGG
GCCTCGGAGACTTGGAGGAGGACGCTCTGGAACCATCATCCCGCTTCTCTCCGGCCTGAGCATCTCAGGGAGACC
AGGGGCCGAGCCGCTGAGCAGGTGTTGGTCCTCAGGAGCTCCAACCCCGGACGGCAGATGCCTTCCTCAGTCTCG
AGCCTCAGTCTCCCGTCTGGGACTAAAACGTGAACTCTGTAATTCTATGTGTTACTAGCAACCGGAAAAGCCCAC
TGTGTTTTTAAACCACTTCCACTTTCCAGGAGGCTGGATGGCTTCCAGGGTCACTCCTTGCCCTGGGTGGCTCCC
AGGCTCCTGGAACTTCTGCCTCCACCTCGCTGGGGAGCCCCCAGGGCTGCTGTGGCCACAGCCCTGCCTGGGCCT
GTCTCTCAAGGGCACCCAGCTTGCTCGGCCTCCTACATGTCTCCCGTTGGGGAGGCAAGAGGCTGAGGGGCTTCC
GAGCCCCTGAGAGCGGACATCTCCTCCCGCAGGCCTTTACTCCGCACTCCCCACTGGCAGCCGCTGGTGTCTCTT
CACACAGAGGCACAACCTGGACCCAGGCAGCCTCTTTCCTCCCTCCCCAATCTCTTCCATTTTTCTACAGATTTT
TTTTTTTTTGGTCATACTAGAGACAGGGGTCTCGCTGAACTCCTGGCCTCCAGTGATCCTCCATCCTCGGCCTCC
CAAAGTGCTGGAATCACAGGGGTGAGCCACCGCACCCAGCCCTCTCTCTTCCTCAATGCACTCTGCTTCTTCCGT
TCTTCCGAAACATTCAGCTGACTGTATCCAGGGCTTCCTGGACTCCTGGGACCCCACGTCCTGCACCCCGGCTTC
TGACTCATTTCCTAAGGGCCCCTTTGTGTATCATAAAGGGTTTGATTTTTATAGTCACATTTACAACCATCTTGA
GATTTTTATTTTTTTTGAACGGAGTCTCCCACTGTCGCCCAGACTGGAGTCCAGTGGCACAATCTCGGCTCACTG
CATCCTCCACCTCCTGGGTTCAAGTGATTCTCCTGCTTCAGCCTCCCAAGTAGCTGGGATTACAGGTGTGCGCCA
CCACGCCCAGGAAATTATTGTAGTTTTAGTAGAGACAAGATTTCACCATGTTGGCCAGGCTGGTCTCAAACTCCT
GACTTCAGGTGATCCGCCTACCTTGGCCTCCAAAAGTGCTGGGATTACAGGCATGAGCTACTGCACCCGGCCTAA
CCAGGCTGGAGTGCAGTGGTGGGATCTCGGCTCACTGCAAGCTCCGCCTCCCAGATTCACGCCATTCTCCTGCCT
CAGCCTCCCCAGCAGCTGGGACTACAGGCACCCACCGTCACACCCGGCTAATTTTTTTGTATTTTAGTAGAGACA
GGGTTTCACCGTGTTAGCCAGGATGGTCTTGATCTCCTGACCTTGTGATCCACCAGCCTCAGCCTCCCAAAGTGC
TGGGATTACAGGCGTGAGCCACTGTGCCCGGCCAAGAATTTTTTTATCGATAACATAGTGAGCTCTCTGCCTCTT
CGGAACGATGTCCACTTTGCTTATGATCAACCCAAGCAGGACTCTTCTCTCCCTGGACGCCTCTCCCCCTGGTCTG
GAATCTTCCAGTTCTGCCAGAATTGGCCTTTCCCAGATGCTGCAAACTTCCAGTTGAACCCCTTTTTCTGTGTGG
CCCCTGGGGCTGCGAGACCAAAATCCATGAGTTCTGTGTACCCTAGACCTTTGGAAGGTGAGAGCAGGGCCCTGA
GAAAAGGCAGCCACCTCCTCTCCCTGGCTGAACCCCTGCCACCCTACTCCTCACCAGAATTGTCAGTGGCCTTTC
ACCACAGTGGTCCTTCCTGCCTGAGCCCTGCACTGTCCCAGACCACACAGAAGTCTGGTCACCTCTGGGCGCCTG
GGATGGTCACCGAAGAGAAGCACGCTGTCCCCGTCTCTCCTGGCTTCTGCCAGAAAATCGAACAAGTGCAATTAA
CACACTGTTACTGCCGAAGCCTGAAACTCCCAGGACTTGTCCTTGATCCTTCCAGAAACCACCAGGTCCGGCACT
TGGAGCCCCCCGGAGAGGGACCTCCCAGCCGAGCCCTCAAAGAACTCCATGAAATCAGGAACTGCTTGATGAAAT
GTATCTCCTTGTACCTGGAAGATGAAGCCCAAACACCCACACCTCTGTCTCCCCCAGGGCTCGGGATGTCTCCAG
CAGCCCGGCCACGCAGCTTCCCAGGTGGGCTCGGGGAGGTGGGAGCAGGGACCATCTCTGTCCCCTCCACCCTCA
CTCCATCCACCTCGGAGACCACCCTCCCCCAGCCAGATACGGAATAAAACTACAGACGCAGACGTCGG

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FIGURE 1049A

GGGGCCCGGAGCGGGATCGCGGCACCTGCCGAGCGGGTCGCCGCCTCTGCCGCGGTCCTTGGACCCCGCCGCCGC
CCTGGCCTGGGAGCTTGCCCCGCCGCAGCGGCCGGCAGCGCGGCGCTCCGCGGGCGGCAGGCACGGGCCCCGGGC
CCCCTCACGGCGCCCAGCCGCGGGCCTCCCGAGGCAAAAGCCCGTGGGCCGCCGCG**ATG**GCCCTCAAGATGGTGA
AGGGCAGCATCGACCGCATGTTCGACAAGAATCTGCAGGACTTGGTCCGCGGCATCCGTAACCACAAGGAGGACG
AGGCAAAATACATATCTCAGTGCATTGATGAGATCAAGCAGGAGCTGAAGCAGGACAACATAGCGGTGAAGGCGA
ACGCGGTCTGCAAGCTGACGTATTTACAGATGTTGGGATACGACATCAGCTGGGCCGCCTTCAACATCATAGAAG
TGATGAGTGCCTCCAAGTTCACCTTCAAGCGAATTGGCTACCTCGCTGCTTCCCAGAGCTTTCACGAAGGCACCG
ACGTCATCATGCTGACCACCAATCAGATCCGTAAGGACTTGAGCAGCCCCAGCCAGTACGACACAGGTGTTGCAC
TGACGGGTCTGTCCTGCTTCGTCACCCCAGACCTTGCCAGAGACCTGGCAAATGACATCATGACACTGATGTCAC
ACACCAAGCCCTACATCAGGAAGAAGGCTGTGCTGATCGAGCCCCTCACCAATCTCATCCACAGCACGTCTGCCA
TGTCTCTCCTCTATGAATGTGTGAACACCGTGATTGCAGTGCTCATCTCGCTGTCCTCCGGCATGCCCAACCACA
GCGCCAGCATCCAGCTTTGTGTTCAGAAATTAAGGATATTGATCGAGGACTCCGATCAGAACTTGAAGTACCTGG
GGCTGCTGGCAATGTCCAAGATCCTGAAGACCCACCCCAAGTCCGTGCAGTCCCACAAGGACCTCATCCTGCAGT
GCCTGGACGACAAGGACGAGTCCATCCGGCTGCGGGCCCTGGACCTGCTCTATGGGATGGTGTCCAAGAAGAACC
TGATGGAGATCGTGAAGAAGCTGATGACCCACGTAGACAAGGCAGAGGGTACCACCTACCGTGACGAGCTGCTCA
CCAAGATCATTGACATCTGCAGCCAGTCCAACTACCAGTACATCACCAACTTCGAGTGGTACATCAGCATCCTGG
TGGAGCTGACCCGGCTGGAGGGCACACGGCACGGCCACCTCATCGCCGCCCAAATGCTGGACGTGGCCATCCGCG
TGAAGGCCATCCGCAAGTTCGCCGTGTCCCAGATGTCTGCGCTGCTTGACAGTGCACACCTGCTGGCCAGCAGCA
CCCAGCGGAACGGGATCTGTGAGGTGCTGTACGCTGCCGCCTGGATCTGCGGGGAGTTCTCAGAGCATCTGCAGG
AACCACACCACACTTTGGAGGCCATGCTGCGGCCCAGAGTCACCACGCTGCCAGGCCACATCCAGGCCGTGTATG
TGCAGAACGTGGTCAAGCTCTACGCCTCCATCCTGCAGCAGAAGGAGCAGGCCGGGGAGGCAGAGGGCGCTCAGG
CCGTCACCCAGCTCATGGTGGACCGGCTGCCCCAGTTTGTGCAGAGCGCAGACCTGGAGGTGCAGGAGCGGGCGT
CCTGCATCCTGCAGCTGGTCAAGCACATCCAGAAGCTTCAGGCCAAGGACGTGCCTGTGGCAGAGGAGGTCAGCG
CTCTCTTTGCTGGGGAGCTGAACCCAGTGGCCCCCAAGGCCCAGAAGAAGGTTCCAGTCCCCGAAGGCCTGGACC
TGGACGCCTGGATCAATGAGCCACTCTCGGACAGCGAGTCAGAGGACGAGAGGCCCAGGGCCGTCTTCCACGAGG
AGGAGCAGCGGCGTCCCAAGCACCGGCCGTCGGAGGCGGACGAGGAAGAGCTGGCTCGGCGCCGAGAGGCCCGGA
AGCAGGAGCAGGCCAACAACCCCTTCTACATCAAGAGCTCGCCATCGCCACAGAAGCGGTACCAGGACACCCCGG
GCGTGGAGCACATTCCCGTGGTGCAGATTGACCTCTCCGTCCCCTTGAAGGTTCCAGGGCTGCCTATGTCAGATC
AGTATGTGAAGCTGGAGGAGGAGCGGCGGCACCGGCAGAAGCTGGAGAAGGACAAGAGGAGGAAAAAGAGGAAGG
AGAAGGAGAAGAAGGGCAAGCGCCGCCACAGCTCGCTGCCCACGGAGAGCGACGAGGACATCGCCCCTGCCCAGC
AGGTGGACATCGTCACAGAGGAGATGCCTGAGAATGCTCTGCCCAGCGACGAGGATGACAAAGACCCCAACGACC
CCTACAGGGCTCTGGATATTGACCTGGATAAGCCCTTAGCCGACAGCGAGAAACTGCCTATTCAGAAACACAGAA
ACACCGAGACCTCAAAATCCCCTGAGAAGGACGTTCCCATGGTAGAAAAGAAGAGCAAGAAACCCAAGAAGAAAG
AGAAAAAACACAAAGAGAAAGAGAGAGACAAGGAGAAGAAGAAGGAGAAGGAGAAGAAGGCTGAGGACCTGGACT
TCTGGCTGTCTACCACCCCACCGCCTGCCCCCGCCCCCGCCCCCGCCCCCGTTCCATCCACGGACGAGTGTGAGG
ACGCCAAGACGGAGGCGCAGGGCGAGGAGGACGATGCCGAGGGGCAAGACCAGGACAAGAAATCTCCCAAGCCTA
AGAAGAAGAAGCACAGGAAGGAGAAGGAGGAGCGGACCAAAGGCAAGAAGAAGTCCAAGAAGCAGCCTCCAGGCA
GCGAGGAGGCAGCGGGGGAGCCGGTGCAGAATGGCGCGCCAGAGGAGGAGCAGCTCCCGCCTGAGTCCAGCTACT
CCCTCCTCGCTGAAAATTCCTATGTTAAAATGACCTGTGACATCCGGGGCAGTCTGCAGGAGGACAGCCAGGTCA
CTGTGGCCATCGTGCTGGAGAACAGGAGCAGCAGCATCCTCAAGGGCATGGAGCTCAGCGTGCTGGACTCACTCA
ATGCCAGGATGGCCCGGCCGCAGGGCTCCTCCGTCCACGATGGCGTCCCCGTGCCTTTCCAGCTGCCCCCAGGCG
TCTCCAACGAAGCCCAGTATGTGTTCACCATCCAGAGCATCGTCATGGCGCAGAAGCTCAAGGGGACCCTGTCCT
TCATTGCCAAGAATGACGAGGGTGCGACCCACGAGAAGCTGGACTTCAGGCTGCACTTCAGCTGCAGCTCCTACT
TGATCACCACTCCCTGCTACAGTGACGCCTTTGCTAAGTTGCTGGAGTCTGGGGACTTGAGCATGAGCTCAATCA
AAGTCGATGGCATTCGGATGTCCTTCCAGAATCTTCTGGCGAAGATCTGTTTTCACCACCATTTTTCCGTTGTGG
AGCGAGTGGACTCCTGCGCCTCCATGTACAGCCGCTCCATCCAGGGCCACCATGTCTGCCTCCTGGTGAAAAAGG
GTGAGAACTCTGTCTCAGTCGACGGGAAGTGCAGTGACTCCACGCTACTGAGCAACTTGTTAGAAGAGATGAAGG
CGACGCTGGCCAAGTGT**TGA**GAGCTGCCTGCGAGCCCCGCACCACCCCGCGGAGCACGTACCCAGGGACCGCAGC

FIGURE 1049B

CCTGACGTGTCTCGCCTCTCCTCAGTCGTGTGTACTGTACCCAAGCCTGAGTGTTAATTTAACTCTATGTTGTCC
GCCGTGTAGACATCCGAGGTCATTTGTTGCGTTGAATTATCTGACCATCCTTTTTTACTGTGACTCTTCCCATTC
TCTTTGGCAAGAAGTCCCCTTCTCGCCCCCAAACCAGCAAGGGACTCCCCCACCTGGGTCTGTGCCCTGCCCCGC
GCTGGGGGCCGAGTCCTTGAATGTGGCTTCAGGGGCTCCTGTCCTGGGCCAGGGCCTGATGGGCACCACGTGAGG
GGCACTTGGTGGACAGGGCGGGGCTGACGTGGCCTCCTCTGGGGTCGCCTGCTTTTGACCCAAAGGTCCTGACGG
TTGCGTCCGGGGGAGGGGAAGGAAGGGCCGCTGTCGCCAAGGTTTTCTCTCCCAGAACCCACAGTGGGAAAGCGG
TCTTGCCAGGCGTTGTCCATTGTCAGTGTGCTCGTGGGCTGGTGACTGGGTCTTGGGATCCCAGGCCACGCGCCA
GCCAGGCTGTGGGCAGGGCGGGGCCAGGGACGCCAAAGAGAGGTTGCAGTCAGAACCGTGGACGGGGTGGGTTGA
GGCCTCTCTGCCACCCGTCTTCCTGGTCAGCAGAAGTGCATCTCGGCTTGGGTTTGGGGTGGTCCGCATCCCCTG
CTTGCCACTATGCGCACCAAGGTTTCCCCACATCCTTCCCAGCACCCTTAGGAAGGCCCAGGCAGGGCCTGGAAG
CAGCGGACCTGGGCTGTTCTGTGTTGAAGGAGTGTGCCCAGTGCCCTTGGGCAGGACCTGTGAGAGCCACCTCAC
AGGCAGAGCCCCCACCAGGCAGGGCAAGGAGACTCCGCTCACTCCCCACGGCCAGCGTGGGCACAGGACTGACCC
TTCTTCAGAGATAATGACATTTTATCTTCTCCTTTTGATGAAAACTGTCACTTTAGCATGTAATCCATTACAGAA
TCCCATGCAGTGATTCCAGGATTTGAAATTGTATGATGTGTTACATAAGAATTTATTTGCTATCGACATTCCCGT
ATAAAGAGAGAGACATATCACGCTGCTGTCATGATTTTGTGTCAAGATGATCCAATAAAGTTGTAAAACAGG

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FIGURE 1050A

GCGGCCGTCCACTGGACTCCTGCGCCATATCCTGCAGCAGGTCTACAACCACTCGGTGACCGACCCCGAGAAGCT
CAACAACTACGAGCCCTTCTCCCCCGAGGTGTACGGGGAGACCTCCTTCGACCTGGTGGCCCAG**ATG**ATTGATGA
GATCAAGATGACCGACGACGACCTGTTTGTGGACTTGGGGAGCGGTGTGGGCCAGGTCGTGCTCCAGGTTGCTGC
TGCCACCAACTGCAAACATCACTATGGCGTCGAGAAAGCAGACATCCCGGCCAAGTATGCGGAGACCATGGACCG
CGAGTTCAGGAAGTGGATGAAATGGTATGGAAAAAAGCATGCAGAATACACATTGGAGAGAGGCGATTTCCTCTC
AGAAGAGTGGAGGGAGCGAATCGCCAACACGAGTGTTATATTTGTGAATAATTTTGCCTTTGGTCCTGAGGTGGA
TCACCAGCTGAAGGAGCGGTTTGCAAACATGAAGGAAGGTGGCAGAATCGTGTCCTCGAAACCCTTTGCACCTCT
GAACTTCAGAATAAACAGTAGAAACTTGAGTGACATCGGCACCATCATGCGCGTGGTGGAGCTCTCGCCCCTGAA
GGGCTCGGTGTCGTGGACGGGGAAGCCAGTCTCCTACTACCTGCACACTATCGACCGCACCATACTTGAAAACTA
TTTTTCTAGTCTGAAAAACCCAAAACTCAGGGAGGAACAGGAGGCAGCCCGGCGCCGCCAGCAGCGCGAGAGCAA
GAGCAACGCGGCCACGCCCACTAAGGGCCCAGAGGGCAAGGTGGCCGGCCCCGCCGACGCCCCCATGGACTCTGG
TGCTGAGGAAGAGAAGGCGGGAGCAGCCACCGTGAAGAAGCCGTCTCCCTCCAAAGCCCGCAAGAAGAAGCTAAA
CAAGAAGGGGAGGAAGATGGCTGGCCGCAAGCGCGGGCGCCCCAAGAAGATGAACACTGCGAACCCCGAGCGGAA
GCCCAAGAAGAACCAAACTGCACTGGATGCCCTGCACGCTCAGACCGTGTCTCAGACGGCGGCCTCCTCACCCCA
GGATGCCTACAGATCCCCTCACAGCCCGTTCTACCAGCTACCTCCGAGCGTGCAGCGGCACTCCCCCAACCCGCT
GCTGGTGGCGCCCACCCCGCCCGCGCTGCAGAAGCTTCTAGAGTCCTTCAAGATCCAGTACCTGCAGTTCCTGGC
ATACACAAAGACCCCCCAGTACAAGGCCAGCCTGCAGGAGCTGCTGGGCCAGGAGAAGGAGAAGAACGCCCAGCT
CCTGGGTGCGGCTCAGCAGCTCCTCAGCCACTGCCAGGCCCAGAAGGAGGAGATCAGGAGGCTGTTTCAGCAAAA
ATTGGATGAGCTGGGTGTGAAGGCGCTGACCTACAACGACCTGATTCAAGCGCAGAAGGAGATCTCCGCCCATAA
CCAGCAGCTGCGGGAGCAGTCGGAGCAGCTGGAGCAGGACAACCGCGCGCTCCGCGGCCAGAGCTTGCAGCTGCT
CAAGGCTCGCTGCGAGGAGCTGCAGCTGGACTGGGCCACGCTGTCGCTGGAGAAGCTGTTGAAGGAGAAGCAGGC
CCTGAAGAGCCAGATCTCGGAGAAGCAGAGGCACTGCCTGGAGCTGCAGATCAGCATTGTGGAGCTAGAGAAGAG
CCAGCGGCAGCAGGAGCTCCTGCAGCTCAAGTCCTGTGTGCCGCCTGACGACGCCCTGTCCCTGCACCTGCGTGG
GAAGGGCGCCCTGGGCCGCGAGCTGGAGCCTGACGCCAGCCGGCTGCACCTGGAGCTGGACTGCACCAAGTTCTC
GCTGCCTCACTTGAGCAGCATGAGCCCGGAGCTCTCCATGAACGGCCAGGCTGCTGGCTATGAGCTCTGCGGTGT
GCTGAGCCGGCCTTCGTCGAAGCAGAACACGCCCCAGTACCTGGCCTCACCCCTGGACCAGGAGGTGGTGCCCTG
TACCCCTAGCCACGTCGGCCGGCCGCGCCTGGAGAAGCTGTCTGGCCTAGCCGCACCCGACTACACTAGGCTGTC
CCCGGCCAAGATTGTGCTGAGGCGGCACCTGAGCCAGGACCACACGGTGCCCGGCAGGCCGGCTGCCAGTGAGCT
GCATTCGAGAGCTGAGCACACCAAGGAGAACGGCCTTCCCTACCAGAGCCCCAGCGTGCCTGGCAGCATGAAGCT
GAGCCCTCAGGACCCGCGGCCCCTGTCCCCTGGGGCCTTGCAGCTTGCTGGAGAGAAGAGCAGTGAGAAGGGCCT
GAGAGAGCGCGCCTACGGCAGCAGCGGGGAGCTCATCACCAGCCTGCCCATCAGCATCCCGCTCAGCACCGTGCA
GCCCAACAAGCTCCCGGTCAGCATTCCCCTGGCCAGCGTGGTGCTGCCCAGCCGCGCCGAGAGGGCGAGGAGCAC
CCCCAGTCCCGTGCTGCAGCCCCGTGACCCCTCGTCCACACTTGAAAAGCAGATTGGTGCTAATGCCCACGGTGC
TGGGAGCAGAAGCCTTGCCCTGGCCCCCGCAGGCTTCTCCTACGCTGGCTCGGTGGCCATCAGCGGGGCCTTGGC
GGGCAGCCCGGCCTCTCTCACACCTGGAGCCGAGCCGGCCACCTTGGATGAGTCCTCCAGCTCTGGGAGCCTTTT
TGCCACCGTGGGGTCCCGCAGCTCCACGCCACAGCACCCCCTGCTGCTGGCACAGCCCCGGAACTCGCTTCCTGC
CTCTCCCGCCCACCAGCTCTCCTCCAGTCCCCGGCTTGGTGGGGCCGCCCAGGGCCCGTTGCCCGAGGCCAGCAA
GGGAGACCTGCCCTCCGATTCCGGCTTCTCAGATCCTGAGAGTGAAGCCAAGAGGAGGATTGTGTTCACCATCAC
CACTGGTGCGGGCAGTGCCAAGCAGTCGCCCTCCAGCAAGCACAGCCCCCTGACCGCCAGCGCCCGTGGGGACTG
TGTGCCGAGCCACGGGCAGGACAGTCGCAGGCGCGGCCGGCGGAAGCGAGCATCTGCGGGGACGCCCAGCTTGAG
CGCAGGCGTGTCCCCCAAGCGCCGAGCCCTGCCGTCCGTCGCTGGCCTTTTCACACAGCCTTCGGGGTCTCCCCT
CAACCTCAACTCCATGGTCAGTAACATCAACCAGCCCCTGGAGATTACAGCCATCTCGTCCCCGGAGACCTCCCT
GAAGAGCTCCCCTGTGCCCTACCAGGACCACGACCAGCCCCCCGTGCTCAAGAAGGAGCGGCCTCTGAGCCAGAC
CAATGGGGCACACTACTCCCCACTCACCTCAGACGAGGAGCCAGGCTCTGAGGACGAGCCCAGCAGTGCTCGAAT
TGAGAGAAAAATTGCAACAATCTCCTTAGAAAGCAAATCTCCCCCGAAAACCTTGGAAAATGGTGGTGGCTTGGC
GGGAAGGAAGCCCGCGCCCGCCGGCGAGCCAGTCAATAGCAGCAAGTGGAAGTCCACCTTCTCGCCCATCTCCGA
CATCGGCCTGGCCAAGTCGGCGGACAGCCCGCTGCAGGCCAGCTCCGCCCTCAGCCAGAACTCCCTGTTCACGTT
CCGGCCCGCCCTGGAGGAGCCCTCTGCCGATGCCAAGCTGGCCGCTCACCCCAGGAAAGGCTTTCCCGGCTCCCT

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FIGURE 1050B

GTCGGGGGCTGACGGACTCAGCCCGGGCACCAACCCTGCCAACGGCTGCACCTTCGGCGGGGGCCTGGCCGCGGA
CCTGAGTTTACACAGCTTCAGTGATGGTGCTTCTCTTCCCCACAAGGGCCCCGAGGCGGCCGGCCTGAGCTCCCC
GCTGAGCTTCCCCTCGCAGCGCGGCAAGGAGGGCTCGGACGCCAACCCTTTCCTGAGCAAGAGGCAGCTGGACGG
CCTGGCTGGGCTGAAGGGCGAGGGCAGCCGCGGCAAGGAGGCAGGGGAGGGCGGCCTACCGCTGTGCGGGCCCAC
GGACAAGACCCCACTGCTGAGCGGCAAGGCCGCCAAGGCCCGGGACCGCGAGGTCGACCTCAAGAATGGCCACAA
CCTCTTCATCTCTGCGGCGGCCGTGCCTCCCGGAAGCCTCCTCAGCGGCCCCGGCCTGGCCCCGGCGGCGTCCTC
CGCAGGCGGCGCGGCGTCCTCCGCCCAGACGCACCGGTCCTTCCTGGGCCCCTTCCCGCCGGGACCGCAGTTCGC
GCTCGGCCCCATGTCCCTGCAGGCCAACCTCGGCTCCGTGGCCGGCTCCTCCGTGCTGCAGTCGCTGTTCAGCTC
TGTGCCGGCCGCCGCAGGCCTGGTGCACGTGTCGTCCGCTGCCACCAGACTGACCAACTCGCACGCCATGGGCAG
CTTTTCCGGGGTGGCAGGCGGCACAGTTGGAGGTAAC**TAG**GATTTCTACCTCAACCGCGAGACCTATGCAAGGAC
GGTGTGGACCAACTCGCGCCCGCGGCATGGTGCCCGCCGGCCTGCCGGGCTCCCACCCCTGGACGGCAGAGGCAA
GGACGGACGGGAGCTCCACTGTGAATCGGCGGCACGCGCCGCAGGAGGCTGGGACTGGTCCAGTTTGTACTGTCG
ATAGTTTTAGATAAAGTATTTATCATTTTTTAAAAAGTATAAACAATTCTGACTTATTTTATTCCATCTAAGTGG
TAAAAGGCAACTTATTGAGAAATATAAATATCTATATATGAGAGCTCTATATAAAGACACGTGTCTGCAGGGCGG
GCCCGCCAGCGGATTCGCCACAGCCTGCCCCGGTGCTATCTCGTCCCCAGGCCCGCGCCTGCCTCCACCCGCTTG
GTGCTGACTAGACGCTGACAACGCCGAACCCCGTTCTCGGAAACGCCGCCCGGCCGGCTCCCCCGACGCGCTGCT
CCCGTACCAAAGGCAGGCCCGTCGCCACCACATTCCTCGGAGGCCTCCCCGCGGCCTGAGCCCCTTCCTGAGCGC
CCTGGCGCCTGCCCTGAGCTCTTCACCTTTACCCCGGCACTGTGAACCCCCAGACTGTTCACCCTCCGGGGCGTG
GGTTGCGCCCTTGCATGTGAAGGGGCCTGCGCGGTGACGCAGCTGGCCATGTGCTGCGCGATGGTGCTGTGAGGA
CGGCGCGGGCACGTTGAACAAGTGCATTTACTTTTGTATTTCTCGGCTGTCCATGGCTCGCAGCATGCCCTGCGA
TGCGGGGCAGGCCTGTCGTGGGTCCCTTGGTGTTTCTGTACAGGAGAGAGTCACACTAATGAGTGGCAGTATTTT
ATAGAGATGTGATGAGAATTTATAAATTTCATAGATTTGACAGCTTTTATTTTTAGATGGTATAATGCACAGTGA
AGAGGAAAGAAAAGCGAGGGGAAAAAACCTTATTTATTCAAACAGTGCACAAAATGGCCCCAGCGTCAGCCCCGA
CCCTAGACCCCTCAGTTGCAGCTCCCAGCAGCCCAGACAGAGCTGCCGGCGCCCCTGCCTGCCCCACATCCCTTC
CTGTCAGGGCCACGCCTGGCACCCATCCCTTGGAGCCTGTGCTGGTTCTCCCAGCTGCTGTGGGTGTGCTGGGGC
CAGGGTGCACTGCTGAAACCTGGCCTCTCTGGCCCTAGGCCCCAGGGTGACGTCGGCCCCCCACTCTGCAGCCTT
GGCGGGTGCCTGGGACTGGGTGTGGAAGGAGAGGAGCTGAGGCCGGGGTGTAGCAGGCAGGCAGGGCCACTCCAG
TGCTTCTGGAGCCCTGAGCAGTCAGGGCCTGGGTTGTCTGAGCAGTGGTGGCTCTGTGCCCTCCCTGGAGGATGG
GATCTGGGA

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FIGURE 1051

GACATTTTTGGCGCCGGCCCCAGCCTGAGCGGGGACGGCGGCCGGGAGGGCGCGGCCCGGGTTCCCGTTCCCCGC
GGAGCC**ATG**CGGTACAACGAGAAGGAGCTGCAGGCTCTGTCCCGGCAGCCGGCCGAGATGGCGGCCGAGCTGGGC
ATGAGGGGCCCCAAGAAGGGCAGCGTGCTGAAGCGGCGGCTGGTGAAGCTGGTGGTGAATTTCCTCTTCTACTTT
CGGACAGACGAGGCCGAGCCCGTCGGAGCCCTGCTGCTGGAGCGCTGCAGAGTCGTCCGGGAAGAGCCCGGCACC
TTCTCCATCAGCTTCATTGAGGACCCTGAGAGGAAGTATCACTTTGAGTGCAGCAGCGAGGAGCAGTGTCAGGAG
TGGATGGAGGCTCTGCGTCGGGCCAGCTACGAGTTCATGCGGAGAAGCCTCATCTTCTACAGGAACGAAATCCGG
AAGGTGACGGGCAAGGACCCCCTGGAACAGTTCGGCATATCCGAGGAGGCCAGGTTCCAGCTGAGTGGCTTGCAG
GCG**TGA**GCGCAGGGCACGGTGGTCAGCGTGCAGCGGGACGGGACTGGCCCTGCCCAGCCATGAATCGCTTGGCCA
TGCCTGGATCTGTTTTGTTTTGGTTTTTGGTTTTTGGGTCAGGGTTTCACTGTGTTGCCCAGGCTAGAGTGCAGT
GGTGCCACAGCTCACTGTGACCTTGACCTTCTGGACTCAAGTGATCCTCCTGCCTCAGCTTCCCAAGTAGCGGGG
ATCACAGGCATGAGCCGCCACACCCGGCCATCACACCTGGATTTTCAGTGGGAGGTTTTTGGTTTGGAGACATCC
AAAGCCTGAAGCCAGGTGGGTGTGGGCAGGGGCTGCATTTTATGAAACTGCCCAGCAAGCTGCGCTCCCTGGGGC
CCCAGGATCCACCTAACTGGCCTGGCACCTGGTGCCACGTGCTGCTGCCGCCAGGATATGCGCCTTCCCACAGGT
GCCCTGCCTGAGTTGTGTGCATCCAGGGGCCTGGTGAGCCCCCAGGCTGGTGGCATGGCCCCCCTGCCCCGTGCT
GAATGAATGTACAGAGCCAGACAAAGCTGTGAATGGCCTAGGGGCTGAGTCCCACACCAGCTGTGAATTCTCCTG
CAGACAGGAGGGCCCTGGCTGTGCACCTGGGGAAGTGGTTGCCCTGGGGCCAGGGTGCTTGTTCTGTTCAAATAA
AGGTACCTCTTTTCC

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FIGURE 1052

ATGGACTTCCAGCATCGCCCCGGGGGCAAGACCGGGAGCGGGGGCGTGGCCTCCTCCTCCGAGAGCAACCGTGAC
CGCAGGGAGCGCCTCCGGCAGCTGGCCCTGGAGACCATCGACATCAACAAGGACCCGTACTTCATGAAGAACCAC
CTGGGCTCCTATGAATGCAAACTCTGCCTGACACTTCACAACAATGAGGGGAGCTACCTGGCACATACGCAGGGG
AAGAAGCACCAGACCAACCTGGCCCGGCGAGCAGCCAAGGAGGCCAAGGAGGCCCCTGCCCAGCCCGCGCCTGAG
AAGGTCAAGGTGGAGGTGAAGAAGTTTGTGAAGATCGGCCGCCCGGGCTACAAAGTGACCAAGCAGAGAGACTCG
GAGATGGGCCAGCAGAGCCTCCTCTTCCAGATTGACTACCCTGAGATCGCCGAGGGCATCATGCCACGTCACCGC
TTCATGTCTGCGTACGAGCAGAGGATCGAGCCTCCGGACCGGCGCTGGCAGTACCTGCTCATGGCCGCCGAGCCC
TACGAGACCATTGCCTTCAAGGTGCCGAGCAGAGAGATCGACAAGGCGGAGGGCAAGTTCTGGACACACTGGAAC
CGGGAGACCAAGCAGTTCTTCCTCCAGTTCCACTTTAAGATGGAGAAGCCCCCGGCTCCACCCAGCCTCCCTGCT
GGCCCCCCTGGGGTGAAGCGGCCTCCACCCCCGCTGATGAACGGTCTGCCCCCTCGGCCACCGCTGCCTGAGTCT
TTGCCACCGCCCCCGCCAGGAGGCCTGCCTCTGCCACCCATGCCCCCCACAGGGCCTGCGCCCTCAGGGCCCCCG
GGACCACCCCAGCTACCCCCGCCAGCTCCAGGGGTCCACCCCCCGGCCCCAGTGGTGCATCCCCCTGCATCTGGG
GTCCATCCCCCAGCTCCTGGCGTCCACCCCCCAGCTCCTGGCGTCCATCCCCCAGCCCCTGGGGTCCACCCACCA
ACCTCTGGGGTCCACCCCCCAGCTCCTGGAGTCCACCCTCCAGCCCCCGGGGGTTCACCCACCAGCCCCCGGAGTC
CACCCACCAGCCCCTGGGGTTCACCCACCAGCCCCAGGGGTCCATCCTCCCCCATCAGCGGGGGTTCACCCCCAG
GCCCCGGGGGGTGCACCCAGCAGCCCCCGCCGTTCACCCTCAGGCCCCAGGGGTGCACCCACCAGCCCCAGGGATG
CACCCTCAGGCCCCGGGGGGTCCACCCCCAACCTCCCGGGGGTCCATCCGTCGGCTCCTGGGGGTCCACCCTCAGCCT
CCGGGAGTTCACCCCTCAAATCCTGGGGGTGCACCCCCCAACTCCCATGCCCCCAATGCTGAGGCCCCCACTTCCC
TCCGAAGGCCCAGGGAACATACCTCCCCCTCCCCCAACCAAC**TGA**

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FIGURE 1053

TGCGAACGGCGAGCAGCGGCGGCGGCGCGGAGAGACGCAGCGGAGGTTTTCCTGGTTTCGGACCCCAGCGGCCGG
ATGGTGAAATCCTCCCTGCAGCGGATCCTCAATAGCCACTGCTTCGCCAGAGAGAAGGAAGGGGATAAACCCAGC
GCCACCATCCACGCCAGCCGCACCATGCCGCTCCTAAGCCTGCACAGCCGCGGCGGCAGCAGCAGTGAGAGTTCC
AGGGTCTCCCTCCACTGCTGTAGTAACCCGGGTCCGGGGCCTCGGTGGTGCTCC**TGA**TGCCCCTCACCCACCCCT
GAAGATCCCAGGTGGGCGAGGGAATAGTCAGAGGGATCACAATCTTTCAGCTAACTTATTCTACTCCGATGATCG
GCTGAATGTAACAGAGGAACTAACGTCCAACGACAAGACGAGGATTCTCAACGTCCAGTCCAGGCTCACAGACGC
CAAACGCATTAACTGGCGAACAGTGCTGAGTGGCGGCAGCCTCTACATCGAGATCCCGGGCGGCGCGCTGCCCGA
GGGGAGCAAGGACAGCTTTGCAGTTCTCCTGGAGTTCGCTGAGGAGCAGCTGCGAGCCGACCATGTCTTCATTTG
CTTCCACAAGAACCGCGAGGACAGAGCCGCCTTGCTCCGAACCTTCAGCTTTTTGGGCTTTGAGATTGTGAGACC
GGGGCATCCCCTTGTCCCCAAGAGACCCGACGCTTGCTTCATGGCCTACACGTTCGAGAGAGAGTCTTCGGGAGA
GGAGGAGGAGTAGGGCCGCCTCGGGGCTGGGCATCCGGCCCCTGGGGCCACCCCTTGTCAGCCGGGTGGGTAGGA
ACCGTAGACTCGCTCATCTCGCCTGGGTTTGTCCGCATGTTGTAATCGTGCAAATAAACGCTCACTCCGAATTAG
CGGTGTATTTCTTGAAGTTTAATATTGTGTTTGTGATACTGAAGTATTTGCTTTAATTCTAAATAAAAATTTATA
TTTTACTTTTT

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FIGURE 1054

CGCGACAAG**ATG**GCGGATAAGGAGAAGAAGAAAAAGGAGAGCATCTTGGACTTGTCCAAGTACATCGACAAGACG
ATCCGGGTAAAGTTCCAGGGAGGCCGCGAAGCCAGTGGAATCCTGAAGGGCTTCGACCCACTCCTCAACCTTGTG
CTGGACGGCACCATTGAGTACATGCGAGACCCTGACGACCAGTACAAGCTCACGGAGGACACCCGGCAGCTGGGC
CTCGTGGTGTGCCGGGGCACGTCCGTGGTGCTAATCTGCCCGCAGGACGGCATGGAGGCCATCCCCAACCCCTTC
ATCCAGCAGCAGGACGCC**TAG**CCTGGCCGGGGGCGCGGGGGGTGCAGGGCAGGCCCGAGCAGCTCGGTTTCCCGC
GGACTTGGCTGCTGCTCCCACCGCAGTACCGCCTCCTGGAACGGAAGCATTTTCCTTTTTGTATAGGTTGAATTT
TTGTTTTCTTAATAAAATTGCAAACCTC

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FIGURE 1055

ACCCCCAAGGAAAAAGGTCACTGGCTAGTGTAGCTAGTGTAAACAGGACCCAGGCGATGCATGGGACCCTGCCCT
TTTTTTTCTAGTGAGCCTCCGACGCTGTTGCACAAGCTGACTCTTCGTCACGTGATGCGACCGGGCTCCGCCCCG
GCGGCAACACGCTGTATAGACGCGCCGGGTGCCTCGTGCGCATGCGCGGCAGGCCCTTCGGGACGAGCTGGAGGC
AGAGCGTGAGTACAAAGTGATCGGCCTCGGCCGCACGTAGTAGCCCCCCTACTCCCCGGCCAAGTCAGGGCCTCC
CTCTTCCCGCGGAGTCGCAACCACGGGTAGCTCGTGTAGGTAACGGCAGGTCCAGGCCTCCGCATGAGCGGAGGG
CCCCCCGCGCGACCTTGAATGGCCCGGGCGCGCGCGGTCGTGTGGGAGTTGTAGTCCTCCGTCCCCGTCCGCGCG
GACTCCGTTTCCCGTGGTGCCCCGGGCGGCCCGCTTCCGGCGCAGTTAGTTACGAGTCGGCGCACGCGGCCTCGG
TCCGGTTGACTTTGCGGAGCC**ATG**GAGGGCGGCTTCGGCTCCGATTTCGGGGGCTCCGGCAGCGGGAAGCTGGAC
CCAGGGCTCATAATGGAGCAGGTGAAAGTGCAGATCGCCGTGGCCAACGCGCAGGAGCTGCTGCAGAGGATGACG
GACAAGTGTTTCCGGAAGTGTATAGGGAAACCTGGGGGCTCCCTGGACAACTCCGAGCAGAAGTGCATCGCCATG
TGCATGGACCGCTACATGGACGCCTGGAACACCGTGTCTCGCGCCTACAACTCGCGGCTGCAGCGGGAACGAGCC
AACATG**TGA**CCGGCGAGCGCGGGCCACCCCACCCTGTTCATTTCCATAAACGTGCTTTGAGAGGCGGGGTCCGCA
TGTACGTACTGCCTGCCCGGGGCTTAGGAGGGTGGCACCGGTGCTGGGACACACGGGACTGTGTCCTCGCCACCC
CCCGCCCTGCCCCCTGCCAGCCAGTGCAGCTTGGATCTCGGGGGTGTGGGGCCCTGTGCCTTCCTGAAGTGCTGG
CAGCCCAGTGGCACCTCCTTCAGGCCTTTGGGGTATTCCCCTAGTGTGCCCAAGTCAGCCTCATATTCTGGGCGG
ACAGCTTGTCTGGACTTCGGAGTTGGGGGTGGTCAGACACCACAGGAGCTGTCACCTCCTGCGGATGGGCAAATA
AATTGGTGGAGGACGGAGAGAAACCTCTTTATTTCCCTCCTGAGGGGTCTCTGGGAAGAGGTGACGCGTGTCCCT
GGAACCCCAGCTCGGAGGGTCTCAGCCTCCCCTGGGTTGGGAGAAGTCCATCTTTCCCCTTAGTGCCACCGGGCT
GCTGAGTCACGAGGAATGTGTTGCTGCTGCCACCCCTGCCCCAAAGGCTAAGGGGGACAGCCTTCCCCTTGTCAG
GGCTTGCTTTGACCCTGCTTCGTTCCACCCCGGGTCCTGGTGGAGCACCAGGCAGGTGGTCCTCGCTGTGACACT
GAGGTGCTGAGCCAGTGAGCTAGGGTGGAGGGGCTGTGTTTATTGGAACAAAGGGTGGTACCAAAATGCATCCCC
ATGACCCACAGCCCCCCCACACCCGTCCTTGGGTAGGGTACGGTGGGGTGGGGTGTTGGGTGGCCTGCTGCTCCT
GTTGCTTTCACGTAGAGTCTCGGCCTGGGCAGTCACGTGGTGGTCACTCCTGGATGTGCTGTCCTATCCAGCCTC
TCACAGCTGCCACCCGGGTATAGACACCTGGGAAGTGGGGCCGGCCACAGCCATAGCCCCAGCTAGTGACCCCAG
TTAGCACCCACCGTCCAGAGGGCTCCCTGCAGGCCAGGGGTCCCCCAGCGTCACCCTGTTGGGGAGAGAAGAAAG
GGGGTTCAGAGGCCGGTACCTCCCCTACAGCAGCCCTTGGGTCATTGGCCCCTCTAGGAGTGACCCTAGTGACTT
CCCCTGGGAGCCGCATTTTCACTATCTGGAAAATGGGCTCAATGCAAAGGTGGCAGACATTTATGGACACCCGCC
ACGTGGTCCCGGAGTGGAACGGTGCCTCCCACTGCAGCCTCTGCCTGCTCTGCCGCCGAGGCCCGGGGATGGGAT
GCGGTGGGTTGCCCAATAAACGGCTGTGGAGTGGAAATTCCTCCAGAGCCAAAAAGGC

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FIGURE 1056

TTTTAATGGATATTTATTTTTTTACATTGGTCAGTACACAGGTCAGGAGCTCACGCCAGGGCCTTGAGGACAGGC
TGACCCTCCTCCCCGGGGTGGCGTGGGGCTGGGGCACCCTCCGACGGCAGAGCCTCCTTCAGAAAGTGCAGCTCA
AGTCTTAAAGACACCAAAACTGAGCCATGGGCACGCGCCGTCTCCGGGCC**ATG**GCGTTCACTGCAGGGCGGGGGC
GGCACCGCTCCCCTGTGACTGCATCCCGCCTCCCTGGGGACCTGCCTGTGGCAGGAAGGAATGGGGGGCCCCAGC
CCCAGGCCGGGAAGGAGCCAGCGGCCGACAAAGCAGAAACACCCGCTGCTCCACGTAGCCCCTGCTCGCTGTCCT
TGCTCTCAGAAGTCCCGGTCCCATGTAGA**TAG**AGGGGGGCGCATCTTACCAAAGCATTTCCTCCTGGAGGCTACG
CCGCTGTGCTCCCAGTCAGGCGGCTGGTAGGGAGCTTTGCCTGCCCCGGGGATACCCTCTGCCAGCCGCTGGAAG
TGGGAATGCTGGCGACAGACTGTGTCCTCTTTCCCACCTTCATAGCAGGAATCACCCGGACCCGACTGGCTGGGC
TTCGTGCTAGCGAGGGTTCTGGGGGTGGGTCTTGGTGATCTTGTCCTATGGGGAGTCTGCAGTGGTCTCAGCCAC
ATCCTATGTATTTTGGCTCTGGAGGAGCAAAGCTGTATCCTGGAGTTGGTCTGTGATTTGCCGACAGCCTTGCAG
GCTGGGCTCAGGGACAAAGTCCCCCCCAAAACCCGCAGGTCCTCATGTCCAGACGCTGCCCAGTCCTGTCCTGAA
AACAGCACGCCCCAGGCCCACAGAACCCCCCACCCTACATTTGCCTTGGGTGGAGCTGGGGGTGGTCCTAGGACT
GCGGGTGCCCTTAGCTGAAGGGGGTGGGGAGAAGCGTGGACTGGGCAGCCTGTGGGTAATTGGAGGTTCATTGAG
AATTGAGTCTTTGGAAACACTAAGAAAATCAAATTTTTAAAAGTTATTTATGGCCTGGGAAACAATTTGCATTTG
TCCCCAAATACGCTTAGCTGTGTGCCGCTTAGAACGATGCGAAACCATCCCTCTGTGTAAGCCCGTGCCGTGTGA
CTCGAAGCCTAGCGCCCTCCCTGCGAAGCATCAGACGCCACCCAGCCCTGGGGGGGAGGCCCACGCCTGCTGGACC
AACGCGGGTTCTGGGGTGCACAGCGCCAGGTTAACGCTGAAGCCTGCCCCGCTGAGCCCAGGAGCCGGGAGGCCT
GCGGGCTGACCCAGAATCCGATCATGCACCTGTCCTCATGCCAGCGGCTTTGGCTGGGGTTGGTCTGAAGCCTGC
ACGCGGCAGTTCTTTGTTAAAGATCTGAGGGACTCCTCAGTCCTGGGGCGTCGCCGCCTGCAGCCTCTTCCAAGC
CCTGCGTCCAGCGAGCGTCACAGCACAACCTGCAAAAACGGAGCTGGGCTGCAGCTGGGGCTGGCATGGACTTTC
ATTTCAGAGATTCGGTTTTTAAGAAGATGCATGCCTAATGTGTTCTTTTTTTTTTCCAATGATTTGTAATATACA
TTTTATGACTGGAAACTTTTTTGTACAACACTCCAATAAACATTTTGATTTT

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FIGURE 1057

AGCTCTGACCAGAACGACAAGGCGGCCAGTGCGGCTCGCGAGGAGCTGAAGGAGGCCCGC**ATG**CGCCTGGAGTCC
CTCAGCTACCAGCTCTCCGCCTCACTTCGCTGCCACTTCGCCGCTGCCCCGGAGACTTTTCAATCCCACCCCACT
CCTCATCTCACCATTTGGTCAAATTGGAAGCCCAGGGCCAGGACCCGGAGGTTTAGAAGATGCTTGGGCTTGGAG
GGAGGAGGGCCGGCGAGGCTAGCGAGGGGACAGGAGACGGCCCTGCTGCGGACGGAGCGCGGAAACTGCGTAGGA
ATTCAGTGGTGGTGGGTTTTTTTAAGGCTTTCTACAAAACCAAATTCAGAATCCAGGCGTCGACCTGGTGGGGCC
CGGGGCCAAGCCTGCATTCTGGCTGCCCAGCTTCGGACAGCGGGAACTCCTCAGGCAGCCACGCAGCGGGTGTGG
GCCAGCATGGGGATGGCGTGGCCCCCAGGGCGGGTTTTCACTCCGCTGCCTGGGCTTCCAGATTCCCGTTCTGGC
AGCGCACCGGCCGGGTTTCTCGGACCGTTGACTTTATTTGGGGGAGTTTTCCCGCAGTTCAGTTCC**TGA**CTGTGC
AAGGCCAACAGGGCAGGGGAGGGGAAGACCTGGGGAAGGAAGAATGAGGACAGTCCCGTCGTAAGACCTGTCACA
ACAATA

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FIGURE 1058

CGTCGGACTACCGTTGGTTTCCGCAACTTCCTGGATTATCCTCGCCAAGGACTTTGCAATATATTTTTCCGCCTT
TTCTGGAAGGATTTCGCTGCTTCCCGAAGGTCTTGGACGAGCGCTCTAGCTCTGTGGGAAGGTTTTGGGCTCTCT
GGCTCGGATTTTGCAATTTCTCCCTGGGGACTGCCGTGGAGCCGCATCCACTGTGGATTATAATTGCAAC**ATG**AC
GCTGGAAGAGCTCGTGGCGTGCGACAACGCGGCGCAGAAGATGCAGACGGTGACCGCCGCGGTGGAGGAGCTTTT
GGTGGCCGCTCAGCGCCAGGATCGCCTCACAGTGGGGGTGTACGAGTCGGCCAAGTTGATGAATGTGGACCCAGA
CAGCGTGGTCCTCTGCCTCTTGGCCATTGACGAGGAGGAGGAGGATGACATCGCCCTGCAAATCCACTTCACGCT
CATCCAGTCCTTCTGCTGTGACAACGACATCAACATCGTGCGGGTGTCGGGCATGCAGCGCCTGGCGCAGCTCCT
GGGAGAGCCGGCCGAGACCCAGGGCACCACCGAGGCCCGAGACCTGCATTGTCTCCTGGTCACGAACCCTCACAC
GGACGCCTGGAAGAGCCACGGCTTGGTGGAGGTGGCCAGCTACTGCGAAGAAAGCCGGGGCAACAACCAGTGGGT
CCCCTACATCTCTCTTCAGGAACGC**TGA**GGCCCTTCCCAGCAGCAGAATCTGTTGAGTTGCTGCCACAAACAAAA
AATACAATAAATATTTGAACCCCCTCCCCCCCAGCACAACCCCCCCAAAACAACCCAACCCACGAGGACCATCGG
GGGCAGAGTCGTTGGAGACTGAAGAGGAAGAGGAGGAGGAGAAGGGGAGTGAGCGGCCGCCCCCAGGGCGGAGAT
CCAGGAGCTGGCGGCCGCCGATCCGATGGAGAAGGGGGGACCCAGGCCAGCAGGAGACAGGACCCCCGAAGCTGA
GGCCTTGGGATGGAGCAGAAGCCGGAGTGGCGGGGCACGCTGCCGCCTTCCCCATCACGGAGGGTCCAGACTGTC
CACTCGGGGGTGGAGTGAGACTGACTGCAAGCCCCACCCTCCTTGAGACTGGAGCTGGCGTCTGCATACGAGAGA
CTTGGTTGAACTTGGTTGGTCCTTGTCTGCACCCTCGACAAGACCACACTTTGGGACTTGGGAGCTGGGGCTGAA
GTTGCTCTGTACCCATGAACTCCCAGTTTGCGAATTATAGAGACAATCTATTTTGTTACTTGCACTTGTTATTCG
AACCACTGAGAGCGAGATGGGAAGCATAGATATCTATATTTTTATTTCTACTATGAGGGCCTTGTAATAAATTTC
TAAAGCCTC

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FIGURE 1059

GGGCAGGGGCGTGGGCGGGGCGTGGACCAGCCGCGCCGAGCGGGGCCTCTCCGGGCCGCGTCTGTGGGGTCGAGA
CTGCGCGGCCGTTGGGCGTGCAGCGGCGCCAGTCGGCGGACGAGGGGCCCCCGGGAGTTGCTGGACTGAGACATG
AGCCTCCAACTGTGTGGTTGGGCTCGGTAGCACATCGTGGGACTTGGGTGTGCGCCCACAGATGGTTTGGCCCTG
CAGTGACCAGAGCAGCCCAAGCCGCCACC**ATG**GTGAAATTGCTAGTGGCCAAAATCCTGTGCATGGTGGGCGTGT
TCTTCTTCATGCTGCTCGGCTCCCTGCTCCCCGTGAAGATCATCGAGACAGATTTTGAGAAGGCCCATCGCTCGA
AAAAGATCCTCTCTCTCTGCAACACCTTTGGAGGAGGGGTGTTTCTGGCCACGTGCTTCAACGCTCTGCTGCCCG
CTGTGAGGGAAAAGCTCCAGAAGGTCCTGAGCCTCGGCCACATCAGCACCGACTACCCGCTGGCCGAAACCATCC
TCCTGCTGGGCTTCTTCATGACCGTCTTCCTGGAGCAGCTGATCCTGACCTTCCGCAAGGAGAAGCCGTCCTTCA
TCGACCTGGAGACCTTCAACGCCGGATCGGACGTGGGCAGCGACTCGGAGTATGAGAGCCCCTTCATGGGGGGCG
CGCGGGGCCACGCGCTGTACGTGGAGCCCCACGGCCACGGCCCCAGCCTGAGCGTGCAGGGCCTCTCGCGCGCCA
GCCCCGTGCGCCTGCTCAGCCTGGCCTTCGCGCTGTCGGCCCACTCGGTCTTTGAGGGCCTGGCCCTGGGCCTGC
AGGAGGAGGGGGAGAAAGTGGTGAGCCTGTTCGTGGGGGTGGCCGTCCACGAGACACTGGTGGCCGTGGCCCTGG
GCATCAGCATGGCCCGGAGTGCCATGCCCCTGCGGGACGCGGCCAAGCTGGCGGTCACCGTAAGCGCCATGATCC
CCCTGGGCATCGGCCTGGGCCTGGGCATTGAGAGCGCCCAGGGCGTGCCGGGCAGCGTGGCGTCCGTGCTGCTGC
AGGGCCTGGCGGGCGGCACCTTCCTCTTCATCACCTTCCTGGAGATCCTGGCCAAGGAGCTGGAGGAGAAGAGTG
ACCGTCTGCTCAAGGTCCTCTTCCTGGTGCTGGGCTACACCGTCCTGGCCGGGATGGTCTTCCTCAAGTGG**TGA**G
CGGCCTCGCCATTGTCCCTGCCGCCGGAGCCCGCCGGGAGCCCCGGGCCGGACACAGGCCGCGTCCCCCGGCCGC
GCGTCCCCCAAGAGCGAGCACTGTGGCCCTGGGCCACCACCTGTGCACAAGGGGCCTCCCGGGACCAGGCTGTGC
CCCCGATCCTACACCCTGAGCCTCAGAGCACTGCTACTTTTTAAAATACTTCTTTCTCTTAAAAGTCTTTACC

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FIGURE 1060

GGCGTCGCGCCCTGGGGCCGGGGCCGGGCGGCACCGCGGTGCGCAAGCGCAACCGTCGGTGGGTCGGGGATCGGT
CGCCTGAGAGGTATCACCTCTTCTGGGCTCAAG**ATG**GACAACAAGAAGCGCCTGGCCTACGCCATCATCCAGTTC
CTGCATGACCAGCTCCGGCACGGGGGCCTCTCGTCCGATGCTCAGGAGAGCTTGGAAGTCGCCATCCAGTGCCTG
GAGACTGCGTTTGGGGTGACGGTAGAAGACAGTGACCTTGCGCTCCCTCAGACTCTGCCGGAGATATTTGAAGCG
GCTGCCACGGGCAAGGAGATGCCGCAGGACCTGAGGAGCCCCGCGCGAACCCCGCCTTCCGAGGAGGACTCAGCA
GAGGCAGAGCGCCTCAAAACCGAAGGAAACGAGCAGATGAAAGTGGAAAACTTTGAAGCTGCCGTGCATTTCTAC
GGAAAAGCCATCGAGCTCAACCCAGCCAACGCCGTCTATTTCTGCAACAGAGCCGCAGCCTACAGCAAACTCGGC
AACTACGCAGGCGCGGTGCAGGACTGTGAGCGGGCCATCTGCATTGACCCGGCCTACAGCAAGGCCTACGGCAGG
ATGGGCCTGGCGCTCTCCAGCCTCAACAAGCACGTGGAGGCCGTGGCTTACTACAAGAAGGCTCTGGAGCTGGAC
CCCGACAACGAGACATACAAGTCCAACCTCAAGATAGCGGAGCTGAAGCTGCGGGAGGCCCCCAGCCCCACGGGA
GGCGTGGGCAGCTTCGACATCGCCGGCCTGCTGAACAACCCTGGCTTCATGAGCATGGCTTCGAACCTAATGAAC
AATCCCCAGATTCAGCAGCTCATGTCCGGCATGATTTCGGGTGGCAACAACCCCTTGGGAACTCCCGGCACCAGC
CCCTCGCAGAACGACCTGGCCAGCCTCATCCAGGCGGGCCAGCAGTTTGCCCAGCAGATGCAGCAGCAGAACCCA
GAGTTGATAGAGCAGCTCAGGAGCCAGATCCGGAGTCGGACGCCCAGCGCCAGCAACGACGACCAGCAGGAG**TGA**

CGCTGCCTGCTCCCGGTGTGACCGCGTCCTTCCCTGGCCGACCCGAAGGAAGCCTTCTGGTTGTCTGCCACTTCC
TCCTGTTGGACTGCCTGAGAGAGGGGAAGAGAGAGACCTCGGACCTGCATGTCAAGATGGATTTTCCCCTTTTAT
CTCTGCCCTCCTCCACTCCCTTTTTGTAACTCCCTTACAGCCCCCAGACCCTTCTTGAAACGAGAGCCAGCAAGC
TGAGCACAGACCAGCAGCGACCTCCCTTCCAGCCCCCAGAAAGCTCGGTCACTTGAGTGTTTTCTAGAATCCTGG
GGTGCTCCCGGGCCGCTCTCAGAGAAGTGGCAGGTTTCACGTTCAGCCGTGTGGCGGATCGTGTGGCTTCCAAAG
CCTTTTACAGCCCCCGCCCCCCATCCCGTGGTCTGTCTGCAGGAACTCTCCCGTCTGTGAGAAGCCTCTTTCCGA
GTCGACCTCCCGGCCACCCCGGCCCTGTGCCTGCTCGGAAGAGCTCACTGCCAGCTGCGGCCTGGGCACCGCGGG
CCATGTGTGTTTGCATGAGGAACTCTTTAGTGGCAGACACCTAAGAGACGGCTGCGGTCACCCCACGCCTCCGCG
GCTCAGGAGCCGTCCTGGGTGCATAGGACCAGTTTCTGTGACTTTTCTCCAGTTGGGCATGTTGACAGACATGTT
TCCCCTCCTCCCACCCTCATTTTCTGGTCCTCGCGACTGAGAGCCAGGGGCGACATCATGACCTTCTGTCCCGGC
CGCCTTAGCCCCGGGCACAGGGAAGGCAGCTGGGCCGTTTCTGTCTGTGTCCCATCCTGCTGTCCTTCTGTCCTG
GATGTTTCATGGGCCCGGGGCCCCCCAGGGAAGCTTACCCCTCCTGTGCTGGGTGGAGGCCACGGGACACCTCAG
GTGCCACCCACCTTGGCCCTAAAACAGCCACCAGGAAAGCAGCCGGAGAGCCGGACAGCAGGCAGCCTGTCTGGG
TTCCTGAGGCCTGGGGGTGGCAGACGAGCCCACGGCGCCGTGGTCCCAGCAGCAGGGTTGTCAGTCGGAGCATCC
TGGGGCTCCCTGGCTCCTGGCCGTCTGTGAGGTAGGCGCAGTACCGTGTATCGTAGGTAGCAGTAGGAACGGGGG
CCGCCGCGGCCCTGCAGCCGCTCATGGCGGTGAGGTGTGTGCCAAGCCCACCCGGGGTGCAGGGCGTGACGTGTG
GGGAATAAATAGGCGTTGTGACCTCT

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FIGURE 1061

GGGCAGGGGCGTGGGCGGGGCGTGGACCAGCCGCGCCGAGCGGGGCCTCTCCGGGCCGCGTCTGTGGGGTCGAGA
CTGCGCGGCCGTTGGGCGTGCAGCGGCGCCAGTCGGCGGACGAGGGGCCCCCGGGAGTTGCTGGACTGAGACATG
AGCCTCCAACTGTGTGGTTGGGCTCGGTAGCACATCGTGGGACTTGGGTGTGCGCCCACAGATGGTTTGGCCCTG
CAGTGACCAGAGCAGCCCAAGCCGCCACC**ATG**GTGAAATTGCTAGTGGCCAAAATCCTGTGCATGGTGGGCGTGT
TCTTCTTCATGCTGCTCGGCTCCCTGCTCCCCGTGAAGATCATCGAGACAGATTTTGAGAAGGCCCATCGCTCGA
AAAAGATCCTCTCTCTCTGCAACACCTTTGGAGGAGGGGTGTTTCTGGCCACGTGCTTCAACGCTCTGCTGCCCG
CTGTGAGGGAAAAGCTCCAGAAGGTCCTGAGCCTCGGCCACATCAGCACCGACTACCCGCTGGCCGAAACCATCC
TCCTGCTGGGCTTCTTCATGACCGTCTTCCTGGAGCAGCTGATCCTGACCTTCCGCAAGGAGAAGCCGTCCTTCA
TCGACCTGGAGACCTTCAACGCCGGATCGGACGTGGGCAGCGACTCGGAGTATGAGAGCCCCTTCATGGGGGGCG
CGCGGGGCCACGCGCTGTACGTGGAGCCCCACGGCCACGGCCCCAGCCTGAGCGTGCAGGGCCTCTCGCGCGCCA
GCCCCGTGCGCCTGCTCAGCCTGGCCTTCGCGCTGTCGGCCCACTCGGTCTTTGAGGGCCTGGCCCTGGGCCTGC
AGGAGGAGGGGGAGAAAGTGGTGAGCCTGTTCGTGGGGGTGGCCGTCCACGAGACACTGGTGGCCGTGGCCCTGG
GCATCAGCATGGCCCGGAGTGCCATGCCCCTGCGGGACGCGGCCAAGCTGGCGGTCACCGTAAGCGCCATGATCC
CCCTGGGCATCGGCCTGGGCCTGGGCATTGAGAGCGCCCAGGGCGTGCCGGGCAGCGTGGCGTCCGTGCTGCTGC
AGGGCCTGGCGGGCGGCACCTTCCTCTTCATCACCTTCCTGGAGATCCTGGCCAAGGAGCTGGAGGAGAAGAGTG
ACCGTCTGCTCAAGGTCCTCTTCCTGGTGCTGGGCTACACCGTCCTGGCCGGGATGGTCTTCCTCAAGTGG**TGA**G
CGGCCTCGCCATTGTCCCTGCCGCCGGAGCCCGCCGGGAGCCCCGGGCCGGACACAGGCCGCGTCCCCCGGCCGC
GCGTCCCCCAAGAGCGAGCACTGTGGCCCTGGGCCACCACCTGTGCACAAGGGGCCTCCCGGGACCAGGCTGTGC
CCCCGATCCTACACCCTGAGCCTCAGAGCACTGCTACTTTTTAAAATACTTCTTTCTCTTAAAAGTCTTTACC

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FIGURE 1062

GGCGTCGCGCCCTGGGGCCGGGGCCGGGCGGCACCGCGGTGCGCAAGCGCAACCGTCGGTGGGTCGGGGATCGGT
CGCCTGAGAGGTATCACCTCTTCTGGGCTCAAG**ATG**GACAACAAGAAGCGCCTGGCCTACGCCATCATCCAGTTC
CTGCATGACCAGCTCCGGCACGGGGGCCTCTCGTCCGATGCTCAGGAGAGCTTGGAAGTCGCCATCCAGTGCCTG
GAGACTGCGTTTGGGGTGACGGTAGAAGACAGTGACCTTGCGCTCCCTCAGACTCTGCCGGAGATATTTGAAGCG
GCTGCCACGGGCAAGGAGATGCCGCAGGACCTGAGGAGCCCCGCGCGAACCCCGCCTTCCGAGGAGGACTCAGCA
GAGGCAGAGCGCCTCAAAACCGAAGGAAACGAGCAGATGAAAGTGGAAAACTTTGAAGCTGCCGTGCATTTCTAC
GGAAAAGCCATCGAGCTCAACCCAGCCAACGCCGTCTATTTCTGCAACAGAGCCGCAGCCTACAGCAAACTCGGC
AACTACGCAGGCGCGGTGCAGGACTGTGAGCGGGCCATCTGCATTGACCCGGCCTACAGCAAGGCCTACGGCAGG
ATGGGCCTGGCGCTCTCCAGCCTCAACAAGCACGTGGAGGCCGTGGCTTACTACAAGAAGGCTCTGGAGCTGGAC
CCCGACAACGAGACATACAAGTCCAACCTCAAGATAGCGGAGCTGAAGCTGCGGGAGGCCCCCAGCCCCACGGGA
GGCGTGGGCAGCTTCGACATCGCCGGCCTGCTGAACAACCCTGGCTTCATGAGCATGGCTTCGAACCTAATGAAC
AATCCCCAGATTCAGCAGCTCATGTCCGGCATGATTTCGGGTGGCAACAACCCCTTGGGAACTCCCGGCACCAGC
CCCTCGCAGAACGACCTGGCCAGCCTCATCCAGGCGGGCCAGCAGTTTGCCCAGCAGATGCAGCAGCAGAACCCA
GAGTTGATAGAGCAGCTCAGGAGCCAGATCCGGAGTCGGACGCCCAGCGCCAGCAACGACGACCAGCAGGAG**TGA**

CGCTGCCTGCTCCCGGTGTGACCGCGTCCTTCCCTGGCCGACCCGAAGGAAGCCTTCTGGTTGTCTGCCACTTCC
TCCTGTTGGACTGCCTGAGAGAGGGGAAGAGAGAGACCTCGGACCTGCATGTCAAGATGGATTTTCCCCTTTTAT
CTCTGCCCTCCTCCACTCCCTTTTTGTAACTCCCTTACAGCCCCCAGACCCTTCTTGAAACGAGAGCCAGCAAGC
TGAGCACAGACCAGCAGCGACCTCCCTTCCAGCCCCCAGAAAGCTCGGTCACTTGAGTGTTTTCTAGAATCCTGG
GGTGCTCCCGGGCCGCTCTCAGAGAAGTGGCAGGTTTCACGTTCAGCCGTGTGGCGGATCGTGTGGCTTCCAAAG
CCTTTTACAGCCCCCGCCCCCCATCCCGTGGTCTGTCTGCAGGAACTCTCCCGTCTGTGAGAAGCCTCTTTCCGA
GTCGACCTCCCGGCCACCCCGGCCCTGTGCCTGCTCGGAAGAGCTCACTGCCAGCTGCGGCCTGGGCACCGCGGG
CCATGTGTGTTTGCATGAGGAACTCTTTAGTGGCAGACACCTAAGAGACGGCTGCGGTCACCCCACGCCTCCGCG
GCTCAGGAGCCGTCCTGGGTGCATAGGACCAGTTTCTGTGACTTTTCTCCAGTTGGGCATGTTGACAGACATGTT
TCCCCTCCTCCCACCCTCATTTTCTGGTCCTCGCGACTGAGAGCCAGGGGCGACATCATGACCTTCTGTCCCGGC
CGCCTTAGCCCCGGGCACAGGGAAGGCAGCTGGGCCGTTTCTGTCTGTGTCCCATCCTGCTGTCCTTCTGTCCTG
GATGTTTCATGGGCCCGGGGCCCCCCAGGGAAGCTTACCCCTCCTGTGCTGGGTGGAGGCCACGGGACACCTCAG
GTGCCACCCACCTTGGCCCTAAAACAGCCACCAGGAAAGCAGCCGGAGAGCCGGACAGCAGGCAGCCTGTCTGGG
TTCCTGAGGCCTGGGGGTGGCAGACGAGCCCACGGCGCCGTGGTCCCAGCAGCAGGGTTGTCAGTCGGAGCATCC
TGGGGCTCCCTGGCTCCTGGCCGTCTGTGAGGTAGGCGCAGTACCGTGTATCGTAGGTAGCAGTAGGAACGGGGG
CCGCCGCGGCCCTGCAGCCGCTCATGGCGGTGAGGTGTGTGCCAAGCCCACCCGGGGTGCAGGGCGTGACGTGTG
GGGAATAAATAGGCGTTGTGACCTCT

FIGURE 1063

GCAAGGTCACGTCCTGTCCCCACCTTTCGCCCCTCACCCTAGCTCCCCCAACGCCAAAGACAAGGTTAAGAAAGT
GATATCGCGAAATAGTTTTTTAAAGCATTTTATTGCATTTTATGACTTGGAGTTTATGTGAAACCTCAACGGTAT
TAGCCGAACAGCCTGCCGCACCTTCCGGGAGTTCCAGAGTGGGCCTACAACTCCCACAGGGCTCCGCGAGCGCCG
GACGGACGGACTACAATTCCCGACAGGCAGCGCGGCTGGCGGGGCGGTTCGCCGCGGTGCCCACAGGACCTCAGG
GCGAGTGCGGGCTGCCCCGCGCGGCGCCCGCAGGACCCCGGCGGCTACCCATGCCGAGGTGAGTCCGCGGGAGCC
GCCGCCGCCGCCGTCCCGTCCCAGCTGCCGCCCCGCGCGGCCCCGCCGCCGGCCAGGATGCTGGAGGAAGCGGGC
GAGGTGCTGGAGAAC**ATG**CTGAAGGCGTCTTGTCTGCCGCTCGGCTTCATCGTCTTCCTGCCCGCTGTGCTGCTG
CTGGTGGCGCCGCCGCTGCCTGCCGCCGACGCCGCGCACGAGTTCACCGTGTACCGCATGCAGCAGTACGACCTG
CAGGGCCAGCCCTACGGCACACGGAATGCAGTGCTGAACACGGAGGCGCGCACGATGGCGGCGGAGGTGCTGAGC
CGCCGCTGCGTGCTCATGCGGCTACTGGACTTCTCCTACGAGCAGTACCAGAAGGCCCTGCGGCAGTCGGCGGGC
GCCGTGGTCATCATCCTGCCCAGGGCCATGGCCGCCGTGCCCCAGGACGTCGTCCGGCAATTCATGGAGATCGAG
CCGGAGATGCTGGCCATGGAGACCGCCGTCCCCGTGTACTTTGCCGTGGAGGACGAGGCCCTGCTGTCTATCTAC
AAGCAGACCCAGGCTGCCTCCGCCTCCCAGGGCTCCGCCTCTGCTGCTGAAGTACTGCTGCGCACGGCCACTGCC
AACGGCTTCCAGATGGTCACCAGCGGGGTACAGAGCAAGGCCGTGAGTGACTGGCTGATTGCCAGCGTGGAGGGG
CGGCTGACGGGGCTGGGCGGAGAGGACCTTCCCACCATCGTCATCGTGGCCCACTACGACGCCTTTGGAGTGGCC
CCCTGGCTGTCGCTGGGCGCGGACTCCAACGGGAGCGGCGTCTCTGTGCTGCTGGAGCTGGCACGCCTCTTCTCC
CGGCTCTACACCTACAAGCGCACGCACGCCGCCTACAACCTCCTGTTCTTTGCGTCTGGAGGAGGCAAGTTTAAC
TACCAGGGAACCAAGCGCTGGCTGGAAGACAACCTGGACCACACAGACTCCAGCCTGCTTCAGGACAATGTGGCC
TTCGTGCTGTGCCTGGACACCGTGGGCCGGGGCAGCAGCCTGCACCTGCACGTGTCCAAGCCGCCTCGGGAGGGC
ACCCTGCAGCACGCCTTCCTGCGGGAGCTGGAGACGGTGGCCGCGCACCAGTTCCCTGAGGTACGGTTCTCCATG
GTGCACAAGCGGATCAACCTGGCGGAGGACGTGCTGGCCTGGGAGCACGAGCGCTTCGCCATCCGCCGACTGCCC
GCCTTCACGCTGTCCCACCTGGAGAGCCACCGTGACGGCCAGCGCAGCAGCATCATGGACGTGCGGTCCCGGGTG
GATTCTAAGACCCTGACCCGTAACACGAGGATCATTGCAGAGGCCCTGACTCGAGTCATCTACAACCTGACAGAG
AAGGGGACACCCCCAGACATGCCGGTGTTCACAGAGCAGATGCAGATCCAGCAGGAGCAGCTGGACTCGGTGATG
GACTGGCTCACCAACCAGCCGCGGGCCGCGCAGCTGGTGGACAAGGACAGCACCTTCCTCAGCACGCTGGAGCAC
CACCTGAGCCGCTACCTGAAGGACGTGAAGCAGCACCACGTCAAGGCTGACAAGCGGGACCCAGAGTTTGTCTTC
TACGACCAGCTGAAGCAAGTGATGAATGCGTACAGAGTCAAGCCGGCCGTCTTTGACCTGCTCCTGGCTGTTGGC
ATTGCTGCCTACCTCGGCATGGCCTACGTGGCTGTCCAGCACTTCAGCCTCCTCTACAAGACCGTCCAGAGGCTG
CTCGTGAAGGCCAAGACACAG**TGA**CACAGCCACCCCCACAGCCGGAGCCCCCGCCGCTCCACAGTCCCTGGGGCC
GAGCACGAGTCGTCATGATGGATGCACTGACTGACCGTCTGGGGCTCAGGCTGGTGTGGGATGCAGCCGGCCGAT
GAGAAAATAAAGCCATATTGAATGATC

FIGURE 1064

AGCCGATGTCAGTCTGGTGTGGCAGGAGGGGCTTGGGTGGGAGCCGTCCTGGGATTGCAGATTGGGCCTTGGGGC
GCCAGGTGGCTGAGTCCTGGCGCTGTGTCCTTTCAGGATGGTGGATGTGGGGGGCCAGCGGTCGGAGCGGAGGAA
GTGGATCCACTGCTTTGAGAACGTGACATCCATCATGTTTCTCGTCGCCCTCAGCGAATACGACCAAGTCCTGGT
GGAGTCGGACAACGAGAACCGGATGGAGGAGAGCAAAGCCCTGTTCCGGACCATCATCACCTACCCCTGGTTCCA
GAACTCCTCCGTCATCCTCTTCCTCAACAAGAAGGACCTGCTGGAGGACAAGATCCTGTACTCGCACCTGGTGGA
CTACTTCCCCGAGTTCGATGGTCCCCAGCGGGACGCCCAGGCGGCGCGGGAGTTCATCCTGAAGATGTTCGTGGA
CCTGAACCCCGACAGCGACAAGATCATCTACTCACACTTCACGTGTGCCACCGACACGGAGAACATCCGCTTCGT
GTTCGCGGCCGTGAAGGACACCATCCTGCAGCTCAACCTCAAGGAGTACAACCTGGTCTGAGCGCCCAGGCCCAG
GGAGACGGGATGGAGACACGGGGCAGGACCTTCCTTCCACGGAGCCTGCGGCTGCCGGGCGGGTGGCGCTGCCGA
GTCCGGGCCGGGGCCTCTGCCCGCGGGAGGAGATTTTTTTTTTCATATTTTTAACAAATGGTTTTTATTTCACA
GTTATCAGGGGATGTACATCTCTCCCTCCGTACACTTCGCGCACCTTCTCACCTTTTGTCAACGGCAAAGGCAGC
CTTTTTCTGGCCTTGACTTATGGCTCGCTTTTTTCTAAAAAAAAAAAAAAAAAGAAAGAAAGAAAAAAAGCAACGA
AACATAAAACACACAAGCGCCCCGTGCCCCCAGTGACTCTGGGCCTCACAGAGCCCCCGCCAGCCAGCATGGGGC
CCCGCCCTGCAGCCAGTCACGCGCCCCCACACCGCAGCCCCCTGTGGCTGTCCTTCCAACCCCACGTGCTTTTTC
TTTCTCCTGCCCGCTTCTTTTCTTCATCACAAAAGGCGTGGAGACTCGGAGACGGACGTTTTTCCCCTTTTTTAA
GTTATTGACGCCCAGCGCGCCTCGCCTCTTCACCCATCAACGCTGTGCTTTGCCCACTGGACTCCTGAAGAGGGG
GTGGGGGGCTCCCTCGGTCGCCCACCCTGGGAAGTGCCTAACCTTTTATTTTATTTTATTTTTTTGAGGAAAAAG
AACGCCTGACTCACAGGTTGAAGAAACACCCTGGGCCCTCTCTCATGGCCGGGTTCCCCGTCCCTCTGCAGAGGC
TGGGAAGGGTCCCCGGGCTGGAGCCACGGGGGCTTCTCTGGGCTGTGCCTCCGGGGCCAACACTGGCTGCTTGGG
GCTGCCCGGGGACTCCAGAGGGCTGCACGGCCACCCTGCCCTGGCTAGAGCGCACCCCACCGGAGCCCACGTGGG
CTGGGCGGCTGGAGGGATGGTCCCCCGGTGACACTGGGAGAAAGGCCACTTGGATGGGGGCGTTTCTGTTTTGTT
CCGCTTTGTGATGTCACCAATTTGGAAACAGCGAGGGTGGGTGGGGACTTTTACAGAATATTCTCAGGTGTGTAC
CCGAGAGGCAGAGAGAGGGACGTGGCCGGCAGCTCTGTGCGTGGCCTTGTCCCAAGCACTTGCGCCCGCCCCCGA
GCGCCGCCCCCGGGGAGCGGGAAGCCAGCACTCGCACTTTGGCCAGGGGCGCGTGGAAGGTGGTGGCAGGCACCG
GCCTGGGCAGCTTCCAGGCCTGGCTGGCCACGACCACGGCCCGAGGGGGAGCCCGCCAGGCCACGCCGCACTGAG
CCACAGCCCCGGGGGCCGCCTCCCGGGGCCCCTTGAGGCACTGAGGCACCGAGACTGGTTCTCCCCGAGAGACTC
GGAAGGTGGGGAACGAGGGGACTGTGTTTGGGGAGGTGGCTTTTTCGTCTGCTGTTGACTGAACACTACAGCGCC
CTGTGGTTCCGGGCTTCGCACAGCTGTCCCAGGG**ATG**GATCGCCTGTGCTGCCTTCGCCCGCCGCCACACCGGGA
CCCTGCACGGCTGCTTCTGGCCTCGACAGATGACAAAAGAAACAGCCCCAAAATACGACCACTCCAACCAGCAGT
TCCCGCCTGCCTGCCCGCCACTGTCAGGCCTGCCCTGGCCTCCTCGTCCGCAGGGCTGTCTGCTGGCTTCTGGGG
GCAGAAGAGCGGGGAGCCCCGTGGAAGGGTCAGGGGAGACCAGGTCAGGGCAGCTACATTTCTGGTGATCAGCCC
CATGGGGAGACGGGGCTGGCGGGATACCCCCCCCCCGGCTTCCCCACACCACTTCTGTCTCACCCGGAAGCGTCC
TTTTTTTGTGCCAGGTGTCTACCTAAGAGGGTTGGTGCCAGAAGCCCCCCATGGCGAGTGCTGGGGCCCGGCGGT
GCCCTGGGGGAGCAGATGGGGCCACCCCTGGCAGGGCCGCTACAACCTTTTCCAGCAGCGGAGCCCTCTGGGGGG
CCTGTGCTTGTGGCATCTC**TGA**GGGCCTAGATTGCACAAGGTGACCTGGCCGTGGCCTGAGGGTGGAGTCGCCCA
GCACGCAGGCCGGGGCGCTGCGGGGCTAAGTATTAGGCCTTCCCAGGGAGGGGGCGTGCCAAGCATCCCAGAGCC
GGGCTGGGACCGCCAAAACGTCGTGGCCTGGATCCTCTGGGTCTGAGTGCCTGATCCCCTGCCCCCCAAAAAAGC
AGAGGTAGGTGTTGCAGGCCCAGGGCAGGGGTGCCTGCCCCAGGAGAGTCCCAGGCAGTGGTTCTCGTGCCAGTG
GCACCCAGGGGCAAGGACAGCCAACCCCCACCCTTGCCACGTGTGGGGCCACGTGGGCATGTGGGGTGTGTGTTT
TTACCTTGGTGAATCTCACCTGCCAACGATTTCTCGTGAGTGCCGACCACCTTCTCCGACCATGTTACGCCCGGG
CGGCAGCAGCCCCCGGCCACTGCAAACCCATGCCCTGGGTCCCCCGGCTCCCCCAGGGAGGCATCCCCGTGCCAA
TGTCCCCCAGTGGTGGCAGCAGATCCTGTGGCCGGCCTGGCGGACGGGACCCAGTGATACTTGTATATTACACAG
TCCTGATTTCAGACAATTTCAACCTTAATCTATTTAAAAAAGAATATTCTATAC

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FIGURE 1065

GGCCGCCCGGCGCCCCCAGCAGCCCGAGCCGGGGCGCACAGCCGGGGCGCAGCCCGCGCCCCCCGCCGCGATTGA
C**ATG**ATGTTTCCACAAAGCAGGCATTCGGGCTCCTCGCACCTACCCCAGCAACTCAAATTCACCACCTCGGACTC
CTGCGACCGCATCAAAGACGAATTTCAGCTACTGCAAGCTCAGTACCACAGCCTCAAGCTCGAATGTGACAAGTT
GGCCAGTGAGAAGTCAGAGATGCAGCGTCACTATGTGATGTACTACGAGATGTCCTACGGCTTGAACATCGAGAT
GCACAAACAGGCTGAGATCGTCAAAAGGCTGAACGGGATTTGTGCCCAGGTCCTGCCCTACCTCTCCCAAGAGCA
CCAGCAGCAGGTCTTGGGAGCCATTGAGAGGGCCAAGCAGGTCACCGCTCCCGAGCTGAACTCTATCATCCGACA
GCAGCTCCAAGCCCACCAGCTGTCCCAGCTGCAGGCCCTGGCCCTGCCCTTGACCCCACTACCCGTGGGGCTGCA
GCCGCCTTCGCTGCCGGCGGTCAGCGCAGGCACCGGCCTCCTCTCGCTGTCCGCGCTGGGTTCCCAGGCCCACCT
CTCCAAGGAAGACAAGAACGGGCACGATGGTGACACCCACCAGGAGGATGATGGCGAGAAGTCGGAT**TAG**CAGGG
GGCCGGGACAGGGAGGTTGGGAGGGGGGACAGAGGGGAGACAGAGGCACGGAGAGAAAGGAATGTTTAGCACAAG
ACACAGCGGAGCTCGGGATTGGCTAAACTCCCATAGTATTTATGGTGGCCGCCGGCGGGGGCCCCAGCCCAGCTT
GCAGGCCACCTCTAGCTTTCTTCCTACCCCATTCCCGGCTTCCCTCCTCCTCCCCTGCAGCCTGGTTAGGTGGAT
ACCTGCCCTGACATGTGAGGCAAGCTAAGGCCTGGAGGGTCAGATGGGAGACCAGGTCCCAAGGGAGCAAGACCT
CGCGAAGCGCAGCAGCCCCGGCCCTTCCCCCGTTTTGAACATGTGTAACCGACAGTCTGCCTGGGCCACAGCCCT
CTCACCCTGGTACTGCATGCACGCAATGCTAGCTGCCCCTTTCCCGTCCTGGGCACCCCGAGTCTCCCCCGACCC
CGGGTCCCAGGTATGCTCCCACCTCCACCTGCCCCACTCACCACCTCTGCTAGTTCCAGACACCTCCACGCCCAC
CTGGTCCTCTCCCATCGCCCACAAAAGGGGGGGCACGAGGGACGAGCTTAGCTGAGCTGGGAGGAGCAGGGTGAG
GGTGGGCGACCCAGGATTCCCCCTCCCCTTCCCAAATAAAGATGAGGGTACT

FIGURE 1066

AATGACTCAGTAAGTTCAGCGCGCCCGCTCCGGCCGGCCCTGCGCCTCCCGCCGCGCCCGGGATGTATTCGTCCC
CGCTCTGCCTCACCCAGGATGAGTTCCACCCGTTCATCGAGGCCCTGCTGCCTCACGTCCGCGCCTTCGCCTACA
CCTGGTTCAACCTGCAGGCGCGGAAGCGCAAGTACTTCAAGAAGCACGAGAAGCGGATGTCGAAGGACGAGGAGC
GTGCGGTCAAGGACGAGCTGCTGGGCGAGAAGCCCGAGGTCAAGCAGAAGTGGGCGTCGCGGCTGCTGGCCAAGC
TGCGCAAGGACATCCGGCCCGAGTGCCGCGAGGACTTCGTGCTGAGCATCACCGGCAAGAAGGCGCCGGGCTGCG
TGCTCTCCAACCCCGACCAGAAGGGCAAGATGCGGCGCATCGACTGTCTCCGGCAGGCGGACAAGGTGTGGCGGC
TGGACCTGGTCATGGTCATCCTGTTCAAGGGCATCCCGCTGGAGAGCACCGACGGCGAGCGCCTGGTCAAGGCTG
CGCAGTGCGGTCACCCGGTCCTGTGCGTGCAGCCGCACCACATTGGCGTGGCCGTCAAGGAGCTGGACCTCTACC
TGGCCTACTTCGTGCGTGAGCGAGATGCAGAGCAAAGCGGCAGTCCCCGGACAGGGATGGGCTCTGACCAGGAGG
ACAGCAAGCCCATCACGCTGGACACGACCGACTTCCAGGAGAGCTTTGTCACCTCCGGCGTGTTCAGCGTCACTG
AGCTCATCCAAGTGTCCCGGACACCCGTGGTGACTGGAACAGGACCCAACTTCTCCCTGGGGGAGCTGCAGGGGC
ACCTGGCATACGACCTGAACCCAGCCAGCACTGGCCTCAGAAGAACGCTGCCCAGCACCTCCTCCAGTGGGAGCA
AGCGGCACAAATCGGGCTCGATGGAGGAAGACGTGGACACGAGCCCTGGCGGCGATTACTACACTTCGCCCAGCT
CGCCCACGAGTAGCAGCCGCAACTGGACGGAGGACATGGAAGGAGGCATCTCGTCCCCGGTGAAGAAGACAGAGA
TGGACAAGTCACCATTCAACAGCCCGTCCCCCCAGGACTCTCCCCGCCTCTCCAGCTTCACCCAGCACCACCGGC
CCGTCATCGCCGTGCACAGCGGGATCGCCCGGAGCCCACACCCGTCCTCCGCTCTGCATTTCCCTACGACGTCCA
TCCTACCCCAGACGGCCTCCACCTACTTCCCCCACACGGCCATCCGCTACCCACCTCATCTCAACCCCCAGGACC
CGCTCAAAGATCTTGTCTCGCTGGCCTGCGACCCAGCCAGCCAGCAACCTGGACCGTCCTGGTATCTGGGATAGC
AAAGGTCTTCTTCCCTCGCCCCTTCTCCATCGTCCCAGGAATCCCAGGGGGCAGCACAGCCGGCCCCCGGCCCAC
GTTTTCGGTGGAAAATTAGAGTGAACAAGAACACCCCTGCCGACTCCCAGCCCGGCCAAAAAGACAAAACACATA
GACGCACACACTCAGGAGGAAAAGAAAAAACAAAGGCAGAAGAAGAAGAAGAAGAAATAAAAACCCACCCAAGCA
AGAAGACAAAAGGTAAAGACGCAACGTTTCCAACTCTCGGGACGCCAAGGCCGCAGGACTGGAGGGCCAGGCCCC
GCCACCCCCACGGGAGACCCGGGACAGGGCGTCTTCCTAAGTTATTCATCTCCTCTCCGCCTGCTGCTCGGGAAG
GACAGACGCCGGCCGCCCGCCCGCGCCCCGGAGGCCCTGGCTCTGTCCGGAGACCAGGTGAGCACAGCCTGGAGC
CTGTGCCCAGGGCCGACAGGCGCGACACCCAGCAAGGCCACCTCTCCCCGGGCCCCCGCGCCTCTGCCGGACACG
GACCGGCCCCTCAGCCCCCACCGAGGACGCAGCCACTGGGGGGAAAGGGAGACACAGCGGACCCCGGCCGGGCAG
CGGAGACCGCAGAGGCGGGCAGGGTGGGGCAGGCGAGTGGTGTCGCGGGGGTGCGTGGCGCTTGCGAGCCCTGGC
CAGGGGAGGAAGTGAGGCCCAGGCACCTGCTGCCCCTCGAGGGGGCCCTGCCTGCCGCGGGGCCTCCCCACAAGC
CCCTCCCAAAGCGCCGGCCGACTCGCTGTCTCGCTGGGGACTCTTTCAGCCCTCGCGCCCGCCCGTTTGGGAGGA
GAAGTCTCTATGCAATTGGCCCCGGCCCCTCCACCCCCCACCCCCGGCATAGGAGGCCCCCCCACCTCGCCCGGC
TCACACCCCCCACTTCCTCTTTAAA

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FIGURE 1067

ATGGACCAGGACTATGAGCGGCGCCTGCTTCGCCAGATCGTCATCCAGAATGAGAACACGATGCCACGCGTCACA
GAGATGCGGCGGACCCTGACGCCTGCCAGCTCCCCAGTGTCCTCGCCCAGCAAGCACGGAGACCGCTTCATCCCC
TCCAGAGCCGGAGCCAACTGGAGCGTGAACTTCCACAGGATTAACGAGAATGAGAAGTCTCCCAGTCAGAACCGG
AAAGCCAAGGACGCCACCTCAGACAACGGCAAAGACGGCCTGGCCTACTCTGCCCTGCTCAAGAATGAGCTGCTG
GGTGCCGGCATCGAGAAGGTGCAGGACCCGCAGACTGAGGACCGCAGGCTGCAGCCCTCCACGCCTGAGAAGAAG
GGTCTGTTCACGTATTCCCTTAGCACCAAGCGCTCCAGCCCCGATGACGGCAACGATGTGTCTCCCTACTCCCTG
TCTCCCGTCAGCAACAAGAGCCAGAAGCTGCTCCGGTCCCCCCGGAAACCCACCCGCAAGATCTCCAAGATCCCC
TTCAAGGTGCTGGACGCGCCCGAGCTGCAGGACGACTTCTACCTCAATCTGGTGGACTGGTCGTCCCTCAATGTG
CTCAGCGTGGGGCTAGGCACCTGCGTGTACCTGTGGAGTGCCTGTACCAGCCAGGTGACGCGGCTCTGTGACCTC
TCAGTGGAAGGGGACTCAGTGACCTCCGTGGGCTGGTCTGAGCGGGGGAACCTGGTGGCGGTGGGCACACACAAG
GGCTTCGTGCAGATCTGGGACGCAGCCGCAGGGAAGAAGCTGTCCATGTTGGAGGGCCACACGGCACGCGTCGGG
GCGCTGGCCTGGAATGCTGAGCAGCTGTCGTCCGGGAGCCGCGACCGCATGATCCTGCAGAGGGACATCCGCACC
CCGCCACTGCAGTCGGAGCGGCGGCTGCAGGGCCACCGGCAGGAGGTGTGCGGGCTCAAGTGGTCCACAGACCAC
CAGCTCCTCGCCTCGGGGGGCAACGACAACAAGCTGCTGGTCTGGAATCACTCGAGCCTGAGCCCCGTGCAGCAG
TACACGGAGCACCTGGCGGCCGTGAAGGCCATCGCCTGGTCCCCACATCAGCACGGGCTGCTGGCCTCGGGGGGC
GGCACAGCTGACCGCTGTATCCGCTTCTGGAACACGCTGACAGGACAACCACTGCAGTGTATCGACACGGGCTCC
CAAGTGTGCAATCTGGCCTGGTCCAAGCACGCCAACGAGCTGGTGAGCACGCACGGCTACTCACAGAACCAGATC
CTTGTCTGGAAGTACCCCTCCCTGACCCAGGTGGCCAAGCTGACCGGGCACTCCTACCGCGTGCTGTACCTGGCA
ATGTCCCCTGATGGGGAGGCCATCGTCACTGGTGCTGGAGACGAGACCCTGAGGTTCTGGAACGTCTTTAGCAAA
ACCCGTTCGACAAAGGTAAAGTGGGAGTCTGTGTCTGTGCTCAACCTCTTCACCAGGATCCGGTAA

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FIGURE 1068

CAGCTGTGGTACACAGGCCTGACCAACTCGGACGCCTGGGAAGCCTGGTACAACCTGCCACGGGCCCCGGCCAGC
CCCTTCCGCGAGGCCTACAACCGCTGGCACAGCTGCTACCAACACCGTGAGTGCAGC**ATG**CCATCGGCCTACACC
CAGCACCTGCGGGAGACCGCCTGGCATGACCCCATCGTCCCTGCCCAGTACCAGGCCCCCAGCACCCGGTGGGGG
AGCGCGCTGTGGAAAGACAGGCCAATCCGGGGCAAGGAATACGTGCTCAACAGGAACCGGTACGGGGTGGAGCCA
CTGTGGAGGGCATCAGACTACGTGCCCTCCCTGTCGGCACCCCAGCGCCCGCCCGGCACCACCCAGAACTACCGG
GAGTGGGTCCTGGAACCATACTGCCCCTCCACCTGCCAGCGGTCCCCGCCTTCCCTCACACCCACTCCCCGA**TAA**
AGGCATGCTACCAGGATGCA

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FIGURE 1069

TTTCCCGAGATCACCAAG**ATG**CTGGGCGCCGAGTGGAGCAAGCTGCAGCCAACGGAAAAGCAGCGGTACCTGGAT
GAGGCCGAGAGAGAGAAGCAGCAGTACATGAAGGAGCTGCGGGCGTACCAGCAGTCTGAAGCCTATAAGATGTGC
ACGGAGAAGATCCAGGAGAAGAAGATCAAGAAAGAAGACTCGAGCTCTGGGCTCATGAACACTCTCCTGAATGGA
CACAAGGGTGGGGACTGCGATGGCTTCTCCACCTTCGATGTTCCCATCTTCACTGAAGAGTTCTTGGACCAAAAC
AAAGCGCGTGAGGCGGAGCTTCGGCGCTTGCGGAAGATGAATGTGGCCTTCGAGGAGCAGAACGCGGTACTGCAG
AGGCACACGCAGAGCATGAGCAGCGCGCGCGAGCGTCTGGAGCAGGAGCTGGCGCTGGAGGAGCGGAGGACGCTG
GCGCTGCAGCAGCAGCTCCAGGCCGTGCGCCAGGCGCTCACCGCCAGCTTCGCCTCACTGCCGGTGCCGGGCACG
GGCGAAACGCCCACGCTGGGCACTCTGGACTTCTACATGGCCCGGCTTCACGGAGCCATCGAGCGCGACCCCGCC
CAGCACGAGAAGCTCATCGTCCGCATCAAGGAAATCCTGGCCCAGGTCGCCAGCGAGCACCTG**TGA**GGAGTGGGC
GGGCCCACGATGCAGAGGAGAAGCTGTGGGCGCGGCCCTGCCACACCCCACCCCGTGGACGAGAGGCTGGGGGTC
CACCCTTTGGGGCCTGGTCCCATCCTGCACCTTGGGGGCTCCAGCCCCCCTAAAATTAAATTTCTGCAGCATCCC
TTTAGCTTTCAATCTCCCCAGCCCCCTGAACCCGGAAAAAGCACTCGCTGCGCGATACACCCAGAAGAACCTCAC
AGCCGAGGGTGCCCCTCCTCGGAGGACAGCCACGCGCTACACTGGCTCTCCGGGCCACCCCCAGGACACAGGGCA
GACGAAACCCACCCCCAGCACACGGCAGGACCCCCCAAATTACTCACTACGGGGGGCTGTGCCATAGGCCACACA
GGAAGCTGCCTTGTGGGGACTTACCTGGGGTGTCCCCCGCATGCCTGTACCCCAGATGGGTGGGGGCCGGCTTTG
CCCATCCTGCTCTCCTCCAGCCGAGGGACCCTGGTGGGGGTGGCTCCTTCTCACTGCTGGATCCGGACTTTTTAA
ATAAAAACAAGTAAAATTTGTGTTTTAA

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FIGURE 1070A

GCGGCGGTCGCAGCTCGGGTCCCCCTCGGGCGCCCCCGCCGCCGTCCGCGCGCGGCC**ATG**GAGCTGGAGGTACCG
GACGAGGCGGAGAGCGCTGAGGCGGGGGCCGTGCCCTCGGAGGCGGCGTGGGCGGCAGAGAGCGGGGCGGCGGCA
GGTTTGGCTCAGAAGAAGGCGGCCCCAACAGAGGTTCTGTCCATGACGGCACAGCCGGGCCCTGGCCATGGGAAG
AAGTTGGGCCATCGAGGTGTGGACGCATCCGGCGAAACCACCTACAAGAAGACCACCTCCTCCACCCTGAAGGGT
GCCATCCAGCTGGGCATCGGCTACACCGTGGGCCACCTGAGCTCCAAGCCCGAACGCGACGTGCTCATGCAGGAC
TTCTACGTGGTGGAGAGCATCTTCTTCCCCAGCGAAGGCAGCAACCTCACCCCCGCCCACCACTTCCAGGACTTC
CGCTTCAAGACCTATGCACCTGTCGCCTTCCGCTACTTCCGGGAGCTCTTTGGGATCCGGCCAGATGATTACTTG
TACTCCCTGTGCAATGAGCCGCTGATCGAGCTGTCCAACCCGGGCGCCAGTGGCTCCCTCTTCTACGTCACCAGC
GACGACGAGTTCATCATCAAGACCGTCATGCACAAGGAGGCCGAGTTCCTGCAGAAGCTGCTCCCTGGCTACTAC
ATGAACCTCAACCAGAACCCGCGGACGCTGCTGCCCAAGTTCTATGGGCTGTACTGCGTGCAGTCGGGGGGCAAG
AACATCCGCGTCGTGGTCATGAACAACATCCTGCCCCGCGTGGTCAAGATGCACCTCAAGTTCGACCTCAAGGGC
TCCACCTACAAGCGGCGCGCCAGCAAGAAGGAGAAGGAGAAGAGCTTCCCCACCTACAAGGACCTGGACTTCATG
CAGGACATGCCCGAGGGGCTCCTGCTGGACGCCGACACCTTCAGCGCCCTGGTCAAGACGCTGCAGCGGGACTGC
CTGGTCCTGGAAAGTTTCAAGATCATGGACTACAGCCTGCTGCTGGGCGTGCACAACATCGACCAGCACGAGCGC
GAGCGGCAGGCGCAGGGCGCCCAGAGCACCTCAGATGAGAAGCGGCCTGTGGGCCAGAAGGCGCTCTACTCCACG
GCCATGGAGTCCATCCAGGGTGGCGCCGCGCGCGGGGAGGCCATCGAATCGGATGACACGATGGGCGGGATCCCC
GCTGTGAACGGCCGCGGGGAGCGGCTGCTGCTGCACATTGGCATCATCGACATCCTGCAGTCCTACAGGTTCATC
AAGAAACTGGAGCACACCTGGAAGGCCCTCGTCCACGATGGGGACACGGTGTCCGTCCACCGCCCCAGCTTCTAT
GCCGAGCGCTTTTTCAAGTTCATGAGCAACACGGTCTTTCGGAAGAACTCCTCCCTGAAGTCCTCGCCCTCCAAG
AAGGGGCGCGGCGGAGCCTTGCTAGCTGTGAAACCGCTGGGGCCCACCGCTGCCTTCTCGGCCAGCCAGATCCCT
AGCGAGCGGGAGGAGGCCCAGTACGACCTGCGGGGGGCCCGCAGCTACCCCACGCTGGAGGACGAAGGCCGGCCC
GACCTCCTGCCCTGCACGCCACCTTCTTTCGAAGAAGCCACTACAGCCTCCATTGCCACGACTCTGTCATCCACA
TCCCTCTCCATTCCTGAGCGGTCCCCCTCGGAGACGTCGGAGCAGCCGCGGTACAGGCGGCGCACACAGTCGTCT
GGACAGGATGGCAGGCCGCAGGAGGAGCCACCCGCGGAAGAGGATCTGCAGCAGATTACAGTGCAGGTGGAGCCT
GCGTGCAGCGTGGAGATTGTGGTCCCCAAAGAGGAGGACGCAGGGGTGGAGGCTTCCCCGGCCGGTGCCTCTGCT
GCTGTTGAAGTAGAAACTGCCAGCCAGGCCTCAGACGAGGAGGGCGCACCTGCCAGCCAGGCCTCGGACGAGGAG
GACGCGCCCGCCACCGACATCTACTTTCCCACCGATGAGAGGAGCTGGGTGTACTCCCCGCTCCACTATAGCGCC
CAGGCCCCCCCGGCCTCCGACGGCGAGAGCGACACA**TAA**TTTCTATGCAGCCCCCGACCCAGAGCCGAGCTCCAC
TTCTGCTCCGGCTGCCCCCGAAGGCGCTGCCCACCCCGCTGAGGCCCAGAGCTCGGGAGATGCCCGCCTCGCCGC
CCCACCGGACCTCGTCCTCCCCCTGCACGGATGCCGACGGCCGGGCCCCTCCCCGACAAGCCTCCCAGGGCCCCG
GCACCCCGGTCGGCAGCCTGCCCCTGTGAGACCCACCCTCCCGAGCGGCCAATCGCATTTGAGTCCTTATTTGGC
ACAGAGACGGAAGCACGTGTGTGCCGTTTTAGGAAAAGAACAAAAAAGACACAAACAAACCAACCAGAGGGAGAA
GAGCCCCTGCCCACTGCACTCTTTGGTTCTCTGCTGTGCCTGCCTGTGTCCTGAGGAAGAAGCCAGGCTGTTCGC
GGTGGCCTCTGGGGACCTGAGCCCCGGGGGCCCCATCGGCCTGCAGAGGGGACGGCTGGGGTCCCGAGCAACTCT
GCCTCCATCCACGTGGGAAGCGGACCCTCCTGCCCTCAGCTTGGGTTTGGGGGCCTCAGTGCAGGACATCTGGCC
TGAACATCGACTGTGGGGACAGCCCTCGCCCTGCCAAGCACTGCGGCCACTCAGCAGCTATGTTCCCGCCGCAGT
GGGGCCCTGACGCCCACCTCCCAGGTGCCCCTCGAGCAAAAACCTCTGGCGCCTCCAATCCAGACCCACCACAGC
TGGAGGGCCAGGCCTCCTCTTCCCCAGGCTGCCACCCACGCTGGCGGAGCTCAGGGCTGGGGACTTGTCCTTCTC
TTCCAACGTAGGCCACTCAGCAACTGGCATGGAGGGCCCAGGCAACGGAGACGTTTTCTCCATGGCAGGACAGAG
CGGGAGGCCGGGCCTTGGGCCACAGGAGACCAGCTCAGGGCGGAAGGTCAGGCTCCCCGCCCCCTCCACGTGGAG
ACATGGCCTAGGGGGCCAGGCCCGGCTCCACAGGAGTCTCCTTCAGGACTGGTGTGGATGTCCGCCGCCTCTTTC
TTGTTTAAGTGATGTGATGTCTCCGAGGAGGGGAGAGAAGACTTTGTTTCCGACTCATCACCCTCCAAGAGGGCA
GCGCTCCCAGTGGTGGGACTCAGCCCAGACTGCCCTGGGGCAGCTTCCTGGGCCCGCTGCGCTCAGAGGGTGCTG
GTTGGAGGCCAGAGCTCGGCAGAGTCACCCACCCTGCCCTTCCCCAGGACCCCTGAGAGGGGCTTATTGGTGATG
GCTGTGGGAATCCCCCACTTCCAAGATGTGCCCAGGATGTGAGGAGCTGGAGTGGAAGCTGCACCTTTGGGAAGA
ATTCCTCTCCAGACCTGGCAGAGCCTGGTGTGGGGTCTGAGACGGCCGGAGAACCTCCCAGGCAGGGCTCTGTGT
TTTGTCTGTTACAACCTCCGTATGACGCCACGCCACCCGCTGTTCACGTCCCGTCGGCCTCCTGCACAGCCCACA
CGCTGCGCCCGGAAGGCCCCTGCTGTGGAGAAGCCGGACCCATCCCCGAGGTCCCCAGCGAGGACACACACTCCA

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FIGURE 1070B

CGAGAGCAGCCCCTCCACTCTGCCCAGGAGAGGGGCCGACCCTCCTCGGGAACCGGCCAGCCGCGTGGCTCCCAG
CATCCATCAGGACAAGCCCACGTGGGGTCCTCCCTGCGTGCTCAGAGGGTCTGTCCAGCCCTGGGAAGCGACCTT
GGCCTCAGTTCACAGCCTGGTGCTCATCTGCTGGCACCGGGCATCCACCCATCAGCCCCCGCCCTGTCCCTCCGA
AGGACACCCAGCAGGCACCCCCCGGGGAGGCAGGGGCAGAGGTCAGAAGGGGTGTCTGGGACCTGGATGGCCAGC
AGGGACAGGGGCATTGTCATCTCAAAGGCCCAACCCCCAGAGGCCACACCAGTCCTCCCAGGGAGTCCTCGAGTC
GCCCTGCCCAGAGCCCTGGCACCAGAGACGCCAAGAGCCTGTGGGGTGACTCGGAGCAGCAGGTGTGGCCCCGGG
CGGGCGGCACCGCGTCCAGGGCAGCCTCCCTCCGCTGAGTGACACGGGACACCAGTGCCCGGCCGACGCGCCTTT
GCAGGAGAAATGTGCAAACCTCTGTGGATACCATTTCATTTCCATTCTTGTGTTGTCTCCAAGGCCCTTTTGGAG
ATATACTTGGTGTTGGTTGTGTTTTTTGGTTCCTTTTCAGAGAACTGTAAACCGAGGCTGACGTGCTCCACTGAC
TGTGCCGAGGGGCGGGGGCAGGAGGACGGCAAGACCTATTTATAATATTTAGCGAACTCGGTCTCCCTCAGATCC
CCCGCGAGGGAGGCTGCTGGACCCACCCCGCTGTCCCCCATGATAGAAGTCTGTAAATACCTTGGTGACCAATGC
CCACTTCCCCTCCTGGGTCACCTCTGATGGCTGCTGTCCACTGAGAACGTGGGCAGTGTCCAAATTCCTGTACTG
TAAAGACTAAAAGGCGTTTGCTCTGAGACTGACAAGGCGGAAACTTCCATGTGTCTCCTGCCAGGCTCTGTCCCC
CTACGCCATCCCGACACGTCCCCGTTCCCCCGAAACCTGGCTCAGTGCAATACTCCCATTGCCATGGGGTCCTTC
ACCATGGTACTGTCTCCACAGCCCTCAGTCCCCACCCCAGGAGAGGCGCCTGCCACCTCCTCCTCATCTCCGGTG
GTTCAATCGCTCCGCCTGTCCCCAACCCAGTCCCATTTTTATGGCCAAACTGATTCTGAAACAAAATGAAACTGC
AAACCTCGTGTGTCTTAACTCCCCCCAGGGATGCCACTCCATTCCTCCGCCCCGTGGTCTGGTGCGTGACAATCC
AAAGCGCCGAGACGAGGGTGCTGTGTCCCTCAAACCCAGAGTGGTGGGCGCCTCTGAAACCATACAGCCACTCCT
GGCCCCAAACACTGGTTTGCATCCCAGGTTCCTCGCCCACCTACCCCCGCCACACCCCGTCTTTTTAGAGATCTC
TCTAATAAATCGGGTAATAAGC

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FIGURE 1071

GCACTTGCAAGCTGCCCGCAATACGTC**ATG**GCGACCAAACGCCTTTTCGGGGCTACCCGGACGTGGGCCGGCTGG
GGGGCCTGGGAGCTCCTAAACCCCGCCACTTCCGGAAGACTCCTGGCCCGGGATTATGCCAAGAAACCAGTTATG
AAGGGGGCCAAATCGGGAAAAGGTGCAGTGACCAGCGAGGCCCTCAAGGACCCCGACGTATGCACAGATCCTGTC
CAGCTCACCACATATGCCATGGGCGTCAACATCTACAAGGAAGGGCAGGATGTACCCCTGAAACCGGATGCTGAG
TACCCTGAATGGCTGTTCGAGATGAACTTGGGTCCCCCAAAGACCCTGGAGGAGCTGGACCCCGAGAGCCGGGAG
TACTGGCGGCGGCTGCGGAAACAGAACATCTGGCGCCACAACCGGCTGAGCAAGAACAAGAGGTTG**TAG**CATGGA
GGGCCCGGCATCGCTGACCCCCACGCCGAGGGCTTGCCGTTTTCCCGGAGGACGTGGACTTTTGTGAGACAAGAG
GCGGCTCCCCAGCCTGGGTTTCCATGTGACCCCACAGTGGGGCTGGACCAGGGCCCTGGAGGCCAATAAAGAGCT
TTCTGGGTAGACCCTATTTCCCCTTGGTATTGTCTGGTGTCGGCCTGGCGGGAAGTGGGTCCCTCAGACCCCAGG
GATCCCAGCCTCCACCCCAGCCAGTGGTGGGCCGTCTGCAGGTCCCCTGTGCCTCCGGCCCTTGGTGGGCTTCTC
TCCCCAACTCCTGGAATTCCTGACACTGCTCACGAGGCCCCGGCCCCAAATCTCAAGTTGCTGGGTGAGGGGGTT
GTCCTAGCTAAGCCACTCTTGGTTGCAAGGGACTCAAACCTAACTATCTCAAGCCATCAGAGTCAGAAAAGAGGC
TTTATGAGCTTCAAGAA

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FIGURE 1072

GTTGCCATTAGGGGACTCCTGAGGTCCTATCTCCAGGCTGCGGTGACTGCACTTTCCCTGGAGTGGAAGCTGCTG
GAAGGCGGACCGGCCGCC**ATG**TCCACGTTCAGGCAGGAGGACGTGGAGGACCATTATGAGATGGGGGAGGAGCTG
GGCAGCGGCCAGTTTGCGATCGTGCGGAAGTGCCGGCAGAAGGGCACGGGCAAGGAGTACGCAGCCAAGTTCATC
AAGAAGCGCCGCCTGTCATCCAGCCGGCGTGGGGTGAGCCGGGAGGAGATCGAGCGGGAGGTGAACATCCTGCGG
GAGATCCGGCACCCCAACATCATCACCCTGCACGACATCTTCGAGAACAAGACGGACGTGGTCCTCATCCTGGAG
CTGGTCTCTGGCGGGGAGCTCTTTGACTTCCTGGCGGAGAAGGAGTCGCTGACGGAGGACGAGGCCACCCAGTTC
CTCAAGCAGATCCTGGACGGCGTTCACTACCTGCACTCTAAGCGCATCGCACACTTTGACCTGAAGCCGGAAAAC
ATCATGCTGCTGGACAAGAACGTGCCCAACCCACGAATCAAGCTCATCGACTTCGGCATCGCGCACAAGATCGAG
GCGGGGAACGAGTTCAAGAACATCTTCGGCACCCCGGAGTTTGTGGCCCCAGAGATTGTGAACTATGAGCCGCTG
GGCCTGGAGGCGGACATGTGGAGCATCGGTGTCATCACCTATATCCTCCTGAGCGGTGCATCCCCGTTCCTGGGC
GAGACCAAGCAGGAGACGCTCACCAACATCTCAGCCGTGAACTACGACTTCGACGAGGAGTACTTCAGCAACACC
AGCGAGCTGGCCAAGGACTTCATTCGCCGGCTGCTCGTCAAAGATCCCAAGCGGAGAATGACCATTGCCCAGAGC
CTGGAACATTCCTGGATTAAGGCGATCCGGCGGCGGAACGTGCGTGGTGAGGACAGCGGCCGCAAGCCCGAGCGG
CGGCGCCTGAAGACCACGCGTCTGAAGGAGTACACCATCAAGTCGCACTCCAGCTTGCCGCCCAACAACAGCTAC
GCCGACTTCGAGCGCTTCTCCAAGGTGCTGGAGGAGGCGGCGGCGCCGAGGAGGGCCTGCGCGAGCTGCAGCGCA
GCCGGCGGCTCTGCCACGAGGACGTGGAGGCGCTGGCCGCCATCTACGAGGAGAAGGAGGCCTGGTACCGCGAGG
AGAGCGACAGCCTGGGCCAGGACCTGCGGAGGCTACGGCAGGAGCTGCTCAAGACCGAGGCGCTCAAGCGGCAGG
CGCAGGAGGAGGCCAAGGGCGCGCTGCTGGGGACCAGCGGCCTCAAGCGCCGCTTCAGCCGCCTGGAGAACCGCT
ACGAGGCGCTGGCCAAGCAAG**TAG**CCTCCGAGATGCGCTTCGTGCAGGACCTCGTGCGCGCCCTGGAGCAGGAGA
AGCTGCAGGGCGTGGAGTGCGGGCTGCGCTAGGCGCAGTGGGGTGGGCCAGGCCCCAGGACAGCCGGAGCTCGGC
CTGCGGTGGGGGCGCTTCCTGTGGACGCTGCGCCTCCCATCGCCCGGGTGCCTGTCCTTGCCCAGCGCCACCAGG
CTGGAGGCGGAGTGGGAGGAGCTGGAGCCAGGCCCGTAAGTTCGCAGGCAGGGGTGGGTGTGGGACGGGGCTGCT
TCTCTACACAGCCTCCACGCTGGCCTTCACCTTCACCCCTGCATCGTCGGTGACCCTGGGACCCTCCAGGCAGCG
TGGCCTGTGGCACCGTGAGGGTTGGGACCCACCGAGGCGCAGAGGCGGCCCGAATGCAGCCCTGGTTCAGGCCCG
GAGGAGGGTTTGCGGGTAGTTGCACGGACAATTCGGCGGGGTGCTGCCTGTTGCTGCCATTAGCCCAGGAGGAGG
TCGTGGGACGGGGAGGGTGGGATGGACGGCGGACAGGCAGTCCCCACGCTGCTGGGTGGCGCCGGGCTTGGTGGG
GTCTTCCACTGTGTGCCCTTCTCGCCGAGGCCGGTCCCCCGGGTGTGGGGTGCCCTGCTGCGGACTCCTCCGCGA
GCCCCATCGTCGCGCCTGTGGACGCCTAGGCAAGAGCGGCCCTCTGCAGCCAAGAGAAATAAAATACTGGCTTCC
AGAT

FIGURE 1073

ACGGTAGACCAGATCCGCGCCATC**ATG**GACAAGAAGGCCAACATCCGCAACATGTCTGTCATCGCCCACGTGGAC
CATGGCAAGTCCACGCTGACAGACTCCCTGGTGTGCAAGGCGGGCATCATCGCCTCGGCCCGGGCCGGGGAGACA
CGCTTCACTGATACCCGGAAGGACGAGCAGGAGCGTTGCATCACCATCAAGTCAACTGCCATCTCCCTCTTCTAC
GAGCTCTCGGAGAATGACTTGAACTTCATCAAGCAGAGCAAGGACGGTGCCGGCTTCCTCATCAACCTCATTGAC
TCCCCCGGGCATGTCGACTTCTCCTCGGAGGTGACTGCTGCCCTCCGAGTCACCGATGGCGCATTGGTGGTGGTG
GACTGCGTGTCAGGCGTGTGCGTGCAGACGGAGACAGTGCTGCGGCAGGCCATTGCCGAGCGCATCAAGCCTGTG
CTGATGATGAACAAGATGGACCGCGCCCTGCTGGAGCTGCAGCTGGAGCCCGAGGAGCTCTACCAGACTTTCCAG
CGCATCGTGGAGAACGTGAACGTCATCATCTCCACCTACGGCGAGGGCGAGAGCGGCCCCATGGGCAACATCATG
ATCGATCCTGTCCTCGGTACCGTGGGCTTTGGGTCTGGCCTCCACGGGTGGGCCTTCACCCTGAAGCAGTTTGCC
GAGATGTATGTGGCCAAGTTCGCCGCCAAGGGGGAGGGCCAGTTGGGGCCTGCCGAGCGGGCCAAGAAAGTAGAG
GACATGATGAAGAAGCTGTGGGGTGACAGGTACTTTGACCCAGCCAACGGCAAGTTCAGCAAGTCAGCCACCAGC
CCCGAAGGGAAGAAGCTGCCACGCACCTTCTGCCAGCTGATCCTGGACCCCATCTTCAAGGTGTTTGATGCGATC
ATGAATTTCAAGAAAGAGGAGACAGCAAAACTGATAGAGAAACTGGACATCAAACTGGACAGCGAGGACAAGGAC
AAAGAAGGCAAACCCCTGCTGAAGGCTGTGATGCGCCGCTGGCTGCCTGCCGGAGACGCCTTGTTGCAGATGATC
ACCATCCACCTGCCCTCCCCTGTGACGGCCCAGAAGTACCGCTGCGAGCTCCTGTACGAGGGGCCCCCGGACGAC
GAGGCTGCCATGGGCATTAAAAGCTGTGACCCCAAAGGCCCTCTTATGATGTATATTTCCAAAATGGTGCCAACC
TCCGACAAAGGTCGGTTCTACGCCTTTGGACGAGTCTTCTCGGGGCTGGTCTCCACTGGCCTGAAGGTCAGGATC
ATGGGGCCCAACTATACCCCTGGGAAGAAGGAGGACCTCTACCTGAAGCCAATCCAGAGAACAATCTTGATGATG
GGCCGCTACGTGGAGCCCATCGAGGATGTGCCTTGTGGGAACATTGTGGGCCTCGTGGGCGTGGACCAGTTCCTG
GTGAAGACGGGCACCATCACCACCTTCGAGCACGCGCACAACATGCGGGTGATGAAGTTCAGCGTCAGCCCTGTT
GTCAGAGTGGCCGTGGAGGCCAAGAACCCGGCTGACCTGCCCAAGCTGGTGGAGGGGCTGAAGCGGCTGGCCAAG
TCCGACCCCATGGTGCAGTGCATCATCGAGGAGTCGGGAGAGCATATCATCGCGGGCGCCGGCGAGCTGCACCTG
GAGATCTGCCTGAAGGACCTGGAGGAGGACCACGCCTGCATCCCCATCAAGAAATCTGACCCGGTCGTCTCGTAC
CGCGAGACGGTCAGTGAAGAGTCGAACGTGCTCTGCCTCTCCAAGTCCCCCAACAAGCACAACCGGCTGTACATG
AAGGCGCGGCCCTTCCCCGACGGCCTGGCCGAGGACATCGATAAAGGCGAGGTGTCCGCCCGTCAGGAGCTCAAG
CAGCGGGCGCGCTACCTGGCCGAGAAGTACGAGTGGGACGTGGCTGAGGCCCGCAAGATCTGGTGCTTTGGGCCC
GACGGCACCGGCCCCAACATCCTCACCGACATCACCAAGGGTGTGCAGTACCTCAACGAGATCAAGGACAGTGTG
GTGGCCGGCTTCCAGTGGGCCACCAAGGAGGGCGCACTGTGTGAGGAGAACATGCGGGGTGTGCGCTTCGACGTC
CACGACGTCACCCTGCACGCCGACGCCATCCACCGCGGAGGGGGCCAGATCATCCCCACAGCACGGCGCTGCCTC
TATGCCAGTGTGCTGACCGCCCAGCCACGCCTCATGGAGCCCATCTACCTTGTGGAGATCCAGTGTCCAGAGCAG
GTGGTCGGTGGCATCTACGGGGTTTTGAACAGGAAGCGGGGCCACGTGTTCGAGGAGTCCCAGGTGGCCGGCACC
CCCATGTTTGTGGTCAAGGCCTATCTGCCCGTCAACGAGTCCTTTGGCTTCACCGCTGACCTGAGGTCCAACACG
GGCGGCCAGGCGTTCCCCCAGTGTGTGTTTGACCACTGGCAGATCCTGCCCGGAGACCCCTTCGACAACAGCAGC
CGCCCCAGCCAGGTGGTGGCGGAGACCCGCAAGCGCAAGGGCCTGAAAGAAGGCATCCCTGCCCTGGACAACTTC
CTGGACAAATTG**TAG**GCGGCCCTTCCTGCAGCGCCTGCCGCCCCGGGGACTCGCAGCACCCACAGCACCACGTCC
TCGAATTCTCAGACGACACCTGGAGACTGTCCCGACACAGCGACGCTCCCCTGAGAGGTTTCTGGGGCCCGCTGC
GTGCCATCACTCAACCATAACACTTGATGCCGTTTCTTTCAATATTTATTTCCAGAGTCCGGAGGCAGCAGACAC
GCCCTCTTAGTAGGGACTTAATGGGCCGGTCGGGGAGGGGGAGGCGGGATGGGACACCCAACACTTTTTCCATTT
CTTCAGAGGGAAACTCAGATGTCCAAACTAATTTTAACAAACGCATTAAGAGGTTTATTTGGGTACATGGCCCGC
AGTGGCTTTTGCCCCAGAAAGGGGAAAGGAACACGCGGGTAGATGATTTCTAGCAGGCAGGAAGTCCTGTGCGGT
GTCACCATGAGCACCTCCAGCTGTACTAGTGCCATTGGAATAATAAATTTGATAAGGTG

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FIGURE 1074

ATGGCCGGCGGCGTGGACGGCCCCATCGGGATCCCGTTCCCCGACCACAGCAGCGACATCCTGAGTGGGCTGAAC
GAGCAGCGGACGCAGGGCCTGCTGTGCGACGTGGTGATCCTGGTGGAGGGCCGCGAGTTCCCCACGCACCGCTCG
GTGCTGGCCGCCTGCAGCCAGTACTTCAAGAAGCTGTTCACGTCGGGCGCCGTGGTGGACCAGCAGAACGTGTAC
GAGATCGACTTCGTCAGCGCCGAGGCGCTCACCGCGCTCATGGACTTCGCCTACACGGCCACGCTCACCGTCAGC
ACAGCCAACGTGGGTGACATCCTCAGCGCCGCCCGCCTGCTGGAGATCCCCGCCGTGAGCCACGTGTGCGCCGAC
CTCCTGGACCGGCAGATCCTGGCGGCCGACGCGGGCGCCGACGCCGGGCAGCTGGACCTTGTAGATCAAATTGAT
CAGCGCAACCTCCTCCGCGCCAAGGAGTACCTCGAGTTCTTCCAGAGCAACCCCATGAACAGCCTGCCCCCCGCG
GCCGCCGCCGCCGCTGCCAGCTTCCCGTGGTCCGCCTTTGGGGCGTCCGATGATGACCTGGATGCCACCAAGGAG
GCCGTGGCCGCCGCTGTGGCCGCCGTGGCCGCGGGCGACTGCAACGGCTTAGACTTCTATGGGCCGGGCCCCCCG
GCCGAGCGGCCCCCGACGGGGGACGGGGACGAGGGCGACAGCAACCCGGGTCTGTGGCCAGAGCGGGATGAGGAC
GCCCCCACCGGGGGTCTCTTTCCGCCGCCGGTGGCCCCGCCGGCCGCCACGCAGAACGGCCACTACGGCCGCGGC
GGAGAGGAGGAGGCCGCCTCGCTGTCGGAGGCGGCCCCCGAGCCGGGCGACTCTCCGGGCTTCCTGTCGGGAGCG
GCCGAGGGCGAGGACGGGGACGGGCCCGACGTGGACGGGCTGGCGGCCAGCACGCTGCTGCAGCAGATGATGTCA
TCGGTGGGCCGGGCGGGGGCCGCGGCGGGGGACAGCGACGAGGAGTCGCGGGCCGACGACAAGGGCGTCATGGAC
TACTACCTGAAGTACTTCAGCGGCGCCCACGACGGCGACGTCTACCCGGCCTGGTCGCAGAAGGTGGAGAAGAAG
ATCCGAGCCAAGGCCTTCCAGAAGTGCCCCATCTGCGAGAAGGTCATCCAGGGCGCCGGCAAGCTGCCGCGACAC
ATCCGCACCCACACGGGCGAGAAGCCCTACGAGTGCAACATCTGCAAGGTCCGCTTCACCAGGCAGGACAAGCTG
AAGGTGCACATGCGGAAGCACACGGGCGAGAAGCCGTACCTGTGCCAGCAGTGCGGCGCCGCCTTTGCCCACAAC
TACGACCTGAAGAACCACATGCGCGTGCACACGGGCCTGCGCCCCTACCAGTGCGACAGCTGCTGCAAGACCTTC
GTCCGCTCCGACCACCTGCACAGACACCTCAAGAAAGACGGCTGCAACGGCGTCCCCTCGCGCCGCGGCCGCAAG
CCCCGCGTCCGGGGCGGGGCGCCCGACCCCAGCCCGGGGGCCACCGCGACCCCCGGCGCCCCCGCCCAGCCCAGC
TCCCCCGACGCCCGGCGCAACGGCCAGGAGAAGCACTTTAAGGACGAGGACGAGGACGAGGACGTGGCCAGCCCC
GACGGCTTGGGCCGGTTGAATGTAGCGGGCGCCGGTGGAGGAGGTGACAGCGGAGGTGGCCCCGGGGCCGCCACC
GACGGTAACTTCACAGCCGGACTCGCC**TAA**

FIGURE 1075

CCCCTGCCTCTCGGACTCGGGCTGCGGCGTCAGCCTTCTTCGGGCCTCGGCAGCGGTAGCGGCTCGCTCGCCTCA
GCCCCAGCGCCCCTCGGCTACCCTCGGCCCAGGCCCGCAGCGCCGCCCGCCCTCGGCCGCCCCGACGCCGGCCTG
GGCCGCGGCCGCAGCCCCGGGCTCGCGTAGGCGCCGACCGCTCCCGGCCCGCCCCCTATGGGCCCCGGCTAGAGG
CGCCGCCGCCGCCGGCCCGCGGAGCCCCG**ATG**CTGGCCCGGAGGAAGCCGGTGCTGCCGGCGCTCACCATCAACC
CTACCATCGCCGAGGGCCCATCCCCTACCAGCGAGGGCGCCTCCGAGGCAAACCTGGTGGACCTGCAGAAGAAGC
TGGAGGAGCTGGAACTTGACGAGCAGCAGAAGAAGCGGCTGGAAGCCTTTCTCACCCAGAAAGCCAAGGTCGGCG
AACTCAAAGACGATGACTTCGAAAGGATCTCAGAGCTGGGCGCGGGCAACGGCGGGGTGGTCACCAAAGTCCAGC
ACAGACCCTCGGGCCTCATCATGGCCAGGAAGCTGATCCACCTTGAGATCAAGCCGGCCATCCGGAACCAGATCA
TCCGCGAGCTGCAGGTCCTGCACGAATGCAACTCGCCGTACATCGTGGGCTTCTACGGGGCCTTCTACAGTGACG
GGGAGATCAGCATTTGCATGGAACACATGGACGGCGGCTCCCTGGACCAGGTGCTGAAAGAGGCCAAGAGGATTC
CCGAGGAGATCCTGGGGAAAGTCAGCATCGCGGTTCTCCGGGGCTTGGCGTACCTCCGAGAGAAGCACCAGATCA
TGCACCGAGATGTGAAGCCCTCCAACATCCTCGTGAACTCTAGAGGGGAGATCAAGCTGTGTGACTTCGGGGTGA
GCGGCCAGCTCATCGACTCCATGGCCAACTCCTTCGTGGGCACGCGCTCCTACATGGCTCCGGAGCGGTTGCAGG
GCACACATTACTCGGTGCAGTCGGACATCTGGAGCATGGGCCTGTCCCTGGTGGAGCTGGCCGTCGGAAGGTACC
CCATCCCCCCGCCCGACGCCAAAGAGCTGGAGGCCATCTTTGGCCGGCCCGTGGTCGACGGGGAAGAAGGAGAGC
CTCACAGCATCTCGCCTCGGCCGAGGCCCCCCGGGCGCCCCGTCAGCGGTCACGGGATGGATAGCCGGCCTGCCA
TGGCCATCTTTGAACTCCTGGACTATATTGTGAACGAGCCACCTCCTAAGCTGCCCAACGGTGTGTTCACCCCCG
ACTTCCAGGAGTTTGTCAATAAATGCCTCATCAAGAACCCAGCGGAGCGGGCGGACCTGAAGATGCTCACAAACC
ACACCTTCATCAAGCGGTCCGAGGTGGAAGAAGTGGATTTTGCCGGCTGGTTGTGTAAAACCTGCGGTGAACCAG
CCCGGCACACCCACGCGCACCGCCGTGTGACAGTGGCCGGGCTCCCTCGGTCCCGCTGG**TGA**CCTGCCCACCGTC
CCTGTCCATGCCCCGCCCTTCCAGCTGAGGACCGTGGCGCCTCCACCCACCCTCCTGCCTCACCCTGCGGAGAGC
ACCGTGGCGGGGCGACAGCGCATGCAGGAACGGGGGTCTCCTCTCCTGCCGTCCTGGCCGGGGTGCCTCTGGGGA
CGGGCGACGCTGCTGTGTGTGGTCTCAGAGGCTCTGCTTCCTTAGGTTACAAAACAAAACAGGGAGAGAAAAAGC

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FIGURE 1076

GCTTCCGGCGGAAGCGGCCTCAACAAGGGAAACTTTATTGTTCCCGTGGGGCAGTCGAGG**ATG**TCGGTGAATTAC
GCGGCGGGGCTGTCGCCGTACGCGGACAAGGGCAAGTGCGGCCTCCCGGAGATCTTCGACCCCCCGGAGGAGCTG
GAGCGGAAGGTGTGGGAACTGGCGAGGCTGGTCTGGCAGTCTTCCAGTGTGGTGTTCCACACGGGTGCCGGCATC
AGCACTGCCTCTGGCATCCCCGACTTCAGGGGTCCCCACGGAGTCTGGACCATGGAGGAGCGAGGTCTGGCCCCC
AAGTTCGACACCACCTTTGAGAGCGCGCGGCCCACGCAGACCCACATGGCGCTGGTGCAGCTGGAGCGCGTGGGC
CTCCTCCGCTTCCTGGTCAGCCAGAACGTGGACGGGCTCCATGTGCGCTCAGGCTTCCCCAGGGACAAACTGGCA
GAGCTCCACGGGAACATGTTTGTGGAAGAATGTGCCAAGTGTAAGACGCAGTACGTCCGAGACACAGTCGTGGGC
ACCATGGGCCTGAAGGCCACGGGCCGGCTCTGCACCGTGGCTAAGGCAAGGGGGCTGCGAGCCTGCAGGGGAGAG
CTGAGGGACACCATCCTAGACTGGGAGGACTCCCTGCCCGACCGGGACCTGGCACTCGCCGATGAGGCCAGCAGG
AACGCCGACCTGTCCATCACGCTGGGTACATCGCTGCAGATCCGGCCCAGCGGGAACCTGCCGCTGGCTACCAAG
CGCCGGGGAGGCCGCCTGGTCATCGTCAACCTGCAGCCCACCAAGCACGACCGCCATGCTGACCTCCGCATCCAT
GGCTACGTTGACGAGGTCATGACCCGGCTCATGAAGCACCTGGGGCTGGAGATCCCCGCCTGGGACGGCCCCCGT
GTGCTGGAGAGGGCGCTGCCACCCCTGCCCCGCCCGCCCACCCCCAAGCTGGAGCCCAAGGAGGAATCTCCCACC
CGGATCAACGGCTCTATCCCCGCCGGCCCCAAGCAGGAGCCCTGCGCCCAGCACAACGGCTCAGAGCCCGCCAGC
CCCAAACGGGAGCGGCCCACCAGCCCTGCCCCCCACAGACCCCCCAAAAGGGTGAAGGCCAAGGCGGTCCCCAGC
TGACCAGGGTGCTTGGGGAGGGTGGGGCTTTTTGTAGAAACTGTGGATTCTTTTTCTCTCGTGGTCTCACTTTGT
TACTTGTTTCTGTCCCCGGGAGCCTCAGGGCTCTGAGAGCTGTGCTCCAGGCCAGGGGTTACACCTGCCCTCCGT
GGTCCCTCCCTGGGCTCCAGGGGCCTCTGGTGCGGTTCCGGGAAGAAGCCACACCCCAGAGGTGACAGCTGAGCC
CCTGCCACACCCCAGCCTCTGACTTGCTGTGTTGTCCAGAGGTGAGGCTGGGCCCTCCCTGGTCTCCAGCTTAAA
CAGGAGTGAACTCCCTCTGTCCCCAGGGCCTCCCTTCTGGGCCCCCTACAGCCCACCCTACCCCTCCTCCATGGG
CCCTGCAGGAGGGGAGACCCACCTTGAAGTGGGGGATCAGTAGAGGCTTGCACTGCCTTTGGGGCTGGAGGGAGA
CGTGGGTCCACCAGGCTTCTGGAAAAGTCCTCAATGCAATAAAAACAATTTCTTTCTTGCA

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FIGURE 1077

GATAATTACCCAGCCTAACCATTTCTCAGGTGCTTGCGAGGTGATCAGAAGGCAAAG**ATG**TCGGAGCGAAAAGTA
TTAAACAAATACTACCCGCCGGACTTTGACCCATCAAAGATCCCCAAACTCAAGCTCCCCAAAGACCGGCAGTAC
GTGGTGCGGCTGATGGCCCCCTTCAACATGAGGTGTAAGACGTGCGGAGAATACATCTACAAGGGGAAGAAATTC
AATGCTCGGAAGGAGACGGTGCAGAACGAGGTCTACCTGGGCCTGCCCATCTTCCGCTTTTACATCAAGTGCACG
CGCTGCCTGGCAGAGATCACCTTCAAGACAGACCCTGAAAACACAGACTACACCATGGAGCATGGAGCCACGCGG
AATTTCCAGGCTGAGAAGCTCCTGGAGGAGGAGGAGAAGAGGGTGCAGAAGGAGCGGGAGGACGAGGAGCTGAAC
AACCCCATGAAGGTGCTGGAGAACCGGACCAAGGACTCCAAGCTGGAGATGGAGGTGCTGGAGAACCTCCAGGAG
CTGAAAGACCTGAACCAGCGGCAGGCGCACGTGGACTTCGAGGCTATGCTGAGGCAGCACCGCCTGTCGGAGGAG
GAGCGGCGGAGGCAGCAGCAGGAGGAGGACGAGCAGGAGACCGCGGCCCTGTTGGAGGAAGCCAGAAAGCGAAGA
CTGCTGGAGGACTCCGACTCAGAGGATGAGGCTGCTCCCTCGCCCCTGCAGCCAGCCCTTCGGCCCAACCCCACC
GCCATCCTGGATGAGGCCCCAAAGCCCAAGAGGAAGGTGGAGGTCTGGGAGCAGAGCGTTGGCAGCCTGGGCAGC
CGGCCCCCGCTGTCGAGGCTGGTCGTGGTGAAGAAGGCAAAGGCCGACCCGGACTGCAGCAACGGGCAGCCTCAG
GCGGCCCCCACCCCAGGAGCCCCGCAGAACAGGAAGGAGGCCAACCCTACACCCCTGACGCCTGGCGCGTCCTCC
CTGAGCCAACTGGGTGCATACCTGGACAGTGACGACAGCAACGGCAGCAAC**TGA**GCCCTCCCAGGACCCCCTCAC
GGGGTCAAAGTCACACGTCCAGCTTCAGCCACATTGAGGCCAGCATTGCTGGTGGTCAGGGCAGGAGGCCTTGGC
GTGACTGGAGGCCGGACAGACAAGCGCCAGCGTGCTCCAACACATAGGGCCACCAGGGGCCTCAGCCCCAGGAGG
TCCCTTCTCTGTGCCCTCACCAGCCTCTCAACACCTCGGGGACCCCTGCTGCTCCTGCCCCCACCTGTCACTGTG
CTTAGGGCTGCAACATCCCTGGAGCAGCTTCCAACACTACTTCAGGGTGGCAGTGTTTGGGGCACTGGGCGAGCC
TGCCGGCCTCTAGATGGCCTCATCTCTTCCTTCCACAAACTGTCTAGAACCAATAAAAGGAAACCTGCC

FIGURE 1078

ACCCAGCGTGCGCGGGGCCCGCGGGCCGGGCCGGGGTGACCTGGGCTGCAGCC**ATG**GAAGAACAGAGGGAGGCCC
TGAGGAAGATCATCAAAACACTGGCTGTGAAGAATGAAGAAATTCAGAGCTTTATCTACTCCCTGAAACAGATGC
TGCTGAACGTGGAGGCGAACTCGGCGAAGGTGCAGGAGGACCTCGAAGCAGAGTTCCAGTCCCTCTTCTCCCTCC
TGGAGGAGCTGAAAGAAGGCATGCTTATGAAGATAAAACAGGACCGTGCCAGCCGTACCTACGAGCTGCAGAACC
AGCTGGCTGCCTGCACGCGGGCCCTGGAGAGCTCCGAGGAGCTTCTGGAGACAGCCAACCAGACTCTGCAGGCCA
TGGACAGCGAGGACTTTCCTCAGGCTGCCAAGCAAATCAAAGATGGAGTGACCATGGCCCCTGCCTTCCGGCTAT
CATTGAAAGCGAAGGTCAGTGACAACATGAGTCACCTCATGGTGGACTTCGCGCAAGAGCGGCAGATGCTACAGG
CACTCAAGTTCCTGCCTGTGCCCAGCGCACCCGTGATCGACCTGGCTGAGTCCCTGGTGGCAGATAACTGTGTGA
CCCTGGTGTGGCGCATGCCGGATGAGGACAGCAAGATTGACCACTACGTGCTGGAGTACCGGCGGACCAACTTCG
AGGGCCCGCCCCGCCTCAAGGAGGACCAGCCCTGGATGGTCATCGAGGGCATCCGGCAGACAGAGTACACCCTGA
CAGGTCTCAAGTTTGACATGAAATACATGAACTTCCGTGTGAAGGCCTGTAACAAGGCAGTTGCAGGAGAGTTCT
CTGAGCCGGTGACTCTGGAGACACCAGCGTTCATGTTCCGCCTGGATGCGTCCACATCCCACCAGAACCTGCGGG
TGGATGATCTCTCCGTGGAGTGGGACGCTATGGGCGGGAAGGTGCAGGATATCAAGGCTCGCGAGAAAGATGGCA
AGGGGCGGACGGCGTCTCCCATCAACTCCCCAGCCAGAGGTACTCCATCTCCCAAGAGGATGCCCTCAGGTCGTG
GGGGACGGGACCGCTTCACCGCTGAGTCCTACACAGTTCTGGGGGGACACGCTGATCGACGGCGGGGAGCATTACT
GGGAGGTGCGCTACGAGCCGGACAGCAAGGCGTTCGGCGTGGGCGTGGCCTACCGCAGCCTGGGCCGCTTCGAGC
AACTGGGCAAGACGGCCGCCTCCTGGTGCCTGCACGTCAACAATTGGCTGCAGGTCAGCTTCACGGCCAAGCACG
CCAACAAGGTCAAGGTGCTGGACGCCCCCGTGCCCGACTGCCTGGGTGTGCACTGTGACTTCCACCAAGGCCTCC
TGTCCTTCTACAATGCCCGCACCAAACAAGTGCTGCACACTTTCAAGACCAGGTTCACACAGCCGCTGCTGCCTG
CTTTCACGGTATGGTGTGGCAGCTTCCAGGTGACGACAGGCCTGCAGGTCCCCAGTGCTGTGCGCTGCCTGCAAA
AGCGAGGCAGTGCTACCAGCAGCTCCAACACCAGCCTCACC**TAG**GCCCCCAGGCACCCACCCAGCTGGGGTGTTT
TTGGGGGAGTCGCCGCCAAGCCCAGGCTGCTGGAGCCAGGCACCCTCCTCTGTCACTTGCTGCTTGGAGCCTTAA
CTCCAGATGGGGGGGTCACCAAGAGGGAGTGGGCACCCTGGCGGGCCCTCTCCCCACCTCACCTCTTAATAAAGG
TCAGACACTGGCCAGGC

FIGURE 1079

CTCAGCTTCCCGGCCCAGCTGGGGCACCCACTGGAAGGAGAGGCCAGGCGGAAGACCCTGGCTCCGTCATGGCCT
CTGCCCTGAGGCCACCCCGTGTCCCCAAGCCTAAGGGTGTCCTGCCTTCACACTACTATGAGAGCTTTCTAGAGA
AGAAGGGGCCCTGTGACCGGGATTACAAGAAGTTCTGGGCAGGCCTGCAGGGTCTCACCATTTATTTCTACAATA
GCAATCGGGACTTCCAGCACGTGGAGAAGCTCAACTTGGGAGCATTTGAGAAACTCACAGATGAGATTCCCTGGG
GAAGCTCACGTGACCCTGGCACCCACTTCAGCCTGATTCTCCGGGATCAGGAGATCAAGTTCAAGCTCCGTGTCC
CGACCGACTTGACCTGCTTCCTGGGCACCTATAC**ATG**ATGACGCACGTGGTCCGGCATTACAAGGTGAAGCGGGA
GGGCCCCAAGTACGTGATCGATGTGGAACAGCCGTTCTCTTGCACCTCCCTGGACGCCGTGGTCAACTATTTCGT
GTCGCATACCAAAAAGGCGCTGGTGCCATTCCTGTTAGACGAGGACTACGAGAAGGTGCTAGGCTACGTGGAAGC
CGATAAGGAGAATGGCGAGAATGTGTGGGTGGCGCCCTCCGCTCCGGGCCCAGGTCCTGCACCCTGCACAGGTGG
CCCCAAGCCGCTGTCACCTGCGTCTAGCCAGGACAAGCTGCCCCCACTGCCCCCACTACCGAACCAGGAAGAGAA
CTACGTGACCCCCATTGGAGATGGCCCAGCTGTTGACTATGAGAACCAAGATGTGGCTTCCTCTAGTTGGCCAGT
CATCCTGAAGCCAAAGAAGTTGCCAAAGCCTCCTGCCAAGCTTCCAAAGCCACCCGTTGGACCCAAGCCAGTAGA
GAAGGGGTTTCACCATGTTGCCCAGGCTGGTCTCGAACTCCTGACCTCAAGTGATCCACCCACCTCAGCCTCCCA
AAGTGCTGGGATTACCGGCGTGAGCCACCACACCTGGCCTCATCTGTCTTCTCTTCCAGAGCCCAAAGTCTTTAA
TGGTGGCTTGGGCAGGAAGCTGCCAGTCAGTTCAGCCCAGCCTCTCTTCCCCACAGCCGGGCTGGCAGACATGAC
GGCAGAGCTACAGAAGAAGCTGGAGAAGAGGCGGGCACTGGAGCAC**TGA**TTCGGACACACCAGGGACCAGCGGGC
TAGTCCCAGGGCATGGCCCAGCGGCCAGATTCTTTTTCCCAGGATTAAAACTCTGACCCCAGG

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FIGURE 1080

AAGCCGGAGTCTAGAGCTCCGGGCGCGGGGAGGCGCGGCC**ATG**GCAGCTCCGGAGCCGCTGTCCCCGGCGGGCGG
TGCGGGCGAGGAGGCGCCGGAGGAGGACGAGGACGAAGCGGAGGCCGAGGACCCTGAGCGGCCGAATGCGGGAGC
GGGCGGTGGACGCAGTGGCGGCGGCGGCAGTAGCGTCAGCGGAGGAGGCGGCGGCGGCGGGGCCGGGGCGGGGGG
CTGCGGCGGGCCCGGGGGCGCGCTCACCAGGCGCGCGGTCACACTGCGGGTGCTCCTCAAAGACGCGCTGCTGGA
GCCTGGCGCCGGGGTGCTGTCCATCTACTACCTGGGGAAGAAGTTCCTGGGCGACCTGCAGCCAGACGGAAGGAT
CATGTGGCAGGAGACCGGGCAGACCTTCAACTCACCCAGCGCCTGGGCCACCCACTGCAAGAAGCTGGTGAACCC
TGCCAAGAAGTCGGGCTGTGGCTGGGCCTCTGTCAAGTACAAAGGCCAGAAACTGGACAAGTACAAGGCCACCTG
GCTCCGGCTGCACCAGCTGCACACGCCTGCCACGGCTGCTGATGAGAGCCCAGCCAGTGAAGGGGAGGAGGAGGA
GTTGCTGATGGAAGAGGAGGAGGAGGACGTTCTGGCAGGGGTCTCAGCAGAGGACAAGAGTCGGAGACCACTGGG
GAAGAGCCCTTCAGAGCCTGCCCACCCGGAGGCCACAACCCCAGGGAAGCGGGTGGACAGCAAGATCCGGGTTCC
GGTCCGCTACTGCATGCTGGGCAGCCGCGACTTGGCCAGGAACCCCCACACCCTGGTGGAAGTAACATCCTTTGC
AGCCATCAACAAGTTCCAGCCGTTCAACGTGGCTGTTTCTAGCAACGTGCTGTTCCTGCTGGACTTCCACAGTCA
CCTGACACGGAGTGAGGTCGTGGGTTACCTGGGGGGCCGCTGGGACGTCAACAGCCAGATGCTGACGGTGCTCAG
AGCCTTCCCTTGTCGGAGCCGGCTCGGGGACGCAGAGACTGCAGCTGCCATCGAAGAGGAGATCTACCAGAGCCT
GTTCCTGCGGGGCCTGTCCCTGGTGGGCTGGTACCACAGCCACCCACACAGCCCGGCGCTGCCATCTCTGCAGGA
CATCGACGCACAGATGGACTACCAGCTGCGGCTGCAGGGCTCCAGCAATGGCTTCCAGCCCTGCCTCGCCCTGCT
CTGCTCCCCTTACTATTCTGGCAACCCAGGCCCCGAGTCCAAGATCTCACCTTTCTGGGTGATGCCTCCTCCCGA
GCAAAGGCCCAGTGACTATGGCATCCCCATGGATGTGGAGATGGCCTACGTCCAGGACAGCTTCCTGACCAATGA
CATCCTTCACGAGATGATGCTGCTGGTGGAGTTCTACAAGGGTTCCCCTGACCTCGTGAGGCTCCAGGAACCCTG
GAGCCAGGAGCACACCTACCTCGACAAGCTTAAGATCTCCTTGGCCAGCAGGACGCCCAAGGACCAGAGCCTGTG
TCACGTCCTGGAACAGGTGTGCGGCGTCCTCAAGCAGGGGAGC**TGA**GCCTTCCAGGGCAGGGTGGGCTCCAGTTG
TCTTGAGGGTCCGGATGGGCTCAGGTAATAAAGAAACGGAAGCAGCAGCC

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FIGURE 1081

GTGCGGTTGCCATGTAATATCCTGGCCGCGCGGGCGCGCGAGCGGCTGAGGCGGCGCCGGGGCGGGCGCGGAGCT
GGCAAGCGGGTGGCGGAGGCGGCGCCGACGGGGACTGCTGAGGCGCGCAGAGGGTCGGCGGCGCCCGGGAGCCTG
TCGCTGGCGCGGTCCGGGCGGGAGGCTCGGCGGCGGGCGGCAGC**ATG**TCGGTGGCGGGGCTGAAGAAGCAGTTCT
ACAAGGCGAGCCAGCTGGTCAGTGAGAAGGTCGGAGGGGCCGAGGGGACCAAGCTGGATGATGACTTCAAAGAGA
TGGAGAAGAAGGTGGATGTCACCAGCAAGGCGGTGACAGAAGTGCTGGCCAGGACCATCGAGTACCTGCAGCCCA
ACCCAGCCTCGCGGGCTAAGCTGACCATGCTCAACACGGTGTCCAAGATCCGGGGCCAGGTGAAGAACCCCGGCT
ACCCGCAGTCGGAGGGGCTTCTGGGCGAGTGCATGATCCGCCACGGGAAGGAGCTGGGCGGCGAGTCCAACTTTG
GTGACGCATTGCTGGATGCCGGCGAGTCCATGAAGCGCCTGGCAGAGGTGAAGGACTCCCTGGACATCGAGGTCA
AGCAGAACTTCATTGACCCCCTCCAGAACCTGTGCGAGAAAGACCTGAAGGAGATCCAGCACCACCTGAAGAAAC
TGGAGGGCCGCCGCCTGGACTTTGACTACAAGAAGAAGCGGCAGGGCAAGATCCCCGATGAGGAGCTACGCCAGG
CGCTGGAGAAGTTCGAGGAGTCCAAGGAGGTGGCAGAAACCAGCATGCACAACCTCCTGGAGACTGACATCGAGC
AGGTGAGTCAGCTCTCGGCCCTGGTGGATGCACAGCTGGACTACCACCGGCAGGCCGTGCAGATCCTGGACGAGC
TGGCGGAGAAGCTCAAGCGCAGGATGCGGGAAGCTTCCTCACGCCCTAAGCGGGAGTATAAGCCCAAGCCCCGGG
AGCCCTTTGACCTTGGAGAGCCTGAGCAGTCCAACGGGGGCTTCCCCTGCACCACAGCCCCCAAGATCGCAGCTT
CATCGTCTTTCCGATCTTCCGACAAGCCCATCCGGACCCCTAGCCGGAGCATGCCGCCCCTGGACCAGCCGAGCT
GCAAGGCGCTGTACGACTTCGAGCCCGAGAACGACGGGGAGCTGGGCTTCCATGAGGGCGACGTCATCACGCTGA
CCAACCAGATCGATGAGAACTGGTACGAGGGCATGCTGGACGGCCAGTCGGGCTTCTTCCCGCTCAGCTACGTGG
AGGTGCTTGTGCCCCTGCCGCAG**TGA**CTCACCCGTGTCCCCGCCCCGCCCCTCCGTCCACACTGGCCGGCACCCC
CTGCTGGGTCTCCTGCATTCCACGGAGCCCCTGCTGCCAGGGCGGTGTCTGAGCCTGCCGGCGCCACCTGGGCCC
CGGCCCTTGAGGTACTCCCTGAGCAGGACCCCACACTTGGGTGGGGGGGCTTATCTGGGTGGGTGGGGATGCCTG
TTTACACTAGCGCTGACTCCCAACGGTGACGGCTCCCTTCCCCACTCCATGGCGCCAGCCTCCTCCCCCGCTCCC
CAACTTCTCGCCCAGCTGGCCGAGGCGGGGCAACACTAAGGTGCTCTTAGAAACACTAATGTTCCTCTGGGGCAG
CCCCCACCTCCGTCCTGACCCGACGGGGGCCCGGCCCACTGCCTACCCTCGAGTCCCGCAGCCTTAACAGGATGG
GATCGAGGGTCCCCATGGGGTGGCTCAGAGATAGGACCCTGGTTTTAAATCCCTCCCAGCCTGGTGCTGGTGATG
GGCCCTGGCCCTACTCCAGGGCCAATGCACCCCCGCCTCACACACGCACTCCTTCTCCTCAAGGCCAGGGCAGAG
GGCCTCACCGCCTCCCGGGCCTGCTGTCAGCTTGCAGCCCGGGGACAGAGGCCAGCTGGGATCTGCCTGAGGACA
GAGAACATGGTCTCCTGCAGGGCCCTGCCTCCCAAGCCCCGCCCTCAGAAAGCCAAGTACCTTTTCAGCTTTTTA
ACTGCCCCCATCCCAACCCAGGGAGGCCTGTGTCACTCTGGCACAAGCTGCCACCACCAGCCACCCACACCCACC
CCAGCACACCTCACACGGGACCACAGCCGCGCTGCCGAGGGCCAAGCACAAAGGTTCCAGTGAGCGCATGTCCCA
GCCCCTGGTGGCCAGGCTCCCCTTGCTGAGCCGCTGCCACTTCACCCTGTGGGAAGTGGCCCCAGCCATCTCCTC
TAGACCAAGGCAGGCAGCCCCGACATCTGCTTCCTCTATCGCCCAATGCAAAATCGATGAAATGGGGAGTTCTCT
GGGCCAGGCCACATTCACATTCCCCTCCCCCTGTGGTCCAGTGAAGCCTCCGGACCCCAGGCTCTGCTCTGCCCT
GCCCTGCACCCCCCTCGTCAGAAGTACATGAGGGGCGCAGAGATGAGCACACAGCTTTGGGCACGGTCCAGGGCA
AACTGAAATGTACGCCTGAATTTTGTAAACAGAAGTATTAAATGTCTCTTTCTAC

FIGURE 1082

GGAGTGCGGGGCGCCCGGCGCCAGGGGAGCCGCCACAGCC**ATG**GATTGCAAAGATAGACCAGCTTTTCCAGTTAA
GAAGTTAATACAAGCCCGTCTGCCGTTTAAGCGCCTGAATCTTGTCCCAAAGGGGAAAGCCGATGACATGTCAGA
CGATCAGGGTACTTCTGTGCAAAGTAAAAGCCCCGATTTAGAGGCCTCTTTGGACACCTTGGAAAACAACTGTCA
TGTGGGTTCTGACATAGACTTTAGACCGAAACTTGTCAACGGGAAGGGTCCCTTAGATAACTTTTTAAGAAATAG
AATCGAAACCAGTATTGGCCAGAGCACAGTCATCATTGATTTGACAGAGGACTCGAATGAGCAGCCAGACAGTCT
TGTGGACCACAATAAACTAAATTCTGAAGCCTCTCCCTCCAGGGAGGCAATAAATGGCCAGCGAGAAGACACTGG
GGATCAGCAGGGGTTGTTGAAGGCCATTCAGAACGACAAGTTGGCATTTCCTGGAGAGACCCTTTCAGACATTCC
TTGCAAAACAGAGGAGGAGGGTGTTGGCTGTGGAGGTGCAGGGAGGAGAGGCGACTCCCAGGAATGTTCGCCACG
GAGCTGCCCGGAGCTGACGAGTGGCCCGAGAATGTGCCCCAGAAAGGAGCAGGACAGTTGGAGTGAAGCTGGGGG
CATCCTGTTCAAAGGGAAGGTGCCTATGGTGGTCTTGCAGGACATCTTGGCTGTGAGACCACCGCAAATCAAGTC
CCTTCCAGCCACACCCCAAGGCAAGAACATGACCCCTGAGAGTGAGGTGCTGGAATCTTTCCCCGAAGAAGACTC
TGTACTCAGCCATTCGTCCCTGAGCTCTCCCTCTTCCACCAGCTCGCCCGAGGGGCCGCCTGCTCCCCCAAAGCA
GCACAGCAGTACCAGTCCCTTCCCCACCTCCACGCCCCTCCGCAGAATAACTAAGAAATTCGTCAAAGGCTCTAC
AGAGAAGAACAAGCTCAGACTGCAAAGAGATCAGGAGCGTCTGGGCAAGCAGCTCAAGTTACGTGCAGAAAGGGA
AGAAAAGGAGAAGCTGAAAGAGGAGGCCAAGCGGGCCAAGGAGGAGGCCAAGAAGAAGAAGGAGGAAGAGAAGGA
GCTTAAGGAAAAGGAGAGGCGGGAGAAGCGGGAGAAGGATGAGAAGGAGAAGGCGGAGAAGCAGCGGCTCAAGGA
GGAGCGGCGCAAGGAGAGACAGGAAGCCCTGGAGGCTAAACTTGAGGAAAAAAGGAAAAAGGAAGAAGAGAAACG
GTTAAGAGAAGAAGAGAAGCGCATTAAAGCAGAGAAGGCCGAAATCACGAGGTTCTTCCAGAAACCAAAGACTCC
ACAGGCCCCCAAGACCCTGGCCGGCTCCTGTGGGAAGTTTGCCCCCTTTGAAATTAAAGAGCACATGGTCCTGGC
CCCTCGGCGTCGGACCGCTTTCCATCCAGACCTCTGCAGTCAGCTGGACCAGCTCCTCCAGCAGCAGAGCGGCGA
GTTCTCCTTCTTGAAAGACCTCAAAGGCCGGCAGCCCCTGAGGTCCGGACCCACGCACGTTTCCACCCGGAATGC
AGATATTTTTAACAGTGATGTCGTCATCGTGGAGCGTGGGAAGGGCGACGGTGTTCCCGAGAGGAGGAAGTTTGG
CAGGATGAAGCTCCTGCAGTTCTGTGAGAACCACCGGCCTGCCTACTGGGGTACCTGGAATAAGAAGACGGCACT
CATCCGCGCGCGAGACCCCTGGGCCCAGGACACGAAGCTCCTGGACTATGAGGTGGACAGTGATGAGGAGTGGGA
AGAAGAGGAGCCTGGGGAGTCCCTGTCCCACAGTGAGGGGGATGATGATGACGACATGGGAGAGGATGAAGATGA
GGACGATGGTTTCTTTGTGCCCCATGGGTACCTGTCTGAGGACGAAGGTGTGACAGAGGAGTGTGCCGACCCTGA
GAACCATAAGGTCCGCCAGAAACTGAAGGCCAAGGAGTGGGACGAGTTCCTGGCTAAGGGGAAGCGCTTTCGCGT
CCTGCAACCTGTGAAGATCGGCTGCGTGTGGGCGGCTGACAGAGACTGCGCAGGCGATGACCTGAAGGTACTGCA
GCAGTTCGCAGCCTGCTTCCTGGAGACCCTGCCGGCCCAGGAGGAGCAGACGCCCAAGGCCTCCAAGCGGGAGAG
GAGAGACGAGCAGATCCTGGCCCAGCTGCTGCCGCTCCTGCACGGCAATGTGAACGGGAGCAAGGTCATCATCCG
GGAGTTCCAGGAGCACTGCCGCCGGGGACTGCTCAGCAACCACACCGGCAGCCCGCGGAGCCCCTCCACCACCTA
CCTGCACACCCCCACCCCCAGCGAGGATGCCGCCATCCCCTCTAAGTCCCGGCTCAAGCGGCTCATTTCCGAGAA
CTCAGTGTATGAGAAGCGGCCTGACTTCAGGATGTGCTGGTACGTGCACCCGCAGGTGCTACAGAGCTTCCAGCA
GGAGCACCTGCCCGTGCCGTGCCAGTGGAGCTATGTGACATCGGTGCCCTCGGCCCCCAAAGAGGACAGTGGCAG
CGTCCCCTCCACGGGGCCCAGCCAGGGCACTCCCATCTCGCTGAAGAGGAAGTCAGCGGGCAGCATGTGCATCAC
CCAATTCATGAAGAAGCGCAGGCACGACGGCCAGATTGGTGCTGAAGACATGGACGGCTTCCAGGCAGACACGGA
GGAGGAGGAAGAGGAGGAGGGCGACTGTATGATCGTGGATGTCCCGGATGCTGCGGAGGTCCAAGCCCCGTGTGG
AGCCGCTTCCGGAGCTGGGGGTGGTGTGGGGGTGGACACCGGCAAGGCCACCCTGACCTCGAGCCCACTGGGTGC
ATCC**TGA**GAGCAGGGGTGACGTATGTAGAATGCTTAGGGTGTCCTCCCCACAGAGCAGATACTTGAACCGACTCA
ATTCCTGTGTAAAGAGCACTTTGTCCTGCTTCACGGACCTCCCCAAAGTGTGCAGAGTTCTATATAGGATGCTGG
ATTAGTTCCTTTGATATTTGTAAAAATTCCCCCAAGAGCCGCATATGAATCTGCCCTTTAATAAAGCATTATTGA
GATTGCTGGCCTATTGGGGAAGCCTGCGGGCACAGGA

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FIGURE 1083

TTTTCTTCCGGTGGCTGGTCTCCGGCGGCCCCGTCCCCGACTGGGCCCCGTGCCCCCCCGCCCCCGCGGCCCCCC
GCCGCCGGGCCAGCCGCCACC**ATG**AAGAAATTCTTTCAGGAGTTCAAGGCCGACATCAAGTTCAAGAGCGCGGGA
CCCGGTCAGAAGCTCAAAGAGTCCGTGGGGGAAAAGGCCCACAAAGAGAAGCCCAACCAGCCAGCCCCCAGGCCG
CCCCGCCAGGGACCCACCAATGAGGCACAGATGGCAGCCGCTGCCGCCCTAGCCCGGCTGGAGCAGAAGCAGTCC
CGGGCCTGGGGCCCCACATCGCAGGACACCATCCGAAACCAGGTGAGAAAGGAACTTCAAGCCGAAGCCACCGTC
AGCGGGAGCCCCGAGGCCCCAGGGACCAACGTGGTATCTGAGCCCAGAGAGGAAGGCTCTGCCCACCTGGCTGTG
CCTGGCGTGTACTTCACCTGTCCGCTCACTGGGGCCACCCTGAGGAAGGACCAGCGGGACGCCTGCATCAAGGAG
GCCATTCTCTTGCACTTCTCCACCGACCCAGTGGCCGCCTCCATCATGAAGATCTACACGTTCAACAAAGACCAG
GACCGGGTGAAGCTGGGTGTGGACACCATTGCCAAGTACCTGGACAACATCCACCTGCACCCCGAGGAGGAGAAG
TACCGGAAGATCAAGCTGCAGAACAAGGTGTTTCAGGAGCGCATTAACTGCCTGGAAGGGACCCACGAGTTTTTT
GAGGCCATTGGGTTCCAGAAGGTGTTGCTTCCCGCCCAGGATCAGGAGGACCCCGAGGAGTTCTACGTGCTGAGC
GAGACCACCTTGGCCCAGCCCCAGAGCCTGGAGAGGCACAAGGAACAGCTGCTGGCTGCGGAGCCCGTGCGCGCC
AAGCTGGACAGGCAGCGCCGCGTCTTCCAGCCCTCGCCCCTGGCCTCGCAGTTCGAACTGCCTGGGGACTTCTTC
AACCTCACAGCAGAGGAGATCAAGCGGGAGCAGAGGCTCAGGTCCGAGGCGGTGGAGCGGCTGAGCGTGCTGCGG
ACCAAGGCCATGCGGGAGAAGGAGGAGCAGCGGGGGCTGCGCAAGTACAACTACACGCTGCTGCGCGTGCGCCTC
CCCGATGGCTGCCTCCTGCAGGGCACTTTCTACGCTCGGGAGCGGCTGGGGGCGGTGTACGGGTTCGTCCGGGAG
GCCCTGCAGAGCGACTGGCTGCCTTTTGAGCTGCTGGCCTCGGGAGGGCAGAAGCTGTCCGAGGACGAGAACCTG
GCCTTGAACGAGTGCGGGCTGGTGCCCTCTGCCCTCCTGACCTTCTCGTGGGACATGGCTGTGCTGGAGGACATC
AAGGCCGCGGGGGCCGAGCCGGACTCCATCCTGAAACCCGAGCTCCTGTCAGCCATCGAGAAGCTCTTG**TGA**AAT
AAAAGCAGGGTTGGCCTCAGCCCTGTGGGTCTGTCTCATGCTCTCCCTGTTCCTCTCCCCGCCACCCCAGGGCCT
CCAAGCCACCTCTGGAAATACTTGGCTCTGCCCCATGGGCACGGGAGGGGCGCCAGCCGTGGAGCTGTGGAATTG
GGCCCCGTGGCAGAGCCCCCATCCCTTGGGGGCTGTGGGGATGCGCCCAAGCCCCCGAGGGAGAGGCCTGGGGAC
ACCAAC

FIGURE 1084

CGCCGCTGCAGCCGCTTTCCGCGGCCTGGGCCTCTCGCCGTCAGC**ATG**CCACACGCCTTCAAGCCCGGGGACTTG
GTGTTCGCTAAGATGAAGGGCTACCCTCACTGGCCTGCCAGGATCGACGACATCGCGGATGGCGCCGTGAAGCCC
CCACCCAACAAGTACCCCATCTTTTTCTTTGGCACACACGAAACAGCCTTCCTGGGACCCAAGGACCTGTTCCCC
TACGACAAATGTAAAGACAAGTACGGGAAGCCCAACAAGAGGAAAGGCTTCAATGAAGGGCTGTGGGAGATCCAG
AACAACCCCCACGCCAGCTACAGCGCCCCTCCGCCAGTGAGCTCCTCCGACAGCGAGGCCCCCGAGGCCAACCCC
GCCGACGGCAGTGACGCTGACGAGGACGATGAGGACCGGGGGGTCATGGCCGTCACAGCGGTAACCGCCACAGCT
GCCAGCGACAGGATGGAGAGCGACTCAGACTCAGACAAGAGTAGCGACAACAGTGGCCTGAAGAGGAAGACGCCT
GCGCTAAAGATGTCGGTCTCGAAACGAGCCCGAAAGGCCTCCAGCGACCTGGATCAGGCCAGCGTGTCCCCATCC
GAAGAGGAGAACTCGGAAAGCTCATCTGAGTCGGAGAAGACCAGCGACCAGGACTTCACACCTGAGAAGAAAGCA
GCGGTCCGGGCGCCACGGAGGGGCCCTCTGGGGGGACGGAAAAAAAAGAAGGCGCCATCAGCCTCCGACTCCGAC
TCCAAGGCCGATTCGGACGGGGCCAAGCCTGAGCCGGTGGCCATGGCGCGGTCGGCGTCCTCCTCCTCCTCTTCC
TCCTCCTCCTCCGACTCCGATGTGTCTGTGAAGAAGCCTCCGAGGGGCAGGAAGCCAGCGGAGAAGCCTCTCCCG
AAGCCGCGAGGGCGGAAACCGAAGCCTGAACGGCCTCCGTCCAGCTCCAGCAGTGACAGTGACAGCGACGAGGTG
GACCGCATCAGTGAGTGGAAGCGGCGGGACGAGGCGCGGAGGCGCGAGCTGGAGGCCCGGCGGCGGCGAGAGCAG
GAGGAGGAGCTGCGGCGCCTGCGGGAGCAGGAGAAGGAGGAGAAGGAGCGGAGGCGCGAGCGGGCCGACCGCGGG
GAGGCTGAGCGGGGCAGCGGCGGCAGCAGCGGGGACGAGCTCAGGGAGGACGATGAGCCCGTCAAGAAGCGGGGA
CGCAAGGGCCGGGGCCGGGGTCCCCCGTCCTCCTCTGACTCCGAGCCCGAGGCCGAGCTGGAGAGAGAGGCCAAG
AAATCAGCGAAGAAGCCGCAGTCCTCAAGCACAGAGCCCGCCAGGAAACCTGGCCAGAAGGAGAAGAGAGTGCGG
CCCGAGGAGAAGCAACAAGCCAAGCCCGTGAAGGTGGAGCGGACCCGGAAGCGGTCCGAGGGCTTCTCGATGGAC
AGGAAGGTAGAGAAGAAGAAAGAGCCCTCCGTGGAGGAGAAGCTGCAGAAGCTGCACAGTGAGATCAAGTTTGCC
CTAAAGGTCGACAGCCCGGACGTGAAGAGGTGCCTGAATGCCCTAGAGGAGCTGGGAACCCTGCAGGTGACCTCT
CAGATCCTCCAGAAGAACACAGACGTGGTGGCCACCTTGAAGAAGATTCGCCGTTACAAAGCGAACAAGGACGTA
ATGGAGAAGGCAGCAGAAGTCTATACCCGGCTCAAGTCGCGGGTCCTCGGCCCAAAGATCGAGGCGGTGCAGAAA
GTGAACAAGGCTGGGATGGAGAAGGAGAAGGCCGAGGAGAAGCTGGCCGGGGAGGAGCTGGCCGGGGAGGAGCTG
GCCGGGGAGGAGGCCCCCCAGGAGAAGGCGGAGGACAAGCCCAGCACCGATCTCTCAGCCCCAGTGAATGGCGAG
GCCACATCACAGAAGGGGGAGAGCGCAGAGGACAAGGAGCACGAGGAGGGTCGGGACTCGGAGGAGGGGCCAAGG
TGTGGCTCCTCTGAAGACCTGCACGACAGCGTACGGGAGGGTCCCGACCTGGACAGGCCTGGGAGCGACCGGCAG
GAGCGCGAGAGGGCACGGGGGGACTCGGAGGCCCTGGACGAGGAGAGC**TGA**GCCGCGGGCAGCCAGGCCCAGCCC
CCGCCCGAGCTCAGGCTGCCCCTCTCCTTCCCCGGCTCGCAGGAGAGCAGAGCAGAGAACTGTGGGGAACGCTGT
GCTGTTTGTATTTGTTCCCTTGGGTTTTTTTTTCCTGCCTAATTTCTGTGATTTCCAACCAACATGAAATGACTA
TAAATGGTTTTTTAATG

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FIGURE 1085

CCCCGGCCCCGGCTCCGGCGCTGCTCCCACCGCCGCGGCAACGGCCCCGGCCCACGGAGGCGGCTGGACGGACCC
CCGACGGTTGGACGTACGGACTCTGCTTCGAGAGTAGGCCATGGACACCTTCAGCACCAAGAGCCTGGCTCTGCA
GGCGCAGAAGAAGCTCCTGAGTAAGATGGCGTCCAAGGCAGTGGTGGCCGTGCTGGTGGATGACACCAGCAGTGA
GGTGCTGGATGAGCTGTACCGCGCCACCAGGGAGTTCACGCGCAGCCGCAAGGAGGCCCAGAAGATGCTCAAGAA
CCTGGTCAAGGTGGCCCTGAAGCTGGGACTGCTGCTGCGTGGGGACCAGCTGGGCGGTGAGGAGCTGGCGCTGCT
GCGGCGCTTCCGCCACCGGGCGCGCTGCCTGGCCATGACGGCCGTCAGCTTCCACCAGGTGGACTTCACCTTCGA
CCGGCGCGTGCTGGCCGCCGGGCTGCTCGAGTGCCGCGACCTGCTGCACCAGGCCGTGGGTCCCCACCTGACCGC
CAAGTCCCACGGCCGCATCAACCACGTGTTCGGCCACCTAGCCGACTGCGACTTCCTGGCTGCGCTCTACGGCCC
CGCCGAGCCCTACCGCTCCCACCTGCGCAGGATCTGCGAGGGCCTGGGCCGGATGCTGGACGAGGGCAGCCTCTG
AACCCCGGCGCCGCCCAACCGCGCCCCTCGCGCCTTTTGGGGCTCTCCTGCTGGGCGCGGGTGGGGTTTGTGGGT
TTTTTTCCACCTCTTTTCTCCCAATCGGACTCCGGCCAAACTCCCCTAGACAGATGGGTGACCTGTCTCCTTTGA
GAGGATGCTGAGGCATCTGTAGCAGCTGTTTCAAACACCAATGTCACCTCTCCTCCTGGCCCCCGCCCAATGGGG
AGAGGAATTTGGGGCCCTACTCTGGGGACCACCTTTCACCCGTTTGTACTTTCTGGGCCACGCCGACCCCTGGGT
CGCTTGATGTAAAAGCCAAAAGCTGCTGCCTCCCACTTGGATCATGTCGCCTGGGATTTTCATCCCTCGCACAAG
GACTACGGGTTCACACGGTGAACTGGGGGAAGGGAAGTGTTAGGGGGCAAGTCGCGGCACCCCCCCTTCCATAAA
CTCACGTCCTAACCCCCAGGACCTCAGAAGATGATCTGATTTGGAAATAGGATCATTACAGATGGAATTAGTTCA
GATGATCTCATCTTGGAGTAGGGTGGGCCCCAATTCAAGGACTGGGGTCCTTAAAAAAAGGGGGCCTGGGGCAGG
GCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGAGAGGCTGAGGCGGGCGGATCACGAGGTCAGGAGATCGAG
ACCATCCTGGCTAACACGGTGAAACCCCATCTCTACTGAAAATACAAAAAATTAGCTGGGCATGGTGGCACATGC
CTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGATAATCACTTGAACCAGGAGGAGGAGGTTGCAGTGAGCCGA
GATTGTGCCACTGCACTCCAGCCTGGGTGACAGAGCAAGACTCTGTCTCAAAAAAAGAAGCGGGGGAGTGGGGGA
TTGAGGCCACGTGCAGTGGCTCACTACTCTAATTCCAGCACTTTGGGAGGCCGAGGCAGGAAGATTGCTTGAACT
CAGAAGTTCAAGACCAGTCTGGGCAACATGGTGAGACCCTCGTCTCTACAAAAAAAAAAATTATCGTGGTGGGCCG
GGCGTGGTGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACAAGGTCAAGAGATCGA
GACCATCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCGGGCATGGTGTTGCGTGC
CTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTGGGAGGCGCAGGTTGCAGGGAGGCG
GAGGTTGCAGTGAGCCGAGATTGCACCACTGCACTTCAGCCTGGTGACAGAGCGAGACTCGTCTCAAAAAAAAAA
AAAAAAAAAAAAAAAAAAGTGACTGTGGTGGTGCACACGTATAATCCCAGCTACTTGAGAGATGACGAGGGAAGA
TCACTTGAGCCCAGGAGTTAAGAGGCTGCAGTGACCGATGATCATGCCACTGCACTCCAGCTTGGGTGAGAGTGG
GACTCTGTCTT

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FIGURE 1086

GTCTACCCGCCCCTGCCCTGAGGACCCTAGTCCAAC**ATG**GCGGCGCCCAGCGGAGGGTGGAACGGCGTCGGCGCG
AGCTTGTGGGCCGCGCTGCTCCTAGGGGCCGTGGCGCTGAGGCCGGCGGAGGCGGTGTCCGAGCCCACGACGGTG
GCGTTTGACGTGCGGCCCGGCGGCGTCGTGCATTCCTTCTCCCATAACGTGGGCCCGGGGGGACAAATATACGTGT
ATGTTCACTTACGCCTCTCAAGGAGGGACCAATGAGCAATGGCAGATGAGTCTGGGGACCAGCGAAGACCACCAG
CACTTCACCTGCACCATCTGGAGGCCCCAGGGGAAGTCCTATCTGTACTTCACACAGTTCAAGGCAGAGGTGCGG
GGCGCTGAGATTGAGTACGCCATGGCCTACTCTAAAGCCGCATTTGAAAGGGAAAGTGATGTCCCTCTGAAAACT
GAGGAATTTGAAGTGACCAAAACAGCAGTGGCTCACAGGCCCGGGGCATTCAAAGCTGAGCTGTCCAAGCTGGTG
ATTGTGGCCAAGGCATCGCGCACTGAGCTG**TGA**CCAGCAGCCCTGTTGCGGGTGGCACCTTCTCATCTCCGGTGA
AGCTGAAGGGGCCCTCCTGGCTCCCAACAGCTTCTCAGTTCCCACTTCCTGCTGAGCTCTTCTGGACTCAGGATC
GCAGATCCGGGGCACAAAGAGGGTGGGGAACATGGGGGCTATGCTGGGGAAAGCAGCCATGCTCCCCCCGACCTC
CAGCCGAGCATCCTTCATGAGCCTGCAGAACTGCTTTCCTATGTTTACCCAGGGGACCTCCTTTCAGATGAACTG
GGAAGAGATGAAATGTTTTTTCATATTTAAATAAATAAGAACATTAAAAAGC

FIGURE 1087A

AAGGTGCCTGAGCCGGCGGGTCCCCTGTGTCCGCCGCGGCTGTCGTCCCCCGCTCCCGCCACTTCCGGGGTCGCA
GTCCCGGGCATGGAGCCGCGACCGTGAGGCGCCGCTGGACCCGGGACGACCTGCCCAGTCCGGCCGCCGCCCCAC
GTCCCGGTCTGTGTCCCACGCCTGCAGCTGGAATGGAGGCTCTCTGGACCCTTTAGAAGGCACCCCTGCCCTCCT
GAGGTCAGCTGAGCGGTTAATGCGGAAGGTTAAGAAACTGCGCCTGGACAAGGAGAACACCGGAAGTTGGAGAAG
CTTCTCGCTGAATTCCGAGGGGGCTGAGAGG**ATG**GCCACCACCGGGACCCCAACGGCCGACCGAGGCGACGCAGC
CGCCACAGATGACCCGGCCGCCCGCTTCCAGGTGCAGAAGCACTCGTGGGACGGGCTCCGGAGCATCATCCACGG
CAGCCGCAAGTACTCGGGCCTCATTGTCAACAAGGCGCCCCACGACTTCCAGTTTGTGCAGAAGACGGATGAGTC
TGGGCCCCACTCCCACCGCCTCTACTACCTGGGAATGCCATATGGCAGCCGAGAGAACTCCCTCCTCTACTCTGA
GATTCCCAAGAAGGTCCGGAAAGAGGCTCTGCTGCTCCTGTCCTGGAAGCAGATGCTGGATCATTTCCAGGCCAC
GCCCCACCATGGGGTCTACTCTCGGGAGGAGGAGCTGCTGAGGGAGCGGAAACGCCTGGGGGTCTTCGGCATCAC
CTCCTACGACTTCCACAGCGAGAGTGGCCTCTTCCTCTTCCAGGCCAGCAACAGCCTCTTCCACTGCCGCGACGG
CGGCAAGAACGGCTTCATGGTGTCCCCTATGAAACCGCTGGAAATCAAGACCCAGTGCTCAGGGCCCCGGATGGA
CCCCAAAATCTGCCCTGCCGACCCTGCCTTCTTCTCCTTCATCAATAACAGCGACCTGTGGGTGGCCAACATCGA
GACAGGCGAGGAGCGGCGGCTGACCTTCTGCCACCAAGGTTTATCCAATGTCCTGGATGACCCCAAGTCTGCGGG
TGTGGCCACCTTCGTCATACAGGAAGAGTTCGACCGCTTCACTGGGTACTGGTGGTGCCCCACAGCCTCCTGGGA
AGGTTCAGAGGGCCTCAAGACGCTGCGAATCCTGTATGAGGAAGTCGATGAGTCCGAGGTGGAGGTCATTCACGT
CCCCTCTCCTGCGCTAGAAGAAAGGAAGACGGACTCGTATCGGTACCCCAGGACAGGCAGCAAGAATCCCAAGAT
TGCCTTGAAACTGGCTGAGTTCCAGACTGACAGCCAGGGCAAGATCGTCTCGACCCAGGAGAAGGAGCTGGTGCA
GCCCTTCAGCTCGCTGTTCCCGAAGGTGGAGTACATCGCCAGGGCCGGGTGGACCCGGGATGGCAAATACGCCTG
GGCCATGTTCCTGGACCGGCCCCAGCAGTGGCTCCAGCTCGTCCTCCTCCCCCCGGCCCTGTTCATCCCGAGCAC
AGAGAATGAGGAGCAGCGGCTAGCCTCTGCCAGAGCTGTCCCCAGGAATGTCCAGCCGTATGTGGTGTACGAGGA
GGTCACCAACGTCTGGATCAATGTTCATGACATCTTCTATCCCTTCCCCCAATCAGAGGGAGAGGACGAGCTCTG
CTTTCTCCGCGCCAATGAATGCAAGACCGGCTTCTGCCATTTGTACAAAGTCACCGCCGTTTTAAAATCCCAGGG
CTACGATTGGAGTGAGCCCTTCAGCCCCGGGGAAGATGAATTTAAGTGCCCCATTAAGGAAGAGATTGCTCTGAC
CAGCGGTGAATGGGAGGTTTTGGCGAGGCACGGCTCCAAGATCTGGGTCAATGAGGAGACCAAGCTGGTGTACTT
CCAGGGCACCAAGGACACGCCGCTGGAGCACCACCTCTACGTGGTCAGCTATGAGGCGGCCGGCGAGATCGTACG
CCTCACCACGCCCGGCTTCTCCCATAGCTGCTCCATGAGCCAGAACTTCGACATGTTCGTCAGCCACTACAGCAG
CGTGAGCACGCCGCCCTGCGTGCACGTCTACAAGCTGAGCGGCCCCGACGACGACCCCCTGCACAAGCAGCCCCG
CTTCTGGGCTAGCATGATGGAGGCAGCCAGCTGCCCCCCGGATTATGTTCCTCCAGAGATCTTCCATTTCCACAC
GCGCTCGGATGTGCGGCTCTACGGCATGATCTACAAGCCCCACGCCTTGCAGCCAGGGAAGAAGCACCCCACCGT
CCTCTTTGTATATGGAGGCCCCCAGGTGCAGCTGGTGAATAACTCCTTCAAAGGCATCAAGTACTTGCGGCTCAA
CACACTGGCCTCCCTGGGCTACGCCGTGGTTGTGATTGACGGCAGGGGCTCCTGTCAGCGAGGGCTTCGGTTCGA
AGGGGCCCTGAAAAACCAAATGGGCCAGGTGGAGATCGAGGACCAGGTGGAGGGCCTGCAGTTCGTGGCCGAGAA
GTATGGCTTCATCGACCTGAGCCGAGTTGCCATCCATGGCTGGTCCTACGGGGGCTTCCTCTCGCTCATGGGGCT
AATCCACAAGCCCCAGGTGTTCAAGGTGGCCATCGCGGGTGCCCCGGTCACCGTCTGGATGGCCTACGACACAGG
GTACACTGAGCGCTACATGGACGTCCCTGAGAACAACCAGCACGGCTATGAGGCGGGTTCCGTGGCCCTGCACGT
GGAGAAGCTGCCCAATGAGCCCAACCGCTTGCTTATCCTCCACGGCTTCCTGGACGAAAACGTGCACTTTTTCCA
CACAAACTTCCTCGTCTCCCAACTGATCCGAGCAGGGAAACCTTACCAGCTCCAGATCTACCCCAACGAGAGACA
CAGTATTCGCTGCCCCGAGTCGGGCGAGCACTATGAAGTCACGTTGCTGCACTTTCTACAGGAATACCTC**TGA**GC
CTGCCCACCGGGAGCCGCCACATCACAGCACAAGTGGCTGCAGCCTCCGCGGGGAACCAGGCGGGAGGGACTGAG
TGGCCCGCGGGCCCCAGTGAGGCACTTTGTCCCGCCCAGCGCTGGCCAGCCCCGAGGAGCCGCTGCCTTCACCGC
CCCGACGCCTTTTATCCTTTTTTAAACGCTCTTGGGTTTTATGTCCGCTGCTTCTTGGTTGCCGAGACAGAGAGA
TGGTGGTCTCGGGCCAGCCCCTCCTCTCCCCGCCTTCTGGGAGGAGGAGGTCACACGCTGATGGGCACTGGAGAG
GCCAGAAGAGACTCAGAGGAGCGGGCTGCCTTCCGCCTGGGGCTCCCTGTGACCTCTCAGTCCCCTGGCCCGGCC
AGCCACCGTCCCCAGCACCCAAGCATGCAATTGCCTGTCCCCCCCGGCCAGCCTCCCCAACTTGATGTTTGTGTT
TTGTTTGGGGGGATATTTTTCATAATTATTTAAAAGACAGGCCGGGCGCGGTGGCTCACGTCTGTAATCCCAGCA
CTTTGGGAGGCTGAGGCGGGCGGATCACCTGAGGTTGGGAGTTCAAGACCAGCCTGGCCAACATGGGGAAACCCC
GTCTCTACTAAAAATACAAAAAATTAGCCGGGTGTGGTGGCGCGTGCCTATAATCCCAGCTACTCGGGAGGCTGA

FIGURE 1087B

GGCAGGAGAATCGCTTGAACCCGGGAGGTGGAGGTTGCGGTGAGCCAAGATCGCACCATTGCACTCCAGCCTGGG
CAACAAGAGCGAAACTCTGTCTCAAAATAAATAAAAAATAAAAGACAGAAAGCAAGGGGTGCCTAAATCTAGACT
TGGGGTCCACACCGGGCAGCGGGGTTGCAACCCAGCACCTGGTAGGCTCCATTTCTTCCCAAGCCCGAGCAGAGG
GTCATGCGGGCCCCACAGGAGAAGCGGCCAGGGCCCGCGGGGGGCACCACCTGTGGACAGCCCTCCTGTCCCCAA
GCTTTCAGGCAGGCACTGAAACGCACCGAACTTCCACGCTCTGCTGGTCAGTGGCGGCTGTCCCCTCCCCAGCCC
AGCCGCCCAGCCACATGTGTCTGCCTGACCCGTACACACCAGGGGTTCCGGGGTTGGGAGCTGAACCATCCCCAC
CTCAGGGTTATATTTCCCTCTCCCCTTCCCTCCCCGCCAAGAGCTCTGCCAGGGGCGGGCAAAAAAAAAAGTAAA
AAGAAAAGAAAAAAAAAAAAA

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FIGURE 1088A

GGGGGACGGTGAAGGTTGCCTCCCGCCCGTCCGGGCTCTGATCCTCCGTCTCCCCGTCCCCCGGCGGCCGGCCCA
TGGCCTGGCGGAGGCCCGAACC**ATG**GACCTCCGCACCGCCGTGTACAACGCCGCCCGTGATGGCAAGCTGCAGCT
GCTCCAGAAGCTGCTCAGCGGCCGGAGCCGGGAGGAACTGGACGAGCTGACGGGCGAGGTGGCCGGCGGGGGAAC
GCCGCTACTCATCGCCGCCCGCTACGGCCACCTGGACGTGGTGGAGTACCTGGTGGACCGGTGCGGCGCGAGCGT
GGAGGCCGGTGGCTCGGTGCACTTCGATGGCGAGACCATCGAGGGCGCGCCGCCGCTGTGGGCCGCCTCCGCAGC
CGGCCACCTGGACGTGGTGCGGAGCCTGCTGCGCCGCGGGGCCTCGGTGAACCGCACCACGCGCACCAACTCCAC
GCCTCTCCGCGCCGCCTGCTTCGACGGCCACCTGGAGGTGGTGCGCTACCTGGTCGGCGAGCACCAGGCCGACCT
GGAGGTGGCCAACCGGCACGGCCACACGTGCCTCATGATCTCGTGCTACAAGGGCCACCGTGAGATCGCCCGCTA
CCTGCTGGAGCAGGGCGCCCAGGTGAACCGGCGCAGCGCCAAGGGCAACACGGCCCTGCATGACTGCGCCGAGTC
CGGCAGCCTGGAGATCCTGCAGCTGCTGCTGGGGTGCAAGGCCCGCATGGAACGTGACGGCTACGGCATGACCCC
GCTGCTCGCGGCCAGCGTGACGGGCCACACCAACATCGTGGAGTACCTCATCCAGGAGCAGCCCGGCCAGGAGCA
GGTCGCAGGGGGAGAGGCTCAGCCTGGGCTGCCCCAAGAAGACCCCTCCACCAGCCAGGGGTGTGCGCAGCCTCA
GGGGGCTCCGTGCTGCAGCTCCTCCCCAGAGGAACCACTGAACGGGGAATCTTACGAAAGCTGCTGTCCCACCAG
CCGGGAAGCTGCCGTGGAAGCCTTGGAATTGCTGGGAGCTACGTATGTGGATAAGAAACGAGATCTGCTTGGGGC
CCTTAAACACTGGAGGCGGGCCATGGAGCTGCGTCACCAGGGGGGCGAGTACCTGCCCAAACCGGAGCCCCCACA
GCTGGTCCTGGCCTATGACTATTCCAGGGAGGTCAACACCACCGAGGAGCTGGAGGCGCTGATCACCGACCCGGA
TGAGATGCGCATGCAGGCCCTGTTGATCCGGGAGCGCATCCTCGGTCCCTCGCACCCGGACACTTCCTATTACAT
CCGTTACAGGGGTGCCGTGTACGCCGACTCGGGCAATTTCGAGCGCTGCATCCGCTTGTGGAAGTACGCCCTGGA
CATGCAACAGAGCAACCTGGAGCCTCTGAGCCCCATGACCGCCAGCAGCTTCCTCTCCTTCGCGGAACTCTTCTC
CTACGTGCTTCAGGACCGGGCCGCCAAAGGCAGCCTGGGCACCCAGATCGGCTTTGCAGACCTCATGGGGGTTCT
CACCAAAGGGGTCCGGGAAGTGGAACGGGCCCTGCAGCTGCCCAGGGAGCCCGGAGACTCAGCCCAGTTCACCAA
GGCGCTGGCCATCATCCTCCACCTGCTCTACCTGCTGGAGAAAGTGGAGTGCACCCCCAGCCAGGAGCACCTGAA
GCACCAGACCGTCTACCGCCTGCTCAAGTGCGCGCCCAGGGGCAAGAACGGCTTCACCCCTCTGCACATGGCTGT
GGACAAGGACACCACAAACGTGGGCCGCTATCCCGTGGGCAGATTCCCCTCCCTGCACGTGGTCAAAGTGCTGCT
CGACTGCGGGGCCGACCCGGACAGCAGGGATTTTGACAACAACACCCCGCTACACATAGCAGCCCAGAACAACTG
CCCGGCCATCATGAATGCCCTGATCGAAGCAGGGGCCCACATGGACGCCACCAATGCCTTCAAGAAGACGGCCTA
CGAGCTGCTGGACGAGAAGCTGCTGGCCAGGGGTACCATGCAGCCCTTCAACTACGTGACCCTGCAGTGCCTTGC
GGCCCGGGCCCTGGATAAGAACAAGATCCCTTACAAGGGCTTCATCCCGGAAGATCTGGAGGCGTTCATCGAACT
GCAC**TGA**CCTGCCCAGAACGCCTGCACCCTCACCTCTCCCCTCTCCTGCTGAGATGGGGGAAATCCGGCTGCGGC
ATAGCAGATGCTCGTTCTTGCCTCCTTCAGGCACCAATCAGGAGAAGGGTTCTGCCTCCCATCCCCTCTACCTGC
AGACAGGGTCGGAGGTGTTAGCGAGCCTTTGGTGCTAGAAGCCTGCGGGGTCATGTGCTAAGAGGACAGTCTTTC
TCCGGGAGCCCGCTCACTCATTCTGAGTTAGGAAAAGACACAAGACCTTCCCCACATCCTGTCTGCCTGGGTTAG
GGAGGCCTTTGCCTTGTTACCTAGAGGCGGAGGGACTGAAGCCATTGCGTTCCTTCCCTGCTAGAAACACAGGAA
GAAGTTGAGGACTGTCTGCCTTCCCTCGTCCCTTTACCTGGCCAGATAACTCCAGCCGCTGAATACAGTGTTAGG
ACTGGGGGCTCCTGAGATGAGAGTTTGAGATTCAGGGAATGAGACCACCTCTCATTTCTTCCAGCATGATCGCGC
CCTGCTCCCGTGCCACCGTAGTCCCTGGCAGACAGGCAGGGCTCTGCCCAGGGCAGCCTGCCACTTGCATAGCTT
TCGGTTGGTTTGGTGTTCTGTTTATTTAATAAGTGGGCAGGTTGCAAGCGTTGCACAGAAATTCTGAGATTTTAC
TGCCTTTTTTTTTTTTTTTAAGAAAGTTGTTTGTTGGACTCCATAAGTGAATTTCAAGCAGTGAGGATTTTGTGG
TGCCTGAGATGGCCGAGGGCACAGGGAGTGAGCTGTATGTGTGAGGAATTTGGTGAGCGAGATAAAAGTCCACGG
TGTCAACCCCTAAAACATGGGTGACCGTACATTTTTATACATCTCCACTCTACGGCCTTTTACAGGCTTTCCGAT
TTTACAGGCCTTTCCAAGTTTCCATTCTCCTTAGAGAGAGAACTGTGCTTCCAAACAGAAATCAGGAGTGACCAC
AAAGCCTGAAAACACTTTGCCACCCAGCAAAGAACTGGCACAATTGGTTTGGGTCTGCATTGCCATAGTGCCCGA
GTTAAAACTGCAGGCCACTCTGCCTTGCAGTGGCCTCTGATTTCATTGTGGGTGCATCCACAGGTGGCCCGAGCT
GTTCTTTCAGCTGCTCCAAGGATTGAGACCCAAGTCATCATGAAAAAGGCCCAAGTACAGTCTTAATGCGATAAA
TCCACTAGCTAAGACGTCGAGTGCCAAGACCAGCCTTCCAGCCGAGGTTTGGACAAAGTCTCAGGTTCCCGTGAC
TCAGGGTAAGGTGCTGGGGCTGCCAGAGGACCTGCCCCAGCAAGATTTTTGTCAAGAGCGAGACTCCATCAGCCC
AGGCAGACGGGAGCAGGTTCTTGGCCAGCGTAGACAGCAGCAAACAGCAGCAGGGAAGCCATTCTCACTGCATCC
TCCCTGCAGTAGCCACGGCCAGGCCCTTAGGAGGAGCAGTGACCGGGGGTGTCCAGAAATATCCTGTCCCTGGAT

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FIGURE 1088B

GGAAACTAGGTCTCGTTTGGATTTTTTTTTTTTTTTGCCGTGTTAGGAAATTATTTATTAATTTACAAGACAGGT
TTTAACTCAGCCGAGGTGGGAAATGGTGTCCCTGTCCCTCCCAAAGCACAGAGCACAGAAATGAGGCCGTTTACA
TGGCGAGTCTCCGTGCTGGTGTTTAAGTCATTAAAAAGATACTCAAAGAG

FIGURE 1089

ATGCAACCTCCACTGGCCTCCCTGATACCCCCGCAGCTCCAGAAACCAGCACCAACTACCCAGTGGAGTGCACCG
AGGGGTCTGCAGGCCCCCAGTCTCTCCCCTTGCCTATTCTGGAGCCGGTCAAAAACCCCTGCTCTGTCAAAGACC
AGACGCCACTCCAACTTTCTGTAGAAGATACCACCTCTCCAAATACCAAGCCGTGCCCACCTACTCCCACCACCC
CAGAAACATCCCCTCCTCCTCCTCCTCCTCCTCCTTCATCTACTCCTTGTTCAGCTCACCTGACCCCCTCCTCCC
TGTTCCCTTCCTCCCTGGAATCATCATCGGAACAGAAATTCTATAACTTTGTGATCCTCCACGCCAGGGCAGACG
AACACATCGCCCTGCGGGTTCGGGAGAAGCTGGAGGCCCTTGGCGTGCCCGACGGGGCCACCTTCTGCGAGGATT
TCCAGGTGCCGGGGCGCGGGGAGCTGAGCTGCCTGCAGGACGCCATAGACCACTCAGCTTTCATCATCCTACTTC
TCACCTCCAACTTCGACTGTCGCCTGAGCCTGCACCAGGTGAACCAAGCC**ATG**ATGAGCAACCTCACGCGACAGG
GGTCGCCAGACTGTGTCATCCCCTTCCTGCCCCTGGAGAGCTCCCCGGCCCAGCTCAGCTCCGACACGGCCAGCC
TGCTCTCCGGGCTGGTGCGGCTGGACGAACACTCCCAGATCTTCGCCAGGAAGGTGGCCAACACCTTCAAGCCCC
ACAGGCTTCAGGCCCGAAAGGCCATGTGGAGGAAGGAACAGGACACCCGAGCCCTGCGGGAACAGAGCCAACACC
TGGACGGTGAGCGGATGCAGGCGGCGGCACTGAACGCAGCCTACTCAGCCTACCTCCAGAGCTACTTGTCCTACC
AGGCACAGATGGAGCAGCTCCAGGTGGCTTTTGGGAGCCACATGTCATTTGGGACTGGGGCGCCCTATGGGGCTC
GAATGCCCTTTGGGGGCCAGGTGCCCCTGGGAGCCCCGCCACCCTTTCCCACTTGGCCGGGGTGCCCGCAGCCGC
CACCCCTGCACGCATGGCAGGCTGGCACCCCCCCACCGCCCTCCCCACAGCCAGCAGCCTTTCCACAGTCACTGC
CCTTCCCGCAGTCCCCAGCCTTCCCTACGGCCTCACCCGCACCCCCTCAGAGCCCAGGGCTGCAACCCCTCATTA
TCCACCACGCACAGATGGTACAGCTGGGGCTGAACAACCACATGTGGAACCAGAGAGGGTCCCAGGCGCCCGAGG
ACAAGACGCAGGAGGCAGAA**TGA**CCGCGTGTCCTTGCCTGACCACCTGGGGAACACCCCTGGACCCAGGCATCGG
CCAGGACCCCATAGAGCACCCCGGTCTGCCCTGTGCCCTGTGGACAGTGGAAGATGAGGTCATCTGCCACTTTCA
GGACATTGTCCGGGAGCCCTTCATTTAGGACAAAACGGGCGCGATGATGCCCTGGCTTTCAGGGTGGTCAGAACT
GGATACGGTGTTTACAATTCCAATCTCTCTATTTCTGGGTGAAGGGTCTTGGTGGTGGGGGTATTGCTACGGTCT
TTTAATTATAATAAATATTTATTGAATGCT

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FIGURE 1090

TTCCAAGCTGGTTTTGAAGTCGCGGCAGCTGTTCCTGGGACGTCCGGTTGACCGCGCGTCTGCTGCAGAGACCATG
TCTGCCGACGGGGCAGAGGCTGATGGCAGCACCCAGGTGACAGTGGAAGAACCGGTACAGCAGCCCAGTGTGGT
GGACCGTGTGGCCAGCATGCCTCTGATCAGCTCCACCTGCGACATGGTGTCCGCAGCCTATGCCTCCACCAAGGA
GAGCTACCCGCACATCAAGACTGTCTGCGACGCAGCAGAGAAGGGAGTGAGGACCCTCACGGCGGCTGCTGTCAG
CGGGGCTCAGCCGATCCTCTCCAAGCTGGAGCCCCAGATTGCATCAGCCAGCGAATACGCCCACAGGGGGCTGGA
CAAGTTGGAGGAGAACCTCCCCATCCTGCAGCAGCCCACGGAGAAGGTCCTGGCGGACACCAAGGAGCTTGTGTC
GTCTAAGGTGTCGGGGGCCCAAGAGATGGTGTCTAGCGCCAAGGACACGGTGGCCACCCAATTGTCGGAGGCGGT
GGACGCGACCCGCGGTGCTGTGCAGAGCGGCGTGGACAAGACAAAGTCCGTAGTGACCGGCGGCGTCCAATCGGT
CATGGGCTCCCGCTTGGGCCAGATGGTGTTGAGTGGGGTCGACACGGTGCTGGGGAAGTCGGAGGAGTGGGCGGA
CAACCACCTGCCCCTTACGGATGCCGAACTGGCCCGCATCGCCACATCCCTGGATGGCTTTGACGTCGCGTCCGT
GCAGCAGCAGCGGCAGGAACAGAGCTACTTCGTACGTCTGGGCTCCCTGTCGGAGAGGCTGCGGCAGCACGCCTA
TGAGCACTCGCTGGGCAAGCTTCGAGCCACCAAGCAGAGGGCACAGGAGGCTCTGCTGCAGCTGTCGCAGGTCCT
AAGCCTGATGGAAACTGTCAAGCAAGGCGTTGATCAGAAGCTGGTGGAAGGCCAGGAGAAGCTGCACCAGATGTG
GCTCAGCTGGAACCAGAAGCAGCTCCAGGGCCCCGAGAAGGAGCCGCCCAAGCCAGAGCAGGTCGAGTCCCGGGC
GCTCACCATGTTCCGGGACATTGCCCAGCAACTGCAGGCCACCTGTACCTCCCTGGGGTCCAGCATTCAGGGCCT
CCCCACCAATGTGAAGGACCAGGTGCAGCAGGCCCGCCGCCAGGTGGAGGACCTCCAGGCCACGTTTTCCAGCAT
CCACTCCTTCCAGGACCTGTCCAGCAGCATTCTGGCCCAGAGCCGTGAGCGTGTCGCCAGCGCCCGCGAGGCCCT
GGACCACATGGTGGAATATGTGGCCCAGAACACACCTGTCACGTGGCTCGTGGGACCCTTTGCCCCTGGAATCAC
TGAGAAAGCCCCGGAGGAGAAGAAGTAGGGGGAGAGGAGAGGACTCAGCGGGCCCCGTCTCTATAATGCAGCTGT
GCTCTGGAGTCCTCAACCCGGGGCTCATTTCAAACTTATTTTCTAGCCACTCCTCCCAGCTCTTCTGTGCTGTCC
ACTTGGGAAGCTAAGGCTCTCAAAACGGGCATCACCCAGTTGACCCATCTCTCAGCCTCTCTGAGCTTGGAAGAA
GCCTGTTCTGAGCCTCACCCTATCAGTCAGTAGAGAGAGATGTCCAGAAAAAATATCTTTCAGGAAAGTTCTCCC
CTGCAGAATTTTTTTTCCTTGTTAAATATCAGGAATATAGGCCGGGTGCGGTGGCTCACACCTGTAATCCCAGCA
CTTTGGGAGGCTGAGGCGGGCGGAACACCTGAGGTCAGGTGTTCGAGACCAGCCAGGCCAACATGGTGAAACCCC
GTCTCTACTAAAAATACAAAAAAAAATGAGCCGGGCATGGTAGCAGGTGTCTGTTATCCCAGTTAGGAGGCTGAG
GCAAGAGAATCTCTTGAACCTGAGAGGCGGAGGTTGCAGTGAGCCAAGATCGCGCCATTGCACTCCAGCCTGGGG
GACAAGAGTGAGACTTAGTCTCA

FIGURE 1091

ATGTCTGTGGTGAAGTCGATCGAATTAGTGCTGCCCGAGGATAGAATCTACCTGGCTGGCTCCAGCATAAAAGGG
CAGGTGATCTTAACCCTGAACAGCACCCTGGTGGACCCCATAGTGAAGGTGGAGCTCGTGGGAAGGGGTTACGTC
GAATGGAGTGAAGAAGCCGGGGCATCCTGTGATTATAGCAGAAATGTTATTTGCAACAACAAGGCAGACTACGTG
CATAAGACAAAGACATTCCCAGTGGAGGATAATTGGTTAAGTGCAGGCAGCCACACCTTTGACTTCCATTTCAAC
TTACCTCCCAGGCTTCCTTCTACCTTCACCAGCAAATTTGGCCATGTCTTCTATTTCGTACAAGCTTCCTGCATG
GGCAGGGAACACATTTTAGCCAAGAAGAGGATGTACTTATTGGTTCAAGGAACTTCCACCTTCCACAAAGAAACC
CCATTCCAGAACCCCTTGTTCGTGGAGGCTGAGGAGAAAGTCTCCTACAACTGCTGCCGCCAGGGCACTGTCTGT
TTGCAAATCCAGATGGAAAGGAACACCTTCACGCCAGGAGAGAAGGTCGTCTTCACAACAGAGATCAACAACCAG
ACCAGCAAATGCATCAAGACGGTCGTATTCGCCCTGTATGCCCACATACAGTACGAGGGCTTCACGCCCAGTGCA
GAGCGGCGGTCTCGGCTGGACAGCAGCGAGCTTCTGAGGCAGGAGGCCAACACCCCCGTGACCCGCTTCAACACC
ACCAAGGTTGTCAGCACCTTCAACCTGCCGTTGCTGCTGTCCGTGAGCAGCAGCACGCAGGACGGTGAGATCATG
CACACTCGCTACGAGCTGGTCACCACCGTGCACCTGCCCTGGTCCCTGACCAGCCTCAAGGCCAAAGTTCCCATC
ATCATCACCAGCGCCTCAGTGGACTCTGCCATCTGCCAGCTGTCAGAGGACGGAGTGTTACCCGTGAACCCAGAT
CACCAGAAT**TAA**

FIGURE 1092A

CGACTCCTTAGAGCATGGCATGGCTCAGAGGTGCTGGTAAAACTG**ATG**GGGGTTTTTGCTGTCCCTCCCCTCAGC
GCCGACACCATGTGGATCCAGGTTCGGACCATGGACGGGAGGCAGACCCACACGGTGGACTCGCTGTCCAGGCTG
ACCAAGGTGGAGGAGCTGAGGCGGAAGATCCAGGAGCTGTTCCACGTGGAGCCAGGCCTGCAGAGGCTGTTCTAC
AGGGGCAAACAGATGGAGGACGGCCATACCCTCTTCGACTACGAGGTCCGCCTGAATGACACCATCCAGCTCCTG
GTCCGCCAGAGCCTCGTGCTCCCCCACAGCACCAAGGAGCGGGACTCCGAGCTCTCCGACACCGACTCCGGCTGC
TGCCTGGGCCAGAGTGAGTCAGACAAGTCCTCCACCCACGGTGAGGCGGCCGCCGAGACTGACAGCAGGCCAGCC
GATGAGGACATGTGGGATGAGACGGAATTGGGGCTGTACAAGGTCAATGAGTACGTCGATGCTCGGGACACGAAC
ATGGGGGCGTGGTTTGAGGCGCAGGTGGTCAGGGTGACGCGGAAGGCCCCCTCCCGGGACGAGCCCTGCAGCTCC
ACGTCCAGGCCGGCGCTGGAGGAGGACGTCATTTACCACGTGAAATACGACGACTACCCGGAGAACGGCGTGGTC
CAGATGAACTCCAGGGACGTCCGAGCGCGCGCCCGCACCATCATCAAGTGGCAGGACCTGGAGGTGGGCCAGGTG
GTCATGCTCAACTACAACCCCGACAACCCCAAGGAGCGGGGCTTCTGGTACGACGCGGAGATCTCCAGGAAGCGC
GAGACCAGGACGGCGCGGGAACTCTACGCCAACGTGGTGCTGGGGGATGATTCTCTGAACGACTGTCGGATCATC
TTCGTGGACGAAGTCTTCAAGATTGAGCGGCCGGGTGAAGGGAGCCCCATGGTTGACAACCCCATGAGACGGAAG
AGCGGGCCGTCCTGCAAGCACTGCAAGGACGACGTGAACAGACTCTGCCGGGTCTGCGCCTGCCACCTGTGCGGG
GGCCGGCAGGACCCCGACAAGCAGCTCATGTGCGATGAGTGCGACATGGCCTTCCACATCTACTGCCTGGACCCG
CCCCTCAGCAGTGTTCCCAGCGAGGACGAGTGGTACTGCCCTGAGTGCCGGAATGATGCCAGCGAGGTGGTACTG
GCGGGAGAGCGGCTGAGAGAGAGCAAGAAGAAGGCGAAGATGGCCTCGGCCACATCGTCCTCACAGCGGGACTGG
GGCAAGGGCATGGCCTGTGTGGGCCGCACCAAGGAATGTACCATCGTCCCGTCCAACCACTACGGACCCATCCCG
GGGATCCCCGTGGGCACCATGTGGCGGTTCCGAGTCCAGGTCAGCGAGTCGGGTGTCCATCGGCCCCACGTGGCT
GGCATACACGGCCGGAGCAACGACGGAGCGTACTCCCTAGTCCTGGCGGGGGGCTATGAGGATGATGTGGACCAT
GGGAATTTTTTCACATACACGGGTAGTGGTGGTCGAGATCTTTCCGGCAACAAGAGGACCGCGGAACAGTCTTGT
GATCAGAAACTCACCAACACCAACAGGGCGCTGGCTCTCAACTGCTTTGCTCCCATCAATGACCAAGAAGGGGCC
GAGGCCAAGGACTGGCGGTCGGGGAAGCCGGTCAGGGTGGTGCGCAATGTCAAGGGTGGCAAGAATAGCAAGTAC
GCCCCCGCTGAGGGCAACCGCTACGATGGCATCTACAAGGTTGTGAAATACTGGCCCGAGAAGGGGAAGTCCGGG
TTTCTCGTGTGGCGCTACCTTCTGCGGAGGGACGATGATGAGCCTGGCCCTTGGACGAAGGAGGGGAAGGACCGG
ATCAAGAAGCTGGGGCTGACCATGCAGTATCCAGAAGGCTACCTGGAAGCCCTGGCCAACCGAGAGCGAGAGAAG
GAGAACAGCAAGAGGGAGGAGGAGGAGCAGCAGGAGGGGGGCTTCGCGTCCCCCAGGACGGGCAAGGGCAAGTGG
AAGCGGAAGTCGGCAGGAGGTGGCCCGAGCAGGGGCCGGGTCCCCGCGCCGGACATCCAAGAAAACCAAGGTGGA
GCCCTACAGTCTCACGGCCCAGCAGAGCAGCCTCATCAGAGAGGACAAGAGCAACGCCAAGCTGTGGAA**TGA**GGT
CCTGGCGTCACTCAAGGACCGGCCGGCGAGCGGCAGCCCGTTCCAGTTGTTCCTGAGTAAAGTGGAGGAGACGTT
CCAGTGTATCTGCTGTCAGGAGCTGGTGTTCCGGCCCATCACGACCGTGTGCCAGCACAACGTGTGCAAGGACTG
CCTGGACAGATCCTTTCGGGCACAGGTGTTCAGCTGCCCTGCCTGCCGCTACGACCTGGGCCGCAGCTATGCCAT
GCAGGTGAACCAGCCTCTGCAGACCGTCCTCAACCAGCTCTTCCCCGGCTACGGCAATGGCCGGTGATCTCCAAG
CACTTCTCGACAGGCGTTTTGCTGAAAACGTGTCGGAGGGCTCGTTCATCGGCACTGATTTTGTTCTTAGTGGGC
TTAACTTAAACAGGTAGTGTTTCCTCCGTTCCCTAAAAAGGTTTGTCTTCCTTTTTTTTTTTATTTTTATTTTTC
AAATCTATACATTTTCAGGAATTTATGTATTCTGGCTAAAAGTTGGACTTCTCAGTATTGTGTTTAGTTCTTTGA
AAACATAAAAGCCTGCAATTTCTCGACAAAACAACACAAGATTTTTTAAAGATGGAATCAGAAACTACGTGGTGT
GGAGGCTGTTGATGTTTCTGGTGTCAAGTTCTCAGAAGTTGCTGCCACCAACTCTTTAAGAAGGCGACAGGATCA
GTCCTTCTCTCGGGTTCTGGCCCCCAAGGTCAGAGCAAGCATCTTCCTGACAGCATTTTGTCATCTAAAGTCCAG
TGACATGGTTCCCCGTGGTGGCCCGTGGCAGCCCGTGGCATGGCGTGGCTCAGCTGTCTGTTGAAGTTGTTGCAA
GGAAAAGAGGAAACATCTCGGGCCTAGTTCAAACCTTTGCCTCAAAGCCATCCCCCACCAGACTGCTTAGCGTCT
GAGATCCGCGTGAAAAGTCCTCTGCCCACGAGAGCAGGGAGTTGGGGCCACGCAGAAATGGCCTCAAGGGGACTC
TGCTCCACGTGGGGCCAGGCGTGTGACTGACGCTGTCCGACGAAGGCGGCCACGGACGGACGCCAGCACACGAAG
TCACGTGCAAGTGCCTTTGATTCGTTCCTTCTTTCTAAAGACGACAGTCTTTGTTGTTAGCACTGAATTATTGAA
AATGTCAACCAGATTCTAGAAACTGCGGTCATCCAGTTCTTCCTGACACCGGATGGGTGCTTGGGAACCGTTTGA
GCCTTATAGATCATTTACATTCAATTTTTTTAACTCAGCAAGTGAGAACTTACAAGAGGGTTTTTTTAAAATTTT
TTTTTCTCTTAATGAACACATTTTCTAAATGAATTTTTTTTGTAGTTACTGTATATGTACCAAGAAAGATATAAC
GTTAGGGTTTGGTTGTTTTTGTTTTTGTATTTTTTTTCTTTTGAAAGGGTTTGTTAATTTTTCTAATTTTACCAA

FIGURE 1092B

AGTTTGCAGCCTATACCTCAATAAAACAGGGATATTTTAAATCACATACCTGCAGACAAACTGGAGCAATGTTAT
TTTTAAAGGGTTTTTTTCACCTCCTTATTCTTAGATTATTAATGTATTAGGGAAGAATGAGACAATTTTGTGTAG
GCTTTTTCTAAAGTCCAGTACTTTGTCCAGATTTTAGATTCTCAGAATAAATGTTTTTCACAGAT

FIGURE 1093A

GTCGCCAGCAACCGAGCGGGGCCCGGCCCGAGCGGGGCCTGGGGGTGCGACGCCGAGGGCGGGGGAGAGCGCGCC
GCTGCTCCCGGACCGGGCCGCGCACGCCGCCTCAGGAACCATCACTGTTGCTGGAGGCACCTGACAAATCCTAGC
GAATTTTTGGAGCATCTCCACCCAGGAACCTCGCCATCCAGAAGTGTGCTTCCCGCACAGCTGCAGCC**ATG**GGGT
CTGAGGACCACGGCGCCCAGAACCCCAGCTGTAAAATCATGACGTTTCGCCCAACCATGGAAGAATTTAAAGACT
TCAACAAATACGTGGCCTACATAGAGTCGCAGGGAGCCCACCGGGCGGGCCTGGCCAAGATCATCCCCCCGAAGG
AGTGGAAGCCGCGGCAGACGTATGATGACATCGACGACGTGGTGATCCCGGCGCCCATCCAGCAGGTGGTGACGG
GCCAGTCGGGCCTCTTCACGCAGTACAATATCCAGAAGAAGGCCATGACAGTGGGCGAGTACCGCCGCCTGGCCA
ACAGCGAGAAGTACTGTACCCCGCGGCACCAGGACTTTGATGACCTTGAACGCAAATACTGGAAGAACCTCACCT
TTGTCTCCCCGATCTACGGGGCTGACATCAGCGGCTCTTTGTATGATGACGACGTGGCCCAGTGGAACATCGGGA
GCCTCCGGACCATCCTGGACATGGTGGAGCGCGAGTGCGGCACCATCATCGAGGGCGTGAACACGCCCTACCTGT
ACTTCGGCATGTGGAAGACCACCTTCGCCTGGCACACCGAGGACATGGACCTGTACAGCATCAACTACCTGCACT
TTGGGGAGCCTAAGTCCTGGTACGCCATCCCACCAGAGCACGGCAAGCGCCTGGAGCGGCTGGCCATCGGCTTCT
TCCCCGGGAGCTCGCAGGGCTGCGACGCCTTCCTGCGGCATAAGATGACCCTCATCTCGCCCATCATCCTGAAGA
AGTACGGGATCCCCTTCAGCCGGATCACGCAGGAGGCCGGGGAATTCATGATCACATTTCCCTACGGCTACCACG
CCGGCTTCAATCACGGGTTCAACTGCGCAGAATCTACCAACTTCGCCACCCTGCGGTGGATTGACTACGGCAAAG
TGGCCACTCAGTGCACGTGCCGGAAGGACATGGTCAAGATCTCCATGGACGTGTTCGTGCGCATCCTGCAGCCCG
AGCGCTACGAGCTGTGGAAGCAGGGCAAGGACCTCACGGTGCTGGACCACACGCGGCCCACGGCGCTCACCAGCC
CCGAGCTGAGCTCCTGGAGTGCATCCCGGGCCTCGCTGAAGGCCAAGCTCCTCCGCAGGTCTCACCGGAAACGGA
GCCAGCCCAAGAAGCCGAAGCCCGAAGACCCCAAGTTCCCTGGGGAGGGTACGGCTGGGGCAGCGCTCCTAGAGG
AGGCTGGGGGCAGCGTGAAGGAGGAGGCTGGGCCGGAGGTTGACCCCGAGGAGGAGGAGGAGGAGCCGCAGCCAC
TGCCACACGGCCGGGAGGCCGAGGGCGCAGAAGAGGACGGGAGGGGCAAGCTGCGGCCAACCAAGGCCAAGAGCG
AGCGGAAGAAGAAGAGCTTCGGCCTGCTGCCCCCACAGCTGCCGCCCCCGCCTGCTCACTTCCCCTCAGAGGAGG
CGCTGTGGCTGCCATCCCCACTGGAGCCCCCGGTGCTGGGCCCAGGCCCTGCAGCCATGGAGGAGAGCCCCCTGC
CGGCACCCCTTAATGTCGTGCCCCCTGAGGTGCCCAGTGAGGAGCTAGAGGCCAAGCCTCGGCCCATCATCCCCA
TGCTGTACGTGGTGCCGCGGCCGGGCAAGGCAGCCTTCAACCAGGAGCACGTGTCCTGCCAGCAGGCCTTTGAGC
ACTTTGCCCAGAAGGGTCCGACCTGGAAGGAACCAGTTTCCCCCATGGAGCTGACGGGGCCAGAGGACGGTGCAG
CCAGCAGTGGGGCAGGTCGCATGGAGACCAAAGCCCGGGCCGGAGAGGGGCAGGCACCGTCCACATTTTCCAAAT
TGAAGATGGAGATCAAGAAGAGCCGGCGCCATCCCCTGGGCCGGCCGCCCACCCGGTCCCCACTGTCGGTGGTGA
AGCAGGAGGCCTCAAGTGACGAGGAGGCATCCCCTTTCTCCGGGGAGGAAGATGTGAGTGACCCGGACGCCTTGA
GGCCGCTGCTGTCTCTGCAGTGGAAGAACAGGGCGGCCAGCTTCCAGGCCGAGAGGAAGTTCAACGCAGCGGCTG
CGCGCACGGAGCCCTACTGCGCCATCTGCACGCTCTTCTACCCCTACTGCCAGGCCCTACAGACTGAGAAGGAGG
CACCCATAGCCTCCCTCGGAAAGGGCTGCCCGGCCACATTACCCTCCAAAAGCCGTCAGAAGACCCGACCGCTCA
TCCCTGAGATGTGCTTCACCTCTGGCGGTGAGAACACGGAGCCGCTGCCTGCCAACTCCTACATCGGCGACGACG
GGACCAGCCCCCTGATCGCCTGCGGCAAGTGCTGCCTGCAGGTCCATGCCAGTTGCTATGGCATCCGTCCCGAGC
TGGTCAATGAAGGCTGGACGTGTTCCCGGTGCGCGGCCCACGCCTGGACTGCGGAGTGCTGCCTGTGCAACCTGC
GAGGAGGTGCGCTGCAGATGACCACCGATAGGAGGTGGATCCACGTGATCTGTGCCATCGCAGTCCCCGAGGCGC
GCTTCCTGAACGTGATTGAGCGCCACCCTGTGGACATCAGCGCCATCCCCGAGCAGCGGTGGAAGCTGAAATGCG
TGTACTGCCGGAAGCGGATGAAGAAGGTGTCAGGTGCCTGTATCCAGTGCTCCTACGAGCACTGCTCCACGTCCT
TCCACGTGACCTGCGCCCACGCCGCAGGCGTGCTCATGGAGCCGGACGACTGGCCCTATGTGGTCTCCATCACCT
GCCTCAAGCACAAGTCGGGGGGTCACGCTGTCCAACTCCTGAGGGCCGTGTCCCTAGGCCAGGTGGTCATCACCA
AGAACCGCAACGGGCTGTACTACCGCTGTCGCGTCATCGGTGCCGCCTCGCAGACCTGCTACGAAGTGAACTTCG
ACGATGGCTCCTACAGCGACAACCTGTACCCTGAGAGCATCACGAGTAGGGACTGTGTCCAGCTGGGACCCCCTT
CCGAGGGGGAGCTGGTGGAGCTCCGGTGGACTGACGGCAACCTCTACAAGGCCAAGTTCATCTCCTCCGTCACCA
GCCACATCTACCAGGTGGAGTTTGAGGACGGGTCCCAGCTGACGGTGAAGCGTGGGGACATCTTCACCCTGGAGG
AGGAGCTGCCCAAGAGGGTCCGCTCTCGGCTGTCACTGAGCACGGGGGCACCGCAGGAGCCCGCCTTCTCGGGGG
AGGAGGCCAAGGCCGCCAAGCGCCCGCGTGTGGGCACCCCGCTTGCCACGGAGGACTCCGGGCGGAGCCAGGACT
ACGTGGCCTTCGTGGAGAGCCTCCTGCAGGTGCAGGGCCGGCCCGGAGCCCCCTTC**TAG**GACAGCTGGCCGCTCA
GGCGACCCTCAGCCCGGCGGGGAGGCCATGGCATGCCCCGGGCGTTCGCTTGCTGTGAATTCCTGTCCTCGTGTC

FIGURE 1093B

CCCGACCCCCGAGAGGCCACCTCCAAGCCGCGGGTGCCCCCTAGGGCGACAGGAGCCAGCGGGACGCCGCACGCG
GCCCCAGACTCAGGGAGCAGGGCCAGGCGGGCTCGGGGGCCGGCCAGGGGAGCACCCCACTCAACTACTCAGAAT
TTTAAACCATGTAAGCTCTCTTCTTCTCGAAAAGGTGCTACTGCAATGCCCTACTGAGCAACCTTTGAGATTGTC
ACTTCTGTACATAAACCACCTTTGTGAGGCTCTTTCTATAAATACATATTGTTTAAAAAAAAGCAAGAAAAAAAG
GAAAACAAAGGAAAATATCCCCAAAGTTGTTTTCTAGATTTGTGGCTTTAAGAAAAACAAAACAAAACAAACACA
TTGTTTTTCTCAGAACCAGGATTCTCTGAGAGGTCAGAGCATCTCGCTGTTTTTTTGTTGTTGTTTTAAAATATT
ATGATTTGGCTACAGACCAGGCAGGGAAAGAGACCCGGTAATTGGAGGGTGAGCCTCGGGGGGGGGGGCAGGACGC
CCCGGTTTCGGCACAGCCCGGTCACTCACGGCCTCGCTCTCGCCTCACCCCGGCTCCTGGGCTTTGATGGTCTGG
TGCCAGTGCCTGTGCCCACTCTGTGCCTGCTGGGAGGAGGCCCAGGCTCTCTGGTGGCCGCCCCTGTGCACCTGG
CCAGGGGAAGCCCGGGGGTCTGGGGCCTCCCTCCGTCTGCGCCCACCTTTGCAGAATAAACTCTCTCCTGGGGTT
TGTCTATCTTTGTTTCTCTCACCTGAGAGAAACGCAGGTGTTCCAGAGGCTTCCTTGCAGACAAAGCACCCCTGC
ACCTCCTATGGCTCAGGATGAGGGAGGCCCCCAGGCCCTTCTGGTTGGTAGTGAGTGTGGACAGCTTCCCAGCTC
TTCGGGTACAACCCTGAGCAGGTCGGGGGGACACAGGGCCGAGGCAGGCCTTCGGGGCCCCTTTCGCCTGCTTCCG
GGCAGGGACGAGGCCTGGTGTCCTCGCTCCACCCACCCACGCTGCTGTCACCTGAGGGGAATCTGCTTCTTAGGA
GTGGGTTGAGCTGATAGAGAAAAAACGGCCTTCAGCCCAGGCTGGGAAGCGCCTTCTCCAGGTGCCTCTCCCTCA
CCAGCTCTGCACCCCTCTGGGGAGCCTTCCCCACCTTAGCTGTCTCCTGCCCCAGGGAGGGATGGAGGAGATAAT
TTGCTTATATTAAAAACAAAAAATGGCTGAGGCAGGAGTTTGGGACCAGCCTGGGCTATATAGCAAGACCCCATC
ACTACAAATTTTTTACAAATTAGCTAGGTGTGGTGGTGCGCACCTGTGGTCCCAGCTACTCGGGAGGCTGTGGTG
GGAGGATTGCTTGAGTCCAGGAGGTTGAGGCTGCAGTCAGCTCAGATTGCACCACTGCACTCCAGCCTGGGCAAC
AGAGCGAGACCCTGTCTCCAAAAAAAAAAAAAAAGCAATGTTTATATTATAAAAGAGTGTCCTAACAGTCCCCGGG
CTAGAGAGGACTAAGGAAAACAGAGAGAGTGTTACGCAGGAGCAAGCCTTTCATTTCCTTGGTGGGGGAGGGGGG
CGGTTGCCCTGGAGAGGGCCGGGGTCGGGGAGGTTGGGGGGTGTCAGCCAAAACGTGGAGGTGTCCCTCTGCACG
CAGCCCTCGCCCGGCGTGGCGCTGACACTGTATTCTTATGTTGTTTGAAAATGCTATTTATATTGTAAAGAAGCG
GGCGGGTGCCCCTGCTGCCCTTGTCCCTTGGGGGTCACACCCATCCCCTGGTGGGCTCCTGGGCGGCCTGCGCAG
ATGGGCCACAGAAGGGCAGGCCGGAGCTGCACACTCTCCCCACGAAGGTATCTCTGTGTCTTACTCTGTGCAAAG
ACGCGGCAAAACCCAGTGCCCTGGTTTTTCCCCACCCGAGATGAAGGATACGCTGTATTTTTTGCCTAATGTCCC
TGCCTCTAGGTTCATAATGAATTAAAGGTTCATGAACGCTGC

FIGURE 1094

GTTGGGAGGTGTAGCGCGGCTCTGAACGCGCTGAGGGCCGTTGAGTGTCGCAGGCGGCGAGGGCGCGAGTGAGGA
GCAGACCCAGGCATCGCGCGCCGAGAAGGCCGGGCGTCCCCACACTGAAGGTCCGGAAAGGCGACTTCCGGGGGC
TTTGGCACCTGGCGGACCCTCCCGGAGCGTCGGCACCTGAACGCGAGGCGCTCCATTGCGCGTGCGCGTTGAGGG
GCTTCCCGCACCTGATCGCGAGACCCCAACGGCTGGTGGCGTCGCCTGCGCGTCTCGGCTGAGCTGGCC**ATG**GCG
CAGCTGTGCGGGCTGAGGCGGAGCCGGGCGTTTCTCGCCCTGCTGGGATCGCTGCTCCTCTCTGGGGTCCTGGCG
GCCGACCGAGAACGCAGCATCCACGACTTCTGCCTGGTGTCGAAGGTGGTGGGCAGATGCCGGGCCTCCATGCCT
AGGTGGTGGTACAATGTCACTGACGGATCCTGCCAGCTGTTTGTGTATGGGGGCTGTGACGGAAACAGCAATAAT
TACCTGACCAAGGAGGAGTGCCTCAAGAAATGTGCCACTGTCACAGAGAATGCCACGGGTGACCTGGCCACCAGC
AGGAATGCAGCGGATTCCTCTGTCCCAAGTGCTCCCAGAAGGCAGGATTCTGAAGACCACTCCAGCGATATGTTC
AACTATGAAGAATACTGCACCGCCAACGCAGTCACTGGGCCTTGCCGTGCATCCTTCCCACGCTGGTACTTTGAC
GTGGAGAGGAACTCCTGCAATAACTTCATCTATGGAGGCTGCCGGGGCAATAAGAACAGCTACCGCTCTGAGGAG
GCCTGCATGCTCCGCTGCTTCCGCCAGCAGGAGAATCCTCCCCTGCCCCTTGGCTCAAAGGTGGTGGTTCTGGCG
GGGCTGTTCGTGATGGTGTTGATCCTCTTCCTGGGAGCCTCCATGGTCTACCTGATCCGGGTGGCACGGAGGAAC
CAGGAGCGTGCCCTGCGCACCGTCTGGAGCTCCGGAGATGACAAGGAGCAGCTGGTGAAGAACACATATGTCCTG
TGACCGCCCTGTCGCCAAGAGGACTGGGGAAGGGAGGGGAGACTATGTGTGAGCTTTTTTTAAATAGAGGGATTG
ACTCGGATTTGAGTGATCATTAGGGCTGAGGTCTGTTTCTCTGGGAGGTAGGACGGCTGCTTCCTGGTCTGGCAG
GGATGGGTTTGCTTTGGAAATCCTCTAGGAGGCTCCTCCTCGCATGGCCTGCAGTCTGGCAGCAGCCCCGAGTTG
TTTCCTCGCTGATCGATTTCTTTCCTCCAGGTAGAGTTTTCTTTGCTTATGTTGAATTCCATTGCCTCTTTTCTC
ATCACAGAAGTGATGTTGGAATCGTTTCTTTTGTTTGTCTGATTTATGGTTTTTTTAAGTATAAACAAAAGTTTT
TTATTAGCATTCTGAAAGAAGGAAAGTAAAATGTACAAGTTTAATAAAAAGGGGCCTTCCCCTTTAGAATAAATT
TCAGCATGTGCTTTC

FIGURE 1095

ATTCCTCCAACGGGCAGGTCTCAGCGCTCCTCCCCCTGCTCCGCTCCTCTGCAGGGCCCAGGCGCCCTTGGCCTT
AGGACCCAACTTCTCTTACCGCC**ATG**GAGTTCGACCTGGGAGCAGCCCTGGAGCCCACCTCCCAGAAGCCCGGTG
TGGGGGCGGGCCACGGGGGAGATCCCAAGCTCAGTCCCCACAAAGTTCAGGGCCGGTCGGAGGCAGGGGCAGGTC
CGGGTCCAAAGCAAGGACACCACAGCTCTTCCGACTCCAGCAGCAGCTCCAGCGATTCGGACACGGATGTGAAGT
CCCACGCTGCTGGCTCCAAGCAGCACGAGAGCATCCCGGGCAAGGCCAAGAAGCCCAAAGTGAAGAAGAAGGAGA
AGGGCAAGAAGGAGAAGGGCAAGAAGAAGGAGGCTCCCCAC**TGA**AGGGCCCTGGACAGGGCTCATTAAACCTTCC
TCTCTGCCTTC

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FIGURE 1096

TGCCAGTCCATCTGACATCAAAGCCAGTGTCTCTAATGGTGACACCACCCTCCTCTGCAGCAGGAGGCAGAGCTG
TGGGATGA**ATG**AGGTTCGCCAGGTCTCCCTTACCTATCCTGGGTCCCCAGCTCCTTCTCACTCTCTTCCCTTGCA
GCCTCGAAGCGGAGGATCCCTGTGTCCCAGCCGGGCATGGCGACCCCCACCAGCTTTTCGATGACACAAGTTCAG
CCCAGAGCCGGGGCTATGGGGCCCAGCGGGCACCTGGTGGCCTGAGTTATCCTGCAGCCTCTCCCACGCCCCATG
CAGCCTTCCTGGCTGACCCGGTGTCCAACATGGCCATGGCCTATGGGAGCAGCCTGGCCGCGCAGGGCAAGGAGC
TGGTGGATAAGAACATCGACCGCTTCATCCCCATCACCAAGCTCAAGTATTACTTTGCTGTGGACACCATGTATG
TGGGCAGAAAGCTGGGCCTGCTGTTCTTCCCCTACCTACACCAGGACTGGGAAGTGCAGTACCAACAGGACACCC
CGGTGGCCCCCCGCTTTGACGTCAATGCCCCGGACCTCTACATTCCAGCAATGGCTTTCATCACCTACGTTTTGG
TGGCTGGTCTTGCGCTGGGGACCCAGGATAGGTTCTCCCCAGACCTCCTGGGGCTGCAAGCGAGCTCAGCCCTGG
CCTGGCTGACCCTGGAGGTGCTGGCCATCCTGCTCAGCCTCTATCTGGTCACTGTCAACACCGACCTCACCACCA
TCGACCTGGTGGCCTTCTTGGGCTACAAATATGTCGGGATGATTGGCGGGGTCCTCATGGGCCTGCTCTTCGGGA
AGATTGGCTACTACCTGGTGCTGGGCTGGTGCTGCGTAGCCATCTTTGTGTTCATGATCCGGACGCTGCGGCTGA
AGATCTTGGCAGACGCAGCAGCTGAGGGGGTCCCGGTGCGTGGGGCCCGGAACCAGCTGCGCATGTACCTGACCA
TGGCGGTGGCGGCGGCGCAGCCTATGCTCATGTACTGGCTCACCTTCCACCTGGTGCGG**TGA**GCGCGCCCGCTGA
ACCTCCCGCTGCTGCTGCTGCTGCTGGGGGCCACTGTGGCCGCCGAACTCATCTCCTGCCTGCAGGCCCCAAGGT
CCACCCTGTCTGGCCACAGGCACCGCCTCCATCCCATGTCCCGCCCAGCCCCGCCCCCAACCCAAGGTGCTGAGA
GATCTCCAGCTGCACAGGCCACCGCCCCAGGGCGTGGCCGCTGTTACAGAAACAATAAACCCTGATGGGCATGG

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FIGURE 1097

CGGGGCGGCAGGCTTCTCGAGCTCCGGGCCCGCGGCAACCTCGGGCGCTGTTCTGCAGGCCGCGACCGGC**ATG**TA
CGAGCAACTCAAGGGCGAGTGGAACCGTAAAAGCCCCAATCTTAGCAAGTGCGGGGAAGAGCTGGGTCGACTCAA
GCTAGTTCTTCTGGAGCTCAACTTCTTGCCAACCACAGGGACCAAGCTGACCAAACAGCAGCTAATTCTGGCCCG
TGACATACTGGAGATCGGGGCCCAATGGAGCATCCTACGCAAGGACATCCCCTCCTTCGAGCGCTACATGGCCCA
GCTCAAATGCTACTACTTTGATTACAAGGAGCAGCTCCCCGAGTCAGCCTATATGCACCAGCTCTTGGGCCTCAA
CCTCCTCTTCCTGCTGTCCCAGAACCGGGTGGCTGAGTTCCACACGGAGTTGGAGCGGCTGCCTGCCAAGGACAT
ACAGACCAATGTCTACATCAAGCACCCAGTGTCCCTGGAGCAATACCTGATGGAGGGCAGCTACAACAAAGTGTT
CCTGGCCAAGGGTAACATCCCCGCCGAGAGCTACACCTTCTTCATTGACATCCTGCTCGACACTATCAGGGATGA
GATCGCTGGGTGCATCGAGAAGGCCTACGAGAAAATCCTTTTCACTGAGGCCACCCGGATCCTCTTCTTCAACAC
ACCCAAAAAGATGACAGACTACGCCAAGAAGCGAGGGTGGGTCCTGGGCCCCAACAACTACTACAGTTTTGCCAG
CCAGCAGCAGAAGCCGGAAGACACCACCATTCCCTCCACAGAACTGGCCAAACAGGTCATCGAGTATGCCCGGCA
GCTGGAGATGATCGTC**TGA**GCCCCCCGGGCACTGGGTGGGGCAGGGCACGAGTTATTTAAAACAGTTACACTGCA
GGGTTTCGCCCAATAAAGGTGGACTGAC

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FIGURE 1098

GGAAGCGTGGGAGGGGGCCGCGGTGGCCCAGGACCTGCTGGCTCTGGGGTATGGAGGTGTCCCGGGGGCGGCGTC
GCGGGGCGCCTCATGCCCAGACTTCAGGGGGCTGTGCGTGCGGCTGGCGGCGGAGCTGGCGACGCTGGGCGCCCT
CGAGCAGCAGCGAGAGGCGGGCGCGGAGGTGCTGAGCGCCGGCGACGGCCCTGGCGCGGAGGAGGACTTTCTGCG
GCAGCTCGGCAGCCTGCTGCGGGAGCTGCACTGCCCGGATCGCGCGCTCTGCGGCGGGGATGGCGCGGCTGCGCT
TCGGGAACCCGGTGCCGGACTGCGCCTGCTGCTAGAGACACAGTTTCACCATGTTGGCCAGGCTGGTCTCCATCT
CCTGACCTCGTGATCCGCCCGCCTCTGCCTCCCAAAGTGCTGGGATTACAGGCTTTCTCTGCTCAGAGCTCCAAG
CCACCCGCCTCCTGTGCCTCCGCTCTCTGCTGGATCCGAGTCCTAGGCCACCCCTTGGTGAAGGGGTAGTGGAGG
GAGCCGGC**ATG**GTCCAAGAACTGGACCTTACCCTCCAAGCCCTGGGGCTGCCCAGACCTGCACCAGGGACCCCCG
CCAGCCAGCTGCTGCAGGAGTTGCATGCTAAGATCTCAGAGCTGCAGCCTTCTCTGCCCCCAGGGTCCCTGCAGC
CCCTCCTCAGCTGCTCGCTAGATGCACCCAGATGGGAAGCGTTGGAGTCTCTGTCCCAAAGCCTCAGAGATCAGT
ACCGCTGCCGCCGCTGCCTCCTCCTCAAGCGCCTTGACCTCACTACATCTGCTTTCCACTGGAGTGACCGGGCAG
AGGCCCAAGGAGAGGCCATGAGGGCAGTGCTGATCCCAATTCGAGAGGTTCTGACCCCAGAATCGGACATCTCCA
TTGCACACGTTCTGGCTGCCCGAGCCGACCTGTCTTGTCTCGTCCCAGCCACCAGCGTGGCTGTCCGCAGAGGGA
CCTGCTGTGCCATCAACAAGGTGCTTATGGGCAACGTTCCAGACCGGGGGGGCCGCCCAAATGAGCTGGAGCCTC
CCATGCCCACCTGGAGGAGCCGAAGAGAGGATGGAGGCCCCCAGTGTTGGGGTCGCAAGAAGAAGAAGAAGAAG**T**
AAAGGGGGACTGGTGGTCGGGGGCGGGGGGTCCTCCATGAGATGCTAATGCTATCGGTAATCTCTGGGGAGTCCG
TTTAAGGCTTTCCTTGGTATTTGGCACCCAAGCCCCCCATCTCCTATTCCTGAGTCCCCAAATGCCCTGCTCCCA
TTCACGTCAATACCAAGAACCATGTTCTCCAGAGAATAAATTTAATTTATGAC

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FIGURE 1099A

TCTACCTCGCGGGTGCCTCTGGTGTCTCCAGAGGTCTCCGACCCCAGCCCGCCCCCAGCCCTCCCGCCCAGCCCG
CAGCCCCCTCCCTCTGTTCCCCGACCTCAGACCCTGGGCTTCCGACCTCGACATC**ATG**GGTGACGCAGAAGGCGA
AGACGAGGTCCAGTTCCTGCGGACGGACGATGAGGTGGTCCTGCAGTGCAGCGCTACCGTGCTCAAGGAGCAGCT
CAAGCTCTGCCTGGCCGCCGAGGGCTTCGGCAACCGCCTGTGCTTCCTGGAGCCCACTAGCAACGCGCAGAATGT
GCCCCCCGATCTGGCCATCTGTTGCTTCGTCCTGGAGCAGTCCCTGTCTGTGCGAGCCCTGCAGGAGATGCTGGC
TAACACGGTGGAGGCTGGCGTGGAGTCATCCCAGGGCGGGGGACACAGGACGCTCCTGTATGGCCATGCCATCCT
GCTCCGGCATGCACACAGCCGCATGTATCTGAGCTGCCTCACCACCTCCCGCTCCATGACTGACAAGCTGGCCTT
CGATGTGGGACTGCAGGAGGACGCAACAGGAGAGGCTTGCTGGTGGACCATGCACCCAGCCTCCAAGCAGAGGTC
TGAAGGAGAAAAGGTCCGCGTTGGGGATGACATCATCCTTGTCAGTGTCTCCTCCGAGCGCTACCTGCACCTGTC
GACCGCCAGTGGGGAGCTCCAGGTTGACGCTTCCTTCATGCAGACACTATGGAACATGAACCCCATCTGCTCCCG
CTGCGAAGAGGGCTTCGTGACGGGAGGTCACGTCCTCCGCCTCTTTCATGGACATATGGATGAGTGTCTGACCAT
TTCCCCTGCTGACAGTGATGACCAGCGCAGACTTGTCTACTATGAGGGGGGAGCTGTGTGCACTCATGCCCGCTC
CCTCTGGAGGCTGGAGCCACTGAGAATCAGCTGGAGTGGGAGCCACCTGCGCTGGGGCCAGCCACTCCGAGTCCG
GCATGTCACTACCGGGCAGTACCTAGCGCTCACCGAGGACCAGGGCCTGGTGGTGGTTGACGCCAGCAAGGCTCA
CACCAAGGCTACCTCCTTCTGCTTCCGCATCTCCAAGGAGAAGCTGGATGTGGCCCCCAAGCGGGATGTGGAGGG
CATGGGCCCCCCTGAGATCAAGTACGGGGAGTCACTGTGCTTCGTGCAGCATGTGGCCTCAGGACTGTGGCTCAC
CTATGCTGCTCCAGACCCCAAGGCCCTGCGGCTCGGCGTGCTCAAGAAGAAGGCCATGCTGCACCAGGAGGGCCA
CATGGACGACGCACTGTCGCTGACCCGCTGCCAGCAGGAGGAGTCCCAGGCCGCCCGCATGATCCACAGCACCAA
TGGCCTATACAACCAGTTCATCAAGAGCCTGGACAGCTTCAGCGGGAAGCCACGGGGCTCGGGGCCACCCGCTGG
CACGGCGCTGCCCATCGAGGGCGTTATCCTGAGCCTGCAGGACCTCATCATCTACTTCGAGCCTCCCTCCGAGGA
CTTGCAGCACGAGGAGAAGCAGAGCAAGCTGCGAAGCCTGCGCAACCGCCAGAGCCTCTTCCAGGAGGAGGGGAT
GCTCTCCATGGTCCTGAATTGCATAGACCGCCTAAATGTCTACACCACTGCTGCCCACTTTGCTGAGTTTGCAGG
GGAGGAGGCAGCCGAGTCCTGGAAAGAGATTGTGAATCTTCTCTATGAACTCCTAGCTTCTCTAATCCGTGGCAA
TCGTAGCAACTGTGCCCTCTTCTCCACAAACTTGGACTGGCTGGTCAGCAAGCTGGATCGGCTGGAGGCCTCGTC
TGGCATCCTGGAGGTCCTGTACTGTGTCCTCATTGAGAGTCCAGAGGTTCTGAACATCATCCAGGAGAATCACAT
CAAGTCCATCATCTCCCTCCTGGACAAGCATGGGAGGAACCACAAGGTCCTGGACGTGCTATGCTCCCTGTGTGT
GTGTAATGGTGTGGCTGTACGCTCCAACCAAGATCTTATTACTGAGAACTTGCTGCCTGGCCGTGAGCTTCTGCT
GCAGACAAACCTCATCAACTATGTCACCAGCATCCGCCCCAACATCTTTGTGGGCCGAGCGGAAGGCACCACGCA
GTACAGCAAATGGTACTTTGAGGTGATGGTGGACGAGGTGACTCCATTTCTGACAGCTCAGGCCACCCACTTGCG
GGTGGGCTGGGCCCTCACCGAGGGCTACACCCCCTACCCTGGGGCCGGCGAGGGCTGGGGCGGCAACGGGGTCGG
CGATGACCTCTATTCCTACGGCTTTGATGGACTGCATCTCTGGACAGGACACGTGGCACGCCCAGTGACTTCCCC
AGGGCAGCACCTCCTGGCCCCTGAAGACGTGATCAGCTGCTGCCTGGACCTCAGCGTGCCGTCCATCTCCTTCCG
CATCAACGGCTGCCCCGTGCAGGGTGTCTTTGAGTCCTTCAACCTGGACGGGCTCTTCTTCCCTGTTGTCAGCTT
CTCGGCTGGTGTCAAGGTGCGGTTCCTCCTTGGTGGCCGCCATGGTGAATTCAAGTTCCTGCCCCCACCTGGCTA
TGCTCCATGCCATGAGGCTGTGCTCCCTCGAGAGCGACTCCATCTTGAACCCATCAAGGAGTATCGACGGGAGGG
GCCCCGGGGGCCTCACCTGGTGGGCCCCAGTCGCTGCCTCTCACACACCGACTTCGTGCCCTGCCCTGTGGACAC
TGTCCAGATTGTCCTGCCGCCCCATCTGGAGCGCATTCGGGAGAAGCTGGCGGAGAACATCCACGAGCTCTGGGC
GCTAACCCGCATCGAGCAGGGCTGGACCTACGGCCCGGTTCGGGATGACAACAAGAGGCTGCACCCGTGTCTTGT
GGACTTCCACAGCCTTCCAGAGCCTGAGAGGAACTACAACCTGCAGATGTCTGGGGAGACGCTCAAGACTCTGCT
GGCTCTGGGCTGCCACGTGGGCATGGCGGATGAGAAGGCGGAGGACAACCTGAAGAAGACAAAACTCCCCAAGAC
GTATATGATGAGCAATGGGTACAAGCCGGCTCCGCTGGACCTGAGCCACGTGCGGCTGACGCCGGCGCAGACGAC
ACTGGTGGACCGTCTGGCAGAAAATGGGCACAACGTGTGGGCCCGAGACCGCGTGGGCCAGGGCTGGAGCTACAG
CGCAGTGCAGGACATCCCAGCGCGCCGAAACCCTCGGCTGGTGCCCTACCGCCTGCTGGATGAAGCCACCAAGCG
CAGCAACCGGGACAGCCTCTGCCAGGCCGTGCGCACCCTCCTGGGCTACGGCTACAACATCGAGCCTCCTGACCA
GGAGCCCAGTCAGGTGGAGAACCAGTCTCGTTGTGACCGGGTGCGCATCTTCCGGGCAGAGAAATCCTATACAGT
GCAGAGCGGCCGCTGGTACTTCGAGTTTGAAGCAGTCACCACAGGCGAGATGCGCGTGGGCTGGGCGAGGCCCGA
GCTGAGGCCTGATGTAGAGCTGGGAGCTGACGAGCTGGCCTATGTCTTCAATGGGCACCGCGGCCAGCGCTGGCA
CTTGGGCAGTGAACCATTTGGGCGCCCCTGGCAGCCGGGCGATGTCGTTGGCTGTATGATCGACCTCACAGAGAA

FIGURE 1099B

CACCATTATCTTCACCCTCAATGGCGAGGTCCTCATGTCTGACTCAGGCTCCGAAACAGCCTTCCGGGAGATTGA
GATTGGGGACGGCTTCCTGCCCGTCTGCAGCTTGGGACCTGGCCAGGTGGGTCATCTGAACCTGGGCCAGGACGT
GAGCTCTCTGAGGTTCTTTGCCATCTGTGGCCTCCAGGAAGGCTTCGAGCCATTTGCCATCAACATGCAGCGCCC
AGTCACCACCTGGTTCAGCAAAGGCCTGCCCCAGTTTGAGCCAGTGCCCCTTGAACACCCTCACTATGAGGTATC
CCGAGTGGACGGCACTGTGGACACGCCCCCCTGCCTGCGCCTGACCCACCGCACCTGGGGCTCCCAGAACAGCCT
GGTGGAGATGCTTTTCCTGCGGCTGAGCCTCCCAGTCCAGTTCCACCAGCACTTCCGCTGCACTGCAGGGGCCAC
CCCGCTGGCACCTCCTGGCCTGCAGCCCCCCGCCGAGGACGAGGCCCGGGCGGCGGAACCCGACCCTGACTACGA
AAACCTGCGCCGCTCAGCTGGGGGCTGGAGCGAGGCAGAGAACGGCAAAGAAGGGACTGCGAAGGAGGGCGCCCC
CGGGGGCACCCCGCAGGCGGGGGGAGAGGCGCAGCCCGCCAGGGCGGAGAATGAGAAGGATGCCACCACCGAGAA
GAACAAGAAGAGAGGCTTCTTATTCAAGGCCAAGAAGGTCGCCATGATGACCCAGCCACCGGCCACCCCCACGCT
GCCCCGACTCCCTCACGACGTGGTGCCTGCAGACAACCGCGATGACCCCGAGATCATCCTCAACACCACCACGTA
CTATTACTCCGTGAGGGTCTTTGCTGGACAGGAGCCCAGCTGCGTGTGGGCGGGCTGGGTCACCCCTGACTACCA
TCAGCACGACATGAGCTTCGACCTCAGCAAGGTCCGGGTCGTGACGGTGACCATGGGGGATGAACAAGGCAACGT
CCACAGCAGCCTCAAGTGTAGCAACTGCTACATGGTGTGGGGCGGAGACTTTGTGAGTCCCGGGCAGCAGGGCCG
GATCAGCCACACGGACCTTGTCATTGGGTGCCTGGTGGACTTGGCCACTGGCTTAATGACCTTTACAGCCAATGG
CAAAGAGAGCAACACCTTTTTCCAGGTGGAACCCAACACTAAGCTATTTCCTGCCGTCTTCGTCCTGCCCACCCA
CCAGAACGTCATCCAGTTTGAGCTGGGGAAGCAGAAGAACATCATGCCGTTGTCAGCCGCCATGTTCCAAAGCGA
GCGCAAGAACCCGGCCCCGCAGTGCCCACCGCGGCTGGAGATGCAGATGCTGATGCCAGTGTCCTGGAGCCGCAT
GCCCAACCACTTCCTGCAGGTGGAGACGAGGCGTGCCGGCGAGCGGCTGGGCTGGGCCGTGCAGTGCCAGGAGCC
GCTGACCATGATGGCGCTGCACATCCCCGAGGAGAACCGGTGCATGGACATCCTGGAGCTGTCGGAGCGCCTGGA
CCTGCAGCGCTTCCACTCGCACACCCTGCGCCTCTACCGCGCTGTGTGCGCCCTGGGCAACAATCGCGTGGCGCA
CGCTCTGTGCAGCCACGTAGACCAAGCTCAGCTGCTGCACGCCCTGGAGGACGCGCACCTGCCAGGCCCACTGCG
CGCAGGCTACTATGACCTCCTCATCAGCATCCACCTCGAAAGTGCCTGCCGCAGCCGCCGCTCCATGCTCTCTGA
ATACATCGTGCCCCTCACGCCTGAGACCCGCGCCATCACGCTCTTCCCTCCTGGAAGGAGCACAGAAAATGGTCA
CCCCCGGCATGGCCTGCCGGGAGTTGGAGTCACCACTTCGCTGAGGCCCCCGCATCATTTCTCGCCCCCCTGTTT
CGTGGCCGCTCTGCCAGCTGCTGGGGCAGCAGAGGCCCCGGCCCGCCTCAGCCCTGCCATCCCGCTGGAGGCCCT
GCGGGACAAGGCACTGAGGATGCTGGGGGAGGCGGTGCGCGACGGTGGGCAGCACGCTCGCGACCCCGTCGGGGG
CTCCGTGGAGTTCCAGTTTGTGCCTGTGCTCAAGCTCGTGTCCACCCTGCTGGTGATGGGCATCTTTGGCGATGA
GGATGTGAAACAGATCTTGAAGATGATTGAGCCTGAGGTCTTCACTGAGGAAGAAGAGGAGGAGGACGAGGAGGA
AGAGGGTGAAGAGGAAGATGAGGAGGAGAAGGAGGAGGATGAGGAGGAAACAGCACAGGAAAAGGAAGATGAGGA
AAAAGAGGAAGAGGAGGCAGCAGAAGGGGAGAAAGAAGAAGGCTTGGAGGAAGGGCTGCTCCAGATGAAGTTGCC
AGAGTCTGTGAAGTTACAGATGTGCCACCTGCTGGAGTATTTCTGTGACCAAGAGCTGCAGCACCGTGTGGAGTC
CCTGGCAGCCTTTGCGGAGCGCTATGTGGACAAGCTCCAGGCCAACCAGCGGAGCCGCTATGGCCTCCTCATAAA
AGCCTTCAGCATGACCGCAGCAGAGACTGCAAGACGTACCCGCGAGTTCCGCTCCCCACCCCAGGAACAGATCAA
TATGCTATTGCAATTCAAAGATGGTACAGATGAGGAAGACTGTCCTCTCCCTGAAGAGATTCGACAGGATTTGCT
TGACTTTCATCAAGACCTGCTGGCACACTGTGGAATTCAGCTAGATGGAGAGGAGGAGGAACCAGAGGAAGAGAC
CACCCTGGGCAGCCGCCTCATGAGCCTGTTGGAGAAAGTGCGGCTGGTGAAGAAGAAGGAAGAGAAACCTGAGGA
GGAGCGGTCAGCAGAGGAGAGCAAACCCCGGTCCCTGCAGGAGCTGGTGTCCCACATGGTGGTGCGCTGGGCCCA
AGAGGACTTCGTGCAGAGCCCCGAGCTGGTGCGGGCCATGTTCAGCCTCCTGCACCGGCAGTACGACGGGCTGGG
TGAGCTGCTGCGTGCCCTGCCGCGGGCGTACACCATCTCACCGTCCTCCGTGGAAGACACCATGAGCCTGCTCGA
GTGCCTCGGCCAGATCCGCTCGCTGCTCATCGTGCAGATGGGCCCCCAGGAGGAGAACCTCATGATCCAGAGCAT
CGGGAACATCATGAACAACAAAGTCTTCTACCAACACCCGAACCTGATGAGGGCGCTGGGCATGCACGAGACGGT
CATGGAGGTCATGGTCAACGTCCTCGGGGGCGGCGAGTCCAAGGAGATCCGCTTCCCCAAGATGGTGACAAGCTG
CTGCCGCTTCCTCTGCTATTTCTGCCGAATCAGCCGGCAGAACCAGCGCTCCATGTTTGACCACCTGAGCTACCT
GCTGGAGAACAGTGGCATCGGCCTGGGCATGCAGGGCTCCACGCCCCTGGACGTGGCTGCTGCCTCCGTCATTGA
CAACAATGAGCTGGCCTTGGCATTGCAGGAGCAGGACCTGGAAAAGGTTGTGTCCTACCTGGCAGGCTGTGGCCT
CCAGAGCTGCCCCATGCTTGTGGCCAAAGGGTACCCAGACATTGGCTGGAACCCCTGTGGTGGAGAGCGCTACCT
GGACTTCCTGCGCTTTGCTGTCTTCGTCAACGGCGAGAGCGTGGAGGAGAACGCCAATGTGGTGGTGCGGCTGCT

FIGURE 1099C

CATCCGGAAGCCTGAGTGCTTCGGACCCGCCCTGCGGGGTGAGGGTGGCTCAGGGCTGCTGGCTGCCATCGAAGA
GGCCATCCGCATCTCCGAGGACCCTGCGAGGGATGGCCCAGGCATCCGCAGGGACCGGCGGCGCGAGCACTTTGG
TGAGGAACCGCCTGAAGAAAACCGGGTGCACCTGGGACACGCCATCATGTCCTTCTATGCCGCCTTGATCGACCT
GCTCGGACGCTGTGCACCAGAGATGCATCTAATCCAAGCCGGCAAGGGTGAGGCCCTGCGGATCCGCGCCATCCT
CCGCTCCCTTGTGCCCTTGGAGGACCTTGTGGGCATCATCAGCCTCCCACTGCAGATTCCCACCCTGGGCAAAGA
TGGGGCTCTGGTGCAGCCAAAGATGTCAGCATCCTTCGTGCCGGACCACAAGGCGTCCATGGTGCTCTTCCTGGA
CCGTGTGTATGGCATCGAGAACCAGGACTTCTTGCTGCACGTGCTGGACGTGGGGTTCCTGCCCGACATGAGGGC
AGCCGCCTCGCTGGACACGGCCACTTTCAGCACCACCGAGATGGCGCTGGCGCTGAACCGCTACCTGTGCCTGGC
CGTGCTGCCGCTCATCACCAAGTGTGCGCCGCTCTTTGCGGGCACAGAACACCGCGCCATCATGGTGGACTCTAT
GCTGCATACCGTGTACCGCCTGTCTCGGGGTCGTTCGCTCACCAAGGCGCAGCGTGACGTCATCGAGGACTGCCT
CATGTCGCTCTGCAGGTACATCCGCCCGTCGATGCTGCAGCACCTGTTGCGCCGCCTGGTGTTCGACGTGCCCAT
CCTCAACGAGTTCGCCAAGATGCCACTCAAGCTCCTCACCAACCACTATGAGCGCTGTTGGAAGTACTACTGCCT
ACCCACGGGCTGGGCCAACTTCGGGGTCACCTCAGAGGAGGAGCTGCACCTCACACGGAAACTCTTCTGGGGCAT
CTTTGACTCTCTGGCCCATAAGAAATACGACCCGGAGCTGTACCGCATGGCCATGCCTTGTCTGTGCGCCATTGC
CGGGGCTCTGCCCCCCGACTATGTGGATGCCTCATACTCATCTAAGGCAGAGAAAAAGGCCACAGTGGATGCTGA
AGGCAACTTTGATCCCCGGCCTGTGGAGACCCTCAATGTGATCATCCCGGAGAAGCTGGACTCCTTCATTAACAA
GTTTGCGGAGTACACACACGAGAAGTGGGCCTTCGACAAGATCCAGAACAACTGGTCCTATGGAGAGAACATAGA
CGAGGAGCTGAAGACCCACCCCATGCTGAGGCCCTACAAGACCTTTTCAGAGAAGGACAAAGAGATTTACCGCTG
GCCCATCAAGGAGTCCCTGAAGGCCATGATTGCCTGGGAATGGACGATAGAGAAGGCCAGGGAGGGTGAGGAGGA
GAAGACGGAAAAGAAAAAAACGCGGAAGATATCACAAAGTGCCCAGACCTATGATCCTCGAGAAGGCTACAACCC
TCAGCCCCCCGACCTTAGTGCTGTTACCCTGTCCCGGGAGCTGCAGGCCATGGCAGAACAACTGGCAGAAAATTA
CCACAACACGTGGGGACGGAAGAAGAAGCAGGAGCTGGAAGCCAAAGGCGGTGGGACCCACCCCCTGCTGGTCCC
CTACGACACGCTCACGGCCAAGGAGAAGGCACGAGATCGAGAGAAGGCCCAGGAGCTACTGAAATTCCTGCAGAT
GAATGGCTACGCGGTTACAAGAGGCCTTAAGGACATGGAACTGGACTCGTCTTCCATTGAAAAGCGGTTTGCCTT
TGGCTTCCTGCAGCAGCTGCTGCGCTGGATGGACATTTCTCAGGAGTTCATTGCCCACCTGGAGGCTGTGGTCAG
CAGTGGGCGAGTGGAAAAGTCCCCACATGAACAGGAGATTAAATTCTTTGCCAAGATCCTGCTCCCTTTGATCAA
CCAGTACTTCACCAACCACTGCCTCTATTTCTTGTCCACTCCGGCTAAAGTGCTGGGCAGCGGTGGCCACGCCTC
TAACAAGGAGAAGGAAATGATCACCAGCCTCTTCTGCAAACTTGCTGCTCTCGTCCGCCACCGAGTCTCTCTCTT
TGGGACAGACGCCCCAGCTGTGGTCAACTGTCTTCACATCCTGGCCCGCTCCCTGGATGCCAGGACAGTGATGAA
GTCAGGCCCTGAGATCGTGAAGGCTGGCCTCCGCTCCTTCTTCGAGAGTGCCTCGGAGGACATCGAGAAGATGGT
GGAGAACCTGCGGCTGGGCAAGGTGTCGCAGGCGCGCACCCAGGTGAAAGGCGTGGGCCAGAACCTCACCTACAC
CACTGTGGCACTGCTGCCGGTCCTCACCACCCTCTTCCAGCACATCGCCCAGCACCAGTTCGGAGATGACGTCAT
CCTGGACGACGTCCAGGTCTCTTGCTACCGAACGCTGTGCAGTATCTACTCCCTGGGAACCACCAAGAACACTTA
TGTGGAAAAGCTTCGGCCAGCCCTCGGGGAGTGCCTGGCCCGTCTGGCAGCAGCCATGCCGGTGGCGTTCCTGGA
GCCGCAGCTGAACGAGTACAACGCCTGCTCCGTGTACACCACCAAGTCTCCGCGGGAGCGGGCCATCCTGGGGCT
CCCCAACAGTGTGGAGGAGATGTGTCCCGACATCCCGGTGCTGGAGCGGCTCATGGCAGACATTGGGGGGCTGGC
CGAGTCAGGTGCCCGCTACACAGAGATGCCGCATGTCATCGAGATCACGCTGCCCATGCTATGCAGCTACCTGCC
CCGATGGTGGGAGCGCGGGCCCGAGGCACCCCCTTCCGCCCTGCCCGCCGGCGCCCCCCCACCCTGCACAGCTGT
CACCTCTGACCACCTCAACTCCCTGCTGGGGAATATCCTGAGAATCATCGTCAACAACCTGGGCATTGACGAGGC
CTCCTGGATGAAGCGGCTGGCTGTGTTCGCACAGCCCATTGTGAGCCGTGCACGGCCGGAGCTCCTGCAGTCCCA
CTTCATCCCAACTATCGGGCGGCTGCGCAAGAGGGCAGGGAAGGTGGTGTCCGAGGAGGAGCAGCTGCGCCTGGA
GGCCAAGGCGGAGGCCCAGGAGGGCGAGCTGCTGGTGCGGGACGAGTTCTCTGTGCTCTGCCGGGACCTCTACGC
CCTGTATCCGCTGCTCATCCGCTACGTGGACAACAACAGGGCGCAGTGGCTGACGGAGCCGAATCCCAGCGCGGA
GGAGCTGTTCAGGATGGTGGGCGAGATCTTCATCTACTGGTCCAAGTCCCACAACTTCAAGCGCGAGGAGCAGAA
CTTTGTGGTCCAGAATGAGATCAACAACATGTCCTTCCTGACTGCTGACAACAAAAGCAAAATGGCTAAGGCGGG
AGATATACAGTCCGGTGGCTCGGACCAGGAACGCACCAAGAAGAAGCGCCGGGGGGACCGGTACTCTGTGCAGAC
GTCACTGATCGTGGCCACACTGAAGAAGATGCTGCCCATCGGCCTGAATATGTGTGCGCCCACCGACCAAGACCT
CATCACGCTGGCCAAGACCCGTTACGCCCTGAAAGACACAGATGAGGAGGTCCGGGAATTTCTGCACAACAACCT

FIGURE 1099D

TCACCTTCAGGGAAAGGTCGAAGGCTCCCCGTCTCTGCGCTGGCAGATGGCTCTGTACCGGGGCGTCCCGGGTCG
CGAGGAGGACGCCGATGACCCCGAGAAAATCGTGCGCAGAGTCCAGGAAGTGTCAGCCGTGCTCTACTACCTGGA
CCAGACCGAGCACCCTTACAAGTCTAAGAAGGCCGTGTGGCACAAGCTTTTGTCCAAACAGCGCCGGCGGGCAGT
CGTGGCCTGTTTCCGTATGACGCCCCTGTACAACCTGCCCACGCACCGGGCATGTAACATGTTCCTGGAGAGCTA
CAAGGCTGCATGGATCCTGACTGAAGACCACAGTTTTGAGGACCGCATGATAGATGACCTTTCAAAAGCTGGGGA
GCAGGAGGAGGAGGAGGAAGAGGTGGAAGAGAAGAAGCCAGACCCCCTGCACCAGTTGGTCCTGCACTTCAGCCG
CACTGCCCTGACGGAAAAGAGCAAACTGGATGAGGATTACCTGTACATGGCCTATGCTGATATCATGGCAAAGAG
CTGCCACCTGGAGGAGGGAGGGGAGAACGGTGAAGCTGAAGAGGAGGTTGAGGTCTCCTTTGAGGAGAAACAGAT
GGAGAAGCAGAGGCTCTTGTACCAGCAAGCACGGCTGCACACCCGGGGGGCGGCCGAGATGGTGCTGCAGATGAT
CAGTGCCTGCAAAGGAGAGACAGGTGCCATGGTGTCCTCCACCCTGAAGCTGGGCATCTCCATCCTCAATGGAGG
CAATGCTGAGGTCCAGCAGAAAATGCTGGATTATCTTAAGGACAAGAAGGAAGTTGGCTTCTTCCAGAGTATCCA
GGCACTGATGCAAACATGCAGCGTCCTGGATCTCAATGCCTTTGAGAGACAGAACAAGGCCGAGGGGCTGGGCAT
GGTGAATGAGGATGGCACTGTCATCAATCGCCAGAACGGAGAGAAGGTCATGGCGGATGATGAATTCACACAAGA
CCTGTTCCGATTCCTACAATTGCTCTGTGAGGGGCACAATAATGATTTCCAGAACTACCTACGGACACAGACAGG
GAACACGACCACTATTAACATCATCATTTGCACTGTGGACTACCTCCTGCGGCTGCAGGAATCCATCAGCGACTT
CTACTGGTACTACTCGGGCAAGGATGTCATTGAAGAGCAGGGCAAGAGGAACTTCTCCAAAGCCATGTCGGTGGC
TAAGCAGGTGTTCAACAGCCTCACTGAGTACATCCAGGGTCCCTGCACCGGGAACCAGCAGAGCCTGGCGCACAG
TCGCCTATGGGACGCAGTGGTGGGATTCCTGCACGTGTTCGCCCACATGATGATGAAGCTCGCTCAGGACTCAAG
CCAGATCGAGCTGCTGAAGGAGCTGCTGGATCTGCAGAAGGACATGGTGGTGATGTTGCTGTCGCTACTAGAAGG
GAACGTGGTGAACGGCATGATCGCCCGGCAGATGGTGGACATGCTCGTGGAATCCTCATCCAATGTGGAGATGAT
CCTCAAGTTCTTCGACATGTTCCTGAAACTCAAGGACATTGTGGGCTCTGAAGCCTTCCAGGACTACGTAACGGA
TCCCCGTGGCCTCATCTCCAAGAAGGACTTCCAGAAGGCCATGGACAGCCAGAAGCAGTTCAGCGGTCCAGAAAT
CCAGTTCCTGCTTTCGTGCTCCGAAGCGGATGAGAACGAAATGATCAACTGCGAAGAGTTCGCCAACCGCTTCCA
GGAGCCAGCACGCGACATCGGCTTCAACGTGGCGGTGCTGCTGACCAACCTGTCGGAGCATGTGCCGCATGACCC
TCGCCTGCACAACTTCCTGGAGCTGGCCGAGAGCATCCTTGAGTACTTCCGCCCCTACCTGGGCCGCATCGAGAT
CATGGGCGCGTCACGCCGCATCGAGCGCATCTACTTCGAGATCTCAGAGACCAACCGCGCCCAGTGGGAGATGCC
CCAGGTGAAGGAGTCCAAGCGCCAGTTCATCTTCGACGTGGTGAACGAGGGCGGCGAGGCTGAGAAGATGGAGCT
CTTCGTGAGTTTCTGCGAGGACACCATCTTCGAGATGCAGATCGCCGCGCAGATCTCGGAGCCCGAGGGCGAGCC
GGAGACCGACGAGGACGAGGGCGCGGGCGCGGCGGAGGCGGGCGCGGAAGGCGCGGAGGAGGGCGCGGCGGGGCT
CGAGGGCACGGCGGCCACGGCGGCGGCGGGGGCGACGGCGCGGGTTGTGGCGGCCGCAGGCCGGGCCCTGCGAGG
CCTCAGCTACCGCAGCCTGCGGCGGCGCGTGCGGCGGCTGCGGCGGCTTACGGCCCGCGAGGCGGCCACCGCAGT
GGCGGCGCTGCTCTGGGCAGCAGTGACGCGCGCTGGGGCCGCTGGCGCGGGGGCGGCGGCGGGCGCGCTGGGCCT
GCTCTGGGGCTCGCTGTTCGGCGGCGGCCTGGTGGAGGGCGCCAAGAAGGTGACGGTGACCGAGCTCCTGGCAGG
CATGCCCGACCCCACCAGCGACGAGGTGCACGGCGAGCAGCCGGCCGGGCCGGGCGGAGACGCAGACGGCGAGGG
TGCCAGCGAGGGCGCTGGAGACGCCGCGGAGGGCGCTGGAGACGAGGAGGAGGCGGTGCACGAGGCCGGGCCGGG
CGGTGCCGACGGGGCGGTGGCCGTGACCGATGGGGGCCCCTTCCGGCCCGAAGGGGCTGGCGGTCTCGGGGACAT
GGGGGACACGACGCCTGCGGAACCGCCCACACCCGAGGGCTCTCCCATCCTCAAGAGGAAATTGGGGGTGGATGG
AGTGGAGGAGGAGCTCCCGCCAGAGCCAGAGCCCGAGCCGGAACCAGAGCTGGAGCCGGAGAAAGCCGATGCCGA
GAATGGGGAGAAGGAAGAAGTTCCCGAGCCCACACCAGAGCCCCCCAAGAAGCAAGCACCTCCCTCACCCCCTCC
AAAGAAGGAGGAAGCTGGAGGCGAATTCTGGGGAGAACTGGAGGTGCAGAGGGTGAAGTTCCTGAACTACCTGTC
CCGGAACTTTTACACCCTGCGGTTCCTTGCCCTCTTCTTGGCATTTGCCATCAACTTCATCTTGCTGTTTTATAA
GGTCTCAGACTCTCCACCAGGGGAGGACGACATGGAAGGCTCAGCTGCTGGGGATGTGTCAGGTGCAGGCTCTGG
TGGCAGCTCTGGCTGGGGCTTGGGGGCCGGAGAGGAGGCAGAGGGCGATGAGGATGAGAACATGGTGTACTACTT
CCTGGAGGAAAGCACAGGCTACATGGAACCCGCCCTGCGGTGTCTGAGCCTCCTGCATACACTGGTGGCCTTTCT
CTGCATCATTGGCTATAATTGTCTCAAGGTGCCCCTGGTAATCTTTAAGCGGGAGAAGGAGCTGGCCCGGAAGCT
GGAGTTTGATGGCCTGTACATCACGGAGCAGCCTGAGGACGATGACGTGAAGGGGCAGTGGGACCGACTGGTGCT
CAACACGCCGTCTTTCCCTAGCAACTACTGGGACAAGTTTGTCAAGCGCAAGGTCCTGGACAAACATGGGGACAT
CTACGGGCGGGAGCGGATTGCTGAGCTACTGGGCATGGACCTGGCCACACTAGAGATCACAGCCCACAATGAGCG

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FIGURE 1099E

CAAGCCCAACCCGCCGCCAGGGCTGCTGACCTGGCTCATGTCCATCGATGTCAAGTACCAGATCTGGAAGTTCGG
GGTCATCTTCACAGACAACTCCTTCCTGTACCTGGGCTGGTATATGGTGATGTCCCTCTTGGGACACTACAACAA
CTTCTTCTTTGCTGCCCATCTCCTGGACATCGCCATGGGGGTCAAGACGCTGCGCACCATCCTGTCCTCTGTCAC
CCACAATGGGAAACAGCTGGTGATGACCGTGGGCCTTCTGGCGGTGGTCGTCTACCTGTACACCGTGGTGGCCTT
CAACTTCTTCCGCAAGTTCTACAACAAGAGCGAGGATGAGGATGAACCTGACATGAAGTGTGATGACATGATGAC
GTGTTACCTGTTTCACATGTACGTGGGTGTCCGGGCTGGCGGAGGCATTGGGGACGAGATCGAGGACCCCGCGGG
TGACGAATACGAGCTCTACAGGGTGGTCTTCGACATCACCTTCTTCTTCTTCGTCATCGTCATCCTGTTGGCCAT
CATCCAGGGTCTGATCATCGACGCTTTTGGTGAGCTCCGAGACCAACAAGAGCAAGTGAAGGAGGATATGGAGAC
CAAGTGCTTCATCTGTGGAATCGGCAGTGACTACTTTGATACGACACCGCATGGCTTCGAGACTCACACGCTGGA
GGAGCACAACCTGGCCAATTACATGTTTTTCCTGATGTATTTGATAAACAAGGATGAGACAGAACACACGGGTCA
GGAGTCTTATGTCTGGAAGATGTACCAAGAGAGATGTTGGGATTTCTTCCCAGCTGGTGATTGTTTCCGTAAGCA
GTATGAGGACCAGCTTAGC**TGA**CACACCCCCAGCTGGCCCTCCACCCCCACCTCAAGTGCCTTATTCTCACAGCA
AGCCCCTTAGTCCCCAAGCCCCTCCCCCTAAGGCAGCTGGGGGAGAGGTGACCTAGTAC

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FIGURE 1100

GGAAAGCGTGGCGGCTGCTGCTAGAGCCTTTCCCTTTACCGCACCCAAGGAGCTGGAGCGACAACAACGACGTCG
TTTCCGTTTCCACCACCTCTTCCTGTTCCCGTCCTTGAGGACGCCGTGCCGGGTCAGTGTTAGCCTCCAGCCCTG
GTTGTGGAAGGCGACAGAAGTC**ATG**GCGATGTTTGAGCAGATGAGAGCCAACGTGGGCAAGTTGCTCAAGGGTAT
CGACAGGTACAATCCTGAGAACCTGGCCACCCTGGAGCGCTATGTAGAGACGCAGGCCAAGGAAAATGCCTATGA
TCTGGAAGCCAACCTGGCTGTCCTGAAGCTGTACCAGTTCAACCCAGCCTTCTTTCAGACCACGGTCACCGCCCA
GATCCTGCTGAAGGCCCTCACCAACTTGCCGCACACAGACTTCACCCTGTGCAAGTGCATGATCGACCAGGCACA
TCAAGAAGAACGGCCAATCCGACAGATTTTGTACCTCGGGGACCTGCTGGAGACCTGCCATTTCCAGGCCTTCTG
GCAAGCCCTGGATGAAAACATGGACCTCTTGGAAGGTATAACTGGCTTTGAAGACTCTGTCCGAAAGTTTATCTG
CCATGTTGTGGGTATCACTTACCAGCACATTGACCGCTGGCTGCTGGCCGAGATGCTCGGGGATCTGTCGGACAG
CCAGCTAAAGGTGTGGATGAGCAAATACGGCTGGAGTGCCGACGAGTCGGGGGCAGATCTTCATCTGTAGCCAAGA
AGAGAGCATTAAACCCAAGAACATTGTGGAGAAGATTGACTTTGACAGTGTGTCCAGCATCATGGCCTCCTCCCA
G**TAA**CTTCAGGTGTTTAATAAAGATGTGTTGACTCAG

FIGURE 1101

AGAGGGGCGGGAGCTGAGGCGGGAGCGGACAGGCTGGTGGGCGAGCGAGAGGCGGCGGA**ATG**GTGGACTACCACG
CGGCGAACCAGTCGTACCAGTACGGCCCCAGCAGCGCGGGCAATGGCGCTGGCGGCGGGGGCAGCATGGGCGACT
ACATGGCCCAGGAGGACGACTGGGACCGGGACCTGCTGCTGGACCCGGCCTGGGAGAAGCAGCAGCGCAAGACCT
TCACGGCATGGTGCAACTCCCACCTGCGGAAGGCAGGCACACAGATCGAGAACATTGATGAGGACTTCCGAGACG
GGCTCAAGCTCATGCTGCTCCTGGAGGTCATATCAGGGGAGCGGTTACCTAAGCCGGAGCGGGGGAAGATGAGAG
TGCACAAAATCAACAATGTGAACAAAGCGCTGGACTTTATTGCCAGCAAAGGCGTCAAGCTGGTCTCCATCGGGG
CAGAAGAGATTGTGGACGGCAACGCAAAGATGACCCTGGGAATGATCTGGACCATCATCCTTAGGTTCGCCATCC
AGGACATCTCCGTGGAAGAGACCTCGGCCAAGGAAGGGCTCCTTCTCTGGTGCCAGAGAAAGACAGCCCCGTATA
AGAACGTCAATGTGCAGAACTTCCACATCAGCTGGAAGGATGGTCTTGCCTTCAATGCCCTGATCCACCGGCACA
GACCAGAGCTGATTGAGTATGACAAGCTGAGGAAGGACGACCCTGTCACCAACCTGAACAATGCCTTCGAAGTGG
CTGAGAAATACCTCGACATCCCCAAGATGCTGGATGCAGAGGACATCGTGAACACGGCCCGGCCCGACGAGAAGG
CCATAATGACCTATGTGTCCAGCTTCTACCATGCCTTTTCAGGAGCGCAGAAGGCTGAAACTGCCGCCAACCGGA
TCTGTAAGGTGCTGGCTGTCAACCAAGAGAACGAGCACCTGATGGAGGACTACGAGAAGCTGGCCAGCGACCTCC
TGGAGTGGATCCGGCGCACCATCCCCTGGCTGGAGGACCGTGTGCCCCAAAAGACTATCCAGGAGATGCAGCAGA
AGCTGGAGGACTTCCGCGACTACCGGCGTGTGCACAAGCCGCCCAAGGTGCAGGAGAAGTGCCAGCTGGAGATCA
ACTTCAACACGCTGCAGACCAAGCTGCGCCTCAGCAACCGGCCCGCCTTCATGCCCTCCGAGGGCAAGATGGTCT
CGGACATCAACAATGGCTGGCAGCACTTGGAGCAGGCTGAGAAGGGCTACGAGGAGTGGCTGCTGAATGAGATCC
GCAGGCTGGAGCGGCTCGACCACCTGGCAGAGAAGTTCCGGCAGAAGGCCTCCATCCACGAGGCCTGGACTGACG
GGAAGGAAGCCATGCTGAAGCACCGGGACTACGAGACGGCCACACTATCGGACATCAAAGCCCTCATTCGCAAGC
ACGAGGCCTTCGAGAGCGACCTGGCTGCGCACCAGGACCGCGTGGAGCAGATCGCCGCCATTGCCCAGGAGCTCA
ACGAGCTGGATTACTACGACTCCCACAATGTCAACACCCGGTGCCAGAAGATCTGTGACCAGTGGGACGCCCTCG
GCTCTCTGACACATAGTCGCAGGGAAGCCCTGGAGAAAACAGAGAAGCAGCTGGAGGCCATCGACCAGCTGCACC
TGGAATACGCCAAGCGCGCGGCCCCCTTCAACAACTGGATGGAGAGCGCCATGGAGGACCTCCAGGACATGTTCA
TCGTCCATACCATCGAGGAGATTGAGGGCCTGATCTCAGCCCATGACCAGTTCAAGTCCACCCTGCCGGACGCCG
ATAGGGAGCGCGAGGCCATCCTGGCCATCCACAAGGAGGCCCAGAGGATCGCTGAGAGCAACCACATCAAGCTGT
CGGGCAGCAACCCCTACACCACCGTCACCCCGCAAATCATCAACTCCAAGTGGGAGAAGGTGCAGCAGCTGGTGC
CAAAACGGGACCATGCCCTCCTGGAGGAGCAGAGCAAGCAGCAGTCCAACGAGCACCTGCGCCGCCAGTTCGCCA
GCCAGGCCAATGTTGTGGGGCCCTGGATCCAGACCAAGATGGAGGAGATCGGGCGCATCTCCATTGAGATGAACG
GGACCCTGGAGGACCAGCTGAGCCACCTGAAGCAGTATGAACGCAGCATCGTGGACTACAAGCCCAACCTGGACC
TGCTGGAGCAGCAGCACCAGCTCATCCAGGAGGCCCTCATCTTCGACAACAAGCACACCAACTATACCATGGAGC
ACATCCGCGTGGGCTGGGAGCAGCTGCTCACCACCATTGCCCGCACCATCAACGAGGTGGAGAACCAGATCCTCA
CCCGCGACGCCAAGGGCATCAGCCAGGAGCAGATGCAGGAGTTCCGGGCGTCCTTCAACCACTTCGACAAGGATC
ATGGCGGGGCGCTGGGGCCCGAGGAGTTCAAGGCCTGCCTCATCAGCCTGGGCTACGACGTGGAGAACGACCGGC
AGGGTGAGGCCGAGTTCAACCGCATCATGAGCCTGGTCGACCCCAACCATAGCGGCCTTGTGACCTTCCAAGCCT
TCATCGACTTCATGTCGCGGGAGACCACCGACACGGACACGGCTGACCAGGTCATCGCTTCCTTCAAGGTCTTAG
CAGGGGACAAGAACTTCATCACAGCTGAGGAGCTGCGGAGAGAGCTGCCCCCCGACCAGGCCGAGTACTGCATCG
CCCGCATGGCGCCATACCAGGGCCCTGACGCCGTGCCCGGTGCCCTCGACTACAAGTCCTTCTCCACGGCCTTGT
ATGGCGAGAGCGACCTG**TGA**GGCCCCAGAGACCTGACCCAACACCCCCGACGGCCTCCAGGAGGGGCCTGGGCAG
CCCCACAGTCCCATTCCTCCACTCTGTATCTATGCAAAGCACTCTCTGCAGTCCTCCGGGGGTGGGTGGGTGGGCA

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FIGURE 1102

GAACGCAGTAGACGAAGGCGGCGGCG**ATG**GCGGCGGGGATAGTGGCTTCTCGCAGACTCCGCGACCTACTGACCC
GGCGACTGACAGGCTCCAACTACCCGGGACTCAGTATTAGCCTTCGCCTCACTGGCTCCTCTGCACAAGAGGAGG
CTTCCGGAGTAGCCCTCGGTGAAGCCCCAGACCACAGCTATGAGTCCCTTCGTGTGACGTCTGCGCAGAAACATG
TTCTGCATGTCCAGCTCAACCGGCCCAACAAGAGGAATGCCATGAACAAGGTCTTCTGGAGAGAGATGGTAGAGT
GCTTCAACAAGATTTCGAGAGACGCTGACTGTCGGGCGGTGGTGATCTCTGGTGCAGGAAAAATGTTCACTGCAG
GTATTGACCTGATGGACATGGCTTCGGACATCCTGCAGCCCAAAGGAGATGATGTGGCCCGGATCAGCTGGTACC
TCCGTGACATCATCACTCGATACCAGGAGACCTTCAACGTCATCGAGAGGTGCCCCAAGCCCGTGATTGCTGCCG
TCCATGGGGGCTGCATTGGCGGAGGTGTGGACCTTGTCACCGCCTGTGACATCCGGTACTGTGCCCAGGATGCTT
TCTTCCAGGTGAAGGAGGTGGACGTGGGTTTGGCTGCCGATGTAGGAACACTGCAGCGCCTGCCCAAGGTCATCG
GGAACCAGAGCCTGGTCAACGAGCTGGCCTTCACCGCCCGCAAGATGATGGCTGACGAGGCCCTGGGCAGTGGGC
TGGTCAGCCGGGTGTTCCCAGACAAAGAGGTCATGCTGGATGCTGCCTTAGCGCTGGCGGCCGAGATTTCCAGCA
AGAGCCCCGTGGCGGTGCAGAGCACCAAGGTCAACCTGCTGTATTCCCGCGACCATTCGGTGGCCGAGAGCCTCA
ACTACGTGGCGTCCTGGAACATGAGCATGCTGCAGACCCAAGACCTCGTGAAGTCGGTCCAGGCCACGACTGAGA
ACAAGGAACTGAAAACCGTCACCTTCTCCAAGCTC**TGA**GAGCCCTCGCGTCCCAGGCCCCAGCCAGGGGGCCGGC
CTTGTCCCGCCTCATCCACAGAAAGGGAGGATGGGCGATGACAGTTGTTTCTATGCCTTCTGACCCAGTTTCCCA
GTTTATAACTTTATGACAATGAGTTTCTCAAGCCCAAGGCCTTATCTTCACCCCACAAACAATAAAGCAAA

FIGURE 1103

GGACGAGCAGCGGAGGCGGTCGGGAGCG**ATG**GTGAAGATGGCGGCGGCGGGCGGCGGAGGCGGCGGTGGCCGCTA
CTACGGCGGCGGCAGTGAGGGCGGCCGGGCCCCTAAGCGGCTCAAGACTGACAACGCCGGCGACCAGCACGGAGG
CGGCGGCGGTGGCGGTGGAGGAGCCGGGGCGGCGGGCGGCGGCGGCGGTGGGGAGAACTACGATGACCCGCACAA
AACCCCTGCCTCCCCAGTTGTCCACATCAGGGGCCTGATTGACGGTGTGGTGGAAGCAGACCTTGTGGAGGCCTT
GCAGGAGTTTGGACCCATCAGCTATGTGGTGGTAATGCCTAAAAAGAGACAAGCACTGGTGGAGTTTGAAGATGT
GTTGGGGGCTTGCAACGCAGTGAACTACGCAGCCGACAACCAAATATACATTGCTGGTCACCCAGCTTTTGTCAA
CTACTCTACCAGCCAGAAGATCTCCCGCCCTGGGGACTCGGATGACTCCCGGAGCGTGAACAGTGTGCTTCTCTT
TACCATCCTGAACCCCATTTATTCGATCACCACGGATGTTCTTTACACTATCTGTAATCCTTGTGGCCCTGTCCA
GAGAATTGTCATTTTCAGGAAGAATGGAGTTCAGGCGATGGTGGAATTTGACTCAGTTCAAAGTGCCCAGCGGGC
CAAGGCCTCTCTCAATGGGGCTGATATCTATTCTGGCTGTTGCACTCTGAAGATCGAATACGCAAAGCCTACACG
CTTGAATGTGTTCAAGAATGATCAGGATACTTGGGACTACACAAACCCCAATCTCAGTGGACAAGGTGACCCTGG
CAGCAACCCCAACAAACGCCAGAGGCAGCCCCCTCTCCTGGGAGATCACCCCGCAGAATATGGAGGGCCCCACGG
TGGGTACCACAGCCATTACCATGATGAGGGCTACGGGCCCCCCCCACCTCACTACGAAGGGAGAAGGATGGGTCC
ACCAGTGGGGGGTCACCGTCGGGGCCCAAGTCGCTACGGCCCCCAGTATGGGCACCCCCCACCCCCTCCCCCACC
ACCCGAGTATGGCCCTCACGCCGACAGCCCTGTGCTCATGGTCTATGGCTTGGATCAATCTAAGATGAACTGTGA
CCGAGTCTTCAATGTCTTCTGCTTATATGGCAATGTGGAGAAGGTGAAATTCATGAAAAGCAAGCCGGGGGCCGC
CATGGTGGAGATGGCTGATGGCTACGCTGTAGACCGGGCCATTACCCACCTCAACAACAACTTCATGTTTGGGCA
GAAGCTGAATGTCTGTGTCTCCAAGCAGCCAGCCATCATGCCTGGTCAGTCATACGGGTTGGAAGACGGGTCTTG
CAGTTACAAAGACTTCAGTGAATCCCGGAACAATCGGTTCTCCACCCCAGAGCAGGCAGCCAAGAACCGCATCCA
GCACCCCAGCAACGTGCTGCACTTCTTCAACGCCCCGCTGGAGGTGACCGAGGAGAACTTCTTTGAGATCTGCGA
TGAGCTGGGAGTGAAGCGGCCATCTTCTGTGAAAGTATTCTCAGGCAAAAGTGAGCGCAGCTCCTCTGGACTGCT
GGAGTGGGAATCCAAGAGCGATGCCCTGGAGACTCTGGGCTTCCTGAACCATTACCAGATGAAAAACCCAAATGG
TCCATACCCTTACACTCTGAAGTTGTGTTTCTCCACTGCTCAGCACGCCTCC**TAA**TTAGGTGCCTAGGAAGAGTC
CCATCTGAGCAGGAAGACATTTCTCTTTCCTTTATGCCATTTTTTGTTTTTGTTATTTGCAAAAGATCTTGTATT
CCTTTTTTTTTTTTTTTTTTTTTTTTTTAAATGCTAGGTTTGTAGAGGCTTACTTAACCTTAATGGAAACGCTGG
AAATCTGCAGGGGGAGGGAGAGGGGAACTGTTATCTCCCAAGATTAACCTTCACTTTTAAAAAATTATTGTACAT
GTGATTTTTTTTTTTCCTGTTCATACATTTGTGCTGCCCATGTACTCTTGGCACATTTCAATAAAATTGTTTGGA
AAATAAACACAGC

FIGURE 1104

GTGTTGTACGAAAGCGCGTCTGCGGCCGCAATGTCTGCTGAGAGTTGTAGTTCTGTGCCCTATCACGGCCACTCC
CATTTCTGGTGCCGTCACGGGACAGAGCAGTCGGTGACAGGACAGAGCAGTCGGTGACGGGACACAGTGGTTGGT
GACGGGACAGAGCGGTCGGTGACAGCCTCAAGGGCTTCAGCACCGCGCCC**ATG**GCAGAGCCAGACCCCTCTCACC
CTCTGGAGACCCAGGCAGGGAAGGTGCAGGAGGCTCAGGACTCAGATTCAGACTCTGAGGGAGGAGCCGCTGGTG
GAGAAGCAGACATGGACTTCCTGCGGAACTTATTCTCCCAGACGCTCAGCCTGGGCAGCCAGAAGGAGCGTCTGC
TGGACGAGCTGACCTTGGAAGGGGTGGCCCGGTACATGCAGAGCGAACGCTGTCGCAGAGTCATCTGTTTGGTGG
GAGCTGGAATCTCCACATCCGCAGGCATCCCCGACTTTCGCTCTCCATCCACCGGCCTCTATGACAACCTAGAGA
AGTACCATCTTCCCTACCCAGAGGCCATCTTTGAGATCAGCTATTTCAAGAAACATCCGGAACCCTTCTTCGCCC
TCGCCAAGGAACTCTATCCTGGGCAGTTCAAGCCAACCATCTGTCACTACTTCATGCGCCTGCTGAAGGACAAGG
GGCTACTCCTGCGCTGCTACACGCAGAACATAGATACCCTGGAGCGAATAGCCGGGCTGGAACAGGAGGACTTGG
TGGAGGCGCACGGCACCTTCTACACATCACACTGCGTCAGCGCCAGCTGCCGGCACGAATACCCGCTAAGCTGGA
TGAAAGAGAAGATCTTCTCTGAGGTGACGCCCAAGTGTGAAGACTGTCAGAGCCTGGTGAAGCCTGATATCGTCT
TTTTTGGTGAGAGCCTCCCAGCGCGTTTCTTCTCCTGTATGCAGTCAGACTTCCTGAAGGTGGACCTCCTCCTGG
TCATGGGTACCTCCTTGCAGGTGCAGCCCTTTGCCTCCCTCATCAGCAAGGCACCCCTCTCCACCCCTCGCCTGC
TCATCAACAAGGAGAAAGCTGGCCAGTCGGACCCTTTCCTGGGGATGATTATGGGCCTCGGAGGAGGCATGGACT
TTGACTCCAAGAAGGCCTACAGGGACGTGGCCTGGCTGGGTGAATGCGACCAGGGCTGCCTGGCCCTTGCTGAGC
TCCTTGGATGGAAGAAGGAGCTGGAGGACCTTGTCCGGAGGGAGCACGCCAGCATAGATGCCCAGTCGGGGGCGG
GGGTCCCCAACCCCAGCACTTCAGCTTCCCCCAAGAAGTCCCCGCCACCTGCCAAGGACGAGGCCAGGACAACAG
AGAGGGAGAAACCCCAG**TGA**CAGCTGCATCTCCCAGGCGGGATGCCGAGCTCCTCAGGGACAGCTGAGCCCCAAC
CGGGCCTGGCCCCCTCTTAACCAGCAGTTCTTGTCTGGGGAGCTCAGAACATCCCCCAATCTCTTACAGCTCCCT
CCCCAAAACTGGGGTCCCAGCAACCCTGGCCCCCAACCCCAGCAAATCTCTAACACCTCCTAGAGGCCAAGGCTT
AAACAGGCATCTCTACCAGCCCCACTGTCTCTAACCACTCCTGGGCTAAGGAGTAACCTCCCTCATCTCTAACTG
CCCCCACGGGGCCAGGGCTACCCCAGAACTTTTAACTCTTCCAGGACAGGGAGCTTCGGGCCCCCACTCTGTCTC
CTGCCCCCGGGGGCCTGTGGCTAAGTAAACCATACCTAACCTACCCCAGTGTGGGTGTGGGCCTCTGAATATAAC
CCACACCCAGCGTAGGGGGAGTCTGAGCCGGGAGGGCTCCCGAGTCTCTGCCTTCAGCTCCCAAAGTGGGTGGTG
GGCCCCCTTCACGTGGGACCCACTTCCCATGCTGGATGGGCAGAAGACATTGCTTATTGGAGACAAATTAAAAAC
AAAAACAACTAAC

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FIGURE 1105

TGAAGAGGCGGGACACAGACGACGATTGGGCGACGAAGGACTCTATCGCGGTCAACTTTCCTCAGGATCTGATTG
GCTCGTCACGGTCAGGTTCGCTGCCTTGCAATTGGTCTAAACGCGGAGTGGGCGGGACGAAGTGCCGCCTTGTTC
CCGGTCCAAG**ATG**GCTGCGTCCATGGCGCGGCGCTTGTGGCCTTTGCTGACTCGTCGGGGGTTCCGGCCCCGGGG
AGGCTGCATCTCCAACGATAGTCCAAGGAGAAGTTTCACTACAGAGAAACGAAACCGGAACCTCCTGTACGAGTA
TGCGCGCGAGGGCTACAGCGCACTCCCTCAGCTGGACATAGAGCGGTTCTGCGCATGCCCAGAAGAGGCCGCACA
CGCCCTGGAGCTCCGCAAGGGGGAGCTGCGCTCGGCGGACCTGCCCGCGATCATCTCGACATGGCAGGAGCTGAG
GCAGCTGCAGGAGCAGATCCGGAGCCTGGAGGAAGAGAAGGCAGCTGTGACTGAGGCAGTGCGGGCCCTGCTGGC
AAACCAGGACAGTGGTGAAGTGCAGCAGGACCCCAAGTACCAGGGTCTGCGGGCACGTGGCCGGGAGATCCGGAA
GGAGCTTGTTCACCTGTACCCCAGGGAGGCCCAGCTTGAGGAGCAGTTCTACCTGCAGGCGCTGAAGCTGCCCAA
CCAGACCCACCCAGACGTGCCCGTCGGGGATGAGAGCCAGGCTCGAGTGCTCCACATGGTCGGAGACAAGCCAGT
TTTCTCCTTCCAACCTCGGGGCCACCTGGAAATTGGCGAGAAACTCGACATCATCCGTCAGAAGCGCCTGTCCCA
CGTGTCTGGCCACCGGTCCTATTACCTGCGCGGGGCTGGAGCCCTCCTGCAGCACGGCCTGGTCAACTTCACATT
CAACAAGCTTCTCCGCCGGGGCTTCACCCCCATGACGGTGCCAGACCTTCTCCGCGGAGCAGTGTTTGAAGGCTG
TGGGATGACACCAAATGCCAACCCATCCCAAATTTACAACATCGACCCTGCCCGCTTCAAAGATCTCAACCTGGC
TGGAACAGCGGAGGTGGGGCTTGCAGGCTACTTCATGGACCACACCGTGGCCTTCAGGGACCTGCCAGTCAGGAT
GGTTTGCTCCAGCACCTGCTACCGGGCAGAGACAAACACGGGACAGGAACCCCGGGGGCTGTATCGAGTACACCA
CTTCACCAAGGTGGAGATGTTTGGGGTGACAGGCCCTGGGCTGGAGCAGAGCTCACAGCTGCTGGAGGAGTTCCT
GTCCCTTCAGATGGAGATCTTGACAGAGCTGGGCTTGCACTTCCGGGTCCTGGATATGCCCACCCAAGAACTGGG
CCTCCCCGCCTACCGCAAGTTTGACATTGAGGCCTGGATGCCAGGCCGAGGCCGCTTTGGAGAGGTCACCAGTGC
TTCCAACTGCACAGACTTCCAGAGCCGCCGCCTCCACATCATGTTCCAGACCGAGGCTGGGGAGCTGCAGTTTGC
CCACACGGTGAACGCCACCGCCTGTGCTGTCCCCCGCCTTCTCATCGCGCTCCTGGAGAGTAACCAGCAGAAGGA
CGGCTCAGTGCTCGTGCCCCCTGCCCTCCAGTCCTACCTCGGCACTGATCGGATCACAGCCCCTACCCACGTGCC
TCTCCAGTACATCGGCCCCAACCAGCCCCGGAAGCCTGGGCTGCCTGGCCAGCCTGCTGTAAGC**TAA**GAACCCAC
CCACAGCAGCCCTCGGGGGTGTCACTGCTTCCTGGAGTTCAGGAGACCCCGGACACCTGGGACCTGTGTTGCTGA
GCCCGTCCTGACATCTGTGTTCTTCCTGTCAGCTCCACGCCCGGGCCCCTGGACCACGGGGTCCACCTCTCCTCT
GTCCTTGCTGCCTCAGAGTCAGTCACTGACCCTGTTATCATTGAGGGTCCCAGTGGGAAGCAGGACGTCTGGGCT
TTACGGTTCTAGGGACAGGAGAAGCAGAGGAAGAGGCTTCCATCCCTCCTTCCTTCTTTCCTCCTACAGTGCTGA
GCAAAAAGTCCCCAATAAATGGTCAGGAC

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FIGURE 1106

AGCTGGATTCAGCGTGTCCGCGACCTCACCTTTAGGTCCTGTGAGGTCGGTGGAATCCTGGGGTCCTCCAAATCT
ACCAGGCCATCTCCCCAGTTTCCCAGTTCTTCCTGCGTGCGGGCGAGAGTGGTTGGGCCCTCGGGAACCCACTCA
GAGCGAGGCTAAATTTACGGAGGGACTTTCTGTTAGCAGCATGAGGGCCTGTGGTTAGACCTATAGAGGTATTTC
CTTTGATTTAAGCCAGAAAGTCCTGAGAGCGGATCGGGGAGCATTTGCGGATCGGTCACTTTTTCCTCCTTTCTG
AGTCTCTTATCCCCTACCACAGGGACGGCCCAGGTGGCAGG**ATG**TCCTGGTCTGGCCTTCTCCATGGCCTCAACA
CGTCCCTAACTTGTGGCCCAGCTCTGGTTCCCCGGCTCTGGGCTACCTGCTCCATGGCTACCCTGAACCAGATGC
ACCGCCTGGGGCCCCCCAAGCGGCCGCCTCGGAAGCTGGGCCCCACGGAAGGCCGGCCGCAGCTGAAGGGTGTGG
TCCTGTGCACGTTTACCCGCAAGCCGAAGAAGCCCAACTCAGCCAATCGCAAGTGCTGTCGAGTGCGGCTCAGCA
CTGGCCGCGAGGCCGTCTGCTTCATCCCTGGGGAGGGCCACACCCTGCAGGAGCACCAGATTGTCCTTGTGGAGG
GCGGCCGCACCCAGGACCTGCCAGGCGTCAAGCTCACCGTTGTGCGTGGCAAGTACGACTGTGGCCACGTGCAGA
AGAAG**TGA**CGGCTGGGGGCACAGTGGGCTGGGCGCCCCTGCAGAACATGAACCTTCCGCTCCTGGCTGCCACAGG
GTCCTCCGATGCTGGCCTTTGCGCCTCTAGAGGCAGCCACTCATGGATTCAAGTCCTGGCTCCGCCTCTTCCATC
AGGACCACTATTAAGCCATAGGAGTCCTGGGGGTGCAAAGGGTGCCCCTCTGTCAACACCCTTGGCTCCTGTGTT
TAGAGGGGTGGCCTGAAGGACCTTTTCTGCTGGGACAAGACACTGTACTGCCCTCTGCTGGGAAGGGGTTTTAAT
AAACAGACCCTGGCGCTTGTGATGT

FIGURE 1107

AGCCGCCACGCCCCGGGAGAGGACCGACCGCCCAGACCGCCGGTCCCGGGGCCCCCTGGGCCACGCCGATCACGG
GGAGCCCCTCGACTGCCTCCCAGAACAAAGTGGGAAAGGGAAGCTTAGCCCGCCGCTGCCGCCTCCGAGCAGCCC
GCCAGGACTCTGGCTACTGGAG**ATG**GGCGCCCGGCTATCGCGGCGACGGCTGCCGGCGGACCCATCCCTGGCCCT
GGACGCGCTGCCCCCGGAGCTGCTGGTGCAGGTGCTGAGCCACGTGCCGCCACGCTCCTTGGTCACGCGATGCCG
CCCAGTGTGCCGCGCCTGGCGCGACATAGTGGACGGGCCCACTGTGTGGCTGCTGCAGCTGGCCCGCGACCGCAG
CGCCGAGGGCCGCGCACTCTACGCAGTGGCTCAACGCTGCCTGCCCAGCAACGAAGACAAGGAGGAGTTCCCGCT
GTGCGCCCTGGCGCGCTACTGTCTGCGCGCGCCCTTCGGCCGCAATCTCATCTTCAACTCCTGCGGAGAGCAGGG
CTTCAGAGGCTGGGAGGTGGAGCATGGCGGGAACGGCTGGGCCATAGAAAAGAACCTAACACCGGTGCCTGGGGC
TCCTTCGCAGACCTGCTTCGTGACCTCTTTCGAATGGTGCTCCAAGAGGCAGCTTGTGGACCTGGTGATGGAAGG
GGTGTGGCAGGAGCTGCTGGACAGCGCCCAGATTGAGATCTGTGTGGCTGACTGGTGGGGCGCTCGAGAGAACTG
CGGCTGCGTCTACCAGCTCCGGGTCCGCCTTCTGGATGTGTATGAAAAGGAAGTGGTCAAGTTCTCAGCCTCACC
TGACCCGGTCCTTCAGTGGACTGAGAGGGGCTGCCGACAGGTCTCCCACGTCTTCACCAACTTTGGCAAGGGCAT
CCGCTACGTATCTTTTGAGCAGTACGGGAGAGACGTGAGTTCCTGGGTGGGGCACTATGGCGCCCTTGTGACCCA
CTCCAGTGTGAGGGTCAGGATCCGTCTGTCC**TAG**CGACTGGACTACTGCCTGACGTTGTCAGTCAAGACCAGCCT
TGCAGCCAGGTGCAGTGGCTCACACCTGTGGAATCCCAGCACTTCAGGAGGCCGAGGTGGGAGGATCACTGGAGC
TCGGGAGTTCAAGACCAGCCTGGGCAACATAGTGAAACCGTCTCCACAAATAATTTTTAAAAAATTAGCCAGGCA
TGGTGGTGCCGCCTGTAGTCCCAGCTACTCAGGAGGCTTGGGTGGGAGGATTGCCTGAGACCAGGAGGTTGAGGC
TGCAGTGAGCCGTGATTTCACCACCACTCCAGCCTGGGTGAGAAAGCAAGACCCTATATCAATGAAAAAAAAAAA
AAAAAAGACCAGCTTTGCAGCCAGAAGCCAGAGGATACCCAGGGACAGTAGGGCTCCCAGGTGGCTGGTTCTCAG
CACACCTTCCATGAATCTGCTTGCTGCTGCTTCAGTGTGGTGGCCATCATGCTGTGTGACAAACCAGGCTGTTCA
CAGCTTCCTCAGCCCCCCAGAAGGGGAGTGTCAGGAAGAGACATTTAGTTCATTTGCCTGCAAATTTTCTTCTCC
TGCAAGGATCTCGGTGGACTCAGTCACAAAACAAAGGCTAAACCAGGATTTATAAGAGAGGGCTTATAAATCCCT
CTGCCGACGCAGGGAGCAGAGACTTGCCGGCATGTTTTGGGGGTAATGATCGTGGGCAGGGAGCAGAGGTCCGCT
GAGGCAGTCTGTCCTTGAGACTAACAAAGTCATCTGCTGTTTGGGGAAATCTCTGGTGTTGGGAACAGGCCCCCA
AATCTGGCCATAAACTGGCCCCAAAACTGGCCATAAACAAAATATCTGCAGCACTGTGACATGTTTGTGATGGCC
ATGACCCCCACCCTGAAGGTTGTGGGTTTACTGGAACGAGGGCGAGGAACACCTGGCCCACCCAGGGCGGAAAAC
CGCTTAAAGGGGTTCCTGAACCACAAACCATAGCATAAGTGATCTGTGCCTTAACGACATGTTCCTGCTGCAGAT
AACTAGCCAGACCCATCCCTTTATTTCAGCCCATCCCTTTATTTCCTGTAAGAAATGTTTTTAGTTAATCTATAA
TCTATAGAAATAATGCTTATCACTGGCTTGCTGTCAATAAATATGTGGGTAAATCTCTGTTCAAGGCTCTCAGCT
CTGAAGGCCGTGAGACCCCTGATTTCCCACTCCACACC

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FIGURE 1108

GGGGAGCTTGCGGCACAGCTAGGGCATCCCGGCGAGGAGCGCCGCCAGGCCCCGGGCCACAGCCGGGCCTGGCGG
GGGGACC**ATG**GGCGCCTCGGTCTCCAGGGGCCGGGCCGCCCGGGTCCCCGCGCCGGAGCCGGAACCCGAAGAGGC
GCTGGACCTGAGCCAACTACCCCCAGAGCTGCTTCTGGTGGTGCTGAGCCACGTCCCCCCGCGCACGCTGCTCGG
GCGCTGCCGCCAAGTGTGCCGGGGCTGGCGAGCCCTGGTGGACGGCCAGGCCCTGTGGCTGCTGATCCTGGCCCG
CGACCACGGCGCCACCGGCCGCGCGCTGCTGCACCTCGCCCGCAGCTGCCAGTCTCCCGCCCGTAACGCCAGGCC
TTGCCCCCTGGGCCGCTTCTGCGCGCGCAGACCCATCGGACGCAACCTTATTCGCAACCCCTGCGGCCAAGAAGG
CCTCCGAAAGTGGATGGTGCAACACGGTGGGGACGGCTGGGTGGTGGAGGAAAACAGGACAACCGTGCCTGGGGC
CCCTTCTCAGACGTGCTTCGTGACTTCATTCAGCTGGTGTTGCAAGAAGCAGGTCTTGGACCTAGAGGAGGAGGG
TCTGTGGCCAGAACTGCTGGATAGTGGCAGGATTGAGATTTGTGTCTCTGACTGGTGGGGAGCCCGACACGACAG
CGGCTGTATGTACAGACTCCTCGTCCAACTTCTAGACGCCAACCAGACTGTTCTAGATAAATTCTCTGCTGTGCC
TGATCCCATCCCGCAGTGGAACAACAATGCCTGCCTTCACGTCACCCACGTGTTCTCCAACATCAAGATGGGCGT
CCGCTTTGTGTCTTTCGAACACCGGGGCCAGGACACACAGTTCTGGGCTGGCCACTATGGAGCCCGTGTGACCAA
CTCCAGTGTGATCGTGCGAGTCCGTCTGTCC**TAG**TCCAGCACTACCCTTCTTGCAAGACAGCCTGACTGTGCCTT
CCAGGGCCTGGGACCATTGGCTGGGACCCCTCATTAACCAACCAAGCACTTGTACCTCCCTGGCATACTGAGAAT
TCCTGGGTCCAATCAAAGGCCCTGACGGGCCCTGTCTTCAGGTTCTAGAAACTACCAGAAGAAGCTTCTTCCATC
TTATCTACCTACTGCAGCTGCTGCTTTGCGGGGGGGCCCTACTGTACTGAGGGGAAACCCACAAGTGAGCATGGG
GGAATGCCCATCCTGGAGAAGAATTCTTGCCCTCCCCTCTCTTCTCCTCCCAACCAAAACCCTCCGATCCAGCCC
CAGGCCCCTCTGTACCATCCCCTCCCCTCCGCACCACTGACCTCTTGTCTCCTGTTGTTTCTGCCACAGGGACTT
CCTTGGTCCCTTCAGGGAAGCCCTCAACTCATCTCTGAACTTAGAATCTCATCCTTAGGGCTCAGAGAGTCCCAG
CCCTAAGGGTGTGAACCTCACCTCCTGGGGCTTCCGAGCTACAGGGCTGGGACCAGGTCATGCAGCTGAAAGTCT
ACGTTAAAAAAAAAAAGTTTGGGCCAGGCACAGTGGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGCA
GGCGGATCACCTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATCCA
AAAAATTAGCCGGGCTTGGTGGTGTGCACCTGTAATTCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCTTGA
GCCCGGGAGGCAGAGGCTGCAGTGAACCAAGATCATGCCACTGCACTCCAGCCTGGGCAACACAGCGAGACTCCG
TCTCAAAAAGAAAAAGTTTGGATCAGGCAGGGTGGCTCACACCTGTAATCCCTGCACTTTGGGAGGCCAAGGTGG
GAGGATCAGTTGAGCCCCAGAGTTCAAGACCAGCCTGGGCAATGTAGTAAGACCCCCATCGCTACAAAAAATACA
AAAGTTAGCCAGGTACAGTAGTACACACCTGTAGTCCAAGCTACTTGGGAGGCTGAAGTGGGAGGATCATTTGTG
CCCAGGTTGAGGCTATAGTGAGCCATGATCATACCACTGCACTCCAGCCTGGGTGACAGAGCGAGACCCTGTCTC
AAAAAAAAAAAAGAATTTGGAGATGGTTCTGCCCACTCTGGTTTCTCTGAAAAAACGAGGTAATTCCCTGAGCCC
AACCCTGATCCTCAAGGACCTGTAATTGTGTGGTATTTAAAATTAAAATAACATTATTTTTATTTTGACTTTTTT
TCAAACAGTAAGAATAATATATCAGCAGCATGTATCTGCCAATCATATGTAATAAATTTCTTATTTTGCC

FIGURE 1109A

GGGGATTCAACATGGCGGCGGGAGTGTCCGCGGTGGTGGCGGTGCAAGAGAGCTGAGGGAGGCGCGAGGGCGCGG
AGTTCCAGGTCGAGCAGTTAGGCCGCGAGCGACTGCGGCGCCGAGCCGATGAGTAACCCGAAGCCCCTAGAGGAG
TGGTCACCTGCCTGAGGGCACTTCTGTCCCACCAGCATCAGACCAGGCCGCACCGAGTCCCCGGCACC**ATG**TTTG
GGAAGAGGAAGAAGCGGGTGGAGATCTCCGCGCCGTCCAACTTCGAGCACCGCGTGCACACGGGCTTCGACCAGC
ACGAGCAGAAGTTCACGGGGCTGCCCCGCCAGTGGCAGAGCCTGATCGAGGAGTCGGCTCGCCGGCCCAAGCCCC
TCGTCGACCCCGCCTGCATCACCTCCATCCAGCCCGGGGCCCCCAAGACCATCGTGCGGGGCAGCAAAGGTGCCA
AAGATGGGGCCCTCACGCTGCTGCTGGACGAGTTTGAGAACATGTCGGTGACACGCTCCAACTCCCTGCGGAGAG
ACAGCCCGCCGCCGCCCGCCCGTGCCCGCCAGGAAAATGGGATGCCAGAGGAGCCGGCCACCACGGCCAGAGGGG
GCCCAGGGAAGGCAGGCAGCCGAGGCCGGTTCGCCGGTCACAGCGAGGCGGGTGGCGGCAGTGGTGACAGGCGAC
GGGCGGGGCCAGAGAAGAGGCCCAAGTCTTCCAGGGAGGGCTCAGGGGGTCCCCAGGAGTCCTCCCGGGACAAAC
GCCCCCTCTCCGGGCCTGATGTCGGCACCCCCCAGCCTGCTGGTCTGGCCAGTGGGGCGAAACTGGCAGCTGGCC
GGCCCTTTAACACCTACCCGAGGGCTGACACGGACCACCCATCCCGGGGTGCCCAGGGGGAGCCTCATGACGTGG
CCCCTAACGGGCCATCAGCGGGGGGCCTGGCCATCCCCCAGTCCTCCTCCTCCTCCCGGCCTCCCACCCGAG
CCCGAGGTGCCCCCAGCCCTGGAGTGCTGGGACCCCACGCCTCAGAGCCCCAGCTGGCCCCTCCAGCCTGCACCC
CCGCCGCCCCTGCTGTTCCTGGGCCCCCTGGCCCCCGCTCACCACAGCGGGAGCCACAGCGAGTATCCCATGAGC
AGTTCCGGGCTGCCCTGCAGCTGGTGGTGGACCCAGGCGACCCCCGCTCCTACCTGGACAACTTCATCAAGATTG
GCGAGGGCTCCACGGGCATCGTGTGCATCGCCACCGTGCGCAGCTCGGGCAAGCTGGTGGCCGTCAAGAAGATGG
ACCTGCGCAAGCAGCAGAGGCGCGAGCTGCTCTTCAACGAGGTGGTAATCATGAGGGACTACCAGCACGAGAATG
TGGTGGAGATGTACAACAGCTACCTGGTGGGGGGACGAGCTCTGGGTGGTCATGGAGTTCCTGGAAGGAGGCGCCC
TCACCGACATCGTCACCCACACCAGGATGAACGAGGAGCAGATCGCGGCCGTGTGCCTTGCAGTGCTGCAGGCCC
TGTCGGTGCTCCACGCCCAGGGCGTCATCCACCGGGACATCAAGAGCGACTCGATCCTGCTGACCCATGATGGCA
GGGTGAAGCTGTCAGACTTTGGGTTCTGCGCCCAGGTGAGCAAGGAAGTGCCCCGAAGGAAGTCGCTGGTCGGCA
CGCCCTACTGGATGGCCCCAGAGCTCATCTCCCGCCTTCCCTACGGGCCAGAGGTAGACATCTGGTCGCTGGGGA
TAATGGTGATTGAGATGGTGGACGGAGAGCCCCCCTACTTCAACGAGCCACCCCTCAAAGCCATGAAGATGATTC
GGGACAACCTGCCACCCCGACTGAAGAACCTGCACAAGGTGTCGCCATCCCTGAAGGGCTTCCTGGACCGCCTGC
TGGTGCGAGACCCTGCCCAGCGGGCCACGGCAGCCGAGCTGCTGAAGCACCCATTCCTGGCCAAGGCAGGGCCGC
CTGCCAGCATCGTGCCCCTCATGCGCCAGAACCGCACCAGA**TGA**GGCCCAGCGCCCTTCCCCTCAACCAAAGAGC
CCCCCGGGTCACCCCCGCCCCACTGAGGCCAGTAGGGGGCCAGGCCTCCCACTCCTCCCAGCCCGGGAGATGCTC
CGCGTGGCACCACCCTCCTTGCTGGGGGTAGATGAGACCCTACTACTGAACTCCAGTTTTGATCTCGTGACTTTT
AGAAAAACACAGGGACTCGTGGGAGCAAGCGAGGCTCCCAGGACCCCCACCCTCTGGGACAGGCCCTCCCCCATG
TTCTTCTGTCTCCAGGAAGGGCAGCGGCCCTCCCATCACTGGAAGTCTGCAGTGGGGGTCGCTGGGGGTGGAGAG
AACACTAAGAGGTGAACATGTATGAGTGTGTGCACGCGTGTGAGTGTGCATGTGTGTGTGTGCAAAGGTCCAGCC
ACCCCGTCCTCCAGCCTGCAAGGGGTGTCTGGCGCCTTGCCTGACACCCAGCCCCCTCTCCCCCTGAGCCATTGT
GGGGGTCGATCATGAATGTCCGAAGAGTGGCCTTTTCCCGTAGCCCTGCGCCCCCTTTCTGTGGCTGGATGGGGA
GACAGGTCAGGGCCCCCCACCCTCTCCAGCCCCTGCAGCAAATGACTACTGCACCTGGACAGCCTCCTCTTTTCT
AGAAGTCTATTTATATTGTCATTTTATAACACTCTAGCCCCTGCCCTTATTGGGGGACAGATGGTCCCTGTCCTG
CGGGGTGGCCCTGGCAGAACCACTGCCTGAAGAACCAGGTTCCTGCCCGGTCAGCGCAGCCCCAGCCCGCCCACC
CCTGCCTCGAGTTAGTTTTACAATTAAAACATTGTCTTGTTTTGTGTCTGTGTGCGATGTGTGGGGGGCAGGGGG
CCCTGCCCGGCTGTCTTGGGTGGGAATTTGCAGGGAGAGGGTCTGGATCTGGGAGCAAACCACGATTCCAGCCAA
GGCAGGGCAAGGGTGGGGTGGGGAGTGGGGAGTTCAGGTCATAGCAGCCAGTAAGCTCCCCCAGCCTGCCACTCC
CCAGAATGGGGCAGGATTGTCCCCACCCCTGGAAGCAGCCAGTTTGCCACAGTCCATGTGCAGACTGATCCCAGT
TTGCCAAATCTGCAATTTCCTGGAACCTTTTAAAGGCTGTCTTGAGCGCGTTTGGTGAGTAGGAGCTAACCCAAG
TTAGTAAATTGAAGGCCATTTGGCAAATTGGTCAGTGGGCAGATGGGCTTTTGGGGATTGACTGAGGCTGACTGG
CCTGGAGCTGCTGGCTTCGGAGAGACACCCTGTGAAGTGTGTCCTTCCACGCAGGAGCCCAGAGCCGAGCCCACG
CTGGGGGGAATCTGACTGGCATGGAGGTGGCCATGCCACCATCGCTGCTGCAGCTGCATCCTGGCACTTTGCGCC
TCAGGCCCTGTTGGGCTCCACTTTCTGCATCCTCCCCAGCCCCCAGGGAGGCAGTGGAGTGGGGAGAGAGCCAGG
AGTGAGCCTCCGTCCCCAAAGCCAGCCAGGCGTCATCAGCACCAGAGACCTCAGCCTGGTCCTCTCGGGAAGTGA
GTGGCCAGGGCAGAGATTCCAGGTTAGTCCACGCCTCCCACCCTTCACAGGTCCTGACCCCAAGAATCAGAGCAC

FIGURE 1109B

TGTGTGTGTGGCAGGGCCTATGCCAAGTGCAAACACAGCCTAGATGGATCATCACAGAGTGAAACCCAGCGGTGC
AAGCAGCTGTGCTCTCTGCGATGTATTGGAGGCTTAGGTGAGGTGGATGCCTTTCTGGAAAAAAAAAAAATGCTA
ACATTGGCAAAAGAAGAAATAGAAAACAAGACCAAAATAACTGTCTCCTCACTGCACACACACTCCAGAATAAAT
AAAAGGTTTCAGGCTTGAATGCACTTTCAAATGAGATTTTTTTTTTTTTTTGAGACGGAGTATCGCTCTGTCGC
CCAGGCTGGAGTGCAGTGGCACGATCTTGGCTCACTGCAACTTCTGCCTCCTGGGTTCAAGCGATTCTCCTGCCT
CAGCCTCCCAAGTAGCTGGGATTACAGGCGCTTGCCACCACGCCAGGCTAATTTTTTGTATTTTGAGTAGAGACT
GGATTTCGCCATCTTGGCCAGACTGGTCTTGAACTCCTGACCTCGTGATCCACCCACCTCAGCCTCCCAAAGTGC
TGGGATTACAGGCATGAGCCACCATGCCTGGCCTCAAATGAGGTTTACCAGACTTTGAAGGAGCAGGTAATTCCT
TCTACCTTGTGAACAAGTTGTTCCAGAAAGATAGCAGCTCAGGAGGCCTCTGTGACCATGGTTCCAGACCCAGAT
AAGGACGGCAAAGAACAGAGCATCTCAGAAACGCAAGGCTCACAGCCAGGGTGCCCGGCGACCCCACGGGCACTG
AGAACAGCTAGCTCTAGGAGCTCCACTCTCCTGCTGAAGAAACCACGGGCTCAGAGACGGGGAGCTCCCTCGCCC
AGCCACATCTGTGACCCCACGGTAACTCTGCTGGTTTTGGTGCCTTCAGTCACTCACTGCAGGTTTGTTTTGTTT
TGTTTTGTTTTGAGTTTTTTTGTTTTTTGTTTTTTGTTTTTAGAGACAAGATGTTGCTATGTTGCCTAGGCTGGT
TTCGAACTCCTGGCCTCAAGGGATCCTCCCTCCTTGGCCCCGCAAAGTGCTGGGATTACAGGCGTGAGCCACCGT
GCCCAGCCCGCTCACTGCAGTTTGAAGGCATGGCTTTGGGTGGCGTGGGGTGAAAGCTGCCCGAGGCCCCGTTCC
TCCCCACGTGGCTGCCTCCTGCCAGAGCCAGTCAGGAAAACAGACCCCAACTAGAGTTGTTTCAAATGGCAGGGA
TTTGGTACCGGTGGTTGGATCATGACAAAGCTCTGAGAAGGCTGGAGGAGCCACAGAGTGCCAAGTGCCCAGCAA
TCATTAGAGGAAGGAGGCTGCTGCCACCTGTGTGGCTAGAGGAACAGAGGGGCCAATGGCATTCCCCAAACCCCA
CTCTCGCCTCTGTCTGGCCAGAGCAGAATGGCTTCTTCCAGCTTCCCACCCTGGACTCCCACCCAGGAGCCTCCT
CCTGGCAGACCCTTCCTGACCCCACCGGCCCGGGGGGTCTACAGATCCATGTTTCAGGCGTCCGCCTGGAGCGGA
ACAGGGGAGTGCTTAGGACAAGGGTGGTGCCAGAGGATCCACTCTGCCCACATTTAGTTGACCAGCTGAGGCACT
CCACGGGAATGAATGACTCTCGACAGGTGCCGGAGGTGAGGAGGGGCCCGGAGGCCCAGGAGGGGCACAGGGATG
GATTCGTCCGCCTGGGGGCTGGAGGTGTGTTTACAGAGCCCCAAAATAAACAATGCAACCAGGTCAGACCAGCGG
TTCTCACAGTGTGGTTCCCAGACCAGCAGCATCACTGGGAGCTTACTGGACACGCAAATAAATCCCTGTGTGCCA
CCCCAGCTGCATCAGATGCTGGTGGGGCCCAGTGATCTGTATTTAACACACCCTCCGGGGGATGCCGGTGCCCAC
TCACGTTTGAGAACCCCTGCGATCCACGACTGCCCTCCCGTGTAAAAGGCCCACCTCTGTGGGACTCCAAGTCAT
CAGCACCCTAGGGTCCTTCCGTCTTTTTCCTTCCTCCTGGGACACCTGCCTCTCCCATGTCGTATTAGAGAATTC
CTTATGCTCCCAAGTGGGCACGGGGAGAGGAAGGCACTCCTCTTTAAGGACCGACCCAGAGGTTTTGCCATTGCT
TCACTGGCCAGAGCTTAGTCACGCAGCCTCACCCAGAGGCAAGGGAGGTTGGAAAATGTAGTGTTTGTGTGTGTC
TAACACAAATTCTATTACCATGCAGTCAGGATTCTCCACTCTTGCTCTTTCATTAGATTTGCTGGGCTTCACCCT
GGACTTTCTGATTTAGTGACAGAACAGAGAACCCAGAGGCAGACCCAGATGTGTACAAGGGCTTCATATACAATC
AGGAGATTTAATAATCATGCTAGGGGCCGGGTGCAGTGGCTCACGCCTGTAATCCCAAGCACTTTGGGGAGCCGA
GGCAGGCAGATCACTTGAGGTCAGGAGTTTGAGACCAGCCTGGGCAACAAAGTGAGACCCTGTCTCTACTAAAAA
TAACAAAAATTAGCCGGGCGTGGTGGTGGGCGCCTGTAATCCCAGCTCCTCGGGTGGCTGAGGCATGAGAATCAC
TTGAACCCAGGAGGCAGAGGTTTCAGTGAGCTGAGATCACATCACTGCACTCCAGCCTGGGTGACAGAGTGAGAT
TCTGTC

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FIGURE 1110

GTTGGATGAAACCTTCCTCCTACTGCACAGCCCGCCCCCCTACAGCCCCGGTCCCCACGCCTAGAAGACAGCGGA
ACTAAGAAAAGAAGAGGCCTGTGGACAGAACAATC**ATG**TCTGACTCCCTGGTGGTGTGCGAGGTAGACCCAGAGC
TAACAGAAAAGCTGAGGAAATTCCGCTTCCGAAAAGAGACAGACAATGCAGCCATCATAATGAAGGTGGACAAAG
ACCGGCAGATGGTGGTGCTGGAGGAAGAATTTCAGAACATTTCCCCAGAGGAGCTCAAAATGGAGTTGCCGGAGA
GACAGCCCAGGTTCGTGGTTTACAGCTACAAGTACGTGCATGACGATGGCCGAGTGTCCTACCCTTTGTGTTTCA
TCTTCTCCAGCCCTGTGGGCTGCAAGCCGGAACAACAGATGATGTATGCAGGGAGTAAAAACAGGCTGGTGCAGA
CAGCAGAGCTCACAAAGGTGTTCGAAATCCGCACCACTGATGACCTCACTGAGGCCTGGCTCCAAGAAAAGTTGT
CTTTCTTTCGT**TGA**TCTCTGGGCTGGGGACTGAATTCCTGATGTCTGAGTCCTCAAGGTGACTGGGGACTTGGAA
CCCCTAGGACCTGAACAACCAAGACTTTAAATAAATTTTAAAATGCAAAAACTCGG

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FIGURE 1111

AGTTGGTGGAACCGGAGCTTCGAGTCCGTCCCCGGTGCTGCCTGCGCGTTCACCTGAGTCTCGCTGGAGCTCTTC
TCGCCCGCCCACCTCATCTCAACCCACTTTCCGCGGGGAGCGGCGCCAAGCTGGGCCTTCCTCGGATCAGGCGTC
CCCTGAAGTCGGCACGCCCCTCTGCGTCCCCCTTCGGTCCCGCTAGGACCCCGTCCGGGCTGCCGTCGCCTCGTC
GCT**ATG**GCGCCCACCATCCAGACCCAGGCCCAGCGGGAGGATGGCCACAGGCCCAATTCCCACCGGACTCTGCCT
GAGAGGTCTGGAGTGGTCTGCCGAGTCAAGTACTGCAATAGCCTCCCTGATATCCCCTTCGACCCCAAGTTCATC
ACCTACCCCTTCGACCAGAACAGGTTCGTCCAGTACAAAGCCACTTCCTTGGAGAAACAGCACAAACATGACCTC
CTGACTGAGCCAGACCTGGGGGTCACCATCGATCTCATCAATCCTGACACCTACCGCATCGACCCCAATGTTCTT
CTAGATCCAGCTGATGAGAAACTTTTGGAAGAGGAGATTCAGGCCCCCACCAGCTCCAAGAGATCCCAGCAGCAC
GCGAAGGTGGTGCCATGGATGCGAAAGACAGAGTACATCTCCACTGAGTTCAACCGTTATGGCATCTCCAATGAG
AAGCCTGAGGTCAAGATTGGGGTTTCTGTGAAGCAGCAGTTTACCGAGGAAGAAATATACAAAGACAGGGATAGC
CAGATCACAGCCATTGAGAAGACTTTTGAGGATGCCCAGAAATCAATCTCACAGCATTACAGCAAACCCCGAGTC
ACACCGGTGGAGGTCATGCCTGTCTTCCCAGACTTTAAGATGTGGATCAATCCATGTGCTCAGGTGATCTTTGAC
TCAGACCCAGCCCCCAAGGACACGAGTGGTGCAGCTGCGTTGGAGATGATGTCTCAGGCCATGATTAGGGGCATG
ATGGATGAGGAAGGGAACCAGTTTGTGGCCTATTTCCTGCCTGTAGAAGAGACGTTGAAGAAACGAAAGCGGGAC
CAGGAGGAGGAGATGGACTATGCACCAGATGATGTGTATGACTACAAAATTGCTCGGGAGTACAACTGGAACGTG
AAGAACAAAGCTAGCAAGGGCTATGAGGAAAACTACTTCTTCATCTTCCGAGAGGGTGACGGGGTTTACTACAAT
GAGTTGGAAACCAGGGTCCGCCTTAGTAAGCGCCGGGCCAAGGCTGGGGTTCAGTCAGGCACCAACGCCCTGCTT
GTGGTCAAACATCGGGACATGAATGAGAAGGAACTGGAAGCTCAGGAGGCACGGAAGGCCCAGCTAGAAAACCAC
GAACCGGAGGAGGAAGAGGAAGAGGAGATGGAGACAGAAGAGAAAGAAGCTGGGGGCTCAGATGAGGAGCAGGAG
AAGGGCAGCAGCAGTGAGAAGGAGGGCAGTGAAGATGAGCACTCGGGCAGCGAGAGTGAACGGGAGGAAGGTGAC
AGGGACGAGGCCAGTGACAAGAGTGGCAGTGGTGAGGACGAGAGCAGCGAGGATGAGGCCCGGGCTGCCCGTGAC
AAAGAGGAGATCTTTGGCAGTGATGCTGATTCTGAGGACGATGCCGACTCTGATGATGAGGACAGAGGACAGGCC
CAAGGTGGCAGTGACAATGATTCAGACAGCGGCAGCAATGGGGGTGGCCAGCGGAGCCGGAGCCACAGCCGCAGC
GCCAGTCCCTTCCCCAGTGGCAGCGAGCACTCGGCCCAGGAGGATGGCAGTGAAGCTGCAGCTTCTGATTCCAGT
GAAGCTGATAGTGACAGTGAC**TGA**GTCCCAGGGCATTCAGGGCTGGTTCAGACACCATTATTGTGAGCAGCAAAG
CACTTTTCTAGTGGTCTGTTTGTGAGCCTTTCACTTGTTTGTTCCCCACCCCCAAACCTTTGCTGTTAATAAAGT
CAACTTCTCTTTA

FIGURE 1112

GGGGTTTACTACAATGAGTTGGAAACCAGGGTCCGCCTTAGTAAGCGCCGGGCCAAGGCTGGGGTTCAGTCAGGC
ACCAACGCCCTGCTTGTGGTCAAACATCGGGAC**ATG**AATGAGAAGGAACTGGAAGCTCAGGAGGCACGGAAGGCC
CAGCTAGAAAACCACGAACCGGAGGAGGAAGAGGAAGAGGAGATGGAGACAGAAGAGAAAGAAGCTGGGGGCTCA
GATGAGGAGCAGGAGAAGGGCAGCAGCAGTGAGAAGGAGGGCAGTGAAGATGAGCACTCGGGCAGCGAGAGTGAA
CGGGAGGAAGGTGACAGGGACGAGGCCAGTGACAAGAGTGGCAGTGGTGAGGACGAGAGCAGCGAGGATGAGGCC
CGGGCTGCCCGTGACAAAGAGGAGATCTTTGGCAGTGATGCTGATTCTGAGGACGATGCCGACTCTGATGATGAG
GACAGAGGACAGGCCCAAGGTGGCAGTGACAATGATTCAGACAGCGGCAGCAATGGGGGTGGCCAGCGGAGCCGG
AGCCACAGCCGCAGCGCCAGTCCCTTCCCCAGTGGCAGCGAGCACTCGGCCCAGGAGGATGGCAGTGAAGCTGCA
GCTTCTGATTCCAGTGAAGCTGATAGTGACAGTGAC**TGA**GTCCCAGGGCATTCAGGGCTGGTTCAGACACCATTA
TTGTGAGCAGCAAAGCACTTTTCTAGTGGTCTGTTTGTGAGCCTTTCACTTGTTTGTTCCCCACCCCCAAACCTT
TGCTGTTAATAAAGTCAACTTCTCTTT

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FIGURE 1113

AGGCCCAGCGGGAGGATGGCCACAGGTCTGGAGTGGTCTGCCGAGTCAAGTACTGCAATAGCCTCCCTGATATCC
CCTTCGACCCCAAGTTCATCACCTACCCCTTCGACCAGAACAGGTTCGTCCAGTACAAAGCCACTTCCTTGGAGA
AACAGCACAAACATGACCTCCTGACTGAGCCAGACCTGGGGGTCACCATCGATCTCATCAATCCTGACACCTACC
GCATCGACCCCAATGTTCTTCTAGATCCAGCTGATGAGAAACTTTTGGAAGAGGAGATTCAGGCCCCCACCAGCT
CCAAGAGATCCCAGCAGCACGCGAAGGTGGTGCCATGG**ATG**CGAAAGACAGAGTACATCTCCACTGAGTTCAACC
GTTATGGCATCTCCAATGAGAAGCCTGAGGTCAAGATTGGGGTTTCTGTGAAGCAGCAGTTTACCGAGGAAGAAA
TATACAAAGACAGGGATAGCCAGATCACAGCCATTGAGAAGACTTTTGAGGATGCCCAGAAATCAATCTCACAGC
ATTACAGCAAACCCCGAGTCACACCGGTGGAGGTCATGCCTGTCTTCCCAGACTTTAAGATGTGGATCAATCCAT
GTGCTCAGGTGATCTTTGACTCAGACCCAGCCCCCAAGGACACGAGTGGTGCAGCTGCGTTGGAGATGATGTCTC
AGGCCATGATTAGGGGCATGATGGATGAGGAAGGGAACCAGTTTGTGGCCTATTTCCTGCCTGTAGAAGAGACGT
TGAAGAAACGAAAGCGGGACCAGGAGGAGGAGATGGACTATGCACCAGATGATGTGTATGACTACAAAATTGCTC
GGGAGTACAACTGGAACGTGAAGAACAAAGCTAGCAAGGGCTATGAGGAAAAC**TAA**TACTTCATCTTC

FIGURE 1114

GTCGTAACGCACTTCCGGCGGTCTACGCGAGGAAGATGGCTGCATCCCAGCAGCAAGCTTCAGCGGCTTCCTCAG
CTGCTGGTGTATCGGGTCCTAGTTCGGCTGGCGGCCCGGGTCCCCAGCAGCAGCCGCAACCGCCAGCACAACTGG
TGGGCCCTGCCCAGAGCGGCCTCCTGCAGCAACAGCAACAGGACTTCGATCCTGTGCAGCGTTATAAGATGCTCA
TCCCGCAGCTGAAGGAGAGTCTACAGACCTTGATGAAGGTTGCGGCCCAAAACTTGATTCAGAACACTAACATCG
ACAATGGACAAAAGAGCAGTGATGGACCCATACAGCGCTTTGACAAGTGCCTGGAAGAGTTCTATGCACTCTGTG
ACCAGCTGGAGCTGTGCCTGCGCCTGGCGCATGAGTGCCTGTCACAGAGTTGTGACAGTGCCAAGCACTCTCCAA
CGTTGGTGCCCACAGCCACCAAGCCCGACGCAGTGCAGCCTGACAGCCTCCCCTACCCACAGTACCTGGCGGTCA
TCAAAGCCCAGATTTCCTGTGCCAAGGACATTCACACCGCCCTGCTGGACTGTGCCAACAAGGTCACGGGCAAGA
CACCCGCACCACCTGCTGGCCCTGGGGGCACTCTGTGAAGTGGGGGACAGGGAGTGGGGCAGGCAGTGGTTGGTG
GGTGGTGTGCAAAGGGAATGAAGAGCGTCCTGGGCCTAAACACAGCAGCCTCCTCTCTTCCTGCCTGAGCACCGC
AGCGGGAGCCAGCAGGGGGCAGCAGAGGCCAACAGGGAGCTCGCAGGCCGGGCCCCTGCGTCCCTGCCCCTTCTT
CCTGCTCCCCCTCCTAGCCTAGGGTAGACTTTGAACTGTGTGTGTTGATGACTTCTCTGTTCCACAGGCCCTCCC
CCATTCTTGCCTGGGTGTGGAGCCCTGGCTGTCCCCTCTCCCTCAGTCCTTCCTGACTGTCTCCAGCTGGGAGGT
GGTCTCTGTGTGCCACTCCTCTGTGTCTCTATTACAGTTGTGTCTCTCTCATCCTGTCTCTTTTTCCCTTGTTTC
TCTGTTCCTGTTAATGTGTTTCTCCCCATGGTCCTATTTCTCTCACTCTGACCTCTCTCTCTTAGTCCCCTTTAG
CTGTCTTCTATCCCCAGCTCCTAACTGGGACTCTGTGTCTATGCAGGGGGCCAGCACCCCTGGGTTATCTGGGGC
TAAGGGAAGGGACTTCATTTCCAGGGGCCACAGCCAAGCCCAGAGTCCCCCAGCGGCTCGCATGTCAGCCCAGAC
CCCAGGGTCCTTGGCCTAGGAGAGGAGCAGTGGAGGGGCCCAGGCTCTGAGCTCCACAGGTCTGAGCTGGGAGCA
ACTCAGGCCCCCACCCAAGCCTGCGTCAGCGGAACTTGAGTGAGGGGCGTTGTGCAATTTGTGGCAAGGCTGGCC
CAGCTGGATGCCTGGGTCCCAGTATTTTTAGCCCCAAAGGAGAAGTGAAAAGGCCCCAGCCGGGGTGAATCATCA
GTCCTGGGGAAGAACCCAGGCGCCTGAGCCCCAGCTCCGGGAAGCAGGCACTGGGGAGGGGGCTTCAAGGAGGGA
GTGCCCCCTCAGACTCCCTGCTTCCCTGGAAGCTTCAGGAAGCTCAGCCTCAGCCTTCAGGCCTGAGCAAGTGCA
GGGCGGAGCTACCAGCCCAGGCTCAGATGTTGGGGTGTGAAAGCCTCAAGTGACTCAGCCTGGTTGGAGAACTGC
CCCACCCAGTATCTTCTGTGCCATGGTTCCCACATTCGCACTCCATGGCCTCCTGTCCTGGACCCCACGTCTGCA
AGGAAACCCTAGGACCATGGATACCTCTGTGATTCACGCTGAGCCCAAGTCCCCACACTGGAAAACTGGGAAATG
GCCAGCTGTGTGTCCCAGGAAATTCCTCCCCTTATTCTTCCTTGAAGTGCCCGAGCATGTAGGGCAAGAAGGAAG
GCTGAAGCGCTGTCCCTAGGAGGAATTTCTCCTTCAGGGAAGCCTCAGTTTTGCCCATTTATCTAATTGAATCAG
TTTTTTACCCAATCCCCCGATTTTGTAGGATAATCTCCCTTATCTAAAGTCAACTGATTATGGACTTTAATCACA
TCTACAAAACACTTCCATGGCGACAGCTAGATGAGTGTTTGAATAACTGGGACTGTAGCCCGTCCAAGTTGACAC
ATAAAACTGACCATCGGGCCGGGGGCGGTGGCTCACGCCTGTAATCCCAACACTTTGGGAGCCCGAGGCGGGCGG
ATCACAAGGTCAGGAGTTCGAGACCAGCCTGGCCAACACGGTGAAACCCCGACTCTACTAAAAATACAAAAAATT
ÀGCTGGGTGTGGTGGCACACACCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGTTTGAACCTGGG
AGGCAGAGGTTGCAGTGAGCCAAGATCACACTATTGCACTCCAGCCTGGGCGACAGGGCAAGACTCTGTCTCAAA
AAAAATAAAAAACTGACCATCTAGTCCTTGTCATCTGGGCACCCTCACACATCTCCTTAACCACACTTAATCTCC
AAATAAGTACGATAACATAGTCATAGTCCCACCCAACATGATGCAGTTATCTTGCATACAACTGAAGACAACTAA
CCCTTTCCCCAACAGAGCCCACCAGCAGTGGTGGAGATGTCGGTCCATGAGCGCACACACAAGACTGAGGGACTG
TCGGCCCTCCCAGGTGGTGTCAACACAACATCACACACAGGTGGGGGGGCCTGATAGCCCAGCACCCATGATACA
GGGCCTACCAATGCTTAAAACCACACCCAGGGAGCCCACAGAGGCACTCAGTGGGTGGTGGGGTGATGGATACAC
ATCTATCAGGCACAGGGCGGAGGTGGGCACCACTGAGTTGCACTCAGCAAACACATTGGGTATCTTGTGCCCAAG
GCCTGTATTTGTGGAGCTGATGTTCTAGTGAGAGACAGTAAATGTGACAAAAGTAAAATATATCAGATGGTGAGA
AAACAGAAAAATGAGATCAGAAGTGGAGATGTTGGGGCCAGGCACAGTGGCCCAGGCCTGTAATCCCATCACTTT
GGGAGGTGCAGGCAGGCAGATGGCTTGAGCCCAGGAATTCAAGACCAGTCCGAGCAACATAGCAAAAGCCCTTAT
CTGCAAAAAATTCAAAAATTAGCCAGGTGTGGTGGTGCGTGCCCAGGTTCCCAGGTACTCGGAGGCTGAGAGGTG
GGAGGATGCCTTGAGCTTGAGAGGTTGAAGCTGCAGTGAGCTGTGATCGCACCACTGCACTCCAGCTTGGTTCAT
GGAGACCCTGTTTTTTTAAAAAAAGAAGTGGAGGTGTTTACACCAGCAAAATACTCATTTTTTAAGTGTAATTAA
GTTGAAGATCAAAAAATGGAAATGTATAATTAAATCATACTTAGCAAATCTAACACATGAAATGTAACATCTGCA
TATGGAGAATCGTGTTACTTTATTGAAAAACATTAAAAGTTTGAGAACTT

FIGURE 1115

AGCCTGACTTCAGCGCTCCCACTCTCGGCCGACACCCCTCATGGCCAACCGTTACACC**ATG**GATCTGACTGCCAT
CTACGAGAGCCTCCTGTCGCTGAGCCCTGACGTGCCCGTGCCATCCGACCATGGAGGGACTGAGTCCAGCCCAGG
CTGGGGCTCCTCGGGACCCTGGAGCCTGAGCCCCTCCGACTCCAGCCCGTCTGGGGTCACCTCCCGCCTGCCTGG
CCGCTCCACCAGCCTAGTGGAGGGCCGCAGCTGTGGCTGGGTGCCCCCACCCCCTGGCTTCGCACCGCTGGCTCC
CCGCCTGGGCCCTGAGCTGTCACCCTCACCCACTTCGCCCACTGCAACCTCCACCACCCCCTCGCGCTACAAGAC
TGAGCTATGTCGGACCTTCTCAGAGAGTGGGCGCTGCCGCTACGGGGCCAAGTGCCAGTTTGCCCATGGCCTGGG
CGAGCTGCGCCAGGCCAATCGCCACCCCAAATACAAGACGGAACTCTGTCACAAGTTCTACCTCCAGGGCCGCTG
CCCCTACGGCTCTCGCTGCCACTTCATCCACAACCCTAGCGAAGACCTGGCGGCCCCGGGCCACCCTCCTGTGCT
TCGCCAGAGCATCAGCTTCTCCGGCCTGCCCTCTGGCCGCCGGACCTCACCACCACCACCAGGCCTGGCCGGCCC
TTCCCTGTCCTCCAGCTCCTTCTCGCCCTCCAGCTCCCCACCACCACCTGGGGACCTTCCACTGTCACCCTCTGC
CTTCTCTGCTGCCCCTGGCACCCCCCTGGCTCGAAGAGACCCCACCCCAGTCTGTTGCCCCTCCTGCCGAAGGGC
CACTCCTATCAGCGTCTGGGGGGCCCTTGGGTGGCCTGGTTCGGACCCCCTCTGTACAGTCCCTGGGATCCGACCC
TGATGAATATGCCAGCAGCGGCAGCAGCCTGGGGGGCTCTGACTCTCCCGTCTTCGAGGCGGGAGTTTTTGCACC
ACCCCAGCCCGTGGCAGCCCCCCGGCGACTCCCCATCTTCAATCGCATCTCTGTTTCTGAG**TGA**CAAAGTGACTG
CCCGGTCAGATCAGCTGGATCTCAGCGGGGAGCCACGTCTCTTGCACTGTGGTCTCTGCATGGACCCCAGGGCTG
TGGGGACTTGGGGGACAGTAATCAAGTAATCCCCTTTTCCAGAATGCATTAACCCACTCCCCTGACCTCACGCTG
GGGCAGGTCCCCAAGTGTGCAAGCTCAGTATTCATGATGGTGGGGGATGGAGTGTCTTCCGAGGTTCTTGGGGGA
AAAAAAATTGTAGCATATTTAAGGGAGGCAATGAACCCTCTCCCCCACCTCTTCCCTGCCCAAATCTGTCTCCTA
GAATCTTATGTGCTGTGAATAATAGGCCTTCACTGCCCCTCCAGTTTTTATAGACCTGAGGTTCCAGTGTCTCCT
GGTAACTGGAACCTCTCCTGAGGGGGAATCCTGGTGCTCAAATTACCCTCCAAAAGCAAGTAGCCAAAGCCGTTG
CCAAACCCCACCCATAAATCAATGGGCCCTTTATTTATGACGACTTTATTTATTCTAATATGATTTTATAGTATT
TATATATATTGGGTCGTCTGCTTCCCTTGTATTTTTCTTCCTTTTTTTTGTAATATTGAAAACGACGATATAATTA
TTATAAGTAGACTATAATATATTTAGTAATATATATTATTACCTTAAAAGTCTATTTTTGTGTTTTGGGCATTTT
TAAATAAACAATCTGAGTGT

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FIGURE 1116

GAATTAGGGGAACTCAGAAATCCATCCCCCACCCCACGGCCCTACCTAGAAGACTTAGGAATGTGGGTCCCCAGC
GCCGCCATCTGAGACTCCAGAGTCGAGGCTCCTAGCATCCCCTACGTAGAACACTGAGAAATTCCGACTGCGGGA
CCCCAGTCTCCGAGAGACCCCAGATTCTATTCCTGGAGCCTGAGAGCCCGAAGTTCACGCCCCTGAGTCTGGGCT
CCGCACCTCCCTGGGGACCGCGTCGGGGTCGCGCAGGAGCCGGGCTGCCTCGAGCCGGGGCTGGAGGCTCCCCGG
GAGGACTCTGCTGGGCCGCTCAGCC**ATG**CCTGAGGGAGCCCAAGGACTGAGCCTCTCCAAACCTAGCCCAAGCCT
CGGGTGTGGCCGAAGAGGTGAAGTGTGTGACTGTGGCACCGTGTGTGAGACTCGGACAGCTCCTGCAGCCCCCAC
CATGGCCTCCCCCCGAGGTTCTGGGAGCTCCACATCCCTGAGCACAGTGGGCTCTGAGGGGGATCCAGCCCCTGG
GCCCACTCCAGCCTGCTCAGCCTCCAGGCCAGAGCCCCTTCCAGGGCCTCCCATCCGCCTACATCTCTCTCCGGT
GGGGATCCCAGGTTCAGCCAGACCCTCAAGGCTGGAGCGTGTGGCCCGGGAGATCGTGGAGACAGAACGGGCCTA
TGTCAGGGACCTCCGCAGCATCGTGGAGGACTACCTGGGCCCTCTGCTGGACGGCGGGGTCCTGGGGCTGAGCGT
GGAGCAGGTGGGCACGCTGTTTGCCAACATTGAGGACATCTACGAGTTCAGCAGCGAGCTCCTGGAGGACTTGGA
GAACAGCAGCAGCGCCGGGGGTATTGCCGAGTGCTTCGTGCAGAGGAGCGAGGATTTTGACATCTACACATTGTA
CTGCATGAACTACCCGAGCTCCCTGGCCCTGCTCCGGGAGCTGTCGTTGTCTCCGCCAGCAGCCCTGTGGCTGCA
GGAGCGCCAGGCCCAGCTTCGCCACTCGCTGCCCCTGCAGAGCTTCCTGCTGAAACCTGTCCAGCGCATTCTCAA
GTACCATCTGCTGCTGCAGGAACTAGGGAAGCACTGGGCGGAGGGCCCAGGCACTGGGGGTCGCGAGATGGTGGA
GGAAGCTATTGTGTCCATGACAGCGGTTGCCTGGTACATCAACGACATGAAGCGCAAGCAGGAGCATGCAGCGCG
CCTCCAGGAAGTGCAGCGGCGGCTGGGTGGCTGGACCGGACCAGAGCTCAGTGCTTTTGGGGAACTGGTGTTGGA
GGGCGCGTTCCGAGGAGGCGGAGGGGGTGGCCCCCGGCTACGAGGGGGTGAGCGGCTGCTCTTCCTGTTCTCTCG
GATGCTGCTGGTGGCCAAGCGCAGGGGGCTGGAGTACACCTACAAAGGCCACATCTTCTGCTGCAACCTGAGCGT
GAGCGAGAGTCCCCGAGACCCTCTAGGGTTCAAGGTGTCTGATCTGACCATTCCCAAGCACAGACACCTGCTCCA
GGCCAAGAACCAAGAAGAGAAGAGGCTGTGGATTCACTGTCTCCAGCGCCTCTTCTTTGAGAACCACCCTGCCTC
CATCCCTGCCAAGGCAAAGCAAGTTCTCCTTGAAAACAGCCTGCATTGTGCCCCCAAAAGTAAGCCTGTCCTAGA
GCCCCTGACACCCCCACTTGGGTCTCCTCGACCTCGAGATGCTAGAAGTTTTACCCCTGGGCGAAGGAACACAGC
TCCATCTCCTGGGCCCTCTGTGATTCGCCGAGGCCGCAGGCAGTCTGAGCCGGTGAAGGACCCTTATGTCATGTT
CCCACAGAACGCTAAGCCTGGATTCAAGCACGCTGGCAGCGAAGGGGAACTCTACCCTCCAGAATCTCAGCCACC
AGTTTCAGGCTCTGCACCCCCTGAGGACCTGGAGGATGCTGGACCCCCAACACTGGACCCCTCTGGGACCTCAAT
CACTGAAGAAATCCTGGAACTGCTGAATCAGCGAGGCCTTCGAGATCCAGGGGAATCTATGGGCCTTCACAGGGC
CCAGGGGGCTCCTGATGCCCCCTTCCACATG**TGA**GCCAGGACATGAGGCTTCCCTGAAGCAAGGATTTCAGCCAG
ATGCCATAGACCCTCAGAACTTGACCTGGAAGTCCAGACACTGAACGCAGGCCTCAAAACTGCTGCGGCCTTCCA
ACTCCTGGTATCTGCATCGGCGAATGGCCCTTCTTGCCTTGATCCACAGGGATGGGGAAGGGAGGAATGTCATTA
ATGTTTTGTTAATACTGATTCTTTCATGC

FIGURE 1117

GGTGGCCCCTAGCTTTCCTTTTCCGGTTGCGGCGCCGCGCGGTGAGGTTGTCTAGTCCACGCTCGGAGCC**ATG**CC
GTCCAAGGGCCCGCTGCAGTCTGTGCAGGTCTTCGGACGCAAGAAGACAGCGACAGCTGTGGCGCACTGCAAACG
CGGCAATGGTCTCATCAAGGTGAACGGGCGGCCCCTGGAGATGATTGAGCCGCGCACGCTACAGTACAAGCTGCT
GGAGCCAGTTCTGCTTCTCGGCAAGGAGCGATTTGCTGGTGTAGACATCCGTGTCCGTGTAAAGGGTGGTGGTCA
CGTGGCCCAGATTTATGCTATCCGTCAGTCCATCTCCAAAGCCCTGGTGGCCTATTACCAGAAATATGTGGATGA
GGCTTCCAAGAAGGAGATCAAAGACATCCTCATCCAGTATGACCGGACCCTGCTGGTAGCTGACCCTCGTCGCTG
CGAGTCCAAAAAGTTTGGAGGCCCTGGTGCCCGCGCTCGCTACCAGAAATCCTACCGA**TAA**GCCCATCGTGACTC
AAAACTCACTTGTATAATAAACAGTTTTTGAGGGATTTTAAAGTTTCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1118A

AGAGAACAGATTCGGAAACTGGGGAGGTCTAGCATGTGGCGTAGGAGGGGGTCCTCACTCCGCTTCGCGATTGCC
AAAACGAGCCTGCCGGAAGCGCCCTAAGGGGTTTTCTTCTCCCAGGGAACCAGCGGGGAAACTGAGGCTCGGGGT
GGAGCGCAGGATTGTGGGACGCGCCAAGGCTGCTGTCTTTCCCAGCAGCAGCGGAAG**ATG**TCGGACAGCGAGGAC
AGCAACTTTTCCGAGGAGGAGGACAGCGAGCGCAGCAGTGACGGCGAGGAGGCCGAGGTAGACGAAGAGCGGCGG
AGTGCAGCGGGCAGTGAGAAAGAAGAAGAGCCTGAGGACGAAGAGGAGGAGGAAGAGGAGGAGGAATACGATGAG
GAAGAGGAGGAAGAAGATGATGACCGACCCCCCAAGAAACCCCGCCATGGAGGCTTCATTCTGGACGAGGCTGAT
GTTGACGATGAGTATGAGGACGAGGACCAGTGGGAGGATGGAGCAGAGGACATTCTAGAGAAAGAAGAGATTGAA
GCCTCCAATATCGATAATGTTGTCCTGGATGAAGATCGTTCTGGGGCTCGCCGCCTGCAAAACCTCTGGAGGGAC
CAGCGAGAAGAAGAACTGGGCGAGTATTACATGAAGAAATACGCCAAGTCATCTGTGGGAGAGACGGTGTATGGA
GGATCTGATGAGCTCTCAGACGACATCACCCAGCAGCAGCTGCTCCCAGGAGTCAAGGATCCCAATCTGTGGACT
GTCAAATGTAAGATTGGGGAGGAACGGGCCACGGCCATTTCCTTGATGCGCAAGTTCATTGCCTACCAGTTCACA
GACACGCCCCTGCAGATCAAGTCAGTAGTGGCACCAGAGCATGTGAAGGGCTACATCTACGTGGAGGCCTACAAG
CAGACCCACGTGAAGCAGGCCATTGAGGGGGTGGGCAACCTGCGGCTTGGCTACTGGAACCAGCAGATGGTGCCC
ATCAAGGAGATGACAGACGTGCTCAAAGTGGTGAAGGAGGTGGCCAACCTGAAACCAAAGTCCTGGGTCCGCCTC
AAGCGGGGCATCTACAAGGATGACATTGCTCAGGTGGACTACGTGGAGCCCAGCCAGAACACCATCTCCCTGAAG
ATGATCCCACGCATCGACTACGATCGCATCAAGGCCCGCATGAGCTTGAAAGACTGGTTTGCCAAAAGGAAGAAG
TTTAAGCGGCCTCCACAGAGGCTGTTTGATGCTGAGAAGATCAGGTCCCTGGGGGGTGATGTTGCCTCTGATGGT
GACTTCCTCATCTTTGAGGGGAACCGTTACAGCCGGAAGGGCTTTCTGTTCAAGAGCTTCGCCATGTCTGCTGTG
ATCACGGAGGGTGTGAAGCCAACACTCTCTGAGCTGGAAAAGTTTGAGGACCAGCCAGAGGGCATTGACCTGGAG
GTGGTGACTGAGAGCACAGGGAAGGAGCGGGAGCACAACTTCCAACCTGGGGACAACGTGGAGGTCTGTGAGGGT
GAGCTCATCAACCTGCAGGGCAAGATCCTCAGCGTGGATGGCAACAAGATCACCATCATGCCCAAGCATGAGGAC
CTCAAGGACATGTTGGAGTTCCCAGCCCAGGAACTTAGAAAATACTTCAAGATGGGGGACCACGTGAAGGTGATT
GCTGGCCGATTCGAGGGCGACACAGGCCTCATTGTGCGGGTGGAGGAGAATTTCGTTATCCTGTTCTCTGACCTC
ACCATGCATGAGCTGAAGGTGCTCCCCCGGGACCTGCAGCTCTGCTCAGAGACAGCATCAGGTGTGGATGTTGGG
GGCCAGCATGAATGGGGCGAGCTGGTGCAGCTGGATCCCCAGACTGTGGGTGTCATCGTGCGACTAGAACGGGAG
ACCTTCCAGGTGCTGAACATGTACGGGAAGGTGGTGACTGTCAGACATCAGGCTGTGACCCGGAAGAAGGACAAC
CGCTTTGCTGTGGCCTTGGACTCAGAGCAGAACAACATCCATGTGAAAGACATCGTTAAGGTCATTGATGGCCCC
CACTCAGGCCGAGAAGGGGAGATTCGCCATCTCTTCCGAAGCTTCGCCTTCCTACATTGCAAGAAACTGGTGGAG
AACGGGGGCATGTTTGTCTGCAAGACCCGCCACCTGGTGCTGGCTGGGGGCTCAAAGCCCCGTGATGTGACCAAC
TTCACCGTGGGTGGCTTTGCGCCTATGAGTCCCCGGATCAGCAGCCCCATGCACCCCAGTGCTGGAGGTCAGCGT
GGCGGCTTTGGTAGCCCAGGTGGCGGCAGTGGTGGCATGAGCAGGGGCCGGGGCCGGAGGGACAACGAACTCATC
GGCCAGACCGTGCGCATCTCCCAGGGGCCCTACAAAGGCTACATCGGTGTGGTGAAAGATGCCACAGAGTCCACG
GCCCGTGTGGAGCTGCACTCCACCTGCCAGACCATCTCTGTGGACCGTCAGCGGCTCACCACGGTGGGCTCACGG
CGCCCGGGCGGCATGACCTCGACCTATGGGAGGACGCCCATGTATGGCTCCCAGACGCCCATGTATGGCTCTGGC
TCCCGAACACCCATGTACGGCTCACAGACACCCCTCCAGGATGGTAGCCGCACCCCACACTACGGCTCACAGACG
CCCCTGCATGATGGCAGCCGCACTCCTGCCCAGAGTGGGGCCTGGGACCCCAACAACCCCAACACGCCGTCACGG
GCTGAGGAAGAATATGAGTATGCTTTCGATGATGAGCCCACCCCGTCCCCGCAGGCCTATGGGGGAACCCCCAAT
CCCCAAACACCTGGCTACCCAGACCCCTCGTCCCCACAGGTCAACCCACAATACAACCCGCAGACGCCAGGGACG
CCGGCCATGTACAACACAGACCAGTTCTCTCCCTATGCTGCCCCCTCCCCACAAGGTTCCTACCAGCCCAGCCCC
AGCCCCCAGAGCTACCACCAGGTGGCGCCAAGCCCAGCAGGCTACCAGAATACCCACTCCCCAGCCAGCTACCAC
CCTACACCGTCGCCCATGGCCTATCAGGCTAGCCCCAGCCCGAGCCCCGTTGGCTACAGTCCTATGACACCTGGA
GCTCCCTCCCCTGGTGGCTACAACCCACACACGCCAGGCTCAGGCATCGAGCAGAACTCCAGCGACTGGGTAACC
ACTGACATTCAGGTGAAGGTGCGGGACACCTACCTGGATACACAGGTGGTGGGACAGACAGGTGTCATCCGCAGT
GTCACGGGGGGCATGTGCTCTGTGTACCTGAAGGACAGTGAGAAGGTTGTCAGCATTTCCAGTGAGCACCTGGAG
CCTATCACCCCCACCAAGAACAACAAGGTGAAAGTGATCCTGGGCGAGGATCGGGAAGCCACGGGCGTCCTACTG
AGCATTGATGGTGAGGATGGCATTGTCCGTATGGACCTTGATGAGCAGCTCAAGATCCTCAACCTCCGCTTCCTG
GGGAAGCTCCTGGAAGCC**TGA**AGCAGGCAGGGCCGGTGGACTTCGTCGGATGAAGAGTGATCCTCCTTCCTTCCC
TGGCCCTTGGCTGTGACACAAGATCCTCCTGCAGGGCTAGGCGGATTGTTCTGGATTTCCTTTTGTTTTTCCTTT

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FIGURE 1118B

TAGTTTTCCATCTTTTCCCTCCCTGGTGCTCATTGGAATCTGAGTAGAGTCTGGGGGGAGGGTCCCCACCTTCCTG
TACCTCCTCCCCACAGCTTGCTTTTGTTGTACCGTCTTTCAATAAAAAGAAGCTGTTTGGTCT

FIGURE 1119

CTCAGAGGCTGGAGGGATCCTCCGTATGCTGAACGCTGGTCCCCTGGGCCCCCTTTATTTCTTTCTCTATACTTT
GTTTCTGTGTCTTTTTCTCTTCCAAAGTCTCTCGTTCCACCTAACGAGAAACACCCACAGGTGTGGAGGGGCAAC
CCATCCCTTCAGACAATTGGGAGGTGAGGGCCGATTGCCTTACACGGTGAGACAAGCGGCCTGACTCGTGACTAT
TTTTTTGGACAAATCAGGCAGCCACTGACTCCCTTCATT**ATG**GCCTCAGCTTTATCTCTGGGCAATAAGTGTGAT
CCCTTCCTTCGCTGCGTCCTTTGCAGGGGCGGTGGCGCTCTGCAAGGCCCAAGGGGGCGTGGTCCAGATGACTTT
GAATCCCAGTTGTCGCCCCCAGGGTCAGCCAGGAGACTAGTCAGAAGCAAACGCGCCTGCGGCAATCCGCCCGAT
GCCTTTGGTCTCTCTCGGGCTTCCGTCCACCCGCCCCTCCCCCGCGTTTCCATTGGCTGTAGCTCCGGCCCGGGG
CGGGCGAAGAGGGAGCGAGTGGGCGGGGCCGCGTGGCGTCAGCGCAAGATGGCGGCCTCGGCAGCGGTGTTCTCG
CGCTTGCGAAGCGGGCTCCGGCTCGGCTCGCGGGGACTGTGCACGAGGTTGGCGACGCCGCCCCGCCGGGCCCCA
GATCAGGCCGCAGAGATCGGGAGCCGCGGGAGCACTAAGGCGCAAGGGCCACAGCAGCAGCCGGGCTCAGAGGGT
CCCAGCTATGCCAAAAAAGTTGCGCTCTGGCTTGCTGGGCTGCTTGGAGCTGGTGGGACTGTGAGCGTCGTCTAT
ATCTTTGGAAACAACCCGGTGGACGAAAATGGTGCCAAGATTCCTGATGAGTTCGACAATGATCCAATTCTGGTA
CAGCAGTTGCGCCGGACATACAAATATTTCAAAGATTATAGACAGATGATCATCGAGCCCACCAGCCCTTGCCTT
CTCCCAGACCCTCTGCAGGAACCGTACTACCAGCCACCCTACACGCTCGTTTTGGAGCTCACCGGCGTCCTCTTG
CATCCTGAGTGGTCGCTGGCCACTGGCTGGAGGTTTAAGAAGCGCCCAGGCATCGAGACCTTGTTCCAGCAGCTT
GCCCCTTTATATGAAATTGTCATCTTTACGTCAGAGACTGGCATGACTGCGTTTCCACTCATTGATAGTGTGGAC
CCCCATGGCTTCATCTCCTACCGCCTATTCCGGGACGCCACAAGATACATGGATGGACACCATGTAAAGGATATT
TCATGTCTGAATCGGGACCCAGCTCGAGTAGTAGTTGTGGACTGCAAGAAGGAAGCCTTCCGCCTGCAGCCCTAT
AACGGCGTTGCCCTGCGGCCCTGGGACGGCAACTCTGATGACCGGGTCTTGTTGGATCTGTCTGCCTTCCTCAAG
ACCATTGCACTGAATGGTGTGGAGGACGTGCGAACCGTGCTGGAGCACTATGCCCTGGAGGATGACCCGCTGGCG
GCTTTCAAACAGCGGCAAAGCCGGCTAGAGCAGGAGGAGCAGCAGCGCCTGGCCGAGCTCTCCAAGTCCAACAAG
CAGAACCTCTTCCTTGGCTCCCTCACCAGCCGCTTGTGGCCTCGCTCCAAACAGCCC**TGA**ACTCTGGGCCTCCTC
AAACTCAGTGCCTGGGTCCAGGGCCCCAGTGCTTCCAGACCAAGACTTGGGCCACCACTTGTCCAATAAAGTACA
TCCCAGACGCCACACCTGCTGTGTCCCGAGAGTCTCCAGATGGGGGCATCAGGGTGAGGTCCGGGACTCTTGGGT
CATCGTCCCACAGTGGCTGATCGGCTGCCAAGCACAGTGGGGGTGCTTTGTTGGATCAGAGCAGATTTTTCACCC
TGGTCTCGGAATCTAAAAACCCTCGCTGTGTCTTCCTGTGTGTTGCGTGATCTGTGAAAAATACATCTCCCTCTG
ACCACAGACTCCTCATCTGTGGAGAAGGGAAGAGAGGATGGCACTTGGCTTTAAAGACAGGTAGCTGCCAGGCTA
CTGTGGAGAGAATGTGTTATGGGCCTAGTGGGCCTCTGGTGGACCAGAGATTACCCCTCTCAACAGGCCAGCTGC
TGGTTGGCTCCAGCCAGTGTGGCCCTGGGGTAAAGGGGGCCTGGAGTTGCTTGACACGCCAGTTGTTCAAA

FIGURE 1120

CGGACTCCGGAGCCGCACAAACCAGGGCTCGCC**ATG**AAGCCAGGATTCAGTCCCCGTGGGGGTGGCTTTGGCGGC
CGAGGGGGCTTTGGTGACCGTGGTGGTCGTGGAGGCCGAGGGGGCTTTGGCGGGGGCCGAGGTCGAGGCGGAGGC
TTTAGAGGTCGTGGACGAGGAGGAGGTGGAGGCGGCGGCGGCGGTGGAGGAGGAGGAAGAGGTGGTGGAGGCTTC
CATTCTGGTGGCAACCGGGGTCGTGGTCGGGGAGGAAAAAGAGGAAACCAGTCGGGGAAGAATGTGATGGTGGAG
CCGCATCGGCATGAGGGTGTCTTCATTTGTCGAGGAAAGGAAGATGCACTGGTCACCAAGAACCTGGTCCCTGGG
GAATCAGTTTATGGAGAGAAGAGAGTCTCGATTTCGGAAGGAGATGACAAAATTGAGTACCGAGCCTGGAACCCC
TTCCGCTCCAAGCTAGCAGCAGCAATCCTGGGTGGTGTGGACCAGATCCACATCAAACCGGGGGCTAAGGTTCTC
TACCTCGGGGCTGCCTCGGGCACCACGGTCTCCCATGTCTCTGACATCGTTGGTCCGGATGGTCTAGTCTATGCA
GTCGAGTTCTCCCACCGCTCTGGCCGTGACCTCATTAACTTGGCCAAGAAGAGGACCAACATCATTCCTGTGATC
GAGGATGCTCGACACCCACACAAATACCGCATGCTCATCGCAATGGTGGATGTGATCTTTGCTGATGTGGCCCAG
CCAGACCAGACCCGGATTGTGGCCCTGAATGCCCACACCTTCCTGCGTAATGGAGGACACTTTGTGATTTCCATT
AAGGCCAACTGCATTGACTCCACAGCCTCAGCCGAGGCCGTGTTTGCCTCCGAAGTGAAAAAGATGCAACAGGAG
AACATGAAGCCGCAGGAGCAGTTGACCCTTGAGCCATATGAAAGAGACCATGCCGTGGTCGTGGGAGTGTACAGG
CCACCCCCCAAGGTGAAGAAC**TGA**AGTTCAGCGCTGTCAGGATTGCGAGAGATGTGTGTTGATACTGTTGCACGT
GTGTTTTTCTATTAAAAGACTCATCCGTC

FIGURE 1121A

CTGCAGCCATGGGTGCCCTATGGAGCTGGTGGATACTCTGGGCTGGAGCAACCCTCCTGTGGGGATTGACCCAGG
AGGCTTCAGTGGACCTCAAGAACACTGGCAGAGAGGAATTCCTCACAGCCTTCCTGCAGAACTATCAGCTGGCCT
ACAGCAAGGCCTACCCCCGCCTCCTTATCTCCAGTCTGTCAGAGAGCCCCGCTTCAGTCTCCATCCTCAGCCAGG
CAGACAACACCTCAAAGAAGGTCACAGTGAGGCCCGGGGAGTCGGTCATGGTCAACATCAGTGCCAAGGCTGAGA
TGATAGGCAGCAAGATCTTCCAGCATGCGGTGGTGATCCATTCTGACTATGCCATCTCTGTGCAGGCACTAAATG
CCAAGCCTGACACAGCGGAGCTGACACTGCTGCGGCCCATCCAGGCCCTAGGCACCGAGTATTTTGTGCTCACAC
CCCCCGGCACCTCAGCCAGGAATGTCAAGGAGTTTGCCGTGGTGGCCGGTGCCGCAGGTGCCTCGGTCAGTGTCA
CGCTGAAGGGGTCAGTGACATTCAATGGCAAGTTCTATCCAGCAGGCGATGTCCTAAGAGTGACTCTACAGCCCT
ACAATGTGGCCCAGCTACAGAGCTCAGTGGATCTCTCGGGGTCAAAGGTCACAGCTAGTAGCCCCGTGGCTGTCC
TCTCTGGCCACAGCTGTGCGCAGAAACATACGACCTGCAACCATGTGGTTGAGCAGCTGCTACCCACGTCTGCCT
GGGGCACCCACTATGTAGTACCCACGCTGGCCTCCCAATCTCGCTATGATTTGGCCTTCGTTGTGGCCAGCCAGG
CCACAAAGCTGACCTACAACCATGGGGGTATCACTGGCTCCCGTGGGCTCCAGGCAGGTGATGTGGTAGAGTTTG
AGGTCCGGCCATCCTGGCCACTCTACCTGTCTGCAAATGTGGGCATCCAGGTCCTGTTGTTTGGCACAGGTGCCA
TAAGGAATGAAGTGACTTATGACCCCTACCTGGTCCTGATCCCAGATGTGGCGGCCTACTGCCCAGCCTATGTGG
TCAAGAGTGTACCAGGCTGTGAGGGCGTGGCCCTGGTAGTGGCACAGACGAAGGCTATCAGCGGGCTGACCATAG
ATGGGCATGCAGTGGGGGCCAAGCTCACCTGGGAGGCTGTGCCAGGCAGTGAGTTCTCGTATGCTGAAGTGGAGC
TCGGCACAGCTGACATGATCCACACGGCCGAGGCCACCACCAACTTGGGACTGCTCACCTTCGGGCTGGCCAAGG
CTATAGGCTACGCAACAGCTGCTGATTGCGGCCGGACTGTACTGTCCCCAGTGGAGCCCTCCTGCGAAGGCATGC
AGTGCGCAGCCGGGCAGCGCTGCCAGGTGGTAGGCGGGAAGGCCGGGTGTGTGGCGGAGTCCACCGCTGTCTGCC
GCGCCCAGGGCGACCCCCATTACACCACCTTCGACGGCCGTCGCTACGACATGATGGGCACCTGTTCGTACACGA
TGGTGGAGCTGTGCAGCGAGGACGACACCCTGCCCGCCTTCAGCGTGGAGGCCAAGAACGAGCACCGGGGCAGCC
GCCGCGTCTCCTACGTGGGCCTCGTCACTGTGCGCGCCTACAGCCACTCTGTGTCGCTGACCCGCGGTGAAGTTG
GCTTCGTCCTGGTTGACAACCAGCGCTCGCGCCTGCCAGTCTCCCTGAGTGAGGGTCGCCTGCGTGTGTACCAGA
GCGGACCACGGGCCGTGGTGGAGCTGGTCTTTGGGCTGGTGGTCACTTATGACTGGGACTGCCAGCTGGCACTCA
GCCTGCCTGCACGCTTCCAAGACCAGGTGTGCGGGCTGTGTGGCAACTATAATGGTGACCCAGCAGACGACTTCC
TCACGCCTGACGGGGCTCTGGCTCCTGACGCTGTGGAGTTCGCAAGTAGCTGGAAGCTGGATGATGGGGACTACC
TGTGTGAGGATGGCTGCCAGAACAACTGTCCCGCCTGCACCCCAGGCCAGGCCCAACACTATGAGGGCGACCGAC
TCTGTGGCATGCTGACCAAGCTCG**ATG**GCCCCTTCGCTGTCTGCCATGACACCCTGGACCCCAGGCCCTTCCTGG
AGCAGTGTGTATATGACCTGTGTGTGGTCGGTGGGGAGCGGCTCAGCCTGTGCCGTGGCCTCAGCGCCTATGCCC
AGGCCTGTCTGGAGCTTGGCATCTCGGTTGGGGACTGGAGATCACCAGCCAACTGCCCCCTGTCCTGCCCTGCCA
ACAGCCGCTATGAGCTCTGCGGCCCTGCTTGCCCGACCTCCTGCAACGGGGCTGCGGCGCCGTCCAACTGCTCCG
GGCGCCCCTGCGTGGAGGGCTGCGTGTGCCTCCCAGGCTTCGTGGCCAGCGGCGGCGCCTGCGTGCCGGCCTCGT
CGTGTGGCTGCACCTTCCAGGGTCTCCAGCTCGCTCCGGGCCAGGAAGTGTGGGCGGACGAGTTGTGCCAAAGGC
GCTGCACCTGCAACGGCGCCACCCATCAGGTCACCTGCCGCGACAAGCAGAGCTGCCCGGCGGGTGAGCGCTGCA
GCGTCCAGAACGGCCTCCTGGGCTGCTACCCCGATCGCTTCGGGACCTGCCAGGGGTCCGGGGACCCACACTATG
TGAGCTTCGACGGCCGGCGCTTCGACTTCATGGGCACCTGCACGTACCTGCTGGTCGGCTCATGCGGCCAGAACG
CAGCGCTGCCTGCCTTCCGGGTGCTGGTGGAAAACGAGCATCGGGGCAGCCAGACTGTGAGCTACACGCGCGCCG
TGCGGGTGGAGGCCCGCGGGGTGAAGGTGGCCGTGCGCCGGGAGTACCCCGGGCAAGTGCTGGTGGATGACGTCC
TTCAGTATCTGCCCTTCCAAGCAGCAGATGGGCAGGTGCAGGTGTTCCGACAGGGCAGGGATGCCGTCGTGCGCA
CGGACTTTGGCCTGACTGTCACTTATGACTGGAATGCACGAGTGACTGCCAAGGTGCCCAGCAGCTATGCTGAGG
CCCTGTGTGGACTCTGTGGGAACTTCAACGGGGACCCAGCTGATGACCTGGCTCTGCGGGGTGGGGGTCAAGCTG
CCAATGCACTGGCCTTTGGGAACAGCTGGCAAGAAGAGACGAGGCCCGGCTGTGGAGCAACTGAACCGGGTGACT
GTCCCAAGCTGGACTCCCTGGTGGCCCAGCAGCTGCAGAGCAAGAATGAGTGTGGAATCCTTGCCGACCCCAAGG
GGCCCTTCCGGGAGTGCCATAGCAAGCTGGACCCCCAGGGTGCCGTGCGCGACTGTGTCTATGACCGCTGCCTGC
TGCCAGGCCAGTCTGGGCCACTGTGTGACGCACTGGCCACCTATGCTGCTGCATGCCAGGCTGCTGGAGCCACAG
TGCACCCCTGGAGGAGTGAAGAACTTTGCCCACTGAGCTGCCCACCCCACAGCCACTATGAGGCGTGTTCCTACG
GCTGCCCGCTGTCCTGTGGAGACCTCCCAGTGCCCGGGGGCTGTGGCTCAGAATGCCATGAGGGCTGCGTGTGCG
ATGAGGGCTTTGCGCTCAGTGGTGAGTCCTGCCTGCCCCTGGCCTCCTGTGGCTGCGTACACCAGGGCACCTACC

FIGURE 1121B

ACCCACCAGGCCAGACCTTCTACCCTGGCCCCGGATGTGATTCCCTTTGCCACTGCCAGGAGGGCGGCCTGGTGT
CCTGTGAGTCCTCCAGCTGCGGACCGCACGAGGCCTGCCAGCCATCCGGTGGCAGCTTGGGCTGTGTGGCCGTGG
GCTCTAGCACCTGCCAGGCGTCAGGAGACCCCCACTACACCACCTTCGATGGCCGCCGCTTCGACTTCATGGGCA
CCTGCGTGTATGTGCTGGCTCAGACCTGCGGCACCCGGCCTGGCCTGCATCGGTTTGCCGTCCTGCAGGAGAACG
TGGCCTGGGGTAATGGGCGAGTCAGTGTGACCAGGGTGATCACGGTCCAGGTGGCAAACTTCACCCTGCGGCTGG
AGCAGAGACAGTGGAAGGTCACGGTGAACGGTGTGGACATGAAGCTGCCCGTGGTGCTGGCCAACGGCCAGATCC
GTGCCTCCCAGCATGGTTCAGATGTTGTGATTGAGACCGACTTCGGCCTGCGTGTGGCCTACGACCTTGTGTACT
ATGTGCGGGTCACCGTCCCCGGAAACTACTACCAGCAGATGTGTGGCCTGTGTGGGAACTACAACGGCGACCCCA
AGGATGACTTCCAGAAGCCCAATGGCTCACAGGCAGGCAACGCCAATGAGTTCGGCAACTCCTGGGAGGAGGTGG
TGCCCGACTCTCCCTGCCTGCCGCCCACCCCTTGCCCGCCGGGGAGCGAGGACTGTATCCCCAGCCACAAGTGTC
CTCCCGAGCTGGAGAAGAAGTATCAGAAGGAGGAGTTCTGTGGGCTCCTCTCCAGCCCCACAGGGCCACTGTCCT
CCTGCCACAAGCTGGTGGATCCCCAGGGTCCCTTGAAAGATTGCATCTTTGATCTCTGCCTGGGTGGTGGGAACC
TGAGCATTCTCTGCAGCAACATCCATGCCTACGTGAGTGCTTGCCAGGCGGCTGGAGGCCACGTGGAGCCCTGGA
GGACTGAAACTTTCTGTCCCATGGAGTGCCCTCCGAACAGTCACTACGAGCTCTGTGCGGACACCTGCTCCCTGG
GCTGCTCAGCTCTCAGTGCCCCTCCACAGTGCCAGGATGGGTGTGCTGAGGGCTGCCAGTGTGACTCCGGCTTCC
TCTACAATGGCCAAGCCTGCGTGCCCATCCAGCAATGCGGCTGCTACCACAATGGTGTCTACTATGAGCCGGAGC
AGACAGTCCTCATTGACAACTGTCGGCAGCAGTGCACGTGCCATGCGGGTAAAGGCATGGTGTGCCAGGAACACA
GCTGCAAGCCGGGGGCAGGTGTGCCAGCCCTCCGGAGGCATCCTGAGCTGCGTCACCAAAGACCCGTGCCACGGCG
TGACATGCCGGCCACAGGAGACATGCAAGGAGCAGGGTGGCCAGGGCGTGTGCCTGCCCAACTATGAGGCCACGT
GCTGGCTGTGGGGCGACCCACACTACCACTCCTTCGATGGCCGGAAGTTTGACTTCCAGGGCACCTGTAACTATG
TGCTGGCAACAACTGGCTGCCCGGGGGTCAGCACCCAGGGCCTGACACCCTTCACCGTCACCACCAAGAACCAGA
ACCGGGGCAACCCTGCTGTGTCCTACGTGAGAGTCGTCACCGTGGCTGCCCTCGGCACCAACATCTCCATCCACA
AGGACGAGATCGGCAAAGTCCGGGTGAACGGTGTGCTCACAGCCTTGCCTGTCTCTGTGGCCGACGGGCGGATTT
CAGTGACCCAGGGTGCATCGAAGGCACTGCTGGTGGCTGACTTTGGACTGCAAGTCAGCTATGACTGGAACTGGC
GGGTAGACGTGACGCTGCCCAGCAGCTATCATGGCGCAGTGTGCGGGCTCTGCGGTAACATGGACCGCAACCCCA
ACAATGACCAGGTCTTCCCTAATGGCACACTGGCTCCCTCCATACCCATCTGGGGCGGCAGCTGGCGAGCCCCAG
GCTGGGACCCACTGTGTTGGGACGAATGTCGGGGGTCCTGCCCAACGTGCCCTGAGGACCGGTTGGAGCAGTACG
AGGGCCCTGGCTTCTGCGGACCCCTGGCCCCCGGCACAGGGGGCCCTTTCACCACCTGCCATGCTCATGTGCCAC
CTGAGAGCTTCTTCAAGGGCTGTGTTCTGGACGTCTGCATGGGTGGTGGGGACCGTGACATTCTTTGCAAGGCTC
TGGCTTCCTATGTGGCCGCCTGCCAGGCTGCTGGGGTTGTCATCGAAGACTGGCGGGCACAGGTTGGCTGTGAGA
TCACCTGCCCAGAAAACAGCCACTATGAGGTCTGTGGCTCACCCTGCCCGGCCAGCTGTCCGTCCCCTGCACCCC
TTACGACGCCAGCCGTATGTGAGGGCCCCTGTGTGGAGGGCTGCCAGTGCGACGCGGGTTTCGTGTTAAGTGCTG
ACCGCTGTGTTCCCCTCAACAACGGCTGCGGCTGCTGGGCCAATGGCACCTACCACGAGGCGGGCAGTGAGTTTT
GGGCTGATGGCACCTGCTCCCAGTGGTGTCGCTGCGGGCCTGGGGGTGGCTCGCTGGTCTGCACACCTGCCAGCT
GTGGGCTGGGTGAAGTGTGTGGCCTCCTGCCATCCGGCCAGCACGGCTGCCAGCCCGTCAGCACAGCTGAGTGCC
AGGCGTGGGGTGACCCCCATTACGTCACTCTGGATGGGCACCGATTCAATTTCCAAGGCACCTGCGAGTACCTGC
TGAGTGCACCCTGCCACGGACCACCCTTGGGGGCTGAGAACTTCACTGTCACTGTAGCCAATGAGCACCGGGGCA
GCCAGGCTGTCAGCTACACCCGCAGTGTCACCCTGCAAATCTACAACCACAGCCTGACACTGAGTGCCCGCTGGC
CCCGGAAGCTACAGGTGGACGGCGTGTTCGTCACTCTGCCCTTCCAGCTGGACTCGCTCCTGCACGCACACCTGA
GCGGCGCCGACGTGGTGGTGACCACAACCTCAGGGCTCTCGCTGGCTTTCGACGGGGACAGCTTCGTGCGCCTGC
GCGTGCCGGCGGCGTACGCGGGCTCTCTCTGTGGCTTATGCGGGAACTACAACCAGGACCCCGCAGACGACCTGA
AGGCGGTGGGCGGGAAGCCCGCCGGATGGCAGGTGGGCGGCGCCCAGGGCTGCGGGGAATGTGTGTCCAAGCCAT
GCCCGTCGCCGTGCACCCCAGAGCAGCAAGAGTCCTTCGGCGGCCCGGACGCCTGCGGCGTGATCTCCGCCACCG
ACGGCCCGCTGGCGCCCTGCCACGGCCTTGTGCCGCCCGCGCAGTACTTCCAGGGCTGCTTGCTGGACGCCTGCC
AAGTTCAGGGCCATCCTGGAGGCCTCTGTCCTGCAGTGGCCACCTACGTGGCAGCCTGTCAGGCCGCTGGGGCCC
AGCTCCGCGAGTGGAGGCGGCCGGACTTCTGTCCCTTCCAGTGCCCTGCCCACAGCCACTACGAGCTCTGCGGTG
ACTCCTGTCCTGGGAGCTGCCCGAGCCTGTCGGCACCCGAGGGCTGTGAGTCGGCCTGCCGTGAAGGCTGTGTCT
GCGATGCTGGCTTCGTGCTCAGTGGTGACACGTGTGTACCTGTGGGCCAGTGTGGCTGCCTCCACGATGACCGCT

FIGURE 1121C

ACTACCCACTGGGCCAGACCTTCTACCCTGGCCCTGGGTGTGATTCCCTTTGCCGCTGCCGGGAGGGCGGTGAGG
TGTCCTGTGAGCCCTCCAGCTGCGGCCCGCATGAGACCTGCCGGCCATCCGGTGGCAGCTTGGGCTGCGTGGCCG
TGGGCTCTACCACCTGCCAGGCGTCGGGAGATCCCCACTACACCACCTTCGATGGCCGCCGCTTCGACTTCATGG
GCACCTGCGTGTATGTGCTGGCTCAGACCTGCGGCACCCGGCCTGGCCTACATCGGTTTGCCGTCCTGCAGGAGA
ACGTGGCCTGGGGTAATGGGCGAGTCAGTGTGACCAGGGTGATCACGGTCCAGGTGGCAAACTTCACCCTGCGGC
TGGAGCAGAGACAGTGGAAGGTCACGGTGAACGGTGTGGACATGAAGCTGCCCGTGGTGCTGGCCAACGGCCAGA
TCCGTGCCTCCCAGCATGGTTCAGATGTTGTGATTGAGACCGACTTCGGCCTGCGTGTGGCCTACGACCTTGTGT
ACTATGTGCGGGTCACCGTCCCTGGAAACTACTACCAGCTGATGTGTGGCCTGTGTGGGAACTACAACGGCGACC
CCAAGGATGACTTCCAGAAGCCCAATGGCTCGCAGGCAGGCAACGCCAATGAGTTCGGCAACTCCTGGGAGGAGG
TGGTGCCCGACTCTCCCTGCCTGCCGCCGCCCACCTGCCCGCCGGGGAGCGAGGGCTGTATCCCCAGCGAGGAGT
GTCCTCCCGAGCTGGAGAAGAAGTATCAGAAGGAGGAGTTCTGTGGGCTCCTCTCCAGCCCCACAGGGCCACTGT
CCTCTTGCCACAAGCTGGTGGATCCCCAGGGTCCCTTGAAAGATTGCATCTTTGATCTCTGCCTGGGTGGTGGGA
ACCTGAGCATTCTCTGCAGCAACATCCATGCCTACGTGAGTGCTTGCCAGGCAGCTGGAGGCCAGGTGGAGCCCT
GGAGGAATGAAACTTTCTGTCCCATGGAATGCCCTCAGAACAGTCACTACGAGCTCTGTGCGGACACCTGCTCCC
TGGGCTGCTCGGCTCTCAGTGCCCCTCTGCAGTGCCCAGATGGGTGTGCTGAGGGCTGCCAGTGTGACTCCGGCT
TCCTCTACAACGGCCAAGCCTGCGTGCCCATCCAGCAATGTGGCTGCTACCACAATGGTGCCTACTATGAGCCGG
AGCAGACAGTCCTCATTGACAACTGTCGGCAGCAGTGCACGTGCCATGTGGGTAAAGTCGTGGTGTGCCAGGAAC
ACAGCTGCAAGCCGGGGCAGGTGTGCCAGCCCTCCGGAGGCATCCTGAGCTGCGTCAACAAAG

FIGURE 1122

GTCAACTTAGTGTACAATGCTGTCAGATGAACCTTACCCTTGTAAGGCTTGTAACTTGGTTCCTCCCTTTCTTAA
GCCCTTATTGGCTATCTTTCTTCTTTTAATATTTAAAGTTTTTAATCTTTAAATTTTTAATTTTTAAACCATGCT
TGTTTAACCTGCTGGTAAAATTCACGTCTTTCAGACTGTAATGCTTTCATGCCAAGTAAATGGTCTTGCCAGGCT
TCCAGCCTGTTTCAGAGACCACTAGCCCAGAGCCGTATCAGCCCCTTCAGCAAGCCATAAGAAATTTCTACTCCT
CCTGGAAATAGATGTAGAGACTATGTCCATGCTTAGCAGGAAGTAGTTCCAGAAGAGACCTTTGCTCCTTAAGAA
TAAGGAGAATGAGGACTGCGAAGGAGAACGCAGCAAGCCCAGGCGGCGGTGGAAAGGCTGGAGGACACACCTAAA
C**ATG**TGGAATCCCAATGCCGGGCAGCCAGGGCCAAATCCATATCCCCCCAATATTGGGTGCCCTGGAGGTTCCAA
TCCTGCCCACCCACCACCTATTAATCCACCCTTTCCCCCAGGCCCCTGTCCTCCTCCCCCAGGAGCTCCCCATGG
CAATCCAGCTTTCCCCCCAGGTGGGCCCCCTCATCCTGTGCCACAGCCAGGGTATCCAGGATGCCAACCGTTGGG
TCCCTACCCTCCTCCATACCCACCGCCTGCCCCTGGAATCCCTCCTGTGAATCCCTTGGCTCCTGGCATGGTTGG
ACCAGCAGTGATAGTGGACAAGAAGATGCAGAAGAAAATGAAGAAAGCTCATAAAAAAGATGCACAAGCACCAAAA
GCACCACAAGTACCACAAGCATGACAAGCATTCCTCCTCTTCCTCCTCCTCTTCCAGCAGTGATTCTGAC**TGA**AT
ACAGGCCCTGGACCCTTCCCTCAAGTCCCACCAGTTCTGCTCTCCCATCAAGCTTCAGATGCCACGTTGTACTGG
GGGAATGTAGCCCTTGTGCTCCCCACCCCCTACCTCCACCTGAGCCTCACCCTGCTGTTGAGCCCTGAGTGGCTA
GGGGAAATAGGAAGAGGATTGCCATGGCCTGGCCATCTTGTTGCTGCTTGGAGAGATCATATAGCTAATGAATTA
GGCAGGGGAGCTATTTTTTGAAGATGATGAACTAAATGTTGAAGACAAGTTTGAGATCTGTAAAATGTGATTTTT
TACTTCCACTTATAATACTTGTGATTGGGGAGGTTTGTGGAAATTCAATTATGATGAAAAACCTCTATCTTTTTT
GTAATGTTGGCATACTTGGGGGATTTAGTGGCAAATACATTCCCCAGCAGGCCTTTTGTTGGTTGCACTAACTGC
AAGGTTGCTGGGAAGTAGAGTCCATTTGGTTGATGAGCTTTGACTGCGGTTTTGGAACCTTACCTCTCCTCCTTA
GCCCAATATGCTGTCTCGGGTCCTATTCAAATAAAGTTATTTCTCCTGGTCT

FIGURE 1123

GGCTTGGTCACT**ATG**GAGGAGATAGGCATCTTGGTGGAGAAGGCTCAGGATGAGATCCCAGCACTGTCCGTGTCC
CGGCCCCAGACCGGCCTGTCCTTCCTGGGCCCTGAGCCTGAGGACCTGGAGGACCTGTACAGCCGCTACAAGAAG
CTGCAGCAAGAGCTGGAGTTCCTGGAGGTGCAGGAGGAATACATCAAAGATGAGCAAAAGAACCTGAAAAAGGAA
TTTCTCCATGCCCAGGAGGAGGTGAAGCGAATCCAAAGCATCCCGCTGGTCATCGGACAATTTCTGGAGGCTGTG
GATCAGAATACAGCCATCGTGGGCTCTACCACAGGCTCCAACTATTATGTGCGCATCCTGAGCACCATCGATCGG
GAGCTGCTCAAGCCCAACGCCTCAGTGGCCCTCCACAAGCACAGCAATGCACTGGTGGACGTGCTGCCCCCCGAA
GCCGACAGCAGCATCATGATGCTCACCTCAGACCAGAAGCCAGATGTGATGTACGCGGACATCGGAGGCATGGAC
ATCCAGAAGCAGGAGGTGCGGGAGGCCGTGGAGCTCCCGCTCACGCATTTCGAGCTCTACAAGCAGATCGGCATC
GATCCCCCCCGAGGCGTCCTCATGTATGGCCCACCTGGCTGTGGGAAGACCATGTTGGCAAAGGCGGTGGCACAT
CACACAACAGCTGCATTCATCCGGGTCGTGGGCTCGGAGTTTGTACAGAAGTATCTGGGTGAGGGCCCCCGCATG
GTCCGGGATGTGTTCCGCCTGGCCAAGGAGAATGCACCTGCCATCATCTTCATAGACGAGATTGATGCCATCGCC
ACCAAGAGATTCGATGCTCAGACAGGGGCCGACAGGGAGGTTCAGAGGATCCTGCTGGAGCTGCTGAATCAGATG
GATGGATTTGATCAGAATGTCAATGTCAAGGTAATCATGGCCACAAACAGAGCAGACACCCTGGATCCGGCCCTG
CTACGGCCAGGACGGCTGGACCGTAAAATTGAATTTCCACTTCCTGACCGCCGCCAGAAGAGATTGATTTTCTCC
ACTATCACTAGCAAGATGAACCTCTCTGAGGAGGTTGACTTGGAAGACTATGTGGCCCGGCCAGATAAGATTTCA
GGAGCTGATATTAACTCCATCTGTCAGGAGAGTGGAATGTTGGCTGTCCGTGAAAACCGCTACATTGTCCTGGCC
AAGGACTTCGAGAAAGCATACAAGACTGTCATCAAGAAGGACGAGCAGGAGCATGAGTTTTACAAG**TGA**CCCTTC
CCTTCCCTCCACCACACCACTCAGGGGCTGGGGCTTCTCTCGCACCCCCAGCACCTCTGTCCCAAAACCTCATTC
CCTTTTTTCTTTACCCAGGATTGGTTTCTTCAATAAATAGATAAGATCGAATCC

FIGURE 1124A

ATGGCAGTTACAGGAAGAAATCGGTGGCTGCGGGAGGTCTTCGTGGACTGGGACTCGAACCTGACCGACCCGGCA
GTGCGGGTGGGCGAGAGCGAGGCGCTCAGAGGAGGAACCCGGGGCGCAGACGGAATCTGCCAGATCCTTAGGCGT
GCGTGTGCGCGGGCATCAAAGGATGGGGATTGCGCGATCTTGAGTGACGGAGGGGACTGTGTGAGTGTGTGCGTG
AGGCCCTGTGCACAGGACCGGGACGGCGTGTGGACGCAGTGCGTTTTGCTGGGGCTGTGTTCCCTGGGATGTAGG
CGAGAGCTTGGTTTCATCCACACTCCACCTGTTCACTGCCAGTTTATTTGTGAGAGTGGGAGAAGCCCGAGGAAG
ATTGACCAATTTTGTAATTCTAGAAACATGGTCCATGGATCAGTGACATTCAGGGATGTGGCCATTGACTTCTCT
CAGGAGGAGTGGGAGTGCCTGCAGCCTGATCAGAGGACCTTGTACAGGGATGTGATGTTGGAGAACTACAGCCAC
CTGATATCACTGGGAAGTTCCATTTCTAAGCCAGATGTGATTACATTACTAGAGCAAGAGAAAGAGCCCTGGATT
GTTGGTTTTGACTGTCGTTGTGAGGAATGTGGGAAGTTCTTCAAGAATTTGGAGTCAAAATATGGACCTGAGAAA
ATATCTCCAGAAAATGATATTTTTGAAATAAATTTACCCAAACATGTTATAAAGCAAATAAGTAAAACACTTGGC
CTCGAGGCCTTTTATTTTAGAAATGACTCAGAATATAGAAGTAGATTTGAGGGACGACAGGGACATCAAGAAGGA
TATATCAACCAGAAGATCATCAGCTATGAAGAAATGCCTGCTTATACTCATGCTTCTCCTATTCATAATACACAT
AAACCATATGAATGTAAGGAATGTGGGAAATACTTTAGTTGTGGTTCAAATCTTATTCAGCATCAGAGTATTCAT
ACTGGAGAGAAACCCTATAAATGCAAAGAATGTGGGAAAGCCTTTCAACTTCACATACAACTTACTCGACATCAG
AAATTTCATACTGGTGAGAAAACTTTTGAATGTAAGGAATGTGGAAAAGCCTTTAATCTTCCCACCCAGCTTAAT
CGCCATAAGAACATTCACACAGTTAAGAAACTGTTTGAATGTAAGGAATGTGGGAAGTCTTTTAATCGTAGCTCA
AACCTTACTCAGCATCAAAGTATTCATGCTGGTGTAAAACCATATCAATGTAAGGAGTGTGGGAAAGCCTTTAAT
CGTGGTTCAAATCTTATTCAGCATCAAAAAATTCATTCCAATGAGAAACCCTTTGTATGTAGGGAATGTGAGATG
GCCTTTCGATATCATTACCAACTCATTGAACATTGCCGAATTCATACTGGCGAGAAACCCTTTGAATGTAAAGAA
TGCAGAAAGGCCTTTACTCTTCTGACAAAGCTTGTTCGACATCAGAAGATTCATATGGGTGAGAAGCCCTTTGAA
TGCAGGGAATGCGGGAAGGCCTTTAGTCTCCTCAATCAGCTTAATCGCCATAAGAATATTCACACAGGTGAAAAA
CCATTTGAATGTAAAGAATGTGGGAAGTCCTTTAATCGTAGTTCAAACCTTATTCAACACCAGAGTATTCATGCT
GATGTAAAACCATATGAATGTAAGGAGTGTGGGAAAGGCTTTAATCGTGGTGCAAATCTTATTCAGCATCAAAAA
ATTCATTCCAATGAGAAACCCTTTGTATGTAGGGAATGTGAGATGGCCTTTCGATATCATTACCAACTTATTCAA
CATTGCCAAATTCATACTGGTGGGAAACCCTTTGAATGTAAAGAATGTGGAAAGGCCTTTAGTCTTCTGACACAG
CTTGCTCGACATAAGAACATTCATACTGGTGAGAAACCATTTGAATGTAAAGACTGTGGGAAGGCCTTCAATCGT
GGCTCGAACCTTGTTCAACATCAGAGTATTCACACTGGTGAGAAGCCCTATGAATGTAAGGAGTGTGGGAAGGCT
TTTAGACTTCACCTACAACTTTCTCAACATGAGAAAACTCATACAGGTGAGAAACCCTTTGAATGTAAGGAATGT
GGGAAATTCTTTCGTCGTGGTTCAAATCTTAATCAACATCGAAGTATTCATACCGGAAAGAAACCCTTTGAATGT
AAGGAATGTGGGAAAGCCTTTCGACTTCATATGCACCTTATTCGACATCAGAAATTTCATACTGGTGAGAAGCCC
TTTGAATGTAAGGAATGTGGCAAGGCCTTCAGTCTTCACACCCAGCTTAATCACCATAAGAACATTCACACAGGT
GAGAAGCCATTTAAATGTAAAGAATGTGGGAAGTCCTTTAATCGTGTCTCAAACCTTGTTCAACATCAGAGTATT
CATGCTGGTGTAAAACCATATGAATGTAAGGAGTGTGGGAAAGGCTTTAGTCGTGTTTCAAACCTTATTCAGCAT
CAGAAAACTCATTCCAGTGCGAAACCCTTTGTATGTAAGGAGTGTAGGAAGACCTTTAGATATCATTACCAGCTT
ACTGAACATTACCGAATTCATACTGGTGAGAAACCCTTTGAATGTAAAGAATGCGGAAAGGCCTTTGGTCTTCTG
ACACAGCTTGCTCAACATCAGATCATTCATACTGGTGAGAAGCCATTTAAATGTAAGGAGTGTGGGAAGGCCTTT
AATCGTGGCTCAAACCTTGTTCAACCTCAGAGTATTCATACTGGTGAGAAACCCTATGAATGTAAGGAGTGTGGG
AAGGCTTTTAGACTTCACCTACAACTTTCTCTGCATCAAAAACTTGTACAGAAAATTCATACTTGGGTGAAAACC
TTTGAATGTAAGGAATGTGGGAAGGCCTTTCAATATCATTACCAATTTCATGGACATTATAGATTTCATATTCGT
GAGAACCCTTATGAATGTCAAGGATGTGGGAAATGCTTTACCAGTGGTAGAAACCTTAGAGTACATCAGAGAATT
CATACTGGTGAGAAACCATATCAATGTGAAGAATGTGGGAAAGCCTTTAGTCATAGTTCAAACCTGTTAAACATG
TTAAAATTCATACTGATGAGAAACCCTATGAATGAATGTGAAAAGGCCTTTAGCAGTAATTATGATCTTACTGTA
CATCTGAGAATCCGTACTGCTGAGAAACCCTGTGAGTGTAAAGAATGTGGAAAACTTTTGGATTTAGCTTACTCG
AGCCTTGTTCAACATGTTAAAATTCATACTGGTGAGCAACCCTGTGAATGTAAAGGATGTGGGAAGACCTTTAGA
CTTAGTTCAGTCCTTTCTGCACATCACAGAATTCATACTGGCATGAAACCCTATGAATGTAAAGAATTTAGAAGT
TTTATGAATATAAGGAGTGTAGACAAGCCTTCACTGTGTATGAAAAATTTACTCAACACCAGAGAATTCATATTG
ATGAGAAATCCTGTGAACATAAAAGAATGTGTGAAGAACTTTCATCGTGGCCTGGGATTTGCTCAACATCAGAGT
ATTCATACTGCTGAGAACTCCTTTGAGTGTAAAGAATGTGGGATATTTTATAGCCACACTAAATGCCTTAGAGTT

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FIGURE 1124B

CAGAGAAGA**TAA**

FIGURE 1125

ACTGTGCCCTGTCCACGGTGCCTCCTGCATGTCCTGCTGCCCTGAGCTGTCCCGAGCTAGGTGACAGCGTACCAC
GCTGCCACC**ATG**AATGAGGTGTCTGTCATCAAAGAAGGCTGGCTCCACAAGCGTGGTGAATACATCAAGACCTGG
AGGCCACGGTACTTCCTGCTGAAGAGCGACGGCTCCTTCATTGGGTACAAGGAGAGGCCCGAGGCCCCTGATCAG
ACTCTACCCCCCTTAAACAACTTCTCCGTAGCAGAATGCCAGCTGATGAAGACCGAGAGGCCGCGACCCAACACC
TTTGTCATACGCTGCCTGCAGTGGACCACAGTCATCGAGAGGACCTTCCACGTGGATTCTCCAGACGAGAGGGAG
GAGTGGATGCGGGCCATCCAGATGGTCGCCAACAGCCTCAAGCAGCGGGCCCCAGGCGAGGACCCCATGGACTAC
AAGTGTGGCTCCCCCAGTGACTCCTCCACGACTGAGGAGATGGAAGTGGCGGTCAGCAAGGCACGGGCTAAAGTG
ACCATGAATGACTTCGACTATCTCAAACTCCTTGGCAAGGGAACCTTTGGCAAAGTCATCCTGGTGCGGGAGAAG
GCCACTGGCCGCTACTACGCCATGAAGATCCTGCGGAAGGAAGTCATCATTGCCAAGGATGAAGTCGCTCACACA
GTCACCGAGAGCCGGGTCCTCCAGAACACCAGGCACCCGTTCCTCACTGCGCTGAAGTATGCCTTCCAGACCCAC
GACCGCCTGTGCTTTGTGATGGAGTATGCCAACGGGGGTGAGCTGTTCTTCCACCTGTCCCGGGAGCGTGTCTTC
ACAGAGGAGCGGGCCCGGTTTTATGGTGCAGAGATTGTCTCGGCTCTTGAGTACTTGCACTCGCGGGACGTGGTA
TACCGCGACATCAAGCTGGAAAACCTCATGCTGGACAAAGATGGCCACATCAAGATCACTGACTTTGGCCTCTGC
AAAGAGGGCATCAGTGACGGGGCCACCATGAAAACCTTCTGTGGGACCCCGGAGTACCTGGCGCCTGAGGTGCTG
GAGGACAATGACTATGGCCGGGCCGTGGACTGGTGGGGGCTGGGTGTGGTCATGTACGAGATGATGTGCGGCCGC
CTGCCCTTCTACAACCAGGACCACGAGCGCCTCTTCGAGCTCATCCTCATGGAAGAGATCCGCTTCCCGCGCACG
CTCAGCCCCGAGGCCAAGTCCCTGCTTGCTGGGCTGCTTAAGAAGGACCCCAAGCAGAGGCTTGGTGGGGGGCCC
AGCGATGCCAAGGAGGTCATGGAGCACAGGTTCTTCCTCAGCATCAACTGGCAGGACGTGGTCCAGAAGAAGCTC
CTGCCACCCTTCAAACCTCAGGTCACGTCCGAGGTCGACACAAGGTACTTCGATGATGAATTTACCGCCCAGTCC
ATCACAATCACACCCCCTGACCGCTATGACAGCCTGGGCTTACTGGAGCTGGACCAGCGGACCCACTTCCCCCAG
TTCTCCTACTCGGCCAGCATCCGCGAG**TGA**GCAGTCTGCCCACGCAGAGGACGCACGCTCGCTGCCATCACCGCT
GGGTGGTTTTTTCCCCCT

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FIGURE 1126

GTTGGCGCCGCCGGGAGGGAGGGCGGGCGGCGCGAGTGGGCGCGGGCCCGGTGGGCCAGGCTCCAGGGAGCAGTG
TCAGGGCCAGGGAGACG**ATG**GTCTCCGTGACTATGGCCACTTCCGAGTGGATCCAGTTCTTTAAGGAAGCCGGCA
TTCCTCCAGGACCTGCCGTCAATTATGCCGTGATGTTTGTGGATAATAGGATTCAGAAGAGCATGCTGCTGGATC
TCAATAAGGAGATAATGAATGAGCTGGGCGTGACCGTGGTGGGTGACATCATCGCCATTCTCAAGCATGCCAAAG
TGGTGCACCGTCAGGACATGTGCAAAGCTGCCACTGAGTCAGTACCCTGCAGCCCTAGCCCCCTTGCAGGCGAAA
TTCGCCGTGGCACCAGTGCTGCCTCCCGAATGATCACCAACAGCCTGAACCATGACTCTCCACCCAGCACACCCC
CCAGGCGCCCGGACACCAGCACCTCCAAGATCTCGGTCACTGTGTCCAACAAGATGGCAGCAAAGAGTGCCAAGG
CCACTGCAGCCCTGGCCCGCCGGGAGGAGGAGAGCCTGGCTGTTCCTGCCAAGCGGCGCCGGGTCACTGCTGAGA
TGGAGGGGAAGTACGTCATCAACATGCCCAAAGGCACCACACCCCGCACCCGCAAGATCCTGGAGCAGCAGCAGG
CTGCAAAAGGTCTCCATAGGACGTCTGTGTTTGACCGCCTCGGCGCCGAGACCAAGGCAGACACCACGACAGGGA
GTAAACCCACAGGAGTCTTCAGCCGCCTGGGGGCCACCCCAGAAACGGACGAGGATCTGGCTTGGGACAGCGACA
ATGACAGCAGCAGCTCTGTCTTGCAGTATGCCGGGGTCCTGAAGAAGCTAGGACGGGGCCCAGCCAAGGCCAGTC
CCCAGCCAGCACTGACTGTCAAAGCCAAGGCCACAAGCTCAGCGACAACGGCTGCTGCCCCGACACTGCGGCGCC
TGGCGCTTTCCTCACGGTCTGGGCTTGAGAGGAAGCCGGAGTCCTTGTCTAAAGTCAGCATCATCAAGAGACTGG
GCGCAGCTGCCCTTGTGCCCGAGGCCCAGGACAGCCAGGTCACCAGCACCAAGAGTAAGTCCTCAGCCGAGGTCA
AGGTCACCATTAAGAGGACTCTGGTGGGGCCCCGGGGGGAGCAGCTCCAGCGAGGGCCTTGGTGCCCAGATGGACC
ACGCGGGCACTGTGAGCGTGTTCAAAAGACTGGGCCGCAGGACCTTC**TAG**CCCACCTGTGGGCGGGGTGCAGGCA
GCAGAGCCTGCGGGCATCTGCCCTGGCCGCCCCAGGCTCCTGGCTTCATCACGCCTCCCACCAGCTCCTGGATGA
CACAGCTTGTCTCCCTCGGGCTCTAGAGCTAGGCCCGAGCATTCGGGGGATCACCCCATTTCTCCTAGCCTGGGA
TGGTCGTCGCAGCTGGCCTGGCCTGCTCCAGGACTCCCCTTCTCTCATGTCCTCTGTGCTTTCTTCTCTGGCTGT
GGCCTTGGCAGAACCCACTTTTCTACCTCTCCCAAGTGCCAGGGGGCTTCTTCCTCTCCTACATTCCCCTTCTTC
CCCTGAGCAGGGTCTGCTGCCTCAGACCCCAGCTCATCAGCCTCCCTGTCCCCCTCAACTAAGTGGGTGTCACCT
GGTGGGCCTCCCTTCCC

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FIGURE 1127

CTCTTTATAATTTAGTTTCCATAGAAGTTATATGTGCATTTAAAAAAATTCAATGCTGGAGCGACCGTGTCTGGG
GAGCCGAGCCCCGCTTCTCGCTGCGGTGAGCCCGGACTGGGGCACGCACTGCGCAGACTCCCCGCTGCAGTGGGC
GGAGCTCCCACAGGCCCCGCCCCCTCCTCCCACCCTCGTTCAGCCTGTCCAGACAGAAGCTGGGGCCCAGCGGAG
GTAGCAGCAGACGCCTGAGAGCGAGGCCGAGGCCCCTCAGGGTTTGGAGACCCTGACACACCCACCTTCTCACCT
GGGCTCTGCGTATCCCCCAGCCTTGAGGGAAGATGAAGCCTAAACTGATGTACCAGGAGCTGAAGGTGCCTGCAG
AGGAGCCCGCCAATGAGCTGCCCATGAATGAGATTGAGGCGTGGAAGGCTGCGGAAAAGAAAGCCCGCTGGGTCC
TGCTGGTCCTCATTCTGGCGGTTGTGGGCTTCGGAGCCCTG**ATG**ACTCAGCTGTTTCTATGGGAATACGGCGACT
TGCATCTCTTTGGGCCCAACCAGCGCCCAGCCCCCTGCTATGACCCTTGCGAAGCAGTGCTGGTGGAAAGCATTC
CTGAGGGCCTGGACTTCCCCAATGCCTCCACGGGGAACCCTTCCACCAGCCAGGCCTGGCTGGGCCTGCTCGCCG
GTGCGCACAGCAGCCTGGACATCGCCTCCTTCTACTGGACCCTCACCAACAATGACACCCACACGCAGGAGCCCT
CTGCCCAGCAGGGTGAGGAGGTCCTCCGGCAGCTGCAGACCCTGGCACCAAAGGGCGTGAACGTCCGCATCGCTG
TGAGCAAGCCCAGCGGGCCCCAGCCACAGGCGGACCTGCAGGCTCTGCTGCAGAGCGGTGCCCAGGTCCGCATGG
TGGACATGCAGAAGCTGACCCATGGCGTCCTGCATACCAAGTTCTGGGTGGTGGACCAGACCCACTTCTACCTGG
GCAGTGCCAACATGGACTGGCGTTCACTGACCCAGGTCAAGGAGCTGGGCGTGGTCATGTACAACTGCAGCTGCC
TGGCTCGAGACCTGACCAAGATCTTTGAGGCCTACTGGTTCCTGGGCCAGGCAGGCAGCTCCATCCCATCAACTT
GGCCCCGGTTCTATGACACCCGCTACAACCAAGAGACACCAATGGAGATCTGCCTCAATGGAACCCCTGCTCTGG
CCTACCTGGCGAGTGCGCCCCCACCCCTGTGTCCAAGTGGCCGCACTCCAGACCTGAAGGCTCTACTCAACGTGG
TGGACAATGCCCGGAGTTTCATCTACGTCGCTGTCATGAACTACCTGCCCACTCTGGAGTTCTCCCACCCTCACA
GGTTCTGGCCTGCCATTGACGATGGGCTGCGGCGGGCCACCTACGAGCGTGGCGTCAAGGTGCGCCTGCTCATCA
GCTGCTGGGGACACTCGGAGCCATCCATGCGGGCCTTCCTGCTCTCTCTGGCTGCCCTGCGTGACAACCATACCC
ACTCTGACATCCAGGTGAAACTCTTTGTGGTCCCCGCGGATGAGGCCCAGGCTCGAATCCCATATGCCCGTGTCA
ACCACAACAAGTACATGGTGACTGAACGCGCCACCTACATCGGAACCTCCAACTGGTCTGGCAACTACTTCACGG
AGACGGCGGGCACCTCGCTGCTGGTGACGCAGAATGGGAGGGGCGGCCTGCGGAGCCAGCTGGAGGCCATTTTCC
TGAGGGACTGGGACTCCCCTTACAGCCATGACCTTGACACCTCAGCTGACAGCGTGGGCAACGCCTGCCGCCTGC
TC**TGA**GGCCCGATCCAGTGGGCAGGCCAAGGCCTGCTGGGCCCCCGCGGACCCAGGTGCTCTGGGTCACGGTCCC
TGTCCCCGCGCCCCCGCTTCTGTCTGCCCCATTGTGGCTCCTCAGGCTCTCTCCCCTGCTCTCCCACCTCTACCT
CCACCCCCACCGGCCTGACGCTGTGGCCCCGGGACCCAGCAGAGCTGGGGGAGGGATCAGCCCCCAAAGAAATGG
GGGTGCATGCTGGGCCTGGCCCCCTGGCCCACCCCCACTTTCCAGGGCAAAAAGGGCCCAGGGTTATAATAAGTA
AATAACTTGTCTGT

FIGURE 1128

GGGCAGAGAGCACCGCCCAGCAGCCAGTGGGTTCCCGCGCGTGCCGAGACTCTGAGGCCTTGCACCCCCACGATC
CCGTACG**ATG**GCCGTCAAGAAGATCGCGATCTTCGGCGCCACTGGCCAGACCGGGCTCACCACCCTGGCGCAGGC
GGTGCAAGCAGGTTACGAAGTGACAGTGCTGGTGCGGGACTCCTCCAGGCTGCCATCAGAGGGGCCCCGGCCGGC
CCACGTGGTAGTGGGAGATGTTCTGCAGGCAGCCGATGTGGACAAGACCGTGGCTGGGCAGGACGCTGTCATCGT
GCTGCTGGGCACCCGCAATGACCTCAGTCCCACGACAGTGATGTCCGAGGGCGCCCGGAACATTGTGGCAGCCAT
GAAGGCTCATGGTGTGGACAAGGTCGTGGCCTGCACCTCGGCTTTCCTGCTCTGGGACCCTACCAAGGTGCCCCC
ACGACTGCAGGCTGTGACTGATGACCACATCCGGATGCACAAGGTGCTGCGGGAATCAGGCCTGAAGTACGTGGC
TGTGATGCCGCCACACATAGGAGACCAGCCACTAACTGGGGCGTACACAGTGACCCTGGATGGACGAGGGCCCTC
AAGGGTCATCTCCAAACATGACCTGGGCCATTTCATGCTGCGCTGCCTCACCACCGATGAGTACGACGGACACAG
CACCTACCCCTCCCACCAGTACCAG**TAG**CACTCTGTCCCCATCTGGGAGGGTGGCATTCTGGGACATGAGGAGCA
AAGGAAGGGGGCAATAAATGTTGAGCCAAGAGCTTCAAATTACTCTAG

FIGURE 1129

GCACACCCGGAAGTGGGTGCGGGCCAGCCGGCTCGCCCGGGGGCCATGGCAGCAGCGGCTACTGCAGCCGAGGGG
GTCCCCAGTCGGGGGCCTCCCGGGGAAGTCATTCATCTGAATGTGGGAGGCAAGAGATTCAGTACCTCTCGCCAG
ACTCTCACCTGGATCCCAGACTCCTTCTTCTCCAGTCTTCTGAGCGGACGCATCTCGACGCTGAAAG**ATG**AGACC
GGAGCAATCTTCATCGATCAGGGACCATTACAGTCTTCGCCCACCCGTCACTCTACGTCTTGCGCATCACAAAGA
GTTGGATCCCAGGGGTGTCCACGGTTCCAGCCTCCTCCATGAAGCCCAGTTCTATGGGCTCACTCCTCTGGTTCG
TCGCCTGCAGCTTCGAGAGGAGTTGGATCGATCTTCTTGTGGAAACGTCCTCTTCAATGGTTACCTGCCGCCACC
AGTGTTCCCAGTGAAGCGGCGGAACCGGCACAGCCTAGTGGGGCCTCAGCAGCTAGGAGGACGGCCAGCCCCTGT
CCGACGGAGCAACACGATGCCCCCCAACCTTGGCAATGCAGGGCTGCTGGGCCGAATGCTGGATGAGAAAACCCC
TCCCTCACCCTCAGGACAACCTGAGGAGCCGGGGATGGTGCGCCTGGTGTGTGGACACCATAATTGGATCGCTGT
GGCCTATACCCAGTTTCTAGTCTGCTACAGGTTGAAGGAAGCCTCTGGCTGGCAGCTGGTGTTTTCCAGCCCCCG
CCTGGACTGGCCCATCGAACGACTGGCGCTCACAGCCCGGGTGCATGGTGGGGCTTTGGGTGAACATGACAAGAT
GGTGGCAGCAGCCACCGGCAGCGAGATCCTGCTATGGGCTCTGCAGGCGGAAGGCGGTGGCTCCGAGATAGGGGT
CTTTCATCTGGGGGTGCCTGTGGAGGCCTTGTTCTTCGTCGGGAACCAGCTCATTGCTACAAGCCACACAGGGCG
CATCGGGGTGTGGAATGCCGTCACCAAGCACTGGCAGGTCCAGGAGGTGCAGCCCATCACCAGTTATGACGCGGC
AGGCTCCTTCCTCCTCCTGGGCTGCAACAACGGCTCCATTTACTACGTGGATGTGCAGAAGTTCCCCTTGCGCAT
GAAAGACAACGACCTCCTTGTCAGCGAGCTCTATCGGGACCCAGCGGAGGATGGGGTCACCGCCCTCAGTGTCTA
CCTCACCCCCAAGACCAGTGACAGTGGGAACTGGATCGAGATCGCCTATGGCACCAGCTCAGGGGGCGTGCGGGT
CATCGTGCAGCACCCGGAGACTGTGGGCTCGGGGCCTCAGCTCTTCCAGACCTTCACTGTGCACCGCAGCCCTGT
CACCAAGATCATGCTGTCGGAGAAGCACCTCATCTCAGTCTGTGCCGACAACAACCACGTGCGGACATGGTCTGT
GACTCGCTTCCGCGGCATGATTTCCACCCAGCCCGGCTCCACCCCACTCGCTTCCTTTAAGATCCTGGCTCTGGA
GTCGGCAGATGGGCATGGCGGCTGCAGTGCTGGCAATGACATTGGCCCCTACGGTGAGCGGGACGACCAGCAAGT
GTTCATCCAGAAGGTGGTGCCCAGTGCCAGCCAGCTCTTCGTGCGTCTCTCATCTACTGGGCAGCGGGTGTGCTC
CGTGCGCTCCGTGGACGGCTCACCCACGACAGCCTTCACAGTGCTGGAGTGCGAGGGCTCCCGGCGGCTCGGCTC
TCGGCCCCGGCGCTACCTGCTCACTGGCCAGGCCAACGGCAGCTTGGCCATGTGGGACCTAACCACCGCCATGGA
CGGCCTCGGCCAGGCCCCTGCAGGTGGCCTGACGGAGCAAGAGCTGATGGAACAGCTGGAACACTGTGAGCTGGC
CCCGCCGGCTCCTTCAGCTCCCTCATGGGGCTGTCTCCCCAGCCCCTCACCCCGCATCTCCCTCACCAGCCTCCA
CTCAGCCTCCAGCAACACCTCCTTGTCTGGCCACCGTGGGAGCCCAAGCCCCCCGCAGGCTGAGGCCCGGCGCCG
TGGTGGGGGCAGCTTTGTGGAACGCTGCCAGGAACTGGTGCGGAGTGGGCCAGACCTCCGACGGCCACCCACACC
AGCCCCGTGGCCCTCCAGCGGTCTCGGCACTCCCCTCACACCTCCCAAGATGAAGCTCAATGAAACTTCCTTT**TG**
AACAACGCAGCTGCCATGATGCCTTGGGATGCCCTGGTCCTGGGGGACTCAGGTGCCTCCCTGATTCCTGTGGGA
ACCCCGGGTTCAGGGCCAGGGCCTCCTTGGAATAAATGGTTATTGTTACTAGGTCCCCACCTTCCCTCTTTTCTG
GAAGCCAAAGTCACCCTCCCCAATAAAGTCCTCACTGCC

FIGURE 1130A

CGTTGCTGTTTGTCGCTGCTGCCCGGGCCAGACGTCTAGGAGGAGCCGCTGCATCCGAGTCCCTGGCTGTCTCCG
AAGCCTTCTGCAGGGTCCGAAGCTGCCAGCCCAAAAAGTGTGCAGGCCCCCAGCGGTGCCTGAACCCAGTGCCTG
CAGTGCCCAGTCCCAGCCCCAGCGTGAGGAAGAGACAGGTGTCCCTCAACTGGCAGCCACTGACGCTCCAGGAGG
CCAGAGCTCTACTGAAGCGGCGGCGGCCCCGGGGGCCAGGGGGCCGGGGACTACTGAGAAGGAGGCCCCCACAGC
GTGCCCCCGCTGGCAAGGCCCCGGTCCTGTGTCCCTTGATCTGTCACAATGGCGGTGTGTGCGTGAAGCCTGACC
GCTGCCTCTGTCCCCCGGACTTCGCTGGCAAGTTCTGCCAGTTGCACTCCTCGGGCGCCCGGCCCCCGGCCCCGG
CTGTACCAGGCCTCACCCGCTCCGTGTACACT**ATG**CCACTGGCCAACCACCGCGACGACGAGCACGGCGTGGCAT
CTATGGTGAGCGTCCACGTGGAGCACCCGCAGGAGGCGTCGGTGGTGGTGCACCAGGTGGAGCGTGTGTCTGGCC
CTTGGGAGGAGGCGGACGCTGAGGCGGTGGCGCGGGCGGAAGCGGCGGCGCGGGCGGAGGCGGCAGCGCCCTACA
CGGTGTTGGCACAGAGCGCGCCGCGGGAGGACGGCTACTCAGATGCCTCGGGCTTCGGTTACTGCTTTCGGGAGC
TGCGCGGAGGCGAATGCGCGTCCCCGCTGCCCGGGCTCCGGACGCAGGAGGTCTGCTGCCGAGGGGCCGGCTTGG
CCTGGGGCGTTCACGACTGTCAGCTGTGCTCCGAGCGCCTGGGGAACTCCGAAAGAGTGAGCGCCCCAGATGGAC
CTTGTCCAACCGGCTTTGAAAGAGTTAATGGGTCCTGCGAAGATGTGGATGAGTGCGCGACTGGCGGGCGCTGCC
AGCACGGCGAGTGTGCAAACACGCGCGGCGGGTACACGTGTGTGTGCCCCGACGGCTTTCTGCTCGACTCGTCCC
GCAGCAGCTGCATCTCCCAACACGTGATCTCAGAGGCCAAAGGGCCCTGCTTCCGCGTGCTCCGCGACGGCGGCT
GTTCGCTGCCCATTCTGCGGAACATCACTAAACAGATCTGCTGCTGCAGCCGCGTAGGCAAGGCCTGGGGCCGGG
GCTGCCAGCTCTGCCCACCCTTCGGCTCAGAGGGTTTCCGGGAGATCTGCCCGGCTGGTCCTGGTTACCACTACT
CGGCCTCCGACCTCCGCTACAACACCAGACCCCTGGGCCAGGAGCCACCCCGAGTGTCACTCAGCCAGCCTCGTA
CCCTGCCAGCCACCTCTCGGCCATCTGCAGGCTTTCTGCCCACCCATCGCCTGGAGCCCCGGCCTGAACCCCGGC
CCGATCCCCGGCCCGGCCCTGAGCTTCCCTTGCCCAGCATCCCTGCCTGGACTGGTCCTGAGATTCCTGAATCAG
GTCCCTCCTCCGGCATGTGTCAGCGCAACCCCCAGGTCTGCGGCCCAGGACGCTGCATTTCCCGGCCCAGCGGCT
ACACCTGCGCTTGCGACTCTGGCTTCCGGCTCAGCCCCCAGGGCACCCGATGCATTGATGTGGACGAATGTCGCC
GCGTGCCCCCGCCCTGTGCTCCCGGGCGCTGCGAGAACTCACCAGGCAGCTTCCGCTGCGTGTGCGGCCCGGGCT
TCCGAGCCGGCCCACGGGCTGCGGAATGCCTGGATGTGGACGAGTGCCACCGCGTGCCGCCGCCGTGTGACCTCG
GGCGCTGCGAGAACACGCCAGGCAGCTTCCTGTGCGTGTGCCCCGCCGGGTACCAGGCTGCACCGCACGGAGCCA
GCTGCCAGGATGTGGATGAATGCACCCAGAGCCCAGGCCTGTGTGGCCGAGGGGCCTGCAAGAACCTGCCTGGCT
CTTTCCGCTGTGTTTGCCCGGCTGGCTTCCGGGGCTCGGCGTGTGAAGAGGATGTGGATGAGTGTGCCCAGGAGC
CGCCGCCCTGTGGGCCCGGCCGCTGTGACAACACGGCAGGCTCCTTTCACTGTGCCTGCCCTGCTGGCTTCCGCT
CCCGAGGGCCCGGGGCCCCCTGCCAAGATGTGGATGAGTGTGCCCGAAGCCCCCCACCCTGCACCTACGGCCGGT
GTGAGAACACAGAAGGCAGCTTCCAGTGTGTCTGCCCCATGGGCTTCCAACCCAACACTGCTGGCTCCGAGTGCG
AGGATGTGGATGAGTGTGAGAACCACCTCGCATGCCCTGGGCAGGAGTGTGTGAACTCGCCCGGCTCCTTCCAGT
GCAGGACCTGTCCTTCTGGCCACCACCTGCACCGTGGCAGATGCACTGATGTGGACGAATGCAGTTCGGGTGCCC
CTCCCTGTGGTCCCCACGGCCACTGCACTAACACCGAAGGCTCCTTCCGCTGCAGCTGCGCGCCAGGCTACCGGG
CGCCGTCGGGTCGGCCCGGGCCCTGCGCAGACGTGAACGAGTGCCTGGAGGGCGATTTCTGCTTCCCTCACGGCG
AGTGCCTCAACACTGACGGCTCCTTTGCCTGTACTTGTGCCCCTGGCTACCGACCCGGACCCCGCGGAGCCTCTT
GCCTCGACGTTGACGAGTGCAGCGAGGAGGACCTTTGCCAGAGCGGCATCTGTACCAACACCGACGGCTCCTTCG
AGTGCATCTGTCCTCCGGGACACCGCGCTGGCCCGGACCTCGCCTCCTGCCTCGACGTGGACGAATGTCGCGAGC
GAGGCCCAGCCCTGTGCGGGTCGCAGCGCTGTGAGAACTCTCCCGGCTCCTACCGCTGTGTCCGGGACTGCGATC
CTGGGTACCACGCGGGCCCCGAGGGCACCTGTGACGATGTGGATGAGTGCCAAGAATATGGTCCCGAGATTTGTG
GAGCCCAGCGTTGTGAGAACACCCCTGGCTCCTACCGCTGCACACCAGCCTGTGACCCTGGCTATCAGCCCACGC
CAGGGGGCGGATGCCAGGATGTGAACGAGTGTGAAACACTACAGGGTGTATGTGGAGCTGCCCTGTGTGAAAATG
TCGAAGGCTCCTTCCTCTGTGTCTGCCCCAACAGCCCGGAAGAGTTTGACCCCATGACTGGACGCTGTGTTCCCC
CACGAACTTCTGCTGGCACGTTCCCAGGCTCGCAGCCCCAGGCACCTGCTAGCCCCGTTCTGCCCGCCAGGCCAC
CTCCGCCACCCCTGCCCCGCCGACCCAGCACACCTAGGCAGGGCCCTGTGGGGAGTGGGCGCCGGGAGTGCTACT
TTGACACAGCGGCCCCGGATGCATGTGACAACATCCTGGCTCGGAATGTGACATGGCAGGAGTGCTGCTGTACTG
TGGGTGAGGGCTGGGGCAGCGGCTGCCGCATCCAGCAGTGCCCGGGCACCGAGACAGCTGAGTACCAGTCATTGT
GCCCTCACGGCCGGGGCTACCTGGCGCCCAGTGGAGACCTGAGCCTCCGGAGAGACGTGGACGAATGTCAGCTCT
TCCGAGACCAGGTGTGCAAGAGTGGCGTGTGTGTGAACACGGCCCCGGGCTACTCATGCTATTGCAGCAACGGCT

FIGURE 1130B

ACTACTACCACACACAGCGGCTGGAGTGCATCGACAATGACGAGTGCGCCGATGAGGAACCGGCCTGTGAGGGCG
GCCGCTGTGTCAACACTGTGGGCTCTTATCACTGTACCTGCGAGCCCCCACTGGTGCTGGATGGCTCGCAGCGCC
GCTGCGTCTCCAACGAGAGCCAGAGCCTCGATGACAATCTGGGAGTGTGCTGGCAGGAAGTGGGGGCTGACCTCG
TGTGCAGCCACCCTCGGCTGGACCGTCAGGCCACCTACACAGAGTGCTGCTGCCTGTATGGAGAGGCCTGGGGCA
TGGACTGCGCCCTCTGCCCTGCGCAGGACTCAGATGACTTCGAGGCCCTGTGCAATGTGCTACGCCCCCCCGCAT
ATAGCCCCCCGCGACCAGGTGGCTTTGGACTCCCCTACGAGTACGGCCCAGACTTAGGTCCACCTTACCAGGGCC
TCCCATATGGGCCTGAGTTGTACCCACCACCTGCGCTACCCTACGACCCCTACCCACCGCCACCTGGGCCCTTCG
CCCGCCGGGAGGCTCCTTATGGGGCACCCCGCTTCGACATGCCAGACTTTGAGGACGATGGTGGCCCCTATGGCG
AATCTGAGGCTCCTGCGCCACCTGGCCCGGGCACCCGCTGGCCCTATCGGTCCCGGGACACCCGCCGCTCCTTCC
CAGAGCCCGAGGAGCCTCCTGAAGGTGGAAGCTATGCTGGTTCCCTGGCTGAGCCCTACGAGGAGCTGGAGGCGG
AGGAGTGCGGGATCCTGGACGGCTGCACCAACGGCCGCTGCGTGCGCGTCCCCGAAGGCTTCACCTGCCGTTGCT
TCGACGGCTACCGCCTGGACATGACCCGCATGGCCTGCGTTGACATCAACGAGTGTGATGAGGCCGAGGCTGCCT
CCCCGCTGTGCGTCAACGCGCGTTGCCTCAACACGGATGGCTCCTTCCGCTGCATCTGCCGCCCGGGATTCGCAC
CCACGCACCAGCCGCACCACTGTGCGCCCGCACGGCCCCGGGCC**TGA**GCCCTGGCACCCGCTGGCCGCCCACCCG
CGCCCGCCACTCGGGGCCCCTGCCGCGCATCCTGCAGCCCGCTTATGCGTATGTGCACGGGGCCGCCCGCCTGGA
CCTGGAGAAGGGACCTACGGACGCCTGGAAGCTGCGACGCCCTGCACTGCTCCCGCCTCCACCAGCGCCTCCCAC
TGATGTCGTGGTCCCGGGCCTGGCCCAGGGGCCCCTTTACATGCCCTCTCCCTTTTATAAAATTTTCCATTAAAA
ACCACCTATTTTCT

FIGURE 1131

GCTCGCGCGCGTGCATCCCGCACCATCCCCCGGCCCCGGGCCCTGGCCGGCGTCAGACCGAGCTGCCGCCGCCAC
CACCGCAGCAGCAGCAGTCGGGGAGCCAGGCCCAGCCAGGGCCGCGGGAGGCGGGGGCGCCCGGGCCCTGG**ATG**T
CCCGCAGCGCGGCGGCCAGCGGCGGACCCCGGAGGCCTGAGCGGCACCTGCCCCCAGCCCCCTGTGGGGCCCCGG
GGCCCCCAGAAACCTGCAGGACGGAGCCAGACGGGGCGGGCACCATGAACAAGTTACGGCAGAGCCTGCGGCGGA
GGAAGCCAGCCTACGTGCCCGAGGCGTCGCGCCCGCACCAGTGGCAGGCAGACGAGGACGCGGTGCGGAAGGGCA
CGTGCAGCTTCCCGGTCAGGTACCTGGGTCACGTGGAGGTAGAGGAGTCCCGGGGAATGCACGTGTGTGAAGATG
CGGTGAAGAAGCTGAAGGCGATGGGCCGAAAGTCCGTGAAGTCTGTCCTGTGGGTGTCAGCCGATGGGCTCCGAG
TGGTGGACGACAAAACCAAGGATCTTCTGGTCGACCAGACCATCGAAAAGGTCTCCTTTTGTGCTCCTGACCGCA
ACCTGGACAAGGCTTTCTCCTATATCTGTCGTGACGGGACTACCCGCCGCTGGATCTGCCACTGTTTTCTGGCAC
TGAAGGACTCCGGCGAGAGGCTGAGCCACGCTGTGGGCTGTGCTTTTGCCGCCTGCCTGGAGCGAAAACAGCGAC
GGGAGAAGGAATGTGGGGTCACGGCCGCCTTCGATGCCAGCCGCACCAGCTTCGCCCGCGAGGGCTCCTTCCGCC
TGTCTGGGGGTGGGCGGCCTGCTGAGCGAGAGGCCCCGGACAAGAAGAAAGCAGAGGCAGCAGCTGCCCCCACTG
TGGCTCCTGGCCCTGCCCAGCCTGGGCACGTGTCCCCGACACCAGCCACCACATCCCCTGGTGAGAAGGGTGAGG
CAGGCACCCCTGTGGCTGCAGGCACCACTGCGGCCGCCATCCCCCGGCGCCATGCACCCCTGGAGCAGCTGGTTC
GCCAGGGCTCCTTCCGTGGGTTCCCAGCACTCAGCCAGAAGAACTCGCCTTTCAAACGGCAGCTGAGCCTACGGC
TGAATGAGCTGCCATCCACGCTGCAGCGCCGCACTGACTTCCAGGTGAAGGGCACAGTGCCTGAGATGGAGCCTC
CTGGTGCCGGCGACAGTGACAGCATCAACGCTCTGTGCACACAGATCAGTTCATCTTTTGCCAGTGCTGGAGCGC
CAGCACCAGGGCCACCACCTGCCACAACAGGGACTTCTGCCTGGGGTGAGCCCTCCGTGCCCCCTGCAGCTGCCT
TCCAGCCTGGGCACAAGCGGACACCTTCAGAGGCTGAGCGATGGCTGGAGGAGGTGTCACAGGTGGCCAAGGCCC
AGCAGCAGCAGCAGCAGCAACAGCAACAGCAGCAGCAGCAGCAGCAGCAACAGCAGCAAGCAGCCTCAGTGGCCC
CAGTGCCCACCATGCCTCCTGCCCTGCAGCCTTTCCCCGCCCCCGTGGGGCCCTTTGACGCTGCACCTGCCCAAG
TGGCCGTGTTCCTGCCACCCCCACACATGCAGCCCCCTTTTGTGCCCGCCTACCCGGGCTTGGGCTACCCACCGA
TGCCCCGGGTGCCCGTGGTGGGCATCACACCCTCACAGATGGTGGCAAACGCCTTCTGCTCAGCCGCCCAGCTCC
AGCCTCAGCCTGCCACTCTGCTTGGGAAAGCTGGGGCCTTCCCGCCCCCTGCCATACCCAGTGCCCCTGGGAGCC
AGGCCCGCCCTCGCCCCAATGGGGCCCCCTGGCCCCCTGAGCCAGCGCCTGCCCCAGCTCCAGAGTTGGACCCCT
TTGAGGCCCAGTGGGCGGCATTAGAAGGCAAAGCCACTGTAGAGAAACCCTCCAACCCCTTTTCTGGCGACCTGC
AAAAGACATTCGAGATTGAACTG**TAG**

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FIGURE 1132

GTGGTTATCGCGGCGCCCACCGGCCTCTGATCTCTGAGTCTTCTCCAACCCACAGACGTTTTTTGTTGCTCTGGT
TCCAGGACCTTCTCCACAACTAGGCCATTTTCCCTGCCAGGTGTCCTTTTTGACCTCTTGACCTCTGACTCAAAG
GTCAGCTCAAAGGTTCCGAACTCGGGCCTGGGATGTGAGGGGGTACTGAACCTAAGTTCTCCGAATCTTTAGCCC
TGGGTCCCTAAGTCGCATCCTTAAGGCACCTCACTCTAGATCTGAGCCTTCATATCCCAAACTCACTCATGAGTT
TCCACATCCAGCCCCAAAGAATGAGTTAACTCCTACTAACTCTCCACCTAAGACTCCCGAGGTAACCCAACCGGT
ACCACAGATCCGGTTCCGGATTTAAGGACCCCACCCTGTTAACCGTCAGGTGCCTTATGACTTGAGTCAGCCTCG
CAATTCCTGCTCCCGTGGTTTCAAATATTAGCCCTGGTCCTTTCACACCCACTGCTCAGTCCCCAGATTCTGGAA
CTCAGCTCTTAAACCTTTAAAATCTCCATCCCTGAGACCGTTCTCCGTTGGAGGATCCTTCCCTCCCCGCTTTCT
GAACCTCTCAACACCTCCTGTAGACCCCAAA**ATG**ACTTCTCCATGCTCTCCTCCCCTAAAACCACCAATTTCTCC
TCCAAAAACCCCTGTACCCCAAGCCAGCAGCATTCCATCTCCTCCTCTACCCCCAAGTCCCCTGGACTTTTCAGC
TTTACCATCCCCTCCCTGGAGTCAGCAGACCCCTGTTCCCCCACCGCTCCCACTGCCTCCTCCACCCGCTGCCAC
AGGGCCTGCTCCCCGTCATGTCTTCGGCCTGGAGAAGAGCCAGCTCCTGAAGGAGGCCTTTGATAAGGCCGGCCC
GGTCCCCAAGGGCAGAGAAGATGTGAAGAGGCTTCTGAAACTACACAAGGACCGGTTCCGAGGTGACCTGCGGTG
GATCCTCTTCTGTGCAGACCTGCCGTCCCTCATCCAAGAAGGCCCTCAATGCGGGCTGGTGGCCTTGTGGATGGC
AGGTACTCTCCTGTCGCCCCCCAGTGGCGTCCCCCTGGAGAGACTCATACGGGTGGCCACGGAAAGAGGCTACAC
GGCCCAGGGAGAGATGTTCTCAGCACCAGCTACGACGAGGACTTCAACCATGAGCCGTGTCAGAGGAAGGGCCAC
AAGGCACACTGGGCGG**TGA**GTGCAGGGGTCCTGCTGGGTGTTCGGGCTGTGCCCAGTCTCGGCTACACTGAGGAC
CCTGAGCTGCCGGGCCTGTTCCACCCAGTGCTGGGCACGCCCTGCCAACCACCATCCCTGCCAGAGGAGGGCTCC
CCGGGAGCTGTCTACCTGCTGTCCAAGCAGGGCAAGAGTTGGCACTATCAGCTGTGGGACTACGACCAGGTCCGG
GAGAGCAACCTGCAGCTGACGGACTTCTCGCCCTCACGGGCCACTGACGGCCGGGTGTACGTGGTGCCCGTGGGT
GGGGTACGGGCTGGCCTCTGTGGCCAGGCCCTGCTCCTCACACCACAGGACTGCAGCCATTAGCTGCGGCTGCGG
TCTCAGGCTGCAGCCTAGCTCGTTTTAAAGCCCATCTGGGAGCAGTTACCTGTGCCAGCCCCTCTACCTGTGTTA
GCAGATCTGGCAACCCTGTAAGGGGGGTGCTAGATGGACCCGATTTGACAGATGGCAAGACTGAGGCCTGGAGAA
GTGGAATCACTGGCCTGAGGTCACATGACTAGCACATGGCAAGATGGAGTCTCGTTCTGTCGTCCAGGCTGGAGT
GCGGTGGCGTGATCTCAGCTCACTCCAGCCTCCACTTCCCAGGTTCAAGTGATTCTCCTGCCTCAGCCCCCCAAG
TAACTGGGATTACAGGCATGCACCACCATGCCTGGCTAATTTTTTGTATTTTTAGTAGAGACGGGGCTTTGCCAT
GTTGGCCAGGCTGGTCTCGAACTCCTGACCTTGAGTAATCCACCCGCCTCGGCCTCCCAAAGTGCTGGGATTACA
GGTGTGAGCCACTGAGCCCGGCCACAGTGCAGTATTTCTAACCAGTGATCAGGGTAAAGAGGATGCGTGTCCACC
ATCCCAGCCCTGATCAGCCTGTCTGTGCATCCCCCATCCCAGCCAGGGCTTGGAGCAGCCTTGCTCACCACTGTG
TCCCCTGCATTGTAACACATCCAGGCACAAGAATAGCCGCCCAGTGACTGCCAAGTGAGTGAACCAGCCTGCTTG
GAGCCTGCCTCTTTCCCAAACTGCTCATTATCCTGTTACCCCACCCAGCCCACGTGTCCAAATACACTCCAGATG
CAAAATAAAAAGCTCTACGACA

FIGURE 1133

CCTGACTTCCTTTTCGGAGGAAGATCCTTGAGCAGCCGACGTTGGGACAAAGGATTTGGAGAAACCCAGGGCTAA
AGTCACGTTTTTCCTCCTTTAAGACTTACCTCAACACTTCACTCC**ATG**GCAGTTCCCGAGACCCGCCCTAACCAC
ACTATTTATATCAACAACCTCAATGAGAAGATCAAGAAGGATGAGCTAAAAAAGTCCCTGTACGCCATCTTCTCC
CAGTTTGGCCAGATCCTGGATATCCTGGTATCACGGAGCCTGAAGATGAGGGGCCAGGCCTTTGTCATCTTCAAG
GAGGTCAGCAGCGCCACCAACGCCCTGCGCTCCATGCAGGGTTTCCCTTTCTATGACAAACCTATGCGTATCCAG
TATGCCAAGACCGACTCAGATATCATTGCCAAGATGAAAGGCACCTTCGTGGAGCGGGACCGCAAGCGGGAGAAG
AGGAAGCCCAAGAGCCAGGAGACCCCGGCCACCAAGAAGGCTGTGCAAGGCGGGGGAGCCACCCCCGTGGTGGGG
GCTGTCCAGGGGCCTGTCCCGGGCATGCCGCCGATGACTCAGGCGCCCCGCATTATGCACCACATGCCGGGCCAG
CCGCCCTACATGCCGCCCCCTGGTATGATCCCCCCGCCAGGCCTTGCACCTGGCCAGATCCCACCAGGGGCCATG
CCCCCGCAGCAGCTTATGCCAGGACAGATGCCCCCTGCCCAGCCTCTTTCTGAGAATCCACCGAATCACATCTTG
TTCCTCACCAACCTGCCAGAGGAGACCAACGAGCTCATGCTGTCCATGCTTTTCAATCAGTTCCCTGGCTTCAAG
GAGGTCCGTCTGGTACCCGGGCGGCATGACATCGCCTTCGTGGAGTTTGACAATGAGGTACAGGCAGGGGCAGCT
CGCGATGCCCTGCAGGGCTTTAAGATCACGCAGAACAACGCCATGAAGATCTCCTTTGCCAAGAAG**TAG**CACCTT
TTCCCCCCATGCCTGCCCCTTCCCCTGTTCTGGGGCCACCCCTTTCCCCCTTGGCTCAGCCCCCTGAAGGTAAGT
CCCCCCTTGGGGGCCTTCTTGGAGCCGTGTGTGAGTGAGTGGTCGCCACACAGCATTGTACCCAGAGTCTGTCCC
CAGACATTGCACCTGGCGCTGTTAGGCCGGAATTAAAGTGGCTTTTTGAGGTTTGGTTTTTCAC

FIGURE 1134A

GTGTGAGTCCCATGTGCTTGGTGGGAGGCGCTGTGTGAGAATGTACAGGGCAGGAGGAAACATAGCAGGGCTGGG
GTGCAGAGGAGGCCCAGAGCAGTGCACTCCAGTCTGCAGGTACTGCACTGGGCACTGGGGAGACCAACCTGGCCC
CAGGGGCTTCCCTGTGGCTGCCTTCCAGGGCAGTACTAGGTAAACAGGTGCCTGTGCTGATGCCATGTTGCTAGG
AGTGGAACGGACAATCAGCCGGAGTACTCAAGGTGACCCTTGGTCTCTGAATCCTGAATAACAAAGAGGGTCAGA
AGGAAGAGTGTCCCAGGCCAGTGCTGAGGCCTTGTGGTGGCGATGAGCTCAGCCTGTTGAGGCATGGAGCAGAGT
GATGGGAGAGGCACATGAGGTTGGGGGCCTTTGAGGCTGTGGTTGGGAATTTGTATTTTCTCAGGATGGAGTGAA
GACCTGGAGAGGAGGGGCTCTGGCTGCTGTGTGGGGATGAATTGTGGGAAGAGGGTGCAGCACTGGACCCCTTCC
CTGCCACCCATCCACGTGCATCATCAGTGTAATCTCTGATTGGATTCCTAATTGGGGAGGTCTTGCCCATCTCTA
GTCAGTAACTCACTGTTTCTAAGCCTCCTGGACCATGGCCCAATTCTTCTCCCAGTGAGGTGGTTGCTCAGAGTG
CCGACCCTTCCATAGGGAGTGAGCAGTGCAAAGAAGGTGCCCCCTCCTGAACCTTGAAGTGTAGCCATTAGGGTT
TTCCCTGGGGGGCCTTCTCACTAATTGTACTCTGGTGCTGCCAGAGAGAAGGTTGTCAGCTTCCCACTGCTAGGT
GGCAGTAGATGGTGGCAGCCCTCTCTTTCCAGGGCAAGGTCTGGTGGATGAGGTGCACATGGTTAATGCAGAGCA
GCTTAACATCCACCACAGAGGGTGAGCCCTGGGATAATGTGTTGGGAGGCGTCCTGGGGAGGGTGAGGATTGAAG
CAGCCCAGTCTGCTGTGGCGTGCGTGCTTGGCAAGCATCCTGTTGTGGCAGTGGCCACTGATGTTTGATCGTGAA
TGTTTATCTTGGGACTGTCTTGCTGGGCCGGGCCCATAGGTGTAGCTGAGCATTCGTGGGGAATGGACGCCAGCA
GAGTTGTACCAGGGCAGAGAGGTCAGGGCAGAGAGGTCAAGACAGATGGTCCGGGCTGGGGAGAAGTTGAAGGGT
CCTTGTGCCAGTCCTCCCCTTTTTGTGTGCTACCTCATCTTGCCACTGCAGTGACTTTGGGCAGAGGGTGGGACA
GGGACCTTTTAAAATTTTTAAATGGCATTTCAGCCTGTGCTCCAGTTCTCCATGTGGCAGGCACTGTGCTGGCTG
TCTTCCCAGACACTTGTTATCTTGTTCACTTGTTCCACAACAACCTGTGAAATAGCTGTGAGCTCCATTGGATCC
ATGGATGAGGAACCTGAGACCAGGAAGTCACCTGCCTGATGCCACAGCTCATGTGGCAGCACTGAGACTTGAACC
AGGGAATTGTGTCTGCAGAAGTGGCTGGGCCATTTCCTTTACCTCTCAGCCACCTTTCTGCCAGCTCCCTGATGA
CAAACATCCCGGGGCCCTGGCCACAGCATTGTAGGGCTGGGTCAGGGGAGTGGCAACTGTCAGGCAGAGGAAAGA
ACCCTGTAGACAGAGAAACCAAGCCCTGCAATGAGTCCTGTTAGATCTCCAGGAGTTGGGGCTCCAGAACCTCCC
AAGTTATGTTCTCAGAGAGATTAATTGCTACCGCTGTAAACAGCAGTGTTTATTACCCCTGCTGTACACATCAGG
CAGTTGAGGCCCATTCAGGTGTTGGAACTGGCTAGGGTTACCCAGCAAATTATCCTTGGAGTTGGAATTAGGTCT
TTCTATTCAGACTGTAGCTTTTGGCTCCTGTTCGGAGGTCTATGGGACAGATAATTTAGTGGGGATTCTTTGTAG
TCCAGGGCAGCAGTTCTTAACATTGCTGCATGGTAGAATTACCTGGGAAGCTTTACCAATTTCAGGCCCTTCCTT
AGGCCAGGTACTTCAGAACCTCAGAGCTCCCCAGGGGGCTCCACTCCACAGCCAAGGGTAAGAATTCCTGGTCTA
GGGCTGTGAGGCCACCTCCTTGCACACCTGAAAATGTTTAAATTGGTATTATTCTACTGAAATGGCTGAGGTGGG
GTTTGGGGTATCTTGAAACAAATCAAACTCTGTTACTAATTGAGCCCTAGCTGGGTGCCAGGCCCCAGGTATGTG
TGTTGGGAGGGAGTGGGCTCTTGAGGCCCAGGAGCTGAGGTTTCTGATAGACTTGGGGATGGGATTTTGGCTGAA
AAAGAAAGTCTTTTGGGGCAGGAGCTTGGAACCCTTGACCCAAGGAGTCATGGGGAAGATGGGGCAAGGAGGGGT
GGGAAAATAGGTAATTCATGGCTGCTTCTCTAAG**ATG**TGCCTGCCTAGCCCCAGTAAACCTACCTCCCTCCATCC
CTGCCAGGCCATGGTGGCGTGTTACCCAGGCAACGGGCTCGGGTACGTAAGGCACGTTGACAATCCCCACGGCGA
TGGGCGCTGCATCACCTGTATCTATTACCTGAATCAGAACTGGGACGTTAAGGTAGGGGTGAGGGTGAGGGTGAG
GGTGGCGCTGGGGCTAGGGCTGGGGCGGGGGTGGCGTGCGTCCACTCCATTTTCCACTCTCAGCCCAGATTCTGG
CATTCTCCTGTTTCTCTTCTCAACACACAGCGGGCAGTGCGATCTGCCGGCTCTTCCTGGGAAATGGCACCTCCT
CCTCTCTAGCGGACTGTGTGGTGGGAACTCCCCTCTTTCCGGGAATGGTGCTGTCTGCCCAGCCCCACCCGGCCT
TGTAATGAACACTTTCCCCCTTTTCCTGTCTTTAGTAGCTTCCTGCCCATCTCCATGG**TGA**TGCAGTCTCTGGGT
TGTCATTCACTTTGAGAGCCCGAGGGGTGGGAGGGAGTGATGCAGGCAGACGCTGCGCCTCCTAGTGGGCTCCCG
GGGCACCGTGGGAGGCAGCGGCTCCTGGCCGTACCAGCTAGCCTCATCCTTTGGCCTGCCCCCAGGTGCATGGCG
GCCTGCTGCAGATCTTCCCTGAGGGCCGGCCCGTGGTAGCCAACATCGAGCCACTCTTTGACCGGTTGCTCATTT
TCTGGTCTGACCGGCGGAACCCCCACGAGGTGAAGCCAGCCTATGCCACCAGGTACGCCATCACTGTCTGGTATT
TTGATGCCAAGGAGCGGGCAGCAGCCAAAGACAAGTATCAGCTAGCATCAGGACAGAAAGGTGTCCAAGTACCTG
TATCACAGCCGCCTACGCCCACCTAGTGGCCAGTCCCAGAGCCGCATGGCAGACAGCTTAAATGACTTCAGGAGA
GCCCTGGGCCTGTGCTGGCTGCTCCTTCCCTGCCACCGCTGCTGCTTCTGACTTTGCCTCTGTCCTGCCTGGTGT
GGAGGGCTCTGTCTGTTGCTGAGGACCAAGGAGGAGAAGAGACCTTTGCTGCCCCATCATGGGGGCTGGGGTTGT
CACCTGGACAGGGGGCAGCCGTGGAGGCCACCGTTACCAACTGAAGCTGGGGGCCTGGGTCCTACCCTGTCTGGT

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FIGURE 1134B

CATGACCCCATTAGGTATGGAGAGCTGGGAGGAGGCATTGTCACTTCCCACCAGGATGCAGGACTTGGGGTTGAG
GTGAGTCATGGCCTCTTGCTGGCAATGGGGTGGGAGGAGTACCCCCAAGTCCTCTCACTCCTCCAGCCTGGAATG
TGAAGTGACTCCCCAACCCCTTTGGCCATGGCAGGCACCTTTTGGACTGGGCTGCCACTGCTTGGGCAGAGTAAA
AGGTGCCAGGAGGAGCATGGGTGTGGAAGTCCTGTCAGCCAAGAAATAAAAGTTTACCTCAGAGCTGCA

FIGURE 1135

ATGGAGGCGACCGGCACCTGGGCGCTGCTGCTGGCGCTGGCGCTGCTCCTGCTGCTGACGCTGGCGCTGTCCGGG
ACCAGGGCCCGAGGCCACCTGCCCCCCGGGCCCACGCCGCTACCACTGCTGGGAAACCTCCTGCAGCTACGGCCC
GGGGCGCTGTATTCAGGGCTCATGCGGCTGAGTAAGAAGTACGGACCGGTGTTCACCATCTACCTGGGACCGTGG
CGGCCTGTGGTGGTCCTGGTTGGGCAGGAGGCTGTGCGGGAGGCCCTGGGAGGTCAGGCTGAGGAGTTCAGCGGC
CGGGGAACCGTAGCGATGCTGGAAGGGACTTTTGATGGCCATGGGGTTTTCTTCTCCAACGGGGAGCGGTGGAGG
CAGCTGAGGAAGTTTACCATGCTTGCTCTGCGGGACCTGGGCATGGGGAAGCGAGAAGGCGAGGAGCTGATCCAG
GCGGAGGCCCGGTGTCTGGTGGAGACATTCCAGGGGACAGAAGGACGCCCATTCGATCCCTCCCTGCTGCTGGCC
CAGGCCACCTCCAACGTAGTCTGCTCCCTCCTCTTTGGCCTCCGCTTCTCCTATGAGGATAAGGAGTTCCAGGCC
GTGGTCCGGGCAGCTGGTGGTACCCTGCTGGGAGTCAGCTCCCAGGGGGGTCAGACCTACGAGATGTTCTCCTGG
TTCCTGCGGCCCCTGCCAGGCCCCCACAAGCAGCTCCTCCACCACGTCAGCACCTTGGCTGCCTTCACAGTCCGG
CAGGTGCAGCAGCACCAGGGGAACCTGGATGCTTCGGGCCCCGCACGTGACCTTGTCGATGCCTTCCTGCTGAAG
ATGGCACAGGAGGAACAAAACCCAGGCACAGAATTCACCAACAAGAACATGCTGATGACAGTCATTTATTTGCTG
TTTGCTGGGACGATGACGGTCAGCACCACGGTCGGCTATACCCTCCTGCTCCTGATGAAATACCCTCATGTCCAA
AAGTGGGTACGTGAGGAGCTGAATCGGGAGCTGGGGGCTGGCCAGGCACCAAGCCTAGGGGACCGTACCCGCCTC
CCTTACACCGACGCGGTTCTGCATGAGGCGCAGCGGCTGCTGGCGCTGGTGCCCATGGGAATACCCCGCACCCTC
ATGCGGACCACCCGCTTCCGAGGGTACACCCTGCCCCAGGGCACGGAGGTCTTCCCCCTCCTTGGCTCCATCCTG
CATGACCCCAACATCTTCAAGCACCCAGAAGAGTTCAACCCAGACCGTTTCCTGGATGCAGATGGACGGTTCAGG
AAGCATGAGGCGTTCCTGCCCTTCTCCTTAGGGAAGCGTGTCTGCCTTGGAGAGGGCCTGGCAAAAGCGGAGCTC
TTCCTCTTCTTCACCACCATCCTACAAGCCTTCTCCCTGGAGAGCCCGTGCCCGCCGGACACCCTGAGCCTCAAG
CCCACCGTCAGTGGCCTTTTCAACATTCCCCCAGCCTTCCAGCTGCAAGTCCGTCCCACTGACCTTCACTCCACC
ACGCAGACCAGATGAAGGAAGGCAACTTGGAAGTGGTGGGTGCCCAGGACGGTGCCTCCAGCCTCAACAGTGGGC
ATGGACAGGGTTAATGTCTCCAGAGTGTACACTGCAGGCAGCCACATTTACACGCCTGCAGTTGTTTTCCGGAGT
CTGTCCCACGGCCCACACGCTCACTTGACTCATGCTGCTAAGATGCACAACCGCACACCCATACACAACTACAAG
GGCCACAAAGCAACTGCTGGGTTAGCTTTCCACAGACATAAATATAGTCCATCTGCAATCACAAGCACATAGCCA
GGTAACCCACCAACTCCCCTGGATCTGCAGCCCACACGTGGGAGTCTGGCTGTCACCTTCACAAGCCACAGAAAC
GGCCACACATGTTCACAGCTCACACGCCCTCTCCATTCATCGAACTTCTCAGTGTCCCTGTCCCTGGTGCCTGGC
ACAGGGAACAGCATGCCCCCTCCGGGGTCATGCCACCCAGAGACTGTCGCTGTCTATGGCCCCAACTCATGCTCC
CTCTCTTGGCTACACCACTCTCCCAGCCTGTGACCACCGATGTCCACACACCCCCAACCACTTGTCCACACAGCT
ACCCACGTACGACATCGTCCTGGCTCCCCAGAGTATCTTCCCACTGAGACACGCCGCCCCCACAGAGGCACAGTC
CCCAGCCACCTCTGCAACTGCAGCCCTCAGTCACCCCTTTTTAAGCACCCTGATTCTACCAAATGCAAACACATC
TGGGTCTGCGATTATGCACAGAGACTTTGGACATACGAGGACCCTCAGACCGGAGGAACACCTGCCCAACCCCAA
CACG

FIGURE 1136A

GAGTGGAGTTCTGGAGGAATGTTTACCAGACACAGAGCCCAGAGGGACAGCGCCCAGAGCCCGGATAGAGAGACA
CGGCCTCACTGGCTCAGGACAGGGGGCACAGCCACCAGGGTCCCCTTCCCCCTCCTCAGCTCCCTCCCTGGCCCC
TTTAAGAAAGAGCTGATCCTCTCCTCTCTTGAGTTAACCCCTGATTGTCCAGGTGGCCCCTGGGCTCTGGCCCTG
GTGGGCGGAGGCAAAGGGGGAGCCAGGGGCGGAGAAAGGGTTGCCCAAGTCTGGGAGTGAGGGAAGGAGGCAGGG
GTGCTGAGAAGGCGGCTGCTGGGCAGAGCCGGTGGCAAGGGCCTCCCCTGCCGCTGTGCCAGGCAGGCAGTGCCA
AATCCGGGGAGCCTGGAGCTGGGGGGAGGGCCGGGGACAGCCCGGCCCTGCCCCCTCCCCCGCTGGGAGCCCAAC
AACTTCTGAGGAAAGTTTGGCACCC**ATG**GCGTGGCGGTGCCCCAGGATGGGCAGGGTCCCGCTGGCCTGGTGCTT
GGCGCTGTGCGGCTGGGCGTGCATGGCCCCCAGGGGCACGCAGGCTGAAGAAAGTCCCTTCGTGGGCAACCCAGG
GAATATCACAGGTGCCCGGGGACTCACGGGCACCCTTCGGTGTCAGCTCCAGGTTCAGGGAGAGCCCCCCGAGGT
ACATTGGCTTCGGGATGGACAGATCCTGGAGCTCGCGGACAGCACCCAGACCCAGGTGCCCCTGGGTGAGGATGA
ACAGGATGACTGGATAGTGGTCAGCCAGCTCAGAATCACCTCCCTGCAGCTTTCCGACACGGGACAGTACCAGTG
TTTGGTGTTTCTGGGACATCAGACCTTCGTGTCCCAGCCTGGCTATGTTGGGCTGGAGGGCTTGCCTTACTTCCT
GGAGGAGCCCGAAGACAGGACTGTGGCCGCCAACACCCCCTTCAACCTGAGCTGCCAAGCTCAGGGACCCCCAGA
GCCCGTGGACCTACTCTGGCTCCAGGATGCTGTCCCCCTGGCCACGGCTCCAGGTCACGGCCCCCAGCGCAGCCT
GCATGTTCCAGGGCTGAACAAGACATCCTCTTTCTCCTGCGAAGCCCATAACGCCAAGGGGGTCACCACATCCCG
CACAGCCACCATCACAGTGCTCCCCCAGCAGCCCCGTAACCTCCACCTGGTCTCCCGCCAACCCACGGAGCTGGA
GGTGGCTTGGACTCCAGGCCTGAGCGGCATCTACCCCCTGACCCACTGCACCCTGCAGGCTGTGCTGTCAAACGA
TGGGATGGGCATCCAGGCGGGAGAACCAGACCCCCCAGAGGAGCCCCTCACCTCGCAAGCATCCGTGCCCCCCCA
TCAGCTTCGGCTAGGCAGCCTCCATCCTCACACCCCTTATCACATCCGCGTGGCATGCACCAGCAGCCAGGGCCC
CTCATCCTGGACCCACTGGCTTCCTGTGGAGACGCCGGAGGGAGTGCCCCTGGGCCCCCCTGAGAACATTAGTGC
TACGCGGAATGGGAGCCAGGCCTTCGTGCATTGGCAAGAGCCCCGGGCGCCCCTGCAGGGTACCCTGTTAGGGTA
CCGGCTGGCGTATCAAGGCCAGGACACCCCAGAGGTGCTAATGGACATAGGGCTAAGGCAAGAGGTGACCCTGGA
GCTGCAGGGGGACGGGTCTGTGTCCAATCTGACAGTGTGTGTGGCAGCCTACACTGCTGCTGGGGATGGACCCTG
GAGCCTCCCAGTACCCCTGGAGGCCTGGCGCCCAGGGCAAGCACAGCCAGTCCACCAGCTGGTGAAGGAACCTTC
AACTCCTGCCTTCTCGTGGCCCTGGTGGTATGTACTGCTAGGAGCAGTCGTGGCCGCTGCCTGTGTCCTCATCTT
GGCTCTCTTCCTTGTCCACCGGCGAAAGAAGGAGACCCGTTATGGAGAAGTGTTTGAACCAACAGTGGAAAGAGG
TGAACTGGTAGTCAGGTACCGCGTGCGCAAGTCCTACAGTCGTCGGACCACTGAAGCTACCTTGAACAGCCTGGG
CATCAGTGAAGAGCTGAAGGAGAAGCTGCGGGATGTGATGGTGGACCGGCACAAGGTGGCCCTGGGGAAGACTCT
GGGAGAGGGAGAGTTTGGAGCTGTGATGGAAGGCCAGCTCAACCAGGACGACTCCATCCTCAAGGTGGCTGTGAA
GACGATGAAGATTGCCATCTGCACGAGGTCAGAGCTGGAGGATTTCCTGAGTGAAGCGGTCTGCATGAAGGAATT
TGACCATCCCAACGTCATGAGGCTCATCGGTGTCTGTTTCCAGGGTTCTGAACGAGAGAGCTTCCCAGCACCTGT
GGTCATCTTACCTTTCATGAAACATGGAGACCTACACAGCTTCCTCCTCTATTCCCGGCTCGGGGACCAGCCAGT
GTACCTGCCCACTCAGATGCTAGTGAAGTTCATGGCAGACATCGCCAGTGGCATGGAGTATCTGAGTACCAAGAG
ATTCATACACCGGGACCTGGCGGCCAGGAACTGCATGCTGAATGAGAACATGTCCGTGTGTGTGGCGGACTTCGG
GCTCTCCAAGAAGATCTACAATGGGGACTACTACCGCCAGGGACGTATCGCCAAGATGCCAGTCAAGTGGATTGC
CATTGAGAGTCTAGCTGACCGTGTCTACACCAGCAAGAGCGATGTGTGGTCCTTCGGGGTGACAATGTGGGAGAT
TGCCACAAGAGGCCAAACCCCATATCCGGGCGTGGAGAACAGCGAGATTTATGACTATCTGCGCCAGGGAAATCG
CCTGAAGCAGCCTGCGGACTGTCTGGATGGACTGTATGCCTTGATGTCGCGGTGCTGGGAGCTAAATCCCCAGGA
CCGGCCAAGTTTTACAGAGCTGCGGGAAGATTTGGAGAACACACTGAAGGCCTTGCCTCCTGCCCAGGAGCCTGA
CGAAATCCTCTATGTCAACATGGATGAGGGTGGAGGTTATCCTGAACCCCCTGGAGCTGCAGGAGGAGCTGACCC
CCCAACCCAGCCAGACCCTAAGGATTCCTGTAGCTGCCTCACTGCGGCTGAGGTCCATCCTGCTGGACGCTATGT
CCTCTGCCCTTCCACAACCCCTAGCCCCGCTCAGCCTGCTGATAGGGGCTCCCCAGCAGCCCCAGGGCAGGAGGA
TGGTGCC**TGA**GACAACCCTCCACCTGGTACTCCCTCTCAGGATCCAAGCTAAGCACTGCCACTGGGGAAAACTCC
ACCTTCCCACTTTCCCACCCCACGCCTTATCCCCACTTGCAGCCCTGTCTTCCTACCTATCCCACCTCCATCCCA
GACAGGTCCCTCCCCTTCTCTGTGCAGTAGCATCACCTTGAAAGCAGTAGCATCACCATCTGTAAAAGGAAGGGG
TTGGATTGCAATATCTGAAGCCCTCCCAGGTGTTAACATTCCAAGACTCTAGAGTCCAAGGTTTAAAGAGTCTAG
ATTCAAAGGTTCTAGGTTTCAAAGATGCTGTGAGTCTTTGGTTCTAAGGACCTGAAATTCCAAAGTCTCTAATTC
TATTAAAGTGCTAAGGTTCTAAGGCCTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGCGATAGAGTCTCAC

FIGURE 1136B

TGTGTCACCCAGGCTGGAGTGCAGTGGTGCAATCTCGCCTCACTGCAACCTTCACCTACCGAGTTCAAGTGATTT
TCCTGCCTTGGCCTCCCAAGTAGCTGGGATTACAGGTGTGTGCCACCACACCCGGCTAATTTTTATATTTTTAGT
AGAGACAGGGTTTCACCATGTTGGCCAGGCTGGTCTAAAACTCCTGACCTCAAGTGATCTGCCCACCTCAGCCTC
CCAAAGTGCTGAGATTACAGGCATGAGCCACTGCACTCAACCTTAAGACCTACTGTTCTAAAGCTCTGACATTAT
GTGGTTTTAGATTTTCTGGTTCTAACATTTTTGATAAAGCCTCAAGGTTTTAGGTTCTAAAGTTCTAAGATTCTG
ATTTTAGGAGCTAAGGCTCTATGAGTCTAGATGTTTATTCTTCTAGAGTTCAGAGTCCTTAAAATGTAAGATTAT
AGATTCTAAAGATTCTATAGTTCTAGACATGGAGGTTCTAAGGCCTAGGATTCTAAAATGTGATGTTCTAAGGCT
CTGAGAGTCTAGATTCTCTGGCTGTAAGGCTCTAGATCATAAGGCTTCAAAATGTTATCTTCTCAAGTTCTAAGA
TTCTAATGATGATCAATTATAGTTTCTGAGGCTTTATGATAATAGATTCTCTTGTATAAGATCCTAGATCCTAAG
GGTCGAAAGCTCTAGAATCTGCAATTCAAAAGTTCCAAGAGTCTAAAGATGGAGTTTCTAAGGTCCGGTGTTCTA
AGATGTGATATTCTAAGACTTACTCTAAGATCTTAGATTCTCTGTGTCTAAGATTCTAGATCAGATGCTCCAAGA
TTCTAGATGATTAAATAAGATTCTAACGGTCTGTTCTGTTTCAAGGCACTCTAGATTCCATTGGTCCAAGATTCC
GGATCCTAAGCATCTAAGTTATAAGACTCTCACACTCAGTTGTGACTAACTAGACACCAAAGTTCTAATAATTTC
TAATGTTGGACACCTTTAGGTTCTTTGCTGCATTCTGCCTCTCTAGGACCATGGTTAAGAGTCCAAGAATCCACA
TTTCTAAAATCTTATAGTTCTAGGCACTGTAGTTCTAAGACTCAAATGTTCTAAGTTTCTAAGATTCTAAAGGTC
CACAGGTCTAGACTATTAGGTGCAATTTCAAGGTTCTAACCCTATACTGTAGTATTCTTTGGGGTGCCCCTCTCC
TTCTTAGCTATCATTGCTTCCTCCTCCCCAACTGTGGGGGTGTGCCCCCTTCAAGCCTGTGCAATGCATTAGGGA
TGCCTCCTTTCCCGCAGGGGATGGACGATCTCCCACCTTTCGGGCCATGTTGCCCCCGTGAGCCAATCCCTCACC
TTCTGAGTACAGAGTGTGGACTCTGGTGCCTCCAGAGGGGCTCAGGTCACATAAAACTTTGTATATCAACGA

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FIGURE 1137

CGGACGAGGCACGAGTGAGGGGGGAGGCGGTGGCGGCGGCCATTTTGAGCCGCTGCCGCCATTGGAGTGGGCCCC
CCCCCTTTCCCCCTTCGCCTCCTGACAGGAAAGGTTTAAGGGGGACAGAGCCCTGGGAGGCCGGGCCGGGCTCGG
GGGCCACCCCGGGGGCCCGGGCC**ATG**GATGTGCGCCGTCTGAAGGTGAACGAACTTCGCGAGGAGCTGCAGCGCC
GCGGCCTGGACACTCGAGGCCTCAAGGCCGAGCTTGCTGAGCGGCTGCAGGCGGCGTTGGAGGCCGAGGAGCCTG
ACGACGAGCGGGAGCTCGACGCCGACGACGAACCGGGGCGACCCGGGCACATCAACGAGGAGGTCGAGACCGAGG
GGGGCTCCGAGCTGGAGGGGACCGCGCAGCCACCGCCGCCCGGGCTGCAGCCGCACGCGGAGCCCGGCGGCTACT
CGGGGCCGGACGGACATTATGCCATGGACAATATTACCAGGCAGAACCAATTCTACGATACCCAAGTCATCAAAC
AAGAAAACGAGTCAGGCTACGAGAGGAGACCACTGGAAATGGAGCAGCAGCAGGCCTATCGTCCAGAAATGAAGA
CAGAGATGAAGCAAGGAGCACCCACCAGCTTCCTCCCGCCTGAAGCTTCTCAACTCAAGCCAGACAGGCAGCAAT
TCCAGAGTCGAAAGAGGCCTTATGAAGAAAACCGGGGACGGGGGTACTTTGAGCACCGAGAGGATAGGAGGGGCC
GCTCTCCTCAGCCTCCTGCTGAAGAGGATGAAGATGACTTTGATGATACCCTTGTTGCTATTGACACCTATAACT
GCGACCTCCACTTCAAGGTGGCCCGAGATCGGAGTAGTGGCTATCCGCTCACAATTGAGGGCTTTGCATACCTGT
GGTCAGGAGCCCGTGCCAGCTATGGGGTCAGAAGGGGCCGTGTATGCTTCGAGATGAAGATCAATGAGGAAATCT
CCGTGAAGCACCTTCCGTCTACAGAGCCTGACCCCCACGTGGTCCGTATCGGCTGGTCCCTGGACTCCTGCAGCA
CCCAGCTAGGCGAAGAGCCTTTCTCCTATGGCTATGGAGGCACTGGGAAGAAGTCCACCAATAGCCGGTTTGAAA
ACTACGGAGACAAGTTTGCAGAGAACGATGTGATTGGCTGCTTTGCGGATTTTGAATGTGGAAATGACGTGGAAC
TGTCTTTTACCAAGAATGGAAAGTGGATGGGCATTGCTTTCCGAATCCAGAAGGAAGCCTTGGGGGGTCAGGCCC
TCTATCCTCATGTCCTGGTGAAGAATTGCGCAGTGGAGTTCAACTTCGGACAGAGAGCAGAGCCCTACTGTTCTG
TCCTCCCGGGGTTTACCTTCATCCAGCACCTTCCCCTTAGTGAGCGTATCCGGGGCACCGTTGGACCAAAGAGCA
AGGCAGAATGTGAGATTCTGATGATGGTGGGCCTGCCTGCTGCTGGCAAGACCACATGGGCCATCAAACATGCAG
CCTCCAACCCTTCCAAGAAGTACAACATCCTGGGTACCAATGCCATCATGGATAAGATGCGGGTGATGGGCCTAC
GCCGGCAGCGGAACTATGCTGGCCGCTGGGATGTCCTGATCCAGCAGGCCACCCAGTGCCTCAACCGCCTCATCC
AGATTGCTGCCCGCAAGAAACGCAACTATATCCTAGATCAGACAAATGTTTATGGGTCAGCCCAGAGACGAAAAA
TGAGACCATTTGAAGGCTTCCAGCGCAAAGCTATTGTAATTTGTCCCACTGACGAGGACCTAAAAGACCGAACAA
TAAAGCGAACCGACGAGGAAGGGAAGGATGTCCCAGATCATGCGGTCTTAGAAATGAAAGCCAACTTCACGTTGC
CAGATGTTGGGGACTTCCTGGATGAGGTTCTGTTCATTGAGCTGCAGCGGGAGGAAGCGGACAAGCTAGTGAGGC
AGTACAACGAGGAAGGCCGCAAGGCTGGGCCACCCCCTGAAAAGCGCTTTGACAACCGAGGTGGTGGTGGCTTCC
GGGGCCGCGGGGGTGGTGGTGGCTTCCAGCGCTATGAAAACCGAGGACCCCCTGGAGGCAACCGTGGCGGCTTCC
AGAACCGAGGGGGAGGCAGCGGTGGAGGAGGCAACTACCGAGGAGGTTTCAACCGCAGCGGAGGTGGTGGCTATA
GCCAGAACCGCTGGGGTAACAACAACCGGGATAACAACAACTCCAACAACAGAGGCAGCTACAACCGGGCTCCCC
AGCAACAGCCGCCACCACAGCAGCCTCCGCCACCACAGCCACCACCCCAGCAGCCACCGCCACCACCCAGCTACA
GCCCTGCTCGGAACCCCCCAGGGGCCAGCACCTACAATAAGAACAGCAACATCCCTGGCTCAAGCGCCAATACCA
GCACCCCCACCGTCAGCAGCTACAGCCCTCCACAGCCGAGTTACAGCCAGCCACCCTACAACCAGGGAGGTTACA
GCCAGGGCTACACAGCCCCACCGCCTCCACCTCCACCACCACCTGCCTACAACTATGGGAGCTACGGCGGTTACA
ACCCGGCCCCCTATACCCCACCGCCACCCCCCACTGCACAGACCTACCCTCAGCCCAGCTATAACCAGTATCAGC
AGTATGCCCAGCAGTGGAACCAGTACTATCAGAACCAGGGCCAGTGGCCGCCATACTACGGGAACTACGACTACG
GGAGCTACTCCGGGAACACACAGGGTGGCACAAGTACACAG**TAG**CCAGTGTGACCCAGAGGCTCCCGGAGGCCCC
TGCCGGCTTCCTCCACCAGCGCCTGCCTCGGCCCCTCCTCTGCCCCCGCCAGATCCCGTGGTGCTGGGGATGGGG
TCATCCCAGGGCTGCCTCCCTCCAGCCCACTGCCTCCCCTCTGAGGGGCTTCCTTCCCCTCCATAGGGCCAGGCA
TTTTTTTCTGGATTCAAACAGGCAACAATGACCTTTTATTTTCTGTTTGTCCCCACCTCCCCAGCCTTCCACCTC
CTGTTCTTCCTACCTTCTTCCTTTTTGACTAAATAATCCCCACCTCCCTTGATCATACAGTGAGGCTACAGTGAC
TGAGGGGAGAATCCCCTCCTGTTCACTCTCCCAACCCTGCTCCAGCCCCTCAGCTTCCCAGACCCTCATGCAGTT
GGTTGTAAATTCTCCCAGGAGCTGTTTTACTGTCTACTTTTCAGGATTAAAAAAAAAAATCAAAACTTAAAAAAAA
AAAAGTTTAAAAAGCAAAATGGGGAGGGGGAGGAAGCAGTGACTTTTTTTTGGTAATTATGCGCTTTTTTTTAAT
TTTTAGAATTTGTCTTTTTACTGTGGGTGGGCTGTTGATATTTCATCAAGATAAGCATTTCTTTCCTGAGTTCAG
GTGACTGAGGAAGAGCCACAAAACAAAACACAACAAAACCAAACC

FIGURE 1138

GCCTGGGCGCAGCGGTGCACCCGGACCCGGAACATTCTCAGGCGAAAGTGTCTCTTGCGTGCGTGGGCCGGAGGT
TAGTGTGCGGGGCCCGCCGGGCGGTTGAAAAGTCCGAGAGAATCAGG**ATG**GAGGCCGTGGCGACGGCGACGGCGG
CGAAGGAACCCGATAAGGGCTGCATAGAGCCTGGACCTGGGCACTGGGGTGAGCTGAGCCGGACACCAGTCCCAT
CTAAACCCCAGGACAAAGTGGAAGCAGCTGAGGCAACACCAGTGGCCCTGGACAGTGACACCTCCGGGGCTGAAA
ATGCAGCAGTGAGTGCTATGCTGCACGCTGTAGCCGCCAGCCGCCTGCCTGTTTGCAGCCAGCAGCAGGGTGAAC
CCGACTTGACAGAGCATGAGAAAGTGGCCATCCTGGCCCAGCTGTACCACGAGAAGCCACTGGTGTTCCTGGAGC
GCTTCCGCACAGGCCTCCGTGAGGAGCATCTGGCCTGCTTTGGCCACGTGCGTGGCGACCACCGTGCAGACTTCT
ACTGTGCTGAGGTGGCCCGGCAGGGCACTGCCCGGCCCCGCACCCTGCGTACCCGCCTGCGTAACCGGCGCTATG
CTGCCCTGCGAGAGCTGATCCAAGGGGGCGAGTACTTCAGTGATGAGCAGATGCGGTTCCGGGCCCCCCTGCTAT
ATGAGCAGTACATCGGGCAGTATCTCACCCAGGAGGAGCTCAGTGCCCGCACCCCAACCCACCAGCCCCCCAAGC
CCGGGTCCCCCGGGAGACCTGCTTGCCCGCTCTCCAACTTGCTGCTCCAGTCCTACGAGGAGCGGGAGCTACAGC
AGCGTCTGCTCCAACAGCAGGAGGAGGAGGAGGCCTGCTTGGAGGAAGAGGAAGAGGAGGAGGACAGTGACGAGG
AAGACCAGAGGTCAGGCAAGGACTCGGAGGCCTGGGTTCCCGACTCGGAGGAGAGGCTGATCCTGCGAGAGGAGT
TCACCAGCCGCATGCACCAGCGCTTCCTAGATGGCAAGGACGGGGACTTTGACTACAGCACAGTAGACGACAACC
CCGACTTCGACAACCTCGACATCGTGGCACGGGATGAGGAGGAGAGGTACTTTGATGAGGAAGAACCTGAGGATG
CGCCCAGCCCAGAGCTGGATGGGGAC**TGA**TGGCCGCCACCCTTCCCACCGCCTGCCCCATCCCCATCCCCAACAA
GGCAGCTGATTCCAGGCCTGCTCAGTGACCCTTTCTCTAGGGGGACATCAGGGCAGTGCCCCACAACCCACACAC
ACCACCATCTCACTGGGTCTAGTCTCATCTCAGACAACCCCCACCCCCACTGTTTCTGGGGTTCCCTTTCTCATC
TCTCCCACCCTGTCTCCTGCCTCTGTCTTTCTTGGTGTCTGTCTGGGCTTCTTTCTGTCTCTTTCTGTCTTTCTG
TCTCTCTCCCTACCCCCGCTCCCTCTTTCCAGTGCTCTGGCTGGCTGTCTCTCCCTTTCTCCCCCTCTCTCTCTG
CCTTAGGCTCTGTCTCCACCGCAGGGCCCAAGGTGAAAGTCCTCCCCTTGCCGGAGGCCAGCTGGCAGGGCCTTT
CGTGGCTGGAAGTGGCCAGTTTGGTTCCGGTGCTGACCCCTAGGCCCCAGCGCAGCTGCCTCCCGTGCTGTCTGT
CTCCCCCTCTCTGTTTATGTCTGCGCTGTGTCTCACACTCAGAGCCTCCTTGCTTCTGTTAGGTTCCCATCTCTC
CTTCTGCCTCACTCTGGGCCTCTTCTTTCTACTTGTACATTTCCACCTCTCTAGGCCTCTGCTCTCACTGTCCCT
CTCTGTCTGTCTCTCAGCCTTTATCTCTGGGTTTTGATCCCCCACTCCAGGCTCTGGGCCCCTTCTTCCCCCTTC
CCTCAAACCTGGCTGCTATAGGCAGCAGAACCCTGACCACTGAGTAATACAGCCCCAGGGGAGGGAGGAGACCCC
AGGCAGGGAGGATGGGGGCAGCTCTCTTCTCTCCCCAGGACCCAGGCTGTGGATCACGGGGCCTGCCAGCTTGAG
TGTAGAGGGAGGGGGGACTCTACCCTTCTCAGCCCCACCAGCCCCCCTCTGCCCAACCACAATTTTCCCTTCCTC
CGCCTTCCTCTCCCTCTCCTGTTTACACTCCCCAAATGCGCACAGGCTGTTATCATGGGTCCTGAGTCATCCCAC
ACACAGCCTGCCCCAGCGTCCCTGCCCCCAGCTGGCCGCAGGGCCCGCCCCATGGAGCCCCCTGCCGCCCTGGGC
TAATGGGAGCCAGATGGCCGCCTGGTGACTCAGCCACCGGGCCTGTGGGAACCCAGGCGTCCCGCCTTCCCATGC
CCCCACACCCGGCTCCTGCTCCCCCAGCAGACACACACAGGAGGGCCTGGCCACTGTTGAGGGGGCACACAGGGC
AAGGGTCACCAAGTCGGGGCCTAGGGACTCCTCATGCCTCTGAGATGGAATGGTGGTATCCTGCCGTGGCCAAGC
CTGAAGGACCCTCAAAACTGCCTCCTGGAGTCCACGGTTCCTGACCTCCGAGCCTCAGCTATGCCCTCTGGGTCA
ACCAGAATTAGAGCCAGACAGGGAAAGTGAGAGCTGGATGGAGGCAGACAAGATGCTCAGAGCGACTATTAAAGA
ACGAAAGCCTCTGCTACGGAGCGCTTCTGTCCTCTGTCAGGCCCGAGCGAAGTGCCTGACACCGGGTTGGATCCT
CAGATGGCCCCATGAACTAGTGAAGTGGGTCAAAGGAGGCCTGGAAAGATGTTGCTTCCTCAAGGCCACTCGGCC
ATCAGAGGCAGAAATGAAACAGGAACCCAGGCCTAGAATCACAAAGGTCCTAGAAACCACTTGGCTGTCTGGCCT
CTCAGGTGTCAGGGCCATCCAGAGTGAGACAGCATTGGAGGGACAAGTGTGCATGCAGATGTCCTCAGACGGGAA
GGTTTGAGAAGGGTCAGATGGTAGGCGGGCCTAACAAGGGCTCCGTGCTAGCCACTGTCCCGCACACAGACAGGA
TCAGGTCATCTTGATATGGAGATCAGTCCCCAAATCACTGAATTGTCCCAGCAGTGCTATGCCCTAGGTACTACC
AATATCACTCCTCTATTTCCCAGAGGAGGAAGCAGCAGCTAGACTCCAGGACCTTGGGGTCATATCTCTCAGAAA
GCCAAGAGTGCAGGATGAGAGCTGTCTGTCTCTTACCTGCCTGTATTTGTGCCCCATTTTTAAAGAGCAGAGGGC
CTGGGCCACAGGAAAGGTATCAGCCCTTGGTGATAGGCACATTTTTTACCAGTCTATCATTTGGTCATTAAATTT
GTTTACAATATACTTTGCTAT

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FIGURE 1139

ACCTCCCTCCGCGGAGCAGCCAGACAGCGAGGGCCCCGGCCGGGGGCAGGGGGGACGCCCCGTCCGGGGCACCCC
CCCGGCTCTGAGCCGCCCGCGGGGCCGGCCTCGGCCCGGAGCGGAGGAAGGAGTCGCCGAGGAGCAGCCTGAGGC
CCCAGAGTCTGAGACGAGCCGCCGCCGCCCCCGCCACTGCGGGGAGGAGGGGGAGGAGGAGCGGGAGGAGGGACG
AGCTGGTCGGGAGAAGAGGAAAAAAACTTTTGAGACTTTTCCGTTGCCGCTGGGAGCCGGAGGCGCGGGGACCTC
TTGGCGCGACGCTGCCCCGCGAGGAGGCAGGACTTGGGGACCCCAGACCGCCTCCCTTTGCCGCCGGGGACGCTT
GCTCCCTCCCTGCCCCCTACACGGCGTCCCTCAGGCGCCCCCATTCCGGACCAGCCCTCGGGAGTCGCCGACCCG
GCCTCCCGCAAAGACTTTTCCCCAGACCTCGGGCGCACCCCCTGCACGCCGCCTTCATCCCCGGCCTGTCTCCTG
AGCCCCCGCGCATCCTAGACCCTTTCTCCTCCAGGAGACGGATCTCTCTCCGACCTGCCACAGATCCCCTATTCA
AGACCACCCACCTTCTGGTACCAGATCGCGCCCATCTAGGTTATTTCCGTGGGATACTGAGACACCCCCGGTCCA
AGCCTCCCCTCCACCACTGCGCCCTTCTCCCTGAGGACCTCAGCTTTCCCTCGAGGCCCTCCTACCTTTTGCCGG
GAGACCCCCAGCCCCTGCAGGGGCGGGGCCTCCCCACCACACCAGCCCTGTTCGCGCTCTCGGCAGTGCCGGGGG
GCGCCGCCTCCCCC**ATG**CCGCCCTCCGGGCTGCGGCTGCTGCCGCTGCTGCTACCGCTGCTGTGGCTACTGGTGC
TGACGCCTGGCCGGCCGGCCGCGGGACTATCCACCTGCAAGACTATCGACATGGAGCTGGTGAAGCGGAAGCGCA
TCGAGGCCATCCGCGGCCAGATCCTGTCCAAGCTGCGGCTCGCCAGCCCCCCGAGCCAGGGGGAGGTGCCGCCCG
GCCCGCTGCCCGAGGCCGTGCTCGCCCTGTACAACAGCACCCGCGACCGGGTGGCCGGGGAGAGTGCAGAACCGG
AGCCCGAGCCTGAGGCCGACTACTACGCCAAGGAGGTCACCCGCGTGCTAATGGTGGAAACCCACAACGAAATCT
ATGACAAGTTCAAGCAGAGTACACACAGCATATATATGTTCTTCAACACATCAGAGCTCCGAGAAGCGGTACCTG
AACCCGTGTTGCTCTCCCGGGCAGAGCTGCGTCTGCTGAGGCTCAAGTTAAAAGTGGAGCAGCACGTGGAGCTGT
ACCAGAAATACAGCAACAATTCCTGGCGATACCTCAGCAACCGGCTGCTGGCACCCAGCGACTCGCCAGAGTGGT
TATCTTTTGATGTCACCGGAGTTGTGCGGCAGTGGTTGAGCCGTGGAGGGGAAATTGAGGGCTTTCGCCTTAGCG
CCCACTGCTCCTGTGACAGCAGGGATAACACACTGCAAGTGGACATCAACGGGTTCACTACCGGCCGCCGAGGTG
ACCTGGCCACCATTCATGGCATGAACCGGCCTTTCCTGCTTCTCATGGCCACCCCGCTGGAGAGGGCCCAGCATC
TGCAAAGCTCCCGGCACCGCCGAGCCCTGGACACCAACTATTGCTTCAGCTCCACGGAGAAGAACTGCTGCGTGC
GGCAGCTGTACATTGACTTCCGCAAGGACCTCGGCTGGAAGTGGATCCACGAGCCCAAGGGCTACCATGCCAACT
TCTGCCTCGGGCCCTGCCCCTACATTTGGAGCCTGGACACGCAGTACAGCAAGGTCCTGGCCCTGTACAACCAGC
ATAACCCGGGCGCCTCGGCGGCGCCGTGCTGCGTGCCGCAGGCGCTGGAGCCGCTGCCCATCGTGTACTACGTGG
GCCGCAAGCCCAAGGTGGAGCAGCTGTCCAACATGATCGTGCGCTCCTGCAAGTGCAGC**TGA**GGTCCCGCCCCGC
CCCGCCCCGCCCCGGCAGGCCCGGCCCCACCCCGCCCCGCCCCCGCTGCCTTGCCCATGGGGGCTGTATTTAAGG
ACACCCGTGCCCCAAGCCCACCTGGGGCCCCATTAAAGATGGAGAGAGGACTGCGGATCTCTGTGTCATTGGGCG
CCTGCCTGGGGTCTCCATCCCTGACGTTCCCCCACTCCCACTCCCTCTCTCTCCCTCTCTGCCTCCTCCTGCCTG
TCTGCACTATTCCTTTGCCCGGCATCAAGGCACAGGGGACCAGTGGGGAACACTACTGTAGTTAGATCTATTTAT
TGAGCACCTTGGGCACTGTTGAAGTGCCTTACATTAATGAACTCATTCAGTCACCATAGCAACACTCTGAGATGC
AGGGACTCTGATAACACCCATTTTAAAGGTGAGGAAACAAGCCCAGAGAGGTTAAGGGAGGAGTTCCTGCCCACC
AGGAACCTGCTTTAGTGGGGGATAGTGAAGAAGACAATAAAAGATAGTAGTTCAGGCCAGGCGGGGTGGCTCACG
CCTGTAATCCTAGCACTTTTGGGAGGCAGAGATGGGAGGATTACTTGAATCCAGGCATTTGAGACCAGCCTGGGT
AACATAGTGAGACCCTATCTCTACAAAACACTTTTAAAAAATGTACACCTGTGGTCCCAGCTACTCTGGAGGCTA
AGGTGGGAGGATCACTTGATCCTGGGAGGTCAAGGCTGCAG

FIGURE 1140

CCTCCCACCTCCCTCCGCGGAGCAGCCAGACAGCGAGGGCCCCGGCCGGGGGCAGGGGGGACGCCCCGTCCGGGG
CACCCCCCCGGCTCTGAGCCGCCCGCGGGGCCGGCCTCGGCCCGGAGCGGAGGAAGGAGTCGCCGAGGAGGGACG
AGCTGGTCGGGAGAAGAGGAAAAAAACTTTTGAGACTTTTCCGTTGCCGCTGGGAGCCGGAGGCGCGGGGACCTC
TTGGCGCGACGCTGCCCCGCGAGGAGGCAGGACTTGGGGACCCCAGACCGCCTCCCTTTGCCGCCGGGGACGCTT
GCTCCCTCCCTGCCCCCTACACGGCGTCCCTCAGGCGCCCCCATTCCGGACCAGCCCTCGGGAGTCGCCGACCCG
GCCTCCCGCAAAGACTTTTCCCCAGACCTCGGGCGCACCCCCTGCACGCCGCCTTCATCCCCGGCCTGTCTCCTG
AGCCCCCGCGCATCCTAGACCCTTTCTCCTCCAGGAGACGGATCTCTCTCCGACCTGCCACAGATCCCCTATTCA
AGACCACCCACCTTCTGGTACCAGATCGCGCCCATCTAGGTTATTTCCGTGGGATACTGAGACACCCCCGGTCCA
AGCCTCCCCTCCACCACTGCGCCCTTCTCCCTGAGGACCTCAGCTTTCCCTCGAGGCCCTCCTACCTTTTGCCGG
GAGACCCCCAGCCCCTGCAGG**ATGTCC**CACCTCCCTCCGCGGAGCAGCCAGACAGCGAGGGCCCCGGCCGGGGGC
AGGGGGGACGCCCCGTCCGGGGCACCCCCCCGGCTCTGAGCCGCCCGCGGGGCCGGCCTCGGCCCGGAGCGGAGG
AAGGAGTCGCCGAGGAGGGACGAGCTGGTCGGGAGAAGAGGAAAAAAACTTTTGAGACTTTTCCGTTGCCGCTGG
GAGCCGGAGGCGCGGGGACCTCTTGGCGCGACGCTGCCCCGCGAGGAGGCAGGACTTGGGGACCCCAGACCGCCT
CCCTTTGCCGCCGGGGACGCTTGCTCCCTCCCTGCCCCCTACACGGCGTCCCTCAGGCGCCCCCATTCCGGACCA
GCCCTCGGGAGTCGCCGACCCGGCCTCCCGCAAAGACTTTTCCCCAGACCTCGGGCGCACCCCCTGCACGCCGCC
TTCATCCCCGGCCTGTCTCCTGAGCCCCCGCGCATCCTAGACCCTTTCTCCTCCAGGAGACGGATCTCTCTCCGA
CCTGCCACAGATCCCCTATTCAAGACCACCCACCTTCTGGTACCAGATCGCGCCCATCTAGGTTATTTCCGTGGG
ATACTGAGACACCCCCGGTCCAAGCCTCCCCTCCACCACTGCGCCCTTCTCCCTGAGGACCTCAGCTTTCCCTCG
AGGCCCTCCTACCTTTTGCCGGGAGACCCCCAGCCCCTGCAGGG

FIGURE 1141

GTTAGCCAAG**ATG**GCGGTAGCGATCGCTGCAGCGAGGGTCTGGCGGCTAAACCGTGGTTTGAGCCAGGCTGCCCT
CCTGCTGCTGCGGCAGCCTGGGGCTCGGGGACTGGCTAGATCTCACCCCCCCAGGCAGCAGCAGCAGTTTTCATC
TCTGGATGACAAGCCCCAGTTCCCAGGGGCCTCGGCGGAGTTTATAGATAAGTTGGAATTCATCCAGCCCAACGT
CATCTCTGGAATCCCCATCTACCGCGTCATGGACCGGCAAGGCCAGATCATCAACCCCAGCGAGGACCCCCACCT
GCCGAAGGAGAAGGTGCTGAAGCTCTACAAGAGCATGACACTGCTTAACACCATGGACCGCATCCTCTATGAGTC
TCAGCGGCAGGGCCGGATCTCCTTCTACATGACCAACTATGGTGAGGAGGGCACGCACGTGGGGAGTGCCGCCGC
CCTGGACAACACGGACCTGGTGTTTGGCCAGTACCGGGAGGCAGGTGTGCTGATGTATCGGGACTACCCCCTGGA
ACTATTCATGGCCCAGTGCTATGGCAACATCAGTGACTTGGGCAAGGGGCGCCAGATGCCTGTCCACTACGGCTG
CAAGGAACGCCACTTCGTCACTATCTCCTCTCCACTGGCCACGCAGATCCCTCAGGCGGTGGGGGCGGCGTACGC
AGCCAAGCGGGCCAATGCCAACAGGGTCGTCATCTGTTACTTCGGCGAGGGGGCAGCCAGTGAGGGGGACGCCCA
TGCCGGCTTCAACTTCGCTGCCACACTTGAGTGCCCCATCATCTTCTTCTGCCGGAACAATGGCTACGCCATCTC
CACGCCCACCTCTGAGCAGTATCGCGGCGATGGCATTGCAGCACGAGGCCCCGGGTATGGCATCATGTCAATCCG
CGTGGATGGTAATGATGTGTTTGCCGTATACAACGCCACAAAGGAGGCCCGACGGCGGGCTGTGGCAGAGAACCA
GCCCTTCCTCATCGAGGCCATGACCTACAGGATCGGGCACCACAGCACCAGTGACGACAGTTCAGCGTACCGCTC
GGTGGATGAGGTCAATTACTGGGATAAACAGGACCACCCCATCTCCCGGCTGCGGCACTATCTGCTGAGCCAAGG
CTGGTGGGATGAGGAGCAGGAGAAGGCCTGGAGGAAGCAGTCCCGCAGGAAGGTGATGGAGGCCTTTGAGCAGGC
CGAGCGGAAGCCCAAACCCAACCCCAACCTACTCTTCTCAGACGTGTATCAGGAGATGCCCGCCCAGCTCCGCAA
GCAGCAGGAGTCTCTGGCCCGCCACCTGCAGACCTACGGGGAGCACTACCCACTGGATCACTTCGATAAG**TGA**GA
CCTGCTCAGCCCACCCCCACCCATCCTCAGCTACCCCGAGAGGTAGCCCCACTCTAAGGGGAGCAGGGGGACCTG
ACAGCACACCACTGTCTTCCCCAGTCAGCTCCCTCTAAAATACTCAGCGGCCAGGGCGGCTGCCACTCTTCACCC
CTGCTCCTCCCGGCTGTTACATTGTCAGGGGACAGCATCTGCAGCAGTTGCTGAGGCTCCGTCAGCCCCCTCTTC
ACCTGTTGTTACAGTGCCTTCTCCCAGGGGCTGGGTGAGGGCACATTCAGGACTAGAAGCCCCTCTGGGCATGGG
GTGGACATGGCAGGTCAGCCTGTGGAACTTGCGCAGGTGCGAGTGGCCAGCAGAGGTCACGAATAAACTGCATCT
CTGCGCCTGGCTCTCT

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FIGURE 1142

AGCAAG**ATG**GCGGCTCCCTGGGCGTCCCTGCGCCTGGTCGCCCCCATGTGGAATGGGCGTATCAGGGGCATCCAT
CGCCTGGGTGCGGCAGTGGCCCCAGAGGGCAATCAGAAGAAGAAAAGGACAATACTCCAGTTCCTGACCAACTAT
TTCTACGATGTGGAGGCTCTGAGGGATTACTTGCTCCAAAGGGAGATGTACAAGGTGCATGAGAAAAATCGATCT
TACACCTGGCTGGAGAAGCAACATGGTCCATACGGCGCAGGTGCCTTTTTCATCCTGAAGCAGGGAGGCGCAGTC
AAGTTTCGAGACAAGGAGTGGATCAGGCCAGATAAGTATGGCCATTTCTCTCAGGAGTTCTGGAATTTCTGTGAA
GTGCCTGTCGAAGCTGTGGATGCCGGTGACTGTGACATCAACTACGAGGGCCTGGATAACCTCCTCCGCCTGAAG
GAGCTCCAGTCCTTGTCGCTGCAGCGCTGCTGCCACGTGGACGACTGGTGTCTCAGCCGCCTCTACCCACTGGCC
GACTCGTTGCAGGAGCTCTCGCTGGCCGGTTGCCCCCGCATCTCCGAACGGGGCCTCGCCTGCCTCCACCACCTC
CAGAACCTCCGCAGGCTGGACATCTCGGACCTCCCTGCCGTGTCCAACCCTGGCCTCACTCAGATATTGGTGGAG
GAGATGCTGCCCAATTGCGAGGTTGTGGGAGTCGACTGGGCTGAGGGCCTGAAGTCAGGGCCGGAGGAGCAGCCT
CGGGACACAGCCAGCCCTGTCCCTGCC**TAG**CCTTTAGCCCTGTCCCCACTCACGTGGCTTCTCAGCGGGCTGCAT
GGAATGTCTGGTAGCTCACCACACTTCTGGCTTCCATTTGTCTTCACTCAACGTCAGGGTGGGGGAGTGGTGCTG
GCCAATCACAGGAGAGAGCGTGAGTTCCCAGTATTTATTCCTGGCTGCCCTTGGCTAAAGGTCACAGCTCCTGTC
ACCCTGTCAGGCAGCCCTTTCCATGCCCCTGTTCAGGCCTGGGGAGGTAAAGGCTCAGGCTGTTAGTAGCCGCAG
AGAGCCACACTCACCTTGTCAGGAGACTCTTCTCAAACTGTCCTTATGTGAGTGCACTGCCATTTCTTGCAGGGA
CCCTGACTGACACAGGGGCTACTACTGACACTTTACAGGGATGGTTCTCCCCCGTGCAGGGCCGCTGTGCCCACT
GCAGGACATGCAGCATCCTTCGCCCCACTCCACTCACTAAAGGCCAGCGCACCCCAGGCCCCATAGTATTGCTGG
TTATGGATTTATTGACTTTATGTTCCAAATTCAGCTTTTTCAGTTGGCTGTTTTTTGAAAGGGGATAAGCTTTGT
CAGTAGAGGGCACCAAACAGGCATTATAGGAGGAAAGGCGCCTCCTTCGTGGTTCTTGTTGGTTGTGCTTCTGCC
TCTGGACGCCGCAGTGCATGTGGCTTCCCCAGCACCCAGCTCCTGAAGCACCAGGCGGTCAGCAGCTGCCCTTGG
CACCCTCCAGCCCTCAGAAGTTGCGTAGGAGACACAGCGCCTCCACTGAGGCACCTCTCTGGGAATAACGTTCCC
CAGCACCCCAAATGGATTTCCAGTCAATTCAGAAGCATTTTACCAGTGAAGCCCTCATTATTCCAGTTCACTGTT
AAAGCCAGTAATTCTCTATATTAAACTTTCCCTGTTCAAGTT

FIGURE 1143

GGAGGCTGCAACGCCGATCGGAGGAGGCAGGAACCGGAGCTCTAGCAGTAGCTGGGTGGGCACC**ATG**GCTGGGAT
CACCACCATCGAGGCGGTGAAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGATGCAGAGGAGCGAGCTGA
GCGCCTCCAGCGAGAAGTTGAGGGAGAAAGGTGGGCCCGGGAACAGGCTGAGGCTGAGGTGGCCTCCTTGAACGT
GGGATCCAGCTGGTTGAAGAGGAGCTGGACCGTGCTCAGGAGCACCTGGCTACTGCCCTGCAAAAGCTGGAAGAA
GCGGAAAAAGCTGCTGATGAGAGTGAGAGAGGTAAGAAGGTTATTGAAAACCGGGCCT**TAA**AAGATGAAGAAAAG
ATGGAACTCCAGGAAATCCAACTCAGAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTG
GCTCGTAAGTTGGTGATCATTGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGGCAGAATCCCTACTC
TCAAAAAGAAGACAAATATGAGGAAGAGATCAAGATTCTTACTGATAAAATAAAGGAGGCGGAGACCCATGCTGA
GTTTGCTGAGAGATCGGTAGCCAAGCTGGAAAAGACAATTGATGACTTGGAAGATAAACTGAAATGCACCAAAGG
GGAGCACCTCTGTACACAAAGGATGCTGGACCAGACTCTTTCTCCTTTCGCCGCCCCCTCCTTCCGCCGCCCGCT
CCTTCCCTGTATCTTTTAAAGTTTCTTTCCCTACCCTGTCCCCATTTTCTGGTAAGGTTTCTAGGAGGTCTGTTA
GGTGTACATCCTACAGCTTATTGGCTTAATATGTACTCTCCTTTGATGTGGTCTACTTGGGGCCGATTGGGAGAA
AGAGAAATCAATAGTGCAACTGTTTTGATAATGAATATTGACAAGTGTCTTTTTGAAATAAAGAACCAGTCC

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FIGURE 1144

GTCAGCAGCCCCGACAGCCGACAGTCACAGCAGCTCTGACAAGAGCGTTCCTGGAGCCCAGCTCCTCTCCACAGA
GGACAAGCAGGCAGCAGAGACC**ATG**GGCCCCCCCTCAGCCGCTCCCCGTGGAGGGCACAGGCCCTGGCAGGGGCT
CCTGATCACAGCCTCACTTTTAACCTTCTGGCACCCGCCCACCACTGTCCAGTTCACTATTGAAGCCCTGCCGTC
CAGTGCTGCAGAGGGAAAGGATGTTCTTCTACTGGCCTGCAATATTTCAGAAACTATTCAAGCCTATTATTGGCA
CAAGGGGAAAACGGCAGAAGGGAGCCCTCTCATTGCTGGTTATATAACAGACATTCAAGCAAATATCCCAGGGGC
CGCATACAGTGGTCGAGAGACAGTATACCCCAATGGATCCCTGCTGTTCCAAAACATCACCCTGGAGGACGCAGG
ATCCTACACCCTACGAACCATAAATGCCAGTTACGACTCTGACCAAGCAACTGGCCAGCTCCACGTACACCAAAA
CAACGTCCCAGGCCTTCCTGTGGGGGCCGTCGCTGGCATCGTGACTGGGGTCCTGGTTGGGGTGGCTCTGGTGGC
CGCCCTGGTGTGTTTTCTGCTTCTCTCCAGGACTGGAAGGGCCAGCATCCAGCGTGACCTCAGGGAGCAGCCGCC
CCCAGCCTCCACCCCTGGCCATGGTCCCTCTCACAGATCCACCTTCTCGGCCCCTCTACCCAGCCCCAGAACAGC
CACTCCCATCTATGAGGAATTGCTATACTCTGATGCAAACATTTACTGCCAGATCGACCACAAAGCAGATGTGGT
CTCT**TAG**GTTCCTCTGGGAGCTGCTCTTGTGGGTTGATGGAGCGTCCCCAAAGCTCCCAGCCCTGGGGACGGGGA
AGGACATGGAGCCTGAGCCAGAGAACCAGCTCTGAGTCCTGAGGAGACACAGGCCTGGGGACAGGGAGGGATGGG
AGTCCCTGCTGAATATCTGGAGACCCTGACAGGTTGCCCTGGGCTCTGGGTGGGCCGGGACAAAGGCCTCTCATC
ACCACAGGAAGCGGGGGCTTGCAAGGAAAGTGAATGGGCCTGTGGCCCACCCGGGGTCACCAGGAAAGGATCTGA
ATAAAGAGGACCCTTCCTCTCATTGGCTCTTTTTCTGCTCACGGGAACTTAGCAGAAACTCACCTG

FIGURE 1145

ATGTCTAAGTCAGAGTGTCCCGAAGAGCCTGAACAGCTGAGGAAGCTCTTCATTGGAGGATTGAGCTTTGAAACA
ACTGATAAGAGCCTGAGAAGCCATTTTGAGCAATGGAGAATGCTCACGGACTGTGTGGTGGATAGAAGAGTTGTG
GAACCAAAGAGAGCTGTCTCAAGAGAAGATTCTCAAAGACCAGAACATCACCTAAGAGATTATTTTGAACAGTAT
GGAAAAATTGAAGTGACTGAAATCATGACTGACCGAGGCAGTGGCAAGAAAAGGGGCTTTGCCTTTCTAACCTTT
GATGACCGTGACTCCGTGGGTGGCTATGGCGGTTCCAGTAGCAGCAGTAGCTATGGCAGTGGCAGAAGATTT**TAA**

FIGURE 1146

GTACTTTCGCCATCATAGTATTCTCCACCACTGTTCCTTCCAGCCACGAACGACGCAAACGAAGCCAAGTTCCCC
CAGCTCCGAACAGGAGCTCTCTATCCTCTCTCTATTACACTCCGGGAGAAGGAAACGCGGGAGGAAACCCAGGCC
TCCACGCGCGACCCCTTGGCCCTCCCCTTTACCTCTCCACCCCTCACTAGACACCCTCCCCTCTAGGCGGGGACG
AACTTTCGCCCTGAGAGAGGCGGAGCCTCAGCGTCTACCCTCGCTCTCGCGAGCTTTCGGAACTCTCGCGAGACC
CTACGCCCGACTTGTGCGCCCGGGAAACCCCGTCGTTCCCTTTCCCCTGGCTGGCAGCGCGGAGGCCGCACG**ATG**

CCTGGAGTTACTGTAAAAGACGTGAACCAGCAGGAGTTCGTCAGAGCTCTGGCAGCCTTCCTCAAAAAGTCCGGG
AAGCTGAAAGTCCCCGAATGGGTGGATACCGTCAAGCTGGCCAAGCACAAAGAGCTTGCTCCCTACGATGAGAAC
TGGTTCTACACGCGAGCTGCTTCCACAGCGCGGCACCTGTACCTCCGGGGTGGCGCTGGGGTTGGCTCCATGACC
AAGATCTATGGGGGACGTCAGAGAAACGGCGTCATGCCCAGCCACTTCAGCCGAGGCTCCAAGAGTGTGGCCCGC
CGGGTCCTCCAAGCCCTGGAGGGGCTGAAAATGGTGGAAAAGGACCAAGATGGCGGCCGCAAACTGACACCTCAG
GGACAAAGAGATCTGGACAGAATCGCCGGACAGGTGGCAGCTGCCAACAAGAAGCAT**TAG**AACAAACCATGCTGG
GTTAATAAATTGCCTCATTCGTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1147

GGGCGCCCCGCCGGTCACCTCCGCGCGGACACCAGCCCTGCAGAGCCCAGGGAG**ATG**GAAGACTTCGCCCGAGGG
GCGGCCTCCCCAGGCCCCTCCCGGCCTGGCCTGGTTCCCGTCAGCATCATCGGGGCTGAGGATGAGGATTTTGAG
AACGAGCTGGAGACAAACTCAGAAGAGCAAAACAGCCAGTTCCAGAGCCTGGAGCAGGTGAAGCGGCGCCCAGCC
CACCTCATGGCCCTCCTGCAGCACGTGGCCCTGCAGTTTGAGCCAGGACCCCTGCTTTGCTGTCTGCATGCCGAC
ATGCTGGGCTCACTGGGCCCCAAGGAGGCCAAGAAGGCCTTCCTGGACTTCTACCACAGCTTCCTGGAGAAGACA
GCGGTTCTCCGGGTGCCGGTCCCTCCCAACGTCGCCTTTGAACTTGACCGCACTAGGGCTGACCTCATCTCCGAG
GATGTCCAGCGGCGGTTCGTGCAGGAGGTGGTGCAAAGCCAGCAGGTAGCCGTGGGCCGGCAGCTGGAGGACTTC
CGTTCCAAGCGGCTCATGGGCATGACGCCCTGGGAGCAGGAGCTGGCCCAGCTGGAGGCTTGGGTTGGGCGGGAC
CGAGCCAGCTACGAGGCCCGGGAGCGGCACGTGGCGGAGCGGCTGCTCATGCACCTGGAGGAGATGCAACATACC
ATCTCTACCGACGAAGAAAAGAGTGCTGCCGTGGTCAACGCCATTGGCCTGTACATGCGCCACCTTGGGGTGCGG
ACCAAGAGTGGAGACAAGAAGTCGGGGAGGAACTTCTTCCGGAAAAAGGTGATGGGGAACCGGCGGTCGGACGAG
CCTGCCAAGACCAAGAAGGGGCTGAGCAGCATCCTGGATGCCGCCCGCTGGAACCGGGGAGAGCCCCAGGTTCCA
GATTTTCGACACCTCAAAGCAGAGGTTGATGCCGAGAAGCCAGGTGCTACAGACCGGAAGGGAGGCGTGGGGATG
CCCTCTCGGGACCGGAATATCGGGGCTCCTGGGCAGGACACCCCTGGAGTCTCTCTGCACCCTCTGTCCCTGGAC
AGCCCAGACCGGGAACCAGGTGCTGACGCCCCCCTGGAGCTGGGGGACTCATCCCCGCAGGGCCCAATGAGCCTG
GAGTCCTTGGCGCCCCCAGAGAGTACCGACGAGGGGGCCGAAACCGAGAGCCCCGAGCCTGGAGATGAGGGGGAG
CCGGGGCGGTCGGGACTGGAGCTTGAACCAGAAGAGCCTCCCGGCTGGCGGGAACTCGTCCCCCCAGACACCCTG
CACAGCCTGCCCAAGAGCCAGGTGAAGCGGCAGGAGGTCATCAGCGAGCTGCTGGTGACAGAGGCGGCCCACGTG
CGCATGCTGCGGGTGCTGCACGACCTCTTCTTCCAGCCCATGGCAGAATGCCTGTTCTTCCCCTTGGAGGAGCTG
CAGAACATCTTCCCCAGCCTGGACGAGCTCATCGAGGTGCATTCCCTGTTCCTCGATCGCCTGATGAAGCGGAGG
CAGGAGAGTGGCTACCTCATCGAGGAGATCGGAGACGTGCTGCTGGCCCGGTTTGATGGTGCTGAGGGCTCCTGG
TTCCAGAAAATCTCCTCCCGCTTCTGCAGCCGCCAGTCATTTGCCTTAGAGCAGCTCAAAGCCAAGCAACGCAAG
GACCCTCGGTTCTGTGCCTTCGTGCAGGAAGCTGAGAGCCGCCCGCGGTGCCGCCGCCTGCAGCTGAAGGACATG
ATCCCCACGGAGATGCAGCGGCTGACCAAGTACCCCCTGCTCCTGCAGAGCATCGGGCAGAACACAGAAGAGCCC
ACAGAACGGGAGAAAGTGGAGCTGGCAGCCGAGTGCTGCCGGGAAATTCTACACCACGTCAACCAAGCCGTGCGT
GACATGGAGGACCTGCTGAGGCTCAAGGACTATCAGCGGCGCCTGGACTTGTCCCACCTTCGGCAGAGCAGCGAC
CCTATGCTGAGCGAGTTCAAGAACCTGGACATCACCAAGAAGAAATTGGTCCACGAGGGCCCACTGACGTGGCGG
GTGACTAAGGACAAGGCAGTGGAGGTGCATGTGCTGCTGCTGGACGACCTGCTGCTGCTGCTCCAGCGCCAGGAC
GAGCGGCTGCTGCTCAAGTCCCATAGCCGGACACTGACGCCCACGCCCGATGGCAAGACCATGCTGCGGCCCGTG
CTGCGGCTCACCTCCGCCATGACCCGCGAGGTGGCCACCGATCACAAAGCCTTCTACGTCCTTTTTACCTGGGAC
CAGGAGGCCCAGATATACGAGCTGGTGGCACAGACTGTGTCGGAGCGGAAAAACTGGTGTGCTCTCATCACTGAG
ACTGCCGGATCCCTGAAAGTCCCTGCCCCTGCCTCTCGCCCTAAGCCCCGGCCCAGCCCGAGCAGCACCCGAGAA
CCCCTCCTCAGCAGCTCTGAGAACGGCAATGGTGGCCGAGAGACGTCTCCAGCTGATGCCCGGACCGAGAGAATC
CTCAGTGACCTCCTGCCCTTCTGCAGACCAGGCCCCGAGGGCCAGCTCGCTGCCACGGCCCTTCGGAAAGTGCTG
TCCCTGAAGCAGCTTCTGTTTCCGGCGGAGGAAGACAATGGGGCGGGGCCTCCTCGAGATGGGGATGGGGTCCCA
GGGGGCGGCCCCCTGAGCCCAGCACGGACCCAGGAAATCCAGGAGAACCTGCTCAGCTTGGAGGAGACCATGAAG
CAGCTGGAGGAGTTGGAGGAGGAATTTTGCCGCCTGAGACCCCTCCTGTCTCAGCTTGGGGGGAACTCTGTCCCC
CAGCCTGGCTGCACT**TGA**GGTTCCCGCCCAGGAAGGCCTTTTGCAAGAAGGAGAGGAATGGGGGAGAGGACGTGA
GGGACCACCCCCACCCACACAGCTGCCGCAGCATCTCACACCCCGAGGGCCTGAGGAGAGGGAGCTGTGGGCCAC
GCCTGGGAGGGGCCCAGCTGGGGTTACTGGCCCCGCATGAGCCTCGGCCATCTCTCCCTCCTGCCCTCTGCTTGG
GGGACTCAGGGCTCCATTCTGGAGGGCACCACGGTGACCCGGGCCATCTCAGTATTGCCTGTGGGGGCCACCCCT
CCACCCCCACCCCCAAGTGCCTTCGCTCTGTTTTTATACCCTGAATTGGAGGTTTATTTTTTAATATATATTATC
TAAGAAG

FIGURE 1148

AGCAGCTCTACCCCTCACGACGCAGAC**ATG**GCAGCGCAGAAGGACCAGCAGAAAGATGCCGAGGCGGAAGGGCTG
AGCGGCACGACCCTGCTGCCGAAGCTGATTCCCTCCGGTGCAGGCCGGGAGTGGCTGGAGCGGCGCCGCGCGACC
ATCCGGCCCTGGAGCACCTTCGTGGACCAGCAGCGCTTCTCACGGCCCCGCAACCTGGGAGAGCTGTGCCAGCGC
CTCGTACGCAACGTGGAGTACTACCAGAGCAACTATGTGTTCGTGTTCCTGGGCCTCATCCTGTACTGTGTGGTG
ACGTCCCCTATGTTGCTGGTGGCTCTGGCTGTCTTTTTCGGCGCCTGTTACATTCTCTATCTGCGCACCTTGGAG
TCCAAGCTTGTGCTCTTTGGCCGAGAGGTGAGCCCAGCGCATCAGTATGCTCTGGCTGGAGGCATCTCCTTCCCC
TTCTTCTGGCTGGCTGGTGCGGGCTCGGCCGTCTTCTGGGTGCTGGGAGCCACCCTGGTGGTCATCGGCTCCCAC
GCTGCCTTCCACCAGATTGAGGCTGTGGACGGGGAGGAGCTGCAGATGGAACCCGTG**TGA**GGTGTCTTCTGGGAC
CTGCCGGCCTCCCGGGCCAGCTGCCCCACCCCTGCCCATGCCTGTCCTGCACGGCTCTGCTGCTCGGGCCCACAG
CGCCGTCCCATCACAAGCCCGGGGAGGGATCCCGCCTTTGAAAATAAAGCTGTTATGGGTGTCATTCAGG

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FIGURE 1149

GGAGCAGGCGAGAGGCGACGGCGAGAGCTAGAGCGGGCGCAGCGTTAGGGTGGCCGTGCAAGGGGAGCCGTGGCC
CGGGCCCGGGGCGTGCGAGACGGCGGAAGCAGCCCAGGGCCTTGCTGCCGCCATGACTGAGGAATCAGAGGAGAC
AGTCCTGTACATTGAGCACCGCTATGTCTGCTCTGAGTGCAACCAGCTGTATGGATCACTGGAAGAGGTGCTTAT
GCACCAAAACTCCCACGTGCCCCAGCAGCACTTTGAGCTGGTGGGCGTGGCTGATCCCGGAGTCACTGTGGCCAC
AGACACAGCTTCAGGCACGGGCCTCTATCAGACCCTTGTGCAGGAGAGCCAGTACCAGTGCCTGGAGTGTGGTCA
ACTGCTGATGTCACCCAGCCAGCTCCTGGAGCACCAGGAGCTGCACCTGAAGATGATGGCACCCCAGGAGGCAGT
GCCAGCTGAGCCATCACCTAAGGCACCACCCCTGAGCTCCAGCACCATCCACTACGAGTGTGTGGATTGCAAGGC
TCTCTTTGCCAGCCAGGAGCTCTGGCTGAACCACCGGCAGACGCACCTCCGGGCCACACCCACCAAGGCTCCTGC
CCCTGTTGTCCTGGGGTCCCCAGTTGTTCTAGGGCCTCCTGTGGGCCAGGCCCGAGTGGCTGTGGAGCACTCATA
CCGAAAGGCAGAAGAGGGTGGGGAAGGGGCGACTGTCCCATCTGCCGCTGCCACCACCACTGAGGTAGTGACTGA
GGTGGAGCTGCTCCTCTACAAGTGCTCTGAGTGCTCCCAGCTCTTCCAGCTGCCGGCGGATTTCCTGGAGCACCA
GGCCACTCACTTCCCTGCTCCTGTACCCGAGTCTCAGGAGCCTGCCTTACAGCAGGAGGTGCAGGCCTCGTCACC
TGCAGAGGTGCCTGTGTCTCAGCCTGACCCCTTGCCAGCTTCTGACCACAGTTACGAGCTGCGCAATGGTGAAGC
CATTGGGCGGGATCGCCGGGGGCGCAGGGCCCGGAGGAACAACAGTGGAGAAGCAGGCGGGGCAGCCACACAGGA
GCTCTTCTGCTCAGCCTGTGACCAGCTCTTTCTCTCACCCCACCAGCTACAGCAGCACCTGCGGAGTCACCGGGA
GGGCGTCTTTAAGTGCCCCCTGTGCAGTCGTGTCTTCCCTAGCCCTTCCAGTCTGGACCAGCACCTTGGAGACCA
TAGCAGCGAGTCACACTTCCTGTGTGTAGACTGTGGCCTGGCCTTCGGCACAGAGGCCCTCCTCCTGGCCCACCG
GCGAGCCCACACCCCGAATCCTCTGCATTCATGTCCATGTGGGAAGACCTTTGTCAACCTTACCAAGTTCCTTTA
TCACCGGCGTACTCATGGGGTAGGGGGTGTCCCTCTGCCCACAACACCAGTCCCACCAGAGGAACCTGTCATTGG
TTTCCCTGAGCCAGCCCCAGCAGAGACTGGAGAGCCAGAGGCCCCTGAGCCCCCTGTGTCTGAGGAGACCTCAGC
AGGGCCCGCTGCCCCAGGCACCTACCGCTGCCTCCTGTGCAGCCGTGAATTTGGAAAGGCCTTGCAGCTGACCCG
GCACCAACGTTTTGTGCATCGGCTGGAGCGGCGCCATAAATGCAGCATTTGTGGCAAG**ATG**TTCAAGAAGAAGTC
TCACGTGCGTAACCACCTGCGCACACACACAGGGGAGCGGCCCTTCCCCTGCCCTGACTGCTCCAAGCCCTTCAA
CTCACCTGCCAACCTGGCCCGCCACCGGCTCACACACACAGGAGAGCGGCCCTACCGGTGTGGGGACTGTGGCAA
GGCTTTCACGCAAAGCTCCACACTGAGGCAGCACCGCTTGGTGCATGCCCAGCACTTCCCCTACCGCTGCCAGGA
ATGTGGGGTGCGTTTTCACCGTCCTTACCGCCTGCTCATGCACCGCTACCATCACACAGGTGAATACCCCTACAA
GTGTCGCGAGTGCCCCCGCTCCTTCTTGCTGCGTCGGCTGCTGGAGGTGCACCAGCTCGTGGTCCATGCCGGGCG
CCAGCCCCACCGCTGCCCATCCTGTGGGGCTGCCTTCCCCTCCTCACTGCGGCTCCGGGAGCACCGCTGTGCAGC
CGCTGCTGCCCAGGCCCCACGGCGCTTTGAGTGTGGCACCTGTGGCAAGAAAGTGGGCTCAGCTGCTCGACTGCA
GGCACACGAGGCGGCCCATGCAGCTGCTGGGCCTGGAGAGGTCCTGGCTAAGGAGCCCCCTGCCCCTCGAGCCCC
ACGGGCCACTCGTGCACCAGTTGCCTCTCCAGCAGCCCTTGGAAGCACTGCTACAGCATCCCCTGCGGCCCCTGC
CCGCCGCCGGGGGTCTAGAGTGCAGCGAGTGCAAGAAGCTGTTCAGCACAGAGACGTCACTGCAGGTGCACCGGCG
CATCCACACAGGTGAGCGGCCATACCCATGTCCAGACTGTGGCAAAGCGTTCCGTCAGAGTACCCACCTGAAAGA
CCACCGGCGCCTGCACACAGGTGAGCGGCCCTTTGCCTGTGAAGTGTGTGGCAAGGCCTTTGCCATCTCCATGCG
CCTGGCAGAACATCGCCGCATCCACACAGGCGAACGACCCTACTCCTGCCCTGACTGTGGCAAGAGCTACCGCTC
CTTCTCCAACCTCTGGAAGCACCGCAAGACCCATCAGCAGCAGCATCAGGCAGCTGTGCGGCAGCAGCTGGCAGA
GGCGGAGGCTGCCGTTGGCCTGGCCGTCATGGAGACTGCTGTGGAGGCGCTACCCCTGGTGGAAGCCATTGAGAT
CTACCCTCTGGCCGAGGCTGAGGGGGTCCAGATCAGTGGC**TGA**CTCTGCCCGACTTCCTCTTTGGCACCTCCATT
CCCTGTTGCTGAAGGCCCTCCAGCATCCCCTTAAGCATCTGTACATACTGTGTCCCTTCCTCTTCCCATCCCCAC
CACCTTGTAAGTTCTAAATTGGATTTATTCTCTCGTGAGGGGGGTGCTCTGGGGTCCTTGACACACATAAAGGTG
CCCCCCCACCTTCCACCTCTTAGCACTGGTGACCCCAAAAATGAAACCATCAATAAAGACTGAGTTGCC

FIGURE 1150

TCTGAGAGGCGAGGCCGGGTGAGGCGGCGAGGGCGGCCCGACGGGCGCGGGACGGGACGGGGCAGCGAGGGCGCC
GGGAGCCGCGGCCCGGAATCGGGGCGCTTCGCCCCGGGCCCCCCAGC**ATG**AAGACCCCGGCGGACACAGGGTTTG
CCTTCCCGGATTGGGCCTACAAGCCAGAGTCGTCCCCTGGCTCAAGGCAGATCCAGCTGTGGCACTTTATCCTGG
AGCTGCTGCGGAAGGAGGAGTACCAGGGCGTCATTGCCTGGCAGGGGGACTACGGGGAATTCGTCATCAAAGACC
CTGATGAGGTGGCCCGGCTGTGGGGCGTTCGCAAGTGCAAGCCCCAGATGAATTACGACAAGCTGAGCCGGGCCC
TGCGCTATTACTATAACAAGCGCATTCTGCACAAGACCAAGGGGAAACGGTTCACCTACAAGTTCAATTTCAACA
AACTGGTGCTGGTCAATTACCCATTCATTGATGTGGGGTTGGCTGGGGGTGCAGTGCCCCAGAGTGCCCCGCCAG
TGCCGTCGGGTGGTAGCCACTTCCGCTTCCCTCCCTCAACGCCCTCCGAGGTGCTGTCCCCCACCGAGGACCCCC
GCTCACCACCAGCCTGCTCTTCATCTTCATCTTCCCTCTTCTCGGCTGTGGTGGCCCGCCGCCTGGGCCGAGGCT
CAGTCAGTGACTGTAGTGATGGCACGTCAGAGCTGGAGGAACCGCTGGGAGAGGATCCCCGCGCCCGACCACCCG
GCCCTCCGGATCTGGGTGCCTTCCGAGGGCCCCCGCTGGCCCGCCTGCCCCATGACCCTGGTGTCTTCCGAGTCT
ATCCCCGGCCTCGGGGTGGCCCTGAACCCCTCAGCCCCTTCCCTGTGTCGCCTCTGGCCGGTCCTGGATCCCTGC
TGCCCCCTCAGCTCTCCCCGGCTCTGCCCATGACGCCCACCCACCTGGCCTACACTCCCTCGCCCACGCTGAGCC
CGATGTACCCCAGTGGTGGCGGGGGGCCCAGCGGCTCAGGGGGAGGCTCCCACTTCTCCTTCAGCCCTGAGGACA
TGAAACGGTACCTGCAGGCCCACACCCAAAGCGTCTACAACTACCACCTCAGCCCCCGCGCCTTCCTGCACTACC
CTGGGCTGGTGGTGCCCCAGCCCCAGCGCCCTGACAAGTGCCCGCTGCCGCCCATGGCACCCGAGACCCCACCGG
TCCCCTCCTCGGCCTCGTCATCCTCTTCTTCTTCTTCCTCCCCATTCAAGTTTAAGCTCCAGCCGCCCCCACTCG
GACGCCGGCAGCGGGCAGCTGGGGAGAAGGCCGTAGCCGGTGCTGACAAGAGCGGTGGCAGTGCAGGCGGGCTGG
CTGAGGGGGCAGGGGCGCTAGCCCCACCGCCCCCGCCACCACAGATCAAGGTGGAGCCCATCTCGGAAGGCGAGT
CGGAGGAGGTAGAGGTGACTGACATCAGTGATGAGGATGAGGAAGACGGGGAGGTGTTCAAGACGCCCCGTGCCC
CACCTGCACCCCCTAAGCCTGAGCCCGGCGAGGCACCCGGGGCATCCCAGTGCATGCCCCTCAAGCTACGCTTTA
AGCGGCGCTGGAGTGAAGACTGTCGCCTCGAAGGGGGTGGGGGCCCCGCTGGGGGCTTTGAGGATGAGGGTGAGG
ACAAGAAGGTGCGTGGGGAGGGGCCTGGGGAGGCTGGGGGGCCCCTCACCCCAAGGCGGGTGAGCTCTGACCTCC
AGCATGCCACGGCCCAGCTCTCCCTGGAGCACCGAGACTCC**TGA**GGGCTGTGGGCAGGGGACCTGTGTGCCCCGC
ACCCCCCATGCTTCTTTTGCTGCCTTAAGCCCCCTATGCCCTGGAGGTGAGGGCAGCTCTCTTGTCTCTTCCCTG
CCTCCTCCCTTTTCCCTCCCCACATTTTGTATAAAACTTTAATTTCTTTTTTTTAAAAATGGTGGGGGTGGGTGG
GTGCCCAGGGCTAGGGGCTATTCCCTGTCTCTGTGGGTTTCTAAGCTCTGGGCAAAGTGGTGGTAGGGGGAGGGA
GGGGGAAGTTAAGGGGGTCACCTCCATTCTGGGGAATTTATATTTGAATTGAGGCTTTGGCCTTAACACCCAGGA
ACTTTTCTATTACAATCGCTTAGGAAGTAAAGCCTTGTCTCCCTCCCTGTTCTCTGCCTCTTGTACCCCTCTGAC
CCACCCGCTCTGCCCCACTCCCAGCCCTCCTCAGCCCCAGCCCTGCCTGCCCTGCCCCTCCAGGGGGCCATGAGT
GCCTAGGTTTCTCATACCCCACAAGGTCACAGCAGGGGAGGGAGGGACAATTTTATAATGAACCAAAAATTCCAT
GTGTTGGGGGGTGGGGGGCGGAGGAGGGTGAGGGGTGCCGCCCATGGGCCACAAATCTCTACAAGTGCCTGCTAT
CCCTCTCCCACTCCCCACCCCAGCACCGGTCCAACCCCTTCATCCCCAGCTGCTCCTAGGACTGGCCCATGGGCA
GGCGGGTGGGGGGATGGGAAGGGGGTGCCCTGAAACCAAACTGGAAGCCCCCTCTGCCTCCCAGCTGGGGCCTCT
GGGGTGGGGTGGGGGGCTGTGGTCAAGCCTTATTCTGTATTGGGGACTGAGGGTGGGGGGAGTAGAGGGGCCGCT
GGAGAATGTATTCAAAACAATAAAACTTTGGACCTTTGGA

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FIGURE 1151A

GTGATGGCATCTCACACTGCAACCGCACGTGCTTGGAGGACTGTGGCCATGGTGTGTGCAGTGGCCCCCCGGACT
TTACCTGCGTGTGTGACCTAGGCTGGACATCAGACCTGCCCCCTCCCACACCCGCCCCGGGTCCGCCAGCCCCCC
GCTGCTCCCGGGACTGTGGCTGCAGCTTCCACAGCCACTGCCGCAAGCGGGGCCCTGGCTTCTGCGACGAGTGCC
AGGACTGGACATGGGGGGAGCACTGCGAACGATGCCGGCCCGGCAGCTTCGGCAACGCCACAGGCTCTAGGGGCT
GCCGGCCCTGCCAGTGCAACGGGCACGGGGACCCACGCCGTGGCCACTGCGACAACCTCAGTGGGCTCTGCTTCT
GCCAGGACCACACCGAGGGTGCCCACTGCCAGCTCTGCTCCCCAGGCTATTATGGGGATCCCCGGGCCGGTGGTT
CCTGCTTTCGGGAGTGTGGGGGTCGCGCCCTCCTCACCAACGTGTCCTCAGTGGCACTGGGCTCACGCCGGGTCG
GGGGGCTGCTGCCTCCAGGTGGCGGGGCTGCAAGAGCCGGGCCTGGCCTGTCCTACTGTGTGTGGGTTGTCTCGG
CCACTGAGGAGCTACAGCCCTGTGCTCCCGGGACCCTCTGTCCCCCACTCACCCTCACCTTCTCCCCCGACAGCA
GCACCCCCTGCACGCTGAGCTACGTCCTGGCGTTTGATGGATTCCCACGCTTCCTGGACACTGGTGTTGTCCAGT
CGGACCGCAGCCTCATAGCTGCCTTCTGCGGCCAGCGACGGGACAGGCCCCTCACTGTTCAGGCCCTGTCTGGGC
TGCTCGTGCTGCACTGGGAGGCCAATGGCTCCTCATCCTGGGGCTTCAATGCTTCGGTGGGCTCTGCCCGCTGTG
GGTCAGGGGGCCCCGGGAGCTGTCCCGTCCCCCAGGAATGCGTGCCCCAGGACGGTGCTGCAGGTGCGGGGCTCT
GCCGATGTCCTCAGGGCTGGGCTGGCCCACACTGCCGC**ATG**GCTCTGTGTCCTGAGAACTGCAATGCCCACACTG
GGGCAGGAACTTGTAACCAGAGCCTGGGTGTGTGCATCTGTGCCGAGGGCTTCGGGGGCCCCGACTGCGCCACCA
AGCTGGATGGCGGGCAGCTGGTCTGGGAGACCCTCATGGACAGCCGCCTCTCAGCCGACACTGCCAGCCGCTTCC
TGCACCGCCTGGGCCACACCATGGTGGATGGACCCGATGCCACCTTGTGGATGTTTGGGGGCCTGGGCCTGCCCC
AGGGGCTGCTGGGAAACCTGTACAGGTACTCAGTGAGTGAGCGGCGGTGGACACAGATGCTGGCGGGAGCCGAGG
ACGGGGGCCCAGGCCCATCGCCCCGCTCCTTCCATGCAGCCGCATATGTGCCCGCTGGCCGTGGTGCCATGTATC
TGCTGGGGGGACTTACCGCTGGAGGCGTCACCCGTGATTTCTGGGTCCTCAACCTCACCACCCTGCAATGGCGGC
AGGAGAAGGCCCCCCAGACCGTGGAGCTGCCAGCCGTTGCTGGTCACACCCTTACTGCCCGCCGAGGCCTGTCTC
TGCTCCTGGTGGGCGGTTACTCCCCGGAAAATGGCTTCAACCAGCAGCTGCTGGAGTACCAGCTGGCAACCGGCA
CCTGGGTGTCAGGAGCCCAGAGTGGGACACCCCCCACAGGTCTCTATGGTCACTCTGCTGTCTACCACGAGGCCA
CCGACTCCCTCTACGTGTTTGGGGGGTTCCGATTCCATGTGGAGCTGGCGGCCCCATCCCCCGAGCTCTACTCCC
TGCACTGTCCTGACCGCACCTGGAGTCTGCTGGCCCCTTCTCAGGGGGCAAAGCGAGATCGTATGAGGAATGTGC
GTGGCTCATCTCGGGGTCTGGGCCAAGTTCCTGGGGAGCAGCCTGGGTCATGGGGGTTCCGGGAAGTCAGGAAGA
AGATGGCTCTGTGGGCTGCTCTTGCTGGTACAGGAGGTTTCCTGGAGGAAATCTCACCTCACCTGAAGGAGCCCC
GCCCCCGGCTTTTCCACGCCTCAGCCCTGTTAGGGGACACCATGGTGGTTCTTGGGGGGCGCTCGGACCCTGACG
AGTTCAGCAGCGACGTTCTGCTCTACCAGGTCAACTGCAATGCCTGGCTTCTGCCCGACCTCACCCGCTCGGCCT
CTGTGGGGCCCCCAATGGAGGAGTCTGTGGCCCATGCTGTGGCAGCAGTCGGGAGCCGCCTGTATATCTCTGGGG
GTTTCGGGGGAGTGGCCCTGGGCCGCCTGCTGGCACTGACCCTGCCCCCTGACCCCTGCCGCCTGCTGTCCTCAC
CTGAAGCTTGTAACCAGTCTGGGGCCTGCACCTGGTGCCATGGGGCCTGCTTGTCCGGGGATCAGGCCCACAGGC
TGGGCTGCGGGGGCTCCCCCTGCTCCCCAATGCCTCGCTCCCCGGAGGAATGTCGACGTCTCCGGACCTGCAGTG
AGTGCCTGGCCCGCCATCCTCGGACCCTGCAACCTGGAGATGGAGAGGCGTCCACCCCCCGCTGTAAGTGGTGTA
CCAACTGCCCCGAAGGTGCTTGCATTGGACGCAATGGGTCCTGCACCTCTGAGAATGACTGTCGGATCAACCAGC
GAGAGGTCTTCTGGGCAGGGAACTGCTCCGAGGCTGCGTGCGGGGCTGCTGACTGCGAGCAGTGCACGCGGGAGG
GCAAGTGCATGTGGACGCGGCAGTTCAAGAGGACAGGGGAGACCCGCCGCATCCTCTCCGTGCAGCCCACCTATG
ACTGGACGTGCTTCAGCCACTCTCTGCTGAATGTGTCCCCCATGCCGGTGGAATCATCACCCCCACTGCCCTGCC
CCACCCCTTGTCACCTCCTACCCAACTGTACCTCCTGCCTGGACTCTAAGGGAGCAGATGGGGGCTGGCAGCACT
GTGTTTGGAGCAGCAGCCTGCAGCAGTGTCTGAGCCCTTCCTACCTGCCCCTGCGATGTATGGCCGGAGGCTGTG
GGCGGCTGCTCCGGGGACCTGAGAGCTGCTCCCTGGGCTGTGCTCAGGCAACTCAGTGCGCCTTGTGCCTGCGGC
GCCCCCATTGCGGCTGGTGTGCCTGGGGGGGCCAGGATGGGGGTGGCCGCTGCATGGAGGGTGGACTCAGCGGCC
CCCGTGATGGGCTGACATGTGGGCGTCCGGGGGCCTCCTGGGCCTTCCTGTCCTGCCCCCCTGAGGACGAGTGTG
CAAACGGGCACCACGACTGCAACGAGACGCAGAATTGCCACGACCAGCCCCACGGCTATGAGTGCAGCTGCAAGA
CCGGCTATACCATGGACAACATGACAGGGCTGTGCCGCCCTGTGTGCGCCCAGGGCTGCGTGAACGGCTCATGTG
TGGAGCCCGACCACTGCCGCTGCCACTTTGGCTTTGTGGGCCGCAACTGCTCCACGGAATGCCGCTGCAACCGCC
ACAGTGAATGCGCTGGTGTTGGGGCGCGTGACCACTGCTTGCTCTGCCGCAACCACACCAAGGGCAGCCACTGTG
AGCAGTGCCTCCCGCTGTTTGTGGGTTCAGCTGTCGGAGGCGGGACCTGCCGGCCCTGCCACGCCTTTTGTCGTG

FIGURE 1151B

GAAATAGCCACATCTGCATCTCCAGGAAGGAGTTACAAATGTCCAAGGGAGAGCCAAAGAAGTACTCACTGGACC
CAGAGGAGATTGAAAACTGGGTGACAGAGGGTCCTAGTGAAGACGAGGCCGTGTGCGTGAACTGCCAGAATAACA
GCTATGGGGAGAAATGCGAGAGCTGCCTGCAGGGCTACTTCCTCCTGGACGGGAAGTGCACCAAATGCCAGTGTA
ATGGCCACGCGGACACATGTAACGAGCAGGATGGGACGGGCTGTCCATGTCAGAATAACACAGAGACGGGCACAT
GCCAGGGCAGCTCCCCCAGTGACCGTCGAGACTGCTACAAGTACCAGGTGCGCCAAGTGCCGGGAATCATTTCAC
GGGAGTCCGCTGGGCGGCCAGCAGTGCTACCGCCTCATCTCGGTGGAGCAGGAGTGCTGCCTGGACCCCACGTCC
CAGACCAACTGCTTCCA**TGA**GCCCAAACGCCGGGCGCTAGGCCCCGGCCGCACTGTCCTCTTTGGCGTGCAGCCC
AAATTCACCAACGTGGACATCCGCCTGACGCTGGACGTGACCTTCGGGGCCGTGGACCTCTATGTCTCCACCTCC
TATGACACCTTCGTGGTCCGTGTGGCCCCTGACACTGGCGTCCATACTGTACACATCCAGCCACCCCCAGCCCCA
CCACCTCCACCACCCCCTGCAGATGGTGGGCCCCGGGGGGCTGGGGATCCAGGAGGAGCAGGGGCCAGCAGTGGG
CCGGGCGCCCCAGCAGAGCCACGGGTACGGGAGGTATGGCCGCGGGGCCTGATTACCTACGTGACGGTGACGGAG
CCGTCGGCAGTGCTGGTGGTCCGCGGCGTGCGGGACCGGCTGGTCATCACCTACCCACACGAGCACCATGCCCTC
AAGTCGAGCCGCTTCTACCTGCTGCTGCTGGGCGTGGGAGACCCAAGTGGGCCCGGCGCCAACGGCTCAGCCGAC
TCGCAGGGCCTGCTCTTCTTCCGGCAGGACCAGGCCCACATTGACCTGTTTGTCTTCTTCTCCGTCTTCTTCTCC
TGCTTCTTCCTCTTCCTCTCACTCTGTGTGCTCCTCTGGAAGGCCAAGCAGGCTCTGGACCAGCGGCAGGAGCAG
CGCCGGCACTTGCAGGAGATGACCAAGATGGCCAGCCGCCCCTTCGCCAAGGTCACCGTCTGCTTCCCACCTGAC
CCTACTGCCCCGGCCTCCGCCTGGAAGCCGGCTGGGCTCCCACCTCCCGCCTTCCGCCGCTCTGAGCCCTTCCTG
GCACCCCTGCTGCTGACAGGGGCCGGTGGGCCCTGGGGACCCATGGGAGGGGGCTGCTGCCCACCAGCCATCCCC
GCCACCACTGCTGGGCTGCGAGCTGGGCCCATCACTCTCGAGCCCACAGAAGATGGCATGGCTGGCGTGGCCACA
CTGCTGCTCCAGCTGCCTGGCGGGCCCCATGCACCCAACGGCGCCTGCCTGGGGTCAGCCCTCGTCACACTGCGG
CACAGGCTGCACGAGTACTGTGGGGGTGGTGGGGGTGCTGGGGGCAGTGGGCATGGGACTGGTGCGGGCCGGAAG
GGACTGTTGAGCCAGGACAACCTCACCAGCATGTCCCTCTGACATGCCCAGGGTTCTCATCCACAGCAGCTGGGT
CACCTGATAGGGCCGCCCTGGACTTGGGGTCCCTCCACCTGGGGGCCCCTGGACACTGTCTACTTGGAGACCACT
GGCCCCCTTCCCCCAGGGTTGCCCAGATGGGGCCTCCTTTGTTCTGCATTCAGCAGCTATTTATCGAGTACCTAC
TCTGTCAGGCACTGTCATAGGCGTGGGGCAAAGCAGGAACCAAGAGACGAGGTTCCCTGATCTCATGGGACTTAG
GTTCTGGTGAAGGGAGACAATCAGTGCACATGCACACACCCCACACGCATACACACATGAACACATGCACATGTG
CACACACAAGTAAGATGGCTTCAGAGAGGGAGAAGCACTGTGAGGCCTCCAGAGGATGTGGCAGTGAGGGACGAT
GGGGTGAAGTCAGCTGGGCATTCAAAGAAGCTAGACTGAGAACGCCTGAGAAGAACCAGCTACGGGAAGAGCTTT
GGGAAGCAAAGGCAGAGGCCCTGGGGTGGGAGCAGGCTTGTTTTATTGGAAGGACCAGAAAACTGGTAAGTGTGA
CCCAGATCAAGTGTGAGGAGATGAGGCTGGGGATAGTCAGGGGCTGGATCACCCAGGGCCTTGTGGGCCCCACAT
AGGGTTTTGGGTTTTATTCTCAGGGCAATGGGAAGCTGTTGGATGGTTTGATGAAGGGGAGTGACAGGATCCGAT
GTACCTATTTAAGAATTTAAGAGGGTCGGGTGCGGTGGCTCATGCCTATAATCCTAGCACTTTGAGAGGCCAAGG
TGGGCTGATCACAAGGTCAAGAGTTCGTGACCAGCCTGGCCAATATGGTGAAACCCCATGTCTACTAAAAATACA
AAAATTAGCTGGGCATGGTGGCACACACTTGTAGTCCGAGCTACTCGGGAGGCTGAGGCAGAAGAATCGCTTGAA
CCCAGGAGGCGGAGGTTGCAGTGAGCTCAGATTGCGTCACTGCACTCCAACCTGGGTGACAGAGCGAGACTCCAC
CTC

FIGURE 1152

CTCAGCTTCTTTGCGTAACCAATACTGGAAGGCATTTAAAGGCACCTCTGCCGCCACAGACCTTGCAGTTAACTC
CGCCCTGACCCACCCTTCCCG**ATG**CAGTCCCTGATGCAGGCTCCCCTCCTGATCGCCCTGGGCTTGCTTCTCGCG
GCCCCTGCGCAAGCCCACCTGAAAAAGCCATCCCAGCTCAGTAGCTTTTCCTGGGATAACTGTGATGAAGGGAAG
GACCCTGCGGTGATCAGAAGCCTGACTCTGGAGCCTGACCCCATCGTCGTTCCTGGAAATGTGACCCTCAGTGTC
GTGGGCAGCACCAGTGTCCCCCTGAGTTCTCCTCTGAAGGTGGATTTAGTTTTGGAGAAGGAGGTGGCTGGCCTC
TGGATCAAGATCCCATGCACAGACTACATTGGCAGCTGTACCTTTGAACACTTCTGTGATGTGCTTGACATGTTA
ATTCCTACTGGGGAGCCCTGCCCAGAGCCCCTGCGTACCTATGGGCTTCCTTGCCACTGTCCCTTCAAAGAAGGA
ACCTACTCACTGCCCAAGAGCGAATTCGTTGTGCCTGACCTGGAGCTGCCCAGTTGGCTCACCACCGGGAACTAC
CGCATAGAGAGCGTCCTGAGCAGCAGTGGGAAGCGTCTGGGCTGCATCAAGATCGCTGCCTCTCTAAAGGGCATA
TAACATGGCATCTGCCACAGCAGAATGGAGCGGTGTGAGGAAGGTCCCTTTTCCTCTGTTTTGTGTTTGCCAAGG
CCAAACTCCCACTCTCTGCCCCCCTTTAATCCCCTTTCTACAGTGAGTCCACTACCCTCACTGAAAATCATTTTG
TACCACTTACATTTTAGGCTGGGGCAAGCAGCCCTGACCTAAGGGAGAATGAGTTGGACAGTTCTTGATAGCCCA
GGGCGTCTGCTGGGCTGACCACGTTACTCATCCCCGTTAACATTCTCTCTAAAGAGCCTCGTTCATTTCCAAAGC
AGTTAAGGAATGGGAACCAGAGTGTTTTAGGACCTGAAGAATCTTTATGACTCTCTCTCTTTCACTCTTTTTTTT
TTTGTCACTAAGTTAAAAGCGAAGTGAGAGTATTAACGTTTTTGTTCTCCTCCGGCCCCCTGTTACAATGAAGGG
GCAAAAGTATTTGCTCTTAGTCTATTCCTCCCTTAACTTCTGTGACTAATTTTTATTTCCTTTCTAGATTTGCCC
AATTAATACTAGGGTGCAGTGTATCCTGGAGAGGTAGGGTGTGTGGGGGAGGAATCCCTTGGGGGAGATATTAGG
AGTGCTCTGTTGTTTACAAACTCAGGTACCCGCAGGGCCTAGCAAGAGACTTAAATGACTGATAAGAACCGTGAG
AAACATGTTGCTTCCAGGCTTGATTTCGATTTTTCGCTTTTTTTTTTTTTTGAGACAGAATCTCACTTTGTCACC
AGGCTGGAGTGCAGTGGTGCAATCTCACCTCACTGCAACCTCCGCCTCCTGGGTTCAAGCAATTCTCCTGCCTCA
GCCTCCCAAGTAGCTTGGACTACAGGCCCTGCCACCACGCCCGGCTAATTTGTGTATTTTTAGTAGAGATGGGGT
TTCACCATGTTGGCCAGGATGGTCTCGATCTCTTGACCTCGTGATCCGTCCACCTTGGCCTTGCAAAGCGCTGGA
TTACAGGCATGAGCCACTACACCCAGCCGATTTTTCCTTTTTGATTAAAGATGCTATTACAATGTAAATATTTCT
TACACAGAAAGTCACAGCACATGTGCCCATTGATACAAGGCTGCTGAGGCCTGGTCTCCAGTTGGAAATATAATT
AAGGGTGGCAAGGACTGGAGTCAGTTGGAGAGTGCATAGCCAGTCTGTGAAGACAACTGCCAGATACTGGCAATA
CTCCAGCCTGGTGACAGAGTGAGACTCTGTCTCAAAAAAAAAAGTTTCAATGTTTACTCCTAGAGAAGCCAAAAA
TCCCAGATTTGTATATGAAATCTTACCATTTTAAAAGATTGGCAGCTAATTATTTTTTTAAAAAGCTGTGCAGTG
TGATGTGTCCCAAACGGACTGGCTCATGGGTGGCCACGTCACAACCTCTGATCTCAGACCGTGCATGCCTTGTCC
TCTTAAGACAACTCCTGTGGCACCATTTCTCCCTCCACAGGGCCAAAGCCATAGTGTCCGGTCCCAAGGACAAGG
CTCTTCCAGTGCTAGGAGAGGTATGAGCAGCCTCTCACCTGTGAGCTGTGGGGATCACAAGGCTGCCTGCCTCAG
TCTTGGAGTCCTGTTGGGTGAATGAGGCAGATGGGAAAGAGCCTCACCAGCAGCTGCTTTTGGAGCAGGGGTCCA
AGGAAGAGAGGGTGGCCTCGACATCAAACTGCCTGGATTTTTCTACCACCCTGTTACATCATAACAACTTCTGAA
ACACACACCAGCCCTGAGTTCTGGGCTCATTTGAAGCCTGGAATAGCAATAAATCTTTTTAACTTGC

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FIGURE 1153

GCCACGTGTCCGGCTCGGAGCCCACGGCTGTCCTCCCGGTCCGCCCCGCGCTGCGGTTGCTGCTGGGCTAACGGG
CTCCGATCCAGCGAGCGCTGCGTCCTCGAGTCCCTGCGCCCGTGCGTCCGTCTGCGACCCGAGGCCTCCGCTGCG
CGTGGATTCTGCTGCGAACCGGAGACC**ATG**GCCAAACCAGCACAGGGTGCCAAGTACCGGGGCTCCATCCATGAC
TTCCCAGGCTTTGACCCCAACCAGGATGCCGAGGCTCTGTACACTGCCATGAAGGGCTTTGGCAGTGACAAGGAG
GCCATACTGGACATAATCACCTCACGGAGCAACAGGCAGAGGCAGGAGGTCTGCCAGAGCTACAAGTCCCTCTAC
GGCAAGGACCTCATTGCTGATTTAAAGTATGAATTGACGGGCAAGTTTGAACGGTTGATTGTGGGCCTGATGAGG
CCACCTGCCTATTGTGATGCCAAAGAAATTAAAGATGCCATCTCGGGCATTGGCACTGATGAGAAGTGCCTCATT
GAGATCTTGGCTTCCCGGACCAATGAGCAGATGCACCAGCTGGTGGCAGCATACAAAGATGCCTACGAGCGGGAC
CTGGAGGCTGACATCATCGGCGACACCTCTGGCCACTTCCAGAAGATGCTTGTGGTCCTGCTCCAGGGAACCAGG
GAGGAGGATGACGTAGTGAGCGAGGACCTGGTACAACAGGATGTCCAGGACCTATACGAGGCAGGGGAACTGAAA
TGGGGAACAGATGAAGCCCAGTTCATTTACATCTTGGGAAATCGCAGCAAGCAGCATCTTCGGTTGGTGTTCGAT
GAGTATCTGAAGACCACAGGGAAGCCGATTGAAGCCAGCATCCGAGGGGAGCTGTCTGGGGACTTTGAGAAGCTA
ATGCTGGCCGTAGTGAAGTGTATCCGGAGCACCCCGGAATATTTTGCTGAAAGGCTCTTCAAGGCTATGAAGGGC
CTGGGGACTCGGGACAACACCCTGATCCGCATCATGGTCTCCCGTAGTGAGTTGGACATGCTCGACATTCGGGAG
ATCTTCCGGACCAAGTATGAGAAGTCCCTCTACAGCATGATCAAGAATGACACCTCTGGCGAGTACAAGAAGACT
CTGCTGAAGCTGTCTGGGGGAGATGATGATGCTGCTGGCCAGTTCTTCCCGGAGGCAGCGCAGGTGGCCTATCAG
ATGTGGGAACTTAGTGCAGTGGCCCGAGTAGAGCTGAAGGGAACTGTGCGCCCAGCCAATGACTTCAACCCTGAC
GCAGATGCCAAAGCGCTGCGGAAAGCCATGAAGGGACTCGGGACTGACGAAGACACAATCATCGATATCATCACG
CACCGCAGCAATGTCCAGCGGCAGCAGATCCGGCAGACCTTCAAGTCTCACTTTGGCCGGGACTTAATGACTGAC
CTGAAGTCTGAGATCTCTGGAGACCTGGCAAGGCTGATTCTGGGGCTCATGATGCCACCGGCCCATTACGATGCC
AAGCAGTTGAAGAAGGCCATGGAGGGAGCCGGCACAGATGAAAAGGCTCTTATTGAAATCCTGGCCACTCGGACC
AATGCTGAAATCCGGGCCATCAATGAGGCCTATAAGGAGGACTATCACAAGTCCCTGGAGGATGCTCTGAGCTCA
GACACATCTGGCCACTTCAGGAGGATCCTCATTTCTCTGGCCACGGGGCATCGTGAGGAGGGAGGAGAAAACCTG
GACCAGGCACGGGAAGATGCCCAGGTGGCTGCTGAGATCTTGGAAATAGCAGACACACCTAGTGGAGACAAAACT
TCCTTGGAGACACGTTTCATGACGATCCTGTGTACCCGGAGCTATCCGCACCTCCGGAGAGTCTTCCAGGAGTTC
ATCAAGATGACCAACTATGACGTGGAGCACACCATCAAGAAGGAGATGTCTGGGGATGTCAGGGATGCATTTGTG
GCCATTGTTCAAAGTGTCAAGAACAAGCCTCTCTTCTTTGCCGACAAACTTTACAAATCCATGAAGGGTGCTGGC
ACAGATGAGAAGACTCTGACCAGGATCATGGTATCCCGCAGTGAGATTGACCTGCTCAACATCCGGAGGGAATTC
ATTGAGAAATATGACAAGTCTCTCCACCAAGCCATTGAGGGTGACACCTCCGGAGACTTCCTGAAGGCCTTGCTG
GCTCTCTGTGGTGGTGAGGAC**TAG**GGCCACAGCTTTGGCGGGCACTTCTGCCAAGAAATGGTTATCAGCACCAGC
CGCCATGGCCAAGCCTGATTGTTCCAGCTCCAGAGACTAAGGAAGGGGCAGGGGTGGGGGGAGGGGTTGGGTTGG
GCTCTTATCTTCAGTGGAGCTTAGGAAACGCTCCCACTCCCACGGGCCATCGAGGGCCCAGCACGGCTGAGCGGC
TGAAAAACCGTAGCCATAGATCCTGTCCACCTCCACTCCCCTCTGACCCTCAGGCTTTCCCAGCTTCCTCCCCTT
GCTACAGCCTCTGCCCTGGTTTGGGCTATGTCAGATCCAAAAACATCCTGAACCTCTGTCTGT

FIGURE 1154

AGTGAGCCGAGGAGCCTTCATAGGGACAGCCGCCCCTGGTGCACACACCCTCGTATTCTCCTGCCCTTCCCCAGC
CAGGCGGGCACCACGGCAGGGGCTGAGCTACCCTC**ATG**GAAGGGAGAGGACCGTACCGGATCTACGACCCTGGGG
GCAGCGTGCCCTCAGGAGAGGCATCCGCAGCTTTTGAGCGCCTAGTGAAGGAGAATTCCCGGCTGAAGGAAAAAA
TGCAAGGGATAAAGATGTTAGGGGAGCTTTTGGAAGAGTCCCAGATGGAAGCGACCAGGCTCCGGCAGAAGGCAG
AGGAGCTAGTGAAGGACAACGAGCTGCTCCCACCACCTTCTCCCTCCTTGGGCTCCTTCGACCCCCTGGCTGAGC
TCACAGGAAAGGACTCAAATGTCACAGCATCTCCCACAGCCCCTGCATGCCCCAGTGACAAGCCAGCACCAGTCC
AGAAGCCTCCATCCAGTGGCACCTCCTCTGAATTTGAAGTGGTCACTCCTGAGGAGCAGAATTCACCAGAGAGCA
GCAGCCATGCCAATGCGATGGCGCTGGGCCCCCTGCCCCGTGAGGACGGCAACCTGATGCTGCACCTGCAGCGCC
TGGAGACCACGCTGAGTGTGTGTGCCGAGGAGCCGGACCACGGCCAGCTCTTCACCCACCTGGGCCGCATGGCCC
TGGAGTTCAACCGACTGGCATCCAAGGTGCACAAGAATGAGCAGCGCACCTCCATTCTGCAGACCCTGTGTGAGC
AGCTTCGGAAGGAGAACGAGGCTCTGAAGGCCAAGTTGGATAAGGGCCTGGAACAGCGGGATCAGGCTGCCGAGA
GGCTGCGGGAGGAAAATTTGGAGCTCAAGAAGTTGTTGATGAGCAATGGCAACAAAGAGGGTGCGTCTGGGCGGC
CAGGCTCACCGAAGATGGAAGGGACAGGCAAGAAGGCAGTGGCTGGACAGCAGCAGGCTAGTGTGACGGCAGGTA
AGGTCCCAGAGGTGGTGGCCTTGGGCGCAGCCGAGAAGAAGGTGAAGATGCTGGAGCAGCAGCGCAGTGAGCTGC
TGGAAGTGAACAAGCAGTGGGACCAGCATTTCCGGTCCATGAAGCAGCAGTATGAGCAGAAGATCACTGAGCTGC
GTCAGAAGCTGGCTGATTTGCAGAAGCAGGTGACTGACCTGGAGGCCGAGCGGGAGCAGAAGCAGCGTGACTTTG
ACCGCAAGCTCCTCCTGGCCAAGTCCAAGATTGAAATGGAGGAGACCGACAAGGAGCAGCTGACAGCAGAGGCCA
AGGAGCTGCGCCAAAAGGTCAAGTACCTGCAGGATCAGCTGAGCCCACTCACCCGACAGCGTGAGTACCAGGAAA
AGGAGATCCAGCGGCTCAACAAGGCCCTGGAGGAAGCACTGAGCATCCAAACCCCGCCATCATCTCCACCAACAG
CATTTGGGAGCCCAGAAGGAGCAGGGGCCCTCCTAAGGAAACAGGAGCTGGTCACGCAGAATGAGTTGCTGAAAC
AGCAGGTGAAGATCTTCGAGGAGGACTTCCAGAGGGAGCGCAGTGATCGTGAGCGCATGAATGAGGAGAAGGAAG
AGCTGAAGAAGCAAGTGGAGAAGCTGCAGGCCCAGGTCACCCTGTCAAATGCCCAGCTAAAAGCATTCAAAGATG
AGGAGAAGGCAAGAGAAGCCCTCAGACAGCAGAAGAGGAAAGCAAAGGCCTCAGGAGAGCGTTACCATGTGGAGC
CCCACCCAGAACATCTCTGCGGGGCCTACCCCTACGCCTACCCGCCCATGCCAGCCATGGTGCCACACCATGGCT
TCGAGGACTGGTCCCAGATCCGCTACCCCCCTCCCCCCATGGCCATGGAGCACCCGCCCCCACTCCCCAACTCGC
GCCTCTTCCATCTGCCGGAATACACCTGGCGTCTACCCTGTGGAGGGGTTCGAAATCCAAATCAGAGCTCCCAAG
TGATGGACCCTCCCACAGCCAGGCCTACAGAACCAGAGTCTCCAAAAAATGACCGTGAGGGGCCTCAG**TGA**GACC
AGATTGTGTCATTTGGCTCCACCTTCATCTTGCAGAGCCAGCTGATCTCAGATTGCCAAGAAACTAGAAGCCACT
TGCACGGTGTGGCCAGAGCCTCAGCTGGATGAGAGGCTGAGATGGGTGGCCAGCTTGTACACCAGTCCCTGAACT
GAGCTGTTTACAGGACTGGGGAGGCTCCACCCAGAAGGCTTTCATTTGTACTCTGCTGGGAGTGACTGGGAAAAA
CTCCTTCCCTGCTGCTGAGTGGAGAGAGGCCTCATCCGGCTTTGACCCACCATCCGTTGCAGAAGCCTCCAGGAG
CAGCAATCCTAAGAGTGGGAGGCAGCCAAGACCCCCTTCCTTCAAAACCTCCCGGAAGTGGTTTCAGGCCCTCTA
GTTGCCATGACCAATTTGTGTGTGTGTTTAATTTTTGCTTCAAGCTCTGTAGCAGGACCTGCCCCACGCACACCC
CTACCCCTCTGTGAGGAGCTGTGGGAAGTGTGGGTTTGTCTCCAGAACAGAAGAGAATGATGGATATTCTGGCTC
TGGGGCCCTCTCCACCACCACTCACAGTAGCCTTGCTGAAGCCATCACAGATGGGAGAAGGCCATGCCAGCCACG
TCCGCCGAGGGGCGCCAGCCTGAAGCTGCCAGGCCCTGAGGTTCAGACCCTGGACCCCATAGCTGGAGGCCTGTG
GTGCCAGAAGCCCAGATTAGGGTGGCTGTCCATCCCTGGATAGCTATTTGCACGAATCATGGACATAAATCCAAG
TTGAAGAAG

FIGURE 1155

AGCCAAAAGAGGAAGGGACCGCCTCCCACGTCCACAGGGACCTGACTTCCACCTCTCTGCCCAGATTTGCTTATG
TCACTGTCGCCCCGGGACGGGGAGGTGGGGAGCTGAGGGCAAGTCGCGCCCGCCCCTGAAATCCCAGCCGCCTAG
CGATTGGCTGCAAGGGTCTCGGCTTGGCCGCGGATTGGTCACACCCGAGGGCTTGAAAGGTGGCTGGGAGCGCCG
GACACCTCAGACGGACGGTGGCCAGGGATCAGGCAGCGGCTCAGGCGACCCTGAGTGTGCCCCCACCCCGCC**ATG**

GCCCGGCTGCTGCAGGCGTCCTGCCTGCTTTCCCTGCTCCTGGCCGGCTTCGTCTCGCAGAGCCGGGGACAAGAG
AAGTCGAAGATGGACTGCCATGGTGGCATAAGTGGCACCATTTACGAGTACGGAGCCCTCACCATTGATGGGGAG
GAGTACATCCCCTTCAAGCAGTATGCTGGCAAATACGTCCTCTTTGTCAACGTGGCCAGCTACTGAGGCCTGACG
GGCCAGTACATTGAACTGAATGCACTACAGGAAGAGCTTGCACCATTCGGTCTGGTCATTCTGGGCTTTCCCTGC
AACCAATTTGGAAAACAGGAACCAGGAGAGAACTCAGAGATCCTTCCTACCCTCAAGTATGTCCGACCAGGTGGA
GGCTTTGTCCCTAATTTCCAGCTCTTTGAGAAAGGGGATGTCAATGGAGAGAAAGAGCAGAAATTCTACACTTTC
CTAAAGAACTCCTGTCCTCCCACCTCGGAGCTCCTGGGTACATCTGACCGCCTCTTCTGGGAACCCATGAAGGTT
CACGACATCCGCTGGAACTTTGAGAAGTTCCTGGTGGGGCCAGATGGTATACCCATCATGCGCTGGCACCACCGG
ACCACGGTCAGCAACGTCAAGATGGACATCCTGTCCTACATGAGGCGGCAGGCAGCCCTGGGGGTCAAGAGGAAG
TAACTGAAGGCCGTCTCATCCCATGTCCACCATGTAGGGGAGGGACTTTGTTCAGGAAGAAATCCGTGTCTCCAA
CCACACTATCTACCCATCACAGACCCCTTTCCTATCACTCAAGGCCCCAGCCTGGCACAAATGGATGCATACAGT
TCTGTGTACTGCCAGGCATGTGGGTGTGGGTGCATGTGGGTGTTTACACACATGCCTACAGGTATGCGTGATTGT
GTGTGTGTGCATGGGTGTACAGCCACGTGTCTACCTATGTGTCTTTCTGGGAATGTGTACCATCTGTGTGCCTGC
AGCTGTGTAGTGCTGGACAGTGACAACCCTTTCTCTCCAGTTCTCCACTCCAATGATAATAGTTCACTTACACCT
AAACCCAAAGGAAAAACCAGCTCTAGGTCCAATTGTTCTGCTCTAACTGATACCTCAACCTTGGGGCCAGCATCT
CCCACTGCCTCCAAATATTAGTAACTATGACTGACGTCCCCAGAAGTTTCTGGGTCTACCACACTCCCCAACCCC
CCACTCCTACTTCCTGAAGGGCCCTCCCAAGGCTACATCCCCACCCCACAGTTCTCCCTGAGAGAGATCAACCTC
CCTGAGATCAACCAAGGCAGATGTGACAGCAAGGGCCACGGACCCCATGGCAGGGGTGGCGTCTTCATGAGGGAG
GGGCCCAAAGCCCTTGTGGGCGGACCTCCCCTGAGCCTGTCTGAGGGGCCAGCCCTTAGTGCATTCAGGCTAAGG
CCCCTGGGCAGGGATGCCACCCCTGCTCCTTCGGAGGACGTGCCCTCACCCCTCACTGGTCCACTGGCTTGAGAC
TCACCCCGTCTGCCCAGTAAAAGCCTTTCTGCAGC

FIGURE 1156

AACCAATCCTCACAACAGGACTGGGAGACAGGTGTTACCTTTCCCACTTTACAGAGAATGAAACAGAGTGGCAAA
GCCTCCGAAGGACCCTACACTTCGGACATCGCAAAGCAGGATCTGAGTCCCGGCTCCTCTGTCCAAACCTACTTG
CTAGGCTTTCTTTCCCATGTCTACTCTATAGCTGGAAAGGTCGTGGAGGACACATTTTAGGCCAACCCTCTCGGT
TTACAATCCAGAGAGGGGAGACCCTCAGAAGCCAAGCGAC**ATG**TCCACGGCTACGCGGCGAGTGTGTGGCAACGT
GGAAGGGGAGCCCGAGACGCCCTGGTCTCTCCCTTCTCTCGCAGGTTCCTTTCTCCCCGAACGCAGCCCGCAGGG
GACGCTGGAGGAGGAGCTGAGCTGGAGTTGCCGGGGCCCCGGGACCGGGCGTTCCGGGGGCGGTCCCCAGCAGCC
GCGCATTCCAGAGCCAGCAGCGCGTCCTGGCCGCTCCTGCGCTCTCCCGCCTCCCGGGGCTCGGAGGAGCCGGGG
CACGTTCCAGGAGCTGCCTAGGGCTGAGGTTCCAGGCCTGGGGGTCGCTTCCAGCTGCCAGATCCCGTGCAGTCC
TGGGGACCCTGAGAAGCACCGAGCCATCCCTGACCCAGGAACTTTCCGCAGACTCGCCGCCATCTGGGAG**TGA**AG
CAACATGGATGCAGTCAGCCAAGTCCCCATGGAAGTCGTGCTTCCCAAGCACATCCTGGATATCTGGGTTATTGT
CCTCATCATCCTGGCCACCATTGTCATCATGACCTCGTTGTTGCTGTGCCCAGCCACTGCAGTAATCATCTATCG
CATGCGGACTCATCCGATCCTTAGTGGGGCTGTTTGAGAGCCTCCCAAGAGGGCCGGGTGAGGGATGAGGACAGG
CATCCTATCCCCAGCCTCTTCCTGTCTTCAGAAAAGCAGCAGGAGGGACTTTGGGGCATGGACCTGAGTTCTGGT
TTTGATTCTGCCACGAGCCAGCTGTGTGAATTTGGTCAAGGGACCTAACTCTCTGAGTTCCAGGTTCCTTATCTT
TCAAATGGGGATGGTGATCCCTGCCCTTTCTACCTCATAGGGATGTGAGAACCACCTGACTTAGTGGATGTGAAA
GCTGTTTGTGATCAGTAAAGCTACCACAGATATAAGGGTGTTATGCTGAATCCTGAGAAGCTTTCAAGAACCAGA
GAACCTGATTGCTGATGATGGCCTTAAAGGTGGTGAGGGAGATACTGGGGGCAGAGCAGACTTTGCCAGTGCCCC
TCAGGTCAAACCAAGCCAAGAGCACCCTGTCCCCATTCCAAGGGGCCAGCAGCACTTTGGCCCAAAGTATTTTCT
TTAAGGTGCCATTCCTTCATGTTTTCTCAGTTTGGAGGGTGATGGGTAGAGCTTTCCAGAACCTTCTCCATTCCA
GAATCTCTGCCCCTGTGTAATCTGAAGGAAGGCTGTGCCATCTTTGGGCACTGCCAAGGGAGTTGGGGTGATGGG
CTTCTTTCTGCACTGGAGTCTCACATCTGTTAGCTTTGACACTCAAGCAATGTTGGAAAATGCAGGGTGACTGAG
TTCCCTGCCCAGCTTTCGGGATCTCTGGCCCCCATCCCCTTGTGTGTGTCCCTCTGCCCAGCTCCTGCTGTAATT
AGCTCCACGTGTACCCCCTTCACTCCCTCCCACCAGCTCTGCAGCCAGCCTATGGCAATTATATTTTAAGAGGTG
TTCCCAGGACTTTTGGGACCTACTAAAACAATGATGGTTATTTTAGATGTGATGATTTATATTTATGTAGAGATA
TTTCTGGACCACTCAAGCTCTTCGATACCAAAATCAGGAGCATCTTGGGATTTATTAAATTATGTAAGAAGATAG
CACAGATATCGGGATATTATTGTGTGAAAATGCTGCTTTTACTTTGATGTGATCTCATTGATGTACACAACCAAG
TTCCAATAAAGTGCTAGAATGTG

FIGURE 1157

AGCCTCGGGGCTTGACGGGATTGTGGCGGTCCTCTCTCCCAATTCGGAAGCTACAGCTACCTCCGGACGCTCTCA
AGATGGCGACCTCTCTGGGTTCCAACACCTACAACAGGCAGAACTGGGAGGATGCGGACTTCCCCATTCTGTGCC
AGACATGTCTTGGAGAAAACCCATATATCCGAATGACCAAAGAAAAGTATGGGAAGGAATGCAAAATCTGTGCCA
GGCCATTCACAGTGTTTCGCTGGTGCCCTGGAGTCCGCATGCGTTTCAAGAAGACTGAAGTGTGCCAAACCTGCA
GTAAATTGAAGAATGTCTGTCAGACCTGCCTCTTAGACCTAGAGTATGGCCTGCCCATCCAGGTTCGTGACGCAG
GATTGTCTTTTAAAGATGACATGCCAAAGTCAGATGTCAACAAAGAGTACTATACACAGAATATGGAGAGAGAGA
TTTCTAACTCTGATGGAACACGGCCAGTTGGCATGCTGGGGAAAGCCACATCTACCAGTGACATGCTGCTCAAAC
TGGCCCGGACCACACCCTACTACAAAAGGAATCGACCCCACATTTGCTCCTTCTGGGTGAAAGGAGAGTGTAAGA
GAGGAGAGGAATGTCCATACAGACATGAGAAGCCTACAGATCCAGATGACCCCCTTGCTGATCAGAATATTAAAG
ACCGTTATTACGGAATCAATGATCCTGTAGCTGACAAGCTTCTAAAGCGGGCTTCAACAATGCCTCGGCTGGACC
CACCAGAGGATAAAACTATCACCACACTATATGTTGGTGGTCTAGGTGATACCATTACTGAGACAGATTTAAGAA
ATCATTTCTACCAGTTCGGAGAGATCCGGACGATCACTGTTGTGCAGAGACAGCAGTGTGCTTTCATCCAGTTTG
CCACACGGCAGGCTGCAGAAGTGGCTGCTGAGAAGTCCTTTAATAAGTTGATTGTAAATGGCCGCAGACTGAATG
TGAAATGGGGAAGATCCCAGGCAGCCAGAGGAAAAGAAAAAGAGAAAGATGGAACTACAGACTCTGGGATCAAAC
TAGAACCTGTTCCAGGATTGCCAGGAGCTCTTCCTCCTCCTCCTGCAGCAGAAGAAGAAGCCTCTGCCAACTACT
TCAACTTGCCCCCAAGTGGTCCTCCAGCTGTGGTGAACATTGCTCTGCCACCGCCCCCTGGCATTGCTCCACCCC
CACCCCCAGGTTTTGGGCCACACATGTTCCACCCAATGGGACCACCCCCTCCTTTCATGCGGGCTCCAGGACCAA
TCCACTATCCTTCTCAGGACCCTCAGAGGATGGGAGCTCATGCTGGAAAACACAGCAGCCCCTAGCACCTTGTCA
CCACTCTGGGGCTCTGTGGAAGAAAGGGCACTTAAAACTCCCAGTAAATCTTGGAATAAATATATTTTTCCTTCC
CTTGTAGTTTCCATGGTAGCTGAATGTGCTCAGATGTGAGCAGTCAGAGACTGACAGCCATGCTTTCCTATACTT
GTTCAAAGGATCGATGGACCGTAAATAAGCTGCCATTAACACATCTGGTTACTGCTGTAACATGACTAATAAAAC
CGAACGCCTGTTCCCCTTACCCGTGTGGGGGACACGCAGATGAGTGAATTGGAATGTCCAGCAGAGTTACCCTCC
CAATTATATGTTCATTTTGTATATTTTTTGGTCGGGGGAAAAATTGACCTGCAGTAAAAAAACCTTTGACCATTT
TTATGTCCATTGGATACTTTCCTTTTTATCATCTTAAAAAAAGATAACTAGTACTAATCATTGTAGTGGCCTAAG
TGTGATTTAACTCTTGAAGTCACACCCTCCGAAAGATGAGTAGAAACCAGCACCAGCACAGCCCAGATCTTCTCT
TTCCTCTCCTTTTCCTCATTTATTCCTAAAGGAATCTGACCATTTTACGTCTCTACGGCCCAAAAAAAGACAAAA
ATAAAAATTCCTTTTTATTCCTGTCAACTGGATGGAAACACAAATTTCATGGAGCTGTGTACCATCGAAGAAACC
TGGTGTCTGGCATGAAATTACTGTAAAGAACTTCCTGTAAAACACGTTCTTTAACAAACTGAAATGAAAAGCATT
GGAGCGTCTGAATGAAAGACGTGACCTCCTGCTGGGACTCTGATGGTCTTCAGCATTCACCTTCGTGTGTCTTCA
GTGTCTCATTGTCATCCCTGCTTCTGTTTGGTCTTAGAGTGTTTGGATATAACTGAATTGTAGATGGTAAAGGAA
ATTTGATGTGTTTTTTGTTTTTAAATAATTAAAACGGGTCAATTTTT

FIGURE 1158A

GAGAAAAGTCACATCCAGCTCCTTCATGTTGCTGCCGATGTGGGATTTTCCTGGCTTCGTCAGCCAAGCAATTGG
CTGCCTTTGCCGGAGGCTTTGAGAACCAAGGCTTGAAGGCCGGCAGGAGCATCCAGGGGGAAGCTTGGCTTCAGG
GAGGACCTAGCAGACGTTGGGCCGGAGCACTAGCCTCACGGAGAAGGATCTGAAAGAAGCCAAGGCGCGGAGCCA
GCAGATTGCAGCCCAGCTGACCACCCCTCCCAGCTCCAATTCCCGTGGCGTCCAGCTCTTCAACAGGCGCCGGCA
GAGGGTGAACGAGTTCACCTTGGAGAGCCACGGCCAGAGGGGACAGAAGCCCAGCCAGGAGTCCCTCAGAGTGCT
CCCTTCAAGCCTCCCAGGCCATGCACCGGGGCTCAGCCTGAGTTCCACCTCGCTGCCGGAGCCAGGCCCTCCACG
GCACCCCAGTCCCCAGAGCCCCGACAGAGGGGTCCCTGGCCACAGC**ATG**GAGGGGTACTCAGAGGAGGCTAGCTT
GCTGCGGCACCTGGAGAAGGTGGCCAGTGAGGAGGAAGAGGTACCACTGGTGGTTTATCTAAAGGAGAATGCAGC
ACTGCTGACAGCCAATGGGCTGCACCTGTCCCAAAACCGAGAGGCCCAGCAGTCCTCACCGGCCCCACCTCCAGC
TGAGGTCCACAGCCCAGCTGCAGATGTCAACCAAAACCTTGCCTCGCCCAGTGCCACGCTCACCACACCAACTTC
TAACAGCAGCCACAATCCGCCAGCCACCGATGTCAATCAGAACCCACCGGCAACTGTTGTCCCACAGAGCCTGCC
ACTTTCTAGCATCCAACAGAATTCCTCAGAGGCCCAACTCCCATCTAATGGCACAGGGCCTGCTTCCAAACCCAG
CACCCTGTGTGCTGATGGGCAACCCCAGGCACCGGCTGAGGAGGTGAGATGCAGCACACTCCTAATTGACAAGGT
ATCAACTCCAGCTACCACCACCAGCACCTTCTCCAGAGAAGCTACGCTCATCCCCAGCTCCAGGCCCCCAGCCTC
AGATTTCATGTCCAGCTCCCTGCTCATTGACATCCAGCCCAACACCCTAGTGGTGTCAGCAGATCAAGAGATGTC
TGGGCGAGCAGCTGCCACCACGCCCACCAAGGTCTACAGTGAGGTCCACTTCACACTGGCCAAGCCCCCATCAGT
GGTCAACAGGACGGCCAGGCCTTTTGGGATCCAGGCGCCAGGGGGCACCAGCCAGATGGAGAGGAGCCCCATGCT
AGAGAGACGACATTTTGGGGAGAAGGCCCCGGCTCCCCAGCCCCCCAGTTTGCCAGACAGGAGCCCCCGGCCACA
GAGACACATAATGTCCCGCAGCCCCATGGTGGAAAGGAGGATGATGGGGCAGCGAAGCCCGGCCTCAGAGAGACG
CCCCTTGGGGAACTTCACTGCACCCCCCACCTACACTGAGACCTTGTCCACAGCCCCTCTGGCTTCCTGGGTGAG
GTCTCCTCCCTCATATTCTGTCCTGTATCCCAGCTCCGACCCCAAGTCTTCTCATCTGAAGGGCCAGGCGGTTCC
TGCCAGCAAGACGGGCATTCTGGAGGAGTCGATGGCCCGCCGGGGCAGCCGCAAATCCATGTTTACTTTCGTGGA
GAAGCCCAAGGTGACCCCGAATCCAGACTTGCTGGATCTGGTACAGACAGCGGATGAGAAGCGGCGGCAGAGGGA
CCAGGGGGAGGTAGGCGTGGAGGAGGAGCCCTTCGCACTGGGGGCCGAGGCCTCCAACTTCCAGCAGGAGCCAGC
ACCTCGTGACAGGGCCAGCCCCGCGGCGGCGGAGGAGGTGGTACCAGAGTGGGCCTCCTGCCTCAAGTCACCCCG
CATCCAGGCCAAGCCGAAGCCCAAACCCAACCAGAACCTCTCCGAGGCCTCTGGGAAGGGAGCTGAGCTCTACGC
CCGCCGCCAGTCACGGATGGAGAAATATGTCATCGAGTCTTCAAGCCACACGCCAGAGCTGGCCCGCTGCCCATC
ACCTACCATGTCCCTGCCTTCCTCCTGGAAATACCCCACTAACGCCCCCGGGGCCTTCCGAGTGGCATCCCGAAG
CCCAGCCCGGACCCCGCCTGCCTCCCTCTACCATGGCTACCTGCCTGAGAACGGGGTCCTGCGCCCAGAGCCCAC
CAAGCAGCCGCCATACCAGCTGCGCCCCTCGCTCTTTGTCCTCTCACCTATCAAGGAGCCTGCCAAGGTCTCACC
AAGAGCTGCCTCGCCCGCCAAGCCCAGCTCCTTGGACCTGGTGCCCAACCTGCCCAAGGGGGCTCTCCCTCCATC
TCCTGCCCTGCCTCGGCCCTCGCGCTCCTCACCGGGCCTCTACACCTCCCCCGGCCAGGACAGCCTGCAGCCCAC
TGCCGTGAGCCCTCCTTACGGCGGTGACATCTCCCCCGTGTCTCCCTCCAGGGCGTGGTCTCCCCGAGCCAAGCA
GGCCCCCAGGCCCTCCTTCTCTACCCGGAACGCCGGGATCGAGGCTCAGGACCGCCGGGAGAGCCTGCCCACCTC
CCCACCCTGGACGCCGGGCGCGTCCCGGCCCCCCAGCAGCCTAGACGGCTGGGTGAGCCCGGGCCCGTGGGAGCC
AGGTCGCGGGAGCAGCATGAGCAGCCCCCCGCCGCTGCCGCCGCCACCGCCCATGTCTCCCTCGTGGAGCGAGCG
CTCGGTGTCCCCGCTGCGACCTGAGACCGAGGCGCGGCCCCCCAGCCGCCAGCTGCAGGCGCTTCTGGCGCGAAA
CATCATCAATGCGGCCCGGCGCAAGAGCGCCTCCCCGCGGTCGGCGGGCGCCGAGAACCCGCGGCCCTTCTCCCC
GCCGAGGGCGCCACCGCCCCCGCCCCCGCCCCCGCCCCCGCCCCCGCGCATGCGCTCGCCACAGCCCGCCCGCCC
CGGCTCGGCTGCTGTGCCGGGGGCAGCCTTCGCGCCCATCCCGCGGAGCCCGTTGCCCGCCGGTCCTTCGTCCTG
CACCAGTCCCCGGAGCCCGCTGCCCGCGCCTCCCAGGCCCTTCCTCTACCGCCGCTCGCCCACGGACTCCGACGT
GTCCCTCGACTCCGAGGACTCCGGGGCTAAGTCTCCAGGCATCCTGGGCTACAATATCTGTCCCCGCGGGTGGAA
TGGCAGCCTTCGGCTCAAGCGTGGCAGCCTCCCCGCCGAGGCCTCCTGCACCACC**TAG**AGCCCCACCCCCGACCC
CACCCCGGGAGGGCAGAGCCAGAAGAAGGCTCATTAGACCTGGGGGACCCAAAGGGTCTGGCCTCTTTGGGCAGC
CCCAGAGATGAGGGGTCAGCAGAGGAGAGCTCTGGGGTTGGGGATGGGTTAGGGACGCAAGCTTGAGTTCTAGCC
CTTGCTCTCATTCAGCTGTTGTGTGACCCTGGGTAAGACCCTTCCTTGTTTGACCCTCAGCTTTCCCATCTGTTT
AATGGTGGCTTTGGCCAAGGCAATCCACAAACGTCAAAATTCCCCTTCCCATCAGTACACACACCGATGCACACA
CACTCTCTCTTTCTCTCTCTCTCTCTCACACACACACACACACACACACACACACACACACACACACACACACTA

FIGURE 1158B

GTTAGTGCCTTGGATGAGGCGGGGCAGTGTGTATATGGACCCCTGGACTTGCTACCTTCAGGGTTCCATACTCGT
CCCTCCCCTCCTGGCTCTGCTGTCTGGAGTCTGGCAAGCGGGGTGTGTTCAGAAGGTCCTAGGCCTGTGTCGCAT
GTCCAGGCACTGGCCTGACCATCCGGCTCCCTGGCACCAAGTCCCAGGCAGGAGCAGCTGTTTTCCATCCCTTCC
CAGACAAGCTCTATTTTTATCACAATGACCTTTAGAGAGGTCTCCCAGGCCAGCTCAAGGTGTCCCACTATCCCC
TCTGGAGGGAAGAGGCAGGAAAATTCTCCCCGGGTCCCTGTCATGCTACTTTCTCCATCCCAGTTCAGACTGTCC
AGGACATCTTATCTGCAGCCATAAGAGAATTATAAGGCAGTGATTTCCCTTAGGCCCAGGACTTGGGCCTCCAGC
TCATCTGTTCCTTCTGGGCCCATTCATGGCAGGTTCTGGGCTCAAAGCTGAACTGGGGAGAGAAGAGATACAGAG
CTACCATGTGACTTTACCTGATTGCCCTCAGTTTGGGGTTGCTTATTGGGAAAGAGAGAGACAAAGAGTTACTTG
TTACGGGAAATATGAAAAGCATGGCCAGGATGCATAGAGGAGATTCTAGCAGGGGACAGGATTGGCTCAGATGAC
CCCTGAGGGCTCTTCCAGTCTTGAAATGCATTCCATGATATTAGGAAGTCGGGGGGTGGGTGGTGGTGGTGGGCTA
GTTGGGCTTGAATTTAGGGGCCGATGAGCTTGGGTACGTGAGCAGGGTGTTAAGTTAGGGTCTGCCTGTATTTCT
GGTCCCCTTGGAAATGTCCCCTTCTTCAGTGTCAGACCTCAGTCCCAGTGTCCATATCGTGCCCAGAAAAGTAGA
CATTATCCTGCCCCATCCCTTCCCCAGTGCACTCTGACCTAGCTAGTGCCTGGTGCCCAGTGACCTGGGGGAGCC
TGGCTGCAGGCCCTCACTGGTTCCCTAAACCTTGGTGGCTGTGATTCAGGTCCCCAGGGGGGACTCAGGGAGGAA
TATGGCTGAGTTCTGTAGTTTCCAGAGTTGGCTGGTAGAGCCTTCTAGAGGTTCAGAATATTAGCTTCAGGATCA
GCTGGGGGTATGGAATTGGCTGAGGATCAAACGTATGTAGGTGAAAGGATACCAGGATGTTGCTAAAGGTGAGGG
ACAGTTTGGGTTTGGGACTTACCGGGGTGATGTTAGATCTGGAACCCCCAAGTGAGGCTGGAGGGAGTTAAGGTC
AGTATGGAAGATAGGGTTGGGACAGGGTGCTTTGGAATGAAAGAGTGACCTTAGAGGGCTCCTTGGGCCTCAGGA
ATGCTCCTGCTGCTGTGAAGATGAGAAGGTGCTCTTACTCAGTTAATGATGAGTGACTATATTTACCAAAGCCCC
TACCTGCTGCTGGGTCCCTTGTAGCACAGGAGACTGGGGCTAAGGGCCCCTCCCAGGGAAGGGACACCATCAGGC
CTCTGGCTGAGGCAGTAGCATAGAGGATCCATTTCTACCTGCATTTCCCAGAGGACTAGCAGGAGGCAGCCTTGA
GAAACCGGCAGTTCCCAAGCCAGCGCCTGGCTGTTCTCTCATTGTCACTGCCCTCTCCCCAACCTCTCCTCTAAC
CCACTAGAGATTGCCTGTGTCCTGCCTCTTGCCTCTTGTAGAATGCAGCTCTGGCCCTCAATAAATGCTTCCTGC
ATT

FIGURE 1159

CCTTAGCCCCGTGGGCCCCACGGAGTGAGCGGCATGCAGCACCCCCGGGCCTGTCCAGTGTCCTCTGGCCTGCTG
CCCTGCACCCCCAGAAGGCCCTGACGCCCTGGGGCACTTCTGCTCTGCACAGGACCACGCGGGGGTTTGCCATGG
TGACATAAAGGGGCGCGGAGGAAGGAAGGAGCGTGACCAGCCTGTGGACTGCGCCCCTGGCTGGGAGGAAGGACT
GGGGGCCCAGATCCTCCACTCCCAGTGCCCCACAAGGGCGTCGCTTCCTAAGTCTCTGTGAATTTGTTGGTCAGT
GGACGATTCTCGTGTCTCCTCCTGTGTGGGGCCTTGGGGTAGCCAGGGCAGGCCGGGCCTCCGGTGGCCAAGGTC
TCGGAGGCCAGG**ATG**CCTGCCCTGGCATGCCTCCGGAGGCTGTGTCGGCACGTGTCCCCGCAGGCTGTCCTTTTC
CTGCTGTTCATCTTCTGCCTGTTCAGCGTTTTCATCTCGGCCTACTACCTATATGGCTGGAAGCGAGGCCTGGAG
CCCTCGGCGGATGCCCCCGAGCCTGACTGCGGGGACCCGCCGCCTGTGGCCCCCAGTCGCCTGCTGCCACTCAAG
CCTGTGCAGGCAGCCACCCCTTCCCGCACAGACCCGTTGGTGCTGGTCTTTGTGGAGAGCCTCTACTCGCAACTG
GGCCAGGAGGTGGTGGCCATCCTGGAGTCCAGCCGCTTCAAATACCGCACAGAGATTGCGCCGGGCAAGGGTGAC
ATGCCCACGCTCACTGACAAGGGCCGTGGCCGCTTCGCCCTCATCATCTATGAGAACATCCTCAAGTATGTCAAC
CTGGACGCCTGGAACCGGGAGCTGCTGGACAAGTACTGTGTGGCCTACGGCGTGGGCATCATTGGCTTCTTCAAG
GCCAATGAGAACAGCCTGCTGAGTGCGCAGCTCAAGGGCTTCCCCCTGTTCCTGCACTCAAACCTGGGCCTGAAG
GACTGCAGCATCAACCCCAAGTCCCCGCTGCTCTACGTGACGCGACCTAGCGAGGTGGAGAAAGGTGTGCTCCCC
GGCGAGGACTGGACGGTTTTCCAGTCAAATCACTCCACCTATGAGCCAGTGCTGCTGGCCAAGACGCGCTCGTCT
GAGTCCATCCCACACCTGGGCGCAGACGCCGGCCTGCATGCTGCACTGCACGCCACTGTGGTCCAGGACCTGGGC
CTGCACGACGGCATCCAGCGCGTGCTGTTTGGCAACAACCTGAACTTCTGGCTGCACAAGCTTGTCTTCGTGGAT
GCCGTGGCCTTCCTCACGGGGAAGCGCCTCTCCCTGCCATTGGACCGCTACATCCTGGTGGACATTGATGACATC
TTCGTGGGCAAGGAGGGCACACGCATGAAGGTGGAGGACGTGAAGGCCCTGTTTGACACACAGAACGAACTACGC
GCACACATCCCAAACTTCACCTTCAACCTGGGCTACTCAGGGAAATTCTTCCACACAGGTACCAATGCTGAGGAC
GCTGGGGATGATCTGCTGCTGTCGTATGTGAAGGAGTTCTGGTGGTTCCCCCACATGTGGAGCCACATGCAGCCC
CACCTTTTCCACAACCAGTCCGTGTTGGCCGAGCAGATGGCCTTGAACAAGAAGTTCGCTGTCGAGCATGGCATT
CCCACAGACATGGGGTATGCAGTGGCGCCCCACCACTCGGGCGTGTACCCCGTGCACGTGCAGCTGTACGAGGCT
TGGAAGCAGGTGTGGAGCATCCGCGTGACCAGCACGGAGGAGTACCCCCACCTGAAGCCAGCCCGCTACCGCCGT
GGCTTCATCCACAATGGCATCATGGTTCTCCCACGGCAGACCTGCGGCCTCTTCACACACACCATCTTCTACAAC
GAGTACCCTGGCGGCTCCAGTGAGCTGGACAAGATCATCAACGGGGGCGAGCTCTTCCTCACCGTGCTCCTCAAT
CCTATCAGCATCTTCATGACGCACCTGTCCAACTATGGGAATGACCGCCTGGGCCTGTACACCTTCAAGCACCTG
GTGCGCTTCCTGCACTCCTGGACGAACCTCCGGCTGCAGACACTGCCCCCTGTGCAGTTGGCGCAGAAGTACTTC
CAGATCTTCTCCGAGGAGAAGGACCCGCTCTGGCAGGACCCCTGCGAGGACAAACGTCACAAAGACATCTGGTCC
AAGGAGAAGACGTGTGACCGCTTCCCAAAGCTCCTCATCATCGGCCCCCAGAAAACAGGCACCACTGCCCTCTAC
CTGTTCCTGGGCATGCACCCTGACCTAAGCAGCAACTACCCCAGCTCTGAGACCTTTGAGGAGATCCAGTTTTTT
AATGGCCACAACTATCACAAAGGCATCGACTGGTACATGGAGTTCTTCCCCATCCCTTCCAACACCACCTCCGAC
TTCTACTTTGAGAAAAGCGCCAACTACTTTGATTCAGAAGTGGCGCCCCGGCGGGCAGCAGCCCTCTTGCCCAAA
GCCAAGGTCCTGACCATCCTCATCAACCCCGCGGACCGGGCCTATTCCTGGTACCAGCACCAGCGAGCCCATGAC
GACCCAGTGGCCCTAAAGTACACCTTCCATGAGGTGATTACCGCCGGCTCTGACGCATCCTCGAAGCTGCGTGCC
CTCCAGAACCGCTGCCTGGTCCCTGGCTGGTACGCCACCCACATCGAGCGCTGGCTCAGTGCCTATCACGCCAAC
CAGATTCTGGTCTTGGATGGCAAACTGCTTCGCACAGAACCTGCCAAAGTGATGGACATGGTGCAGAAGTTCCTT
GGGGTGACCAACACCATTGACTACCACAAAACCTTGGCGTTTGATCCAAAGAAAGGATTTTGGTGCCAACTGCTT
GAAGGAGGAAAAACCAAGTGTCTGGGCAAAAGCAAGGGCCGGAAATATCCCGAGATGGACTTGGATTCCCGAGCC
TTCCTGAAGGACTATTACCGGGACCACAACATCGAGCTCTCCAAGCTGCTGTATAAGATGGGCCAGACACTTCCC
ACTTGGCTACGAGAGGACCTCCAGAACACCAGG**TAG**CCGTGGCCACCACAGCCAGACTGAACGTTTGTGAAAGCT
GGGACATCCCACCACACGCTGAGCCAGACCTGCAGAGTGGGAAGCTGGACCAGGGCAGCTGCGCACTTATGAGCA
ATACTCTGTGGAGGTCTGGTGGGGCTGGGGGAGCACCCAGGCGGATCTGCAAGCACCTCGGAGCACCCACCGCTG
GGTCTGCGGCCTAAGGGACCTCCCTCGCCAGCAGAGGTCCATTCCGTTCCCAGCTGCTCCTGGGGAGGCCGCTTC
CTGGTAGGAGGGAGTCCACGAGACTCTTTTCTGTCCCTCACTGTGTTCCGCCGACTGTCCCCTCTCGTCACCCAT
CACTCCCTGCTTCCGCAGGGCGCCCCTCAGTATTCGCTGCCATATGTCCCTGTCCTCCAGGCTGTAGGGGAGGAG
AGCCTGGCCGGGGGAGACAGACTGGACATTTCCCTGTTTCGAGCCAGGCTCTTCCAAGGGGCCAGCTGGGTCCCC
GGAGTCAGTCCTAGGCTGGATGGGAGGGTGGCCCCCTCAAGAGGACTCCCAGCCTCCACATCTGGT

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FIGURE 1160

CTCCGCCCCCTCCCACTCTCTCTTTCCGGTGTGGAGTCTGGAGACGACGTGCAGAA**ATG**GCACCTCGAAAGGGGA
AGGAAAAGAAGGAAGAACAGGTCATCAGCCTCGGACCTCAGGTGGCTGAAGGAGAGAATGTATTTGGTGTCTGCC
ATATCTTTGCATCCTTCAATGACACTTTTGTCCATGTCACTGATCTTTCTGGCAAGGAAACCATCTGCCGTGTGA
CTGGTGGGATGAAGGTAAAGGCAGACCGAGATGAATCCTCACCATATGCTGCTATGTTGGCTGCCCAGGATGTGG
CCCAGAGGTGCAAGGAGCTGGGTATCACCGCCCTACACATCAAACTCCGGGCCACAGGAGGAAATAGGACCAAGA
CCCCTGGACCTGGGGCCCAGTCGGCCCTCAGAGCCCTTGCCCGCTCGGGTATGAAGATCGGGCGGATTGAGGATG
TCACCCCCATCCCCTCTGACAGCACTCGCAGGAAGGGGGGTCGCCGTGGTCGCCGTCTG**TGA**ACAAGATTCCTCA
AAATATTTTCTGTTAATAAATTGCCTTCATGTAAACTGTTTCAACTCCAGCCTTCTCTCCTTCATCAGGGGCTAC
TCAGGCATTTGATTTCTTCCTCCTATTTGGCTTCTTGGGAGAAAGGAGCCTGAGGAGAGCTGAGATCCTGGTGCT
GCATTTGGGGTCTTTTCCATGCTACTTGCGGCATTAAGTTGCCTTGGTCATCTAAAGCAGACCAAGGCGTTGGAG
ACCTCGTTTTGAGTGGAGATGCTGGTTCTAAATATGGACCAATTCTTAAAGAGCCAGAGTGGGAACTGTTGATCC
AAGTGTAGCCTGAAGCGAAAGAGGAGCCTTCCAGACCCATGCCATATATAAACACACGTGGGTGTGCATTCTCCC
CCCACACCTTCTGTGCAAAGCTGGGAGCTCACTCCACTGCGTCTTGCTTTTTTTCACTTGGCAGATCTTGGAGAT
TGTTCCACATCAGTACATAAAGTACATAAAGATTGTCACCCCACAAATACACACCAAGTCCTATTTTCATCAGCG
ATAAAAAAGAAAAGTTCTTGCTTTCCGGAAGCTTGCATGCGGCTCTGAGTACCCAGTGACACCAGATGGTACTCA
GCGTTTTGCAAGGGATTACCACAAGGCCCCGTGATGGTGCCTGCCATGGTTAGGACAGGCTGGTGGCTGGGTAGG
GTTAGTGAGACCCAGTGGAGAGGATGCTGTGTGTCACAGGCTGGAGAGGTGAGACCATTGAGGTAGTCAGTTGTA
GAGGAAAGAAACCAGCAAGAGGGGAAAATCTGTTGGGATGCTGCTTTTAGCCTTTGATGGCGTGTTCCAGGCAGA
GGGAATAAGCAAATAAATGGGTCCTGAGACAAGGGGTTACTGTGATGAGGCGGCGTTGGTTACATGCCAAACCTT
GCTAGGGATTTTAATAACAACATTGAATCTTAACCTGATGAAATAACAGTACTCCTGGGGAGGCGGGAGGGATAG
CATTAGGAGATATACCTAATGCTAAATGACGAGTTAATGGGTGCAGCACACCAACATGGCACATGTATACATATG
TAACAAACCTGCACGTTGTGCACATGTACCCTAAAACTTAAAGTATAATAAAAAAAAAAAGCTTGCAAAAAAAAT
ATAACAGTACTCCTTAAATTGTTAAAAGTCATGAAAGTCAAGGACAGGAGATTAAGGAGGCGTGAAAACTAAATG
CCCATTGTGG

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FIGURE 1161

ACCAAGTGGGCGGAGTGGCCTTCTGTGGACGAATCAGATTCCTCTCCAGCACCGACTTTAAGAGGCGAGCCGGGG
GGTCAGGGTCCCAG**ATG**CACAGGAGGAGAAGCAGGAGCTGTCGGGAAGATCAGAAGCCAGTCATGGATGACCAGC
GCGACCTTATCTCCAACAATGAGCAACTGCCCATGCTGGGCCGGCGCCCTGGGGCCCCGGAGAGCAAGTGCAGCC
GCGGAGCCCTGTACACAGGCTTTTCCATCCTGGTGACTCTGCTCCTCGCTGGCCAGGCCACCACCGCCTACTTCC
TGTACCAGCAGCAGGGCCGGCTGGACAAACTGACAGTCACCTCCCAGAACCTGCAGCTGGAGAACCTGCGCATGA
AGCTTCCCAAGCCTCCCAAGCCTGTGAGCAAGATGCGCATGGCCACCCCGCTGCTGATGCAGGCGCTGCCCATGG
GAGCCCTGCCCCAGGGGCCCATGCAGAATGCCACCAAGTATGGCAACATGACAGAGGACCATGTGATGCACCTGC
TCCAGAATGCTGACCCCCTGAAGGTGTACCCGCCACTGAAGGGGAGCTTCCCGGAGAACCTGAGACACCTTAAGA
ACACCATGGAGACCATAGACTGGAAGGTCTTTGAGAGCTGGATGCACCATTGGCTCCTGTTTGAAATGAGCAGGC
ACTCCTTGGAGCAAAAGCCCACTGACGCTCCACCGAAAGTACTGACCAAGTGCCAGGAAGAGGTCAGCCACATCC
CTGCTGTCCACCCGGGTTCATTCAGGCCCAAGTGCGACGAGAACGGCAACTATCTGCCACTCCAGTGCTATGGGA
GCATCGGCTACTGCTGGTGTGTCTTCCCCAACGGCACGGAGGTCCCCAACACCAGAAGCCGCGGGCACCATAACT
GCAGTGAGTCACTGGAACTGGAGGACCCGTCTTCTGGGCTGGGTGTGACCAAGCAGGATCTGGGCCCAGTCCCCA
TG**TGA**GAGCAGCAGAGGCGGTCTTCAACATCCTGCCAGCCCCACACAGCTACAGCTTTCTTGCTCCCTTCAGCCC
CCAGCCCCTCCCCCATCTCCCACCCTGTACCTCATCCCATGAGACCCTGGTGCCTGGCTCTTTCGTCACCCTTGG
ACAAGACAAACCAAGTCGGAACAGCAGATAACAATGCAGCAAGGCCCTGCTGCCCAATCTCCATCTGTCAACAGG
GGCGTGAGGTCCCAGGAAGTGGCCAAAAGCTAGACAGATCCCCGTTCCTGACATCACAGCAGCCTCCAACACAAG
GCTCCAAGACCTAGGCTCATGGACGAGATGGGAAGGCACAGGGAGAAGGGATAACCCTACACCCAGACCCCAGGC
TGGACATGCTGACTGTCCTCTCCCCTCCAGCCTTTGGCCTTGGCTTTTCTAGCCTATTTACCTGCAGGCTGAGCC
ACTCTCTTCCCTTTCCCCAGCATCACTCCCCAAGGAAGAGCCAATGTTTTCCACCCATAATCCTTTCTGCCGACC
CCTAGTTCCCTCTGCTCAGCCAAGCTTGTTATCAGCTTTCAGGGCCATGGTTCACATTAGAATAAAAGGTAGTAA
TTAG

FIGURE 1162A

TTTTTAGAAAAAAAAAATATATTTCCCTCCTGCTCCTTCTGCGTTCACAAGCTAAGTTGTTTATCTCGGCTGCGG
CGGGAACTGCGGACGGTGGCGGGCGAGCGGCTCCTCTGCCAGAGTTGATATTCACTG**ATG**GACTCCAAAGAATCA
TTAACTCCTGGTAGAGAAGAAAACCCCAGCAGTGTGCTTGCTCAGGAGAGGGGAGATGTGATGGACTTCTATAAA
ACCCTAAGAGGAGGAGCTACTGTGAAGGTTTCTGCGTCTTCACCCTCACTGGCTGTCGCTTCTCAATCAGACTCC
AAGCAGCGAAGACTTTTGGTTGATTTTCCAAAAGGCTCAGTAAGCAATGCGCAGCAGCCAGATCTGTCCAAAGCA
GTTTCACTCTCAATGGGACTGTATATGGGAGAGACAGAAACAAAAGTGATGGGAAATGACCTGGGATTCCCACAG
CAGGGCCAAATCAGCCTTTCCTCGGGGGAAACAGACTTAAAGCTTTTGGAAGAAAGCATTGCAAACCTCAATAGG
TCGACCAGTGTTCCAGAGAACCCCAAGAGTTCAGCATCCACTGCTGTGTCTGCTGCCCCCACAGAGAAGGAGTTT
CCAAAAACTCACTCTGATGTATCTTCAGAACAGCAACATTTGAAGGGCCAGACTGGCACCAACGGTGGCAATGTG
AAATTGTATACCACAGACCAAAGCACCTTTGACATTTTGCAGGATTTGGAGTTTTCTTCTGGGTCCCCAGGTAAA
GAGACGAATGAGAGTCCTTGGAGATCAGACCTGTTGATAGATGAAAACTGTTTGCTTTCTCCTCTGGCGGGAGAA
GACGATTCATTCCTTTTGGAAGGAAACTCGAATGAGGACTGCAAGCCTCTCATTTTACCGGACACTAAACCCAAA
ATTAAGGATAATGGAGATCTGGTTTTGTCAAGCCCCAGTAATGTAACACTGCCCCAAGTGAAAACAGAAAAAGAA
GATTTCATCGAACTCTGCACCCCTGGGGTAATTAAGCAAGAGAAACTGGGCACAGTTTACTGTCAGGCAAGCTTT
CCTGGAGCAAATATAATTGGTAATAAAATGTCTGCCATTTCTGTTCATGGTGTGAGTACCTCTGGAGGACAGATG
TACCACTATGACATGAATACAGCATCCCTTTCTCAACAGCAGGATCAGAAGCCTATTTTTAATGTCATTCCACCA
ATTCCCGTTGGTTCCGAAAATTGGAATAGGTGCCAAGGATCTGGAGATGACAACTTGACTTCTCTGGGGACTCTG
AACTTCCCTGGTCGAACAGTTTTTTCTAATGGCTATTCAAGCCCCAGCATGAGACCAGATGTAAGCTCTCCTCCA
TCCAGCTCCTCAACAGCAACAACAGGACCACCTCCCAAACTCTGCCTGGTGTGCTCTGATGAAGCTTCAGGATGT
CATTATGGAGTCTTAACTTGTGGAAGCTGTAAAGTTTTCTTCAAAAGAGCAGTGGAAGGACAGCACAATTACCTA
TGTGCTGGAAGGAATGATTGCATCATCGATAAAATTCGAAGAAAAAACTGCCCAGCATGCCGCTATCGAAAATGT
CTTCAGGCTGGAATGAACCTGGAAGCTCGAAAAACAAAGAAAAAAATAAAAGGAATTCAGCAGGCCACTACAGGA
GTCTCACAAGAAACCTCTGAAAATCCTGGTAACAAAACAATAGTTCCTGCAACGTTACCACAACTCACCCCTACC
CTGGTGTCACTGTTGGAGGTTATTGAACCTGAAGTGTTATATGCAGGATATGATAGCTCTGTTCCAGACTCAACT
TGGAGGATCATGACTACGCTCAACATGTTAGGAGGGCGGCAAGTGATTGCAGCAGTGAAATGGGCAAAGGCAATA
CCAGGTTTCAGGAACTTACACCTGGATGACCAAATGACCCTACTGCAGTACTCCTGGATGTTTCTTATGGCATTT
GCTCTGGGGTGGAGATCATATAGACAATCAAGTGCAAACCTGCTGTGTTTTGCTCCTGATCTGATTATTAATGAG
CAGAGAATGACTCTACCCTGCATGTACGACCAATGTAAACACATGCTGTATGTTTCCTCTGAGTTACACAGGCTT
CAGGTATCTTATGAAGAGTATCTCTGTATGAAAACCTTACTGCTTCTCTCTTCAGTTCCTAAGGACGGTCTGAAG
AGCCAAGAGCTATTTGATGAAATTAGAATGACCTACATCAAAGAGCTAGGAAAAGCCATTGTCAAGAGGGAAGGA
AACTCCAGCCAGAACTGGCAGCGGTTTTATCAACTGACAAAACTCTTGGATTCTATGCATGAAGTGGTTGAAAAT
CTCCTTAACTATTGCTTCCAAACATTTTTGGATAAGACCATGAGTATTGAATTCCCCGAGATGTTAGCTGAAATC
ATCACCAATCAGATACCAAAATATTCAAATGGAAATATCAAAAAACTTCTGTTTCATCAAAAG**TGA**CTGCCTTAA
TAAGAATGGTTGCCTTAAAGAAAGTCGAATTAATAGCTTTTATTGTATAAACTATCAGTTTGTCCTGTAGAGGTT
TTGTTGTTTTATTTTTTATTGTTTTCATCTGTTGTTTTGTTTTAAATACGCACTACATGTGGTTTATAGAGGGCC
AAGACTTGGCAACAGAAGCAGTTGAGTCGTCATCACTTTTCAGTGATGGGAGAGTAGATGGTGAAATTTATTAGT
TAATATATCCCAGAAATTAGAAACCTTAATATGTGGACGTAATCTCCACAGTCAAAGAAGGATGGCACCTAAACC
ACCAGTGCCCAAAGTCTGTGTGATGAACTTTCTCTTCATACTTTTTTTCACAGTTGGCTGGATGAAATTTTCTAG
ACTTTCTGTTGGTGTATCCCCCCCCCTGTATAGTTAGGATAGCATTTTTGATTTATGCATGGAAACCTGAAAAAAA
GTTTACAAGTGTATATCAGAAAAGGGAAGTTGTGCCTTTTATAGCTATTACTGTCTGGTTTTAACAATTTCCTTT
ATATTTAGTGAACTACGCTTGCTCATTTTTTCTTACATAATTTTTTATTCAAGTTATTGTACAGCTGTTTAAGAT
GGGCAGCTAGTTCGTAGCTTTCCCAAATAAACTCTAAACATTAATCAATCATCTGTGTGAAAATGGGTTGGTGCT
TCTAACCTGATGGCACTTAGCTATCAGAAGACCACAAAAATTGACTCAAATCTCCAGTATTCTTGTCAAAAAAAA
AAAAAAAAAAGCTCATATTTTGTATATATCTGCTTCAGTGGAGAATTATATAGGTTGTGCAAATTAACAGTCCTA
ACTGGTATAGAGCACCTAGTCCAGTGACCTGCTGGGTAAACTGTGGATGATGGTTGCAAAAGACTAATTTAAAAA
ATAACTACCAAGAGGCCCTGTCTGTACCTAACGCCCTATTTTTGCAATGGCTATATGGCAAGAAAGCTGGTAAAC
TATTTGTCTTTCAGGACCTTTTGAAGTAGTTTGTATAACTTCTTAAAAGTTGTGATTCCAGATAACCAGCTGTAA
CACAGCTGAGAGACTTTTAATCAGACAAAGTAATTCCTCTCACTAAACTTTACCCAAAAACTAAATCTCTAATAT

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FIGURE 1162B

GGCAAAAATGGCTAGACACCCATTTTCACATTCCCATCTGTCACCAATTGGTTAATCTTTCCTGATGGTACAGGA
AAGCTCAGCTACTGATTTTTGTGATTTAGAACTGTATGTCAGACATCCATGTTTGTAAAACTACACATCCCTAAT
GTGTGCCATAGAGTTTAACACAAGTCCTGTGAATTTCTTCACTGTTGAAAATTATTTTAAACAAAATAGAAGCTG
TAGTAGCCCTTTCTGTGTGCACCTTACCAACTTTCTGTAAACTCAAAACTTAACATATTTACTAAGCCACAAGAA
ATTTGATTTCTATTCAAGGTGGCCAAATTATTTGTGTAATAGAAAACTGAAAATCTAATATTAAAAATATGGAAC
TTCTAATATATTTTTATATTTAGTTATAGTTTCAGATATATATCATATTGGTATTCACTAATCTGGGAAGGGAAG
GGCTACTGCAGCTTTACATGCAATTTATTAAAATGATTGTAAAATAGCTTGTATAGTGTAAAATAAGAATGATTT
TTAGATGAGATTGTTTTATCATGACATGTTATATATTTTTTGTAGGGGTCAAAGAAATGCTGATGGATAACCTAT
ATGATTTATAGTTTGTACATGCATTCATACAGGCAGCGATGGTCTCAGAAACCAAACAGTTTGCTCTAGGGGAAG
AGGGAGATGGAGACTGGTCCTGTGTGCAGTGAAGGTTGCTGAGGCTCTGACCCAGTGAGATTACAGAGGAAGTTA
TCCTCTGCCTCCCATTCTGACCACCCTTCTCATTCCAACAGTGAGTCTGTCAGCGCAGGTTTAGTTTACTCAATC
TCCCCTTGCACTAAAGTATGTAAAGTATGTAAACAGGAGACAGGAAGGTGGTGCTTACATCCTTAAAGGCACCAT
CTAATAGCGGGTTACTTTCACATACAGCCCTCCCCCAGCAGTTGAATGACAACAGAAGCTTCAGAAGTTTGGCAA
TAGTTTGCATAGAGGTACCAGCAATATGTAAATAGTGCAGAATCTCATAGGTTGCCAATAATACACTAATTCCTT
TCTATCCTACAACAAGAGTTTATTTCCAAATAAAATGAGGACATGTTTTTGTTTTCTTTGAATGCTTTTTGAATG
TTATTTGTTATTTTCAGTATTTTGGAGAAATTATTTAATAAAAAAACAATCATTTGCTTTTTG

FIGURE 1163

CGGGAGCGGAGAGCGGACCCCAGAGAGCCCTGAGCAGCCCCACCGCCGCCGCCGGCCTAGTTACCATCACACCCC
GGGAGGAGCCGCAGCTGCCGCAGCCGGCCCCAGTCACCATCACCGCAACC**ATG**AGCAGCGAGGCCGAGACCCAGC
AGCCGCCCGCCGCCCCCCCCGCCGCCCCCGCCCTCAGCGCCGCCGACACCAAGCCCGGCACTACGGGCAGCGGCG
CAGGGAGCGGTGGCCCGGGCGGCCTCACATCGGCGGCGCCTGCCGGCGGGGACAAGAAGGTCATCGCAACGAAGG
TTTTGGGAACAGTAAAATGGTTCAATGTAAGGAACGGATATGGTTTCATCAACAGGAATGACACCAAGGAAGATG
TATTTGTACACCAGACTGCCATAAAGAAGAATAACCCCAGGAAGTACCTTCGCAGTGTAGGAGATGGAGAGACTG
TGGAGTTTGATGTTGTTGAAGGAGAAAAGGGTGCGGAGGCAGCAAATGTTACAGGTCCTGGTGGTGTTCCAGTTC
AAGGCAGTAAATATGCAGCAGACCGTAACCATTATAGACGCTATCCACGTCGTAGGGGTCCTCCACGCAATTACC
AGCAAAATTACCAGAATAGTGAGAGTGGGGAAAAGAACGAGGGATCGGAGAGTGCTCCCGAAGGCCAGGCCCAAC
AACGCCGGCCCTACCGCAGGCGAAGGTTCCCACCTTACTACATGCGGAGACCCTATGGGCGTCGACCACAGTATT
CCAACCCTCCTGTGCAGGGAGAAGTGATGGAGGGTGCTGACAACCAGGGTGCAGGAGAACAAGGTAGACCAGTGA
GGCAGAATATGTATCGGGGATATAGACCACGATTCCGCAGGGGCCCTCCTCGCCAAAGACAGCCTAGAGAGGACG
GCAATGAAGAAGATAAAGAAAATCAAGGAGATGAGACCCAAGGTCAGCAGCCACCTCAACGTCGGTACCGCCGCA
ACTTCAATTACCGACGCAGACGCCCAGAAAACCCTAAACCACAAGATGGCAAAGAGACAAAAGCAGCCGATCCAC
CAGCTGAGAATTCGTCCGCTCCCGAGGCTGAGCAGGGCGGGGCTGAG**TAA**ATGCCGGCTTACCATCTCTACCATC
ATCCGGTTTAGTCATCCAACAAGAAGAAATATGAAATTCCAGCAATAAGAAATGAACAAAAGATTGGAGCTGAAG
ACCTAAAGTGCTTGCTTTTTGCCCGTTGACCAGATAAATAGAACTATCTGCATTATCTATGCAGCATGGGGTTTT
TATTATTTTTACCTAAAGACGTCTCTTTTTGGTAATAACAAACGTGTTTTTTAAAAAAGCCTGGTTTTTCTCAAT
ACGCCTTTAAAGG

FIGURE 1164

GGCGGGTGGCTGGCGGTTCCGTTAGGTCTGAGGGAGCG**ATG**GCGGTACGCGCGTTGAAGCTGCTGACCACACTGC
TGGCTGTCGTGGCCGCTGCCTCCCAAGCCGAGGTCGAGTCCGAGGCAGGATGGGGCATGGTGACGCCTGATCTGC
TCTTCGCCGAGGGGACCGCAGCCTACGCGCGCGGGGACTGGCCCGGGGTGGTCCTGAGCATGGAACGGGCGCTGC
GCTCCCGGGCAGCCCTCCGCGCCCTTCGCCTGCGCTGCCGCACCCAGTGTGCCGCCGACTTCCCGTGGGAGCTGG
ACCCCGACTGGTCCCCCAGCCCGGCCCAGGCCTCGGGCGCCGCCGCCCTGCGCGACCTGAGCTTCTTCGGGGGCC
TTCTGCGTCGCGCTGCCTGCCTGCGCCGCTGCCTCGGGCCGCCGGCCGCCCACTCGCTCAGCGAAGAGATGGAGC
TGGAGTTCCGCAAGCGGAGCCCCTACAACTACCTGCAGGTCGCCTACTTCAAGATCAACAAGTTGGAGAAAGCTG
TTGCTGCAGCACACACCTTCTTCGTGGGCAATCCTGAGCACATGGAAATGCAGCAGAACCTAGACTATTACCAAA
CCATGTCTGGAGTGAAGGAGGCCGACTTCAAGGATCTTGAGACTCAACCCCATATGCAAGAATTTCGACTGGGAG
TGCGACTCTACTCAGAGGAACAGCCACAGGAAGCTGTGCCCCACCTAGAGGCGGCGCTGCAAGAATACTTTGTGG
CCTATGAGGAGTGCCGTGCCCTCTGCGAAGGGCCCTATGACTACGATGGCTACAACTACCTTGAGTACAACGCTG
ACCTCTTCCAGGCCATCACAGATCATTACATCCAGGTCCTCAACTGTAAGCAGAACTGTGTCACGGAGCTTGCTT
CCCACCCAAGTCGAGAGAAGCCCTTTGAAGACTTCCTCCCATCGCATTATAATTATCTGCAGTTTGCCTACTATA
ACATTGGGAATTATACACAGGCTGTTGAATGTGCCAAGACCTATCTTCTCTTCTTCCCCAATGACGAGGTGATGA
ACCAAAATTTGGCCTATTATGCAGCTATGCTTGGAGAAGAACACACCAGATCCATCGGCCCCCGTGAGAGTGCCA
AGGAGTACCGACAGCGAAGCCTACTGGAAAAAGAACTGCTTTTCTTCGCTTATGATGTTTTTGGAATTCCCTTTG
TGGATCCGGATTCATGGACTCCAGAAGAAGTGATTCCCAAGAGATTGCAAGAGAAACAGAAGTCAGAACGGGAAA
CAGCCGTACGCATCTCCCAGGAGATTGGGAACCTTATGAAGGAAATCGAGACCCTTGTGGAAGAGAAGACCAAGG
AGTCACTGGATGTGAGCAGACTGACCCGGGAAGGTGGCCCCCTGCTGTATGAAGGCATCAGTCTCACCATGAACT
CCAAACTCCTGAATGGTTCCCAGCGGGTGGTGATGGACGGCGTAATCTCTGACCACGAGTGTCAGGAGCTGCAGA
GACTGACCAATGTGGCAGCAACCTCAGGAGATGGCTACCGGGGTCAGACCTCCCCACATACTCCCAATGAAAAGT
TCTATGGTGTCACTGTCTTCAAAGCCCTCAAGCTGGGGCAAGAAGGCAAAGTTCCTCTGCAGAGTGCCCACCTGT
ACTACAACGTGACGGAGAAGGTGCGGCGCATCATGGAGTCCTACTTCCGCCTGGATACGCCCCTCTACTTTTCCT
ACTCTCATCTGGTGTGCCGCACTGCCATCGAAGAGGTCCAGGCAGAGAGGAAGGATGATAGTCATCCAGTCCACG
TGGACAACTGCATCCTGAATGCCGAGACCCTCGTGTGTGTCAAAGAGCCCCCAGCCTACACCTTCCGCGACTACA
GCGCCATCCTTTACCTAAATGGGGACTTCGATGGCGGAAACTTTTATTTCACTGAACTGGATGCCAAGACCGTGA
CGGCAGAGGTGCAGCCTCAGTGTGGAAGAGCCGTGGGATTCTCTTCAGGCACTGAAAACCCACATGGAGTGAAGG
CTGTCACCAGGGGGCAGCGCTGTGCCATCGCCCTGTGGTTCACCCTGGACCCTCGACACAGCGAGCGGGTGAGAG
CAGCTCGAGCGGGTGAGAGCAGCTGGTGCTGTGGTGACCCGTTCCCAGAGCGCCCTTGGTTTGCCTTTCTCTTCC
CCAAATCCCATTGCCAGTGGCTGAGACACGAAAGGAGCACTTGGGACACCAGCTCCAACGCCCTGTCATTATGGT
CACATTGCCTTGTCCTCCCTGGGCCTGCTGTGAACGGGATCCAGGTGGGGAAAGAGGTCAAGACAGGGAGCGATG
CTGAGTTCTTGGTTCCCTCCTTGGGCCCCACTTCAGCTGTCCTTTTCCAGAGAGTAGGACCTGCTGGGAAGGAGA
TGAGCCTGGGGCCATTAAGGAACCTTCCTTGTCCCCTGGGAAGTAGCAGC**TGA**GAGATAGCGAGTGTCTGGAGCG
GAGGCCTCTCTGAATGGGCAGGGGTTTGTCCTTGCAGGACAGGGTGCAGGCAGATGACCTGGTGAAGATGCTCTT
CAGCCCAGAAGAGATGGACCTCTCCCAGGAGCAGCCCCTGGATGCCCAGCAGGGTCCCCCCGAACCTGCACAAGA
GTCTCTCTCAGGCAGTGAATCGAAGCCCAAGGATGAGCTATGACAGCGTCCAGGTCAGACGGATGGGTGACTAGA
CCCATGGAGAGGAACTCTTCTGCACTCTGAGCTGGCCAGCCCCTCGGGGCTGCAGAGCAGTGAGCCTACATCTGC
CACTCAGCCGAGGGGACCCTGCTCACAGCCTTCTACATGGTGCTACTGCTCTTGGAGTGGACATGACCAGACACC
GCACCCCCTGGATCTGGCTGAGGGCTCAGGACACAGGCCCAGCCACCCCCAGGGGCCTCCACAGGCCGCTGCATG
ACAGCGATACAGTACTTAAGTGTCTGTGTAGACAACCAAAGAATAAATGATTCATGGTTTTTTTT

FIGURE 1165

ATGGATCCACCTGCACGTAAAGAAAAAACCAAAGTTAAAGAATCTGTCAGCAGAGTTGAGAAGGCCAAACAGAAA
TCAGCCCAGCAGGAGCTGAAGCAGAGACAAAGAGCAGAGAATGAAAATTTTGAAGAAATTATAAATTTACCCATT
GGATCGAAACCATCCAGATTAGATGTCACTAACAGTAAGAGCCCAGAAGTTCCTTTGAATCCAGTTTTGGCCTTT
GATGATGAAGGAACGCTTGGGCCCCTGGCTCAGATCTATGCCCTCAACAGAGTCATGACAGAACTGGAGCAGCAG
CAGTTTGATGAGTTCTGTAAACAGATGCAGCCTCCTGGAGAA**TGA**

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FIGURE 1166

GCCTCTGCCCCCCAAAGTCAGCTCTCTAAAAGCAAGCATGTTTTAGACCACTCACTCTTTCCCTCTTTCTTCAGG
AATGAATTGGGAAAGGCTGATGAGTAAAACATACCATCCTTTTCTATTTTCTTGATGCTGTTTACAACATAGTTT
GGTGATATCCAGAGCTAATGTACATGCTTTCAAAAGCTAATCTGCCTGTTGATGGTAACTAGGTACAGCGACTTT
AAATACAGTTGCTATAATCCTGAAAAGCCCCAGGAGCACATCAGGGAGCTGGGAAACACAGTTGCAGAGAACTCA
GCTGTATGTTGCCCTCTGACCTTGGCCCAGACCTTCAGAGGCTCAGTCTGTTGAGTCTGTTGTGACTGTCTTATG
AATCAATCTGTTGTGCCAACCCTTTCTGAGATTCAGAGAGGTCCAGCTAGAAAAAGTGGCAGTTTTAACCACCAA
CGTAGAAGCTTTTTTTTCCCCACAAGACCATTGTACTGCAATACTTGAGTATTTGTGTAGCAAACAGCCTCTTAG
GTTGGAGAGTATTGATTTCAAATAGGAAGTTGGTAGACTAGGTGTGAGGATGAAATA**ATG**ACCTTGATTTTTGGG
TGTGTATTGCAGAAGCCTCGTCGCTTTCAAGTCACATCATATATGCGATCTGGCCTAACCATGGAGATATTGGTT
ATCAGTTTGCAGATGAATACACAGTTCTATCCAACAGAAACTGTATCTTTCTGTTTGTCAGAAGTTCTCCGT**TAG**

TTCCTGTATTAGTCAAGGTTTTCCAGAGAAACAGAATCAATATATATTGGGGCAGGGGGGCGGTGGTTATTATAA
GGAATTGGCTCACGTGATTATGGAGGCGGTTAAATCCCAAGATCTGCAGGATAAGTCAGCAAGATGGAGTCCCAT
GAGAGCTGATGGTTTAGTTCCAGTCTGATGGCAGCAGGCTTGACGCCAAGGAAGAGATGATGTTTAATTCAAGTC
CGAAGGCAAGGAAAAAGCTGATGGTCCTGTCCAAAGGCTATTAGGCAGGAAGAATTCTCTTAGGGCAGAGTTAGC
TCTTTTGTTCTATTCAGGCCTTCAACTGATTCAGCAAGGCCCGCCCACATTTGGGAGGACAGTCTGCATTACTCA
GTCTACTGATTTGAATGTTAATGTCATTGAGAAACACCCTCACAGGAACACTCAGAATAATGTTTGACCAAATAG
CTGGGCATCTTGTGACCCAGTTAAGTGGATACATAAGATTAACTATCACAGTGACTCAGTGGAATTTTTTGTTTG
CTTTTGTACAGTTTTAAAATAAAAGTTTGGTATTTGT

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FIGURE 1167

CCCTCGCCTACAGAGGCGGCGCTGTCCCTGATCGAGCGGCGGGAGCGAGGGTTCAGAG**ATG**GGCAGTGAGAAGGA
GCAGAGTCCAGAACCACACCTGCCTGAGGAAGGGGAAGGGGGTAAGCCTTGGAGAGTGGATGACTCAGAGGGTTC
TTGGATCCCACCTGGGGAGAAGGAGCATGGGCAAGAGAGCCTGTCGGATGAACTGCAAGAAACTCATCCAAAAAA
GCCATGGCAGAAAGTCACTGTCCGGGCTCGAGAGCTAGGGGACCCCATTGCTCATCCAAGGCATGAGGCAGATGA
GAAGCCCTTTATATGTGCCCAGTGTGGCAAAACCTTCAATAATACCTCCAACCTGAGAACACACCAGCGGATCCA
CACTGGTGAGAAGCCTTACAAGTGTTCTGAATGTGGCAAGAGCTTCTCGAGAAGCTCCAACCGCATCCGGCACGA
GCGGATCCACCTGGAAGAGAAACACTACAAATGCCCCAAGTGCCAGGAGAGCTTTCGGCGGCGCTCAGACCTCAC
CACGCACCAGCAAGATCACCTAGGCAAGCGGCCATACCGCTGTGACATCTGTGGCAAGAGCTTCAGCCAGAGTGC
CACGCTAGCTGTGCATCACCGGACCCACCTGGAGCCAGCACCCTACATCTGCTGTGAGTGTGGGAAGAGCTTCAG
CAACAGCTCCAGCTTTGGCGTGCATCACCGCACCCACACAGGTGAGAGACCTTATGAGTGCACTGAGTGTGGGCG
GACCTTCAGCGATATCTCCAACTTTGGAGCACACCAGCGGACCCACAGAGGGGAGAAGCCCTACCGGTGCACTGT
GTGTGGGAAACACTTCTCCCGGAGCTCGAATCTCATCCGCCACCAGAAAACTCACTTGGGCGAACAGGCTGGGAA
AGATTCCAGC**TGA**AGGAGAGCCCCATTTAGAGTGAGGGAGAGAGAGTGAGAGACCCTAACCTATTGGAGGAAGAT
CTTCAGCATCTTTTGCTGCTACCTTGACCTCAAGCCCTTCATCCCACTTTGGAGAATGGTTTTGTATAGCCTCTG
AAGTCAGGATCTCAGGAAGTCCTGAGGAGGGACTCTGGAATAAAAACCCTTGCCTCTTTCCAGGCCAATTTCTCG
TGTTGGAAAGTCAGAAGACCCAGTCTTGGCTTTACTTTCTTGGGGTGAAAGAGAAATAGGGTAGGCTCAGAACAT
GCTCATGTTATTAAGGCAGCAGTCCCCCTGGCCTTTGAGGAAGTACTTATGAGATGGGTGTCACTGTCTGAAGGT
TCTCCAAATTGTCTGTGAACTGCTTAGGTAGGAGTGCACTGCAGTTTCCTGCTAGTTCCCACCTGTTGTGCCCCA
ACTTTGCTTCTAGATCTCTGGGGTGGGAGGAGTGACCTTCTCAATGGAAGGGGCCTCCTTGGTCTGGAGAAGAGA
TCTGAGGTCCCACCTTAGAAATGAAAGGGAAACCCTCAGGGAGCCATGACCCAGGGACCTTCACACTCCCCCATG
TTTGTTACTTGTTATCCCTCCCCCAACCTGCCTCTGTTTTCCCCAGAGTGATTAGCAGTAAAACCCTTCAATG

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FIGURE 1168

TAGTCGCGGGTCCCCGAGTGAGCACGCCAGGGAGCAGGAGACCAAACGACGGGGGTCGGAGTCAGAGTCGCAGTG
GGAGTCCCCGGACCGGAGCACGAGCCTGAGCGGGAGAGCGCCGCTCGCACGCCCGTCGCCACCCGCGTACCCGGC
GCAGCCAGAGCCACCAGCGCAGCGCTGCC**ATG**GAGCCCAGCAGCAAGAAGCTGACGGGTCGCCTCATGCTGGCCG
TGGGAGGAGCAGTGCTTGGCTCCCTGCAGTTTGGCTACAACACTGGAGTCATCAATGCCCCCCAGAAGGTGATCG
AGGAGTTCTACAACCAGACATGGGTCCACCGCTATGGGGAGAGCATCCTGCCCACCACGCTCACCACGCTCTGGT
CCCTCTCAGTGGCCATCTTTTCTGTTGGGGGCATGATTGGCTCCTTCTCTGTGGGCCTTTTCGTTAACCGCTTTG
GCCGGCGGAATTCAATGCTGATGATGAACCTGCTGGCCTTCGTGTCCGCCGTGCTCATGGGCTTCTCGAAACTGG
GCAAGTCCTTTGAGATGCTGATCCTGGGCCGCTTCATCATCGGTGTGTACTGCGGCCTGACCACAGGCTTCGTGC
CCATGTATGTGGGTGAAGTGTCACCCACAGCCCTTCGTGGGGCCCTGGGCACCCTGCACCAGCTGGGCATCGTCG
TCGGCATCCTCATCGCCCAGGTGTTCGGCCTGGACTCCATCATGGGCAACAAGGACCTGTGGCCCCTGCTGCTGA
GCATCATCTTCATCCCGGCCCTGCTGCAGTGCATCGTGCTGCCCTTCTGCCCCGAGAGTCCCCGCTTCCTGCTCA
TCAACCGCAACGAGGAGAACCGGGCCAAGAGTGTGCTAAAGAAGCTGCGCGGGACAGCTGACGTGACCCATGACC
TGCAGGAGATGAAGGAAGAGAGTCGGCAGATGATGCGGGAGAAGAAGGTCACCATCCTGGAGCTGTTCCGCTCCC
CCGCCTACCGCCAGCCCATCCTCATCGCTGTGGTGCTGCAGCTGTCCCAGCAGCTGTCTGGCATCAACGCTGTCT
TCTATTACTCCACGAGCATCTTCGAGAAGGCGGGGGTGCAGCAGCCTGTGTATGCCACCATTGGCTCCGGTATCG
TCAACACGGCCTTCACTGTCGTGTCGCTGTTTGTGGTGGAGCGAGCAGGCCGGCGGACCCTGCACCTCATAGGCC
TCGCTGGCATGGCGGGTTGTGCCATACTCATGACCATCGCGCTAGCACTGCTGGAGCAGCTACCCTGGATGTCCT
ATCTGAGCATCGTGGCCATCTTTGGCTTTGTGGCCTTCTTTGAAGTGGGTCCTGGCCCCATCCCATGGTTCATCG
TGGCTGAACTCTTCAGCCAGGGTCCACGTCCAGCTGCCATTGCCGTTGCAGGCTTCTCCAACTGGACCTCAAATT
TCATTGTGGGCATGTGCTTCCAGTATGTGGAGCAACTGTGTGGTCCCTACGTCTTCATCATCTTCACTGTGCTCC
TGGTTCTGTTCTTCATCTTCACCTACTTCAAAGTTCCTGAGACTAAAGGCCGGACCTTCGATGAGATCGCTTCCG
GCTTCCGGCAGGGGGGAGCCAGCCAAAGTGACAAGACACCCGAGGAGCTGTTCCATCCCCTGGGGGCTGATTCCC
AAGTG**TGA**GTCGCCCCAGATCACCAGCCCGGCCTGCTCCCAGCAGCCCTAAGGATCTCTCAGGAGCACAGGCAGC
TGGATGAGACTTCCAAACCTGACAGATGTCAGCCGAGCCGGGCCTGGGGCTCCTTTCTCCAGCCAGCAATGATGT
CCAGAAGAATATTCAGGACTTAACGGCTCCAGGATTTTAACAAAAGCAAGACTGTTGCTCAAATCTATTCAGACA
AGCAACAGGTTTTATAATTTTTTTATTACTGATTTTGTTATTTTTATATCAGCCTGAGTCTCCTGTGCCCACATC
CCAGGCTTCACCCTGAATGGTTCCATGCCTGAGGGTGGAGACTAAGCCCTGTCGAGACACTTGCCTTCTTCACCC
AGCTAATCTGTAGGGCTGGACCTATGTCCTAAGGACACACTAATCGAACTATGAACTACAAAGCTTCTATCCCAG
GAGGTGGCTATGGCCACCCGTTCTGCTGGCCTGGATCTCCCCACTCTAGGGGTCAGGCTCCATTAGGATTTGCCC
CTTCCCATCTCTTCCTACCCAACCACTCAAATTAATCTTTCTTTACCTGAGACCAGTTGGGAGCACTGGAGTGCA
GGGAGGAGAGGGGAAGGGCCAGTCTGGGCTGCCGGGTTCTAGTCTCCTTTGCACTGAGGGCCACACTATTACCAT
GAGAAGAGGGCCTGTGGGAGCCTGCAAACTCACTGCTCAAGAAGACATGGAGACTCCTGCCCTGTTGTGTATAGA
TGCAAGATATTTATATATATTTTTGGTTGTCAATATTAAATACAGACACTAAGTTATAGTATATCTGGACAAGCC
AACTTGTAAATACACCACCTCACTCCTGTTACTTACCTAAACAGATATAAATGGCTGGTTTTTAGAAACATGGTT
TTGAAATGCTTGTGGATTGAGGGTAGGAGGTTTGGATGGGAGTGAGACAGAAGTAAGTGGGGGTTGCAACCACTGC
AACGGCTTAGACTTCGACTCAGGATCCAGTCCCTTACACGTACCTCTCATCAGTGTCCTCTTGCTCAAAAATCTG
TTTGATCCCTGTTACCCAGAGAATATATACATTCTTTATCTTGACATTCAAGGCATTTCTATCACATATTTGATA
GTTGGTGTTCAAAAAAACACTAGTTTTGTGCCAGCCGTGATGCTCAGGCTTGAAATGCATTATTTTGAATGTGAA
G

FIGURE 1169

CACGTCGTTCACGGCCTTCTTCGGCCCCTCTAGCACGACATTGAGGCCTGGCTTCAGAAGCCCTCGGGAAAACGC
ATCCTGCAACTCTCTGTCTGTGACAAGGGATTCATCGGATTCCGACTCCGAATCCGAGAGCGGGGGAGTGTCCAT
CTCGCCGCACGCACGTCCCACACAGCTACTGCTCAACTTTTGATTGGGACTTCCGCTTCCGGCGGCAAACCATAC
TTCCGGTTTGTCGTTGCTATAGGAACCGCTACGGCGTTTGAAAGTGTCCGGGTTGCTTAGGATCCCTACAGGTAG
CGCCTCTGGATACATGCGTGGTCTGCTGACCCAGAGAGAAACGAAAGCAGAACTGTTTGGCGGGAGATC**ATG**TCA
GCCGTGGTAGCTCAGACGCTGCATGTTTTTGGTCTTCGATCCCACGTGGCCAACAATATCTTCTACTTCGATGAA
CAGATCATTATATTTCCTTCAGGAAATCACTGTGTGAAGTACAATGTGGATCAGAAATGGCAAAAATTCATTCCA
GGCTCAGAGAAGAGTCAGGGCATGTTGGCCTTGTCCATCAGTCCCAATCGGCGGTACCTCGCTATCTCTGAGACT
GTGCAAGAAAAACCTGCCATCACCATTTATGAATTGTCATCCATCCCTTGCCGGAAGCGCAAAGTTCTTAATAAT
TTTGACTTCCAAGTTCAGAAATTTATTAGCATGGCTTTTTCTCCAGACTCCAAATACCTATTGGCTCAGACGTCA
CCTCCAGAGTCAAATCTTGTCTACTGGCTGTGGGAAAAACAGAAAGTAATGGCCATTGTTAGAATCGACACTCAG
AACAACCCTGTCTACCAGGTGAGCTTCAGTCCACAGGATAACACTCAGGTGTGTGTCACTGGAAATGGGATGTTT
AAGCTTCTCCGTTTTGCTGAGGGAACCCTGAAGCAAACCAGCTTTCAGAGGGGAGAACCCCAAAACTATCTAGCC
CACACCTGGGTGGCTGATGACAAGATTGTCGTTGGCACTGACACAGGCAAACTCTTCCTCTTTGAATCTGGAGAT
CAGCGTTGGGAGACCAGCATAATGGTCAAGGAACCTACCGATGGCTCAAAGAGCCTGGATGTCATTCAGGAATCA
GAGAGCCTGATTGAATTTCCACCAGTCAGTTCTCCACTCCCTTCCTATGAACAGATGGTGGCGGCCAGTAGCCAT
AGCCAGATGTCCATGCCCCAGGTGTTTGCCATTGCAGCCTATTCAAAGGGATTTGCCTGTTCTGCTGGGCCAGGG
AGAGTTCTGCTGTTTGAGAAGATGGAAGAAAAGGATTTTTACCGTGAGAGCAGAGAAATCAGGATTCCTGTGGAC
CCGCAGAGCAATGATCCAAGTCAGTCTGACAAACAGGACGTTCTCTGCCTGTGCTTCAGCCCCTCAGAGGAAACT
CTGGTTGCCAGCACCAGTAAGAACCAACTCTACAGCATCACCATGTCCCTGACAGAGATCAGCAAGGGAGCCTGC
TCACTT**TGA**GTATTTGATGTATCCATTGCACTCAGCACCCATCACCGGTCTAGCTACCTGCATCCGCAAACCCCT
TATAGCCACCTGTTCTCTGGATCGATCCATCCGCCTTTGGAATTATGAAACAAACACCCTGGAACTATTTAAGGA
ATACCAAGAAGAGGCATATTCCATCAGCCTTCATCCATCTGGACACTTCATTGTAGTAGGGTTTGCTGACAAACT
ACGCCTCATGAATCTACTCATTGATGATATACGTTCTTTCAAAGAATACTCTGTTAGAGGATGCGGAGAGTGTTC
CTTTAGCAATGGAGGTCACCTGTTTGCTGCAGTCAATGGAAATGTGATTCACGTTTACACCACCACGAGCCTAGA
GAACATCTCAAGCCTGAAAGGACACACAGGGAAGATTCGCTCAATTGTGTGGAATGCAGATGATAGCAAACTGAT
TTCTGGTGGCACAGATGGTGCTGTGTATGAATGGAATCTGTCCACAGGAAAGAGAGAGACAGAATGCGTGCTCAA
GTCTTGCAGCTACAACTGTGTTACTGTCTCCCCCGATGCCAAAATTATCTTTGCTGTTGGATCAGACCACACCCT
CAAGGAGATTGCAGATTCCTTGCCTTCGAGAGATATCGGCGTTTGATGTCACCTACACCGCCATTGTCATCTCGC
ATTCTGGACGCATGATGTTTGTGGGCACCTCGGTGGGAACCATTCGTGCCATGAAGTACCCTCTGCCTCTGCAGA
AGGAATTCAATGAGTACCAGGCCCATGCCGGTCCTATCACCAAGGTGAGCAGGGCCCTCTCCCCAGGAACCCAGT
CCCACACCTGCCTGCTACGTGCCTTGTTCATCCCTTCAACCTCCCAATGTCTTTTCTCTCTCCTTCTTCTCTCTT
ATTTATTCATCCATCATTCATTGAATCACCATCTATTGACTATGAATATACTCTTTGTTTAAACTACTTCCAGGA
ATTTAGCCTAGGAAATCATCAGAGATACACCTAAAAATGTATGTACAACGTTTTCACCATAATATTATGCATAAT
AAGGGGCCGTTTGGTGGATGCCGTAGCTGCCGTGAGTGTGGGCTGCACTTGACCACAGCTGCCTCCTCCTCCAGA
GAATGCCCCAGACTGAAAGGAGCCATAGCCCTGAAGATTGGCCCCTACCTCTCCCTGAGGGTACAAAAGGCCACC
CCAGGGGCAATACCATGAGTACACATTTGTAAATTGTCCTTCCATTCACCCTTCTCATAAAGTAGTATCTATGTT
CAACAGTCAAAATGTGGAAGCAACCAAGCATCCATCGACAGACGAATGCATAAGCAAAAGATGGTATATCTATAC
AATGGAACAATACCCTGCCTAAAAAGGAAGGGAATTCTGCAATGTGCTACCACATGGATGAACCTTGAGGATGTT
ATGCTAAATTAAATAAGGCCAACCACAAAAAGATAAGTACAGTGTGATTCCACTTTTAGGAGATACTTGGAGCAG
TCAGAATCACAAAGACAGAGTGGTGGTTGGCAGGGGCTGCAGGAAGGGGGAATGAGGAATGATTGTTTCATAGGT
ATAGAGTTTTGGTTTTACAAGACAAAAGGATTATGGGGGTAGTTGGTGGCAATGGCTGCACAACATTACAAATGT
ATTTAATAACATGAACTGTACACTTGAAAATGGTTAAGATAGCAAATTTTACAGAATATGTATTTTACGACAATT
TTAAAAATGAAATAAAAAAGAATTATCTTGC

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FIGURE 1170

GCGATTCGGTGGCACGTGGAGCCACGGCGTGGGAGTAGGGGGCTGAAGGCAGGCAGCAGCGGCCAGGGCCGCCCT
CTGCTAGCCGCTTGGGTCTCGGGATACCCCGTTTCTTCCTGTAGGTGTGGGACGTGCGTGCGGCGAGATGGACAC
TCCCCCGCTCTCGGATTCGGAGTCGGAATCCGATGAATCCCTTGTCACAGACAGAGAGTTGCAGGATGCGTTTTC
CCGAGGGCTTCTGAAGCCAGGCCTCAATGTCGTGCTAGAGGGGCCGAAGAAGGCCGTGAACGACGTGAATGGCCT
GAAGCAATGTTTGGCAGAATTCAAGCGGGATCTGGAATGGGTTGAAAGGCTCGATGTGACACTGGGTCCGGTACC
GGAGATCGGTGGATCTGAGGCGCCAGCACCTCAGAACAAGGACCAGAAAGCTGTTGATCCAGAAGACGACTTCCA
GCGAGAGATGAGTTTCTATCGCCAAGCCCAGGCCGCAGTGCTTGCAGTCTTACCCCGCCTCCATCAGCTCAAAGT
CCCTACGAAGCGACCCACTGATTATTTTGCGGAAATGGCCAAATCTGATCTGCAGATGCAGAAGATTCGACAGAA
GCTGCAGACTAAACAGGCTGCCATGGAGAGGTCTGAAAAAGCTAAGCAACTGCGAGCACTTAGGAAATACGGGAA
GAAGGTGCAAACGGAGGTTCTTCAGAAGAGGCAGCAGGAGAAAGCCCATATGATGAATGCTATTAAGAAATATCA
GAAAGGCTTCTCTGATAAACTGGATTTCCTTGAGGGAGATCAGAAACCTCTGGCACAGCACAAGAAGGCAGGAGC
CAAAGGCCAGCAGATGAGGAAGGGGCCCAGTGCTAAACGACGGTATAAAAACCAGAAGTTTGGTTTTGGTGGAAA
GAAGAAAGGCTCAAAGTGGAACACTCGGGAGAGCTATGATGATGTATCTAGCTTCCGGGCCAAGACAGCTCATGG
CAGAGGCCTCAAGAGGCCTGGCAAGAAAGGGTCAAATAAGAGACCTGGAAAACGAACAAGAGAGAAGATGAAGAA
CAGAACACACTAAATAGCATCTTTGAATACAAAGAACCAAGAAAAAGGAATGAAGACTCGCAATTTCACGACACA
CTTTGATCCCTTCTGTTGGTGTCATGTTGTAAACATTTCTTTCAATAAACTAAAGAAAAATTATTAAAGGAACAC
ATACCTTTGGTTAAATAGTCTAGACTAAAAGATTGAGAAGTTACTTTCCATTGCTATCTATTGATAATTTAGACA
TTGAGTTCAAATTGCCTTCATTTTATGATAAATAATGATTTAACTGA

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FIGURE 1171

GGCGTAAGCCAGGCGTGTTAAAGCCGGTCGGAACTGCTCCGGAGGGCACGGGCTCCGTAGGCACCAACTGCAAGG
ACCCCTCCCCCTGCGGGCGCTCCC**ATG**GCACAGTTCGCGTTCGAGAGTGACCTGCACTCGCTGCTTCAGCTGGAT
GCACCCATCCCCAATGCACCCCCTGCGCGCTGGCAGCGCAAAGCCAAGGAAGCCGCAGGCCCGGCCCCCTCACCC
ATGCGGGCCGCCAACCGATCCCACAGCGCCGGCAGGACTCCGGGCCGAACTCCTGGCAAATCCAGTTCCAAGGTT
CAGACCACTCCTAGCAAACCTGGCGGTGACCGCTATATCCCCCATCGCAGTGCTGCCCAGATGGAGGTGGCCAGC
TTCCTCCTGAGCAAGGAGAACCAGCCTGAAAACAGCCAGACGCCCACCAAGAAGGAACATCAGAAAGCCTGGGCT
TTGAACCTGAACGGTTTTGATGTAGAGGAAGCCAAGATCCTTCGGCTCAGTGGAAAACCACAAAATGCGCCAGAG
GGTTATCAGAACAGACTGAAAGTACTCTACAGCCAAAAGGCCACTCCTGGCTCCAGCCGGAAGACCTGCCGTTAC
ATTCCTTCCCTGCCAGACCGTATCCTGGATGCGCCTGAAATCCGAAATGACTATTACCTGAACCTTGTGGATTGG
AGTTCTGGGAATGTACTGGCCGTGGCACTGGACAACAGTGTGTACCTGTGGAGTGCAAGCTCTGGTGACATCCTG
CAGCTTTTGCAAATGGAGCAGCCTGGGGAATATATATCCTCTGTGGCCTGGATCAAAGAGGGCAACTACTTGGCT
GTGGGCACCAGCAGTGCTGAGGTGCAGCTATGGGATGTGCAGCAGCAGAAACGGCTTCGAAATATGACCAGTCAC
TCTGCCCGAGTGGGCTCCCTAAGCTGGAACAGCTATATCCTGTCCAGTGGTTCACGTTCTGGCCACATCCACCAC
CATGATGTTCGGGTAGCAGAACACCATGTGGCCACACTGAGTGGCCACAGCCAGGAAGTGTGTGGGCTGCGCTGG
GCCCCAGATGGACGACATTTGGCCAGTGGTGGTAATGATAACTTGGTCAATGTGTGGCCTAGTGCTCCTGGAGAG
GGTGGCTGGGTTCCTCTGCAGACATTCACCCAGCATCAAGGGGCTGTCAAGGCCGTAGCATGGTGTCCCTGGCAG
TCCAATGTCCTGGCAACAGGAGGGGGCACCAGTGATCGACACATTCGCATCTGGAATGTGTGCTCTGGGGCCTGT
CTGAGTGCCGTGGATGCCCATTCCCAGGTGTGCTCCATCCTCTGGTCTCCCCATTACAAGGAGCTCATCTCAGGC
CATGGCTTTGCACAGAACCAGCTAGTTATTTGGAAGTACCCAACCATGGCCAAGGTGGCTGAACTCAAAGGTCAC
ACATCCCGGGTCCTGAGTCTGACCATGAGCCCAGATGGGGCCACAGTGGCATCCGCAGCAGCAGATGAGACCCTG
AGGCTATGGCGCTGTTTTGAGTTGGACCCTGCGCGGCGGCGGGAGCGGGAGAAGGCCAGTGCAGCCAAAAGCAGC
CTCATCCACCAAGGCATCCGC**TGA**AGACCAACCCATCACCTCAGTTGTTTTTTATTTTTCTAATAAAGTCATGTC
TCCCTTCATGTTTTTTTTT

FIGURE 1172

GGGCAAGGCTGGGCCGGGAAGGGCGTGGGTTGAGGAGAGGCTCCAGACCCGCACGCCGCGCGCACAGAGCTCTCA
GCGCCGCTCCCAGCCACAGCCTCCCGCGCCTCGCTCAGCTCCAAC**ATG**GCAAAAATCTCCAGCCCTACAGAGACT
GAGCGGTGCATCGAGTCCCTGATTGCTGTCTTCCAGAAGTATGCTGGAAAGGATGGTTATAACTACACTCTCTCC
AAGACAGAGTTCCTAAGCTTCATGAATACAGAACTAGCTGCCTTCACAAAGAACCAGAAGGACCCTGGTGTCCTT
GACCGCATGATGAAGAAACTGGACACCAACAGTGATGGTCAGCTAGATTTCTCAGAATTTCTTAATCTGATTGGT
GGCCTAGCTATGGCTTGCCATGACTCCTTCCTCAAGGCTGTCCCTTCCCAGAAGCGGACC**TGA**GGACCCCTTGGC
CCTGGCCTTCAAACCCACCCCCTTTCCTTCCAGCCTTTCTGTCATCATCTCCACAGCCCACCCATCCCCTGAGCA
CACTAACCACCTCATGCAGGCCCCACCTGCCAATAGTAATAAAGCAATGTCACTTTTTTAAAACATGAA

FIGURE 1173

CCGGTGGGGCGGGAAGCCCGGCTTCTGGGGAGGTGCCGCCCCTCCACTGGCGCAGGCCGCCGAGACCCCCAGACG
GACCTCCTAGGGCTAATCTGATAGTGCCTCTGAGGTCGATAGGACTCCACGTGCCACTCCCTGCAGGGTCATCCA
GCAAGTAATTCCTAGACCCGTAGGTGGCCGCAGAGCCGGTTACCTCTGGTTCTGCGCCAGCGTGCCCCACCCGCA
GGACGGCCGGGTTCTTTGATTTGTACACTTTCTAAAACCAAACCCGAGAGGAAGGGCAGGCTCAGGGTGGGGATG
CCCTGAAATATTCGAGAGCAGGACCGTTTCTACTGAAGAGAAGTTTACAAGAACGCTCTGTCTGGGGCGGGCGAG
GCCTCTGCGAGGCGGGTCCGGGAGCGAGGGCAGGGCGTGGGCCGCGCGCCCGGGGTCGGGGGAGTCGGGGGCAGG
AAGAGGGGGAGGAGACAGGGCTGGGGGAGCGCCCTGCCGAGCGCCCGCCAGGCTCCTCCCGCTCCCGCGCCGCCT
CCCTCTACCCACCCGCCGCACGTACTAAGGAAGGCGCACAGCCCGCCGCGCTCGCCTCTCCGCCCCGCGTCCAGC
TCGCCCAGCTCGCCCAGCGTCCGCCGCGCCTCGGCCAAGGCTTCAACGGACCACACCAAA**ATG**CCATCTCAAATG
GAACACGCCATGGAAACCATGATGTTTACATTTCACAAATTCGCTGGGGATAAAGGCTACTTAACAAAGGAGGAC
CTGAGAGTACTCATGGAAAAGGAGTTCCCTGGATTTTTGGAAAATCAAAAAGACCCTCTGGCTGTGGACAAAATA
ATGAAGGACCTGGACCAGTGTAGAGATGGCAAAGTGGGCTTCCAGAGCTTCTTTTCCCTAATTGCGGGCCTCACC
ATTGCATGCAATGACTATTTTGTAGTACACATGAAGCAGAAGGGAAAGAAG**TAG**GCAGAAATGAGCAGTTCGCTC
CTCCCTGATAAGAGTTGTCCCAAAGGGTCGCTTAAGGAATCTGCCCCACAGCTTCCCCCATAGAAGGATTTCATG
AGCAGATCAGGACACTTAGCAAATGTAAAAATAAAATCTAACTCTCATTTGACAAGCAGAGAAAGAAAAGTTAAA
TACCAGATAAGCTTTTGATTTTTGTATTGTTTGCATCCCCTTGCCCTCAATAAATAAAGTTCTTTTTTAGTTCC

FIGURE 1174

GTATAAAATGAATCTGGAGCTTTACATTTTCTGCCTCTGCCTTCCTCCCAGCTCAGCAAGGAAGTATTTGGGCAC
CCTACCCTTTACCTGGGGTCTAACCAAAAATGGATGGGATGAGGATGAGAGGCTGGAGATAATTGTTTTATGGGA
TTTGGGTGTGGGACTAGGGTACAATGAAGGCCAAGAGCATCTCAGACATAGAGTTAAAACTCAAACCTCTTATGT
GCACTTTAAAGATAGACTTTAGGGGCTGGCACAAATCTGATCAGAGACACATATCCATACACAGGTGAAACACAT
ACAGACTCAACAGCAATCATGCAGTTCCAGAGACACATGAACCTGACACAATCTCTCTTATCCTTGAGGCCACAG
CTTGGAGGAGCCTAGAGGCCTCAGGGGAAAGTCCCAATCCTGAGGGACCCTCCCAAACATTTCC**ATG**GTGCTCCA
GTCCACTGATCTTGGGTCTGGGGTGATCCAAATACCACCCCAGCTCCAGCTGTCTTCTACCACTAGAAGACCCAA
GAGAAGCAGAAGTCGCTCGCACTGGTCAGTCGGAAGGCAAGATCAGATCCTGGAGGACTTTCCTGGCCTGCCCGC
CAGCCCTGCTCTTGTTGTGGAGAAGGAAGCAGATGTGATCACATCACCCCGTCATTGGGCACCGCTGACTCCAGC
ATGGAGGACACCAGGGAGCAGGGCCTGGGCCTGTTTCCCCAGCTGTGATCTTGCCCAGAACCTCTCTTGGCTTCA
TAAACAGCTG**TGA**ACCCTCCCCTGAGGGATTAACAGCAATGATGGGCAACTTGTGCCATTCTTTATAAAATGATT
TTAAAGGC

FIGURE 1175A

TTTGATCAATAAATCAATTTATTTAAAAGAATATGTTACAATTAATTACACTAAGTGACATTACCAAACAATTTT
AGAGTGGTTAGCTCTAGAACAAGGAATGAAAGAAACAATGTTAGCCATTATTGTGTCTGTGTATTTTCTCTTCAC
ATTTCTTAAATCACAAATAAAAAATACAAGATACTGCAGTGAAAATACAATTAGAGTTTCTCTGAAATAAATTAA
ATGTGCATGGCCTGGGAAAAACTGAAGCCCAGCTCACTGGCTTAAAAGGGGGTCATGATATAAAATTAATGTCCA
AGTTTAGCAGGCGGCCAAGTGCCCCCACCCCGTATCACTCCCCTCTTTGATTCTATTCCTTACCACAGCCCTGAC
CTTCCCACATACCCTAGATTATTGCTGAGGAGTGAGCTGATGCTGTCCTGGCAGCAAAGAGGCCTGGCGTGATGT
GCTCAGGTTTAGGGGAACAGGAAGTCAAGAGGTGGACCTGGAAGATGGGGAGCTAGAGAAGCATACCCACTATCT
CTCTTCTCCCTCCCTCTCTCTGAGTGTTCTATCACATCATCCTCCCAAAGGAAGCTACTGTGACACAATGAAGCT
GGTGAAGAAACAGCAGTATGCTGGGGTCAACAGATCAAACAGCTTCTACTGCTGAATGAATCTAGCCAAACAGTA
TGATGGCGAGAAGGGAGAGCACAGCAGTCCCTCCTGGTCTGGAAAATTCAGGTCAACTAGGATGCAGTCCCCTTC
AAGAAAACTACCTCCTAGGAGCCCAGCCCAGAAGTTGGCAAATTCTGAGATAGGAGAGAGTTTCATCTCCTGTCA
GTGCCCTATTTTGCTGCTCCAAGTGCTGGGTTTGGAGCTACAGGAAGGGATAACCCAAAGCTACTGGCCTGGGTA
ACTAAAGGATGAAACTAAATGGGCCAGGCATGAGGATGTTGGAATATTTATCTAATTCCCCCCTGAGAGCTCAGT
CCAGGCCTAGGAGCTGCCCTGAGCATGCACATATCTGTACCTGTGTTTAGGCCTAGGGTAAGGACGGGGTGGAAA
AATGGAGAATAGAATAAACATATAAAGAGCAGAGGGCCCAAAGCATGGCCCAAGGGAACCTTTCTGCAGGGACAG
GTTTCTCAGGGTCTACATTTTCTCCTGGGCCATAAAAAGCTCTGAGCTTCTACCCCTGAGGATAGAAACCAAGTG
TGGAGGAAGGCCAGTGAGAGACCAGGAGGATCCTGCTGGTTCTGCTGGG**ATG**AAGCTGGGGGCACTGGGAGACCC
CCTCTTCCCAGGGACAAATTGCAAAAGAAGTCTGGGTAGAAGCCTCCCTGGGCAGAAGCTGGGACTAAGAAGAAC
AGTAGGGATTACAGAAAGGAAGTGCAGAGGAAGGGGAGAGAGAAGAGTCACAACACTGCTTCATGCAAAGAAGGG
CTTGATCCTATGGGATCCACGCAGCCACAGGGAACCCGCCTCCATCACCCAAGGCCGTGCATGGGTGGAAGAGAA
GAAGGCGCTGTCCTTTGGGGTGCCCTCCTTCCCCACCTCCTTGCTGCAGCTGGGTGCGTTGTTACTGGGACACTT
TCAAAAGGGCTGTTCC**TAA**ATAAATTCTGCCAACAGGCCAACTACCTATAGGGCCCTCACCTAATCTCCAAAGCA
CCAAGTGAATGCTATGCCAGAAAGGGAACATAACACCATCTACCCATTCTAAGGGGCCTCCAAATCCCTATGTCT
CATGTCTGAAGGTCAGCATTCAAGCTGTCGCATGGAATCCCAGCTCTGTTCACTACTGTCCCACTCTGAGCGAGT
AGGGGCAAATTGCTATTTTTACAGTTTGAACAAAGCTGGTGCCAAGTCTCTTTAGCATCTAGGAGTGGGAAATCA
ACATGTCTTCTTTTCAGGGTCCTTTGGCTCATTTTAAATTCATTTAAGTCAAAAGAAGTTAGTTCTGTGTCAAAG
TCTTCAAATTAGGGATCCCTCTGCAACTTTACACATTCAGCATTCTCACGTTTTGTACTCTGTGATTTCACCTAG
ATTTGGAGAAGGTGAGGGAGGAAAGGCTGTCCTCTTTGATCCCATACCATGCAGGGGCAAATGGCTGCCAGCATA
ACAAAATAAGAAGGAAAGAAAGAAAAGTGGGCCAGGCGCAGTGGCTCACTCCTGTAATCCTAGCACTTTGGGAGG
CCGAGGTGGGCAGATTACTTGAGGTCAGGAGTTCAAAACCAACCTGGCCATCATGGTGAAACCCCGCCCTACCAA
AAATACAAAAAATTAGTGGGGCGTGGTGGTGTATGCCTGTAATCCCAGCTACTTGGGAGGCTGAGGCAGGAGAAT
CGCTTGAACCCAAGAGGCAGAGGGTGCAGTGAGCCGAGATCGTGCCACTGCACTCCAACCTGGGCGACAGAGCAA
GACTCTGGGAAAAAAAAAAAAAAAAAACAGAAAAAAAGGAAGGAAGGAAGGGGAAAGAAAAGTGGCCTCACAATG
ATTTGCAACAACAAATTACAAAAAAGAGATGAAAGAAGGAAAGCAAAAGAAAGAAAGAGAAAGAAAGAAAGAAAG
AAAGAACGAAAGAACGAAAGAACGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAAAGTGGCC
TCACAATGATTTGCAAAAACAAATTACAAAAAAGAGACTTTCCAACCACCCCAACACTGCTTAGTAGAATTGACT
ACAACCAATTATGACTGTCTCCCAGTTAGAGCAAAAGATGCCATCCTAGGAAGGTTTTTGTTTAGAAAGGGGAGA
AGGGAAAAAGAAAAGGCTCAAAGATGTGTTTTAGTTGCATCTGAGCCTGACTTGGTGCTTCTTATGCATTATCTA
CAGAGCTTAGGGGCTGGGAATATTGTCCTACCCCAATTAGCCCTGGCTTCTGATCCCTGGGATGCAGCTCTTAAG
TCTCAAAGGGTCTAGCTGCAAGATCAGATGAGGAGCTCTTTAACGGACAGAAAGCAGAAAGGTTTTCGTTCAGTC
TCCTTTCAATTAAAACTTGGGAGATCCAATCTAATCAACCATATTCCTACTACTCCTTCCTAGGTTCTCAGCTGG
CTTGGATGGGGCTATCGTTTGGTTGGCACAGACCACTGACCCACTGCAAGTTTCCCCAAGGCCTTGAAGATACTA
TTGGATCCCTTCCCATCACTGCTGTTTAAGGAAGTCACAGAGAATGCCGTAGTTATGGGTGGTTATTGGTCAGGA
ATGGAGGAGGTAAAACCTCATGTACATAGGGCATTTCTTGCTTTCTTTCCTCTATGTAAGTCCAACCTGTGTGCC
TAAGGTATCAGCTTAACTCTGGTCCTGAGTACTATCCCTGCTGCAAAAAAGGCAGGGAAGGACACAGTGGCTCAT
GCCTGTAATCCCAGCACTTTGGGAGGCTGAGACAAGAGGATCACCTGAGGCCAGGAGTTTGAGACCAGCCTGGGC
AACATAGTGAGACCCTGTCTCTACAAAAAAATTTTAAGAAGAATTAGCCAGGTGTGGTGGTGCACACCTGTAGTC
CCAGCTACTCAGGAGGGTGAGGCGGAAGGATCACCTGAGCCCAGAATTCAAGGTAACAGTGAGCTATGTTCATGC

FIGURE 1175B

CACCACATTCCAGTCTGGGCGACAGAGTAAGACCCTGTCTCAGAAAAAAAAAAAAAAAAAAAAAAAAGGCAAG
GAAAACAGGAAATTACTACCATGAAGTGTTTCAGGTTCAGGTTCCCATGGCATCAACCTCCTGAGCCAGGGTCGG
TTGAGGGAAAGCATACCGAGGCTCTAGGAAAGCAGGAAGGAGGTGCAGAATGTGGCTAGAAAGCCAGGAGTGAGA
GAAATAGATGGATCAAAAAAATTGTCACAGAATCAAGAGCCCATACCAGGACTTCAGGCTCTCCCTGCAGAACTA
CAGCCTGTTAACCTTGAGAAACACACCTCTTTCTCCTCCCCAGCACCCTCTTGGAAGATAAAGAAACTATACTCC
TTGTTCCTAGACTCTATGGCAACCCATGAGCCGGAATCTATACTCAATACAAAAAAAGGGGCAAAAATCCAAGCA
GGTTGTAAACTTTTCAAGTCCTTCATGAGGAGAGGTATTTTTCCCTGTAAAATGCTTTTTTTTCCTTTTTAAAGT
TTGTTTCAAAAGAAAGAGAGCACGAGGGAGGTCATGGATTCTAGTGAAAGGTGTGTAAAAACACAAGCTAAAAAA
GGTACTGCCATCAATATGAAATTTAAAAAGAAATATATATATGTATATACGTGCAGCTAATTTGTGTATATATAA
TTTTTACATACATACATATATATGTCTGAACAGTGCAAATGGATGAAGTTCATAGTTCCAGTTTTAAAAATATAG
TACAAGGAGAGGCTGTTGGTATGAGGCCCAGGTGAAAGGACAAAGATACCTTTGGCAAGTTGGTTGGGCTTATTT
CTTTTCCTGCCTTAACTCAGTTGACTTCTGGTGCTGACCGATCTGCTGTTCACTACCACCTCAATTCCAGAGACA
TGAAATTCAGAGGGGGTTATTAATAATATTTAGTTTAGGGCTTTTGAATATAACGACTTTAACTTTTTCTCTTCT
TTTTTGTTAATGGTTACTCTGTCTGAAATGGGACATGAAAGGAGTAAGAGGATGGGGGTGAAGGGAAGGGAAGGG
GATAAGGAAAGGCTAGGTGGCCACATCTCTCTGCTGTGACCTCGCCATCTGGAAAATGTTCTGAAAGGAAAAAAA
AAAAGAGTTATTGGGAAGGCACATCTCCTCTTATCTGGAGACAACTCCACAAACAGAAGCTAAAAAGGTATGCCT
GGATGACTCAATCTGATTGGCCACATCTTTCTTGATATAACTTCTCATCTAGAATCATAGCCTTTTAGAGCCGGA
AGGGACCTTGGATATTAATTACGTGGTTCAGTCTTCCTGTTTCACAGAAGAGAAAACTGAAAGCTAGGGAGGCTG
ATTTACCCAAAATTACACAGAGGGAAAAAAAAGCCAGGAGAAAACCCAGATAAAATTCCCAGAGCCCAATGTTCT
TTCTACTGTACTAAAATATAAATTTTCATGTTCTTGACTTGACCTCCTGATTCTTTCAAAGATTTTCTTTGAGAA
TAAGTAACTAATTATTCAGAATCTTCCAAATTCTGTTCCAGCACTGGCACATACAGACAGCAGTAAAGCAACAGC
AAACACCTTCCCTCACACAAACATTCTTGGTTCGCCTAGAAAGACTGCCAGGACTCATCCAGTCAAGACGGCTAC
AACTGAGGACAGCTTCCCCTGTGGGTCAGGAACAACATGGAGGGTGATCTGATTTAAAAAACTGGCAGAGGAGGG
TCCATGAAGTCATGAGAGATGGAAGAGCCTGTAGCCAATGTCCACCCTCTAGACAAGGGAAGAAGCAGGGCTTTT
TTGCACAGCCCGTTCACCATCCAGAGGCCAACCTTGCTGGAAGAATGTCCTGGCTCACATGAGATAATCAGTCTC
TAACTAATATTCCTCTTTTCTCCACTTGAGCTCGCAGAACACCCTCTCGAAGCACTCATGCATGTAATTGAAATA
TGGCGTGAAGATTTTAACCCATCGGGGCTTCTTCTCTCCTCGTGCATATTCGAAACAGAAGGCCATCCCTTCTTC
ATCTGTGTCCCATCGCTGCATCTCATCCCATTCAAATGCAATTACCTGGTTCTCCAGCTGTCCTTCTTCAGTGCA
GGCATGCAGTTTAAAGTGCGTGATGCTGATGGCTGTGATAACGTGCCCCTTCCTCCTGGAGTCACAGGCACAGTG
GGGAAAGATGATTTCATTGTAGCCCTCACAAGTCCTTAGCATGTTGAGGTACATGACCATTTTTCTTTGTTCGTA
TAGCTTCTGTAATTGATAGGACTTTTCTTCTGCTTTGATGTAACCTTTCTTCACATCATCGACTGCCTGATGAAA
GAAGTAGGTAACAGCAAGGTCATTGTCATTTAAGAGAATTTCTTCTTCTGTTGTAAAAAGCCACTTTCGAATGGT
CAAGCAGGTGCCTGGCACAGCTGATGTATAATTCTGAATGTAGAGTTTGTGAGGAAACTCATTAGGTGCCAATTT
ACGTACTAAAGGAGTGACTGATCACTTCAAATAAGGCAAAGTAATTCACTGTCGTACTGTCCATGCCAACCTTTG
CTGCGATAGCCTGATATACTTGGTCTGTAGTACTGTTCTTTTTAACCCTGACTGTAACCGTTGTTCCATCTGGTA
ATGCTACTCTCAGCTCTACGTCGGACACACCATTGTAGTTCTCATCGGATTCTGATAGGAATTCCTGCATGATGT
CACTCTCACCAATTACTCGTATTGAACACACTTTTTCTAGATATTCTTCCAATCCCCGACGTCGGGCATCTAATT
GTTGTTCTGATAATGAAAATGGCCACTTCCCTGGGAGTCGAGGAAATGTAAAGTTGGCAAACTCTCTCTTCAGGT
TCTGGTGTAGGATAGCAAACTCCCGGTACCGCTTAGAACAC

FIGURE 1176

GCCCAGTTGGAGCCAGACAGCGGGGTGGACAAGTGGCGTGTGTGCTGCGACCCCGAGGGAAG**ATG**AACGGGACGC
GGAACTGGTGTACCCTGGTGGACGTGCACCCAGAGGACCAGGCGGCGGGCAGCGTGGACATTCTCAGGCTGACTC
TCCAGGGTGAACTGACAGGAGATGAACTTGAACACATAGCCCAGAAGGCGGGCAGGAAGACCTATGCCATGGTGT
CCAGCCACTCAGCTGGTCATTCTCTGGCTTCAGAACTGGTGGAGTCCCATGATGGACATGAGGAGATCATTAAGG
TGTACTTGAAGGGGAGGTCTGGAGACAAGATGATTCACGAGAAGAATATTAACCAGCTGAAGAGTGAGGTCCAGT
ACATCCAGGAGGCCAGGAACTGCCTACAGAAGCTCCGGGAGGATATAAGTAGCAAGCTTGACAGGAACCTAGGAG
ATTCTCTCCATCGACAGGAGATACAGGTGGTGCTAGAAAAGCCAAATGGCTTTAGTCAGAGTCCCACAGCCCTGT
ACAGCAGCCCACCTGAGGTGGACACCTGTATAAATGAGGATGTTGAGAGCTTGAGGAAGACGGTGCAGGACTTGC
TGGCCAAGCTTCAGGAGGCCAAGCGGCAACACCAGTCAGACTGTGTGGCTTTTGAGGTCACACTCAGCCGGTACC
AGAGGGAAGCAGAACAAAGTAATGTGGCCCTTCAGAGAGAGGAGGACAGAGTGGAGCAGAAAGAGGCAGAAGTCG
GAGAGCTGCAGAGGCGCTTGCTAGGGATGGAGACGGAGCATCAGGCCTTACTGGCGAAAGTGAGGGAAGGGGAGG
TGGCCCTAGAGGAACTTCGGAGCAACAATGCTGACTGCCAAGCAGAACGAGAAAAGGCTGCTACCCTGGAAAAGG
AAGTGGCCGGGTTGCGGGAGAAGATCCACCACTTGGATGACATGCTCAAGAGCCAGCAGCGGAAAGTCCGGCAAA
TGATAGAGCAGCTCCAGAATTCAAAAGCTGTGATCCAGTCAAAGGACGCCACCATCCAGGAGCTCAAGGAGAAAA
TCGCCTATCTGGAGGCAGAGAATTTAGAGATGCATGACCGGATGGAACACCTGATAGAAAAACAAATCAGTCATG
GCAACTTCAGCACCCAGGCCCGGGCCAAGACAGAGAACCCGGGCAGTATTAGGATATCCAAGCCGCCTAGCCCGA
AGCCCATGCCTGTCATCCGAGTGGTGGAAACC**TGA**GCTGCCTGGAGATGGTTGCTGCCATTGCTGCTGCCTCTGC
CTCGGAGAAGCCCACTGCCCCTGTTGGCTGTTAACACTGCCTTTGACTTCCTGACTGTCCCCTGGCTGCACCCAG
GACTTCGGGCTCCTGTGTCTCACCATTCCCAAGCCCCTGGCCACTCTAAGCTGGGCAGACGGAGCACGAGCACCT
ATTCAAGGCACTGCAGCCCTTTGGAAGACATTGTCCTGCAAGCAGGAGCCAGGGCAATATCTATATTCCTACAGT
GACTATTTTTCTCTGTAGAGAGCCTCCCTTCTGTTGTAGACTGGACTCTGGCTGTGCCATAAGCCAGGCCTTCAT
CAGATTGGGAGAGGTGACAAGATTTGCCTCAGCCCTAAAAGCTGGAGACACAGATGTCCAGAGTGATTGGAGAAT
GTCCTGGGGGAATGAAGTTCCTTCCACAAACACAGCTCAGTTCTTAGCAACAAACTGTTTGTTTTTCTACTTGCT
CCATCTGCAGCCTACGCTGCCCTGGCCTCCTGCAGACAGATAGTGGGGTTACCTGGCAAGGCCTGGTGAGAGCCA
GTGAACCTAAGCTTTGACTGGGTGGCCTTGTCTTTCTGGGGAGGAGGGAATGTACATTCAGGGAGTAGCCTTTTG
CGGAAAAATTCTCTAGGGCTACAGACAGTCATGTGTGACTTCTCTCTGCTGTGAAAACTCCCAGAGTCTCTTTAG
GGATTTTCCCTAAGGTGTACCACCAGGCACACCTCAGTCTTCTTGACCCAGAGCCTGAAAACTGTTTTCACTGGG
TTCCACCAGTCCCAGCAAAATCCTCTTTGTATTTATTTTGCTAAGTTATTGGTGGTTTTGCTTACATCTCATGAT
TGATATAATACCAAAGTTCTATAGCCTTCTCTTGCAGTATTTGGATTTGCTTGAAACCGGGAAAACTGTTCCCAT
TAGGCTTGTTAATGTCAGAGTGACACTATTATGAATCTTTCTCTCCCTTTCCTCTGCCTGTTTCTTCTCTCTTTC
TCCTTCAAACTTGCTCTGCAGCTAAGGAAGGTGAGTCTACTTTCCCTGAGGCTTTGGGGTCAGAGTATATGTTGT
TTGGAGAAAGAGGGCAATCAGGACTCTTCTGGGACCCAGATGAGTTCTTCACTAGCCCTTCTGAACCCCTTGCTC
CATAATTGGTCTTTTATCCTGGCTCTGAATGACCCTGCAGGTCATCATGGTTTTCTTTTTTTATTGTTTTTTTTT
TTTTCTGAGACAGAGTCTCACTCTGTCACCCAGGCTGGAGTGCAGTGGCGCGATCTCAGCTCACTGCAACCTCTG
CCTCCCGGATTTAAGCGATTCTTCTGCCTCAGCCTCCCGAGTAGCTGGGACTACAGGTGTGCCACCACGCCTGGC
TGATTTTTGTATTTTTAGTAGAGATGGGGTTTCACCATACTGGCTAGGCTGGTCTCGAATTCCTGACCTCAGGTG
ATCCACCCACCTCGGCTTCCCAAAGTGCTAGGATTATAGGCTTGAGCTACTGCGCCCGGCCCATGGTGTTTTTCT
TTAGGGCTCTTCCTACAACCTTGAGAAGTAGATAGGCATCAGAGTATGGTACTATAGGAATCAGAAAAATTCAAA
ACAAATGTGGATTAAGTGTTTAGGCTCTATGTGGCTCACGCAGCCAGAATCCTTAAGTCTGTGTGTTTCTGTGTC
TCAAGACTGGGCTCACATTCTGGCTTTGTCCATAACAATGCTCTGGGATTTCAGGGAGTTCCCTCATTTGTAAAA
TGAGGGGGTCAGAGCAGGTGATATCCATGTTTCTTCCCTTTCTGATATTGTTGTCTGTGGCATATTCTTTGTATG
GCGAATTTAATAAATTATATTAATGTGTCTCTTTG

FIGURE 1177A

CGGCGTCTCTCTCCCCCGCGCCAGCTCCCGTACACGGAGCCGCATTCCTTGGCCCCCCCACCCCCCTCCCTCGGG
GCCCCCCCGCCCCCCTCGGGAAAAAAATCCACCCCGAATCACTCGAACCCGAGGGAGGCTTCCTTTCACCCTTGG
GGAGACGAGCTTTCAACGGTTACCTCTTCTTCGTCTCCCCCCAAGCCCCCGTCCCCTCCCCCTGCTCCCACCCCC
TTCTGGCGCCGGGTGTAAGGTCCCTTTAAGGCGACGGCGCCTTCCTCGGGTCAGACTACCGGCGGCGACGACCAC
AGGAGC**ATG**GCGGACACCGACCTGTTCATGGAATGTGAGGAGGAGGAGTTGGAGCCATGGCAGAAAATCAGTGAT
GTCATTGAGGACTCTGTAGTTGAAGATTATAATTCAGTGGATAAAACTACCACAGCTGGCAATCCTTTGGTCCAG
CAAGGTGGACAGCCACTCATCCTGACCCAGAATCCAGCCCCAGGTCTGGGCACAATGGTTACTCAACCAGTATTG
AGGCCTGTTCAGGTCATGCAGAATGCCAATCATGTGACTAGTTCCCCTGTGGCCTCACAACCAATATTTATCACT
ACGCAGGGATTTCCTGTAAGGAATGTCCGGCCTGTACAAAATGCAATGAATCAGGTTGGGATTGTGCTGAACGTA
CAGCAAGGCCAAACGGTTAGACCAATTACACTAGTTCCAGCCCCAGGTACCCAGTTTGTTAAGCCGACAGTTGGA
GTTCCACAAGTGTTCTCCCAGATGACCCCTGTGAGGCCAGGCTCCACAATGCCTGTGAGGCCCACCACCAACACC
TTCACCACCGTCATCCCGGCCACTCTTACCATTCGAAGCACCGTCCCACAGTCCCAGTCCCAGCAGACCAAGTCC
ACTCCCAGCACTTCTACCACTCCCACTGCCACACAGCCAACCTCACTGGGGCAACTAGCTGTTCAGTCTCCAGGC
CAGTCAAACCAGACCACGAATCCCAAGCTAGCTCCCTCCTTCCCCTCTCCACCTGCAGTGAGCATTGCCAGCTTT
GTCACTGTGAAGCGACCTGGTGTTACAGGCGAAAATAGCAATGAAGTGGCCAAATTGGTGAATACCCTTAACACC
ATCCCTTCCCTGGGCCAGAGTCCTGGGCCAGTGGTGGTGTCCAACAACAGCTCTGCTCATGGCTCTCAAAGAACC
AGCGGACCTGAGTCTTCAATGAAAGTGACCTCTTCCATCCCAGTATTTGACCTCCAGGATGGTGGACGGAAAATA
TGTCCACGATGTAATGCTCAATTTCGTGTTACTGAAGCTTTGAGAGGTCACATGTGTTACTGTTGCCCAGAAATG
GTTGAATACCAGAAGAAAGGAAAGTCCCTGGATTCAGAACCCAGTGTCCCATCAGCAGCAAAGCCCCCATCCCCT
GAGAAAACAGCTCCTGTTGCTTCCACACCCTCTTCTACACCTATTCCTGCTCTGTCACCGCCTACCAAAGTACCA
GAACCAAATGAGAACGTGGGCGATGCCGTCCAGACCAAACTCATTATGCTTGTAGATGACTTCTACTATGGACGG
GATGGTGGCAAAGTAGCCCAGCTCACAAATTTCCCTAAGGTCGCCACATCTTTCCGATGCCCACATTGTACCAAA
AGGCTAAAAAACAATATTCGATTCATGAACCATATGAAACACCACGTAGAACTCGATCAGCAGAACGGTGAGGTA
GATGGTCACACTATCTGCCAGCACTGTTACCGCCAGTTTTCCACTCCCTTCCAGCTTCAGTGCCACTTGGAAAAT
GTTCATAGTCCCTATGAATCTACTACCAAGTGCAAGATCTGTGAATGGGCGTTTGAAAGTGAGCCACTATTTCTC
CAGCATATGAAGGATACTCATAAGCCTGGAGAGATGCCTTATGTTTGCCAGGTGTGTCAATATCGCTCCTCACTC
TACTCTGAGGTAGATGTCCATTTTCGGATGATCCATGAGGATACCCGGCATCTGCTCTGCCCTTATTGCCTGAAG
GTCTTCAAAAATGGCAATGCATTCCAACAGCATTACATGAGGCACCAGAAGAGAAATGTTTATCACTGCAACAAA
TGCCGGCTGCAGTTTCTCTTTGCCAAGGACAAAATTGAACACAAGCTTCAACACCATAAAACCTTCCGTAAACCC
AAGCAGCTGGAGGGCTTGAAACCAGGCACCAAGGTGACAATCCGGGCTTCCCGAGGGCAGCCACGAACTGTTCCT
GTATCCTCTAATGATACACCTCCCAGCGCCTTGCAGGAGGCAGCACCGCTGACCTCCTCAATGGACCCTCTGCCT
GTCTTCCTTTATCCCCCTGTCCAGCGCAGCATCCAGAAGAGAGCTGTTAGGAAAATGAGTGTCATGGGCCGGCAG
ACATGCCTGGAGTGCAGCTTCGAGATCCCAGACTTCCCTAATCATTTCCCTACTTACGTACACTGCTCTCTGTGT
CGCTATAGCACCTGCTGTTCTCGAGCTTATGCCAACCACATGATCAACAATCATGTTCCACGGAAGAGCCCCAAG
TATTTGGCTTTGTTTAAAAATTCTGTGAGTGGAATCAAGCTGGCCTGCACTTCATGTACCTTTGTTACCTCTGTG
GGCGATGCTATGGCCAAGCATTTGGTATTCAACCCCTCTCACAGATCCAGCAGCATCCTGCCACGGGGACTCACT
TGGATAGCTCACTCAAGGCATGGCCAGACTCGTGACCGAGTGCATGACCGGAACGTGAAGAATATGTACCCTCCT
CCTTCCTTCCCCACTAACAAAGCTGCCACTGTGAAATCTGCGGGGGCCACCCCAGCTGAGCCTGAAGAGCTACTA
ACTCCCTTAGCCCCAGCACTCCCATCACCAGCCTCAACTGCAACCCCACCACCAACCCCCACTCACCCGCAGGCT
TTAGCCCTTCCACCGCTGGCTACAGAGGGAGCCGAATGTCTGAATGTTGATGATCAGGATGAAGGGAGCCCAGTC
ACCCAAGAACCTGAGCTAGCATCAGGTGGTGGTGGTAGTGGTGGAGTTGGCAAAAAGGAGCAGCTGTCTGTGAAG
AAGCTTCGAGTAGTACTGTTTGCTCTATGCTGCAATACAGAACAGGCAGCTGAACACTTCCGAAATCCCCAGCGA
CGTATTCGCCGTTGGCTTCGACGTTTCCAGGCCTCCCAGGGGGAGAATCTAGAGGGCAAATATCTGAGCTTTGAG
GCAGAAGAGAAACTGGCTGAGTGGGTGCTAACCCAGCGCGAACAACAGCTACCTGTAAATGAGGAGACCTTGTTC
CAGAAGGCCACCAAAATAGGACGTTCTTTGGAAGGGGGGTTTAAGATCTCCTATGAGTGGGCTGTGCGTTTCATG
CTGCGGCACCACCTGACTCCCCATGCCCGGCGAGCTGTGGCCCACACCCTACCTAAGGATGTAGCAGAGAATGCA
GGACTCTTCATTGATTTTGTACAACGGCAGATTCACAACCAGGACTTACCCTTGTCTATGATTGTGGCTATTGAT
GAGATCTCTTTGTTCCTGGATACAGAGGTGCTGAGCAGTGATGATCGAAAGGAGAATGCCCTGCAGACAGTGGGC

FIGURE 1177B

ACAGGGGAACCTTGGTGTGATGTAGTCCTAGCCATTCTGGCAGATGGCACTGTCCTTCCCACCCTGGTTTTCTAC
AGAGGGCAGATGGATCAGCCTGCTAACATGCCAGACTCCATATTGCTAGAGGCAAAGGAGAGTGGCTACAGTGAT
GACGAGATCATGGAGCTGTGGTCAACTCGAGTGTGGCAGAAGCACACAGCTTGCCAGCGCAGCAAAGGCATGCTT
GTGATGGACTGTCATCGCACTCACTTGTCAGAAGAGGTACTGGCTATGCTTAGTGCCTCTAGCACTTTGCCTGCA
GTGGTCCCAGCAGGCTGTAGCTCCAAAATTCAGCCATTAGATGTATGCATCAAAAGAACTGTCAAGAACTTCCTG
CATAAAAAATGGAAGGAACAGGCTCGGGAAATGGCAGATACTGCATGTGATTCTGATGTCCTGCTTCAGCTGGTG
CTTGTCTGGCTGGGTGAAGTGCTAGGTGTCATTGGGGACTGTCCAGAGCTAGTTCAGCGCTCCTTCCTGGTGGCT
AGTGTTCTGCCTGGCCCCGATGGCAACATTAACTCACCTACAAGAAATGCTGACATGCAGGAGGAGCTAATTGCC
TCCCTAGAGGAGCAACTGAAGCTGAGTGGGGAACATTCTGAGTCTTCCACTCCACGACCCAGATCATCTCCTGAA
GAGACAATTGAGCCTGAAAGTCTTCACCAGCTCTTTGAGGGTGAAAGTGAGACCGAGTCTTTCTATGGCTTTGAA
GAAGCTGACCTAGATCTGATGGAGATT**TGA**GTGTTGGGGTCATGAGGGGGTGTGGAGTGAGGGTGGGAACATGTG
AGGGAGGGTAAAGGGGCTTAGGGAAAAGGGGGCATACCAGGTGGGGTATTTGGTTTCTATTTTTTAATTTTATAC
CACCACTCCCCCCTGAAGTTGACTTACACTTCCCTGTGGATTTGTGGATTAATTAGGAAAACCAATAGTAATCAC
GTCTGAGCCAAGGAGCTGGCCCATTGGTCATTCACTTCTGCTAAAAACAGGTTTTTGTGACTTTTTTTTTTTTTA
AATTTAAATCACTGTGTTTGGTATTTTTCTGACAAAATTAAGAAAAAGAAAAAAAATTATTTGTGGGCAAATGTT
AAATTTTTTTGTTTCCCCTTTTACCTCAATTGTATCATAGTACTGGGTTTTTTTGTTTGTTTTATTGTGTGGCCA
ATGTCTTTGGGCATGATGCTATCTAATCATTGTTAATGTGAGAACATTTCTGAAGATGGGAAAGACAAATTATGT
AGCTCACAAACTGGTTTATTATATATATGGATAAAAAACTTTTTTCATTGTGGTCTTAACACTTTTATATAAAAA
TGAAAATGGAAAAAAAGTCCCACTGAACTCTCTCTTCCTTCTCCTTTTCTTTCCTTCCCTCTCCAGAGATGTTGG
TTTCTACAGCAACCCTAGATATAAAATTGTGGCTTTAAAAATGCATGAAACCACCTTTAATTATCCAGAATGAAT
AGATTTGTCTTTTCCTCACCACCTTCCCTCCAAAACATGACATAAACAATATTTTTTGCACTTGTGATCCTTGGC
CCCTTTCCCCATTCTCAACACCATCCATCCCTCTGGACAAAGGATCATACAGGTGTTATTAGCAAGCAAGAGATA
CTGAAGCGATCAAACAGTTTTAGGGTGGAAGCCATTCCCAGTTTGAGTCTTCATCCTGTAAGCCCCCAGGGGCAG
TCCCTGCTTTACTGAACTTCATCCTGTTAGATGGAGAGCATGCCTGTTTAAGGGATTACTGGTCCTACAGCCAGG
AGCTAATTGTTCAAGAAGTGTTGAACTTTAAAAAGACAAGACCACTTGTTGAAATCCAGCGTGCTCTGTGGCTTT
CCCCTATTTCTCTTAATACTTAGGGAAGAATCTGACAGGAAGAAGCGCACAGGGGTGTGCACAAAGAAAATGACA
TGAATCTTTATTTTTCACTGCCAGCTTCAAGGAAAGAAAATTTTTTCTACAATTTGCATGAGGGATTTTTTTAAT
TGTATGTACTCATGGTTGTAAACCAAAACGTACTGTACCGTACAGAGAAAAGGAGCAAAAAACCAAGTCTTCTGT
TTATCCTGAGGCTTTCCACAATGTTCCCCTCCTGTGAGCCAAGGAGGCAAACTGCACAAGCTTGTAAATGGTTCG
TCTTTAAAATGTACATAAGTGGAACATTTAATAAAATGAGGGGAAATGGATTTATAAACTTGTTTTTTTTCTAGG
TGACCCTGTTTAATAGGCTTTCACAGACTGGGGAATGCTCAAGATGTGATGGGCCTGGTGGTACAGGTGTGACAT
TTGTTACCACCCATTTCTCCCACCCCACCCTGCTTTTTTGTTTGTTTGTTTTTTCATCCCCCAGCACACTATAAT
ATAGTGAACTGGAAAAGTCCCTTCCAGAAACAGCTTGGCCAGCTTTGTGAACCTTTGACATCTGAAAACAACCAA
GGATCCATCTGGGCTTCTCTTCCCCAGCTTTTTGCCTGATGCCATTTTATTGACAGACAATGGACTTTGAAGTCA
GCCTTTGCCTTTGAGAAAGTTCAAGAACTATGGTTGGTCACGTCTATCTACAACCTAATCCTACTCTTTGGTAGT
CTCTGCAGCAGCCACAGCCTTAGCAGAGCTGGGGTTCCTGTCTTCTGCACACGATTGACTTTCTTGATGGGTAAT
TTTTTTTAAGATTATACCAACAGTGGATCAGCTGGGTTTTGGCCAGGAAGTTGTCTTTGTGGACTCTGCCTGCAT
GGCTTAGTAGTAGAAGGAAATTTTTTTTTGGTTTTGTTTTTTATAATTCAGTTTAATCAATAAACATGTATTTAT
TGACTGTT

FIGURE 1178

TTTTTTCTGCTACCGTGACTAAG**ATG**GAAGCGTTTTTGGGGTCGCGGTCCGGACTTTGGGCGGGGGGTCCGGCCC
CAGGACAGTTTTACCGCATTCCGTCCACTCCCGATTCCTTCATGGATCCGGCGTCTGCACTTTACAGAGGTCCAA
TCACGCGGACCCAGAACCCCATGGTGACCGGGACCTCAGTCCTCGGCGTTAAGTTCGAGGGCGGAGTGGTGATTG
CCGCAGACATGCTGGGATCCTACGGCTCCTTGGCTCGTTTCCGCAACATCTCTCGCATTATGCGAGTCAACAACA
GTACCATGCTGGGTGCCTCTGGCGACTACGCTGATTTCCAGTATTTGAAGCAAGTTCTCGGCCAGATGGTGATTG
ATGAGGAGCTTCTGGGAGATGGACACAGCTATAGTCCTAGAGCTATTCATTCATGGCTGACCAGGGCCATGTACA
GCCGGCGCTCGAAGATGAACCCTTTGTGGAACACCATGGTCATCGGAGGCTATGCTGATGGAGAGAGCTTCCTCG
GTTATGTGGACATGCTTGGTGTAGCCTATGAAGCCCCTTCGCTGGCCACTGGTTATGGTGCATACTTGGCTCAGC
CTCTGCTGCGAGAAGTTCTGGAGAAGCAGCCAGTGCTAAGCCAGACCGAGGCCCGCGACTTAGTAGAACGCTGCA
TGCGAGTGCTGTACTACCGAGATGCCCGTTCTTACAACCGGTTTCAAATCGCCACTGTCACCGAAAAAGGTGTTG
AAATAGAGGGACCATTGTCTACAGAGACCAACTGGGATATTGCCCACATGATCAGTGGCTTTGAA**TGA**AATACAG
ATGCATTATCCAGAACTGAAGTTGCCCTACTTTTAACTTTGAACTTGGCTAGTTCAAAGATAGACTCTTCTTTTG
TAAAGTAAATAAATTCTTCAAAATG

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FIGURE 1179

CACCAGCACAGCAAACCCGCCGGGATCAAAGTGTACCAGTCGGCAGC**ATG**GCTACGAAATGTGGGAATTGTGGAC
CCGGCTACTCCACCCCTCTGGAGGCCATGAAAGGACCCAGGGAAGAGATCGTCTACCTGCCCTGCATTTACCGAA
ACACAGGCACTGAGGCCCCAGATTATCTGGCCACTGTGGATGTTGACCCCAAGTCTCCCCAGTATTGCCAGGTCA
TCCACCGGCTGCCCATGCCCAACCTGAAGGACGAGCTGCATCACTCAGGATGGAACACCTGCAGCAGCTGCTTCG
GTGATAGCACCAAGTCGCGCACCAAGCTGGTGCTGCCCAGTCTCATCTCCTCTCGCATCTATGTGGTGGACGTGG
GCTCTGAGCCCCGGGCCCCAAAGCTGCACAAGGTCATTGAGCCCAAGGACATCCATGCCAAGTGCGAACTGGCCT
TTCTCCACACCAGCCACTGCCTGGCCAGCGGGGAAGTGATGATCAGCTCCCTGGGAGACGTCAAGGGCAATGGCA
AAGGGGGTTTTGTGCTGCTGGATGGGGAGACGTTCGAGGTGAAGGGGACATGGGAGAGACCTGGGGGTGCTGCAC
CGTTGGGCTATGACTTCTGGTACCAGCCTCGACACAATGTCATGATCAGCACTGAGTGGGCAGCTCCCAATGTCT
TACGAGATGGCTTCAACCCCGCTGATGTGGAGGCTGGACTGTACGGGAGCCACTTATATGTATGGGACTGGCAGC
GCCATGAGATTGTGCAGACCCTGTCTCTAAAAGATGGGCTTATTCCCTTGGAGATCCGCTTCCTGCACAACCCAG
ACGCTGCCCAAGGCTTTGTGGGCTGCGCACTCAGCTCCACCATCCAGCGCTTCTACAAGAACGAGGGAGGTACAT
GGTCAGTGGAGAAGGTGATCCAGGTGCCCCCCAAGAAAGTGAAGGGCTGGCTGCTGCCCGAAATGCCAGGCCTGA
TCACCGACATCCTGCTCTCCCTGGACGACCGCTTCCTCTACTTCAGCAACTGGCTGCATGGGGACCTGAGGCAGT
ATGACATCTCTGACCCACAGAGACCCCGCCTCACAGGACAGCTCTTCCTCGGAGGCAGCATTGTTAAGGGAGGCC
CTGTGCAAGTGCTGGAGGACGAGGAACTAAAGTCCCAGCCAGAGCCCCTAGTGGTCAAGGGAAAACGGGTGGCTG
GAGGCCCTCAGATGATCCAGCTCAGCCTGGATGGGAAGCGCCTCTACATCACCACGTCGCTGTACAGTGCCTGGG
ACAAGCAGTTTTACCCTGATCTCATCAGGGAAGGCTCTGTGATGCTGCAGGTTGATGTAGACACAGTAAAAGGAG
GGCTGAAGTTGAACCCCAACTTCCTGGTGGACTTCGGGAAGGAGCCCCTTGGCCCAGCCCTTGCCCATGAGCTCC
GCTACCCTGGGGGCGATTGTAGCTCTGACATCTGGATT**TGA**ACTCCACCCTCATCACCCACACTCCCTATTTTGG
GCCCTCACTTCCTTGGGGACCTGGCTTCATTCTGCTCTCTCTTGGCACCCGACCCTTGGCAGCATGTACCACACA
GCCAAGCTGAGACTGTGGCAATGTGTTGAGTCATATACATTTACTGACCACTGTTGCTTGTTGCTCACTGTGCTG
CTTTTCCATGAGCTCTTGGAGGCACCAAGAAATAAACTCGTAACCCTGTCCTTC

FIGURE 1180

AAAATAAAGCAACGCACGAGCCGGCTGGGCCAGGACCTTGGGGCTGGGCTGGAGTGAAGGTGGCTACGAGTTTTC
CAGATTTAGGAGACTTCAGAAAGGTGGGGCAGATAGAATGGAGATGGCAAAGATCTCTTTGGGCATATATGGGCC
TGGCGAAGTAATGGAATAATTTCTAATTTTCGGAGAAGCCCTCATGCCGGG**ATG**GCAGAAGATGAGCCTGATGCT
AAGAGCCCCAAGACTGGGGGAAGGGCCCCCCCAGGTGGTGCTGAGGCTGGGGAACCTACCACCCTTCTTCAGAGG
CTCCGAGGTACCATTTCCAAGGCCGTGCAGAACAAAGTAGAGGGGATCCTGCAAGATGTACAGAAATTTTCTGAC
AATGACAAGCTGTATCTCTACCTTCAGCTCCCCTCAGGACCCACCACTGGAGACAAAAGCTCAGAGCCAAGTACA
CTGAGCAATGAGGAGTACATGTATGCCTATAGGTGGATCCGCAACCACCTGGAAGAGCACACTGACACCTGTCTG
CCAAAGCAAAGTGTTTATGATGCCTATCGGAAGTACTGTGAGAGTCTTGCCTGTTGCCGCCCACTCAGCACAGCC
AACTTTGGCAAGATCATCAGAGAGATCTTCCCTGACATCAAAGCTCGAAGGCTTGGTGGCCGGGGCCAGTCCAAA
TATTGCTACAGTGGCATAAGGAGGAAGACCTTGGTGTCTATGCCACCCCTGCCTGGACTTGACCTAAAGGGTTCT
GAGAGTCCAGAAATGGGCCCAGAAGTAACCCCAGCACCTCGAGATGAACTGGTGGAGGCAGCGTGTGCCCTGACC
TGTGACTGGGCAGAGCGGATCCTGAAACGGTCCTTCAGTTCCATCGTTGAGGTCGCCCGCTTCCTGCTACAGCAG
CATCTCATCTCTGCCCGATCTGCACATGCCCATGTGCTTAAGGCCATGGGGCTCGCTGAAGAGGACGAACATGCA
CCTCGGGAACGGTCATCTAAACCAAAGAATGGTTTAGAGAACCCAGAGGGTGGAGCCCACAAGAAGCCAGAGAGA
CTGGCCCAGCCTCCTAAGGATCTGGAAGCCCGAACTGGGGCCGGTCCTCTCGCACGTGGAGAGCGGAAGAAGAGT
GTAGTTGAGAGCTCGGCCCCAGGAGCCAATAACCTGCAGGTTAATGCCCTAGTGGCTCGGCTGCCTCTGCTCCTT
CCCCGGGCCCCTCGCTCACTAATTCCGCCAATCCCAGTCTCTCCACCTATTCTGGCCCCCAGGCTTTCTTCAGGT
GCCCTGAAAGTGGCTACACTGCCTCTGTCTAGTAGGGCCGGGGCACCCCCAGCAGCTGTGCCCATCATTAACATG
ATCTTACCAACTGTTCCTGCTTTGCCTGGACCTGGACCTGGGCCTGGGCGAGCTCCACCTGGGGGACTCACTCAG
CCCCGGGGCACAGAGAACAGAGAGGTAGGCATAGGTGGTGACCAAGGACCACATGACAAGGGTGTCAAGAGGACA
GCTGAAGTACCTGTGAGTGAGGCCAGTGGGCAGGCTCCACCAGCTAAAGCAGCAAAGCAGGATATAGAGGATACA
GCAAGTGATGCCAAAAGGAAACGGGGGCGCCCTCGAAAAAAGTCAGGTGGAAGTGGGGAAAGGAATTCTACCCCT
CTCAAGTCAGCAGCTGCCATGGAATCTGCCCAGTCCTCAAGGTTACCATGGGAGACATGGGGCTCAGGAGGGGAA
GGCAACTCAGCTGGAGGGGCAGAGAGGCCAGGGCCAATGGGAGAGGCTGAAAAGGGGGCAGTACTTGCCCAGGGT
CAGGGAGATGGTACTGTTTCCAAAGGAGGAAGGGGCCCCGGTTCCCAGCATACCAAAGAAGCAGAAGATAAAATT
CCCTTGGTCCCCTCAAAAGTGAGTGTCATCAAGGGCAGCAGAAGCCAAAAGGAGGCTTTTCCTTTGGCAAAGGGA
GAGGTAGACACTGCACCACAGGGTAATAAAGACTTAAAGGAGCATGTGCTTCAAAGTTCCTTATCCCAGGAGCAT
AAAGACCCAAAAGCAACACCCCCA**TGA**TACAGGTCTGTGGGGAAGAGTGTTTATATCCCTACGTTAACTTTGCCT
AGTAGAGGCCCTTCTTTGCACTTGCTTCTCATTTGGCTATTCTTTTCCTAAGGAAGTCCATTCTCCTCTGTACAG
ACAGCTGAGTCACCCAGTCTACTTAGTACCTGGTTGCTGCCTCTGACCTTTTCAGCTTGATACCCTGGGCTTTAG
TGTAACCAATAAATCTGTAGTGACCTTACCTGTATTCCCTGTGCTATCCTGTGGGAAGGTAGGAATGGGCTAAGT
ATGATGAATATATAGGTTAGGGATCTTTTGGTTTTAAATCACAGAAAACCTAATTCAAACTGGCTTAAAATAAAA
AGGATTTATTGGTTCATGTAACTAGAAAGTCCATAGGTAGTGCTGGCTCCAGGTGAAGACTTGACCCAGTAGTTC
AGTATGTCTCTAAATACCGGACTGACTTTTTTCTCACTGTTGCATCTTCTGTAGGACCATTTAAGTCTGGGCCAC
TTAATGGCTGCCAGCATTCCTAAGATTACACTTTTCCCCATTTATGTCCAATCAGAAAAAGAAGGCATCTTTGTA
CCAGAAATCTCAGCAAAAGCCCTAATATTCACACTGATTAGGCCTGGGTCACATGTCCACCCTGACCAATCACTG
TGGCCAGGAGGATGATACATGCTAATTTGCTTATTCTATATCATGGACAACACCTTTGGGGAAAAGGGTGGGGGT
CAGCCTCCCCAAAATCACATGGATTCCCCAAGTGGAAACTAGGAGCAGGGAGTTGCTTGGGTGGCCGCTAACACC
AGGCTACTCTTATTTTAGCTTGCTAAGTTGAGATCAGCTAGACCTGCTTTCTTTTCTCCTCAGTCTTGCATTTCC
CTCAATACAAGCTGTAGCCTCTTTCCTCGTTTCTAGTCTCAGAAGGAAGGAGAGGGAAGCCATTCTCCTCTAGGG
ACTCTTCAGTCTCATTTAGATGATAGTCCCTTTTTTTCTACCTCCATATTAGAGATGGAGCTCCTTCCTTTTCCT
GTTTCTTAATTTTTGTCTTCTCATTCCTGCTTCCCTCTCACCCTATTGCCAGTTCCACCAACTAGAGTGAAAGAC
TTCCTAGCCATTTCATTAAATCTATTCTGTATCCACCAGGTGGCAGCATCTTGTCATACGTGTCAGGACTTAGGA
CTGCGGGGTTTAGGTTAGATGTCACGGAAAAAGCTAGTTCTGTGGTCAGGCGGCACCAATGAGAAAGGAATGCAG
ACCCTCCAGATGTATCCTTGGGAAAAGCAGTAAACCAACTAATATTTATTGAAGACCTACTTTGTCCTCTACATA
GGGTAGCTTCTGTCAGGGAATCTTGGTTCTTCCCAAGAAACACTGATTTTCTTTCAGGGAGACTTCATGTGTTCA
TTTATTTCCACCACAGCAGATTTTAAGAAATTATAATATGTAATATTTGATATCTATAAAGAGTATATCTAACGT
GAATAAATTATGAAGCATACTAATGAGTACCTATGACCCATAACACATATACATTAAAACATTTTAAATACC

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FIGURE 1181

CAGATTACACTTGGTTGACTACTCCGGAGCAGCCACTAAGAGGGATGAACAGGCCTGCGTGGAAATTGA**ATG**AGA
TTCTTGGAAGCTCGAAGTCTGGCTGTGGCCATGGGAGATACAGTAGTGGAGCCTGCCCCCTTGAAGCCAACTTCT
GAGCCCACTTCTGGCCCACCAGGGAATAATGGGGGGTCCCTGCTAAGTGTCATCACGGAGGGGGTCGGGGAACTA
TCAGTGATTGACCCTGAGGTGGCCCAGAAGGCCTGCCAGGAGGTGTTGGAGAAAGTCAAGCTTTTGCATGGAGGC
GTGGCAGTCTCTAGCAGAGGCACCCCACTGGAGTTGGTCAATGGGGATGGTGTGGACAGTGAGATCCGTTGCCTA
GATGATCCACCTGCCCAGATCAGGGAGGAGGAAGATGAGATGGGGGCCGCTGTGGCCTCAGGCACAGCCAAAGGA
GCAAGAAGACGGCGGCAGAACAACTCAGCTAAACAGTCTTGGCTGCTGAGGCTGTTTGAGTCAAAACTGTTTGAC
ATCTCCATGGCCATTTCATACCTGTATAACTCCAAGGAGCCTGGAGTACAAGCCTACATTGGCAACCGGCTCTTC
TGCTTTCGCAACGAGGACGTGGACTTCTATCTGCCCCAGTTGCTTAACATGTACATCCACATGGATGAGGATGTG
GGTGATGCCATTAAGCCCTACATAGTCCACCGTTGCCGCCAGAGCATTAACTTTTCCCTCCAGTGTGCCCTGTTG
CTTGGGGCCTATTCTTCAGACATGCACATTTCCACTCAACGACACTCCCGTGGGACCAAGCTACGGAAGCTGATC
CTCTCAGATGAGCTAAAGCCAGCTCACAGGAAGAGGGAGCTGCCCTCCTTGAGCCCGGCCCCTGACACAGGGCTG
TCTCCCTCCAAAAGGACTCACCAGCGCTCTAAGTCAGATGCCACTGCCAGCATAAGTCTCAGCAGCAACCTGAAA
CGAACAGCCAGCAACCCTAAAGTGGAGAATGAGGATGAGGAGCTCTCCTCCAGCACCGAGAGTATTGATAATTCA
TTCAGTTCCCCTGTTCGACTGGCTCCTGAGAGAGAATTCATCAAGTCCCTGATGGCGATCGGCAAGCGGCTGGCC
ACGCTCCCCACCAAAGAGCAGAAAACACAGAGGCTGATCTCAGAGCTCTCCCTGCTCAACCATAAGCTCCCTGCC
CGAGTCTGGCTGCCCACTGCTGGCTTTGACCACCACGTGGTCCGTGTACCCCACACACAGGCTGTTGTCCTCAAC
TCCAAGGACAAGGCTCCCTACCTGATTTATGTGGAAGTCCTTGAATGTGAAAACTTTGACACCACCAGTGTCCCT
GCCCGGATCCCCGAGAACCGAATTCGGAGTACGAGGTCCGTAGAAAACTTGCCCGAATGTGGTATTACCCATGAG
CAGCGAGCTGGCAGCTTCAGCACTGTGCCCAACTATGACAACGATGATGAGGCCTGGTCGGTGGATGACATAGGC
GAGCTGCAAGTGGAGCTCCCCGAAGTGCATACCAACAGCTGTGACAACATCTCCCAGTTCTCTGTGGACAGCATC
ACCAGCCAGGAGAGCAAGGAGCCTGTGTTCATTGCAGCAGGGGACATCCGCCGGCGCCTTTCGGAACAGCTGGCT
CATACCCCGACAGCCTTCAAACGAGACCCAGAAGATCCTTCTGCAGTTGCTCTCAAAGAGCCCTGGCAGGAGAAA
GTACGGCGGATCAGAGAGGGCTCCCCCTACGGCCATCTCCCCAATTGGCGGCTCCTGTCAGTCATTGTCAAGTGT
GGGGATGACCTTCGGCAAGAGCTTCTGGCCTTTCAGGTGTTGAAGCAACTGCAGTCCATTTGGGAACAGGAGCGA
GTGCCCCTTTGGATCAAGCCATACAAGATTCTTGTGATTTCGGCTGATAGTGGCATGATTGAACCAGTGGTCAAT
GCTGTGTCCATCCATCAGGTGAAGAAACAGTCACAGCTCTCCTTGCTCGATTACTTCCTACAGGAGCACGGCAGT
TACACCACTGAGGCATTCCTCAGTGCACAGCGCAATTTTGTGCAAAGTTGTGCTGGGTACTGCTTGGTCTGCTAC
CTGCTGCAAGTCAAGGACAGACACAATGGGAATATCCTTTTGGACGCAGAAGGCCACATCATCCACATCGACTTT
GGCTTCATCCTCTCCAGCTCACCCCGAAATCTGGGCTTTGAGACGTCAGCCTTTAAGCTGACCACAGAGTTTGTG
GATGTGATGGGCGGCCTGGATGGCGACATGTTCAACTACTATAAGATGCTGATGCTGCAAGGGCTGATTGCCGCT
CGGAAACACATGGACAAGGTGGTGCAGATCGTGGAGATCATGCAGCAAGGTTCTCAGCTTCCTTGCTTCCATGGC
TCCAGCACCATTCGAAACCTCAAAGAGAGGTTCCACATGAGCATGACTGAGGAGCAGCTGCAGCTGCTGGTGGAG
CAGATGGTGGATGGCAGTATGCGGTCTATCACCACCAAACTCTATGACGGCTTCCAGTACCTCACCAACGGCATC
ATG**TGA**CACGCTCCTCAGCCCAGGAGTGGTGGGGGGTCCAGGGCACCCTCCCTAGAGGGCCCTTGTCTGAGAAAC
CCCAAACCAGGAAACCCCACCTACCCAACCATCCACCCAAGGGAAATGGAAGGCAAGAAACACGAAGGATCATGT
GGTAACTGCGAGAGCTTGCTGAGGGGTGGGAGAGCCAGCTGTGGGGTCCAGACTTGTTGGGGCTTCCCTGCCCCT
CCTGGTCTGTGTCAGTATTACCACCAGACTGACTCCAGGACTCACTGCCCTCCAGAAAACAGAGGTGACAAATGT
GAGGGACACTGGGGCCTTTCTTCTCCTTGTAGGGGTCTCTCAGAGGTTCTTTCCACAGGCCATCCTCTTATTCCG
TTCTGGGGCCCAGGAAGTGGGGAAGAGTAGGTTCTCGGTACTTAGGACTTGATCCTGTGGTTGGCCACTGGCCAT
GCTGCTGCCCAGCTCTACCCCTCCCAGGGACCTACCCCTCCCAGGGACCGACCCCTGGCCCAAGCTCCCCTTGCT
GGCGGGCGCTGCGTGGGCCCTGCACTTGCTGAGGTTCCCCATCATGGGCAAGGAAGGGAATTCCCACAGCCCTCC
AGTGTACTGAGGGTACTGGCCTAGCCATGTGGAATTCCCTACCCTGACTCCTTCCCCAAACCCAGGGAAAAGAGC
TCTCAATTTTTTATTTTTAATTTTTGTTTGAAATAAAGTCCTTAGTTAGCCACTTGTGTCATTTCCAGGTTTTCT
GGGGGAGTGCAGGGGGAGATGGGTGATGAGGTATGAACGGATGCCTCAGTGTCCAAGATACAAAAGGCACTACAT
AGAAGTTTGCTTTTTCCCTGCCTGTCTTGGTCACTACCACCTCTTCCCTGAGAAGGGCGGGCCTTCCATGTTCTC
TCACCCGCTTCAACTCCACAT

FIGURE 1182

AATTGGAGGAGTTGTTGTTAGGCCGTCCCGGAGACCCGGTCGGGAGGGAGGAAGGTGGCAAGATGGTGTTGGAAA
GCACTATGGTGTGTGTGGACAACAGTGAGTATATGCGGAATGGAGACTTCTTACCCACCAGGCTGCAGGCCCAGC
AGGATGCTGTCAACATAGTTTGTCATTCAAAGACCCGCAGCAACCCTGAGAACAACGTGGGCCTTATCACACTGG
CTAATGACTGTGAAGTGCTGACCACACTCACCCCAGACACTGGCCGTATCCTGTCCAAGCTACATACTGTCCAAC
CCAAGGGCAAGATCACCTTCTGCACGGGCATCCGCGTGGCCCATCTGGCTCTGAAGCACCGACAAGGCAAGAATC
ACAAGATGCGCATCATTGCCTTTGTGGGAAGCCCAGTGGAGGACAATGAGAAGGATCTGGTGAAACTGGCTAAAC
GCCTCAAGAAGGAGAAAGTAAATGTTGACATTATCAATTTTGGGGAAGAGGAGGTGAACACAGAAAAGCTGACAG
CCTTTGTAAACACGTTGAATGGCAAAGATGGAACCGGTTCTCATCTGGTGACAGTGCCTCCTGGGCCCAGTTTGG
CTGATGCTCTCATCAGTTCTCCGATTTTGGCTGGTGAAGGTGGTGCCATGCTGGGTCTTGGTGCCAGTGACTTTG
AATTTGGAGTAGATCCCAGTGCTGATCCTGAGCTGGCCTTGGCCCTTCGTGTATCTATGGAAGAGCAGCGGCAGC
GGCAGGAGGAGGAGGCCCGGCGGGCAGCTGCAGCTTCTGCTGCTGAGGCCGGGATTGCTACGACTGGGACTGAAG
ACTCAGACGATGCCCTGCTGAAGATGACCATCAGCCAGCAAGAGTTTGGCCGCACTGGGCTTCCTGACCTAAGCA
GTATGACTGAGGAAGAGCAGATTGCTTATGCCATGCAGATGTCCCTGCAGGGAGCAGAGTTTGGCCAGGCGGAAT
CAGCAGACATTGATGCCAGCTCAGCTATGGACACATCTGAGCCAGCCAAGGAGGAGGATGATTACGACGTGATGC
AGGACCCCGAGTTCCTTCAGAGTGTCCTAGAGAACCTCCCAGGTGTGGATCCCAACAATGAAGCCATTCGAAATG
CTATGGGCTCCCTGGCCTCCCAGGCCACCAAGGACGGCAAGAAGGACAAGAAGGAGGAAGACAAGAAGTGAGACT
GGAGGGAAAGGGTAGCTGAGTCTGCTTAGGGGACTGCATGGGAAGCACGGAATATAGGGTTAGATGTGTGTTATC
TGTAACCATTACAGCCTAAATAAAGCTTGGCAACTTTT

FIGURE 1183

GAGGAGGAGTGGGGACCGGGCGGGGGGTGGAGGAAGAGGCCTCGCGCAGAGGAGGGAGCAATTGAATTTCAAACA
CAAACAACTGCACGAGCGCGCACCCACCGCGCCGGAGCCTTGCCCCGATCCGCGCCCGCCCCGTCCGTGCGGCGC
GCGGGCGGAGACGCCGTGGCCGCGCCGGAGCTCGGGCCGGGGGGCCACCATCGAGGCGGGGGCCGCGCGAGGGCCG
GAGCGGAGCGGCGCCGCCACCGCCGCACGCGCAAACTTGGGCTCGCGCTTCCCGGCCCGGCGCGGAGCCCGGGGC
GCCCGGAGCCCCGCC**ATG**TCGCGATCCAACCGGCAGAAGGAGTACAAATGCGGGGACCTGGTGTTCGCCAAGATG
AAGGGCTACCCACACTGGCCGGCCCGGATTGACGAGATGCCTGAGGCTGCCGTGAAATCAACAGCCAACAAATAC
CAAGTCTTTTTTTTCGGGACCCACGAGACGGCATTCCTGGGCCCCAAAGACCTCTTCCCTTACGAGGAATCCAAG
GAGAAGTTTGGCAAGCCCAACAAGAGGAAAGGGTTCAGCGAGGGGCTGTGGGAGATCGAGAACAACCCTACTGTC
AAGGCTTCCGGCTATCAGTCCTCCCAGAAAAAGAGCTGTGTGGAAGAGCCTGAACCAGAGCCCGAAGCTGCAGAG
GGTGACGGTGATAAGAAGGGGAATGCAGAGGGCAGCAGCGACGAGGAAGGGAAGCTGGTCATTGATGAGCCAGCC
AAGGAGAAGAACGAGAAAGGAGCGTTGAAGAGGAGAGCAGGGGACTTGCTGGAGGACTCTCCTAAACGTCCCAAG
GAGGCAGAAAACCCTGAAGGAGAGGAGAAGGAGGCAGCCACCTTGGAGGTTGAGAGGCCCCTTCCTATGGAGGTG
GAAAAGAATAGCACCCCCTCTGAGCCCGGCTCTGGCCGGGGGCCTCCCCAAGAGGAAGAAGAGGAGGAGGATGAA
GAGGAAGAGGCTACCAAGGAAGATGCTGAGGCCCCAGGCATCAGAGATCATGAGAGCCTG**TAG**CCACCAATGTTT
CAAGAGGAGCCCCCACCCTGTTCCTGCTGCTGTCTGGGTGCTACTGGGGAAACTGGCCATGGCCTGCAAACTGGG
AACCCCTTTCCCACCCCAACCTGCTCTCCTCTTCTACTCACTTTTCCCACTCCAAGCCCAGCCCATGGAGATTGA
CCTGGATGGGGCAGGCCACCTGGCTCTCACCTCTAGGTCCCCATACTCCTATGATCTGAGTCAGAGCCATGTCTT
CTCCCTGGAATGAGTTGAGGCCACTGTGTTCCTTCCGCTTGGGAGGGGCAATCCTCAAATGCGGGGTGGGGGCAG
CACAGGAGGGCGGCCTCCTTCTGAGCTCCTGTCCCCTGCTACACCTATTATCCCAGCTGCCTAGATTCAGGGAAA
GTGGGACAGCTTGTAGGGGAGGGGCTCCTTTCCATAAATCCTTGATGATTGACAACACCCATTTTTCCTTTTGCC
GACCCCAAGAGTTTTGGGAGTTGTAGTTAATCATCAAGAGAATTTGGGGCTTCCAAGTTGTTCGGGCCAAGGACC
TGAGACCTGAAGGGTTGACTTTACCCATTTGGGTGGGAGTGTTGAGCATCTGTCCCCCTTTAGATCTCTGAAGCC
ACAAATAGGATGCTTGGGAAGACTCCTAGCTGTCCTTTTTCCTCTCCACACAGTGCTCAAGGCCAGCTTATAGTC
ATATATATCACCCAGACATAAAGGAAAAGACACATTTTTTAGGAAATGTTTTTAATAAAAGAAAATTACAAAAAA
AAATTTTAAAGACCCCTAACCCTTTGTGTGCTCTCCATTCTGCTCCTTCCCCATCGTTGCCCCCATTTCTGAGGT
GCACTGGGAGGCTCCCCTTCTATTTGGGGCTTGATGACTTTCTTTTTGTAGCTGGGGCTTTGATGTTCCTTCCAG
TGTCATTTCTCATCCACATACCCTGACCTGGCCCCCTCAGTGTTGTCACCAGATCTGATTTGTAACCCACTGAGA
GGACAGAGAGAAATAAGTGCCCTCTCCCACCCTCTTCCTACTGGTCTCTCTATGCCTCTCTACAGTCTCGTCTCT
TTTACCCTGGCCCCTCTCCCTTGGGCTCTGATGAAAAATTGCTGACTGTAGCTTTGGAAGTTTAGCTCTGAGAAC
CGTAGATGATTTCAGTTCTAGGAAAATAAAACCCGTTGATTACT

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FIGURE 1184

GCGGGGGAGGGGACGCTGAGGGCCCATGTGCTGAAAATCCGAAGTGCCGCGGAAAGTGGAGAGCTGACAAGGAAG
GTTTCGAGCGTTTTGCTGGCAAAGGGATTTCTTACAACCTCCAGGC**ATG**CGTCTTTCTGCCCTGCTGGCCTTGGC
ATCCAAGGTCACTCTGCCCCCCCCATTACCGCTATGGGATGAGCCCCCCAGGCTCTGTTGCAGACAAGAGGAAGAA
CCCCCCATGGATCAGGCGGCGCCCAGTGGTTGTGGAACCCATCTCTGATGAAGACTGGTATCTGTTCTGTGGGGA
CACGGTGGAGATCCTAGAAGGCAAGGATGCCGGGAAGCAGGGCAAAGTGGTTCAAGTTATCCGGCAGCGAAACTG
GGTGGTCGTGGGAGGGCTGAACACACATTACCGCTACATTGGCAAGACCATGGATTACCGGGGAACCATGATCCC
TAGTGAAGCCCCCTTGCTCCACCGCCAGGTCAAACTTGTGGATCCTATGGACAGGAAACCCACTGAGATCGAGTG
GAGATTTACTGAAGCAGGAGAGCGGGTACGAGTCTCCACACGATCAGGGAGAATTATCCCTAAACCCGAATTTCC
CAGAGCTGATGGCATCGTCCCTGAAACGTGGATTGATGGCCCCAAAGACACATCAGTGGAAGATGCTTTAGAAAG
AACCTATGTGCCCTGTCTAAAGACACTGCAGGAGGAGGTGATGGAGGCCATGGGGATCAAGGAGACCCGGAAATA
CAAGAAGGTCTATTGGTAT**TGA**GCCTGGGGCAGAGCAGCTCCTCCCCAACTTCTGTCCCAGCCTTGAAGGCTGAG
GCACTTCTTTTTCAGATGCCAATAAAGAGCACTTTATGAGTC

FIGURE 1185

AAGGCAGGCGCGCGGGTTAGAACGCGCCAGAGGTCGGCGCGCGCACACCCGCACCGCCCCGACCCCAGGTAGTGA
GGCCAGTGATTCCGAGTGTGTGAGGAGAGGAGTGTACGGCAAGGGGCGGGAACTGGAACTTGGCCCGCCTCGTTG
TGAGCTGAGCTCAGCGGCACGCTTTTGTGGCGTCACTGCACTGTTACCCCGCCCTACGTGTCTCTGACGCTGACA
CCTTCTCACTGTGAAACGTCGCGACCTGTGACGTCTGGGGGGCGCCTCAAATCTTCCACTCCAGCATCGGATCCC
GGAAAGGCAGCGTCGGAGACTGGACCCAAAACTCTTCCTGTTCTGCCTGCAGAGTTGAGCCCCGTCCGGGTCCTG
GACCCGCGTAGTACTGACCCTGGATCCCTGTTCACTGCGTTCTCGCTCCCCGCGCTCCCTGCTGGACCCCGGG**AT**
GCCGGGCATCTCCGCCCGAGGCCTCTCTCATGAGGGGAGGAAGCAGCTAGCTGTTAACCTCACCCGTGTCCTGGC
ACTCTACCGTTCCATCTTGGATGCCTACATCATCGAATTTTTCACAGACAACCTATGGGACACACTCCCTTGCTC
ATGGCAGGAAGCATTGGATGGACTGAAACCACCACAGCTGGCCACAATGCTGCTGGGGATGCCTGGGGAAGGGGA
GGTCGTCAGGTACAGGTCAGTGTGGCCACTCACCCTGCTGGCCCTGAAGTCCACGGCGTGTGCCCTGGCCTTTAC
CCGGATGCCTGGCTTTCAGACCCCCTCAGAATTCCTGGAGAACCCCAGCCAGAGCTCCCGACTAACAGCTCCATT
CCGGAAACATGTCAGGCCCAAGAAGCAGCATGAGATCCGGAGGCTGGGAGAGTTGGTGAAGAAGCTGAGTGATTT
CACAGGCTGCACCCAGGTTGTAGACGTGGGCTCAGGCCAGGGCCATCTCTCCCGCTTCATGGCTCTTGGCCTGGG
GTTGATGGTGAAGAGCATCGAAGGGGATCAGAGACTGGTGGAGAGAGCCCAGCGCCTGGACCAGGAGCTTCTGCA
GGCTCTGGAGAAAGAGGAGAAGAGGAACCCGCAGGTGGTCCAAACCAGCCCTCGTCACTCCCCACACCACGTGGT
TAGGTGGGTAGACCCCACAGCCCTGTGTGAGGAGCTTCTGCTTCCACTGGAGAACCCGTGTCAGGGCAGGGCCCG
CTTGCTGCTCACAGGCCTCCACGCCTGTGGGGATCTGAGTGTTGCCTTGCTGAGACACTTCTCCTGCTGTCCTGA
GGTGGTGGCCCTGGCCTCAGTGGGCTGCTGCTACATGAAGCTGAGTGACCCTGGCGGCTACCCACTGAGTCAGTG
GGTGGCTGGGCTGCCTGGCTATGAACTGCCCTACCGGCTTCGGGAGGGGGCCTGCCATGCCCTGGAGGAATATGC
TGAGCGGCTACAGAAAGCTGGCCCTGGCCTTCGAACTCACTGCTACCGTGCAGCACTGGAGACAGTCATCCGACG
GGCCCGGCCCGAGCTCCGTCGGCCAGGCGTGCAGGGTATCCCCAGGGTCCACGAGCTCAAGATTGAAGAATATGT
GCAGCGGGGGCTACAGCGAGTGGGGCTAGATCCCCAGCTGCCACTGAATCTGGCTGCCCTTCAGGCCCACGTGGC
CCAGGAGAACCGTGTGGTGGCCTTCTTCAGCCTGGCTCTACTGCTTGCCCCACTGGTGGAGACGCTTATTCTACT
GGACCGGCTGCTGTACCTTCAGGAACAGGGTTTCCATGCTGAGCTCCTGCCCATCTTCAGTCCTGAACTCTCTCC
CAGAAACCTGGTTCTGGTGGCCACCAAGATGCCCCTGGGTCAGGCTCTTTCTGTTCTGGAGACTGAAGACAGC**TG**
ATGCAGCCTGAGGAAACATCTCAGACCCCATCATCTGAAAGTGCCCAGAGAGCACAGTGGCAGAGTACATCTCAT
CCAGAGAAACAGCATCCTGCATCCTCCAGAGTCCTGGTTCCTTCAGTTTCATCCCCTTTCTCTCCTTCCATGGAT
TATGTAATACATTGTAAAGTTTTAATTAATTAAAAATTGGATATCTG

FIGURE 1186

GGCGGCGCACAAGTCAGGTCCGGCACATGTTTCCGCGGAGCGGACCCAGCAATGACGGATGATATCACCTCTTCT
TCTCTGGTGAGAGTCTGAGGATAGAGACTTTTTTCTCACC**ATG**AATGTCACCCCAGAGGTCAAGAGTCGTGGGAT
GAAGTTTGCTGAGGAGCAGCTGCTAAAGCATGGATGGACTCAAGGCAAAGGCCTCGGCCGGAAGGAGAATGGTAT
CACTCAGGCTCTCAGGGTGACACTGAAGCAAGACACTCATGGGGTAGGACATGACCCTGCCAAGGAGTTCACAAA
CCACTGGTGGAATGAGCTCTTCAACAAGACTGCGGCCAACTTGGTAGTGGAAACTGGGCAGGATGGAGTACAGAT
AAGGAGCCTTTCTAAGGAGACCACCCGTTATAATCATCCCAAGCCCAACTTGCTGTATCAGAAGTTTGTGAAGAT
GGCTACATTGACTTCAGGTGGAGAGAAGCCAAACAAAGACTTGGAGAGCTGCAGTGATGACGACAACCAGGGGTC
CAAGTCCCCAAAGATTCTGACTGATGAGATGCTGCTCCAAGCCTGTGAGGGGCGAACAGCACACAAGGCTGCCCG
TCTTGGGATCACAATGAAGGCCAAGCTTGCTCGCCTAGAGGCCCAGGAGCAGGCCTTCCTGGCTCGTCTCAAAGG
CCAGGACCCTGGGGCCCCTCAACTGCAGTCAGAGAGCAAGCCCCCCAAAAAAAAGAAAAAGAAAAGGAGGCAGAA
AGAGGAGGAAGAAGCTACAGCATCTGAAAGGAATGATGCAGATGAGAAGCACCCAGAACATGCTGAGCAGAACAT
CAGAAAAAGCAAGAAGAAGAAAAGGCGACATCAAGAAGGAAAGGTCTCAGATGAAAGAGAGGGTACAACTAAAGG
GAATGAGAAGGAGGACGCTGCAGGAACAAGTGGGCTTGGGGAATTGAATAGCAGAGAGCAAACCAATCAGTCCCT
CAGGAAAGGGAAGAAAAAGAAGAGGTGGCACCATGAAGAGGAGAAGATGGGGGTCTTGGAGGAAGGAGGAAAAGG
CAAGGAGGCTGCAGGCAGTGTCAGGACAGAGGAGGTAGAGAGCAGGGCATATGCTGACCCATGCAGCCGAAGAAA
GAAGAGGCAGCAACAGGAGGAGGAGGACTTGAACCTAGAAGATAGAGGTGAGGAAACTTTTAGGTGGTGGAACCA
GGGAAGCAGAGAGCAGAGCATGCAG**TGA**TGGAAGAAGCAGGAAAAGCAAGAAGAAAAGACAGCAGCATCAAGAGG
AGGAGGACATCTTGGATGTAAGGGATGAGAAGGATGGCGGGGCTAGGGAAGCAGAGAGCAGAGCACACACTGGCT
CAAGCAGCAGAGGTAAGAGGAAGAGGCAGCAGCATCCCAAGAAGGAAAGAGCTGGAGTCAGCACTGTCCAGAAAG
CCAAAAAGAAACAGAAGAAGAGAGACTAAAGGTCTGGTAAAGGTAGGGCTCAATTGATTGATTTTCAGGAGTTGA
AGCCTCAAAGACCAGGGTTGATGCAGGTCTGCAGGTCTTCTGCACCCCCCTCAATGAGGAGTCCCTCCCAGAAAG
GAAACTGATCTCTGGGACGTCAGCTGCTGAGAGGAGCAAGCGGTAGTACCACCCCTTAGTTGAGGGAGTCAGCAC
AGTCCTTTCTGCAGCTTCTAACCCAGGACCATGAACTCAGGTGCCTAGAGAAGCCAGGCAGCTAAAGGACAAGGA
ATGCTGGGGGCTGTGGGAACAGGAATGCAGATACCCTTTGAAGGAGCATTCCTGCTAAAAGAAGCTGAAAATGTA
GACCTATGTGAAGTGCTCTGATTTCTAAATATTGTGAAGGTTAAGAAAAACATAAATTTAGGTCTATGGGCTAGA
TTTAGCCCACAGTTGCCAGTTTCTAGCGCTACCAAATGAATGAATAAACATGAGCTTGCGCTCCTAGCCTAGAGA
TAAATCCTGACTGGCATCTCTGTTCCCAGCCTGGGAAGGTCCTGAATACAAATTAGAAGATATTCCTTGGAGGCC
TTTGAAGAAATTCCTTCGGTTAACCTCTTTGTAGTCTTGCTACACTGATAAGTAGAAGTAGCTCCCTGTCTGTGT
CCCAAATGAATAAGAATTGTGTAAAGGACAGCA

FIGURE 1187

GCAGGACCTCAACATC**ATG**GACATCAAGATTGGCCTGCTGGTGAAGAACCGGATCACTCTGCAGGAAGTGGTCTC
CCACTGCAAGAAGCTGACCAAGAGGAATAAGGAACAGCTGTCAGATATGATGGTTCTGGACAAGCAGAAGGGTTT
AAAGTCGCTGAGCAAAGAGAAACGGCAGAAACTAGAAGCATACCAACACCTCTTCTACCTGCTCCAGACTCAGCC
CATCTACCTGGCCAAGCTGATCTTTCAGATGCCACAGAACAAAACCACCAAGTTCATGGAGGCAGTGATTTTCAG
CCTGTACAACTATGCCTCCAGCCGCCGAGAGGCCTATCTCCTGCTCCAGCTGTTCAAGACAGCACTCCAGGAGGA
AATCAAGTCAAAGGTGGAGCAGCCCCAGGACGTGGTGACAGGCAACCCAACAGTGGTGAGGCTGGTGGTGAGATT
CTACCGTAATGGGCGGGGACAGAGTGCCCTGCAGGAGATTCTGGGCAAGGTTATCCAGGATGTGCTAGAAGACAA
AGTGCTCAGCGTCCACACAGACCCTGTCCACCTCTATAAGAACTGGATCAACCAGACTGAGGCCCAGACAGGGCA
GCGCAGCCATCTCCCATATGATGTCACCCCGGAGCAGGCCTTGAGCCACCCCGAGGTCCAGAGACGACTGGACAT
CGCCCTACGCAACCTCCTCGCCATGACTGATAAGTTCCTTTTAGCCATCACCTCATCTGTGGACCAAATTCCGTA
TGTGCAACAGCCCCACCCCAGCCTACGCATGGGATTTCAAGAGGGCCAGGCCACCATGGGGAGCAGAGCAGGG**TG**
ATAGTCCTGCAGGGAGGAAGGCAGGGAGGGAGATGGAGCCAGGGGTACTCAGAGGGGTTCCTGAAGAGATGTGGG
GAATGCTCGAAGCTCCTGCTAGAGAGCTGAGCTGAGAGACGGCGTGCAAGTCTGTGTGTGGCCTGGTAGGATGTC
AGTGGAACCAGAGGAGGGACCCTAAAATGATCTCAGGGACACTTTATTAGCTAAGAGCAAATGAGGAGAAAATGG
GACTCTTCAGTTCCCAATATCAAAAATAAATATTTTAAGCCC

FIGURE 1188

TTGCGTAGGGGGCGGGACTAAGGCTGTCAATTGGTCTGTTTTTGTGCCGATCAATGAGATGGGTGCGGTGATTGG
CGACTACCTTGAGAGTAGCGGGTTGAGGTGTAAGCCCTGAGGAGGCAGCGTTTTCTGGGCTTCTGTCTGGTTCTC
TCTCTCCAGAAGGTTCTGCCGGTTCCCCCAGCTCTGGGTACCCGGCTCTGCATCGCGTCGCCATG**ATG**GGCCATC
GTCCAGTGCTCGTGCTCAGCCAGAACACAAAGCGTGAATCCGGAAGAAAAGTTCAATCTGGAAACATCAATGCTG
CCAAGACTATTGCAGATATCATCCGAACATGTTTGGGACCCAAGTCCATGATGAAGATGCTTTTGGACCCAATGG
GAGGCATTGTGATGACCAATGATGGCAATGCCATTCTTCGAGAGATTCAAGTCCAGCATCCAGCGGCCAAGTCCA
TGATCGAAATTAGCCGGACCCAGGATGAAGAGGTTGGAGATGGGACCACATCAGTAATTATTCTTGCAGGGGAAA
TGCTGTCTGTAGCTGAGCACTTCCTGGAGCAGCAGATGCACCCAACAGTGGTGATCAGTGCTTACCGCAAGGCAT
TGGATGATATGATCAGCACCCTAAAGAAAATAAGTATCCCAGTCGACATCAGTGACAGTGATATGATGCTGAACA
TCATCAACAGCTCTATTACTACCAAAGCCATCAGTCGGTGGTCATCTTTGGCTTGCAACATTGCCCTGGATGCTG
TCAAGATGGTACAGTTTGAGGAGAATGGTCGGAAAGAGATTGACATAAAAAAATATGCAAGAGTGGAAAAGATAC
CTGGAGGCATCATTGAAGACTCCTGTGTCTTGCGTGGAGTCATGATTAACAAGGATGTGACCCATCCACGTATGC
GGCGCTATATCAAGAACCCTCGCATTGTGCTGCTGGATTCTTCTCTGGAATACAAGAAAGGAGAAAGCCAGACTG
ACATTGAGATTACACGAGAGGAGGACTTCACCCGAATTCTCCAGATGGAGGAAGAGTACATCCAGCAGCTCTGTG
AGGACATTATCCAACTGAAGCCCGATGTGGTCATCACTGAAAAGGGCATCTCAGATTTAGCTCAGCACTACCTTA
TGCGGGCCAATATCACAGCCATCCGCAGAGTCCGGAAGACAGACAATAATCGCATTGCTAGAGCCTGTGGGGCCC
GGATAGTCAGCCGACCAGAGGAACTGAGAGAAGATGATGTTGGAACAGGAGCAGGCCTGTTGGAAATCAAGAAAA
TTGGAGATGAATACTTTACTTTCATCACTGACTGCAAAGACCCCAAGGCCTGCACCATTCTCCTCCGGGGGGCTA
GCAAAGAGATTCTCTCGGAAGTAGAACGCAACCTCCAGGATGCCATGCAAGTGTGTCGCAATGTTCTCCTGGACC
CTCAGCTGGTGCCAGGGGGTGGGGCCTCCGAGATGGCTGTGGCCCATGCCTTGACAGAAAAATCCAAGGCCATGA
CTGGTGTGGAACAATGGCCATACAGGGCTGTTGCCCAGGCCCTAGAGGTCATTCCTCGTACCCTGATCCAGAACT
GTGGGGCCAGCACCATCCGTCTACTTACCTCCCTTCGGGCCAAGCACACCCAGGAGAACTGTGAGACCTGGGGTG
TAAATGGTGAGACGGGTACTTTGGTGGACATGAAGGAACTGGGCATATGGGAGCCATTGGCTGTGAAGCTGCAGA
CTTATAAGACAGCAGTGGAGACGGCAGTTCTGCTACTGCGAATTGATGACATCGTTTCAGGCCACAAAAAGAAAG
GCGATGACCAGAGCCGGCAAGGCGGGGCTCCTGATGCTGGCCAGGAG**TGA**GTGCTAGGCAAGGCTACTTCAATGC
ACAGAACCAGCAGAGTCTCCCCTTTTCCTGAGCCAGAGTGCCAGGAACACTGTGGACGTCTTTGTTCAGAAGGGA
TCAGGTTGGGGGGCAGCCCCCAGTCCCTTTCTGTCCCAGCTCAGTTTTCCAAAAGACACTGACATGTAATTCTTC
TCTATTGTAAGGTTTCCATTTAGTTTGCTTCCGATGATTAAATCTAAGTCATTTG

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FIGURE 1189

GAATTGCGGCCGT**ATG**CGCGGCTCTGTGGAGTGCACCTGGGGTTGGGGGCACTGTGCCCCCAGCCCCCTGCTCCT
TTGGACTCTACTTCTGTTTGCAGCCCCATTTGGCCTGCTGGGGGAGAAGACCCGCCAGGTGTCTCTGGAGGTCAT
CCCTAACTGGCTGGGCCCCCTGCAGAACCTGCTTCATATACGGGCAGTGGGCACCAATTCCACACTGCACTATGT
GTGGAGCAGCCTGGGGCCTCTGGCAGTGGTAATGGTGGCCACCAACACCCCCCACAGCACCCTGAGCGTCAACTG
GAGCCTCCTGCTATCCCCTGAGCCCGATGGGGGCCTGATGGTGCTCCCTAAGGACAGCATTCAGTTTTCTTCTGC
CCTTGTTTTTACCAGGCTGCTTGAGTTTGACAGCACCAACGTGTCCGATACGGCAGCAAAGCCTTTGGGAAGACC
ATATCCTCCATACTCCTTGGCCGATTTCTCTTGGAACAACATCACTGATTCATTGGATCCTGCCACCCTGAGTGC
CACATTTCAAGGCCACCCCATGAACGACCCTACCAGGACTTTTGCCAATGGCAGCCTGGCCTTCAGGGTCCAGGC
CTTTTCCAGGTCCAGCCGACCAGCCCAACCCCCTCGCCTCCTGCACACAGCAGACACCTGTCAGCTAGAGGTGGC
CCTGATTGGAGCCTCTCCCCGGGGAAACCGTTCCCTGTTTGGGCTGGAGGTAGCCACATTGGGCCAGGGCCCTGA
CTGCCCCTCAATGCAGGAGCAGCACTCCATCGACGATGAATATGCACCGGCCGTCTTCCAGTTGGACCAGCTACT
GTGGGGCTCCCTCCCATCAGGCTTTGCACAGTGGCGACCAGTGGCTTACTCCCAGAAGCCGGGGGGCCGAGAATC
AGCCCTGCCCTGCCAAGCTTCCCCTCTTCATCCTGCCTTAGCATACTCTCTTCCCCAGTCACCCATTGTCCGAGC
CTTCTTTGGGTCCCAGAATAACTTCTGTGCCTTCAATCTGACGTTCGGGGCTTCCACAGGCCCTGGCTATTGGGA
CCAACACTACCTCAGCTGGTCGATGCTCCTGGGTGTGGGCTTCCCTCCAGTGGACGGCTTGTCCCCACTAGTCCT
GGGCATCATGGCAGTGGCCCTGGGTGCCCCAGGGCTCATGCTGCTAGGGGGCGGCTTGGTTCTGCTGCTGCACCA
CAAGAAGTACTCAGAGTACCAGTCCATAAAT**TAA**GGCCCGCTCTCTGGAGGGAAGGACATTACTGAACCTGTCTT
GCTGTGCCTCGAAACTCTGGAGGTTGGAGCATCAAGTTCCAGCCGGCCCCTTCACTCCCCCATCTTGCTTTTCTG
TGGAACCTCAGAGGCCAGCCTCGACTTCCTGGAGACCCCCAGGTGGGGCTTCCTTCATACTTTGTTGGGGGACTT
TGGAGGCGGGCAGGGGACAGGGCTATTGATAAGGTCCCCTTGGTGTTGCCTTCTTGCATCTCCACACATTTCCCT
TGGATGGGACTTGCAGGCCTAAATGAGAGGCATTCTGACTGGTTGGCTGCCCTGGAAGGCAAGAAAATAGATTTA
TTTTTTTTC

FIGURE 1190A

GTCGCGGGCAGCCGCCTCACAGCGATGGCGGCCGAGCAGGGCCGGTGGCGGCGGCGGCTGCGGCTACGGCCGGAG
ACGGCAGTGTTGGCGGTAGTGGTGGGTGGCAGGGGCCTGTGACCGGGAGCTGCCCCCGGACCCGGGCACC**ATG**AG
CCAAGGCCCCCCCCACAGGGGAGAGCAGCGAGCCCGAAGCAAAAGTCCTCCACACTAAGCGGCTTTACCGGGCTGT
GGTGGAGGCTGTGCATCGACTTGACCTCATCCTTTGCAACAAAACTGCTTATCAAGAAGTATTCAAACCAGAAAA
CATTAGCCTGAGGAACAAGCTGCGTGAGCTCTGCGTCAAGCTTATGTTCCTGCACCCAGTGGACTATGGGAGAAA
GGCTGAGGAGCTGCTGTGGAGAAAGGTATACTATGAAGTTATCCAGCTTATCAAGACTAACAAAAAGCACATCCA
CAGCCGGAGCACTTTGGAATGTGCCTACAGGACGCACCTGGTTGCTGGTATTGGCTTCTACCAGCATCTCCTTCT
CTATATCCAGTCCCACTACCAGCTGGAACTGCAGTGCTGCATCGACTGGACCCATGTCACTGACCCCCTCATAGG
ATGCAAGAAGCCAGTGTCTGCCTCAGGGAAGGAGATGGATTGGGCACAGATGGCATGTCACCGATGTCTGGTGTA
TCTGGGGGATTTGTCCCGATATCAGAATGAATTAGCTGGCGTAGATACCGAGCTGCTAGCCGAGAGATTTTACTA
CCAAGCCCTGTCAGTAGCTCCTCAGATTGGAATGCCCTTCAATCAGCTGGGCACCCTGGCAGGCAGCAAGTACTA
TAATGTGGAAGCCATGTATTGCTACCTGCGCTGCATCCAGTCAGAAGTGTCCTTTGAGGGAGCCTATGGGAACCT
CAAGCGGCTGTATGACAAGGCAGCCAAAATGTACCACCAACTGAAGAAGTGTGAGACTCGGAAACTGTCTCCTGG
CAAAAAGCGATGTAAAGACATTAAAAGGTTGCTAGTGAACTTTATGTATCTGCAAAGCCTCCTACAGCCCAAAAG
CAGCTCCGTGGACTCAGAGCTGACCTCACTTTGCCAGTCAGTCCTGGAGGACTTCAACCTCTGCCTCTTCTACCT
GCCCTCCTCACCCAACCTCAGCCTGGCCAGTGAGGATGAGGAGGAGTATGAGAGTGGATATGCTTTCCTCCCGGA
CCTTCTCATCTTTCAAATGGTCATCATCTGCCTTATGTGTGTGCACAGCTTGGAGAGAGCAGGATCCAAGCAGTA
CAGTGCAGCCATTGCCTTCACCCTGGCCCTCTTTTCCCACCTCGTCAATCATGTCAACATACGGCTGCAGGCTGA
GCTGGAAGAGGGCGAGAATCCCGTCCCGGCATTCCAGAGTGATGGCACAGATGAACCAGAGTCCAAGGAACCTGT
GGAGAAAGAGGAGGAGCCAGATCCTGAGCCTCCTCCTGTAACACCCCAAGTGGGTGAGGGCAGAAAGAGCCGTAA
GTTCTCTCGCCTCTCCTGTCTCCGCCGTCGCCGCCACCCACCCAAAGTTGGTGATGACAGTGACCTGAGTGAAGG
CTTTGAATCGGACTCAAGCCATGACTCAGCCCGGGCCAGTGAGGGCTCAGACAGTGGCTCTGACAAGAGTCTTGA
AGGTGGGGGAACGGCCTTTGATGCTGAAACAGACTCGGAAATGAATAGCCAGGAGTCCCGATCAGACTTGGAAGA
TATGGAGGAAGAGGAGGGGACACGGTCACCAACCCTGGAGCCCCCTCGGGGCAGATCAGAGGCTCCCGATTCCCT
CAATGGCCCACTGGGCCCCAGTGAGGCTAGCATTGCCAGCAATCTACAAGCCATGTCCACCCAGATGTTCCAGAC
TAAGCGCTGCTTCCGACTGGCCCCCACCTTTAGCAACCTGCTCCTCCAGCCCACCACCAACCCTCATACCTCGGC
CAGCCACAGGCCTTGCGTCAATGGGGATGTAGACAAGCCTTCAGAGCCAGCCTCTGAGGAGGGCTCTGAGTCGGA
GGGGAGTGAGTCCAGTGGACGCTCCTGTCGGAATGAGCGCAGCATCCAGGAGAAGCTTCAGGTCCTGATGGCCGA
AGGTCTGCTTCCTGCTGTGAAAGTCTTCCTGGACTGGCTTCGGACCAACCCCGACCTCATCATCGTGTGTGCGCA
GAGCTCTCAAAGTCTGTGGAACCGCCTGTCTGTGTTGCTGAATCTGTTGCCTGCTGCTGGTGAACTCCAGGAGTC
TGGCCTGGCCTTGTGTCCTGAGGTCCAAGATCTTCTTGAAGGTTGTGAACTGCCTGACCTCCCCTCTAGCCTTCT
GCTCCCAGAGGACATGGCTCTTCGTAACCTGCCCCCGCTCCGAGCTGCCCACAGACGCTTTAACTTTGACACGGA
TCGGCCCCTGCTCAGCACCTTAGAGGAGTCAGTGGTGCGCATCTGCTGCATCCGCAGCTTTGGTCATTTCATCGC
CCGCCTGCAAGGCAGCATCCTGCAGTTCAACCCAGAGGTTGGCATCTTCGTCAGCATTGCCCAGTCTGAGCAGGA
GAGCCTGCTGCAGCAGGCCCAGGCACAGTTCCGAATGGCACAGGAGGAAGCTCGTCGGAACAGGCTCATGAGAGA
CATGGCTCAGCTACGACTTCAGCTCGAAGTGTCTCAGCTGGAGGGCAGCCTGCAGCAGCCCAAGGCCCAGTCAGC
CATGTCTCCCTACCTCGTCCCTGACACCCAGGCCCTCTGCCACCATCTCCCTGTCATCCGCCAACTGGCCACCAG
TGGCCGCTTCATTGTCATCATCCCAAGGACAGTGATCGATGGCCTGGATTTGCTGAAGAAGGAACACCCAGGGGC
CCGGGATGGGATTCGGTACCTGGAGGCAGAGTTTAAAAAAGGAAACAGGTACATTCGCTGCCAGAAAGAGGTGGG
AAAGAGCTTTGAGCGGCATAAGCTGAAGAGGCAGGATGCAGATGCCTGGACTCTCTATAAGATCCTAGACAGCTG
CAAACAGCTGACTCTGGCCCAGGGGGCAGGTGAGGAGGATCCGAGTGGCATGGTGACCATCATCACAGGCCTTCC
ACTGGACAACCCCAGCGTGCTTTCAGGCCCCATGCAGGCAGCCCTGCAGGCCGCTGCCCACGCCAGTGTGGACAT
CAAGAATGTTCTGGACTTCTACAAGCAGTGGAAGGAAATTGGT**TGA**TACTGACCCCCAGGCCCTGCAGTGGGGCT
GACTCCAGATCTCTCCTGCCCTCCCTGGCAGCCAGGACCAGCACCTGTAGTCACCCCACCACACGCAGACTCATG
CACGCACACAGGAGGGAGGCCTAGCTGCTCAGAGGCTGCAGGGAGGGCCCAGGAGCCGGCTGGGAGGGTGGGGTC
CCTTTGTTGCCAAGACGTTAGGAAAGCGAGGAAAGTGCTTGGATTAGGAGAGTCTTGTGGGCCCCTGGCCAGCCT
TCCTGCCTCAGCTCCCCTGCTGTCTCCAGGGGCAGGTGGTAGGCATGGGTACCTGCATTTCACTGGAATGGGTTC
TTGGATCTCTGAGGGGAAGGAACAGCAAAAGAGGCCCTTCTTCCTCACCCAAGATGCAGGGTGGTTGGGGCCAGG

FIGURE 1190B

AGTTTGGACCCTCTAGGTCTTGGGGGAAGAGCTGGGTAATACCTGGTGTCTGAGTGATTCTCTGCAGACCCTTCC
CCTCCTCAAGGATCACCCATCCTCCTTTCAGCCCCCTTTATGGGGACCAGGCAGCTCTGGAGCCAGCCACAGGGG
CTGTTAGAGAAGCAAGGCCTGGAGTGGCCTGCACCGAGTAGCAGGGTCAGGGTTCGTGTGCTCCTCCTCCTGCTG
CAGGGGCTGCACATCCCATTGCCCCACTTCTGCTTTGTGTCTCCCTCTGTCTAGCTTCCAGGGCAGGGAGCAGGC
CCCACCTAGGGCTGCAGGCAGTCTGGCCTGTGCCAGCACGGTCTCCTGTGCCCACCAGCCCCACAGGTGCTGTGC
TTTGTGCTCTTGGCTGCTGTGCTGGGACAGAATGGGATGCCAGGAAGAGAAGAAAGGGGGTGCAGTCTGAGGCCA
CCACCCCCCTTCCTATCTAAGGGAGGGCTGAAGACAAGGGGCCGGCATTCAGTGGGCAGCAGAAAGGAGAGGCTC
CTTGAAGCTGCTCAGTCAGAGGCCCCCGTCCCTCCTTTTGCCTTCCGCAGGACTGAAGACCTGAAGGGGCTGGCT
TTTGGAGTGTTGAGGTGAATATCTGGGAGCAGAGATCATGAATAGCTCAGGGCAGTGAATGGCGCACCAAGAGCA
GGGCTGTGTGTGGGAGGCTGCAGCCAGGATTGCCTCAGCTCCTCCCCCTCAGGCTGGGAGGATAGCACAGGCTAG
GGGCTCGGGGTGGAGGGTCTCAGCTCTGCTGCCCCCACCCCAGTACTAGCCTAGCTTCCCAAGCTGTGGCTTAGA
GGATAGTTGGCTTCCTGCCTCTCTCCTCTAAAATAGCAAGTCTGGGAAATCCTGGGGTGAGTGGAGTCACCCCAC
TCCCAGTTGCTGGCAGAGACTGAGACTAAAGCATCACTTAATAAACCCCCCAAGCCC

FIGURE 1191A

AAACAAGAAGAATGGGATTGATATTTCCGCAGGAAGTTTGGAAGTTATGTAACAGAGCAGGTTGAGATCCTACCT
TTTAGGAGCAGCCTGCCCCTTTTGAAGGGGTAAAGGGAGTGGGTGCAGTGCCCTCTCTTCTGTTGTAGTGGCTTA
TCCCTCTAAGGCATGACCCTTGGATAGGGGTTACCTGCCTCGGAAAGTCCCCACTTCCTTGTGGGAGTTTAAAAT
AGATTGGCATATGTGAGAGATGGAGACAAGGTGGGAAATCGGATCCTGTCTTAGGATTTCTCATCAGGAGATGCT
GATACTTGGTGTTTCAGCTTGATAAATTGAGAAGGTGCCATGAAACCAGGTCCTGGAACAGAATCCCTGGTTGCT
CTGTCTTTTAGCTGCTCTGACCCTCTGCCCTGCAGAGCATGCATTTTGCATGTGCCTGGCAGGAGGCCCTCCTGC
TTGAGCCCTGCTGTATTTGTCTGTGTTGACAACGTGACTGCCAGCCATTAAGCTTGGTCAGTCCACAGACACACT
AGGAAAGCAGAGGCAGCTCTTGGTTTCTCTGGAACAGAGCTGCAAGAAGTCTCTGGGCATCTGCATGGCCAGGAG
CTTATGCTTAACTGTTGAGTGACCTGCAGCCATAAGGGCATTAATTCTGCCTTCCAGAGGTGGGAATGACTTGGC
TTTAAACAGTGATTTGTGTGAGAATTCTTCAAATCCCATAAGGTAGAAGGCATGGTGGAGTAGAGGAGAAATCTT
GGCTCATATCTGCCTCTTCCATTGACCAGCTGTGTGACCTTGGGCCTGTTACTTTTAACCTACCTGACCCTCCAT
TTCCTCATTTATCAGAAGTGTCTAACTGTACACAAGTTAAACTGTAAGGATTACATGAGGTAGTAGTCAATCCTG
GTGTTTCTCTGTATCTTCTCACTTCTCACTGGTGTTGGAAATATGATCTTGCGACCCTAGATGGCAGCCACTCTG
GGGCAGAAGAGACAGTGACCACCTTTTGAAGAGCTCAAAGGAGAATATTGCCCCACAGGGCTTAGTGGGTCCCCC
AGGCTGAGGCTGGGGAGGAGGGCCACCTTTGCCTACAGCAAGTGGCATATCATTGTTCTAGGGGTTCTCTTGACG
GCAGAACTTTGCCTCTAGCTCATTTTCCACAGCCTAGATTTTCCAATCTTGCCAATCCAGTTGACTTCTGTCTTC
TCATTTCCAAGCCATTGTTCTCTCTCTTTCACTATCTACATGGATTATCCTTCATTCAAACTGCTTTGTCCCGGC
TGGGTGCGGTGGCTCATGCCTGTAATCCTAGCACTTTGGGAAGCCGAGGCGGGTGGATCACGAGGTCAGGAGATC
GAGACCATCCTGGCTAACATGGTGAAACCCCGTCTCTACTAAAATTAAAAAAATTAGCCGGGCGTGGTGGCAGGC
GCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCATGAACCCGGGAGGTGGAGCTTGCAGTGGGT
GGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTGAAAAAAAAAAACAAAAAAACTGCT
TTGTCCTGTAGGAATCCTGTGCGGGTTATGTGCACCTCCCTCAATCCTTACCTTGAAGCTAAGGTTTCCCCTCAG
CTCTCAAGTACTCAGTTTGCACTGCAGGTAGTCCCTATTTTAACGAAAGTTATACGGTCCAGCTCAGGGAATCCT
GAAAAGCTGCCCTTGCTTCCATGGTAATCAAAAGGCAGTTCTCATGGAATAAAAGCTACCTGAAGCCTGAGTTGG
GACCTTTGGCTGGGGAAGGTGGTTGAGGACGTTCTCTGATTAGATGCTTGGCATGAGGTTTGCTACTGGAACTGC
TAGTGTAGAATGTTTCAGCCCCCTAGAGTTGTCCCTGTGATGTGGCTACCTCCTTTCTCTGGGATTTCTCTTAAA
GTCTGGGGAGCCCCTGCTTCTCATTTCCTGGAATTTATCTTCCCAGTCTCCCTTTCTGGCTGAAAATTTCTAGTA
TCTTACAGAACAGCGGTGGGATACACTGGAGCACATCATATTACCACTAAGTATGTCTAATAAATGATGTCCTCT
GATTTGACATTTCCTAAATGTGAAGCTCCTGATTTTATACAATTTTGAAATTAGTAAGCTTGTTAGTTTTGTTTG
AAATTCTAGGCATTGGATACACTTAACATGAGGGCTACATGTGCATCAACATACTCTGGTTTCCTTCCCTCTGTA
TCTTTTTTTTTTTTGAGATGGAGTCTCACTGTCTCCTAGGCTGGAGTGCAGTGGTGTGATCATGGCTCACTGCAG
CCCCAACCTTCAGGGCTCAGGTGATCCTCCCACCTCAGCCACCCAAGTAGCTGGGACCACAGGTGCATGCCACCA
TGCCTGGCTAACTTATTTTTATATATTGTAGAGACGGAGTCTCCCTATGTTGCCTAGGCTGACCTTGAGCTCTTG
GGCTCAGGTGATCCTCCCACCTTGGCCTCCCAAAGTGTTGGGATTATAGGCGTGAGCCACTGTGTCCAGCCTTTT
CCTCTGTATCTTGTATCCATTCCCCAGAGCGATACTGTGTATCCTTGAACAGACGGTTTCTTGAAGTCAGAGTCT
ATCTCCTCTGTCACTTCTCCCCCTTCATTATCTAAGACTGAGGTTGTGGTTTATATGCTTAGAGTTGAAAGCATG
GGGTCCAACGTGTTCTGTACTCTGTAGTTCCCCAGACTCTTCAGGGAAACTACTTAGCTCTCAGGTGGTTCTTTT
CTGTTTTTCTCAGAGCAAGTTATCTAATAACTGAAGAGGACTCTGCCCTTTGGCCTGTTCCTGACTTTCTAACTC
CTTTTGCTGGAGGAAGGGGAGGTTGAGGGGGGTGCCCTGTGGTGTGAAAGCCCCACTTGCCCTCTCCTCTATACT
TTCTTCCAATGCAGACGGGAGAAAGTATCATAAATGTAGTGACTGTGGGTCAGGGGAGCTCTGAGAGGCCAGCAC
AGGAAACCAGAAACAAAATGAGTCAGTTCGTAGGTGGCGATCAGAGGCACCCTGCTGAGGGTGCAAGGCCACAGG
TGATGCCTCCTCAGTAGGCCCAGGAGCATCAAAACGGGAACAGTCCCTTTCAGCCTTCAGGAGCCTCCCAAATGT
CACTTAGTGATGTCCCATTCACCTGCTTAAAGGCCCTGCATCCTGCCAGGTAGTTGGTTTGTCCATAGCATCCTG
AGCTCTGCTTGGGTGAGCCAGACAAAAAGAATGATTCCTGGCCAGAGTAGTGATACCAGGGCCCAGACAGAGGCA
GAGAGTCCGGATAGAAGATCCTGTAAGCTGGGGTAGGGAGCCGAGGAGGCCATGGAGCCAGGGGAATCATTGAAG
TGAGGGACAATTTCTGGAGGAGGGAAACTGAGTAAGGAAGGCCTGGCCAAGGACCAAGAAGGGGACAGTATCCTG
ATCTATGAAAGAAGACTCAAGTGGGGATTGACAGAGCCAGATTGGGTGGAGTCCAAGCTTTGGGCAGGTGAGTGT
CCAGGAG**ATG**AGGGCTGAGAATGGGCCTTCAGAGCCCAGCCAGAAGGGGAAAGCACAAAGCTCCACCCTCCTTCT

FIGURE 1191B

TCACATCCCTCCATACTGCTCAAATCCCAGGTCTTCAGGCACCATGGAGGACAAACGCAACATCCAGATCATCGA
GTGGGAACACCTGGACAAGAAGAAGTTCTACGTGTTTGGTGTGGCAATGACAATGATGATCCGTGTCAGTGTCTA
CCCATTCACCCTCATCCGCACCCGGTTGCAAGTTCAGAAGGGGAAGAGCCTCTACCATGGGACCTTCGATGCCTT
CATCAAGATCCTGCGAGCAGATGGTATCACTGGCCTCTACCGAGGGTTCCTGGTCAATACCTTCACCCTCATCTC
TGGCCAGTGTTATGTCACCACTTATGAGCTCACCCGGAAGTTTGTAGCTGACTACAGCCAGAGTAACACAGTCAA
ATCACTGGTGGCTGGTGGCTCAGCCTCCCTTGTGGCCCAGAGCATCACAGTGCCCATTGATGTAGTCTCCCAGCA
CCTGATGATGCAACGCAAGGGTGAGAAAATGGGCCGCTTTCAGGTGCGGGGGAACCCAGAGGGACAAGGGGTAGT
TGCCTTTGGCCAAACCAAGGACATCATCAGGCAGATCCTGCAGGCTGATGGACTTCGCGGCTTCTATCGAGGCTA
TGTGGCTTCACTGCTTACCTATATCCCAAACAGTGCTGTCTGGTGGCCCTTCTATCACTTCTATGCAGAGCAGCT
CTCCTACCTGTGTCCTAAGGAGTGCCCTCACATTGTCTTTCAAGCTGTCTCGGGGCCCCTGGCTGCAGCCACTGC
CTCCATCCTCACCAATCCCATGGATGTCATACGAACCCGTGTGCAGGTTGAGGGCAAGAACTCCATCATCCTGAC
CTTCAGACAGCTGATGGCAGAAGAAGGGCCTTGGGGCCTCATGAAGGGCCTCTCGGCCAGAATCATCTCAGCCAC
ACCTTCCACCATTGTCATTGTGGTGGGCTATGAGAGCCTCAAGAAACTCAGCCTCCGACCTGAGCTGGTGGACTC
GAGACACTGG**TAA**CCAGTGGTGGGGAGAGAAGCCTGCTGTTTTCCACACTACCGTGGGTCAGGGGCAGAGTGGAG
AGGACAGCACCCTCTCCAGGTGCTCCCACCACACACCCAGCCCTGCCCTGGGCCAAGTGGCCTATCTGGGATAGG
GATAGAGACTTTGAACTGCTCTTGCTGAAGAGGCTCCACGCCTGGATCCCTTGCCCCCACTATTTAAAATTCTCT
TCTGAGCTGGGCTCCCTCACTCAGTCCCTGTATTTGATACTGGCCTAAAGACCCCACCCCCCACCCTGCCAGCCC
TTCTTCTGGCTTCCCCTTCCATCTGTGTCCCTGAGACCCTGAGAAGAGCTGTACATAGAGCTTGCTTACTACCAC
TGGTTCTTCCTCTTGGGCTTTCAGCCCAGACTCCAAGCAGCTGCTATCAACCCTCTCTCCCTTCATCTCTTAGCC
TTGCTTATTTTTATTTTGGGACCGAGCTGCCCACTAGATGACTCTGCTTTTCCCTGCATTTGGGGCTAAGGTGCC
AGGTACTTATTTGCACAGGGAGCAGGAGCAGCAAAAAATCTCTGGTTCTCCAGAGCACTCGTCCTCTCTTTGGAG
GGGTTATTAGGTTGGGAGAAATGTTGATACTTTTGTTTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT
GTGTGTGTTTTAACATCTGTGAACCAGGCTATTAGTCCTGCTAAAGCGCCAATCCTGCTGTCAGAGCTCACCCCC
TTCCTAAGACAGGTAGAAAAATGTAATGTAGCTTTTTCCACAAGCCACTTCCCTGTCCCTTCAGTCTCAGGAGCC
CTAGGAGAGTCTAAGCTGGGGCATCCCCTGGCCCAGAGGACTCCCGTGGTGGGCACAGTTCTAAGTGGATCAGGC
TGTCTTGGGTGCACTGGACTTGGAGCACTACCTTGAGAAGTCAGGTTGAGAAAGTAGTTGATCTAGAAGGCAACA
AGTGGGCATGTGTTCCCCAGCACATTACCCAGGCCAGCAGAGCCAAACCTAGGAGAGGGCAGTGGGTAGATTCTC
TGCCCCAGGCAGCCATGACATACACATAAATACCCCAATCACTCAGACTTACGGCAACAAGTGTTGTCTCACTAT
GGTGATCTCTAAGATCCACATCACTGGATGCGTAGTCATCCCAGTCATGGTACCCTGTGGAGGAATGCTGGAAGA
ACATAAAGAGCAGTTCAGAAAGTCACCCAATACCAGGACCACTGCATTTACCAGCCTGATACTGCCAAGATTATC
TGATGCTCTCCTCAGGAGCTAGGAGAGGAGTGCTCCTTCCTCCCTACCGCTACTCTCCCCAAGCCTGTGTTGCAG
GTAGAGAGGTGCAGCAAATAGAGAAGGCATGTCAAACCCTGCATTTCTACCTGAGACGTGTGACCTGGATGATCC
TCCAAACCCTATTGGTCCCACCCCCTGGGAAAGGCCATGGTGCCAGTTTGAAAGGTGCTAGCTACCTGAAGCCTT
GATATTTCTTCATGGCTGCCGCACATTCTTCCACCTTGGCCAGAACAGGTTCTGAAAACCACTTCTCTACCTTCA
CCACCACCACTGCCCATCTTGATCTCTTTGAGGGTTTTCCCATTTCACTTGATCTTATTTTTGTTTATCCCTTCC
TGCACTTTGTCAAGAGAGTCCTCCAGTTTCTATCCAGGAATGTTCACATCCAAAGGGTTGGACCCACGGATCATT
CTGAATCTTCCTGCCCCTCCTCACTGCTTAACCCTGAGAACCACAAATATAATGGAAGCAGTTCCCCCCACCCTC
ACCCCATCTCTTTAAGCTCATCCTAGCAAGACCTCTAGAGACCCTAGAGACTCGACTTTAGTCCTTCCCCGCCAT
GGCACAGTGGGGAAGGTGTCAATGGGGAGTGTCACGGACAGGAGGTAGGATCCTGCCGCTCGCGTCTTAGTGTTT
CTCCCTCAAGACTTTCCTTCTGTTTTGTTGTCTTGTGCAGTATTTTACAGCCCCTCTTGTGTTTTTCTTTATTTC
TCGTACACACACGCAGTTTTAAGGGTGATGTGTGTATAATTAAAAGGACCCTTGGCCCATACTTTCCTAATTCTT
TAGGGACTGGGATTGGGTTTGACTGAAATATGTTTTGGTGGGGATGGGACGGTGGACTTCCATTCTCCCTAAACT
GGAGTTTTGGTCGGTAATCAAAACTAAAAGAAACCTCTGGGAGACTGGAAACCTGATTGGAGCACTGAGGAACAA
GGGAATGAAAAGGCAGACTCTCTGAACGTTTGATGAAATGGACTCTTGTGAAAATTAACAGTGAATATTCACTGT
TGCACTGTACGAAGTCTCTGAAATGTAATTAAAAGTTTTTATTGAGCCCCCG

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FIGURE 1192

CCCATGTTTGGTGGTACCAGGAAAGAGAGACTGATTATCTAGAGAACGCCTGAACACACCTGTAGGTGGGAGAGG
AGAG**ATG**AAAGATGAGGAAGTGGGTAAAGCGAGTGGGGATGCTGGAGGTCAGATGATTAGAGAACAGATCCCTGG
CAGTGATGGGGGGAGAGATGTGCTGGTTAGTCTTGGTGGAAGAGGGACCTGTGCCTTTGTGACAGAGGGTAGAGG
AGGAAGGTGGTGTGGAGGTGTGGACAGAGCATTATCAGATACTGAGAGAGATGTGGCCAGGATGGGGGTGGATGC
ACAGTCTTTCTATAAATTTGTCTACCAACAGTTGAAGCCAACTGCTGCAGTGGGGAAGCAGGGC**TGA**ATTGGAGT
CACGAGAAGTGTGGGAGAGGTGTGGACAGCAACTGTGGGGGCCGCAGCAGGGGAGTTAGTGATGGATGAGGTATC
GCCTGTCTAGCAGAAGGATACAAGCTGAGCCTGGTCAACACCAACCTGTGGTTGGCCCAAAAGGCAAAAGTTTGC
AGCACCCTCTAGCAATGCTCAGAGTGGAGGAAAGTGCTGTGGGCTGGTTCTGGGTGGGCTGGTTCTGGGTGGGGA
GCTGGCAGGGCAGAGGAGGTAGTCTGGAGTTGGAG

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FIGURE 1193

ACTCAGTGTTCGCGGGAGCGCCGCACCTACACCAGCCAACCCAGATCCCGAGGTCCGACAGCGCCCGGCCCAGAT
CCCCACGCCTGCCAGGAGCAAGCCGAGAGCCAGCCGGCCGGCGCACTCCGACTCCGAGCAGTCTCTGTCCTTCGA
CCCGAGCCCCGCGCCCTTTCCGGGACCCCTGCCCCGCGGGCAGCGCTGCCAACCTGCCGGCC**ATG**GAGACCCCGT
CCCAGCGGCGCGCCACCCGCAGCGGGGCGCAGGCCAGCTCCACTCCGCTGTCGCCCACCCGCATCACCCGGCTGC
AGGAGAAGGAGGACCTGCAGGAGCTCAATGATCGCTTGGCGGTCTACATCGACCGTGTGCGCTCGCTGGAAACGG
AGAACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTGGTCAGCCGCGAGGTGTCCGGCATCAAGGCCG
CCTACGAGGCCGAGCTCGGGGATGCCCGCAAGACCCTTGACTCAGTAGCCAAGGAGCGCGCCCGCCTGCAGCTGG
AGCTGAGCAAAGTGCGTGAGGAGTTTAAGGAGCTGAAAGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTG
CTCAGGCTCGGCTGAAGGACCTGGAGGCTCTGCTGAACTCCAAGGAGGCCGCACTGAGCACTGCTCTCAGTGAGA
AGCGCACGCTGGAGGGCGAGCTGCATGATCTGCGGGGCCAGGTGGCCAAGCTTGAGGCAGCCCTAGGTGAGGCCA
AGAAGCAACTTCAGGATGAGATGCTGCGGCGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAACTGG
ACTTCCAGAAGAACATCTACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTCATGAGACCCGACTGGTGGAGATTG
ACAATGGGAAGCAGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAACTGCGGGCCCAGCATGAGGACC
AGGTGGAGCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAGTCTGCTGAGA
GGAACAGCAACCTGGTGGGGGCTGCCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATCGACAGCCTCTCTGCCC
AGCTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGACCTGGAGGACTCACTGGCCCGTG
AGCGGGACACCAGCCGGCGGCTGCTGGCGGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCAAGGATGCAGCAGC
AGCTGGACGAGTACCAGGAGCTTCTGGACATCAAGCTGGCCCTGGACATGGAGATCCACGCCTACCGCAAGCTCT
TGGAGGGCGAGGAGGAGAGGCTACGCCTGTCCCCCAGCCCTACCTCGCAGCGCAGCCGTGGCCGTGCTTCCTCTC
ACTCATCCCAGACACAGGGTGGGGGCAGCGTCACCAAAAAGCGCAAACTGGAGTCCACTGAGAGCCGCAGCAGCT
TCTCACAGCACGCACGCACTAGCGGGCGCGTGGCCGTGGAGGAGGTGGATGAGGAGGGCAAGTTTGTCCGGCTGC
GCAACAAGTCCAATGAGGACCAGTCCATGGGCAATTGGCAGATCAAGCGCCAGAATGGAGATGATCCCTTGCTGA
CTTACCGGTTCCCACCAAAGTTCACCCTGAAGGCTGGGCAGGTGGTGACGATCTGGGCTGCAGGAGCTGGGGCCA
CCCACAGCCCCCCTACCGACCTGGTGTGGAAGGCACAGAACACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTC
TCATCAACTCCACTGGGGAAGAAGTGGCCATGCGCAAGCTGGTGCGCTCAGTGACTGTGGTTGAGGACGACGAGG
ATGAGGATGGAGATGACCTGCTCCATCACCACCACGTGAGTGGTAGCCGCCGC**TGA**GGCCGAGCCTGCACTGGGG
CCACCCAGCCAGGCCTGGGGGCAGCCTCTCCCCAGCCTCCCCGTGCCAAAAATCTTTTCATTAAAGAATGTTTTG
GAACTTT

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FIGURE 1194

GGAAGCAGCGGGCAGCGGCCCGCGGGAGGCACCTCGGAGATCTGGGTGCAAAAGCCCAGGGTTAGGAACCGTAGG
C**ATG**CTGCGCCCCAAGGCTTTGACCCAGGTGCTAAGCCAAGCCAACACTGGAGGCGTCCAGAGCACCCTGCTGCT
GAATAACGAGGGATCACTGCTGGCCTACTCTGGTTACGGGGACACTGACGCCCGGGTCACCGCTGCCATAGCCAG
TAACATCTGGGCCGCCTACGACCGGAACGGGAACCAAGCGTTTAATGAAGACAATCTCAAATTCATCCTCATGGA
CTGCATGGAGGGCCGTGTAGCCATCACCCGAGTGGCCAACCTTCTGCTGTGTATGTATGCCAAGGAGACCGTGGG
CTTTGGAATGCTCAAGGCCAAGGCCCAGGCTTTGGTGCAGTACCTGGAGGAGCCCCTCACCCAAGTGGCGGCATC
T**TAA**CGGCATTGGTGGAAGCTGGGGTCAGAAAAGAGAAATGACCATTTGGAGGGGCGGGGCCTCCTAGAAGAACC
TTCTTAGACAATGGGGGGAGGATGGGACTTTGTTTTTTCCAAGAATAAACTTCAACTCCTGT

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FIGURE 1195

GGAGGAGCCGGGCGGGCTGGCGGGCGGCCGGGTGGCGGCGGCGGC**ATG**GCGGAGCCGAGCGGGGCCGAGACGAGG
CCCCCCATTCGGGTCACCGTCAAGACCCCCAAGGACAAGGAGGAAATTGTGATCTGCGATCGAGCCTCGGTCAAG
GAGTTCAAAGAGGAAATCTCCCGGAGGTTTAAGGCTCAGCAGGATCAGCTGGTCCTGATCTTCGCAGGCAAGATC
CTCAAGGATGGGGACACACTGAACCAGCACGGAATCAAGGACGGGCTCACTGTCCATCTGGTCATCAAGACCCCT
CAGAAGGCTCAAGATCCAGCTGCTGCCACTGCTTCTTCCCCCTCCACACCTGACCCTGCCTCAGCACCCTCCACC
ACGCCTGCTTCACCCGCCACCCCTGCCCAGCCCTCCACCTCTGGCAGTGCCTCTTCAGATGCTGGCAGTGGAAGC
CGGAGGAGCAGTGGTGGGGGGCCCTCTCCGGGGGCTGGGGAGGGATCCCCCAGTGCTACTGCGTCCATACTCTCT
GGCTTTGGGGGCATCCTGGGGCTGGGCAGCCTAGGCCTGGGCTCTGCCAACTTCATGGAGCTGCAGCAGCAGATG
CAGCGGCAGCTGATGTCCAATCCTGAGATGCTGTCACAGATCATGGAGAACCCCCTGGTCCAGGATATGATGTCT
AACCCTGATCTGATGCGTCACATGATTATGGCCAACCCCCAGATGCAGCAGTTGATGGAGCGGAACCCTGAGATC
AGCCACATGCTCAATAACCCTGAACTCATGAGGCAGACAATGGAGCTTGCTCGGAATCCAGCCATGATGCAAGAG
ATGATGCGGAACCAGGACCGGGCCCTGAGCAACCTTGAGAGCATCCCTGGAGGGTATAATGCCCTCCGCCGCATG
TACACGGACATCCAGGAGCCCATGTTCAGTGCTGCCCGGGAACAGTTTGGCAACAATCCCTTCTCTTCCCTGGCC
GGGAACTCCGACAGCTCATCCTCCCAGCCTCTGCGGACTGAGAATCGAGAGCCCCTCCCTAACCCCTGGAGCCCC
TCGCCCCCCACCTCCCAGGCCCCCGGGTCCGGTGGGGAGGGCACCGGAGGATCGGGGACCAGCCAGGTGCACCCG
ACAGTCTCGAACCCCTTTGGGATCAATGCGGCTAGCCTGGGGTCAGGGATGTTCAATAGCCCAGAAATGCAAGCC
CTCCTCCAGCAGATCTCTGAGAACCCCCAGCTGATGCAGAATGTGATCTCAGCACCCTACATGCGCAGCATGATG
CAGACGCTTGCCCAGAACCCCGACTTTGCTGCTCAGATGATGGTGAATGTGCCGCTCTTCGCGGGGAACCCCCAA
CTGCAGGAGCAGCTCCGCCTGCAGCTCCCAGTCTTCCTGCAGCAGATGCAGAACCCAGAGTCACTCTCCATCCTT
ACCAATCCCCGAGCCATGCAGGCATTGCTGCAGATCCAGCAGGGACTACAGACCTTGCAGACCGAGGCCCCTGGG
CTGGTACCCAGCCTTGGCTCCTTTGGGATATCCCGGACCCCAGCACCCTCAGCAGGCAGCAACGCAGGGTCTACG
CCCGAGGCCCCCACTTCCTCACCAGCCACGCCAGCCACATCTTCTCCAACAGGGGCTTCCAGCGCCCAGCAGCAA
CTCATGCAGCAGATGATCCAGCTTTTGGCTGGAAGTGGAAACTCACAGGTGCAGACGCCAGAAGTGAGATTTCAG
CAGCAGCTGGAGCAGCTCAACTCCATGGGCTTCATCAATCGTGAGGCTAACCTGCAGGCCCTGATTGCCACAGGA
GGGGACATCAACGCAGCTATCGAGAGACTGCTGGGCTCCCAGCTCTCC**TAA**TCCCTCGGCCCATGCCTCCTGCCT
CTCCCCTCCCTCGATGTCAGCATTCGGTTCTTCTGTCAATCCTTACCCTCTGCAGCTTGTCCTCCCTTCCGTCTT
CTCCCTCATCCTTTCCAAACAGCAGGGTGACTTTAGAGGCATGGGCTCCAACCCCTTAGCTCTGTCTGAGAATTA
TGGTTTTACTGCTACGTCTCTAACAGACTCTTCTCTCCTGGTCTCCTTGAGCAGTGCTACTTAAACAGTTTTCAC
AGTTTCATTGATTGACTCTACCTCCTTGCCCCACACCACTTTTGCAATCTTTAAACTTTCAGTGGCTGTGCAGAG
TCGAGGGAGGAACCAGCTCTCTGGTTTACTGGAACATAGTCTTCCATCTATACCACTAGGGTTTTGTCTTATGTT
TACTTTTGGTAACTCTCTTCCTTCTTTTTCTCCCTACCCCCCAACCCCTAGCCCAACCAATGCTAGAATTTCTTG
CTCTGAAGGAGGAGCAGGTGAAACAGGTGGTAATTTTCCTTCTCGGCCCCTATTCTGGTTCATTCAGCACTTTTT
GGTGGGAACTGTTGGAAATTCCAGGGTAAGGAGGAAGATGCCTGTTCTCCCTGTCTGAAGAGGGAGATGAGACAG
CTCTCTGGACAGGAATTAACAAACGCTGGAGCAGCCCAGAGGAAATTCGTGTGAAAGAGGAGGGAATGAGATTAT
TCGGAGGAAGGGAATGGGGGAGACAGCCTGAGTAAAAGGCTTGGAAGTTGGAATTAACAGTGGGGAGCAGAAGCA
CTCATAGCTCTTTTAGGCAGAAGAATCCAGGCCCGAGCTGGCAGAAGAGACTTAGAGATGCTAATGGAATTTAAA
CTGAAAAAAGGAGCCCAATGAAGCTAAGCGCCACGCCCCACAAGGGGTCATATTGGCTTTAGTTCCTCAAGCATA
TGTGCTTATATGCACACACACACACATTTCCATGGACCCAGGTCTTGCTTGTGTCCCCAGGCACCAGTAGTTTGA
GCCCCCCTCAAAAGACATGAAGGGGGTTGGGGTCTGTGTGAGTAGTGGGGAGGTGCATGTGTATCCACATGTGTG
CATACACTCTTAAGTTGGGTGGGAAGTGGATTCCTTGTTGGTTTCTGGTTCAGAGTGCTCTCCCACCACCAGAGA
CAAGTGGGTAAAAAGGTCAGTCCATTGCAGGAATATATATCCGGGAGAGCTAGGTCCCTTGGGGCTCTGGATGCT
GGGTAACCCAGAGGTAATGTGGGTACCCTTTCTGAAGCTGTCAGGGCTGTGACTAGCACCCTTATCACCCCTCAC
TGCCTTGTGGGAATAGTAGAGGGTTTTTTTCCTCCAGAGCCCCTGGCCTTTCAGTTCTTAACTATTTCCCTCCAG
GCCAGAAAGTTTTCTTTGAGGAAGGAGAGGAGAGGGTGGCAATGATGCCTTTGATCTGGAATTGGACATTTCTCT
GTCAGAGCACAGAGGAGGCTCATATCACCTCTTCCCTCTCCTACTTGGCCCAGCTGCTTGGAGGACCGACCCCAT
GGCTGAGAATATGACGGCAAGAGGAACAGAGTTTGCTCCAAGTGGGAAAGGGTCCCAAGCAGTCCAGAGAAGATG
TCTGTGTGGCTTTCCCTCCCTGCCTCCCCCAGCTCCCACACTGGCCTTTGTAAATAAATGGCGTGGTCTTTGTTG
TG

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FIGURE 1196

GCTCTCTTCCTGTCTTTGTGGCTCCGGAAAGGCGTTTGGGATGCCAACG**ATG**AGGCTGCTGTCATTTGTGGTGTT
GGCTCTATTTGCTGTCACTCAAGCAGAGGAAGGAGCCAGGCTTTTGGCTTCCAAATCACTGCTGAACAGATACGC
CGTGGAGGGACGAGACCTGACCTTGCAGTACAACATCTACAATGTTGGCTCAAGTGCTGCATTAGACGTGGAACT
ATCTGATGATTCCTTCCCTCCAGAAGACTTTGGCATTGTGTCTGGAATGCTCAATGTCAAATGGGACCGGATTGC
CCCTGCTAGCAATGTCTCCCACACTGTGGTCCTGCGCCCTCTCAAGGCTGGTTATTTCAACTTCACCTCGGCAAC
AATTACTTACCTGGCCCAGGAGGATGGGCCCGTTGTGATTGGCTCTACCAGTGCACCTGGACAGGGAGGAATCCT
GGCTCAGCGGGAGTTTGACAGGCGATTCTCCCCTCATTTTCTGGACTGGGCAGCCTTTGGGGTCATGACCCTTCC
CTCCATCGGCATCCCCCTGCTATTGTGGTACTCCAGCAAGAGGAAATATGACACTCCCAAAACGAAGAAGAAC**TG**
ATTGGGGCTTCCACAGCCCTCCTCTCCCAAGAAATCCAGGCTCCTCTCCCAAGAAATCCAGGTGCTTTCCAGACT
CCAAAGGGTATCTTAAATGCAATCTCTTCTCTCTTAGCCCTTGGCCACTTTCTCCTGGATCCTGCCCTGCTCTCA
GCCATAGTGAAGGACCAGCCCTAGGAGTCTGCGAGAGCCTCCTTGGTTCCATCGTGAAGCCATAAACAGGAATGC
CTTTGGCAATAGCCTTGAGCCTAGAGGGCCCTCTGATGCCCCACTGAGGTGCTGTTGGTTTATTGCTGGCAACGT
GAATTCTCTCAGGGGTCTAGGAGGGGCATTTTGGAGACTGCCTGACACCACCCCTATCCCCTGCCTCCCCCTCTC
AGAAGAGGGTGGAAGATGAAATGAAAGCTATGGGACTCTTGGAGGATACCCAGTGTCTATTCTGGGTTAGAGAAG
TGCTTACTAAGGGGTTTTCTAATAAAAACAAATGCCACATTG

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FIGURE 1197A

CGGGTGGTTGAGTAGAAGCGGTCGCC**ATG**TCCGCGGGGAGCGCGACACATCCTGGAGCTGGCGGGCGCCGCAGCA
AATGGGACCAACCAGCTCCAGCCCCACTTCTCTTCCTCCCGCCAGCGGCCCCAGGTGGGGAGGTCACCAGCAGTG
GGGGAAGTCCTGGGGGCACCACAGCTGCTCCTTCAGGAGCCTTGGATGCTGCTGCTGCTGTGGCTGCCAAGATTA
ATGCCATGCTCATGGCAAAAGGGAAGCTGAAACCAACTCAGAATGCTTCTGAGAAGCTTCAGGCTCCTGGCAAAG
GCCTAACTAGCAATAAAAGCAAGGATGACCTGGTGGTAGCTGAAGTAGAAATTAATGATGTGCCTCTCACATGTA
GGAACTTGCTGACTCGAGGACAGACTCAAGACGAGATCAGCCGACTTAGTGGGGCTGCAGTATCAACTCGAGGGA
GGTTCATGACAACTGAGGAAAAAGCCAAAGTGGGACCAGGGGATCGTCCATTATATCTTCATGTTCAGGGCCAGA
CACGGGAATTAGTGGACAGAGCTGTAAACCGGATCAAAGAAATTATCACCAATGGAGTGGTAAAAGCTGCCACAG
GAACAAGTCCAACTTTTAATGGTGCAACAGTAACTGTCTATCACCAGCCAGCACCCATCGCTCAGTTGTCTCCAG
CTGTTAGCCAGAAGCCTCCCTTCCAGTCAGGGATGCATTATGTTCAAGATAAATTATTTGTGGGTCTAGAACATG
CTGTACCCACTTTTAATGTCAAGGAGAAGGTGGAAGGTCCAGGCTGCTCCTATTTGCAGCACATTCAGATTGAAA
CAGGTGCCAAAGTCTTCCTGCGGGGCAAAGGTTCAGGCTGCATTGAGCCAGCATCTGGCCGAGAAGCTTTTGAAC
CTATGTATATTTACATCAGTCACCCCAAACCAGAAGGCCTGGCTGCTGCCAAGAAGCTTTGTGAGAATCTTTTGC
AAACAGTTCATGCTGAATACTCTAGATTTGTGAATCAGATTAATACTGCTGTACCTTTACCAGGCTATACACAAC
CCTCTGCTATAAGTAGTGTCCCTCCTCAACCACCATATTATCCATCCAATGGCTATCAGTCTGGTTACCCTGTTG
TTCCCCCTCCTCAGCAGCCAGTTCAACCTCCCTACGGAGTACCAAGCATAGTGCCACCAGCTGTTTCATTAGCAC
CTGGAGTCTTGCCGGCATTACCTACTGGAGTCCCACCTGTGCCAACACAATACCCGATAACACAAGTGCAGCCTC
CAGCTAGCACTGGACAGAGTCCGATGGGTGGTCCTTTTATTCCTGCTGCTCCTGTCAAAACTGCCTTGCCTGCTG
GCCCCCAGCCCCAGCCCCAGCCCCAGCCCCCACTCCCAAGTCAGCCCCAGGCACAGAAGAGACGATTCACAGAGG
AGCTACCAGATGAACGGGAATCTGGACTGCTTGGATACCAGCATGGACCCATTCATATGACTAATTTAGGTACAG
GCTTCTCCAGTCAGAATGAGATTGAAGGTGCAGGATCGAAGCCAGCAAGTTCCTCAGGCAAAGAGAGAGAGAGGG
ACAGGCAGTTGATGCCTCCACCAGCCTTTCCAGTGACTGGAATAAAAACAGAGTCCGATGAAAGGAATGGGTCTG
GGACCTTAACAGGGAGCCATGGTGAGTGTGATATAGCTGGGGGAACAGGGGAGTGGCTAAGACTGGTC**TAA**AGCT
ATTAGTTTTCTCAGCCGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGGGCAGATCA
CCTAAGGTCAGGAGTTCAAGACCAGCTTGGCCAACATAGTGAAATCCCATCTCTACTAAAAATACAAAAACTAGC
GGGCATGGTGGTGGGCGCCTGTAATTCCAGCTACTCAGGGGGTTGAGGCAGGAGAATCGCTTCAACCTGGGAGGC
AGAGGTTGCAGTGAGCCAAGATCAGACCACTGCCCTCCAGCCTGGGCAATAGAGCAAGACTCCATCTCATAAATA
AATAAATACATAAATAAAGCTATTAATTTTCTAACCTGATGTTCATTCAGGTGTTTAATCCAACCTCTATAATCT
GTTGGCCAGTGAAAATACTTTTGGGCTGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGG
TGGGCGGATAACCTGAGGTCAGGAGTTTGAGACCAGCGTGGCTAACATGGTGAAACCCCGTCTCTACTAAAAATA
GAAAAATTAAGCTGGGCATGGTGGTGCATGCCTGTAATTCCAGCGGCTTGGAAGGCTGAGGCAGGAGAATCACTT
GAACTTGGGAGGTGGAGGTTGCAGTGAGCCAAGATCACACCACTGCATTCCAGCCTGGGCACTAGAGTGAGACTC
TGTCTCAAAAAAAAAGAAAGAGAAAGAGAAAATAGTTTCTAAAAAATTGTATACAGACAACCTTTTATTTCCAAC
AAACGTGTGCCGAGAGAGAGAGAGAGAAAATAGTTTTAAAAAAATTGTATACAGACAACCTTTTGTTTCCAACCA
ACGTGTATCTAGAAAAGAGTTAGTCGACTTATTTTATACATAGCATCAGTGAATAGTAATGAGTGGTAGGTCATT
TCAAAATCCTGTTGCCTATATTATGTGAATACCAGGAGGTCATCTGATACGGACTTAATAAAGGTTGATTTTGCT
TTATATTGGGAGCTGAGCCACACCTCCCCTTATAACTCTATTGGTCAGTAATGGTCAGTTTGTGGCTGTTAGGAA
AATGTTGCCTTTTAGCATTCCAGAACTCTAAATCCTGTAGAGGTACATGGGATATTTTATTCTTTGCCTGTACTC
ATAAAAATGAACAGAAGAAAATACGTTTTTTTCTTTTCTTAACTTCTTTTCTTTTAACTCTTTAAAAGGTGAAAT
ATCAGCCCTCAAGAGACTCACTTGCTAACTTTCCTTTTTTTCTTTTTTTTTTCTTTTTTTGTGTTTCTTTTTTCTT
TCTCTGTTTTCTTACATGGTTCTGGTGGATTCACATTTGCTGATGCTGGTGCTGTTTTTCGTGTGATCTTCAACG
TTTTTGGGTGACCATTGACCCTGTGACCTCAAAATGGTGTCCAACTAACCACTTAAAATTAACATCTTTTTTTTA
ATTAACGAATTTATGGTATTTTTTTTTTCCCTTGGCGGGGATGGGGTTGGGGTTGTTTTTTCTCTATTCTAGAT
TATCCAGCCAAGAAGATGAAAACTACAGAGAAGGGATTTGGCTTGGTGGCTTATGCTGCAGATTCATCTGATGAA
GAGGAGGAACATGGAGGTCATAAAAATGCAAGTAGTTTTCCACAGGGCTGGAGTTTGGGATACCAATATCCTTCA
TCACAACCACGAGCTAAACAACAGATGCCATTCTGGATGGCTCCCTAGGAAACAGTGGAACAGAGTTTTGACCCT
CAGTGACTCTTCTTAGCAATAATGCATGCATTTGATTTAACAAGACTCTGGGGCCTGTGCTGGGAACCATCTGGA
CCTTTGCAGAAGTTAGAGATTCAGTGCCCCCCTTTCTTAAAGGGGTTCCTTAACAACCACAAAAATCCTTATTTC

FIGURE 1197B

TGCAGTGGCATAGAATCTGTTAAAATTTAATTAGAATCACAAATTTATCTCAGAAGCTTTTTAACAGTTGGTGAA
ATGTGCTTGTCCAACAAAGCATCCTAACAGGGTCGTTCCCATACACATTTGACCTGGTCAGCCTTTTCCAGGTGA
ATAGCCCCAGTTCTGACATAAAGAAAGTTTTATTTGTATTTTACTACTGTTTGGTCAATTTTGATATATAACTGG
TTACAAACAGAGCCTTACTATTTATTAGTGGGGAAATGATTTTAAGACCGTCCTTTTCAGTATTTAATTCTGACA
GATCTGCATCCCTGTTTTGTTTTGGATTATTTCTGTTTTGGAAAATGCTGTCTCATTTAAAACTGTTGGATATAG
CTGGATCCTGGATAGGAAAATGAAATTATTTTTTCATTGTGTTTTTTAATTGGGGTGATCCAAAGCTGGCACCTT
CAGGCACATTGGTCTCATAGCCATTACTGTTTTTATTGCCCTTCTAAGATCCTGTCTTCAGCTGGGTCAGAGAAA
ACTTCTTGACTAAAACTGGTCAGAACTCATCACAGAAATGAAATACAGTGGTCTCTCTCTCCCAGAACTGGTTGC
AGCTAAAACAGAGAGATCTGACTGCTGGCTATAGGATTTTGGACTTAATGACTGAAATTGCAAATTGTCCTTTTT
CTTGGCATTACAGATTTTGCCAAAATAACTTTTTGTATCAAATATTGATGTGTGAAAGTGAAGGAGCTAGTCTGC
TGAACCAGGAATAGTTTGAGATATTGAACTGTCATTTTTGCACATTTGAATACTTTGCAGGCTGGCTTTGTATAA
ACTTATCCTCTGGTTTCCTATATGTTGTAAATATTTAGACCATAATTTCATTATAAATAAATCTATAAATATTC

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FIGURE 1198

CT**ATG**ATGAAAGCAGCCATCAGTGAGACGGAAGATATGCCAATGTTTGAGCCTAAAATGACACGCTCTAAACTGA
AGGAAGTAGTGGAAAAAGGAGTGGTAATTCCAACATGGAATATTTCACCAATTAAGAAGGCCAATGAAATTAAGC
CTCCTCAGTTTGTGGATATCCACCTTGAAGAAGATGATTCCTCAGATGAAGAATACCAGCCGGATGATGAAGAAG
AAGATGAAACTGCTGAAGAGAGCTTATTGGAAAGTGATGTTGAAAGCACTGCTTCATCTCCACGTGGGGCAAAGA
AATCCAGATTGAGGCAGTCTTCTGAGATGACTGAAACAGATGAGGAGAGTGGCATATTATCAGAGGCTGAGAAAG
TCACCACACCAGCCATCAGGCACATCAGTGCTGAGGTAGTGCCCATGGGGCCCCCGCCCCCTCCAAAGCCGAAAC
AGACCAGAGATAGTACTTTCATGGAGAAGTTACATGCGGTAGATGAGGAGCTGGCTTCCAGTCCAGTCTGCATGG
ATTCTTTCCAGCCCATGGATGACAGTCTCATTGCATTTCGAACGCGTTCTAAGATGCCCCTGAAAGATGTTCCCC
TGGGCCAATTAGAGGCAGAGCTCCAAGCTCCAGACATCACTCCAGATATGTATGACCCCAATACGGCAGATGATG
AGGACTGGAAGATGTGGCTGGGGGGACTTATGAATGATGATGTGGGGAATGAAGATGAAGCAGATGATGATGATG
ATCCAGAATATAATTTCCTGGAAGACCTCGATGAACCAGACACAGAGGATTTCCGGACTGACCGGGCAGTGAGAA
TCACCAAAAAGGAAGTAAATGAGCTGATGGAAGAGCTGTTTGAAACTGTGAGTAATGATCCTCGAGTGAGAACAC
GGGATTTTAAGTCAGTTCTCCAGCAAGATGTGTCATTTGGTCTCTGTGATGCTCCCTCTAGGAGAGGGGGTCTGA
CTGAACCAATTCTCCTTTTAGTCTACCTGGGAAAGAATATAATGACAAGGGAATTTTGC**TAA**CTACTAGACTCTT
GATTATATACATGTATGTTGTTCTTATTAACATTTTCCTTGAAACTTCTTTTTGTTTGAGGGGGTTCTTGCTCCA
TCACCCAAGCCAGAGTGCAGTGGTGAAATTACAGCTCACAGCAGCCTTGACCTTCTAGGCTCAAGCAGTCCTTCG
TCTAAGCCTCCTGAGTAGCTGGGACATACCAACACACCCAGCTAATTATTTTATTTGTAGAGACAGGGTCTTACC
ACATTGCTCAGGTTGTTCTGGAACTTCTGGGCTCAAGCAATTTTCCTGCCTTGGGCCTCCCAGTGCTGGAATTAT
AGGTGTGAGCCAGCATGCCTGGCCCCTGGAAAACTTTTGATGACTTCCCCTACTGTCATTTGGTGTGTCCTTAAA
GATTGTCAACTAGTTTTAAACTACTTTGTGTACAAATAATTACCTTTTTCATAAATTTGTTTCAAAAGATTTTTC
ATTTTAAGAGATTGATCATTTTGAGGCTGGGTGCAGTGGCTCACGCTTGTAATCCCAGCACTTTGGGAGGCCACG
GCAGGTGGATCATCTGAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGATGAAACCCTGTCTCTATTAAAAAT
ACAAAAATTAGGCATGGTGGCGGGCACCTGTAGTCACGGTTACTGCAGAGGCTGAGGCAGGAAAATTGCTTGAAC
CTGGGAGGCGGAGGTTGCAGTAAGCCCAGATTGTGCCACTGCACTCCAGCCTGGGCAATAGAGCAAGACTGCAAG
ACTCTGTCTC

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FIGURE 1199

AGAAATCTTCAGCCAAACAGCTGCAGGAAGTAGAGAAGGTTAAACCCCAGAGTGAGAAAGTTCATCAGACTCTGA
TTCTGGACCCAGCACAGAGGAAGAGACTCCAGCAGCAG**ATG**CAGCAGCACGTTCAGCTCTTGACCCAAATCCACC
TTCTTGCCACCTGCAACCCCAACCTCAATCCGGAGGCCACTACCACCAGGATATTTCTTAAAGAGCTGGGAACCT
TTGCTCAAAGCTCCATCGCCCTTCACCATCAGTACAACCCCAAGTTTCAGACCCTGTTCCAACCCTGTAACTTGA
TGGGAGCTATGCAGCTGATTGAAGACTTCAGCACACATGTCAGCATTGACTGCAGCCCTCATAAAACTGTCAAGA
AGACTGCGAATGAATTTCCCTGTTTGCCAAAGCAAGTGGCTTGGATTCTGGCCACAAGCAAGGTTTTCATGTATC
CAGAGTTACTTCCAGTGTGTTCCCTGAAGGCAAAGAATCCCCAGGATAAGATCGTCTTCACCAAGGCTGAGGACA
ATTTGTTAGCTTTAGGACTGAAGCATTTTGAAGGAACTGAGTTTCCTAATCCTCTAATCAGCAAGTACCTTCTAA
CCTGCAAAACTGCCCACCAACTGACAGTGAGAATCAAGAACCTCAACATGAACAGAGCTCCTGACAACATCATTA
AATTTTATAAGAAGACCAAACAGCTGCCAGTCCTAGGAAAATGCTGTGAAGAGATCCAGCCACATCAGTGGAAGC
CACCTATAGAGAGAGAAGAACACCGGCTCCCATTCTGGTTAAAGGCCAGTCTGCCATCCATCCAGGAAGAACTGC
GGCACATGGCTGATGGTGCTAGAGAGGTAGGAAATATGACTGGAACCACTGAGATCAACTCAGATCGAAGCCTAG
AAAAAGACAATTTGGAGTTGGGGAGTGAATCTCGGTACCCACTGCTATTGCCTAAGGGTGTAGTCCTGAAACTGA
AGCCAGTTGCCACCCGTTTCCCCAGGAAGGCTTGGAGACAGAAGCGTTCATCAGTCCTGAAGCCCCTCCTTATCC
AACCCAGCCCCTCTCTCCAGCCCAGCTTCAACCCTGGGAAAACACCAGCCCGATCAACTCATTCAGAAGCCCCTC
CGAGCAAAATGGTGCTCCGGATTCCTCACCCAATACAGCCAGCCACTGTTTTACAGACAGTTCCAGGTGTCCCTC
CACTGGGGGTCAGTGGAGGTGAGAGTTTTGAGTCTCCTGCAGCACTGCCTGCTGTGCCCCCTGAGGCCAGGACAA
GCTTCCCTCTGTCTGAGTCCCAGACTTTGCTCTCTTCTGCCCCTGTGCCCAAGGTAATGCTGCCCTCCCTTGCCC
CTTCTAAGTTTCGAAAGCCATATGTGAGACGGAGACCCTCAAAGAGAAGAGGAGTCAAGGCCTCTCCCTGTATGA
AACCTGCCCCTGTTATCCACCACCCTGCATCTGTTATCTTCACTGTTCCTGCTACCACTGTGAAGATTGTGAGCC
TTGGCGGTGGCTGTAACATGATCCAGCCTGTCAATGCGGCTGTGGCCCAGAGTCCCCAGACTATTCCCATCACTA
CCCTCTTGGTTAACCCTACTTCCTTCCCCTGTCCATTGAACCAGTCCCTTGTGGCCTCCTCTGTCTCACCCTTAA
TTGTTTCTGGCAATTCTGTGAATCTTCCTATACCATCCACCCCTGAAGATAAGGCCCACGTGAATGTGGACATTG
CTTGTGCTGTGGCTGATGGGGAAAATGCCTTTCAGGGCCTAGAACCCAAATTAGAGCCCCAGGAACTATCTCCTC
TCTCTGCTACTGTTTTCCCGAAAGTGGAACATAGCCCAGGGCCTCCACTAGCAGATGCAGAGTGCCAAGAAGGAT
TGTCAGAGAATAGTGCCTGTCGCTGGACCGTTGTGAAAACAGAGGAGGGGAGGCAAGCTCTGGAGCCGCTCCCTC
AGGGCATCCAGGAGTCTCTAAACAACCCTACCCCTGGGGATTTAGAGGAAATTGTCAAGATGGAACCTGAAGAAG
CTAGAGAGGAAATCAGTGGATCCCCTGAGCGTGATATTTGTGATGACATCAAAGTGGAACATGCTGTGGAATTGG
ACACTGGTGCCCCAAGCGAGGAGTTGAGCAGTGCTGGAGAAGTAACGAAACAGACAGTCTTACAGAAGGAAGAGG
AGAGGAGTCAGCCAACTAAAACCCCTTCATCTTCTCAAGAGCCCCCTGATGAAGGAACCTCAGGGACAGATGTGA
ACAAAGGATCATCAAAGAATGCTTTGTCCTCAATGGATCCTGAAGTGAGGCTTAGTAGCCCCCCAGGGAAGCCAG
AAGATTCATCCAGTGTTGATGGTCAGTCAGTGGGGACTCCAGTTGGGCCAGAAACTGGAGGAGAGAAGAATGGGC
CAGAAGAAGAGGAAGAAGAGGACTTTGATGACCTCACCCAAGATGAGGAAGATGAAATGTCATCAGCTTCTGAGG
AATCTGTGCTTTCTGTCCCAGAACTCCAGGTGAGAGCTGGAGAATATTCTCAAGTATTTCGTGGACTCAGTAATA
TGTATCACTTATTGATATGCCACCTGCTTGCTTGCTGCACTATGGATAGTCCTAAAATCATTTGTATT**TGA**TTTG
TGAATGCATTATGGGACATGATTGTGGAGTTGAGGTGAAATGAGATGGAAAGGATGAAATTTTACTTATTATATT
AAACTCGTTTACACATTAAA

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FIGURE 1200

ATGAAATGACGGATGAAGCAGTTGGAGACTCTGCTGAGAAGCCTCCTACTTTTGCTTCACCTGAGACTGCTCCAG
AAGTGGAGACCAGCAGAACTCCACCAGGAGAGAGCATCAAAGCTGCTGGAAAAGGCCGGAACAATCATCGAGCTC
GCAACAAGCGGGGAAGTCGGGCTCGGGCCAGCAAGGACACCTCCAAGCTGCTGTTGCTGTATGATGAGGACATTC
TCGAGCGAGATCCACTCAGGGAGCAGAAGGACTTGGCCTTTGCCCAAGCTTATCTGACCAGGGTGCGAGAAGCCC
TACAACATATCCCTGGCAAGTATGAAGACTTCCTTCAAGTCATCTATGAATTTGAGTCAAGTACCCAGAGACGGA
CGGCTGTAGATCTCTACAAAAGCCTGCAAATTCTGCTCCAAGACTGGCCTCAGCTGTTGAAAGACTTTGCTGCTT
TCCTGTTACCTGAGCAAGCTCTGGCCTGTGGATTATTTGAGGAGCAGCAGGCTTTTGAGAAGAGCCGCAAGTTCC
TTCGGCAGCTGGAGATTTGCTTTGCAGAGAACCCCTCACACCACCAGAAGATTATCAAGGTCCTCCAAGGCTGTG
CAGACTGCCTTCCCCAGGAGATCACCGAGCTCAAGACACAGATGTGGCAGCTCCTCAAGGGCCACGACCACCTGC
AGGATGAGTTTTCTATCTTCTTTGACCACTTGCGCCCAGCAGCTAGCCGGATGGGTGACTTTGAAGAGATCAATT
GGACTGAGGAAAAGGAGTATGAGTTTGATGGCTTTGAAGAAGTGGCCCTGCCTGATGTGGAAGAAGAGGAGGAGC
CTCCCAAGATACCCACAGCCTCAAAGAACAAGAGGAAAAAAGAGATCGGGGTCCAAAATCATGATAAGGAGACTG
AATGGCCAGATGGGGCCAAGGACTGTGCCTGCTCCTGCCATGAAGGAGGTCCAGATTCCAAGCTGAAGAAGAGCA
AAAGGCGGAGCTGTAGCCACTGTAGCAGCAAGGTCTGTGACAGCAAATCCTACAAGAGCAAGGAGCCCCATGAGT
TGGTGGGCAGCAGCCCCCACCGAGAGGCTAGTCCTATGCCTGGTGCTAAGGAAGCTGGGCAGGGCAAGGATATGA
TGGAAGAGGAAGCCCCAGAGGAGCGGGAGAGCACTGAGGCCACCCAGAGCAGGACTGTCAGGACCACCAGAAAGG
GAGAGATGCCTGTTTCAGGATTGGCAGTGGGGAGCACTTTGCCATCCCCTCGAGAAGTGACTGTTACAGAACGGC
TCCTCCTGGATGGCCCACCACCTCATTCACCAGAGACTCCTCAATTTCCCCCCACAACTGGAGCTGTACTGTACA
CTGTTAAGAGAAACCAGGTTGGGCCTGAGGTTCGCTCCTGCCCCAAGGCATCCCCCAGACTTCAGAAAGAGAGGG
AGGGCCAAAAGGCAGTGAGTGAGTCAGAGGCTTTGATGCTGGTCTGGGATGCATCAGAAACTGAGAAATTGCCTG
GTACCGTGGAACCCCCTGCTTCCTTCCTGAGTCCTGTTTCCTCAAAGACCAGAGATGCAGGGAGAAGACATGTGT
CCGGGAAACCAGACACTCAAGAGAGATGGCTGCCCTCAAGCAGAGCTCGGGTGAAGACAAGAGACAGGACGTGCC
CTGTCCATGAATCTCCATCAGGAATTGACACCTCAGAGACTTCTCCCAAAGCCCCTAGAGGGGGTTTGGCTAAAG
ACAGTGGAACACAGGCCAAGGGTCCAGAGGGGGAGCAGCAGCCAAAGGCCGCAGAAGCTACGGTGTGTGCCAACA
ACAGCAAGGTCAGCTCCACTGGGGAAAAGGTTGTCCTGTGGACAAGGGAAGCTGACCGTGTGATCCTCACCATGT
GCCAGGAGCAAGGGGCACAGCCACAGACCTTCAACATCATCTCCCAGCAGCTGGGAAATAAGACCCCTGCTGAGG
TTTCCCACCGTTTTCGAGAACTCATGCAGCTCTTCCACACTGCCTGTGAAGCCAGCTCTGAGGATGAGGATGATG
CAACCAGTACCAGCAATGCAGACCAGCTGTCTGACCATGGGGACCTTCTGTCTGAAGAGGAGCTGGATGAATGAG
ACTCTGGGAATCATCTACACAGGACCAAACCCAACAGGCGCCCTGGCACCGGGGAGGGGGTAGTTGTACTCTGCT
TGTACAGTCCTTGAGCCCAGTTTACAGATCTGGAGAGCAGGAGGCCAGGACAAGGACAAAGGCTGGAGGATGGAG
TAGGACCCAGGGGCTCTGCCATCCTAGGCATCATTCAAGGTCTTTTATGAAGACTTTACAGATGTCCTCTGTAAA
TAGCATCGAGAGTGGAGTTCAGCTCCTTTCTCTACTTTTTTTTGGTCTGATGGCACATATTTATTGTTCTGTGGT
CTAATCACAGTGTTTCTAAATGTAAAAAGTGCATATGTTGGTGTAGCTAGTCCCGCGACATTGAGCTCCTCTGCA
TGAAGACACTGGGCTCCTGCATCCAGCTGTTTTTATTGCAAACTAGCTCCTTTCTCCCACACTGGGAACTTTAGT
CCACGAGGCTGTCACCACCCTGGTAGCACTGGGCCAGGCTTTGTAGCTCCTGCAGCAGCTCTGCTACGTCATCGT
GCTCCACTCCAGCATCCATGAAGCTGGCCCAGCGCCGCAAGTCGAGTTTGGTGAGGTCTCTGGCCAAGGCTTCCA
GGGTCTGGTGCAGGGACGAAGAGGAACACAGTGCCCCAAACACTGGGATGCTCTCCACTGCTGTGGAGGGAGAGG
AAACAGAGACCTGTAGATGGATGATTATTCTGCCCTGGGACTCGCCAAACTGATAAGGAAGTCCAACCTTAGTAG
ACTTGATTGTAAACTCAACAAATTTGGTGTATTGTCCCCTTAGTACACCAGTACTCCAGAGGAAGAATGCTTTTC
TTGGGAGCCATAGGGTGAATAAAGGAATGTTTAACTGTGG

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FIGURE 1201

CCTTTTTTGCAGTCTCAGGACGGGCGCTTTGGAGCCGGCCCCAGGCAGCGTGTGTCGGTCGCCTAGTCTGGAGAA
CTAGTCCTCGACTCACGGTGAGGGAATGGACCGACACGGGTATTGTACCGCTGAGGGAAAGGAGCGGGACTCCGG
ACCTCCAGGAGTGCAAGG**ATG**ATGCTGAAAGGAATAACAAGGCTTATCTCTAGGATCCATAAGTTGGACCCTGGG
CGTTTTTTACACATGGGGACCCAGGCTCGCCAAAGCATTGCTGCTCACCTAGATAACCAGGTTCCAGTTGAGAGT
CCGAGAGCTATTTCCCGCACCAATGAGAATGACCCGGCCAAGCATGGGGATCAGCACGAGGGTCAGCACTACAAC
ATCTCCCCCCAGGATTTGGAGACTGTATTTCCCCATGGCCTTCCTCCTCGCTTTGTGATGCAGGTGAAGACATTC
AGTGAAGCTTGCCTGATGGTAAGGAAACCAGCCCTAGAACTTCTGCATTACCTGAAAAACACCAGTTTTGCTTAT
CCAGCTATACGATATCTTCTGTATGGAGAGAAGGGAACAGGAAAAACCCTAAGTCTTTGCCATGTTATTCATTTC
TGTGCAAAACAGGACTGGCTGATACTACATATTCCAGATGCTCATCTTTGGGTGAAAAATTGTCGGGATCTTCTG
CAGTCCAGCTACAACAAACAGCGCTTTGATCAACCTTTAGAGGCTTCAACCTGGCTGAAGAATTTCAAAACTACA
AATGAGCGCTTCCTGAACCAGATAAAAGTTCAAGAGAAGTATGTCTGGAATAAGAGAGAAAGCACTGAGAAAGGG
AGTCCTCTGGGAGAAGTGGTTGAACAGGGCATAACACGGGTGAGGAACGCCACAGATGCAGTTGGAATTGTGCTG
AAAGAGCTAAAGAGGCAAAGTTCTTTGGGTATGTTTCACCTCCTAGTGGCCGTGGATGGAATCAATGCTCTTTGG
GGAAGAACCACTCTGAAAAGAGAAGATAAAAGCCCGATTGCCCCCGAGGAATTAGCACTTGTTCACAACTTGAGG
AAAATGATGAAAAATGATTGGCATGGAGGCGCCATTGTGTCGGCTTTGAGCCAGACTGGGTCTCTCTTTAAGCCC
CGGAAAGCCTATCTGCCCCAGGAGTTGCTGGGAAAGGAAGGATTTGATGCCCTGGATCCCTTTATTCCCATCCTG
GTTTCCAACTATAACCCAAAGGAATTTGAAAGTTGTATTCAGTATTATTTGGAAAACAATTGGCTTCAACATGAG
AAAGCTCCTACAGAAGAAGGGAAAAAAGAGCTGCTGTTCCTAAGTAACGCGAACCCCTCGCTGCTGGAGCGGCAC
TGTGCCTACCTC**TAA**GCCAAGATCACAGCATGTGAGGAAGACAGTGGACATCTGCTTTATGCTGGACCCAGTAAG
ATGAGGAAGTCGGGCAGTACACAGGAAGAGGAGCCAGGCCCTTGTACCTATGGGATTGGACAGGACTGCAGTTGG
CTCTGGACCTGCATTAAAATGGGTTTCACTGTGAATGCGTGACAATAAGATATTCCCTTGTTCCTAAAACTTTAT
ATCAGTTTATTGGATGTGGTTTTTCACATTTAAGATAATTATGGCTCTTTTCCTAAAAAATAAAATATCTTTCT

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FIGURE 1202

CAAACAGCAGAAGGAGGTAGAGAAGGTTAAACCCCAGTGTAAGGAAGTTCATCAGACCCTGATTCTGGACCCAGC
ACAAAGGAAGAGACTCCAGCAGCAG**ATG**CAGCAGCATGTTCAGCTCTTGACACAAATCCACCTTCTTGCCACCTG
CAACCCCAATCTCAATCCGGAGGCCAGTAGCACCAGGATATGTCTTAAAGAGCTGGGAACCTTTGCTCAAAGCTC
CATCGCCCTTCACCATCAGTACAACCCCAAGTTTCAGACCCTGTTCCAACCCTGTAACTTGATGGGAGCTATGCA
GCTGATTGAAGACTTCAGCACACATGTCAGCATTGACTGCAGCCCTCATAAAACTGTCAAGAAGACTGCCAATGA
ATTTCCCTGTTTGCCAAAGCAAGTGGCTTGGATCCTGGCCACAAGCAAGGTTTTCATGTATCCAGAGTTACTTCC
AGTGTGTTCCCTGAAGGCAAAGAATCCCCAGGATAAGATCCTCTTCACCAAGGCTGAGGACAATTTGTTAGCTTT
AGGACTGAAGCATTTTGAAGGGACTGAGTTTCTTAACCCTCTAATCAGCAAGTACCTTCTAACCTGCAAGACTGC
CCGCCAACTGACAGTGAGAATCAAGAACCTCAACATGAACAGAGCTCCTGACAACATCATTAAATTTTATAAGAA
GACCAAACAGCTGCCAGTCCTAGGAAAATGCTGTGAAGAGATCCAGCCACATCAGTGGAAGCCACCTATAGAGAG
AGAAGAACACCGGCTCCCATTCTGGTTAAAGGCCAGTCTGCCATCCATCCAGGAAGAACTGCGGCACATGGCTGA
TGGTGCTAGAGAGGTAGGAAATATGACTGGAACCACTGAGATCAACTCAGATCAAGGCCTAGAAAAAGACAACTC
AGAGTTGGGGAGTGAAACTCGGTACCCACTGCTATTGCCTAAGGGTGTAGTCCTGAAACTGAAGCCAGTTGCCGA
CCGTTTCCCCAAGAAGGCTTGGAGACAGAAGCGTTCATCAGTCCTGAAACCCCTCCTTATCCAACCCAGCCCCTC
TCTCCAGCCCAGCTTCAACCCTGGGAAAACACCAGCCCAATCAACTCATTCAGAAGCCCCTCCGAGCAAAATGGT
GCTCCGGATTCCTCACCCAATACAGCCAGCCACTGTTTTACAGACAGTTCCAGGTGTCCCTCCACTGGGGGTCAG
TGGAGGTGAGAGTTTTGAGTCTCCTGCAGCACTGCCTGCTATGCCCCCTGAGGCCAGGACAAGCTTCCCTCTGTC
TGAGTCCCAGACTTTGCTCTCTTCTGCCCCTGTGCCCAAGGTAATGATGCCCTCCCCTGCCTCTTCCATGTTTCG
AAAGCCATATGTGAGACGGAGACCCTCAAAAAGAAGGGGAGCCAGGGCCTTTCGCTGTATCAAACCTGCCCCTGT
TATCCACCCTGCATCTGTTATCTTCACTGTTCCTGCTACCACTGTGAAGATTGTGAGCCTTGGCGGTGGCTGTAA
CATGATCCAGCCTGTCAATGCGGCTGTGGCCCAGAGTCCCCAGACTATTCCCATCGCCACCCTCTTGGTTAACCC
TACTTCCTTCCCCTGTCCATTGAACCAGCCCCTTGTGGCCTCCTCTGTCTCACCCTTAATTGTTTCTGGCAATTC
TGTGAATCTTCCTATACCATCCACCCCTGAAGATAAGGCCCACATGAATGTGGACATTGCTTGTGCTGTGGCTGA
TGGGGAAAATGCCTTTCAGGGCCTAGAACCCAAATTAGAGCCCCAGGAACTATCTCCTCTCTCTGCTACTGTTTT
CCCCAAAGTGGAACATAGCCCAGGGCCTCCACCAGTCGATAAACAGTGCCAAGAAGGATTGTCAGAGAACAGTGC
CTATCGCTGGACCGTTGTGAAAACAGAGGAGGGAAGGCAAGCTCTGGAGCCGCTCCCTCAGGGCATCCAGGAGTC
TCTAAACAACTCTTCCCCTGGGGATTTAGAGGAAGTTGTCAAGATGGAACCTGAAGATGCTACAGAGGAAATCAG
TGGATTTCTT**TGA**GCTAGGAGAATAAGAGTCTGGAGACTGGGAGCCTTCACTTCGGCCTCCGATTGGTGGCGCAT
AGGGTGTAACCAATAGGAAACCCCTAAAGGGTACTTAAACCCCAGATTTTGCAACTGGGGCTCTTGAGCAGCTTG
CTTTAGCCTGCTCCCACTCTGTGGAATATACTTTTGCTTCAATAAATCTGTGCTTTTATTGC

FIGURE 1203

AGCGCAGT**ATG**GCGGGCGGGGCCCGGGAGGTGCTCACACTGCAGTTGGGACATTTTGCCGGTTTCGTGGGCGCGC
ACTGGTGGAACCAGCAGGATGCTGCGCTGGGCCGAGCGACCGATTCCAAGGAGCCCCCGGGAGAGCTGTGCCCCG
ACGTCCTGTATCGTACGGGCCGGACGCTGCACGGCCAGGAGACCTACACGCCGCGACTCATCCTCATGGATCTGA
AGGGTAGTTTGAGCTCCCTAAAAGAGGAAGGTGGACTCTACAGGGACAAACAGTTGGATGCTGCAATAGCATGGC
AGGGGAAGCTCACCACACACAAAGAGGAACTCTATCCCAAGAACCCTTATCTCCAAGACTTTCTGAGTGCAGAGG
GAGTGCTGAGTAGTGATGGTGTCTGGAGGGTCAAATCCATTCCCAATGGCAAAGGTTCCTCACCACTCCCCACCG
CTACAACTCCAAAACCACTTATCCCTACAGAGGCCAGCATCAGGGTCTGGTCAGACTTCCTCAGAGTCCATCTCC
ATCCCCGGAGCATCTGTATGATTCAGAAGTACAACCACGATGGGGAAGCAGGTCGGCTGGAGGCTTTTGGCCAAG
GGGAAAGTGTCCTAAAGGAACCCAAGTACCAGGAAGAGCTGGAGGACAGGCTGCATTTCTACGTGGAGGAATGTG
ACTACTTGCAGGGCTTCCAGATCCTGTGTGACCTGCACGATGGCTTCTCTGGGGTAGGCGCGAAGGCGGCAGAGC
TGCTACAAGATGAATATTCAGGGCGGGGAATAATAACCTGGGGCCTGCTACCTGGTCCCTACCATCGTGGGGAGG
CCCAGAGAAACATCTATCGTCTATTAAACACAGCTTTTGGTCTCGTGCACCTGACTGCTCACAGCTCTCTTGTCT
GCCCCTTGTCCTTGGGTGGGAGCCTGGGCCTGCGACCCGAGCCACCTGTCAGCTTCCCTTACCTGCATTATGATG
CC**TGA**GGCCAAGTGCCCATCTTGGTGTCTTCTTACAGGCCACTCTGCCCTTCCACTGCAGTGCCATCCTGGCTAC
AGCCCTGGACACAGTCACTGTTCCTTATCGCCTGTGTTCCTCTCCAGTTTCCATGGTTCATCTGGCTGACATGCT
GAGCTTCTGTGGGAAAAAGGTGGTGACAGCAGGAGCAATCATCCCTTTCCCCTTGGCTCCAGGCCAGTCCCTTCC
TGATTCCCTGATGCAGTTTGGAGGAGCCACCCCATGGACCCCACTGTCTGCATGTGGGGAGCCTTCTGGAACACG
TTGCTTTGCCCAGTCAGTGGTGCTGAGGGGTATAGACAGAGCATGCCACACAAGCCAGCTCACCCCAGGGACACC
TCCACCCTCTGCCCTTCATGCATGTACCACTGGGGAAGAAATCTTGGCTCAGTATTTACAACAGCAGCAGCCTGG
AGTCATGAGTTCTTCCCATCTGCTGCTGACTCCCTGCAGGGTGGCTCCTCCTTACCCCCACCTCTTCTCAAGCTG
CAGTCCACCGGGTATGGTTCTGGATGGTTCCCCCAAGGGAGCAGCAGTGGAGAGCATCCCAGTGTTTGGGGCACT
GTGTTCCTCTTCGTCCCTGCACCAGACCCTGGAAGCCTTGGCCAGAGACCTCACCAAACTCGACTTGCGGCGCTG
GGCCAGCTTCATGGATGCTGGAGTGGAGCACGATGACGTAGCAGAGCTGCTGCAGGAGCTACAAAGCCTGGCCCA
GTGCTACCAGGGTGGTGACAGCCTCGTGGACTAAAGTTCCCAGTGTGGGAGAAAGGAGCTAGTTTGCAATAAAAA
CAGCTGGATGCAGGAGCCCAGTGTCTTCATGCAGAGGAGCTCAATGTCGCGGGACTAGCTACACCAACATATGCA
CTTTTTACATTTAGAAACACTGTGATTAGACCACAGAACAATAAATATGTGCCATCAGACC

FIGURE 1204A

CGCCTCCCCTCAGTTTGCCCCCTTTAGCCTTCCACCTTTCCCTTCTCCTCTCTCGCATTTCCGCCAGTCAGCTTA
CCCGCTGGCCGCCTCCTGACAAGCGGGAGGGATCCGCCGTGGACCCAGGGAAGCGGAGGAGCCTGGCGGCCACCC
CCTCTTCCCCACTTCCCTGCACTCTCATCGCTCTCGGCCTCGGCCTCGGCCTCCGACACGAGAAAGATGCTGGTT
TCGAGTTTTGGAGATCCTTGTTTTTTATGGAACACAGTTCTGTAAAATTTTCATAAGATTCCTTGGCAATAACAT
ACGCTTGTG**ATG**GACCCTAGAAATACTGCTATGTTAGGATTGGGTTCTGATTCCGAAGGTTTTTCAAGAAAGAGT
CCTTCTGCCATCAGTACTGGCACATTGGTCAGTAAGAGAGAAGTAGAGCTAGAAAAAAACACAAAGGAGGAAGAG
GACCTTCGCAAACGGAATCGAGAAAGAAACATCGAAGCTGGGAAAGATGATGGTTTGACTGATGCACAGCAACAG
TTTTCAGTGAAAGAAACAAACTTTTCAGAGGGAAATTTAAAATTGAAAATTGGCCTCCAGGCTAAGAGAACTAAA
AAACCTCCAAAGAACTTGGAGAACTATGTATGTCGACCTGCCATAAAAACAACTATTAAGCACCCAAGGAAAGCA
CTTAAAAGTGGAAAGATGACGGATGAAAAGAATGAACACTGTCCTTCAAAACGAGACCCTTCAAAGTTGTACAAG
AAAGCAGATGATGTTGCAGCCATTGAATGCCAGTCTGAAGAAGTCATCCGTCTTCATTCACAGGGAGAAAACAAT
CCTTTGTCTAAGAAGCTGTCTCCAGTACACTCAGAAATGGCAGATTATATTAATGCAACGCCATCTACTCTTCTT
GGTAGCCGGGATCCTGATTTAAAGGACAGAGCATTACTTAATGGAGGAACTAGTGTAACAGAAAAGTTGGCACAG
CTGATTGCTACCTGTCCTCCTTCCAAGTCTTCCAAGACAAAACCGAAGAAGTTAGGAACTGGCACTACAGCAGGA
TTGGTTAGCAAGGATTTGATCAGGAAAGCAGGTGTTGGCTCTGTAGCTGGAATAATACATAAGGACTTAATAAAA
AAGCCAACCATCAGCACAGCAGTTGGATTGGTAACTAAAGATCCTGGGAAAAAGCCAGTGTTTAATGCAGCAGTA
GGATTGGTCAATAAGGACTCTGTGAAAAAACTGGGAACTGGCACTACAGCGGTATTCATTAATAAAAACTTAGGC
AAAAAGCCAGGAACTATCACTACAGTAGGACTGCTAAGCAAAGATTCAGGAAAGAAGCTAGGAATTGGTATTGTT
CCAGGTTTAGTGCATAAAGAGTCTGGCAAGAAGTTAGGACTTGGCACTGTGGTTGGACTGGTTAATAAAGATTTG
GGAAAGAAATTGGGTTCTACTGTTGGCCTAGTGGCCAAGGACTGTGCAAAGAAGATTGTAGCAAGTTCAGCAATG
GGATTGGTTAATAAGGACATTGGAAAGAAACTAATGAGTTGTCCTTTGGCAGGTCTGATCAGTAAAGATGCCATA
AACCTTAAAGCCGAAGCACTGCTCCCCACTCAGGAACCGCTTAAGGCTTCTTGTAGTACAAACATCAATAATCAG
GAAAGTCAGGAACTTTCTGAATCCCTGAAAGATAGTGCCACCAGCAAAACTTTTGAAAAGAATGTTGTACGGCAG
AATAAAGAAAGCATATTGGAAAAGTTCTCAGTACGAAAAGAAATCATTAATTTGGAGAAAGAAATGTTTAATGAA
GGAACATGCATTCAGCAAGACAGTTTCTCATCCAGTGAAAAGGGATCTTATGAAACCTCAAAGCATGAAAAGCAG
CCTCCTGTATATTGCACTTCTCCGGACTTTAAAATGGGAGGTGCTTCTGATGTATCTACCGCTAAATCCCCATTC
AGTGCAGTAGGAGAAAGCAATCTCCCTTCCCCATCACCTACTGTATCTGTTAATCCTTTAACCAGAAGTCCCCCT
GAAACTTCTTCACAGTTGGCTCCTAATCCATTACTTTTAAGTTCTACTACAGAACTAATCGAAGAAATTTCTGAA
TCTGTTGGAAAGAACCAGTTTACTTCTGAAAGTACCCACTTGAACGTTGGTCATAGGTCAGTTGGTCATAGTATA
AGTATTGAATGTAAAGGGATTGATAAAGAGGTAAATGATTCAAAAACTACCCATATAGATATTCCAAGAATAAGC
TCTTCCCTTGGAAAAAAGCCAAGTTTGACTTCTGAATCCAGCATTCATACTATTACTCCTTCAGTTGTTAACTTC
ACTAGTTTATTTAGTAATAAGCCTTTTTTAAAACTGGGTGCAGTATCTGCATCAGACAAACACTGCCAAGTTGCT
GAAAGCCTAAGTACTAGTTTGCAGTCCAAACCATTAAAAAAAAGAAAAGGAAGAAAACCTCGGTGGACTAAAGTG
GTGGCAAGAAGCACATGCCGGTCTCCAAAAGGGCTAGAATTAGAAAGATCAGAGCTTTTTAAAAACGTTTCATGT
AGCTCACTATCAAATAGTAATTCTGAGCCAGCCAAGTTTATGAAAAACATTGGACCCCCTTCATTTGTAGATCAT
GACTTCCTTAAACGCCGATTGCCAAAGTTGAGCAAATCCACAGCTCCATCTCTTGCTCTCTTAGCTGATAGTGAA
AAACCATCTCATAAGTCTTTTGCTACTCACAAACTATCCTCCAGTATGTGTGTCTCTAGTGACCTTTTGTCTGAT
ATTTATAAGCCCAAAAGAGGAAGGCCTAAATCTAAGGAGATGCCTCAACTGGAAGGGCCACCTAAAAGGACTTTA
AAAATCCCTGCTTCTAAAGTGTTTTCTTTACAGTCTAAGGAAGAACAAGAACCCCCAATTTTACAGCCAGAAATT
GAAATCCCTTCCTTCAAACAAGGTCTGTCTGTGTCTCCTTTTCCAAAAAAGAGAGGCAGGCCTAAGAGGCAAATG
AGGTCACCAGTCAAGATGAAGCCACCTGTACTGTCAGTGGCTCCATTTGTTGCCACTGAAAGTCCAAGCAAGCTA
GAATCTGAAAGTGACAACCATAGAAGTAGCAGTGATTTCTTTGAGAGCGAGGATCAACTTCAGGATCCAGATGAC
CTAGATGACAGTCATAGGCCAAGTGTCTGTAGTATGAGTGACCTTGAGATGGAACCAGATAAAAAAATTACCAAG
AGAAACAATGGACAATTAATGAAAACAATTATCCGCAAAATAAATAAAATGAAGACTTTAAAGAGAAAGAAACTG
TTGAATCAGATTCTTTCAAGTTCTGTAGAATCAAGTAATAAAGGGAAAGTGCAATCCAAACTCCATAATACGGTA
TCAAGTCTTGCTGCCACATTTGGCTCTAAATTGGGCCAACAGATAAATGTCAGCAAGAAAGGAACCATTTATATA
GGAAAGAGAAGAGGTCGCAAACCAAAAACTGTCTTAAATGGTATTCTTTCTGGTAGTCCTACTAGCCTTGCTGTT
CTTGAGCAAACAGCTCAACAGGCAGCTGGGTCAGCATTAGGACAGATTCTTCCCCCATTACTGCCTTCATCTGCT

FIGURE 1204B

AGTAGTTCTGAGATTCTTCCATCACCTATTTGCTCTCAGTCTTCTGGGACTAGTGGAGGTCAGAGCCCTGTAAGT
AGTGATGCAGGTTTTGTTGAACCCAGTTCAGTGCCATATTTGCATTTACACTCCAGACAGGGCAGTATGATTCAG
ACTCTTGCAATGAAGAAGGCCTCAAAGGGGAGGAGGCGGTTATCTCCTCCTACTTTGTTGCCAAATTCTCCTTCG
CACTTGAGTGAACTCACATCTCTAAAAGAAGCTACTCCTTCCCCAATCAGTGAGTCTCATAGTGATGAGACCATT
CCCAGTGATAGTGGAATTGGAACAGATAATAACAGCACATCAGACAGGGCAGAGAAATTTTGTGGGCAAAAAAAG
AGGAGGCATTCTTTTGAGCATGTTTCTCTGATTCCCCCTGAAACCTCTACAGTGCTAAGCAGTCTTAAAGAAAAA
CATAAACACAAATGTAAGCGCAGGAATCATGATTACCTCAGCTATGACAAGATGAAAAGGCAGAAACGAAAACGG
AAAAAGAAATATCCCCAGCTTCGAAATAGACAGGATCCAGACTTTATTGCAGAGCTGGAGGAACTAATAAGTCGC
CTAAGTGAAATTCGGATCACTCATCGAAGTCATCATTTTATCCCCCGAGATCTTCTGCCAACTATCTTTCGAATC
AACTTTAATAGTTTCTATACACATCCTTCTTTCCCCTTAGACCCTTTGCACTACATTCGAAAACCTGACTTAAAA
AAGAAAAGAGGGAGACCCCCTAAGATGAGGGAGGCAATGGCTGAAATGCCTTTTATGCACAGCCTTAGTTTTCCT
CTTTCTAGTACTGGATTCTATCCATCTTATGGTATGCCTTACTCTCCTTCACCCCTTACAGCTGCTCCCATAGGA
TTAGGTTACTATGGAAGGTATCCTCCCACTCTTTATCCACCTCCTCCATCTCCTTCTTTCACCACGCCACTTCCA
CCTCCTTCCTATATGCATGCTGGTCATTTACTTCTCAATCCTGCCAAATACCATAAGAAAAAGCATAAGCTACTT
CGACAGGAGGCCTTTCTTACAACCAGCAGGACTCCCCTCCTTTCCATGAGTACCTACCCCAGTGTTCCTCCTGAG
ATGGCCTATGGTTGGATGGTTGAGCACAAACACAGGCACCGTCACAAACACAGAGAACACCGTTCTTCTGAACAA
CCCCAGGTTTCTATGGACACTGGCTCTTCCCGATCTGTCCTGGAATCTTTGAAGCGCTATAGATTTGGAAAGGAT
GCTGTTGGAGAGCGATATAAGCATAAGGAAAAGCACCGTTGTCACATGTCCTGCCCTCATCTCTCTCCTTCAAAA
AGCTTAATAAACAGAGAGGAACAGTGGGTCCACCGAGAGCCTTCAGAATCTAGTCCATTGGCCTTGGGATTGCAG
ACACCTTTACAGATTGACTGTTCAGAAAGTTCTCCAAGCTTATCCCTTGGAGGATTCACTCCCAACTCTGAGCCA
GCCAGCAGTGATGAACATACAAACCTTTTCACAAGTGCAATAGGCAGCTGCAGAGTTTCAAACCCTAACTCCAGT
GGCCGGAAGAAATTAACTGACAGCCCTGGACTCTTTTCTGCACAGGACACTTCACTAAATCGGCTTCACAGAAAG
GAGTCACTGCCTTCTAACGAAAGGGCAGTACAGACTTTGGCAGGCTCCCAGCCAACCTCTGATAAACCCTCCCAG
CGGCCATCAGAGAGCACAAATTGTAGCCCTACCCGGAAAAGGTCTTCATCTGAGAGTACTTCTTCAACAGTAAAC
GGAGTTCCCTCTCGAAGTCCAAGATTAGTTGCTTCTGGGGATGACTCTGTGGATAGTCTGCTGCAGCGGATGGTA
CAAAATGAGGACCAAGAGCCCATGGAGAAAAGTATTGATGCTGTGATTGCAACTGCCTCTGCACCACCTTCTTCC
AGTCCAGGCCGTAGCCACAGCAAGGACCGAACCCTGGGAAAACCAGACAGCCTTTTAGTGCCTGCAGTCACAAGT
GACTCTTGCAATAATAGCATCTCACTCCTATCTGAAAAGTTGACAAGCAGCTGTTCCCCCCATCATATCAAGAGA
AGTGTAGTGGAAGCTATGCAACGCCAAGCTCGGAAAATGTGCAATTACGACAAAATCTTGGCCACAAAGAAAAAC
CTAGACCATGTCAATAAAATCTTAAAAGCCAAAAAACTTCAAAGGCAGGCCAGGACAGGGAATAACTTTGTGAAA
CGTAGGCCAGGTCGACCTCGGAAATGTCCCCTTCAGGCTGTCGTATCAATGCAAGCATTCCAGGCTGCTCAGTTT
GTCAACCCAGAATTGAACAGAGACGAGGAAGGAGCAGCACTGCACCTCAGTCCTGACACAGTTACAGATGTAATT
GAGGCTGTTGTTCAGAGTGTAAATCTGAACCCAGAACATAAAAAGGGGTTGAAGAGAAAAGGTTGGCTATTGGAA
GAACAGACCAGAAAAAAGCAGAAGCCATTACCAGAGGAAGAAGAGCAAGAGAATAATAAAAGCTTTAATGAAGCA
CCAGTTGAGATTCCCAGTCCTTCTGAAACCCCAGCTAAACCTTCTGAACCTGAAAGTACCTTGCAGCCTGTGCTT
TCTCTCATCCCAAGGGAAAAGAAGCCCCCACGTCCCCCAAAGAAGAAGTATCAGAAAGCAGGGCTGTATTCTGAC
GTTTACAAAACTACAGACCCAAAGAGTCGATTGATCCAATTAAAGAAAGAGAAGCTGGAGTATACTCCAGGAGAG
CATGAATATGGATTATTTCCAGCGCCCATTCATGTTGTGTTTTTTGTTTCAGGAAAGTATCTAAGACAAAAGAGA
ATTGACTTCCAGCTTCCTTATGATATCCTTTGGCAGTGGAAACACAATCAGCTATACAAAAAGCCAGATGTCCCA
CTATATAAGAAAATTCGTTCAAATGTCTACGTTGATGTCAAACCCCTTTCTGGTTACGAAGCTACCACCTGTAAC
TGTAAGAAGCCAGATGATGACACCAGGAAGGGCTGTGTTGATGACTGCCTCAATAGAATGATCTTTGCTGAGTGT
TCCCCCAACACTTGCCCATGTGGCGAGCAATGCTGTAACCAGAGGATACAGAGGCATGAATGGGTGCAATGTCTA
GAACGATTTCGAGCTGAGGAAAAAGGTTGGGGAATCAGAACCAAAGAGCCCCTAAAAGCTGGGCAGTTCATCATT
GAATACCTAGGGGAGGTCGTCAGTGAACAGGAGTTCAGGAACAGGATGATTGAGCAGTATCATAATCACAGTGAC
CACTACTGCCTGAACCTGGATAGTGGGATGGTGATTGACAGTTACCGCATGGGAAATGAGGCCCGATTCATCAAC
CATAGCTGTGACCCAAATTGTGAAATGCAGAAATGGTCTGTTAATGGAGTATACCGGATTGGACTCTATGCTCTT
AAAGACATGCCAGCTGGGACTGAACTCACTTATGATTATAACTTTCATTCCTTCAATGTGGAAAAACAGCAACTT
TGTAAGTGTGGCTTTGAGAAATGTCGAGGAATCATCGGAGGCAAGAGTCAGCGTGTGAATGGACTCACCAGCAGC

FIGURE 1204C

AAAAACAGCCAGCCCATGGCCACACACAAAAAATCTGGACGGTCAAAAGAGAAGAGAAAGTCTAAGCACAAGCTG
AAGAAAAGGAGAGGCCATCTCTCTGAGGAACCCAGTGAAAATATCAACACCCCAACTAGATTGACCCCCCAATTA
CAGATGAAGCCAATGTCCAATCGTGAAAGGAACTTTGTGTTAAAGCATCATGTATTCTTGGTCCGAAACTGGGAG
AAGATTCGTCAAAAACAGGAGGAAGTAAAGCACACCAGTGATAATATTCACTCAGCATCATTATATACCCGTTGG
AATGGGATCTGCCGAGATGATGGGAATATCAAGTCTGATGTCTTCATGACCCAGTTCTCTGCCCTGCAGACAGCT
CGATCTGTTCGAACAAGACGGTTGGCAGCTGCAGAGGAAAATATTGAAGTGGCTCGGGCAGCCCGCCTAGCCCAG
ATCTTCAAAGAAATTTGTGATGGTATCATCTCTTATAAAGATTCTTCCCGGCAAGCACTGGCAGCTCCACTTTTG
AACCTTCCCCCAAAGAAAAAGAATGCTGATTATTATGAGAAGATCTCTGATCCCCTAGATCTTATCACCATAGAG
AAGCAGATCCTCACTGGTTACTATAAGACAGTGGAAGCTTTTGATGCTGACATGCTCAAAGTCTTTCGGAATGCT
GAGAAGTACTATGGGCGTAAATCCCCAGTTGGGAGAGATGTTTGTCGTCTACGAAAGGCCTATTACAATGCCCGG
CATGAGGCATCAGCCCAGATTGATGAGATTGTGGGAGAGACAGCAAGTGAGGCAGACAGCAGTGAGACCTCAGTC
TCTGAAAAGGAGAATGGGCATGAGAAGGACGACGATGTTATTCGCTGTATCTGTGGCCTCTACAAGGATGAAGGT
CTCATGATCCAGTGTGACAAGTGCATGGTATGGCAGCACTGTGATTGTATGGGAGTGAACTCAGATGTGGAGCAC
TACCTTTGTGAGCAGTGTGACCCAAGGCCTGTGGACAGGGAGGTTCCCATGATCCCTCGGCCCCACTATGCCCAA
CCTGGCTGTGTCTACTTCATCTGTTTGCTCCGAGATGACTTGCTGCTTCGTCAGGGTGACTGTGTGTATCTGATG
AGGGATAGTCGGCGCACCCCTGATGGCCACCCGGTCCGTCAGTCCTATCGACTGTTATCTCACATTAACCGAGAT
AAACTTGACATCTTTCGCATTGAGAAGCTTTGGAAGAATGAAAAAGAGGAACGGTTTGCCTTTGGTCACCATTAT
TTCCGTCCCCACGAAACACACCACTCTCCATCCCGTCGGTTCTATCATAATGAACTATTTCGGGTGCCACTCTAT
GAGATCATTCCCTTGGAGGCTGTAGTGGGGACCTGCTGTGTGTTGGACCTTTATACGTATTGTAAAGGGAGACCC
AAAGGAGTAAAGGAGCAAGATGTGTACATCTGTGATTATCGGCTTGACAAGTCAGCACACCTGTTTTACAAGATC
CACCGGAACCGCTATCCTGTCTGCACCAAACCCTATGCTTTTGATCACTTCCCCAAGAAGCTCACTCCCAAAAAA
GATTTCTCGCCTCATTACGTCCCAGACAACTACAAGAGGAATGGAGGACGATCATCCTGGAAGTCTGAGCGCTCA
AAGCCACCCCTAAAAGACTTGGGCCAGGAGGATGATGCTCTACCCTTGATTGAAGAGGTTCTAGCCAGTCAAGAG
CAAGCAGCCAATGAGATACCCAGCCTGGAGGAGCCAGAACGGGAAGGGGCCACTGCTAACGTCAGTGAGGGTGAA
AAAAAAACAGAGGAAAGTAGTCAAGAACCCCAGTCAACCTGTACCCCTGAGGAACGACGGCATAACCAACGGGAA
CGACTCAACCAGATCTTGCTCAATCTCCTTGAAAAAATCCCTGGAAAAAATGCCATTGATGTGACCTACTTGCTG
GAGGAAGGATCAGGCAGGAAACTGCGAAGGCGTACTTTGTTTATCCCAGAAAACAGCTTTCGAAAG**TGA**CCCTCA
AAGAATGAGAACCTCAAGCATCTGGGATCCAGTGGAGCTAATCAGTCCTGCCTCCTGCTCTCTGGGTATAGACAG
GGGTGGGAAGGGTCCATCTGGGCAAGGGGAATGGGGCCATGTTGTTGACATTAGGTACTTAATAAGCCTTGGAGC
TAGTGGAGAGGGAGAGGAAAGGGTTCTGTCCAAGACAGTTCAGGTTAATTAATTTTCTTCTCCATTGCTTCACCT
TAAGGGTTAATAATGTAGAGAGGAGGGAGGACCACATTGATGACCAGAACCTACTGGTACTTTATAGCATTTGCC
CCACCCCACAGCTTAGGTTTTTCTGTCATCCTCAGATCCCACAGGCATTGCGAAGAAGCTGCTTCCTATACCCAG
GTATAACTCAAAATCCAAAGGGATAGGGCCAGGATCCCTATTCCTACCCCATCTATTCTCTGTTGGCTCCAAGAG
CTACCCCAGAGACCTTAAACAGAAACAGTAGCTGAGGCTTCTTCCTAGATACCTGACTAGGGAAGTTTGTCTCTC
CTTTCTTGCCCAACCAGGTCAAAGTAAAATGTGAGTTGACAGCTCAAAGCACTTGTAACTGCTGCCCCCTCCCTA
CCTCTACTCCCCAAAATGGAATCATGGGATAGGGAAGGCCCCCATGGGGTCAGAAGGGCACGGTAGTTCTTGCAA
TTATTTTTGTTTTACCCTTCATAACC

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FIGURE 1205

AGGTGAGAGAGGATGTGTGCTGGGCCTTGGAGGAAGGGGGCCGAGACCGGGCCTTACTTCTGTAACGATACTGTG
AGGCATCGGAAGGCCAGCCTGTTGTGTCCGTTTTGAAGG**ATG**CCCCTGTCCCGCTGGTTGAGATCTGTGGGGGTC
TTCCTGCTGCCAGCCCCCTACTGGGCACCCCGGGAGAGGTGGCTGGGTTCCCTACGGCGGCCCTCCCTGGTGCAC
GGGTACCCAGTCCTGGCCTGGCACAGTGCCCGCTGCTGGTGCCAAGCGTGGACAGAGGAACCTCGAGCCCTTTGC
TCCTCCCTCAGAATGAACGGAGACCAGAATTCAGATGTTTATGCCCAAGAAAAGCAGGATTTCGTTCAGCACTTC
TCCCAGATCGTTAGGGTGCTGACTGAGGATGAGATGGGGCACCCAGAGATAGGAGATGCTATTGCCCGGCTCAAG
GAGGTCCTGGAGTACAATGCCATTGGAGGCAAGTATAACCGGGGTTTGACGGTGGTAGTAGCATTCCGGGAGCTG
GTGGAGCCAAGGAAACAGGATGCTGATAGTCTCCAGCGGGCCTGGACTGTGGGCTGGTGTGTGGAACTGCTGCAA
GCTTTCTTCCTGGTGGCAGATGACATCATGGATTCATCCCTTACCCGCCGGGGACAGATCTGCTGGTATCAGAAG
CCGGGCGTGGGTTTGGATGCCATCAATGATGCTAACCTCCTGGAAGCATGTATCTACCGCCTGCTGAAGCTCTAT
TGCCGGGAGCAGCCCTATTACCTGAACCTGATCGAGCTCTTCCTGCAGAGTTCCTATCAGACTGAGATTGGGCAG
ACCCTGGACCTCCTCACAGCCCCCCAGGGCAATGTGGATCTTGTCAGATTCACTGAAAAGAGGTACAAATCTATT
GTCAAGTACAAGACAGCTTTCTACTCCTTCTACCTTCCTATAGCTGCAGCCATGTACATGGCAGGAATTGATGGC
GAGAAGGAGCACGCCAATGCCAAGAAGATCCTGCTGGAGATGGGGGAGTTCTTTCAGATTCAGGATGATTACCTT
GACCTCTTTGGGGACCCCAGTGTGACCGGCAAAATTGGCACTGACATCCAGGACAACAAATGCAGCTGGCTGGTG
GTTCAGTGTCTGCAACGGGCCACTCCAGAACAGTACCAGATCCTGAAGGAAAATTACGGGCAGAAGGAGGCTGAG
AAAGTGGCCCGGGTGAAGGCGCTATATGAGGAGCTGGATCTGCCAGCAGTGTTCTTGCAATATGAGGAAGACAGT
TACAGCCACATTATGGCTCTCATTGAACAGTACGCAGCACCCCTGCCCCCAGCCGTCTTTCTGGGGCTTGCGCGC
AAAATCTACAAGCGGAGAAAG**TGA**CCTAGAGATTGCAAGGGCGGGGAGAGGAGGCTCTCAATAAATAATCGTGTA
ACCTT

FIGURE 1206

CATTCCATGGTCCCGCAGCCCCAGGCCCACACTGAAAGC**ATG**TCGATCCAGGAGAACATATCATCCCTGCAGCTT
CGGTCATGGGTCTCTAAGTCCCAAAGAGACTTAGCAAAGTCCATCCTGATTGGGGCTCCAGGAGGGCCAGCGGGG
TATCTGCGGCGGGCCAGTGTGGCCCAACTGACCCAGGAGCTGGGCACTGCCTTCTTCCAGCAGCAGCAGCTGCCA
GCTGCTATGGCAGACACCTTCCTGGAACACCTCTGCCTACTGGACATTGACTCCGAGCCCGTGGCTGCTCGCAGT
ACCAGCATCATTGCCACCATCGGGCCAGCATCTCGCTCCGTGGAGCGCCTCAAGGAGATGATCAAGGCCGGGATG
AACATTGCGCGACTCAACTTCTCCCACGGCTCCCACGAGTACCATGCTGAGTCCATCGCCAACGTCCGGGAGGCG
GTGGAGAGCTTTGCAGGTTCCCCACTCAGCTACCGGCCCGTGGCCATCGCCCTGGACACCAAGGGACCGGAGATC
CGCACTGGGATCCTGCAGGGGGGTCCAGAGTCGGAAGTGGAGCTGGTGAAGGGCTCCCAGGTGCTGGTGACTGTG
GACCCCGCGTTCCGGACGCGGGGGAACGCGAACACCGTGTGGGTGGACTACCCCAATATTGTCCGGGTCGTGCCG
GTGGGGGGCCGCATCTACATTGACGACGGGCTCATCTCCCTAGTGGTCCAGAAAATCGGCCCAGAGGGACTGGTG
ACCCAAGTGGAGAACGGCGGCGTCCTGGGCAGCCGGAAGGGCGTGAACTTGCCAGGGGCCCAGGTGGACTTGCCC
GGGCTGTCCGAGCAGGACGTCCGAGACCTGCGCTTCGGGGTGGAGCATGGGGTGGACATCGTCTTTGCCTCCTTT
GTGCGGAAAGCCAGCGACGTGGCTGCCGTCAGGGCTGCTCTGGGTCCGGAAGGACACGGCATCAAGATCATCAGC
AAAATTGAGAACCACGAAGGCGTGAAGAGGTTTGATGAAATCCTGGAGGTGAGCGACGGCATCATGGTGGCACGG
GGGGACCTAGGCATCGAGATCCCAGCAGAGAAGGTTTTCCTGGCTCAGAAGATGATGATTGGGCGCTGCAACTTG
GCGGGCAAGCCTGTTGTCTGTGCCACACAGATGCTGGAGAGCATGATTACCAAGCCCCGGCCAACGAGGGCAGAG
ACAAGCGATGTCGCCAATGCTGTGCTGGATGGGGCTGACTGCATCATGCTGTCAGGGGAGACTGCCAAGGGCAAC
TTCCCTGTGGAAGCGGTGAAGATGCAGCATGCGATTGCCCGGGAGGCAGAGGCCGCAGTGTACCACCGGCAGCTG
TTTGAGGAGCTACGTCGGGCAGCGCCACTAAGCCGTGATCCCACTGAGGTCACCGCCATTGGTGCTGTGGAGGCT
GCCTTCAAGTGCTGTGCTGCTGCCATCATTGTGCTGACCACAACTGGCCGCTCAGCCCAGCTTCTGTCTCGGTAC
CGACCTCGGGCAGCAGTCATTGCTGTCACCCGCTCTGCCCAGGCTGCCCGCCAGGTCCACTTATGCCGAGGAGTC
TTCCCCTTGCTTTACCGTGAACCTCCAGAAGCCATCTGGGCAGATGATGTAGATCGCCGGGTGCAATTTGGCATT
GAAAGTGGAAAGCTCCGTGGCTTCCTCCGTGTTGGAGACCTGGTGATTGTGGTGACAGGCTGGCGACCTGGCTCC
GGCTACACCAACATCATGCGGGTGCTAAGCATATCC**TGA**GACGCCCCTCCCTCCTCTGGCCCAGCCTACCCTTGT
ACCCCATCCCTTCCTCCCCAGTCTACGTTCTCCAGCCCACACCCCTCCAAAGCCCCACCTTTAAGTCCTCTCTTC
TCTATTCCTGACCCTCCCTACCTGAGGCCTATCTGAGACTATAACTGTCATCTAGCCCCTTCGAGGTTGCCCCTT
CCCCATCTCCATTTCACACAGGTCCTGAAAGTCTGTGTCCAATTATGCACTGGCCACCCAACAGCACCAATTGTA
CATTCCCTGCATCC

FIGURE 1207

TCCCAGGGTCCCGGGTTGGGGGGGTGGAGCAGCATTTCGTCGCCGCGGGGGTGCCGGGACTCCGGCCGCAGTGTC
GCCGCCATCACGGACTTCCTGTGGGACAAGCGCACGGGCCTCGCCGCCAGAACG**ATG**CCGCATCCTCGAAGGTAC
CACTCCTCAGAGCGAGGCAGCCGGGGGAGTTACCGTGAACACTATCGGAGCCGAAAGCATAAGCGACGAAGAAGT
CGCTCCTGGTCAAGTAGTAGTGACCGGACACGACGGCGTCGGCGAGAGGACAGCTACCATGTCCGTTCTCGAAGC
AGTTATGATGATCGTTCGTCCGACCGGAGGGTGTATGACCGGCGATACTGTGGCAGCTACAGACGCAACGATTAT
AGCCGGGATCGGGGAGATGCCTACTATGACACAGACTATCGGCATTCCTATGAATATCAGCGGGAGAACAGCAGT
TACCGCAGCCAGCGCAGCAGCCGGAGGAAGCACAGACGGCGGAGGAGGCGCAGCCGGACATTTAGCCGCTCATCT
TCGCAGCACAGCAGCCGGAGAGCCAAGAGTGTAGAGGACGACGCTGAGGGCCACCTCATCTACCACGTCGGGGAC
TGGCTACAAGAGCGATATGAAATCGTTAGCACCTTAGGAGAGGGGACCTTCGGCCGAGTTGTACAATGTGTTGAC
CATCGCAGGGGTGGGGCTCGAGTTGCCCTGAAGATCATTAAGAATGTGGAGAAGTACAAGGAAGCAGCTCGACTT
GAGATCAACGTGCTAGAGAAAATCAATGAGAAAGACCCTGACAACAAGAACCTCTGTGTCCAGATGTTTGACTGG
TTTGACTACCATGGCCACATGTGTATCTCCTTTGAGCTTCTGGGCCTTAGCACCTTCGATTTCCTCAAAGACAAC
AACTACCTGCCCTACCCCATCCACCAAGTGCGCCACATGGCCTTCCAGCTGTGCCAGGCTGTCAAGTTCCTCCAT
GATAACAAGCTGACACATACAGACCTCAAGCCTGAAAATATTCTGTTTGTGAATTCAGACTATGAGCTCACCTAC
AACCTAGAGAAGAAGCGAGATGAGCGCAGTGTGAAGAGCACAGCTGTGCGGGTGGTAGACTTTGGCAGTGCCACC
TTTGACCATGAGCACCATAGCACCATTGTCTCCACTCGCCATTACCGAGCACCAGAAGTCATCCTTGAGTTGGGC
TGGTCACAGCCTTGTGATGTGTGGAGTATAGGCTGCATCATCTTTGAATACTATGTGGGATTCACCCTCTTCCAG
ACCCATGACAACAGAGAGCATCTAGCCATGATGGAAAGGATCTTGGGTCCTATCCCTTCCCGGATGATCCGAAAG
ACAAGAAAGCAGAAATATTTTTACCGGGGTCGCCTGGATTGGGATGAGAACACATCAGCTGGGCGCTATGTTCGT
GAGAACTGCAAACCGCTGCGGCGGTATCTGACCTCAGAGGCAGAGGAACACCACCAGCTCTTCGATCTGATTGAA
AGCATGCTAGAGTATGAACCAGCTAAGCGGCTGACCTTGGGTGAAGCCCTTCAGCATCCTTTCTTCGCCCGCCTT
CGGGCTGAGCCGCCCAACAAGTTGTGGGACTCCAGTCGGGATATCAGTCGG**TGA**CGATCAGGCCCTGGGCCCCCC
TGCATCTTTTATAGCAGTGGGTGTCCAGTCCAGGACACTGGTGCTTTTTTATACAAGAGAACGAGCCAGAGTTCA
CTCCTTCCTCCTGGCTCTCTATATACCTGTGAATATGTGAAATAGTGTAAATATGAAAGAACTTGTACCTATCAC
TTCAACCCCTGCCTTGTACATAATACTATTCCATCCACACAGTTTCCACCCTCACCTGCCCCCTCATACGGAGTT
GGATGGGGGCCGAGTGAGGTAACCAGGTGGCATCTACCCCATGTTTTATAAGGAATTTTGTACAGTCTTTGTGAA
ATAAAATAACGTGCTTCATTTGA

FIGURE 1208

GGTAGTTGGTTGTGGGCACTGGGTTAGAGGTATCACGTGGGGGCACTTTCGTCTTAGCTTTTGGACAAGACGCAG
GCGCAACCCACGGCTGCTGCGGGGATCCTTGTGGCCCTTCCGGTCGGTGGAACCAATCCGTGCACAGAGAAGCGG
GGCGAACTGAGGCGAGTGAAGTGGACTCTGAGGGCTACCGCTACCGCCACTGCTGCGGCAGGGGCGTGGAGGGCA
GAGGGCCGCGGAGGCCGCAGTTGCAAAC**ATG**GCTCAGAGCAGAGACGGCGGAAACCCGTTCGCCGAGCCCAGCGA
GCTTGACAACCCCTTTCAGGACCCAGCTGTGATCCAGCACCGACCCAGCCGGCAGTATGCCACGCTTGACGTCTA
CAACCCTTTTGAGACCCGGGAGCCACCACCAGCCTATGAGCCTCCAGCCCCTGCCCCATTGCCTCCACCCTCAGC
TCCCTCCTTGCAGCCCTCGAGAAAGCTCAGCCCCACAGAACCTAAGAACTATGGCTCATACAGCACTCAGGCCTC
AGCTGCAGCAGCCACAGCTGAGCTGCTGAAGAAACAGGAGGAGCTCAACCGGAAGGCAGAGGAGTTGGACCGAAG
GGAGCGAGAGCTGCAGCATGCTGCCCTGGGGGGCACAGCTACTCGACAGAACAATTGGCCCCCTCTACCTTCTTT
TTGTCCAGTTCAGCCCTGCTTTTTCCAGGACATCTCCATGGAGATCCCCCAAGAATTTCAGAAGACTGTATCCAC
CATGTACTACCTCTGGATGTGCAGCACGCTGGCTCTTCTCCTGAACTTCCTCGCCTGCCTGGCCAGCTTCTGTGT
GGAAACCAACAATGGCGCAGGCTTTGGGCTTTCTATCCTCTGGGTCCTCCTTTTCACTCCCTGCTCCTTTGTCTG
CTGGTACCGCCCCATGTATAAGGCTTTCCGGAGTGACAGTTCATTCAATTTCTTCGTTTTCTTCTTCATTTTCTT
CGTCCAGGATGTGCTCTTTGTCCTCCAGGCCATTGGTATCCCAGGTTGGGGATTCAGTGGCTGGATCTCTGCTCT
GGTGGTGCCGAAGGGCAACACAGCAGTATCCGTGCTCATGCTGCTGGTCGCCCTGCTCTTCACTGGCATTGCTGT
GCTAGGAATTGTCATGCTGAAACGGATCCACTCCTTATACCGCCGCACAGGTGCCAGCTTTCAGAAGGCCCAGCA
AGAATTTGCTGCTGGTGTCTTCTCCAACCCTGCGGTGCGAACCGCAGCTGCCAATGCAGCCGCTGGGGCTGCTGA
AAATGCCTTCCGGGCCCCG**TGA**CCCCTGACTGGGATGCCCTGGCCCTGCTACTTGAGGGAGCTGACTTAGCTCCC
GTCCCTAAGGTCTCTGGGACTTGGAGAGACATCACTAACTGATGGCTCCTCCGTAGTGCTCCCAATCCTATGGCC
ATGACTGCTGAACCTGACAGGCGTGTGGGGAGTTCACTGTGACCTAGTCCCCCCATCAGGCCACACTGCTGCCAC
CTCTCACACGCCCCAACCCAGCTTCCCTCTGCTGTGCCACGGCTGTTGCTTCGGTTATTTAAATAAAAAGAAAGT
GGAACTGGAACTGAC

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FIGURE 1209

CCTGCGGCAGCCGGAGCTCGGGGAGCGGAGCGTGGTGGGGAGGGGAGCGGGACAGGCGACACAGGAGACAGCGGC
GCCGCGGCCTCTCCCCACCAGGCGGCCCCGGATCCTACTGGACGCCCTGAGGGCACACCGACCGCGCCTCTAGAG
TCACCCCACGCCGACCCCTCCCCTCTTCTCTAGACTTATTTCCATCCTTCCCGCTTTTACCCTCCCCACCCCTCC
CTGGGCTCCAGGCCGCCGCCCCCTCCTCACTCCTGGACCGGCCCTTCTCGGTGCCCCTCTTCCCTAGGGAGATGC
GATGAGCCGGTGCCCCCGCGTCCTCATCGTCGCCCCGGGCACGGTGCCCGTCCAGTGCCCGTGGTGGGGAGGGAG
CACTCCGCGGTCCCTCCGTGACGCCCCTCGCTTGGCCCCCCCCACAGCTGGCGTCCCTCGGCCATGCCCCAGGGG
ACCCAGCCAGGGGGTGGGCTCTAGAGCGAGTGGGGTGGAGAGGAGAAAGGACGGGGCCTTGGGCGCCTCTGAGAT
GCTCCCAAGTGCCAGGGAGGGCCGAGCGAGGCGCAGGCAACCGGGCAGCAGGC**ATG**ATGCCCTCGCCTAGTGACT
CCAGCCGCTCGCTGACCAGCCGGCCCAGCACCAGGGGCCTTACCCACCTCCGCCTCCACCGACCCTGGCTGCAGG
CCCTGCTTACGCTGGGGCTGGTCCAAGTGCTCCTGGGCATCCTGGTGGTCACCTTCAGCATGGTGGCCTCTTCCG
TCACCACCACCGAGAGCATCAAGAGGTCCTGCCCGTCTTGGGCTGGGTTCTCGCTGGCGTTCTCCGGGGTGGTTG
GCATTGTGTCCTGGAAGCGGCCATTCACTCTAGTGATCTCCTTCTTCTCCTTGCTTTCGGTGCTCTGTGTCATGC
TTAGCATGGCTGGCTCTGTTCTCTCCTGTAAGAATGCTCAACTGGCCCGAGACTTCCAACAGTGCTCTCTGGAAG
GAAAGGTCTGTGTGTGCTGTCCCTCTGTTCCCCTCCTCCGGCCCTGTCCAGAGTCGGGGCAGGAACTGAAAGTTG
CCCCTAACTCCACCTGTGATGAAGCCCGAGGGGCCCTCAAGAACCTGCTCTTCAGCGTCTGTGGGCTCACCATTT
GTGCCGCTATAATCTGTACACTCTCTGCTATTGTCTGCTGCATCCAAATCTTCTCCCTGGACCTCGTGCATACGC
AGCTGGCCCCTGAGCGGTCAGTCTCAGGCCCACTGGGACCTCTGGGCTGCACGTCCCCGCCCCCAGCCCCTCTCC
TACACACCATGCTGGACCTGGAGGAATTTGTCCCGCCTGTGCCCCCACCGCCCTACTATCCCCCAGAGTATACCT
GCAGCTCAGAAACAGATGCACAGAGCATCACGTACAATGGCTCCATGGACAGCCCAGTGCCCTTGTACCCTACCG
ATTGCCCCCCTTCTTATGAGGCAGTCATGGGACTACGAGGAGACAGCCAGGCCACTCTCTTTGACCCTCAGCTTC
ACGATGGCTCGTGCATCTGTGAACGAGTGGCCTCCATTGTAGACGTGTCCATGGACAGCGGGTCTCTGGTGCTGT
CAGCCATTGGTGACCTCCCTGGGGGCTCTAGCCCGTCGGAGGACTCGTGCCTGCTGGAGCTGCAGGGCTCCGTGC
GCTCCGTGGACTACGTTCTCTTTCGCTCCATCCAGCGCAGCCGTGCCGGCTACTGCCTCAGCCTGGACTGTGGCC
TGCGGGGCCCCTTCGAGGAAAGCCCCCTGCCACGGCGCCCCCCACGGGCTGCCCGCTCCTATTCCTGCTCTGCCC
CTGAAGCTCCACCCCCACTGGGTGCCCCCACAGCTGCCCGCAGCTGCCACCGGTTGGAGGGCTGGCCGCCCTGGG
TGGGACCCTGCTTCCCCGAGCTGAGGCGGCGGGTCCCCCGGGGAGGGGGCCGCCCAGCCGCAGCCCCGCCCACCC
GAGCCCCGACTCGTCGCTTCAGCGATAGCTCAGGTTCCCTCACCCCACCGGGGCACCGGCCTCCTCATCCGGCAT
CCCCACCACCGCTGCTGCTGCCACGGTCCCACAGCGACCCAGGCATCACGACCTCCAGTGACACTGCTGACTTCA
GGGACCTTTATACCAAAGTGCTTGAGGAAGAAGCTGCTTCTGTTTCCTCTGCAGATACAGGGCTCTGCTCTGAAG
CCTGCCTCTTCCGCCTAGCCCGCTGCCCTTCCCCCAAGTTGCTACGTGCCCGGTCAGCCGAGAAACGGCGCCCTG
TGCCCACCTTCCAAAAAGTTCCCCTGCCCTCGGGCCCTGCACCTGCCCACTCCCTGGGGGACCTAAAGGGCAGCT
GGCCAGGTCGGGGCCTGGTCACTCGTTTCCTCCAGATATCCAGGAAAGCCCCAGACCCCAGTGGGACTGGAGCTC
ATGGACATAAGCAGGTGCCCCGGAGCCTGTGGGGCCGGCCTGGCCGAGAGAGCCTCCACCTTCGCAGCTGCGGAG
ATCTGAGCTCTAGCTCTTCCCTGCGGCGTCTCCTGTCTGGCCGCAGGCTGGAGCGTGGTACCCGCCCCCACAGCC
TCAGCCTCAACGGGGGCAGCCGGGAGACTGGGCTC**TGA**CCTAGGCTTCTTGTCACACTGAACACATCCAGCCACA
GGCACCAGCTGGTTGGGACCAGCAGCCCCCAGCATCCTCTTGCACTGGCTGGCACAAAAAGAAACCTGCTGTATA
CCCCCCAAAGTGTCCCTTTCCCTCCTACCTCTGGGGTCTCTTGCTGCTTGCCTCTGCTGCTCTGGACTGGGAGAG
CTTCTGTCCTGTGCTGCATGGGTATTTAGACTGTGGGGGAGATGCCCCTTCTTATAGCACTGGAGGAGGAAAACA
AATTCTTGTCCCCCTCAGAATGAGAGTGGCTCTTTCTGATTTGCAAGGGCACTATGGTCAGGGCAAAGGCATGGC
CCAGGTGTTTAAGTACAGGGTGACGTGTGCCTATGCAATGGGGTGGTAAGGCAGGCACGAAGAGTCCAAAAAATC
TAGGTGGCCTCTCAGCTCTGCCACCTCTAGCTGCATGACCTTGGGCAAGCTATGTAACCCCAATTGCCTGCTCCA
TTAAAGACTGTGAAGGTAGAATGTTTGTAAAGCTCTTAACAGTATGTAAGCCTTCAATAAATTTCAGTTTTCCCC
TT

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FIGURE 1210

GC**ATG**CGCATAGCTAACCGCACCCGGTTCAGCTCGCCTTTCTTGGCCAGAGGCGCCGGTTGGACTCACGGGCGGG
GCATGATGGTGGTGGGTACGGGCACCTCGCTGGCGCTCTCCTCCCTCCTGTCCCTGCTGCTCTTTGCTGGGATGC
AGATGTACAGCCGTCAGCTGGCCTCCACCGAGTGGCTCACCATCCAGGGCGGCCTGCTTGGTTCGGGTCTCTTCG
TGTTCTCGCTCACTGCCTTCAATAATCTGGAGAATCTTGTCTTTGGCAAAGGATTCCAAGCAAAGATCTTCCCTG
AGATTCTCCTGTGCCTCCTGTTGGCTCTCTTTGCATCTGGCCTCATCCACCGAGTCTGTGTCACCACCTGGTATC
TTCATCTTCTCCATGGTTGGTCTGTACTACATCAACAAGATCTCCTCCACCCTGTACCAGGCAGCAGCTCCAGTC
CTCACACCAGCCAAGGTCACAGGCAAGAGCAAGAAGAGAAACTGACCCTGAATGTTCAA**TAA**AGTTGATTCTTTG
T

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FIGURE 1211

GTAGGTCCCGGCAACCGCAGGCTCGCGGCGGGCGCTGGGCGCGGGATCCGACTCCAGTCGTA**ATG**GAGGCGGGCG
GCTTTCTGGACTCGCTCATTTACGGAGTCATGCACATGCGAATGACCCGGAGTGTGGACAACGTCCAGTTCCTGC
CCTTTCTCACCACGGAAGTCAACAACCTGGGCTGGCTGAGTTATGGGGCTTTGAAGGGAGACGGGATCCTCATCG
TCGTCAACACAGTGGGTGCTGCGCTTCAGACCCTGTATATCTTGGCATATCTGCATTACTGCCCTCGGAAGCGTG
TTGTGCTCCTACAGACTGCAACCCTGCTAGGGGTCCTTCTCCTGGGTTATGGCTACTTTTGGCTCCTGGTACCCA
ACCCTGAGGCCCGGCTTCAGCAGTTGGGCCTCTTCTGCAGTGTCTTCACCATCAGCATGTACCTCTCACCACTGG
CTGACTTGGCTAAGGTGATTCAAACTAAATCAACCCAATGTCTCTCCTACCCACTCACCATTGCTACCCTTCTCA
CCTCTGCCTCCTGGTGCCTCTATGGGTTTCGACTCAGAGATCCCTATATCATGGTGTCCAACTTTCCAGGAATCG
TCACCAGCTTTATCCGCTTCTGGCTTTTCTGGAAGTACCCCCAGGAGCAAGACAGGAACTACTGGCTCCTGCAAA
CC**TGA**GGCTGCTCATCTGACCACTGGGCACCTTAGTGCCAACCTGAACCAAAGAGACCTCCTTGTTTCAGCTGGG
CCTGCTGTCCAGCTTCCCAGGTGCAGTGGGTTGTGGGAACAAGAGATGACTTTGAGGATAAAAGGACCAAAGAAA
AAGCTTTACTTAGATGATTGATTGGGGCCTAGGAGATGAAATCACTTTTTATTTTTTAGAGATTTTTTTTTTTAA
TTTTGGAGGTTGGGGTGCAATCTTTAGAATATGCCTTAAAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAG
CACTTTGGGAGGCCAAGGTGGGCGGATCGCCTGAGGTCAGGAGTTCAAGACCAACCTGACTAACATGGTGAAACC
CCATCTCTACTAAAAATACAAAATTAGCCAGGCATGATGGCACATGCCTGTAATCCCAGATACTTGGGAGGCTGA
GGCAGGAGAATTGCTTGAACCCAGGAGGTGGAGGTTGCAGTGAGCTGAGATCGTGCCATTGTGATATGAATATGC
CTTATATGCTGATATGAATATGCCTTAAAATAAAGTGTTCCCCACCCCTG

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FIGURE 1212

CCCAGGTTCCGGAATGAGGACTACACCATACATGTGCAGCTGAATGACTACGTGGACATCATCTGTCCGCACTAT
GAAGATCACTCTGTGGCAGACGCTGCC**ATG**GAGCAGTACATACTGTACCTGGTGGAGCATGAGGAGTACCAGCTG
TGCCAGCCCCAGTCCAAGGACCAAGTCCGCTGGCAGTGCAACCGGCCCAGTGCCAAGCATGGCCCGGAGAAGCTG
TCTGAGAAGTTCCAGCGCTTCACACCTTTCACCCTGGGCAAGGAGTTCAAAGAAGGACACAGCTACTACTACATC
TCCAAACCCATCCACCAGCATGAAGACCGCTGCTTGAGGTTGAAGGTGACTGTCAGTGGCAAAATCACTCACAGT
CCTCAGGCCCATGACAATCCACAGGAGAAGAGACTTGCAGCAGATGACCCAGAGGTGCGGGTTCTACATAGCATC
GGTCACAGTGCTGCCCCACGCCTCTTCCCACTTGCCTGGACTGTGCTGCTCCTTCCACTTCTGCTGCTGCAAACC
CCG**TGA**AGGTGTATGCCACACCTGGCCTTAAAGAGGGACAGGCTGAAGAGAGGGACAGGCACTCCAAACCTGTCT
TGGGGCCACTTTCAGAGCCCCCAGCCCTGGGAACCACTCCCACCACAGGCATAAGCTATCACCTAGCAGCCTCAA
AACGGGTCAGTATTAAGGTTTTCAACCGGAAGGAGGCCAACCAGCCCGACAGTGCCATCCCCACCTTCACCTCGG
AGGGATGGAGAAAGAAGTGGAGACAGTCCTTTCCCACCATTCCTGCCTTTAAGCCAAAGAAACAAGCTGTGCAGG
CATGGTCCCTTAAGGCACAGTGGGAGCTGAGCTGGAAGGGGCCACGTGGATGGGCAAAGCTTGTCAAAGATGCCC
CCTCCAGGAGAGAGCCAGGATGCCCAGATGAACTGACTGAAGGAAAAGCAAGAAACAGTTTCTTGCTTGGAAGCC
AGGTACAGGAGAGGCAGCATGCTTGGGCTGACCCAGCATCTCCCAGCAAGACCTCATCTGTGGAGCTGCCACAGA
GAAGTTTGTAGCCAGGTACTGCATTCTCTCCCATCCTGGGGCAGCACTCCCCAGAGCTGTGCCAGCAGGGGGGCT
GTGCCAACCTGTTCTTAGAGTGTAGCTGTAAGGGCAGTGCCCATGTGTACATTCTGCCTAGAGTGTAGCCTAAAG
GGCAGGGCCCACGTGTATAGTATCTGTATATAAGTTGCTGTGTGTCTGTCCTGATTTCTACAACTGGAGTTTTTT
TATACAATGTTCTTTGTCTCAAAATAAAGCAATGTGTTTTTTCGG

FIGURE 1213A

CGCCGGCCGAGGAGGAGGGGTGGGGGTAGCGGCGGCGCCCGCGGCCCGGAGCGGGGGTTGGGGGAGTAGAGAAAG
CGGGGCGCGCGGAGGAACGCTGGGTCCCCGGCGCCGCGGGAGCTGGGAGGACCGAGCCGGCCGAGCGAGCAGCGC
GGCAGCACAGTCCCCGCGTGGCGCAGCGCGGCGGGGACGCGGGGACCGCCCGGATCTCCTTCCACTGCGCCCCGC
GCTCTGCGGTCCTCGGCCGCCTCTTCTTCCTTCACTCACTGCCCGGGCGGGAGCGGCGCCCAAGTCGGGTGCGCC
ATGTCTGGGGCCGGGTAGCCCCGCCGCCCGCCGGCCCGCCAGCTCGCCCTCCGAGCCACCCGCCAGCGGGCCGGC
CGGCCGGGAAGCGCGGGACAGGCAGATGCAGTGAGTGAGGGGGGGGCCATGGCGGAGGAGCGGCCCCCCCGGCTG
GTGGATTACTTCGTGGTAGCTGGGCTTGCAGGGAACGGAGCACCCATCCCTGAGGAAACGTGGGTTCCTGAACCC
AGTGGGCCCCTGCGCCCTCCCCGGCCAGCTGAGCCCATCACAG**ATG**TGGCAGTCATCGCTAGGGCACTGGGCGAG
GAAGTGCCCCAGGGCTACACATGCATCCAGGCTTCTGCTGGGGGCCACCCCTTGGAACTCAGTGCTGGACTTCTG
GGTGGAACTCAACCCGTCATCTGCTACCGCAGGGGCCGTGACAAGCCCCCCCTCGTTGAGCTGGGGGTGTTGTAT
GAGGGGAAGGAACGTCCCAAGCCTGGCTTCCAAGTGCTTGACACGACACCCTACAGCCACTCAGCAAACCTGGCC
CCTCCAGGCCCCGGGCACCCCCGCACCTACCTCACTTACCGGCGGGCAGCAGAGGGGGCAGGGCTGCATGCCCTG
GGCATCACTGACCTCTGCCTGGTGCTGCCCAGTAAGGGCGAGGGCACTCCTCATACTTACTGCCGGCTGCCCCGC
AACCTCAACCCTGGCATGTGGGGCCCAGCAGTGTACCTGTGCTATAAGGTGGGCCTGGCGAAGGCCAACACGCTG
GTGTACGAGGCAGTTCTACGAGGCGTTCCCAAGGGCCAGGCTATCAGAGCGACAGGCACGGGCACTGGGCCTGCT
GAGCGCCGTGGAGCGGGGTCGGGCACTGGGGGGCAGAGCTGTGCGCAGCCGGCGTGCCATCGCTGTGCTGTCCCG
CTGGCCTGCCTTCCCTGCCTTCCGCGCCTTCCTCACCTTCCTTTACCGCTACTCCGTCTCAGGCCCCCACCGCCT
ACCCTTGGAAGCGCACATCTCCCACTTCATTCACAACGTTCCCTTCCCTTCCCCACAGAGACCCCGCATCCTAGT
GCAGATGTCTCCCTATGACAACTTGCTCCTCTGTCAGCCTGTATCCTCACCCCTGCCCCTCAGTGGTGCCAGCTT
CCTGCAGCTGCTGCAGAGCCTGGGCCCTGAGCTGGCTATCACACTGCTGCTGGCTGTGCTCACAGAGCACAAGCT
GCTAGTCCACTCGCTGCGGCCAGACCTGCTCACCAGCGTCTGTGAGGCCCTCGTCTCGATGATCTTCCCACTGCA
CTGGCAGTGCCCCTACATTCCTCTGTGCCCGCTGGTGCTGGCAGATGTGCTGAGTGCCCCAGTGCCCTTCATTGT
GGGTATCCACTCCAGCTACTTTGATCTGCATGACCCGCCTGCTGATGTCATCTGTGTAGACCTTGATACCAACAC
GCTCTTCCAGACTGAGGAAAAGAAGCTCCTCTCCCCTCGGACCCTGCCCCGCAGACCCTACAAGGTTCTGCTGGC
CACACTGACAAACCTGTACCAGCAGCTGGACCAGACATACACTGGACCTGAGGAGGAAGCATCCCTGGAGTTCCT
ACTGACAGACTACGAGGCAGTGTGTGGCCGCAGGGCCCGGCTGGAGCGCGAAGTCCAAGGAGCCTTCCTCCGCTT
CATGGCCTGTCTGCTCAAGGGCTACCGGGTCTTCCTGCGCCCACTCACCCAGGCCCCCTCCGAGGGAGCTCGTGA
TGTTGACAACCTTTTCTTCCTGCAGGGCTTCCTCAAATCCCGGGAACGCTCCAGCCACAAACTTTACTCTCAGCT
GCTGCACACACAGATGTTCTCACAGTTCATTGAGGAGTGCTCTTTTGGCTCTGCTCGCCATGCTGCCCTTGAATT
CTTTGACTCTTGTGTTGAAAAGGTCCACCCAGAGCAGGAGAAGCCTGAGCCGACACCCTTAGTGGAGCTAGAGGA
GCTGTCAGGAAGTGAGCTCACTGTCTTTATCACACCTCCCGAGGAGCCTGCCTTACCAGAGGGCAGTGAATCCAC
TCCCCAGTACTGCTATGATGGATTCCCAGAGCTACGGGCTGAGTTGTTTGAGTCTCTTCAAGAGCAACCTGGGGC
CCTGCCTGTGCCAGGCCCTTCCCGTAGCGCCCCCAGCAGTCCTGCTCCTCGCCGTACCAAACAGGAGATGAAAGT
TGCACAGCGGATGGCACAGAAGTCAGCAGCTGTGCCTGAGCTGTGGGCCCGGTGCCTGCTGGGGCACTGCTATGG
GCTGTGGTTCCTGTGTCTGCCTGCCTATGTGCGGTCGGCACCCTCCCGAGTGCAGGCACTGCACACAGCCTACCA
TGTGCTGCGCCAGATGGAGAGCGGCAAGGTGGTGCTCCCTGATGAGGTGTGTTACCGGGTACTGATGCAGCTCTG
CTCACACTATGGGCAGCCTGTGCTGTCTGTGCGGGTCATGCTGGAGATGCGTCAGGCAGGCATTGTGCCCAACAC
CATCACCTATGGCTACTACAATAAGGCTGTGTTGGAAAGCAAGTGGCCGTCTGGCACACCAGGTGGGCGTCTGCG
CTGGGCCAAGCTCCGGAATGTTGTCCTGGGGGCTGCTCAGTTCCGCCAGCCCTTGAGAGAACGGCAACAGCAGCA
GCAGCAGCAACAGCAGCAGCAGCAGCAGCAGCAGGAGCAGGTGTCAGCACATCAAGAGGCAGGCAGCTCCCA
GGCAGAGCCCTATTTGGAGCGCCCTTCCCCTACTCGCCCTCTTCAGCGCCAGACTACTTGGGCTGGGCGAAGTCT
GAGAGACCCAGCCTCACCCCCTGGACGCCTGGTGAAGAGTGGTAGCCTGGGCAGTGCCCGAGGGGCACAGCCCAC
TGTGGAGGCCGGTGTGGCCCACATGATAGAGGCCTTGGGGGTCCTGGAACCCCGGGGATCACCTGTGCCCTGGCA
CGATGGAAGTCTCTCAGACCTGAGCCTGACAGGGGAGGAGCCGCTCCCTGGAGGCAGCCCAGGGGGCTCAGGCTC
AGCCCTGAGTGCCCAGTCCACTGAGGCCCTGGAAGGGCTAAGTGGGCGGGGACCCAAGGCTGGTGGGCGACAGGA
TGAGGCAGGCACCCCCCGACGAGGGCTGGGTGCCCGCCTCCAACAGCTGCTCACTCCTTCCCGCCACTCCCCTGC
CTCCCGCATTCCCCCACCTGAGCTGCCTCCTGACCTGCCACCCCCAGCCCGCCGCAGCCCCATGGACAGTCTTCT
GCACCCCCGGGAGCGCCCTGGATCCACTGCCTCCGAGAGCTCAGCCTCTCTGGGCAGTGAGTGGGACCTCTCAGA

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FIGURE 1213B

ATCTTCTCTCAGCAACCTGAGTCTTCGCCGTTCCTCAGAGCGCCTCAGTGACACCCCTGGATCCTTCCAGTCACC
TTCCCTGGAAATTCTGCTGTCCAGCTGCTCCCTGTGCCGTGCCTGTGATTCGCTGGTGTATGATGAGGAAATCAT
GGCTGGCTGGGCACCTGATGACTCTAACCTCAACACAACCTGCCCCTTCTGCGCCTGCCCCTTTGTGCCCCTGCT
CAGTGTCCAGACCCTTGATTCCCGGCCCAGTGTCCCCAGCCCCAAATCTGCTGGTGCCAGTGGCAGCAAAGATGC
TCCTGTCCCTGGTGGTCCTGGCCCTGTGCTCAGTGACCGAAGGCTCTGCCTTGCTCTGGATGAGCCCCAGCTCTG
CAACGGGCACATGGGGGGAGCCTCCCGGCGGGTTGAGAGTGGGGCATGGGCATACCTGAGCCCCCTGGTGCTGCG
TAAGGAGCTGGAGTCGCTGGTAGAGAACGAGGGCAGTGAGGTGCTGGCGTTGCCTGAACTGCCCTCTGCCCACCC
CATCATCTTCTGGAACCTTTTGTGGTATTTCCAACGGCTACGCCTGCCCAGTATTCTACCAGGCCTGGTGCTGGC
CTCCTGTGATGGGCCTTCGCACTCCCAGGCCCCATCTCCTTGGCTAACCCCTGATCCAGCCTCTGTTCAGGTACG
GCTGCTGTGGGATGTACTGACCCCTGACCCCAATAGCTGCCCACCTCTCTATGTGCTCTGGAGGGTCCACAGCCA
GATCCCCCAGCGGGTGGTATGGCCAGGCCCTGTACCTGCATCCCTTAGTTTGGCACTGTTGGAGTCAGTGCTGCG
CCATGTTGGACTCAATGAAGTGCACAAGGCTGTGGGGCTCCTGCTGGAAACTCTAGGGCCCCCACCCACTGGCCT
GCACCTGCAGAGGGGAATCTACCGTGAGATATTATTCCTGACAATGGCTGCTCTGGGCAAGGACCACGTGGACAT
AGTGGCCTTCGATAAGAAGTACAAGTCTGCCTTTAACAAGCTGGCCAGCAGCATGGGCAAGGAGGAGCTGAGGCA
CCGGCGGGCGCAGATGCCCACTCCCAAGGCCATTGACTGCCGAAAATGTTTTGGAGCACCTCCAGAATGC**TAG**AG
ACCTTAAGCTTCCCTCTCCAGCCTAGGGTGGGGAAGTGAGGAAGAAGGGATTCTAGAGTTAAACTGCTTCCCTGT
TGCCTTCATGGAGTTGGGAACAGGCTGGGAAGGATGCCCAGTCAAAGGCTCCAAGCGAGGACAACAGGAAGAGGG
ATCCACTGTTACCAAAAGTCCTGATTCCCCCATCACCAACCTACCCAGTTTGTTCGTGCTGATGTTGGGGGAGAT
CTGGGGGGAGTTGGTACAGCTCTGTTCTTCCCTTGTCCTATACCGGGAACTCCCCTCCAGGGTACCCACAGATCT
GCATTGCCCTGGTCATTTTAGAAGTTTTTGTTTTAAAAAACAACTGGAAAGATGCAGAGCTACTGAGCCTTTGCC
CTGAATGGGAGGTAGGGATGTCATTCTCCACCAATAATGGTCCCTCTTCCCTGACGTTGCTGAAGGAGCCCAAGG
CTCTCCATGCCTTTCTACCTAAGTGTTTGTATTTTATTTTAAATTATTTATTCTGGAGCCACAGCCCCCTTGCTT
ATGAGGTTCTTATGGAGAGTGAGAAAGGGAAGGGAAATAGGGCACCATGGTCCGGTGGTTTGTAGTTCCTTCAAA
GTCAGGCACTGGGAGCTAGAGGAGTCTCAAGCTCCCCTTAGGAAGAACTGGTGCCCCCTCCAGTCCTAATTTTTC
TTGCCTGCCCCGCCTTGGGGAATGCCTCACCCACCCAGGTCCTGACCTGTGCAATAAGGATTGTTCCCTGCGAAG
TTTTGTTGGATGTAAATATAGTAAAAGCTGCTTCTGTCTTTTTC

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FIGURE 1214

ATCCACCTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCATACCCGGCCTCC**ATG**GAGCTATT
TAAAGCAGGTAGGCAAGTGAGCACTGCAGCCAATGCCACTGTATCCCTTGCAGGTATTCTGGATGGTGAAATGGA
CCCCAAAGGTATGTGTTCCTCACTGCTGTGGGTACTGAATGCCAAAGAATTTCTGGGCTGGTGTTGGGATTGTGT
GCAGGTTCAGGGAGCAGGACTCCTTCCCACCTGCTTCTGCTTCCTGTCCTGCCTTACTGGCTCTTTCTCCAACTC
TCCCATCACCAGTCTTTCTCTTTCAAGTACCTGCTAT**TGA**GGAGAACTTGCTAGATGACAAGCATTTGCTGAAGC
CATGGGATGCTAAGAAGCTATCCTCATCCTCTTCCCGACCTCGGTCCTGTGAAGTCCCTGGAATTAACATCTTTC
CATCTCCTGACCAGCCTGCCAATGTGCCTGTCCTCCCACCTGCCATGAACACGGGGGGCTCCCTACCTGACCTCA
CCAACCTGCACTTTCCCCCACCACTGCCCACCCCCCTGGACCCTGAAGAGACAGCCTACCCTAGCCTGAGTGGGG
GCAACAGTACCTCCAATTTGACCCACACCATGACTCACCTGGGCATCAGCAGGGGCATGGGCCTGGGCCCAGGCT
ATGATGCACCAGGACTTCATTCACCTCTCAGCCACCCATCCCTGCAGTCCTCCCTAAGCAATCCCAACCTCCAGG
CTTCCCTGAGCAGTCCTCAGCCCCAGCTTCAGGGCTCCCACAGCCACCCCTCTCTGCCTGCCTCCTCCTTGGCCC
GCCATGTACTGCCCACCACCTCCCTGGGCCACCCCTCACTCAGTGCTCCGGCTCTCTCCTCCTCCTCTTCCTCCT
CCTCCACTTCATCTCCTGTTTTGGGCGCCCCCTCTTACCCTGCTTCTACCCCTGGGG

FIGURE 1215

GCCGGAAGCGCGCGGAGACCATGTAGTGAGACCCTCGCGAGGTCTGAGAGTCACTGGAGCTACCAGAAGCATCATG
GGGGCCCTGGGGAGAGCCAGAGCTCCTGGTGTGGCGCCCCGAGGCGGTAGCTTCAGAGCCTCCAGTGCCTGTGGG
GCTGGAGGTGAAGTTGGGGGCCCTGGTGCTGCTGCTGGTGCTCACCCTCCTCTGCAGCCTGGTGCCCATCTGTGT
GCTGCGCCGGCCAGGAGCTAACCATGAAGGCTCAGCTTCCCGCCAGAAAGCCCTGAGCCTAGTAAGCTGTTTCGC
GGGGGGCGTCTTTTTGGCCACTTGTCTCCTGGACCTGCTGCCTGACTACCTGGCTGCCATAGATGAGGCCCTGGC
AGCCTTGCACGTGACGCTCCAGTTCCCACTGCAAGAGTTCATCCTGGCCATGGGCTTCTTCCTGGTCCTGGTGAT
GGAGCAGATCACACTGGCTTACAAGGAGCAGTCAGGGCCGTCACCTCTGGAGGAAACAAGGGCTCTGCTGGGAAC
AGTGAATGGTGGGCCGCAGCATTGGCATGATGGGCCAGGGGTCCCACAGGCGAGTGGAGCCCCAGCAACCCCCTC
AGCCTTGCGTGCCTGTGTACTGGTGTTCTCCCTGGCCCTCCACTCCGTGTTCGAGGGGCTGGCGGTAGGGCTGCA
GCGAGACCGGGCTCGGGCCATGGAGCTGTGCCTGGCTTTGCTGCTCCACAAGGGCATCCTGGCTGTCAGCCTGTC
CCTGCGGCTGTTGCAGAGCCACCTTAGGGCACAGGTGGTGGCTGGCTGTGGGATCCTCTTCTCATGCATGACACC
TCTAGGCATCGGGCTGGGTGCAGCTCTGGCAGAGTCGGCAGGACCTCTGCACCAGCTGGCCCAGTCTGTGCTAGA
GGGCATGGCAGCTGGCACCTTTCTCTATATCACCTTTCTGGAAATCCTGCCCCAGGAGCTGGCCAGTTCTGAGCA
AAGGATCCTCAAGGTCATTCTGCTCCTAGCAGGCTTTGCCCTGCTCACTGGCCTGCTCTTCATCCAAATCTAGGG
GGCTTCAAGAGAGGGGCAGGGGAGATTGATGATCAGGTGCCCCTGTTCTCCCTTCCCTCCCCCAGTTGTGGGGAA
TAGGAAGGAAAGGGGAAGGGAAATACTGAGGACCAAAAAGTTCTCTGGGAGCTAAAGATAGAGCCTTTGGGGCTA
TCTGACTAATGAGAGGGAAGTGGGCAGACAAGAGGCTGGCCCCAGTCCCAAGGAACAAGAGATGGTCAAGTCGCT
AGAGACATATCAGGGGACATTAGGATTGGGGAAGACACTTGACTGCTAGAATCAGAGGTTGGACACTATACATAA
GGACAGGCTCACATGGGAGGCTGGAGGTGGGTACCCAGCTGCTGTGGAACGGGTATGGACAGGTCATAAACCTAG
AGTCAGTGTCCTGTTGGTCCTAGCCCATTTCAGCACCCTGCCACTTGGAGTGGACCCCTCCTACTCTTCTTAGCG
CCTACCCTCATACCTATCTCCCTCCTCCCATCTCCTAGGGGACTGGCGCCAAATGGTCTCTCCCTGCCAATTTTG
GTATCTTCTCTGGCCTCTCCAGTCCTGCTTACTCCTCTATTTTTAAAGTGCCAAACAAATCCCCTTCCTCTTTCT
CAAAGCACAGTAATGTGGCACTGAGCCCTACCCAGCACCTCAGTGAAGGGGGCCTGCTTGCTCTTTATTTTGGTC
CCGGATCCTGGGGTGGGGCAGAAATATTTTCTGGGCTGGGGTAGGAGGAAGGTTGTTGCAGCCATCTACTGCTGC
TGTACCCTAGGAATATGGGGACATGGACATGGTGTCCCATGCCCAGATGATAAACACTGAGCTGCCAAAACATTT
TTTTAAATACACCCGAGGAGCCCAAGGGGGAAGGGCAATGCCTACCCCCAGCGTTATTTTTGGGGAGGGAGGGCT
GTGCATAGGGACATATTCTTTAGAATCTATTTTATTAACTGACCTGTTTTGGGACCTGTTACCCAAATAAAAGAT
GTTTCTAG

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FIGURE 1216

GCGAGGCGCCACCGACGCGGAAGACTATAAGCCCCAGCGGGCGACGACCGAACGCCCCCGGGAACACCGGGCCCC
GAGCTCGGTCCCGCGCCCGAGGATCCTCCACGGGGCTAGATGGCTGCGTCGGGGGCGGGAGCGGAGGTGAGCGGG
CGCTAGGGCCGCGAGCCCCCGCCGGCCCTTCCTCCAGCGCCCTGCGGACCCCGCAGAAGGCGCTCGCCTCCCTAG
CCCGCAAAAACATATCGATTTTTCTCGCTGTGGCAACGGGGACGTCCTGATAGATCCTCTGCTCCAATAGGCAAC
TCCGGCCTTCCCTGCCCTGACCTGGAACCTCTGGGAGGGCTGCAGAGTAAGTGCCGCCTCTGCGCTCCGACGGAG
GCACGAGGCCTGTGGAGTAGGTCCCTCTGTTCCGACAGGTGCGACACTTGGCGCTCC**ATG**CTTGCGGGTGCCGGG
AGGCCTGGCCTCCCCCAGGGCCGCCACCTCTGCTGGTTGCTCTGTGCTTTCACCTTAAAGCTCTGCCAAGCAGAG
GCTCCCGTGCAGGAAGAGAAGCTGTCAGCAAGCACCTCAAATTTGCCATGCTGGCTGGTGGAAGAGTTTGTGGTA
GCAGAAGAGTGCTCTCCATGCTCTAATTTCCGGGCTAAAACTACCCCTGAGTGTGGTCCCACAGGATATGTAGAG
AAAATCACATGCAGCTCATCTAAGAGAAATGAGTTCAAAAGCTGCCGCTCAGCTTTGATGGAACAACGCTTATTT
TGGAAGTTCGAAGGGGCTGTCGTGTGTGTGGCCCTGATCTTCGCTTGTCTTGTCATCATTCGTCAGCGACAATTG
GACAGAAAGGCTCTGGAAAAGGTCCGGAAGCAAATCGAGTCCATA**TAG**CTACATTCCACCCTTGTATCCTGGGTC
TTAGAGACCCTATCTCAGACAGTGAAAGTGAAATGGACTGATTTGCACTCTTGGTTCTTTGGAGCCTTGTGGTGG
AATCCCCTTTTCCCCATCTTCTTCTTTCAGATCATTAATGAGCAGAATAAAAAGAGTAAAATGGT

FIGURE 1217

GGGAGGAAAACTTCTTCCTGGCCTGGGCTCCGTGCCGCTCTGTTTGCCAACCGTCCAGTCCCGCCTACCAGTGCC
GGGCGCTCCCCACCCCTCCCCCGGCTCCCCCGGTGTCCGCC**ATG**GCCAAAGCCTACGACCACCTCTTCAAGTTGC
TGCTGATCGGGGACTCGGGGGTGGGCAAGACTTGTCTGATCATTCGCTTTGCAGAGGACAACTTCAACAACACTT
ACATCTCCACCATCGGAATTGATTTCAAGATCCGCACTGTGGATATAGAGGGGAAGAAGATCAAACTACAAGTCT
GGGACACGGCTGGCCAAGAGCGGTTCAAGACAATAACTACTGCCTACTACCGTGGAGCCATGGGCATTATCCTAG
TATACGACATCACGGATGAGAAATCTTTCGAGAATATTCAGAACTGGATGAAAAGCATCAAGGAGAATGCCTCGG
CTGGGGTGGAGCGCCTCTTGCTGGGGAACAAATGTGACATGGAGGCCAAGAGGAAGGTGCAGAAGGAGCAGGCCG
ATAAGTTGGCTCGAGAGCATGGAATCCGATTTTTCGAAACTAGTGCTAAATCCAGTATGAATGTGGATGAGGCTT
TTAGTTCCCTGGCCCGGGACATCTTGCTCAAGTCAGGAGGCCGGAGATCAGGAAACGGCAACAAGCCTCCCAGTA
CTGACCTGAAAACTTGTGACAAGAAGAACACCAACAAGTGCTCCCTGGGC**TGA**GGACCCTTTCTTGCCTCCCCAC
CCCGGAAGCTGAACCTGAGGGAGACAACGGCAGAGGGAGTGAGCAGGGGAGAAATAGCAGAGGGGCTTGGAGGGT
CACATAGGTAGATGGTAAAGAGAATGAGGAGAAAAAGGAGAAAAGGGAAAAGCAGAAAGGAAAAAAAGGAAGAGA
GAGGAAGGGAGAAGGGAGAGGAATGAATTGAGGAAGTGAAAGAAGGCAAGGAGGTAGGAAGAGAGGGAGGAGGAA
AGGAAGGAGAGATGCCTCAGGCTTCAGACCTTACCTGGGTTTTCAGGGCAAACATAAATGTAAATACACTGATTT
ATTCTGTTACTAGATCAGGTTTTAGGGTCCTGCAAAAGGCTAGCTCGGCACTACACTAGGGAATTTGCTCCTGTT
CTGTCACTTGTCATGGTCTTTCTTGGTATTAAAGGCCACCATTTGCACAAAAAAAAAAAAAAA

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FIGURE 1218

CCTTTCCGGCGGTGACGACCTACGCACACGAGAAC**ATG**CCTCTCGCAAAGGATCTCCTTCATCCCTCTCCAGAAG
AGGAGAAGAGGAAACACAAGAAGAAACGCCTGGTGCAGAGCCCCAATTCCTACTTCATGGATGTGAAATGCCCAG
GATGCTATAAAATCACCACGGTCTTTAGCCATGCACAAACGGTAGTTTTGTGTGTTGGCTGCTCCACTGTCCTCT
GCCAGCCTACAGGAGGAAAAGCAAGGCTTACAGAAGGATGTTCCTTCAGGAGGAAGCAGCAC**TAA**AAGCACTCTG
AGTCAAGATGAGTGGGAAACCATCTCAATAAACACATTTTGGAT

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FIGURE 1219

ACTCAGGCAGCAGCCCCTTCTTTCTTGCCCCAGTCTCCAGTTCTCCAGTGTTCACAGGTGAGCCTACCAACAGCC
ACTGCTC**ATG**ATGGAGGCCATCAAGAAAAAGATGCAGATGCTGAAGTTAGACAAGGAGAATGCTCTGGATCGGGC
AGAGCAAGCTGAAGCTGAGCAGAAGCAGGCAGAAGAAAGAAGTAAACAGCTGGAGGATGAGCTGGCAGCCATGCA
GAAGAAGCTGAAAGGGACAGAGGATGAGCTGGACAAGTATTCTGAAGCTTTGAAGGATGCCCAGGAGAAGCTGGA
ACTGGCAGAGAAGAAGGCTGCTGATGCTGAGGCTGAGGTGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGA
AGAGCTGGACCGTGCTCAGGAGCGCCTGGCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAAAGCTGCTGATGA
GAGTGAGAGAGGTATGAAGGTTATTGAAAACCGGGCCTTAAAAGATGAAGAAAAGATGGAACTCCAGGAAATCCA
ACTCAAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGATCAT
TGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGGCAGAGTCTAAGTGTTCTGAGCTGGAGGAGGAGCT
GAAGAATGTCACCAACAACCTCAAGTCTCTTGAGGCTCAGGCGGAGAAGTACTCTCAAAAAGAAGATAAATATGA
GGAAGAAATCAAGATTCTTACTGATAAACTCAAGGAGGCAGAGACCCGTGCTGAGTTTGCTGAGAGATCGGTAGC
CAAGCTGGAAAAGACAATTGATGACCTGGAAGATGAGCTCTATGCCCAGAAACTGAAGTACAAGGCCATTAGCGA
GGAGCTGGACCACGCCCTCAATGACATGACCTCTATA**TAA**TTATCACCGTTTCTGCTCTGTTCTGGATCTGCCCC
CTTTACTCCTCGGGGAACCCAAGGCCCCACTCTCGCTCTGGATTCCATTTGGGTCAGCCTGGCTGGTCCCCAAGG
CATTAGGATGGGGGAGCAAAAAGCAACTTATGTATTTTCTTCCACCCCCACCCCAAATTAAAATGTTAAGCTGCT
GGA

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FIGURE 1220

GTCAGGGGGAAGCTGGAAGGCGTCGTTCTCCTTTCCCAGCTCTCCTGCCTGTCCGCCATGTTTTCAGGCCGGGTC
TGGCTTGGTCTTCCCCCGTAAGGAAATGGCCGGGGAGCTCCAGGGGACCCAGGCGCCGTCGCTTCGGCGGAGCCT
GGGCTGACCAGCCAGGACAGCGGGGTAAACCCGAACAATTCTGCGCGAGGTAGGGAGGCC**ATG**GCGTCCGGCAGT
AACTGGCTCTCCGGGGTGAATGTCGTGCTGGTGATGGCCTACGGGAGCCTGGACTTGAAAGAGGAGATTGATATT
CGACTCTCCAGGGTTCAGGATATCAAGTATGAGCCCCAGCTCCTTGCAGATGATGATGCTAGACTACTACAACTG
GAAACCCAGGGAAATCAAAGTTGCTACAACTATCTGTATAGGATGAAAGCTCTGGATGCCATTCGTACCTCTGAG
ATCCCATTTCATTCTGAAGGCCGGCATCCCCGTTCCTTAATGGGCAAGAATTTCCGCTCCTACCTGCTGGATCTG
CGAAACACTAGTACGCCTTTCAAGGGTGTACGCAAAGCACTCATTGATACCCTTTTGGATGGCTATGAAACAGCC
CGCTATGGGACAGGGGTCTTTGGCCAGAATGAGTACCTACGCTATCAGGAGGCCCTGAGTGAGCTGGCCACTGCG
GTTAAAGCACGAATTGGGAGCTCTCAGCGACATCACCAGTCAGCAGCCAAAGACCTAACTCAGTCCCCTGAGGTC
TCCCCAACAACCATCCAGGTGACATACCTCCCCTCCAGTCAGAAGAGTAAACGTGCCAAGCACTTCCTTGAATTG
AAGAGCTTTAAGGATAACTATAACACATTGGAGAGTACTCTG**TGA**CGGAGCTGAAGGACTCTTGCCGTAGATTAA
GCCAGTCAGTTGCAATGTGCAAGACAGGCTGCTTGCCGGGCCGCCCTCGGAACATCTGGCCCAGCAGGCCCAGAC
TGTATCCATCCAAGTTCCCGTTGTATCCAGAGTTCTTAGAGCTTGTGTCTAAAGGGTAATTCCCCAACCCTTCCT
TATGAGCATTTTTAGAACATTGGCTAAGACTATTTTCCCCCAGTAGCGCTTTTTTCTGGATTTGCATTCAGGTGT
TATTCTTAATGTTTCTGTCAAAGCTTCTTAAAAATCTTCACTTGGTTTCAGCCATAGTTCACCTTCCCTGTTCCA
GGTTTATTTAATTCCAAAGGTGAGAGTTGGAGTGAGATGTCTTCCATATCTATACCTTTGTGCACAGTTGAATGG
GAACTGTTTGGGTTTAGGGCATCTTAGAGTTGATTGATGGAAAAAGCAGACAGGAACTGGTGGGAGGTCAAGTGG
GGAAGTTGGTGAATGTGGAATAACTTACCTTTGTGCTCCACTTAAACCAGATGTGTTGCAGCTTTCCTGACATGC
AAGGATCTACTTTAATTCCACACTCTCATTAATAAATTGAATAAAAGGGAATGTTTTGGCACCTGATATAATCTG
CCAGGCTATGTGACAGTAGGAAGGAATGGTTTCCCCTAACAAGCCCAATGCACTGGTCTGACTTTATAAATTATT
TAATAAAATGAACTATTATCAAATAAAACGTATGAATCAGT

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FIGURE 1221

CCCGACTAAGTGACTTAAACTCCCACCTACTCCTGGAATAAGGAGTCAAAGCCCGGATAGGCGCAGTATTCTACC
TTGTAAATACTGTTATTTGTATATACTGTAA**ATG**ATGACATCGGTGGGCACTAACCGAGCCCGGGGAAACTGGGA
ACAACCTCAAAACCAAAACCAGACACAGCACAAGCAGCGGCCACAGGCCACTGCAGAACAAATTAGACTTGCACA
GATGATTTCGGACCATAATGATGCTGACTTTGAGGAGAAGGTGAAACAATTGATTGATATTACAGGCAAGAACCA
GGATGAATGTGTGATTGCTTTGCATGACTGCAATGGAGATGTCAACAGAGCTATCAATGTTCTTCTGGAAGGAAA
CCCAGACACGCATTCCTGGGAGATGGTCGGGAAGAAGAAGGGAGTCTCAGGCCAGAAGGATGGTGGCCAGACGGA
ATCCAATGAGGAAGGCAAAGAAAATCGAGACCGGGACAGAGACTATAGTCGGCGACGTGGTGGGCCACCAAGACG
GGGGAGAGGTGCCAGCCGTGGACGAGAGTTTCGAGGTCAGGAAAATGGATTGGATGGCACCAAGAGTGGAGGGCC
TTCTGGAAGAGGAACAGAAAGAGGCAGAAGGGGCCGTGGCCGAGGCAGAGGTGGCTCTGGTAGGCGAGGAGGAAG
GTTTTCTGCTCAAGGAATGGGAACCTTTAACCCAGCTGATTATGCAGAGCCAGCCAATACTGATGATAACTATGG
CAATAGCAGCGGCAATACGTGGAACAACACTGGCCACTTTGAACCAGATGATGGGACGAGTGCATGGAGGACTGC
AACAGAGGAGTGGGGGACTGAAGATTGGAATGAAGATCTTTCTGAGACCAAGATCTTCACTGCCTCTAATGTGTC
TTCAGTGCCTCTGCCTGCGGAGAATGTGACAATCACTGCTGGTCAGAGAATTGACCTTGCTGTTCTGCTGGGGAA
GACACCATCTACAATGGAGAATGATTCATCTAATCTGGATCCGTCTCAGGCTCCTTCTCTGGCCCAGCCTCTGGT
GTTCAGTAATTCGAAGCAGACTGCCATATCACAGCCTGCTTCAGGGAACACATTTTCTCATCACAGTATGGTGAG
CATGTTAGGGAAAGGATTTGGTGATGTCGGTGAAGCTAAAGGCGGCAGTACTACAGGCTCCCAGTTCTTGGAGCA
ATTCAAGACTGCCCAAGCCCTGGCTCAGTTGGCAGCTCAGCATTCTCAGTCTGGAAGCACCACCACCTCCTCTTG
GGACATGGGCTCGACGACACAATCCCCATCACTGGTGCAGTATGATTTGAAGAACCCAAGTGATTCAGCAGTGCA
CAGCCCCTTTACAAAGCGCCAGGCTTTTACCCCATCTTCAACCATGATGGAGGTGTTCCTTCAGGAGAAGTCACC
TGCAGTGGCTACCTCCACAGCTGCACCTCCACCTCCGTCTTCTCCTCTGCCAAGCAAATCCACATCGGCTCCACA
GATGTCGCCTGGATCTTCAGACAACCAGTCCTCTAGCCCTCAGCCGGCTCAGCAGAAACTGAAACAGCAGAAGAA
AAAAGCCTCCTTGACTTCTAAGATTCCTGCTCTGGCTGTGGAGATGCCTGGCTCAGCAGATATCTCAGGGCTAAA
CCTGCAGTTTGGGGCATTGCAGTTTGGGTCAGAGCCTGTCCTTTCTGATTATGAGTCCACCCCCACCACGAGCGC
CTCTTCAAGCCAGGCTCCAAGTAGCCTGTATACCAGCACGGCCAGTGAATCATCCTCTACAATTTCATCTAACCA
GAGTCAGGAGTCTGGTTATCAGAGCGGCCCAATTCAGTCGACAACCTATACCTCCCAAAATAATGCTCAGGGCCC
TCTTTATGAACAGAGATCCACACAGACTCGGCGGTACCCCAGCTCCATCTCTTCATCACCCCAAAAGGACCTGAC
TCAGGCAAAGAATGGCTTCAGTTCTGTGCAGGCCACGCAGTTACAGACCACACAATCTGTTGAAGGTGCTACAGG
CTCTGCAGTGAAATCTGATTCACCTTCCACTTCTAGCATCCCCCCTCTCAATGAAACGGTATCTGCAGCTTCCTT
ACTGACGACAACCAATCAGCATTCATCCTCCTTGGGTGGCTTGAGCCACAGTGAGGAGATTCCAAATACTACCAC
CACACAACACAGCAGCACGTTATCTACGCAGCAGAATACCCTTTCATCATCAACATCTTCTGGGCGCACTTCGAC
ATCCACTCTTTTGCACACAAGTGTGGAGAGTGAGGCGAATCTCCATTCTTCCTCCAGCACTTTTTCCACCACATC
CAGCACAGTCTCTGCACCTCCCCCAGTGGTCAGTGTCTCCTCCAGTCTCAATAGTGGCAGTAGCCTGGGCCTCAG
CCTAGGCAGCAACTCCACTGTCACAGCCTCGACTCGAAGCTCAGTTGCTACGACTTCAGGAAAAGCTCCTCCCAA
CCTCCCTCCTGGGGTCCCGCCGTTGTTGCCTAATCCGTATATTATGGCTCCAGGGCTGTTACATGCCTACCCGCC
ACAAGTATATGGTTATGATGACTTGCAGATGCTTCAGACAAGATTTCCATTGGATTACTACAGCATCCCATTTCC
CACACCCACTACTCCGCTGACTGGGAGGGATGGTAGCCTGGCCAGCAACCCTTATTCTGGTGACCTCACAAAGTT
CGGCCGTGGGGATGCCTCCTCCCCAGCCCCGGCCACAACCTTGGCCCAACCCCAACAGAACCAGACGCAGACTCA
CCATACCACGCAGCAGACATTCCTGAACCCGGCGCTGCCTCCTGGCTACAGTTACACCAGCCTGCCATACTATAC
AGGGGTCCCGGGCCTCCCCAGCACCTTCCAGTATGGGCCTGCTGTGTTCCCTGTGGCTCCTACCTCTTCCAAGCA
GCATGGTGTGAATGTCAGTGTGAATGCATCGGCCACCCCTTTCCAACAGCCGAGTGGATATGGGTCTCATGGATA
CAACACTGGAAGAAAATATCCACCCCCTTACAAGCATTTCTGGACGGCTGAGAGC**TAA**TTTGGCCCAAGGCTGGG
GGCTGTGTTTTGTGTGTGTGTATAAATTTGCACTGAAGTCTTGTTTCAGAAACCAGACCACTGAGGAGAGCCTGC
TGAGCTGAGGCCATGGCCTGCGTGGCTTGGGGAAATGAGTTGGTGGATACCTTCTGGGCTTTTGAACTTGCCCCT
CCCCCATTTCCCTCTCCCCCATGTGTCTGACCCTGTCTTACCCATTTCAAGTTCAAGCGGTGCAGCACCTTCGAA
GCATCAATGCACACACCTGCTGTTGCTTTTGATTTCTGGAAGGCATGTAGTTTCAACTTGTAACAAAAATATTTG
TAGTCTTCAATAAACTGTGGTATTTCTTTAGCTAAC

FIGURE 1222

GTCCGGCTTACCGTCGTTTACGACAGTGTCAGGATCGCGGGCTTGCTTTCCGGTAGCGTGGGCTGACGCCTCGCT
CAATTTCTCACAGGGCTGCGCAGGTTTCCCCCGTCTGCGAATGGACCACTGGAGGGGTTCAAAGGTTCGCGTCCC
AGTACGGGA**ATG**AGCCTCTTTGATCTCTTCCGGGGCTTTTTCGGCTTTCCTGGACCTCGGAGCCACAGAGATCCC
TTTTTTGGAGGGATGACTCGAGATGAAGATGATGATGAGGAAGAAGAAGAAGAAGGGGGCTCATGGGGCCGTGGG
AACCCAAGGTTCCATAGTCCTCAGCACCCCCCTGAGGAATTTGGCTTCGGCTTCAGCTTCAGCCCAGGAGGAGGG
ATACGTTTCCACGATAACTTCGGCTTTGATGACCTAGTACGAGATTTCAATAGCATCTTCAGCGATATGGGGGCC
TGGACCTTGCCTTCCCATCCTCCTGAACTTCCAGGTCCTGAGTCAGAGACACCTGGTGAGAGACTACGGGAGGGA
CAGACACTTCGGGACTCAATGCTTAAGTATCCAGATAGTCACCAGCCCAGGATCTTTGGGGGGGTCTTGGAGAGT
GATGCAAGAAGTGAATCCCCCCAACCAGCACCAGACTGGGGCTCCCAGAGGCCATTTCATAGGTTTGATGATGTA
TGGCCTATGGACCCCCATCCTAGAACCAGAGAGGACAATGATCTTGATTCCCAGGTTTCCCAGGAGGGTCTTGGC
CCGGTTCTACAGCCCCAGCCCAAATCCTATTTCAAGAGCATCTCTGTGACCAAGATCACTAAACCAGATGGGATA
GTGGAGGAGCGCCGGACTGTGGTGGACAGTGAGGGCCGGACAGAGACTACAGTAACCCGACACGAAGCAGATAGC
AGTCCTAGGGGTGATCCAGAATCACCAAGACCTCCAGCCCTGGATGATGCCTTTTCCATCCTGGACTTATTCCTG
GGACGTTGGTTCCGGTCCCGG**TAG**CCTTGTTAACCCTCAGAGGCCTTCAAGTCCTTTCCACCTCTCACCCATTGC
CCACCATTAATAAGCTTAGCTTCTCTTGCCACCTCAGGGGCTTGGATATGTGGAATAGTGAACTGGGGCCATGTC
AGTTTGTCACTCACCCAAACTGACCAATAAAACCTTTATTTATGCT

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FIGURE 1223

CCTACAGAGGGGTCCATACCGTGTTGTTCTGGATTCCCGTTGTAACTTAAAGGGAAATTTTCACA**ATG**TCCAGAG
CCCTTGATGTCCTGCAAATGAAGGAGGAGGATGTCCTTAAGTTCCTTGCAGCAGGAACCCACTTAGGTGGCACTA
ATCTTGACTTCCAGATGGAACAGTACATCTATAAAAGGAAAAGTGATGGCATCTACATCATAAATCTGAAGAGGA
CCTGGGAGAAGCTTCTGCTGGCAGCTCGTGCCATTGTTGCCATTGAAAACCCTGCTGATGTCAGTGTTATATCCT
CCAGGAATACTGGCCAGAGGGCCATGCTGAAGTTTGCTGCTGCCACTGGAGCCACTCCAATTGCTGGCCACTTCA
CTCCTGGAACCTTCACTAACCGGATCCAGGCAGCCTTCCGGGAGCCACAGCTTCCTGTGGTTACTGACCCCAGGG
CTGACCACCAGCCTCTCACGGAGGTATCTTATGTTAACTTACCTACCATTGCGCTGTGTAACACAGATTCTCCTC
TGCGCTATGTGGACATTGCCATCCCATGCAACAATAAGGGAGCTCACTCAGTGGGTTGGATGTGGTGGATGCTGG
CTCAGGAAGTTCTGCGCATGCGTGGCACCATTTCCCGTGAACACCCATGGGAGGTCATGCCTGATCTCTGCTTCT
ACAGAGATCCTGAAGAGATTGAAAAAGAAGAGCAGGCTGCTGCTGAAGAGGCAGTGACCAAGGAGGAATTTCAGG
GTGAATGGACTGCTCCAGCTCCTGAGTTCACTGCTACTCAGCCTGAGGTTGCAGACTGGTCTGAAGGTCTGCAGG
TGCCCTCTGTGTCTATTCAG**TAG**TTCCCTACTGAAGACTGGAGCGCTCAGCCTGCCACGGAAGACTGGTCTGCAG
CTCCCACTGCTCAGGCCACTGAATGGGTAGGAGCAACCACTGAATGGTCTTAAGCTGTTCTTGCATGGGCTCTTA
AGCAACATGGAAAAATGGTTGATGGAAAATAAATAAACATCAGTTTCT

FIGURE 1224

GGGGGGGGCCTGTCCCGGAGGTGGCGGCGGCGCCATCTTGGCGAAGGGGGGATCAGGAAGTGCGGACCGCGGCGG
CGGCGGCGGCGGCGGCGGCGGCGGCGGAGCCCGGAGCGCAGGCCGGAGGCTCCCGGCCCGCCGGCCCCGGAGCGG
AGCGGAGCGGAGGATGCAGCAGCCGCAGCCGCAGGGGCAGCAGCAGCCGGGGCCGGGGCAGCAGCTGGGGGGCCA
GGGGGCGGCGCCGGGGGCCGGGGGCGGCCCAGGGGGGGGCCCGGGGCCGGGGCCCTGCCTGAGGCGAGAGCTGAA
GCTGCTCGAGTCCATCTTCCACCGCGGCCACGAGCGCTTCCGCATTGCCAGCGCCTGCCTGGACGAGCTGAGCTG
CGAGTTCCTGCTGGCTGGGGCCGGAGGGGCCGGGGCGGGGGCCGCGCCCGGACCGCATCTCCCCCCACGGGGGTC
GGTGCCTGGGGATCCTGTCCGCATCCACTGCAACATCACGGAGTCATACCCTGCTGTGCCCCCCATCTGGTCGGT
GGAGTCTGATGACCCTAACTTGGCTGCTGTCTTGGAGAGGCTGGTGGACATAAAGAAAGGGAATACTCTGCTATT
GCAGCATCTGAAGAGGATCATCTCCGACCTGTGTAAACTCTATAACCTCCCTCAGCATCCAGATGTGGAGATGCT
GGATCAACCCTTGCCAGCAGAGCAGTGCACACAGGAAGACGTGTCTTCAGAAGATGAAGATGAGGAGATGCCTGA
GGACACAGAAGACTTAGATCACTATGAAATGAAAGAGGAAGAGCCAGCTGAGGGCAAGAAATCTGAAGATGATGG
CATTGGAAAAGAAAACTTGGCCATCCTAGAGAAAATTAAAAAGAACCAGAGGCAAGATTACTTAAATGGTGCAGT
GTCTGGCTCGGTGCAGGCCACTGACCGGCTGATGAAGGAGCTCAGGGATATATACCGATCACAGAGTTTCAAAGG
CGGAAACTATGCAGTCGAACTCGTGAATGACAGTCTGTATGATTGGAATGTCAAACTCCTCAAAGTTGACCAGGA
CAGCGCTTTGCACAACGATCTCCAGATCCTCAAAGAGAAAGAAGGAGCCGACTTCATTCTACTTAACTTTTCCTT
TAAAGATAACTTTCCCTTTGACCCACCATTTGTCAGGGTTGTGTCTCCAGTCCTCTCTGGAGGGTATGTTCTGGG
CGGAGGGGCCATCTGC**ATG**GAACTTCTCACCAAACAGGGCTGGAGCAGTGCCTACTCCATAGAGTCAGTGATCAT
GCAGATCAGTGCCACACTGGTGAAGGGGAAAGCACGAGTGCAGTTTGGAGCCAACAAATCTCAATACAGTCTGAC
AAGAGCACAGCAGTCCTACAAGTCCTTGGTGCAGATCCACGAAAAAAACGGCTGGTACACACCCCCAAAAGAAGA
CGGC**TAA**CCCTGGAGTATCACCCTTCCTCCCTCCCCAGGCACCACTGGACCAATTACCTTTGAATGCTGTATTTG
GATCTCACGCTGCCTCTGTGGTTCCCTCCCTCATTTTTCCTGGACGTGATAGCTCTGCCTATTGCAGGACAATGA
TGGCTATTCTAAACGCTAAGGAAAAAAAACAAACACAGAACTGTTTCAAGTACTCAAGACTGACTTACAGACCAA
CCAACCACCTTGCTGGAACCCTTGCTAGCAGGCATTCTTATAAAAGAAACTTTCGAGCCTCCTTATATTGCTGGA
AACTCAGCTGTGCTCCAGACTAGAGCCTCCTTACCTATGCTATGGATTTTTAATTTATTTTCTCTTATTTCATGT
ACACTGCTTTTTTTGGTTACAGTGTATGATGGATGTGTATGAAAAAAATGTATCTTTGGGAAAACAATTACAGTT
TGTTAATTTGAAGATGCTGGTCTTGACTCATCTTTATTTTTATTCGCACATCCCACCCCATCCCCTGAACTACTT
GGGAGGTGGGGAGGGGTACGAGTCCACTGTTGCTTTGGTAGAGATGAGAGGCCGCATTTTGCTGCTAAAGCAAGA
GAAACTTGGAGCTGAAGCACACACCTGGTCTGCCCCTAGATTTCTCCTCAAGGCCTCTGGAGCAACCAGCACTTG
CCCCCTTGGAATGCAGAGCCTGGCCTGCCAAACTACAATGTGGTAGGCTGAAACGATGGTGTTAATTCTTAGGAC
TACTTTTCTAGTCACAGATGTTTTCAAATTTCTAAGAAAAAGAAAATGAGGCTCAAGAGGCTGCTTCGTAGAATT
CCTTTTGAATGAATTGAGTGGGGATGGGGACACAGTCTCCAAGTGTGTATGTGGTCTTTTCTGATCTCAGCTGTG
TGGCTGCAACTCTTCGCTGTTCATTGGTTCCTCTCCTGGAAAGTGGCTTCTAACCAGCACTGGATGGTGATCATT
GGTAAGCTTTGCTCACCTCCCTCTCTCTTGCTTCATTTGGCTTTATCAAAAAGAACAGACCTAGCTCTGAATTTG
TTTGGCTTGGGAAATTATGGATTCTTTCAAGCCACTCCCACAAGGTGGGTCCTACTAGAAAGGGTTAGCATTTTA
AGGGGGGTTGTTCTATACACCTGTGTCCTTACCCCAGGCTCAGGAACTGCCAGGGAGGGAAGATGAGGTGGGGAG
TCTGTACTGAGATGGAACTGTCAGTGCTGTGTTGTATGTACTTGCTGTTGTAAAAGTTTGGGCATGACTTTGCAT
CTAGCGGGTGCTGCCTGCATCTCTTTGTCTGTAAGCTTGCTCTGGGACTCAGCCTCTTAGGACCTACGATGCCAG
CAGCTCTCATTAACAGTGAAATGACAGAGGCCAAAGATGGCCAAGTGAAGACCCAAGTCTCAGAAAACCCAGACT
TGGGACAACTGCCTGGGAACTAGGATGCTAGAGCAGTTCTGTAATGCTTTGAGACACAGCAATTTTCACATTGGC
CATTCTTTCCCCTCCCCTACCCCTTTTCTTTTGAGGGACTTTTAATGTTTGCTGCTTTAGGTGGATGGAGAGTCC
ACCAGTCCCACTCAATGCTGCTCTAACTCTACCCACACCCACCTAATTAGGGGTGCTAATAAAACATGCTGAGGT
TGAGATAAAGACGGGACATAAGGGGAAAATTCATTCCATAGAGCTGAAATCTGGTTTTCAAGGCCTCTGTGGCTT
TCTTCTGAACTTACCACCAGCCCTGGCTGGAATGTAGATTGTGTTTTTAGTAATGTGTACTGTGAGCTGTCTTCT
GTATAATGTATTTTGTAATGTATTTTTCTCATCTACCAAAGGATGAAACAAATAAAATTATTTAAATA

FIGURE 1225A

CGAAATTGAACCGGAGCCATCTTGGGCCCGGCGCGCAGACCCGCGGAGTTTCCCGTGCCGACGCCCCGGGGCCAC
TTCCAGTGCGGAGTAGCGGAGGCGTGGGGGCCTCGAGGGGCTGGCGCGGCCCAGCGGTCGGGCCAGGGTCGTGCC
GCCGGCGGGTCGGGCCGGGCAATGCCTCGCGGGCGCA**ATG**AATCCGCGGCAGGGGTATTCCCTCAGCGGATACTA
CACCCATCCATTTCAAGGCTATGAGCACAGACAGCTCAGGTACCAGCAGCCTGGGCCAGGATCTTCCCCCAGTAG
TTTCCTGCTTAAGCAAATAGAATTTCTCAAGGGGCAGCTCCCAGAAGCACCGGTGATTGGAAAGCAGACACCGTC
ACTGCCACCTTCCCTCCCAGGACTCCGGCCAAGGTTTCCAGTACTACTTGCCTCCAGTACCAGAGGCAGGCAAGT
GGACATCAGGGGTGTCCCCAGGGGCGTGCATCTCAGAAGTCAGGGGCTCCAGAGAGGGTTCCAGCATCCTTCACC
ACGTGGCAGGAGTCTGCCACAGAGAGGTGTTGATTGCCTTTCCTCACATTTCCAGGAACTGAGTATCTACCAAGA
TCAGGAACAAAGGATCTTAAAGTTCCTGGAAGAGCTTGGGGAAGGGAAGGCCACCACAGCACATGATCTGTCTGG
GAAACTTGGGACTCCGAAGAAAGAAATCAATCGAGTTTTATACTCCCTGGCAAAGAAGGGCAAGCTACAGAAAGA
GGCAGGAACACCCCCTTTGTGGAAAATCGCGGTCTCCACTCAGGCTTGGAACCAGCACAGCGGAGTGGTAAGACC
AGACGGTCATAGCCAAGGAGCCCCAAACTCAGACCCGAGTTTGGAACCGGAAGACAGAAACTCCACATCTGTCTC
AGAAGATCTTCTTGAGCCTTTTATTGCAGTCTCAGCTCAGGCTTGGAACCAGCACAGCGGAGTGGTAAGACCAGA
CAGTCATAGCCAAGGATCCCCAAACTCAGACCCAGGTTTGGAACCTGAAGACAGCAACTCCACATCTGCCTTGGA
AGATCCTCTTGAGTTTTTAGACATGGCCGAGATCAAGGAGAAAATCTGCGACTATCTCTTCAATGTGTCTGACTC
CTCTGCCCTGAATTTGGCTAAAAATATTGGCCTTACCAAGGCCCGAGATATAAATGCTGTGCTAATTGACATGGA
AAGGCAGGGGGATGTCTATAGACAAGGGACAACCCCTCCCATATGGCATTTGACAGACAAGAAGCGAGAGAGGAT
GCAAATCAAGAGAAATACGAACAGTGTTCCTGAAACCGCTCCAGCTGCAATCCCTGAGACCAAAAGAAACGCAGA
GTTCCTCACCTGTAATATACCCACATCAAATGCCTCAAATAACATGGTAACCACAGAAAAAGTGGAGAATGGGCA
GGAACCTGTCATAAAGTTAGAAAACAGGCAAGAGGCCAGACCAGAACCAGCAAGACTGAAACCACCTGTTCATTA
CAATGGCCCCTCAAAAGCAGGGTATGTTGACTTTGAAAATGGCCAGTGGGCCACAGATGACATCCCAGATGACTT
GAATAGTATCCGCGCAGCACCAGGTGAGTTTCGAGCCATCATGGAGATGCCCTCCTTCTACAGTCATGGCTTGCC
ACGGTGTTCACCCTACAAGAAACTGACAGAGTGCCAGCTGAAGAACCCCATCAGCGGGCTGTTAGAATATGCCCA
GTTCGCTAGTCAAACCTGTGAGTTCAACATGATAGAGCAGAGTGGACCACCCCATGAACCTCGATTTAAATTCCA
GGTTGTCATCAATGGCCGAGAGTTTCCCCCAGCTGAAGCTGGAAGCAAGAAAGTGGCCAAGCAGGATGCAGCTAT
GAAAGCCATGACAATTCTGCTAGAGGAAGCCAAAGCCAAGGACAGTGGAAAATCAGAAGAATCATCCCACTATTC
CACAGAGAAAGAATCAGAGAAGACTGCAGAGTCCCAGACCCCCACCCCTTCAGCCACATCCTTCTTTTCTGGGAA
GAGCCCCGTCACCACACTGCTTGAGTGTATGCACAAATTGGGGAACTCCTGCGAATTCCGTCTCCTGTCCAAAGA
AGGCCCTGCCCATGAACCCAAGTTCCAATACTGTGTTGCAGTGGGAGCCCAAACTTTCCCCAGTGTGAGTGCTCC
CAGCAAGAAAGTGGCAAAGCAGATGGCCGCAGAGGAAGCCATGAAGGCCCTGCATGGGGAGGCGACCAACTCCAT
GGCTTCTGATAACCAGCCTGAAGGTATGATCTCAGAGTCACTTGATAACTTGGAATCCATGATGCCCAACAAGGT
CAGGAAGATTGGCGAGCTCGTGAGATACCTGAACACCAACCCTGTGGGTGGCCTTTTGGAGTACGCCCGCTCCCA
TGGCTTTGCTGCTGAATTCAAGTTGGTCGACCAGTCCGGACCTCCTCACGAGCCCAAGTTCGTTTACCAAGCAAA
AGTTGGGGGTCGCTGGTTCCCAGCCGTCTGCGCACACAGCAAGAAGCAAGGCAAGCAGGAAGCAGCAGATGCGGC
TCTCCGTGTCTTGATTGGGGAGAACGAGAAGGCAGAACGCATGGGTTTCACAGAGGTAACCCCAGTGACAGGGGC
CAGTCTCAGAAGAACTATGCTCCTCCTCTCAAGGTCCCCAGAAGCACAGCCAAAGACACTCCCTCTCACTGGCAG
CACCTTCCATGACCAGATAGCCATGCTGAGCCACCGGTGCTTCAACACTCTGACTAACAGCTTCCAGCCCTCCTT
GCTCGGCCGCAAGATTCTGGCCGCCATCATTATGAAAAAAGACTCTGAGGACATGGGTGTCGTCGTCAGCTTGGG
AACAGGGAATCGCTGTGTGAAAGGAGATTCTCTCAGCCTAAAAGGAGAAACTGTCAATGACTGCCATGCAGAAAT
AATCTCCCGGAGAGGCTTCATCAGGTTTCTCTACAGTGAGTTAATGAAATACAACTCCCAGACTGCGAAGGATAG
TATATTTGAACCTGCTAAGGGAGGAGAAAAGCTCCAAATAAAAAAGACTGTGTCATTCCATCTGTATATCAGCAC
TGCTCCGTGTGGAGATGGCGCCCTCTTTGACAAGTCCTGCAGCGACCGTGCTATGGAAAGCACAGAATCCCGCCA
CTACCCTGTCTTCGAGAATCCCAAACAAGGAAAGCTCCGCACCAAGGTGGAGAACGGAGAAGGCACAATCCCTGT
GGAATCCAGTGACATTGTGCCTACGTGGGATGGCATTCGGCTCGGGGAGAGACTCCGTACCATGTCCTGTAGTGA
CAAAATCCTACGCTGGAACGTGCTGGGCCTGCAAGGGGCACTGTTGACCCACTTCCTGCAGCCCATTTATCTCAA
ATCTGTCACATTGGGTTACCTTTTCAGCCAAGGGCATCTGACCCGTGCTATTTGCTGTCGTGTGACAAGAGATGG
GAGTGCATTTGAGGATGGACTACGACATCCCTTTATTGTCAACCACCCCAAGGTTGGCAGAGTCAGCATATATGA
TTCCAAAAGGCAATCCGGGAAGACTAAGGAGACAAGCGTCAACTGGTGTCTGGCTGATGGCTATGACCTGGAGAT

FIGURE 1225B

CCTGGACGGTACCAGAGGCACTGTGGATGGGCCACGGAATGAATTGTCCCGGGTCTCCAAAAAGAACATTTTTCT
TCTATTTAAGAAGCTCTGCTCCTTCCGTTACCGCAGGGATCTACTGAGACTCTCCTATGGTGAGGCCAAGAAAGC
TGCCCGTGACTACGAGACGGCCAAGAACTACTTCAAAAAAGGCCTGAAGGATATGGGCTATGGGAACTGGATTAG
CAAACCCCAGGAGGAAAAGAACTTTTATCTCTGCCCAGTATAGTATGCTCCAGTGACAGATGGATTAGGGTGTGT
CATACTAGGGTGTGAGAGAGGTAGGTCGTAGCATTCCTCATCACATGGTCAGGGGATTTTTTTTTCTCCTTTTTT
TTTCTTTTTAAGCCATAATTGGTGATACTGAAAACTTTGGGTTCCCATTTATCCTGCTTTCTTTGGGATTGCTAG
GCAAGGTCTGGCCAGGCCCCCCTTTTTTCCCCCAAGTGAAGAGGCAGAAACCTAAGAAGTTATCTTTTCTTTCTA
CCCAAAGCATACATAGTCACTGAGCACCTGCGGTCCATTTCCTCTTAAAAGTTTTGTTTTGATTTGTTTCCATTT
CCTTTCCCTTTGTGTTTGCTACACTGACCTCTTGCGGTCTTGATTAGGTTTCAGTCAACTCTGGATCATGTCAGG
GACTGATAATTTCATTTGTGGATTACGCAGACCCCTCTACTTCCCCTCTTTCCCTTCTGAGATTCTTTCCTTGTG
ATCTGAATGTCTCCTTTTCCCCCTCAGAGGGCAAAGAGGTGAACATAAAGGATTTGGTGAAACATTTGTAAGGGT
AGGAGTTGAAAACTGCAGTTCCCAGTGCCACGGAAGTGTGATTGGAGCCTGCAGATAATGCCCAGCCATCCTCCC
ATCCTGCACTTTAGCCAGCTGCAGGGCGGGCAAGGCAAGGAAAGCTGCTTCCCTGGAAGTGTATCACTTTCTCCG
GCAGCTGGGAAGTCTAGAACCAGCCAGACTGGGTTAAGGGAGCTGCTCAAGCAATAGCAGAGGTTTCACCCGGCA
GGATGACACAGACCACTTCCCAGGGAGCACGGGCATGCCTTGGAATATTGCCAAGCTTCCAGCTGCCTCTTCTCC
TAAAGCATTCCTAGGAATATTTTCCCCGCCAATGCTGGGCGTACACCCTAGCCAACGGGACAAATCCTAGAGGGT
ATAAAATCATCTCTGCTCAGATAATCATGACTTAGCAAGAATAAGGGCAAAAAATCCTGTTGGCTTAACGTCACT
GTTCCACCCGGTGTAATATCTCTCATGACAGTGACACCAAGGGAAGTTGACTAAGTCACATGTAAATTAGGAGTG
TTTTAAAGAATGCCATAGATGTTGATTCTTAACTGCTACAGATAACCTGTAATTGAGCAGATTTAAAATTCAGGC
ATACTTTTCCATTTATCCAAGTGCTTTCATTTTTCCAGATGGCTTCAGAAGTAGGCTCGTGGGCAGGGCGCAGAC
CTGATCTTTATAGGGTTGACATAGAAAGCAGTAGTTGTGGGTGAAAGGGCAGGTTGTCTTCAAACTCTGTGAGGT
AGAATCCTTTGTCTATACCTCCATGAACATTGACTCGTGTGTTCAGAGCCTTTGGCCTCTCTGTGGAGTCTGGCT
CTCTGGCTCCTGTGCATTCTTTGAATAGTCACTCGTAAAAACTGTCAGTGCTTGAAACTGTTTCCTTTACTCATG
TTGAAGGGACTTTGTTGGCTTTTAGAGTGTTGGTCATGACTCCAAGAGCAGAGCAGGGAAGAGCCCAAGCATAGA
CTTGGTGCCGTGGTGATGGCTGCAGTCCAGTTTTGTGATGCTGCTTTTACGTGTCCCTCGATAACAGTCAGCTAG
ACACACTCAGGAGGACTACTGAGGCTCTGCGACCTTCAGGAGCTGAGCCTGCCTCTCTCCTTTAGATGACAGACC
TTCATCTGGGAACGTGCTGAGCCAGCACCCTCAGATGATTTCCCTCCAAACTGCTGACTAGGTCATCCTCTGTCT
GGTAGAGACATTCACATCTTTGCTTTTATTCTATGCTCTCTGTACTTTTGACCAAAAATTGACCAAAGTAAGAAA
ATGCAAGTTCTAAAAATAGACTAAGGATGCCTTTGCAGAACACCAAAGCATCCCAAGGAACTGGTAGGGAAGTGG
CGCCTGTCTCCTGGAGTGGAAGAGGCCTGCTCCCTGGCTCTGGGTCTGCTGGGGGCACAGTAAATCAGTCTTGGC
ACCCACATCCAGGGCAGAGAGGTCTGTGGTTCTCAGCATCAGAAGGCAGCGCAGCCCCTCTCCTCTTCAGGCTAC
AGGGTTGTCACCTGCTGAGTCCTCAGGTTGTTTGGCCTCTCTGGTCCATCTTGGGCATTAGGTTCTCCAGCAGAG
CTCTGGCCAGCTGCCTCTTCTTTAACTGGGAACACAGGCTCTCACAAGATCAGAACCCCCACTCACCCCCAAGAT
CTTATCTAGCAAGCCTGTAGTATTCAGTTTCTGTTGTAGGAAGAGAGCGAGGCATCCCTGAATTCCACGCATCTG
CTGGAAACGAGCCGTGTCAGATCGCACATCCCTGCGCCCCCATGCCCCTCTGAGTCACACAGGACAGAGGAGGCA
GAGCTTCTGCCCACTGTTATCTTCACTTTCTTTGTCCAGTCTTTTGTTTTTAATAAGCAGTGACCCTCCCTACTC
TTCTTTTTAATGATTTTTGTAGTTGATTTGTCTGAACTGTGGCTACTGTGCATTCCTTGAATAATCACTTGTAAA
AATTGTCAGTGCTTGAAGCTGTTTCCTTTACTCACATTGAAGGGACTTCGTTGGTTTTTTGGAGTCTTGGTTGTG
ACTCCAAGAGCAGAGTGAGGAAGACCCCCAAGCATAGACTCGGGTACTGTGATGATGGCTGCAGTCCAGTTTTAT
GATTCTGCTTTTATGTGTCCCTTGATAACAGTGACTTAACAATATACATTCCTCATAAATAAAAAAAAAACAAGA
ATCTGAATTCTT

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FIGURE 1226

GCAGCAGGCCAAGGGGGAGGTGCGAGCGTGGACCTGGGACGGGTCTGGGCGGCTCTCGGTGGTTGGCACGGGTTC
GCACACCCATTCAAGCGGCAGGACGCACTTGTCTTAGCAGTTCTCGCTGACCGCGCTAGCTGCGGCTTCTACGCT
CCGGCACTCTGAGTTCATCAGCAAACGCCCTGGCGTCTGTCCTCACC**ATG**CCTAGCCTTTGGGACCGCTTCTCGT
CGTCGTCCACCTCCTCTTCGCCCTCGTCCTTGCCCCGAACTCCCACCCCAGATCGGCCGCCGCGCTCAGCCTGGG
GGTCGGCGACCCGGGAGGAGGGGTTTGACCGCTCCACGAGCCTGGAGAGCTCGGACTGCGAGTCCCTGGACAGCA
GCAACAGTGGCTTCGGGCCGGAGGAAGACACGGCTTACCTGGATGGGGTGTCGTTGCCCGACTTCGAGCTGCTCA
GTGACCCTGAGGATGAACACTTGTGTGCCAACCTGATGCAGCTGCTGCAGGAGAGCCTGGCCCAGGCGCGGCTGG
GCTCTCGACGCCCTGCGCGCCTGCTGATGCCTAGCCAGTTGGTAAGCCAGGTGGGCAAAGAACTACTGCGCCTGG
CCTACAGCGAGCCGTGCGGCCTGCGGGGGGCGCTGCTGGACGTCTGCGTGGAGCAGGGCAAGAGCTGCCACAGCG
TGGGCCAGCTGGCACTCGACCCCAGCCTGGTGCCCACCTTCCAGCTGACCCTCGTGCTGCGCCTGGACTCACGAC
TCTGGCCCAAGATCCAGGGGCTGTTTAGCTCCGCCAACTCTCCCTTCCTCCCTGGCTTCAGCCAGTCCCTGACGC
TGAGCACTGGCTTCCGAGTCATCAAGAAGAAGCTGTACAGCTCGGAACAGCTGCTCATTGAGGAGTGT**TGA**ACTT
CAACCTGAGGGGGCCGACAGTGCCCTCCAAGACAGAGACGACTGAACTTTTGGGGTGGAGACTAGAGGCAGGAGC
TGAGGGACTGATTCCTGTGGTTGGAAAACTGAGGCAGCCACCTAAGGTGGAGGTGGGGGAATAGTGTTTCCCAGG
AAGCTCATTGAGTTGTGTGCGGGTGGCTGTGCATTGGGGACACATACCCCTCAGTACTGTAGCATGAAACAAAGG
CTTAGGGGCCAACAAGGCTTCCAGCTGGATGTGTGTGTAGCATGTACCTTATTATTTTTGTTACTGACAGTTAAC
AGTGGTGTGACATCCAGAGAGCAGCTGGGCTGCTCCCGCCCCAGCCCGGCCCAGGGTGAAGGAAGAGGCACGTGC
TCCTCAGAGCAGCCGGAGGGAGGGGGGAGGTCGGAGGTCGTGGAGGTGGTTTGTGTATCTTACTGGTCTGAAGGG
ACCAAGTGTGTTTGTTGTTTGTTTTGTATCTTGTTTTTCTGATCGGAGCATCACTACTGACCTGTTGTAGGCAGC
TATCTTACAGACGCATGAATGTAAGAGTAGGAAGGGGTGGGTGTCAGGGATCACTTGGGATCTTTGACACTTGAA
AAATTACACCTGGCAGCTGCGTTTAAGCCTTCCCCCATCGTGTACTGCAGAGTTGAGCTGGCAGGGGAGGGGCTG
AGAGGGTGGGGGCTGGAACCCCTCCCCGGGAGGAGTGCCATCTGGGTCTTCCATCTAGAACTGTTTACATGAAGA
TAAGATACTCACTGTTCATGAATACACTTGATGTTCAAGTATTAAGACCTATGCAATATTTTTTACTTTTCTAAT
AAACATGTTTGTTAAAAC

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FIGURE 1227

GGCGAACACGCCGCGGTCCTCGTCGTGGTGAGCGCAGCCACTCAGGCTGGTCCTGGGGGTGGGGCTGTAGGGGAA
AGTGCTAAAGCCGCTGAGTGAAGTAAGAACTCTGCTAGAGAGGAA**ATG**GCTGCTTCATCATCATCCTCCTCAGCT
GGTGGGGTCAGTGGAAGTTCTGTCACTGGATCTGGTTTCAGTGTCTCAGACCTTGCCCCACCACGGAAAGCCCTT
TTCACCTACCCCAAAGGAGCTGGAGAGATGTTAGAAGATGGCTCTGAGAGATTCCTCTGCGAATCTGTTTTTAGC
TATCAAGTGGCATCCACGCTTAAACAGGTGAAACATGATCAGCAAGTTGCTCGGATGGAAAAACTAGCTGGTTTG
GTAGAAGAGCTGGAGGCTGACGAGTGGCGGTTTAAGCCCATCGAGCAGCTGCTGGGATTCACCCCCTCTTCAGGT
TGATACTGCCTGGATGGTCACCTCTGGTGCGCAGCAAGTGCAAAGCCAGTGGGGGGACTTTCTCACAGCTTACATA
GCCATCCAGAGATCCACAGCTACGTCACTGAATTGTTAATGCACATTTGTACTTGGTTTCTCTGTATCTATTCAC
AGGCAACAAATACTTATATGTGTGATCTTTCAGGGAATGTTTTGTTTATTTGTTTTTAAAAGTATTGGGAATCAG
ATTAAGACAATCAGTTTCAGAGAACCAGGAGGTTTGGGGTTAAGAGATACTCAAAAATTTTCACAAGCCAAGTAG
GGCATATATCAGATTTGGCCAACTGAATGGCGTCTGTCCTGTCATCCATATGGTGCCTGGAAATATTTACCAGTC
AAGGTCAAGGTCAGCATCTGTGGTTAAAAATATAGCATTCTGACCTAAAAAAGTTATTTTGCAGATGAATGTGTT
TTCAACTCAGGACCTATCCAAATGAGGAATTTTTAAATATTCTTTTTTTTTTCCTATTTTTAGACATCAATTCTA
TAGATTCTGACTTTTTCTAACCTCTTATAGACATGCCAAATGCTGGCAAAAAGAAGTGCTTTTTGGATATGGCAG
CACTTGTAAAAATAAAGCAGTAAGCAAAATCCTTTTAAACACAGAAATCCTGAGTTCTTCTCATTGGTGGACTCA
AGCAATTCTGTAGCAAATAAATCCTTTGAAAGAGCTCC

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FIGURE 1228

CGCATTGCAGACTGCGGAGTCAGACGGCGCT**ATG**TACGCCCTCTTCCTCCTGGCCAGCCTCCTGGGCGCGGCTCT
AGCCGGCCCGGTCCTTGGACTGAAAGAATGCACCAGGGGCTCGGCAGTGTGGTGCCAGAATGTGAAGACGGCGTC
CGACTGCGGGGCAGTGAAGCACTGCCTGCAGACCGTTTGGAACAAGCCAACAGTGAAATCCCTTCCCTGCGACAT
ATGCAAAGACGTTGTCACCGCAGCTGGTGATATGCTGAAGGACAATGCCACTGAGGAGGAGATCCTTGTTTACTT
GGAGAAGACCTGTGACTGGCTTCCGAAACCGAACATGTCTGCTTCATGCAAGGAGATAGTGGACTCCTACCTCCC
TGTCATCCTGGACATCATTAAAGGAGAAATGAGCCGTCCTGGGGAGGTGTGCTCTGCTCTCAACCTCTGCGAGTC
TCTCCAGAAGCACCTAGCAGAGCTGAATCACCAGAAGCAGCTGGAGTCCAATAAGATCCCAGAGCTGGACATGAC
TGAGGTGGTGGCCCCCTTCATGGCCAACATCCCTCTCCTCCTCTACCCTCAGGACGGCCCCCGCAGCAAGCCCCA
GCCAAAGGATAATGGGGACGTTTGCCAGGACTGCATTCAGATGGTGACTGACATCCAGACTGCTGTACGGACCAA
CTCCACCTTTGTCCAGGCCTTGGTGGAACATGTCAAGGAGGAGTGTGACCGCCTGGGCCCTGGCATGGCCGACAT
ATGCAAGAACTATATCAGCCAGTATTCTGAAATTGCTATCCAGATGATGATGCACATGCAACCCAAGGAGATCTG
TGCGCTGGTTGGGTTCTGTGATGAGGTGAAAGAGATGCCCATGCAGACTCTGGTCCCCGCCAAAGTGGCCTCCAA
GAATGTCATCCCTGCCCTGGAACTGGTGGAGCCCATTAAGAAGCACGAGGTCCCAGCAAAGTCTGATGTTTACTG
TGAGGTGTGTGAATTCCTGGTGAAGGAGGTGACCAAGCTGATTGACAACAACAAGACTGAGAAAGAAATACTCGA
CGCTTTTGACAAAATGTGCTCGAAGCTGCCGAAGTCCCTGTCGGAAGAGTGCCAGGAGGTGGTGGACACGTACGG
CAGCTCCATCCTGTCCATCCTGCTGGAGGAGGTCAGCCCTGAGCTGGTGTGCAGCATGCTGCACCTCTGCTCTGG
CACGCGGCTGCCTGCACTGACCGTTCACGTGACTCAGCCAAAGGACGGTGGCTTCTGCGAAGTGTGCAAGAAGCT
GGTGGGTTATTTGGATCGCAACCTGGAGAAAAACAGCACCAAGCAGGAGATCCTGGCTGCTCTTGAGAAAGGCTG
CAGCTTCCTGCCAGACCCTTACCAGAAGCAGTGTGATCAGTTTGTGGCAGAGTACGAGCCCGTGCTGATCGAGAT
CCTGGTGGAGGTGATGGATCCTTCCTTCGTGTGCTTGAAAATTGGAGCCTGCCCCTCGGCCCATAAGCCCTTGTT
GGGAACTGAGAAGTGTATATGGGGCCCAAGCTACTGGTGCCAGAACACAGAGACAGCAGCCCAGTGCAATGCTGT
CGAGCATTGCAAACGCCATGTGTGGAAC**TAG**GAGGAGGAATATTCCATCTTGGCAGAAACCACAGCATTGGTTTT
TTTCTACTTGTGTGTCTGGGGGAATGAACGCACAGATCTGTTTGACTTTGTTATAAAAATAGGGCTCCCCCACCT
CCCCCATTTCTGTGTCCTTTATTGTAGCATTGCTGTCTGCAAGGGAGCCCCTAGCCCCTGGCAGACATAGCTGCT
TCAGTGCCCCTTTTCTCTCTGCTAGATGGATGTTGATGCACTGGAGGTCTTTTAGCCTGCCCTTGCATGGCGCCT
GCTGGAGGAGGAGAGAGCTCTGCTGGCATGAGCCACAGTTTCTTGACTGGAGGCCATCAACCCTCTTGGTTGAGG
CCTTGTTCTGAGCCCTGACATGTGCTTGGGCACTGGTGGGCCTGGGCTTCTGAGGTGGCCTCCTGCCCTGATCAG
GGACCCTCCCCGCTTTCCTGGGCCTCTCAGTTGAACAAAGCAGCAAAACAAAGGCAGTTTTATATGAAAGATTAG
AAGCCTGGAATAATCAGGCTTTTTAAATGATGTAATTCCCACTGTAATAGCATAGGGATTTTGGAAGCAGCTGCT
GGTGGCTTGGGACATCAGTGGGGCCAAGGGTTCTCTGTCCCTGGTTCAACTGTGATTTGGCTTTCCCGTGTCTTT
CCTGGTGATGCCTTGTTTGGGGTTCTGTGGGTTTGGGTGGGAAGAGGGCCATCTGCCTGAATGTAACCTGCTAGC
TCTCCGAAGGCCCTGCGGGCCTGGCTTGTGTGAGCGTGTGGACAGTGGTGGCCGCGCTGTGCCTGCTCGTGTTGC
CTACATGTCCCTGGCTGTTGAGGCGCTGCTTCAGCCTGCACCCCTCCCTTGTCTCATAGATGCTCCTTTTGACCT
TTTCAAATAAATATGGATGGCGAGCTCCTAGGCCTCTGGCTTCCTGGTAGAGGGCGGCATGCCGAAGGGTCTGCT
GGGTGTGGATTGGATGCTGGGGTGTGGGGGTTGGAAGCTGTCTGTGGCCCACTTGGGCACCCACGCTTCTGTCCA
CTTCTGGTTGCCAGGAGACAGCAAGCAAAGCCAGCAGGACATGAAGTTGCTATTAAATGGACTTCGTGATTTTTG
TTTTGCACTAAAGTTTCTGTGATTTAACAATAAAATTCTGTTAGCC

FIGURE 1229

GAGGAAGAGGCTGAGGAGGCGCGGGGGGCGGGGGAGGCTCAGGAGCGGGCGGTGACGGCGACGGCGGCGGCAGAG
GAGGCAGCGGCTGGGCCGGGCCCCGTGCGTCTGTCCGCGCCCCGTGGATGCGAATCGGCCGCGGCGGAGGCGGCG
GCGGCGGAGGAGGCGGCGGCGGGAGGAGGAGTCGGTGAGCCGGCTCCGGGCCGGAGGGGCGCGGAGG**ATG**AGGCC
GCTGCCTGGCGCTCTTGGCGTGGCGGCGGCCGCCGCGCTGTGGCTGCTGCTGCTGCTGCTGCCCCGGACCCGGGC
GGACGAGCACGAACACACGTATCAAGATAAAGAGGAAGTTGTCTTATGGATGAATACTGTTGGGCCCTACCATAA
TCGTCAAGAAACATATAAGTACTTTTCACTTCCATTCTGTGTGGGGTCAAAAAAAAGTATCAGTCATTACCATGA
AACTCTGGGAGAAGCACTTCAAGGGGTTGAATTGGAATTTAGTGGTCTGGATATTAAATTTAAAGATGATGTGAT
GCCAGCCACTTACTGTGAAATTGATTTAGATAAAGAAAAGAGAGATGCATTTGTATATGCCATAAAAAATCATTA
CTGGTACCAGATGTACATAGATGATTTACCAATATGGGGTATTGTTGGTGAGGCTGATGAAAATGGAGAAGATTA
CTATCTTTGGACCTATAAAAAACTTGAAATAGGTTTTAATGGAAATCGAATTGTTGATGTTAATCTAACTAGTGA
AGGAAAGGTGAAACTGGTTCCAAATACTAAAATCCAGATGTCATATTCAGTAAAATGGAAAAAGTCAGATGTGAA
ATTTGAAGATCGATTTGACAAATATCTTGATCCGTCCTTTTTTCAACATCGGATTCATTGGTTTTCAATTTTCAA
CTCCTTCATGATGGTGATCTTCTTGGTGGGCTTAGTTTCAATGATTTTAATGAGAACATTAAGAAAAGATTATGC
TCGGTACAGTAAAGAGGAAGAAATGGATGATATGGATAGAGACCTAGGAGATGAATATGGATGGAAACAGGTGCA
TGGAGATGTATTTAGACCATCAAGTCACCCACTGATATTTTCCTCTCTGATTGGTTCTGGATGTCAGATATTTGC
TGTGTCTCTCATCGTTATTATTGTTGCAATGATAGAAGATTTATATACTGAGAGGGGATCAATGCTCAGTACAGC
CATATTTGTCTATGCTGCTACGTCTCCAGTGAATGGTTATTTTGGAGGAAGTCTGTATGCTAGACAAGGAGGAAG
GAGATGGATAAAGCAGATGTTTATTGGGGCATTCCTTATCCCAGCTATGGTGTGTGGCACTGCCTTCTTCATCAA
TTTCATAGCCATTTATTACCATGCTTCAAGAGCCATTCCTTTTGGAACAATGGTGGCCGTTTGTTGCATCTGTTT
TTTTGTTATTCTTCCTCTAAATCTTGTTGGTACAATACTTGGCCGAAATCTGTCAGGTCAGCCCAACTTTCCTTG
TCGTGTCAATGCTGTGCCTCGTCCTATACCGGAGAAAAAATGGTTCATGGAGCCTGCGGTTATTGTTTGCCTGGG
TGGAATTTTACCTTTTGGTTCAATCTTTATTGAAATGTATTTCATCTTCACGTCTTTCTGGGCATATAAGATCTA
TTATGTCTATGGCTTCATGATGCTGGTGCTGGTTATCCTGTGCATTGTGACTGTCTGTGTGACTATTGTGTGCAC
ATATTTTCTACTAAATGCAGAAGATTACCGGTGGCAATGGACAAGTTTTCTCTCTGCTGCATCAACTGCAATCTA
TGTTTACATGTATTCCTTTTACTACTATTTTTTCAAAACAAAGATGTATGGCTTATTTCAAACATCATTTTACTT
TGGATATATGGCGGTATTTAGCACAGCCTTGGGGATAATGTGTGGAGCGATTGGTTACATGGGAACAAGTGCCTT
TGTCCGAAAAATCTATACTAATGTGAAAATTGAC**TAG**AGACCCAAGAAAACCTGGAACTTTGGATCAATTTCTTT
TTCATAGGGGTGGAACTTGCACAGCAAAAACAAACAAACGCAAGAAGAGATTTGGGCTTTAACACACTGGGTACT
TTGTGGGTCTCTCTTTCGTCGGTGGCTTAAAGTAACATCTATTTCCATTGATCCTAGGTTCTTCCTGACTGCTTT
CTCCAACTGTTCACAGCAAATGCTTGGATTTTATGCAGTAGGCATTACTACAGTACATGGCTAATCTTCCCAAAA
ACTAGCTCATTAAAGATGAAATAGACCAGCTCTCTTCAGTGAAGAGGACAAATAGTTTATTTAAAGCATTTGTTC
CAATAAAATAAATAGAGGGAAACTTGGATGCTAAAATTACATGAATAGGAATCTTCCTGGCACTTAGTGTTTCTA
TGTTATTGAAAAATGATGTTCCAGAAAGATTACTTTTTTCCTCTTATTTTTACTGCCATTGTCGACCTATTGTGG
GACATTTTTATATATTGAATCTGGGTTCTTTTTTGACTTTTTTTTTTTCCCAATCCAACAGCATCCTTTTTTTTA
AAAGAGAGAATTAGAAAATATTAAATCCTGCATGTAATATATCTGCTGTCATCTTAGTTGGACCAACTTCCCATT
TATTTATCTTAAAACTATACAGTTACATCTTAATTCCATCCAAAGAAGATACAGTTTGAAGACAGAAGTGTACTC
TCTACAATGCAATTTACTGTACAGTTAGAAAGCAAAGTGTTAAATGGAGAAGATACTTGTTTTTATTAAACATTT
TGAGATTTAGATAAACTACATTTTAACTGAATGTCTAAAGTGATTATCTTTTTTCCCCCCAAGTTAGTCTTAAAT
CTTTTGGGTTTGAATGAAGGTTTTACATAAGAAATTATTAAAAACAAGGGGGGTGGGTAATAAATGTATATAACA
TTAAATAATGTAACGTAGGTGTAGATTCCCAAATGCATTTGGATGTACAGATCGACTACAGAGTACTTTTTTCTT
ATGATGATTGGTGTAGAAATGTGTGATTTGGGTGGGCTTTTACATCTTGCCTACCATTGCATGAAACATTGGGGT
TTCTTCAAAATGTGTGTGTCATACTTCTTTTGGGAGGGGGGTTGTTTTCTTCTGTTTATTTTCTGAGACTCCTAC
AGGAGCCAAATTTGTAATTTAGAGACACTTAATTTTGTTAATCCTGTCTGGGACACTTAAGTAACATCTAAAGCA
TTATTGCTTTAGAATGTTCAAATAAAATTTCCTGACCAAATTGTTTTGTGGAAATAGATGTGTTTGCAATTTGAA
GATATCTTTCTGTCCAGAAGGCAAAATTACCGAATGCCATTTTTAAAAGTATGCTATAAACTATGCTACTCTCAT
ACAGGGGACCCGTATTTTAAAATCTCCAGACTTGCTTACATCTAGATTATCCAGCACAATCATAAAGTGAATGAC
AAACCCTTTGAATGAAATTGTGGCACAAAATCTGTTCAGGTTGGTGTACCGTGTAAAGTGGGGATGGGGTAAAAG
TGGTTAACGTACTGTTGGATCAACAAATAAAGGTTACAGTTTTGTAAGAG

FIGURE 1230A

ATTCTGGCTGTGACTCAGTCACTGACACTGAGCCTGAGGACGAGAAGGTTGTTTCCTACTCGAAGCAGCAGAACC
TGCCGACGGTGACTTCACCTGGGAACCTG**ATG**GTGGTGCAGCCGGACCGCATTCGCTGTGGGGCAGAAACCACTG
TCTATGTTATTGTGAGATGTAAGCTGGATGACAGGGTGGCGACAGAAGCAGAGTTTTCTCCTGAGGATTCTCCCT
CTGTAAGGATGGAAGCCAAGGTGGAGAATGAGTACACCATTTCAGTGAAGGCTCCCAACCTTTCATCTGGGAACG
TTTCTCTGAAGATATATTCTGGAGACTTAGTGGTGTGTGAAACCGTTATCAGCTATTATACTGACATGGAAGAAA
TTGGGAATTTATTGTCCAATGCCGCGAATCCTGTGGAATTCATGTGTCAGGCCTTTAAAATTGTGCCCTACAACA
CAGAGACCCTTGATAAACTGCTAACCGAATCCCTGAAGAACAATATCCCTGCAAGCGGACTGCACCTCTTTGGAA
TCAACCAGCTGGAAGAAGAAGATATGATGACAAATCAGAGGGATGAAGAGCTGCCCACCCTGTTGCATTTTGCTG
CGAAGTATGGACTGAAGAACCTCACTGCCTTGTTGCTCACCTGCCCAGGAGCCCTGCAGGCGTACAGCGTGGCCA
ACAAGCATGGCCACTACCCCAACACCATCGCTGAGAAACACGGCTTCAGGGACCTGCGGCAGTTCATCGACGAGT
ATGTGGAAACGGTGGACATGCTCAAGAGTCACATTAAAGAGGAACTGATGCACGGGGAGGAGGCTGATGCTGTGT
ACGAGTCCATGGCCCACCTTTCCACAGACCTGCTTATGAAATGCTCGCTCAACCCCGGCTGTGACGAGGATCTCT
ATGAGTCCATGGCTGCCTTTGTCCCAGCTGCCACTGAAGACCTCTATGTTGAAATGCTTCAGGCCAGTACATCTA
ACCCAATCCCTGGAGATGGTTTCTCTCGGGCCACTAAGGACTCTATGATCCGCAAGTTTTTAGAAGGCAACAGCA
TGGGAATGACCAATCTGGAGAGAGATCAGTGCCATCTTGGTCAGGAAGAAGATGTTTATCACACGGTGGATGACG
ATGAGGCCTTTTCTGTGGACCTGGCCAGCAGGCCCCCTGTCCCAGTGCCCAGACCAGAGACCACTGCTCCTGGTG
CTCACCAGCTGCCTGACAACGAACCATACATTTTTAAAGTTTTTGCAGAAAAAAGTCAAGAGCGGCCTGGGAATT
TCTACGTTTCCTCAGAGAGCATCAGGAAAGGGCCGCCCGTCAGACCATGGAGGGACAGGCCCCAGTCGAGTATAT
ATGACCCTTTTGCGGGAATGAAAACGCCAGGCCAGCGGCAGCTTATCACCCTCCAGGAGCAGGTGAAGCTGGGCA
TTGTCAACGTGGATGAGGCTGTGCTCCACTTCAAAGAGTGGCAGCTCAACCAGAAGAAACGATCGGAGTCCTTTC
GTTTCCAGCAGGAAAATCTTAAACGGCTAAGAGACAGCATCACCCGAAGACAGAGAGAGAAGCAAAAATCAGGAA
AGCAGACAGACTTGGAGATCACGGTCCCAATTCGGCACTCACAGCACCTGCCTGCAAAAGTGGAGTTTGGAGTCT
ATGAGAGTGGCCCCAGGAAAAGTGTCATTCCCCCTAGGACGGAGCTGAGACGAGGAGACTGGAAAACAGACAGCA
CCTCCAGCACAGCAAGTAGCACAAGTAACCGCTCCAGCACCCGGAGCCTCCTCAGTGTGAGCAGCGGGATGGAAG
GGGACAACGAGGATAATGAAGTCCCTGAGGTTACCAGAAGTCGCAGTCCAGGCCCCCCACAAGTGGATGGGACAC
CCACCATGTCCCTCGAGAGACCCCCCAGGGTGCCTCCGAGAGCTGCCTCACAGAGGCCTCCGACCAGGGAGACCT
TCCATCCTCCTCCACCTGTTCCACCCAGAGGACGC**TGA**TTCCACCTCCTAAAACCTGCCTACTTCAGGACTTTAA
GACTCACAGTCTTCAGCCTGTTAATGATGTCTTCATGTTGAGTTTTATAGCATGACTGTTGACCTTAAGATCCAT
TCTCATTGCTGATAATGCTGCAGCCCTGCTGGTTTGGGCTTGCCTCGAAGATTTTATTAAGGCACGAAGAAGTGA
AAAACTAAGGGCTTCATTCACCATCACCAAGTATATCGAACCATATACTTGTTTGCCAAAAGGATGAAGACTTAA
TCGAAATACTTACCTCTAATTTGCCATATCAGAAGCCTAAAAAGAATGATCATAAATGTACTTCACCAGTGATTT
TACTGAAATGCACTTATATTAGTCTTTATGTATTTGCTAGTTCAGCCTGATTTCTAGAAGAGGTTATAGTGTGAG
ACTTGTAGTATTCAAGTAAGATAAGTGACCTAATTTTAAAATAATTCTTCTACTTTTCTGTATATTCAGCAGGGT
ATTTAAGTGCTAGGGCTGGTCACACACAACCAACTGAAAAAGACTAGAGGGATTAGTACAAACTCCTCTTATACA
GAAGGCAAATCTGAGGTTCCACAGAAGTCTGGAACCAAGACTATTCAGTTGGTTAAATAAAGAGGTTAGTCTAGA
CTGGGCCTGCTCATTCTAGGTCACCACATTTTCCATCTCCAAATAGCCAGGCCCTCTCTCCCTCAAGAAATGCCC
AGATGTAGAAATTCATCAGTGCCTATTGGTCTTCCAGAATTTTCCATCTTCCGTATCTCCCAGGCATGAGACTAC
CAAGTTTGTTTGTTTTCTTTCCAATTTGGGAATTTATACTTCAGTATGGTTTCAACGCAGTTATGTTTCCAGAGA
ACATCTAGAAGTGGCTGGAAACCAGAAGCTGGGGATTCCAGGGACCCCACTTAGTGCTCTATTTCCTTTATAGGT
TTTATTTCTGGTCATAGAGAGAGAAGGACCTTTGACTTTTTCTTCGTTGAGGCTTCTGAGGAGGAAAAACAAACC
TAAAATAGAAATACAGTCAGCCTTTCAAATCCATGGGTTCTGTGTCCGTGGATTCAACCAACCTTGGATCAAAAA
TATTTGAAAAAAAATCTACAAAGTTTCAAAAAGCAAAACTTGAATTTGCTGCATGCCAAGAAGTATGTTGAATTC
ATGTAAATGAAGTGATGTGTAGGCATTGTATTAGATATTATAAGAAATCTAGAAATGATTTAAAGCATACAGGAG
GATGTGCATAGGTTATATGCAAATACTATGCTATTTTATATATGGGACTTGAGCATTTGTGGATTTTGATACTGG
GGGATCCTGGAACCAATCCCCCATGGATACCAAAGTACGACTGTAGTTATCTATTTTTTACATACTTATTATTAC
CACCATGCTCAGTAAGTCCATTTTTGCATGGAATATGGAGCCTTAAAACATGTCATGAATTTGGAGTCCCTGGCA
CATAAATCTACCTTCAAATCAGAGGTCCTTAATGATGCCTAAACATACAGTAAAATTAGAATCAGAAATACTTCT
TTAAAAAATATTCAAAATGTGTTTGTTTCCCATGGGATTATTCTCTATCCCACACGAATGTAAAAAAATCCACAT

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FIGURE 1230B

TAATGATCCATTTAAGTATAGTTTTATTGGGTCCTTTTCTAATGATTAAAGGTTCTTTCTCAATTTCATTCCTCA
GTCCTGCAAGTAAGGACTCATACTGAAGAGTACTGAAACAAGGACTTCTTGTCAGAAACAGCTTCTGGAATCTTG
GGTTTTGTTTTTGTTTTTTGACAAAATACACTATTGGCCATGTCCATCACGAGAGTGTTTGTAGTAATTAATTAC
CTTGTACAGGACCTGGCACTTAGTAGCATTCTTCAAATGTTCCCTCAGTGATCCTTTTACTCTCCTTGTCACTTA
TTTGGGAGAAATAGGGGCACGTGAGATAAGAAGAAGAATAATTTTGATGTTGGTATGCTTGCCCTGTTACTTATA
GACAGTCTTTGTCATAGGCAAACTTGAATTTGATTTAAAATAGGGCTGGGAAAAATATTCAATAACTGTAAGCCC
CCTTTTGGATGCCAAACTTAGAATTTTGTACATTCTCTGATGAACAAGCATTTAGATCGTAACATGGTAAAGCCT
ATTACCAGCCAATGTTGTTAGCATCTTTGTATGCACATCACTGTTTGTGCAATATATGAATATTTTGTTGCATTG
TATTCTTATATAAAAATAAGTAGAAAACATAAAATTGAAATTGCTGATGAGAAGCCTTGTCTCGTGAATGTGATA
CACTTGAGACACGGATGGAACTGATCAGGAGTGCCAAGTCAAAAGCAGCAGATCTTAAGCCCTCACTGGTTGTTC
CTTTAACATCCAAAATGGTTGGTTATATGTAAAAGAAGAAAATGAAATAATCTGGATGAAACACTGGGACTGTGT
TATCAAAGAATGTCTGTAGTGATGAGGTGAAAATTTTCATTTTCCAGAAACAGAACTGCTCATTTATAACATAAA
TATATTCAACTTCCACA

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FIGURE 1231

CGAAG**ATG**GCGGAGGTGCAGGTCCTGGTGCTTGATGGTCGAGGCCATCTCCTGGGCCGCCTGGCGGCCATCGTGG
CTAAACAGGTACTGCTGGGCCGGAAGGTGGTGGTTGTACGCTGTGAAGGCATCAACATTTCTGGCAATTTCTACA
GAAACAAGTTGAAGTACCTGGCTTTCCTCCGCAAGCGGATGAACACCAACCCTTCCCGAGTCCCCTACCACTTCC
GGGCCCCCAGCCGCATCTTCTGGCGGACCGTGCGAGGTATGCTGCCCCACAAGACCAAGCGAGGCCAGGCCGCTC
TGGACCGTCTCAAGGTGTTTGACGGCATCCCACCGCCCTACGACAAGAAAAAGCGGATGGTGGTTCCTGCTGCCC
TCAAGGTCGTGCGTCTGAAGCCTACAAGAAAGTTTGCCTATCTGGGGCGCCTGGCTCACGAGGTTGGCTGGAAGT
ACCAGGCAGTGACAGCCACCCTGGAGGAGAAGAGGAAAGAGAAAGCCAAGATCCACTACCGGAAGAAGAAACAGC
TCATGAGGCTACGGAAACAGGCCGAGAAGAACGTGGAGAAGAAAATTGACAAATACACAGAGGTCCTCAAGACCC
ACGGACTCCTGGTC**TGA**GCCCAATAAAGACTGTTAATTCCTAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAA

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FIGURE 1232A

AGGCAGCAGCAGAGGGAGAGCTCGGGGCTTGGAGGGGAAACAGCGGAAGACCTAAGATTATCGGGAGGGCAGCAG
AGGCAGAGAACGAGGACAGGACCCTTGGCCGTCTTCTTCCAGGGAACGAGAGGTCACAGCCTCGCTCTCCGCTTA
GGCTTCTGGCGCCCCAGCTTAAAGCCGAGGCTGCGGCTGACAAAGGGCTCGCGCCGGTGCCGCCGCCCTTCTCAT
CCGGGCATTCGGGTCCCTGCGGAGAGGGAGGGGGAAGGGCAGAGGGGGAGGGGAAGGAGCCGGAGGGGCGCACAC
TTGGAGCTGAAGCCCTCTCCAGGGCTCCGGGCCGGTGCCCCAACGGACAGAGGTCGAGGAGGACCCGCAGAGGTG
GCAGCGGCCGGGGGCAGGAGG**ATG**GTGCAGAAGGAGAGTCAAGCGACGTTGGAGGAGCGGGAGAGCGAGCTCAGC
TCCAACCCTGCCGCCTCTGCGGGGGCATCGCTGGAGCCGCCGGCAGCTCCGGCACCCGGAGAAGACAACCCCGCC
GGGGCTGGGGGAGCGGCGGTGGCCGGGGCTGCAGGAGGGGCTCGGCGGTTCCTCTGCGGTGTGGTGGAAGGATTT
TATGGAAGACCTTGGGTTATGGAACAGAGAAAAGAACTCTTTAGAAGGCTCCAGAAATGGGAATTAAATACATAC
TTGTATGCCCCAAAAGATGACTACAAACATAGGATGTTTTGGCGAGAGATGTATTCAGTGGAGGAAGCTGAGCAA
CTTATGACTCTCATCTCTGCTGCACGAGAATATGAGATAGAGTTCATCTATGCGATCTCACCTGGATTGGATATC
ACTTTTTCTAACCCCAAGGAAGTATCCACATTGAAACGTAAATTGGACCAGGTTTCTCAGTTTGGGTGCAGATCA
TTTGCTTTGCTTTTTGATGATATAGACCATAATATGTGTGCAGCAGACAAAGAGGTATTCAGTTCTTTTGCTCAT
GCCCAAGTCTCCATCACAAATGAAATCTATCAGTACCTAGGAGAGCCAGAAACTTTCCTCTTCTGTCCCACAGAA
TACTGTGGCACTTTCTGTTATCCAAATGTGTCTCAGTCTCCATATTTAAGGACTGTGGGTGAAAAGCTTCTACCT
GGAATTGAAGTGCTTTGGACAGGTCCCAAAGTTGTTTCTAAAGAAATTCCAGTAGAGTCCATCGAAGAGGTTTCT
AAGATTATTAAGAGAGCTCCAGTAATCTGGGATAACATTCATGCTAATGATTATGATCAGAAGAGACTGTTTCTG
GGCCCGTACAAAGGAAGATCCACAGAACTCATCCCACGGTTAAAAGGAGTCCTCACTAATCCAAATTGTGAATTT
GAAGCCAACTACGTTGCTATCCACACCCTTGCCACCTGGTACAAATCAAACATGAATGGAGTGAGAAAAGATGTA
GTGATGACTGACAGTGAAGATAGTACTGTGTCCATCCAGATAAAATTAGAAAATGAAGGCAGTGATGAAGATATT
GAAACTGATGTACTCTATAGTCCACAGATGGCTCTAAAGCTAGCATTAACAGAATGGTTGCAAGAGTTTGGTGTG
CCTCATCAATACAGCAGTAGGCAAGTTGCACACAGTGGAGCTAAAGCAAGTGTAGTTGATGGGACTCCTTTAGTT
GCAGCACCCTCTTTAAATGCCACAACCGTAGTAACAACAGTTTATCAGGAGCCCATTATGAGCCAGGGAGCAGCC
TTGAGTGGTGAGCCTACTACTCTGACCAAGGAAGAAGAAAAGAAACAGCCTGATGAAGAACCCATGGACATGGTG
GTGGAAAAACAAGAAGAAACGGACCACAAGAATGACAATCAAATACTGAGTGAAATTGTTGAAGCGAAAATGGCA
GAGGAATTGAAACCAATGGACACTGATAAAGAGAGCATAGCTGAATCAAAATCCCCAGAGATGTCCATGCAAGAA
GATTGTATTAGTGACATTGCCCCCATGCAAACTGATGAACAGACAAACAAGGAGCAGTTTGTGCCAGGTCCAAAT
GAAAAGCCTTTGTACACTGCGGAACCAGTGACCCTGGAGGATTTGCAGTTACTTGCTGATCTATTCTACCTTCCT
TACGAGCATGGACCCAAAGGAGCACAGATGTTACGGGAATTTCAATGGCTTCGAGCAAATAGTAGTGTTGTCAGT
GTCAATTGCAAAGGAAAAGACTCTGAAAAAATTGAAGAATGGCGGTCACGAGCAGCCAAGTTTGAAGAGATGTGT
GGACTAGTGATGGGAATGTTCACTCGGCTCTCCAATTGTGCCAACAGGACAATTCTTTATGACATGTACTCCTAT
GTTTGGGATATCAAGAGTATAATGTCTATGGTGAAGTCTTTTGTACAGTGGTTAGGGTGTCGTAGTCATTCTTCA
GCACAATTCTTAATTGGAGACCAAGAACCCTGGGCCTTTAGAGGTGGTCTAGCAGGAGAGTTCCAGCGTTTGCTG
CCAATTGATGGGGCAAATGATCTCTTTTTTCAGCCACCTCCACTGACTCCTACCTCCAAAGTTTATACTATCAGA
CCTTATTTTCCTAAGGATGAGGCATCCGTGTACAAGATTTGCAGAGAAATGTATGACGATGGAGTGGGTTTACCC
TTTCAAAGTCAGCCTGATCTTATTGGAGACAAGTTAGTAGGAGGGCTGCTTTCCCTCAGCCTGGATTACTGCTTT
GTCCTAGAAGATGAAGATGGCATATGTGGTTATGCCTTGGGCACTGTAGATGTGACCCCCTTTATTAAAAAATGT
AAAATTTCCTGGATCCCCTTCATGCAGGAGAAGTATACCAAGCCAAATGGTGACAAGGAACTCTCTGAGGCTGAG
AAAATAATGTTGAGTTTCCATGAAGAACAGGAAGTACTGCCAGAAACTTTCCTTGCTAATTTCCCTTCTCTGATA
AAGATGGACATTCACAAAAAAGTAACTGACCCAAGTGTGGCCAAAAGCATGATGGCTTGCCTCCTGTCTTCACTG
AAGGCTAATGGCTCCCGGGGAGCTTTCTGTGAAGTGAGACCAGATGATAAAAGAATTCTGGAATTTTACAGCAAG
TTAGGATGTTTTGAAATTGCAAAAATGGAAGGATTTCCAAAGGATGTGGTTATACTTGGTCGGAGCCTG**TGA**CAT
TTGTTGACACTGTGAACTGTCCAAAAGTCTCTTAACTGCACCTTGTGAATGGTAGTTGAGGTCTTCATACAGTTC
AGCCTCTAGAATGGTAACAAATCAGCCAATTGGATTCGAAACAAAGAAGACTATGTAAAACTCACCCATCACACT
TTGAGACTACTCACTGGTTGGAAGAATATAGTATTGCAGCAAATCCTGTATGAAAGAGAGATGTGGGCTTCCTTT
TTGAGTCTTGTGTTAGGTGCTGAGACCTTTTACATGGGCTTATACAGGGAGAGAGTCTTCAATAAATGTAGTCAG
CACTATTTTCTGCATCCAGTGTGGTTGCGTTTCTCACCTGAGAGTAATCAAGATAACATCTGTCATCTTCCTTGG
TTTATTGAGTGAAATGCCTCTCAGTCTTAGGGGACATGGCAGAGATGAAAGAAAGAAAGAGTGGGTTTCAGAAGT

FIGURE 1232B

GTCAGGGTGGAGTGATTCCAAGTGGGATGGTTGTGGCATTAGTTTAAGCTGAATAAATAATTTCAATTTGGGGCA
GTTATTCTGCTTTTTGTAAAGCCGTGGCCAATTGTCTCCTGTAATGACTGTTGGTTCAGGCATGTTGTACTTTGT
AGGGACAAATGTGCATTTGTTTGTGGCAAAAGCCTACAATTGACAAACTTGTAAATTTCTTTGTATATAAACTAG
CTGTAACCTGACTATCCTTTGTGTTTACTGTTTTTGTAAATTTTTTTCCTCTATAAATGAAAGGGTGTTGGTTCA
GAATGGCACTTTGAATAATGTAAACCAGTGAAAAGTGGATTTTCTTTACTTTTGTCTTTGGGTTTGGGGTTGTTT
TTGTTCTTTTTGAAGTTTTATTATTTTTAAAGTGCCTCCCACCTAGGCGTAGGCCATGACCATTTGGGGTACGAG
AGCCTAATTTTGTAGGACTTAATCTGTTGAAAAGTGCAGTTACTTCTGGAAATTAACCTCAATATTAGGTCAGCA
TGTGAAATGTTGGATTTGACATGTCAGGTAGGGTTCAGGGACTGATTGGTCCCATTTGCCCTCAGGTCAGTTGTT
TAATCTCAAGACCTGTTACTACTGATTTTATTAAATCAGAGTCTTTAATTCTTGCATGTTTGTATCTAATTTCTG
AATGAATGAGCACACTTTAACCAGTTATTTACAGTTACCTTTTTCCTTTAACCGGATTGTGAAAGCTTCATGTAT
TTTAATTTAGATTCTGTGTTTTTAAGGGTTCTGAGCATGAAGCTGGCAGATAGTCGGCAGGACTCATTTTTTCAT
CATGGCTGGCTGATTTCTCCATAGATTGATAACAGTATTTTGTTATCTTGCTTCTCTGTAGTTTTGCATCAGCTG
TTTAACTTTGAGCTGAGTGAGGGGAGAGGGGTAAAGAGAAAGAAACTTAAGTTTTCTTTCACAGAACTCCACCAT
TGTGGGCTTTGAGAGAGCCCTAAAGCATTGTACCTAGTGGTACCTAGTGACTTCCAACCAAAGCCTTTGAGTATG
CACTAAATAGGTGAGAAGAAAGGAGAGAAGGTTTTTAGGTTAGAAACCTTTAACCGATAGAAGGATATGGTATGT
TGTAAAGCTGGAACCAAGTTTGCATTTTTGAGGGCTTGAGATGAAGGGAAGACTCTTACCAGATAGTAAGACAGC
TGAGTTTTCCTCAGTTTTCTCGTCTTAACACTAGTGGACAATTCTAGCATTTTGTTTGGAGGATTTCAGAGTTAA
CCTCATGGAATTCAGGATTTTTTAGCAAGTTTGCTTTTGGTTTTATCTTGGCTTTTAGTAATCATGTTGGCTGGT
CTGGTCACAGGTGACTGTGAAACAGATGCCCTGGTCTTGCTTTCATCACTCTAGGATCATGAAGTGCTATGCTAT
TTCCTGGTTATGAATATTAAGGTTGGAATTACATTTTTATTGATTGTTTGGATCAGAGCTCAGTTCCTGTAGAAA
ACGAACTGTAAAAGACCATGCAAGAGGCAAAATAAAACTTGAAGTG

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FIGURE 1233

GCCT**ATG**AGACACAGGAAGAAGGCAGCAGACAAGAATCTTCCCTGCCGTCCTTTAGTATGTGCAGTACTGGACCT
GATGGTAGAGTTTATTGTAACACACATGATGAAGGAGTTTCCTATGGATCTCTATATACGCTGCATCCAGGTAGT
ACACAAACTGCTCTGCTACCAGAAGAAGTGTCGGGTACGCCTGCATTACACCTGGCGGGAGCTCTGGTCAGCCTT
GATAAATTTGCTGAAGTTCCTTATGTCAAATGAGACTGTACTTTTGGCCAAACACAACATTTTTACATTAGCCCT
TATGATTGTGAACCTATTTAATATGTTTATCACATATGGCGACACATTTCTGCCAACCCCCAGCAGCTATGATGA
ACTTTACTATGAGATTATCCGCATGCACCAGAGCTTTGACAACCTCTACTCCATGGTCCTGAGGCTTTCTACCAA
TGCAGGCCAGTGGAAGGAAGCAGCTAGCAAGGTGACCCATGCATTGGTTAATATCAGAGCCATCATCAACCACTT
TAACCCCAAAATTGAGTCCTACGCTGCTGTGAATCACATATCCCAACTGTCAGAGGAGCAGGTGCTGGAGGTGGT
GAGAGCCAACTATGACACGCTCACGCTGAAGCTGCAGGATGGCCTGGACCAGTATGAGCGCTACTCAGAGCAGCA
CAAGGAAGCTGCCTTCTTCAAAGAGCTGGTTCGATCCATTAGCACCAACGTCCGGAGAAACCTGGCCTTCCACAC
ACTCAGCCAAGAAGTCCTGCTCAAGGAGTTCTCCACTATCTCC**TGA**GGCCACGCCTACCTGAGCAGCCTCTGACT
GCCCTTACCCATGAGGATCATGGGCTGGAGGGGGAGCGAGGGGAGAGGGGGCTGCCCCCGAGGTTGGAGAGAAAC
ACAGATACCAAGTTCTCTTGGTGAAGACCGCACTTCAATGGAGCTTGGGCAGCAGGGGCAGGAGGGTCAAGCCAG
GGATAATCTTATTTGGGGAGGAATGGGTGGGCACAGTGGGGAGAGGCCTCCAGGAATGTGGGGACTTCCAGAGTG
GGCTCCCTAAACAGCCCCTCACATTTCCAATCTTGAGGTTACAAGCTGTAGCTACTGACTAATTTTCGGGAGCTG
GTGAGGCAAGCCTCAGGGTAATGCCAGCACCCTGAAAGTCAGTGGCTCTGCTCGGCTTCTGAAAACAGATCAACT
CTCAGATATAGCTGGAGCTACATCCTGCTTCCTTTGGGCCTGGGGCTGTGCTTGGCTTGAAATCTGTGTCCCCTG
CCTGCACTGGCACTTTGTCCAGTCATCGGGACCTTTGGCTCAGATTTAGGGTAAGATAGGAATAGGGTACCTTTT
TCCTTTTTTTTCTGAGACGGAGTCTCACTCTGTCGCCCAGGCTGGAATGCAGTGGCGTGATCTCGGCTTTACTGC
AGCCTCCGCTTCCTGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGACTACAGGAGCGTGTGCC
ACGCCCGGCTAATTTTTTGTATTTTTAGTAGAGATGGGGTTTCACCATGTTACCCAGGATGGTCTCAATATCCTG
AGTTCATGATCCACCCACCTTGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCACACCCAGCCAGTTTT
CCTATTTTCTGAATTCAGAATTGACTTCTCTGGGAAAACTGGAGATGAGAATCTGCCCAGTGCTCTGCTGTCCAG
TCACCGCCTTTTGAATTTTAGTTTTGGCACCAGGAGTACCGTTAGCTTTCCCCTTCTTCTGGCCCATTTGACTCA
TCAGCACAATAGGGTCACCACCTTAACTTTTAATTTCTAATCTGCTTTACTGTCTTTAGGGTGTGTATGAAATAA
ACATTGACAGGCTTTCTGGAGCCCTCAAGGTGCCTACTTTGCTGGTTCCCTTTCCAGCAGCTCCCCCACCTCCCT
TAGCCCCCCCTCCTCTGGCAGCCTCTCCTGCCTCTGCTGAGCTCCCCTCCACGTGTTCCACCCCCTTACCCTGCT
GTTGTTTACATCCAACCTGCCTGAGAATTTCCTCTGGGGAGGAATCTATTCCTGTCATGGTCTAGTGCCTGGGAG
GGAGAGAACTTTCTGGGGGTAGGGTGCCCTCCATCTGAAACAGGCCAGGTGAGCATCATGCATAAGGCCTCCATT
CTGTCCGCTCAGATTCTGGGTGGGGCCACAGGCAAATCTCCTGACTTATGGGGAGTTGGCTTGTGGTTCCTCCCT
TGGATAGCCTCCATGGAACCACTATAGGCTTTCCCAACAGCTGCCTCTGAAATAGCTGCTGCTTCGAGATCCTCC
CTTTTTAAAGCACTTTCTAAAGCCCTCAGGATGGCGGGAGCAAACAGCACTGGTATATTCTAGGAGTAAGTGCAG
GAATTCAGCAGTGAGAGCATGTCTGGGACCACCTGGACTGCCATCCATTTAACCTCAAATCTCTTTGGGATACTC
GCCCTCCCTGGGAACCAGAGTTCTGGCTCTAACATTGAGCAGCTATGCACTAGTTCCAGAGAAGCCACTAACAGG
CTGCCATGTGTAGATGTAGGTTCTTAAGAGATCACAGGCTGGGTCATCTGATCACTGGATGGATAGCTCAGCCTG
GGGCATTTAGTGTTTTCCCTGGTGATAAATCCCCAAGGCAGCTGGATTTGGAGCTGGTGGCAAGTTGAAATTATT
AAAAATTGATTTGTGTGGGACTGTC

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FIGURE 1234A

GCCAGCGATCAGAGCAGCGCTGGGTGTTCAGGGGCCAAG**ATG**GCGGCGCGCCGGGGACGGAGAGACGGAGTCGCG
CCGCCCCCGAGTGGGGGCCCCGGTCCGGACCCTGGCGGGGGAGCCCGCGGCAGTGGTTGGGGAAGTCGAAGCCAA
GCGCCGTATGGGACTTTGGGCGCTGTGAGCGGCGGCGAGCAGGTGCTGCTGCATGAGGAGGCGGGTGATTCTGGC
TTTGTCAGTCTCTCTCGGCTGGGCCCATCTCTGAGGGACAAGGACCTGGAAATGGAGGAGCTAATGCTGCAGGAT
GAGACACTGCTGGGGACCATGCAGAGCTACATGGATGCCTCCCTTATCTCCCTCATTGAGGATTTTGGGAGCCTT
GGAGAGAGCAGGTTATCTCTGGAGGACCAGAATGAAGTGTCGCTGCTCACGGCTCTGACGGAGATCTTGGACAAT
GCAGATTCTGAGAACCTTTCTCCATTTGACAGCATTCCTGATTCGGAGCTGCTTGTGTCACCCCGGGAGGGCTCC
TCTCTGCACAAGCTGCTTACTCTCTCTCGGACACCCCCAGAACGTGACCTCATCACCCCAGTTGACCCACTGGGG
CCCAGTACAGGCAGCAGTAGAGGGAGTGGGGTTGAAATGTCTCTTCCAGATCCCTCTTGGGACTTCTCCCCACCC
TCTTTCTTAGAGACCTCTTCCCCCAAGCTTCCTAGCTGGAGACCCCCAAGATCAAGACCACGCTGGGGCCAATCC
CCACCTCCCCAGCAGCGCAGTGATGGAGAAGAAGAGGAGGAGGTGGCCAGCTTCAGTGGCCAGATTCTTGCCGGG
GAGCTTGACAACTGTGTGAGCAGTATCCCGGACTTCCCCATGCATTTGGCCTGCCCTGAGGAGGAAGATAAAGCA
ACAGCAGCAGAGATGGCAGTGCCAGCAGCTGGTGATGAGAGCATCTCCTCCCTGAGTGAGCTGGTGCGGGCCATG
CACCCATACTGCCTGCCCAACCTCACCCACCTGGCATCACTTGAGGATGAGCTTCAGGAGCAGCCAGATGATTTG
ACACTGCCTGAGGGCTGCGTAGTGCTGGAGATTGTGGGGCAGGCAGCCACAGCTGGCGATGACCTGGAGATCCCA
GTTGTGGTGCGACAGGTCTCTCCTGGACCCCGGCCTGTGCTCCTGGATGACTCGCTAGAGACTAGTTCTGCCTTG
CAGCTGCTTATGCCTACACTGGAGTCAGAGACAGAGGCTGCTGTGCCCAAGGTAACCCTCTGCTCTGAGAAAGAG
GGGTTGTCATTGAACTCAGAGGAGAAGCTGGACTCAGCCTGCTTATTGAAGCCCAGGGAGGTCGTGGAGCCGGTG
GTGCCCAAGGAGCCTCAGAACCCACCTGCCAATGCAGCACCAGGTTCCCAGAGAGCTCGAAAGGGCAGGAAGAAG
AAGAGCAAGGAGCAGCCAGCAGCCTGTGTGGAAGGCTATGCCAGGAGGCTGAGGTCATCTTCTCGCGGGCAGTCT
ACTGTAGGTACAGAAGTGACCTCTCAGGTAGACAACTTGCAGAAACAGCCTCAGGAAGAACTTCAAAAAGAGTCT
GGGCCTCTCCAGGGTAAGGGGAAGCCCCGGGCTTGGGCTCGGGCCTGGGCAGCTGCCTTGGAGAATTCTAGCCCT
AAGAACTTGGAGAGAAGTGCTGGACAAAGTAGTCCTGCTAAAGAAGGCCCTCTAGACCTCTACCCAAAGCTGGCT
GACACTATCCAAACCAATCCTATACCAACCCATCTCTCATTGGTCGACTCTGCCCAAGCCAGCCCCATGCCAGTT
GACTCTGTTGAAGCTGATCCCACTGCAGTTGGCCCTGTTCTAGCTGGCCCTGTACCTGTTGACCCTGGGTTGGTT
GACCTTGCTTCAACCAGCTCAGAACTGGTTGAGCCTCTCCCGGCTGAGCCAGTGCTGATCAACCCAGTCCTGGCT
GACTCAGCAGCAGTTGACCCTGCAGTGGTTCCCATCTCAGATAACTTGCCACCAGTTGATGCTGTCCCGTCTGGC
CCAGCACCAGTTGATCTAGCACTGGTTGACCCTGTTCCTAATGACCTGACTCCAGTTGACCCAGTGCTAGTTAAG
TCCAGACCAACTGATCCCAGACGTGGTGCAGTGTCATCAGCCCTGGGGGGTTCAGCACCCCAGCTCCTCGTGGAG
TCAGAGTCCTTGGACCCACCAAAGACCATCATCCCTGAAGTCAAAGAGGTTGTGGATTCTCTGAAAATTGAAAGT
GGTACCAGTGCTACAACCCATGAAGCCAGACCTCGGCCTCTCAGCTTATCTGAGTACCGGCGACGAAGGCAGCAA
CGCCAAGCAGAAACAGAAGAGAGAAGTCCACAGCCCCCAACTGGGAAGTGGCCTAGCCTTCCAGAGACTCCCACA
GGGCTGGCAGACATCCCTTGTCTTGTCATCCCACCAGCCCCAGCCAAGAAGACAGCTCTGCAGAGAAGCCCTGAA
ACACCCCTTGAGATTTGCCTTGTGCCTGTAGGTCCCAGCCCTGCTTCTCCTAGTCCTGAGCCACCTGTAAGCAAA
CCTGTGGCCTCATCTCCCACTGAGCAGGTGCCATCCCAGGAGATGCCACTGTTGGCGAGACCTTCCCCTCCTGTG
CAGTCTGTGTCCCCTGCTGTGCCCACACCTCCCTCGATGTCTGCTGCCCTGCCTTTCCCTGCAGGTGGGCTTGGC
ATGCCCCCCAGTCTGCCCCCACCTCCCTTGCAGCCTCCTAGTCTTCCATTGTCTATGGGGCCAGTACTACCTGAT
CCGTTTACTCACTATGCCCCCTTGCCATCCTGGCCTTGTTATCCTCATGTGTCCCCTTCTGGCTATCCTTGCCTG
CCCCCCCCACCAACGGTGCCCCTAGTGTCTGGTACTCCTGGTGCCTATGCCGTGCCTCCCACTTGCAGTGTGCCT
TGGGCACCCCCTCCTGCCCCAGTCTCACCTTACAGTTCCACATGTACCTATGGGCCCTTGGGATGGGGCCCAGGG
CCTCAACATGCTCCATTCTGGTCTACTGTTCCCCCACCTCCTTTGCCTCCAGCCTCCATTGGGAGAGCTGTTCCC
CAACCTAAAATGGAGTCTAGGGGCACTCCAGCTGGCCCTCCTGAAAATGTACTTCCCTTGTCGATGGCTCCTCCC
CTCAGTCTTGGGCTACCTGGCCATGGAGCTCCTCAGACAGAGCCTACCAAGGTGGAGGTCAAGCCAGTGCCTGCA
TCTCCCCATCCGAAACACAAGGTGTCTGCCCTGGTGCAAAGTCCCCAGATGAAGGCTCTAGCATGTGTGTCTGCT
GAAGGTGTGACTGTTGAGGAGCCTGCATCAGAGAGGCTAAAGCCTGAGACCCAAGAGACCAGGCCCAGGGAGAAG
CCCCCCTTGCCTGCTACCAAGGCTGTTCCCACACCAAGGCAGAGCACTGTCCCCAAGCTGCCTGCTGTCCACCCA
GCCCGTCTAAGGAAGCTGTCCTTCCTGCCTACCCCACGTACTCAGGGTTCTGAAGATGTGGTACAGGCTTTCATC
AGTGAGATTGGAATTGAGGCATCGGACCTGTCCAGTCTGCTGGAGCAGTTTGAGAAATCAGAAGCCAAAAAGGAG

FIGURE 1234B

TGTCCTCCTCCGGCTCCTGCTGACAGCTTGGCTGTAGGAAACTCAGGCGGCGTTGACATTCCCCAGGAGAAGAGG
CCCCTAGACCGGTTACAAGCCCCAGAACTGGCCAACGTGGCAGGGCTCACCCCTCCAGCTACCCCTCCCCACCAG
TTATGGAAGCCCCTGGCTGCTGTCTCACTGCTGGCCAAAGCCAAATCTCCTAAGTCCACCGCCCAGGAGGGAACC
CTGAAGCCTGAAGGAGTTACGGAGGCCAAACATCCAGCTGCAGTTCGCCTCCAAGAAGGGGTCCATGGCCCTAGT
CGAGTCCATGTGGGCTCTGGGGACCATGACTATTGTGTCCGGAGCAGGACCCCCCCAAAAAAGATGCCTGCCCTA
GTCATTCCAGAGGTGGGCTCCCGATGGAATGTCAAGCGCCATCAGGACATCACCATCAAACCTGTCTTGTCCTTG
GGCCCAGCTGCCCCTCCGCCCCCATGCATAGCTGCCTCCCGGGAGCCGCTTGATCACAGGACTAGCAGTGAGCAG
GCAGATCCCTCAGCACCCTGCCTTGCCCCATCCAGCTTGCTGTCCCCTGAGGCCTCACCCTGCCGGAATGACATG
AACACTAGGACTCCCCCTGAACCCTCAGCCAAGCAGCGGTCAATGCGCTGTTACCGAAAAGCCTGCAGGTCAGCC
AGCCCCTCAAGCCAGGGCTGGCAGGGCCGCCGAGGCCGCAACAGCCGTTCTGTCAGCTCTGGGTCCAACCGGACT
AGCGAAGCATCTTCCTCATCCTCATCATCGTCTTCCTCATCCCGATCTCGGTCCAGGTCCCTCTCCCCCCCACAC
AAGAGGTGGCGAAGGTCCAGCTGTAGTTCCTCTGGACGTTCTCGAAGATGCTCTTCCTCTTCTTCGTCATCATCT
TCCTCTTCGTCTTCCTCATCCTCATCATCCAGTTCTCGAAGCCGCTCACGATCCCCATCCCCCCGCCGGAGAAGT
GACAGGAGGCGGCGGTACAGCTCTTATCGTTCACATGACCATTACCAAAGGCAAAGAGTGCTACAAAAGGAGCGT
GCAATAGAAGAAAGAAGGGTGGTCTTCATTGGAAAGATACCTGGCCGCATGACTCGATCAGAGCTGAAACAGAGG
TTCTCCGTTTTTGGAGAGATTGAGGAGTGCACCATCCACTTCCGTGTCCAAGGGGACAACTACGGCTTCGTCACT
TATCGCTATGCTGAGGAGGCATTTGCAGCCATTGAGAGTGGCCACAAGCTGCGGCAGGCAGATGAGCAGCCCTTT
GATCTCTGCTTTGGGGGCCGAAGGCAGTTCTGCAAGAGGAGCTATTCTGATCTTGACTCCAACCGGGAAGACTTT
GACCCAGCACCTGTAAAGAGCAAATTTGATTCTCTTGACTTTGACACATTGTTGAAACAGGCCCAGAAGAACCTC
AGGAGG**TAA**CCTTGGGCCCTTCCCTGCTATCCTTTTTCTCCTTTGGAGGTGCCCAACCTCCTCCACCCCCTTCCC
CTACTCTAGGGGAGAGAGCTGCTAGTGAGATGACTGTTTTATAAAGAAATGGAAAAAAGTGAAATAAAAAATATG
TTGAATCAGATTTTTTAAAAGGGGTATTTGTTTTTTTATAACAGGTATTGAAACAAGTTAACTTGCATTCCTATG
TAAGATAGGAGGGGCTGAGGGGATCCCCAGTGTTTGGAACATAAGTCACTATGCAGACTAATAAACATCAACTAG
AGAG

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FIGURE 1235A

GTCGTGCTGCGTCGACAACGGTAGTGACGCGTATTGCCTGGAGG**ATG**GCGGACGCCGGCATTCGCCGCGTGGTTC
CCAGCGACCTGTATCCCCTCGTGCTCGGCTTCCTGCGCGATAACCAACTCTCAGAGGTGGCCAATAAGTTCGCCA
AAGCGACAGGAGCTACACAGCAGGATGCCAATGCCTCTTCCCTCTTAGACATCTATAGCTTCTGGCTCAAGTCTG
CCAAGGTCCCAGAGCGAAAGTTACAGGCAAATGGACCAGTGGCTAAGAAAGCTAAGAAGAAGGCCTCATCCAGTG
ACAGTGAGGACAGCAGCGAGGAGGAGGAGGAAGTTCAAGGGCCTCCAGCAAAGAAGGCTGCTGTACCTGCCAAGC
GAGTCGGTCTGCCTCCTGGGAAGGCTGCAGCCAAAGCATCAGAGAGTAGCAGCAGTGAAGAGTCCAGTGATGATG
ATGATGAGGAGGACCAAAAGAAACAGCCTGTCCAGAAGGGAGTTAAGCCCCAAGCCAAGGCAGCCAAAGCTCCTC
CTAAGAAGGCCAAGAGCTCTGATTCTGATTCTGACTCAAGCTCCGAGGATGAGCCACCAAAGAACCAGAAGCCAA
AGATAACACCTGTGACAGTTAAAGCTCAGACTAAAGCCCCTCCCAAACCAGCTCGAGCAGCACCTAAAATAGCCA
ATGGTAAAGCAGCCAGTAGCAGCAGTAGCAGCAGCAGCAGCAGTAGCAGTGATGACTCAGAGGAGGAGAAGGCAG
CAGCCACCCCCAAGAAGGTCTGGACCATAACTTCTGTCAGGGCAGAGACTGTACCTAAAAAGCAAGTTGTGGCCA
AGGCCCCAGTGAAAGCAGCTACCACCCCTACCCGGAAGAGTTCTAGCAGTGAGGATTCCTCCAGTGACGAGGAAG
AGGAGCAAAAAAAAACCCATGAAAAATAAACCAGGTCCCTACAGTTCAGTCCCCCCGCCTTCTGCTCCCCCACCAA
AGAAGTCTCTGGGAACCCAGCCTCCCAAGAAGGCTGTGGAGAAGCAGCAGCCTGTGGAAAGCAGTGAAGACAGCA
GTGATGAGTCTGATTCAAGTTCTGAAGAAGAGAAGAAACCCCCAACTAAGGCAGTAGTCTCTAAAGCAACCACTA
AACCACCTCCAGCAAAGAAAGCAGCAGAGAGCTCTTCAGACAGCTCAGACTCTGACAGCTCTGAGGATGATGAAG
CTCCTTCTAAGCCAGCTGGTACCACCAAGAATTCTTCAAATAAGCCAGCTGTCACCACCAAGTCACCTGCAGTGA
AGCCAGCTGCAGCCCCCAAGCAACCTGTGGGCGGTGGCCAGAAGCTTCTGACGAGAAAGGCTGACAGCAGCTCCA
GTGAGGAAGAGAGCAGCTCCAGTGAGGAGGAGAAGACAAAGAAGATGGTGGCCACCACTAAGCCCAAGGCGACTG
CCAAAGCAGCTCTATCTCTGCCTGCCAAGCAGGCTCCTCAGGGTAGTAGGGACAGCAGCTCTGATTCAGACAGCT
CCAGCAGTGAGGAGGAGGAAGAGAAGACATCTAAGTCTGCAGTTAAGAAGAAGCCACAGAAGGTAGCAGGAGGTG
CAGCCCCTTCCAAGCCAGCCTCTGCAAAGAAAGGAAAGGCTGAGAGCAGCAACAGTTCTTCTTCTGATGACTCCA
GTGAGGAAGAGGAAGAGAAGCTCAAGGGCAAGGGCTCTCCAAGACCACAAGCCCCCAAGGCCAATGGCACCTCTG
CACTGACTGCCCAGAATGGAAAAGCAGCTAAGAACAGTGAGGAGGAGGAAGAAGAAAAGAAAAAGGCGGCAGTGG
TAGTTTCCAAATCAGGTTCATTAAAGAAGCGGAAGCAGAATGAGGCTGCCAAGGAGGCAGAGACTCCTCAGGCCA
AGAAGATAAAGCTTCAGACCCCTAACACATTTCCAAAAAGGAAGAAAGGAGAAAAAAGGGCATCATCCCCATTCC
GAAGGGTCAGGGAGGAGGAAATTGAGGTGGATTCACGAGTTGCGGACAACTCCTTTGATGCCAAGCGAGGTGCAG
CCGGAGACTGGGGAGAGCGAGCCAATCAGGTTTTGAAGTTCACCAAAGGCAAGTCCTTTCGGCATGAGAAAACCA
AGAAGAAGCGGGGCAGCTACCGGGGAGGCTCAATCTCTGTCCAGGTCAATTCTATTAAGTTTGACAGCGAG**TGA**C
CTGAGGCCATCTTCGGTGAAGCAAGGGTGATGATCGGAGACTACTTACTTTCTCCAGTGGACCTGGGAACCCTCA
GGTCTCTAGGTGAGGGTCTTGATGAGGACAGAAGTTTAGAGTAGGTCCTAAGACTTTACAGTGTAACATCCTCTC
TGGTCCTTTTCTGTGTTCCTAGTTTTGTACAGACTTGTTTTTGAGTGTTGAGTAGCAGGGACAAAATAAGGGAAT
GTTATTTTTTAAGAAAATTCATTTTCATTGTTGTCTCCTTCCTTTTCTGTGAAAGTCCTCATACTGAGAAATTTG
TATATTTTATATTAAATCACTTACTATTGATTTTTGTTGTGATTTTCAAAGGTGGATTCCCACAGATAAAATCTT
GGCTATTGCCCAAAACATAGTAAAGGGTCACGTGTGACTTTTTATAATAGGAAGAAAATTCTGCCTTTGTGAGTG
CACATGTCCACATTTCATCCCTCCTTCCCTCAAAACCCTAGAGAGGGGCATTAAAGAATTGTTGATGTATATGCA
ATGTCTGTTAAGCATGCACTATGTATTTCATCCTCATTTATTGGGTCTGGGACTGAAGTTTTTAGCCAGCATGGA
CCTAACCTACTTTTTGGGATAAAATTCTCTGTTTTGTTACAGGCAAAATTCTGGTATGGCGTGAATGCCATGGGT
CATTCTGAATATATTTTTTTCTGTAATTTTATCATTACACGATGTTTGCAATACGTGCTTTGTTTTTTAATTTGA
AAGCAAACTTTTCTACTGTTGAAAGACATTTTTTGACAACTTGACCCTTCCTAGTATTGAGTTCTAAGTTGAGGA
CTGCATCTTCTCGTTTTTTACAGTATAGAGAACAAAATGACATGAGTTTGAAAAATACATATCACTTGGTATTGC
TGTCTTGGTTGCAGTGGTGATACAGAATTGGTTTCATTAATTCCTACATGGTTGAGAATCACTGATCAAGAAAGT
GGGGGGAAAAAAAACAAACGTTAAAACCTCAATCCTCAGTAGGAAGGTAGATTACATTAGGTGAAATTATAGGTA
ATCTATGTATGTGCTAATGGGGTTGGAAAGAACCTTACAGAGCATATTACCTGATAAACTGGAGTGGGTTTGGGA
GAACAAACTAATAGGATTATTGTGTCTCCTAGTTGGTACCTGGGAGCAATTGACATGCCCCCTTCAGAACCTTAA
CTGTTAGTAGCAGTGGCTGTAACAACACAAACCAGTGACCAGAGATAACAGCTTTTAGGCCAAGCTGGCCTGACG
GTATGGCTGCAGGAAGTGACTGAGCAGTAGCGGTACTCAGCCAGACCAAGACGGAGAGGGAAGAGTCCACAGCTT
TCTGGAAGCTAAGGCATTCTGGTGGTAGAAAAGTGTGCCCCAAGCCTTCATGGACGAGTTATAGGTCTTAAGATT

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FIGURE 1235B

AGTCTCCTCTTGTTTGGATTCCATACTTGCTAAATAACCTGATAATAACCTGGTTTTCCATGTAACTGCCTCTAG
GAAGAAAATGTACTGTTCATGCTGACACAGATATTTCAGTCTGCATGGTAAAAGTTCTAAATCTTACTACAAAAT
AATAAACTGGCTGGTTTATAATGTG

FIGURE 1236A

GACAGGGAAGGTACCCGGCTCTACTGCCCGTCCCGGACGACTCATCCTGGCGGACTGTGCAGTCCCACCCTGACT
TCGGCCTCAATTTCCAGGAAACAGGCTCCTTCTCTTCTCCCATCTGCTACCAGAGCCGGGAGAGCTGCTCGGAGA
CGCCTCCGGGGTGCGGGCTGGACATGAGCAGCGGCTGCCGGTCCTGGGACTAGGCCCCGCCATTTTGGATCCGCT
GACAGGTTTGCCAAG**ATG**GTGGATAAGAATATTTACATCATTCAAGGGGAGATTAACATTGTGGTTGGGGCCATC
AAACGAAATGCCCGATGGAGCACCCATACACCACTGGATGAAGAACGGGATCCTCTGCTGCATAGTTTCGGTCAT
CTAAAGGAGGTTTTAAACAGTATAACAGAACTCTCAGAAATTGAGCCCAATGTATTCCTTCGACCTTTTCTGGAA
GTGATTCGCTCTGAAGATACCACTGGCCCTATCACTGGACTGGCACTCACCTCTGTCAACAAGTTCCTGTCCTAT
GCACTCATAGATCCCACCCATGAGGGCACAGCAGAGGGCATGGAGAACATGGCAGATGCTGTCACCCATGCTCGT
TTTGTGGGCACGGATCCTGCCAGTGATGAAGTTGTCCTGATGAAAATCCTTCAGGTTCTACGGACTCTGCTGCTA
ACCCCAGTGGGTGCCCACCTAACCAATGAATCTGTGTGTGAGATTATGCAGTCTTGCTTCCGGATCTGCTTTGAA
ATGAGGCTCAGTGAGTTATTGAGAAAATCCGCAGAGCACACTCTCGTAGACATGGTGCAGCTGCTCTTCACAAGG
TTACCTCAGTTTAAAGAAGAACCCAAGAACTATGTGGGGACCAACATGAAGAAGCTGAAAATGAGAGCCGGAGGC
ATGAGTGATTCATCCAAATGGAAGAAACAGAAGAGATCCCCTCGGCCCCCACGCCATATGACCAAAGTCACACCA
GGTTCAGAGCTGCCCACTCCCAATGGAACCACCTTATCATCTAACCTCACTGGTGGCATGCCCTTCATTGATGTG
CCCACTCCCATCTCCTCTGCAAGTTCAGAAGCTGCCTCAGCAGTGGTCAGTCCCTCTACAGACAGTGGCCTGGAA
TTCTCCTCCCAAACCACTTCCAAGGAAGACCTTACTGATCTAGAGCAACCTGGCTCTCCAGGGTACAGCACAGCT
ACAGAGCCTGGAAGCAGTGAGCTAGGTGTTCCCGAGCAGCCTGACCTCCAGGAAGGGACCCATGTGGAAAAGTCC
CAGTCAGCATCTGTGGAGTCCATCCCTGAAGTGTTAGAGGAGTGCACGTCCCCTGCCGACCACTCTGACTCTGCC
TCTGTCCATGACATGGATTACGTCAATCCCCGGGGCGTGCGCTTTACACAGTCCTCCCAGAAAGAAGGCACAGCT
TTGGTCCCCTATGGTCTTCCCTGCATCCGCGAGCTCTTCCGCTTCCTCATCTCCCTCACCAATCCACACGACCGC
CATAACTCAGAGGTTATGATTCACATGGGACTGCATTTGCTGACAGTGGCCCTTGAGTCAGCCCCTGTAGCCCAG
TGCCAGACCCTCTTGGGCCTCATCAAGGATGAGATGTGCCGTCACTTATTCCAGCTACTCAGCATAGAGCGACTA
AACCTTTATGCTGCTTCCCTGCGAGTATGCTTCCTACTGTTTGAGAGCATGCGAGAGCACCTCAAGTTCCAAATG
GAGATGTACATCAAAAAGCTTATGGAGATCATCACTGTGGAGAACCCCAAGATGCCTTATGAGATGAAGGAGATG
GCACTGGAGGCCATTGTGCAGCTCTGGCGCATCCCCAGCTTTGTCACAGAGCTCTACATCAACTATGATTGTGAC
TACTACTGTTCCAACCTCTTTGAGGAACTCACAAAGCTGCTGTCCAAGAATGCCTTCCCTGTGTCTGGTCAACTC
TATACAACACACCTACTATCTCTTGATGCCCTATTGACAGTGATTGACAGCACCGAGGCCCACTGCCAGGCTAAA
GTCCTCAACAGCCTCACCCAGCAAGAGAAGAAGGAGACAGCCAGACCAAGCTGTGAGATAGTAGATGGCACCCGA
GAAGCTAGCAATACTGAGAGAACTGCCAGCGATGGGAAAGCTGTAGGCATGGCCTCAGACATCCCAGGCCTGCAT
CTGCCAGGTGGAGGGCGGCTGCCACCAGAACATGGGAAATCAGGATGCAGTGATCTGGAGGAAGCTGTTGACTCT
GGGGCTGACAAAAAGTTTGCCCGGAAGCCACCCCGATTTTCCTGTCTCCTGCCAGATCCACGGGAACTAATTGAA
ATTAAAAACAAAAAGAAGCTGCTAATCACTGGCACAGAGCAGTTCAATCAGAAACCAAAGAAGGGGATTCAGTTT
CTGCAAGAGAAAGGCCTCCTCACCATCCCAATGGACAACACAGAGGTTGCTCAGTGGCTCCGAGAGAACCCTCGG
CTGGACAAGAAGATGATTGGAGAGTTTGTGAGTGACCGCAAAAACATTGACCTGTTGGAGAGCTTTGTGAGCACC
TTCAGTTTTCAGGGTCTGCGACTGGACGAAGCCCTCCGCCTCTACCTGGAAGCCTTCCGTTTGCCTGGGGAAGCA
CCAGTCATCCAGAGGTTGCTGGAGGCATTCACAGAGCGTTGGATGAATTGTAATGGCTCCCCATTTGCCAATAGC
GATGCCTGCTTTTCCCTGGCCTATGCTGTCATCATGCTTAATACTGACCAGCACAACCACAATGTTCGTAAACAG
AATGCACCCATGACCCTGGAGGAGTTTCGCAAAAATCTGAAAGGTGTGAATGGAGGCAAGGACTTTGAGCAAGAC
ATCCTGGAGGACATGTACCATGCCATCAAGAATGAGGAAATTGTAATGCCTGAGGAGCAGACAGGCTTGGTTCGG
GAGAACTATGTGTGGAATGTGCTGCTTCATCGAGGTGCCACCCCTGAGGGCATATTCCTGCGTGTGCCTACTGCC
AGCTATGATCTTGACCTCTTCACCATGACCTGGGGCCCCACTATTGCTGCTCTCTCTTATGTCTTTGACAAAAGC
CTTGAGGAGACAATCATCCAGAAAGCCATCTCAGGCTTCAGGAAGTGCGCCATGATCTCCGCCCACTATGGCCTC
AGCGATGTGTTTGACAATCTCATCATCTCTCTATGCAAATTCACAGCTCTCAGCAGTGAGTCTATTGAGAACCTG
CCCAGTGTATTTGGAAGCAACCCTAAAGCCCATATTGCAGCCAAGACAGTATTCCATTTGGCCCATCGTCATGGT
GACATCCTGCGGGAGGGCTGGAAGAATATCATGGAGGCCATGCTGCAGCTCTTCCGAGCCCAACTACTGCCCAAG
GCTATGATAGAGGTAGAAGATTTCGTGGATCCCAATGGCAAGATCTCTCTACAGCGGGAAGAGACACCATCAAAC
CGAGGAGAGTCAACAGTGCTGAGCTTTGTGAGCTGGCTAACACTGAGTGGTCCTGAGCAGTCTAGTGTTCGGGGC
CCATCCACTGAAAACCAAGAGGCCAAGAGAGTGGCCTTAGAGTGTATAAAGCAATGTGACCCAGAAAAAATGATC

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FIGURE 1236B

ACAGAAAGCAAGTTCCTCCAGCTGGAGTCACTACAGGAGCTCATGAAGGCTCTGGTCTCAGTGACACCAGATGAA
GAGACATATGATGAGGAAGATGCTGCTTTCTGCCTAGAGATGCTGCTAAGGATTGTGTTGGAGAACAGGGATCGT
GTGGGCTGTGTGTGGCAGACTGTTCGAGACCATCTATACCACCTCTGTGTTCAGGCACAAGATTTCTGCTTCCTT
GTGGAGCGGGCAGTGGTGGGGTTGCTACGCCTGGCCATTCGGCTTCTCCGGAGAGAAGAGATCAGTGCTCAGGTG
CTGCTCTCCCTGCGCATTTTGCTACTGATGAAGCCCAGTGTGCTATCCCGAGTCAGCCACCAGGTTGCGTATGGG
CTCCATGAACTCCTGAAGACCAATGCAGCCAACATCCACTCAGGTGATGACTGGGCCACACTCTTCACACTGCTG
GAGTGCATCGGCTCAGGTGTGAAGCCTCCAGCTGCTCTGCAGGCCACAGCCAGGGCAGATGCACCTGATGCCGGG
GCCCAGTCAGATAGTGAGCTCCCATCCTACCATCAGAATGACGTGAGCCTGGATCGAGGGTACACTTCCGACTCA
GAGGTCTACACTGACCATGGCAGGCCGGGCAAGATACACCGATCAGCCACAGATGCCGATGTGGTCAACAGTGGT
TGGTTAGTGGTTGGGAAGGATGACGTTGATAACTCCAAGCCAGGGCCCAGCCGCCCAGGCCCTTCACCCCTGATC
AATCAATACAGCCTAACAGTGGGACTGGATTTGGGGCCACACGACACTAAGTCTCTGCTTAAGTGTGTGGAATCG
CTGTCCTTCATTGTGCGTGATGCTGCCCACATCACACCTGACAACTTTGAGCTCTGCGTCAAGACTCTCCGGATC
TTTGTGGAGGCCAGTCTGAATGGCGGATGCAAGTCCCAGGAGAAACGTGGCAAGAGTCACAAATATGACAGCAAA
GGGAACCGCTTCAAGAAGAAATCCAAAGAGGGATCAATGCTTCGCCGGCCTCGAACCTCCAGCCAACATGCCTCT
CGGGGCGGGCAGAGTGATGATGATGAGGACGAAGGCGTGCCTGCCAGCTACCATACGGTGTCTTTACAGGTCAGT
CAGGACTTGCTAGACCTGATGCACACCCTGCACACGCGGGCAGCCTCTATCTACAGCTCATGGGCGGAGGAGCAA
CGCCACCTGGAGACAGGTGGCCAGAAGATTGAAGCTGATTCTCGCACCCTCTGGGCCCACTGCTGGTGCCCTTTA
CTGCAGGGTATTGCCTGCCTGTGCTGCGATGCCCGGCGCCAGGTACGGATGCAGGCACTGACCTATCTGCAGCGA
GCACTACTTGTACATGATCTGCAAAAGCTAGATGCCCTGGAATGGGAGTCCTGTTTTAACAAGGTGCTGTTTCCT
CTACTTACCAAGCTCTTGGAGAACATCAGCCCTGCAGATGTGGGTGGGATGGAGGAGACCCGGATGAGGGCTTCC
ACATTGCTCTCTAAGGTCTTCCTGCAGCACCTGTCTCCACTGCTGTCACTCTCTACCTTTGCGGCCCTCTGGCTC
ACCATCTTGGACTTCATGGACAAGTACATGCACGCAGGCTCCAGCGACTTACTGTCAGAGGCGATCCCTGAGTCT
CTGAAGAACATGCTTCTGGTGATGGACACAGCGGAGATTTTCCACAGTGCAGATGCACGGGGAGGCGGCCCCTCG
GCCCTCTGGGAGATCACCTGGGAACGCATTGACTGTTTTCTCCCTCACCTACGAGATGAACTCTTCAAGCAGACC
GTCATCCAGGACCCCATGCCCATGGAGCCTCAAGGCCAAAAGCCTCTCGCCTCAGCCCACCTGACTTCCGCTGCT
GGCGACACTAGGACACCTGGCCATCCACCGCCCCCAGAGATTCCATCTGAGCTGGGGGCCTGTGACTTTGAGAAG
CCCGAGAGCCCCCGAGCCGCCAGCAGCAGCTCCCCAGGATCACCAGTGGCCTCAAGCCCCAGCAGGCTGAGCCCC
ACCCCCGACGGGCCTCCACCCTTGGCTCAGCCCCCACTGATCCTGCAGCCCTTGGCCTCCCCACTGCAGGTGGGC
GTGCCACCTATGACTCTGCCCATCATCCTCAACCCTGCGCTCATCGAGGCCACCTCACCAGTGCCCCTCCTGGCC
ACACCCCGCCCCACAGATCCCATACCCACCTCTGAGGTCAAC**TAA**GGCAGGTCACTCAGAGATCAGGACCAGTGC
TTCCCACCAGGCTTTCCTTGACCCCACTTCTGGCTGTCCTGCGGGCCACAAGCTCTTCAGGCCAAGTCAGAGCTG
CTGTTGCTGCCACTTGGATGGGGACCTGAAAAAGAGAATGTTGATAGCCCCAGCTAAGACCCCCAATCAGCTGTG
GGACCTTTTTCCTCCTCTGCGCTCCATTCCTGGGGGTTCAGCCTGAGAGTGAACTCAGCTGTCATCTGCAGCCTC
TGCCTCCAGCCCGGCAGCTCTGGGGAGGCATCCGTGTGCCGGCCCTGCAGTGCCTGCCCACGGTCAGGCATTGAA
AACTAAGCCCAACCACTCTGCACTTTGTTTCCCACTCCCATTAGCCCTGGGCCACCTCCTCCAGTTCTTCCTCTT
TTACTAATTAGTTGGTCAGTTTGGAGAGTTGACTGGCACCATGGAGGGTAGGCAGGTGGGGGCTGGGTGGGGGAC
TGCCCACAGGAGCATGTACATATGGAAAAACAGAACAACAGTGGACTTTTTATGATATAATAAATGTCTTAGTAC
C

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FIGURE 1237

CCGGTCCCAGGTGGGTCGGGCGCGGAGAGAAGCCGCAACCAGAGCCGCCGCCACGGCGGGCGTCTAAAATTCTGG
GAAGCAGAACCTGGCCGGAGCCACTAGACAGAGCCGGGCCTAGCCCAGAGAC**ATG**GAGAGTTGCTACAACCCAGG
TCTGGATGGTATTATTGAATATGATGATTTCAAATTGAACTCCTCCATTGTGGAACCCAAGGAGCCAGCCCCAGA
AACAGCTGATGGCCCCTACCTGGTGATCGTGGAACAGCCTAAGCAGAGAGGCTTCCGATTTCGATATGGCTGTGA
AGGCCCCTCCCATGGAGGACTGCCCGGTGCCTCCAGTGAGAAGGGCCGAAAGACCTATCCCACTGTCAAGATCTG
TAACTACGAGGGACCAGCCAAGATCGAGGTGGACCTGGTAACACACAGTGACCCACCTCGTGCTCATGCCCACAG
TCTGGTGGGCAAGCAATGCTCGGAGCTGGGGATCTGCGCCGTTTCTGTGGGGCCCAAGGACATGACTGCCCAATT
TAACAACCTGGGTGTCCTGCATGTGACTAAGAAGAACATGATGGGGACTATGATACAAAAACTTCAGAGGCAGCG
GCTCCGCTCTAGGCCCCAGGGCCTTACGGAGGCCGAGCAGCGGGAGCTGGAGCAAGAGGCCAAAGAACTGAAGAA
GGTGATGGATCTGAGTATAGTGCGGCTGCGCTTCTCTGCCTTCCTTAGAGCCAGTGATGGCTCCTTCTCCCTGCC
CCTGAAGCCAGTCATCTCCCAGCCCATCCATGACAGCAAATCTCCGGGGGCATCAAACCTGAAGATTTCTCGAAT
GGACAAGACAGCAGGCTCTGTGCGGGGTGGAGATGAAGTTTATCTGCTTTGTGACAAGGTGCAGAAAGATGACAT
TGAGGTTCGGTTCTATGAGGATGATGAGAATGGATGGCAGGCCTTTGGGGACTTCTCTCCCACAGATGTGCATAA
ACAGTATGCCATTGTGTTCCGGACACCCCCCTATCACAAGATGAAGATTGAGCGGCCTGTAACAGTGTTTCTGCA
ACTGAAACGCAAGCGAGGAGGGGACGTGTCTGATTCCAAACAGTTCACCTATTACCCTCTGGTGGAAGACAAGGA
AGAGGTGCAGCGGAAGCGGAGGAAGGCCTTGCCCACCTTCTCCCAGCCCTTCGGGGGTGGCTCCCACATGGGTGG
AGGCTCTGGGGGTGCAGCCGGGGGCTACGGAGGAGCTGGAGGAGGTGGCAGCCTCGGTTTCTTCCCCTCCTCCCT
GGCCTACAGCCCCTACCAGTCCGGCGCGGGCCCCATGGGCTGCTACCCGGGAGGCGGGGGCGGGGCGCAGATGGC
CGCCACGGTGCCCAGCAGGGACTCCGGGGAGGAAGCCGCGGAGCCAAGCGCCCCCTCCAGGACCCCCCAGTGCGA
GCCGCAGGCCCCGGAGATGCTGCAGCGAGCTCGAGAGTACAACGCGCGCCTGTTCGGCCTGGCGCAGCGCAGCGC
CCGAGCCCTACTCGACTACGGCGTCACCGCGGACGCGCGCGCGCTGCTGGCGGGACAGCGCCACCTGCTGACGGC
GCAGGACGAGAACGGAGACACACCACTGCACCTAGCCATCATCCACGGGCAGACCAGTGTCATTGAGCAGATAGT
CTATGTCATCCACCACGCCCAGGACCTCGGCGTTGTCAACCTCACCAACCACCTGCACCAGACGCCCCTGCACCT
GGCGGTGATCACGGGGCAGACGAGTGTGGTGAGCTTTCTGCTGCGGGTAGGTGCAGACCCAGCTCTGCTGGATCG
GCATGGAGACTCAGCCATGCATCTGGCGCTGCGGGCAGGCGCTGGTGCTCCTGAGCTGCTGCGTGCACTGCTTCA
GAGTGGAGCTCCTGCTGTGCCCCAGCTGTTGCATATGCCTGACTTTGAGGGACTGTATCCAGTACACCTGGCAGT
CCGAGCCCGAAGCCCTGAGTGCCTGGATCTGCTGGTGGACAGTGGGGCTGAAGTGGAGGCCACAGAGCGGCAGGG
GGGACGAACAGCCTTGCATCTAGCCACAGAGATGGAGGAGCTGGGGTTGGTCACCCATCTGGTCACCAAGCTCCG
GGCCAACGTGAACGCTCGCACCTTTGCGGGAAACACACCCCTGCACCTGGCAGCTGGACTGGGGTACCCGACCCT
CACCCGCCTCCTTCTGAAGGCTGGTGCTGACATCCATGCTGAAAACGAGGAGCCCCTGTGCCCACTGCCTTCACC
CCCTACCTCTGATAGCGACTCGGACTCTGAAGGGCCTGAGAAGGACACCCGAAGCAGCTTCCGGGGCCACACGCC
TCTTGACCTCACTTGCAGCACCAAGGTGAAGACCTTGCTGCTAAATGCTGCTCAGAACACCATGGAGCCACCCCT
GACCCCGCCCAGCCCAGCAGGGCCGGGACTGTCACTTGGTGATACAGCTCTGCAGAACCTGGAGCAGCTGCTAGA
CGGGCCAGAAGCCCAGGGCAGCTGGGCAGAGCTGGCAGAGCGTCTGGGGCTGCGCAGCCTGGTAGACACGTACCG
ACAGACAACCTCACCCAGTGGCAGCCTCCTGCGCAGCTACGAGCTGGCTGGCGGGGACCTGGCAGGTCTACTGGA
GGCCCTGTCTGACATGGGCCTAGAGGAGGGAGTGAGGCTGCTGAGGGGTCCAGAAACCCGAGACAAGCTGCCCAG
CACAGAGGTGAAGGAAGACAGTGCGTACGGGAGCCAGTCAGTGGAGCAGGAGGCAGAGAAGCTGGGCCCACCCCC
TGAGCCACCAGGAGGGCTCTGCCACGGGCACCCCCAGCCTCAGGTGCAC**TGA**CCTGCTGCCTGCCCCCAGCCCCC
TTCCCGGACCCCCTGTACAGCGTCCCCACCTATTTCAAATCTTATTTAACACCCCACACCCACCCCTCAGTTGGG
ACAAATAAAGGATTCTCATGGGAAGGGGAGGACCCCTCCTTCCCAACTT

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FIGURE 1238

CTCGTTGGTGGGGCTGGGGGATGAGAGCTGCACCGCGCGGGACAAGTCGCCGGCGGCGCCCGACGGAGCAGAAGA
GAGAGC**ATG**GAGCTGGAGAGGATCGTCAGTGCAGCCCTCCTTGCCTTTGTCCAGACACACCTCCCGGAGGCCGAC
CTCAGTGGCTTGGATGAGGTCATCTTCTCCTATGTGCTTGGGGTCCTGGAGGACCTGGGCCCCTCGGGCCCATCA
GAGGAGAACTTCGATATGGAGGCTTTCACTGAGATGATGGAGGCCTATGTGCCTGGCTTCGCCCACATCCCCAGG
GGCACAATAGGGGACATGATGCAGAAGCTCTCAGGGCAGCTGAGCGATGCCAGGAACAAAGAGAACCTGCAACCG
CAGAGCTCTGGTGTCCAAGGTCAGGTGCCCATCTCCCCAGAGCCCCTGCAGCGGCCCGAAATGCTCAAAGAAGAG
ACTAGGTCTTCGGCTGCTGCTGCTGCAGACACCCAAGATGAGGCAACTGGCGCTGAGGAGGAGCTTCTGCCAGGG
GTGGATGTACTCCTGGAGGTGTTCCCTACCTGTTCGGTGGAGCAGGCCCAGTGGGTGCTGGCCAAAGCTCGGGGG
GACTTGGAAGAAGCTGTGCAGATGCTGGTAGAGGGAAAGGAAGAGGGGCCTGCAGCCTGGGAGGGCCCCAACCAG
GACCTGCCCAGACGCCTCAGAGGCCCCCAAAAGGATGAGCTGAAGTCCTTCATCCTGCAGAAGTACATGATGGTG
GATAGCGCAGAGGATCAGAAGATTCACCGGCCCATGGCTCCCAAGGAGGCCCCCAAGAAGCTGATCCGATACATC
GACAACCAGGTAGTGAGCACCAAAGGGGAGCGATTCAAAGATGTGCGGAACCCTGAGGCCGAGGAGATGAAGGCC
ACATACATCAACCTCAAGCCAGCCAGAAAGTACCGCTTCCAT**TGA**GGCACTCGCCGGACTCTGCCCGAGCCTTCT
AGGCTCAGATCCCAGAGGGATGCAGGAGCCCTATACCCCTACACAGGGGCCCCCTAACTCCTGTCCCCCTTCTCT
ACTCCTTTGCTCCATAGTGTTAACCTACTCTCGGAGCTGCCTCCATGGGCACAGTAAAGGTGGCCCAAGG

FIGURE 1239

GCGCTAGCGGCGGACCCGGCTGGGCAGTTCCTTCCCCAGAAGGAGAGATTCCTCTGCC**ATG**GAGTCCTACGATGT
GATCGCCAACCAGCCTGTCGTGATCGACAACGGATCCGGTGTGATTAAAGCTGGTTTTGCTGGTGATCAGATCCC
CAAATACTGCTTTCCAAACTATGTGGGCCGACCCAAGCACGTTCGTGTCATGGCAGGAGCCCTTGAAGGCGACAT
CTTCATTGGCCCCAAAGCTGAGGAGCACCGAGGGCTGCTTTCAATCCGCTATCCCATGGAGCATGGCATCGTCAA
GGATTGGAACGACATGGAACGCATTTGGCAATATGTCTATTCTAAGGACCAGCTGCAGACTTTCTCAGAGGAGCA
TCCTGTGCTCCTGACTGAGGCGCCTTTAAACCCACGAAAAAACCGGGAACGAGCTGCCGAAGTTTTCTTCGAGAC
CTTCAATGTGCCCGCTCTTTTCATCTCCATGCAAGCTGTACTCAGCCTTTACGCTACAGGCAGGACCACAGGGGT
GGTGCTGGATTCTGGGGATGGAGTCACCCATGCTGTGCCCATCTATGAGGGCTTTGCCATGCCCCACTCCATCAT
GCGCATCGACATCGCGGGCCGGGACGTCTCTCGCTTCCTGCGCCTCTACCTGCGTAAGGAGGGCTACGACTTCCA
CTCATCCTCTGAGTTTGAGATTGTCAAGGCCATAAAAGAAAGAGCCTGTTACCTATCCATAAACCCCCAAAAGGA
TGAGACGCTAGAGACAGAGAAAGCTCAGTACTACCTGCCTGATGGCAGCACCATTGAGATTGGTCCTTCCCGATT
CCGGGCCCCTGAGTTGCTCTTCAGGCCAGATTTGATTGGAGAGGAGAGTGAAGGCATCCACGAGGTCCTGGTGTT
CGCCATTCAGAAGTCAGACATGGACCTGCGGCGCACGCTTTTCTCTAACATTGTCCTCTCAGGAGGCTCTACCCT
GTTCAAAGGTTTTGGTGACAGGCTCCTGAGTGAAGTGAAGAAACTAGCTCCAAAAGATGTGAAGATCAGGATATC
TGCACCTCAGGAGAGACTGTATTCCACGTGGATTGGGGGCTCCATCCTTGCCTCCCTGGACACCTTTAAGAAGAT
GTGGGTCTCCAAAAAGGAATATGAGGAAGACGGTGCCCGATCCATCCACAGAAAAACCTTC**TAA**TGTCGGGACAT
CATCTTCACCTCTCTCTGAAGTTAACTCCACTTTAAAACTCGCTTTCTTGAGTCGGAGTGTTTGCGAGGAACTGC
CTGTGTGTGAGTGCGTGTGTGGATATGAGTGTGTGTGCACATGCGAGTGCCGTGTGGCCCTGGGACCCTGGGCCC
AGAAAGGACGATGAACTACCTGCAGTGGTGATGGCCTGAGGCCTGGGGTTGACCACTAACTGGCTCCTGACAGGG
AAGAGCGCTGGCAGAGGCTGTGCTCCCTCCTCAGGTGGCCTCTGGCTGGCTGTGGGGGACTCCGTTTACTACCAC
AGGGAGACAGAGGGAGGTAAGCCATCCCCCGGGAGACCTTGCTGCTGACCATCCTAGGCTGGGCTGGCCCCACCC
TCACCCCCACCCCCAGGGTGCCCTGAGGCCCCAGGCAGCTGCTGCCTCCACTATCGATGCCTCCTGACTGCACAC
TGAGGACTGGGACTGGGGTTGAGTTCTGTCTGGTTTTGTTGCCATTTTGGTTTGGGAGGCTGGAAAAGCACCCCA
AGAGCTATTACAGAGACTGGAGTCAGGAGAGAGCAGGAGGCCCTCATGTTCACCAGGGAACAGGACCACACCGGC
CACTGGAGGAGGGCAGGAGCAGTCCTCACTCTGAATGGCTGCAGAGTTAATGTTCCCAGCCCAGTCCCCTTTCGG
GGGCCTTGGGAGAGTTTAAGGCACCTGCTGGTTCCAGGACCTCGCTTTCCATCTGTTCTTGTTGCAATGCCATCT
TCAAACCGTTTTATTTATTGAAGTGTTTGTTCAGTTAGGGGCTGGAGAGAGGGAGCTTGCTGCCTCCTGCCTTGC
TACACTAATGTTTACAGCACCTAAGCTTAGCCTCCAGGGCCCCACCTCTCCCAGCTGATGGTGAGCTGACAGTGT
CCACAGGTTCCAGGACCATTTGAGATTGGAAGCTACACTCAAAGACACTCCCACCAGGCTCTTTCTCCCTTTTCC
TCTTGCTCACTGCCCTGGAATCAACAGGCTGGTTGCTGGTTAGATTTTCTGAAACAGGAGGTAAAATTTTTCTTT
GGCAGAGGCCCCTAAGCAAGGGAGGGGTGTTGGAGAGCCAGTGCCCTTAAGACTGGAGAAAGCTGCAATTTACCA
AGTTGCCTTTTGCCACTGTAGCTGACCAGGGGACTAGGTTGTAGAGGTGGGAAGGCCCCCTCTGGGCTGATCTTG
TGCCATTCTTGACCTTGGACCTGCTTGGTTAAGGAGGGAGTGGGCCAGACCAGAGTGCCAGGAGCTAATGGAGCC
AGGCCTGACTCCTAGGAGTGGTCCAAAGGCCTTCAGCCTAGATGGTGCAAAGCTGGGGCCAGCCTGTCTTCACCG
GCACCCTCACCTGTGACACCAAGACCCACCCCAATCCCAGACTTCACACAGTATTCTCCCCCACGCCGTCCTATG
ACCAAAGGCCCCTGCCAGGTGTGGGCCACAGCAGCAGGTATGTGTGAAAGCAACGTAGCGCCCCGCGGACTGCAG
TGCGCTTAACCAACTCACCTCCCTTCTCTTAGCCCAAGCCTGTCCCTCGCACAGCCTCGCACAAACCACATTGCC
TGGTGGGGCCCAGTGTACTGAAATAAAGTCGTTCCGATAGACACGTC

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FIGURE 1240A

CGCCCCGCCGCCCCGAGGCACCCTCTGGCAGACTCGGCGGCGGCGACAGCCTGGGCGGACAGTGCGCCGTGCGCA
GGCGCGGAGCTAGACCTCGCTGCAGCCCCCATCGCCTCGGGGAGTCTCACCCACCGAGTCCGCCCGCTGGCCCGT
CAGTGCTCTCCCCGTCGTTTGCCCTCTCCAGTTCCCCCAGTGCCTGCCCTACGCACCCCG**ATG**GCGGAGCTGCGG
CCTAGCGGCGCCCCCGGCCCCACCGCGCCCCCGGCCCCTGGCCCGACTGCCCCCCCGGCCTTCGCTTCGCTCTTT
CCCCCGGGACTGCACGCCATCTACGGAGAGTGCCGCCGCCTTTACCCTGACCAGCCGAACCCGCTCCAGGTTACC
GCTATCGTCAAGTACTGGTTGGGTGGCCCAGACCCCTTGGACTATGTTAGCATGTACAGGAATGTGGGGAGCCCT
TCTGCTAACATCCCCGAGCACTGGCACTACATCAGCTTCGGCCTGAGTGATCTCTATGGTGACAACAGAGTCCAT
GAGTTTACAGGAACAGATGGACCTAGTGGTTTTGGCTTTGAGTTGACCTTTCGTCTGAAGAGAGAAACTGGGGAG
TCTGCCCCACCAACATGGCCCGCAGAGTTAATGCAGGGCTTGGCACGATACGTGTTCCAGTCAGAGAACACCTTC
TGCAGTGGGGACCATGTGTCCTGGCACAGCCCTTTGGATAACAGTGAGTCAAGAATTCAGCACATGCTGCTGACA
GAGGACCCACAGATGCAGCCCGTGCAGACACCCTTTGGGGTAGTTACCTTCCTCCAGATCGTTGGTGTCTGCACT
GAAGAGCTACACTCAGCCCAGCAGTGGAACGGGCAGGGCATCCTGGAGCTGCTGCGGACAGTGCCTATTGCTGGC
GGCCCCTGGCTGATAACTGACATGCGGAGGGGAGAGACCATATTTGAGATCGATCCACACCTGCAAGAGAGAGTT
GACAAAGGCATCGAGACAGATGGCTCCAACCTGAGTGGTGTCAGTGCCAAGTGTGCCTGGGATGACCTGAGCCGG
CCCCCCGAGGATGACGAGGACAGCCGGAGCATCTGCATCGGCACACAGCCCCGGCGACTCTCTGGCAAAGACACA
GAGCAGATCCGGGAGACCCTGAGGAGAGGACTCGAGATCAACAGCAAACCTGTCCTTCCACCAATCAACCCTCAG
CGGCAGAATGGCCTCGCCCACGACCGGGCCCCGAGCCGCAAAGACAGCCTGGAAAGTGACAGCTCCACGGCCATC
ATTCCCCATGAGCTGATTCGCACGCGGCAGCTTGAGAGCGTACATCTGAAATTCAACCAGGAGTCCGGAGCCCTC
ATTCCTCTCTGCCTAAGGGGCAGGCTCCTGCATGGACGGCACTTTACATATAAAAGTATCACAGGTGACATGGCC
ATCACGTTTGTCTCCACGGGAGTGGAAGGCGCCTTTGCCACTGAGGAGCATCCTTACGCGGCTCATGGACCCTGG
TTACAAATTCTGTTGACCGAAGAGTTTGTAGAGAAAATGTTGGAGGATTTAGAAGATTTGACTTCTCCAGAGGAA
TTCAAACTTCCCAAAGAGTACAGCTGGCCTGAAAAGAAGCTGAAGGTCTCCATCCTGCCTGACGTGGTGTTCGAC
AGTCCGCTACAC**TAG**CCTGGGCTGGGCCCTGCAGTGGCCAGCAGGGAGCCCAGCTGCTCCCCAGTGACTTCCAGT
GTAACAGTTGTGTCAACGAGATCTCCACAAATAAAAGGACAAGTGTGAGGAAGACTGCGCAGTGCCACCCCGCAG
CCCAGTGGGGTGCCATGCACAGGCCACAGGCCCTCCACCTCACCTCCAGCTCAGGGGCCGCACCCCGCCGCTGGC
TAAGCCTTGTGACCCATCAGGCCAGTGAGTGGGCAAATGCGGACCCTCCCTGCCTGCAGCCTGCACAGATTCTGG
TTTGAGGTTTGACTCTGGACCCTGGCTGTGCCCCTAGGTGGAGACAGCCCTCTTTCTCACCTACCCCCTGCCGCA
CAGCCCAGCAGGAGGGAGGCGGACAGCCAGATGCAGAGCGAGTGGATGCACTTCCCAGCTCATCTCTGGAAGCCT
TTGCTACTCAAGCTCCTCTGGCCGCGGAACAATTCCTCTGATCATGTTTGGTTTTCTTCTTCCTTATTTTATTTT
GTAGAAACCGGGTGGTATTTTATTGCTCTGCAAAGATGTCCAGAAGCCATGTATATAATGTTTTTTAAACAGAAC
TTCATTCCCCGTTGAACTTTCGCATTCTCTGACAGAGGCCTAGGGCTGTATCTCTCCCTGGGCTGCCACCAGAGA
AGGTGCTTGGTGTTCGCCTGCCAGCCCAGAGCCCTGGAGGAGCCGGCTGCACAGAGAGGCTTTTCTTCCCAGCTG
GGCCTGGTGGAGCCCGGGGCAGGGGGAGAGTAGAGACACTCCCTTGTGCAGCTTTGAGCCTAGTTTAGCTGGGGC
CAGGGAGGGGTGCTACTGTTTTCCAAGTGAATGGGTCTCAAAGACTTGGTGACCCCAGCCTCATCTTCTAGGCCT
TTTCCACCCAACCAGGCCTACCTGGGAGAGGGTGAGGTTCAGCACATCACACACCATCCCCACTGTCATTCAGGG
CCTGGGTCTCCAGCTCTGTAACCAGTCCTGTCCCATTTCCTCAGTCCCTGGGCCTCCCAGCCTTCAGGCTGTAGG
GCTGCCTTACTAAAATTGAAAAATCCACCTCTTAACATCTCTTTCACTTTGGTTTTGCTAACACTGCTCTCTGCT
GCCCTCCCATCCTCCCTGTATCCATTCATGCCCTATCTTTCATTCTCCACTCCTAATCCCTCTCCTTTCTGGCAT
CCTGGCCTCTCGTGGTCCTCAGCCCCTCACCCCCAGTACTGCAGATCTCACAGTTTGCCTTCCAGAAGCCAGCCT
ATCTCTAGCCCATGGTTTTGGAGTTCCTCTCGGGTTATCTCCCACGCCTGACCTGGAACCAGCAAGCCCCTTTCC
TGCCTTCTTACCCCCAACTCTAGGGATGGGACTGTTACAATACTTCAAGATCACTCTTTACACCTCTTCAAAGCA
AAGTCATGACAATGCAGGGCTCCTCATTGCTCCCATCTGCCTCTGCTGCACACACAGGCACCAGCAGGGATGCCA
CAGGAGTGCCCACAGGGTGCAGGACTCCACTGATGAGAGATCCAGCCAAAGAGCTGCCCCCAGGGGTATGAGGGC
ACCAGCTGGGTTCTCCAGGGAGCAGGAGTTGGACCTCCATGGAGCCACTAGGCCTGGCCTCCTCTACACATCCCC
AGGGCTATCTGGTTAATTCCATCAAGCTCAGAGTTAAAAGGCATATCAGCCTGGAGTATTTGGGAGAGACTGGCT
GCAGATCCCCGCCAGCCAAGATGCAAGCCACTCGGGACCTGATGTCGGCAGCTGTGCCTCTACTGCCCTGAGGAC
TTACCAGAGGGAGCCCTACTGGCCTTCCCCCACCACAGCAGCCCTGCCTGTGAAGCTCTTGTTTCTGACATTTCA
CAGGCAGAGAGGTGCCATCAGTTCGCCTCCATTCCTTGCCACCATGACCAGCCTCTCCCTGAACTCTCTCTTGCT

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FIGURE 1240B

CGGGACCTGCCTGAGGGCTCCCTGCTGCAGTTCGCCGTACTTCCATCTGCTGGGTGCCTCCATCGTTGGTTGGGT
GGGGATGGGGCATTTTCTGAGCTAAGCTTTGTCATTAGTTTGTGAAGCACCTGGTCAGCAACCTGCCCCAGACCT
GGAGGGTCTTTGTGGACTGAAGGTAGACACCAGCCAGCATGGTGGCCCTGTTCTGGGGGAGCAGGGTAAGGCAGG
AGGAAGTGGGTGAGCTCCGAGATGATGAGCACATGAAGCCTGTGGCCCCTTCGTACCTGCAATATGTCAGGAGCC
TCACGCTCACCCAAGATCCTGCAGGGGCCAGGCTCCATCTCACTGGCTCTGAGGGCAGGACAGGGTATCACACAT
TTCTCACCAGGCCTCCTTTCCTATGGGCATTGGTGCCTCCCAGAGGTTTCTTGGGCTGCTGGCTGGTGAGAGAGG
ACCCTTAAAGAAGATCAAGCCAAGCTGACCTTGGACCCTGTCCAGCACAGCTTCTGGCACAGGATGCTTGGTGAA
TGTACCCTTTCTTTCCCTCCCTGCAGCTCTGAGGGAGCCCCTGACCTTGTAGTGGGTGGAGGAGGTAAGGGGCCT
CCCTCCCTAAATCTGCCTCTTCTGCAAGCTACTTGGAGACTTGCCTAGTTGTACCCACCCCTCCAGGTCCCTGGT
GCTAGAGCTTCTGAGAAGGGCCTTTCCCTTTCCTCTTTGCCTGCTATATAAGGCAGGCTCCTGTGGCTCTGCTGG
CTCAGTGTGGGCTGCAGGAGGACTGCAGACTCAGCTGCAATTCTGAGGGGGGTTTGGGAGGCTTGTGCGAGGTCT
CAGGCCTGTGTGGGGAGCTGGTGCCTCTTCCTGCCCGTATCTTTCTCTTCCAAGGGCAGTGCTCCAAGGCAGGGA
CTGGAGAAGCCAAGGGGAGAGTCTAAAAGGGCTAGAGCATTTTTAAAAATAGACACAGGGTCTTGGGACTGGGGT
TTCGGATTGAGTTGCAAGCAGGGAGAAAACCTGAAGGTCGGTGCCCCTATGGGGCTGACCAGTAGAGAATTTCCT
TTACTGTATTTTTGTGTCTGGTCTTCCCTTTCTGGCTTCTAGGACATCCATGCCAGGTGAGGTGCCTGGGTCCCT
GTTACAAGTCAGGAGCCCTGTAGGGAGACCCCTCCTTTTGTACAAGTACCTGAATGCTGCGACAAGCAGATTTTT
GTAAAATTTTATATTAGTTTTTAATGTCAGTGGCGACTCGGTTCCTGGGGCTGCAGCCAGCCTGGGACTTTTGTA
AGAATTTTTGGGTGACTCACTTAGATGTCGTTTCCTTCTTGCCCCCTCTTCCTCTCTGTAATCTAAGTGCATTAA
ACATCTTTGCAG

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FIGURE 1234A

GCCAGCGATCAGAGCAGCGCTGGGTGTTCAGGGGCCAAG**ATG**GCGGCGCGCCGGGGACGGAGAGACGGAGTCGCG
CCGCCCCCGAGTGGGGGCCCCGGTCCGGACCCTGGCGGGGGAGCCCGCGGCAGTGGTTGGGGAAGTCGAAGCCAA
GCGCCGTATGGGACTTTGGGCGCTGTGAGCGGCGGCGAGCAGGTGCTGCTGCATGAGGAGGCGGGTGATTCTGGC
TTTGTCAGTCTCTCTCGGCTGGGCCCATCTCTGAGGGACAAGGACCTGGAAATGGAGGAGCTAATGCTGCAGGAT
GAGACACTGCTGGGGACCATGCAGAGCTACATGGATGCCTCCCTTATCTCCCTCATTGAGGATTTTGGGAGCCTT
GGAGAGAGCAGGTTATCTCTGGAGGACCAGAATGAAGTGTCGCTGCTCACGGCTCTGACGGAGATCTTGGACAAT
GCAGATTCTGAGAACCTTTCTCCATTTGACAGCATTCCTGATTCGGAGCTGCTTGTGTCACCCCGGGAGGGCTCC
TCTCTGCACAAGCTGCTTACTCTCTCTCGGACACCCCCAGAACGTGACCTCATCACCCCAGTTGACCCACTGGGG
CCCAGTACAGGCAGCAGTAGAGGGAGTGGGGTTGAAATGTCTCTTCCAGATCCCTCTTGGGACTTCTCCCCACCC
TCTTTCTTAGAGACCTCTTCCCCCAAGCTTCCTAGCTGGAGACCCCCAAGATCAAGACCACGCTGGGGCCAATCC
CCACCTCCCCAGCAGCGCAGTGATGGAGAAGAAGAGGAGGAGGTGGCCAGCTTCAGTGGCCAGATTCTTGCCGGG
GAGCTTGACAACTGTGTGAGCAGTATCCCGGACTTCCCCATGCATTTGGCCTGCCCTGAGGAGGAAGATAAAGCA
ACAGCAGCAGAGATGGCAGTGCCAGCAGCTGGTGATGAGAGCATCTCCTCCCTGAGTGAGCTGGTGCGGGCCATG
CACCCATACTGCCTGCCCAACCTCACCCACCTGGCATCACTTGAGGATGAGCTTCAGGAGCAGCCAGATGATTTG
ACACTGCCTGAGGGCTGCGTAGTGCTGGAGATTGTGGGGCAGGCAGCCACAGCTGGCGATGACCTGGAGATCCCA
GTTGTGGTGCGACAGGTCTCTCCTGGACCCCGGCCTGTGCTCCTGGATGACTCGCTAGAGACTAGTTCTGCCTTG
CAGCTGCTTATGCCTACACTGGAGTCAGAGACAGAGGCTGCTGTGCCCAAGGTAACCCTCTGCTCTGAGAAAGAG
GGGTTGTCATTGAACTCAGAGGAGAAGCTGGACTCAGCCTGCTTATTGAAGCCCAGGGAGGTCGTGGAGCCGGTG
GTGCCCAAGGAGCCTCAGAACCCACCTGCCAATGCAGCACCAGGTTCCCAGAGAGCTCGAAAGGGCAGGAAGAAG
AAGAGCAAGGAGCAGCCAGCAGCCTGTGTGGAAGGCTATGCCAGGAGGCTGAGGTCATCTTCTCGCGGGCAGTCT
ACTGTAGGTACAGAAGTGACCTCTCAGGTAGACAACTTGCAGAAACAGCCTCAGGAAGAACTTCAAAAAGAGTCT
GGGCCTCTCCAGGGTAAGGGGAAGCCCCGGGCTTGGGCTCGGGCCTGGGCAGCTGCCTTGGAGAATTCTAGCCCT
AAGAACTTGGAGAGAAGTGCTGGACAAAGTAGTCCTGCTAAAGAAGGCCCTCTAGACCTCTACCCAAAGCTGGCT
GACACTATCCAAACCAATCCTATACCAACCCATCTCTCATTGGTCGACTCTGCCCAAGCCAGCCCCATGCCAGTT
GACTCTGTTGAAGCTGATCCCACTGCAGTTGGCCCTGTTCTAGCTGGCCCTGTACCTGTTGACCCTGGGTTGGTT
GACCTTGCTTCAACCAGCTCAGAACTGGTTGAGCCTCTCCCGGCTGAGCCAGTGCTGATCAACCCAGTCCTGGCT
GACTCAGCAGCAGTTGACCCTGCAGTGGTTCCCATCTCAGATAACTTGCCACCAGTTGATGCTGTCCCGTCTGGC
CCAGCACCAGTTGATCTAGCACTGGTTGACCCTGTTCCTAATGACCTGACTCCAGTTGACCCAGTGCTAGTTAAG
TCCAGACCAACTGATCCCAGACGTGGTGCAGTGTCATCAGCCCTGGGGGGTTCAGCACCCCAGCTCCTCGTGGAG
TCAGAGTCCTTGGACCCACCAAAGACCATCATCCCTGAAGTCAAAGAGGTTGTGGATTCTCTGAAAATTGAAAGT
GGTACCAGTGCTACAACCCATGAAGCCAGACCTCGGCCTCTCAGCTTATCTGAGTACCGGCGACGAAGGCAGCAA
CGCCAAGCAGAAACAGAAGAGAGAAGTCCACAGCCCCCAACTGGGAAGTGGCCTAGCCTTCCAGAGACTCCCACA
GGGCTGGCAGACATCCCTTGTCTTGTCATCCCACCAGCCCCAGCCAAGAAGACAGCTCTGCAGAGAAGCCCTGAA
ACACCCCTTGAGATTTGCCTTGTGCCTGTAGGTCCCAGCCCTGCTTCTCCTAGTCCTGAGCCACCTGTAAGCAAA
CCTGTGGCCTCATCTCCCACTGAGCAGGTGCCATCCCAGGAGATGCCACTGTTGGCGAGACCTTCCCCTCCTGTG
CAGTCTGTGTCCCCTGCTGTGCCCACACCTCCCTCGATGTCTGCTGCCCTGCCTTTCCCTGCAGGTGGGCTTGGC
ATGCCCCCCAGTCTGCCCCCACCTCCCTTGCAGCCTCCTAGTCTTCCATTGTCTATGGGGCCAGTACTACCTGAT
CCGTTTACTCACTATGCCCCCTTGCCATCCTGGCCTTGTTATCCTCATGTGTCCCCTTCTGGCTATCCTTGCCTG
CCCCCCCCACCAACGGTGCCCCTAGTGTCTGGTACTCCTGGTGCCTATGCCGTGCCTCCCACTTGCAGTGTGCCT
TGGGCACCCCCTCCTGCCCCAGTCTCACCTTACAGTTCCACATGTACCTATGGGCCCTTGGGATGGGGCCCAGGG
CCTCAACATGCTCCATTCTGGTCTACTGTTCCCCCACCTCCTTTGCCTCCAGCCTCCATTGGGAGAGCTGTTCCC
CAACCTAAAATGGAGTCTAGGGGCACTCCAGCTGGCCCTCCTGAAAATGTACTTCCCTTGTCGATGGCTCCTCCC
CTCAGTCTTGGGCTACCTGGCCATGGAGCTCCTCAGACAGAGCCTACCAAGGTGGAGGTCAAGCCAGTGCCTGCA
TCTCCCCATCCGAAACACAAGGTGTCTGCCCTGGTGCAAAGTCCCCAGATGAAGGCTCTAGCATGTGTGTCTGCT
GAAGGTGTGACTGTTGAGGAGCCTGCATCAGAGAGGCTAAAGCCTGAGACCCAAGAGACCAGGCCCAGGGAGAAG
CCCCCCTTGCCTGCTACCAAGGCTGTTCCCACACCAAGGCAGAGCACTGTCCCCAAGCTGCCTGCTGTCCACCCA
GCCCGTCTAAGGAAGCTGTCCTTCCTGCCTACCCCACGTACTCAGGGTTCTGAAGATGTGGTACAGGCTTTCATC
AGTGAGATTGGAATTGAGGCATCGGACCTGTCCAGTCTGCTGGAGCAGTTTGAGAAATCAGAAGCCAAAAAGGAG

FIGURE 1234B

TGTCCTCCTCCGGCTCCTGCTGACAGCTTGGCTGTAGGAAACTCAGGCGGCGTTGACATTCCCCAGGAGAAGAGG
CCCCTAGACCGGTTACAAGCCCCAGAACTGGCCAACGTGGCAGGGCTCACCCCTCCAGCTACCCCTCCCCACCAG
TTATGGAAGCCCCTGGCTGCTGTCTCACTGCTGGCCAAAGCCAAATCTCCTAAGTCCACCGCCCAGGAGGGAACC
CTGAAGCCTGAAGGAGTTACGGAGGCCAAACATCCAGCTGCAGTTCGCCTCCAAGAAGGGGTCCATGGCCCTAGT
CGAGTCCATGTGGGCTCTGGGGACCATGACTATTGTGTCCGGAGCAGGACCCCCCCAAAAAAGATGCCTGCCCTA
GTCATTCCAGAGGTGGGCTCCCGATGGAATGTCAAGCGCCATCAGGACATCACCATCAAACCTGTCTTGTCCTTG
GGCCCAGCTGCCCCTCCGCCCCCATGCATAGCTGCCTCCCGGGAGCCGCTTGATCACAGGACTAGCAGTGAGCAG
GCAGATCCCTCAGCACCCTGCCTTGCCCCATCCAGCTTGCTGTCCCCTGAGGCCTCACCCTGCCGGAATGACATG
AACACTAGGACTCCCCCTGAACCCTCAGCCAAGCAGCGGTCAATGCGCTGTTACCGAAAAGCCTGCAGGTCAGCC
AGCCCCTCAAGCCAGGGCTGGCAGGGCCGCCGAGGCCGCAACAGCCGTTCTGTCAGCTCTGGGTCCAACCGGACT
AGCGAAGCATCTTCCTCATCCTCATCATCGTCTTCCTCATCCCGATCTCGGTCCAGGTCCCTCTCCCCCCCACAC
AAGAGGTGGCGAAGGTCCAGCTGTAGTTCCTCTGGACGTTCTCGAAGATGCTCTTCCTCTTCTTCGTCATCATCT
TCCTCTTCGTCTTCCTCATCCTCATCATCCAGTTCTCGAAGCCGCTCACGATCCCCATCCCCCCGCCGGAGAAGT
GACAGGAGGCGGCGGTACAGCTCTTATCGTTCACATGACCATTACCAAAGGCAAAGAGTGCTACAAAAGGAGCGT
GCAATAGAAGAAAGAAGGGTGGTCTTCATTGGAAAGATACCTGGCCGCATGACTCGATCAGAGCTGAAACAGAGG
TTCTCCGTTTTTGGAGAGATTGAGGAGTGCACCATCCACTTCCGTGTCCAAGGGGACAACTACGGCTTCGTCACT
TATCGCTATGCTGAGGAGGCATTTGCAGCCATTGAGAGTGGCCACAAGCTGCGGCAGGCAGATGAGCAGCCCTTT
GATCTCTGCTTTGGGGGCCGAAGGCAGTTCTGCAAGAGGAGCTATTCTGATCTTGACTCCAACCGGGAAGACTTT
GACCCAGCACCTGTAAAGAGCAAATTTGATTCTCTTGACTTTGACACATTGTTGAAACAGGCCCAGAAGAACCTC
AGGAGG**TAA**CCTTGGGCCCTTCCCTGCTATCCTTTTTCTCCTTTGGAGGTGCCCAACCTCCTCCACCCCCTTCCC
CTACTCTAGGGGAGAGAGCTGCTAGTGAGATGACTGTTTTATAAAGAAATGGAAAAAAGTGAAATAAAAAATATG
TTGAATCAGATTTTTTAAAAGGGGTATTTGTTTTTTTATAACAGGTATTGAAACAAGTTAACTTGCATTCCTATG
TAAGATAGGAGGGGCTGAGGGGATCCCCAGTGTTTGGAACATAAGTCACTATGCAGACTAATAAACATCAACTAG
AGAG

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FIGURE 1235A

GTCGTGCTGCGTCGACAACGGTAGTGACGCGTATTGCCTGGAGG**ATG**GCGGACGCCGGCATTCGCCGCGTGGTTC
CCAGCGACCTGTATCCCCTCGTGCTCGGCTTCCTGCGCGATAACCAACTCTCAGAGGTGGCCAATAAGTTCGCCA
AAGCGACAGGAGCTACACAGCAGGATGCCAATGCCTCTTCCCTCTTAGACATCTATAGCTTCTGGCTCAAGTCTG
CCAAGGTCCCAGAGCGAAAGTTACAGGCAAATGGACCAGTGGCTAAGAAAGCTAAGAAGAAGGCCTCATCCAGTG
ACAGTGAGGACAGCAGCGAGGAGGAGGAGGAAGTTCAAGGGCCTCCAGCAAAGAAGGCTGCTGTACCTGCCAAGC
GAGTCGGTCTGCCTCCTGGGAAGGCTGCAGCCAAAGCATCAGAGAGTAGCAGCAGTGAAGAGTCCAGTGATGATG
ATGATGAGGAGGACCAAAAGAAACAGCCTGTCCAGAAGGGAGTTAAGCCCCAAGCCAAGGCAGCCAAAGCTCCTC
CTAAGAAGGCCAAGAGCTCTGATTCTGATTCTGACTCAAGCTCCGAGGATGAGCCACCAAAGAACCAGAAGCCAA
AGATAACACCTGTGACAGTTAAAGCTCAGACTAAAGCCCCTCCCAAACCAGCTCGAGCAGCACCTAAAATAGCCA
ATGGTAAAGCAGCCAGTAGCAGCAGTAGCAGCAGCAGCAGCAGTAGCAGTGATGACTCAGAGGAGGAGAAGGCAG
CAGCCACCCCCAAGAAGGTCTGGACCATAACTTCTGTCAGGGCAGAGACTGTACCTAAAAAGCAAGTTGTGGCCA
AGGCCCCAGTGAAAGCAGCTACCACCCCTACCCGGAAGAGTTCTAGCAGTGAGGATTCCTCCAGTGACGAGGAAG
AGGAGCAAAAAAAACCCATGAAAAATAAACCAGGTCCCTACAGTTCAGTCCCCCCGCCTTCTGCTCCCCCACCAA
AGAAGTCTCTGGGAACCCAGCCTCCCAAGAAGGCTGTGGAGAAGCAGCAGCCTGTGGAAAGCAGTGAAGACAGCA
GTGATGAGTCTGATTCAAGTTCTGAAGAAGAGAAGAAACCCCCAACTAAGGCAGTAGTCTCTAAAGCAACCACTA
AACCACCTCCAGCAAAGAAAGCAGCAGAGAGCTCTTCAGACAGCTCAGACTCTGACAGCTCTGAGGATGATGAAG
CTCCTTCTAAGCCAGCTGGTACCACCAAGAATTCTTCAAATAAGCCAGCTGTCACCACCAAGTCACCTGCAGTGA
AGCCAGCTGCAGCCCCCAAGCAACCTGTGGGCGGTGGCCAGAAGCTTCTGACGAGAAAGGCTGACAGCAGCTCCA
GTGAGGAAGAGAGCAGCTCCAGTGAGGAGGAGAAGACAAAGAAGATGGTGGCCACCACTAAGCCCAAGGCGACTG
CCAAAGCAGCTCTATCTCTGCCTGCCAAGCAGGCTCCTCAGGGTAGTAGGGACAGCAGCTCTGATTCAGACAGCT
CCAGCAGTGAGGAGGAGGAAGAGAAGACATCTAAGTCTGCAGTTAAGAAGAAGCCACAGAAGGTAGCAGGAGGTG
CAGCCCCTTCCAAGCCAGCCTCTGCAAAGAAAGGAAAGGCTGAGAGCAGCAACAGTTCTTCTTCTGATGACTCCA
GTGAGGAAGAGGAAGAGAAGCTCAAGGGCAAGGGCTCTCCAAGACCACAAGCCCCCAAGGCCAATGGCACCTCTG
CACTGACTGCCCAGAATGGAAAAGCAGCTAAGAACAGTGAGGAGGAGGAAGAAGAAAAGAAAAAGGCGGCAGTGG
TAGTTTCCAAATCAGGTTCATTAAAGAAGCGGAAGCAGAATGAGGCTGCCAAGGAGGCAGAGACTCCTCAGGCCA
AGAAGATAAAGCTTCAGACCCCTAACACATTTCCAAAAAGGAAGAAAGGAGAAAAAAGGGCATCATCCCCATTCC
GAAGGGTCAGGGAGGAGGAAATTGAGGTGGATTCACGAGTTGCGGACAACTCCTTTGATGCCAAGCGAGGTGCAG
CCGGAGACTGGGGAGAGCGAGCCAATCAGGTTTTGAAGTTCACCAAAGGCAAGTCCTTTCGGCATGAGAAAACCA
AGAAGAAGCGGGGCAGCTACCGGGGAGGCTCAATCTCTGTCCAGGTCAATTCTATTAAGTTTGACAGCGAG**TGA**C
CTGAGGCCATCTTCGGTGAAGCAAGGGTGATGATCGGAGACTACTTACTTTCTCCAGTGGACCTGGGAACCCTCA
GGTCTCTAGGTGAGGGTCTTGATGAGGACAGAAGTTTAGAGTAGGTCCTAAGACTTTACAGTGTAACATCCTCTC
TGGTCCTTTTCTGTGTTCCTAGTTTTGTACAGACTTGTTTTTGAGTGTTGAGTAGCAGGGACAAAATAAGGGAAT
GTTATTTTTTAAGAAAATTCATTTTCATTGTTGTCTCCTTCCTTTTCTGTGAAAGTCCTCATACTGAGAAATTTG
TATATTTTATATTAAATCACTTACTATTGATTTTTGTTGTGATTTTCAAAGGTGGATTCCCACAGATAAAATCTT
GGCTATTGCCCAAAACATAGTAAAGGGTCACGTGTGACTTTTTATAATAGGAAGAAAATTCTGCCTTTGTGAGTG
CACATGTCCACATTTCATCCCTCCTTCCCTCAAAACCCTAGAGAGGGGCATTAAAGAATTGTTGATGTATATGCA
ATGTCTGTTAAGCATGCACTATGTATTTCATCCTCATTTATTGGGTCTGGGACTGAAGTTTTTAGCCAGCATGGA
CCTAACCTACTTTTTGGGATAAAATTCTCTGTTTTGTTACAGGCAAAATTCTGGTATGGCGTGAATGCCATGGGT
CATTCTGAATATATTTTTTTCTGTAATTTTATCATTACACGATGTTTGCAATACGTGCTTTGTTTTTTAATTTGA
AAGCAAACTTTTCTACTGTTGAAAGACATTTTTTGACAACTTGACCCTTCCTAGTATTGAGTTCTAAGTTGAGGA
CTGCATCTTCTCGTTTTTTACAGTATAGAGAACAAAATGACATGAGTTTGAAAAATACATATCACTTGGTATTGC
TGTCTTGGTTGCAGTGGTGATACAGAATTGGTTTCATTAATTCCTACATGGTTGAGAATCACTGATCAAGAAAGT
GGGGGGAAAAAAAAACAAACGTTAAAACCTCAATCCTCAGTAGGAAGGTAGATTACATTAGGTGAAATTATAGGTA
ATCTATGTATGTGCTAATGGGGTTGGAAAGAACCTTACAGAGCATATTACCTGATAAACTGGAGTGGGTTTGGGA
GAACAAACTAATAGGATTATTGTGTCTCCTAGTTGGTACCTGGGAGCAATTGACATGCCCCCTTCAGAACCTTAA
CTGTTAGTAGCAGTGGCTGTAACAACACAAACCAGTGACCAGAGATAACAGCTTTTAGGCCAAGCTGGCCTGACG
GTATGGCTGCAGGAAGTGACTGAGCAGTAGCGGTACTCAGCCAGACCAAGACGGAGAGGGAAGAGTCCACAGCTT
TCTGGAAGCTAAGGCATTCTGGTGGTAGAAAAGTGTGCCCCAAGCCTTCATGGACGAGTTATAGGTCTTAAGATT

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FIGURE 1235B

AGTCTCCTCTTGTTTGGATTCCATACTTGCTAAATAACCTGATAATAACCTGGTTTTCCATGTAACTGCCTCTAG
GAAGAAAATGTACTGTTCATGCTGACACAGATATTTCAGTCTGCATGGTAAAAGTTCTAAATCTTACTACAAAAT
AATAAACTGGCTGGTTTATAATGTG

FIGURE 1236A

GACAGGGAAGGTACCCGGCTCTACTGCCCGTCCCGGACGACTCATCCTGGCGGACTGTGCAGTCCCACCCTGACT
TCGGCCTCAATTTCCAGGAAACAGGCTCCTTCTCTTCTCCCATCTGCTACCAGAGCCGGGAGAGCTGCTCGGAGA
CGCCTCCGGGGTGCGGGCTGGACATGAGCAGCGGCTGCCGGTCCTGGGACTAGGCCCCGCCATTTTGGATCCGCT
GACAGGTTTGCCAAG**ATG**GTGGATAAGAATATTTACATCATTCAAGGGGAGATTAACATTGTGGTTGGGGCCATC
AAACGAAATGCCCGATGGAGCACCCATACACCACTGGATGAAGAACGGGATCCTCTGCTGCATAGTTTCGGTCAT
CTAAAGGAGGTTTTAAACAGTATAACAGAACTCTCAGAAATTGAGCCCAATGTATTCCTTCGACCTTTTCTGGAA
GTGATTCGCTCTGAAGATACCACTGGCCCTATCACTGGACTGGCACTCACCTCTGTCAACAAGTTCCTGTCCTAT
GCACTCATAGATCCCACCCATGAGGGCACAGCAGAGGGCATGGAGAACATGGCAGATGCTGTCACCCATGCTCGT
TTTGTGGGCACGGATCCTGCCAGTGATGAAGTTGTCCTGATGAAAATCCTTCAGGTTCTACGGACTCTGCTGCTA
ACCCCAGTGGGTGCCCACCTAACCAATGAATCTGTGTGTGAGATTATGCAGTCTTGCTTCCGGATCTGCTTTGAA
ATGAGGCTCAGTGAGTTATTGAGAAAATCCGCAGAGCACACTCTCGTAGACATGGTGCAGCTGCTCTTCACAAGG
TTACCTCAGTTTAAAGAAGAACCCAAGAACTATGTGGGGACCAACATGAAGAAGCTGAAAATGAGAGCCGGAGGC
ATGAGTGATTCATCCAAATGGAAGAAACAGAAGAGATCCCCTCGGCCCCCACGCCATATGACCAAAGTCACACCA
GGTTCAGAGCTGCCCACTCCCAATGGAACCACCTTATCATCTAACCTCACTGGTGGCATGCCCTTCATTGATGTG
CCCACTCCCATCTCCTCTGCAAGTTCAGAAGCTGCCTCAGCAGTGGTCAGTCCCTCTACAGACAGTGGCCTGGAA
TTCTCCTCCCAAACCACTTCCAAGGAAGACCTTACTGATCTAGAGCAACCTGGCTCTCCAGGGTACAGCACAGCT
ACAGAGCCTGGAAGCAGTGAGCTAGGTGTTCCCGAGCAGCCTGACCTCCAGGAAGGGACCCATGTGGAAAAGTCC
CAGTCAGCATCTGTGGAGTCCATCCCTGAAGTGTTAGAGGAGTGCACGTCCCCTGCCGACCACTCTGACTCTGCC
TCTGTCCATGACATGGATTACGTCAATCCCCGGGGCGTGCGCTTTACACAGTCCTCCCAGAAAGAAGGCACAGCT
TTGGTCCCCTATGGTCTTCCCTGCATCCGCGAGCTCTTCCGCTTCCTCATCTCCCTCACCAATCCACACGACCGC
CATAACTCAGAGGTTATGATTCACATGGGACTGCATTTGCTGACAGTGGCCCTTGAGTCAGCCCCTGTAGCCCAG
TGCCAGACCCTCTTGGGCCTCATCAAGGATGAGATGTGCCGTCACTTATTCCAGCTACTCAGCATAGAGCGACTA
AACCTTTATGCTGCTTCCCTGCGAGTATGCTTCCTACTGTTTGAGAGCATGCGAGAGCACCTCAAGTTCCAAATG
GAGATGTACATCAAAAAGCTTATGGAGATCATCACTGTGGAGAACCCCAAGATGCCTTATGAGATGAAGGAGATG
GCACTGGAGGCCATTGTGCAGCTCTGGCGCATCCCCAGCTTTGTCACAGAGCTCTACATCAACTATGATTGTGAC
TACTACTGTTCCAACCTCTTTGAGGAACTCACAAAGCTGCTGTCCAAGAATGCCTTCCCTGTGTCTGGTCAACTC
TATACAACACACCTACTATCTCTTGATGCCCTATTGACAGTGATTGACAGCACCGAGGCCCACTGCCAGGCTAAA
GTCCTCAACAGCCTCACCCAGCAAGAGAAGAAGGAGACAGCCAGACCAAGCTGTGAGATAGTAGATGGCACCCGA
GAAGCTAGCAATACTGAGAGAACTGCCAGCGATGGGAAAGCTGTAGGCATGGCCTCAGACATCCCAGGCCTGCAT
CTGCCAGGTGGAGGGCGGCTGCCACCAGAACATGGGAAATCAGGATGCAGTGATCTGGAGGAAGCTGTTGACTCT
GGGGCTGACAAAAAGTTTGCCCGGAAGCCACCCCGATTTTCCTGTCTCCTGCCAGATCCACGGGAACTAATTGAA
ATTAAAAACAAAAAGAAGCTGCTAATCACTGGCACAGAGCAGTTCAATCAGAAACCAAAGAAGGGGATTCAGTTT
CTGCAAGAGAAAGGCCTCCTCACCATCCCAATGGACAACACAGAGGTTGCTCAGTGGCTCCGAGAGAACCCTCGG
CTGGACAAGAAGATGATTGGAGAGTTTGTGAGTGACCGCAAAAACATTGACCTGTTGGAGAGCTTTGTGAGCACC
TTCAGTTTTCAGGGTCTGCGACTGGACGAAGCCCTCCGCCTCTACCTGGAAGCCTTCCGTTTGCCTGGGGAAGCA
CCAGTCATCCAGAGGTTGCTGGAGGCATTCACAGAGCGTTGGATGAATTGTAATGGCTCCCCATTTGCCAATAGC
GATGCCTGCTTTTCCCTGGCCTATGCTGTCATCATGCTTAATACTGACCAGCACAACCACAATGTTCGTAAACAG
AATGCACCCATGACCCTGGAGGAGTTTCGCAAAAATCTGAAAGGTGTGAATGGAGGCAAGGACTTTGAGCAAGAC
ATCCTGGAGGACATGTACCATGCCATCAAGAATGAGGAAATTGTAATGCCTGAGGAGCAGACAGGCTTGGTTCGG
GAGAACTATGTGTGGAATGTGCTGCTTCATCGAGGTGCCACCCCTGAGGGCATATTCCTGCGTGTGCCTACTGCC
AGCTATGATCTTGACCTCTTCACCATGACCTGGGGCCCCACTATTGCTGCTCTCTCTTATGTCTTTGACAAAAGC
CTTGAGGAGACAATCATCCAGAAAGCCATCTCAGGCTTCAGGAAGTGCGCCATGATCTCCGCCCACTATGGCCTC
AGCGATGTGTTTGACAATCTCATCATCTCTCTATGCAAATTCACAGCTCTCAGCAGTGAGTCTATTGAGAACCTG
CCCAGTGTATTTGGAAGCAACCCTAAAGCCCATATTGCAGCCAAGACAGTATTCCATTTGGCCCATCGTCATGGT
GACATCCTGCGGGAGGGCTGGAAGAATATCATGGAGGCCATGCTGCAGCTCTTCCGAGCCCAACTACTGCCCAAG
GCTATGATAGAGGTAGAAGATTTCGTGGATCCCAATGGCAAGATCTCTCTACAGCGGGAAGAGACACCATCAAAC
CGAGGAGAGTCAACAGTGCTGAGCTTTGTGAGCTGGCTAACACTGAGTGGTCCTGAGCAGTCTAGTGTTCGGGGC
CCATCCACTGAAAACCAAGAGGCCAAGAGAGTGGCCTTAGAGTGTATAAAGCAATGTGACCCAGAAAAAATGATC

FIGURE 1236B

ACAGAAAGCAAGTTCCTCCAGCTGGAGTCACTACAGGAGCTCATGAAGGCTCTGGTCTCAGTGACACCAGATGAA
GAGACATATGATGAGGAAGATGCTGCTTTCTGCCTAGAGATGCTGCTAAGGATTGTGTTGGAGAACAGGGATCGT
GTGGGCTGTGTGTGGCAGACTGTTCGAGACCATCTATACCACCTCTGTGTTCAGGCACAAGATTTCTGCTTCCTT
GTGGAGCGGGCAGTGGTGGGGTTGCTACGCCTGGCCATTCGGCTTCTCCGGAGAGAAGAGATCAGTGCTCAGGTG
CTGCTCTCCCTGCGCATTTTGCTACTGATGAAGCCCAGTGTGCTATCCCGAGTCAGCCACCAGGTTGCGTATGGG
CTCCATGAACTCCTGAAGACCAATGCAGCCAACATCCACTCAGGTGATGACTGGGCCACACTCTTCACACTGCTG
GAGTGCATCGGCTCAGGTGTGAAGCCTCCAGCTGCTCTGCAGGCCACAGCCAGGGCAGATGCACCTGATGCCGGG
GCCCAGTCAGATAGTGAGCTCCCATCCTACCATCAGAATGACGTGAGCCTGGATCGAGGGTACACTTCCGACTCA
GAGGTCTACACTGACCATGGCAGGCCGGGCAAGATACACCGATCAGCCACAGATGCCGATGTGGTCAACAGTGGT
TGGTTAGTGGTTGGGAAGGATGACGTTGATAACTCCAAGCCAGGGCCCAGCCGCCCAGGCCCTTCACCCCTGATC
AATCAATACAGCCTAACAGTGGGACTGGATTTGGGGCCACACGACACTAAGTCTCTGCTTAAGTGTGTGGAATCG
CTGTCCTTCATTGTGCGTGATGCTGCCCACATCACACCTGACAACTTTGAGCTCTGCGTCAAGACTCTCCGGATC
TTTGTGGAGGCCAGTCTGAATGGCGGATGCAAGTCCCAGGAGAAACGTGGCAAGAGTCACAAATATGACAGCAAA
GGGAACCGCTTCAAGAAGAAATCCAAAGAGGGATCAATGCTTCGCCGGCCTCGAACCTCCAGCCAACATGCCTCT
CGGGGCGGGCAGAGTGATGATGATGAGGACGAAGGCGTGCCTGCCAGCTACCATACGGTGTCTTTACAGGTCAGT
CAGGACTTGCTAGACCTGATGCACACCCTGCACACGCGGGCAGCCTCTATCTACAGCTCATGGGCGGAGGAGCAA
CGCCACCTGGAGACAGGTGGCCAGAAGATTGAAGCTGATTCTCGCACCCTCTGGGCCCACTGCTGGTGCCCTTTA
CTGCAGGGTATTGCCTGCCTGTGCTGCGATGCCCGGCGCCAGGTACGGATGCAGGCACTGACCTATCTGCAGCGA
GCACTACTTGTACATGATCTGCAAAAGCTAGATGCCCTGGAATGGGAGTCCTGTTTTAACAAGGTGCTGTTTCCT
CTACTTACCAAGCTCTTGGAGAACATCAGCCCTGCAGATGTGGGTGGGATGGAGGAGACCCGGATGAGGGCTTCC
ACATTGCTCTCTAAGGTCTTCCTGCAGCACCTGTCTCCACTGCTGTCACTCTCTACCTTTGCGGCCCTCTGGCTC
ACCATCTTGGACTTCATGGACAAGTACATGCACGCAGGCTCCAGCGACTTACTGTCAGAGGCGATCCCTGAGTCT
CTGAAGAACATGCTTCTGGTGATGGACACAGCGGAGATTTTCCACAGTGCAGATGCACGGGGAGGCGGCCCCTCG
GCCCTCTGGGAGATCACCTGGGAACGCATTGACTGTTTTCTCCCTCACCTACGAGATGAACTCTTCAAGCAGACC
GTCATCCAGGACCCCATGCCCATGGAGCCTCAAGGCCAAAAGCCTCTCGCCTCAGCCCACCTGACTTCCGCTGCT
GGCGACACTAGGACACCTGGCCATCCACCGCCCCCAGAGATTCCATCTGAGCTGGGGGCCTGTGACTTTGAGAAG
CCCGAGAGCCCCCGAGCCGCCAGCAGCAGCTCCCCAGGATCACCAGTGGCCTCAAGCCCCAGCAGGCTGAGCCCC
ACCCCCGACGGGCCTCCACCCTTGGCTCAGCCCCCACTGATCCTGCAGCCCTTGGCCTCCCCACTGCAGGTGGGC
GTGCCACCTATGACTCTGCCCATCATCCTCAACCCTGCGCTCATCGAGGCCACCTCACCAGTGCCCCTCCTGGCC
ACACCCCGCCCCACAGATCCCATACCCACCTCTGAGGTCAAC**TAA**GGCAGGTCACTCAGAGATCAGGACCAGTGC
TTCCCACCAGGCTTTCCTTGACCCCACTTCTGGCTGTCCTGCGGGCCACAAGCTCTTCAGGCCAAGTCAGAGCTG
CTGTTGCTGCCACTTGGATGGGGACCTGAAAAAGAGAATGTTGATAGCCCCAGCTAAGACCCCCAATCAGCTGTG
GGACCTTTTTCCTCCTCTGCGCTCCATTCCTGGGGGTTCAGCCTGAGAGTGAACTCAGCTGTCATCTGCAGCCTC
TGCCTCCAGCCCGGCAGCTCTGGGGAGGCATCCGTGTGCCGGCCCTGCAGTGCCTGCCCACGGTCAGGCATTGAA
AACTAAGCCCAACCACTCTGCACTTTGTTTCCCACTCCCATTAGCCCTGGGCCACCTCCTCCAGTTCTTCCTCTT
TTACTAATTAGTTGGTCAGTTTGGAGAGTTGACTGGCACCATGGAGGGTAGGCAGGTGGGGGCTGGGTGGGGGAC
TGCCCACAGGAGCATGTACATATGGAAAAACAGAACAACAGTGGACTTTTTATGATATAATAAATGTCTTAGTAC
C

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FIGURE 1237

CCGGTCCCAGGTGGGTCGGGCGCGGAGAGAAGCCGCAACCAGAGCCGCCGCCACGGCGGGCGTCTAAAATTCTGG
GAAGCAGAACCTGGCCGGAGCCACTAGACAGAGCCGGGCCTAGCCCAGAGAC**ATG**GAGAGTTGCTACAACCCAGG
TCTGGATGGTATTATTGAATATGATGATTTCAAATTGAACTCCTCCATTGTGGAACCCAAGGAGCCAGCCCCAGA
AACAGCTGATGGCCCCTACCTGGTGATCGTGGAACAGCCTAAGCAGAGAGGCTTCCGATTTCGATATGGCTGTGA
AGGCCCCTCCCATGGAGGACTGCCCGGTGCCTCCAGTGAGAAGGGCCGAAAGACCTATCCCACTGTCAAGATCTG
TAACTACGAGGGACCAGCCAAGATCGAGGTGGACCTGGTAACACACAGTGACCCACCTCGTGCTCATGCCCACAG
TCTGGTGGGCAAGCAATGCTCGGAGCTGGGGATCTGCGCCGTTTCTGTGGGGCCCAAGGACATGACTGCCCAATT
TAACAACCTGGGTGTCCTGCATGTGACTAAGAAGAACATGATGGGGACTATGATACAAAAACTTCAGAGGCAGCG
GCTCCGCTCTAGGCCCCAGGGCCTTACGGAGGCCGAGCAGCGGGAGCTGGAGCAAGAGGCCAAAGAACTGAAGAA
GGTGATGGATCTGAGTATAGTGCGGCTGCGCTTCTCTGCCTTCCTTAGAGCCAGTGATGGCTCCTTCTCCCTGCC
CCTGAAGCCAGTCATCTCCCAGCCCATCCATGACAGCAAATCTCCGGGGGGCATCAAACCTGAAGATTTCTCGAAT
GGACAAGACAGCAGGCTCTGTGCGGGGTGGAGATGAAGTTTATCTGCTTTGTGACAAGGTGCAGAAAGATGACAT
TGAGGTTCGGTTCTATGAGGATGATGAGAATGGATGGCAGGCCTTTGGGGACTTCTCTCCCACAGATGTGCATAA
ACAGTATGCCATTGTGTTCCGGACACCCCCCTATCACAAGATGAAGATTGAGCGGCCTGTAACAGTGTTTCTGCA
ACTGAAACGCAAGCGAGGAGGGGACGTGTCTGATTCCAAACAGTTCACCTATTACCCTCTGGTGGAAGACAAGGA
AGAGGTGCAGCGGAAGCGGAGGAAGGCCTTGCCCACCTTCTCCCAGCCCTTCGGGGGTGGCTCCCACATGGGTGG
AGGCTCTGGGGGTGCAGCCGGGGGCTACGGAGGAGCTGGAGGAGGTGGCAGCCTCGGTTTCTTCCCCTCCTCCCT
GGCCTACAGCCCCTACCAGTCCGGCGCGGGCCCCATGGGCTGCTACCCGGGAGGCGGGGGCGGGGCGCAGATGGC
CGCCACGGTGCCCAGCAGGGACTCCGGGGAGGAAGCCGCGGAGCCAAGCGCCCCCTCCAGGACCCCCCAGTGCGA
GCCGCAGGCCCCGGAGATGCTGCAGCGAGCTCGAGAGTACAACGCGCGCCTGTTCGGCCTGGCGCAGCGCAGCGC
CCGAGCCCTACTCGACTACGGCGTCACCGCGGACGCGCGCGCGCTGCTGGCGGGACAGCGCCACCTGCTGACGGC
GCAGGACGAGAACGGAGACACACCACTGCACCTAGCCATCATCCACGGGCAGACCAGTGTCATTGAGCAGATAGT
CTATGTCATCCACCACGCCCAGGACCTCGGCGTTGTCAACCTCACCAACCACCTGCACCAGACGCCCCTGCACCT
GGCGGTGATCACGGGGCAGACGAGTGTGGTGAGCTTTCTGCTGCGGGTAGGTGCAGACCCAGCTCTGCTGGATCG
GCATGGAGACTCAGCCATGCATCTGGCGCTGCGGGCAGGCGCTGGTGCTCCTGAGCTGCTGCGTGCACTGCTTCA
GAGTGGAGCTCCTGCTGTGCCCCAGCTGTTGCATATGCCTGACTTTGAGGGACTGTATCCAGTACACCTGGCAGT
CCGAGCCCGAAGCCCTGAGTGCCTGGATCTGCTGGTGGACAGTGGGGCTGAAGTGGAGGCCACAGAGCGGCAGGG
GGGACGAACAGCCTTGCATCTAGCCACAGAGATGGAGGAGCTGGGGTTGGTCACCCATCTGGTCACCAAGCTCCG
GGCCAACGTGAACGCTCGCACCTTTGCGGGAAACACACCCCTGCACCTGGCAGCTGGACTGGGGTACCCGACCCT
CACCCGCCTCCTTCTGAAGGCTGGTGCTGACATCCATGCTGAAAACGAGGAGCCCCTGTGCCCACTGCCTTCACC
CCCTACCTCTGATAGCGACTCGGACTCTGAAGGGCCTGAGAAGGACACCCGAAGCAGCTTCCGGGGCCACACGCC
TCTTGACCTCACTTGCAGCACCAAGGTGAAGACCTTGCTGCTAAATGCTGCTCAGAACACCATGGAGCCACCCCT
GACCCCGCCCAGCCCAGCAGGGCCGGGACTGTCACTTGGTGATACAGCTCTGCAGAACCTGGAGCAGCTGCTAGA
CGGGCCAGAAGCCCAGGGCAGCTGGGCAGAGCTGGCAGAGCGTCTGGGGCTGCGCAGCCTGGTAGACACGTACCG
ACAGACAACCTCACCCAGTGGCAGCCTCCTGCGCAGCTACGAGCTGGCTGGCGGGGACCTGGCAGGTCTACTGGA
GGCCCTGTCTGACATGGGCCTAGAGGAGGGAGTGAGGCTGCTGAGGGGTCCAGAAACCCGAGACAAGCTGCCCAG
CACAGAGGTGAAGGAAGACAGTGCGTACGGGAGCCAGTCAGTGGAGCAGGAGGCAGAGAAGCTGGGCCCACCCCC
TGAGCCACCAGGAGGGCTCTGCCACGGGCACCCCCAGCCTCAGGTGCAC**TGA**CCTGCTGCCTGCCCCCAGCCCCC
TTCCCGGACCCCCTGTACAGCGTCCCCACCTATTTCAAATCTTATTTAACACCCCACACCCACCCCTCAGTTGGG
ACAAATAAAGGATTCTCATGGGAAGGGGAGGACCCCTCCTTCCCAACTT

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FIGURE 1238

CTCGTTGGTGGGGCTGGGGGATGAGAGCTGCACCGCGCGGGACAAGTCGCCGGCGGCGCCCGACGGAGCAGAAGA
GAGAGC**ATG**GAGCTGGAGAGGATCGTCAGTGCAGCCCTCCTTGCCTTTGTCCAGACACACCTCCCGGAGGCCGAC
CTCAGTGGCTTGGATGAGGTCATCTTCTCCTATGTGCTTGGGGTCCTGGAGGACCTGGGCCCCTCGGGCCCATCA
GAGGAGAACTTCGATATGGAGGCTTTCACTGAGATGATGGAGGCCTATGTGCCTGGCTTCGCCCACATCCCCAGG
GGCACAATAGGGGACATGATGCAGAAGCTCTCAGGGCAGCTGAGCGATGCCAGGAACAAAGAGAACCTGCAACCG
CAGAGCTCTGGTGTCCAAGGTCAGGTGCCCATCTCCCCAGAGCCCCTGCAGCGGCCCGAAATGCTCAAAGAAGAG
ACTAGGTCTTCGGCTGCTGCTGCTGCAGACACCCAAGATGAGGCAACTGGCGCTGAGGAGGAGCTTCTGCCAGGG
GTGGATGTACTCCTGGAGGTGTTCCCTACCTGTTCGGTGGAGCAGGCCCAGTGGGTGCTGGCCAAAGCTCGGGGG
GACTTGGAAGAAGCTGTGCAGATGCTGGTAGAGGGAAAGGAAGAGGGGCCTGCAGCCTGGGAGGGCCCCAACCAG
GACCTGCCCAGACGCCTCAGAGGCCCCCAAAAGGATGAGCTGAAGTCCTTCATCCTGCAGAAGTACATGATGGTG
GATAGCGCAGAGGATCAGAAGATTCACCGGCCCATGGCTCCCAAGGAGGCCCCCAAGAAGCTGATCCGATACATC
GACAACCAGGTAGTGAGCACCAAAGGGGAGCGATTCAAAGATGTGCGGAACCCTGAGGCCGAGGAGATGAAGGCC
ACATACATCAACCTCAAGCCAGCCAGAAAGTACCGCTTCCAT**TGA**GGCACTCGCCGGACTCTGCCCGAGCCTTCT
AGGCTCAGATCCCAGAGGGATGCAGGAGCCCTATACCCCTACACAGGGGCCCCCTAACTCCTGTCCCCCTTCTCT
ACTCCTTTGCTCCATAGTGTTAACCTACTCTCGGAGCTGCCTCCATGGGCACAGTAAAGGTGGCCCAAGG

FIGURE 1239

GCGCTAGCGGCGGACCCGGCTGGGCAGTTCCTTCCCCAGAAGGAGAGATTCCTCTGCC**ATG**GAGTCCTACGATGT
GATCGCCAACCAGCCTGTCGTGATCGACAACGGATCCGGTGTGATTAAAGCTGGTTTTGCTGGTGATCAGATCCC
CAAATACTGCTTTCCAAACTATGTGGGCCGACCCAAGCACGTTCGTGTCATGGCAGGAGCCCTTGAAGGCGACAT
CTTCATTGGCCCCAAAGCTGAGGAGCACCGAGGGCTGCTTTCAATCCGCTATCCCATGGAGCATGGCATCGTCAA
GGATTGGAACGACATGGAACGCATTTGGCAATATGTCTATTCTAAGGACCAGCTGCAGACTTTCTCAGAGGAGCA
TCCTGTGCTCCTGACTGAGGCGCCTTTAAACCCACGAAAAAACCGGGAACGAGCTGCCGAAGTTTTCTTCGAGAC
CTTCAATGTGCCCGCTCTTTTCATCTCCATGCAAGCTGTACTCAGCCTTTACGCTACAGGCAGGACCACAGGGGT
GGTGCTGGATTCTGGGGATGGAGTCACCCATGCTGTGCCCATCTATGAGGGCTTTGCCATGCCCCACTCCATCAT
GCGCATCGACATCGCGGGCCGGGACGTCTCTCGCTTCCTGCGCCTCTACCTGCGTAAGGAGGGCTACGACTTCCA
CTCATCCTCTGAGTTTGAGATTGTCAAGGCCATAAAAGAAAGAGCCTGTTACCTATCCATAAACCCCCAAAAGGA
TGAGACGCTAGAGACAGAGAAAGCTCAGTACTACCTGCCTGATGGCAGCACCATTGAGATTGGTCCTTCCCGATT
CCGGGCCCCTGAGTTGCTCTTCAGGCCAGATTTGATTGGAGAGGAGAGTGAAGGCATCCACGAGGTCCTGGTGTT
CGCCATTCAGAAGTCAGACATGGACCTGCGGCGCACGCTTTTCTCTAACATTGTCCTCTCAGGAGGCTCTACCCT
GTTCAAAGGTTTTGGTGACAGGCTCCTGAGTGAAGTGAAGAAACTAGCTCCAAAAGATGTGAAGATCAGGATATC
TGCACCTCAGGAGAGACTGTATTCCACGTGGATTGGGGGCTCCATCCTTGCCTCCCTGGACACCTTTAAGAAGAT
GTGGGTCTCCAAAAAGGAATATGAGGAAGACGGTGCCCGATCCATCCACAGAAAAACCTTC**TAA**TGTCGGGACAT
CATCTTCACCTCTCTCTGAAGTTAACTCCACTTTAAAACTCGCTTTCTTGAGTCGGAGTGTTTGCGAGGAACTGC
CTGTGTGTGAGTGCGTGTGTGGATATGAGTGTGTGTGCACATGCGAGTGCCGTGTGGCCCTGGGACCCTGGGCCC
AGAAAGGACGATGAACTACCTGCAGTGGTGATGGCCTGAGGCCTGGGGTTGACCACTAACTGGCTCCTGACAGGG
AAGAGCGCTGGCAGAGGCTGTGCTCCCTCCTCAGGTGGCCTCTGGCTGGCTGTGGGGGACTCCGTTTACTACCAC
AGGGAGACAGAGGGAGGTAAGCCATCCCCCGGGAGACCTTGCTGCTGACCATCCTAGGCTGGGCTGGCCCCACCC
TCACCCCCACCCCCAGGGTGCCCTGAGGCCCCAGGCAGCTGCTGCCTCCACTATCGATGCCTCCTGACTGCACAC
TGAGGACTGGGACTGGGGTTGAGTTCTGTCTGGTTTTGTTGCCATTTTGGTTTGGGAGGCTGGAAAAGCACCCCA
AGAGCTATTACAGAGACTGGAGTCAGGAGAGAGCAGGAGGCCCTCATGTTCACCAGGGAACAGGACCACACCGGC
CACTGGAGGAGGGCAGGAGCAGTCCTCACTCTGAATGGCTGCAGAGTTAATGTTCCCAGCCCAGTCCCCTTTCGG
GGGCCTTGGGAGAGTTTAAGGCACCTGCTGGTTCCAGGACCTCGCTTTCCATCTGTTCTTGTTGCAATGCCATCT
TCAAACCGTTTTATTTATTGAAGTGTTTGTTCAGTTAGGGGCTGGAGAGAGGGAGCTTGCTGCCTCCTGCCTTGC
TACACTAATGTTTACAGCACCTAAGCTTAGCCTCCAGGGCCCCACCTCTCCCAGCTGATGGTGAGCTGACAGTGT
CCACAGGTTCCAGGACCATTTGAGATTGGAAGCTACACTCAAAGACACTCCCACCAGGCTCTTTCTCCCTTTTCC
TCTTGCTCACTGCCCTGGAATCAACAGGCTGGTTGCTGGTTAGATTTTCTGAAACAGGAGGTAAAATTTTTCTTT
GGCAGAGGCCCCTAAGCAAGGGAGGGGTGTTGGAGAGCCAGTGCCCTTAAGACTGGAGAAAGCTGCAATTTACCA
AGTTGCCTTTTGCCACTGTAGCTGACCAGGGGACTAGGTTGTAGAGGTGGGAAGGCCCCCTCTGGGCTGATCTTG
TGCCATTCTTGACCTTGGACCTGCTTGGTTAAGGAGGGAGTGGGCCAGACCAGAGTGCCAGGAGCTAATGGAGCC
AGGCCTGACTCCTAGGAGTGGTCCAAAGGCCTTCAGCCTAGATGGTGCAAAGCTGGGGCCAGCCTGTCTTCACCG
GCACCCTCACCTGTGACACCAAGACCCACCCCAATCCCAGACTTCACACAGTATTCTCCCCCACGCCGTCCTATG
ACCAAAGGCCCCTGCCAGGTGTGGGCCACAGCAGCAGGTATGTGTGAAAGCAACGTAGCGCCCCGCGGACTGCAG
TGCGCTTAACCAACTCACCTCCCTTCTCTTAGCCCAAGCCTGTCCCTCGCACAGCCTCGCACAAACCACATTGCC
TGGTGGGGCCCAGTGTACTGAAATAAAGTCGTTCCGATAGACACGTC

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FIGURE 1240A

CGCCCCGCCGCCCCGAGGCACCCTCTGGCAGACTCGGCGGCGGCGACAGCCTGGGCGGACAGTGCGCCGTGCGCA
GGCGCGGAGCTAGACCTCGCTGCAGCCCCCATCGCCTCGGGGAGTCTCACCCACCGAGTCCGCCCGCTGGCCCGT
CAGTGCTCTCCCCGTCGTTTGCCCTCTCCAGTTCCCCCAGTGCCTGCCCTACGCACCCCG**ATG**GCGGAGCTGCGG
CCTAGCGGCGCCCCCGGCCCCACCGCGCCCCCGGCCCCTGGCCCGACTGCCCCCCCGGCCTTCGCTTCGCTCTTT
CCCCCGGGACTGCACGCCATCTACGGAGAGTGCCGCCGCCTTTACCCTGACCAGCCGAACCCGCTCCAGGTTACC
GCTATCGTCAAGTACTGGTTGGGTGGCCCAGACCCCTTGGACTATGTTAGCATGTACAGGAATGTGGGGAGCCCT
TCTGCTAACATCCCCGAGCACTGGCACTACATCAGCTTCGGCCTGAGTGATCTCTATGGTGACAACAGAGTCCAT
GAGTTTACAGGAACAGATGGACCTAGTGGTTTTGGCTTTGAGTTGACCTTTCGTCTGAAGAGAGAAACTGGGGAG
TCTGCCCCACCAACATGGCCCGCAGAGTTAATGCAGGGCTTGGCACGATACGTGTTCCAGTCAGAGAACACCTTC
TGCAGTGGGGACCATGTGTCCTGGCACAGCCCTTTGGATAACAGTGAGTCAAGAATTCAGCACATGCTGCTGACA
GAGGACCCACAGATGCAGCCCGTGCAGACACCCTTTGGGGTAGTTACCTTCCTCCAGATCGTTGGTGTCTGCACT
GAAGAGCTACACTCAGCCCAGCAGTGGAACGGGCAGGGCATCCTGGAGCTGCTGCGGACAGTGCCTATTGCTGGC
GGCCCCTGGCTGATAACTGACATGCGGAGGGGAGAGACCATATTTGAGATCGATCCACACCTGCAAGAGAGAGTT
GACAAAGGCATCGAGACAGATGGCTCCAACCTGAGTGGTGTCAGTGCCAAGTGTGCCTGGGATGACCTGAGCCGG
CCCCCCGAGGATGACGAGGACAGCCGGAGCATCTGCATCGGCACACAGCCCCGGCGACTCTCTGGCAAAGACACA
GAGCAGATCCGGGAGACCCTGAGGAGAGGACTCGAGATCAACAGCAAACCTGTCCTTCCACCAATCAACCCTCAG
CGGCAGAATGGCCTCGCCCACGACCGGGCCCCGAGCCGCAAAGACAGCCTGGAAAGTGACAGCTCCACGGCCATC
ATTCCCCATGAGCTGATTCGCACGCGGCAGCTTGAGAGCGTACATCTGAAATTCAACCAGGAGTCCGGAGCCCTC
ATTCCTCTCTGCCTAAGGGGCAGGCTCCTGCATGGACGGCACTTTACATATAAAAGTATCACAGGTGACATGGCC
ATCACGTTTGTCTCCACGGGAGTGGAAGGCGCCTTTGCCACTGAGGAGCATCCTTACGCGGCTCATGGACCCTGG
TTACAAATTCTGTTGACCGAAGAGTTTGTAGAGAAAATGTTGGAGGATTTAGAAGATTTGACTTCTCCAGAGGAA
TTCAAACTTCCCAAAGAGTACAGCTGGCCTGAAAAGAAGCTGAAGGTCTCCATCCTGCCTGACGTGGTGTTCGAC
AGTCCGCTACAC**TAG**CCTGGGCTGGGCCCTGCAGTGGCCAGCAGGGAGCCCAGCTGCTCCCCAGTGACTTCCAGT
GTAACAGTTGTGTCAACGAGATCTCCACAAATAAAAGGACAAGTGTGAGGAAGACTGCGCAGTGCCACCCCGCAG
CCCAGTGGGGTGCCATGCACAGGCCACAGGCCCTCCACCTCACCTCCAGCTCAGGGGCCGCACCCCGCCGCTGGC
TAAGCCTTGTGACCCATCAGGCCAGTGAGTGGGCAAATGCGGACCCTCCCTGCCTGCAGCCTGCACAGATTCTGG
TTTGAGGTTTGACTCTGGACCCTGGCTGTGCCCCTAGGTGGAGACAGCCCTCTTTCTCACCTACCCCCTGCCGCA
CAGCCCAGCAGGAGGGAGGCGGACAGCCAGATGCAGAGCGAGTGGATGCACTTCCCAGCTCATCTCTGGAAGCCT
TTGCTACTCAAGCTCCTCTGGCCGCGGAACAATTCCTCTGATCATGTTTGGTTTTCTTCTTCCTTATTTTATTTT
GTAGAAACCGGGTGGTATTTTATTGCTCTGCAAAGATGTCCAGAAGCCATGTATATAATGTTTTTTAAACAGAAC
TTCATTCCCCGTTGAACTTTCGCATTCTCTGACAGAGGCCTAGGGCTGTATCTCTCCCTGGGCTGCCACCAGAGA
AGGTGCTTGGTGTTCGCCTGCCAGCCCAGAGCCCTGGAGGAGCCGGCTGCACAGAGAGGCTTTTCTTCCCAGCTG
GGCCTGGTGGAGCCCGGGGCAGGGGGAGAGTAGAGACACTCCCTTGTGCAGCTTTGAGCCTAGTTTAGCTGGGGC
CAGGGAGGGGTGCTACTGTTTTCCAAGTGAATGGGTCTCAAAGACTTGGTGACCCCAGCCTCATCTTCTAGGCCT
TTTCCACCCAACCAGGCCTACCTGGGAGAGGGTGAGGTTCAGCACATCACACACCATCCCCACTGTCATTCAGGG
CCTGGGTCTCCAGCTCTGTAACCAGTCCTGTCCCATTTCCTCAGTCCCTGGGCCTCCCAGCCTTCAGGCTGTAGG
GCTGCCTTACTAAAATTGAAAAATCCACCTCTTAACATCTCTTTCACTTTGGTTTTGCTAACACTGCTCTCTGCT
GCCCTCCCATCCTCCCTGTATCCATTCATGCCCTATCTTTCATTCTCCACTCCTAATCCCTCTCCTTTCTGGCAT
CCTGGCCTCTCGTGGTCCTCAGCCCCTCACCCCCAGTACTGCAGATCTCACAGTTTGCCTTCCAGAAGCCAGCCT
ATCTCTAGCCCATGGTTTTGGAGTTCCTCTCGGGTTATCTCCCACGCCTGACCTGGAACCAGCAAGCCCCTTTCC
TGCCTTCTTACCCCCAACTCTAGGGATGGGACTGTTACAATACTTCAAGATCACTCTTTACACCTCTTCAAAGCA
AAGTCATGACAATGCAGGGCTCCTCATTGCTCCCATCTGCCTCTGCTGCACACACAGGCACCAGCAGGGATGCCA
CAGGAGTGCCCACAGGGTGCAGGACTCCACTGATGAGAGATCCAGCCAAAGAGCTGCCCCCAGGGGTATGAGGGC
ACCAGCTGGGTTCTCCAGGGAGCAGGAGTTGGACCTCCATGGAGCCACTAGGCCTGGCCTCCTCTACACATCCCC
AGGGCTATCTGGTTAATTCCATCAAGCTCAGAGTTAAAAGGCATATCAGCCTGGAGTATTTGGGAGAGACTGGCT
GCAGATCCCCGCCAGCCAAGATGCAAGCCACTCGGGACCTGATGTCGGCAGCTGTGCCTCTACTGCCCTGAGGAC
TTACCAGAGGGAGCCCTACTGGCCTTCCCCCACCACAGCAGCCCTGCCTGTGAAGCTCTTGTTTCTGACATTTCA
CAGGCAGAGAGGTGCCATCAGTTCGCCTCCATTCCTTGCCACCATGACCAGCCTCTCCCTGAACTCTCTCTTGCT

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FIGURE 1240B

CGGGACCTGCCTGAGGGCTCCCTGCTGCAGTTCGCCGTACTTCCATCTGCTGGGTGCCTCCATCGTTGGTTGGGT
GGGGATGGGGCATTTTCTGAGCTAAGCTTTGTCATTAGTTTGTGAAGCACCTGGTCAGCAACCTGCCCCAGACCT
GGAGGGTCTTTGTGGACTGAAGGTAGACACCAGCCAGCATGGTGGCCCTGTTCTGGGGGAGCAGGGTAAGGCAGG
AGGAAGTGGGTGAGCTCCGAGATGATGAGCACATGAAGCCTGTGGCCCCTTCGTACCTGCAATATGTCAGGAGCC
TCACGCTCACCCAAGATCCTGCAGGGGCCAGGCTCCATCTCACTGGCTCTGAGGGCAGGACAGGGTATCACACAT
TTCTCACCAGGCCTCCTTTCCTATGGGCATTGGTGCCTCCCAGAGGTTTCTTGGGCTGCTGGCTGGTGAGAGAGG
ACCCTTAAAGAAGATCAAGCCAAGCTGACCTTGGACCCTGTCCAGCACAGCTTCTGGCACAGGATGCTTGGTGAA
TGTACCCTTTCTTTCCCTCCCTGCAGCTCTGAGGGAGCCCCTGACCTTGTAGTGGGTGGAGGAGGTAAGGGGCCT
CCCTCCCTAAATCTGCCTCTTCTGCAAGCTACTTGGAGACTTGCCTAGTTGTACCCACCCCTCCAGGTCCCTGGT
GCTAGAGCTTCTGAGAAGGGCCTTTCCCTTTCCTCTTTGCCTGCTATATAAGGCAGGCTCCTGTGGCTCTGCTGG
CTCAGTGTGGGCTGCAGGAGGACTGCAGACTCAGCTGCAATTCTGAGGGGGGTTTGGGAGGCTTGTGCGAGGTCT
CAGGCCTGTGTGGGGAGCTGGTGCCTCTTCCTGCCCGTATCTTTCTCTTCCAAGGGCAGTGCTCCAAGGCAGGGA
CTGGAGAAGCCAAGGGGAGAGTCTAAAAGGGCTAGAGCATTTTTAAAAATAGACACAGGGTCTTGGGACTGGGGT
TTCGGATTGAGTTGCAAGCAGGGAGAAAACCTGAAGGTCGGTGCCCCTATGGGGCTGACCAGTAGAGAATTTCCT
TTACTGTATTTTTGTGTCTGGTCTTCCCTTTCTGGCTTCTAGGACATCCATGCCAGGTGAGGTGCCTGGGTCCCT
GTTACAAGTCAGGAGCCCTGTAGGGAGACCCCTCCTTTTGTACAAGTACCTGAATGCTGCGACAAGCAGATTTTT
GTAAAATTTTATATTAGTTTTTAATGTCAGTGGCGACTCGGTTCCTGGGGCTGCAGCCAGCCTGGGACTTTTGTA
AGAATTTTTGGGTGACTCACTTAGATGTCGTTTCCTTCTTGCCCCCTCTTCCTCTCTGTAATCTAAGTGCATTAA
ACATCTTTGCAG

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FIGURE 1241

GCGGCCGCC**ATG**GCGGAGAATTGGAAGAACTGCTTCGAGGAGGAGCTCATCTGCCCTATCTGCCTGCACGTTTTC
GTGGAGCCAGTGCAGCTGCCGTGCAAACACAACTTCTGCCGGGGCTGCATCGGCGAGGCGTGGGCCAAGGACAGC
GGCCTCGTACGCTGCCCAGAGTGCAACCAGGCCTACAACCAGAAGCCGGGCCTGGAGAAGAACCTGAAGCTCACC
AACATCGTGGAGAAGTTCAATGCCCTGCACGTGGAGAAGCCGCCGGCGGCGCTGCACTGCGTGTTCTGCCGCCGC
GGCCCCCCGCTGCCCGCGCAGAAGGTCTGCCTGCGCTGCGAGGCGCCCTGCTGCCAGTCCCACGTGCAGACGCAC
CTGCAGCAGCCCTCCACCGCCCGCGGGCACCTCCTGGTGGAGGCGGACGACGTGCGGGCCTGGAGCTGCCCGCAG
CACAACGCCTACCGCCTCTACCACTGCGAGGCCGAGCAGGTGGCCGTGTGCCAGTACTGCTGCTACTACAGCGGC
GCGCATCAGGGACACTCGGTGTGCGACGTGGAGATCCGAAGGAATGAAATCCGGAAGATGCTCATGAAGCAGCAG
GACCGGCTGGAGGAGCGAGAGCAGGACATTGAGGACCAGCTGTACAAACTCGAGTCAGACAAGCGCCTGGTGGAG
GAGAAAGTGAACCAACTGAAGGAGGAAGTTCGGCTGCAGTACGAGAAGCTGCACCAGCTGCTGGACGAGGACCTG
CGGCAGACAGTGGAGGTCCTAGACAAGGCCCAGGCCAAGTTCTGCAGCGAGAACGCAGCGCAGGCGCTGCACCTC
GGGGAGCGCATGCAGGAGGCCAAGAAGCTGCTGGGCTCCCTGCAGCTGCTCTTTGATAAGACGGAGGATGTCAGC
TTCATGAAGAACACCAAGTCTGTGAAAATCCTGATGGACAGGACCCAGACCTGCACGAGCAGCAGCCTTTCCCCC
ACTAAGATCGGCCACCTGAACTCCAAGCTCTTCCTGAACGAAGTGGCCAAGAAGGAGAAGCAGCTGCGGAAAATG
CTAGAAGGCCCCTTCAGCACGCCGGTGCCCTTCCTGCAGAGTGTCCCCCTGTACCCTTGCGGCGTGAGCAGCTCT
GGGGCGGAAAAGCGCAAGCACTCAACGGCCTTCCCAGAGGCCAGTTTCCTAGAGACGTCGTCGGGCCCTGTGGGC
GGCCAGTACGGGGCGGCGGGCACAGCCAGCGGTGAGGGCCAGTCTGGGCAGCCCCTGGGGCCCTGCAGCTCCACG
CAGCACTTGGTGGCCCTGCCGGGCGGCGCCCAACCAGTGCACTCAAGCCCCGTGTTCCCCCCATCGCAGTATCCC
AATGGCTCCGCCGCCCAGCAGCCCATGCTCCCCCAGTATGGCGGCCGCAAGATTCTCGTCTGTTCTGTGGACAAC
TGTTACTGTTCTTCCGTGGCCAACCATGGCGGCCACCAGCCCTACCCCCGCTCCGGCCACTTTCCCTGGACAGTG
CCCTCGCAGGAGTACTCACACCCGCTCCCGCCCACACCCTCCGTCCCCCAGTCCCTTCCCAGCCTGGCGGTCAGA
GACTGGCTTGACGCCTCCCAGCAGCCCGGCCACCAGGATTTCTACAGGGTGTATGGGCAGCCGTCCACCAAACAC
TACGTGACGAGC**TAA**CGCCACGCAGGCGGCGGGGCGCTGGGGAATCTTCCTCCCCAGCCCCCGGGCTCGGGAGTT
ATGCATCCAGAGACCTGCCCTTCTACCTTCCTCGCCTCCCCTCTTCCTCATTCCATTGCCCCAGGTCTTTTCCTT
TTGGATTTTGTTTTGGTTTTGGCTTTGTTTTTGATTTTTTTTTATTATGAATCTCCTGGACGCAGAGGTGACAGT
GGGAGCTGGCCTGGGCCAGGACGGCAGGTGGCCCTGGAGATGGGAAAGTGTCTGTGTCGAGGCGCTGAGCTCTCT
CTCTGTTTCTCCTTTTTTCCTCTACTCCTTCCCCTTCACACCCCCGTGGCTGGAAGGAACCTCGGCTTCCCTGAA
AGCTTGGGGGTCCCACCCTTCTTACCCCACCCGGGAGGAACGCCCAGGGCCCCGGGCTTGTTTCTCCTCTTGTTT
TCCTTTTGGGCAGTTTGATCACTGATCGAGTAAGGAATGACCTTTAGATTGTGCGACTTTTGTTTTTGTTTTTTT
AAATTTTTTTAAACCAAGAATGATTTCTCCTGCTTCCTTCTCCTCACCATCTTCCCAGACGGAGTTCAAAGGCCA
CTTCTCAAGCAGCTTTTGGCACCTTCAGCCTCAGAGTGGAATCTTTTAAAGACAGGACCCCTATGTCCAGGAAAG
GGGAAAAGGAACTTTGCCAATGATAGTGACCACAGCAAAAGCAAATAATAATAATATTAATAATAATAAAGAGAA
ATAAAATAATAAAATAAAAAACAATAGCACAGCCCTTGTTGAGGTCAGCAGGGAGGAGGGGCTGCCCGGAGTTGG
GTCCTTGCCTGGATTTTGACACAGCAACTTCCTGTAGTGAGCACTTTGTATGAATCGTGGACTTCCTGTTCTCAA
GGCGCAGGTATTTATTCTGTATCTGTCTAGAGCACACACCAAAATCCAACCTTCTAATAAACATGATGGCGCAGT
CCC

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FIGURE 1242

GCGCACTCTGGGGAAAGCGGAGCTGCACCCCGCCCCGTATTGCTGCTCAGCTCCTCAGCTGTGCGTGCGAGGGAC
GTCGGGGGCGGCGCCGCAGCAGTTGCCCCTGGTAACGGGGGAGGCAGCAGGAGGAGGAGGAGGAGGAGGGACTCG
GCGGGAGG**ATG**GGCTTGCTCTCAATTTTGCGCAAGTTGAAAAGTGCACCAGACCAGGAGGTGAGAATACTTCTCC
TGGGCTTGGATAATGCTGGCAAGACCACTCTTCTGAAGCAGCTTGCATCTGAAGACATCAGCCACATCACACCTA
CACAGGGTTTCAACATCAAAAGTGTACAATCACAAGGTTTTAAACTGAATGTATGGGACATTGGTGGACAGAGGA
AAATCAGACCATACTGGAAGAATTATTTTGAAAATACCGATATTCTTATATATGTAATCGACAGTGCAGACAGAA
AAAGATTTGAAGAGACGGGTCAGGAACTAGCGGAATTACTGGAGGAAGAAAAACTAAGTTGTGTGCCAGTGCTCA
TCTTTGCTAATAAGCAGGATTTGCTCACAGCAGCCCCTGCCTCTGAAATTGCAGAAGGACTGAACCTGCATACCA
TCCGCGACCGAGTCTGGCAGATCCAGTCTTGCTCAGCTCTCACAGGAGAGGGCGTTCAGGATGGCATGAACTGGG
TCTGCAAAAATGTCAATGCAAAGAAGAAA**TAA**AATCTAGACGAATGGAGATGCAGGAGCTGCGGGAGCCGAATTC
GGTCCTGAAAAACACTAATTTGCTGCTTTCTGACCAAATGTTTTTCCATCTGTGTACAGCTCCAGCTGTTTGAAG
AGAGGGAACAACACGGTTTAGAAAGAATCCCCATTCCAGCAGTAGATTTAACTGATCTCTGAGGTTCAGTATCAT
TTTTCAAATAAAGGAATTATATTATTTCCTCTGCATAATTGAAATAGTATTAAATGTCTCAAAGCACATGATTAG
AAAATGAGATCTTTTAAATGAGCAAGAGATTGCATTGCAGTTTAGACAATTCCAGTGGGCTTTTTTTT

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FIGURE 1243

GGCGGGAGCCTCCCGGCCTGGGATTGGTCGAAAAGGAGGGGCGTGGGGCGGGCGTGGGGGCAGTTCCCCAGCCCA
GGTCCTCCTCTCACCCGGGCCAGTTTTCAAGGCGGGCTGTAACTGGTGGCATTTGTCCCGGGACCAGGTCCACAG
TTTTATGTGTGAGCAAG**ATG**GAGGCTGACCTGTCTGGCTTTAACATCGATGCCCCCCGTTGGGACCAGCGCACCT
TCCTGGGGAGAGTGAAGCACTTCCTAAACATCACGGACCCCCGCACTGTCTTTGTATCTGAGCGGGAGCTGGACT
GGGCCAAGGTGATGGTGGAGAAGAGCAGGATGGGGGTTGTGCCCCCAGGCACCCAAGTGGAGCAGCTGCTGTATG
CCAAGAAGCTGTATGACTCGGCCTTCCACCCCGACACTGGGGAGAAGATGAATGTCATCGGGCGCATGTCTTTCC
AGCTTCCTGGCGGCATGATCATCACGGGCTTCATGCTCCAGTTCTACAGGACGATGCCGGCGGTGATCTTCTGGC
AGTGGGTGAACCAGTCCTTCAATGCCTTAGTCAACTACACCAACAGGAATGCGGCTTCCCCCACATCAGTCAGGC
AGATGGCCCTTTCCTACTTCACAGCCACAACCACTGCTGTGGCCACGGCTGTGGGCATGAACATGTTGACAAAGA
AAGCGCCGCCCTTGGTGGGCCGCTGGGTGCCCTTTGCCGCTGTGGCTGCGGCTAACTGTGTCAATATCCCCATGA
TGCGACAGCAGGAGCTCATAAAGGGAATCTGCGTGAAGGACAGGAATGAAAATGAGATTGGTCATTCCCGGAGAG
CTGCGGCCATAGGCATCACCCAAGTAGTTATTTCTCGGATCACCATGTCAGCTCCTGGGATGATCTTGCTGCCAG
TCATCATGGAAAGGCTTGAGAAATTGCACTTCATGCAGAAAGTCAAGGTCCTGCACGCCCCATTGCAGGTCATGC
TGAGCGGGTGCTTCCTCATCTTCATGGTGCCAGTGGCGTGTGGGCTTTTCCCACAGAAATGTGAATTGCCAGTTT
CCTATCTGGAACCGAAGCTCCAAGACACTATCAAGGCCAAGTATGGAGAACTTGAGCCTTATGTCTACTTCAATA
AGGGTCTC**TAA**ATGCCCCACTTCAGCAAGGACCAGTCTATTCCCATATTCACCAGCTCCTCCTTAGCTACGTGCA
CACTTGTGTCCTCCTTCCCCTTTGCCAACAAGGCCTGAAGGCCAGGGTAGATTGGGGGGTGGGACAATGAATGCC
TCATACTTACACCCTGGTACTGGTTGATTGGACCTCAGGGGAAAAAAGTGAAAAAGGGTAGCAAAGGCCAATGTC
TTCTAGCTGCTTCCTCAACCCCTGTCCCCTGGAGACCAGAAGCTGAGGCCCTCTCAGGGAGGAGACATCCAAGCA
AATCATTTGGAAAAGTTAGGAAACCTTTAGGATTCTGGTTCCAGCCAGGGTTGAGGAAAAGACCTTGGATCAAAA
GGAAGCTTCTATACCTCTTTCTTCTTCGCTTCCTCCTCTCCCAAGCAATGGAAACTTTTACCCATGTAATTCTAG
CTGAACTCAGGAAAAAGAAGGGGGAAAGGACTCTGTCCCCTTGGGGCTCATCACCCTTCCACATCCTCCTCCTCG
TTGCCCCCTGGTCAGGCAGCTTCTTTTTTTTTTTTTTCAAGATGGAGTCTTGCTCTGTCGCCCAGGCTGGAATGC
AGTGGCGCGATCTCGGCTCACTGCAAACTCTGCCTCCTGGATTCAAGCGATTCTCCTGCCTCAGCCTCTCAAGTA
GCTGGGATTACAGGGCACCTGCCACCACGCCTGGCTAATTTTTGTATTTTAGTGGAGACGGGGTTTCACCATGCT
GGCCAGACTGGTCTCGAACTCCTGACCTCAGGTGATCCGCCCGCCTCAGCCTCTGAAATTGCTGGGATTACAGGC
ATGAGCCACCACACCCAGCCCGGACAGCTTCTTTGGGAGTGCTGCTAACCTTGAAATTATCAGACACTTAGGAGT
TATTAGTGCTAAAAAGGGGACCGTGCAAGGCAGCAGAGTTACATGGTTCTTCAAATCATGTCTGAACCTATTCTT
GGAATCTTCTCTATAATAAGGGAAGTTCTCTTACCCCACTGCCACATACCTCTGTTTTAAAAGATAAGTCCACTA
ACTGTGAGTAAAAATGATATATATAGGCATTAACCACACACTTTAATGGGTATAATTTCCTGGCTGCCTCCCTTC
CTCAGCCCATTAGGTTAAACACCAAAGAAAGACTGGTGTGTACTGAATAGGAAAGGGAAGTTTTATTTGGAACCT
TCTAAGAGGAAATCAACCAGGACCAAAGAGCCTTAAAGGACACACAGCAATGCACAGCCACTTCCCTTCCCCAGC
TTGGCTGCCCTAGGTGATTTCTCAAGCTCCTTGGGGGACTGTTGTTTCTCATCTGGAATCAATGTGTGTATGAGT
TTTGTCTGGTAGGATTGCTGACTCTGTCCAACAGATATCACTGTGAATTGAATAAATTTGTTGAAAGAGCACACA
GGCACACATAC

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FIGURE 1244

AGTGCGCAACCGTTCGCTAACTGAAATG**ATG**GCGACTGGAACGCCAGAGTCTCAAGCGCGGTTCGGTCAGTCCGT
GAAGGGGCTTCTCACGGAGAAGGTGACCACCTGTGGTACTGACGTAATCGCGCTCACCAAGCAGGTGCTGAAAGG
CTCCCGGAGCTCCGAGCTGCTAGGTCAGGCAGCTCGAAACATGGTACTCCAGGAAGATGCCATCTTGCACTCAGA
AGATAGTTTAAGGAAGATGGCAATAATAACAACACATCTTCAATACCAGCAAGAAGCTATTCAGAAGAATGTTGA
ACAGTCATCGGATCTACAGGACCAGTTGAATCATCTGTTGAAA**TAG**AATGACATGTAAGAGTGCTGTAGGACTCC
TTTGCCTAATGCTGAGGAGTAAATACCTTACACAGCTGTCCTCTGGGTTTGGTTTTCTATTTTCTTCTCCAAAAG
TTAAGTTAGTTGGGAGGCCGAGGCGGGTGGATCACGAGGTCAGGAGTTCGAGACCAGCCTGGCCAAGATGGTGAA
ACCCCGTCTCTACTAAAAATACAAAGAATTAGCTGGGCGTGGTGGCGGGCGCCTGTAATCCCAGCTACTCGGGAA
GCTGAGGCAAGAGAATCGCTTGAACC

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FIGURE 1245

TGCTGCAGCCGCTGCCGCCGATTCCGGATCTCATTGCCACGCGCCCCCGACGACCGCCCGACGTGCATTCCCGAT
TCCTTTTGGTTCCAAGTCCAAT**ATG**GCAACTCTAAAGGATCAGCTGATTTATAATCTTCTAAAGGAAGAACAGAC
CCCCCAGAATAAGATTACAGTTGTTGGGGTTGGTGCTGTTGGCATGGCCTGTGCCATCAGTATCTTAATGAAGGA
CTTGGCAGATGAACTTGCTCTTGTTGATGTCATCGAAGACAAATTGAAGGGAGAGATGATGGATCTCCAACATGG
CAGCCTTTTCCTTAGAACACCAAAGATTGTCTCTGGCAAAGACTATAATGTAACTGCAAACTCCAAGCTGGTCAT
TATCACGGCTGGGGCACGTCAGCAAGAGGGAGAAAGCCGTCTTAATTTGGTCCAGCGTAACGTGAACATCTTTAA
ATTCATCATTCCTAATGTTGTAAAATACAGCCCGAACTGCAAGTTGCTTATTGTTTCAAATCCAGTGGATATCTT
GACCTACGTGGCTTGGAAGATAAGTGGTTTTCCCAAAAACCGTGTTATTGGAAGCGGTTGCAATCTGGATTCAGC
CCGATTCCGTTACCTAATGGGGGAAAGGCTGGGAGTTCACCCATTAAGCTGTCATGGGTGGGTCCTTGGGGAACA
TGGAGATTCCAGTGTGCCTGTATGGAGTGGAATGAATGTTGCTGGTGTCTCTCTGAAGACTCTGCACCCAGATTT
AGGGACTGATAAAGATAAGGAACAGTGGAAAGAGGTTCACAAGCAGGTGGTTGAGAGTGCTTATGAGGTGATCAA
ACTCAAAGGCTACACATCCTGGGCTATTGGACTCTCTGTAGCAGATTTGGCAGAGAGTATAATGAAGAATCTTAG
GCGGGTGCACCCAGTTTCCACCATGATTAAGGGTCTTTACGGAATAAAGGATGATGTCTTCCTTAGTGTTCCTTG
CATTTTGGGACAGAATGGAATCTCAGACCTTGTGAAGGTGACTCTGACTTCTGAGGAAGAGGCCCGTTTGAAGAA
GAGTGCAGATACACTTTGGGGGATCCAAAAGGAGCTGCAATTT**TAA**AGTCTTCTGATGTCATATCATTTCACTGT
CTAGGCTACAACAGGATTCTAGGTGGAGGTTGTGCATGTTGTCCTTTTTATCTGATCTGTGATTAAAGCAGTAAT
ATTTTAAGATGGACTGGGAAAAACATCAACTCCTGAAGTTAGAAATAAGAATGGTTTGTAAAATCCACAGCTATA
TCCTGATGCTGGATGGTATTAATCTTGTGTAGTCTTCAACTGGTTAGTGTGAAATAGTTCTGCCACCTCTGACGC
ACCACTGCCAATGCTGTACGTACTGCATTTGCCCCTTGAGCCAGGTGGATGTTTACCGTGTGTTATATAACTTCC
TGGCTCCTTCACTGAACATGCCTAGTCCAACATTTTTTCCCAGTGAGTCACATCCTGGGATCCAGTGTATAAATC
CAATATCATGTCTTGTGCATAATTCTTCCAAAGGATCTTATTTTGTGAACTATATCAGTAGTGTACATTACCATA
TAATGTAAAAAGATCTACATACAAACAATGCAACCAACTATCCAAGTGTTATACCAACTAAAACCCCCAATAAAC
CTTGAACAGTG

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FIGURE 1246

GTAGTGGTGCCGACTTCCTGTTGTTTGAGGCCGGGTTGGGGGTGTGCGATTGTGTGGGACGGTCTGGGGCAGCCC
AGCAGCGGCTGACCCTCTGCCTGCGGGGAAGGGAGTCGCCAGGCGGCCGTC**ATG**GCGGTGTCGGAGAGCCAGCTC
AAGAAAATGGTGTCCAAGTACAAATACAGAGACCTAACTGTACGTGAAACTGTCAATGTTATTACTCTATACAAA
GATCTCAAACCTGTTTTGGATTCATATGTTTTTAACGATGGCAGTTCCAGGGAACTAATGAACCTCACTGGAACA
ATCCCTGTGCCTTATAGAGGTAATACATACAATATTCCAATATGCCTATGGCTACTGGACACATACCCATATAAT
CCCCCTATCTGTTTTGTTAAGCCTACTAGTTCAATGACTATTAAAACAGGAAAGCATGTTGATGCAAATGGGAAG
ATATATCTTCCTTATCTACATGAATGGAAACACCCACAGTCAGACTTGTTGGGGCTTATTCAGGTCATGATTGTG
GTATTTGGAGATGAACCTCCAGTCTTCTCTCGTCCTATTTCGGCATCCTATCCGCCATACCAGGCAACGGGGCCA
CCAAATACTTCCTACATGCCAGGCATGCCAGGTGGAATCTCTCCATACCCATCCGGATACCCTCCCAATCCCAGT
GGTTACCCAGGCTGTCCTTACCCACCTGGTGGTCCATATCCTGCCACAACAAGTTCTCAGTACCCTTCTCAGCCT
CCTGTGACCACTGTTGGTCCCAGTAGGGATGGCACAATCAGCGAGGACACCATCCGAGCCTCTCTCATCTCTGCG
GTCAGTGACAAACTGAGATGGCGGATGAAGGAGGAAATGGATCGTGCCCAGGCAGAGCTCAATGCCTTGAAACGA
ACAGAAGAAGACCTGAAAAAGGGTCACCAGAAACTGGAAGAGATGGTTACCCGTTTAGATCAAGAAGTAGCCGAG
GTTGATAAAAACATAGAACTTTTGAAAAAGAAGGATGAAGAACTCAGTTCTGCTCTGGAAAAAATGGAAAATCAG
TCTGAAAACAATGATATCGATGAAGTTATCATTCCCACAGCTCCCTTATACAAACAGATCCTGAATCTGTATGCA
GAAGAAAACGCTATTGAAGACACTATCTTTTACTTGGGAGAAGCCTTGAGAAGGGGCGTGATAGACCTGGATGTC
TTCCTGAAGCATGTACGTCTTCTGTCCCGTAAACAGTTCCAGCTGAGGGCACTAATGCAAAAAGCAAGAAAGACT
GCCGGTCTCAGTGACCTCTAC**TGA**CTTCTCTGATACCAGCTGGAGGTTGAGCTCTTCTTAAAGTATTCTTCTCTT
CCTTTTATCAGTAGGTGCCCAGAATAAGTTATTGCAGTTTATCATTCAAGTGTAAAATATTTTGAATCAATAATA
TATTTTCTGTTTTCTTTTGGTAAAGACTGGCTTTTATTAATGCACTTTCTATCCTCTGTAAACTTTTTGTGCTGA
ATGTTGGGACTGCTAAATAAAATTTGTTGCAT

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FIGURE 1247

ATGCCCAGTGCCATTAGCACCAAGTGTTGCCTGTCCATCCTGTGGCCTACCATCTGGTATTACTGCAGCCATGCA
GGATCCCTGTCAATGATCATGTGTGCTCTTCTCTGGGCCCTATCCCTGCTGCTGAAATTCCTGGAGGGCAATCTT
GGAAACAATGGCAACAAGACCGAATTGGAACGGGCTTTTGGCTACTATGGACCACTCCAAAGTGTGTGGGTTGCT
AGAAACCCATCTGGCTTTGCTTTTGTTGAATTTGAAGATCCCCGAGATGCGGCTGATGCAGTTCCATCCCCGAGA
GCTAAATGGAAGAACACTATGTGGCTGCTGTATGATTATCGTAGGAGTAGTCCTCCACCTCGTCGCAGATCTCCA
AGAAGGAGAAGCTTCTCTCACAGCTGGAGCAGGTCCCTTTCTAGAGATGGGAGAAGAGAGAGGTCGCTGTCTCGG
GAGAGAAATCACAAGCCGTCCCGATCCTTCTCTAGGTCTCGTAGCCGATCTAGGTCAAATGAAAGGAAA**TAG**

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FIGURE 1248

CGCCGCCGCTCCAGCGCCGCGCAGCCACCGCCGCCGCCGCCGCCTCTCCTTAGTCGCCGCC**ATG**ACGACCGCGTC
CACCTCGCAGGTGCGCCAGAACTACCACCAGGACTCAGAGGCCGCCATCAACCGCCAGATCAACCTGGAGCTCTA
CGCCTCCTACGTTTACCTGTCCATGTCTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAACTTTGCCAAATA
CTTTCTTCACCAATCTCATGAGGAGAGGGAACATGCTGAGAAACTGATGAAGCTGCAGAACCAACGAGGTGGCCG
AATCTTCCTTCAGGATATCAAGAAACCAGACTGTGATGACTGGGAGAGCGGGCTGAATGCAATGGAGTGTGCATT
ACATTTGGAAAAAAATGTGAATCAGTCACTACTGGAACTGCACAAACTGGCCACTGACATGAAAGCCATCAAAGA
ATTGGGTGACCACGTGACCAACTTGCGCAAGATGGGAGCGCCCGAATCTGGCTTGGCGGAATATCTCTTTGACAA
GCACACCCTGGGAGACAGTGATAATGAAAGC**TAA**GCCTCGGGCTAATTTCCCCATAGCCGTGGGGTGACTTCCCT
GGTCACCAAGGCAGTGCATGCATGTTGGGG

FIGURE 1249

CAGGGAGTCCCACCAGCCTAGTCGCCAGACCTTCTGTGGGATCATCGGACCCACCTGGAACCCCACCTGACCCAA
GCCCACCTGCTGCAGCCCACTGCCTGGCC**ATG**ACCATCACTTACACAAGCCAAGTGGCTAATGCCCGCTTAGGCT
CCTTCTCCCGCCTGCTGCTGTGCTGGCGGGGCAGCATCTACAAGCTGCTATATGGCGAGTTCTTAATCTTCCTGC
TCTGCTACTACATCATCCGCTTTATTTATAGGCTGGCCCTCACGGAAGAACAACAGCTGATGTTTGAGAAACTGA
CTCTGTATTGCGACAGCTACATCCAGCTCATCCCCATTTCCTTCGTGCTGGGCTTCTACGTGACGCTGGTCGTGA
CCCGCTGGTGGAACCAGTACGAGAACCTGCCGTGGCCCGACCGCCTCATGAGCCTGGTGTCGGGCTTCGTCGAAG
GCAAGGACGAGCAAGGCCGGCTGCTGCGGCGCACGCTCATCCGCTACGCCAACCTGGGCAACGTGCTCATCCTGC
GCAGCGTCAGCACCGCAGTCTACAAGCGCTTCCCCAGCGCCCAGCACCTGGTGCAAGCAGGCTTTATGACTCCGG
CAGAACACAAGCAGTTGGAGAAACTGAGCCTACCACACAACATGTTCTGGGTGCCCTGGGTGTGGTTTGCCAACC
TGTCAATGAAGGCGTGGCTTGGAGGTCGAATCCGGGACCCTATCCTGCTCCAGAGCCTGCTGAACGAGATGAACA
CCTTGCGTACTCAGTGTGGACACCTGTATGCCTACGACTGGATTAGTATCCCACTGGTGTATACACAGGTGGTGA
CTGTGGCGGTGTACAGCTTCTTCCTGACTTGTCTAGTTGGGCGGCAGTTTCTGAACCCAGCCAAGGCCTACCCTG
GCCATGAGCTGGACCTCGTTGTGCCCGTCTTCACGTTCCTGCAGTTCTTCTTCTATGTTGGCTGGCTGAAGGTGG
GCCTCTCCAGGGCCCTGCTGGGCTGGAGGCATGGCCAGAGGGGTCATGGCCAGCAGCTGCCTGAGACGAGGATGC
AGTGTCAGGAAAGGAAGGTCTCACGGGTAGAAAGCAGCCAGGCGTGGTGGCGCACACCTGTAATCCCAGCTACTC
GGGAGGCTGAGGCAGGAGAATCGCTTGAACCCGGGAGGCGGAGGTTGTGGTGGCAGAGCAGCTCATCAACCCCTT
TGGAGAGGATGATGATGATTTTGAGACCAACTGGATTGTCGACAGGAATTTGCAGGTGTCCCTGTTGGCTGTGGA
TGAGATGCACCAGGACCTGCCTCGGATGGAGCCGGACATGTACTGGAATAAGCCCGAGCCACAGCCCCCCTACAC
AGCTGCTTCCGCCCAGTTCCGTCGAGCCTCCTTTATGGGCTCCACCTTCAACATCAGCC**TGA**ACAAAGAGGAGAT
GGAGTTCCAGCCCAATCAGGAGGACGAGGAGGATGCTCACGCTGGCATCATTGGCCGCTTCCTAGGCCTGCAGTC
CCATGATCACCATCCTCCCAGGGCAAACTCAAGGACCAAACTACTGTGGCCCAAGAGGGAATCCCTTCTCCACGA
GGGCCTGCCCAAAAACCACAAGGCAGCCAAACAGAACGTTAGGGGCCAGGAAGACAACAAGGCCTGGAAGCTTAA
GGCTGTGGACGCCTTCAAGTCTGCCCCACTGTATCAGAGGCCAGGCTACTACAGTGCCCCACAGACGCCCCTCAG
CCCCACTCCCATGTTCTTCCCCCTAGAACCATCAGCGCCGTCAAAGCTTCACAGTGTCACAGGCATAGACACCAA
AGACAAAAGCTTAAAGACTGTGAGTTCTGGGGCCAAGAAAAGTTTTGAATTGCTCTCAGAGAGCGATGGGGCCTT
GATGGAGCACCCAGAAGTATCTCAAGTGAGGAGGAAAACTGTGGAGTTTAACCTGACGGATATGCCAGAGATCCC
CGAAAATCACCTCAAAGAACCTTTGGAACAATCACCAACCAACATACACACTACACTCAAAGATCACATGGATCC
TTATTGGGCCTTGGAAAACAGGGATGAAGCACATTCCTAACCTGCTTCCTAATGGGGATGCTTCGCCAGCCAGGT
CCTCACCTGTGTGTACACCAGCAGGACACTGATCCAGTCACAGCCATACAGCTGTCCACACTGAAGAACATGTCC
TACAACAGCCTGAATCAAATGGTTAGCTTAATAGATAAAAATCCCAGACTACTTCAGCCTTTAATGCCTTTTATT
CATAAAAACTGTGAAAGCTAGACTGAACCATTGGAAACATTTAACTCAGACTCTGGATTCAGAGTCGGGAACCCT
TAGTTCTATCTGAATCCAAGACAGCCACACCTTAGTATACTGCCCAAACTAATGAGTTTAATAAATACAAATACT
CGTT

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FIGURE 1250

CTGGTGGGGGGAAGAAGGCTCCTGCTACCTCCCTTCCCGGCACCCTCCAGAGGGACCCTCAGTCTGGCCTTGCAA
GCATGGACTCTTCTGAGGAGCACGCTGGGTGCCCCGCCCGAGGGACATGTCCCGTGTTCCTGGCCATGAGTGCAG
GGACTGTCCGCTACGCCCCATCAGGCCTGTGCCCTGTACTTGAGGGGAACTTGAGAGAAGAGCCCTGGGGCACAG
ACAGCCCACCCCAGCCAGACCAGGGCCTCCCGCCGCCCCTTGCAGCTGTCCCGGTCCCCTGGAAGAGCACGGACC
CCTGCCAAGGCCACAGGGAGTCCCCAGGAGCCCTGGTGGAGACCTCTGCAGGGGAGGAGGCCCGAGGCCAGGAGG
GCCCCGCAGCCGCCCAGCTGGACGTGTTGCGCCTGCGCAGCTCTTCC**ATG**GAGATCCGAGAGAAGGGCTCCGAGT
TCCTGAAGGAGGAGCTGCACAGAGCGCAGAAGGAGCTGAAGCTAAAGGACGAGGAATGTGAGCGGCTGTCCAAGG
TGCGGGAGCAGCTAGAACAGGAGCTGGAAGAGCTGACGGCCAGCCTGTTTGAGGAAGCTCACAAGATGGTTCGAG
AAGCCAACATGAAGCAGGCGGCATCAGAAAAGCAGCTGAAGGAGGCTCGGGGCAAGATCGACATGCTGCAGGCAG
AGGTGACAGCCTTGAAGACGCTGGTCATCACGTCCACACCAGCCTCTCCCAACCGCGAGCTTCACCCCCAGCTGC
TGAGCCCCACCAAGGCCGGGCCCCGAAAGGGCCACTCTCGCCACAAGAGCACCAGCAGCACCCTCTGCCCCGCCG
TGTGTCCCGCTGCGGGACACACCCTCACCCCAGACAGAGAGGGCAAGGAGGTGGACACAATCCTGTTTGCAGAGT
TCCAGGCCTGGAGGGAATCCCCCACCCTGGACAAGACCTGCCCCTTCCTGGAAAGGGTGTACCGGGAGGACGTGG
GCCCCTGCCTGGACTTCACGATGCAGGAGCTCTCGGTGCTGGTACGGGCCGCCGTGGAGGACAACACGCTCACCA
TTGAGCCGGTGGCTTCGCAGACGCTGCCCACAGTGAAGGTGGCCGAGGTTGACTGTAGCAGCACCAACACATGTG
CCCTGAGCGGGCTGACCCGCACCTGCCGCCACCGAATCCGGCTCGGGGACTCCAAAAGCCATTACTACATCTCGC
CATCTTCCCGGGCCAGGATCACCGCAGTGTGCAACTTCTTCACCTACATCCGCTACATCCAGCAAGGCCTGGTGC
GGCAGGACGCAGAGCCCATGTTCTGGGAGATCATGAGGTTGCGGAAGGAGATGTCACTGGCCAAGCTCGGCTTCT
TCCCCCAGGAGGCT**TAG**GGCGCGGCCCAGGCCTGAAGGGGAGCTCTGAGACAGAGCAAACACCCACCCCAGAACA
AGCCGACACACAGGGAGACGGGGGCCTGGAGCCAGCCCTGAGCCAGAGGCAGAATGGATGGACAGACAGGCCATG
GAGGCAGCACTGAGCCAGCACCACACGTCCATCCTGGGACAGACGGGCCTGGACTTCACGGCAAGACCCCCCTCT
CTTCCCCACTGGGTTCTGCCACCACCAGGAGGATTTCAAGAAAGCACCAAAGACCAGGGAGCTCGGATCCATACT
CGGGGGGCCTCAGCCCTTGGGAGGGGACACCTGAGGCAGCCAGCGCCCCCTCCCCAGTCCCCAGAACTGCCTGCA
GGTGCCTTGTTGCTGGCTTGTCTTCAGAAAGGGACTGTTCTGGGTGGCTGGATCTCCAGGGTACCCTCCACCCCA
GCTGCCAAGCCCTGGGCCAGCAGCACCCCCTTGTGGCCATCCTGTGCCTTGTTCCCGGTGGCCTCCCTATTGGAC
TACTAGGAGGGGCTGGCAGGGCCTCCATAGCACAGAATTGCCCCAAAGCCTTGTTAAGATGAGTCAAGACCCCTC
CCCCGCTTCCTCCCTTCCTTTCCCCCTTCCTCCCTCCCCCTTCACAAAGGCCTCCCTTGTCACCTTCCCTCCCAC
CCCGTCTCAGCCCTGTGCTCCTGGAGGCCCTGCTCCCAAAACCGCTGGAAGGACTGGGGCACTTTCTGCCACAGT
AGAACACAGACAGGGCTTCAGATCGCCCACGCCTGTTTTCAGCTGTGGGTGGCCATGCAGACACGCGCCCTGGCA
TGTGGGGCCTGGGTGGGCAGGCAGGACCTGGGCCCTCCCACCCATCAGAGCCCACTCAGGACCAGCGTTCGGAGC
TCCCACCTGGACGCATCCCTCACCACGTCCGGATTTCCTTCTTTGGATGGAATGTAACGCGATCTCTATTTAATA
AAGGCAGGCTTTGTTGGT

FIGURE 1251

GAGGCGCACGCTCGCTCGTACGGCGGCCGCGGCGGCAGGGCGGGGCCGGAGCAGCGGGCGGCGGCGGAGGCGGCG
CCCGGGAGCGCTCTTCGCTTCCCTCGGGGTCTTGCTCGGACCTCGGCCACCGCCTGGGATCCCCAGGACTCGTGC
GTGCAGC**ATG**GGCGGCGTCGGGGAGCCGGGACCGCGGGAGGGACCCGCGCAGCCGGGGGCGCCGCTGCCCACCTT
CTGCTGGGAGCAGATCCGCGCGCACGACCAGCCCGGCGACAAGTGGCTGGTCATCGAGCGCCGCGTCTACGACAT
CAGCCGCTGGGCACAGCGGCACCCAGGGGGCAGCCGCCTCATCGGCCACCACGGCGCTGAGGACGCCACGGATGC
CTTCCGTGCCTTCCATCAAGATCTCAATTTTGTGCGCAAGTTCCTACAGCCCCTGTTGATTGGAGAGCTGGCTCC
GGAAGAACCCAGCCAGGATGGACCCCTGAATGCGCAGCTGGTCGAGGACTTCCGAGCCCTGCACCAGGCAGCCGA
GGACATGAAGCTGTTTGATGCCAGTCCCACCTTCTTTGCTTTCCTACTGGGCCACATCCTGGCCATGGAGGTGCT
GGCCTGGCTCCTTATCTACCTCCTGGGTCCTGGCTGGGTGCCCAGTGCCCTGGCCGCCTTCATCCTGGCCATCTC
TCAGGCTCAGTCCTGGTGTCTGCAGCATGACCTGGGCCATGCCTCCATCTTCAAGAAGTCCTGGTGGAACCACGT
GGCCCAGAAGTTCGTGATGGGGCAGCTAAAGGGCTTCTCCGCCCACTGGTGGAACTTCCGCCACTTCCAGCACCA
CGCCAAGCCCAACATCTTCCACAAAGACCCAGACGTGACGGTGGCGCCCGTCTTCCTCCTGGGGGAGTCATCCGT
CGAGTATGGCAAGAAGAAACGCAGATACCTACCCTACAACCAGCAGCACCTGTACTTCTTCCTGATCGGCCCGCC
GCTGCTCACCCTGGTGAACTTTGAAGTGGAAAATCTGGCGTACATGCTGGTGTGCATGCAGTGGGCGGATTTGCT
CTGGGCCGCCAGCTTCTATGCCCGCTTCTTCTTATCCTACCTCCCCTTCTACGGCGTCCCTGGGGTGCTGCTCTT
CTTTGTTGCTGTCAGGGTCCTGGAAAGCCACTGGTTCGTGTGGATCACACAGATGAACCACATCCCCAAGGAGAT
CGGCCACGAGAAGCACCGGGACTGGGTCAGCTCTCAGCTGGCAGCCACCTGCAACGTGGAGCCCTCACTTTTCAC
CAACTGGTTCAGCGGGCACCTCAACTTCCAGATCGAGCACCACCTCTTCCCCAGGATGCCGAGACACAACTACAG
CCGGGTGGCCCCGCTGGTCAAGTCGCTGTGTGCCAAGCACGGCCTCAGCTACGAAGTGAAGCCCTTCCTCACCGC
GCTGGTGGACATCGTCAGGTCCCTGAAGAAGTCTGGTGACATCTGGCTGGACGCCTACCTCCATCAG**TGA**AGGCA
ACACCCAGGCGGGCAGAGAAGGGCTCAGGGCACCAGCAACCAAGCCAGCCCCCGGCGGGATCGATACCCCCACCC
CTCCACTGGCCAGCCTGGGGGTGCCCTGCCTGCCCTCCTGGTACTGTTGTCTTCCCCTCGGCCCCCTCACATGTG
TATTCAGCAGCCCTATGGCCTTGGCTCTGGGCCTGATGGGACAGGGGTAGAGGGAAGGTGAGCATAGCACATTTT
CCTAGAGCGAGAATTGGGGGAAAGCTGTTATTTTTATATTAAAATACATTCAGATGT

FIGURE 1252

AGGGGGCGCGGTGGGAGGAGTAGGAGAAGACAAAAGCCGAAAGCGAAGAGGGCCCGGGCTGCACACACCGGCTGG
GAGGCAGCCGTCTGTGCAGCGAGCAGCCGGCGCGGGGAGGCCGCAGTGCACGGGGCGTCACAGTCGGCAGGCAGC
ATGGGGAAGGGAGGGAACCAGGGCGAGGGGGCCGCCGAGCGCGAGGTGTCGGTGCCCACCTTCAGCTGGGAGGAG
ATTCAGAAGCATAACCTGCGCACCGACAGGTGGCTGGTCATTGACCGCAAGGTTTACAACATCACCAAATGGTCC
ATCCAGCACCCGGGGGGCCAGCGGGTCATCGGGCACTACGCTGGAGAAGATGCAACGGATGCCTTCCGCGCCTTC
CACCCTGACCTGGAATTCGTGGGCAAGTTCTTGAAACCCCTGCTGATTGGTGAACTGGCCCCGGAGGAGCCCAGC
CAGGACCACGGCAAGAACTCAAAGATCACTGAGGACTTCCGGGCCCTGAGGAAGACGGCTGAGGACATGAACCTG
TTCAAGACCAACCACGTGTTCTTCCTCCTCCTCCTGGCCCACATCATCGCCCTGGAGAGCATTGCATGGTTCACT
GTCTTTTACTTTGGCAATGGCTGGATTCCTACCCTCATCACGGCCTTTGTCCTTGCTACCTCTCAGGCCCAAGCT
GGATGGCTGCAACATGATTATGGCCACCTGTCTGTCTACAGAAAACCCAAGTGGAACCACCTTGTCCACAAATTC
GTCATTGGCCACTTAAAGGGTGCCTCTGCCAACTGGTGGAATCATCGCCACTTCCAGCACCACGCCAAGCCTAAC
ATCTTCCACAAGGATCCCGATGTGAACATGCTGCACGTGTTTGTTCTGGGCGAATGGCAGCCCATCGAGTACGGC
AAGAAGAAGCTGAAATACCTGCCCTACAATCACCAGCACGAATACTTCTTCCTGATTGGGCCGCCGCTGCTCATC
CCCATGTATTTCCAGTACCAGATCATCATGACCATGATCGTCCATAAGAACTGGGTGGACCTGGCCTGGGCCGTC
AGCTACTACATCCGGTTCTTCATCACCTACATCCCTTTCTACGGCATCCTGGGAGCCCTCCTTTTCCTCAACTTC
ATCAGGTTCCTGGAGAGCCACTGGTTTGTGTGGGTCACACAGATGAATCACATCGTCATGGAGATTGACCAGGAG
GCCTACCGTGACTGGTTCAGTAGCCAGCTGACAGCCACCTGCAACGTGGAGCAGTCCTTCTTCAACGACTGGTTC
AGTGGACACCTTAACTTCCAGATTGAGCACCACCTCTTCCCCACCATGCCCCGGCACAACTTACACAAGATCGCC
CCGCTGGTGAAGTCTCTATGTGCCAAGCATGGCATTGAATACCAGGAGAAGCCGCTACTGAGGGCCCTGCTGGAC
ATCATCAGGTCCCTGAAGAAGTCTGGGAAGCTGTGGCTGGACGCCTACCTTCACAAA**TGA**AGCCACAGCCCCCGG
GACACCGTGGGGAAGGGGTGCAGGTGGGGTGATGGCCAGAGGAATGATGGGCTTTTGTTCTGAGGGGTGTCCGAG
AGGCTGGTGTATGCACTGCTCACGGACCCCATGTTGGATCTTTCTCCCTTTCTCCTCTCCTTTTTCTCTTCACAT
CTCCCCCATAGCACCCTGCCCTCATGGGACCTGCCCTCCCTCAGCCGTCAGCCATCAGCCATGGCCCTCCCAGTG
CCTCCTAGCCCCTTCTTCCAAGGAGCAGAGAGGTGGCCACCGGGGGTGGCTCTGTCCTACCTCCACTCTCTGCCC
CTAAAGATGGGAGGAGACCAGCGGTCCATGGGTCTGGCCTGTGAGTCTCCCCTTGCAGCCTGGTCACTAGGCATC
ACCCCCGCTTTGGTTCTTCAGATGCTCTTGGGGTTCATAGGGGCAGGTCCTAGTCGGGCAGGGCCCCTGACCCTC
CCGGCCTGGCTTCACTCTCCCTGACGGCTGCCATTGGTCCACCCTTTCATAGAGAGGCCTGCTTTGTTACAAAGC
TCGGGTCTCCCTCCTGCAGCTCGGTTAAGTACCCGAGGCCTCTCTTAAGATGTCCAGGGCCCCAGGCCCGCGGGC
ACAGCCAGCCCAAACCTTGGGCCCTGGAAGAGTCCTCCACCCCATCACTAGAGTGCTCTGACCCTGGGCTTTCAC
GGGCCCCATTCCACCGCCTCCCCAACTTGAGCCTGTGACCTTGGGACCAAAGGGGGAGTCCCTCGTCTCTTGTGA
CTCAGCAGAGGCAGTGGCCACGTTCAGGGAGGGGCCGGCTGGCCTGGAGGCTCAGCCCACCCTCCAGCTTTTCCT
CAGGGTGTCCTGAGGTCCAAGATTCTGGAGCAATCTGACCCTTCTCCAAAGGCTCTGTTATCAGCTGGGCAGTGC
CAGCCAATCCCTGGCCATTTGGCCCCAGGGGACGTGGGCCCTGCAGGCTGCAGGAGGGCACTGGAGCTGGGAGGT
CTCGTCCCAGCCCTCCCCATCTCGGGGCTGCTGTGTGGACGGCGCTGCCTCAGGCACTCTCCTGTCTGAACCTGC
CCTTACTGTGTTTAACCTGTTGCTCCAGGATGCATTCTGATAGGAGGGGGCGGCAGGGCTGGGCCTTGTGACAAT
CTGCCTTTCACCACATGGCCTTGCCTCGGTGGCCCTGACTGTCAGGGAGGGCCAGGGAGGCAGAGCGGGAGGGAG
TCTCAGGAGGAGGCTGCCCTGAGGGGCTGGGGAGGGGGTACCTCATGAGGACCAGGGTGGAGCTGAGAAGAGGAG
GAGGTGGGGGCTGGAGGTGCTGGTAGCTGAGGGGACGGGCAAGTGAGAGGGGAGGGAGGGAAGTCCTGGGAGGAT
CCTGAGCTGCTGTTGCAGTCTAACCCACTAATCAGTTCTTAGATTCAGGGGAAGGGCAGGCACCAACAACTCAGA
ATGGGGGCTTTCGGGGAGGGCGCCTAGTCCCCCCAGCTCTAAGCAGCCAGGAGGGACCTGCATCTAAGCATCTGG
GTTGCCATGGCAATGGCATGCCCCCCAGCTACTGTATGCCCCCGACCCCCGCAGAGGCAGAATGAACCCATAGGG
AGCTGATCGTAATGTTTATCATGTTACTTCCCCACCCCTACATTTTTTGAAATAAAATAAGGAATTTTATTCTC

FIGURE 1253A

TCCACTCCTGGAGCCCGCGGACCCCGAGCACGCGCCTGACAGCCCCTGCTGGCCCGGCGCGCGGCGTCGCCAGGC
CAGCTATGGCCCCCGACCCGGTGGCCGCCGAGACCGCGGCTCAGGGACCTACCCCGCGCTACTTCACCTGGGACG
AGGTGGCCCAGCGCTCAGGGTGCGAGGAGCGGTGGCTAGTGATCGACCGTAAGGTGTACAACATCAGCGAGTTCA
CCCGCCGGCATCCAGGGGGCTCCCGGGTCATCAGCCACTACGCCGGGCAGGATGCCACGGATCCCTTTGTGGCCT
TCCACATCAACAAGGGCCTTGTGAAGAAGTATATGAACTCTCTCCTGATTGGAGAACTGTCTCCAGAGCAGCCCA
GCTTTGAGCCCACCAAGAATAAAGAGCTGACAGATGAGTTCCGGGAGCTGCGGGCCACAGTGGAGCGGATGGGGC
TCATGAAGGCCAACCATGTCTTCTTCCTGCTGTACCTGCTGCACATCTTGCTGCTGGATGGTGCAGCCTGGCTCA
CCCTTTGGGTCTTTGGGACGTCCTTTTTGCCCTTCCTCCTCTGTGCGGTGCTGCTCAGTGCAGTTCAGGCCCAGG
CTGGCTGGCTGCAGCATGACTTTGGGCACCTGTCGGTCTTCAGCACCTCAAAGTGGAACCATCTGCTACATCATT
TTGTGATTGGCCACCTGAAGGGGGCCCCCGCCAGTTGGTGGAACCACATGCACTTCCAGCACCATGCCAAGCCCA
ACTGCTTCCGCAAAGACCCAGACATCAACATGCATCCCTTCTTCTTTGCCTTGGGGAAGATCCTCTCTGTGGAGC
TTGGGAAACAGAAGAAAAAATATATGCCGTACAACCACCAGCACAAATACTTCTTCCTAATTGGGCCCCCAGCCT
TGCTGCCTCTCTACTTCCAGTGGTATATTTTCTATTTTGTTATCCAGCGAAAGAAGTGGGTGGACTTGGCCTGGA
TGATTACCTTCTACGTCCGCTTCTTCCTCACTTATGTGCCACTATTGGGGCTGAAAGCCTTCCTGGGCCTTTTCT
TCATAGTCAGGTTCCTGGAAAGCAACTGGTTTGTGTGGGTGACACAGATGAACCATATTCCCATGCACATTGATC
ATGACCGGAACATGGACTGGGTTTCCACCCAGCTCCAGGCCACATGCAATGTCCACAAGTCTGCCTTCAATGACT
GGTTCAGTGGACACCTCAACTTCCAGATTGAGCACCATCTTTTTCCCACGATGCCTCGACACAATTACCACAAAG
TGGCTCCCCTGGTGCAGTCCTTGTGTGCCAAGCATGGCATAGAGTACCAGTCCAAGCCCCTGCTGTCAGCCTTCG
CCGACATCATCCACTCACTAAAGGAGTCAGGGCAGCTCTGGCTAGATGCCTATCTTCACCAATAACAACAGCCAC
CCTGCCCAGTCTGGAAGAAGAGGAGGAAGACTCTGGAGCCAAGGCAGAGGGGAGCTTGAGGGACAATGCCACTAT
AGTTTAATACTCAGAGGGGGTTGGGTTTGGGGACATAAAGCCTCTGACTCAAACTCCTCCCTTTTATCTTCTAGC
CACAGTTCTAAGACCCAAAGTGGGGGGTGGACACAGAAGTCCCTAGGAGGGAAGGAGCTGTTGGGGCAGGGGTGT
AAATTATTTCCTTTTTCTAGTTTGGCACATGCAGGTAGTTGGTGAACAGAGAGAACCAGGAGGGTAACAGAAGAG
GAGGGACCTACTGAACCCAGAGTCAGGAAGAGATTTAACACTAAAATTCCACTCATGCCGGGCGTGGTGGCACGC
GCCTGTAATCCCAGCTACCCAGGAGGCTGAGGCAGGAGAATCGCTTGAACCGGGGAGGTGGAGGTTGCAGTGAGC
TGAGATCACGCCATTGTACTCCAGCCTGGGCGACAGAGCAAGACTCCATTTCAAAAAAAAAAAAAAAATCCACTC
ATATAAAAGGTGAGCTCAGCTCACTGGTCCATTTCTCAGTGGCTTCTCCATCCTCATTTGCAAACCTCAGAGGGA
TAAGGCAGTTGAACCTGATGAGCAAGAATTATAACAGCAAGGAAACATTAATGCTTAGAATTCTGAGATCCAGCA
CAACTCAGTCTGTGGGAGCTCAGCTCGCTGCCCAGGGATAGGTATGACCTATGTCTGCCTTAGGCTGCTGGGAGA
TGCCATTCTCCAGTTTCAGAAGCAGGCAGGGCAAAGGTCAAGACTGTGGTATTGGGGTCTTTTGGCTCTGAAGGA
TCCTGGAACCACTGATTTTGGTTTATTCCCTCCAGGGTCTAAAGAGAACAAGAGGTGCTAGCTCTTACCAAAACA
GATGGTAGAGAGAGTTGCTGGCTATTTAAAAAGCTCTTTCATCTTTTAATTCACCTCTTCTTTTCACCTCTTTAA
CCACTCCTCAGGAACAGAACACTTCTAGGACTGGGGGTCTTTTAGCTCCATAAGCAAGTGAGCAGATGGGACAAG
TTAGTCTTTTCTCCCTAGAAACAAAGGGGATGCCCAGTGGTTTCCCTTTGCTTCCCAACCTAAAATTTCAAGTTT
AATAAAATAGCAATTAGCAGAAGTGACCAAATTGGGAGATAATTATCAGTCATGAGGAAAGACACAGATTTCGGT
CATAAAGAATGTAAGGGCTATAAGTAGAAACTTTCTATAACCTAAATGATGTTATAGAATTATTTTTGAGCAGGA
GCAGAAAGATTAAATATGATCACTTCATACTTCTAAATCAGAAATAGGAAGATTAAAACCACAGAACAGTTTGTG
ATTTCTATTGCTGTAGCTAGGTATCTTACTCTGTCCACTCTTGTTCAAGTATCTAACTCTTCTGGAAACCAAATA
GGCTTTAGAAGAGATTATCCTATATTCCTATCAGTATAATACTAAAATGTAACTTTTTAATCATCTGGTTTTTAA
AAGATAAACAGTTTAGCCCATCTCTCCAGAGAGCAAACATAGGAATATGACTCAGGAGCCTCCTAGGGCTTATCA
TCAGCCCTCACACCCGCTTCCCCCTCCAACCCACAGCCTTTGCTTCCAGGTGGCAGGATTACTACTTTGCCTCTT
CAGCAGCATCTACTCTAGGCATATTGATCATTTTAGACACTGGGAGAAGAGAACCTCAAACTAGGAGGAAAAGAC
AGAGCCTCCACTTAGTTTTGGGAGGGGATGGCAGACAGTCAAGGAGATGAGCGTCCTAAGGCATGTTGGGATAGG
GTCAGATGCACCACCCATGGAGAGGTTTGTCAACACAAAGACATGGAAGGTTAGAGGTTTGTCAACAAAAAGACA
TGGAAGGTTAGGTTTGTCAACACAAAGACATGGAAGATTAGAGGTTTGTCAACACAAAGACACAGGAAGAATGGG
CTGCAGAAGATTTAGATGTTTTCCATTTGGGCACATTTTACTTAGCTGGAGAACTAGGTTTAAAACAGCCTGGGT
AGGAAAATTAGAAGCAAGCTGGATGCAGTGGCTCATGCCTGTAATCCCAACACTTTTGGGAGGTCCAGGCAGGAG
GATCACTTGGGCCCAGGAGGTCAAGCCTGCAGCGAGCTGAGATCACACCACTGCACTCCAGCCTGGGGTGATAGA

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FIGURE 1253B

ACAAGACCCTGTCTCAAAAAAAAAAAAAACAACAAAAACTTAGAATTGAGGAGTTGTACCTCCATTGGCTTCCTC
ACTCCAAAATAGGTGCTGATCCTTCCTATTCCTATTCTTTGCCACCTTTTGGGTGTGGTGTCACCAGCCTGTTTA
GCCAAGTAGCTTTGGGCATAGGCTGCCCAATCTGAGCAAACACCAGTGAGGCTCTATTGAGCCAAGACCAAGTCC
TCAAAGCACCTGAACCACTGTGGCCTTCTCAGCCTACAGCAGTGTGGTCTCTTACATGGCCACAAAGGGACACAC
AGTGACAAAAGGCTCGGAATGTTACAATGGTAAAATGAGTGATCTCAAATCCACTGACAGATATAAAATAGGCTT
AGAGAGGAAAAGCTGCCTCTGGTCAAGTAGATCATGGCAGCATGAATTCCAACTCACTTTTTTACAACTCCAACT
TCTATGTTTATCTTTGTTACTTTCACTTTTTTACAACCTGGCCAGAGGCATTTTTTAAATCAGGCCCAATATCAG
TATTCTTTTTGTGTGTGCCAATTTTGTTATCACATCCCTATGAAGTTGAAAAATAAAGTTAATTTTGACC

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FIGURE 1254

CCTGCCGACGTGTTCTTCCGGTGGCGGAGCGGCGGATTAGCCTTCGCGGGGCAAA**ATG**GAGCTCGAGGCCATGAG
CAGATATACCAGCCCAGTGAACCCAGCTGTCTTCCCCCATCTGACCGTGGTGCTTTTGGCCATTGGCATGTTCTT
CACCGCCTGGTTCTTCGTTTACGAGGTCACCTCTACCAAGTACACTCGTGATATCTATAAAGAGCTCCTCATCTC
CTTAGTGGCCTCACTCTTCATGGGCTTTGGAGTCCTCTTCCTGCTGCTCTGGGTTGGCATCTACGTG**TGA**GCACC
CAAGGGTAACAACCAGATGGCTTCACTGAAACCTGCTTTTGTAAATTACTTTTTTTTACTGTTGCTGGAAGTGTC
CCACCTGCTGCTCATAATAAATGCAGATGTATA

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FIGURE 1255

ATTGCTGGGGCTGCAGCGCTGCCTCCGAGACCGCGAGGTGGGTGGATCGGGTCTTCCTGGAAGGGTGCGATAAGG
CCGGGCGAGGTGCCTGGGATGCTTCTCCCCTTCCGCGAGGAAGAGATCTAATTGGGTAGGGCGGGTGTAGACTAG
CCTGCCGAGCCGCCCGCTGGCACCTGCAGCCTCCTGGGCGCCCGCCGGGCCCCGGCGAGAAAGTTGTTAAAGGGA
GCGAGGTGGTTGTTCCTGGGGTGCTTGGCGCGCCCTCTCACGCCCTGCCCAACAGAAGCCGCAGTCCCGTGGGGT
CTGGAGACGCAGTTTCCTGTTAATGACAATAAATCCCTGCTCCCCCTGCCTCAGACATCTACGCAGCGAAATCGA
GCCTGGCCTTGAGGGTCCACACCGCGAGGGAAG**ATG**CGTGCGCCCATTCCAGAGCCTAAGCCTGGAGACCTGATT
GAGATTTTTCGCCCTTTCTACAGACACTGGGCCATCTATGTTGGCGATGGATATGTGGTTCATCTGGCCCCTCCA
AGTGAGGTCGCAGGAGCTGGTGCAGCCAGTGTCATGTCCGCCCTGACTGACAAGGCCATCGTGAAGAAGGAATTG
CTGTATGATGTGGCCGGGAGTGACAAGTACCAGGTCAACAACAAACATGATGACAAGTACTCGCCGCTGCCCTGC
AGCAAAATCATCCAGCGGGCGGAGGAGCTGGTGGGGCAGGAGGTGCTCTACAAGCTGACCAGTGAGAACTGCGAG
CACTTTGTGAATGAGCTGCGCTATGGAGTCGCCCGCAGTGACCAGGTCAGAGATGTCATCATCGCTGCAAGCGTT
GCAGGAATGGGCTTGGCAGCCATGAGCCTTATTGGAGTCATGTTCTCAAGAAACAAGCGACAAAAGCAA**TAA**CTG
AAAAAGACTGTCCTGTCAGCGATGACTTTATACATCAAGGGGGTCTTGTTTTGCTAGAGAGTTTGGGGTTTGGTT
TGTGGATTTCATTGTGATTTATAATAAGGCTTATTTTCACAGAATAAAATAAAGCAAAACGAGGGAGGATTTTAT
TGGGGGAAGTGCAGC

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FIGURE 1256

AGTTAAACACCAAAGCTGTCTCTCACACTGGTGGTTCCAGGATAAAGCCTCGGCCTGGGGCCTGGTCTGCACGTT
AGGCGCCGGCCGCAGCTCGCAGGAGGACCCGAGCCAGCCCGCCCCTTCCCGCACAGCCTGCTGGGAGTTGTAGTT
CAGTCGTCGGAGAACCACGCCAAGCCCCGCCCCAGATGAGTGCGCAGT**ATG**AGGACCGCTGGCCGGGACCCAGTG
AGCGCGGGACTACAATTCCCAAAGGACGGTAGCACTCAGCGCCCCGCCAACAGAGATGATGCCATGGAGAGCAGC
AAGCCTGGTCCAGTGCAGGTTGTTTTGGTTCAGAAAGATCAACATTCCTTTGAGCTAGATGAGAAAGCCTTGGCC
AGCATCCTCTTGCAGGACCACATCCGAGATCTTGATGTGGTGGTGGTTTCAGTGGCTGGTGCCTTCCGAAAGGGC
AAGTCCTTCATTCTGGATTTTATGCTACGATACTTATATTCTCAGAAGGAAAGTGGCCATTCAAATTGGTTGGGT
GACCCAGAAGAACCGTTAACAGGATTTTCCTGGAGAGGGGGATCTGATCCAGAAACCACTGGGATTCAAATCTGG
AGTGAAGTTTTCACTGTGGAGAAGCCAGGTGGGAAGAAGGTTGCAGTTGTTCTGATGGATACCCAGGGGGCATTT
GACAGCCAGTCAACTGTGAAAGACTGTGCTACCATCTTTGCTCTAAGCACTATGACTAGTTCTGTTCAGATTTAT
AATTTATCTCAGAACATTCAAGAAGATGATCTTCAACAGCTGCAGCTCTTCACAGAATACGGTCGTCTGGCAATG
GATGAAATTTTCCAAAAGCCTTTCCAGACACTGATGTTTTTGGTTAGAGATTGGAGTTTCCCTTATGAATATAGC
TATGGACTCCAAGGAGGAATGGCATTTTTGGATAAGCGTTTACAGGTGAAGGAACATCAACATGAAGAAATTCAG
AATGTTCGAAATCACATTCACTCATGTTTCTCCGATGTCACCTGCTTTCTCTTACCACATCCAGGACTCCAGGTG
GCCACAAGCCCTGACTTTGATGGGAAATTAAAAGATATTGCTGGTGAATTCAAAGAGCAGTTACAGGCACTGATA
CCGTATGTATTAAACCCATCTAAGTTAATGGAAAAGGAGATCAATGGCTCAAAGGTCACCTGTCGGGGACTACTG
GAGTATTTTAAGGCATATATTAAAATTTATCAAGGAGAAGATCTGCCTCACCCCAAGTCCATGCTTCAGGCCACT
GCTGAAGCCAACAACTTAGCAGCTGCAGCCTCTGCCAAGGACATTTATTATAACAACATGGAAGAGGTTTGTGGG
GGAGAGAAACCTTATTTGTCTCCAGACATTCTAGAGGAGAAGCACTGTGAATTCAAACAACTTGCTCTGGACCAT
TTTAAGAAGACCAAGAAGATGGGTGGGAAGGATTTCAGCTTTCGTTACCAGCAGGAGCTGGAGGAGGAAATCAAG
GAATTATATGAGAACTTCTGCAAGCACAATGGTAGCAAGAACGTCTTCAGCACCTTCCGAACCCCTGCAGTGCTG
TTCACGGGCATTGTAGCTTTGTACATAGCCTCAGGCCTCACTGGCTTCATAGGTCTTGAGGTTGTAGCCCAGTTG
TTCAACTGTATGGTTGGACTACTGTTAATAGCACTCCTCACCTGGGGCTACATCAGGTATTCTGGTCAATATCGT
GAGCTGGGCGGAGCTATTGATTTTGGTGCCGCATATGTGTTGGAGCAGGCTTCTTCTCATATCGGTAATTCCACT
CAGGCCACTGTGAGGGATGCAGTTGTTGGAAGACCATCCATGGATAAAAAAGCTCAA**TAG**CATCTTAACGTGAAG
ATCAAACAAGAACACAACAAGCCCCTACTGATTTCTGGGTTTCTGCCACGGCCACAGGTTCATATCCAGAGGAAT
GGCAGATCTGAGACGATCCAGGAAGAGCTAAAACATGGCCCTGTAATAAATGAGCAGACCTCTCCTGTGGTTTCA
AATTATTAAACACACTTCCATTTCTCTTGGAAGCATTTCTTTTCCTTGCTGTTATAGATGCAAGCCTGTGTCTAT
TTTCATATTACTCTGCTTTGTGCACTTTATGGAGGAGGAAGCTAGAGGAAAAATGGAAATGCAGCTTTTAAGTTC
TTTATGTGCCACTTAGTGCCTTTTAAGATTGATTCCATGGTTTTGCACACACGATGGGGAGGGGATGGAGGATAA
CCTCATGAAAGGTGCCGTTTTCGGGTGAAACTTGACATTTCTTTTATACTTTACTCTTTTGAGAAGGATTCTTTT
TTTTTTTTTTTTTTTTTTTGAGTTGGAGTCTCGCTCTGTCACCAGGCTTGAGTGCAGTGGTGTGATCTTGGCTCA
CTGCAACCTCTGCCTGCCGGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGTGTACG
CCACCATA

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FIGURE 1257

CAGGTGACCAGCGCC**ATG**TCCAGCCAGGTGGTGGGCATTGAGCCTCTCTACATCAAGGCAGAGCCGGCCAGCCCT
GACAGTCCAAAGGGTTCCTCGGAGACAGAGACCGAGCCTCCTGTGGCCCTGGCCCCTGGTCCAGCTCCCACTCGC
TGCCTCCCAGGCCACAAGGAAGAGGAGGATGGGGAGGGGGCTGGGCCTGGCGAGCAGGGCGGTGGGAAGCTGGTG
CTCAGCTCCCTGCCCAAGCGCCTCTGCCTGGTCTGTGGGGACGTGGCCTCCGGCTACCACTATGGTGTGGCATCC
TGTGAGGCCTGCAAAGCCTTCTTCAAGAGGACCATCCAGGGGAGCATCGAGTACAGCTGTCCGGCCTCCAACGAG
TGTGAGATCACCAAGCGGAGACGCAAGGCCTGCCAGGCCTGCCGCTTCACCAAGTGCCTGCGGGTGGGCATGCTC
AAGGAGGGAGTGCGCCTGGACCGCGTCCGGGGTGGGCGGCAGAAGTACAAGCGGCGGCCGGAGGTGGACCCACTG
CCCTTCCCGGGCCCCTTCCCTGCTGGGCCCCTGGCAGTCGCTGGAGGCCCCCGGAAGACAGCAGCCCCAGTGAAT
GCACTGGTGTCTCATCTGCTGGTGGTTGAGCCTGAGAAGCTCTATGCCATGCCTGACCCCGCAGGCCCTGATGGG
CACCTCCCAGCCGTGGCTACCCTCTGTGACCTCTTTGACCGAGAGATTGTGGTCACCATCAGCTGGGCCAAGAGC
ATCCCAGGCTTCTCATCGCTGTCGCTGTCTGACCAGATGTCAGTACTGCAGAGCGTGTGGATGGAGGTGCTGGTG
CTGGGTGTGGCCCAGCGCTCACTGCCACTGCAGGATGAGCTGGCCTTCGCTGAGGACTTAGTCCTGGATGAAGAG
GGGGCACGGGCAGCTGGCCTGGGGGAACTGGGGGCTGCCCTGCTGCAACTAGTGCGGCGGCTGCAGGCCCTGCGG
CTGGAGCGAGAGGAGTATGTTCTACTAAAGGCCTTGGCCCTTGCCAATTCAGACTCTGTGCACATCGAAGATGCC
GAGGCTGTGGAGCAGCTGCGAGAAGCTCTGCACGAGGCCCTGCTGGAGTATGAAGCCGGCCGGGCTGGCCCCGGA
GGGGGTGCTGAGCGGCGGCGGGCGGGCAGGCTGCTGCTCACGCTACCGCTCCTCCGCCAGACAGCGGGCAAAGTG
CTGGCCCATTTCTATGGGGTGAAGCTGGAGGGCAAGGTGCCCATGCACAAGCTGTTCTTGGAGATGCTCGAGGCC
ATGATGGAC**TGA**GTGCAAGGGGTGGGACTGGTGGGGGTTCTGGCAGGACCTGCCTAGCATGGGGTCAGCCCCAAG
GGCTGGGGCGGAGCTGGGGTCTGGGCAGTGCCACAGCCTGCTGGCAGGGCCAGGCAATGCCATCAGCCCCTGGGA
ACAGGCCCCACGCCCTCTCCTCCCCCTCCTAGGGGGTGTCAGAAGCTGGGAACGTGTGTCCAGGCTCTGGGCACA
GTGCTGCCCCTTGCAAGCCATAACGTGCCCCCAGAGTGTAGGGGGCCTTGCGGAAGCCATAGGGGGCTGCACGGG
ATGCGTGGGAGGCAGAAACCTATCTCAGGGAGGGAAGGGGATGGAGGCCAGAGTCTCCCAGTGGGTGATGCTTTT
GCTGCTGCTTAATCCTACCCCCTCTTCAAAGCAGAGTGGGACTTGGAGAGCAAAGGCCCATGCCCCCTTCGCTCC
TCCTCTCATCATTTGCATTGGGCATTAGTGTCCCCCCTTGAAGCAATAACTCCAAGCAGACTCCAGCCCCTGGAC
CCCTGGGGTGGCCAGGGCTTCCCCATCAGCTCCCAACGAGCCTCCTCAGGGGGTAGGAGAGCACTGCCTCTATGC
CCTGCAGAGCAATAACACTATATTTATTTTTGGGTTTGGCCAGGGAGGCGCAGGGACATGGGGCAAGCCAGGGCC
CAGAGCCCTTGACTGTACAGAGACTCTATTTTAATGTATATTTGCTGCAAAGAGAAACCGCTTTTGGTTTTAAAC
CTTTAATGAGAAAAAAATATATAATACCGAGCTC

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FIGURE 1258

TCCGGTTCCGGCCTGGCGAGAGTTTGTGCGGCGAC**ATG**AAACTGCTTACCCACAATCTGCTGAGCTCGCATGTGC
GGGGGGTGGGGTCCCGTGGCTTCCCCCTGCGCCTCCAGGCCACCGAGGTCCGTATCTGCCCTGTGGAATTCAACC
CCAACTTCGTGGCGCGTATGATACCTAAAGTGGAGTGGTCGGCGTTCCTGGAGGCGGCCGATAACTTGCGTCTGA
TCCAGGTGCCGAAAGGGCCGGTTGAGGGATATGAGGAGAATGAGGAGTTTCTGAGGACCATGCACCACCTGCTGC
TGGAGGTGGAAGTGATAGAGGGCACCCTGCAGTGCCCGGAATCTGGACGTATGTTCCCCATCAGCCGCGGGATCC
CCAACATGCTGCTGAGTGAAGAGGAAACTGAGAGT**TGA**TTGTGCCAGGCGCCAGTTTTTCTTGTTATGACTGTGT
ATTTTTGTTGATCTATACCCTGTTTCCGAATTCTGCCGTGTGTATCCCCAACCCTTGACCCAATGACACCAAACA
CAGTGTTTTTGAGCTCGGTATTATATATTTTTTTCTCATTAAAGGTTTAAAACC

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FIGURE 1259

CACGGGCGGGGCGGGGCCTGGGTCCACCGGGGTTCTGAGGGGAGACTGAGGTCCTGAGCCGACAGCCTCAGCTCC
CTGCCAGGCCAGACCCGGCAGACAGATGAGGGCCCAGGAGGCCTGGCGGGCCTGGGGGCGCTACGGTGGGAGAGG
AAGCCAGGGGTACCTGCCTCTGCCTTCCAGGGCCACCGTTGGCCCCAGCTGTGCCTTGACTACGTAACATCTTGT
CCTCACAGCCCAGAGC**ATG**TTCCAGATCCCAGAGTTTGAGCCGAGTGAGCAGGAAGACTCCAGCTCTGCAGAGAG
GGGCCTGGGCCCCAGCCCCGCAGGGGACGGGCCCTCAGGCTCCGGCAAGCATCATCGCCAGGCCCCAGGCCTCCT
GTGGGACGCCAGTCACCAGCAGGAGCAGCCAACCAGCAGCAGCCATCATGGAGGCGCTGGGGCTGTGGAGATCCG
GAGTCGCCACAGCTCCTACCCCGCGGGGACGGAGGACGACGAAGGGATGGGGGAGGAGCCCAGCCCCTTTCGGGG
CCGCTCGCGCTCGGCGCCCCCCAACCTCTGGGCAGCACAGCGCTATGGCCGCGAGCTCCGGAGGATGAGTGACGA
GTTTGTGGACTCCTTTAAGAAGGGACTTCCTCGCCCGAAGAGCGCGGGCACAGCAACGCAGATGCGGCAAAGCTC
CAGCTGGACGCGAGTCTTCCAGTCCTGGTGGGATCGGAACTTGGGCAGGGGAAGCTCCGCCCCCTCCCAG**TGA**CC
TTCGCTCCACATCCCGAAACTCCACCCGTTCCCACTGCCCTGGGCAGCCATCTTGAATATGGGCGGAAGTACTTC
CCTCAGGCCTATGCAAAAAGAGGATCCGTGCTGTCTCCTTTGGAGGGAGGGCTGACCCAGATTCCCTTCCGGTGC
GTGTGAAGCCACGGAAGGCTTGGTCCCATCGGAAGTTTTGGGTTTTCCGCCCACAGCCGCCGGAAGTGGCTCCGT
GGCCCCGCCCTCAGGCTCCGGGCTTTCCCCCAGGCGCCTGCGCTAAGTCGCGAGCCAGGTTTAACCGTTGCGTCA
CCGGGACCCGAGCCCCCGCGATGCCCTGGGGGCCGTGCTCACTACCAAATGTTAATAAAGCCCGCGTCTGTGCCG
CC

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FIGURE 1260

GGCGAGGAAGGGGCGGGAGCCGGGGTCCCGGTAGCTTCTAGTAGGTTCCAGAAGGCGGCGCGTGCGGTTGGGAAC
GCGGAGCGGACGGATTCGATTCAACGGGGTTCCGGACCGCGCTGCGCTATGGAGCAGGTCAATGAGCTGAAGGAG
AAAGGCAACAAGGCCCTGAGCGTGGGTAACATCG**ATG**ATGCCTTACAGTGCTACTCCGAAGCTATTAAGCTGGAT
CCCCACAACCACGTGCTGTACAGCAACCGTTCTGCTGCCTATGCCAAGAAAGGAGACTACCAGAAGGCTTATGAG
GATGGCTGCAAGACTGTCGACC**TAA**AGCCTGACTGGGGCAAGGGCTATTCACGAAAAGCAGCAGCTCTAGAGTTC
TTAAACCGCTTTGAAGAAGCCAAGCGAACCTATGAGGAGGGCTTAAAACACGAGGCAAATAACCCTCAACTGAAA
GAGGGTTTACAGAATATGGAGGCCAGGTTGGCAGAGAGAAAATTCATGAACCCTTTCAACATGCCTAATCTGTAT
CAGAAGTTGGAGAGTGATCCCAGGACAAGGACACTACTCAGTGATCCTACCTACCGGGAGCTGATAGAGCAGCTA
CGAAACAAGCCTTCTGACCTGGGCACGAAACTACAAGATCCCCGGATCATGACCACTCTCAGCGTCCTCCTTGGG
GTCGATCTGGGCAGTATGGATGAGGAGGAAGAGATTGCAACACCTCCACCACCACCCCCTCCCAAAAAGGAGACC
AAGCCAGAGCCAATGGAAGAAGATCTTCCAGAGAATAAGAAGCAGGCACTGAAAGAAAAAGAGCTGGGGAACGAT
GCCTACAAGAAGAAAGACTTTGACACAGCCTTGAAGCATTACGACAAAGCCAAGGAGCTGGACCCCACTAACATG
ACTTACATTACCAATCAAGCAGCGGTATACTTTGAAAAGGGCGACTACAATAAGTGCCGGGAGCTTTGTGAGAAG
GCCATTGAAGTGGGGAGAGAAAACCGAGAAGACTATCGACAGATTGCCAAAGCATATGCTCGAATTGGCAACTCC
TACTTCAAAGAAGAAAAGTACAAGGATGCCATCCATTTCTATAACAAGTCTCTGGCAGAGCACCGAACCCCAGAT
GTGCTCAAGAAATGCCAGCAGG

FIGURE 1261

AGACAGACCCCGTGCGGCTGACACAGCTGTATGAGCAGGCCCGGTGGGACCTGCTGCTGGAGGAGATTGACTGCA
CCGAGGAGGAGATGATGGTGTTTGCCGCCCTGCAGTACCACATCAACAAGCTGTCCCAGAGCGGGGAGGTGGGGG
AGCCGGCTGGCACAGACCCAGGGCTGGACGACCTGGATGTGGCCCTGAGCAACCTGGAGGTGAAGCTGGAGGGGT
CGGCGCCCACAGATGTGCTGGACAGCCTCACCACCATCCCAGAGCTCAAGGACCATCTCCGAATCTTTCGGCCCC
GGAAGCTGACCCTGAAGGGCTACCGCCAACACTGGGTGGTGTTCAAGGAGACCACACTGTCCTACTACAAGAGCC
AGGACGAGGCCCCTGGGGACCCCATTCAGCAGCTCAACCTCAAGGGCTGTGAGGTGGTTCCCGATGTTAACGTCT
CCGGCCAGAAGTTCTGCATTAAACTCCTAGTGCCCTCCCCTGAGGGC**ATG**AGTGAGATCTACCTGCGGTGCCAGG
ATGAGCAGCAGTATGCCCGCTGGATGGCTGGCTGCCGCCTGGCCTCCAAAGGCCGCACCATGGCCGACAGCAGCT
ACACCAGCGAGGTGCAGGCCATCCTGGCCTTCCTCAGCCTGCAGCGCACGGGCAGTGGGGGCCCGGGCAACCACC
CCCACGGCCCTGATGCCTCTGCCGAGGGCCTCAACCCCTACGGCCTCGTTGCCCCCCGTTTCCAGCGAAAGTTCA
AGGCCAAGCAGCTCACCCCACGGATCCTGGAAGCCCACCAGAATGTGGCCCAGTTGTCGCTGGCAGAGGCCCAGC
TGCGCTTCATCCAGGCCTGGCAGTCCCTGCCCGACTTCGGCATCTCCTATGTCATGGTCAGGTTCAAGGGCAGCA
GGAAAGACGAGATCCTGGGCATCGCCAACAACCGACTGATCCGCATCGACTTGGCCGTGGGCGACGTGGTCAAGA
CCTGGCGTTTCAGCAACATGCGCCAGTGGAATGTCAACTGGGACATCCGGCAGGTGGCCATCGAGTTTGATGAAC
ACATCAATGTGGCCTTCAGCTGCGTGTCTGCCAGCTGCCGAATTGTACACGAGTATATCGGGGGCTACATTTTCC
TGTCGACGCGGGAGCGGGCCCGTGGGGAGGAGCTGGATGAAGACCTCTTCCTGCAGCTCACCGGGGGCCATGAGG
CCTTC**TGA**GGGCTGTCTGATTGCCCCTGCCCTGCTCACCACCTGTCACAGCCACTCCCAAGCCCACACCCACAGG
GGCTCACTGCCCCACACCCGCTCCAGGCAGGCACCCAGCTGGGCATTTCACCTGCTGTCACTGACTTTGTGCAGG
CCAAGGACCTGGCAGGGCCAGACGCTGTACCATCACCCAGGCCAAGGATGGGGGTGGGGGTCCCTGAGCTCATGT
GGTGCCCCCTTTCCTTGTCTGAGTGGCTGAGGCTGATACCCCTGACCTATCTGCAGTCCCCCAGCACACAAGGAA
GACCAGATGTAGCTACAGGATGATGAAACATGGTTTCAAACGAGTTCTTTCTTGTTACTTTTTAAAATTTCTTTT
TTATAAATTAATATTTTATTGTTGG

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FIGURE 1262

GGCTACGGCTGACCGTTTTTTGTGGTGTACTCCGTGCCATC**ATG**TCCGTCCTGACGCCGCTGCTGCTGCGGGGCT
TGACAGGCTCGGCCCGGCGGCTCCCAGTGCCGCGCGCCAAGATCCATTCGTTGCCGCCGGAGGGGAAGCTTGGGA
TCATGGAATTGGCCGTTGGGCTTACCTCCTGCTTCGTGACCTTCCTCCTGCCAGCGGGCTGGATCCTGTCACACC
TGGAGACCTACAGGAGGCCAGAG**TGA**AGGGGTCCGTTCTGTCCCTCACACTGTGACCTGACCAGCCCCACCGGCC
CATCCTGGTCATGTTACTGCATTTGTGGCCGGCCTCCCCTGGATCATGTCATTCAATTCCAGTCACCTCTTCTGC
AATCATGACCTCTTGATGTCTCCATGGTGACCTCCTTGGGGGTCACTGACCCTGCTTGGTGGGGTCCCCCTTGTA
ACAATAAAATCTATTTAAACTTT

FIGURE 1263

CCTTCAGCATAAAAGCTGATCCACAAACAAGAGGAGCACCAGACCTCCTCTTGGCTTCGAG**ATG**GCTTCGCCACA
CCAAGAGCCCAAACCTGGAGACCTGATTGAGATTTTCCGCCTTGGCTATGAGCACTGGGCCCTGTATATAGGAGA
TGGCTACGTGATCCATCTGGCTCCTCCAAGTGAGTACCCCGGGGCTGGCTCCTCCAGTGTCTTCTCAGTCCTGAG
CAACAGTGCAGAGGTGAAACGGGAGCGCCTGGAAGATGTGGTGGGAGGCTGTTGCTATCGGGTCAACAACAGCTT
GGACCATGAGTACCAACCACGGCCCGTGGAGGTGATCATCAGTTCTGCGAAGGAGATGGTTGGTCAGAAGATGAA
GTACAGTATTGTGAGCAGGAACTGTGAGCACTTTGTCACCCAGCTGAGATATGGCAAGTCCCGCTGTAAACAGGT
GGAAAAGGCCAAGGTTGAAGTTGGTGTGGCCACGGCGCTTGGAATCCTGGTTGTTGCTGGATGCTCTTTTGCGAT
TAGGAGATACCAAAAAAAAGCGACAGCC**TGA**AGCAGCCACAAAATCCTGTGTTAGAAGCAGCTGTGGGGGTCCCA
GTGGAGATGAGCCTCCCCCATGCCTCCAGCAGCCTGACCCTCGTGCCCTGTCTCAGGCGTTCTCTAGATCCTTTC
CTCTGTTTCCCTCTCTCGCTGGCAAAAGTATGATCTAATTGAAACAAGACTGAAGGATCAATAAACAGCCATCTG
CCCCTTC

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FIGURE 1264

AGAGTGGGCGTCTGGCGGGGTCCGCAGTTTCAGCAGAGCCGTGCAGCC**ATG**GCCCCAATCAAGGTGGGAGATGCC
ATCCCAGCAGTGGAGGTGTTTGAAGGGGAGCCAGGGAACAAGGTGAACCTGGCAGAGCTGTTCAAGGGCAAGAAG
GGTGTGCTGTTTGGAGTTCCTGGGGCCTTCACCCCTGGATGTTCCAAGACACACCTGCCAGGGTTTGTGGAGCAG
GCTGAGGCTCTGAAGGCCAAGGGAGTCCAGGTGGTGGCCTGTCTGAGTGTTAATGATGCCTTTGTGACTGGCGAG
TGGGGCCGAGCCCACAAGGCGGAAGGCAAGGTTCGGCTCCTGGCTGATCCCACTGGGGCCTTTGGGAAGGAGACA
GACTTATTACTAGATGATTCGCTGGTGTCCATCTTTGGGAATCGACGTCTCAAGAGGTTCTCCATGGTGGTACAG
GATGGCATAGTGAAGGCCCTGAATGTGGAACCAGATGGCACAGGCCTCACCTGCAGCCTGGCACCCAATATCATC
TCACAGCTC**TGA**GGCCCTGGGCCAGATTACTTCCTCCACCCCTCCCTATCTCACCTGCCCAGCCCTGTGCTGGGG
CCCTGCAATTGGAATGTTGGCCAGATTTCTGCAATAAACACTTGTGGTTTGCGG

FIGURE 1265

GGAGCCGCCATGTAACCGGCGCCGCCCGGAGCCCGAGCCGCGCGGGCCCCAGCGACCCGCCCGCC**ATG**GGGGACG
AGGACGACGATGAGAGCTGCGCCGTGGAGCTGCGGATCACAGAAGCCAACCTGACCGGGCACGAGGAGAAGGTGA
GCGTGGAGAACTTCGAGCTGCTCAAGGTGCTGGGCACGGGAGCCTACGGCAAGGTGTTCCTGGTGCGGAAGGCGG
GCGGGCACGACGCGGGGAAGCTGTACGCCATGAAGGTGCTGCGCAAGGCGGCGCTGGTGCAGCGCGCCAAGACGC
AAGAGCACACGCGCACCGAGCGCTCGGTGCTGGAGCTGGTGCGCCAGGCGCCCTTCCTGGTCACGCTGCACTACG
CTTTCCAGACGGATGCCAAGCTGCACCTCATCCTGGACTATGTGAGCGGCGGGGAGATGTTCACCCACCTCTACC
AGCGCCAGTACTTCAAGGAGGCTGAGGTGCGCGTGTATGGGGGTGAGATCGTGCTGGCCCTGGAACACCTGCACA
AGCTCGGCATCATTTACCGAGACCTGAAACTGGAGAATGTGCTGCTGGACTCCGAGGGCCACATTGTCCTCACGG
ACTTCGGGCTGAGCAAGGAGTTCCTGACGGAGGAGAAAGAGCGGACCTTCTCCTTCTGTGGCACCATCGAGTACA
TGGCCCCCGAAATCATCCGTAGCAAGACGGGGCATGGCAAGGCTGTGGACTGGTGGAGCCTGGGCATCTTGCTCT
TCGAGCTGCTGACGGGGGCCTCGCCCTTCACCCTGGAGGGCGAGAGGAACACGCAGGCTGAGGTGTCTCGACGGA
TCCTGAAGTGCTCCCCTCCCTTCCCCCCTCGGATCGGGCCCGTGGCGCAGGACCTGCTGCAGCGGCTGCTTTGTA
AGGATCCTAAGAAGCGATTGGGCGCGGGGCCCCAGGGGGCACAAGAAGTCCGGAACCATCCCTTCTTCCAGGGCC
TCGATTGGGTGGCTCTGGCTGCCAGGAAGATTCCAGCCCCATTCCGGCCCCAAATCCGCTCAGAGCTGGATGTGG
GCAACTTTGCGGAGGAATTCACTCGGCTGGAGCCTGTCTACTCACCCCCTGGCAGCCCCCCACCTGGGGACCCCC
GAATCTTTCAGGGATACTCCTTTGTGGCACCCTCCATTCTCTTTGACCACAACAACGCGGTGATGACCGATGGGC
TGGAAGCGCCTGGTGCTGGAGACCGGCCAGGTCGGGCAGCGGTGGCCAGGAGCGCTATGATGCAGGACTCGCCCT
TCTTCCAGCAGTACGAGCTGGACCTGCGGGAGCCTGCGCTGGGCCAGGGCAGCTTTTCTGTGTGTCGCCGCTGCC
GCCAGCGCCAGAGCGGCCAGGAGTTCGCAGTCAAGATCCTCAGTCGCAGGCTGGAGGCGAACACGCAGCGCGAAG
TGGCTGCCCTGCGCCTGTGCCAGTCACACCCCAACGTGGTGAATCTGCACGAGGTGCATCACGACCAGCTGCACA
CGTACCTGGTCCTGGAGCTGCTGCGGGGCGGGGAGCTGCTGGAGCACATCCGCAAGAAGCGGCACTTCAGCGAGT
CGGAAGCAAGCCAGATCCTGCGCAGCCTCGTGTCGGCCGTGAGCTTCATGCACGAGGAGGCGGGCGTGGTGCACC
GCGACCTCAAGCCGGAGAACATCCTGTACGCCGACGACACGCCCGGGGCCCCGGTGAAAATCATCGACTTCGGGT
TCGCGCGGTTGCGGCCGCAGAGTCCCGGGGTGCCCATGCAGACGCCCTGCTTCACGCTGCAGTACGCTGCCCCCG
AGCTGCTGGCGCAGCAGGGCTACGACGAGTCCTGCGACCTCTGGAGCCTGGGCGTCATTCTGTACATGATGCTGT
CGGGGCAGGTCCCCTTCCAGGGGGCCTCTGGCCAGGGCGGGCAGAGCCAGGCGGCCGAGATCATGTGCAAAATCC
GCGAGGGGCGCTTCTCCCTTGACGGGGAGGCCTGGCAGGGTGTATCCGAGGAAGCCAAGGAGCTGGTCCGAGGGC
TCCTGACCGTGGACCCCGCCAAGCGGCTGAAGCTCGAGGGACTGCGGGGCAGCTCGTGGCTGCAGGACGGCAGCG
CGCGCTCCTCGCCCCCGCTCCGGACGCCCGACGTGCTCGAGTCCTCTGGGCCCGCAGTGCGCTCGGGTCTCAACG
CCACCTTCATGGCATTCAACCGGGGCAAGCGGGAGGGCTTCTTCCTGAAGAGCGTGGAGAATGCACCCCTGGCCA
AGCGGCGGAAGCAGAAGCTGCGGAGCGCCACCGCCTCCCGCCGGGGCTCCCCTGCACCAGCCAACCCGGGCCGAG
CCCCCGTCGCCTCCAAAGGGGCCCCCCGCCGAGCCAACGGCCCCCTGCCCCCCTCC**TAA**TCCCCACCACTGTGAC
CCCCTTCCCTCATAGGGGCTGTGACCTGGGAGCCCGGCTCACTCCCGGAGGCCTCTGCCTGCGGCTGACCTGATC
CCCAAGGGACTGTCCTTTCCTCTCCTACCCCACCCCACTCCCAGACAGAGCAGAAGTATTTTTATAAGCAGAGAA
TTTTTTATGTCTTACCAGATAGAGTTGCAGGGAAGGGGGGGCCTGCTGGGGAGTGGGGTTTGGGGGGCCCTCTCC
CAGGACACTGCCTCTTCTGGGCAGAAGGCCCCTCCAGGGGGACTGCTCCAACAGGAAAGAGCCCCTCCCCCACTT
CTAAGCACTGAGTTAGGAGTGCTAACTCCTAAACTGGGACCCCCTACCCTGTTCTCCCCTGAGGCCCCGTTCCTG
GGAGGGGCACCCCTCAACTGTCACTTTATGGACTGTCTGTGCAATTACGTCCACCAAAGACCCGTGTTGGGGGTA
CTGAAGGAGAGGCCCTGGGGGACCCTCTGAAGCATTTCTGCCTCACTTTATGTCATCTGCTTCTCCCCTGTTGGG
GCTAAGGAAGGAGATAGGTGGCTCCTAAAAGAGGAGGCCATCTTCTCACCCACCCCTTCCTCTTTGGCACAGCTA
CTCCTGGCTGGGGGTGGGGCCTTGGGGGTCTGGGCTGGGCATCCATGGTCACTGCCTCAGCCCAGCCAGGCTGTG
CCTTTGACTTTAAAATAAAAGTCCACCCAGTGCTGTGTGTGGC

FIGURE 1266

CGATTTCATTCCTCGCTCCCCACAGGTCCCTCTCCCCAAAATATTCCCATCTTGTCCTAGCCCATCCCCCAGACT
ATCTCAAGGACCAGCTGTCCCCACGCCCCCGACCTCCACTAGGCCTGTGCCACCCGCTGCCTGCAGGAAGACGCC
CGGTCCCGGGCCGGGTTAGCCCC**ATG**GGAACGCAGCGCCTGTGTGGCCGCGGGACTCAAGGCTGGCCTGGCTCAA
GTGAACAGCACGTCCAGGAGGCGACCTCGTCCGCGGGTTTGCATTCTGGGGTGGACGAGCTGGGGGTTCGGTCCG
AGCCCGGTGGGAGGCTCCCGGAGCGCAGCCTGGGCCCAGCCCACCCCGCGCCGGCGGCCATGGCAGGCACCCTGG
ACCTGGACAAGGGCTGCACGGTGGAGGAGCTGCTCCGCGGGTGCATCGAAGCCTTCGATGACTCCGGGAAGGTGC
GGGACCCGCAGCTGGTGCGCATGTTCCTCATGATGCACCCCTGGTACATCCCCTCCTCTCAGCTGGCGGCCAAGC
TGCTCCACATCTACCAACAATCCCGGAAGGACAACTCCAATTCCCTGCAGGTGAAAACGTGCCACCTGGTCAGGT
ACTGGATCTCCGCCTTCCCAGCGGAGTTTGACTTGAACCCGGAGTTGGCTGAGCAGATCAAGGAGCTGAAGGCTC
TGCTAGACCAAGAAGGGAACCGACGGCACAGCAGCCTAATCGACATAGACAGCGTCCCTACCTACAAGTGGAAGC
GGCAGGTGACTCAGCGGAACCCTGTGGGACAGAAAAAGCGCAAGATGTCCCTGTTGTTTGACCACCTGGAGCCCA
TGGAGCTGGCGGAGCATCTCACCTACTTGGAGTATCGCTCCTTCTGCAAGATCCTGTTTCAGGACTATCACAGTT
TCGTGACTCATGGCTGCACTGTGGACAACCCCGTCCTGGAGCGGTTCATCTCCCTCTTCAACAGCGTCTCACAGT
GGGTGCAGCTCATGATCCTCAGCAAACCCACAGCCCCGCAGCGGGCCCTGGTCATCACACACTTTGTCCACGTGG
CGGAGAAGCTGCTACAGCTGCAGAACTTCAACACGCTGATGGCAGTGGTCGGGGGCCTGAGCCACAGCTCCATCT
CCCGCCTCAAGGAGACCCACAGCCACGTTAGCCCTGAGACCATCAAGCTCTGGGAGGGTCTCACGGAACTAGTGA
CGGCGACAGGCAACTATGGCAACTACCGGCGTCGGCTGGCAGCCTGTGTGGGCTTCCGCTTCCCGATCCTGGGTG
TGCACCTCAAGGACCTGGTGGCCCTGCAGCTGGCACTGCCTGACTGGCTGGACCCAGCCCGGACCCGGCTCAACG
GGGCCAAGATGAAGCAGCTCTTTAGCATCCTGGAGGAGCTGGCCATGGTGACCAGCCTGCGGCCACCAGTACAGG
CCAACCCCGACCTGCTGAGCCTGCTCACGGTGTCTCTGGATCAGTATCAGACGGAGGATGAGCTGTACCAGCTGT
CCCTGCAGCGGGAGCCGCGCTCCAAGTCCTCGCCAACCAGCCCCACGAGTTGCACCCCACCACCCCGGCCCCCGG
TACTGGAGGAGTGGACCTCGGCTGCCAAACCCAAGCTGGATCAGGCCCTCGTGGTGGAGCACATCGAGAAGATGG
TGGAGTCTGTGTTCCGGAACTTTGACGTCGATGGGGATGGCCACATCTCACAGGAAGAATTCCAGATCATCCGTG
GGAACTTCCCTTACCTCAGCGCCTTTGGGGACCTCGACCAGAACCAGGATGGCTGCATCAGCAGGGAGGAGATGG
TTTCCTATTTCCTGCGCTCCAGCTCTGTGTTGGGGGGGCGCATGGGCTTCGTACACAACTTCCAGGAGAGCAACT
CCTTGCGCCCCGTCGCCTGCCGCCACTGCAAAGCCCTGATCCTGGGCATCTACAAGCAGGGCCTCAAATGCCGAG
CCTGTGGAGTGAACTGCCACAAGCAGTGCAAGGATCGCCTGTCAGTTGAGTGTCGGCGCAGGGCCCAGAGTGTGA
GCCTGGAGGGGTCTGCACCCTCACCCTCACCCATGCACAGCCACCATCACCGCGCCTTCAGCTTCTCTCTGCCCC
GCCCTGGCAGGCGAGGCTCCAGGCCTCCAGAGATCCGTGAGGAGGAGGTACAGACGGTGGAGGATGGGGTGTTTG
ACATCCACTTG**TAA**TAGATGCTGTGGTTGGATCAAGGACTCATTCCTGCCTTGGAGAAAATACTTCAACCAGAGC
AGGGAGCCTGGGGGTGTCGGGGCAGGAGGCTGGGGATGGGGGTGGGATATGAGGGTGGCATGCAGCTGAGGGCAG
GGCCAGGGCTGGTGTCCCTAAGGTTGTACAGACTCTTGTGAATATTTGTATTTTCCAGATGGAATAAAAAGGCCC
GTGTAATTAACCTTC

FIGURE 1267

ACTTACTGTCATTAAACCAGTATGATGATGGAGTGGGGAATGCCTCAGTTTCTCCCACCGCCGAGGGCCTATAGG
ACTACAGTTCCCAGGGCCCCGTGCTGCAGGCTAGCGGCCTCCCGCCAATGCTGGCCAGTAACCTGAGCATCCCTC
TCCAAAAGGTCACTTCAGGGCTCCTTGAGGGACAGCAACAGGGGGAGCCTAGAGCTGCTCAGCTTCGGTGGGGGT
GGAGTGAGGGCTGTGGCCCTGCCTCACACAACCTCCCTCACACCACCCCTGCAATGCAGGGTCGTGGGCCCCTTT
CTCAAAGACATCCAGTGGCCTCTGCTAGTTGCACCTCTTCCGTCAGGGGACACTGACTTGGCTCCTGCACCACAG
CCTGCAGGGGGTCCTGGTTCCTTTTGCCACAACACATGGCCTCCCATCCTGGTTCAGCCACTGACAGACAGCTCC
CCAATCCAGCACTCTGCCTGCTCCTTCTTGTATCCAACCCTCCAAAAGGCAGGGACAAGGGACAGAAGACCATGT
GCAAGGCCTGGAGGAAGTGGGTCAGCACAGGCCTGTGAACAAGCCAGGCCAGTCTTGGCGGCCCAAGTGGAGCTC
ACCTCTCCCTCCCCTCTCCTCTCCTCCCCTTGCCCTCAAAATAGCTCCCTGAGCTGCCAGGCCAAGACCCTCCCA
TTGCAGGGGAGGCGGGGCGTGCTGCCCAGAGCCAGGCTTTAAATCCCCTTGAGGCTGGGGAGCTCCACTCCTTGG
CTGGAGGCAGTGCTGAGGCCGCCGTCCCCTCTACCATCAGTCCAGTCCGGCCCGCCCTCCTGCAGCC**ATG**TCCCG
GCCCCTGTCAGACCAAGAGAAAAGAAAGCAAATCAGTGTGCGTGGCCTGGCCGGCGTGGAGAACGTGACTGAGCT
GAAAAAGAACTTCAACCGGCACCTGCATTTCACACTCGTAAAGGACCGCAATGTGGCCACCCCACGAGACTACTA
CTTTGCTCTGGCCCATACCGTGCGCGACCACCTCGTGGGGCGCTGGATCCGCACGCAGCAGCACTACTATGAGAA
GGACCCCAAGAGGATCTACTACCTGTCTTTAGAGTTCTATATGGGACGGACGCTACAGAACACCATGGTGAACCT
GGCCTTAGAGAATGCCTGTGACGAGGCCACCTACCAGCTGGGCCTGGACATGGAGGAGCTGGAGGAAATTGAGGA
GGATGCGGGGCTGGGCAACGGGGGCCTGGGCCGGCTGGCAGCCTGCTTTCTTGACTCCATGGCAACACTGGGCCT
GGCCGCCTATGGCTACGGGATTCGCTATGAGTTTGGGATTTTTAACCAGAAGATCTCCGGGGGCTGGCAGATGGA
GGAGGCCGATGACTGGCTTCGCTACGGCAACCCCTGGGAGAAGGCCCGGCCCGAGTTCACGCTACCTGTGCACTT
CTACGGCCATGTGGAGCACACCAGCCAGGGTGCCAAGTGGGTGGACACACAGGTGGTACTGGCCATGCCCTACGA
TACGCCCGTGCCTGGCTATCGCAACAATGTTGTCAACACCATGCGCCTCTGGTCTGCCAAGGCTCCCAATGACTT
CAACCTCAAGGACTTCAATGTCGGTGGCTACATCCAGGCTGTGTTGGACCGAAACCTGGCGGAGAACATCTCTCG
TGTCCTGTACCCCAATGATAATTTCTTCGAAGGGAAGGAGCTGCGGCTGAAGCAGGAGTATTTCGTGGTGGCTGC
CACCCTCCAGGACATCATCCGTCGCTTCAAGTCTTCCAAGTTCGGCTGCCGTGATCCCGTGCGCACGAACTTCGA
TGCCTTCCCAGATAAGGTGGCCATCCAGCTCAATGACACCCACCCCTCCCTGGCCATCCCCGAGCTGATGAGGAT
CCTGGTGGACCTGGAACGGATGGACTGGGACAAGGCGTGGGATGTGACAGTGAGGACCTGTGCCTACACCAACCA
CACGGTGCTGCCCGAGGCCCTGGAGCGCTGGCCGGTGCACCTCTTGGAGACGCTGCTGCCGCGGCACCTCCAGAT
CATCTACGAGATCAACCAGCGCTTCCTCAACCGGGTGGCGGCCGCATTCCCAGGGGACGTAGACCGGCTGCGGCG
CATGTCGCTGGTGGAGGAGGGCGCAGTGAAGCGCATCAACATGGCACACCTGTGCATCGCGGGGTCGCACGCCGT
CAACGGCGTGGCGCGCATCCACTCCGAGATCCTCAAGAAGACCATCTTCAAAGACTTCTATGAGCTGGAGCCTCA
TAAGTTCCAGAATAAGACCAACGGCATCACCCCTCGGCGCTGGCTGGTTCTGTGTAACCCCGGGCTGGCAGAGGT
CATTGCTGAGCGCATCGGGGAGGACTTCATCTCTGACCTGGACCAGCTGCGCAAACTGCTCTCCTTTGTGGATGA
TGAAGCTTTCATTCGGGATGTGGCCAAAGTGAAGCAGGAAAACAAGTTGAAGTTTGCTGCCTACCTAGAGAGGGA
ATACAAAGTCCACATCAACCCCAACTCACTCTTCGACATCCAGGTGAAGCGGATTCACGAATATAAACGACAGCT
CCTCAACTGCCTCCATGTCATCACCCTGTACAACCGCATCAAGAGGGAGCCCAATAAGTTTTTTGTGCCTCGGAC
TGTGATGATTGGAGGGAAGGCTGCACCTGGGTACCACATGGCCAAGATGATCATCAGACTCGTCACAGCCATCGG
GGATGTGGTCAACCATGACCCGGCAGTGGGTGACCGCCTCCGTGTCATCTTCCTGGAGAACTACCGAGTCTCACT
GGCCGAGAAAGTGATCCCAGCTGCAGACCTCTCTGAGCAGATCTCCACTGCGGGCACTGAAGCCTCAGGCACCGG
CAACATGAAGTTCATGCTCAACGGGGCTCTGACCATTGGCACCATGGACGGGGCCAATGTGGAGATGGCAGAAGA
GGCGGGAGAGGAAAACTTCTTCATCTTTGGCATGCGGGTGGAGGATGTGGATAAGCTTGACCAAAGAGGGTACAA
TGCCCAGGAGTACTACGATCGCATTCCTGAGCTTCGGCAGGTCATTGAGCAGCTGAGCAGTGGCTTCTTCTCCCC
CAAACAGCCCGACCTGTTCAAGGACATTGTCAATATGCTCATGCACCATGACCGGTTTAAAGTCTTCGCAGATTA
TGAAGACTACATTAAATGCCAGGAGAAAGTCAGCGCCTTGTACAAGAACCCAAGAGAGTGGACGCGGATGGTGAT
CCGGAACATAGCCACCTCTGGCAAGTTCTCCAGTGACCGCACCATTGCCCAGTATGCCCGGGAGATCTGGGGTGT
GGAGCCTTCCCGCCAGCGCCTGCCAGCCCCGGATGAGGCCATC**TGA**GCCTCCAGACCAGACCCCAAACCAGCCCT
TGAGTCTGTCACACTCTCTTGGGCCAGCCCCAGCACCTCATGCAGAGGGTGGGGTACTGGAGTTAGATCTCT

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FIGURE 1268

AAATGAAGTGCGCGCTGCGACACCTCCCAGCCCACCGAACTCCGCCGCCATTTCCTCGCTTGGCCTAACGGTTCG
GCCAATCCCAGCGCGCATCAAGAAGGACTGAGGCTCCGCCAATCGGAGGCCGCCGATTTCGACCCTTCGCCTCGG
CCCGGCCCAATCCAGGCCCCGGCCCCGCCGCCCCCGGCCCGCCCCCCGCGGTGCCCTCTCTCCTCCCTCTTTGTGC
GTCTCGCGCCGCCGCCGCCCGCCGCGTGAGAGGACGGGCTCCGCGCGCTCCGGCAGCGCATTCGGGTCCCCTCCC
CCCGGGAGGCTTGCGAAGGAGAAGCCGCCGCAGAGGAAAAGCAGGTGCCGGTGCCTGTCCCCGGGGGCGCC**ATG**G
CGACCGGAGCGAACGCCACGCCGTTGGACTTCCCAAGTAAGAAGCGGAAGAGGAGCCGCTGGAACCAAGACACAA
TGGAACAGAAGACAGTGATTCCAGGAATGCCTACAGTTATTCCCCCTGGACTTACTCGAGAACAAGAAAGAGCTT
ATATAGTGCAACTGCAGATAGAAGACCTGACTCGTAAACTGCGCACAGGAGACCTGGGCATCCCCCCTAACCCTG
AGGACAGGTCCCCTTCCCCTGAGCCCATCTACAATAGCGAGGGGAAGCGGCTTAACACCCGAGAGTTCCGCACCC
GCAAAAAGCTGGAAGAGGAGCGGCACAACCTCATCACAGAGATGGTTGCACTCAATCCGGATTTCAAGCCACCTG
CAGATTACAAACCTCCAGCAACACGTGTGAGTGATAAAGTCATGATTCCACAAGATGAGTACCCAGAAATCAACT
TTGTGGGGCTGCTCATCGGGCCCAGAGGGAACACCCTGAAGAACATAGAGAAGGAGTGCAATGCCAAGATTATGA
TCCGGGGGAAAGGGTCTGTGAAAGAAGGGAAGGTTGGGCGCAAAGATGGCCAGATGTTGCCAGGAGAAGATGAGC
CACTTCATGCCCTGGTTACTGCCAATACAATGGAGAACGTCAAAAAGGCAGTGGAACAGATAAGAAACATCCTGA
AGCAGGGTATCGAGACTCCAGAGGACCAGAATGATCTACGGAAGATGCAGCTTCGGGAGTTGGCTCGCTTAAATG
GGACCCTTCGGGAAGACGATAACAGGATCTTAAGACCCTGGCAGAGCTCAGAGACCCGCAGCATTACCAACACCA
CAGTGTGTACCAAGTGTGGAGGGGCTGGCCACATTGCTTCAGACTGTAAATTCCAAAGGCCTGGTGATCCTCAGT
CAGCTCAGGATAAAGCACGGATGGATAAAGAATATTTGTCCCTCATGGCTGAACTGGGTGAAGCACCTGTCCCAG
CATCTGTGGGCTCCACCTCTGGGCCTGCCACCACACCCCTGGCCAGCGCACCTCGTCCTGCTGCTCCCGCCAACA
ACCCACCTCCACCGTCTCTCATGTCTACCACCCAGAGCCGCCCACCCTGGATGAATTCTGGCCCTTCAGAGAGTC
GGCCCTACCACGGCATGCATGGAGGTGGTCCTGGTGGGCCCGGAGGTGGCCCCCACAGCTTCCCACACCCATTAC
CCAGCCTGACAGGTGGGCATGGTGGACATCCCATGCAGCACAACCCCAATGGACCCCCACCCCCTTGGATGCAGC
CACCACCACCACCGATGAACCAGGGCCCCCACCCTCCTGGGCACCATGGCCCTCCTCCAATGGATCAGTACCTGG
GAAGTACGCCTGTGGGCTCTGGGGTCTATCGCCTGCATCAAGGAAAAGGTATGATGCCGCCACCACCTATGGGCA
TGATGCCGCCGCCGCCGCCGCCTCCCAGTGGGCAGCCCCCACCCCCTCCCTCTGGTCCTCTTCCCCCATGGCAAC
AACAGCAGCAGCAGCCTCCGCCACCCCCTCCGCCCAGCAGCAGTATGGCTTCCAGTACCCCCTTGCCATGGCAGC
AAAATACGACGACTACCACCACGAGCGCTGGCACAGGGTCCATCCCGCCATGGCAACAGCAGCAGGCGGCTGCCG
CAGCTTCTCCAGGAGCCCCTCAGATGCAAGGCAACCCCACTATGGTGCCCCTGCCCCCCGGGGTCCAGCCGCCTC
TGCCGCCTGGGGCCCCTCCCCCTCCGCCCCGTAGCATCGAGTGTCTTCTTTGTCTTCTTTCTCTCCTCACCCAAC
TCCCTTTGCCTCTCCCCAAACCGGGCCGCCAGGATCCCTCCCCGCGGCGGCGATGGCCCGAGCCA**TGA**GAGTGAG
GACTTTCCGCGCCCATTGGTGACCCTTCCAGGCAGACAGCCTCAGCAACGCCCCTGGTGGACAGGATGGTTCGGC
AAAGCAGCCTGAGTTATTTTTGTGGACGGAATCGGAACACGCTGGCTCCATATCGTGAAATTTTTATTAATTTTT
TTCTTTTTCCTTTGTTACTTCTTTATCTTTTCCTTTCTTCAGACTCCGTCCAAGGAGATGCTCTCCCCGGTCTTC
TGCTGCAATTTAGATTCCTTTCCCTTCTCTCCAGTTCTCCTTCCCTTACCAAGGAGAGGGGAGCAAATGGTTTTG
GGCAAGGGCTTTGGCCATTCATGTCAAGCTGGTTGTGGGTTTTTCAAGGTGCCATAGCCACCCCCAAATATGTTT
GTTTAAAGCGTGGGGTTTTTTAATCTCTGCCACCCTTGTCAAGGGAGTCTTGTAAAGTTGCCGAGGGTAGGTTCA
TCTCCAGGTTTCGGGATTCCCATCCGTCCTGGCGATCCTGCCAGCAGTGGGTGGGCAGCCTGAGCTCCCTCGGGC
TCGCCTGCCAGCCTGGAGTTCTTCCTGTGCTCCTTGATCACCTGAGCTGCCTCAGATTCCATTTGGTCCTCTCCT
TCCTGGAAGGCTTCCTTTTATGTTTTGTTTTAATCCCAAATGTCTGAATGTTTTGCAGTGTGTAGGGGTTTGAGC
CCCTTGTTCATTCTCCTTCCTTTTTCCTCCCGCTTCCCTCTCCATGAAGTGATTCTGTTGACAATAATGTATACT
GCGCGTTCTCTTCACTGGTTTATCTGCAGAAATTTCTCTGGGCTTTTTTCGGTGTTAGATTCAACACTGCGCTAA
AGCGGGGATGTTCCATTGAATAAAAGAGCAGTGTGGTTTTCTGGG

FIGURE 1269

GCGCCGGGCC**ATG**GCGCTGCTGCGGGATGTGTCGCTGCAGGACCCGCGGGACCGCTTCGAGCTGCTGCAGCGCGT
GGGGGCCGGGACCTATGGCGACGTCTACAAGGCCCGCGACACGGTCACGTCCGAACTGGCCGCCGTGAAGATAGT
CAAGCTAGACCCAGGGGACGACATCAGCTCCCTCCAGCAGGAAATCACCATCCTGCGTGAGTGCCGCCACCCCAA
TGTGGTGGCCTACATTGGCAGCTACCTCAGGAATGACCGCTTGTGGATCTGCATGGAGTTCTGCGGAGGGGGCTC
CCTGCAGGAGATTTACCATGCCACTGGGCCCCTGGAGGAGCGGCAGATTGCCTACGTCTGCCGAGAGGCACTGAA
GGGGCTCCACCACCTGCATTCTCAGGGGAAGATCCACAGAGACATCAAGGGAGCCAACCTTCTCCTCACTCTCCA
GGGAGATGTCAAACTGGCTGACTTTGGGGTGTCAGGCGAGCTGACAGCGTCTGTGGCCAAGAGGAGGTCTTTCAT
TGGGACTCCCTACTGGATGGCTCCCGAGGTGGCTGCTGTGGAGCGCAAAGGTGGCTACAATGAGCTATGTGACGT
CTGGGCCCTGGGCATCACTGCCATTGAGCTGGGCGAGCTGCAGCCCCCTCTGTTCCACCTGCACCCCATGAGGGC
CCTGATGCTCATGTCGAAGAGCAGCTTCCAGCCGCCCAAACTGAGAGATAAGACTCGCTGGACCCAGAATTTCCA
CCACTTTCTCAAACTGGCCCTGACCAAGAATCCTAAGAAGAGGCCGACAGCAGAGAAGCTCCTGCAGCACCCGTT
CACGACTCAGCAGCTCCCTCGGGCCCTCCTCACACAGCTGCTGGACAAAGCCAGTGACCCTCATCTGGGGACCCC
CTCCCCTGAGGACTGTGAGCTGGAGACCTATGACATGTTTCCAGACACCATTCACTCCCGGGGGCAGCACGGCCC
AGCCGAGAGGACCCCCTCGGAGATCCAGTTTCACCAGGTGAAATTTGGCGCCCCACGCAGGAAGGAAACTGACCC
ACTGAATGAGCCGTGGGAGGAAGAGTGGACACTACTGGGAAAGGAAGAGTTGAGTGGGAGCCTGCTGCAGTCGGT
CCAGGAGGCCCTGGAGGAAAGGAGTCTGACTATTCGGTCAGCCTCAGAATTCCAGGAGCTGGACTCCCCAGACGA
TACCATGGGAACCATCAAGCGGGCCCCGTTCCTAGGGCCACTCCCCACTGACCCTCCAGCAGAGGAGCCTCTGTC
CAGTCCCCCAGGAACCCTGCCCCCACCTCCTTCAGGCCCCAACAGCTCCCCACTGCTGCCCACGGCCTGGGCCAC
CATGAAGCAGCGGGAGGATCCTGAGAGGTCATCCTGCCACGGGCTCCCCCCAACTCCCAAGGTGCATATGGGCGC
CTGCTTCTCCAAGGTCTTCAATGGCTGCCCCCTGCGGATCCACGCTGCTGTCACCTGGATTCACCCTGTTACTCG
GGACCAGTTCCTGGTGGTAGGGGCCGAGGAAGGCATCTACACACTCAACCTGCATGAACTGCATGAGGATACGCT
GGAGAAGCTGATTTCACATCGCTGCTCCTGGCTCTACTGCGTGAACAACGTGCTGCTGTCACTCTCAGGGAAATC
CACGCACATCTGGGCCCATGACCTCCCAGGCCTGTTTGAGCAGCGGAGGCTACAGCAACAGGTTCCCCTCTCCAT
CCCCACCAACCGCCTCACCCAGCGCATCATCCCCAGGCGCTTTGCTCTGTCCACCAAGATTCCTGACACCAAAGG
CTGCTTGCAGTGTCGTGTGGTGCGGAACCCCTACACGGGTGCCACCTTCCTGCTGGCCGCCCTGCCCACCAGCCT
GCTCCTGCTGCAGTGGTATGAGCCGCTGCAGAAGTTTCTGCTGCTGAAGAACTTCTCCAGCCCTCTGCCCAGCCC
AGCTGGGATGCTGGAGCCGCTGGTGCTGGATGGGAAGGAGCTGCCGCAGGTGTGTGTTGGGGCCGAGGGGCCTGA
GGGGCCCGGCTGCCGCGTCCTGTTCCATGTCCTGCCCCTGGAGGCTGGCCTGACGCCCGACATCCTCATCCCACC
TGAGGGGATCCCAGGCTCGGCCCAGCAGGTGATCCAGGTGGACAGGGACACAATCCTAGTCAGCTTTGAACGCTG
TGTGAGGATTGTCAACATGCAGGGCGAGCCCACGGCCACACTGGCACCTGAGCTGACCTTTGATTTCCCCATCGA
GACTGTGGTGTGCCTGCAGGACAGTGTGCTGGCCTTCTGGAGCCATGGGATGCAAGGCCGAAGCCTGGATACCAA
TGAGGTGACCCAGGAGATCACAGATGAAACAAGGATCTTCCGAGTGCTTGGGGCCCACAGAGACATCATCCTGGA
GAGCATTCCCACTGACAACCCAGAGGCGCACAGCAACCTCTACATCCTCACGGGCCACCAGAGCACCTAC**TAA**GA
GCAGCGGGCCTGTCCAGGGGCTCCCCGCCCCACCCCACGCCTTAGCTGCAGGCCCTTTTGGGCAAAGGGGCCCAT
CCTAGACCAGAGGAGCCCAGGCCCTGGCCCTGCTGGGGCTGAAGGTCAGAAGTAATCCTGAGAAATGTTTCAGGC
CTGGGGAGGGAGGGGAGCCCCCGACGCCTCTGCAATAACTGGACCAGGGGGAGCTGCTGTCACTCCCCCATCCCC
GAGGCAGCCCAGTCCCTAGTGCCCAAGGCAGGGACCCTGGGCCTGGGCCATCCATTCCATTTTGTTCCACATTTC
CTTTCTACTCTTTCTGCCAAGAGCCTGCCCCTGCATTTGTCCTGGGAAACACGGTATTTAAGAGAGAACTATATT
GGTATTAAAGCTGGTTTGTTTT

FIGURE 1270

TATATTTATGTATATGCACATACACACAAAATTAGGCGGGAGTGGTGGCGCACGCCTGTGATCACAGCTACTCGG
GAGGCTGAGGCACGAGAATCGCTTGAGCCCGTGAAGTCGAGGCTGCAGTGAGCCCAGATCGAGCCACTGCATTCC
AGCCTGGGCGAAAGAGAAAGACCGTGTCTCAAAACAAACAAACAAAAGCTACTCTTAGCACGTGTTAGAGTATCT
CGCGGGCGGAAGTGGGAAACGAGTGCTGCACACAGACAACCTGATCTTTTTCCTCATAACTTGCCGACCGACCCG
TGACAGCAAAACCGGCAGAAGCTCGGCGACCTCCCACCCCGAGTCTGCAGGTAGCCGCCGCCCACCGCCCGCCGT
C**ATG**GGGCTGAAGGCCGCCCAGAAGACGCTGTTCCCGCTGCGCTCCATCGACGACGTGGTGCGCCTGTTTGCTGC
CGAGCTGGGCCGAGAGGAGCCGGACCTGGTGCTCCTTTCCTTGGTGCTGGGCTTCGTGGAGCATTTTCTGGCTGT
CAACCGCGTCATCCCTACCAACGTTCCCGAGCTCACCTTCCAGCCCAGCCCCGCCCCCGACCCGCCTGGCGGCCT
CACCTACTTTCCCGTGGCCGACCTGTCTATCATCGCCGCCCTCTATGCCCGCTTCACCGCCCAGATCCGAGGCGC
CGTCGACCTGTCCCTCTATCCTCGAGAAGGGGGTGTCTCCAGCCGTGAGCTGGTGAAGAAGGTCTCCGATGTCAT
ATGGAACAGCCTCAGCCGCTCCTACTTCAAGGATCGGGCCCACATCCAGTCCCTCTTCAGCTTCATCACAGGTTG
GAGCCCAGTAGGCACCAAATTGGACAGCTCCGGTGTGGCCTTTGCTGTGGTTGGGGCCTGCCAGGCCCTGGGTCT
CCAGGATGTCCACCTCGCCCTGTCTGAGGATCATGCCTGGGTAGTGTTTGGGCCCAATGGGGAGCAGACAGCTGA
GGTCACCTGGCACGGCAAGGGCAACGAGGACCGCAGGGGCCAGACAGTCAATGCCGGTGTGGCTGAGCGGAGCTG
GCTGTACCTGAAAGGATCATACATGCGCTGTGACCGCAAGATGGAGGTGGCGTTCATGGTGTGTGCCATCAACCC
TTCCATTGACCTGCACACCGACTCGCTGGAGCTTCTGCAGCTGCAGCAGAAGCTGCTCTGGCTGCTCTATGACCT
GGGACATCTGGAAAGGTACCCCATGGCCTTAGGGAACCTGGCAGATCTAGAGGAGCTGGAGCCCACCCCTGGCCG
GCCAGACCCACTCACCCTCTACCACAAGGGCATTGCCTCAGCCAAGACCTACTATCGGGATGAACACATCTACCC
CTACATGTACCTGGCTGGCTACCACTGTCGCAACCGCAATGTGCGGGAAGCCCTGCAGGCCTGGGCGGACACGGC
CACTGTCATCCAGGACTACAACTACTGCCGGGAAGACGAGGAGATCTACAAGGAGTTCTTTGAAGTAGCCAATGA
TGTCATCCCCAACCTGCTGAAGGAGGCAGCCAGCTTGCTGGAGGCGGGCGAGGAGCGGCCGGGGGAGCAAAGCCA
GGGCACCCAGAGCCAAGGTTCCGCCCTCCAGGACCCTGAGTGCTTCGCCCACCTGCTGCGATTCTACGACGGCAT
CTGCAAATGGGAGGAGGGCAGTCCCACGCCTGTGCTGCACGTGGGCTGGGCCACCTTTCTTGTGCAGTCCCTAGG
CCGTTTTGAGGGACAGGTGCGGCAGAAGGTGCGCATAGTGAGCCGAGAGGCCGAGGCGGCCGAGGCCGAGGAGCC
GTGGGGCGAGGAAGCCCGGGAAGGCCGGCGGCGGGGCCCACGGCGGGAGTCCAAGCCAGAGGAGCCCCCGCCGCC
CAAGAAGCCAGCACTGGACAAGGGCCTGGGCACCGGCCAGGGTGCAGTGTCAGGACCCCCCCGGAAGCCTCCTGG
GACTGTCGCTGGCACAGCCCGAGGCCCTGAAGGTGGCAGCACGGCTCAGGTGCCAGCACCCGCAGCATCACCACC
GCCGGAGGGTCCAGTGCTCACTTTCCAGAGTGAGAAGATGAAGGGCATGAAGGAGCTGCTGGTGGCCACCAAGAT
CAACTCGAGCGCCATCAAGCTGCAACTCACGGCACAGTCGCAAGTGCAGATGAAGAAGCAGAAAGTGTCCACCCC
TAGTGACTACACTCTGTCTTTCCTCAAGCGGCAGCGCAAAGGCCTC**TGA**ACTACTGGGGACTTCGGACCGCTTGT
GGGGACCCAGGCTCCGCCCTTAGTCCCCCAACTCTGAGCCCATGTTCTGCCCCCAGCCCAAAGGGGACAGGCCTC
ACCTCTACCCAAACCCTAGGTTCCCGGTCCCGAGTACAGTCTGTATCAAACCCACGATTTTCTCCAGCTCAGAAC
CCAGGGCTCTGCCCCAGTCGTTAGAATATAGGTCTCTTCTCCCAGAATCCCAGCCGGCCAATGGAAACCTCACGC
TGGGTCCTAATTACCAGTCTTTAAAGGCCCAGCCCCTAGAAACCCAAGCTCCTCCTCGGAACCGCTCACCTAGAG
CCAGACCAACGTTACTCAGGGCTCCTCCCAGCTTGTAGGAGCTGAGGTTTCACCCTTAACCCAAGGAGCACAGGT
CCCACCTCCAGCCCGGGAGCCTAGGACCACTCAGCCCCTAGGAGTATATTTCCGCACTTCAGAATTCCATATCTT
GCGAATCCAAGCTCCCTGCCCCAAATAACTTCAGTCCTGCTCCAGAATTTGGAAATCCTAGTTTCCTCTCCTTCG
TATCCCGAGTCTGGGACACAAAACTCCGCCCCCAGCCTATGAGCATCCTGAGCCCCGCCCTCTTCCTGACGAAAC
TGGCCCCGGATCAGAGCAGGACCTCCCTTCCGACCCTCTGGGAACCTCCCAGAGGTCCAGCCCATCTCGGAGCAT
CCCGGAGGAAATCTGCAGAGGGTTAGGAGTGGGTGACAAGAGCCTGATCTCTTCCTGTTTTGTACATAGATTTAT
TTTTCAGTTCCAAGAAAGATGAATACATTTTGTT

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FIGURE 1271

GGCACCAGTCGGAGGGGCGGGGCTGGGAGGGGCTCCTCCCTACCGCCCCCAATTCCGCCCTGCCCCCGCCGCGGC
GGCGCTAGCCGCCACTGAGGGACCGACCCTATAAAGGCCGCTCCGCGAGGGGTGCGCAGCATTCGGCAGAGGGCG
CTTCGACGGGCTGGGCTGTGCGCCTGCGCAGTGTGGGTCGCTCCCGATTCCCTGCCCCGGCCGGCCCCGCCTCGG
CTCCGCACCCTCGCCCCGCTCTCAGCCGCCGCTCTGCCCCGCAGCAGCCAGCCCCGTGTCCGGCAGT**ATG**TTCAG
CTGGGTCAGCAAGGATGCCCGCCGCAAGAAGGAGCCGGAGCTCTTCCAGACGGTGGCTGAGGGGCTGCGGCAGCT
GTACGCGCAGAAGCTGCTACCCCTGGAGGAGCACTACCGCTTCCACGAGTTCCACTCGCCCGCGCTGGAGGACGC
TGACTTCGACAACAAGCCTATGGTGCTCCTCGTGGGGCAGTACAGCACGGGCAAGACCACCTTCATCCGACACCT
GATCGAGCAGGACTTCCCGGGGATGCGCATCGGGCCCGAGCCCACCACCGACTCCTTCATCGCCGTCATGCACGG
CCCCACTGAGGGCGTGGTGCCGGGCAACGCGCTCGTGGTGGACCCGCGGCGCCCCTTCCGCAAGCTCAACGCGTT
TGGCAACGCTTTCCTCAACAGGTTCATGTGTGCCCAGCTGCCCAACCCCGTCCTGGACAGCATCAGCATCATCGA
CACCCCCGGGATCCTGTCTGGAGAGAAGCAGCGGATCAGCAGAGGCTATGACTTTGCAGCCGTCCTGGAGTGGTT
CGCGGAGCGTGTGGACCGCATCATCCTGCTCTTCGACGCCCACAAGCTGGACATCTCCGATGAGTTCTCGGAAGT
GATCAAGGCTCTGAAGAACCATGAGGACAAGATCCGCGTGGTGCTGAACAAGGCAGACCAGATCGAGACGCAGCA
GCTGATGCGGGTGTACGGGGCCCTCATGTGGTCCCTGGGCAAGATCATCAACACCCCCGAGGTGGTCAGGGTCTA
CATCGGCTCCTTCTGGTCCCACCCGCTCCTCATCCCCGACAACCGCAAGCTCTTTGAGGCCGAGGAGCAGGACCT
CTTCAAGGACATCCAGTCACTGCCCCGAAACGCCGCCCTCAGGAAGCTCAATGACCTGATCAAGCGGGCACGGCT
GGCCAAGGTTCACGCCTACATCATCAGCTCCCTCAAGAAAGAGATGCCCAATGTCTTTGGTAAAGAGAGCAAAAA
GAAAGAGCTGGTGAACAACCTCGGAGAGATCTACCAGAAGATTGAGCGCGAGCACCAGATCTCCCCTGGGGACTT
CCCGAGCCTCCGCAAGATGCAGGAACTCCTGCAGACCCAGGACTTCAGCAAGTTCCAGGCGCTGAAGCCCAAGCT
GCTGGACACGGTGGATGACATGCTGGCCAACGACATCGCGCGGCTGATGGTGATGGTGCGGCAGGAGGAGTCCCT
GATGCCTTCCCAGGTGGTCAAGGGCGGCGCCTTTGACGGCACCATGAACGGGCCGTTCGGGCACGGCTACGGCGA
GGGGGCCGGCGAGGGCATCGACGACGTGGAGTGGGTGGTGGGCAAGGACAAGCCCACCTACGACGAGATCTTCTA
CACGCTGTCCCCTGTCAACGGCAAGATCACGGGCGCCAACGCCAAGAAGGAGATGGTGAAGTCCAAGCTCCCCAA
CACCGTGCTAGGGAAGATCTGGAAGCTGGCCGACGTGGACAAGGACGGGCTGCTGGACGACGAGGAGTTCGCGCT
GGCCAACCACCTCATCAAGGTCAAGCTGGAGGGCCACGAGCTGCCTGCCGACCTGCCCCCGCACCTGGTGCCGCC
CTCCTCTGCCTGGGGCCAT**TGA**GCCCAGCCTCCAGGGCCCGGGCGCGTTTGCAGGCCAGTGGCCACTGTCCGGGC
TGTGATGGCACCAAGGCAGGTGGAGCACCAGGTACCACACAGCTGGGCTTCCCACCAGGCTTTCCCGCGGGGGTC
TCAGGGAGCTTCTCCCCAGCGCTGCTCGGAGTCTGCAGGAACTGGCCTTGTTCTCCTTAGCCCGTCACTCCATAC
AGTATTAGGTGAGGATGGATGCGGGCGCTGTCCTTGCCGGGAAGTCACTGTTGAAGTTGCAGTGGCTTGTTCACA
CCTGTGGGAAGAGAAGTGAAGACTTTCTCCTTGCATTAAAAAGTCTGAACTGTG

FIGURE 1267

ACTTACTGTCATTAAACCAGTATGATGATGGAGTGGGGAATGCCTCAGTTTCTCCCACCGCCGAGGGCCTATAGG
ACTACAGTTCCCAGGGCCCCGTGCTGCAGGCTAGCGGCCTCCCGCCAATGCTGGCCAGTAACCTGAGCATCCCTC
TCCAAAAGGTCACTTCAGGGCTCCTTGAGGGACAGCAACAGGGGGAGCCTAGAGCTGCTCAGCTTCGGTGGGGGT
GGAGTGAGGGCTGTGGCCCTGCCTCACACAACCTCCCTCACACCACCCCTGCAATGCAGGGTCGTGGGCCCCTTT
CTCAAAGACATCCAGTGGCCTCTGCTAGTTGCACCTCTTCCGTCAGGGGACACTGACTTGGCTCCTGCACCACAG
CCTGCAGGGGGTCCTGGTTCCTTTTGCCACAACACATGGCCTCCCATCCTGGTTCAGCCACTGACAGACAGCTCC
CCAATCCAGCACTCTGCCTGCTCCTTCTTGTATCCAACCCTCCAAAAGGCAGGGACAAGGGACAGAAGACCATGT
GCAAGGCCTGGAGGAAGTGGGTCAGCACAGGCCTGTGAACAAGCCAGGCCAGTCTTGGCGGCCCAAGTGGAGCTC
ACCTCTCCCTCCCCTCTCCTCTCCTCCCCTTGCCCTCAAAATAGCTCCCTGAGCTGCCAGGCCAAGACCCTCCCA
TTGCAGGGGAGGCGGGGCGTGCTGCCCAGAGCCAGGCTTTAAATCCCCTTGAGGCTGGGGAGCTCCACTCCTTGG
CTGGAGGCAGTGCTGAGGCCGCCGTCCCCTCTACCATCAGTCCAGTCCGGCCCGCCCTCCTGCAGCC**ATG**TCCCG
GCCCCTGTCAGACCAAGAGAAAAGAAAGCAAATCAGTGTGCGTGGCCTGGCCGGCGTGGAGAACGTGACTGAGCT
GAAAAAGAACTTCAACCGGCACCTGCATTTCACACTCGTAAAGGACCGCAATGTGGCCACCCCACGAGACTACTA
CTTTGCTCTGGCCCATACCGTGCGCGACCACCTCGTGGGGCGCTGGATCCGCACGCAGCAGCACTACTATGAGAA
GGACCCCAAGAGGATCTACTACCTGTCTTTAGAGTTCTATATGGGACGGACGCTACAGAACACCATGGTGAACCT
GGCCTTAGAGAATGCCTGTGACGAGGCCACCTACCAGCTGGGCCTGGACATGGAGGAGCTGGAGGAAATTGAGGA
GGATGCGGGGCTGGGCAACGGGGGCCTGGGCCGGCTGGCAGCCTGCTTTCTTGACTCCATGGCAACACTGGGCCT
GGCCGCCTATGGCTACGGGATTCGCTATGAGTTTGGGATTTTTAACCAGAAGATCTCCGGGGGCTGGCAGATGGA
GGAGGCCGATGACTGGCTTCGCTACGGCAACCCCTGGGAGAAGGCCCGGCCCGAGTTCACGCTACCTGTGCACTT
CTACGGCCATGTGGAGCACACCAGCCAGGGTGCCAAGTGGGTGGACACACAGGTGGTACTGGCCATGCCCTACGA
TACGCCCGTGCCTGGCTATCGCAACAATGTTGTCAACACCATGCGCCTCTGGTCTGCCAAGGCTCCCAATGACTT
CAACCTCAAGGACTTCAATGTCGGTGGCTACATCCAGGCTGTGTTGGACCGAAACCTGGCGGAGAACATCTCTCG
TGTCCTGTACCCCAATGATAATTTCTTCGAAGGGAAGGAGCTGCGGCTGAAGCAGGAGTATTTCGTGGTGGCTGC
CACCCTCCAGGACATCATCCGTCGCTTCAAGTCTTCCAAGTTCGGCTGCCGTGATCCCGTGCGCACGAACTTCGA
TGCCTTCCCAGATAAGGTGGCCATCCAGCTCAATGACACCCACCCCTCCCTGGCCATCCCCGAGCTGATGAGGAT
CCTGGTGGACCTGGAACGGATGGACTGGGACAAGGCGTGGGATGTGACAGTGAGGACCTGTGCCTACACCAACCA
CACGGTGCTGCCCGAGGCCCTGGAGCGCTGGCCGGTGCACCTCTTGGAGACGCTGCTGCCGCGGCACCTCCAGAT
CATCTACGAGATCAACCAGCGCTTCCTCAACCGGGTGGCGGCCGCATTCCCAGGGGACGTAGACCGGCTGCGGCG
CATGTCGCTGGTGGAGGAGGGCGCAGTGAAGCGCATCAACATGGCACACCTGTGCATCGCGGGGTCGCACGCCGT
CAACGGCGTGGCGCGCATCCACTCCGAGATCCTCAAGAAGACCATCTTCAAAGACTTCTATGAGCTGGAGCCTCA
TAAGTTCCAGAATAAGACCAACGGCATCACCCCTCGGCGCTGGCTGGTTCTGTGTAACCCCGGGCTGGCAGAGGT
CATTGCTGAGCGCATCGGGGAGGACTTCATCTCTGACCTGGACCAGCTGCGCAAACTGCTCTCCTTTGTGGATGA
TGAAGCTTTCATTCGGGATGTGGCCAAAGTGAAGCAGGAAAACAAGTTGAAGTTTGCTGCCTACCTAGAGAGGGA
ATACAAAGTCCACATCAACCCCAACTCACTCTTCGACATCCAGGTGAAGCGGATTCACGAATATAAACGACAGCT
CCTCAACTGCCTCCATGTCATCACCCTGTACAACCGCATCAAGAGGGAGCCCAATAAGTTTTTTGTGCCTCGGAC
TGTGATGATTGGAGGGAAGGCTGCACCTGGGTACCACATGGCCAAGATGATCATCAGACTCGTCACAGCCATCGG
GGATGTGGTCAACCATGACCCGGCAGTGGGTGACCGCCTCCGTGTCATCTTCCTGGAGAACTACCGAGTCTCACT
GGCCGAGAAAGTGATCCCAGCTGCAGACCTCTCTGAGCAGATCTCCACTGCGGGCACTGAAGCCTCAGGCACCGG
CAACATGAAGTTCATGCTCAACGGGGCTCTGACCATTGGCACCATGGACGGGGCCAATGTGGAGATGGCAGAAGA
GGCGGGAGAGGAAAACTTCTTCATCTTTGGCATGCGGGTGGAGGATGTGGATAAGCTTGACCAAAGAGGGTACAA
TGCCCAGGAGTACTACGATCGCATTCCTGAGCTTCGGCAGGTCATTGAGCAGCTGAGCAGTGGCTTCTTCTCCCC
CAAACAGCCCGACCTGTTCAAGGACATTGTCAATATGCTCATGCACCATGACCGGTTTAAAGTCTTCGCAGATTA
TGAAGACTACATTAAATGCCAGGAGAAAGTCAGCGCCTTGTACAAGAACCCAAGAGAGTGGACGCGGATGGTGAT
CCGGAACATAGCCACCTCTGGCAAGTTCTCCAGTGACCGCACCATTGCCCAGTATGCCCGGGAGATCTGGGGTGT
GGAGCCTTCCCGCCAGCGCCTGCCAGCCCCGGATGAGGCCATC**TGA**GCCTCCAGACCAGACCCCAAACCAGCCCT
TGAGTCTGTCACACTCTCTTGGGCCAGCCCCAGCACCTCATGCAGAGGGTGGGGTACTGGAGTTAGATCTCT

FIGURE 1268

AAATGAAGTGCGCGCTGCGACACCTCCCAGCCCACCGAACTCCGCCGCCATTTCCTCGCTTGGCCTAACGGTTCG
GCCAATCCCAGCGCGCATCAAGAAGGACTGAGGCTCCGCCAATCGGAGGCCGCCGATTTCGACCCTTCGCCTCGG
CCCGGCCCAATCCAGGCCCCGGCCCCGCCGCCCCCGGCCCGCCCCCGCGGTGCCCTCTCTCCTCCCTCTTTGTGC
GTCTCGCGCCGCCGCCGCCCGCCGCGTGAGAGGACGGGCTCCGCGCGCTCCGGCAGCGCATTCGGGTCCCCTCCC
CCCGGGAGGCTTGCGAAGGAGAAGCCGCCGCAGAGGAAAAGCAGGTGCCGGTGCCTGTCCCCGGGGGCGCC**ATG**G
CGACCGGAGCGAACGCCACGCCGTTGGACTTCCCAAGTAAGAAGCGGAAGAGGAGCCGCTGGAACCAAGACACAA
TGGAACAGAAGACAGTGATTCCAGGAATGCCTACAGTTATTCCCCCTGGACTTACTCGAGAACAAGAAAGAGCTT
ATATAGTGCAACTGCAGATAGAAGACCTGACTCGTAAACTGCGCACAGGAGACCTGGGCATCCCCCCTAACCCTG
AGGACAGGTCCCCTTCCCCTGAGCCCATCTACAATAGCGAGGGGAAGCGGCTTAACACCCGAGAGTTCCGCACCC
GCAAAAAGCTGGAAGAGGAGCGGCACAACCTCATCACAGAGATGGTTGCACTCAATCCGGATTTCAAGCCACCTG
CAGATTACAAACCTCCAGCAACACGTGTGAGTGATAAAGTCATGATTCCACAAGATGAGTACCCAGAAATCAACT
TTGTGGGGCTGCTCATCGGGCCCAGAGGGAACACCCTGAAGAACATAGAGAAGGAGTGCAATGCCAAGATTATGA
TCCGGGGGAAAGGGTCTGTGAAAGAAGGGAAGGTTGGGCGCAAAGATGGCCAGATGTTGCCAGGAGAAGATGAGC
CACTTCATGCCCTGGTTACTGCCAATACAATGGAGAACGTCAAAAAGGCAGTGGAACAGATAAGAAACATCCTGA
AGCAGGGTATCGAGACTCCAGAGGACCAGAATGATCTACGGAAGATGCAGCTTCGGGAGTTGGCTCGCTTAAATG
GGACCCTTCGGGAAGACGATAACAGGATCTTAAGACCCTGGCAGAGCTCAGAGACCCGCAGCATTACCAACACCA
CAGTGTGTACCAAGTGTGGAGGGGCTGGCCACATTGCTTCAGACTGTAAATTCCAAAGGCCTGGTGATCCTCAGT
CAGCTCAGGATAAAGCACGGATGGATAAAGAATATTTGTCCCTCATGGCTGAACTGGGTGAAGCACCTGTCCCAG
CATCTGTGGGCTCCACCTCTGGGCCTGCCACCACACCCCTGGCCAGCGCACCTCGTCCTGCTGCTCCCGCCAACA
ACCCACCTCCACCGTCTCTCATGTCTACCACCCAGAGCCGCCCACCCTGGATGAATTCTGGCCCTTCAGAGAGTC
GGCCCTACCACGGCATGCATGGAGGTGGTCCTGGTGGGCCCGGAGGTGGCCCCCACAGCTTCCCACACCCATTAC
CCAGCCTGACAGGTGGGCATGGTGGACATCCCATGCAGCACAACCCCAATGGACCCCCACCCCCTTGGATGCAGC
CACCACCACCACCGATGAACCAGGGCCCCCACCCTCCTGGGCACCATGGCCCTCCTCCAATGGATCAGTACCTGG
GAAGTACGCCTGTGGGCTCTGGGGTCTATCGCCTGCATCAAGGAAAAGGTATGATGCCGCCACCACCTATGGGCA
TGATGCCGCCGCCGCCGCCGCCTCCCAGTGGGCAGCCCCCACCCCCTCCCTCTGGTCCTCTTCCCCCATGGCAAC
AACAGCAGCAGCAGCCTCCGCCACCCCCTCCGCCCAGCAGCAGTATGGCTTCCAGTACCCCCTTGCCATGGCAGC
AAAATACGACGACTACCACCACGAGCGCTGGCACAGGGTCCATCCCGCCATGGCAACAGCAGCAGGCGGCTGCCG
CAGCTTCTCCAGGAGCCCCTCAGATGCAAGGCAACCCCACTATGGTGCCCCTGCCCCCCGGGGTCCAGCCGCCTC
TGCCGCCTGGGGCCCCTCCCCCTCCGCCCCGTAGCATCGAGTGTCTTCTTTGTCTTCTTTCTCTCCTCACCCAAC
TCCCTTTGCCTCTCCCCAAACCGGGCCGCCAGGATCCCTCCCCGCGGCGGCGATGGCCCGAGCCA**TGA**GAGTGAG
GACTTTCCGCGCCCATTGGTGACCCTTCCAGGCAGACAGCCTCAGCAACGCCCCTGGTGGACAGGATGGTTCGGC
AAAGCAGCCTGAGTTATTTTTGTGGACGGAATCGGAACACGCTGGCTCCATATCGTGAAATTTTTATTAATTTTT
TTCTTTTTCCTTTGTTACTTCTTTATCTTTTCCTTTCTTCAGACTCCGTCCAAGGAGATGCTCTCCCCGGTCTTC
TGCTGCAATTTAGATTCCTTTCCCTTCTCTCCAGTTCTCCTTCCCTTACCAAGGAGAGGGGAGCAAATGGTTTTG
GGCAAGGGCTTTGGCCATTCATGTCAAGCTGGTTGTGGGTTTTTCAAGGTGCCATAGCCACCCCCAAATATGTTT
GTTTAAAGCGTGGGGTTTTTTAATCTCTGCCACCCTTGTCAAGGGAGTCTTGTAAAGTTGCCGAGGGTAGGTTCA
TCTCCAGGTTTCGGGATTCCCATCCGTCCTGGCGATCCTGCCAGCAGTGGGTGGGCAGCCTGAGCTCCCTCGGGC
TCGCCTGCCAGCCTGGAGTTCTTCCTGTGCTCCTTGATCACCTGAGCTGCCTCAGATTCCATTTGGTCCTCTCCT
TCCTGGAAGGCTTCCTTTTATGTTTTGTTTTAATCCCAAATGTCTGAATGTTTTGCAGTGTGTAGGGGTTTGAGC
CCCTTGTTCATTCTCCTTCCTTTTTCCTCCCGCTTCCCTCTCCATGAAGTGATTCTGTTGACAATAATGTATACT
GCGCGTTCTCTTCACTGGTTTATCTGCAGAAATTTCTCTGGGCTTTTTTCGGTGTTAGATTCAACACTGCGCTAA
AGCGGGGATGTTCCATTGAATAAAAGAGCAGTGTGGTTTTCTGGG

FIGURE 1269

GCGCCGGGCC**ATG**GCGCTGCTGCGGGATGTGTCGCTGCAGGACCCGCGGGACCGCTTCGAGCTGCTGCAGCGCGT
GGGGGCCGGGACCTATGGCGACGTCTACAAGGCCCGCGACACGGTCACGTCCGAACTGGCCGCCGTGAAGATAGT
CAAGCTAGACCCAGGGGACGACATCAGCTCCCTCCAGCAGGAAATCACCATCCTGCGTGAGTGCCGCCACCCCAA
TGTGGTGGCCTACATTGGCAGCTACCTCAGGAATGACCGCTTGTGGATCTGCATGGAGTTCTGCGGAGGGGGCTC
CCTGCAGGAGATTTACCATGCCACTGGGCCCCTGGAGGAGCGGCAGATTGCCTACGTCTGCCGAGAGGCACTGAA
GGGGCTCCACCACCTGCATTCTCAGGGGAAGATCCACAGAGACATCAAGGGAGCCAACCTTCTCCTCACTCTCCA
GGGAGATGTCAAACTGGCTGACTTTGGGGTGTCAGGCGAGCTGACAGCGTCTGTGGCCAAGAGGAGGTCTTTCAT
TGGGACTCCCTACTGGATGGCTCCCGAGGTGGCTGCTGTGGAGCGCAAAGGTGGCTACAATGAGCTATGTGACGT
CTGGGCCCTGGGCATCACTGCCATTGAGCTGGGCGAGCTGCAGCCCCCTCTGTTCCACCTGCACCCCATGAGGGC
CCTGATGCTCATGTCGAAGAGCAGCTTCCAGCCGCCCAAACTGAGAGATAAGACTCGCTGGACCCAGAATTTCCA
CCACTTTCTCAAACTGGCCCTGACCAAGAATCCTAAGAAGAGGCCGACAGCAGAGAAGCTCCTGCAGCACCCGTT
CACGACTCAGCAGCTCCCTCGGGCCCTCCTCACACAGCTGCTGGACAAAGCCAGTGACCCTCATCTGGGGACCCC
CTCCCCTGAGGACTGTGAGCTGGAGACCTATGACATGTTTCCAGACACCATTCACTCCCGGGGGCAGCACGGCCC
AGCCGAGAGGACCCCCTCGGAGATCCAGTTTCACCAGGTGAAATTTGGCGCCCCACGCAGGAAGGAAACTGACCC
ACTGAATGAGCCGTGGGAGGAAGAGTGGACACTACTGGGAAAGGAAGAGTTGAGTGGGAGCCTGCTGCAGTCGGT
CCAGGAGGCCCTGGAGGAAAGGAGTCTGACTATTCGGTCAGCCTCAGAATTCCAGGAGCTGGACTCCCCAGACGA
TACCATGGGAACCATCAAGCGGGCCCCGTTCCTAGGGCCACTCCCCACTGACCCTCCAGCAGAGGAGCCTCTGTC
CAGTCCCCCAGGAACCCTGCCCCCACCTCCTTCAGGCCCCAACAGCTCCCCACTGCTGCCCACGGCCTGGGCCAC
CATGAAGCAGCGGGAGGATCCTGAGAGGTCATCCTGCCACGGGCTCCCCCCAACTCCCAAGGTGCATATGGGCGC
CTGCTTCTCCAAGGTCTTCAATGGCTGCCCCCTGCGGATCCACGCTGCTGTCACCTGGATTCACCCTGTTACTCG
GGACCAGTTCCTGGTGGTAGGGGCCGAGGAAGGCATCTACACACTCAACCTGCATGAACTGCATGAGGATACGCT
GGAGAAGCTGATTTCACATCGCTGCTCCTGGCTCTACTGCGTGAACAACGTGCTGCTGTCACTCTCAGGGAAATC
CACGCACATCTGGGCCCATGACCTCCCAGGCCTGTTTGAGCAGCGGAGGCTACAGCAACAGGTTCCCCTCTCCAT
CCCCACCAACCGCCTCACCCAGCGCATCATCCCCAGGCGCTTTGCTCTGTCCACCAAGATTCCTGACACCAAAGG
CTGCTTGCAGTGTCGTGTGGTGCGGAACCCCTACACGGGTGCCACCTTCCTGCTGGCCGCCCTGCCCACCAGCCT
GCTCCTGCTGCAGTGGTATGAGCCGCTGCAGAAGTTTCTGCTGCTGAAGAACTTCTCCAGCCCTCTGCCCAGCCC
AGCTGGGATGCTGGAGCCGCTGGTGCTGGATGGGAAGGAGCTGCCGCAGGTGTGTGTTGGGGCCGAGGGGCCTGA
GGGGCCCGGCTGCCGCGTCCTGTTCCATGTCCTGCCCCTGGAGGCTGGCCTGACGCCCGACATCCTCATCCCACC
TGAGGGGATCCCAGGCTCGGCCCAGCAGGTGATCCAGGTGGACAGGGACACAATCCTAGTCAGCTTTGAACGCTG
TGTGAGGATTGTCAACATGCAGGGCGAGCCCACGGCCACACTGGCACCTGAGCTGACCTTTGATTTCCCCATCGA
GACTGTGGTGTGCCTGCAGGACAGTGTGCTGGCCTTCTGGAGCCATGGGATGCAAGGCCGAAGCCTGGATACCAA
TGAGGTGACCCAGGAGATCACAGATGAAACAAGGATCTTCCGAGTGCTTGGGGCCCACAGAGACATCATCCTGGA
GAGCATTCCCACTGACAACCCAGAGGCGCACAGCAACCTCTACATCCTCACGGGCCACCAGAGCACCTAC**TAA**GA
GCAGCGGGCCTGTCCAGGGGCTCCCCGCCCCACCCCACGCCTTAGCTGCAGGCCCTTTTGGGCAAAGGGGCCCAT
CCTAGACCAGAGGAGCCCAGGCCCTGGCCCTGCTGGGGCTGAAGGTCAGAAGTAATCCTGAGAAATGTTTCAGGC
CTGGGGAGGGAGGGGAGCCCCCGACGCCTCTGCAATAACTGGACCAGGGGGAGCTGCTGTCACTCCCCCATCCCC
GAGGCAGCCCAGTCCCTAGTGCCCAAGGCAGGGACCCTGGGCCTGGGCCATCCATTCCATTTTGTTCCACATTTC
CTTTCTACTCTTTCTGCCAAGAGCCTGCCCCTGCATTTGTCCTGGGAAACACGGTATTTAAGAGAGAACTATATT
GGTATTAAAGCTGGTTTGTTTT

FIGURE 1270

TATATTTATGTATATGCACATACACACAAAATTAGGCGGGAGTGGTGGCGCACGCCTGTGATCACAGCTACTCGG
GAGGCTGAGGCACGAGAATCGCTTGAGCCCGTGAAGTCGAGGCTGCAGTGAGCCCAGATCGAGCCACTGCATTCC
AGCCTGGGCGAAAGAGAAAGACCGTGTCTCAAAACAAACAAACAAAAGCTACTCTTAGCACGTGTTAGAGTATCT
CGCGGGCGGAAGTGGGAAACGAGTGCTGCACACAGACAACCTGATCTTTTTCCTCATAACTTGCCGACCGACCCG
TGACAGCAAAACCGGCAGAAGCTCGGCGACCTCCCACCCCGAGTCTGCAGGTAGCCGCCGCCCACCGCCCGCCGT
C**ATG**GGGCTGAAGGCCGCCCAGAAGACGCTGTTCCCGCTGCGCTCCATCGACGACGTGGTGCGCCTGTTTGCTGC
CGAGCTGGGCCGAGAGGAGCCGGACCTGGTGCTCCTTTCCTTGGTGCTGGGCTTCGTGGAGCATTTTCTGGCTGT
CAACCGCGTCATCCCTACCAACGTTCCCGAGCTCACCTTCCAGCCCAGCCCCGCCCCCGACCCGCCTGGCGGCCT
CACCTACTTTCCCGTGGCCGACCTGTCTATCATCGCCGCCCTCTATGCCCGCTTCACCGCCCAGATCCGAGGCGC
CGTCGACCTGTCCCTCTATCCTCGAGAAGGGGGTGTCTCCAGCCGTGAGCTGGTGAAGAAGGTCTCCGATGTCAT
ATGGAACAGCCTCAGCCGCTCCTACTTCAAGGATCGGGCCCACATCCAGTCCCTCTTCAGCTTCATCACAGGTTG
GAGCCCAGTAGGCACCAAATTGGACAGCTCCGGTGTGGCCTTTGCTGTGGTTGGGGCCTGCCAGGCCCTGGGTCT
CCAGGATGTCCACCTCGCCCTGTCTGAGGATCATGCCTGGGTAGTGTTTGGGCCCAATGGGGAGCAGACAGCTGA
GGTCACCTGGCACGGCAAGGGCAACGAGGACCGCAGGGGCCAGACAGTCAATGCCGGTGTGGCTGAGCGGAGCTG
GCTGTACCTGAAAGGATCATACATGCGCTGTGACCGCAAGATGGAGGTGGCGTTCATGGTGTGTGCCATCAACCC
TTCCATTGACCTGCACACCGACTCGCTGGAGCTTCTGCAGCTGCAGCAGAAGCTGCTCTGGCTGCTCTATGACCT
GGGACATCTGGAAAGGTACCCCATGGCCTTAGGGAACCTGGCAGATCTAGAGGAGCTGGAGCCCACCCCTGGCCG
GCCAGACCCACTCACCCTCTACCACAAGGGCATTGCCTCAGCCAAGACCTACTATCGGGATGAACACATCTACCC
CTACATGTACCTGGCTGGCTACCACTGTCGCAACCGCAATGTGCGGGAAGCCCTGCAGGCCTGGGCGGACACGGC
CACTGTCATCCAGGACTACAACTACTGCCGGGAAGACGAGGAGATCTACAAGGAGTTCTTTGAAGTAGCCAATGA
TGTCATCCCCAACCTGCTGAAGGAGGCAGCCAGCTTGCTGGAGGCGGGCGAGGAGCGGCCGGGGGAGCAAAGCCA
GGGCACCCAGAGCCAAGGTTCCGCCCTCCAGGACCCTGAGTGCTTCGCCCACCTGCTGCGATTCTACGACGGCAT
CTGCAAATGGGAGGAGGGCAGTCCCACGCCTGTGCTGCACGTGGGCTGGGCCACCTTTCTTGTGCAGTCCCTAGG
CCGTTTTGAGGGACAGGTGCGGCAGAAGGTGCGCATAGTGAGCCGAGAGGCCGAGGCGGCCGAGGCCGAGGAGCC
GTGGGGCGAGGAAGCCCGGGAAGGCCGGCGGCGGGGCCCACGGCGGGAGTCCAAGCCAGAGGAGCCCCCGCCGCC
CAAGAAGCCAGCACTGGACAAGGGCCTGGGCACCGGCCAGGGTGCAGTGTCAGGACCCCCCCGGAAGCCTCCTGG
GACTGTCGCTGGCACAGCCCGAGGCCCTGAAGGTGGCAGCACGGCTCAGGTGCCAGCACCCGCAGCATCACCACC
GCCGGAGGGTCCAGTGCTCACTTTCCAGAGTGAGAAGATGAAGGGCATGAAGGAGCTGCTGGTGGCCACCAAGAT
CAACTCGAGCGCCATCAAGCTGCAACTCACGGCACAGTCGCAAGTGCAGATGAAGAAGCAGAAAGTGTCCACCCC
TAGTGACTACACTCTGTCTTTCCTCAAGCGGCAGCGCAAAGGCCTC**TGA**ACTACTGGGGACTTCGGACCGCTTGT
GGGGACCCAGGCTCCGCCCTTAGTCCCCCAACTCTGAGCCCATGTTCTGCCCCCAGCCCAAAGGGGACAGGCCTC
ACCTCTACCCAAACCCTAGGTTCCCGGTCCCGAGTACAGTCTGTATCAAACCCACGATTTTCTCCAGCTCAGAAC
CCAGGGCTCTGCCCCAGTCGTTAGAATATAGGTCTCTTCTCCCAGAATCCCAGCCGGCCAATGGAAACCTCACGC
TGGGTCCTAATTACCAGTCTTTAAAGGCCCAGCCCCTAGAAACCCAAGCTCCTCCTCGGAACCGCTCACCTAGAG
CCAGACCAACGTTACTCAGGGCTCCTCCCAGCTTGTAGGAGCTGAGGTTTCACCCTTAACCCAAGGAGCACAGGT
CCCACCTCCAGCCCGGGAGCCTAGGACCACTCAGCCCCTAGGAGTATATTTCCGCACTTCAGAATTCCATATCTT
GCGAATCCAAGCTCCCTGCCCCAAATAACTTCAGTCCTGCTCCAGAATTTGGAAATCCTAGTTTCCTCTCCTTCG
TATCCCGAGTCTGGGACACAAAACTCCGCCCCCAGCCTATGAGCATCCTGAGCCCCGCCCTCTTCCTGACGAAAC
TGGCCCCGGATCAGAGCAGGACCTCCCTTCCGACCCTCTGGGAACCTCCCAGAGGTCCAGCCCATCTCGGAGCAT
CCCGGAGGAAATCTGCAGAGGGTTAGGAGTGGGTGACAAGAGCCTGATCTCTTCCTGTTTTGTACATAGATTTAT
TTTTCAGTTCCAAGAAAGATGAATACATTTTGTT

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FIGURE 1271

GGCACCAGTCGGAGGGGCGGGGCTGGGAGGGGCTCCTCCCTACCGCCCCCAATTCCGCCCTGCCCCCGCCGCGGC
GGCGCTAGCCGCCACTGAGGGACCGACCCTATAAAGGCCGCTCCGCGAGGGGTGCGCAGCATTCGGCAGAGGGCG
CTTCGACGGGCTGGGCTGTGCGCCTGCGCAGTGTGGGTCGCTCCCGATTCCCTGCCCCGGCCGGCCCCGCCTCGG
CTCCGCACCCTCGCCCCGCTCTCAGCCGCCGCTCTGCCCCGCAGCAGCCAGCCCCGTGTCCGGCAGT**ATG**TTCAG
CTGGGTCAGCAAGGATGCCCGCCGCAAGAAGGAGCCGGAGCTCTTCCAGACGGTGGCTGAGGGGCTGCGGCAGCT
GTACGCGCAGAAGCTGCTACCCCTGGAGGAGCACTACCGCTTCCACGAGTTCCACTCGCCCGCGCTGGAGGACGC
TGACTTCGACAACAAGCCTATGGTGCTCCTCGTGGGGCAGTACAGCACGGGCAAGACCACCTTCATCCGACACCT
GATCGAGCAGGACTTCCCGGGGATGCGCATCGGGCCCGAGCCCACCACCGACTCCTTCATCGCCGTCATGCACGG
CCCCACTGAGGGCGTGGTGCCGGGCAACGCGCTCGTGGTGGACCCGCGGCGCCCCTTCCGCAAGCTCAACGCGTT
TGGCAACGCTTTCCTCAACAGGTTCATGTGTGCCCAGCTGCCCAACCCCGTCCTGGACAGCATCAGCATCATCGA
CACCCCCGGGATCCTGTCTGGAGAGAAGCAGCGGATCAGCAGAGGCTATGACTTTGCAGCCGTCCTGGAGTGGTT
CGCGGAGCGTGTGGACCGCATCATCCTGCTCTTCGACGCCCACAAGCTGGACATCTCCGATGAGTTCTCGGAAGT
GATCAAGGCTCTGAAGAACCATGAGGACAAGATCCGCGTGGTGCTGAACAAGGCAGACCAGATCGAGACGCAGCA
GCTGATGCGGGTGTACGGGGCCCTCATGTGGTCCCTGGGCAAGATCATCAACACCCCCGAGGTGGTCAGGGTCTA
CATCGGCTCCTTCTGGTCCCACCCGCTCCTCATCCCCGACAACCGCAAGCTCTTTGAGGCCGAGGAGCAGGACCT
CTTCAAGGACATCCAGTCACTGCCCCGAAACGCCGCCCTCAGGAAGCTCAATGACCTGATCAAGCGGGCACGGCT
GGCCAAGGTTCACGCCTACATCATCAGCTCCCTCAAGAAAGAGATGCCCAATGTCTTTGGTAAAGAGAGCAAAAA
GAAAGAGCTGGTGAACAACCTCGGAGAGATCTACCAGAAGATTGAGCGCGAGCACCAGATCTCCCCTGGGGACTT
CCCGAGCCTCCGCAAGATGCAGGAACTCCTGCAGACCCAGGACTTCAGCAAGTTCCAGGCGCTGAAGCCCAAGCT
GCTGGACACGGTGGATGACATGCTGGCCAACGACATCGCGCGGCTGATGGTGATGGTGCGGCAGGAGGAGTCCCT
GATGCCTTCCCAGGTGGTCAAGGGCGGCGCCTTTGACGGCACCATGAACGGGCCGTTCGGGCACGGCTACGGCGA
GGGGGCCGGCGAGGGCATCGACGACGTGGAGTGGGTGGTGGGCAAGGACAAGCCCACCTACGACGAGATCTTCTA
CACGCTGTCCCCTGTCAACGGCAAGATCACGGGCGCCAACGCCAAGAAGGAGATGGTGAAGTCCAAGCTCCCCAA
CACCGTGCTAGGGAAGATCTGGAAGCTGGCCGACGTGGACAAGGACGGGCTGCTGGACGACGAGGAGTTCGCGCT
GGCCAACCACCTCATCAAGGTCAAGCTGGAGGGCCACGAGCTGCCTGCCGACCTGCCCCCGCACCTGGTGCCGCC
CTCCTCTGCCTGGGGCCAT**TGA**GCCCAGCCTCCAGGGCCCGGGCGCGTTTGCAGGCCAGTGGCCACTGTCCGGGC
TGTGATGGCACCAAGGCAGGTGGAGCACCAGGTACCACACAGCTGGGCTTCCCACCAGGCTTTCCCGCGGGGGTC
TCAGGGAGCTTCTCCCCAGCGCTGCTCGGAGTCTGCAGGAACTGGCCTTGTTCTCCTTAGCCCGTCACTCCATAC
AGTATTAGGTGAGGATGGATGCGGGCGCTGTCCTTGCCGGGAAGTCACTGTTGAAGTTGCAGTGGCTTGTTCACA
CCTGTGGGAAGAGAAGTGAAGACTTTCTCCTTGCATTAAAAAGTCTGAACTGTG

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FIGURE 1272A

ACGGGGATCGCCGGCGGGCGGCAAGCGGAGGCGGCCCAGGCCCGGCGGTCTCCGAG**ATG**TCACGATGGCTGTGGC
CATGGTCAAACTGTGTGAAAGAGCGGGTCTGCCGCTACTTGCTGCACCACTACTTAGGTCACTTCTTCCAAGAGC
ACCTCAGCCTGGACCAGCTCAGCCTCGATCTGTACAAGGGCAGCGTTGCCCTGCGAGACATCCACCTGGAAATCT
GGTCTGTGAACGAGGTGCTGGAGTCAATGGAGTCACCGCTGGAGCTGGTGGAAGGCTTCGTGGGCTCCATCGAGG
TGGCCGTGCCCTGGGCTGCTCTGCTCACCGACCACTGCACAGTGCGCGTGTCCGGCCTCCAGCTCACCTTGCAGC
CCCGCCGGGGTCCAGCGCCAGGGGCTGCCGACTCACAGAGCTGGGCCTCATGCATGACCACAAGCCTGCAGCTGG
CCCAGGAGTGTCTGCGGGATGGGCTACCGGAGCCCTCTGAGCCACCACAGCCCCTGGAGGGGCTGGAGATGTTTG
CCCAGACCATTGAGACTGTGCTTCGGAGGATCAAAGTGACCTTCCTGGACACTGTCGTGAGGGTGGAGCACTCTC
CGGGTGATGGGGAACGTGGTGTGGCCGTCGAGGTCCGTGTGCAGAGACTGGAGTACTGTGATGAGGCAGTGCGGG
ACCCAAGCCAGGCGCCGCCGGTGGACGTGCATCAGCCGCCTGCCTTCCTGCACAAGCTGCTGCAGCTGGCAGGGG
TCCGCCTGCACTACGAGGAGCTCCCGGCACAGGAAGAGCCTCCAGAGCCCCCCTTGCAGATCGGCAGCTGCTCAG
GGTACATGGAGCTGATGGTGAAGTTGAAGCAAAATGAGGCCTTCCCTGGCCCCAAGTTGGAGGTGGCGGGACAGC
TGGGCTCCCTGCACCTGCTCCTGACCCCGAGGCAGCTCCAGCAACTTCAGGAACTGCTCAGCGCCGTGAGCCTTA
CAGACCACGAGGGCCTGGCTGACAAGCTGAACAAGAGCCGCCCGCTAGGTGCCGAAGACCTGTGGCTGATTGAGC
AGGACCTGAACCAGCAGCTGCAGGCAGGGGCAGTGGCTGAGCCCCTCAGCCCAGACCCCCTTACCAACCCCCTTC
TCAACCTGGATAACACTGACCTCTTCTTCTCCATGGCTGGCCTCACAAGCAGTGTGGCCTCAGCCCTCTCTGAGC
TCTCCCTCTCCGATGTAGACCTGGCCTCCTCTGTGCGCAGCGACATGGCCTCCCGCCGGCTCTCTGCCCAGGCCC
ACCCAGCTGGCAAGATGGCCCCCAACCCCCTCCTGGACACCATGCGCCCTGACTCGCTGCTGAAGATGACCTTGG
GGGGTGTGACCCTGACCTTGCTTCAGACGTCTGCCCCATCTTCCGGACCACCTGACCTCGCCACGCACTTTTTCA
CCGAGTTTGATGCCACCAAGGATGGGCCCTTCGGTTCCCGAGACTTCCATCACCTTCGACCACGCTTCCAGAGGG
CCTGTCCCTGTAGCCATGTTCGGCTAACGGGCACAGCCGTGCAGCTGTCCTGGGAGCTGCGGACGGGCAGTCGGG
GCCGGCGGACAACCAGCATGGAAGTGCACTTCGGGCAGCTGGAGGTGCTGGAGTGTCTGTGGCCCCGGGGCACCT
CTGAGCCTGAGTACACGGAGATCCTGACCTTTCCTGGTACGCTGGGCTCCCAGGCCTCAGCTCGGCCCTGCGCCC
ATCTGCGCCACACACAGATCCTGCGCCGTGTGCCTAAGAGCCGACCCCGGCGCTCAGTTGCCTGCCATTGCCACT
CAGAACTGGCCCTGGACCTGGCCAACTTCCAGGCGGACGTGGAGCTGGGGGCCCTGGACCGGCTGGCCGCCCTAC
TGCGCCTGGCCACCGTACCTGCTGAGCCTCCAGCCGGCCTGCTGACAGAGCCCCTGCCGGCGATGGAGCAGCAGA
CGGTATTTCGGCTCTCTGCACCCCGGGCCACGCTGCGGCTGCGCTTCCCCATTGCCGACCTGCGGCCTGAGCCGG
ACCCCTGGGCGGGCCAGGCCGTGCGGGCTGAGCAGCTTCGGCTGGAGCTGAGTGAGCCCCAGTTCCGGTCAGAGC
TTAGCAGTGGGCCTGGTCCCCCAGTCCCCACCCACCTGGAACTCACCTGCTCCGACCTACATGGTATCTATGAAG
ATGGAGGGAAGCCACCTGTCCCTTGCCTGCGTGTCTCCAAAGCCCTGGACCCCAAGAGCACTGGGCGCAAGTACT
TCCTGCCCCAGGTAGTGGTGACTGTGAACCCCCAGTCCAGCAGCACACAGTGGGAGGTGGCCCCGGAGAAGGGAG
AGGAACTGGAGCTGTCAGTGGAGAGTCCCTGTGAGCTGCGGGAACCTGAGCCCTCGCCCTTCTCCTCTAAGAGGA
CCATGTATGAGACAGAGGAGATGGTGATCCCTGGAGACCCTGAGGAGATGAGGACGTTCCAGAGCCGGACCCTGG
CACTGTCCCGCTGCAGCCTGGAAGTGATCCTGCCCAGTGTCCACATCTTTCTGCCCAGCAAGGAGGTCTACGAGA
GCATCTACAACAGGATCAACAACGACCTGCTCATGTGGGAGCCTGCAGATCTGCTTCCCACCCCCGACCCCGCCG
CCCAGCCCTCGGGCTTCCCCGGCCCCTCAGGCTTCTGGCACGACAGCTTTAAGATGTGCAAGTCAGCCTTCAAGC
TGGCCAACTGCTTTGATCTCACCCCAGACTCGGACTCGGATGACGAGGATGCCCACTTCTTCTCAGTGGGGGCAT
CAGGTGGCCCACAGGCCGCTGCCCCTGAGGCCCCAAGTCTTCACTTGCAGAGCACCTTCTCTACACTGGTGACAG
TGCTGAAGGGGCGGATCACAGCCCTCTGTGAGACCAAGGATGAGGGTGGGAAGCGGCTGGAGGCTGTGCACGGGG
AGCTGGTGCTGGACATGGAGCACGGTACCCTCTTCAGCGTCTCCCAGTACTGTGGCCAGCCAGGACTTGGCTACT
TCTGTCTGGAAGCTGAAAAGGCAACACTCTACCACCGAGCGGCCGTGGATGACTACCCGCTGCCCAGTCACCTGG
ACCTTCCCAGTTTCGCTCCCCCGGCTCAGCTGGCCCCAACCATCTACCCATCGGAGGAAGGGGTGACCGAGCGGG
GAGCCTCGGGCCGCAAGGGCCAGGGCCGGGGACCCCACATGTTGTCCACTGCTGTGCGCATCCACCTGGACCCCC
ACAAGAATGTGAAGGAGTTCCTGGTGACACTGCGGTTGCACAAAGCCACCTTGCGCCACTACATGGCCCTGCCCG
AGCAGAGCTGGCATTCCCAGTTGTTGGAGTTCCTAGACGTGCTGGATGACCCTGTGCTGGGCTACCTGCCCCCGA
CGGTCATCACCATCCTGCACACACACCTGTTCTCCTGCTCTGTGGACTATAGGCCACTCTACCTCCCAGTGCGTG
TCCTCATCACCGCGGAGACCTTCACTCTCTCCAGCAACATCATCATGGACACCTCCACCTTCCTGCTCAGGTTCA
TCCTCGATGACTCCGCCTTGTACCTGTCCGACAAGTGTGAGGTGGAGACCCTGGACCTGCGGCGAGATTATGTCT

FIGURE 1272B

GTGTTTTGGATGTTGACCTCTTGGAACTTGTGATTAAAACCTGGAAAGGGAGCACCGAGGGCAAACTGAGCCAGC
CACTATTCGAGCTGCGCTGCTCCAACAATGTGGTACACGTGCACAGCTGTGCCGACTCCTGTGCCCTGCTGGTCA
ACCTGCTCCAGTACGTAATGAGCACAGGCGATCTGCACCCCCCACCCCGGCCCCCCAGCCCCACGGAGATCGCCG
GCCAGAAGCTCTCGGAGAGTCCTGCCTCTCTGCCCTCGTGCCCCCCAGTGGAGACGGCCCTCATCAACCAGCGTG
ACCTGGCCGACGCCCTCCTGGACACCGAGCGCAGCCTACGGGAGCTGGCCCAGCCTTCAGGTGGCCACCTCCCTC
AGGCGTCGCCCATCTCCGTCTACCTATTCCCAGGTGAACGGAGTGGGGCCCCACCCCCTTCACCACCTGTCGGGG
GCCCTGCTGGCAGCTTAGGGTCATGCTCAGAGGAGAAGGAAGATGAAAGGGAAGAGGAGGGCGATGGAGACACCC
TGGACAGTGATGAGTTCTGCATCCTTGATGCTCCCGGCCTGGGCATCCCGCCCCGAGATGGGGAGCCTGTGGTGA
CACAGCTGCATCCCGGCCCCATCGTTGTGAGGGACGGTTACTTCTCACGGCCGATCGGCAGCACGGACTTGCTGC
GGGCACCTGCCCATTTCCCAGTGCCCAGCACTCGGGTGGTGCTACGTGAGGTCTCCCTCGTCTGGCACCTCTATG
GGGGCCGAGACTTTGGCCCCCACCCCGGCCACAGGGCAAGAACTGGCCTCTCAGGTCCCAGGAGCTCCCCTTCCC
GCTGCTCTGGCCCCAACCGGCCCCAGAACTCATGGCGCACGCAGGGGGGCAGCGGGCGGCAGCACCATGTCCTCA
TGGAGATCCAGCTGAGCAAGGTAAGCTTCCAGCACGAGGTGTACCCAGCGGAGCCAGCCACAGGCCCTGCGGCCC
CCAGCCAGGAGCTGGAGGAGCGACCGCTGTCCCGTCAGGTGTTCATCGTGCAGGAGCTGGAGGTCCGAGACCGGC
TCGCCTCCTCCCAGATCAACAAGTTCCTGTACCTACACACGAGTGAGCGGATGCCGCGACGTGCCCACTCTAACA
TGCTCACCATCAAAGCGCTGCATGTGGCCCCCACTACCAACCTGGGTGGGCCTGAGTGCTGTCTCCGCGTCTCGC
TGATGCCCCTGCGGCTCAATGTGGACCAGGATGCCCTCTTCTTCCTCAAGGACTTCTTCACTAGTCTGGTGGCCG
GCATCAACCCCGTGGTCCCAGGGGAGACCTCCGCTGAGGCTCGCCCCGAGACTCGAGCCCAGCCCAGCAGCCCCC
TGGAAGGGCAGGCCGAAGGCGTAGAGACCACTGGTTCGCAGGAGGCCCCAGGAGGTGGACACAGCCCCTCCCCTC
CTGACCAGCAGCCCATCTACTTCAGAGAGTTCCGCTTCACGTCTGAGGTCCCCATCTGGCTGGATTACCATGGCA
AGCACGTCACGATGGACCAGGTGGGCACTTTTGCTGGCCTCCTCATCGGCCTGGCCCAACTCAACTGCTCCGAGC
TGAAGCTAAAGCGGCTCTGTTGCAGGCACGGGCTCCTGGGTGTGGACAAGGTGCTGGGCTATGCCCTCAACGAGT
GGCTGCAGGACATCCGCAAGAACCAGCTGCCCGGCCTGCTGGGAGGCGTGGGCCCCATGCACTCGGTTGTCCAGC
TCTTCCAAGGGTTCCGGGACCTGCTGTGGCTGCCCATTGAGCAGTACAGGAAGGATGGCCGCCTCATGCGGGGGC
TGCAGCGAGGGGCTGCCTCCTTTGGCTCATCCACAGCCTCTGCCGCCCTGGAACTCAGCAACCGGTTGGTACAGG
CTATCCAGGCCACAGCTGAGACCGTGTATGACATCCTGTCCCCGGCAGCCCCCGTCTCCCGCTCCCTGCAGGATA
AGCGCTCTGCGCGGAGGCTGCGCAGGGGCCAGCAGCCTGCCGACCTGCGGGAGGGTGTGGCCAAGGCCTACGACA
CAGTGCGAGAGGGCATCTTGGATACAGCTCAGACCATCTGTGACGTGGCATCGCGGGGCCATGAGCAGAAGGGGC
TGACGGGCGCCGTGGGGGGCGTGATCCGCCAGCTGCCCCCGACTGTGGTGAAGCCGCTCATCCTGGCCACGGAGG
CCACGTCCAGCCTGCTCGGGGGCATGCGCAACCAGATTGTCCCCGACGCCCACAAGGACCACGCCCTCAAGTGGC
GCTCGGACAGTGCCCAAGAC**TGA**GCCTGGGGTGCCCGGCACCCAGAGGGTGCTGCCCACCATGCTCCTGAGCCTC
CCAAGAGCTGCAGCCCACGGGCCCGGCCCGGCCTGGCCCTTCAGGGGATGGCCACTGTGAAGGACGCCTTCCCAG
CCTGCCCGTTGCCAATCTGCTGTGAGAGGGGGGCCTCCCTGCCTTGGGGCCTTAGCCCTGGCTCTGCACTTTTCC
TCCGGGGAGAAAGGACACTGCCCCTCCCCCGACCTGGGCCCACACTGCTGCCTTCTCCCAGGACGGAGGCTTTTG
GACCCTCGGACCCCATCCCACTCAGCCAAGTGTCTTTCTGTGTCTGGGGGGAGGAGGGGATGATATCCGTGTGGT
TCGATGTATTATTTTTAAGCTCCGTGAGTGCGTGGGTCAGTGTCTGCATGAAGTGGAATAAACTGCCCACCGCC

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FIGURE 1273

AAGGAGAGAGGGAGGGCGGAGGGCGGAGGGGCGGCGGGAGGAGGGCGGGGAGGAGCGCTCTTCCTGGTTGGGCCC
TGCCCTGAGCTGCCACCGGGAAGCCAGCCTCAGGGACTGCAGCGACCCCCAAACACCCCTCCCCCAGGATGTCGG
AGGAGATCATCACGCCGGTGTACTGCACTGGGGTGTCAGCCCAAGTGCAGAAGCAGCGGGCCAGGGAGCTGGGCC
TGGGCCGCCATGAGAATGCCATCAAGTACCTGGGCCAGGATTATGAGCAGCTGCGGGTGCGATGCCTGCAGAGTG
GGACCCTCTTCCGTGATGAGGCCTTCCCCCCGGTACCCCAGAGCCTGGGTTACAAGGACCTGGGTCCCAATTCCT
CCAAGACCTATGGCATCAAGTGGAAGCGTCCCACGGAACTGCTGTCAAACCCCCAGTTCATTGTGGATGGAGCTA
CCCGCACAGACATCTGCCAGGGAGCACTGGGGGACTGCTGGCTCTTGGCGGCCATCGCCTCCCTCACTCTCAACG
ACACCCTCCTGCACCGAGTGGTTCCGCACGGCCAGAGCTTCCAGAATGGCTATGCCGGCATCTTCCATTTCCAGC
TGTGGCAATTTGGGGAGTGGGTGGACGTGGTCGTGGATGACCTGCTGCCCATCAAGGACGGGAAGCTAGTGTTCG
TGCACTCTGCCGAAGGCAACGAGTTCTGGAGCGCCCTGCTTGAGAAGGCCTATGCCAAGGTAAATGGCAGCTACG
AGGCCCTGTCAGGGGGCAGCACCTCAGAGGGCTTTGAGGACTTCACAGGCGGGGTTACCGAGTGGTACGAGTTGC
GCAAGGCTCCCAGTGACCTCTACCAGATCATCCTCAAGGCGCTGGAGCGGGGCTCCTGCTGGGCTGCTCCATAGA
CATCTCCAGCGTTCTAGACATGGAGGCCATCACTTTCAAGAAGTTGGTGAAGGGCCATGCCTACTCTGTGACCGG
GGCCAAGCAGGTGAACTACCGAGGCCAGGTGGTGAGCCTGATCCGGATGCGGAACCCCTGGGGCGAGGTGGAGTG
GACGGGAGCCTGGAGCGACAGCTCCTCAGAGTGGAACAACGTGGACCCATATGAACGGGACCAGCTCCGGGTCAA
GATGGAGGACGGGGAGTTCTGGATGTCATTCCGAGACTTCATGCGGGAGTTCACCCGCCTGGAGATCTGCAACCT
CACACCCGACGCCCTCAAGAGCCGGACCATCCGCAAATGGAACACCACACTCTACGAAGGCACCTGGCGGCGGGG
GAGCACCGCGGGGGGCTGCCGAAACTACCCAGCCACCTTCTGGGTGAACCCTCAGTTCAAGATCCGGCTGG**ATG**A
GACGGATGACCCGGACGACTACGGGGACCGCGAGTCAGGCTGCAGCTTCGTGCTCGCCCTTATGCAGAAGCACCG
TCGCCGCGAGGCCGCTTCGGCCGCGACATGGAGACTATTGGCTTCGCGGTCTACGAGGTCCCTCCGGAGCTGGTC
GCGAGCCGGCCGTACACTTGAAGCGTGACTTCTTCCTGGCCAATGCGTCTCGGGCGCGCTCAGAGCAGTTCATCA
ACCTGCGAGAGGTCAGCACCCGCTTCCGCCTGCCACCCGGGGAGTATGTGGTGGTGCCCTCCACCTTCGAGCCCA
ACAAGGAGGGCGACTTCGTGCTGCGCTTCTTCTCAGAGAAGAGTGCTGGGACTGTGGAGCTGGATGACCAGATCC
AGGCCAATCTCCCCGATGAGCAAGTGCTCTCAGAAGAGGAGATTGACGAGAACTTCAAGGCCCTCTTCAGGCAGC
TGGCAGGGGAGGACATGGAGATCAGCGTGAAGGAGTTGCGGACAATCCTCAATAGGATCATCAGCAAACACAAAG
ACCTGCGGACCAAGGGCTTCAGCCTAGAGTCGTGCCGCAGCATGGTGAACCTCATGGATCGTGATGGCAATGGGA
AGCTGGGCCTGGTGGAGTTCAACATCCTGTGGAACCGCATCCGGAATTACCTGTCCATCTTCCGGAAGTTTGACC
TGGACAAGTCGGGCAGCATGAGTGCCTACGAGATGCGGATGGCCATTGAGTCGGCAGGCTTCAAGCTCAACAAGA
AGCTGTACGAGCTCATCATCACCCGCTACTCGGAGCCCGACCTGGCGGTCGACTTTGACAATTTCGTTTGCTGCC
TGGTGCGGCTAGAGACCATGTTCCGATTTTTCAAAACTCTGGACACAGATCTGGATGGAGTTGTGACCTTTGACT
TGTTTAAGTGGTTGCAGCTGACCATGTTTGCA**TGA**GGCAGGGACTCGGTCCCCCTTGCCGTGCTCCCCTCCCTCC
TCGTCTGCCAAGCCTCGCCTCCTACCACACCACACCAGGCCACCCCAGCTGCAAGTGCCTTCCTTGGAGCAGAGA
GGCAGCCTCGTCCTCCTGTCCCCTCTCCTCCCAGCCACCATCGTTCATCTGCTCCGGGCAGAACTGTGTGGCCCC
TGCCTGTGCCAGCCATGGGCTCGGGATGGACTCCCTGGGCCCCACCCATTGCCAAGCCAGGAAGGCAGCTTTCGC
TTGTTCCTGCCTCGGGACAGCCCCGGGTTTCCCCAGCATCCTGATGTGTCCCCTCTCCCCACTTCAGAGGCCACC
CACTCAGCACCACCGGCCTGGCCTTGCCTGCAGACTATAAACTATAACCACTAGCTCGACACAGTCTGCAGTCCA
GGCGTGTGGAGCCGCCTCCCGGCTCGGGGAGGCCCCGGGGCTGGGAACGCCTGTGCCTTCCTGCGCCGAAGCCAA
CGCCCCCTCTGTCCTTCCCTGGCCCTGCTGCCGACCAGGAGCTGCCCAGCCTGTGGGCGGTCGGCCTTCCCTCCT
TCGCTCCTTTTTTATATTAGTGATTTTAAAGGGGACTCTTCAGGGACTTGTGTACTGGTTATGGGGGTGCCAGAG
GCACTAGGCTTGGGGTGGGGAGGTCCCGTGTTCCATATAGAGGAACCCCAAATAATAAAAGGCCCCACATCTGTC
TGTG

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FIGURE 1274

GTTCCGGTTCGCAGGGGGTGGGGAGTGTTGTTAACCGGAGGGGCAGCCGCAGTCGCGCGGATTGAGCGGGCTCGC
GGCGCTGGGTTCCTGGTCTCCGGGCCAGGGCA**ATG**TTCCGCACGGCAGTGATGATGGCGGCCAGCCTGGCGCTGA
CCGGGGCTGTGGTGGCTCACGCCTACTACCTCAAACACCAGTTCTACCCCACTGTGGTGTACCTGACCAAGTCCA
GCCCCAGCATGGCAGTCCTGTACATCCAGGCCTTTGTCCTTGTCTTCCTTCTGGGCAAGGTGATGGGCAAGGTGT
TCTTTGGGCAACTGAGGGCAGCAGAGATGGAGCACCTTCTGGAACGTTCCTGGTACGCCGTCACAGAGACTTGTC
TGGCCTTCACCGTTTTTCGGGATGACTTCAGCCCCCGCTTTGTTGCACTCTTCACTCTTCTTCTCTTCCTCAAAT
GTTTCCACTGGCTGGCTGAGGACCGTGTGGACTTTATGGAACGCAGCCCCAACATCTCCTGGCTCTTTCACTGCC
GCATTGTCTCTCTTATGTTCCTCCTGGGCATCCTGGACTTCCTCTTCGTCAGCCACGCCTATCACAGCATCCTGA
CCCGTGGGGCCTCTGTGCAGCTGGTGTTTGGCTTTGAGTATGCCATCCTGATGACGATGGTGCTCACCATCTTCA
TCAAGTATGTGCTGCACTCCGTGGACCTCCAGAGTGAGAACCCCTGGGACAACAAGGCTGTGTACATGCTCTACA
CAGAGCTGTTTACAGGCTTCATCAAGGTTCTGCTGTACATGGCCTTCATGACCATCATGATCAAGGTGCACACCT
TCCCACTCTTTGCCATCCGGCCCATGTACCTGGCCATGAGACAGTTCAAGAAAGCTGTGACAGATGCCATCATGT
CTCGCCGAGCCATCCGCAACATGAACACCCTGTATCCAGATGCCACCCCAGAGGAGCTCCAGGCAATGGACAATG
TCTGCATCATCTGCCGAGAAGAGATGGTGACTGGTGCCAAGAGACTGCCCTGCAACCACATTTTCCATACCAGCT
GCCTGCGCTCCTGGTTCCAGCGGCAGCAGACCTGCCCCACCTGCCGTATGGATGTCCTTCGTGCATCGCTGCCAG
CGCAGTCACCACCACCCCCGGAGCCTGCGGATCAGGGGCCACCCCCTGCCCCCCCACCCCCCACCACTCTTGCCTC
AGCCCCCCAACTTCCCCCAGGGCCTCCTGCCTCCTTTTCCTCCAGGCATGTTCCCACTGTGGCCCCCCATGGGCC
CCTTTCCACCTGTCCCGCCTCCCCCCAGCTCAGGAGAGGCTGTGGCTCCTCCATCCACCAGTGCAGCCCTTTCTC
GGCCCAGTGGAGCAGCTACAACCACAGCTGCTGGCACCAGTGCTACTGCTGCTTCTGCCACAGCATCTGGCCCAG
GCTCTGGCTCTGCCCCAGAGGCTGGCCCTGCCCCTGGTTTCCCCTTCCCTCCTCCCTGGATGGGTATGCCCCTGC
CTCCACCCTTTGCCTTCCCCCCAATGCCTGTGCCCCCTGCGGGCTTTGCTGGGCTGACCCCAGAGGAGCTACGAG
CTCTGGAGGGCCATGAGCGGCAGCACCTGGAGGCCCGGCTGCAGAGCCTGCGTAACATCCACACACTGCTGGACG
CCGCCATGCTGCAGATCAACCAGTACCTCACCGTGCTGGCCTCCTTGGGGCCCCCCCCGGCCTGCCACTTCAGTCA
ACTCCACTGAGGAGACTGCCACTACAGTTGTTGCTGCTGCCTCCTCCACCAGCATCCCTAGCTCAGAGGCCACGA
CCCCAACCCCAGGAGCCTCCCCACCAGCCCCTGAAATGGAAAGGCCTCCAGCTCCTGAGTCAGTGGGCACAGAGG
AGATGCCTGAGGATGGAGAGCCCGATGCAGCAGAGCTCCGCCGGCGCCGCCTGCAGAAGCTGGAGTCTCCTGTTG
CCCAC**TGA**CACTGCCCCAGCCCAGCCCCAGCCTCTGCTCTTTTGAGCAGCCCTCGCTGGAACATGTCCTGCCACC
AAGTGCCAGCTCCCTCTCTGTCTGCACCAGGGAGTAGTACCCCCAGCTCTGAGAAAGAGGCGGCATCCCCTAGGC
CAAGTGGAAAGAGGCTGGGGTTCCCATTTGACTCCAGTCCCAGGCAGCCATGGGGATCTCGGGTCAGTTCCAGCC
TTCCTCTCCAACTCTTCAGCCCTGTGTTCTGCTGGGGCCATGAAGGCAGAAGGTTTAGCCTCTGAGAAGCCCTCT
TCTTCCCCCACCCCTTTCCAGGAGAAGGGGCTGCCCCTCCAAGCCCTACTTGTATGTGCGGAGTCACACTGCAGT
GCCGAACAGTATTAGCTCCCGTTCCCAAGTGTGGACTCCAGAGGGGCTGGAGGCAAGCTATGAACTTGCTCGCTG
GCCCACCCCTAAGACTGGTACCCATTTCCTTTTCTTACCCTGATCTCCCCAGAAGCCTCTTGTGGTGGTGGCTGT
GCCCCCTATGCCCTGTGGCATTTCTGCGTCTTACTGGCAACCACACAACTCAGGGAAAGGAATGCCTGGGAGTGG
GGGTGCAGGCGGGCAGCNNTGNGGGNCCNNGCNCCGCCCCTCCCCCCAGGCCCCTTTCCTCTGCAGCTTCTCAAG
TGAGACTGACCTGTCTCACCCAGCAGCCACTGCCCAGCCGCACTCCAGGCAAGGGCCAGTGCGCCTGCTCCTGAC
CACTGCAATCCCAGCGCCCAAGGAAGGCCACTTCTCAACTGGCAGAACTTCTGAAGTTTAGAATTGGAATTACTT
CCTTACTAGTGTCTTTTGGCTTAAATTTTGTCTTTTGAAGTTGAATGCTTAATCCCGGGAAAGAGGAACAGGAGT
GCCAGACTCCTGGTCTTTCCAGTTTAGAAAAGGCTCTGTGCCAAGGAGGGACCACAGGAGCTGGGACCTGCCTGC
CCCTGTCTTTTCCCCTTGGTTTTGTGTTACAAGAGTTGTTGGAGACAGTTTCAGATGATTATTTAATTTGTAAAT
ATTGTACAAATTTTAATAGCTTAAATTGTATATACAGCCAAATAAAAACTTGCATTAAC

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FIGURE 1275

GTAGCAGGTAAAG**ATG**GCAGCTACCATGTTCCGGGCTACGCTGCGGGGATGGAGAACCGGTGTCCAGCGGGGCTG
CGGGCTACGGCTGTTGAGCCAGACCCAGGGCCCTCCAGATTACCCCAGGTTTGTGGAGTCTGTGGATGAATATCA
GTTTGTGGAGCGCCTGTTACCGGCTACCAGGATCCCAGATCCCCCAAAGCATGAACATTATCCTACCCCTAGTGG
CTGGCAGCCTCCCAGAGACCCCCCACCCAACCTGCCTTACTTTGTACGACGCTCTCGGATGCACAACATCCCCGT
CTACAAGGACATCACGCATGGCAACCGGCAGATGACTGTGATCCGGAAAGTGGAAGGGGACATCTGGGCCCTGCA
GAAAGACGTGGAAGATTTTCTGAGCCCGCTGCTGGGGAAGACACCTGTCACCCAGGTCAATGAGGTGACAGGTAC
CCTACGGATCAAGGGCTACTTTGACCAGGAGCTTAAAGCCTGGCTCTTGGAGAAAGGCTTC**TGA**GGCCCAGCCGA
GCAGCCTGCTTGTCAGCATGCCCTGTGGATCAAGTCTAGGGGGCCTCAGGAGGAGGGAGGTGGGTGTTGGAGCCC
CTGAGACAGGGGATACAGAAACTAGGGCTAAAGGACTTTGGGGTCAGGCCTTGCTTGCATAAAGGAGAAAACAAC
TCTATGTACATGCTGGGGGAGAGTGCCTAATGTGGGAGACCAAATAGGGATCACCAGGCTAATGGGGGGCGTCAG
CAGCTTTCTCTCCCTCCTATCTTGGCCTGTTCTTTTTTGTTTTTTGAGACGGAGTCTCACTCTGTTGCCCAGGGT
GGAGTGCAGTGGCATGATCTTGGCTCACTGCAACTTCCACCTCTGGGATCAAGGGATTCTCCTGCCTCAGCCTCT
TGAGTAGCTGGGATTACAGGCGCCCACCACCACAGCCTGCTAATTTTTGTATTTTTAGTAGAGATGGGGTTTCAC
CATGTTGGCCAGGCTGGTCTCAAACTCCTGACTCGAAGTGATCCGCCCACCTTGGCCTCCCAAAGCGTTGGGATT
ATAGGCATGAGCCATGTGCCTGGTCCACCTTGGCCTGTTTTGTTTTTCTTTCCTTGGGCTCAGCAATTCAAATTC
TAGTTGTTATTTGGTGGAAGCAGTAGCCCAACCCCAGTTTAGGGGAAGGTAGCACAGGGCAGAGCCACTGGGCAC
TTTGTTTCCTTGGCCCTCCGAAGCTCACTGTTGCAAATACCCCCAAGCCTTTGCTCTAGGCCAGATCTTGTTTGG
TGCAGGTGATGGAGAACACAGATGACTCGGGCATGGGTCTTGGAGATCTTCTGTTCAAAGTACAGTGCTGGCACT
GGGGCACAGAGTGCCCACGTTAGCCCCGGGCTCTGATAGAGAGGTAGGAGGCACGTTCTTGGTCACTGTTCCATT
GCAGACCAGACTTGCTGGCCTGACCACAAGGGAGTGGCTGGGAACTCACAGCCAGCATAGGGACATCCCCCTGCA
GCCTTCTGACCTGCAATCAAGGCTGGGGAGGGGTTTGCAGGCAGGAATATGCTGACCTTTCACCCTGCCATCCCA
TCCCAACCCCAGCTCACTAGCCTTCATATATGCCTTATACTTGGAGTCACAGGGGCCAAAGGCCTGAGACCCCAC
CCTGCCCCCAAACTGGCTAAGACAGCTTTCAGTTCCTGACTCCCCAACTTGGTCTCTGCCCTGAAGCAGGGCACT
GAACTCTGGGCTGCTTCTCTGTGTGTAAAATGGGCACATCTTCCTAATCTGTTAATGGTCAGTGGTGTCCCCAAG
GATAGTGCTGGCTTCCATGGAAACCCTCACTCCTGGAGATTCCATTCCATTTTCAAGTGTACAGCCACAGCAAGG
AGCCCGACACTGATTTGATCGATTCTGTGACACAAACCCCACCAATTGTTAATGCAAGTTTTTATTTGGCTGTAT
ATACAATTTAAGCTATTAAAATTTGTACAATATTTACAAATTAAA

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FIGURE 1276

CAGTGACGTGACACGCAGCCCACGGTCTGTACTGACGCGCCCTCGCTTCTTCCTCTTTCTCGACTCCATCTTCGC
GGTAGCTGGGACCGCCGTTCAGTCGCCAAT**ATG**CAGCTCTTTGTCCGCGCCCAGGAGCTACACACCTTCGAGGTG
ACCGGCCAGGAAACGGTCGCCCAGATCAAGGCTCATGTAGCCTCACTGGAGGGCATTGCCCCGGAAGATCAAGTC
GTGCTCCTGGCAGGCGCGCCCCTGGAGGATGAGGCCACTCTGGGCCAGTGCGGGGTGGAGGCCCTGACTACCCTG
GAAGTAGCAGGCCGCATGCTTGGAGGTAAAGTCCATGGTTCCCTGGCCCGTGCTGGAAAAGTGAGAGGTCAGACT
CCTAAGGTGGCCAAACAGGAGAAGAAGAAGAAGAAGACAGGTCGGGCTAAGCGGCGGATGCAGTACAACCGGCGC
TTTGTCAACGTTGTGCCCACCTTTGGCAAGAAGAAGGGCCCCAATGCCAACTCT**TAA**GTCTTTTGTAATTCTGGC
TTTCTCTAATAAAAAAGCCACTTAGTTCAGTC

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FIGURE 1277

GTCCAGGCAGGTGCAGGCGCCGCGGGGCCGGATCCTCCGCGCGGCCGAGTCCATCTCCTGGGAAATGGGGCGGAC
AGTGTTTCCTTGACTGACTATTGTGAGCGCCCTCTCTCTCCGGCGGAGCGGAGACC**ATG**GCCCCCACTCAGGGCC
CCCGGGCCCCGCTGGAATTCGGAGGGCCCCTGGGCGCCGCGGCTCTGCTACTGCTGCTGCCCGCCACCATGTTCC
ACCTGCTCCTGGCGGCCCGTTCGGGCCCCGCGCGCCTGCTGGGTCCACCCGCGTCCCTGCCGGGGCTGGAGGTGC
TGTGGAGCCCACGGGCGCTGCTGCTGTGGCTCGCCTGGCTCGGCCTGCAGGCGGCGCTCTACCTACTGCCGGCGC
GCAAGGTGGCCGAGGGGCAGGAATTGAAGGACAAGAGTCGCCTGCGCTATCCTATTAACGGCTTCCAGGCCCTGG
TGCTGACAGCCCTGTTGGTGGGGCTGGGGATGTCAGCGGGGCTGCCTCTGGGGGCGCTCCCGGAAATGCTCCTGC
CCTTGGCGTTTGTCGCCACCCTCACCGCTTTCATCTTCAGCCTCTTTCTCTACATGAAGGCGCAGGTAGCCCCAG
TTTCGGCCCTGGCACCTGGGGGGAACTCAGGCAATCCGATTTACGACTTTTTTCTGGGACGAGAGCTCAACCCTC
GTATCTGTTTCTTCGACTTCAAATATTTCTGTGAACTGCGACCCGGCCTCATCGGCTGGGTCCTCATCAACCTGG
CCCTGTTGATGAAGGAGGCAGAGCTTCGAGGCAGTCCCTCACTGGCCATGTGGCTGGTCAATGGCTTCCAGTTGC
TCTACGTGGGTGATGCCCTCTGGCACGAGGAGGCCGTCCTCACCACCATGGATATCACACATGACGGGTTTGGCT
TCATGCTGGCGTTTGGGGACATGGCCTGGGTGCCCTTCACCTACAGCCTGCAGGCCCAGTTCCTGCTGCACCACC
CGCAGCCCCTGGGGTTGCCCATGGCCTCTGTCATCTGCCTCATCAATGCTACTGGTTACTACATCTTCCGTGGGG
CGAATTCCCAGAAAAACACTTTCCGAAAGAATCCTTCTGACCCCAGAGTGGCTGGGCTTGAGACCATCTCTACAG
CCACAGGGCGGAAACTGCTGGTGTCTGGGTGGTGGGGTATGGTCCGCCATCCCAACTATCTTGGAGACCTCATCA
TGGCTCTGGCTTGGTCCTTGCCCTGCGGGGTGTCACACCTGCTGCCCTACTTCTACCTCCTCTACTTCACCGCGC
TGCTGGTGCACCGTGAGGCCCGGGATGAGCGGCAGTGCCTGCAGAAGTACGGCCTGGCCTGGCAGGAGTACTGCC
GGCGTGTGCCTTACCGCATCATGCCCTACATCTAC**TGA**AGCGGCTCCACCACCCCAGGTGGGGGCATGTGCCCAC
TCATCCACCAGCACACCCAGGACCAGGAGCCTCGACACACTTGGGACTCAAGGGCTTGCACCCCACCCAGCCCTG
AGGATGAACAACCTCAGAGAAGAGGTGGTTTAGAGCAAGGAAAAAAATGAAACCAGTGACC

FIGURE 1278

GGAAGTGCCTCCTCCCCGTCCCCTTCCTTTCCAGCCTCACGCCCGTGGGCTGCAGTTGGAACG**ATG**GCGGCGGCA
GCTGCCGCCGGGCCTAGCCCGGGGTCTGGACCTGGGGACTCCCCAGAAGGGCCCGAGGGGGAGGCTCCGGAGCGT
CGGCGGAAGGCGCACGGGATGCTGAAGCTTTACTACGGCCTCTCGGAAGGGGAGGCGGCGGGACGCCCCGCGGGG
CCCGACCCCCTGGACCCGACTGATCTGAACGGGGCGCACTTCGACCCGGAAGTTTACCTAGACAAGCTGCGTAGA
GAGTGCCCTCTGGCCCAGTTGATGGACAGTGAGACGGACATGGTGCGGCAGATCCGGGCTCTAGACAGCGACATG
CAGACCCTGGTCTATGAGAACTACAACAAGTTCATCTCAGCCACAGACACCATCCGGAAGATGAAGAACGATTTC
CGGAAGATGGAGGATGAGATGGACCGGCTGGCCACCAACATGGCAGTGATCACCGACTTCAGCGCTCGCATCAGC
GCCACGCTGCAGGACCGCCACGAGCGCATCACCAAGCTGGCAGGTGGGCGCTGCCGGGCAGGGCCTGCAGTGGGC
CTTTCCTGGGGCTCTGGGGCTAACGTCACCCTCCGTCCCCCAGGGGTCCACGCGCTGCTGCGGAAGCTGCAGTTC
CTCTTTGAGCTGCCCTCGCGCCTCACCAAGTGCGTGGAACTGGGCGCCTATGGGCAGGCGGTGCGCTACCAGGGC
CGCGCGCAGGCCGTGCTGCAGCAGTACCAACACCTGCCCTCGTTCCGCGCCATCCAGGACGACTGCCAGGTCATC
ACGGCCCGCCTGGCCCAGCAGCTGCGGCAGCGCTTTAGGGAGGGCGGCTCAGGCGCCCCGGAGCAGGCAGAGTGC
GTGGAGCTGCTGCTGGCCCTGGGCGAGCCTGCGGAGGAGCTGTGCGAGGAGTTCCTGGCGCACGCCCGCGGCCGG
CTGGAGAAGGAGCTGAGAAACCTGGAGGCCGAGCTGGGGCCCTCACCTCCGGCTCCCGACGTGTTAGAGTTCACC
GACCATGGAGGCAGTGGCTTCGTGGGCGGCCTCTGCCAGGTGGCGGCGGCCTACCAGGAGCTGTTTGCGGCCCAG
GGCCCAGCAGGTGCCGAGAAGCTGGCGGCCTTCGCCCGGCAGCTGGGCAGCCGCTATTTTGCGCTGGTGGAGCGG
CGGCTGGCGCAGGAGCAGGGTGGTGGTGACAACTCACTGCTGGTGCGGGCGCTGGACCGCTTCCACCGGCGCTTG
CGGGCTCCCGGGGCCCTGCTGGCCGCTGCCGGGCTCGCAGACGCTGCCACGGAGATCGTGGAACGAGTGGCCCGC
GAGCGCCTGGGCCACCACCTGCAGGGTCTCCGGGCGGCCTTCCTGGGCTGCCTGACAGACGTCCGCCAGGCGCTG
GCAGCACCTCGCGTGGCTGGGAAGGAGGGCCCTGGCCTGGCCGAGTTGCTGGCCAATGTGGCCAGCTCCATCCTG
AGCCACATTAAGGCCTCTCTGGCAGCAGTGCACCTTTTCACCGCCAAAGAGGTGTCCTTCTCCAACAAGCCCTAC
TTCCGGGGTGAGTTCTGCAGTCAGGGTGTCCGTGAGGGCCTCATCGTGGGCTTCGTCCACTCTATGTGCCAGACG
GCTCAGAGCTTCTGCGACAGCCCTGGGGAGAAGGGGGGTGCCACACCACCTGCCCTGCTCCTGCTGCTCTCCCGC
CTCTGCCTGGACTACGAGACGGCCACCATCTCCTACATCCTCACTCTCACTGATGAACAGTTTCTGGTGCAGGAT
CAGTTCCCAGTGACGCCCGTGAGCACGCTGTGTGCAGAGGCCAGGGAAACGGCGCGGCGGCTGCTGACCCACTAC
GTGAAGGTGCAGGGCCTGGTCATATCACAGATGCTGCGCAAGAGCGTGGAGACTCGCGACTGGCTCAGCACTCTG
GAGCCCCGGAATGTGCGGGCCGTCATGAAGCGGGTGGTGGAGGATACCACCGCCATCGACGTGCAGGTGGGGCTC
CTGTACGAAGAGGGTGTTCGCAAGGCCCAGAGCAGCGACTCCAGCAAGAGGACTTTCTCCGTGTACAGCAGCTCT
CGGCAGCAGGGCCGCTACGCCCCCAGCTATACCCCCAGTGCCCCGATGGACACCAACCTCTTGAGCAATATCCAG
AAGCTATTCTCTGAACGTATTGATGTGTTCAGCCCTGTGGAGTTCAACAAGGTGTCGGTGCTGACCGGCATCATC
AAGATCAGCCTGAAGACGCTGCTGGAGTGTGTGCGGCTGCGCACCTTTGGGCGCTTCGGGCTGCAGCAGGTGCAA
GTGGACTGCCACTTTCTGCAGCTCTACCTGTGGCGTTTTGTGGCCGACGAAGAACTCGTGCACTTGCTGCTGGAC
GAAGTGGTGGCCTCTGCTGCCCTGCGCTGCCCAGACCCTGTGCCCATGGAGCCCAGTGTGGTTGAGGTCATCTGC
GAGCGCGGC**TAG**GCGCAGCCGCTGCCATGCACCGGTCTGTCCCTGCACCCCATGGCACCCAGGATCTGGTCTCGG
TGGTCCTTCCCCGCAGGCAGGTGTCAGGACCGGCCTAATAAACATGTGTGGCCTCCTCCTCTCGCTTGCTGGGCG
GGCCTTTCCGGGGGCGGGGTTTTGAAGCTGAGGCTTCTGAGGCGCCCGCGTCGGGTCCGCCCCCGAGCGCCGATT
GGCTGGTGTGCTGGGCCCAGCATGGGCAGGGGGCGGTTCCACTTAAAAACCCTGGGACGA

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FIGURE 1279

GTGCACGATCTGATTTTCTGGAGAGATGTGAAGAAGACTGGGTTTGTCTTTGGCACCACGCTGATC**ATG**CTGCTT
TCCCTGGCAGCTTTCAGTGTCATCAGTGTGGTTTCTTACCTCATCCTGGCTCTTCTCTCTGTCACCATCAGCTTC
AGGATCTACAAGTCCGTCATCCAAGCTGTACAGAAGTCAGAAGAAGGCCATCCATTCAAAGCCTACCTGGACGTA
GACATTACTCTGTCCTCAGAAGCTTTCCATAATTACATGAATGCTGCCATGGTGCACATCAACAGGGCCCTGAAA
CTCATTATTCGTCTCTTTCTGGTAGAAGATCTGGTTGACTCCTTGAAGCTGGCTGTCTTCATGTGGCTGATGACC
TATGTTGGTGCTGTTTTTAACGGAATCACCCTTCTAATTCTTGCTGAACTGCTCATTTTCAGTGTCCCGATTGTC
TATGAGAAGTACAAGACCCAGATTGATCACTATGTTGGCATCGCCCGAGATCAGACCAAGTCAATTGTTGAAAAG
ATCCAAGCAAAACTCCCTGGAATCGCCAAAAAAAAGGCAGAA**TAA**GTACATGGAAACCAGAAATGCAACAGTTAC
TAAAACACCATTTAATAGTTATAACGTCGTTACTTGTACTATGAAGGAAAATACTCAGTGTCAGCTTGAGCCTGC
ATTCCAAGCTTTTTTTTTAATTTGGTGTTTTCTCCCATCCTTTCCCTTTAACCCTCAGTATCAAGCACAAAAATT
GATGGACTGATAAAAGAACTATCTTAGAACTCAGAAGAAGAAAGAATCAAATTCATAGGATAAGTCAATACCTTA
ATGGTGGTAGAGCCTTTACCTGTAGCTTGAAAGGGGAAAGATTGGAGGTAAGAGAGAAAATGAAAGAACACCTCT
GGGTCCTTCTGTCCAGTTTTCAGCACTAGTCTTACTCAGCTATCCATTATAGTTTTGCCCTTAAGAAGTCATGAT
TAACTTATGAAAAAATTATTTGGGGACAGGAGTGTGATACCTTCCTTGGTTTTTTTTTGCAGCCCTCAAATCCTA
TCTTCCTGCCCCACAATGTGAGCAGCTACCCCTGATACTCCTTTTCTTTAATGATTTAACTATCAACTTGATAAA
TAACTTATAGGTGATAGTGATAATTCCTGATTCCAAGAATGCCATCTGATAAAAAAGAATAGAAATGGAAAGTGG
GACTGAGAGGGAGTCAGCAGGCATGCTGCGGTGGCGGTCACTCCCTCTGCCACTATCCCCAGGGAAGGAAAGGCT
CCGCCATTTGGGAAAGTGGTTTCTACGTCACTGGACACCGGTTCTGAGCATTAGTTTGAGAACTCGTTCCCGAAT
GTGCTTTCCTCCCTCTCCCCTGCCCACCTCAAGTTTAATAAATAAGGTTGTACTTTTCTTACTATAAAATAAATG
TCTGTAACTGCTGTGCACTGCTGTAAACTTGTTAGAGAAAAAAATAACCTGCATGTGGGCTCCTCAGTTATTGAG
TTTTTGTGATCCTATCTCAGTCTGGGGGGGAACATTCTCAAGAGGTGAAATACAGAAAGCCTTTTTTTCTTGATC
TTTTCCCGAGATTCAAATCTCCGATTCCCATTTGGGGGCAAGTTTTTTTCTTCACCTTCAATATGAGAATTCAGC
GAACTTGAAAGAAAAATCATCTGTGAGTTCCTTCAGGTTCTCACTCATAGTCATGATCCTTCAGAGGGAATATGC
ACTGGCGAGTTTAAAGTAAGGGCTATGATATTTGATGGTCCCAAAGTACGGCAGCTGCAAAAAGTAGTGGAAGGA
AATTGTCTACGTGTCTTGGAAAAATTAGTTAGGAATTTGGATGGGTAAAAGGTACCCTTGCCTTACTCCATCTTA
TTTTCTTAGCCCCCTTTGAGTGTTTTAACTGGTTTCATGTCCTAGTAGGAAGTGCATTCTCCATCCTCATCCTCT
GCCCTCCCAGGAAGTCAGTGATTGTCTTTTTGGGCTTCCCCTCCAAAGGACCTTCTGCAGTGGAAGTGCCACATC
CAGTTCTTTTCTTTTGTTGCTGCTGTGTTTAGATAATTGAAGAGATCTTTGTGCCACACAGGATTTTTTTTTTTT
TTAAGAAAAACCTATAGATGAAAAATTACTAATGAAACTGTGTGTACGTGTCTGTGCGTGCAACATAAAAATACA
GTAGCACCTAAGGAGCTTGAATCTTGGTTCCTGTAAAATTTCAAATTGATGTGGTATTAATAAAAAAAAAAAAAA

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FIGURE 1280

AGTAGAGATGGGGTTTCACCATGTTGGCCAGGCTGGTGTCAAACTCCTGACCTCAGGTGATCCACCCACCTTGGC
CTTCCAGAGTGCTGGGATTACAGGCATGAGCCACCGCACCCAGCGTTGTTTTGTTTTTTAGTCAGCAATGGTTTT
GGATTCCAAAGCTCTCAGGACCAAGGCCCACGCATTTTGTCTAGTTGTCATGTACTCTTCAGTTTCTCAAACTGG
AATTGTCCCCCGCTATGTGTTTTTCATAACATCAGCCTCTTGCAGAGTCCAGGCAGTTTGTCTTGTGTGGGATGA
TCCATCATCTGGAGTTGTCTTTCCTGATGTTGTCCCCTCTGTTTGGTGCTGGGTGAGGCATTAGAGTTGGAAGTC
CACATGCTTGAGTTGCCTGTACTGAGCTTGTCCAAGGGAATGAGCCTAATTTCTTTCTGTTGCTTCATTCTAGGA
CTGTGAGGAATGTATCCAGCTGGAGCCGACCTTCATCAAGGGTTATACACGGAAAGCCGCTGCGCTGGAAGCG**ATG**
AAGGACTACACCAAAGCCATGGATGTGTACCAGAAGGCGCTAGACCTGGACTCCAGCTGTAAGGAGGCGGCAGA
CGGCTACCAGCGCTGTATGATGGCGCAGTACAACCGGCACGACAGCCCCGAAGATGTGAAGCGACGAGCCATGGC
CGACCCTGAGGTGCAGCAGATCATGAGTGACCCAGCCATGCGCCTTATCCTGGAACAGATGCAGAAGGACCCCCA
GGCACTCAGCGAACACTTAAAGAATCCTGTAATAGCACAGAAGATCCAGAAGCTGATGGATGTGGGTCTGATTGC
AATTCGG**TGA**TGACTTGTTCATCCCCCCTTCCCTTCGCCCTCATGTGGAAAGAGGAGCTGGGACCGCGGCGAGCA
GCACGGAGCGGAAGGGAGAGCAGGGGAGAGAAGGCCTCATCTCTCTATATTTATACATAACCCCGGGGAAGACAC
AGAGACTCGTACCTGCGCTGTTTGTGCCGCCGCTGCCTCTGGGCCCTCCCAGCACACGCATGGTCTCTTCACCGC
TGCCCTCGAGTTCCATGTCTCTTTCCCCTGCCCCTAGTTGCTGTCTCGGCTGCTCTCCCATAGTTGGTTTTTTTT
TTATTTGGGGGCAGTGGGCATGTTATGGGGAGGGGAGGGGGTTCTTCCAGCCTCAGGTCCCAGCTGTCTCACGTT
GTTTATTCTGCGTCCCCTTCTCCAATAAAACAAGCCAGTTGGGCGTGGTTATATGTT

FIGURE 1281

AAAACACTAAGGGGAGCGCGCGAAGCTGAACTTGGCGCTCGATGGGGGCCGTTAGCCGCCCTAGAGCGCGCGGAG
CCGCAGAGGCGTAGCTGGACTACAACGCAGTGCATCTCGGGAGGCCAACTCGACTGGACTGGGTGAGAGGACAGA
GGTGGCTCG**ATG**GGCGGCCCGAAGGCCGGGGATCATGGCGGGAAGGCGGGCCCAGACAGGTTCAGCCCCGCCCCC
GACCCGCCGCTCCCCACCCCCCGGCCGGCCTCGCGTGCCTTCCCGCAGCACTGCCGTCCCCGGGATGCTGAGCGC
CCACCGTCTCCCCGCAGCCCCCTCATGCCCGGCTGCGAGCTGCCCGTGGGCACCTGCCCGGACATGTGCCCGGCC
GCCGAGCGCGCCCAGCGCGAAAGGGAGCACCGCCTGCACCGCTTGGAGGTGGTGCCGGGTTGCCGCCAGGACCCG
CCCCGCGCGGATCCGCAGCGCGCGGTGAAGGAGTACAGCCGACCCGCCGCCGGCAAGCCCCGGCCCCCGCCCAGC
CAGTTGCGTCCGCCCTCCGTGCTGCTGGCCACCGTGCGCTACCTGGCCGGTGAGGTGGCGGAGAGCGCCGACATC
GCCCGCGCCGAGGTGGCCAGCTTCGTGGCAGACCGCTTGCGAGCTGTGCTCCTGGACCTGGCGCTGCAGGGAGCG
GGCGACGCCGAGGCAGCTGTGGTGCTGGAGGCGGCGCTGGCCACGCTGCTGACCGTAGTGGCGCGGCTCGGGCCC
GACGCGGCGCGGGGACCCGCGGACCCGGTGCTGCTGCAGGCCCAGGTGCAGGAGGGCTTCGGCTCGCTGCGGCGC
TGCTACGCGCGGGGCGCCGGGCCGCACCCCCGCCAACCCGCCTTCCAGGGCCTCTTTCTGCTCTATAACCTGGGT
GAGTCGGGATCCTGGCGGCTGGGCAGAGCGTGGGGACAGGAGCCCACCATGACAGTGGAGGCTCGGTGGAAGCCC
TGCATGAGGTTCTACAGCTGCCTGCTGCCCTGCGCGCCTGCCCGCCCCTCCGCAAGGCCTTGGCGG**TAG**ATGCTG
CCTTCCGAGAGGGCAATGCTGCCCGCCTGTTCCGTCTGCTCCAGACCCTGCCCTACCTGCCAAGTTGCGCTGTGC
AGTGCCATGTGGGCCATGCCCGCCGGGAAGCCCTGGCCCGCTTCGCTCGTGCCTTTAGCACCCCCAAGGGCCAGA
CCTTGCCTCTGGGCTTCATGGTCAACCTCTTGGCCCTGGATGGACTCAGGGAAGCACGGGACCTGTGCCAGGCCC
ACGGGCTGCCCTTGGACGGAGAGGAGAGAGTTGTGTTCCTGAGGGGTCGCTACGTGGAGGAAGGGCTACCGCCTG
CCAGTACGTGCAAGGTGTTAGTGGAGAGCAAACTTCGAGGACGTACCCTGGAGGAGGTGGTCATGGCAGAGGAGG
AAGATGAGGGCACGGACAGACCTGGGTCCCCAGCCTGAGGAGGGAGCGTGAGCCTCCCAGAGCCCCAGGACTGGG
CCAGAGCACTTAGGTTTCTTTTTCCATGGTTTCCAGGTAATAAAAGGAACTTGTTTTGTTGGT

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FIGURE 1282

GCGCAGGCCTGGCGAGGCGGCGGCGGGCGGAGGCTGGGCCGGAGGGGTGGGGACGGCGAGGAGGTGGAGGCCGGC
GCTCCGCTCCGCTCCAGCTCGGTTTC**ATG**TCCCGCCAGGCGAAGGATGACTTCCTGCGGCACTACACAGTGTCGG
ACCCCAGGACTCACCCCAAGGGCTACACCGAGTACAAAGTAACCGCGCAGGTGGTGGTCTGGAAGCGGTACAGCG
ACTTCCGCAAGCTGCATGGAGACCTGGCCTACACCCACCGCAACCTCTTCCGCCGCCTCGAGGAGTTCCCTGCTT
TCCCCCGGGCCCAGGTGTTTGGCCGGTTTGAAGCCTCAGTGATCGAGGAGCGGCGAAAGGGGGCAGAGGACCTGC
TTCGCTTCACTGTGCACATACCTGCGCTCAACAACAGCCCCCAGCTCAAGGAGTTCTTCCGGGGTGGGGAGGTGA
CCCGACCCTTGGAGGTGTCCAGGGACCTACACATCCTGCCACCCCCTCTGATCCCCACCCCGCCCCCTGATGACC
CCCGGCTATCCCAACTGCTCCCTGCAGAAAGGAGGGGCCTCGAGGAATTGGAGGTGCCAGTGGACCCCCCACCAT
CCAGCCCTGCCCAGGAGGCCCTGGATCTCCTCTTTAACTGTGAGAGCACCGAGGAGGCATCTGGTTCCCCTGCCC
GAGGCCCCCTCACCGAGGCTGAGCTTGCCCTCTTCGACCCCTTCTCCAAGGAAGAAGGCGCAGCCCCCAGCCCCA
CCCATGTGGCTGAGCTGGCAACGATGGAGGTGGAGTCTGCAAGGCTGGACCAGGAACCCTGGGAGCCAGGAGGGC
AGGAGGAGGAAGAGGATGGGGAAGGAGGGCCCACCCCTGCCTACCTAAGCCAGGCCACAGAGCTCATCACCCAGG
CCCTGCGGGATGAGAAGGCAGGCGCTTACGCTGCTGCACTCCAGGGCTATCGAGATGGCGTGCACGTCTTGCTTC
AGGGAGTCCCCAGTGACCCGTTGCCTGCCCGCCAGGAAGGTGTGAAGAAGAAGGCAGCTGAGTACCTGAAGCGGG
CAGAGGAGATCCTGTGCCTGCACCTGTCTCAACTCCCACCC**TAA**CAGGGAGTGGGCCCTTCCCTGGGACTCTCGC
TCCTGCACTGCCAGCCCCTTCTCCTCTCCCCAGGGCCTGGCCCTACCTCCTGGTCTTGTAATTACAGGAGCCATT
TCTGTAGGTAACTGGACCAAGAATGAGAAAAATAATGAATTCTTAGCTCCCTGATTACACCTGCCACCTTGGAAT
CAAGGACTCACACTTCTGACCCTGCCTGTCTTTTTGGGGTTTTTTTGAGTTGGAGTCTCGCTGTGTCGCCCAGAC
TGGAGTGCAGTGGTGGGATCGCGGCTCACTGCAACCTCCACCTCCCAGGTTCAAGCAGTTCTCCTGTCTCAGCCT
CCCCAGTAGCTGAGATTGCAGGCACATGCCACCACGCCCAGCTAATATTTTGTATTTTCAGTAGGGACGGGGTTA
CACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAAGTGATCCACCCGCCTCAGTCTCCCAAAGTGCTGAG
ATTACAGGCATGAGTCACTACGCCCGGCCCATGTCTGTCTGTCTTGATGTGTGAGCAGCAGCTGTGGTCATTAAA
CCATTAGTTTACCCCTCTAGAACTGGGGTCTGCAAACTCCCACCTGCAGCCAAATCTGGCCCACCTCCTTTTTAA
TGTAAGGGCTGTGAGAGTGGTTTTTACTTTTTTTAATGATTAAAAAAATCAAAATAATATTCTGTGACAATGACA
GGTGAAATTTATATGTGACAAGTGAAAATTATATGAAATTTAAGAGTCCATAAATAAAATTTGTTGGAACAC

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FIGURE 1283

CTCCGGGGACC**ATG**GGGCTCCTGACCATTCTGAAGAAGATGAAGCAGAAAGAGCGGGAGCTGCGACTGCTCATGC
TTGGCCTGGACAATGCTGGAAAGACAACCATCCTGAAGAAGTTCAATGGGGAGGACATCGACACCATCTCCCCAA
CGCTGGGCTTCAACATCAAGACCCTGGAGCACCGAGGATTCAAGCTGAACATCTGGGATGTGGGTGGCCAGAAGT
CCCTGCGGTCCTACTGGCGGAACTACTTTGAGAGCACCGATGGCCTCATCTGGGTAGTGGACAGCGCAGACCGCC
AGCGCATGCAGGACTGCCAGCGGGAGCTCCAGAGCCTGCTGGTGGAGGAGCGCCTGGCCGGAGCAACCCTCCTCA
TCTTTGCTAATAAGCAGGACCTGCCTGGAGCACTGTCCTCTAACGCCATCCGCGAGGTCCTGGAGCTGGACTCCA
TCCGCAGCCACCACTGGTGCATCCAGGGCTGCAGCGCCGTCACCGGGGAGAACCTGCTGCCGGGCATCGACTGGC
TCCTGGATGACATTTCCAGCCGCATTTTCACAGCTGAC**TGA**ACCACTCCAGATGCCCCCCACCTAGCAGTCCAGG
TCCCTCAACCTTCACCAAACACTACCCATGGGGGGTTGGGAGTCAGCCGGCCAAACTAACACTCCCCCTCCTCCA
CCCCAGCCTGCTGCTGCTACTGCTGCCCGCTGCTGCTCTGTGGCCACCCGGCTCCCATGGCGGGAGGGCTGTGCC
CTGGCTGTCTCTCTGGCTCCTGACCTGGCCTTTGGCTACCATACCAAGAAGAGAGGGCTGGGCGGGGAGGAGCTG
CTACTGCTGCTACCGAGGCTGTGGGCCTCATCCTTCACTCAGTTGTGAAATAAACCGCTCCTTGCCCCG

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FIGURE 1284

GGCCTGAGGGCGCCGCACTCGACTGCTTCGAGGTGACGCTGAAATGCGAGGAAGGGGAGGACGAGGAGGAGGCCA
TGGTGGTGGCCGTAATTCCGCGGCCCGAGCCGATGCTCAGAGTGACCCAACAGGAGAAGACCCCACCGCCTAGAC
CCAGCCCGCTAGAGGCAGGCAGTGATGGCTGTGAGGAGCCGAAGCAGCAGGTGTCTTGGGAGCAGGAGTTCCTGG
TGGGCAGCAGCCCAGGAGGCAGCGGGCGGGCACTGTGCATGGTGTGTGGCGCTGAGATCCGGGCACCCTCGGCCG
ACACAGCTCGCTCGCACATCTTGGAGCAGCACCCTCACACCTTGGACCTGAGCCCTTCTGAGAAGAGCAATATCC
TGGAGGCCTGGAGTGAAGGGGTGGCCCTCTTGCAAGACGTGAGAGCTGAGCAGCCGTCCCCACCCAACTCAGACT
CGGGCCAGGATGCCCACCCAGACCCAGACGCCAACCCAGACGCTGCCAGAATGCCAGCCGAAATCGTCGTTCTCC
TTGACTCTGAGGATAACCCATCCCTCCCTAAAAGGAGCAGGCCCAGGGGACTCCGCCCCCTCGAGCTTCCTGCTG
TCCCTGCCACAGAGCCAGGAAATAAGAAGCCCCGTGGTCAGAGATGGAAGGAACCCCCAGGGGAAGAGCCAGTCA
GAAAGAAAAGAGGCAGACCTATGACCAAAAACCTGGACCCTGACCCAGAGCCCCCATCGCCAGACTCGCCCACGG
AGACTTTCGCAGCACCAGCCGAGGTCCGACACTTCACTGACGGCAGCTTCCCCGCCGGCTTCGTCTTGCAGCTCT
TCTCCCACACCCAGCTCAGGGGCCCAGACAGCAAGGACTCACCCAAAGACAGGGAAGTGGCAGAAGGAGGCCTTC
CCCGGGCGGAGAGCCCCTCTCCAGCTCCCCCTCCGGGGCTCCGCGGGACACTGGATCTCCAGGTTATCCGCGTGC
GGATGGAGGAGCCCCCAGCGGTCAGCCTCCTGCAAGACTGGTCCAGGCACCCCCAGGGCACCAAGCGTGTGGGAG
CAGGTGACACCTCAGACTGGCCCACAGTTCTGTCAGAATCCAGCACCACTGTGGCAGGGAAGCCGGAAAAAGGGA
ATGGAGTGTAAATTCTTGCTTTCCTGGGGAGGGAGGGAGGGATGAGGCAGCGTCCCCCAGTGGCTTATAACTCAG
AGCTGCCTGGCTCACCCACCTGGTGGAGAGAGTAGAAACAGGTGCCAGGGCAGGAGGGGGCTGGGGCAGCATCCA
CTGTTATTTCGGGGCACTGGAAAGTGTCTGTTCCTGGCCAGGCCTGAGGTCGGCGAGGGTGGCTGAGGCTGTTGT
GCAGTAGGGCACTGGGCCTGTGGAGAACACCTACCCCAGTCCTTCGCTGACCCCCACCTCTGTTTGTCCCCCATG
ACCTCCTCCCACCCTCCCCCTGCTCCCCACCATTCTCCCTTGGCACAGTGCCTTACACAAGAGTGGTCATAAGGG
GGTTTGAACTGAGTCCCACTACCTCGGGGGACACCTCTCCTCCCCACTTGTTCAGGCTTCTAAACCAGGAGGCCT
CCATTACCTCTTCCTGTCCCACCCCTGCAGAGGCCTGAAGCTGGGCCTGGGCACCCCATTCACTCCCGTTCTCAT
TTACATCTGTTTTCCTGTTGTATATATCACCTTTGTTGACAATAAATTATTTTTTTTTATT

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FIGURE 1285

CCCACCTTGGGACACCTTGACTCCAAGCCCAGCAGTAAGTCCAAC**ATG**ATTCGGGGCCGCAACTCAGCCACCTCT
GCTGATGAGCAGCCCCACATTGGAAACTACCGGCTCCTCAAGACCATTGGCAAGGGTAATTTTGCCAAGGTGAAG
TTGGCCCGACACATCCTGACTGGGAAAGAGGTAGCTGTGAAGATCATTGACAAGACTCAACTGAACTCCTCCAGC
CTCCAGAAACTATTCCGCGAAGTAAGAATAATGAAGGTTTTGAATCATCCCAACATAGTTAAATTATTTGAAGTG
ATTGAGACTGAGAAAACGCTCTACCTTGTCATGGAGTACGCTAGTGGCGGAGAGGTATTTGATTACCTAGTGGCT
CATGGCAGGATGAAAGAAAAAGAGGCTCGAGCCAAATTCCGCCAGATAGTGTCTGCTGTGCAGTACTGTCACCAG
AAGTTTATTGTCCATAGAGACTTAAAGGCAGAAAACCTGCTCTTGGATGCTGATATGAACATCAAGATTGCAGAC
TTTGGCTTCAGCAATGAATTCACCTTTGGGAACAAGCTGGACACCTTCTGTGGCAGTCCCCCTTATGCTGCCCCA
GAACTCTTCCAGGGCAAAAAATATGATGGACCCGAGGTGGATGTGTGGAGCCTAGGAGTTATCCTCTATACACTG
GTCAGCGGATCCCTGCCTTTTGATGGACAGAACCTCAAGGAGCTGCGGGAACGGGTACTGAGGGGAAAATACCGT
ATTCCATTCTACATGTCCACGGACTGTGAAAACCTGCTTAAGAAATTTCTCATTCTTAATCCCAGCAAGAGAGGC
ACTTTAGAGCAAATCATGAAAGATCGATGGATGAATGTGGGTCACGAAGATGATGAACTAAAGCCTTACGTGGAG
CCACTCCCTGACTACAAGGACCCCCGGCGGACAGAGCTGATGGTGTCCATGGGTTATACACGGGAAGAGATCCAG
GACTCGCTGGTGGGCCAGAGATACAACGAGGTGATGGCCACCTATCTGCTCCTGGGCTACAAGAGCTCCGAGCTG
GAAGGCGACACCATCACCCTGAAACCCCGGCCTTCAGCTGATCTGACCAATAGCAGCGCCCCATCCCCATCCCAC
AAGGTACAGCGCAGCGTGTCGGCCAATCCCAAGCAGCGGCGCTTCAGCGACCAGGCTGGTCCTGCCATTCCCACC
TCTAATTCTTACTCTAAGAAGACTCAGAGTAACAACGCAGAAAATAAGCGGCCTGAGGAGGACCGGGAGTCAGGG
CGGAAAGCCAGCAGCACAGCCAAGGTGCCTGCCAGCCCCCTGCCCGGTCTGGAGAGGAAGAAGACCACCCCAACC
CCCTCCACGAACAGCGTCCTCTCCACCAGCACAAATCGAAGCAGGAATTCCCCACTTTTGGAGCGGGCCAGCCTC
GGCCAGGCCTCCATCCAGAATGGCAAAGACAGCCTAACCATGCCAGGGTCCCGGGCCTCCACGGCTTCTGCTTCT
GCCGCAGTCTCTGCGGCCCGGCCCCGCCAGCACCAGAAATCCATGTCGGCCTCCGTGCACCCCAACAAGGCCTCT
GGGCTGCCCCCCCACGGAGAGTAACTGTGAGGTGCCGCGGCCCAGCACAGCCCCCCAGCGTGTCCCTGTTGCCTCC
CCATCCGCCCACAACATCAGCAGCAGTGGTGGAGCCCCAGACCGAACTAACTTCCCCCGGGGGTGTGTCCAGCCGA
AGCACCTTCCATGCTGGGCAGCTCCGACAGGTGCGGGACCAGCAGAATTTGCCCTACGGTGTGACCCCAGCCTCT
CCCTCTGGCCACAGCCAGGGCCGGCGGGGGGCCTCTGGGAGCATCTTCAGCAAGTTCACCTCCAAGTTTGTACGC
AGAAATCTGTCTTTCAGGTTTGCCAGAAGGAACCTGAATGAACCTGAAAGCAAAGACCGAGTGGAGACGCTCAGA
CCTCACGTGGTGGGCAGTGGCGGCAACGACAAAGAAAAGGAAGAATTTCGGGAGGCCAAGCCCCGCTCCCTCCGC
TTCACGTGGAGTATGAAGACCACGAGCTCCATGGAGCCCAACGAGATGATGCGGGAGATCCGCAAGGTGCTGGAC
GCGAACAGCTGCCAGAGCGAGCTGCATGAGAAGTACATGCTGCTGTGCATGCACGGCACGCCGGGCCACGAGGAC
TTCGTGCAGTGGGAGATGGAGGTGTGCAAACTGCCGCGGCTCTCTCTCAACGGGGTTCGATTTAAGCGGATATCG
GGCACCTCCATGGCCTTCAAAAACATTGCCTCCAAAATAGCCAACGAGCTGAAGCTT**TAA**CAGGCTGCCAGGAGC
GGGGGCGGCGGGGGGCGGGCCAGCTGGACGGGCTGCCGGCCGCTGCGCCGCCCCACCTGGGCGAGACTGCAGCGA
TGGATTGGTGTGTCTCCCCTGCTGGCACTTCTCCCCTCCCTGGCCCTTCTCAGTTTTCTCTTACATGTTTGTGGG
GGGTGGGAGATTGTTNTCCAGCACCCCACATTCACCCCTGCCCAGAGATTCCCCCTTCTCCTCTCCCCTACTGGA
GGCAAAGGAAGGGGAGGGTGGATGGGGGGGCAGGGCTCCCCCTCGGTACTGCGGTTGCACAGAGTATTTCGCCTA
AACCAAGAAATTTTTTATTACCAAAAAG

FIGURE 1286

GCTGCTGACTGGCGGGCCGCCAGGCGCGTGCGTAGAGACGCCCACACGCCCGCTGATGCGCACGCGCCCTGGGCC
GCGCGTGCGCGCGTGGGGTTCCGGAATGAGCCGGGGAAAGCAAGGGGAAGGTTTGGGGTTGGCTCCCGGTTTCGC
GCATGCGTGCACTGCACAAACCATTTGGCGGGTTTTTCCGGCCACTCAGTTCTGCCACCGTCACTGAGAAGCTCA
GCGGTAGCTTTTGGGAAGCAGGACGTTCTCACCAGGAGAGCGTCCTCTCGAGATTTCTGCTCCCTCCATTCAGGG
CGTTTGGGAGCCACCCCTTCATTTTTTAAAAAAAGTATTTCTCTGTGACCGACGGCCGGGGCCTTCTGACGGTCT
GAGGTCTTGCTTGGGCCAGTCACCTCCTGTCACGGTCCGCGGAGGGGGGAAGGATAAGAGGGCGAGGAGCTCATC
GCTCGCCACCCCCGTGGGCTTCTTGGGCGCAGGTCGGAGCTGGGTGGGCCGGCTCCCCGGCCCCTGGCTTGGGCG
ACC**ATG**TCCGCATCCGCCCAGCAGCTGGCGGAGGAGCTGCAGATCTTCGGCCTAGACTGCGAGGAGGCTCTAATT
GAGAAATTGGTAGAGCTTTGTGTTCAGTATGGACAGAATGAGGAGGGAATGGTAGGCGAGCTTATAGCCTTCTGC
ACCAGCACACATAAAGTTGGCCTTACCTCAGAGATCCTGAACTCTTTTGAGCATGAGTTTCTGAGCAAAAGATTA
TCGAAAGCCAGGCATAGTACCTGCAAGGACAGTGGCCATGCAGGAGCTAGAGACATTGTTTCCATTCAAGAGCTA
ATTGAAGTGGAAGAAGAAGAGGAAATCCTCTTGAACTCTTACACCACACCTTCAAAGGGTTCTCAGAAGCGAGCT
ATCTCTACCCCAGAAACCCCCCTAACAAAAAGGAGTGTGTCAACTCGTAGCCCCCATCAGCTACTCTCACCGTCA
AGTTTCTCTCCAAGTGCTACTCCCTCCCAGAAATACAACTCACGAAGTAACCGAGGAGAAGTGGTTACCTCCTTC
GGCTTAGCACAGGGAGTATCTTGGTCTGGGAGAGGAGGAGCTGGAAACATCAGCCTGAAGGTCTTGGGATGTCCA
GAGGCACTAACTGGGAGCTACAAATCCATGTTTCAGAAGCTCCCAGACATTCGAGAAGTTCTGACCTGTAAGATA
GAAGAACTTGGCAGCGAACTCAAGGAACATTACAAGATTGAAGCTTTCACTCCTTTGCTAGCCCCAGCACAGGAG
CCTGTCACTCTGCTGGGCCAGATTGGCTGTGATAGCAACGGGAAGCTGAACAACAAGTCAGTGATTCTCGAGGGA
GACCGGGAACATTCCTCGGGTGCTCAAATTCCAGTGGATTTATCTGAGCTTAAGGAATATTCTCTGTTTCCTGGA
CAGGTTGTAATTATGGAAGGAATCAACACCACTGGTAGGAAACTTGTTGCCACCAAACTCTACGAGGGTGTGCCA
CTTCCATTTTATCAGCCCACTGAAGAGGATGCAGACTTTGAGCAAAGCATGGTCCTGGTTGCCTGTGGACCATAC
ACCACATCTGACAGCATCACGTATGACCCCCTGCTTGACCTGATTGCTGTCATCAACCATGACCGGCCAGATGTC
TGCATCCTGTTTGGCCCTTTCCTGGATGCTAAGCATGAACAGGTGGAGAATTGTCTACTGACAAGTCCATTTGAA
GACATTTTCAAGCAGTGTCTACGAACAATTATTGAAGGCACAAGAAGCTCCGGCTCCCACCTTGTCTTTGTCCCG
TCATTGAGAGATGTGCACCATGAGCCTGTGTACCCCCAGCCGCCTTTCAGCTACTCCGATCTGTCTCGAGAGGAC
AAAAAGCAAGTACAGTTTGTGTCCGAGCCCTGCAGCCTCTCCATAAACGGAGTGATCTTCGGCTTGACATCCACA
GATCTGCTTTTCCACCTGGGGGCCGAGGAGATCAGTAGTTCTTCCGGAACTTCAGACAGATTCAGCCGAATACTC
AAGCACATCTTGACCCAGAGGAGCTACTACCCACTCTACCCGCCCCAAGAAGACATGGCCATTGACTATGAGTCG
TTCTATGTTTACGCACAGCTGCCTGTCACCCCAGATGTCCTCATCATCCCGTCAGAGCTGAGGTACTTCGTGAAG
GATGTCCTCGGCTGTGTCTGTGTGAACCCTGGGCGCCTTACCAAAGGGCAGGTGGGAGGCACCTTCGCCCGACTC
TACCTTAGGAGGCCGGCAGCGGACGGGGCAGAGAGGCAGAGCCCATGCATTGCTGTGCAGGTCGTCAGGATC**TGA**

GGCTTCTGTCCTCTGCTGTTCTCTGCTGTGTGGGCCCTTAAAGTCTTAGCCAAGAGCCAAGACATAGCCCTGTGA
CAAGGTGAACAGTTGGGTGGGAAAGGAGAGAGGAGCCAGCCAGGGAGGGGCAGCTGCAGTGACCAGGCCCAGCAG
GGAGGACTTGTGCAGCCGGGCCTGCCTCTGAGTGGTGCCTCTCCTGGAAGGAAGCTCTTGCTTCTCAGTCCATGC
TCCGTGTCCAGAAGTAAGCCAGCTGTGGATCCCGCCCACTCAGAAAAGGCGAGAAGGCTTTGTGATTTTCTACAT
GAATCAAACACAGAAACAACTTTTGGAGAAATTAAATTCTGAGTGTGACTTCTGAGTTTGACCTTTCTTCTATTT
TCTTTTATTTATTTATTTTGTTTTTAGACGGAGTCTCGATCTGTCGCCCAGGCTGGAGTGCAGTGGTGAGATCTC
GGCTCACTGCAAGCTCTGCCGCCCGGGTTCATGCCATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA

FIGURE 1287

AAGATGGCGGCTGTGGTGGAGAATGTAGTGAAGCTCCTTGGGGAGCAGTACTACAAAGATGCCATGGAGCAGTGC
CACAATTACAATGCTCGCCTCTGTGCTGAGCGCAGCGTGCGCCTGCCTTTCTTGGACTCACAGACCGGAGTAGCC
CAGAGCAATTGTTACATCTGGATGGAAAAGCGACACCGGGGTCCAGGATTGGCCTCCGGACAGCTGTACTCCTAC
CCTGCCCGGCGCTGGCGGAAAAAGCGGCGAGCCCATCCCCCTGAGGATCCACGACTTTCCTTCCCATCTATTAAG
CCAGACACAGACCAGACCCTGAAGAAGGAGGGGCTGATCTCTCAGGATGGCAGTAGTTTAGAGGCTCTGTTGCGC
ACTGACCCCCTGGAGAAGCGAGGTGCCCCGGATCCCCGAGTTGATGATGACAGCCTGGGCGAGTTTCCTGTGACC
AACAGTCGAGCGCGAAAGCGGATCCTAGAACCAGATGACTTCCTGGATGACCTCGATGATGAAGACTATGAAGAA
GATACTCCCAAGCGTCGGGGAAAGGGGAAATCCAAGGGTAAGGGTGTGGGCAGTGCCCGTAAGAAGCTGGATGCT
TCCATCCTGGAGGACCGGGATAAGCCCTATGCCTGTGACATTTGTGGAAAACGTTACAAGAACCGACCAGGCCTC
AGTTACCACTATGCCCACTCCCACTTGGCTGAGGAGGAGGGCGAGGACAAGGAAGACTCTCAACCACCCACTCCT
GTTTCCCAGAGGTCTGAGGAGCAGAAATCCAAAAAGGGTCCTGATGGATTGGCCTTGCCCAACAACTACTGTGAC
TTCTGCCTGGGGGACTCAAAGATTAACAAGAAGACGGGACAACCCGAGGAGCTGGTGTCCTGTTCTGACTGTGGC
CGCTCAGGGCATCCATCTTGCCTCCAATTTACCCCCGTGATGATGGCGGCAGTGAAGACATACCGCTGGCAGTGC
ATCGAGTGCAAATGTTGCAATATCTGCGGCACCTCCGAGAATGACGACCAGTTGCTCTTCTGTGATGACTGCGAT
CGTGGCTACCACATGTACTGTCTCACCCCGTCCATGTCTGAGCCCCCTGAAGGAAGTTGGAGCTGCCACCTGTGT
CTGGACCTGTTGAAAGAGAAAGCTTCCATCTACCAGAACCAGAACTCCTCTTGATGTGGCCACCCACCTGCTCCC
CGACATATCTAAGGCTGTTTCTCTCCTCCACTTCATATTTCATACCCATCTTTCCCTTCTTCCTCCTCTCCTTCA
CAAATCCAGAGAACCTTGGGGTGGTTGTGCCAGCCTGCCTTTGGCAGCTGCAAGCTGAGGTGGCAGCTCTGACCA
CCTCTGGCCCCAGGCCCTCAGGGAGAAAGGAGCAACACACTGCCCCTAGGCGTGCGTGTGGCCCAGTTTCTCTCT
GCTCTCCATTAAGTGCATTCACTCTGCTTGCCTTGGGCCCAGCCCCTGGTGATCACAGGGTTCAAACAGTGTCCT
CCTAGAAAGAGTGGGAGAGCAGCTCACTTCTCTGTGTTCTGCCTCCCCTCTGGTCTCCAGAGTTTTCCTGTCCTC
TAGAGGCAAGCCAGGCCAGGGAGCTGGGAGCGAGCAAGCTGAGGCCACGTCCACAAGGAGCTTTTCATGCCCCTG
TGCCGCATAGCCTCACCTCTTTCCTCCAGAGTGGCTCTCTGCGGCCCTGTGTTCCTGCTACAGAGTGTTCTTTTC
TGGAGTCAGGATGTTCTCGGTCACCCTCCTGGTTCTGCCCTGTCCCATTCCACCCCACCCCAGGGGGAACAGTAG
CTTCACCTTGTTATTCCCATTGCTCTCCTGGCTCACTCTTACGGTCGGTCTCCAGTGACTGAAGCATTCCCCACC
CTTGGAATTTCTCATCTTCTGCCTCCCTTCCTACTCCTTTTGGTTTTGTGGGGAGAGGGGAAGGATCAGGGGGCC
AGGCCAGCAGCTCGGGGGCCACAAGGAGATGGATAATGTGCCTGTTTTTTAACACAACAAAAAAGCCTACCTCCA
AAATCCCCTTTTTGTTCTTCCTGGACCTGGGCATTCAGCCTCCTGCTCTTAACTGAATTGGGAGCCTCTGCCACC
TGCCCCGTGTATCCTGGCTCTCAGCTCATGGGGAAGCCACATAGACATCCCTTTCTTCCCTTGCACGCTCGCTAG
CAGCTGGTAAGGTCTTCACACCCTGATTCCTCAAGTTTTCTGCTTAGTGGCACTGACATTAAGTAGTGGGGGGAC
AGTCCATGCCAGGACACCCTGGAGTAGCCTTCCCCCTTGGCCGTGGGCAGGCCCTAACTCACTGTCGCTTTGGAG
TTGAGGTGTCTTTTCTTTTTCTTTCTTTAGTTCCTGTATTCTAAACATTAGTAAAAATAAATGTTTTTACACAGA

FIGURE 1288A

GGAATTCTCTGGGGCTTTGGGGAATTTAGTGCGTGGGTGAGCCAAGAAAATACTAATTAATAATAGTAAGTTGTT
AGTGTTGGTTAAGTTGTTGCTTGGAAGTGAGAAGTTGCTTAGAAACTTTCCAAAGTGCTTAGAACTTTAAGTGCA
AACAGACAAACTAACAAACAAAAATTGTTTTGCTTTGCTACAAGGTGGGGAAGACTGAAGAAGTGTTAACTGAAA
ACAGGTGACACAGAGTCACCAGTTTTCCGAGAACCAAAGGGAGGGGTGTGTGATGCCATCTCACAGGCAGGGGAA
ATGTCTTTACCAGCTTCCTCCTGGTGGCCAAGACAGCCTGTTTCAGAGGGTTGTTTTGTTTGGGGTGTGGGTGTT
ATCAAGTGAATTAGTCACTTGAAAGATGGGCGTCAGACTTGCATACGCAGCAGATCAGCATCCTTCGCTGCCCCT
TAGCAACTTAGGTGGTTGATTTGAAACTGTGAAGGTGTGATTTTTTCAGGAGCTGGAAGTCTTAGAAAAGCCTTG
TAAATGCCTATATTGTGGGCTTTTAACGTATTTAAGGGACCACTTAAGACGAGATTAGATGGGCTCTTCTGGATT
TGTTCCTCATTTGTCACAGGTGTCTTGTGATTGAAAATCATGAGCGAAGTGAAATTGCATTGAATTTCAAGGGAA
TTTAGTATGTAAATCGTGCCTTAGAAACACATCTGTTGTCTTTTCTGTGTTTGGTCGATATTAATAATGGCAAAA
TTTTTGCCTATCTAGTATCTTCAAATTGTAGTCTTTGTAACAACCAAATAACCTTTTGTGGTCACTGTAAAATTA
ATATTTGGTAGACAGAATCCATGTACCTTTGCTAAGGTTAGAATGAATAATTTATTGTATTTTTAATTTGAATGT
TTGTGCTTTTTAAATGAGCCAAGACTAGAGGGGAAACTATCACCTAAAATCAGTTTGGAAAACAAGACCTAAAAA
GGGAAGGGGATGGGGATTGTGGGGAGAGAGTGGGCGAGGTGCCTTTACTACATGTGTGATCTGAAAACCCTGCTT
GGTTCTGAGCTGCGTCTATTGAATTGGTAAAGTAATACCAATGGCTTTTTATCATTTCCTTCTTCCCTTTAAGTT
TCACTTGAAATTTTAAAAATCATGGTTATTTTTATCGTTGGGATCTTTCTGTCTTCTGGGTTCCATTTTTTAAAT
GTTTAAAAATATGTTGACATGGTAGTTCAGTTCTTAACCAATGACTTGGGGATGATGCAAACAATTACTGTCGTT
GGGATTTAGAGTGTATTAGTCACGCATGTATGGGGAAGTAGTCTCGGGTATGCTGTTGTGAAATTGAAACTGTAA
AAGTAGATGGTTGAAAGTACTGGTATGTTGCTCTGTATGGTAAGAACTAATTCTGTTACGTCATGTACATAATTA
CTAATCACTTTTCTTCCCCTTTACAGCACAAATAAAGTTTGAGTTCTAAACTCATTAGAATTGTTGTATTGCTAT
GTTACATTTCTCGACCCCTATCACATTGCCTTCATAACGACTTTGGATGTATCTTCATATTGTAGATTTAGGTCT
AGATTTGCTAGCTCCAAGTAATTAAGGCCATGTAGGAGAGCATGGTAACCACAGATAGAACTGGTATTATCCCAA
GTGGTCTGCAGACTGCTGAGTGGGGATGGGATCTGCTCTCTGTTGAGAGTTGGTAATCATTGGTTTGAAATGTGA
TGAAACCACTCAAGCCAATGAAGGTGGGTGTGTAGGTGGGGAGTACTTTGCCATAATATTTTAAAACATTACCTG
GTTAGAGTTCTAAGTGGTACTTATTTTTGTTTGGTTAGGGGAAAGCCTGAATAAAAACAGAAATGGACACATAAT
ATGCATATTCCATAGTCTTTGGGAGGCTGGAATGTGCCTGGGATTTGGGTCTAAGTGTATGCGTAATTCTTACCT
CACTAAAGAATTTGCCTTGTTTTTTTCCTTTTGGTGAGTGACTAAAACGTCTGGGCTTCCCTGTGTGCGTGCTAC
AGTAAGCAAGCAGAGGCTGTGCAAAGGTGTGAGCAGGATCACGTGGAATCTGGAGGATACATCTTGGCTTGCAAA
CTGCCTCTGTCTCCTGGGTGGGACTGTTCTGTCCTTGCACTGCTGTTCTGTGTTACCTCTTGGGGTGTAAGGTTT
TGCTTACAGGAGACAAACTTTGGGCGTAGAATGGAAGCCACTGCCAGCCTCTGTGCTGAGAAGGAAGGTGCTTGT
TTCAAAGGGAGCAGCAAGGGAGGCTTGTTCTACTCACCTGGGCCTGTTTGCCTGAGAAGGGGAGATAAGGGCTGA
ACTGGGACTAGCCAGGGGGACCAACACAAATGGTGGGGGATCATGACCTGAAGGATTCTTTCCTTCCCATGAGCT
GCAGGGCTGGTTGCCGTCCTTGCAACTGTGTCTTATTTGCCTGTGCCGTTATATCTTGGTGACCCCTCCACGTGT
ACACTACTGACAAACGGGTGGAGTGCTGGGGAGAAGTCACTGTGCCGCCCACCTAGTAAACCTTCTGTCTGTGCT
CATGGCATCTCCAAGATGGGGCACTGCTGTGTGCAGAATCCAGGGTCCTCTTTCTGCTTGCAACTCCTTTCCCTG
GATGCCCCAGAAACAATCCAGGCCTCCTTTCCTATCTTACCCCTTTGCTTTGCTTTTTACCCCAGCACCTCTATA
ACCGCCTTCTCTTCTTTTCAGAACTCCTTGTTTCTCATCCTGTTTTTTATGATTACAAAACTCTTGCTTCCACCC
TGGAAGATAACTGCTATAGATGCCTGTATGTAAATGGTGCTGTCTCCAGCAACTGGCATGCTGAAGAAGAATTGA
TTCACGGGGTATAAATGTTGGGGATTGGAAGTGGGGATGAAATGGCACTTGTTGATACAGGAGCAGAGAGGTGAG
GCCGACTGCTGAAGACAGCTCGCCACCCTCCTTGCCTCCACTCCAATCCAGGGGCTGGGGCCACATTCTTTGCCT
TCATTTATCCTCAGATCAGGTGAGATCGACAGGAGGTGTTGATGGCAGTGCCAGCAATTATTGCTAATCCGTTTG
CATCCTTATGCATAGATCTGAATTCAGACTTTGTGAATTTCCAGAGGTGTGGGTAATATAATAGAATTCAGTGAG
TGGGCATGGCTGATCTTGTGCAAATTAAAAGTTATGGGGCATAAGAATAGCAAAAGTTGAACTTCTTTTAAAAAG
GAAAGTACCCTGAGAGCCAGTATTGGTTGAGGCTCTTCAGTATGCCCAGGTTGGCAGCACTGAGAACCGCAGGAA
CGGCCTGTTGTTACAAAAAGGAGATTGACTCAGCTGCCCTTGGTGCATCTGACTGACTATGACTGCTGAGAGATT
CCAAGGACCCTTAATGCCAGGGCTAACCTCTCCATGTGCAGTGAGACCTCTGGAGGAAGTGTCATCCTCTGGCTT
TGTGTGGTACTCATTATGGTGCAGTGCGGGCATGAAATGAAGACACCCAAATAGGCTTACAGATACGATATGTTT
TAAATGTTCGTATTTAACAAAAACATACTGACACTGTTTGGAAATGGCAACAGGAAGATAGCAAAATGAATACTA

FIGURE 1288B

ACATTACGAAAAGATGAACAGGTACATGTTCCAAGGCAGGTGGCTGTGAACTTCCTCTGAGTGAAGGCATCCCCT
CCAGCACCTTTCAGCCTGCTAGTTAGGACGACCCGCCGCCACCCTCCAGGACCTCCAGCCCTGCACTGCCTTTCC
TCTCTTTTAAATAATTCTTCATTGAGTTCTAATATGTAAAAAAAAAAAAGTTTACTGTAAAGTTTGCAAATAAGGA
AATTTTTTTTAAAAGTCCTCAGTAATCTTACCAGTAACAATTGTTATGGGCACATTTGCTTTTGGAAGATTTCTT
TTGTATGCATGGGATAAGTACATTTTTAAACAAAAATGGGATTATGCCATAAATTCTATTTTGTGACTTTAATAT
ATAGTGAACACCTTTTTTAATGATGACAGGATGTTCCCTTGCATGGCTGTATCAATTTAAACAATCTTGTTTCAA
TGGGCATACAGGGTATTTTCTAGTTTTTTTTTCCTCTTAGAAAATAATACTTGCGATGACTTTCCTTGTAGCTCA
GACTTTTTCACGTCTGTTGTTATCTCTTTGGGAATGCTGAATACATACATTTCGAGAAGGAAATGACTGTTAAAC
TCTTAAGACTTCAGGTTCATATTGCTAAACTGCCCAGCAGGGAGGGATTTTTTCAATTAGTGTTCTCACTGGTGA
GGCAAACCTGATGCCTTCCCCTCTTCCTCAGAACCGGCTTTATCACATTGAAAACCTTTGCTCCTCCGACGGATC
GAGTCTGCTTTCCCTGTGGATGTGAGCATTGCTTTGTCTGCTGGTGACTGAACATCTCTACCATGTGTCAATTGG
CCATTTGTGGTGTGTGTGTGTGTGCGTGTGTGTGTGTGTGTGTGTGTGTATGATTTTCTAATTCCTAGTCATTTT
TCTATTGATTGTTTTGCAAAAGCCATTTACATCTTAAGGATATTGATAATCTTTTGTTATATTTGATGCAAATAT
TTTTTTCCAGTTTATAGGTTGCCTTTTAATTTTGTGTTTCAGGTAGATAAAAGTTAAACGATTTTCTTAGGTTAG
TTTATCACTGTGGTTTCTGAACTTGTTATGTGTAGATCTTTTCCACCCCAAGAGTACATAAATATTAATCCATAC
TTTCTTATGGAACTTGTATGGTTTCGTTTTTTACATTTAAACCTTCTTCCCCGTGGTGTGTGTTGTGGAATCTGT
GTTTGTGTGAGGAGGGGCATGGTGCTCTCAGAACCCACCTCCTGTGGCCAGAGAGCCCTGTCCTGTGAGGGTGGT
TATCACAGTGGCAGGGTTCAATTCAGAAGACCTTGAGGGCAGGCTGATGTTTCCTGAATGGGCCCCTGGTTGTTG
CTTGTCCCTGACTCTCCATTTCCCCATCTGAGTGGATTTGGACCTAATAGGGCACTGGAGCTGGTTCGAATCCTG
ACTGGACTACTTGGCAACTTTATGTCTGGGAGCAAGTTACTTAACCTCCCCAAGCCTGTGTCTGTGAAATGCGGG
TAAATGAATGTAG**ATG**TTTGGCAGCAGCTACTCCTTGTTGAGCTCTCACAGTGAACTCTCCTGCCTCTGCCCTCC
TTCCCCGCCTCCCCTGGTGCCTAGCGTCAGGTCTAGCCACTTCCTCCTGGGCCCCTCTCCCTTTTCTGTGGCTGG
CTGCCTGCCCGCCTGGCGCTGGACCTTTCATGTAACGGGAATCAGCATGTATATTCTGGTCTGGTCTGTTTCTAC
ACTTAATTTTGTTTCCAGTAGTATTTCCCTGTACCGGCAGAGTTCACAAACACATTTGAAGAGGCTTTTTCTCAG
GATTCTTAACCTTCCCAAAGGAAGTCCCATGGATGGGTTTCTAGAAGTCTATAAATGCTCTGAAATTGTATTTTT
CTGTGGAAAGCATAACTTTCATCTGCTTGTTCGTGCTCAAAAAAGATCA**TGA**ATGAATGATTGCATGATTTTATG
CCATTGTGCTTATACTAAAGGATATGTAGCCCATCTCTTGAGCTGTTAAACTGTTTTGACTACTTTAAATCGTGC
AGCTGTGAGCATCTCTGTAAATTTAGTGTACACATGTATCCCCTGGAGTGGCATTGCCTCGGCAGTGAGCACTTA
TGGTTTTATAACTCTCTTCACAGACTCAAATGACTCCAGAAAGCTACACTTCCTGTTGTGAGTATATGATATCCA
TTTCCCTACATAGCCACTAACATCAGGTTTTTACAATTTTATTTATTTCTTGCTACTTTAAGAAATTTTTGTGGT
GAAATACATATAATAGAAGTTGACTATCTGAATCATTTTTAAGTATACATTCAGTAGTGTTAAGTATGTCGCCAT
TGTTGTACAACCAATCTCCAGAACTTTTTCATCTTGCAAAACAAACTCTGTACCCATTAAATAACATTAAACATT
CCATTCCCTCCAGCCTCAGCAACCCCATTCTACTTTCTGTTTCTGTGAGTTTGACTATTCCAAGCACTTCATATC
AGTTAAATCATGAAGTATTTGTCTGTCTGTGACTGGCTTATTTCTCTGAGCACAGTGTCCTCGAGATGCGTCTAT
GTTGTAGCATATGTCAGAATTTCCTTCCTTTTTAAAAGATCCAAATAATATTCTTATTTTATATCTTTTTTTTAT
CCATTCATCCATTAGTGGACACTTGGGTTGCTTTTGGCTATTGTAAATAATGGTGCTATGTACAAATATCTATAT
TATTGTATTTACAAGTATAATGCTGTAATGTACACACATCTTTTTGAGATCCTACCTTCAGTTCTTTTGAGTATA
TAGCCAGAAGTGGTATTACTAAATCTTACGATATTTCTATTTTTAATTTATTGAGGAACCACTGTAGTTTTTCAT
AGCAACTGCACCATTTTACGTTCTCACCAAGAGTGCACAAGGGTTCCGAGGTTCCCACATCCTCCCCAACACTTG
TTATTTTCTGCTTTTTTTAGATTGCAGCCATCATAGTGGGTGTGAGGTGACATTTCATTGTGGTTTTGATTTGCA
TTTCCCTAATGAGGAGTGATGCTGAGCATCTTTTCATATGCTTACTGGTCATTTGTATGTTGTCTTTGGAAAAAT
GTCTATTCAAGTCCTTTGACTATTTTAAAAATTGGGTTATTAGAGTTATCGTTGTTGTTGACTTGTAGGAGTTTC
TTTCTATATTCTGGATATTAATCCCCTATCAGATATATGATTTGCAAATATCTTCTCTTATTCCATAAGGTTACT
TTTTCACTTTGTTGATTGTGTTCTTTGATGTATAGAAGTTTTTAGTTTTGAAATAGTCTAATTTATCTGTTTTTA
CTTTTGTGGTCTGTGCTTTTGGTGTCATATCCAAGAAATCCTTGCCAAATCCAACGTTATAAGGTACTTTTAAGG
TATTTTAGTTGTCTTAGTCTATATTTCTGTACTCACCTTTCTTTATCCACTCATCAGTTGATGGGCATGTAGGTT
GGTTCCATATCTTTGCAATTCTGAATTGTGCTGTGATCAGGTGTCTTTTTAGTATAATGATTTACTCTCCTTTGG
GTAGATACCCAGTAGTGGGATTGCTGGATCGAATGGTTTTTATAATTTTCTATTTTACCACAGTTTCTCTCTGCA

FIGURE 1288C

TTTTTCCTCTTTGACCACTAACCATGTGAAATTCTCATATTGACCTTTATAATGATCATGAACTCTTAGTATCAT
TGGGAAGGCCACATTTGCCACTTATGATTGTAAACCTTATCCTCCATTTTTCCTGTTATTGTTGGTGCAAAAAGC
ACCTATTATACCAGGACTTTAAAAATCAGTCTGATAAGTCTTTGATAAGTCTAATAATAATAACTGATAAGTCCA
TTGAATTTGCTTCTGATTACTTTTTCTTTAGTAGCTAAACATGTATGTACTCCTATGATTACAATGAACACTCCT
CTCCATTTAAATTAATTATTTACATTGATGAAATAGCAAAATGTTAATGACTAAATACTGTCTTGGTTTTTTCGT
TCCAGGTCAGTCAATATTAACTTCTTATAATTTTCTTTTTTTTCTTTATGTGTGTGTGTGTGTGTATTTTTTTTT
TTTTAATTTCAATGGCTTTTGGGGTACAAATGGCTTTTGGTCATATAGATGAATTCTACAGTAGTGAAGTCTGAG
ATTTTACTGCACCGGTCACCTGAGTAGTGTACATTGTACCCAATATGTGGTTTTTTATACCTTGCCCCCCTCTTA
CCCTCCCCACTTTGAGTCTCTAGTGTCCATTATGTCACTCTGTATACCTTTTTGTACCCATAAGTTAGCTCTCAC
TTATAAGTGAGAACACACAGTATTTGGTTTTCCATTCCTGAGTTGCTTCACTTAGAATAATATCCTCCAGCTCCA
TCCAAAATTGCTGCAAAAAAAAAAAAAACCACAAACATTATTTTGTTCTTTTTTATTGCTAAGTCATATTCCATG
GTGTAGAGATACCACATTTTATTTATCCACTCACTGGTTGATGGGTTGGTTCCACATCTTTGCAATTGTGACTTG
TACTGCCATCAAGTGTCTTTCTGGTATAATGACTTCTTTTCCTTTGGGTAGATACCCAGGAGTGGGATTGCTAGA
TCAAATGGTTCTTAACATTTTCTCTCTGGATCTATTTCTGGAAATTTTAGGCTCCAGTTTTTGTTGTTGTTGTTA
ATAAAATGCAATGGAATGTAATGATCATCACTTTTCATTATGCTTTAAAATCTGGTAAATGGAGGCTAGAACACT
CCTGTAAGGCAAGAATATTCTCTCTGTTGGAACTCAAATACACAGAACTGGGTAAATCTCAATCTTAATCTTTGA
TTCAGGACACAACATGGCTCTCTTTTACTTGCTTTCTTTAATTGTTTTTTAATAATGTGGTAAGCATTTCTGAAT
CTCCTATCCAATACAAAAACTAGGACAATACAGACAGTAACTCCTATGGTTACAATGAACACTCCTCTCCACTTA
AATTAATTATTTACACTGATGAAATTGAAATAGCAAAATTTTAATGACTAAATACTGTCTTTGATTTTTTGTTCC
AGGTCTGTCAATATTAACTTCTTATAATTTTCTTTTTTTTTCTTTATGTGTGTGTGTGTGTGTATATATATATAT
ATTTAATTTCAATGGCTTTTGGGGTACAAATGGCTTTTGGTCATATATATGAGTTCTACAGTAGTGAAGTCTGAG
ATTTTACTACACCTTCCACTTATGTGGTCCCACACCACCCGCCTCCCCTGCCGCCTCCTGCCACCCCCTAGGCCA
AGGTAATAATCATCCTGAATCCTGGGTTTATCTCTCACTTGCTTTCTTTTCATATAATTTTGCAAAAGAATCTGA
TCTAAATGTGTTTTTCAGAGTATATATTTATATTTTAGCTGTTCTTAGAGAAAATTTATTATTTTGCATGTAATC
TTATGGAACATTCTCATTTAATACCATGGTAAGATTCAGCCCTTGCCCAGGGGATAGTTCATTTAGTTTGTTTAC
TGGATAGAGCTCATCATGTGACTATACCTCAGTTAGTTTATCAGTTCTCCCATCCATGGTGACTAGGTTGCCTCT
CAGCCTCTCAACAACACTGTTTCTCAGTGTCCTTGTAGAAGTGATATGTGGGTGTTTTCTCCTTACACAGAGTTG
AAAGGTGACGACAACAACGTTGGCACTACCAATCCCCCACCCTCCAGAGGGGTAACCAGTGTTACCAGTTTGCTG
TGTTTCCTGCTACACCTCGCCTTATTCACTTCCATTTGTATCTGAAAAACGTGTTGCATGGTTTCTTTTCTATAG
AAGTGGTAAAATGCTATTGTGTCCTGTACATTATTGATTACTTTTTTTCATTTAACAGTAGGGAGATGCCTGGGA
GTACACAGAGAACTGCCCTCATTGTTTTCAACTTCTGCACTGTATGTCTGTGAGTTTAGCCATTCTGCTGTTAAT
GGAAATTTACAGTATTCTAATCTTTTGATATTACAAACAGTTCTGTGCGATCATCGTCATACACAACCCCTTGTG
CACAATGCATGAGTGTTTCTCAGGGTAGGTACCAAGAAGTGAAATTCCTGGGTCATAGGGCGTGAGTCCGACATT
TTTCTCCATTCTGCCCTGTTGCCCTCCAGAGTGGGTGTCCAGCTTTGCATACCTAAGTATGAGAGTATCTGTTGT
TCATATCCTCTACGACGCTCCATATATGAAACTTAAGTTTCTGCTAGTTGCCATCTTTGATCTATCATGTATGCA
GTGACCTACTAAGACTGTAATTGGTACAGTAGATTCTTGTCATCTGTGTGTGAATTTAGCATTCATGGGCTTAAT
GCTGACAAGGCCCCCAGGGTCCAAGACATATAATCATGTATAATTTTGTCAAGGTATAATTTTTTAAATTGCTTT
TGTCATGTGTCTGCTGGTGATGCCCAACCCAGTGCTCTGCACCCAGGTCACACTGTGGCTTTGTCCTCTGCTTAT
GCCTGCATTGCAGCAACTGTCCTGAAGAGACCAAAATTATGCAGATTTAGGTAAGTCCATGGCTAATGTTATTAT
ATTATGTGCTATTGTAATGGATGGGGCTGTGGAGTGTATGAATTTATAAATCACTGGTCTTGTAATTAAAATTCA
AACACTATAGAAAAAGGCCATGTAGAAGATAAAAGTTCCTCTATAATCCCGGACCCCTAAGATAACTACTAATGA
CAACTTCATTTATATTCCTTCAGACATTTTCTGGCTGTGGATGTACTAAAATGTATCCTATTATTCTCTGCCCTA
AAATGGAATCATACAAGGTGTACTGTTATTTTTATGGCTCTATAACATGTCATATTGTACGTGTTGGTATGGTCA
TTTTAACCATTTTTCTAGTGATGGCTTTGAGGTTATTTGCAGTTTCCTAGCCATCTCAAAGTGTGCTGCGGGGAT
CTCTTTTGCATCCCTCTGGGTGCAGAGCTGAGGCACCCAGAGGCAGTGTCCAGAGGAGGCAGCATCTGTAGGTGT
CTTCACCTGCTCTGGCTCTTGGCACATCTGGTTGGTGACACTGTTTTGTGAGATGGGTTGAAAGCACGTGCTGCC
AAAATAGAATAATGTTGGTCCTCTCCTCATGTGCCGTGGAACTGGGGTAAAACTGCGTAGTGGCTGCAGCTGCCT
GTCCATACCGGAATCGAGTATAACACGGTGCCTGGCTTAGCACAAAACAGTAGTGGGTCCTGCAGGCCCCAGAGT

FIGURE 1288D

CTAATTCCTGGTATTCTTTCCCCTACACAGATTAAATAAACCAAAAACAAACTATTCTAGGAAAGCGTCTGTGAC
ATTTGTAAAAAGTGGTATTTAATGATCTTTTATTCACTTGTCTGTTTAGTTTGTTGAAATCTTAAGTGGCATCCT
GGTCTGGGAAGGAGTGCTGTCTGCGCCTGCCCTCCGCTGGGCACAGCGTGGCTGCTTCAGGGGCTAAGCACACAC
TTTCTGTCTTCTAAAGGGCCGCCACATGCCAGGAGCTCAGGTGTGAGCCCGGCTCTGGCTCTTACCTCATAGGGT
CACTCATAGGGGCACAGGGAGCAGAACATTGTACACAGCGAGGCACCACCCGGCTTGGCATCTGCCTCGGTGGAC
TTACTACCTCTAGAAGGAAATACCTGAGTTCCTCTGGCCTCAGCTCCTAGAGTGACTGGTGTGCTGTCCCTGTTA
CTCTTCTGTCAAGGTGACAACTGTGTGACCCATCATCTGTGTGTCAAAGCAAGGCCCTGCCTGGGCCTCTGCTCC
TGTGCTGACCCCAAAGGCAAATGCTTTGCTAGTTTCCTTCCAGTTAATTTCACCTATGAATAGATGTGTGAAAAC
TGTTCAAAGCCATACCTGCACATGTTTGAACTTCAAACCCTGTGGGTGATTCAGTGGCATCTTTCTCTAACCCCC
AGCCTCCCTTCCCACAGAGGCCACCGTCATGGCCAGTTGCTGCAGTTTCTTTCCAGAGAACCTGTGTATGTGTAA
AGCTGTACAGGCGTGGGTACACCACACAGCCTGTCTTGCACTGTGGACTGTTGAGTTACTAGTACATCTAGGTAA
GCACCGCATATCTGTATTCATGTCTGCCTTGGTCTTTTCAACATCTGTGTGGTAGCCGTGTTTGAATTACCCATT
CCCTTTTTGGGGAACCATTAAGTTGTTTCAGCAATTTTTACTGTAGATAAGGCTATACCGCATATCTGTGTACAT
GGGTTTTTATGTACATGGGCAAGTATATCTGTGAGAGAAAAGTTTCCTCAGGAGGAATTCTGGGCACAGCATGTG
TAAATTTCTAAATATGATGGACACCCCCAGCTTCCACCTCAAGGAGGTTGGTCCCATTGACATTTCCCCACACCT
TCACCCAGGCTGTGCCCTTAAACTTGGTTATTTGTCAATGTGAGAAGTGGAAAATAGTATTTAATTGTAGTTTGG
ATTTGTATTTCTATTGGGTTGTATACTTACTGATTAATAATAAGAGCTCTTTACATATTAAGGAAATTAACCCTT
TTCAAATACATTCCTATTTCTCACTAATCTTTAAGTTTTATTGTAATATTTTGCTCTTTAGTTTATATATATATG
TATATATATATATATATGTATATATATATATATATACATATATATATACATATATATATA

FIGURE 1289

AGCCCCCCCATCCCCGCCCCTCTCCCGCCCCTCCCTTGTCCCCGCCCCTTCCCGCCCCAACTCAGGTTCTGCCCC
ACCCCGCCCCAATTCACGTCCTGCTCCGCCCCGACGTAGGCCCCGCCCTGGCCCCCGGGCCCCGCCCCCGTCTGA
CGCAGGCCCCGCCCCCTCTCCGCCCCGCCCCGGCTCGGGCGGCCGGAGGACCCGGAGCTAAGGCGCCCGAACCCG
CGGCGGCGGTGGGGACG**ATG**TGGTTCTTTGCCCGGGACCCGGTCCGGGACTTTCCGTTCGAGCTCATCCCGGAGC
CCCCAGAGGGCGGCCTGCCCGGGCCCTGGGCCCTGCACCGCGGCCGCAAGAAGGCCACAGGCAGCCCCGTGTCCA
TCTTCGTCTATGATGTGAAGCCTGGCGCGGAAGAGCAGACCCAGGTGGCCAAAGCTGCCTTCAAGCGCTTCAAAA
CTCTACGGCACCCCAACATCCTGGCTTACATCGATGGACTGGAGACAGAAAAATGCCTCCACGTCGTGACAGAGG
CTGTGACCCCGTTGGGAATATACCTCAAGGCGAGAGTGGAGGCTGGTGGCCTGAAGGAGCTGGAGATCTCCTGGG
GGCTACACCAGATCGTGAAAGCCCTCAGCTTCCTGGTCAACGACTGCAGCCTCATCCACAACAATGTCTGCATGG
CCGCCGTGTTCGTGGACCGAGCTGGCGAGTGGAAGCTTGGGGGCCTGGACTACATGTATTCGGCCCAGGGCAACG
GTGGGGGACCTCCCCGCAAGGGGATCCCCGAGCTTGAGCAGTATGACCCCCCGGAGTTGGCTGACAGCAGTGGCA
GAGTGGTCAGAGAGAAGTGGTCAGCAGACATGTGGCGCTTGGGCTGCCTCATTTGGGAAGTCTTCAATGGGCCCC
TACCTCGGGCAGCAGCCCTACGCAACCCTGGGAAGATCCCCAAAACGCTGGTGCCCCATTACTGTGAGCTGGTGG
GAGCAAACCCCAAGGTGCGTCCCAACCCAGCCCGCTTCCTGCAGAACTGCCGGGCACCTGGTGGCTTCATGAGCA
ACCGCTTTGTAGAAACCAACCTCTTCCTGGAGGAGATTCAGATCAAAGAGCCAGCCGAGAAGCAAAAATTCTTCC
AGGAGCTGAGCAAGAGCCTGGACGCATTCCCTGAGGATTTCTGTCGGCACAAGGTGCTGCCCCAGCTGCTGACCG
CCTTCGAGTTCGGCAATGCTGGGGCCGTTGTCCTCACGCCCCTCTTCAAGGTGGGCAAGTTCCTGAGCGCTGAGG
AGTATCAGCAGAAGATCATCCCTGTGGTGGTCAAGATGTTCTCATCCACTGACCGGGCCATGCGCATCCGCCTCC
TGCAGCAGATGGAGCAGTTCATCCAGTACCTTGACGAGCCAACAGTCAACACCCAGATCTTCCCCCACGTCGTAC
ATGGCTTCCTGGACACCAACCCTGCCATCCGGGAGCAGACGGTCAAGTCCATGCTGCTCCTGGCCCCAAAGCTGA
ACGAGGCCAACCTCAATGTGGAGCTGATGAAGCACTTTGCACGGCTACAGGCCAAGGATGAACAGGGCCCCATCC
GCTGCAACACCACAGTCTGCCTGGGCAAAATCGGCTCCTACCTCAGTGCTAGCACCAGACACAGGGTCCTTACCT
CTGCCTTCAGCCGAGCCACTAGGGACCCGTTTGCACCGTCCCGGGTTGCGGGTGTCCTGGGCTTTGCTGCCACCC
ACAACCTCTACTCAATGAACGACTGTGCCCAGAAGATCCTGCCTGTGCTCTGCGGTCTCACTGTAGATCCTGAGA
AATCCGTGCGAGACCAGGCCTTCAAGGCCATTCGGAGCTTCCTGTCCAAATTGGAGTCTGTGTCGGAGGACCCGA
CCCAGCTGGAGGAAGTGGAGAAGGATGTCCATGCAGCCTCCAGCCCTGGCATGGGAGGAGCCGCAGCTAGCTGGG
CAGGCTGGGCCGTGACCGGGGTCTCCTCACTCACCTCCAAGCTGATCCGTTCGCACCCAACCACTGCCCCAACAG
AAACCAACATTCCCCAAAGACCCACGCCTGAAGGCCACTGGGAGACGCAGGAGGAGGACAAGGACACAGCAGAGG
ACAGCAGCACTGCTGACAGATGGGACGACGAAGACTGGGGCAGCCTGGAGCAGGAGGCCGAGTCTGTGCTGGCCC
AGCAGGACGACTGGAGCACCGGGGGCCAAGTGAGCCGTGCTAGTCAGGTCAGCAACTCCGACCACAAATCCTCCA
AATCCCCAGAGTCCGACTGGAGCAGCTGGGAAGCTGAGGGCTCCTGGGAACAGGGCTGGCAGGAGCCAAGCTCCC
AGGAGCCACCTCCTGACGGTACACGGCTGGCCAGCGAGTATAACTGGGGTGGCCCAGAGTCCAGCGACAAGGGCG
ACCCCTTCGCTACCCTGTCTGCACGTCCCAGCACCCAGCCGAGGCCAGACTCTTGGGGTGAGGACAACTGGGAGG
GCCTCGAGACTGACAGTCGACAGGTCAAGGCTGAGCTGGCCCGGAAGAAGCGCGAGGAGCGGCGGCGGGAGATGG
AGGCCAAACGCGCCGAGAGGAAGGTGGCCAAGGGCCCCATGAAGCTGGGAGCCCGGAAGCTGGAC**TGA**ACCGTGG
CGGTGGCCCTTCCCGGCTGCGGAGAGCCCGCCCCACAGATGTATTTATTGTACAAACCATGTGAGCCCGGCCGGC
CCAGCCAGGCCATCTCACGTGTACATAATCAGAGCCACAATAAATTCTATTTCAC

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FIGURE 1290

CAGAGACTGATGAGTGCCGACTGAACCAGAACATCTGTGGCCACGGAGAGTGCGTGCCGGGCCCCCCTGACTACT
CCTGCCACTGCAACCCCGGCTACCGGTCACATCCCCAGCACCGCTACTGCGTGGATGTGAACGAGTGCGAGGCAG
AGCCCTGTGGCCCGGGGAGGGGCATCTGC**ATG**AACACCGGCGGCTCCTACAATTGCCACTGCAACCGCGGCTACC
GCCTGCACGTGGGCGCCGGGGGGCGCTCGTGCGTGGACCTGAACGAATGCGCCAAGCCCCACCTGTGCGGCGACG
GCGGCTTCTGCATCAACTTTCCCGGTCACTACAAGTGCAACTGCTACCCCGGCTACCGGCTCAAAGCCTCCCGGC
CTCCTGTGTGCGAAGACATCGACGAGTGCCGGGACCCAAGCTCTTGCCCGGATGGCAAATGCGAGAACAAGCCCG
GGAGCTTCAAGTGCATCGCCTGTCAGCCTGGCTACCGCAGCCAGGGGGGCGGGGCCTGTCGCGACGTGAACGAGT
GCGCCGAGGGCAGCCCCTGCTCGCCTGGCTGGTGCGAGAACCTCCCGGGCTCCTTCCGCTGCACCTGTGCCCAGG
GCTACGCGCCCGCGCCCGACGGCCGCAGTTGCTTGGATGTGGACGAGTGTGAGGCTGGGGACGTGTGTGACAATG
GCATCTGCAGCAACACGCCAGGATCTTTCCAGTGTCAGTGCCTCTCTGGCTACCATCTGTCCAGGGACCGGAGCC
ACTGCGAGGACATTGATGAGTGTGACTTCCCTGCAGCCTGCATTGGGGGTGACTGCATCAATACCAATGGCTCCT
ACAGATGTCTTTGCCCCCAGGGGCATCGGCTGGTGGGTGGCAGGAAATGCCAAGACATAGATGAGTGCAGCCAGG
ACCCGAGCCTGTGCCTTCCCCATGGGGCCTGCAAGAACCTTCAGGGCTCCTATGTGTGTGTCTGCGATGAGGGCT
TCACTCCCACCCAGGACCAGCACGGTTGTGAGGAGGTGGAGCAGCCCCACCACAAGAAGGAGTGCTACCTGAACT
TCGATGACACAGTGTTCTGCGACAGCGTATTGGCCACCAACGTGACCCAGCAGGAGTGCTGCTGCTCTCTGGGGG
CCGGCTGGGGCGACCACTGCGAAATCTACCCCTGCCCAGTCTACAGCTCAGCCGAGTTCCACAGCCTCTGCCCAG
ACGGAAAGGGCTACACCCAGGACAACAACATCGTCAACTACGGCATCCCAGCCCACCGTGACATCGACGAGTGCA
TGTTGTTCGGGTCGGAGATTTGCAAGGAGGGCAAGTGCGTGAACACGCAGCCTGGCTACGAGTGCTACTGCAAGC
AGGGCTTCTACTACGACGGGAACCTGCTGGAATGCGTGGACGTGGACGAGTGCCTGGACGAGTCCAACTGCCGGA
ACGGAGTGTGTGAGAACACGCGCGGCGGCTACCGCTGTGCCTGCACGCCCCCTGCCGAGTACAGTCCCGCGCAGC
GCCAGTGCCTGAGCCCGGAAGAGATGGACGTGGACGAGTGCCAGGACCCGGCAGCCTGCCGCCCTGGCCGCTGCG
TCAACCTGCCGGGCTCCTACCGCTGCGAGTGTCGCCCGCCCTGGGTGCCCGGGCCCTCCGGCCGCGATTGCCAGC
TCCCCGAGAGCCCGGCCGAGCGTGCCCCGGAGCGGCGCGACGTGTGCTGGAGCCAGCGCGGAGAGGACGGCATGT
GCGCTGGCCCCCTGGCCGGGCCTGCCCTCACCTTCGACGACTGCTGCTGCCGCCAGGGCCGCGGCTGGGGCGCCC
AATGCCGACCGTGCCCGCCGCGCGGCGCGGGGTCCCATTGCCCGACATCGCAGAGCGAGAGCAATTCCTTCTGGG
ACACAAGCCCCCTGCTGTTGGGGAAGCCCCCAAGAGATGAGGACAGTTCAGAGGAGGATTCAGACGAGTGTCGCT
GCGTGAGTGGCCGCTGCGTGCCGCGGCCGGGCGGCGCCGTGTGCGAGTGTCCCGGCGGCTTCCAGCTCGACGCCT
CCCGCGCCCGCTGCGTGGATATCGACGAGTGCCGAGAGCTGAACCAGCGCGGGCTGCTGTGCAAGAGCGAGCGCT
GCGTGAACACCAGCGGCTCCTTCCGCTGCGTCTGCAAAGCCGGCTTCGCGCGCAGCCGCCCGCACGGGGCCTGCG
TTCCCCAGCGCCGCCGC**TGA**CGCCGCCGACGCCGCCCTCGGCCCAGACCTCGGTGATCACTGAGGGATTTCCGCG
AGCTCGGCCTCACTTCTGCCCCGACTTGTGGCTCGGACCCAGGGACCTTCAGGGCCCGCAGACCCTCCCGGCGCC
TTGAGACCCGAGGCGCCCCTACCGGCCCCCCTCCCCGGTTAGCGGGCGGTTGTAAGGTCTCCGGCGGGCGCTGCC
TGCCTTCCTCCCAGAGGGTGTTTCCTAGAAACTGATAAATCAGATCGTGCCTCTTTACCCTTGGCTTTCG

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FIGURE 1291

CTCCCAAAGCAGAATTGCAGCTGCCGCCGCCGCCACCTCCAGGCCACTATGGCGCCTGGGCTGCCCAGGAGCTTC
AGGCCAAGTTGGCAGAGATCGGAGCTCCGATCCAGGGTAATCGCGAGGAGCTGGTGGAGCGGCTGCAGAGCTACA
CCCGCCAGACTGGCATCGTGCTGAATCGGCCGGTTTTGAGAGGGGAAGATGGGGACAAAGCCGCTCCACCTCCCA
TGTCGGCACAGCTCCCTGGAATTCCCATGCCACCACCACCTTTGGGACTCCCCCCTCTGCAGCCTCCTCCGCCAC
CCCCACCACCTCCACCAGGCCTTGGCCTTGGCTTTCCTATGGCCCACCCACCAAATTTGGGGCCCCCGCCTCCTC
TCCGTGTGGGTGAGCCAGTGGCACTGTCAGAGGAGGAGCGGCTGAAGTTGGCTCAGCAGCAGGCGGCATTGCTGA
TGCAGCAGGAGGAGCGTGCCAAGCAGCAGGGAGATCATTCGCTGAAGGAACATGAGCTCTTGGAGCAGCAGAAGC
GGGCAGCTGTGTTACTGGAGCAGGAACGACAGCAGGAGATTGCCAAGATGGGCACCCCAGTCCCTCGGCCCCCAC
AAGACATGGGCCAGATTGGTGTGCGCACTCCTCTGGGTCCTCGAGTAGCTGCTCCAGTGGGCCCAGTGGGCCCCA
CTCCTACAGTTTTGCCCATGGGAGCCCCTGTTCCCCGGCCTCGTGGTCCCCCACCGCCCCCTGGAGATGAGAACA
GAGAGATGGATGACCCCTCTGTGGGCCCCAAGATCCCCCAGGCTTTGGAGAAGATCCTGCAGCTGAAGGAGAGCC
GCCAGGAAGAGATGAATTCTCAGCAGGAGGAAGAGGAAATGGAAACAGATGCTCGCTCGTCCCTGGGCCAGTCAG
CGTCAGAGACTGAGGAGGACACAGTGTCCGTATCTAAAAAGGAGAAAAACCGGAAGCGTAGGAACCGAAAGAAGA
AGAAAAAGCCCCAGCGGGTGCGAGGGGTGTCCTCTGAGAGCTCTGGGGACCGGGAGAAAGACTCAACCCGGTCCC
GTGGCTCTGATTCCCCAGCAGCTGATGTTGAGATTGAGTATGTGACTGAAGAACCTGAAATTTACGAGCCCAACT
TTATCTTCTTTAAGAGGATCTTTGAGGCTTTTAAGCTCACTGATGATGTGAAGAAGGAGAAAGAGAAGGAGCCAG
AGAAACTTGACAAACTGGAGAACTCTGCAGCCCCCAAGAAGAAGGGATTTGAAGAGGAGCACAAGGACAGTGATG
ATGACAGCAGTGATGACGAGCAGGAAAAGAAGCCAGAAGCCCCCAAGCTGTCCAAGAAGAAGTTGCGCCGAATGA
ACCGCTTCACTGTGGCTGAACTCAAGCAGCTGGTGGCTCGGCCCGATGTCGTGGAGATGCACGATGTGACAGCGC
AGGACCCTAAGCTCTTGGTTCACCTCAAGGCCACTCGGAACTCTGTGCCTGTGCCACGCCACTGGTGTTTTAAGC
GCAAATACCTGCAGGGCAAACGGGGCATTGAGAAGCCCCCCTTCGAGCTGCCAGACTTCATCAAACGCACAGGCA
TCCAGGAGATGCGAGAGGCCCTGCAGGAGAAGGAAGAACAGAAGACCATGAAGTCAAAAATGCGAGAGAAAGTTC
GGCCTAAGATGGGCAAAATTGACATCGACTACCAGAAACTGCATGATGCCTTCTTCAAGTGGCAGACCAAGCCAA
AGCTGACCATCCATGGGGACCTGTACTATGAGGGGAAGGAGTTCGAGACACGACTGAAGGAGAAGAAGCCAGGAG
ATCTGTCTGATGAGCTAAGGATTTCCTTGGGGATGCCAGTAGGACCAAATGCCCACAAGGTCCCTCCCCCATGGC
TGATTGCCATGCAGCGATATGGACCACCCCCATCGTATCCCAACCTGAAAATCCCTGGGCTGAACTCGCCCATCC
CTGAGAGCTGTTCCTTTGGGTACCATGCTGGTGGCTGGGGCAAACCTCCAGTGGATGAGACTGGGAAACCGCTCT
ATGGGGACGTGTTTGGAACCAATGCTGCTGAATTTCAGACCAAGACTGAGGAAGAAGAGATTGATCGGACCCCTT
GGGGGGAACTGGAACCATCTGATGAAGAATCCTCAGAAGAAGAGGAAGAGGAAGAAAGTGATGAAGACAAACCAG
ATGAGACAGGCTTTATTACCCCTGCAGACAGTGGCCTTATCACTCCTGGAGGCTTTTCATCAGTGCCTGCTGGAA
TGGAGACCCCTGAACTCATTGAGCTGAGGAAGAAGAAGATTGAGGAGGCGATGGACGGAAGTGAGACACCTCAGC
TCTTCACTGTGTTGCCAGAGAAGAGAACAGCCACTGTTGGAGGGGCCATGATGGGATCAACCCACATTTATGACA
TGTCCACGGTTATGAGCCGGAAGGGCCCGGCTCCTGAGCTGCAAGGTGTGGAAGTGGCGCTGGCGCCTGAAGAGT
TGGAGCTGGATCCTATGGCCATGACCCAGAAGTATGAGGAGCATGTGCGGGAGCAGCAGGCTCAAGTAGAGAAGG
AGGACTTCAGTGACATGGTGGCTGAGCACGCTGCCAAACAGAAGCAAAAAAAAACGGAAAGCTCAGCCCCAGGACA
GCCGTGGGGGCAGCAAGAAATATAAGGAGTTCAAGTTTTAGGTCCCCTCACACTAGCCCTTTTTTTGGCCCTACG
TCTGGATGCCTGGGCTTCACACAAGAACCACCTCTCCCGCAGTTCCCAAGGACTTGTCATTTCATGTTCTTATTT
TAGACCTGTTTTGTAAATAAAGCTGTTTCCCAAGGAAAGAGATG

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FIGURE 1292

GGAGTTTCGCCGCCGCAGTCTTCGCCACC**ATG**CCGCCCTACACCGTGGTCTATTTCCCAGTTCGAGGCCGCTGCG
CGGCCCTGCGCATGCTGCTGGCAGATCAGGGCCAGAGCTGGAAGGAGGAGGTGGTGACCGTGGAGACGTGGCAGG
AGGGCTCACTCAAAGCCTCCTGCCTATACGGGCAGCTCCCCAAGTTCCAGGACGGAGACCTCACCCTGTACCAGT
CCAATACCATCCTGCGTCACCTGGGCCGCACCCTTGGGCTCTATGGGAAGGACCAGCAGGAGGCAGCCCTGGTGG
ACATGGTGAATGACGGCGTGGAGGACCTCCGCTGCAAATACATCTCCCTCATCTACACCAACTATGAGGCGGGCA
AGGATGACTATGTGAAGGCACTGCCCGGGCAACTGAAGCCTTTTGAGACCCTGCTGTCCCAGAACCAGGGAGGCA
AGACCTTCATTGTGGGAGACCAGATCTCCTTCGCTGACTACAACCTGCTGGACTTGCTGCTGATCCATGAGGTCC
TAGCCCCTGGCTGCCTGGATGCGTTCCCCCTGCTCTCAGCATATGTGGGGCGCCTCAGTGCCCGGCCCAAGCTCA
AGGCCTTCCTGGCCTCCCCTGAGTACGTGAACCTCCCCATCAATGGCAACGGGAAACAG**TGA**GGGTTGGGGGGAC
TCTGAGCGGGAGGCAGAGTTTGCCTTCCTTTCTCCAGGACCAATAAAATTTCTAAGAGAGCT

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FIGURE 1293

GCGTGACGTCTTTCCTGCGCGCCACCTAGCGTCTCTATCGCGCCAGTTCCTCAGCCTCAGTGCTATGAAGGTGAC
AGCGTGAGGTGACCCATCTGGCCCGCCGCG**ATG**CTGGCAACACGGCGGCTGCTCGGCTGGTCGCTTCCCGCGCGG
GTATCTGTGCGTTTCAGCGGCGACACGACAGCACCCAAGAAAACCTCATTTGGCTCGCTGAAGGATGAAGACCGG
ATTTTCACCAACCTGTACGGCCGCCATGACTGGAGGCTGAAAGGTTCCCTGAGTCGAGGTGACTGGTACAAGACA
AAGGAGATCCTGCTGAAGGGGCCCGACTGGATCCTGGGCGAGATCAAGACATCGGGTTTGAGGGGCCGTGGAGGC
GCTGGCTTCCCCACTGGCCTCAAGTGGAGCTTCATGAATAAGCCCTCAGATGGCAGGCCCAAGTATCTGGTGGTG
AACGCAGACGAGGGGGAGCCGGGCACCTGCAAGGACCGGGAGATCTTACGCCATGATCCTCACAAGCTGCTGGAA
GGCTGCCTGGTGGGGGGCCGGGCCATGGGCGCCCGCGCTGCCTATATCTACATCCGAGGGGAATTCTACAATGAG
GCCTCCAATCTGCAGGTGGCCATCCGAGAGGCCTATGAGGCAGGTCTGATTGGCAAGAATGCTTGTGGCTCTGGC
TATGATTTTGACGTGTTTGTGGTGCGCGGGGCTGGGGCCTACATCTGTGGAGAGGAGACAGCGCTCATCGAGTCC
ATTGAGGGCAAGCAGGGCAAGCCCCGCCTGAAGCCCCCCTTCCCCGCAGACGTGGGAGTGTTTGGCTGCCCCACA
ACTGTGGCCAACGTGGAGACAGTGGCAGTGTCCCCCACAATCTGCCGCCGTGGAGGTACCTGGTTTGCTGGCTTT
GGCAGAGAACGCAACTCAGGCACCAAACTATTCAACATCTCTGGCCATGTCAACCACCCTTGCACTGTGGAGGAG
GAGATGTCTGTGCCCTTGAAAGAACTGATTGAGAAGCATGCTGGGGGTGTCACGGGCGGCTGGGACAACCTCCTT
GCTGTGATCCCTGGCGGCTCGTCTACCCCACTGATCCCCAAGTCTGTGTGTGAGACGGTGCTGATGGACTTCGAT
GCGCTGGTGCAGGCACAGACAGGCCTGGGCACAGCTGCGGTGATCGTCATGGACCGCTCGACGGACATCGTGAAA
GCCATCGCCCGCCTCATTGAGTTCTATAAGCACGAGAGCTGTGGCCAGTGTACCCCATGCCGTGAGGGTGTGGAC
TGGATGAACAAGGTGATGGCACGTTTCGTGAGGGGGGATGCCCGGCCGGCCGAGATCGACTCCCTGTGGGAGATC
AGCAAGCAGATAGAAGGCCATACGATTTGTGCTCTGGGTGACGGGGCCGCCTGGCCTGTGCAGGGTCTGATCCGC
CACTTTCGGCCGGAGCTCGAGGAGCGGATGCAGCGGTTTGCCCAGCAGCATCAGGCCCGGCAGGCTGCCTCT**TAG**

CCCACCACCCTGGCCTGCTGTCCTGCGTCTATCCATGTGGAATGCTGGACAATAAAGCGAGTGCTGCCCACCCTC
C

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FIGURE 1294

CTCCCGCCTTCTCTCCGCAGAGCTCTTCTCTGAGCCTGTTGGGGGGAGGGAGGGGGGCGTGGAGGAACTGGGGTT
CGCGGGAGCACGAGCTGCAGCACCACTTCCGGAAAGTTCAGGAGCCCTGGAAAGGAGAAGGAATAAGACGGCAGG
AGGAAGAGAGAGAGAGGGTAGA**ATG**GAAGAATCTCACTTCAATTCTAACCCGTACTTCTGGCCTTCTATCCCCAC
AGTCTCAGGTCAGATCGAGAACACAATGTTCATCAACAAGATGAAGGATCAGCTGTTGCCAGAGAAGGGCTGTGG
TCTGGCCCCACCTCACTACCCCACCTTGCTGACAGTGCCTGCCTCAGTGTCCCTGCCCTCAGGCATCAGTATGGA
CACAGAGTCCAAGTCAGACCAGCTGACCCCACACAGCCAAGCGTCCGTTACCCAGAATATCACGGTGGTCCCTGT
GCCGTCTACAGGACTGATGACTGCTGGAGTCTCCTGTTCTCAGAGGTGGAGAAGAGAAGGGAGTCAATCAAGGGG
TCCGGGTTTGGTAATCACGTCCCCCTCAGGCTCTCTTGTGACCACAGCATCATCAGCTCAGACCTTCCCCATTTC
GGCTCCCATGATTGTCTCAGCTCTTCCCCCTGGCTCACAAGCCCTGCAGGTTGTCCCTGACCTCTCCAAGAAGGT
AGCATCGACCCTAACCGAGGAAGGAGGCGGAGGTGGTGGTGGAGGTGGCAGTGTGGCTCCTAAGCCACCCCGGGG
CCGGAAGAAGAAGCGGATGCTGGAATCAGGGCTGCCCGAGATGAATGACCCTTATGTCCTCTCCCCTGAGGATGA
TGATGACCATCAGAAAGACGGCAAGACCTACAGGTGCCGGATGTGCTCACTGACATTCTACTCCAAGTCGGAGAT
GCAGATCCACTCCAAGTCACACACCGAGACCAAGCCCCACAAGTGCCCACATTGCTCCAAGACCTTCGCCAACAG
CTCCTACCTGGCCCAGCACATCCGTATACACTCAGGGGCTAAGCCCTACAGTTGTAACTTCTGTGAGAAATCCTT
CCGCCAGCTCTCCCACCTTCAGCAGCACACCCGGATCCACTCCAAGATGCACACGGAGACCATCAAGCCCCACAA
GTGCCCGCACTGCTCCAAGACCTTCGCCAACACCTCCTACCTGGCCCAGCACCTCCGTATCCACTCGGGGGCCAA
GCCCTACAACTGTTCCTACTGCCAGAAGGCCTTCCGCCAGCTCTCCCACCTCCAGCAGCACACACGAATCCACAC
TGGTGATAGACCATACAAATGTGCACACCCAGGCTGTGAGAAAGCCTTCACACAACTCTCCAATCTGCAGTCCCA
CAGACGGCAACACAACAAAGATAAACCCTTCAAGTGCCACAACTGTCATCGGGCGTACACGGATGCAGCCTCACT
AGAGGTGCACCTGTCTACGCACACAGTGAAGCATGCCAAGGTGTACACCTGCACTATCTGCAGTCGGGCATACAC
ATCAGAAACATACCTTATGAAACATATGCGCAAACACAACCCGCCTGATCTTCAGCAACAGGTGCAGGCAGCAGC
AGCAGCGGCAGCAGTGGCCCAGGCCCAGGCTCAAGCTCAAGCCCAGGCTCAGGCTCAGGCTCAAGCCCAGGCCCA
GGCCCAGGCCTCCCAGGCATCACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAACAGCCACCACC
ACACTTCCAGTCTCCTGGGGCAGCCCCCCAGGGTGGGGGTGGTGGGGACAGCAATCCCAACCCTCCACCCCAGTG
TTCCTTTGACCTGACCCCGTATAAGACGGCGGAGCATCATAAGGACATCTGCCTCACTGTCACCACCAGCACCAT
CCAGGTGGAGCACCTGGCCAGCTCT**TAG**AGATCCGTGCTGCCACCCACTGGGAAGAGGAAGAAGTAGTCCTGGTG
TCTTCTTTCTCCAACTCTTGGTGGGAAAAGTCCTTTTCTTCCTTGACAGGCCTTGGCTCCATCTCCTTGGGCCTC
TGTCACGGCTTTCCTTCACAGGATACCATCCTTTTTCTGAACTCTTCTTCAAAAGGAACATCAGCCCTCCTGATT
GCAAAGGAATACTGAGCTGATGGTGTCATCCAGCAGCCTCCCCTCCCAAGCAAAGCTTCTAAAACTGGGGGTCGG
TGCTCAAGGGAAGGATTTGCTATGACCTCATAGAAC

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FIGURE 1295

GGCCGGAGGTTCCTGCAGAGGGAGCGTCAAGGCCCTGTGCTGCTGTCCCTGGGGGCCAGAGGGGTTGCCCAGCAT
GCCCACTGGCAGGAGAGAGGGAACTGACCCACTTGCTCCTACCAGCTTCTGAAGGCTCCAAAGTCCGGAGGTGCA
GAAAGCCAGGACCAAGAGACAGGCAGCTCACCAGGGTGGACAAATCGCCAGAG**ATG**TGGTGCATTGTCCTGTTTT
CACTTTTGGCATGGGTTTATGCTGAGCCTACCATGTATGGGGAGATCCTGTCCCCTAACTATCCTCAGGCATATC
CCAGTGAGGTAGAGAAATCTTGGGACATAGAAGTTCCTGAAGGGTATGGGATTCACCTCTACTTCACCCATCTGG
ACATTGAGCTGTCAGAGAACTGTGCGTATGACTCAGTGCAGATAATCTCAGGAGACACTGAAGAAGGGAGGCTCT
GTGGACAGAGGAGCAGTAACAATCCCCACTCTCCAATTGTGGAAGAGTTCCAAGTCCCATACAACAAACTCCAGG
TGATCTTTAAGTCAGACTTTTCCAATGAAGAGCGTTTTACGGGGTTTGCTGCATACTATGTTGCCACAGACATAA
ATGAATGCACAGATTTTGTAGATGTCCCTTGTAGCCACTTCTGCAACAATTTCATTGGTGGTTACTTCTGCTCCT
GCCCCCCGGAATATTTCCTCCATGATGACATGAAGAATTGCGGAGTTAATTGCAGTGGGGATGTATTCACTGCAC
TGATTGGGGAGATTGCAAGTCCCAATTATCCCAAACCATATCCAGAGAACTCAAGGTGTGAATACCAGATCCGGT
TGGAGAAAGGGTTCCAAGTGGTGGTGACCTTGCGGAGAGAAGATTTTGATGTGGAAGCAGCTGACTCAGCGGGAA
ACTGCCTTGACAGTTTAGTTTTTGTTGCAGGAGATCGGCAATTTGGTCCTTACTGTGGTCATGGATTCCCTGGGC
CTCTAAATATTGAAACCAAGAGTAATGCTCTTGATATCATCTTCCAAACTGATCTAACAGGGCAAAAAAAGGGCT
GGAAACTTCGCTATCATGGAGATCCAATGCCCTGCCCTAAGGAAGACACTCCCAATTCTGTTTGGGAGCCTGCGA
AGGCAAAATATGTCTTTAGAGATGTGGTGCAGATAACCTGTCTGGATGGGTTTGAAGTTGTGGAGGGACGTGTTG
GTGCAACATCTTTCTATTCGACTTGTCAAAGCAATGGAAAGTGGAGTAATTCCAAACTGAAATGTCAACCTGTGG
ACTGTGGCATTCCTGAATCCATTGAGAATGGTAAAGTTGAAGACCCAGAGAGCACTTTGTTTGGTTCTGTCATCC
GCTACACTTGTGAGGAGCCATATTACTACATGGAAAATGGAGGAGGTGGGGAGTATCACTGTGCTGGTAACGGGA
GCTGGGTGAATGAGGTGCTGGGCCCGGAGCTGCCGAAATGTGTTCCAGTCTGTGGAGTCCCCAGAGAACCCTTTG
AAGAAAAACAGAGGATAATTGGAGGATCCGATGCAGATATTAAAAACTTCCCCTGGCAAGTCTTCTTTGACAACC
CATGGGCTGGTGGAGCGCTCATTAATGAGTACTGGGTGCTGACGGCTGCTCATGTTGTGGAGGGAAACAGGGAGC
CAACAATGTATGTTGGGTCCACCTCAGTGCAGACCTCACGGCTGGCAAAATCCAAGATGCTCACTCCTGAGCATG
TGTTTATTCATCCGGGATGGAAGCTGCTGGAAGTCCCAGAAGGACGAACCAATTTTGATAATGACATTGCACTGG
TGCGGCTGAAAGACCCAGTGAAAATGGGACCCACCGTCTCTCCCATCTGCCTACCAGGCACCTCTTCCGACTACA
ACCTCATGGATGGGGACCTGGGACTGATCTCAGGCTGGGGCCGAACAGAGAAGAGAGATCGTGCTGTTCGCCTCA
AGGCGGCAAGGTTACCTGTAGCTCCTTTAAGAAAATGCAAAGAAGTGAAAGTGGAGAAACCCACAGCAGATGCAG
AGGCCTATGTTTTCACTCCTAACATGATCTGTGCTGGAGGAGAGAAGGGCATGGATAGCTGTAAAGGGGACAGTG
GTGGGGCCTTTGCTGTACAGGATCCCAATGACAAGACCAAATTCTACGCAGCTGGCCTGGTGTCCTGGGGGCCCC
AGTGTGGGACCTATGGGCTCTACACACGGGTAAAGAACTATGTTGACTGGATAATGAAGACTATGCAGGAAAATA
GCACCCCCCGTGAGGAC**TAA**TCCAGATACATCCCACCAGCCTCTCCAAGGGTGGTGACCAATGCATTACCTTCTG
TTCCTTATGATATTCTCATTATTTCATCATGACTGAAAGAAGACACGAGCGAATGATTTAAATAGAACTTGATTG
TTGAGACGCCTTGCTAGAGGTAGAGTTTGATCATAGAATTGTGCTGGTCATACATTTGTGGTCTGACTCCTTGGG
GTCCTTTCCCCGGAGTACCTATTGTAGATAACACTATGGGTGGGGCACTCCTTTCTTGCACTATTCCACAGGGAT
ACCTTAATTCTTTGTTTCCTCTTTACCTGTTCAAAATTCCATTTACTTGATCATTCTCAGTATCCACTGTCTATG
TACAATAAAGGATGTTTATAAGC

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FIGURE 1296

AATGCGCACGCCGTGGGCGGGCCCCGAGCCGGAATTGGGGGTGAAGCGATAGCGTTTTGCCCGCATTCGGGGCGC
GCGGAGCTGGGGGGTCCCTGTGGGGCTCCCGGAGTTAAG**ATG**GCGTCCTCAGCGGAGGGGGACGAGGGGACTGTG
GTGGCGCTGGCGGGGGGTTCTGCAGTCGGGTTTCCAGGAGCTGAGCCTTAACAAGTTGGCGACGTCCCTGGGCGCG
TCAGAACAGGCGCTGCGGCTGATCATCTCCATCTTCCTGGGTTACCCCTTTGCTTTGTTTTATCGGCATTACCTT
TTCTACAAGGAGACCTACCTCATCCACCTCTTCCATACCTTTACAGGCCTCTCAATTGCTTATTTTAACTTTGGA
AACCAGCTCTACCACTCCCTGCTGTGTATTGTGCTTCAGTTCCTCATCCTTCGACTAATGGGCCGCACCATCACT
GCCGTCCTCACTACCTTTTGCTTCCAGATGGCCTACCTTCTGGCTGGATACTATTACACTGCCACCGGCAACTAC
GATATCAAGTGGACAATGCCACATTGTGTTCTGACTTTGAAGCTGATTGGTTTGGCTGTTGACTACTTTGACGGA
GGGAAAGATCAGAATTCCTTGTCCTCTGAGCAACAGAAATATGCCATACGTGGTGTTCCTTCCCTGCTGGAAGTT
GCTGGTTTCTCCTACTTCTATGGGGCCTTCTTGGTAGGGCCCCAGTTCTCAATGAATCACTACATGAAGCTGGTG
CAGGGAGAGCTGATTGACATACCAGGAAAGATACCAAACAGCATCATTCCTGCTCTCAAGCGCCTGAGTCTGGGC
CTTTTCTACCTAGTGGGCTACACACTGCTCAGCCCCCACATCACAGAAGACTATCTCCTCACTGAAGACTATGAC
AACCACCCCTTCTGGTTCCGCTGCATGTACATGCTGATCTGGGGCAAGTTTGTGCTGTACAAATATGTCACCTGT
TGGCTGGTCACAGAAGGAGTATGCATTTTGACGGGCCTGGGCTTCAATGGCTTTGAAGAAAAGGGCAAGGCAAAG
TGGGATGCCTGTGCCAACATGAAGGTGTGGCTCTTTGAAACAAACCCCCGCTTCACTGGCACCATTGCCTCATTC
AACATCAACACCAACGCCTGGGTGGCCCGCTACATCTTCAAACGACTCAAGTTCCTTGGAAATAAAGAACTCTCT
CAGGGTCTCTCGTTGCTATTCCTGGCCCTCTGGCACGGCCTGCACTCAGGATACCTGGTCTGCTTCCAGATGGAA
TTCCTCATTGTTATTGTGGAAAGACAGGCTGCCAGGCTCATTCAAGAGAGCCCCACCCTGAGCAAGCTGGCCGCC
ATTACTGTCCTCCAGCCCTTCTACTATTTGGTGCAACAGACCATCCACTGGCTCTTCATGGGTTACTCCATGACT
GCCTTCTGCCTCTTCACGTGGGACAAATGGCTTAAGGTGTATAAATCCATCTATTTCCTTGGCCACATCTTCTTC
CTGAGCCTACTATTCATATTGCCTTATATTCACAAAGCAATGGTGCCAAGGAAAGAGAAGTTAAAGAAGATGGAA
TAATCCATTTCCCTGGTGGCCTGTGCGGGACTGGTGCAGAAACTACTCGTCTCCCTTTTCACAGCACTCCTTTGC
CCCAGAGCAGAGAATGGAAAAGCCAGGGAGGTGGAAGATCGATGCTTCCAGCTGTGCCTCTGCTGCCAGCCAAGT
CTTCATTTGGGGCCAAAGGGGAAACTTTTTTTTGGAGAAGGCGTCTTGCTTTGTCACCCACGCTGGAATGCAGTG
GCGGGATCTCAGCTCACCGCAACCTCCACCTCCTGGGTTCAAGTGATTTTCCTGCCTCAGCCTCCCAAGTAGCTG
GGAATACAGGCACGCCACCATGCCCAGCTAATTTTTGTATTTTCAGTAGAAACGGGATTTCACCACGTTGGCCAG
GCTGGTCTCGAACTCCTGACCGCAAGTGATCCACCCGCCTCCGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGC
CACCGTGCCCGGCCCAAAGGGGAAACTCTTGTGGGAGGAGCAGAGGGGCTCACATCTCCCCTCTGATTCCCCCAT
GCACATTGCCTTATCTCTCCCCATCTAGCCAGGAATCTATTGTGTTTTTCTTCTGCCAATTTACTATGATTGTGT
ATGTGCCGCTACCACCACCCCCCCCATGGGGGGGTGGAGAGGGGTGCAAGGCCCTGCCTGCTCCACTTTTTCTAC
CTTGGAACTGTATTAGATAAAATCACTTCTGTTTGTTCAGTTTTTC

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FIGURE 1297

GTGATGGATTCAAGCCTCGTGAACGAAGCGGTGGGGAGCAGGCACAGGACTGGGATGCTCTGCCACCCAAGCGGC
CCCGACTAGGGGCAGGAAACAAGATCGGAGGCCGTAGTTTATTGTGGTGCTGGAAGGGGCCAGTCTGGAGACAGT
CAAGGTAGGGAAGACATATGAGCTACTCAACTGTGACAAGCACAAGTCTATATTGTTGAAGAATGGACGGGACCC
TGGGGAAGCGCGGCCAGATATCACCCACCAGAGTTTGCTG**ATG**CTGATGGATAGTCCCCTGAACCGAGCTGGCTT
GCTACAGGTTTATATCCATACACAGAAGAATGTTCTGATTGAAGTGAATCCCCAGACCCGAATTCCCAGAACCTT
TGACCGCTTTTGTGGCCTCATGGTTCAACTTTTACACAAGCTCAGTGTTCGAGCAGCTGATGGCCCCCAGAAGCT
TTTGAAGGTAATTAAGAATCCAGTATCAGATCACTTTCCAGTTGGATGTATGAAAGTTGGCACTTCTTTTTCCAT
CCCGGTTGTCAGTGATGTGCGTGAGCTGGTGCCCAGCAGTGATCCTATTGTTTTTGTGGTAGGGGCCTTTGCCCA
TGGCAAGGTCAGTGTGGAGTATACAGAGAAGATGGTGTCCATCAGTAACTACCCCCTTTCTGCTGCCCTCACCTG
TGCAAAACTTACCACAGCCTTTGAGGAAGTATGGGGGGTCATT**TGA**CAGTAGTAGAACCTGTTCTGAAACCAGAA
ACTGTTGATGTCACATCCTTTGACCCTGGTCTGAGCTGACTGCTGGAAGATGATCTTTCTGCACTGAGACTGTGG
AGTTTGGGGAAGCCAAGGCTGTACATTTGCTATTTGTTTATCCTATGAATACTGTTCTTGC

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FIGURE 1298

AAGTTCGGGTCCGTAGTGGGCTAAGGGGGAGGGTTTCAAAGGGAGCGCACTTCCGCTGCCCTTTCTTTCGCCAGC
CTTACGGGCCCGAACCCTCGTGTGAAGGGTGCAGTACCTAAGCCGGAGCGGGGTAGAGGCGGGCCGGCACCCCCT
TCTGACCTCCAGTGCCGCCGGCCTCAAGATCAGAC**ATG**GCCCAGAACTTGAAGGACTTGGCGGGACGGCTGCCCG
CCGGGCCCCGGGGCATGGGCACGGCCCTGAAGCTGTTGCTGGGGGCCGGCGCCGTGGCCTACGGTGTGCGCGAAT
CTGTGTTCACCGTGGAAGGCGGGCACAGAGCCATCTTCTTCAATCGGATCGGTGGAGTGCAGCAGGACACTATCC
TGGCCGAGGGCCTTCACTTCAGGATCCCTTGGTTCCAGTACCCCATTATCTATGACATTCGGGCCAGACCTCGAA
AAATCTCCTCCCCTACAGGCTCCAAAGACCTACAGATGGTGAATATCTCCCTGCGAGTGTTGTCTCGACCCAATG
CTCAGGAGCTTCCTAGCATGTACCAGCGCCTAGGGCTGGACTACGAGGAACGAGTGTTGCCGTCCATTGTCAACG
AGGTGCTCAAGAGTGTGGTGGCCAAGTTCAATGCCTCACAGCTGATCACCCAGCGGGCCCAGGTATCCCTGTTGA
TCCGCCGGGAGCTGACAGAGAGGGCCAAGGACTTCAGCCTCATCCTGGATGATGTGGCCATCACAGAGCTGAGCT
TTAGCCGAGAGTACACAGCTGCTGTAGAAGCCAAACAAGTGGCCCAGCAGGAGGCCCAGCGGGCCCAATTCTTGG
TAGAAAAAGCAAAGCAGGAACAGCGGCAGAAAATTGTGCAGGCCGAGGGTGAGGCCGAGGCTGCCAAGATGCTTG
GAGAAGCACTGAGCAAGAACCCTGGCTACATCAAACTTCGCAAGATTCGAGCAGCCCAGAATATCTCCAAGACGA
TCGCCACATCACAGAATCGTATCTATCTCACAGCTGACAACCTTGTGCTGAACCTACAGGATGAAAGTTTCACCA
GG**TGA**GTGACAGCCTCATCAAGGGTAAGAAATGAGCCTAGTCACCAAGAACTCCACCCCCAGAGGAAGTGGATCT
GCTTCTCCAGTTTTTGAGGAGCCAGCCAGGGGTCCAGCACAGCCCTACCCCGCCCCAGTATCATGCGATGGTCCC
CCACACCGGTTCCCTGAACCCCTCTTGGATTAAGGAAGACTGAAGACTAGCCCCTTTTCTGGGGAATTACTTTCC
TCCTCCCTGTGTTAACTGGGGCTGTTGGGGACAGTGCGTGATTTCTCAGTGATTTCCTACAGTGTTGTTCCCTCC
CTCAAGGCTGGGAGGAGATAAACACCAACCCAGGAATTCTCAATAAATTTTTATTACTTAACCTG

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FIGURE 1299

AGTGGAGTGGCAGCCCCAGAACTGGGACCACCGGGGGTGGTGAGGCGGCCCGGCACTGGGAGCTGCATCTGAGGC
TTAGTCCCTGAGCTCTCTGCCTGCCCAGACTAGCTGCACCTCCTCATTCCCTGCGCCCCCTTCCTCTCCGGAAGC
CCCCAGG**ATG**GTGAGGTGGTTTCACCGAGACCTCAGTGGGCTGGATGCAGAGACCCTGCTCAAGGGCCGAGGTGT
CCACGGTAGCTTCCTGGCTCGGCCCAGTCGCAAGAACCAGGGTGACTTCTCGCTCTCCGTCAGGGTGGGGGATCA
GGTGACCCATATTCGGATCCAGAACTCAGGGGATTTCTATGACCTGTATGGAGGGGAGAAGTTTGCGACTCTGAC
AGAGCTGGTGGAGTACTACACTCAGCAGCAGGGTGTCCTGCAGGACCGCGACGGCACCATCATCCACCTCAAGTA
CCCGCTGAACTGCTCCGATCCCACTAGTGAGAGGTGGTACCATGGCCACATGTCTGGCGGGCAGGCAGAGACGCT
GCTGCAGGCCAAGGGCGAGCCCTGGACGTTTCTTGTGCGTGAGAGCCTCAGCCAGCCTGGAGACTTCGTGCTTTC
TGTGCTCAGTGACCAGCCCAAGGCTGGCCCAGGCTCCCCGCTCAGGGTCACCCACATCAAGGTCATGTGCGAGGG
TGGACGCTACACAGTGGGTGGTTTGGAGACCTTCGACAGCCTCACGGACCTGGTGGAGCATTTCAAGAAGACGGG
GATTGAGGAGGCCTCAGGCGCCTTTGTCTACCTGCGGCAGCCGTACTATGCCACGAGGGTGAATGCGGCTGACAT
TGAGAACCGAGTGTTGGAACTGAACAAGAAGCAGGAGTCCGAGGATACAGCCAAGGCTGGCTTCTGGGAGGAGTT
TGAGAGTTTGCAGAAGCAGGAGGTGAAGAACTTGCACCAGCGTCTGGAAGGGCAGCGGCCAGAGAACAAGGGCAA
GAACCGCTACAAGAACATTCTCCCCTTTGACCACAGCCGAGTGATCCTGCAGGGACGGGACAGTAACATCCCCGG
GTCCGACTACATCAATGCCAACTACATCAAGAACCAGCTGCTAGGCCCTGATGAGAACGCTAAGACCTACATCGC
CAGCCAGGGTTGTCTGGAGGCCACGGTCAATGACTTCTGGCAGATGGCGTGGCAGGAGAACAGCCGTGTCATCGT
CATGACCACCCGAGAGGTGGAGAAAGGCCGGAACAAATGCGTCCCATACTGGCCCGAGGTGGGCATGCAGCGTGC
TTATGGGCCCTACTCTGTGACCAACTGCGGGGAGCATGACACAACCGAATACAAACTCCGTACCTTACAGGTCTC
CCCGCTGGACAATGGAGACCTGATTCGGGAGATCTGGCATTACCAGTACCTGAGCTGGCCCGACCATGGGGTCCC
CAGTGAGCCTGGGGGTGTCCTCAGCTTCCTGGACCAGATCAACCAGCGGCAGGAAAGTCTGCCTCACGCAGGGCC
CATCATCGTGCACTGCAGCGCCGGCATCGGCCGCACAGGCACCATCATTGTCATCGACATGCTCATGGAGAACAT
CTCCACCAAGGGCCTGGACTGTGACATTGACATCCAGAAGACCATCCAGATGGTGCGGGCGCAGCGCTCGGGCAT
GGTGCAGACGGAGGCGCAGTACAAGTTCATCTACGTGGCCATCGCCCAGTTCATTGAAACCACTAAGAAGAAGCT
GGAGGTCCTGCAGTCGCAGAAGGGCCAGGAGTCGGAGTACGGGAACATCACCTATCCCCCAGCCATGAAGAATGC
CCATGCCAAGGCCTCCCGCACCTCGTCCAAGAGCTTGGAGTCTAGTGCAGGGACCGTGGCTGCGTCACCTGTGAG
ACGGGGTGGCCAGAGGGGACTGCCAGTGCCGGGTCCCCCTGTGCTGTCTCCTGACCTGCACCAACTGCCTGTACT
TGCCCCCCTGCACCCGGCTGCAGACACAAGGAGGATGTGTATGAGAACCTGCACACTAAGAACAAGAGGGAGGAG
AAAG**TGA**AGAAGCAGCGGTCAGCAGACAAGGAGAAGAGCAAGGGTTCCCTCAAGAGGAAGTGAGCGGTGCTGTCC
TCAGGTGGCCATGCCTCAGCCCTGACCCTGTGGAAGCATTTCGCGATGGACAGACTCACAACCTGAACCTAGGAG
TGCCCCATTCTTTTGTAATTTAAATGGCTGCATCCCCCCCACCTCTCCCTGACCCTGTATATAGCCCAGCCAGGC
CCCAGGCAGGGCCAACCCTTCTCCTCTTGTAAATAAAGCCCTGGGATCACTGTG

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FIGURE 1300

ATTTGTCTAGTAGGCTTTCTGGCTTTTTACCGGAAAGCCCCTCTTATGATGTTTGTTGCCAATGATAGATTGTTT
TCACTGTGCAAAAATTATGGGTAGTTTTGGTGGTCTTGATGCAGTTGTAAGCTTGGGGTATGAAGGTTTGGGCCA
CGCCTGGGCGCTTCCGGCTGCGCCGGATGCTGTTTCCTTTCCGCTCCCAGGGGCGTTGGGAACGGTTGTAGGACG
TGGCTCTTTATTCGTGAGTTTTCCATTTACCTCCGCTGAACCTAGAGCTTCAGACGCCCT**ATG**GCGTCCGCCTCG
ACCCAACCGGCGGCCTTGAGCGCTGAGCAAGCAAAGGTGGTCCTCGCGGAGGTGATCCAGGCGTTCTCCGCCCCG
GAGAATGCAGTGCGCATGGACGAGGCTCGGGATAACGCCTGCAACGACATGGGTAAGATGCTGCAATTCGTGCTG
CCCGTGGCCACGCAGATCCAGCAGGAGGTTATCAAAGCCTATGGCTTCAGCTGCGACGGGGAAGGTGTCCTTAAG
TTTGCTCGCTTGGTCAAGTCCTACGAAGCCCAGGATCCTGAGATCGCCAGCCTGTCAGGCAAGCTGAAGGCGCTG
TTTCTGCCGCCCATGACCCTGCCACCCCATGGGCCTGCTGCTGGTGGCAGCGTGGCCGCCTCC**TGA**GAGTTGGCC
CTCCCTTGTGCCACTGCCAGGGGAGGAAAGGCCTTGATGTTCCAGACAATAATAAATGCGCCTGTGACTT

FIGURE 1301A

ACGCCATACTGGACGCCAAGTGGGAGGAACTTCAAGGCTGTCCCCTGCGGGCCTCCCGCTCTGCTTCTGCGAAGG
TTTCATTGAAAACAGATCCTGCAAAAGTTCCAGGTGCCCACACTGGAAACTTGGAGATCCTGCTTCCCAGACCAC
AGCTGTGGGGAACTTGGGGTGGAGCAGAGAAGTTTCTGTATTCAGCTGCCCAGGCAGAGGAGAATGGGGTCTCCA
CAGCCTGAAGA**ATG**AAGACACGACAGAATAAAGACTCGATGTCAATGAGGAGTGGACGGAAGAAAGAGGCCCCTG
GGCCCCGGGAAGAACTGAGATCGAGGGGCCGGGCCTCCCCTGGAGGGGTCAGCACGTCCAGCAGTGATGGCAAAG
CTGAGAAGTCCAGGCAGACAGCCAAGAAGGCCCGAGTAGAGGAAGCCTCCACCCCAAAGGTCAACAAGCAGGGTC
GGAGTGAGGAGATCTCAGAGAGTGAAAGTGAGGAGACCAATGCACCAAAAAAGACCAAAACTGAGCAGGAACTCC
CTCGGCCACAGTCTCCCTCCGATCTGGATAGCTTGGACGGGCGGAGCCTTAATGATGATGGCAGCAGCGACCCTA
GGGATATCGACCAGGACAACCGAAGCACGTCCCCCAGTATCTACAGCCCTGGAAGTGTGGAGAATGACTCTGACT
CATCTTCTGGCCTGTCCCAGGGCCCAGCCCGCCCCTACCACCCACCTCCACTCTTTCCTCCTTCCCCTCAACCGC
CAGACAGCACCCCTCGACAGCCAGAGGCTAGCTTTGAACCCCATCCTTCTGTGACACCCACTGGATATCATGCTC
CCATGGAGCCCCCCACATCTCGAATGTTCCAGGCTCCTCCTGGGGCCCCTCCCCCTCACCCACAGCTCTATCCTG
GGGGCACTGGTGGAGTTTTGTCTGGACCCCCAATGGGTCCCAAGGGGGGAGGGGCTGCCTCATCAGTGGGGGGCC
CTAATGGGGGTAAGCAGCACCCCCCACCCACTACTCCCATTTCAGTATCAAGCTCTGGGGCTAGTGGTGCTCCCC
CAACAAAGCCGCCTACCACTCCAGTGGGTGGTGGGAACCTACCTTCTGCTCCACCACCAGCCAACTTCCCCCATG
TGACACCGAACCTGCCTCCCCCACCTGCCCTGAGACCCCTCAACAATGCATCAGCCTCTCCCCCTGGCCTGGGGG
CCCAACCACTACCTGGTCATCTGCCCTCTCCCCACGCCATGGGACAGGGTATGGGTGGACTTCCTCCTGGCCCAG
AGAAGGGCCCAACTCTGGCTCCTTCACCCCACTCTCTGCCTCCTGCTTCCTCTTCTGCTCCAGCGCCCCCCATGA
GGTTTCCTTATTCATCCTCTAGTAGTAGCTCTGCAGCAGCCTCCTCTTCCAGTTCTTCCTCCTCTTCCTCTGCCT
CCCCCTTCCCAGCTTCCCAGGCATTGCCCAGCTACCCCCACTCTTTCCCTCCCCCAACAAGCCTCTCTGTCTCCA
ATCAGCCCCCCAAGTATACTCAGCCTTCTCTCCCATCCCAGGCTGTGTGGAGCCAGGGTCCCCCACCACCTCCTC
CCTATGGCCGCCTCTTAGCCAACAGCAATGCCCATCCAGGCCCCTTCCCTCCCTCTACTGGGGCCCAGTCCACCG
CCCACCCACCAGTCTCAACACATCACCATCACCACCAGCAACAGCAACAGCAGCAGCAGCAGCAGCAGCAGCAGC
AGCAGCAGCAGCAGCAGCATCACGGAAACTCTGGGCCCCCTCCTCCTGGAGCATTTCCCCACCCACTGGAGGGCG
GTAGCTCCCACCACGCACACCCTTACGCCATGTCTCCCTCCCTGGGGTCTCTGAGGCCCTACCCACCAGGGCCAG
CACACCTGCCCCCACCTCACAGCCAGGTGTCCTACAGCCAAGCAGGCCCCAATGGCCCTCCAGTCTCTTCCTCTT
CCAACTCTTCCTCTTCCACTTCTCAAGGGTCCTACCCATGTTCACACCCCTCCCCTTCCCAGGGCCCTCAAGGGG
CGCCCTACCCTTTCCCACCGGTGCCTACGGTCACCACCTCTTCGGCTACCCTTTCCACGGTCATTGCCACCGTGG
CTTCCTCGCCAGCAGGCTACAAAACGGCCTCCCCACCTGGGCCCCCACCGTACGGAAAGAGAGCCCCGTCCCCGG
GGGCCTACAAGACAGCCACCCCACCCGGATACAAACCCGGGTCGCCTCCCTCCTTCCGAACGGGGACCCCACCGG
GCTATCGAGGAACCTCGCCACCTGCAGGCCCAGGGACCTTCAAGCCGGGCTCGCCCACCGTGGGACCTGGGCCCC
TGCCACCTGCGGGGCCCTCAGGCCTGCCATCGCTGCCACCACCACCTGCGGCCCCTGCCTCAGGGCCGCCCCTGA
GCGCCACGCAGATCAAACAGGAGCCGGCTGAGGAGTATGAGACCCCCGAGAGCCCGGTGCCCCCAGCCCGCAGCC
CCTCGCCCCCTCCCAAGGTGGTAGATGTACCCAGCCATGCCAGTCAGTCTGCCAGGTTCAACAAACACCTGGATC
GCGGCTTCAACTCGTGCGCGCGCAGCGACCTGTACTTCGTGCCACTGGAGGGCTCCAAGCTGGCCAAGAAGCGGG
CCGACCTGGTGGAGAAGGTGCGGCGCGAGGCCGAGCAGCGCGCGCGCGAAGAAAAGGAGCGCGAGCGCGAGCGGG
AACGCGAGAAAGAGCGCGAGCGCGAGAAGGAGCGCGAGCTTGAACGCAGCGTGAAGTTGGCTCAGGAGGGCCGTG
CTCCGGTGGAATGCCCATCTCTGGGCCCAGTGCCCCATCGCCCTCCATTTGAACCGGGCAGTGCGGTGGCTACAG
TGCCCCCCTACCTGGGTCCTGACACTCCAGCCTTGCGCACTCTCAGTGAATATGCCCGGCCTCATGTCATGTCTC
CTGGCAATCGCAACCATCCATTCTACGTGCCCCTGGGGGCAGTGGACCCGGGGCTCCTGGGTTACAATGTCCCGG
CCCTGTACAGCAGTGATCCAGCTGCCCGGGAGAGGGAACGGGAAGCCCGTGAACGAGACCTCCGTGACCGCCTCA
AGCCTGGCTTTGAGGTGAAGCCTAGTGAGCTGGAACCCCTACATGGGGTCCCTGGGCCGGGCTTGGATCCCTTTC
CCCGACATGGGGGCCTGGCTCTGCAGCCTGGCCCACCTGGCCTGCACCCTTTCCCCTTTCATCCGAGCCTGGGGC
CCCTGGAGCGAGAACGTCTAGCGCTGGCAGCTGGGCCAGCCCTGCGGCCTGACATGTCCTATGCTGAGCGGCTGG
CAGCTGAGAGGCAGCACGCAGAAAGGGTGGCGGCCCTGGGCAATGACCCACTGGCCCGGCTGCAGATGCTCAATG
TGACTCCCCATCACCACCAGCACTCCCACATCCACTCGCACCTGCACCTGCACCAGCAAGATGCTATCCATGCAG
CCTCTGCCTCGGTGCACCCTCTCATTGACCCCCTGGCCTCAGGGTCTCACCTTACCCGGATCCCCTACCCAGCTG
GAACTCTCCCTAACCCCCTGCTTCCTCACCCTCTGCACGAGAACGAAGTTCTTCGTCACCAGCTCTTTGCTGCCC

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FIGURE 1301B

CTTACCGGGACCTGCCGGCCTCCCTTTCTGCCCCGATGTCAGCAGCTCATCAGCTGCAGGCCATGCACGCACAGT
CAGCTGAGCTGCAGCGCTTGGCGCTGGAACAGCAGCAGTGGCTGCATGCCCATCACCCGCTGCACAGTGTGCCGC
TGCCTGCCCAGGAGGACTACTACAGTCACCTGAAGAAGGAAAGCGACAAGCCACTG**TAG**AACCTGCGATCAAGAG
AGCACCATGGCTCCTACATTGGACCTTGGAGCACCCCCACCCTCCCCCCACCGTGCCCTTGGCCTGCCACCCAGA
GCCAAGAGGGTGCTGCTCAGTTGCAGGGCCTCCGCAGCTGGACAGAGAGTGGGGGAGGGAGGGACAGACAGAAGG
CCAAGGCCCGATGTGGTGTGCAGAGGTGGGGAGGTGGCGAGGATGGGGACAGAAAGCGCACAGAATCTTGGACCA
GGTCTCTCTTCCTTGTCCCCCCTGCTTTTCTCCTCCCCCATGCCCAACCCCTGTGGCCGCCGCCCCTCCCCTGCC
CCGTTGGTGTGATTATTTCATCTGTTAGATGTGGCTGTTTTGCGTAGCATCGTGTGCCACCCCTGCCCCTCCCCG
ATCCCTGTGTGCGCGCCCCCTCTGCAATGTATGCCCCTTGCCCCTTCCCCACACTAATAATTTATATATATAAAT
ATCTATATGACGCTCTTAAAAAAACATCCCAACCAAAACCAACCAAACAAAAACATCCTCACAACTCCCCAGGA

FIGURE 1302

TCCCACAGTTGGAGAGGGGCCCTCTCTGCCCCAGTGGGCGATCTGGGCTACGGCCAAGTTGCCACCAGCTAGTTC
CGCTTGAAAACCACTTCTGGCCCCGTGGGGGACTCAAGTCGCCAAGCGAGGGTTCCCCTGAGCGCCGGAGCTCAC
AGGTCTCGCCTTGTCCCGAAAGCCCCGCAATCGAGGCGGAGGCGACCGAGCCCCCGACTCTCCTAGAACGTTGCC
ACAAGAAGGGGGAACGTCGGAACAGTGCATCATCGGGCGGCGGCCGGGGCGGCGGCAGGAGGGCGGGCGGGGGGC
AGGGCTCCGGGGGACTGGGCGGGCCATGGCGGAGGACGGCGAGGAGGCGGAGTTCCACTTCGCGGCGCTCTATAT
AAGTGGGCAGTGGCCGCGACTGCGCGCAGACACTGACCTTCAGCGCCTCGGCTCCAGCGCC**ATG**GCGCCCTCCAG
GAAGTTCTTCGTTGGGGGAAACTGGAAGATGAACGGGCGGAAGCAGAGTCTGGGGGAGCTCATCGGCACTCTGAA
CGCGGCCAAGGTGCCGGCCGACACCGAGGTGGTTTGTGCTCCCCCTACTGCCTATATCGACTTCGCCCGGCAGAA
GCTAGATCCCAAGATTGCTGTGGCTGCGCAGAACTGCTACAAAGTGACTAATGGGGCTTTTACTGGGGAGATCAG
CCCTGGCATGATCAAAGACTGCGGAGCCACGTGGGTGGTCCTGGGGCACTCAGAGAGAAGGCATGTCTTTGGGGA
GTCAGATGAGCTGATTGGGCAGAAAGTGGCCCATGCTCTGGCAGAGGGACTCGGAGTAATCGCCTGCATTGGGGA
GAAGCTAGATGAAAGGGAAGCTGGCATCACTGAGAAGGTTGTTTTCGAGCAGACAAAGGTCATCGCAGATAACGT
GAAGGACTGGAGCAAGGTCGTCCTGGCCTATGAGCCTGTGTGGGCCATTGGTACTGGCAAGACTGCAACACCCCA
ACAGGCCCAGGAAGTACACGAGAAGCTCCGAGGATGGCTGAAGTCCAACGTCTCTGATGCGGTGGCTCAGAGCAC
CCGTATCATTTATGGAGGCTCTGTGACTGGGGCAACCTGCAAGGAGCTGGCCAGCCAGCCTGATGTGGATGGCTT
CCTTGTGGGTGGTGCTTCCCTCAAGCCCGAATTCGTGGACATCATCAATGCCAAACAA**TGA**GCCCCATCCATCTT
CCCTACCCTTCCTGCCAAGCCAGGGACTAAGCAGCCCAGAAGCCCAGTAACTGCCCTTTCCCTGCATATGCTTCT
GATGGTGTCATCTGCTCCTTCCTGTGGCCTCATCCAAACTGTATCTTCCTTTACTGTTTATATCTTCACCCTGTA
ATGGTTGGGACCAGGCCAATCCCTTCTCCACTTACTATAATGGTTGGAACTAAACGTCACCAAGGTGGCTTCTCC
TTGGCTGAGAGATGGAAGGCGTGGTGGGATTTGCTCCTGGGTTCCCTAGGCCCTAGTGAGGGCAGAAGAGAAACC
ATCCTCTCCCTTCTTACACCGTGAGGCCAAGATCCCCTCAGAAGGCAGGAGTGCTGCCCTCTCCCATGGTGCCCG
TGCCTCTGTGCTGTGTATGTGAACCACCCATGTGAGGGAATAAACCTGGCACTAGGTCTTGTGGTTTGTCTGCCT
TCACTGGACTTGCCCAGATAATCTTCCTTTTTGAGGCAGCTATATAAATGATCATTTGTGCAAGAAAAAAAAAAA
AACAAGAACAGGTTTCTATAACAACATCTCTTACTATTTTTACTTGAAAAAATGTTTTGCGTAGCAGACTGTCAT
AGCCTTGAACGCCGGCTCCCTTTCTTCCTCCCTCCAAGTGGCTCTGGGGCTGTTGATTTCCGCAGAGCTTGGGTT
GGGGTAGGGGCTCAGCCTCACCAGCTTTCAG

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FIGURE 1303

GGAGAAGCTGCTGCCGGTGTC**ATG**GCGGAGCTGAGTGAGGAGGCGCTGCTGTCAGTATTACCGACGATCCGGGTC
CCTAAGGCTGGAGACCGGGTCCACAAAGACGAGTGCGCCTTCTCCTTCGACACGCCGGAGTCTGAGGGGGGCCTC
TACATCTGTATGAACACGTTTCTGGGCTTTGGGAAACAGTATGTGGAGAGACATTTCAATAAGACCGGCCAGCGA
GTCTACTTGCACCTCCGGCGGACCCGGCGCCCGAAAGAGGAGGACCCTGCTACAGGCACTGGAGACCCACCCCGG
AAGAAGCCCACGCGGCTGGCTATTGGTGTTGAAGGCGGATTTGACCTTAGCGAGGAGAAGTTTGAATTAGACGAG
GATGTGAAGATTGTCATTTTGCCAGATTACCTGGAGATTGCCCGGGATGGACTGGGGGGACTGCCTGACATTGTC
AGAGATCGGGTGACCAGTGCAGTGGAGGCCCTACTGTCGGCCGACTCAGCCTCCCGCAAGCAGGAGGTGCAGGCA
TGGGATGGGGAAGTACGGCAGGTGTCTAAGCATGCCTTCAGCCTCAAGCAGTTGGACAACCCTGCTCGAATCCCT
CCCTGTGGCTGGAAGTGCTCCAAGTGTGACATGAGAGAGAACCTGTGGCTCAACCTGACTGATGGCTCCATCCTC
TGTGGGCGACGCTACTTCGATGGCAGTGGGGGCAACAACCACGCTGTGGAGCACTACCGAGAGACAGGCTACCCG
TTAGCTGTCAAGCTGGGCACCATCACCCCTGATGGAGCTGACGTGTACTCATATGATGAGGATGACATGGTCCTG
GACCCCAGCCTGGCTGAGCACCTGTCCCACTTCGGCATCGACATGCTGAAGATGCAGAAGACAGACAAGACGATG
ACTGAGTTGGAGATAGACATGAACCAGCGGATTGGTGAATGGGAGCTGATCCAGGAGTCAGGTGTGCCACTCAAG
CCCCTGTTTGGGCCTGGCTACACAGGCATCCGGAACCTGGGTAACAGCTGCTACCTCAACTCTGTGGTCCAGGTG
CTCTTCAGCATCCCTGACTTCCAGAGGAAGTATGTGGATAAGCTGGAGAAGATCTTCCAGAATGCCCCGACGGAC
CCTACCCAGGATTTCAGCACCCAGGTGGCCAAGCTGGGCCATGGCCTTCTCTCCGGGGAGTATTCCAAGCCAGTA
CCGGAGTCGGGCGATGGGGAGCGGGTGCCAGAACAGAAGGAAGTTCAAGATGGCATTGCCCCTCGGATGTTCAAG
GCCCTCATCGGCAAGGGCCACCCTGAATTCTCCACCAACCGGCAGCAGGATGCCCAGGAGTTCTTCCTTCACCTT
ATCAACATGGTGGAGAGGAATTGCCGGAGCTCTGAAAATCCTAATGAAGTGTTCCGCTTCTTGGTGGAGGAAAAG
ATCAAGTGCCTGGCCACAGAGAAGGTGAAGTACACCCAGCGAGTTGACTACATCATGCAGCTGCCTGTGCCCATG
GATGCAGCCCTTAACAAAGAGGAGCTTCTGGAGTACGAGGAGAAGAAGCGGCAAGCCGAAGAGGAGAAGATGGCA
CTGCCAGAACTGGTTCGGGCCCAGGTGCCCTTCAGCTCTTGCCTGGAGGCCTACGGGGCCCCTGAGCAGGTCGAT
GACTTCTGGAGCACGGCCCTGCAGGCCAAGTCAGTAGCTGTCAAGACCACACGATTTGCCTCATTCCCTGACTAC
CTGGTCATCCAGATCAAGAAGTTCACCTTCGGCTTAGACTGGGTGCCCAAGAAACTGGATGTGTCCATCGAGATG
CCAGAGGAGCTCGACATCTCCCAGTTGAGGGGCACAGGGCTGCAGCCCGGAGAGGAGGAGCTGCCAGACATTGCC
CCACCCCTGGTCACTCCGGATGAGCCCAAAGCGCCCATGCTGGATGAATCAGTCATCATCCAGCTGGTGGAGATG
GGATTCCCTATGGACGCCTGCCGCAAAGCTGTCTACTACACGGGCAACAGCGGGGCTGAGGCCGCCATGAACTGG
GTCATGTCACACATGGATGATCCAGATTTTGCAAACCCCCTCATCCTGCCTGGCTCTAGTGGGCCGGGCTCCACA
AGCGCAGCAGCCGACCCCCCTCCTGAGGACTGTGTGACCACCATTGTCTCCATGGGCTTCTCCCGGGACCAGGCC
TTGAAAGCGCTGCGGGCCACGAACAATAGTTTAGAACGGGCTGTGGACTGGATCTTCAGTCACATTGACGACCTG
GATGCTGAAGCTGCCATGGACATCTCAGAGGGCCGCTCAGCTGCCGACTCCATCTCTGAGTCTGTGCCAGTGGGA
CCTAAAGTCCGGGATGGTCCTGGAAAGTATCAGCTCTTTGCCTTCATTAGTCACATGGGCACCTCTACCATGTGT
GGTCACTACGTCTGCCACATCAAGAAAGAAGGCAGATGGGTGATCTACAATGACCAGAAAGTGTGTGCCTCCGAG
AAGCCGCCCAAGGACCTGGGCTACATCTACTTCTACCAGAGAGTGGCCAGC**TAA**GAGCCTGCCTCACCCCTTACC
AATGAGGGCAGGGGAAGACCACCTGGCATGAGGGAGAGGGGCTGAGGGATGGACTTCAGCCCCTCTGCTCTGTAC
CCTTTTTCCTTTTGTCCCCGGCAGCAGGGAAGAAGCTGGAGGCCGTGGGAGAATGGCTGGGCAGAGCAGAGGGGC
AGCGATAGACTCTGGGGATGGAGCAGGACGGGGACGGGAGGGGCCGGCCACCTGTCTGTAAGGAGACTTTGTTGC
TTCCCCTGCCCCCGGAATCCACAGTGCTCTGCTTCTCTGTGTCGCCCCGCCCAGCCCCCTGGTGTGGAGGGAGGG
GTCTCGTTTGTGCGCGTGGGTGTAGCTTTGTGCATCCTCTCCCAGTGGAGCGATCACCTGTGCCTCCCCTCCCCC
TTTGTTTGCCCCTGTGTGGTTGGTCAAGGAGGGATGTGAGGGAAATAGGGACCCCCCGACTTGCCCTCCTGCCTC
AGTCTTTCCCCCACCCTGTCTCTTCCTTGTCCTTCTCTGGAAAATGCCAAAATACACGATGTGAATAAAAGTACA
ACGGCT

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FIGURE 1304

AAGTTTGAAACTGGTAACTTCGGGAGTTGAGCCACGAGCTGTTGTGCATCCAGAGGTGGAATTGGGGCCCGGCAT
TCCCTCCTCGTCCCGGGCTGGCCCTTGCCCCCACCCTGCAACTCCTGGTTGAG**ATG**GGCTCAGCCAAGAGCGTCC
CAGTCACACCAGCGCGGCCTCCGCCGCACAACAAGCATCTGGCTCGAGTGGCGGACCCCCGTTCACCTAGTGCTG
GCATCCTGCGCACTCCCATCCAGGTGGAGAGCTCTCCACAGCCAGGCCTACCAGCAGGGGAGCAACTGGAGGGTC
TTAAACATGCCCAGGACTCAGATCCCCGCTCTCCTACTCTTGGTATTGCACGGACACCTATGAAGACCAGCAGTG
GAGACCCCCCAAGCCCACTGGTGAAACAGCTGAGTGAAGTATTTGAAACTGAAGACTCTAAATCAAATCTTCCCC
CAGAGCCTGTTCTGCCCCCAGAGGCACCTTTATCTTCTGAATTGGACTTGCCTCTGGGTACCCAGTTATCTGTTG
AGGAACAGATGCCACCTTGGAACCAGACTGAGTTCCCCTCCAAACAGGTGTTTTCCAAGGAGGAAGCAAGACAGC
CCACAGAAACCCCTGTGGCCAGCCAGAGCTCCGACAAGCCCTCAAGGGACCCTGAGACTCCCAGATCTTCAGGTT
CTATGCGCAATAGATGGAAACCAAACAGCAGCAAGGTACTAGGGAGATCCCCCCTCACCATCCTGCAGGATGACA
ACTCCCCTGGCACCCTGACACTACGACAGGGTAAGCGGCCTTCACCCCTAAGTGAAAATGTTAGTGAACTAAAGG
AAGGAGCCATTCTTGGAACTGGACGACTTCTGAAAACTGGAGGACGAGCATGGGAGCAAGGCCAGGACCATGACA
AGGAAAATCAGCACTTTCCCTTGGTGGAGAGC**TAG**GCCCTGCATGGCCCCAGCAATGCAGTCACCCAGGGCCTGG
TGATATCTGTGTCCTCTCACCCCTTCTTTCCCAGGGATACTGAGGAATGGCTTGTTTTCTTAGACTCCTCCTCAG
CTACCAAACTGGGACTCACAGCTTTATTGGGCTTTCTTTGTGTCTTGTGTGTTTCTTTTATATTAAAGGAAGTAA
TTTTAAATGTTACTTTAAAAAGGTA

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FIGURE 1305

GCCCTGCCATTTCTGTGGGCTCAGGTCCCTACTGGCTCAGGCCCCTGCCTCCCTCGGCAAGGCCACA**ATG**AACCG
GGGAGTCCCTTTTAGGCACTTGCTTCTGGTGCTGCAACTGGCGCTCCTCCCAGCAGCCACTCAGGGAAAGAAAGT
GGTGCTGGGCAAAAAAGGGGATACAGTGGAACTGACCTGTACAGCTTCCCAGAAGAAGAGCATACAATTCCACTG
GAAAAACTCCAACCAGATAAAGATTCTGGGAAATCAGGGCTCCTTCTTAACTAAAGGTCCATCCAAGCTGAATGA
TCGCGCTGACTCAAGAAGAAGCCTTTGGGACCAAGGAAACTTTCCCCTGATCATCAAGAATCTTAAGATAGAAGA
CTCAGATACTTACATCTGTGAAGTGGAGGACCAGAAGGAGGAGGTGCAATTGCTAGTGTTCGGATTGACTGCCAA
CTCTGACACCCACCTGCTTCAGGGGCAGAGCCTGACCCTGACCTTGGAGAGCCCCCCTGGTAGTAGCCCCTCAGT
GCAATGTAGGAGTCCAAGGGGTAAAAACATACAGGGGGGGAAGACCCTCTCCGTGTCTCAGCTGGAGCTCCAGGA
TAGTGGCACCTGGACATGCACTGTCTTGCAGAACCAGAAGAAGGTGGAGTTCAAAATAGACATCGTGGTGCTAGC
TTTCCAGAAGGCCTCCAGCATAGTCTATAAGAAAGAGGGGGAACAGGTGGAGTTCTCCTTCCCACTCGCCTTTAC
AGTTGAAAAGCTGACGGGCAGTGGCGAGCTGTGGTGGCAGGCGGAGAGGGCTTCCTCCTCCAAGTCTTGGATCAC
CTTTGACCTGAAGAACAAGGAAGTGTCTGTAAAACGGGTTACCCAGGACCCTAAGCTCCAGATGGGCAAGAAGCT
CCCGCTCCACCTCACCCTGCCCCAGGCCTTGCCTCAGTATGCTGGCTCTGGAAACCTCACCCTGGCCCTTGAAGC
GAAAACAGGAAAGTTGCATCAGGAAGTGAACCTGGTGGTGATGAGAGCCACTCAGCTCCAGAAAAATTTGACCTG
TGAGGTGTGGGGACCCACCTCCCCTAAGCTGATGCTGAGTTTGAAACTGGAGAACAAGGAGGCAAAGGTCTCGAA
GCGGGAGAAGGCGGTGTGGGTGCTGAACCCTGAGGCGGGGATGTGGCAGTGTCTGCTGAGTGACTCGGGACAGGT
CCTGCTGGAATCCAACATCAAGGTTCTGCCCACATGGTCCACCCCGGTGCAGCCAATGGCCCTGATTGTGCTGGG
GGGCGTCGCCGGCCTCCTGCTTTTCATTGGGCTAGGCATCTTCTTCTGTGTCAGGTGCCGGCACCGAAGGCGCCA
AGCAGAGCGGATGTCTCAGATCAAGAGACTCCTCAGTGAGAAGAAGACCTGCCAGTGTCCTCACCGGTTTCAGAA
GACATGTAGCCCCATT**TGA**GGCACGAGGCCAGGCAGATCCCACTTGCAGCCTCCCCAGGTGTCTGCCCCGCGTTT
CCTGCCTGCGGACCAGATGAATGTAGCAGATCCCCAGCCTCTGGCCTCCTGTTCGCCTCCTCTACAATTTGCCAT
TGTTTCTCCTGGGTTAGGCCCCGGCTTCACTGGTTGAGTGTTGCTCTCTAGTTTCCAGAGGCTTAATCACACCGT
CCTCCACGCCATTTCCTTTTCCTTCAAGCCTAGCCCTTCTCTCATTATTTCTCTCTGACCCTCTCCCCACTGCTC
ATTTGGATCC

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FIGURE 1306

TACGCCCACAGTGAAGCATGCCAAGGTGTACACCTGGACTATCTGCAGTCGGGGATACACATCCCAGGAAACATA
CCTT**ATG**AAACATATGCGCAAACACAACCCGCCTGATCTTCAGCAACAGGTGCAGGCAGCAGCAGCAGCGGCAGC
AGTGGCCCAGGCCCAGGCTCAAGCTCAAGCCCAGGCTCAGGCTCAGGCTCAAGCCCAGGCCCAGGCCCAGGCCTC
CCAGGCATCACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAACAGCCACCACCACACTTCCA
GTCTCCTGGGGCAGCCCCCCAGGGTGGGGGTGGTGGGGACAGCAATCCCAACCCTCCACCCCAGTGTTCCTTTGA
CCTGACCCCGTATAAGACGGCGGAGCATCATAAGGACATCTGCCTCACTGTCACCACCAGCACCATCCAGGTGGA
GCACCTGGCCAGCTCT**TAG**AGATCCGTGCTGCCACCCACTGGGAAGAGGAAGAAGTAGTCCTGGTGTCTTCTTTC
TCCAACTCTTGGTGGGAAAAGTCCTTTTCTTCCTTGACAGGCCTTGGCTCCATCTCCTTGGGCCTCTGTCACGGC
TTTCCTTCACAGGATACCATCCTTTTTCTGAACTCTTCTTCAAAAGGAACATCAGCCCTCCTGATTGCAAAGGAA
TACTGAGCTGATGGTGTCATCCAGCAGCCTCCCCTCCCAAGCAAAGCTTCTAAAACTGGGGGTCGGTGCTCAAGG
GAAGGATTTGCTATGACCTCATAGAACCTTGTCCAGTGTGGCCACTTACCCTATCCTTACCCTCCTTATCCTCAA
AGTTTGGGCTGATGTAAGACTAGAGGCTGGCCCTCCCAGATAACAGAGAAAAGGGAGCCCCAAATGCAACCAGCC
TCTTGTTCTATTCTTGCCTGCAAAAGAACAGAGGTTTCTCAAATGCCTCAGTCCCTGAGAGCCATTTCTTCCCCT
ACATCGTCTCACTTTGCTTCCTATTGACTGCTGGTAGAAGGAGATTTGGGGTAGGGGCTAGACCTCCTTTTATTT
GAAGGGGGCAAGGGCTGAGATGTGGTCCCCAAGGGGCCAGAAATTCCCAAGTTGGTCACAGGTGGCTTAGAAGTG
TGTGTTATGGTTTTACGGATTTCCTTGAAGCCTCTCTCCTTCTCTGCCTACAAAGACCCTATACTCTCAGTCTCC
CCAACCCACCCCCAAGGAGCTGTGGGAGGCTTTGTGTTATCTGTGAAACTCCAAAACAGGGGTGTTGCGGAGAAG
GGAGAGTTCAAGGCAAACGCAAGGACTGGACTTAGCTCCCTAGGTGCCACAGTCAGATGCCGGACACGGATTTAT
ATATAAATATATATATATAAATATATTATACTCACTCATCACGGCCATCTTTGTTGTAACCATTTCTGTGTTTAT
AAATGCATTATCTCTGAGAATTTTCATATTTGATGTTTTGTTTATTTTTGTCCTTTTTTTCCCTCTCTCCACCCC
TGTCCTCTAGCCACAGCATTTTTCTTTTTGTC

FIGURE 1307

AGCGACTCTTCAGGGAGGTGGCAGGAAAGGCTTGGAACAGCTGCCGGAGGTGACGGAGCGGCGGCCCCGCCCGGT
GCGCTGGAGGTCGAAGCTTCCAGCTCTGGACATCCTGAGCCCAAGTCCCCCACACTCAGTGCAGTG**ATG**AGTGCG
GAAGTGAAGGTGACAGGGCAGAACCAGGAGCAATTTCTGCTCCTAGCCAAGTCGGCCAAGGGGGCAGCGCTGGCC
ACACTCATCCATCAGGTGCTGGAGGCCCCTGGTGTCTACGTGTTTGGAGAACTGCTGGACATGCCCAATGTTAGA
GAGCTGGCTGAGAGTGACTTTGCCTCTACCTTCCGGCTGCTCACAGTGTTTGCTTATGGGACATACGCTGACTAC
TTAGCTGAAGCCCGGAATCTTCCTCCACTAACAGAGGCTCAGAAGAATAAGCTTCGACACCTCTCAGTTGTCACC
CTGGCTGCTAAAGTAAAGTGTATCCCATATGCAGTGTTGCTGGAGGCTCTTGCCCTGCGTAATGTGCGGCAGCTG
GAAGACCTTGTGATTGAGGCTGTGTATGCTGACGTGCTTCGTGGCTCCCTGGACCAGCGCAACCAGCGGCTCGAG
GTTGACTACAGCATCGGGCGGGACATCCAGCGCCAGGACCTCAGTGCCATTGCCCGAACCCTGCAGGAATGGTGT
GTGGGCTGTGAGGTCGTGCTGTCAGGCATTGAGGAGCAGGTGAGCCGTGCCAACCAACACAAGGAGCAGCAGCTG
GGCCTGAAGCAGCAGATTGAGAGTGAGGTTGCCAACCTTAAAAAAACCATTAAAGTTACGACGGCAGCAGCAGCC
GCAGCCACATCTCAGGACCCTGAGCAACACCTGACTGAGCTGAGGGAACCAGCTCCTGGCACCAACCAGCGCCAG
CCCAGCAAGAAAGCCTCAAAGGGCAAGGGGCTCCGAGGGAGCGCCAAGATTTGGTCCAAGTCGAAT**TGA**AAGGAC
TGTCGTTTCCTCCCTGGGGATGTGGGGTCCCAGCTGCCTGCCTGCCTCTTAGGAGTCCTCAGAGAGCCTTCTGTG
CCCCTGGCCAGCTGATAATCCTAGGTTCATGACCCTTCACCTCCCCTAACCCCAAACATAGATCACACCTTCTCT
AGGGAGGAGGCAAATGTAGGTCATGTTTTTGTTGGTACTTTCTGTTTTTTGTGACTTCATGTGTTCCATTGCTCC
CCGCTGCCATGCTCTCTCCCTTGTTTCCTTAAGAGCTCAGCATCTGTCCCTGTTCATTACATGTCATTGAGTAGG
TGGGTAGCCCTGATGGGGGTCGCTCTGTCTGGAGCATAACCCACAGGCGTTTTTTCTGCCACCCCATCCCTGCAT
GCCTGATCCCCAGTTCCTATACCCTACCCCTGACCTATTGAGCAGCCTCTGAAGAGCCATAGGGCCCCCACCTTT
ACTCACACCCTGAGAATTCTGGGAGCCAGTCTGCCATGCCAGGAGTCACTGGACATGTTCATCCTAGAATCCTGT
CACACTACAGTCATTTCTTTTCCTCTCTCTGGCCCTTGGGTCCTGGGAATGCTGCTGCTTCAACCCCAGAGCCTA
AGAATGGCAGCCGTTTCTTAACATGTTGAGAGATGATTCTTTCTTGGCCCTGGCCATCTCGGGAAGCTTGATGGC
AATCCTGGAAGGGTTTAATCTCCTTTTGTGAGTTTGGTGGGGAAGGGAAGGGTATATAGATTGTATTAAAAAAAA
AAAGGTATATATGCATATATCTATATATAATATGACGCAGAAATAAATCTATGAGAAATCTATCTAC

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FIGURE 1308

GAGGACGGATGAAGAGAAATAGAAGGACCAGGCGAATAAAAGTGAGGACCTGAAGGAGAAGAAGGAGAAGGTGGA
GGAGAAGGCAAGCCGGAAAGAGCGAAAGAAAGAAGTGGTGGAGGCTCCAGTCCCATTGGTGGTGATGGTGGGCAA
GGCATGCAGCCAGCCTGAGGCTACTCCCTCTCCTGGTCCCCACAGGAGGAGGAGAACGGGGCTGAGGAGGAAGAA
GAAGAAACTGCCGAGGATGGAGAGGAGGAAGATGAAGGGGAAGAAGAAGATGAGGAAGAAGAAGAAGAGGATGAT
GAAGGGCCCGCGCTGAAGAGAGCTGCCGAAGAGGAGG**ATG**AAGCGGATCCCAAACGGCAGAAGACAGAAAATGGG
GCATCGGCGTGAGCCCCTGCCAACAGGCTGGGGTTGGGAGGCCTCTCTGGGCCTGGAGGTGGGGGTGGGGGCAGC
CAAGTCCAGCCACTCTTCACCTGGCTCCCTGCTCTGGGCCCTGCACCAGAGCTGCCACCCTCTTCTTTCTCCCCA
GCCTTCTCATTTCCGCCTCTCCAGACACTGCGCCCTCCACCCTCACTCTGCCATTGTTCCACCTCCTGACCTGCT
CCATCTGAGCTCTCCAGCTGGCCCCCAATTGCTCCTCTCTCTCTTTGCTCTCTTTCTCCCTCCCCTACCAGCCTC
ATTCTTCCTCCGG**TAG**CCTCTCCCACCTAACCTCTGCATCCCCCAGCCTCATGTCCTGCCCCATCCCTATCCTGC
CTGATCCCTGGATCTCCCTCAGATCCCCTCTTCTCAGACAGCGCCAGGCCGGGGTGGGGCCGGGGTTGGGGCCGA
GCCCCACAGCTGCCCCCCTCCCCTCCCTTTTTGTATAATTTAATAAAGAAATGGTCGCGCTTCTGTTTTT

FIGURE 1309

GCCGAGGGGGCCGTACGGAGGTGGCAGCTGTGGGAGGAGGCGGCGTGGAAGGCCGAGGAGCTCAAGCCCGGACCA
ATCCCCACGTTCCGGGCCGCGACCCTGACCCTGCAGCGTACCGGGAAGCGAAACCGGCCGGATGGGCCGCTGAGC
CCGAATCGGGCACTGTGTGGAGCCCCCTGGAGCTGAGATCAGG**ATG**TTCCGCTTCATGAGGGACGTGGAGCCTGA
GGATCCCATGTTCCTGATGGATCCCTTTGCTATTCACCGTCAGCATATGAGCCGTATGTTGTCAGGTGGCTTTGG
ATATAGCCCCTTCCTCAGCATCACAGATGGCAACATGCCAGGGACCAGGCCTGCCAGCCGCCGGATGCAGCAGGC
TGGAGCTGTCTCCCCCTTTGGGATGCTGGGAATGTCGGGTGGTTTCATGGACATGTTTGGGATGATGAATGACAT
GATTGGAAACATGGAACACATGACAGCTGGAGGCAATTGCCAGACCTTCTCATCTTCCACTGTCATCTCCTACTC
CAATACGGGTGATGGTGCCCCCAAGGTCTACCAAGAGACATCAGAGATGCGCTCGGCACCAGGCGGGATCCGGGA
GACACGGAGGACTGTTCGGGATTCAGACAGTGGACTGGAGCAGATGTCCATTGGGCATCACATCCGGGACAGGGC
TCACATCCTCCAGCGCTCCCGAAACCATCGCACGGGGGACCAGGAGGAGCGGCAGGACTATATCAACCTGGATGA
GAGTGAGGCCGCAGCGTTTGATGACGAGTGGCGGCGGGAGACCTCCCGATTCCGGCAGCAGCGTCCCCTGGAGTT
TCGGCGGCTTGAGTCCTCAGGGGCTGGGGGACGAAGGGCGGAGGGGCCTCCCCGCCTGGCCATCCAGGGACCTGA
GGACTCCCCTTCCCGACAGTCCCGCCGCTATGACTGG**TGA**GGGCCCCGGGCCCTCAGCCTCTCTTGTACAGGCTG
AGAGGCTGAGAAATCATCCCCTGAATAACTTTTTCCTCTCGATTCCCATCCCCAATTTAATATTAAATTAACAGG
CAAGCCGGCCCCCACCTCTCCCTGGGGGTCTCAGGGAGAACCTTTCACGGCACCCTTTCCCTACCTTTTCCTTCT
TTAATCTCCTGGTTTACCATTGATGACTTCGCCTCTGCATCTACTGACTTGATTTTTCATTCTGCCACTCCATCT
TCAAACCCCCTCACCTTTCCCATCCTACTCCTGCCATGCATTGAAGGGTCAATGCATTTTGGGGTGAGCTCTGGG
TTTAGGGGCCCCCTCCATCCCTCAGCTACCCTGGATCTTTGCCCACCTCTTCCTCAGAGCCCCCACTGAGGGGCC
GTAGCCCTATCTAGGGCTGTGGAAGGAGCAGACTGGTTCCTAACTCTCTCCCTCCTCCTGCCCACACACATCAAA
AGAATCTTCCCTACACCCTTCTCTGCCTTTATTTTTTGATTTGTGCAACTTGTAACTAGGTGTTTATGGAATAAA
GGAGAATGGAAAAAAG

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FIGURE 1310A

ATTTTCCCCCCTTCGGCCGCGGCGAGGAGGAGCCGGAGCGGGAGTGACACCGAGCCGGACCCAGCGCGACCTGCG
GCGGCTCCGGGTGACTCGGGCCAGTGTAGAGGTCCTCAGGCCGCCGGCAGGAGCAGCTGGGCCAATTCCCTGGCC
GGGAGCGGAAGGGG**ATG**GCGTCGGGCCTGGGCTCCCCGTCCCCCTGCTCGGCGGGCAGTGAGGAGGAGGATATGG
ATGCACTTTTGAACAACAGCCTGCCCCCACCCCACCCAGAAAATGAAGAGGACCCAGAAGAGGATTTGTCAGAAA
CAGAGACTCCAAAGCTCAAGAAGAAGAAAAAGCCTAAGAAACCTCGGGACCCTAAAATCCCTAAGAGCAAGCGCC
AAAAAAAGGAGCGTATGCTCTTATGCCGGCAGCTGGGGGACAGCTCTGGGGAGGGGCCAGAGTTTGTGGAGGAGG
AGGAAGAGGTGGCTCTGCGCTCAGACAGTGAGGGCAGCGACTATACTCCTGGCAAGAAGAAGAAGAAGAAGCTTG
GACCTAAGAAAGAGAAGAAGAGCAAATCCAAGCGGAAGGAGGAGGAGGAGGAGGAGGATGATGATGATGATTCAA
AGGAGCCTAAATCATCTGCTCAGCTCCTGGAAGACTGGGGCATGGAAGACATTGACCACGTGTTCTCAGAGGAGG
ATTATCGAACCCTCACCAACTACAAGGCCTTCAGCCAGTTTGTCAGACCCCTCATTGCTGCCAAAAATCCCAAGA
TTGCTGTCTCCAAGATGATGATGGTTTTGGGTGCAAAATGGCGGGAGTTCAGTACCAATAACCCCTTCAAAGGCA
GTTCTGGGGCATCAGTGGCAGCTGCGGCAGCAGCAGCGGTAGCTGTGGTGGAGAGCATGGTGACAGCCACTGAGG
TTGCACCACCACCTCCCCCTGTGGAGGTGCCTATCCGCAAGGCCAAGACCAAGGAGGGCAAAGGTCCCAATGCTC
GGAGGAAGCCCAAGGGCAGCCCTCGTGTACCTGATGCCAAGAAGCCTAAACCCAAGAAAGTAGCTCCCCTGAAAA
TCAAGCTGGGAGGTTTTGGTTCCAAGCGTAAGAGATCCTCGAGTGAGGATGATGACTTAGATGTGGAATCTGACT
TCGATGATGCCAGTATCAATAGCTATTCTGTTTCTGATGGTTCCACCAGCCGTAGTAGCCGCAGCCGCAAGAAAC
TCCGAACCACTAAAAAGAAAAAGAAAGGCGAGGAGGAGGTGACTGCTGTGGATGGTTATGAGACAGACCACCAGG
ACTATTGCGAGGTGTGCCAGCAAGGCGGTGAGATCATCCTGTGTGATACCTGTCCCCGTGCTTACCACATGGTCT
GCCTGGATCCCGACATGGAGAAGGCTCCCGAGGGCAAGTGGAGCTGCCCACACTGCGAGAAGGAAGGCATCCAGT
GGGAAGCTAAAGAGGACAATTCGGAGGGTGAGGAGATCCTGGAAGAGGTTGGGGGAGACCTCGAAGAGGAGGATG
ACCACCATATGGAATTCTGTCGGGTCTGCAAGGATGGTGGGGAACTGCTCTGCTGTGATACCTGTCCTTCTTCCT
ACCACATCCACTGCCTGAATCCCCCACTTCCAGAGATCCCCAACGGTGAATGGCTCTGTCCCCGTTGTACGTGTC
CAGCTCTGAAGGGCAAAGTGCAGAAGATCCTAATCTGGAAGTGGGGTCAGCCACCATCTCCCACACCAGTGCCTC
GGCCTCCAGATGCTGATCCCAACACGCCCTCCCCAAAGCCCTTGGAGGGGCGGCCAGAGCGGCAGTTCTTTGTGA
AATGGCAAGGCATGTCTTACTGGCACTGCTCCTGGGTTTCTGAACTGCAGCTGGAGCTGCACTGTCAGGTGATGT
TCCGAAACTATCAGCGGAAGAATGATATGGATGAGCCACCTTCTGGGGACTTTGGTGGTGATGAAGAGAAAAGCC
GAAAGCGAAAGAACAAGGACCCTAAATTTGCAGAGATGGAGGAACGCTTCTATCGCTATGGGATAAAACCCGAGT
GGATGATGATCCACCGAATCCTCAACCACAGTGTGGACAAGAAGGGCCACGTCCACTACTTGATCAAGTGGCGGG
ACTTACCTTACGATCAGGCTTCTTGGGAGAGTGAGGATGTGGAGATCCAGGATTACGACCTGTTCAAGCAGAGCT
ATTGGAATCACAGGGAGTTAATGAGGGGTGAGGAAGGCCGACCAGGCAAGAAGCTCAAGAAGGTGAAGCTTCGGA
AGTTGGAGAGGCCTCCAGAAACGCCAACAGTTGATCCAACAGTGAAGTATGAGCGACAGCCAGAGTACCTGGATG
CTACAGGTGGAACCCTGCACCCCTATCAAATGGAGGGCCTGAATTGGTTGCGCTTCTCCTGGGCTCAGGGCACTG
ACACCATCTTGGCTGATGAGATGGGCCTTGGGAAAACTGTACAGACAGCAGTCTTCCTGTATTCCCTTTACAAGG
AGGGTCATTCCAAAGGCCCCTTCCTAGTGAGCGCCCCTCTTTCTACCATCATCAACTGGGAGCGGGAGTTTGAAA
TGTGGGCTCCAGACATGTATGTCGTAACCTATGTGGGTGACAAGGACAGCCGTGCCATCATCCGAGAGAATGAGT
TCTCCTTTGAAGACAATGCCATTCGTGGTGGCAAGAAGGCCTCCCGCATGAAGAAAGAGGCATCTGTGAAATTCC
ATGTGCTGCTGACATCCTATGAATTGATCACCATTGACATGGCTATTTTGGGCTCTATTGATTGGGCCTGCCTCA
TCGTGGATGAAGCCCATCGGCTGAAGAACAATCAGTCTAAGTTCTTCCGGGTATTGAATGGTTACTCACTCCAGC
ACAAGCTGTTGCTGACTGGGACACCATTACAAAACAATCTGGAAGAGTTGTTTCATCTGCTCAACTTTCTCACCC
CCGAGAGGTTCCACAATTTGGAAGGTTTTTTGGAGGAGTTTGCTGACATTGCCAAGGAGGACCAGATAAAAAAAC
TGCATGACATGCTGGGGCCGCACATGTTGCGGCGGCTCAAAGCCGATGTGTTCAAGAACATGCCCTCCAAGACAG
AACTAATTGTGCGTGTGGAGCTGAGCCCTATGCAGAAGAAATACTACAAGTACATCCTCACTCGAAATTTTGAAG
CACTCAATGCCCGAGGTGGTGGCAACCAGGTGTCTCTGCTGAATGTGGTGATGGATCTTAAGAAGTGCTGCAACC
ATCCATACCTCTTCCCTGTGGCTGCAATGGAAGCTCCTAAGATGCCTAATGGCATGTATGATGGCAGTGCCCTAA
TCAGAGCATCTGGGAAATTATTGCTGCTGCAGAAAATGCTCAAGAACCTTAAGGAGGGTGGGCATCGTGTACTCA
TCTTTTCCCAGATGACCAAGATGCTAGACCTGCTAGAGGATTTCTTGGAACATGAAGGTTATAAATACGAACGCA
TCGATGGTGGAATCACTGGGAACATGCGGCAAGAGGCCATTGACCGCTTCAATGCACCGGGTGCTCAGCAGTTCT
GCTTCTTGCTTTCCACTCGAGCTGGGGGCCTTGGAATCAATCTGGCCACTGCTGACACAGTTATTATCTATGACT

FIGURE 1310B

CTGACTGGAACCCCCATAATGACATTCAGGCCTTTAGCAGAGCTCACCGGATTGGGCAAAATAAAAAGGTAATGA
TCTACCGGTTTGTGACCCGTGCGTCAGTGGAGGAGCGCATCACGCAGGTGGCAAAGAAGAAAATGATGCTGACGC
ATCTAGTGGTGCGGCCTGGGCTGGGCTCCAAGACTGGATCTATGTCCAAACAGGAGCTTGATGATATCCTCAAAT
TTGGCACTGAGGAACTATTCAAGGATGAAGCCACTGATGGAGGAGGAGACAACAAAGAGGGAGAAGATAGCAGTG
TTATCCACTACGATGATAAGGCCATTGAACGGCTGCTAGACCGTAACCAGGATGAGACTGAAGACACAGAATTGC
AGGGCATGAATGAATATTTGAGCTCATTCAAAGTGGCCCAGTATGTGGTACGGGAAGAAGAAATGGGGGAGGAAG
AGGAGGTAGAACGGGAAATCATTAAACAGGAAGAAAGTGTGGATCCTGACTACTGGGAGAAATTGCTGCGGCACC
ATTATGAGCAGCAGCAAGAAGATCTAGCCCGAAATCTGGGCAAAGGAAAAAGAATCCGTAAACAGGTCAACTACA
ATGATGGCTCCCAGGAGGACCGAGATTGGCAGGACGACCAGTCCGACAACCAGTCCGATTACTCAGTGGCTTCAG
AGGAAGGTGATGAAGACTTTGATGAACGTTCAGAAGCTCCCCGTAGGCCCAGTCGTAAGGGCCTGCGGAATGATA
AAGATAAGCCATTGCCTCCTCTGTTGGCCCGTGTTGGTGGGAATATTGAAGTACTTGGTTTTAATGCTCGTCAGC
GAAAAGCCTTTCTTAATGCAATTATGCGATATGGTATGCCACCTCAGGATGCTTTTACTACCCAGTGGCTTGTAA
GAGACCTGCGAGGCAAATCAGAGAAAGAGTTCAAGGCATATGTCTCTCTTTTCATGCGGCATTTATGTGAGCCGG
GGGCAGATGGGGCTGAGACCTTTGCTGATGGTGTCCCCCGAGAAGGCCTGTCTCGCCAGCATGTCCTTACTAGAA
TTGGTGTTATGTCTTTGATTCGCAAGAAGGTTCAGGAGTTTGAACATGTTAATGGGCGCTGGAGCATGCCTGAAC
TGGCTGAGGTGGAGGAAAACAAGAAGATGTCCCAGCCAGGGTCACCCTCCCCAAAAACTCCTACACCCTCCACTC
CAGGGGACACGCAGCCCAACACTCCTGCACCTGTCCCACCTGCTGAAGATGGGATAAAAATAGAGGAAAATAGCC
TCAAAGAAGAAGAGAGCATAGAAGGAGAAAAGGAGGTTAAATCTACAGCCCCTGAGACTGCCATTGAGTGTACAC
AGGCCCCTGCCCCTGCCTCAGAGGATGAAAAGGTCGTTGTTGAACCCCCTGAGGGAGAGGAGAAAGTGGAAAAGG
CAGAGGTGAAGGAGAGAACAGAGGAACCTATGGAGACAGAGCCCAAAGGTGCTGCTGATGTAGAGAAGGTGGAGG
AAAAGTCAGCAATAGATCTGACCCCTATTGTGGTAGAAGACAAAGAAGAGAAGAAAGAAGAAGAAGAGAAAAAAG
AGGTGATGCTTCAGAATGGAGAGACCCCCAAGGACCTGAATGATGAGAAACAGAAGAAAAATATTAAACAACGTT
TCATGTTTAACATTGCAGATGGTGGTTTTACTGAGTTGCACTCCCTTTGGCAGAATGAAGAGCGGGCAGCCACAG
TTACCAAGAAGACTTATGAGATCTGGCATCGACGGCATGACTACTGGCTGCTAGCCGGCATTATAAACCATGGCT
ATGCCCGGTGGCAAGACATCCAGAATGACCCACGCTATGCCATCCTCAATGAGCCTTTCAAGGGTGAAATGAACC
GTGGCAATTTCTTAGAGATCAAGAATAAATTTCTAGCTCGAAGGTTTAAGCTCTTAGAACAAGCTCTGGTGATTG
AGGAACAGCTGCGCCGGGCTGCTTACTTGAACATGTCAGAAGACCCTTCTCACCCTTCCATGGCCCTCAACACCC
GCTTTGCTGAGGTGGAGTGTTTGGCGGAAAGTCATCAGCACCTGTCCAAGGAGTCAATGGCAGGAAACAAGCCAG
CCAATGCAGTCCTGCACAAAGTTCTGAAACAGCTGGAAGAACTGCTGAGTGACATGAAAGCTGATGTGACTCGAC
TCCCAGCTACCATTGCCCGAATTCCCCCAGTTGCTGTGAGGTTACAGATGTCAGAGCGTAACATTCTCAGCCGCC
TGGCAAACCGGGCACCCGAACCTACCCCACAGCAGGTAGCCCAGCAGCAG**TGA**AGATGCAGACTGATACCACCTC
CACCGCTGAGCAGTGACCTTCCTCACTTTCTCTTGTCCCAGCTTCTCCCCTGGGGGCCTGAGAGACCCTCACCTT
CCTTCTGCCCATCTTCCATGTTGTAAAGGAACAGCCCCAGTGCACTGGGGGAGGGGAGGGAGTGAGGGGCAGTGG
TGCCCTTCCTGCAGAAGAGACATGCAGCAGTAGCGCTGGCGCCATCTGCAGGAGCTGGCGGGCTGGCCTTCTGGA
CCCTGGCTTCTCCCCACTGTAACGCCTGTTACACACAAACTGTTGTGGGTTCCTGCCAGGCTTGAAGAAAATGAT
CTGAATTTTTTCCTCCTTTTGGTTTTATTTTGTTGGTTTATTTTGTGTTTTCTTTTCTCCTTTTTGGGGGGTATT
CAGAGTGGGCTGGGCCCCTGGGCGAGACACAGCTACCTCTGTTGGCATCTTTTTAATACCAGGAACCCAGCGGCT
CTAGCCACTGAGCGGCTAAATGAAATAAAGTGGAAAAAAAAAAAAAGGAAAAAACCAAAAGCATAAAAAACCACA
GCAAATTTCTTGATGAAAATTGAAAATAAAAGTTTCCTTGT

FIGURE 1311

ATGGGGCGCAAGTTGGACCCTACGAAGGAGAAGCGGGGGCCAGGCCGAAAGGCCCGGAAGCAGAAGGGTGCCGAG
ACAGAACTCGTCAGATTCTTGCCTGCAGTAAGTGACGAAAATTCCAAGAGGCTGTCTAGTCGTGCTCGAAAGAGG
GCAGCCAAGAGGAGATTGGGCTCTGTTGAAGCCCCTAAGACAAATAAGTCTCCTGAGGCCAAACCATTGCCTGGA
AAGCTACCAAAAGGGATCTCTGCAGGAGCTGTCCAGACAGCTGGTAAGAAGGGACCCCAGTCCCTATTTAATGCT
CCTCGAGGCAAGAAGCGCCCAGCACCTGGCAGTGATGAGGAAGAGGAGGAGGAAGACTCTGAAGAAGATGGTATG
GTGAACCACGGGGACCTCTGGGGCTCCGAGGACGATGCTGATACGGTAGATGACTATGGAGCTGACTCCAACTCT
GAGGATGAGGAGGAAGGTGAAGCGTTGCTGCCCATTGAAAGAGCTGCTCGGAAGCAGAAGGCCCGGGAAGCTGCT
GCTGGGATCCAGTGGAGTGAAGAGGAGACCGAGGACGAGGAGGAAGAGAAAGAAGTGACCCCTGAGTCAGGCCCC
CCAAAGGTGGAAGAGGCAGATGGGGGCCTGCAGATCAATGTGGATGAGGAACCATTTGTGCTGCCCCCTGCTGGG
GAGATGGAGCAGGATGCCCAGGCTCCAGACCTGCAACGAGTTCACAAGCGGATCCAGGATATTGTGGGAATTCTG
CGTGATTTTGGGGCTCAGCGGGAGGAAGGGCGGTCTCGTTCTGAATACCTGAACCGGCTCAAGAAGGATCTGGCC
ATTTACTACTCCTATGGAGACTTCCTGCTTGGCAAGCTCATGGACCTCTTCCCTCTGTCTGAGCTGGTGGAGTTC
TTAGAAGCTAATGAGGTGCCTCGGCCCGTCACCCTCCGGACCAATACCTTGAAAACCCGACGCCGAGACCTTGCA
CAGGCTCTAATCAATCGTGGGGTTAACCTGGATCCCCTGGGCAAGTGGTCAAAGACTGGACTAGTGGTGTATGAT
TCTTCTGTGCCCATTGGTGCTACCCCCGAGTACCTGGCTGGGCACTACATGCTGCAGGGAGCCTCCAGCATGTTG
CCCGTCATGGCCTTGGCACCCCAGGAACATGAGCGGATCCTGGACATGTGTTGTGCCCCTGGAGGAAAGACCAGC
TACATGGCCCAGCTGATGAAGAACACGGGTGTGATCCTTGCCAATGACGCCAATGCTGAGCGGCTCAAGAGTGTT
GTGGGCAACTTGCATCGGCTGGGAGTCACCAACACCATTATCAGCCACTATGATGGGCGCCAGTTCCCCAAGGTG
GTGGGGGGCTTTGACCGAGTACTGCTGGATGCTCCCTGCAGTGGCACTGGGGTCATCTCCAAGGATCCAGCCGTG
AAGACTAACAAGGATGAGAAGGACATCCTGCGCTGTGCTCACCTCCAGAAGGAGTTGCTCCTGAGTGCTATTGAC
TCTGTCAATGCGACCTCCAAGACAGGAGGCTACCTGGTTTACTGCACCTGTTCTATCACAGTAGAAGAGAATGAG
TGGGTGGTAGACTATGCTCTGAAAAAGAGGAATGTGCGACTGGTGCCCACGGGCCTAGACTTTGGCCAGGAAGGT
TTTACCCGCTTTCGAGAAAGGCGCTTCCACCCCAGTCTGCGTTCTACCCGACGCTTCTACCCTCATACCCACAAT
ATGGATGGGTTCTTCATTGCCAAGTTCAAGAAATTTTCCAATTCTATCCCTCAGTCCCAGACAGGAAATTCTGAA
ACAGCCACACCTACAAATGTAGACTTGCCTCAGGTCATCCCCAAGTCTGAGAACAGCAGCCAGCCAGCCAAGAAA
GCCAAGGGGGCTGCAAAGACAAAGCAGCAGCTGCAGAAACAGCAACATCCCAAGAAGGCCTCCTTCCAGAAGCTG
AATGGCATCTCCAAAGGGGCAGACTCAGAATTGTCCACTGTACCTTCTGTCACAAAGACCCAAGCTTCCTCCAGC
TTCCAGGATAGCAGTCAGCCAGCTGGAAAAGCCGAAGGGATCAGGGAGCCAAAGGTGACTGGGAAGCTAAAGCAA
CGATCACCTAAATTACAGTCCTCCAAGAAAGTTGCTTTCCTCAGGCAGAATGCCCCTCCCAAGGGCACAGACACA
CAAACACCGGCTGTGTTATCCCCATCCAAGACTCAGGCCACCCTGAAACCTAAGGACCATCATCAGCCCCTTGGA
AGGGCCAAGGGGGTTGAGAAGCAGCAGTTGCCAGAGCAGCCTTTTGAGAAAGCTGCCTTCCAGAAACAGAATGAT
ACCCCCAAGGGGCCTCAGCCTCCCACTGTGTCTCCCATCCGTTCCAGCCGCCCCCCACCAGCAAAGAGGAAGAAA
TCTCAGTCCAGGGGCAACAGCCAGCTGCTGCTATCTTAGATGGTTGAAAACTAGACGGGTGGCTCACTGCCATTG
TCACCAGGTTGGAACTCTTGCCTCTGTGAGGATGCCTTCTCTACTGTGCATACCCATGAAATTTAATACACATTT
TAAAACCTCTGGCCACTGA

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FIGURE 1312

CTCTCTGCTCCTCCTGTTCGACAGTCAGCCGCATCTTCTTTTGCGTCGCCAGCCGAGCCACATCGCTCAGACACC
ATGGGGAAGGTGAAGGTCGGAGTCAACGGATTTGGTCGTATTGGGCGCCTGGTCACCAGGGCTGCTTTTAACTCT
GGTAAAGTGGATATTGTTGCCATCAATGACCCCTTCATTGACCTCAACTACATGGTTTACATGTTCCAATATGAT
TCCACCCATGGCAAATTCCATGGCACCGTCAAGGCTGAGAACGGGAAGCTTGTCATCAATGGAAATCCCATCACC
ATCTTCCAGGAGCGAGATCCCTCCAAAATCAAGTGGGGCGATGCTGGCGCTGAGTACGTCGTGGAGTCCACTGGC
GTCTTCACCACCATGGAGAAGGCTGGGGCTCATTTGCAGGGGGGAGCCAAAAGGGTCATCATCTCTGCCCCCTCT
GCTGATGCCCCCATGTTCGTCATGGGTGTGAACCATGAGAAGTATGACAACAGCCTCAAGATCATCAGCAATGCC
TCCTGCACCACCAACTGCTTAGCACCCCTGGCCAAGGTCATCCATGACAACTTTGGTATCGTGGAAGGACTCATG
ACCACAGTCCATGCCATCACTGCCACCCAGAAGACTGTGGATGGCCCCTCCGGGAAACTGTGGCGTGATGGCCGC
GGGGCTCTCCAGAACATCATCCCTGCCTCTACTGGCGCTGCCAAGGCTGTGGGCAAGGTCATCCCTGAGCTGAAC
GGGAAGCTCACTGGCATGGCCTTCCGTGTCCCCACTGCCAACGTGTCAGTGGTGGACCTGACCTGCCGTCTAGAA
AAACCTGCCAAATATGATGACATCAAGAAGGTGGTGAAGCAGGCGTCGGAGGGCCCCCTCAAGGGCATCCTGGGC
TACACTGAGCACCAGGTGGTCTCCTCTGACTTCAACAGCGACACCCACTCCTCCACCTTTGACGCTGGGGCTGGC
ATTGCCCTCAACGACCACTTTGTCAAGCTCATTTCCTGGTATGACAACGAATTTGGCTACAGCAACAGGGTGGTG
GACCTCATGGCCCACATGGCCTCCAAGGAG**TAA**GACCCCTGGACCACCAGCCCCAGCAAGAGCACAAGAGGAAGA
GAGAGACCCTCACTGCTGGGGAGTCCCTGCCACACTCAGTCCCCCACCACACTGAATCTCCCCTCCTCACAGTTG
CCATGTAGACCCCTTGAAGAGGGGAGGGGCCTAGGGAGCCGCACCTTGTCATGTACCATCAATAAAGTACCCTGT
GCTCAACC

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FIGURE 1313

GGTTGAGCACAGGGTACTTTATTGATGGTACATGACAAGGTGCGGCTCCCTAGGCCCCTCCCCTCTTCAAGGGGT
CTACATGGCAACTGTGAGGAGGGGAGATTCAGTGTGGTGGGGGACTGAGTGTGGCAGGGACTCCCCAGCAGTGAG
GGTCTCTCTCTTCCTCTTGTGCTCTTGCTGGGGCTGGTGGTCCAGGGGTCTTACTCCTTGGAGGCCATGTGGGCC
ATGAGGTCCACCACCCTGTTGCTGTAGCCAAATTCGTTGTCATACCAGGAAATGAGCTTGACAAAGTGGTCGTTG
AGGGCAATGCCAGCCCCAGCGTCAAAGGTGGAGGAGTGGGTGTCGCTGTTGAAGTCAGAGGAGACCACCTGGTGC
TCAGTGTAGCCCAGG**ATG**CCCTTGAGGGGGCCCTCCGACGCCTGCTTCACCACCTTCTTGATGTCATCATATTTG
GCAGGTTTTTCTAGACGGCAGGTCAGGTCCACCACTGACACGTTGGCAGTGGGGACACGGAAGGCCATGCCAGTG
AGCTTCCCGTTCAGCTCAGGGATGACCTTGCCCACAGCCTTGGCAGCGCCAGTAGAGGCAGGGATGATGTTCTGG
AGAGCCCCGCGGCCATCACGCCACAGTTTCCCGGAGGGGCCATCCACAGTCTTCTGGGTGGCAGTGATGGCATGG
ACTGTGGTCATGAGTCCTTCCACGATACCAAAGTTGTCATGGATGACCTTGGCCAGGGGTGCTAAGCAGTTGGTG
GTGCAGGAGGCATTGCTGATGATCTTGAGGCTGTTGTCATACTTCTCATGGTTCACACCCATGACGAACATGGGG
GCATCAGCAGAGGGGGCAGAGATGATGACCCTTTTGGCTCCCCCCTGCAAA**TGA**ACCCCAGCCTTCTCCATGGTG
GTGAAGACGCCAGTGGACTCCACGACGTACTCAGCGCCAGCATCGCCCCACTTGATTTTGGAGGGATCTCACTCC
TGGAAGATGGTGATGGGATTTCCATTGATGACAAGCTTCCCGTTCTCAGCCTTGACGGTGCCATGGAATTTGCCA
TGGGTGGAATCATATTGGAACATGTAAACCATGTAGTTGAGGTCAATGAAGGGGTCATTGATGGCAACAATATCC
ACTTTACCAGAGTTAAAAGCAGCCCTGGTGACCAGGCGCCCAATACGACCAAATCCGTTGACTCCGACCTTCACC
TTCCCCATGGTGTCTGAGCGATGTGGCTCGGCTGGCGACGCAAAAGAAGATGCGGCTGACTGTCGAAC

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FIGURE 1314A

AAGTTTTGGAGCGCCGGACAAGCTGAGGTCCGCGACTCGTCGCTAAGATTCCCCAAAACTGAGATTTCAAGAAAA
TTCACCCTTTCCGCTTTCTTTGGCGTCCTTCAACCGTGAAGGAAATGAAGGTTGAGAACCTGGAACCCGCTTCCA
ATGACCAAGCCCTTTCTCTGTGCCTCACAACAGTCTTCCGCTGTAGCTGTTTTTATTACCCCTATTTTACTACTG
GGGAGGAGATTTGAGGTCCTGAAAGTGAAGTGACTTGCTGGACGTCACTTAGCAGAGGAGATGGCGAAACCTGGA
TTAGAGGCGATGCCTTCTAACTCCCAGCGTGGACTTGCCTCCTTTCCTGGGGGTGACTGAATGCCCAGCCAGGGA
CGCGACGTCTCTGGCCAGCAGAAATACGGCCTCCTCCCCGCCGACTGGGCAAAGGGGGACCTTGCGGCCAAGGAG
GGATTCGCAGGCGGGCCGGGGGTGGGAGCGGGGGCCGGAGCCGGAGCCTTGGCCCGCCCCCGGGCGGCGCTGTGA
TTGGCCGGCCGCTCCGGCGGGCGTCGCGATTGGCCGTCCTGCAGCCGTTGAGATTTGAACTCGGTATTTGTGGCT
TTGCCCGCGCGTTGCCAGACTCAGAGGCGGCCCTTTGCCTCTGCCTGCCGGGGATTGGCCGGATTCTCCGCCGAC
TTGAAAACTGCCTTGCTAATTGGTGCGTGTTGTGCACGCGTGTTTTTTCCTTTTCATTTCAGCCTGACTGCCGGA
ATCAGAGCCGCGGGTGAGATCCCCAGCCCTGTGAGCCTGTAGGAGTAGA**ATG**GCTCCCCAAATGTATGAGTTCCA
TCTGCCATTATCCCCAGAGGAGTTGTTGAAAAGTGGAGGGGTGAATCAGTATGTTGTGCAAGAGGTACTGTCCAT
CAAACATCTTCCACCACAGCTTAGAGCTTTTCAGGCTGCCTTTCGAGCTCAGGGGCCCCTGGCTATGCTGCAGCA
CTTTGATACTATCTACAGCATTTTGCATCACTTTCGAAGTATAGATCCTGGCCTCAAAGAAGATACTCTGCAATT
CCTGATAAAAGTGGTATCCCGCCACTCCCAGGAGCTTCCAGCTATCCTGGATGATACAACTTTGAGTGGATCAGA
TAGAAACGCCCATCTAAATGCCCTCAAAATGAACTGTTATGCTCTGATACGTCTCCTGGAATCCTTTGAGACCAT
GGCCAGCCAGACAAACCTTGTGGACCTGGACCTTGGTGGGAAGGGTAAGAAAGCTCGGACCAAGGCAGCCCATGG
CTTTGACTGGGAAGAAGAGAGGCAACCAATTCTTCAGCTTTTAACACAGCTACTTCAGTTGGACATCCGTCACCT
GTGGAACCACTCAATAATTGAAGAAGAATTTGTCAGTTTGGTTACTGGCTGTTGCTACCGCCTTCTGGAGAATCC
CACCATTAATCACCAGAAGAACCGCCCCACTCGGGAAGCCATAACACACCTGCTTGGTGTAGCCTTGACCCGTTA
TAACCATATGCTCAGTGCTACAGTGAAGATCATCCAGATGCTGCAGCACTTTGAACACCTGGCACCTGTACTGGT
TGCAGCCGTGAGTCTATGGGCAACTGACTATGGAATGAAGAGCATAGTGGGAGAGATTGTAAGAGAGATTGGACA
AAAGTGTCCCCAAGAGCTGAGTCGAGACCCTTCAGGGACAAAGGGCTTTGCAGCATTCCTGACAGAACTAGCAGA
ACGTGTCCCAGCTATCCTGATGTCCAGCATGTGCATTTTGCTAGATCACCTGGATGGAGAAAATTACATGATGCG
TAATGCTGTGCTGGCAGCCATGGCGGAGATGGTGCTGCAGGTTCTCAGTGGCGATCAACTGGAAGCAGCAGCCCG
AGACACCAGAGACCAGTTCTTGGATACTTTACAAGCCCATGGCCATGATGTCAACTCCTTTGTGCGGAGCCGTGT
TTTGCAGCTCTTCACCCGAATTGTCCAGCAGAAGGCTCTCCCCCTGACACGTTTCCAGGCAGTGGTGGCTTTAGC
TGTGGGACGTCTGGCAGACAAGTCAGTGCTAGTATGTAAAAATGCCATCCAGCTGCTGGCCAGTTTTCTAGCCAA
TAATCCTTTCTCCTGCAAGCTTAGTGATGCTGACCTTGCCGGACCACTGCAGAAGGAGACCCAGAAATTACAAGA
GATGAGGGCCCAGAGGCGAACTGCAGCAGCTTCTGCAGTGCTGGACCCAGAGGAGGAGTGGGAAGCCATGCTGCC
AGAGTTGAAGTCTACCCTGCAGCAGCTTCTACAGCTTCCCCAGGGAGAGGAGGAGATTCCTGAGCAAATTGCCAA
TACAGAGACAACTGAAGATGTGAAAGGACGCATCTATCAACTGCTTGCCAAAGCTAGTTACAAAAAGGCCATCAT
TCTCACTCGAGAAGCCACAGGCCACTTCCAGGAGTCCGAACCCTTCAGTCATATAGACCCAGAGGAGTCAGAGGA
GACCAGGCTCTTGAATATCTTAGGACTTATCTTCAAAGGCCCAGCAGCTTCCACACAAGAAAAGAATCCCCGGGA
GTCTACAGGAAACATGGTCACAGGACAGACTGTCTGTAAAAATAAACCCAATATGTCGGATCCTGAGGAATCCAG
GGGAAATGATGAACTAGTGAAGCAGGAGATGCTGGTACAGTATCTGCAGGATGCCTACAGCTTCTCCCGGAAGAT
TACAGAGGCCATTGGCATCATCAGCAAGATGATGTATGAAAACACAACTACAGTGGTGCAGGAGGTGATTGAATT
CTTTGTGATGGTCTTCCAATTTGGGGTACCCCAGGCCCTGTTTGGGGTGCGCCGTATGCTGCCTCTCATCTGGTC
TAAGGAGCCTGGTGTCCGGGAAGCCGTGCTTAATGCCTACCGCCAACTCTACCTCAACCCCAAAGGGGACTCTGC
CAGAGCCAAGGCCCAGGCTTTGATTCAGAATCTCTCTCTGCTGCTAGTGGATGCCTCGGTTGGGACCATTCAGTG
TCTTGAGGAAATTCTCTGTGAGTTTGTGCAGAAGGATGAGTTGAAACCAGCAGTGACCCAGCTGCTGTGGGAGCG
GGCCACCGAGAAGGTCGCCTGCTGTCCTCTGGAGCGCTGTTCCTCTGTCATGCTTCTTGGCATGATGGCACGAGG
AAAGCCAGAAATTGTGGGAAGCAATTTAGACACACTGGTGAGCATAGGGCTGGATGAGAAGTTTCCACAGGACTA
CAGGCTGGCCCAGCAGGTGTGCCATGCCATTGCCAACATCTCGGACAGGAGAAAGCCTTCTCTGGGCAAACGTCA
CCCCCCCTTCCGGCTGCCTCAGGAACACAGGTTGTTTGAGCGACTGCGGGAGACAGTCACAAAAGGCTTTGTCCA
CCCAGACCCACTCTGGATCCCATTCAAAGAGGTGGCAGTGACCCTCATTTACCAACTGGCAGAGGGCCCCGAAGT
GATCTGTGCCCAGATATTGCAGGGCTGTGCAAAACAGGCCCTGGAGAAGCTAGAAGAGAAGAGAACCAGTCAGGA
GGACCCGAAGGAGTCCCCCGCAATGCTCCCCACTTTCCTGTTGATGAACCTGCTGTCCCTGGCTGGGGATGTGGC

FIGURE 1314B

TCTGCAGCAGCTGGTCCACTTGGAGCAGGCAGTGAGTGGAGAGCTCTGCCGGCGCCGAGTTCTCCGGGAAGAACA
GGAGCACAAGACCAAAGATCCCAAGGAGAAGAATACGAGCTCTGAGACCACCATGGAGGAGGAGCTGGGGCTGGT
TGGGGCAACAGCAGATGACACAGAGGCAGAACTAATCCGTGGCATCTGCGAGATGGAACTGTTGGATGGCAAACA
GACACTGGCTGCCTTTGTTCCACTCTTGCTTAAAGTCTGTAACAACCCAGGCCTCTATAGCAACCCAGACCTCTC
TGCAGCTGCTTCACTTGCCCTTGGCAAGTTCTGCATGATCAGTGCCACTTTCTGCGACTCCCAGCTTCGTCTTCT
GTTCACCATGCTGGAAAAGTCTCCACTTCCCATTGTCCGGTCTAACCTCATGGTTGCCACTGGGGATCTGGCCAT
CCGCTTTCCCAATCTGGTGGACCCCTGGACTCCTCATCTGTATGCTCGTCTCCGGGACCCTGCTCAGCAAGTGCG
GAAAACAGCGGGGCTGGTGATGACCCACCTGATCCTCAAGGACATGGTGAAGGTGAAGGGGCAGGTCAGCGAGAT
GGCGGTGCTGCTCATCGACCCCGAGCCTCAGATTGCTGCCCTGGCCAAGAACTTCTTCAATGAGCTCTCCCACAA
GGGCAACGCAATCTATAATCTCCTTCCAGATATCATCAGCCGCCTGTCAGACCCCGAGCTGGGGGTGGAGGAAGA
GCCTTTCCACACCATCATGAAACAGCTCCTCTCCTACATCACCAAGGACAAGCAGACAGAGAGCCTGGTGGAAAA
GCTGTGTCAGCGGTTCCGCACATCCCGAACTGAGCGGCAGCAGCGAGACCTGGCCTACTGTGTGTCACAGCTGCC
CCTCACAGAGCGAGGCCTCCGTAAGATGCTTGACAATTTTGACTGTTTTGGAGACAAACTGTCAGATGAGTCCAT
CTTCAGTGCTTTTTTGTCAGTTGTAGGCAAGCTGCGACGTGGGGCCAAGCCTGAGGGCAAGGCTATAATAGATGA
ATTTGAGCAGAAGCTTCGGGCCTGTCATACCAGAGGTTTGGATGGAATCAAGGAGCTTGAGATTGGCCAAGCAGG
TAGCCAGAGAGCGCCATCAGCCAAGAAACCATCCACTGGTTCTAGGTACCAGCCTCTGGCTTCTACAGCCTCAGA
CAATGACTTTGTCACACCAGAGCCCCGCCGTACTACCCGTCGGCATCCAAACACCCAGCAGCGAGCTTCCAAAAA
GAAACCCAAAGTTGTCTTCTCAAGTGATGAGTCCAGTGAGGAAGATCTTTCAGCAGAGATGACAGAAGACGAGAC
ACCCAAGAAAACAACTCCCATTCTCAGAGCATCGGCTCGCAGGCACAGATCC**TAG**GAAGTCTGTTCCTGTCCTCC
CTGTGCAGGGTATCCTGTAGGGTGACCTGGAATTCGAATTCTGTTTCCCTTGTAAAATATTTGTCTGTCTCTTTT
TTTTAAAAAAAAAAAAAGGCCGGGCACTGTGGCTCACGCCTGTAATCCCAGCACTTTGCGATACCAAGGCGGGTGG
ATAACCTGAGGTAGGGAGTTCGAGACCAGCCTGACCAACATGGAGAAACCCCATCTCTACTAAAAATAAAAAATT
AGCCGGGCGTATTGGCGTGCGCCTGTAATCCCAGCTACTCAAGAGGCTGAGGCAGGAGAATCGCCTGAACCCAGA
GGCGGAGGTTGTAGTGAGCCGAAATCACACCATTGCACTCCAGCTTGGGCAACAATAGCGAACCTCCATCTCAAA
TTAAAAAAAAAATGCCTACACGCTCTTTAAAATGCAAGGCTTTCTCTTAAATTAGCCTAACTGAACTGCGTTGAG
CTGCTTCAACTTTGGAATATATGTTTGCCAATCTCCTTGTTTTCTAATGAATAAATGTTTTTATATACTTTT

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FIGURE 1315

GCTGTTGCGGATGGGGCGTAGGTGGGCGGTGCGCCCACAGCTGCCTGGGTAAGGCCCAAGATGGCTGTCTTCGCC
TTAGTACTCGTGTGAAGTTGGCGGGGACGGTTCCTGTCATCTTCTTGGGCTTATTTGGTGTGCTGTTGAAGGGGG
GAGACTAGAGAA**ATG**GCAGGGAACCTCTTATCCGGGGCAGGTAGGCGCCTGTGGGACTGGGTGCCTCTGGCGTGC
AGAAGCTTCTCTCTTGGTGTGCCTAGATTGATCGGTATAAGGCTCACTCTCCCGCCCCCCAAAGTGGTTGATCGT
TGGAACGAGAAAAGGGCCATGTTCGGAGTGTATGACAACATCGGGATCCTGGGAAACTTTGAAAAGCACCCCAAA
GAACTGATCAGGGGGCCCATATGGCTTCGAGGTTGGAAAGGGAATGAATTGCAACGTTGTATCCGAAAGAGGAAA
ATGGTTGGAAGTAGAATGTTCGCTGATGACCTGCACAACCTTAATAAACGCATCCGCTATCTCTACAAACACTTT
AACCGACATGGGAAGTTTCGA**TAG**AAGAGAAAGCTGAGAACTTCGGAAAAGGCTCATCTGTCACCCTGGAGAAGG
GAAACTGTACTTTTCCCTGTGAGGAAACGGCTTTGTATTTTCTCTGTAATAAAATGGGGCTTCTTTGGAAACAAA
CAAAAAAATT

FIGURE 1316

AGCAGAGGGAACAGGGAAGAAACCTAAAGGCTGCAGGCTGCCAGGTGTGCTTGGAGAGCCCCCTTCTTCCGCCGG
GCCTCGCAAGCAGCGTAGGACTGTGGAGAAGGGCGGTGGGCAAGGAGGGAACTCGAGAGCAGCCTCC**ATG**GGCAC
ACAGGAGGGCTGGTGCCTGCTGCTCTGCCTGGCTCTATCTGGAGCAGCAGAAACCAAGCCCCACCCAGCAGAGGG
GCAGTGGCGGGCAGTGGACGTGGTCCTAGACTGCTTCCTGGCGAAGGACGGTGCGCACCGTGGAGCTCTCGCCAG
CAGTGAGGACAGGGCAAGGGCCTCCCTTGTGCTGAAGCAGGTGCCAGTGCTGGACGATGGCTCCCTGGAGGACTT
CACCGATTTCCAAGGGGGCACACTGGCCCAAGATGACCCACCTATTATCTTTGAGGCCTCAGTGGACCTGGTCCA
GATTCCCCAGGCCGAGGCCTTGCTCCATGCTGACTGCAGTGGGAAGGAGGTGACCTGTGAGATCTCCCGCTACTT
TCTCCAGATGACAGAGACCACTGTTAAGACAGCAGCTTGGTTCATGGCCAACATGCAGGTCTCTGGAGGGGGACC
TAGCATCTCCTTGGTGATGAAGACTCCCAGGGTCACCAAGAATGAGGCGCTCTGGCACCCGACGCTGAACTTGCC
ACTGAGCCCCCAGGGGACTGTGCGAACTGCAGTGGAGTTCCAGGTGATGACACAGACCCAATCCCTGAGCTTCCT
GCTGGGGTCCTCAGCCTCCTTGGACTGTGGCTTCTCCATGGCACCGGGCTTGGACCTCATCAGTGTGGAGTGGCG
ACTGCAGCACAAGGGCAGGGGTCAGTTGGTGTACAGCTGGACCGCAGGGCAGGGGCAGGCTGTGCGGAAGGGCGC
TACCCTGGAGCCTGCACAACTGGGCATGGCCAGGGATGCCTCCCTCACCCTGCCCGGCCTCACTATACAGGACGA
GGGGACCTACATTTGCCAGATCACCACCTCTCTGTACCGAGCTCAGCAGATCATCCAGCTCAACATCCAAGCTTC
CCCTAAAGTACGACTGAGCTTGGCAAACGAAGCTCTGCTGCCCACCCTCATCTGCGACATTGCTGGCTATTACCC
TCTGGATGTGGTGGTGACGTGGACCCGAGAGGAGCTGGGTGGATCCCCAGCCCAAGTCTCTGGTGCCTCCTTCTC
CAGCCTCAGGCAAAGCGTGGCAGGCACCTACAGCATCTCCTCCTCTCTCACCGCAGAACCTGGCTCTGCAGGTGC
CACTTACACCTGCCAGGTCACACACATCTCTCTGGAGGAGCCCCTTGGGGCCAGCACCCAGGTTGTCCCACCAGA
GCGGAGAACAGCCTTGGGAGTCATCTTTGCCAGCAGTCTCTTCCTTCTTGCACTGATGTTCCTGGGGCTTCAGAG
ACGGCAAGCACCTACAGGACTTGGGCTGCTTCAGGCTGAACGCTGGGAGACCACTTCCTGTGCTGACACACAGAG
CTCCCATCTCCATGAAGACCGCACAGCGCGTGTAAGCCAGCCCAGC**TGA**CCTAAAGCGACATGAGACTACTAGAA
AGAAACGACACCCTTCCCCAAGCCCCCACAGCTACTCCAACCCAAACAACAACCAAGCCAGTTTAATGGTAGGAA
TTTGTATTTTTTGCCTTTGTTCAGAATACATGACATTGGTAAAT

FIGURE 1317

GCCCTGGAGGCCCGGCCTGGCCGCTCCCGGCCCTGGGGTGCACATCGGCCCTGAGTCCCGTCCCAGGCTCTGGGC
TCGGGCAGCCGCCGCCACCGCTGCCCAGGACGTCGGGCCTCCTGCCTTCCTCCCAGGCCCCCACGTTGCTGGCCG
CCTGGCCGAGTGGCCGCC**ATG**CTCCTGCCTTGGGCCACCTCTGCCCCCGGCCTGGCCTGGGGGCCTCTGGTGCTG
GGCCTCTTCGGGCTCCTGGCAGCATCGCAGCCCCAGGCGGTGCCTCCATATGCGTCGGAGAACCAGACCTGCAGG
GACCAGGAAAAGGAATACTATGAGCCCCAGCACCGCATCTGCTGCTCCCGCTGCCCGCCAGGCACCTATGTCTCA
GCTAAATGTAGCCGCATCCGGGACACAGTTTGTGCCACATGTGCCGAGAATTCCTACAACGAGCACTGGAACTAC
CTGACCATCTGCCAGCTGTGCCGCCCCTGTGACCCAGTGATGGGCCTCGAGGAGATTGCCCCCTGCACAAGCAAA
CGGAAGACCCAGTGCCGCTGCCAGCCGGGAATGTTCTGTGCTGCCTGGGCCCTCGAGTGTACACACTGCGAGCTA
CTTTCTGACTGCCCGCCTGGCACTGAAGCCGAGCTCAAAGATGAAGTTGGGAAGGGTAACAACCACTGCGTCCCC
TGCAAGGCCGGGCACTTCCAGAATACCTCCTCCCCCAGCGCCCGCTGCCAGCCCCACACCAGGTGTGAGAACCAA
GGTCTGGTGGAGGCAGCTCCAGGCACTGCCCAGTCCGACACAACCTGCAAAAATCCATTAGAGCCACTGCCCCCA
GAGATGTCAGGAACCATGCTGATGCTGGCCGTTCTGCTGCCACTGGCCTTCTTTCTGCTCCTTGCCACCGTCTTC
TCCTGCATCTGGAAGAGCCACCCTTCTCTCTGCAGGAAACTGGGATCGCTGCTCAAGAGGCGTCCGCAGGGAGAG
GGACCCAATCCTGTAGCTGGAAGCTGGGAGCCTCCGAAGGCCCATCCATACTTCCCTGACTTGGTACAGCCACTG
CTACCCATTTCTGGAGATGTTTCCCCAGTATCCACTGGGCTCCCCGCAGCCCCAGTTTTGGAGGCAGGGGTGCCG
CAACAGCAGAGTCCTCTGGACCTGACCAGGGAGCCGCAGTTGGAACCCGGGGAGCAGAGCCAGGTGGCCCACGGT
ACCAATGGCATTCATGTCACCGGCGGGTCTATGACTATCACTGGCAACATCTACATCTACAATGGACCAGTACTG
GGGGGACCACCGGGTCCTGGAGACCTCCCAGCTACCCCCGAACCTCCATACCCCATTCCCGAAGAGGGGGACCCT
GGCCCTCCCGGGCTCTCTACACCCCACCAGGAAGATGGCAAGGCTTGGCACCTAGCGGAGACAGAGCACTGTGGT
GCCACACCCTCTAACAGGGGCCCAAGGAACCAATTTATCACCCATGAC**TGA**CTGAGTCTGAGAAAAGGCAGAAGA
AGGGGGGCACAAGGGCACCTTCTCCCTTGAGGCTGCCCTGCCCACGTGGGATTCACAGGGGCCTGAGTAGGGCCC
GGGGAAGCAGAGCCCTAAGGGATTAAGGCTCAGACACCTCTGAGAGCAGGTGGGCACTGGCTGGGTACGGTGCCC
TCCACAGGACTCTCCCTACTGCCTGAGCAAACCTGAGGCCTCCCGGCAGACCCACCCACCCCCTGGGGCTGCTCA
GCCTCAGGCACGGACAGGGCACATGATACCAACTGCTGCCCACTACGGCACGCCGCACCGGAGCACGGCACCGAG
GGAGCCGCCACACGGTCACCTGCAAGGACGTCACGGGCCCCTCTAAAGGATTCGTGGTGCTCATCCCCAAGCTTC
AGAGACCCTTTGGGGTTCCACACTTCACGTGGACTGAGGTAGACCCTGCATGAAGATGAAATTATAGGGAGGACG
CTCCTTCCCTCCCCTCCTAGAGGAGAGGAAAGGGAGTCATTAACAACTAGGGGGTTGGGTAGGATTCCTAGGTAT
GGGGAAGAGTTTTGGAAGGGGAGGAAAATGGCAAGTGTATTTATATTGTAACCACATGCAAATAAAAAGAATGGG
ACCTA

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FIGURE 1318

AGATCACTGGGACCAGGCCGTGATCTCTATGCCCGAGTCTCAACCCTCAACTGTCACCCCAAGGCACTTGGGACG
TCCTGGACAGACCGAGTCCCGGGAAGCCCCAGCACTGCCGCTGCCACACTGCCCTGAGCCCAAATGGGGGAGTGA
GAGGCCATAGCTGTCTGGC**ATG**GGCCTCTCCACCGTGCCTGACCTGCTGCTGCCACTGGTGCTCCTGGAGCTGTT
GGTGGGAATATACCCCTCAGGGGTTATTGGACTGGTCCCTCACCTAGGGGACAGGGAGAAGAGAGATAGTGTGTG
TCCCCAAGGAAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACCAAGTGCCACAAAGGAACCTACTTGTA
CAATGACTGTCCAGGCCCGGGGCAGGATACGGACTGCAGGGAGTGTGAGAGCGGCTCCTTCACCGCTTCAGAAAA
CCACCTCAGACACTGCCTCAGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGT
GGACCGGGACACCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTTTTCCAGTGCTT
CAATTGCAGCCTCTGCCTCAATGGGACCGTGCACCTCTCCTGCCAGGAGAAACAGAACACCGTGTGCACCTGCCA
TGCAGGTTTCTTTCTAAGAGAAAACGAGTGTGTCTCCTGTAGTAACTGTAAGAAAAGCCTGGAGTGCACGAAGTT
GTGCCTACCCCAGATTGAGAATGTTAAGGGCACTGAGGACTCAGGCACCACAGTGCTGTTGCCCCTGGTCATTTT
CTTTGGTCTTTGCCTTTTATCCCTCCTCTTCATTGGTTTAATGTATCGCTACCAACGGTGGAAGTCCAAGCTCTA
CTCCATTGTTTGTGGGAAATCGACACCTGAAAAAGAGGGGGAGCTTGAAGGAACTACTACTAAGCCCCTGGCCCC
AAACCCAAGCTTCAGTCCCACTCCAGGCTTCACCCCCACCCTGGGCTTCAGTCCCGTGCCCAGTTCCACCTTCAC
CTCCAGCTCCACCTATACCCCCGGTGACTGTCCCAACTTTGCGGCTCCCCGCAGAGAGGTGGCACCACCCTATCA
GGGGGCTGACCCCATCCTTGCGACAGCCCTCGCCTCCGACCCCATCCCCAACCCCCTTCAGAAGTGGGAGGACAG
CGCCCACAAGCCACAGAGCCTAGACACTGATGACCCCGCGACGCTGTACGCCGTGGTGGAGAACGTGCCCCCGTT
GCGCTGGAAGGAATTCGTGCGGCGCCTAGGGCTGAGCGACCACGAGATCGATCGGCTGGAGCTGCAGAACGGGCG
CTGCCTGCGCGAGGCGCAATACAGCATGCTGGCGACCTGGAGGCGGCGCACGCCGCGGCGCGAGGCCACGCTGGA
GCTGCTGGGACGCGTGCTCCGCGACATGGACCTGCTGGGCTGCCTGGAGGACATCGAGGAGGCGCTTTGCGGCCC
CGCCGCCCTCCCGCCCGCGCCCAGTCTTCTCAGA**TGA**GGCTGCGCCCCTGCGGGCAGCTCTAAGGACCGTCCTGC
GAGATCGCCTTCCAACCCCACTTTTTTCTGGAAAGGAGGGGTCCTGCAGGGGCAAGCAGGAGCTAGCAGCCGCCT
ACTTGGTGCTAACCCCTCGATGTACATAGCTTTTCTCAGCTGCCTGCGCGCCGCCGACAGTCAGCGCTGTGCGCG
CGGAGAGAGGTGCGCCGTGGGCTCAAGAGCCTGAGTGGGTGGTTTGCGAGGATGAGGGACGCTATGCCTCATGCC
CGTTTTGGGTGTCCTCACCAGCAAGGCTGCTCGGGGGCCCCTGGTTCGTCCCTGAGCCTTTTTCACAGTGCATAA
GCAGTTTTTTTTGTTTTTGTTTTGTTTTGTTTTGTTTTTAAATCAATCATGTTACACTAATAGAAACTTGGCACT
CCTGTGCCCTCTGCCTGGACAAGCACATAGCAAGCTGAACTGTCCTAAGGCAGGGGCGAGCACGGAACAATGGGG
CCTTCAGCTGGAGCTGTGGACTTTTGTACATACACTAAAATTCTGAAGTT

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FIGURE 1319A

ATAATACCTACCTTGCAGGACCACGACAGGATTAAGTGAGGAAAAACCCCCATGAGAGTGTTTTGCCATTGTCAA
GTGAGCCTGAGGGAGGCTGAGGGGGGATCAGGCTGTATCATGCCCCCGAGGACAAACTTTCCAGTTTACCCTGCT
CCCTCTCTCTGTCCCTAGGCTGCCCCAGGCCCTGTGCAGACACACCAGGCCCTCAGCCGCAGCCC**ATG**GACCTGC
GGGTGGGCCAGCGGCCCCCAGTGGAGCCCCCACCAGAGCCCACATTGCTGGCCCTGCAGCGTCCCCAGCGCCTGC
ACCACCACCTCTTCCTAGCAGGCCTGCAGCAGCAGCGCTCGGTGGAGCCCATGAGGCTCTCCATGGACACGCCGA
TGCCCGAGTTGCAGGTGGGACCCCAGGAACAAGAGCTGCGGCAGCTTCTCCACAAGGACAAGAGCAAGCGAAGTG
CTGTAGCCAGCAGCGTGGTCAAGCAGAAGCTAGCGGAGGTGATTCTGAAAAAACAGCAGGCGGCCCTAGAAAGAA
CAGTCCATCCCAACAGCCCCGGCATTCCCTACAGAACCCTGGAGCCCCTGGAGACGGAAGGAGCCACCCGCTCCA
TGCTCAGCAGCTTTTTGCCTCCTGTTCCCAGCCTGCCCAGTGACCCCCCAGAGCACTTCCCTCTGCGCAAGACAG
TCTCTGAGCCCAACCTGAAGCTGCGCTATAAGCCCAAGAAGTCCCTGGAGCGGAGGAAGAATCCACTGCTCCGAA
AGGAGAGTGCGCCCCCCAGCCTCCGGCGGCGGCCCGCAGAGACCCTCGGAGACTCCTCCCCAAGTAGTAGCAGCA
CGCCCGCATCAGGGTGCAGCTCCCCCAATGACAGCGAGCACGGCCCCAATCCCATCCTGGGCTCGGAGGCGCTCT
TGGGCCAGCGGCTGCGGCTGCAGGAGACTTCTGTGGCCCCGTTCGCCTTGCCGACAGTGTCCTTGCTGCCCGCAA
TCACTCTGGGGCTGCCCGCCCCTGCCAGGGCTGACAGTGACCGCAGGACCCATCCGACTCTGGGCCCTCGGGGGC
CAATCCTGGGGAGCCCCCACACTCCCCTCTTCCTGCCCCATGGCTTGGAGCCCGAGGCTGGGGGCACCTTGCCCT
CTCGCCTGCAGCCCATTCTCCTCCTGGACCCCTCAGGCTCTCATGCCCCGCTGCTGACTGTGCCCGGGCTTGGGC
CCTTGCCCTTCCACTTTGCCCAGTCCTTAATGACCACCGAGCGGCTCTCTGGGTCAGGCCTCCACTGGCCACTGA
GCCGGACTCGCTCAGAGCCCCTGCCCCCCAGTGCCACCGCTCCCCCACCGCCGGGCCCCATGCAGCCCCGCCTGG
AGCAGCTCAAAACTCACGTCCAGGTGATCAAGAGGTCAGCCAAGCCGAGTGAGAAGCCCCGGCTGCGGCAGATAC
CCTCGGCTGAAGACCTGGAGACAGATGGCGGGGGACCGGGCCAGGTGGTGGACGATGGCCTGGAGCACAGGGAGC
TGGGCCATGGGCAGCCTGAGGCCAGAGGCCCCGCTCCTCTCCAGCAGCACCCTCAGGTGTTGCTCTGGGAACAGC
AGCGACTGGCTGGGCGGCTCCCCCGGGGCAGCACCGGGGACACTGTGCTGCTTCCTCTGGCCCAGGGTGGGCACC
GGCCTCTGTCCCGGGCTCAGTCTTCCCCAGCCGCACCTGCCTCACTGTCAGCCCCAGAGCCTGCCAGCCAGGCCC
GAGTCCTCTCCAGCTCAGAGACCCCTGCCAGGACCCTGCCCTTCACCACAGGGCTGATCTATGACTCGGTCATGC
TGAAGCACCAGTGCTCCTGCGGTGACAACAGCAGGCACCCGGAGCACGCCGGCCGCATCCAGAGCATCTGGTCCC
GGCTGCAGGAGCGGGGGCTCCGGAGCCAGTGTGAGTGTCTCCGAGGCCGGAAGGCCTCCCTGGAAGAGCTGCAGT
CGGTCCACTCTGAGCGGCACGTGCTCCTCTACGGCACCAACCCGCTCAGCCGCCTCAAACTGGACAACGGGAAGC
TGGCAGGGCTCCTGGCACAGCGGATGTTTGTGATGCTGCCCTGTGGTGGGGTTGGGGTGGACACTGACACCATCT
GGAATGAGCTTCATTCCTCCAATGCAGCCCGCTGGGCCGCTGGCAGTGTCACTGACCTCGCCTTCAAAGTGGCTT
CTCGTGAGCTAAAGAATGGTTTCGCTGTGGTGCGGCCCCCAGGACACCATGCAGATCATTCAACAGCCATGGGCT
TCTGCTTCTTCAACTCAGTGGCCATCGCCTGCCGGCAGCTGCAACAGCAGAGCAAGGCCAGCAAGATCCTCATTG
TAGACTGGGACGTGCACCATGGCAACGGCACCCAGCAAACCTTCTACCAAGACCCCAGTGTGCTCTACATCTCCC
TGCATCGCCATGACGACGGCAACTTCTTCCCGGGGAGTGGGGCTGTGGATGAGGTAGGGGCTGGCAGCGGTGAGG
GCTTCAATGTCAATGTGGCCTGGGCTGGAGGTCTGGACCCCCCCATGGGGGATCCTGAGTACCTGGCTGCTTTCA
GGATAGTCGTGATGCCCATCGCCCGAGAGTTCTCTCCAGACCTAGTCCTGGTGTCTGCTGGATTTGATGCTGCTG
AGGGTCACCCGGCCCCACTGGGTGGCTACCATGTTTCTGCCAAATGTTTTGGATACATGACGCAGCAACTGATGA
ACCTGGCAGGAGGCGCAGTGGTGCTGGCCTTGGAGGGTGGCCATGACCTCACAGCCATCTGTGACGCCTCTGAGG
CCTGTGTGGCTGCTCTTCTGGGTAACAGGGTGGATCCCCTTTCAGAAGAAGGCTGGAAACAGAAACCCAACCTCA
ATGCCATCCGCTCTCTGGAGGCCGTGATCCGGGTGCACAGTAAATACTGGGGCTGCATGCAGCGCCTGGCCTCCT
GTCCAGACTCCTGGGTGCCTAGAGTGCCAGGGGCTGACAAAGAAGAAGTGGAGGCAGTGACCGCACTGGCGTCCC
TCTCTGTGGGCATCCTGGCTGAAGATAGGCCCTCGGAGCAGCTGGTGGAGGAGGAAGAACCTATGAATCTC**TAA**G
GCTCTGGAACCATCTGCCCGCCCACCATGCCCTTGGGACCTGGTTCTCTTCTAACCCCTGGCAATAGCCCCCATT
CCTGGGTCTTTAGAGATCCTGTGGGCAAGTAGTTGGAACCAGAGAACAGCCTGCCTGCTTTGACAGTTATCCCAG
GGAGCGTGAGAAAATCCCTGGGTCTAGAATGGGAACTGGAGAGGACCCTGAGAGGAGACGGGCTGGGCGGCGACC
CCCACAGGGCTCTCGAGAACAGATTCTCCCCTCCAGTATGGGCCCTGGCTGTGGCCCCCATTCCTCAGGACTGCA
CAGAGGAGGACTGGCTCCGGCTCCGTCGGGCTCACCCTTAACCACTATTCCTGGCTCTGCAAACCCCAGACTTTG
CACACAGCCTCAGGCTCCACACAGAAATGTGAACTTGGCCTCAGACAGGCTGGCCCTTCCTAGGCTCTAGGGGCT
AGGGGGGAGTGGGGAGCCAAGAGGTCCCATATTCCTGAGTGCAGGGGTAGTCCCTCTCACCTGCTTCCTCAGACG

FIGURE 1319B

ACTCTGGAAGCTTCCCTCTACCACTGGGCACTGAGACGAAGCTCCCTGACAGCCGAGACTGGCAGCCCTCCATCT
GGTCCGTACCCTCGCCAGAGGCCCCCCTACATCAACCTCCTGGCGATGCCCTGGTGGAGCAGATGGGTGCTCTGG
GAGTCCTGTGCTTCCTGATCCAATGGTGCCAAACCCTTCATCTCCCCAAGAAGCGCAGCATACCCCTGGGACCCC
TCGGCCACTGCCCACTCGGGGAGCCTTCTCTGTTTCTGGGGCCTCCCCCACCATAGCTCTGATTCCCACCCCACA
TAGGAGTAGCCTGACTGAGGGGGAAGGGGTGGGAGAGAAGATACAGACATGGAGGAGGGGAGGCTGCTCTGGCAA
AGTCTTCAAGGCTTTTGGGGGTCCAGGCCTGGGGTCAAGAAGGAAAATGTGTGTGAGCATGTGTGTGAGTGAGGC
GTGTGTGTGAGCGTGTGTGTGAGTGAGGCGTGTGTGTGTGTCTTTCCTAGGACCCACCATACCCTGTGTATGTAT
GCATGTTTTTGTAAAAAGGAAGAAAATGGAAAAAAATCTGAACAATAAATGTTTTATTTGCTTT

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FIGURE 1320

CCTCCCCCCTTTCCCAAGGACAATCTGCAAGAAAGCAGCGGCGGAGGAGAGCTAAGACTAAAAGAGTGGATC**ATG**

ACCCATGAAGAGCACCATGCAGCCAAAACCCTGGGGATTGGCAAAGCCATTGCTGTCTTAACCTCTGGTGGAGAT
GCCCAAGGTATGAATGCTGCTGTCAGGGCTGTGGTTCGAGTTGGTATCTTCACCGGTGCCCGTGTCTTCTTTGTC
CATGAGGGTTATCAAGGCCTGGTGGATGGTGGAGATCACATCAAGGAAGCCACCTGGGAGAGCGTTTCGATGATG
CTTCAGCTGGGAGGCACGGTGATTGGAAGTGCCCGGTGCAAGGACTTTCGGGAACGAGAAGGACGACTCCGAGCT
GCCTACAACCTGGTGAAGCGTGGGATCACCAATCTCTGTGTCATTGGGGGTGATGGCAGCCTCACTGGGGCTGAC
ACCTTCCGTTCTGAGTGGAGTGACTTGTTGAGTGACCTCCAGAAAGCAGGTAAGATCACAGATGAGGAGGCTACG
AAGTCCAGCTACCTGAACATTGTGGGCCTGGTTGGGTCAATTGACAATGACTTCTGTGGCACCGATATGACCATT
GGCACTGACTCTGCCCTGCATCGGATCATGGAAATTGTAGATGCCATCACTACCACTGCCCAGAGCCACCAGAGG
ACATTTGTGTTAGAAGTAATGGGCCGCCACTGTGGATACCTGGCCCTTGTCACCTCTCTGTCCTGTGGGGCCGAC
TGGGTTTTTATTCCTGAATGTCCACCAGATGACGACTGGGAGGAACACCTTTGTCGCCGACTCAGCGAGACAAGG
ACCCGTGGTTCTCGTCTCAACATCATCATTGTGGCTGAGGGTGCAATTGACAAGAATGGAAAACCAATCACCTCA
GAAGACATCAAGAATGTTCGTATGAATGAAGCCAGAGAGGCCTTAGAATCCATAGCCCATTCCCTTCTGGCTTCT
GAGTCTCCTGACATTGCTTCTCCCCTTGGTCCTTCTGCACATCTCTCCCTGGTTCCCTGCCCC**TGA**TTGCCTCCC
ACAAAGAACCATTACAAGACAAGAGGCTGAGCTGTCCATGGTTTACCCAAGTCTCTGCTTGTTTTCTTCCTTTGA
CTCTGCGTAACCCTCTCTCTGTCCCTCTGTTGGTCCCTTCAGCTGGTGGTTAAGCGTCTGGGATATGACACCCGG
GTTACTGTCTTGGGGCATGTGCAGAGGGGTGGGACGCCATCAGCCTTTGACAGAATTCTGGGCAGCAGGATGGGT
GTGGAAGCAGTGATGGCACTTTTGGAGGGGACCCCAGATACCCCAGCCTGTGTAGTGAGCCTCTCTGGTAACCAG
GCTGTGCGCCTGCCCCTCATGGAATGTGTCCAGGTG

FIGURE 1321A

ACGCAGAGCGCTGCTGGGCTGCCGGGTCTCCCGCTTCCCCCTCCTGCTCCAAGGGCCTCCTGCATGAGGGCGCGG
TAGAGACCCGGACCCGCGCCGTGCTCCTGCCGTTTCGCTGCGCTCCGCCCGGGCCCGGCTCAGCCAGGCCCCGCG
GTGAGCC**ATG**ATTCGCCTCGGGGCTCCCCAGACGCTGGTGCTGCTGACGCTGCTCGTCGCCGCTGTCCTTCGGTG
TCAGGGCCAGGATGTCCGGCAACCAGGACCAAAGGGACAGAAAGGAGAACCTGGAGACATCAAGGATATTGTAGG
ACCCAAAGGACCTCCTGGGCCTCAGGGACCTGCAGGGGAACAAGGACCCAGAGGGGATCGTGGTGACAAAGGTGA
AAAAGGTGCCCCTGGACCTCGTGGCAGAGATGGAGAACCTGGGACCCCTGGAAATCCTGGCCCCCCTGGTCCTCC
CGGCCCCCCTGGTCCCCCTGGTCTTGGTGGAAACTTTGCTGCCCAGATGGCTGGAGGATTTGATGAAAAGGCTGG
TGGCGCCCAGTTGGGAGTAATGCAAGGACCAATGGGCCCCATGGGACCTCGAGGACCTCCAGGCCCTGCAGGTGC
TCCTGGGCCTCAAGGATTTCAAGGCAATCCTGGTGAACCTGGTGAACCTGGTGTCTCTGGTCCCATGGGTCCCCG
TGGTCCTCCTGGTCCCCCTGGAAAGCCTGGTGATGATGGTGAAGCTGGAAAACCTGGAAAAGCTGGTGAAAGGGG
TCCGCCTGGTCCTCAGGGTGCTCGTGGTTTCCCAGGAACCCCAGGCCTTCCTGGTGTCAAAGGTCACAGAGGTTA
TCCAGGCCTGGACGGTGCTAAGGGAGAGGCGGGTGCTCCTGGTGTGAAGGGTGAGAGTGGTTCCCCGGGTGAGAA
CGGATCTCCGGGCCCAATGGGTCCTCGTGGCCTGCCTGGTGAAAGAGGACGGACTGGCCCTGCTGGCGCTGCGGG
TGCCCGAGGCAACGATGGTCAGCCAGGCCCCGCAGGGCCTCCGGGTCCTGTCGGTCCTGCTGGTGGTCCTGGCTT
CCCTGGTGCTCCTGGAGCCAAGGGTGAAGCCGGCCCCACTGGTGCCCGTGGTCCTGAAGGTGCTCAAGGTCCTCG
CGGTGAACCTGGTACTCCTGGGTCCCCTGGGCCTGCTGGTGCCTCCGGTAACCCTGGAACAGATGGAATTCCTGG
AGCCAAAGGATCTGCTGGTGCTCCTGGCATTGCTGGTGCTCCTGGCTTCCCTGGGCCACGGGGCCCTCCTGGCCC
TCAAGGTGCAACTGGTCCTCTGGGCCCGAAAGGTCAGACGGGTGAACCTGGTATTGCTGGCTTCAAAGGTGAACA
AGGCCCCAAGGGAGAACCTGGCCCTGCTGGCCCCCAGGGAGCCCCTGGACCCGCTGGTGAAGAAGGCAAGAGAGG
TGCCCGTGGAGAGCCTGGTGGCGTTGGGCCCATCGGTCCCCCTGGAGAAAGAGGTGCTCCCGGCAACCGCGGTTT
CCCAGGTCAAGATGGTCTGGCAGGTCCCAAGGGAGCCCCTGGAGAGCGAGGGCCCAGTGGTCTTGCTGGCCCCAA
GGGAGCCAACGGTGACCCTGGCCGTCCTGGAGAACCTGGCCTTCCTGGAGCCCGGGGTCTCACTGGCCGCCCTGG
TGATGCTGGTCCTCAAGGCAAAGTTGGCCCTTCTGGAGCCCCTGGTGAAGATGGTCGTCCTGGACCTCCAGGTCC
TCAGGGGGCTCGTGGGCAGCCTGGTGTCATGGGTTTCCCTGGCCCCAAAGGTGCCAACGGTGAGCCTGGCAAAGC
TGGTGAGAAGGGACTGCCTGGTGCTCCTGGTCTGAGGGGTCTTCCTGGCAAAGATGGTGAGACAGGTGCTGCAGG
ACCCCCTGGCCCTGCTGGACCTGCTGGTGAACGAGGCGAGCAGGGTGCTCCTGGGCCATCTGGGTTCCAGGGACT
TCCTGGCCCTCCTGGTCCCCCAGGTGAAGGTGGAAAACCAGGTGACCAGGGTGTTCCCGGTGAAGCTGGAGCCCC
TGGCCTCGTGGGTCCCAGGGGTGAACGAGGTTTCCCAGGTGAACGTGGCTCTCCCGGTGCCCAGGGCCTCCAGGG
TCCCCGTGGCCTCCCCGGCACTCCTGGCACTGATGGTCCCAAAGGTGCATCTGGCCCAGCAGGCCCCCCTGGGGC
TCAGGGCCCTCCAGGTCTTCAGGGAATGCCTGGCGAGAGGGGAGCAGCTGGTATCGCTGGGCCCAAAGGCGACAG
GGGTGACGTTGGTGAGAAAGGCCCTGAGGGAGCCCCTGGAAAGGATGGTGGACGAGGCCTGACAGGTCCCATTGG
CCCCCCTGGCCCAGCTGGTGCTAATGGCGAGAAGGGAGAAGTTGGACCTCCTGGTCCTGCAGGAAGTGCTGGTGC
TCGTGGCGCTCCGGGTGAACGTGGAGAGACTGGGCCCCCCGGACCAGCGGGATTTGCTGGGCCTCCTGGTGCTGA
TGGCCAGCCTGGGGCCAAGGGTGAGCAAGGAGAGGCCGGCCAGAAAGGCGATGCTGGTGCCCCTGGTCCTCAGGG
CCCCTCTGGAGCACCTGGGCCTCAGGGTCCTACTGGAGTGACTGGTCCTAAAGGAGCCCGAGGTGCCCAAGGCCC
CCCGGGAGCCACTGGATTCCCTGGAGCTGCTGGCCGCGTTGGACCCCCAGGCTCCAATGGCAACCCTGGACCCCC
TGGTCCCCCTGGTCCTTCTGGAAAAGATGGTCCCAAAGGTGCTCGAGGAGACAGCGGCCCCCCTGGCCGAGCTGG
TGAACCCGGCCTCCAAGGTCCTGCTGGACCCCCTGGCGAGAAGGGAGAGCCTGGAGATGACGGTCCCTCTGGTGC
CGAAGGTCCACCAGGTCCCCAGGGTCTGGCTGGTCAGAGAGGCATCGTCGGTCTGCCTGGGCAACGTGGTGAGAG
AGGATTCCCTGGCTTGCCTGGCCCGTCGGGTGAGCCCGGCAAGCAGGGTGCTCCTGGAGCATCTGGAGACAGAGG
TCCTCCTGGCCCCGTGGGTCCTCCTGGCCTGACGGGTCCTGCAGGTGAACCTGGACGAGAGGGAAGCCCCGGTGC
TGATGGCCCCCCCTGGCAGAGATGGCGCTGCTGGAGTCAAGGGTGATCGTGGTGAGACTGGTGCTGTGGGAGCTCC
TGGAGCCCCTGGGCCCCCTGGCTCCCCTGGCCCCGCTGGTCCAACTGGCAAGCAAGGAGACAGAGGAGAAGCTGG
TGCACAAGGCCCCATGGGACCCTCAGGACCAGCTGGAGCCCGGGGAATCCAGGGTCCTCAAGGCCCCAGAGGTGA
CAAAGGAGAGGCTGGAGAGCCTGGCGAGAGAGGCCTGAAGGGACACCGTGGCTTCACTGGTCTGCAGGGTCTGCC
CGGCCCTCCTGGTCCTTCTGGAGACCAAGGTGCTTCTGGTCCTGCTGGTCCTTCTGGCCCTAGAGGTCCTCCTGG
CCCCGTCGGTCCCTCTGGCAAAGATGGTGCTAATGGAATCCCTGGCCCCATTGGGCCTCCTGGTCCCCGTGGACG
ATCAGGCGAAACCGGCCCTGCTGGTCCTCCTGGAAATCCTGGACCCCCTGGTCCTCCAGGTCCCCCTGGCCCTGG

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FIGURE 1321B

CATCGACATGTCCGCCTTTGCTGGCTTAGGCCCGAGAGAGAAGGGCCCCGACCCCCTGCAGTACATGCGGGCCGA
CCAGGCAGCCGGTGGCCTGAGACAGCATGACGCCGAGGTGGATGCCACACTCAAGTCCCTCAACAACCAGATTGA
GAGCATCCGCAGCCCCGAGGGCTCCCGCAAGAACCCTGCTCGCACCTGCAGAGACCTGAAACTCTGCCACCCTGA
GTGGAAGAGTGGAGACTACTGGATTGACCCCAACCAAGGCTGCACCTTGGACGCCATGAAGGTTTTCTGCAACAT
GGAGACTGGCGAGACTTGCGTCTACCCCAATCCAGCAAACGTTCCCAAGAAGAACTGGTGGAGCAGCAAGAGCAA
GGAGAAGAAACACATCTGGTTTGGAGAAACCATCAATGGTGGCTTCCATTTCAGCTATGGAGATGACAATCTGGC
TCCCAACACTGCCAACGTCCAGATGACCTTCCTACGCCTGCTGTCCACGGAAGGCTCCCAGAACATCACCTACCA
CTGCAAGAACAGCATTGCCTATCTGGACGAAGCAGCTGGCAACCTCAAGAAGGCCCTGCTCATCCAGGGCTCCAA
TGACGTGGAGATCCGGGCAGAGGGCAATAGCAGGTTCACGTACACTGCCCTGAAGGATGGCTGCACGAAACATAC
CGGTAAGTGGGGCAAGACTGTTATCGAGTACCGGTCACAGAAGACCTCACGCCTCCCCATCATTGACATTGCACC
CATGGACATAGGAGGGCCCGAGCAGGAATTCGGTGTGGACATAGGGCCGGTCTGCTTCTTGTAAAAACCTGAACC
CAGAAACAACACAATCCGTTGCAAACCCAAAGGACCCAAGTACTTTCCAATCTCAGTCACTCTAGGACTCTGCAC
TGAATGGCTGACCTGACCTGATGTCCATTCATCCCACCCTCTCACAGTTCGGACTTTTCTCCCCTCTCTTTCTAA
GAGACCTGAACTGGGCAGACTGCAAAATAAAATCTCGGTGTTCTATTTATTTATTGTCTTCCTGTAAGACCTTCG
GGTCAAGGCAGAGGCAGGAAACTAACTGGTGTGAGTCAAATGCCCCCTGAGTGACTGCCCCCAGCCCAGGCCAGA
AGACCTCCCTTCAGGTGCCGGGCGCAGGAACTGTGTGTGTCCTACACAATGGTGCTATTCTGTGTCAAACACCTC
TGTATTTTTTAAAACATCAATTGATATTAAAAATGAAAAGATTATTGGAAAGT

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FIGURE 1322

CGCTCCGCCGACCGAAGAGGCTGGACATGACACCAGTGGCATATCACGGCC**ATG**GGGTCTCAGCATTCCGCTGCT
GCTCGCCCCTCCTCCTGCAGGCGAAAGCAAGAAGATGACAGGGACGGTTTGCTGGCTGAACGAGAGCAGGAAGAA
GCCATTGCTCAGTTCCCATATGTGGAATTCACCGGGAGAGATAGCATCACCTGTCTCACGTGCCAGGGGACAGGC
TACATTCCAACAGAGCAAGTAAATGAGTTGGTGGCTTTGATCCCACACAGTGATCAGAGATTGCGCCCTCAGCGA
ACTAAGCAATATGTCCTCCTGTCCATCCTGCTTTGTCTCCTGGCATCTGGTTTGGTGGTTTTCTTCCTGTTTCCG
CATTCAGTCCTTGTGGATGATGACGGCATCAAAGTGGTGAAAGTCACATTTAATAAGCAAGACTCCCTTGTAATT
CTCACCATCATGGCCACCCTGAAAATCAGGAACTCCAACTTCTACACGGTGGCAGTGACCAGCCTGTCCAGCCAG
ATTCAGTACATGAACACAGTGGTCAGTACATATGTGACTACTAACGTCTCCCTTATTCCACCTCGGAGTGAGCAA
CTGGTGAATTTTACCGGGAAGGCCGAGATGGGAGGACCGTTTTCCTATGTGTACTTCTTCTGCACGGTACCTGAG
ATCCTGGTGCACAACATAGTGATCTTCATGCGAACTTCAGTGAAGATTTCATACATTGGCCTCATGACCCAGAGC
TCCTTGGAGACACATCACTATGTGGATTGTGGAGGAAATTCCACAGCTATT**TAA**CAACTGCTATTGGTTCTTCCA
CACAGCGCCTGTAGAAGAGAGCACAGCATATGTTCCCAAGGCCTGAGTTCTGGACCTACCCCCACGTGGTGTAAG
CAGAGGAGGAATTGGTTCACTTAACTCCCAGCAAACATCCTCCTGCCACTTAGGAGGAAACACCTCCCTATGGTA
CCATTTATGTTTCTCAGAACCAGCAGAATCAGTGCCTAGCCTGTGCCCAGCAAATAGTTGGCACTCAATAAAGAT
TTGCAGAATTTAATACAGATCTTTTCAGCTGTTCTTAGGGCATTATAAATGGAAATCATAACGTGGTTCTAGGTT
ATCAAACCATGGAGTGATGTGGAGCTAGGATTGTGAGTGACCTGCAGGCCATTATCAGTGCCTCATCTGTGCAGA
AGTGGCAGCAGAGAGGGACCATCCAAATACCTAAGAGAAAACAGACCTAGTCAGGATATGAATTTGTTTCAGCTG
TTCCCAAAGGCCTGGGAGCTTTTTGAAAAGAAAGAAAAAAGTGTGTTGGCTTTTTTTTTTTTTAGAAAGTTAGAA
TTGTTTTTACCAAGAGTCTATGTGGGGCTTGATTCACCCTTCATCCATTGGCTGGAACATGGATTGGGGATTTGA
TAGAAAAATAAACCCTGCTTTTGATTC

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FIGURE 1323

GGAGGTGGGAAGTATCCCGGGCTGGGGGTGGGGGTACGCCGCACAGCTCCAGTCGCCGTCGCGGCTTCCGGTGCT
AGGTGGAGGGAAGGAAGGAGGGAGCCGGGGAGTGGGCCAGGGCAGCAGCCGGGCTGAAGTCGGCTTGGGGAGCCA
GAGGGAGCGGAGCGGAACCTGCGGGGCAGAGGCGGCGGCCGCAGCGGCGCAGCTGATAGCAGGAACAGGATCAAG
TCTTCCATACCAGGGACCAGGCCAAAACCAGACTGCCACTGCCCCTACTTGGGCCCCACTGTCCCCAGAAAGCAG
CTGCTGTGATC**ATG**GGCAATATCTTTGGAAACCTTCTCAAGAGCCTGATTGGGAAGAAGGAGATGCGCATCCTGA
TGGTGGGCCTGGATGCCGCAGGAAAGACCACCATCCTATACAAGCTGAAACTCGGGGAGATCGTCACCACCATCC
CTACCATTGGGTTCAATGTGGAGACAGTGGAGTATAAGAACATCAGCTTTACAGTGTGGGATGTGGGTGGCCAGG
ACAAGATTCGACCCCTCTGGAGACACTACTTCCAGAACACCCAAGGGTTGATATTTGTGGTCGACAGCAATGATC
GGGAGCGAGTAAATGAGGCCCGGGAAGAGCTGATGAGAATGCTGGCGGAGGACGAGCTCCGGGATGCTGTACTCC
TTGTCTTTGCAAACAAACAGGATCTGCCTAATGCTATGAACGCTGCTGAGATCACAGACAAGCTGGGCCTGCATT
CCCTTCGTCACCGTAACTGGTACATTCAGGCCACCTGTGCCACCAGCGGGGACGGGCTGTACGAAGGCCTGGACT
GGCTGGCCAATCAGCTCAAAAACAAGAAG**TGA**AAGCCAGACAGCCCTAACAAAGCACCCCACCCACCCCTGACAT
ACCTACTGTCACCCTGCCCCAGTCCTACCCCTTCCTCTCCATGCAAGTGTGGCCAGGGCCCTGGGTATCATGTCC
ACATGCCCAGCAAGAGCCTTGCCTCCCCTGCCTCCCCTCCTTTTTCCTGTCCACCTATATGACCAATCCCTAATT
GCTGTCCTGATGATGAGTCATTCCAATTTACTGGATTTAAAACAAAAAGTTGTTACGGTTTCATGGGGTGGCCCC
TCTCTCTCTCACCCTCTGGGTTTCGGGAGGTCGAGTGGGGTATTCTCTTTGTTTGGCAGTGGTTGCTGTCCTCTT
GGCATCTGAGTCCTTTCCCTGTCCCCACAAGCCCTTCTACTCCCTGTTTGCCTTTCCTTTGCCACCCTCTCCCTG
TTTTACATGGAAATTGCACGGGCCTCTCTGTGTTTGCGTGCATGTGTGCGCCTGTATATACATGTATAGAGAGAT
ATATTTGTGGGGGCCGGGGGGAGCGGGGAGGGGGTGGAGTGAAGCTCAGGGCTTGCAGCCAGGACACTGCCCACT
GGAGCCTGTCATCTGCCCCTTCCGTGTTGGTGAGATTAAGGGAAGAAGGTGGGAGGGCATTAGTCAAGCCGGACT
GCCCCAGTCTTTGACTGGTTACCCTCCTCTCTGCAGGTAGGTTTTTCTGGATGATAGGACAGATGATGGATTCTT
CACCACCATTTTCCTTGTACTCTTCTCTCCACCCTTCTTAGGGCTGGAGGATGGCATTTATCTCTAGATGACTGT
TCCCAAGGAGATGCCACTCTGCTCTGCCTTACTGTTGGGAAGGAGAGAGGAACCCACTCACTCTTATCAGCTTAG
AGTGTTCAACTGATCCTTCCCCACCATCTTCAGATCTGTTCCTCTGGAGCTTGACTGGGGGGTGGGGATGGCAAG
TCCATGGTGTGTGTTAGGGACCCAGGGCATTGGGGGAAGGGAGGCGAAGGCCTGAGGTTTTCCATCTTCATTCTC
TTTTGTTATTAGGAGAAGGTGAGGCATGGGCCAATCCCATTCCTGCCTTCCAGTGCCCCACCACCCTTCTGATCT
TAGGGGTTGGATGGGTCATCTGTCCTTGGTCAGAATTTTCTCACCCTAGTACTCCTACTGGCCTGACCAGGGCTG
ACTGGGTATTCTAATGAGGAGCTGGGAAGTGGGGTGACATAGCTGACCTTAGTATCAACCCCCCTCTTCTCCAAC
TCTTGTTTTCTAGTCCAGGATATGCTAAAGGACGAAGATTTTCTATTGTTTCCAGGCCCTCAGACCATCCTTGCT
GTCCCTTCACCCTCCATGCCCCTGCCATCCTCACTCACTTCTCATAAATGGATCTGGGGGTTAGAGTGGAGGAAA
TAAAATCCTGAAGTGGTTGTCAGTGCTTGTGGGATGCAGTGGTCTTCAGGATTCTCCCCGCATTATTATGTAGTT
GTTCAGAAGCTGTTGCTACTGCGTCTCTCTGTCTGCAGGGGGCACTTGTTCCTGAGGTCCTCGCCTGGGTCCTGA
CTTCTGTAGTTTCTGTGAAGACGTGGCTGTCCTGTGGGCTCCTGTGTGTGCTGGCTGCGCCCTGAGCTCCGAGAC
AGCTGCCCATAACCTGCTAAGGTCAGGGCCCAGGGCCCCCCACAGCATGGCTGAGGGACCCCTTCCCAGTAGGGC
TGTCCCAAGCCCCACTCCATGGGGCCAGGTTTCCTGGCCACTTTTGTTGATAGCAGATGGATCAATATTAGTAAC
CCCATCCAAGATTGAACTGTGAAAGAGAGGTTCCAGGGGTATCTCCCTCAGTGCCAGTTACTTAGTGATGTGTTA
CCCAGGATGCAGCAGGTGTGTGCAGGTATCTTGCTCTCTAGGCCTGTGTGTGTGTGTGAGTGTGTGTGTATATGG
GTGTGGGTGTGTTTGTGTGTGGTGGTTGTGGGGGGGGTGTTGGAGGTTCTATTTCATTTAAAAATGTATTCATTT
CCCTGGCCCCACAGATGCTTCCCTCCATACTTTTTATTTGCTCTGTTTCCTCAGATTTATTTTGTCTTGCCCCAT
TGCCTCTCCTTCCTTGAACTCTTTCCTTTTCAATCTCAACTCATTCACTGCTGTTGCTCATTTGCCCTTTTCCAT
GTATTTTTTCCTACTTAGGATTTTCCACTCTATCTTTGTGGTTCATGAGGACTTTGCCTCTTCTCCTGCCTCATT
CCCTGACTTTCTCTAGTTAGATGTCAGTCCTAAATAGGTTTTCCTCACTTCAGGCCTCACCCCTCACCTTGTTTT
TTTGGGGGCTCCAGGGACCAATCTGGGGCTGGAAATGTTAGGAGGTTGCCTTGGTGCTGCCCCAGATCTGTCCAG
CAGGGGGCAGTAAGTGATCTTGGTAGTATCCCTGGCTGCTAAGCCCTTGGCAGGGGTGGTCCTTTCTACATTCCC
ATTCACTTAACAGCTCTTTTGGGATTGGGTGTTTCATTCCATTTCTGCCCACTCCCTCTCCTCTCCTCTCTGGTA
GGTTTAATTTTATGCTTTCCCTGATTCCAGCTTTCTGCTTCCTGAGGACTCCCGCTCCCCCCACCCCAAAGTTTG
TCTGTGGTGTTATAGTGGTAACTGCAGTTCCTCCTCTGGAATGTAGACTGTATATGTTTAATAACTCACCTTCTC
TATCCTTGCTCAAAATGTGGGATAACGCGATGACTGTGACCCTGGTTGGAAATTAAACTTGTTTTATGCA

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FIGURE 1324

CTCGACTCTTAGCTTGTCGGGGACGGTAACCGGGACCCGGTGTCTGCTCCTGTCGCCTTCGCCTCCTAATCCCTA
GCCACTATGGTGATGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTA
CTGCCTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTT
CAACACCTTCTTCAGTGAGACGGGCGCTGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAG
GAAGATGCTGCCAATAACTATGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTTGTGTTGGACCGA
ATTCGCAAGCTGGCTGACCAGTGCACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACTGGT
TCTGGGTTCACCTCCCTGCTC**ATG**GAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATT
TACCCAGCACCCCAGGTTTCCACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCACACCACCCTGGAG
CACTCTGATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTCGATATCGAGCGC
CCAACCTACACTAACCTTAACCGCCTTATTAGCCAGATTGTGTCCTCCATCACTGCTTCCGTCATCTCTGCTGAG
AAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCAGCCAACCAGATGGTGAAA
TGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGTCAAT
GCTGCCATTGCCACCATCAAAACCAAGCGCAGCATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGTTGGC
ATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGCGAGTTTTCAGAGGCCCGTGAAGATA
TGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGG
AATACTAATTATCCATTCCTTTTGGCCCTGCAGCATGTCATGCTCCCAGAATTTCAGCTTCAGCTTAAC**TGA**CAG
ACGTTAAAGCTTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTTTTCC
ATCATATCTCAAAGTAAAGTCATTAACATC

FIGURE 1325

CTCCAGCAGCACCCGAGAGGGTCAGGAGAAAAGCGGAGGAAGCTGGGTAGGCCCTGAGGGGCCTCGGTAAGCCAT
C**ATG**ACCACCCGGCAAGCCACGAAGGATCCCCTCCTCCGGGGGTGTATCTCCTACCCCTAGCAAGATTCCGGTACG
CTCTCAGAAACGCACGCCTTTCCCCACTGTTACATCGTGCGCCGTGGACCAGGAGAACCAAGATCCAAGGAGATG
GGTGCAGAAACCACCGCTCAATATTCAACGCCCCCTCGTTGATTCAGCAGGCCCCAGGCCGAAAGCCAGGCACCA
GGCAGAGACATCACAAAGATTGGTGGGGATCAGTCAGCCTCGGAACCCCTTGGAAGAGCTCAGGCCTAGCCCTAG
GGGTCAAAATGTGGGGCCTGGGCCCCCTGCCCAGACAGAGGCTCCAGGGACCATAGAGTTTGTGGCTGACCCTGC
AGCCCTGGCCACCATCCTGTCAGGTGAGGGTGTGAAGAGCTGTCACCTGGGGCGCCAGCCTAGTCTGGCTAAAAG
AGTACTGGTTCGAGGAAGTCAGGGAGGCACCACCCAGAGGGTCCAGGGTGTTCGGGCCTCTGCATATTTGGCCCC
CAGAACCCCCACCCACCGACTGGACCCTGCCAGGGCTTCCTGCTTCTCTAGGCTGGAGGGACCAGGACCTCGAGG
CCGGACATTGTGTCCCCAGAGGCTACAGGCTCTGATTTCACCTTCAGGACCTTCCTTTCACCCTTCCACTCGCCC
CAGTTTCCAGGAGCTAAGAAGGGAGACAGCTGGCAGCAGCCGGACTTCAGTGAGCCAGGCCTCAGGATTGCTCCT
GGAGACCCCAGTCCAGCCTGCTTTCTCTCTTCCTAAAGGAGAACGCGAGGTTGTCACTCACTCAGATGAAGGAGG
TGTGGCCTCTCTTGGTCTGGCCCAGCGAGTACCATTAAGAGAAAACCGAGAAATGTCACATACCAGGGACAGCCA
TGACTCCCACCTGATGCCCTCCCCTGCCCCTGTGGCCCAGCCCTTGCCTGGCCATGTGGTGCCATGTCCATCACC
CTTTGGACGGGCTCAGCGTGTACCCTCCCCAGGCCCTCCAACTCTGACCTCATATTCAGTGTTGCGGCGTCTCAC
CGTTCAACCTAAAACCCGGTTCACACCCATGCCATCAACCCCCAGAGTTCAGCAGGCCCAGTGGCTGCGTGGTGT
CTCCCCTCAGTCCTGCTCTGAAGATCCTGCCCTGCCCTGGGAGCAGGTTGCCGTCCGGTTGTTTGACCAGGAGAG
TTGTATAAGGTCACTGGAGGGTTCTGGGAAACCACCGGTGGCCACTCCTTCTGGACCCCACTCTAACAGAACCCC
CAGCCTCCAGGAGGTGAAGATTCAACGCATCGGTATCCTGCAACAGCTGTTGAGACAGGAAGTAGAGGGGCTGGT
AGGGGGCCAGTGTGTCCCTCTTAATGGAGGCTCTTCTCTGGATATGGTTGAACTTCAGCCCCTGCTGACTGAGAT
TTCTAGAACTCTGAATGCCACAGAGCATAACTCTGGGACTTCCCACCTTCCTGGACTGTTAAAACACTCAGGGCT
GCCAAAGCCCTGTCTTCCAGAGGAGTGCGGGGAACCACAGCCCTGCCCTCCGGCAGAGCCTGGGCCCCCAGAGGC
CTTCTGTAGGAGTGAGCCTGAGATACCAGAGCCCTCCCTCCAGGAACAGCTTGAAGTACCAGAGCCCTACCCTCC
AGCAGAACCCAGGCCCCTAGAGTCCTGCTGTAGGAGTGAGCCTGAGATACCGGAGTCCTCTCGCCAGGAACAGCT
TGAGGTACCTGAGCCCTGCCCTCCAGCAGAACCCAGGCCCCTAGAGTCCTACTGTAGGATTGAGCCTGAGATACC
GGAGTCCTCTCGCCAGGAACAGCTTGAGGTACCTGAGCCCTGCCCTCCAGCAGAACCCGGGCCCCTTCAGCCCAG
CACCCAGGGGCAGTCTGGACCCCCAGGGCCCTGCCCTAGGGTAGAGCTGGGGGCATCAGAGCCCTGCACCCTGGA
ACATAGAAGTCTAGAGTCCAGTCTACCACCCTGCTGCAGTCAGTGGGCTCCAGCAACCACCAGCCTGATCTTCTC
TTCCCAACACCCGCTTTGTGCCAGCCCCCCTATCTGCTCACTCCAGTCTTTGAGACCCCCAGCAGGCCAGGCAGG
CCTCAGCAATCTGGCCCCTCGAACCCTAGCCCTGAGGGAGCGCCTCAAATCGTGTTTAACCGCCATCCACTGCTT
CCACGAGGCTCGTCTGGACGATGAGTGTGCCTTTTACACCAGCCGAGCCCCTCCCTCAGGCCCCACCCGGGTCTG
CACCAACCCTGTGGCTACATTACTCGAATGGCAGGATGCCCTGTGTTTCATTCCAGTTGGTTCTGCTGCCCCCCA
GGGCTCTCCA**TGA**TGAGACAACCACTCCTGCCCTGCCGTACTTCTTCCTTTTAGCCCTTATTTATTGTCGGTCTG
CCCATGGGACTGGGAGCCGCCCACTTTTGTCCTCAATAAAGTTTCTAAAGTA

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FIGURE 1326

AATAC**ATG**GCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGTCAATGCTGCCATTGCCACCATCA
AGACCAAGCGTACCATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCA
CTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTG
AGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAACGTGCCTTTGTTCACTGGTACGTTGGGG
AGGGGATGGAGGAAGGTGAGTTTTCAGAGGCCCGTGAGGACATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTG
GTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATAC**TAA**AGTTAAAACGTCACAAAGGTGCTGC
TTTTACAGGGAAGCTTATTCTGTTTTAAACATTGAAAAGTTGTGGTCTGACATGAATGCTTTGTTACAGACCCAA
GCTGTCCATTTCTGTGATGGGTTTTGAATAAAGTATTCCC

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FIGURE 1327

GAGAGGGCGAAGGTAGGCTGGCAGATACGTTCGTCAGCTTGCTCCTTTCTGCCCGTGGACGCCGCCGAAGAAGCA
TCGTTAAAGTCTCTCTTCACCCTGCCGTC**ATG**TCTAAGTCAGAGTCTCCTAAAGAGCCCGAACAGCTGAGGAAGC
TCTTCATTGGAGGGTTGAGCTTTGAAACAACTGATGAGAGCCTGAGGAGCCATTTTGAGCAATGGGGAACGCTCA
CGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAGGGGCTTTGGGTTTGTCACATATGCCACTGTGG
AGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGATGGAAGAGTTGTGGAACCAAAGAGAGCTGTCT
CCAGAGAAGATTCTCAAAGACCAGGTGCCCACTTAACTGTGAAAAAGATATTTGTTGGTGGCATTAAAGAAGACA
CTGAAGAACATCACCTAAGAGATTATTTTGAACAGTATGGAAAAATTGAAGTGATTGAAATCATGACTGACCGAG
GCAGTGGCAAGAAAAGGGGCTTTGCCTTTGTAACCTTTGACGACCATGACTCCGTGGATAAGATTGTCATTCAGA
AATACCATACTGTGAATGGCCACAACTGTGAAGTTAGAAAAGCCCTGTCAAAGCAAGAGATGGCTAGTGCTTCAT
CCAGCCAAAGAGGTCGAAGTGGTTCTGGAAACTTTGGTGGTGGTCGTGGAGGTGGTTTCGGTGGGAATGACAACT
TCGGTCGTGGAGGAAACTTCAGTGGTCGTGGTGGCTTTGGTGGCAGCCGTGGTGGTGGTGGATATGGTGGCAGTG
GGGATGGCTATAATGGATTTGGTAATGATGGTGGTTATGGAGGAGGCGGCCCTGGTTACTCTGGAGGAAGCAGAG
GCTATGGAAGTGGTGGACAGGGTTATGGAAACCAGGGCAGTGGCTATGGCGGGAGTGGCAGCTATGACAGCTATA
ACAACGGAGGCGGAGGCGGCTTTGGCGGTGGTAGTGGAAGCAATTTTGGAGGTGGTGGAAGCTACAATGATTTTG
GGAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAAATTTTGGAGGCAGAAGCTCTGGCCCCT
ATGGCGGTGGAGGCCAATACTTTGCAAAACCACGAAACCAAGGTGGCTATGGCGGTTCCAGCAGCAGCAGTAGCT
ATGGCAGTGGCAGAAGATTT**TAA**TTAGGAAACAAAGCTTAGCAGGAGAGGAGAGCCAGAGAAGTGACAGGGAAGC
TACAGGTTACAACAGATTTGTGAACTCAGCCAAGCACAGTGGTGGCAGGGCCTAGCTGCTACAAAGAAGACATGT
TTTAGACAAATACTCATGTGTATGGGCAAAAAACTCGAGGACTGTATTTGTGACTAATTGTATAACAGGTTATTT
TAGTTTCTGTTCTGTGGAAAGTGTAAAGCATTCCAACAAAGGGTTTTAATGTAGATTTTTTTTTTTGCACCCCAT
GCTGTTGATTGCTAAATGTAACAGTCTGATCGTGACGCTGAATAAATGTCTTTTTTTTAATGTGCTGTGTAAAGT
TAGTCTACTCTTAAGCCATCTTGGTAAATTTCCCCAACAGTGTGAAGTTAGAATTCCTTCAGGGTGATGCCAGGT
TCTATTTGGAATTTATATACAACCTGCTTGGGTGGAGAAGCCATTGTCTTCGGAAACCTTGGTGTAGTTGAACTG
ATAGTTACTGTTGTGACCTGAAGTTCACCATTAAAAGGGATTACCCAAGCAAAATCATGGAATGGTTATAAAAGT
GATTGTTGGCACATCCTATGCAATATATCTAAATTGAATAATGGTACCAGATAAAATTATAGATGGGAATGAAGC
TTGTGTATCCATTATCATGTGTAATCAATAAACGATTTAATTCTCTTGAA

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FIGURE 1328

GCATATACTGTCATCATCTTGGAAAGAAAAGGCTGAGAACGTAAAACTGAGGACAGAGGAGGAAAGCAGGGTGAC
CCCTGATGTTGCCCTAGAAAATGGAAAACAAAACACAGCAAAACAGAAAAACAGAAGATCTGACTCTGCCTTTAG
CCAGGAAAACAGTTTGGGGGAGTAAAAAGTATTAGGGAAAAGAGTGGGCATTTTGCCTGGAAAAAAGGTTTCTAG
AGCCATCTGGGCTTTCCGGGAACCTGGACCAGACTCTGGCCCAGTAGG**ATG**TCCCCGTGTCCTCCCCAGCAGAGC
AGGAACAGGGTGATACAGCTGTCCACTTCAGAGCTAGGAGAGATGGAACTGACTTGGCAGGAGATCATGTCCATC
ACCGAGCTGCAGGGTCTGAATGCTCCAAGTGAGCCATCATTTGAGCCCCAAGCCCCAGCTCCATACCTTGGACCT
CCACCACCCACAACTTACTGCCCCTGCTCAATCCACCCAGATTCTGGCTTCCCACTTCCTCCACCACCTTATGAG
CTCCCAGCATCCACATCCCATGTCCCAGATCCCCCATACTCCTATGGCAACATGGCCATACCAGTCTCCAAGCCA
CTGAGCCTCTCAGGCCTGCTCAGTGAGCCGCTCCAAGACCCCTTAGCCCTCCTGGACATTGGGCTGCCAGCAGGG
CCACCTAAGCCCCAAGAAGACCCAGAATCCGACTCAGGATTATCCCTCAACTATAGCGATGCTGAATCTCTTGAG
CTGGAGGGGACAGAGGCTGGTCGGCGGCGCAGCGAATATGTAGAGATGTACCCAGTGGAGTACCCCTACTCACTC
ATGCCCAACTCCTTGGCCCACTCCAACTATACCTTGCCAGCTGCTGAGACCCCCTTGGCCTTAGAGCCCTCCTCA
GGCCCTGTGCGGGCTAAGCCCACTGCACGGGGGGAGGCAGGGAGTCGGGATGAACGTCGGGCCTTGGCCATGAAG
ATTCCTTTTCCTACGGACAAGATTGTCAACTTGCCGGTAGATGACTTTAATGAGCTATTGGCAAGGTACCCGCTG
ACAGAGAGCCAGCTAGCGCTAGTCCGGGACATCCGACGACGGGGCAAAAACAAGGTGGCAGCCCAGAACTGCCGC
AAGAGGAAGCTGGAAACCATTGTGCAGCTGGAGCGGGAGCTGGAGCGGCTGACCAATGAACGGGAGCGGCTTCTC
AGGGCCCGCGGGGAGGCAGACCGGACCCTGGAGGTCATGCGCCAACAGCTGACAGAGCTGTACCGTGACATTTTC
CAGCACCTTCGGGATGAATCAGGCAACAGCTACTCTCCTGAAGAGTACGCGCTGCAACAGGCTGCCGATGGGACC
ATCTTCCTTGTGCCCCGGGGGACCAAGATGGAGGCCACAGAC**TGA**GCTGGCCCAGAGGGGTGGAACTGCTGATGG
GATTTCCTTCATTCCCTTCTGATAAAGGTACTCCCCAACCCTGAGTCCCAGAAGGAGCTGAGTTCTCTAGACCAG
AAGAGGATGACAATGGCAACAAGTGTTTGGAAGTTCCAAGGTGTGTTCAAAGAGGCTTGCCTTGAGGGAGGGCTG
GAATCTGTCTTCCCTGACTCGGCTCCTCAGGTCTTTAGCCTCCACCTTGTCTAAGCTTTGGTCTATAAAGTGCGC
TACAG

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FIGURE 1329

TTTTGCGGCTCCACGTCGGCACCAGCTGCGGGGCAAG**ATG**GAGGCGCTGATTTTGGAACCTTCCCTGTATACTGT
CAAAGCCATCCTGATTCTGGACAATGATGGAGATCGACTTTTTGCCAAGTACTATGACGACACCTACCCCAGTGT
CAAGGAGCAAAAGGCCTTTGAGAAGAACATTTTCAACAAGACCCATCGGACTGACAGTGAAATTGCCCTCTTGGA
AGGCCTGACAGTGGTATACAAAAGCAGTATAGATCTCTATTTCTATGTGATTGGCAGCTCCTATGAAAATGAGCT
GATGCTTATGGCTGTTCTGAACTGTCTCTTCGACTCATTGAGCCAGATGCTGAGGAAAAATGTAGAAAAGCGAGC
ACTGCTGGAGAACATGGAGGGGCTGTTCTTGGCTGTGGATGAAATTGTAGATGGAGGGGTGATCCTAGAGAGTGA
TCCCCAGCAGGTGGTACACCGGGTGGCATTAAGGGGTGAAGATGTCCCCCTTACGGAGCAGACCGTGTCTCAGGT
GCTGCAGTCAGCCAAAGAACAGATCAAGTGGTCACTCCTTCGG**TGA**AGACCTCACTGTTCCTGGCTCTTCATCCT
CTTCAAAAAATTTGCATGTCTGCTGTGAATTTTCATCTAGTTCCCCAATCGATGCTCTCAGGGTCATCTCGGGGA
TCACAGGGATCCTTAAATCTCCATTCTGTTTGTGGTTGCCCCCTCAACCTCCCCTACACCCTTCCTATTCTTTTT
CATTCTTCTTGCAGTTCTGGGAGTAAAGCTCCCAGCATATTTAGATAATAGGGCAGGGGAAGCACCCTCTTTCTT
TCTAGACTGGATTATGCTCACATGCTCCCTTGCCCTGACATTTTTGTAAATTCTGTGCCCTTTGCTGTAGCTACA
CTTCAGATTAAAGTAGGAGAAAGAATGTGCTGAGTGTTTTCCTCCCTTTGCCTCTACCTGGCCCTCATCCCAACA
GCCCAGCAAGGGGAGAGAGAAAGAGAATTCTTTTCTATAGAACGAGTGGGGGCGGGGATGGGTAGGGATTTATCC
AATCTAAGCCCTAACCCCACTTAGTGACCTCAGTGTTTTCTTCCATTCCTTCTTACTGCCCTGTCCTCTGCCTTG
GAAGAGGCTTTGGGAATAGTTCATAGGGAAGGGACAACATGGAAGAAACAGCGATTTAAATTGTATTGAACAGGG
CATATAAAATGCATTCTGTACCCTGATCTGGCATATAGCTTCAAAACTGCAGTGGCGAGTGTCCATCTCTTAGTT
AGCTACCTTAACTGTCCACCCTTACTACCTGTGGGATCGTTGCCTGGTTTGTCTTCTCTGTGTCCTGGAGCAAAG
CCAGTTCCTAAAACTAAAACTCCATTCTAGTCTTGGGAAGAAAAGTTTCTACTCAGAACTGGGGAAGGAGTGGAA
CTTATGACTTGGGCCTCTAGGCTGTCTCTGTCCCCTCAGCTCCCCGACATGCATTTACTCTCTGCCGTGGGTCTG
CAGTCGCTGCAACCTACCCTCTCTCTGCCTCAGCCTTACACCCAAGCAGTAGGTCTGTGCTCTCCCTGTCTCTAG
GTCGCTGAGAGAGGTGCTTTTCTTCATAAAACCTTTGGGGTTTGGATTTCCCCAGGAAGATGGAGAATGGAATAC
TCACTCTTGGGTCTAATCTTTCCCCTTGACCCAGAACTTCCTCCCCACAAAAATGCCTTTAAAAACCTTCCTGAG
ACTTAAGCATTCTGCCCCACTTACTAACTGCCAGTTCTCCAGCACTGAGGTGGGGCAGATAACGGGGCATATTTA
AGGGGGCATCTTTGTGTAAAAGATGCATGGAGTCAGGAGAAAACCACCTTCATAAACTGCTCTGTGCAAAGAGGA
ATAAAACATTTTTTCCAAACTG

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FIGURE 1330

AGCATCCGGAGCGGAGCTGCAGCAGCGCCGCCTTTTGTGCTGCGGCCGCGGAGCCCCCGAGGGCCCAGTGTTCAC
CATCATACCAGGGGCCAGAGGCG**ATG**GCTTGCCTCCATGAGACCCGAACACCCTCTCCTTCCTTTGGGGGCTTTG
TGTCTACCCTAAGTGAGGCATCCATGCGCAAGCTGGACCCAGACACTTCTGACTGCACTCCCGAGAAGGACCTGA
CGCCTACCCATGTCCTGCAGCTACATGAGCAGGATGCAGGGGGCCCAGGGGGAGCAGCTGGGTCACCTGAGAGTC
GGGCATCCAGAGTTCGAGCTGACGAGGTGCGACTGCAGTGCCAGAGTGGCAGTGGCTTCCTTGAGGGCCTCTTTG
GCTGCCTGCGCCCTGTCTGGACCATGATTGGCAAAGCCTACTCCACTGAGCACAAGCAGCAGCAGGAAGACCTTT
GGGAGGTCCCCTTTGAGGAAATCCTGGACCTGCAGTGGGTGGGCTCAGGGGCCCAGGGTGCTGTCTTCCTGGGGC
GCTTCCACGGGGAGGAGGTGGCTGTGAAGAAGGTGCGAGACCTCAAAGAAACCGACATCAAGCACTTGCGAAAGC
TGAAGCACCCCAACATCATCACTTTCAAGGGTGTGTGCACCCAGGCTCCCTGCTACTGCATCCTCATGGAGTTCT
GCGCCCAGGGCCAGCTGTATGAGGTACTGCGGGCTGGCCGCCCTGTCACCCCCTCCTTACTGGTTGACTGGTCCA
TGGGCATCGCTGGTGGCATGAACTACCTGCACCTGCACAAGATTATCCACAGGGATCTCAAGTCACCCAACATGC
TAATCACCTACGACGATGTGGTGAAGATCTCAGATTTTGGCACTTCCAAGGAGCTGAGTGACAAGAGCACCAAGA
TGTCCTTTGCAGGGACAGTAGCCTGGATGGCCCCTGAGGTGATCCGCAATGAACCTGTGTCTGAGAAGGTCGACA
TCTGGTCCTTTGGCGTGGTGCTATGGGAACTGCTGACTGGTGAGATCCCCTACAAAGACGTAGATTCCTCAGCCA
TTATCTGGGGTGTGGGAAGCAACAGTCTCCATCTGCCCGTGCCCTCCAGTTGCCCAGATGGTTTCAAGATCCTGC
TTCGCCAGTGCTGGAATAGCAAACCACGAAATCGCCCATCATTCCGACAGATCCTGCTGCATCTGGACATTGCCT
CAGCTGATGTACTCTCCACACCCCAGGAGACTTACTTTAAGTCCCAGGCAGAGTGGCGGGAAGAAGTAAAACTGC
ACTTTGAAAAGATTAAGTCAGAAGGGACCTGTCTGCACCGCCTAGAAGAGGAACTGGTGATGAGGAGGAGGGAGG
AGCTCAGACACGCCCTGGACATCAGGGAGCACTATGAAAGGAAGCTGGAGAGAGCCAACAACCTGTATATGGAAC
TTAATGCCCTCATGTTGCAGCTGGAACTCAAGGAGAGGGAGCTGCTCAGGCGAGAGCAAGCTTTAGAGCGGAGGT
GCCCAGGCCTGCTGAAGCCACACCCTTCCCGGGGCCTCCTGCATGGAAACACAATGGAGAAGCTTATCAAGAAGA
GGAATGTGCCACAGAAGCTGTCACCCCATAGCAAAAGGCCAGATATCCTCAAGACGGAGTCTTTGCTCCCTAAAC
TAGATGCAGCCCTGAGTGGGGTGGGGCTTCCTGGGTGTCCTAAGGGCCCCCCCTCACCAGGACGGAGTCGCCGTG
GCAAGACCCGTCACCGCAAGGCCAGCGCCAAGGGGAGCTGTGGGGACCTGCCTGGGCTTCGTACAGCTGTGCCAC
CCCATGAACCTGGAGGACCAGGAAGCCCAGGGGGCCTAGGAGGGGGACCCTCAGCCTGGGAGGCCTGCCCTCCCG
CCCTCCGTGGGCTTCATCATGACCTCCTGCTCCGCAAAATGTCTTCATCGTCCCCAGACCTGCTGTCAGCAGCAC
TAGGGTCCCGGGGCCGGGGGGCCACAGGCGGAGCTGGGGATCCTGGCTCACCACCTCCGGCCCGGGGTGACACCC
CACCAAGTGAGGGCTCAGCCCCTGGCTCCACCAGCCCAGATTCACCTGGGGGAGCCAAAGGGGAACCACCTCCTC
CAGTAGGGCCTGGTGAAGGTGTGGGGCTTCTGGGAACTGGAAGGGAAGGGACCTCAGGCCGGGGAGGAAGCCGGG
CTGGGTCCCAGCACTTGACCCCAGCTGCACTGCTGTACAGGGCTGCCGTCACCCGAAGTCAGAAACGTGGCATCT
CATCGGAAGAGGAGGAAGGAGAGGTAGACAGTGAAGTAGAGCTGACATCAAGCCAGAGGTGGCCTCAGAGCCTGA
ACATGCGCCAGTCACTATCTACCTTCAGCTCAGAGAATCCATCAGATGGGGAGGAAGGCACAGCTAGTGAACCTT
CCCCCAGTGGCACACCTGAAGTTGGCAGCACCAACACTGATGAGCGGCCAGATGAGCGGTCTGATGACATGTGCT
CCCAGGGCTCAGAAATCCCACTGGACCCACCTCCTTCAGAGGTCATCCCTGGCCCTGAACCCAGCTCCCTGCCCA
TTCCACACCAGGAACTTCTCAGAGAGCGGGGCCCTCCCAATTCTGAGGACTCAGACTGTGACAGCACTGAATTGG
ACAACTCCAACAGCGTTGATGCCTTGCGGCCCCCAGCTTCCCTCCCTCCA**TGA**AAGCCACTCGTATTCCTTGTAC
ATAGAGAAATATTTATATAAATTATATATATATACATATATATATATATATGCGCCACATAATCAACAGAAAGAT
GGGGCTGTCCCAGCCGTAAGTCAGGCTCGAGGGAGACTGATCCCCTGACCAATTCACCTGATAAACTCTAGGGAC
ACTGGCAGCTGTGGAAATGAATGAGGCACAGCCGTAGAGCTGTGGCTAAGGGCAAGCCCCTTCCTGCCCCACCCC
ATTCCTTATATTCAGCAAGCAACAAGGCAATAGAAAAGCCAGGGTTGTCTTTATATTCTTTATCCCCAAATAATA
GGGGGTGGGGGGAGGGGCGGTGGGAGGGGCAGGAGAGAAAACCACTTAGACTGCACTTTTCTGTTCCGTTTACTC
TGTTTACACATTTTGCACTTGGGAGGAGGGAGGCTAAGGCTGGGTCCTCCCCTCTGAGGTTTCTCAGGTGGCAAT
GTAACTCATTTTTTTGTCCCACCATTTATCTTCTCTGCCCAAGCCCTGTCTTAAGGCCCAGGGGGAGGTTAGGAG
ACTGATAGCATGTGATGGCTCAGGCTGAAGAACCGGGGTGCTGTTTAAGTCCCTGCTTTTATCCTGGTGCCTGAT
TGGGGTGGGGACTGTCCTACTGTAACCCCTGTGAAAAACCTTGAAATATAACACTCCATGCAGG

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FIGURE 1331

AGTTTTTGGCTTTCACCCCCAACCAGTGACCAAAGACTTGACCACTCAAAGTCCAGCTCCCCAGAACACTGCTCG
ACATGGACACCGGTGTGATTGAAGGTGGATTAAATGTCACTCTCACCATCCGGCTACTTATGCATGGAAAGGAAG
TTGGCAGTATCATCGGAAAGAAAGGAGAATCAGTTAAGAAGATGCGCGAGGAGAGTGGTGCACGTATCAACATCT
CAGAAGGGAATTGTCCTGAGAGAATTATCACTTTGGCTGGACCCACTAATGCCATCTTCAAAGCCTTTGCTATGA
TCATTGACAAACTGGAAGAGGACATAAGCAGCTCTATGACCAATAGCACAGCTGCCAGTAGACCCCCGGTCACCC
TGAGGCTGGTGGTCCCTGCTAGTCAGTGTGGCTCTCTCATTGGAAAAGGTGGATGCAAGATCAAGGAAATACGAG
AGAGTACAGGGGCTCAGGTCCAGGTGGCAGGGGATATGCTACCCAACTCAACTGAGCGGGCCATCACTATTGCTG
GCATTCCACAATCCATCATTGAGTGTGTCAAACAGATCTGCGTGGTCATGTTGGAGACTCTCTCCCAGTCCCCCC
CGAAGGGCGTGACCATCCCGTACCGGCCCAAGCCGTCCAGCTCTCCGGTCATCTTTGCAGGTGGTCAGGACAGGT
ACAGCACAGGCAGCGACAGTGCGAGCTTTCCCCACACCACCCCGTCCATGTGCCTCAACCCTGACCTGGAGGGAC
CACCTCTAGAGGCCTATACCATTCAAGGACAGTATGCCATTCCACAGCCAGATTTGACCAAGCTGCACCAGTTGG
CAATGCAACAGTCTCATTTTCCCATGACGCATGGCAACACCGGATTCAGTGGCATTGAATCCAGCTCTCCAGAGG
TGAAAGGCTATTGGGCAGGTTTGGATGCATCTGCTCAGACTACTTCTCATGAACTCACCATTCCAAACGATTTGA
TTGGCTGCATAATCGGGCGTCAAGGCGCCAAAATCAATGAGATCCGTCAGATGTCTGGGGCGCAGATCAAAATTG
CGAACCCAGTGGAAGGATCTACTGATAGGCAGGTTACCATCACTGGATCTGCTGCCAGCATTAGCCTGGCTCAAT
ATCTAATCAATGTCAGGCTTTCCTCGGAGACGGGTGGCATGGGGAGCAGCTAGAACAATGCAGATTCATCCATAA
TCCCTTTCTGCTGTTCACCACCACCCATGATCCATCTGTGTAGTTTCTGAACAGTCAGCGATTCCAGGTTTTAAA
TAGTTTGTAAATTTTCAGTTTCTACACACTTTATCATCCACTCGTGATTTTTTAATTAAAGCGTTTTAATTCCTT
T

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FIGURE 1332

ACACAGTGGAGAAGCCCTATAAATGTTACGAGTGTGGCAAAGCCTTCAATTGGAGCTCCCATCTTCAAATTCATA
TGAGAGTTCATACAGGTGAGAAACCGTATGTCTGTAGTGAGTGTGGAAGGGGCTTTAGTAATAGTTCAAACCTTT
GCATGCATCAGAGAGTCCACACCGGAGAGAAGCCCTTTAAATGTGAAGAGTGTGGGAAGGCCTTCAGGCACACCT
CCAGCCTCTGCATGCATCAAAGAGTCCACACAGGAGAGAAACCCTATAAATGTTATGAGTGTGGGAAGGCGTTCA
GTCAGAGTTCGAGCCTCTGCATCCACCAGAGAGTCCACACTGGAGAGAAACCCTATAGATGTTGTGGATGTGGGA
AGGCCTTCAGTCAGAGTTCGAGCCTGTGCATCCACCAGAGAGTCCACACAGGAGAGAAACCTTTCAAATGTGATG
AGTGCGGAAAGGCCTTCAGTCAGAGTACGAGCCTCTGCATCCACCAGAGAGTCCACACAAAGGAGAGAAACCATC
TCAAAATATCAGTTATATAAAACGTTTTGCTAAGAGTTTAAAATCTTAAAACCCATAAGTGCCACTAGGAAGGAA
ACCCTGTATATACCTACATTGACCCAAGAAATATTTACGCAATCCCTAGCAGAACATTGTTTCTGAGGAGGCATA
TGTGAGATTGATTTGTTGGTTCATGCCAAGTGTGTTCCACAGGTTGACTTTGAATGTGGACCTCTGAGCATCCAC
GCAGGATGGCTCTCAGGTCCCAGTCACAGACGTCGCTTCCTGGGATTCCAGCACGATGCCTCCATAGTTGAAAGA
CTACACAAAAAGCCACAATCATTGCCCGGCCTCCTGAGTCACCTTCTATCTATACTTTGCTTAAAAGCTATCCCA
GATACTCCCCCTTGAGGAGCTCATGCCCTTCCTTCCTCTTTATTCGAGCATACTGGCAATGCATTGGAAAACAGA
CAGCTCCCACTAAGATCACGTTCTGGTATTTCTGAGGTTAACACTTGATTTAGCCCCTACATATCTTTCCATATA
TCCTATTATTTCTGAATATATGTCCTCAAAATCCCCATAAATATCCATCCCTTCCTAGATGGCATTAACTTTCAT
TTTAGATTTTAGGTGACTCATAATTCCCATTCACTTAGCCTATCAGAAAAGTCATTGGCAGACATATATGTCCTT
GAACCTTTTTTATTTGTGTGGATTCTGCTCATCACTGTCTCTGTTAGACTTATTTTGTAGTGGCTGCATCACATA
TTTTTCACTTGAATTTTTTTGGAAATAGCTGAATGTAAATAGCAGGGAGGAAGAAGCAAGCAAAGTGAGAGCTTT
TCTTCATCCAGAATTGCCCTCTGGGCTCCTTTGGTAACAGATGGAGCTCCTTCCTAGCTAGGGAGACCTTATGAG
AAGTGGATGGTAGGAGGAGTCACTAATGTTTCAATCTCTATTTCTGTAATCTTGGGCAATAATGCATAGGAGTTC
TTGATACCCCTTCATTGATTACTGTGTATCAGTTCTTTGTTAGGCATGAACGTCTTTATTAATCCATCATTCTTT
TCTTCATTCAACAAATATGTATTGAACACCTCCTATATGCCAGGCACTGTGCTAGGTGCTGGGAATACCACTGAT
GAGACAGACAAGGTCCCTACTCTTGTGGAGTTTACTTCTGGTGGAGGAGACAGATGATAAGTAAACAAATAAATA
ATGTAGTTTGAGATAGTGATTAAGTGCTATGAAGAAAATAAACTAGGGTGATGATTTTAGTGGTGGGGTGGGGTG
GGGGTGGGGTGACATTAGCTAGTGGTCAGGGAGGCCTTTCCGCGGTGGGATGTTGAGCTGAGGCCGGAGGAGAAG
TAGCAGTCGCTGGCAGAGCACACAGGCTGCTCTGGGGGATGAGCTGGTGCGTTTAAGGAACAGGCCAGCACTGGC
ATTCGCAAGCAGTGGGGAAGGGGAGAGATGCCGAGGTGGTCAGTATCCTGACTTTCAGAGGCCTTTTTTTGTTTG
TTTTAATTTTTGCTAGATTGATATTAAAAACTCATGTGGAGGAACTCAAGGAATGTTTAGAAGACCAAAAGTCCC
CAATGACAGGAACAAAAGCAACCAATTTTTAACTTTCTCTTCTCATTCCTGTTTTCATTGATTTCCCACATGTAG
TCCTTTTGCTCAGGAAGTCTTTGGGGAAATTAAGGATCTTTGAAGCTCTGAAATAGGTGATCAGGTTAGTGGTGT
CTGTCAGCTGTCTAAGAGGTTGGAAAATGAACTACTCAAGATAGTCACGAAAATACTGAAAGTTTGATTTTTCTT
TCCATATTTGAATTAATTTTTTCTGTTTGACTGGAAGGGGTTTTTGTATAACTAAAACCTCAGCGCATAAAGGAG
ATTTAAAAGGAGCACATGATTTAGTGGGTGGGCCATGAAACTAGAGATGGGATTTGGGGGTGAATTTGTCAATAT
CTGGATTTTAATCCAGACATCTCTGCTAACAAGCCTTTGGTAAGTCACTTCAGATACTTTTCCTCCTTTTTACAA
AGAGAGGGCTGGCTTAGTTATTTGCCAAAGCCCCTTCCAGGCCTGAATTC

FIGURE 1333A

GGAGGAGGAGTCGGAGCTGGACGAGGACCCAGCTGCTGAGCCGGCTGAGGCTGGTGTGGGGACCACCGTGGCACC
TCTGCCGCCAGCTCCAGCACCCAGCAGTCAGCCCGTGCCGGCTGGGATGACTGTTCCTCCTCCTCCAGCTGCAGC
CCCACCACTGCCCAGGGCCCTGGCTAAGCCCGCCGTCTTCATCCCCGTGAACCGCTCCCCGGAAATGCAGGAGGA
ACGGCTGAAGCTCCCAATTCTCTCCGAAGAACAAGTAATCATGGAGGCTGTGGCCGAGCACCCCATCGTCATCGT
GTGTGGTGAGACCGGCAGCGGGAAGACCACACAGGTGCCTCAGTTTCTCTATGAAGCAGGCTTCAGCAGTGAAGA
CAGCATCATCGGTGTCACGGAGCCCCGCCGAGTGGCCGCCGTGGCCATGTCCCAGCGAGTGGCCAAGGAGATGAA
TCTGTCCCAGCGGGTCGTCTCCTACCAGATCCGGTATGAAGGAAACGTGACAGAGGAGACCAGAATCAAGTTCAT
GACGGATGGTGTGCTGCTTAAAGAAATCCAGAAGGACTTCCTGCTGCTGCGGTACAAGGTGGTGATCATCGACGA
GGCCCACGAGAGGAGCGTGTACACGGACATCCTCATCGGCCTCCTGTCCCGCATTGTGACTCTCCGGGCTAAGAG
GAACCTGCCACTCAAGCTGCTCATCATGTCGGCCACGCTGCGGGTGGAGGACTTCACCCAGAACCCACGGCTCTT
CGCCAAGCCGCCGCCGGTCATCAAGGTGGAATCCAGGCAGTTCCCAGTGACTGTGCATTTCAACAAGCGGACACC
GCTGGAAGACTACAGTGGCGAGTGCTTCCGGAAGGTCTGCAAGATCCACCGGATGCTGCCCGCAGGTGGCATCCT
GGTGTTCCTGACGGGGCAGGCTGAGGTGCATGCGCTGTGCCGCAGGCTCAGGAAGGCTTTCCCACCCTCCAGAGC
CCGGCCACAAGAAAAGGACGACGATCAGAAAGACTCGGTGGAGGAAATGCGGAAGTTTAAGAAGTCAAGGGCCAG
GGCCAAGAAGGAGCGGGTGATGGTGCTGCCCCAGATCAACTTGGATCATTACTCGGTGTTACCGGCAGGCGAAGG
CGATGAGGACAGGGAGGCAGAAGTGGATGAGGAAGAGGGGGCCCTGGACTCCGACCTCGATCTGGACCTGGGGGA
TGGCGGGCAAGATGGAGGTGAGCAGCCGGATGCCTCCCTCCCGCTCCACGTGCTCCCGCTGTACTCTCTGCTGGC
CCCAGAGAAGCAAGCACAGGTCTTTAAGCCTCCACCGGAGGGGACTCGGTTGTGTGTTGTGGCCACCAATGTGGC
CGAGACGTCGCTTACCATCCCTGGCATCAAGTACGTGGTGGACTGTGGGAAGGTCAAGAAACGCTACTACGACCG
CGTCACTGGCGTATCCTCCTTCCGTGTCACCTGGGTCTCCCAGGCATCAGCTGACCAGCGAGCGGGCAGAGCAGG
ACGGACGGAGCCCGGCCACTGCTACAGGCTGTATTCATCTGCGGTTTTTGGTGACTTCGAGCAGTTTCCTCCTCC
AGAAATCACCCGGAGGCCTGTTGAAGACTTAATCCTTCAAATGAAGGCGCTCAACGTTGAAAAGGTCATCAACTT
CCCCTTCCCGACGCCCCCCTCCGTGGAAGCCCTTCTTGCCGCCGAGGAGCTGTTGATCGCACTGGGTGCCCTGCA
ACCGCCCCAGAAAGCAGAAAGGGTGAAGCAACTGCAGGAGAACCGGCTGAGCTGCCCCATCACTGCGCTGGGCCG
GACAATGGCCACATTCCCCGTGGCACCCCGCTACGCTAAGATGCTGGCACTGAGCCGACAACACGGCTGCCTGCC
CTATGCCATCACCATCGTGGCCAGCATGACGGTGCGGGAGCTGTTTGAGGAGCTGGACAGACCAGCGGCCAGTGA
CGAGGAGCTCACCAGGCTGAAGAGCAAGCGGGCCCGGGTGGCCCAGATGAAGAGGACCTGGGCAGGGCAGGGGGC
TTCTCTGAAGCTCGGCGACCTCATGGTGCTGCTGGGCGCCGTGGGAGCCTGTGAGTATGCCAGCTGCACACCCCA
GTTTTGCGAAGCCAACGGGCTGCGGTACAAAGCCATGATGGAGATCCGGCGCCTGCGGGGCCAGCTGACCACCGC
AGTCAATGCCGTGTGCCCCGAGGCTGAGCTCTTCGTGGATCCCAAGATGCAGCCGCCCACCGAGAGCCAGGTGAC
CTACCTGCGACAGATCGTGACGGCAGGCCTGGGGGACCACTTGGCCCGCAGGGTCCAGAGCGAGGAGATGCTGGA
GGACAAGTGGAGGAACGCCTACAAGACCCCTCTCCTCGACGACCCTGTCTTCATCCACCCCAGCTCCGTCCTTTT
CAAAGAGCTCCCCGAGTTTGTGGTCTACCAGGAAATCGTGGAGACCACTAAGATGTACATGAAAGGCGTCTCTAG
CGTGGAGGTCCAGTGGATCCCGGCCCTGCTGCCCTCTTACTGCCAGTTTGACAAGCCCCTGGAGGAACCAGCCCC
TACATACTGCCCCGAGCGGGGGCGGGTGCTGTGTCACCGGGCCAGCGTGTTCTATCGCGTGGGCTGGCCGCTCCC
CGCCATCGAGGTGGATTTTCCAGAGGGGATTGACCGCTACAAGCACTTTGCCCGGTTCCTGCTGGAAGGGCAGGT
CTTCCGCAAGCTGGCCTCATACCGGAGCTGTCTGCTGTCCAGCCCCGGCACCATGCTGAAGACGTGGGCCAGGCT
GCAGCCCCGTACGGAGAGCCTTCTGCGAGCCCTGGTTGCAGAGAAGGCTGACTGCCATGAAGCCTTGCTGGCTGC
TTGGAAGAAAAACCCCAAATGTGAGTTTGACCAGGGCCAGGGGGTGGGAGTAGACAGGATGGGGTCACTGAGGCA
GGGGCTTTGTGCTTTGTGCACGGTCAGCCCTGGCTTGGCAGAAGGATCTGGCCCCACGGCTGCTGGCCAGCTTTT
TGCCACCTGAGGAGAGTCCCTGGGCCCAGGGTCACCCTGACACTGTCCTCCTTCCCTCCCCTGCAGACCTGCTGG
CTGAGTACTGTGAGTGGCTTCCACAGGCCATGCACCCCGATATCGAGAAAGCCTGGCCCCCCACCACTGTCCACT
GACCAGAAACCTGGCTGCAGGGCCGAGGACTGGTTTGGGGACTGGAGGGCTGGCAGCAGCCTGTCACCGTGCGAC
CGTGACCACCTGGC**ATG**GGCTTCGTGGCCTGCTCTCAGGAAGTGGGTCAAGCCCTGGGAACCCTCATCCATGAGA
GCTCGATCCCGTATGAAGGGTGCTGCCGCCCGTGCCATCTGGCCCGGGGG**TGA**CTTTTTGAACTGTTTATTATAT
GGTGGATGATGATTTCATCTCACGTGCTGGACGCTGTTCTGTTCAGTGTGCTCTTTGGACTACATTAGTCCCCTG
TGGAGCAGCAGGGCTGGAGATCTCTGCAGTCCCTTCCCCGCCCGCCCTGCCAGAAGGCCGAGGAGGCACGTGGAG
GGCCTCCTTCCTGCAATTCTTCCCTCTCCAGAGTCAGGGAGGGCTGCCCAGCCCTGGCCTCACAGCCGTCCCAGA

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FIGURE 1333B

TGTTAGGTGAGCCACTGAGCTCTGTGTTGACCTTGAGGGGCCTGGCTGGGGGCCCCCAGGCTCCATGCCTTCTTG
GGAGGGTGGCCGCCAACGCCTTTCCTGTGTTATGGCAACAGGGAGTGGGCATCTCATCTGCCTGTGGTCAGCTCT
CAGACGGCAGGGAGCGGAGCTGACGTTGGCTGTGCTTGGTCACCGCTGCCATGCCGCAGAGGATGCGCCTAGCTG
GGCTGGGGCCACACGACTATTATGTTGGCCTTGAACGGGGACTGCAGAGCCCTCAGTTTGTCTCCCTTGTTCCTC
TGTGGCTGAGGTGGGAGGGGGAGGGTGGGGTAGGTCCCCCAGCAAGAAAGAGGGACAGGAGCACCCCAGGCAGGA
CCAAGGAGTCGGGAGGCCCCTGCCTTCTGTCCTCCATGGTGAGGGCACAGATGTCTCCCCAGAGCCCAGCGCTGG
CAGAATGGATTCTGCTCCTGGCTTTGCTTCTGCGGCTTCGGTGGAGACAGTTATGGAATAAAATGTTCCTTGC

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FIGURE 1334

GAGGAGCGCCCCGGTCGGGAGGAGATCCTGGAGTGCCAGGTG**ATG**TGGGAGCCTGACAGTAAGAAGAACACGCAG
ATGGACCGCTTCCGGGCGGCTGTGGGCGCCGCCTGCGGCCTGGCGCTGGAGAGTTATGATGACTTGTACCATTGG
TCCGTTGAGTCATATTCAGACTTCTGGGCAGAGTTCTGGAAATTCAGTGGAATTGTCTTCTCACGTGTGTATGAT
GAGGTTGTGGACACATCGAAAGGAATCGCAGATGTCCCCGAGTGGTTCAAAGGCAGTCGGCTCAACTATGCAGAA
AACCTCCTGCGGCACAAAGAGAATGACAGAGTTGCCCTTTACATTGCAAGGGAAGGCAAAGAGGAAATTGTGAAG
GTGACTTTTGAAGAGCTGAGGCAAGAAGTGGCTTTGTTTGCAGCAGCAATGAGGAAAATGGGTGTGAAGAAAGGA
GATCGGGTTGTTGGTTATTTACCCAACAGTGAGCACGCTGTCGAGGCGATGCTGGCTGCGGCAAGCATTGGTGCC
ATCTGGAGCTCCACGTCCCCGGACTTCGGTGTGAATGGTGTGCTGGACCGGTTTTCTCAAATTCAGCCAAAGCTC
ATCTTCTCTGTGGAGGCTGTTGTCTATAATGGCAAAGAGCACAACCACATGGAAAAGCTGCAGCAGGTGGTTAAA
GGCCTACCAGACTTGAAGAAAGTGGTGGTGATTCCTTATGTGTCCTCCAGAGAGAACATAGACCTTTCAAAGATT
CCAAACAGTGTGTTTCTGGATGACTTTCTTGCCACCGGCACCAGTGAGCAGGCCCCGCAGCTGGAGTTCGAGCAG
CTGCCCTTCAGCCACCCACTGTTCATCATGTTCTCATCGGGCACCACGGGCGCACCCAAGTGCATGGTGCATTCC
GCTGGGGGCACCCTCATCCAGCATCTGAAGGAGCACCTGCTGCACGGCAACATGACCAGCAGTGACATCCTCCTG
TGCTACACCACGGTCGGCTGGATGATGTGGAACTGGATGGTGTCCCTTCTGGCCACAGGAGCGGCCATGGTCTTG
TACGATGGCTCCCCCCTGGTGCCCACGCCCAATGTGCTCTGGGACCTGGTTGACAGGATAGGCATCACTGTCCTG
GTAACTGGGGCCAAGTGGCTGTCAGTGCTGGAAGAGAAGGCCATGAAGCCGGTGGAAACCCACAGTCTCCAGATG
CTCCACACGATCCTGTCCACTGGCTCCCCACTGAAAGCCCAGAGCTACGAGTATGTCTACAGGTGCATCAAGAGC
AGCATCCTCCTGGGCTCCATCTCAGGAGGCACCGACATCATCTCCTGCTTCATGGGCCACAATTTTTCTCTTCCT
GTGTATAAAGGGGAGATTCAGGCCCGGAACCTGGGCATGGCCGTGGAAGCGTGGAACGAGGAAGGAAAGGCGGTC
TGGGGAGAGAGCGGCGAGCTGGTGTGTACTAAGCCGATCCCTTGCCAGCCCACACACTTCTGGAACGATGAGAAC
GGCAACAAGTACAGGAAGGCGTATTTCTCCAAATTCCCAGGTATCTGGGCTCATGGCGACTACTGCAGAATCAAC
CCCAAGACCGGGGGCATCGTCATGCTTGGCCGGAGTGACGGCACCCTCAACCCCAACGGGGTGCGGTTCGGCAGC
TCGGAAATCTATAACATTGTGGAATCCTTCGAGGAGGTGGAGGACAGCCTGTGTGTCCCCCAGTATAACAAGTAC
AGGGAGGAGAGGGTGATCCTCTTCCTGAAGATGGCCTCCGGGCACGCCTTCCAGCCTGACTTGGTTAAGAGGATC
CGTGACGCCATCCGCATGGGCTTGTCTGCGCGACACGTGCCCAGCCTCATCCTGGAAACCAAGGGCATCCCGTAT
ACGCTCAACGGCAAGAAAGTGGAAGTTGCCGTCAAACAGATCATCGCTGGAAAAGCCGTGGAGCAAGGAGGTGCT
TTCTCGAACCCCGAGACCCTGGATCTGTACCGGGACATCCCTGAGCTGCAGGGCTTC**TGA**GTCAGACTGGCTGGC
GTGTCACTCAGCCGCACCCGTGTGCACTGTAACTTTTGTGTGCTCAAGAAATTATACAGAAACCTACAGCTGTTG
TAAAAGGATGCTCGCACCAAGTGTTCTGTAGGCTTGGGGAGGGATCGTTTCTCTGTTTTGTTAAATCTGGTGGGT
ACCTGGATCTTCCACACGAGTGGGATTCTGGCCTTCAGAGACCAGGAGGGAGTGTCTGGGCCGCAGGTGTGGCAC
TGTGGTGAGAGTGTGTGTCTTTGCACACACAGTGCAGCGGGAACGGTGGGGCTGGCTGGTGCTGAAGACAGACAC
ACTCCTGAGCCAAGGTCTTGTCTTCAACCTCCCCGTCCCGTTGTCCCATTTTGCTCTGTGAAGGTGCAAATCCCT
TTCTTCCCTTCCCATCTCAGGCTCTCCTGTTTTCCCTCAGGGTCCAGTATGCCTTTGAGCTTTAGCTGTTAGAAA
GGAACCCCCGTGACTTGACACAGCTTTCACAGCTGGCTGCTAGGACCGGCGGGCTGGGTGTTCACGTGTGTCTGT
GTCATGGATGCAATGCAGGCCCTGGAGGACTGTGCGTCACCCGTCAACCAGAGCGTGCCTCCGGGCCAGCTTCCC
TCCAAGGAATGAGTGGATTTCATACAGGATCTCTTTATTGCACAGACTGAATGGCTTTACATGTTTCTAATGTGA
ATTAGGCATGTGAAGCAGTGGGTGTCCACCCGTGTCCCTCATGGGTGAGCCCTCCAGCTGTGAGCCCAGGCAGTG
TGGTCACCGAGTGAGGACCCTCCTCACCAGGAACCGCATCCCTGTGCTGCCTCCACCTGAGAGTTGCTAGGGGGT
TCTTGTCGAGATCATGTCATCAGCACCCCTAAGTCAAGTCACGGGTTTCCATAGCCAGGCAGTTGGTATGTACAA
TTCAGTTCAGCGTATGAACTTGTATCTCTAATCTGATGTCCATTTTTATATTTTTTGAAACTGAGCACAATGAAA
TCCTTTCTTGAATCATTTTCCTTTTGGATTATAAAAATATGGGGGAAAGTGCTATGATGAATTTTATGCAATAAA
TGTATACATGTGTGCACATGC

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FIGURE 1335

AGTTCCGTCGCAGCCGGGATTTGGGTCGCGGTTCTTGTTTGTGGATCGCTGTGATCGTCACTTGGTGAGTAGCGG
GCTGCTGGGCTGGCCGGGGCTTTCGTGGCCGCCGGGCCGCTCGGTGGGACGGAAGCGTGTGGAGAGACCGCCAAG
GGCTGTAGTCTGGGTCCGCGAGCAAGGTTGCCCTGAACTGGGGGTTGGGGGGAGCGCAGCAAAATGGCGGCTGTT
CCCGAGTCTTGAATGGAAGACGCTTGTGAGGCGGGCTGTGAGGTCGTTGAAACAAGGTGGGGGGCATGGTGGGCG
GCAAGAACCCAAGGTCTTGAGGCCTTCGCTAATGCGGGAAAGCTCTTATTCGGGTGAGATGGGCTGGGGCACCAT
CTGGGGACCCTGACGTGAAGTTTGTCACTGACTGGAGAACTCGGTTTGTCGTCTGTTGCGGGGGCGGCAGTTATG
GCGGTGCCGTTGGGCAGTGCACCCGTACCTTTGGGAGCGCGCGCCCTCGTCGTGTCGTGACGTCACCCGTTCTGT
TGGCTTATAATGCAGGGTGGGGCCACCTGCCGGTAGGTGTGCGGTAGGCTTTTCTCCGTCGCAGGACGCAGGGTT
CGGGCCTAGGGTAGGCTCTCCTGAATCGACAGGCGCCGGACCTCTGGTGAGGGGAGGGATAAGTGAGGCGTCAGT
TTCTTTGGTCGGTTTTATGTACCTATCTTCTTAAGTAGCTGAAGCTCCGGTTTTGAACTATGCGCTCGGGGTTGG
CGAGTGTGTTTTGTGAAGTTTTTTAGGCACCTTTTGAAATGTAATCATTTGGGTCAATATGTAATTTTCAGTGTT
AGACTAGTAAATTGTCCGCTAAATTCTGGCCGTTTTTGGCTTTTTTGTTAGACA**ATG**CAGATCTTCGTGAAGACT
CTGACTGGTAAGACCATCACCCTCGAGGTTGAGCCCAGTGACACCATCGAGAATGTCAAGGCAAAGATCCAAGAT
AAGGAAGGCATCCCTCCTGACCAGCAGAGGCTGATCTTTGCTGGAAAACAGCTGGAAGATGGGCGCACCCTGTCT
GACTACAACATCCAGAAAGAGTCCACCCTGCACCTGGTGCTCCGTCTCAGAGGTGGGATGCAAATCTTCGTGAAG
ACACTCACTGGCAAGACCATCACCCTTGAGGTGGAGCCCAGTGACACCATCGAGAACGTCAAAGCAAAGATCCAG
GACAAGGAAGGCATTCCTCCTGACCAGCAGAGGTTGATCTTTGCCGGAAAGCAGCTGGAAGATGGGCGCACCCTG
TCTGACTACAACATCCAGAAAGAGTCTACCCTGCACCTGGTGCTCCGTCTCAGAGGTGGGATGCAGATCTTCGTG
AAGACCCTGACTGGTAAGACCATCACCCTCGAGGTGGAGCCCAGTGACACCATCGAGAATGTCAAGGCAAAGATC
CAAGATAAGGAAGGCATTCCTCCTGATCAGCAGAGGTTGATCTTTGCCGGAAAACAGCTGGAAGATGGTCGTACC
CTGTCTGACTACAACATCCAGAAAGAGTCCACCTTGCACCTGGTACTCCGTCTCAGAGGTGGGATGCAAATCTTC
GTGAAGACACTCACTGGCAAGACCATCACCCTTGAGGTCGAGCCCAGTGACACTATCGAGAACGTCAAAGCAAAG
ATCCAAGACAAGGAAGGCATTCCTCCTGACCAGCAGAGGTTGATCTTTGCCGGAAAGCAGCTGGAAGATGGGCGC
ACCCTGTCTGACTACAACATCCAGAAAGAGTCTACCCTGCACCTGGTGCTCCGTCTCAGAGGTGGGATGCAGATC
TTCGTGAAGACCCTGACTGGTAAGACCATCACCCTCGAAGTGGAGCCGAGTGACACCATTGAGAATGTCAAGGCA
AAGATCCAAGACAAGGAAGGCATCCCTCCTGACCAGCAGAGGTTGATCTTTGCCGGAAAACAGCTGGAAGATGGT
CGTACCCTGTCTGACTACAACATCCAGAAAGAGTCCACCTTGCACCTGGTGCTCCGTCTCAGAGGTGGGATGCAG
ATCTTCGTGAAGACCCTGACTGGTAAGACCATCACTCTCGAGGTGGAGCCGAGTGACACCATTGAGAATGTCAAG
GCAAAGATCCAAGACAAGGAAGGCATCCCTCCTGATCAGCAGAGGTTGATCTTTGCTGGGAAACAGCTGGAAGAT
GGACGCACCCTGTCTGACTACAACATCCAGAAAGAGTCCACCCTGCACCTGGTGCTCCGTCTTAGAGGTGGGATG
CAGATCTTCGTGAAGACCCTGACTGGTAAGACCATCACTCTCGAAGTGGAGCCGAGTGACACCATTGAGAATGTC
AAGGCAAAGATCCAAGACAAGGAAGGCATCCCTCCTGACCAGCAGAGGTTGATCTTTGCTGGGAAACAGCTGGAA
GATGGACGCACCCTGTCTGACTACAACATCCAGAAAGAGTCCACCCTGCACCTGGTGCTCCGTCTTAGAGGTGGG
ATGCAGATCTTCGTGAAGACCCTGACTGGTAAGACCATCACTCTCGAAGTGGAGCCGAGTGACACCATTGAGAAT
GTCAAGGCAAAGATCCAAGACAAGGAAGGCATCCCTCCTGACCAGCAGAGGTTGATCTTTGCTGGGAAACAGCTG
GAAGATGGACGCACCCTGTCTGACTACAACATCCAGAAAGAGTCCACCCTGCACCTGGTGCTCCGTCTCAGAGGT
GGGATGCAGATCTTCGTGAAGACCCTGACTGGTAAGACCATCACCCTCGAGGTGGAGCCCAGTGACACCATCGAG
AATGTCAAGGCAAAGATCCAAGATAAGGAAGGCATCCCTCCTGATCAGCAGAGGTTGATCTTTGCTGGGAAACAG
CTGGAAGATGGACGCACCCTGTCTGACTACAACATCCAGAAAGAGTCCACTCTGCACTTGGTCCTGCGCTTGAGG
GGGGGTGTC**TAA**GTTTCCCCTTTTAAGGTTTCAACAAATTTCATTGCACTTTCCTTTCAATAAAGTTGTTGCATT
CCCAATTGGTGTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAGTTTATTTTGCATT

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FIGURE 1336

ACACAGTGGAGAAGCCCTATAAATGTTACGAGTGTGGCAAAGCCTTCAATTGGAGCTCCCATCTTCAAATTCATA
TGAGAGTTCATACAGGTGAGAAACCGTATGTCTGTAGTGAGTGTGGAAGGGGCTTTAGTAATAGTTCAAACCTTT
GCATGCATCAGAGAGTCCACACCGGAGAGAAGCCCTTTAAATGTGAAGAGTGTGGGAAGGCCTTCAGGCACACCT
CCAGCCTCTGCATGCATCAAAGAGTCCACACAGGAGAGAAACCCTATAAATGTTATGAGTGTGGGAAGGCGTTCA
GTCAGAGTTCGAGCCTCTGCATCCACCAGAGAGTCCACACTGGAGAGAAACCCTATAGATGTTGTGGATGTGGGA
AGGCCTTCAGTCAGAGTTCGAGCCTGTGCATCCACCAGAGAGTCCACACAGGAGAGAAACCTTTCAAATGTGATG
AGTGCGGAAAGGCCTTCAGTCAGAGTACGAGCCTCTGCATCCACCAGAGAGTCCACACAAAGGAGAGAAACCATC
TCAAAATATCAGTTATATAAAACGTTTTGCTAAGAGTTTAAAATCTTAAAACCCATAAGTGCCACTAGGAAGGAA
ACCCTGTATATACCTACATTGACCCAAGAAATATTTACGCAATCCCTAGCAGAACATTGTTTCTGAGGAGGCATA
TGTGAGATTGATTTGTTGGTTCATGCCAAGTGTGTTCCACAGGTTGACTTTGAATGTGGACCTCTGAGCATCCAC
GCAGGATGGCTCTCAGGTCCCAGTCACAGACGTCGCTTCCTGGGATTCCAGCACGATGCCTCCATAGTTGAAAGA
CTACACAAAAAGCCACAATCATTGCCCGGCCTCCTGAGTCACCTTCTATCTATACTTTGCTTAAAAGCTATCCCA
GATACTCCCCCTTGAGGAGCTCATGCCCTTCCTTCCTCTTTATTCGAGCATACTGGCAATGCATTGGAAAACAGA
CAGCTCCCACTAAGATCACGTTCTGGTATTTCTGAGGTTAACACTTGATTTAGCCCCTACATATCTTTCCATATA
TCCTATTATTTCTGAATATATGTCCTCAAAATCCCCATAAATATCCATCCCTTCCTAGATGGCATTAACTTTCAT
TTTAGATTTTAGGTGACTCATAATTCCCATTCACTTAGCCTATCAGAAAAGTCATTGGCAGACATATATGTCCTT
GAACCTTTTTTATTTGTGTGGATTCTGCTCATCACTGTCTCTGTTAGACTTATTTTGTAGTGGCTGCATCACATA
TTTTTCACTTGAATTTTTTTGGAAATAGCTGAATGTAAATAGCAGGGAGGAAGAAGCAAGCAAAGTGAGAGCTTT
TCTTCATCCAGAATTGCCCTCTGGGCTCCTTTGGTAACAGATGGAGCTCCTTCCTAGCTAGGGAGACCTTATGAG
AAGTGGATGGTAGGAGGAGTCACTAATGTTTCAATCTCTATTTCTGTAATCTTGGGCAATAATGCATAGGAGTTC
TTGATACCCCTTCATTGATTACTGTGTATCAGTTCTTTGTTAGGCATGAACGTCTTTATTAATCCATCATTCTTT
TCTTCATTCAACAAATATGTATTGAACACCTCCTATATGCCAGGCACTGTGCTAGGTGCTGGGAATACCACTGAT
GAGACAGACAAGGTCCCTACTCTTGTGGAGTTTACTTCTGGTGGAGGAGACAGATGATAAGTAAACAAATAAATA
ATGTAGTTTGAGATAGTGATTAAGTGCTATGAAGAAAATAAACTAGGGTGATGATTTTAGTGGTGGGGTGGGGTG
GGGGTGGGGTGACATTAGCTAGTGGTCAGGGAGGCCTTTCCGCGGTGGGATGTTGAGCTGAGGCCGGAGGAGAAG
TAGCAGTCGCTGGCAGAGCACACAGGCTGCTCTGGGGGATGAGCTGGTGCGTTTAAGGAACAGGCCAGCACTGGC
ATTCGCAAGCAGTGGGGAAGGGGAGAGATGCCGAGGTGGTCAGTATCCTGACTTTCAGAGGCCTTTTTTTGTTTG
TTTTAATTTTTGCTAGATTGATATTAAAAACTCATGTGGAGGAACTCAAGGAATGTTTAGAAGACCAAAAGTCCC
CAATGACAGGAACAAAAGCAACCAATTTTTAACTTTCTCTTCTCATTCCTGTTTTCATTGATTTCCCACATGTAG
TCCTTTTGCTCAGGAAGTCTTTGGGGAAATTAAGGATCTTTGAAGCTCTGAAATAGGTGATCAGGTTAGTGGTGT
CTGTCAGCTGTCTAAGAGGTTGGAAAATGAACTACTCAAGATAGTCACGAAAATACTGAAAGTTTGATTTTTCTT
TCCATATTTGAATTAATTTTTTCTGTTTGACTGGAAGGGGTTTTTGTATAACTAAAACCTCAGCGCATAAAGGAG
ATTTAAAAGGAGCACATGATTTAGTGGGTGGGCCATGAAACTAGAGATGGGATTTGGGGGTGAATTTGTCAATAT
CTGGATTTTAATCCAGACATCTCTGCTAACAAGCCTTTGGTAAGTCACTTCAGATACTTTTCCTCCTTTTTACAA
AGAGAGGGCTGGCTTAGTTATTTGCCAAAGCCCCTTCCAGGCCTGAATTCCACAAGTACGATTTACTGTAGTGTC
TTATCACTCTTTCATGTCACAATAGCGTGGAGCATTAGAGAAAAGCCTAGACTTTTAGTTGATAGCCAGTTGAAA
TATCATTGATAGAATTTTAGTTTTAGGAAAAATTGGTTTGATTTCTAGCTTTATTACTATTAGGTATGTGAGCTT
GGGCAAATCGCTTAATCTTTGAGTCTAGTTTTCTCTCAAAATGAGAACATTAGGCTAAATGATTTCCGAGTTTCC
AGCTAGTCCTAGAGTTCTATATTTCTACATAGTTGAATTATTTTATCATGCTGTTGCTGGGGAATATGACTAACC
CTTTTGAAGCTACTAATTTTATGTCGAGCTTTAAAGTCCATAATTGTTATCTTCAGAAAATATTATTTGACCTAC
AGTATGTCCAAATCAATTTAATAAAATCGCTTTATAACAGG

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FIGURE 1337

AAATCCCCCGGCGTCGGAGATGAGGCCCCGGATGCTGCCAGTGTTCTTTGGGGAGAGCATCAAGGTGAACCCGGA
ACCCACGCATGAGATCCGCTGCAACTCTGAGGTCAAGTACGCCTCGGAGAAGCATTTCCAGGACAAGGTCTTCTA
TGCGCCCGTACCCACCGTCACGGCCTACAGCGAGACCATCGTGGCAGCACCCAACTGCACGTGGCGCAACTACCG
CAGCCAGCTGACCCTGGAGCCACGCCCGCGCGCCCTGCGCTTCCGCAGCACCACCATCATCTTCCCCAAGCATGC
CAGGAGCACTTTCCGGACCACCCTGCACTGCAGCCTGGGCCGGCCCAGCCGCTGGTTCACCGCCAGCGTGCAGCT
GCAGCTTTGCCAGGACCCTGCCCCCAGCCTCCTGGGCCCTGCCACGCTCTGACGGGGCTGGGGCCGGCCCGGGGT
GCTGGAGGAGCCGGGAGCCCTGGGGAGAAGCCGGGAGGATGGACACGATGAGCTCGGCCTGGCACTCGGGCAGGA
GGCGGGAAGGGAGGCTGCCAGACCAAGGACCCGTGTGGAAGGAGGCGGCTCCCCGCTGCCTGCCCTGACCTACAG
GCTAGGTGGTGGTCTCCTTGTTTTGGTGTCAAGGACTCAGTAAAAGCATCTATTTTTTTAGCACTTAAGCTGGCA
AGGCGGTAGGGGCATGCACTGTTAGGTGGTGGCCACCCCCAGGGTCAGGGGAAAAGAATGGGTCCATGGAGTGCC
CTTGAAGCAGAGAACAGCCCCGAGCAGTGTGAGGACAGAGGCATCCCAGCCTCAGCCGGTGGGGACGGCTGCCAC
TCCCCCAGAGCCCTGCCACCCCATGTGTCCTAGGCTGGTGGCCAAGGCCATGTGTGAGGGAAGAGGGGTACCTCT
CTTCCCTGCTGCTGGCCTGGGGTATTTCCAAAACAGCCTTTTCGCACACATGCAGGTTGCACCGAGAGGTCTGGA
GCTGTGGCTGAGCCACCTCTGGCGGATGTTGAGCCAGGAGGTTGGGCAAAGGCCGGATGCTGATGCCAGCGCTGG
AGGTGGTGATACTGGGGGCGGGGAAGGCCTAGAAATACTTTGAGCCATGGCCTTGCCAGTGTCCCGTGCCCTCCA
GTGTCAAAGATTTGGGGCACTGCCCGTCGAAATGGAAAGGTTGGTGCTCAGCCTCTGGAGCCTCACCTGCAGGGC
GTCCCCAGCTAACACCCATCCACGCACCACCTCCAGGACGAGAACCCTTGATGTCAAAACCAAGTGCCCAGTGGA
GGCGGTGAAGCTCTCGGAAATGCTGCCACCTGTGTGAGGCCGGGTCTGAACTCGAGGGAGTCGGAGCTCAGCTGT
CGGTTTAAAGAGACACTGAGGGGACCGGGCTGCCGCCCTCAGCCTGCATTCCTGTGCGCAATCGATTCCGCAATG
ACAGCACCTTACTCCTTCCTGCGGCAGGCTCACCCCTGCCTGTGGGATGTTGTGAGAGGAACATGAGCCAGACAA
AGACTTGGCTCAGGGCTCCGTGGAACAAGCCAGGATGCACGGGGAGCTGGGGGAGCCCCCAGCCTGGGGCAGCCC
AGCAGGCCGCTGAACAAACACCCCAGAAGCCAGCACTGTGGCAGGGTGCTGGGGAGATGCCCCTCTGAGCCTTCC
TCCCCCCTCAGACCTGAATGCACTCCACAGTTGGGGGCTGCCCCTGCCACTCCCCTGGTAATGCATAAAAGGGGA
GGGGAAGGTTCCCTGGGGCTTGAGCTCCCTCTGTGGAGGTGAGGAGGGGAGATTCCGTTCACATCCAGGAGGGGC
AAAATGACTGATGTATTTTTATGTATCTACACAGAGAGTGCATTTTCTCTCCAGAGATGCTGTCTGGTTAACAAA
GGAATAACTTAAGAAATTGATTGATTATCTTAATAAACTGTGCAAACCC

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FIGURE 1338A

CATGTCGGGATCCACACAGCCTGTGGCACAGACGTGGAGGGCCACTGAGCCCCGCTACCCGCCCCACAGCCTTTC
CTACCCAGTGCAGATCGCCCGGACGCACACGGACGTCGGGCTCCTGGAGTACCAGCACCACTCCCGCGACTATGC
CTCCCACCTGTCGCCCGGCTCCATCATCCAGCCCCAGCGGCGGAGGCCCTCCCTGCTGTCTGAGTTCCAGCCCGG
GAATGAACGGTCCCAGGAGCTCCACCTGCGGCCAGAGTCCCACTCATACCTGCCCGAGCTGGGGAAGTCAGAGAT
GGAGTTCATTGAAAGCAAGCGCCCTCGGCTAGAGCTGCTGCCTGACCCCCTGCTGCGACCGTCACCCCTGCTGGC
CACGGGCCAGCCTGCGGGATCTGAAGACCTCACCAAGGACCGTAGCCTGACGGGCAAGCTGGAACCGGTGTCTCC
CCCCAGCCCCCCGCACACTGACCCTGAGCTGGAGCTGGTGCCGCCACGGCTGTCCAAGGAGGAGCTGATCCAGAA
CATGGACCGCGTGGACCGAGAGATCACCATGGTAGAGCAGCAGATCTCTAAGCTGAAGAAGAAGCAGCAACAGCT
GGAGGAGGAGGCTGCCAAGCCGCCCGAGCCTGAGAAGCCCGTGTCACCGCCGCCCATCGAGTCGAAGCACCGCAG
CCTGGTGCAGATCATCTACGACGAGAACCGGAAGAAGGCTGAAGCTGCACATCGGATTCTGGAAGGCCTGGGGCC
CCAGGTGGAGCTGCCGCTGTACAACCAGCCCTCCGACACCCGGCAGTATCATGAGAACATCAAAATAAACCAGGC
GATGCGGAAGAAGCTAATCTTGTACTTCAAGAGGAGGAATCACGCTCGGAAACAATGGGAGCAGAAGTTCTGCCA
GCGCTATGACCAGCTCATGGAGGCCTGGGAGAAGAAGGTGGAGCGCATCGAGAACAACCCCCGGCGGCGGGCCAA
GGAGAGCAAGGTGCGCGAGTACTACGAGAAGCAGTTCCCTGAGATCCGCAAGCAGCGCGAGCTGCAGGAGCGCAT
GCAGAGCAGGGTGGGCCAGCGGGGCAGTGGGCTGTCCATGTCGGCCGCCCGCAGCGAGCACGAGGTGTCAGAGAT
CATCGATGGCCTCTCAGAGCAGGAGAACCTGGAGAAGCAGATGCGCCAGCTGGCCGTGATCCCGCCCATGCTGTA
CGACGCTGACCAGCAGCGCATCAAGTTCATCAACATGAACGGGCTTATGGCCGACCCCATGAAGGTGTACAAAGA
CCGCCAGGTCATGAACATGTGGAGTGAGCAGGAGAAGGAGACCTTCCGGGAGAAGTTCATGCAGCATCCCAAGAA
CTTTGGCCTGATCGCATCATTCCTGGAGAGGAAGACAGTGGCTGAGTGCGTCCTCTATTACTACCTGACTAAGAA
GAATGAGAACTATAAGAGCCTGGTGAGACGGAGCTATCGGCGCCGCGGCAAGAGCCAGCAGCAGCAACAACAGCA
GCAGCAGCAGCAGCAGCAGCAGCAGCAGCCCATGCCCCGCAGCAGCCAGGAGGAGAAAGATGAGAAGGAGAA
GGAAAAGGAGGCGGAGAAGGAGGAGGAGAAGCCGGAGGTGGAGAACGACAAGGAAGACCTCCTCAAGGAGAAGAC
AGACGACACCTCAGGGGAGGACAACGACGAGAAGGAGGCTGTGGCCTCCAAAGGCCGCAAAACTGCCAACAGCCA
GGGAAGACGCAAAGGCCGCATCACCCGCTCAATGGCTAATGAGGCCAACAGCGAGGAGGCCATCACCCCCCAGCA
GAGCGCCGAGCTGGCCTCCATGGAGCTGAATGAGAGTTCTCGCTGGACAGAAGAAGAAATGGAAACAGCCAAGAA
AGGTCTCCTGGAACACGGCCGCAACTGGTCGGCCATCGCCCGGATGGTGGGCTCCAAGACTGTGTCGCAGTGTAA
GAACTTCTACTTCAACTACAAGAAGAGGCAGAACCTCGATGAGATCTTGCAGCAGCACAAGCTGAAGATGGAGAA
GGAGAGGAACGCGCGGAGGAAGAAGAAGAAAGCGCCGGCGGCGGCCAGCGAGGAGGCTGCATTCCCGCCCGTGGT
GGAGGATGAGGAGATGGAGGCGTCGGGCGTGAGCGGAAATGAGGAGGAGATGGTGGAGGAGGCTGAAGCCTTACA
TGCCTCTGGGAATGAGGTGCCCAGAGGGGAATGCAGTGGCCCAGCCACTGTCAACAACAGCTCAGACACCGAGAG
CATCCCCTCTCCTCACACTGAGGCCGCCAAGGACACAGGGCAGAATGGGCCCAAGCCCCCAGCCACCCTGGGCGC
CGACGGGCCACCCCCAGGGCCACCCACCCCACCACCGGAGGACATCCCGGCCCCCACTGAGCCCACCCCGGCCTC
TGAAGCCACCGGAGCCCCTACGCCCCCACCAGCACCCCCATCGCCCTCTGCACCTCCTCCTGTGGTCCCCAAGGA
GGAGAAGGAGGAGGAGACCGCAGCAGCGCCCCCAGTGGAGGAGGGGGAGGAGCAGAAGCCCCCCGCGGCTGAGGA
GCTGGCAGTGGACACAGGGAAGGCCGAGGAGCCCGTCAAGAGCGAGTGCACGGAGGAAGCCGAGGAGGGGCCGGC
CAAGGGCAAGGACGCGGAGGCCGCTGAGGCCACGGCCGAGGGGGCGCTCAAGGCAGAGAAGAAGGAGGGCGGGAG
CGGCAGGGCCACCACAGCCAAGAGCTCGGGCGCCCCCCAGGACAGCGACTCCAGTGCTACCTGCAGTGCAGACGA
GGTGGATGAGGCCGAGGGCGGCGACAAGAACCGGCTGCTGTCCCCAAGGCCCAGCCTCCTCACCCCGACTGGCGA
CCCCCGGGCCAATGCCTCACCCCAGAAGCCACTGGACCTGAAGCAGCTGAAGCAGCGAGCGGCTGCCATCCCCCC
CATCCAGGTCACCAAAGTCCATGAGCCCCCCCGGGAGGACGCAGCTCCCACCAAGCCAGCTCCCCCAGCCCCACC
GCCACCGCAAAACCTGCAGCCGGAGAGCGACGCCCCTCAGCAGCCTGGCAGCAGCCCCCGGGGCAAGAGCAGGAG
CCCGGCACCCCCCGCCGACAAGGAGGCCTTCGCAGCCGAGGCCCAGAAGCTGCCTGGGGACCCCCCTTGCTGGAC
TTCCGGCCTGCCCTTCCCCGTGCCCCCCCGTGAGGTGATCAAGGCCTCCCCGCATGCCCCGGACCCCTCAGCCTT
CTCCTACGCTCCACCTGGTCACCCACTGCCCCTGGGCCTCCATGACACTGCCCGGCCCGTCCTGCCGCGCCCACC
CACCATCTCCAACCCGCCTCCCCTCATCTCCTCTGCCAAGCACCCCAGCGTCCTCGAGAGGCAAATAGGTGCCAT
CTCCCAAGGAATGTCGGTCCAGCTCCACGTCCCGTACTCAGAGCATGCCAAGGCCCCGGTGGGCCCTGTCACCAT
GGGGCTGCCCCTGCCCATGGACCCCAAAAAGCTGGCACCCTTCAGCGGAGTGAAGCAGGAGCAGCTGTCCCCACG
GGGCCAGGCTGGGCCACCGGAGAGCCTGGGGGTGCCCACAGCCCAGGAGGCGTCCGTGCTGAGAGGGACAGCTCT

FIGURE 1338B

GGGCTCAGTTCCGGGCGGAAGCATCACCAAAGGCATTCCCAGCACACGGGTGCCCTCGGACAGCGCCATCACATA
CCGCGGCTCCATCACCCACGGCACGCCAGCTGACGTCCTGTACAAGGGCACCATCACCAGGATCATCGGCGAGGA
CAGCCCGAGTCGCTTGGACCGCGGCCGGGAGGACAGCCTGCCCAAGGGCCACGTCATCTACGAAGGCAAGAAGGG
CCACGTCTTGTCCTATGAGGGTGGCATGTCTGTGACCCAGTGCTCCAAGGAGGACGGCAGAAGCAGCTCAGGACC
CCCCCATGAGACGGCCGCCCCCAAGCGCACCTATGACATGATGGAGGGCCGCGTGGGCAGAGCCATCTCCTCAGC
CAGCATCGAAGGTCTCATGGGCCGTGCCATCCCGCCGGAGCGACACAGCCCCCACCACCTCAAAGAGCAGCACCA
CATCCGCGGGTCCATCACACAAGGGATCCCTCGGTCCTACGTGGAGGCACAGGAGGACTACCTGCGTCGGGAGGC
CAAGCTCCTAAAGCGGGAGGGCACGCCTCCGCCCCCACCGCCCTCACGGGACCTGACCGAGGCCTACAAGACGCA
GGCCCTGGGCCCCCTGAAGCTGAAGCCGGCCCATGAGGGCCTGGTGGCCACGGTGAAGGAGGCGGGCCGCTCCAT
CCATGAGATCCCGCGCGAGGAGCTGCGGCACACGCCCGAGCTGCCCCTGGCCCCGCGGCCGCTCAAGGAGGGCTC
CATCACGCAGGGCACCCCGCTCAAGTACGACACCGGCGCGTCCACCACTGGCTCCAAAAAGCACGACGTACGCTC
CCTCATCGGCAGCCCCGGCCGGACGTTCCCACCCGTGCACCCGCTGGATGTGATGGCCGACGCCCGGGCACTGGA
ACGTGCCTGCTACGAGGAGAGCCTGAAGAGCCGGCCAGGGACCGCCAGCAGCTCGGGGGGCTCCATTGCGCGCGG
CGCCCCGGTCATTGTGCCTGAGCTGGGTAAGCCGCGGCAGAGCCCCCTGACCTATGAGGACCACGGGGCACCCTT
TGCCGGCCACCTCCCACGAGGTTCGCCCGTGACCACGCGGGAGCCCACGCCGCGCCTGCAGGAGGGCAGCCTTTC
GTCCAGCAAGGCATCCCAGGACCGAAAGCTGACGTCGACGCCTCGTGAGATCGCCAAGTCCCCGCACAGCACCGT
GCCCGAGCACCACCCACACCCCATCTCGCCCTATGAGCACCTGCTTCGGGGCGTGAGTGGCGTGGACCTGTATCG
CAGCCACATCCCCCTGGCCTTCGACCCCACCTCCATACCCCGCGGCATCCCTCTGGACGCAGCCGCTGCCTACTA
CCTGCCCCGACACCTGGCCCCCAACCCCACCTACCCGCACCTGTACCCACCCTACCTCATCCGCGGCTACCCCGA
CACGGCGGCGCTGGAGAACCGGCAGACCATCATCAATGACTACATCACCTCGCAGCAGATGCACCACAACGCGGC
CACCGCCATGGCCCAGCGAGCTGATATGCTGAGGGGCCTCTCGCCCCGCGAGTCCTCGCTGGCACTCAACTACGC
TGCGGGTCCCCGAGGCATCATCGACCTGTCCCAAGTGCCACACCTGCCTGTGCTCGTGCCCCCGACACCAGGCAC
CCCAGCCACCGCCATGGACCGCCTTGCCTACCTCCCCACCGCGCCCCAGCCCTTCAGCAGCCGCCACAGCAGCTC
CCCACTCTCCCCAGGAGGTCCAACACACTTGACAAAACCAACCACCACGTCCTCGTCCGAGCGGGAGCGAGACCG
GGATCGAGAGCGGGACCGGGATCGGGAGCGGGAAAAGTCCATCCTCACGTCCACCACGACGGTGGAGCACGCACC
CATCTGGAGACCTGGTACAGAGCAGAGCAGCGGCAGCAGCGGCGGGGGGTGGGGGCAGCAGCAGCCGCCCCGCCTC
CCACTCCCATGCCCACCAGCACTCGCCCATCTCCCCTCGGACCCAGGATGCCCTCCAGCAGAGACCCAGTGTGCT
TCACAACACAGGCATGAAGGGTATCATCACCGCTGTGGAGCCCAGCACGCCCACGGTCCTGAGGTCCACCTCCAC
CTCCTCACCCGTTCGCCCGGCTGCCACATTCCCACCTGCCACCCACTGCCCACTGGGCGGCACCCTCGATGGGGT
CTACCCTACCCTCATGGAGCCCGTCTTGCTGCCCAAGGAGGCCCCCCGGGTCGCCCGGCCAGAGCGGCCCCGAGC
AGACACCGGCCATGCCTTCCTCGCCAAGCCCCCAGCCCGCTCCGGGCTGGAGCCCGCCTCCTCCCCCAGCAAGGG
CTCGGAGCCCCGGCCCCTAGTGCCTCCTGTCTCTGGCCACGCCACCATCGCCCGCACCCCTGCGAAGAACCTCGC
ACCTCACCACGCCAGCCCGGACCCGCCGGCGCCACCTGCCTCGGCCTCGGACCCGCACCGGGAAAAGACTCAAAG
TAAACCCTTTTCCATCCAGGAACTGGAACTCCGTTCTCTGGGTTACCACGGCAGCAGCTACAGCCCCGAAGGGGT
GGAGCCCGTCAGCCCTGTGAGCTCACCCAGTCTGACCCACGACAAGGGGCTCCCCAAGCACCTGGAAGAGCTCGA
CAAGAGCCACCTGGAGGGGGAGCTGCGGCCCAAGCAGCCAGGCCCCGTGAAGCTTGGCGGGGAGGCCGCCCACCT
CCCACACCTGCGGCCGCTGCCTGAGAGCCAGCCCTCGTCCAGCCCGCTGCTCCAGACCGCCCCAGGGGTCAAAGG
TCACCAGCGGGTGGTCACCCTGGCCCAGCACATCAGTGAGGTCATCACACAGGACTACACCCGGCACCACCCACA
GCAGCTCAGCGCACCCCTGCCCGCCCCCCTCTACTCCTTCCCTGGGGCCAGCTGCCCCGTCCTGGACCTCCGCCG
CCCACCCAGTGACCTCTACCTCCCGCCCCCGGACCATGGTGCCCCGGCCCGTGGCTCCCCCCACAGCGAAGGGGG
CAAGAGGTCTCCAGAGCCAAACAAGACGTCGGTCTTGGGTGGTGGTGAGGACGGTATTGAACCTGTGTCCCCACC
GGAGGGCATGACGGAGCCAGGGCACTCCCGGAGTGCTGTGTACCCGCTGCTGTACCGGGATGGGGAACAGACGGA
GCCCAGCAGGATGGGCTCCAAGTCTCCAGGCAACACCAGCCAGCCGCCAGCCTTCTTCAGCAAGCTGACCGAGAG
CAACTCCGCCATGGTCAAGTCCAAGAAGCAAGAGATCAACAAGAAGCTGAACACCCACAACCGGAATGAGCCTGA
ATACAATATCAGCCAGCCTGGGACGGAGATCTTCAATATGCCCGCCATCACCGGAACAGGCCTTATGACCTATAG
AAGCCAGGCGGTGCAGGAACATGCCAGCACCAACATGGGGCTGGAGGCCATAATTAGAAAGGCACTCATGGGTAA
ATATGACCAGTGGGAAGAGTCCCCGCCGCTCAGCGCCAATGCTTTTAACCCTCTGAATGCCAGTGCCAGCCTGCC
CGCTGCTATGCCCATAACCGCTGCTGACGGACGGAGTGACCACACACTCACCTCGCCAGGTGGCGGCGGGAAGGC

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FIGURE 1338C

CAAGGTCTCTGGCAGACCCAGCAGCCGAAAAGCCAAGTCCCCGGCCCCGGGCCTGGCATCTGGGGACCGGCCACC
CTCTGTCTCCTCAGTGCACTCGGAGGGAGACTGCAACCGCCGGACGCCGCTCACCAACCGCGTGTGGGAGGACAG
GCCCTCGTCCGCAGGTTCCACGCCATTCCCCTACAACCCCCTGATCATGCGGCTGCAGGCGGGTGTCATGGCTTC
CCCACCCCCACCGGGCCTCCCCGCGGGCAGCGGGCCCCTCGCTGGCCCCCACCACGCCTGGGACGAGGAGCCCAA
GCCACTGCTCTGCTCGCAGTACGAGACACTCTCCGACAGCGAG**TGA**CTCAGAACAGGGCGGGGGGGGGGGCGGTG
TCAGGTCCCAGCGAGCCACAGGAACGGCCCTGCAGGAGCAGGGCGGCTGCCGACTCCCCCAACCAAGGAAGGAGC
CCCTGAGTCCGCCTGCGCCTCCATCCATCTGTCCGTCCAGAGCCGGCATCCTTGCCTGTCTAAAGCCTTAACTAA
GACTCCCGCCCCGGGCTGGCCCTGTGCAGACCTTACTCAGGGGATGTTTACCTGGTGCTCGGGAAGGGAGGGGAA
GGGGCCGGGGAGGGGGCACGGCAGGCGTGTGGCAGCCACACGCAGGCGGCCAGGGCGGCCAGGGACCCAAAGCAG
GATGACCACGCACCTCCACGCCACTGCCTCCCCCGAATGCATTTGGAACCAAAGTCTAAACTGAGCTCGCAGCCC
CCGCGCCCTCCCTCCGCCTCCCATCCCGCTTAGCGCTCTGGACAGATGGACGCAGGCCCTGTCCAGCCCCCAGTG
CGCTCGTTCCGGTCCCCACAGACTGCCCCAGCCAACGAGATTGCTGGAAACCAAGTCAGGCCAGGTGGGCGGACA
AAAGGGCCAGGTGCGGCCTGGGGGGAACGGATGCTCCGAGGACTGGACTGTTTTTTTCACACATCGTTGCCGCAG
CGGTGGGAAGGAAAGGCAGATGTAAATGATGTGTTGGTTTACAGGGTATATTTTTGATACCTTCAATGAATTAAT
TCAGATGTTTTACGCAAGGAAGGACTTACCCAGTATTACTGCTGCTGTGCTTTTGATCTCTGCTTACCGTTCAAG
AGGCGTGTGCAGGCCGACAGTCGGTGACCCCATCACTCGCAGGACCAAGGGGGCGGGGACTGCTGGCTCACGCCC
CGCTGTGTCCTCCCTCCCTCCCTTCCTTGGGCAGAATGAATTCGATGCGTATTCTGTGGCCGCCATCTGCGCAGG
GTGGTGGTATTCTGTCATTTACACACGTCGTTCTAATTAAAAAGCGAATTATACTCCA

FIGURE 1339A

GGACGCACAGGCATTCCCCGCGCCCCTCCAGCCCTCGCCGCCCTCGCCACCGCTCCCGGCCGCCGCGCTCCGGTA
CACACAGGATCCCTGCTGGGCACCAACAGCTCCACC**ATG**GGGCTGGCCTGGGGACTAGGCGTCCTGTTCCTGATG
CATGTGTGTGGCACCAACCGCATTCCAGAGTCTGGCGGAGACAACAGCGTGTTTGACATCTTTGAACTCACCGGG
GCCGCCCGCAAGGGGTCTGGGCGCCGACTGGTGAAGGGCCCCGACCCTTCCAGCCCAGCTTTCCGCATCGAGGAT
GCCAACCTGATCCCCCCTGTGCCTGATGACAAGTTCCAAGACCTGGTGGATGCTGTGCGGGCAGAAAAGGGTTTC
CTCCTTCTGGCATCCCTGAGGCAGATGAAGAAGACCCGGGGCACGCTGCTGGCCCTGGAGCGGAAAGACCACTCT
GGCCAGGTCTTCAGCGTGGTGTCCAATGGCAAGGCGGGCACCCTGGACCTCAGCCTGACCGTCCAAGGAAAGCAG
CACGTGGTGTCTGTGGAAGAAGCTCTCCTGGCAACCGGCCAGTGGAAGAGCATCACCCTGTTTGTGCAGGAAGAC
AGGGCCCAGCTGTACATCGACTGTGAAAAGATGGAGAATGCTGAGTTGGACGTCCCCATCCAAAGCGTCTTCACC
AGAGACCTGGCCAGCATCGCCAGACTCCGCATCGCAAAGGGGGGCGTCAATGACAATTTCCAGGGGGTGCTGCAG
AATGTGAGGTTTGTCTTTGGAACCACACCAGAAGACATCCTCAGGAACAAAGGCTGCTCCAGCTCTACCAGTGTC
CTCCTCACCCTTGACAACAACGTGGTGAATGGTTCCAGCCCTGCCATCCGCACTAACTACATTGGCCACAAGACA
AAGGACTTGCAAGCCATCTGCGGCATCTCCTGTGATGAGCTGTCCAGCATGGTCCTGGAACTCAGGGGCCTGCGC
ACCATTGTGACCACGCTGCAGGACAGCATCCGCAAAGTGACTGAAGAGAACAAAGAGTTGGCCAATGAGCTGAGG
CGGCCTCCCCTATGCTATCACAACGGAGTTCAGTACAGAAATAACGAGGAATGGACTGTTGATAGCTGCACTGAG
TGTCACTGTCAGAACTCAGTTACCATCTGCAAAAAGGTGTCCTGCCCCATCATGCCCTGCTCCAATGCCACAGTT
CCTGATGGAGAATGCTGTCCTCGCTGTTGGCCCAGCGACTCTGCGGACGATGGCTGGTCTCCATGGTCCGAGTGG
ACCTCCTGTTCTACGAGCTGTGGCAATGGAATTCAGCAGCGCGGCCGCTCCTGCGATAGCCTCAACAACCGATGT
GAGGGCTCCTCGGTCCAGACACGGACCTGCCACATTCAGGAGTGTGACAAGAGATTTAAACAGGATGGTGGCTGG
AGCCACTGGTCCCCGTGGTCATCTTGTTCTGTGACATGTGGTGATGGTGTGATCACAAGGATCCGGCTCTGCAAC
TCTCCCAGCCCCCAGATGAACGGGAAACCCTGTGAAGGCGAAGCGCGGGAGACCAAAGCCTGCAAGAAAGACGCC
TGCCCCATCAATGGAGGCTGGGGTCCTTGGTCACCATGGGACATCTGTTCTGTCACCTGTGGAGGAGGGGTACAG
AAACGTAGTCGTCTCTGCAACAACCCCACACCCCAGTTTGGAGGCAAGGACTGCGTTGGTGATGTAACAGAAAAC
CAGATCTGCAACAAGCAGGACTGTCCAATTGATGGATGCCTGTCCAATCCCTGCTTTGCCGGCGTGAAGTGTACT
AGCTACCCTGATGGCAGCTGGAAATGTGGTGCTTGTCCCCCTGGTTACAGTGGAAATGGCATCCAGTGCACAGAT
GTTGATGAGTGCAAAGAAGTGCCTGATGCCTGCTTCAACCACAATGGAGAGCACCGGTGTGAGAACACGGACCCC
GGCTACAACTGCCTGCCCTGCCCCCCACGCTTCACCGGCTCACAGCCCTTCGGCCAGGGTGTCGAACATGCCACG
GCCAACAAACAGGTGTGCAAGCCCCGTAACCCCTGCACGGATGGGACCCACGACTGCAACAAGAACGCCAAGTGC
AACTACCTGGGCCACTATAGCGACCCCATGTACCGCTGCGAGTGCAAGCCTGGCTACGCTGGCAATGGCATCATC
TGCGGGGAGGACACAGACCTGGATGGCTGGCCCAATGAGAACCTGGTGTGCGTGGCCAATGCGACTTACCACTGC
AAAAAGGATAATTGCCCCAACCTTCCCAACTCAGGGCAGGAAGACTATGACAAGGATGGAATTGGTGATGCCTGT
GATGATGACGATGACAATGATAAAATTCCAGATGACAGGGACAACTGTCCATTCCATTACAACCCAGCTCAGTAT
GACTATGACAGAGATGATGTGGGAGACCGCTGTGACAACTGTCCCTACAACCACAACCCAGATCAGGCAGACACA
GACAACAATGGGGAAGGAGACGCCTGTGCTGCAGACATTGATGGAGACGGTATCCTCAATGAACGGGACAACTGC
CAGTACGTCTACAATGTGGACCAGAGAGACACTGATATGGATGGGGTTGGAGATCAGTGTGACAATTGCCCCTTG
GAACACAATCCGGATCAGCTGGACTCTGACTCAGACCGCATTGGAGATACCTGTGACAACAATCAGGATATTGAT
GAAGATGGCCACCAGAACAATCTGGACAACTGTCCCTATGTGCCCAATGCCAACCAGGCTGACCATGACAAAGAT
GGCAAGGGAGATGCCTGTGACCACGATGATGACAACGATGGCATTCCTGATGACAAGGACAACTGCAGACTCGTG
CCCAATCCCGACCAGAAGGACTCTGACGGCGATGGTCGAGGTGATGCCTGCAAAGATGATTTTGACCATGACAGT
GTGCCAGACATCGATGACATCTGTCCTGAGAATGTTGACATCAGTGAGACCGATTTCCGCCGATTCCAGATGATT
CCTCTGGACCCCAAAGGGACATCCCAAAATGACCCTAACTGGGTTGTACGCCATCAGGGTAAAGAACTCGTCCAG
ACTGTCAACTGTGATCCTGGACTCGCTGTAGGTTATGATGAGTTTAATGCTGTGGACTTCAGTGGCACCTTCTTC
ATCAACACCGAAAGGGACGATGACTATGCTGGATTTGTCTTTGGCTACCAGTCCAGCAGCCGCTTTTATGTTGTG
ATGTGGAAGCAAGTCACCCAGTCCTACTGGGACACCAACCCCACGAGGGCTCAGGGATACTCGGGCCTTTCTGTG
AAAGTTGTAAACTCCACCACAGGGCCTGGCGAGCACCTGCGGAACGCCCTGTGGCACACAGGAAACACCCCTGGC
CAGGTGCGCACCCTGTGGCATGACCCTCGTCACATAGGCTGGAAAGATTTCACCGCCTACAGATGGCGTCTCAGC
CACAGGCCAAAGACGGGTTTCATTAGAGTGGTGATGTATGAAGGGAAGAAAATCATGGCTGACTCAGGACCCATC
TATGATAAAACCTATGCTGGTGGTAGACTAGGGTTGTTTGTCTTCTCTCAAGAAATGGTGTTCTTCTCTGACCTG

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FIGURE 1339B

AAATACGAATGTAGAGATCCC**TAA**TCATCAAATTGTTGATTGAAAGACTGATCATAAACCAATGCTGGTATTGCA
CCTTCTGGAACTATGGGCTTGAGAAAACCCCCAGGATCACTTCTCCTTGGCTTCCTTCTTTTCTGTGCTTGCATC
AGTGTGGACTCCTAGAACGTGCGACCTGCCTCAAGAAAATGCAGTTTTCAAAAACAGACTCAGCATTCAGCCTCC
AATGAATAAGACATCTTCCAAGCATATAAACAATTGCTTTGGTTTCCTTTTGAAAAAGCATCTACTTGCTTCAGT
TGGGAAGGTGCCCATTCCACTCTGCCTTTGTCACAGAGCAGGGTGCTATTGTGAGGCCATCTCTGAGCAGTGGAC
TCAAAAGCATTTTCAGGCATGTCAGAGAAGGGAGGACTCACTAGAATTAGCAAACAAAACCACCCTGACATCCTC
CTTCAGGAACACGGGGAGCAGAGGCCAAAGCACTAAGGGGAGGGCGCATACCCGAGACGATTGTATGAAGAAAAT
ATGGAGGAACTGTTACATGTTCGGTACTAAGTCATTTTCAGGGGATTGAAAGACTATTGCTGGATTTCATGATGC
TGACTGGCGTTAGCTGATTAACCCATGTAAATAGGCACTTAAATAGAAGCAGGAAAGGGAGACAAAGACTGGCTT
CTGGACTTCCTCCCTGATCCCCACCCTTACTCATCACCTGCAGTGGCCAGAATTAGGGAATCAGAATCAAACCAG
TGTAAGGCAGTGCTGGCTGCCATTGCCTGGTCACATTGAAATTGGTGGCTTCATTCTAGATGTAGCTTGTGCAGA
TGTAGCAGGAAAATAGGAAAACCTACCATCTCAGTGAGCACCAGCTGCCTCCCAAAGGAGGGGCAGCCGTGCTTA
TATTTTTATGGTTACAATGGCACAAAATTATTATCAACCTAACTAAAACATTCCTTTTCTCTTTTTTCCTGAATT
ATCATGGAGTTTTCTAATTCTCTCTTTTGGAATGTAGATTTTTTTTAAATGCTTTACGATGTAAAATATTTATTT
TTTACTTATTCTGGAAGATCTGGCTGAAGGATTATTCATGGAACAGGAAGAAGCGTAAAGACTATCCATGTCATC
TTTGTTGAGAGTCTTCGTGACTGTAAGATTGTAAATACAGATTATTTATTAACTCTGTTCTGCCTGGAAATTTAG
GCTTCATACGGAAAGTGTTTGAGAGCAAGTAGTTGACATTTATCAGCAAATCTCTTGCAAGAACAGCACAAGGAA
AATCAGTCTAATAAGCTGCTCTGCCCCTTGTGCTCAGAGTGGATGTTATGGGATTCTTTTTTTCTCTGTTTTATC
TTTTCAAGTGGAATTAGTTGGTTATCCATTTGCAAATGTTTTAAATTGCAAAGAAAGCCATGAGGTCTTCAATAC
TGTTTTACCCCATCCCTTGTGCATATTTCCAGGGAGAAGGAAAGCATATACACTTTTTTCTTTCATTTTTCCAAA
AGAGAAAAAAATGACAAAAGGTGAAACTTACATACAAATATTACCTCATTTGTTGTGTGACTGAGTAAAGAATTT
TTGGATCAAGCGGAAAGAGTTTAAGTGTCTAACAAACTTAAAGCTACTGTAGTACCTAAAAAGTCAGTGTTGTAC
ATAGCATAAAAACTCTGCAGAGAAGTATTCCCAATAAGGAAATAGCATTGAAATGTTAAATACAATTTCTGAAAG
TTATGTTTTTTTTCTATCATCTGGTATACCATTGCTTTATTTTTATAAATTATTTTCTCATTGCCATTGGAATAG
ATATCTCAGATTGTGTAGATATGCTATTTAAATAATTTATCAGGAAATACTGCCTGTAGAGTTAGTATTTCTATT
TTTATATAATGTTTGCACACTGAATTGAAGAATTGTTGGTTTTTTCTTTTTTTTGTTTTGTTTTTTTTTTTTTT
TTTTTTGCTTTTGACCTCCCATTTTTACTATTTGCCAATACCTTTTTCTAGGAATGTGCTTTTTTTTGTACACAT
TTTTATCCATTTTACATTCTAAAGCAGTGTAAGTTGTATATTACTGTTTCTTATGTACAAGGAACAACAATAAAT
CATATGGAAATTTATATTT

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FIGURE 1340

TGGGGGCGTCCTCCTTCGTCCCCGCCCGGCTGTCAAGCTGTGTTCTAGCGGCCGAGGGACCGAGGGGGGCTAAGA
AAGGGGGCGCCCAGCCATGCAGAGGCAAAAAGGCGCTGCGGAACGGGGTCCCCGTCGCCAGTGCTGAGGCAGGAG
GTCGGAGCCACAAGTGAGGGGCTGGGAAGCAGGACCCAGCACGGGCGTCTTGGCAGGCGGCCGGGCGCAGGGCCA
GGCTGCTGGGGACGCTCAGGGCTTTCCACCCAAGCCATGGGCGCTGTCGGGCACTCGGGGGTCCCCTCGTGGCTC
CGGCCACTCGGCGTGGGCATTACGTTGGCTTCACATCGCCATCCAGCCTCGAAGCCAACAGGACTGAAAAATAGC
TTCGGCCAAACGTTCTCCTCCCGCTAAGGAGAGGGGTCGAGTGCGTCAGCCCGAGGGGACTGGAGAGGGATGCCC
TAGCCCTCGAGGGGCGGAGGACCCGCGGTTGAAGGAGGCAGCGGGAGCGGAGAGCGCCCTCCTTGACCATCGAAT
GCCTCCTTCTGTGTTTCCATTCCTGTCGAGTGGGCTGGGCCACGCTGACCACCCTGGAGGAGGGACGGACGACGC
TCGGCGGGCTCTGACCGTGCCGCCTTCTTGTGGCTGCTGACTGGGATCCAGGAGGGAGTGGGCATGGGGCGCAGC
CGCGCCTCCCTCCCTCCCCGCCTCCCGGGCGCCGGGGTTGGCGATGTGGAGACGTGAGGGGACCCGTCGGCTGCT
CCGGCTTCTCCAGGACTCCGCCAGGCGCCCGCGCGTCCCTCCTCACCCGGAGGAGGAGAGGCTCCGCGCGGGGCT
CCGAGGCGGGCGGCGCGCGGAGCCGGAGTCCCAGCCTCGCC**ATG**GGACATAACGGGAGCTGGATCTCTCCAAATG
CCAGCGAGCCGCACAACGCGTCCGGCGCCGAGGCTGCGGGTGTGAACCGCAGCGCGCTCGGGGAGTTCGGCGAGG
CGCAGCTGTACCGCCAGTTCACCACCACCGTGCAGGTCGTCATCTTCATAGGCTCGCTGCTCGGAAACTTCATGG
TGTTATGGTCAACTTGCCGCACAACCGTGTTCAAATCTGTCACCAACAGGTTCATTAAAAACCTGGCCTGCTCGG
GGATTTGTGCCAGCCTGGTCTGTGTGCCCTTCGACATCATCCTCAGCACCAGTCCTCACTGTTGCTGGTGGATCT
ACACCATGCTCTTCTGCAAGGTCGTCAAATTTTTGCACAAAGTATTCTGCTCTGTGACCATCCTCAGCTTCCCTG
CTATTGCTTTGGACAGGTACTACTCAGTCCTCTATCCACTGGAGAGGAAAATATCTGATGCCAAGTCCCGTGAAC
TGGTGATGTACATCTGGGCCCATGCAGTGGTGGCCAGTGTCCCTGTGTTTGCAGTAACCAATGTGGCTGACATCT
ATGCCACGTCCACCTGCACGGAAGTCTGGAGCAACTCCTTGGGCCACCTGGTGTACGTTCTGGTGTATAACATCA
CCACGGTCATTGTGCCTGTGGTGGTGGTGTTCCTCTTCTTGATACTGATCCGACGGGCCCTGAGTGCCAGCCAGA
AGAAGAAGGTCATCATAGCAGCGCTCCGGACCCCACAGAACACCATCTCTATTCCCTATGCCTCCCAGCGGGAGG
CCGAGCTGCACGCCACCCTGCTCTCCATGGTGATGGTCTTCATCTTGTGTAGCGTGCCCTATGCCACCCTGGTCG
TCTACCAGACTGTGCTCAATGTCCCTGACACTTCCGTCTTCTTGCTGCTCACTGCTGTTTGGCTGCCCAAAGTCT
CCCTGCTGGCAAACCCTGTTCTCTTTCTTACTGTGAACAAATCTGTCCGCAAGTGCTTGATAGGGACCCTGGTGC
AACTACACCACCGGTACAGTCGCCGTAATGTGGTCAGTACAGGGAGTGGCATGGCTGAGGCCAGCCTGGAACCCA
GCATACGCTCGGGTAGCCAGCTCCTGGAGATGTTCCACATTGGGCAGCAGCAGATCTTTAAGCCCACAGAGGATG
AGGAAGAGAGTGAGGCCAAGTACATTGGCTCAGCTGACTTCCAGGCCAAGGAGATATTTAGCACCTGCCTGGAGG
GAGAGCAGGGGCCACAGTTTGCGCCCTCTGCCCCACCCCTGAGCACAGTGGACTCTGTATCCCAGGTGGCACCGG
CAGCCCCTGTGGAACCTGAAACATTCCCTGATAAGTATTCCCTGCAGTTTGGCTTTGGGCCTTTTGAGTTGCCTC
CTCAGTGGCTCTCAGAGACCCGAAACAGCAAGAAGCGGCTGCTTCCCCCCTTGGGCAACACCCCAGAAGAGCTGA
TCCAGACAAAGGTGCCCAAGGTAGGCAGGGTGGAGCGGAAGATGAGCAGAAACAATAAAGTGAGCATTTTTCCAA
AGGTGGATTCC**TAG**CAAGGATTGTAAATTCTTGGAAGCAACGGGGAGCTTCCATATTCCCACCAGAGTGTGGGAA
TGCTGTGGCCATGTGATTGTATGATCTCCTTGCAACTCAGTGTGAGTTGATTCCTCCAATATGGGCCAGATGCTT
TTGAATGATAGGGAAATCTACATAAAATCCAGTGTCCTCTTTATTGAGGGAGTATATGTATCCATCTCAGTGATC
CATGTCCTTAGTGAAGTCCACATTATTCTCTGTGGGGACAAGAGCTGGGCAGTTTTGAATGGGTCTTGAGGTGGG
TACCCCATGTGCACTTTCTGAGGATGCCTCACTTCCCTGGGCTCTGCAGAGAACACACAGAGAGAAGACTTTCAG
AGCTCACAGGAGCAGGGAGCAGGAGCACTCTAAGGGAATTC

FIGURE 1341A

GGTCAAAGAGCCCCCTGAAATCAATTTAGTTTTGTACCCTCAAGGCCTAACTGGTGAAGAAGTATATGTAAAAGT
GGATTTGAGGGTTAAATGCCCACCTACCTATCCAGATGTAGTTCCTGAAATAGAGTTAAAAAATGCCAAAGGTCT
ATCAAATGAAAGTGTCAATTTGTTAAAATCTCGCCTAGAAGAACTGGCCAAGAAACACTGTGGGGAGGTGATGAT
CTTTGAACTGGCTTACCACGTGCAGTCATTTCTCAGCGAGCATAACAAGCCCCCTCCCAAGTCTTTTCATGAAGA
AATGCTGGAAAGGCGGGCTCAGGAGGAGCAGCAGAGGCTGTTGGAGGCCAAGCGGAAAGAAGAGCAGGAGCAACG
TGAAATCCTGCATGAGATTCAGAGAAGGAAAGAAGAGATAAAAGAAGAGAAAAAAAGGAAAGAAATGGCTAAGCA
GGAACGTTTGGAAATTGCTAGTTTGTCAAACCAAGATCATACCTCTAAGAAGGACCCAGGAGGACACAGAACGGC
TGCCATTCTACATGGAGGCTCTCCTGACTTTGTAGGAAATGGTAAACATCGGGCAAACTCCTCAGGAAGGTCTAG
GCGAGAACGTCAGTATTCTGTATGTAATAGTGAAGATTCTCCTGGCTCTTGTGAAATTCTGTATTTCAATATGGG
GAGTCCTGATCAGCTCATGGTGCACAAAGGGAAATGTATTGGCAGTGATGAACAACTTGGAAAATTAGTCTACAA
TGCTTTGGAAACAGCCACTGGTGGCTTTGTCTTGTTGTATGAGTGGGTCCTTCAGTGGCAGAAAAAAATGGGTCC
ATTCCTTACCAGTCAAGAAAAAGAGAAGATTGATAAGTGCAAAAAGCAGATTCAAGGAACAGAAACAGAATTCAA
CTCACTGGTAAAATTGAGCCATCCAAATGTAGTACGCTACCTTGCAATGAATCTCAAAGAGCAAGACGACTCCAT
CGTGGTGGACATTTTAGTGGAGCACATTAGTGGGGTCTCTCTTGCTGCACACCTGAGCCACTCAGGCCCCATCCC
TGTGCATCAGCTTCGCAGGTACACAGCTCAGCTCCTGTCAGGCCTTGATTATCTGCACAGCAATTCTGTGGTGCA
TAAGGTCCTGAGTGCATCTAATGTCTTGGTGGATGCAGAAGGCACCGTCAAGATTACGGACTATAGCATTTCTAA
GCGCCTCGCAGACATTTGCAAGGAGGATGTGTTTGAGCAAACCCGAGTTCGTTTTAGTGACAATGCTCTGCCTTA
TAAAACGGGGAAGAAAGGAGATGTTTGGCGTCTTGGCCTTCTGCTGCTGTCCCTCAGCCAAGGACAGGAATGTGG
AGAGTACCCTGTGACCATCCCTAGTGACTTACCAGCTGACTTTCAAGATTTTCTAAAGAAATGTGTGTGCTTGGA
TGACAAGGAAAGATGGAGTCCCCAGCAGTTGTTGAAACACAGCTTTATAAATCCCCAGCCAAAAATGCCTCTAGT
GGAACAAAGTCCTGAAGATTCTGAAGGACAAGATTATGTTGAGACTGTTATTCCTAGCAACCGGCTACCCAGTGC
TGCCTTCTTTAGTGAGACACAGAGACAGTTTTCCCGATACTTCATTGAGTTTGAAGAATTACAACTTCTTGGTAA
AGGAGCTTTTGGAGCTGTCATCAAGGTGCAGAACAAGTTGGACGGCTGCTGCTACGCAGTGAAGCGCATCCCCAT
CAACCCGGCCAGCCGGCAGTTCCGCAGGATCAAGGGCGAAGTGACACTGCTGTCACGGCTGCACCATGAGAACAT
TGTGCGCTACTACAACGCCTGGATCGAGCGGCACGAGCGGCCGGCGGGACCGGGGACGCCGCCCCCGGACTCCGG
GCCCCTGGCCAAGGATGACCGAGCTGCACGCGGGCAGCCGGCGAGCGACACAGACGGCCTGGACAGCGTAGAGGC
CGCCGCGCCGCCACCCATCCTCAGCAGCTCGGTGGAGTGGAGCACTTCGGGCGAGCGCTCGGCCAGTGCCCGTTT
CCCCGCCACCGGCCCGGGCTCCAGCGATGACGAGGACGACGACGAGGACGAGCACGGTGGCGTCTTCTCCCAGTC
CTTCCTGCCTGCTTCAGATTCTGAAAGTGATATTATCTTTGACAATGAAGATGAGAACAGTAAAAGTCAGAATCA
GGATGAAGATTGCAATGAAAAGAATGGCTGCCATGAAAGTGAGCCATCAGTGACGACTGAGGCTGTGCACTACCT
ATACATCCAGATGGAGTACTGTGAGAAGAGCACTTTACGAGACACCATTGACCAGGGACTGTATCGAGACACCGT
CAGACTCTGGAGGCTTTTTCGAGAGATTCTGGATGGATTAGCTTATATCCATGAGAAAGGAATGATTCACCGGGA
TTTGAAGCCTGTCAACATTTTTTTGGATTCTGATGACCATGTGAAAATAGGTGATTTTGGTTTGGCGACAGACCA
TCTAGCCTTTTCTGCTGACAGCAAACAAGACGATCAGACAGGAGACTTGATTAAGTCAGACCCTTCAGGTCACTT
AACTGGGATGGTTGGCACTGCTCTCTATGTAAGCCCAGAGGTCCAAGGAAGCACCAAATCTGCATACAACCAGAA
AGTGGATCTCTTCAGCCTGGGAATTATCTTCTTTGAGATGTCCTATCACCCCATGGTCACGGCTTCAGAAAGGAT
CTTTGTTCTCAACCAACTCAGAGATCCCACTTCGCCTAAGTTTCCAGAAGACTTTGACGATGGAGAGCATGCAAA
GCAGAAATCAGTCATCTCCTGGCTGTTGAACCACGATCCAGCAAAACGGCCCACAGCCACAGAACTGCTCAAGAG
TGAGCTGCTGCCCCCACCCCAGATGGAGGAGTCAGAGCTGCATGAAGTGCTGCACCACACGCTGACCAACGTGGA
TGGGAAGGCCTACCGCACCATGATGGCCCAGATCTTCTCGCAGCGCATCTCCCCTGCCATCGATTACACCTATGA
CAGCGACATACTGAAGGGCAACTTCTCAATCCGTACAGCCAAGATGCAGCAGCATGTGTGTGAAACCATCATCCG
CATCTTTAAAAGACATGGAGCTGTTCAGTTGTGTACTCCACTACTGCTTCCCCGAAACAGACAAATATATGAGCA
CAACGAAGCTGCCCTATTCATGGACCACAGCGGGATGCTGGTGATGCTTCCTTTTGACCTGCGGATCCCTTTTGC
AAGATATGTGGCAAGAAATAATATATTGAATTTAAAACGATACTGCATAGAACGTGTGTTCAGGCCGCGCAAGTT
AGATCGATTTCATCCCAAAGAACTTCTGGAGTGTGCATTTGATATTGTCACTTCTACCACCAACAGCTTTCTGCC
CACTGCTGAAATTATCTACACTATCTATGAAATCATCCAAGAGTTTCCAGCACTTCAGGAAAGAAATTACAGTAT
TTATTTGAACCATACCATGTTATTGAAAGCAATACTCTTACACTGTGGGATCCCAGAAGATAAACTCAGTCAAGT
CTACATTATTCTGTATGATGCTGTGACAGAGAAGCTGACGAGGAGAGAAGTGGAAGCTAAATTTTGTAATCTGTC

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FIGURE 1341B

TTTGTCTTCTAATAGTCTGTGTCGACTCTACAAGTTTATTGAACAGAAGGGAGATTTGCAAGATCTTATGCCAAC
AATAAATTCATTAATAAAACAGAAAACAGGTATTGCACAGTTGGTGAAGTATGGCTTAAAAGACCTAGAGGAGGT
TGTTGGACTGTTGAAGAAACTCGGCATCAAGTTACAGGTCTTGATCAATTTGGGCTTGGTTTACAAGGTGCAGCA
GCACAATGGAATCATCTTCCAGTTTGTGGCTTTCATCAAACGAAGGCAAAGGGCTGTACCTGAAATCCTCGCAGC
TGGAGGCAGATATGACCTGCTGATTCCCCAGTTTAGAGGGCCACAAGCTCTGGGGCCAGTTCCCACTGCCATTGG
GGTCAGCATAGCTATAGACAAGATATCTGCTGCTGTCCTCAACATGGAGGAATCTGTTACAATAAGCTCTTGTGA
CCTCCTGGTTGTAAGTGTTGGCCAGATGTCTATGTCCAGGGCCATCAACCTAACCCAGAAACTCTGGACAGCAGG
CATCACAGCAGAAATCATGTACGACTGGTCACAGTCCCAAGAGGAATTACAAGAGTACTGCAGACATCATGAAAT
CACCTATGTGGCCCTTGTCTCGGATAAAGAAGGAAGCCATGTCAAGGTTAAGTCTTTCGAGAAGGAAAGGCAGAC
AGAGAAGCGTGTGCTGGAGACTGAACTTGTGGACCATGTACTGCAGAAACTGAGGACTAAAGTCACTGATGAAAG
GAATGGCAGAGAAGCTTCCGATAATCTTGCAGTGCAAAATCTGAAGGGGTCATTTTCTAATGCTTCAGGTTTGTT
TGAAATCCATGGAGCAACAGTGGTTCCCATTGTGAGTGTGCTAGCCCCGGAGAAGCTGTCAGCCAGCACTAGGAG
GCGCTATGAAACTCAGGTACAAACTCGACTTCAGACCTCCCTTGCCAACTTACATCAGAAAAGCAGTGAAATTGA
AATTCTGGCTGTGGATCTACCCAAAGAAACAATATTACAGTTTTTATCATTAGAGTGGGATGCTGATGAACAGGC
ATTTAACACAACTGTGAAGCAGCTGCTGTCACGCCTGCCAAAGCAAAGATACCTCAAATTAGTCTGTGATGAAAT
TTATAACATCAAAGTAGAAAAAAAGGTGTCTGTGCTATTTCTGTACAGCTATAGAGATGACTACTACAGAATCTT
ATTT**TAA**CCCTAAAGAACTGTCGTTAACCTCATTCAAACAGACAGAGGCTTATACTGGAATAATGGAATGTTGTA
CATTCATCATAATTTAAAATTAAATTCTAAGAAGAGGCTGGGTGCAGTGGCTCACACCTTTAATCCCAGCACTTT
GGGAAGCCAAGGCAGGAAGACTGCTTGAAACCAGGAGTTTGAGACCAGCCTGAGCAACAAAGCAAGACCCCATCT
CTATAAAAACTAAAAAAATTAGTTGGGCATGGTGGCACATGCCTGTAGTCCCAGCTACTCCAGAGGCTGAGATGG
ATCATCTGAGCCTCAGGAGGTTGAGGCTGCAGTGAGCTGTGACTGCGCCACTGCACTCCAGTCTGGGACAACAGA
GCAAGACCCTGTCTTAAAAAAAAAAAGAAAAAAAAAATTTTTTTCTAAGAAGCTGTCCTACAAAGTTGAGCTTTG
TTAGTTTTTCATGTGTAATATATTATAAATTTATCTTTTGGGATATAATAAATGCTTTCATAT

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FIGURE 1342

TCGAGCCAGCGTCGCCGCG**ATG**GTGTTGTTGGAGAGCGAGCAGTTCCTGACGGAGCTGACCAGACTTTTCCAGAA
GTGCCGGACGTCGGGCAGCGTCTATATCACCTTGAAGAAGTATGACGGTCGAACCAAACCCATTCCAAAGAAGGG
TACTGTGGAGGGCTTTGAGCCCGCAGACAACAAGTGTCTGTTAAGAGCTACCGATGGGAAGAAGAAGATCAGCAC
TGTGGTGAGCTCCAAGGAAGTGAATAAGTTTCAGATGGCTTATTCAAACCTCCTTAGAGCTAACATGGATGGGCT
GAAGAAGAGAGACAAAAAGAACAAAACTAAGAAGACCAAAGCAGCAGCAGCAGCAGCAGCACCTGCCGC
AGCAGCAACAGCACCAACAACAGCAGCAACAACAGCAGCAACAGCAGCACAG**TAA**AGGGCATACATTTCCTGCTT
TCACCAATTAACCACTGAATTGCTATTTTTTCCTTTTGGCCAGATAGCTAGGTTTCTGGTTCCCCCACAGTAGGT
GTTTTCACATAAGATTAGGGTCCTTTTGGAAAGAATAGTTGCAGTGTTTATAGGATAGTTGTGGTAAGAATCTAG
TTTATTTTGCATTTGGCTAATTGGTCTGTGCTGCATGGTTATATACTCCTGGATTATAGATTAAAAGTCTCTGTA
GACATCTCTGTGAAGAGCAAGCTATCATTAAACATGTCTGTTTATC

FIGURE 1343

GGAAACATTCCTATGTATGTGAGACACACCTATGCCAGGGCAAAGACTCCAAGCTCAAGTTTTTCTCTTGCCTTC
TAGTCACAAGAACATGGCTTTGGAGTGTGACACTGGCCTAGGAATCCATGACTCCCAAAGGACGGGGCTAGGGGT
AGAGGAGGTTCAGGCAAAGCCCTTAGATTTTGGAGACATCAGGCAGATGTCTCCAAAA**ATG**ATTGTGATCAAGAA
TCTGAATTATAAGATTCACAGTCTGCTCCCCAACCCAGTGCTGCCAACTGTACAGCTGCGCCTCCACGAAGGGGC
ATATGCCAGGCTCGTC**TGA**CCCTGGAATGAGGATGTAGGAAGCAGGCAGAGCTCGGGTTCAGCCCTCACAATGGG
ACTGAAGCAGGAGAGAAGGCTGGGCAGAAGGGCTGTGGGGAAGTAGGGCTTGTCTCCATGGATGACGTCCAGAAG
GATGTCAGGAGGAGGAATATCACAGGAGTTATAGACATTGGAGGGAACAGAGACTGGCACAGGACCTCTTCATTG
CAGGAAGATGGTAGTGTAGGCAGGTAACATTGAGCTCTTTTCAAAAAAGGAGAGCTCTTCTTCAAGATAAGGAAG
TGGTAGTTATGGTGGTAACCCCCGGCTATCAGTCCGGATGGTTGCCACCCCTCCTGCTGTAGGATGGAAGCAGCC
ATGGAGTGGGAGGGAGGCGCAATAAGACACCCCTCCACAGAGCTTGGCATCATGGGAAGCTGGTTCTACCTCTTC
CTGGCTCCTTTGTTTAAAGGCCTGGCTGGGAGCCTTCCTTTTGGGTGTCTTTCTCTTCTCCAACCAACAGAAAAG
ACTGCTCTTCAAAGGTGGAGGGTCTTCATGAAACACAGCTGCCAGGAGCCCAGGCACAGGGCTGGGGGCCTGGAA
AAAGGAGGGCACACAGGAGGAGGGAGGAGCTGGTAGGGAGATGCTGGCTTTACCTAAGGTCTCGAAACAAGGAGG
GCAGAATAGGCAGAGGCCTCTCCGTCCCAGGCCCATTTTTGACAGATGGCGGGACGGAAATGCAATAGACCAGCC
TGCAAGAAAGACATGTGTTTTGATGACAGGCAGTGTGGCCGGGTGGAACAAGCACAGGCCTTGGAATCCAATGGA
CTGAATCAGAACCCTAGGCCTGCCATCTGTCAGCCGGGTGACCTGGGTCAATTTTAGCCTCTAAAAGCCTCAGTC
TCCTTATCTGCAAAATGAGGCTTGTGATACCTGTTTTGAAGGGTTGCTGAGAAAATTAAAGATAAGGGTATCCAA
AATAGTCTACGGCCATACCACCCTGAACGTGCCTAATCTCGTAAGCTAAGCAGGGTCAGGCCTGGTTAGTACCTG
GATGGGGAGAGTATGGAAAACATACCTGCCCGCAGTTGGAGTTGGACTCTGTCTTAACAGTAGCGTGGCACACAG
AAGGCACTCAGTAAATACTTGTTGAATAAATGAAGTAGCGATTTGGTGTG

FIGURE 1344

ACAAATTGCATCACCCTCCTCCTCTGCCCAGACCTGGGGGCTCCAACACCTTTCGCTAGGTCTGGCTCTGGCCTC
TGAGCGAACCTTCCGTACAGT**ATG**GCGGCTCCCGAAGCCCCGCCCCTGGACAGAGTTTTCCGTACAACATGGCTG
TCTACAGAGTGCGATTCCCACCCACTTCCGCCTAGCTACCGGAAGTTTCTATTTGAAACCCAGGCGGCCGACTTA
GCCGGTGGCACGACAGTTGCTGCAGGGAATCTTTTAAACGAGAGCGAGAAGGACTGCGGGCAGGACCGGCGGGCT
CCTGGGGTTCAGCCGTGCCGCCTCGTTACGATGACCAGTGTGGTTAAGACAGTGTATAGCCTGCAGCCCCCCTCT
GCGCTGAGCGGCGGCCAGCCGGCAGACACACAAACTCGGGCCACTTCTAAGAGTCTCTTACCTGTTAGGTCCAAA
GAAGTCGATGTTTCCAAACAGCTTCATTCAGGAGGTCCAGAGAATGATGTTACAAAAATCACCAAACTGAGACGA
GAGAATGGGCAAATGAAAGCTACTGACACTGCCACCAGAAGGAATGTCAGAAAAGGCTACAAACCACTGAGTAAG
CAAAAATCAGAGGAAGAGCTCAAGGACAAGAACCAGCTGTTAGAAGCCGTCAACAAGCAGTTGCACCAGAAGTTG
ACTGAAACTCAGGGAGAGCTGAAGGACCTGACCCAGAAGGTAGAGCTGCTGGAGAAGTTTCGGGACAACTGTTTG
GCAATTTTGGAGAGCAAGGGCCTTGATCCAGCTTTAGGCAGTGAGACCCTGGCATCACGACAAGAATCCACTACT
GATCACATGGACTCTATGTTGCTGTTAGAAACTTTGCAAGAGGAGCTGAAGCTTTTTAACGAAACAGCCAAAAAG
CAGATGGAGGAGTTACAGGCCTTAAAGGTAAAGCTGGAGATGAAAGAGGAAAGAGTCCGATTCCTAGAACAGCAA
ACCTTATGTAACAATCAAGTAAATGATTTAACAACAGCCCTTAAGGAAATGGAGCAGCTATTAGAAATG**TAA**GAA
GAAGCAAGTGGCCAGATGGCTCCCTCTTGGGCATAAAATCTCAGAGGAAGCTACTTAGGACATCATCTTGGCCAT
GATCTTCTGGGACTCACCATCTCCAGAATGAAAACAATTTCTACAGTAGACTTAAGGACAGTTTATGCTGAAATG
GCAATTCCTCATTTAAGCAAGTTTTCCCAACCTTCAGGTTGGTCAGCCCTCCTGAGCCTCACAGGTGGATAATTG
AGGCCTACAAGAGAGGGGAGCCTAGGAGCTTGGATTGACCTTCTAGTCAACCACCTGACTTCAGCACACCATTAC
AATCGGGAGACTAAACCAACAACCAGAGGATCTAAAATGTCACATTCAGATTTTCAGGAAGAAAATCTTCATTAC
AGTGGAGCACAAATGTTCCATACAAGACATCATTGAGGAGCCATGCTGTCCCCTTCTAACCTGAAACACATTCTT
TCCCATCCTGGTTGGGCTTCTGTACCTCCTTATTAATTTATGAACCTGAAGTTGCTTGAAGTGTTTTGGGCTTAA
TAAATGGGGTGAAAGTATAGGTAGCAGTAACACCTACATGAAACAATACACCTTGGATCTTTTAATCTAAATTAC
TTTTCTTTTTTAAGTCTACTTTTAAAATAAATACTTCTGTAAATATTCTGACTGTAACATTGAGGAATGAAAATA
GCCTTTTAACCTA

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FIGURE 1345

TTTCCGCAGTTAGGGGCTGCTATTTCAACGCAGGGAGATAAAAAGAAAAAAACACTTGCTCTTCTACCCCGCTAA
AAACACTCATCCTAGGGAGCACGCCAGCATTTGCAGCGTTCGGGGCAGGGCCACTCGGCCTGCGGCCGTTGCACT
GGCTGGAAGCTGGCAGGCGATCACGGTTGATTGGCTCGGGTGCGGTCCAAGGGCAGCAACGCCTTCGGCGGGCCG
CCTAGGGTGATTGGCTGCTGCAGCCCACCCCCTAGCCGGTTTGGTGGGCGGCGAAGCCTGGATTGGTGGAGCTAA
GAGCTGGCTCAGTTTCAGCGCTGGCTCTTCGTGCATGGCAGAG**ATG**GCGACTGCGACTCGGCTGCTGGGGTGGCG
TGTGGCGAGCTGGAGGCTGCGGCCGCCGCTTGCCGGCTTCGTTTCCCAGCGGGCCCACTCGCTTTTGCCCGTGGA
CGATGCAATCAATGGGCTAAGCGAGGAGCAGAGGCAGCTTCGTCAGACCATGGCTAAGTTCCTTCAGGAGCACCT
GGCCCCCAAGGCCCAGGAGATCGATCGCAGCAATGAGTTCAAGAACCTGCGAGAATTTTGGAAGCAGCTGGGGAA
CCTGGGCGTATTGGGCATCACAGCCCCTGTTCAGTATGGCGGCTCCGGCCTGGGCTACCTGGAGCATGTGCTGGT
GATGGAGGAGATATCCCGAGCTTCCGGAGCAGTGGGGCTCAGTTACGGTGCCCACTCCAACCTCTGCATCAACCA
GCTTGTACGCAATGGGAATGAGGCCCAGAAAGAGAAGTATCTCCCGAAGCTGATCAGTGGTGAGTACATCGGAGC
CCTGGCCATGAGTGAGCCCAATGCAGGCTCTGATGTTGTCTCTATGAAGCTCAAAGCGGAAAAGAAAGGAAATCA
CTACATCCTGAATGGCAACAAGTTCTGGATCACTAATGGCCCTGATGCTGACGTCCTGATTGTCTATGCCAAGAC
AGATCTGGCTGCTGTGCCAGCTTCTCGGGGCATCACAGCCTTCATTGTGGAGAAGGGTATGCCTGGCTTTAGCAC
CTCTAAGAAGCTGGACAAGCTGGGGATGAGGGGCTCTAACACCTGTGAGCTAATCTTTGAAGACTGCAAGATTCC
TGCTGCCAACATCCTGGGCCATGAGAATAAGGGTGTCTACGTGCTGATGAGTGGGCTGGACCTGGAGCGGCTGGT
GCTGGCCGGGGGGCCTCTTGGGCTCATGCAAGCGGTCCTGGACCACACCATTCCCTACCTGCACGTGAGGGAAGC
CTTTGGCCAGAAGATCGGCCACTTCCAGTTGATGCAGGGGAAGATGGCTGACATGTACACCCGCCTCATGGCGTG
TCGGCAGTATGTCTACAATGTCGCCAAGGCCTGCGATGAGGGCCATTGCACTGCTAAGGACTGTGCAGGTGTGAT
TCTTTACTCAGCTGAGTGTGCCACACAGGTAGCCCTGGACGGCATTCAGTGTTTTGGTGGCAATGGCTACATCAA
TGACTTTCCCATGGGCCGCTTTCTTCGAGATGCCAAGCTGTATGAGATAGGGGCTGGGACCAGCGAGGTGAGGCG
GCTGGTCATCGGCAGAGCCTTCAATGCAGACTTTCAC**TAG**TCCTGAGACCCTTCGCCCCCTTTTCCTGCACCTAG
TGGCCTTTCTTGGGAAGTAGAGATGTGGCGGCTTTCCCACCCTGCCCACAGCAGGCCCTCCTGCCCAGCTGCTCT
TGTCAGCCCTCTGGCCTCTGGATGAGGTTGAGTTCTCCACAACAGCTCCCAAGCATCATGGGCCTCGCAGCCGGG
CCTGTGCCACGGCTAGTGTTGTGTGATTTAAAATGGACTCAGCAGGAAGCATATTGTCTGGGGATTGTTGGGACA
GGTTTTGGTGACTCTGTGCCCTTGCTCTCTAACTTCTGAGCCCACCTCCCAGGGTAGGCACCTGGGGGCATGCAG
GTGCCCACCTCCCAGGGTAGGCACCTGGGGGCATGCAGGTACCCACCTCTTTCTCTTGGGTGAGGCTCTGGCAAG
GAGATCTCTCTGCTCAAGCACAGCAGAATCATGGCCCCTCTCCATGAATTGGAACTTGGTACAGGTTAAGTATCC
CTAATCCTGAAATCTGAAACACTTGTGGTTCCAAGCATTTTGGATAAGGCAAATTCAACTTTCAGTCTCTTTTCT
GGGGGAAAAAAATAATAAACCTAGCCTAGCCAGGCGTGGTG

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FIGURE 1346

GGGGACTCCGCCCCTCCCGATTTCCTCCGGGCTACAGGCGACAGAGCTGAGCCAAGCGTTTACTGGGCAGCTGTT
ACGCTCAGATTCCAA**ATG**AAAATGTTTGAGAGCGCTGACTCTACAGCCACAAGATCTGGCCAGGATCTCTGGGCT
GAAATTTGTTCCTGTCTGCCAAATCCTGAACAAGAAGATGGTGCCAACAATGCATTCTCAGACTCCTTTGTGGAT
TCTTGCCCTGAAGGTGAAGGCCAGAGGGAGGTGGCTGACTTTGCTGTCCAGCCAGCTGTAAAGCCTTGGGCTCCC
TTGCAGGATTCAGAAGTGTATTTAGCATCTCTAGAGAAGAAGCTAAGAAGAATCAAAGGTTTAAATCAGGAAGTG
ACTTCCAAGGACATGCTTCGAACTCTGGCCCAAGCCAAGAAGGAATGCTGGGATCGGTTCCTCCAGGAGAAGTTA
GCTTCAGAGTTCTTTGTGGATGGACTTGATTCTGATGAGAGCACCTTGGAACATTTCAAGAGGTGGCTCCAGCCA
GATAAAGTAGCCGTCAGCACAGAGGAGGTCCAGTATCTGATTCCTCCAGAGTCACAGGTTGAGAAGCCAGTGGCC
GAGGACGAGCCAGCAGCCGGGGACAAGCCAGCAGCAGCAGAACAG**TAA**ATTACACACACACACACACACACAC
ACACACACACACACACACACACACACACACACACACACACACACGCCGAGCAGCTGTCTCGGGTCCAGAGCGAGCAGCGTG
GAGCTCAGTGACAGCAGCAGGGAGAAATCCACTGAAGGAAAAAACCCAAATTTCCACTCCACAAAGAAAACAGCT
GCAAGCCCCCAGGGACTTACCTGGGGCTGGCATGTGTGACTGTCTCGGATGAAGTGACTGACCCAGTGCACACTG
GATCAAAATGCTGCTTTCCTCTGTGTCTCACAGCTTGGCTGAGCTCTGTCTCTGCAGGTTAGAAGTCTGCTAAAG
ATCAAATGTGAAAGTACTTGGAGAAACTGAGGCCTCTTATGTGTAATGTGTAAGTTAAGTGAGCCATATATTTTC
TTGCCTCTTCCGGACATTCATGCTTGTGTCCCAAGCATTCCCTTGGTGAATTGTCACGTGAGTGGGGCCAGTAAG
AGTGAAGTCTGCTCCTTGAATCCAAGCCCCATCTGGGGCTTCTCTAACAAATCTGTAGTAAGTATACGGACTCCA
GGGAGAGAGGCTGGGCTTCTTTCTCTCATTTGTTCCTTGTGGAACAAATGGGCAAAAGAAGTGTGAAAATGTGGG
TGTTTATGTCTGTGTATATGTATTTTTTACTTCATGCATGGCTTCTCCTCCAACTTCCTCCTGCACTTAAAAAGG
GCCAGGTTCCAAATTAGACTTGTAAATATGGTGTTAGTGTTTGACACTACTCCTGGATAGTTCCAAACATCTTCC
TTGTGGCAGGTTTCCTGGCTGAGCCCGAGCTTCCCTCCCTGTTTATTGTGTTCATGATCAGTATGTGTTTCCATA
TAAAACTTTTCTCAACGGAA

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FIGURE 1347

GACGTCACGGTCACTGACAGCGTGAGCCCGCGGCGGCTGCTGCCATGGTGGCTGGCGGCCGGGTAAGGGTCTGAG
TGGATCTCCTGCCAGGCCAGAGCGCCTTCGGGGGCCGCGGCGGAAGGCCAGGAGTTTGCAGCCAGGGCGCCGGGT
TTGTGGTCTGCAGTGTCGTGAGGCTGAGGTGCAGC**ATG**TCTAGACTGGGAGCCCTGGGTGGTGCCCGTGCCGGGC
TGGGACTGTTGCTGGGTACCGCCGCCGGCCTTGGATTCCTGTGCCTCCTTTACAGCCAGCGATGGAAACGGACCC
AGCGTCATGGCCGCAGCCAGAGCCTGCCCAACTCCCTGGACTATACGCAGACTTCAGATCCCGGACGCCACGTGA
TGCTCCTGCGGGCTGTCCCAGGTGGGGCTGGAGATGCCTCAGTGCTGCCCAGCCTTCCACGGGAAGGACAGGAGA
AGGTGCTGGACCGCCTGGACTTTGTGCTGACCAGCCTTGTGGCGCTGCGGCGGGAGGTGGAGGAGCTGAGAAGCA
GCCTGCGAGGGCTTGCGGGGGAGATTGTTGGGGAGGTCCGATGCCACATGGAAGAGAACCAGAGAGTGGCTCGGC
GGCGAAGGTTTCCGTTTGTCCGGGAGAGGAGTGACTCCACTGGCTCCAGCTCTGTCTACTTCACGGCCTCCTCGG
GAGCCACGTTCACAGATGCTGAGAGTGAAGGGGGTTACACAACAGCCAATGCGGAGTCTGACAATGAGCGGGACT
CTGACAAAGAAAGTGAGGACGGGGAAGATGAAGTGAGCTGTGAGACTGTGAAGATGGGGAGAAAGGATTCTCTTG
ACTTGGAGGAAGAGGCAGCTTCAGGTGCCTCCAGTGCCCTGGAGGCTGGAGGTTCCTCAGGCTTGGAGGATGTGC
TGCCCCTCCTGCAGCAGGCCGACGAGCTGCACAGGGGTGATGAGCAAGGCAAGCGGGAGGGCTTCCAGCTGCTGC
TCAACAACAAGCTGGTGTATGGAAGCCGGCAGGACTTTCTCTGGCGCCTGGCCCGAGCCTACAGTGACATGTGTG
AGCTCACTGAGGAGGTGAGCGAGAAGAAGTCATATGCCCTAGATGGAAAAGAAGAAGCAGAGGCTGCTCTGGAGA
AGGGGGATGAGAGTGCTGACTGTCACCTGTGGTATGCGGTGCTTTGTGGTCAGCTGGCTGAGCATGAGAGCATCC
AGAGGCGCATCCAGAGTGGCTTTAGCTTCAAGGAGCATGTGGACAAAGCCATTGCTCTCCAGCCAGAAAACCCCA
TGGCTCACTTTCTTCTTGGCAGGTGGTGCTATCAGGTCTCTCACCTGAGCTGGCTAGAAAAAAAAACTGCTACAG
CCTTGCTTGAAAGCCCTCTCAGTGCCACTGTGGAAGATGCCCTCCAGAGCTTCCTAAAGGCTGAAGAACTACAGC
CAGGATTTTCCAAAGCAGGAAGGGTATATATTTCCAAGTGCTACAGAGAACTAGGGAAAAACTCTGAAGCTAGAT
GGTGGATGAAGTTGGCCCTGGAGCTGCCAGATGTCACGAAGGAGGATTTGGCTATCCAGAAGGACCTGGAAGAAC
TGGAAGTCATTTTACGAGAC**TAA**CCACGTTTCACTGGCCTTCATGACTTGATGCCACTATTTAAGGTGGGGGGGC
GGGGAGGCTTTTTTCCTTAGACCTTGCTGAGATCAGGAAACCACACAAATCTGTCTCCTGGGTCTGACTGCTACC
CACTACCACTCCCCATTAGTTAATTTATTCTAACCTCTAACCTAATCTAGAATTGGGGCAGTACTCATGGCTTCC
GTTTCTGTTGTTCTCTCCCTTGAGTAATCTCTTAAAAAAATCAAGATTCACACCTGCCCCAGGATTACACATGGG
TAGAGCCTGCAAGACCTGAGACCTTCCAATTGCTGGTGAGGTGGATGAACTTCAAAGCTATAGGAACAAAGCACA
TAACTTGTCACTTTAATCTTTTTCACTGACTAATAGGACTCAGTACATATAGTCTTAAGATCATACCTTACCTAC
CAAGGTAAAAAGAGGGATCAGAGTGGCCCACAGACATTGCTTTCTTATCACCTATCATGTGAATTCTACCTGTAT
TCCTGGGCTGGACCACTTGATAACTTCCAGTGTCCTGGCAGCTTTTGGAATGACAGCAGTGGTATGGGGTTTATG
ATGCTATAAAACAATGTCTGAAAAGTTGCCTAGAATATATTTTGTTACAAACTTGAAATAAACCAAATTTGATGT
T

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FIGURE 1348

TCCCAGCTGCGCGTCGCAGTCCCGACGCGAGAAGGGCTGGAGTCGGCGTCCAGCCTAGAGCCCCCGGTGGGAGCC
AGGCCGGGACGCGTGCACC**ATG**CCCTACCTGCTCATCAGCACCCAGATCCGCATGGAGGTGGGCCCCACTATGGT
GGGCGATGAACAGTCGGATCCAGAGCTGATGCAGCATCTGGGGGCTTCAAAGAGAAGAGCCTTGGGAAACAACTT
TTATGAATACTACGTCGATGACCCTCCCCGCATAGTCCTGGACAAGCTGGAACGCAGGGGCTTCCGTGTGCTGAG
CATGACGGGGGTGGGCCAGACGCTGGTGTGGTGTCTGCACAAGGAG**TGA**CCTTCTCATGCTGATTTGCAGACGGG
GCACCCCTGTGGAGGGGCTGCTGTGGGCCCTGACCTCCAAGCTCCTGCCTCACCGTCTGCCTTGCTCCTCTCTTC
CCAAATCATCACCGCCATGGGCCCAGCCCCAAAGGGCAGTGAATGGCCTTCTCTGAAACCCTGCGTCAAGCAGTG
GGAGAGGGCAGTGCCCGGTGCCCTGGTGCTCCCAGCTGCCCTCCTGCTTCGGGCCTGGGCCGAGGGCCTTGTGTA
GGCCATGTTCCTCGGGCAGCTGCCCCGGGCCGGAGCTGGGCACTCCAGCGGCCCTGGCGCGTGGCTCCTGCATAG
CTAGCCCAAGCCAATAAAGGGCTGTGATGAGTGGCTGC

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FIGURE 1349

AGGAGAGCGTCCGGATTCCCTGCTCTAGGTCGCGGCGGGACAGTGCCAGTGGGCGTGTGGGGCGGGGCAGGGCAG
GGAAGGGAAGGGCGGAGCTGGGGTGAGGGTCCAAGGGGCCCAGGACTTGGCCGGCGTGATCTCAGCTCTGCAGAC
CCTGCGGTGCTGGGAGCCACC**ATG**GAGAGTAGGTGCTACGGCTGCGCTGTCAAGTTCACCCTCTTCAAGAAGGAG
TACGGCTGTAAGAATTGTGGCAGGGCCTTCTGTTCAGGCTGCCTAAGCTTCAGTGCAGCAGTGCCTCGGACTGGG
AACACCCAACAGAAAGTCTGCAAGCAATGCCATGAGGTCCTGACCAGAGGGTCTTCTGCCAATGCCTCCAAGTGG
TCACCACCTCAGAACTATAAGAAGCGTGTGGCAGCCTTGGAAGCCAAGCAAAAGCCCAGCACTTCCCAGAGCCAG
GGACTGACACGACAAGACCAGATGATTGCTGAGCGCCTAGCACGACTCCGCCAGGAGAACAAGCCCAAGTTAGTC
CCCTCACAGGCAGAGATAGAGGCACGGCTGGCTGCCCTAAAGGATGAACGTCAGGGTTCCATCCCTTCCACCCAG
GAAATGGAGGCACGACTTGCAGCGTTGCAGGGCAGAGTTCTACCTTCTCAAACCCCCCAGCCGGCACATCACACA
CCGGACACCAGGACCCAAGCCCAGCAGACACAGGATCTGCTAACGCAGCTGGCAGCTGAGGTGGCTATCGATGAA
AGCTGGAAAGGAGGAGGCCCAGCTGCCTCTCTCCAGAATGATCTCAACCAGGGTGGCCCAGGGAGCACTAATTCC
AAGAGGCAGGCCAACTGGTCCTTGGAGGAGGAGAAGAGCAGACTGCTGGCTGAGGCAGCACTTGAGTTGCGGGAG
GAGAACACGAGGCAGGAACGGATTCTGGCCCTGGCCAAGCGACTAGCCATGCTGCGGGGACAGGACCCCGAGAGA
GTGACCCTCCAGGACTATCGCCTCCCAGACAGTGATGACGACGAGGATGAGGAGACAGCCATCCAAAGAGTCCTG
CAGCAGCTCACTGAAGAAGCTTCCCTGGATGAGGCAAGTGGCTTTAACATCCCTGCAGAGCAGGCTTCTCGACCC
TGGACGCAACCCCGCGGGGCAGAGCCTGAGGCCCAGGATGTGGACCCCAGGCCTGAGGCTGAGGAAGAGGAGCTC
CCCTGGTGCTGCATCTGCAATGAGGATGCCACCCTACGCTGCGCTGGCTGCGATGGGGACCTCTTCTGTGCCCGC
TGCTTCCGAGAGGGCCATGATGCCTTTGAGCTTAAAGAGCACCAGACATCTGCCTACTCTCCTCCACGTGCAGGC
CAAGAGCAC**TGA**AGACACCCTGGTCCTCCCGGAAGGGCAGTCCCACAGGCAGCGGCACCCATTTCTGGGCCCAGC
CACAGGACGTCCGATGGGAGAGCTTGTCTGGCTCTACTGATGATGGATAGGCCCCTTCCTGAGCCTTGGTGTCCC
TGGAATGAGGAAAGATTCTCCATTCGAGAGAATGACTGGGAGGGAAGAAGTCGGGGCCCTCCTATTAGAAGCCCA
GACTGGAAGTGAGAGGCATGATGGGGAGAGACCAGACTGAATCTACGGGTGAGCCCTGTAACCTGGCTCTAGGGC
ACAGGCCCCTCCCCTGGCACTTAGTGGGTCTAATAAAGTATGTTGATTCATTGG

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FIGURE 1350

CGGCCGAGCCCCAGCTCTCCGAGCACCGGGTCGGAAGCCGCGACCCGAGCCGCGCAGGAAGCTGGGACCGGAACC
TCGGCGGACCCGGCCCCACCCAACTCACCTGCGCAGGTCACCAGCACCCTCGGAACCCAGAGGCCCGCGCTCTGA
AGGTGACCCCCCTGGGGAGGAAGGCG**ATG**GCCCCTGCGAGGACGATGGCCCGCGCCCGCCTCGCCCCGGCCGGCA
TCCCTGCCGTCGCCTTGTGGCTTCTGTGCACGCTCGGCCTCCAGGGCACCCAGGCCGGGCCACCGCCCGCGCCCC
CTGGGCTGCCCGCGGGAGCCGACTGCCTGAACAGCTTTACCGCCGGGGTGCCTGGCTTCGTGCTGGACACCAACG
CCTCGGTCAGCAACGGAGCTACCTTCCTGGAGTCCCCCACCGTGCGCCGGGGCTGGGACTGCGTGCGCGCCTGCT
GCACCACCCAGAACTGCAACTTGGCGCTAGTGGAGCTGCAGCCCGACCGCGGGGAGGACGCCATCGCCGCCTGCT
TCCTCATCAACTGCCTCTACGAGCAGAACTTCGTGTGCAAGTTCGCGCCCAGGGAGGGCTTCATCAACTACCTCA
CGAGGGAAGTGTACCGCTCCTACCGCCAGCTGCGGACCCAGGGCTTTGGAGGGTCTGGGATCCCCAAGGCCTGGG
CAGGCATAGACTTGAAGGTACAACCCCAGGAACCCCTGGTGCTGAAGGATGTGGAAAACACAGATTGGCGCCTAC
TGCGGGGTGACACGGATGTCAGGGTAGAGAGGAAAGACCCAAACCAGGTGGAACTGTGGGGACTCAAGGAAGGCA
CCTACCTGTTCCAGCTGACAGTGACTAGCTCAGACCACCCAGAGGACACGGCCAACGTCACAGTCACTGTGCTGT
CCACCAAGCAGACAGAAGACTACTGCCTCGCATCCAACAAGGTGGGTCGCTGCCGGGGCTCTTTCCCACGCTGGT
ACTATGACCCCACGGAGCAGATCTGCAAGAGTTTCGTTTATGGAGGCTGCTTGGGCAACAAGAACAACTACCTTC
GGGAAGAAGAGTGCATTCTAGCCTGTCGGGGTGTGCAAGGCCCCTCCATGGAAAGGCGCCATCCAGTGTGCTCTG
GCACCTGTCAGCCCACCCAGTTCCGCTGCAGCAATGGCTGCTGCATCGACAGTTTCCTGGAGTGTGACGACACCC
CCAACTGCCCCGACGCCTCCGACGAGGCTGCCTGTGAAAAATACACGAGTGGCTTTGACGAGCTCCAGCGCATCC
ATTTCCCCAGTGACAAAGGGCACTGCGTGGACCTGCCAGACACAGGACTCTGCAAGGAGAGCATCCCGCGCTGGT
ACTACAACCCCTTCAGCGAACACTGCGCCCGCTTTACCTATGGTGGTTGTTACGGCAACAAGAACAACTTTGAGG
AAGAGCAGCAGTGCCTCGAGTCTTGTCGCGGCATCTCCAAGAAGGATGTGTTTGGCCTGAGGCGGGAAATCCCCA
TTCCCAGCACAGGCTCTGTGGAGATGGCTGTCGCAGTGTTCCTGGTCATCTGCATTGTGGTGGTGGTAGCCATCT
TGGGTTACTGCTTCTTCAAGAACCAGAGAAAGGACTTCCACGGACACCACCACCACCCACCACCCACCCCTGCCA
GCTCCACTGTCTCCACTACCGAGGACACGGAGCACCTGGTCTATAACCACACCACGCGGCCCCTC**TGA**GCCTGGG
TCTCACCGGCTCTCACCTGGCCCTGCTTCCTGCTTGCCAAGGCAGAGGCCTGGGCTGGGAAAAACTTTGGAACCA
GACTCTTGCCTGTTTCCCAGGCCCACTGTGCCTCAGAGACCAGGGCTCCAGCCCCTCTTGGAGAAGTCTCAGCTA
AGCTCACGTCCTGAGAAAGCTCAAAGGTTTGGAAGGAGCAGAAAACCCTTGGGCCAGAAGTACCAGACTAGATGG
ACCTGCCTGCATAGGAGTTTGGAGGAAGTTGGAGTTTTGTTTCCTCTGTTCAAAGCTGCCTGTCCCTACCCCATG
GTGCTAGGAAGAGGAGTGGGGTGGTGTCAGACCCTGGAGGCCCCAACCCTGTCCTCCCGAGCTCCTCTTCCATGC
TGTGCGCCCAGGGCTGGGAGGAAGGACTTCCCTGTGTAGTTTGTGCTGTAAAGAGTTGCTTTTTGTTTATTTAAT
GCTGTGGCATGGGTGAAGAGGAGGGGAAGAGGCCTGTTTGGCCTCTCTATCCTCTCTTCCTCTTCCCCCAAGATT
GAGCTCTCTGCCCTTGATCAGCCCCACCCTGGCCTAGACCAGCAGACAGAGCCAGGAGAAGCTCAGCTGCATTCC
GCAGCCCCCACCCCCAAGGTTCTCCAACATCACAGCCCAGCCCGCCCACTGGGTAATAAAAGTGGTTTGTGGA

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FIGURE 1351

CAGGCCAGGTGTGTGCGTCCGTCGGTCTTTCCGTGCCCACGCCGGAGACCAGCCCCGGAGGCCGCCTGGGCCTAT
CCCTGTGCCAGGCACC**ATG**AAGCAGGAGTCTGCAGCCCCGAACACCCCGCCCACCTCGCAGTCCCCTACGCCGTC
CGCTCAGTTCCCCCGAAACGACGGCGACCCTCAAGCGCTGTGGATTTTCGGGTACGGCTCCCTGGTGTGGAGGCC
CGACTTCGCCTACAGCGACAGCCGTGTGGGCTTCGTGCGCGGCTACAGCCGCCGTTTCTGGCAGGGAGACACCTT
CCATCGGGGCAGCGACAAGATGCCTGGCCGTGTGGTGACGCTCCTTGAAGATCATGAGGGCTGCACTTGGGGCGT
GGCATACCAAGTGCAAGGGGAGCAGGTAAGCAAGGCCCTGAAGTACCTGAATGTGCGAGAGGCAGTGCTTGGTGG
CTACGATACCAAGGAGGTCACCTTCTATCCCCAAGATGCTCCTGACCAACCACTGAAGGCATTGGCCTATGTGGC
CACCCCACAGAACCCTGGTTACCTGGGCCCTGCGCCTGAAGAGGCCATTGCCACGCAGATCCTGGCCTGCCGGGG
CTTCTCCGGCCACAACCTTGAATACTTGCTGCGTCTGGCAGACTTCATGCAGCTCTGTGGGCCTCAGGCGCAGGA
CGAGCACCTGGCAGCCATCGTGGACGCTGTGGGCACCATGTTGCCCTGCTTCTGCCCCACCGAGCAGGCTCTGGC
GCTGGTG**TGA**GGGGCTGAGCCCCTGCGGGGAGTGCTCATGTGGACATCAGGGCCAGACACCCACTCCAGTGCACA
AGACAGACTTGCGACCGCTTGAGCCCACTGAGCAGATATGGTGGGTGGCTGGAGGCTTCTCTTTCTCAGTCCCTG
CCTGTCTGCCAGCCTGCAGCTCTCCTGCTTGACACTGACTTACTACTTGAAACTTTATTTATTGCACCATGTTGG
TGTGGTGGGCAGGTGGAGGGCCTGCCCTGGACACAGGGGCCCTGCTGAGCAGTGGCCCCATCCTGGAACTTGACC
AGATTCCCCCCAGTGCTGCTGCTAACCCCACACCACCCAGGCCTCCACCTCCCCAGGGAGTCTCCAAGAGCCTCG
ATCCTCTGCTCACTCAGCCCAGCCATCCATAGCCCTGGGAATTCCACCTGCCAAGGATCCCAGCAGGCTGGATGA
GGGATAGTAGGGCATGAGGAGAAGGAGCCCTGTAAGGACTGAGGCCCCGGCCAGCCCTTCTCCTCCACCAGTTCC
CCAGAGCAGAGCTGGAGCTGATGCCTGGACACAGCTGCTGAGCCTGGCCTGGGCCTCTTACCCACTTGGTTGTTT
TCTTGTCCCTCTGTCTGTCTGTCTATCTACTTGTCTGTCTGGGCCACTCCTGCCTGTGTGTTGGTCTATTCCTGG
GAAGCTCATCACTACAGGCCCTGGCAACCTTCCCAGTCTGTCCCATACTGTTACCCATAAAACTATCTCTTT

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FIGURE 1352

TGGGCCCCCGCAAGGTCCCCTGCCGTGCGCGAGGCAGCATGATGAGGTGCACCCTGGAAAATCGGAACGCTCAAA
CGAAACAACTGCAAACAGCTGTCTCAAATGTGGAGAAGCATTTTGGAGAACTGTGCCAAATCTTCGCTGCCTATG
TGCGGAAAACTGCCAGGCTGAGAGACAAAGCAGACCACCTGGTGAATGAAATCAATGCGTATGCTGCTACAGAGA
CCCCACATTTAAAGCTGGGCCTGATGAACTTTGATGATGAGTTTGCCAAACTTCAGGATTATCGACAAGCAGAGG
TTGAAAGACTTGAAGCCAAATAGTTGAACCCTTGAAAGCTTATGGGACCATTGTGAAA**ATG**AAACGGGATGACCT
CAAAGCAACATTCACAGCAAGGAATCGAGAAGCTAAGCAATTAACTCAGTTAGAAAGAACACGTCAGCGAAACCC
ATCTGATCGACATGTTATTTCACAGGCAGAAACGGAATTACAGAGAACTGCAATGGATGCTAGCCGAACAAGTCG
TCATCTGGAGGAAACTATTAACAACTTTGAAAGGCAGAAAATGAAGGATATAAAGACTATATTTTCTGAATTTAT
CACAATCGAAATGTTATTTCACGGCAAAGCTTTAGAGGTCTACACTGCTGCCTACCGGAATATACAAAACATTGA
TGAAGATGAAGATTTAGAGGTTTTCCGAAATTCTCTGTATGCACCAGATTATTCATCTTGTTTAGATACTGTAAG
AGCGAATTCAAAGTCACCTCTTCAGAGATCACTGTCAGCTAAGTGTGTATCTGGAACAAGACAGGTATCCACTTG
TCGACTAAGAAAGGATCAACAAGCAGAAGATGATGAGGATGAAGAGTTAGATGTTACAGAAGAAGAAAATTTTCT
TAACTACACATTTCCATTTTCATCA**TAA**ATGACATAAAATCCACAATGACTAAATTGTAGAACTTTATACTCACT
TTGATATGTTAAGCCTCAAAGTGAAGTCCAACTGGAAACAGAAAAATATTTAAAGAAAACTTATGCTGACCAA

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FIGURE 1353

CTTCTTCATCCTTTTTATATGTTCTTTGCTTCCTACTTCCCTGTCTTCCAACATACTGTTCACTTACTCTGGCAG
TCTTTCTGCTTTTCATTAAGCCTCAAAATCTCCTCTGTTCTACTTGGCACCACAAGCTATGTCCTATATATGTAT
TTCTGACTTGGCAGGATAGTTCAGGGGTCTGGCAGTTTTTATTTACCTTCATTATTAAATGGGCCTCTGGGATGT
TGCCTCTTCAGGAGCTTTTTGGTAATCAATACTTCTCTCAGAAGTATGAGACCATCCTCTGCACTCTGCTCTGTC
ATCAAAGGCTGCTGGGTGGAGATACCCTTTTTGAAAGGTGGCCTTGGTGAGAGGTATGGAGCCAAGTCTTCTAGG
TTGCTTGCCCACATCACTCTATCTCTGGCCTCTGATTCTCAACTTTGTACCTGTGTGGCTCCTCTTGTTAGTGCA
ATGTTGACTGTTGAAAAAGCAGCAGTATGCTTACAGGTTTGCTTAGTTTGGGGACACCGTTACCACCAGA**ATG**GC
TGCTCTGACAATATGCCTAGGGACTTTCTCATGGCTTTTATTTAATAAGGAGGCTGGGCACCCTATAAAGCCTCA
TGCATTCACACCTTTGCAGCATGGTTTATGCCTCACCTCCCAAGTAGCTGGGATTACAGGTGTGCACCACCATGC
CCGGCTAATTTTTTGTATTTTTAGTGGAGACAGGGTTTCACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCT
CAATTCTCCCACCTCAGCCTCCCAAGTAGCTGGGATTACAGACGTGTGCCACCATACCTGGGTAATTTTTGCATT
TTTAGTGGAGAGGGAGTTTCACCATGTTGGCCAGGTTGGTCTTGAACTCCTGACCTCAGGTGATCCTCCTGCCTC
GGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCGTGCTCAGCCGCAAAATTCTTTA**TGA**ATTTTACACTT
GGCAAATGTTAATGACGGAAGCCATAGTCTGCTCCTAATACATGTCCAAAGCATTGACTGTTGTGTCATTAGCTG
CCTGGTTACATTAGCTCCCTGGCTTCTTGTTTAGACCACTGCTAATCCCTTAAAAACAAGAGGTCTGGCACTAGT
AGCACAACCTAAGGTGGCATTACAGATCTTTGAGCGAGCCACAGCAACTTTTCTGCCAAGTCAGCTTAGTTTAGA
CTTCAGTGAATCAGGCTATTGCTATCCTAATGTATGTCTCTATGAGTGTATTTAGCCACACATCTGCCCTTGGTT
GACTTTCTGACTCATTGCTTGCTTGCTTGTTTCCTTGCTTTGGAAAACTATTGAAGATTGCTAAAAAATACCACT
GCAAAGTGATGGAAAAGGGTGGAGAACAGGGGAGTAGCCAGGCTGGATGGCTCAAATATAAATGAATGAGGAATT
CTTTATGAAGTATCAGTCAGATTTTATGATTAAGTGATGTAATATAGGAATTATGTAAAAGGGAAGAATGTCTGA
TACTGATCTATTAGAGAGGTACTTTAGAGGCTTCTTGATTGGCATAAAGTTCCTAAGGTTATAGATTTTCCCCCC
TTTTGGCTGTATAGCAAAGTGTTTTAATCCACGGTTGTGCCTTATTGTTCCATTAAAATTGTATCTTCGATCCAT
CAATAAATACTTGTGGTTGAAAC

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FIGURE 1354

GGGATTTGAACCGCGCTGACGAAGTTTGGTGATCCATCTTCCGAGTATCGCCGGGATTTCGAATCGCGATGATCA
TCCCCTCTCTAGAGGAGCTGGACTCCCTCAAGTACAGTGACCTGCAGAACTTAGCCAAGAGTCTGGGTCTCCGGG
CCAACCTGAGGGCAACCAAGTTGTTAAAAGCCTTGAAAGGCTACATTAAACATGAGGCAAGAAAAGGAAATGAGA
ATCAGGATGAAAGTCAAACTTCTGCATCCTCTTGTGATGAGACTGAGATACAGATCAGCAACCAGGAAGAAGCTG
AGAGACAGCCACTTGGCCATGTCACCAAAACAAGGAGAAGGTGCAAGACTGTCCGTGTGGACCCTGACTCACAGC
AGAATCATTCAGAGATAAAAATAAGTAATCCCACTGAATTCCAGAATCATGAAAAGCAGGAAAGCCAGGATCTCA
GAGCTACTGCAAAAGTTCCTTCTCCACCAGACGAGCACCAAGAAGCTGAGAATGCTGTTTCCTCAGGTAACAGAG
ATTCAAAGGTACCTTCAGAAGGAAAGAAATCTCTCTACACAGATGAGTCATCCAAACCTGGAAAAAATAAAAGAA
CTGCAATCACTACTCCAAACTTTAAGAAGCTTCATGAAGCTCATTTTAAGGAAATGGAGTCCATTGATCAATATA
TTGAGAGAAAAAAGAAACATTTTGAAGAACACAATTCC**ATG**AATGAACTGAAGCAGCAGCCCATCAATAAGGGAG
GGGTCAGGACTCCAGTACCTCCAAGAGGAAGACTCTCTGTGGCTTCTACTCCCATCAGCCAACGACGCTCGCAAG
GCCGGTCTTGTGGCCCTGCAAGTCAGAGTACCTTGGGTCTGAAGGGGTCACTCAAGCGCTCTGCTATCTCTGCAG
CTAAAACGGGTGTCAGGTTTTCAGCTGCTACTAAAGATAATGAGCATAAGCGTTCACTGACCAAGACTCCAGCCA
GAAAGTCTGCACATGTGACCGTGTCTGGGGGCACCCCAAAAGGCGAGGCTGTGCTTGGGACACACAAATTAAAGA
CCATCACGGGGAATTCTGCTGCTGTTATTACCCCATTCAAGTTGACAACTGAGGCAACGCAGACTCCAGTCTCCA
ATAAGAAACCAGTGTTTGATCTTAAAGCAAGTTTGTCTCGTCCCCTCAACTATGAACCACACAAAGGAAAGCTAA
AACCATGGGGGCAATCTAAAGAAAATAATTATCTAAATCAACATGTCAACAGAATTAACTTCTACAAGAAAACTT
ACAAACAACCCCATCTCCAGACAAAGGAAGAGCAACGGAAGAAACGCGAGCAAGAACGAAAGGAGAAGAAAGCAA
AGGTTTTGGGAATGCGAAGGGGCCTCATTTTGGCTGAAGAT**TAA**TAATTTTTTAACATCTTGTAAATATTCCTGT
ATTCTCAACTTTTTTCCTTTTGTAAATTTTTTTTTTTTGCTGTCATCCCCACTTTAGTCACGAGATCTTTTTCTG
CTAACTGTTCATAGTCTGTGTAGTGTCCATGGGTTCTTCATGTGCTATGATCTCTGAAAAGACGTTATCACCTTA
AAGCTCAAATTCTTTGGGATGGTTTTTACTTAAGTCCATTAACAATTCAGGTTTCTAACGAGACCCATCCTAAAA
TTCTGTTTCTAGATTTTTAATGTCAAGTTCCCAAGTTCCCCCTGCTGGTTCTAATATTAACAGAACTGCAGTCTT
CTGCTAGCCAATAGCATTTACCTGATGGCAGCTAGTTATGCAAGCTTCAGGAGAATTTGAACAATAACAAGAATA
GGGTAAGCTGGGATAGAAAGGCCACCTCTTCACTCTCTATAGAATATAGTAACCTTTATGAAACGGGGCCATATA
GTTTGGTTATGACATCAATATTTTACCTAGGTGAAATTGTTTAGGCTTATGTACCTTCGTTCAAATATCCTCATG
TAATTGCCATCTGTCACTCACTATATTCACAAAAATAAAACTCTACAACTCATTCTAACATTGCTTACTTAAAAG
CTACATAGCCCTATCGAAATGCGAGGATTAATGCTTTAATGCTTTTAGAGACAGGGTCTCACTGTGTTGCCCAGG
CTGGTCTCAAACTCCACCAAATGTACTTCTTATTCATTTTATGGAAAAGACTAGGCTTTGCTTAGTATCATGTCC
ATGTTTCCTTCACCTCAGTGGAGCTTCTGAGTTTTATACTGCTCAAGATCGTCATAAATAAAATTTTTTCTCATT
GTC

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FIGURE 1355

CCCTTACATCCTCCTAGGACCCGGTCGGTAGTCGTCGCCCCAGCCCGCCGGGGGCGCAGCGCCCGAGCCGCGGCC
CTCGAGACGGGACCGAGAGCATC**ATG**GGCAGCACTGTCCCGCGCTCCGCCTCCGTGCTGCTTCTGCTGCTGCTCC
TGCGCCGGGCCGAGCAGCCCTGCGGGGCCGAGCTCACCTTCGAGCTGCCGGACAACGCCAAGCAGTGCTTCCACG
AGGAGGTGGAGCAGGGCGTGAAGTTCTCCCTGGATTACCAGGTCATCACTGGAGGCCACTACGATGTTGACTGCT
ATGTGGAGGACCCCCAGGGGAACACCATCTACAGAGAAACGAAGAAGCAGTACGACAGCTTCACGTACCGGGCTG
AAGTCAAGGGCGTTTATCAGTTTTGCTTCAGTAATGAGTTTTCCACCTTCTCTCACAAGACCGTCTACTTTGACT
TTCAAGTGGGCGATGAGCCTCCCATTCTCCCAGACATGGGGAACAGGGTCACAGCTCTCACCCAGATGGAGTCCG
CCTGCGTGACCATCCATGAGGCTCTGAAAACGGTGATTGACTCCCAGACGCATTACCGGCTGCGGGAGGCCCAGG
ACCGGGCCCGAGCAGAAGACCTTAATAGCCGAGTCTCTTACTGGTCTGTTGGCGAGACGATTGCCCTGTTCGTGG
TCAGCTTCAGTCAGGTGCTACTGTTGAAAAGCTTCTTCACAGAAAAACGACCCATCAGCAGGGCAGTCCACTCC**T**
AGCCCCGGCATCCTGCTCTAGGGCCCCTCATGCCCCAGGCTGGAGCAGCTCTCCTAGGTCACAGCCTGCTGGGCT
GGGTCGCGTAGCCCAGGGTGGAGGCAGAACGATGCTGCTGTGGTAGCCCTTTGCCTTTCATGCCCATGCTTGATT
CTTGCACCTCAGCAGCTGAAGGTCTCAGAGACCAGTAATCAGAAGGCATCCGACTGCATTAAGTGTGCAGCGCTG
AAAAGACATTTACAACTAGGCCAGGGATTAGCCACTGTGGGAGGGTGGACAGGCAATGGTTCAGTGGCCTGGCTG
TTGGCAGGAACTCCAAGTGCCCAGGCCTCTTGGGCAGCTTAGGGCCCTGCCTCTGTTTCATGATGCATGGGTCAT
TTGTCTTGGGTGTCCTATCCCATATGGAGAAGAAAGGGGCTCTAAGTTCTGGCTCTTCTTTCTTTGGGGTTCTCT
GTACCTGAGGAAACCAGGCCCTGGGTGACTTTGCAGATCTGCTCACCCTCGGTGAGCAACAGTGTCAGCCATGCA
AGCAGGACAGAATGGTGACTGGGTGCCCTTGGTGAGCTGTGTATTTCCTAGGAGGTAGAAAACTGTGGGAAACTG
TGGCTAATAAAAACTAAGTGTGAGCGTC

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FIGURE 1356

ATGGCCAGCAACGTTACCAACAAGACAAATCCTTGCTCCATGAACTCCCATGTGTTCATTGGGAATCTCAACACT
CTTGTGGTCAAGAAATCTGATGTGGAGGCAATCTTTTCGAAGTATGGCAAAATGGGCTGTGCTGTTCATAAGGGC
TTTGCCTTTGTTCAATATTTTAGTGAGAGAAATGCCCGGGCTGCTGGAGCAGGAGAGGATGATAGAATGATTGCT
GGCCAGGTTTTAGATATTAACCTGGCTGCAGAGCCAAAAGTGAACCGTGGAAAAGCAGGCGTGAAACGATCTGCA
GTGGAGATGTATAGCTCCTCTTTTCACTTGGGCTATGACTATCAAGGTGATTATGATGACACGATGTACAGTTAC
TCAGCACGATGGGGGGATGACCAGCTGGAGTTGATCAAGGATGATGAAAAAGAGGCTGAGGAAGGAGAGGATGAC
AGAGACAGCACCAATGGCATGGATGACTCT**TAA**

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FIGURE 1357

GCGCAAGAGCCAAGCCGCCAGCGCTGCG**ATG**TGGGCCACGCTGCCGCTGCTCTGCGCCGGGGCCTGGCTCCTGGG
AGTCCCCGTCTGCGGTGCCGCCGAACTGTGCGTGAACTCCTTAGAGAAGTTTCACTTCAAGTCATGGATGTCTAA
GCACCGTAAGACCTACAGTACGGAGGAGTACCACCACAGGCTGCAGACGTTTGCCAGCAACTGGAGGAAGATAAA
CGCCCACAACAATGGGAACCACACATTTAAAATGGCACTGAACCAATTTTCAGACATGAGCTTTGCTGAAATAAA
ACACAAGTATCTCTGGTCAGAGCCTCAGAATTGCTCAGCCACCAAAAGTAACTACCTTCGAGGTACTGGTCCCTA
CCCACCTTCCGTGGACTGGCGGAAAAAAGGAAATTTTGTCTCACCTGTGAAAAATCAGGGTGCCTGCGGCAGTTG
CTGGACTTTCTCCACCACTGGGGCCCTGGAGTCTGCGATCGCCATCGCAACCGGAAAGATGCTGTCCTTGGCGGA
ACAGCAGCTGGTGGACTGCGCCCAGGACTTCAATAATCACGGCTGCCAAGGGGGTCTCCCCAGCCAGGCTTTCGA
GTATATCCTGTACAACAAGGGGATCATGGGTGAAGACACCTACCCCTACCAGGGCAAGGATGGTTATTGCAAGTT
CCAACCTGGAAAGGCCATCGGCTTTGTCAAGGATGTAGCCAACATCACAATCTATGACGAGGAAGCGATGGTGGA
GGCTGTGGCCCTCTACAACCCTGTGAGCTTTGCCTTTGAGGTGACTCAGGACTTCATGATGTATAGAACCGGCAT
CTACTCCAGTACTTCCTGCCATAAAACTCCAGATAAAGTAAACCATGCAGTACTGGCTGTTGGGTATGGAGAAAA
AAATGGGATCCCTTACTGGATCGTGAAAAACTCTTGGGGTCCCCAGTGGGGAATGAACGGGTACTTCCTCATCGA
GCGCGGAAAGAACATGTGTGGCCTGGCTGCCTGCGCCTCCTACCCCATCCCTCTGGTG**TGA**GCCGTGGCAGCCGC
AGCGCAGACTGGCGGAGAAGGAGAGGAACGGGCAGCCTGGGCCTGGGTGGAAATCCTGCCCTGGAGGAAGTTGTG
GGGAGATCCACTGGGACCCCCAACATTCTGCCCTCACCTCTGTGCCCAGCCTGGAAACCTACAGACAAGGAGGAG
TTCCACCATGAGCTCACCCGTGTCTATGACGCAAAGATCACCAGCCATGTGCCTTAGTGTCCTTCTTAACAGACT
CAAACCACATGGACCACGAATATTCTTTCTGTCCAGAAGGGCTACTTTCCACATATAGAGCTCCAGGGACTGTCT
TTTCTGTATTCGCTGTTCAATAAACATTGAGTGAGCACCTCC

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FIGURE 1358

GGCAAATCCGGCCCAGGATGTAGAGCTGGCAGTGCCTGACGGCGCGTCTGACGCGGAGTTGGGTGGGGTAGAGAG
TAGGGGGCGGTAGTCGGGGGTGGTGGGAGAAGGAGGAGGCGGCGAATCACTTATAA**ATG**GCGCCGAAGCAGGACC
CGAAGCCTAAATTCCAGGAGGGTGAGCGAGTGCTGTGCTTTCATGGGCCTCTTCTTTATGAAGCAAAGTGTGTAA
AGGTTGCCATAAAGGACAAACAAGTGAAATACTTCATACATTACAGTGGTTGGAATAAAAATTGGGATGAATGGG
TTCCGGAGAGCAGAGTACTCAAATACGTGGACACCAATTTGCAGAAACAGCGAGAACTTCAAAAAGCCAATCAGG
AGCAGTATGCAGAGGGGAAGATGAGAGGGGCTGCCCCAGGAAAGAAGACATCTGGTCTGCAACAGAAAAATGTTG
AAGTGAAAACGAAAAAGAACAAACAGAAAACACCTGGAAATGGAGATGGTGGCAGTACCAGTGAGACCCCTCAGC
CTCCTCGGAAGAAAAGGGCCCGGGTAGATCCTACTGTTGAAAATGAGGAAACATTCATGAACAGAGTTGAAGTTA
AAGTAAAGATTCCTGAAGAGCTAAAACCGTGGCTTGTTGATGACTGGGACTTAATTACCAGGCAAAAACAGCTCT
TTTATCTTCCTGCCAAGAAGAATGTGGATTCCATTCTTGAGGATTATGCAAATTACAAGAAATCTCGTGGAAACA
CAGATAATAAGGAGTATGCGGTTAATGAAGTTGTGGCAGGGATAAAAGAATACTTCAACGTAATGTTGGGTACCC
AGCTACTCTATAAATTTGAGAGACCACAGTATGCTGAAATTCTTGCAGATCATCCCGATGCACCCATGTCCCAGG
TGTATGGAGCGCCACATCTCCTGAGATTATTTGTACGAATTGGAGCAATGTTGGCTTATACACCTCTGGATGAGA
AGAGCCTTGCTTTATTACTCAATTATCTTCACGATTTCCTAAAGTACCTGGCAAAGAATTCTGCAACTTTGTTCA
GTGCCAGCGATTATGAAGTGGCTCCTCCTGAGTACCATCGGAAAGCTGTG**TGA**GAGGCACTCTCACTCACTTATG
TTTGGATCTCCGTAAACACATTTTTGTTCTTAGTCTATCTCTTGTACAAACGATGTGCTTTGAAGATGTTAGTGT
ATAACAATTGATGTTTGTTTTCTGTTTGATTTTAAACAGAGAAAAAATAAAAGGGGGTAATAGCTCCTTTTTTCT
TCTTTCTTTTTTTTTTTCATTTCAAAATTGCTGCCAGTGTTTTCAATGATGGACAACAGAGGGATATGCTGTAGA
GTGTTTTATTGCCTAGTTGACAAAGCTGCTTTTGAATGCTGGTGGTTCTATTCCTTTGACACTACGCACTTTTAT
AATACATGTTAATGCTATATGACAAAATGCTCTGATTCCTAGTGCCAAAGGTTCAATTCAGTGTATATAACTGAA
CACACTCATCCATTTGTGCTTTTGTTTTTTTTTATGGTGCTTAAAGTAAAGAGCCCATCCTTTGCAAGTCATCCA
TGTTGTTACTTAGGCATTTTATCTTGGCTCAAATTGTTGAAGAATGGTGGCTTGTTTCATGGTTTTTGTATTTGT
GTCTAATGCACGTTTTAACATGATAGACGCAATGCATTGTGTAGCTAGTTTTCTGGAAAAGTCAATCTTTTAGGA
ATTGTTTTTCAGATCTTCAATAAATTTTTTCTTTAAATTTC

FIGURE 1359

GAACCGCCATCTTCCAGTAATTCGCCAAA**ATG**ACGAACACAAAGGGAAAGAGGAGAGGCACCCAATATATGTTCT
CTAGGCCTTTTAGAAAACATGGAGTTGTTGCTTTGGCCACGTATATGCAAATCTATAAGAAAGGTGATATTGTAG
ACATCAAGGGAATGGGTACTGTTCAAAAAGGAATGCCCCACAAGTGTTACCATGGCAAAACTGGAAGAGTCTATA
ATGTCCCCCAGCATGCTGTTGGCATTGTTGTAAACACACAAGTTAAGGGCAAGATTCTTGCCAAGAGAATTAATG
TGCGTATTGAGCACATTAAGCACTCTAAAAGC**TGA**GATAGTTTCCTGAAACACATGAAGGAAAATGATCAGAAAA
AGAAGGAAGCCAAATAGAAAGGTACCTGGGTTCAACAGAAGCACCAGCCTGCTCCACCCAGAGAAGCACACTTTG
TGAGAACCAATGCGAAGGAGCCTGAGCTGCTGGAACCTATTCCCTATGAATTCATGGCATAACAGGTGTTAATAA
ATAAATAAAAGACCTCTGGGCTGT

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FIGURE 1360

AAACAGGCCATTGTTGCTGAGCGAGGATGAAGAAGATACCAAGAGAGTTGTCCGCAGTGCCAAGGACAAGAGGTT
TGAGGAGCTGACCAACCTTATCCGGACCATCCGTAATGCC**ATG**AAGATTCGTGATGTCACCAAGTGCCTGGAAGA
GTTTGAGCTCCTGGGAAAAGCATATGGGAAGGCCAAAAGCATTGTGGACAAAGAAGGTGTCCCCCGGTTCTATAT
CCGCATCCTGGCTGACCTAGAGGACTATCTTAATGAGCTTTGGGAAGATAAGGAAGGGAAGAAGAAGATGAACAA
GAACAATGCCAAGGCTCTGAGCACCTTGCGTCAGAAGATCCGAAAATACAACCGTGATTTCGAGTCCCATATCAC
AAGCTACAAGCAGAACCCCGAGCAGTCTGCGGATGAAGATGCTGAGAAAAATGAGGAGGATTCAGAAGGCTCTTC
AGATGAGGATGAGGATGAGGACGGAGTCAGTGCTGCAACTTTCTTGAAGAAGAAATCAGAAGCTCCTTCTGGGGA
GAGTCGCAAGTTCCTCAAAAAGATGGATGATGAAGATGAGGACTCAGAAGATTCCGAAGATGATGAAGACTGGGA
CACAGGTTCCACATCTTCCGATTCCGACTCAGAGGAGGAAGAAGGGAAACAAACCGCGCTGGCCTCAAGATTTCT
TAAAAAGGCACCCACCACAGATGAGGACAAGAAGGCAGCCGAGAAGAAACGGGAGGACAAAGCTAAGAAGAAGCA
CGACAGGAAATCCAAGCGCCTGGATGAGGAGGAGGAGGACAATGAAGGCGGGGAGTGGGAAAGGGTCCGGGGCGG
AGTGCCGTTGGTTAAGGAGAAGCCAAAAATGTTTGCCAAGGGAACTGAGATCACCCATGCTGTTGTTATCAAGAA
ACTGAATGAGATCCTACAGGCACGAGGCAAGAAGGGAACTGATCGTGCTGCCCAGATTGAGCTGCTGCAACTGCT
GGTTCAGATTGCAGCGGAAAACAACCTGGGAGAGGGCGTCATTGTCAAGATCAAGTTCAATATCATCGCCTCTCT
CTATGACTACAACCCCAACCTGGCAACCTACATGAAGCCAGAGATGTGGGGGAAGTGCCTGGACTGCATCAATGA
GCTGATGGATATCCTGTTTGCAAATCCCAACATTTTTGTTGGAGAGAATATTCTGGAAGAGAGTGAGAACCTGCA
CAACGCTGACCAGCCACTGCGTGTCCGTGGCTGCATCCTAACTCTGGTGGAACGAATGGATGAAGAATTTACCAA
AATAATGCAAAATACTGACCCTCACTCCCAAGAGTACGTGGAGCACTTGAAGGATGAGGCCCAGGTGTGTGCCAT
CATCGAGCGTGTGCAGCGCTACCTGGAGGAGAAGGGCACTACCGAGGAGGTCTGCCGCATCTACCTGCTGCGCAT
CCTGCACACCTACTACAAGTTTGATTACAAGGCCCATCAGCGACAGCTGACCCCGCCTGAGGGCTCCTCAAAGGT
GAGCAAGACCAGGCAGAAAATGAGGGCGAGGACTCGGCTGTGT**TGA**TGGAGAGACTGTGCAAGTACATCTACGCC
AAGGACCGCACAGACCGGATCCGCACATGTGCCATCCTCTGCCACATCTACCACCATGC

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FIGURE 1361

GTGTCTTTCCTGAAGACTATCTTCTGGTCTCGAAATGGACATGATGGATCC**ATG**GATGTACAGCAGAGAGCCTGG
AGGTCCAACCGCAGTAGACAGAAAGGGCTGAGGTCCATTTGTATGCACACAAAGAAAAGAGTTTCTTCCTTTCGA
GGAAATAAAATTGGCCTGAAAGACGTCATTACTCTACGGAGGCATGTGGAAACAAAAGTTAGAGCTAAAATCCGT
AAGAGGAAGGTGACAACGAAAATCAACCGTCATGACAAAATCAATGGAAAGAGGAAGACCGCCAGAAAACAGAAA
ATGTTTCAACGTGCGCAAGAGTTGCGGCGGCGGGCAGAGGACTACCACAAATGCAAAATCCCCCCTTCTGCAAGA
AAGCCTCTTTGCAACTGGGTCAGAATGGCGGCAGCGGAGCATCGTCATTCTTCAGGATTGCCCTACTGGCTCTAC
CTCACAGCTGAAACTTTAAAAAACAGGATGGGCCGCCAGCCACCTCCTCCAACTCAACAACATTCTATAACTGAT
AACTCCCTGAGCCTCAAGACACCTCCTGAGTGTCTGCTCACTCCCCTTCCACCCTCAGTGGATGATAATATCAAG
GAGTGTCCTCTTGCTCCTCTTCCACCCTCTCCTCTTCCACCCTCAGTGGATGATAATCTGAAGGAATGTCTCTTT
GTCCCGCTTCCACCCTCTCCTCTTCCACCCTCAGTGGATGATAATCTGAAGAAACTAACGAAGAATAAA**TAA**ATA
ATATAAAAATA

FIGURE 1362

GGCCCTGCGGTGTGACTCGCGGGCTCAGCTGGTTGGTATTTTTTGGGCCTCGTGCTTCGTGGTGGGAGACCCAGG
TCGAGGTCCGGCCGTAGCACCTCCGCGCCGTCGCC**ATG**TCGCGGTTTTTCACCACCGGTTCGGACAGCGAGTCCG
AGTCGTCCTTGTCCGGGGAGGAGCTCGTCACCAAACCTGTCGGAGGCAACTATGGCAAACAGCCATTGTTGCTGA
GCGAGGATGAAGAAGATACCAAGAGAGTTGTCCGCAGTGCCAAGGACAAGAGGTTTGAGGAGCTGACCAACCTTA
TCCGGACCATCCGTAATGCCATGAAGATTCGTGATGTCACCAAGTGCCTGGAAGAGTTTGAGCTCCTGGGAAAAG
CATATGGGAAGGCCAAAAGCATTGTGGACAAAGAAGGTGTCCCCCGGTTCTATATCCGCATCCTGGCTGACCTAG
AGGACTATCTTAATGAGCTTTGGGAAGATAAGGAAGGGAAGAAGAAGATGAACAAGAACAATGCCAAGGCTCTGA
GCACCTTGCGTCAGAAGATCCGAAAATACAACCGTGATTTCGAGTCCCATATCACAAGCTACAAGCAGAACCCCG
AGCAGTCTGCGGATGAAGATGCTGAGAAAAATGAGGAGGATTCAGAAGGCTCTTCAGATGAGGATGAGGATGAGG
ACGGAGTCAGTGCTGCAACTTTCTTGAAGAAGAAATCAGAAGCTCCTTCTGGGGAGAGTCGCAAGTTCCTCAAAA
AGATGGATGATGAAGATGAGGACTCAGAAGATTCCGAAGATGATGAAGACTGGGACACAGGTTCCACATCTTCCG
ATTCCGACTCAGAGGAGGAAGAAGGGAAACAAACCGCGCTGGCCTCAAGATTTCTTAAAAAGGCACCCACCACAG
ATGAGGACAAGAAGGCAGCCGAGAAGAAACGGGAGGACAAAGCTAAGAAGAAGCACGACAGGAAATCCAAGCGCC
TGGATGAGGAGGAGGAGGACAATGAAGGCGGGGAGTGGGAAAGGGTCCGGGGCGGAGTGCCGTTGGTTAAGGAGA
AGCCAAAAATGTTTGCCAAGGGAACTGAGATCACCCATGCTGTTGTTATCAAGAAACTGAATGAGATCCTACAGG
CACGAGGCAAGAAGGGAACTGATCGTGCTGCCCAGATTGAGCTGCTGCAACTGCTGGTTCAGATTGCAGCGGAAA
ACAACCTGGGAGAGGGCGTCATTGTCAAGATCAAGTTCAATATCATCGCCTCTCTCTATGACTACAACCCCAACC
TGGCAACCTACATGAAGCCAGAGATGTGGGGGAAGTGCCTGGACTGCATCAATGAGCTGATGGATATCCTGTTTG
CAAATCCCAACATTTTTGTTGGAGAGAATATTCTGGAAGAGAGTGAGAACCTGCACAACGCTGACCAGCCACTGC
GTGTCCGTGGCTGCATCCTAACTCTGGTGGAACGAATGGATGAAGAATTTACCAAAATAATGCAAAATACTGACC
CTCACTCCCAAGAGTACGTGGAGCACTTGAAGGATGAGGCCCAGGTGTGTGCCATCATCGAGCGTGTGCAGCGCT
ACCTGGAGGAGAAGGGCACTACCGAGGAGGTCTGCCGCATCTACCTGCTGCGCATCCTGCACACCTACTACAAGT
TTGATTACAAGGCCCATCAGCGACAGCTGACCCCGCCTGAGGGCTCCTCAAAGTCTGAGCAAGACCAGGCAGAAA
ATGAGGGCGAGGACTCGGCTGTGTTGATGGAGAGACTGTGCAAGTACATCTACGCCAAGGACCGCACAGACCGGA
TCCGCACATGTGCCATCCTCTGCCACATCTACCACCATGCTCTGCACTCGCGCTGGTACCAGGCCCGCGACCTCA
TGCTCATGAGCCACTTGCAGGACAACATTCAGCATGCAGACCCGCCAGTGCAGATCCTTTACAACCGCACCATGG
TGCAGCTGGGCATCTGTGCCTTCCGCCAAGGCCTGACCAAGGACGCACACAACGCCCTGCTGGACATCCAGTCGA
GTGGCCGAGCCAAGGAGCTTCTGGGCCAGGGCCTGCTGCTGCGCAGCCTGCAGGAGCGCAACCAGGAGCAGGAGA
AGGTGGAGCGGCGCCGTCAGGTCCCCTTCCACCTGCACATCAACCTGGAGCTGCTGGAGTGTGTCTACCTGGTGT
CTGCCATGCTCCTGGAGATCCCCTACATGGCCGCCCATGAGAGCGATGCCCGCCGACGCATGATCAGCAAGCAGT
TCCACCACCAGCTGCGCGTGGGCGAGCGACAGCCCCTGCTGGGTCCCCCTGAGTCCATGCGGGAACATGTGGTCG
CTGCCTCCAAGGCCATGAAGATGGGTGACTGGAAGACCTGTCACAGTTTTATCATCAATGAGAAGATGAATGGGA
AAGTGTGGGACCTTTTCCCCGAGGCTGACAAAGTCCGCACCATGCTGGTTAGGAAGATCCAGGAAGAGTCACTGA
GGACCTACCTCTTCACCTACAGCAGTGTCTATGACTCCATCAGCATGGAGACGCTGTCAGACATGTTTGAGCTGG
ATCTGCCCACTGTGCACTCCATCATCAGCAAAATGATCATTAATGAGGAGCTGATGGCCTCCCTGGACCAGCCAA
CACAGACAGTGGTGATGCACCGCACTGAGCCCACTGCCCAGCAGAACCTGGCTCTGCAGCTGGCCGAGAAGCTGG
GCAGCCTGGTGGAGAACAACGAACGGGTGTTTGACCACAAGCAGGGCACCTACGGGGGCTACTTCCGAGACCAGA
AGGACGGCTACCGCAAAAACGAGGGCTACATGCGCCGCGGTGGCTACCGCCAGCAGCAGTCTCAGACGGCCTAC**T**
GAGCTCTCCACTCTGTTTCCCGCCTGGGCCATCCAACCTTGAAGTCCTAAACCACACCTCAGTCACTAAAGGTCT
GTTTAAAGTTGTTCTGGTTGATTGCTTGTTGCCACAAAGGTGTGTTGAGCCCATTCATTTGCTGATTATATTTCT
GAGCTGCTACCACATGACAGACACAAGGCTCAGATGAAGAGGTGAATTGAACACGTTCCTGACCTC

FIGURE 1363

AGTCTCCCACACTCCTCGCAAGGACAGGTCCTCTCTGGAACCTTCACAAACCTGATTTCTGGTCCTCCCCAACCA
GCTCCCTGTCCCTGCTTCTGGGTGCTCCTTCCTTCCTGAGCTCCCAGGGTTCCTCAAGGTCACTTTTGGCGACAA
AACATAAAAAACAA**ATG**ATGGCAGGATGGCAGGAAGAACCTCATACCCAAGCAGAGTGCCAGGTTTTACAGCCTC
CGCTCAGCCATTCATATCCTAAGCAACAAAACATCAGCAGGATGCGGAAGGTCCCGATAGTAAACCATCTCCATC
ACATCCATGTAGCCATCCGTCCATCAACCTGTATCTCAGGAACAAATGTAGATACATTCATTTTAAGCATGCATG
GTACATTTACAAAAATTAACCTGACTTATTTTGTTCCAGCAAATCTCAATATATTTGAGAGCAATCAAATCACAC
AGCACGTTTCTGATCATATAACTGTGCTAGAAGTCAATGAT**TAA**AAGCTAATTCAAAATTATTATTTGCTTGGAA
ATTCAAAGTGCCCTTATAAGACATAAACATAAGAAAGAATCCAAAATGAAACAAGATTGCCTTTCAACTCAATGA
TAAGATCATAACATGGCAATAAAATGTCTCCCTCTGGCCTGGGAATTCCTCTTTGTGGCACAAGGTTGTGTGATC
TCAAATCACCCCTAACCCACCTAGACATTTTAACATCCGAAACCGAGTGATGATGTCCTTATCTATAATCATCTT
ACTGCCTGTGTGTGTGGACTTTAAATTCTGAACCCAAATGAGGGGGAGAAAACCAAGTTGACCTTCATGATTGAC
CTCTCAGGGATGTCCAAGGAATCTGTGCATTTCAAGAAACAAAGTTCATCAGCTTCTCTCCTAAGGTTACCATGC
CAGCAATGATTCCTTTTGAGTTTCTGACAGAAGATAGTGGTTTTCATCCAAATAAGTCAACTACTCTACCCCATC
CCTAAGCCACTTGTATGGAAAGAAAAAGAGGAAGAAGCCAGTACTGTGACTGCGTAAGCTTCCCCCAGCATCACC
CGCTATGAGATGTGTGGCAGCTGAGACCCGGGAACTGCTCAAGGGCACCAGGCCCCATCTGTCTGCACTCACTCA
CCTTCCTCAGG

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FIGURE 1364

GGCTGAGGTCCATTTGT**ATG**CACACAAAGAAAAGAGTTTCTTCCTTTCGAGGAAATAAAATTGGCCTGAAAGACG
TCATTACTCTACGGAGGCATGTGGAAACAAAAGTTAGAGCTAAAATCCGTAAGAGGAAGGTGACAACGAAAATCA
ACCGTCATGACAAAATCAATGGAAAGAGGAAGACCGCCAGAAAACAGAAAATGTTTCAACGTGCGCAAGAGTTGC
GGCGGCGGGCAGAGGACTACCACAAATGCAAAATCCCCCCTTCTGCAAGAAAGCCTCTTTGCAACTGGGTCAGAA
TGGTGGCAGCGGAGCATCGTCATTCTTCAGGATTGCCCTACTGGCCCTACCTCACAGCTGAAACTTTAAAAAACA
GGATGGGCCGCCAGCCACCTCCTCCAACTCAACAACATTCTATAACTGATAACTCCCTGAGCCTCAAGACACCTA
CTGAGTGTCTGCTCACTCCCCTTCCACCCTCAGTGGATGATAATATCAAGGAGTGTCCTCTTGCTCCTCTTCCAC
CCTCTCCTCTTCCACCCTCAGTGGATGATAATCTGAAGGAATGTCTCTTTGTCCCGCTTCCACCCTCTCCTCTTC
CACCCTCAGTGGATGATAATCTCAAGACTCCTCCCTTAGCTACTCAGGAGGCCGAGGTGGAAAAACCACCCAAAC
CCAAGAGGTGGAGGGTGGATGAGGTGGAACAATCACCGAAACCCAAGAGGCGGAGGGTGGATGAGGTGGAACAAT
CGCCCAAGCCCAAGAGGCAGAGGGAGGCCGAGGCACAACAATTACCCAAACCCAAGAGGCGGAGGTTGAGTAAGC
TGAGAACACGCCATTGCACTCAAGCCTGGGCAATAAGAATAAATCCG**TAG**GTCGAAAAAAAGAAAAAAATCAAAA
AACAAAACAAAACCCACGCTCCAAAAACAAACTAACGAAGAATAAATAAATAATAT

FIGURE 1365

GGAGCAAGGGAGCTTTCGGGCCACACTCCCAGACGCCTCCCTGAGCCCTGGAACCCGGACTCGTTGCTCCTGGCC
TTCCATACCCCCTGGCAGATCATCCTGCGGTCCCACCCCAGATCCCCTCCTCCTCGCCATCCCATTCTGCCCCCT
CCCCACCCTGGGTACAGAAAGGGACTGAAGTGTTGGGCAGAGAGGGGGCTTAAGGCCCCTGGGCACAGGCTGGGA
TCAGGGCAGTGAGCGAAGGGCAGCTGTGTCCTGCCCTCCCTTCTGGAGGCTGGAGGGGAGAGGCCAAGCCCTTGG
AAAATGTAGCAAATGTCTGGATGTCGCATAAGTGCGTGTATGTGCGGGACAGGCCCCGAGAAGCTAGTGACTCCT
GCACACCCCCATTGCACAAATGAAATCACAGCCCAGGAGGGAGGGTAGCTTGGCACTGGCTGAGAAATAGAGCTC
TCTCCCCGCCCCTCCCCCTAACCACAAGGGATTGTCCTGACAACTTGTGGGGATAGAAGGGCTCACAGGGCAGGG
GTCTCAGCTGCCCCCATCCTTAGGGCAGGGGAGTTAGTGTGGAGCCGAGAGCAGGTCCCAGCTCCCCCTGCCAGC
CGCACTGTCCCAGGCCCAGGGACCTCTGCCGGGTCCTCCCAGCCCTTGCCACACAGCCTAGACGTAGTAGCCTGG
GCTTCCAGCAGGTGGCGAGCTGGTTCGTGCTGGAAATTTCTCCTGGGTTTCTTGGGGTCAAACATGCCAACCTCC
AAGACCCCATCCTCACGTCTCCCACTTTTCTGGCGCTGGAGTGTGCAGGGCGTAGGACCTGCATGTGTGGGTGTG
AGAATGGGGGCGGTGGACACCAGGGGGCGAGTGTGTGACTAGGTGTGTGTGCAC**ATG**TGTAGGGTGCAGACGCAT
GGGTGCCATCCTTTGCGTTCAGTGACTGTGCGTCCAGACCCCTCACCAGCGGCCCCCCCACCACACCCTGGTCCT
CCCAGGCAGCTGTCCCAGGGCGCCCAGGCCTGCCTTGCACCACAGCCCTCAGGAAATCCGGCAAGGAGGCCCCTG
CAGGTTGGTTCAGGCCCCCAGGTAGCAAAACAGAGACAACAGCAGCCCCGCCTGACCCCCTGCCCCTCTCTGTGG
AGGCCCGGGACCCCCGCAATAAGCACCACATGGGTGAGGCTGTCCCTGTCAGGGTCCCCTGCCAGGGTCCCTCCT
GGGGTTCTGGGCCATTTGAGGGGCTCTTTGATGGGCCAGGCCGGCCAGAGTGAACTCCGAGCACTTTCTGGCTGG
TGCCCCAACCTCTCCACTCCCCACTCATTCCCACCT**TGA**AAAAGGGCTATAGGTCCCCTGCCCTGCCCGGGTCCA
GTTTACAAACAGTGTGGGGTGGCCCCAGGGCCTGGCCCCACTCTCCCTGCTGTGCCCACTCCTCTCCAGACTCCA
CCTCCCCAGTGGGTATGGGCCCTCCACATGCCAGGTAAGTAGCAAACCCCCACTCCCTCCAAGGACCAGGTCTCA
GAGAAGGCCCTGGTCACTGCCCCCGGCCCACCTGGAGCCCATCGGGGCTGCCTCTCCCAGCCGCGACTTCTCCTT
TTGCCTTAGGCCTCGCGACATCCTGATCTCTCCTGCAATAACTAGGAATCGAGATTCCACAGTAGACGTCCCTTG
CCGTGCTCGCTCTCTCTCTCGCGCGCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCCTCTCTTTCTCTC
TCTCCCTCTCTCTGTTAAGATCCTGTTCGGGAGTTTCCCCAGCCGTTGTAGTATCTAGTATGTTAGAGTTGGGAG
GGGACCATAGTTATGTAGCCCAGCCCCCTCATTCCCAGAGGCACCCAGAGGGCCAGCCTCCAGCCTGACCCCAGA
GCAGAACCGGAACACCAGGTTGGGGCCCTGGTGCTGCCACCTCCTCTGCTGGTCGGGCTGGGACCCTTTGCCCCT
TAGGAGAGGTGTTGGTCACAGATGTTTACCTCAGTTTATGTCACTGTCGAAGAAACAAAAAATAATAGCAAAAAA
TAACACTGTAGACATGAAGACTTAGAAGACAAAAAAAAAAAAATCACACAAAAAATCTCCCTTGTTGCGATTCTT
CTGTGAAGGTACAGTGTGTATGTGTGTATGTGTGTATGTGTGTGCGTGTCTCTGTCCCAGACCCTGTGTCCCCCA
CACTGCCCCCTGTCCTTCGGTGCTTCCCAGAGACCCCTCTGAGCTGGCCTGTGGGGCACGGGAAGCCCCCTGGAT
GGGAGGCGGGGCCACAGGTCGGCTAGAGGGTCTCCACCAGGCCCACTGAACAGAACCCCACGGCTGCCAGAATGT
TCCCTGAGCCCACACTGTGGCCAGTGGGACAGTCCTGGTGGCTGACATCAGCGTCCATGCTTGGCTCAGGGCCTG
GGGCGGGGTCCTGGGTAGAGTCCTAGCCCCAGAGCCCCAGCCCCTCATGTCTTGCCGCCCTTCCTCCATGTGTTT
GTAAATACTCTGGCATCCTTTGGCCCTGAGAAGGTTTTTAAATGTGTTATTTACTTCTCTAAACATGACGATTGC
TATAAAAATAAACAAAAGTTTAGAAAAATG

FIGURE 1366A

AGAGGAGCTTCTTAATAACTTTGCCCAGCAAATAGGAGCCTGGAGATTCTGCCTGTACTTTCTCTCCAGCACTAG
GAATGACTATGTA**ATG**ATGTACAGTTTAACAGTTTTTGAGAATCTGATCAATAAAATGTGGCTTGGGGTCCCATC
TCAGGATAAGATGGAAATCCGTAGCTGTCTGCCCAAACTCCTTTTGGCTCACCATAAAACCTTACCTTACTTTAT
CCGGAACAAGCTCTGCAAAGTTATTGTTGATATTGGACGTCAGGATTGGCCCATGTTCTACCACGACTTTTTTAC
TAACATTTTACAGTTGATCCAGTCCCCTGTGACAACCCCCCTTGGGCTGATCATGTTGAAGACAACTTCAGAAGA
GCTGGCTTGTCCCCGTGAGGACCTCAGTGTGGCTCGGAAGGAGGAGTTGCGGAAGCTGCTACTGGACCAGGTGCA
GACAGTGCTTGGGCTACTGACAGGTATCTTGGAGACTGTCTGGGACAAACACAGTGTTACTGCTGCCACTCCACC
ACCATCCCCGACCTCAGGAGAAAGTGGTGACTTACTGAGTAACCTGTTGCAGAGTCCCAGTTCAGCCAAACTGTT
GAATCAGCCAATTCCCATCCTTGATGTGGAGAGTGAGTATATCTGTTCCCTGGCTTTGGAGTGCCTGGCCCATCT
CTTCAGTTGGATTCCTCTGTCTGCCAGCATCACCCCATCCCTCCTTACCACCATCTTCCACTTTGCACGATTTGG
CTGTGACATCCGGGCCAGAAAGATGGCGTCAGTTAACGGCAGCAGCCAGAACTGTGTCTCGGGTCAGGAGCGCGG
CCGGCTGGGGGTCCTGGCCATGTCCTGCATCAATGAACTCATGTCCAAGAACTGTGTGCCTATGGAATTTGAGGA
GTATTTACTGCGTATGTTCCAGCAGACTTTCTACCTCCTGCAGAAAATCACCAAGGATAACAATGCCCACACAGT
GAAGAGCAGGCTAGAAGAGCTCGATGAGAGCTATATCGAGAAGTTTACTGACTTTCTTCGGCTCTTTGTGAGTGT
TCACCTAAGAAGAATCGAGTCTTACTCCCAGTTCCCTGTGGTGGAGTTTTTGACACTTTTGTTCAAGTACACATT
TCATCAGCCTACTCATGAAGGTTACTTCTCTTGTTTGGATATCTGGACGCTGTTTTTGGACTATCTGACAAGTAA
AATTAAAAGTCGTCTTGGAGACAAGGAAGCAGTTCTCAACAGGTACGAAGATGCCCTGGTGCTCCTGCTCACAGA
GGTGTTGAATCGAATCCAGTTCAGATACAACCAAGCCCAGCTGGAGGAGTTGGATGATGAGACTCTGGATGACGA
TCAGCAGACGGAGTGGCAGCGGTACTTACGGCAGAGCTTGGAGGTGGTGGCCAAAGTGATGGAGCTCCTGCCCAC
GCACGCCTTCTCCACACTGTTCCCTGTTCTTCAGGACAATTTAGAAGTTTATTTGGGATTACAACAGTTTATAGT
CACTTCAGGGTCAGGACACAGGTTGAACATCACGGCGGAGAACGACTGCCGGCGGCTGCACTGCTCCCTGAGAGA
CTTGAGCTCCCTGCTGCAGGCCGTGGGCCGCCTGGCCGAGTACTTTATCGGGGATGTGTTTGCTGCACGGTTCAA
TGATGCCCTCACAGTCGTGGAAAGGTTGGTCAAAGTCACTCTGTACGGATCTCAGATAAAATTGTACAACATTGA
AACTGCTGTGCCATCAGTATTGAAACCTGACCTCATTGATGTGCATGCTCAGTCCCTGGCTGCGCTGCAGGCTTA
CTCTCACTGGTTAGCACAGTATTGCAGTGAAGTTCACCGGCAGAACACGCAGCAGTTCGTGACACTCATCTCTAC
TACCATGGATGCAATCACACCTCTAATCAGCACCAAGGTCCAAGACAAGCTGCTGCTATCTGCGTGCCACTTACT
GGTCTCACTGGCCACCACCGTGCGGCCCGTCTTTCTGATCAGCATCCCTGCAGTGCAGAAAGTATTCAACAGAAT
CACTGATGCCTCTGCCCTGCGACTTGTCGATAAGGCCCAGGTGTTGGTGTGCCGAGCCCTCTCTAACATCTTGCT
GCTTCCGTGGCCAAACCTTCCAGAGAATGAGCAGCAGTGGCCCGTGCGCTCCATCAACCACGCCAGCCTCATCTC
TGCACTCTCCCGGGACTATCGCAACCTGAAGCCCAGTGCTGTTGCCCCACAGAGAAAGATGCCACTGGATGACAC
CAAACTGATTATCCACCAGACACTCAGCGTCTTAGAAGATATTGTGGAGAATATCTCGGGGGAGTCCACCAAGTC
TCGACAGATTTGCTACCAGTCGCTGCAGGAATCTGTTCAGGTCTCCCTGGCCCTCTTTCCAGCTTTTATCCATCA
GTCAGATGTGACTGATGAGATGCTGAGCTTCTTCCTCACTCTGTTTCGAGGCCTTAGAGTACAGATGGGTGTGCC
TTTCACTGAGCAAATCATACAGACTTTCCTCAACATGTTTACCAGAGAGCAGTTAGCCGAGAGCATCCTCCACGA
GGGCAGCACAGGCTGCCGGGTGGTGGAGAAGTTTCTGAAGATCCTGCAGGTGGTGGTCCAGGAGCCAGGCCAGGT
GTTCAAGCCCTTCCTCCCCAGCATCATCGCCCTGTGCATGGAGCAAGTGTATCCCATCATTGCCGAGCGTCCCTC
CCCTGATGTGAAGGCCGAGCTGTTTGAGCTCCTTTTCCGGACGCTCCATCACAACTGGAGGTACTTCTTCAAGTC
CACCGTGCTGGCCAGTGTCCAGAGGGGGATCGCTGAGGAGCAGATGGAGAATGAGCCCCAGTTCAGTGCCATCAT
GCAGGCTTTCGGACAGTCCTTTCTCCAGCCCGACATCCACCTTTTTAAACAAAATCTCTTCTACTTGGAGACTCT
CAACACCAAGCAGAAGCTGTACCACAAGAAGATCTTCCGGACTGCCATGCTGTTCCAGTTTGTGAACGTGCTGCT
CCAGGTCCTGGTCCACAAGTCCCATGATCTTCTGCAGGAGGAGATTGGCATCGCCATCTACAACATGGCCTCAGT
CGACTTTGATGGCTTCTTTGCCGCCTTCCTCCCAGAGTTCCTGACCAGCTGTGATGGTGTGGATGCCAACCAGAA
AAGTGTGCTGGGGCGGAATTTCAAGATGGATCGGGACCTGCCCTCATTCACCCAGAATGTGCACAGGCTGGTCAA
CGACCTGCGCTACTACAGACTCTGCAACGACAGCCTGCCCCCTGGCACTGTGAAGCTC**TAG**GCCTGCTACTGCCT
GGGGACACGGACTTCTGCTGCTGCCACCTGCGCCAGCCCTACCTTCCACCACAGATGTCTCCCAGATGGGCCTTG
GTCACACTCCTTGGCTTCTCCCACCGCAAGCAACGCTGCCTGCCTCTGCCGCTCCTCCACATCTTGCCGCTGCCC
AGCAGAGCTGGCTTCTGGGTCCACCTGAGCACTGGACGGTGCTCCCAGGGCGTTGGAGCAGGCGGAGGGGTGTGT
GGCCAGGTACTAGGAGGCACCAGGAAATCCCGCGGGGTGGCCCATGCAGACCAGGCGCACGTGGCTCATGGGGCA

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FIGURE 1366B

GAATTGCCAAGGACAGCTCACGACAGTGCCACCTTCTCACCATTCCAGCCAAGGAGAGATGTGACGTTGGAACTG
CTCTGGCACTTCTGTCAAGCCTCCCCCGCCCCAATTGCCTTGAGATCTCTGCTCTTTGTCAGAGATTTGCAAAGA
CTCACGTTTTTGTTGTTTTCTCATCATTCCATTGTGATACTAAGAAACTAAGAAGCTTAATGAAAAGAAATAAAA
TGCCTATGTTGTTGTTCTAG

FIGURE 1367

TCTCTCTCGGCGTTTCCGCTGTCAGGGCCTGCGGTGTGACTCGCGGGCTCAGCTGGTCCGGCCGTAGCACCTCCG
CGCCGTCGCC**ATG**TCGCGGTTTTTCACCACCGGTTCGGACAGCGAGTCCGAGTCGTCCTTGTCCGGGGAGGAGCT
CGTCACCAAACCTGTCGGAGGCAACTATGGCAAACAGCCATTGTTGCTGAGCGAGGATGAAGAAGATACCAAGAG
AGTTGTCCGCAGTGCCAAGGACAAGAGGTTTGAGGAGCTGACCAACCTTATCCGGACCATCCGTAATGCCATGAA
GATTCGTGATGTCACCAAGTGCCTGGAAGAGTTTGAGCTCCTGGGAAAAGCATATGGGAAGGCCAAAAGCATTGT
GGACAAAGAAGGTGTCCCCCGGTTCTATATCCGCATCCTGGCTGACCTAGAGGACTATCTTAATGAGCTTTGGGA
AGATAAGGAAGGGAAGAAGAAGATGAACAAGAACAATGCCAAGGCTCTGAGCACCTTGCGTCAGAAGATCCGAAA
ATACAACCGTGATTTCGAGTCCCATATCACAAGCTACAAGCAGAACCCCGAGCAGTCTGCGGATGAAGATGCTGA
GAAAAATGAGGAGGATTCAGAAGGCTCTTCAGATGAGGATGAGGATGAGGACGGAGTCAGTGCTGCAACTTTCTT
GAAGAAGAAATCAGAAGCTCCTTCTGGGGAGAGTCGCAAGTTCCTCAAAAAGATGGATGATGAAGATGAGGACTC
AGAAGATTCCGAAGATGATGAAGACTGGGACACAGGTTCCACATCTTCCGATTCCGACTCAGAGGAGGAAGAAGG
GAAACAAACCGCGCTGGCCTCAAGATTTCTTAAAAAGGCACCCACCACAGATGAGGACAAGAAGGCAGCCGAGAA
GAAACGGGAGGACAAAGCTAAGAAGAAGCACGACAGGAAATCCAAGCGCCTGGATGAGGAGGAGGAGGACAATGA
AGGCGGGGAGTGGGAAAGGGTCCGGGGCGGAGTGCCGTTGGTTAAGGAGAAGCCAAAAATGTTTGCCAAGGGAAC
TGAGATCACCCATGCTGTTGTTATCAAGAAACTGAATGAGATCCTACAGGCACGAGGCAAGAAGGGAACTGATCG
TGCTGCCCAGATTGAGCTGCTGCAACTGCTGGTTCAGATTGCAGCGGAAAACAACCTGGGAGAGGGCGTCATTGT
CAAGATCAAGTTCAATATCATCGCCTCTCTCTATGACTACAACCCCAACCTGGCAACCTACATGAAGCCAGAGAT
GTGGGGGAAGTGCCTGGACTGCATCAATGAGCTGATGGATATCCTGTTTGCAAATCCCAACATTTTTGTTGGAGA
GAATATTCTGGAAGAGAGTGAGAACCTGCACAACGCTGACCAGCCACTGCGTGTCCGTGGCTGCATCCTAACTCT
GGTGGAACGAATGGATGAAGAATTTACCAAAATAATGCAAAATACTGACCCTCACTCCCAAGAGTACGTGGAGCA
CTTGAAGGATGAGGCCCAGGTGTGTGCCATCATCGAGCGTGTGCAGCGCTACCTGGAGGAGAAGGGCACTACCGA
GGAGGTCTGCCGCATCTACCTGCTGCGCATCCTGCACACCTACTACAAGTTTGATTACAAGGCCCATCAGCGACA
GCTGACCCCGCCTGAGGGCTCCTCAAAGTCTGAGCAAGACCAGGCAGAAAATGAGGGCGAGGACTCGGCTGTGTT
GATGGAGAGACTGTGCAAGTACATCTACGCCAAGGACCGCACAGACCGGATCCGCACATGTGCCATCCTCTGCCA
CATCTACCACCATGCTCTGCACTCGCGCTGGTACCAGGCCCGCGACCTCATGCTCATGAGCCACTTGCAGGACAA
CATTCAGCATGCAGACCCGCCAGTGCAGATCCTTTACAACCGCACCATGGTGCAGCTGGGCATCTGTGCCTTCCG
CCAAGGCCTGACCAAGGACGCACACAACGCCCTGCTGGACATCCAGTCGAGTGGCCGAGCCAAGGAGCTTCTGGG
CCAGGGCCTGCTGCTGCGCAGCCTGCAGGAGCGCAACCAGGAGCAGGAGAAGGTGGAGCGGCGCCGTCAGGTCCC
CTTCCACCTGCACATCAACCTGGAGCTGCTGGAGTGTGTCTACCTGGTGTCTGCCATGCTCCTGGAGATCCCCTA
CATGGCCGCCCATGAGAGCGATGCCCGCCGACGCATGATCAGCAAGCAGTTCCACCACCAGCTGCGCGTGGGCGA
GCGACAGCCCCTGCTGGGTCCCCCTGAGTCCATGCGGGAACATGTGGTCGCTGCCTCCAAGGCCATGAAGATGGG
TGACTGGAAGACCTGTCACAGTTTTATCATCAATGAGAAGATGAATGGGAAAGTGTGGGACCTTTTCCCCGAGGC
TGACAAAGTCCGCACCATGCTGGTTAGGAAGATCCAGGAAGAGTCACTGAGGACCTACCTCTTCACCTACAGCAG
TGTCTATGACTCCATCAGCATGGAGACGCTGTCAGACATGTTTGAGCTGGATCTGCCCACTGTGCACTCCATCAT
CAGCAAAATGATCATTAATGAGGAGCTGATGGCCTCCCTGGACCAGCCAACACAGACAGTGGTGATGCACCGCAC
TGAGCCCACTGCCCAGCAGAACCTGGCTCTGCAGCTGGCCGAGAAGCTGGGCAGCCTGGTGGAGAACAACGAACG
GGTGTTTGACCACAAGCAGGGCACCTACGGGGGCTACTTCCGAGACCAGAAGGACGGCTACCGCAAAAACGAGGG
CTACATGCGCCGCGGTGGCTACCGCCAGCAGCAGTCTCAGACGGCCTAC**TGA**GCTCTCCACTCTGTTTCCCGCCT
GGGCCATCCAACCTTGAAGTCCTAAACCACACCTCAGTCACTAAAGGTCTGTTTAAAGTTGTTCTGGTTGATTGC
TTGTTGCCACAAAGGTGTGTTGAGCCCATTCATTTGCTGATTATATTTCTGAGCTGCTACCACATGACAGACACA
AGGCTCAGATGAAGAGGTGAATTGAAC

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FIGURE 1368

ATAATTAAAGATTTACACACAGCTGGAAGAAATCATAGAGAAGCCGGGCGTGGTGGCTCATGCCTATAATCCCAG
CACTTTTGGAGGCTGAGGCGGGCAGATCACTTGAGATCAGGAGTTCGAGACCAGCCTGGTGCCTTGGCATCTCCC
AATGGGGTGGCTTTGCTCTGGGCTCCTGTTCCCTGTGAGCTGCCTGGTCCTGCTGCAGGTGGCAAGCTCTGGGAA
CATGAAGGTCTTGCAGGAGCCCACCTGCGTCTCCGACTACATGAGCATCTCTACTTGCGAGTGGAAGATGAATGG
TCCCACCAATTGCAGCACCGAGCTCCGCCTGTTGTACCAGCTGGTTTTTCTGCTCTCCGAAGCCCACACGTGTAT
CCCTGAGAACAACGGAGGCGCGGGGTGCGTGTGCCACCTGCTCATGGATGACGTGGTCAGTGCGGATAACTATAC
ACTGGACCTGTGGGCTGGGCAGCAGCTGCTGTGGAAGGGCTCCTTCAAGCCCAGCGAGCATGTGAAACCCAGGGC
CCCAGGAAACCTGACAGTTCACACCAATGTCTCCGACACTCTGCTGCTGACCTGGAGCAACCCGTATCCCCCTGA
CAATTACCTGTATAATCATCTCACCTATGCAGTCAACATTTGGAGTGAAAACGACCCGGCAGATTTCAGAATCTA
TAACGTGACCTACCTAGAACCCTCCCTCCGCATCGCAGCCAGCACCCTGAAGTCTGGGATTTCCTACAGGGCACG
GGTGAGGGCCTGGGCTCAGTGCTATAACACCACCTGGAGTGAGTGGAGCCCCAGCACCAAGTGGCACAACTCCTA
CAGGGAGCCCTTCGAGCAGCACCTCCTGCTGGGCGTCAGCGTTTCCTGCATTGTCATCCTGGCCGTCTGCCTGTT
GTGCTATGTCAGCATCACCAAGATTAAGAAAGAATGGTGGGATCAGATTCCCAACCCAGCCCGCAGCCGCCTCGT
GGCTATAATAATCCAGGATGCTCAGGGGTCACAGTGGGAGAAGCGGTCCCGAGGCCAGGAACCAGCCAAGTGCCC
ACACTGGAAGAATTGTCTTACCAAGCTCTTGCCCTGTTTTCTGGAGCACAACATGAAAAGGGATGAAGATCCTCA
CAAGGCTGCCAAAGAGATGCCTTTCCAGGGCTCTGGAAAATCAGCATGGTGCCCAGTGGAGATCAGCAAGACAGT
CCTCTGGCCAGAGAGCATCAGCGTGGTGCGATGTGTGGAGTTGTTTGAGGCCCCGGTGGAGTGTGAGGAGGAGGA
GGAGGTAGAGGAAGAAAAAGGGAGCTTCTGTGCATCGCCTGAGAGCAGCAGGGATGACTTCCAGGAGGGAAGGGA
GGGCATTGTGGCCCGGCTAACAGAGAGCCTGTTCCTGGACCTGCTCGGAGAGGAGAATGGGGGCTTTTGCCAGCA
GGACATGGGGGAGTCATGCCTTCTTCCACCTTCGGGAAGTACGAGTGCTCACATGCCCTGGGATGAGTTCCCAAG
TGCAGGGCCCAAGGAGGCACCTCCCTGGGGCAAGGAGCAGCCTCTCCACCTGGAGCCAAGTCCTCCTGCCAGCCC
GACCCAGAGTCCAGACAACCTGACTTGCACAGAGACGCCCCTCGTCATCGCAGGCAACCCTGCTTACCGCAGCTT
CAGCAACTCCCTGAGCCAGTCACCGTGTCCCAGAGAGCTGGGTCCAGACCCACTGCTGGCCAGACACCTGGAGGA
AGTAGAACCCGAGATGCCCTGTGTCCCCCAGCTCTCTGAGCCAACCACTGTGCCCCAACCTGAGCCAGAAACCTG
GGAGCAGATCCTCCGCCGAAATGTCCTCCAGCATGGGGCAGCTGCAGCCCCCGTCTCGGCCCCCACCAGTGGCTA
TCAGGAGTTTGTACATGCGGTGGAGCAGGGTGGCACCCAGGCCAGTGCGGTGGTGGGCTTGGGTCCCCCAGGAGA
GGCTGGTTACAAGGCCTTCTCAAGCCTGCTTGCCAGCAGTGCTGTGTCCCCAGAGAAATGTGGGTTTGGGGCTAG
CAGTGGGGAAGAGGGGTATAAGCCTTTCCAAGACCTCATTCCTGGCTGCCCTGGGGACCCTGCCCCAGTCCCTGT
CCCCTTGTTCACCTTTGGACTGGACAGGGAGCCACCTCGCAGTCCGCAGAGCTCACATCTCCCAAGCAGCTCCCC
AGAGCACCTGGGTCTGGAGCCGGGGGAAAAGGTAGAGGACATGCCAAAGCCCCCACTTCCCCAGGAGCAGGCCAC
AGACCCCCTTGTGGACAGCCTGGGCAGTGGCATTGTCTACTCAGCCCTTACCTGCCACCTGTGCGGCCACCTGAA
ACAGTGTCATGGCCAGGAGGATGGTGGCCAGACCCCTGTCATGGCCAGTCCTTGCTGTGGCTGCTGCTGTGGAGA
CAGGTCCTCGCCCCCTACAACCCCCCTGAGGGCCCCAGACCCCTCTCCAGGTGGGGTTCCACTGGAGGCCAGTCT
GTGTCCGGCCTCCCTGGCACCCTCGGGCATCTCAGAGAAGAGTAAATCCTCATCATCCTTCCATCCTGCCCCTGG
CAATGCTCAGAGCTCAAGCCAGACCCCCAAAATCGTGAACTTTGTCTCCGTGGGACCCACATACATGAGGGTCTC
TTAGGTGCATGTCCTCTTGTTGCTGAGTCTGCAGATGAGGACTAGGGCTTATCCATGCCTGGGAAATGCCACCTC
CTGGAAGGCAGCCAGGCTGGCAGATTTCCAAAAGACTTGAAGAACCATGGTATGAAGGTGATTGGCCCCACTGAC
GTTGGCCTAACACTGGGCTGCAGAGACTGGACCCCGCCCAGCATTGGGCTGGGCTCGCCACATCCCATGAGAGTA
GAGGGCACTGGGTCGCCGTGCCCCACGGCAGGCCCCTGCAGGAAAACTGAGGCCCTTGGGCACCTCGACTTGTGA
ACGAGTTGTTGGCTGCTCCCTCCACAGCTTCTGCAGCAGACTGTCCCTGTTGTAACTGCCCAAGGCATGTTTTGC
CCACCAGATCATGGCCCACATGGAGGCCCACCTGCCTCTGTCTCACTGAACTAGAAGCCGAGCCTAGAAACTAAC
ACAGCCATCAAGGGAATGACTTGGGCGGCCTTGGGAAATCGATGAGAAATTGAACTTCAGGGAGGGTGGTCATTG
CCTAGAGGTGCTCATTCATTTAACAGAGCTTCCTTAGGTTGATGCTGGAGGCAGAATCCCGGCTGTCAAGGGGTG
TTCAGTTAAGGGGAGCAACAGAGGACATGAAAAATTGCTGTGACTAAAGCAGGGACAATTTGCTGCCAAACACCC
ATGCCCAGCTGTATGGCTGGGGGCTCCTCGTATGCATGGAACCCCCAGAATAAATATGCTCAGCCACCCTGTGGG
CCGGGCAATCCAGACAGCAGGCATAAGGCACCAGTTACCCTGCATGTTGGCCCAGACCTCAGGTGCTAGGGAAGG
CGGGAACCTTGGGTTGAGTAATGCTCGTCTGTGTGTTTTAGTTTCATCACCTGTTATCTGTGTTTGCTGAGGAGA
GTGGAACAGAAGGGGTGGAGTTTTGTATAAATAAAGTTTCTTTGTCTC

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FIGURE 1369

CGTATCCGCTAGCGCGGCCTGGGATGCGCTTGGGCTCCCTGTTCGTTCCCACATGCAGGGCAGCACAAGGAGAAT
GGGCGTCATGACTGATGTCCACCGGCGCTTCCTCCAGTTGCTGATGACCCATGGCGTGCTAGAGGAATGGGACGT
GAAGCGCTTGCAGACGCACTGCTACAAGGTCCATGACCGCAATGCCACCGTAGATAAGTTGGAGGACTTCATCAA
CAACATTAACAGTGTCTTGGAGTCCTTGTATATTGAGATAAAGAGAGGAGTCACGGAAGATGATGGGAGACCCAT
TTATGCGTTGGTGAATCTTGCTACAACTTCAATTTCCAAAATGGCTACGGATTTTGCAGAGAATGAACTGGATTT
GTTTAGAAAGGCTCTGGAACTGATTATTGACTCAGAAACCGGCTTTGCGTCTTCCACAAACATATTGAACCTGGT
TGATCAACTTAAAGGCAAGAAGATGAGGAAGAAGGAAGCGGAGCAGGTGCTGCAGAAGTTTGTTCAAAACAAGTG
GCTGATTGAGAAGGAAGGGGAGTTCACCCTGCACGGCCGGGCCATCCTGGAGATGGAGCAATACATCCGGGAGAC
GTACCCCGACGCGGTGAAGATCTGCAATATCTGTCACAGCCTCCTCATCCAGGGTCAAAGCTGCGAAACCTGTGG
GATCAGGATGCACTTACCCTGCGTGGCCAAGTACTTCCAGTCGAATGCTGAACCGCGCTGCCCCCACTGCAACGA
CTACTGGCCCCACGAGATCCCAAAAGTCTTCGACCCTGAGAAGGAGAGGGAGTCTGGTGTCTTGAAATCGAACAA
AAAGTCCCTGCGGTCCAGGCAGCATTAGCCATCGTGCCCTGCTGAGGGGCTGGCTGCCTTGAGTGGCCTGATCGC
CACAGCCCTTCTTGGAAGAAAGGCGTCCGTGTTTCAGGTTCCACGCGAGTCACCTCTTTCGTCTTAATGTTCACC
GTCCACAGCTTTGGAATAAACCATCCTGGG

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FIGURE 1370

GTCGTGATCAGACGAGCGGTGAGCGATCGATACTCCTATGCTAGCCTCTGGCTCCTCAGGGGACACAGCCGAGTG
GTCGGACCAAACGCAACGAGTCTTCGCCAGCCCAAAGGCGACTCGACACCGTCCCAGCTGAAGAGAGGCACGGGA
CTGAACCAGCTGGTGGTGGCCCG**ATG**GCTGGAGACACCCACTGCCCCGCAGAGCCCCTGGCCAGAGAAGGCACTT
TATGGGAGGCCCTCAGGGCGCTCCTGCCGCACAGTAAAGAAGACCTGAAGTTGGACCTCGGGGAGAAAGTGGAGA
GGAGCGTGGTGACATTGTTGCAGCGAGCCACTGAGCTCTTCTACGAGGGCAGGAGGGACGAGTGTCTGCAGAGCA
GCGAGGTGATCCTGGACTACTCCTGGGAGAAGCTCAACACGGGCACATGGCAGGACGTAGACAAAGACTGGCGCC
GGGTCTACGCCATCGGCTGCCTCCTGAAAGCCCTGTGTCTGTGCCAGGCACCTGAGGATGCCAACACTGTGGCCG
CAGCCCTGCGGGTCTGTGACATGGGCCTGCTGATGGGGGCAGCCATCCTGGGGGACATCCTTCTTAAAGTCGCTG
CCATCCTCCAGACACACCTCCCTGGAAAGAGGCCTGCCCGTGGCTCCCTCCCAGAGCAACCCTGCACAAAGAAAG
CAAGGGCGGACCATGGTTTGATTCCAGATGTGAAGTTAGAAAAAACAGTCCCCCGGCTGCACCGTCCGTCCCTCC
AGCATTTCAGGGAGCAGTTTTTGGTTCCAGGGAGGCCCGTGATCCTGAAAGGCGTGGCTGACCACTGGCCGTGCA
TGCAGAAGTGGAGTTTGGAGTATATCCAGGAGATCGCTGGCTGCCGAACTGTCCCAGTGGAAGTTGGTTCGAGGT
ACACAGATGAGGAATGGTCCCAGACCCTCATGACGGTCAACGAGTTCATCAGCAAATACATCGTGAATGAGCCAA
GGGACGTCGGGTACCTTGCTCAGCACCAGCTCTTTGACCAGATCCCGGAGTTGAAGCAGGACATCAGCATCCCCG
ACTACTGCAGCCTGGGCGATGGGGAGGAGGAGGAAATCACCATCAATGCCTGGTTTGGTCCCCAGGGAACCATCT
CCCCACTACATCAGGATCCCCAGCAAAACTTCCTAGTGCAGGTGATGGGGAGGAAGTACATCCGGCTGTATTCCC
CGCAGGAGTCAGGGGCTCTGTACCCTCATGACACGCACCTTCTCCATAACACGAGCCAGGTTGACGTGGAGAATC
CCGACCTGGAAAAGTTCCCCAAGTTTGCCAAGGCCCCATTCCTGTCCTGCATCCTGTCTCCTGGAGAGATCCTGT
TCATCCCGGTGAAATACTGGCATTACGTGCGGGCTCTGGATTTGAGCTTCTCGGTCAGCTTCTGGTGGTCG**TAG**C
CAGGATAGGAGCTGAAAGGGCCTGACATGCAGACAGCATTCATCTGTTCACTAATTTCCTGGGTCCTGGAATCTA
TAGAGACAAGCAGGACTGAACCTGTGTCCTGAAGAGCCTTCACTGCCCAGTGGCAGCCCTGGGGGGCTGAGCTCC
AGCACTGGACAGGCACAGAGCAGGGGCTGCCCAGGAAGGAGCACACTCCAGGCCAGGGGTGCATGGCAGAGGAAG
GTGGGGAGAGCCCAGAAGGACATTGCAGACAGACAGCCTGCATGGGGACTCTGGCATCAGAAAGCCGAATGTTTT
TGGGAAACGGGTGGGTCACACAGGCAGGGGTGAAACATGGGCTCTGAGGTTGGCTACCTGATTCAAACCCGGCCG
CGCTGTGCACCTGCTGGGTGACTTGGCCAGGATCCCCCACTTCGCTGTGCCCATATGGAAAAGAGGGCAAGGCCA
GTCCTCACTGCCGAGGGCCGAGAAGGCGGTGCCGAGCCCCTGCTGCTGCATGAACCTTAGCCGCTGTCACTGATC
CCAATTACTCTGATCCTTTTGCCCTTCCTTCCCATAACGGCCTGCTGGACGCCACAGCCTGAATACTGGAGAGAG
CTGGGCATTGCCCAGGTCACAGGAGAGAGTCCGTAGAGACCTGCGCAGGAGCCGGGACCCCTGCTGAGCAGTGGG
AGCTTTCTGTCATCCCCATGGCTCAAGGATAACCTACCTGCCTGCAGAGAAGTGCGAAGGTCTTGCTGGATGACT
TTTCACCCGCACTCACCCAGGAGCAGGCTCCCAAGTGAAGAAACCACCGAACCATCACCAGCTCCTAGAAGCCTC
CCTCCTACCACCTTCTAGTCACCATCCCCCAGAAGTAATGACTCTCAAACCTGGGGGATTTGAGGCCAGGGGGAG
AGCCAGGCTCTATGCTTTCTGTAATTGTGTCTCGTTTGTGTGCACGCAGGTTTGTTTTATGTTTTGGCCATTAAG
ATTTTCCCCAGCCCTC

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FIGURE 1371

GGCCAGCGCGGCCGGNGCCCCCTNCGNCCTNCCCACCCAGGGCGCTGAGCACGCACGNCCGCCGGCCTGGTGTTT
CGGNCGGGGGCCCGGGACCAGCCGCCGCCTTCTCCAGGCGCTCCTACTCTCTGGGCATCTGCAGTCCGAGCGGAA
GGGGCGGGAANCGTCGGCGACGCCGAGGGAGCAAAGCCCACGATCGGCTTCCCGGGGCAGCGGACGGCTGCCTTC
CTCCCGGCGCAAACGCACCGCCCAGGAGGGGGCGGGCTCGGCGGGTCGGGGGGCGGGGCCGGGGTCCGAGCTCGG
GCCCNGCCTCCGCCTCCGCCAGCTCCTGTGAGCTGCCGAGTGCTAGGCACCCGGGCTCTTCTGGGGGCTCCAGAA
CTAAGCCACCCAGACACCATCATCCCGAAAACCCCAGCCCTTCTCCC**ATG**GCAGGCTACTTGCCCCCCCAAAGGN
TACGCCCCTTCGCCCCCACCTCCCTACCCTGTCACCCCTGGGTACCCGGAGCCGGCGCTACATCCTGGGNCCCGG
GCAGGCGCCAGTGCCCGCCCAGGTACCTGCCCCAGNCTCCCGGCTTCGCCCTCTTCCCCTCGCCTGGCCCCGTGG
CCTTGGGGTCTGCTGCCCCCTTCTTGCCACTGCCAGGGGTGCCTTCTGGCCTCGAATTCCTGGTGCAGATTGATC
AGATTTTGATTCACCAGAAGGCTGAGCGAGTGGAAAATGGAAGTACAGGCTCCACCAGGCACCACCATTGGCCAC
GTGCTACAGACCTGGCATCCCTTCCTCCCCAAGTTCTCCATCCAGGATGCCGATCGCCAGACAGTCTTGCGAGTG
GTGGGGCCCTGCTGGACCTGTGGCTGTGGCACAGACACCAACTT**TGA**GGTGAAGACNTCGGGATGAATCCCGCAG
TGTGGGCCGCATCAGCAAGCAGTGGGGGGGCCTGGTCCGAGAAGCCCTCACAGATGCAGATGACTTTGGCCTACA
GTTCCCGCTGGACCNNNTGGANTNGNNNTGNAGGGTGAAGGCTGTGCTGCTGGGAGCCACATTCCTCATTGACTA
CATGTTCTTTGAGAAGCGAGGAGGCGCTGGGCCCTCTGCCATCACCAGTTAGAGGCCACCATGGTGTGAGGAGAC
CATCACCTCGACCAGAACTCCAGATGGTCACCTGCCCTGGCCCCTCCTCTGGGCAGCCCCTTTCCTCCATGTACA
CTGCAGGGGACAGNAAGGGGGGCCCCATCCCTACCCTACTCCCTGGCCGCCTGNCCCCTGTGGTTCCCAAGGAGG
GGTATGTATGAGAGCCGCTCTCCTGCTACCTNCCCACCACTGTCCCAGCAGTCCCTCGGCACACAGGCATATCAG
CTTTCACACTTTCCCCATGCACTCTCTCCCACCCCCTTCCAGGGCCTCTGCTCCAAAGGAGGCCTCTGGAACCCA
GGACTCTGGGGTTTTACAAGNAGGGCTGGGGTGTGGAAGGGCAAGCTGCACCAAAGACGGTGGATATAGCCACCG
CCCCCCCGCCGCTGCCTAGCATCTGCTTGGCCAATTAGTTCAGCCTCAGACCATGGCACTTTGAGGGGGTCTCTA
CCTCCCCATCAACAGCTGCAGGGGGACCCCAGTGCCAACTTCCTCTCCCANCTAGGGCCCTGCCTTCAGCTGGTG
CTTGCTGCGATTCCTGTGCCTTATGTAACTGCCCTTCCTTCCCTTGCCCTNAGGAAAAAGGCTGCATCTTTATAT
GTTACATTCATATAAACTTTGTAACTTTTTGGACATTG

FIGURE 1372A

CGGCCGCCACCTACGTGCAGAACCAGAGCGAGGACTGCCTGTACCTCAACCTCTACGTGCCCACCGAGGACGATA
TCCGTGACCCTGGGAAGAAGCCTGTG**ATG**CTGTTTCTCCATGGCGGCTCCTACATGGAGGGGACCGGAAACATGT
TCGATGGCTCAGTCCTGGCTGCCTATGGCAACGTCATTGTAGCCACGCTCAACTACCGTCTTGGGGTGCTCGGTT
TTCTCAGCACCGGGGACCAGGCTGCAAAAGGCAACTATGGGCTCCTGGACCAGATCCAGGCCCTGCGCTGGCTCA
GTGAAAACATCGCCCACTTTGGGGGCGACCCCGAGCGTATCACCATCTTTGGTTCCGGGGCAGGGGCCTCCTGCG
TCAACCTTCTGATCCTCTCCCACCATTCAGAAGGGCTGTTCCAGAAGGCCATCGCCCAGAGTGGCACCGCCATTT
CCAGCTGGTCTGTCAACTACCAGCCGCTCAAGTACACGCGGCTGCTGGCAGCCAAGGTGGGCTGTGACCGAGAGG
ACAGCGCTGAAGCTGTGGAGTGTCTGCGCCGGAAGCCCTCCCGGGAGCTGGTGGACCAGGACGTGCAGCCTGCCC
GCTACCACATCGCCTTTGGGCCCGTGGTGGATGGCGACGTGGTCCCCGATGACCCTGAGATCCTCATGCAGCAGG
GAGAATTCCTCAACTACGACATGCTCATCGGCGTCAACCAGGGAGAGGGCCTCAAGTTCGTGGAGGACTCTGCAG
AGAGCGAGGACGGTGTGTCTGCCAGCGCCTTTGACTTCACTGTCTCCAACTTTGTGGACAACCTGTATGGCTACC
CGGAAGGCAAGGATGTGCTTCGGGAGACCATCAAGTTTATGTACACAGACTGGGCCGACCGGGACAATGGCGAAA
TGCGCCGCAAAACCCTGCTGGCGCTCTTTACTGACCACCAATGGGTGGCACCAGCTGTGGCCACTGCCAAGCTGC
ACGCCGACTACCAGTCTCCCGTCTACTTTTACACCTTCTACCACCACTGCCAGGCGGAGGGCCGGCCTGAGTGGG
CAGATGCGGCGCACGGGGATGAACTGCCCTATGTCTTTGGCGTGCCCATGGTGGGTGCCACCGACCTCTTCCCCT
GTAACTTCTCCAAGAATGACGTCATGCTCAGTGCCGTGGTCATGACCTACTGGACCAACTTCGCCAAGACTGGGG
ACCCCAACCAGCCGGTGCCGCAGGATACCAAGTTCATCCACACCAAGCCCAATCGCTTCGAGGAGGTGGTGTGGA
GCAAATTCAACAGCAAGGAGAAGCAGTATCTGCACATAGGCCTGAAGCCACGCGTGCGTGACAACTACCGCGCCA
ACAAGGTGGCCTTCTGGCTGGAGCTCGTGCCCCACCTGCACAACCTGCACACGGAGCTCTTCACCACCACCACGC
GCCTGCCTCCCTACGCCACGCGCTGGCCGCCTCGTCCCCCCGCTGGCGCCCCGGGCACACGCCGGCCCCCGCCGC
CTGCCACCCTGCCTCCCGAGCCCGAGCCCGAGCCCGGCCCAAGGGCCTATGACCGCTTCCCCGGGGACTCACGGG
ACTACTCCACGGAGCTGAGCGTCACCGTGGCCGTGGGTGCCTCCCTCCTCTTCCTCAACATCCTGGCCTTTGCTG
CCCTCTACTACAAGCGGGACCGGCGGCAGGAGCTGCGGTGCAGGCGGCTTAGCCCACCTGGCGGCTCAGGCTCTG
GCGTGCCTGGTGGGGGCCCCCTGCTCCCCGCCGCGGGCCGTGAGCTGCCACCAGAGGAGGAGCTGGTGTCACTGC
AGCTGAAGCGGGGTGGTGGCGTCGGGGCGGACCCTGCCGAGGCTCTGCGCCCTGCCTGCCCGCCCGACTACACCC
TGGCCCTGCGCCGGGCACCGGACGATGTGCCTCTCTTGGCCCCCGGGGCCCTGACCCTGCTGCCCAGTGGCCTGG
GGCCACCGCCACCCCCACCGCCCCCCTCCCTTCATCCCTTCGGGCCCTTCCCCCCGCCCCCTCCCACCGCCACCA
GCCACAACAACACGCTACCCCACCCCCACTCCACCACTCGGGTA**TAG**GGGGTGGGTGGGGAGGCCCTCCTCCCCG
GCCCTCCCTGGCCCGGCCACTCCGAAGGCAGGGAGGAGGACTTGGCAACTGGCTTTTCTCCTGTGGAGTCGTCAC
ACGCCATCCAGCAGCGCTAAGGTGGACATGGGATTCCTCCCTGCGATGCGTGTCTTTCCCACGCAGAGAAGCCCA
GTCTCTTCTCTGGATCTGGGCCTTTGAACAACTGGGGGGCGTTTTCTCCCCCCCATTGGGACACCAGTCTTCGGT
GTGTGGAATGTGGTATTTTCCCGCGTGGAGGTGTGCTTTCTCACAACGGGGTGTGTTTTCCCATGTGCAGGGTGA
GGTTTTTTTTTGCCACCCTGGACACATGTTGGCCCCCTCAAAGAATTTCTGTGGGGATTTGTACCCCAGAATCCT
GTTCCCCCATCCCTTCTCCCACCTCCTCCCCTCTCCCTCCCCCTGGAGACCCTGGAAGTGGTGTGTTCACATACA
GTGACCCTTGGCCACCAGACCACAGAGGATGGAGCCTGGGAAGCAGCGAGGAAATCACAGCCCCCTCGCCCCTGC
CTCCCTTGCCCCTACCCCGGCGAAGCATGTTCCCCCCGACGCCCCCCTTGGCACAAGTCAGATGAAGCACGTTCT
GCCGGGGAGGCCCTCACCTTCCAGAGAGGACAGACACAGATTTCCTGCTGGGGGAGGGAGGAGTCCACGCATCCT
GATGCTGCCTGGAAGCTTATTTTCCCGTGGCCAGGACGCATTTCTCTGAGTGGAAACAGGTTCTTGCATGTGGAT
GTGTGTTTCCCCAGGCAGACGGCCCCTCTCTTCCCAGCACTTCCCTGCCTCCCCCAGGCCTCAGGCCCAGCACCC
AGTTCCTCCTCACATGGCAGGTGAGCACAGACTTCTAGTTGGCAGGAGCTGAGGAGGGTGAACAAACCCCGAGGG
AGGCCCGGCCCTTGCTCCCGAGTTGGGGGGAGGGGGTGTGGCAACGTGCCCCCCGCAGAGGCCACGCATGTTTGA
CCAAAGCCCTCATTGTGGTCCGAGGACAGCCTTTTCCCCAGGCCTCAGAGCATTGCTCATCCGTGCCAAACTGGG
TAGGTGGATTTGAGCGGAAAGACTCCCAAAATGTGCCAAGAATTTCCCAGTCCCAGGCAGGGCAGGGGAAACTAA
GGGCAAGCAGGATACAGGGCGAGGGATGTGGCAGGTGAGGGGGCTCCCGCCTGTGCCCCTTCTCCTCACCATGTC
TCCCCCACCCTGCCTCAGTTCTCCGTTCCCCTTCATCTCCGTCCCCCTCTTTGAAGCTGTCCCCATCTCAGTGTC
AGACCAGCCTTCTCCTCAGCTGACCACCCTCCTCTGACCCACGCCCCCTCCTTGTCTGAAAGAAAGGAGCCTTGA
ATGGTGGAGGGAGGCAGTGGGGAGAAAGGTCTCACCGGACAGGTTGGGAGAATGAGGTCAGCGGTGCTGGGGAAC
AGATGGAGGGGGCAGTGGGGACAGGGCTTGGGCAGACACCAGCAGGAATAATTTGAAATGTGTGAGGTGACTCCC

FIGURE 1372B

CGGAGGGCCTTGGGCTTGGGCATTTGGGAAAAGAATGATGTCTGGAAGGGCTTAAGGGACACAGTGGACGAGGGG
AGAGTCCTCATCTGCTGGCATTTTGTGGGGTGTTAGTGCCAAACTTGAATAGGGGCTGGGGTGCTGTCTTCCACT
GACACCCAAATCCAGAATCCCTGGTCTTGAGTCCCCAGAACTTTGCCTCTTGACTGTCCCTTCTCTTCCTACCTC
CATCCATGGAAAATTAGTTATTTTCTGATCCTTTCCCCTGCCTGGTCTAGCTCCTCTCCAAACAGCCATGCCCTC
CAAATGCTAGAGACCTGGGCCCTGAACCCTGTAGACAGATGCCCTCAGAATTGGGGCATGGGAGGGGGGCTGGGG
GACCCCATGATTCAGCCACGGACTCCAATGCCCAGCTCCTCTCCCCAAAACAATCCCGACAATCCCTTATCCCTA
CCCCAACCCTTTGCGGCTCTGTACACATTTTTAAACCTGGCAAAAGATGAAGAGAATATTGTAAATATAAAAGTT
TAACTGTT

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FIGURE 1373

CACAGCCCCCCGCCCCC**ATG**GCCGCCCGTCGGAGCCAGAGGCGGAGGGGGCGCCGGGGGGAGCCGGGCACCGCCC
TGCTGGTCCCGCTCGCGCTGGGCCTGGGCCTGGCGCTGGCCTGCCTCGGCCTCCTGCTGGCCGTGGTCAGTTTGG
GGAGCCGGGCATCGCTGTCCGCCCAGGAGCCTGCCCAGGAGGAGCTGGTGGCAGAGGAGGACCAGGACCCGTCGG
AACTGAATCCCCAGACAGAAGAAAGCCAGGATCCTGCGCCTTTCCTGAACCGACTAGTTCGGCCTCGCAGAAGTG
CACCTAAAGGCCGGAAAACACGGGCTCGAAGAGCGATCGCAGCCCATTATGAAGTTCATCCACGACCTGGACAGG
ACGGAGCGCAGGCAGGTGTGGACGGGACAGTGAGTGGCTGGGAGGAAGCCAGAATCAACAGCTCCAGCCCTCTGC
GCTACAACCGCCAGATCGGGGAGTTTATAGTCACCCGGGCTGGGCTCTACTACCTGTACTGTCAGGTGCACTTTG
ATGAGGGGAAGGCTGTCTACCTGAAGCTGGACTTGCTGGTGGATGGTGTGCTGGCCCTGCGCTGCCTGGAGGAAT
TCTCAGCCACTGCGGCGAGTTCCCTCGGGCCCCAGCTCCGCCTCTGCCAGGTGTCTGGTCTGTTGGCCCTGCGGC
CAGGGTCCTCCCTGCGGATCCGCACCCTCCCCTGGGCCCATCTCAAGGCTGCCCCCTTCCTCACCTACTTCGGAC
TCTTCCAGGTTCAC**TGA**GGGGCCCTGGTCTCCCCGCAGTCGTCCCAGGCTGCCGGCTCCCCTCGACAGCTCTCTG
GGCACCCGGTCCCCTCTGCCCCACCCTCAGCCGCTCTTTGCTCCAGACCTGCCCCTCCCTCTAGAGGCTGCCTGG
GCCTGTTCACGTGTTTTCCATCCCACATAAATACAGTATTCCCACTCTTATCTTACAACTCCCCCACCGCCCACT
CTCCACCTCACTAGCTCCCCAATCCCTGACCCTTTGAGGCCCCCAGTGATCTCGACTCCCCCCTGGCCACAGACC
CCCAGGGCATTGTGTTCACTGTACTCTGTGGGCAAGGATGGGTCCAGAAGACCCCACTTCAGGCACTAAGAGGGG
CTGGACCTGGCGGCAGGAAGCCAAAGAGACTGGGCCTAGGCCAGGAGTTCCCAAATGTGAGGGGCGAGAAACAAG
ACAAGCTCCTCCCTTGAGAATTCCCTGTGGATTTTTAAAACAGATATTATTTTTATTATTATTGTGACAAAATGT
TGATAAATGGATATTAAATAGAATAAGTCA

FIGURE 1374A

GAGAGCGCGGCCGGGACGGTTGGAGAAGAAGGCGGCTCCCGGAAGGGGGAGAGACAAACTGCCGTAACCTCTGCC
GTTCAGGAACCCGGTTACTTATTTATTCGTTACCCTTTTTCTTCTTCCTCCCCCAAAAACCTTTTCCTTTTCCCT
TCTTTTTTTTTCCTTTTTGGGAGCTGAAAAATTTCCGGTAAGGGAAAGAAGGGCTCCTTTCGCTCCTTATTTCCC
CGCCTCCTTCCCTCCCCCACCTTCCCCTCCTCCGGCTTTTTCCTCCCAACTCGGGGAGGTCCTTCCCGGTGGCCG
CCCTGACGAGGTCTGAGCACCTAGGCGGAGGCGGCGCAGGCTTTTTGTAGTGAGGTTTGCGCCTGCGCAGCGCGC
CTGCCTCCGCC**ATG**CACGGGGGGTGGCCCCCCCTCGGGGGGACAGCGCATGCCCGCTGCGCACCATCAAGAGAGTCC
AGTTCGGAGTCCTGAGTCCGGATGAACTGAAGCGAATGTCTGTGACGGAGGGTGGCATCAAATACCCAGAGACGA
CTGAGGGAGGCCGCCCCAAGCTTGGGGGGCTGATGGACCCGAGGCAGGGGGTGATTGAGCGGACTGGCCGCTGCC
AAACATGTGCAGGAAACATGACAGAGTGTCCTGGCCACTTTGGCCACATTGAACTGGCCAAGCCTGTGTTTCACG
TGGGCTTCCTGGTGAAGACAATGAAAGTTTTGCGCTGTGTCTGCTTCTTCTGCTCCAAACTGCTTGTGGACTCTA
ACAACCCAAAGATCAAGGATATCCTGGCTAAGTCCAAGGGACAGCCCAAGAAGCGGCTCACACATGTCTACGACC
TTTGCAAGGGCAAAAACATATGCGAGGGTGGGGAGGAGATGGACAACAAGTTCGGTGTGGAACAACCTGAGGGTG
ACGAGGATCTGACCAAAGAAAAGGGCCATGGTGGCTGTGGGCGGTACCAGCCCAGGATCCGGCGTTCTGGCCTAG
AGTTGTATGCGGAATGGAAGCACGTTAATGAGGACTCTCAGGAGAAGAAGATCCTGCTGAGTCCAGAGCGAGTGC
ATGAGATCTTCAAACGCATCTCAGATGAGGAGTGTTTTGTGCTGGGCATGGAGCCCCGCTATGCACGGCCAGAGT
GGATGATTGTCACAGTGCTGCCTGTGCCCCCGCTCTCCGTGCGGCCTGCTGTTGTGATGCAGGGCTCTGCCCGTA
ACCAGGATGACCTGACTCACAAACTGGCTGACATCGTGAAGATCAACAATCAGCTGCGGCGCAATGAGCAGAACG
GCGCAGCGGCCCATGTCATTGCAGAGGATGTGAAGCTCCTCCAGTTCCATGTGGCCACCATGGTGGACAATGAGC
TGCCTGGCTTGCCCCGTGCCATGCAGAAGTCTGGGCGTCCCCTCAAGTCCCTGAAGCAGCGGTTGAAGGGCAAGG
AAGGCCGGGTGCGAGGGAACCTGATGGGCAAAAGAGTGGACTTCTCGGCCCGTACTGTCATCACCCCCGACCCCA
ACCTCTCCATTGACCAGGTTGGCGTGCCCCGCTCCATTGCTGCCAACATGACCTTTGCGGAGATTGTCACCCCCT
TCAACATTGACAGACTTCAAGAACTAGTGCGCAGGGGGAACAGCCAGTACCCAGGCGCCAAGTACATCATCCGAG
ACAATGGTGATCGCATTGACTTGCGTTTCCACCCCAAGCCCAGTGACCTTCACCTGCAGACCGGCTATAAGGTGG
AACGGCACATGTGTGATGGGGACATTGTTATCTTCAACCGGCAGCCAACTCTGCACAAAATGTCCATGATGGGGC
ATCGGGTCCGCATTCTCCCATGGTCTACCTTTCGCTTGAATCTTAGTGTGACAACTCCGTACAATGCAGACTTTG
ACGGGGATGAGATGAACTTGCACCTGCCACAGTCTCTGGAGACGCGAGCAGAGATCCAGGAGCTGGCCATGGTTC
CTCGCATGATTGTCACCCCCCAGAGCAATCGGCCTGTCATGGGTATTGTGCAGGACACACTCACAGCAGTGCGCA
AATTCACCAAGAGAGACGTCTTCCTGGAGCGGGGTGAAGTGATGAACCTCCTGATGTTCCTGTCGACGTGGGATG
GGAAGGTCCCACAGCCGGCCATCCTAAAGCCCCGGCCCCTGTGGACAGGCAAGCAAATCTTCTCCCTCATCATAC
CTGGTCACATCAATTGTATCCGTACCCACAGTACCCATCCCGATGATGAAGACAGTGGCCCTTACAAGCACATCT
CTCCTGGGGACACCAAGGTGGTGGTGGAGAATGGGGAGCTGATCATGGGCATCCTGTGTAAGAAGTCTCTGGGCA
CGTCAGCTGGCTCCCTGGTCCACATCTCCTACCTAGAGATGGGTCATGACATCACTCGCCTCTTCTACTCCAACA
TTCAGACTGTCATTAACAACTGGCTCCTCATCGAGGGTCATACTATTGGCATTGGGGACTCCATTGCTGATTCTA
AGACTTACCAGGACATTCAGAACACTATTAAGAAGGCCAAGCAGGACGTAATAGAGGTCATCGAGAAGGCACACA
ACAATGAGCTGGAGCCCACCCCAGGGAACACTCTGCGGCAGACGTTTGAGAATCAGGTGAACCGCATTCTTAACG
ATGCCCGAGACAAGACTGGCTCCTCTGCTCAGAAATCCCTGTCTGAATACAATAACTTCAAGTCTATGGTCGTGT
CCGGAGCTAAAGGTTCCAAGATTAACATCTCCCAGGTCATTGCTGTCGTTGGACAGCAGAACGTCGAGGGCAAGC
GGATTCCATTTGGCTTCAAGCACCGGACTCTGCCTCACTTCATCAAGGATGACTACGGGCCTGAGAGCCGTGGCT
TTGTGGAGAACTCCTACCTAGCCGGCCTCACACCCACTGAGTTCTTTTTCCACGCCATGGGGGGTCGTGAGGGGC
TCATTGACACGGCTGTCAAGACTGCTGAGACTGGATACATCCAGCGGCGGCTGATCAAGTCCATGGAGTCAGTGA
TGGTGAAGTACGACGCGACTGTGCGGAACTCCATCAACCAGGTGGTGCAGCTGCGCTACGGCGAAGACGGCCTGG
CAGGCGAGAGCGTTGAGTTCCAGAACCTGGCTACGCTTAAGCCTTCCAACAAGGCTTTTGAGAAGAAGTTCCGCT
TTGATTATACCAATGAGAGGGCCCTGCGGCGCACTCTGCAGGAGGACCTGGTGAAGGACGTGCTGAGCAACGCAC
ACATCCAGAACGAGTTGGAGCGGGAATTTGAGCGGATGCGGGAGGATCGGGAGGTGCTCAGGGTCATCTTCCCAA
CTGGAGACAGCAAGGTCGTCCTCCCCTGTAACCTGCTGCGGATGATCTGGAATGCTCAGAAAATCTTCCACATCA
ACCCACGCCTTCCCTCCGACCTGCACCCCATCAAAGTGGTGGAGGGAGTCAAGGAATTGAGCAAGAAGCTGGTGA
TTGTGAATGGGGATGACCCACTAAGTCGACAGGCCCAGGAAAATGCCACGCTGCTCTTCAACATCCACCTGCGGT
CCACGTTGTGTTCCCGCCGCATGGCAGAGGAGTTTCGGCTCAGTGGGGAGGCCTTCGACTGGCTGCTTGGGGAGA

FIGURE 1374B

TTGAGTCCAAGTTCAACCAAGCCATTGCGCATCCCGGGGAAATGGTGGGGGCTCTGGCTGCGCAGTCCCTTGGAG
AACCTGCCACCCAGATGACCTTGAATACCTTCCACTATGCTGGTGTGTCTGCCAAGAATGTGACGCTGGGTGTGC
CCCGACTTAAGGAGCTCATCAACATTTCCAAGAAGCCAAAGACTCCTTCGCTTACTGTCTTCCTGTTGGGCCAGT
CCGCTCGAGATGCTGAGAGAGCCAAGGATATTCTGTGCCGTCTGGAGCATACAACGTTGAGGAAGGTGACTGCCA
ACACAGCCATCTACTATGACCCCAACCCCCAGAGCACGGTGGTGGCAGAGGATCAGGAATGGGTGAATGTCTACT
ATGAAATGCCTGACTTTGATGTGGCCCGAATCTCCCCCTGGCTGTTGCGGGTGGAGCTGGATCGGAAGCACATGA
CTGACCGGAAGCTCACCATGGAGCAGATTGCTGAAAAGATCAATGCTGGTTTTGGTGACGACTTGAACTGCATCT
TTAATGATGACAATGCAGAGAAGCTGGTGCTCCGTATTCGCATCATGAACAGCGATGAGAACAAGATGCAAGAGG
AGGAAGAGGTGGTGGACAAGATGGATGATGATGTCTTCCTGCGCTGCATCGAGTCCAACATGCTGACAGATATGA
CCCTGCAGGGCATCGAGCAGATCAGCAAGGTGTACATGCACTTGCCACAGACAGACAACAAGAAGAAGATCATCA
TCACGGAGGATGGGGAATTCAAGGCCCTGCAGGAGTGGATCCTGGAGACGGACGGCGTGAGCTTGATGCGGGTGC
TGAGTGAGAAGGACGTGGACCCCGTACGCACCACGTCCAATGACATTGTGGAGATCTTCACGGTGCTGGGCATTG
AAGCCGTGCGGAAGGCCCTGGAGCGGGAGCTGTACCACGTCATCTCCTTTGATGGCTCCTATGTCAATTACCGAC
ACTTGGCTCTCTTGTGTGATACCATGACCTGTCGTGGCCACTTGATGGCCATCACCCGACACGGAGTCAACCGCC
AGGACACAGGACCACTCATGAAGTGTTCCTTTGAGGAAACGGTGGACGTGCTTATGGAAGCAGCCGCACACGGTG
AGAGTGACCCCATGAAGGGGGTCTCTGAGAATATCATGCTGGGCCAGCTGGCTCCGGCCGGCACTGGCTGCTTTG
ACCTCCTGCTTGATGCAGAGAAGTGCAAGTATGGCATGGAGATCCCCACCAATATCCCCGGCCTGGGGGCTGCTG
GACCCACCGGCATGTTCTTTGGTTCAGCACCCAGTCCCATGGGTGGAATCTCTCCTGCCATGACACCTTGGAACC
AGGGTGCAACCCCTGCCTATGGCGCCTGGTCCCCCAGTGTTGGGAGTGGAATGACCCCAGGGGCAGCCGGCTTCT
CTCCCAGTGCTGCGTCAGATGCCAGCGGCTTCAGCCCAGGTTACTCCCCTGCCTGGTCTCCCACACCGGGCTCCC
CGGGGTCCCCAGGTCCCTCAAGCCCCTACATCCCTTCACCAGGTGGTGCCATGTCTCCCAGCTACTCGCCAACGT
CACCTGCCTACGAGCCCCGCTCTCCTGGGGGCTACACACCCCAGAGTCCCTCTTATTCCCCCACTTCACCCTCCT
ACTCCCCTACCTCTCCATCCTATTCTCCAACCAGTCCCAACTATAGTCCCACATCACCCAGCTATTCGCCAACGT
CACCCAGCTACTCACCGACCTCTCCCAGCTACTCACCCACCTCTCCCAGCTACTCGCCCACCTCTCCCAGCTACT
CGCCCACCTCTCCCAGCTACTCACCCACTTCCCCTAGCTACTCGCCCACTTCCCCTAGCTACTCGCCAACGTCTC
CCAGCTACTCACCGACATCTCCCAGCTACTCGCCAACTTCACCCAGCTATTCTCCCACTTCTCCCAGCTACTCAC
CTACCTCTCCAAGCTATTCACCCACCTCCCCCAGCTACTCACCCACTTCCCCAAGTTACTCACCCACCAGCCCGA
ACTATTCTCCAACCAGTCCCAATTACACCCCAACATCACCCAGCTACAGCCCGACATCACCCAGCTATTCACCTA
CTAGTCCCAACTACACACCTACCAGCCCTAACTACAGCCCAACCTCTCCAAGCTACTCTCCAACATCACCCAGCT
ATTCCCCGACCTCACCAAGTTACTCCCCTTCCAGCCCACGATACACACCACAGTCTCCAACCTATACCCCAAGCT
CACCCAGCTACAGCCCCAGCTCGCCCAGCTACAGCCCAGCCTCACCCAAGTACACCCCAACCAGTCCTTCTTACA
GTCCCAGCTCCCCAGAGTATACCCCAACCTCTCCCAAGTACTCACCTACCAGTCCCAAATATTCACCCACCTCTC
CCAAGTACTCGCCTACCAGTCCCACCTATTCACCCACCACCCCAAAATACTCCCCAACATCTCCTACTTATTCCC
CAACCTCTCCAGTCTACACCCCAACCTCTCCCAAGTACTCACCTACTAGCCCCACTTACTCGCCCACTTCCCCCA
AGTACTCGCCCACCAGCCCCACCTACTCGCCCACCTCCCCCAAAGGCTCAACCTACTCTCCCACTTCCCCTGGTT
ACTCGCCCACCAGCCCCACCTACAGTCTCACAAGCCCGGCTATCAGCCCGGATGACAGTGACGAGGAGAACTGAG
GGCACGTGGGGTGCGGCAGCGGGCTAGGGCCCAGGGCAGCTTGCCCGTGCTGCTGTGCAGTTCTTGCCTCCCTCA
CGGGGCGTCACCCCCAGCCCAGCTCCGTTGTACATAAATGCCTTGTGGCAGAGCTCCCGGTGAACTTCTGGATCC
CGTTTCTGATGCAGACTCTTGTCTTGTTCTCCACTTGTGCTGTTAGAACTCACTGGCCCAGTGGTGTTCTCACTC
CTACCCCACCCACCCCCTGCCTGTCCCCAAATTGAAGATCCTTCCTTGCCTGTGGCTTGATGCGGGGCGGGTAAA
GGGTATTTTAACTTAGGGGTAGTTCCTGCTGTGAGTGGTTACAGCTGATCCTCGGGAAGAACAAAGCTAAAGCTG
CCTTTTGTCTGTTATTTTATTTTTTTGAAGTTTAAATAAAGTTTACTAATTTTGACC

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FIGURE 1375

ATCCAGAGACAATGGCCCCGATGGGATGGAGCCCGAAGGCGTCATCGAGAGTAACTGGAATGAGATTGTTGACAG
CTTTGATGACATGAACCTCTCGGAGTCCCTTCTCCGTGGCATCTACGCGTATGGTTTTGAGAAGCCCTCTGCCAT
CCAGCAGCGAGCCATTCTACCTTGTATCAAGGGTTATGATGTGATTGCTCAAGCCCAATCTGGGACTGGGAAAAC
GGCCACATTTGCCATATCGATTCTGCAGCAGATTGAATTAGATCTAAAAGCCACCCAGGCCTTGGTCCTAGCACC
CACTCGAGAATTGGCTCAGCAGATACAGAAGGTGGTCATGGCACTAGGAGACTACATGGGCGCCTCCTGTCACGC
CTGTATCGGGGGCACCAACGTGCGTGCTGAGGTGCAGAAACTGCAGATGGAAGCTCCCCACATCATCGTGGGTAC
CCCTGGCCGTGTGTTTGATATGCTTAACCGGAGATACCTGTCCCCCAAATACATCAAGATGTTTGTACTGGATGA
AGCTGACGAAATGTTAAGCCGTGGATTCAAGGACCAGATCTATGACATATTCCAAAAGCTCAACAGCAACACCCA
GGTAGTTTTGCTGTCAGCCACAATGCCTTCTGATGTGCTTGAGGTGACCAAGAAGTTCATGAGGGACCCCATTCG
GATTCTTGTCAAGAAGGAAGAGTTGACCCTGGAGGGTATCCGCCAGTTCTACATCAACGTGGAACGAGAGGAGTG
GAAGCTGGACACACTATGTGACTTGTATGAAACCCTGACCATCACCCAGGCAGTCATCTTCATCAACACCCGGAG
GAAGGTGGACTGGCTCACCGAGAAGATGCATGCTCGAGATTTCACTGTATCCGCCATGCATGGAGATATGGACCA
AAAGGAACGAGACGTGATTATGAGGGAGTTTCGTTCTGGCTCTAGCAGAGTTTTGATTACCACTGACCTGCTGGC
CAGAGGCATTGATGTGCAGCAGGTTTCTTTAGTCATCAACTATGACCTTCCCACCAACAGGGAAAACTATATCCA
CAGAATCGGTCGAGGTGGACGGTTTGGCCGTAAAGGTGTGGCTATTAACATGGTGACAGAAGAAGACAAGAGGAC
TCTTCGAGACATTGAGACCTTCTACAACACCTCCATTGAGGAAATGCCCCTCAATGTTGCTGACCTCATCTGAGG
GGCTGTCCTGCCACCCAGCCCCAGCCAGGGCTCAATCTCTGGGGGCTGAGGAGCAGCAGGAGGGGGGAGGGAAGG
GAGCCAAGGGATGGACATCTTGTCATTTTTTTTCTTTGAATAAATGTCACTTTTTGAGGCAAAAGAAGG

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FIGURE 1376

GGCGGTTCAGCC**ATG**AGGCTGGCTGTGCTTTTCTCGGGGGCCCTGCTGGGGCTACTGGCAGCCCAGGGGACAGGG
AATGACTGTCCTCACAAAAAATCAGCTACTTTGCTGCCATCCTTCACGGTGACACCCACGGTTACAGAGAGCACT
GGAACAACCAGCCACAGGACTACCAAGAGCCACAAAACCACCACTCACAGGACAACCACCACAGGCACCACCAGC
CACGGACCCACGACTGCCACTCACAACCCCACCACCACCAGCCATGGAAACGTCACAGTTCATCCAACAAGCAAT
AGCACTGCCACCAGCCAGGGACCCTCAACTGCCACTCACAGTCCTGCCACCACTAGTCATGGAAATGCCACGGTT
CATCCAACAAGCAACAGCACTGCCACCAGCCCAGGATTCACCAGTTCTGCCCACCCAGAACCACCTCCACCCTCT
CCGAGTCCTAGCCCAACCTCCAAGGAGACCATTGGAGACTACACGTGGACCAATGGTTCCCAGCCCTGTGTCCAC
CTCCAAGCCCAGATTCAGATTCGAGTCATGTACACAACCCAGGGTGGAGGAGAGGCCTGGGGCATCTCTGTACTG
AACCCCAACAAAACCAAGGTCCAGGGAAGCTGTGAGGGTGCCCATCCCCACCTGCTTCTCTCATTCCCCTATGGA
CACCTCAGCTTTGGATTCATGCAGGACCTCCAGCAGAAGGTTGTCTACCTGAGCTACATGGCGGTGGAGTACAAT
GTGTCCTTCCCCCACGCAGCACAGTGGACATTCTCGGCTCAGAATGCATCCCTTCGAGATCTCCAAGCACCCCTG
GGGCAGAGCTTCAGTTGCAGCAACTCGAGCATCATTCTTTCACCAGCTGTCCACCTCGACCTGCTCTCCCTGAGG
CTCCAGGCTGCTCAGCTGCCCCACACAGGGGTCTTTGGGCAAAGTTTCTCCTGCCCCAGTGACCGGTCCATCTTG
CTGCCTCTCATCATCGGCCTGATCCTTCTTGGCCTCCTCGCCCTGGTGCTTATTGCTTTCTGCATCATCCGGAGA
CGCCCATCCGCCTACCAGGCCCTC**TGA**GCATTTGCTTCAAACCCCAGGGCACTGAGGGGGTTGGGGTGTGGTGGG
GGGGTACCCTTATTTCCTCGACACGCAACTGGCTCAAAGACAATGTTATTTTCCTTCCCTTTCTTGAAGAACAAA
AAGAAAGCCGGGCATGACGGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGCAGGTGGATCACTGGAGG
TCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCTGTCTCTACTAAAAATACAATTAGCCAGGTGTGGC
GGCGTAATCCCAGCTGGCCTGTAATCCCAGCTACTTGGGAGGCTGAGGCAGAACTGCTTGAACCCAGGAGGTGGA
GGTTGCAGTGAGCCGTCATCGCGCCACTAAGCCAAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCCAGA
CTGTCTCAAATAAATAAATATGAGATAATGCAGTCGGGAGAAGGGAGGGAGAGAATTTTATTAAATGTGACGAAC
TGCCCCCCCCCCCCCCCCAGCAGGAGAGCAGCAAAATTTATGCAAATCTTTGACGGGGTTTTCCTTGTCCTGCCAG
GATTAAAAGCCATGAGTTTCTTG

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FIGURE 1377

AGCTAGCTTTGCAATATGGCGGCCGAGGCGGACGGACCGCTTAAACGGCTGCTCGTGCCGATTCTTTTACCTGAG
AAATGCTACGACCAACTTTTCGTTCAGTGGGACTTGCTTCACGTCCCCTGCCTCAAGATTCTCCTCAGCAAAGGC
CTGGGGCTGGGCATTGTGGCTGGCTCACTTCTAGTAAAGCTGCCCCAGGTGTTTAAAATCCTGGGAGCCAAGAGT
GCTGAAGGGTTGAGTCTCCAGTCTGTAATGCTGGAGCTAGTGGCATTGACTGGGACCATGGTCTACAGCATCACT
AACAACTTCCCATTCAGCTCTTGGGGTGAAGCCTTATTCCTGATGCTCCAGACGATCACCATCTGCTTCCTGGTC
ATGCACTACAGAGGACAGACTGTGAAAGGTGTCGCTTTCCTCGCTTGCTACGGCCTGGTCCTGCTGGTGCTTCTC
TCACCTCTGACGCCCTTGACTGTAGTCACCCTGCTCCAGGCCTCCAATGTGCCTGCTGTGGTGGTGGGGAGGCTT
CTCCAGGCAGCCACCAACTACCACAACGGGCACACAGGCCAGCTCTCAGCCATCACAGTCTTCCTGCTGTTTGGG
GGCTCCCTGGCCCGAATCTTCACTTCCATTCAGGAAACCGGAGATCCCCTGATGGCTGGGACCTTTGTGGTCTCC
TCTCTCTGCAACGGCCTCATCGCCGCCCAGCTGCTCTTCTACTGGAATGCAAAGCCTCCCCACAAGCAGAAAAAG
GCGCAGTAGAGCCAGCTACTGGAGTCATTCCGTTTCCACTCATTCACCCAACCTCAGGGTTCTCCCCATCTGAGC
CAGCCTGCTGGTGTGACTTACTCATCCTCCATTCCTCTGCACTTGCAGACTTTCTGAGCCAGGGTTTTCTTTTAG
TGGAAACAAATGGTTGATGGATCCAGATCCTTAGAAAAGGAGAGGATGGGGGTAGAGTCTCCCAAGCCAAAATTT
TGACATTTGAGTGCTTTCGTAAGCCCTGTACATGTACTATTAATTCAGTCATTCAGCCAAGCCTCCTCCTCTAGC
AGCAATTTCCAGCTGTTTAACACTATCCTGGGCAAATGTTTTACCCTGTCCTCCAGCCTCCCTGCTTCCCTTCTG
GCCCTGGAAGACTGAGTCTGGACGGCAGAGTGGAGGGACTGGGAGGCTGTGGCTGCCTCCCTCCCTCAGCCCGGC
TGGGACTGTCTCCCGGACCCCAGTGCTGGGGTGGGGGAAGGGGGACGGAGAATGACTCAGGCAGGGCCCCAGGGT
GGGGTGAGGAGGTTCCTGCTCTGGCAGGTCTAGGCGGAAGGGAGTGGAGATGGGGCTGGTTCCTGCTGCAGTGAG
GGGAACAGATGGGACAATAAAGACTGGAGACTCAGTTGAATAAT

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FIGURE 1378

CGGTGGCGGAGACCAAGGCGGCGGCGGCGGACGGGGAGCGGCCCGGCCCCGGCCCCCTGCTCGTTGGCTGTGGCA
GGGCCGCCGTGGGGCCGGCCCGGCTCCCGCCCCCCGCGGCTCCCCCTCCGGCTCCTCCTCCGGGGAGACGCCGGG
GGCCTGGCCCGGCCCGCACTCAGACTGCTGCTGCAGCCGCCGCCGGGGGAGTCGGAGGCGGTGGCGGCGCCATGG
GCGGCCTGGCCTCTGGGGGGGATGTGGAGCCGGGACTGCCCGTCGAGGTGCGCGGCTCCAACGGGGCCTTCTACA
AGGGCTTTGTGAAGGATGTCCATGAAGACTCTGTCACCATCTTCTTTGAAAACAACTGGCAGAGTGAGAGACAAA
TTCCTTTTGGGGATGTCCGGCTACCACCTCCAGCTGACTATAATAAGGAGATCACAGAAGGGGATGAAGTGGAGG
TTTATTCTCGAGCCAATGAACAGGAACCTTGTGGCTGGTGGCTGGCCCGGGTGCGGATGATGAAGGGAGATTTCT
ATGTCATTGAATATGCTGCCTGTGATGCCACCTACAATGAAATTGTTACCCTGGAGCGACTTCGGCCAGTTAATC
CCAATCCCCTTGCAACCAAAGGCAGCTTCTTCAAGGTTACCATGGCTGTGCCCGAGGATCTGAGAGAAGCCTGCT
CCAATGAAAACGTCCATAAAGAGTTCAAGAAAGCCCTGGGAGCCAACTGCATCTTTCTCAACATCACAAACAGTG
AGCTCTTCATTCTGTCAACCACAGAAGCCCCTGTGAAGCGAGCATCTCTGCTGGGTGATATGCATTTCCGAAGCC
TGCGCACCAAACTGCTACTTATGTCCCGCAATGAAGAAGCTACCAAGCACCTAGAGACAAGCAAGCAGTTGGCAG
CAGCCTTCCAAGAGGAGTTCACAGTGCGAGAGGACCTGATGGGACTGGCAATTGGGACTCACGGTGCCAACATCC
AGCAGGCCCGAAAAGTACCTGGGGTGACCGCCATTGAGTTGGGTGAAGAGACCTGCACTTTCCGCATCTATGGGG
AGACTCCCGAGGCTTGCCGACAGGCCCGAAGCTACCTTGAGTTTTCTGAGGACTCAGTGCAAGTGCCCAGGAACC
TGGTTGGCAAAGTGATTGGAAAGAACGGGAAAGTGATCCAGGAGATTGTGGATAAATCTGGTGTGGTGAGGGTTC
GAGTGGAAGGTGATAATGACAAGAAGAACCCCAGGGAGGAGGGAATGGTTCCCTTCATTTTTGTTGGCACCCGAG
AGAACATCAGCAATGCCCAGGCTTTGCTGGAGTATCACCTCTCCTACCTGCAGGAGGTAGAGCAGCTTCGCTTGG
AGAGGCTACAAATTGATGAGCAGCTTCGGCAGATTGGGCTGGGCTTTCGCCCTCCTGGGAGTGGGCGGGGCAGCG
GTGGCAGCGACAAGGCTGGATATAGCACTGATGAGAGCTCCTCCTCCTCCCTCCATGCGACTCGAACCTATGGGG
GCAGCTATGGGGGCCGTGGCCGTGGCCGGAGGACAGGCGGTCCTGCCTATGGCCCCAGCTCAGATGTGTCTACAG
CTTCAGAGACTGAGTCAGAGAAGAGAGAGGAGCCCAACCGAGCTGGGCCTGGCGACAGGGATCCCCCAACCCGAG
GGGAAGAAAGCCGGAGGCGGCCGACTGGGGGCCGGGGTAGGGGACCCCCACCTGCCCCCCGGCCCACTTCGAGAT
ACAATTCTTCATCTATTAGCTCAGTGCTGAAGGATCCAGACAGTAATCCCTACAGCCTATTGGACACGTCTGAAC
CAGAGCCCCCGGTTGATTCAGAACCTGGGGAACCCCCCCCAGCAAGTGCCAGGCGCCGCGCTCCCGCCGCCGCCG
CACTGATGAAGACAGGACCGTCATGGATGGAGGCCTGGAATCAGATGGGCCCAACATGACAGAGAATGGCCTGGA
AGATGAATCAAGACCTCAACGTCGTAATCGCAGCCGCCGCCGCCGTAACCGTGGTAATCGGACTGATGGCTCTAT
CAGTGGAGACCGCCAGCCAGTGACTGTGGCTGACTATATCTCACGAGCAGAGTCTCAGAGCCGCCAGAGGCCACC
CCTGGAACGCACTAAACCCTCAGAAGACTCTCTTTCAGGACAGAAGGGTGACTCTGTCAGCAAGCTTCCTAAGGG
CCCCTCGGAGAATGGGGAGCTCTCCGCCCCCTTGGAGTTGGGTAGTATGGTGAATGGGGTTTCATAAAACCTCCA
ACCTGCACCCCTCCCTTCTCCATCTCGCTTGCTGCCCAACACCATGGCCCTCACAGGCCCAACTGACCTGCGCTG
GAGCTGCTCTTATCTAGGGGGGAGGGGGGTGGCACAGCAGCTTGGGTACCCCCCAACCTCCAGGAGCTAGTGGAG
GGGTGTGTAACAGGGTCATACCCCCTCCCTCTTGTCCACCCTACCCCCAGGGTAAGGGGAGCCTCTCTCCTTCCC
CATCAGACTGGATGTGCCTTTATCCTCTAATGCCCCAATCTCTCTCTGAACACCCCCATTCTCCACCTGTTGGTG
GGGGGTGCTCCTCGACCCACCCAGATTTGACCGTTCAGGGGGCCTCCCCTGCTATCCCTCCTCCCATCCTGTACC
CCCCATTTCTGGGGCCTCATCACTGTGGAAGACGGGGATAGTAAGAGATAAGTGGGTGGGAGGCACGGGGAAGGT
TTTGGAGTAGAACCAGGGGTGTGTATGAAGGGGGGTGACAAGGTCCCCCTGGGGAGGGGACCAACCTTGTCTGGT
GGATGAGAAGGCGTATTTATTTTTCACTGTACAGTATTTAAAAAGAGAATAAAAAAATCCAAATGGC

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FIGURE 1379

CAGAGGATCGCCTCGCTGGCCTACTCTCTCCTCCCGTACGGCGCCGGAATCCCAGCTCCACTTACCAGGCCGCGG
CTACCCCGCCGTCCCCCCCGACTCCCGCCACCCCGCTCTCTCAGGCTCTTCAGGATCCAAGTCCGTAGGCCCTTT
AAGGGGTCTAGTTGCCGTTTGCGAGGCCCTGGGACTTTGGTCCCAGACAGCGGGGATCCGGATGGCTTCCGTGCG
GATCCGAGAGGCCAAGGAGGGAGACTGTGGAGATATCCTGAGGCTGATTCGGGAGCTAGCCGAATTCGAAAAACT
CTCGGATCAGGTGAAGATCAGTGAAGAAGCCCTGAGAGCAGATGGCTTTGGAGACAATCCTTTCTATCACTGTTT
GGTAGCAGAGATTCTTCCAGCGCCCGGGAAGCTACTGGGGCCCTGCGTGGTGGGCTATGGGATATACTATTTCAT
CTACAGTACATGGAAGGGACGCACCATTTATCTGGAGGATATCTATGTGATGCCGGAATATCGGGGTCAAGGGAT
TGGTTCCAAAATAATCAAAAAGGTGGCTGAGGTGGCCTTGGATAAGGGCTGCTCCCAATTCCGCCTGGCCGTCCT
GGACTGGAACCAGAGGGCCATGGACTTGTACAAGGCCCTAGGAGCCCAAGATCTGACGGAAGCTGAGGGCTGGCA
CTTCTTCTGCTTTCAAGGAGAGGCAACGAGAAAGTTGGCAGGAAAGTGACGCCATCCCTAGGAGGATCTCTGTCT
TGAGTTTCTCCTTCCCCATCAGCTGAAGCACTCTTCAGAGACTACGTCCACAGACACTGATGCTGAGGCCTCCCT
GGAGGAAGGAGGGTTAGGGGTGCCTATCCTCAAGTATTGGAAGAGCAGAATTGAGGGAGAGACCTTTCTTCCTTG
TTGAGGGTGAAAAATAAATAAGAATTACATGTC

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FIGURE 1380

ATGGAGAGCAGAGGCCCACTGGCTACCTCGCGCCTGCTGCTGTTGCTGCTGTTGCTACTACTGCGTCACACCCGC
CAGGGATGGGCCCTGAGACCTGTTCTCCCCACCCAGAGTGCCCACGACCCTCCGGCTGTCCACCTCAGCAATGGC
CCAGGACAAGAGCCTATCGCTGTCATGACCTTTGACCTCACCAAGATCACAAAAACCTCCTCCTCCTTTGAGGTT
CGAACCTGGGACCCAGAGGGAGTGATTTTTTATGGGGATACCAACCCTAAGGATGACTGGTTTATGCTGGGACTT
CGAGACGGCAGGCCTGAGATCCAACTGCACAATCACTGGGCCCAGCTTACGGTGGGTGCTGGACCACGGCTGGAT
GATGGGAGATGGCACCAGGTGGAAGTCAAGATGGAGGGGGACTCTGTGCTGCTGGAGGTGGATGGGGAGGAGGTG
CTGCGCCTGAGACAGGTCTCTGGGCCCCTGACCAGCAAACGCCATCCCATCATGAGGATTGCGCTTGGGGGGCTG
CTCTTCCCCGCTTCCAACCTTCGGTTGCCGCTGGTTCCTGCCCTGGATGGCTGCCTGCGCCGGGATTCCTGGCTG
GACAAACAGGCCGAGATCTCAGCATCTGCCCCCACTAGCCTCAGAAGCTGTGATGTAGAATCAAATCCCGGGATA
TTTCTCCCTCCAGGGACTCAGGCAGAATTCAATCTCCGAGACATTCCCCAGCCTCATGCAGAGCCCTGGGCCTTC
TCTTTGGACCTGGGACTCAAGCAGGCAGCAGGCTCAGGCCACCTCCTTGCTCTTGGGACACCAGAGAACCCATCT
TGGCTCAGTCTCCACCTCCAAGATCAAAAGGTGGTGTTGTCTTCTGGGTCGGGGCCAGGGCTGGATCTGCCCCTG
GTCTTGGGACTCCCTCTTCAGCTGAAGCTGAGTATGTCCAGGGTGGTCTTGAGCCAAGGGTCGAAGATGAAGGCC
CTTGCCCTGCCTCCCTTAGGCCTGGCTCCCCTCCTTAACCTCTGGGCCAAGCCTCAAGGGCGTCTCTTCCTGGGG
GCTTTACCAGGAGAAGACTCTTCCACCTCTTTTTGCCTGAATGGCCTTTGGGCACAAGGTCAGAGGCTGGATGTG
GACCAGGCCCTGAACAGAAGCCATGAGATCTGGACTCACAGCTGCCCCCAGAGCCCAGGCAATGGCACTGACGCT
TCCCAT**TAA**

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FIGURE 1381

ACTTGTCATGGCGACTGTCCAGCTTTGTGCCAGGAGCCTCGCAGGGGTTGATGGGATTGGGGTTTTCCCCTCCCA
TGTGCTCAAGACTGGCGCTAAAAGTTTTGAGCTTCTCAAAAGTCTAGAGCCACCGTCCAGGGAGCAGGTAGCTGC
TGGGCTCCGGGGACACTTTGCGTTCGGGCTGGGAGCGTGCTTTCCACGACGGTGACACGCTTCCCTGGATTGGCA
GCCAGACTGCCTTCCGGGTCACTGCC**ATG**GAGGAGCCGCAGTCAGATCCTAGCGTCGAGCCCCCTCTGAGTCAGG
AAACATTTTCAGACCTATGGAAACTACTTCCTGAAAACAACGTTCTGTCCCCCTTGCCGTCCCAAGCAATGGATG
ATTTGATGCTGTCCCCGGACGATATTGAACAATGGTTCACTGAAGACCCAGGTCCAGATGAAGCTCCCAGAATGC
CAGAGGCTGCTCCCCGCGTGGCCCCTGCACCAGCAGCTCCTACACCGGCGGCCCCTGCACCAGCCCCCTCCTGGC
CCCTGTCATCTTCTGTCCCTTCCCAGAAAACCTACCAGGGCAGCTACGGTTTCCGTCTGGGCTTCTTGCATTCTG
GGACAGCCAAGTCTGTGACTTGCACGTACTCCCCTGCCCTCAACAAGATGTTTTGCCAACTGGCCAAGACCTGCC
CTGTGCAGCTGTGGGTTGATTCCACACCCCCGCCCGGCACCCGCGTCCGCGCCATGGCCATCTACAAGCAGTCAC
AGCACATGACGGAGGTTGTGAGGCGCTGCCCCCACCATGAGCGCTGCTCAGATAGCGATGGTCTGGCCCCTCCTC
AGCATCTTATCCGAGTGGAAGGAAATTTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGG
TGGTGCCCTATGAGCCGCCTGAGGTTGGCTCTGACTGTACCACCATCCACTACAACTACATGTGTAACAGTTCCT
GCATGGGCGGCATGAACCGGAGGCCCATCCTCACCATCATCACACTGGAAGACTCCAGTGGTAATCTACTGGGAC
GGAACAGCTTTGAGGTGCGTGTTTGTGCCTGTCCTGGGAGAGACCGGCGCACAGAGGAAGAGAATCTCCGCAAGA
AAGGGGAGCCTCACCACGAGCTGCCCCCAGGGAGCACTAAGCGAGCACTGCCCAACAACACCAGCTCCTCTCCCC
AGCCAAAGAAGAAACCACTGGATGGAGAATATTTCACCCTTCAGATCCGTGGGCGTGAGCGCTTCGAGATGTTCC
GAGAGCTGAATGAGGCCTTGGAACTCAAGGATGCCCAGGCTGGGAAGGAGCCAGGGGGGAGCAGGGCTCACTCCA
GCCACCTGAAGTCCAAAAAGGGTCAGTCTACCTCCCGCCATAAAAAACTCATGTTCAAGACAGAAGGGCCTGACT
CAGAC**TGA**CATTCTCCACTTCTTGTTCCCCACTGACAGCCTCCCACCCCCATCTCTCCCTCCCCTGCCATTTTGG
GTTTTGGGTCTTTGAACCCTTGCTTGCAATAGGTGTGCGTCAGAAGCACCCAGGACTTCCATTTGCTTTGTCCCG
GGGCTCCACTGAACAAGTTGGCCTGCACTGGTGTTTTGTTGTGGGGAGGAGGATGGGGAGTAGGACATACCAGCT
TAGATTTTAAGGTTTTTACTGTGAGGGATGTTTGGGAGATGTAAGAAATGTTCTTGCAGTTAAGGGTTAGTTTAC
AATCAGCCACATTCTAGGTAGGGGCCCACTTCACCGTACTAACCAGGGAAGCTGTCCCTCACTGTTGAATTTTCT
CTAACTTCAAGGCCCATATCTGTGAAATGCTGGCATTTGCACCTACCTCACAGAGTGCATTGTGAGGGTTAATGA
AATAATGTACATCTGGCCTTGAAACCACCTTTTATTACATGGGGTCTAGAACTTGACCCCCTTGAGGGTGCTTGT
TCCCTCTCCCTGTTGGTCGGTGGGTTGGTAGTTTCTACAGTTGGGCAGCTGGTTAGGTAGAGGGAGTTGTCAAGT
CTCTGCTGGCCCAGCCAAACCCTGTCTGACAACCTCTTGGTGAACCTTAGTACCTAAAAGGAAATCTCACCCCAT
CCCACACCCTGGAGGATTTCATCTCTTGTATATGATGATCTGGATCCACCAAGACTTGTTTTATGCTCAGGGTCA
ATTTCTTTTTTCTTTTTTTTTTTTTTTTTCTTTTTCTTTGAGACTGGGTCTCGCTTTGTTGCCCAGGCTGGAGT
GGAGTGGCGTGATCTTGGCTTACTGCAGCCTTTGCCTCCCCGGCTCGAGCAGTCCTGCCTCAGCCTCCGGAGTAG
CTGGGACCACAGGTTCATGCCACCATGGCCAGCCAACTTTTGCATGTTTTGTAGAGATGGGGTCTCACAGTGTTG
CCCAGGCTGGTCTCAAACTCCTGGGCTCAGGCGATCCACCTGTCTCAGCCTCCCAGAGTGCTGGGATTACAATTG
TGAGCCACCACGTCCAGCTGGAAGGGTCAACATCTTTTACATTCTGCAAGCACATCTGCATTTTCACCCCACCCT
TCCCCTCCTTCTCCCTTTTTATATCCCATTTTTATATCGATCTCTTATTTTACAATAAAACTTTGCTGCCA

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FIGURE 1382

AGTGCTTTCAAAAGAATTGGCGTCCGCTGTTCGCCTCTCCTCCCGGGAGTCTTCTGCCTACTCCCAGAAGAGGAG
GGAAGCACANGGNTNGGGTTTCTTTAGCTCTGCGTCGGATCCCTGAGAACTTCGNANAGNCCATCCTGGCTGAGG
CTAATCTCCGCTGTGCTTCCTCTGCAGT**ATG**AAGACTTTGGAGACTCAACCGTTAGCTCCGGACTGCTGTCCTTC
AGACCAGGACCCAGCTCCAGCCCATCCTTCTCCCCACGCTTCCCCGATGAATAAAAATGCGGACTCTGAACTGAT
GCCACCGCCTCCCGAAAGGGGGGATCCGCCCCGGTTGTCCCCAGATCCTGTGGCTGGCTCAGCTGTGTCCCAGGA
GCTACGGGAGGGGGACCCAGTTTCTCTCTCCACTCCCCTGGAAACAGAGTTTGGTTCCCCTAGTGAGTTGAGTCC
TCGAATCGAGGAGCAAGAACTTTCTGAAAATACAAGCCTTCCTGCAGAAGAAGCAAACGGGAGCCTTTCTGAAGA
AGAAGCGAACGGGCCAGAGTTGGGGTCTGGAAAAGCCATGGAAGATACCTCTGGGGAACCCGCTGCAGAGGACGA
GGGAGACACCGCTTGGAACTACAGCTTCTCCCAGCTGCCTCGATTTCTCAGTGGTTCCTGGTCAGAGTTCAGCAC
CCAACCTGAGAACTTCTTGAAAGGCTGTAAGTGGGCTCCTGACGGTTCCTGCATCTTGACCAATAGTGCTGATAA
CATCTTGCGAATTTATAACCTGCCCCCAGAGCTGTACCATGAGGGGGAGCAGGTGGAATATGCAGAAATGGTCCC
TGTCCTTCGAATGGTGGAAGGTGATACCATCTATGATTACTGCTGGTATTCTCTGATGTCCTCAGCCCAGCCAGA
CACCTCCTACGTGGCCAGCAGCAGCCGGGAGAACCCGATTCATATCTGGGACGCATTCACTGGAGAGCTCCGGGC
TTCCTTTCGCGCCTACAACCACCTGGATGAGCTGACGGCAGCCCATTCGCTCTGCTTCTCCCCGGATGGCTCCCA
GCTCTTCTGTGGCTTCAACCGGACTGTGCGTGTTTTTTCCACGGCCCGGCCTGGCCGAGACTGCGAGGTCCGAGC
CACATTTGCAAAAAAGCAGGGCCAGAGCGGCATCATCTCCTGCATAGCCTTCAGCCCAGCCCAGCCCCTCTATGC
CTGTGGCTCCTACGGCCGCTCCCTGGGTCTGTATGCCTGGGATGATGGCTCCCCTCTCGCCTTGCTGGGAGGGCA
CCAAGGGGGCATCACCCACCTCTGCTTTCATCCCGATGGCAACCGCTTCTTCTCAGGAGCCCGCAAGGATGCTGA
GCTCCTGTGCTGGGATCTCCGGCAGTCTGGTTACCCACTGTGGTCCCTGGGTCGAGAGGTGACCACCAATCAGCG
CATCTACTTCGATCTGGACCCGACCGGGCAGTTCCTAGTGAGTGGCAGCACGAGCGGGGCTGTCTCTGTGTGGGA
CACGGACGGGCCTGGCAATGATGGGAAGCCGGAGCCCGTGTTGAGTTTTCTGCCCCAGAAGGACTGCACCAATGG
CGTGAGCCTGCACCCTAGCCTGCCTCTCCTGGCCACTGCCTCCGGTCAGCGTGTGTTTCCTGAGCCCACAGAGAG
TGGGGACGAAGGAGAGGAGCTGGGCCTTCCCTTGCTCTCCACGCGCCACGTCCACCTTGAATGTCGGCTTCAGCT
CTGGTGGTGTGGGGGGGCGCCAGACTCCAGCATCCCTGATGATCACCAGGGCGAGAAAGGGCAGGGAGGAACGGA
GGGAGGTGTGGGTGAGCTGATA**TAA**AAAGGTTTTTATGAT

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FIGURE 1383

TTCTGCCCAGCCCAGGTTTTACTTGGGGTTCTGGTGGCTTCATCTCATAAAGGTTGTCTGCAACTTCGGGACCAA
AGTGGTTCCCTGCCCTGCCTGCTCCTGGCCAAGCACTCTCAACCCCTCAGTGACCCACGGCTGATAGGCTGCCTG
GTGCGGGCAGAGAGGTTTCAGTTGATCGTAGAGAGGGACGTGAGAAGCAGCTTCCCTTCCTGGAAGGAGCTGAGC
ATGCCAGGCTTCATCCAGAAGCAGCAGGCCAGAGTCTATGTCCAGTTCTTTCTGGCTGATGCCCTGATCCTGCCT
GTGCCCAGACCCTGCCTTCATTCAGCAACACCCTCAACACCTCAGACAGATCCCACCGGCCCAGAGGGACCCCAC
CTAGGACAGAGCCGGCTCTTCTTGCTCTGCCACAAGGAGGCCCTCATGAAGCGTAATTTTTGTGTCCCCCCAGGA
GCAAGTCCAGAGGTGCCCAAGCCCGCCCTCAGTTTCTATGTGTTGGGGAGCTGGCTTGGGGGCACCCAGAGGAAG
GAGGGTACTGGATGGGGGCTGCCCGAGCCCCAGGGAAATGACGACAATGATCAGAAGGTTCACCTCATTTTCTTT
GGCTCTTCAGTCCGCTGGTTTGAGTTCTTGCACCCGGGACAGGTGTACCGACTCATAGCTCCTGGCCCCGCTACA
CCAATGTTGTTTGAAAAGGATGGTTCATCCTGCATATCTCGGCGTCCTCTGGAGTTGGCTGGCTGTGCATCCTGC
CTCACTGTCCAGGACAACTGGACTCTGGAGCTTGAAAGCTCCCAGGATATCCAAGATGTGCTGGATGCAAACAAG
TCATTGCCTGAATCCTCACTGACCGACCTGCTCAGTGACAATTTCACAGATTCCTTGGTGTCTTTCTCCGCTGAG
ATTTTGTCACGGACACTATGTGAACCCCTTGTGGCGTCTCTCTGGATGAAACTGGGGAACACGGGGGCCATGAGA
AGGTGTGTGAAGCTAACAGTCGCTCTTGAGACTGCTGAATGTGAATTCCCCCCTCACCTGGATGTATATATAGAA
GACCCACACTTGCCTCCCTCACTAGGACTACTTCCAGGAGCCCGGGTCCACTTCAGCCAGTTGGAGAAAAGGGTT
TCCAGATCTCACAATGTTTATTGTTGTTTCCGGTCATCCACTTATGTGCAGGTCCTGAGTTTTCCCCCTGAGACC
ACCATCAGCATTCCCCTGCCCCACATCTACCTGGCTGAACTTCTGCAGGGTGGTCAGTCCCCATTCCAGGCCACT
GCCTCTTGCCATATCGTCTCTGTCTTCAGCCTTCAGCTCTTCTGGGTGTGTGCTTATTGTACCAGCATCTGCCGG
CAGGGAAAGTGCACTCGCCTGGGCTCCACTTGCCCTACGCAGACAGCTATAAGCCAGGCCATCATCAGGCTCCTG
GTGGAGGATGGGACTGCCGAAGCCGTGGTGACCTGTAGGAATCACCATGTGGCAGCAGCACTAGGGCTGTGTCCT
AGAGAGTGGGCCTCCCTCCTAGATTTCGTCCAAGTGCCAGGCAGAGTGGTCTTGCAGTTTGCAGGGCCTGGAGCC
CAACTTGAGTCTTCAGCCAGGGTTGACGAGCCCATGACCATGTTCCTCTGGACACTTTGTACTAGCCCCTCTGTC
CTCCGTCCTATTGTGCTTTCTTTTGAGCTGGAAAGGAAACCGTCGAAGATCGTCCCATTAGAACCTCCTCGGCTA
CAGCGATTCCAGTGTGGAGAGCTCCCTTTCCTGACTCACGTGAACCCCAGGCTCCGATTGTCCTGCCTTTCTATC
CGAGAGTCAGAGTACTCCAGCTCTCTGGGGATCCTTGCTTCCTCCTGT**TAA**CTGAACTGCAAGGATGGCCTGAGA
GTCCTTCCTTGCTGAAAACCTGAAGGCCTAGGTCCTGGCTCCTCTCCCTACTTGTTCTGTGATTGAACCAAGGAC
TCCAGATTCACAAACTGCTACTCCACTATAATTTCCCTTCTTTGGTGTTCTGGTGCCAGCCTGCCTTGGCAAAAT
TGTGGCAACAGGAAATCATGGCCCTATTAATATGTCCTCTGATTGGGACAAGGCACCTGCATTCACAGGCGGCCC
TGAGCACCTGGGTTCTGACTTTGTCGCAGGAGCTGAGGGAACAAAAGACTTGCTCGCTGTGGGGTGATGGTGACA
GGCCTATTGACCTGCAATGAAGCCCTCTGGTGTCATTT

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FIGURE 1384

GGGAGACTTCAGGAGTCGCTGTCTCTGAACTTCCAGCCTCAGAGACCGCCGCCCTTGTCCCCGAGGGCC**ATG**GGC
CGGGTCTCAGGGCTTGTGCCCTCTCGCTTCCTGACGCTCCTGGCGCATCTGGTGGTCGTCATCACCTTATTCTGG
TCCCGGTGCCCTTCCAGCTGTCAC**TGA**AATGGCTTTATTCGTCACCGTCTTTGGGCTGAAAAAGAAACCCTTCTG
ATTACCTTCATGACGGGAACCTAAGGACGAAGCCTACAGGGGCAAGGGCCGCTTCGTATTCCTGGAAGAAGGAAG
GCATAGGCTTCGGTTTTCCCCTCGGAAACTGCTTCTGCTGGAGGATATGTGTTGGAATAATTACGTCTTGAGTCT
GGGATTATCCGCATTGTATTTAGTGCTTTGTAATAAAATATGTTTTGTAGTAACATTAAGACTTATATACAGTTT
TAGGGGACAATTGAGATGGCTGAACTACTGAATAAAAAAAAAACAACGCTGTTTTCTAGTCCTGCAGACCGTAAG
ATACTTGGTATCGCTTCTATTTTGGTTACTACGGTAGGTGCCTGGCGGAAGGGAGTGGGCGGAGATATGTAAATA
GAAAGTGCGTACAGTTAGAACGTCCGGCACGTAACTGATCGGAGCATTCTGGGAAGAAGTAATTTATTCCTTTTC
GGCAGCCGAATGAAAAAAAAATTTAAAAAAATGTGCGAGCTAATATGGCAAAACAACTGGAAGGACGCTAAATAA
TAGGATTGCTCATACCAGCGCGTTATGAACTCACCCTAGCTTGTAACGGAATCTTTTTCACTGAGTGCAGAATGT
CGGCTGTTTGTCTGTATCGTCAGGTGGGATAATCCTTACCTGTTCCTCCTCCGGAGGGCAGATTAGAACATGATG
ATTGGAGATGCATGAAACGTGATTAACGTCTCTGCGTAATCAGGACTTGCAACACCCTGATTGCTCCTGTCTGAT
TCTTTCTGACGATCACTTACATTTGTGTTATGCTGATTAGCAGATATCCACAAACATAGCTATGAAGTTCTGACT
GGGATAACCTTGCTGTTTGTCTATTTTGCAGTCTTGCTATTGCTGTTTGTCTATTTTGCAGTCTTGCTAAATTTG
TTTGTTCTTGAAAATTGTGATTTGGTTTTTGTTGCTTTCTGGAATTTAGGCAGTGAAATAATACAAA

FIGURE 1385A

GGCTGGAGCGGCGGCGGGCAGGCGTGCGGAGGACACTCCTGCGACCAGGTACTGGCTGTGATCGAACTTCTCAAC
CCTCAGAGACTTAGATCTTCCACCTCACTCCCTCAGCCAAGCCTCCAGGCCCCCTCGTGCATCCGTGGTGGCCTC
TCTGCCTTCTCTGTTCTGTTCTCCCCATGGCCCAGACATGAGTGGCCCCCTAGAAGGGGCTGATGGGGGAGGGGA
CCCCAGGCCTGGGGAATCATTTTGTCCTGGGGGCGTCCCATCCCCTGGGCCCCCACAGCACCGGCCTTGCCCAGG
CCCCAGCCTGGCCGATGACACCGATGCCAACAGCAATGGTTCAAGTGGCAATGAGTCCAACGGGCATGAGTCTAG
AGGCGCATCTCAGCGGAGCTCACACAGCTCCTCCTCAGGCAACGGCAAGGACTCAGCCCTGCTGGAGACCACTGA
GAGCAGCAAGAGCACAAACTCTCAGAGCCCATCCCCACCCAGCAGTTCCATTGCCTACAGCCTCCTGAGTGCCAG
CTCAGAGCAGGACAACCCGTCCACCAGTGGCTGCAGCAGTGAACAGTCAGCCCGGGCAAGGACTCAGAAGGAACT
CATGACAGCACTTCGAGAGCTCAAGCTTCGACTGCCGCCAGAGCGCCGGGGCAAGGGCCGCTCTGGGACCCTGGC
CACGCTGCAGTACGCACTGGCCTGTGTCAAGCAGGTGCAGCCAACCAGGAATACTACCAGCAGTGGAGCCTGGAG
GAGGGCGAGCCTTGCTCC**ATG**GACATGTCCACCTATACCCTGGAGGAGCTGGAGCACATCACGTCTGAGTACACA
CTTCAGAACCAGGATACCTTCTCAGTGGCTGTCTCCTTCCTGACGGGCCGAATCGTCTACATTTCGGAGCAGGCA
GCCGTCCTGCTGCGTTGCAAGCGGGACGTGTTCCGGGGTACCCGCTTCTCTGAGCTCCTGGCTCCCCAGGATGTG
GGAGTCTTCTATGGTTCCACTGCTCCATCTCGCCTGCCCACCTGGGGCACAGGGGCCTCAGCAGGTTCAGGCCTC
AGGGACTTTACCCAGGAGAAGTCCGTCTTCTGCCGTATCAGAGGAGGTCCTGACCGGGATCCAGGGCCTCGGTAC
CAGCCATTCCGCCTAACCCCGTATGTGACCAAGATCCGGGTCTCAGATGGGGCCCCTGCACAGCCGTGCTGCCTG
CTGATTGCAGAGCGCATCCATTCGGGTTACGAAGCTCCCCGGATACCCCCTGACAAGAGGATTTTCACTACGCGG
CACACACCCAGCTGCCTCTTCCAGGATGTGGATGAAAGGGCTGCCCCCCTGCTGGGCTACCTGCCCCAGGACCTC
CTGGGGGCCCCAGTGCTCCTGTTCCTGCATCCTGAGGACCGACCCCTCATGCTGGCTATCCACAAGAAGATTCTG
CAGTTGGCGGGCCAGCCCTTTGACCACTCCCCTATCCGCTTCTGTGCCCGCAACGGGGAGTATGTCACCATGGAC
ACCAGCTGGGCTGGCTTTGTGCACCCCTGGAGCCGCAAGGTAGCCTTCGTGTTGGGCCGCCACAAAGTACGCACG
GCCCCCCTGAATGAGGACGTGTTCACTCCCCCGGCCCCCAGCCCAGCTCCCTCCCTGGACACTGATATCCAGGAG
CTGTCAGAGCAGATCCACCGGCTGCTGCTGCAGCCCGTCCACAGCCCCAGCCCCACGGGACTCTGTGGAGTCGGC
GCCGTGACATCCCCAGGCCCTCTCCACAGCCCTGGGTCCTCCAGTGATAGCAACGGGGGTGATGCAGAGGGGCCT
GGGCCTCCTGCGCCAGTGACTTTCCAGCAGATCTGTAAGGATGTGCATCTGGTGAAGCACCAGGGCCAGCAGCTT
TTTATTGAGTCTCGGGCCCGGCCTCAGTCCCGGCCCCGCCTCCCTGCTACAGGCACGTTCAAGGCCAAGGCCCTT
CCCTGCCAATCCCCAGACCCAGAGCTGGAGGCGGGTTCTGCTCCCGTCCAGGCCCCACTAGCCTTGGTCCCTGAG
GAGGCCGAGAGGAAAGAAGCCTCCAGCTGCTCCTACCAGCAGATCAACTGCCTGGACAGCATCCTCAGGTACCTG
GAGAGCTGCAACCTCCCCAGCACCACTAAGCGTAAATGTGCCTCCTCCTCCTCCTATACCACCTCCTCAGCCTCT
GACGACGACAGGCAGAGGACAGGTCCAGTCTCTGTGGGGACCAAGAAAGATCCGCCGTCAGCAGCGCTGTCTGGG
GAGGGGGCCACCCCACGGAAGGAGCCAGTGGTGGGAGGCACCCTGAGCCCGCTCGCCCTGGCCAATAAGGCGGAG
AGTGTGGTGTCCGTCACCAGTCAGTGTAGCTTCAGCTCCACCATCGTCCATGTGGGAGACAAGAAGCCCCCGGAG
TCGGACATCATCATGATGGAGGACCTGCCTGGCCTAGCCCCAGGCCCAGCCCCCAGCCCAGCCCCCAGCCCCACA
GTAGCCCCTGACCCAGCCCCAGACGCCTACCGTCCAGTGGGGCTGACCAAGGCCGTGCTGTCCCTGCACACACAG
AAGGAAGAGCAAGCCTTCCTCAGCCGCTTCCGAGACCTGGGCAGGCTGCGTGGACTCGACAGCTCTTCCACAGCT
CCCTCAGCCCTTGGCGAGCGAGGCTGCCACCACGGCCCCGCACCCCCAAGCCGCCGACACCACTGCCGATCCAAA
GCCAAGCGCTCACGCCACCACCAGAACCCTCGGGCTGAAGCGCCCTGCTATGTCTCACACCCCTCACCCGTGCCA
CCCTCCACCCCCTGGCCCACCCCACCAGCCACTACCCCCTTCCCAGCGGTTGTCCAGCCCTACCCTCTCCCAGTG
TTCTCTCCTCGAGGAGGCCCCCAGCCTCTTCCCCCTGCTCCCACATCTGTGCCCCCAGCTGCTTTCCCCGCCCCT
TTGGTGACCCCAATGGTGGCCTTGGTGCTCCCTAACTATCTGTTCCCAACCCCATCCAGCTATCCTTATGGGGCA
CTCCAGACCCCTGCTGAAGGGCCTCCCACTCCTGCCTCGCACTCCCCTTCTCCATCCTTGCCCGCCCTCGCCCCG
AGTCCTCCTCACCGCCCGGACTCTCCACTGTTCAACTCGAGATGCAGCTCTCCACTCCAGCTCAATCTGCTGCAG
CTGGAGGAGCTCCCCCGTGCTGAGGGGGCTGCTGTTGCAGGAGGCCCTGGGAGCAGTGCCGGGCCCCCACCTCCC
AGTGCGGAGGCTGCTGAGCCAGAGGCCAGACTGGCGGAGGTCACTGAGTCCTCCAATCAGGACGCACTTTCCGGC
TCCAGTGACCTGCTCGAACTTCTGCTGCAAGAGGACTCGCGCTCCGGCACAGGCTCCGCAGCCTCGGGCTCCTTG
GGCTCTGGCTTGGGCTCTGGGTCTGGTTCAGGCTCCCATGAAGGGGGCAGCACCTCAGCCAGCATCACTCGCAGC
AGCCAGAGCAGCCACACAAGCAAATACTTTGGCAGCATCGACTCTTCCGAGGCTGAGGCTGGGGCTGCTCGGGGC
GGGGCTGAGCCTGGGGACCAGGTGATTAAGTACGTGCTCCAGGATCCCATTTGGCTGCTCATGGCCAATGCTGAC

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FIGURE 1385B

CAGCGCGTCATGATGACCTACCAGGTGCCCTCCAGGGACATGACCTCTGTGCTGAAGCAGGATCGGGAGCGGCTC
CGAGCCATGCAGAAGCAGCAGCCTCGGTTTTCTGAGGACCAGCGGCGGGAACTGGGTGCTGTGCACTCCTGGGTC
CGGAAGGGCCAACTGCCTCGGGCTCTTGATGTGATGGCCTGTGTGGACTGTGGGAGCAGCACCCAAGATCCTGGT
CACCCTGATGACCCACTCTTCTCAGAGCTGGATGGACTGGGGCTGGAGCCCATGGAAGAGGGTGGAGGCGAGCAG
GGCAGCAGCGGTGGCGGCAGTGGTGAGGGAGAGGGCTGCGAGGAGGCCCAAGGCGGGGCCAAGGCTTCAAGCTCT
CAGGACTTGGCTATGGAGGAGGAGGAAGAAGGCAGGAGCTCATCCAGTCCAGCCTTACCTACAGCAGGAAACTGC
ACCAGC**TAG**ACTCCATTCTGGGACCATCTCCAGGAGTCCATGAGAGGCTTTCTTCTCCTATGTCCCAATTCTCAG
AACTCAGATGTGGCTAGACCAACCAGTGGGAAACTGCCCCAGCTTCTCCCACCATAGGGGGCCGGACCCCCATCA
CCAGCCTAGGATCCAGGGGCTGCCTCTGGCCTCTTAGGGAGCAGAGAGCAGAACTCCGCAGCCCAGCCCAGAGGA
GTGTCACCTCCCACCTTTGGAGAGGAATCCTTCCCTCCCCTGGACAAAGTTGCTGACAAGCTGCTGAAGTGGCCT
CTCCATATTCCAGCTGAGCCTGAATCTGACTCTTGAGGGTTGGGGCTGCACTTATTTATTGCGGGGAGACAGCTC
TCTCTCCCACCTCCTCCCCAGATGGGAGGAGAGCCTGAGGCCCAAGCAGGACCCGGGGGTTCCAGCCCCTAGCTG
CTCTGGAGTGGGGGAGGTTGGTGGACCATGGAGTCCCTGGTGCTGCCCCTCAGGTGGGACCCAGGCGTTCTCAGC
TGTACCCTCTGCCGATGGCATTTGTGTTTTTGATATTTGTGTCTGTTACTACTTTTTTAATACAAAAAGATAAAA
ACGCC

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FIGURE 1386

ACTTGTCATGGCGACTGTCCAGCTTTGTGCCAGGAGCCTCGCAGGGGTTGATGGGATTGGGGTTTTCCCCTCCCA
TGTGCTCAAGACTGGCGCTAAAAGTTTTGAGCTTCTCAAAAGTCTAGAGCCACCGTCCAGGGAGCAGGTAGCTGC
TGGGCTCCGGGGACACTTTGCGTTCGGGCTGGGAGCGTGCTTTCCACGACGGTGACACGCTTCCCTGGATTGGCA
GCCAGACTGCCTTCCGGGTCACTGCC**ATG**GAGGAGCCGCAGTCAGATCCTAGCGTCGAGCCCCCTCTGAGTCAGG
AAACATTTTCAGACCTATGGAAACTACTTCCTGAAAACAACGTTCTGTCCCCCTTGCCGTCCCAAGCAATGGATG
ATTTGATGCTGTCCCCGGACGATATTGAACAATGGTTCACTGAAGACCCAGGTCCAGATGAAGCTCCCAGAATGC
CAGAGGCTGCTCCCCCCGTGGCCCCTGCACCAGCAGCTCCTACACCGGCGGCCCCTGCACCAGCCCCCTCCTGGC
CCCTGTCATCTTCTGTCCCTTCCCAGAAAACCTACCAGGGCAGCTACGGTTTCCGTCTGGGCTTCTTGCATTCTG
GGACAGCCAAGTCTGTGACTTGCACGTACTCCCCTGCCCTCAACAAGATGTTTTGCCAACTGGCCAAGACCTGCC
CTGTGCAGCTGTGGGTTGATTCCACACCCCCGCCCGGCACCCGCGTCCGCGCCATGGCCATCTACAAGCAGTCAC
AGCACATGACGGAGGTTGTGAGGCGCTGCCCCCACCATGAGCGCTGCTCAGATAGCGATGGTCTGGCCCCTCCTC
AGCATCTTATCCGAGTGGAAGGAAATTTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGG
TGGTGCCCTATGAGCCGCCTGAGGTTGGCTCTGACTGTACCACCATCCACTACAACTACATGTGTAACAGTTCCT
GCATGGGCGGCATGAACCGGAGGCCCATCCTCACCATCATCACACTGGAAGACTCCAGTGGTAATCTACTGGGAC
GGAACAGCTTTGAGGTGCGTGTTTGTGCCTGTCCTGGGAGAGACCGGCGCACAGAGGAAGAGAATCTCCGCAAGA
AAGGGGAGCCTCACCACGAGCTGCCCCCAGGGAGCACTAAGCGAGCACTGCCCAACAACACCAGCTCCTCTCCCC
AGCCAAAGAAGAAACCACTGGATGGAGAATATTTCACCCTTCAGATCCGTGGGCGTGAGCGCTTCGAGATGTTCC
GAGAGCTGAATGAGGCCTTGGAACTCAAGGATGCCCAGGCTGGGAAGGAGCCAGGGGGGAGCAGGGCTCACTCCA
GCCACCTGAAGTCCAAAAAGGGTCAGTCTACCTCCCGCCATAAAAAACTCATGTTCAAGACAGAAGGGCCTGACT
CAGAC**TGA**CATTCTCCACTTCTTGTTCCCCACTGACAGCCTCCCACCCCCATCTCTCCCTCCCCTGCCATTTTGG
GTTTTGGGTCTTTGAACCCTTGCTTGCAATAGGTGTGCGTCAGAAGCACCCAGGACTTCCATTTGCTTTGTCCCG
GGGCTCCACTGAACAAGTTGGCCTGCACTGGTGTTTTGTTGTGGGGAGGAGGATGGGGAGTAGGACATACCAGCT
TAGATTTTAAGGTTTTTACTGTGAGGGATGTTTGGGAGATGTAAGAAATGTTCTTGCAGTTAAGGGTTAGTTTAC
AATCAGCCACATTCTAGGTAGGGGCCCACTTCACCGTACTAACCAGGGAAGCTGTCCCTCACTGTTGAATTTTCT
CTAACTTCAAGGCCCATATCTGTGAAATGCTGGCATTTGCACCTACCTCACAGAGTGCATTGTGAGGGTTAATGA
AATAATGTACATCTGGCCTTGAAACCACCTTTTATTACATGGGGTCTAGAACTTGACCCCCTTGAGGGTGCTTGT
TCCCTCTCCCTGTTGGTCGGTGGGTTGGTAGTTTCTACAGTTGGGCAGCTGGTTAGGTAGAGGGAGTTGTCAAGT
CTCTGCTGGCCCAGCCAAACCCTGTCTGACAACCTCTTGGTGAACCTTAGTACCTAAAAGGAAATCTCACCCCAT
CCCACACCCTGGAGGATTTCATCTCTTGTATATGATGATCTGGATCCACCAAGACTTGTTTTATGCTCAGGGTCA
ATTTCTTTTTTCTTTTTTTTTTTTTTTTTCTTTTTCTTTGAGACTGGGTCTCGCTTTGTTGCCCAGGCTGGAGT
GGAGTGGCGTGATCTTGGCTTACTGCAGCCTTTGCCTCCCCGGCTCGAGCAGTCCTGCCTCAGCCTCCGGAGTAG
CTGGGACCACAGGTTCATGCCACCATGGCCAGCCAACTTTTGCATGTTTTGTAGAGATGGGGTCTCACAGTGTTG
CCCAGGCTGGTCTCAAACTCCTGGGCTCAGGCGATCCACCTGTCTCAGCCTCCCAGAGTGCTGGGATTACAATTG
TGAGCCACCACGTCCAGCTGGAAGGGTCAACATCTTTTACATTCTGCAAGCACATCTGCATTTTCACCCCACCCT
TCCCCTCCTTCTCCCTTTTTATATCCCATTTTTATATCGATCTCTTATTTTACAATAAAACTTTGCTGCCA

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FIGURE 1387

GCCGCTGAGAAAGCGCAGAGAAGGCGGGCCCCGTCTGAGGTCTGGCAGTCAGAGACAGCCGGGCGCCCACGGCCC
GAGCGCCCACGGCAGCACC**ATG**CCCGCACTCCTGGAGCGCCCCAAGCTTTCCAACGCCATGGCCAGGGCGCTGCA
CCGGCACATTATGATGGAGCGGGAGCGCAAGCGGCAGGAGGAAGAAGAGGTGGATAAGATGATGGAACAGAAGAT
GAAGGAAGAACAGGAGAGAAGGAAGAAAAAGGAGATGGAAGAGAGAATGTCATTAGAGGAGACCAAGGAACAAAT
TCTGAAGTTGGAGGAGAAGCTTTTGGCTCTACAGGAAGAGAAGCACCAGCTTTTCCTGCAGCTCAAGAAAGTTTT
ACATGAGGAAGAAAAACGGAGGCGAAAGGAACAGAGTGACCTGACCACCCTAACATCAGCTGCATACCAGCAGAG
CCTGACTGTTCACACAGGAACTCATCTCCTCAGCATGCAGGGGAGCCCTGGAGGACACAATCGCCCAGGCACCCT
CATGGCAGCTGACAGAGCCAAACAAATGTTTGGACCCCAAGTGCTTACGACCCGGCACTACGTGGGCTCAGCAGC
TGCTTTTGCAGGGACACCAGAGCATGGACAATTCCAAGGCAGTCCTGGTGGTGCCTATGGGACTGCTCAGCCCCC
ACCTCACTATGGGCCCACACAGCCAGCTTATAGTCCTAGTCAGCAGCTCAGAGCTCCTTCGGCATTCCCTGCAGT
GCAGTACCTATCTCAGCCACAGCCACAGCCCTATGCTGTGCATGGCCACTTTCAGCCCACTCAGACAGGTTTCCT
CCAGCCTGGTGGTGCCCTGTCCTTGCAAAAGCAGATGGAACATGCTAACCAGCAGACTGGCTTCTCCGACTCATC
CTCTCTGCGCCCCATGCACCCCCAGGCTCTGCATCCAGCCCCTGGACTCCTTGCTTCCCCCCAGCTCCCTGTGCA
GATGCAGCCAGCAGGAAAGTCGGGCTTTGCAGCTACCAGCCAACCTGGCCCTCGGCTCCCCTTCATCCAACACAG
CCAGAACCCGCGATTCTACCACAAG**TGA**CCATCAGATTATATCTTCAACACCACACCCCCCACCCCATCGTGGGT
GAGGGTATCCCCTGTGTGTCCCAGGCCAATAAAATCTACCTGCCA

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FIGURE 1388

GAGGGCGGAGGAGATAGATAGCACGCTTGCGCGGCTGTCATAGGGCTGCTTGGTTGGTCAGTGGGGAGTCGGCGC
CTGCGTACTAAGACCCGTGTGCAGCAGCGGCGGCGGCGGTAGAGGCGGCGGCGGCGGCGGCAGCGGGCTCGGAGG
CAGCGGTTGGGCTCGCGGCGAGCGGACGGGGTCGAGTCAGTGCGTTCGCGCGAGTTGGAATCGAAGCCTCTTAAA
ATGGCAGATGACTTGGACTTCGAGACAGGAGATGCAGGGGCCTCAGCCACCTTCCCAATGCAGTGCTCAGCATTA
CGTAAGAATGGCTTTGTGGTGCTCAAAGGCCGGCCATGTAAGATCGTCGAGATGTCTACTTCGAAGACTGGCAAG
CACGGCCACGCCAAGGTCCATCTGGTTGGTATTGACATCTTTACTGGGAAGAAATATGAAGATATCTGCCCGTCA
ACTCATAATATGGATGTCCCCAACATCAAAAGGAATGACTTCCAGCTGATTGGCATCCAGGATGGGTACCTATCA
CTGCTCCAGGACAGCGGGGAGGTACGAGAGGACCTTCGTCTCCCTGAGGGAGACCTTGGCAAGGAGATTGAGCAG
AAGTACGACTGTGGAGAAGAGATCCTGATCACGGTGCTGTCTGCCATGACAGAGGAGGCAGCTGTTGCAATCAAG
GCCATGGCAAAA**TAA**CTGGCTCCCAGGGTGGCGGTGGTGGCAGCAGTGATCCTCTGAACCTGCAGAGGCCCCCTC
CCCGAGCCTGGCCTGGCTCTGGCCCGGTCCTAAGCTGGACTCCTCCTACACAATTTATTTGACGTTTTATTTTGG
TTTTCCCCACCCCCTCAATCTGTCGGGGAGCCCCTGCCCTTCACCTAGCTCCCTTGGCCAGGAGCGAGCGAAGCT
GTGGCCTTGGTGAAGCTGCCCTCCTCTTCTCCCCTCACACTACAGCCCTGGTGGGGGAGAAGGGGGTGGGTGCTG
CTTGTGGTTTAGTCTTTTTTTTTTTTTTTTTTTTAATTCAATCTGGAATCAGAAAGCGGTGGATTCTGGCAAATG
GTCCTTGTGCCCTCCCCACTCATCCCTGGTCTGGTCCCCTGTTGCCTATAGCCCTTTACCCTGAGCACCACCCCA
ACAGACTGGGGACCAGCCCCCTCGCCTGCCTGTGTCTCTCCCCAAACCCCTTTAGATGGGGAGGGAAGAGGAGGA
GAGGGGAGGGGACCTGCCCCCTCCTCAGGCATCTGGGAGGGCCCTGCCCCCATGGGCTTTACCCTTCCCTGCGGG
CTCTCTCCCCGACACATTTGTTAAAATCAAACCTGAATAAAACTACAAGTTTAATATG

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FIGURE 1389

GGCCGGGAGAGTAGCAGTGCCTTGGACCCCAGCTCTCCTCCCCCTTTCTCTCTAAGG**ATG**GCCCAGAAGGAGAAC
TCCTACCCCTGGCCCTACGGCCGACAGACGGCTCCATCTGGCCTGAGCACCCTGCCCCAGCGAGTCCTCCGGAAA
GAGCCTGTCACCCCATCTGCACTTGTCCTCATGAGCCGCTCCAATGTCCAGCCCACAGCTGCCCCTGGCCAGAAG
GTGATGGAGAATAGCAGTGGGACACCCGACATCTTAACGCGGCACTTCACAATTGATGACTTTGAGATTGGGCGT
CCTCTGGGCAAAGGCAAGTTTGGAAACGTGTACTTGGCTCGGGAGAAGAAAAGCCATTTCATCGTGGCGCTCAAG
GTCCTCTTCAAGTCCCAGATAGAGAAGGAGGGCGTGGAGCATCAGCTGCGCAGAGAGATCGAAATCCAGGCCCAC
CTGCACCATCCCAACATCCTGCGTCTCTACAACTATTTTTATGACCGGAGGAGGATCTACTTGATTCTAGAGTAT
GCCCCCCGCGGGGAGCTCTACAAGGAGCTGCAGAAGAGCTGCACATTTGACGAGCAGCGAACAGCCACGATCATG
GAGGAGTTGGCAGATGCTCTAATGTACTGCCATGGGAAGAAGGTGATTCACAGAGACATAAAGCCAGAAAATCTG
CTCTTAGGGCTCAAGGGAGAGCTGAAGATTGCTGACTTCGGCTGGTCTGTGCATGCGCCCTCCCTGAGGAGGAAG
ACAATGTGTGGCACCCTGGACTACCTGCCCCCAGAGATGATTGAGGGGCGCATGCACAATGAGAAGGTGGATCTG
TGGTGCATTGGAGTGCTTTGCTATGAGCTGCTGGTGGGGAACCCACCCTTTGAGAGTGCATCACACAACGAGACC
TATCGCCGCATCGTCAAGGTGGACCTAAAGTTCCCCGCTTCCGTGCCCATGGGAGCCCAGGACCTCATCTCCAAA
CTGCTCAGGCATAACCCCTCGGAACGGCTGCCCCTGGCCCAGGTCTCAGCCCACCCTTGGGTCCGGGCCAACTCT
CGGAGGGTGCTGCCTCCCTCTGCCCTTCAATCTGTCGCC**TGA**TGGTCCCTGTCATTCACTCGGGTGCGTGTGTTT
GTATGTCTGTGTATGTATAGGGGAAAGAAGGGATCCCTAACTGTTCCCTTATCTGTTTTCTACCTCCTCCTTTGT
TTAATAAAGGCTGAAGCTTTTTGT

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FIGURE 1390

AGTCTTTGGCGGCGGGCCGGGCCGAACGTCCTCTGAGCCGCCCGCAGGCCTCCGGGTGTCCGGGGAGGAAGAGAC
CGAGAACGTTGGGGGCGCGAACCGCCACCCCAGGACGTCCCCGAAGACGTCAAGCTGCGGCGTCGTCCACCGGCC
GGAACGGGAGGCTCTGGAGAACGAGCCCGGCCCTCAAGGGACGCTGTCTGGGGCCGGGAGCCGCAGGGGGGCGCC
GGGTGCAGAGCACGAACCTTCCCTGTCCTCCCGGCACAAGAACCCGGCGCCGCCCGAGGGCAAGCCCTCCTCCGG
GAGGGACTGCCGTCGAGGGGGACCAGGCGGCGGG**ATG**GATGTTGAGCAGCAGGAGGAGGAAGACAACGACGAGGA
GGCGGCCGCGGGCAGCAGAGCCGGCCGCTCGTTCTCCAGCCGTCTTCAGGACAGCCGCAGCCTGGACGGGCTGAG
CGAGGCGTGCGGTGGCGCCGGGTCCTCAGGGAGTGCCGAGTCCGGCGCGGGCGGCGGACGCCGCGCCACCATCTC
CAGTCCCCTGGAGCTCGAAGGCACAGTGAGCCGCCACGGCGACCTTACCCACTTTGTCGCCAACAACCTGCAACT
CAAGATCCGTCTGAGCGGCGCGCCTCCACCCCCGCCTTCTGCCCCTGCGCGGCCCTGCCCAGCGCCTGCACCCAC
ACCCACACCGGCCATTCCCCCAATCGACCCCGAGGTGCTGCGGGATCTGGAGCGGTTGAGTCGGGAGCTGGGAGG
CCGGGTGGACCGTCTGCTTCGCGGTCTGGGTGGCGCGGTGCAGGAGCTGACGGCGCTGAGCGTGGGTTGCATCCA
GACCTACCGCGATGCTGTGGACTCCTTAGGTGAAGCCGTGGACATGAGCATCAAGGGCATGTACACCCTGCTGGC
GCGCTGCGAGGAGCTGGAGCGGGCTCTGCAGCCGGTTCAGGGGCTGGCGCGCCAAGTCCGGGATATCCGACGTAC
TCTGGAGGTGTTGGAGGCCCTGTGCAAG**TGA**CCAGGAGGACAGGAGAGGCCGGTCCTGGCCAGGGCAGGGCCCAG
CAGGACCCTAAGGACTCTTCAGGGAGTCCTGGTGGGAAGTGCCCACTGAGGGGAGGCCTGTGTGTTGGAGGCTCT
TCCAGATGCGTTCAGCTGGCCCGTGCCCACTCGCTGGGCCTTAGGCTGGTGTATGTGGGGAAGTTCTAACGGCTC
TCCTGGTGGGAAGGGATGTTGCTCTGCTTGTATTCAGTTGGCCATCTGTAGCTACCCTGTTCTTCCCAACTCTCC
TCCCTAGCTAGAGCACCAGCCCTGGGAACACGGGGCTTTAGGTCTGCTTGAAGGTGAGGACGTGACTCCCACATG
TAATCAGGAGAAAGGGACAGAGGAAGCCCCAGCCCCCACTGTGGCTATCCTGACTCCAGTGGCCACATCTCAGGT
GCCAGGGGCTGTGGGAGCTTGTGCCGTCCTTGGCCAAACACCCCGCAGGCAAAGATGCACCCCTGCTGATGGAGA
GCCTTCTGCTTCTGCCCTCTGGCCCTCTACCATACCACTTCCCCAGCCAGAACCGGCGTGCAGCTAGGAGGAATG
GGTTGCACGGCGGAGGGGGTGAGGTGGGAGGCGTCTCACTGCTCTCAGGGTTCAGGTAGAATGTTGCTGGTTTTG
AAGCTCACCTGTTGTGGAGTGTTCTAATCAGTTTTGGCTTTCTGAGTTTTTGTGGAATTAAAGTGCTGCTGCTGC
GAAGGCTGAGGCTG

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FIGURE 1391

TTAGGGCCTATGTGTCTTTGTTC**ATG**CGCCATCTGTGTGAGCCTGGGGCAGACGGCTCTGAAACCTTTGCCGATG
GGGTCCCTCGGGAGGGACTGAGTCGCCAGCAGGTGTTGACCCGCATTGGAGTCATGTCTCTCGTCAAAAAGAAGG
TGCAGGAGTTTGAGCACATCAATGGGCGTTGGTCAATGCCGGAACTGATGCCTGACCCCAGCGCCGATTCTAAGC
GCTCCTCCAGAGCCTCCTCTCCTACCAAAACGTCTCCCACCACTCCTGAGGCTTCTGCTACCAACAGTCCCTGCA
CCTCTAAACCTGCTACTCCAGCTCCAAGTGAGAAAGGAGAAGGCATAAGGACACCTCTTGAGAAGGAGGAAGCTG
AAAACCAGGAGGAAAAGCCAGAGAAGAACAGCAGAATTGGGGAGAAGATGGAGACAGAGGCTGATGCCCCCAGCC
CAGCCCCATCACTTGGGGAGCGGCTGGAGCCAAGGAAGATTCCTCTAGAGGATGAGGTGCCAGGGGTGCCTGGAG
AGATGGAGCCTGAACCTGGGTACCGTGGGGACAGAGAGAAGTCAGCCACAGAGTCGACGCCAGGAGAAAGGGGGG
AGGAGAAGCCGTTGGATGGACAGGAACACAGGGAGAGGCCGGAGGGGGAAACAGGGGATTTGGGCAAGAGAGAAG
ATGTAAAAGGTGACCGGGAGCTTCGACCAGGGCCTCGAGATGAGCCACGGTCCAATGGGCGACGAGAGGAAAAGA
CAGAGAAGCCCCGGTTCATGTTCAATATCGCCGATGGTGGCTTCACAGAGCTTCACACACTGTGGCAGAATGAGG
AACGGGCAGCTATTTCCTCGGGGAAACTCAATGAGATCTGGCACAGAAGACATGACTATTGGCTTCTGGCTGGGA
TTGTCCTCCATGGCTATGCACGGTGGCAGGACATCCAGAATGATGCTCAATTTGCCATTATCAACGAGCCATTTA
AAACTGAAGCCAATAAGGGGAACTTTCTGGAGATGAAAAATAAGTTCCTGGCCCGGAGGTTCAAGCTCCTGGAGC
AGGCGCTGGTGATTGAGGAGCAGCTGCGGCGGGCGGCCTACCTGAACCTGTCGCAGGAGCCGGCGCACCCCGCCA
TGGCCCTCCACGCCCGCTTCGCCGAGGCCGAGTGCCTGGCCGAGAGCCACCAGCACCTCTCCAAGGAGTCGCTGG
CGGGGAACAAGCCGGCCAACGCCGTCCTGCACAAGGTTCTGAACCAGCTGGAGGAGTTGCTGAGCGACATGAAGG
CGGACGTGACCCGCCTGCCAGCCACGCTGTCCCGAATACCCCCCATCGCAGCCCGCCTTCAGATGTCCGAGCGCA
GCATCCTCAGCCGGCTGGCCAGCAAGGGCACGGAGCCTCACCCCACACCGGCCTACCCGCCGGGTCCCTACGCTA
CACCTCCGGGGTACGGGGCGGCCTTCAGCGCCGCACCCGTAGGGGCCCTGGCCGCCGCAGGCGCCAATTACAGCC
AGATGCCTGCAGGGTCCTTCATCACAGCCGCCACCAACGGCCCTCCAGTGCTTGTGAAGAAGGAGAAGGAAATGG
TGGGGGCATTGGTGTCAGACGGGCTGGATCGGAAGGAGCCCCGAGCCGGGGAGGTGATCTGTATAGACGAC**TGA**C
TGGATCCCAGGCCTGCCCTTCACCCAGGCCCCGTCCCCGAGGCCGACCCCCAGCTCAAGCGCTGGGGCCTGCTGC
CAGCCCTCCACCTTCCCCACCCCTTGGGCCATCACTGGGCTAGGAACCCCTTTGCCCCTCTCTGCAGCTCCTCTC
TTCAAGAAGGGCCCTTTGTCTTTCTCCACTCCCACACACCTTTCCCACCAAGCCTTGAAGACTGTGCTGGTGAGA
AGAAGTCTGGGTGGGAGATGGCTGGCAGGGTCTTCCAAGTACCTTCCTCCCACACTGCCAAGTATACACAACTTC
CCAGTAAATGGTTGTGGGGAGGAAAGAGGTGGAGCCTCCCCAGCCGTTTCCCTGCAGAATCAGCTCTGTCTCATG
TGGAAGTGGAGAATCAGCCTTGCCTGGCCTTTAGGAACTTTTGTGGGGAAGAGAGCTTTGAAGAGAGGAGGGGGA
CTTTAGAGAGGGATGAAAATGAGCCCTGGGAGGGAGGAAGGGACGAGGAGGGGTGGCTGCATGTTACCGTCCCCT
ACCTCTCCCCACGTGGAGGGTGGAGCAGTTATGAGGGAGGAAGTCAACTGCTGTTCAGCCTCAGAATAAAGGTGC
CGTTCACTGGCTCAGTTACCTCCTGTGTACCGGCATCTTGTGTTGGGAATGTTCCCCCCTCCCTAGGGACCAAGG
ACCACCCCTACAAAAAGAGTAATGGTTGGGTGATACTCCCTCAAGCCAAAGAGGAGCTCCCCAACCTGTTCTAGG
GACCCAGGTAACCTAGAAGGGTGGGAGAGAATACAATGGGCCAGATGTGGTGGAAGCCCAGCTCTGGGGCTCAGG
TTCCTGGAAGACTTCTACTACCCTCCCTCCTCAAGGCCTGGATACAGACTAAATTTGTATAAGTCAGGCAGGGGA
CCTAGTCAGGGTCTTGGGAGCTACCTTGTCGTTGGGACCAGAGCAAAATAGTGGAGGGCAGGCTAGGGAAATGTG
GGCACATCCCCCCTCCCAGGAGGGGCCGGGGAGAGTGGCAGTTTGCATGGCGAACCCCCCACTTCCTCTTTGCTG
CCCCTTCACTTTCTTGCTGCCCCTTTCCCAGTCTCTCTTCACACCCACTCCTGGTCTGTCCTGATCCCCTCTTCT
GTATCAGGTTTATTGGTTGTACATATAAATTATACTTTCCTTTC

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FIGURE 1392

ATGACTGTCCACAACCTGTACCTGTTTGACCGGAATGGAGTGTGTCTGCACTACAGCGAATGGCACCGCAAGAAG
CAAGCAGGGATTCCCAAGGAGGAGGAGTATAAGCTGATGTACGGGATGCTCTTCTCTATCCGCTCGTTTGTCAGC
AAGATGTCCCCGCTAGACATGAAGGATGGCTTCCTGGCCTTCCAAACTAGCCGTTACAAACTCCATTACTACGAG
ACGCCCACTGGGATCAAAGTTGTCATGAATACTGACTTGGGCGTGGGACCCATCCGAGATGTGCTGCACCACATC
TACAGTGCGCTGTATGTGGAGCTGGTGGTGAAGAATCCCCTGTGCCCGCTGGGCCAAACTGTGCAAAGTGAGCTC
TTTCGCTCCCGACTGGACTCCTATGTTCGCTCTCTGCCCTTCTTCTCCGCCCGGGCTGGC**TGA**

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FIGURE 1393

GGAAAGTGTTCGGGGTCAGCTCCAGACC**ATG**CTCCAAACCTCACGTGATACAGCCTATCGGGATCCTCTCATTCC
TGGCGCTGGCTCAGAGAGACGGGAAGAGGACTCCTTTGACAGTGATAGCACAGCCACCTTGCTCAACACCCGGCC
CCTGCAAGACTTGTCTCCATCTAGCTCAGCCCAAGCCCTGGAGGAGCTGTTTCCCCGCTACACCAGCCTTCGGCC
AGGGCCTCCACTCAATCCCCCAGATTTTCAGGGGCTGAGAGATGCATTGGATTCAGAGCATACCCGCCGCAAGCA
TTGTGAGCGCCATATTCAGAGCCTGCAGACCCGAGTGTTAGAGCTACAGCAACAATTAGCCGTGGCTGTGGCTGC
CGACCGCAAGAAAGATACCATGATTGAACAACTGGACAAGACCCTGGCCCGTGTGGTGGAGGGCTGGAACCGGCA
TGAGGCTGAGCGGACAGAGGTTCTCAGGGGACTTCAAGAGGAACACCAGGCAGCAGAGCTCACCAGAAGCAAGCA
GCAGGAGACAGTAACCCGCCTGGAACAAAGCCTTTCTGAGGCCATGGAGGCCCTGAATCGTGAGCAGGAAAGTGC
CAGACTGCAGCAACGGGAAAGAGAGACACTGGAGGAGGAAAGGCAAGCTCTGACTCTGAGGTTGGAGGCAGAACA
GCAGCGGTGCTGTGTCCTGCAGGAAGAGCGGGATGCAGCTCGGGCTGGGCAACTGAGTGAGCATCGAGAGTTGGA
GACTCTTCGGGCTGCCCTAGAAGAAGAACGGCAGACCTGGGCCCAGCAAGAGCACCAGCTTAAGGAACACTACCA
GGCGCTGCAGGAGGAGAGCCAGGCTCAGCTGGAAAGGGAGAAGGAGAAGAGCCAGAGGGAAGCCCAGGCCGCCTG
GGAGACCCAGCACCAGTTGGCATTGGTGCAGTCTGAGGTGCGGCGGCTGGAAGGAGAGCTGGATACAGCTCGGAG
AGAGAGAGATGCCCTGCAGCTGGAAATGAGCTTGGTGCAGGCCCGGTATGAAAGCCAGCGGATCCAGCTGGAGTC
GGAGCTGGCTGTGCAGCTGGAGCAGCGGGTGACAGAGCGGCTGGCGCAGGCTCAGGAGAGCAGCCTACGGCAAGC
AGCCTCCCTCAGGGAACATCACAGGAAGCAGCTGCAGGACCTGAGTGGACAGCACCAGCAGGAGCTGGCCAGTCA
GCTAGCTCAGTTCAAGGTGGAAATGGCAGAACGAGAGGAACGGCAACAGCAGGTGGCTGAGGACTACGAGCTCAG
ACTGGCCCGGGAGCAAGCGCGAGTGTGCGAACTGCAGAGTGGGAACCAGCAGCTGGAGGAGCAGCGGGTGGAGCT
GGTGGAAAGACTGCAGGCCATGCTGCAGGCCCACTGGGATGAGGCCAACCAGCTGCTCAGCACCACTCTCCCGCC
GCCCAACCCTCCAGCTCCTCCTGCTGGACCCTCCAGCCCCGGGCCTCAGGAGCCCGAGAAGGAGGAGAGGAGGGT
CTGGACTATGCCTCCCATGGCCGTGGCCCTGAAGCCTGTATTGCAGCAGAGCCGGGAAGCAAGGGACGAGCTACC
TGGAGCGCCTCCTGTTCTTTGCAGTTCCTCCTCAGATCTTAGCCTCCTGTTGGGCCCCTCTTTTCAGAGCCAGCA
TTCTTTCCAGCCCCTGGAGCCCAAACCAGACCTCACTTCATCCACAGCTGGGGCCTTCTCTGCACTTGGGGCCTT
CCATCCCGATCATAGGGCAGAAAGGCCATTCCCTGAGGAAGATCCTGGACCTGACGGGGAGGGCCTCCTAAAGCA
AGGGCTGCCGCCTGCTCAGCTGGAGGGCCTCAAGAATTTTTTGCACCAGTTGCTGGAGACAGTGCCCCAGAACAA
TGAGAACCCTTCTGTCGACCTGTTGCCCCCTAAGTCTGGTCCTCTGACTGTCCCATCTTGGGAGGAAGCCCCTCA
AGTGCCACGTATTCCACCGCCTGTCCACAAAACCAAAGTTCCCTTAGCCATGGCATCCAGTCTTTTCCGGGTCCC
TGAGCCTCCCTCCTCCCATTCACAAGGCAGTGGTCCCAGCAGTGGTTCCCCAGAGAGAGGTGGAGATGGGCTTAC
ATTCCCAAGGCAGCTGATGGAGGTGTCTCAACTGTTGCGACTCTACCAGGCTCGGGGCTGGGGGGCTCTGCCTGC
TGAGGATCTCCTGCTCTACCTGAAGAGGCTGGAACACAGCGGCAGGACTGATGGCCGAGGGGATAATGTCCCCAG
AAGGAACACAGACTCCCGCTTGGGTGAGATCCCCCGGAAAGAGATTCCCTCCCAGGCTGTCCCTCGCCGCCTTGC
TACAGCCCCCAAGACTGAAAAACCTCCCGCACGGAAGAAAAGTGGGCACCCTGCCCCGAGTAGCATGAGGAGCCG
GGGGGGAGTCTGGAGA**TGA**GCCCCCCTACCCTCTCTCCTCTTTGTTCTCTCATTGTTGTTATTTTAATAAATGCT
CATTAGTCTGTA

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FIGURE 1394

AGTTCTACAGGGGTGAGGGATGGAAGGACTTTTTTGGCAATGATGGAAATGAGATGTCTGCAGGAAGATGGGATT
TACAAAGAAATAGGAAATGTTTATCATTGACCATACAAAGCTGGCTTATCTTACTTGTAGAAGAGTGTTTGGCAG
CTGAAACCCAAGGGAAAGAAAGGAAGTGCGTCATTATAGGCAATTCAGGCTAGATATTATACTAGGTACTTCATA
TACCCTCTTTTTTTTTTTTGCCCCCAACAAAGAGAAGGGGTCTTGCTCTGTCACCCAGTCTGGAGTGCAGTGGCA
AAATCATGGCTCACTGCAGCCTGGAGCTCCTGGGCACAAGTGATCCTCCCATCTCTGCCTTGAGTAGCTGGGACT
TCAGGTGCACGCCACAATGCCTAATTTTTTAATTTTTTGTAGACACAGGGTCTCGCTGTGTTGCCCAGGCTGGTT
TCAACCTCCTGGCCTCAAGTGATCCTCTTGCCTCAGCCTCCCAAATAGCCTCTTCAAGACAACTACCCCATAAGG
TGGATTACCATTACTATGTTACAGATAAGTCCTTCGAAACTTTGGAAAGTTTAATAGCTCAAAGCCACACTAGGT
AGTAACCACTAGAGCCAGAATGCAAATTCAAGTCTGCCCAACTCCAAAGTCCATGTTCTCTCAATATAAAGGGAC
CATCTCAATGTCTAATCTCATGTTAACATTTGTAGCCACTGCTCTCAGCAAGTATTTGGGATGTGGCTTTGTCCT
AGGATCCCTGCACAATAGGAAATTGTGGTCCTATTGTATAGTTTGCAGTTATTGTCTCTGGAAGGGAGTTTGCAG
AGTTCTCCTGTGGCGAAGAGGAGGCAAGGAAGGCTAAGTGTCAGTTAAGCAATAGCTATTGGGGCTACTTCTTTG
TTAATCCCATACCCCAGATTTCTCTCCTGACCTTTTGGGGCAAAGAGGTGGGTATTTACTAACTTGAAGGAAAAC
TAGAGTGGGGAAAAGGCCGGCAAATTAGTGACACTTTGGCGAGGGAGAAAAAGGAGGCAGTTTGCCACTTGGAGA
AGATGAGGAAGACAGGGTTGCAAGACGGTGACTCCAAAAGAGGGAGCTCGACAGGGGTAATGTAAACAGAGATGC
TAACTAAGTCAGAAAACTCTCCTGGTGACCAAAAGAGAACCACTATTGGGGGTAATGGCTAGATTTGGTCTCCTT
TAACTTAAGGAGGGGAGATTTGAGAATGACAGACAGTTGAACTTCCTGGCAGCAGCAAGCAAAAAACAAATCAGG
AAGAGTTTAGTGTGTCTTCTGGCAGGGGACACCAGGGCCCAGCACAGGAGAAGGTGGCCCCTGTGAGATACTGGT
GGGCTATATAGGCGTTTTCTGAGGGGCTTTGGGAGGCATGAACAAAGGTGGAAACATTGCTGTTGGCTTCGGCAG
TATCTGAATTTACTGTGAGATGGAGGGTTTAAATCTAACCCCATGGAATGCAGGAGTCCATGAATTATCTAAATC
GATCATTTTGATCTTTAATCAACTCTGCAATT**ATG**TGTACCTTGTTTGCTCAATTAAACCCTGAACTATTTGAGA
ATGAAAGCTATGCTGTTCCTCTAGTGCAAGCCTCAGGGCCTGTCCTGTGCCTACAGGATGTCCCCATTCTGCCAA
AACCTGTCCCTCTTCCAGAGACTCCTACTTCAATGTCTCTTGCTAGAAACACATCCCTTTCCTCACACATCCAGT
CACTCATCAAGTGTAATCTGTCTCCTAAATATCTCTGGAACCTATCTTCTTTTCTCCAAGTTACCATCACCTCTT
GTCTAAACTGCTACGGAAACTTCCTAACCTGTTCTCCCATTTCCACTTCTGACTTCCATGCTGCAATGAGAGTCA
GCTATGAAAAACAAACC**TAA**ACATCGAACTTTCCTTAGCTTCTTCAGTGGCTTCCAACTGCTTTTGGAATAAAGT
CCTAAATTCAAAGATCTTGTATAAATCAGGCTCATCTCGCAACACCCCTCTTTGTTCTCTATGGCCTAGACACAC
TGGCTTTCAGTTCATTACATGTCTTGCCTCAGACCCTCACACACTGTCCTCTCTGCCTGCAACACTCTTCCTTTC
ACTTTCCACCTAGCTGATCCTAAATGTTCCTTCCTCAGGGAGGTCTTTTCTGATTTCTTGGTGGGTCAAGACTTT
CTGATAAATCAGTTAGCACCATGCATTTTCCAGAGTTTTTATTACAATTGTAAAATTATGGCTGTAATAGGCTGG
CTGCGCTGCTAGATTGTAAGCTCACGAGGGCAGAGATCTTGTTCACATCTTGCTCACTGCTATATTCTCATTGCT
GAGCACACAGTTGCAGCTCAATAAATTTTGAATGAACTCC

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FIGURE 1395

GGGAAGCCCTCGTCCCCGGCCCTCCCTGGCCCGCCCACTCCGAAGGCAGGGAGGAGGACTTGGCAACTGGCTTTT
CTCCTGTGGAGTCGTCACACGCCATCCAGCAGCGCTAAGGTGGACATGGGATTCCTCCCTGCGATGCGTGTCTTT
CCCACGCAGAGAAGCCCAGTCTCTTCTCTGGATCTGGGCCTTTGAACAACTGGGGGGCGTTTTCTCCCCCCCATT
GGGACACCAGTCTTCGGTGTGTGGAATGTGGTATTTTCCCGCGTGGAGGTGTGCTTTCTCACAACGGGGTGTGTT
TTCCC**ATG**TGCAGGGTGAGGTTTTTTTTTGCCACCCTGGACACATGTTGGCCCCCTCAAAGAATTTCTGTGGGGA
TTTGTACCCCAGAATCCTGTTCCCCCATCCCTTCTCCCACCTCCTCCCCTCTCCCTCCCCCTGGAGACCCTGGAA
GTGGTGTGTTCACATACAGTGACCCTTGGCCACCAGACCACAGAGGATGGAGCCTGGGAAGCAGCGAGGAAATCA
CAGCCCCCTCGCCCCTGCCTCCCTTGCCCCTACCCCGGCGAAGCATGTTCCCCCCGACGCCCCCCTTGGCACAAG
TCAGA**TGA**AGCACGTTCTGCCGGGGAGGCCCTCACCTTCCAGAGAGGACAGACACAGATTTCCTGCTGGGGGAGG
GAGGAGTCCACGCATCCTGATGCTGCCTGGAAGCTTATTTTCCCGTGGCCAGGATGCATTTCTCTGAGTGGAAAC
AGGTTCTTGCATGTGGATGTGTGTTTCCCCAGGCAGACGGCCCCTCTCTTCCCAGCACTTCCCTGCCTCCCCCAG
GCCTCAGGCCCAGCACCCAGTTCCTCCTCACATGGCAGGTGAGCACAGACTTCTAGTTGGCAGGAGCTGAGGAGG
GTGAACAAACCCCGAGGGAGGCCCGGCCCTTGCTCCCGAGTTGGGGGGAGGGGGTGTGGCAACGTGCCCCCCGCA
GAGGCCACGCATGTTTGACCAAAGCCCTCATTGTGGTCCGAGGACAGCCTTTTCCCCAGGCCTCAGAGCATTGCT
CATCCGTGCCAAACTGGGTAGGTGGATTTGAGCGGAAAGACTCCCAAAATGTGCCAAGAATTTCCCAGTCCCAGG
CAGGGCAGGGGAAACTAAGGGCAAGCAGGATACAGGGCGAGGGATGTGGCAGGTGAGGGGGCTCCCGCCTGTGCC
CCTTCTCCTCACCATGTCTCCCCCAGCCTGCCTCAGTTCTCCGTTCCCCTTCATCTCCGTCCCCCTCTTTGAAGC
TGTCCCCATCTCAGTGTCAGACCAGCCTTCTCCTCAGCTGACCACCCTCCTCTGACCCACGCCCCCTCCTTGTCT
GAAAGAAAGGAGCCTTGAATGGTGGAGGGAGGCAGTGGGGAGAAAGGTCTCACCGGACAGGTTGGGAGAATGAGG
TCAGCGGTGCTGGGGAACAGATGGAGGGGGCAGTGGGGACAGGGCTTGGGCAGACACCAGCAGGAATAATTTGAA
ATGTGTGAGGTGACTCCCCGGAGGGCCTTGGGCTTGGGCATTTGGGAAAAGAATGATGTCTGGAAGGGCTTAAGG
GACACAGTGGACGAGGGGAGAGTCCTCATCTGCTGGCATTTTGTGGGGTGTTAGTGCCAAACTTGAATAGGGGCT
GGGGTGCTGTCTTCCACTGACACCCAAATCCAGAATCCCTGGTCTTGAGTCCCCAGAACTTTGCCTCTTGACTGT
CCCTTCTCTTCCTACCTCCATCCATGGAAAATTAGTTATTTTCTGATCCTTTCCCCTGCCTGGTCTAGCTCCTCT
CCAAACAGCCATGCCCTCCAAATGCTAGAGACCTGGGCCCTGAACCCTGTAGACAGATGCCCTCAGAATTGGGGC
ATGGGAGGGGGGCTGGGGGACCCCATGATTCAGCCACGGACTCCAATGCCCAGCTCCTCTCCCCAAAACAATCCC
GACAATCCCTTATCCCTACCCCAACCCTTTGCGGCTCTGTACACATTTTTAAACCTGGCAAAAGATGAAGAGAAT
ATTGTAAATATAAAAGTTTAACTGTT

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FIGURE 1396

TCCAGTTAGGAGCCTTGATGCCGGAGGGGACAGTGGGTCGCCGAGAGCGCCCGGAGGGAACCGCCTGGCCTTCGG
GGACCACCAATTTTGTCTGGAACCACCCTCCCGGCGTATCCTACTCCCTGTGCCGCGAGGCCATCGCTTCACTGG
AGGGGTCGATTTGTGTGTAGTTTGGTGACAAGATTTGCATTCACCTGGCCCAAACCCTTTTTGTCTCTTTGGGTG
ACCGGAAAACTCCACCTCAAGTTTTCTTTTGTGGGGCTGCCCCCCAAGTGTCGTTTGTTTTACTGTAGGGTCTCC
CGCCCGGCGCCCCCAGTGTTTTCTGAGGGCGGAA**ATG**GCCAATTCGGGCCTGCAGTTGCTGGGCTTCTCCATGGC
CCTGCTGGGCTGGGTGGGTCTGGTGGCCTGCACCGCCATCCCGCAGTGGCAGATGAGCTCCTATGCGGGTGACAA
CATCATCACGGCCCAGGCCATGTACAAGGGGCTGTGGATGGACTGCGTCACGCAGAGCACGGGGATGATGAGCTG
CAAAATGTACGACTCGGTGCTCGCCCTGTCCGCGGCCTTGCAGGCCACTCGAGCCCTAATGGTGGTCTCCCTGGT
GCTGGGCTTCCTGGCCATGTTTGTGGCCACGATGGGCATGAAGTGCACGCGCTGTGGGGGAGACGACAAAGTGAA
GAAGGCCCGTATAGCCATGGGTGGAGGCATAATTTTCATCGTGGCAGGTCTTGCCGCCTTGGTAGCTTGCTCCTG
GTATGGCCATCAGATTGTCACAGACTTTTATAACCCTTTGATCCCTACCAACATTAAGTATGAGTTTGGCCCTGC
CATCTTTATTGGCTGGGCAGGGTCTGCCCTAGTCATCCTGGGAGGTGCACTGCTCTCCTGTTCCTGTCCTGGGAA
TGAGAGCAAGGCTGGGTACCGTGCACCCCGCTCTTACCCTAAGTCCAACTCTTCCAAGGAGTATGTG**TGA**CCTGG
GATCTCCTTGCCCCAGCCTGACAGGCTATGGGAGTGTCTAGATGCCTGAAAGGGCCTGGGGCTGAGCTCAGCCTG
TGGGCAGGGTGCCGGACAAAGGCCTCCTGGTCACTCTGTCCCTGCACTCCATGTATAGTCCTCTTGGGTTGGGGG
TGGGGGGGTGCCGTTGGTGGGAGAGACAAAAAGAGGGAGAGTGTGCTTTTTGTACAGTAATAAAAAATAAGTATT
GGGAAGC

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FIGURE 1397

CTCGCGGGGGGCTTGTGGGTCCTCCTCCCCCTCCCACTGACAACTGCCCCAACTGCTCTTCCCGCCCCGGTCACA
GTGAAAATGTAGACGGGGTCGTTGTCCACTATGTTAGGTCTTAATGGTGGGAGGACGCCCGAGTGCTCGGCCCGT
TTCACCCCGAGGAGGAAGGACACTGGGTCATGACGCCATCAGAGGGCGCCAGAGCAGGGACCGGACGCGAGTTGG
AGATGTTGGACTCGCTGTTGGCCTTGGGCGGCCTGGTGCTGCTTCGGGATTCCGTGGAGTGGGAGGGGCGCAGTC
TCTTGAAGGCGCTTGTCAAGAAATCTGCACTGTGTGGGGAGCAAGTGCATATCCTGGGCTGTGAAGTGAGCGAGG
AAGAGTTTCGTGAAGGTTTTGACTCTGATATCAACAATCGGCTGGTTTACCATGACTTCTTCAGAGACCCTCTCA
ACTGGTCAAAAACTGAGGAGGCCTTTCCTGGGGGGCCGCTGGGAGCCTTGAGAGCCATGTGCAAGAGGACAGATC
CTGTTCCTGTCACCATTGCTCTCGATTCACTCAGCTGGCTGCTACTTCGCCTTCCCTGCACCACACTCTGCCAGG
TCCTGCATGCTGTGAGCCATCAGGACTCTTGTCCTGGTGACAGCTCCTCAGTGGGGAAAGTGAGTGTGCTGGGCT
TGCTACATGAAGAGCTTCATGGACCAGGCCCTGTGGGAGCTCTCAGCAGCCTTGCTCAGACTGAGGTGACCCTGG
GCGGTACCATGGGCCAGGCCTCGGCCCACATCCTGTGTCGGAGGCCCCGACAGCGCCCAACTGACCAGACTCAGT
GGTTCTCCATCCTTCCGGACTTCAGCCTGGATCTCCAAGAGGGGCCCTCTGTAGAGTCCCAGCCCTACTCCGATC
CTCATATACCCCCGGTGGATCCCACAACTCATTTGACCTTTAACCTTCACCTGTCCAAGAAAGAGAGAGAAGCCA
GAGATAGCCTGATCCTGCCCTTCCAGTTCAGTTCTGAAAAACAGCAGGCTCTCCTGCGGCCTAGGCCAGGGCAGG
CTACCAGCCACATCTTCTATGAGCCAGATGCTTATGATGACCTGGACCAAGAAGACCCAGATGACGACCTGGATA
TTTGACTGGCCAGATTTGATTAGATTGTAATTGGAGGGGGCGCGGGAAGACTTTGGGCCCAGAACCATCTTTCTA
TTGTTTGTGTTAGCCTTACCCTGTCCCTGCCCCACCTTGGTTCCCCTTGTCTATGGAGCCCCGCCTTGTGAGCCA
GGAAGCAGCGTCTCATCAGGACAGAAGGTAGGATGAAGACATGGGGTAATGTGAGAGAGTAGAACACCCCCGTAC
CTAATAAAAATCTTTATTTTTTTATT

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FIGURE 1398

AG**ATG**GAAGTACAGGCTCCACCAGGCACCACCATTGGCCACGTGCTACAGACCTGGCATCCCTTCCTCCCCAAGT
TCTCCATCCAGGATGCCGATCGCCAGACAGTCTTGCGAGTGGTGGGGCCCTGCTGGACCTGTGGCTGTGGCACAG
ACACCAACTTTGAGGTGAAGACTCGGGATGAATCCCGCAGTGTGGGCCGCATCAGCAAGCAGTGGGGGGGCCTGG
TCCGAGAAGCCCTCACAGATGCAGATGACTTTGGCCTACAGTTCCCGCTGGACCTGGATGTGAGGGTGAAGGCTG
TGCTGCTGGGAGCCACATTCCTCATTGACTACATGTTCTTTGAGAAGCGAGGAGGCGCTGGGCCCTCTGCCGTCA
CCAGT**TAG**AGGCCACCATGGTGTGAGGAGACCATCACCTCGACCAGAACTCCAGATGGTCACCTGCCCTGGCCCC
TCCTCTGGGCAGCCCCTTTCCTCCATGTACACTGCAGGGGACAGAAGGGGGGCCCCATCCCTACCCTACTCCCTG
GCCGCCTGCCCCTGTGGTTCCCAAGGAGGGGTATGTATGAGAGCCGCTCTCCTGCTACCTCCCACCACTGTCCCA
GCAGTCCCTCGGCACACAGGCATATCAGCTTTCACACTTTCCCCATGCACTCTCTCCCACCCCCTTCCAGGGCCT
CTGCTCCAAAGGAGGCCTCTGGAACCCAGGACTCTGGGGTTTTACAAGAGGGCTGGGGGTGTGGAAGGGCAAGCTG
CACCAAAGACGGTGGATATAGCCACCGCCCCCCCGCCGCTGCCTAGCATCTGCTTGGCCAATTAGTTCAGCCTCA
GACCATGGCACTTTGAGGGGGTCTCTACCTCCCCATCAACAGCTGCAGGGGGACCCCAGTGCCAACTTCCTCTCC
CACTAGGGCCCTGCCTTCAGCTGGTGCTTGCTGCGATTCCTGTGCCTTATGTAACTGCCCTTCCTTCCCTTGCCC
TAGGAAAAAGGCTGCATCTTTATATGTTACATTCATATAAACTTTGTAACTTTTTGG

FIGURE 1399

CCGGGGCCGGCGGTGCCGGGGTCATCGGG**ATG**ATGCGGACGCAGTGTCTGCTGGGGCTGCGCACGTTCGTGGCCT
TCGCCGCCAAGCTCTGGAGCTTCTTCATTTACCTTTTGCGGAGGCAGATCCGCACGGTAATTCAGTACCAAACTG
TTCGATATGATATCCTCCCCTTATCTCCTGTGTCCCGGAATCGGCTAGCCCAGGTGAAGAGGAAGATCCTGGTGC
TGGATCTGGATGAGACACTTATTCACTCCCACCATGATGGGGTCCTGAGGCCCACAGTCCGGCCTGGTACGCCTC
CTGACTTCATCCTCAAGGTGGTAATAGACAAACATCCTGTCCGGTTTTTTGTACATAAGAGGCCCCATGTGGATT
TCTTCCTGGAAGTGGTGAGCCAGTGGTACGAGCTGGTGGTGTTTACAGCAAGCATGGAGATCTATGGCTCTGCTG
TGGCAGATAAACTGGACAATAGCAGAAGCATTCTTAAGAGGAGATATTACAGACAGCACTGCACTTTGGAGTTGG
GCAGCTACATCAAGGACCTCTCTGTGGTCCACAGTGACCTCTCCAGCATTGTGATCCTGGATAACTCCCCAGGGG
CTTACAGGAGCCATCCAGACAATGCCATCCCCATCAAATCCTGGTTCAGTGACCCCAGCGACACAGCCCTTCTCA
ACCTGCTCCCAATGCTGGATGCCCTCAGGTTCACCGCTGATGTTCGTTCCGTGCTGAGCCGAAACCTTCACCAAC
ATCGGCTCTGG**TGA**CAGCTGCTCCCCCTCCACCTGAGTTGGGGTGGGGGGGAAAGGGAGGGCGAGCCCTTGGGAT
GCCGTCTGATGCCCTGTCCAATGTGAGGACTGCCTGGGCAGGGTCTGCCCCTCCCACCCCTCTCTGCCCTGGGAG
CCCTACACTCCACTTGGAGTCTGGATGGACACATGGGCCAGGGGCTCTGAAGCAGCCTCACTCTTAACTTCGTGT
TCACACTCCATGGAAACCCCAGACTGGGACACAGGCGGAAGCCTAGGAGAGCCGAATCAGTGTTTGTGAAGAGGC
AGGACTGGCCAGAGTGACAGACATACGGTGATCCAGGAGGCTCAAAGAGAAGCCAAGTCAGCTTTGTTGTGATTT
GATTTTTTTTAAAAAACTCTTGTACAAAACTGATCTAATTCTTCACTCCTGCTCCAAGGGCTGGGCTGTGGGTGG
GATACTGGGATTTTGGGCCACTGGATTTTCCCTAAATTTGTCCCCCCTTTACTCTCCCTCTATTTTTCTCTCCTT
AGACTCCCTCAGACCTGTAACCAGCTTTGTGTCTTTTTTCCTTTTCTCTCTTTTAAACCATGCATTATAACTTTG
AAACC

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FIGURE 1400

GCTCCGCTGAATCCGCCCGCGCGTCGCCGCCGTCGTCGCCGCCCCCCGTCCCGGCCCCCCTGGGTTCCCTCAGCC
CAGCCCTGTCCAGCCCGGTTCCCGGGAGG**ATG**AAGTTCGTGTACAAAGAAGAGCATCCGTTCGAGAAGCGCCGCT
CTGAGGGCGAGAAGATCCGAAAGAAATACCCGGACCGGGTGCCGGTGATAGTAGAAAAGGCTCCCAAAGCTCGGA
TAGGAGACCTGGACAAAAAGAAATACCTGGTGCCTTCTGATCTCACAGTTGGTCAGTTCTACTTCTTGATCCGGA
AGCGAATTCATCTCCGAGCTGAGGATGCCTTGTTTTTCTTTGTCAACAATGTCATTCCACCCACCAGTGCCACAA
TGGGTCAGCTGTACCAGGAACACCATGAAGAAGACTTCTTTCTCTACATTGCCTACAGTGACGAAAGTGTCTACG
GTCTG**TGA**AGCTGCTGCCCCTGAGCTGGAGGGGGGTCTCATTCTACAAAGAGAGAGGTGGCCCCCCTTTCTTGAC
CTCCTCCTCCTTCAAGCTCAAACACCACCTCCCTTATTCAGGACCGGCACTTCTTAATGTTTGTGGCTTTCTCTC
CAGCCTCTCTTAGGAGGGGTAATGGTGGAGTTGGCATCTTGTAACTCTCCTTTCTCCTTTCTTCCCCTTTCTCTG
CCCGCCTTTCCCATCCTGCTGTAGACTTCTTGATTGTCAGTCTGTGTCACATCCAGTGATTGTTTTGGTTTCTGT
TCCCTTTCTGACTGCCCAAGGGGCTCAGAACCCCAGCAATCCCTTCCTTTCACTACCTTCTTTTTTGGGGGTAGT
TGGAAGGGACTGAAATTGTGGGGGGAAGGTAGGAGGCACATCAATAAAGAGGAAACCACCAAGCTG

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FIGURE 1401

GAGACC**ATG**GCGGGTAGCAGCACTGGGGGCGGTGGGGTTGGGGAGACGAAGGTGATTTACCACCTGGATGAGGAA
GAGACTCCCTACCTGGTGAAGATCCCTGTCCCCGCCGAGCGCATCACCCTCGGCGATTTCAAGAGCGTCCTGCAG
CGGCCCGCGGGCGCCAAGTACTTTTTCAAGTCTATGGATCAGGATTTCGGGGTGGTGAAGGAAGAAATTTCAGAT
GACAACGCCCGCCTCCCCTGCTTCAACGGAAGGGTGGTATCCTGGCTGGTGTCCTCAGATAATCCCCAACCCGAG
ATGGCCCCTCCAGTCCATGAGCCTCGGGCAGAACTGGCGCCTCCAGCCCCACCTTTACCTCCTTTGCCACCCGAG
AGGACCAGCGGCATTGGGGACTCAAGGCCTCCATCCTTCCACCCTAATGTGTCCAGCAGCCATGAGAATCTGGAG
CCTGAGACAGAAACCGAGTCAGTAGTGTCACTGAGGCGGGAGCGGCCTCGCAGGAGAGACAGCAGTGAGCATGGC
GCTGGGGGCCACAGGACTGGTGGCCCCTCAAGGCTGGAGCGCCACCTGGCCGGATACGAGAGCTCCTCTACCCTC
ATGACCAGCGAGCTGGAGAGTACCAGCCTGGGGGACTCGGACGAGGAGGACACCATGAGCAGGTTCAGCAGCTCC
ACGGAGCAGAGCAGTGCCTCCCGCCTCCTTAAGCGCCACCGGCGGCGAAGGAAGCAGAGGCCACCCCGCCTGGAG
AGGACGTCATCCTTCAGCAGCGTCACAGATTCCACAATGTCTCTCAATATCATCACAGTCACGCTAAACATGGAG
AAGTACAACTTCCTGGGTATCTCCATTGTTGGCCAGAGCAATGAGCGGGGAGACGGAGGCATCTACATTGGCTCC
ATCATGAAGGGTGGGGCTGTGGCGGCCGACGGGCGCATTGAGCCAGGGGACATGCTTTTGCAGGTGAATGACATG
AACTTTGAGAACATGAGCAACGATGACGCTGTGCGGGTGCTGAGGGACATTGTGCACAAGCCTGGCCCCATTGTG
CTGACTGTGGCCAAGTGCTGGGATCCCTCTCCTCAGGCCTATTTCACTCTCCCCCGAAATGAGCCCATCCAGCCA
ATTGACCCTGCTGCCTGGGTGTCCCATTCCGCGGCTCTGACTGGCACCTTCCCAGCCTATCCAGGTTCCTCCTCC
ATGAGCACCATTACATCTGGATCGTCTTTGCCTGATGGCTGTGAAGGCCGGGGTCTCTCCGTCCATACGGACATG
GCATCGGTGACCAAGGCCATGGCAGCTCCAGAGTCTGGACTGGAAGTCCGGGACCGCATGTGGCTCAAGATCACC
ATCCCTAATGCCTTTCTGGGCTCGGATGTGGTTGACTGGCTCTACCATCACGTGGAGGGCTTTCCTGAGCGGCGG
GAGGCCCGCAAGTATGCCAGCGGGCTGCTCAAAGCAGGCCTGATCCGACACACCGTCAACAAGATCACCTTCTCT
GAGCAGTGCTATTACGTCTTCGGAGACCTCAGTGGTGGCTGTGAGAGCTACCTAGTCAACCTGTCTCTCAATGAC
AACGATGGCTCCAGTGGGGCTTCAGACCAGGATACCCTGGCTCCTCTGCCTGGGGCCACCCCCTGGCCCCTGCTG
CCCACTTTCTCCTACCAATACCCTGCCCCACACCCCTACAGCCCGCAGCCTCCACCCTACCATGAGCTTTCATCT
TACACCTATGGTGGGGGCAGTGCCAGCAGCCAGCATAGTGAGGGCAGCCGGAGCAGTGGGTCGACACGGAGTGAT
GGGGGGGCAGGGCGCACGGGGAGGCCCGAGGAGCGGGCCCCCGAGTCCAAGTCCGGCAGTGGCAGTGAGTCTGAG
CCCTCCAGCCGAGGGGGCAGCCTTCGGCGGGGTGGGGAAGCAAGTGGGACTAGCGATGGGGGCCCTCCTCCATCC
AGAGGCTCAACTGGGGGTGCCCCTAATCTCCGAGCCCACCCAGGGCTCCATCCCTATGGACCGCCCCCTGGCATG
GCCCTCCCCTACAACCCCATGATGGTGGTCATGATGCCCCCACCTCCACCTCCAGTCCCTCCAGCAGTGCAGCCT
CCGGGGGCCCCTCCAGTCAGAGACCTGGGCTCTGTGCCCCCAGAACTGACAGCCAGCCGCCAAAGCTTCCACATG
GCCATGGGCAATCCCAGCGAGTTCTTTGTGGATGTTATG**TAG**CCCACTGTGGGGCCAGGCTGGGCCGGGCGCTCC
TGGTGTGTGACTGGGTGTCCTGGCCGTCATGTGCTTGCTCTTACAGTGCCTGGGCTCAGCCTACCAGCTGCTGCC
ATACAGGAGATTGTGGCCACTGTGACTCTCACCAGCAGTGCCTGGTTCCTCCCCCTTCCCTCAGGGGTAGACAAG
GGACCTTTGATTATTTTTAGCTTTGTTTTTTTATAAGCCTTTTTGGGGGTTAAAATAGAGTTTCTTACATTTTTG
GGACTTTTTTAATAGGCATTTCCTCTTTT

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FIGURE 1402

GGGCCAGCGCGGCCCGGGCCGCCCTCGCCTCCCACCCAGGGCGCTGAGCACGCACGCCGCCGGCCTGGCGGCGTT
CGCGGGGCCCGGGACCAGCCGCCGCCTTCTCCAGGCGCTCCTACTCTCTGGGCATCTGCAGTCCGAGCGGAAGGG
GCGGGAACGTCGGCGACGCCGAGGAGCAAAGCCCACGATCGGCTTCCCGGGGCAGCGGACGGCTGCCTTCCTCCC
GGCGCAAACGCACCGCCCAGGAGGGGGCGGGCTCGGCGGGTCGGGGGGCGGGGCCGGGGTCCGAGCTCGGGCCCG
CCTCCGCCTCCGCCAGCTCCTGTGAGCTGCCGAGTGCTAGGCACCCGGGCTCTTCTGGGGGCTCCAGAACTAAGC
CACCCAGACACCATCATCTCGAAAACCCCAGCCCTTCTCCC**ATG**GCAGGCTACTTGCCCCCCAAAGGCTACGCCC
CTTCGCCCCCACCTCCCTACCCTGTCACCCCTGGGTACCCGGAGCCGGCGCTACATCCTGGGCCCGGGCAGGCGC
CAGTGCCCGCCCAGGTACCTGCCCCAGCTCCCGGCTTCGCCCTCTTCCCCTCGCCTGGCCCCGTGGCCTTGGGGT
CTGCTGCCCCCTTCTTGCCACTGCCAGGGGTGCCTTCTGGCCTCGAATTCCTGGTGCAGATTGATCAGATTTTGA
TTCACCAGAAGGCTGAGCGAGTGGAAACGTTCCTAGGCTGGGAGACCTGTAATCGGTATGAACTGCGCTCTGGGG
CCGGGCAGCCCCTGGGTCAGGCGGCCGAGGAGAGCAACTGCTGCGCCCGTCTGTGCTGTGGCGCCCGCCGGCCGC
TGCGTGTCCGCCTGGCCGACCCCGGGGACCGTGAGGTGCTGCGTTTGCTCCGCCCGCTGCACTGTGGCTGCAGCT
GCTGCCCCTGTGGCCTCCAGGAGATGGAAGTACAGGCTCCACCAGGCACCACCATTGGCCACGTGCTACAGACCT
GGCATCCCTTCCTCCCCAAGTTCTCCATCCAGGATGCCGATCGCCAGACAGTCTTGCGAGTGGTGGGGCCCTGCT
GGACCTGTGGCTGTGGCACAGACACCAAC

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FIGURE 1403

ACTTCCTGGGGGCGGAGAGGACCTCAGCGGCTGCGGCGACACCCAGGGAAGGCGGCGCGGCCGGGTCCCGAAACT
CCTGGCTGTTTCCATCAGAGCCCTCGGACACTCCCAGCCCGGGCTGAGCACGCATCGTCGCTCCCCGGCGGATAC
AAGGGGGCTCCGCCATCCGCTCCCGTCAGTTCGGCCTCCATCTCCTGGGACCCGCGCCGGCAGCCAGGCCAGGCC
TCTGAGTGGCCCCAGAGCCCTGGCTGGACTCGTCCACGGCGGCAGCGATCTGCCCGGGGTCTCGGAGGCCATCCC
TTCAGAGTCGGCCCTGTGCTCGCCACCGTCACCTGCTGGTTGGATTCCGGAAACCCACTGTCTGAAGACCACAGA
GGGGTGTCGCTGACCACCCCAAATCGGATACGTCCAGACCTCAAGCTCCCTTCCCCTCTCTGGCTGCCCTCTGCT
CTTTTCATCTCTTCTCTCAACCTTTTGGGGATTTCTGTGTCCTGACACCACCTCCCCATCCACCACCAAAGTAGC
CGGGGTGAGCCCCAAACCTTACTGGGTGTGCTCCACCTGTGCCTCCAACCCAGCGAATCTGACAGCTTCGACCCA
ATTCTGCACACACCCAGGAAGTTCTGCCTTTTCTTTTCTTTCGGTGTCTCCTGTACTTCCCAAAATTTCTCCTCC
TCCTGTGCCCTCTTCGCCCCCCTCCTTTGGGGGCCCCGTGACCCTGAATGTGGGGGGCACACTATATTCCACCAC
TTTGGAGACCCTGACCCGCTTCCCAGACTCT**ATG**CTGGGGGCCATGTTTAGGGCCGGCACCCCCATGCCCCCCAA
CCTCAATTCCCAAGGAGGCGGCCACTACTTCATCGACCGGGATGGCAAGGCCTTCCGGCACATCCTCAATTTCCT
GAGGCTGGGCCGCCTGGACCTGCCCCGTGGGTACGGAGAGACAGCGCTGCTCAGGGCAGAGGCTGACTTCTACCA
GATCCGGCCCCTCCTGGACGCGCTGCGGGAACTGGAGGCCTCTCAGGGGACCCCTGCACCCACAGCTGCCCTGCT
CCACGCAGATGTAGATGTCAGCCCCCGCCTGGTGCACTTCTCTGCTCGCCGGGGACCCCATCACTATGAGCTGAG
CTCCGTCCAGGTGGACACCTTCCGAGCCAACCTTTTCTGCACCGACTCTGAGTGTCTAGGTGCTTTGCGGGCCCG
ATTTGGTGTGGCCAGTGGGGATAGGGCAGAGGGGAGCCCACATTTTCATCTGGAGTGGGCCCCCCGCCCCGTGGA
ACTCCCCGAGGTGGAGTATGGGAGACTGGGGCTGCAGCCGCTGTGGACTGGGGGGCCAGGAGAGCGGCGGGAGGT
GGTGGGCACCCCAAGCTTCCTGGAGGAGGTGCTGCGGGTGGCTCTCGAGCACGGCTTCCGACTAGACTCTGTCTT
CCCCGACCCCGAAGACCTGCTCAACTCCAGGTCTCTGCGCTTTGTCCGGCAC**TGA**GGATGCTGTTCTCAGTTTGA
CTGTGGGGAGGAGAGAGAATGGGGTACTAGCACCCCTGAAGCCTCTTTCCAGCTCTGCTTCAGGAGCTATGAGAG
TCGGGACTCTCCTGCACCTGACTGGAGCTCAGATGTGGGCAGGAATTCCCAAACCTGAGCCCACCAAGGACTCAC
AAGTGGTCCAGAAGGTCTCAACCTGTGCTGACCCTGGGAGGGGTAGGGAAGGTTCTCTCAGCTTGTTCTTGCCTA
AGGCTGAGCACCTCCAGTCTCTCCTTGATTTGGAGCTCAGTGTTTAAGGGCTTGGAAAAGGGGGGAACATCTCTT
TACCCAGACTAGACCTAGCAAAACCCTGGAAGGATATTGAGGTCTGGGGAAAAGGGAGGACTTTGCATTTTCCCA
ATGCGGTCTCTTGGACCATGGCTTCTACTCCTGAAGCTGGGTGGCCTGGCCTGGCCTGACCAATGAGAGGCCAGA
ACACTCTGGAACATCGGAAGAGGAGTTCTTTGCTATGTTCCAAGCCATCTACTGAGGGAGGCAGAAAGGCCACAA
CCCACCCTAGGTTGATGTATGGGAGCTAGGACAGTCCCCATGGCAATGGGGCTGGAGCATCCCTCATCTGGAAGA
ATCCCATACTGATGGCAGGGCTGGCCAGGGGGAAGAGGGTAGTATCTGTGGGTCCTGGCCTTTCTTCATGTGTGC
GTGCATATCAGCCCGTGTGGCTGACTGATGTATAGGTCCCTGGCATCCTGGTTCATATCTGTGTTGCTGACTACA
GTGTCTGTGATGTCCGCATGTCCAGGCCTGTTTGGGGTTGCCTAGCGACTCTTCTGGCACAGGGTGTGTCTGTGG
TATACCTGTGAGGTGGTTGACAATTAGTAGTTTAATCACAGGGTGTGTGTGTGTGTGTGTGTGTGTGTTTATG
TGCACGCATGTATATGCATCACCACGTAGCCAGGAGGGGCCTGTTGGGGTTTGAGTCACTGGGATCTTCCTGGTG
AGAGGTAAGAGAAGTCACTGGGCTTAGCTGGGCCTCTGAGGCCTGTATGGAACTCTTGGTTGCTGAGGCAACCAT
GGACCTGTTGCTAGGAGATAGCTGGGGAAGGCCCAAGGCCGCCCAGGGCAGAGAGAGGAGATGAAGAGTTTGGGA
CAGTGGGGGAGGAGATGGGAAGGGATGGGATTTCTGGGTCCCAGAGCGGGTGGGATACTCACGCACAGCTTCTTC
ACTGGTGGGGGGTGGGGCACACATTATTTCTCACTGGTCATGATTTACAAGAAGAAAAATAAAACTGCTTTTGGA
ACCAC

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FIGURE 1404

AGTTGGAATCGAAGCCTCTTAAA**ATG**GCAGATGACTTGGACTTCGAGACAGGAGATGCAGGGGCCTCAGCCACCT
TCCCAATGCAGTGCTCAGCATTACGTAAGAATGGCTTTGTGGTGCTCAAAGGCCGGCCATGTAAGATCGTCGAGA
TGTCTACTTCGAAGACTGGCAAGCACGGCCACGCCAAGGTCCATCTGGTTGGTATTGACATCTTTACTGGGAAGA
AATATGAAGATATCTGCCCGTCAACTCATAATATGGATGTCCCCAACATCAAAAGGAATGACTTCCAGCTGATTG
GCATCCAGGATGGGTACCTATCACTGCTCCAGGACAGCGGGGAGGTACGAGAGGACCTTCGTCTCCCTGAGGGAG
ACCTTGGCAAGGAGATTGAGCAGAAGTACGACTGTGGAGAAGAGATCCTGATCACGGTGCTGTCTGCCATGACAG
AGGAGGCAGCTGTTGCAATCAAGGCCATGGCAAAA**TAA**CTGGCTCCCAGGGTGGCGGTGGTGGCAGCAGTGATCC
TCTGAACCTGCAG

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FIGURE 1405A

CCCTTCACGACCGTCACC**ATG**GAAGTGTCACCATTGCAGCCTGTAAATGAAAATATGCAAGTCAACAAAATAAAG
AAAAATGAAGATGCTAAGAAAAGACTGTCTGTTGAAAGAATCTATCAAAAGAAAACACAATTGGAACATATTTTG
CTCCGCCCAGACACCTACATTGGTTCTGTGGAATTAGTGACCCAGCAAATGTGGGTTTACGATGAAGATGTTGGC
ATTAACTATAGGGAAGTCACTTTTGTTCCTGGTTTGTACAAAATCTTTGATGAGATTCTAGTTAATGCTGCGGAC
AACAAACAAAGGGACCCAAAAATGTCTTGTATTAGAGTCACAATTGATCCGGAAAACAATTTAATTAGTATATGG
AATAATGGAAAAGGTATTCCTGTTGTTGAACACAAAGTTGAAAAGATGTATGTCCCAGCTCTCATATTTGGACAG
CTCCTAACTTCTAGTAACTATGATGATGATGAAAAGAAAGTGACAGGTGGTCGAAATGGCTATGGAGCCAAATTG
TGTAACATATTCAGTACCAAATTTACTGTGGAAACAGCCAGTAGAGAATACAAGAAAATGTTCAAACAGACATGG
ATGGATAATATGGGAAGAGCTGGTGAGATGGAACTCAAGCCCTTCAATGGAGAAGATTATACATGTATCACCTTT
CAGCCTGATTTGTCTAAGTTTAAAATGCAAAGCCTGGACAAAGATATTGTTGCACTAATGGTCAGAAGAGCATAT
GATATTGCTGGATCCACCAAAGATGTCAAAGTCTTTCTTAATGGAAATAAACTGCCAGTAAAAGGATTTCGTAGT
TATGTGGACATGTATTTGAAGGACAAGTTGGATGAAACTGGTAACTCCTTGAAAGTAATACATGAACAAGTAAAC
CACAGGTGGGAAGTGTGTTTAACTATGAGTGAAAAAGGCTTTCAGCAAATTAGCTTTGTCAACAGCATTGCTACA
TCCAAGGGTGGCAGACATGTTGATTATGTAGCTGATCAGATTGTGACTAAACTTGTTGATGTTGTGAAGAAGAAG
AACAAGGGTGGTGTTGCAGTAAAAGCACATCAGGTGAAAAATCACATGTGGATTTTTGTAAATGCCTTAATTGAA
AACCCAACCTTTGACTCTCAGACAAAAGAAAACATGACTTTACAACCCAAGAGCTTTGGATCAACATGCCAATTG
AGTGAAAAATTTATCAAAGCTGCCATTGGCTGTGGTATTGTAGAAAGCATACTAAACTGGGTGAAGTTTAAGGCC
CAAGTCCAGTTAAACAAGAAGTGTTCAGCTGTAAAACATAATAGAATCAAGGGAATTCCCAAACTCGATGATGCC
AATGATGCAGGGGGCCGAAACTCCACTGAGTGTACGCTTATCCTGACTGAGGGAGATTCAGCCAAAACTTTGGCT
GTTTCAGGCCTTGGTGTGGTTGGGAGAGACAAATATGGGGTTTTCCCTCTTAGAGGAAAAATACTCAATGTTCGA
GAAGCTTCTCATAAGCAGATCATGGAAAATGCTGAGATTAACAATATCATCAAGATTGTGGGTCTTCAGTACAAG
AAAAACTATGAAGATGAAGATTCATTGAAGACGCTTCGTTATGGGAAGATAATGATTATGACAGATCAGGACCAA
GATGGTTCCCACATCAAAGGCTTGCTGATTAATTTTATCCATCACAACTGGCCCTCTCTTCTGCGACATCGTTTT
CTGGAGGAATTTATCACTCCCATTGTAAAGGTATCTAAAAACAAGCAAGAAATGGCATTTTACAGCCTTCCTGAA
TTTGAAGAGTGGAAGAGTTCTACTCCAAATCATAAAAAATGGAAAGTCAAATATTACAAAGGTTTGGGCACCAGC
ACATCAAAGGAAGCTAAAGAATACTTTGCAGATATGAAAAGACATCGTATCCAGTTCAAATATTCTGGTCCTGAA
GATGATGCTGCTATCAGCCTGGCCTTTAGCAAAAAACAGATAGATGATCGAAAGGAATGGTTAACTAATTTCATG
GAGGATAGAAGACAACGAAAGTTACTTGGGCTTCCTGAGGATTACTTGTATGGACAAACTACCACATATCTGACA
TATAATGACTTCATCAACAAGGAACTTATCTTGTTCTCAAATTCTGATAACGAGAGATCTATCCCTTCTATGGTG
GATGGTTTGAAACCAGGTCAGAGAAAGGTTTTGTTTACTTGCTTCAAACGGAATGACAAGCGAGAAGTAAAGGTT
GCCCAATTAGCTGGATCAGTGGCTGAAATGTCTTCTTATCATCATGGTGAGATGTCACTAATGATGACCATTATC
AATTTGGCTCAGAATTTTGTGGGTAGCAATAATCTAAACCTCTTGCAGCCCATTGGTCAGTTTGGTACCAGGCTA
CATGGTGGCAAGGATTCTGCTAGTCCACGATACATCTTTACAATGCTCAGCTCTTTGGCTCGATTGTTATTTCCA
CCAAAAGATGATCACACGTTGAAGTTTTTATATGATGACAACCAGCGTGTTGAGCCTGAATGGTACATTCCTATT
ATTCCCATGGTGCTGATAAATGGTGCTGAAGGAATCGGTACTGGGTGGTCCTGCAAAATCCCCAACTTTGATGTG
CGTGAAATTGTAAATAACATCAGGCGTTTGATGGATGGAGAAGAACCTTTGCCAATGCTTCCAAGTTACAAGAAC
TTCAAGGGTACTATTGAAGAACTGGCTCCAAATCAATATGTGATTAGTGGTGAAGTAGCTATTCTTAATTCTACA
ACCATTGAAATCTCAGAGCTTCCCGTCAGAACATGGACCCAGACATACAAAGAACAAGTTCTAGAACCCATGTTG
AATGGCACCGAGAAGACACCTCCTCTCATAACAGACTATAGGGAATACCATACAGATACCACTGTGAAATTTGTT
GTGAAGATGACTGAAGAAAAACTGGCAGAGGCAGAGAGAGTTGGACTACACAAAGTCTTCAAACTCCAAACTAGT
CTCACATGCAACTCTATGGTGCTTTTTGACCACGTAGGCTGTTTAAAGAAATATGACACGGTGTTGGATATTCTA
AGAGACTTTTTTGAACTCAGACTTAAATATTATGGATTAAGAAAAGAATGGCTCCTAGGAATGCTTGGTGCTGAA
TCTGCTAAACTGAATAATCAGGCTCGCTTTATCTTAGAGAAAATAGATGGCAAAATAATCATTGAAAATAAGCCT
AAGAAAGAATTAATTAAAGTTCTGATTCAGAGGGGATATGATTCGGATCCTGTGAAGGCCTGGAAAGAAGCCCAG
CAAAAGGTTCCAGATGAAGAAGAAAATGAAGAGAGTGACAACGAAAAGGAAACTGAAAAGAGTGACTCCGTAACA
GATTCTGGACCAACCTTCAACTATCTTCTTGATATGCCCCTTTGGTATTTAACCAAGGAAAAGAAAGATGAACTC
TGCAGGCTAAGAAATGAAAAAGAACAAGAGCTGGACACATTAAAAAGAAAGAGTCCATCAGATTTGTGGAAAGAA
GACTTGGCTACATTTATTGAAGAATTGGAGGCTGTTGAAGCCAAGGAAAAACAAGATGAACAAGTCGGACTTCCT

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FIGURE 1405B

GGGAAAGGGGGGAAGGCCAAGGGGAAAAAAACACAAATGGCTGAAGTTTTGCCTTCTCCGCGTGGTCAAAGAGTC
ATTCCACGAATAACCATAGAAATGAAAGCAGAGGCAGAAAAGAAAAATAAAAAGAAAATTAAGAATGAAAATACT
GAAGGAAGCCCTCAAGAAGATGGTGTGGAACTAGAAGGCCTAAAACAAAGATTAGAAAAGAAACAGAAAAGAGAA
CCAGGTACAAAGACAAAGAAACAAACTACATTGGCATTTAAGCCAATCAAAAAAGGAAAGAAGAGAAATCCCTGG
TCTGATTCAGAATCAGATAGGAGCAGTGACGAAAGTAATTTTGATGTCCCTCCACGAGAAACAGAGCCACGGAGA
GCAGCAACAAAAACAAAATTCACAATGGATTTGGATTCAGATGAAGATTTCTCAGATTTTGATGAAAAAACTGAT
GATGAAGATTTTGTCCCATCAGATGCTAGTCCACCTAAGACCAAAACTTCCCCAAAACTTAGTAACAAAGAACTG
AAACCACAGAAAAGTGTCGTGTCAGACCTTGAAGCTGATGATGTTAAGGGCAGTGTACCACTGTCTTCAAGCCCT
CCTGCTACACATTTCCCAGATGAAACTGAAATTACAAACCCAGTTCCTAAAAAGAATGTGACAGTGAAGAAGACA
GCAGCAAAAAGTCAGTCTTCCACCTCCACTACCGGTGCCAAAAAAAGGGCTGCCCCAAAAGGAACTAAAAGGGAT
CCAGCTTTGAATTCTGGTGTCTCTCAAAAGCCTGATCCTGCCAAAACCAAGAATCGCCGCAAAAGGAAGCCATCC
ACTTCTGATGATTCTGACTCTAATTTTGAGAAAATTGTTTCGAAAGCAGTCACAAGCAAGAAATCCAAGGGGGAG
AGTGATGACTTCCATATGGACTTTGACTCAGCTGTGGCTCCTCGGGCAAAATCTGTACGGGCAAAGAAACCTATA
AAGTACCTGGAAGAGTCAGATGAAGATGATCTGTTT**TAA**AATGTGAGGCGATTATTTTAAGTAATTATCTTACCA
AGCCCAAGACTGGTTTTAAAGTTACCTGAAGCTCTTAACTTCCTCCCCTCTGAATTTAGTTTGGGGAAGGTGTTT
TTAGTACAAGACATCAAAGTGAAGTAAAGCCCAAGTGTTCTTTAGCTTT

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FIGURE 1406

GAGCGCGGCTGGAGTTTGCTGCTGCCGCTGTGCAGTTTGTTCAGGGGCTTGTGGTGGTGAGTCCGAGAGGCTGCG
TGTGAGAGACGTGAGAAGGATCCTGCACTGAGGAGGTGGAAAGAAGAGGATTGCTCGAGGAGGCCTGGGGTCTGT
GAGGCAGCGGAGCTGGGTGAAGGCTGCGGGTTCCGGCGAGGCCTGAGCTGTGCTGTCGTC**ATG**CCTCAAACCCGA
TCCCAGGCACAGGCTACAATCAGTTTTCCAAAAAGGAAGCTGTCTCGGGCATTGAACAAAGCTAAAAACTCCAGT
GATGCCAAACTAGAACCAACAAATGTCCAAACCGTAACCTGTTCTCCTCGTGTAAAAGCCCTGCCTCTCAGCCCC
AGGAAACGTCTGGGCGATGACAACCTATGCAACACTCCCCATTTACCTCCTTGTTCTCCACCAAAGCAAGGCAAG
AAAGAGAATGGTCCCCCTCACTCACATACACTTAAGGGACGAAGATTGGTATTTGACAATCAGCTGACAATTAAG
TCTCCTAGCAAAAGAGAACTAGCCAAAGTTCACCAAAACAAAATACTTTCTTCAGTTAGAAAAAGTCAAGAGATC
ACAACAAATTCTGAGCAGAGATGTCCACTGAAGAAAGAATCTGCATGTGTGAGACTATTCAAGCAAGAAGGCACT
TGCTACCAGCAAGCAAAGCTGGTCCTGAACACAGCTGTCCCAGATCGGCTGCCTGCCAGGGAAAGGGAGATGGAT
GTCATCAGGAATTTCTTGAGGGAACACATCTGTGGGAAAAAAGCTGGAAGCCTTTACCTTTCTGGTGCTCCTGGA
ACTGGAAAAACTGCCTGCTTAAGCCGGATTCTGCAAGACCTCAAGAAGGAACTGAAAGGCTTTAAAACTATCATG
CTGAATTGCATGTCCTTGAGGACTGCCCAGGCTGTATTCCCAGCTATTGCTCAGGAGATTTGTCAGGAAGAGGTA
TCCAGGCCAGCTGGGAAGGACATGATGAGGAAATTGGAAAAACATATGACTGCAGAGAAGGGCCCCATGATTGTG
TTGGTATTGGACGAGATGGATCAACTGGACAGCAAAGGCCAGGATGTATTGTACACGCTATTTGAATGGCCATGG
CTAAGCAATTCTCACTTGGTGCTGATTGGTATTGCTAATACCCTGGATCTCACAGATAGAATTCTACCTAGGCTT
CAAGCTAGAGAAAAATGTAAGCCACAGCTGTTGAACTTCCCACCTTATACCAGAAATCAGATAGTCACTATTTTG
CAAGATCGACTTAATCAGGTATCTAGAGATCAGGTTCTGGACAATGCTGCAGTTCAATTCTGTGCCCGCAAAGTC
TCTGCTGTTTCAGGAGATGTTCGCAAAGCACTGGATGTTTGCAGGAGAGCTATTGAAATTGTAGAGTCAGATGTC
AAAAGCCAGACTATTCTCAAACCACTGTCTGAATGTAAATCACCTTCTGAGCCTCTGATTCCCAAGAGGGTTGGT
CTTATTCACATATCCCAAGTCATCTCAGAAGTTGATGGTAACAGGATGACCTTGAGCCAAGAAGGAGCACAAGAT
TCCTTCCCTCTTCAGCAGAAGATCTTGGTTTGCTCTTTGATGCTCTTGATCAGGCAGTTGAAAATCAAAGAGGTC
ACTCTGGGGAAGTTATATGAAGCCTACAGTAAAGTCTGTCGCAAACAGCAGGTGGCGGCTGTGGACCAGTCAGAG
TGTTTGTCACTTTCAGGGCTCTTGGAAGCCAGGGGCATTTTAGGATTAAAGAGAAACAAGGAAACCCGTTTGACA
AAGGTGTTTTTCAAGATTGAAGAGAAAGAAATAGAACATGCTCTGAAAGATAAAGCTTTAATTGGAAATATCTTA
GCTACTGGATTGCCT**TAA**ATTCTTCTCTTACACCCCACCCGAAAGTATTCAGCTGGCATTTAGAGAGCTACAGTC
TTCATTTTAGTGCTTTACACATTCGGGCCTGAAAACAAATATGACCTTTTTTACTTGAAGCCAATGAATTTTAAT
CTATAGATTCTTTAATATTAGCACAGAATAATATCTTTGGGTCTTACTATTTTTACCCATAAAAGTGACCAGGTA
GACCCTTTTTAATTACATTCACTACTTCTACCACTTGTGTATCTCTAGCCAATGTGCTTGCAAGTGTACAGATCT
GTGTAGAGGAATGTGTGTATATTTACCTCTTCGTTTGCTCAAACATGAGTGGGTATTTTTTTGTTTGTTTTTTTT
GTTGTTGTTGTTTTTGAGGCGCGTCTCACCCTGTTGCCCAGGCTGGAGTGCAATGGCGCGTTCTCTGCTCACTAC
AGCACCCGCTTCCCAGGTTGAAGTGATTCTCTTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGTGCCCACCAC
CGCGCCCAGCTAATTTTTTAATTTTTAGTAGAGACAGGGTTTTACCATGTTGGCCAGGCTGGTCTTGAACTCCTG
ACCCTCAAGTGATCTGCCCACCTTGGCCTCCCTAAGTGCTGGGATTATAGGCGTGAGCCACCATGCTCAGCCATT
AAGGTATTTTGTTAAGAACTTTAAGTTTAGGGTAAGAAGAATGAAAATGATCCAGAAAAATGCAAGCAAGTCCAC
ATGGAGATTTGGAGGACACTGGTTAAAG

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FIGURE 1407

AGCTATGATCGCAACACCTTGGTGGCCATCGTGGTGGGTGTGGGGCGCCTCATCACTGGC**ATG**GACCGAGGCCTC
ATGGGCATGTGTGTCAACGAGCGGCGACGCCTCATTGTGCCTCCCCACCTGGGCTATGGGAGCATCGGCCTGGCG
GGGCTCATTCCACCGGATGCCACCCTCTACTTCGATGTGGTTCTGCTGGATGTGTGGAACAAGGAAGACACCGTG
CAGGTGAGCACATTGCTGCGCCCGCCCCACTGCCCCCGCATGGTCCAGGACGGCGACTTTGTCCGCTACCACTAC
AATGGCACCCTGCTGGACGGCACCTCCTTCGACACCAGCTACAGTAAGGGCGGCACTTATGACACCTACGTCGGC
TCTGGTTGGCTGATCAAGGGCATGGACCAGGGGCTGCTGGGCATGTGTCCTGGAGAGAGAAGGAAGATTATCATC
CCTCCATTCCTGGCCTATGGCGAGAAAGGCTATGGGACAGTGATCCCCCCACAGGCCTCGCTGGTCTTTCACGTC
CTCCTGATTGACGTGCACAACCCGAAGGACGCTGTCCAGCTAGAGACGCTGGAGCTCCCCCCCCGGCTGTGTCCGC
AGAGCCGGGGCCGGGGACTTCATGCGCTACCACTACAATGGCTCCTTGATGGACGGCACCCTCTTCGATTCCAGC
TACTCCCGCAACCACACCTACAATACCTATATCGGGCAGGGTTACATCATCCCCGGGATGGACCAGGGGCTGCAG
GGTGCCTGCATGGGGGAACGCCGGAGAATTACCATCCCCCCGCACCTCGCCTATGGGGAGAATGGAACTGGAGAC
AAGATCCCTGGCTCTGCCGTGCTAATCTTCAACGTCCATGTCATTGACTTCCACAACCCTGCGGATGTGGTGGAA
ATCAGGACACTGTCCCGGCCATCTGAGACCTGCAATGAGACCACCAAGCTTGGGGACTTTGTTCGATACCATTAC
AACTGTTCTTTGCTGGACGGCACCCAGCTGTTCACCTCGCATGACTACGGGGCCCCCCAGGAGGCGACTCTCGGG
GCCAACAAGGTGATCGAAGGCCTGGACACGGGCCTGCAGGGCATGTGTGTGGGAGAGAGGCGGCAGCTCATCGTG
CCCCCGCACCTGGCCCACGGGGAGAGTGGAGCCCGGGGAGTCCCAGGCAGTGCTGTGCTGCTGTTTGAGGTGGAG
CTGGTGTCCCGGGAGGATGGGCTGCCCACAGGCTACCTGTTTGTGTGGCACAAGGACCCTCCTGCCAACCTGTTT
GAAGACATGGACCTCAACAAGGATGGCGAGGTCCCTCCGGAGGAGTTCTCCACCTTCATCAAGGCTCAAGTGAGT
GAGGGCAAAGGACGCCTCATGCCTGGGCAGGACCCTGAGAAAACCATAGGAGACATGTTCCAGAACCAGGACCGC
AACCAGGACGGCAAGATCACAGTCGACGAGCTCAAGCTGAAGTCAGATGAGGACGAGGAGCGGGTCCACGAGGAG
CTC**TGA**GGGGCAGGGAGCCTGGCCAGGCCTGAGACACAGAGGCCCACTGCGAGGGGGACAGTGGCGGTGGGACTG
ACCTGCTGACAGTCACCCTCCCTCTGCTGGGATGAGGTCCAGGAGCCAACTAAAACAATGGCAGAGGAGACATCT
CTGGTGTTCCCACCACCCTAGATGAAAATCCACAGCACAGACCTCTACCGTGTTTCTCTTCCATCCCTAAACCAC
TTCCTTAAAATGTTTGGATTTGCAAAGCCAATTTGGGGCCTGTGGAGCCTGGGGTTGGATAGGGCCATGGCTGGT
CCCCCACCATACCTCCCCTCCACATCACTGACACAGCTGAGCTTGTTATCCATCTCCCCAAACTTTCTCTTTCTT
TGTACTTCTTGTCATCCCCACTCCCAGCCCCTTTTCCTCTATGTGACAGCTCCCTAGGACCCCTCTGCCTTCCTC
CCCAATCCTGACTGGCTCCTAGGGAAGGGGAAGGCTCCTGGAGGGCAGCCCTACCTCTCCCATGCCCTTTGCCCT
CCTCCCTCGCCTCCAGTGGAGGCTGAGCTGACCCTGGGCTGCTGGAGGCCAGACTGGGCTGTAGTTAGCTTTTCA
TCCCTAAAGAAGGCTCCTTTCCCTAAGGAACCATAGAAGAGAGGAAGAAAACAAAGGGCATGTGTGAGGGAAGCT
GCTTGGGTGGGTGTTAGGGCTATGAAATCTTGGATTTGGGGCTGAGGGGTGGGAGGGAGGGCAGAGCTCTGCACA
CTCAAAGGCTAAACTGGTGTCAGTCCTTTTTTCCTTTGTTCCAAATAAAAGATTAAACC

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FIGURE 1408

GGGATGGCAGAGGAGGTGAGGAGGGAGGAAGCGTCCGGAGTGGGGCGGGCCCGGACTCCGACCCCCGGGGCGCTT
CGAGCCCCCCAGCTGGTCACCGAGGCACCGCCGCTTCACCCAGGCCAGTAGCCGCCCCCTCGCGCACCCCGGCCC
CGCCTCACACGCGCGCCCGAGCGAGCCCCGGGCTCCCCTCGGGCCCAGCGTGGCGCAGGGGTCAGTGGTTCTCTC
GGGTCTCGGGACAGGTGAGCACCCTGATGAAGGCCACGGTCCTGATGCGGCAGCCTGGGCGGGTGCAGGAGATCG
TGGGCGCCCTCCGCAAGGGCGGCGGAGACCGGTTACAGGTGATTTCTGATTTTGAC**ATG**ACCTTGAGCAGGTTTG
CATATAATGGAAAGCGATGCCCTTCTTCTTACAATATTCTGGATAATAGCAAGATCATCAGTGAGGAGTGTCGGA
AAGAGCTCACAGCGCTCCTTCACCACTATTACCCAATTGAGATCGACCCACACCGGACCGTCAAGGAGAAGCTAC
CTCATATGGTGGAATGGTGGACCAAAGCACACAATCTCCTATGTCAGCAGAAGATTCAGAAGTTTCAGATAGCCC
AGGTGGTTAGAGAGTCCAATGCAATGCTCAGGGAGGGATATAAGACCTTCTTCAACACACTCTACCATAACAACA
TTCCCCTTTTCATCTTTTCTGCGGGCATTGGTGATATCCTGGAAGAAATTATCCGACAGATGAAAGTGTTCCACC
CCAACATCCACATCGTGTCTAACTACATGGATTTTAATGAAGATGGTTTTCTCCAGGGATTTAAGGGCCAGCTCA
TACACACATACAACAAGAACAGCTCTGCGTGTGAGAACTCTGGTTACTTCCAGCAACTTGAGGGCAAAACCAATG
TCATCCTGCTGGGAGACTCTATCGGGGACCTCACCATGGCCGATGGGGTTCCTGGTGTGCAGAACATTCTCAAAA
TTGGCTTCCTGAATGACAAGGTGGAGGAGCGGCGGGAGCGCTACATGGACTCCTATGACATCGTGCTGGAGAAGG
ACGAGACTCTGGATGTGGTCAACGGGCTACTGCAGCACATCCTGTGCCAGGGGGTCCAGCTGGAGATGCAAGGCC
CC**TGA**AGGCGCAGGCTCCAGCCCGGCCTGCAGGCCGTGGTGAGGAGGGGCGCCTCCCCAGAGTCTGCTCCCCCGT
GAACACAGAGCAGAGGCCAGGGTGGCCAGCAGTGGCTGGGTCCTTCCGCGCCCCTCCGTCCTCCTTTCCCTGAGC
ACCTTCATCACCAGAGGCTTGAAGGAACCCCGCCATGTGGCAGGGCACAGGCACTGTTCCTGGTGAACCTTGGAC
CACAGCATGTCAGTGCTCTAGGGATTGTCTACTCCAGGGATTTTCTTCAAAATTTTTAAACATGGGAAGTTCAAA
CAAATATAATGTGTGAAACAG

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FIGURE 1409A

CCGGATTTTGCGGGGTTCGTCGGGCCTGTGGAAGAAGCGCCGCGCACGGACTTCGGCAGAGGTAGAGCAGGTCTC
TCTGCAGCC**ATG**TCGGCCAAGGCAATTTCAGAGCAGACGGGCAAAGAACTCCTTTACAAGTTCATCTGTACCACC
TCAGCCATCCAGAATCGGTTCAAGTATGCTCGGGTCACTCCTGACACAGACTGGGCCCGCTTGCTGCAGGACCAC
CCCTGGCTGCTCAGCCAGAACTTGGTAGTCAAGCCAGACCAGCTGATCAAACGTCGTGGAAAACTTGGTCTCGTT
GGGGTCAACCTCACTCTGGATGGGGTCAAGTCCTGGCTGAAGCCACGGCTGGGACAGGAAGCCACAGTTGGCAAG
GCCACAGGCTTCCTCAAGAACTTTCTGATCGAGCCCTTCGTCCCCCACAGTCAGGCTGAGGAGTTCTATGTCTGC
ATCTATGCCACCCGAGAAGGGGACTACGTCCTGTTCCACCACGAGGGGGGTGTGGACGTGGGTGATGTGGACGCC
AAGGCCCAGAAGCTGCTTGTTGGCGTGGATGAGAAACTGAATCCTGAGGACATCAAAAAACACCTGTTGGTCCAC
GCCCCTGAAGACAAGAAAGAAATTCTGGCCAGTTTTATCTCCGGCCTCTTCAATTTCTACGAGGACTTGTACTTC
ACCTACCTCGAGATCAATCCCCTTGTAGTGACCAAAGATGGAGTCTATGTCCTTGACTTGGCGGCCAAGGTGGAC
GCCACTGCCGACTACATCTGCAAAGTGAAGTGGGGTGACATCGAGTTCCCTCCCCCCTTCGGGCGGGAGGCATAT
CCAGAGGAAGCCTACATTGCAGACCTCGATGCCAAAAGTGGGGCAAGCCTGAAGCTGACCTTGCTGAACCCCAAA
GGGAGGATCTGGACCATGGTGGCCGGGGGTGGCGCCTCTGTCGTGTACAGCGATACCATCTGTGATCTAGGGGGT
GTCAACGAGCTGGCAAACTATGGGGAGTACTCAGGCGCCCCCAGCGAGCAGCAGACCTATGACTATGCCAAGACT
ATCCTCTCCCTCATGACCCGAGAGAAGCACCCAGATGGCAAGATCCTCATCATTGGAGGCAGCATCGCAAACTTC
ACCAACGTGGCTGCCACGTTCAAGGGCATCGTGAGAGCAATTCGAGATTACCAGGGCCCCCTGAAGGAGCACGAA
GTCACAATCTTTGTCCGAAGAGGTGGCCCCAACTATCAGGAGGGCTTACGGGTGATGGGAGAAGTCGGGAAGACC
ACTGGGATCCCCATCCATGTCTTTGGCACAGAGACTCACATGACGGCCATTGTGGGCATGGCCCTGGGCCACCGG
CCCATCCCCAACCAGCCACCCACAGCGGCCCACACTGCAAACTTCCTCCTCAACGCCAGCGGGAGCACATCGACG
CCAGCCCCCAGCAGGACAGCATCTTTTTCTGAGTCCAGGGCCGATGAGGTGGCGCCTGCAAAGAAGGCCAAGCCT
GCCATGCCACAAGATTCAGTCCCAAGTCCAAGATCCCTGCAAGGAAAGAGCACCACCCTCTTCAGCCGCCACACC
AAGGCCATTGTGTGGGGCATGCAGACCCGGGCCGTGCAAGGCATGCTGGACTTTGACTATGTCTGCTCCCGAGAC
GAGCCCTCAGTGGCTGCCATGGTCTACCCTTTCACTGGGGACCACAAGCAGAAGTTTTACTGGGGGCACAAAGAG
ATCCTGATCCCTGTCTTCAAGAACATGGCTGATGCCATGAGGAAGCATCCGGAGGTAGATGTGCTCATCAACTTT
GCCTCTCTCCGCTCTGCCTATGACAGCACCATGGAGACCATGAACTATGCCCAGATCCGGACCATCGCCATCATA
GCTGAAGGCATCCCTGAGGCCCTCACGAGAAAGCTGATCAAGAAGGCGGACCAGAAGGGAGTGACCATCATCGGA
CCTGCCACTGTTGGAGGCATCAAGCCTGGGTGCTTTAAGATTGGCAACACAGGTGGGATGCTGGACAACATCCTG
GCCTCCAAACTGTACCGCCCAGGCAGCGTGGCCTATGTCTCACGTTCCGGAGGCATGTCCAACGAGCTCAACAAT
ATCATCTCTCGGACCACGGATGGCGTCTATGAGGGCGTGGCCATTGGTGGGGACAGGTACCCGGGCTCCACATTC
ATGGATCATGTGTTACGCTATCAGGACACTCCAGGAGTCAAAATGATTGTGGTTCTTGGAGAGATTGGGGGCACT
GAGGAATATAAGATTTGCCGGGGCATCAAGGAGGGCCGCCTCACTAAGCCCATCGTCTGCTGGTGCATCGGGACG
TGTGCCACCATGTTCTCCTCTGAGGTCCAGTTTGGCCATGCTGGAGCTTGTGCCAACCAGGCTTCTGAAACTGCA
GTAGCCAAGAACCAGGCTTTGAAGGAAGCAGGAGTGTTTGTGCCCCGGAGCTTTGATGAGCTTGGAGAGATCATC
CAGTCTGTATACGAAGATCTCGTGGCCAATGGAGTCATTGTACCTGCCCAGGAGGTGCCGCCCCCAACCGTGCCC
ATGGACTACTCCTGGGCCAGGGAGCTTGGTTTGATCCGCAAACCTGCCTCGTTCATGACCAGCATCTGCGATGAG
CGAGGACAGGAGCTCATCTACGCGGGCATGCCCATCACTGAGGTCTTCAAGGAAGAGATGGGCATTGGCGGGGTC
CTCGGCCTCCTCTGGTTCCAGAAAAGGTTGCCTAAGTACTCTTGCCAGTTCATTGAGATGTGTCTGATGGTGACA
GCTGATCACGGGCCAGCCGTCTCTGGAGCCCACAACACCATCATTTGTGCGCGAGCTGGGAAAGACCTGGTCTCC
AGCCTCACCTCGGGGCTGCTCACCATCGGGGATCGGTTTGGGGGTGCCTTGGATGCAGCAGCCAAGATGTTCAGT
AAAGCCTTTGACAGTGGCATTATCCCCATGGAGTTTGTGAACAAGATGAAGAAGGAAGGGAAGCTGATCATGGGC
ATTGGTCACCGAGTGAAGTCGATAAACAACCCAGACATGCGAGTGCAGATCCTCAAAGATTACGTCAGGCAGCAC
TTCCCTGCCACTCCTCTGCTCGATTATGCACTGGAAGTAGAGAAGATTACCACCTCGAAGAAGCCAAATCTTATC
CTGAATGTAGATGGTCTCATCGGAGTCGCATTTGTAGACATGCTTAGAAACTGTGGGTCCTTTACTCGGGAGGAA
GCTGATGAAATATATTGACATTGGAGCCCTCAATGGCATCTTTGTGCTGGGAAGGAGTATGGGGTTCATTGGACAC
TATCTTGATCAGAAGAGGCTGAAGCAGGGGCTGTATCGTCATCCGTGGGATGATATTTCATATGTTCTTCCGGAA
CACATGAGCATG**TAA**CAGAGCCAGGAACCCTACTGCAGTAAACTGAAGACAAGATCTCTTCCCCCAAGAAAAAGT
GTACAGACAGCTGGCAGTGGAGCCTGCTTTATTTAGCAGGGGCCTGGAATGTAAACAGCCACTGGGGTACAGGCA
CCGAAGACCAACATCCACAGGCTAACACCCCTTCAGTCCACACAAAGAAGCTTCATATTTTTTTTATAAGCATAG

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FIGURE 1409B

AAATAAAAACCAAGCCAATATTTGTGACTTTGCTCTGCTACCTGCTGTATTTATTATATGGAAGCATCTAAGTAC
TGTCAGGATGGGGTCTTCCTCATTGTAGGGCGTTAGGATGTTGCTTTCTTTTTCCATTAGTTAAACATTTTTTTC
TCCTTTGGAGGAAGGGAATGAAACATTTATGGCCTCAAGATACTATACATTTAAAGCACCCCAATGTCTCTCTTT
TTTTTTTTTTACTTCCCTTTCTTCTTCCTTATATAACATGAAGAACATTGTATTAATCTGATTTTTAAAGATCTT
TTTGTATGTTACGTGTTAAGGGCTTGTTTGGTATCCCACTGAAATGTTCTGTGTTGCAGACCAGAGTCTGTTTAT
GTCAGGGGGATGGGGCCATTGCATCCTTAGCCATTGTCACAAAATATGTGGAGTAGTAACTTAATATGTAAAGTT
GTAACATACATACATTTAAAATGGAAATGCAGAAAGCTGTGAAATGTCTTGTGTCTTATGTTCTCTGTATTTATG
CAGCTGATTTGTCTGTCTGTAACTGAAGTGTGGGTCCAAGGACTCCTAACTACTTTGCATCTGTAATCCACAAAG
ATTCTGGGCAGCTGCCACCTCAGTCTCTTCTCTGTATTATCATAGTCTGGTTTAAATAAACTATATAGTAACA

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FIGURE 1410

GTTACACACAGGCAGTGGTATCTGTGAGCAGCTCTGTGGACTCAAAGGTTTTCTCCCTGAGAGGCATGACCCAGG
CCAGCTGATTCATCAGAATCAGGATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACA
TCATTATGAAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGAAGCTACA
ACAACAACGTCGATCATTTGGGGATTGTACAAGTGAGACGGAGCTGCCTCCTCTGACTGCGCGGGAGGCGAAGCA
AATTCGGCGGGAGATCAGCCGAAAGAGCAAGTGGGTGGAT**ATG**CTGGGAGACTGGGAGAAATACAAAAGCAGCAG
AAAGCTCATAGATCGAGCGTACAAGGGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACAC
TGAGGAAATGAAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAGCACAT
CCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGGGATCGATACGGAACCAAGCA
GCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCA
CATCGCCGCCTTGTTCCTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGA
GAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAGCATGT
GGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAAGATCTATGTGGGCAGTGTTCCCCGTTAGG
CTGCCTCATCCGGATATTGATTGACGGGATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGA
AGGCGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAG
GTGTGGCCCGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTCAAGCA
TCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCAGCCAAACCCGAGCAAGGGTC
GTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAGACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGG
CCCACCAGCCCGGTTCCCGCGGCCCATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCC
TGGTGGGGCTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAGG
ACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACGGACCTGGACGTAGAGGGCCC
TTGGTTCCGCCATTATGATTTCAGACAGAGCTGCTGGGTCCGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTG
CTGGCAGGCTGAACACCCTGCGGAGCGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCAC
CCCCTTCAGAGCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTGGAAAG
TTCTCAGTTCCCTCCAGGCTTC**TAG**AAGCATCTGGGCCAGGGCTCATGGCTGGATAATTTCCCTAGGCTTAACAA
CCCAAGCAAGCTTCGCATCCTCGTTTTATTTTTGGTTAAACTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGA
GAGAGATTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCA
GCCCCACGACCATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTCAAACTCATGGAAGGATAAC
CACCTTCATGTTTTGAAATAAATGTTTCCTGTTGAAATG

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FIGURE 1411

CCGGCGTCCCAAGTGAGTGGAGGGGGGATCCCGACTCCAGTCCGGGGCCTTGGCCAGCGGAGCCGCGCTATTCGG
AAGCGGGAATCCCACTCAGAGCCCGGGCCTGTAGGGGCGGGGCGTCCCGGGCACCCGGGATTGGGGCGTCTCCCG
TCGTGCACCGGGGCACCGGCGACTCACCCGGAAGGAGAAGCCGTGATCTGGCTATATGGTGGGGCGCGGGCGGTG
TCGCTGTGGGGAGCTGGTGCTGTTCTCAGATGTTTCCTTCCAATGGGCTTTTGGTGTAGG**ATG**TCGGAGAACCAA
GAACAGGAGGAGGTGATTACAGTGCGTGTTCAGGACCCCCGAGTGCAGAATGAGGGCTCCTGGAACTCTTATGTG
GATTATAAGATATTCCTCCATACCAACAGCAAAGCCTTTACTGCCAAGACTTCCTGTGTGCGGCGCCGCTACCGT
GAGTTCGTGTGGCTGAGAAAGCAGCTACAGAGAAATGCTGGTTTGGTGCCTGTTCCTGAACTTCCTGGGAAGTCA
ACCTTCTTCGGCACCTCAGATGAGTTCATTGAGAAGCGACGACAAGGTCTGCAGCACTTCCTTGAAAAGGTCCTG
CAGAGTGTGGTTCTCCTGTCAGACAGCCAGTTGCACCTATTCCTGCAAAGCCAGCTCTCGGTGCCTGAGATAGAA
GCCTGTGTCCAGGGCCGAAGTACCATGACTGTGTCTGATGCCATTCTTCGATATGCTATGTCAAACTGTGGCTGG
GCCCAGGAAGAGAGGCAGAGCTCTTCTCACCTGGCTAAAGGAGACCAGCCTAAGAGTTGCTGCTTTCTTCCAAGA
TCGGGTAGGAGGAGCTCTCCCTCACCGCCTCCCAGTGAAGAAAAGGACCATTTAGAAGTGTGGGCTCCAGTTGTT
GACTCTGAGGTTCCTTCCTTGGAAAGTCCCACTCTCCCACCCCTCTCCTCACCATTATGCTGTGATTTTGGAAGA
CCCAAAGAGGGAACCTCCACTCTTCAGTCTGTGAGGAGGGCTGTGGGAGGAGATCATGCTGTGCCTTTGGACCCT
GGTCAGTTAGAAACAGTTTTGGAAAAG**TGA**GCTCTGGGTTCTGCTCTGAGATGGTCAGAGAAGATGCGGGCCAGG
AGACTTACTCAGGTGGGACTGGGCACAGGGCAGGTATGTGGGAGGCTGGGCTGCTTAGTGTCTTCTAGTCACCTC
TGCTTGGGCTGATTGACAGAGGTCAGTCATTACAGCCCCTTATGCCTCTTCCATGGGAACAAATACTGTGCAGAT
GTTTGTAAGTTAAACATAAGACACAGGGGCTGTTGCTTTTGAACAGAACCCTATATTACTCTCCTGGGATCTGAG
TTTCTGCAGGTCATTTGTATGTAGGACCAGGAGTATCTCCTCAGGTGACCAGTTTTGGGGACCCGTATGTGGCAA
ATTCTAAGCTGCCATATTGAACATCATCCCACTGGGAGTGGTTATGTTGTATCCCCATCTTGGCTGGCTTCAGTT
TTTGCTGTAGCCCTAGAGCACTTTGTTTGTGGGAGGCTGGCCTCTTGCCTACCTCCTTGCATGGACAGGGGGATG
AATATTTACTTTCCCACCTCCTTGCTTTTTCTTTCACTGATACCACTGAATGGAACTGGTGCTGTGACTCCTGCT
GCTGGGGATTTATGTCCCGAGACCTTAGCCTGGCTGAGTGGAGCCTGAGACCTGCACAACAGCTCATGGTCATGC
ATGAGAGAGAAGTGGCTGGCCACAGCCAGAGGGAACAGTAACAGCCCAGGGGCCTTTATTTTGGGAAAGGCTGTC
CCGGGCTGTTACTGTCTCTTCTGGTTATAAAGCAGACATGTGGCCATCTTTTCCGCAGGGTTAGAGTGGGCTCCT
TTCTTTTTGGAATCCTTTTCTTCTCCTTTGGTAGCAGCTCCCTGCCTCCAGGGCTTCCGCCACCAGCGTCTCTGC
TGTGTTGCGCAGTGCAGTGGGGTGCAAGGGCTTTGTTTCTGCCTGCCTGAAAGAGAGGGCTCTGGGGATGGAGAT
GAGAAACAACACGCTCTCCTTCAGACAATGAGGCATTCTGTCCTCCTGCTGCCATTCTTCATCTCCACTGAGAGC
CAGAGCTGGTAGGAGCCGAGTGCCACAGGCATTCTGCATTGCTCTACTCTTAGGTTTGTGTGTGTGATCCTTCCC
CTCCCTGTCGCCCACTCCTCCCTCCTCTGGCTATCCTACCCTGTCTGTGGGCTCTTTTACTACCAGCCTATGCTG
TGGGACTGTCATGGCATTTAGTTCAGAGTGGAGGGGCTTTGGCCTGAAATAAAATGCAAGTATTT

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FIGURE 1412

GGCTGAGGGGAGGGCCGTTGGCCGGGGCCTGCGGTACGCCGCTTCAGTGAGGGACGCCACTGCGGCCACCCGGCT
TGCTGCCTTCCTGGGCGCCACTCCCCCAGGCGACCCGACGCGACGCGCCAGCAGCGCAGCACCGATTCCTCTCGG
GCTCTTGGGCGCTGCTCTGAGCAGCGTCACCCTTTACACCAGAAAGCTGGCGGGCACT**ATG**GGGAAAAAACAAAA
CAAGAAGAAAGTGGAGGAGGTGCTAGAAGAGGAGGAAGAGGAATATGTGGTGGAAAAAGTTCTCGACCGTCGAGT
GGTAAAGGGCAAAGTGGAGTACCTCCTAAAGTGGAAGGGATTCTCAGATGAGGACAACACATGGGAGCCAGAAGA
GAACCTGGATTGCCCCGACCTCATTGCTGAGTTTCTGCAGTCACAGAAAACAGCACATGAGACAGATAAATCAGA
GGGAGGCAAGCGCAAAGCTGATTCTGATTCTGAAGATAAGGGAGAGGAGAGCAAACCAAAGAAGAAGAAAGAAGA
GTCAGAAAAGCCACGAGGCTTTGCTCGAGGTTTGGAGCCGGAGCGGATTATTGGAGCTACAGACTCCAGTGGAGA
GCTCATGTTCCTGATGAAATGGAAAAACTCTGATGAGGCTGACCTGGTCCCTGCCAAGGAAGCCAATGTCAAGTG
CCCACAGGTTGTCATATCCTTCTATGAGGAAAGGCTGACGTGGCATTCCTACCCCTCGGAGGATGATGACAAAAA
AGATGACAAGAAC**TAA**CGCTCCTGAGTACCAGCCCCTGTCACATCTGACTGTGGGTTTCAAGTGGGAAGGGAAGG
AGTTCTACTTGTCTTGACACCATAGAGGTGGCTTGAGAAGATGTCCTTTGAAGAGCCAGTATAGTTTCTGTGCCC
TGCAGCAGCCCAAGTGCTTTAAAGCCGTTTCAAGCTGTATAGTTTGCACACCCATCCCAGTGGAGGGGAAAGGGG
ATAAGTGTTTCAAGGCAACCTTTTCTGCACTTTGCTGCGAAAAGCAAAGGGCCTTCTATGAAGGACAAAACTTGC
AGAATTGGGTGTGTGGGAGAGCAAAAAAATACTGTAGATCTTCAAAGAGCATCTCCACAACCCACAGCCTTCTTC
CCAATAGTGTTAACTCTGCATTTTTACAGCGTAGCATGTGTGTAGTTTTTGGCTATTACTGGTGTATTATTTGGG
GGAGGGAGGGATGGGGAGGGGAGAAAGGGAGATGGGTAGCATCATTTTGATTAACATTTGGGGCCTGATAGGGGA
AATGGTGAAGCAATGGAAAAGAACAGACAACTAATGATTTGCTTCTATGTCCAGAATATTTTACCTTTAAAAAAA
TGTCATTGGCACCATAAATAAGGACTGTGAGAGACTGTTTAAAAGCTGTGAAAGTCTGAAACCTATAAGCCAAGG
TGTTCCCTGCCTAAACTTATTGCTGTTCCCACAAAGGACTAAGCCTGTTCATAAGTTACCAAAGTTGCCATTTTG
GAGATGGAAATTGACGAGGAGGGAAGGTCTTTTATTGGAGAGTATACAGTACAAGCAGATCATTCTGCCTTAGAG
GTGCTAATTCCCGAAATTAGAAGACCCTTTCTTTTCCAGTAACGAAGTTATAAATATCAGCTTGTTCATCCAAGC
CACTGGCTGAGGTGTTAGGAAGAGGAAGAGGGTGGTAGAGGAGGTAAGACAGTAGGGAAAGACAAGGGCCCATGC
TCTTAGTGGGGAAAACTCTTGGAGCCGTTTACTTTGAGCTTTGAACACTGAAACCATTGTTGGCAGGGTTCAGTC
ACTGACAGCACAAGTTTCACTGAATTGATCCAAGAGTTTAGTGATTTCAAAAGCCTTGGTCTCAGGAGAAGATTA
AACTTTCATATTGGGCAGTGGTTCACTTTAAAACACACACATACACACACAAAACAATTTTTTAAGAAATCCTAA
TAAGTAACATACCCAAAATGCTCTGTCTTGAGTCATGAGAACCATCAGTTCTTGATATTGTCTAGACTTGCATCT
AGAGCTACGTTGTAAAATTCTTTTAGGCATGTGTTAGATTTCTGTGTAAACTTTGTTTAAATGTAAACTTCATAC
TACATTGTCAGTTTTTGTCTTAATAAAACTATAGATTTAT

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FIGURE 1413A

GGCCGGCGGTGGCGGCGGCGAGGCCGGGACTCGGGCTTAGGGCCTGCTGTGGAGGCAGCGGCGGACGCCGAGCTA
AGCAGTTTCTCTGGAAACCCCCCTGGTAAGTGTGGAGGAGGCGGGACACTCTGACCCAAGACGAAAGGCCTGTAG
CTCCAGCCAAAGAAAATAAACCTTAGGAGGGAGAAGGAAAAAAAAAATCCATCAGCTGTTCCTGAGAACAGCCTG
CATTGGAATCTACAGAGAGGACAACTAATGTGAGTGAGGAAGTGACTGTATGTGGACTGTGGAGAAAGTAAGTCA
CGTGGGCCCTTGAGGACCTGGACTGGGTTAGGAACAGTTGTACTTTCAGAGGTGAGGTGTCGAGAAGGGAAAGTG
AATGTGGTCTGGAGTGTGTCCTTGGCCTTGGCTCCACAGGGTGTGCTTTCCTCTGGGGCCGTCAGGGAGCTCATC
CCTTGTGTTCTGCCAGGGTGGGGTACGGGGTTTGACACTGAGGAGGGTAACCTGCTGGCTGGAGCGGCAGAGCAG
TGGCCTTGATTTGTCTTTTGGAAGATTTTAAAAACCAAAAAGCATAAACATTCTGGTCCTTCAGCA**ATG**CTTTCT
CTGAAGAAATACTTAACGGAAGGACTTCTCCAGTTCACCATTCTGCTGAGTTTGATTGGGGTACGGGTGGACGTG
GATACTTACCTGACCTCACAGCTTCCCCCACTCCGGGAGATCATCCTGGGGCCCAGTTCTGCCTATACTCAGACC
CAGTTCCACAACCTGAGGAATACCTTGGATGGCTATGGTATCCACCCCAAGAGCATAGACCTGGACAATTACTTC
ACTGCCCGGCGGCTCCTCAGTCAGGTGAGGGCCCTGGACAGGTTCCAGGTGCCAACCACTGAGGTAAATGCCTGG
CTGGTTCACCGAGACCCAGAGGGGTCTGTCTCTGGCAGTCAGCCCAACTCAGGCCTCGCCCTCGAGAGTTCCAGT
GGCCTCCAAGATGTGACAGGCCCAGACAACGGGGTGCGAGAAAGCGAAACGGAGCAGGGATTCGGTGAAGATTTG
GAGGATTTGGGGGCTGTAGCCCCCCCAGTCAGTGGAGACTTAACCAAAGAGGACATAGATCTGATTGACATCCTT
TGGCGACAGGATATTGATCTGGGGGCTGGGCGTGAGGTTTTTGACTATAGTCACCGCCAGAAGGAGCAGGATGTG
GAGAAGGAGCTGCGAGATGGAGGCGAGCAGGACACCTGGGCAGGCGAGGGCGCGGAAGCTCTGGCACGGAACCTG
CTAGTGGATGGAGAGACTGGGGAGAGCTTCCCTGCACAGGTGCCTAGTGGGGAGGACCAGACGGCCCTGTCCCTG
GAAGAGTGCCTTAGGCTGCTGGAAGCCACCTGCCCCTTTGGGGAGAATGCTGAGTTTCCAGCAGACATTTCCAGC
ATAACAGAAGCAGTGCCTAGTGAGAGTGAGCCCCCTGCTCTTCAAAACAACCTCTTGTCTCCTCTTCTGACCGGG
ACAGAGTCACCATTTGATTTGGAACAGCAGTGGCAAGATCTCATGTCCATCATGGAAATGCAGGCCATGGAAGTG
AACACATCAGCAAGTGAAATCCTGTACAGTGCCCCTCCTGGAGACCCACTGAGCACCAACTACAGCCTTGCCCCC
AACACTCCCATCAATCAGAATGTCAGCCTGCATCAGGCGTCCCTGGGGGGCTGCAGCCAGGACTTCTTACTCTTC
AGCCCCGAGGTGGAAAGCCTGCCTGTGGCCAGTAGCTCCACGCTGCTCCCGTTGGCCCCCAGCAATTCTACCAGC
CTCAACTCCACCTTCGGCTCCACCAACCTGACAGGGCTCTTCTTTCCACCCCAGCTCAATGGCACAGCCAATGAC
ACAGCAGGCCCAGAGCTGCCTGACCCTTTGGGGGGTCTGTTAGATGAAGCTATGTTGGATGAGATCAGCCTTATG
GACCTGGCCATTGAAGAAGGCTTTAACCCTGTGCAGGCCTCCCAGCTGGAGGAGGAATTTGACTCTGACTCAGGC
CTTTCCTTAGACTCGAGCCATAGCCCTTCTTCCCTAAGCAGCTCTGAAGGCAGTTCTTCCTCTTCTTCCTCCTCC
TCTTCCTCTTCTTCCTCTGCTTCTTCCTCTGCCTCTTCCTCCTTTTCTGAGGAAGGTGCGGTTGGCTACAGCTCT
GACTCTGAGACCCTGGATCTGGAAGAGGCCGAGGGTGCTGTGGGCTACCAGCCTGAGTATTCCAAGTTCTGCCGC
ATGAGCTACCAGGATCCAGCTCAGCTCTCATGCCTGCCCTACCTGGAGCACGTGGGCCACAACCACACATACAAC
ATGGCACCCAGTGCCCTGGACTCAGCCGACCTGCCACCACCCAGTGCCCTCAAGAAAGGCAGCAAGGAGAAGCAG
GCTGACTTCCTGGACAAGCAGATGAGCCGGGATGAGCACCGAGCCCGAGCCATGAAGATCCCTTTCACCAATGAC
AAAATCATCAACCTGCCTGTGGAGGAGTTCAATGAACTGCTGTCCAAATACCAGTTGAGTGAAGCCCAGCTGAGC
CTCATCCGAGACATCCGGCGCCGGGGCAAGAACAAGATGGCGGCGCAGAACTGCCGCAAGCGCAAGCTGGACACC
ATCCTGAATCTGGAGCGTGATGTGGAGGACCTGCAGCGTGACAAAGCCCGGCTGCTGCGGGAGAAAGTGGAGTTC
CTGCGCTCCCTGCGACAGATGAAGCAGAAGGTCCAGAGCCTGTACCAGGAGGTGTTTGGGCGGCTGCGAGATGAG
AACGGACGACCCTACTCGCCCAGTCAGTATGCGCTCCAGTACGCCGGGGACGGCAGTGTCCTCCTCATCCCCCGC
ACGATGGCCGACCAGCAGGCCCGGCGGCAGGAGAGGAAGCCAAAGGACCGGAGAAAG**TGA**GCCTGGGGAAGAAGG
GGGTTTGAAGCCCACCAAGACCGAAACTGGAGAAGGGCTGGACCTGGACCTGGACCTGGACCTACAGCGGGGACT
TAAATGCCTTCTTATCCAATATATCTTCTCAGATGGGATGACTGCGGGTCAGTGTACAGGAAGAGGCAGGCACTG
GCTGGCTCAGCTCCACTCGGGTGGAGTGGAAGTGGCCAGACCATTTAGACGGACAGGGTCCTCACCCTACCCCTT
TCCTGTGAGGCAGGGGTGGTGGTGGAGTTGCTGGAGGTAGAGGAGCTATGTGGAGCAAAGGCCGACAGAGGGGAA
GGAATGGACCTGTGAGAGGAAGGGAAGGTGGCAGAAAGTCTCATTTCAGGAAGGAGGGATAGAAGGAAGGAAGGA
AGGAACCCCCCCCCCCCCGAAAAAAAAATCAAAGCGGGAAGAAAATCAGAGGGAAGGTTAAGGTTGGCTCTGGCC
AGGATTCCAGGCAGCAGGTTGGAGTGACTGGTGGGCCTAGATCACTGGTGTGATAAACCCCAATTTTCACCCCGG
GGGGGGTGGGGTACACAGACACAGGGTGGGGGTGGGGAGGGACGGTGTTAACTCTTTCTGCTCCTTGCATTTTGA
CATCCCTGAAGGGGAGCTCTTGGATATCATTGGCCATGTTTCAATCGAATGGAGCCACTGGGCCCCAACACTGGC

FIGURE 1413B

TTTGAGATTTAGAGTCAAAGGGTAGAGTGAACAGGAAAGGGTCACGTGGTCCCATGTTGCAACAGCCCCAACATC
ACGCATGTCATTCACTGCCTTGCCACTCCATCTCCCTCCGTGCTCCAGCCACCCCTGAGCTGAGGCTCCCATTGT
CTCCATCAGAGCCTGCATGTGTATGCCGTCCTCCCCTGGTCCGGTGTTTGTGTTCCCCACCCCTCACAGACTGCC
TGAGCTCTTCTGTAAGCTGGGGTAGGGTGATGGCAGTGCTCCGGGAACTGGGCCTGCAGCCTTCCTCTTCTGGGA
CTGCTGTGAGGCAGAGGAATGATGGAGAATCTAGTGTAGCAGCCTCCAGGCAGGATTCAGCACAACACTGGGGAG
TCACCCTTCCCTCGGGCCTCTGCCTACCAACAACTGGGCTTATCACTGGGAAAACACAAAAAATTACACAACCCA
GCAACAACAAAAGAACTAGTCCTCTTAGAATTTCTTGCGCTTTGATTTTTTTAGGGCTTGTGCCCTGTTTCACTT
ATAGGGTCTAGAATGCTTGTGTTGAGTAAAAAGGAGATGCCCAATATTCAAAGCTGCTAAATGTTCTCTTTGCCA
TAAAGACTCCGTGTAACTGTGTGAACACTTGGGATTTTTCTCCTCTGTCCCGAGGTCGTCGTCTGCTTTCTTTTT
TGGGTTTCTTTCTAGAAGATTGAGAAGTGCATATGACAGGCTGAGAGCACCTCCCCAAACACACAAGCTCTCAGC
CACAGGCAGCTTCTCCACAGCCCCAGCTTCGCACAGGCTCCTGGAGGGCTGCCTGGGGGAGGCAGACATGGGAGT
GCCAAGGTGGCCAGATGGTTCCAGGACTACAATGTCTTTATTTTTAACTGTTTGCCACTGCTGCCCTCACCCCTG
CCCGGCTCTGGAGTACCGTCTGCCCCAGACAAGTGGGAGTGAAATGGGGGTGGGGGGAAGCACTGATTCCCAGTT
AGGGGGTGCCTAACTGAGCAGTAGGGATAGAAGGTGTGAACCTGGGAGTGCTTTTATAAATTATTTTCCTTGTAG
ATTTTATTTTTAATTTATCTCTGTGACCTGCCAGGGAGAGGGGAGAGAGAGAGATGCTGTTGAGCACATGACA
AAATAAAATAAAATGGATGATTC

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FIGURE 1414

CTGAAGCGGAAGTGGAGGAAAGATGGAGGACCATCAGCACGTGCCCATCGACATCCAGACCAGCAAGCTGCTCGA
TTGGCTGGTGGACAGAAGGCACTGCAGCCTGAAATGGCAGAGTCTGGTGCTGACGATCCGCGAGAAGATCAATGC
TGCCATCCAGGACATGCCAGAGAGCGAAGAGATCGCCCAGCTGCTGTCTGGGTCCTACATTCACTACTTTCACTG
CCTAAGAATCCTGGACCTTCTCAAAGGCACAGAGGCCTCCACGAAGAATATTTTTGGCCGATACTCTTCACAGCG
GATGAAGGATTGGCAGGAGATTATAGCTCTGTATGAGAAGGACAACACCTACTTAGGTAAAGTGGCCCGGCCTGG
GAGCCCTGGTATCCATGGGGAAGCCCACTCTCAGAGTTCTGAGATACCAGGCTTATAGGAGGCACAGTCTGTGAG
TGGGAAGAGACTGGAGTGTAGATGTTGCCCATTTGTAGGTGGTAAAATCAATTGTTTTTGATGGAATTGATTTTC
CCTGAGTGGAGTGCTGGGGGAAGGAGGAGGTCCAGGCCGGTAGTGGCCATTCGCCGTGCCTCAGCGAGCAGGTGT
GTGTGGGTCCTCCACCACTCACCTCTTGGTTAGCGGGAGTGTGCTGCCCCCACCCCCACCCCCGCACCCCCATTC
TACACAAGGCAGAAGAGGCACGGGTTTTCCTGGGAGCGAATATCAAGTGCCTGAGAGCAACTACAGGACTAACTG
TGTTTGGGTTGGGTGTAGTATAAATAATAATAATGGCTAATATTTCCTGAGCATCTACTAAATGCAAGGAATTGT
GCTTGGTGTGTCATGTGGATTCTCTCTTGCATCTTCATGATAAATGTTATTGTCGCTGTTTTACCGATGAGGGTT
GGATTAGAGGGGTTAAACAACTTGTCTTAGGCTCCACAGCTGGGAACAAGTGGGGCTGGGAAGCTGACTTCGTGC
TCTTCACCACCACAAAGG**ATG**TGTGTGCATCCTGGGGCATGCCTGCCTCATGTGGGGGTGTCCTGGGCTGAATTT
CCTGGGCACTTCTCAGTGGAACTCTCTAGCCTCCTGGTTCGGAATGTCAACTATGAGATCCCCTCACTGAAGAAG
CAGATTGCCAAGTGCCAGCAGCTGCAGCAAGAATACAGCCGCAAGGAGGAGGAGTGCCAGGCAGGGGCTGCCGAG
ATGCGGGAGCAGTTCTACCACTCCTGCAAGCAGTATGGCATCACGGGCGAAAATGTCCGAGGAGAACTGCTGGCC
CTGGTGAAGGACCTGCCGAGTCAGCTGGCTGAGATTGGGGCAGCGGCTCAGCAGTCCCTGGGGGAAGCCATTGAC
GTGTACCAGGCGTCTGTGGGGTTTGTGTGTGAGAGCCCCACAGAGCAGGTGTTGCCAATGCTGCGGTTCGTGCAG
AAGCGGGGAAACTCAACGGTGTACGAGTGGAGGACAGGGACAGAGCCCTCTGTGGTGGAACGACCCCACCTCGAG
GAGCTTCCTGAGCAGGTGGCAGAAGATGCGATTGACTGGGGCGACTTTGGGGTAGAGGCAGTGTCTGAGGGGACT
GACTCTGGCATCTCTGCCGAGGCTGCTGGAATCGACTGGGGCATCTTCCCGGAATCAGATTCAAAGGATCCTGGA
GGTGATGGGATAGACTGGGGAGACGATGCTGTTGCTTTGCAGATCACAGTGCTGGAAGCAGGAACCCAGGCTCCA
GAAGGTGTTGCCAGGGGCCCAGATGCCCTGACACTGCTTGAATACACTGAGACCCGGAATCAGTTCCTTGATGAG
CTCATGGAGCTTGAGATCTTCTTAGCCCAGAGAGCAGTGGAGTTGAGTGAGGAGGCAGATGTCCTGTCTGTGAGC
CAGTTCCAGCTGGCTCCAGCCATCCTGCAGGGCCAGACCAAAGAGAAGATGGTTACCATGGTGTCAGTGCTGGAG
GATCTGATTGGCAAGCTTACCAGTCTTCAGCTGCAACACCTGTTTATGATCCTGGCCTCACCAAGGTATGTGGAC
CGAGTGACTGAATTCCTCCAGCAAAAGCTGAAGCAGTCCCAGCTGCTGGCTTTGAAGAAAGAGCTGATGGTGCAG
AAGCAGCAGGAGGCACTTGAGGAGCAGGCGGCTCTGGAGCCTAAGCTGGACCTGCTACTGGAGAAGACCAAGGAG
CTGCAGAAGCTGATTGAAGCTGACATCTCCAAGAGGTACAGCGGGCGCCCTGTGAACCTGATGGGAACCTCTCTG
TGACACCCTCCGTGTTCTTGCCTGCCCATCTTCTCCGCTTTTGGGATGAAGATGATAGCCAGGGCTGTTGTTTTG
GGGCCCTTCAAGGCAAAAGACCAGGCTGACTGGAAGATGGAAAGCCACAGGAAGGAAGCGGCACCTGATGGTGAT
CTTGGCACTCTCCATGTTCTCTACAAGAAGCTGTGGTGATTGGCCCTGTGGTCTACCAGGCGAAAACCACAGATT
CTCCTTCTAGTTAGTATAGCGGACTTAATAAAAGAGGAAAAAAC

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FIGURE 1415

GTAGTCTGAGCGCTACCCGGTTGCTGCTGCCCAAGGACCGCGGAGTCGGACGCAGGCAGACC**ATG**TGGACCCTGG
TGAGCTGGGTGGCCTTAACAGCAGGGCTGGTGGCTGGAACGCGGTGCCCAGATGGTCAGTTCTGCCCTGTGGCCT
GCTGCCTGGACCCCGGAGGAGCCAGCTACAGCTGCTGCCGTCCCCTTCTGGACAAATGGCCCACAACACTGAGCA
GGCATCTGGGTGGCCCCTGCCAGGTTGATGCCCACTGCTCTGCCGGCCACTCCTGCATCTTTACCGTCTCAGGGA
CTTCCAGTTGCTGCCCCTTCCCAGAGGCCGTGGCATGCGGGGATGGCCATCACTGCTGCCCACGGGGCTTCCACT
GCAGTGCAGACGGGCGATCCTGCTTCCAAAGATCAGGTAACAACTCCGTGGGTGCCATCCAGTGCCCTGATAGTC
AGTTCGAATGCCCGGACTTCTCCACGTGCTGTGTTATGGTCGATGGCTCCTGGGGGTGCTGCCCCATGCCCCAGG
CTTCCTGCTGTGAAGACAGGGTGCACTGCTGTCCGCACGGTGCCTTCTGCGACCTGGTTCACACCCGCTGCATCA
CACCCACGGGCACCCACCCCCTGGCAAAGAAGCTCCCTGCCCAGAGGACTAACAGGGCAGTGGCCTTGTCCAGCT
CGGTCATGTGTCCGGACGCACGGTCCCGGTGCCCTGATGGTTCTACCTGCTGTGAGCTGCCCAGTGGGAAGTATG
GCTGCTGCCCAATGCCCAACGCCACCTGCTGCTCCGATCACCTGCACTGCTGCCCCCAAGACACTGTGTGTGACC
TGATCCAGAGTAAGTGCCTCTCCAAGGAGAACGCTACCACGGACCTCCTCACTAAGCTGCCTGCGCACACAGTGG
GGGATGTGAAATGTGACATGGAGGTGAGCTGCCCAGATGGCTATACCTGCTGCCGTCTACAGTCGGGGGCCTGGG
GCTGCTGCCCTTTTACCCAGGCTGTGTGCTGTGAGGACCACATACACTGCTGTCCCGCGGGGTTTACGTGTGACA
CGCAGAAGGGTACCTGTGAACAGGGGCCCCACCAGGTGCCCTGGATGGAGAAGGCCCCAGCTCACCTCAGCCTGC
CAGACCCACAAGCCTTGAAGAGAGATGTCCCCTGTGATAATGTCAGCAGCTGTCCCTCCTCCGATACCTGCTGCC
AACTCACGTCTGGGGAGTGGGGCTGCTGTCCAATCCCAGAGGCTGTCTGCTGCTCGGACCACCAGCACTGCTGCC
CCCAGGGCTACACGTGTGTAGCTGAGGGGCAGTGTCAGCGAGGAAGCGAGATCGTGGCTGGACTGGAGAAGATGC
CTGCCCGCCGGGCTTCCTTATCCCACCCCAGAGACATCGGCTGTGACCAGCACACCAGCTGCCCGGTGGGGCAGA
CCTGCTGCCCGAGCCTGGGTGGGAGCTGGGCCTGCTGCCAGTTGCCCCATGCTGTGTGCTGCGAGGATCGCCAGC
ACTGCTGCCCGGCTGGCTACACCTGCAACGTGAAGGCTCGATCCTGCGAGAAGGAAGTGGTCTCTGCCCAGCCTG
CCACCTTCCTGGCCCGTAGCCCTCACGTGGGTGTGAAGGACGTGGAGTGTGGGGAAGGACACTTCTGCCATGATA
ACCAGACCTGCTGCCGAGACAACCGACAGGGCTGGGCCTGCTGTCCCTACCGCCAGGGCGTCTGTTGTGCTGATC
GGCGCCACTGCTGTCCTGCTGGCTTCCGCTGCGCAGCCAGGGGTACCAAGTGTTTGCGCAGGGAGGCCCCGCGCT
GGGACGCCCCTTTGAGGGACCCAGCCTTGAGACAGCTGCTG**TGA**GGGACAGTACTGAAGACTCTGCAGCCCTCGG
GACCCCACTCGGAGGGTGCCCTCTGCTCAGGCCTCCCTAGCACCTCCCCCTAACCAAATTCTCCCTGGACCCCAT
TCTGAGCTCCCCATCACCATGGGAGGTGGGGCCTCAATCTAAGGCCTTCCCTGTCAGAAGGGGGTTGTGGCAAAA
GCCACATTACAAGCTGCCATCCCCTCCCCGTTTCAGTGGACCCTGTGGCCAGGTGCTTTTCCCTATCCACAGGGG
TGTTTGTGTGTGTGCGCGTGTGCGTTTCAATAAAGTTTGTACACTTTC

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FIGURE 1416

CTAGGTGCGCTGCGAGCGCGCGCGGACCGCGCACAGGCGGCGGAGCCGGTATGGGCCCGCCTGACCCTGGGCGCC
GCGCCGCACGAGCACCAGCCTAGAGCCAGGACTGAAGCTTCAAG**ATG**GCTGACCAGGACCCTGCGGGCATCAGCC
CCCTCCAGCAAATGGTGGCCTCAGGCACCGGGGCTGTGGTTACCTCTCTCTTCATGACACCCCTGGACGTGGTGA
AGGTTCGCCTGCAGTCTCAGCGGCCCTCCATGGCCAGCGAGCTGATGCCTTCCTCCAGACTGTGGAGCCTCTCCT
ATACCAAATGGAAGTGCCTCCTGTATTGCAATGGTGTCCTGGAGCCTCTGTACCTGTGCCCAAATGGTGCCCGCT
GTGCCACCTGGTTTCAAGACCCTACCCGCTTCACTGGCACCATGGATGCCTTCGTGAAGATCGTGAGGCACGAGG
GCACCAGGACCCTCTGGAGCGGCCTCCCCGCCACCCTGGTGATGACTGTGCCAGCTACCGCCATCTACTTCACTG
CCTATGACCAACTGAAGGCCTTCCTGTGTGGTCGAGCCCTGACCTCTGACCTCTACGCACCCATGGTGGCTGGCG
CGCTGGCCCGCCTGGGCACCGTGACTGTGATCAGCCCCCTGGAGCTTATGCGGACAAAGCTGCAGGCTCAGCATG
TGTCGTACCGGGAGCTGGGTGCCTGTGTTCGAACTGCAGTGGCTCAGGGTGGCTGGCGCTCACTGTGGCTGGGCT
GGGGCCCCACTGCCCTTCGAGATGTGCCCTTCTCAGCCCTGTACTGGTTCAACTATGAGCTGGTGAAGAGCTGGC
TCAATGGGTTCAGGCCGAAGGACCAGACTTCTGTGGGCATGAGCTTTGTGGCTGGTGGCATCTCAGGGACGGTGG
CTGCAGTGCTGACTCTACCCTTTGACGTGGTAAAGACCCAACGCCAGGTCGCTCTGGGAGCGATGGAGGCTGTGA
GAGTGAACCCCCTGCATGTGGACTCCACCTGGCTGCTGCTGCGGAGGATCCGGGCCGAGTCGGGCACCAAGGGAC
TCTTTGCAGGCTTCCTTCCTCGGATCATCAAGGCTGCCCCCTCCTGTGCCATCATGATCAGCACCTATGAGTTCG
GCAAAAGCTTCTTCCAGAGGCTGAACCAGGACCGGCTTCTGGGCGGC**TGA**AAGGGGCAAGGAGGCAAGGACCCCG
TCTCTCCCACGGATGGGGAGAGGGCAGGAGGAGACCCAGCCAAGTGCCTTTTCCTCAGCACTGAGGGAGGGGGCT
TGTTTCCCTTCCCTCCCGGCGACAAGCTCCAGGGCAGGGCTGTCCCTCTGGGCGGCCCAGCACTTCCTCAGACAC
AACTTCTTCCTGCTGCTCCAGTCGTGGGGATCATCACTTACCCACCCCCCAAGTTCAAGACCAAATCTTCCAGCT
GCCCCCTTCGTGTTTCCCTGTGTTTGCTGTAGCTGGGCATGTCTCCAGGAACCAAGAAGCCCTCAGCCTGGTGTA
GTCTCCCTGACCCTTGTTAATTCCTTAAGTCTAAAGATGATGAACTTC

FIGURE 1417

GGTGAGGTGGCTTTGACCCCGGGTTGCCCGGCCAGCACGACCGAGGAGGTGGCTGGACAGCTGGAGGATGAACGG
AGAAGCCGACTGCCCCACAGACCTGGAAATGGCCGCCCCCAAAGGCCAAGACCGTTGGTCCCAGGAAGACATGCT
GACTTTGCTGGAATGCATGAAGAACAACCTTCCATCCAATGACAGCTCCAAGTTCAAAACCACCGAATCACACAT
GGACTGGGAAAAAGTAGCATTTAAAGACTTTTCTGGAGACATGTGCAAGCTCAAATGGGTGGAGATTTCTAATGA
GGTGAGGAAGTTCCGTACATTGACAGAATTGATCCTCGATGCTCAGGAACATGTTAAAAATCCTTACAAAGGCAA
AAAACTCAAGAAACACCCAGACTTCCCAAAGAAGCCCCTGACCCCTTATTTCCGCTTCTTCATGGAGAAGCGGGC
CAAGTATGCGAAACTCCACCCTGAGATGAGCAACCTGGACCTAACCAAGATTCTGTCCAAGAAATACAAGGAGCT
TCCGGAGAAGAAGAAGATGAAATATATTCAGGACTTCCAGAGAGAGAAACAGGAGTTCGAGCGAAACCTGGCCCG
ATTCAGGGAGGATCACCCCGACCTAATCCAGAATGCCAAGAAATCGGACATCCCAGAGAAGCCCAAAACCCCCCA
GCAGCTGTGGTACACCCACGAGAAGAAGGTGTATCTCAAAGTGCGGCCAGATGCCACTACGAAGGAGGTGAAGGA
CTCCCTGGGGAAGCAGTGGTCTCAGCTCTCGGACAAAAAGAGGCTGAAATGGATTCATAAGGCCCTGGAGCAGCG
GAAGGAGTACGAGGAGATCATGAGAGACTATATCCAGAAGCACCCAGAGCTGAACATCAGTGAGGAGGGTATCAC
CAAGTCCACCCTCACCAAGGCCGAACGCCAGCTCAAGGACAAGTTTGACGGGCGACCCACCAAGCCACCTCCGAA
CAGCTACTCGCTGTACTGCGCAGAGCTCATGGCCAACATGAAGGACGTGCCCAGCACAGAGCGCATGGTGCTGTG
CAGCCAGCAGTGGAAGCTGCTGTCCCAGAAGGAGAAGGACGCCTATCACAAGAAGTGTGATCAGAAAAAGAAAGA
TTACGAGGTGGAGCTGCTCCGTTTCCTCGAGAGCCTGCCTGAGGAGGAGCAGCAGCGGGTCTTGGGGGAAGAGAA
GATGCTGAACATCAACAAGAAGCAGGCCACCAGCCCCGCCTCCAAGAAGCCAGCCCAGGAAGGGGGCAAGGGCGG
CTCCGAGAAGCCCAAGCGGCCCGTGTCGGCCATGTTCATCTTCTCGGAGGAGAAACGGCGGCAGCTGCAGGAGGA
GCGGCCTGAGCTCTCCGAGAGCGAGCTGACCCGCCTGCTGGCCCGAATGTGGAACGACCTGTCTGAGAAGAAGAA
GGCCAAGTACAAGGCCCGAGAGGCGGCGCTCAAGGCTCAGTCGGAGAGGAAGCCCGGCGGGGAGCGCGAGGAACG
GGGCAAGCTGCCCGAGTCCCCCAAAAGAGCTGAGGAGATCTGGCAACAGAGCGTTATCGGCGACTACCTGGCCCG
CTTCAAGAATGACCGGGTGAAGGCCTTGAAAGCCATGGAAATGACCTGGAATAACATGGAAAAGAAGGAGAAACT
GATGTGGATTAAGAAGGCAGCCGAAGACCAAAAGCGATATGAGAGAGAGCTGAGTGAGATGCGGGCACCTCCAGC
TGCTACAAATTCTTCCAAGAAGATGAAATTCCAGGGAGAACCCAAGAAGCCTCCCATGAACGGTTACCAGAAGTT
CTCCCAGGAGCTGCTGTCCAATGGGGAGCTGAACCACCTGCCGCTGAAGGAGCGCATGGTGGAGATCGGCAGTCG
CTGGCAGCGCATCTCCCAGAGCCAGAAGGAGCACTACAAAAAGCTGGCCGAGGAGCAGCAAAAGCAGTACAAGGT
GCACCTGGACCTCTGGGTTAAGAGCCTGTCTCCCCAGGACCGTGCAGCATATAAAGAGTACATCTCCAATAAACG
TAAGAGCATGACCAAGCTGCGAGGCCCAAACCCCAAATCCAGCCGGACTACTCTGCAGTCCAAGTCGGAGTCCGA
GGAGGATGATGAAGAGGATGAGGATGACGAGGACGAGGATGAAGAAGAGGAAGATGATGAGAATGGGGACTCCTC
TGAAGATGGCGGCGACTCCTCTGAGTCCAGCAGCGAGGACGAGAGCGAGGATGGGGATGAGAATGAAGAGGATGA
CGAGGACGAAGACGACGACGAGGATGACGATGAGGATGAAGATAATGAGTCCGAGGGCAGCAGCTCCAGCTCCTC
CTCCTCAGGGGACTCCTCAGACTCTGACTCCAACTGAGGCTCAGCCCCACCCCAGGGCAGCCAGGGAGAGCCCAG
GAGCTCCCCTCCCCAACTGACCACCTTTGTTTCTCCCCCATGTTCTGTCCCTTGCCCCCCTGGCCTCCCCCACTT
TCTTTCTTTCTTTAAAAAAAAAAAAAAATACGGTGGGGGTAGGGGGCTGGAGGAGCCCAGGCCAGGACTCTGCAG
CCTCAGAGACATCAGCCCTTGGGGGTCCTCCTCCAGGGACAGCAACTATCAGACTAAGCCAGCACCGGACCAGCC
TGGCCCACCCCACCCACTTCTGCACTTGCGGTTCCGGCATGGACAATGGACCGGAGAGTGGGGGTGGGGGGTCCC
AAAGAGTTTGATGAGGCCCTCCACACCTGCGGCCCAATCCAAGGTGGGGTGGAAGCTTGGGGAAGACCCATTCCT
TCCCAGAGGGGCCTGCCACCTGGACCCCTGCATTGGAACTGGAGGCAGGGAACATGGGGAGGAGGAGGGTCGGTG
CCTTCAAGAAAACAGGCACTGCCCTGGTGGCCCTCTCCCCTGCCCCCTGCAGGAAGGAGCTGCCTGGACCCGTTC
ATGGGGGAGGGGGCAGAAGTGTTTTTTATATATGTGTATATATTTTTTTTTAAGCTCTGAGCTGTCAACGAGACG
TTTCCTACCGA

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FIGURE 1418

GGAGCCGTCACCCCGGGCGGGGACCCAGCGCAGGCAACTCCGCGCGGCGGCCCGGCCGAGGGAGGGAGCGAGCGG
GCGGGCGGGCAAGCCAGACAGCTGGGCCGGAGCAGCCGCGGGCGCCCGAGGGGCCGAGCGAGATTGTAAACC**ATG**

GCTGTGTGGATACAAGCTCAGCAGCTCCAAGGAGAAGCCCTTCATCAGATGCAAGCGTTATATGGCCAGCATTTT
CCCATTGAGGTGCGGCATTATTTATCCCAGTGGATTGAAAGCCAAGCATGGGACTCAGTAGATCTTGATAATCCA
CAGGAGAACATTAAGGCCACCCAGCTCCTGGAGGGCCTGGTGCAGGAGCTGCAGAAGAAGGCAGAGCACCAGGTG
GGGGAAGATGGGTTTTTACTGAAGATCAAGCTGGGGCACTATGCCACACAGCTCCAGAACACGTATGACCGCTGC
CCCATGGAGCTGGTCCGCTGCATCCGCCATATATTGTACAATGAACAGAGGTTGGTCCGAGAAGCCAACAATGGT
AGCTCTCCAGCTGGAAGCCTTGCTGATGCCATGTCCCAGAAACACCTCCAGATCAACCAGACGTTTGAGGAGCTG
CGACTGGTCACGCAGGACACAGAGAATGAGTTAAAAAAGCTGCAGCAGACTCAGGAGTACTTCATCATCCAGTAC
CAGGAGAGCCTGAGGATCCAAGCTCAGTTTGGCCCGCTGGCCCAGCTGAGCCCCCAGGAGCGTCTGAGCCGGGAG
ACGGCCCTCCAGCAGAAGCAGGTGTCTCTGGAGGCCTGGTTGCAGCGTGAGGCACAGACACTGCAGCAGTACCGC
GTGGAGCTGGCCGAGAAGCACCAGAAGACCCTGCAGCTGCTGCGGAAGCAGCAGACCATCATCCTGGATGACGAG
CTGATCCAGTGGAAGCGGCGGCAGCAGCTGGCCGGGAACGGCGGGCCCCCCGAGGGCAGCCTGGACGTGCTACAG
TCCTGGTGTGAGAAGTTGGCCGAGATCATCTGGCAGAACCGGCAGCAGATCCGCAGGGCTGAGCACCTCTGCCAG
CAGCTGCCCATCCCCGGCCCAGTGGAGGAGATGCTGGCCGAGGTCAACGCCACCATCACGGACATTATCTCAGCC
CTGGTGACCAGCACATTCATCATTGAGAAGCAGCCTCCTCAGGTCCTGAAGACCCAGACCAAGTTTGCAGCCACC
GTACGCCTGCTGGTGGGCGGGAAGCTGAACGTGCACATGAATCCCCCCCAGGTGAAGGCCACCATCATCAGTGAG
CAGCAGGCCAAGTCTCTGCTTAAAAATGAGAACACCCGCAATGGTGAGATCCTGAACAACTGCTGCGTGATGGAG
TACCACCAAGCCACGGGCACCCTCAGGCAGGGTGCCATTTGCCGTGCC**TGA**CAAAGTGCTGTGGCCGCAGCTGTG
TGAGGCGCTCAACATGAAATTCAAGGCCGAAGTGCAGAGCAACCGGGGCCTGACCAAGGAGAACCTCGTGTTCCT
GGCGCAGAAACTGTTCAACAACAGCAGCAGCCACCTGGAGGACTACAGTGGCCTGTCCGTGTCCTGGTCCCAGTT
CAACAGGGAGAATTTACCAGGACGGAATTACACTTTCTGGCAATGGTTTGACGGTGTGATGGAAGTGTTAAAAAA
ACATCTCAAGCCTCATTGGAATGATGGGGCCATTTTGGGGTTTGTAAACAAGCAACAGGCCCATGACCTACTCAT
TAACAAGCCAGATGGGACCTTCCTCCTGAGATTCAGTGACTCAGAAATTGGCGGCATCACCATTGCTTGGAAGTT
TGATTCTCAGGAAAGAATGTTTTGGAATCTGATGCCTTTTACCACCAGAGACTTCTCCATTCGGTCCCTAGCCGA
CCGCTTGGGAGACTTGAATTACCTTATCTACGTGTTTCCTGATCGGCCAAAAGATGAAGTATACTCCAAATACTA
CACACCAGTTCCCTGCGAGTCTGCTACTGCTAAAGCTGTTGATGGATACGTGAAGCCACAGATCAAGCAAGTGGT
CCCTGAGTTTGTGAACGCATCTGCAGATGCCGGGGGCGGCAGCGCCACGTACATGGACCAGGCCCCCTCCCCAGC
TGTGTGTCCCCAGGCTCACTATAACATGTACCCACAGAACCCTGACTCAGTCCTTGACACCGATGGGGACTTCGA
TCTGGAGGACACAATGGACGTAGCGCGGCGTGTGGAGGAGCTCCTGGGCCGGCCAATGGACAGTCAGTGGATCCC
GCACGCACAATCGTGACCCCGCGACCTCTCCATCTTCAGCTTCTTCATCTTCACCAGAGGAATCACTCTTGTGGA
TGTTTTAATTCCATGAATCGCTTCTCTTTTGAAACAATACTCATAATGTGAAGTGTTAATACTAGTTGTGACCTT
AGTGTTTCTGTGCATGGTGGCACCAGCGAAGGGAGTGCGAGTATGTGTTTGTGTGTGTGTGTGTGTGTGTGTG
TGTGCGTGTTTGCACGTTATGGTGTTTCTCCCTCTCACTGTCTGAGAGTTTAGTTGTAGCAGA

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FIGURE 1419

AAAAAAAAAAAGAAACTTCAGTTAACAGCCTCCTTGGTGCTTTAAGCATTCAGCTTCCTTCAGGCTGGTAATTTA
TATAATCCCTGAAACGGGCTTCAGGTCAAACCCTTAAGACATCTGAAGCTGCAACCTGGCCTTTGGTGTTGAAAT
AGGAAGGTTTAAGGAGAATCTAAGCATTTTAGACTTTTTTTTATAAATAGACTTATTTTCCTTTGTAATGTATTG
GCCTTTTAGTGAGTAAGGCTGGGCAGAGGGTGCTTACAACCTTGACTCCCTTTCTCCCTGGACTTGATCTGCTGT
TTCAGAGGCTAGGTTGTTTCTGTGGGTGCCTTATCAGGGCTGGGATACTTCTGATTCTGGCTTCCTTCCTGCCCC
ACCCTCCCGACCCCAGTCCCCCTGATCCTGCTAGAGGCATGTCTCCTTGCGTGTCTAAAGGTCCCTCATCCTGTT
TGTTTTAGGAATCCTGGTCTCAGGACCTCATGGAAGAAGAGGGGGAGAGAGTTACAGGTTGGACATGATGCACAC
T**ATG**GGGCCCCAGCGACGTGTCTGGTTGAGCTCAGGGAATATGGTTCTTAGCCAGTTTCTTGGTGATATCCAGTG
GCACTTG**TAA**TGGCGTCTTCATTCAGTTCATGCAGGGCAAAGGCTTACTGATAAACTTGAGTCTGCCCTCGTATG
AGGGTGTATACCTGGCCTCCCTCTGAGGCTGGTGACTCCTCCCTGCTGGGGCCCCACAGGTGAGGCAGAACAGCT
AGAGGGCCTCCCCGCCTGCCCGCCTTGGCTGGCTAGCTCGCCTCTCCTGTGCGTATGGGAACACCTAGCACGTGC
TGGATGGGCTGCCTCTGACTCAGAGGCATGGCCGGATTTGGCAACTCAAAACCACCTTGCCTCAGCTGATCAGAG
TTTCTGTGGAATTCTGTTTGTTAAATCAAATTAGCTGGTCTCTGAATTAAGGGGGAGACGACCTTCTCTAAGATG
AACAGGGTTCGCCCCAGTCCTCCTGCCTGGAGACAGTTGATGTGTCATGCAGAGCTCTTACTTCTCCAGCAACAC
TCTTCAGTACATAATAAGCTTAACTGATAAACAGAATATTTAGAAAGGTGAGACTTGGGCTTACCATTGGGTTTA
AATCATAGGGACCTAGGGCGAGGGTTCAGGGCTTCTCTGGAGCAGATATTGTCAAGTTCATGGCCTTAGGTAGCA
TGTATCTGGTCTTAACTCTGATTGTAGCAAAAGTTCTGAGAGGAGCTGAGCCCTGTTGTGGCCCATTAAAGAACA
GGGTCCTCAGGCCCTGCCCGCTTCCTGTCCACTGCCCCCTCCCCATCCCCAGCCCAGCCGAGGGAATCCCGTGGG
TTGCTTACCTACCTATAAGGTGGTTTATAAGCTGCTGTCCTGGCCACTGCATTCAAATTCCAATGTGTACTTCAT
AGTGTAAAAATTTATATTATTGTGAGGTTTTTTGTCTTTTTTTTTTTTTTTTTTTTTTGGTATATTGCTGTATCT
ACTTTAACTTCCAGAAATAAACGTTATATAGGAACCGTC

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FIGURE 1420

CACGTGGAGGCTGTTAAACTTTTACATAATCTAGGGAAAGAAGGGACACAAGGTGGCATTAGTCTAGGGTCAGGT
GGGAAAAGGTTATGCTGAAAAGTCTCTGCAGCTCAGGACAGCTTTGTGCAAAGAACTGAAGTTCACAGCTGCTAG
TGCCTGGGAGATCAAATAGTATAAATGAGGGCAGACAACCCTGAGGGGCAGATGGAGCTTTCCAGACAATCTTGG
C**ATG**AGGATGAGTGAGTTTCAAATCAGTCCTGCCGAGGCAGATGGCTTCCTCCAGCTCTGCTTACTGAATGCGAA
GTCACAGTCAGTAAGAAAACTGGTTTTCTTCTTCCCAGGCGCTGCCCCATACCTGAAGACCAAGTTTATCTGTGT
GACACCAACGACCTGCAGCAATACCATTGACCTGCCGATGTCCCCCCGCACTTTAGATTCATTGATGCAGTTTGG
AAATAATGGTGAAGGTGCTGAACCCTCAGCAGGAGGGCAGTTTGAGTCCCTCACCTTTGACATGGAGTTGACCTC
GGAGTGCGCTACCTCCCCCATG**TGA**GGAGCTGAGAACGGAAGCTGCAGAAAGATACGACTGAGGCGCCTACCTGC
ATTCTGCCACCCCTCACACAGCCAAACCCCAGATCATCTGAAACTACTAACTTTGTGGTTCCAGATTTTTTTTAA
TCTCCTACTTCTGCTATCTTTGAGCAATCTGGGCACTTTTAAAAATAGAGAAATGAGTGAATGTGGGTGATCTGC
TTTTATCTAAATGCAAATAAGGATGTGTTCTCTGAGACCCATGATCAGGGGATGTGGCGGGGGGTGGCTAGAGGG
AGAAAAAGGAAATGTCTTGTGTTGTTTTGTTCCCCTGCCCTCCTTTCTCAGCAGCTTTTTGTTATTGTTGTTGTT
GTTCTTAGACAAGTGCCTCCTGGTGCCTGCGGCATCCTTCTGCCTGTTTCTGTAAGCAAATGCCACAGGCCACCT
ATAGCTACATACTCCTGGCATTGCACTTTTTAACCTTGCTGACATCCAAATAGAAGATAGGACTATCTAAGCCCT
AGGTTTCTTTTTAAATTAAGAAATAATAACAATTAAAGGGCAAAAAACACTGTATCAGCATAGCCTTTCTGTATT
TAAGAAACTTAAGCAGCCGGGCATGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGATCATA
AGGTCAGGAGATCAAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAGTACAAAAAATTAGCTGG
GTGTGGTGGTGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTGAGAGGCGG
AGGTTGCAGTGAGCCAAAATTGCACCACTGCACACTGCACTCCATCCTGGGCGACAGTCTGAGACTCTGTCTC

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FIGURE 1421

GAGCTGCTTGGAG**ATG**CTGCTGTGGCCACTGCTGCTGCTGCTGCTGCTGCCAACATTGGCCCTGCTCAGGCA
GCAGCGGTCCCAGGATGCCAGGCTGTCCTGGCTTGCTGGCCTCCAGCACCGAGTGGCATGGGGGGCCCTGGTCTG
GGCAGCCACCTGGCAGCGGCGGAGGCTGGAGCAGAGCACGCTCCATGTGCACCAGAGCCAGCAGCAGGCCCTGAG
GTGGTGTCTACAGGGAGCCCAGCGCCCCCACTGTTCCCTCAGAAGGAGCACAGACATAAGCACCTTCCGGAATCA
TCTCCCTCTGACCAAGGCCAGCCAGACCCAGCAGGAAGACAGTGGAGAGCAGCCACTGCCCCCGACCTCAAACCA
GGACCTTGGGGAGGCCTCTCTGCAGGCCACCTTGCTGGGTCTGGCAGCCCTAAACAAGGCCTACCCAGAAGTGCT
GGCTCAGGGACGCACTGCCCGTGTGACGCTTACATCCCCTTGGCCCCGACCCCTGCCTTGGCCTGGGAATACCCT
GGGCCAGGTGGGCACCCCTGGAACCAAGGACCCTAGGGCCCTGCTGCTGGACGCACTGAGGTCCCCAGGGCTGAG
GGCACTGGAGGCTGGGACGGCTGTCGAACTTCTGGATGTTTTCTTGGGCCTGGAGACTGATGGTGAAGAGCTAGC
TGGGGCGATAGCTGCCGGGAACCCTGGAGCGCCTCTCCGTGAACGGGCAGCTGAGCTCCGGGAGGCCCTAGAGCA
GGGGCCACGGGGACTGGCCCTTCGGCTCTGGCCAAAGCTGCAGGTGGTGGTGACTCTGGATGCAGGAGGCCAGGC
CGAGGCTGTGGCTGCCCTCGGGGCCTTGTGGTGCCAAGGACTAGCCTTCTTCTCTCCTGCTTATGCTGCCTCGGG
AGGGGTGCTGGGCCTAAACCTACAGCCAGAGCAGCCCCATGGGCTCTACCTTCTGCCCCCTGGGGCCCCCTTTAT
CGAGCTGCTCCCAGTCAAGGAAGGCACCCAGGAGGAAGCTGCCTCCACCCTCCTTTTGGCCGAGGCCCAGCAGGG
CAAGGAGTATGAGCTGGTGCTGACGGACCGCGCCAGCCTCACCAGGTGCCGCCTGGGTGATGTGGTGCGAGTGGT
TGGTGCCTACAATCAGTGTCCAGTCGTCAGGTTCATCTGCAGGCTGGACCAGACCCTGAGTGTGCGAGGGGAAGA
TATTGGTGAAGACCTGTTCTCTGAGGCCCTGGGCCGGGCAGTGGGGCAGTGGGCGGGGGCCAAGCTGCTGGACCA
TGGCTGTGTGGAGAGCAGCATTCTGGATTCCTCTGCGGGCTCTGCTCCCCACTACGAGGTGTTTGTGGCGCTGAG
GGGGCTGAGGAATCTGTCAGAGGAAAATCGAGACAAGCTGGACCACTGCCTTCAGGAAGCCTCTCCCCGCTACAA
GTCCCTGCGGTTCTGGGGCAGCGTGGGCCCTGCCAGAGTCCACCTGGTGGGGCAGGGAGCCTTCCGAGCACTCCG
GGCAGCCCTCGCTGCCTGCCCCTCCTCCCCCTTCCCCCCTGCGATGCCCCGGGTCCTTCGGCACAGGCACCTGGC
CCAGTGTCTGCAGGAGAGGGTGGTGTCC**TGA**G

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FIGURE 1422

CGGAGGAGAGCGCAGGAGGAAACAGTACCGGCTGGAGGCCGGTCTTGCAGGAGCGGGGGACTGCTGGGGGCGGGG
CTTGGTGGTGACTGCTGGCGGGGCGGGGCCTGGGGCTCAGAGGGGTGGGCTTTGGAGATCAGAGGGTCGACGCTG
CTTCGTTGCCTGGACTCTGGTTTCCGCCCTGGAGCAAGCCGGGGCCTGGTCGGCAGCTGGGCCGCC**ATG**GAGTCC
ACGCTGGGCGCGGGCATCGTGATAGCCGAGGCGCTACAGAACCAGCTAGCCTGGCTGGAGAACGTGTGGCTCTGG
ATCACCTTTCTGGGCGATCCCAAGATCCTCTTTCTGTTCTACTTCCCCGCGGCCTACTACGCCTCCCGCCGTGTG
GGCATCGCGGTGCTCTGGATCAGCCTCATCACCGAGTGGCTCAACCTCATCTTCAAGTGGTTTCTTTTTGGAGAC
AGGCCCTTTTGGTGGGTCCATGAGTCTGGTTACTACAGCCAGGCTCCAGCCCAGGTTCACCAGTTCCCCTCTTCT
TGTGAGACTGGTCCAGGCAGCCCTTCTGGACACTGCATGATCACAGGAGCAGCCCTCTGGCCCATAATGACGGCC
CTGTCTTCGCAGGTGGCCACTCGGGCCCGCAGCCGCTGGGTAAGGGTGATGCCTAGCCTGGCTTATTGCACCTTC
CTTTTGGCGGTTGGCTTGTCGCGAATCTTCATCTTAGCACATTTCCCTCACCAGGTGCTGGCTGGCCTAATAACT
GGCGCTGTCCTGGGCTGGCTGATGACTCCCCGAGTGCCTATGGAGCGGGAGCTAAGCTTCTATGGGTTGACTGCA
CTGGCCCTCATGCTAGGCACCAGCCTCATCTATTGGACCCTCTTTACACTGGGCCTGGATCTTTCTTGGTCCATC
AGCCTAGCCTTCAAGTGGTGTGAGCGGCCTGAGTGGATACACGTGGATAGCCGGCCCTTTGCCTCCCTGAGCCGT
GACTCAGGGGCTGCCCTGGGCCTGGGCATTGCCTTGCACTCTCCCTGCTATGCCCAGGTGCGTCGGGCACAGCTG
GGAAATGGCCAGAAGATAGCCTGCCTTGTGCTGGCCATGGGGCTGCTGGGCCCCCTGGACTGGCTGGGCCACCCC
CCTCAGATCAGCCTCTTCTACATTTTCAATTTCCTCAAGTACACCCTCTGGCCATGCCTAGTCCTGGCCCTCGTG
CCCTGGGCAGTGCACATGTTCAGTGCCCAGGAAGCACCGCCCATCCACTCTTCC**TGA**CTTCTTGTGTGCCTCCCT
TTCCTTTCCCTCCCACAAAGCCAACACTCTGTGACCACCACACTCCAGGAGGCAGCCCCATCCCCTTCCAGCCCC
TAAGTAGGCCCTCCCCTCCCTAAATCTGCTTCCGCACCACCTGGTCTTAGCCCCAAAGATGGGCCTTCTCTCTCC
CAGATAAGTTGGTCCTCCCTCTGCCTTTCCTCTCAAGCCCCCAAAGAGCAAAGGCAACAGCAAGACCAGCGGGTT
CTTGCAACACTGTGAGGGGCAGCCAGGGCGGCCCCAATAAAGCCCTTGAATACTT

FIGURE 1423

GTCGCGGCGCTCACTGGGGGCCCGGCTTTCGCCCGCTGCTGCCGCCGCCGCCGCCGGCCGCGGCTGCACTCCCAA
G**ATG**GCGGCTCCTCCGGGCGAGTACTTCAGCGTTGGGAGCCAGGTGTCGTGCCGGACGTGCCAGGAGCAGCGGCT
GCAGGGCGAGGTGGTAGCCTTTGACTACCAATCCAAAATGCTGGCTTTAAAATGTCCCTCTTCCAGTGGAAAGCC
CAACCATGCAGACATCTTGCTCATAAACTTACAGTATGTTTCAGAAGTGGAAATAATTAATGACCGAACAGAAAC
CCCTCCTCCCCTAGCTTCACTCAATGTTAGTAAGCTTGCCAGCAAAGCACGGACAGAGAAGGAGGAGAAGCTGAG
CCAGGCCTATGCAATCAGTGCTGGTGTCTCTCTAGAGGGCCAGCAGCTCTTCCAGACCATTCACAAGACCATTAA
AGACTGTAAATGGCAAGAAAAAAACATCGTAGTCATGGAAGAAGTTGTTATTACACCCCCATATCAAGTGGAAAA
CTGTAAAGGCAAAGAGGGGAGTGCACTGAGCCATGTACGCAAAATAGTTGAAAAACATTTTAGAGACGTGGAAAG
CCAAAAGATACTGCAACGTTCACAAGCCCAGCAACCACAGAAGGAGGCTGCCCTGTCATCC**TGA**GTCCGTACACA
TGGAGGACTCTTCCAGCATCCAGCCAAGGAGGCGCTGGTGGTGGCTTCAGCGGAGGCAGGCCGGGGGAGGGAAGG
GATCCTATATGTCCTGTTGGCTCTTAACAAAGGGTCAGCATTTCCAAATCTTAGACTTGAACAAACAAAACACCC
AACAAAAAAGAACAAGAGAATAATTTAAAAGTTGAATCATTACTTGACTAACAGACTTCGGTCCACCATGTCCTT
TTCACAGCCCTCTTCTGGAACAGTCACCTTGTTAATTTTATTTTTGAAAATTATTTTCCCACTCTGCCCTTTACT
TCTGACTTTCCTTTCCTAGTTTGTTCCTGCCATTCTGTTTTTATAAGTGGCTACACTTGCCTTCTGAATGATTGA
AAGAAACTTTTACATCTTTTCTTCCAAAATAAAAGTAACAAGCTGACTGTGATTCTTAAATTGAGACCAGAGCAG
CAAACGTCTCACTTTAAATTTTTGTTTTCTTTTCCTTTTTTTTTCTTTTTTCTTTTTTTTTTTTTTTTGCACA
GGGCATGGCTTGAATTAGTTTTATTTTTCTTAACTTTAAATATATATATGAAAATATATATTAAAATGTTCTCTA
AATATTTTCTGCTTCTTGCAGGTCTCTTTTTACTAGATCATGGCTGTTCTTCCCACCTCATCCCTCTGAAAATAA
AAATGTATTGCCCTCCCCACCATCCATCATAGCCAGGCCACTAACTTGACTTGGTGCAAGAGATTCTTGCTGCGA
ACTTTGTAGAGCCAGTGTGCAGATAGAATTTGGCTTTGAGGGTTCCTGATGGCTTTTTAGTCTTTAACTGTGTGT
GTACCAGTCTCACATTTGGCCCAAACCTCAGGATTCTCCCTCTGCCTGTCTTACTTCATGGTACTAGAAGACCTT
CCTCGCCACTCTCTCCACATGAGAGAGTCAGCTGCCCTTTCTCCTGTGCCTCTGCAGGAAGAACTCTCTTGCATG
GCACATCTCAGCTCCTCATTGAGGGATAGTTTTCTTTGATAAGAAACCTGGAGTCCATTTACTCTGACCTCTCTT
TAAATCTATATCCAGAGCCACTAGCCCAGGAAAAACTTGGGTGACCCGTAATTTCTCTTCTCCTGCTGTCCTTTT
GCTCTTACGCCCCACCCCAACTCCCCTTAAATTTTACAGGCTTATGACAGTTTGTATGTGCTCAGCCAATGAGCA
GAAAACCTGGAAAGAATTTCTGGACTTTAGCCCACCAGTTTGTCTGGTTGACTAACCTGCTGAGAGCTAAAATTG
GCACCCATTGCCCCGTGCCTTCAGGCAGTCTCCTGGGGCAGAGTATGCCACCATCCGAATATCAGGCACTGAGTG
GGATGTGGGTGATGCTCACATGACTGGCTAGAGCTTTGGGGGTGGGGTGGGGGTTAACTACTATTTTTTTGGCCA
TGATCTCTTTCCCCTTCCTTTTTTTTTTAATTAAATAAATGGATCAAATTAAATAATTCAAGCCCTGCCTTCAAA
ATGAAATTTTTTTTTTAGTATTATTTAGCAAAAACAATAAAACCCAAATTTTTTTAACCATC

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FIGURE 1424

GAGGCCGCAGCGGACTGCCCTTTCCCAAGATGGCGTCGAAGATAGGTTCGAGACGGTGGATGTTGCAGCTGATCA
TGCAGTTGGGTTCGGTGCTGCTCACACGCTGCCCCTTTTGGGGCTGCTTCAGCCAGCTCATGCTGTACGCTGAGA
GGGCTGAGGCACGCCGGAAGCCCGACATCCCAGTGCCTTACCTGTATTTCGACATGGGGGCAGCCGTGCTGTGCG
CTAGTTTCATGTCCTTTGGCGTGAAGCGGCGCTGGTTCGCGCTGGGGGCCGCACTCCAATTGGCCATTAGCACCT
ACGCCGCCTACATCGGGGGCTACGTCCACTACGGGGACTGGCTGAAGGTCCGTATGTACTCGCGCACAGTTGCCA
TCATCGGCGGCTTTCTTGTGTTGGCCAGCGGTGCTGGGGAGCTGTACCGCCGGAAACCTCGCAGCCGCTCCCTGC
AGTCCACCGGCCAGGTGTTCCTGGGTATCTACCTCATCTGTGTGGCCTACTCACTGCAGCACAGCAAGGAGGACC
GGCTGGCGTATCTGAACCATCTCCCAGGAGGGGAGCTGATGATCCAGCTGTTCTTCGTGCTGTATGGCATCCTGG
CCCTGGCCTTTCTGTCAGGCTACTACGTGACCCTCGCTGCCCAGATCCTGGCTGTACTGCTGCCCCCTGTCATGC
TGCTCATTGATGGCAATGTTGCTTACTGGCACAACACGCGGCGTGTTGAGTTCTGGAACCAGATGAAGCTCCTTG
GAGAGAGTGTGGGCATCTTCGGAACTGCTGTCATCCTGGCCACTGATGGCTGAGTTTTATGGCAAGAGGCTGAGA
TGGGCACAGGGAGCCACTGAGGGTCACCCTGCCTTCCTCCTTGCTGGCCCAGCTGCTGTTTATTTATGCTTTTTG
GTCTGTTTGTTTGATCTTTTGCTTTTTTAAAATTGTTTTTTGCAGTTAAGAGGCAGCTCATTTGTCCAAATTTCT
GGGCTCAGCGCTTGGGAGGGCAGGAGCCCTGGCACTAATGCTGTACAGGTTTTTTTCCTGTTAGGAGAGCTGAGG
CCAGCTGCCCACTGAGTCTCCTGTCCCTGAGAAGGGAGTATGGCAGGGCTGGGATGCGGCTACTGAGAGTGGGAG
AGTGGGAGACAGAGGAAGGAAGATGGAGATTGGAAGTGAGCAAATGTGAAAAATTCCTCTTTGAACCTGGCAGAT
GCAGCTAGGCTCTGCAGTGCTGTTTGGAGACTGTGAGAGGGAGTGTGTGTGTTGACACATGTGGATCAGGCCCAG
GAAGGGCACAGGGGCTGAGCACTACAGAAGTCACATGGGTTCTCAGGGTATGCCAGGGGCAGAAACAGTACCGGC
TCTCTGTCACTCACCTTGAGAGTAGAGCAGACCCTGTTCTGCTCTGGGCTGTGAAGGGGTGGAGCAGGCAGTGGC
CAGCTTTGCCCTTCCTGCTGTCTCTGTTTCTAGCTCCATGGTTGGCCTGGTGGGGGTGGAGTTCCCTCCCAAACA
CCAGACCACACAGTCCTCCAAAAATAAACATTTTATATAGAC

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FIGURE 1425

AGCTGTGGCGCGCGGCGGCGGGCGGCGAGGGGCACCAGCCCGGGGCGCCGGCTCAGCACCGCCTGGTCGCAGCCC
CAGCCCCCGCCCGAGGAGTACGCGGGCGCGGACGACGTCTCCCAGTCGCCCGTCGCCGAGGAGCCGTCGTGGGTG
CCGAGTCCCAGGCCCCCGGTGCCCCACGAGTCCCCAGAGCCTCCTTCGGGCCGCTCGCTGGTGCAGCGGGACATC
CAGGCCTTCCTGAACCAGTGCGGGGCCAGCCCTGGGGAGGCGCGCCACTGGCTCACGCAGTTCCAGACCTGCCAT
CACTCCGCGGACAAGCCCTTCGCCGTCATCGAGGTGGACGAGGAGGTGCTCAAGTGCCAGCAGGGCGTATCCAGT
CTGGCCTTTGCCCTGGCCTTCTTGCAGCGC**ATG**GACATGAAGCCGCTGGTGGTCCTGGGGCTGCCGGCCCCTACG
GCTCCCTCGGGCTGTCTTTCCTTCTGGGAGGCCAAGGCGCAGCTGGCCAAGAGCTGCAAGGTGCTGGTAGACGCG
CTTCGACACAACGCCGCCGCTGCTGTGCCATTTTTTGGCGGCGGGTCTGTGCTACGCGCTGCCGAGCCGGCTCCC
CATGCCAGCTACGGCGGCATCGTCTCGGTGGAGACAGACCTGCTGCAGTGGTGCCTGGAGTCGGGCAGCATCCCC
ATCCTGTGCCCCATCGGGGAGACGGCCGCGCGCCGCTCCGTGCTTCTCGACTCCCTGGAGGTGACCGCGTCGCTG
GCCAAGGCGCTGCGGCCCACCAAAATCATCTTCCTCAATAACACAGGCGGCCTGCGCGACAGCAGTCATAAGGTC
CTGAGTAACGTGAACCTGCCCGCCGACCTGGACCTGGTGTGCAACGCCGAGTGGGTGAGCACAAAAGAACGGCAG
CAGATGCGGCTCATCGTGGACGTGCTCAGCCGCCTGCCCCACCACTCCTCGGCCGTCATCACCGCCGCTAGCACG
CTGCTCACTGAGCTCTTTAGCAACAAGGGGTCCGGGACCCTGTTCAAGAACGCCGAGCGAATGCTACGGGTGCGC
AGCCTGGACAAGCTGGACCAGGGCCGTCTAGTGGACCTGGTCAACGCCAGCTTCGGCAAGAAGCTCAGGGACGAC
TACCTGGCCTCGCTGCGCCCGCGGCTGCACTCCATCTACGTCTCCGAGGGCCTGCCGCTCTCCCGCTGCGCCAGG
TACAACGCCGCCGCCATTCTGACCATGGAGCCCGTCCTGGGGGGCACCCCGTACCTGGACAAATTTGTGGTGAGC
TCCAGCCGCCAGGGCCAAGGCTCCGGCCAGATGCTGTGGGAGTGCCTGCGGCGGGACCTTCAGACACTTTTCTGG
CGCTCCCGGGTCACCAACCCCATCAATCCCTGGTACTTCAAACACAGTGATGGCAGCTTCTCCAACAAGCAGTGG
ATCTTCTTCTGGTTTGGCCTGGCTGATATCCGGGACTCCTATGAGTTGGTCAACCACGCCAAGGGACTGCCAGAC
TCCTTTCACAAGCCAGCTTCTGACCCAGGCAGC**TGA**CCTTCACCATGGACACTACAGGCCCTGGAATGGCCAGGG
TGGACCAAAAGCCATGCCAGCTGGGCATGACCCCAGGCAGCCAGCCACAGGCTGAAGGGGGCTTGTTGGCTGAGT
GATCTGCAGAGGAGAAAGCAGCCCCAGCTCTGCCCAGAGGAGGCGCTGAAGTGGGACAAGCACAGGAAAGAAGGG
GACCAGTCTAGGACCCCAACTTGACTCACTCTAAAGCTACAACCAAATGGCCTTCGATTTTCAACCTGGGGATTA
GGGGAGGGGAGGGTGCCTTCCAGGGCTCTACTCAGGACTAACCCTAAGGGTGAGCTAGTTTCTGTGCCTCTGTGC
TATGTTTTGAGGCTCCCTTACCCAAAATAATACCCCTGCCTGCGTGATATTCTACCATTCATTTTAATTCCTTTG
GGTCTTGCAGTTTTTCAGGAGGCCTTGATTAAAATGCAAATACTT

FIGURE 1426

CACAGAGGTCCCTCATGACCTCCCTTCCCCAACTCCCGAATCCTCTCTTGAGTGTGGACCTCAACACCTTGAGCC
CTAGTAAAGGAACTATGCAAATGCAGGCCACTCTCCCCACCACGTCTGTGCCCTGCACTGTCCCCACAGCCTTCC
ACACCCTGTGCATAGGCAGCCCTCTCACGTCTTGAGGTCCGAAGCTGGGGTGGGGGTGTCCGTCAGTTATTAGTG
GATGGAGATTCCCACAGCAAGGCTGCATTTGAATGATTTCCTTAGGATGAATGGTCCCTACACAAAGAGGCCTTG
TGGGCAAACCTGGAGAACCCTCCTAAATCCATAGAGTTTTCAAAATGTGAATCTTTGGAAGCCTTGAGTTCAGAA
TCTGCTGCTCTGGAATATTTCCCTTCGATCTTATCTCAGTCACTTCGTTTTTGAGAAGAGTGATGCCTTGGGCAT
GCTTTTTTTTTTTTCTTTTTTAGAAAACAGGGAGTTGAAGTCCAACCTATTTAAAAACCCCACCATTTGGAGAAT
TACAAGGGTTTTGTCCTGAATTGTAGTGTTGGCAAGCCCAAGCCACTCGTGCTAACTGCTTTTTGTCTCGGTTGC
TATTCCAAGAACAGAAGGAGGAAGTTGGCCAATTACAGCGTGTGTGCATGGATGTGTGTGGGGGGCGTGCCTCTC
AGAAACGCGGCCAGAAGACAAGCAGGGAAGTGAAAGGTCCCAGGCACACACCCTGCCCATTGCAGGTGGCTCTTA
CAGCTCTCTGGTGCCAGCACGGGATCCCTGAAGTGACTCAGCCAGGCAGACATGAGACATGGCGGAGTGTCCAAA
TGGATCCTTTATTGGTGGTAGAGCAAAAAAACCCAAACACGATAAACCTTTCAAAAGACTTTCTAAGGATGATAT
TGGAATGCACCAGCCCTCACATGTGTATGCACATTTGCCAGAATATAAGAGTTTTGTTTTAAATACAGTCTTGTT
AGGATTTTACGTTATTGTTATTATGGAAAGTGATTGTGATGCTATTTATCTTCAGGGTCACTCTGGGCAAAGAGA
AGGTCCTCAGCCATGCCCCCAGCACCTTGCACATAGGTGTCTGATAAAAGTTTAAGAAAGTAAACACTTTTTGAG
CACCAAATATATATAGGGCATTGTTCTGGTGGGTGTGTCACGCTCCCAGAAGACTGAATTCATGGTAGGATCACT
CGCAAGGCCTTGTGAAGGAGTCTTACCTAAAACGAAAGAAATATCAGGGACTTTTGTTGACTATTTACAACTCAG
TTTTACATTTAAATTCAGGCAGTGTTAATATGCCAAGGTAGGGAATGTGCCTTTTTCAGAGTTGGCCAGGAGCTC
CTGGCTGGGACACGGAGAGGCAGGTGTGGCGTAAGGCCTCACTCCCGGCTGGGAAGGTCTCTGATCACACAGAAG
CAGCCCTGCCCAGCCTGGTCATTTGCTGTCCGCTTTTCTCTGTGACCACAGCAGCCCTGAACAACCAGTATGTGT
CTTCTTCTCCAGATAGTGAAAAAGGTGTCCAGATAAACCCACCTAAGTGAAATGGCCATCCTCTAAACTGGGTAC
CTCACTGCACAGCTTCTAGGTAGCCTTCCAACTTAATCTAACTTGAGCCTCACAGTAACCCTGTAAAGTTAGTAG
AGCTTGTTCTTGTATTGTGACCTTTTTTAAAAAAAAGGAACTGAGGTTCAGA**ATG**ATTAAGGGCCTGGCCCCCAG
GGTTGTCCAGCTCCATAAGGTGGAGCTGGGCAAGATTTTGGGTTTGCTGCTCCCTGAAGCTGGATTCTTTCATAC
GATACTCTTTCTCAAGAAGGGGGCTCCCTGGGATCTCCAGGTGTACTGCACTTACCCTCAATCCAGCCCCGGAGA
AGCAAGTGAAAAGGGTGGGTCCCTCATAGGC**TAG**AATGTGCAGCTCTTTCTCCAGGTGGGATGTAGCACCCCGAA
GTAGAGCTTTCTGCTCTGCTCCTGGAAAAGGCTAGGGAGCTGGGGCTGGGGCTCCCCTCCCATGACCAGGCAGTG
GTCACCCCATGGGACAGGCACAGCTACTTACGCGAACACAGCAGGTTGGTGTGGCTGGCTAACTAGGACCTCTCG
AAAGTCTCTGTGGGGGCATGAGGGAGAAAAGGCCATTGGGAGAATTACTGCCTTTACTTTGGGACTACTTTTATG
CTGATAACTTGGGATTTCTTGATAGTCCTTCACCCCTGAAACCCCGTATTTACTTAACAAGATTTAGCTCTTAGT
TCTTCAAGTAAAATTAAAGTCTCTTGTGTAAGAGCCAACACATGCCCAGCTGCGGATGGGAGCTGTTCCTGGACA
GCCTTCTACTGCCTGGGAAGTGATGGAACAGGAACTCAGGGTGCCCTTACCCCCTCCCCAGACCTGTTCCCTTTC
TTTGACTGACAGAGCACCATCCAGGCAAAATTAGAGCGCCAAATGGTTTTCTTCTCAATCTTAAAGCAGTATACC
TTTCCACAGGCTCGTCTGTGTCCCTGCCACTCTGAGTTATCCAGAAACCACCACCTACAAATGAGGGGACTCATC
TAGAAGACCTCTAAGGTCCCCTTTTGGCTCTGAGGGGTCTCTAATAATCCCCACTTGGAATTCAGCACCGCAAGG
AAATTATGGGTATGTGAGCCATAATATGATGGGCAGCAGGTGGCGCTGCCTTCCACCCATGGTGATGGATGGTTT
GGAAAGGGAATGTTGGTGCCTTTTGTGCCACAAGTTAAGATGCTACTGTTTTAAAGG

FIGURE 1427

GCGACTGCTGAGGGAGAAAATGATGCCCAGGTTGGGCTCCCCGGCCCACCGGCCGAGGAGAGGCCTGCGCTGCAC
ACGCGCAGACCGAGCATCCGCGTCAAGAGGCGAAGAGAGCGCGCGCTCCCCACGTCCTGCGCTCCTGGCTGCCGG
GCATTCGTCTCAGCCGTGACTCTCGCCAGGCCGGGGCTGGCGCGCCCACGTCTGAAGAGCG**ATG**CCCCGGGAGAT
CATCACCCTGCAGCTGGGCCAGTGCGGCAACCAGATTGGGTTCGAGTTCTGGAAACAGCTGTGCGCCGAGCATGG
TATCAGCCCCGAGGGCATCGTGGAGGAATTCGCCACCGAGGGCACTGACCGCAAGGACGTCTTTTTCTACCAGGC
AGACGATGAGCACTACATCCCCCGGGCCGTGCTGCTGGACTTGGAACCCCGGGTGATCCACTCCATCCTCAACTC
CCCCTATGCCAAGCTCTACAACCCAGAGAACATCTACCTGTCGGAACATGGAGGAGGAGCTGGCAACAACTGGGC
CAGCGGATTCTCCCAGGGTGAGAAAATTCATGAAGACATCTTTGACATCATAGACCGAGAAGCAGATGGAAGTGA
CAGTTTGGAGGGCTTCGTGCTGTGTCACTCCATCGCTGGGGGTACGGGTTCTGGCCTGGGCTCCTACCTCCTGGA
GCGACTGAATGACAGGTACCCCAAGAAGCTAGTGCAGACTTATTCAGTGTTTCCCTACCAGGACGAGATGAGCGA
CGTAGTGGTTCAGCCCTACAATTCACTCCTGACACTCAAGAGGCTGACGCAGAACGCAGATTGTGTGGTGGTGCT
GGACAACACAGCCCTGAACCGGATTGCCACAGACCGCCTGCACATCCAGAACCCGTCCTTCTCCCAGATCAACCA
GCTGGTGTCCACCATCATGTCGGCCAGCACCACCACCCTGCGCTACCCCGGCTACATGAACAATGACCTCATCGG
CCTCATCGCCTCGCTCATTCCCACCCCACGGCTCCACTTCCTCATGACCGGCTACACCCCGCTCACTACAGACCA
GTCAGTGGCCAGCGTGAGGAAGACCACGGTCCTGGATGTCATGAGGCGGCTGCTGCAGCCCAAGAACGTGATGGT
GTCCACAGGCCGAGACCGCCAGACCAACCACTGCTACATCGCCATCCTCAACATCATCCAGGGAGAGGTGGACCC
CACCCAGGTCCACAAGAGCCTGCAGAGGATCCGGGAACGGAAGTTGGCCAACTTCATCCCGTGGGGCCCCGCCAG
CATCCAGGTGGCCCTGTCGAGGAAGTCTCCCTACCTGCCCTCGGCCCACCGGGTCAGCGGGCTCATGATGGCCAA
CCACACCAGCATCTCCTCGCTCTTTGAAAGTTCCTGCCAGCAGTTTGACAAGCTGCGGAAGCGGGATGCCTTCCT
CGAGCAGTTCCGTAAGGAGGACATGTTCAAGGACAACTTTGATGAGATGGACAGGTCTAGGGAGGTTGTTCAGGA
GCTCATTGATGAGTACCATGCGGCCACCCAGCCAGACTACATTTCCTGGGGCACCCAGGAGCAG**TGA**TTTCCCTC
CCCACTACTCCTTCTCCTTCTAGATGGTAACCACAGCCTCGACCATGCCTGCTCCCTCTGACCCAGCTTCACCTC
ATGGACAACCCTTCTTGGTTCATCTCCAGCCCGTGAGCTGGTCCTGCTTCCTCCCTTCCATGCCCTAACTTTTAA
TATGCTTGTTCAGCTCTAATAAAGTAATAAAGCTTGGTTGTCAGTAT

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FIGURE 1428

ATGGGAAAAACAACCAAGGTGGCTTCTCTTGTCTACAAACATGGACCCACCATTCCTAAGGGCTTCGTGCTGTGT
CACTCCATCGCTGGGGGTACGGGTTCTGGCCTGGGCTCCTACCTCCTGGAGCGACTGAATGACAGGCAAGCCTGT
GTTTGGGGAGAGGGCATTAACCCTGGGACAGACCCACCCAAGGACCATGTTGGAAGCTATTTTGGGGGGTACCCC
AAGAAGCTAGTGCAGACTTATTCAGTGTTTCCCTACCAGGACGAGATGAGCGACGTAGTGGTTCAGCCCTACAAT
TCACTCCTGACACTCAAGAGGCTGACGCAGAACGCAGATTGTGTGGTGGTGCTGGACAACACAGCCCTGAACCGG
ATTGCCACAGACCGCCTGCACATCCAGAACCCGTCCTTCTCCCAGATCAACCAGCTGGTGTCCACCATCATGTCG
GCCAGCACCACCACCCTGCGCTACCCCGGCTACATGAACAATGACCTCATCGGCCTCATCGCCTCGCTCATTCCC
ACCCCACGGCTCCACTTCCTCATGACCGGCTACACCCCGCTCACTACAGACCAGTCAGAGCTGCCCTTTGCAGGC
CCCAAGGCACTGCGCTCAGGGACTGGCACAGAGCGGGCGACTTTCTTGCTGACTTTCTCTCCACCCTCCCTCTGC
CTTTGGCTTCTGCCAAAGAGAAGCCAAAGGGACTGTGCCCTGAGCGCTGGCCGGGTCCCTGTCTCACTGTCCCAT
CAGGTGGCCAGCGTGAGGAAGACCACGGTCCTGGATGTCATGAGGCGGCTGCTGCAGCCCAAGAACGTGATGGTG
TCCACAGGCCGAGACCGCCAGACCAACCACTGCTACATCGCCATCCTCAACATCATCCAGGGAGAGGTGGACCCC
ACCCAGGTCCACAAGAGCCTGCAGAGGATCCGGGAACGGAAGTTGGCCAACTTCATCCCGTGGGGCCCCGCCAGC
ATCCAGGTGGCCCTGTCGAGGAAGTCTCCCTACCTGCCCTCGGCCCACCGGGTCAGCGGGCTCATGATGGCCAAC
CACACCAGCATCTCCTCGCTCTTTGAAAGTTCCTGCCAGCAGTTTGACAAGCTGCGGAAGCGGGATGCCTTCCTC
GAGCAGTTCCGTAAGGAGGACATGTTCAAGGACAACTTTGATGAGATGGACAGGTCTAGGGAGGTTGTTCAGGAG
CTCATTGATGAGTACCATGCGGCCACCCAGCCAGACTACATTTCCTGGGGCACCCAGGAGCAG**TGA**

FIGURE 1429A

AAGAGCGGAGGACCAGGAACCAGAGAGAGAGAGAGAGAAAAGAGAGAGGAGAGACAGAGCGCTTGGGGGCGAAAG
GAGAGAGGGAGGGAAGGGTGGGTAAGGAGGAGAGAGCGGTCTGCTGCAAACCCCAGGAGGAGAGCTTGGAGCCCA
AGCCAGAACTCGAGCCCTAGCCGGAGCCGTTCACAGGGAGGCGGCTGCCGGGACCGTCAGCCCTGC**ATG**ATGCAT
CTCCGGCTCTTCTGCATCCTGCTCGCCGCGGTCTCAGGAGCCGAGGGCTGGGGCTACTACGGCTGCGACGAGGAG
CTGGTGGGTCCCCTGTATGCACGCTCCCTGGGCGCCTCCTCCTACTACAGTCTCCTTACTGCGCCGCGATTCGCC
AGGCTGCACGGCATAAGCGGGTGGTCACCACGGATTGGGGATCCGAATCCCTGGCTCCAGATAGACTTAATGAAG
AAGCACCGGATCCGGGCCGTGGCCACACAGGGCTCCTTTAATTCTTGGGACTGGGTCACACGTTACATGCTACTC
TACGGCGACCGAGTGGACAGCTGGACACCGTTCTACCAGCGAGGGCACAACTCGACCTTCTTTGGTAACGTGAAC
GAGTCGGCGGTGGTGCGCCATGACCTGCACTTCCACTTCACTGCGCGCTACATCCGCATCGTGCCCCTGGCCTGG
AACCCACGCGGCAAGATCGGCCTGAGGCTCGGCCTCTATGGCTGCCCATACAAGGCCGACATACTCTATTTCGAC
GGCGACGATGCCATCTCCTACCGCTTCCCGCGAGGGGTCAGCCGAAGCCTGTGGGACGTGTTCGCCTTCAGCTTC
AAGACCGAGGAGAAGGACGGTCTTCTGCTGCACGCCGAGGGCGCCCAGGGCGACTACGTGACGCTCGAGCTGGAG
GGGGCACACCTGCTGCTGCACATGAGCCTGGGCAGCAGCCCTATCCAGCCAAGACCAGGTCACACCACCGTGAGC
GCAGGCGGAGTCCTCAATGACCAGCACTGGCACTATGTGCGGGTGGACCGATTTGGCCGCGATGTAAATTTCACC
CTGGACGGCTATGTGCAGCGCTTTATTCTCAATGGAGACTTCGAGAGGCTGAACCTGGACACTGAGATGTTCATC
GGAGGTCTGGTGGGCGCCGCGCGGAAGAACCTGGCCTATCGGCATAACTTCCGCGGCTGCATAGAAAACGTAATC
TTCAACCGCGTCAACATCGCAGACCTGGCCGTGCGGCGCCATTCCCGGATCACCTTCGAGGGTAAGGTGGCTTTT
CGTTGCCTGGACCCGGTACCGCACCCTATCAACTTCGGAGGCCCTCACAACTTCGTTCAAGTGCCCGGTTTCCCA
CGCCGTGGCCGCCTGGCAGTCTCATTTCGCTTCCGCACCTGGGACCTCACCGGGCTTCTCCTTTTCTCCCGTCTG
GGGGACGGGCTGGGCCACGTGGAGCTGACGCTCAGCGAAGGGCAGGTCAACGTGTCCATCGCGCAGAGCGGCCGA
AAGAAGCTTCAGTTCGCTGCTGGGTACCGACTGAATGACGGCTTTTGGCACGAGGTGAATTTTGTGGCACAGGAA
AACCATGCAGTTATCAGCATTGATGATGTGGAAGGGGCAGAGGTCAGGGTCTCATACCCGTTGCTGATCCGGACA
GGGACCTCATATTTCTTTGGGGGTTGTCCCAAGCCAGCCAGTCGATGGGACTGCCACTCCAACCAGACGGCATTC
CATGGCTGCATGGAGCTGCTCAAGGTGGATGGTCAACTGGTCAACCTGACTCTGGTGGAGGGCCGGCGGCTTGGA
TTCTATGCTGAGGTCCTCTTTGATACATGTGGCATCACTGATAGGTGCAGCCCTAACATGTGTGAGCATGATGGA
CGCTGCTACCAGTCTTGGGATGACTTCATTTGCTACTGCGAACTGACGGGCTACAAGGGAGAGACCTGCCACACA
CCTTTGTATAAGGAATCCTGTGAGGCTTATCGGCTCAGTGGGAAAACTTCTGGAAACTTCACCATTGATCCTGAT
GGCAGTGGCCCCCTGAAGCCATTTGTAGTGTACTGTGATATCCGAGAGAACAGAGCGTGGACAGTTGTGCGGCAT
GACAGGCTGTGGACAACTCGAGTGACAGGTTCCAGCATGGAGCGGCCATTCCTGGGGGCTATCCAGTACTGGAAT
GCATCCTGGGAGGAAGTCAGTGCCCTTGCCAATGCTTCCCAGCATTGTGAACAGTGGATCGAGTTCTCCTGCTAC
AATTCCCGGCTGCTCAACACTGCAGGAGGCTACCCCTACAGCTTTTGGATTGGCCGAAATGAGGAGCAGCACTTC
TACTGGGGAGGCTCCCAGCCTGGGATCCAGCGCTGTGCCTGTGGTCTGGACCGGAGCTGTGTGGACCCTGCCTTG
TACTGCAACTGTGACGCTGACCAGCCCCAGTGGAGAACTGACAAGGGACTGCTGACCTTTGTGGACCATCTGCCT
GTCACTCAGGTAGTGATAGGGGATACGAACCGCTCCACTTCTGAGGCCCAGTTCTTCCTGAGGCCTCTGCGCTGC
TATGGCGATCGAAATTCCTGGAACACCATTTCCTTCCACACCGGGGCTGCACTACGCTTCCCCCCAATCCGTGCC
AACCACAGCCTGGATGTCTCCTTCTACTTCAGGACCTCTGCTCCCTCGGGGGTCTTCCTAGAGAATATGGGGGGC
CCTTACTGCCAGTGGCGCCGACCTTATGTGCGGGTGGAACTCAACACATCCCGGGATGTGGTCTTCGCCTTTGAT
GTGGGGAATGGGGATGAGAACCTCACAGTACACTCAGACGACTTTGAGTTCAATGATGACGAGTGGCACCTGGTC
CGGGCTGAAATCAACGTGAAGCAGGCCCGGCTCCGAGTGGATCACCGGCCCTGGGTTCTGCGGCCTATGCCACTG
CAGACCTACATCTGGATGGAGTATGACCAGCCCCTCTATGTGGGATCTGCAGAGCTTAAGAGACGCCCCTTTGTG
GGTTGCTTGAGGGCCATGCGTCTGAACGGAGTGACTCTGAACCTGGAGGGCCGTGCCAATGCCTCTGAGGGTACC
TCACCCAACTGCACAGGCCACTGTGCCCACCCTCGGCTCCCCTGTTTCCATGGAGGCCGCTGCGTGGAGCGCTAT
AGCTACTACACGTGTGACTGTGACCTCACGGCTTTTGATGGGCCATACTGCAACCACGATATTGGTGGTTTCTTT
GAGCCGGGCACCTGGATGCGCTATAACCTACAGTCAGCGCTGCGCTCTGCAGCCAGGGAGTTCTCCCACATGCTG
AGCCGGCCAGTGCCAGGCTATGAGCCTGGCTACATCCCGGGCTATGATACTCCGGGCTATGTGCCTGGCTACCAT
GGCCCCGGGTACCGCCTGCCCGACTACCCCCGGCCTGGTCGGCCTGTGCCCGGTTACCGTGGGCCTGTCTACAAC
GTTACGGGAGAGGAGGTCTCCTTCAGCTTCAGCACCAGCTCCGCCCCTGCTGTCCTGCTCTACGTCAGTTCCTTT
GTTCGTGACTACATGGCTGTGCTCATCAAGGATGATGGGACCCTTCAGCTGCGATATCAGCTGGGCACCAGTCCC

FIGURE 1429B

TACGTGTACCAGCTAACCACTCGACCAGTGACCGATGGCCAGCCCCATAGCATCAATATCACCCGTGTTTACCGG
AACCTCTTCATCCAGGTGGACTACTTCCCACTGACAGAGCAGAAGTTCTCGCTGTTGGTGGACAGCCAGTTGGAC
TCACCCAAGGCCTTGTATTTAGGGCGTGTGATGGAGACAGGAGTCATTGACCGGAAGATCCAGCGCTACAACACC
CCAGGTTTCTCAGGCTGCCTGTCTGGTGTTCGATTCAACAACGTGGCTCCCCTCAAGACCCACTTCCGAACCCCT
CGACCCATGACTGCTGAGCTAGCTGAGGCCCTTCGAGTTCAGGGAGAACTGTCCGAATCTAATTGCGGAGCTATG
CCACGTCTTGTTTCAGAGGTGCCACCTGAGCTTGATCCCTGGTATCTGCCCCCAGACTTCCCCTACTACCATGAT
GAAGGATGGGTTGCCATACTTTTAGGCTTTTTGGGGGCCTTTCTGCTGCTGGGGCTGGTGGGAATGTTGGTGCTC
TTCTATCTGCAAAATCATCGCTATAAGGGCTCCTACCATACCAATGAGCCCAAGGCTGCCCACGAGTACCATTCT
GGCAGCAAACCTCCCCTACCCACTTCAGGCCCTGCCCAGGTCCCCACCCCTACAGCATCTCCCAACCAAGCTCCA
GCCTCAGCCCCAGCCCCAGCCCCAACTCCAGCCCCAGCCTCTGGCCCCCGGGATCAGAACCTACCCCATATCCTG
GGGGAGTCCAGGTCTGAA**TGA**GTCAGAAGGGCTTTTGGGACCAATTCCAGCTCCTGACATTCCCCCAGTCCTGCC
TGTCCCCCATTCTATCAGGGACATTGGGCTCCTCTTAGCTGGCTGTGCTCATCCAGAGGATATTCCCCCATCCCC
CCCCCATCAAGTTTGGTGGGCAGAGCTACAGATGGGACCCAAGGGAGTGGCCGAGCCTCACTGCCTAAACCAATG
CCCTTCTCATCCCTGTTTCCCCAGGCTCCTGGCTGTTTATCTGCCCCAAAGGAGAAGCCTCATGGGGTTGACATA
GGTCCTTTCTGCCATCTCTGTTCCAGCTGCTGTCAGGGATTAACAACAGAGTGTAGGGGAGATTAACTGCCTCCC
TTCCAATAGACACTATCAGCAGGGACAGATGTGTGGGAGTGCAGGGCTGCAGAGGGTATGGGGGGAGGAGGCTGC
TAAACCCTATCCCCCAGCCTCCCCCCTGCCCTGAAGATCTTCCATTTGCTTCCACTCAGCTGGAGGCTCAAGAGG
GCTTGATGGCTGTCCCCTGCCCCCCTCCTTTTGTTTTGTACACAGAGACCAAGAGGCCTCAGTTTAGCACCTTAG
TACCTCCGCTGCTTCACTTGCTTTAGCCAAAGCCATAAAAAACCTGCAACGTAGAGAAAATAATGCAGATACCCT
GACTAGCCAGCCCTCTACTCCTCCAACCTTTTCCAAGATATGCAATGGCCTTTGTGCCTGCCCAAAGGCTTCGCC
CCCTCCAGTGCATGAGGAACCCTCTTTCCTCCGCTCAGAGATGCTGCTTCATTTACCCAGGAGGTCATATTCTTT
ATATATATTTTTTGTTGCAAAGTGTCTCTCTAGAGAAACTCTATATATTATTCGAATTTTTAAATTATTTGTTTA
TATATAAAAGAAAAGCTCAATTGGC

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FIGURE 1430

GAGCGGCCCGAGGAGGACGCAGCGGCGCTGGAGCTTTCGTCGGACGAGGCGGTGGAGGTTGAGGAGGTTATTGAG
GAGTCCCGCGCAGAGCGTATCAAGCGCAGACACTGCGGCGCGTGGACGACTTCAAGAAGGCCTTCTCCAAGGAGA
AGATGGAGAAGACCAAGGTGCGTACCCGCGAGAACCTGGAGAAGACGCGCCTCAAGACCAAGGAAAACCTGGAGA
AGACGCGGCACACCCTGGAGAAGCGCATGAACAAGCTGGGCACGCGCCTGGTGCCCGCCGAGCGGCGCGAGAAAC
TGAAGACGTCGCGGGACAAGTTGCGCAAATCCTTCACGCCCGACCACGTGGTGTACGCGCGCTCCAAGACCGCGG
TCTACAAGGTGCCACCCTTCACCTTCCACGTCAAGAAGATCCGCGAGGGCCAGGTGGAAGTGCTCAAGGCCACCG
AGATGGTGGAGGTGGGCGCCGACGACGACGAGGGCGGCGGAGCGCGGGGAGGCCGGCGACCTGCGGCGCGGGAGC
AGCCCCGACGTGCACGCGCTGCTGGAGATCACCGAGGAGTCGGACGCCGTGCTGGTGGACAAGAGCGACAGCGAC
TGAGCCGCCCCCCGCTGCCACCCACCCCATTCCTCGCTCCTTCCGAACTTCCTCTTTCGCATTCTCTCTCGGCTCG
AGCTGGCTGAGATTTTTCTAAATTGAAAACACGCCCCCCTCCCCACACCTCCAGGAACTCCACTCCCAGTCTTAG
AGCTGTTAGGACCCGATGGGGAGGCAGCCCCCGCAGTGGACAGCCCCCGCTTGGACACAGTCCGAGTGGAATGGG
AAGGGAATGGTCAATCCCTGTCCTGGTTGTCCAAGTCGGGATCTCAGAGGAAATTGCAGTGATTCCACGGTTAGG
CCCCCCTGGGGGGGCTGCCTTCCCCTCAGCCTCTCCCCACACCACCCACCCAGCTGCTGTCATTCCGCTCACTGA
GCTCTTCTTCATTCTCACCCTGATCCCTGGGGGACTCAAAGCCAAAACTGCCCAAAGAGGAAAGATTGAATCCTA
AAGGGGATCCTTGCCCCCATGGGAGGCCCCCTACTAGAAGGACGTGAAAGCAGCTTTTGGGGGAAACTGAGGCAG
TGGGGAAGACAGAGCAGAATGAGCCCTCACCCTGGCTGGGGGTCCAGCACAGGCTGTATCTGCAGAGGGTCCCAG
AGGAACGCTGGAGCCAAGAGAAGCCCTGGGAAGGAGGGGTGGGGAACGACATGCATGTGAGGGATGGCACACTGA
TGTGTTTATGCACCTGTACACAGGAGCGCATGGCCATGGCTTTGGAAAGGAGAATGGAAAAATAGAAGAAGGTCG
GCCGGGCTTGGTGGCTTATGCCTGTAACCCCAGCACTTTGGGAGGCCGAGGTGGGCGGATCACCTGAGGTCAGGA
GTTCGGGACCAGCCTGGCAAACACCCCATCTCTACTAAGCGAAAACCCATCTCTACTAAAATTACAAAAATTAGC
TGGGCATGATTGCGCATGCCTGTAATCCCAGCTACTTTGGAGGCTGAGGTGGGGAGAATTGCTTGAACCTGGGAG
GTGGAGGTTGCAGTGAGCCAAGGTCGCGACACTGCACTCCAGCCTGGGTGACAGAGTGAGACTCCATCTCAACAG
AAGGAAAAAAAAGGAAAATAGGAGAAGGTGGAAATGGGTGAAGAGAGAAGTCCCCTCACTAGCTGCATGAGAAAT
CTATCTTACTGTGGTTCTCCATGGGCAGCAGGACCATTTTTCAGAATCAAGAGGGAGGACAGTGTGAGAAGGCGA
TGATCCAAAGAAGACAGAGAGGTCAGCCCCACCCGATCCCTCAAATGGGCTCTTGGAGGCACCCCCAGGGGCAGC
CCATTTCTCAAAGTCCAGAAAATTAGGGTCCCAGAAGGGGGCAGCAGCAGGCTGGGAGTTAGGAGGGAGAGCAGG
GTGCCGGCCCTGCCACCAAGTTGAGAGCTGGAGGGGAGGTGGGGAGAGAACATCACAGAGCAGCCAGCCCTGGTT
CACTCCTGGCAGTTTCTTCTCAAGCTCCTTCCCTAGGAGCATGGTGGCACGTGCCTGTGGTCTCAGCTACTTGGG
AGGCTGAGGCGGGAGGATCGCCAGAGCCCAGGAGTTTGAGGCTGCAGTGAGCTATGAGGGTGCCTCTGTGCTCCA
TCCTAGGCAACAGAGTGAGACGCTGTTTAAAAAGGAAAAAATCCTTCCCTAGAGCTAGTATCCTAAAGCTGCAGA
GCTAGCCCAGACCTCATTGGTTTCCTTGTCCTTGGGGTGCTTTTCCTGAATCTTTGGGGGTGAAGGGAGTGTTGC
TCCCAGTCCAGAGGCCTGATTCTGTTCGGACTGGGTTCTCAAGACACGACCAGGTTCTCAAGACACGAGTCCCCT
TGTTCCTCCCCATTAAAGGGGGTTTGTCAGAAGCAAGAACAGCCCCTCTCCCCAGTCACAGCCTGAAGGGAGGCC
CCGAGAGCTTCCTCCTTCCCCCCACCTGCTCCTTACCTTCTCTGCCCTGCTTTTTAGAACTGCAGTTCATTGTTT
TAAGGGATTGGGGGAGGGAGCCTGGGGACACAAACCTTTTATACAATACAAAGCTTTGCTTTTTTTTTTTTTTTC
TTCCTTTTCCCTTTCTCGGTTCTCTTCTCTCCTCTGAATGGCTGAAGACCCCTCTGCCGAGGGAGGTTGGGGATT
GTGGGACAAGGTCCCTTGGTGCTGATGGCCTGAAGGGGCCTGAGCTGTGGGCAGATGCAGTTTTCTGTGGGCTTG
GGGAACCTCTCACGTTGCTGTGTCCTGGTGAGCAGCCCGACCAATAAACCTGCTTTTCT

FIGURE 1431

ATGGCCAAGTCCAAGAACCACAGCACAAACAACCAGTCCCGAAAAAGGCACAGAAATGGTATCAAGAAACCCCGA
TCACGAAGATATGAATCTCTTAAGGGGATGGACCCCAAGTTCCCGAGGAACATGTGCTTTGCCAAGAAGCAAAAC
AAGAAGGTCCTAAAGAAGATGCAGGCCAACAGTGACAAGGCCATGAGTGCACGTGCTGAGGTTATCAAGGCCCTC
GTAAAGCCCAAGGAGGTTAAGCTCAAGATCCCAAAGGGTGTCAGCTGCAAGCTCGATCGACTTGCCTACATTGCC
CACCCCAAGCTTGGGAAGCGGGCTCGTGCCCGCATTGCCAAGGGGCTCAGGCTGTGCTGGCCAAAGGCCAAGGCC
AAGGATCAAACCAAGGCCCAGGCTGCAGCTCCAGCTTCAGTTCCAGCTCAGGCTCCCAAAGGTGCCCAGGCCCCT
ACAAAGGCTTCAGAG**TAG**

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FIGURE 1432

AGCATCGTGAGTGAGCTGGCGGGGCTTTTGTCAGCG**ATG**GAGTACGTGCAGAAAACTCTCACGGACGAGGAGCTG
GCTGACTGGAAGAGGCGGCAACAGATTGCCTGCATTGGAGGCCCGCCCAACATCTGCCTAGATCGGCTAGAAAAC
TGGATAACGTCATTAGCAGAATCTCAACTTCAGACCCGTCAACAAATTAAGAAACTGGAGGAGTTGCAGCAAAAA
GTTTCCTACAAAGGGGACCCCATTGTACAGCACCGGCCGATGCTGGAGGAGAGAATCGTGGAGCTGTTTAGAAAC
TTAATGAAAAGG**TAA**TTTAGCATCCTTGTCCCTTTCCCTCATCTAAAAAATACCTAAAGACTCACGTGGTAGAGT
GAGAGGCGGGCTGACTTCTGGTCATGGCCGTGGCGCGTGAGCCCAT

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FIGURE 1433

AAGTAGCTATGGCAGTGCCTGATACAAAATAAACTCCAAATGTGTATTTATTAGATGGTTGGATGGAAGTTATTT
GCGTGTGAAAGCGCGTTTTACCCGAAGGCGCTCTGTGAGGGCCAGCGGGTCCCCTTCGGCCCTGGAGCCGGGGTC
ACACGCTCCCCACCGCGTGCGGTCACGAGACGCCCCCAAGGGAGTATCCTGGTACCCGGAAGCCGCGACTCCTGG
CCCTGAGCCCGGGCTTAGCCTTCGGGTCCACGTGGCCGGAGGCCGGCAGCTGATTGGACGCGGGCCGCCCCACCC
CCTGGCCGTCGCGGGACCCGCAGGACTGAGACC**ATG**GAGGCGGTGGCGGTGGCCGCGGCGGTGGGGGTCCTTCTC
CTGGCCGGGGCCGGGGGCGCGGCAGGCGACGAGGCCCGGGAGGCGGCGGCCGTGCGGGCGCTCGTGGCCCGGCTG
CTGGGGCCAGGCCCCGCGGCCGACTTCTCCGTGTCGGTGGAGCGCGCTCTGGCTGCCAAGCCGGGCTTGGACACC
TACAGCCTGGGCGGCGGCGGCGCGGCGCGCGTGCGGGTGCGCGGCTCCACGGGCGTGGCGGCCGCCGCGGGGCTG
CACCGCTACCTGCGCGACTTCTGTGGCTGCCACGTGGCCTGGTCCGGCTCTCAGCTGCGCCTGCCGCGGCCACTG
CCAGCCGTGCCGGGGGAGCTGACCGAGGCCACGCCCAACAGGTACCGCTATTACCAGAATGTGTGCACGCAAAGC
TACTCTTTCGTGTGGTGGGACTGGGCCCGCTGGGAGCGAGAGATAGACTGGATGGCGCTGAATGGCATCAACCTG
GCACTGGCCTGGAGCGGCCAGGAGGCCATCTGGCAGCGGGTGTACCTGGCCTTGGGCCTGACCCAGGCAGAGATC
AATGAGTTCTTTACTGGTCCTGCCTTCCTGGCCTGGGGGCGAATGGGCAACCTGCACACCTGGGATGGCCCCCTG
CCCCCCTCCTGGCACATCAAGCAGCTTTACCTGCAGCACCGGGTCCTGGACCAGATGCGCTCCTTCGGCATGACC
CCAGTGCTGCCTGCATTCGCGGGGCATGTTCCCGAGGCTGTCACCAGGGTGTTCCCTCAGGTCAATGTCACGAAG
ATGGGCAGTTGGGGCCACTTTAACTGTTCCTACTCCTGCTCCTTCCTTCTGGCTCCGGAAGACCCCATATTCCCC
ATCATCGGGAGCCTCTTCCTGCGAGAGCTGATCAAAGAGTTTGGCACAGACCACATCTATGGGGCCGACACTTTC
AATGAGATGCAGCCACCTTCCTCAGAGCCCTCCTACCTTGCCGCAGCCACCACTGCCGTCTATGAGGCCATGACT
GCAGTGGATACTGAGGCTGTGTGGCTGCTCCAAGGCTGGCTCTTCCAGCACCAGCCGCAGTTCTGGGGGCCCGCC
CAGATCAGGGCTGTGCTGGGAGCTGTGCCCCGTGGCCGCCTCCTGGTTCTGGACCTGTTTGCTGAGAGCCAGCCT
GTGTATACCCGCACTGCCTCCTTCCAGGGCCAGCCCTTCATCTGGTGCATGCTGCACAACTTTGGGGGAAACCAT
GGTCTTTTTGGAGCCCTAGAGGCTGTGAACGGAGGCCCAGAAGCTGCCCGCCTCTTCCCCAACTCCACCATGGTA
GGCACGGGCATGGCCCCCGAGGGCATCAGCCAGAACGAAGTGGTCTATTCCCTCATGGCTGAGCTGGGCTGGCGA
AAGGACCCAGTGCCAGATTTGGCAGCCTGGGTGACCAGCTTTGCCGCCCGGCGGTATGGGGTCTCCCACCCGGAC
GCAGGGGCAGCGTGGAGGCTACTGCTCCGGAGTGTGTACAACTGCTCCGGGGAGGCCTGCAGGGGCCACAATCGT
AGCCCGCTGGTCAGGCGGCCGTCCCTACAGATGAATACCAGCATCTGGTACAACCGATCTGATGTGTTTGAGGCC
TGGCGGCTGCTGCTCACATCTGCTCCCTCCCTGGCCACCAGCCCCGCCTTCCGCTACGACCTGCTGGACCTCACT
CGGCAGGCAGTGCAGGAGCTGGTCAGCTTGTACTATGAGGAGGCAAGAAGCGCCTACCTGAGCAAGGAGCTGGCC
TCCCTGTTGAGGGCTGGAGGCGTCCTGGCCTATGAGCTGCTGCCGGCACTGGACGAGGTGCTGGCTAGTGACAGC
CGCTTCTTGCTGGGCAGCTGGCTAGAGCAGGCCCGAGCAGCGGCAGTCAGTGAGGCCGAGGCCGATTTCTACGAG
CAGAACAGCCGCTACCAGCTGACCTTGTGGGGGCCAGAAGGCAACATCCTGGACTATGCCAACAAGCAGCTGGCG
GGGTTGGTGGCCAACTACTACACCCCTCGCTGGCGGCTTTTCCTGGAGGCGCTGGTTGACAGTGTGGCCCAGGGC
ATCCCTTTCCAACAGCACCAGTTTGACAAAAATGTCTTCCAACTGGAGCAGGCCTTCGTTCTCAGCAAGCAGAGG
TACCCCAGCCAGCCGCGAGGAGACACTGTGGACCTGGCCAAGAAGATCTTCCTCAAATATTACCCCCGCTGGGTG
GCCGGCTCTTGG**TGA**TAGATTCGCCACCACTGGGCCTTGTTTTCCGCTAATTCCAGGGCAGATTCCAGGGCCCAG
AGCTGGACAGACATCACAGGATAACCCAGGCCTGGGAGGAGGCCCCACGGCCTGCTGGTGGGGTCTGACCTGGGG
GGATTGGAGGGAAATGACCTGCCCTCCACCACCACCCAAAGTGTGGGATTAAAGTACTGTTTTCTTTCCACTTAA
A

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FIGURE 1434

CCCCTGGATGTCCCCTTACCCTCCACGATCAGGCCAGCTTCCCCCGTGGCCGGGTCTCCAAAGCAGCCGGTGCGT
GGCTACTACCGTGGCGCTGTCGGTGGCACGTTTGACCGCCTGCACAACGCCCACAAGGTGTTGCTCAGTGTCGCG
TGCATCCTGGCCCAGGAGCAGCTTGTGGTGGGAGTAGCAGACAAAGATCTGTTGAAGAGCAAGTTGCTCCCTGAG
CTGCTCCAACCTTATACAGAACGTGTGGAACATCTGAGTGAATTCCTGGTGGACATCAAGCCCTCCTTGACTTTT
GATGTCATCCCCCTGCTGGACCCCTATGGGCCCGCTGGCTCTGACCCCTCCCTGGAGTTCCTGGTGGTCAGCGAG
GAGACCTATCGTGGGGGG**ATG**GCCATCAACCGCTTCCGCCTTGAGAATGACCTGGAGGAACTTGCTTTGTACCAG
ATCCAGCTGCTGAAGGACCTCAGACATACAGAGAATGAAGAGGACAAAGTCAGCTCCTCCAGCTTCCGCCAGCGA
ATGTTGGGGAACCTGCTTCGGCCTCCATATGAAAGGCCAGAGCTCCCCACATGTCTCTATGTAATTGGGCTGACT
GGCATCAGTGGCTCTGGGAAGAGCTCAATAGCTCAGCGACTGAAGGGCCTGGGGGCGTTTGTCATTGACAGTGAC
CACCTGGGTCATCGGGCCTATGCCCCAGGTGGCCCTGCCTACCAGCCTGTGGTGGAGGCCTTTGGAACAGATATT
CTCCATAAAGATGGCATCATCAACAGGAAGGTCCTAGGCAGCCGGGTGTTTGGGAATAAGAAGCAGCTGAAGATA
CTCACGGACATTATGTGGCCAATTATCGCAAAGCTGGCCCGAGAGGAGATGGATCGGGCTGTGGCTGAGGGAAAG
CGTGTGTGTGTGATTGATGCCGCTGTGTTGCTTGAAGCCGGCTGGCAGAACCTGGTCCATGAGGTGTGGACTGCT
GTCATCCCAGAGACTGAGGCTGTAAGACGCATTGTGGAGAGGGATGGCCTCAGTGAAGCCGCGGCTCAAAGCCGG
CTGCAGAGCCAGATGAGCGGGCAGCAGCTTGTGGAACAGAGCCACGTGGTGCTCAGCACCTTGTGGGAGCCGCAT
ATCACCCAACGCCAGGTGGAGAAAGCCTGGGCCCTCTTGCAGAAGCGCATTCCCAAGACTCATCAGGCCCTCGAC
TGAAAAGTTCTCAGTGGGGCCAGACTGGCTCCTGGAGCTGACAAGCGACCCCGTGGTGAGGAGAAATGGGGGCCT
TGATGCTCACCCTGGTTCAGGCCCAGAGGTCCAAGCTATACTGTGCAGGACATGGCCAGGCCTGGTGGACACAGG
AAGCCTACCCAACACGCTGGTATTTGGCCAACACTGAGGATGTGGTTCATGGGGGAGCAGTCCCCTCCCCACTCT
TGCCCATGGGTGACTCTTACCCACAGCTGACTAGGGCCAGCGCAAATACTGGAACCTGTAACAGAATTAAAGGTG
AATGTTCTGAG

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FIGURE 1435

CCTCGCCGCAGGGGGCCCGCCCGCTGGCCCGTTTCCGGTCCGGTGGGTACAAGATGACGGAGCCGGGCGCCTCTC
CCGAGGACCCTTGGGTCAAGGCAAGCCCCGTGGGCGCGCACGCCGGCGAGGGGAGGGCGGGTCGGGCTCGTGCAC
GTAGGGGGGCCGGAAGACGAGGGGCTTCCCTCCTGTCCCCAAAGTCCCCCACGCTCTCCGTGCCCCGGGGCTGCA
GAGAAGACAGCTCTCACCCCGCGTGTGCCAAGGTGGAGTATGCCTACAGCGACAACAGCCTGGACCCCGGGCTTT
TTGTAGAAAGCACCCGCAAGGGGAGTGTAGTGTCCAGAGCTAATAGCATCGGTTCCACCAGTGCCTCTTCTGTCC
CCAACACAGATGATGAGGACAGTGATTACCACCAGGAGGCCTACAAGGAGTCCTACAAAGACCGGCGGCGGCGCG
CACACACTCAGGCTGAGCAGAAGAGGAGGGACGCCATCAAGAGAGGCTATGATGACCTTCAGACCATCGTCCCCA
CTTGCCAGCAGCAGGACTTCTCCATTGGCTCCCAAAAGCTCAGCAAAGCCATCGTTCTACAAAAGACCATTGACT
ACATTCAGTTTTTGCACAAGGAGAAGAAAAAGCAGGAGGAGGAGGTGTCCACGTTACGCAAGGATGTCACCGCCC
TAAAGATCATGAAAGTGAACTATGAGCAGATTGTGAAGGCACACCAGGACAACCCCCATGAAGGGGAGGACCAGG
TCTCTGACCAGGTCAAGTTCAACGTGTTTCAAGGCATCATGGATTCCCTGTTCCAGTCCTTCAATGCCTCCATCT
CAGTGGCCAGCTTCCAGGAGCTGTCAGCGTGTGTCTTCAGCTGGATCGAGGAGCACTGTAAGCCTCAGACCCTGC
GGGAGATTGTGATTGGCGTCCTGCACCAATTGAAAAACCAGCTTTACTGACCGGTTCTTGGAAACCTGGAGAACA
GCCAACAAGAGGCCCTTGAATCTCTACGTGGCCACTGAACTGCTGGGCCCGGGAGACTGGACTACAACACCTCAC
ACTGGTCAGCTGGTTTCTACTTGGTGTTTGGTTTTTCCCAGCCCCATTTTATCTTCAGCGGAGCCGCGGTGTTTG
TTTTGTGAAAGCTTCTGATTAATTTATTATATTGACGATAAAACTCAAACCTACCCAGCCTTCCCCCCACTCCAT
GGAAGTCCTTGGGATGGGCGTCTGCTCTGGACACCCCAAAGAGCTCCTGCCCTCTCAGCCCTTTATTCAAGCCTC
AGATTTCTGCTCATGATCTACATAGATTTGGAAACTGTTTTCCTCTGTTTTGGTCTCTTGGGCAACATTTTTGGC
CCAAGTTTGGGCAACATTTGGCCCAAGTTTGGGCATTTTGGCAGTAGCTGTATGGGAGAAAAAGAGTAAGAGGAA
ATATTCCCACAGCCATGAAGGGTGAAAGGGCACCTTGTGCCTAGACTAGGGCTGCCTGGTCAGTCCCAGGTGAGG
CCAAGGGCTTTCTGGCCATCTCAGGGAGGGGCCACCAGGTTCCTCCCCTCACCCCATATTCCATCACCTTCCTCC
TCTGCTCTGGGTGGTAAGGGAAGCCCTCCCGGTTCCCACAGGCTATGATGCTGCATGGCAGAGGCAGGTATAACA
CAGCACTACATATTGGAAATTTTTTATTTTTCTAAATACCAATGCAGTTTTGCTACGGTTACAATTTTGAAATAT
TAACTGAGCCTCAAAATCACCCTTTCTGTCAAGCATATCTTGGCCTCTCCCATGTCTCAGTGTTGCCTGCATTTC
TCCCAGGACTTGGGGGTGGGGTGAAAAGCGTACAAAAGATACTTAAAAGGGCTCCTGGGGTACACAAGCCCAGCA
GGTCCTGAGTGAAGCCGTGGGCCCTCCAAATGCTCGTTTTATAGCAACCTCTCTCTACCCTAGTTCTCCAAATTC
ACTTCTGCCTTCCTCAGGTTTGATATCTGGCAGGTTTGACTATCCAGAGGAAATTAAATATTTTTATATAAAATT
AAATTATAATAAATATTGCCAAATGCTTTCCTTTAGCATTGTTCCAAGTCTAAATGTTAACCTCAAGCTACTGCA
ATTTAGACAATGAAATGGGCTGGGTCTACCCCCAGCCACCAGCCCTCATCCTCTCTACCCAGTGCTCTGGTTTAT
GCTTGTCTCCTGACTGCTCTGCTTAAAGGTGAAAGTAGCAGGAACAACAACAAAAGCCAACCAAAAACAAGGTAG
CCAGTGCAAGACATCTCACTCTTCTGACATCCTGCAGTCCCCACCAGTCCTGACCGTGGGCCCCTCAGGGGTCTG
GGAGTGTGACGTTGTAATCTTCATCCGTCTCTATCCCAACTTCCTCCTGTGAGACAGGGAGACAAGTGAATGAGA
TGTCACCAGGATAAGACCACAGGGAAGCAAAGAAGGAAGAGAGCTCCACTTACAAAGAACTGCTTCTTGCTCTTG
GGGTATCCTTCAAGTATTGCATCAGACAGCTCTGTAGCCTGACAAGAAATAAAACCACCCGTTTTCAGATGGGCA
GCACTGGGCACTGCCTGTCAGTTTATGATATTGTGT

FIGURE 1436

CCTGACCTCAAGTGAGCTGACTGCCTTGGCCTCCCAGAGTGCTGGGATTAGTCGTCATCTTTTGTTAAACCAGGA
TTTGATTTTTTTCTTTTCTTTTCTTTTCTTTTTTTTTTTTTTGAGACAGAGTCTCTCTCTGTTGCCCAGGCTGGA
GTGCAGTGGCACAATCTCGGCTCACTGCAGCCTCCGCCTGCCGGGTCAAGCGATTCTCCTACCTCAGCCTCCTCA
GTAGCTGAGATTACAGGCATGCACCACCATGCCCGGCTAATTTTTTTGTGTTTTTAGTAGAG**ATG**GGGTTTCACC
GTGCTGGCCAGGCTGGTCTAGAACTCCTGACTGCAAATGATCAGCCCGCCTCAGCCACCCAAAGTGTTGGGATTA
CAGGTGTGAGCCACTGTGCCCAGCGTGATTTTTTTTTTTTTTTAAAGCAAACTTGTCCTTTGGTTTTGCAGAACA
GGCCTGCTCCCTCTCATCTAGCCCATCATTTCTTGGGGCCTGAACCCCAGTGGTCCAAAGTATTGCTTGTGAAAT
TTAAAAAATGTGAATATGATGTGGGGATGGGCCTCTTCTACATTACCTTGGCCCAGGGGGATCAGCTGGCTGGGA
GGATTAGTGAGCACCTCTGTATTTTGAGGTCTGAGTCTTCTGGAGCTGTG**TAG**TTAATCTTCGGTTTCTGATAAC
CCCTGGGTCCATCTGGCCATCAGCCTCAGCAGTGAGCAAAGCAATACCATACTCATTTCTATGTTCCTGTTCCTT
CCTCTGCTCCTCCTTTGGAGAAGCAATAATTCATGGGGGATGATACAGTAGCACTTTACAAATGGCTCCATGTCA
TTCATCCCAGGGGCCATAATCTCTTGCACCACCTATTCTTACTTCCTGTTCAGCTCCTTTACAGCTTTTATTTTC
AACTGCTTCCCAACTTGGTGGGGCCTCCTTTAAGGATGAGCCAATAGTAAGAATGTGGCTGTAATCAGCAGAGAC
CCCTCTGAGGGGTATCTGTTCTGCAGCCCCTAGTGAAATCATGTGATGTGAGACAGAAACCTAAACATGGTACTT
GATTCTAAACCTGTGCCAGTCTATAGCCTCTGCCTCCCCAAGCAGAGCTCAAGCCAAACGCTTCTGTCCTCTTTC
CTTCTGCATTAACCCTTTGCTGATCCTCAGGGGCCACTCCCCCAACACCCCTGTACTTGGGTGAGGGATGTTGGA
CAGAGCCTGTTTTCATGTACTGCAGGTGGGGGTGTGCTGACATGTTTGCTCTTGGTTGATGGAGAAGGTACAGAG
GCCAGGGAGTGAAAATGGTTGACAGAAGAGGGAAGAGTTAGGTGTCTCATAGTCACTCATAGTGGGGTGGTCAGG
GGTAATGGCATCTCCCCACTTTAGGCTTCTCAAACAGACTTTTGACACCTCTCAAGTTCAGAGCTCTGATGTGGA
AAGACAGGAGGTGTGGGGAAGGAGGGGGATTTCGTGTGTTTGCATGAGTGTGCGCTTCAGGCCTTGGGAGTTGGC
AAGAGGGAGGGAAGGAAGGAGAGCAAAATCTTCGGAAGGTGTTTCTTGTACCTGAGGGATCCTGCCCTGAATCTC
CATAGTCTCCACTGTGAACTGAGGAGGGGAGGGGTGTGCTGGGGAATAAATCTTGTATGAGAAC

FIGURE 1437

GCGCAGTTGCTGTTATTGTGACTTGTCGGGCCACGGCCCCGGATGTTGTGGCTGCCGCGGGGAG**ATG**GCTGAGGC
CGAAGGGGTTCCCACGACCCCAGGCCCGGCTTCGGGGTCGACTTTCAGGGGCCGCCGAGATGTGTCAGGCTCCTG
GGAGCGGGACCAGCAGGTTGAGGCGGCGCAGCGGGCCCTGGTGGAGGTGCTGGGGCCTTACGAGCCTCTGCTGAG
TCGGGTGCAGGCAGCCCTGGTGTGGGAGCGGCCAGCTAGGAGCGCTCTGTGGTGCCTGGGGCTGAACGCGGCTTT
CTGGTTTTTTGCCCTGACATCTCTTCGTCTTGTGTTTTTACTTGCATTTGGCTTGATGATCATTGTGTGTATTGA
TCAATGGAAGAACAAAATCTGGCCTGAAATAAAAGTGCCAAGACCCGACGCATTAGACAATGAGAGCTGGGGCTT
TGTGCACCCTCGGTTGCTCAGCGTGCCCGAGCTCTGCCACCATGTAGCTGAAGTCTGGGTTAGTGGGACCATTTT
CATAAGGAATGTTTTGCTTTTCAAAAAGCAAAACCCAGGCAAGTTCTGCTTGCTGAGCTGTGGGATACTGACCTT
TTTGGCTGTCTTGGGCCGCTACGTCCCTGGGCTTCTGCTGTCCTACTTGATGCTTGTCACTGTCATGATGTGGCC
CCTTGCTGTGTACCACCGACTGTGGGATCGAGCATATGTGCGGCTGAAGCCAGCTCTGCAGCGGCTAGACTTCAG
TGTCCGTGGCTACATGATGTCCAAGCAGAGAGAGAGACAATTACGCCGCAGAGCTCTCCACCCAGAACGAGCCAT
GGACAACCACAGTGACAGCGAAGAGGAGCTTGCTGCCTTCTGTCCTCAGCTGGACGATTCTACTGTTGCCAGGGA
ATTGGCCATCACAGACTCTGAGCACTCAGACGCTGAAGTCTCCTGTACAGACAATGGCACATTCAATCTTTCAAG
GGGCCAAACACCTCTAACGGAAGGCTCTGAAGACCTAGATGGTCACAGTGATCCAGAGGAATCCTTTGCCAGAGA
CCTTCCAGACTTCCCTTCCATTAATATGGATCCTGCTGGCCTGGATGATGAGGACGACACTAGCATTGGCATGCC
CAGCTTGATGTACCGTTCTCCGCCAGGGGCTGAGGAGCCCCAGGCCCCACCTGCCAGCCGGGACGAGGCTGCGCT
GCCGGAGCTCCTGCTTGGTGCTCTTCCTGTAGGATCCAACCTCACCAGCAACCTTGCCAGCCTGGTCTCCCAGGG
TATGATTCAGCTGGCCTTGTCAGGGGCCTCCCAACCAGGCCCTTCTGGAGCACCTGCCCAGAGAGCAACGAGAGG
CTTCCTCCGGTCCCCCAGTTCAGACCTGGACACTGATGCTGAGGGGGATGACTTTGAACTTCTGGACCAGTCGGA
GCTGAGTCAGCTGGACCCTGCCAGTTCTAGGAGCCAC**TGA**GGCAGAGACTCCTTTTGGGAGTCACTGTGGTTTAG
GTTTTTTTCTCCCCATCCCACTTAAGGTGATGGGGCAAGGGAAGAACTCAGCTCCCCTCCCCTGAATTATATTTG
TATGCTGGGTGGCCTGGCTGATGCTCAGAGGCCTCCTTAGAGAGGACACTCACTCCCCTCCCACCAGCTGGATGC
CCATTTCTGAGCTCAGTCACTGAAGTGAGAGTGTGCTCCCCCAAGGGAGGCTTCTCTCCATCAGGATGGTACTTT
GGGGGAACAAAATAGTCAGGGATATTGGTTCCCCTTTGAGGAGGTGCTGCTGTTTGCTTTTAGGTATGAGTGCTC
AGGGGCCCTCACTGAAAGAGCCCATGCCTGCCTTCCTCCTTTCATCGCCTCTCTAGAGCCCCCAAAGTCAGGCAG
CAGCTGGAGTAGTTACATTGTCATCATCTTTTTTTTTGAGACAGTTTCGCTCTGTTGCCCAGGCTGGAGTGCAGT
GGTGTGATCTTGGCTTTCTGCAACGTCTGCCTTCCAGGTTGAAGAGGTTCTCCTGCCTCAGCCTCCTTAGTAGTG
GGATTACAGGTGCCCGCTACTATGCCCGGCTAATTTTTCTTTTGGTATTTTTAGTAGAAATGGGGTTTCACCATG
TTGGCCAGGCTGGTCTCAAACTCCTGACCTCAAGTGAGCTGACTGCCTTGGCCTCCCAGAGTGCTGGGA

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FIGURE 1438

GCAACGCCGGTGCCTGAGGAGCG**ATG**CCGAGGGAAATCATCACCCTACAGTTGGGCCAGTGCGGCAATCAGATTG
GGTTCGAGTTCTGGAAACAGCTGTGCGCCGAGCATGGTATCAGCCCCGAGGGCATCGTGGAGGAGTTCGCCACCG
AGGGCACTGACCGCAAGGACGTCTTTTTCTACCAGGCAGACGATGAGCACTACATCCCCCGGGCCGTGCTGCTGG
ACTTGGAACCCCGGGTGATCCACTCCATCCTCAACTCCCCCTATGCCAAGCTCTACAACCCAGAGAACATCTACC
TGTCGGAACATGGAGGAGGAGCTGGCAACAACTGGGCCAGCGGATTCTCCCAGGGAGAAAAGATCCATGAGGACA
TTTTTGACATCATAGACCGGGAGGCAGATGGTAGTGACAGTCTAGAGGGCTTTGTGCTGTGTCACTCCATTGCTG
GGGGGACAGGCTCTGGACTGGGTTCCTACCTCTTAGAACGGCTGAATGACAGGTATCCTAAGAAGCTGGTGCAGA
CATACTCAGTGTTTCCCAACCAGGACGAGATGAGCGATGTGGTGGTCCAGCCTTACAATTCACTCCTCACACTCA
AGAGGCTGACGCAGAATGCAGACTGTGTGGTGGTGCTGGACAACACAGCCCTGAACCGGATTGCCACAGACCGCC
TGCACATCCAGAACCCATCCTTCTCCCAGATCAACCAGCTGGTGTCTACCATCATGTCAGCCAGCACCACCACCC
TGCGCTACCCTGGCTACATGAACAATGACCTCATCGGCCTCATCGCCTCGCTCATTCCCACCCCACGGCTCCACT
TCCTCATGACCGGCTACACCCCTCTCACTACGGACCAGTCAGTGGCCAGCGTGAGGAAGACCACGGTCCTGGATG
TCATGAGGCGGCTGCTGCAGCCCAAGAACGTGATGGTGTCCACAGGCCGAGACCGCCAGACCAACCACTGCTACA
TCGCCATCCTCAACATCATCCAGGGAGAGGTGGACCCCACCCAGGTCCACAAGAGCTTGCAGAGGATCCGGGAAC
GCAAGTTGGCCAACTTCATCCCGTGGGGCCCCGCCAGCATCCAGGTGGCCCTGTCGAGGAAGTCTCCCTACCTGC
CCTCGGCCCACCGGGTCAGCGGGCTCATGATGGCCAACCACACCAGCATCTCCTCGCTCTTCGAGAGAACCTGTC
GCCAGTATGACAAGCTGCGTAAGCGGGAGGCCTTCCTGGAGCAGTTCCGCAAGGAGGACATGTTCAAGGACAACT
TTGATGAGATGGACACATCCAGGGAGATTGTGCAGCAGCTCATCGATGAGTACCATGCGGCCACACGGCCAGACT
ACATCTCCTGGGGCACCCAGGAGCAG**TGA**GTCCCCCAGGACAGGGACCCTCATCTGCCTTACTGGTTGGCCCAAG
CCCTGCCTGACTGACCACCCCCTCAGAGCACAGATCAGGGACCTCACGCATCTCTTTCTCATATACATGGACTCT
CTGTTGGCCTGCAAACACATTTACTTCTCCTCTTATGAGACTATTTATCTTTAATAAAGCACTGG

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FIGURE 1439

TAGCAGAGCAATCACCACCAAGCCTGGAATAACTGCAAGGGCTCTGCTGACATCTTCCTGAGGTGCCAAGGAAATG
AGGATGGAGGAAGGAATGAATGTTCTCCATGACTTTGGGATCCAGTCAACACATTACCTCCAGGTGAATTACCA
AGACTCCCAGGACTGGTTCATCTTGGTGTCCGTGATCGCAGACCTCAGGAATGCCTTCTACGTCCTCTTCCCCAT
CTGGTTCCATCTTCAGGAAGCTGTGGGCATTAAACTCCTTTGGGTAGCTGTGATTGGAGACTGGCTCAACCTCGT
CTTTAAGTGGATTCTCTTTGGACAGCGTCCATACTGGTGGGTTTTGGATACTGACTACTACAGCAACACTTCCGT
GCCCCTGATAAAGCAGTTCCCTGTAACCTGTGAGACTGGACCAGGGAGCCCCTCTGGCCATGCCATGGGCACAGC
AGGTGTATACTACGTGATGGTCACATCTACTCTTTCCATCTTTCAGGGAAAGATAAAGCCGACCTACAGATTTCG
GTGCTTGAATGTCATTTTGTGGTTGGGATTCTGGGCTGTGCAGCTGAATGTCTGTCTGTCACGAATCTACCTTGC
TGCTCATTTTCCTCATCAAGTTGTTGCTGGAGTCCTGTCAGGCATTGCTGTTGCAGAAACTTTCAGCCACATCCA
CAGCATCTATAATGCCAGCCTCAAGAAATATTTTCTCATTACCTTCTTCCTGTTCAGCTTCGCCATCGGATTTTA
TCTGCTGCTCAAGGGACTGGGTGTAGACCTCCTGTGGACTCTGGAGAAAGCCCAGAGGTGGTGCGAGCAGCCAGA
ATGGGTCCACATTGACACCACACCCTTTGCCAGCCTCCTCAAGAACCTGGGCACGCTCTTTGGCCTGGGGCTGGC
TCTCAACTCCAGCATGTACAGGGAGAGCTGCAAGGGGAAACTCAGCAAGTGGCTCCCATTCCGCCTCAGCTCTAT
TGTAGCCTCCCTCGTCCTCCTGCACGTCTTTGACTCCTTGAAACCCCCATCCCAAGTCGAGCTGGTCTTCTACGT
CTTGTCCTTCTGCAAGAGTGCGGTAGTGCCCCTGGCATCCGTCAGTGTCATCCCCTACTGCCTCGCCCAGGTCCT
GGGCCAGCCGCACAAGAAGTCGTTGTAAGAGATGTGGAGTCTTCGGTGTTTAAAGTCAACAACCATGCCAGGGAT
TGAGGAGGACTACTATTTGAAGCAATGGGCACTGGTATTTGGAGCAAGTGACATGCCATCCATTCTGCCGTCGTG
GAATTAAATCACGGATGGCAGATTGGAGGGTCGCCTGGCTTATTCCCATGTGTGACTCCAGCCTGCCCTCAGCAC
AGACTCTTTCAGATGGAGGTGCCATATCACGTACACCATATGCAAGTTTCCCGCCAGGAGGTCCTCCTCTCTCTA
CTTGAATACTCTCACAAGTAGGGAGCTCACTCCCACTGGAACAGCCCATTTTATCTTTGAATGGTCTTCTGCCAG
CCCATTTTGAGGCCAGAGGTGCTGTCAGCTCAGGTGGTCCTCTTTTACAATCCTAATCATATTGGGTAATGTTTT
TGAAAAGCTAATGAAGCTATTGAGAAAGACCTGTTGCTAGAAGTTGGGTTGTTCTGGATTTTCCCCTGAAGACTT
ACTTATTCTTCCGTCACATATACAAAAGCAAGACTTCCAGGTAGGGCCAGCTCACAAGCCCAGGCTGGAGATCCT
AACTGAGAATTTTCTACCTGTGTTCATTCTTACCGAGAAAAGGAGAAAGGAGCTCTGAATCTGATAGGAAAAGAA
GGCTGCCTAAGGAGGAGTTTTTAGTATGTGGCGTATCATGCAAGTGCTATGCCAAGCCATGTCTAAATGGCTTTA
ATTATATAGTAATGCACTCTCAGTAATGGGGGACCAGCTTAAGTATAATTAATAGATGGTTAGTGGGGTAATTCT
GCTTCTAGTATTTTTTTTACTGTGCATACATGTTCATCGTATTTCCTTGGATTTCTGAATGGCTGCAGTGACCCA
GATATTGCACTAGGTCAAAACATTCAGGTATAGCTGACATCTCCTCTATCACATTACATCATCCTCCTTATAAGC
CCAGCTCTGCTTTTTCCAGATTCTTCCACTGGCTCCACATCCACCCCACTGGATCTTCAGAAGGCTAGAGGGCGA
CTCTGGTGGTGCTTTTGTATGTTTCAATTAGGCTCTGAAATCTTGGGCAAAATGACAAGGGGAGGGCCAGGATTC
CTCTCTCAGGTCACTCCAGTGTTACTTTTAATTCCTAGAGGGTAAATATGACTCCTTTCTCTATCCCAAGCCAAC
CAAGAGCACATTCTTAAAGGAAAAGTCAACATCTTCTCTCTTTTTTTTTTTTTTGAGACAGGGTCTCACTATGT
TGCCCAGGCTGCTCTTGAATTCCTGGGCTCAAGCAGTCCTCCCACCCTACCACAGCGTCCCGCGTAGCTGGGACT
ACAGGTGCAAGCCACTATGTCCAGCTAGCCAACTCCTCCTTGCCTGCTTTTCTTTTTTTTTCTTTTTTTGAGACG
GCGCACCTATCACCCAGGCTGGAGTGGAGTGGCACGATCTTGGCTCACTGCAACCTCTTCCTCCTGGTTCAAGCG
ATTCTCATGTCTCAGCCTCCTCAGTAGCTAGGACTACCGGCGTGCACCACCATGCCAGGCTAATTTTTATATTTT
TAGAATTTTAGAAGAGATGGGATTTCATCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAAGTGATCCACC
TGCCTTGGCCTCCCAAGGTGCTAGGATTACAGGCATGAGCCACCGCACCGGGCCCTCCTTGCCTGTTTTTCAATC
TCATCTGATATGCAGAGTATTTCTGCCCCACCCACCTACCCCCCAAAAAAAAGCTGAAGCCTATTTATTTGAAAGT
CCTTGTTTTTGCTACTAATTATATAGTATACCATACATTATCATTCAAAACAACCATCCTGCTCATAACATCTTT
GAAAAGAAAAATATATATGTGCAGTATTTTATTAAAGCAACATTTTATTTAAGAATAAAGTCTTGTTAATTACTA
TATTTTAGATGCAATGTGATC

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FIGURE 1440

TGCAATGTGATCTGAAGTTTCTAATTCTGGCCCAACTAAATTTCTAGCTCTGTTTCCCTAAACAAATAATTTGGT
TTCTCTGTGCCTGCATTTTCCCTTTGGAGAAGAAAAGTGCTCTCTCTTGAGTTGACCGAGAGTCCCATTAGGGAT
AGGGAGACTTAAATGCATCCACAGGGGCACAGGCAGAGTTGAGCACATAAACGGAGGCCCACCAGACCACAAGTC
AGCATGAGTTGCTCTATGGCATCAAATTGCAACTTGAGAGTAGATGGGCAGGGTCACTATCAAATTAAGCAATCA
GGGCACACAAGTTGCAGTAACACAACAAGACTAGGCCAGCTCTGGAATCCAGTAACTCAGTGTCAGCAAGGTTTT
GGGTTATAGTTCAAGAAAGTCTAAACAGAGCCAGTCACAGCACCAAGGAATGCTCAAGGGAGCTATTGCAGGTTT
CTCTGCTAAGAGATTTATTTCATCCTGGGTGCAGGGTTCGACCTCCAAAGGCCTCAAATCATCACCGTATCA**ATG**

GATTTCCTGAGGGTAAGCTCCGCTATTTCACACCTGAACTCCGGAGTCTGTATATTCAGGGAAGATTGCATTCTC
CTACTGGATTTGGGCTCTCAGAGGGCGTTGTGGGAACCAGGCCCCTCACAGAATCAAATGGTCCCAACCAGGGAG
AAAGAAAATAGTCTTTTTTTTTTTTTTAATAGAGATGGGGGTCTCACTATGCTGCCCAGGCTGGTCTTGAACTCC
TGGGTTCAAGTGATCCTCCTGCCTCAGCCTCCCAAAGTGCTGGGATTACAGTGTGAGCCACTGCGCTTGGCCAGA
AATGGTTTTGATCTGTCTGAACTGAACCCTACTGCT**TAG**GCATAGCCCCATCCTTGATAATCTATTTGCTCCCAA
GGACCAAGTCCAAGATCCTTACAAGAAAGGTCTGCCAGAAAGTAAATACTGCCCCCACTCCCTGAAGTTTATGAG
GATGATAAGAAAACATAACAGATAAAGTTTATTGAGT

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FIGURE 1441

AGCCAGTGTGGCTGTCTGTGGACTTTGATAACTGGAGAGACTGGGAAGGGGATGAAGAGATGGAGCTGGCTCATG
TGGAACATTATGCAGAGCTTTTGAAGAAGGTCAGCACCAAGAGACCTCCACCTGCCATGGATGATTTGGATTTCA
CCACCACCGTGGTCTCCTGCTGTCCCGCGGAGCTGCAGACTGAAGGGAGCAACGGCAAGAAAGAAGTGCTGAGCG
GTTTCCAAGTGGTGCTGGAAGACACAGTGCTTTTCCCTGAGGGCGGGGGACAGCCTGATGACCGTGGTACAATCA
ATGACATCTCTGTGCTGAGAGTGACTCGCCGTGGGGAACAGGCTGATCATTTCACCCAGACACCCCTGGATCCAG
GAAGCCAGGTTCTGGTCCGGGTAGATTGGGAGCGGAGGTTTGACCACATGCAGCAGCATTCAGGGCAGCATCTCA
TCACGGCAGTTGCTGACCATCTATTTAAGCTGAAGACAACATCATGGGAGTTAGGGAGATTTCGGAGTGCGATTG
AGCTGGACACCCCCTCTATGACTGCAGAGCAAGTAGCTGCCATTGAGCAGAGCGTCAATGAAAAAATCAGAGATC
GGCTGCCTGTGAATGTCCGAGAACTGAGCCTGGATGATCCTGAGGTGGAGCAGGTGAGTGGCCGGGGTTTGCCTG
ATGATCATGCTGGGCCCATTCGGGTTGTTAACATCGAGGGCGTTGATTCCAACATGTGCTGTGGGACCCATGTGA
GCAATCTCAGTGACCTTCAGGTCATTAAGATTCTGGGCACTGAGAAGGGGAAAAAGAACAGAACCAACCTGATAT
TTCTGTCTGGGAACCGGGTGCTGAAGTGGATGGAGAGAAGTCATGGAACTGAAAAAGCACTGACTGCTCTGCTTA
AGTGTGGAGCAGAGGATCATGTGGAAGCAGTGAAAAAGCTCCAGAACTCCACCAAGATCCTGCAGAAGAATAACC
TGAATCTGCTCAGAGACCTGGCTGTGCACATTGCCCATAGCCTCAGGAACAGTCCAGACTGGGGAGGTGTGGTCA
TATTACACAGGAAGGAGGGTGATTCAGAGTTCATGAATATCATTGCCAATGAGATTGGGTCAGAGGAGACCCTCC
TGTTCTTAACTGTGGGCGATGAGAAAGGTGGTGGACTCTTCTTACTGGCAGGGCCACCTGCGTCTGTGGAGACCC
TGGGGCCCAGGGTGGCTGAGGTCCTGGAAGGCAAAGGAGCAGGGAAGAAAGGCCGTTTTCAGGGCAAGGCCACCA
AGATGAGCCGGCGGATGGAGGCGCAGGCGCTTCTCCAGGACTACATCAGCACGCAGAGTGCTAAGGAGTGAGGGC
TTAGGGCACTCACCTCCTGTTTCCACAGGAATCTTTTGGTCAATAAAATAGATTGACTCAG

FIGURE 1442

GGGCGGACGGCACAGAGGGAGGGAGCGAGCGAGCAGTGAGTAAGCCAGCAAGGGCGGTCGGGTCCCGAGGTCAGC
CGAGATTTCTCAGGTCCCTCCGGCCCCCTCCCTGGAGTCCACAGCGCCTCCGGTGTCCAGAGGATCGGACACGGC
CCGGCCCGGCC**ATG**GCCTCGTTGCTGAAGGTGGATCAGGAAGTGAAGCTCAAGGTTGATTCTTTCAGGGAGCGGA
TCACAAGTGAGGCAGAAGACTTGGTGGCAAATTTTTTCCCAAAGAAGTTATTAGAACTTGATAGTTTTCTGAAGG
AACCAATCTTAAACATCCATGACCTAACTCAGATCCACTCTGACATGAATCTCCCAGTCCCTGACCCCATTCTTC
TCACCAATAGCCATGATGGACTGGATGGTCCCACTTATAAGAAGCGAAGGTTGGATGAGTGTGAAGAAGCCTTCC
AAGGAACCAAGGTGTTTGTGATGCCCAATGGGATGCTGAAAAGCAACCAGCAGCTGGTGGACATTATTGAGAAAG
TGAAACCTGAGATCCGGCTGTTGATTGAGAAATGTAACACGCCTTCAGGCAAAGGTCCTCATATATGTTTTGACC
TCCAGGTCAAAATGTGGGTACAGCTCCTGATTCCCAGGATAGAAGATGGAAACAACTTTGGGGTGTCCATTCAGG
AGGAAACAGTTGCAGAGCTAAGAACTGTTGAGAGTGAAGCTGCATCTTATCTGGACCAGATTTCTAGATATTATA
TTACAAGAGCCAAATTGGTTTCTAAAATAGCTAAATATCCCCATGTGGAGGACTATCGCCGCACCGTGACAGAGA
TTGATGAGAAAGAATATATCAGCCTTCGGCTCATCATATCAGAGCTGAGGAATCAATATGTCACTCTACATGACA
TGATCCTGAAAAATATCGAGAAGATCAAACGGCCCCGGAGCAGCAATGCAGAGACTCTGTAC**TGA**GGCCAGGGCC
AGGGCCAGGGGACTCTGTGAGTCTGGCTCAAGACCGACATTGCCTTGGTTTGTTACATGACTATCGTGATGGGGA
AACTGGCTGGAAATAGTAATCACACCTCTCTGTTTTTAGTTAGAGTCTAATGAAACTCTCATCTAGTTCTGTGAT
GTGTTTACCTCTTTTTTCAGGCCTCAGGAACTCTTCTATTTCCTTCCCTAATACCCCACACCCAACCTGTCGTAA
TTTCTGGAGAACTCCAGGTTTGTGTGTGCAGGATGTTGGCACAAAAATACCTGTGTTTTCATTCTCCCCCTCTCT
CCCTCCTGTGTCTTGCGCTTTATGTTTTCTTCCGTTTGATAATTAGTTGGTTAAAAGCTGAGGGAACCGGAAGGA
AAGTGCTAGGTGTTTTTTAGGAACTAGGGTGGCGGGGGGACGAACTTCTCTTCCTCACATGAGGTTACTGTTTCT
TTCCTCTGTGGGGCATTGGATCCTCCCACAGTTGCCCTGGTGATGACTTAGGGCTTCCCATCTGTGTACATCCCA
CTTTGAATCTTGATCGTGACAAGAAATACCTTAGGCCTTCAGTCAATTCCGAAGCTCCTTCAGTTGTTTTTATAA
TGGGCGTTTTCACATGCACATATGTGTATGCATGTATACGCCCATACAGACATGCACACACAGACTCCTACTCCA
TTAGCTAACATACCCTCCCTCTCCACAACCCCTGTCACATACCTTTCAGGAGGTGACAGTTGTCTTAGTTGTCAT
CTACCCAGACAAACGTCCTGGGCCCGTCCTCCCTCCTGATACTGTAGCCTCTTGGTACCCAGGGTGAGTTGGTGG
AGAACAGAGAGATGAGAAGCAGAGGGCTTGGGGAAAGCCTGTTCCTCTCTGACTCAGCCCTTTTTGGCATTATTG
CAAGAGCTTGACTCCTGGTTGCCTTTTCCCAGCCAGTTTTCAGTTGGGGTGAAGGTTTCTGCAAGTGTGAGGTCC
AGATGCTGCTGCTCATGTTGGGCTTTCCTTTTGGGAACTATTTCTCTTTATTTATAGTGTCGGGCTTCCGGGGAA
AGCAATCATTGGTGTGTATGTGTATGTGCATGCACACACGTGCATATACACATTTGTGTATGTGGAAATGTGCTG
GGCAAGTCAAAACTATAGAAGAGTTGCCTCCTGTCTCTCGAATCTTCCAGAGATATCACTTAATTGTTAACAGCT
TTTGTGTTAATCCCCTTCAGCCCCTAGCTCTTTTATTCTACCACGGCTGGAGAGTTGATACCTGCAGTCAGCCTG
CCAGTGACTCTTAGTGTCTGTTTCTGACTTATTTTTCCTGTCTCTGTCTTCCAACCCCCAATAATATTTCCACCG
GGGATGCATCATTTTTACTCCCAATATTCTGTAGAGAGGGAGTCAGGATGCTGTCTTCCCACGAATAGTACTCAG
TAACAAACCAATTGCATTTTAGTTGGGCAGTGCTCCCACCCACCCTCCAGATCCCTTCCAGCTAAAACCCTTCCC
CCTTCCCTCCATGTGTTTCTCAGTTTCCCGTTTCGTTTGTTGGACTGTTCCACTGCCCCTCCTCCTCACCCTATC
ACCCATGGATCGTAATGTAAAATTCTTTTACCATGTCAAGAAATTATTAAAAATACAGGTACTTTGACCTCTTTC
TAAAGCCGCAGACCCTGGTGCAATGCTCTGGTGGCTAGGGATGTACTCATGCTCATATGTGTGCACGCTTGGACA
CCCACCTCCATGGACACCTAGCCACCCTGTTGTGTGTCCTTATGCCAGTTGAGCTGAATCTTTTCCCCAGTATAG
TGGAAAGACTGAGGCTTCTGCCTACTGAGCAAGGTTGGGTGCTTCATTTGTGTTCAGTCTGAATTATGGGAAAGT
TAGCTCTTCCCAGACCTAAGCTGCCTTCTCTCCCTACTTTCAG

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FIGURE 1443

GGCTACCGGGAAGTCGTTGAAGACAGAGCGATGGTAGTTCTGGAGGCCTCGCTCCGGGGCCGACCCGAGGGCCAC
AGTGCCTCCGCGGTAGACCGGACTTGGGTGACGGGCTCCGGGCTCCCGAGGTGAAGAGCATCGGGGGCTGAGGGA
TGGAAGGGTCTAAGACGTCCAACAACAGCACCATGCAGGTGAGCTTCGTGTGCCAGCGCTGCAGCCAGCCCCTGA
AACTGGACACGAGTTTCAAGATCCTGGACCGTGTCACCATCCAGGAACTCACAGCTCCATTACTTACCACAGCCC
AGGCGAAACCAGGAGAGACCCAGGAGGAAGAGACTAACTCAGGAGAGGAGCCATTTATTGAAACTCCTCGCCAGG
ATGGTGTCTCTCGCAGATTCATCCCCCCAGCCAGGATGATGTCCACAGAAAGTGCCAACAGCTTCACTCTGATTG
GGGAGGCATCTGATGGCGGCACCATGGAGAACCTCAGCCGAAGACTGAAGGTCACTGGGGACCTTTTTGACATCA
TGTCGGGCCAGACAGATGTGGATCACCCACTCTGTGAGGAATGCACAGATACTCTTTTAGACCAGCTGGACACTC
AGCTCAACGTCACTGAAAATGAGTGTCAGAACTACAAACGCTGTTTGGAGATCTTAGAGCAAATGAATGAGGATG
ACAGTGAACAGTTACAGATGGAGCTAAAGGAGCTGGCACTAGAGGAGGAGAGGCTGATCCAGGAGCTGGAAGACG
TGGAAAAGAACCGCAAGATAGTGGCAGAAAATCTCGAGAAGGTCCAGGCTGAGGCTGAGAGACTGGATCAGGAGG
AAGCTCAGTATCAGAGAGAATACAGTGAATTTAAACGACAGCAGCTGGAGCTGGATGATGAGCTGAAGAGTGTTG
AAAACCAGATGCGTTATGCCCAGACGCAGCTGGATAAGCTGAAGAAAACCAACGTCTTTAATGCAACCTTCCACA
TCTGGCACAGTGGACAGTTTGGCACAATCAATAACTTCAGGCTGGGTCGCCTGCCCAGTGTTCCCGTGGAATGGA
ATGAGATTAATGCTGCTTGGGGCCAGACTGTGTTGCTGCTCCATGCTCTGGCCAATAAGATGGGTCTGAAATTTC
AGAGATACCGACTTGTTCCTTACGGAAACCATTCATATCTGGAGTCTCTGACAGACAAATCTAAGGAGCTGCCGT
TATACTGTTCTGGGGGGTTGCGGTTTTTCTGGGACAACAAGTTTGACCATGCAATGGTGGCTTTCCTGGACTGTG
TGCAGCAGTTCAAAGAAGAGGTTGAGAAAGGCGAGACACGTTTTTGTCTTCCCTACAGGATGGATGTGGAGAAAG
GCAAGATTGAAGACACAGGAGGCAGTGGCGGCTCCTATTCCATCAAAACCCAGTTTAACTCTGAGGAGCAGTGGA
CAAAAGCTCTCAAGTTCATGCTGACGAATCTTAAGTGGGGTCTTGCTTGGGTGTCCTCACAATTTTATAACAAAT
GACTTTTTTCCTTAGGGGGAGGTTTGCCTTAAAGGCTTTTAATTTTGTTTTGTTTGCAAACATGTTTTAAATTAA
ATTCGGGTAATATTAAACAGTACATGTTTACAATACCAAAAAAGAAAAAATCCACAAAAGCCACTTTATTTTAAA
ATATCATGTGACAGATACTTTCCAGAGCTACAACATGCCATCTATAGTTGCCAGCCCTGGTCAGTTTTGATTCTT
AACCCCATGGACTCCTTTCCCTTTCTTCTCTGAAAAAAACTAATTTAAATTTGCTTTTCTTTTTTTTAACTGAGT
TGAATTGAGATTGATGTGTTTTCACTGGATTTTTATCTCTCTCAACTTCCTGCACTTAACAATATGAAATAGAAA
CTTTTGTCTTTACTGAGATGAGGATATGTTTGAGATGCACAGTTGGATAATGTGGGAAAATGACATCTAAGCTTT
ACCTGGTCACCATGTGATGTGATCAGATGCTTGAAATTTAACACTTTTCACTTGGTTCTTATACTGAATGCCGAC
TCTGCTCTGTGTTAGAGATATGAAATGGTGTTTGATACTGTTTGAGACATTATGGAGAGATTTAATTATTTGTAA
TAAAAGATTTGCTGCAGTCTGAAAACTG

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FIGURE 1444

GGAGGAGTGGCAAC**ATG**GCGTCTTCGGGAGCTGGTGACCCTCTGGATTCTAAGCGTGGAGAGGCCCCGTTCGCTC
AGCGTATCGACCCGACTCGGGAGAAGCTGACACCCGAGCAACTGCATTCCATGCGGCAGGCGGAGCTTGCCCAGT
GGCAGAAGGTCCTACCACGGCGGCGAACCCGGAACATCGTGACCGGCCTAGGCATCGGGGCCCTGGTGTTGGCTA
TTTATGGTTACACCTTCTACTCGATTTCCCAGGAGCGTTTCCTAGATGAGCTAGAAGACGAGGCCAAAGCTGCCC
GAGCCCGAGCTCTGGCAAGGGCGTCAGGGTCC**TAA**TCTGGATGGGTATTGATCATGTCCAACCTGCTGGAGCCCC
TTCACATGGTGGATGATGCCCCATGACCCTGTAGAAATTGAATCCTGCTCACAACATTGTTGGCCTTCTTACTAA
CCTTGGACCGTGATTGAGCCCAAGAAACCAGGGACTTACGCATTTGGCCAATGTCAAAAGAACAGAACTTTGCCC
ACTGCACACTTGCTGTGTACAATGACTGAGCCCTTTCTTGTAGTTTGTTTCCTTGTTTGAGAGGTGTGCATGCGA
CCGTGGCTTTTCCCAAAGTTTCTGACTTTGTGGTTTACCCCCTTCACCTTCCAGGGACGCAGTTGTTACGAGGTT
AGACGTGGCAGCTCTGTGCAGTGTTTGAGCCTACAGTGGGATACATAGGGTCAAATTGAGAATAATAAACTGAGT
CATTCTCCTGG

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FIGURE 1445

GTCCTTAGCCGGTAGCTTCCGGGTTTCCTGGGCTACTACG**ATG**GCGATGAGTTTCGAGTGGCCGTGGCAGTATCG
CTTCCCACCCTTCTTTACGTTACAACCGAATGTGGACACTCGGCAGAAGCAGCTGGCCGCCTGGTGCTCGCTGGT
CCTGTCCTTCTGCCGCCTGCACAAACAGTCCAGCATGACGGTGATGGAAGCTCAGGAGAGCCCGCTCTTCAACAA
CGTCAAGCTACAGCGAAAGCTTCCTGTGGAGTCGATCCAGATTGTATTAGAGGAACTGAGGAAGAAAGGGAACCT
CGAGTGGTTGGATAAGAGCAAGTCCAGCTTCCTGATCATGTGGCGGAGGCCAGAAGAATGGGGGAAACTCATCTA
TCAGTGGGTTTCCAGGAGTGGCCAGAACAACTCCGTCTTTACCCTGTATGAACTGACTAATGGGGAAGACACAGA
GGATGAGGAGTTCCACGGGCTGGATGAAGCCACTCTACTGCGGGCTCTGCAGGCCCTACAGCAGGAGCACAAGGC
CGAGATCATCACTGTCAGCGATGGCCGAGGCGTCAAGTTCTTC**TAG**CAGGGACCTGTCTCCCTTTACTTCTTACC
TCCCACCTTTCCAGGGCTTTCAAAAGGAGACAGACCCAGTGTCCCCCAAAGACTGGATCTGTGACTCCACCAGAC
TCAAAAGGACTCCAGTCCTGAAGGCTGGGACCTGGGGATGGGTTTCTCACACCCCATATGTCTGTCCCTTGGATA
GGGTGAGGCTGAAGCACCAGGGAGAAAATATGTGCTTCTTCTCGCCCTACCTCCTTTCCCATCCTAGACTGTCCT
TGAGCCAGGGTCTGTAAACCTGACACTTTATATGTGTTCACACATGTAAGTACATACACACATGCGCCTGCAGCA
CATGCTTCTGTCTCCTCCTCCTCCCACCCCTTTAGCTGCTGTTGCCTCCCTTCTCAGGCTGGTGCTGGATCCTTC
CTAGGGGATGGGGGAAGCCCTGGCTGCAGGCAGCCTTCCAGGCAATATGAAGATAGGAGGCCCACGGGCCTGGCA
GTGAGAGGTGTGGCCCCACACCGATTTATGATATTAAAATCTCAACTCCC

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FIGURE 1446

TTGGAGGTCCCCCTCCCCACTAAGTGCCTCTTTGCATAGCACCAGTCCCCACCCGCACGCTCTCTGGACCACTAC
AGCTGGACGGGCA**ATG**GCGGGTCGGGGAGGCGCAGCACGACCCAATGGACCAGCTGCTGGGAACAAGATCTGTCA
ATTTAAGCTGGTTCTGCTGGGGGAGTCTGCGGTAGGCAAATCCAGCCTCGTCCTCCGCTTTGTCAAGGGACAGTT
TCACGAGTACCAGGAGAGCACAATTGGAGCGGCCTTCCTCACACAGACTGTCTGCCTGGATGACACAACAGTCAA
GTTTGAGATCTGGGACACAGCTGGACAGGAGCGGTATCACAGCCTGGCCCCCATGTACTATCGGGGGGCCCAGGC
TGCCATCGTGGTCTATGACATCACCAACACAGATACATTTGCACGGGCCAAGAACTGGGTGAAGGAGCTACAGAG
GCAGGCCAGCCCCAACATCGTCATTGCACTCGCGGGTAACAAGGCAGACCTGGCCAGCAAGAGAGCCGTGGAATT
CCAGGAAGCACAAGCCTATGCAGACGACAACAGTTTGCTGTTCATGGAGACATCAGCAAAGACTGCAATGAACGT
GAACGAAATCTTCATGGCAATAGCTAAGAAGCTTCCCAAGAACGAGCCCCAGAATGCAACTGGTGCTCCAGGCCG
AAACCGAGGTGTGGACCTCCAGGAGAACAACCCAGCCAGCCGGAGCCAGTGCTGCAGCAAC**TGA**GCCCCCCTTGC
CTGCCCGCTGCCCCCGCCTCCTCCGCCTGAATGACCCGACTGGAATCCACTCTAACCAATCGCACTTAACGACTC
GGGCCACCACTGGGGGGGCAGGGGGAGGGGTCCACCATGATTTCTCCATATAATTTTGATCATAGGCCGGAGTGA
GTCATTCCACCTGCACCTTTCTGTACAAATACTAATTCAATTTTAAGTCTTAAGTCACTTTTTTAATATATATGA
TCTTCTGCTCTTCCCACTTCCTCCCCTTTCTACTGCTCTCCCATTTTCCCTTGCTGGGAGTAGCCACATGCTCTT
GCCCCCCAACCCTTGTATATGGGGACAGTGGGGTCAGTGCAGCTACCCTTTCTTTCCCTCCTGCGGAACAGCGGA
CCCAGCAAGAGCATCCACATCCTCACTTTGTTCGGAGTGGTCTTTGGTTTGGGCGGTGGGGCAGACCTTGGGAAG
GGGCTTAGGAAGGGAGAGGCAGCTCTTCCTTCAGCTGGCTCTCATCAGGCTGCAGCCCCCTCCCCGCTCCCACCT
CCCTGCTGGGAAACCACAGCATTATCACAGCATTATTGTGACAGCCACGAACCCATTGCCCACAACCCCTCCACC
CTCGGTCACCCCAACCTCTGGCTCTGAGCCCTGTTCTGACCAAATCATGATGATGAGTATTTGGGGGTGGGTGGG
TAAGGGGGGGAGTGGGAGGGGACGGAACCAACTTTTTCTGTATTTTGTATTGTATGTTTTCTTCAACATGTAACC
AATCAGTATCTTGTCAATATAGTCAGCCGATCGATCGACCTC

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FIGURE 1447

CCGCTCTCCGCTGCGGGGGAGGCC**ATG**GCGGAACCTTCCCAGGCCCCGACCCCGGCCCCGGCTGCGCAGCCCCGG
CCCCTTCAGTCCCCAGCCCCTGCCCCAACTCCGACTCCTGCACCCAGCCCGGCTTCAGCCCCGATTCCGACTCCC
ACCCCGGCACCAGCCCCTGCCCCAGCTGCAGCCCCAGCCGGCAGCACAGGGACTGGGGGGCCCGGGGTAGGAAGT
GGGGGGGCCGGGAGCGGGGGGGATCCGGCTCGACCTGGCCTGAGCCAGCAGCAGCGCGCCAGTCAGAGGAAGGCG
CAAGTCCGGGGGCTGCCGCGCGCCAAGAAGCTTGAGAAGCTAGGGGTCTTCTCGGCTTGCAAGGCCAATGAAACC
TGTAAGTGTAATGGCTGGAAAAACCCCAAGCCCCCCACTGCACCCCGCATGGATCTGCAGCAGCCAGCTGCCAAC
CTGAGTGAGCTGTGCCGCAGTTGTGAGCACCCCTTGGCTGACCACGTATCCCACTTGGAGAATGTGTCAGAGGAT
GAGATAAACCGACTGCTGGGGATGGTGGTGGATGTGGAGAATCTCTTCATGTCTGTTCACAAGGAAGAGGACACA
GACACCAAGCAGGTCTATTTCTACCTCTTCAAGCTACTGCGGAAATGCATCCTGCAGATGACCCGGCCTGTGGTG
GAGGGGTCCCTGGGCAGCCCTCCATTTGAGAAACCTAATATTGAGCAGGGTGTGCTGAACTTTGTGCAGTACAAG
TTTAGTCACCTGGCTCCCCGGGAGCGGCAGACGATGTTCGAGCTCTCAAAGATGTTCTTGCTCTGCCTTAACTAC
TGGAAGCTTGAGACACCTGCCCAGTTTCGGCAGAGGTCTCAGGCTGAGGACGTGGCTACCTACAAGGTCAATTAC
ACCAGATGGCTCTGTTACTGCCACGTGCCCCAGAGCTGTGATAGCCTCCCCCGCTACGAAACCACTCATGTCTTT
GGGCGAAGCCTTCTCCGGTCCATTTTCACCGTTACCCGCCGGCAGCTGCTGGAAAAGTTCCGAGTGGAGAAGGAC
AAATTGGTGCCCGAGAAGAGGACCCTCATCCTCACTCACTTCCCCAAATTCCTGTCCATGCTGGAGGAGGAGATC
TATGGGGCAAACTCTCCAATCTGGGAGTCAGGCTTCACCATGCCACCCTCAGAGGGGACACAGCTGGTTCCCCGG
CCAGCTTCAGTCAGTGCAGCGGTTGTTCCCAGCACCCCCATCTTCAGCCCCAGCATGGGTGGGGGCAGCAACAGC
TCCCTGAGTCTGGATTCTGCAGGGGCCGAGCCTATGCCAGGCGAGAAGAGGACGCTCCCAGAGAACCTGACCCTG
GAGGATGCCAAGCGGCTCCGTGTGATGGGTGACATCCCCATGGAGCTGGTCAATGAGGTCATGCTGACCATCACT
GACCCTGCTGCCATGCTGGGGCCTGAGACGAGCCTGCTTTCGGCCAATGCGGCCCGGGATGAGACAGCCCGCCTG
GAGGAGCGCCGCGGCATCATCGAGTTCCATGTCATCGGCAACTCACTGACGCCCAAGGCCAACCGGCGGGTGTTG
CTGTGGCTCGTGGGGCTGCAGAATGTCTTTTCCCACCAGCTGCCGCGCATGCCTAAGGAGTATATCGCCCGCCTC
GTCTTTGACCCGAAGCACAAGACTCTGGCCTTGATCAAGGATGGGCGGGTCATCGGTGGCATCTGCTTCCGCATG
TTTCCCACCCAGGGCTTCACGGAGATTGTCTTCTGTGCTGTCACCTCGAATGAGCAGGTCAAGGGTTATGGGACC
CACCTGATGAACCACCTGAAGGAGTATCACATCAAGCACAACATTCTCTACTTCCTCACCTACGCCGACGAGTAC
GCCATCGGCTACTTCAAAAAGCAGGGTTTCTCCAAGGACATCAAGGTGCCCAAGAGCCGCTACCTGGGCTACATC
AAGGACTACGAGGGAGCGACGCTGATGGAGTGTGAGCTGAATCCCCGCATCCCCTACACGGAGCTGTCCCACATC
ATCAAGAAGCAGAAAGAGATCATCAAGAAGCTGATTGAGCGCAAACAGGCCCAGATCCGCAAGGTCTACCCGGGG
CTCAGCTGCTTCAAGGAGGGCGTGAGGCAGATCCCTGTGGAGAGCGTTCCTGGCATTCGAGAGACAGGCTGGAAG
CCATTGGGGAAGGAGAAGGGGAAGGAGCTGAAGGACCCCGACCAGCTCTACACAACCCTCAAAAACCTGCTGGCC
CAAATCAAGTCTCACCCCAGTGCCTGGCCCTTCATGGAGCCTGTGAAGAAGTCGGAGGCCCCTGACTACTACGAG
GTCATCCGCTTCCCCATTGACCTGAAGACCATGACTGAGCGGCTGCGAAGCCGCTACTACGTGACCCGGAAGCTC
TTTGTGGCCGACCTGCAGCGGGTCATCGCCAACTGTCGCGAGTACAACCCCCCGGACAGCGAGTACTGCCGCTGT
GCCAGCGCCCTGGAGAAGTTCTTCTACTTCAAGCTCAAGGAGGGAGGCCTCATTGACAAG**TAG**GCCCATCTTTGG
GCCGCAGCCCTGACCTGGAATGTCTCCACCTCGGATTCTGATCTGATCCTTAGGGGGTGCCCTGGCCCCACGGAC
CCGACTCAGCTTGAGACACTCCAGCCAAGGGTCCTCCGGACCCGATCCTGCAGCTCTTTCTGGACCTTCAGGCAC
CCCCAAGCGTGCAGCTCTGTCCCAGCCTTCACTGTGTGTGAGAGGTCTCCTGGGTTGGGGCCCAGCCCCTCTAGA
GTAGCTGGTGGCCAGGGATGAACCTTGCCCAGCCGTGGTGGCCCCCAGGCCTGGTCCCCAAGAGCTTTGGAGGCT
TGGATTCCTGGGCCTGGCCCAGGTGGCTGTTTCCCTGAGGACCAGAACTGCTCATTTTAGCTTGAGTGATGGCTT
CAGGGGTTGGAAGTTCAGCCCAAACTGAAGGGGGCCATGCCTTGTCCAGCACTGTTCTGTCAGTCTCCCCCAGGG
GTGGGGGGTATGGGGACCATTCATTCCCTGGCATTAATCCCTTAGAGGGAATAATAAAGCTTTTTATTTCTCTG

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FIGURE 1448

CGCGAGCTCGGAGGGCCCGGCTGGTGCTGCGGGGGCCCCGGGAGGTTGAAAACTAAGC**ATG**GGGAAGAGCTGCAA
GGTGGTCGTGTGTGGCCAGGCGTCTGTGGGCAAAACTTCAATCCTGGAGCAGCTTCTGTATGGGAACCATGTAGT
GGGTTCGGAGATGATCGAGACGCAGGAGGACATCTACGTGGGCTCCATTGAGACAGACCGGGGGGTGCGAGAGCA
GGTGCGTTTCTATGACACCCGGGGGCTCCGAGATGGGGCCGAACTGCCCCGACACTGCTTCTCTTGCACTGATGG
CTACGTCCTGGTCTATAGCACAGATAGCAGAGAGTCTTTTCAGCGTGTGGAGCTGCTCAAGAAGGAGATTGACAA
ATCCAAGGACAAGAAGGAGGTCACCATCGTGGTCCTTGGCAACAAGTGTGACTTACAGGAGCAGCGGCGTGTAGA
CCCAGATGTGGCTCAGCACTGGGCCAAGTCAGAGAAGGTGAAGCTGTGGGAGGTGTCAGTGGCGGACCGGCGCTC
CCTCCTGGAGCCCTTTGTCTACTTGGCCAGCAAGATGACGCAACCCCAGAGCAAGTCTGCCTTCCCCCTCAGCCG
GAAGAACAAGGGCAGCGGCTCCTTGGATGGC**TGA**AGAGCTGCCGTTCCTCTTTCACGATCCCAGCCCCATTTCAG
TGTCTGGGGCTCTGGTAGATGTGTTGAGGGCAAAGTAGAGGACAAGCTGTCTTTCCCAGTCAGCCAGGGAGCTCC
CCGCCAGGCCACGCCCCAGCCACTTTGCTCCCTCTCACCTCTGGGAAGTGCAAATACTCTTGGTTGACATCCCCT
TCCTCAGCCCTCCCAGCCTACTCCCCATCCCAGCTTTTAGAGGATCTGCTCCACTGTCTCCTGGGGCAGTTGTGG
GTCACTGTCCCTTCCAGCTGCCCCAGACAGGAAGCAGAGTCACCACGCAGCAGTGTCCCTTCTTGGGTCTGAGTT
CCTATTATAGGTAGGGGCCCCACCCTCTGGGCTTCCCATCAGCGACACACACACACTTATGGCACCAGCCTGGAC
TCCAGAAAAAGGGTGTCCAGGTATTGTGTGTATGCATTTAGTTGTGCACACACAAATATGCTCCTATACTGGCAT
TAGGCGTCTCCTCATCCCTCACCCTGACCTTTCTCCTGTCCTTTTCTTGGCTGGAAGAAGTTGGCCTCCTGGGAG
TGTAGTTTTCTGTTTTAAATCCCCCACCCCTGGCTGGGCTCAGTGGCTCACCCCTGTAATCCCAGCACTTTGGGA
GGCCAAGGCGGGTCGATTACTTGAGGTCAGGAGTTCACGACCAGCCTGGCCAACATTGTGAAACCCCATCTCTGC
CAAAAATACAAAAGTTAGCCGGGCGTAGTGGCACATGCCTGTAATCCCAGCTACCCGGGGAGGCTGAGGCAGGAG
AATTGCTTGAACTCAGAAGGCGGAGGCTGCAGTGAGCCGAGATCGTGCCACTGCACTCCAGCCTGGTCAACAGAG
CAAGACTCCATCTCG

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FIGURE 1449

CGGCTGCCGCGGAGTGCGATGTGGTAATGGCGGCGACCGAGCCGGAGCTGCTCGACGACCAAGAGGCGAAGAGGG
AAGCAGAGACTTTCAAGGAACAAGGAAATGCATACTATGCCAAGAAAGATTACAATGAAGCTTATAATTATTATA
CAAAAGCCATAGATATGTGTCCTAAAAATGCTAGCTATTATGGTAATCGAGCAGCCACCTTGATGATGCTTGGAA
GGTTCCGGGAAGCTCTTGGAGATGCACAACAGTCAGTGAGGTTGGATGACAGTTTTGTCCGGGGACATCTACGAG
AGGGCAAGTGCCACCTCTCTCTGGGGAATGCCATGGCAGCATGTCGCAGCTTCCAGAGAGCCCTAGAACTGGATC
ATAAAAATGCTCAGGCACAACAAGAGTTCAAGAATGCTAATGCAGTCATGGAATATGAGAAAATAGCAGAAACAG
ATTTTGAGAAGCGAGATTTTCGGAAGGTTGTTTTCTGCATGGACCGTGCCCTAGAATTTGCCCCTGCCTGCCATC
GCTTCAAAATCCTCAAGGCAGAATGTTTAGCAATGCTGGGTCGTTATCCGGAAGCACAGTCTGTGGCTAGTGACA
TTCTACGAATGGATTCCACCA**ATG**CAGATGCTCTGTATGTACGAGGTCTTTGCCTTTATTACGAAGATTGTATTG
AGAAGGCAGTTCAGTTTTTCGTACAGGCTCTCAGGATGGCTCCTGACCACGAGAAGGCCTGCATTGCCTGCAGAA
ATGCCAAAGCACTCAAAGCAAAGAAAGAAGATGGGAATAAAGCATTTAAGGAAGGAAATTACAAAC**TAG**CATATG
AACTGTACACAGAAGCCCTGGGGATAGACCCCAACAATATAAAAACAAATGCTAAACTCTACTGTAATCGGGGTA
CGGTTAATTCCAAGCTTAGGAAACTAGATGATGCAATAGAAGACTGCACAAATGCAGTGAAGCTTGATGACACTT
ACATAAAAGCCTACTTGAGAAGAGCTCAGTGTTACATGGACACAGAACAGTATGAAGAAGCAGTACGAGACTATG
AAAAAGTATACCAGACAGAGAAAACAAAAGAACACAAACAGCTCCTAAAAAATGCGCAGCTGGAACTGAAGAAGA
GTAAGAGGAAAGATTACTACAAGATTCTAGGAGTGGACAAGAATGCCTCTGAGGACGAGATCAAGAAAGCTTATC
GGAAACGGGCCTTGATGCACCATCCAGATCGGCATAGTGGAGCCAGTGCTGAGGTTCAGAAGGAGGAGGAGAAGA
AGTTCAAGGAAGTTGGAGAGGCCTTTACTATCCTCTCTGATCCCAAGAAAAAGACTCGCTATGACAGTGGACAGG
ACCTAGATGAGGAGGGCATGAATATGGGTG

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FIGURE 1450

GGGAAG**ATG**GCGGCTGTCGAAGCGGCTGCAGAGCCGGTAACGGTGGTGGCGGCTGTTGGGCCAAAGGCGAAAGAC
GAAGAGGAGGAGGAAGAGGAGCCGCTGCCACCGTGCGAGGCGGTGCGCTGGGCCCCAGTGGGGGCGGTGGCGGAG
GCCCGGCCTGGGGCAACCGCGTTTTTAGAAGAGGCGACGGCCGAGGAGCCTGGCGCGGCCCCGGGCTCCCCGCCG
GATTCGCCGGGCCGGACGCTGCGGCGGCTGCGGGCAGAGCGGCGGCGGCTGGACTCGGCGCTGCTGGCGCTGTCC
TCGCACTTCGCGCAGGTGCAGTTCCGCCTGCGCCAGGTGGTGCGCGGGGCGCCGGCGGAGCAGCAGCGCCTTCTG
CGGGAGCTCGAAGACTTCGCCTTCCGCGGCTGCCCTCACGTCCTAGGTTACGAAGGGCCCGGCGACCCCGCCAGC
GATGAGGGCGATGGGCTGCCAGGGGACCGGCCATGGTTGCGGGGCGAGGACCAGAGTGAGCAGGAAAAGCAAGAG
CGTCTGGAAACCCAAAGGGAGAAGCAGAAAGAACTGATACTGCAGCTCAAGACCCAGCTAGATGACCTGGAAACG
TTTGCCTATCAAGAGGGCAGTTATGACTCGCTGCCACAGTCCGTGGTGTTGGAAAGACAGCGGGTGATCATAGAT
GAGTTAATAAAGAAACTGGACATGAATCTGAATGAGGACATCAGTTCCCTGTCCACTGAAGAGCTTCGTCAGCGT
GTAGATGCAGCAGTGGCTCAGATCGTCAACCCAGCCCGAGTCAAAGAACAGTTGGTTGAGCAACTGAAAACTCAG
ATCCGAGACCTTGAGATGTTTATCAACTTCATCCAAGATGAAGTGGGAAGCCCCTTGCAGACAGGTGGTGGACAC
TGTGAGTGCAAGGCCGGTGGGAAGACAGGAAATGGCTGCAGCAGAACAGGCAGCAGCAGAACGCCTCCAGGAAAC
AGCAAAACAAAGGCAGAGGATGTGAAGAAAGTCCGGGAGACGGGGCTGCACCTGATGCGGCGAGCGCTGGCCGTG
CTCCAGATCTTTGCTGTTAGCCAGTTTGGTTGTGCCACAGGCCAGATCCCTCCAACCCTGTGGCAGAGGGTCCAG
GCTGACAGAGACTACTCTCCCTTGCTGAAGAGGCTGGAGGTGTCAGTGGACAGAGTGAAGCAGCTAGCCTTGAGG
CAGCAGCCACATGACCATGTCATCACCTCTGCCAACCTCCAGGACCTCTCTCTGGGAGGCAAGGATGAGCTGACT
ATGGCTGTGCGGAAGGAGCTAACGGTGGCTGTGAGGGACCTGCTGGCCCATGGACTGTATGCCTCCTCCCCAGGG
ATGAGCCTTGTTATGGCTCCTATTGCTTGTTTGCTGCCAGCCTTCTCCTCGGCCCCAGAGGCCATGCACCCGTGG
GAGCTCTTTGTAAAGTACTACCATGCTAAGAACGGCCGTGCTTATGTGGAATCCCCAGCCCGGAAGCTCTCCCAG
TCCTTCGCCCTTCCTGTTACGGGAGGCACTGTTGTCACCCCCAAACAGAGCCTACTGACAGCCATCCACATGGTG
CTGACAGAGCATGACCCTTTTAAGCGCAGTGCAGACTCAGAATTGAAGGCCTTGGTGTGCATGGCACTGAATGAG
CAGCGTCTGGTGTCCTGGGTGAACCTCATCTGCAAGTCCGGGTCACTCATCGAGCCTCACTACCAGCCCTGGAGC
TACATGGCACACACAGGCTTTGAGAGTGCCCTCAACCTGCTCAGTCGCCTCAGCAGCCTCAAGTTTAGCCTCCCT
GTAGATCTGGCTGTGCGCCAGCTCAAAAACATCAAAGATGCCTTT**TGA**TGAGAGTGCCCTAACCCCAGACAAGCT
CCTTGTTCAGTAGGGATAGATGTGCTAGTCTTCTAGCATAGGAGCAAGGAATCAGAGGTGGGGTTAAAGGCATTT
TTCCCAGACCCTGCTCAGGCAGTCGGCCAAATGAGTGCAAAGTCTGTTTTCCCCACCAACTTAGCTCTCGGAAAG
ATGTGCTGGAGGGACCCTCTTGTTAAGAAGGTTCTGCCAGGCCGGGCGCGGTGGCTCACACCTGTAATCCCAGCA
CTTTGGGAGGCCGAGGCGGGCGGATCACAAGGTCAGGAGTTCGAGACCATCCTGTCTAACACGGTGAAACCCCAT
CTCTACTAAAAATACAAAAAAATTAGTCGGACATGGTGGCAGGCACCTGTAGTCCCAGCTACTCGGGAGGCTGAG
GCAGGAGAATGGCGTGAACCCAGGAGGCGGAGCTTGCAGTGAGCCAAGATCGCGCCACTGCACTCCAGCCTGGGC
GACAGAGTGAGACTCCGTCTC

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FIGURE 1451

TCCTTCTTTCCTTTTTGCTGGTAGGGCCGGGTGGTTGCTGCAGAA**ATG**GGCAAGTTCATGAAACCTGGGAAGGTG
GTGCTTGTCCTGGCTGGACGCTACTCCGGACGCAAAGCTGTCATCGTGAAGAACATTGATGATGGCACCTCAGAT
CGCCCCTACAGCCATGCTCTGGTGGCTGGAATTGACCGCTACCCCCGCAAAGTGACAGCTGCCATGGGCAAGAAG
AAGATCGCCAAGAGATCAAAGATAAAATCTTTTGTGAAAGTGTATAACTACAATCACCTAATGCCCACAAGGTAC
TCTGTGGATATCCCCTTGGACAAAACTGTCGTCAATAAGGATGTCTTCAGAGATCCTGCTCTTAAACGCAAGGCC
CGACGGGAGGCCAAGGTCAAGTTTGAAGAGAGATACAAGACAGGCAAGAACAAGTGGTTCTTCCAGAAACTGCGG
TTT**TAG**ATGCTTTGTTTTGATCATTAAAAATTATAAAG

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FIGURE 1452

CTTTTTGGTGTAAATCTGGACTCTAATTCTGTAATATATCAAGGAATCTCGTAAAACCGACACTAAAACGTCCCT
GCCTACAAATCATCCGGCCAAATT**ATG**AGTTCATTGTATTATGCGAATGCTTTATTTTCTAAATATCCAGCCTCA
AGTTCGGTTTTCGCTACCGGAGCCTTCCCAGAACAAACTTCTTGTGCGTTTGCTTCCAACCCCCAGCGCCCGGGC
TATGGAGCGGGTTCGGGCGCTTCCTTCGCCGCCTCGATGCAGGGCTTGTACCCCGGCGGGGGGGGCATGGCGGGC
CAGAGCGCGGCCGGCGTCTACGCGGCCGGCTATGGGCTCGAGCCGAGTTCCTTCAACATGCACTGCGCGCCCTTT
GAGCAGAACCTCTCCGGGGTGTGTCCCGGCGACTCCGCCAAGGCGGCGGGCGCCAAGGAGCAGAGGGACTCGGAC
TTGGCGGCCGAGAGTAACTTCCGGATCTACCCCTGGATGCGAAGCTCAGGAACTGACCGCAAACGAGGCCGCCAG
ACCTACACCCGCTACCAGACCCTGGAGCTGGAGAAAGAATTTCACTACAATCGCTACCTGACGCGGCGGCGGCGC
ATCGAGATCGCGCACACGCTCTGCCTCACGGAAAGACAGATCAAGATTTGGTTTCAGAACCGGCGCATGAAGTGG
AAAAAGGAGAACAAGACCGCGGGCCCGGGGACCACCGGCCAAGACAGGGCTGAAGCAGAGGAGGAAGAGGAAGAG
TGAGGGATGGAGAAAGGGCAGAGGAAGAGACATGAGAAAGGGAGAGGAAGAGAAGCCCAGCTCTGGGAACTGAAT
CAGGAAACTCAAATCGAATAGGGAAGTAAAAAAACAAAACAAAAAACAAAAAAAACAAAAAAAAACCCTATTTA
AATGAAAGGAGTTTAAAAACATTTTTTAAGGAGGGAGAAAGGAGAAATTTTGGTTTTTCAACACTGAAAAAATAC
TACCTATAGGAAAGTCTGTCAGGTTTGGTTTTTTTGTACAATATGAAAAGGATATTATCTACCTGTTCTGTAGCT
TTCTGGAATTTACCTCCCCTTTTCTATGTTGCTATTGTAAGGTCTTTGTAAAATCTTGCAGTTTTGTAAGCCCTC
TTTAATGCTGTCTTTGTGGACTGTGGGTCTGGACTAACCCTGTGGTTGCCTGCCCTCCTGAGCCTCCGCCTTCCC
AGCAGCGGCACCAAGGGGCCTTAGGGAGCCCCAAAACCTACCACTCGCGTGTTCCCCAAGCGCCTGGCTGCTGCT
TCTTGCTTCCCGTCCCCCAGCCCCATGCTCCCTTTTACATTCTGTGTGTATCTAAAGGATGGAAAAATAAAACGC
AATTAAAAAT

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FIGURE 1453

ATGGGTAAGATCCGGAAGGCCCAAGGAGAAGGGCTGCCCCGCCCACTGCCCCTGCTGGTCCAGCCCAACCTCCCC
TTTGGGTACCCAGTCCACGGAGTGGAGGTGATGCCCCTGCACACGGTTCCCATCCCAGGCCTCCAGTTTGAAGGA
CCCGATGCCCCCGTCTATGAGGTCACCCTGACAGCTTCTCTGGGGACACTGAACACCCTTGCTGATGTCCCAGAC
AGTGTGGTGCAGGGCAGAGGCCAGAAGCAGCTGATCATTTCTACCAGTGACCGGAAGCTGTTGAAGTTCATTCTT
CAGCACGTGACATACACCAGCACGGGGTACCAGCACCAGAAGTACTATCCCCACATTGCCATTGACCCCATAGAG
CCACTCGAGGAGAGAACAAATCATGCTGTGCGCTTTGCACCTGTGAGTCTGGAGTCCAGGTCCTCAGTGGCCAAG
TTTCCAGTGACCATCCGCCATCCTGTCATACCCAAGCTATACGACCCTGGACCAGTGTTCTTTCAGTGTAGTCTT
AATCAGACTATTCAACTCCTCATCACCCCAGACACTGGTAGTATCTGGCACCAGGTGGGGTGGAAGACAACCCGT
GAGTATTACACCTTCATGTGGGTTACTTTGCCCATTGACCTAAACAACAAATCAGCTAAACAGCAGGAAGTCCAA
TTCAAAGCTTACTACCTGCCCAAGGATGATGAGTATTACCAGTTCTGCTATGTGGATGAGGATGGTGTGGTCCGG
GGAGCAAGTATTCCTTTCCAATTCCGTCCAGAAAATGAGGAAGACATCCTGGTTGTTACCACTCAGGGAGAGGTG
GAAGAGATTGAGCAGCACAACAAGGAGCTTTGCAAAGAAAACCAGGAGCTGAAGGACAGCTGTATCAGCCTCCAG
AAGCAGAACTCAGACATGCAGGCTGAGCTCCAAAAGAAGCAGTATCTT**TGA**

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FIGURE 1454

GGGTGCTTAGCCCCGCCCCCGTCCCACTCTGCCCTGTTGCTGTCGCGCCGCTGCTGGTTGCTGTCCCTGGACCCC
TACC**ATG**GAGGAGACCATCAAAGATCCCCCCACATCAGCTGTCTTGCTGGATCACTGTCATTTCTCTCAGGTCAT
CTTTAACAGTGTGGAGAAGTTCTACATCCCTGGAGGGGACGTCACATGTCATTATACCTTCACCCAGCATTTCAT
CCCTCGTCGAAAGGATTGGATTGGCATCTTTAGAGTGGGGTGGAAGACAACCCGTGAGTATTACACCTTCATGTG
GGTTACTTTGCCCATTGACCTAAACAACAAATCAGCTAAACAGCAGGAAGTCCAATTCAAAGCTTACTACCTGCC
CAAGGATGATGAGTATTACCAGTTCTGCTATGTGGATGAGGATGGTGTGGTCCGGGGAGCAAGTATTCCTTTCCA
ATTCCGTCCAGAAAATGAGGAAGACATCCTGGTTGTTACCACTCAGGGAGAGGTGGAAGAGATTGAGCAGCACAA
CAAGGAGCTTTGCAAAGAAAACCAGGAGCTGAAGGACAGCTGTATCAGCCTCCAGAAGCAGAACTCAGACATGCA
GGCTGAGCTCCAAAAGAAGCAGGAGGAGCTAGAAACCCTACAGAGCATCAATAAGAAGTTGGAACTGAAAGTGAA
AGAACAGAAGGACTATTGGGAGACAGAGCTGCTTCAACTGAAAGAACAAAACCAGAAGATGTCCTCAGAAAATGA
GAAGATGGGAATCAGAGTGGATCAGCTTCAGGCCCAGCTGTCAACTCAAGAGAAAGAAATGGAGAAGCTTGTTCA
GGGAGATCAAGATAAGACAGAGCAGTTAGAGCAGCTGAAAAAGGAAAATGACCACCTCTTTCTCAGTTTAACTGA
ACAGAGGAAGGACCAGAAGAAGCTCGAGCAGACAGTGGAGCAAATGAAGCAGAATGAAACTACTGCAATGAAGAA
ACAACAGGAATTAATGGATGAAAACTTTGACCTGTCAAAAAGACTGAGTGAGAACGAAATTATATGTAATGCTCT
GCAGAGACAGAAAGAGAGATTGGAAGGAGAAAATGATCTTTTGAAGAGGGAGAACAGCAGATTGCTCAGTTACAT
GGGTCTGGATTTTAATTCTTTGCCGTATCAAGTACCTACTTCAGATGAAGGAGGCGCAAGACAAAATCCAGGACT
TGCCTATGGAAACCCATATTCTGGTATCCAAGAAAGTTCTTCCCCCAGCCCGCTCTCCATCAAGAAATGCCCTAT
CTGCAAAGCAGATGATATTTGTGATCACACCTTGGAGCAACAGCAGATGCAGCCCCTTTGTTTCAATTGTCCAAT
TTGTGACAAGATCTTCCCAGCTACAGAGAAGCAGATCTTTGAAGACCACGTGTTCTGCCACTCTCTC**TGA**GTATC
CCAACCTCTTGGATGTATACAGAGATTTTATAGAATAGAACCTATAGCTTCTACCATGAGTTATATGAGTCAAGA
TCCTGCCTAACCTGAAATTATTAGGGATTTACTCAGCCCTGCTGCCGCTAACAGTGGAGTTATGTCACTGATCTG
AAGGTCACTGTTAAGGGCTTCTGCTGCCATCCTTGTGGGTTGCTACCTTTAAGTCGCATAACTCTAGCTGTATCA
TCCTCTCACCTGTCATTCTTCTGAGGGTCTCAGTACAAGGGCCCTGGGATGGAGCCAACCTGGGTATTCACAACA
GGCCTGACTTGATACTAAGTGATTAGTTTTCCAAGTTGTCCCACTGCCATTCAAAGTCAGCCCTTGAGTGTATTT
GTTCTCAGTCCTAACCCTGGGGCCAGAGATTGGTCCGAGGTTGAGAATTCCTTCCTCCTCATCCTTGGTGTTGCT
TTCTCCAAATGATTGTTTTAGACTAGCCAAAAATGCCGTGGCAAAGAGCTCAGAAATCCAATTTGGATACCAAAG
GTTTCTCATGTTAATTTCTCAGCCCCCAAAGAAGCATCTTACTCCTGAACCTTAGACAGGAAGTATTGTTTCAGT
CACAGAAAGCTTTTCTGGGTACCTCTGGTTAGCACTTTCTACTCTCTGATATTTCCTATGTACATAGCTTTTATT
GTTGTAAATCCTTTCTTAATGGTTAAATAGGATTGTTAGCAACTATGGGTTTGCAGTTTTCTGAGTAGGTGAGTT
TTGAATATGGGTAAATCAGAATAATGAGACAACTTGTTAATCTCTTTAATACTAAAAATAAATTACTCTTCTATT
TCAGGGACTTAGGTAATTTAAAATAAACCTTCAATTTATGGTCTTCTGTTTTGAAGCTCATGGGAAAATTGTGAT
CAAAAGGGCTATGGGAAGGGCAGACCCCGCCAATGATTTCTCTTCACCTGTCTTAAGATTAAATAAAAAAGAGTG
TCCTGGCAGTTATCTTGAGGTGGGGAAGGAGGTGATGAAACATTAGTTTGTGAAATCCAAGGCCCTGGCTTGCTT
TCTTTCTTTTTTTTTTTTTTTTTTTTTTGAAACAGTCTCTCTCTGTCACCCAGGCTGGCGTGCAATGGCGCAGTTGA
CTCACTACAGCCTCTGCCTCCCAGGTTCAAGCGATTCTCATGCCTTAGCCTCCCAAGTAGCTGGGATTACAGGTG
TGTGCCGCAATGCCCAGCTAATTTTTGTGTTTTTAGTAGAGACAGGGTTTCACTATGTTGGCCAGGCTGGTCTCG
AACTCCTGGCCTCACGTGATCTGTCCACTTCAGCCGTCCAAAGTGCTGGGATTACAAGCGTGAGCCACTGTGCTG
GGCCCGAGGCCCTGACTTCTTGCTGTAACTTTCCATGCATTTTTTTTAAAAGGAGCAGTGTGGATTTTCGCACCC
TTTGTGAACTAAGTTCAATGCGCTCTATCCAAATTTGCCTAATTGAACTATAAGAAAGTAATAATTCCATTTTCT
ATCCCCTCAGGGACTGAACAAATGGAAATAACTCCCAGGCAGTATCAGGTGGTCACTACAGAGACTTCCACAAAA
ACTTTTGAATGATGTGAAACACGATGTCATGAATAAGGGTTGAGCCAACTATAGCTCTGTGTTCCTACTGGGCTT
TCCCTAATGTGGTTGGGAGTTATGCCCTAGACTAACTGTATTGTCCTAGTCACAGCTCCTTGCTTTGATTTCATC
CTTGATAAAATGAAGATGAAACTT

FIGURE 1455

AAAAAAATGCTTCTGTGCTCTAAGATATATATGTGTGTGTGTGTGCTACATATATATTTTTAAGAAAGGACCATC
TCTTTAGGATATATTTTTAAATTCTTTGAAACACATAACCAAAATGGTTTGATTCACTGACTGACTTTGAAGCTG
CATCTGCCAGTTACACCCCAA**ATG**GCTTTAATCCCCTCTCGGGTCTGGTTGCCTTTTGCAGTTTGGGTTGTGGAC
TCAGCTCCTGTGAGGGGTCTGGTTAGGAGAGAGCCATTTTTAAGGACAGGGAGTTTTATAGCCCTTTTCTACTTT
CCTCCCCTCCTCCCAGTCCTTATCAATCTTTTTTCCTTTTTCCTGACCCCCTCCTTCTGGAGGCAGTTGGGAGCT
ATCCTTGTTTATGCCTCACTATTGGCAGAAAAGACCCCATTTAAAACCCAGAGAACACTGGAGGGGGATGCTCTA
GTTGGTTCTGTGTCCATTTTCCTCTGTGCCAAAGACAGACAGACAGAGGCTGAGAGAGGCTGTTCC**TGA**ATCAAA
GCAATAGCCAGCTTTCGACACATACCTGGCTGTCTGAGGAGGAAGGCCTCCTGGAAACTGGGAGCTAAGGGCGAG
GCCCTTCCCTTCAGAGGCTCCTGGGGGATTAGGGTGTGGTGTTTGCCAAGCCAAGGGGTAGGGAGCCGAGAAATT
GGTCTGTCGGCTCCTGGTTGCACTTTGGGGAAGGAGAGGAAGTTTGGGGCTCCAGGTAGCTCCCTGTTGTGGGAC
TGCTCTGTCCCCTGCCCCTACTGCAGAGATAGCACTGCCGAGTTCCCTTCAGGCCTGGCAGACGGGCAGTGAGGA
GGGGCCTCAGTTAGCTCTCAAGGGTGCCTTCCCCTCCTCCCAACCCAGACATACCCTCTGCCAAACTGGGAACCA
GCAGTGCTAGTAACTACCTCACAGAGCCCCAGAGGGCCTGCTTGAGCCTTCTTGCTCCACAGGAGAAGCTGGTGC
CTCTAGGCAACCCCTTCCTCCCACCTCTCATCAGGGGTGGGGGTTCTCCTTTCTTTCCCCTGAAGTGTTTATGGG
GAGATCCTAGTGGCTTTGCCATTCAAACCACTCGACTGTTTGCCTGTTTCTTGAAAACCAGTAGAAGGGAAACAG
CACAGCCTGTCACAGTAATTGCAGGAAGATTGAAGAAAAATCCTCATCAATGCCAGGGGACATAAAAGCCATTTC
CCTTCCAAATACTCGACAATTTAGATGCAGAACATTTCTCTGTATTCAGACTTAGAGTAACACCAGCTGAAAACT
GCAGTTTCTTTCCTTTGGATACATAAGGCTTCTCTATCGGGGTACGGGACAGGGAGGAGGCCTCATGTCTGAAGG
GGGATTTAGGGGCGAGAGCCCCAGCCCTGACCCTCGGTCCTGTGCACCGCTTTGGGGCACAGTCTGATGGCGCCT
TTGCTGGCGCCTTAGTATGGTTGACTCCGGATGGACAAAAGAAAAAAAATTTTTTTTCTTGAATGAAATAGCAGG
AAGCTCCTCGGGAGCATGTGTTTTGATTAACCGCAGGTGATGGATGCTACGAGTATAAATGGATTAACTACCTCA
ATCCTTACAGTAAGATTGGAACTAAGGGCAGGGACTCATGCATAAGGGTATGAATCCCAGCCAGGACAAGTGAGT
TGAGGCTTGTGCCACAAAAGGTTTGTCCTTGGGGAACAGGCAGGCCTGCCAGGATCCCCCCCATATCGATTGGGC
TGGGAGGGCTGGCCATGAGGTCCCCACTTTCTGCTTTCCTTGCCCATGTGTCACCCCTTTGGCCTCCAGCTTGTC
CCTCTCTCACTTTCTATAGCTTTGTTGGACCAGATGGTGAGGAAAGGAATGGCCTCTTCCCTTCTAGAGGGGGCT
GGCTGGAGTGAGACCTGGGGCTTGGCCTGGAACCCACCACACAGCCCCAAAGTCAGGAAGCCTGGGGAAACCAGA
GCTGAGACCTCTTCAACAGGGTTTCTTTGAGATCCTACACCTCCATTGGGCCCTTTTTCAGTCTTCAATGGGGGC
CCAGTTGGCTCTAGAAGGAGAAGAGGTGAAGCAGGATCCTTTGCCCTGGGGGAGTCTGAGGGCGCGGTCCTTGGA
CTCATTCAGGCCGTCTTTGTAGTTGGGGGAGTTCCACTGGGCGATCCCAGCCCCTCCCCACCCACCCTCTAATGG
ACCTCCTCATAGAAGCCCCATTTCACTTTTGTTTTATCTACCTCTTAGCAAAACAATAGATAAATTAGGTAGTGG
CAGCTCCACTTGCTTAGGTTAGGGGGGGAAAAAGATTTCTTTTTCCAAAGGAAAAAAATATTACCTTGAGAATAC
TTTCCAAAAAATAAAATTAAAAAAAAAAAA

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FIGURE 1456

ACCGCCACCATGAACAAGCTTTACATCGGCAACCTCAACGAGAGCGTGACCCCCGCGGACTTGGAGAAAGTGTTT
GCGGAGCACAAGATCTCCTACAGCGGCCAGTTCTTGGTCAAANTCCTACGCCTTCGTGGACTGCCCGGACGAGCA
CTGGGCG**ATG**AAGGCCATCGAAACTTTCTCCGGGAAAGTAGAATTACAAGGAAAACGCTTAGAGATTGAACATTC
GGTGCCCAAAAAACAAAGGAGCCGGAAAATTCAAATCCGAAATATTCCACCCCAGCTCCGATGGGAAGTACTGGA
CAGCCTGCTGGCTCAGTATGGTACAGTAGAGAACTGTGAGCAAGTGAACACCGAGAGTGAGACGGCAGTGGTGAA
TGTCACCTATTCCAACCGGGAGCAGACCAGGCAAGCCATCATGAAGCTGAATGGCCACCAGTTGGAGAACCATGC
CCTGAAGGTCTCCTACATCCCCGATGAGCAGATAGCACAGGGACCTGAGAATGGGCGCCGAGGGGGCTTTGGCTC
TCGGGGTCAGCCCCGCCAGGGCTCACCTGTGGCAGCGGGGGCCCCAGCCAAGCAGCAGCAAGTGGACATCCCCCT
TCGGCTCCTGGTGCCCACCCAGTATGTGGGTGCCATTATTGGCAAGGAGGGGGCCACCATCCGCAACATCACAAA
ACAGACCCAGTCCAAGATAGACGTGCATAGGAAGGAGAACGCAGGTGCAGCTGAAAAAGCCATCAGTGTGCACTC
CACCCCTGAGGGCTGCTCCTCCGCTTGTAAGATGATCTTGGAGATTATGCATAAAGAGGCTAAGGACACCAAAAC
GGCTGACGAGGTTCCCCTGAAGATCCTGGCCCATAATAACTTTGTAGGGCGTCTCATTGGCAAGGAAGGACGGAA
CCTGAAGAAGGTAGAGCAAGATACCGAGACAAAAATCACCATCTCCTCGTTGCAAGACCTTACCCTTTACAACCC
TGAGAGGACCATCACTGTGAAGGGGGCCATCGAGAATTGTTGCAGGGCCGAGCAGGAAATAATGAAGAAAGTTCG
GGAGGCCTATGAGAATGATGTGGCTGCCATGAGCCTGCAGTCTCACCTGATCCCTGGCCTGAACCTGGCTGCTGT
AGGTCTTTTCCCAGCTTCATCCAGCGCAGTCCCGCCGCCTCCCAGCAGCGTTACTGGGGCTGCTCCCTATAGCTC
CTTTATGCAGGCTCCCGAGCAGGAGATGGTGCAGGTGTTTATCCCCGCCCAGGCAGTGGGCGCCATCATCGGCAA
GAAGGGGCAGCACATCAAACAGCTCTCCCGGTTTGCCAGCGCCTCCATCAAGATTGCACCACCCGAAACACCTGA
CTCCAAAGTTCGTATGGTTATCATCACTGGACCGCCAGAGGCCCAATTCAAGGCTCAGGGAAGAATCTATGGCAA
ACTCAAGGAGGAGAACTTCTTTGGTCCCAAGGAGGAAGTGAAGCTGGAGACCCACATACGTGTGCCAGCATCAGC
AGCTGGCCGGGTCATTGGCAAAGGTGGAAAAACGGTGAACGAGTTGCAGAATTTGACGGCAGCTGAGGTGGTAGT
ACCAAGAGACCAGACCCCTGATGAGAACGACCAGGTCATCGTGAAAATCATCGGACATTTCTATGCCAGTCAGAT
GGCTCAACGGAAGATCCGAGACATCCTGGCCCAGGTTAAGCAGCAGCATCAGAAGGGACAGAGTAACCAGGCCCA
GGCACGGAGGAAG**TGA**CCAGCCCCTCCCTGTCCCTTCGAGTCCAGGACAACAACGGGCAGAAATCGAGAGTGTGC
TCTCCCCGGCAGGCCTGAGAATGAGTGGGAATCCGGGACACCTGGGCCGGGCTGTAGATCAGGTTTGCCCACTTG
ATTGAGAAAGATGTTCCAGTGAGGAACCCTGATCTCTCAGCCCCAAACACCCACCCAATTGGCCCAACACTGTCT
GCCCCTCGGGGTGTCAGAAATTCTAGCGCAAGGCACTTTTAAACGTGGATTGTTTAAAGAAGCTCTCCAGGCCCC
ACCAAGAGGGTGGATCACACCTCAGTGGGAAGAAAAATAAAATTTCCTTCAGGTTTTAAAAACATGCAGAGAGGT
GTTTTAATCAGCCTTAAAGGATGGTTCA

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FIGURE 1457

GGGGAAGCTGAGCGCTGAGACCAAGGGCTAAAGCTGGGAGGTGAGTCTGTCACCTTGAGCCGGGCGAGCGCTGTG
GGCCAAGCAGGGGTTGCAGGGTAGTAGGAGTGCAGACTGAAAAAA**ATG**CAGACCGCCGGGGCATTATTCATTTCTC
CAGCTCTGATCCGCTGTTGTACCAGGGGTCTAATCAGGCCTGTGTCTGCCTCCTTCTTGAATAGCCCAGTGAATT
CATCTAAACAGCCTTCCTACAGCAACTTCCCACTCCAGGTGGCCAGACGGGAGTTCCAGACCAGTGTTGTCTCCC
GGGACATTGACACAGCAGCCAAGTTTATTGGTGCTGGGGCAGCCACAGTTGGTGTGGCTGGTTCAGGGGCTGGCA
TTGGAACCGTGTTTGGCAGCTTGATCATTGGCTATGCCAGGAACCCGTCTCTCAAGCAGCAGCTCTTCTCCTATG
CCATTCTTGGCTTTGCCCTGTCTGAGGCCATGGGGCTTTTCTGTTTGATGGTCGCCTTCCTCATCCTCTTCGCCA
TG**TGA**GGCTCCATGGGGGGTCACCGGCCTGTTGCTACTGCAACTCCACACCATTCTTGGTGCTGGGGTGTGTTAA
GCTTTACCATTAAACACAACGTTTCTCTAAA

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FIGURE 1458

GTGCTGCCGAGTATTCCCGGAAGCGAAGCATCGATGGCGGAGAGTCCTACTGAGGAGGCGGCAACGGCTGGCGCC
TGGGCGGCGGGCCCCGGGGCGAGCAGCGTTGCTGGTGTTGTTGGCGTTACCGGCAGCGGCGGCGGGTTCGGGCCG
CCTTTCCTGCCGG**ATG**GATATCATGTCCATTTATAAGGAGCCTCCTCCAGGAATGTTCGTTGTACCTGATACTGT
TGACATGACTAAGATTCATGCATTGATCACAGGCCCATTTGACACTCCTTATGAAGGGGGTTTCTTCCTGTTCGT
GTTTCGGTGTCCGCCCGACTATCCCATCCACCCACCTCGGGTCAAACTGATGACAACGGGCAATAACACAGTGAG
GTTTAACCCCAACTTCTACCGCAATGGGAAAGTCTGCTTGAGTATTCTAGGTACATGGACTGGACCTGCCTGGAG
CCCAGCCCAGAGCATCTCCTCAGTGCTCATCTCTATCCAGTCCCTGATGACTGAGAACCCCTATCACAATGAGCC
CGGCTTTGAACAGGAGAGACATCCAGGAGACAGCAAAAACTATAATGAATGTATCCGGCACGAGACCATCAGAGT
TGCAGTCTGTGACATGATGGAAGGAAAGTGTCCCTGTCCTGAACCCCTACGAGGGGTGATGGAGAAGTCCTTTCT
GGAGTATTACGACTTCTACGAGGTGGCCTGCAAAGATCGCCTGCACCTTCAAGGCCAAACTATGCAGGACCCTTT
TGGAGAGAAGCGGGGCCACTTTGACTACCAGTCCCTCTTGATGCGCCTGGGACTGATACGTCAGAAAGTGCTGGA
GAGGCTCCATAATGAGAATGCAGAAATGGACTCTGATAGCAGTTCATCTGGGACAGAGACAGACCTTCATGGGAG
CCTGAGGGTT**TAG**ACCCTGCTCCCATCTCCCCTTCCCCCACTCAAGAGTCCCAGCAGAATCCCTTCCCCCCACCC
CAGGGATGGAGAGGCACTGTGTATCTCCCTCCAGACTCGAAGTCATCCTGCAAGATGGCAAGAACCAAGCAAGCT
CCGATCCCAGGGTGTGGGAGTGGGGGCCTGTTCCCGGTCTGACCTCCTTGGCACTGGAGCATCTGGGGCTTCGTT
CATCCATTCATCCCGTATCAGGGGCCAAGGTACCTTTACAGGAGCACCTAGAGCGAGGGCCTTTGGCAAAAACAA
AACAACCAACACACCTCTCCACAGGGCCAGCTCCTTAGGGATAAGTGGAAGATGGAAATTGCAATTCCAAGAGGG
AGTGTGCCCAAATGATTTATGGGGATACCTGGAAGGGAGCTTGGGGTGGGGGCTGTCTGTGACACTTAAGCAGTC
TGGGTGGTTGTCTATTTGTCTGTCTTCAGTCTTGAAGCAGGGCTTCCCAATGCCCTTTTCCTCCCTGCCTTCCTT
CCCCCATTATTTCCCACAGGCCAGCATAATTTTGTTTTTCCTAATTTATAGTCACTGTTCTAGACAGACCAAAGA
GAAGGAACAGTGGTGGAGTCTAGGCTGCTGATCAGTAAGCTTTACCTAGCACCTGAGCACCTTTCTCCCCTCCCC
TCTTTCCTCACCCTTTTCTAGATGTAAGACAGAAAGTAAATGTGACTGGGACTTAACCAAGGTCTTGGTAAAGCC
TGCATGGCACCGTAAGAAGCTGAAAATACTGTTTGTTCCCGCAATCACTGATTTGAAAAGTTCCCAACACAGGCA
GCTGCTGTGTATATGGGATTAGAGCCACTACATAGAATAGTCTCTTACAGATTTTCATAAATACTAGTCACAATA
AGGGTATTTTTCTTGGGGGTGGAGTAAGGGGGAGACTGATGCTAGTCCTTGTTGTATTTTGTTGGGCTGTCCTTG
TGTATTTTCACCCCAGCCTGTAGTCCTCCTCACTTCAACCCCAGGGATTTTTGGGGAGCAAGGGTAGCCAATGGC
AGAGGGGGTTGGGGCTGGGACTCTGGAGGCTCCTCCCCTTCTTTCTCTTCCTTCCGCCTCCCCCGTGCCCCCAGC
TGCTCTTGTCACTGTCTCTGATGGGTATTTGCCTGGCTTTGTTGCTTCTCTATCTGTATTTAGCTGCAGTGATCC
TTTAGCTGGTTGGCTCAGNAAAAAAAAAAAATGTGCTTTAGGTGCCCTGTAATCCTGGGCATCAAGGGAATCCATC
CTTCCCCTTTTTGATATGTTCTCCCCGTACTTCCAGATTTATTGTTATGGCTCCCAGTGGGTATTGGCGATTCTT
GTGATGCAGGGCCTCAGTCAGTGTCCAGCCATGCATAAGGGAGAGGATAGTGTGTACCTGCCCTGCCCTCTGCTA
TGAAGGTCTCTGCCTTGTGGATCATGGGACTCCCCTTGGAGGATCTGTGCAAAGGGGGGCTGGGCACAAAGGAGA
ATGTCCTATTTGGGAGGGCAGGAAGCAAAGGAACTGGACAGGGATTGGTGGGCTTGGGGAACGGAAGTTTATCTT
GGATACCCTTGAAGAGGCTGGGTCTCTTCACATGAAGATCGAAAAGGGACCCTGCTTCCAATTTCCCTCTTCCAT
TCCTCGAGCTACTCCAGGGCTTAGAAGAATGCTCTTGGTCTGTGGGTCCAGTGTTGTCTGTCATCCATTTAAGTG
TTCCCACTTTCAAGTGACAATCCTCTCCTTGGCCCTGCCATAGGGCAGAGCATGTCTGGCATAGCAGCCTGACTT
TTATGCCCTAATCTTGAGTTGAGGAAATATATGCACAGGAGTCAAAGAGATGTCTTTATATCTGACTGTATATAA
ATGAAGTTTTTTTGTTTT

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FIGURE 1459

GGGACGTGGAGACCCGGGGTCCCGGCAGCCGGGCGGCCCGCGGGCCCAGGGTGGGG**ATG**CACCGCCGCGGGGTGG
GAGCTGGCGCCATCGCCAAGAAGAAACTTGCAGAGGCCAAGTATAAGGAGCGAGGGACGGTCTTGGCTGAGGACC
AGCTAGCCCAGATGTCAAAGCAGTTGGACATGTTCAAGACCAACCTGGAGGAATTTGCCAGCAAACACAAGCAGG
AGATCCGGAAGAATCCTGAGTTCCGTGTGCAGTTCCAGGACATGTGTGCAACCATTGGCGTGGATCCGCTGGCCT
CTGGAAAAGGATTTTGGTCTGAGATGCTGGGCGTGGGGGACTTCTATTACGAACTAGGTGTCCAAATTATCGAAG
TGTGCCTGGCGCTGAAGCATCGGAATGGAGGTCTGATAACTTTGGAGGAACTACATCAACAGGTGTTGAAGGGAA
GGGGCAAGTTCGCCCAGGATGTCAGTCAAGATGACCTGATCAGAGCCATCAAGAAACTAAAGGCACTTGGCACTG
GCTTCGGCATCATCCCTGTGGGCGGCACTTACCTCATTCAGTCTGTTCCAGCTGAGCTCAATATGGATCACACCG
TGGTGCTGCAGCTGGCAGAGAAGAATGGCTACGTGACTGTCAGTGAGATCAAAGCCAGTCTTAAATGGGAGACCG
AGCGAGCGCGGCAAGTGCTGGAACACCTGCTGAAGGAAGGGTTGGCGTGGCTGGACTTACAGGCCCCAGGGGAGG
CCCACTACTGGCTGCCAGCTCTCTTCACTGACCTCTACTCCCAGGAGATTACAGCTGAGGAGGCCAGAGAAGCCC
TCCCC**TGA**CTGCATGTGGAAGGGCACACAGCAGCAGGCAGGGAGGAGGCGGAGGTGGCAAATAAACCTGGGCAAT
TTTGTTTATACAAAAAATAGAAAAAAA

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FIGURE 1460

ATGGCCCGAACCAAGCAGACTGCTCGTAAGTCCACCGGTGGGAAAGCCCCCCGCAAACAGCTGGCCACGAAAGCC
GCCAGGAAAAGCGCTCCCTCTACCGGCGGGGTGAAGAAGCCTCATCGCTACAGGCCCGGGACCGTGGCGCTTCGA
GAGATTCGTCGTTATCAGAAGTCGACCGAGCTGCTCATCCGGAAGCTGCCCTTCCAGAGGTTGGTGAGGGAGATC
GCGCAGGATTTCAAAACCGACCTGAGGTTTCAGAGCGCAGCCATCGGTGCGCTGCAGGAGGCTAGCGAAGCGTAC
CTGGTGGGTCTGTTCGAAGATACCAACCTGTGTGCCATCCACGCTAAGAGAGTCACCATCATGCCCAAAGACATC
CAGTTGGCTCGCCGGATACGGGGAGAGAGAGCT**TAA**

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FIGURE 1461

TGCGTTTTGAGTCTCGGGACCCCTGTTGGAGAGACTATGGCGCTCAACAAGAATCACTCGGAGGGCGGCGGAGTG
ATCGTCAATAACACCGAGAGCATCCTAATGTCCTATGATCACGTGGAACTCACATTCAATGACATGAAGAACGTG
CCAGAAGCCTTCAAAGGGACCAAGAAAGGCACTGTCTACCTTACCCCTTACCGGGTCATCTTTCTGTCCAAGGGC
AAGGATGCCATGCAGTCCTTCATGATGCCATTTTATCTCATGAAAGACTGTGAGATCAAGCAGCCCGTATTTGGT
GCAAACTACATCAAGGGAACAGTGAAGGCGGAAGCGGGAGGTGGCTGGGAAGGCTCTGCTTCCTACAAGTTGACT
TTCACGGCAGGGGGCGCCATTGAGTTCGGACAGCGGATGCTCCAGGTGGCATCTCAAGCCTCCAGAGGTGAAGTC
CCCAGTGGAGCCTATGGCTACTCTTACATGCCCAGCGGGGCCTATGTCTATCCCCCGCCAGTCGCCAATGGAATG
TACCCCTGCCCTCCTGGCTACCCCTATCCACCGCCCCCACCTGAGTTCTATCCAGGACCCCCCATGATGGACGGG
GCCATGGGATACGTGCAGCCCCCACCACCGCCCTACCCTGGGCCCATGGAACCTCCGGTCAGCGGCCCCGATGTC
CCCTCCACTCCTGCAGCCGAAGCCAAGGCCGCAGAAGCAGCCGCCAGCGCCTATTACAACCCAGGCAATCCTCAC
AACGTCTACATGCCCACGAGCCAGCCGCCGCCACCTCCCTACTACCCACCGGAAGATAAGAAGACCCAGTAGGCC
CTCCTGCCTCCCTGCCTCCCACCCTCATCTCTCTACCCTACCCCTCCCATCGGGGCTGTGCTGGGGCTTGGGGAG
GGGAGGGGGCGCCTTGTTCTCCCTCCAGGTCTGATCATAAACAATTACCAGGAACTAGCATTGTGGGACATTAGG
GCCCCCGGCCTCGGGAGAGGTGCCGCCCAGCTTCCCATGCCAGCCCGGAGCCCACAGTGCTGCCCAGCGTACCTC
CCTCACCGTCTGGGGCTCTTCTGGGAGCACGGAGCATCCCCTGTTCCTGTTTCACTCTCAGCTTCTCCCCTCGAA
GGGACTCTCTGGCCACCTCCTCCACCGCAGTCCAGCTCCCTCAGTCTGGCACCCACTGCTACACTCAGCCTCATG
AGCCACTTCAGACCAGCCAGAAGGAGCTTCCTGACTGGAACCAGAGAATGCATGTCTGTCCACTTGGTGGCTGCT
GGGTGGGGCCGGGAACAAGGGCCCCTGACCCTGTGTGCTGGCCGGGACCTGCCACCAGCCCCCCAGCCTGCTTCT
TCCCCTTAAGCTTTGTGCCCCTGGATGCGCTAACATTCACTCTTGTTTGTCCCTGGACTGGCCATGAAGTGAGGA
GATGGTTATTTAAAGAGAATTCCCTATTTATTTGACAAAAAATCCAGTTAATATATTAATGTGAAATAAACCCTG
TTTGCACCTCG

FIGURE 1462

GGTGCGCAAGGGCACGGACCTCGGAGCTCTCCCCGTTCCCCCGCCGGCC**ATG**AACGCCGCTCGCACCGGCTACCG
AGTCTTCTCGGCCAACTCCACGGCCGCCTGCACGGAGCTGGCCAAGCGCATCACAGAGCGCCTTGGTGCTGAATT
GGGGAAGTCTGTTGTATATCAAGAGACCAATGGAGAAACAAGAGTTGAAATAAAAGAATCTGTTCGTGGCCAAGA
TATTTTCATTATACAGACAATACCCAGAGATGTGAATACAGCTGTGATGGAGTTGCTCATCATGGCTTACGCACT
GAAGACTGCCTGTGCCAGGAACATTATTGGGGTCATCCCCTACTTCCCCTACAGCAAGCAGAGCAAGATGAGGAA
GAGGGGTTCCATTGTGTGCAAGCTGCTAGCATCCATGCTGGCGAAAGCAGGTTTAACTCACATTATCACTATGGA
TCTTCATCAAAAGGAAATACAAGGCTTTTTCAGCTTTCCTGTGGACAACCTTAGAGCCTCACCTTTCCTGCTTCA
GTATATCCAGGAAGAAATTCCAAATTACAGAAATGCAGTCATTGTAGCTAAGTCTCCTGATGCTGCAAAGAGGGC
CCAGTCCTATGCGGAGAGACTGCGTCTGGGTTTGGCCGTCATTCACGGGGAAGCTCAGTGCACGGAACTGGACAT
GGACGATGGTCGTCACTCCCCGCCTATGGTCAAAAATGCTACTGTGCACCCAGGCCTGGAGTTGCCATTGATGAT
GGCCAAAGAGAAGCCACCGATAACTGTAGTTGGAGATGTTGGAGGCCGCATCGCAATCATCGTGGATGACATTAT
TGACGATGTGGAGAGTTTTGTTGCTGCCGCGGAGATCCTGAAAGAGAGAGGCGCCTATAAGATCTATGTTATGGC
CACCCACGGCATCCTGTCTGCAGAGGCCCCTCGCCTGATTGAGGAGTCCTCCGTAGACGAGGTGGTGGTGACGAA
TACTGTCCCTCATGAGGTTCAGAAGCTGCAATGTCCCAAGATAAAGACTGTGGATATCAGTTTGATTCTTTCTGA
AGCCATTCGGAGAATCCACAATGGAGAGTCCATGGCCTACCTTTTCCGAAACATCACTGTGGATGAC**TAG**CTTTC
ACGAGGGTCTCGACCCTGGACCTCCTGAGGGAAACATGGAAAAAGCAGTGCCATGAGTGATACAGTGTTTCCTTG
CAAGGGAGGACTCGAAACAGCCTGGAGTTAGATATCTTCTTTTGCCCGGATTGATGGGGAGGAGGGATTAAAAGA
GTCAGGAAGAAGACAGAGCTAATGGATAAATATCATAACATGGCCTTACATGTCTGCTGTCATCAGCCCTGTTCC
TTAAAAGTTCTAGCTGCTTTCTTAAAAATAATCTGAAAATCTTATTGATACTAAAGAGGAGTTAAAGGCACATAA
AGTCTTAACTCTATAATGTTCATTTAGTTGTTTCAGCTCCAGGGAAATGGAGGTATTGATGTTGAACCTGGTTAG
GGAAGCTGAGCGCCTGTGGCCCTATTACTATCCAGTTGGCCTCTCCCAAATCAACTTCAAGTCTTTTATAGAGAA
TCGTATTTTTCTTTCAGAAATTGTTATGCCTACAGCCATTGAAAAATGAAGCATTCATGTTGTTACATCTTCCAA
GGATGTCAGATTAGAAAATAGCATCCCACCTCTGGGTATCTGAGTGGCTCTGAAGTTGCAAATAAAATAATTTGT
TGT

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FIGURE 1463

GCGGGCGGCGGCGCTCGGAGTCGCCGGGAGCTGCCAGGCTGCTCCGCGCGCCGCTGCGGGGCC**ATG**ATCCGGAAC
GGGCGCGGGGCTGCAGGCGGCGCAGAGCAGCCGGGCCCGGGGGGCAGGCGCGCCGTGAGGGTGTGGTGCGATGGC
TGCTATGACATGGTGCATTACGGCCACTCCAACCAGCTGCGCCAGGCACGGGCCATGGGTGACTACCTCATCGTA
GGCGTGCACACCGATGAGGAGATCGCCAAGCACAAGGGGCCCCCGGTGTTCACTCAGGAGGAGAGATACAAGATG
GTGCAGGCCATCAAATGGGTGGACGAGGTGGTGCCAGCGGCTCCCTACGTCACTACACTAGAGACCCTGGACAAA
TACAACTGTGACTTCTGTGTTCACGGCAATGACATCACCCTGACTGTAGATGGCCGGGACACCTATGAGGAAGTA
AAGCAGGCTGGGAGGTACAGAGAATGCAAGCGCACGCAAGGGGTGTCCACCACAGACCTCGTGGGCCGCATGCTG
CTGGTAACCAAAGCCCATCACAGCAGCCAGGAGATGTCCTCTGAGTACCGGGAGTATGCAGACAGTTTTGGCAAG
TGCCCTGGTGGGCGGAACCCCTGGACCGGGGTATCCCAGTTCCTGCAGACATCTCAGAAGATCATCCAGTTTGCT
TCTGGGAAGGAGCCCCAGCCAGGGGAGACAGTCATCTATGTGGCTGGTGCCTTCGACCTGTTCCACATCGGGCAT
GTGGACTTCCTGGAGAAGGTGCACAGGCTGGCAGAGAGGCCCTACATCATCGCGGGCTTACACTTTGACCAGGAG
GTCAATCACTACAAGGGGAAGAACTACCCCATCATGAATCTGCATGAACGGACTCTGAGCGTGCTGGCCTGCCGG
TACGTGTCAGAAGTGGTGATTGGAGCCCCGTACGCGGTCACAGCAGAGCTCCTAAGTCACTTCAAGGTGGACCTG
GTGTGTCACGGCAAGACAGAAATTATCCCTGACAGGGATGGCTCCGACCCATACCAGGAGCCCAAGAGAAGGGGC
ATCTTCCGTCAGATTGACAGTGGCAGCAACCATCACCAAAGACTCATCGTCAGCGGATTATCACAAACAGAGGCG
CTAAACGAGAAGAAGGAAGCCAAGGAGCTCGCCTTCCTGGAGGTGCCAGGCAGCAGGCGCACAGCCCTGGGGAGC
GCGATGGTACTTCTAACCTGGCAGAGCCCTGCCGGCCCTCCCCCTGCTCTGCTTCTGCGCCTTCTGCGTTTGGAC
ATAGGACTCTGCAGGGCCGCCCTCTCTAACTGGCCTGGCTCTGGAAGGGCTGGTGAGGACTCTGCCTCCTTGCCT
GCCTACAAGGTGCCTGGTTTGCAGCAGGCTCTCCGCTCTTTCCAGCAAAGCTGCTCAGAGAGGGTGTCCAGCACA
GTGGAGAGGCCGGAAGTGAGACGGGCAGACGGCACCTGCAGCCTGAAACGCACCGCTCCTGCGTGCGCCCCCACC
TGGTCCCCGGATGCCCCCACCACCTGGACAGAGGCCACACTGACTGCCCACCCAGCTGTGGCGGGAGGTGCAGAG
CAGAGGGCTTTAGGGAGCAGTGACTGCGGTCACCCCTTTAGTTCTCTGGGTGTAGACCACACCACCTCCCACTGG
GCACCCCCCAACACGGTGTCCTGCCACCCAGCGCCTGGCTCCAGGAAAACACGCTTGCCTTCCTTCCCGGCAGCT
TCGCCACTCTCCTTATGGACTCTGTTCTGTTTGTACATGGCTGACGGAAATCTCTTTGGTACAACCGAA**TAA**AGC
CTGGTGGCAGTGCTGCGCGGGGCTCCCAGCC

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FIGURE 1464

AGAAGCAGAGGAGCCAGGAACCTCTCTGAAGTGACACCTCACCCCTACACACCGTCCGTTCACCCCCGTCTCTTC
CTTCTGCTTTTCGGTTTTTGGAAAGGGATCCATCTCCAGGCAGCCCACCCTGGTGGGGCTTGTTTCCTGAAACC**A**
TGATGTACTTTTTCATACATGAGTCTGTCCAGAGTGCTTGCTACCGTGTTCGGAGTCTCGCTGCCTCCCTCCCGC
GGGAGGTTTCTCCTCTTTTTGAAAATTCCGTCTGTGGGATTTTTAGACATTTTTCGACATCAGGGTATTTGTTCC
ACCTTGGCCAGGCCTCCTCGGAGAAGCTTGTCCCCCGTGTGGGAGGGACGGAGCCGGACTGGACATGGTCACTCA
GTACCGCCTGCAGTGTCGCCATGACTGATCATGGCTCTTGCATTTTTGGG**TAA**ATGGAGACTTCCGGATCCTGTC
AGGGTGTCCCCCATGCCTGGAAGAGGAGCTGGTGGCTGCCAGCCCTGGGGCCCGGCACAGGCCTGGGCCTTCCCC
TTCCCTCAAGCCAGGGCTCCTCCTCCTGTCGTGGGCTCATTGTGACCACTGGCCTCTCTACAGCACGGCCTGTGG
CCTGTTCAAGGCAGAACCACGACCCTTGACTCCCGGGTGGGGAGGTGGCCAAGGATGCTGGAGCTGAATCAGACG
CTGACAGTTCTTCAGGCATTTCTATTTCACAATCGAATTGAACACATTGGCCAAATAAAGTTGAAATTTTACCAC
CTCAAAAAAAAAAAAAAAAAAATTAAAAAAAAAAAAAAAAAAAA

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FIGURE 1465

CCCCTACACACCGTCCGTTCACCCCCGTCTCTTCCTTCTGCTTTTCGGTTTTTGGAAAGGGATCCATCTCCAGGC
AGCCCACCCTGGTGGGGCTTGTTTCCTGAAACCATGATGTACTTTTTCATAC**ATG**AGTCTGTCCAGAGTGCTTGC
TACCGTGTTCGGAGTCTCGCTGCCTCCCTCCCGCGGGAGGTTTCTCCTCTTTTTGAAAATTCCGTCTGTGGGATT
TTTAGACATTTTTCGACATCAGGGGTGTCCCCCATGCCTGGAAGAGGAGCTGGTGGCTGCCAGCCCTGGGGCCCG
GCACAGGCCTGGGCCTTCCCCTTCCCTCAAGCCAGGGCTCCTCCTCCTGTCGTGGGCTCATTGTGACCACTGGCC
TCTCTACAGCACGGCCTGTGGCCTGTTCAAGGCAGAACCACGACCCTTGACTCCCGGGTGGGGAGGTGGCCAAGG
ATGCTGGAGC**TGA**ATCAGACGCTGACAGTTCTTCAGGCATTTCTATTTCACAATCGAATTGAACACATTGGCCAA
ATAAAGTTGAAATTTT

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FIGURE 1466

GCCCGATTCCGCGCCCGCCATGGCCGACAAAATGGACATGTCTCTGGACGACATCATTAAACTGAACCGGAGCCA
GCGAGGCGGCCGGGGCGGGGGCCGGAACCGCGCCGGGCCGGCTCCCAGGGCGGCCCGGCGGTGGGCGCAGGCCCC
GCGCGAGTGAATCGAGGCGGCGGGCCCATCCGGAANCCGCGGCCATCGCCGGCGCGGCCGGCGGAGGCGGCAGGA
ACCGACCGGCGCCCTACAGCAGGCCAAAACAACTTCCCGACAAGTGGCAGCACGATCTTTTCGACAGTGGCTTCG
GCGGTGGTGCCGGCGTGGAGACAGGTGGGAAACTGCTGGTGTCCAATCTGGATTTTGGAGTCTCAGACGCCGATA
TTCAGGAACTCTTTGCTGAATTTGGAACGCTGAAGAAGGCGGCTGTGCACTATGATCGCTCTGGTCGCAGCTTAG
GAACAGCAGACGTGCACTTTGAGCGGAAGGCAGATGCCCTGAAGGCC**ATG**AAGCAGTACAACGGCGTCCCTCTGG
ATGGCCGCCCCATGAACATTCAGCTTGTCACGTCACAGATTGACGCACAGCGGAGGCCTGCACAGAGCGTAAACA
GAGGTGGCATGACTAGAAACCGTGGCGCTGGAGGTTTTGGTGGTGGTGGAGGCACCCGGAGAGGCACCCGCGGAG
GCGCCCGTGGAAGAGGCAGAGGTGCCGGCAGGAATTCAAAGCAGCAGCTTTCGGCAGAGGAGCTGGATGCCCAGC
TGGACGCCTATAATGCGAGAATGGACACCAGT**TAA**ACAGACCAGCAAATCCGCGTGCGGAACAGGACCCAGGCGT
CTCCTCTTGCTCCCTGGTTGGGGGGGCGGTGGCTGGGGCTGTGCGGCCAATGATGGATTTGTTTCTTTTATGTTTT
AAAATAGGATTTAAAAACTCATGTAAAGGTTTTTTTTTTTCTTTTTTTTTTTTTTTAATTCTGAAACAGACCTG
TTTTGTACCGAGTTATTTTTGGGATAAATTTTACTGGTTGCTGTTGTGGAGAAGGTGGCGTTTCCACCTTTTCCA
TAATAAAATAGAAATGTGTGTA

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FIGURE 1467

GGGGCGGCCGACGACGTTCGTCATTTAGTGCGGGAGGGATCCTGAACCGCGCGGCCGAAACCTCCGGTGTCCCGA
CCCAGGCTAAGCTTGAGC**ATG**GCTGAGCAGGAGCCCACAGCCGAGCAGCTGGCCCAGATTGCAGCGGAGAACGAG
GAGGATGAGCACTCGGTCAACTACAAGCCCCCGGCCCAGAAGAGCATCCAGGAGATCCAGGAGCTGGACAAGGAC
GACGAGAGCCTGCGAAAGTACAAGGAGGCCCTGCTGGGCCGCGTGGCCGTTTCCGCAGACCCCAACGTCCCCAAC
GTCGTGGTGACTGGCCTGACCCTGGTGTGCAGCTCGGCCCCGGGCCCCCTGGAGCTGGACCTGACGGGCGACCTG
GAGAGCTTCAAGAAGCAGTCGTTTGTGCTGAAGGAGGGTGTGGAGTACCGGATAAAAATCTCTTTCCGGGTTAAC
CGAGAGATAGTGTCCGGCATGAAGTACATCCAGCATACGTACAGGAAAGGCGTCAAGATTGACAAGACTGACTAC
ATGGTAGGCAGCTATGGGCCCCGGGCCGAGGAGTACGAGTTCCTGACCCCCGTGGAGGAGGCACCCAAGGGTATG
CTGGCCCGGGGCAGCTACAGCATCAAGTCCCGCTTCACAGACGACGACAAGACCGACCACCTGTCCTGGGAGTGG
AATCTCACCATCAAGAAGGACTGGAAGGAC**TGA**GCCCAGCCAGAGGCGGGCAGGGCAGACTGACGGACGGACGAC
GGACAGGCGGATGTGTCCCCCCCAGCCCCTCCCCTCCCCATACCAAAGTGCTGACAGGCCCTCCGTGCCCCTCCC
ACCCTGGTCCGCCTCCCTGGCCTGGCTCAACCGAGTGCCTCCGACCCCCCTCCTCAGCCCTCCCCCACCCACAGG
CCCAGCCTCCTCGGTCTCCTGTCTCGTTGCTGCTTCTGCCTGTGCTGTGGGGGAGAGAGGCCGCAGCCAGGCCTC
TGCTGCCCTTTCTGTGCCCCCCAGGTTCTATCTCCCCGTCACACCCGAGGCCTGGCTTCAGGAGGGAGCGGAGCA
GCCATTCTCCAGGCCCCGTGGTTGCCCCTGGACGTGTGCGTCTGCTGCTCCGGGGTGGAGCTGGGGTGTGGGATG
CACGGCCTCGTGGGGGCCGGGCCGTCCTCCAGCCCCGCTGCTCCCTGGCCAGCCCCCTTGTCGCTGTCGGTCCCG
TCTAACCATGATGCCTTAACATGTGGAGTGTACCGTGGGGCCTCACTAGCCTCTAACTCCCTGTGTCTGCATGAG
CATGTGGCCTCCCCGTCCCTTCCCCGGTGGCGAACCCAGTGACCCAGGGACACGTGGGGTGTGCTGCTGCTGCTC
CCCAGCCCACCAGTGCCTGGCCAGCCTGCCCCCTTCCCTGGACAGGGCTGTGGAGATGGCTCCGGCGGCTTGGGG
AAAGCCAAATTGCCAAAACTCAAGTCACCTCAGTACAATCAGGAGGCTGGGTATTGTCCTGCCTCTGCCTTTTCT
GTCTCAGCGGGCAGTGCCCAGAGCCCACACCCCCCCAAGAGCCCTCGATGGACAGCCTCACTCACCCCACCTGGG
CCCAGCCAGGAGCCCCGCCTGGCCATCAGTATTTATTGCCTCCGTCCGTGCCGTCCCTGGGCCACTGGCCTGGCG
CCTGTTCCCCCAGGCTCTCAGTGCCACCACCCCCGGCAGGCCTTCCCTGACCCAGCCAGGAACAAACAAGGGACC
AAGTGCACACATTGCTGAGAGCCGTCTCCTGTGCCTCCCCCGCCCCATCCCCGGTCTTCGTGTTGTGTCTGCCAG
GCTCAGGCAGAGGCGCCTGTCCCTGCTTCTTTTCTGACCGGGAAATAAATGCCCCTGAAGG

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FIGURE 1468

CTCCGGACAGCATGAGCGTGGGCTTCATCGGCGCTGGCCAGCTGGCTTTTGCCCTGGCCAAGGCTTTCACAGCAG
CAGGCGTCTTGGCTGCCCACAAGATAATGGCTAGCTCCCCAGACATGGACCTGGCCACAGTTTCTGCTCTCAGGA
AGATGGGGGTGAAGTTGACACCCCACAACAAGGAGACGGTGCAGCACAGTGATGTGCTCTTCCTGGCTGTGAAGC
CACACATCATCCCCTTCATCCTGGATGAAATAGGCGCCGACATTGAGGACAGACACATTGTGGTGTCCTGCGCGG
CCGGCGTCACCATCAGCTCCATTGAGAAGAAGCTGTCAGCGTTTCGGCCAGCCCCCAGGGTCATCCGCTGCATGA
CCAACACTCCAGTCGTGGTGCGGGAGGGGGCCACCGTGTATGCCACAGGACGCACGCCCAGGTGGAGGACGGGAG
GCTC**ATG**GAGCAGCTGCTGAGCAGCGTGGGCTTCTGCACGGAGGTGGAAGAGGACCTGATTGATGCCGTCACGGG
GCTCAGTGGCAGCGGCCCCGCCTACGCATTCACAGCCCTGGATGCCCTGGCTGATGGGGGTGTGAAGATGGGACT
TCCAAGGCGCCTGGCAGTCCGCCTCGGGGCCCAGGCCCTCCTGGGGGCTGCCAAGATGCTGCTGCACTCAGAACA
GCACCCAGGCCAGCTCAAGGACAACGTCAGCTCTCCTGGTGGGGCCACCATCCATGCCTTGCATGTGCTGGAGAG
TGGGGGCTTCCGCTCCCTGCTCATCAACGCTGTGGAGGCCTCCTGCATCCGCACACGGGAGCTGCAGTCCATGGC
TGACCAGGAGCAGGTGTCACCAGCCGCCATCAAGAAGACCATCCTGGACAAGGTGAAGCTGGACTCCCCTGCAGG
GACCGCTCTGTCACCTTCTGGCCACACCAAGCTGCTCCCCCGCAGCCTGGCCCCAGCGGGCAAGGAT**TGA**CACGT
CCTGCCTGACCACCATCCTGCCACCACCTTCTCTTCTCTTGTCACTAGGGGGACTAGGGGGTCCCCAAAGTGGCC
CACTTTCTGTGGCTCTGATCAGCGCAGGGGCCAGCCAGGGACATAGCCAGGGAGGGGCCACATCACTTCCCACTG
GAAATCTCTGTGGTCTGCAAGTGCTTCCCAGCCCAGAACAGGGGTGGATTCCCCAACCTCAACCTCCTTTCTTCT
CTGCTCCCAAACCATGTCAGGACCACCTTCCTCTAGAGCTCGGGAGCCCGGAGGGTCTTCACCCACTCCTACTCC
AGTATCAGCTGGCACGGGCTCCTTCCTGAGAGCAAAGGTCAAGGACCCCCTCTGTGAAGGCTCAGCAGAGGTGGG
ATCCCACGCCCCCTCCCGGCCCCTCCCTGCCCTCCATTCAGGGAGAAACCTCTCCTTCCCGTGTGAGAAGGGCCA
GAGGGTCCAGGCATCCCAAGTCCAGCGTGAAGGGCCACAGCCCCTCTTGGCTGCCAAGCACGCAGATCCCATGGA
CATTTGGGGAAAGGGCTCCTTGGGCTGCTGGTGAACTTCTGTGGCCACCACCTCCTGCTCCTGACCTCCCTGGGA
GGGTGCTATCAGTTCTGTCCTGGCCCTTTCAGTTTTATAAGTTGGTTTCCAGCCCCCAGTGTCCTGACTTCTGTC
TGCCACATGAGGAGGGAGGCCCTGCCTGTGTGGGAGGGTGGTTACTGTGGGTGGAATAGTGGAGGCCTTCAACTG
ATTAGACAAGGCCCGCCCACATCTTGGAGGGCATCTGCCTTACTGATTAAAATGTCAATGTAATCT

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FIGURE 1469

GAC**ATG**GAGCTGTTCCTCGCGGGCCGCCGGGTGCTGGTCACCGGGGCAGGCAAAGGTATAGGGCGCGGCACGGTC
CAGGCGCTGCACGCGACGGGCGCGCGGGTGGTGGCTGTGAGCCGGACTCAGGCGGATCTTGACAGCCTTGTCCGC
GAGTGCCCGGGGATAGAACCCGTGTGCGTGGACCTGGGTGACTGGGAGGCCACCGAGCGGGCGCTGGGCAGCGTG
GGCCCCGTGGACCTGCTGGTGAACAACGCCGCTGTCGCCCTGCTGCAGCCCTTCCTGGAGGTCACCAAGGAGGCC
TTTGACAGATCCTTTGAGGTGAACCTGCGTGCGGTCATCCAGGTGTCGCAGATTGTGGCCAGGGGCTTAATAGCC
CGGGGAGTCCCAGGGGCCATCGTGAATGTCTCCAGCCAGTGCTCCCAGCGGGCAGTAACTAACCATAGCGTCTAC
TGCTCCACCAAGGGTGCCCTGGACATGCTGACCAAGGTGATGGCCCTAGAGCTCGGGCCCCACAAGATCCGAGTG
AATGCAGTAAACCCCACAGTGGTGATGACGTCCATGGGCCAGGCCACCTGGAGTGACCCCCACAAGGCCAAGACT
ATGCTGAACCGAATCCCACTTGGCAAGTTTGCTGAGGTAGAGCACGTGGTGAACGCCATCCTCTTTCTGCTGAGT
GACCGAAGTGGCATGACCACGGGTTCCACTTTGCCGGTGGAAGGGGGCTTCTGGGCCTGC**TGA**GCTCCCTCCACA
CACCTCAAGCCCCATGCCGTGCTCATCCTACCCCCAATCCCTCCAATAAACCTGATTCTGCTGCCC

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FIGURE 1470

GGAAGTGGACGGCACGCCGCGGCGGGGTGGGTGCAAG**ATG**CCGCTGCCGGTTCAGGTGTTTAACTTGCAGGGGGC
CGTGGAGCCCATGCAGATCGACGTGGACCCCCAGGAAGACCCGCAGAATGCACCTGACGTCAACTACGTGGTGGA
GAACCCCAGCCTGGATCTGGAACAGTACGCGGCCAGCTACAGCGGCCTGATGCGCATCGAACGGCTGCAGTTCAT
TGCTGATCACTGCCCCACGCTGCGGGTGGAGGCCCTGAAGATGGCCCTCTCCTTCGTGCAGAGAACCTTTAACGT
GGACATGTACGAGGAGATCCACCGCAAGCTCTCAGAGGCCACCAGGGAGCTGCAGAACGCACCCGACGCCATCCC
TGAGAGCGGCGTGGAGCCCCCAGCCCTGGACACGGCCTGGGTGGAGGCCACGCGGAAGAAGGCGCTGCTGAAGCT
GGAGAAGCTGGACACAGACCTGAAGAACTACAAGGGCAACTCCATCAAAGAGAGCATCCGGCGCGGCCACGACGA
CCTGGGCGACCACTACCTGGACTGTGGGGACCTCAGCAACGCCCTCAAGTGCTATTCCCGGGCCCGGGACTACTG
CACCAGCGCCAAACACGTCATCAACATGTGCCTCAATGTCATCAAGGTCAGCGTCTACTTGCAGAATTGGTCTCA
TGTGCTCAGCTACGTCAGCAAGGCTGAGTCCACCCCAGAGATTGCCGAGCAGCGAGGAGAGCGTGACAGCCAGAC
CCAGGCCATCCTCACCAAGCTCAAGTGTGCCGCAGGCTTGGCAGAGCTGGCCGCCAGGAAGTACAAGCAGGCTGC
CAAGTGCCTCCTGCTGGCTTCCTTTGATCACTGTGACTTCCCTGAGCTGCTGTCCCCCAGCAACGTGGCCATCTA
CGGTGGCCTGTGCGCCTTGGCTACCTTTGACCGGCAGGAGCTGCAGCGCAATGTCATCTCCAGCAGCTCCTTCAA
GTTGTTCTTGGAGCTGGAGCCACAGGTCCGAGACATCATCTTCAAATTCTACGAGTCCAAGTACGCCTCATGTCT
CAAGATGCTGGACGAGATGAAGGACAACCTGCTCCTGGACATGTATCTGGCCCCCCATGTCAGGACCCTGTACAC
CCAGATTCGCAACCGTGCCCTCATCCAGTATTTCAGCCCCTACGTGTCAGCCGACATGCATAGGATGGCGGCAGC
CTTCAATACCACGGTGGCCGCCCTGGAGGACGAGCTGACGCAGCTAATCCTGGAGGGGCTGATCAGTGCCCGTGT
GGACTCACACAGCAAGATCCTATACGCCCGGGACGTGGATCAGCGCAGCACCACCTTTGAGAAGTCTCTGTTGAT
GGGCAAGGAGTTCCAGCGCCGCGCCAAGGCCATGATGCTGCGGGCAGCTGTGCTCCGCAACCAGATCCATGTCAA
GTCCCCGCCCAGAGAAGGGAGCCAGGGGGAGCTGACTCCAGCCAACAGCCAGTCCCGGATGAGCACCAACATG**TG**
AGGGGTGAACCTTGGCCTCCAGGACATCTGCACCCCCTCCCCACCTCCACGGACCTCGGACCTCCAGGCGGCTCA
GTGCTGCCTGCGGCCCAGCTAAGGGGCCTGGCCACTGGGTGCCACCCAGCCTGTGTGCCCTCCCTGGGGCTGAGG
AGGCAGGCGGCTGCTAGTTGTGGCCCTTCCTGGAAGGAGAGGCCTGCAGGGCTCGACCCTGTGGGTTTCTGTCCC
CAGGGAGCAGACTGTGCGGCACCCAGGCCCAGTGGCACCATTTCCCAGACCCCTCCTGTTCCCGCCTCAGTCAGG
TGCAGACAAGTGGGCGGTGTCCATTAAAGAGCAGACTCAGCGTT

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FIGURE 1471

AGGACGTGGAGCGCTGCCTCCGGGACACGGGTGTGCAGGGCGTCATGAGCGCAGAGGGCAACCTGCACAACCCCG
CCCTGTTCGAGGGCCGGAGCCCTGCCGTGTGGGAGCTGGCCGAGGAGTATCTGGACATCGTGCGGGAGCACCCCT
GCCCCCTGTCCTACGTCCGGGCCCACCTCTTCAAGCTGTGGCACCACACGCTGCAGGTGCACCAGGAGCTGCGAG
AGGAGCTGGCCAAGGTGAAGACCCTGGAGGGCATCGCTGCTGTGAGCCAGGAGCTGAAGCTGCGGTGTCAGGAGG
AGATATCCAGGCAGGAGGGAGCGAAGCCCACCGGCGACTTGCCCTTCCACTGGATCTGCCAGCCCTACATCCGGC
CGGGGCCCAGGGAGGGGAGCAAGGAGAAGGCAGGTGCGCGCAGCAAGCGGGCCCTGGAGGAAGAGGAGGGTGGCA
CGGAGGTCCTGTCCAAGAACAAGCAAAAGAAGCAGCTGAGGAACCCCCACAAGACCTTCGACCCCTCTCTGAAGC
CAAAAT**ATG**CAAAGTGTGACCAGTGTGGAAACCCAAAGGGCAACAGATGTGTGTTCAGCCTGTGCCGCGGCTGCT
GCAAGAAGCGAGCCTCCAAAGAGACTGCAGACTGCCCAGGTCACGGATTGCTTTTTAAAACCAAATTGGAGAAGT
CTCTGGCCTGGAAAGAGGCCCAGCCTGAGCTGCAGGAGCCTCAGCCAGCAGCACCTGGAACACCAGGTGGCTTCT
CCGAAGTCATGGGCAGTGCCCTGGCCTGAAGGCCCACAACCCCCACCCCCAGGACTGCTGCTGGAGCCTGGACAC
GTCCTACTTAAGAAAATGCCTTTTACTCAGGGAATCTCCTGCTACTTAATGTGGAAAGACACGCCCATGTCCCCC
TTCGGCCCACTCTGGGGGCCTGGAAATGCTGCAGTGGGGAGCAGGCCCCAGGCTGGACCTGCCCTGTCCTCAGCA
CGCGTGTGCAAAAGTGAACAA**TAA**ATCATTTCAAAGATGCG

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FIGURE 1472A

ACGGCAGCGGCCCCGGCCTCCCTCTCCGCCGCGCTTCAGCCTCCCGCTCCGCCGCGCTCCAGCCTCGCTCTCCGC
CGCCCGCACCGCCGCCCGCGCCCTCACCAGAGCAGCCATGGAGGAGGTGGTGATTGCCGGCATGTCCGGGAAGCT
GCCAGAGTCGGAGAACTTGCAGGAGTTCTGGGACAACCTCATCGGCGGTGTGGACATGGTCACGGACG**ATG**ACCG
TCGCTGGAAGGCGGCTCTACGGCCTGCCCCGGCGGTCCGGCAAGCTGAAGGACCTGTCTAGGTTTGATGCCTCCT
TCTTCGGAGTCCACCCCAAGCAGGCACACACGATGGACCCTCAGCTGCGGCTGCTGCTGGAAGTCACCTATGAAG
CCATCGTGGACGGAGGCATCAACCCAGATTCACTCCGAGGAACACACACTGGCGTCTGGGTGGGCGTGAGCGGCT
CTGAGACCTCGGAGGCCCTGAGCCGAGACCCCGAGACACTCGTGGGCTACAGCATGGTGGGCTGCCAGCGAGCGA
TGATGGCCAACCGGCTCTCCTTCTTCTTCGACTTCAGAGGGCCCAGCATCGCACTGGACACAGCCTGCTCCTCCA
GCCTGATGGCCCTGCAGAACGCCTACCAGGCCATCCACAGCGGGCAGTGCCCTGCCGCCATCGTGGGGGGCATCA
ATGTCCTGCTGAAGCCCAACACCTCCGTGCAGTTCTTGAGGCTGGGGATGCTCAGCCCCGAGGGCACCTGCAAGG
CCTTCGACACAGCGGGGAATGGGTACTGCCGCTCGGAGGGTGTGGTGGCCGTCCTGCTGACCAAGAAGTCCCTGG
CCCGGCGGGTGTACGCCACCATCCTGAACGCCGGCACCAATACAGATGGCTTCAAGGAGCAAGGCGTGACCTTCC
CCTCAGGGGATATCCAGGAGCAGCTCATCCGCTCGTTGTACCAGTCGGCCGGAGTGGCCCCTGAGTCATTTGAAT
ACATCGAAGCCCACGGCACAGGCACCAAGGTGGGCGACCCCCAGGAGCTGAATGGCATCACCCGAGCCCTGTGCG
CCACCCGCCAGGAGCCGCTGCTCATCGGCTCCACCAAGTCCAACATGGGGCACCCGGAGCCAGCCTCGGGGCTGG
CAGCCCTGGCCAAGGTGCTGCTGTCCCTGGAGCACGGGCTCTGGGCCCCCAACCTGCACTTCCATAGCCCCAACC
CTGAGATCCCAGCGCTGTTGGATGGGCGGCTGCAGGTGGTGGACCAGCCCCTGCCCGTCCGTGGCGGCAACGTGG
GCATCAACTCCTTTGGCTTCGGGGGCTCCAACGTGCACATCATCCTGAGGCCCAACACGCAGCCGCCCCCCGCAC
CCGCCCCACATGCCACCCTGCCCCGTCTGCTGCGGGCCAGCGGACGCACCCCTGAGGCCGTGCAGAAGCTGCTGG
AGCAGGGCCTCCGGCACAGCCAGGACCTGGCTTTCCTGAGCATGCTGAACGACATCGCGGCTGTCCCCGCCACCG
CCATGCCCTTCCGTGGCTACGCTGTGCTGGGTGGTGAGCGCGGTGGCCCAGAGGTGCAGCAGGTGCCCGCTGGCG
AGCGCCCGCTCTGGTTCATCTGCTCTGGGATGGGCACACAGTGGCGCGGGATGGGGCTGAGCCTCATGCGCCTGG
ACCGCTTCCGAGATTCCATCCTACGCTCCGATGAGGCTGTGAAGCCATTCGGCCTGAAGGTGTCACAGCTGCTGC
TGAGCACAGACGAGAGCACCTTTGATGACATCGTCCATTCGTTTGTGAGCCTGACTGCCATCCAGATAGGCCTCA
TAGACCTGCTGAGCTGCATGGGGCTGAGGCCAGATGGCATCGTCGGCCACTCCCTGGGGGAGGTGGCCTGTGGCT
ACGCCGACGGCTGCCTGTCCCAGGAGGAGGCCGTCCTCGCTGCCTACTGGAGGGGACAGTGCATCAAAGAAGCCC
ATCTCCCGCCGGGCGCCATGGCAGCCGTGGGCTTGTCCTGGGAGGAGTGTAAACAGCGCTGCCCCCCGGGCGTGG
TGCCCGCCTGCCACAACTCCAAGGACACAGTCACCATCTCGGGACCTCAGGCCCCGGTGTTTGAGTTCGTGGAGC
AGCTGAGGAAGGAGGGTGTGTTTGCCAAGGAGGTGCGGACCGGCGGTATGGCCTTCCACTCCTACTTCATGGAGG
CCATCGCACCCCCACTGCTGCAGGAGCTCAAGAAGGTGATCCGGGAGCCGAAGCCACGTTCAGCCCGCTGGCTCA
GCACCTCTATCCCCGAGGCCCAGTGGCACAGCAGCCTGGCACGCACGTCCTCCGCCGAGTACAATGTCAACAACC
TGGTGAGCCCTGTGCTGTTCCAGGAGGCCCTGTGGCACGTGCCTGAGCACGCGGTGGTGCTGGAGATCGCGCCCC
ACGCCCTGCTGCAGGCTGTCCTGAAGCGTGGCCTGAAGCCGAGCTGCACCATCATCCCCCTGATGAAGAAGGATC
ACAGGGACAACCTGGAGTTCTTCCTGGCCGGCATCGGCAGGCTGCACCTCTCAGGCATCGACGCCAACCCCAATG
CCTTGTTCCCACCTGTGGAGTTCCCAGCTCCCCGAGGAACTCCCCTCATCTCCCCACTCATCAAGTGGGACCACA
GCCTGGCCTGGGACGTGCCGGCCGCCGAGGACTTCCCCAACGGTTCAGGTTCCCCCTCAGCCGCCATCTACAACA
TCGACACCAGCTCCGAGTCTCCTGACCACTACCTGGTGGACCACACCCTCGACGGTCGCGTCCTCTTCCCCGCCA
CTGGCTACCTGAGCATAGTGTGGAAGACGCTGGCCCGCGCCCTGGGCCTGGGCGTCGAGCAGCTGCCTGTGGTGT
TTGAGGATGTGGTGCTGCACCAGGCCACCATCCTGCCCAAGACTGGGACAGTGTCCCTGGAGGTACGGCTCCTGG
AGGCCTCCCGTGCCTTCGAGGTGTCAGAGAACGGCAACCTGGTAGTGAGTGGGAAGGTGTACCAGTGGGATGACC
CTGACCCCAGGCTCTTCGACCACCCGGAAAGCCCCACCCCCAACCCCACGGAGCCCCTCTTCCTGGCCCAGGCTG
AAGTTTACAAGGAGCTGCGTCTGCGTGGCTACGACTACGGCCCTCATTTCCAGGGCATCCTGGAGGCCAGCCTGG
AAGGTGACTCGGGGAGGCTGCTGTGGAAGGATAACTGGGTGAGCTTCATGGACACCATGCTGCAGATGTCCATCC
TGGGCTCGGCCAAGCACGGCCTGTACCTGCCCACCCGTGTCACCGCCATCCACATCGACCCTGCCACCCACAGGC
AGAAGCTGTACACACTGCAGGACAAGGCCCAAGTGGCTGACGTGGTGGTGAGCAGGTGGCTGAGGGTCACAGTGG
CCGGAGGCGTCCACATCTCCGGGCTCCACACTGAGTCGGCCCCGCGGCGGCAGCAGGAGCAGCAGGTGCCCATCC
TGGAGAAGTTTTGCTTCACTCCCCACACGGAGGAGGGGTGCCTGTCTGAGCGCGCTGCCCTGCAGGAGGAGCTGC
AACTGTGCAAGGGGCTGGTGCAGGCACTGCAGACCAAGGTGACCCAGCAGGGGCTGAAGATGGTGGTGCCCGGAC

FIGURE 1472B

TGGATGGGGCCCAGATCCCCCGGGACCCCTCACAGCAGGAACTGCCCCGGCTGTTGTCGGCTGCCTGCAGGCTTC
AGCTCAACGGGAACCTGCAGCTGGAGCTGGCGCAGGTGCTGGCCCAGGAGAGGCCCAAGCTGCCAGAGGACCCTC
TGCTCAGCGGCCTCCTGGACTCCCCGGCACTCAAGGCCTGCCTGGACACTGCCGTGGAGAACATGCCCAGCCTGA
AGATGAAGGTGGTGGAGGTGCTGGCTGGCCACGGTCACCTGTATTCCCGCATCCCAGGCCTGCTCAGCCCCCATC
CCCTGCTGCAGCTGAGCTACACGGCCACCGACCGCCACCCCCAGGCCCTGGAGGCTGCCCAGGCCGAGCTGCAGC
AGCACGACGTTGCCCAGGGCCAGTGGGATCCCGCAGACCCTGCCCCCAGCGCCCTGGGCAGCGCCGACCTCCTGG
TGTGCAACTGTGCTGTGGCTGCCCTCGGGGACCCGGCCTCAGCTCTCAGCAACATGGTGGCTGCCCTGAGAGAAG
GGGGCTTTCTGCTCCTGCACACACTGCTCCGGGGGCACCCCCTCGGGGACATCGTGGCCTTCCTCACCTCCACTG
AGCCGCAGTATGGCCAGGGCATCCTGAGCCAGGACGCGTGGGAGAGCCTCTTCTCCAGGGTGTCGCTGCGCCTGG
TGGGCCTGAAGAAGTCCTTCTACGGCTCCACGCTCTTCCTGTGCCGCCGGCCCACCCCGCAGGACAGCCCCATCT
TCCTGCCGGTGGACGATACCAGCTTCCGCTGGGTGGAGTCTCTGAAGGGCATCCTGGCTGACGAAGACTCTTCCC
GGCCTGTGTGGCTGAAGGCCATCAACTGTGCCACCTCGGGCGTGGTGGGCTTGGTGAACTGTCTCCGCCGAGAGC
CCGGCGGGAACCGCCTCCGGTGTGTGCTGCTCTCCAACCTCAGCAGCACCTCCCACGTCCCGGAGGTGGACCCGG
GCTCCGCAGAACTGCAGAAGGTGTTGCAGGGAGACCTGGTGATGAACGTCTACCGCGACGGGGCCTGGGGGGCTT
TCCGCCACTTCCTGCTGGAGGAGGACAAGCCTGAGGAGCCGACGGCACATGCCTTTGTGAGCACCCTCACCCGGG
GGGACCTGTCCTCCATCCGCTGGGTCTGCTCCTCGCTGCGCCATGCCCAGCCCACCTGCCCTGGCGCCCAGCTCT
GCACGGTCTACTACGCCTCCCTCAACTTCCGCGACATCATGCTGGCCACTGGCAAGCTGTCCCCTGATGCCATCC
CAGGGAAGTGGACCTCCCAGGACAGCCTGCTAGGTATGGAGTTCTCGGGCCGAGACGCCAGCGGCAAGCGTGTGA
TGGGACTGGTGCCTGCCAAGGGCCTGGCCACCTCTGTCCTGCTGTCACCGGACTTCCTCTGGGATGTGCCTTCCA
ACTGGACGCTGGAGGAGGCGGCCTCGGTGCCTGTCGTCTACAGCACGGCCTACTACGCGCTGGTGGTGCGTGGGC
GGGTGCGCCCCGGGGAGACGCTGCTCATCCACTCGGGCTCGGGCGGCGTGGGCCAGGCCGCCATCGCCATCGCCC
TCAGTCTGGGCTGCCGCGTCTTCACCACCGTGGGGTCGGCTGAGAAGCGGGCGTACCTCCAGGCCAGGTTCCCCC
AGCTCGACAGCACCAGCTTCGCCAACTCCCGGGACACATCCTTCGAGCAGCATGTGCTGTGGCACACGGGCGGGA
AGGGCGTTGACCTGGTCTTGAACTCCTTGGCGGAAGAGAAGCTGCAGGCCAGCGTGAGGTGCTTGGCTACGCACG
GTCGCTTCCTGGAAATTGGCAAATTCGACCTTTCTCAGAACCACCCGCTCGGCATGGCTATCTTCCTGAAGAACG
TGACATTCCACGGGGTCCTACTGGATGCGTTCTTCAACGAGAGCAGTGCTGACTGGCGGGAGGTGTGGGCGCTTG
TGCAGGCCGGCATCCGGGATGGGGTGGTACGGCCCCTCAAGTGCACGGTGTTCCATGGGGCCCAGGTGGAGGACG
CCTTCCGCTACATGGCCCAAGGGAAGCACATTGGCAAAGTCGTCGTGCAGGTGCTTGCGGAGGAGCCGGAGGCAG
TGCTGAAGGGGGCCAAACCCAAGCTGATGTCGGCCATCTCCAAGACCTTCTGCCCGGCCCACAAGAGCTACATCA
TCGCTGGTGGTCTGGGTGGCTTCGGCCTGGAGTTGGCGCAGTGGCTGATACAGCGTGGGGTGCAGAAGCTCGTGT
TGACTTCTCGCTCCGGGATCCGGACAGGCTACCAGGCCAAGCAGGTCCGCCGGTGGAGGCGCCAGGGCGTACAGG
TGCAGGTGTCCACCAGCAACATCAGCTCACTGGAGGGGGCCCGGGGCCTCATTGCCGAGGCGGCGCAGCTTGGGC
CCGTGGGCGGCGTCTTCAACCTGGCCGTGGTCTTGAGAGATGGCTTGCTGGAGAACCAGACCCCAGAGTTCTTCC
AGGACGTCTGCAAGCCCAAGTACAGCGGCACCCTGAACCTGGACAGGGTGACCCGAGAGGCGTGCCCTGAGCTGG
ACTACTTTGTGGTCTTCTCCTCTGTGAGCTGCGGGCGTGGCAATGCGGGACAGAGCAACTACGGCTTTGCCAATT
CCGCCATGGAGCGTATCTGTGAGAAACGCCGGCACGAAGGCCTCCCAGGCCTGGCCGTGCAGTGGGGCGCCATCG
GCGACGTGGGCATTTTGGTGGAGACGATGAGCACCAACGACACGATCGTCAGTGGCACGCTGCCCCAGCGCATGG
CGTCCTGCCTGGAGGTGCTGGACCTCTTCCTGAACCAGCCCCACATGGTCCTGAGCAGCTTTGTGCTGGCTGAGA
AGGCTGCGGCCTATAGGGACAGGGACAGCCAGCGGGACCTGGTGGAGGCCGTGGCACACATCCTGGGCATCCGCG
ACTTGGCTGCTGTCAACCTGGACAGCTCACTGGCGGACCTGGGCCTGGACTCGCTCATGAGCGTGGAGGTGCGCC
AGACGCTGGAGCGTGAGCTCAACCTGGTGCTGTCCGTGCGCGAGGTGCGGCAACTCACGCTCCGGAAACTGCAGG
AGCTGTCCTCAAAGGCGGATGAGGCCAGCGAGCTGGCATGCCCCACGCCCAAGGAGGATGGTCTGGCCCAGCAGC
AGACTCAGCTGAACCTGCGCTCCCTGCTGGTGAACCCGGAGGGCCCCACCCTGATGCGGCTCAACTCCGTGCAGA
GCTCGGAGCGGCCCCTGTTCCTGGTGCACCCAATCGAGGGCTCCACCACCGTGTTCCACAGCCTGGCCTCCCGGC
TCAGCATCCCCACCTATGGCCTGCAGTGCACCCGAGCTGCGCCCCTTGACAGCATCCACAGCCTGGCTGCCTACT
ACATCGACTGCATCAGGCAGGTGCAGCCCGAGGGCCCCTACCGCGTGGCCGGCTACTCCTACGGGGCCTGCGTGG
CCTTTGAAATGTGCTCCCAGCTGCAGGCCCAGCAGAGCCCAGCCCCCACCCACAACAGCCTCTTCCTGTTCGACG
GCTCGCCCACCTACGTACTGGCCTACACCCAGAGCTACCGGGCAAAGCTGACCCCAGGCTGTGAGGCTGAGGCTG

FIGURE 1472C

AGACGGAGGCCATATGCTTCTTCGTGCAGCAGTTCACGGACATGGAGCACAACAGGGTGCTGGAGGCGCTGCTGC
CGCTGAAGGGCCTAGAGGAGCGTGTGGCAGCCGCCGTGGACCTGATCATCAAGAGCCACCAGGGCCTGGACCGCC
AGGAGCTGAGCTTTGCGGCCCGGTCCTTCTACTACAAGCTGCGTGCCGCTGAGCAGTACACACCCAAGGCCAAGT
ACCATGGCAACGTGATGCTACTGCGCGCCAAGACGGGTGGCGCCTACGGCGAGGACCTGGGCGCGGACTACAACC
TCTCCCAGGTATGCGACGGGAAAGTATCCGTCCACGTCATCGAGGGTGACCACCGCACGCTGCTGGAGGGCAGCG
GCCTGGAGTCCATCATCAGCATCATCCACAGCTCCCTGGCTGAGCCACGCGTGAGCGTGCGGGAGGGC**TAG**GCCC
GTGCCCCCGCCTGCCACCGGAGGTCACTCCACCATCCCCACCCCACCCCACCCCACCCCCGCCATGCAACGGGAT
TGAAGGGTCCTGCCGGTGGGACCCTGTCCGGCCCAGTGCCACTGCCCCCCGAGGCTGCTAGATGTAGGTGTTAGG
CATGTCCCACCCACCCGCCGCCTCCCACGGCACCTCGGGGACACCAGAGCTGCCGACTTGGAGACTCCTGGTCTG
TGAAGAGCCGGTGGTGCCCGTGCCCGCAGGAACTGGGCTGGGCCTCGTGCGCCCGTGGGGTCTGCGCTTGGTCTT
TCTGTGCTTGGATTTGCATATTTATTGCATTGCTGGTAGAGACCCCCAGGCCTGTCCACCCTGCCAAGACTCCTC
AGGCAGCGTGTGGGTCCCGCACTCTGCCCCCATTTCCCCGATGTCCCCTGCGGGCGCGGGCAGCCACCCAAGCCT
GCTGGCTGCGGCCCCCTCTCGGCCAGGCATTGGCTCAGCCCGCTGAGTGGGGGGTCGTGGGCCAGTCCCCGAGGA
GCTGGGCCCCTGCACAGGCACACAGGGCCCGGCCACACCCAGCGGCCCCCCGCACAGCCACCCGTGGGGTGCTGC
CCTTATGCCCGGCGCCGGGCACCAACTCCATGTTTGGTGTTTGTCTGTGTTTGTTTTTCAAGAAATGATTCAAAT
TGCTGCTTGGATTTTGAAATTTACTGTAACTGTCAGTGTACACGTCTGGACCCCGTTTCATTTTTACACCAATTT
GGTAAAAATGCTGCTCTCAGCCTCCCACAATTAAACCGCATGTGATCTCC

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FIGURE 1473

GCCGCGGGCGGCGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATC**ATG**GCGGCTGCGCTGTTC
GTGCTGCTGGGATTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAA
GACCTTGGCTCCAAGATACTCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTG
AAGGGGGGCGTGGTGCTGAAGGAGGACGCGCTGCCCGGCCAGAAAACGGAGTTCAAGGTGGACTCCGACGACCAG
TGGGGAGAGTACTCCTGCGTCTTCCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCCAGA
GTGAAGGCTGTGAAGTCGTCAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTG
CCACCTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGC
AGGTTCTTCGTGAGTTCCTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGC
CAGTACCGGTGCAACGGCACCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTG
GCCGCCCTCTGGCCCTTCCTGGGCATCGTGGCTGAGGTGCTGGTGCTGGTCACCATCATCTTCATCTACGAGAAG
CGCCGGAAGCCCGAGGACGTCCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAG
AATGACAAAGGCAAGAACGTCCGCCAGAGGAACTCTTCC**TGA**GGCAGGTGGCCCGAGGACGCTCCCTGCTCCACG
TCTGCGCCGCCGCCGGAGTCCACTCCCAGTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCC
GTAGATTCCCATCATACACTTCCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTCAGGATTCTGTTCCTTAGGT
TTTTTTCCTTCTGAAGTGTTTCACGAGAGCCCGGGAGCTGCTGCCCTGCGGCCCCGTCTGTGGCTTTCAGCCTCT
GGGTCTGAGTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCTTGCCCTTTG
TGGAAAGTCACAGGTCACACGAGGGGCCCCGTGTCCTGCCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTT
TGTGCTTTTATGTTTAATTTTATGAGGGCCACGGGTCTGTGTTCGACTCAGCCTCAGGGACGACTCTGACCTCTT
GGCCACAGAGGACTCACTTGCCCACACCGAGGGCGACCCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTT
GTCTGTGCATCCGGGGGCAGCTCTGGAGGGGGTTTGCTGGGGAACTGGCGCCATCGCCGGGACTCCAGAACCGCA
GAAGCCTCCCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCC
ACCCACCGCCACAATAAAGATCGCCCCCACCTCCACCCTC

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FIGURE 1474

CGGGCGGCGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATC**ATG**GCGGCTGCGCTGTTCGTGC
TGCTGGGATTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAAGACC
TTGGCTCCAAGATACTCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTGAAGG
GGGGCGTGGTGCTGAAGGAGGACGCGCTGCCCGGCCAGAAAACGGAGTTCAAGGTGGACTCCGACGACCAGTGGG
GAGAGTACTCCTGCGTCTTCCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCCAGAGTGA
AGGCTGTGAAGTCGTCAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTGCCAC
CTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGCAGGT
TCTTCGTGAGTTCCTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGCCAGT
ACCGGTGCAACGGCACCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTGGCCG
CCCTCTGGCCCTTCCTGGGCATCGTGGCTGAGGTGCTGGTGCTGGTCACCATCATCTTCATCTACGAGAAGCGCC
GGAAGCCCGAGGACGTCCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAGAATG
ACAAAGGCAAGAACGTCCGCCAGAGGAACTCTTCC**TGA**GGTGGCCCGAGGACGCTCCCTGCTCCACGTCTGCGCC
GCCGCCGGAGTCCACTCCCAGTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCCGTAGATTC
CCATCATACACTTCCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTCAGGATTCTGTTCCTTAGGTTTTTTTCC
TTCTGAAGTGTTTCACGAGAGCCCGGGAGCTGCTGCCCTGCGGCCCCGTCTGTGGCTTTCAGCCTCTGGGTCTGA
GTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCTTGCCCTTTGTGGAAAGT
CACAGGTCACACGAGGGGCCCCGTGTCCTGCCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTTTGTGCTTT
TATGTTTAATTTTATGAGGGCCACGGGTCTGTGTTCGACTCAGCCTCAGGGACGACTCTGACCTCTTGGCCACAG
AGGACTCACTTGCCCACACCGAGGGCGACCCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTTGTCTGTGC
ATCCGGGGGCAGCTCTGGAGGGGGTTTGCTGGGGAACTGGCGCCATCGCCGGGACTCCAGAACCGCAGAAGCCTC
CCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCCACCCACCG
CCACAATAAAGATCGCCCCCACCTCCACCCTC

FIGURE 1475A

AGGCGGCGCGGGCGCATGCGCAGGCGCGGGCCGGTGGGGTGGCCTGGAGCGGCGTGCGTA**ATG**TCGGCACTTTGC
TGGGGCCGCGGAGCGGCGGGGCTCAAACGAGCCCTACGGCCTTGCGGCCGCCCGGGACTCCCCGGCAAAGAAGGG
ACCGCCGGTGGCGTCTGCGGCCCCAGGAGGAGCTCGTCCGCCAGCCCCCAGGAGCAAGACCAAGACCGCAGGAAG
GACTGGGGCCACGTGGAGCTGCTGGAGGTGCTCCAGGCGCGGGTGCGGCAGCTGCAGGCTGAGAGCGTGTCGGAG
GTGGTGGTGAACAGGGTGGATGTGGCGCGGCTCCCAGAATGTGGCAGTGGAGATGGTAGCCTCCAGCCACCCAGG
AAGGTCCAGATGGGGGCCAAGGATGCCACCCCGGTGCCCTGTGGCCGCTGGGCAAAGATACTGGAGAAGGATAAG
CGGACCCAGCAGATGCGTATGCAGCGGTTGAAGGCGAAGCTGCAGATGCCATTCCAGAGCGGGGAGTTCAAGGCG
CTGACCAGGCGCCTGCAGGTGGAGCCCCGGCTCCTGAGCAAGCAGATGGCCGGGTGCCTGGAGGACTGCACGCGC
CAGGCCCCCGAGAGCCCCTGGGAGGAGCAGCTGGCCCGGCTGCTGCAGGAGGCCCCTGGGAAGCTGAGCCTCGAT
GTGGAGCAGGCCCCGTCGGGGCAGCACTCGCAGGCCCAGCTCTCAGGTCAGCAGCAGAGGCTCCTGGCCTTCTTC
AAGTGCTGCCTGCTCACTGACCAGCTGCCCCTCGCCCACCACCTGCTGGTCGTCCACCACGGCCAGCGGCAGAAG
CGGAAGCTGCTCACGCTGGACATGTACAACGCCGTGATGCTTGGCTGGGCGCGGCAGGGTGCCTTCAAGGAGCTG
GTATATGTGTTATTCATGGTGAAGGATGCCGGCTTGACTCCGGACCTGCTGTCCTATGCGGCTGCCCTCCAGTGC
ATGGGGAGGCAGGACCAGGACGCCGGGACCATCGAAAGGTGTCTGGAACAGATGAGCCAGGAGGGGCTGAAGCTG
CAGGCACTCTTCACCGCCGTTCTGCTGTCTGAGGAGGATCGGGCCACTGTTCTGAAGGCCGTGCACAAGGTGAAG
CCCACCTTCAGCCTCCCGCCGCAGCTGCCGCCCCCGGTCAACACCTCCAAGCTGCTCAGGGACGTGTATGCCAAG
GATGGGCGTGTGTCCTACCCGAAGCTGCACCTGCCCTTGAAGACCCTGCAGTGCCTCTTTGAGAAGCAGCTCCAC
ATGGAGCTGGCCAGCAGGGTGTGCGTGGTGTCCGTGGAGAAGCCCACGTTGCCAAGCAAGGAGGTCAAGCACGCG
CGGAAGACCCTGAAGACCCTGCGGGACCAATGGGAGAAAGCACTGTGCCGGGCGCTGCGGGAGACCAAGAACCGC
CTAGAGCGCGAGGTGTACGAGGGCCGGTTCTCACTTTACCCCTTCCTGTGCCTGCTGGACGAGCGCGAGGTGGTG
CGGATGCTCCTGCAGGTCCTGCAGGCGCTGCCCGCCCAAGGTGAGTCCTTCACCACCCTGGCCCGGGAGCTGAGT
GCGCGCACTTTCAGCCGGCACGTGGTGCAGAGGCAGCGGGTCAGTGGCCAGGTGCAGGCGCTGCAGAACCACTAC
AGGAAGTACCTCTGCTTGCTGGCCTCCGACGCCGAGGTGCCCGAGCCCTGCCTGCCGCGGCAGTACTGGGAGGAG
CTGGGGGCGCCCGAGGCCCTGCGGGAGCAGCCCTGGCCCCTGCCAGTGCAGATGGAGCTGGGCAAGCTGCTGGCG
GAGATGCTGGTGCAGGCTACGCAGATGCCATGCAGCCTGGACAAGCCGCATCGTTCCTCTCGGCTTGTCCCCGTG
CTCTACCACGTGTATTCCTTCCGCAACGTCCAGCAGATCGGCATCCTGAAGCCGCACCCGGCCTACGTGCAGCTG
CTGGAGAAGGCCGCGGAGCCCACGCTGACCTTCGAGGCGGTGGATGTACCCATGCTTTGCCCCCCGCTGCCCTGG
ACATCGCCGCACTCTGGTGCTTTCCTGCTCAGCCCCACCAAGCTGATGCGCACGGTGGAAGGCGCCACGCAGCAC
CAGGAGCTGCTGGAAACCTGCCCGCCCACCGCGCTGCATGGCGCACTGGACGCCCTCACCCAACTGGGCAACTGC
GCCTGGCGCGTCAACGGGCGCGTGCTGGACCTGGTGCTGCAGCTCTTCCAGGCCAAGGGCTGCCCCCAGCTAGGC
GTGCCGGCCCCGCCCTCCGAGGCGCCCCAGCCGCCCGAGGCCCACCTGCCGCACAGCGCCGCGCCCGCCCGCAAG
GCCGAGCTGCGCCGTGAGCTGGCGCACTGCCAGAAGGTGGCCCGGGAGATGCACAGCCTGCGGGCGGAGGCGCTG
TACCGCCTCTCGCTGGCGCAGCACCTGCGGGACCGCGTCTTCTGGCTGCCGCACAACATGGACTTCCGCGGCCGC
ACCTACCCCTGCCCGCCGCACTTCAACCACCTGGGCAGCGACGTGGCGCGGGCCCTGCTGGAGTTCGCCCAGGGC
CGCCCGCTCGGCCCGCACGGCCTGGATTGGCTCAAGATCCACCTGGTCAATCTCACGGGGTTGAAGAAGCGGGAG
CCGCTGCGGAAGCGCCTGGCCTTTGCGGAGGAGGTGATGGATGACATCCTGGACTCCGCGGACCAACCCTTGACG
GGCCGAAAGTGGTGGATGGGCGCGGAGGAACCCTGGCAGACGCTGGCCTGCTGTATGGAGGTGGCGAACGCTGTG
CGCGCCTCCGACCCTGCCGCCTATGTCTCCCACCTCCCCGTCCATCAGGACGGCTCTTGCAACGGCCTGCAGCAT
TATGCTGCTCTGGGCCGCGACAGCGTGGGCGCCGCCTCCGTCAACCTGGAGCCCTCGGATGTGCCGCAGGACGTG
TACAGCGGCGTGGCCGCGCAGGTGGAGGTGTTCCGTAGGCAGGACGCCCAGCGGGGCATGCGGGTGGCACAGGTG
CTGGAAGGTTTCATCACCCGCAAGGTGGTGAAGCAGACGGTGATGACGGTGGTGTACGGGGTCACGCGCTATGGC
GGGCGCCTGCAGATTGAGAAGCGCCTCCGGGAGCTGAGCGACTTTCCCCAGGAGTTCGTGTGGGAGGCCTCTCAC
TATCTCGTACGCCAGGTCTTCAAGAGTCTACAGGAGATGTTCTCGGGGACCCGGGCCATCCAGCACTGGCTGACC
GAGAGTGCCCGCCTCATCTCCCACATGGGCTCTGTGGTGGAGTGGGTCACACCCCTGGGCGTCCCCGTCATCCAG
CCCTATCGCCTGGACTCCAAGGTCAAGCAAATAGGAGGTGGAATTCAGAGCATCACCTACACCCACAACGGAGAC
ATCAGCCGAAAGCCCAACACACGTAAGCAGAAGAACGGCTTCCCGCCCAACTTCATCCACTCGCTGGACTCCTCC
CACATGATGCTCACCGCCCTGCACTGCTACAGGAAGGGCCTGACCTTCGTCTCTGTGCACGACTGTTACTGGACT
CACGCAGCTGATGTCTCCGTCATGAACCAGGTGTGCCGGGAGCAGTTTGTCCGCTTGCACAGCGAGCCCATCCTG

FIGURE 1475B

CAGGACCTGTCCAGATTCCTGGTCAAGCGGTTCTGCTCTGAGCCCCAGAAGATCTTGGAGGCCAGCCAGCTGAAG
GAGACACTGCAGGCGGTGCCCAAGCCAGGGGCCTTCGACCTGGAGCAGGTGAAGCGTTCCACCTACTTCTTCAGC
TGACACCCCGTGAGCCTTGTCAGTGTGTAAATAAAGCTCTTTTGCCACCCCC

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FIGURE 1476

AGCAAACGGCCGGCGGCGGGTGCCGCGCGGGGGGCGGGCGGCGCGGAGTAGGTGGCGGCGGCC**ATG**GCCGAGGCG
TCGCCGCATCCCGGACGGTACTTCTGCCACTGCTGCTCCGTGGAGATCGTCCCGCGCCTGCCGGATTATATCTGT
CCAAGATGCGAGTCTGGTTTTATCGAGGAGCTTCCGGAAGAGACCAGGAGCACAGAAAATGGTTCTGCCCCCTCC
ACAGCTCCCACAGACCAGAGCCGGCCACCGTTGGAGCACGTGGACCAGCACCTGTTCACGCTGCCGCAGGGCTAC
GGACAGTTTGCTTTCGGCATCTTCGATGACAGCTTCGAGATCCCCACGTTCCCTCCTGGGGCGCAGGCTGACGAC
GGCAGGGACCCTGAGAGCCGGCGGGAGAGAGACCATCCGTCCCGGCACCGGTACGGCGCCCGACAGCCCCGCGCC
CGCCTCACCACGCGGCGGGCCACCGGCCGGCACGAAGGCGTCCCCACGCTGGAAGGGATCATCCAGCAGCTCGTC
AACGGCATCATCACGCCCGCCACCATCCCCAGCCTGGGCCCCTGGGGAGTCCTGCACTCAAACCCTATGGACTAC
GCCTGGGGGGCCAACGGCCTGGATGCCATCATCACACAGCTCCTCAATCAGTTTGAAAACACAGGCCCCCCACCG
GCAGATAAAGAGAAAATCCAGGCCCTCCCCACCGTCCCCGTCACTGAGGAGCACGTAGGCTCCGGGCTCGAGTGC
CCTGTGTGCAAGGACGACTACGCGCTGGGTGAGCGTGTGCGGCAGCTGCCCTGCAACCACCTGTTCCACGACGGC
TGCATCGTGCCCTGGCTGGAGCAGCACGACAGCTGCCCCGTCTGCCGAAAAAGCCTCACGGGACAGAACACGGCC
ACGAACCCCCCTGGCCTCACTGGGGTGAGCTTCTCCTCCTCGTCGTCATCGTCCTCCTCCAGCTCGCCCAGCAAC
GAGAACGCCACAAGCAACTCG**TGA**GCCCACGTCGGCCGTCGGGAAAGCACGGGGCCTTTCCCACCCACCCTCAGC
CAGCGCCACACGGCACCCACAGACTGGGTGCCCCGGCGGCGCCACGCTTGGCTGGTCAGCGCTGCAGGTCCCGCC
TGTTCCAGGGCAGGACCCGGGCCCGGCCCACCGGCCCCCTGGCTTGGGAAGGCGTGGGCCACATGGTCCCCTCTG
GGGCGTCCCCAGCCTCCCCGTCCTCTGTCTAACCTCACCCTCTAAACGTTCAGCGGTGGAAAGATTTTTATAATT
TTAAATTATTACTGCTTTGAAATAAACGGACGTTTGAGCTCACGTGGCGGCCATGCATGGTTTGTGGCGGAAGAC
GGGGCCCAGCGGCTCCCCCAGCGCTGAAGCACGGGGTTCAGCGGCTCCCCCAGTGCTGCAGGTGCCGCCAGGACG
GGCCACGTGGGCCCCCAGCCTCCCCCTCGGCCGCCTCCACGACCCGGAGTAGGGGGGCTCGGGACCATGAGGATG
ACCAGCAAAATTCAAGAACAAAACTGCTCCAACAGACTTTTTTAAAGGAAAAAATATGTGTATCTTGAAAGCTAT
TTAAAATACACTACTTACAAAGAG

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FIGURE 1477

GTTCGCC**ATG**CGTCCCGGGGCGCCAGGGCCACTCTGGCCTCTGCCCTGGGGGGCCCTGGCTTGGGCCGTGGGCTT
CGTGAGCTCCATGGGCTCGGGGAACCCCGCGCCCGGTGGTGTTTGCTGGCTCCAGCAGGGCCAGGAGGCCACCTG
CAGCCTGGTGCTCCAGACTGATGTCACCCGGGCCGAGTGCTGTGCCTCCGGCAACATTGACACCGCCTGGTCCAA
CCTCACCCACCCGGGGAACAAGATCAACCTCCTCGGCTTCTTGGGCCTTGTCCACTGCCTTCCCTGCAAAGATTC
GTGCGACGGCGTGGAGTGCGGCCCGGGCAAGGCGTGCCGCATGCTGGGGGGCCGCCCGCGCTGCGAGTGCGCGCC
CGACTGCTCGGGGCTCCCGGCGCGGCTGCAGGTCTGCGGCTCAGACGGCGCCACCTACCGCGACGAGTGCGAGCT
GCGCGCCGCGCGCTGCCGCGGCCACCCGGACCTGAGCGTCATGTACCGGGGCCGCTGCCGCAAGTCCTGTGAGCA
CGTGGTGTGCCCGCGGCCACAGTCGTGCGTCGTGGACCAGACGGGCAGCGCCCACTGCGTGGTGTGTCGAGCGGC
GCCCTGCCCTGTGCCCTCCAGCCCCGGCCAGGAGCTTTGCGGCAACAACAACGTCACCTACATCTCCTCGTGCCA
CATGCGCCAGGCCACCTGCTTCCTGGGCCGCTCCATCGGCGTGCGCCACGCGGGCAGCTGCGCAGGCACCCCTGA
GGAGCCGCCAGGTGGTGAGTCTGCAGAAGAGGAAGAGAACTTCGTG**TGA**GCCTGCAGGACAGGCCTGGGCCTGGT
GCCCGAGGCCCCCCATCATCCCCTGTTATTTATTGCCACAGCAGAGTCTAATTTATATGCCACGGACACTCCTTA
GAGCCCGGATTCGGACCACTTGGGGATCCCAGAACCTCCCTGACGATATCCTGGAAGGACTGAGGAAGGGAGGCC
TGGGGGCCGGCTGGTGGGTGGGATAGACCTGCGTTCCGGACACTGAGCGCCTGATTTAGGGCCCTTCTCTAGGAT
GCCCCAGCCCCTACCCTAAGACCTATTGCCGGGGAGGATTCCACACTTCCGCTCCTTTGGGGATAAACCTATTAA
TTATTGCTACTATCAAGAGGGCTGGGCATTCTCTGCTGGTAATTCCTGAAGAGGCATGACTGCTTTTCTCAGCCC
CAAGCCTCTAGTCTGGGTGTGTACGGAGGGTCTAGCCTGGGTGTGTACGGAGGGTCTAGCCTGGGTGAGTACGGA
GGGTCTAGCCTGGGTGAGTACGGAGGGTCTAGCCTGGGTGAGTACGGAGGGTCTAGCCTGGGTGTGTATGGAGGA
TCTAGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGTGTATGGAGGGTCT
AGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGTGTATGGAGGGTCTAGCCTGGGTGAGTATGGAGGGTCTAGC
CTGGGTGTGTACGGAGGGTCTAGTCTGAGTGCGTGTGGGGACCTCAGAACACTGTGACCTTAGCCCAGCAAGCCA
GGCCCTTCATGAAGGCCAAGAAGGCTGCCACCATTCCCTGCCAGCCCAAGAACTCCAGCTTCCCCACTGCCTCTG
TGTGCCCCTTTGCGTCCTGTGAAGGCCATTGAGAAATGCCCAGTGTGCCCCCTGGGAAAGGGCACGGCCTGTGCT
CCTGACACGGGCTGTGCTTGGCCACAGAACCACCCAGCGTCTCCCCTGCTGCTGTCCACGTCAGTTCATGAGGCA
ACGTCGCGTGGTCTCAGACGTGGAGCAGCCAGCGGCAGCTCAGAGCAGGGCACTGTGTCCGGCGGAGCCAAGTCC
ACTCTGGGGGAGCTCTGGCGGGGACCACGGGCCACTGCTCACCCACTGGCCCCGAGGGGGGTGTAGACGCCAAGA
CTCACGCATGTGTGACATCCGGAGTCCTGGAGCCGGGTGTCCCAGTGGCACCACTAGGTGCCTGCTGCCTCCACA
GTGGGGTTCACACCCAGGGCTCCTTGGTCCCCCACAACCTGCCCCGGCCAGGCCTGCAGACCCAGACTCCAGCCA
GACCTGCCTCACCCACCAATGCAGCCGGGGCTGGCGACACCAGCCAGGTGCTGGTCTTGGGCCAGTTCTCCCACG
ACGGCTCACCCTCCCCTCCATCTGCGTTGATGCTCAGAATCGCCTACCTGTGCCTGCGTGTAAACCACAGCCTCA
GACCAGCTATGGGGAGAGGACAACACGGAGGATATCCAGCTTCCCCGGTCTGGGGTGAGGAATGTGGGGAGCTTG
GGCATCCTCCTCCAGCCTCCTCCAGCCCCCAGGCAGTGCCTTACCTGTGGTGCCCAGAAAAGTGCCCCTAGGTTG
GTGGGTCTACAGGAGCCTCAGCCAGGCAGCCCACCCCACCCTGGGGCCCTGCCTCACCAAGGAAATAAAGACTCA
A

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FIGURE 1478

TTGTGAGTCTATAACTCGGAGCCGTTGGGTCGGTTCCTGCTATTCCGGCGCCTCCACTCCGTCCCCCGCGGGTCT
GCTCTGTGTGCC**ATG**GACGGCATTGTCCCAGATATAGCCGTTGGTACAAAGCGGGGATCTGACGAGCTTTTCTCT
ACTTGTGTCACTAACGGACCGTTTATCATGAGCAGCAACTCGGCTTCTGCAGCAAACGGAAATGACAGCAAGAAG
TTCAAAGGTGACAGCCGAAGTGCAGGCGTCCCCTCTAGAGTGATCCACATCCGGAAGCTCCCCATCGACGTCACG
GAGGGGGAAGTCATCTCCCTGGGGCTGCCCTTTGGGAAGGTCACCAACCTCCTGATGCTGAAGGGGAAAAACCAG
GCCTTCATCGAGATGAACACGGAGGAGGCTGCCAACACCATGGTGAACTACTACACCTCGGTGACCCCTGTGCTG
CGCGGCCAGCCCATCTACATCCAGTTCTCCAACCACAAGGAGCTGAAGACCGACAGCTCTCCCAACCAGGCGCGG
GCCCAGGCGGCCCTGCAGGCGGTGAACTCGGTCCAGTCGGGGAACCTGGCCTTGGCTGCCTCGGCGGCGGCCGTG
GACGCAGGGATGGCGATGGCCGGGCAGAGCCCCGTGCTCAGGATCATCGTGGAGAACCTCTTCTACCCTGTGACC
CTGGATGTGCTGCACCAGATTTTCTCCAAGTTCGGCACAGTGTTGAAGATCATCACCTTCACCAAGAACAACCAG
TTCCAGGCCCTGCTGCAGTATGCGGACCCCGTGAGCGCCCAGCACGCCAAGCTGTCGCTGGACGGGCAGAACATC
TACAACGCCTGCTGCACGCTGCGCATCGACTTTTCCAAGCTCACCAGCCTCAACGTCAAGTACAACAATGACAAG
AGCCGTGACTACACACGCCCAGACCTGCCTTCCGGGGACAGCCAGCCCTCGCTGGACCAGACCATGGCCGCGGCC
TTCGGTGCACCTGGTATAATCTCAGCCTCTCCGTATGCAGGAGCTGGTTTCCCTCCCACCTTTGCCATTCCTCAA
GCTGCAGGCCTTTCCGTTCCGAACGTCCACGGCGCCCTGGCCCCCCTGGCCATCCCCTCGGCGGCGGCGGCAGCT
GCGGCGGCAGGTCGGATCGCCATCCCGGGCCTGGCGGGGGCAGGAAATTCTGTATTGCTGGTCAGCAACCTCAAC
CCAGAGAGAGTCACACCCCAAAGCCTCTTTATTCTTTTCGGCGTCTACGGTGACGTGCAGCGCGTGAAGATCCTG
TTCAATAAGAAGGAGAACGCCCTAGTGCAGATGGCGGACGGCAACCAGGCCCAGCTGGCCATGAGCCACCTGAAC
GGGCACAAGCTGCACGGGAAGCCCATCCGCATCACGCTCTCGAAGCACCAGAACGTGCAGCTGCCCCGCGAGGGC
CAGGAGGACCAGGGCCTGACCAAGGACTACGGCAACTCACCCCTGCACCGCTTCAAGAAGCCGGGCTCCAAGAAC
TTCCAGAACATATTCCCGCCCTCGGCCACGCTGCACCTCTCCAACATCCCGCCCTCAGTCTCCGAGGAGGATCTC
AAGGTCCTGTTTTCCAGCAATGGGGGCGTCGTCAAAGGATTCAAGTTCTTCCAGAAGGACCGCAAGATGGCACTG
ATCCAGATGGGCTCCGTGGAGGAGGCGGTCCAGGCCCTCATTGACCTGCACAACCACGACCTCGGGGAGAACCAC
CACCTGCGGGTCTCCTTCTCCAAGTCCACCATC**TAG**GGGCACAGGCCCCCACGGCCGGGCCCCCTGGCGACAACT
TCCATCATTCCAGAGAAAAGCCACTTTAAAAACAGCTGAAGTGACCTTAGCAGACCAGAGATTTTATTTTTTTAA
AGAGAAATCAGTTTACCTGTTTTTAAAAAAATTAAATCTAGTTCACCTTGCTCACCCTGCGGTGACAGGGACAGC
TCAGGCTCTTGGTGACTGTGGCAGCGGGAGTTCCCGGCCCTCCACACCCGGGGCCAGACCCTCGGGGCCATGCCT
TGGTGGGGCCTGTGTCGGGCGTGGGGCCTGCAGGTGGGCGCCCCGACCACGACTTGGCTTCCTTGTGCCTTAAAA
AACCTGCCTTCCTGCAGCCACACACCCACCCGGGGTGTCCTGGGGACCCAAGGGGTGGGGGGGTCACACCAGAGA
GAGGCAGGGGGCCTGGCCGGCTCCTGCAGGATCATGCAGCTGGGGCGCGGCGGCCGCGGCTGCGACACCCCAACC
CCAGCCCTCTAATCAAGTCACGTGATTCTCCCTTCACCCCGCCCCCAGGGCCTTCCCTTCTGCCCCCAGGCGGGC
TCCCCGCTGCTCCAGCTGCGGAGCTGGTCGACATAATCTCTGTATTATATACTTTGCAGTTGCAGACGTCTGTGC
CTAGCAATATTTCCAGTTGACCAAATATTCTAATCTTTTTTCATTTATATGCAAAAGAAATAGTTTTAAGTAACT
TTTTATAGCAAGATGATACAATGGTATGAGTGTAATCTAAACTTCCTTGTGGTATTACCTTGTATGCTGTTACTT
TTATTTTATTCCTTGTAATTAAGTCACAGGCAGGACCCAGTTTCCAGAGAGCAGGCGGGGCCGCCCAGTGGGTCA
GGCACAGGGAGCCCCGGTCCTATCTTAGAGCCCCTGAGCTTCAGGGAAGGGGCGGGCGTGTCGCCGCCTCTGGCA
TCGCCTCCGGTTGCCTTACACCACGCCTTCACCTGCAGTCGCCTAGAAAACTTGCTCTCAAACTTCAGGGTTTTT
TCTTCCTTCAAATTTTGGACCAAAGTCTCATTTCTGTGTTTTGCCTGCCTCTGATGCTGGGACCCGGAAGGCGGG
CGCTCCTCCTGTCTTCTCTGTGCTCTTTCTACCGCCCCCGCGTCCTGTCCCGGGGGCTCTCCTAGGATCCCCTTT
CCGTAAAAGCGTGTAACAAGGGTGTAAATATTTATAATTTTTTATACCTGTTGTGAGACCCGAGGGGCGGCGGCG
CGGTTTTTTATGGTGACACAAATGTATATTTTGCTAACAGCAATTCCAGGCTCAGTATTGTGACCGCGGAGCCAC
AGGGGACCCCACGCACATTCCGTTGCCTTACCCGATGGCTTGTGACGCGGAGAGAACCGATTAAAACCGTTTGAG
AAACTCCTCCCTTGTCTAGCCCTGTGTTCGCTGTGGACGCTGTAGAGGCAGGTTGGCCAGTCTGTACCTGGACTT
CGAATAAATCTTCTGTATCCTCGCTCCGTTCCGCCTT

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FIGURE 1479

GAGGAGACGCGCTTTGTGCTGGGCGCCGGCCGCGCCAGCCACGGCCTGCGGCGCCCGCGGCACC**ATG**ATCTCCAC
CAAGGAGAAGAACAAGATCCCGAAGGACAGCATGACGCTTCTGCCCTGCTTCTACTTCGTGGAGCTGCCCATAGT
GGCTTCTTCCATCGTATCCTTGTACTTCCTGGAGCTGACCGACCTCTTCAAGCCGGCCAAGGTGGGCTTCCAGTG
CTATGACCGCACTCTCTCCATGCCCTACGTGGAGACCAACGAGGAGCTCATCCCGCTGCTGATGCTGCTCAGCTT
GGCCTTCGCGGCCCCTGCCGCCTCGATCATGGTGGCCGAGGGCATGTTGTACTGTCTGCAGTCCCGGCTGTGGGG
CCGTGCCGGGGGGCCCGCCGGGGCGGAGGGCAGCATCAACGCCGGCGGCTGCAACTTCAACTCCTTCCTGCGGCG
TACGGTGCGGTTTGTGGGTGTCCACGTGTTCGGCCTGTGTGCCACAGCCCTGGTGACGGACGTGATCCAGCTGGC
CACGGGTTACCACACTCCCTTCTTCCTCACCGTCTGCAAGCCCAACTACACTCTCCTGGGCACGTCCTGCGAGGT
CAACCCCTACATCACGCAGGACATCTGCTCCGGCCACGACATCCACGCCATCCTGTCTGCACGGAAGACCTTCCC
GTCCCAGCACGCCACGCTGTCAGCCTTCGCCGCGGTCTATGTGTCGGTGAGTCCGGCCCCTCACTGCCCTTCCCA
GGCCCTCTTGCTGACCCGTGGGGAGCCCTCCCTGACCCCAACCCCCATGCCCCAGATGTACTTCAACTCGGTCAT
CTCGGACACCACCAAGCTGCTGAAGCCCATCCTGGTCTTCGCCTTTGCCATCGCCGCGGGCGTATGCGGGCTCAC
GCAGATCACGCAGTACCGCAGCCACCCTGTGGACGTGTATGCCGGCTTCCTCATCGGGGCGGGCATCGCTGCCTA
CCTGGCCTGCCACGCGGTGGGCAACTTCCAGGCCCCACCTGCAGAGAAGCCCGCGGCCCCGGCCCCCGCCAAGGA
CGCGCTGCGGGCCCTGACGCAGCGGGGCCACGACTCGGTTTATCAGCAGAATAAGTCGGTGAGCACCGACGAGCT
GGGGCCCCCAGGGCGGCTGGAGGGCGCGCCCCGGCCCGTGGCCCGCGAGAAGACCTCGCTGGGCAGCCTGAAGCG
CGCCAGCGTGGACGTGGACCTGCTGGCCCCGCGCAGCCCCATGGCCAAGGAGAACATGGTGACCTTCAGCCACAC
GCTGCCCAGGGCCAGCGCGCCCTCGCTGGACGACCCCGCGCGCCGCCACATGACCATCCACGTGCCGCTGGACGC
CTCGCGCTCCAAGCAGCTCATCAGCGAGTGGAAGCAGAAGAGCCTGGAGGGCCGCGGCCTGGGGCTGCCCGACGA
CGCCAGCCCCGGGCACCTGCGCGCGCCCGCCGAACCCATGGCGGAGGAGGAGGAAGAGGAGGAGGACGAAGAGGA
AGAGGAGGAGGAGGAAGAGGAGGAGGACGAGGGCCCGGCCCCGCCCTCGCTCTACCCCACCGTGCAGGCGCGGCC
GGGGCTGGGGCCTCGGGTCATCCTCCCACCGCGCGCGGGGCCGCCGCCGCTGGTGCACATCCCGGAGGAGGGCGC
GCAGACGGGGGCCGGCCTGTCCCCCAAAAGCGGCGCCGGGGTGCGCGCCAAGTGGCTCATGATGGCCGAGAAGAG
CGGGGCGGCAGTGGCCAACCCTCCGCGGCTGCTGCAGGTCATCGCCATGTCCAAGGCTCCGGGCGCGCCGGGCCC
CAAGGCGGCCGAGACGGCGTCGTCGTCCAGCGCCAGCTCCGACTCCTCGCAGTACCGGTCGCCGTCGGACCGCGA
CTCCGCCAGCATCGTGACCATCGACGCGCACGCGCCGCACCACCCCGTGGTGCACCTGTCGGCCGGCGGCGCGCC
CTGGGAGTGGAAGGCGGCGGGCGGCGGGGCCAAGGCGGAGGCCGACGGCGGCTACGAGCTGGGGGACCTGGCGCG
CGGCTTCCGCGGCGGGGCCAAGCCCCCGGGCGTGTCCCCCGGCTCGTCGGTCAGCGACGTGGACCAGGAGGAGCC
GCGGTTCGGGGCCGTGGCCACCGTCAACCTGGCCACGGGCGAGGGGCTGCCCCCGCTGGGCGCGGCCGATGGGGC
GCTGGGCCCGGGCAGCCGGGAGTCCACGCTGCGGCGCCACGCGGGCGGCCTGGGGCTGGCGGAGCGCGAGGCGGA
GGCGGAGGCCGAGGGCTACTTCCGCAAGATGCAGGCGCGCCGCTTCCCCGAC**TAG**CGCGGCGGGGCCGGGGGCGG
GCGGGGGGCGGGCCGAGGGCGCGGGCGGCCGC

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FIGURE 1480

ATGTGTGATTTGCGGCGGCCAGCGGCAGGTGGGATGATGGACTTGGCCTACGTCTGTGAGTGGGAGAAATGGTCC
AAGAGCACCCACTGCCCATCGGTGCCCCTGGCCTGCGCCTGGTCCTGCCGAAATCTCATCGCCTTCACCATGGAC
CTGCGCAGCGATGACCAGGACCTGACCCGCATGATCCACATCCTGGACACGGAGCACCCCTGGGACCTGCACTCG
ATCCCCTCAGAGCACCACGAGGCTATCACCTGCCTGGAGTGGGACCAGTCAGGCTCCCGGCTCCTGTCAGCAGAT
GCCGACGGGCAGATCAAGTGCTGGAGCATGGCGGACCACCTGGCTAATAGCTGGGAGAGCTCAGTGGGCAGCCTA
GTGGAGGGGGACCCCATTGTGGCCCTGTCCTGGCTGCACAATGGTGTGAAACTGGCCCTGCACGTGGAGAAGTCG
GGCGCCTCCAGCTTCGGGGAGAAGTTCTCCCGAGTCAAGTTCTCACCGTCGCTCACGCTGTTCGGCGGCAAGCCC
ATGGAGGGCTGGATCGCGGTGACGGTCAGCGGCCTGGTCACCGTGTCCCTGCTGAAGCCCAGCGGGCAGGTGCTG
ACGTCCACCGAGAGCCTGTGCCGGCTGCGCGGCCGCGTGGCCCTGGCGACATCGCCTTCACCGGCGGCGGCAACA
TCGTGGTGGCCACGGCGGACGGCAGCAGCGCGTCGCCCGTGCAGTTCTACAAGGTGTGCGTGAGCGTGGTGAGCG
AGAAGTGCCGTATCGACACGGAGATCCTGCCCTCCCTGTTC**ATG**CGCTGCACCACCGACCTCAACCGCAAGGACA
AGTTCCCCGCCATCACCCACCTCAAGTTCCTGGCCCGGGACATGTCGGAGCAGGTGCTTTTGTGCGCGTCCAGCC
AGACCAGCAGCATCGTGGAGTGCTGGTCCCTGCGCAAGGAGGGACTCCCCGTGAACAACATCTTCCAGCAGATCT
CCCCCGTGGTTGGCGACAAACAGCCCACAATTCTCAAATGGCGGATCCTATCGGCCACCAACGATCTGGACCGTG
TGTCGGCCGTGGCGCTGCCCAAGCTGCCCATCTCGCTCACCAACACCGACCTCAAGCTGAGCGTGCTCCGCCTCT
CACCTTCCATGGGCCACCCGCTGGAGGTGGGGCTGGCGCTGCGGCACCTGCTCTTCCTGCTGGAGTACTGCATGG
TGACCGGCTACGACTGGTGGGACATCCTGCTGCACGTGCAGCCCAGTATGGTACAGAGCCTGGTGGAGAAGCTGC
ACGAGGAGTACACGCGCCAGACCGCTGCCCTGCAGCAGGTCCTCTCCACCCGGATCCTGGCCATGAAGGCCTCGC
TCTGCAAGCTGTCGCCCTGCACGGTGACTCGCGTGTGCGACTACCACACCAAGCTCTTCCTCATCGCCATCAGCT
CCACCCTGAAGTCGCTGCTGCGCCCCCACTTTCTCAACACGCCTGACAAGAGCCCCGGCGACCGGCTGACCGAGA
TCTGCACCAAGATCACCGACGTCGACATTGACAAGGTCATGATCAACCTCAAGACGGAGGAATTTGTGCTGGACA
TGAACACACTGCAGGCGCTGCAGCAGCTCTTGCAGTGGGTGGGCGACTTCGTGCTGTACCTGCTGGCCAGCCTAC
CCAACCAGGGTTCCCTGCTGAGGCCGGGCCACAGCTTTCTGCGGGACGGCACCTCGCTGGGCATGCTTCGGGAAT
TGATGGTGGTCATCCGCATCTGGGGCCTTCTGAAGCCCAGCTGCCTGCCCGTGTATACGGCCACTTCGGATACCC
AGGACAGCATGTCCCTGCTCTTCCGCCTGCTCACCAAGCTCTGGATCTGCTGTCGCGATGAGGGCCCAGCGAGCG
AGCCGGACGAGGCGCTGGTGGATGAATGCTGCCTGCTGCCCAGCCAGCTGCTTATCCCCAGCCTGGACTGGCTGC
CAGCCAGCGACGGCCTGGTCAGCCGCCTGCAGCCCAAGCAGCCCCTTCGTCTGCAGTTTGGCCGGGCGCCCACGC
TGCCTGGCAGTGCTGCCACCCTGCAGCTCGACGGCCTCGCCAGGGCCCCAGGCCAGCCCAAGATCGACCACCTGC
GGAGGCTGCACCTTGGCGCTTGCCCCACGGAGGAATGCAAGGCCTGCACCAGGTGCGGCTGTGTCACCATGCTCA
AGTCGCCCAACAGAACCACGGCGGTGAAGCAGTGGGAGCAGCGCTGGATCAAGAACTGCCTGGCTGTTGAAGGCC
GTGGGCCGGACGCCTGCGTGACCAGCAGAGCTTCTGAGGAAGCCCCTGCCTTTGTCCAGCTGGGCCCGCAGTCCA
CACACCACTCTCCCAGGACCCCCAGATCCCTGGACCATCTGCATCCAAAGGACCGTCCG**TGA**

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FIGURE 1481

GAAGGCCCTGCCGGGCGGCGGCGGCGGCGACAGCGTGCGAGCCATGGTCGCGCTGGAGAACCCCGAGTGCGGCCC
GGAGGCGGCGGAGGGCACCCCGGGCGGGCGGCGGCTGCTGCCCCTTCCCAGCTGCCTGCCTGCCCTAGCCAGCTC
CCAGGTGAAGAGACTCTCGGCTTCCAGGCGGAAACAGCACTTCATCAACCAGGCAGTGCGGAACTCAGACCTCGT
GCCCAAGGCCAAGGGGCGGAAGAGCCTCCAGCGCCTGGAGAACACCCAGTACCTCCTGACCCTGCTGGAGACAGA
CGGGGGCCTGCCTGGCCTGGAGGATGGGGACTTGGCACCCCCTGCATCACCAGGCATCTTTGCCGAGGCCTGCAA
CAACGCCACCTATGTGGAGGTCTGGAACGATTTCATGAACCGCTCCGGGGAGGAGCAGGAGCGGGTTCTTCGCTA
CCTGGAGGATGAGGGCAGGAGCAAGGCGCGGAGGAGGGGCCCTGGCCGTGGGGAGGACCGGAGGAGAGAGGACCC
CGCCTATACACCCCGCGAGTGCTTCCAGCGCATCAGCCGGCGTCTGCGAGCCGTCCTCAAGCGCAGCCGCATCCC
CATGGAAACGCTGGAGACCTGGGAGGAGCGGCTGCTTCGGTTCTTCTCCGTGTCCCCCCAGGCCGTGTACACAGC
AATGCTAGACAACAGCTTCGAGAGGCTTCTGCTGCACGCTGTCTGCCAGTACATGGACCTCATCTCAGCCAGTGC
TGACCTGGAGGGGAAGCGGCAGATGAAGGTCAGTAATCGGCACCTGGATTTCCTGCCGCCGGGGCTGCTCCTGTC
CGCCTACCTGGAGCAGCACAGCTGATGGCGGCCCCGCGGAGACCCCGCTGCCACCTCGCCCAGCCATCAAGCCCT
CCGATACCTTCGGCTAAAATATCTTTCATATTTTTAGAATTTGTCCTCGGAAACCTTTTTCGCTTGGGGTGGTCT
CTCTCACTCTGCCCCCTCCTCACGCAGCTCTTGGCAGTCAACAGACGCTGGCGGCTGGGGCTGCCCATGCCATCC
CAGCTCCAAGCTTCCCACTCCAGGACTTGTGTTTGGGTGGGGAGACCTGACCTGGGCATGTTCCTGTTTCTTCAT
CGTTGAGCTTTTCTGGCCCGGTCTGAAGCTCAAGTGAGGAGGGGGAGGCTGGGTTTTTATCACTTTTAATGAATT
TGGTGTGATTTGTTGTAGATTTTTAAATTTCCCTTTTGGAGAGAAAAACCAAAAAAACTCGCCCCACTGGTAAAA
CATGGGTCTTGGTCCCAGCCCCTGCTCAGCCCCTCCCAGTTTTTAGCTTGA**ATG**AGGGTGGGGTCTCTGGGACCC
TGCCCCTCATGCCAGAAGCATCTTGTGTTGTATATGTGTGCGCGCGTGTGCCCTGAGACCCAGGACAGAAGCCAC
GGTCCTAAGAGCCGGTTTTATCCTCGTCATTCTGCGTGTCCTCCCCCACGCCACCTGTGTCGGGGCTCAGGGTCT
CCTGCTTTATATGAGCCCCCTTCCTTTCCTCCCCTCCTTTATGCTGGGGGTCCAGGACTTCCAGCCAGAAGCCTC
TGCCCTTGCACTACCTTGTCTGTCACCCCATCCCGTGTCCCCTCGTCCCCCAGCCTGACTCCTGCC**TGA**TAGCTC
CTGTGTCCCCATGCTGGTCCTCCTGGCCCAGGCTGCAGGAGCCAGGCTGGGGGGCCTCCGCACCCCCTTGCTGCG
TGTGGGTAATTGTGTTTTGGGGGAAAGTGGGGAATTTAATAAATTTCTGGTGCTC

FIGURE 1482

GGCAAG**ATG**GCGGCGCCCATGGAGGTGGCCGTGTGTACGGACTCGGCGGCCCCGATGTGGAGCTGCATCGTGTGG
GAACTTCACTCGGGCGCCAACCTGCTCACCTACCGCGGCGGCCAGGCGGGACCCCGCGGCCTGGCGCTGCTCAAT
GGCGAGTATCTGCTGGCGGCGCAGCTGGGCAAGAATTACATCAGCGCCTGGGAGCTCCAGCGGAAGGACCAGCTC
CAGCAGAAGATCATGTGCCCCGGGCCTGTCACCTGTCTGACTGCATCACCCAATGGTCTCTACGTCCTGGCAGGA
GTTGCAGAAAGCATCCACCTGTGGGAGGTCTCCACCGGGAACCTTCTGGTCATCCTGAGTCGACACTACCAGGAC
GTCTCCTGCCTTCAGTTCACAGGGGACAGCAGCCACTTCATCTCAGGGGGCAAGGACTGCCTGGTGCTGGTTTGG
AGCCTCTGCAGCGTGCTGCAGGCCGACCCCTCCAGGATTCCGGCGCCCAGGCACGTCTGGTCTCACCACGCGCTC
CCCATCACGGACCTGCACTGCGGCTTTGGGGGCCCCCTGGCCCGGGTGGCCACCTCCTCACTGGACCAGACGGTG
AAGCTATGGGAGGTCTCCTCGGGGGAGCTGCTGCTCTCCGTCCTCTTTGACGTGTCCATCATGGCAGTGACCATG
GACCTGGCTGAGCACCATATGTTCTGCGGGGGCAGTGAGGGCTCCATCTTCCAGGTCGACCTCTTCACCTGGCCC
GGACAGAGGGAGAGGAGCTTCCACCCAGAGCAGGACGCCGGGAAGGTCTTCAAAGGGCACAGGAACCAGGTGACT
TGCCTGTCAGTGTCCACTGACGGCAGCGTGCTGCTCTCAGGCTCCCACGACGAGACCGTGCGCCTCTGGGACGTG
CAGAGCAAGCAGTGCATCCGGACGGTGGCCCTCAAAGGCCCAGTCACCAATGCCGCCATCCTGCTGGCGCCCGTC
AGCATGCTGAGCTCAGACTTCAGGCCCAGCCTGCCGCTGCCCCACTTCAACAAGCACCTGCTGGGCGCCGAGCAC
GGGGACGAGCCGCGCCACGGGGGCCTCACTCTGCGCCTGGGCCTCCACCAGCAGGGCTCGGAGCCCAGCTACCTG
GACCGCACGGAGCAGCTGCAGGCCGTCCTGTGCAGCACCATGGAGAAGAGCGTGCTCGGCGGCCAGGACCAGCTG
CGCGTCCGTGTGACGGAGCTGGAGGACGAGGTGCGCAACCTGCGCAAGATCAATCGGGACCTGTTCGACTTCTCC
ACGCGCTTCATCACGCGGCCGGCCAAG**TGA**GGCCCGGAGACCCCGGCCCGAGGCGCCCAGGCCTGAGCCCCATGC
CTCCCAGCAACCAGGGCCCGCGGGTGTGGCCCCCACCAGCCCAGGCCTGGACTCTCCTCAGTTCTGTGTCGTGTT
CGGGTTTTTCCTCTGTGACTGGGCCGTCTTGGTGTCTCGTGGCACGCGTCACAGTGGTGCTAGTCTGTTTTTAAC
AAAAGAGGATGAAAAGCC

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FIGURE 1483

GCTCTTGCCCGGCGTGGCGACTCGCTAGCGTCAGCAGCGCCGCAGCCGGACGAGAAAGCGGAAGATGGCGGCGGC
GGCCGGGAGGCCGTGAGGAGAGCGGCGGCTGCGAGGGCGGCCGATGGCGGCCGGGAGGCGCCCTCGGACACTTGC
GGGTCGTTAGGGCGCGACGCTGGGAGGCATGTCGGAGCACGTGGAGCCCGCAGCTCCGGGGCCCGGGCCCAACGG
CGGCGGCGGCGGCCCGGCCCCCGCGCGCGGGCCTCGCACCCCCAATCTCAACCCCAACCCCCTCATCAACGTGCG
CGACCGGCTCTTCCACGCGCTGTTCTTCAAGATGGCTGTCACCTATTCGCGGCTCTTCCCGCCCGCCTTCCGCCG
TCTCTTCGAGTTCTTCGTGCTGCTCAAGGCCCTGTTTGTGCTCTTCGTCCTGGCCTACATCCACATCGTCTTCTC
CCGCTCGCCCATCAACTGCCTGGAGCATGTGCGTGACAAGTGGCCGCGTGAGGGCATCCTGCGTGTGGAAGTGCG
GCACAACTCGAGCCGCGCGCCCGTCTTCCTACAGTTCTGTGACAGCGGCGGCCGCGGGAGCTTCCCGGGCCTGGC
CGTGGAACCAGGCAGCAACCTGGACATGGAAGATGAGGAGGAGGAAGAGCTGACCATGGAGATGTTTGGGAACAG
CTCCATCAAGTTTGAGCTGGACATCGAGCCCAAGGTGTTCAAGCCGCCGAGTAGCACAGAGGCCCTGAATGACAG
CCAGGAGTTCCCCTTCCCCGAGACGCCCACCAAAGTGTGGCCGCAGGACGAGTACATCGTGGAGTACTCACTAGA
GTATGGCTTCCTTCGCCTGTCGCAGGCCACCCGCCAGCGCCTGAGCATCCCCGTCATGGTGGTCACCCTGGGTGA
GTCTGAGCTGCTGGGCTTGGGGAGCTCCATGGCGGGGCCTCCCCTCCTCCCTCGGGTCTCCTCCTGCTGGTGCGG
GACGGGGGGCTGTGCAGGAAGCACTGGGGTCTGCCCCGCCCCAGGCACGCTTCCCAGGGCTGGGGTCCTGG**ATG**G
GTTTCCTAAGAATGGGCAGGGCCAGGAAGCAGGCCAGGCCTCAGCAATGGAGCCAGCTGGGGCAGGGCCCAGGGG
GTGGCCTGGGCGGGGCTCCCGGCTCCCTGATTCACCCACCCGCAGACCCCACGCGGGACCAGTGCTTCGGGGACC
GCTTCAGCCGCCTGCTGCTGGATGAGTTCCTGGGCTACGATGACATCCTCATGTCCAGCGTGAAGGGCCTGGCCG
AGAACGAGGAGAACAAGGGCTTCCTGCGGAATGTGGTGTCGGGCGAGCACTACCGCTTTGTGAGCATGTGGATGG
CGCGGACGTCCTACCTGGCCGCCTTCGCCATCATGGTCATCTTCACGCTGAGCGTGTCCATGCTGCTGCGGTACT
CACACCACCAGATCTTCGTCTTCATCGTGGACCTGCTGCAGATGCTGGAGATGAACATGGCCATCGCCTTCCCCG
CAGCGCCCCTGCTGACCGTCATCCTGGCCCTCGTCGGGATGGAGGCCATCATGTCGGAGTTCTTCAACGACACCA
CCACCGCCTTCTACATCATCCTCATCGTGTGGCTCGCGGACCAGTATGACGCCATCTGCTGCCACACCAGCACCA
GCAAGCGGCATTGGCTGCGGTTCTTCTATCTCTACCACTTCGCCTTCTATGCCTATCACTACCGCTTCAATGGGC
AGTATAGCAGCCTGGCCCTGGTCACCTCCTGGCTCTTCATCCAGCATTCCATGATCTACTTCTTCCACCACTACG
AGCTGCCTGCCATCCTGCAGCAGGTCCGCATCCAGGAGATGCTGCTTCAGGCGCCGCCACTGGGCCCCGGGACCC
CCACGGCGCTGCCCGATGACATGAACAACAACTCGGGCGCCCCGGCTACAGCCCCTGACTCTGCCGGCCAGCCCC
CCGCCCTGGGCCCCGTCTCGCCTGGGGCCAGCGGGAGTCCCGGGCCTGTGGCAGCGGCGCCCAGCTCCCTGGTGG
CCGCGGCAGCCTCAGTGGCAGCAGCTGCCGGTGGTGACCTGGGTTGGATGGCAGAGACCGCTGCCATCATCACAG
ACGCCTCCTTCCTGTCCGGCCTGAGCGCCTCCCTCCTGGAGCGGCGTCCAGCCAGCCCGCTGGGCCCTGCTGGGG
GCCTCCCCCACGCCCCCCAGGACAGTGTCCCCCCGAGTGACTCCGCAGCTTCTGACACAACTCCCCTGGGGGCTG
CGGTAGGCGGGCCTAGCCCGGCCTCCATGGCCCCAACGGAGGCGCCCTCGGAGGTGGGGTCC**TGA**GCCGCACAGC
TGAGCCGCCTCTGACCCCTGCTGGCTGGGCCTGACCTTCCCGAGCCCGTGGGGGTGGGGGAGGCCAGCCACCTCC
TTCCTCTGGGACTGCCCAGCCTGTGTCGGGGGCTTTCAGGGTTTCGTGGGGTTTGCCCGGAAGGCGGCTTTCCTC
CCCCTGGTGTGAGGTCGCGCCCGAGGCTTGTACCCGCTAGTGAGGTGTTTGAGCTGGTCAGCAAGGAGAGGGGGT
GGGGTTCCGCGGAAGGTTCTGGAGGGGTCTTGGTAGGTCTGCAGTGAACCGTCCTGAGGATGGAGTGGGGTCCCA
TGGTGCAGGTCTCTGAGCAAGGCGGAGGTGTGGAGGAGAGGCCGGCTTGGGGTGGGGCCTCGCGCCCTAGTGCCG
GCCGGCCTCAGCCCGGCTCTGCCTGGTGCTCCCTGCAGTGCCTTCTCCATGGCCCCGCCCTCCCCGCGTGTGCGC
CAGGCTTGGGGTCCCCGGGAGAGCAGAGCTTGCGCCTCGGGCATAGGGACGTGGGGTGCAGGCGCCAACATCAGT
GGCAGCAGCCAGGGCCGTGGTCCAGTCCCACTCGGGGATGGAGTGGGCCGGCGGCCAAACCAGTCACTCGGGGAG
GAATGCGGAGGAGCGCTCATTCCATTCTATTTAATTGCAGTGTACAAAATTGTGTTTGTATATAGAATAAACTGT
CTGTTGACAGCGGC

FIGURE 1484

ATGAGCTCCACGCAGTTCAACAAGGGCCCCTCGTACGGGCTGTCGGCCGAGGTCAAGAACCGGGCTCCCGCGAAT
CTTGGGGAGCACCCAGGTCTGAGATCTGGGGGACGAGTGACCCATTCCCCCCCCCAACATCTAGGGGTAGTTGGG
TCTGACTTCGTCCCCTCGCCATGGCCCCAGGACCCCCACGTGTCCTTACAGCTGACTTCTGCAGGGGAAACTGCC
TCTGCACGCTCTGAGGGCACCGGCCCTGCCAGCCCCAACAGCCACCTGCCCGGCGGCACTCCAGGGCCGGCAGAC
TGGAGGGAGAATTCCTGCTTCCCCGCTGGGCCATCTGCACCCTGCATTCATAGAGCCCCCCGTGCAGTGGGGTGG
GCACCCTGCCGCACCCTGCATACAGCCGGC**TAA**

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FIGURE 1485

ACCAGCTCCTGTCCAAATATGACCCCCAGAAGGAGGCAGAGCTCCGCACCTGGATCGAGGGACTCACCGGCCTCT
CCATCGGCCCCGACTTCCAGAAGGGCCTGAAGGATGGAACTATCTTATGCACACTC**ATG**AACAAGCTACAGCCGG
GCTCCGTCCCCAAGATCAACCGCTCCATGCAGAACTGGCACCAGCTAGAAAACCTGTCCAACTTCATCAAGGCCA
TGGTCAGCTACGGCATGAACCCTGTGGACCTGTTCGAGGCCAACGACCTGTTTGAGAGTGGGAACATGACGCAGG
TGCAGGTGTCTCTTCTCGCCCTGGCGGGGAAGGCCAAGACTAAGGGGCTGCAGAGCGGGGTGGACATTGGCGTCA
AGTACTCGGAGAAGCAGGAGCGGAATTTCGACGATGCCACCATGAAGGCTGGCCAGTGCGTCATCGGGCTGCAGA
TGGGCACCAACAAATGCGCCAGCCAGTCGGGCATGACTGCCTACGGCACGAGAAGGCATCTCTATGACCCCAAGA
ACCATATCCTGCCCCCCATGGACCACTCGACCATCAGCCTCCAGATGGGCACGAACAAGTGTGCCAGCCAGGTGG
GCATGACGGCTCCCGGGACCCGGCGGCACATCTATGATACCAAGCTGGGAACCGACAAGTGTGACAACTCCTCCA
TGTCCCTGCAGATGGGCTACACGCAGGGCGCCAACCAGAGCGGCCAGGTCTTCGGCCTGGGCCGGCAGATATATG
ACCCCAAGTACTGCCCGCAAGGCACAGTGGCCGATGGGGCTCCCTCGGGCACCGGCGACTGCCCGGACCCGGGGG
AGGTCCCTGAATATCCCCCTTACTACCAGGAGGAGGCCGGCTAC**TGA**GGCTCCCAGCACGCTCTCTCCCCACATC
GTCTGCCCATCTGGGTTTTTGGGTTTTTCTGTGTTTTCATCTTTTTTTTTTTTTTCTTAACCCGTTCAGTGCTGC
CAGTCAACCAAGGGTCTGTGAGTGTCAGCGTGGGATCAGGCAGCAGAGCTTTTTTCCCCTTTGCCTTGATCCTTC
GCAAGGCTGAGCCACTGGGCTGTGGGGGAAGGGGTCAAGGCCATATCCCAATACGTGTAGGGCGAGGGTCCCTGC
TGGCACATTCAGGCTGTGCTGGGAAGAAGAGACCTGGGCTTGGAAGGAACCGGTCCCCGACGGTTTCTGCTTGCC
TCGCCTCTTCCCCCTTTTGTCAGCTGAGCAGTTTGTGGTTTCTATGCCCGCAAGTTTCAGGAAGTATTCACAAAA
GAAAAATACATTTTTTCCCCCAGGGGTGGGGCAAGGACAGTGGAGAGAGTGCTAGGAAATGAGTCCCCTGGGAAA
GGGGACCGGGCCGTGATGTTAAATATCTCCGGCTCCCAAGTGACTGGATTTGCCTAGGACCTTCAGACCAACAGA
CTTCAGACCCTCAGACCTGCCCCGGGGCCAGGTGGAGAAAGTGAGGGCCGTACAAGGAAGTGAAATTCTGAGTTG
TTGGGGCTAAGCCTGACCCCCTCTCCATGCTCCCCGCCCCAACCCACTCTGGCCTCAGTAGATTTTTTTTTCAGT
TGTGGTTGTTGCCCAGGCTGGAGTGCAGTGGCGCCATCTTGGCTCACTGCACCTCCACCTTCCGGGCTCAAGCGA
TTCTCCAGCCTCAGCCTCCTGAGTAGCTAGGACTGCAGGTGCTCCACCACGCCCGGCTAATTTTTGTATTTTTAG
TAGAGATGGGGTTTCCCCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCTCAGGTGTGATCCGCCCGCCTCCGC
CTCCCCAAGCGCTGAGATTACAGGTGTGAGCCACCGTGCCCAGCCCCTCAGTAGGTTTTAAGGAGCCCCCAGCCC
TCCTCCCTTCTGGGCCCGACCAGCTTATACTGCTCCATCTTCCCCGGCCACATGCCCCGCCAAGTACTGCACAGG
GACCCCCCACCCAGGGGACCTGCTCCGTGAGATAATGTGAAATACGACTGTGGACCAAACGCAATAAAACCTCTG
TTTGTACGAAG

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FIGURE 1486A

CGCCTCCCCGAAGCCTTTTCCTGTTGGGGGGAGGGCCCGCCAGTGACGGCCGGGCCTGTCACGTGGGCCTGACAG
CTGGGGAGGGGGTGGCCGGCGACAATGTGGTCCCGAAGCGGCCAGCGCCGGGAGCTGCAGCGCTGAGACCCCCAG
CCCGCCCCCTCGGGCTCCCGGCCGGGGCCCCATC**ATG**TTCTCCAGGAAGAAACGAGAGCTCATGAAAACCCCTTC
CATCTCGAAAAAGAACCGCGCGGGAAGCCCCAGCCCGCAGCCCTCGGGGGAGCTGCCCAGGAAGGATGGGGCTGA
CGCGGTGTTCCCCGGACCAAGCCTGGAGCCGCCCGCTGGGTCCTCCGGCGTCAAGGCCACAGGGACCCTCAAGCG
GCCCACCAGCCTGAGCCGCCACGCCAGCGCGGCTGGCTTCCCCCTGTCGGGTGCTGCCTCCTGGACACTGGGCCG
GAGCCACCGGAGCCCACTGACAGCCGCCAGCCCGGGCGAGCTGCCCACCGAGGGTGCCGGCCCGGACGTCGTCGA
GGACATCTCCCATCTGCTGGCGGACGTGGCCCGCTTCGCTGAGGGCCTTGAGAAACTTAAGGAGTGTGTGTTGCG
TGACGACCTCCTTGAGGCCCGCCGCCCGCGGGCCCACGAGTGCCTGGGTGAGGCTCTGCGTGTCATGCATCAGAT
CATCTCCAAGTACCCGCTGCTGAACACCGTGGAGACGCTCACCGCAGCCGGCACCCTCATTGCCAAGGTCAAAGC
CTTCCATTATGAGAGCAACAATGATCTGGAGAAACAGGAGTTCGAGAAGGCCCTGGAGACGATTGCTGTGGCCTT
CAGTAGCACAGTGTCCGAGTTCCTCATGGGTGAAGTGGACAGCAGCACCCTCCTAGCAGTGCCTCCTGGGGACTC
GAGCCAGTCCATGGAAAGCCTGTATGGACCGGGCAGTGAGGGCACGCCTCCCAGCCTGGAAGACTGTGACGCCGG
CTGCCTGCCCGCCGAGGAGGTGGACGTGCTGCTACAGCGCTGTGAGGGGGGCGTGGATGCCGCACTGCTGTATGC
CAAGAACATGGCCAAGTACATGAAGGACCTCATCAGCTACCTGGAGAAGCGGACGACGCTGGAGATGGAGTTTGC
CAAGGGCCTGCAGAAGATCGCTCACAACTGCAGACAGAGCGTCATGCAGGAGCCCCACATGCCGCTCCTGTCCAT
CTACTCGCTGGCCCTGGAGCAGGACCTGGAGTTCGGCCACAGCATGGTGCAGGCGGTGGGCACCTTGCAGACCCA
GACCTTCATGCAGCCCCTGACCCTGCGGCGGCTTGAACACGAGAAGCGCAGGAAGGAGATCAAGGAGGCCTGGCA
CCGTGCCCAGAGGAAGCTGCAAGAGGCGGAGTCCAACCTGCGCAAGGCCAAGCAGGGTTACGTGCAGCGCTGCGA
GGACCACGACAAGGCTCGCTTCCTCGTGGCCAAGGCGGAGGAGGAGCAGGCTGGCAGCGCGCCGGGAGCAGGCAG
CACGGCCACCAAGACCCTGGACAAGCGGCGGCGGCTGGAGGAGGAGGCCAAGAACAAGGCGGAGGAAGCTATGGC
CACCTACCGCACCTGCGTGGCCGACGCGAAGACGCAGAAGCAGGAGCTGGAGGATACCAAGGTGACGGCGCTGCG
GCAGATCCAGGAGGTCATCCGGCAGAGCGACCAAACCATCAAGTCGGCCACGATCTCCTACTACCAGATGATGCA
TATGCAGACGGCGCCGCTGCCCGTGCACTTCCAGATGCTGTGTGAGAGCAGCAAGCTGTATGACCCAGGCCAGCA
GTACGCCTCCCACGTGCGCCAGCTGCAGCGGGACCAGGAGCCCGATGTGCACTACGACTTTGAGCCCCACGTCTC
CGCCAACGCCTGGTCCCCCGTCATGCGTGCCCGGAAGAGCAGCTTCAACGTGAGTGATGTGGCGCGGCCGGAGGC
TGCCGGGAGCCCCCCAGAAGAAGGCGGGTGCACTGAGGGCACACCTGCCAAGGACCACAGGGCCGGGCGAGGACA
CCAGGTTCACAAGTCATGGCCGCTCTCGATCTCAGACTCGGACAGTGGGCTGGACCCCGGCCCTGGCGCAGGGGA
CTTTAAGAAGTTCGAGCGGACGTCATCCAGTGGTACCATGTCGTCCACGGAGGAGCTGGTGGACCCAGACGGTGG
AGCCGGGGCTTCAGCCTTTGAGCAGGCTGACCTCAACGGCATGACCCCCGAGCTGCCGGTGGCCGTGCCCAGTGG
ACCGTTCCGCCACGAGGGGCTGTCCAAGGCGGCCCGTACTCACCGGCTCCGGAAGCTCCGCACGCCCGCCAAGTG
CCGCGAGTGCAACAGCTACGTCTACTTCCAGGGTGCTGAGTGTGAAGAGTGCTGCCTGGCCTGCCACAAGAAATG
TCTGGAGACGCTGGCCATACAGTGCGGGCACAAGAAGCTGCAAGGCCGCCTGCAGCTGTTCGGCCAGGACTTCAG
CCACGCGGCCCGCAGCGCCCCCGACGGCGTGCCCTTCATCGTCAAGAAGTGCGTCTGCGAGATCGAGCGGCGGGC
GCTGCGCACCAAGGGCATCTACCGGGTCAATGGGGTAAAGACACGCGTGGAGAAGCTGTGCCAGGCCTTCGAGAA
CGGCAAGGAGCTGGTCGAGCTGTCGCAGGCCTCGCCCCACGACATCAGCAACGTCCTCAAGCTCTACCTGCGTCA
GCTTCCCGAGCCGCTCATCTCCTTCCGCCTCTACCACGAGCTCGTAGGGCTGGCCAAGGACAGCCTGAAGGCAGA
GGCCGAGGCCAAGGCGGCGTCCCGGGGCCGGCAGGACGGCTCGGAGAGCGAGGCAGTGGCGGTGGCCCTGGCAGG
TCGGCTGCGGGAGCTCCTGCGGGACCTGCCGCCTGAGAACCGGGCCTCGCTGCAGTACCTGCTGCGTCACCTACG
CAGGATCGTGGAGGTGGAGCAGGACAACAAGATGACCCCCGGGAACCTGGGCATCGTGTTCGGGCCCACGCTGCT
TCGGCCACGGCCCACCGAGGCCACCGTGTCCCTCTCCTCCCTGGTGGATTATCCCCATCAGGCCCGCGTCATCGA
GACTCTCATCGTCCACTACGGCCTGGTCTTCGAGGAGGAGCCGGAGGAGACCCCCGGGGGCCAGGACGAGTCATC
CAACCAGCGAGCTGAGGTAGTCGTCCAGGTGCCGTACCTGGAGGCGGGCGAGGCGGTGGTCTACCCGCTGCAGGA
GGCGGCGGCGGACGGGTGCAGAGAATCCCGAGTTGTGTCCAACGATTCGGACTCGGACCTAGAGGAGGCCTCCGA
GCTGCTGTCCTCATCGGAGGCCAGTGCCCTGGGCCACCTCAGCTTCCTGGAGCAGCAGCAGAGCGAGGCCAGCCT
AGAGGTGGCTTCTGGCAGCCACAGCGGCAGTGAGGAGCAGCTGGAGGCCACAGCCCGGGAGGACGGGGACGGGGA
CGAGGACGGCCCGGCCCAGCAGCTCTCAGGATTCAACACCAACCAGTCCAACAACGTGCTGCAGGCCCCACTGCC
CCCCATGAGGCTCCGTGGCGGGCGGATGACACTGGGCTCCTGCAGGGAAAGGCAGCCGGAATTCGTG**TGA**GCTGG

FIGURE 1486B

GGTGGGGCTGGGACCACAGGTGGCTTCTCTCTTGCCTGCTCCTGTCCCTCCAGCACGTCCCCTGCACCACGGCAT
AGCTTAGGTGCGCCGTCCTGGGGTCGCTGCCGAGAGCGCCTGGACTTCGACGTCCCACCAGCGGGCGCCTCCTCC
CAGAGGCTTCCAGGAGCACGAGGGCCTTGCGGCACAGGACTGTGCCCTGTGCTGTCCCCTGCACCCCGGCTCAGC
TGAGCTGGGGAACACTGCTGTCGTGTGAAGTCACAGTGGCCTTGTTGGTGCCCACAGGGCTGTGTGGATGGAGGA
AGCTGTCCCTGCCCAGTGCATCCCCCAGGTCATCACGGGGACGCAGGAGGCAGGCCCTGCCCTGCCCTCTCCTCA
CAGGTCTGTTGCAGGGACTCCAGAAACCATTCTGGGAGCCGTGGATGGGGGCGGAGCTGGGGTTTGGTGCAGTTT
CCAGGGTGCAGTACAGCAGGGCCTGAATACTGGCCCTGGACTCCCTTTTCCAGAACACCAGGTGTGGCCACCTGG
GGCTCAGGTACACAGTGGGGTCTCTCGGAAGCCACCGTGTGGTTCTTTCACAGGCACGTTTATTTTGCTGAAATA
AAAAGTTTTTAATCGGG

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FIGURE 1487

GGCGGCGGCGGCGGAGGCTGCC**ATG**GACGACGAGGAGGAGACGTACCGGCTCTGGAAAATCCGCAAGACCATCAT
GCAGCTGTGCCACGACCGTGGCTATCTGGTGACCCAGGACGAGCTTGACCAGACCCTGGAGGAGTTCAAAGCCCA
ATCTGGGGACAAGCCGAGTGAGGGGCGGCCGCGGCGCACGGACCTCACCGTGCTGGTGGCCCACAACGATGACCC
CACCGACCAGATGTTTGTGTTCTTTCCAGAGGAGCCCAAGGTGGGCATCAAGACCATCAAGGTGTACTGCCAGCG
CATGCAGGAGGAGAACATCACACGGGCTCTCATCGTGGTGCAGCAGGGCATGACACCCTCCGCCAAGCAGTCCCT
GGTCGACATGGCCCCCAAGTACATCCTGGAGCAGTTTCTGCAGCAGGAGCTGCTCATCAACATCACGGAGCACGA
GCTAGTCCCTGAGCACGTCGTCATGACCAAGGAGGAGGTGACAGAGCTGCTGGCCCGATATAAGCTCCGAGAGAA
CCAGCTGCCCAGGATCCAGGCGGGGGACCCTGTGGCGCGCTACTTTGGGATAAAGCGTGGGCAGGTGGTGAAGAT
CATCCGGCCCAGTGAGACGGCTGGCAGGTACATCACCTACCGGCTGGTGCAG**TAG**CTACCGCCTGACAGCCCCTA
GAGGCGGACACACAGCGACCCCCATCCCTGCAGGACAAACGCCCCTGCCCTGCCAGAATCCGGCCCCCACAGCTC
TCACGGCTGCTGCTCCTCTGGACTCCCCAAGGCAGGTGGCCTCCACCCACGTTCTCCCGTCCTGGGGTGAGGCTT
CCTGTGGCCCAGCCCGCCCCATTCACCTGTGGATTTGTGCGAGATGCAGCCTCAGAAGGAACAAGGCCCCCAGAG
GGAGGTCACCTGGGGGCAGCTGGTGCCGGGTCTTCACCCAGACCACGCTGGGTCCCCTCTGTTGGGGGTTTGGGG
TCCGGGTCTCCCACCAGCCACTGCTTCCTCCTGGGCCCTCGGCCTTCCACCCCTCGTCTTCCCTCCCTCGGGGGC
CCTGATGCGTGGCGGCCCCCGCCCGGCCTCGGCTCTTTACTCCATTCACAGCCATGCACGCGCTCAAGCCACCAG
GGTGCGAGATGCCAGCTCTGGAGTTCTCGGTTGTTGTAGGAGGTTGGGTGTTTTCAAATGGTAAAGATGTTTTGA
GCAAATAAATTTGCTTGATACAG

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FIGURE 1488

GGAGGCGCGGAAAGCCGACGCGCGTCCATTGGTCGGCTGGACGAGGGGAGGAGCCGCTGGCTCCCAGCCCCGCCG
CG**ATG**AGCCTCGGCCGCCTTTGCCGCCTACTGAAGCCGGCGCTGCTCTGTGGGGCTCTGGCCGCGCCTGGCCTGG
CCGGGACCATGTGCGCGTCCCGGGACGACTGGCGCTGTGCGCGCTCCATGCACGAGTTTTCCGCCAAGGACATCG
ACGGGCACATGGTTAACCTGGACAAGTACCGGGGCTTCGTGTGCATCGTCACCAACGTGGCCTCCCAGTGAGGCA
AGACCGAAGTAAACTACACTCAGCTCGTCGACCTGCACGCCCGATACGCTGAGTGTGGTTTGCGGATCCTGGCCT
TCCCGTGTAACCAGTTCGGGAAGCAGGAGCCAGGGAGTAACGAAGAGATCAAAGAGTTCGCCGCGGGCTACAACG
TCAAATTCGATATGTTCAGCAAGATCTGCGTGAACGGGGACGACGCCCACCCGCTGTGGAAGTGGATGAAGATCC
AACCCAAGGGCAAGGGCATCCTGGGAAATGCCATCAAGTGGAACTTCACCAAGTTCCTCATCGACAAGAACGGCT
GCGTGGTGAAGCGCTACGGACCCATGGAGGAGCCCCTGGTGATAGAGAAGGACCTGCCCCACTATTTC**TAG**CTCC
ACAAGTGTGTGGCCCCGCCCGAGCCCCTGCCCACGCCCTTGGAGCCTTCCACCGGCACTCATGACGGCCTGCCTG
CAAACCTGCTGGTGGGGCAGACCCGAAAATCCAGCGTGCACCCCGCCGGAGGAAGGTCCCATGGCCTGCTGGGCT
TGGCTCGGCGCCCCCACCCCTGGCTACCTTGTGGGAATAAACAGACAAATTAG

FIGURE 1489

GTCCTCCTCGCCCTCCAGGCCGCCCGCGCCGCGCCGGAGTCCGCTGTCCGCCAGCTACCCGCTTCCTGCCGCCCG
CCGCTGCC**ATG**CTGCCCGCCGCGCTGCTCCGCCGCCCGGGACTTGGCCGCCTCGTCCGCCACGCCCGTGCCTATG
CCGAGGCCGCCGCCGCCCCGGCTGCCGCCTCTGGCCCCAACCAGATGTCCTTCACCTTCGCCTCTCCCACGCAGG
TGTTCTTCAACGGTGCCAACGTCCGGCAGGTGGACGTGCCCACGCTGACCGGAGCCTTCGGCATCCTGGCGGCCC
ACGTGCCCACGCTGCAGGTCCTGCGGCCGGGGCTGGTCGTGGTGCATGCAGAGGACGGCACCACCTCCAAATACT
TTGTGAGCAGCGGTTCCATCGCAGTGAACGCCGACTCTTCGGTGCAGTTGTTGGCCGAAGAGGCCGTGACGCTGG
ACATGTTGGACCTGGGGGCAGCCAAGGCAAACTTGGAGAAGGCCCAGGCGGAGCTGGTGGGGACAGCTGACGAGG
CCACGCGGGCAGAGATCCAGATCCGAATCGAGGCCAACGAGGCCCTGGTGAAGGCCCTGGAG**TAG**GCGGTGCGTA
CCCGGTGTCCCGAGGCCCGGCCAGGGGCTGGGCAGGGATGCCAGGTGGGCCCAGCCAGCTCCTGGGGTCCCGGCC
ACCTGGGGAAGCCGCGCCTGCCAAGGAGGCCACCAGAGGGCAGTGCAGGCTTCTGCCTGGGCCCCAGGCCCTGCC
TGTGTTGAAAGCTCTGGGGACTGGGCCAGGGAAGCTCCTCCTCAGCTTTGAGCTGTGGCTGCCACCCATGGGGCT
CTCCTTCCGCCTCTCAAGATCCCCCCAGCCTGACGGGCCGCTTACCATCCCCTCTGCCCTGCAGAGCCAGCCGCC
AAGGTTGACCTCAGCTTCGGAGCCACCTCTGGATGAACTGCCCCCAGCCCCCGCCCCATTAAAGACCCGGAAGCC
TG

FIGURE 1490

GAGGCTCGGGTCGTTGTGGTGCGCTGTCTTCCCGCTTGCGTCAGGGACCTGCCCGACTCAGTGGCCGCC**ATG**GCA
TCAGATGAAGGCAAACTTTTTGTTGGAGGGCTGAGTTTTGACACCAATGAGCAGTCGCTGGAGCAGGTCTTCTCA
AAGTACGGACAGATCTCTGAAGTGGTGGTTGTGAAAGACAGGGAGACCCAGAGATCTCGGGGATTTGGGTTTGTC
ACCTTTGAGAACATTGACGACGCTAAGGATGCCATGATGGCCATGAATGGGAAGTCTGTAGATGGACGGCAGATC
CGAGTAGACCAGGCAGGCAAGTCGTCAGACAACCGATCCCGTGGGTACCGTGGTGGCTCTGCCGGGGGCCGGGGC
TTCTTCCGTGGGGGCCGAGGACGGGGCCGTGGGTTCTCTAGAGGAGGAGGGGACCGAGGCTATGGGGGGAACCGG
TTCGAGTCCAGGAGTGGGGGCTACGGAGGCTCCAGAGACTACTATAGCAGCCGGAGTCAGAGTGGTGGCTACAGT
GACCGGAGCTCGGGCGGGTCCTACAGAGACAGTTATGACAGTTACGCTACACACAACGAG**TAA**AAACCCTTCCTG
CTCAAGATCGTCCTTCCAATGGCTGTGTGTTTAAAGATTGTGGGAGCTTCGCTGAACGTTAATGTGTAGTAAATG
CACCTCCTTGTATTCCCACTTTCGTAGTCATTTCGGTTCTGATCTTGTCAAACCCAGCCTGACCGCTTCTGACGC
CGGGATGGCCTCGTTACTAGACTTTTCTTTTTAAGGAAGTGCTGTTTTTTTTTGAGGGTTTTCAAAACATTTTGA
AAAGCATTTACTTTTTTGACCACGAGCCATGAGTTTTCAAAAAAATCGGGGGTTGTGTGGGTTTTTGGTTTTTGT
TTTAGTTTTTGGTTGCGTTGCCTTTTTTTTTTTAGTGGGGTTGGCCCCATGAAGTGGGTGCCCCACTCACTTCTC
TGAGATCGAACGGACTGTGAATCCGCTCTTTGTCGGAAGCTGAGCAAGCTGTGGCTTTTTTCCAACTCCGTGTGA
CGTTTCTGAGTGTAGTGTGGTAGGACCCCGGCGGGTGTGGCAGCAACTGCCCTGGAGCCCCAGCCCCTGCGTCCA
TCTGTGCTGTGCGCCCCACAGTAGACGTGCAGACGTCCCTGAGAGGTTCTTGAAGATGTTTATTTATATTGTCCT
TTTTTACTGGAAGACGTACGCATACTCCATCGATGTTGTATTTGCAGTGGCTGAGGAATTCTTGTACGCAGTTTT
CTTTGGCTTTACGAAGCCGATTAAAAGACCGTGTGAAATG

FIGURE 1491A

GCGGTGGCGGAGGCGGACACATTGGCGTGAGACCTGGGAGTACGTTGTGCCAAATCATTGCCACTTGCCACATGA
GTGTAA**ATG**ATGGCGGATGCCAAGTATGTCCTCTGCCGATGGGAAAAGCGATTATGGCCTGCGAAGGTTTTGGCC
CGAACCGCGACTTCAACAAAAAATAAGAGAAGAAAGGAATATTTTCTAGCTGTGCAAATCCTCTCTCTAGAGGAA
AAAATTAAGGTGAAAAGCACTGAAGTTGAGATCCTAGAGAAGTCTCAAATTGAAGCCATTGCTTCCTCGTTAGCC
TCACAGAATGAGGTTCCTGCGGCACCCCTGGAAGAACTGGCCTACAGACGGTCGCTTCGCGTGGCTCTGGACGTT
CTGAGCGAGGGCTCGATTTGGAGTCAAGAAAGCTCTGCAGGGACAGGTAGAGCTGACCGGTCTCTGCGAGGGAAG
CCCATGGAGCATGTCTCCTCGCCCTGTGATTCGAACTCCTCATCTCTTCCCCGCGGAGACGTGTTGGGCAGTTCC
AGACCTCACAGGAGGAGGCCATGTGTGCAACAAAGCCTGTCAAGTTCGTTCACTTGTGAAAAGGACCCCGAGTGC
AAAGTGGACCACAAGAAGGGGCTCAGGAAAAGTGAAAACCCAAGAGGCCCGTTGGTCCTCCCAGCTGGAGGTGGT
GCCCAAGATGAGAGTGGGTCCAGAATCCACCACAAAAATTGGACTCTTGCAAGTAAGAGGGGAGGAAACTCAGCG
CAGAAGGCTAGCTTGTGCCTGAATGGATCTTCCCTTTCAGAGGACGACACGGAGAGAGACATGGGGAGCAAAGGA
GGCAGCTGGGCAGCCCCGTCCTTGCCCTCCGGGGTCAGGGAGGACGATCCCTGTGCCAACGCTGAGGGACACGAC
CCCGGTCTGCCGTTGGGCAGCCTCACTGCGCCCCCAGCCCCTGAGCCCTCGGCCTGCTCAGAGCCTGGAGAATGC
CCTGCGAAAAAGAGGCCGCGCCTGGATGGCAGCCAAAGGCCGCCTGCCGTGCAGCTGGAGCCCATGGCAGCAGGG
GCCGCACCATCCCCCGGGCCGGGGCCAGGGCCCAGAGAGTCTGTGACCCCGCGCAGCACCGCCAGGCTGGGCCCG
CCTCCCTCCCACGCCTCTGCGGATGCAACCAGATGTCTTCCTTGCCCGGATTCCCAGAAGCTGGAGAAAGAGTGC
CAGTCTTCCGAAGAGTCCATGGGGTCTAATTCCATGCGTTCTATCCTGGAGGAAGACGAGGAAGACGAGGAGCCA
CCAAGAGTCCTTTTATACCACGAACCACGTTCGTTTGAAGTAGGAATGCTAGTCTGGCATAAACATAAAAAATAC
CCCTTCTGGCCAGCAGTGGTCAAAAGCGTCAGGCAGAGAGATAAGAAAGCAAGTGTGCTATACATCGAAGGACAC
ATGAACCCGAAAATGAAAGGTTTCACAGTGTCTCTTAAAAGTTTAAAGCACTTTGATTGTAAAGAGAAACAGACG
CTTCTGAATCAAGCCAGGGAGGACTTCAACCAGGACATCGGCTGGTGTGTCTCCCTCATCACCGACTACAGGGTC
CGGTTAGGCTGCGGGTCTTTTGCTGGCTCTTTCCTGGAATATTACGCGGCTGATATAAGCTATCCTGTCCGAAAA
TCCATCCAGCAGGACGTCTTGGGGACCAAGCTTCCTCAACTGAGCAAGGGGAGCCCCGAGGAGCCCGTGGTGGGG
TGCCCCCTGGGGCAGAGGCAGCCCTGCCGGAAAATGCTCCCCGACCGCTCGCGGGCCGCCCGGGACCGGGCCAAC
CAGAAGCTGGTGGAGTACATTGTGAAGGCCAAGGGCGCGGAGAGCCACCTGCGGGCCATCCTAAAGAGCAGGAAG
CCATCTCGCTGGCTGCAGACCTTCCTGAGCTCCAGCCAGTACGTGACCTGTGTGGAGACCTACCTGGAGGATGAG
GGGCAGCTGGACCTGGTGGTGAAGTACCTGCAGGGCGTCTACCAGGAGGTGGGGGCCAAGGTGCTCCAGCGCACC
AACGGCGACCGGATCCGGTTCATTCTGGACGTGCTTCTGCCCGAGGCCATCATCTGTGCGATCTCTGCGGTGGAC
GAGGTGGACTACAAGACGGCTGAGGAGAAGTACATCAAGGGGCCTTCGCTGAGCTACCGGGAAAAAGAAATATTT
GACAACCAGCTCCTTGAAGAGCGGAACCGGCGCCGTCGG**TGA**GGGAGCAGCCGGCTGTGCTGTCAGCGGGGCCTG
GCGGTGGAAGCGCCTCCAGTGTGCATGAGCGTGTCTGAAGATGGGGGGCTCAGGGGGCACGTTTGCGTTTGGACC
TGTCTGTGCGTTCTCCTGCGTGGCAGTCCTGATTTCCATGCTTCTGGAGAATCCATTTCGTTAACACTGAAAGCC
AGTTCTCTTTTCCTGGCAGTTTTTTTCATTTTATTTTTGGCATTTTTTACAAGATACCGTTCGGGAAAGGCTTTT
GAAAGGACGGAAGCGTATTCACTGTGCGCCAGTACTCCTGGCTGTGCTGTGGTTTCTCCCGACGTGCACATCGAT
CTCGTATGTGTGGCATCTGATATTAAACGGGAGGTTTTAAGAAGCGTCTGCCGTGATCATGGAGCTTCGGAAGCG
GGAATGGTTCTTCCGGGTTTGCTGTTTTGTCTGTTTCCCCCTTGTGTGGTTTCCGCCTGCGACAGTTCCAGAATT
TGCTCTCCCACTCAGTGTGCTCTGCAGCTGTGAGGAAACAGCCTTCGTTAGAGGCGGGAGCAGAGACGAGCCGCT
GCTCTGTGTCGTGTTTGCTGTGGCCGCAGGGAGAGGAGCAGGACACGCACCTTTCCAGGGGCCTCTGTGTCCCGC
ACTGTGTGTGAGTGGACCGCAGCGCGCAGCCACATGCCCTGGCTGCCATGGGCCAGACCGCCTCCACCTCCCCCG
CCCGCCTGGCCTGTCCTGAGTGCATTTCCCTGCACTGTGTCGTCACTGCACAGCCAGTCACCGCGGTCTCAGTCA
TCGGCGCGGATGGCTATGCTGGGGTCCCAGGGTGGCCGCAGCAGTCAGGGTCACTGTGGGAGCCCTGGGGTGGAG
TGACAAACCGCATTGTCCTGTGCCCGCCATGGCAGAAGCGCAGCCTTTGTATGGAGGCCCAACCGCGCTCCCGTC
TGGAGAAGCGGCTTCCGGGGTGTGGCTGCCGGGTCGGCTCTGGTCCACAGCACGGTGCCGGGGCTGCAGGTTGTT
GAGGGCTGTGACTCCGTGGGGCTCAGCCAGGCTCCAGCAGGGTCAGACGTGCTGTTAAGAGCAAAGCCACAGACG
ATGACTTGTCCATTCTCAGTGGATGCTCCAGGCTGTGCCTACACAGCAGTGCTGGTGACATGTCCAGGGTTCCAG
GGCCCGGTGGCCTGGGAGCTGCTTTCTCCCCACTGGCTGGGCTGCATCTGGCCCTGGCTGGAGGCCTTGCTTTGA
GGGGCTGTGACCCTCTTCCCCCAGGCCCTCCCCAGCCGACGACAGCCACCGGAGAGGAGATCGGAACACGATTGT
CTCAGATGCAGGGCGCTGTGCGGGACGAAGCCGCAAGGACTCTCGTATCGGGCCCTTGGGACTCGGGAGGTGCCA

FIGURE 1491B

GAGGCGGCGGCTGCTCTGGACCTCGGTGTTCACTGACCTTTGTTTCACTTGCCTCTGCTCGACTCCGAGAGCAGG
AAACCCGGCCGTGGCCTGGCAGCTCCGCCTCCCATGCCCGCACGCTGGGGTCTGTCTTGTCTGGAGCAGTGGGGC
ACACCCCGGAGGAGGCGGGGGTCAGGGCTGTCGGCCTTGGCCCCCTGCTGGTCGCTGTTTCGGGGACTCGGGGCG
GCCAGTACCACCGCCTGAGGCGGGGCTCAGCAGCGTTGCATGTACGGGCCTCGTACTGCCTCATGGAAAATCCTC
CGGAGCCGCCCTCCATTGTGGGTTCCTGAGAGTAGGACACATTGCCATGGTTTTGTGGGAATCACGCGCCCCTGA
TGGAACTTTTCTGCTGTTGTGAAGTACTTTTATCCATTTGCTTCTCTGCTGACCTTGCCAAGTTGTTCGAGGTGG
AATTAAACACCTCCCAGACC

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FIGURE 1492

CTGCGCGCTGCGGTCCACTCACACACAGTGCGGGACACAGAGGCCCCTGGAAAGAGCACACTGAGTGGGAGAGCA
AATTCTGGAACTGTCGCAGGCGGAAACCACACAAGGGGGAAACAGACAAAACAGCAAACCCGGAAGAACCATTCC
CGCTTCCGAAGCTCCATGATCACGGCAGACGCTTCTTAAAACCTCCCGTTTAATATCAGATGCCACACATACGAG
ATCGATGTGCACGTCGGGAGAAACCACAGCACAGCCAGGAGTACTGGCGCACAGTGAATACGCTTCCGTCCTTTC
AAAAGCCTTTCCCGAACGGTATCTTGTAAAAAATGCCAAAAATAAAATGAAAAAAACTGCCAGGAAAAGAGAACT
GGCTTTCAGTGTTAACGAAATGGATTCTCCAGAAGCATGGAAATCAGGACTGCCACGCAGGAGAACGCACAGACA
GGTCCAAACGCAAACGTGCCCCCTGAGCCCCCCATCTTCAGACACGCTCATGCACACTGGAGGCGCTTCCACCGC
CAGGCCCCGCTGACAGCACAGCCGGCTGCTCCCTCACTGGCTTGTTATTTTGAGCATGTCCCCGGCGTGATGAAA
TCACGGCCTGTGTGCTCAGCCCAAGTAACTTCTCCATCAGCACCAGCACCATTCTCACAGGTCACGGGAGGCTTT
CATGGCAACTGGAAGCTGTGATGAACTCCTAACGGGTTTTGATGTCGGCAACCCAGACTCAAAAAAAAAAATCAG
GATGAAAGATTTCCACAGATGGGCGTGGAGCGGTGAAGAGGCTTCTGAGACGGAGGGAGAGGACAAACCAGCAGG
CTGGGTCCAGGTGTCCTGGCTCCGACCTTACCCCCTCCCCGGACCTCACTTATTCTTACGGCAAGCATGACGGGG
GAACC**ATG**AAGATCCAGCAGGAAAACACCCAGTTTCTGTATCCAAAGGCCTTTCCTGTTTTGGTAAGCCAGCTGG
GCCAACACTCCCTAAACAAGGCCAAATTCCACCTTTGTGCAGCTCTGCGGGGGGTGGCCTGCCAATGCCACCGAGG
CCCCACACCTCCTCCCTGGCCTCTCCAGGGGCCCCTCCTGCCCTGCCCAGGGAGGACATGGGGCTGGTGAGGGAG
TTCAGTGTCTTCACCAGGAGTCTCCTGTGACTGTGGGCCCGGGAGACGTCGGTGGCTGCGCAAGCCACCCTGGCC
GGAGACCCTGTCCT**TGA**CTCTAGTTGAGTCTTCAGCCTGTCACTGCCCCGTGGGCCCCGCCTGGCTCCCAGCAAG
GCCTGGCCGCATGCCCAGAGACAGGATTAGGCGCTCTGGGGGCCAAACATCCAAGGGCAGCTAAGCACACGGATG
TGAGAGAAACATCTTGATCACAGCATTCTTCTGGCTGCTGGAAAGCACCGGGCCGTGCTGCTGCTTAATCTTGCT
GTATTTCTCACACAGCCATGGGGCTGTGGAAAGAGGGGAGGAAAGTGCAAAAAGCAAACATCAGCCCCTGCAAAA
AGAGATTAAGAACAGACACGGCCCAGGCACGTGCCCGTGGCCCCGTGCTGCCCACAGCGACCAGCTGGGAGACCC
GGGCACAGCCTTCCTGGGGGGCAGGAGTGACCCACAGGGTGAGTTCAGCGTATGTGATCAGCTCACCACCCAGCA
CCTGGGCCACCTCATGAGGGAGAGGGGCTGCGGCAGCCTGGAGTCAAACTGCCTGTGGGTGTGGAAATAGAAACT
GCAAGGCAGAGACGCAAGTGGCTGGAGATAGCGCCGGGAGCGGCCTACCGGTAGCTCAGCGAAGGCCCCTTGATG
TACTTCTCCTCAGCCGTCTTGTAGTCCACCTCGTCCACCGCAGAGATCGCACAGATGATGGCCTGTGAGAGGGCA
CGGGGCTCAATAGCAGCAGGCACTGCCCAACTGGCCCCAAGTGGCCTGCGGTTAAGAAGGCCGCAGGGAGCCTGG
GTCACCAGGTTCCAGCCTCCAGACATGGTCTAGCTCATGGTTCAGAAGGTGCAAACCTAGTCCATGAATCCCTGC
TTGTAATGATGTTTCTTAATTAAATCAGTACTATCTTTCGGACTAGACACAATAGCTCAGATCACTAAAAGCAGA
GAAGAAAAGGCAAGACCCAAACCCACAAGAGCATTTCTCAAAAATTTTAAGTTTTTTTTTTGGTGGCGGTTTTTT
CTGGTACAGAGTCTCGCCCTGTCGCCCAGGCTGGAGCGCAATGGCATAATCTCAGCTCACTGCAACCTCTGCCTC
CCGGGTTCAGGTGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTATAGGTACGCGCCACCACGCCCAGCTA
ATTTTTGTATTTTTAGTAGAAACGGGGTTTCACCATGTTGGCCAGGCTGGTCTCAAGCTCCTGGCCTCATGATCC
ACCTGCCTCGGCCTCCCAAAGTGCTGGAATTACCGATGCGAGCCACCACACCCGGCCTTAAGTTTATTGTTATAA
AAAAAAAAGAGTATCCTGAATACACAATACATACCTGACATTAAGAAATCATCCCTATTTTTTACTTTTGTGATT
ATGGTAAACACATTTTTAACAGAGTCCATTCGGTTCAGAGCAGAGTCTCTCCCACTCGGCCCTGTGGACGTCGGG
GCCAGACTGTTCTCTGAGGTGGGGCTGTCCTAGGCGCTGCAGGGTGCTGAGCAGCGTCCCTGCCCCAACCC

FIGURE 1493

CCCCGGCCCACAAGCCCCTGCAGGGAGCGGGCCCGGGCGGCGCGCGATCGAGGTCGGGTCGCCGTCCAGCCTGCA
GC**ATG**AGCGCCCCCAGCGCGACCCCCATCTTCGCGCCCGGCGAGAACTGCAGCCCCGCGTGGGGGGCGGCGCCCG
CGGCCTACGACGCAGCGGACACGCACCTGCGCATCCTGGGCAAGCCGGTGATGGAGCGCTGGGAGACCCCCTATA
TGCACGCGCTGGCCGCCGCCGCCTCCTCCAAAGGGGGCCGGGTCCTGGAGGTGGGCTTTGGCATGGCCATCGCAG
CGTCAAAGGTGCAGGAGGCGCCCATTGATGAGCATTGGATCATCGAGTGCAATGACGGCGTCTTCCAGCGGCTCC
GGGACTGGGCCCCACGGCAGACACACAAGGTCATCCCCTTGAAAGGCCTGTGGGAGGATGTGGCACCCACCCTGC
CTGACGGTCACTTTGATGGGATCCTGTACGACACGTACCCACTCTCGGAGGAGACCTGGCACACACACCAGTTCA
ACTTCATCAAGAACCACGCCTTTCGCCTGCTGAAGCCGGGGGGCGTCCTCACCTACTGCAACCTCACCTCCTGGG
GGGAGCTGATGAAGTCCAAGTACTCAGACATCACCATCATGTTTGAGGAGACGCAGGTGCCCGCGCTGCTGGAGG
CCGGCTTCCGGAGGGAGAACATCCGTACGGAGGTGATGGCGCTGGTCCCACCGGCCGACTGCCGCTACTACGCCT
TCCCACAGATGATCACGCCCCTGGTGACCAAAGGC**TGA**GCCCCCACCCCGGCCCGGCCACACCCATGCCCTCCTC
CGTGCCTTCCTGGCCGGGAGTCCAGGGTGTCGCACCAGCCCTGGGCTGATCCCAGCTGTGTGTCACCAGAAGCTT
TCCCGGCTTCTCTGTGAGGGGTCCCACCAGCCCAGGGCTGATCCCAGCTGTGTGTCACCAGCAGCTTTCCCAGCT
TCTCTGTGAGGGTCACTGCTGCCCACTGCAGGGTCCCTGAGGTGAAGTAAACGCCGGCGCTGGGCTTGGCCAGTC
GGCAGTGA

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FIGURE 1494

GGAAGCTCTTCGTGGGCGGTCTTGACTGGAGCACGACCCAAGAGACTCTGCGCAGCTACTTTTCCCAATATGGAG
AAGTCGTAGATTGTGTTATC**ATG**AAAGATAAAACCACCAACCAGTCTCGAGGCTTTGGGTTTGTCAAATTTAAAG
ACCCAAACTGTGTGGGGACGGTGCTGGCCAGCAGACCGCACACGCTAGATGGCCGAAACATCGACCCCAAGCCAT
GCACACCCCGGGGGATGCAGCCGGAGAGAACACGGCCGAAGGAAGGATGGCAGAAAGGACCCAGGAGCGATAACA
GTAAATCAAATAAGATATTTGTCGGTGGAATTCCTCACAATTGTGGTGAGACAGAGCTCAGGGAATACTTCAAGA
AGTTCGGAGTGGTCACGGAGGTAGTCATGATCTATGACGCCGAGAAGCAGAGGCCCCGAGGTTTTGGATTTATTA
CTTTCGAGGACGAACAATCAGTGGACCAGGCTGTCAACATGCATTTTCACGACATCATGGGCAAAAAAGTGGAAG
TTAAACGAGCTGAGCCTCGGGACAGCAAGAGCCAAGCGCCGGGACAGCCAGGTGCCAGCCAGTGGGGGAGCCGGG
TTGTGCCCAACGCTGCCAATGGCTGGGCAGGCCAGCCCCCGCCCACGTGGCAGCAAGGATATGGCCCGCAAGGAA
TGTGGGTGCCGGCAGGACAGGCGATTGGTGGCTATGGACCGCCCCCTGCAGGAAGAGGAGCCCCCCCGCCACCCC
CACCGTTCACCTCCTACATCGTGTCCACCCCTCCTGGAGGCTTTCCCCCTCCCCAGGGCTTCCCTCAGGGCTACG
GTGCCCCGCCACAGTTCAGTTTTGGCTACGGGCCTCCACCTCCACCGCCAGATCAGTTTGCCCCTCCGGGGGTTC
CTCCTCCACCAGCCACTCCCGGGGCAGCACCTCTGGCTTTCCCACCGCCTCCGTCTCAGGCTGCCCCGGACATGA
GCAAGCCCCCGACAGCTCAGCCAGACTTCCCCTATGGTCAGTATGGCCTGGGTTCCTATTCTCCAGCCCCGCCGG
GCTGCGGCCCACACTTTGTTTACAGTCTTATGGTCAGGCTGAGCAGTGATGTGGCC**TAG**CAGGTTACGGGCAGGA
CTTGAGTGGCTTCGGACAGGGCTTCTCAGACCCCAGCCAGCAGCCTCCTTCCTACGGGGGTCCCTCCGTGCCAGG
GTCGGGGGGCCCCCCCCGCCGGCGGCAGCGGCTTTGGACGAGGGCAGAACCACAACGTGCAAGGGTTCCACCCCTA
CCGACGCTAGCCCGCGGCGCCGCGACGTCTGCACGGCCCAGACCCAGGATTCCAAACTTGTGAACTCGTGACAAT
CACAAACTTGGCGGCAAAGTGGCGACTCAACCTTGGGGGGGGGGGGCGGGGGGAGGGCGCGAGGCTTTTGGAGCGG
CTGTGGGTGTCGTCTGGACTGAGGTTTTTAAATATTTCTTTCTCTAACCCATCAGCACAATAAAAAAAAGTCACT
GGTTCAACAACAGGGTTTAAAAAAAATGTCTTCAGCTTTAATTCAAAACTTCAGGTTTCTTTTTCTTCCTTTTTT
TTGGAAATTATTTTCCTGAGCCTTTTGTTTTACGGTATATTGTAAACTTTTATGTTAAAGAAAAAATATACATTT
ACAAATTGTGAGATTTTTAAGAGAAATTTTCTACGATGTATACTGGCTTATTTTTTAATTTAAAACGGGGTTTCC
GTCGGCACTGGTGGAGGGGGTGCGCTGTTAGTCCCCTCGCTCCTGGCTTTGGGGGTTGGGACTTGGTGGTCCAGA
AACTCTGGGAGCTTCTAGAAGAAATCTACTGAGTGTATTTCTGTTTTTTGTTTAATTCCTTGCTTTTGTCGACTG
ACCTGCTTGGTAGTGTCTGAGGTGAACTGTGGGGGTTGCGCACAGCCAGCCGCGTGGATCCCACGCAGCGCTGAA
CCGAACCGAGTAGGAAGCCTTTCTCCCCAGGCACGTGGCTTCAGGGCGTTTCCCATTGACCAGTTTGACCCTGGT
TTGAATAAAGAGAAGTGCGTTTGGATTAG

FIGURE 1495

CTGCGCAGGCGCGGACCAAAGCGATCTCTTCTGAGGATCCGGCAAG**ATG**GCAGAAGTAGAGCAGAAGAAGAAGCG
GACCTTCCGCAAGTTCACCTACCGCGGCGTGGACCTCGACCAGCTGCTGGACATGTCCTACGAGCAGCTGATGCA
GCTGTACAGTGCGCGCCAGCGGCGGCGGCTGAACCGGGGCCTGCGGCGGAAGCAGCACTCCCTGCTGAAGCGCCT
GCGCAAGGCCAAGAAGGAGGCGCCGCCCATGGAGAAGCCGGAAGTGGTGAAGACGCACCTGCGGGACATGATCAT
CCTACCCGAGATGGTGGGCAGCATGGTGGGCGTCTACAACGGCAAGACCTTCAACCAGGTGGAGATCAAGCCCGA
GATGATCGGCCACTACCTGGGCGAGTTCTCCATCACCTACAAGCCCGTAAAGCATGGCCGGCCCGGCATCGGGGC
CACCCACTCCTCCCGCTTCATCCCTCTCAAG**TAA**TGGCTCAGCTAATAAAGGCGCACATGACTCC

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FIGURE 1496

AGCATGCAGTTCGGTCACCTGAGGGTGCTGGGGCCGTGGTTTGAGCTTCATGGGCTCAGGTCCATGGCCGTTGAG
TGTGGCGAAACTGAGGCACGCTGTGCGGGGGACGGGGGGCGCTCACAGAAGGTAGGGGGCCTCCTGTGCCTTCAT
CCAGGCACTGCCCGGCCTTTCCCACCCTGTTGCTAAAGCAGGTGATGACAGAGGTGATTTGATCAGCCCAGACCC
GTGCGGCACGTGGAGCCTTCGTCCGTGGGAGACCACACTGCCGAGGGGCAGGCCAGAGCCGAGGGGCCCCTGACG
CTTCTCTGAGTGACCCTGAAGTCGGTGCTGCTTCAGCCCTGCTGCACTGGGCTTGCATACGTGGGGGAGCAGGGA
GCCATACGTAGTTTCTGCTGAATGTGGGAGTCACCAGGACGTCA**ATG**CCCACCTCTCACCTTCGCCACCCCTGCC
TCCCTAAGTGTGTGCTCCAGGAGGTTGCACGGCCCCTGGAGAGGTTTTCGGTGGCGGGCTTGTTGCGTCTCTGGC
TTCCAGAGACAGCAGGAATGAGAGCCAGGCCAGCTCAGTGGAGTCCATCCCGGTGGGTGCCACGGCTTTTGCAGG
AATGGAAGCCCCGCCCCCAGGAGGGCCACTGCTGGCGAGGCTTGAGCTCTTTCTGTGACCCGATCCCCCTGGTCA
CACGCTTTGCTAAGGCGGGTAGCCTAGAGCTGGAAGCCCCTCCTGCCACCCAGCCACTGTGCCTCTCCCAGCTGA
TGGACGAGGAAGCCTCCATTACT**TGA**TTTTTGTTTTTATTTATTTTTGAGACAGGGTCTCATTCTGTCACCCAGG
CTGGAGTACCGTGGCACGATCATAGCTTATTGCAGCCTCGGCCTCCCAGTCTCAAGCGATCCTCCTGCCTCTGCC
TCCAGAGAAGTAGGGACCACAGATGCGTGCTACCACGCCCAGCTAATTTTTGTATTTGTATTTTTTGGTAGAGAT
GGGGGTGTCACTATGTTGTCCAGGCTGGTCTCTAACTCTTGGGCTCAAGTGTTCCTCCCGCCTCGGCCTCCCAAA
GTGCTGGATTACAGGCGTGAGCCACCACACCTGGCTGCATCCGTCATGTTAAGAAGACCCCGGCTGGCAAGCTCA
CTCGGGGACTGCAGGGAACCCTGCCCTTTGGGGGCAGTAGTGAGGGGTGCCCAGGAGGATGGGGTGGTCAGCAGG
CAGTGATGCTGCTGTGTCCTGTCTCAGACCCCCCAGTTCCCTTCAGGATGATGGAGGATGCGGAGGCCCCGGGAG
AGCAGCTCTACCAGCAAAGCCGGGCCTACGTGGCTGCCAACCAGCGGCTGCAGCAGGCGGGCAACGTGCTGAGGC
AGAGGTGTGAGCTCCTGCAGCGAGCCGGCGAGGACCTGGAGCGGGAGGTGGCCCAGATGAAGCAGGCAGCATTAC
CGGCAGCCGAGGCTGCCTCCTCAGGCTGACCTCTCGGGGCCTGCAGGCTTGGGCAGCGCACAAGGTGGCCTGCAC
CCAGGCTTTCCCTGGGGGTCCGTCGGCCCCAGACTGGCATTCACGGGGTCCCAGCCCACGTGGGTGTTGACACAG
GCGCCCCTCCTGATGCTGGGGCTGCGGTTCATCCGTCGTCTCATTCATGCCGAGTTGGTGGGACCCACCCAGCTG
GCTCCGTCCTGCGTGACCTGAGGGCCCCACTGGGGTTCTGGAAGAGGATAGGGACATTATTGCTGTACTGTGATT
CTGTCGTCAGCTCACAGTGGCCGTGCTCTGCAGTGGGGCCCCTGGGAGCAGGTGCCACCTCCTTCCTCTCCCGGG
GCAGGCACTCGCCTGTCCACTTCTGAGTCCAGGTGTTGGGATCGAGGTGTTAACTGTGATTCCATCCAGCGAGTG
CCCACCCAATGTCAGAGCAGCCCGAGGGCCAGCCTGAGCCCCTGACCCCACTTCCTTCTGGGCCCCGGGCTCCTC
CCACAAGCCACGTTGATCTTCACAACGACCCTGGGCCGCTGGGGTCACCCAAGAGAAGCAGCCCTGAGACCCAGC
CAGGCTGGGCCTAGCTCCACGGCACGGGTGTCTCCCAGCCACTGCCCTTGCTGGAGGACCGCTGTGAGTCACTGG
CCAGGAGCCCAGGGTGTCCTGAGTCTCATAGCCACCCTGCCAGCTGCAGCAGGTCCTGGGCCTGCTTCCCTGCGG
GTTCTGGCCCTGGGGGAGGGGGCGTTAGTGCGGCGGAGGGTCTTGCCAAAGGCTTTTCATCCTAAATAGCAACTT
GAGTGGAAACCTGGGCAAGGCGGCCCAGAGGCTGGGCCCTGCACATAAAGCTTTCGTGTGTGTC

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FIGURE 1497

CGCGGGGAAACTGAGGCAGAGAG**ATG**GGCTCCAAGGCAAAGAAGCGCGTGCTGCTGCCCACCCGCCCAGCGCCCC
CCACGGTGGAGCAGATCCTGGAGGATGTGCGGGGTGCGCCGGCAGAGGATCCAGTGTTCACCATCCTGGCCCCGG
AAGGTAGGGGGAGCCCGGTCCCGGGGAAAAGCGGACCTGAGACCCCGGCAGCAAGGGGACGGGAGAGAAGCACAC
CCCTAACTCCTGACCCCACGCCCTGGGAACCCCCGCAACATGGGCACGGTCCGTATCCTCTCCGAGTCTCCCTCT
ACTCCTCCGTAGAGTGGGACCGATTTTCAGAGGGTTCTTCTGACAGGGGTGGAGGCCGGGCGCTGTGGTTCAGGC
CTGTAAGCCCAGCACTTTCGGAGGATGAGGCGGGAGGATCGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGCCAA
CATGG**TGA**AACCCCGTCTCTGCTAAAAATGAAAAAACAAAAC

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FIGURE 1498

GGGGTCTGGGCAGCGGCGGCCGTGGCGGAGGGCTATGCGGCGGGGGAGACGGGGCAGGCCCCTCCTCCTTTGTCC
GCCCTGCCCTCCCATTGGTCCTAGCGGGGGGCCGGGGGCGGACACCGGCGCGGGGCCGGAGCATCGCGGCTCAGG
CTGCGGGAAAGCGGTGCGCGTGCAGCGGGGTGGGTGCCCTGGTCCGCGGGCGAGCTCGAGCAGCCAACCCCGGGC
GCGTCGGGGCC**ATG**GACGGCCTGAGGCAGCGCGTGGAGCACTTCCTGGAGCAAAGGAACCTGGTCACCGAAGTGC
TGGGGGCGCTGGAGGCCAAGACCGGGGTGGAGAAGCGGTATCTGGCTGCAGGAGCCGTCACTCTGCTAAGCCTGT
ATCTGCTGTTCGGCTACGGAGCGTCTCTGCTGTGCAATCTCATCGGATTTGTGTACCCCGCATATGCCTCAATCA
AAGCTATCGAGAGCCCAAGCAAGGACGACGACACTGTGTGGCTCACCTACTGGGTGGTGTACGCCCTGTTTGGGC
TGGCCGAGTTCTTCAGCGATCTACTCCTGTCCTGGTTCCCTTTCTACTACGTGGGCAAGTGCGCCTTCCTGTTGT
TCTGCATGGCTCCCAGGCCCTGGAACGGGGCTCTCATGCTGTATCAGCGCGTCGTGCGTCCGCTGTTCCTAAGGC
ACCACGGGGCCGTAGACAGAATCATGAACGACCTCAGCGGGCGAGCCCTGGACGCGGCGGCCGGAATAACCAGGA
ACGTCAAGCCAAGCCAGACCCCGCAGCCGAAGGACAAG**TGA**AGCAGCCCCCTGAGCCTCACAAGGACCTCCTGGC
TGGTGAGGAGGGGGCCGCGCCAGGCTCCCAGGCCTCCACAGAGTCTTCAGCGCATCCCCCAACAGCAGCCCCTGC
CAGTCCCTCGGGTCCAGGCAAGGCCCTGGGGGTCTCCTTAAATGCCACCTCGGGCAAGTCCCAGTCCCAGTCCTC
GGCCACCCCCAGCTCTGGATCCCAGGGCCAGCTGCCCTCTGGCTCTGGCTGTGGCTCCCGCCTGTCCGGCAGGGC
CCAGGGCCAGCGTCGGGCACAGGGCAGCTCCCACTGGTCTCGGCAACACACCCAGCCGCCTGGTACTTCCTCCAG
CCCCTCCCAGTCAGCCCTCCCGTCCTCGGGGCCCCTGCAGCCACCCAACGTCACCTCCAGCCCGGTCTCACCCAT
GGTCCAGTCTCCCAGCAGCAGCAACATCCCCACGCAGCCCCCCAGCAAGTCCTCTGGCAAGCCGGAGGACGCAGC
CCCCAAGACCAGCGGACAGCGCCAGAAGGAATCGTCGAAACAGCCTGCCAGCAGCGCCTCAGTGCCCGAGCTGGT
CCCCTGCCATTCCGGGACCTCTCTGGAGTACACTTCGGAGTCCACCACCGAGATCACCTGCAGCTGGCCACACCA
CAGGCCCCCGTGCCTGCAGCACTACTGGTGCCTGAAACACCTGGCCTGCTAGGAGGCTCCAATAAAGCTAACCCG
GACCAG

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FIGURE 1499

GCGGGCCGAGGAGCCGGGCGCA**ATG**GAGCGGAAGAGGTGGGAGTGCCCGGCGCTCCCGCAGGGCTGGGAGAGGGA
AGAAGTGCCCAGAAGGTCGGGGCTGTCGGCCGGCCACAGGGATGTCTTTTACTATAGCCCGAGCGGGAAGAAGTT
CCGCAGCAAGCCGCAGCTGGCGCGCTACCTGGGCGGCTCCATGGACCTGAGCACCTTCGACTTCCGCACGGGCAA
GATGCTGATGAGCAAGATGAACAAGAGCCGCCAGCGCGTGCGCTACGACTCCTCCAACCAGGTCAAGGGCAAGCC
CGACCTGAACACGGCGCTGCCCGTGCGCCAGACGGCGTCCATCTTCAAGCAGCCGGTGACCAAGATTACCAACCA
CCCCAGCAACAAGGTCAAGAGCGACCCGCAGAAGGCGGTGGACCAGCCGCGCCAGCTCTTCTGGGAGAAGAAGCT
GAGCGGCCTGAACGCCTTCGACATTGCTGAGGAGCTGGTCAAGACCATGGACCTCCCCAAGGGCCTGCAGGGGGT
GGGACCTGGCTGCACGGATGAGACGCTGCTGTCGGCCATCGCCAGCGCCCTGCACACTAGCACCATGCCCATCAC
GGGACAGCTCTCGGCCGCCGTGGAGAAGAACCCCGGCGTATGGCTCAACACCACGCAGCCCCTGTGCAAAGCCTT
CATGGTGACCGACGAGGACATCAGGAAGCAGGAAGAGCTGGTGCAGCAGGTGCGGAAGCGGCTGGAGGAGGCGCT
GATGGCCGACATGCTGGCGCACGTGGAGGAGCTGGCCCGTGACGGGGAGGCGCCGCTGGACAAGGCCTGCGCTGA
GGACGACGACGAGGAAGACGAGGAGGAGGAGGAGGAGGAGCCCGACCCGGACCCGGAGATGGAGCACGTC**TAG**GG
CAGGTGCTGCGGGGCCACGGGGGCTCCCTGGAGTCGGGTCCTGGCAGTGGGGACTGCCTGGTGAACACAGATGTG
CTTGGGATGACGGGTGCCTCCCAAGAGCTTCCCATCTCCCTAGAAGAGCCCAAGCGTCCCCGTCCCGTGGAGTCG
CTAAAGCCAGCCCTCCCTGTCCTTTCCAGAGGCCCTGCCGAGAGCCCGTGCTGCCTGCTGGAGCCGCCTGCAGAC
GCGGTCCTCGGCCCCACGTGAACCAGGCTCGGCGGCGAAGCCCAGCCTTGGAGACACCCAGGAGGAAGGCCGTGC
TCCTGGCTCCCTCCTCGGCCCGTCCCCACTTCCCGGGGCCTCGGGGCACACAGCTGGGGCTGCCCCCACCCGAAA
GACCCTCCACGCTCGTCCTCTACAGAGTCCGGCTTCGGGAAGTGCCGGGTGCTCCTGGGCCCTGCCTGGCTCCCT
ACGACCTTTGGGCTCGAGGCCAGCTCCTCCCCATGCCCGCTGTCCCAGCTCCTTGAGACTGGAGAGCAGCCAGCA
GGTGCCCGGCAGCTCGGCGCCACGGCTTGCTGACAGCTGGGAGGGTTTCTCGGTCTGGAGGCGTAGTTTTGAAAC
TCACATCACCCACTGTGCAGCGTGAGGACGGGACTCTGGTCTGCTGTGGGGGGCATGCAGGACGGCGCCACTCTC
TGCCCTGCCATGCGGCTGGTGGTGCCACAGAGCCTCACCGTGCCTGAGTGGCATGCCCAGGAGGCCGCTCTCCTT
CAGTAAATGTAACACAGTCGAGGCACGTCATCGGGCAGCCTTCCCTGTGTGCCAACGCCAGCCTTCGCTTCTGAA
AACCAAACTCCAGCCGCTGCCAGTCGGGACTTGGTCGCCCGGCGCTGCCAGAATGCTCCACTGCCAGCCGGCCCC
CCTGCCTCGGTTTCCCTTCTGTTTAGTGGCGACACAGGCACCCAGCTTTGGGGTGGTGCTGACGCTCCCAGGGGT
GCCAGGAGCCACTGGGACAGGGTGAGGCTCCCAGACGCTCCTCGAGGTGCCCAGCTCTCCAGGGAGCTTCTGGCC
CAAGGCCGTCTGAGGGATCTGCTCCTTAACCCCCCAGTGCCTTGGCGAGGGCAGGTTCCAAGCCACAGACGCCTG
CCCCGAGTGGACTCTGCGGCCAGTCCCTGGTGCCCTCCTGGCCCTGCTGCCCAGTGAGGGCTCCTACGGGTGGGT
TCATTGGCCTGGGCCCAGCGAGCCCCCACCTGCATTGACCTTAGGCCCATAGAGAGGGCCTGTCCCGGTGCTGCC
CCAGCCAGGATCTGGTCGCTGCCCCAGGGGGACTGATGGGCAGAGTCGCCCCTGTGGCTGGACTGTGACCATCCC
TGATGGGGCCTGACCGCGGGAGCTGAGGAAGCGCCGCTCCACCGTCTGCCCTCCAAGGACCCGCATGGAGGCAGT
GGGCTGGCAGCTTCCTGCTGCTCCCTGTCAGAGTCAAAGCACAAATCCTCAGGACGGGCTCAAGGGCCAGGGCAG
CCGAGGGAAGCTCCAGGTGGGGACCACGTCTTCCTGAGGTTGGTGCCCACTGGCTGGGACCCTTTGCAGTGGGGT
GGCCTCCCCTCTGTCTGCCTGGTGGAGGGAGCCGTGGGCGTGGGGACGTGACTGAATAAAGCCACCATGGGTGGA
TGTGCTTGG

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FIGURE 1500

AGTGTAGCCGGGTCAGCTGGACAGGGTCATCCTGAGGGTGCGACTCCGCCGCG**ATG**GTGACCCGGTTCCTGGGCC
CACGCTACCGGGAGCTGGTCAAGAACTGGGTCCCGACGGCCTACACATGGGGCGCTGTGGGCGCCGTGGGGCTGG
TGTGGGCCACCGATTGGCGGCTGATCCTGGACTGGGTACCTTACATCAATGGCAAGTTTAAGAAGGATAAT**TAA**T
TACACAAACCCTTCACAGACTGCTCTGGTGCCTGGTGGTGCTAGCTCCTCCCACCTCAGCACCTGCTGCATCTGG
AGCAGCCCAAGCCTCAGGATGGACAAGAGGAAACCCACAGCTCAGCTTCAGGCTTCTTATGTTTCTGAAAACAGC
TTGGATATTTTAATGCACGTTGCATTAAACCTCACTGAAACCTGCTCCGTGCCCGGATGTTGATCATGCTGGTGG
CTTGGTTACTGTGACTGTAGCTGGAGTGGCACAGGTGACCCAGGCGTCCTTTCAGCTCCAGAATGTTGCAAGTCT
AGGAGAGTGTTCCAATGGCTGACAGAAACTGCCTATTTGAAATGGCTCATAAGTAGTATCTGCAGTGTGTTCATC
CGTTGCTGCCTTAACAAGTCACCCACACGTAGTGGCTTAAAGCAACGAACATTCACTCTCTCACAGTCTGTGTCA
GTCGGGGATTTGGGAGTGATGTATCTGGGTGGTTGTGGCCCAGAGTCTCTCATGAGGTTGCAGTTAAGACATCAG
CCAAGGCCACTTCGTCTGAGGAAGGCTCAACTGGGGCTGGAGCCACTTCCAAGCCAGTGCCCTCACGTGGCTGTC
GGTGACAGCCACAGTTCCTTCCCATGGGGGCCCCTACACGAAGCTGCTTGAGCATCCTCACGGCATGGCCTCTGC
CTTCCCCAGAGCAGGTGAACCAAGGGAGAGGAAGGAGCAAGCCACAGTGCTTCTATGAGCCACCCTGAGAAGTCT
CACGTGATCACTTCCGCCACAGCCTGTTTATCAAAAGCAAGCCCCCCAGGCCCAGCCCACGTGCAGAGGGAGGAG
AATGAGGTTCTGTGTTTTGAAGGGAAGAATATCAGAATTGGTAGACATTTCAAACTGTCACATTAGGGATACAAA
AATGAACAGGCTGGGAGTGGTGGCTCAGCCTACAATCCCAACACTTTGGGAGGCTGAGGAAGGGGCATCACTTGA
ACCAGGAGTTCAGTACTAACCTGGGCAACAAAGAGGCCCCTGTCTCTGATAAAAAGAAAAAAAATGAAAAAATAA
AAATGAACAGGTATAAAAAG

FIGURE 1501A

GCCTGAGGTGCCCGCCCTGGCCCCAGGAGA**ATG**AACCAGCCGCAGAGGATGGCGCCTGTGGGCACAGACAAGGAG
CTCAGTGACCTCCTGGACTTCAGCATGATGTTCCCGCTGCCTGTCACCAACGGGAAGGGCCGGCCCGCCTCCCTG
GCCGGGGCGCAGTTCGGAGGTTCAGGTCTTGAGGACCGGCCCAGCTCAGGCTCCTGGGGCAGCGGCGACCAGAGC
AGCTCCTCCTTTGACCCCAGCCGGACCTTCAGCGAGGGCACCCACTTCACTGAGTCGCACAGCAGCCTCTCTTCA
TCCACATTCCTGGGACCGGGACTCGGAGGCAAGAGCGGTGAGCGGGGCGCCTATGCCTCCTTCGGGAGAGACGCA
GGCGTGGGCGGCCTGACTCAGGCTGGCTTCCTGTCAGGCGAGCTGGCCCTCAACAGCCCCGGGCCCCTGTCCCCT
TCGGGCATGAAGGGGACCTCCCAGTACTACCCCTCCTACTCCGGCAGCTCCCGGCGGAGAGCGGCAGACGGCAGC
CTAGACACGCAGCCCAAGAAGGTCCGGAAGGTCCCGCCGGGTCTTCCATCCTCGGTGTACCCACCCAGCTCAGGT
GAGGACTACGGCAGGGATGCCACCGCCTACCCGTCCGCCAAGACCCCCAGCAGCACCTATCCCGCCCCCTTCTAC
GTGGCAGATGGCAGCCTGCACCCCTCAGCCGAGCTCTGGAGTCCCCCGGGCCAGGCGGGCTTCGGGCCCATGCTG
GGTGGGGGCTCATCCCCGCTGCCCCTCCCGCCCGGTAGCGGCCCGGTGGGCAGCAGTGGAAGCAGCAGCACGTTT
GGTGGCCTGCACCAGCACGAGCGTATGGGCTACCAGCTGCATGGAGCAGAGGTGAACGGTGGGCTCCCATCTGCA
TCCTCCTTCTCCTCAGCCCCCGGAGCCACGTACGGCGGCGTCTCCAGCCACACGCCGCCTGTCAGCGGGGCCGAC
AGCCTCCTGGGCTCCCGAGGGACCACAGCTGGCAGCTCCGGGGATGCCCTCGGCAAAGCACTGGCCTCGATCTAC
TCCCCGGATCACTCAAGCAATAACTTCTCGTCCAGCCCTTCTACCCCCGTGGGCTCCCCCCAGGGCCTGGCAGGA
ACGTCACAGTGGCCTCGAGCAGGAGCCCCCGGTGCCTTATCGCCCAGCTACGACGGGGGTCTCCACGGCCTGCAG
AGTAAGATAGAAGACCACCTGGACGAGGCCATCCACGTGCTCCGCAGCCACGCCGTGGGCACAGCCGGCGACATG
CACACGCTGCTGCCTGGCCACGGGGCGCTGGCCTCAGGTTTCACCGGCCCCATGTCACTGGGCGGGCGGCACGCA
GGCCTGGTTGGAGGCAGCCACCCCGAGGACGGCCTCGCAGGCAGCACCAGCCTCATGCACAACCACGCGGCCCTC
CCCAGCCAGCCAGGCACCCTCCCTGACCTGTCTCGGCCTCCCGACTCCTACAGTGGGCTAGGGCGAGCAGGTGCC
ACGGCGGCCGCCAGCGAGATCAAGCGGGAGGAGAAGGAGGACGAGGAGAACACGTCAGCGGCTGACCACTCGGAG
GAGGAGAAGAAGGAGCTGAAGGCCCCCCGGGCCCGGACCAGCCCAGACGAGGACGAGGACGACCTTCTCCCCCCA
GAGCAGAAGGCCGAGCGGGAGAAGGAGCGCCGGGTGGCCAATAACGCCCGGGAGCGGCTGCGGGTCCGTGACATC
AACGAGGCCTTTAAGGAGCTGGGGCGCATGTGCCAACTGCACCTCAACAGCGAGAAGCCCCAGACCAAACTGCTC
ATCCTGCACCAGGCTGTCTCGGTCATCCTGAACTTGGAGCAGCAAGTGCGAGAGCGGAACCTGAATCCCAAAGCA
GCCTGTTTGAAACGGCGAGAAGAGGAAAAGGTGTCAGGTGTGGTTGGAGACCCCCAGATGGTGCTTTCAGCTCCC
CACCCAGGCCTGAGCGAAGCCCACAACCCCGCCGGGCACATG**TGA**AAGGTATGCCTCCGTGGGACGAGCCACCCG
CTTTCAGCCCTGTGCTCTGGCCCCAGAACGGCCACTCGAGACCCCGGGCTTCATCCACATCCACACCTCACACAC
CTGTTGTCAGCATCGAGCCAACACCAACCTGACAAGGTTCGGAGTGATGGGGGCGGCCAAGGTGACACTGGGTCC
AGGAGCTCCCTGGGGCCCTGGCCTACCACTCACTGGCCTCGCTCCCCCTGTCCCCGAATCTCAGCCACCGTGTCA
CTCTGTGACCTGTCCCATGGATCCTGAAACTGCATCTTGGCCCTGTTGCCTGGGCTGACAGGAGCATTTTTTTTT
TTTCCAGTAAACAAAACCTGAAAGCAAGCAACAAAACATACACTTTGTCAGAGAAGAAAAAAATGCCTTAACTAT
AAAAAGCGGAGAAATGGAAACATATCACTCAAGGGGGATGCTGTGGAAACCTGGCTTATTCTTCTAAAGCCACCA
GCAAATTGTGCCTAAGCGAAATATTTTTTTTAAGGAAAATAAAAACATTAGTTACAAGATTTTTTTTTTCTTAAT
GTAGATGAAAATTAGCAAGGATGCTGCCTTTGGTCTCTGGTTTTTTTAAGCTTTTTTTGCATATGTTTTGTAAGC
AACAAATTTTTTTGTATAAAAGTCCCGTGTCTCTCGCTATTTCTGCTGCTGTTCCTAGACTGAGCATTGCATTTC
TTGATCAACCAGATGATTAAACGTTGTATTAAAAAGACCCCGTGTAAACCTGAGCCCCCCCGTCCCCCCCCCCCC
CCGGAAGCCACTGCACACAGACAGAACGGGGACAGGCGGCGGGTCTTTTGTTTTTTTGATGTTGGGGGTTCTCTT
GGTTTTGTCATGTGGAAAGTGATGCGTGGGCGTTCCCTGATGAAGGCACCTTGGGGCTTCCCTGCCGCATCCTCT
CCCCTCAGGAAGGGGACTGACCTGGGCTTGGGGGAAGGGACGTCAGCAAGGTGGCTCTGACCCTCCCAGGTGACT
CTGCCAAGCAGCTGTGGCCCCCAGGGCTACCCTACACAACGCCCTCCCCAGGCCCCCCTAAGCTGCTCTCCCTTG
GAACCTGCACAGCTCTCTGAAATGGGGCATTTTGTTGGGACCAGTGACCCCTGGCATGGGGACCACACCCTGGAG
CCCGGTGCTGGGGACCTCCTGGACACCCTGTCCTTCACTCCTTTGCCCCAGGGACCCAGGCTCATGCTCTGAACT
CTGGCTGAGAGGATGCTGCTCAGGAGCCAGCACAGGACACCCCCCACCCCACCCCACCATGTCCCCATTACACCA
GAGGGCCATCGTGACGTAGACAGGATGCCAGGGGCCTGGCCAGCCTCCCCCAATGCTGGGGAGCATCCCTGGGCC
TGGGGCCACACCTGCTGCCCTCCCTCTGTGTGGTCCAAGGGCAAGAGTGGCTGGAGCCGGGGGACTGTGCTGGTC
TGAGCCCCACGAAGGCCTTGGGCTGTGCGTCCGACCCTGCTGCAGAACCAGCAGGGTGTCCCCTCGGGCCCATCT
GTGTCCCATGTCCCAGCACCCAGGCCTCTCTCCAGGTCTCCTTTTCTGGTCTTTTGCCATGAGGGTAACCAGCTC

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FIGURE 1501B

TTCCCAGCTGGCTGGGGACTGTCTTGGGTTTAAAACTGCAAGTCTCCTACCCTGGGATCCCATCCAGTTCCACAC
GAACTAGGGCAGTGGTCACTGTGGCACCCAGGTGTGGGCCTGGCTAGCTGGGGGCCTTCATGTGCCCTTCATGCC
CCTCCCTGCATTGAGGCCTTGTGGACCCCTGGGCTGGCTGTGTTCATCCCCGCTGCAGGTCGGGCGTCTCCCCCC
GTGCCACTCCTGAGACTCCCACCGTTACCCCCAGGAGATCCTGGACTGCCTGACTCCCCTCCCCAGACTGGCTTG
GGAGCCTGGGCCCCATGGTAGATGCAAGGGAAACCTCAAGGCCAGCTCAATGCCTGGTATCTGCCCCCAGTCCAG
GCCAGGCGGAGGGGAGGGGCTGTCCGGCTGCCTCTCCCTTCTCGGTGGCTTCCCCTACGCCCTGGGAGTTTGATC
TCTTAAGGGAACTTGCCTCTCCCTCTTGTTTTGCTCCTGGCCCTGCCCCTAGGTCTGGGTGGGCAGTGGCCCCAT
AGCCTCTGGAACTGTGCGTTCTGCATAGAATTCAAACGAGATTCACCCAGCGCGAGGAGGAAGAAACAGCAGTTC
CTGGGAACCACAATTATGGGGGGTGGGGGGTGTGATCTGAGTGCCTCAAGATGGTTTTCAAAAAAATTTTTTTAA
AGAAAATAATTGTATACGTGTCAACACAGCTGGCTGGATGATTGGGACTTTAAAACGACCCTCTTTCAGGTGGAT
TCAGAGACCTGTCCTGTATATAACAGCACTGTAGCAATAAACGTGACATTTTATAACG

FIGURE 1502A

GCGGGCGGCGGCGACCGCGGCGCCAGTGAGGGGGCCCTGGGGCCCGGGCGGCTCCGGGCCGGGGCCCCGCCGCGG
GACGGACC**ATG**CTACGCTCCACTGGCTTCTTCCGGGCCATTGACTGCCCCTATTGGTCTGGGGCGCCCGGGGGGC
CCTGCCGGCGGCCCTACTGCCACTTCCGGCACCGCGGGGCCCGGGGCTCCGGCGCGCCCGGTGACGGCGGAGAGG
CGCCCCCCGCAGCAGGGCTGGGTTACGACCCCTACAACCCTGAGCTGCCCAAGCCCCCCGCGCAGAGGGAGAATG
GCACCCTGGGCCTGGGGGAGGAGCCGCGCCCGGATGTGCTGGAGTTGGAGCTGGTCAACCAGGCCATCGAGGCCG
TGCGCAGTGAGGTGGAGCTGGAGCAGCGGCGCTACCGGGAGCTGCTGGAGACGACCCGTGAGCACCGCTCCGCCG
AGGCCCCCGCCCTGGCGCCCCGCGGCCCCAACGCCAGCCCCACTGTGGGCCCGGACGAGGATGCCTTCCCACTGG
CCTTCGACTACAGCCCCGGCAGCCACGGCCTATTAAGCCCTGATGCCGGCTACCAGCCCACCCCACTGGCCGCCC
CTGCCGAGCCGGGCAGCAAGTACTCGCTGGCGTCCCTGGACAGGGGTCAGGGCAGAGGTGGAGGGGGTGGCGGTG
CCCTGGAATACGTCCCCAAGGCTGTGAGCCAGCCCCGGCGGCACAGCCGCCCCGTTCCCAGTGGCAAGTACGTGG
TGGACAACTCCAGGCCACCCACAGACCTGGAGTATGACCCTCTCTCCAACTACTCGGCCCGGCACCTCAGCAGGG
CCAGCTCCCGGGATGAGCGGGCCGCCAAGCGGCCCCGGGGCTCCCGCGGCAGTGAGCCCTACACACCTGCTCCCA
AGAAGCTCTGTGACCCCTTTGGCAGTTGCGATGCAAGGTTCTCAGACTCAGAAGATGAGGCCGCCACGGTCCCAG
GTAACGAGCCCACCACGGCCAGCACCCCCAAAGCCAGGGCCGACCCTGAGATCAAGGCCACCGGGCAGCCACCCT
CCAAAGAGGGCCTGGAGGCCGAGGGGGGCGGCCTGCGGGAGACCAAGGAGACGGCCGTGCAGTGCGACGTGGGGG
ACCTCCAGCCGCCCCCAGCCAAGCCCGCCTCCCCAGCCCAGGTCCAGTCCTCACAGGATGGGGGCTGCCCCAAGG
AGGGAAAACCCAAGAAGAAAAAAACCGGGGCCCCACCTGCCCCCAGCTGCAAAGACGGGGCCCAGGGGAAGGACA
AGACCAAGGACAAGGGCCGAGGGCGGCCTGTGGAGAAGCCCCGTGCGGACAAGAAGGGCCCGCAGGCCAGCAGCC
CCCGGCGCAAGGCAGAGCGGCCGGAAGGGACCAAGAAGAAGCCATCTTCGGCCACTCCTGTGGCCACCTCAGGGA
AAGGGAGGCCTGACCGGCCAGCGCGGCGGCCGAGCCCCACAAGCGGGGACTCCCGACCGGCGGCCGGCAGAGGCC
CACCCCGCCCCCTCCAGCTGCCCGACAGGAAGAGCACCAAGGCCCCGTCGGGGAAGCTAGTGGAGCGGAAAGCCC
GCTCACTAGACGAGGGCGCCTCCCAGGACGCCCCCAAGCTGAAGAAGCGGGCCCTGAGCCACGCCGACCTCTTTG
GGGACGAGAGTGAGGACGAGGCCGCAGGGCCAGGGGTGCCGAGCGTGTGGCCCTCTGCCCTCCCCAGCCTCAGCT
CGGACTCAGACTCCGACTCAGACTCCAGCCTGGGCTTCCCGGAGGCGCAGGGGCCGCCCAAGCGGCTCAAGGCCT
CCCCGCCCCCCTCCCCCGCCCCATCCTCCTCCTCCTCCTCCTCCTCCACCTCCAGCGCGGGGGCGGATGTGG
ACTACTCGGCCCTGGAGAAGGAGGTGGACTTTGACTCCGACCCCATGGAGGAGTGCCTGCGGATCTTCAACGAGT
CCACCAGCGTCAAGACGGAGGACAGAGGCCGGCTGGCCCGGCAGCCCCCCAAGGAAGAGAAGAGTGAGGAGAAGG
GGCTTTCGGGTCTGACCACTCTGTTCCCCGGGCAGAAGAGGAGGATCTCCCACCTTTCCAAGCAAGGCCAGGAGG
TGGAGCCCCCGAGGAGGGGTCCCGCGGTGCCCCCGGCCCGGCCCCCGACGGCGCAGGAGGTGTGCTACCTGCGGG
CCCAGCAGGCGCAGAGGGCATCGGCGAGCTTGCTGCAGGCCCCCGCCAGGCTGGCAGAGAAGTCGCCCTCCGTCC
ACATTTCCGCCCCTGGCGAGAAGAGGAGGATCGCCCACATCCCCAACCCCCGCCTGGCTGCAGCCCCCACAGGTG
CCAAGAGGACCCTTGCGGCCAGCGGCAGCCAGTCCTCCAACGGCCCTGAGCCAGGTGGCCAGCAGCTGAAAACAC
GCACATTGTCGGGGATGGCGTCCAAGACTACCACCACCATCATCCCTAAGCGAATCGCCCACAGTCCATCCTTAC
AGAGTTTAAAGAAACCCATTATCCCCAAAGAGTTTGGGGGCAAAGTCCCCACCGTCATCCGCCAGCGCTATCTCA
ACCTGTTCATCGAGGAGTGTCTCAAGTTCTGTACCTCCAACCAGGAGGCCATAGAGAAGGCACTGAACGAGGAGA
AGGTGGCCTATGACCGCAGCCCCAGCAAGAACATCTACCTGAATGTGGCCGTGAACACCCTCAAGAAGCTCAGGG
GCCTGGCCCCCAGCGCTGTGCCCGGCCTCAGCAAAACCAGTGGCCGCAGGGTTGTGTCCCACGAGGTGGTGTTGG
GGGGCAGGTTGGCCGCCAAGACCAGCTTCTCGCTCAGCCGTCCAAGCAGCCCCCGGGTGGAGGACCTGAAAGGGG
CTGCCCTGTACAGCCGCCTCAGGGAGTACCTGCTCACCCAGGACCAGCTCAAGGAGAACGGCTACCCCTTCCCGC
ACCCAGAGCGGCCCGGGGGCGCAATCATCTTCACAGCTGAGGAGAAGAGGCCCAAGGACTCTTCCTGCAGGACCT
GCTGCCGCTGTGGCACCGAGTACCTCGTGTCCTCTTCAGGCCGCTGCATCCGGGACGAGGAGTGTTATTACCACT
GGGGACGGCTGCGCCGGAACCGGGTGGCCGGAGGCTGGGAGACCCAGTACATGTGCTGCTCGGCTGCCGCCGGCT
CTGTCGGCTGCCAAGTCGCAAAGCAACACGTGCAGGATGGCCGGAAGGAGCGCCTTGAGGGCTTCGTGAAGACCT
TTGAGAAAGAGCTCTCAGGAGACACCCACCCGGGGATCTACGCCCTGGACTGCGAGATGTCCTACACCACATATG
GCCTGGAGCTGACGCGCGTCACGGTGGTCGACACGGACGTGCACGTGGTTTATGACACCTTCGTGAAGCCTGACA
ACGAGATCGTGGACTACAACACCAGGTTTTCGGGGGTGACGGAGGCTGACCTTGCCGACACAAGTGTCACGCTGC
GTGACGTCCAGGCCGTTCTGCTGAGCATGTTCAGCGCTGACACCATCCTCATCGGACACAGCCTGGAGAGCGACC
TCCTGGCCCTGAAGGTCATCCACAGCACCGTGGTGGACACGTCTGTGCTCTTCCCCCACCGCCTGGGCCTCCCCT

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FIGURE 1502B

ACAAGCGGTCCCTGCGGAACCTCATGGCCGACTACCTCAGACAGATCATCCAGGACAATGTGGATGGGCACAGCT
CCAGCGAGGACGCCGGCGCCTGCATGCACCTGGTGATCTGGAAGGTTCGAGAAGACGCCAAGACCAAGCGA**TGA**C
GCCTGCCCGCCTCCCACCCGCCTCTCCTGCCGTCCCGCTGGTCCTTAGCCCCATGCCTCTTCCAAAACAGTGCAA
TAAATCTCCGGTAACCCGTCCACCTGGCCGAGGCAGCCCAGAGCAGCGGGATGAGCTGGCGGCCAGAGAACGCCC
AGCCCAGCCCACCCCCGCTCACGTCCTGCCGCACCCCTCCGCCGGTCCCCACCCTCTGCCCCCCAGCCCTCTGGC
GTCTCTAGAAACTGCTGCTGATGGAGACCAGGACAGAGCCCGCCCCCACCCGGCCCGCAGCCCCTCCTGCCCCTC
CTGCCAGGCCCTCCCTCCCGGGTGGTGGCCGGCACCTCTGCTCCTCACGTGGGTCGCGGGGCGGGCTTGTCCCAG
GTTTGTTTGAGACAGTCTTTTTTTATTTTGTATTGTTATTTTTATTATTTTTAATTTAAACCTGATGACTTGCAC
AGCATCTTTCCCACCGGGAAGAGCGGGCCTGCTGCCTTCCCTCCTGCGGGGTGGGGGTGGGACAGACCCCAGTGG
GGGCCAGGGCCACACTCAGCGCAGTGTGGGCTGGACCCGCCTCTGTGCTCCAGGGGCTGGCCGGTCTTCGGGGGC
GCCGGCTTCCACCACTCGCCGCCCCACCCCTGCACTCCGTGACCTCTGAGAACCCAGCTGGCCCCTCGTTAGCCC
CAGGGTCTGCCGTCTAGAGGGAGCCCACCGGCCTCCGGACACTGTCTTCCCGCTAGAGCCCCGTCCTCCTCTGCG
GGGCTCTCCGGACCCCCTTCCCCCTCACCTCCAGGCAGGGACAGAATAAATGTTTGTATGGATTTT

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FIGURE 1503

ATGTCGGCGGCCGTGGCGTGCGTGGATTACTTCGCCGCCGACGTGCTCATGGCCATCTCTTCGGGCGCCGTGGTG
CACCGCGGGCGGCCCGGCCCCGAGGGCGCGGGCCCCGCCGCCGGCCTGG**ATG**TGCGCGCGGCGCGCCGCGAGGCC
GCCTCACCCCGGGACCCCGGGGCCACCCCCGCCGCCCCCCGCCGCTTCTGGCCCGGGCCCCGGCGCCGCCGCGGC
GCCCCACCTGCTGGCCGCCAGCATCCTGGCCGACCTGCGCGGCGGACCCGGAGCCGCCCCGGGGGGCGCCTCGCC
CGCCTCCTCCTCCTCAGCCGCCTCGTCCCCGTCCTCGGGCCGCGCCCCCGGCGCCGCGCCCTCCGCCGCCGCCAA
GAGCCACCGCTGTCCCTTCCCGGACTGCGCCAAAGCCTACTACAAGTCCTCGCACCTAAAGTCGCACCTGCGGAC
GCACACAGGGGAACGCCCTTTTGCTTGTGACTGGCAGGGCTGCGACAAGAAGTTCGCCCGCTCCGACGAGCTGGC
CCGCCACCACCGGACGCACACGGGCGAGAAGCGCTTCTCCTGCCCTCTGTGCTCCAAGCGCTTCACCCGCAGTGA
CCACCTGGCCAAGCACGCCCGCCGCCACCCCGGCTTCCACCCGGACCTGCTCCGGCGCCCTGGTGCCCGCAGTAC
CTCCCCCAGCGACTCGCTGCCCTGCAGCCTGGCCGGGAGCCCTGCGCCCAGCCCCGCGCCCAGCCCAGCCCCCGC
AGGCCTG**TAG**GGCCCTCGTGCAGCCCACCCTGACCGCCAGGATGCTTCTGCCATCCAGGGGTGTAGTGAGGACCC
ACGGGGAGCCTGGGCCCCTTCCAGCCGTGGGCAAACCCTGAAGACACCCCTGCCCCCCTCCAGAGAGTGAGGAGG
GGGCCTGAGACTGGACCTGGGTCTGCCTGACCTCAGAGTGTCCAGGGGCTTGGAGAGACCTGCGCCCACCCCTCC
ACTCTCCCAGGAGTCGCTGATCACTGGGACCTGGTTCCAGCCGTTTGCAGGGGAGGCGGCTCCGAGAGGCGTGTG
CTTTCCGTGGGTGGCGCCCCTCCCCCGCCCTGCCTGGCCTCATCCTTGTATTTAATTAATTAAACAAGCCCCTTT
TTAAACCCT

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FIGURE 1504

AGACTTGGCGAAGCGCTGCGCTCGCGCCCGGATCCCTCAGGCGGCTGCAGGCTTCAGCCTGCGCTGGTTGGTGAA
ACAGAG**ATG**TCAGAAAAGGAGAACAACTTCCCGCCACTGCCCAAGTTCATCCCTGTGAAGCCCTGCTTCTACCAG
AACTTCTCCGACGAGATCCCAGTGGAGCACCAGGTCCTGGTGAAGAGGATCTACCGGCTGTGGATGTTTTACTGC
GCCACCCTCGGCGTCAACCTCATTGCCTGCCTGGCCTGGTGGATCGGCGGAGGCTCGGGGACCAACTTCGGCCTG
GCCTTCGTGTGGCTGCTCCTGTTCACGCCTTGCGGCTACGTGTGCTGGTTCCGGCCTGTCTACAAGGCCTTCCGA
GCCGACAGCTCCTTTAATTTCATGGCGTTTTTCTTCATCTTCGGAGCCCAGTTTGTCCTGACCGTCATCCAGGCG
ATTGGCTTCTCCGGCTGGGGCGCGTGCGGCTGGCTGTCGGCAATTGGATTCTTCCAGTACAGCCCGGGCGCTGCC
GTGGTCATGCTGCTTCCAGCCATCATGTTCTCCGTGTCGGCTGCCATGATGGCCATCGCGATCATGAAGGTGCAC
AGGATCTACCGAGGGGCTGGCGGAAGCTTCCAGAAGGCACAGACGGAGTGGAACACGGGCACTTGGCGGAACCCA
CCGTCGAGGGAGGCCCAGTACAACAACTTCTCAGGCAACAGCCTGCCCGAGTACCCCACTGTGCCCAGCTACCCG
GGCAGTGGCCAGTGGCCT**TAG**AGGGAGCCTGCCCTGCCCCCACCGCCCACCACCTCCTCCCCTTCATTCCTGCTG
CTACCCCTGGTCCCGAGGGCTGGGAGTACCTGGGGCCCCATCCCCCCAGCTGGGATGGTGGAAGCCGGTGGTGGC
CACGGACCGCCCCCCTCCTGCCAGGGCCACAGAACCCGTGTTCATCTCATCCGAGAGCGGAGTTCCTCACAAGCA
CTCCCCAGCAGCCCTTGGCCTCTGCCGTCCACAGGACGCCCTCTTGCTCCCGGAAACGTGTGGTCACCCGCCGTC
CACTGCACGGCTGGTACGGCCTTGTCTTCAGGTCTCGAGGCCTGACTCCGGGGGACAGGTGGCAGCAGGTCGGCC
GCCCTCCCGTCCTCCCAGAGCTGCTGGCGCTGAGGTCAGAGCGGGTCTGATGGGGAGCTCCGTCTCACCGGCCAC
CCGCCGTCACCATGGCAGATGCCCTTGGCCGGAACTAATAAGAGGCGTCGGGGCCAGCTTCCGGTCCCCTGCAGT
GATAGAGGGCTTGGTGCCTAGCTGAGTCCTCGCTGTCCCCGCCATCCCCTGATCTGTGCGGCTCCAGCCTCGCCC
CCTCCCCACGTGCACCATACCTGGGGAGTTCCTGGTCCAGGGTATCCTGGGGCCACCCTCCCTGCCTCCAAAACA
GGGATCCCTGGCAGGCTGTCTTTCCACGCCCCTGAGTTCAGAGTCGGGGACCCAGGCCAGGTCGGGAGCACAGCC
GCTCCCCAAACCCAGCAAACCGGCAGAGAGCCGGTTTCCCAGCAGCCGGAGCCCTGCAGGAGAGGCCTTTGTGTT
TTGTTTTGTTTTGTTTTTTCTCTTTTGAGACAAGAGTTTCACTCTGTCGCCCAGGCTGGAGTGCAGTGGTGTGAT
CTCGGCTCACTGCAACCTCTGCCTCCCGTGTTCAAGCAGTTCTCCTGCCTCAGCCTCCCAAATAGCTGGGATTAC
AGTTGCCTGCCACCACGCCCAGCTAATTTTTATATTTTTAGTACAGATGGGGTTTCACCATGTTGGCCAGGCTGG
TCTCGAACTCCTGACCTCAAGTGATCCACCCGCCTTGGCCTCCCAAAGTGCTGGGATAATAGGTGTCAGCCACCG
CGCCCAGCCTGGAGTGGCCTTTTATGAGAGGGGACCCGTCAAATCTGTGCCTTATGGAGGGGTCCGGCAGCGGCC
ACAATTGTCTTGTCCCCTCACCCCCCAACTCCCCCTGGAACACCTCTCCCAGGCAAGACATTTTCACAGCACCAT
TCACAACGGTTGGGCCAAAAAGAAACTTTTCCTTCATCATTTCCTGCACTCGCTGACCACAACTTTGGACACCCC
AGGCTGCCACCCCTCCCCACCCGTTCACCCCCAGGATGCTGTTGCTGTAGGACGCCTGCTGCCCTGGAGCCCTCC
CCAGGATGTGAGCCAGTCCCCTCGCTGGTACGGAATGCCGCTGGGTGCCCGGAGGCGGCCATGGTGTCTCGATGG
ACGGCAGCCAGGATGGAGCACCCATGGGTCTCACGGCCATGCTTCAGGGTCTTCAGGTCCTGCCCCCGGCCAGTC
TGCCAAGAGGCACCCCCTTCCCCAGCCTCTCGCCTGCACTGATGCAGACAAAATCTCACCTGGCAGGCCCAACCC
CCCCCCACCCCTCCCCCGCCGTGTGTGGCCCCTCGCCGCATCGTTGGGGTTTTGTTATGTGAAAATATCCTGGAA
ATAAATACATGTTTCTGCACTTAG

FIGURE 1505

CAGCAGAATGTCTCCTGCCCCCGAGAGCGACCCCGAGGCCACTGAGAAGAGCAGCGCGGCCTGGCCGGCCCGAAC
GCCTGCGTCTCAGTAGCTGGGAGCCACGGGCCCACGCCCGCCCACCGGCCGCAGTGATGTTCTAGCCACAGAGGA
GCCAAGACCTCAGGTTTCCAGAGACTTGGGATTTGCACGGCAGCAGAGTCACCGTGGAGAGGCCAGGGTATCACA
AACTT**ATG**GATTTTGACAAGAAAGGAGGGAAAGGGGAGACGGAGGAGGGCCGGAGAATGTCCAAGGCCGGCGGGG
GCCGGAGCAGCCACGGCATCCGGAGCTCGGGGACCAGCTCGGGGGTCCTGATGGTGGGCCCCAACTTCCGCGTCG
GCAAGAAGATCGGCTGCGGCAACTTCGGGGAGCTCCGCCTAGGAAAGAATCTCTATACAAATGAATACGTGGCTA
TCAAATTGGAGCCGATCAAGTCCCGGGCCCCGCAGCTGCACCTGGAGTACCGGTTCTACAAGCAGCTCAGCGCCA
CAGAGGGCGTCCCTCAGGTCTACTACTTCGGTCCGTGCGGGAAGTACAACGCCATGGTGCTGGAGCTGCTGGGGC
CCAGCCTGGAGGACCTGTTCGACCTGTGCGACCGGACCTTCACGCTCAAGACGGTGCTGATGATCGCCATCCAGC
TGATCACGCGCATGGAGTATGTGCACACCAAGAGCCTAATCTACCGGGACGTGAAGCCCGAGAACTTCCTGGTGG
GCCGCCCGGGGACCAAGCGGCAGCATGCCATCCACATCATCGACTTCGGGCTGGCCAAGGAGTACATCGACCCCG
AGACCAAGAAGCACATCCCGTACCGCGAGCACAAGAGCCTGACGGGCACGGCGCGCTACATGAGCATCAACACGC
ACCTGGGCAAGGAGCAGAGCCGCCGCGACGACCTGGAGGCGCTGGGCCACATGTTCATGTACTTCCTGCGCGGCA
GCCTCCCCTGGCAGGGGCTCAAGGCCGACACGCTCAAGGAGCGGTACCAGAAGATCGGGGACACCAAACGCGCCA
CGCCCATCGAGGTGCTCTGCGAGAACTTCCCAGAGGAGATGGCCACGTACCTGCGCTATGTGCGGCGCCTGGACT
TCTTCGAGAAGCCCGACTATGACTACCTGCGGAAGCTCTTCACCGACCTCTTCGACCGCAGTGGCTTCGTGTTCG
ACTATGAGTACGACTGGGCCGGGAAGCCCCTGCCGACCCCCATCGGCACCGTCCACACCGACCTGCCCTCCCAGC
CTCAGCTCCGGGACAAAACCCAGCCGCACAGCAAAAACCAGGCGTTGAACTCCACCAACGGGGAGCTGAATGCGG
ACGACCCCACGGCCGGCCACTCCAACGCCCCGATCACAGCGCCTGCAGAGGTGGAGGTGGCCGATGAAACCAAAT
GCTGCTGTTTCTTCAAGAGGAGAAAGAGAAAATCGCTGCAGCGACACAAG**TGA**CCCTGGGCGCGTGCAGCCCCCT
GAATCTTCTCCGTGCAGCCCCTTGGGGCGCGACCTTGTGCGAGGCCCTCGGGGCCCACCCACAGCGGCCCAGGGC
CAGACCCTGGCTGGAAGCCAGAACGCAGACTGCAGGGGCCGCGCCTGGCTCAGGCGGCCCCACCCCCGGGACGTG
GGGTCACTTCCTTCATGTAAGACTTTGGCCGAAATTTCTACACCTGTGTCTAGTCCTCCCCTCCAAGAGCATTAA
CTATTTAAAACAAGGAAAAGAGGAAAAAAAAAACAGAGGCCCGCCCTACCCCACTCCTGCCCCTCCGTTTCTTTG
CTGAAGTGAGTAGTGTGATCCTGGAGGCCCCCCGGCCTGGCCCCGCCCCGCCAGCCGCCCCCGTTAGCGTCATAA
AGTCCAGCTTGTCTCCCTCGATCCAAAGGCCGTTTTCTCGAGGGGAGGGCAGGCCCGGCCTGGAGGGGTGCTGTG
GAGCTGTCTTGCCCAGGCCCTCCTGGGAGGGGGACAGGCATTGTTGCCAGGGGTGAGGCCGTGCCCCAGGCCTCC
CCGAAACCAAAGGGGAAGGCAGGGGTGGGGCCGTGGCTGAAGCCGGCTCCCCAACCAAAATGCTGCACCAAAGCT
CGGGCGCCGCGGGCACGGCTGCTGCAGTCTCTTCCCAGCCTGGCCCTGGCAAGGGGCGGGTGGGCGCTGCCAGGC
GGGTGCTTCTCGACGCACTTGCTCCCGGAGGCTGCGCCCCGGCGCCTGGAACCCGAGGTGGGAGGACCGGTTGGT
GTCACCCTGCTCGGCCCTCAGCCCTGCCGCGTGGGGCGCGTGGGCACGGAGCTTCCTGCCTCTCTGCTCCGACAC
CCGGCAAGCAGCCGGAGACAAAACGCCTTAAAGCCCCCGGCCCAGCCCTGCAGGTATATTGCAGGGGCCTGGGGG
CGGCCCTGGACTGGCGGGCGGTTCCCCAGTGGGGTGCCCTGGAGGCTGCCGGGCAGAGTGGAGCAGCTTGGGGCC
GTGCCCAGGGCGGTGGCTGTGAGTCTAGTTTTTGCTTTACCAAGTGTACAGAAATGGCATTTACGTTTCTCTGAT
GCTCCCTTGAAGCCATAGAATTTAGGGGCTTTTTTAAAAAAATAAAAGAAAAATGAAACC

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FIGURE 1506

ATGGCGGCGGGTGGGAGCGGCGGGCGTGCGTCGTGCCCGCCGGGGGTCGGGGTCGGCCCGGGCACGGGGGGCAGT
CCCGGGCCCAGCGCCAACGCCGCCGCCACCCCGGCCCCCGGCAACGCGGCCGCCGCCGCCGCCGCCGCCGCC
GCCGCCGCCGCCCCTGGGCCGACGCCGCCCGCCCCGCCGGGCCCCGGGACAGACGCGCAGGCCGCGGGCGCGGAG
CGGGCGGAGGAGGCGGCGGGCCCGGGGGCGGCGGCGCTGCAGCGCGAGGCCGCGTACAACTGGCAGGCCAGCAAG
CCCACCGTGCAGGAGCGCTTCGCCTTCCTCTTCAACAACGAGGTGCTGTGCGACGTGCACTTCCTGGTGGGCAAG
GGGCTCAGCTCGCAGCGCATCCCCGCGCACAGGTTCGTGCTGGCCGTGGGCAGCGCCGTCTTTGATGCCATGTTC
AACGGGGGAATGGCCACAACATCCACGGAGATTGAGCTGCCCGACGTGGAACCCGCTGCCTTCCTCGCACTGCTC
AAGTTTCTCTACTCGGACGAGGTGCAGATTGGCCCGGAGACGGTGATGACCACGCTATACACCGCCAAGAAGTAC
GCGGTGCCAGCGCTCGAGGCCCATTGCGTGGAGTTCCTGAAGAAGAACCTGCGAGCCGACAACGCCTTCATGCTG
CTCACGCAGGCGCGACTCTTCGATGAACCGCAGCTGGCCAGCCTGTGCCTGGAGAACATCGACAAAAACACTGCA
GACGCCATCACCGCGGAGGGCTTCACCGACATTGACCTGGACACGCTGGTGGCTGTCCTGGAGCGCGACACACTG
GGCATCCGTGAGGTGCGGCTGTTCAATGCCGTTGTCCGCTGGTCCGAGGCCGAGTGTCAGCGGCAGCAGCTGCAG
GTGACGCCAGAGAACAGGCGGAAGGTTCTGGGCAAGGCCCTGGGCCTCATTCGCTTCCCGCTCATGACCATCGAG
GAGTTCGCTGCAGGTCCCGCACAGTCGGGCATCCTGGTGGACCGCGAGGTGGTCAGCCTCTTCCTGCACTTCACC
GTCAACCCCAAGCCACGAGTGGAGTTCATTGACCGGCCCCGCTGCTGCCTGCGTGGGAAGGAGTGCAGCATCAAC
CGCTTCCAGCAGGTGGAGAGTCGCTGGGGCTACAGCGGGACCAGTGACCGCATCAGGTTCTCAGTCAACAAGCGC
ATCTTCGTGGTGGGATTTGGGCTGTATGGATCCATCCACGGGCCCACCGACTACCAAGTGAACATCCAGATTATT
CACACCGATAGCAACACCGTCTTGGGCCAGAACGACACGGGCTTCAGCTGCGACGGCTCAGCCAGCACCTTCCGC
GTCATGTTCAAGGAGCCGGTGGAGGTGCTGCCCAACGTCAACTACACGGCCTGTGCCACGCTCAAGGGCCCAGAC
TCCCACTACGGCACCAAAGGCCTGCGCAAGGTGACACACGAGTCGCCCACCACGGGCGCCAAGACCTGCTTCACC
TTTTGCTACGCGGCCGGGAACAACAATGGCACATCCGTGGAGGACGGCCAGATCCCCGAGGTCATCTTCTACACC
TAGGCTGCCCGACACCGACACCGCCCTCCCTCCGTGGGGATAGCCGCAGCCCCAGGCCATCATCTGCTGCTGGGG
CCCCCCCACCACGCGGTGCCAGGCCCAGTGTCCCCCAGGCCGTCTGTCCACTCCATGCCACCTTTCTCAGCATCA
GGACGGGGTTGCCCTGTGTTCACCACGAGTGTGGCTGCTGGATCAGGGCAGCCGGGGAGGTGGCCAGGCCAGTGG
CCAGGCCCTGTGGAGACAATCCCTCAGGACTAGGGACAGGGCTGTGCCGGCCTGGGCCAGGGCCCACGGACCCGC
AGCTCAGGGCGCCTGCCCACGTCGTCTGCCGGCGGTGCGCCGCGGGCGTCCCTCGCGTCTCTTCACTGCACATTG
CAATGCATTTGCGATTCCCATTTCTCTGCTAGGAGCCAGCCTGGGTGGCGCTGCTCCCAGAGCCGTGGGTCCCAG
ACCTTGCGTTCCTTTTGTTCCTGTCCGTTTATCAGGACACGGGCCCCACCTGTCACGTGCCCGAGGCCACCCAAG
CCCAGCCTGCGGGGCGTTCCCACTGCCTGGATGCCGGCTTGAGTTCTGCGCACGCAGGATTCAGTGTGGGGACGG
CCCCTGCCGGATAGGCCTAGCCCTGGCCCAGGTGGTGAGCGGTTTGCAGTGTCCGTTCTCATCCACCTGATGGGC
CCAGATAAAGGCCCCCGCTGTCCAGCCTCCCTGGACGGCCCTCGCGGTCCCTGCAGCCCAAGATGGGACTCAGAC
CCTGTGCCCCAGAGCTCCCCTGCCGCAGAATGGGGCCCCAGCCGGCCCCGACCGGGTCCAGGAGCACTGCTCGCC
TGTACATACTGTTGCCCTAGCCCACCTGGTGCCGTGGGAGCCACCCCCAGGTGCTGGGGGCACAGCCCCTCCCCA
CTCCGGCCACGCCCCCACCCACCCCGCGTGTTTCTGCCCTGTGACTCCTGGAACCTGCGTCCTCCCCAAAGCCAT
GGGAGGGGTGTCCTCCTCAGACCATGCCCCCAGATGATTTTTTTAAATAAAGAAACAAATGCACCTGC

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FIGURE 1507

GCTGGCGGGGCCCGGACAGAAG**ATG**GTGCAGAAGAAACCAGCCGAACTTCAGGGTTTCCACCGTTCGTTCAAGGG
GCAGAACCCCTTCGAGCTGGCCTTCTCCCTAGACCAGCCCGACCACGGAGACTCTGACTTTGGCCTGCAGTGCTC
AGCCCGCCCTGACATGCCCGCCAGCCAGCCCATTGACATCCCGGACGCCAAGAAGAGGGGCAAGAAGAAGAAGCG
CGGCCGGGCCACCGACAGCTTCTCGGGCAGGTTTGAAGACGTCTACCAGCTGCAGGAAGATGTGCTGGGGGAGGG
CGCTCATGCCCGAGTGCAGACCTGCATCAACCTGATCACCAGCCAGGAGTACGCCGTCAAGATCATTGAGAAGCA
GCCAGGCCACATTCGGAGCAGGGTTTTCAGGGAGGTGGAGATGCTGTACCAGTGCCAGGGACACAGGAACGTCCT
AGAGCTGATTGAGTTCTTCGAGGAGGAGGACCGCTTCTACCTGGTGTTTGAGAAGATGCGGGGAGGCTCCATCCT
GAGCCACATCCACAAGCGCCGGCACTTCAACGAGCTGGAGGCCAGCGTGGTGGTGCAGGACGTGGCCAGCGCCTT
GGACTTTCTGCATAACAAAGGCATCGCCCACAGGGACCTAAAGCCGGAAAACATCCTCTGTGAGCACCCCAACCA
GGTCTCCCCCGTGAAGATCTGTGACTTCGACCTGGGCAGCGGCATCAAACTCAACGGGGACTGCTCCCCTATCTC
CACCCCGGAGCTGCTCACTCCGTGCGGCTCGGCGGAGTACATGGCCCCGGAGGTAGTGGAGGCCTTCAGCGAGGA
GGCTAGCATCTACGACAAGCGCTGCGACCTGTGGAGCCTGGGCGTCATCTTGTATATCCTACTCAGCGGCTACCC
GCCCTTCGTGGGCCGCTGTGGCAGCGACTGCGGCTGGGACCGCGGCGAGGCCTGCCCTGCCTGCCAGAACATGCT
GTTTGAGAGCATCCAGGAGGGCAAGTACGAGTTCCCCGACAAGGACTGGGCCCACATCTCCTGCGCTGCCAAAGA
CCTCATCTCCAAGCTGCTGGTCCGTGACGCCAAGCAGAGGCTGAGTGCCGCCCAAGTCCTGCAGCACCCCTGGGT
TCAGGGGTGCGCCCCGGAGAACACCTTGCCCACTCCCATGGTCCTGCAGAGGTGGGACAGTCACTTCCTCCTCCC
TCCCCACCCCTGTCGCATCCACGTGCGACCTGGAGGACTGGTCAGAACCGTTACTGTGAATGAG**TGA**AGATCCTG
GAGGACCCTGGGCCCCAGGCCAGCTCCCATCGCTGGGGGACGGTGAACGGCCATGTGTTAATGTTACGATGTTTT
TAAAAGACAAAAAAAAAAAAAAAAACCTCAAAAGTTTTTTTAAAGTGGGGGAAAAACATCCAAGCACTTTAATTCC
AATGTACCAGGTGAACTGACGGAGCTCAGAAGTTTTCCTTTACACCAACTGTCAATGCCGGAATTTTGTATTCTG
TTTTGTAAAGATTTAATAAAAGTCAAAAAACTTGC

FIGURE 1508A

GGGGCCCGGAGCGGGATCGCGGCACCTGCCGAGCGGGTCGCCGCCTCTGCCGCGGTCCTTGGACCCCGCCGCCGC
CCTGGCCTGGGAGCTTGCCCCGCCGCAGCGGCCGGCAGCGCGGCGCTCCGCGGGCGGCAGGCACGGGCCCCGGGC
CCCCTCACGGCGCCCAGCCGCGGGCCTCCCGAGGCAAAAGCCCGTGGGCCGCCGCG**ATG**GCCCTCAAGATGGTGA
AGGGCAGCATCGACCGCATGTTCGACAAGAATCTGCAGGACTTGGTCCGCGGCATCCGTAACCACAAGGAGGACG
AGGCAAAATACATATCTCAGTGCATTGATGAGATCAAGCAGGAGCTGAAGCAGGACAACATAGCGGTGAAGGCGA
ACGCGGTCTGCAAGCTGACGTATTTACAGATGTTGGGATACGACATCAGCTGGGCCGCCTTCAACATCATAGAAG
TGATGAGTGCCTCCAAGTTCACCTTCAAGCGAATTGGCTACCTCGCTGCTTCCCAGAGCTTTCACGAAGGCACCG
ACGTCATCATGCTGACCACCAATCAGATCCGTAAGGACTTGAGCAGCCCCAGCCAGTACGACACAGGTGTTGCAC
TGACGGGTCTGTCCTGCTTCGTCACCCCAGACCTTGCCAGAGACCTGGCAAATGACATCATGACACTGATGTCAC
ACACCAAGCCCTACATCAGGAAGAAGGCTGTGCTGATCGAGCCCCTCACCAATCTCATCCACAGCACGTCTGCCA
TGTCTCTCCTCTATGAATGTGTGAACACCGTGATTGCAGTGCTCATCTCGCTGTCCTCCGGCATGCCCAACCACA
GCGCCAGCATCCAGCTTTGTGTTCAGAAATTAAGGATATTGATCGAGGACTCCGATCAGAACTTGAAGTACCTGG
GGCTGCTGGCAATGTCCAAGATCCTGAAGACCCACCCCAAGTCCGTGCAGTCCCACAAGGACCTCATCCTGCAGT
GCCTGGACGACAAGGACGAGTCCATCCGGCTGCGGGCCCTGGACCTGCTCTATGGGATGGTGTCCAAGAAGAACC
TGATGGAGATCGTGAAGAAGCTGATGACCCACGTAGACAAGGCAGAGGGTACCACCTACCGTGACGAGCTGCTCA
CCAAGATCATTGACATCTGCAGCCAGTCCAACTACCAGTACATCACCAACTTCGAGTGGTACATCAGCATCCTGG
TGGAGCTGACCCGGCTGGAGGGCACACGGCACGGCCACCTCATCGCCGCCCAAATGCTGGACGTGGCCATCCGCG
TGAAGGCCATCCGCAAGTTCGCCGTGTCCCAGATGTCTGCGCTGCTTGACAGTGCACACCTGCTGGCCAGCAGCA
CCCAGCGGAACGGGATCTGTGAGGTGCTGTACGCTGCCGCCTGGATCTGCGGGGAGTTCTCAGAGCATCTGCAGG
AACCACACCACACTTTGGAGGCCATGCTGCGGCCCAGAGTCACCACGCTGCCAGGCCACATCCAGGCCGTGTATG
TGCAGAACGTGGTCAAGCTCTACGCCTCCATCCTGCAGCAGAAGGAGCAGGCCGGGGAGGCAGAGGGCGCTCAGG
CCGTCACCCAGCTCATGGTGGACCGGCTGCCCCAGTTTGTGCAGAGCGCAGACCTGGAGGTGCAGGAGCGGGCGT
CCTGCATCCTGCAGCTGGTCAAGCACATCCAGAAGCTTCAGGCCAAGGACGTGCCTGTGGCAGAGGAGGTCAGCG
CTCTCTTTGCTGGGGAGCTGAACCCAGTGGCCCCCAAGGCCCAGAAGAAGGTTCCAGTCCCCGAAGGCCTGGACC
TGGACGCCTGGATCAATGAGCCACTCTCGGACAGCGAGTCAGAGGACGAGAGGCCCAGGGCCGTCTTCCACGAGG
AGGAGCAGCGGCGTCCCAAGCACCGGCCGTCGGAGGCGGACGAGGAAGAGCTGGCTCGGCGCCGAGAGGCCCGGA
AGCAGGAGCAGGCCAACAACCCCTTCTACATCAAGAGCTCGCCATCGCCACAGAAGCGGTACCAGGACACCCCGG
GCGTGGAGCACATTCCCGTGGTGCAGATTGACCTCTCCGTCCCCTTGAAGGTTCCAGGGCTGCCTATGTCAGATC
AGTATGTGAAGCTGGAGGAGGAGCGGCGGCACCGGCAGAAGCTGGAGAAGGACAAGAGGAGGAAAAAGAGGAAGG
AGAAGGAGAAGAAGGGCAAGCGCCGCCACAGCTCGCTGCCCACGGAGAGCGACGAGGACATCGCCCCTGCCCAGC
AGGTGGACATCGTCACAGAGGAGATGCCTGAGAATGCTCTGCCCAGCGACGAGGATGACAAAGACCCCAACGACC
CCTACAGGGCTCTGGATATTGACCTGGATAAGCCCTTAGCCGACAGCGAGAAACTGCCTATTCAGAAACACAGAA
ACACCGAGACCTCAAAATCCCCTGAGAAGGACGTTCCCATGGTAGAAAAGAAGAGCAAGAAACCCAAGAAGAAAG
AGAAAAAACACAAAGAGAAAGAGAGAGACAAGGAGAAGAAGAAGGAGAAGGAGAAGAAGGCTGAGGACCTGGACT
TCTGGCTGTCTACCACCCCACCGCCTGCCCCCGCCCCCGCCCCCGCCCCCGTTCCATCCACGGACGAGTGTGAGG
ACGCCAAGACGGAGGCGCAGGGCGAGGAGGACGATGCCGAGGGGCAAGACCAGGACAAGAAATCTCCCAAGCCTA
AGAAGAAGAAGCACAGGAAGGAGAAGGAGGAGCGGACCAAAGGCAAGAAGAAGTCCAAGAAGCAGCCTCCAGGCA
GCGAGGAGGCAGCGGGGGAGCCGGTGCAGAATGGCGCGCCAGAGGAGGAGCAGCTCCCGCCTGAGTCCAGCTACT
CCCTCCTCGCTGAAAATTCCTATGTTAAAATGACCTGTGACATCCGGGGCAGTCTGCAGGAGGACAGCCAGGTCA
CTGTGGCCATCGTGCTGGAGAACAGGAGCAGCAGCATCCTCAAGGGCATGGAGCTCAGCGTGCTGGACTCACTCA
ATGCCAGGATGGCCCGGCCGCAGGGCTCCTCCGTCCACGATGGCGTCCCCGTGCCTTTCCAGCTGCCCCCAGGCG
TCTCCAACGAAGCCCAGTATGTGTTCACCATCCAGAGCATCGTCATGGCGCAGAAGCTCAAGGGGACCCTGTCCT
TCATTGCCAAGAATGACGAGGGTGCGACCCACGAGAAGCTGGACTTCAGGCTGCACTTCAGCTGCAGCTCCTACT
TGATCACCACTCCCTGCTACAGTGACGCCTTTGCTAAGTTGCTGGAGTCTGGGGACTTGAGCATGAGCTCAATCA
AAGTCGATGGCATTCGGATGTCCTTCCAGAATCTTCTGGCGAAGATCTGTTTTCACCACCATTTTTCCGTTGTGG
AGCGAGTGGACTCCTGCGCCTCCATGTACAGCCGCTCCATCCAGGGCCACCATGTCTGCCTCCTGGTGAAAAAGG
GTGAGAACTCTGTCTCAGTCGACGGGAAGTGCAGTGACTCCACGCTACTGAGCAACTTGTTAGAAGAGATGAAGG
CGACGCTGGCCAAGTGT**TGA**GAGCTGCCTGCGAGCCCCGCACCACCCCGCGGAGCACGTACCCAGGGACCGCAGC

FIGURE 1508B

CCTGACGTGTCTCGCCTCTCCTCAGTCGTGTGTACTGTACCCAAGCCTGAGTGTTAATTTAACTCTATGTTGTCC
GCCGTGTAGACATCCGAGGTCATTTGTTGCGTTGAATTATCTGACCATCCTTTTTTACTGTGACTCTTCCCATTC
TCTTTGGCAAGAAGTCCCCTTCTCGCCCCCAAACCAGCAAGGGACTCCCCCACCTGGGTCTGTGCCCTGCCCCGC
GCTGGGGGCCGAGTCCTTGAATGTGGCTTCAGGGGCTCCTGTCCTGGGCCAGGGCCTGATGGGCACCACGTGAGG
GGCACTTGGTGGACAGGGCGGGGCTGACGTGGCCTCCTCTGGGGTCGCCTGCTTTTGACCCAAAGGTCCTGACGG
TTGCGTCCGGGGGAGGGGAAGGAAGGGCCGCTGTCGCCAAGGTTTTCTCTCCCAGAACCCACAGTGGGAAAGCGG
TCTTGCCAGGCGTTGTCCATTGTCAGTGTGCTCGTGGGCTGGTGACTGGGTCTTGGGATCCCAGGCCACGCGCCA
GCCAGGCTGTGGGCAGGGCGGGGCCAGGGACGCCAAAGAGAGGTTGCAGTCAGAACCGTGGACGGGGTGGGTTGA
GGCCTCTCTGCCACCCGTCTTCCTGGTCAGCAGAAGTGCATCTCGGCTTGGGTTTGGGGTGGTCCGCATCCCCTG
CTTGCCACTATGCGCACCAAGGTTTCCCCACATCCTTCCCAGCACCCTTAGGAAGGCCCAGGCAGGGCCTGGAAG
CAGCGGACCTGGGCTGTTCTGTGTTGAAGGAGTGTGCCCAGTGCCCTTGGGCAGGACCTGTGAGAGCCACCTCAC
AGGCAGAGCCCCCACCAGGCAGGGCAAGGAGACTCCGCTCACTCCCCACGGCCAGCGTGGGCACAGGACTGACCC
TTCTTCAGAGATAATGACATTTTATCTTCTCCTTTTGATGAAAACTGTCACTTTAGCATGTAATCCATTACAGAA
TCCCATGCAGTGATTCCAGGATTTGAAATTGTATGATGTGTTACATAAGAATTTATTTGCTATCGACATTCCCGT
ATAAAGAGAGAGACATATCACGCTGCTGTCATGATTTTGTGTCAAGATGATCCAATAAAGTTGTAAAACAGG

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FIGURE 1509

ATGGACTTCCAGCATCGCCCCGGGGGCAAGACCGGGAGCGGGGGCGTGGCCTCCTCCTCCGAGAGCAACCGTGAC
CGCAGGGAGCGCCTCCGGCAGCTGGCCCTGGAGACCATCGACATCAACAAGGACCCGTACTTCATGAAGAACCAC
CTGGGCTCCTATGAATGCAAACTCTGCCTGACACTTCACAACAATGAGGGGAGCTACCTGGCACATACGCAGGGG
AAGAAGCACCAGACCAACCTGGCCCGGCGAGCAGCCAAGGAGGCCAAGGAGGCCCCTGCCCAGCCCGCGCCTGAG
AAGGTCAAGGTGGAGGTGAAGAAGTTTGTGAAGATCGGCCGCCCGGGCTACAAAGTGACCAAGCAGAGAGACTCG
GAGATGGGCCAGCAGAGCCTCCTCTTCCAGATTGACTACCCTGAGATCGCCGAGGGCATCATGCCACGTCACCGC
TTCATGTCTGCGTACGAGCAGAGGATCGAGCCTCCGGACCGGCGCTGGCAGTACCTGCTCATGGCCGCCGAGCCC
TACGAGACCATTGCCTTCAAGGTGCCGAGCAGAGAGATCGACAAGGCGGAGGGCAAGTTCTGGACACACTGGAAC
CGGGAGACCAAGCAGTTCTTCCTCCAGTTCCACTTTAAGATGGAGAAGCCCCCGGCTCCACCCAGCCTCCCTGCT
GGCCCCCCTGGGGTGAAGCGGCCTCCACCCCCGCTGATGAACGGTCTGCCCCCTCGGCCACCGCTGCCTGAGTCT
TTGCCACCGCCCCCGCCAGGAGGCCTGCCTCTGCCACCCATGCCCCCCACAGGGCCTGCGCCCTCAGGGCCCCCG
GGACCACCCCAGCTACCCCCGCCAGCTCCAGGGGTCCACCCCCCGGCCCCAGTGGTGCATCCCCCTGCATCTGGG
GTCCATCCCCCAGCTCCTGGCGTCCACCCCCCAGCTCCTGGCGTCCATCCCCCAGCCCCTGGGGTCCACCCACCA
ACCTCTGGGGTCCACCCCCCAGCTCCTGGAGTCCACCCTCCAGCCCCCGGGGTTCACCCACCAGCCCCCGGAGTC
CACCCACCAGCCCCTGGGGTTCACCCACCAGCCCCAGGGGTCCATCCTCCCCCATCAGCGGGGGTTCACCCCCAG
GCCCCGGGGGTGCACCCAGCAGCCCCCGCCGTTCACCCTCAGGCCCCAGGGGTGCACCCACCAGCCCCAGGGATG
CACCCTCAGGCCCCGGGGGTCCACCCCCAACCTCCCGGGGTCCATCCGTCGGCTCCTGGGGTCCACCCTCAGCCT
CCGGGAGTTCACCCCTCAAATCCTGGGGTGCACCCCCCAACTCCCATGCCCCCAATGCTGAGGCCCCCACTTCCC
TCCGAAGGCCCAGGGAACATACCTCCCCCTCCCCCAACCAAC**TGA**

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FIGURE 1510

TGCGAACGGCGAGCAGCGGCGGCGGCGCGGAGAGACGCAGCGGAGGTTTTCCTGGTTTCGGACCCCAGCGGCCGG
ATGGTGAAATCCTCCCTGCAGCGGATCCTCAATAGCCACTGCTTCGCCAGAGAGAAGGAAGGGGATAAACCCAGC
GCCACCATCCACGCCAGCCGCACCATGCCGCTCCTAAGCCTGCACAGCCGCGGCGGCAGCAGCAGTGAGAGTTCC
AGGGTCTCCCTCCACTGCTGTAGTAACCCGGGTCCGGGGCCTCGGTGGTGCTCC**TGA**TGCCCCTCACCCACCCCT
GAAGATCCCAGGTGGGCGAGGGAATAGTCAGAGGGATCACAATCTTTCAGCTAACTTATTCTACTCCGATGATCG
GCTGAATGTAACAGAGGAACTAACGTCCAACGACAAGACGAGGATTCTCAACGTCCAGTCCAGGCTCACAGACGC
CAAACGCATTAACTGGCGAACAGTGCTGAGTGGCGGCAGCCTCTACATCGAGATCCCGGGCGGCGCGCTGCCCGA
GGGGAGCAAGGACAGCTTTGCAGTTCTCCTGGAGTTCGCTGAGGAGCAGCTGCGAGCCGACCATGTCTTCATTTG
CTTCCACAAGAACCGCGAGGACAGAGCCGCCTTGCTCCGAACCTTCAGCTTTTTGGGCTTTGAGATTGTGAGACC
GGGGCATCCCCTTGTCCCCAAGAGACCCGACGCTTGCTTCATGGCCTACACGTTCGAGAGAGAGTCTTCGGGAGA
GGAGGAGGAGTAGGGCCGCCTCGGGGCTGGGCATCCGGCCCCTGGGGCCACCCCTTGTCAGCCGGGTGGGTAGGA
ACCGTAGACTCGCTCATCTCGCCTGGGTTTGTCCGCATGTTGTAATCGTGCAAATAAACGCTCACTCCGAATTAG
CGGTGTATTTCTTGAAGTTTAATATTGTGTTTGTGATACTGAAGTATTTGCTTTAATTCTAAATAAAAATTTATA
TTTTACTTTTT

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FIGURE 1511

GTTCTCTCCAGCTCTCCCATGAGAAGAACACGGTGCTGGGCTTTCGGGTTCACAGG**ATG**CTGCAGGCGGAGTTCC
TGCAGGCCGCCCTGGTCACCATCTACGACTACTACGAGCCTTCCCGGAGGTGCAGCACTTTCTACAACCTGCCCA
CAGAGCAATCTTCCCTGAGAAAGATCTGCCACAAAGACATCTGCAGATGTGCAGAGGGACAGTGCCCATCCCTGC
AGAAGCCCAGTGGCCAATTGAGGCAGGAGGAGCTCCAGACAACAGCATGTGAGGCAGGCGTGGATTTTGTGTACA
AGACAAAGCTGGAATCTGTGGAGGTCTCTGCCTCCAACCCTTACGTCTATTACAACACGCAGCTCGAAGACATCA
TTAAGAGTGGTACGGACCCTGCCACACCCCTGGCCATGAAGAAATTCGTCTCCCATGCCACTTGCCATGACTCCC
TGGGGTTGCAAGAACAGGAATCGTACCTCATCATGGGCCAGACGTCAGACCTGTGGAGAATCAAATCTGATTACA
GCTATGTTCTGGGCAAGGAGACGTTCCTCATCCTTTGGCCAGCAGATGGAGATGCCAGCAAGAAAGAATTGCGGG
ACCAACTGGAGGAATTTTTGGAATATATGCGCACCCACGGCTGCCAGTCC**TGA**GCCTCTTCTGCTTTCAGGGAGG
TGTCATCAGGCAGCTCTGGGCCACTGGGTTTAACCCCAAATAAAGAGCACAGGATATGACACCC

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FIGURE 1512

CCCTGCGCGGCTGCTGGACCGACGGGCGCACCCAGGTAGGGGGGCGGCTGAGCCGCGCAGTGCGGACCCTCGCGG
GGAACTGCGCCGCCGCCACC**ATG**TCTCAGGAAGGTGTGGAGCTGGAGAAGAGCGTCCGGCGCCTCCGGGAGAAGT
TTCATGGGAAGGTATCCTCCAAGAAGGCGGGGGCTCTGATGAGGAAATTCGGCAGCGACCACACGGGAGTGGGGC
GCTCCATCGTGTACGGGGTAAAGCAAAAAGATGGCCAAGAACTAAGTAACGATCTGGATGCCCAGGATCCACCAG
AAGATATGAAGCAGGACCGGGACATTCAGGCAGTGGCGACCTCCCTCCTGCCACTGACAGAAGCCAACCTACGCA
TGTTTCAACGTGCCCAGGACGACCTTATCCCTGCTGTGGACCGGCAGTTTGCCTGCTCCTCCTGCGACCACGTCT
GGTGGCGCCGCGTGCCCCAGCGGAAGGAGGTATCCCGGTGCCGGAAATGCCGGAAGCGCTACGAGCCAGTGCCAG
CTGACAAGATGTGGGGCCTGGCTGAGTTCCACTGCCCGAAGTGTCGGCACAACTTCCGGGGCTGGGCACAGATGG
GGTCCCCGTCCCCCTGCTACGGGTGCGGCTTCCCCGTGTATCCAACACGGATCCTCCCCCCGCGCTGGGACCGGG
ACCCGGATCGCCGCAGCACCCACACTCACTCCTGCTCAGCTGCCGACTGCTACAACCGGCGAGAGCCCCACGTGC
CTGGGACATCCTGTGCTCACCCCAAGAGCCGGAAGCAGAACCACCTGCCCAAAGTGCTCCACCCCAGCAACCCTC
ACATTAGCAGTGGCTCCACTGTGGCCACCTGCTTGAGCCAGGGTGGCCTCCTGGAAGACCTGGACAACCTCATCC
TGGAGGACCTGAAGGAGGAGGAGGAGGAAGAGGAGGAGGTGGAGGACGAGGAGGGCGGGCCCAGGGAG**TGA**CCCC
TGCCAGGTGCAGATACAAACCAGACACGGTCTGTGGCTACTTTGTGTTATTATAAGATATGAGCTCAAACCGAGA
TATGAATGACCTTGGGGAGCCATCTGAGGCCAAGATATTGACGGGGGGGATTCCTGGGTCCCATTTTCAGCGCCC
AGGGTCACAGATCCACAGTGGGAAGTTCTGTGGGACACATTGGCACTGAGCCACAAAGAAGGTGTGGCCAGAACA
ACTTGGGCTCCTGCTGACCAATGTCCTCTAGGGCCTAGGGGACAGAGGAACACAGAGTCACAGCTTCAGGGGCCG
AATGAGCATGGCGGCCTTCCTGAGAGAATATGCCCCACCACGAAACTCAGCCCAGTAGACACCATCCTGGTAGCG
GCTTCGGTAGTGGCCGCCGTGGTGCCACACACCGTTGAGGTTGGAGTGGGCACAGGCATGGTACCACCAGCCTCC
CCGCTGGTACAGGGCACAGTTACCTGAGGGGAGAGAGAGAGTCCATGTCCTCTCACCAGAATAAAAGCCTCTACC
TGCACCTCACAGTGCAAGGCTTTTGCCAGGCATCCCCTGGCCCCTCCCATTCTTATTGAATACAAGCCCTGATCT
TCCATCTCCTCAGCAAAAAAATAGGAGCCCTGGCCCCCCAACTTTCTTCAGAGTAATAGCCTTAATTCCTTCCCT
ATCTCCTTACCAAAGTACAAGTCACATCTTTCCCACCTTTTCTGCAAACTAGGAGTCTACCGTTCATTCCTTTAT
CAAAGAAAAGTATCTACTTCCTTTCTAGAATAAGAGTACTAGCTCTCACCCTCTGCCCTTTACTTGAACAGGAGT
CTTGATTCTTTTTTTGCCTCATCAGAGAAGGAATCTGGACTCCCCATCCCCCCACCAGGATAAAAGTCCTGACCT
TTGTTCTCTTGACGGAATAAAAGCTTGCTTATCCTT

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FIGURE 1513

ATTCGGGAAATGCTAAATATTTATAGTTTGGGCTCCTGGGCCCAGCATCCCAGCTCCACTCCCAGGCTCTGGGGG
CTGGGGAGTGGTTACCAAGCCTCCTCTCTCCTTCTGTCCCACTGCCCTCTCCCCGTCTCTAGCTCAGAGGCCCCA
CTGGACCCTCGGCTCTTCCTTGGACTTCTTGTGTGTTCTGTGAGCTTCGCTGGATTCAGGGTCTTGGGCATCAGA
GGTCCGCCGCG**ATG**GGGAAGCCCTGGCTGCGTGCGCTACAGCTGCTGCTCCTGCTGGGCGCGTCGTGGGCGCGGG
CGGGCGCCCCGCGCTGCACCTACACCTTCGTGCTGCCCCCGCAGAAGTTCACGGGCGCTGTGTGCTGGAGCGGCC
CCGCATCCACGCGGGCGACGCCCGAGGCCGCCAACGCCAGCGAGCTGGCGGCGCTGCGCATGCGCGTCGGCCGCC
ACGAGGAGCTGTTACGCGAGCTGCAGAGGCTGGCGGCGGCCGACGGCGCCGTGGCCGGCGAGGTGCGCGCGCTGC
GCAAGGAGAGCCGCGGCCTGAGCGCGCGCCTGGGCCAGTTGCGCGCGCAGCTGCAGCACGAGGCGGGGCCCGGGG
CGGGCCCGGGGGCGGATCTGGGGGCGGAGCCTGCCGCGGCGCTGGCGCTGCTCGGGGAGCGCGTGCTCAACGCGT
CCGCCGAGGCTCAGCGCGCAGCCGCCCGGTTCCACCAGCTGGACGTCAAGTTCCGCGAGCTGGCGCAGCTCGTCA
CCCAGCAGAGCAGTCTCATCGCCCGCCTGGAGCGCCTGTGCCCGGGAGGCGCGGGCGGGCAGCAGCAGGTCCTGC
CGCCACCCCCACTGGTGCCTGTGGTTCCGGTCCGTCTTGTGGGTAGCACCAGTGACACCAGTAGGATGCTGGACC
CAGCCCCAGAGCCCCAGAGAGACCAGACCCAGAGACAGCAGGAGCCCATGGCTTCTCCCATGCCTGCAGGTCACC
CTGCGGTCCCCACCAAGCCTGTGGGCCCGTGGCAGGATTGTGCAGAGGCCCGCCAGGCAGGCCATGAACAGAGTG
GAGTGTATGAACTGCGAGTGGGCCGTCACGTAGTGTCAGTATGGTGTGAGCAGCAACTGGAGGGTGGAGGCTGGA
CTGTGATCCAGCGGAGGCAAGATGGTTCAGTCAACTTCTTCACTACCTGGCAGCACTATAAGGCGGGCTTTGGGC
GGCCAGACGGAGAATACTGGCTGGGCCTTGAACCCGTGTATCAGCTGACCAGCCGTGGGGACCATGAGCTGCTGG
TTCTCCTGGAGGACTGGGGGGGCCGTGGAGCACGTGCCCACTATGATGGCTTCTCCCTGGAACCCGAGAGCGACC
ACTACCGCCTGCGGCTTGGCCAGTACCATGGTGATGCTGGAGACTCTCTTTCCTGGCACAATGACAAGCCCTTCA
GCACCGTGGATAGGGACCGAGACTCCTATTCTGGTAACTGTGCCCTGTACCAGCGGGGAGGCTGGTGGTACCATG
CCTGTGCCCACTCCAACCTCAACGGTGTGTGGCACCACGGCGGCCACTACCGAAGCCGCTACCAGGATGGTGTCT
ACTGGGCTGAGTTTCGTGGTGGGGCATATTCTCTCAGGAAGGCCGCCATGCTCATTCGGCCCCTGAAGCTG**TGA**C
TCTGTGTTCCTCTGTCCCCTAGGCCCTAGAGGACATTGGTCAGCAGGAGCCCAAGTTGTTCTGGCCACACCTTCT
TTGTGGCTCAGTGCCAATGTGTCCCACAGAACTTCCCACTGTGGATCTGTGACCCTGGGCGCTGAAAATGGGACC
CAGGAATCCCCCCCGTCAATATCTTGGCCTCAGATGGCTCCCCAAGGTCATTCATATCTCGGTTTGAGCTCATAT
CTTATAATAACACAAAGTAGCC

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FIGURE 1514

AGGAGGCCTCGTGGAGGACACAGCAGC**ATG**GGACAGTCAGGGAGGTCCCGGCACCAGAAGCGCGCCCGCGCCCAG
GCGCAGCTCCGCAACCTCGAGGCCTATGCCGCGAACCCGCACTCGTTCGTGTTCACGCGAGGCTGCACGGGTCGC
AACATCCGGCAGCTCAGCCTGGACGTGCGGCGGGTCATGGAGCCGCTCACTGCCAGCCGTCTGCAGGTTCGTAAG
AAGAACTCGCTGAAGGACTGCGTGGCAGTGGCTGGGCCCCTCGGGGTCACACACTTTCTGATCCTGAGCAAAACA
GAGACCAATGTCTACTTTAAGCTGATGCGCCTCCCAGGAGGCCCCACCTTGACCTTCCAGGTCAAGAAGTACTCG
CTGGTGCGTGATGTGGTCTCCTCACTGCGCCGGCACCGCATGCACGAGCAGCAGTTTGCCCACCCACCCCTCCTG
GTACTCAACAGCTTTGGCCCCCATGGTATGCATGTGAAGCTCATGGCCACCATGTTCCAGAACCTGTTCCCCTCC
ATCAACGTGCACAAGGTGAACCTGAACACCATCAAGCGCTGCCTCCTCATCGACTACAACCCCGACTCCCAGGAG
CTGGACTTCCGCCACTATAGCATCAAAGTTGTTCCTGTGGGCGCGAGTCGCGGGATGAAGAAGCTGCTCCAGGAG
AAGTTCCCCAACATGAGCCGCCTGCAGGACATCAGCGAGCTGCTGGCCACGGGCGCGGGGCTGTCGGAGAGCGAG
GCAGAGCCTGACGGCGACCACAACATCACAGAGCTGCCTCAGGCTGTCGCTGGCCGTGGCAACATGCGGGCCCAG
CAGAGTGCAGTGCGGCTCACCGAGATCGGCCCGCGGATGACACTGCAGCTCATCAAGGTCCAGGAGGGCGTCGGG
GAGGGCAAAGTGATGTTCCACAGTTTTGTGAGCAAGACGGAGGAGGAGCTGCAGGCCATCCTGGAAGCCAAGGAG
AAGAAGCTGCGGCTGAAGGCGCAGAGGCAGGCCCAGCAGGCCCAGAATGTGCAGCGCAAGCAGGAGCAGCGGGAG
GCCCACAGAAAGAAGAGCCTGGAGGGCATGAAGAAGGCACGGGTCGGGGGTAGTGATGAAGAGGCCTCTGGGATC
CCTTCAAGGACGGCGAGCCTGGAGTTGGGTGAGGACGATGATGAACAGGAAGATGATGACATCGAGTATTTCTGC
CAGGCGGTGGGCGAGGCGCCCAGTGAGGACCTGTTCCCCGAGGCCAAGCAGAAACGGCTTGCCAAGTCTCCAGGG
CGGAAGCGGAAGCGGTGGGAAATGGATCGAGGCAGGGGTCGCCTTTGTGACCAGAAGTTTCCCAAGACCAAGGAC
AAGTCCCAGGGAGCCCAGGCCAGGCGGGGGCCCAGAGGGGCTTCCCGGGATGGTGGGCGAGGCCGGGGCCGGGGC
CGCCCAGGGAAGAGAGTGGCC**TGA**GCCCAAGCCGCACCGGAGCAGCGGCTGGATTGAACGCCCCAGATTGGGGCC
CGAGATGTGGCCCTCGGTTTCCTTTCATAAAGGAGTTGTGTCCCCAGCCCTTCCACTCCAGTAAAGAACTGAATT
GGC

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FIGURE 1515

CTTTTTGCG**ATG**CCTACTGGAGACTTTGATTCGAAGCCCAGTTGGGCCGACCAGGTGGAGGAGGAGGGGGAGGAC
GACAAATGTGTCACCAGCGAGCTCCTCAAGGGGATCCCTCTGGCCACAGGTGACACCAGCCCAGAGCCAGAGCTA
CTGCCGGGAGCTCCACTGCCGCCTCCCAAGGAGGTCATCAACGGAAACATAAAGACAGTGACAGAGTACAAGATA
GATGAGGATGGCAAGAAGTTCAAGATTGTCCGCACCTTCAGGATTGAGACCCGGAAGGCTTCAAAGGCTGTCGCA
AGGAGGAAGAACTGGAAGAAGTTCGGGAACTCAGAGTTTGACCCCCCCGGACCCAATGTGGCCACCACCACTGTC
AGTGACGATGTCTCTATGACGTTCATCACCAGCAAAGAGGACCTGAACTGCCAGGAGGAGGAGGACCCTATGAAC
AAACTCAAGGGCCAGAAGATCGTGTCCTGCCGCATCTGCAAGGGCGACCACTGGACCACCCGCTGCCCCTACAAG
GATACGCTGGGGCCCATGCAGAAGGAGCTGGCCGAGCAGCTGGGCCTGTCTACTGGCGAGAAGGAGAAGCTGCCG
GGAGAGCTAGAGCCGGTGCAGGCCACGCAGAACAAGACAGGGAAGTATGTGCCGCCGAGCCTGCGCGACGGGGCC
AGCCGCCGCGGGGAGTCCATGCAGCCCAACCGCAGAGCCGACGACAACGCCACCATCCGTGTCACCAACTTGTCA
GAGGACACGCGTGAGACCGACCTGCAGGAGCTCTTCCGGCCTTTCGGCTCCATCTCCCGCATCTACCTGGCTAAG
GACAAGACCACTGGCCAATCCAAGGGCTTTGCCTTCATCAGCTTCCACCGCCGCGAGGATGCTGCGCGTGCCATT
GCCGGGGTGTCCGGCTTTGGCTACGACCACCTCATCCTCAACGTCGAGTGGGCCAAGCCGTCCACCAAC**TAA**GCC
AGCTGCCACTGTGTACTCGGTCCGGGACCCTTGGCGACAGAAGACAGCCTCCGAGAGCGCGGGCTCCAAGGGCAA
TAAAGCAGCTCCACTCTC

FIGURE 1516A

TCCGCGTGGGGGGGGTGTGTGCCCGCCTTGCGCATGCGTGTTCCCTGGGCATGGCCGGCTCCGTTCCATCCTTCT
GCACAGGGTATCGCCTCTCTCCGTTTGGTACATCCCCTCCTCCCCCACGCCCGGACTGGGGTGGTAGACGCCGCC
TCCGCTCATCGCCCCTCCCCATCGGTTTCCGCGCGAAAAGCCGGGGCGCCTGCGCTGCCGCCGCCGCGTCTGCTG
AAGCCTCCGAG**ATG**CCGGCGCGTACCGCCCCAGCCCGGGTGCCCACACTGGCCGTCCCGGCCATCTCGCTGCCCG
ACGATGTCCGCAGGCGGCTCAAAGATTTGGAAAGAGACAGCTTAACAGAAAAGGAATGTGTGAAGGAGAAATTGA
ATCTCTTGCACGAATTTCTGCAAACAGAAATAAAGAATCAGTTATGTGACTTGGAAACCAAATTACGTAAAGAAG
AATTATCCGAGGAGGGCTACCTGGCTAAAGTCAAATCCCTTTTAAATAAAGATTTGTCCTTGGAGAACGGTGCTC
ATGCTTACAACCGGGAAGTGAATGGACGTCTAGAAAACGGGAACCAAGCAAGAAGTGAAGCCCGTAGAGTGGGAA
TGGCAGATGCCAACAGCCCCCCCAAACCCCTTTCCAAACCTCGCACGCCCAGGAGGAGCAAGTCCGATGGAGAGG
CTAAGCCTGAACCTTCACCTAGCCCCAGGATTACAAGGAAAAGCACCAGGCAAACCACCATCACATCTCATTTTG
CAAAGGGCCCTGCCAAACGGAAACCTCAGGAAGAGTCTGAAAGAGCCAAATCGGATGAGTCCATCAAGGAAGAAG
ACAAAGACCAGGATGAGAAGAGACGTAGAGTTACATCCAGAGAACGAGTTGCTAGACCGCTTCCTGCAGAAGAAC
CTGAAAGAGCAAAATCAGGAACGCGCACTGAAAAGGAAGAAGAAAGAGATGAAAAAGAAGAAAAGAGACTCCGAA
GTCAAACCAAAGAACCAACACCCAAACAGAAACTGAAGGAGGAGCCGGACAGAGAAGCCAGGGCAGGCGTGCAGG
CTGACGAGGACGAAGATGGAGACGAGAAAGATGAGAAGAAGCACAGAAGTCAACCCAAAGATCTAGCTGCCAAAC
GGAGGCCCGAAGAAAAAGAACCTGAAAAAGTAAATCCACAGATTTCTGATGAAAAAGACGAGGATGAAAAGGAGG
AGAAGAGACGCAAAACGACCCCCAAAGAACCAACGGAGAAAAAAATGGCTCGCGCCAAAACAGTCATGAACTCCA
AGACCCACCCTCCCAAGTGCATTCAGTGCGGGCAGTACCTGGACGACCCTGACCTCAAATATGGGCAGCACCCAC
CAGACGCGGTGGATGAGCCACAGATGCTGACAAATGAGAAGCTGTCCATCTTTGATGCCAACGAGTCTGGCTTTG
AGAGTTATGAGGCGCTTCCCCAGCACAAACTGACCTGCTTCAGTGTGTACTGTAAGCACGGTCACCTGTGTCCCA
TCGACACCGGCCTCATCGAGAAGAATATCGAACTCTTCTTTTCTGGTTCAGCAAAACCAATCTATGATGATGACC
CATCTCTTGAAGGTGGTGTTAATGGCAAAAATCTTGGCCCCATAAATGAATGGTGGATCACTGGCTTTGATGGAG
GTGAAAAGGCCCTCATCGGCTTCAGCACCTCATTTGCCGAATACATTCTGATGGATCCCAGTCCCGAGTATGCGC
CCATATTTGGGCTGATGCAGGAGAAGATCTACATCAGCAAGATTGTGGTGGAGTTCCTGCAGAGCAATTCCGACT
CGACCTATGAGGACCTGATCAACAAGATCGAGACCACGGTTCCTCCTTCTGGCCTCAACTTGAACCGCTTCACAG
AGGACTCCCTCCTGCGACACGCGCAGTTTGTGGTGGAGCAGGTGGAGAGTTATGACGAGGCCGGGGACAGTGATG
AGCAGCCCATCTTCCTGACACCCTGCATGCGGGACCTGATCAAGCTGGCTGGGGTCACGCTGGGACAGAGGCGAG
CCCAGGCGAGGCGGCAGACCATCAGGCATTCTACCAGGGAGAAGGACAGGGGACCCACGAAAGCCACCACCACCA
AGCTGGTCTACCAGATCTTCGATACTTTCTTCGCAGAGCAAATTGAAAAGGATGACAGAGAAGACAAGGAGAACG
CCTTTAAGCGCCGGCGATGTGGCGTCTGTGAGGTGTGTCAGCAGCCTGAGTGTGGGAAATGTAAAGCCTGCAAGG
ACATGGTTAAATTTGGTGGCAGTGGACGGAGCAAGCAGGCTTGCCAAGAGCGGAGGTGTCCCAATATGGCCATGA
AGGAGGCAGATGACGATGAGGAAGTCGATGATAACATCCCAGAGATGCCGTCACCCAAAAAAATGCACCAGGGGA
AGAAGAAGAAACAGAACAAGAATCGCATCTCTTGGGTCGGAGAAGCCGTCAAGACTGATGGGAAGAAGAGTTACT
ATAAGAAGGTGTGCATTGATGCGGAAACCCTGGAAGTGGGGGACTGTGTCTCTGTTATTCCAGATGATTCCTCAA
AACCGCTGTATCTAGCAAGGGTCACGGCGCTGTGGGAGGACAGCAGCAACGGGCAGATGTTTCACGCCCACTGGT
TCTGCGCTGGGACAGACACAGTCCTCGGGGCCACGTCGGACCCTCTGGAGCTGTTCTTGGTGGATGAATGTGAGG
ACATGCAGCTTTCATATATCCACAGCAAAGTGAAAGTCATCTACAAAGCCCCCTCCGAAAACTGGGCCATGGAGG
GAGGCATGGATCCCGAGTCCCTGCTGGAGGGGGACGACGGGAAGACCTACTTCTACCAGCTGTGGTATGATCAAG
ACTACGCGAGATTCGAGTCCCCTCCAAAAACCCAGCCAACAGAGGACAACAAGTTCAAATTCTGTGTGAGCTGTG
CCCGTCTGGCTGAGATGAGGCAAAAAGAAATCCCCAGGGTCCTGGAGCAGCTCGAGGACCTGGATAGCCGGGTCC
TCTACTACTCAGCCACCAAGAACGGCATCCTGTACCGAGTTGGTGATGGTGTGTACCTGCCCCCTGAGGCCTTCA
CGTTCAACATCAAGCTGTCCAGTCCCGTGAAACGCCCACGGAAGGAGCCCGTGGATGAGGACCTGTACCCAGAGC
ACTACCGGAAATACTCCGACTACATCAAAGGCAGCAACCTGGATGCCCCTGAGCCCTACCGAATTGGCCGGATCA
AAGAGATCTTCTGTCCCAAGAAGAGCAACGGCAGGCCCAATGAGACTGACATCAAAATCCGGGTCAACAAGTTCT
ACAGGCCTGAGAACACCCACAAGTCCACTCCAGCGAGCTACCACGCAGACATCAACCTGCTCTACTGGAGCGACG
AGGAGGCCGTGGTGGACTTCAAGGCTGTGCAGGGCCGCTGCACCGTGGAGTATGGGGAGGACCTGCCCGAGTGCG
TCCAGGTGTACTCCATGGGCGGCCCCAACCGCTTCTACTTCCTCGAGGCCTATAATGCAAAGAGCAAAAGCTTTG
AAGATCCTCCCAACCATGCCCGTAGCCCTGGAAACAAAGGGAAGGGCAAGGGAAAAGGGAAGGGCAAGCCCAAGT

FIGURE 1516B

CCCAAGCCTGTGAGCCGAGCGAGCCAGAGATAGAGATCAAGCTGCCCAAGCTGCGGACCCTGGATGTGTTTTCTG
GCTGCGGGGGGTTGTCGGAGGGATTCCACCAAGCAGGCATCTCTGACACGCTGTGGGCCATCGAGATGTGGGACC
CTGCGGCCCAGGCGTTCCGGCTGAACAACCCCGGCTCCACAGTGTTCACAGAGGACTGCAACATCCTGCTGAAGC
TGGTCATGGCTGGGGAGACCACCAACTCCCGCGGCCAGCGGCTGCCCCAGAAGGGAGACGTGGAGATGCTGTGCG
GCGGGCCGCCCTGCCAGGGCTTCAGCGGCATGAACCGCTTCAATTCGCGCACCTACTCCAAGTTCAAAAACTCTC
TGGTGGTTTCCTTCCTCAGCTACTGCGACTACTACCGGCCCCGGTTCTTCCTCCTGGAGAATGTCAGGAACTTTG
TCTCCTTCAAGCGCTCCATGGTCCTGAAGCTCACCCTCCGCTGCCTGGTCCGCATGGGCTATCAGTGCACCTTCG
GCGTGCTGCAGGCCGGTCAGTACGGCGTGGCCCAGACTAGGAGGCGGGCCATCATCCTGGCCGCGGCCCCTGGAG
AGAAGCTCCCTCTGTTCCCGGAGCCACTGCACGTGTTTGCTCCCCGGGCCTGCCAGCTGAGCGTGGTGGTGGATG
ACAAGAAGTTTGTGAGCAACATAACCAGGTTGAGCTCGGGTCCTTTCCGGACCATCACGGTGCGAGACACGATGT
CCGACCTGCCGGAGGTGCGGAATGGAGCCTCGGCACTGGAGATCTCCTACAACGGGGAGCCTCAGTCCTGGTTCC
AGAGGCAGCTCCGGGGCGCACAGTACCAGCCCATCCTCAGGGACCACATCTGTAAGGACATGAGTGCATTGGTGG
CTGCCCGCATGCGGCACATCCCCTTGGCCCCAGGGTCAGACTGGCGCGATCTGCCCAACATCGAGGTGCGGCTCT
CAGACGGCACCATGGCCAGGAAGCTGCGGTATACCCACCATGACAGGAAGAACGGCCGCAGCAGCTCTGGGGCCC
TCCGTGGGGTCTGCTCCTGCGTGGAAGCCGGCAAAGCCTGCGACCCCGCAGCCAGGCAGTTCAACACCCTCATCC
CCTGGTGCCTGCCCCACACCGGGAACCGGCACAACCACTGGGCTGGCCTCTATGGAAGGCTCGAGTGGGACGGCT
TCTTCAGCACAACCGTCACCAACCCCGAGCCCATGGGCAAGCAGGGCCGCGTGCTCCACCCAGAGCAGCACCGTG
TGGTGAGCGTGCGGGAGTGTGCCCGCTCCCAGGGCTTCCCTGACACCTACCGGCTCTTCGGCAACATCCTGGACA
AGCACCGGCAGGTGGGCAATGCCGTGCCACCGCCCCTGGCCAAAGCCATTGGCTTGGAGATCAAGCTTTGTATGT
TGGCCAAAGCCCGAGAGAGTGCCTCAGCTAAAATAAAGGAGGAGGAAGCTGCTAAGGAC**TAG**TTCTGCCCTCCCG
TCACCCCTGTTTCTGGCACCAGGAATCCCCAACATGCACTGATGTTGTGTTTTTAACATGTCAATCTGTCCGTTC
ACATGTGTGGTACATGGTGTTTGTGGCCTTGGCTGACATGAAGCTGTTGTGTGAGGTTCGCTTATCAACTAATGA
TTTAGTGATCAAATTGTGCAGTACTTTGTGCATTCTGGATTTTAAAAGTTTTTTATTATGCATTATATCAAATCT
ACCACTGTATGAGTGGAAATTAAGACTTTATGTAGTTTTTATATGTTGTAATATTTCTTCAAATAAATCTCTCCT
ATAAACC

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FIGURE 1517

TGTGAGGTCGCGTTCCCCAGTGTTACGGAGGGTCCTTGAGGCAGGAGTGAAAATTGGGTCTGGGGGTTAGTCCTG
GGGTGGAGGTCTGGGCACGCCGGGTCGGACCCCCTCCATCTTCGGTTTTGCACACCCCGCTTTCCAGCGCGGAGT
CGCGGCGGGTAGGGCGGCGTCGCGTGCGTGACGTCATCCAGCGGCGCCTCGCGAGGCTCCAGTGGCCTTGACCTC
CCGCGGCGTGGGAGGCTGCGCGGCG**ATG**CTGCAGTTCGTCCGGGCCGGGGCGCGGGCCTGGCTTCGGCCTACCGG
CAGCCAGGGCCTGAGTTCCCTGGCGGAAGAGGCAGCGCGTGCGACCGAGAACCCGGAGCAGGTGGCGAGCGAGGG
TCTCCCGGAGCCCGTGCTGCGCAAAGTCGAGCTCCCGGTACCCACTCATCGACGCCCAGTGCAGGCCTGGGTCGA
GTCCTTGCGGGGCTTCGAGCAGGAGCGCGTGGGCCTGGCCGACCTGCACCCCGATGTTTTCGCCACCGCGCCCAG
GCTGGACATACTGCACCAGGTTGCTATGTGGCAGAAGAACTTCAAGAGAATTAGCTATGCCAAGACCAAGACGAG
AGCCGAGGTGCGGGGCGGTGGCCGGAAGCCTTGGCCGCAGAAAGGCACTGGGCGGGCCCGGCATGGCAGCATCCG
CTCTCCGCTCTGGCGAGGAGGAGGTGTTGCCCATGGCCCCCGGGGCCCCACAAGTTACTACTACATGCTGCCCAT
GAAGGTGCGGGCGCTGGGTCTCAAAGTGGCACTGACCGTCAAGCTGGCCCAGGACGACCTGCACATCATGGACTC
CCTAGAGCTGCCCACCGGAGACCCACAGTACCTGACAGAGCTGGCGCACTACCGCCGCTGGGGGGACTCCGTACT
CCTCGTGGACTTAACACACGAGGAGATGCCACAGAGCATCGTGGAGGCCACCTCTAGGCTTAAGACCTTCAACTT
GATCCCGGCTGTTGGCCTAAATGTGCACAGCATGCTCAAGCACCAGACGCTGGTCCTGACGCTGCCCACCGTCGC
CTTCCTGGAGGACAAGCTGCTCTGGCAGGACTCACGTTACAGACCCCTCTACCCCTTCAGCCTGCCCTACAGCGA
CTTCCCCCGACCCCTACCCCACGCTACCCAGGGCCCAGCGGCCACCCCGTACCACTGT**TGA**TGTGAAGCACCTCT
TCTGAGCCAGGCCGAGCCCCTGGCCGACTTGGGAGCCTCAGGCCCACGCCCACCCTTCGAGGAAGGTGTCACCTG
GACCCCTTCATTCCACGGAGGAAGCTGAGGCCACAGGGAGCGGCCATCGCCATTGGGAAGGGGCGACTCCACGGA
AAGCCCAGACGGGCTTCTGCATCCATTCCCTCTTTTTGTTTTTAAAATAAATTGTATTTTTG

FIGURE 1518

GCGCCCCAGTCGACGCTGAGCTCCTCTGCTACTCAGAGTTGCAACCTCAGCCTCGCT**ATG**GCTCCCAGCAGCCCC
CGGCCCGCGCTGCCCGCACTCCTGGTCCTGCTCGGGGCTCTGTTCCCAGGACCTGGCAATGCCCAGACATCTGTG
TCCCCCTCAAAAGTCATCCTGCCCCGGGGAGGCTCCGTGCTGGTGACATGCAGCACCTCCTGTGACCAGCCCAAG
TTGTTGGGCATAGAGACCCCGTTGCCTAAAAAGGAGTTGCTCCTGCCTGGGAACAACCGGAAGGTGTATGAACTG
AGCAATGTGCAAGAAGATAGCCAACCAATGTGCTATTCAAACTGCCCTGATGGGCAGTCAACAGCTAAAACCTTC
CTCACCGTGTACTGGACTCCAGAACGGGTGGAACTGGCACCCCTCCCCTCTTGGCAGCCAGTGGGCAAGAACCTT
ACCCTACGCTGCCAGGTGGAGGGTGGGGCACCCCGGGCCAACCTCACCGTGGTGCTGCTCCGTGGGGAGAAGGAG
CTGAAACGGGAGCCAGCTGTGGGGGAGCCCGCTGAGGTCACGACCACGGTGCTGGTGAGGAGAGATCACCATGGA
GCCAATTTCTCGTGCCGCACTGAACTGGACCTGCGGCCCCAAGGGCTGGAGCTGTTTGAGAACACCTCGGCCCCC
TACCAGCTCCAGACCTTTGTCCTGCCAGCGACTCCCCCACAACTTGTCAGCCCCCGGGTCCTAGAGGTGGACACG
CAGGGGACCGTGGTCTGTTCCCTGGACGGGCTGTTCCCAGTCTCGGAGGCCCAGGTCCACCTGGCACTGGGGGAC
CAGAGGTTGAACCCCACAGTCACCTATGGCAACGACTCCTTCTCGGCCAAGGCCTCAGTCAGTGTGACCGCAGAG
GACGAGGGCACCCAGCGGCTGACGTGTGCAGTAATACTGGGGAACCAGAGCCAGGAGACACTGCAGACAGTGACC
ATCTACAGCTTTCCGGCGCCCAACGTGATTCTGACGAAGCCAGAGGTCTCAGAAGGGACCGAGGTGACAGTGAAG
TGTGAGGCCCACCCTAGAGCCAAGGTGACGCTGAATGGGGTTCCAGCCCAGCCACTGGGCCCGAGGGCCCAGCTC
CTGCTGAAGGCCACCCCAGAGGACAACGGGCGCAGCTTCTCCTGCTCTGCAACCCTGGAGGTGGCCGGCCAGCTT
ATACACAAGAACCAGACCCGGGAGCTTCGTGTCCTGTATGGCCCCCGACTGGACGAGAGGGATTGTCCGGGAAAC
TGGACGTGGCCAGAAAATTCCCAGCAGACTCCAATGTGCCAGGCTTGGGGGAACCCATTGCCCGAGCTCAAGTGT
CTAAAGGATGGCACTTTCCCACTGCCCATCGGGGAATCAGTGACTGTCACTCGAGATCTTGAGGGCACCTACCTC
TGTCGGGCCAGGAGCACTCAAGGGGAGGTCACCCGCAAGGTGACCGTGAATGTGCTCTCCCCCCGGTATGAGATT
GTCATCATCACTGTGGTAGCAGCCGCAGTCATAATGGGCACTGCAGGCCTCAGCACGTACCTCTATAACCGCCAG
CGGAAGATCAAGAAATACAGACTACAACAGGCCCAAAAAGGGACCCCCATGAAACCGAACACACAAGCCACGCCT
CCC**TGA**ACCTATCCCGGGACAGGGCCTCTTCCTCGGCCTTCCCATATTGGTGGCAGTGGTGCCACACTGAACAGA
GTGGAAGACATATGCCATGCAGCTACACCTACCGGCCCTGGGACGCCGGAGGACAGGGCATTGTCCTCAGTCAGA
TACAACAGCATTTGGGGCCATGGTACCTGCACACCTAAAACACTAGGCCACGCATCTGATCTGTAGTCACATGAC
TAAGCCAAGAGGAAGGAGCAAGACTCAAGACATGATTGATGGATGTTAAAGTCTAGCCTGATGAGAGGGGAAGTG
GTGGGGGAGACATAGCCCCACCATGAGGACATACAACTGGGAAATACTGAAACTTGCTGCCTATTGGGTATGCTG
AGGCCCCACAGACTTACAGAAGAAGTGGCCCTCCATAGACATGTGTAGCATCAAAACACAAAGGCCCACACTTCC
TGACGGATGCCAGCTTGGGCACTGCTGTCTACTGACCCCAACCCTTGATGATATGTATTTATTCATTTGTTATTT
TACCAGCTATTTATTGAGTGTCTTTTATGTAGGCTAAATGAACATAGGTCTCTGGCCTCACGGAGCTCCCAGTCC
TAATCACATTCAAGGTCACCAGGTACAGTTGTACAGGTTGTACACTGCAGGAGAGTGCCTGGCAAAAAGATCAAA
TGGGGCTGGGACTTCTCATTGGCCAACCTGCCTTTCCCCAGAAGGAGTGATTTTTCTATCGGCACAAAAGCACTA
TATGGACTGGTAATGGTTACAGGTTCAGAGATTACCCAGTGAGGCCTTATTCCTCCCTTCCCCCCAAAACTGACA
CCTTTGTTAGCCACCTCCCCACCCACATACATTTCTGCCAGTGTTCACAATGACACTCAGCGGTCATGTCTGGAC
ATGAGTGCCCAGGGAATATGCCCAAGCTATGCCTTGTCCTCTTGTCCTGTTTGCATTTCACTGGGAGCTTGCACT
ATGCAGCTCCAGTTTCCTGCAGTGATCAGGGTCCTGCAAGCAGTGGGGAAGGGGGCCAAGGTATTGGAGGACTCC
CTCCCAGCTTTGGAAGCCTCATCCGCGTGTGTGTGTGTGTGTATGTGTAGACAAGCTCTCGCTCTGTCACCCAGG
CTGGAGTGCAGTGGTGCAATCATGGTTCACTGCAGTCTTGACCTTTTGGGCTCAAGTGATCCTCCCACCTCAGCC
TCCTGAGTAGCTGGGACCATAGGCTCACAACACCACACCTGGCAAATTTGATTTTTTTTTTTTTCCAGAGACGG
GGTCTCGCAACATTGCCCAGACTTCCTTTGTGTTAGTTAATAAAGCTTTCTCAACTGCC

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FIGURE 1519

CAAG**ATG**GCGGCGGACGTGTCCGTTACTCACCGGCCCCCGCTGAGCCCTAAGTCTGGGGCCGAAGTCGAAGCCGG
CGATGCCGCGGAGCGCCGGGCGCCGGAAGAAGAGCTGCCGCCTCTAGATCCAGAAGAGATCCGGAAACGCCTGGA
ACACACCGAGCGCCAGTTCCGTAACCGCCGCAAGATACTGATCCGGGGCCTCCCGGGGGACGTGACCAACCAGGA
AGTACATGACCTGCTCAGTGACTATGAGCTCAAATACTGTTTTGTGGACAAATACAAAGGGACAGCCTTCGTGAC
CCTGCTGAATGGGGAGCAGGCCGAGGCCGCAATCAATGCTTTCCACCAGAGCCGCCTGCGGGAGCGTGAACTGTC
GGTGCAGCTGCAGCCCACGGATGCCCTGCTGTGTGTGGCCAACCTGCCCCCCAGCCTCACACAGCAGCAGTTCGA
GGAGCTGGTGCGGCCCTTCGGCAGCCTGGAGCGCTGCTTCCTGGTCTACAGTGAGCGCACTGGCCAATCCAAGGG
CTATGGCTTTGCTGAGTACATGAAGAAGGACTCGGCTGCCCGTGCCAAGTCGGACCTGCTGGGCAAGCCGCTGGG
ACCACGCACCCTCTACGTGCACTGGACGGATGCCGGGCAACTGACGCCTGCCCTTCTCCACTCCCGCTGCCTCTG
TGTGGACCGCCTGCCACCTGGCTTCAACGATGTGGACGCTCTGTGCCGGGCGCTGTCAGCTGTCCACAGCCCCAC
CTTCTGCCAGCTGGCGTGCGGCCAGGATGGGCAGCTGAAGGGCTTCGCGGTGCTGGAGTATGAGACGGCTGAGAT
GGCGGAGGAGGCACAGCAGCAGGCGGACGGCCTGTCCCTGGGGGGCAGCCACCTGCGAGTCTCCTTCTGCGCCCC
TGGGCCCCCCGGCCGCAGTATGCTGGCCGCTCTCATCGCTGCCCAGGCCACGGCCCTCAATCGGGGGAAGGGACT
CCTCCCCGAGCCCAACATCCTGCAGCTGCTCAACAACCTGGGCCCATCCGCGTCCCTCCAGCTGCTGCTCAACCC
CCTGCTCCATGGCAGTGCGGGGGGGAAGCAGGGCCTCCTGGGTGCCCCCCCAGCCATGCCGCTGCTCAATGGGCC
AGCCCTGTCCACGGCGCTGTTGCAGCTCGCCCTGCAGACCCAGGGCCAGAAGAAGCCCGGCATCCTGGGAGACTC
ACCCCTGGGCGCCCTCCAGCCTGGGGCCCAGCCAGCCAACCCCCTCCTCGGGGAGCTGCCTGCAGGAGGGGGCCT
GCCCCCGGAGCTGCCGCCCCGGCGAGGGAAGCCACCACCCCTGCTGCCATCCGTGCTTGGCCCTGCTGGGGGTGA
CCGGGAGGCCCTGGGCTTGGGTCCCCCAGCGGCCCAGCTCACTCCTCCCCCCGCCCCTGTGGGGCTCCGAGGCTC
TGGCCTCAGAGGCCTCCAGAAAGACAGTGGGCCTCTGCCGACGCCCCCTGGGGTCTCACTGCTGGGGGAGCCCCC
CAAGGACTACCGGATTCCCCTGAATCCCTACCTGAACCTACACAGCCTGCTCCCGGCCAGCAACCTGGCGGGTAA
GGAGGCCCGGGGCTGGGGAGGCGCCGGGAGAAGCCGCCGCCCAGCTGAGGGCCCCCCAACTAACCCCCCAGCCCC
TGGAGGTGGCAGCAGCAGCAGCAAAGCCTTCCAGCTCAAGTCCCGCCTGCTCAGCCCCCTCAGCAGCGCCCGCCT
GCCCCCCGAACCAGGACTGTCTGACAGCTACAGCTTCGACTACCCCTCGGACATGGGACCTCGGCGGCTCTTCTC
CCACCCACGGGAACCAGCCCTTGGGCCTCACGGACCCAGCCGACACAAGATGTCCCCCCCGCCCAGTGGCTTCGG
CGAACGGAGCAGCGGTGGGAGTGGCGGGGGCCCCCTGTCTCACTTCTATTCAGGCTCGCCCACTTCCTACTTCAC
CAGCGGCCTGCAGGCTGGCCTCAAGCAGAGCCACCTCAGTAAGGCAATCGGCTCTTCCCCGCTGGGGTCCGGAGA
AGGGCTCCTGGGCCTCAGCCCCGGGCCTAATGGTCACAGCCACCTGCTGAAGACCCCACTGGGCGGCCAGAAACG
CAGCTTTGCCCACCTGCTGCCCTCGCCCGAGCCCAGCCCAGAAGGCAGCTATGTGGGCCAGCACTCCCAGGGCCT
CGGCGGCCACTACGCGGACTCCTACCTGAAGCGGAAGAGGATTTTC**TAA**GTGGCTGGCACCAGAGATAACTCAAG
GGCCTGCACCAAATCGCTTTTGGGTTTTCTGATGTTTTGTTTTGTGTTTTTTTTAAACCATTTTCTCTCTTTCGG
TAATAGAAAAATCTCTGAAAGACTTTACTGACCAATCAGCCGGAGCCCCAGGAGCCCAAGGGGTGTGGGGGAGTC
TGGAGGCCTCATTATGTCTCTGGCTTGCTCCCCACGCTGAAACCCTGCAGCCTTAAGAGAGAGGGGCCCCGGCCT
GCTCTCCCTCCCTCCCCCCATCTCCTCCTCCGCTGTGCCCGTCTCTCCGGAGCCCTCCTGCCTCATTGCTCCTGT
AATTTTGGCCTTTCGAGTGCCTTGGAGGTTTCCCTGACCTCCCGTGAAGATACAGAGACTGTCTCCTTTTTTTTT
AACTTTGACAACTGACTTCTGTTTCCTTTTCTAAGTTTTATTTTTCAAACCACCCCGGACAGCCCCCAGCTCTGA
TTCCTTCAAGGCCCGGCCTGTCCGGGCCACCATTCCACACCTTGCGGTTTGAAACAGCTGTTTTTCCCACATTTG
CTGCAGGCATGGCTGTCTCCTGCCCCTGCCTGCCCATCTGGCCTATACCCCAGCCGTGGGGCCCGGGGTCCCTGC
CGCAGCCCCCTCCCCTTCTGATGCCTTAAAAGCTGGGCCCCAGGCCCTGCTGGCCAGAGCCACAGATGCCAAGCT
CTGGGAGCTTGACTATGGACCAAACAGCTCTGGCCTAGGGATTGGGCCACCCTACCCAGGATCTCCACCCTGGGG
ACAGTAGAAGGGGAAAGCCTTCATCTTGGCGAACCGGCCCCACCACCCCCTCCTACCCGGGCCTCCGTGCAGAGA
TGGGCTTTCTCTGCCAGTCCCCTGCTGTCTGTCTGTGGGAGTCGGACATTGTGCCCATCTCCCGGAGCCTCTGCT
GTCACTCGCTTGTTGAAGATGAATTCTTGAATTCTGCCTGCCCACCCCCGGCCAGATCCCTGGAGCTGGCCTCCT
TCCAGCCCAGTGCCAGAAACCAGCACTCCATGAAGATAAACTCTGGGCCCGCCCACCAGCAGGACCTGTCGACCT
GAGGTGACCCTGGGCCTTGCCCCCAGCCAACTGGGCCACCAGCTTCCCTCCCTTGACTCTGGGGGTCCACATCCA
CTCCAAGGGGACTATTCCCCCGACCCCACCCCAGTCTCCCCACACGGACCTTTGCTGAATTAAAGTTTGTAAGTA
AATGGTTTTAAAG

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FIGURE 1520A

GACGCGGGCGCGGAAGGAGCGCGGCCGGAGGTCCTCAGGAAGAAGCCGCGGGGACTGGCTGCGCTTGACAGGCTG
CACTTGGATGGGAGCACCTGGTGCCTCGGGACTGCTCCGATGCCCGGGTCTGTGCTGAATGTGTAATATGCGGAA
CTATATTGAAACATTACAACCATCTTTTGATGGCAACACCCTGAGGACCTCCCTTTTCCAGATGGGGAAACTGAG
GCCCAGAATTGCTAAGTGGCTTGCTTGAGTTGACACAGGGAGCTCCAGGACTCACCCTCAGCTGAGCCACCTGCC
GGGAGC**ATG**CCTCTGCGCCACTGGGGGATGGCCAGGGGCAGTAAGCCCGTTGGGGATGGAGCCCAGCCCATGGCT
GCCATGGGAGGCCTGAAGGTGCTTCTGCACTGGGCTGGTCCAGGCGGCGGGGAGCCCTGGGTCACTTTCAGTGAG
TCATCGCTGACAGCTGAGGAAGTCTGCATCCACATTGCACATAAAGTTGGTATCACTCCTCCTTGCTTCAATCTC
TTTGCCCTCTTCGATGCTCAGGCCCAAGTCTGGTTGCCCCCAAACCACATCCTAGAGATCCCCAGAGATGCAAGC
CTGATGCTATATTTCCGCATAAGGTTTTATTTCCGGAACTGGCATGGCATGAATCCTCGGGAACCGGCTGTGTAC
CGTTGTGGGCCCCCAGGAACCGAGGCATCCTCAGATCAGACAGCACAGGGGATGCAACTCCTGGACCCAGCCTCA
TTTGAGTACCTCTTTGAGCAGGGCAAGCATGAGTTTGTGAATGACGTGGCATCACTGTGGGAGCTGTCGACCGAG
GAGGAGATCCACCACTTTAAGAATGAGAGCCTGGGCATGGCCTTTCTGCACCTCTGTCACCTCGCTCTCCGCCAT
GGCATCCCCCTGGAGGAGGTGGCCAAGAAGACCAGCTTCAAGGACTGCATCCCGCGCTCCTTCCGCCGGCATATC
CGGCAGCACAGCGCCCTGACCCGGCTGCGCCTTCGGAACGTCTTCCGCAGGTTCCTGCGGGACTTCCAGCCGGGC
CGACTCTCCCAGCAGATGGTCATGGTCAAATACCTAGCCACACTCGAGCGGCTGGCACCCCGCTTCGGCACAGAG
CGTGTGCCCGTGTGCCACCTGAGGCTGCTGGCCCAGGCCGAGGGGGAGCCCTGCTACATCCGGGACAGTGGGGTG
GCCCCTACAGACCCTGGCCCTGAGTCTGCTGCTGGGCCCCCAACCCACGAGGTGCTGGTGACAGGCACTGGTGGC
ATCCAGTGGTGGCCAGTAGAGGAGGAGGTGAACAAGGAGGAGGGTTCTAGTGGCAGCAGTGGCAGGAACCCCCAA
GCCAGCCTGTTTGGGAAGAAGGCCAAGGCTCACAAGGCAGTCGGCCAGCCGGCAGACAGGCCGCGGGAGCCACTG
TGGGCCTACTTCTGTGACTTCCGGGACATCACCCACGTGGTGCTGAAAGAGCACTGTGTCAGCATCCACCGGCAG
GACAACAAGTGCCTGGAGCTGAGCTTGCCTTCCCGGGCTGCGGCGCTGTCCTTCGTGTCGCTGGTGGACGGCTAT
TTCCGCCTGACGGCCGACTCCAGCCACTACCTGTGCCACGAGGTGGCTCCCCCACGGCTGGTGATGAGCATCCGG
GATGGGATCCACGGACCCCTGCTGGAGCCATTTGTGCAGGCCAAGCTGCGGCCCGAGGACGGCCTGTACCTCATT
CACTGGAGCACCAGCCACCCCTACCGCCTGATCCTCACAGTGGCCCAGCGTAGCCAGGCACCAGACGGCATGCAG
AGCTTGCGGCTCCGAAAGTTCCCCATTGAGCAGCAGGACGGGGCCTTCGTGCTGGAGGGCTGGGGCCGGTCCTTC
CCCAGCGTTCGGGAACTTGGGGCTGCCTTGCAGGGCTGCTTGCTGAGGGCCGGGGATGACTGCTTCTCTCTGCGT
CGCTGTTGCCTGCCCCAACCAGGAGAAACCTCCAATCTCATCATCATGCGGGGGGCTCGGGCCAGCCCCAGGACA
CTCAACCTCAGCCAGCTCAGCTTCCACCGGGTTGACCAGAAGGAGATCACCCAGCTGTCCCACTTGGGCCAGGGC
ACAAGGACCAACGTGTATGAGGGCCGCCTGCGAGTGGAGGGCAGCGGGGACCCTGAGGAGGGCAAGATGGATGAC
GAGGACCCCCTCGTGCCTGGCAGGGACCGTGGGCAGGAGCTACGAGTGGTGCTCAAAGTGCTGGACCCTAGTCAC
CATGACATCGCCCTGGCCTTCTACGAGACAGCCAGCCTCATGAGCCAGGTCTCCCACACGCACCTGGCCTTCGTG
CATGGCGTCTGTGTGCGCGGCCCTGAAAATATCATGGTGACAGAGTACGTGGAGCACGGACCCCTGGATGTGTGG
CTGCGGAGGGAGCGGGGCCATGTGCCCATGGCTTGGAAGATGGTGGTGGCCCAGCAGCTGGCCAGCGCCCTCAGC
TACCTGGAGAACAAGAACCTGGTTCATGGTAATGTGTGTGGCCGGAACATCCTGCTGGCCCGGCTGGGGTTGGCA
GAGGGCACCAGCCCCTTCATCAAGCTGAGTGATCCTGGCGTGGGCCTGGGCGCCCTCTCCAGGGAGGAGCGGGTG
GAGAGGATCCCCTGGCTGGCCCCCGAATGCCTACCAGGTGGGGCCAACAGCCTAAGCACCGCCATGGACAAGTGG
GGGTTTGGCGCCACCCTCCTGGAGATCTGCTTTGACGGAGAGGCCCCTCTGCAGAGCCGCAGTCCCTCCGAGAAG
GAGCATTTCTACCAGAGGCAGCACCGGCTGCCCGAGCCCTCCTGCCCACAGCTGGCCACACTCACCAGCCAGTGT
CTGACCTATGAGCCAACCCAGAGGCCATCATTCCGCACCATCCTGCGTGACCTCACCCGGCTGCAGCCCCACAAT
CTTGCTGACGTCTTGACTGTGAACCCGGACTCACCGGCGTCGGACCCTACGGTTTTCCACAAGCGCTATTTGAAA
AAGATCCGAGATCTGGGCGAGGGTCACTTCGGCAAGGTCAGCTTGTACTGCTACGATCCGACCAACGACGGCACT
GGCGAGATGGTGGCGGTGAAAGCCCTCAAGGCAGACTGCGGCCCCCAGCACCGCTCGGGCTGGAAGCAGGAGATT
GACATTCTGCGCACGCTCTACCACGAGCACATCATCAAGTACAAGGGCTGCTGCGAGGACCAAGGCGAGAAGTCG
CTGCAGCTGGTCATGGAGTACGTGCCCCTGGGCAGCCTCCGAGACTACCTGCCCCGGCACAGCATCGGGCTGGCC
CAGCTGCTGCTCTTCGCCCAGCAGATCTGCGAGGGCATGGCCTATCTGCACGCGCAGCACTACATCCACCGAGAC
CTAGCCGCGCGCAACGTGCTGCTGGACAACGACAGGCTGGTCAAGATCGGGGACTTTGGCCTAGCCAAGGCCGTG
CCCGAAGGCCACGAGTACTACCGCGTGCGCGAGGATGGGGACAGCCCCGTGTTCTGGTATGCCCCAGAGTGCCTG
AAGGAGTATAAGTTCTACTATGCGTCAGATGTCTGGTCCTTCGGGGTGACCCTGTATGAGCTGCTGACGCACTGT

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FIGURE 1520B

GACTCCAGCCAGAGCCCCCCCACGAAATTCCTTGAGCTCATAGGCATTGCTCAGGGTCAGATGACAGTTCTGAGA
CTCACTGAGTTGCTGGAACGAGGGGAGAGGCTGCCACGGCCCGACAAATGTCCCTGTGAGGTCTATCATCTCATG
AAGAACTGCTGGGAGACAGAGGCGTCCTTTCGCCCAACCTTCGAGAACCTCATACCCATTCTGAAGACAGTCCAT
GAGAAGTACCAAGGCCAGGCCCCTTCAGTGTTCAGCGTGTGC**TGA**GGCACAATGGCAGCCCTGCCTGGGAGGACT
GGACCAGGCAGTGGCTGCAGAGGGAGCCTCCTGCTCCCTGCTCCAGGATGAAACCAAGAGGGGGATGTCAGCCTC
ACCCACACCGTGTGCCTTACTCCTGTCTAGAGACCCCACCTCTGTGAACTTATTTTTCTTTCTTGGCCGTGAGCC
TAACCATGATCTTGAGGGACCCAACATTTGTAGGGGCACTAATCCAGCCCTTAAATCCCCCAGCTTCCAAACTTG
AGGCCCACCATCTCCACCATCTGGTAATAAACTCATGTTTTCTCTGCTGG

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FIGURE 1521

CGCTCCTAGTCTCCACTGCTGCCGCCGTCGCCGCCACCCGAGCCGGAGCGGGCTGGGCCGCCAAGGCAAGATGGT
GGACTACAGCGTGTGGGACCACATTGAGGTGTCTGATGATGAAGACGAGACGCACCCCAACATCGACACGGCCAG
TCTCTTCCGCTGGCGGCATCAGGCCCGGGTGGAACGCATGGAGCAGTTCCAGAAGGAGAAGGAGGAACTGGACAG
GGGCTGCCGCGAGTGCAAGCGCAAGGTGGCCGAGTGCCAGAGGAAACTGAAGGAGCTGGAGGTGGCCGAGGGCGG
CAAGGCAGAGCTGGAGCGCCTGCAGGCCGAGGCACAGCAGCTGCGCAAGGAGGAGCGGAGCTGGGAGCAGAAGCT
GGAGGAGATGCGCAAGAAGGAGAAGAGCATGCCCTGGAACGTGGACACGCTCAGCAAAGACGGCTTCAGCAAGAG
CATGGTAAATACCAAGCCCGAGAAGACGGAGGAGGACTCAGAGGAGGTGAGGGAGCAGAAACACAAGACCTTCGT
GGAAAAATACGAGAAACAGATCAAGCACTTTGGTGAGTGGGGCTTGTGGGTTATGGGGGGCAAGGTCGAGGCAGG
CCCTTTGCCTCCAGGGCCCTCCAGCACCTTGCCAGCATCTTCCCACAGGC**ATG**CTTCGCCGCTGGGATGACAGCC
AAAAGTACCTGTCAGACAACGTCCACCTGGTGTGCGAGGAGACAGCCAATTACCTGGTCATTTGGTGCATTGACC
TAGAGGTGGAGGAGAAATGTGCACTCATGGAGCAGGTGGCCCACCAGACAATCGTCATGCAATTTATCCTGGAGC
TGGCCAAGAGCCTAAAGGTGGACCCCCGGGCCTGCTTCCGGCAGTTCTTCACTAAGATTAAGACAGCCGATCGCC
AGTACATGGAGGGCTTCAACGACGAGCTGGAAGCCTTCAAGGAGCGTGTGCGGGGCCGTGCCAAGCTGCGCATCG
AGAAGGCCATGAAGGAGTACGAGGAGGAGGAGCGCAAGAAGCGGCTCGGCCCCGGCGGCCTGGACCCCGTCGAGG
TCTACGAGTCCCTCCCTGAGGAACTCCAGAAGTGCTTCGATGTGAAGGACGTGCAGATGCTGCAGGACGCCATCA
GCAAGATGGACCCCACCGACGCAAAGTACCACATGCAGCGCTGCATTGACTCTGGCCTCTGGGTCCCCAACTCTA
AGGCCAGCGAGGCCAAGGAGGGAGAGGAGGCAGGTCCTGGGGACCCATTACTGGAAGCTGTTCCCAAGACGGGCG
ATGAGAAGGATGTCAGTGTG**TGA**CCTGCCCCAGCTACCACCGCCACCTGCTTCCAGGCCCCTATGTGCCCCTTTT
CAGAAAACAGATAGATGCCATCTCGCCCGCTCCTGACTTCCTCTACTTGCGCTGCTCGGCCCAGCCTGGGGGGCC
CGCCCAGCCCTCCCTGGCCTCTCCACTGTCTCCACTCTCCAGCGCCCATTCAAGTCTCTGCTTTGAGTCAAGGGG
CTTCACTGCCTGCAGCCCCCCATCAGCATTATGCCAAAGGCCCGGGGGTCCGGGGAAGGGCAGAGGTCACCAGGC
TGGTCTACCAGGTAGTTGGGGAGGGTCCCCAGCCAAGGGGCCGGCTCTCGTCACTGGGCTCTGTTTTCACTGTTC
GTCTGCTGTCTGTGTCTTCTATTTGGCAAACAGCAATGATCTTCCAATAAAAGATTTCAGATGCTCTCTGGGCTG
CTGGGAGGGCCGTTCA

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FIGURE 1522A

CGGCCGGGCGCACCCGCGGGGCCCTGGGCTCGCTGGCTTGCGCGCAGCTGAGCGGGGTGTAGGTTGGAAGGGCCA
GGGCCCCCTGGGGCGCAAGTGGGGGCCGGCGCC**ATG**GAACCCCCGACCGTCCCCTCGGAAAGGAGCCTGTCTCTG
TCACTGCCCGGGCCCCGGGAGGGCCAGGCCACCCTGAAGCCTCCCCCGCAGCACCTGTGGCGGCAGCCTCGGACC
CCCATCCGTATCCAGCAGCGCGGCTACTCCGACAGCGCGGAGCGCGCCGAGCGGGAGCGGCAGCCGCACCGGCCC
ATAGAGCGCGCCGATGCCATGGACACCAGCGACCGGCCCGGCCTGCGCACGACCCGCATGTCCTGGCCCTCGTCC
TTCCATGGCACTGGCACCGGCAGCGGCGGCGCGGGCGGAGGCAGCAGCAGGCGCTTCGAGGCAGAGAATGGGCCG
ACACCATCTCCTGGCCGCAGCCCCCTGGACTCGCAGGCGAGCCCAGGACTCGTGCTGCACGCCGGGGCGGCCACC
AGCCAGCGCCGGGAGTCCTTCCTGTACCGCTCAGACAGCGACTATGACATGTCACCCAAGACCATGTCCCGGAAC
TCATCGGTCACCAGCGAGGCGCACGCTGAAGACCTCATCGTAACACCATTTGCTCAGGTGCTGGCCAGCCTCCGG
AGCGTCCGTAGCAACTTCTCACTCCTGACCAATGTGCCCGTTCCCAGTAACAAGCGGTCCCCGCTGGGCGGCCCC
ACCCCTGTCTGCAAGGCCACGCTGTCAGAAGAAACGTGTCAGCAGTTGGCCCGGGAGACTCTGGAGGAGCTGGAC
TGGTGTCTGGAGCAGCTGGAGACCATGCAGACCTATCGCTCTGTCAGCGAGATGGCCTCGCACAAGTTCAAAAGG
ATGTTGAACCGTGAGCTCACACACCTGTCAGAAATGAGCAGGTCCGGAAACCAGGTCTCAGAGTACATTTCCACA
ACATTCCTGGACAAACAGAATGAAGTGGAGATCCCATCACCCACGATGAAGGAACGAGAAAAACAGCAAGCGCCG
CGACCAAGACCCTCCCAGCCGCCCCCGCCCCCTGTACCACACTTACAGCCCATGTCCCAAATCACAGGGTTGAAA
AAGTTGATGCATAGTAACAGCCTGAACAACTCTAACATTCCCCGATTTGGGGTGAAGACCGATCAAGAAGAGCTC
CTGGCCCAAGAACTGGAGAACCTGAACAAGTGGGGCCTGAACATCTTTTGCGTGTCGGATTACGCTGGAGGCCGC
TCACTCACCTGCATCATGTACATGATATTCCAGGAGCGGGACCTGCTGAAGAAATTCCGCATCCCTGTGGACACG
ATGGTGACATACATGCTGACGCTGGAGGATCACTACCACGCTGACGTGGCCTACCATAACAGCCTGCACGCAGCT
GACGTGCTGCAGTCCACCCACGTACTGCTGGCCACGCCTGCACTAGATGCAGTGTTCACGGACCTGGAGATTCTC
GCCGCCCTCTTCGCGGCTGCCATCCACGATGTGGATCACCCTGGGGTCTCCAACCAGTTCCTCATCAACACCAAT
TCGGAGCTGGCGCTCATGTACAACGATGAGTCGGTGCTCGAGAATCACCACCTGGCCGTGGGCTTCAAGCTGCTG
CAGGAGGACAACTGCGACATCTTCCAGAACCTCAGCAAGCGCCAGCGGCAGAGCCTACGCAAGATGGTCATCGAC
ATGGTGCTGGCCACGGACATGTCCAAGCACATGACCCTCCTGGCTGACCTGAAGACCATGGTGGAGACCAAGAAA
GTGACCAGCTCAGGGGTCCTCCTGCTAGATAACTACTCCGACCGCATCCAGGTCCTCCGGAACATGGTGCACTGT
GCCGACCTCAGCAACCCCACCAAGCCGCTGGAGCTGTACCGCCAGTGGACAGACCGCATCATGGCCGAGTTCTTC
CAGCAGGGTGACCGAGAGCGCGAGCGTGGCATGGAAATCAGCCCCATGTGTGACAAGCACACTGCCTCCGTGGAG
AAGTCTCAGGTGGGTTTTATTGACTACATTGTGCACCCATTGTGGGAGACCTGGGCGGACCTTGTCCACCCAGAT
GCCCAGGAGATCTTGGACACTTTGGAGGACAACCGGGACTGGTACTACAGCGCCATCCGGCAGAGCCCATCTCCG
CCACCCGAGGAGGAGTCAAGGGGGCCAGGCCACCCACCCCTGCCTGACAAGTTCCAGTTTGAGCTGACGCTGGAG
GAGGAAGAGGAGGAAGAAATATCAATGGCCCAGATACCGTGCACAGCCCAAGAGGCATTGACTGCGCAGGGATTG
TCAGGAGTCGAGGAAGCTCTGGATGCAACCATAGCCTGGGAGGCATCCCCGGCCCAGGAGTCGTTGGAAGTTATG
GCACAGGAAGCATCCCTGGAGGCCGAGCTGGAGGCAGTGTATTTGACACAGCAGGCACAGTCCACAGGCAGTGCA
CCTGTGGCTCCGGATGAGTTCTCGTCCCGGGAGGAATTCGTGGTTGCTGTAAGCCACAGCAGCCCCTCTGCCCTG
GCTCTTCAAAGCCCCCTTCTCCCTGCTTGGAGGACCCTGTCTGTTTCAGAGCATGCCCCGGGCCTCCCGGGCCTC
CCCTCCACGGCGGCCGAGGTGGAGGCCCAACGAGAGCACCAGGCTGCCAAGAGGGCTTGCAGTGCCTGCGCAGGG
ACATTTGGGGAGGACACATCCGCACTCCCAGCTCCTGGTGGCGGGGGGTCAGGTGGAGACCCTACC**TGA**TCCCCA
GACCTCTGTCCCTGTTCCCCTCCACTCCTCCCCTCACTCCCCTGCTCCCCCGACCACCTCCTCCTCTGCCTCAAA
GACTCTTGTCCTCTTGTCCCTCCTGAGAAAAAAGAAAACGAAAAGTGGGGTTTTTTTCTGTTTTCTTTTTTTCCC
CTTTCCCCCTGCCCCCACCCACGGGGCCTTTTTTTGGAGGTGGGGGCTGGGGAATGAGGGGCTGAGGTCCCGGAA
GGGATTTTATTTTTTTGAATTTTAATTGTAACATTTTTAGAAAAAGAACAAAAAAAGAAAAAAAAAAGAAAGAAA
CACAGCAACTGTAGATGCTCCTGTTCCTGGTTCCCGCTTTCCACTTCCAAATCCCTCCCCTCACCTTCCCCCACT
GCCCCCCAAGTTCCAGGCTCAGTCTTCCAGCCGCCTGGGGAGTCTCTACCTGGGCCCAAGCAGGTGTGGGGCCTC
CTTCTGGGCTTTTCTTCTGAATTTAGAGGATTTCTAGAACGTGGTCAGGAATAGCCATTCTAGGCGGGGCTGGGG
CCAGGGTGGGGGGCAGTCACTGTGGGAGGTCCCAGCTCCAGCCCCCCTCTGGTTTGCTGCCTCCTCTCCCCTCTA
AAAAAGTCTTCCGCTTGATTTTGCACAATCCCGGCGATACTCCTGGCGATACTGACTAGAAAGTCAGGGAGCTGG
GGGAGCTGTTCACTTTAGGATACGGGGGTGGTATGGAAGGGAGCGTTCACACCGCCAGCCTCGGGCCTGGGATTT
GAGGAGGGCCCTAGACCTCCTCCACTCTCCATCCCCTTTCCCTTCCACTTTGGGTTCACTTTGAATTTTCTCCGT

FIGURE 1522B

TTTTTGGGGCAGTGGCTCTGATCCACTCACCCCCCCGCCCC

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FIGURE 1523

CGCGCAGCGATGGAGGCGCCGGGGCTCGGGCGGTGGAGGCGGAGCCGGAGCGGGGCCATGGCGGGGTCCCTGAGT
GCCAGAGGTGGTGGTGTTGCTTATCTTCTGGAACCCC**ATG**CAGCCAGATCCCAGGCCTAGCGGGGCTGGGGCCTG
CTGCCGATTCCTGCCCCTGCAGTCACAGTGCCCTGAGGGGGCAGGGGACGCGGTGATGTACGCCTCCACTGAGTG
CAAGGCGGAGGTGACGCCCTCCCAGCATGGCAACCGCACCTTCAGCTACACCCTGGAGGATCATACCAAGCAGGC
CTTTGGCATCATGAACGAGCTGCGGCTCAGCCAGCAGCTGTGTGACGTCACACTGCAGGTCAAGTACCAGGATGC
ACCGGCCGCCCAGTTCATGGCCCACAAGGTGGTGCTGGCCTCATCCAGCCCTGTCTTCAAGGCCATGTTCACCAA
CGGGCTGCGGGAGCAGGGCATGGAGGTGGTGTCCATTGAGGGTATCCACCCCAAGGTCATGGAGCGCCTCATTGA
ATTCGCCTACACGGCCTCCATCTCCATGGGCGAGAAGTGTGTCCTCCACGTCATGAACGGTGCTGTCATGTACCA
GATCGACAGCGTTGTCCGTGCCTGCAGTGACTTCCTGGTGCAGCAGCTGGACCCCAGCAATGCCATCGGCATCGC
CAACTTCGCTGAGCAGATTGGCTGTGTGGAGTTGCACCAGCGTGCCCGGGAGTACATCTACATGCATTTTGGGGA
GGTGGCCAAGCAAGAGGAGTTCTTCAACCTGTCCCACTGCCAACTGGTGACCCTCATCAGCCGGGACGACCTGAA
CGTGCGCTGCGAGTCCGAGGTCTTCCACGCCTGCATCAACTGGGTCAAGTACGACTGCGAACAGCGACGGTTCTA
CGTCCAGGCGCTGCTGCGGGCCGTGCGCTGCCACTCGTTGACGCCGAACTTCCTGCAGATGCAGCTGCAGAAGTG
CGAGATCCTGCAGTCCGACTCCCGCTGCAAGGACTACCTGGTCAAGATCTTCGAGGAGCTCACCCTGCACAAGCC
CACGCAGGTGATGCCCTGCCGGGCGCCCAAGGTGGGCCGCCTGATCTACACCGCGGGCGGCTACTTCCGACAGTC
GCTCAGCTACCTGGAGGCTTACAACCCCAGTGACGGCACCTGGCTCCGGTTGGCGGACCTGCAGGTGCCGCGGAG
CGGCCTGGCCGGCTGCGTGGTGGGCGGGCTGTTGTACGCCGTGGGCGGCAGGAACAACTCGCCCGACGGCAACAC
CGACTCCAGCGCCCTGGACTGTTACAACCCCATGACCAATCAGTGGTCGCCCTGCGCCCCCATGAGCGTGCCCCG
TAACCGCATCGGGGTGGGGGTCATCGATGGCCACATCTATGCCGTCGGCGGCTCCCACGGCTGCATCCACCACAA
CAGTGTGGAGAGGTATGAGCCAGAGCGGGATGAGTGGCACTTGGTGGCCCCAATGCTGACACGAAGGATCGGGGT
GGGCGTGGCTGTCCTCAATCGTCTCCTTTATGCCGTGGGGGGCTTTGACGGGACAAACCGCCTTAATTCAGCTGA
GTGTTACTACCCAGAGAGGAACGAGTGGCGAATGATCACAGCAATGAACACCATCCGAAGCGGGGCAGGCGTCTG
CGTCCTGCACAACTGTATCTATGCTGCTGGGGGCTATGATGGTCAGGACCAGCTGAACAGCGTGGAGCGCTACGA
TGTGGAAACAGAGACGTGGACTTTCGTAGCCCCCATGAAGCACCGGCGAAGTGCCCTGGGGATCACTGTCCACCA
GGGGAGAATCTACGTCCTTGGAGGCTATGATGGTCACACGTTCCTGGACAGTGTGGAGTGTTACGACCCAGATAC
AGACACCTGGAGCGAGGTGACCCGAATGACATCGGGCCGGAGTGGGGTGGGCGTGGCTGTCACCATGGAGCCCTG
CCGGAAGCAGATTGACCAGCAGAACTGTACCTGT**TGA**GGCACTTTTGTTTCTTGGGCAAAAATACAGTCCAATGG
GGAGTATCATTGTTTTTGTACAAAAACCGGGACTAAAAGAAAAGACAGCACTGCAAATAACCCATCTTCCGGGAA
GGGAGGCCAGGATGCCTCAGTGTTAAAATGACATCTCAAAAGAAGTCCAAAGCGGGAATCATGTGCCCCTCAGCG
GAGCCCCGGGAGTGTCCAAGACAGCCTGGCTGGGAAAGGGGGTGTGGAAAGAGCAGGCTTCCAGGAGAGAGGCCC
CCAAACCCTCTGGCCGGGTAATAGGCCTGGGTCCCACTCACCCATGCCGGCAGCTGTCACCATGTGATTTATTCT
TGGATACCTGGGAGGGGGCCAATGGGGGCCTCAGGGGGAGGCCCCCTCTGGAAATGTGGTTCCCAGGGATGGGCC
TGTACATAGAAGCCACCGGATGGCACTTCCCCACCGGATGGACAGTTATTTTGTTGATAAGTAACCCTGTAATTT
TCCAAGGAAAATAAAGAACAGACTAACTAGTGTCTTTC

FIGURE 1524

GACCGGGGGCGAGCGGGCGGGCGGGCAGGCGCGCGCCGGGGAGGTGCGGGAACACGTGACCGGCTGAAGCCCCGC
CCCCTTTGACGCCGCGTTGCGCCTCGACGCAGGCCCAACCCAAATGGGAGGGAGGGGCGAAAAGAGATAAGGGGG
GGGCTGAGGGGGTGGGCGTGAGTTGCACGTGGTGCAAGCGGGAGTGTTTGCGTGCGTAGTCACGTGACTTCGGCA
CCTTTCCCTCCGCTTTCGATAGGTTGCTCCATCATGTGACAATGGCGAATTTCGCGGTTTCCTTCGCCATCTGAC
AACTTTTGGCGCCTTCCCTTTGCCGTACTGGGAGTCCTCCATCACGTGACGAGGGCACGCTCTGGTTTTCGCTAA
GGCGTTTTTTGAGCGGCCATTACCACGTGATGCAAGGCAAGCGTCAGAGGCGGAGCCTCCCTACGGCTGCGACAT
TTTGCGCCTGCGCGGCCGCCATCTTACGCCCGTCGCCCTGAGTACGTTAGCGGAAATGGCTCCGAGAGGCTTTGA
CGCATGTGTACCTTTTTAGTGGCGGTATCTCGGCCGGGGATTTTCGGGCTCCAGTGGAGGTGGCTATGCTCACCC
CATCTCCCTTGAGAGGCACAGAAGGTTAGAGATGTGTGCGAGGAACGGCCAGGTCCAGCGTCTCCTCGTTGCTGC
CCCTTGAGCCCGGGACCGGCGCCAATGCGCGCCCGGGTTCTTGGGTTCTTTCGTCCCGCAGACCTGCCTTGGTGT
GGCGTCCCTGGGCCGTAGCTTCCGAAGGCTGCAGCCGACCTGGTCGGGGTCCTCTAGCCCGCCTTCCCCTTCCCC
CATTGACAGATGGAGAAACTGAGGCCCAGGCCAAAAAATATCTCACTAGAGGGCTCACCGCCATTTCCTGGAAAA
ATTGGGGCTGGGACTCAACGGACGCTCGTCCAGCAGCAGCGCGGAGCTCCGAAGTAAAGGCGCCCGTGACCGAGT
GCTTTGTCCTTACAAGCGTGGTGTTCTTGAATGCTTCCAGGCGCCTTATGAGGCCCCCGATGTACAATCTGTGCT
TAACTAAACCCCACTGTCTTCCAGGGTCAGGTTGGCCATCCGCAGGCGTAGTTGCTAGGAAGGTTTGACAGATGT
CCGCCTGTTGATTCAGACGTTCCCAGGATTTGGAGCAAGAAGAGCAAGGAAGGCCAGGCGCGGTGGCTCACGTTT
GTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGTTCGAGACCAGCCTGGCCAGCATG
GTGAAACCCCGTCTCTACTAAAAATACAAAAGAAAATTAGCCGGGTGTGGTGGCACATGCCTGTAGTCCCACCTA
CTTGGGAGGCTGAGGCAGGAGAATTGTTTGACCTGGCAGGCGGAGGTTGCAGTGAGCCGAGATTGCGCCACTGCA
CTCCAGTCTGGGCGACAGAGCGAGACTCTGTCTCAGAAAAAAAAAAAGAGCAAGGAGGTGTTGAAAATGGGTTTCC
TGGCTGGGCGTGGTGGCTCACGCTTGTAATCCCAGCACTTTGGGAAGCTGAGGTGGGCGGATCACTTGAGGTCAG
GAGTTTGAGACCAGCCTGGCCAACATGGTGAAACACCGTCTCCACTAAAAATAGAAAAATTAACTGGGTGTGGTG
GAGGGCGCCTGTAATCCCAGCTAATCAGGAAGCTGAGACAGGAGGATCGCTTGAACCCAGGAGGCGGAGGTTGCA
GTGAGCCGAGATTGCTCCATTGCACTCCAGCCTGGGCGATAGAGTGAGACTCAGCCTCAAAAAAAAAAAAAAAAAA
AAAATTCGCCAGGTGTGGTGGTGTGCGCCTATAATCCCAGCTACTCAGGAGGCAGAGGCACAAGAATGGCTTGAA
TCACTTGAACCTGGGAGGCAGAGGTTACAATGAGCCGAG**ATG**GCACCACTGCACTCCAGCCTGGGCGACAGAGCG
AGACTCCGACTTCCCATCTTAAAAAAAAAAAAAAAAAAAAAAAAAGAAGTGTAAAGATGTGATTATGTGGCAGGGG
GTAAGGGTTAAAAAGAAAACAAGAACAAGTTTTCCTCTGCTTAGCCAGCTTACTTCAAGGACAGTTATAACACTG
AAAAGTCGAGGCCAAAGGAATGGGCTCCAGACAGCCTCCTCCGGAGCAAAGTTGAAAAGAAAAATTCCTTTACTG
TCTCTCCTTTTC**TGA**ACCATTAAATATGACTGTTTGCCAATGGTTGTATTTAGTAAGATTTGTAGACTCTGTTTT
TCTTTTGACACAGCTGCAAGGCCAACAGCTGTGCAAAGCCACAAGTTATGCTAAGTCAGCAGTTATGCTATAGAT
TACATGACCTGTGACTGTATCATTAACTGCTTTTGTTTTGCTTCTGTAAGTTTGCCTATAAAAACCACACTCAGT
CTTTGTTCAATGGTCAGCTTTTCAGATACAAATCCACTGAGCCGGTGTACATCTAAATAAATCCTCCTGTTTCCC
GT

FIGURE 1525

GCGTCCA**ATG**CGAATTTTTGTGAATGATGACCGCCATGTGATGGCAAAGCATTCTTCCGTTTATCCAACACAAGA
GGAGCTGGAGGCAGTCCAGAACATGGTGTCCCACACGGAGCGGGCGCTCAAAGCTGTGTCCGACTGGATAGACGA
GCAGGAAAAGGGTAGCAGCGAGCAGGCAGAGTCCGATAACATGGATGTGCCCCCAGAGGACGACAGTAAAGAAGG
GGCTGGGGAACAGAAGACGGAGCACATGACCAGAACCCTGCGGGGAGTGATGCGGGTGGGCCTGGTGGCAAAGGG
CCTCCTACTCAAGGGGGACTTGGATCTGGAGCTGGTGCTGCTGTGTAAGGAGAAGCCCACAACCGCCCTCCTGGA
CAAGGTGGCCGACAACCTGGCCATCCAGCTTGCTGCTGTAACAGAAGACAAGTACGAAATACTGCAATCTGTCGA
CGATGCTGCGATTGTGATAAAAAACACAAAAGAGCCTCCATTGTCCCTGACCATCCACCTGACATCCCCTGTTGT
CAGAGAAGAAATGGAGAAAGTATTAGCTGGAGAAACGCTATCAGTCAACGACCCCCCGGACGTTCTGGACAGGCA
GAAATGCCTTGCTGCCTTGGCGTCCCTCCGACACGCCAAGTGGTTCCAGGCCAGAGCCAACGGGCTGAAGTCTTG
TGTCATTGTGATCCGGGTCTTGAGGGACCTGTGCACTCGCGTGCCCACCTGGGGTCCCCTCCGAGGCTGGCCTCT
CGAGCTCCTGTGTGAGAAATCCATTGGCACGGCCAACAGACCGATGGGTGCTGGCGAGGCCCTGCGGAGAGTGCT
GGAGTGCCTGGCGTCGGGCATCGTGATGCCAGATGGTTCTGGCATTTATGACCCTTGTGAAAAAGAAGCCACTGA
TGCTATTGGGCATCTAGACAGACAGCAACGGGAAGATATCACACAGAGTGCGCAGCACGCACTGCGGCTCGCTGC
CTTCGGCCAGCTCCATAAAGTCCTAGGCATGGACCCTCTGCCTTCCAAGATGCCCAAGAAACCAAAGAATGAAAA
CCCAGTGGACTACACCGTTCAGATCCCACCAAGCACCACCTATGCCATTACGCCCATGAAACGCCCAATGGAGGA
GGACGGGGAGGAGAAGTCGCCCAGCAAAAAGAAGAAGAAGATTCAGAAGAAAGAGGAGAAGGCAGAGCCCCCCCA
GGCTATGAATGCCCTGATGCGGTTGAACCAGCTGAAGCCAGGGCTGCAGTACAAGCTGGTGTCCCAGACTGGGCC
CGTCCATGCCCCCATCTTTACCATGTCTGTGGAGGTTGATGGCAATTCATTCGAGGCCTCTGGGCCCTCCAAAAA
GACGGCCAAGCTGCACGTGGCCGTTAAGGTGTTACAGGACATGGGCTTGCCGACGGGTGCTGAAGGCAGGGACTC
GAGCAAGGGGGAGGACTCGGCTGAGGAGACCGAGGCGAAGCCAGCAGTGGTGGCCCCTGCCCCAGTGGTAGAAGC
TGTCTCCACCCCTAGTGCGGCCTTTCCCTCAGATGCCACTGCCGAGCAGGGGCCGATCCTGACAAAGCACGGCAA
GAACCCAGTCATGGAGCTGAACGAGAAGAGGCGTGGGCTCAAGTACGAGCTCATCTCCGAGACCGGGGGCAGCCA
CGACAAGCGCTTCGTCATGGAGGTCGAAGTGGATGGACAGAAGTTCCAAGGTGCTGGTTCCAACAAAAAGGTGGC
GAAGGCCTACGCTGCTCTTGCTGCCCTAGAAAAGCTTTTCCCTGACACCCCTCTCGCCCTTGATGCCAACAAAAA
GAAGAGAGCCCCAGTACCCGTCAGAGGGGGACCGAAATTTGCTGCTAAGCCACATAACCCTGGCTTCGGCATGGG
AGGCCCCATGCACAACGAAGTGCCCCCACCCCCCAACCTTCGAGGGCGGGGAAGAGGCGGGAGCATCCGGGGACG
AGGGCGCGGGCGAGGATTTGGTGGCGCCAACCATGGAGGCTACATGAATGCCGGTGCTGGGTATGGAAGCTATGG
GTACGGAGGCAACTCGGCGACAGCAGGCTACAGTCAGTTCTACAGCAACGGAGGGCATTCTGGGAATGCCAGTGG
CGGTGGCGGCGGGGGCGGTGGTGGCTCCTCCGGCTATGGCTCCTACTACCAAGGTGACAACTACAACTCACCGGT
GCCCCCAAAACACGCTGGGAAGAAGCAGCCGCACGGGGGCCAGCAGAAGCCCTCCTACGGCTCGGGCTACCAGTC
CCACCAGGGCCAGCAGCAGTCCTACAACCAGAGCCCCTACAGCAACTATGGCCCTCCACAGGGCAAGCAGAAAGG
CTATAACCATGGACAAGGCAGCTACTCCTACTCGAACTCCTACAACTCTCCCGGGGGCGGGGGCGGATCCGACTA
CAACTACGAGAGCAAATTCAACTACAGTGGTAGTGGAGGCCGAAGCGGCGGGAACAGCTACGGCTCAGGCGGGGC
ATCCTACAACCCAGGGTCACACGGGGGCTACGGCGGAGGTTCTGGGGGCGGCTCCTCATACCAAGGCAAACAAGG
AGGCTACTCACAGTCGAACTACAACTCCCCGGGGTCCGGCCAGAACTACAGTGGCCCTCCCAGCTCCTACCAGTC
CTCACAAGGCGGCTATGGCAGAAACGCAGACCACAGCATGAACTACCAGTACAGA**TAA**GCCCCCGCGGGGCGGAG
ATTTCTACCTTCTGCACTTACTCCCCATCAGAAGATCGAGTTTTATGCATCACAGTTAACATGTCAGCTGGCCCT
CCAGGCCCCCGCCCCCATCCCGTCCACGTTGCTGTGTCGTGAGGTGCAGCGGGTCACCCTGTGGCCCGTCCTGTG
ACCCATATTTAGCCGTGTTTGGGACTCCGTGTCTTCAATGGTTTGTTAGTTGCCATTACAACTTTGTCTGGGTAG
AGTTTTTGAGTTTTTGCAGTTCAGTATCCCTCTGTCTATTCACACTTCGTGTTAGTGGTAACTCAGTTTGTCTTT
AAATAGTTACAGAAGGGATACGTCATTTGTTAATGCTTTTGTGAAGTGAGTTAAACGAGCTTTCTGTATTTTAAT
GCTTTAGTGTTTCAGTTTTATAAGTGAAGATTTTATTTTAAAAACCAGTGGGAAAGAGTGGGGGGTTTCTTTTTA
TGTCTGGGTCATTCAGGCAGTACATCTGAATTAAGCTGAATGTAGACAAATAAAGAAAAACAAAACT

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FIGURE 1526

GTTAGAGCAGAGGAGGTCCCAGATACCAAGTGGCGCCTCCCAGGAAAGGCTGGGAGAAGAGGTGGCCTGGAGTAC
CCCGAGATCCCAGCAGCGCACACAGTGGAGGGATGAGGATGGATGGGTCCTAACCCCTGATTTTGATGGGATGTG
TTCATGTCCTATCTCCTCTCCTGGACACATTAAGGGGTTGGGACAAGAAGAGACTCCTGTGAGATCAGCAGACCT
CGTGTTTAAGGAGAGAATGCCTGCCTGCAACACTCATGGAGAGGGACACTTCCTGGCCCCACCTGCTAAATACCT
CCAAACTCTGGGCAGGCGCCTGCATTCTCAACACAGGACTTCCCTTAACAGTTTCCGGATCAGTGACCACCACCA
CGTTCAGGTTTCTGAATGCAGACCCACCACGAGGGATGGATTCCACCCGCCCGCCCTGCTGCAGATACATGCGGC
ACAGCAGGCACGTGCCTGGAGAGAACAGCTCCTGAGCACAGCACCCTTGGAGCCCTCACCCCGCTCACGATCCTC
ACCAGTGCTGATGATGCCGTCATGCTGCTGGCCTGAGACAGTATCCCAGCTACAACAGGACGACACCGGGTTCAG
GAATATGTGGCTATCACCTTGAGCACTGACAGTGGCCTTCCAGGCTAGTTGCCTTCCAAACGCAGGTAGCCGACC
TGCAGGAGGGCCTACAAACGGGCCCAGCAAGAGCTGGGCAACAGCTGGCTTGTGAAATGAGACACCTTGACCAAT
ATGCTTTGGGTGGACGGTCTCCTACATGTTCAGTGGAGGCCACCAGGAGCATCCATGAGCGGGGAAGGGGTCCAC
ACCCTTACATGGCAAGTTGATACGATGGGGTGCTTGGTGGATGGGCCATGGAGGTCCGTGAGCTGGAACTGGGCA
CACGCCATCCCAGAGGGCTCAGGATGCCCCAGGAAGGAAAGAAGGGCAACAGACTACACGATTGGACGTGTGTGG
TTGACTGGGATGAAGTTGGAGGGAGGGGCAGGGCCTTGCAGGGGATTGGTACTGATCCCAGGGAGGAAGTGTTGG
GGCTTCATGAACTAGGATGAAAGGAGGCCCCTGAGCCATGACAAGGGGCACATCCAGGATTTCCGCCACCCTGAA
TTTAGTAGAGCTAGTAGGCCCTGGTCGTCACTCTGGGCAGGGATGCCGTCAGCCTTGAGGGTCGCCACCCACCTG
TGTGTTGCCCTCTGTCCTGGCAGGGAAACATACACCCCTTGTCTCACCACCAACCTTGCTTGTGTAGTCAGCAGG
GCTGGCCCTGCCCCAAGGACTCACTGCATGTACCCGGACCCCTAGGCCTGGCCTTTGCAGCATAGTTGGGAGCTT
CTGGATTCCATCTGCACCTGTGAGCCCCATGCTGGCTGTGCACTGCGCGGGCCTGAGACTGCTGGATACAATGTT
GGGCAACAACTCAGCCAGCCTGATGGCAGCCTCAGAGGCTTACTCTAACCCATCCCAGAATAAATGGAGACTTCA
TGTGTT

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FIGURE 1527

GTCAAG**ATG**GCGGGAGCAGCTACCCAGGCTTCCCTGGAGTCGGCCCCACGGATCATGCGGCTGGTGGCCGAATGC
AGCCGCTCCAGGGCCCGGGCAGGCGAGCTGTGGCTGCCGCATGGGACAGTGGCCACTCCTGTGTTCATGCCAGTG
GGCACGCAGGCCACCATGAAGGGCATCACGACCGAACAGCTGGACGCTCTGGGTTGCCGCATCTGCCTGGGCAAT
ACCTACCATCTGGGTCTAAGGCCGGGACCCGAGCTGATCCAGAAAGCCAACGGTCTCCACGGCTTCATGAATTGG
CCTCATAATCTGCTAACGGACAGCGGCGGTTTCCAGATGGTGTCGCTGGTGTCTCTGTCCGAGGTGACGGAGGAG
GGCGTCCGCTTCCGCTCCCCCTACGACGGCAATGAGACCCTGCTGAGCCCGGAGAAATCCGTGCAGATCCAGAAT
GCGCTGGGCTCGGACATCATCATGCAGCTGGACGACGTGGTTAGCAGTACTGTGACTGGGCCACGTGTGGAGGAG
GCCATGTACAGGTCAATCCGCTGGCTGGACCGGTGCATTGCAGCCCATCAGCGGCCGGACAAGCAGAACCTCTTC
GCCATTATCCAGGGTGGGCTGGACGCAGATCTCCGGGCCACCTGCCTTGAAGAGATGACCAAGCGAGACGTGCCT
GGCTTCGCCATCGGGGGCCTGAGCGGGGGTGAGAGCAAGTCGCAGTTCTGGCGGATGGTGGCGCTGAGCACCTCT
CGGCTGCCGAAGGACAAGCCCCGATATCTGATGGGGGTTGGCTATGCCACTGATCTGGTAGTCTGCGTGGCTCTT
GGATGTGACATGTTCGACTGCGTCTTCCCCACACGGACAGCGCGCTTTGGCTCTGCCCTGGTGCCCACTGGGAAC
CTGCAGTTGAGGAAGAAGGTGTTTGAGAAGGACTTCGGCCCCATAGACCCGGAGTGCACCTGCCCCACGTGCCAA
AAGCACAGCCGCGCCTTCCTGCACGCACTGCTGCACAGTGACAACACGGCCGCGCTGCACCACCTCACGGTCCAC
AACATCGCCTACCAGCTGCAGCTCATGAGCGCCGTCCGCACCAGCATCGTGGAGAAGCGCTTCCCGGACTTCGTG
CGGGACTTCATGGGCGCCATGTACGGGGATCCCACCCTCTGTCCCACCTGGGCCACTGACGCTCTGGCCTCTGTG
GGAATCACACTGGGC**TGA**CCTGGCATTGGGAGAGGGAGGGAGGAAGGAAGGGAGGGAGGGGCTGGAAGATACTGA
AGGATTCCTTTTTGAAAGGTTTTTTTTATTGTAACTT

FIGURE 1528A

GACCGTGAGGCCGAGCCGGGAGCGGGCGTCTTGCCGAGGCCCGGGCGGGCGGGGAGCAACGGCTACAGACGCCGC
GGGGCCAGGTCGTTGAGGGTCGGCGGCGGGCGAGGAGCGCAGGGCGCTCGGGCCGGGGGCCGCCGGCGCC**ATG**GG
CAACCGCGGGATGGAAGAGCTGATCCCGCTGGTCAACAAACTGCAGGACGCCTTCAGCTCCATCGGCCAGAGCTG
CCACCTGGACCTGCCGCAGATCGCTGTAGTGGGCGGCCAGAGCGCCGGCAAGAGCTCGGTGCTGGAGAACTTCGT
GGGCCGGGACTTCCTTCCCCGCGGTTCAGGAATCGTCACCCGGCGGCCTCTCATTCTGCAGCTCATCTTCTCAAA
AACAGAACATGCCGAGTTTTTGCACTGCAAGTCCAAAAAGTTTACAGACTTTGATGAAGTCCGGCAGGAGATTGA
AGCAGAGACCGACAGGGTCACGGGGACCAACAAAGGCATCTCCCCAGTGCCCATCAACCTTCGAGTCTACTCGCC
ACACGTGTTGAACTTGACCCTCATCGACCTCCCGGGTATCACCAAGGTGCCTGTGGGCGACCAGCCTCCAGACAT
CGAGTACCAGATCAAGGACATGATCCTGCAGTTCATCAGCCGGGAGAGCAGCCTCATTCTGGCTGTCACGCCCGC
CAACATGGACCTGGCCAACTCCGACGCCCTCAAGCTGGCCAAGGAAGTCGATCCCCAAGGCCTACGGACCATCGG
TGTCATCACCAAGCTTGACCTGATGGACGAGGGCACCGACGCCAGGGACGTCTTGGAGAACAAGTTGCTCCCGTT
GAGAAGAGGCTACATTGGCGTGGTGAACCGCAGCCAGAAGGATATTGAGGGCAAGAAGGACATCCGTGCAGCACT
GGCAGCTGAGAGGAAGTTCTTCCTCTCCCACCCGGCCTACCGGCACATGGCCGACCGCATGGGCACGCCACATCT
GCAGAAGACGCTGAATCAGCAACTGACCAACCACATCCGGGAGTCGCTGCCGGCCCTACGTAGCAAACTACAGAG
CCAGCTGCTGTCCCTGGAGAAGGAGGTGGAGGAGTACAAGAACTTTCGGCCCGACGACCCCACCCGCAAAACCAA
AGCCCTGCTGCAGATGGTCCAGCAGTTTGGGGTGGATTTTGAGAAGAGGATCGAGGGCTCAGGAGATCAGGTGGA
CACTCTGGAGCTCTCCGGGGGCGCCCGAATCAATCGCATCTTCCACGAGCGGTTCCCATTTGAGCTGGTGAAGAT
GGAGTTTGACGAGAAGGACTTACGACGGGAGATCAGCTATGCCATTAAGAACATCCATGGAGTCAGGACCGGGCT
TTTCACCCCGGACTTGGCATTCGAGGCCATTGTGAAAAAGCAGGTCGTCAAGCTGAAAGAGCCCTGTCTGAAATG
TGTCGACCTGGTTATCCAGGAGCTAATCAATACAGTTAGGCAGTGTACCAGTAAGCTCAGTTCCTACCCCCGGTT
GCGAGAGGAGACAGAGCGAATCGTCACCACTTACATCCGGGAACGGGAGGGGAGAACGAAGGACCAGATTCTTCT
GCTGATCGACATTGAGCAGTCCTACATCAACACGAACCATGAGGACTTCATCGGGTTTGCCAATGCCCAGCAGAG
GAGCACGCAGCTGAACAAGAAGAGAGCCATCCCCAATCAGGGGGAGATCCTGGTGATCCGCAGGGGCTGGCTGAC
CATCAACAACATCAGCCTGATGAAAGGCGGCTCCAAGGAGTACTGGTTTGTGCTGACTGCCGAGTCACTGTCCTG
GTACAAGGATGAGGAGGAGAAAGAGAAGAAGTACATGCTGCCTCTGGACAACCTCAAGATCCGTGATGTGGAGAA
GGGCTTCATGTCCAACAAGCACGTCTTCGCCATCTTCAACACGGAGCAGAGAAACGTCTACAAGGACCTGCGGCA
GATCGAGCTGGCCTGTGACTCCCAGGAAGACGTGGACAGCTGGAAGGCCTCGTTCCTCCGAGCTGGCGTCTACCC
CGAGAAGGACCAGGCAGAAAACGAGGATGGGGCCCAGGAGAACACCTTCTCCATGGACCCCCAACTGGAGCGGCA
GGTGGAGACCATTCGCAACCTGGTGGACTCATACGTGGCCATCATCAACAAGTCCATCCGCGACCTCATGCCAAA
GACCATCATGCACCTCATGATCAACAATACGAAGGCCTTCATCCACCACGAGCTGCTGGCCTACCTATACTCCTC
GGCAGACCAGAGCAGCCTCATGGAGGAGTCGGCTGACCAGGCACAGCGGCGGGACGACATGCTGCGCATGTACCA
TGCCCTCAAGGAGGCGCTCAACATCATCGGTGACATCAGCACCAGCACTGTGTCCACGCCTGTACCCCCGCCTGT
CGATGACACCTGGCTCCAGAGCGCCAGCAGCCACAGCCCCACTCCACAGCGCCGACCGGTGTCCAGCATACACCC
CCCTGGCCGGCCCCCAGCAGTGAGGGGCCCCACTCCAGGGCCCCCCCTGATTCCTGTTCCCGTGGGGGCAGCAGC
CTCCTTCTCGGCGCCCCCAATCCCATCCCGGCCTGGACCCCAGAGCGTGTTTGCCAACAGTGACCTCTTCCCAGC
CCCGCCTCAGATCCCATCTCGGCCAGTTCGGATCCCCCCAGGGATTCCCCCAGGAGTGCCCAGCAGAAGACCCCC
TGCTGCGCCCAGCCGGCCCACCATTATCCGCCCAGCCGAGCCATCCCTGCTCGAC**TAG**GCCTCGAGGGGGGCGTG
CTCTCGGGGGGGCCTCACGCACCCGCGGCGCAGGAGCTTCAGTGGTCTGGGGCCCTCCGCCGCCCCTATGCTGGG
ACCAGGCTCCCAGTGGGCAGCCCTGGCCTCTTCCTTAACGCTGGCCCCGGTCCAGGGCCGGCCCCTGTGCCTGGC
TGGACACCGCACTGCGCAAAGGGGCCCTGGAGCTCCAGGCAGGGGGCGCTGGGGTGTTGCACTTTGGGGGATGGA
GTCTCAGGGTGGCAGAGGGGGGACCAGAACCCTTGACACCATCCTGAATGAGGGGTCCAGCCTGGGGGGGACTCT
ACCAAGGTCTTCTTGGGCTGGGAAAGCCCATGTAGGGCAGGCCTTCTATAAGTGCGGGCACCAAGGGCGCCTACA
TCCCCAGGCCTTGCTGGGGTGCAGGGGTATATCAACTTCCCATTAGCAGGAGCTCCCCAGCGGCAAGCCTGGCCC
AGTGGGCTCGGTAGTGCCCAGCTGGCAGGCCTGAGGTGTACATAGTCCTTCCCGGCCATATTAACCACACAGCCT
GAGCCTGGCCCAGCCTCGGCTGCCAGAGGTGCCTTTGCTAGGCCCGGAGCCGTTGGCCCGGGCCGGCCTTGCCCT
ATTCCTCTCCTCCTCCTCCTGGGTCCCCCAGGGTGGCTGGGCTTGGGCTATGTGGGTGGTGGTGGCGGGGGG
TCTTGGGGGCCTCTCAGCTCCCGCCCATGCCTCCCTGATGGGTGGGCCCAGGGCGGCCTCTCTCTGAGGAGACCT
CACCCACTCCTCGCTCAGTTTGACCACTGTAAGTGCCTGCACTCTGTATTCTATTAATAAACTAAAATAAAGGGA

FIGURE 1528B

AGACGCTGCTGGTG

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FIGURE 1529

CGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCAGCGGCGGCGGCCTGGGCCCGGGCGC
AGCGGCGGCGGCGGCGGGGCCTGGAGCCGGATCTAAG**ATG**GCAGCGGCGGCGGCGGCGGTGGGGCCGGGCGCGGG
CGGCGCGGGGTCGGCGGTCCCGGGCGGCGCGGGGCCCTGCGCTACCGTGTCGGTGTTCCCCGGCGCCCGCCTCCT
CACCATCGGCGACGCGAACGGCGAGATCCAGCGGCACGCGGAGCAGCAGGCGCTGCGCCTCGAGGTGCGCGCCGG
CCCGGACTCGGCGGGCATCGCCCTCTACAGCCATGAAGATGTGTGTGTCTTTAAGTGCTCAGTGTCCCGAGAGAC
AGAGTGCAGCCGTGTGGGCAAGCAGTCCTTCATCATCACCCTGGGCTGCAACAGCGTCCTCATCCAGTTCGCCAC
ACCCAACGATTTCTGTTCCTTCTACAACATCCTGAAAACCTGCCGGGGCCACACCCTGGAGCGGTCTGTGTTCAG
CGAGCGGACGGAGGAGTCTTCTGCCGTGCAGTACTTCCAGTTTTATGGCTACCTGTCCCAGCAGCAGAACATGAT
GCAGGACTACGTGCGGACAGGCACCTACCAGCGCGCCATCCTGCAAAACCACACCGACTTCAAGGACAAGATCGT
TCTTGATGTTGGCTGTGGCTCTGGGATCCTGTCGTTTTTTGCCGCCCAAGCTGGAGCACGGAAAATCTACGCGGT
GGAGGCCAGCACCATGGCCCAGCACGCTGAGGTCTTGGTGAAGAGTAACAACCTGACGGACCGCATCGTGGTCAT
CCCGGGCAAGGTGGAGGAGGTGTCACTCCCCGAGCAGGTGGACATCATCATCTCGGAGCCCATGGGCTACATGCT
CTTCAACGAGCGCATGCTGGAGAGCTACCTCCACGCCAAGAAGTACCTGAAGCCCAGCGGAAACATGTTTCCTAC
CATTGGTGACGTCCACCTTGCACCCTTCACGGATGAACAGCTCTACATGGAGCAGTTCACCAAGGCCAACTTCTG
GTACCAGCCATCTTTCCATGGAGTGGACCTGTCGGCCCTCCGAGGTGCCGCGGTGGATGAGTATTTCCGGCAGCC
TGTGGTGGACACATTTGACATCCGGATCCTGATGGCCAAGTCTGTCAAGTACACGGTGAACTTCTTAGAAGCCAA
AGAAGGAGATTTGCACAGGATAGAAATCCCATTCAAATTCCACATGCTGCATTCAGGGCTGGTCCACGGCCTGGC
TTTCTGGTTTGACGTTGCTTTCATCGGCTCCATAATGACCGTGTGGCTGTCCACAGCCCCGACAGAGCCCCTGAC
CCACTGGTACCAGGTGCGGTGCCTGTTCCAGTCACCACTGTTCGCCAAGGCAGGGGACACGCTCTCAGGGACATG
TCTGCTTATTGCCAACAAAAGACAGAGCTACGACATCAGTATTGTGGCCCAGGTGGACCAGACCGGCTCCAAGTC
CAGTAACCTCCTGGATCTGAAAAACCCCTTCTTTAGATACACGGGCACAACGCCCTCACCCCCACCCGGCTCCCA
CTACACATCTCCCTCGGAAAACATGTGGAACACGGGCAGCACCTACAACCTCAGCAGCGGGATGGCCGTGGCAGG
GATGCCGACCGCCTATGACTTGAGCAGTGTTATTGCCAGTGGCTCCAGCGTGGGCCACAACAACCTGATTCCTTT
AGCCAACACGGGGATTGTCAATCACACCCACTCCCGGATGGGCTCCATAATGAGCACGGGGATTGTCCAAGGGTC
CTCCGGCGCCCAGGGCAGTGGTGGTGGCAGCACGAGTGCCCACTATGCAGTCAACAGCCAGTTCACCATGGGCGG
CCCCGCCATCTCCATGGCGTCGCCCATGTCCATCCCGACCAACACCATGCACTACGGGAGC**TAG**GGGCCCGCCCC
GCGGACTGACAGCACCAGGAAACCAAATGATGTCCCTGCCCGCCGCCCCCGCCGGGCGGCTTTCCCCCTTGTACT
GGAGAAGCTCGAACACCCGGTCACAGCTCTCTTTGCTATGGGAACTGGGACACTTTTTTACACGATGTTGCCGCC
GTCCCCACCCTAACCCCCACCTCCCGGCCCTGAGCGTGTGTCGCTGCCATATTTTACACAAAATCATGTTGTGGG
AGCCCTCGTCCCCCCTCCTGCCCGCTCTACCCTGACCTGGGCTTGTCATCTGCTGGAACAGGCGCCATGGGGCCT
GCCAGCCCTGCCTGCCAGGTCCCTTAGCACCTGTCCCCCTGCCTGTCTCCAGTGGGAAGGTAGCCTGGCCAGGCG
GGGCCTCCCCTTCGACGACCAGGCCTCGGTCACAACGGACGTGACATGCTGCTTTTTTTAATTTTATTTTTTTAT
GAAAAGAACCAGTGTCAATCCGCAGACCCTCTGTGAAGCCAGGCCGGCCGGGCCGAGCCAGCAGCCCCTCTCCCT
AGACTCAGAGGCGCCGCGGGGAGGGGTGGCCCCGCCGAGGCTTCAGGGGCCCCCTCCCCACCAAAGGGTTCACCT
CACACTTGAATGTACAACCCACCCCACTGTCGGGAAGGCCTCCGTCCTCGGCCCCTGCCTCTTGCTGCTGTCCTG
TCCCCGAGCCCCTGCAGGTCCCCCCCCGCCCCCCCACTCAAGAGTTAGAGCAGGTGGCTGCAGGCCTTGGGCCCG
GAGGGAAGGCCACTGCCGGCCACTTGGGGCAGACACAGACACCTCAAGGATCTGTCACGGAAGGCGTCCTTTTTC
CTTGTAGCTAACGTTAGGCCTGAGTAGCTCCCCTCCATCCTTGTAGACGCTCCAGTCCCTACTACTGTGACGGCA
TTTCCATCCCTCCCCTGCCCGGGAAGGGACCTTGCAGGGACCTCTCCCTCCAAAAAAAGAAAAAAAGAAAAAGAA
AGAAAAAATAAATGAGGAAACGTGTTGCA

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FIGURE 1530

GGATGTTGCTGTCAGGTCTGAGTCGGTTGGAGTCTGACGGGTAGGCGAGACGCGCAGGCGCAGAGAGCCCCAGCC
ACGCCGGCCCAGGTGGCCTCAGCGAGGGATGCGGAGACGCCCCTGAACGACC**ATG**GCATCGGCCGACGAGCTGAC
CTTCCATGAATTCGAGGAGGCCACTAATCTTCTGGCTGACACCCCAGATGCAGCCACCACCAGCAGAAGCGATCA
GCTGACCCCACAAGGGCACGTGGCTGTGGCCGTGGGCTCAGGTGGCAGCTATGGAGCCGAGGATGAGGTGGAGGA
GGAGAGTGACAAGGCCGCGCTCCTGCAGGAGCAGCAGCAGCAGCAGCCGGGATTCTGGACCTTCAGCTACTA
TCAGAGCTTCTTTGACGTGGACACCTCACAGGTCCTGGACCGGATCAAAGGCTCACTGCTGCCCCGGCCTGGCCA
CAACTTTGTGCGGCACCATCTGCGGAATCGGCCGGATCTGTATGGCCCCTTCTGGATCTGTGCCACGTTGGCCTT
TGTCCTGGCCGTCACTGGCAACCTGACGCTGGTGCTGGCCCAGAGGAGGGACCCCTCCATCCACTACAGCCCCCA
GTTCCACAAGGTGACCGTGGCAGGCATCAGCATCTACTGCTATGCGTGGCTGGTGCCCCTGGCCCTGTGGGGCTT
CCTGCGGTGGCGCAAGGGTGTCCAGGAGCGCATGGGGCCCTACACCTTCCTGGAGACTGTGTGCATCTACGGCTA
CTCCCTCTTTGTCTTCATCCCCATGGTGGTCCTGTGGCTCATCCCTGTGCCTTGGCTGCAGTGGCTCTTTGGGGC
GCTGGCCCTGGGCCTGTCAGCCGCCGGGCTGGTATTCACCCTCTGGCCCGTGGTCCGTGAGGACACCAGGCTGGT
GGCCACAGTGCTGCTGTCCGTGGTCGTGCTGCTCCACGCCCTCCTGGCCATGGGCTGTAAGTTGTACTTCTTCCA
GTCGCTGCCTCCGGAGAACGTGGCTCCTCCACCCCAAATCACATCTCTGCCCTCAAACATCGCGCTGTCCCCTAC
CTTGCCGCAGTCCCTGGCCCCCTCC**TAG**GAAGGCCCGGGTCCCACAGGCAACACCTAAGTGGACCAACCCCTCTG
CCTGTCCTGCCCCCCAGACGATGACTGAAGGCTCCTTTGACACCTTGAGATGATTCTGCTACTTTCCAGACTTTT
CTTACAAAGCAAACACTTTTATTTTCTATGCAAAGGTGATTCAGAGAATTTATATAAAGGCGGGCGAGGGGCAGC
CGAGCAGGGAGCTTTGGGACAGGGCTGGGGCCCCCATATCCCCCCCGGGCCACCTGCTTTCCCTCCTATGGCTCC
CCTGGAACAGGAGGGAGAGCCAAGGGGGCGGCCCAGCCTGGACAGCGCCCGCTCCTGCCTGGGTGCACACACGGC
GGGCCTGAGCTCCAGCATCTGAGTTTGGGGGTATGAGAAACAGGGGAGCAGAAGGAGAAGAAAACTGCCTGTGCT
GCAACACGTTTCCTCATTTATTTTTTCTTTCTTTTTCTTTTTTTCTTTTTTTGGAGGGAGAGGTCCCTGCAAGGT
CCCTTCCCGGGCAGGGGAGGGATGGAAATGCCGTCACAGTAGTAGGGACTGGAGCGTCTACAAGGATGGAGGGGA
GCTACTCAGGCCTAACGTTAGCTACAAGGAAAAAGGACGCCTTCCGTGACAGATCCTTGAGGTGTCTGTGTCTGC
CCCAAGTGGCCGGCAGTGGCCTTCCCTCCGGGCCCAAGGCCTGCAGCCACCTGCTCTAACTCTTGAGTGGGGGGG
CGGGGGGGGACCTGCAGGGGCTCGGGGACAGGACAGCAGCAAGAGGCAGGGGCCGAGGACGGAGGCCTTCCCGAC
AGTGGGGTGGGTTGTACATTCAAGTGTGAGGTGAACCCTTTGGTGGGGAGGGGGCCCCTGAAGCCTCGGCGGGGC
CACCCCTCCCCGCGGCGCCTCTGAGTCTAGGGAGAGGGGCTGCTGGCTCGGCCCGGCCGGCCTGGCTTCACAGAG
GGTCTGCGGATTGACACTGGTTCTTTTCATAAAAAAATAAAATTAAAAAAAGCA

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FIGURE 1531A

GCCGGCGAGCGCGCGCGCAGCGGGGGCGCGGGTGGCGCGCGTGTGTGTGAAGGGGGGGCGGTGGCCGAGGCGGGC
GGGCGCGCGCGCGAGGCTTCCCCTCGTTTGGCGGCGGCGGCGGCTTCTTTGTTTCGTGAAGAGAAGCGAGACGCC
CATTCTGCCCCCGGCCCCGCGCGGAGGGGCGGGGGAGGCGCCGGGAAGTCGACGGCGCCGGCGGCTCCTGCAGGA
GGCCACTGTCTGCAGCTCCCGTGAAG**ATG**TCCACTCCAGACCCACCCCTGGGCGGAACTCCTCGGCCAGGTCCTT
CCCCGGGCCCTGGCCCTTCCCCTGGAGCCATGCTGGGCCCTAGCCCGGGTCCCTCGCCGGGCTCCGCCCACAGCA
TGATGGGGCCCAGCCCAGGGCCGCCCTCAGCAGGACACCCCATCCCCACCCAGGGGCCTGGAGGGTACCCTCAGG
ACAACATGCACCAGATGCACAAGCCCATGGAGTCCATGCATGAGAAGGGCATGTCGGACGACCCGCGCTACAACC
AGATGAAAGGAATGGGGATGCGGTCAGGGGGCCATGCTGGGATGGGGCCCCCGCCCAGCCCCATGGACCAGCACT
CCCAAGGTTACCCCTCGCCCCTGGGTGGCTCTGAGCATGCCTCTAGTCCAGTTCCAGCCAGTGGCCCGTCTTCGG
GGCCCCAGATGTCTTCCGGGCCAGGAGGTGCCCCGCTGGATGGTGCTGACCCCCAGGCCTTGGGGCAGCAGAACC
GGGGCCCAACCCCATTTAACCAGAACCAGCTGCACCAGCTCAGAGCTCAGATCATGGCCTACAAGATGCTGGCCA
GGGGGCAGCCCCTCCCCGACCACCTGCAGATGGCGGTGCAGGGCAAGCGGCCGATGCCCGGGATGCAGCAGCAGA
TGCCAACGCTACCTCCACCCTCGGTGTCCGCAACAGGACCCGGCCCTGGCCCTGGCCCTGGCCCCGGCCCGGGTC
CCGGCCCGGCACCTCCAAATTACAGCAGGCCTCATGGTATGGGAGGGCCCAACATGCCTCCCCCAGGACCCTCGG
GCGTGCCCCCCGGGATGCCAGGCCAGCCTCCTGGAGGGCCTCCCAAGCCCTGGCCTGAAGGACCCATGGCGAATG
CTGCTGCCCCCACGAGCACCCCTCAGAAGCTGATTCCCCCGCAGCCAACGGGCCGCCCTTCCCCCGCGCCCCCTG
CCGTCCCACCCGCCGCCTCGCCCGTGATGCCACCGCAGACCCAGTCCCCCGGGCAGCCGGCCCAGCCCGCGCCCA
TGGTGCCACTGCACCAGAAGCAGAGCCGCATCACCCCCATCCAGAAGCCGCGGGGCCTCGACCCTGTGGAGATCC
TGCAGGAGCGCGAGTACAGGCTGCAGGCTCGCATCGCACACCGAATTCAGGAACTTGAAAACCTTCCCGGGTCCC
TGGCCGGGGATTTGCGAACCAAAGCGACCATTGAGCTCAAGGCCCTCAGGCTGCTGAACTTCCAGAGGCAGCTGC
GCCAGGAGGTGGTGGTGTGCATGCGGAGGGACACAGCGCTGGAGACAGCCCTCAATGCTAAGGCCTACAAGCGCA
GCAAGCGCCAGTCCCTGCGCGAGGCCCGCATCACTGAGAAGCTGGAGAAGCAGCAGAAGATCGAGCAGGAGCGCA
AGCGCCGGCAGAAGCACCAGGAATACCTCAATAGCATTCTCCAGCATGCCAAGGATTTCAAGGAATATCACAGAT
CCGTCACAGGCAAAATCCAGAAGCTGACCAAGGCAGTGGCCACGTACCATGCCAACACGGAGCGGGAGCAGAAGA
AAGAGAACGAGCGGATCGAGAAGGAGCGCATGCGGAGGCTCATGGCTGAAGATGAGGAGGGGTACCGCAAGCTCA
TCGACCAGAAGAAGGACAAGCGCCTGGCCTACCTCTTGCAGCAGACAGACGAGTACGTGGCTAACCTCACGGAGC
TGGTGCGGCAGCACAAGGCTGCCCAGGTCGCCAAGGAGAAAAAGAAGAAAAAGAAAAAGAAGAAGGCAGAAAATG
CAGAAGGACAGACGCCTGCCATTGGGCCGGATGGCGAGCCTCTGGACGAGACCAGCCAGATGAGCGACCTCCCGG
TGAAGGTGATCCACGTGGAGAGTGGGAAGATCCTCACAGGCACAGATGCCCCCAAAGCCGGGCAGCTGGAGGCCT
GGCTCGAGATGAACCCGGGGTATGAAGTAGCTCCGAGGTCTGATAGTGAAGAAAGTGGCTCAGAAGAAGAGGAAG
AGGAGGAGGAGGAAGAGCAGCCGCAGGCAGCACAGCCTCCCACCCTGCCCGTGGAGGAGAAGAAGAAGATTCCAG
ATCCAGACAGCGATGACGTCTCTGAGGTGGACGCGCGGCACATCATTGAGAATGCCAAGCAAGATGTCGATGATG
AATATGGCGTGTCCCAGGCCCTTGCACGTGGCCTGCAGTCCTACTATGCCGTGGCCCATGCTGTCACTGAGAGAG
TGGACAAGCAGTCAGCGCTTATGGTCAATGGTGTCCTCAAACAGTACCAGATCAAAGGTTTGGAGTGGCTGGTGT
CCCTGTACAACAACAACCTGAACGGCATCCTGGCCGACGAGATGGGCCTGGGGAAGACCATCCAGACCATCGCGC
TCATCACGTACCTCATGGAGCACAAACGCATCAATGGGCCCTTCCTCATCATCGTGCCTCTCTCAACGCTGTCCA
ACTGGGCGTACGAGTTTGACAAGTGGGCCCCCTCCGTGGTGAAGGTGTCTTACAAGGGATCCCCAGCAGCAAGAC
GGGCCTTTGTCCCCCAGCTCCGGAGTGGGAAGTTCAACGTCTTGCTGACGACGTACGAGTACATCATCAAAGACA
AGCACATCCTCGCCAAGATCCGTTGGAAGTACATGATTGTGGACGAAGGTCACCGCATGAAGAACCACCACTGCA
AGCTGACGCAGGTGCTCAACACGCACTATGTGGCACCCCGCCGCCTGCTGCTGACGGGCACACCGCTGCAGAACA
AGCTTCCCGAGCTCTGGGCGCTGCTCAACTTCCTGCTGCCCACCATCTTCAAGAGCTGCAGCACCTTCGAGCAGT
GGTTTAACGCACCCTTTGCCATGACCGGGGAAAAGGTGGACCTGAATGAGGAGGAAACCATTCTCATCATCCGGC
GTCTCCACAAAGTGCTGCGGCCCTTCTTGCTCCGACGACTCAAGAAGGAAGTCGAGGCCCAGTTGCCCGAAAAGG
TGGAGTACGTCATCAAGTGCGACATGTCTGCGCTGCAGCGAGTGCTCTACCGCCACATGCAGGCCAAGGGCGTGC
TGCTGACTGATGGCTCCGAGAAGGACAAGAAGGGCAAAGGCGGCACCAAGACCCTGATGAACACCATCATGCAGC
TGCGGAAGATCTGCAACCACCCCTACATGTTCCAGCACATCGAGGAGTCCTTTTCCGAGCACTTGGGGTTCACTG
GCGGCATTGTCCAAGGGCTGGACCTGTACCGAGCCTCGGGTAAATTTGAGCTTCTTGATAGAATTCTTCCCAAAC
TCCGAGCAACCAACCACAAAGTGCTGCTGTTCTGCCAAATGACCTCCCTCATGACCATCATGGAAGATTACTTTG

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FIGURE 1531B

CGTATCGCGGCTTTAAATACCTCAGGCTTGATGGAACCACGAAGGCGGAGGACCGGGGCATGCTGCTGAAAACCT
TCAACGAGCCCGGCTCTGAGTACTTCATCTTCCTGCTCAGCACCCGGGCTGGGGGGCTCGGCCTGAACCTCCAGT
CGGCAGACACTGTGATCATTTTTGACAGCGACTGGAATCCTCACCAGGACCTGCAAGCGCAGGACCGAGCCCACC
GCATCGGGCAGCAGAACGAGGTGCGTGTGCTCCGCCTCTGCACCGTCAACAGCGTGGAGGAGAAGATCCTAGCTG
CAGCCAAGTACAAGCTCAACGTGGACCAGAAGGTGATCCAGGCCGGCATGTTCGACCAGAAGTCCTCCAGCCATG
AGCGGCGCGCCTTCCTGCAGGCCATCCTGGAGCACGAGGAGCAGGATGAGAGCAGACACTGCAGCACGGGCAGCG
GCAGTGCCAGCTTCGCCCACACTGCCCCTCCGCCAGCGGGCGTCAACCCCGACTTGGAGGAGCCACCTCTAAAGG
AGGAAGACGAGGTGCCCGACGACGAGACCGTCAACCAGATGATCGCCCGGCACGAGGAGGAGTTTGATCTGTTCA
TGCGCATGGACCTGGACCGCAGGCGCGAGGAGGCCCGCAACCCCAAGCGGAAGCCGCGCCTCATGGAGGAGGACG
AGCTCCCCTCGTGGATCATCAAGGACGACGCGGAGGTGGAGCGGCTGACCTGTGAGGAGGAGGAGGAGAAGATGT
TCGGCCGTGGCTCCCGCCACCGCAAGGAGGTGGACTACAGCGACTCACTGACGGAGAAGCAGTGGCTCAAGGCCA
TCGAGGAGGGCACGCTGGAGGAGATCGAAGAGGAGGTCCGGCAGAAGAAATCATCACGGAAGCGCAAGCGAGACA
GCGACGCCGGCTCCTCCACCCCGACCACCAGCACCCGCAGCCGCGACAAGGACGACGAGAGCAAGAAGCAGAAGA
AGCGCGGGCGGCCGCCTGCCGAGAAACTCTCCCCTAACCCACCCAACCTCACCAAGAAGATGAAGAAGATTGTGG
ATGCCGTGATCAAGTACAAGGACAGCAGCAGTGGACGTCAGCTCAGCGAGGTCTTCATCCAGCTGCCCTCGCGAA
AGGAGCTGCCCGAGTACTACGAGCTCATCCGCAAGCCCGTGGACTTCAAGAAGATAAAGGAGCGCATTCGCAACC
ACAAGTACCGCAGCCTCAACGACCTAGAGAAGGACGTCATGCTCCTGTGCCAGAACGCACAGACCTTCAACCTGG
AGGGCTCCCTGATCTATGAAGACTCCATCGTCTTGCAGTCGGTCTTCACCAGCGTGCGGCAGAAAATCGAGAAGG
AGGATGACAGTGAAGGCGAGGAGAGTGAGGAGGAGGAAGAGGGCGAGGAGGAAGGCTCCGAATCCGAATCTCGGT
CCGTCAAAGTGAAGATCAAGCTTGGCCGGAAGGAGAAGGCACAGGACCGGCTGAAGGGCGGCCGGCGGCGGCCGA
GCCGAGGGTCCCGAGCCAAGCCGGTCGTGAGTGACGATGACAGTGAGGAGGAACAAGAGGAGGACCGCTCAGGAA
GTGGCAGCGAAGAAGAC**TGA**GCCCCGACATTCCAGTCTCGACCCCGAGCCCCTCGTTCCAGAGCTGAGATGGCAT
AGGCCTTAGCAGTAACGGGTAGCAGCAGATGTAGTTTCAGACTTGGAGTAAAACTGTATAAACAAAAGAATCTTC
CATATTTATACAGCAGAGAAGCTGTAGGACTGTTTGTGACTGGCCCTGTCCTGGCATCAGTAGCATCTGTAACAG
CATTAACTGTCTTAAAGAGAGAGAGAGAGAATTCCGAATTGGGGAACACACGATACCTGTTTTTCTTTTCCGTTG
CTGGCAGTACTGTTGCGCCGCAGTTTGGAGTCACTGTAGTTAAGTGTGGATGCATGTGCGTCACCGTCCACTCCT
CCTACTGTATTTTATTGGACAGGTCAGACTCGCCGGGGGCCCGGCGAGGGTATGTCAGTGTCACTGGATGTCAAA
CAGTAATAAATTAAACCAACAACAAAACGC

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FIGURE 1532A

GCCCCGAGTGCAATCGCGGGAAGCCAGGGTTTCCAGCTAGGACACAGCAGGTCGTGATCCGGGTCGGGACACTGC
CTGGCAGAGGCTGCGAGC**ATG**GGGCCCTGGGGCTGGAAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCGCGGCG
GGGACTGCAGTGGGCGACAGATGCGAAAGAAACGAGTTCCAGTGCCAAGACGGGAAATGCATCTCCTACAAGTGG
GTCTGCGATGGCAGCGCTGAGTGCCAGGATGGCTCTGATGAGTCCCAGGAGACGTGCTTGTCTGTCACCTGCAAA
TCCGGGGACTTCAGCTGTGGGGGCCGTGTCAACCGCTGCATTCCTCAGTTCTGGAGGTGCGATGGCCAAGTGGAC
TGCGACAACGGCTCAGACGAGCAAGGCTGTCCCCCCAAGACGTGCTCCCAGGACGAGTTTCGCTGCCACGATGGG
AAGTGCATCTCTCGGCAGTTCGTCTGTGACTCAGACCGGGACTGCTTGGACGGCTCAGACGAGGCCTCCTGCCCG
GTGCTCACCTGTGGTCCCGCCAGCTTCCAGTGCAACAGCTCCACCTGCATCCCCCAGCTGTGGGCCTGCGACAAC
GACCCCGACTGCGAAGATGGCTCGGATGAGTGGCCGCAGCGCTGTAGGGGTCTTTACGTGTTCCAAGGGGACAGT
AGCCCCTGCTCGGCCTTCGAGTTCCACTGCCTAAGTGGCGAGTGCATCCACTCCAGCTGGCGCTGTGATGGTGGC
CCCGACTGCAAGGACAAATCTGACGAGGAAAACTGCGCTGTGGCCACCTGTCGCCCTGACGAATTCCAGTGCTCT
GATGGAAACTGCATCCATGGCAGCCGGCAGTGTGACCGGGAATATGACTGCAAGGACATGAGCGATGAAGTTGGC
TGCGTTAATGTGACACTCTGCGAGGGACCCAACAAGTTCAAGTGTCACAGCGGCGAATGCATCACCCTGGACAAA
GTCTGCAACATGGCTAGAGACTGCCGGGACTGGTCAGATGAACCCATCAAAGAGTGCGGGACCAACGAATGCTTG
GACAACAACGGCGGCTGTTCCCACGTCTGCAATGACCTTAAGATCGGCTACGAGTGCCTGTGCCCCGACGGCTTC
CAGCTGGTGGCCCAGCGAAGATGCGAAGATATCGATGAGTGTCAGGATCCCGACACCTGCAGCCAGCTCTGCGTG
AACCTGGAGGGTGGCTACAAGTGCCAGTGTGAGGAAGGCTTCCAGCTGGACCCCCACACGAAGGCCTGCAAGGCT
GTGGGCTCCATCGCCTACCTCTTCTTCACCAACCGGCACGAGGTCAGGAAGATGACGCTGGACCGGAGCGAGTAC
ACCAGCCTCATCCCCAACCTGAGGAACGTGGTCGCTCTGGACACGGAGGTGGCCAGCAATAGAATCTACTGGTCT
GACCTGTCCCAGAGAATGATCTGCAGCACCCAGCTTGACAGAGCCCACGGCGTCTCTTCCTATGACACCGTCATC
AGCAGAGACATCCAGGCCCCCGACGGGCTGGCTGTGGACTGGATCCACAGCAACATCTACTGGACCGACTCTGTC
CTGGGCACTGTCTCTGTTGCGGATACCAAGGGCGTGAAGAGGAAAACGTTATTCAGGGAGAACGGCTCCAAGCCA
AGGGCCATCGTGGTGGATCCTGTTCATGGCTTCATGTACTGGACTGACTGGGGAACTCCCGCCAAGATCAAGAAA
GGGGGCCTGAATGGTGTGGACATCTACTCGCTGGTGACTGAAAACATTCAGTGGCCCAATGGCATCACCCTAGAT
CTCCTCAGTGGCCGCCTCTACTGGGTTGACTCCAAACTTCACTCCATCTCAAGCATCGATGTCAACGGGGGCAAC
CGGAAGACCATCTTGGAGGATGAAAAGAGGCTGGCCCACCCCTTCTCCTTGGCCGTCTTTGAGGACAAAGTATTT
TGGACAGATATCATCAACGAAGCCATTTTCAGTGCCAACCGCCTCACAGGTTCCGATGTCAACTTGTTGGCTGAA
AACCTACTGTCCCCAGAGGATATGGTTCTCTTCCACAACCTCACCCAGCCAAGAGGAGTGAACTGGTGTGAGAGG
ACCACCCTGAGCAATGGCGGCTGCCAGTATCTGTGCCTCCCTGCCCCGCAGATCAACCCCCACTCGCCCAAGTTT
ACCTGCGCCTGCCCGGACGGCATGCTGCTGGCCAGGGACATGAGGAGCTGCCTCACAGAGGCTGAGGCTGCAGTG
GCCACCCAGGAGACATCCACCGTCAGGCTAAAGGTCAGCTCCACAGCCGTAAGGACACAGCACACAACCACCCGA
CCTGTTCCCGACACCTCCCGGCTGCCTGGGGCCACCCCTGGGCTCACCACGGTGGAGATAGTGACAATGTCTCAC
CAAGCTCTGGGCGACGTTGCTGGCAGAGGAAATGAGAAGAAGCCCAGTAGCGTGAGGGCTCTGTCCATTGTCCTC
CCCATCGTGCTCCTCGTCTTCCTTTGCCTGGGGGTCTTCCTTCTATGGAAGAACTGGCGGCTTAAGAACATCAAC
AGCATCAACTTTGACAACCCCGTCTATCAGAAGACCACAGAGGATGAGGTCCACATTTGCCACAACCAGGACGGC
TACAGCTACCCCTCGAGACAGATGGTCAGTCTGGAGGATGACGTGGCG**TGA**ACATCTGCCTGGAGTCCCGTCCCT
GCCCAGAACCCTTCCTGAGACCTCGCCGGCCTTGTTTTATTCAAAGACAGAGAAGACCAAAGCATTGCCTGCCAG
AGCTTTGTTTTATATATTTATTCATCTGGGAGGCAGAACAGGCTTCGGACAGTGCCCATGCAATGGCTTGGGTTG
GGATTTTGGTTTCTTCCTTTCCTCGTGAAGGATAAGAGAAACAGGCCCGGGGGGACCAGGATGACACCTCCATTT
CTCTCCAGGAAGTTTTGAGTTTCTCTCCACCGTGACACAATCCTCAAACATGGAAGATGAAAGGGGAGGGGATGT
CAGGCCCAGAGAAGCAAGTGGCTTTCAACACACAACAGCAGATGGCACCAACGGGACCCCCTGGCCCTGCCTCAT
CCACCAATCTCTAAGCCAAACCCCTAAACTCAGGAGTCAACGTGTTTACCTCTTCTATGCAAGCCTTGCTAGACA
GCCAGGTTAGCCTTTGCCCTGTCACCCCCGAATCATGACCCACCCAGTGTCTTTCGAGGTGGGTTTGTACCTTCC
TTAAGCCAGGAAAGGGATTCATGGCGTCGGAAATGATCTGGCTGAATCCGTGGTGGCACCGAGACCAAACTCATT
CACCAAATGATGCCACTTCCCAGAGGCAGAGCCTGAGTCACTGGTCACCCTTAATATTTATTAAGTGCCTGAGAC
ACCCGGTTACCTTGGCCGTGAGGACACGTGGCCTGCACCCAGGTGTGGCTGTCAGGACACCAGCCTGGTGCCCAT
CCTCCCGACCCCTACCCACTTCCATTCCCGTGGTCTCCTTGCACTTTCTCAGTTCAGAGTTGTACACTGTGTACA
TTTGGCATTTGTGTTATTATTTTGCACTGTTTTCTGTCGTGTGTGTTGGGATGGGATCCCAGGCCAGGGAAAGCC

FIGURE 1532B

CGTGTCAATGAATGCCGGGGACAGAGAGGGGCAGGTTGACCGGGACTTCAAAGCCGTGATCGTGAATATCGAGAA
CTGCCATTGTCGTCTTTATGTCCGCCCACCTAGTGCTTCCACTTCTATGCAAATGCCTCCAAGCCATTCACTTCC
CCAATCTTGTCGTTGATGGGTATGTGTTTAAAACATGCACGGTGAGGCCGGGCGCAGTGGCTCACGCCTGTAATC
CCAGCACTTTGGGAGGCCGAGGCGGGTGGATCATGAGGTCAGGAGATCGAGACCATCCTGGCTAACACGTGAAAC
CCCGTCTCTACTAAAAATACAAAAAATTAGCCGGGCGTGGTGGCGGGCACCTGTAGTCCCAGCTACTCGGGAGGC
TGAGGCAGGAGAATGGTGTGAACCCGGGAAGCGGAGCTTGCAGTGAGCCGAGATTGCGCCACTGCAGTCCGCAGT
CTGGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAACAAAAAAAAACCATGCATGGTGCATCAGCAG
CCCATGGCCTCTGGCCAGGCATGGCGAGGCTGAGGTGGGAGGATGGTTTGAGCTCAGGCATTTGAGGCTGTCGTG
AGCTATGATTATGCCACTGCTTTCCAGCCTGGGCAACATAGTAAGACCCCATCTCTTAAAAAATGAATTTGGCCA
GACACAGGTGCCTCACGCCTGTAATCCCAGCACTTTGGGAGGCTGAGCTGGATCACTTGAGTTCAGGAGTTGGAG
ACCAGGCCTGAGCAACAAAGCGAGATCCCATCTCTACAAAAACCAAAAAGTTAAAAATCAGCTGGGTACGGTGGC
ACGTGCCTGTGATCCCAGCTACTTGGGAGGCTGAGGCAGGAGGATCGCCTGAGCCCAGGAGGTGGAGGTTGCAGT
GAGCCATGATCGAGCCACTGCACTCCAGCCTGGGCAACAGATGAAGACCCTATTTCAGAAATACAACTATAAAAA
AATAAATAAATCCTCCAGTCTGGATCGTTTGACGGGACTTCAGGTTCTTTCTGAAATCGCCGTGTTACTGTTGCA
CTGATGTCCGGAGAGACAGTGACAGCCTCCGTCAGACTCCCGCGTGAAGATGTCACAAGGGATTGGCAATTGTCC
CCAGGGACAAAACACTGTGTCCCCCCCCAGTGCAGGGAACCGTGATAAGCCTTTCTGGTTTCGGAGCACGTAAATG
CGTCCCTGTACAGATAGTGGGGATTTTTTGTTATGTTTGCACTTTGTATATTGGTTGAAACTGTTATCACTTATA
TATATATATATACACACATATATATAAAATCTATTTATTTTTGCAAACCCTGGTTGCTGTATTTGTTCAGTGACT
ATTCTCGGGGCCCTGTGTAGGGGGTTATTGCCTCTGAAATGCCTCTTCTTTATGTACAAAGATTATTTGCACGAA
CTGGACTGTGTGCAACGCTTTTTGGGAGAATGATGTCCCCGTTGTATGTATGAGTGGCTTCTGGGAGATGGGTGT
CACTTTTTAAACCACTGTATAGAAGGTTTTTGTAGCCTGAATGTCTTACTGTGATCAATTAAATTTCTTAAATG

FIGURE 1533

CCGCGACATAGAGGAGGTGAGCCAGGGGCTGCTCAGCCTGCTGGGCGCCAACCGCGCGGAGGCGCAGCAGCGACG
GCTGCTGGGGCGCCACGAGCAGGTGGTGGAGCGGCTGCTGGAAACGCAAGACGGTGCCGAGAAGCAGCTGCGAGA
GATCCTCACC**ATG**GAGAAGGAAGTGGCCCAGAGCCTTCTCAATGCGAAGGAGCAGGTGCACCAGGGAGGCGTGGA
GCTGCAGCAGCTGGAAGCTGGGCTTCAGGAGGCTGGGGAGGAGGACACCCGTCTGAAGGCCAGCCTCCTTCAGCT
CACCAGAGAGCTGGAAGAGCTCAAGGAGATTGAGGCGGATCTGGAGCGACAGGAGAAGGAGGTCGACGAGGACAC
GACAGTCACAATCCCCTCGGCCGTGTACGTGGCTCAACTTTACCACCAAGTTAGTAAAATTGAGTGGGATTATGA
GTGTGAGCCAGGGATGGTCAAAGGCATCCATCATGGCCCCAGTGTGGCCCAGCCCATCCACCTGGACAGCACCCA
GCTCTCCAGGAAATTCATCAGCGACTACCTCTGGAGTCTGGTGGACACCGAGTGG**TAG**CCAGGAGCCTCGTGGCT
GCGTCTTGCACCCAGCGGGCATCTGCCGTGGTCAGATCCATTTCAAATGAAATGTGGGGACATAGATCTTTTTTT
TTTTTTT

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FIGURE 1534

GGTGACCCGGCCTGCCTCAGCGGCCCCC**ATG**GGCGGCCCAGAACTGGCACAGCATGAGGAGCTGACCCTGCTCTT
CCATGGGACCCTGCAGCTGGGCCAGGCCCTCAACGGTGTGTACAGGACCACGGAGGGACGGCTGACAAAGGCCAG
GAACAGCCTGGGTCTCTATGGCCGCACAATAGAACTCCTGGGGCAGGAGGTCAGCCGGGGCCGGGATGCAGCCCA
GGAACTTCGGGCAAGCCTGTTGGAGACGCAGATGGAGGAGGATATTCTGCAGCTGCAGGCAGAGGCCACAGCTGA
GGTGCTGGGGGAGGTGGCCCAGGCACAGAAGGTGCTACGGGACAGCGTGCAGCGGCTAGAAGTCCAGCTGAGGAG
CGCCTGGCTGGGCCCTGCCTACCGAGAATTTGAGGTCTTAAAGGCTCACGCTGACAAGCAGAGCCACATCCTATG
GGCCCTCACAGGCCACGTGCAGCGGCAGAGGCGGGAGATGGTGGCACAGCAGCATCGGCTGCGACAGATCCAGGA
GAGACTCCACACAGCGGCGCTCCCAGCC**TGA**ATCTGCCTGGATGGAACTGAGGACCAATCATGCTGCAAGGAACA
CTTCCACGCCCCGTGAGGCCCCTGTGCAGGGAGGAGCTGCCTGTTCACTGGGATCAGCCAGGGCGCCGGGCCCCA
CTTCTGAGCACAGAGCAGAGACAGACGCAGGCGGGGACAAAGGCAGAGGATGTAGCCCCATTGGGGAGGGGTGGA
GGAAGGACATGTACCCTTTCATGCCTACACACCCCTCATTAAAGCAGAGTCGTGGCATCTCA

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FIGURE 1535

GTGAGGTACCAGATTCAGCCCATTTGGCCCCGACGCCTCTGTTCTCGGAATCCGGGTGCTGCGGATTGAGGTCCC
GGTTCCTAACGGTGGGATCGGTGTCCTCGGGATGAGATTTGGCGTTTCCTCGGGGCTTTGGTGGGATCGGTGTCC
TCAGGATGAGATTTAGGGTTTCCTCGGGGCTTTCGGGATCTTCACCTAATATCCGGACTGCAAGATGGAGGAAGG
CGGGAACCTAGGAGGCCTGATTAAGATGGTCCATCTACTGGTCTTGTCAGGTGCCTGGGGCATGCAAATGTGGGT
GACCTTCGTCTCAGGCTTCCTGCTTTTCCGAAGCCTTCCCCGACATACCTTCGGACTAGTGCAGAGCAAACTCTT
CCCCTTCTACTTCCACATCTCCATGGGCTGTGCCTTCATCAACCTCTGCATCTTGGCTTCACAGCATGCTTGGGC
TCAGCTCACATTCTGGGAGGCCAGCCAGCTTTACCTGCTGTTCCTGAGCCTTACGCTGGCCACTGTCAACGCCCG
CTGGCTGGAACCCCGCACCACAGCTGCCATGTGGGCCCTGCAAACCGTGGAGAAGGAGCGAGGCCTGGGTGGGGA
GGTACCAGGCAGCCACCAGGGTCCCGATCCCTACCGCCAGCTGCGAGAGAAGGACCCCAAGTACAGTGCTCTCCG
CCAGAATTTCTTCCGCTACCATGGGCTGTCCTCTCTTTGCAATCTGGGCTGCGTCCTGAGCAATGGGCTCTGTCT
CGCTGGCCTTGCCCTGGAAATAAGGAGCCTCTAGCATGGGCCCTGCATGCTAATAAATGCTTCTTCAG

FIGURE 1536

GCTGCGCCGCCATTAAGAGCTAGCCCTCAGAACTATCCTCTCTAAGGTTTCACAGTCCTGCCCAAGATGGCCGTC
TCGGCTCTGGCACCGCCCCCACTCCTGCCTCTCCCAACATGGCGACCCTGAGTCTCCGTTCCCGGTGCGGAACGT
ACGACCGGAAGTGACGGGGTCCAGAAATTTCCGCTTTCTTTCTGCAGCAGGAACCGCGGCTGCTGGACAAGAGGG
GTGCGGTGGATACTGACCTTTGCTCCGGCCTCGTCGTGAAGACACAGCGCATCTCCCCGCTGTAGGCTTCCTCCC
ACAGAACCCGTTTCGGGCCTCAGAGCGTCTGGTGAGATGCTGTTGCCGCTGCTGCTGCTGCTACCCATGTGCTGG
GCCGTGGAGGTCAAGAGGCCCCGGGGCGTCTCCCTCACCAATCATCACTTCTACGATGAGTCCAAGCCTTTCACC
TGCCTGGACGGTTCGGCCACCATCCCATTTGATCAGGTCAACGATGACTATTGCGACTGCAAAGATGGCTCTGAC
GAGCCAGGCACGGCTGCCTGTCCTAATGGCAGCTTCCACTGCACCAACACTGGCTATAAGCCCCTGTATATCCCC
TCCAACCGGGTCAACGATGGTGTTTGTGACTGCTGCGATGGAACAGACGAGTACAACAGCGGCGTCATCTGTGAG
AACACCTCAGAGAGAAGGGCCGTAAGGAGAGAGAGTCCCTGCAGCAG**ATG**GCCGAGGTCACCCGCGAAGGGTTCC
GTCTGAAGAAGATCCTTATTGAGGACTGGAAGAAGGCACGGGAGGAGAAGCAGAAAAAGCTCATTGAGCTACAGG
CTGGGAAGAAGTCTCTGGAAGACCAGGTGGAGATGCTGCGGACAGTGAAGGAGGAAGCTGAGAAGCCAGAGAGAG
AGGCCAAAGAGCAGCACCAGAAGCTGTGGGAAGAGCAGCTGGCTGCTGCCAAGGCCCAACAGGAGCAGGAGCTGG
CGGCTGATGCCTTCAAGGAGCTGGATGATGACATGGACGGGACGGTCTCGGTGACTGAGCTGCAGACTCACCCGG
AGCTGGACACAGATGGGGATGGGGCGTTGTCAGAAGCGGAAGCTCAGGCCCTCCTCAGTGGGGACACACAGACAG
ACGCCACCTCTTTCTACGACCGCGTCTGGGCCGCCATCAGGGACAAGTACCGGTCCGAGGCACTGCCCACCGACC
TTCCAGCACCTTCTGCCCCTGACTTGACGGAGCCCAAGGAGGAGCAGCCGCCAGTGCCCTCGTCGCCCACAGAGG
AGGAGGAGGAGGAGGAGGAGGAGGAGGAAGAAGAGGCTGAAGAAGAGGAGGAGGAGGAGGATTCCGAGGTGCAGG
GGGAGCAGCCCAAGGAGGCCCCACCGCCACTGTCACCCCCGCAGCCGGCCAGCCCTGCTGAGGAAGACAAAATGC
CGCCCTACGACGAGCAGACGCAGGCCTTCATCGATGCTGCCCAGGAGGCCCGCAACAAGTTCGAGGAGGCCGAGC
GGTCGCTGAAGGACATGGAGGAGTCCATCAGGAACCTGGAGCAAGAGATTTCTTTTGACTTTGGCCCCAACGGGG
AGTTTGCTTACCTGTACAGCCAGTGCTACGAGCTCACCACCAACGAATACGTCTACCGCCTCTGCCCCTTCAAGC
TTGTCTCGCAGAAACCCAAACTCGGGGGCTCTCCCACCAGCCTTGGCACCTGGGGCTCATGGATTGGCCCCGACC
ACGACAAGTTCAGTGCCATGAAGTATGAGCAAGGCACGGGCTGCTGGCAGGGCCCCAACCGCTCCACCACCGTGC
GCCTCCTGTGCGGGAAAGAGACCATGGTGACCAGCACCACAGAGCCCAGTCGCTGCGAGTACCTCATGGAGCTGA
TGACGCCAGCCGCCTGCCCGGAGCCACCGCCTGAAGCACCCACCGAAGACGACCATGACGAGCTC**TAG**CTGGATG
GGCGCAGAGGTGGGCGGGGAGGTGGAGTCTCGTCGGCCTGCCCCAGCAAGGGGAGGCGGCGGGCCCTGAGGAAGA
TGGACCCACATGGCCACTCTATCAACCTGTGTCCCCATGTTCCCTGCTTTTTTGTTTTGTTTTTTTGAGGTGGAG
TCTCACTCTTTGGCCCAGGCTGGAGTGCAGTGATGCGACCTCAGCTGACTGCAACCTCTACCTCCCGGGTTCAAA
CAATTGTCTTGTCTCAGCCTCCCAAGTAGCTGGGATTACAGGTGTGCACCACCATGCCTGGCTAATTTTTAGTAG
AGATGGGGTTTCACCATGTTGGCCTGGATGGTCTCGAACTCCTGACCTCAGATGATCCACCTGCCTTGGCCTCCC
AAAGTGCTGGGATTACAGGCATGAGCCACCACACCCGGCCATCTCCTGCCTTTTTTTTTTTGGATGGAGTTTCAC
TCTTGTTGCCGAGATCATGCTACTGCACTCTCCAGCCTGGGCTACAGAGTGAGACTCTCAAAAAAAAAAAATAAT
AATAATAAGAGAAAATAGACAAGGTCTCCAGGCTGGTCAACTCCTGGCCTCAAATGATCCTCCCACCTCAGCCTC
CCAAGCAGCCGGGACTACAGGCAAACATCACCATGTCCAGCTGTCCCCAGCTTTCTAATCTGGTCTTTCTCTTGC
CCCAGAACCTCAAGAAGGCATGAAGCCAGCCCCTGCAGTGCCGTCCACCCGCCCCTCTGGGCCTGCCTGTGGCTC
TGTTGCCCTCCTCTGTGGCGGCAGGACCTTTGTGGGGCTTCGTGCCCTGCTCTGGGGCCCAGGCGGGGCTGGTCC
ACATTCCCAGGCCCCAACAGCCTTCAAAGATGGGTAAAGGAGCTTGCCCTCCCTGGGCCCCCCACCTTGGTGACT
CGCCCCACCACCCCCAGCCCTGTCCCTGCCACCCCTCCTAGTGGGGACTAGTGAATGACTTGACCTGTGACCTCA
ATACAATAAATGTGATCCCCCACCC

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FIGURE 1537

GGCTCATCCACCTGCAGAC**ATG**GGGCGCAGAAAGTCAAAACGAAAGCCGCCTCCCAAGAAGAAGATGACAGGCAC
CCTCGAGACCCAGTTCACCTGCCCCTTCTGCAACCACGAGAAATCCTGTGATGTGAAAATGGACCGTGCCCGCAA
CACCGGAGTCATCTCTTGTACCGTGTGCCTAGAGGAATTCCAGACGCCCATAACGTATCTGTCAGAACCCGTGGA
TGTGTACAGTGATTGGATAGACGCCTGCGAGGCGGCCAATCAG**TAG**CGACACAGAGGACCCGCCCCCTGAGCAGC
CCCGCGTACTGTGGATCCAGCTGTTCGGTTCTGGTCCAGAGACATTCCAGGGGTCCAGGGTGTGGGTCCTGGGCT
GTCACAGCCGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTAGTGGGTGTGCGTGTG
GGTGTGGGTGTGAGTGAGTGTGGGTGTGTGTGGCTGCACGTGTCACTGGGGTGGCCGTGAGTGTGTGCTCACAGG
TACGCGGTGGTGTCGGGTTCCTGGGCCTGAGGGGCCTGAACTGATCTCACTTGGCTCCGAAAGCCTTTGCTGTGT
TCCCTGCAGCCCCTGGCCCCCCAGCCTTGGGGCTCTGGCTCCCCCCGGCGGAATTGGGGGACTGTTTCCTGACAT
CCTGGACAAGGGAAGCCCACTAGAGGCTGGAACAGGACCTCTCCAGCCTCCTCACCAGCACCGTGCCCATCTCAA
CTGGACTTCCCGCTCTCCTTCTCCACCTTCTAGTGCCCGTGGCCGGGGATTCAAAGCCGCCGTTCCCCAGGTCCC
TGGGCTGGGCCCTGACAGGGAGCCGCCCCCCTCCCCATGGTAACCAGGAAGCCCGTTTCATGTTCAGTTGCTTTT
GTAGAGGAAGCAAGGGCTGGGATGGGGACAGCTGTCAATCACAAGCCCTTAAATAAAGCAGCCAGCGCAC

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FIGURE 1538

AGGGAATAAAGGCTCAGGGACCGGCAGTTCTACTCTAGAGCCCACCAGCCTCTCAGAGCCTCCGGTGACTGGCCT
GTGTCTCCCCCTGG**ATG**GACATGTGGACGGCGCTGCTCATCCTGCAAGCCTTGTTGCTACCCTCCCTGGCTGATG
GTGCCACCCCTGCCCTGCGCTTTGTAGCCGTGGGTGACTGGGGAGGGGTCCCCAATGCCCCATTCCACACGGCCC
GGGAAATGGCCAATGCCAAGGAGATCGCTCGGACTGTGCAGATCCTGGGTGCAGACTTCATCCTGTCTCTAGGGG
ACAATTTTTACTTCACTGGTGTGCAAGACATCAATGACAAGAGGTTCCAGGAGACCTTTGAGGACGTATTCTCTG
ACCGCTCCCTTCGCAAAGTGCCCTGGTACGTGCTAGCCGGAAACCATGACCACCTTGGCAATGTCTCTGCCCAGA
TTGCATACTCTAAGATCTCCAAGCGCTGGAACTTCCCCAGCCCTTTCTACCGCCTGCACTTCAAGATCCCACAGA
CCAATGTGTCTGTGGCCATTTTTATGCTGGACACAGTGACACTATGTGGCAACTCAGATGACTTCCTCAGCCAGC
AGCCTGAGAGGCCCCGAGACGTGAAGCTGGCCCGCACACAGCTGTCCTGGCTCAAGAAACAGCTGGCGGCGGCCA
GGGAGGACTACGTGCTGGTGGCTGGCCACTACCCCGTGTGGTCCATAGCCGAGCACGGGCCTACCCACTGCCTGG
TCAAGCAGCTACGGCCACTGCTGGCCACATACGGGGTCACTGCCTACCTGTGCGGCCACGATCACAATCTGCAGT
ACCTGCAAGATGAGAATGGCGTGGGCTACGTGCTGAGTGGGGCTGGGAATTTCATGGACCCCTCAAAGCGGCACC
AGCGCAAGGTCCCCAACGGCTATCTGCGCTTCCACTATGGGACTGAAGACTCACTGGGTGGCTTTGCCTATGTGG
AGATCAGCTCCAAAGAGATGACTGTCACTTACATCGAGGCCTCGGGCAAGTCCCTCTTTAAGACCAGGCTGCCGA
GGCGAGCCAGGCCC**TGA**ACTCCCATGACTGCCCAGCTCTGAGGCCCGATCTCCACTGTTGGGTGGGTGGGCCCTG
CCGGGACCCTGCTCACAGGCAGGCTTTTCCTCCAACCTGTGGCGCTGCAGCAGGGCAGGAAGGGGAAACACAGCT
GATGAACTGTGGTGCCACATGACCCTTGTGGCACAGATGCCCACGTATGTGAAACACACATGGACATGTGTCCCA
GCCACAGTGTTATGCTCTGTGGCTGGCTCACCTTTGCTGAGTTCCGGGGTGCAATGGGGGAGGGAGGGAGGGAAA
GCTTCCTCCTAAATCAAGCATCTTTCTGTTACTGATGTTCAATAAAAGAATAGTTGCCAAGGCTG

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FIGURE 1539

CCCACCCGGGCTCGCGTCTCCGTTTCTCCGAGAGGCCCAAGGTGTCTCCGCCGCAGCCTCTGTCGCGCCGTGACC
TGTACAGGTCGCGGGAGTCGTAGGGAGGACGCCGGGACACCTGGAAGCCGAGAA**ATG**GATTCAGTGGCCTTTGAG
GATGTGGCTGTGAACTTCACCCTGGAGGAGTGGGCTTTGCTGGATCCTTCCCAGAAGAATCTCTACAGGGATGTG
ATGCGGGAAACCTTCAGGAACCTGGCTTCTGTAGGAAAACAATGGGAAGACCAGAACATTGAAGACCCATTCAAA
ATTCCCAGGAGAAATATAAGTCATATTCCAGAGAGACTCTGTGAAAGTAAAGAAGGTGGTCAAGGTGAAGAAACC
TTCAGCCAGATTCCAGATGGTATTCTGAACAAGAAAACTCCTGGAGTAAAACCGTGTGAAAGCAGTGTGTGTGGA
GAAGTTGGCATGGGTCCTTCATCACTTAATAGGCACATCAGAGATCACACTGGACGTGAACCAAATGAATATCAG
GAATATGGAAAGAAGTCATATACACGTAACCAGTGTGGACGAGCCTTGAGTTATCATCGCTCTTTTCCAGTACGT
GAAAGGACTCATCCTGGAGGAAAGCCCTATGATTGTAAGGAATGTGGAGAAACCTTTATTTCTCTTGTAAGCATT
CGAAGACACATGTTAACGCATAGGGGAGGTGTACCTTACAAATGTAAGGTGTGTGGGAAAGCCTTTGATTATCCC
AGTTTATTTCGTATACATGAAAGAAGTCACACTGGAGAGAAACCTTATGAATGCAAGCAATGTGGGAAAGCCTTC
AGTTGTTCCAGTTACATTAGAATACATGAAAGGACTCACACTGGAGATAAACCCTATGAATGCAAGCAGTGTGGG
AAAGCTTTCAGTTGTTCCAAGTACATTCGAATCCATGAACGAACTCACACAGGAGAGAAACCCTACGAATGTAAA
CAGTGCGGTAAAGCCTTTAGGTGCGCCAGTTCTGTTCGAAGTCACGAGAGGACTCACACCGGAGAGAAACTTTTT
GAATGTAAGGAATGCGGGAAGGCTTTGACTTGTCTTGCAAGTGTTAGAAGACACATGATAAAGCACACTGGCAAT
GGACCTTATAAATGTAAGGTGTGTGGGAAAGCCTTTGATTTCCCCAGTTCATTTCGAATCCATGAAAGGACCCAC
ACTGGAGAGAAACCCTATGATTGTAAGCAATGTGGGAAAGCCTTCAGTTGTTCCAGTTCGTTTCGAAAACATGAA
AGAATTCACACTGGAGAGAAACCCTATAAATGTACAAAATGTGGGAAAGCCTTCAGTCGTTCCAGTTACTTCCGA
ATCCATGAAAGAACTCACACTGGAGAGAAACCCTATGAATGTAAGCAATGTGGGAAAGCCTTCAGTCGATCCACT
TACTTTCGAGTACATGAAAAAATTCATACTGGAGAGAAACCCTATGAGAACCCTAACCCTAACGCTTCAGTTGTC
CCAGTTCTTTCA**TGA**GCATGAAAGGAGTCACATAGAGAAACCCCATGAAAGTAAGAAATTTGGGAAAGCCTTCAG
TCCTTTCTGTTTCTTTCAACTACGTGAAAGGATTCACAGTGGAGAAAGACCCTGTAAGATAATTGGCTTTAAATT
ACGAGAGACTTGTGATAGGACAGTAAAACCTAGAGTTGGAGTTGGATCTCTGGATTGTGTTATGTCAGTGTTGGT
AGGTTAGGAACTAGATTTCCCAGAATCCATTCCATTTGTGATTCCATGATACAATTCACCAGTAACCTATCTTAC
ATGAGATTCGGAAGTAAGTTAAGAAGGCATTAGTCATGGTTTGGAAGCACCATACAGGGAGACAGCTGTGTGAAT
ACAGGCTGTATGGACACTTGCTTCCATCCCATTTTCCTGCTTCTTTGGGTTGCCAATCAAGAGTATCCTCAAAAC
GACTTGACTTTAATTTTCTCGGAGGTGATAGGCTTCCACACAGGTCTCCAGAAGCCCTGCATTGAATATCCATCC
ACACTTTGGTTTTCCTTCAGACATTATTATGTCTGTACTAGGCAACTAATTCAGACTGTCCTGGTTGGGAATATT
CTGTGATGCTCTGACTCCCCTAGTCTGTAGACGGAATTGGCATACGGTCTAATTTGTGTAGTAAGCACCTTTGTT
CATACTAGTAGTGACTGTATTCTTGATTCAGCCTGATAGCTACCATGCTGCTGTCAAAACCAACCAGAGGGGAGC
TTGTTCTTCTGCTGTAGTGTGCAGTGACTGGCCTCACCCAGGACTTTGATGTGAGAATGAGCACTTTCCTCTATC
AGGAAATTTCAAGTGTTTCCTGTTATTCGTAGCTCAATGTAATGCCTCAGTTCATTTTCAGTTGTTTGATTATAT
GTGACTAATATGTATTTTTTATTCAAACAAGACTTCTGTACATGTTTCTTCAAAACAGTTTATTAACTGTCTTCA
GTCTTGGATTACATCAAGTTTATAATTTTGGCAAATTGTTAAGACACTGTGAAGTCAGCGTTAACCATGTGCATA
CAACTTAAGGAATTTTTTCCTCCTCATGTAAATTTTACTTTTCATGCTTATATAGTTTCAACTTTTATCTTCATA
GTAATTTCTCATCTACTCATAATACCAAAAGTTAAGTCATGCTGTTTTGTGTGCTCTCTTGCTAAAGACCGCAGA
GACCATACCTGTTGTCAAAGAGGGTGTAATAAACTGTAATAATAATCATGACCAC

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FIGURE 1540

TTTCTGCCCGTGGACACCGCCGAAGAAGCATCGTTAAAGTCTCTCTTCACCCTGCCGTC**ATG**TCTAAGTCAGAGT
CTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACAACTGATGAGAGCCTGA
GGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAGGG
GCTTTGGGTTTGTCACGTATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGATG
GAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAGAAGATTCTCAAAGACCAGGTGCCCACTTAACTGTGAAAA
AGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAAGAGATTATTTTGAACAGTATGGAAAAA
TTGAAGTGATTGAAATCATGACTGACCGAGGCAGTGGCAAGAAAAGGGGCTTTGCCTTTGTAACCTTTGACGACC
ATGACTCCGTGGATAAGACTGTCATTCAGAAATACCATACTGTGAATGGCCACAACTGTGAAGTTAGAAAAGCCC
TGTCAAAGCAAGAGATGGCTAGTGCTTCATCCAGCCAAAGAGGTCGAAGTGGTTCTGGAAACTTTGGTGGTGGTC
GTGGAGGTGGTTTCGGTGGGAATGACAACTTCGGTCGTGGAGGAAACTTCAGTGGTCGTGGTGGCTTTGGTGGCA
GCCATGGTGGTGGTGGATATGGTGGCAGTGGGGATGGCTATAATGGATTTGGTAATGATGGAAGCAATTTTGGAG
GTGGTGGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAAATT
TTGGAGGCAGAAGCTCTGGCCCCTATGGCGGTGGAGGCCAATACTTTGCAAAACCACGAAACCAAGTGGCTATGG
CGGTTCCAGCAGCAGCAGTAGCTATGGCAGTGGCAGAAGATTTTAAT**TAG**GAAACAAAGCTTAGCAGGAGAGGAG
AGCCAGAGAAGTGACAGGGAAGCTACAGGTTACAATAGATTTGTGAACTCAGCCAAGCACAGTGGTGGCAGGGCC
TAGCTGCTACAAAGAAGACATGTTTTAGACAAATACTCATGTGTATGGGCAAAAAACTCGAGGACTGTATTTGTG
ACTAATTGTATAACAGGTTATTTTAGTTTCTGTTCTGTGGAAAGTGTAAAGCATTCCAACAAAGGGTTTTAACGT
AGATTTCTTTTTGCACCCCATGCTGTTGATTGCTAAATGTAATAGTCTGATCGTGATGCTGAATAAATGTCTTTT
TTTT

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FIGURE 1541

CGGAAATGGAGGGGGTCGCTTTCCTCACCTTCCTCGCTGCGCGGGCGGCGGTTGGTAACCGGTCAGACCAGCCCG
AGAGGGACCTGGTGCCTGTACCCAGGCTTCTGTCGCTCTGTCGCCTGCGCTATGCCCTGCTGTAGTCACAGGAGC
TGTAGAGAGGACCCCGGTACATCTGAAAGCCGGGAAATGGACCCAGTGGCCTTTGAGGATGTGGCTGTGAACTTC
ACCCAGGAAGAGTGGACATTGCTGGATATTTCCCAGAAGAATCTCTTCAGGGAAGTGATGCTGGAAACTTTCAGG
AACCTGACCTCTATAGGAAAAAAATGGAGTGACCAGAACATTGAATATGAGTACCAAAACCCCAGAAGAAGCTTC
AGGAGTCTCATAGAAGAGAAAGTCAATGAAATTAAAGAAGACAGTCATTGTGGAGAAACTTTTACCCAGGTTCCA
GATGACAGACTGAACTTCCAGGAGAAGAAAGCTTCTCCTGAAGTAAAATCATGTGACAGCTTTGTGTGTGCAGAA
GTTGGCATAGGTAACTCATCTTTTAATATGAGCATCAGAGGTGACACTGGACACAAGGCATATGAGTATCAGGAA
TATGGACCAAAGCCATATAAGTGTCAACAACCTAAAAATAAGAAAGCCTTCAGGTATCGCCCATCCATTAGAACA
CAAGAAAGGGATCACACTGGAGAGAAACCCTATGCTTGTAAAGTCTGTGGAAAAACCTTTATTTTCCATTCAAGC
ATTCGAAGACACATGGTAATGCACAGTGGGGATGGAACTTATAAATGTAAATTTTGTGGGAAAGCCTTCCATTCT
TTCAGTTTATATCTTATCCATGAAAGAACTCACACTGGAGAGAAACCATATGAATGTAAACAATGTGGTAAATCC
TTTACTTATTCTGCTACCCTTCAAATACATGAAAGAACTCACACTGGGGAGAAGCCCTATGAATGTAGCAAATGT
GATAAAGCATTTCATAGTTCTAGTTCCTATCATAGACATGAAAGAAGTCACATGGGAGAGAAGCCTTATCAATGC
AAAGAATGTGGAAAAGCATTTGCATATACCAGTTCTCTTCGTAGACATGAAAGGACCCACTCTGGGAAAAAACCG
TATGAATGTAAGCAATATGGGGAAGGCTTATCCTATCTTATAAGTTTTCAAACACACATAAGAATGAACTCTGGA
GAAAGACCTTATAAATGTAAGATATGTGGGAAAGGCTTTTATTCTGCCAAGTCATTTCAAACACATGAAAAAACT
CACACTGGAGAGAAACGCTATAAATGCAAGCAATGTGGTAAAGCCTTCAATCTTTCCAGTTCCTTTCGATATCAT
GAAAGGATTCACACTGGAGAGAAACCCTATGAGTGTAAGCAGTGTGGGAAAGCCTTCAGATCTGCCTCACAGCTT
CGAGTGCACGGTGGGACTCACACTGGAGAGAAACCCTATGAATGTAAGGAATGTGGGAAAGCCTTCAGATCTACC
TCACACCTTCGAGTGCATGGTAGGACTCATACTGGAGAGAAACCCTATGAATGTAAGGAATGTGGGAAAGCCTTC
AGATATGTGAAGCACCTTCAAATTCATGAAAGGACAGAAAAACACATAAGAATGCCCTCTGGAGAAAGACCTTAT
AAATGTAGTATATGTGAGAAAGGCTTTTATTCTGCCAAGTCATTTCAAACACATGAAAAAACTCACACTGGAGAG
AAACCCTATGAATGCAACCAATGTGGTAAAGCCTTCAGATGTTGCAATTCCCTTCGATATCATGAAAGGACTCAC
ACTGGAGAGAAACCCTATGAGTGTAAGCAATGTGGGAAAGCCTTCAGATCTGCCTCACACCTTCGAATGCATGAA
AGGACTCACACTGGAGAGAAACCCTATGAGTGTAAGCAATGTGGGAAAGCCTTCAGTTGTGCCTCAAACCTTCGA
AAGCATGGTAGGACTCACACTGGAGAGAAACCCTATGAGTGTAAGCAATGTGGGAAAGCCTTCAGATCTGCCTCA
AACCTTCAGATGCATGAAAAGGACTCACACTGGAGAGAAACCCTATGAATGTAAGGAATGCGAAAAAGCATTCTGT
AAATTCTCTTCTTTTCAAATACATGAAAGGAAGCACAGAGGAGAGAAGCCCTATGAATGTAAGCATTGTGGGAAT
GGATTCACATCTGCCAAGATTCTTCAAATACATGCAAGAACACACATTGGAGAGAAACACTATGAATGTAAGGAA
TGCGGAAAAGCATTCAATTATTTTTCTTCCTTGCATATACACGCAAGGACTCATATGGGAGAGAAGCCATATGAA
TGTAAGGATTGTGGGAAAGCATTCAGCTAGCCTGGTTCCTTTTATGGACATGAATAGACTCACACTGGAAGGAAG
CACTATGAATGCAAGCAATGTGGCAAAACTTTCACATTTTCCAGTTCTTTTCGATATCATGAAAGGACTCACACT
GGGGAGAAACCCTATCAATGTAAGCAGTGTGGGAAAGCCTTCATTCCTTTTACTTCTTTTCAATGTCATGAAAGG
ACTCACACGGGAGAGAAACCCTATGAGTGTATTCTAGTTCCGTTTGATATCATGAAAGGACTTACACTGGAGTGA
AACCCTATGAATGTAAGCAATGTGGGAAAGCCTTCAGATGTGCCTCGCACCTTCAACGGCATGGAAGGGTTCACA
CTTGGGAGAAACTCTATGAATGTAAGCAGTATGGGAAAGCCTTCAGATCTGCCAAGATTCTTTGAATACAGATAA
TTAATGTAAACAATTATCATAAGTATACTAACATGTTATTCTTTTTAAATAAGAAGGTATAATAAAATATCCCAT
TGGTTTTATGTATT

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FIGURE 1542

CGGACTCCGGAGCCGCACAAACCAGGGCTCGCC**ATG**AAGCCAGGATTCAGTCCCCGTGGGGGTGGCTTTGGCGGC
CGAGGGGGCTTTGGTGACCGTGGTGGTCGTGGAGGCCGAGGGGGCTTTGGCGGGGGCCGAGGTCGAGGCGGAGGC
TTTAGAGGTCGTGGACGAGGAGGAGGTGGAGGCGGCGGCGGCGGTGGAGGAGGAGGAAGAGGTGGTGGAGGCTTC
CATTCTGGTGGCAACCGGGGTCGTGGTCGGGGAGGAAAAAGAGGAAACCAGTCGGGGAAGAATGTGATGGTGGAG
CCGCATCGGCATGAGGGTGTCTTCATTTGTCGAGGAAAGGAAGATGCACTGGTCACCAAGAACCTGGTCCCTGGG
GAATCAGTTTATGGAGAGAAGAGAGTCTCGATTTCGGAAGGAGATGACAAAATTGAGTACCGAGCCTGGAACCCC
TTCCGCTCCAAGCTAGCAGCAGCAATCCTGGGTGGTGTGGACCAGATCCACATCAAACCGGGGGCTAAGGTTCTC
TACCTCGGGGCTGCCTCGGGCACCACGGTCTCCCATGTCTCTGACATCGTTGGTCCGGATGGTCTAGTCTATGCA
GTCGAGTTCTCCCACCGCTCTGGCCGTGACCTCATTAACTTGGCCAAGAAGAGGACCAACATCATTCCTGTGATC
GAGGATGCTCGACACCCACACAAATACCGCATGCTCATCGCAATGGTGGATGTGATCTTTGCTGATGTGGCCCAG
CCAGACCAGACCCGGATTGTGGCCCTGAATGCCCACACCTTCCTGCGTAATGGAGGACACTTTGTGATTTCCATT
AAGGCCAACTGCATTGACTCCACAGCCTCAGCCGAGGCCGTGTTTGCCTCCGAAGTGAAAAAGATGCAACAGGAG
AACATGAAGCCGCAGGAGCAGTTGACCCTTGAGCCATATGAAAGAGACCATGCCGTGGTCGTGGGAGTGTACAGG
CCACCCCCCAAGGTGAAGAAC**TGA**AGTTCAGCGCTGTCAGGATTGCGAGAGATGTGTGTTGATACTGTTGCACGT
GTGTTTTTCTATTAAAAGACTCATCCGTC

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FIGURE 1543

GTCAACTTAGTGTACAATGCTGTCAGATGAACCTTACCCTTGTAAGGCTTGTAACTTGGTTCCTCCCTTTCTTAA
GCCCTTATTGGCTATCTTTCTTCTTTTAATATTTAAAGTTTTTAATCTTTAAATTTTTAATTTTTAAACCATGCT
TGTTTAACCTGCTGGTAAAATTCACGTCTTTCAGACTGTAATGCTTTCATGCCAAGTAAATGGTCTTGCCAGGCT
TCCAGCCTGTTTCAGAGACCACTAGCCCAGAGCCGTATCAGCCCCTTCAGCAAGCCATAAGAAATTTCTACTCCT
CCTGGAAATAGATGTAGAGACTATGTCCATGCTTAGCAGGAAGTAGTTCCAGAAGAGACCTTTGCTCCTTAAGAA
TAAGGAGAATGAGGACTGCGAAGGAGAACGCAGCAAGCCCAGGCGGCGGTGGAAAGGCTGGAGGACACACCTAAA
C**ATG**TGGAATCCCAATGCCGGGCAGCCAGGGCCAAATCCATATCCCCCCAATATTGGGTGCCCTGGAGGTTCCAA
TCCTGCCCACCCACCACCTATTAATCCACCCTTTCCCCCAGGCCCCTGTCCTCCTCCCCCAGGAGCTCCCCATGG
CAATCCAGCTTTCCCCCCAGGTGGGCCCCCTCATCCTGTGCCACAGCCAGGGTATCCAGGATGCCAACCGTTGGG
TCCCTACCCTCCTCCATACCCACCGCCTGCCCCTGGAATCCCTCCTGTGAATCCCTTGGCTCCTGGCATGGTTGG
ACCAGCAGTGATAGTGGACAAGAAGATGCAGAAGAAAATGAAGAAAGCTCATAAAAAGATGCACAAGCACCAAAA
GCACCACAAGTACCACAAGCATGACAAGCATTCCTCCTCTTCCTCCTCCTCTTCCAGCAGTGATTCTGAC**TGA**AT
ACAGGCCCTGGACCCTTCCCTCAAGTCCCACCAGTTCTGCTCTCCCATCAAGCTTCAGATGCCACGTTGTACTGG
GGGAATGTAGCCCTTGTGCTCCCCACCCCCTACCTCCACCTGAGCCTCACCCTGCTGTTGAGCCCTGAGTGGCTA
GGGGAAATAGGAAGAGGATTGCCATGGCCTGGCCATCTTGTTGCTGCTTGGAGAGATCATATAGCTAATGAATTA
GGCAGGGGAGCTATTTTTTGAAGATGATGAACTAAATGTTGAAGACAAGTTTGAGATCTGTAAAATGTGATTTTT
TACTTCCACTTATAATACTTGTGATTGGGGAGGTTTGTGGAAATTCAATTATGATGAAAAACCTCTATCTTTTTT
GTAATGTTGGCATACTTGGGGGATTTAGTGGCAAATACATTCCCCAGCAGGCCTTTTGTTGGTTGCACTAACTGC
AAGGTTGCTGGGAAGTAGAGTCCATTTGGTTGATGAGCTTTGACTGCGGTTTTGGAACCTTACCTCTCCTCCTTA
GCCCAATATGCTGTCTCGGGTCCTATTCAAATAAAGTTATTTCTCCTGGTCT

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FIGURE 1544

GGCTTGGTCACT**ATG**GAGGAGATAGGCATCTTGGTGGAGAAGGCTCAGGATGAGATCCCAGCACTGTCCGTGTCC
CGGCCCCAGACCGGCCTGTCCTTCCTGGGCCCTGAGCCTGAGGACCTGGAGGACCTGTACAGCCGCTACAAGAAG
CTGCAGCAAGAGCTGGAGTTCCTGGAGGTGCAGGAGGAATACATCAAAGATGAGCAAAAGAACCTGAAAAAGGAA
TTTCTCCATGCCCAGGAGGAGGTGAAGCGAATCCAAAGCATCCCGCTGGTCATCGGACAATTTCTGGAGGCTGTG
GATCAGAATACAGCCATCGTGGGCTCTACCACAGGCTCCAACTATTATGTGCGCATCCTGAGCACCATCGATCGG
GAGCTGCTCAAGCCCAACGCCTCAGTGGCCCTCCACAAGCACAGCAATGCACTGGTGGACGTGCTGCCCCCCGAA
GCCGACAGCAGCATCATGATGCTCACCTCAGACCAGAAGCCAGATGTGATGTACGCGGACATCGGAGGCATGGAC
ATCCAGAAGCAGGAGGTGCGGGAGGCCGTGGAGCTCCCGCTCACGCATTTCGAGCTCTACAAGCAGATCGGCATC
GATCCCCCCCGAGGCGTCCTCATGTATGGCCCACCTGGCTGTGGGAAGACCATGTTGGCAAAGGCGGTGGCACAT
CACACAACAGCTGCATTCATCCGGGTCGTGGGCTCGGAGTTTGTACAGAAGTATCTGGGTGAGGGCCCCCGCATG
GTCCGGGATGTGTTCCGCCTGGCCAAGGAGAATGCACCTGCCATCATCTTCATAGACGAGATTGATGCCATCGCC
ACCAAGAGATTCGATGCTCAGACAGGGGCCGACAGGGAGGTTCAGAGGATCCTGCTGGAGCTGCTGAATCAGATG
GATGGATTTGATCAGAATGTCAATGTCAAGGTAATCATGGCCACAAACAGAGCAGACACCCTGGATCCGGCCCTG
CTACGGCCAGGACGGCTGGACCGTAAAATTGAATTTCCACTTCCTGACCGCCGCCAGAAGAGATTGATTTTCTCC
ACTATCACTAGCAAGATGAACCTCTCTGAGGAGGTTGACTTGGAAGACTATGTGGCCCGGCCAGATAAGATTTCA
GGAGCTGATATTAACTCCATCTGTCAGGAGAGTGGAATGTTGGCTGTCCGTGAAAACCGCTACATTGTCCTGGCC
AAGGACTTCGAGAAAGCATACAAGACTGTCATCAAGAAGGACGAGCAGGAGCATGAGTTTTACAAG**TGA**CCCTTC
CCTTCCCTCCACCACACCACTCAGGGGCTGGGGCTTCTCTCGCACCCCCAGCACCTCTGTCCCAAAACCTCATTC
CCTTTTTTCTTTACCCAGGATTGGTTTCTTCAATAAATAGATAAGATCGAATCC

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FIGURE 1545

GTTTTTTTTCTTGCTCCTGCGGAGGGCGCCCCAGCCATGGCCCTCAGGAGCTCCCTAGACCCCGCAGGGACTGCC
CTCCATCCCGGCCGCCGGGGCCCGCCCTCTGCATCCCGCGGGCAGCCTGTGTGAAGCGGCCTCCCGCAGCCCCCG
GCCCCTCCCCC**ATG**GAGGAGGAGGAGGGGGCGGTGGCCAAGGAGTGGGGCACGACCCCCGCGGGGCCCGTCTGGA
CCGCGGTGTTCGACTACGAGGCGGCGGGCGACGAGGAGCTGACCCTGCGGAGGGGCGATCGCGTCCAGGTGCTTT
CCCAAGACTGTGCGGTGTCCGGCGACGAGGGCTGGTGGACCGGGCAGCTCCCCAGCGGCCGCGTGGGCGTCTTCC
CCAGCAACTACGTGGCCCCCGGCGCCCCCGCTGCACCCGCGGGCCTCCAGCTGCCCCAGGAGATCCCCTTCCACG
AGCTGCAGCTAGAGGAGATCATCGGTGTGGGGGGCTTTGGCAAGGTCTATCGGGCCCTGTGGCGTGGCGAGGAGG
TGGCAGTCAAGGCCGCCCGGCTGGACCCTGAGAAGGACCCGGCAGTGACAGCGGAGCAGGTGTGCCAGGAAGCCC
GGCTCTTTGGAGCCCTGCAGCACCCCAACATAATTGCCCTTAGGGGCGCCTGCCTCAACCCCCCACACCTCTGCC
TAGTGATGGAGTATGCCCGGGGTGGTGCACTGAGCAGGGTGCTGGCAGGTCGCCGGGTGCCACCTCACGTGCTGG
TCAACTGGGCTGTGCAGGTGGCCCGGGGCATGAACTACCTACACAATGATGCCCCTGTGCCCATCATCCACCGGG
ACCTCAAGTCCATCAACATCCTGATCCTGGAGGCCATCGAGAACCACAACCTCGCAGACACGGTGCTCAAGATCA
CGGACTTCGGCCTCGCCCGCGAGTGGCACAAGACCACCAAGATGAGCGCTGCGGGGACCTACGCCTGGATGGCGC
CGGAGGTTATCCGTCTCTCCCTCTTCTCCAAAAGCAGTGATGTCTGGAGCTTCGGGGTGCTGCTGTGGGAGCTGC
TGACGGGGGAGGTCCCCTACCGTGAGATCGACGCCTTGGCCGTGGCGTATGGCGTGGCTATGAATAAGCTGACGC
TGCCCATTCCCTCCACGTGCCCCGAGCCCTTTGCCCGCCTCCTGGAGGAATGCTGGGACCCAGACCCCCACGGGC
GGCCAGATTTCGGTAGCATCTTGAAGCGGCTTGAAGTCATCGAACAGTCAGCCCTGTTCCAGATGCCACTGGAGT
CCTTCCACTCGCTGCAGGAAGACTGGAAGCTGGAGATTCAGCACATGTTTGATGACCTTCGGACCAAGGAGAAGG
AGCTTCGGAGCCGTGAGGAGGAGCTGCTGCGGGCGGCACAGGAGCAGCGCTTCCAGGAGGAGCAGCTGCGGCGGC
GGGAGCAGGAGCTGGCAGAACGTGAGATGGACATCGTGGAACGGGAGCTGCACCTGCTCATGTGCCAGCTGAGCC
AGGAGAAGCCCCGGGTCCGCAAGCGCAAGGGCAACTTCAAGCGCAGCCGCCTGCTCAAGCTGCGGGAAGGCGGCA
GCCACATCAGCCTGCCCTCTGGCTTTGAGCATAAGATCACAGTCCAGGCCTCTCCAACTCTGGATAAGCGGAAAG
GATCCGATGGGGCCAGCCCCCCTGCAAGCCCCAGCATCATCCCCCGGCTGAGGGCCATTCGCCTGACTCCCGTGG
ACTGTGGTGGCAGCAGCAGTGGCAGCAGCAGTGGAGGAAGTGGGACATGGAGCCGCGGTGGGCCCCCAAAGAAGG
AAGAACTGGTCGGGGGCAAGAAGAAGGGACGAACGTGGGGGCCCAGCTCCACCCTGCAGAAGGAGCGGGTGGGAG
GAGAGGAGAGGCTGAAGGGGCTGGGGGAAGGAAGCAAACAGTGGTCATCAAGTGCCCCCAACCTGGGCAAGTCCC
CCAAACACACACCCAGTCGCCGCTGGCTTCGCCAGCCTCAA**TGA**GATGGAGGAGTTCGCGGAGGCAGAGGATGGA
GGCAGCAGCGTGCCCCCTTCCCCCTACTCGACCCCGTCCTACCTCTCAGTGCCACTGCCTGCCGAGCCCTCCCCG
GGGGCGCGGGCGCCGTGGGAGCCGACGCCGTCCGCGCCCCCCGCTCGGTGGGGACACGGCGCCCGGCGGCGCTGC
GACCTGGCGCTGCTAGGCTGCGCCACGCTGCTGGGGGCTGTGGGCCTGGGCGCCGACGTGGCCGAGGCGCGCGCG
GCCGACGGTGAGGAGCAGCGGCGCTGGCTCGACGGCCTCTTCTTTCCCCGCGCCGGCCGCTTCCCGCGGGGCCTC
AGCCCACCCGCGCGTCCCCACGGCCGCCGCGAAGACGTGGGCCCCGGCCTGGGCCTGGCGCCCTCGGCCACCCTC
GTGTCGCTGTCGTCCGTGTCCGACTGCAACTCCACGCGTTCACTGCTGCGCTCTGACAGTGACGAGGCCGCACCG
GCCGCGCCCTCCCCACCACCCTCCCCGCCCGCGCCCACACCCACGCCCTCGCCCAGCACCAACCCCCTGGTGGAC
CTGGAGCTGGAGAGCTTCAAGAAGGACCCCCGCCAGTCGCTCACGCCCACCCACGTCACGGCTGCATGCGCTGTG
AGCCGCGGGCACCGGCGGACGCCATCGGATGGGGCGCTGGGGCAGCGGGGGCCGCCCGAGCCCGCGGGCCATGGC
CCTGGCCCTCGTGACCTTCTGGACTTCCCCCGCCTGCCCGACCCCCAGGCCCTGTTCCCAGCCCGCCGCCGGCCC
CCTGAGTTCCCAGGCCGCCCCACCACCCTGACCTTTGCCCCGAGACCTCGGCCGGCTGCCAGTCGCCCCCGCTTG
GACCCCTGGAAACTGGTCTCCTTCGGCCGGACACTCACCATCTCGCCTCCCAGCAGGCCAGACACTCCGGAGAGC
CCTGGGCCCCCCCAGCGTGCAGCCCACACTGCTGGACATGGACATGGAGGGGCAGAACCAAGACAGCACAGTGCCC
CTGTGCGGGGCCCACGGCTCCCACTAAGGCCTGCCCACCACCGCCCGCCTGGGCAGCCATGAATGTAGCGCCCCA
GGCCCTGCCCCAGCCCGCCATGCCACAAGGTGGGGGAGGCCCTGGGCAGGATGTTCACTCTATTTATT

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FIGURE 1546

CTCTTTATAATTTAGTTTCCATAGAAGTTATATGTGCATTTAAAAAAATTCAATGCTGGAGCGACCGTGTCTGGG
GAGCCGAGCCCCGCTTCTCGCTGCGGTGAGCCCGGACTGGGGCACGCACTGCGCAGACTCCCCGCTGCAGTGGGC
GGAGCTCCCACAGGCCCCGCCCCCTCCTCCCACCCTCGTTCAGCCTGTCCAGACAGAAGCTGGGGCCCAGCGGAG
GTAGCAGCAGACGCCTGAGAGCGAGGCCGAGGCCCCTCAGGGTTTGGAGACCCTGACACACCCACCTTCTCACCT
GGGCTCTGCGTATCCCCCAGCCTTGAGGGAAGATGAAGCCTAAACTGATGTACCAGGAGCTGAAGGTGCCTGCAG
AGGAGCCCGCCAATGAGCTGCCCATGAATGAGATTGAGGCGTGGAAGGCTGCGGAAAAGAAAGCCCGCTGGGTCC
TGCTGGTCCTCATTCTGGCGGTTGTGGGCTTCGGAGCCCTG**ATG**ACTCAGCTGTTTCTATGGGAATACGGCGACT
TGCATCTCTTTGGGCCCAACCAGCGCCCAGCCCCCTGCTATGACCCTTGCGAAGCAGTGCTGGTGGAAAGCATTC
CTGAGGGCCTGGACTTCCCCAATGCCTCCACGGGGAACCCTTCCACCAGCCAGGCCTGGCTGGGCCTGCTCGCCG
GTGCGCACAGCAGCCTGGACATCGCCTCCTTCTACTGGACCCTCACCAACAATGACACCCACACGCAGGAGCCCT
CTGCCCAGCAGGGTGAGGAGGTCCTCCGGCAGCTGCAGACCCTGGCACCAAAGGGCGTGAACGTCCGCATCGCTG
TGAGCAAGCCCAGCGGGCCCCAGCCACAGGCGGACCTGCAGGCTCTGCTGCAGAGCGGTGCCCAGGTCCGCATGG
TGGACATGCAGAAGCTGACCCATGGCGTCCTGCATACCAAGTTCTGGGTGGTGGACCAGACCCACTTCTACCTGG
GCAGTGCCAACATGGACTGGCGTTCACTGACCCAGGTCAAGGAGCTGGGCGTGGTCATGTACAACTGCAGCTGCC
TGGCTCGAGACCTGACCAAGATCTTTGAGGCCTACTGGTTCCTGGGCCAGGCAGGCAGCTCCATCCCATCAACTT
GGCCCCGGTTCTATGACACCCGCTACAACCAAGAGACACCAATGGAGATCTGCCTCAATGGAACCCCTGCTCTGG
CCTACCTGGCGAGTGCGCCCCCACCCCTGTGTCCAAGTGGCCGCACTCCAGACCTGAAGGCTCTACTCAACGTGG
TGGACAATGCCCGGAGTTTCATCTACGTCGCTGTCATGAACTACCTGCCCACTCTGGAGTTCTCCCACCCTCACA
GGTTCTGGCCTGCCATTGACGATGGGCTGCGGCGGGCCACCTACGAGCGTGGCGTCAAGGTGCGCCTGCTCATCA
GCTGCTGGGGACACTCGGAGCCATCCATGCGGGCCTTCCTGCTCTCTCTGGCTGCCCTGCGTGACAACCATACCC
ACTCTGACATCCAGGTGAAACTCTTTGTGGTCCCCGCGGATGAGGCCCAGGCTCGAATCCCATATGCCCGTGTCA
ACCACAACAAGTACATGGTGACTGAACGCGCCACCTACATCGGAACCTCCAACTGGTCTGGCAACTACTTCACGG
AGACGGCGGGCACCTCGCTGCTGGTGACGCAGAATGGGAGGGGCGGCCTGCGGAGCCAGCTGGAGGCCATTTTCC
TGAGGGACTGGGACTCCCCTTACAGCCATGACCTTGACACCTCAGCTGACAGCGTGGGCAACGCCTGCCGCCTGC
TC**TGA**GGCCCGATCCAGTGGGCAGGCCAAGGCCTGCTGGGCCCCCGCGGACCCAGGTGCTCTGGGTCACGGTCCC
TGTCCCCGCGCCCCCGCTTCTGTCTGCCCCATTGTGGCTCCTCAGGCTCTCTCCCCTGCTCTCCCACCTCTACCT
CCACCCCCACCGGCCTGACGCTGTGGCCCCGGGACCCAGCAGAGCTGGGGGAGGGATCAGCCCCCAAAGAAATGG
GGGTGCATGCTGGGCCTGGCCCCCTGGCCCACCCCCACTTTCCAGGGCAAAAAGGGCCCAGGGTTATAATAAGTA
AATAACTTGTCTGT

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FIGURE 1547

GGGCAGAGAGCACCGCCCAGCAGCCAGTGGGTTCCCGCGCGTGCCGAGACTCTGAGGCCTTGCACCCCCACGATC
CCGTACG**ATG**GCCGTCAAGAAGATCGCGATCTTCGGCGCCACTGGCCAGACCGGGCTCACCACCCTGGCGCAGGC
GGTGCAAGCAGGTTACGAAGTGACAGTGCTGGTGCGGGACTCCTCCAGGCTGCCATCAGAGGGGCCCCGGCCGGC
CCACGTGGTAGTGGGAGATGTTCTGCAGGCAGCCGATGTGGACAAGACCGTGGCTGGGCAGGACGCTGTCATCGT
GCTGCTGGGCACCCGCAATGACCTCAGTCCCACGACAGTGATGTCCGAGGGCGCCCGGAACATTGTGGCAGCCAT
GAAGGCTCATGGTGTGGACAAGGTCGTGGCCTGCACCTCGGCTTTCCTGCTCTGGGACCCTACCAAGGTGCCCCC
ACGACTGCAGGCTGTGACTGATGACCACATCCGGATGCACAAGGTGCTGCGGGAATCAGGCCTGAAGTACGTGGC
TGTGATGCCGCCACACATAGGAGACCAGCCACTAACTGGGGCGTACACAGTGACCCTGGATGGACGAGGGCCCTC
AAGGGTCATCTCCAAACATGACCTGGGCCATTTCATGCTGCGCTGCCTCACCACCGATGAGTACGACGGACACAG
CACCTACCCCTCCCACCAGTACCAG**TAG**CACTCTGTCCCCATCTGGGAGGGTGGCATTCTGGGACATGAGGAGCA
AAGGAAGGGGGCAATAAATGTTGAGCCAAGAGCTTCAAATTACTCTAG

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FIGURE 1548

GCACACCCGGAAGTGGGTGCGGGCCAGCCGGCTCGCCCGGGGGCCATGGCAGCAGCGGCTACTGCAGCCGAGGGG
GTCCCCAGTCGGGGGCCTCCCGGGGAAGTCATTCATCTGAATGTGGGAGGCAAGAGATTCAGTACCTCTCGCCAG
ACTCTCACCTGGATCCCAGACTCCTTCTTCTCCAGTCTTCTGAGCGGACGCATCTCGACGCTGAAAG**ATG**AGACC
GGAGCAATCTTCATCGATCAGGGACCATTACAGTCTTCGCCCACCCGTCACTCTACGTCTTGCGCATCACAAAGA
GTTGGATCCCAGGGGTGTCCACGGTTCCAGCCTCCTCCATGAAGCCCAGTTCTATGGGCTCACTCCTCTGGTTCG
TCGCCTGCAGCTTCGAGAGGAGTTGGATCGATCTTCTTGTGGAAACGTCCTCTTCAATGGTTACCTGCCGCCACC
AGTGTTCCCAGTGAAGCGGCGGAACCGGCACAGCCTAGTGGGGCCTCAGCAGCTAGGAGGACGGCCAGCCCCTGT
CCGACGGAGCAACACGATGCCCCCCAACCTTGGCAATGCAGGGCTGCTGGGCCGAATGCTGGATGAGAAAACCCC
TCCCTCACCCTCAGGACAACCTGAGGAGCCGGGGATGGTGCGCCTGGTGTGTGGACACCATAATTGGATCGCTGT
GGCCTATACCCAGTTTCTAGTCTGCTACAGGTTGAAGGAAGCCTCTGGCTGGCAGCTGGTGTTTTCCAGCCCCCG
CCTGGACTGGCCCATCGAACGACTGGCGCTCACAGCCCGGGTGCATGGTGGGGCTTTGGGTGAACATGACAAGAT
GGTGGCAGCAGCCACCGGCAGCGAGATCCTGCTATGGGCTCTGCAGGCGGAAGGCGGTGGCTCCGAGATAGGGGT
CTTTCATCTGGGGGTGCCTGTGGAGGCCTTGTTCTTCGTCGGGAACCAGCTCATTGCTACAAGCCACACAGGGCG
CATCGGGGTGTGGAATGCCGTCACCAAGCACTGGCAGGTCCAGGAGGTGCAGCCCATCACCAGTTATGACGCGGC
AGGCTCCTTCCTCCTCCTGGGCTGCAACAACGGCTCCATTTACTACGTGGATGTGCAGAAGTTCCCCTTGCGCAT
GAAAGACAACGACCTCCTTGTCAGCGAGCTCTATCGGGACCCAGCGGAGGATGGGGTCACCGCCCTCAGTGTCTA
CCTCACCCCCAAGACCAGTGACAGTGGGAACTGGATCGAGATCGCCTATGGCACCAGCTCAGGGGGCGTGCGGGT
CATCGTGCAGCACCCGGAGACTGTGGGCTCGGGGCCTCAGCTCTTCCAGACCTTCACTGTGCACCGCAGCCCTGT
CACCAAGATCATGCTGTCGGAGAAGCACCTCATCTCAGTCTGTGCCGACAACAACCACGTGCGGACATGGTCTGT
GACTCGCTTCCGCGGCATGATTTCCACCCAGCCCGGCTCCACCCCACTCGCTTCCTTTAAGATCCTGGCTCTGGA
GTCGGCAGATGGGCATGGCGGCTGCAGTGCTGGCAATGACATTGGCCCCTACGGTGAGCGGGACGACCAGCAAGT
GTTCATCCAGAAGGTGGTGCCCAGTGCCAGCCAGCTCTTCGTGCGTCTCTCATCTACTGGGCAGCGGGTGTGCTC
CGTGCGCTCCGTGGACGGCTCACCCACGACAGCCTTCACAGTGCTGGAGTGCGAGGGCTCCCGGCGGCTCGGCTC
TCGGCCCCGGCGCTACCTGCTCACTGGCCAGGCCAACGGCAGCTTGGCCATGTGGGACCTAACCACCGCCATGGA
CGGCCTCGGCCAGGCCCCTGCAGGTGGCCTGACGGAGCAAGAGCTGATGGAACAGCTGGAACACTGTGAGCTGGC
CCCGCCGGCTCCTTCAGCTCCCTCATGGGGCTGTCTCCCCAGCCCCTCACCCCGCATCTCCCTCACCAGCCTCCA
CTCAGCCTCCAGCAACACCTCCTTGTCTGGCCACCGTGGGAGCCCAAGCCCCCCGCAGGCTGAGGCCCGGCGCCG
TGGTGGGGGCAGCTTTGTGGAACGCTGCCAGGAACTGGTGCGGAGTGGGCCAGACCTCCGACGGCCACCCACACC
AGCCCCGTGGCCCTCCAGCGGTCTCGGCACTCCCCTCACACCTCCCAAGATGAAGCTCAATGAAACTTCCTTT**TG**
AACAACGCAGCTGCCATGATGCCTTGGGATGCCCTGGTCCTGGGGGACTCAGGTGCCTCCCTGATTCCTGTGGGA
ACCCCGGGTTCAGGGCCAGGGCCTCCTTGGAATAAATGGTTATTGTTACTAGGTCCCCACCTTCCCTCTTTTCTG
GAAGCCAAAGTCACCCTCCCCAATAAAGTCCTCACTGCC

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FIGURE 1549A

CGTTGCTGTTTGTCGCTGCTGCCCGGGCCAGACGTCTAGGAGGAGCCGCTGCATCCGAGTCCCTGGCTGTCTCCG
AAGCCTTCTGCAGGGTCCGAAGCTGCCAGCCCAAAAAGTGTGCAGGCCCCCAGCGGTGCCTGAACCCAGTGCCTG
CAGTGCCCAGTCCCAGCCCCAGCGTGAGGAAGAGACAGGTGTCCCTCAACTGGCAGCCACTGACGCTCCAGGAGG
CCAGAGCTCTACTGAAGCGGCGGCGGCCCCGGGGGCCAGGGGGCCGGGGACTACTGAGAAGGAGGCCCCCACAGC
GTGCCCCCGCTGGCAAGGCCCCGGTCCTGTGTCCCTTGATCTGTCACAATGGCGGTGTGTGCGTGAAGCCTGACC
GCTGCCTCTGTCCCCCGGACTTCGCTGGCAAGTTCTGCCAGTTGCACTCCTCGGGCGCCCGGCCCCCGGCCCCGG
CTGTACCAGGCCTCACCCGCTCCGTGTACACT**ATG**CCACTGGCCAACCACCGCGACGACGAGCACGGCGTGGCAT
CTATGGTGAGCGTCCACGTGGAGCACCCGCAGGAGGCGTCGGTGGTGGTGCACCAGGTGGAGCGTGTGTCTGGCC
CTTGGGAGGAGGCGGACGCTGAGGCGGTGGCGCGGGCGGAAGCGGCGGCGCGGGCGGAGGCGGCAGCGCCCTACA
CGGTGTTGGCACAGAGCGCGCCGCGGGAGGACGGCTACTCAGATGCCTCGGGCTTCGGTTACTGCTTTCGGGAGC
TGCGCGGAGGCGAATGCGCGTCCCCGCTGCCCGGGCTCCGGACGCAGGAGGTCTGCTGCCGAGGGGCCGGCTTGG
CCTGGGGCGTTCACGACTGTCAGCTGTGCTCCGAGCGCCTGGGGAACTCCGAAAGAGTGAGCGCCCCAGATGGAC
CTTGTCCAACCGGCTTTGAAAGAGTTAATGGGTCCTGCGAAGATGTGGATGAGTGCGCGACTGGCGGGCGCTGCC
AGCACGGCGAGTGTGCAAACACGCGCGGCGGGTACACGTGTGTGTGCCCCGACGGCTTTCTGCTCGACTCGTCCC
GCAGCAGCTGCATCTCCCAACACGTGATCTCAGAGGCCAAAGGGCCCTGCTTCCGCGTGCTCCGCGACGGCGGCT
GTTCGCTGCCCATTCTGCGGAACATCACTAAACAGATCTGCTGCTGCAGCCGCGTAGGCAAGGCCTGGGGCCGGG
GCTGCCAGCTCTGCCCACCCTTCGGCTCAGAGGGTTTCCGGGAGATCTGCCCGGCTGGTCCTGGTTACCACTACT
CGGCCTCCGACCTCCGCTACAACACCAGACCCCTGGGCCAGGAGCCACCCCGAGTGTCACTCAGCCAGCCTCGTA
CCCTGCCAGCCACCTCTCGGCCATCTGCAGGCTTTCTGCCCACCCATCGCCTGGAGCCCCGGCCTGAACCCCGGC
CCGATCCCCGGCCCGGCCCTGAGCTTCCCTTGCCCAGCATCCCTGCCTGGACTGGTCCTGAGATTCCTGAATCAG
GTCCCTCCTCCGGCATGTGTCAGCGCAACCCCCAGGTCTGCGGCCCAGGACGCTGCATTTCCCGGCCCAGCGGCT
ACACCTGCGCTTGCGACTCTGGCTTCCGGCTCAGCCCCCAGGGCACCCGATGCATTGATGTGGACGAATGTCGCC
GCGTGCCCCCGCCCTGTGCTCCCGGGCGCTGCGAGAACTCACCAGGCAGCTTCCGCTGCGTGTGCGGCCCGGGCT
TCCGAGCCGGCCCACGGGCTGCGGAATGCCTGGATGTGGACGAGTGCCACCGCGTGCCGCCGCCGTGTGACCTCG
GGCGCTGCGAGAACACGCCAGGCAGCTTCCTGTGCGTGTGCCCCGCCGGGTACCAGGCTGCACCGCACGGAGCCA
GCTGCCAGGATGTGGATGAATGCACCCAGAGCCCAGGCCTGTGTGGCCGAGGGGCCTGCAAGAACCTGCCTGGCT
CTTTCCGCTGTGTTTGCCCGGCTGGCTTCCGGGGCTCGGCGTGTGAAGAGGATGTGGATGAGTGTGCCCAGGAGC
CGCCGCCCTGTGGGCCCGGCCGCTGTGACAACACGGCAGGCTCCTTTCACTGTGCCTGCCCTGCTGGCTTCCGCT
CCCGAGGGCCCGGGGCCCCCTGCCAAGATGTGGATGAGTGTGCCCGAAGCCCCCCACCCTGCACCTACGGCCGGT
GTGAGAACACAGAAGGCAGCTTCCAGTGTGTCTGCCCCATGGGCTTCCAACCCAACACTGCTGGCTCCGAGTGCG
AGGATGTGGATGAGTGTGAGAACCACCTCGCATGCCCTGGGCAGGAGTGTGTGAACTCGCCCGGCTCCTTCCAGT
GCAGGACCTGTCCTTCTGGCCACCACCTGCACCGTGGCAGATGCACTGATGTGGACGAATGCAGTTCGGGTGCCC
CTCCCTGTGGTCCCCACGGCCACTGCACTAACACCGAAGGCTCCTTCCGCTGCAGCTGCGCGCCAGGCTACCGGG
CGCCGTCGGGTCGGCCCGGGCCCTGCGCAGACGTGAACGAGTGCCTGGAGGGCGATTTCTGCTTCCCTCACGGCG
AGTGCCTCAACACTGACGGCTCCTTTGCCTGTACTTGTGCCCCTGGCTACCGACCCGGACCCCGCGGAGCCTCTT
GCCTCGACGTTGACGAGTGCAGCGAGGAGGACCTTTGCCAGAGCGGCATCTGTACCAACACCGACGGCTCCTTCG
AGTGCATCTGTCCTCCGGGACACCGCGCTGGCCCGGACCTCGCCTCCTGCCTCGACGTGGACGAATGTCGCGAGC
GAGGCCCAGCCCTGTGCGGGTCGCAGCGCTGTGAGAACTCTCCCGGCTCCTACCGCTGTGTCCGGGACTGCGATC
CTGGGTACCACGCGGGCCCCGAGGGCACCTGTGACGATGTGGATGAGTGCCAAGAATATGGTCCCGAGATTTGTG
GAGCCCAGCGTTGTGAGAACACCCCTGGCTCCTACCGCTGCACACCAGCCTGTGACCCTGGCTATCAGCCCACGC
CAGGGGGCGGATGCCAGGATGTGAACGAGTGTGAAACACTACAGGGTGTATGTGGAGCTGCCCTGTGTGAAAATG
TCGAAGGCTCCTTCCTCTGTGTCTGCCCCAACAGCCCGGAAGAGTTTGACCCCATGACTGGACGCTGTGTTCCCC
CACGAACTTCTGCTGGCACGTTCCCAGGCTCGCAGCCCCAGGCACCTGCTAGCCCCGTTCTGCCCGCCAGGCCAC
CTCCGCCACCCCTGCCCCGCCGACCCAGCACACCTAGGCAGGGCCCTGTGGGGAGTGGGCGCCGGGAGTGCTACT
TTGACACAGCGGCCCCGGATGCATGTGACAACATCCTGGCTCGGAATGTGACATGGCAGGAGTGCTGCTGTACTG
TGGGTGAGGGCTGGGGCAGCGGCTGCCGCATCCAGCAGTGCCCGGGCACCGAGACAGCTGAGTACCAGTCATTGT
GCCCTCACGGCCGGGGCTACCTGGCGCCCAGTGGAGACCTGAGCCTCCGGAGAGACGTGGACGAATGTCAGCTCT
TCCGAGACCAGGTGTGCAAGAGTGGCGTGTGTGTGAACACGGCCCCGGGCTACTCATGCTATTGCAGCAACGGCT

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FIGURE 1549B

ACTACTACCACACACAGCGGCTGGAGTGCATCGACAATGACGAGTGCGCCGATGAGGAACCGGCCTGTGAGGGCG
GCCGCTGTGTCAACACTGTGGGCTCTTATCACTGTACCTGCGAGCCCCCACTGGTGCTGGATGGCTCGCAGCGCC
GCTGCGTCTCCAACGAGAGCCAGAGCCTCGATGACAATCTGGGAGTGTGCTGGCAGGAAGTGGGGGCTGACCTCG
TGTGCAGCCACCCTCGGCTGGACCGTCAGGCCACCTACACAGAGTGCTGCTGCCTGTATGGAGAGGCCTGGGGCA
TGGACTGCGCCCTCTGCCCTGCGCAGGACTCAGATGACTTCGAGGCCCTGTGCAATGTGCTACGCCCCCCCGCAT
ATAGCCCCCCGCGACCAGGTGGCTTTGGACTCCCCTACGAGTACGGCCCAGACTTAGGTCCACCTTACCAGGGCC
TCCCATATGGGCCTGAGTTGTACCCACCACCTGCGCTACCCTACGACCCCTACCCACCGCCACCTGGGCCCTTCG
CCCGCCGGGAGGCTCCTTATGGGGCACCCCGCTTCGACATGCCAGACTTTGAGGACGATGGTGGCCCCTATGGCG
AATCTGAGGCTCCTGCGCCACCTGGCCCGGGCACCCGCTGGCCCTATCGGTCCCGGGACACCCGCCGCTCCTTCC
CAGAGCCCGAGGAGCCTCCTGAAGGTGGAAGCTATGCTGGTTCCCTGGCTGAGCCCTACGAGGAGCTGGAGGCGG
AGGAGTGCGGGATCCTGGACGGCTGCACCAACGGCCGCTGCGTGCGCGTCCCCGAAGGCTTCACCTGCCGTTGCT
TCGACGGCTACCGCCTGGACATGACCCGCATGGCCTGCGTTGACATCAACGAGTGTGATGAGGCCGAGGCTGCCT
CCCCGCTGTGCGTCAACGCGCGTTGCCTCAACACGGATGGCTCCTTCCGCTGCATCTGCCGCCCGGGATTCGCAC
CCACGCACCAGCCGCACCACTGTGCGCCCGCACGGCCCCGGGCC**TGA**GCCCTGGCACCCGCTGGCCGCCCACCCG
CGCCCGCCACTCGGGGCCCCTGCCGCGCATCCTGCAGCCCGCTTATGCGTATGTGCACGGGGCCGCCCGCCTGGA
CCTGGAGAAGGGACCTACGGACGCCTGGAAGCTGCGACGCCCTGCACTGCTCCCGCCTCCACCAGCGCCTCCCAC
TGATGTCGTGGTCCCGGGCCTGGCCCAGGGGCCCCTTTACATGCCCTCTCCCTTTTATAAAATTTTCCATTAAAA
ACCACCTATTTTCT

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FIGURE 1550

GTGGTTATCGCGGCGCCCACCGGCCTCTGATCTCTGAGTCTTCTCCAACCCACAGACGTTTTTTGTTGCTCTGGT
TCCAGGACCTTCTCCACAACTAGGCCATTTTCCCTGCCAGGTGTCCTTTTTGACCTCTTGACCTCTGACTCAAAG
GTCAGCTCAAAGGTTCCGAACTCGGGCCTGGGATGTGAGGGGGTACTGAACCTAAGTTCTCCGAATCTTTAGCCC
TGGGTCCCTAAGTCGCATCCTTAAGGCACCTCACTCTAGATCTGAGCCTTCATATCCCAAACTCACTCATGAGTT
TCCACATCCAGCCCCAAAGAATGAGTTAACTCCTACTAACTCTCCACCTAAGACTCCCGAGGTAACCCAACCGGT
ACCACAGATCCGGTTCCGGATTTAAGGACCCCACCCTGTTAACCGTCAGGTGCCTTATGACTTGAGTCAGCCTCG
CAATTCCTGCTCCCGTGGTTTCAAATATTAGCCCTGGTCCTTTCACACCCACTGCTCAGTCCCCAGATTCTGGAA
CTCAGCTCTTAAACCTTTAAAATCTCCATCCCTGAGACCGTTCTCCGTTGGAGGATCCTTCCCTCCCCGCTTTCT
GAACCTCTCAACACCTCCTGTAGACCCCAAA**ATG**ACTTCTCCATGCTCTCCTCCCCTAAAACCACCAATTTCTCC
TCCAAAAACCCCTGTACCCCAAGCCAGCAGCATTCCATCTCCTCCTCTACCCCCAAGTCCCCTGGACTTTTCAGC
TTTACCATCCCCTCCCTGGAGTCAGCAGACCCCTGTTCCCCCACCGCTCCCACTGCCTCCTCCACCCGCTGCCAC
AGGGCCTGCTCCCCGTCATGTCTTCGGCCTGGAGAAGAGCCAGCTCCTGAAGGAGGCCTTTGATAAGGCCGGCCC
GGTCCCCAAGGGCAGAGAAGATGTGAAGAGGCTTCTGAAACTACACAAGGACCGGTTCCGAGGTGACCTGCGGTG
GATCCTCTTCTGTGCAGACCTGCCGTCCCTCATCCAAGAAGGCCCTCAATGCGGGCTGGTGGCCTTGTGGATGGC
AGGTACTCTCCTGTCGCCCCCCAGTGGCGTCCCCCTGGAGAGACTCATACGGGTGGCCACGGAAAGAGGCTACAC
GGCCCAGGGAGAGATGTTCTCAGCACCAGCTACGACGAGGACTTCAACCATGAGCCGTGTCAGAGGAAGGGCCAC
AAGGCACACTGGGCGG**TGA**GTGCAGGGGTCCTGCTGGGTGTTCGGGCTGTGCCCAGTCTCGGCTACACTGAGGAC
CCTGAGCTGCCGGGCCTGTTCCACCCAGTGCTGGGCACGCCCTGCCAACCACCATCCCTGCCAGAGGAGGGCTCC
CCGGGAGCTGTCTACCTGCTGTCCAAGCAGGGCAAGAGTTGGCACTATCAGCTGTGGGACTACGACCAGGTCCGG
GAGAGCAACCTGCAGCTGACGGACTTCTCGCCCTCACGGGCCACTGACGGCCGGGTGTACGTGGTGCCCGTGGGT
GGGGTACGGGCTGGCCTCTGTGGCCAGGCCCTGCTCCTCACACCACAGGACTGCAGCCATTAGCTGCGGCTGCGG
TCTCAGGCTGCAGCCTAGCTCGTTTTAAAGCCCATCTGGGAGCAGTTACCTGTGCCAGCCCCTCTACCTGTGTTA
GCAGATCTGGCAACCCTGTAAGGGGGGTGCTAGATGGACCCGATTTGACAGATGGCAAGACTGAGGCCTGGAGAA
GTGGAATCACTGGCCTGAGGTCACATGACTAGCACATGGCAAGATGGAGTCTCGTTCTGTCGTCCAGGCTGGAGT
GCGGTGGCGTGATCTCAGCTCACTCCAGCCTCCACTTCCCAGGTTCAAGTGATTCTCCTGCCTCAGCCCCCCAAG
TAACTGGGATTACAGGCATGCACCACCATGCCTGGCTAATTTTTTGTATTTTTAGTAGAGACGGGGCTTTGCCAT
GTTGGCCAGGCTGGTCTCGAACTCCTGACCTTGAGTAATCCACCCGCCTCGGCCTCCCAAAGTGCTGGGATTACA
GGTGTGAGCCACTGAGCCCGGCCACAGTGCAGTATTTCTAACCAGTGATCAGGGTAAAGAGGATGCGTGTCCACC
ATCCCAGCCCTGATCAGCCTGTCTGTGCATCCCCCATCCCAGCCAGGGCTTGGAGCAGCCTTGCTCACCACTGTG
TCCCCTGCATTGTAACACATCCAGGCACAAGAATAGCCGCCCAGTGACTGCCAAGTGAGTGAACCAGCCTGCTTG
GAGCCTGCCTCTTTCCCAAACTGCTCATTATCCTGTTACCCCACCCAGCCCACGTGTCCAAATACACTCCAGATG
CAAAATAAAAAGCTCTACGACA

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FIGURE 1551

CCTGACTTCCTTTTCGGAGGAAGATCCTTGAGCAGCCGACGTTGGGACAAAGGATTTGGAGAAACCCAGGGCTAA
AGTCACGTTTTTCCTCCTTTAAGACTTACCTCAACACTTCACTCC**ATG**GCAGTTCCCGAGACCCGCCCTAACCAC
ACTATTTATATCAACAACCTCAATGAGAAGATCAAGAAGGATGAGCTAAAAAAGTCCCTGTACGCCATCTTCTCC
CAGTTTGGCCAGATCCTGGATATCCTGGTATCACGGAGCCTGAAGATGAGGGGCCAGGCCTTTGTCATCTTCAAG
GAGGTCAGCAGCGCCACCAACGCCCTGCGCTCCATGCAGGGTTTCCCTTTCTATGACAAACCTATGCGTATCCAG
TATGCCAAGACCGACTCAGATATCATTGCCAAGATGAAAGGCACCTTCGTGGAGCGGGACCGCAAGCGGGAGAAG
AGGAAGCCCAAGAGCCAGGAGACCCCGGCCACCAAGAAGGCTGTGCAAGGCGGGGGAGCCACCCCCGTGGTGGGG
GCTGTCCAGGGGCCTGTCCCGGGCATGCCGCCGATGACTCAGGCGCCCCGCATTATGCACCACATGCCGGGCCAG
CCGCCCTACATGCCGCCCCCTGGTATGATCCCCCCGCCAGGCCTTGCACCTGGCCAGATCCCACCAGGGGCCATG
CCCCCGCAGCAGCTTATGCCAGGACAGATGCCCCCTGCCCAGCCTCTTTCTGAGAATCCACCGAATCACATCTTG
TTCCTCACCAACCTGCCAGAGGAGACCAACGAGCTCATGCTGTCCATGCTTTTCAATCAGTTCCCTGGCTTCAAG
GAGGTCCGTCTGGTACCCGGGCGGCATGACATCGCCTTCGTGGAGTTTGACAATGAGGTACAGGCAGGGGCAGCT
CGCGATGCCCTGCAGGGCTTTAAGATCACGCAGAACAACGCCATGAAGATCTCCTTTGCCAAGAAG**TAG**CACCTT
TTCCCCCCATGCCTGCCCCTTCCCCTGTTCTGGGGCCACCCCTTTCCCCCTTGGCTCAGCCCCCTGAAGGTAAGT
CCCCCCTTGGGGGCCTTCTTGGAGCCGTGTGTGAGTGAGTGGTCGCCACACAGCATTGTACCCAGAGTCTGTCCC
CAGACATTGCACCTGGCGCTGTTAGGCCGGAATTAAAGTGGCTTTTTGAGGTTTGGTTTTTCAC

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FIGURE 1552

TGACAAG**ATG**GCGGCAGGAGGCAGTGGCGTTGGTGGGAAGCGCAGCTCGAAAAGCGATGCCGATTCTGGTTTCCT
GGGGCTGCGGCCCACTTCGGTGGACCCAGCGCTGAGGCGGCGGCGGCGAGGCCCAAGAAATAAGAAGCGGGGCTG
GCGGCGGCTTGCTCAGGAGCCGCTGGGGCTGGAGGTTGACCAGTTCCTGGAAGACGTGCGGCTACAGGAGCGCAC
GAGCGGTGGCTTGTTGTCAGAGGCCCCAAATGAAAAACTCTTCTTCGTGGACACTGGCTCCAAGGAAAAAGGGCT
GACAAAGAAGAGAACCAAAGTCCAGAAGAAGTCACTGCTTCTCAAGAAACCCCTTCGGGTTGACCTCATCCTCGA
GAACACATCCAAAGTCCCTGCCCCCAAAGACGTCCTCGCCCACCAGGTCCCCAACGCCAAGAAGCTCAGGCGGAA
GGAGCAGCTATGGGAGAAGCTGGCCAAGCAGGGCGAGCTGCCCCGGGAGGTGCGCAGGGCCCAGGCCCGGCTCCT
CAACCCTTCTGCAACAAGGGCCAAGCCCGGGCCCCAGGACACCGTAGAGCGGCCCTTCTACGACCTCTGGGCCTC
AGACAACCCCCTGGACAGGCCGTTGGTTGGCCAGGATGAGTTTTTCCTGGAGCAGACCAAGAAGAAAGGAGTGAA
GCGGCCAGCACGCCTGCACACCAAGCCGTCCCAGGCACCCGCCGTGGAGGTGGCGCCTGCCGGAGCTTCCTACAA
TCCATCCTTTGAAGACCACCAGACCCTGCTCTCAGCGGCCCACGAGGTGGAGTTGCAGCGGCAGAAGGAGGCGGA
GAAGCTGGAGCGGCAGCTGGCCCTGCCCGCCACGGAGCAGGCCGCCACCCAGGAGTCCACATTCCAGGAGCTGTG
CGAGGGGCTGCTGGAGGAGTCGGATGGTGAGGGGGAGCCAGGCCAGGGCGAGGGGCCGGAGGCTGGGGATGCCGA
GGTCTGTCCCACGCCCGCCCGCCTGGCCACCACAGAGAAGAAGACGGAGCAGCAGCGGCGGCGGGAGAAGGCTGT
GCACAGGCTGCGGGTACAGCAGGCCGCGTTGCGGGCCGCCCGGCTCCGGCACCAGGAGCTGTTCCGGCTGCGCGG
GATCAAGGCCCAGGTGGCCCTGAGGCTGGCGGAGCTGGCGCGGCGGCAGAGGCGGCGGCAGGCGCGGCGGGAGGC
TGAGGCTGACAAGCCCCGAAGGCTGGGGCGGCTCAAGTACCAGGCACCTGACATCGACGTGCAGCTGAGCTCGGA
GCTGACAGACTCGCTCAGGACCCTGAAGCCCGAGGGCAACATCCTTCGAGACCGGTTCAAGAGCTTCCAGAGGAG
GAATATGATCGAGCCTCGAGAGAGAGCCAAGTTCAAACGCAAGTACAAGGTGAAGCTGGTGGAGAAGCGGGCGTT
CCGTGAGATCCAGTTG**TAG**CTGCCATCAGATGCCGGAGACTCGCCCTTCAATAAAAAATCTCTTCTAGCTG

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FIGURE 1553

CGTCTCTCCGTGAACCCCGTGAGCGGTGTGCAGCCACC**ATG**TTCAGCTGGCTGAAGCGGGGCGGGGCACGGGGCC
AGCAGCCCGAGGCCATCCGCACGGTGACCTCGGCCCTCAAGGAGCTGTACCGCACGAAGCTGCTGCCGCTGGAGG
AGCACTACCGCTTTGGGGCCTTCCACTCGCCGGCCCTGGAGGACGCAGACTTCGACGGCAAGCCCATGGTGCTGG
TGGCCGGCCAGTACAGCACGGGCAAGACCAGCTTCATCCAGTACCTGCTGGAGCAGGAGGTGCCCGGCTCCCGCG
TGGGGCCTGAGCCCACCACCGACTGCTTTGTGGCCGTCATGCACGGGGACACTGAGGGCACCGTGCCCGGCAACG
CCCTCGTCGTGGACCCGGACAAGCCCTTCCGCAAACTCAACCCTTTCGGAAACACCTTCCTCAACAGGTTCATGT
GTGCCCAGCTCCCTAATCAGGTCCTGGAGAGCATCAGCATCATCGACACCCCGGGTATCCTGTCGGGTGCCAAGC
AGAGAGTGAGCCGCGGCTACGACTTCCCGGCCGTGCTGCGCTGGTTCGCGGAGCGCGTGGACCTCATCATCCTGC
TCTTTGATGCGCACAAGCTGGAGATCTCGGACGAGTTCTCAGAGGCCATCGGCGCGTTGCGGGGCCATGAGGACA
AGATCCGCGTGGTGCTCAACAAGGCCGACATGGTGGAGACGCAGCAGCTGATGCGCGTCTACGGCGCGCTCATGT
GGGCGCTGGGCAAGGTGGTGGGCACGCCCGAGGTGCTGCGCGTCTACATCGGCTCCTTCTGGTCCCAGCCCCTCC
TCGTGCCCGACAACCGGCGCCTCTTCGAGCTGGAGGAGCAGGACCTCTTCCGCGACATCCAGGGCCTGCCCCGGC
ACGCAGCCTTGCGCAAGCTCAACGACCTGGTGAAGAGGGCCCGGCTGGTGCGAGTTCACGCTTACATCATCAGCT
ACCTGAAGAAGGAGATGCCCTCTGTGTTTGGGAAGGAGAACAAGAAGAAGCAGCTGATCCTCAAACTGCCCGTCA
TCTTTGCGAAGATTCAGCTGGAACATCACATCTCCCCTGGGGACTTTCCTGATTGCCAGAAAATGCAGGAGCTGC
TGATGGCGCACGACTTCACCAAGTTTCACTCGCTGAAGCCGAAGCTGCTAGAGGCACTGGACGAGATGCTGACGC
ACGACATCGCCAAGCTCATGCCCCTGCTGCGGCAGGAGGAGCTGGAGAGCACCGAGGTGGGCGTGCAGGGGGGCG
CTTTTGAGGGCACCCACATGGGCCCGTTTGTGGAGCGGGGACCTGACGAGGCCATGGAGGACGGCGAGGAGGGCT
CGGACGACGAGGCCGAGTGGGTGGTGACCAAGGACAAGTCCAAATACGACGAGATCTTCTACAACCTGGCGCCTG
CCGACGGCAAGCTGAGCGGCTCCAAGGCCAAGACCTGGATGGTGGGGACCAAGCTCCCCAACTCAGTGCTGGGGC
GCATCTGGAAGCTCAGCGATGTGGACCGCGACGGCATGCTGGATGATGAGGAGTTCGCGCTGGCCAGCCACCTCA
TCGAGGCCAAGCTGGAAGGCCACGGGCTGCCCGCCAACCTGCCCCGTCGCCTGGTGCCACCCTCCAAGCGACGCC
ACAAGGGCTCCGCCGAG**TGA**GCCGGCCCCCCTCCCATGGCCCTGCTGTGGCTCCCCAGCTCCAGTCGGCTGCACG
CACACCCCTGCTCCGGCTCACACACGCCCTGCCTGCCCTCCCTGCCCAGCTGTAAGGACCGGGGGTCTCCCTCCT
CACTACCGCCAGACACCCCGGTGGAAGCATTTAGAGGGGACCACGGGAGGGACAAGGCTTCTCTGTCCGCCCTTC
ACACCTCCAGCCTCACGTTCACTTAGGCACATCACACACACACTGGCACACGCAGGCATCCATCCATCCGTCATT
CATTCAAATATTTATTGAGCACCTACTATGTGCCCAGCCCTGTTCTAGGCACTGGGCATTACCATAGAGAACAAA
ATAGACAAATACATCTGCCCTCATGGAAGGTGACGTTCCCAGGAGAGGGCACCTACACAGTCACGCAAACACACA
CTAATTCCTGGCAGGGCCCCCAGCCCCTCCCCTGGCTGAGCAGCCCTGTGGCTGAAATGACTAGCAGATAAACAG

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FIGURE 1554

GCGGCTGAGTCTTCCCAGGGTCAGGGTCAGGCGCTTTGCTGAGTCCCTTTGTGGCCGCC**ATG**GACAATTCCGGGA
AGGAAGCGGAGGCGATGGCGCTGTTGGCCGAGGCGGAGCGCAAAGTGAAGAACTCGCAGTCCTTCTTCTCTGGCC
TCTTTGGAGGCTCATCCAAAATAGAGGAAGCATGCGAAATCTACGCCAGAGCAGCAAACATGTTCAAAATGGCCA
AAAACTGGAGTGCTGCTGGAAACGCGTTCTGCCAGGCTGCACAGCTGCACCTGCAGCTCCAGAGCAAGCACGACG
CAGCCACCTGCTTTGTGGACGCTGGCAACGCATTCAAGAAAGCCGACCCCCAAGAGGCCATTAACTGTTTGATGC
GAGCAATCGAGATCTACACAGACATGGGCCGATTCACGATTGCGGCCAAGCACCACATCTCCATTGCTGAGATCT
ATGAGACAGAGTTGGTGGACATCGAGAAGGCCATTGCCCACTACGAGCAGTCTGCAGACTACTACAAAGGCGAGG
AGTCCAACAGCTCAGCCAACAAGTGTCTGCTGAAGGTGGCTGGTTACGCTGCGCTGCTGGAGCAGTATCAGAAGG
CCATTGACATCTACGAACAGGTGGGGACCAATGCCATGGACAGCCCCCTCCTCAAGTACAGCGCCAAAGACTACT
TCTTCAAGGCGGCCCTCTGCCACTTCTGCATCGACATGCTCAACGCCAAGCTGGCTGTCCAAAAGTATGAGGAGC
TGTTCCCAGCTTTCTCTGATTCCCGGGAATGCAAGTTGATGAAAAAATTGCTAGAGGCCCACGAGGAGCAGAATG
TGGACAGCTACACCGAGTCGGTGAAGGAATACGACTCCATCTCCCGGCTGGACCAGTGGCTCACCACCATGCTGC
TGCGCATCAAGAAGACCATCCAGGGCGATGAGGAGGACCTGCGC**TAA**GCCCCACCCAGCCCCCCAGTGCCCGTCT
TCCTGTCCCATCTGCTCAGAGAGAGCCAAGCTCTAAAGCACATGTAGCCGCTGAGACCTGCTGTTTCTGCTGGGG
GCAGGCTCCTCTTCCCCCAGCCCCGGGAGCCTCCCCCAGCTTCCTGCAGCCCCGACCTCTCAGGTTAGACCCTGG
GCCCTGGAGCTTAGGGGATTCTCCCCACCCCAGCCCCACACCTGCTCCTTCCCTAATGCTTTGAGGTTTTCTTGG
TTGGAAGCTGCAGCTGGCCCAAGAAAGAAAATAAAAAACAACACTTTTGC

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FIGURE 1555

AACCTACGACTCTCTAAGCGACCTGAACCGCCGGGTGCCCGGCCGTTGCGCGGGCTGATGACGTACGGAAGCTGC
CGGCGTTGCCCTCTCCCAAGATGGCGGCCAGGTCGCCTGCTCGGGCCTCCCAGGCGACTTTGCCCCACTGCGCCC
GCGCTCTCTTCTCCTTTCCATTTCTGGACCAAGGGGCTGCCATAAGGAGTCTGTGACTAGAGATGGGAGGTGGTG
GCCACGGCCTCTCGCTGTATGCTGTGTGGAAGGTCGAATCATCATCATCATAAAACTTAATATTGCCCTTATGTG
CCAGGAACTACTATCTCAGCAATGGAGATGTGGTGCTTGGCCGCAATCGTGAATCGGCCCTGGAGGGGACACAGG
AAGGGGCTGCCTGCGACTCATGACCTCCTGCGTGCCTGCCTGCTGACCTATGACCCTTCAAGTTCCCACCCCTCA
GCCACGCCTGTGAGGAGGGTCTTGTTTTGTCGCCTACGCTGGAGTGCAGTGGTGTGATCACAGCTCACTGCAGCC
TCAACTTCCTGGACTCAAGCGATTTTCCTGCCTCAACCTCCCAAGAACTAGGACCCCAGATCCCCATGGACAAGG
CACTTGCATGAATTGTGAGGCTC**ATG**GAGTTGGGGTCGGACAACACAGAGCCGGCTCCCTCCAGGAGCTGCATGT
CCAGAGAGGGAAACAGGATGTGGACAGCAAGAATGAATACATGCAGACCAGTGCCCATGGGCGGAGGGCAGAAGA
GACCGTGCCTGAAGCCTCATCCATCCTGTGCTCATCTGCACACGGTCAGCTTCTGTGGGTCCCAAGCCATTCTGC
CCACACATCTCCTAACTGACGTTTGGGAGGCAGCAGCATCTCTCCTCCTCCTCGTGCAGCTGACCACCTCCAGCT
CAGCTCTGAGGCTTCTCCCCTTCATTCTCCTCCAGCTGAATCTGAGTCAGAGTTTC**TAA**GCTGGAAGAGGACCAG
GAGGCCTGGCCCTATCCTCTTAA

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FIGURE 1556

CGGGGGCTGCGGAGAGGGTGCTTAACTGAGGGGCATGATGGGGGAGGCGGCCGTGGCCGCGGGGCCTTGTCCGTT
GCGCGAGGACAGCTTCACGCGCTTCTCGTCGCAGAGCAATGTGTACGGGCTGGCAGGCGGCGCCGGCGGGCGCGG
GGAGCTGCTGGCCGCCACCCTTAAAGGCAAGGTGCTCGGCTTCCGCTACCAAGACCTCCGACAGAAAATCCGGCC
AGTGGCCAAGGAGCTGCAGTTCAACTACATTCCCGTGGATGCGGAGATTGTCTCCATCGACACTTTCAACAAGTC
ACCCCCCAAGCGGGGTCTGGTTGTGGGGATCACGTTCATCAAGGATTCAGGGGACAAGGGCAGCCCCTTCCTGAA
CATTTACTGCGACTACGAGCCCGGCTCTGAGTACAACCTTGACTCTATTGCCCAGAGCTGCCTGAACCTGGAGCT
CCAGTTCACTCCGTTCCAGCTGTGCCATGCGGAGGTCCAGGTCGGGGATCAACTTGAGACTGTGTTTCTCTTGAG
TGGGAACGACCCGGCCATTCATCTCTACAAGGAGAACGAGGGGCTGCATCAGTTTGAGGAACAGCCCGTGGAAAA
CCTCTTCCCAGAGCTGACGAACCTGACCAGTAGCGTCCTCTGGCTGGACGTCCACAACTTCCCCGGCACGTCCCG
GCGCCTCTCAGCTCTGGGCTGTCAGAGTGGTTATGTCCGTGTCGCCCACGTGGACCAGCGGAGTCGAGAGGTTCT
GCAGATGTGGTCGGTCCTGCAGGACGGTCCCATCTCCCGAGTGATTGTGTTCAGCCTCTCGGCCGCCAAGGAGAC
CAAGGACAGGCCACTACAAGATGAGTACAGCGTGCTCGTGGCCAGCATGTTGGAGCCAGCAGTGGTGTATCGGGA
CCTGCTGAACCGGGGTCTTGAAGACCAGCTTCTCCTGCCCGGCAGTGACCAGTTTGACAGCGTCCTCTGCAGCCT
GGTCACCGATGTGGATTTGGATGGGCGGCCAGAAGTCCTGGTGGCCACCTATGGACAGGAACTGCTGTGTTATAA
GTACCGGGGCCCAGAGTCGGGGCTTCCTGAGGCCCAGCACGGGTTCCATCTGCTGTGGCAGCGGAGCTTCTCCAG
TCCCCTGCTGGCCATGGCTCACGTGGACCTGACCGGGGATGGGCTGCAGGAGCTTGCCGTGGTCTCCCTGAAGGG
CGTGCACATCCTGCAGCACAGCCTGATTCAGGCCTCAGAGCTGGTCTTGACCCGGCTTCGACATCAAGTGGAGCA
GAGGAGACGTCGGCTACAGGGGTTGGAGGACGGGGCAGGTGCAGGGCCTGCTGAGAATGCAGCCTCTTAAGCACC
CATGCACCCACTCTTCCCAGACCTGGGGCGACTCATGGCGTGCTCACCTCCAGCCGCTGGTGGGGGGTGTCCTGA
AGGACAGGATGCTCTCCCCAGACCTCCCCAGGGTGGTGAAGCTGTGCCCTGGGGCCCCAGCTAACCCACTCCTCT
CTCTGTACGTCAATGTCCCTATTTGAAAGCAGGGATGATCCCATTCCACCCTGTCCACTCTGGATGAGAATTGGC
CACCTGATGGTTATTTATACGTCCAGAAGAACATC

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FIGURE 1557

TTGGCTTGAGCGGGACCGGAGCTGAGGCAGGAAGAGCCGGCGCC**ATG**GTGGAGAAGGAGGAGGCTGGCGGCGGCA
TTAGCGAGGAGGAGGCGGCACAGTATGACCGGCAGATCCGCCTGTGGGGACTGGAGGCCCAGAAACGGCTGCGGG
CCTCTCGGGTGCTTCTTGTCGGCTTGAAAGGACTTGGGGCTGAAATTGCCAAGAATCTCATCTTGGCAGGAGTGA
AAGGACTGACCATGCTGGATCACGAACAGGTAACTCCAGAAGATCCCGGAGCTCAGTTCTTGATTCGTACTGGGT
CTGTTGGCCGAAATAGGGCTGAAGCCTCTTTGGAGCGAGCTCAGAATCTCAACCCCATGGTGGATGTGAAGGTGG
ACACTGAGGATATAGAGAAGAAACCAGAGTCATTTTTCACTCAATTCGATGCTGTGTGTCTGACTTGCTGCTCCA
GGGATGTCATAGTTAAAGTTGACCAGATCTGTCACAAAAATAGCATCAAGTTCTTTACAGGAGATGTTTTTGGCT
ACCATGGATACACATTTGCCAATCTAGGAGAGCATGAGTTTGTAGAGGAGAAAACTAAAGTTGCCAAAGTTAGCC
AAGGAGTAGAAGATGGGCCCGACACCAAGAGAGCAAAACTTGATTCTTCTGAGACAACGATGGTCAAAAAGAAGG
TGGTCTTCTGCCCTGTTAAAGAAGCCCTGGAGGTGGACTGGAGCAGTGAGAAAGCAAAGGCTGCTCTGAAGCGCA
CGACCTCCGACTACTTTCTCCTTCAAGTGCTCTTAAAGTTCCGTACAGATAAAGGAAGAGATCCCAGTTCTGATA
CATATGAGGAAGATTCTGAGTTGTTGCTCCAGATACGAAATGATGTGCTTGACTCACTGGGTATTAGTCCTGACC
TGCTTCCTGAGGACTTTGTCAGGTACTGCTTCTCCGAGATGGCCCCAGTGTGTGCGGTGGTTGGAGGGATTTTGG
CACAGGAAATTGTGAAGGCCCTGTCTCAGCGGGACCCTCCTCACAACAACTTCTTCTTCTTCGATGGCATGAAGG
GGAATGGGATTGTGGAGTGCCTTGGCCCCAAG**TGA**ACTCAAGATTTGGCAGCCCCAGAGATGCCAACTGCAGCAT
GCCCACCTGTATTCCCTGTCCCCTTCCTTCATGAAGGCATCTCCAGGCAAGGAAAACTGAAGTCATTGGCCCGAT
ACAAAACATTTCCTGCAACGAAGGAGGTGGTGCCGACGTGCTGCTTCCCATCACCAGCAGCTGCTCGACAAGGGG
CGCAGGGTGGCTGTCTTTGTTCCAGCACTGTTCAGGCTGCCTGTCATCCCGGGCCTGCCAGCTCCCCTGAGTGAT
GAGCACTTCCAAGCACCCCTCTGCCCTTTCTCTGTCCTTATGCTGTCCCGGCCTCGCCAGCCCTCTGGGGCATTG
TGGGAGATGCCTGCCAGGAATGAGCAAGCTCTGTTGCTCGGGAGCCTCTTGTCACCTTCTTGGACTTATTCCCCA
CCTGATACCTTATAGAGAAAAGTGTGAATTCAGGTGGAGAGTAGGCCCAGGCCCCATGAGGCACCAGTGGAAGCA
CAGCTCCAAGTTCAGACAGGTGCCCTTAGAGAGGAAAACCATGACAGGCAAATGCATTTCCTCTGGAGTTTGAGA
CCCTGACAAACAACAGGTGGCATCTGGTGTGCTGTTCTTGAGTTTTCGTTTAGGATTAGTTGAGTTCCAGCTGGG
TTTTGGGAGAAAGGAGATGCTACCAAGTCTTGGATGTTAGGGCGAGACCCTGCAAGTTGAGTATTAGAGAGCTTG
TCTTTCAAGGCAGGTTCCTGGGGCTTCAGGGCTAGGAGGGAGGAGCCTGCCCTTTTAACAGAACCCCAGTCACAT
GCGGCTCAAGTCACTCAGAGGCTGTTGCATTTCAGGGCTATGTTGGTCCTTTGTTTACCTCCTAAACCACAGCTG
TTTGTGTTTCACATATGTTGTGAATTTTCCTTGGTTCTTTTTAAAGGAATGATAATAAAGTTACTTGCTTTAGGA
TTTGCTTGTTTTTCTTCCACTTCAGAAGCTTCTGAGAGGGAATGGGATGATCCTACCAGTTGCCTTTTCAGACCT
GAGGCTCTA

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FIGURE 1558A

CTCT**ATG**GGAGGAGACCACCCGGAGGATGAAGAGGATTTCTACGAGGAAGAGATGGACTATGGAGAGAGTGAGGA
GCCAATGGGAGACGACGACTATGACGAGTACTCCAAGGAGCTGAACCAGTACCGCCGCTCCAAGGACAGCCGAGG
CCGAGGGCTAAGTCGAGGCCGTGGCAGGGGCTCCCGAGGTCGAGGGAAAGGAATGGGTCGGGGCCGAGGCCGAGG
TGGCAGCCGAGGAGGGATGAACAAGGGCGGAATGAACGATGACGAAGACTTCTATGACGAGGACATGGGCGACGG
TGGTGGTGGAAGCTACCGGAGTCGTGACCATGACAAGCCCCACCAGCAGTCGGACAAGAAAGGCAAAGTCATTTG
CAAGTACTTCGTGGAAGGGCGCTGCACCTGGGGAGACCACTGTAATTTTAGCCATGACATCGAACTCCCAAAGAA
GCGAGAACTGTGCAAGTTTTACATCACTGGATTTTGCGCCAGAGCTGAGAACTGCCCTTATATGCACGGTGATTT
CCCGTGTAAGCTGTACCACACCACTGGGAACTGCATCAATGGTGACGACTGCATGTTTTCCCACGACCCTCTGAC
CGAAGAGACGAGGGAGCTCTTGGATAAGATGTTGGCCGATGATGCAGAAGCAGGTGCCGAGGATGAGAAGGAGGT
GGAGGAACTGAAGAAGCAGGGCATCAACCCCCTGCCCAAACCGCCCCCTGGTGTGGGCCTCCTGCCCACCCCTCC
TCGGCCCCCTGGCCCGCAGGCTCCAACCTCTCCCAACGGCAGGCCCATGCAGGGTGGCCCCCCGCCCCCGCCCCC
TCCCCCTCCCCCACCGCCCGGGCCCCCTCAGATGCCCATGCCGGTGCATGAGCCACTGTCCCCGCAGCAGCTGCA
GCAGCAGGACATGTACAACAAGAAGATCCCCTCCTTGTTTGAGATCGTGGTGCGGCCCACGGGACAGCTGGCTGA
GAAGCTGGGTGTGAGGTTCCCTGGACCCGGTGGACCCCCAGGGCCAATGGGCCCTGGGCCCAACATGGGACCCCC
AGGGCCAATGGGCGGTCCAATGCATCCTGACATGCACCCCGACATGCACCCGGACATGCACCCTGACATGCACGC
AGACATGCACGCAGACATGCCGATGGGCCCTGGCATGAATCCTGGCCCACCCATGGGCCCTGGCGGCCCTCCAAT
GATGCCCTACGGCCCTGGAGACTCCCCACATTCTGGAATGATGCCCCCTATCCCGCCAGCCCAGAACTTCTATGA
AAACTTCTACCAGCAGCAGGAGGGCATGGAGATGGAGCCCGGACTCCTGGGGGATGCAGAGGACTACGGGCACTA
CGAAGAGCTGCCAGGGGAGCCTGGGGAGCACCTCTTCCCTGAGCACCCTCTGGAGCCCGACAGCTTCTCTGAGGG
AGGGCCCCCAGGCCGGCCGAAGCCAGGCGCCGGTGTCCCTGACTTCCTGCCCTCAGCCCAGAGGGCCCTGTACCT
GAGGATCCAGCAGAAGCAGCAGGAGGAGGAGGAGAGAGCGAGGAGGCTGGCTGAGAGCAGCAAGCAGGACCGGGA
GAATGAGGAAGGTGACACCGGAAACTGGTACTCAAGTGATGAGGATGAGGGTGGAAGCAGTGTCACCTCCATCCT
GAAGACCTTGAGGCAGCAGACGTCCAGCCGACCCCCGGCTTCAGTTGGGGAGCTGAGCAGCAGTGGGCTGGGGGA
CCCCCGCCTCCAGAAGGGACACCCCACAGGAAGCCGGCTGGCTGACCCTCGCCTCAGCCGGGACCCCAGACTCAC
CCGCCATGTGGAGGCTTCTGGCGGGTCTGGCCCAGGTGATTCGGGACCCTCCGATCCTCGGCTGGCTCGCGCCCT
GCCCACCTCCAAGCCCGAAGGCAGCCTTCATTCCAGCCCTGTGGGCCCCAGCAGTTCCAAGGGGTCTGGGCCGCC
CCCAACGGAGGAGGAGGAAGGGGAGCGGGCCCTGCGGGAGAAGGCCGTGAACATTCCCCTGGACCCACTCCCCGG
GCACCCTCTGCGGGACCCACGGTCACAGCTGCAGCAGTTCAGCCACATCAAGAAGGACGTGACCCTGAGCAAGCC
CAGCTTCGCCCGCACCGTGCTCTGGAATCCCGAGGACCTGATCCCCCTACCCATCCCCAAGCAGGACGCAGTGCC
CCCCGTGCCCGCGGCCCTGCAATCCATGCCCACCCTGGACCCCCGGCTGCACCGCGCTGCCACGGCAGGGCCCCC
CAACGCCCGGCAGCGCCCGGGCGCCTCCACGGATTCCAGCACACAGGGCGCCAACCTCCCCGACTTTGAACTTCT
GTCTCGCATCCTCAAGACAGTCAATGCCACCGGCTCCTCGGCCGCCCCCGGTTCCAGCGACAAACCCAGTGACCC
CCGGGTGCGGAAGGCCCCCACCGACCCTCGGCTGCAGAAACCCACAGACTCTACGGCCTCCTCCCGGGCTGCCAA
GCCCGGCCCTGCTGAGGCGCCCTCTCCCACCGCCAGCCCGAGTGGGGATGCCTCCCCACCAGCCACCGCTCCCTA
CGACCCCCGCGTGCTGGCGGCCGGTGGACTGGGCCAGGGCGGAGGGGGCGGGCAGAGCAGTGTGCTGAGCGGTAT
CAGCCTCTACGACCCGAGGACTCCCAACGCGGGGGGCAAAGCCACAGAGCCGGCTGCTGACACGGGTGCCCAGCC
CAAGGGTGCTGAGGGCAATGGCAAGAGCTCGGCCTCCAAGGCTAAGGAGCCCCCGTTCGTCCGCAAGTCTGCCCT
GGAACAGCCAGAGACAGGGAAGGCCGGTGCTGATGGGGGCACCCCCACGGACAGATACAACAGCTACAACCGGCC
CCGGCCCAAGGCTGCTGCAGCCCCCGCTGCCACCACCGCCACCCCACCCCCCGAGGGTGCCCCACCCCAGCCCGG
GGTGCACAACCTGCCCGTGCCCACCCTCTTCGGGACGGTGAAGCAGACACCCAAGACGGGCTCAGGAAGCCCATT
TGCTGGGAACAGTCCGGCCCGCGAGGGTGAGCAGGATGCGGCATCCCTGAAGGATGTTTTTAAAGGCTTCGACCC
CACGGCCTCCCCCTTTTGCCAG**TAG**TGTCCAGCCAGAGCTGCGGCTCCAGCCACCCTTCCTAGGGTGGCATTCAG
GGCAGCACCCAGGGTAGGGAACTTGGGGGCAAGGGGAGGCAGGCTGGGTGTTCCTTTTTTCTTTTCTTTTTCTTT
TGCTTTCCGTCTCTTTTATTTTTTTTTAAAGTAGTACTTTCTTTGAGATTTGTAAATTGTATATAACCATCTTAA
GTTCTGGTCAGTGTGGCGGGCTCAGGGGCTCCTGCTGAGCAAACCGACTCATGCCCGCAAACCTGTGAACTTTCG
CCAGTGCCTGGCCTCAGACTCTGTGGGCTCTGCGTGGCCGGGCCTTGCTGGAGGCCCAGTGGGTTTTCTGGGCAA
AGCATGGCCCCTTTTCCCCAGGACAAAGGGAACAGTTGGTGTCTGGGAAGGTATTGAACGCTCCTCACCCTGTGC
CCGAAGAGACCCGGAACCAAGACCATGGCAGGGCCTGCGTGGAAGCAGGTCCAGGCGTTTCTAGAACCCTAGGGT

FIGURE 1558B

GCACCATCACTGTCTTTTCAGTGCAGGCTGTAACAACCCACTCAGGAGACAGTGAGAGTGAAAAGGTATTAAGGA
AAAAGCCCCCAGCGGCACTATGGGGGCTCCCTGGCGCATGCCTGCTCCTGTCCCTGGATTACCACACGTGCCCTC
CCTGCCACCCTCCGTCTAGAGCAAGCGGATGCCCCCCAGCCTGCAGCAGAAGCCTCCACAGTGAGAACTGGACCC
AAAGGTAGTGGGGGCCGGTGTGGGGCAGAGTCCTGAAGAGCCACCTCTAGGAGGCAGCCCCTAGGAGCACGCACG
TTCTGTCAGTATTACCCCACCTGTCCTATCAGGTGGGCCACACCCTGCTTGCCCACACCAGGGTCTGTCCTGGTC
CTCAAGCCACGCACCCGCTATGCCTGCACTGCAGCCCAGCCCCGGACAGCTCCAGGATCCGTGCAGTGGCTGCGC
CGCCAGGCCCCAACAATGGGGACCCTGGGGTGGCTCCTGGCCAAGTGTTCTCTGTTTTCCTCGCACCTCCTTACA
CTGTGTGACCTGCAGGGCATGAGGTATTGATGTGTTCGGGTTTCCTTTCCCAAGCCAGCAGATGCAGGTGTTCCA
AGGTGTGTTGCTCTGTGGGATTTGTGGACACTTAAGAAACGGACTGAGTGGGAACCCTGCAGCCAGGGGATGGGG
AGCCTCTGCTCCCCCCATGCTCCCACCCTGGCTGAGGGCCAGCCTCATCTGCAGAGCCCTGGAGGAGGCCCACCT
ATGGACACAGCCCGAGAGATGGGCGCAAGGGGTGCTGGGGGAGGCCTGCTATCCTGCCTCTGGGCCACTTGAGGG
GCCTCAGGAAGTGTGTGCTTGTGGCTGCATCTGCCCGTCTCCCTGGCCCACCATGTGGCTGCAGGCCAAGCTCTT
CATTGCTGACCATGAAGAGACCTAGTTACCTGCCAAGGGATTCCCCTTCCCTCCTCCTCAGGGTGGGGTGAACAA
GGCTCCTATCCCACCCCACCCCAAAAAGAGAAAAATGAAAAACTCATAGTTTGGAGCCAGGAGGCAGGGTGTCCT
ACAGGGCTGCACAGCCCTGAGGGGTCAGTGCTGGGATCTGGTTGGTTGGTTTGTCTTTTTGTCTTTTTTTTTTTT
TTTTTTTTTACACAATCATTAATGAGATTTGTCTTCAGCCACCAGTGTTGGCCTTGAAGCAGAGGGCACAGCCCT
TGGTGTTTGTAAAATAAGTATGAATACACAGTGTGGCAGTGTTGTGGTTTTTGTTGTTGTTTTTCCTCTCCTTTT
GAGAATTTTCTTTTGTAAAAGAAAAATATTTTTTAAACCGAAATCTGTGGATGAAATAGAAGCTGGAGCCCTCCT
CTTGGAATATTCAGCCTAAGAACCTCATAGGACTATGAATTCACCCGAAATTCTCATTTGCCATCAGGCCGAGCT
TTTAAAGAAAAATTGTTCTCTAACCAGGATTGTAACAAAAGTGTAAATACTGTTTCAGAGTTGAGAGTTGGTGGT
GCAAATATGTATATAATGAACTGTATTTTTACAATGATCGCCGCATGACTATTTCACACCCTTTTTATACTCCAT
ATCTGTCTTCCAGAAACGTCACCTGCCTTTCTCCTGTGGTCTCTTAATCCAGTAATTGTATTACTGCCATTAAAG
GATGCAGTTATTTT

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FIGURE 1559

CCCGCCTGAGCGAGCCCCCCGGAG**ATG**GCGGCCCCCTATCCCGGCAGTGGCGGCGGAAGCGAGGTCAAATGCGTG
GGAGGCCGCGGCGCCAGCGTCCCCTGGGACTTTCTACCCGGGCTGATGGTCAAGGCGCCGTCCGGACCGTGCCTG
CAGGCGCAGCGCAAGGAGAAGTCCCGGAACGCGGCGCGCTCGCGGCGCGGGAAGGAGAACCTGGAGTTCTTCGAG
CTGGCCAAGCTTCTCCCGCTGCCCGGCGCCATCTCCAGCCAGCTGGACAAGGCTTCCATCGTGCGCCTCAGCGTC
ACCTACCTCCGCCTGCGCCGGTTCGCCGCGCTGGGGGCGCCGCCCTGGGGGCTGAGAGCCGCGGGGCCGCCAGCT
GGCCTCGCCCCAGGCCGCCGCGGCCCCGCAGCGCTGGTCTCCGAAGTCTTCGAGCAGCACCTGGGAGGTCACATC
TTGCAGTCCCTGGATGGCTTTGTGTTCGCCTTGAACCAGGAAGGAAAATTCCTCTACATCTCAGAGACAGTCTCC
ATCTATCTGGGTCTCTCACAGGTGGAGATGACGGGCAGCAGCGTCTTCGACTACATTCACCCTGGGGACCACTCA
GAGGTGCTGGAGCAACTGGGGCTGCGGACGCCGACGCCCGGCCCCCCAACCCCGCCCTCCGTCTCCTCTTCCTCC
TCCTCTTCCTCTTCGCTTGCAGATACCCCCGAGATCGAGGCCAGCCTCACCAAGGTGCCCCCCTCCTCCCTGGTC
CAGGAGCGCTCCTTCTTTGTCCGCATGAAATCCACGCTCACCAAGAGGGGGCTGCACGTCAAGGCCTCAGGGTAC
AAGGTCATCCACGTGACTGGGCGCCTTCGGGCCCACGCCCTGGGCCTTGTGGCCCTCGGGCACACGTTGCCCCCG
GCCCCCCTGGCTGAGCTGCCACTCCATGGACACATGATCGTCTTCCGTCTCAGCCTGGGTCTCACCATCCTTGCT
TGTGAGAGCAGAGTCAGCGACCACATGGACCTGGGGCCCTCAGAGCTGGTGGGCCGCAGCTGCTACCAGTTTGTC
CACGGACAGGACGCCACGAGGATCCGCCAGAGCCACGTGGACTTGCTGGACAAGGGTCAGGTGATGACTGGTTAC
TACCGTTGGCTGCAGCGTGCCGGGGGCTTCGTGTGGCTGCAGTCTGTGGCCACAGTGGCTGGGAGCGGGAAGAGC
CCCGGGGAGCACCATGTGCTTTGGGTCAGCCACGTGCTCAGCCAAGCCGAGGGTGGCCAAACTCCTTTGGATGCC
TTCCAGCTTCCAGCCAGCGTGGCCTGTGAGGAGGCATCCAGCCCGGGGCCAGAGCCCACAGAGCCGGAGCCTCCG
ACGGAAGGGAAGCAGGCTGCCCCAGCGGAGAACGAGGCCCCCCAGACCCAGGGCAAACGCATCAAAGTGGAGCCC
GGCCCGAGGGAAACCAAAGGCTCCGAGGACAGTGGCGACGAGGATCCCTCCAGCCACCCGGCCACACCGAGGCCC
GAGTTCACCTCTGTCATCCGGGCAGGGGTCCTGAAGCAGGATCCGGTGCGGCCATGGGGCCTGGCGCCTCCCGGG
GACCCCCCGCCCACCCTCCTGCACGCGGGCTTCCTGCCGCCGGTGGTGCGGGGCCTGTGCACACCCGGCACCATC
CGCTACGGCCCCGCGGAGCTGGGCCTGGTGTACCCGCACCTGCAGAGGCTGGGTCCGGGCCCCGCGCTCCCGGAG
GCCTTTTACCCGCCCCTGGGCCTGCCCTACCCGGGGCCCGCGGGCACCAGGCTGCCGCGGAAGGGGGAC**TGA**GGA
CTGGCAGAGCTGCCGGCGCCGGACCCTGCGACAACCGGGGTCCCCCAGGACAGTAGGCCCGGCTCTGCCCGTAGC
CCTGAGAATTAAACGCCGGCTCTCCCTGC

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FIGURE 1560A

GGGGGCCAGGAAGCCCCAGGCACACAGTGCCGCCCTTCAGCGGGGGCCTGGGACACAGAGAAATCAACGACCGGG
AGCAGAAGTTGCATGCCCTTAAGGAGGTATTAAAGAAATTTCCAAAGGAAAACCACGAAGTCTTCAAGTATGTCA
TCTCTCACCTAAACAAGGTCAGCCACAACAACAAGGTGAATCTC**ATG**ACCAGCGAGAACCTCTCCATCTGCTTCT
GGCCCACCTTGATGAGACCTGATTTCAGCACTATGGACGCCCTCACAGCCACGCGCACCTACCAGACAATCATTG
AACTCTTTATCCAGCAGTGCCCCTTCTTCTTCTACAATCGGCCCATCACCGAGCCCCCCGGCGCCAGGCCCAGCT
CCCCCTCTGCCGTGGCTTCCACCGTCCCCTTCCTCACTTCCACGCCTGTCACAAGTCAGCCGTCGCCCCCACAGT
CGCCTCCACCCACCCCCCAGTCCCCAATGCAGCCACTGCTTCCCTCCCAGCTTCAAGCCGAACACACGCTG**TGA**G
CCACCAAGACCTGGGGCGACAGGAGAACCGGTCCTCTCTCTGACGGGGTGGCATTTGGCCTTGAACAAAACCAAG
TCCACTGGGGACAGAGGCAGGGGCAAGTGGCTCTCCCCATTACCTTCTCAAGACCTCAGTGGGAGCACCAGCCAA
TGGTACCATCGGCTGGGCTGCCAGGTACCCTGGGCCTGGCGCTGCAGACCTGAGCTGGCTTGGACCCATTTGAGG
ACTGAACTAGGCAGGCAATGGCTCCAGTGCCCTCCCTCTGTTCCCTGGACCACCACCCCACGTAGCTGCTCACAC
CAGCCTCCGGGTGCCTCCCTCTGCTTGTACAGAGCCCATGGTCGGGACAGTGCCCTGGCCTTTGCCGGGGAGGAG
GATGCTCTGAGATTCAGGGTGGGGCTGGCAACCCCTGAAGAGAACACTTCCTGTTGGTCTGTCTCTTCCCACCTT
CCATCTGCACACACCCCCAAGGTAAGGGTACAGCCCGGCTGGCGGCCTCCTTGGGAACGTGTAGGCCACGGCTCT
GCCACCACTAGGTACCTGCTGAGGGCGCTGGCTCTGCAGATCAGAACAACGGAGGATAGCTTTGTGCCTGGACCC
AGAGAGTGTGGGACTCCCCGCTTCATCCCCACCGTCCCACTCCACAGCCTTCCCGAAACATTCCCTGGCAAACAA
AGGAACACTAGGAGAAAAAATGGAAAAACCCTTCCAGTAATTAAAAAGGAAGAAACCACAGAAAGAAAACTACAG
ACCTCAAGATTCCACTCTGTGCCCGCCTCTGCCGGGAGGGAGGGAGGCACACAGGTGGAGCTGACCCTCGTCTTT
GTGGCAGCAAAACCAGGATGCCTGGAGCTGTGGCCTGAGGGCCTGCTGGGGTCCCACTCACCCACTTAGGTCTAG
TCGCTAGATCCCCCGTTTTCCCAAGAAGAGGGTTCGAGCCCTTGGTGGGGACAGCTGGGGAGATGGCAGTGCAGG
CTGGAACCTGGGCTGCCCCAGAACACAGTCCATTACGATAGAAACACTAGGCACCCCCCAGGCGAGAGCTAGTGG
GGTGCAGAGGGCCCCATGCCAGACAGCCCTTGGGGCTCGTTGCACTTTAAGAAATAGGATCTGTGGTGTATTCCA
GGGGGCCTGATGGACACCTTTCCCGGGCGTCTGCAGCTGCCCTGCCCGTGCCCGCCTGCAGTGGTTGGAGACGGG
AGTGGCCCTTCGGCTCCCGAGCTCCCTCTGGGGACGGCTGGCTCACTGTCTCCAGTTCTCAATGGCCAACGAAGG
TGCTTGGAAACACCTAACCTTGCAAGTTTTACCGCCTTTTGAGGAACACAAATCGGAGAACAAACCCAGGGTTCA
GGCGTGTTTTCTGTGAATGTTGGATGATGAATTTTTGTCTCTTCTGGTGGAGCTGTGCCTGGCCCTGTAGGCCCA
GGGTTGGCTGGAAGGTGACATCTGTGTTTCGTTTTAGCTGAGGTTGGCAGAAACGTTCCCAAACTCCCCCAGCCC
TGGACCCCAGCAGATGAGGAAACGGCCCCATTTACTGACCCCGCCCCCTTTTCGAGGTTATGCTCACCTGGTCAG
CTCCTCACGTAATTGGGGGTGGAGGGAAAGCATGGTGGTGCCCTGGGCCGTCCCTGTGTGAACGCAGGCAAAAGC
AGCCCAGTCCCCCTCACTGCTTGAGCTAACACTGCCACCTCTTTTGTGTGAGCACAAAAGCCACGTCCCAAGCCA
CCTGGCCCGATTCCACAGATGTATGTGCGGCCAGTGACTTCCCCAGGAGTGTGGAGGGGGTGGTGAGGAGGAGCA
CCTGGGCTCTCTACCCCTCTCCTCACAGAAGTACCTGAAACTAGGTCTGGGGCACTCCCAATGCAGCGCCTTGTC
AGCCAAGGTGGGCAGGCAGGGACTGTGGCAGCTTATGTCCAAAGGGAGCCCCCATGCACAGGAAGCCACAGGGTT
CCTCTTGTTTCCCCCGCTAACTTCAGCCTCTCATCTGCTGCTCCGGGCTGAGGGACTAGAGGACATCTCGGTCGT
TTGAGGGGCATGGCCAGTCGTGGCAGGCCGGCCTTCAGCGTCCGGTCAGGGAAGCGTGCAGCCCAAATGGGCACT
TGCATGGGAGCCACAGAGGAGCGTCCCTGGGGATTGTTGGGACCATGCTGCCCCCACTCCCGCTTTTGTTGGGGC
TCTAAGTTCTGGAAGGTGTGTGCACAGAGGGTGCTCATGGGACTCGCATGCAGCTCTCAGCACTGGGTGGGAGGG
CGTTGGCTTGTCCAGAATGGGGACGTGGGGCAGCCACCCCTGCCCAGCGAGAGCGCAGACACCGTGTGAGGGGAC
AGCAGCCCTTGGTGCAAAGCCAGAGACTGATCCTGGCTCTGACGGCTGAAGAGGGAAGACCCAAGGCTGGGTGGC
GTGGCTCGTGAATCCACTTAGAATTCTTGGCTTGTGTCGCATACTGGGTGTCACGGCACACATTTACTCTGCATT
GTCCCCGTCTTTCCCATCGCCTAGCGTTTGGGGAGGAACAGGGAGAGAGCTTCGGGGCGTCTGTCTCCGTGCTCT
CCTGCCTCCACCGCCTTGGTTTTGCTTCCTGCTGGAGGCAGGGCACCTGCTGCGACCCAGATTCTTCTGCAGGAT
GTGTCTGTCTTTGTCACGGTGGACAGAGGGTGACATCATAGGAGCAGCTCGCTGGCCAGAAGGGGATGGGGGCAT
CCCTGTGCCTCACTCAGCTCCTGCTGCTCTTAGGGAAAGGAGGCCTGGGTCAAGCCAGCATCCCCTTGGTAAAGA
CCCCCGCAGGCCACCAGGCATTCTGGACACGCACACACACACACACACACACACACACACACACAAAACTTCACAGC
AGGCCAGCTGCAGTGACTTGTCATCAAGAGTCACCTCAGCTGCGCCCCCCTCCCATCCTTTCCTATGAGAAGCCA
CTGCTTTGGGGGCGCCGGCTAGAAAAAGTAGGGTGCGGTGGCCAGGAGGGCCCCTGCCGCGCGGGGGGCTGGGTC
TGGTTGAGTCGCTGCTTTCCCGAGGGCAGCGCAGGGATCCGGGGAAGCTGCGGCAGGGAGCGGGCGCCGGCTTCG

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FIGURE 1560B

TGGCTCTGAGGTGTAACGGGGGTGGGCTCCCTCCCTCGGAGGACATCGTCTGTGTCCAGGTCAGAAAGTGGCCCA
GGAAGGGGGCAGTTTCTGTCGCGGGTCCGGTGGGGGCGCGGCCGC

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FIGURE 1561

TGCACCCTGAGCCGGAGCTGCCCAGTCGCCGCGGGACCGGGGCCGCTGGGGTCTGGACGGGGGTCGCC**ATG**ATCC
GCTTTATCCTCATCCAGAACCGGGCAGGCAAGACGCGCCTGGCCAAGTGGTACATGCAGTTTGATGATGATGAGA
AACAGAAGCTGATCGAGGAGGTGCATGCCGTGGTCACCGTCCGAGACGCCAAACACACCAACTTTGTGGAGTTCC
GGAACTTTAAGATCATTTACCGCCGCTATGCTGGCCTCTACTTCTGCATCTGTGTGGATGTCAATGACAACAACC
TGGCTTACCTGGAGGCCATTCACAACTTCGTGGAGGTCTTAAACGAATATTTCCACAATGTCTGTGAACTGGACC
TGGTGTTCAACTTCTACAAGGTTTACACGGTCGTGGACGAGATGTTCCTGGCTGGCGAAATCCGAGAGACCAGCC
AGACGAAGGTGCTGAAACAGCTGCTGATGCTACAGTCCCTGGAG**TGA**GGGCAGGCGAGCCCCACCCCGGCCCCGG
CCCCTCCTGGACTCGCCTGCTCGCTTCCCCTTCCCAGGCCCGTGGCCAACCCAGCAGTCCTTCCCTCAGCTGCCT
AGGAGGAAGGGACCCAGCTGGGTCTGGGCCACAAGGGAGGAGACTGCACCCCACTGCCTCTGGGCCCTGGCTGTG
GGCAGAGGCCACCGTGTGTGTCCCGAGTAACCGTGCCGTTGTCGTGTGATGCCATAAGCGTCTGTGCGTGGAGTC
CCCAATAAACCTGTGGTCCTGCCTGGC

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FIGURE 1562

GGCACGCCCGGGAGGCTTTCTCTGGCTGGTAACCGCTACTCCCGGACACCAGACCACCGCCTTCCGTACACAGGG
GCCCGCATCCCACCCTCCCGGACCTAAGAGCCTGGGTCCCCTGTTTCCGGAGGTCCGCTTCCCGGCCCCCAGATT
CTGGCATCCCAGCCCTCAGTGTCCAAGACCCAGGCAGCCCGGGTCCCCGCCTCCCGGATCCAGGCGTCCGGGATC
TGCGCCACCAGAACCTAGCCTCCTGCAGACCTCCGCCATCTGGGGGCACTCAACCTCCTGGAGCCAAGGGCCCCA
CGTCCCACCCAGAGAAACTCTCGTATTCCCAGCTCCTAGGGCCAAGGAACCCGGGCGCTCCGAACTCCCAGCTTT
CGGACATCTGGCACACGGGGCAGAGCAGAGAAGCCTCAGCGCCCAGCCTGGGGAATTTAAACACTCCAGCTTCCA
AGAGCCAAGGAACTTCAGTGCTGTGAACTCACAACTCTAAGGAGCCCTCCAAAGTTCCAGTCTCCAGGTGCTGTT
ACTCAACTCAGTCCTAGGAACGTCGGGTCCTGGGAAGGAGCCCAAGCGCTCCCAGCCAGCTTCCAGGCGCTAAGA
AACCCCGGTGCTTCCCATC**ATG**GTGGCCGATCCTCCTCGAGACTCCAAGGGGCTCGCAGCGGCGGAGCCCACCGC
CAACGGGGGCCTGGCGCTGGCCTCCATCGAGGACCAAGGCGCGGCAGCAGGCGGCTACTGCGGTTCCCGGGACCA
GGTGCGCCGCTGCCTTCGAGCCAACCTGCTTGTGCTGCTGACAGTGGTGGCCGTGGTGGCCGGCGTGGCGCTGGG
ACTGGGGGTGTCGGGGGCCGGGGGTGCGCTGGCGTTGGGCCCGGAGCGCTTGAGCGCCTTCGTCTTCCCGGGCGA
GCTGCTGCTGCGTCTGCTGCGGATGATCATCTTGCCGCTGGTGGTGTGCAGCTTGATCGGCGGCGCCGCCAGCCT
GGACCCCGGCGCGCTCGGCCGTCTGGGCGCCTGGGCGCTGCTCTTTTTCCTGGTCACCACGCTGCTGGCGTCGGC
GCTCGGAGTGGGCTTGGCGCTGGCTCTGCAGCCGGGCGCCGCCTCCGCCGCCATCAACGCCTCCGTGGGAGCCGC
GGGCAGTGCCGAAAATGCCCCCAGCAAGGAGGTGCTCGATTCGTTCCTGGATCTTGCGAGAAATATCTTCCCTTC
CAACCTGGTGTCAGCAGCCTTTCGCTCATACTCTACCACCTATGAAGAGAGGAATATCACCGGAACCAGGGTGAA
GGTGCCCGTGGGGCAGGAGGTGGAGGGGATGAACATCCTGGGCTTGGTAGTGTTTGCCATCGTCTTTGGTGTGGC
GCTGCGGAAGCTGGGGCCTGAAGGGGAGCTGCTTATCCGCTTCTTCAACTCCTTCAATGAGGCCACCATGGTTCT
GGTCTCCTGGATCATGTGGTACGCCCCTGTGGGCATCATGTTCCTGGTGGCTGGCAAGATCGTGGAGATGGAGGA
TGTGGGTTTACTCTTTGCCCGCCTTGGCAAGTACATTCTGTGCTGCCTGCTGGGTCACGCCATCCATGGGCTCCT
GGTACTGCCCCTCATCTACTTCCTCTTCACCCGCAAAAACCCCTACCGCTTCCTGTGGGGCATCGTGACGCCGCT
GGCCACTGCCTTTGGGACCTCTTCCAGTTCCGCCACGCTGCCGCTGATGATGAAGTGCGTGGAGGAGAATAATGG
CGTGGCCAAGCACATCAGCCGTTTCATCCTGCCCATCGGCGCCACCGTCAACATGGACGGTGCCGCGCTCTTCCA
GTGCGTGGCCGCAGTGTTCATTGCACAGCTCAGCCAGCAGTCCTTGGACTTCGTAAAGATCATCACCATCCTGGT
CACGGCCACAGCGTCCAGCGTGGGGGCAGCGGGCATCCCTGCTGGAGGTGTCCTCACTCTGGCCATCATCCTCGA
AGCAGTCAACCTCCCGGTCGACCATATCTCCTTGATCCTGGCTGTGGACTGGCTAGTCGACCGGTCCTGTACCGT
CCTCAATGTAGAAGGTGACGCTCTGGGGGCAGGACTCCTCCAAAATTACGTGGACCGTACGGAGTCGAGAAGCAC
AGAGCCTGAGTTGATACAAGTGAAGAGTGAGCTGCCCCTGGATCCGCTGCCAGTCCCCACTGAGGAAGGAAACCC
CCTCCTCAAACACTATCGGGGGCCCGCAGGGGATGCCACGGTCGCCTCTGAGAAGGAATCAGTCATG**TAA**ACCCC
GGGAGGGACCTTCCCTGCCCTGCTGGGGGTGCTCTTTGGACACTGGATTATGAGGAATGGATAAATGGATGAGCT
AGGGCTCTGGGGGTCTGCCTGCACACTCTGGGGAGCCAGGGGCCCCAGCACCCTCCAGGACAGGAGATCTGGGAT
GCCTGGCTGCTGGAGTACATGTGTTCACAAGGGTTACTCCTCAAAACCCCCAGTTCTCACTCATGTCCCCAACTC
AAGGCTAGAAAACAGCAAGATGGAGAAATAATGTTCTGCTGCGTCCCCACCGTGACCTGCCTGGCCTCCCCTGTC
TCAGGGAGCAGGTCACAGGTCACCATGGGGAATTCTAGCCCCCACTGGGGGGATGTTACAACACCATGCTGGTTA
TTTTGGCGGCTGTAGTTGTGGGGGGATGTGTGTGTGCACGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT
GTTCTGTGACCTCCTGTCCCCATGGTACGTCCCACCCTGTCCCCAGATCCCCTATTCCCTCCACAATAACAGAAA
CACTCCCAGGGACTCTGGGGAGAGGCTGAGGACAAATACCTGCTGTCACTCCAGAGGACATTTTTTTTAGCAATA
AAATTGAGTGTCAACTATTT

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FIGURE 1563

ATGATGGAGGAGCGAGCGGCCGCCGCGGTCGCCGCCGCCGCCTCCTCCTGCCGTCCGCTCGGCTCAGGCGCGGGC
CCTGGCCCCACTGGGGCGGCCCCGGTCTCCGCCCCTGCCCCCGGGCCGGGCCCGGCAGGTAAGGGAGGCGGCGGC
GGAGGCAGCCCCGGGCCCACGGCGGGCCCGGAGCCCCTGAGCCTGCCGGGGATCCTGCACTTTATCCAGCACGAG
TGGGCGCGCTTCGAAGCCGAGAAAGCCCGCTGGGAGGCCGAGCGCGCCGAGTTACAGGCTCAGGTGGCCTTCCTT
CAGGGAGAGAGGAAAGGGCAGGAGAATCTAAAGACGGACCTGGTGCGGCGGATCAAGATGCTAGAGTATGCGCTG
AAGCAGGAAAGGGCCAAATATCATAAACTGAAGTTTGGGACAGACCTGAACCAGGGGGAGAAGAAAGCAGATGTG
TCAGAACAAGTCTCCAATGGCCCCGTGGAATCGGTCACCCTGGAGAACAGCCCGTTGGTGTGGAAGGAGGGGCGG
CAGCTTCTCCGACAGTACCTGGAAGAGGTGGGCTACACAGACACCATCCTCGACATGCGGTCCAAGCGCGTCCGT
TCCCTGCTGGGCCGCTCGCTGGAGCTCAACGGGGCAGTGGAGCCGAGTGAAGGGGCCCCCAGGGCTCCACCAGGC
CCTGCAGGGCTCAGTGGTGGGGAGTCGCTGCTGGTGAAACAGATCGAGGAGCAGATAAAGAGGAACGCGGCAGGC
AAAGATGGCAAAGAGCGCTTGGGCGGCTCAGTGCTGGGGCAGATCCCCTTCCTGCAGAACTGCGAGGACGAAGAC
AGCGACGAGGACGATGAGCTGGACAGCGTGCAGCACAAGAAGCAGCGTGTGAAGCTCCCATCCAAGGCTCTGGTG
CCCGAAATGGAAGACGAGGATGAGGAAGACGACTCTGAGGATGCTATCAATGAGTTTGATTTCCTGGGCTCAGGA
GAGGATGGGGAAGGGGCTCCAGACCCTCGGCGGTGCACTGTGGATGGGAGCCCCCATGAGCTGGAAAGCCGTCGG
GTCAAACTCCAAGGCATTCTGGCTGACCTGCGGGATGTGGATGGGCTGCCCCCAAAAGTGACTGGCCCGCCTCCT
GGCACACCCCAGCCCCGGCCACATGAAGACGTCTTCATCATGGACACTATCGGGGGCGGGGAGGTGAGCCTGGGG
GACTTGGCAGATCTCACCGTCACCAACGACAACGACCTCAGCTGCGATCTGTCTGACAGCAAAGATGCTTTTAAG
AAGACGTGGAACCCCAAGTTCACCCTGCGCTCGCACTACGACGGCATTCGTTCCCTGGCCTTCCACCACAGCCAG
TCGGCTCTGCTCACCGCCTCCGAGGACGGCACGCTCAAGCTCTGGAACCTGCAGAAGGCGGTCACGGCCAAGAAG
AATGCGGCGCTAGATGTGGAACCTATACATGCTTTCCGGGCTCACAGGGGCCCAGTGTTGGCTGTGGCTATGGGC
AGCAACAGTGAATACTGCTACAGTGGCGGGGCAGATGCCTGCATCCATAGTTGGAAGATTCCAGACCTCAGCATG
GATCCCTATGATGGCTACGACCCAAGCGTGCTGAGCCACGTCCTGGAGGGCCACGGGGACGCCGTGTGGGGCCTG
GCCTTCAGTCCCACCTCCCAGCGCCTGGCCTCCTGTTCTGCTGATGGCACCGTCCGCATCTGGGACCCCAGCAGC
AGCAGCCCGGCCTGCCTCTGCACCTTCCCCACAGCCAGCGAGCACGGGGTCCCCACCTCAGTGGCCTTCACCAGC
ACCGAGCCTGCCCACATCGTGGCCTCCTTCCGCTCTGGCGACACCGTCTTGTATGACATGGAGGTTGGCAGTGCC
CTCCTCACGCTGGAGTCCCGGGGCAGCAGCGGTCCAACCCAGATCAACCAAGTGGTGAGTCATCCAAACCAGCCT
CTCACCATCACCGCCCACGACGACAGGGGCATCCGCTTCCTGGACAATCGGACAGGTAAGCCGGTGCACTCCATG
GTTGCACACCTGGACGCAGTCACCTGCCTAGCCGTGGACCCCAACGGCGCATTCCTGATGTCAGGAAGCCATGAC
TGCTCCCTGCGTCTCTGGAGCCTGGACAACAAAACGTGCGTGCAGGAGATCACGGCCCACCGCAAGAAGCACGAG
GAGGCCATCCACGCTGTTGCCTGCCACCCCAGCAAGGCCCTCATTGCCAGTGCTGGCGCTGATGCCCTGGCCAAG
GTCTTCGTA**TGA**TGCCCACCTGGCCCTGCCCTGGCCGCCACGCTGGCTGGGGTGTAGGGCCGGGCAGGTGGGGCT
GAGGGGACTCCCAGCCTCGCTGGAGGTGCAGAGGCCTGGCCTCTGTCTGTTTGCCATGGAGCCTGGTGGTGCTAA
CGGCCCTTTCCCCAGGAATCCCTCCCCAACGGCTGCCTTCCCCAAGCATCCAGCCTGGGGATGGGCCCCTTTCAG
GAATCACCCCCGAGGATGGCCTCGGGGTTTCCCCCTGTGCCCTGACAGCCGCTCCTGGTATCAGAGCTGCTTTCC
AGAGGGCAGCACAGCCAGGGCCGGGTGTCTTTAGGGATCAGTTTTTCCAAGACTCCAGAAGGTGCCAGGTTCTCC
CCTTGAGCTCCTGCTCCCCCATCCCCCATCCTCCCAGACCTGGGCAGGAGCTGTGCTGGGAGAAAGGGTGGCAGC
CGGGAGCCTCAGAGCTGAGCCCCGGCCTGGCTGCCCCTCCCCTCCGGCCCTCTCCACTGCTTTCCAGACACTAAC
CAAGGCTTCCAGGCCAGGGATTGCCCAACACTCCTAGGGCAGCCCTCCCAGCGCCCCATGGGGTCGCCCATGGGT
AGAGACGGCTTTCTTGTGCCCCTCCCTGGGGCATGGAGGGTGGAGTGGGCCTCGGGTCCCCCTGAACTCCCTGTA
TATCTGTATAAATAACGGGATTTTCATGGCGCCGCCCCACCCGCATTATCACTGTGTGATGGTCTCAGTCAGTCT
CCTCCCTGTCTCCACTCTTTCCCTCTATTTATTTCACTCTCTTGTTTGGTTCTACCCTGCACCCTCGGTCCCCTT
CCAGGTTCCTGTTTATAAGCCCCAACCCCTCTGTCCCCATCTTGTATGTGAAAACTTGTCTCAATAAACCCTTTG
GAGT

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FIGURE 1564

GGGGACGAGAGATTCGCGGGCCCGTAGGTGTGGAGCGGGGCGCGGAGGGATCCGTGGGAGCCGCAGTGCGGCGGC
GCGCGGGCCGGGTGGGGCGGGGCCGAGCGAGGCGGGGCGCGCGCGGCGGCCGTTGAGGGACCGTTGGGGCGGGAG
GCGGCGGCGGCGGCGGCGCGCGCTGCGGGCAGTGAGTGTGGAGGCGCGGACGCGCGGCGGAGCTGGAACTGCTGC
AGCTGCTGCCGCCGCCGGAGGAACCTTGATCCCCGTGCTCCGGACACCCCGGGCCTCGCC**ATG**GCTGACCAGCTG
ACTGAGGAGCAGATTGCAGAGTTCAAGGAGGCCTTCTCCCTCTTTGACAAGGATGGAGATGGCACTATCACCACC
AAGGAGTTGGGGACAGTGATGAGATCCCTGGGACAGAACCCCACTGAAGCAGAGCTGCAGGATATGATCAATGAG
GTGGATGCAGATGGGAACGGGACCATTGACTTCCCGGAGTTCCTGACCATGATGGCCAGAAAGATGAAGGACACA
GACAGTGAGGAGGAGATCCGAGAGGCGTTCCGTGTCTTTGACAAGGATGGGAATGGCTACATCAGCGCCGCAGAG
CTGCGTCACGTAATGACGAACCTGGGGGAGAAGCTGACCGATGAGGAGGTGGATGAGATGATCAGGGAGGCTGAC
ATCGATGGAGATGGCCAGGTCAATTATGAAGAGTTTGTACAGATGATGACTGCAAAG**TGA**AGGCCCCCCGGGCAG
CTGGCGATGCCCGTTCTCTTGATCTCTCTCTTCTCGCGCGCGCACTCTCTCTTCAACACTCCCCTGCGTACCCCG
GTTCTAGCAAACACCAATTGATTGACTGAGAATCTGATAAAGCAACAAAAGATTTGTCCCAAGCTGCATGATTGC
TCTTTCTCCTTCTTCCCTGAGTCTCTCTCCATGCCCCTCATCTCTTCCTTTTGCCCTCGCCTCTTCCATCCATGT
CTTCCAAGGCCTGATGCATTCATAAGTTGAAGCCCTCCCCAGATCCCCTTGGGGAGCCTCTGCCCTCCTCCAGCC
CGGATGGCTCTCCTCCATTTTGGTTTGTTTCCTCTTGTTTGTCATCTTATTTTGGGTGCTGGGGTGGCTGCCAGC
CCTGTCCCGGGACCTGCTGGGAGGGACAAGAGGCCCTCCCCCAGGCAGAAGAGCATGCCCTTTGCCGTTGCATGC
AACCAGCCCTGTGATTCCACGTGCAGATCCCAGCAGCCTGTTGGGGCAGGGGTGCCAAGAGAGGCATTCCAGAAG
GACTGAGGGGGCGTTGAGGAATTGTGGCGTTGACTGGATGTGGCCCAGGAGGGGGTCGAGGGGGCCAACTCACAG
AAGGGGACTGACAGTGGGCAACACTCACATCCCACTGGCTGCTGTTCTGAAACCATCTGATTGGCTTTCTGAGGT
TTGGCTGGGTGGGGACTGCTCATTTGGCCACTCTGCAAATTGGACTTGCCCGCGTTCCTGAAGCGCTCTCGAGCT
GTTCTGTAAATACCTGGTGCTAACATCCCATGCCGCTCCCTCCTCACGATGCACCCACCGCCCTGAGGGCCCGTC
CTAGGAATGGATGTGGGGATGGTCGCTTTGTAATGTGCTGGTTCTCTTTTTTTTTCTTTCCCCTCTATGGCCCTT
AAGACTTTCATTTTGTTCAGAACCATGCTGGGCTAGCTAAAGGGTGGGGAGAGGGAAGATGGGCCCCACCACGCT
CTCAAGAGAACGCACCTGCAATAAAACAGTCTTGTCGGCCAGCTGCCCAGGGGACGGCAGCTACAGCAGCCTCTG
CGTCCTGGTCCGCCAGCACCTCCCGCTTCTCCGTGGTGACTTGGCGCCGCTTCCTCACATCTGTGCTCCGTGCCC
TCTTCCCTGCCTCTTCCCTCGCCCACCTGCCTGCCCCCATACTCCCCCAGCGGAGAGCATGATCCGTGCCCTTGC
TTCTGACTTTCGCCTCTGGGACAAGTAAGTCAATGTGGGCAGTTCAGTCGTCTGGGTTTTTTCCCCTTTTCTGTT
CATTTCATCTGGCTCCCCCCACCACCTCCCCACCCCACCCCCCACCCCCTGCTTCCCCTCACTGCCCAGGTCGAT
CAAGTGGCTTTTCCTGGGACCTGCCCAGCTTTGAGAATCTCTTCTCATCCACCCTCTGGCACCCAGCCTCTGAGG
GAAGGAGGGATGGGGCATAGTGGGAGACCCAGCCAAGAGCTGAGGGTAAGGGCAGGTAGGCGTGAGGCTGTGGAC
ATTTTCGGAATGTTTTGGTTTTGTTTTTTTTAAACCGGGCAATATTGTGTTCAGTTCAAGCTGTGAAGAAAAATA
TATATCAATGTTTTCCAATAAAATACAGTGACTACCTG

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FIGURE 1565

ATGGTCCGTCCGCGCCGTGCCCCGTACCGCTCCGGCGCCGGGGGCCCCCTCGGGGGTCGCGGCCGCCCTCCGCGG
CCCCTCGTGGTGCGCGCCGTCCGCTCGCGCTCCTGGCCTGCCAGCCCCCGAGGCCCGCAGCCTCCGCGGATCCGG
GCCCGCTCGGCCCCTCCCATGGAAGGTGCTCGGGTCTTCGGGGCACTGGGTCCCATCGGTCCCTCCTCACCTGGG
CTCACCCTCGGGGGTCTGGCCGTGAGCGAGCACCGGCTCAGCAACAAGCTGCTGGCTTGGAGCGGCAAGCGCAGA
CCCTACTCTGACTCCACTGCAAAGCTGAAGCGGACCCTGCCCTGCCAAGCCTACGTGAACCAAGGCGAGAACCTG
GAGACCGACCAGTGGCCGCAGAAGCTGATCATGCAGCTGATCCCTCAGCAGCTGCTGACCACCCTGGGCCCCCTG
TTCCGGAACTCCCAGTTGGCACAGTTCCACTTCACCAACAGAGACTGCGACTCGCTCAAGGGGCTCTGCCGCATC
ATGGGCAACGGCTTCGCGGGCTGCATGCTGTTCCCCCACATCTCCCCCTGTGAGGTGCGCGTGCTCATGCTCCTG
TACTCGTCCAAGAAGAAGATCTTCATGGGCCTCATCCCCTACGACCAGAGCGGCTTCGTCAGTGCCATCCGGCAG
GTCATCACCACCCGCAAGCAGGCAGTGGGACCTGGTGGTGTCAACTCAGGCCCAGTCCAGATCGTCAACAACAAG
TTTCTGGCATGGAGTGGTGTCATGGAGTGGCAGGAGCCCAGGCCTGAGCCCAACAGTCGGTCCAAGAGGTGGCTG
CCATCCCACGTCTACGTGAACCAGGGGGAGATCCTGAGGACCGAGCAGTGGCCAAGGAAGCTGTACATGCAGCTC
ATCCCGCAGCAGCTGCTGACCACCCTAGTGCCGCTGTTCCGGAACTCGCGCCTGGTCCAGTTCCACTTCACCAAG
GACCTGGAGACACTGAAGAGCCTGTGCCGGATCATGGACAATGGCTTCGCCGGCTGCGTGCACTTTTCCTACAAA
GCATCGTGTGAGATCCGCGTGCTTATGCTCCTGTACTCTTCAGAGAAGAAAATCTTCATTGGCCTCATCCCCCAT
GACCAGGGCAACTTTGTCAACGGCATCCGGCGTGTCATTGCCAACCAGCAGCAGGTCCTGCAGCGGAACCTGGAG
CAGGAGCAACAGCAACGAGGGATGGGGGGG**TAG**TGGTTACCCCGGGCTGGGCCCCTCCAGGAGTCACAGATGAGG
CCCCCGCAGAGACTGGTGACACGCTTCTGAGCAGGGGCCCCTGGGGACTTCAACTGCCCAGCAACATGGAGGATG
GTGTCCTGAGGCCTCCAAGGACGGTCCCCACCCCTCTACGTTTCCCCAATAAAGCCTTTTAAAAACC

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FIGURE 1566

ACAAGCTCCCGGGAAACCAGGAGTGACAAGGGCGCCTGTCCCTGAGGAGTGGAGAGCGCGGAGTTGGTGCTGAGT
CAGCCCTGATGTGGCAGAGGAGGAGCAGGCCCCCGCAGAACCAGGGCTCTTCAGTGTCTCCAGGTCCTTGGTGAA
GTGGAACTGGACCAGGCGCGAGTTCCGGAACAGCGGCACTAGGGTGGTCTGCGGGGAAGCGAGGGGACCCCCAGC
TCTGGCTTCTCCCACCACGGCCTCCCGGCTCCCAGCCCGCTGAGTCCCCCGGGCCCAGGACCAAACTGAGACTCC
CCTGTCCTCCCTACCTCAGGAAACGTCATCTCCACCGCTCAACCAGCCCAACCCTGGAGTGCTGTGGAAGCCGCT
CTCAGATCCCTTGGCAGCCCCCCAGGTGCAGGTCGTGGCTGCCCCTGCCCCGCTCAGTCCCTGCACAGCCACCAG
CTGGCTGCCTGGGACCCCTTGAAGCCAAGCCTGAGGAGCTACCCACCACACCTGCTTCAGCACCCTCAGCTCCGC
TCCCTCACAGCCAGCTCAGGCCACCTGGGGAGGCGCTCTTGCCCCCAGCCCCGCCCTCTGGAAGAGCTACTGCGT
GCAGGCTCCAGCACCCGGCCCCAGCCCCTCACCAGCAGCTGCTGCGGGATGAGCTGCATGTACAGCTTCCTTGGC
CACTGCTCGGTCCTCCTGTGGGGCACAAAGGGACGAGGGTCAGGAAGCCCCAGCTCCCCTGGATGCTGCCTCCAC
CCCCCAGCCCAGCACTCACAGGATCTCCCCCTGGTTCACGTAGACGTGGGATGGCAGCCACCTCTTGGACCGACT
GTTGGGCTCAGGCCTGGGCTTTTGGGGGAGAGGCAAAGAGGAGCCCTCAGGGCTGGAGACCCCCAATGCCAGTGT
CCCCTCCCAGCCACAGTCCGTGAGGATCTGGGGGTCCCAAGTCCCTGGGCTGCCGAGTGCTCACCTCCTGCCACT
CCATGACACCACTCCATGCCAGAAACTTGTTGTTGACGATCTGGACTGGGCCTGAGTTGACACCACCAGGTCCCA
CTGCCTGTTGGAAGGGAACGGGGTGGGAAGAGGGGCCCAGGCTCCTGGGAAACCTGTCTGTCTGTCCTGGGGCCT
GCCATCCCTCCCTCCGAGCCTTGGCCTGTTAGCCCCAGCTGGGTCCATTCTCTAGTCCCAGGGGAACAGGCCCTG
CCCCTCATCTGCTCACAGCCCCCC**ATG**GCTCCCCAGTGGCCTGAGACAGGTCCCGGCCCTCACCTGGTGCACAGG
ACCTGCAGAGTCTGCCTCAACTGGCAAGGCATGACCAGGACACGTGGTTACCAGGCAGGGCCTTCCAGCCGCAGG
ACGATCCCAACCCCTGCCCAGCTCCCCGCTCCGCTGGCTTCCCTGCCGCCGCGCCAAGACCCACCCTCCAGCCCT
GCAGAGCCGCCCAGTGGCCGCTTTTCCATGGAGCCCTGGTGGGAACCCGCCCGGCATCCTCCGGGCTCCCCTGCA
GCTCCTTGCTCCAGCCATCGCATCACACTCCGCCCACACCAAGTCTGGCTGCCCAACCAGGGCAGTGGGGTC**TAA**

TCCCCCTCTGTCCCCAGAGGGGCTGTGCTTGGCTGGCACACCTGCTTGCGGGTGGTGATGACCTGCCGGATGGCA
CTGACGAAGCCGCTCTGGTCGTAGGGGATGAGGCCCATGAAGATCTTCTTCTTGGACGAGTACAGGAGCATGAGC
ACGCGCACCTCACAGGGGGAGATGTGGGGGAACAGCATGCAGCCCGCCTGCGGGGGCCGCGGGTCAGGACCCTGT
GGTCACTGCCCGGGGCCACTGTGCCCCCACCACCCTGGACCGCCCCACCTGTAGGGGATGAAGGGAGATCATCGG
TGGACAGAGGCCCCCACAGTCAAGGCCATGGCCATAGGTGAGGGGCCTCTGAGAGCCCGTGCAGCGCCCATCGGC
ATCCCCCGACCCTGCCATGGCTGAGGTCAGAGTGGCACCCGGCACCCAGGCTGCGGTGAGAATGCCAAGAAGGCA
CTACCTCCCACCCACATCACCCCCTGCCGCCAGCCCTCCTGACTGCCTGATGGGGTGACTTGGCCTGGGGGTTAA
GAGCACAGGCAGCGCCCCACCGTTCTGCTGCCTCCTAGCTGTGTGACCTAACACCAGCCACCTCCTGCTTCTGGG
CCTCCATCATCTGTAAAACCGGGTAATAGTGCACACAGTTGGTGCCACATAAAGGCTCAACAGATAAA

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FIGURE 1567

AGGGTTTGAGGGTCTGTTTGAGTTGGGTGAAGAAGGCGGGAAGTTAATCCTCTTCCAATCAGCTCCCCATCTCGC
CCTCTGGCGGCTCCGGACCACAGGCCGAGTTACTCTGATTACCGCCATGCTCCAAGACCCGCACTGACAGTCCCC
ACGTGAGGGACCGCGGTGGGAGTCCTAA**ATG**GGGGAGGAGGGGACGGGCGGCACTGTGCATCTGCTGTGCCTCGC
GGCCTCCAGCGGGGTCCCCCTATTCTGCAGGAGCAGTCGCGGCGGCGCCCCCGCCCGTCAGCAGCTCCCGTTCTC
TGTCATCGGTTCCCTCAATGGAGTCCACATGTTTGGGCAGAATCTGGAGGTGCAGCTGAGCTCTGCGAGGACCGA
GAACACGACTGTGGTGTGGAAAAGCTTCCATGACAGCATCACCCTCATTGTTCTGTCATCTGAGGTGGGCATCTC
TGAGCTGAGGCTGGAGAGACTACTCCAAATGGTGTTTGGAGCCATGGTCCTTCTTGTGGGACTTGAAGAACTGAC
CAATATCCGCAACGTGGAGAGACTGAAGAAGGACTTGAGGGCCAGTTATTGCCTCATCGACAGCTTCCTGGGGGA
CTCGGAGCTCATCGGGGACCTGACCCAGTGTGTGGACTGCGTGATTCCTCCAGAGGGGTCCCTCTTGCAGGAAGC
CCTCTCCGGGTTCGCTGAGGCCGCGGGCACGACCTTCGTCAGTCTGGTGGTGTCCGGCCGGGTGGTGGCAGCAAC
AGAGGGTTGGTGGCGGCTGGGGACGCCCGAGGCCGTGCTGCTCCCCTGGCTGGTGGGGTCCCTGCCGCCGCAGAC
CGCTCGCGACTACCCGGTGTACCTGCCGCACGGGAGCCCCACGGTCCCACACCGGCTCCTGACCCTGACTCTGCT
GCCGAGCCTGGAGCTGTGTCTACTCTGCGGGCCGAGCCCACCCCTCAGCCAGTTGTATCCACAGCTTCTGGAGCG
CTGGTGGCAGCCACTGCTGGACCCGTTGCGGGCCTGTCTGCCGTTGGGACCCCGGGCGCTGCCCAGTGGCTTCCC
CCTTCACACAGACATCCTCGGGCTGCTGCTCCTCCACCTGGAACTGAAGCGCTGCCTCTTCACCGTGGAGCCCTT
GGGGGATAAAGAGCCTTCACCAGAACAGCGCCGGCGCCTCCTCCGAAACTTCTATACCCTGGTCACCTCCACGCA
CTTCCCACCAGAGCCAGGGCCACCAGAGAAGACAGAAGATGAGGTCTACCAGGCCCAGCTGCCCAGAGCTTGCTA
CCTGGTGTTGGGGACTGAGGAACCAGGCACAGGAGTGCGTCTGGTGGCCTTGCAGCTGGGGCTTCGGCGGCTGCT
GCTGCTGCTGTCTCCCCAGAGTCCCACCCATGGGCTGCGAAGCCTGGCCACCCACACTCTGCATGCCCTCACCCC
ACTTCTT**TGA**CTACCTAGCAGTGGGTGATGGACACAGACATGGGGCTGTTAGCGTCTCTCTGTTTATTCGCTCAC
AATAATACACAGCCCCTGGATGGGGAGGGGGTAGGAGGGGCTACAACAGGGTGGGGTGGGAGGGGAGGAGACATC
CACTTCCCTGGCCCCTCTCCCCTCTGTGCTTGGGGGGGAAAGGGAGGGAGGGGGACTCCCCCTAACCCCCCAGAA
TGTAAACAGCAGCAGATGAACAAAAATAAAAATACAAAAGGCCGGAGGAAAGTCCCAGGCATCCCCC

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FIGURE 1568

CGCCCGGTCCCCGCTTGCCAGCCCCCGCTGCTCTGTGCCCTGTCCGGCCAGGCCTGGAGCCGACACCACCGCCAT
C**ATG**CCGGCCGTGTCCAAGGGCGATGGGATGCGGGGGCTCGCGGTGTTCATCTCCGACATCCGGAACTGTAAGAG
CAAAGAGGCGGAAATTAAGAGAATCAACAAGGAACTGGCCAACATCCGCTCCAAGTTCAAAGGAGACAAAGCCTT
GGATGGCTACAGTAAGAAAAAATATGTGTGTAAACTGCTTTTCATCTTCCTGCTTGGCCATGACATTGACTTTGG
GCACATGGAGGCTGTGAATCTGTTGAGTTCCAATAAATACACAGAGAAGCAAATAGGTTACCTGTTCATTTCTGT
GCTGGTGAACTCGAACTCGGAGCTGATCCGCCTCATCAACAACGCCATCAAGAATGACCTGGCCAGCCGCAACCC
CACCTTCATGTGCCTGGCCCTGCACTGCATCGCCAACGTGGGCAGCCGGGAGATGGGCGAGGCCTTTGCCGCTGA
CATCCCCCGCATCCTGGTGGCCGGGGACAGCATGGACAGTGTCAAGCAGAGTGCGGCCCTGTGCCTCCTTCGACT
GTACAAGGCCTCGCCTGACCTGGTGCCCATGGGCGAGTGGACGGCGCGTGTGGTACACCTGCTCAATGACCAGCA
CATGGGTGTGGTCACGGCCGCCGTCAGCCTCATCACCTGTCTCTGCAAGAAGAACCCAGATGACTTCAAGACGTG
CGTCTCTCTGGCTGTGTCGCGCCTGAGCCGGATCGTCTCCTCTGCCTCCACCGACCTCCAGGACTACACCTACTA
CTTCGTCCCAGCACCCTGGCTCTCGGTGAAGCTCCTGCGGCTGCTGCAGTGCTACCCGCCTCCAGAGGATGCGGC
TGTGAAGGGGCGGCTGGTGGAATGTCTGGAGACTGTGCTCAACAAGGCCCAGGAGCCCCCCAAATCCAAGAAGGT
GCAGCATTCCAACGCCAAGAACGCCATCCTCTTCGAGACCATCAGCCTCATCATCCACTATGACAGTGAGCCCAA
CCTCCTGGTTCGGGCCTGCAACCAGCTGGGCCAGTTCCTGCAGCACCGGGAGACCAACCTGCGCTACCTGGCCCT
GGAGAGCATGTGCACGCTGGCCAGCTCCGAGTTCTCCCATGAAGCCGTCAAGACGCACATTGACACCGTCATCAA
TGCCCTCAAGACGGAGCGGGACGTCAGCGTGCGGCAGCGGGCGGCTGACCTCCTCTACGCCATGTGTGACCGGAG
CAATGCCAAGCAGATCGTGTCGGAGATGCTGCGGTACCTGGAGACGGCAGACTACGCCATCCGCGAGGAGATCGT
CCTGAAGGTGGCCATCCTGGCCGAGAAGTACGCCGTGGACTACAGCTGGTACGTGGACACCATCCTCAACCTCAT
CCGCATTGCGGGCGACTACGTGAGTGAGGAGGTGTGGTACCGTGTGCTACAGATCGTCACCAACCGTGATGACGT
CCAGGGCTATGCCGCCAAGACCGTCTTTGAGGCGCTCCAGGCCCCTGCCTGTCACGAGAACATGGTGAAGGTTGG
CGGCTACATCCTTGGGGAGTTTGGGAACCTGATTGCTGGGGACCCCCGCTCCAGCCCCCCAGTGCAGTTCTCCCT
GCTCCACTCCAAGTTCCATCTGTGCAGCGTGGCCACGCGGGCGCTGCTGCTGTCCACCTACATCAAGTTCATCAA
CCTCTTCCCCGAGACCAAGGCCACCATCCAGGGCGTCCTGCGGGCCGGCTCCCAGCTGCGCAATGCTGACGTGGA
GCTGCAGCAGCGAGCCGTGGAGTACCTCACCCTCAGCTCAGTGGCCAGCACCGACGTCCTGGCCACGGTGCTGGA
GGAGATGCCGCCCTTCCCCGAGCGCGAGTCGTCCATCCTGGCCAAGCTGAAACGCAAGAAGGGGCCAGGGGCCGG
CAGCGCCCTGGACGATGGCCGGAGGGACCCCAGCAGCAACGACATCAACGGGGGCATGGAGCCCACCCCCAGCAC
TGTGTCGACGCCCTCGCCCTCCGCCGACCTCCTGGGGCTGCGGGCAGCCCCTCCCCCGGCAGCACCCCCGGCTTC
TGCAGGAGCAGGGAACCTTCTGGTGGACGTCTTCGATGGCCCGGCCGCCCAGCCCAGCCTGGGGCCCACCCCCGA
GGAGGCCTTCCTCAGCGAGCTGGAGCCGCCTGCCCCCGAGAGCCCCATGGCTTTGCTGGCTGACCCAGCTCCAGC
TGCTGACCCAGGTCCTGAGGACATCGGCCCTCCCATTCCGGAAGCCGATGAGTTGCTGAATAAGTTTGTGTGTAA
GAACAACGGGGTCCTGTTCGAGAACCAGCTGCTGCAGATCGGAGTCAAGTCAGAGTTCCGACAGAACCTGGGCCG
CATGTATCTCTTCTATGGCAACAAGACCTCGGTGCAGTTCCAGAATTTCTCACCCACTGTGGTTCACCCGGGAGA
CCTCCAGACTCAGCTGGCTGTGCAGACCAAGCGCGTGGCGGCGCAGGTGGACGGCGGCGCGCAGGTGCAGCAGGT
GCTCAATATCGAGTGCCTGCGGGACTTCCTGACGCCCCCGCTGCTGTCCGTGCGCTTCCGGTACGGTGGCGCCCC
CCAGGCCCTCACCCTGAAGCTCCCAGTGACCATCAACAAGTTCTTCCAGCCCACCGAGATGGCGGCCCAGGATTT
CTTCCAGCGCTGGAAGCAGCTGAGCCTCCCTCAACAGGAGGCGCAGAAAATCTTCAAAGCCAACCACCCCATGGA
CGCAGAAGTTACTAAGGCCAAGCTTCTGGGGTTTGGCTCTGCTCTCCTGGACAATGTGGACCCCAACCCTGAGAA
CTTCGTGGGGGCGGGGATCATCCAGACTAAAGCCCTGCAGGTGGGCTGTCTGCTTCGGCTGGAGCCCAATGCCCA
GGCCCAGATGTACCGGCTGACCCTGCGCACCAGCAAGGAGCCCGTCTCCCGTCACCTGTGTGAGCTGCTGGCACA
GCAGTTC**TGA**GCCCTGGACTCTGCCCCGGGGGATGTGGCCGGCACTGGGCAGCCCCTTGGACTGAGGCAGTTTTG
GTGGATGGGGGACCTCCACTGGTGACAGAGAAGACACCAGGGTTTGGGGGATGCCTGGGACTTTCCTCCGGCCTT
TTGTATTTTTATTTTTGTTCATCTGCTGCTGTTTACATTCTGGGGGGTTAGGGGGAGTCCCCCTCCCTCCCTTTC
CCCCCCAAGCACAGAGGGGAGAGGGGCCAGGGAAGTGGATGTCTCCTCCCCTCCCACCCCACCCTGTTGTAGCCC
CTCCTACCCCCTCCCCATCCAGGGGCTGTGTATTATTGTGAGCGAATAAACAGAGAGACGCT

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FIGURE 1569

GGCAGCCGAGGCCGCGAACTGCATC**ATG**GAGAATTTTGTAGCCACCTTGGCTAATGGGATGAGCCTCCAGCCGCC
TCTTGAAGAAGTGTCCTGTGGCCAGGCGGAAAGCAGTGAGAAGCCCAACGCTGAGGACATGACATCCAAAGATTA
CTACTTTGACTCCTACGCACACTTTGGCATCCACGAGGAGATGCTGAAGGACGAGGTGCGCACCCTCACTTACCG
CAACTCCATGTTTCATAACCGGCACCTCTTCAAGGACAAGGTGGTGCTGGACGTCGGCTCGGGCACCGGCATCCT
CTGCATGTTTGCTGCCAAGGCCGGGGCCCGCAAGGTCATCGGGATCGAGTGTTCCAGTATCTCTGATTATGCGGT
GAAGATCGTCAAAGCCAACAAGTTAGACCACGTGGTGACCATCATCAAGGGGAAGGTGGAGGAGGTGGAGCTCCC
AGTGGAGAAGGTGGACATCATCATCAGCGAGTGGATGGGCTACTGCCTCTTCTACGAGTCCATGCTCAACACCGT
GCTCTATGCCCGGGACAAGTGGGCGCCCGATGGCCTCATCTTCCCAGACCGGGCCACGCTGTATGTGACGGCCAT
CGAGGACCGGCAGTACAAAGACTACAAGATCCACTGGTGGGAGAACGTGTATGGCTTCGACATGTCTTGCATCAA
AGATGTGGCCATTAAGGAGCCCCTAGTGGATGTCGTGGACCCCAAACAGCTGGTCACCAACGCCTGCCTCATAAA
GGAGGTGGACATCTATACCGTCAAGGTGGAAGACCTGACCTTCACCTCCCCGTTCTGCCTGCAAGTGAAGCGGAA
TGACTACGTGCACGCCCTGGTGGCCTACTTCAACATCGAGTTCACACGCTGCCACAAGAGGACCGGCTTCTCCAC
CAGCCCCGAGTCCCCGTACACGCACTGGAAGCAGACGGTGTTCTACATGGAGGACTACCTGACCGTGAAGACGGG
CGAGGAGATCTTCGGCACCATCGGCATGCGGCCCAACGCCAAGAACAACCGGGACCTGGACTTCACCATCGACCT
GGACTTCAAGGGCCAGCTGTGCGAGCTGTCCTGCTCCACCGACTACCGGATGCGC**TGA**GGCCCGGCTCTCCCGCC
CTGCACGAGCCCAGGGGCTGAGCGTTCCTAGGCGGTTTCGGGGCTCCCCCTTCCTCTCCCTCCCTCCCGCAGAAG
GGGGTTTTAGGGGCCTGGGCTGGGGGGATGGGGAGGGCACATCGTGACTGTGTTTTTCATAACTTATGTTTTTAT
ATGGTTGCATTTACGCCAATAAATCCTCAGCTGGG

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FIGURE 1570A

GTGGTT**ATG**GAGCAGCTGCCGGGGGTGCCACCAGGCCCCCCCCACCCCGTTCGACCGCCACCCCCGCCTCCACCA
CCCATGCCCCTGCAGCTCGAGGCCCACCTCCGCAGCCATGGCCTGGAGCCCGCGGCCCCCAGCCCCCGCCTGCGA
CCCGAGGAGAGCCTGGATCCGCCAGGCGCCATGCAGGAATTGCTCGGGGCTCTGGAGCCGCTGCCCCCGGCGCCT
GGGGATACTGGCGTAGGCCCACCAAACTCGGAGGGCAAGGATCCCGCAGGCGCCTACCGCAGCCCCAGCCCGCAA
GGCACCAAGGCGCCGCGTTTCGTGCCGCTCACCTCCATCTGCTTCCCTGACTCCTTGCTCCAAGACGAGGAGCGC
AGCTTCTTCCCCACCATGGAGGAGATGTTCGGTGGAGGGGCCGCGGACGACTACGGCAAGGCCGGGCCACCTGAG
GACGAGGGGGACCCCAAGGCTGGCGCTGGGCCACCCCCCGGCCCCCCTGCTTATGATCCCTATGGGCCCTACTGT
CCTGGCCGGGCGTCGGGAGCCGGGCCCGAGACACCGGGCCTGGGCCTGGACCCCAACAAACCGCCTGAACTGCCC
TCCACGGTCAACGCCGAGCCGCTGGGCCTGATCCAGAGTGGCCCCCACCAGGCGGCGCCACCACCCCCGCCTCCG
CCACCGCCGCCTCCCGCGCCGGCCTCCGAACCCAAGGGTGGCCTCACCTCGCCCATCTTCTGCTCTACCAAGCCA
AAGAAGCTGCTCAAGACATCCTCCTTCCACCTGCTGCGGCGCCGCGACCCACCCTTCCAGACCCCCAAGAAGCTG
TACGCCCAGGAGTACGAGTTCGAGGCGGACGAGGACAAGGCCGATGTTCCCGCCGACATCCGCCTCAACCCCCGG
CGCTTGCCTGACCTGGTCTCCAGCTGCCGCTCCCGTCCGGCCCTCTCGCCACTGGGGGACATCGACTTCTGCCCA
CCCAACCCAGGACCCGATGGCCCCCGGCGCCGTGGCCGCAAGCCCACGAAGGCGAAACGTGATGGGCCACCCCGG
CCACGGGGGAGGCCCCGGATCCGCCCCCTGGAGGTCCCGACCACTGCGGGGCCCGCCTCGGCCTCCACGCCCACC
GATGGCGCCAAGAAACCCCGGGGCCGGGGCCGAGGCCGGGGTCGAAAGGCTGAGGAGGCAGGGGGCACCCGGTTG
GAGCCCCTGAAGCCACTTAAGATCAAGCTGTCTGTGCCCAAGGCTGGCGAGGGTCTGGGAACCTCATCGGGTGAT
GCCATATCAGGCACTGACCACAACAGCCTGGACTCGAGCCTGACTCGGGAGAAGATCGAGGCCAAGATTAAGGAG
GTGGAGGAGAAGCAGCCGGAGATGAAGTCGGGTTTCATGGCCTCCTTCTTGGACTTCCTCAAGTCAGGCAAGCGC
CACCCACCACTCTACCAGGCGGGCCTGACGCCTCCGCTCAGCCCTCCCAAGAGTGTGCCACCCTCTGTGCCAGCC
CGAGGCCTGCAGCCCCAGCCCCCTGCCACCCCTGCTGTGCCACATCCCCCACCTTCCGGAGCCTTTGGGCTTGGG
GGCGCCCTGGAGGCTGCAGAGAGTGAGGGTCTGGGGCTTGGCTGCCCTTCACCCTGCAAGCGGCTTGATGAGGAG
CTGAAGCGGAACCTCGAGACGCTGCCCTCCTTCTCCTCGGATGAGGAAGACTCTGTCGCCAAGAACCGAGACCTG
CAGGAGAGCATCTCCTCCGCCATCTCTGCCCTCGATGACCCACCCCTTGCTGGGCCAAAAGACACTTCCACCCCA
GATGGGCCGCCCTTGGCCCCCGCGGCTGCAGTTCCAGGGCCACCCCCTCTTCCGGGGCTCCCCAGTGCCAACAGC
AATGGCACTCCCGAGCCCCCGCTGCTGGAGGAGAAACCCCCACCCACTCCACCTCCTGCCCCGACTCCTCAGCCT
CAGCCTCCGCCACCCCCTCCGCCGCCACAGCCAGCCCTGCCCTCGCCACCCCCGCTGGTGGCCCCCACGCCCAGC
TCACCACCGCCACCGCCGCTGCCGCCGCCACCTCCACCAGCCATGCCCTCGCCTCCACCACCACCCCCACCAGCC
GCTGCCCCACTGGCTGCTCCTCCTGAGGAGCCCGCCGCCCCGTCTCCCGAAGACCCCGAGCTGCCGGACACCCGG
CCCCTGCATCTGGCCAAAAAGCAGGAGACGGCGGCAGTGTGTGGGGAGACGGACGAGGAGGCCGGCGAGAGTGGC
GGAGAGGGCATCTTCCGGGAACGGGACGAGTTCGTCATCCGTGCTGAGGACATCCCTTCCCTCAAGCTGGCGTTG
CAGACGGGGCGTGAACCCCCACCCATCTGGCGAGTCCAGAAGGCCCTTCTGCAGAAATTCACTCCGGAGATCAAG
GACGGCCAGAGGCAGTTTTGTGCCACCAGTAATTATTTGGGGTATTTTGGGGATGCAAAAAATCGGTACCAGCGC
CTCTATGTAAAGTTCCTGGAAAATGTCAATAAGAAGGACTACGTGAGGGTCTGTGCTCGGAAACCCTGGCATCGG
CCCCCAGTGCCAGTCAGACGCTCTGGGCAGGCCAAGAACCCCGTATCTGCTGGGGGTAGCTCTGCACCTCCCCCT
AAGGCCCCAGCACCACCTCCCAAGCCTGAGACCCCTGAAAAGACGACATCTGAGAAGCCCCCAGAGCAGACTCCT
GAGACGGCCATGCCTGAGCCCCCTGCCCCCGAGAAGCCCTCCCTCCTGCGGCCTGTTGAGAAGGAAAAGGAGAAG
GAGAAGGTGACACGTGGAGAGCGGCCATTGCGGGGTGAGCGGGCCACCAGCGGACGGCAGACACGGCCAGAGCGG
AGTCTCGCCACGGGACAACCTGCCACATCCCGGCTGCCCAAAGCCCGGCCTACCAAGGTGAAGGCTGAACCGCCC
CCTAAGAAGAGGAAGAAATGGCTGAAGGAGGCAGGCGGCAACGCTACAGCAGGCGGGGGCCCACCAGGCAGCTCC
TCGGACTCGGAGTCCTCCCCTGGAGCCCCCAGCGAGGACGAGCGGGCAGTACCTGGGCGTCTGCTCAAAACCAGG
GCGATGCGGGAGATGTACCGGAGCTACGTGGAGATGTTGGTGAGCACAGCACTTGACCCAGACATGATCCAGGCC
CTGGAGGACACGCATGACGAGCTGTACCTGCCCCCCATGCGGAAGATAGACGGCCTGCTGAATGAGCACAAGAAG
AAAGTCCTGAAGCGGCTGTCGCTAAGCCCAGCCCTGCAGGATGCTCTGCACACGTTCCCACAGCTGCAAGTGGAG
CAGAGTGGGGAGGGCTCTCCGGAAGAGGGGGCTGTGCGGCTGCGGCCTGCTGGGGAACCCTACAACCGCAAGACG
CTCAGCAAGCTCAAGAGGAGCGTGGTCAGAGCCCAGGAGTTCAAGGTTGAGCTGGAAAAGTCGGGATACTATACA
CTCTACCATTCGCTCCACCACTATAAATACCACACCTTCCTGCGCTGCCGGGACCAGACCCTGGCCATCGAGGGC
GGCGCCGAGGACCTGGGCCAGGAGGAGGTGGTCCAGCAGTGCATGCGGAACCAGCCGTGGCTGGAACAGCTCTTT

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FIGURE 1570B

GACTCCTTCAGTGACCTGCTGGCCCAAGCACAGGCCCACAGCCGCTGCGGG**TGA**CCCCGCCCCAGCTTGTGAGGG
GGGCGCCTCCTCCATGAACCGAGAATTGGGACAGAACCGTGTCCTCAGGAGCTAACACCTGGGCTCCATCGCCGG
GGAAAGGGGGTCATGGGTCAGGGTGTGTCTGTGCTGCCCCCTCCAGGGCAGGGTTCAAAGTCCGACTCCCCCCCT
CTCCCAAGCCCCCTCCACTCCCTCCCCATTCCTCCCACTGTTCGGTGTACAGAGAAATTATTTATATATATGTAT
AAATGTCTATTTAGTAACGGTTTCCCTCTCCCCTTGCCCCGACCCCCCCTCCACAGCCACAGCCCCCGCCCCCTC
CACCTTGTACATAATGTATAGGAAAAGTCTATGTATGGCTGGGGGGGGTGGGGTGGCTTCAGAGAGCTGGGGGAC
CCCTTCCCCCCAAGTCCCCCCTGCAGGCCAAGATCTTTGCTAAAGGCCATTCCCTCCGCAGGGCATTTGGCGTCG
GGTGGGAGGGGAAAACGCATCTTGTTAATTATTTTTAATCTTATTTATTGTACATACCTGGGGCAGGGGCTTGGG
GAGGTGGAGGGGGGAGAAGGGTCCCCTCTCTCTGCCCCTCCCACTCCTTTTCTACGGCGATTTGTCTGTGTCTGG
CCCCCACCCACTGCCCATCCCCCATTGTTGTCTGGATGTGGTTCTATTTTTTATCGGTCTCCTTTCCCCTCCTCC
CCGTTCTCGCCCCCGCCCCACCCCCTGCTCCCACTACCCTTTGTCTCTTGCTCTTTCTTGGGCTTCTGTACAACT
CAACTTGTATACACTGTGTACACACAACCAGCCAAACGAAAACCCAACGGCAAACACTTT

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FIGURE 1571

GAAGCGACCGAGGGACTGGGAGTCGTTAGTGAGAGTTTCACTCTTGTTGCCTAGGCTGGAGTGCAATGGTGCGAT
CTTGGCTCATCACGACCTTCGCCTCCCAGGTTCAAGTGATTGTCCCATTTCAGCCTCCCGAGTAGCTGGGATTAC
AGG**ATG**ACGCGGCATGGCAAGAACTGCACCGCAGGGGCCGTCTACACCTACCACGAGAAGAAGAAGGACACAGCG
GCCTCGGGCTATGGGACCCAGAACATTCGACTGAGCCGGGATGCCGTGAAGGACTTCGACTGCTGTTGTCTCTCC
CTGCAGCCTTGCCACGATCCTGTTGTCACCCCAGATGGCTACCTGTATGAGCGTGAGGCCATCCTGGAGTACATT
CTGCACCAGAAGAAGGAGATTGCCCGGCAGATGAAGGCCTACGAGAAGCAGCGGGGCACCCGGCGCGAGGAGCAG
AAGGAGCTTCAGCGGGCGGCCTCGCAGGACCATGTGCGGGGCTTCCTGGAGAAGGAGTCGGCTATCGTGAGCCGG
CCCCTCAACCCTTTCACAGCCAAGGCCCTCTCGGGCACCAGCCCAGATGATGTCCAACCTGGGCCCAGTGTGGGT
CCTCCAAGTAAGGACAAGGACAAAGTGCTGCCCAGCTTCTGGATCCCGTCGCTGACGCCCGAAGCCAAGGCCACC
AAGCTGGAGAAGCCGTCCCGCACGGTGACCTGCCCCATGTCAGGGAAGCCCCTGCGCATGTCGGACCTGACGCCC
GTGCACTTCACACCGCTAGACAGCTCCGTGGACCGCGTGGGGCTCATCACCCGCAGCGAGCGCTACGTGTGTGCC
GTGACCCGCGACAGCCTGAGCAACGCCACCCCCTGCGCTGTGCTGCGGCCCTCTGGGGCTGTGGTCACCCTCGAA
TGCGTGGAGAAGCTGATTCGGAAGGACATGGTGGACCCTGTGACTGGAGACAAACTCACAGACCGCGACATCATC
GTGCTGCAGCGGGGCGGTACCGGCTTCGCGGGCTCCGGAGTGAAGCTGCAAGCGGAGAAATCACGGCCGGTGATG
CAGGCC**TGA**GTGTGTGCGGGAGACCAAATAAACCGGCTTGGGTGCGC

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FIGURE 1572

TTTCTTTTTTTCAGGCGGCCGGGAAG**ATG**GCGGACATTCAGACTGAGCGTGCCTACCAAAAGCAGCCGACCATCT
TTCAAAACAAGAAGAGGGTCCTGCTGGGAGAAACTGGCAAGGAGAAGCTCCCGCGGTACTACAAGAACATCGGTC
TGGGCTTCAAGACACCCAAGGAGGCTATTGAGGGCACCTACATTGACAAGAAATGCCCCTTCACTGGTAATGTGT
CCATTCGAGGGCGGATCCTCTCTGGCGTGGTGACCAAGATGAAGATGCAGAGGACCATTGTCATCCGCCGAGACT
ATCTGCACTACATCCGCAAGTACAACCGCTTCGAGAAGCGCCACAAGAACATGTCTGTACACCTGTCCCCCTGCT
TCAGGGACGTCCAGATCGGTGACATCGTCACAGTGGGCGAGTGCCGGCCTCTGAGCAAGACAGTGCGCTTCAACG
TGCTCAAGGTCACCAAGGCTGCCGGCACCAAGAAGCAGTTCCAGAAGTTC**TGA**GGCTGGACATCGGCCCGCTCCC
CACAATGAAATAAAGTTATTTTCTCATTCCCAGGCCAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1573

CTTTTCCAAGCGGCTGCCGAAG**ATG**GCGGAGGTGCAGGTCCTGGTGCTTGATGGTCGAGGCCATCTCCTGGGCCG
CCTGGCGGCCATCGTGGCTAAACAGGTACTGCTGGGCCGGAAGGTGGTGGTCGTACGCTGTGAAGGCATCAACAT
TTCTGGCAATTTCTACAGAAACAAGTTGAAGTACCTGGCTTTCCTCCGCAAGCGGATGAACACCAACCCTTCCCG
AGGCCCCTACCACTTCCGGGCCCCCAGCCGCATCTTCTGGCGGACCGTGCGAGGTATGCTGCCCCACAAAACCAA
GCGAGGCCAGGCCGCTCTGGACCGTCTCAAGGTGTTTGACGGCATCCCACCGCCCTACGACAAGAAAAAGCGGAT
GGTGGTTCCTGCTGCCCTCAAGGTCGTGCGTCTGAAGCCTACAAGAAAGTTTGCCTATCTGGGGCGCCTGGCTCA
CGAGGTTGGCTGGAAGTACCAGGCAGTGACAGCCACCCTGGAGGAGAAGAGGAAAGAGAAAGCCAAGATCCACTA
CCGGAAGAAGAAACAGCTCATGAGGCTACGGAAACAGGCCGAGAAGAACGTGGAGAAGAAAATTGACAAATACAC
AGAGGTCCTCAAGACCCACGGACTCCTGGTC**TGA**GCCCAATAAAGACTGTTAATTCCTCATGCGTTGCCTGCCCT
TCCTCCATTGTTGCCCTGGAATGTACGGGACCCAGGGGCAGCAGCAGTCCAGGTGCCACAGGCAGCCCTGGGACA
TAGGAAGCTGGGAGCAAGGAAAGGGTCTTAGTCACTGCCTCCCGAAGTTGCTTGAAAGCACTCGGAGAATTGTGC
AGGTGTCATTTATCTATGACCAATAGGAAGAGCAACCAGTTACTATGAGTGAAAGGGAGCCAGAAGACTGATTGG
AGGGCCCTATCTTGTGAGTGGGGCATCTGTTGGACTTTCCACCTGGTCATATACTCTGCAGCTGTTAGAATGTGC
AAGCACTTGGGGACAGCATGAGCTTGCTGTTGTACACAGGGTATTTCTAGAAGCAGAAATAGACTGGGAAGATGC
ACAACCAAGGGGTTACAGGCATCGCCCATGCTCCTCACCTGTATTTTGTAATCAGAAATAAATTGCTTTTAAAG

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FIGURE 1574

ACAGTTCGGCACGTAGGACGGAGGGTAGTGCGTCTAGAGACACATATTCCCCACGGATTTGACGATGGTGTTCGG
TCTTGAATGGAAATGTAGTCTTAGGCCAGTCTTAGGTTTTTGAACAGGATAGTAGGTATCCGGAGTCGATTGAGG
GCCAGAGCAGGCACTGGGGTTCGGATCCTGGGCAAAGTTTCCCACGTTGAGGGTCTCGAGGACGCCTAGATCTCT
TTCCCAGGGCC**ATG**GCGAACCCGAAGCTGCTGGGAATGGGGCTAAGCGAGGCGGAGGCGATCGGTGCTGATTCGG
CGCGATTTGAGGAGCTGCTGCTGCAGGCCTCGAAGGAGCTCCAGCAAGCCCAGACAACCAGACCAGAATCGACAC
AAATCCAGCCTCAGCCTGGTTTCTGCATAAAGACCAACTCCTCGGAAGGGAAGGTTTTCATCAACATCTGCCACT
CCCCCTCTATCCCTCCTCCCGCCGACGTGACCGAGGAGGAGCTGCTTCAGATGCTAGAGGAGGACCAAGCTGGGT
TTCGCATCCCCATGAGTCTGGGAGAGCCTCATGCAGAACTGGATGCAAAAGGCCAGGGATGTACCGCCTACGACG
TAGCTGTCAACAGCGACTTCTACCGGAGGATGCAGAACAGCGATTTCTTGCGGGAGCTCGTGATCACCATCGCCA
GGGAGGGCCTTGAGGACAAATACAACTTGCAGCTGAATCCGGAATGGCGCATGATGAAGAACCGGCCATTCATGG
GCTCCATCTCGCAGCAGAACATCCGCTCGGAGCAGCGTCCTCGGATCCAGGAGCTGGGGGACCTGTACACGCCCG
CCCCCGGGAGAGCTGAGTCAGGGCCTGAAAAGCCTCACCTGAACCTGTGGCTGGAAGCCCCCGACCTCCTCTTGG
CCGAAGTTGACCTCCCCAAACTGGATGGAGCCCTGGGGCTGTCGCTGGAGATCGGGGAGAACCGCCTGGTGATGG
GGGGCCCCCAGCAGCTGTATCATCTAGACGCTTATATCCCGCTGCAGATCAACTCTCATGAGAGCAAGGCAGCCT
TCCACCGGAAGAGAAAGCAATTAATGGTGGCCATGCCGCTTCTGCCGGTGCCTTCT**TGA**TCAGGGTGTCTCCTTG
TGCTTCTGAGATGTGGAGAAGAGGCTGCTGGCTTCCCTAAAAGTTGAAATAAAAGATTTTTGCCTTT

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FIGURE 1575

GATGTCACCTGGAGCGAGTAGCGCGCGGCGTGGAACGCGAGTCGCGACCCCGGCTCCCGGCAGTGGCGCGCACTA
GCCCTCGCGCCGCACGGGACACGAGGGCTGGGCGGGCAGCGGG**ATG**AGGCTAAAGGTTGGATTTCAAGGCGGGGG
CTGCTTCCGGAAAGACGCGCTGTGTTTGGAAGGTGGAGTGAGCGCCCGGTGGGCGAGGGCACCTCATTCTGCACC
CCTGCGCCCGCCTCGGGAACTGCACGCGGCACCCCCACCCGCGACTCCCACGCAGACAGTAGTGCGGCCTGCAGG
GTTCCCCCGGCGGACGAGGCTAATGGTTCGCTCCGCCCCGCCCACACAGAGGCCGCCCACTGGCTCCGGCTGCGT
TTCAGGACTCTGGAGGAAGGGACTTGGCCTTCGCCCTCAGACGCTCTTAAGGGTAGGCAGCGTTGTCCTCAGTTC
TGCCCCAGCACTCAGACCCAGACTGGGTCCCTGCCTCCGCCCTCCGCCCTCGGAC**TAG**TCTCTTGGAAGCCGGCC
TGTCTCCGCCTTCAGACCTAGGGAGAGGTCTTAACCTCTGTTCTCAGACTCTGGAAAAGGCTTCTCAACGGCTTG
GCCTGACCTCAGCTCCTCGCATTCCCTCCACATCTCAAGACACCAACCCAGGGATGCAGGACAGACACACAGACA
CTCAGTGAGGGTCAAATATCTTTAAATAAAGTGCCAGGAACAATAAATACTGTACAGGAAGAGAGTGC

FIGURE 1576

C**ATG**GCTGCGCTGGTGGAGCCGCTGGGGCTGGAGCGGGACGTGTCCCGGGCGGTTGAGCTCCTCGAGCGGCTCCA
GCGCAGCGGGGAGCTGCCGCCGCAGAAGCTGCAGGCCCTCCAGCGAGTTCTGCAGAGCCGCTTCTGCTCCGCTAT
CCGAGAGGTGTATGAGCAGCTTTATGACACGCTGGACATCACCGGCAGCGCCGAGATCCGAGCCCATGCCACAGC
CAAGGCCACAGTGGCTGCCTTCACAGCCAGCGAGGGCCACGCACATCCCAGGGTAGTGGAGCTACCCAAGACGGA
TGAGGGCCTAGGCTTCAACATCATGGGTGGCAAAGAGCAAAACTCGCCCATCTACATCTCCCGGGTCATCCCAGG
GGGTGTGGCTGACCGCCATGGAGGCCTCAAGCGTGGGGATCAACTGTTGTCGGTGAACGGTGTGAGCGTTGAGGG
TGAGCAGCATGAGAAGGCGGTGGAGCTGCTGAAGGCGGCCCAGGGCTCGGTGAAGCTGGTTGTCCGTTACACACC
GCGAGTGCTGGAGGAGATGGAGGCCCGGTTCGAGAAGATGCGCTCTGCCCGCCGGCGCCAACAGCATCAGAGCTA
CTCGTCCTTGGAGTCTCGAGGT**TGA**AACCACAGATCTGGACGTTCACGTGCACTCTCTTCCTGTACAGTATTTAT
TGTTCCTGGCACTTTATTTAAAGATATTTGACCCTC

FIGURE 1577

AAGTACCTATTGGATCACCAGCTGTGTGCCGGGCTTCTAGTTGAGCAACACAGAGGCAGCCTCTGCCCTCTGAGC
CTCCTGCATTCGGTCTCCTCATTGTCATTTGCTGTCTCAGGCAAGGTCAGTTTGGCTGCAAGTATCAGAAATAAA
CTTGAGCTTCCTGAAACATAAAGGGCCCTGTTGATGTAGAATCATGGGCATCCTTTGGAGTTCGGAGGTATGTGA
TGTCCGTGGACCTGAGAACCTGGTAGCTGACGCTGTTAAGAGCTGGGGCAACCAGGCCAGGCGTGGTGGCTCGCC
TGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCATGAGGTCAGGAGTTCGAGACCAGCCTGGCCAAGAT
GTTGAAACCGCATCTCTACTAAAAATACAAAAATTAACTGGGCGTGGTGGCGGGTGCCTGTAATCCCATCTACTC
GGGAGGCTGAGGCAGAGAATTGCTTAAACCTGGGAGGCAGAGGTTGCAGTGAGCCAAGATAGAGTCACTGCATTC
CATCCAGCCTGGGTGCCAGAGCAAGACTCTGTCTCAAAAAAAAAAACAAAAAACAAAAAAACTGGGGCGACCCAC
CTGTGATGTGTGACAGCCCACAGCTTGCTTCTGCCTCGTTTGCCTCCATGCAGCTAGGTCGGTCCCATGCCTCTT
TGCACTGGCCCAGCGCAGCAGGCCACAGGCCCCAGCTTTACACTCAGTCCTGGATGAGTCTCTTGTTTCGGGGTG
GGCACATTTGATTGACTCAGTGTTGGGCCTGGGGTCCTGTTGCTCAGGCATGCTTATTGAGGACTGAATCCTGCA
AAGCTGAGTGACAGTTGTCAGAGAAGATGATGGTCCCTGGGCAGACACCCAGGCAGTAGTAGCCACTTGGGGCTC
CTGTCCTGCCTCCCAGCCCTGTGTCCTGGCTCTGGACTCGCCTGTGCTAGGGAGACCACGCTCTCAGCTGCTGAG
CCTCGGAGCTTACCAGGCATGTTCTTACCTTACTCTGGTCTCTCTGGGGTGGAGTGGGTTCTTATAGCTCTGCTG
TTTCCTGTTGGGGCGGGAAAATGCTAGAATCTCAGTCTTTCCAGAATCTCAGAATCTTCTAGTTCAATTGCCATT
CAAACTTTTTGTTGGTGTTAGCCAATAACATCTTGACTCGGTGCACCCGCAGAAATACTGTAACCTAAAGTTTGA
GGAAACAGTTTTTTCTATGTAGTAAGTATATAGTTGTATTCTGCTGTTTTGTTTCTTAAGATGTTGGTTGCAACC
CATCAGATTGATGATGGGACTCATTTCTGGGTCATGACCTGAATATAGGAAAGGCTAGTCTAGCTGCCCTGTGCC
TGTGACATGGCAGGTGCCTGGTCCGCTGCCTGCTTCTATAAGAATGTCTCCCTGCAGCCTCTTTTCTATACAGAA
CTCAGCCCTGCCTCACGGAAGCTTTTCCAGGCAGTGCGAGATAGAGGAGCGCTTGAGAAGGCAGGTTTTGCAGCA
GACGGCAGTGACAGCCCAGTTCTGCACCTTCTTTGCTGAGTCACTGTGGGCCAGTGACTTGATCTGAGATTGTTT
CCCCATCAGAACCATGAGGTTATCATCTGTGCCTTGGGGCTGTTCATCTATCTATTCACTTGACACACACACATC
CACCTTTCTATACCAGCTGCAGCGCCACCTGCTGGTACCGTGAGCAAGAGCTGGGCATGCCCACGGTTCCGGTGC
CCTGCAGTCTGGTGGGAGAGGCAGGTAGGGGTCGACTCAGGTAGCAAACCTGAAACTCCAGGGGAAGGAAGCGTT
TCTGCAACTGTGAGTACATAGGACTGTGAGGAGAGACTTCCCGAGAAAGGATGTTCGGGCTAGCGTTAAGGGTGA
GCGTGAGTTCACCAGAGAAGGAAGGGGAGACCAGTCCAGGGCAAGGAGAATGCACAGACACTGGCAGGAAGGTGA
GCGTGGGGACACTGGGAAAGGCCTGGGACACGCAGCCAAGAGCCGCGGCTCAGACGCTAGCAGGGCCCGCTCTTG
CTGCCTCTACCACCAGTTGACGAGGAGTTTGGACCTTAGGCTGGGGGACGCCAGCAAAGGCTTCTAAGCAGATCA
CATTTTTGGGTGGAAAGATCATTGGCTTCGGGTTTCTGTGAGGGCGAGGATGATTGGAAGGGAGGGTTTTGAGGA
GGCTGTGAAGTGCGCTATGGTTAAGATGATGCGCTTTGGGGCCAGACATGGGTTCCAGTAACGGCTGTTGCCTAG
CGAACGCTTTGTGTGAGTTAATTAGAGAAGACGTGGCTGTCTTGTGATGGGAGTGCGCGGGATGAACTGCACGGG
GGGACCCGGCCCTGTGAACACTAAGCCAGGGGCTGCCTTCCTGCCCTTTGCTCTTGGAGTCGGCTCATTTCTGCT
CCTCCGGGCCCTGTCCCTGCCCAGATTCACCCTCTGTCCGTCTGCCCTGCCCCAGGAGGAGGCCTCGGTGGTACC
AGAAGAGGAGGGGCTGATGTGAACATCCGGCATTCAGGCCGCGATGACACCTCCCGCTACGATGAGAGGCCCGGC
CCCTCCCCGCTTCCGCACAGGGACCGGGACCGGGACCGTGAGCGGGAGCGCAGAGAGCGGAGCCGGGAGCGAGAC
AAGGAGCGAGAACGGCGACGCTCCCGCTCCCGGGACCGGCGGAGGCGCTCACGGAGTCGCGACAAGGAGGAGCGG
AGGCGCTCCAGGGAGCGGAGCAAGGACAAGGACCGGGACCGGAAGCGGCGAAGCAGCCGGAGTCGGGAGCGGGCC
CGGCGGGAGCGGGAGCGCAAGGAGGAGCTGCGTGGCGGCGGTGGCGAC**ATG**GCGGAGCCCTCCGAGGCGGGTGAC
GCGCCCCCTGATGATGGGCCTCCAGGGGAGCTCGGGCCTGACGGCCCTGACGGTCCAGAGGAAAAGGGCCGGGAT
CGTGACCGGGAGCGACGGCGGAGCCACCGGAGCGAGCGCGAGCGGCGCCGGGACCGGGATCGTGACCGTGACCGT
GACCGCGAGCACAAACGGGGGGAGCGGGGCAGTGAGCGGGGCAGGGATGAGGCCCGAGGTGGGGGCGGTGGCCAG
GACAACGGGCTGGAGGGTCTGGGCAACGACAGCCGAGACATGTACATGGAGTCTGAGGGCGGCGACGGCTACCTG
GCTCCGGAGAATGGGTATTTGATGGAGGCTGCGCCGGAG**TGA**AGAGGTCGTCCTCTCCATCTGCTGTGTTTGGAC
GCGTTCCTGCCCAGCCCCTTGCTGTCATCCCCTCCCCCAACCTTGGCCACTTGAGTTTGTCCTCCAAGGGTAGGT
GTCTCATTTGTTCTGGCCCCTTGGATTTAAAAATAAAATTAATTTCCTGTT

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FIGURE 1578

GTTGGTGAGCATC**ATG**GCAACCGTTACAGCCACAACCAAAGTCCCGGAGATCCGTGATGTAACAAGGATTGAGCG
AATCGGTGCCCACTCCCACATCCGGGGACTGGGGCTGGACGATGCCTTGGAGCCTCGGCAGGCTTCGCAAGGCAT
GGTGGGTCAGCTGGCGGCACGGCGGGCGGCTGGCGTGGTGCTGGAGATGATCCGGGAAGGGAAGATTGCCGGTCG
GGCAGTCCTTATTGCTGGCCAGCCGGGCACGGGGAAGACGGCCATCGCCATGGGCATGGCGCAGGCCCTGGGCCC
TGACACGCCATTCACAGCCATCGCCGGCAGTGAAATCTTCTCCCTGGAGATGAGCAAGACCGAGGCGCTGACGCA
GGCCTTCCGGCGGTCCATCGGCGTTCGCATCAAGGAGGAGACGGAGATCATCGAAGGGGAGGTGGTGGAGATCCA
GATTGATCGACCAGCAACAGGGACGGGCTCCAAGGTGGGCAAACTGACCCTCAAGACCACAGAGATGGAGACCAT
CTACGACCTGGGCACCAAGATGATTGAGTCCCTGACCAAGGACAAGGTCCAGGCCGGGGACGTGATCACCATCGA
CAAGGCGACGGGCAAGATCTCCAAGCTGGGCCGCTCCTTCACACGCGCCCGCGACTACGACGCTATGGGCTCCCA
GACCAAGTTCGTGCAGTGCCCAGATGGGGAGCTCCAGAAACGCAAGGAGGTGGTGCACACCGTGTCCCTGCACGA
GATCGACGTCATCAACTCTCGCACCCAGGGCTTCCTGGCGCTCTTCTCAGGTGACACAGGGGAGATCAAGTCAGA
AGTCCGTGAGCAGATCAATGCCAAGGTGGCTGAGTGGCGCGAGGAGGGCAAGGCGGAGATCATCCCTGGAGTGCT
GTTCATCGACGAGGTCCACATGCTGGACATCGAGAGCTTCTCCTTCCTCAACCGGGCCCTGGAGAGTGACATGGC
GCCTGTCCTGATCATGGCCACCAACCGTGGCATCACGCGAATCCGGGGCACCAGCTACCAGAGCCCTCACGGCAT
CCCCATAGACCTGCTGGACCGGCTGCTTATCGTCTCCACCACCCCCTACAGCGAGAAAGACACGAAGCAGATCCT
CCGCATCCGGTGCGAGGAAGAAGATGTGGAGATGAGTGAGGACGCCTACACGGTGCTGACCCGCATCGGGCTGGA
GACGTCACTGCGCTACGCCATCCAGCTCATCACAGCTGCCAGCTTGGTGTGCCGGAAACGCAAGGGTACAGAAGT
GCAGGTGGATGACATCAAGCGGGTCTACTCACTCTTCCTGGACGAGTCCCGCTCCACGCAGTACATGAAGGAGTA
CCAGGACGCCTTCCTCTTCAACGAACTCAAAGGCGAGACCATGGACACCTCC**TGA**GTTGGATGTCATCCCCCGAC
CCCACCCTGTTTTCCACCAGAGTTCTGACACTGTGACTCTGTATAAAATGGTTGGGAAGCTGC

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FIGURE 1579

ACCATAAAAGAAGCCGCCCTAGCCACGTCCCCTCGCAGTTCGGCGGTCCCGCGGGTCTGTCTCTTGCTTCAACAG
TGTTTGGACGGAACAGATCCGGGGACTCTCTTCCAGCCTCCGACCGCCCTCCGATTTCCTCTCCGCTTGCAACCT
CCGGGACCATCTTCTCGGCCATCTCCTGCTTCTGGGACCTGCCAGCACCGTTTTTGTGGTTAGCTCCTTCTTGCC
AACCAACC**ATG**AGCTCCCAGATTCGTCAGAATTATTCCACCGACGTGGAGGCAGCCGTCAACAGCCTGGTCAATT
TGTACCTGCAGGCCTCCTACACCTACCTCTCTCTGGGCTTCTATTTCGACCGCGATGATGTGGCTCTGGAAGGCG
TGAGCCACTTCTTCCGCGAATTGGCCGAGGAGAAGCGCGAGGGCTACGAGCGTCTCCTGAAGATGCAAAACCAGC
GTGGCGGCCGCGCTCTCTTCCAGGACATCAAGAAGCCAGCTGAAGATGAGTGGGGTAAAACCCCAGACGCCATGA
AAGCTGCCATGGCCCTGGAGAAAAAGCTGAACCAGGCCCTTTTGGATCTTCATGCCCTGGGTTCTGCCCGCACGG
ACCCCCATCTCTGTGACTTCCTGGAGACTCACTTCCTAGATGAGGAAGTGAAGCTTATCAAGAAGATGGGTGACC
ACCTGACCAACCTCCACAGGCTGGGTGGCCCGGAGGCTGGGCTGGGCGAGTATCTCTTCGAAAGGCTCACTCTCA
AGCACGAC**TAA**GAGCCTTCTGAGCCCAGCGACTTCTGAAGGGCCCCTTGCAAAGTAATAGGGCTTCTGCCTAAGC
CTCTCCCTCCAGCCAATAGGCAGCTTTCTTAACTATCCTAACAAGCCTTGGACCAAATGGAAATAAAGCTTTTTG
ATGC

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FIGURE 1580

ATGGACGGGTCCGGGGAGCAGCCCAGAGGCGGGGGGCCCACCAGCTCTGAGCAGATCATGAAGACAGGGGCCCTT
TTGCTTCAGGGTTTCATCCAGGATCGAGCAGGGCGAATGGGGGGGGAGGCACCCGAGCTGGCCCTGGACCCGGTG
CCTCAGGATGCGTCCACCAAGAAGCTGAGCGAGTGTCTCAAGCGCATCGGGGACGAACTGGACAGTAACATGGAG
CTGCAGAGGATGATTGCCGCCGTGGACACAGACTCCCCCCGAGAGGTCTTTTTCCGAGTGGCAGCTGACATGTTT
TCTGACGGCAACTTCAACTGGGGCCGGGTTGTCGCCCTTTTCTACTTTGCCAGCAAACTGGTGCTCAAGGCCCTG
TGCACCAAGGTGCCGGAACTGATCAGAACCATCATGGGCTGGACATTGGACTTCCTCCGGGAGCGGCTGTTGGGC
TGGATCCAAGACCAGGGTGGTTGGGTGAGACTCCTCAAGCCTCCTCACCCCCACCACCGCGCCCTCACCACCGCC
CCTGCCCCACCGTCCCTGCCCCCCGCCACTCCTCTGGGACCCTGGGCCTTCTGGAGCAGGTCACAGTGGTGCCCT
CTCCCCATCTTCAGATCATCAGATGTGGTCTATAATGCGTTTTCCTTACGTGTC**TGA**

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FIGURE 1581

ATAAGTGGGCGTGGTCTAGGGGGGAAGTCACCAAGAACGCACCGGAGGTCCTTGCCCGCCCTGGAAAACGCCCTC
TGCGGTGAAGGAGAGACCACACTGCC**ATG**CCTCCCTCTGGGCCCCGAGGAACCCTCCTTCTGTTGCCGCTGCTGC
TGCTGCTCCTGCTTCGCGCCGTGCTGGCTGTCCCCCTGGAGCGAGGGGCGCCCAACAAGGAGGAGACCCCTGCGA
CTGAGAGTCCCGACACAGGCCTGTACTACCACCGGTACCTCCAGGAGGTCATCGATGTACTGGAGACGGATGGGC
ATTTCCGAGAGAAGCTGCAGGCTGCCAATGCGGAGGACATCAAGAGCGGGAAGCTGAGCCGAGAGCTGGACTTTG
TCAGCCACCACGTCCGCACCAAGCTGGATGAGCTCAAGCGACAGGAGGTGTCACGGCTGCGGATGCTGCTCAAGG
CCAAGATGGACGCCGAGCAGGATCCCAATGTACAGGTGGATCATCTGAATCTCCTGAAACAGTTTGAACACCTGG
ACCCTCAGAACCAGCATACATTCGAGGCCCGCGACCTGGAGCTGCTGATCCAGACGGCCACCCGGGACCTTGCCC
AGTACGACGCAGCCCATCATGAAGAGTTCAAGCGCTACGAGATGCTTAAGGAACACGAGAGACGGCGTTATCTGG
AGTCACTGGGAGAGGAGCAGAGAAAGGAGGCGGAGAGGAAGCTGGAAGAGCAACAGCGCCGGCACCGCGAGCACC
CTAAAGTCAACGTGCCTGGCAGCCAAGCCCAGTTGAAGGAGGTGTGGGAGGAGCTGGATGGACTGGACCCCAACA
GGTTTAACCCCAAGACCTTCTTCATACTGCATGATATCAACAGTGATGGTGTCCTGGATGAGCAGGAGCTGGAGG
CACTCTTCACCAAGGAGCTGGAGAAAGTGTACGACCCAAAGAATGAGGAGGACGACATGCGGGAGATGGAGGAGG
AGCGACTGCGCATGCGGGAGCATGTGATGAAGAATGTGGACACCAACCAGGACCGCCTCGTGACCCTGGAGGAGT
TCCTCGCATCCACTCAGAGGAAGGAGTTTGGGGACACCGGGGAGGGCTGGGAGACAGTGGAGATGCACCCTGCCT
ACACCGAGGAAGAGCTGAGGCGCTTTGAAGAGGAGCTGGCTGCCCGGGAGGCAGAGCTGAATGCCAAGGCCCAGC
GCCTCAGCCAGGAGACAGAGGCTCTAGGGCGGTCCCAGGGCCGCCTGGAGGCCCAGAAGAGAGAGCTGCAGCAGG
CTGTGCTGCACATGGAGCAGCGGAAGCAGCAGCAGCAGCAGCAGCAAGGCCACAAGGCCCCGGCTGCCCACCCTG
AGGGGCAGCTCAAGTTCCACCCAGACACAGACGATGTACCTGTCCCAGCTCCAGCCGGTGACCAGAAGGAGGTGG
ACACTTCAGAAAAGAAACTTCTCGAGCGGCTCCCTGAGGTTGAGGTGCCCCAGCATCTG**TGA**TCCTCCGGGACCC
CAGCCCTCAGGATTCCTGATGCTCCAAGGCGACTGATGGGCGCTGGATGAAGTGGCACAGTCAGCTTCCCTGGGG
GCTGGTGTCATGTTGGGCTCCTGGGGCGGGGGCACGGCCTGGCATTTCACGCATTGCTGCCACCCCAGGTCCACC
TGTCTCCACTTTCACAGCCTCCAAGTCTGTGGCTCTTCCCTTCTGTCCTCCGAGGGGCTTGCCTTCTCTCGTGTC
CAGTGAGGTGCTCAGTGATCGGCTTAACTTAGAGAAGCCCGCCCCCTCCCCTTCTCCGTCTGTCCCAAGAGGGTC
TGCTCTGAGCCTGCGTTCCTAGGTGGCTCGGCCTCAGCTGCCTGGGTTGTGGCCGCCCTAGCATCCTGTATGCCC
ACAGCTACTGGAATCCCCGCTGCTGCTCCGGGCCAAGCTTCTGGTTGATTAATGAGGGCATGGGGTGGTCCCTCA
AGACCTTCCCCTACCTTTTGTGGAACCAGTGATGCCTCAAAGACAGTGTCCCCTCCACAGCTGGGTGCCAGGGGC
AGGGGATCCTCAGTATAGCCGGTGAACCCTGATACCAGGAGCCTGGGCCTCCCTGAACCCCTGGCTTCCAGCCAT
CTCATCGCCAGCCTCCTCCTGGACCTCTTGGCCCCCAGCCCCTTCCCCACACAGCCCCAGAAGGGTCCCAGAGCT
GACCCCACTCCAGGACCTAGGCCCAGCCCCTCAGCCTCATCTGGAGCCCCTGAAGACCAGTCCCACCCACCTTTC
TGGCCTCATCTGACACTGCTCCGCATCCTGCTGTGTGTCCTGTTCCATGTTCCGGTTCCATCCAAATACACTTTC
TGGAAC

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FIGURE 1582

CCCAGTTGTTGATCTTATGCAAGACGCTGCACGACCCCGCGCCCGCTTGTCGCCACGGCACTTGAGGCAGCCGGA
GATACTCTGAGTTACTCGGAGCCCGACGCCTGAGGGTGAGATGAACGCGCTGGCCTCCCTAACCGTCCGGACCTG
TGATCGCTTCTGGCAGACCGAACCGGCGCTCCTGCCCCCGGGGTGACGCGCAGCTCCCAGCCGCCCAGACAC**ATG**

GCCCCAGGCCAAGCACCCCATCAGGCTACCCCGTGGAGGGATGCCCACCCTTTCTTCCTCCTGTCCCCAGTGATG
GGCCTCCTCAGCCGCGCCTGGAGCCGCCTGAGGGGCCTGGGACCTCTAGAGCCCTGGCTGGTGGAAGCAGTAAAA
GGAGCAGCTCTGGTAGAAGCTGGCCTGGAGGGAGAAGCTAGGACTCCTCTGGCAATCCCCCATACCCCTTGGGGC
AGACGCCCTGAAGAGGAGGCTGAAGACAGTGGAGGCCCTGGAGAGGACAGAGAAACACTGGGGCTGAAAACCAGC
AGTTCCCTTCCTGAAGCCTGGGGACTTTTGGATGATGATGATGGCATGTATGGTGAGCGAGAGGCAACCAGTGTC
CCTAGAGGGCAGGGAAGTCAATTTGCAGATGGCCAGCGTGCTCCCCTGTCTCCCAGCCTTCTGATAAGGACACTG
CAAGGTTCTGATAAGAACCCAGGGGAGGAGAAAGCCGAGGAAGAGGGAGTTGCTGAAGAGGAGGGAGTTAACAAG
TTCTCTTATCCACCATCACACCGGGAGTGTTGTCCAGCCGTGGAGGAGGAGGACGATGAAGAAGCTGTAAAGAAA
GAAGCTCACAGAACCTCTACTTCTGCCTTGTCTCCAGGATCCAAGCCCAGCACTTGGGTGTCTTGCCCAGGGGAG
GAAGAGAATCAAGCCACGGAGGATAAAAGAACAGAAAGAAGTAAAGGAGCCAGGAAGACCTCCGTGTCCCCCCGA
TCTTCAGGCTCCGACCCCAGGTCCTGGGAGTATCGTTCAGGAGAGGCGTCCGAGGAGAAGGAGGAAAAGGCACAC
AAAGAAACTGGGAAAGGAGAAGCTGCCCCAGGGCCGCAATCCTCAGCCCCAGCCCAGAGGCCCCAGCTCAAGTCC
TGGTGGTGCCAACCCAGTGATGAAGAGGAGGGTGAGGTCAAGGCTTTGGGGGCAGCTGAGAAGGATGGAGAAGCT
GAGTGTCCTCCCTGCATCCCCCCACCAAGTGCCTTCCTGAAGGCCTGGGTGTATTGGCCAGGAGAGGACACAGAG
GAAGAGGAAGATGAGGAAGAAGATGAGGACAGTGACTCTGGATCAGATGAGGAAGAGGGAGAAGCTGAGGCTTCC
TCTTCCACTCCTGCTACAGGTGTCTTCTTGAAGTCCTGGGTCTATCAGCCAGGAGAGGACACAGAGGAGGAGGAA
GATGAGGACAGTGATACAGGATCAGCCGAGGATGAAAGAGAAGCTGAGACTTCTGCTTCCACACCCCCTGCAAGT
GCTTTCTTGAAGGCCTGGGTGTATCGGCCAGGAGAGGACACGGAGGAGGAGGAAGATGAGGATGTGGATAGTGAG
GATAAGGAAGATGATTCAGAAGCAGCCTTGGGAGAAGCTGAGTCAGACCCACATCCCTCCCACCCGGACCAGAGG
GCCCACTTCAGGGGCTGGGGATATCGACCTGGAAAAGAGACAGAGGAAGAGGAAGCTGCTGAGGACTGGGGAGAA
GCTGAGCCCTGCCCCTTCCGAGTGGCCATCTATGTACCTGGAGAGAAGCCACCGCCTCCCTGGGCTCCTCCTAGG
CTGCCCCTCCGACTGCAAAGGCGGCTCAAGCGCCCAGAAACCCCTACTCATGATCCGGACCCTGAGACTCCCCTA
AAGGCCAGAAAGGTGCGCTTCTCCGAGAAGGTCACTGTCCATTTCCTGGCTGTCTGGGCAGGGCCGGCCCAGGCC
GCCCGCCAGGGCCCCTGGGAGCAGCTTGCTCGGGATCGCAGCCGCTTCGCACGCCGCATCACCCAGGCCCAGGAG
GAGCTGAGCCCCTGCCTCACCCCTGCTGCCCGGGCCAGAGCCTGGGCACGCCTCAGGAACCCACCTTTAGCCCCC
ATCCCTGCCCTCACCCAGACCTTGCCTTCCTCCTCTGTCCCTTCGTCCCCAGTCCAGACCACGCCCTTGAGCCAA
GCTGTGGCCACACCTTCCCGCTCGTCTGCTGCTGCAGCGGCTGCCCTGGACCTCAGTGGGAGGCGTGGC**TGA**GAC
CAACTGGTTTGCCTATAATTTATTAACTATTTATTTTTTCTAAGTGTGGGTTTATATAAGGAATAAAGCCTTTTG
ATTTGT

FIGURE 1583

CTTTCCGGACCTGGCCGAGCAGGAGGCGCCATC**ATG**GGAGTGGACATCCGCCATAACAAGGACCGAAAGGTTCGG
CGCAAGGAGCCCAAGAGCCAGGATATCTACCTGAGGCTGTTGGTCAAGTTATACAGGTTTCTGGCCAGAAGAACC
AACTCCACATTCAACCAGGTTGTGTTGAAGAGGTTGTTTATGAGTCGCACCAACCGGCCGCCTCTGTCCCTTTCC
CGGATGATCCGGAAGATGAAGCTTCCTGGCCGGGAAAACAAGACGGCCGTGGTTGTGGGGACCATAACTGATGAT
GTGCGGGTTCAGGAGGTACCCAAACTGAAGGTATGTGCACTGCGCGTGACCAGCCGGGCCCGCAGCCGCATCCTC
AGGGCAGGGGGCAAGATCCTCACTTTCGACCAGCTGGCCCTGGACTCCCCTAAGGGCTGTGGCACTGTCCTGCTC
TCCGGTCCTCGCAAGGGCCGAGAGGTGTACCGGCATTTCGGCAAGGCCCCAGGAACCCCGCACAGCCACACCAAA
CCCTACGTCCGCTCCAAGGGCCGGAAGTTCGAGCGTGCCAGAGGCCGACGGGCCAGCCGAGGCTACAAAAAC**TAA**
CCCTGGATCCTACTCTCTTATTAAAAAGATTTTTGCTGAC

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FIGURE 1584

GCAGAGGTGGCTGTACCGCGTGGCTCCGCCTCCGCGCGACACTTTTCCGGGGCTTCTCATTGGAGAGCAAGCCTG
TCAAGTGCTTTCTGTTGTTTCGGAGGCGGGGCCTGCTGCCCTGCCTGCACTCCGATTGGCCCCGCGGGCCGTCTA
CCTCTGGCCGGACATACCTACACCGGCTTTTTGTACGACTGTTGGCCCTGGAGAACGATCCTTTGGTGGCGAGGG
CGGGGAGGACGAAAGCGCCCACTGTGGATTGGACAGTGTCAAAAAGAGGGGCGGTCCCTACTGAAGGGGCGGTTG
GGCGACGAAGGGAAGAGTCTTTTCAGCGCTGAGGACTGGCGCTGAGGAGGCGGCGGTGGCTCCCGGGGCGTTTGA
GCGGGCTCACCCGAGCCCGCGGGCCAACGCGGATCCAGGCCCGACTGGCGGGACCGCCCCGGATTCCCCGCGGGC
CTTCCTAGCCGCC**ATG**GAGGACGGCGTCTATGAACCCCCAGACCTGACTCCGGAGGAGCGGATGGAGCTGGAGAA
CATCCGGCGGCGGAAGCAGGAGCTGCTGGTGGAGATTCAGCGCCTGCGGGAGGAGCTCAGTGAAGCCATGAGCGA
GGTGGAGGGGCTGGAGGCCAATGAGGGCAGTAAGACCTTGCAACGGAACCGGAAGATGGCAATGGGCAGGAAGAA
GTTCAACATGGACCCCAAGAAGGGGATCCAGTTCTTGGTGGAGAATGAACTGCTGCAGAACACACCCGAGGAGAT
CGCCCGCTTCCTGTACAAGGGCGAGGGGCTGAACAAGACAGCCATCGGGGACTACCTGGGGGAGAGGGAAGAACT
GAACCTGGCAGTGCTCCATGCTTTTGTGGATCTGCATGAGTTCACCGACCTCAATCTGGTGCAGGCCCTCAGGCA
GTTTCTATGGAGCTTTCGCCTACCCGGAGAGGCCCAGAAAATTGACCGGATGATGGAGGCCTTCGCCCAGCGATA
CTGCCTGTGCAACCCTGGGGTTTTCCAGTCCACAGACACGTGCTATGTGCTGTCCTTCGCCGTCATCATGCTCAA
CACCAGTCTCCACAATCCCAATGTCCGGGACAAGCCGGGCCTGGAGCGCTTTGTGGCCATGAACCGGGGCATCAA
CGAGGGCGGGGACCTGCCTGAGGAGCTGCTCAGGAACCTGTACGACAGCATCCGAAATGAGCCCTTCAAGATTCC
TGAGGATGACGGGAATGACCTGACCCACACCTTCTTCAACCCGGACCGGGAGGGCTGGCTCCTGAAGCTGGGAGG
GGGCCGGGTGAAGACGTGGAAGCGGCGCTGGTTTATCCTCACAGACAACTGCCTCTACTACTTTGAGTACACCAC
GGACAAGGAGCCCCGAGGAATCATCCCCCTGGAGAATCTGAGCATCCGAGAGGTGGACGACCCCCGGAAACCGAA
CTGCTTTGAACTTTACATCCCCAACAACAAGGGGCAGCTCATCAAAGCCTGCAAAACTGAGGCGGACGGCCGAGT
GGTGGAGGGAAACCACATGGTGTACCGGATCTCGGCCCCCACGCAGGAGGAGAAGGACGAGTGGATCAAGTCCAT
CCAGGCGGCTGTGAGTGTGGACCCCTTCTATGAGATGCTGGCAGCGAGAAAGAAGCGGATTTCAGTCAAGAAGAA
GCAGGAGCAGCCC**TGA**CCCCCTGCCCCCAACTCCATTATTTATTACGGAGCTGCCCCGCCTGGGTGGCCGGACCC
CTGGGCCTTGGGGCTGTGGATCCTGGTTCCCTGTTTGGAAAATTCACCACCTCTAGCTCCTCACTGTTCTTTGTA
ATTAACACGCTGTTGGTAATCTTATTAATTATTTAACCACTTGG

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FIGURE 1585

GAGGGTTCGAAG**ATG**GCGGCGCGCAAGGGTCGGCGGCGCACGTGTGAAACCGGGGAACCCATGGAAGCCGAGTCC
GGCGACACAAGTTCCGAGGGCCCGGCCCAGGTCTACCTGCCCGGCCGGGGGCCGCCGCTACGCGAAGGGGAGGAG
CTGGTCATGGACGAGGAGGCCTATGTGCTCTACCACCGAGCGCAGACTGGCGCCCCCTGTCTCAGCTTTGACATA
GTCCGGGATCACCTGGGAGACAACCGGACAGAGCTTCCTCTTACACTTTACTTGTGTGCTGGGACCCAGGCTGAG
AGCGCCCAGAGCAACAGACTGATGATGCTTCGGATGCACAATCTGCATGGGACAAAGCCCCCACCCTCAGAGGGC
AGTGATGAAGAAGAAGAGGAGGAAGATGAAGAGGATGAAGAAGAGCGGAAACCTCAGCTGGAGCTGGCCATGGTG
CCCCACTATGGTGGCATCAACCGAGTTCGGGTGTCATGGCTGGGTGAAGAGCCTGTGGCTGGGGTGTGGTCAGAG
AAGGGCCAGGTGGAGGTGTTTGCGCTGCGGCGGCTTCTGCAGGTGGTGGAGGAGCCCCAGGCCCTGGCAGCCTTC
CTCCGGGATGAGCAGGCCCAAATGAAGCCCATCTTCTCCTTCGCTGGACACATGGGCGAGGGCTTTGCCCTTGAC
TGGTCCCCCCGGGTGACCGGTCGCCTGCTGACCGGTGACTGTCAAAAGAACATCCACCTCTGGACACCTACGGAC
GGCGGCTCCTGGCACGTGGACCAGCGGCCATTCGTGGGCCACACACGCTCTGTGGAGGACCTGCAGTGGTCACCG
ACTGAGAACACGGTGTTTGCCTCCTGCTCAGCTGACGCCTCCATCCGCATCTGGGACATCCGGGCAGCCCCCAGC
AAGGCCTGCATGCTCACCACAGCCACCGCCCATGATGGGGACGTCAATGTCATCAGCTGGAGCCGCCGGGAGCCC
TTCCTGCTCAGTGGCGGGGATGATGGGGCCCTCAAGATCTGGGACCTTCGGCAGTTCAAGTCTGGTTCCCCAGTG
GCCACCTTCAAGCAGCACGTGGCCCCCGTGACCTCCGTCGAGTGGCACCCCCAGGACAGCGGGGTCTTTGCAGCC
TCGGGTGCAGACCACCAGATCACACAGTGGGACCTGGCAGTGGAGCGGGACCCTGAGGCGGGCGACGTGGAGGCC
GACCCCGGACTGGCCGACCTCCCGCAGCAGCTGCTGTTCGTGCACCAGGGCGAGACCGAGCTGAAGGAGCTGCAC
TGGCACCCGCAGTGCCCAGGGCTCCTGGTCAGCACGGCGCTGTCAGGCTTCACCATCTTCCGCACCATCAGCGTC
TGAGGCGTCCCACTGGCTCTGATCTTGCTTCCTGCTTGGAAACTGAAGTCGAATTGGGCTCCCCTGGAAGGGGTT
CATTCAGGTCTGTTGACTGAGACTGGCCGGCCTGTGGGCTGCCGTGATGGATTCTGTTTGACGTATTGTTCTCTA
GAAGGCCTGGCTCTGATCCAGTGACCCCTCTCACCAAAGAACTCGGTTTAACCAGGGCTCTGTAAGACCACTCCC
ACCCAGAGACTTGTGTGGCCTGGTGTGGCCTGTGTGTCGGATTCCTTCCTGTCAGCTGTGACCCATTTGACCTGT
GTCCCCAGAACCCAGTTTTTTGTTTGTTTGTTTGAGACGGAGTCTTGGTCTGTCGCCCAGGCTGGAGTGCAGTAG
CACGATCTTGGCTCACTGCAACCTCCGCCTCCTGGGTTAAAGTGATTCTCTCAGCTCAGTCTCCCAGGTAGCTGG
GATTACAGGCATGTGCCACCACACCCCGTTAATTTTTGTATTTTTAGTAGAGACGGGGTTTCACCATGTTGGCCA
GGCTGGTCTCAAATTCTTGATCTCAAGTGATCTGTCCGCCCCGGCCTCCCAGAGTGCTGGGTTGGGATTACAGGC
GTGAGCCACCGCGTCCGGCTCAGGACCCAGTTTTGGCTGCTGGTTCCCAGCAGGGGACTCGGGGGATATACAGTG
GCTGCACCAAATTGGAGGTGTGGGTTCCTCCAACACAATTTGCTTCTGCCCGTTGTCTTCCTGCCAGCTGGGTTT
GGCCAGGATTTCTCCGTGTGGGGGCTACATGCGACCCTCTCCCCTCCTCCCTGACTTTAGAGGCTGGTGCTGTGT
CGGGAGGAAGGTCAGGGCTCCTGAGCAGCAATAAAGGACCAGGAAGAGGCCTGAGGTGTA

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FIGURE 1586

GTCCCCTCCCCGGAGCGGAGCGCACCTAGGGTCCCTCTTCCGTCCCCCCAGCCCAGCTACCCGTTCAGACCAGCA
GCCTCGGGGGGCACCCCCCCCGCCAGCCTGCCTCCCTCCCGCTCAGCCCTGCCAGGGTTCCCCAGCC**ATG**AATCTC
TTCCGATTCCTGGGAGACCTCTCCCACCTCCTCGCCATCATCTTGCTACTGCTCAAAATCTGGAAGTCCCGCTCG
TGCGCCGGAATTTCAGGGAAGAGCCAGGTCCTGTTTGCTGTGGTGTTCACTGCCCGATATCTGGACCTCTTCACC
AACTACATCTCACTCTACAACACGTGTATGAAGGTGGTCTACATAGCCTGCTCCTTCACCACGGTCTGGTTGATT
TATAGCAAGTTCAAAGCTACTTACGATGGGAACCATGACACGTTCAGAGTGGAGTTCCTGGTCGTTCCCACAGCC
ATTCTGGCGTTCCTGGTCAATCATGACTTCACCCCTCTGGAGATCCTCTGGACCTTCTCCATCTACCTGGAGTCA
GTGGCCATCTTGCCGCAGCTGTTCATGGTGAGCAAGACCGGCGAGGCGGAGACCATCACCAGCCACTACTTGTTT
GCGCTAGGCGTTTACCGCACGCTCTATCTCTTCAACTGGATCTGGCGCTACCATTTCGAGGGCTTCTTCGACCTC
ATCGCCATTGTGGCAGGCCTGGTCCAGACAGTCCTCTACTGCGATTTCTTCTACCTCTATATCACCAAAGTCCTA
AAGGGGAAGAAGTTGAGTTTGCCGGCA**TAG**CCCCGGTCCTCTCCATCTCTCTCCTCGGCAGCAGCGGGAGGCAGA
GGAAGGCGGCAGAAGATGAAGAGCTTTCCCATCCAGGGGTGACTTTTTTAAGAACCCACCTCTTGTGCTCCCCAT
CCCGCCTCCTGCCGGGTTTCAGGGGGACAGTGGAGGATCCAGGTCTTGGGGAGCTCAGGACTTGGGCTGTTTGTA
GTTTTTTGCCTTTTAGACAAGAAAAAAAAATCTTTCCACTCTTTAGTTTTTGATTCTGATGACTCGTTTTTCTTC
TACTCTGTGGCCCCAATTTTTATAAAGTG

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FIGURE 1587

GCCGAACCTCGGGAGCCCAGGACGCCCTCCTGCACATGCGCAGGAGGCTCA**ATG**ACAGTCGAGCTTTGGCTAAGG
CTCCGGGGAAAGGGTCTAGCCATGCTGCATGTGACCCGGGGGGTCTGGGGGTCCAGGGTCCGAGTATGGCCACTG
TTGCCCGCGCTCCTCGGGCCCCCCCGGGCCCTCTCATCGCTGGCAGCCAAAATGGGGGAGTATCGCAAGATGTGG
AACCCCAGGGAGCCCCGCGACTGGGCCCAGCAGTACCGCGAGCGCTTCATTCCCTTCTCCAAGGAGCAGCTGCTC
CGCCTCCTAATACAGGAATTCCACTCGAGTCCGGCAGAGAAGGCGGCTTTGGAGGCGTTCTCGGCCCACGTGGAC
TTCTGCACCCTGTTCCACTACCACCAAATCCTGGCCCGGCTGCAGGCCTTATATGACCCCATCAACCCTGACAGG
GAGACCCTCGATCAGCCATCACTAACGGATCCCCAGCGTCTGTCTAATGAGCAGGAGGTGCTTCGGGCTCTGGAG
CCCCTGCTGGCCCAGGCCAACTTCTCCCCGCTGTCTGAGGACACCCTGGCCTACGCGCTGGTGGTCCACCACCCT
CAGGATGAGGTCCAGGTGACAGTAAATTTGGATCAGTATGTCTACATTCACTTCTGGGCCCTGGGCCAGCGAGTC
GGGCAGATGCCCCTGAAGTCCAGCGTGGGCTCCAGGCGTGGCTTCTTCACCAAGCTGCCCCCTGCGGAGAGGAGA
TACTTTAAGCGGGTGGTCCTGGCAGCCCGGACCAAACGGGGACACCTGGTACTGAAGAGTTTCAAGGACACGCCG
CTGGAAGGCCTGGAGCAGCTGCTGCCGGAGCTGAAGGTGCGCACGCCCACCCTGCAGCGCGCCCTGCTCAACCTC
ATGCTGGTAGTCTCCGGCGTGGCGATCTTCGTCAACGTGGGCATGGTGGTGCTAACCGACCTCAAGGTGGCCACC
TCCCTGCTGCTGCTGCTCTTCGCCATCTTCATGGGCCTGCGGGCCTCCAAGATGTTCGGGCAGCGGCGCAGCGCG
CAGGCGTTGGAGCTGGCGCACATGCTGTACTATCGCAGTACGTCCAACAACTCGGAGCTGCTCAGCGCCCTGGCC
CTGCGCGCGCAGGACGAGCACACCAAGGAGGCGCTGCTGGCTCACAGCTTCCTGGCCCGGCGGCCAGGGGGCACT
CAAGGCTCGCCCGAAGAGACCTCCAGGTGGCTCCGGTCGGAGGTGGAGAACTGGCTCCTAGCCAAGTCAGGCTGT
GAGGTGACCTTCAACGGAACTCGGGCCCTGGCGCATCTGCAGGCCCTGACCCCCAGCATGGGATTGTACCCACCC
CCGGGTTTCCCCAAACTAGACCCAGTGGCTCCGATCACTTCCGAGCCCCCGCAAGCCACGCCCAGCAGTAACATC
TCC**TGA**GTAGAACCTACCTCCCTGCCCAGTCAGCAGGCTAGGAACTAAGCCCCGCCTCCTTCACGACAGGCTGTC
AATTACGGTTATTATACTTTTCACTCCAACTTCCAATAACTGACAGGTGATTATTTTTGCTGCACTGTGTGCTTA
AGCAAAGCAGCCAATCAAAGCAGCTAGCAGTTGTTAAGTCTTCCCCGCCCCTTCGATGAACAGCCAATCAAAGCG
ATTTAGCTCTGCTTCTGTTCCATTTCTTAGTCCCACCCTCACCATAAACATCCAAGTGTGGTTTGGCTGAGGAGC
TGAGGGTGTCTGCCAATCACAGCTGCTCAGCTCTGGCTTCTGTAAACCGCCAGGTAGAAGAGTTAAAGCTGCGCC
CTCCCGAGACTATATATCATTGTCTTTTTCAGCCCGCTCCGGGCAAACTGCCCATCATGTGCACCAAGGCCGTTA
GCCCTGCCTCCTGGCAAACGTCCAGTGACAGCTGCTGGGTTCCATCAACTTTGGGCAGCCGGTTGTCGCTGCAGG
GAAGGAACCAATAAGAATTTCTAAAGGAAACCTGATCTTGCTATCAATTGCTGCTGCTTAAATGGCAGGCCAACT
GGTCAGCTGCTGATCAGGGTGTCTAGGCTGAAGGAGTTGGAGACCTTGTGCTAGGTAGGTGAACCAGAAACCACC
CTCGCCACCAAGACTCGCTCCCAACCTGGCTCCCGGCAACCTCAGGTGCCTTCCTCGCCCAGGTCTTTCACCCTT
TCTACAGAAACTACCTCGGTCTGGATCTCCCCACCACCAGCAGCCTGTGCAATATTTATTGGTCTATCAATTTCT
CCCGTCTCCTGTCCCAAAGTAATAAATCATGTTTAATAAGTCTG

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FIGURE 1588

GAAGGAGGCCCAGACAGTGAGGGCAGGAGGGAGAGAAGAGACGCAGAAGGAGAGCGAGCGAGAGAGAAAGGGTTC
TGGATTGGAGGGGAGAGCAAGGGAGGGAGGAAGGCGGTGAGAGAGGCGGGGGCCTCGGGAGGGTGAAAGGAGGGA
GGAGAAGGGCGGGGCACGGAGGCCCGAGCGAGGGACAAGACTCCGACTCCAGCTCTGACTTTTTTCGCGGCTCTC
GGCTTCCACTGCAGCC**ATG**TCACTCCTCTTGCTGGTGGTCTCAGCCCTTCACATCCTCATTCTTATACTGCTTTT
CGTGGCCACTTTGGACAAGTCCTGGTGGACTCTCCCTGGGAAAGAGTCCCTGAATCTCTGGTACGACTGCACGTG
GAACAACGACACCAAAACATGGGCCTGCAGTAATGTCAGCGAGAATGGCTGGCTGAAGGCGGTGCAGGTCCTCAT
GGTGCTCTCCCTCATTCTCTGCTGTCTCTCCTTCATCCTGTTCATGTTCCAGCTCTACACCATGCGACGAGGAGG
TCTCTTCTATGCCACCGGCCTCTGCCAGCTTTGCACCAGCGTGGCGGTGTTTACTGGCGCCTTGATCTATGCCAT
TCACGCCGAGGAGATCCTGGAGAAGCACCCGCGAGGGGGCAGCTTCGGATACTGCTTCGCCCTGGCCTGGGTGGC
CTTCCCCCTCGCCCTGGTCAGCGGCATCATCTACATCCACCTACGGAAGCGGGAG**TGA**GCGCCCCGCCTCGCTCG
GCTGCCCCCGCCCCTTCCCGGCCCCCCTCGCCGCGCGTCCTCCAAAAAATAAAACCTTAACCGCGG

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FIGURE 1589

CTCTGCCTCACCTGCCTCCTTGAAGGAAACACGGGGAAGCCAGGACTGGCCGTCACGTTGGTGACAAAT**ATG**TCC
CAGGACTCGGTGACCTTCGCAGACGTGGCTGTGAACTTCACCAAAGAGGAGTGGACCCTGCTGGACCCAGCTCAG
AGGAATCTCTACAGAGACGTGATGCTGGAAAATTCTAGGAACTTGGCATTCATAGATTGGGCAACTCCATGTAAA
ACCAAAGACGCAACCCCTCAGCCGGATATTCTTCCTAAAAGAACATTTCCTGAAGCCAACAGAGTGTGTCTCACG
AGCATCAGTTCCCAGCACTCCACATTAAGAGAAGACTGGAGATGCCCCAAAACAGAGGAACCACACAGGCAGGGG
GTGAATAATGTGAAGCCACCTGCAGTTGCCCCTGAGAAAGATGAATCTCCTGTTAGCATTTGTGAAGATCATGAA
ATGAGGAACCACTCTAAACCTACCTGCAGGCTTGTGCCTTCACAGGGAGATTCCATAAGACAATGTATCCTAACA
CGTGACTCAAGTATTTTCAAGTATAATCCTGTCTTAAACGATAGTCAAAAAACACATGAAAACAACGAAGACGAT
GGAGTCTTGGGGTGGAACATTCAGTGGGTTCCGTGTGGGAGAAAAACAGAGCTGAAATCAAGCACATGGACTGGC
AGTCAGAACACTGTGCATCATATACGTGATGAAATTGATACGGGGGCCAACAGGCACCAGCGGAATCCATTTGGA
AAAGCTTTCCGTGAAGACGGATCCCTTAGGGCACACAACACTCATGGTCGAGAGAAAATGTATGATTTTACTCAG
TGCGAGAACACCTCCAGAAATAACTCAATTCACGCCATGCAGATGCAGTTGTATACCGCAGAGACAAACAAGAAG
GATTGTCAAACTGGGGCAACCTCTGCCAACGCTCCAAATTCCGGTTCACACAAGAGTCATTGCACTGGAGAGAAA
ACCCATAAATGCCCCGAATGTGGGAGAGCCTTTTTTTATCAGTCATTCCTTATGAGACATATGAAAATTCACACT
GGAGAGAAACCGTATGAATGTGGGAAATGTGGGAAAGCCTTTAGATATTCCTTACACCTTAATAAACATTTAAGA
AAGCATGTTGTGCAGAAGAAGCCCTACGAATGTGAAGAATGTGGGAAAGTCATTCGGGAGTCCTCAAAATATACA
CATATAAGGAGCCACACTGGAGAGAAACCCTATAAATGTAAGACATGTGGAAAAGACTTTGCAAAGTCGTCAGGA
CTTAAAAAACATCTTAAGACTCACAAAGATGAGAAGCCCTGTGAA**TGA**

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FIGURE 1590A

GTTCTCAACTTCTTTTGAAATAATGTTCATAGAGAAGGAGGGCTGTCTGAGATTCGAGGGAAACAAGCTCTCAGG
ACTTCCGGTCGCCATGATGGCTGTGGGCGGTAAACGCGGTTAGTGCAAGCATCTGGGCCATCTTCAATGGTAAAA
AAGATACAGTAAAGACATAAATACCACATTTGACAAATGGAAAAAAAGGAGTGTCCAGAAAAGAGTAGCAGCAGT
GAGGAAGAGCTGCCGAGACGGGTATACAGGGAGCTACCCTGTGTTTCTGAGACCCTTTGTGACATCTCACATTTT
TTCCAAGAAG**ATG**ATGAGACAGAGGCAGAGCCATTATTGTTCCGTGCTGTTCCTGAGTGTCAACTATCTGGGGGG
GACATTCCCAGGAGACATTTGCTCAGAAGAGAATCAAATAGTTTCCTCTTATGCTTCTAAAGTCTGTTTTGAGAT
CGAAGAAGATTATAAAAATCGTCAGTTTCTGGGGCCTGAAGGAAATGTGGATGTTGAGTTGATTGATAAGAGCAC
AAACAGATACAGCGTTTGGTTCCCCACTGCTGGCTGGTATCTGTGGTCAGCCACAGGCCTCGGCTTCCTGGTAAG
GGATGAGGTCACAGTGACGATTGCGTTTGGTTCCTGGAGTCAGCACCTGGCCCTGGACCTGCAGCACCATGAACA
GTGGCTGGTGGGCGGCCCCTTGTTTGATGTCACTGCAGAGCCAGAGGAGGCTGTCGCCGAAATCCACCTCCCCCA
CTTCATCTCCCTCCAAGGTGAGGTGGACGTCTCCTGGTTTCTCGTTGCCCATTTTAAGAATGAAGGGATGGTCCT
GGAGCATCCAGCCCGGGTGGAGCCTTTCTATGCTGTCCTGGAAAGCCCCAGCTTCTCTCTGATGGGCATCCTGCT
GCGGATCGCCAGTGGGACTCGCCTCTCCATCCCCATCACTTCCAACACATTGATCTATTATCACCCCCACCCCGA
AGATATTAAGTTCCACTTGTACCTTGTCCCCAGCGACGCCTTGCTAACAAAGGCGATAGATGATGAGGAAGATCG
CTTCCATGGTGTGCGCCTGCAGACTTCGCCCCCAATGGAACCCCTGAACTTTGGTTCCAGTTATATTGTGTCTAA
TTCTGCTAACCTGAAAGTAATGCCCAAGGAGTTGAAATTGTCCTACAGGAGCCCTGGAGAAATTCAGCACTTCTC
AAAATTCTATGCTGGGCAGATGAAGGAACCCATTCAACTTGAGATTACTGAAAAAAGACATGGGACTTTGGTGTG
GGATACTGAGGTGAAGCCAGTGGATCTCCAGCTTGTAGCTGCATCAGCCCCTCCTCCTTTCTCAGGTGCAGCCTT
TGTGAAGGAGAACCACCGGCAACTCCAAGCCAGGATGGGGGACCTGAAAGGGGTGCTCGATGATCTCCAAGACAA
TGAGGTTCTTACTGAGAATGAGAAGGAGCTGGTGGAGCAGGAAAAGACACGGCAGAGCAAGAATGAGGCCTTGCT
GAGCATGGTGGAGAAGAAAGGGGACCTGGCCCTGGACGTGCTCTTCAGAAGCATTAGTGAAAGGGACCCTTACCT
CGTGTCCTATCTTAGACAGCAGAATTTG**TAA**AATGAGTCAGTTAGGTAGTCTGGAAGAGAGAATCCAGCGTTCTC
ATTGGAAATGGATAAACAGAAATGTGATCATTGATTTCAGTGTTCAAGACAGAAGAAGACTGGGTAACATCTATC
ACACAGGCTTTCAGGACAGACTTGTAACCTGGCATGTACCTATTGACTGTATCCTCATGCATTTTCCTCAAGAAT
GTCTGAAGAAGGTAGTAATATTCCTTTTAAATTTTTTCCAACCATTGCTTGATATATCACTATTTTATCCATTGA
CATGATTCTTGAAGACCCAGGATAAAGGACATCCGGATAGGTGTGTTTATGAAGGATGGGGCCTGGAAAGGCAAC
TTTTCCTGATTAATGTGAAAAATAATTCCTATGGACACTCCGTTTGAAGTATCACCTTCTCATAACTAAAAGCAG
AAAAGCTAACAAAAGCTTCTCAGCTGAGGACACTCAAGGCATACATGATGACAGTCTTTTTTTTTTTTGTATGTT
AGGACTTTAACACTTTATCTATGGCTACTGTTATTAGAACAATGTAAATGTATTTGCTGAAAGAGAGCACAAAAA
TGGGAGAAAATGCAAACATGAGCAGAAAATATTTTCCCACTGGTGTGTAGCCTGCTACAAGGAGTTGTTGGGTTA
AATGTTCATGGTCAACTCCAAGGAATACTGAGATGAAATGTGGTAAATCAACTCCACAGAACCACCAAAAAGAAA
ATGAGGGTAATTCAGCTTATTCTGAGACAGACATTCCTGGCAATGTACCATACAAAAAATAAGCCAACTCTGACA
TTTGGATTCTACCATAGACTCTGTCATTTTGTAGCCATTTCAGCTGTCTTTTGATTAATGTTTTCGTGGCACACA
TATTTCCATCCTTTTATGTTTAATCTGTTTAAAACAAGTTCCTAGTAGACACCATCTGGTTGAGTCAGTTTTTTT
TATGGTGTATTTTGAACCCATTCTGATAGTCTCTTTTAACTGGAAGATTTCAATTACTTACGTTAATGTAATTAT
TAATATGTTAGGATTTATCCTCAGTCAGCCAGTTTGTTATGTCTTTTCTATTCTACTGTTATCACATTTGTACCA
CTTAAAGTGGAATCTAGGCACTTTATCACCATTTAGATCCTATTACCTTTTCTCATCTAGGATATAGTTATCTTC
TACATAATCTTTCTGTATCTTAAAACCCATCAATAAATTATTATATATTTTCTACTTTTAATCACTCAGAAGATT
TAAAAAACTCATGAGAAGAGTAATCTGTTATGTTTTTCCAGATATTTACCATTTCTGTTGCTCTTCCTTCATTAT
TTTCCAAATTTCGTTCTGCAAATTTCCACTTCCTCTGATAGACGTTTTTTAGTTCTTTTAGAGTGGTTCTGATAG
GTACAGATTCTCTTATTTTTTGCTTCCTCTGAGGACATCTTTTTCTCACCTTCATTCTCAGTGATGTTTTTTGCT
TGTAGTATTTTTAGTTGACATTGTTTTCTGTTCAGCAGTTTCCTTTTAGCTTCCGTATTTCCTGATGAGAAATCT
GCAGTCATTCAAATTGTTGTTTCCCTGTATGTAGTGTGTCATTTTTCTGTCAGATTTCAAGGTATTTATCTTTAG
TTTTTAGCCATTTCATTATGTTGGGGATGAGTTTCCTTGTTTTATTCCCTTTGGAATTTGCTCCAATTCATAAAT
TTGCAGTTTTATGTCTTTTACCAAACTTAGAGGTTTTCAGCCTAATTTCTAAAAATACTTTTTATTAGCCTGATT
TTCATCTTTATAGGAAATAGTTTAAGTGATGACAAGTTCCAATAGCTTATATGCCCAGAAGGCCTTCAAAATAAG
AATTTTGAAAGAATACAGAAAACAAACTTTTATATCCTTCTCATGTCTTCTACTGTAAAATTCATATGCTTTGCT
ACTCTAAACCTAGTTTGAAATCAACAGTCTTGAGAATAGATGAAAATTTTGATGAATAGTGGAATTCTTTTAAAT

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FIGURE 1590B

GGAAACCTCTTACATGTGATTTTCCTTGCCATCTAGAAATAAACCATAGTATTTATGTTGAATCAATCAATATTA
TATTTTGTTTTTTTCCTCCTCTTCTGAGACTCTTATTGTGGAAATGTTAGACTTTTATGTTTTCCTAAATGTCCC
TGATATTCTACTTATTTAGAACATCTTTTCATTTTTTCCATTATTCTGATTGGGTAATTTTAATTTGTCTATTTT
CAAATTTGCTGGAGTGTTCACCTGTTGTTATCTGTGTCGTCCCACTGAGTGCATTCACCACCTTTTAAATTTTGG
TCACTGTATGTATCAGTTCTAAAATTTCCATTTTGTTCTCTATATTTTAAATTTCTTGCCTTATATTCTATTTTC
CTGCAAATGTGTCAGCATTTGCTTGTTTGAGCTTTTTTTTTTTCAAGACAGGGTCTCAACTCTGTTACCCAGGCT
GGAGTGCAGTGGTGCGATCTCAGCTCACTGCAACCTCTGCCTCCTGGTTCAAGCGATTATTGTGCCTCAGCCTCC
AGAGTAGCTGGGATTACAGGCATGCACCACCACAGCCCAGCTAATTTTTTGTATTTTTAGTAGAGACAGAGTTTT
GCTATGTTGGCCAGGCTGGTTTTGAACTCCTGGCCTCAAGTGATCCACCCACCTCAGCCTCCCAAAGTGCTGGGA
TTACAGGCCACTACACCTGGCACATTTGAGTATTTTTTTTTTTTTTTTTTTTTTTTGAGATGGAGTCTCGCTCT
GTCATCTAGGCTGGAGTGCAGTGGTGTGATCTCAGCTCACTGCAGCCTCTGTCTCCCGGGCTCAAGCGATTCTCT
TGCCTCAGCCTCCTGAGTAGCTAGGACTACAGGTGCATGCCAACACGCCCGGCTAATTTTTTTTTAAAAATATTT
TTAGTAGAGACAGGGTTTCACCATTTTGGCCAGGATGGTCTTGATCTCCTGACCTCATGATCCACCCGCCTCGGC
CTTCCAAAGTGCTGGGATTACAGGCATGAGCCACCGTGCCTGGCCTCATTTGAGTATTTTTATAATGTCTCTTTT
AAAGTCTTTGTCAGATAATTTCACTGTACATGTTATTCAGTGTTTGGTGTCCACTGAGTTGTCATTTGCCAGACA
AGTGGAGATTTTTGCAGCTCATCCTTGTATTCTCAGTAGTTCCGATATGTACCCTCGAAATGTGAATGTTATCTT
ATGAGACTCTGTTTTATTTGTATCCAACAGAAGATGTTTATTATTTATTTGGCTTTCTGTGAACTGAGGTCTTAA
TATCAGCTCATTTTAAAAGTCTTTGCAGTGGTATTCGGATCTATCCTGTGTGTGCCTATGAGATTGGGTGCAGTG
TATCCTGTTAGCTCCATTCTCAGGGCGTTTGAATGTGAATTAGGACCAGCGCAATGAATGCTCAAGTTGGGGTTG
GGCGTTAGAATTCATAAAAGTCTTTATATGCTCAG

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FIGURE 1591

GACGTCTGCGCGCGAATGCCGTGGCGCGAACTTGGGACTGCAGAGGCGCGCCTGGCGGATCTGAGTGTGTTGCCC
GGGCAGCGGCGCGCGGGACCAACGCAAGGAGCAGCTGACAGACGAAGAAAAGTGCTGGACAGGAAGGGAGAATTC
TGACGCCAAC**ATG**CAGCGAAGTATCATGTCATTTTTCCACCCCAAGAAAGAGGGTAAAGCAAAGAAGCCTGAGAA
GGAGGCATCCAATAGCAGCAGAGAGACGGAGCCCCCTCCAAAGGCGGCACTGAAGGAGTGGAATGGAGTGGTGTC
CGAGAGTGACTCTCCGGTGAAGAGGCCAGGGAGGAAGGCGGCCCGGGTCCTGGGCAGCGAAGGGGAAGAGGAGGA
TGAAGCCCTTAGCCCTGCTAAAGGCCAGAAGCCTGCCCTGGACTGCTCACAGGTCTCCCCGCCCCGTCCTGCCAC
ATCTCCTGAGAACAATGCTTCCCTCTCTGACACCTCTCCCATGGACAGTTCCCCATCAGGGATTCCGAAGCGTCG
CACAGCTCGGAAGCAGCTCCCGAAACGGACCATTCAGGAAGTCCTGGAAGAGCAGAGTGAGGACGAGGACAGAGA
AGCCAAGAGGAAGAAGGAGGAGGAAGAAGAGGAGACCCCGAAAGAAAGCCTCACAGAGGCTGAAGTGGCCACAGA
GAAGGAAGGAGAAGACGGGGACCAGCCCACCACGCCTCCCAAGCCCCTAAAGACCTCCAAAGCAGAGACCCCGAC
GGAAAGCGTTTCAGAGCCTGAGGTGGCCACGAAGCAGGAACTGCAGGAGGAGGAAGAGCAGACCAAGCCTCCCCG
CAGAGCTCCCAAGACGCTCAGCAGCTTCTTCACCCCCCGGAAGCCAGCAGTCAAAAAAGAAGTGAAGGAAGAGGA
GCCAGGGGCTCCAGGAAAGGAGGGAGCTGCTGAGGGACCCCTGGATCCATCTGGTTACAATCCTGCCAAGAACAA
CTATCATCCCGTGGAAGATGCCTGCTGGAAACCGGGCCAGAAGGTTCCTTACCTGGCTGTGGCCCGGACGTTTGA
GAAGATCGAGGAGGTGTCTGCTCGGCTCCGGATGGTGGAGACGCTGAGCAACTTGCTGCGCTCCGTGGTGGCCCT
GTCGCCTCCAGACCTCCTCCCTGTCCTCTACCTCAGCCTCAACCACCTTGGGCCACCCCAGCAGGGCCTGGAGCT
TGGCGTGGGTGATGGTGTCCTTCTCAAGGCAGTGGCCCAGGCCACAGGTCGGCAGCTGGAGTCCGTCCGGGCTGA
GGCAGCCGAGAAAGGCGACGTGGGGCTGGTGGCCGAGAACAGCCGCAGCACCCAGAGGCTCATGCTGCCACCACC
TCCGCTCACTGCCTCCGGGGTCTTCAGCAAGTTCCGCGACATCGCCAGGCTCACTGGCAGTGCTTCCACAGCCAA
GAAGATAGACATCATCAAAGGCCTCTTTGTGGCCTGCCGCCACTCAGAAGCCCGGTTCATCGCTAGGTCCCTGAG
CGGACGGCTGCGCCTTGGGCTGGCAGAGCAGTCGGTGCTGGCTGCCCTCTCCCAGGCAGTGAGCCTCACGCCCCC
GGGCCAAGAATTCCCACCAGCCATGGTGGATGCTGGGAAGGGCAAGACAGCAGAGGCCAGAAAGACGTGGCTGGA
GGAGCAAGGCATGATCCTGAAGCAGACGTTCTGCGAGGTTCCCGACCTGGACCGAATTATCCCCGTGCTGCTGGA
GCACGGCCTGGAACGTCTCCCGGAGCACTGCAAGCTGAGCCCAGGGATTCCCCTGAAACCAATGTTGGCCCATCC
CACCCGGGGCATCAGCGAGGTCCTGAAACGCTTTGAGGAGGCAGCTTTCACCTGCGAATACAAATATGACGGGCA
GAGGGCACAGATCCACGCCCTGGAAGGCGGGGAGGTGAAGATCTTCAGCAGGAATCAGGAAGACAACACTGGGAA
GTACCCGGACATCATCAGCCGCATCCCCAAGATTAAACTCCCATCGGTCACATCCTTCATCCTGGACACCGAAGC
CGTGGCTTGGGACCGGGAAAAGAAGCAGATCCAGCCATTCCAAGTGCTCACCACCCGCAAACGCAAGGAGGTGGA
TGCGTCTGAGATCCAGGTGCAGGTGTGTTTGTACGCCTTCGACCTCATCTACCTCAATGGAGAGTCCCTGGTACG
TGAGCCCCTTTCCCGGCGCCGGCAGCTGCTCCGGGAGAACTTTGTGGAGACAGAGGGCGAGTTTGTCTTCGCCAC
CTCCCTGGACACCAAGGACATCGAGCAGATCGCCGAGTTCCTGGAGCAGTCAGTGAAAGACTCCTGCGAGGGGCT
GATGGTGAAGACCCTGGATGTTGATGCCACCTACGAGATCGCCAAGAGATCGCACAACTGGCTCAAGCTGAAGAA
GGACTACCTTGATGGCGTGGGTGACACCCTGGACCTGGTGGTGATCGGCGCCTACCTGGGCCGGGGGAAGCGGGC
CGGCCGGTACGGGGGCTTCCTGCTGGCCTCCTACGACGAGGACAGTGAGGAGCTGCAGGCCATATGCAAGCTTGG
AACTGGCTTCAGTGACGAGGAGCTGGAGGAGCATCACCAGAGCCTCAAGGCCCTGGTGCTGCCCAGCCCACGCCC
TTACGTGCGGATAGATGGCGCTGTGATTCCCGACCACTGGCTGGACCCCAGCGCTGTGTGGGAGGTGAAGTGCGC
TGACCTCTCCCTCTCTCCCATCTACCCTGCTGCGCGGGGCCTGGTGGATAGTGACAAGGGCATCTCCCTTCGCTT
CCCTCGGTTTATTCGAGTCCGTGAAGACAAGCAGCCGGAGCAGGCCACCACCAGTGCTCAGGTGGCCTGTTTGTA
CCGGAAGCAAAGTCAGATTCAGAACCAACAAGGCGAGGACTCAGGCTCTGACCCTGAAGATACCTAC**TAA**GCCCT
CGCCCTCCTAGGGCCTGGGTACAGGGCATGAGTTGGACGGACCCCAGGGTTATTATTGCCTTTGCTTTTTAGCAA
ATCTGCTGTGGCAGGCTGTGGATTTTGAGAGTCAGGGGAGGGGTGTGTGTGTGAGGGGGTGGCTTACTCCGGAGT
CTGGGATTCATCCCGTCATTTCTTTCAATAAATAATTATCGGATAGCT

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FIGURE 1592

GCAACGCGAGTGGGAGCACCAGGATCTCGGGCTCGGAACGAGACTGCACGGATTGTTTTAAGAAA**ATG**GCAGACA
AACCAGACATGGGGGAAATCGCCAGCTTCGATAAGGCCAAGCTGAAGAAAACGGAGACGCAGGAGAAGAACACCC
TGCCGACCAAAGAGACCATTGAGCAGGAGAAGCGGAGTGAAATTTCC**TAA**GATCCTGGAGGATTTCCTACCCCCG
TCCTCTTCGAGACCCCAGTCGTGATGTGGAGGAAGAGCCACCTGCAAGATGGACACGAGCCACAAGCTGCACTGT
GAACCTGGGCACTCCGCGCCGATGCCACCGGCCTGTGGGTCTCTGAAGGGACCCCCCCCCCAATCGGACTGCCAAA
TTCTCCGGTTTGCCCCGGGATATTATAGAAAATTATTTGTATGAATAATGAAAATAAAACACACCTCGTGGCATG
GC

FIGURE 1593

CACCAAATGGCGG**ATG**ACGCCGGTGCAGCGGGGGGGCCCAGAGCCCTGGTGGCCATGGGATAGGGAACCGCGGTG
GCTTCCACGGAGGTTTCGGCAGTGGCATCCGGGGCCGGGGTCGCGGGAGTGGACGGGGCCGTGCCGAGGCCGCGG
AGCTCGCGGAGGCAAGGCCGAGGATAAGGAGTGGATGCCTGTCACCAAGCTGGGCCGCTTGGTCAAGGACATGAA
GATCAAGTCCCTGGAGGAGATCTATCTCTTCTCCCTGCCCATTAAGGAATCTGAGATCATTGATTTCTTCCTGGG
GGACTCTCTCAAGGATGAGGTTTTGAAGATTATGCCGGTGCAGAAGCAGACCCGTGCCGGCCAGCGCACCAGGTT
CAAGGTGACAGGCCGCTGCGGCTCTGTGCTGGTGCGCCTCATCCCTGCACCCAGGGGCACTGGCATCGTCTCCGC
ACCTGTGCCCAAGAAGCTGCTCATGATGGCTGGTATCGATGACTGCTACACCTCAGCCCGGGGCTGCACTGCCAC
CCTGGGCAACTTCGCCAAGGCCACCTTTGATGCCATCTCTAAGACCTACAGCTACCTGACCCCCGACCTCTGGAA
GGAGACTGTATTTACCAAGTCTCCCTATCAGGAATTCACTGACCACCTCGTCAAGACCCACACCAGAGTCTCGGT
GCAGCGGACCCAGGCTTCAGATGTGGCTACAACA**TAG**GGTTTTTATACAAGAAAAATAAAGTGAATTAAGCCTG

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FIGURE 1594

GAGCTTTTATCTCAGTTATCAGGAGTGAGACGTTCTGCAGGAGGACAGCTTAATTCCTCTGGCCCTTCCGCTTCT
CAGTTACAACAACTGCAG**ATG**CAGCTGCAGCTAGAACGGCAGCATGCCCAGGCAGCACGGCAACAACTGGAGACC
GCACGCAACGCAACCCGGCGTACTAACACAAGCAGTGTCACCACTACAATCACACAATCCACAGCAACAACCAAC
ATAGCTAATACAGAAAGCAGTCAGCAGACTCTACAGAATTCCCAGTTTCTTTTAACAAGGTTGAATGATCCTAAA
ATGTCTGAAACGGAGCGCCAGTCCATGGAAAGCGAGCGTGCAGACCGCAGCCTGTTTGTCCAAGAGCTCCTTCTG
TCCACTTTAGTGCGTGAAGAGAGCTCATCCTCAGATGAGGATGATCGGGGGGAGATGGCAGATTTTGGTGCTATG
GGCTGTGTAGATATTATGCCTTTAGATGTTGCTTTAGAAAACCTAAATTTAAAAGAGAGTAATAAAGGAAATGAG
CCTCCACCACCTCCTCTT**TGA**TGACATCCCAATTCGCAGACAATGTCCTCTGTGCTGTATTTGCCAATGAAAGTG
GACAACAACTATCTTGGGTTTGTTTGGTGATTGTAATTTCAGGTCTGTCACTCTTGTTACATTGTGTACATTCAA
AAGGAAGAGAGAAAATATATATGATAATCATTTCCACTTAACTAATTTTTACTTCTAGCAGGTAAATGTAGGTAG
CAGTGCAGGGGTGATCTCTGCTTCCTGTACCTTGACATGCAAAAGGCTCTCCTAATACTCCACATTCAAACTGAA
GAGGAAAATTGAAATCTCTAATGAAGCTGCTGTGTGTATTTATGAATATTAATGAATAAAAACTGCTTGGATGGT
TTACCTTAACTACTGCATGAGGTTTTTTGCAGCGTGCATGAGTTTTAGTGACCTTGTTATTTAAGAAGTTAAATA
CAAGGAGTAAAACTTAAAAAAAAAAATACAAAGCCCAAAGCTTTCCCAAACATTATTCAATGGTTACACGACGAAG
TAGCTTTTGAATAATGTCTGCCTGAATCACCTTTCTTTGTGTGCCTCCTACGCACAAAGCCAGCTCTGCAGTGGA
ATCTGGGGATTATAGCCGGGTGTGGCACTCCGCCCTGTGTGACTGTCCTGTCGCCCTGTTAGTCATCTTGCCTGT
GTGGAGCTCAGCCTGTCTCTTTAACTCATCTGTAGAAGACACACCAGTAAAGCTACTGTTGGAATCTGCTGCAGG
GGCCTTTGTGTGCCCTAAAAACAAATCCTGTTCATGTTTGTTTAAAGTTTTTACTTTTTGTGGTTGTTTAAAATT
TTTTCAATTGTTAAATATGTTTTATTCAGGTGTAGATGAATTTCATTTATTGACTGTTCAACAGAGTTAACCTGA
ATTATGTTGTCTTTGTTTTTAAAAATCTCACATTCTC

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FIGURE 1595

AGTGCGAGAGGCGAGGGAGCTCCAGCTCTGCCTGTAAGGTCTCGGAAGTACGAGGCGGAGGGGACGAAAAACGGG
GGGCCAGACTGTTGTGGCTGTGGTGGAGACGAGAAACCAGGAAGAAGAGGCTCGCCTCCCACTCGGCGACAGTAA
GCGAAGCAGCCGAAGGCGAGCGCCGACATCAGCAGCTGCCCCCTAAATCCCGCCCTTCGTCTTGGCGGCAGCGGG
AGACTGAGAGACGCGCGCAGCAGGGGCGGGACTGGAGAGGGGCCCCGCGCGCGGATCTCGCGAGAGCATTAGAGG
GCGGAAGCGCTATCCGAGCAGG**ATG**CGGTTCGTGGTTGCCTTGGTCCTCCTGAACGTCGCAGCGGCGGGAGCCGT
GCCGCTCTTGGCCACCGAAAGCGTCAAGCAAGAAGAAGCTGGAGTACGGCCTTCTGCAGGAAACGTCTCCACCCA
CCCCAGCTTGAGCCAACGGCCTGGAGGCTCTACCAAGTCGCATCCGGAGCCGCAGACTCCAAAAGACAGCCCTAG
CAAGTCGAGTGCGGAGGCGCAGACCCCAGAAGACACCCCCAACAAGTCGGGTGCGGAGGCAAAGACCCAAAAAGA
CAGCTCCAACAAGTCGGGTGCGGAGGCAAAGACCCAAAAAGGCAGCACTAGCAAGTCGGGTTCGGAGGCGCAGAC
CACAAAAGACAGCACTAGTAAGTCGCATCCGGAGCTGCAGACTCCAAAAGACAGCACTGGCAAATCGGGTGCGGA
GGCGCAGACCCCAGAAGACAGCCCCAACAGGTCGGGTGCGGAGGCAAAGACCCAAAAAGACAGCCCTAGCAAGTC
AGGTTCGGAGGCGCAGACCACAAAAGATGTCCCTAATAAGTCGGGTGCGGACGGCCAGACCCCAAAAGACGGCTC
CAGCAAGTCGGGTGCGGAGGATCAGACCCCAAAAGACGTCCCTAACAAGTCGGGTGCGGAGAAGCAGACTCCAAA
AGACGGCTCTAACAAGTCCGGTGCAGAGGAGCAGGGCCCAATAGACGGGCCCAGCAAGTCGGGTGCGGAGGAGCA
GACCTCAAAAGACAGCCCTAACAAGGTGGTTCCAGAGCAGCCTTCCCGGAAAGACCATTCCAAGCCCATCTCCAA
CCCTTCTGATAACAAGGAGCTCCCCAAGGCTGACACAAACCAGCTTGCTGACAAAGGGAAGCTTTCTCCTCATGC
TTTCAAAACCGAATCTGGGGAGGAAACTGACCTCATTTCTCCCCCGCAGGAGGAAGTTAAGTCTTCAGAGCCTAC
TGAGGATGTGGAGCCCAAAGAGGCTGAAGATGATGATACAGGACCCGAGGAGGGCTCACCGCCCAAAGAAGAGAA
AGAAAAGATGTCCGGTTCTGCCTCCAGTGAGAACCGTGAAGGGACACTTTCGGATTCCACGGGTAGCGAGAAGGA
TGACCTTTATCCGAACGGTTCTGGAAATGGCAGCGCGGAGAGCAGCCACTTCTTTGCATATCTGGTGACTGCAGC
CATTCTTGTGGCTGTCCTCTATATCGCTCATCACAACAAGCGGAAGATCATTGCTTTTGTCCTGGAAGGAAAAAG
ATCTAAAGTCACCCGGCGGCCAAAGGCCAGTGACTACCAACGTTTGGACCAGAAGTATGTCTTAATTCTGAATGT
TTTCCCTGCACCTCCTAAAAGATCTTTTTTCCCC**TAA**GTCCTAACAGAATGGTATATTCCTCTGGAAAAAGATGA
ACGTCACCAATGGATTGTGCTGCTCTCGTTTCAGCTTTGATTTTTTTGTCCTTGAGAACCTTGTCCTCCCTGCTG
ATTTGTTTCTAAATCAAAAGAAATGAAGAAAAAAGTACTGTGACCTGAGAGACACCCTCCTCTAGAATTTAGTGG
CGGGTCTGGGCTGGCAGAGGTAGGGGGCTGCTTTGGGCTTTGCACCTGCACTTTGGTGACATTGTTCTTCTGTGT
TCCCTTTATTTATGCTGGTGGCTTCCATCCGTTCCTCCTCTGAGGGTGAGTGGAGGGGTATATGGAAACACGGCT
ATGACCAAAGGGAGATCCCAGCCTGGGCAGGCTGCGCTGCTGACCACCCTCCCTGGGGCCCGGGCTCTGTAGGAA
AGTTGGTCCTTGACTGTGGCATTGCACTCTGCACTGTTTCTCTCTGCAGACCTAGGGGAAAACTGCAGGTGGAAG
TGCTTTTCTACTAAGGCCTCTTACTTTGGGGGGGATGTGCCCTACAGAAGACATAGAAGATGGGGAAATGCCAAT
GGGCAAAGAGCTACTTTGAATACATAATTCTCTTCAAAGACTTCAGCAGCAAACCAAAACAGCAGGTTAAAAAAA
AAGATGCTTTTTTGGGTGCAAGTCTAACCTGTCTAGCATGAGATCTTCTTGATTTTCTGATTATTTTATGTAGCT
TGAGACAAAGTGAATCAACTTCCACTTAGTTGTACCGAGCATAAAACAGAACTTGGGCTTCCTGGCAGTGAGGCC
ACTGTCCCATCACAGATTTTTAAAATAAATATGATTTGAAGTAGTGTGATCTTTCACACAA

FIGURE 1596

GGGTCTGCGCCTTCCCAGGCCAGTGTGCTGAGCTCTCCATGTCGCTGTTGCCGCCCGCACCTGGCCTACCGCGGC
ACTCCCGGCTGCATGCTCTGCTTGGCCTTGCCATGCCGGTGGACCTCAGCAAGTGGTCCGGGCCCTTGAGCCTGC
GAGAAATGGACGAGCGGTCACAGCACCTGCTGCATGTCACCTACGCCCGGGCGGTGGTGGACGAGCTGGGCAAAG
TGCTGACGCCCACCCAGGTTAAGAATAGACCCACCAGCATTTAGTGGGATGGTCTTGATTCAGGGAAGCTCTACA
CCTTGGTCCTGACAGACCCTGATGCTCCCAGCAGGAAGGATCCCAAATACAGAGAATGGCATCATTTCCTGGTGG
TCAAC**ATG**AAGGGCAATGACATCAGCAGTGACACACTCCTCTCCGATTATGTGGGCTCGGGGCCTCCCAAGGGCA
CAGGTCTCCACCGCTATGTCTGGCTGGTTTATGAGCAGGACAGGCCACTAAAGTGTGACGAGCCCATCCTCAGCA
ACCGATCTGGAGACCACCGTGGCAAATTTGAGGTGGTGTCCTTCCGTAAAAAGTACGAGCTCGGGGCCCCGGTGG
CTGGCACGTGTTACCAGGCTGAGTGGGACGACTATGTGCCCAAACTGTACGAGCAACTCTCTGGGAAC**TAG**TGGG
TTAGCTTGGGGACCTGAACTGTTCTGGAGGCCCCAAGCCATGTTCCCCAGTTCAGTGTTGCATGTATAATAGGTT
TCTCCTCTTCCTGCCCCCCTTGGCACAGGTGAGACCTGACCAGTCAGATGGTGGTTGAGGGTGACTTTTCCTGCT
GCCTGGCCTTTATAATTTTACTCACTCACTCTGATTTATGTTTTGATCAAATTTGAACTTCATTTTGGGGGATAT
TTTGGTACTGTGATGGGGTCATCAAATTGTTAATCTGAAAATAGCAACCCAGAATGTAAAAAAGAAAAAACTAGG
GGGAAAAAACCAGGTCTACAGTGATAGAGCAAAGCATCAAAGAATCTTTAAGGAAGGTTTTAAAAAAAAAAAGAT
TGGTTGCCTCTGCCTTTGTGATCCTGAGTCCAGAATGGTACACAATGTGTTTTTATGGTGATGTCACTCACCTAG
ACAACCAGAGGCTGGCATTGAGGCTAACCCCCAACACGGTGCATCTCAGATGCCTCAATAGGCATCAGTATGTCG
CTCTGGTCCCTTTAAAGAGCAATCCTGGAAGAAGCAGGAGGGAGAGTGGCGCTGCTGTTGTTGGGACATGGCCAT
CTAGACCGGCAGCAGCGCTCGCTGACAGCTTGGGAGG

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FIGURE 1597

GCGGAGCCACAGTCCTAGAGGCTGAGCGCAGTCGGAGCTGTCCCATTTACCCGACCCGACGCCGGCGTGATGTGG
CTTCCGCTGGTGCTGCTCCTGGCTGTGCTGCTGCTGGCCGTCCTCTGCAAAGTTTACTTGGGACTATTCTCTGGC
AGCTCCCCGAATCCTTTCTCCGAAGATGTCAAACGGCCCCCAGCGCCCCTGGTAACTGACAAGGAGGCCAGGAAG
AAGGTTCTCAAACAAGGAATCCATTACATTGGGCGTATGGAAGAGGGCAGCATTGGCCGTTTTATCTTGGACCAG
ATCACTGAAGGGCAGCTGGACTGGGCTCCCCTGTCCTCTCCTTTTGACATCATGGTACTGGAAGGGCCCAATGGC
CGAAAGGAGTACCCCATGTACAGTGGAGAGAAAGCCTACATTCAGGGCCTCAAGGAGAAGTTTCCACAGGAGGAA
GCTATCATTGACAAGTATATAAAGCTGGTTAAGGTGGTATCCAGTGGAGCCCCTCATGCCATCCTGTTGAAATTC
CTCCCATTGCCCGTGGTTCAGCTCCTCGACAGGTGTGGGCTGCTGACTCGTTTCTCTCCATTCCTTCAAGCATCC
ACCCAGAGCCTGGCTGAGGTCCTGCAGCAGCTGGGGGCCTCCTCTGAGCTCCAGGCAGTACTCAGCTACATCTTC
CCCACTTACGGTGTCACCCCCAACCACAGTGCCTTTTCC**ATG**CACGCCCTGCTGGTCAACCACTACATGAAAGGA
GGCTTTTATCCCCGAGGGGGTTCCAGTGAAATTGCCTTCCACACCATCCCTGTGATTCAGCGGGCTGGGGGCGCT
GTCCTCACAAAGGCCACTGTGCAGAGTGTGTTGCTGGACTCAGCTGGGAAAGCCTGTGGTGTCAGTGTGAAGAAG
GGGCATGAGCTGGTGAACATCTATTGCCCCATCGTGGTCTCCAACGCAGGACTGTTCAACACCTATGAACACCTA
CTGCCGGGGAACGCCCGCTGCCTGCCAGGTGTGAAGCAGCAACTGGGGACGGTGCGGCCCGGCTTAGGCATGACC
TCTGTTTTCATCTGCCTGCGAGGCACCAAGGAAGACCTGCATCTGCCGTCCACCAACTACTATGTTTACTATGAC
ACGGACATGGACCAGGCGATGGAGCGCTACGTCTCCATGCCCAGGGAAGAGGCTGCGGAACACATCCCTCTTCTC
TTCTTCGCTTTCCCATCAGCCAAAGATCCGACCTGGGAGGACCGATTCCCAGGCCGGTCCACCATGATCATGCTC
ATACCCACTGCCTACGAGTGGTTTGAGGAGTGGCAGGCGGAGCTGAAGGGAAAGCGGGGCAGTGACTATGAGACC
TTCAAAAACTCCTTTGTGGAAGCCTCTATGTCAGTGGTCCTGAAACTGTTCCCACAGCTGGAGGGGAAGGTGGAG
AGTGTGACTGCAGGATCCCCACTCACCAACCAGTTCTATCTGGCTGCTCCCCGAGGTGCCTGCTACGGGGCTGAC
CATGACCTGGGCCGCCTGCACCCTTGTGTGATGGCCTCCTTGAGGGCCCAGAGCCCCATCCCCAACCTCTATCTG
ACAGGCCAGGATATCTTCACCTGTGGACTGGTCGGGGCCCTGCAAGGTGCCCTGCTGTGCAGCAGCGCCATCCTG
AAGCGGAACTTGTACTCAGACCTTAAGAATCTTGATTCTAGGATCCGGGCACAGAAGAAAAAGAAT**TAG**TTCCAT
CAGGGAGGAGTCAGAGGAATTTGCCCAATGGCTGGGGCATCTCCCTTGACTTACCCATAATGTCTTTCTGCATTA
GTTCCTTGCACGTATAAAGCACTCTAATTTGGTTCTGATGCCTGAAGAGAGGCCTAGTTTAAATCACAATTCCGA
ATCTGGGGCAATGGAATCACTGCTTCCAGCTGGGGCAGGTGAGATCTTTACGCCTTTTATAACATGCCATCCCTA
CTAATAGGATATTGACTTGGATAGCTTGATGTCTCATGACGAGCGGCGCTCTGCATCCCTCACCCATGCCTCCTA
ACTCAGTGATCAAAGCGAATATTCCATCTGTGGATAGAACCCCTGGCAGTGTTGTCAGCTCAACCTGGTGGGTTC
AGTTCTGTCCTGAGGCTTCTGCTCTCATTCATTTAGTGCTACGCTGCACAGTTCTACACTGTCAAGGGAAAAGGG
AGACTAATGAGGCTTAACTCAAAACCTGGGCGTGGTTTTGGTTGCCATTCCATAGGTTTGGAGAGCTCTAGATCT
CTTTTGTGCTGGGTTCAGTGGCTCTTCAGGGGACAGGAAATGCCTGTGTCTGGCCAGTGTGGTTCTGGAGCTTTG
GGGTAACAGCAGGATCCATCAGTTAGTAGGGTGCATGTCAGATGATCATATCCAATTCATATGGAAGTCCCGGGT
CTGTCTTCCTTATCATCGGGGTGGCAGCTGGTTCTCAATGTGCCAGCAGGGACTCAGTACCTGAGCCTCAATCAA
GCCTTATCCACCAAATACACAGGGAAGGGTGATGCAGGGAAGGGTGACATCAGGAGTCAGGGCATGGACTGGTAA
GATGAATACTTTGCTGGGCTGAAGCAGGCTGCAGGGCATTCCAGCCAAGGGCACAGCAGGGGACAGTGCAGGGAG
GTGTGGGGTAAGGGAGGGAAGTCACATCAGAAAAGGGAAAGCCACGGAATGTGTGTGAAGCCCAGAAATGGCATT
TGCAGTTAATTAGCACATGTGAGGGTTAGACAGGTAGGTGAATGCAAGCTCAAGGTTTGGAAAAATGACTTTTCA
GTTATGTCTTTGGTATCAGACATACGAAAGGTCTCTTTGTAGTTCGTGTTAATGTAACATTAATAAATTTATTGA
TTCCATTGCTTT

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FIGURE 1598

GCAGGCTGGAAGGAAGACGAACCTACGAAGCAGAGATCTGAAGACAGC**ATG**TACACAGCCATTCCCCAGAGTGGC
TCTCCATTCCCAGGCTCAGTGCAGGATCCAGGCCTGCATGTGTGGCGGGTGGAGAAGCTGAAGCCGGTGCCTGTG
GCGCAAGAGAACCAGGGCGTCTTCTTCTCGGGGGACTCCTACCTAGTGCTGCACAATGGCCCAGAAGAGGTTTCC
CATCTGCACCTGTGGATAGGCCAGCAGTCATCCCGGGATGAGCAGGGGGCCTGTGCCGTGCTGGCTGTGCACCTC
AACACGCTGCTGGGAGAGCGGCCTGTGCAGCACCGCGAGGTGCAGGGCAATGAGTCTGACCTCTTCATGAGCTAC
TTCCCACGGGGCCTCAAGTACCAGGAAGGTGGTGTGGAGTCAGCATTTCACAAGACCTCCACAGGAGCCCCAGCT
GCCATCAAGAAACTCTACCAGGTGAAGGGGAAGAAGAACATCCGTGCCACCGAGCGGGCACTGAACTGGGACAGC
TTCAACACTGGGGACTGCTTCATCCTGGACCTGGGCCAGAACATCTTCGCCTGGTGTGGTGGAAAGTCCAACATC
CTGGAACGCAACAAGGCGAGGGACCTGGCCCTGGCCATCCGGGACAGTGAGCGACAGGGCAAGGCCCAGGTGGAG
ATTGTCACTGATGGGGAGGAGCCTGCTGAGATGATCCAGGTCCTGGGCCCCAAGCCTGCTCTGAAGGAGGGCAAC
CCTGAGGAAGACCTCACAGCTGACAAGGCAAATGCCCAGGCCGCAGCTCTGTATAAGGTCTCTGATGCCACTGGA
CAGATGAACCTGACCAAGGTGGCTGACTCCAGCCCATTTGCCCTTGAACTGCTGATATCTGATGACTGCTTTGTG
CTGGACAACGGGCTCTGTGGCAAGATCTATATCTGGAAGGGGCGAAAAGCGAATGAGAAGGAGCGGCAGGCAGCC
CTGCAGGTGGCCGAGGGCTTCATCTCGCGCATGCAGTACGCCCCGAACACTCAGGTGGAGATTCTGCCTCAGGGC
CATGAGAGTCCCATCTTCAAGCAATTTTTCAAGGACTGGAAA**TGA**GGGTGGGCGTCTTCCTGCCCCATGCTCCCC
TGCCCCCCACCACCTGCCTGCTTGCTTCTCTGGCTGCCTGGTCAGTGCAGAGGTGCCCCCTGCAGATGTTCAATA
AAGGAGACAAGTGCTTTCCC

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FIGURE 1599

CGCCCGCCTGCTACGAGTAGAACGCTGTCCGCAGCTTGCGCATTTCGCAGCCGCTGCCGCCTCGCCGCTGCTCCT
TCGTAAGGCCACTTCCGCACACCGACACCAACATGAACGGACAGCTCAACGGCTTCCACGAGGCGTTCATCGAGG
AGGGCACATTCCTTTTCACCTCAGAGTCGGTCGGGGAAGGCCACCCAGATAAGATTTGTGACCAAATCAGTGATG
CTGTCCTTGATGCCCACCTTCAGCAGGATCCTGATGCCAAAGTAGCTTGTGAAACTGTTGCTAAAACTGGAATGA
TCCTTCTTGCTGGGGAAATTACATCCAGAGCTGCTGTTGACTACCAGAAAGTGGTTCGTGAAGCTGTTAAACACA
TTGGATATGATGATTCTTCCAAAGGTTTTGACTACAAGACTTGTAACGTGCTGGTAGCCTTGGAGCAACAGTCAC
CAGATATTGCTCAAGGTGTTCATCTTGACAGAAATGAAGAAGACATTGGTGCTGGAGACCAGGGCTTAATGTTTG
GCTATGCCACTGATGAAACTGAGGAGTGTATGCCTTTAACCATTGTCTTGGCACACAAGCTAAATGCCAAACTGG
CAGAACTACGCCGTAATGGCACTTTGCCTTGGTTACGCCCTGATTCTAAAACTCAAGTTACTGTGCAGTATATGC
AGGATCGAGGTGCTGTGCTTCCCATCAGAGTCCACACAATTGTTATATCTGTTCAGCATGATGAAGAGGTTTGTC
TTGATGAAATGAGGGATGCCCTAAAGGAGAAAGTCATCAAAGCAGTTGTGCCTGCGAAATACCTTGATGAGGATA
CAATCTACCACCTACAGCCAAGTGGCAGATTTGTTATTGGTGGGCCTCAGGGTGATGCTGGTTTGACTGGACGCA
AAATCATTGTGGACACTTATGGCGGTTGGGGTGCTCATGGAGGAGGTGCCTTTTCAGGAAAGGATTATACCAAGG
TCGACCGTTCAGCTGCTTATGCTGCTCGTTGGGTGGCAAAATCCCTTGTTAAAGGAGGTCTGTGCCGGAGGGTTC
TTGTTCAGGTCTCTTATGCTATTGGAGTTTCTCATCCATTATCTATCTCCATTTTCCATTATGGTACCTCTCAGA
AGAGTGAGAGAGAGCTATTAGAGATTGTGAAGAAGAATTTCGATCTCCGCCCTGGGGTCATTGTCAGGGATCTGG
ATCTGAAGAAGCCAATTTATCAGAGGACTGCAGCCTATGGCCACTTTGGTAGGGACAGCTTCCCATGGGAAGTGC
CCAAAAAGCTTAAATATTGAAAGTGTTAGCCTTTTTTCCCCAGACTTGTTGGCGTAGGCTACAGAGAAGCCTTCA
AGCTCTGAGGGAAAGGGCCCTCCTTCCTAAATTTTCCTGTCCTCTTTCAGCTCCTGACCAGTTGCAGTCACTCTA
GTCAATGACATGAATTTTAGCTTTTGTGGGGGACTGTAAGTTGGGCTTGCTATTCTGTCCCTAGGTGTTTTGTTC
ACCATTATAATGAATTTAGTGAGCATAGGTGATCCATGTAACTGCCTAGAAACAACACTGTAGTAAATAATGCTT
TGAAATTGAACCTTTGTGCCCTATCACCCAACGCTCCAAAGTCATAATTGCATTGACTTTCCCCACCAGATGCTG
AAAATGTCCTTGTGATGTGCACGTAAAGTACTTGTAGTTCCACTTATAGCCTCTGTCTGGCAATGCCACAGCCCT
GTCAGCATGAATTTGTAATGTCTTGAGCTCTATTATGAATGTGAAGCCTTCCCCTTATCCTCCCTGTAACTTGAT
CCATTTCTAATTATGTAGCTCTTTGTCAGGGAGTGTTCCCTATCCAATCAATCTTGCATGTAACGCAAGTTCCCA
GTTGGAGCTCCAGCCTGACATCAAAAAAGGCAGTTACCATTAAACCATCTCCCTGGTGCTTATGCTCTTAATTGC
CACCTCTAACAGCACCAAATCAAAATCTCTCCACTTTCAGCTGTCTTTTGGAGGACGTACGTAATAAGGTTTTAA
TTTAGTAAACCAATCCTATGCATGGTTTCAGCACTAGCCAAACCTCACCAACTCCTAGTTCTAGAAAAACAGGCA
CTTGGCAGCCTTGTGATGTCATACAGAGAAGTCACAGGGCAGTACCTGAGGGTCTGTAGGTTGCACACTTTGGTA
CCAGATAACTTTTTTTTTTCTTTATAAGAAAGCCTGAGTACTCCACACTGCACAATAACTCCTCCCAGGGTTTTA
ACTTTGTTTTATTTTCAAAACCAGGTCCAATGAGCTTTCTGAACAGCTGGTGTAGCTACAGAGAAACCAGCTTCC
TTCAGAGAGCAGTGCTTTTGGCGGGGAGGAGGAAATCCCTTCATACTTGAACGTTTTCTAATTGCTTATTTATTG
TATTCTGGGGTATGGCGTAAGTACAGAGAAGCCATCACCTCAGATGGCAGCTTTTAAAAGATTTTTTTTTTTCT
CTCAACACCATGATTCCTTTAACAACATGTTTCCAGCATTCCCAGGTAGGCCAAGGTGTCCTACAGAAAAACCTT
GGGTTAGACCTACAGGGGGTCTGGCTGGTGTTAACAGAAGGGAGGGCAGAGCTGGTGCGGCTGGCCATGGAGAAA
GCTGACTTGGCTGGTGTGGTACAGAGAAGCCAGCTTGTTTACATGCTTATTCCATGACTGCTTGCCCTAAGCAGA
AAGTGCCTTTCAGGATCTATTTTTGGAGGTTTATTACGTATGTCTGGTTCTCAATTCCAACAGTTTAATGAAGAT
CTAAATAAAATGCTAGGTTCTACCTT

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FIGURE 1600

CCTCGCCGCATCCACTCTCCGGCCGGCCGCCTGCCCGCCGCCTCCTCCGTGCGCCCGCCAGCCTCGCCCGCGCCG
TCACC**ATG**AGCCAGGCCTACTCGTCCAGCCAGCGCGTGTCCTCCTACCGCCGCACCTTCGGCGGGGCCCCGGGCT
TCCCACTCGGCTCCCCGCTGAGTTCGCCCGTGTTCCCGCGGGCGGGTTTCGGCTCTAAGGGCTCCTCCAGCTCGG
TGACGTCCCGCGTGTACCAGGTGTCGCGCACGTCGGGCGGGGCCGGGGGCCTGGGGTCGCTGCGGGCCAGCCGGC
TGGGGACCACCCGCACGCCCTCCTCCTACGGCGCAGGCGAGCTGCTGGACTTCTCACTGGCCGACGCGGTGAACC
AGGAGTTTCTGACCACGCGCACCAACGAGAAGGTGGAGCTGCAGGAGCTCAATGACCGCTTCGCCAACTACATCG
AGAAGGTGCGCTTCCTGGAGCAGCAGAACGCGGCGCTCGCCGCCGAAGTGAACCGGCTCAAGGGCCGCGAGCCGA
CGCGAGTGGCCGAGCTCTACGAGGAGGAGCTGCGGGAGCTGCGGCGCCAGGTGGAGGTGCTCACTAACCAGCGCG
CGCGCGTCGACGTCGAGCGCGACAACCTGCTCGACGACCTGCAGCGGCTCAAGGCCAAGCTGCAGGAGGAGATTC
AGTTGAAGGAAGAAGCAGAGAACAATTTGGCTGCCTTCCGAGCGGACGTGGATGCAGCTACTCTAGCTCGCATTG
ACCTGGAGCGCAGAATTGAATCTCTCAACGAGGAGATCGCGTTCCTTAAGAAAGTGCATGAAGAGGAGATCCGTG
AGTTGCAGGCTCAGCTTCAGGAACAGCAGGTCCAGGTGGAGATGGACATGTCTAAGCCAGACCTCACTGCCGCCC
TCAGGGACATCCGGGCTCAGTATGAGACCATCGCGGCTAAGAACATTTCTGAAGCTGAGGAGTGGTACAAGTCGA
AGGTGTCAGACCTGACCCAGGCAGCCAACAAGAACAACGACGCCCTGCGCCAGGCCAAGCAGGAGATGATGGAAT
ACCGACACCAGATCCAGTCCTACACCTGCGAGATTGACGCCCTGAAGGGCACTAACGATTCCCTGATGAGGCAGA
TGCGGGAATTGGAGGACCGATTTGCCAGTGAGGCCAGTGGCTACCAGGACAACATTGCGCGCCTGGAGGAGGAAA
TCCGGCACCTCAAGGATGAGATGGCCCGCCATCTGCGCGAGTACCAGGACCTGCTCAACGTGAAGATGGCCCTGG
ATGTGGAGATTGCCACCTACCGGAAGCTGCTGGAGGGAGAGGAGAGCCGGATCAATCTCCCCATCCAGACCTACT
CTGCCCTCAACTTCCGAGAAACCAGCCCTGAGCAAAGGGGTTCTGAGGTCCATACCAAGAAGACGGTGATGATCA
AGACCATCGAGACACGGGATGGGGAGGTCGTCAGTGAGGCCACACAGCAGCAGCATGAAGTGCTC**TAA**AGACAGA
GACCCTCTGCCACCAGAGACCGTCCTCACCCCTGTCCTCACTGCTCCCTGAAGCCAGCCTTCTTCCATCCCAGGA
CACCACACCCAGCCTCAGTCCTCCCCTCACAGCCTCTGACCCCTCCTCACTGGCCATCCCTCGTGGTCCCCAACA
GCGACATAGCCCATCCCTGCCTGGTCACAGGGCATGCCCCGGCCACCTCTGCGGACCCCAGCTGTGAGCCTTGGC
TGTTGGCAGTGAGTGAGCCTGGCTCTTGTGCTGGATGGAGCCCAGGCGGGAGCGGTGGCCCTGTCCCTCCCACCT
CTGTGACCTCAGGCACTAGCCTTTGGCTCTGGAGACAGCCCCAGAGCAGGGTGTTGGGATACTGCAGGGCCAGGA
CTGAGCCCCGCAGACCTCCCCAGCCCCTAGCCCAGGAGAGAGAAAGCCAGGCAGGTAGCCAGGGGGACTAGCCCC
TGTGGAGACTGGGGGGCTTGAAATTGTCCCCGTGGTCTCTTACTTTCCTTTCCCCAGCCCAGGGTGGACTTAGAA
AGCAGGGGCTACAAGAGGGAATCCCCGAAGGTGCTGGAGGTGGGAGCAGGAGATTGAGAAGGAGAGAAAGTGGGT
GAGATGCTGGAGAAGAGAGGAGAGGAGAGAGGCAGAGAGCGGTCTCAGGCTGGTGGGAGGGGCGCCCACCTCCCC
ACGCCCTCCCCTCCCCTGCTGCAGGGGCTCTGGAGAGAAACAATAAAGAGATTCACACACAAGCC

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FIGURE 1601

GTGATGAAGGCCTACGAGTGCGGCGCGGCCTGAAGGGGCACGCGGGGGACCTGCAAAGCTAGTGAGGGGCGGGGC
AGGCGGCGCGGTGGGGGCGGGCCGAGCCCGGAGGCCAG**ATG**AGCGGACACAGCCCCACGCGCGGGGCCATGCAGG
TGGCCATGAACGGTAAGGCCCGCAAAGAGGCGGTGCAGACTGCGGCTAAGGAACTCCTCAAGTTCGTGAACCGGA
GTCCCTCTCCTTTCCATGCTGTGGCTGAATGCCGCAACCGCCTTCTCCAGGCTGGCTTCAGTGAACTCAAGGAGA
CTGAGAAATGGAATATTAAGCCCGAGAGCAAGTACTTCATGACCAGGAACTCCTCCACCATCATAGCTTTTGCTG
TAGGGGGCCAGTACGTTCCTGGCAATGGCTTCAGCCTCATCGGGGCCCACACGGACAGCCCCTGCCTCCGGGTGA
AACGTCGGTCTCGCCGCAGCCAGGTGGGCTTCCAGCAAGTCGGTGTGGAGACCTATGGTGGTGGGATCTGGAGCA
CCTGGTTTGACCGTGACCTGACTCTGGCTGGACGCGTCATTGTCAAGTGCCCTACCTCAGGTCGGCTGGAGCAGC
AGCTGGTGCACGTGGAGCGGCCCATTCTTCGCATCCCACACCTGGCCATCCATCTGCAGCGAAATATCAACGAGA
ACTTTGGGCCCAACACAGAGATGCATCTAGTCCCCATTCTTGCCACAGCCATCCAGGAGGAGCTGGAGAAGGGGA
CTCCTGAGCCAGGGCCTCTCAATGCTGTGGATGAGCGGCACCATTCGGTCCTCATGTCCCTGCTCTGTGCCCATC
TGGGGCTGAGCCCCAAGGACATAGTGGAGATGGAGCTCTGCCTTGCAGACACCCAGCCTGTGGTCTTGGGTGGTG
CCTATGATGAGTTCATCTTTGCTCCTCGGCTGGACAATCTGCACAGCTGCTTCTGTGCCCTGCAGGCCTTGATAG
ATTCCTGTGCAGGCCCTGGCTCCCTGGCCACAGAGCCTCACGTGCGCATGGTCACACTCTATGACAACGAAGAGG
TGGGGTCTGAGAGTGCACAGGGAGCACAGTCACTGCTGACAGAGCTGGTGCTGCGGCGGATCTCAGCCTCGTGCC
AGCACCCGACAGCCTTCGAGGAAGCCATACCCAAGTCCTTCATGATCAGCGCAGACATGGCCCATGCTGTGCATC
CCAACTACCTGGACAAGCATGAGGAGAACCACCGGCCTTTATTCCACAAGGGCCCCGTGATCAAGGTGAACAGCA
AGCAACGCTATGCTTCAAACGCGGTGTCAGAGGCCCTGATCCGAGAGGTGGCCAACAAAGTCAAGGTCCCCCTGC
AGGATCTCATGGTCCGGAATGACACCCCCTGTGGAACCACCATTGGACCTATCTTGGCTTCTCGGCTGGGGCTGC
GGGTGCTGGATTTAGGCAGCCCCCAACTGGCCATGCACTCTATCCGGGAGATGGCCTGCACCACAGGAGTCCTCC
AGACCCTCACCCTCTTCAAGGGCTTCTTTGAGCTGTTCCCTTCTCTAAGCCATAATCTCTTAGTGGAT**TGA**GCCC
TCTTGGAAAGACTTCTCTGCCATCCCTTTGCACCTGAGAGGGGAAGTTCTCAGCTGAGCTGAAGCTGGATTATTA
AAGTGGATTGTCACTCAG

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FIGURE 1602

CTTTGCATTGTTCCTCATCCGCCTCCTTGCTCGCCGCAGCCGCCTCCGCCGCGCGCCTCCTCCGCCGCCGCGGAC
TCCGGCAGCTTTATCGCCAGAGTCCCTGAACTCTCGCTTTCTTTTTAATCCCCTGCATCGGATCACCGGCGTGCC
CCACC**ATG**TCAGACGCAGCCGTAGACACCAGCTCCGAAATCACCACCAAGGACTTAAAGGAGAAGAAGGAAGTTG
TGGAAGAGGCAGAAAATGGAAGAGACGCCCCTGCTAACGGGAATGCTAATGAGGAAAATGGGGAGCAGGAGGCTG
ACAATGAGGTAGACGAAGAAGAGGAAGAAGGTGGGGAGGAAGAGGAGGAGGAAGAAGAAGGTGATGGTGAGGAAG
AGGATGGAGATGAAGATGAGGAAGCTGAGTCAGCTACGGGCAAGCGGGCAGCTGAAGATGATGAGGATGACGATG
TCGATACCAAGAAGCAGAAGACCGACGAGGATGAC**TAG**ACAGCAAAAAAGGAAAAGTTAAACTAAAAAAAAAAAG
GCCGCCGTGACCTATTCACCCTCCACTTCCCGTCTCAGAATCTAAACGTGGTCACCTTCGAGTAGAGAGGCCCGC
CCGCCCACCGTGGGCAGTGCCACCCGCAGATGACACGCGCTCTCCACCACCCAACCCAAACCATGAGAATTTGCA
ACAGGGGAGGAAAAAAGAACCAAAACTTCCAAGGCCCTGCTTTTTTTCTTAAAAGTACTTTAAAAAGGAAATTTG
TTTGTATTTTTTATTTACATTTTATATTTTTGTACATATTGTTAGGGTCAGCCATTTTTAATGATCTCGGATGAC
CAAACCAGCCTTCGGAGCGTTCTCTGTCCTACTTCTGACTTTACTTGTGGTGTGACCATGTTCATTATAATCTCA
AAGGAGAAAAAAAAACCTTGTAAAAAAAGCAAAAATGACAACAGAAAAACAATCTTATTCCGAGCATTCCAGTAAC
TTTTTTGTGTATGTACTTAGCTGTACTATAAGTAGTTGGTTTGTATGAGATGGTTAAAAAGGCCAAAGATAAAAG
GTTTCTTTTTTTTTCCTTTTTTGTCTATGAAGTTGCTGTTTATTTTTTTTGGCCTGTTTGATGTATGTGTGAAAC
AATGTTGTCCAACAATAAACAGG

FIGURE 1603

GGGGAGAGAGAGGCCGGTCCTGGTCTGGCCGCTGCGGCTGCTAGCCCGAGGTCTCCAAGCCGGGCTGCGGCTCCA
TCCTCGGCTCCTGGGCACCGTCTGCGAGGCTCCGCCGACCAGAGTGAGAAAGCCGCGGGCGGCGACCGCCGCATC
ATGTCAGCCAAGGACGAGCGGGCCAGGGAGATCCTGAGGGGCTTCAAACTAAATTGGATGAACCTTCGGGATGCT
GAGACAGGGAAGATACTCTGGCAAGGAACAGAAGACCTGTCTGTCCCTGGTGTGGAGCATGAAGCCCGTGTTCCC
AAGAAAATCCTCAAGTGCAAGGCAGTGTCTCGAGAACTTAATTTTTCTTCGACAGAACAAATGGAAAAATTCCGC
CTGGAACAAAAAGTTTACTTCAAAGGGCAATGCCTAGAAGAATGGTTCTTCGAGTTTGGCTTTGTGATCCCTAAC
TCCACAAATACCTGGCAGTCCTTGATAGAGGCAGCACCCGAGTCCCAGATGATGCCAGCAAGCGTCTTAACTGGG
AACGTTATCATAGAAACAAAGTTTTTTGACGACGATCTTCTTGTAAGCACATCCAGAGTGAGACTTTTCTATGTT
TGAAAGAAGAATGTGTGTACATTTCAAGAATTTGGGTTTTTTGGAGGGAGGAGGAAACTGTTTACTTTTTTCCTC
CACACGTTTGATTTTTGACACATACACCCCTAATTCCCTCAACAGCAGAACCTACCTGCAGCCACCAGGGGACCA
GCTCTGTGTAGGTAACCAGATGGCTCTTTTTCCCAAGCCACCATCTTCCAGCTGACCAGACTAAACTCCCAACCC
CAGACCAGGGCAGGGGACAGGTCTCAAGTCCTTCCCAGCATACACACAGGGAACAAACACATACCACAAACCGGT
AACTGTACCTGTCACCCTCCTTGTCTCCTCCTTGGGCCCTACAGGCTACACATCTACCTTTGGCCCCTGGTTTTG
GAAAAATTCCGTGTTCCTGACCCATGTTTAGTTTTTTCCTACCATTTCTATTTCATACATTCTCATACATTTAAC
TTGTAAAATAGACTGTGATATTATTACATAATGTAATTAAAAATATGAATTAAAATATTCCTACAGTC

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FIGURE 1604

GGGGTGATCATGGACGCTTGACAACCTGCGGGCAGGCGCCGGGAGGCCGAGCCAGCGACTAAGAGGACCGAGAGG
TGGCGTGGACAGATTTCAAGGCCAGAGA**ATG**GCAGGGGAACAGAAACCCTCAAGTAATCTCCTGGAGCAGTTTAT
TTTACTAGCCAAAGGTACCAGTGGCTCAGCCCTCACTGCTCTCATAAGCCAGGTCTTAGAGGCTCCCGGAGTGTA
TGTCTTTGGAGAACTTCTGGAGCTGGCCAACGTGCAGGAGCTTGCGGAAGGAGCTAATGCTGCTTATTTGCAGTT
GTTGAACCTGTTTGCCTATGGGACATACCCAGATTACATAGCCAACAAGGAGAGCCTGCCAGAACTGAGCACAGC
TCAGCAGAACAAGCTGAAGCATCTTACCATCGTGAGCTTGGCATCAAGAATGAAGTGTATCCCCTACTCCGTGTT
GCTGAAAGACCTGGAGATGCGGAATCTCCGGGAACTAGAAGACCTTATCATTGAGGCTGTCTACACTGACATCAT
CCAGGGCAAGCTGGACCAGCGAAACCAGCTGCTGGAAGTGGATTTCTGCATTGGCCGTGACATCCGAAAGAAGGA
TATCAATAATATTGTCAAGACCCTGCATGAATGGTGTGATGGCTGTGAAGCAGTTCTACTGGGCATCGAGCAGCA
AGTTCTGAGAGCCAACCAGTACAAAGAGAACCACAACCGAACTCAGCAGCAGGTAGAAGCAGAGGTTACCAACAT
CAAGAAGACACTCAAAGCCACCGCATCCTCCTCGGCTCAGGAGATGGAGCAGCAGCTGGCTGAACGGGAGTGTCC
CCCTCACGCTGAGCAGAGGCAGCCCACCAAGAAGATGTCCAAAGTGAAAGGTCTGGTCTCCAGCCGCCAC**TAG**GG
CCGGCTGGGGCAGCTGGCACTCACCAGGCCTGGGTCAGGTGGGGAGGGGACACCAAGGGCCCATTTCCTCCCCTC
TCTACCTGCAGTGAGTTCCAGACCTGCCCGTCCCCTCACCAGCGCCTCCCCACCCTGTTGGTACTGTTCCAGAAA
AACTGTTACTCCCCCTCACCCACTCCCTCCTTCCCCAGTTGTTCCCTTCAGACTCAGGGGCTCCACCAATGCCAT
CCCAAAACAGGGTCAGACACTGCCCAGCTTCCCTCCAGGAGGTTCTTGTCTCTGTGTAAGGGCTTGTCTCCCTCC
CAGTTTTTCTTTTGCTCCACGTCATTTTGTCAGGCTGGTTATAAGCCGGAGGCAGCTTTAACCAGCCCCCAGGGA
TGATTGTGAAGGAGGCCCCTCCCCTTGTGAGGAGGGGGCACTCCTCTCCAGCCCCTGGTACCACAGTCCTCACGA
TGGTGCAGTGATTTCTAGCCAGGCGTCAAGATGCGCTGCTTTCCCTCTCCTGCCTCATCCCTTGTTGGCAGCTCC
AGTTCAGGCCGTGGAGGGACGTGATGCTGGGCTGTGTTTACTAAACCCACGGGTTTTCAGCCTCTTAAGCCCAGC
TCCGATCTCCAATTAGTTGAGAGCGCTGGGTTGACTAACCTCTGGTATCTGAGCACAGACAGAGGGTGCTGTGGG
TCTGCTGGGTGGCAGAAATGGTTCCTTCCGGCTTGGCGTTCTCTCCTGGCCACTCTTCCTGCTGCCTCTGACTAC
TCAGCCTTGTTTTCGGTGTGTAGGCCCCAGCTGCCCACTGGAACTGCCGGCTAATGCTTGCTCTCCCAAGATCTT
TAACTCCTCCTGGCTGCACCTGGGTAGGGATGGTGGCATCGATGCCCCTCTGTCTGCTGAAGGACCTGTTGCTGC
TTCTGTCTTTTCACCCCTCCTTGGCTGATGACCCAGAGCCCTCTGATGATGGCATTCTCCTGGCAAGAGAAAAAG
ACTTAACTAGACTTCTGAACTTGAACAGTTTCAGGTTATATTTTAATTTTTTTTTTTTTGTACAGGTTCTGATTC
TAATACATTTCAACATGCTTTTGTCCC

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FIGURE 1605

CCCGCCTGACGACTGACCAGTTGCC**ATG**GCATCCTACTACGAGATCCTAGACGTGCCGCGAAGTGCGTCCGCTGA
TGACATCAAGAAGGCGTATCGGCGCAAGGCTCTCCAGTGGCACCCAGACAAAAACCCAGATAATAAAGAGTTTGC
TGAGAAGAAATTTAAGGAGGTGGCCGAGGCATATGAAGTGCTGTCTGACAAGCACAAGCGGGAGATTTACGACCG
CTATGGCCGGGAAGGGCTGACAGGGACAGGAACTGGCCCATCTCGGGCAGAAGCTGGCAGTGGTGGGCCTGGCTT
CACCTTCACCTTCCGCAGCCCCGAGGAGGTCTTCCGGGAATTCTTTGGGAGTGGAGACCCTTTTGCAGAGCTCTT
TGATGACCTGGGCCCCTTCTCAGAGCTTCAGAACCGGGGTTCCCGACACTCAGGCCCCTTCTTTACCTTCTCTTC
CTCCTTCCCTGGGCACTCCGATTTCTCCTCCTCATCTTTCTCCTTCAGTCCTGGGGCTGGTGCTTTTCGCTCTGT
TTCTACATCTACCACCTTTGTCCAAGGACGCCGCATCACCACACGCAGAATCATGGAGAACGGGCAGGAGCGGGT
GGAAGTGGAGGAGGATGGGCAGCTGAAGTCAGTCACAATCAATGGTGTCCCAGATGACCTGGCACTGGGCTTGGA
GCTGAGCCGTCGCGAGCAGCAGCCGTCAGTCACTTCCAGGTCTGGGGGCACTCAGGTCCAGCAGACCCCTGCCTC
ATGCCCCTTGGACAGCGACCTCTCTGAGGATGAGGACCTGCAGCTGGCCATGGCCTACAGCCTGTCAGAGATGGA
GGCAGCTGGGAAGAAACCCGCAGGTGGGCGGGAGGCACAGCACCGACGGCAGGGGCGGCCCAAGGCCCAGCACCA
AGATCCAGGCTTGGGGGGGACCCAGGAGGGTGCGAGGGGTGAAGCAACCAAACGCAGTCCATCCCCAGAGGAGAA
GGCCTCTCGCTGCCTCATCCTC**TGA**ACACCGGGCCCAACCTGATCTGATCCAGATCTTGACTGGGGGGTCTGACT
CACTGTGGGAAGAGAAGAGGGGAGTATCCTGAGTTGTAGGAACTGCTTTCCAACTCCAAGCTCCCTCCACAAGTT
TCCCTCCCAGGCCCCCCACACCCCAGTGTGGACTTGGGATTTGCTGTGCTCAGCCCAGGGCTGATAGGTCCCTGG
TGAAGCCCAGGGTGGGGGGTGTCAGGGCAGTGGAGGGGCCCGAGGAGCCAGGTTGCATTTATTGGATGGGGAGCT
CCAAGGGGCATTAGTGGTTTGGGCTGGGCCTTTTGTGCCCTGGTACTCTGCCACCTGTGTTGCTGATGGTGTCAA
GGAAGGAGGACTTGGCCTAGGGTTGTCTGAGCCGGAGCCGGCAGCTCCACTGGAGAGCAGTGCAGGCAGAGTGGA
GCCTCCTGCTCTCCTGGACCAGCTGCAGACCCCCAACCCTGGTTTCTGTGCCATGTTGCGCTCTGACCGTCTCTG
TTGCTTCTCTTCTGGTGTTGCTTCTCCTCCCTCCCATTCTCTCTGCAACTCCCTGCGGGCCGCATCGCTTGCTTT
CACTGCCGTCTGGCTAGGACTCCCTTCTTCCTTCCTTCCCCGAGAAGGCCTCAATGTGGCGAGGAAGATGCTGGG
GCCGGTAGGGCTGTGAGATCTTCTGGGGAGGCTAGCCGGGTGGGGCGGGAGCCTCTCAGCTGTCCAGATTCAGAA
CTGGAGCCCACTCCTCCTCCCTCTCGTTGCCTCAGCCTGCCCTCACCCTCAGGACTAGGCAGAGGTGAGGCTGGC
TCACCCTGAAGAGGTGGGATAGGACCGGGGGACCCCAGAGGGAGGCCTAGGAGGGGACTGCACCCATACTGCTTC
CCTACCACAAATCAGGGCTCAGGGAGAGGCCATGCGGCCAGCCCAGGTCTGCATGCTGAGCCCCATCCTCCACAG
CTTGCCGCTGACGCTCTCTCCTGTCACCCCGCCCCTGCTCTCTCCCCAGATGTGTTCTGAGCTGGATGCCGGGTT
CCAGAATCGCTGCACAGTTCCAACAGGACAGCGCCTTCCCCCATGCGCTGGGAGGGGACCCTCCATTTCTCCCCC
TCACCCATGCTGAGTGTAGAGCCGGGGCCTGGGTGGCGGGTGGGGGCCGGGTGGGAGGTGGCAGTAGTCTTAGCC
TGTGCACTCTCTTCCTTGGGTGTTTGGTGCTGGCTCCTGGGGACTACAAATCCCAGAGTGCGGTGTGCCCGGCCT
CATTTCTGATAGATCCCGCTTGGGGGAGGTGGTGTATGGTTACGGAGCTGTGCATCTTGGGACATGTAGTAGCCC
AGGTCGGCTTGTCACTCGCTGTGAGATGGGGAGATTTTGTCTTTTGATTTATCCCTGTAGGGCTGGCAGGGTTGT
AGATGAAGGGGGAATGATCTGAGCCTTGGTTCCCCTGACACGTCTTGCTAGCCCCAGGGTTAGAGTGGGCAGGGC
AGAGCCGCGCAGCACCTGGGAGCGGTACCTTTCCCTTGGGCAGCCTGGGGTCCCAGGAACAAGCCAGGGCGAGTG
GCATGTCTGCCTGAGCAGGGTGTGGCCCCAGAAAGCTGAGGAGTGTGGGCTGGCAGAGAGCTTCGAGGGCAAGGC
CACCCGCGGGGGCGTGTGTGTGGTGGGGCTTGGCATGTGATGGCAGCTCCAGGCATGCCGCTGCTTGTATGGCTT
TCTTTGGCCTCTGACCCTGCTGCCCATTCTTTCCAACATCACAGATGAACTGCCTCTCCTCCTCCCTGCCTGGGG
AGCCCAGTGGCCAGGGAGGGGAGTGGTGGAGCCAGTCGCTGTAACACTGAGCCTCAGAGACGAACCAAAACCAGC
TGGGCTGAGCTCAGATCCAGGGGGAAATGCTGGAAGTCAATAAAACTGAGTTTTGAG

FIGURE 1606A

AGACACCCGGCCTAGCGCCGCGGGTCGCGCCGAGCCGAGCCGAGCCGAGCGGAGCCGGCGGAGCCTCTGGAATCA
CCCGGGTCGCTGTTCCTGAGGTGGTCAAGGTGGACAGGGGGCGGTGGTG**ATG**GCGCAGTTTGACACTGAATACCA
GCGCCTAGAGGCCTCCTATAGTGATTCACCCCCAGGGGAGGAGGACCTGTTGGTGCACGTCGCCGAGGGGAGCAA
GTCACCTTGGCACCATATTGAAAACCTTGACCTCTTCTTCTCTCGAGTTTATAATCTGCACCAGAAGAATGGCTT
CACATGTATGCTCATCGGGGAGATCTTTGAGCTCATGCAGTTCCTCTTTGTGGTTGCCTTCACTACCTTCCTGGT
CAGCTGCGTGGACTATGACATCCTATTTGCCAACAAGATGGTGAACCACAGTCTTCACCCTACTGAACCCGTCAA
GGTCACTCTGCCAGACGCCTTTTTGCCTGCTCAAGTCTGTAGTGCCAGGATTCAGGAAAATGGCTCCCTTATCAC
CATCCTGGTCATTGCTGGTGTCTTCTGGATCCACCGGCTTATCAAGTTCATCTATAACATTTGCTGCTACTGGGA
GATCCACTCCTTCTACCTGCACGCTCTGCGCATCCCTATGTCTGCCCTTCCGTATTGCACGTGGCAAGAAGTGCA
GGCCCGGATCGTGCAGACGCAGAAGGAGCACCAGATCTGCATCCACAAACGTGAGCTGACAGAACTGGACATCTA
CCACCGCATCCTCCGTTTCCAGAACTACATGGTGGCACTGGTTAACAAATCCCTCCTGCCTCTGCGCTTCCGCCT
GCCTGGCCTCGGGGAAGCTGTCTTCTTCACCCGTGGTCTCAAGTACAACTTTGAGCTGATCCTCTTCTGGGGACC
TGGCTCTCTGTTTCTCAATGAATGGAGCCTCAAGGCCGAGTACAAACGTGGGGGGCAACGGCTAGAGCTGGCCCA
GCGCCTCAGCAACCGCATCCTGTGGATTGGCATCGCTAACTTCCTGCTGTGCCCCCTCATCCTCATATGGCAAAT
CCTCTATGCCTTCTTCAGCTATGCTGAGGTGCTGAAGCGGGAGCCGGGGGCCCTGGGAGCACGCTGCTGGTCACT
CTATGGCCGCTGCTACCTCCGCCACTTCAACGAGCTGGAGCACGAGCTGCAGTCCCGCCTCAACCGTGGCTACAA
GCCCGCCTCCAAGTACATGAATTGCTTCTTGTCACCTCTTTTGACACTGCTGGCCAAGAATGGAGCCTTCTTCGC
TGGCTCCATCCTGGCTGTGCTTATTGCCCTCACCATTTATGACGAAGATGTGTTGGCTGTGGAACATGTGCTGAC
CACCGTCACACTCCTGGGGGTCACCGTGACCGTGTGCAGGTCCTTTATCCCGGACCAGCACATGGTGTTCTGCCC
TGAGCAGCTGCTCCGCGTGATCCTCGCTCACATCCACTACATGCCTGACCACTGGCAGGGTAATGCCCACCGCTC
GCAGACCCGGGACGAGTTTGCCCAGCTCTTCCAGTACAAGGCAGTGTTCATTTTGGAAGAGTTGCTGAGCCCCAT
TGTCACACCCCTCATCCTCATCTTCTGCCTGCGCCCACGGGCCCTGGAGATTATAGACTTCTTCCGAAACTTCAC
CGTGGAGGTCGTTGGTGTGGGAGATACCTGCTCCTTTGCTCAGATGGATGTTCGCCAGCATGGTCATCCCCAGTG
GCTATCTGCTGGGCAGACAGAGGCCTCAGTGTACCAGCAAGCTGAGGATGGAAAGACAGAGTTGTCACTCATGCA
CTTTGCCATCACCAACCCTGGCTGGCAGCCACCACGTGAGAGCACAGCCTTCCTAGGCTTCCTCAAGGAGCAGGT
TCAGCGGGATGGAGCAGCTGCTAGCCTCGCCCAAGGGGGTCTGCTCCCTGAAAATGCCCTCTTTACGTCTATCCA
GTCCTTACAATCTGAGTCTGAGCCCCTGAGCCTTATCGCAAATGTGGTAGCTGGCTCATCCTGCCGGGGCCCTCC
ACTGCCCAGAGACCTGCAGGGCTCCAGGCACAGGGCTGAAGTCGCCTCTGCCCTGCGCTCCTTCTCCCCGCTGCA
ACCCGGGCAGGCGCCCACAGGCCGGGCTCACAGCACCATGACAGGCTCTGGGGTGGATGCCAGGACAGCCAGCTC
CGGGAGCAGCGTGTGGGAAGGACAGCTGCAGAGCCTGGTGCTGTCAGAATATGCATCCACAGAGATGAGCCTGCA
TGCCCTCTATATGCACCAGCTCCACAAGCAGCAGGCCCAGGCTGAACCTGAGCGGCATGTATGGCACCGCCGGGA
GAGTGATGAGAGTGGAGAAAGCGCCCCTGATGAAGGGGGAGAGGGCGCCCGGGCCCCCCAGTCTATCCCTCGCTC
TGCTAGCTATCCCTGTGCAGCACCCCGGCCTGGAGCTCCTGAGACCACTGCCCTGCATGGGGGCTTCCAGAGGCG
CTACGGTGGCATCACAGATCCTGGCACAGTGCCCAGGGTTCCCTCTCATTTCTCTCGGCTGCCTCTTGGAGGGTG
GGCAGAAGATGGGCAGTCGGCATCAAGGCACCCTGAGCCCGTGCCCGAAGAGGGCTCGGAGGATGAGCTACCCCC
TCAGGTGCACAAGGTA**TAG**ACAAGGCTGAGCAGGGTTCCTGTGGCCCAGGATGGAGGCCACCGCTGCCCTGCCAT
CCCGTCTGCCTGCCATGGGACGGCTCCTCTGAGTGTTCCCTGGCCCCACGTGTGTGGTGTTTGTGTGTCTGTGCC
TGGCCAAGGGAGGTGCCAACACTGGGCTTGCCACAGCCCCAGGAGAGGAATTTGGGGCCTAGGAACCGAGGGCAC
ACGGGACTCTAGCCTCATCCCCAGGACCCCCTTGGCTCAGAGTGTGGTGCTAGAAACTGGCCCCCAGCCCAGCCC
CAGTACTGCCACCTTTACACCTACCCCTGCAAGTCCCCAGAGGGCTGCCCACGATAGAAGCTGCCAAGCAGGGAG
AACCTGTGCCAACTGTGGAGTGGGGAGGTTGGGCCTGGACCCTCAACCCCTGCAACCTTCCCTAGCCCCCTCAAT
AGATGAGCAGGTCAGGCTGTGGCCCTTACCTCACCCGCAGTTCTCGCCCAGTGCTGCAGCCGGCTCACCTCTCTC
CGCTTCTTGCACATCACTGGCCTGTGTGTGCTGCTTGCTCCTGTTCTGTTCGCTTGCTCCCGTTCCGTTCGGCTT
TTGCTTTGCGTTAGGGTGAAGACCCTAGCGTCCAGCTCCCCTCAACGCTATATTTTGACACTAAAAAAGAAGGTT
TCTAAATTGTAGGAGCAGGATGGAAATACTTTGCTGCCCTTGCCATCTTTTAGGATGGGCCCCCAGGAGACTGAG
GTCTTCCTGGGCCCTCATTGCTGCTTATCGTACCCCCCATCACCTGCACATGGGACAGACCGGGCTGGAGGGTGA
CCTTGGCTGTGTGCGTCCCAGCAAAAGAGCTCTGGCCCGCATCTCGCTGTGCCCTGAAGGGGGATGAAGGGCGAT
GCCTCGCCCGAGGCTTTGGGCTGCTGCACTGCATGCTGGGACTGCTCCTACTCTCTGTCCCACCCCTCACCCAGC

FIGURE 1606B

TGTGGTCCGGCTTTGGGAGAGTGGTGAATTGCGCTGCCCGAACTCGGAGCGGAGCAGGGTAGGGACCGTGTACAG
CTTGATAACCCTTAATAAAAAGGGAGTTTGACCAG

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FIGURE 1607

GAAATTCGGGACCATAAAAATTGTGTTTTACCATGTGGCCTACAACCTTAACACTGCTTTCTTAAGAAGTCTTCA
CCCATCTACATGCTAACAACTCACTCAGCCTGGATTTATCTTTACTGGGGAAGCCAAACAAGCAATAGAGGACCT
TTACCTGTGTTAGAAATGAGTTGGAGCCAAGGAACACTGAAGAAATAGTATCTTAACAGTTACTGAGTCCATTGT
ATGTGCTTGGCTCTGCTCTGAGTGATTTATATGTATTAAGATTTTTCCTCACAGGTCAGATATATACTGTTACTA
ACTTCATTTTATAGACAGGTTAAGCTTCCTGAAGGCCACAGGTCCCAGTAAATTGTGGAGCCAGAACCCAAACCC
AAGAAGTTTTGGCTTCAGCAAATGCATCAGACAGCCCCTGTCCATTAATAGGGCACAGGTAGGAAGATGCACAAG
GATGTGGGAACTATAGAGAACCAATCTGATGCCTTGGCTTAACAAAGAGTGGACATGGCAAGCCTTCCTCTTTGG
GGAAGAAAAGCCCAGAACTGAGCAGATGGCCTCCTTTATGAGTTCATGTCCTCCGCCTTCAGCTGGAGGTACCAT
ATGGCGATGCTACCTGTCTTTCTGCTGGAGGTACCATATGGTAATGCTGCCTGGCTGTCTGCTGGAGGTACCATA
TGGTAATGCTGCCTGTCTTTCTGAGGTTGACTTTTATGCCATGTCTTTCCTAAGTGTGTAAGAATTTTTCTGTTT
GCTTCACATTTGACTGAGAATCATTCTAGGGTTTGATTGAGCCCCTGTCCTGTGCCACTAAAGGAACTCGAACTT
TTCATCACTTAGAGATTTCAGAGGGGAATGGAAAAACAGTTCTAATCAATAAGCAAGCAATTCAAGAAAAATAGA
ATTAATCAGGCAATGACTGCAACATGTCCTATCTTTAATCTATTTTCTTATTAAGCTTGGACATTGACAATAGAA
CCAGAAGCTTGTAGCTGGATCAAAATATTCTCCATAGGCCTGGAGTTTC**ATG**AGGGTCTATTCTTTTGTTGTTGT
TGTTTTGGTTTTTTGTTTTTTGTGGGTTTTTTTTTTTTTTTTTTTGAGACGGAGTCTTGTTCTGTTGCCCAGGCT
GGAGTGCAATGGTGCAGTCTTGGTTCACTGCAACCTCTGCCTCCCAGGTTCAAACAATTCTCCTGCCTCAGCCGT
CCAAGTAGCTGGGATTACAGGTGCATGCCACGATGCCTGGCTATTTTTTGTATTTTTAGTAGAGGTGGGGTTTCA
CCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATTCACCCACCTCGGCCTCCCAAAGTGCTGGGAT
TACAGGTGTGAGCCACGGCGCCCAGCCTCATGAGGGTCTATTCTTTACATTCACCATGGTC**TGA**TGGTTGCTACA
TGTTTGTCTATGATTTTTTTTTTCTATTATCAGGTGTCTTGGCCGGTTCATGCCCCACGATGAAAGGGCCAGAGG
TTTTCATATGAGTAAAAGAAAAAAGCAGAAATGTGAAACCTACAATTAGGCTAAACAAAAATCAACTGGAAAAGT
ACAGGCTGAGGGGAGAAGAGTTGGCTACATGTTTATGTTAGGGGAGGAGGGAGTACATTTTAGCTATGTATTCAA
ACAGCTAATAGTTTAATGTTGCTGCTTATAAACTTAATTTTAGGCTGCATTAATAAAAGTGTAGTCTCC

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FIGURE 1608

GCTGCCCCGGTATCCCCGTGTGGGGCAGGAAGTGGGCTTCCAGATTCCCAGTATCCCCGGTAGGGTCTGCTTCTG
CTCGCTCGGGAAGGGCGGTGGCCGTCCCATTACTCAACCAACCCTCAACGCACTGGTCCTCCCAGTTCCCTCCCC
TCAGTGGGTAAACAAACACACACCAGCGCTTGACTCGACAGACTCGAAAACAACATCTACTCAGAAAAGTTGTTT
CTTTCCTATCTCCTTAAACTTTCCCACTTCCACATATCGGAGCTTCTTCCCACCTCGGCCTACTCAAGCATGAGA
TCGGAGGCGGGAGGGCGGCGACTGGCGGCGCG**ATG**GACCTGACCGGGCTCCTGCTGGACGAAGAAGGCACCTTCT
CCCTCGCCGGCTTCCAGGACTTCACGTTCCTCCCAGGACACCAGAAGCTGAGTGCCCGGATCCGAAGGAGGCTCT
ACTATGGCTGGGACTGGGAAGCCGACTGTAGCCTGGAGGAGCTCTCCAGCCCGGTGGCAGACATTGCTGTCGAAC
TGCTCCAGAAGGCAGCCCCCAGCCCTATTCGCCGACTCCAGAAGAAATATGTAGCTCATGTGTCCCGGGAGGCAT
GCATCTCCCCATGTGCTATGATGCTGGCTCTGGTGTACATTGAACGGCTCCGGCACCGAAACCCAGACTACTTGC
AGCATGTGTCATCCTCTGACTTGTTCCTGATCTCCATGATGGTGGCCAGTAAGTACCTCTATGATGAAGGGGAGG
AGGAGGAGGTCTTCAACGACGAATGGGGAGCTGCTGGGGGTGTGGCCGTGCCCACTCTCAATGCCTTGGAGAGGG
GCTTCCTGAGTGCCATGGATTGGCATCTCTACACTGACCCTCGGGAGATCTTTGAGGTGCTGAGCTGGTTGGAGA
GCTGTGTGGCTGAGCAGCAGGGACGGTGGCGAGGCTGGTACACCTACACAGACCTGTGTGTGCTGCTGGAGCAGC
CGACCTGGCAGTTGGCCCTGGGCTCCCTCTGCCAGCGGCTGGTAAAGCTGTCTTGCCTGTTAGCTGTGGCATATG
TGAGCAGTGTGGCCCTGGCTGTGGCATCGGTGGCCGTAATACATCAGTCTTTGGGGCTGTCCTGCATCCCTACAC
CTGGGCCGCCTGACCTTGGACTGACCTCCCGTTGCCTCCTGGAGCCCTGCATACCTTCTGTGCCACAATGCCTGC
CGTCTCTCGCTAATGTCTCCAGCTGCCTGGAAGGCAGCATGGGGCTGCGGTCACTCTGGGGCAGTCTTCTGGCCT
CACTGACTCCTCCACCATTGCCTCCCCCAGACCCCCCTGCCCCTCCCACTCTTCTTCATAACTGCCACCTTTGCC
AGAAGCTCCAGAGAGACTCCCCAACCTGCCATGCCTGCCTCCACCCCAACCGTACAGTCCCCACTGCGCTGTCCA
GCCCCTGGTACCATACCTATGGCCTGGCTCCCCCCTGGCCTTGGAGCCCGGTGCTCCTTTCACTTCCTCAGCCTC
AGCAATGTTCCCTTTTCAGTGTCATGGAGCTGGCTCGCCTCAAGTCTTTCGTTTTCCCAGGC**TAG**GTAGGGCTGT
GAGGAATGCATTAAGAGGGTTTGGGAGTTTCTGAGAACCTGGAGGAGCAAAGCTTGATTCAGATCCTGTCTGCCT
CGCTGGGTCCTTGGCAGGTCCCCTGTCCTCCTGGGTGGGAGCTTATGGGGTGGTGGGGCAGAAGGACTGAAGGTA
ATTCACTCCTAGATCGCAGTGGCTGGCTGCTTGGCCAGGACAGTGATGCCGCCAGGGAGAGCTTCCGCTTGGTGA
CCAGGGACATGTCCCAGATGGACATAGAAGCCCCTCTCTGCCTCCCTGGGATTTTTTAGACTTTTACTTTTGATT
TCCCTAGGATGGAAGAGTATAGGTGGGAGATAAGGGAAGTGGGGTGAGAGGAGAAAGGAAATGTTGGCATGGGCC
TGTGTGATGTCCCTGAGGCAGAAGAGC

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FIGURE 1609

CAAGGCAGC**ATG**AGCCGATCACCCCTCAATCCCAGCCAACTCCGATCAGTGGGCTCCCAGGATGCCCTGGCCCCC
TTGCCTCCACCTGCTCCCCAGAATCCCTCCACCCACTCTTGGGACCCTTTGTGTGGATCTCTGCCTTGGGGCCTC
AGCTGTCTTCTGGCTCTGCAGCATGTCTTGGTCATGGCTTCTCTGCTCTGTGTCTCCCACCTGCTCCTGCTTTGC
AGTCTCTCCCCAGGAGGACTCTCTTACTCCCCTTCTCAGCTCCTGGCCTCCAGCTTCTTTTCATGTGGTATGTCT
ACCATCCTGCAAACTTGGATGGGCAGCAGGCTGCCTCTTGTCCAGGCTCCATCCTTAGAGTTCCTTATCCCTGCT
CTGGTGCTGACCAGCCAGAAGCTACCCCGGGCCATCCAGACACCTGGAAACTCCTCCCTCATGCTGCACCTTTGT
AGGGGACCTAGCTGCCATGGCCTGGGGCACTGGAACACTTCTCTCCAGGAGGTGTCCGGGGCAGTGGTAGTATCT
GGGCTGCTGCAGGGCATGATGGGGCTGCTGGGGAGTCCCGGCCACGTGTTCCCCCACTGTGGGCCCCTGGTGCTG
GCTCCCAGCCTGGTTGTGGCAGGGCTCTCTGCCCACAGGGAGGTAGCCCAGTTCTGCTTCACACACTGGGGGTTG
GCCTTGCTGTACGTGAGTCCTGAGAGGCGTGGGATGGTGCCCAGTGGGGGTGTATGGGGGGAC**TAG**GGGAGGGCA
GAACTGCTGGTCCTATCAGATTCAGCAGCGACTGGAATAGGGACATATTTTATATTTGGAATCCAAGACTTTTCC
TTGATTCATCTGGTCTCCTTGAATTTCACACTGTTTTCTGCTGTCCCCCAAGGTCACTTCCTATTCCTTCCATGG
GAGTTTCCTTCTCTGGTATCACCCCCCGCTCTTATGATATTCTGCCCACTCCCACCTCCTTTCCCATCCCTCAGG
ATACCCACTGCCTCTTGCTCCTAAAGCCTTCTGTCTCCTAGGGTTATCCTGCTCATGGTGGTCTGTTCTCAGCAC
CTGGGCTCCTGCCAGTTTCATGTGTGCCCCTGGAGGCGAGCTTCAACGTCATCAACTCACACTCCTCTCCCTGTC
TTCCGGCTCCTTTCGGTATGTGTGGGTCTGGGCAGGGCAGTAGAGGTCAGAAGGGCTGGCCTGGAGTGCTCACTC
CATCCCCTACCTTTTGGCTTCTGTCTACCCCTGCAAGGCTGGCTCAGAAGGTTCTGGGGGAGGAGTTCTTTTCTC
AGTCTCGCCCCTCAGGTGCTGATCCCAGTGGCCTGTGTGTGGATTGTTTCTGCCTTTGTGGGATTCAGTGTTATC
CCCCAGGAACTGTCTGCCCCCACCAAGGCACCATGGATTTGGCTGCCTCACCCAGGTGAGTGGAATTGGCCTTTG
CTGACGCCCAGAGCTCTGGCTGCAGGCATCTCCATGGCCTTGGCAGCCTCCACCAGTTCCCTGGGCTGCTATGCC
CTGTGTGGCCGGCTGCTGCATTTGCCTCCCCCACCTCCACATGCCTGCAGTCGAGGGCTGAGCCTGGAGGGGCTG
GGCAGTGTGCTGGCCGGGCTGCTGGGAAGCCCCATGGGCACTGCATCCAGCTTCCCCAACGTGGGCAAAGTGGGT
CTTATCCAGGTACGTGGACCTGGGATGGGAGTGGGGTAGGATGGAGCTAGAGGGGAAGAAGAAGGACAGGAACTT
ACACCGATTGATTGCCAGGTGTGCCTAGCACCTCACATCAACTATCTTACTTGGGGAGGTGCCTAAGATTAGACT
TTGGGCTAAGAGAGTGGGGAAGTGAACAAATCACCACGGAACTCCTGTGCATGAGGCACTGTATCAAGGCTAGGG
CAAAGAACCAGTCACATAAAGTTCTGCTCTCTTGGGGACTTCATAGAGGGAGAGGCAGACAGTTGAAGGAAAAAA
GTATCTTTTTAAAAAAGTGGGCCAGGCATGGTGGCTCACACCTGTAATCCTAGCACGTGGGGAGGCTGAGGCAGG
CAGATCACTTAGGCTAGGAATTCAAGACCAGCCTGGCCAACATGGTGAAACCCTGTCTCTACTAAAAATACAAAA
ATTAGCTGGGCATGGTGTTGTGCACCTATAATTCCAGCTACTCAGGAGGCTGAGGCAGGAGAATCGCTTGAGCCT
GGGAGGCAGAGGTTGCTGTGAGCCGAGACCGCACCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCATCTC

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FIGURE 1610

ACTCTAGGCCTTTCGGTTTGCGCGAGCGGGCAGGAAAGCGTGCGTGCGGCTAAGAGAGTGGGCGCTCTCGCGGCC
GCTGACG**ATG**GAAGAACTGGAGCAAGGCCTGTTGATGCAGCCATGGGCGTGGCTACAGCTTGCAGAGAACTCCCT
CTTGGCCAAGGTTTTTATCACCAAGCAGGGCTATGCCTTGTTGGTTTCAGATCTTCAACAGGTGTGGCATGAACA
GGTGGACACTAGTGTGGTCAGCCAGCGAGCCAAGGAGCTGAACAAGCGGCTCACTGCTCCTCCTGCAGCTTTCCT
CTGTCATTTGGATAATCTCCTTCGCCCATTGTTGAAGGACGCTGCTCACCCTAGCGAAGCTACCTTCTCCTGTGA
TTGTGTGGCAGATGCACTGATTCTACGGGTGCGAAGTGAGCTCTCTGGCCTCCCCTTCTATTGGAATTTCCACTG
CATGCTAGCTAGTCCTTCCCTGGTCTCCCAACATTTGATTCGTCCTCTGATGGGCATGAGTCTGGCATTACAGTG
CCAAGTGAGGGAGCTAGCAACGTTACTTCATATGAAAGACCTAGAGATCCAAGACTACCAGGAGAGTGGGGCTAC
GCTGATTCGAGATCGATTGAAGACAGAACCATTTGAAGAAAATTCCTTCTTGGAACAATTTATGATAGAGAAACT
GCCAGAGGCATGCAGCATTGGTGATGGAAAGCCCTTTGTCATGAATCTGCAGGATCTGTATATGGCAGTCACCAC
ACAAGAGGTCCAAGTGGGACAGAAGCATCAAGGCGCTGGAGATCCTCATACCTCAAACAGTGCTTCCCTGCAAGG
AATCGATAGCCAATGTGTAAACCAGCCAGAACAACTGGTCTCCTCAGCCCCAACCCTCTCAGCACCTGAGAAAGA
GTCCACGGGTACTTCAGGCCCTCTGCAGAGACCTCAGCTGTCAAAGGTCAAGAGGAAGAAGCCAAGGGGTCTCTT
CAGT**TAA**TCTGTTGTGGCCTCAGCTGCTGAGGATGGACTTGGAGAACAGCTTCCAAGCTTCACCTTGAAAGAAGC
TTACATGGCAGCAATATTTCTAAAATAGTGATACAGTCAGAGGCCTCCTGTAAGGGCGAGAGAACTGAAGTTGAT
GTTGACAGGCCCACAGGGAATTGGCCTTCCCTGTTCAAGTGGAAGCCAGTCTCTGAGAATCCCGTGCTCTCCTCT
CTTTTGGTGGAGGTTCTGTAGGTTCAGGTTTCTACCATGGACTTTAGGTATATAGGGCAAGTCAGCAAGAAAGCA
CCACACACTCAGGAAGCCTTGTCTACCTTTCCCTAGCGTCTCTAGCCAGCCAGCCCCAGATACTCCTCAGAGACC
CACTTCTCTCTTTTGCATGGAATAAAAAGCACTCACAGTCCCTGCTTTTGGGATTACTTATGCTGTGGAACTCAT
AACCCAATTCACTTCCTTCACTGGGTCCCACCCCATTGTTGTCTCTGGATGAAGTCTAGCCATCAGTCTGGTCCT
TCAGATTCTTCGTAAACTTTTCTGCAGTTGCCAGAGCTAAGTCTCCATTTGGAAACTTTGATCTCAAGAACTCTC
TTGATGGTGGGCACAAGACAGATAGGTGATTGCTGCTTTCCTTTGCCAAACTTGGATGCATTTTTCTCTTTGTTT
CCAAAGTATAGGCAACAGGTTAAACTACCACGTGGGGTAGTTTATCAATCCTCCCGCCTCATCCTTCTGCATAAC
TGGGACTAAAGGCACACACCACCACACCTAGCTAATTTTTGTATTTTTTTGTGTGTGGAGACAAGGCTTTGCCAT
GTTGCCCAGGCTGGTCTTGAACTCCTGGACTCTAGTGATCTGCCCACCTCAACCTCCCAAAGTGCTGGGATTACA
GGCATGAGCTACCACGCCTATCCAATTTCTGGTTTATTTACTTTCGATGGTTAAATGCCTCCTTATTCAAATATC
CTGTATATATACTGGCGTTTCTGTCCTGATGTCAAGTCTCGAGAGAAGATGATCAAACAATAATAAAATAATTAT
AATAAGAACAAC

FIGURE 1611

ATGGGGATGACCTGCGTTGTGCAAAGACAGATCTCCGAGATGAACCAGAACATCAGCAGGCTCCAGGCTGAGACT
GAGGGCCTCAAAGGCCAGGGGGCTTCCCTGGAGGCCGCCATCGCAGATGCCGAGCAGTGGGGGGAGCTGGCCATT
AAAGATGCCAACACCAAGCTGTCTGAGCTGGAGGCCGCCATGCAGCGGGCCAAGCAGGACATGGCACGCAGCTGG
AAGCTGGCCCTGGACATCGAGATCGCCACCTACAGGAAGCTGCTGGAGGGCGAGGAGAGCCGTCTGGAGTCTGGG
ATGCAGAACGTGAGTATCCATAAGAAGACCACCAGTGGCTATGCAGCTCCTTCAGCTGCACCAGCTCCACCAGGG
CCATGGTTGGGGAGATCGAGACCCACAATGGGAAATGGGAAGCTGGTGTCCGAGTCCTCTGACGTCCTGCCCAAG
TGA

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FIGURE 1612

GTGGATATCCCCGAGTCACCGCGTCCCTCTCCTGCAGCTCCCGCGTCGCTGGGAGGAGCGAGGGAGCGAGCGGGA
AGGGGTCTAGCTGGCCTTTGCTCGGCCCTCCCCAGCGCCCGGCTTTGAACCCGCCCTGCACTGCTGTCTGGGCGG
GTCCGGGGACTCAGCACTCGACCCAAAGGTGCAGGCGCGCGAGCACAACCC**ATG**GCTGCGCTGGGCTGCGCGAGG
CTGAGGTGGGCGCTGCGAGGGGCCGGCCGTGGCCTCTGCCCCCACGGGGCCAGAGCCAAGGCCGCGATCCCTGCC
GCCCTCCCCTCGGACAAGGCCACCGGAGCTCCCGGAGCCGGGCCTGGTGTCCGGCGGCGGCAACGGAGCTTAGAG
GAGATTCCACGTCTAGGACAGCTGCGCTTCTTCTTTCAGCTGTTCGTTCAAGGCTATGCCCTGCAACTGCACCAG
TTACAGGTGCTTTACAAGGCCAAGTACGGTCCAATGTGGATGTCCTACTTAGGGCCTCAGATGCACGTGAACCTG
GCCAGTGCCCCGCTCTTGGAGCAAGTGATGCGGCAAGAGGGCAAGTACCCAGTACGGAACGACATGGAGCTATGG
AAGGAGCACCGGGACCAGCACGACCTGACCTATGGGCCGTTCACCACGGAAGGACACCACTGGTACCAGCTGCGC
CAGGCTCTGAACCAGCGGTTGCTGAAGCCAGCGGAAGCAGCGCTCTATACGGATGCTTTCAATGAGGTGATTGAT
GACTTTATGACTCGACTGGACCAGCTGCGGGCAGAGAGTGCTTCGGGGAACCAGGTGTCGGACATGGCTCAACTC
TTCTACTACTTTGCCTTGGAAGCTATTTGCTACATCCTGTTCGAGAAACGCATTGGCTGCCTGCAGCGATCCATC
CCCGAGGACACCGTGACCTTCGTCAGATCCATCGGGTTAATGTTCCAGAACTCACTCTATGCCACCTTCCTCCCC
AAGTGGACTCGCCCCGTGCTGCCTTTCTGGAAGCGATACCTGGATGGTTGGAATGCCATCTTTTCCTTTGGGAAG
AAGCTGATTGATGAGAAGCTCGAAGATATGGAGGCCCAACTGCAGGCAGCAGGGCCAGATGGCATCCAGGTGTCT
GGCTACCTGCACTTCTTACTGGCCAGTGGACAGCTCAGTCCTCGGGAGGCCATGGGCAGCCTGCCTGAGCTGCTC
ATGGCTGGAGTGGACACGACATCCAACACGCTGACATGGGCCCTGTACCACCTCTCAAAGGACCCTGAGATCCAG
GAGGCCTTGCACGAGGAAGTGGTGGGTGTGGTGCCAGCCGGGCAAGTGCCCCAGCACAAGGACTTTGCCCACATG
CCGTTGCTCAAAGCTGTGCTTAAGGAGACTCTGCAGTCTCTACCCTGTGGTCCCCACAAACTCCCGGATCATAGA
AAAGGAAAT**TGA**AGTTGATGGCTTCCTCTTCCCCAAGAACACCCAGTTTGTGTTCTGCCACTATGTGGTGTCCCG
GGACCCCACTGCCTTCTCTGAGCCTGAAAGCTTCCAGCCCCACCGCTGGCTGAGAAACAGCCAGCCTGCTACCCC
CAGGATCCAGCACCCATTTGGCTCTGTGCCCTTTGGCTATGGGGTCCGGGCCTGCCTGGGCCGCAGGATTGCAGA
GCTGGAGATGCAGCTACTCCTCGCAAGGCTGATCCAGAAGTACAAGGTGGTCCTGGCCCCGGAGACGGGGGAGTT
GAAGAGTGTGGCCCGCATTGTCCTGGTTCCCAATAAGAAAGTGGGCCTGCAGTTCCTGCAGAGACAGTGCTGAGC
TGAGTCTCCGCCTTGCTGGGGCTTGTCCTAGAGGCTCCAGCTCTGGCACAGTGGTTCCTGGCTGCTGCCATGTCT
CAGATGAGGAGGGAGAGAAGGAGGCCGCCAGACTCGAGAGGTGGGAGGAACTCCTTGCACACACCCTGAGCTTTT
GCCACTTCTATCATTTTTGAGCAACTCCCTCTCAGCTAAAAGGCCACCCCTTTATCGCATTGCTGTCCTTGGGTA
GAATATAAAATAAAGGGACTTTTATTTCTTATTGG

FIGURE 1613A

ATAGACTGTCTTCAAGCTCACTGATATTTTCCTCTGCTTGATCCATTGTGCTGTTGAGAGCCTCTAGTAAATTTT
TCAGACTGACAGACTTCAAGGATGCAGCTGCTACTACCGGAGGTGTGTGGCACCTTACCTCAGCAAGGCCATGAG
ACCGTGTGGCCATGATGTGGGCCCCTC**ATG**GCCTCAGCAGGAACACAGCACTATAGTATTGGCCTCCGCCAGAAA
AACAGCTTCAAGCAGAGTGGTCCCTCAGGCACAGTACCTGCCACGCCACCTGAGAAACCCTCGGAGGGCAGAGTC
TGGCCTCAGGCCCATCAGCAAGTGAAGCCAATCTGGAAGCTGGAAAAGAAGCAAGTGGAGACACTGTCAGCAGGG
TTGGGCCCAGGCCTCTTGGGCGTCCCACCCCAGCCAGCATATTTCTTTTGCCCCAGCACTTTATGTAGCTCTGGG
ACCACGGCTGTCATTGCAGGCCACAGCAGTTCCTGTTACCTACACTCTCTCCCGGACTTGTTCAACAGCACCCTG
CTATACCGCCGCTCCAGCTATAGGCAAAAACCGTACCAGCAACTGGAGTCTTTCTGCTTGCGTTCGAGCCCGTCA
GAAAAAAGCCCTTTTTCTCTCCCTCAAAAGAGCCTCCCTGTCAGTCTCACTGCCAACAAGGCCACTTCTTCCATG
GTCTTCTCCATGGCCCAGCCCATGGCCTCCTCATCCACAGAACCATACCTCTGCTTGGCAGCGGCTGGGGAAAAC
CCTTCAGGGAAGAGCCTGGCCTCTGCCATCTCAGGGAAGATCCCATCTCCACTCTCTTCCTCCTATAAGCCCATG
CTGAATAATAATTCCTTCATGTGGCCAAATAGCACGCCAGTGCCTTTATTGCAGACCACACAGGGCCTGAAGCCA
GTATCGCCACCCAAGATCCAGCCTGTCTCCTGGCATCATTCAGGGGGTACTGGAGACTGTGCACCGCAGCCTGTT
GACCATAAGGTGCCCAAAAGCATTGGCACTGTCCCAGCTGATGCCAGTGCCCATATCGCCTTGTCTACCGCTAGC
TCCCACGACACATCCACCACCAGTGTTGCCTCTTCCTGGTATAACCGGAATAACTTAGCCATGAGGGCAGAGCCA
CTTTCCTGTGCTCTGGATGACAGCTCTGATTCCCAGGATCCAACTAAGGAGATTCGGTTCACTGAGGCCGTGAGG
AAATTGACCGCAAGAGGCTTTGAGAAGATGCCGAGGCAAGGCTGCCAGCTTGAACAGTCTAGTTTCCTGAACCCC
AGCTTCCAGTGGAATGTCCTCAACAGGAGCAGGCGGTGGAAACCTCCTGCGGTAAATCAGCAGTTTCCTCAGGAG
GATGCTGGATCGGTCAGGCGGGTCCTCCCTGGTGCCTCAGATACCTTGGGGTTGGACAATACAGTCTTCTGTACC
AAGCGTATCAGCATTCACCTCCTTGCCTCACATGCCAGTGGGCTCAATCACAACCCTGCCTGTGAATCTGTAATT
GACTCCTCAGCATTTGGAGAAGGCAAAGCTCCAGGTCCCCCTTTTCCTCAAACTCTTGGCATAGCCAACGTGGCC
ACCCGCCTCTCTTCCATCCAGCTGGGCCAGTCTGAGAAGGAGAGACCTGAGGAGGCCAGGGAGCTGGACTCATCT
GATAGGGATATTAGTTCAGCTACTGACCTCCAGCCAGATCAGGCTGAGACTGAAGATACAGAAGAAGAACTAGTA
GATGGTTTGGAAGACTGTTGTAGCCGTGATGAGAATGAAGAGGAGGAGGGAGACTCAGAGTGCTCCTCATTAAGT
GCTGTCTCCCCCAGCGAATCGGTGGCCATGATCTCTAGAAGCTGTATGGAAATTCTGACCAAACCCCTTTCCAAT
CATGAGAAAGTTGTCCGACCAGCCCTCATCTACAGTCTCTTTCCCAACGTTCCCCCTACCATCTATTTTGGCACT
CGGGATGAGAGAGTGGAGAAACTTCCCTGGGAACAGAGGAAGTTGCTCCGATGGAAGATGAGCACAGTGACCCCC
AACATTGTCAAGCAGACCATTGGACGGTCCCACTTCAAAATCAGCAAAAGAAACGATGACTGGCTGGGCTGCTGG
GGTCACCACATGAAGTCTCCTAGTTTCCGATCCATTCGAGAGCATCAGAAGCTAAACCATTTCCCAGGCTCATTC
CAGATTGGGAGGAAGGACCGGCTATGGCGGAACCTGTCACGTATGCAGAGCCGCTTTGGCAAGAAGGAGTTCAGT
TTCTTCCCCCAGTCCTTTATCCTGCCCCAGGACGCCAAGCTCCTGCGCAAAGCGTGGGAGAGCAGCAGCCGCCAA
AAGTGGATTGTGAAGCCACCAGCATCAGCTCGAGGCATTGGCATCCAGGTTATTCACAAGTGGAGTCAGCTCCCC
AAGCGAAGGCCCCTCCTGGTACAGAGGTATCTACACAAACCCTACCTCATCAGCGGCAGCAAGTTTGACCTGCGG
ATCTATGTTTATGTCACTTCCTACGATCCTCTGCGGATTTACCTCTTTTCAGATGGACTGGTCCGCTTTGCCAGT
TGCAAGTATTCGCCTTCCATGAAGAGCCTTGGCAATAAGTTCATGCACCTGACCAACTACAGTGTCAATAAAAAG
AATGCCGAGTACCAGGCCAATGCAGATGAAATGGCTTGCCAGGGCCACAAATGGGCACTGAAGGCTTTGTGGAAC
TACCTGAGCCAGAAGGGAGTCAATAGCGACGCCATCTGGGAGAAGATAAAGGATGTTGTTGTCAAAACTATCATC
TCGTCAGAGCCCTATGTGACCAGCCTGCTCAAGATGTATGTGCGACGGCCCTATAGCTGCCATGAACTCTTTGGT
TTTGACATCATGCTAGACGAAAACCTCAAGCCCTGGGTCCTGGAAGTCAACATTTCCCCAAGCCTCCACTCCAGC
TCTCCACTGGATATCAGCATCAAAGGCCAGATGATTCGTGACCTTCTGAATCTGGCAGGTTTTGTCCTGCCCAAT
GCAGAGGATATCATTTCCAGCCCCAGCAGCTGCAGCAGCTCCACCACCAGCCTGCCCACCTCCCCTGGGGACAAA
TGTCGAATGGCTCCAGAGCATGTCACTGCACAGAAGATGAAGAAAGCCTATTATCTGACCCAGAAAATTCCTGAT
CAGGACTTCTATGCATCTGTGCTGGATGTCCTGACACCAGATGATGTTCGGATTCTGGTTGAGATGGAAGATGAG
TTTTCTCGCCGTGGTCAGTTTGAACGAATTTTTCCTTCTCATATCTCCTCTCGCTATCTCCGCTTTTTTGAGCAG
CCACGATATTTCAACATTCTCACCACCCAATGGGAACAGAAATACCATGGCAACAAGCTTAAAGGAGTAGATCTG
CTCCGGAGTTGGTGCTACAAAGGGTTCCACATGGGAGTTGTCTCTGATTCTGCTCCAGTGTGGTCTCTCCCGACA
TCACTTCTGACTATCTCAAAGGATGACGTGATACTCAATGCCTTCAGCAAATCAGAGACTAGCAAGCTGGGAAAA
CAAAGCTCCTGTGAGGTTAGCCTACTACTCTCTGAAGACGGGACCACGCCCAAATCCAAGAAGACTCAAGCTGGC

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FIGURE 1613B

CTTTCCCCTTATCCCCAGAAACCCAGTTCCTCAAAGGACAGTGAGGACACCAGCAAAGAGCCCAGCCTTTCTACC
CAGACGTTACCTGTGATCAAGTGCTCTGGGCAGACTTCAAGACTTTCTGCTTCCTCCACTTTCCAGTCAATCAGT
GACTCCCTCCTGGCTGTGAGCCCA**TAA**CTGGCCTCTCTCCAAAAGCCTCTGCCCAGGAGCATGGGCATCAGCTAC
CTCACGGGAACCAGCCTGCTGTTCAGACCAGTCTGACCCCCTACCCCTTTCACCCTGTCCCTCCTCAGAGTATTT
TTTGAAGTGGTTGCATTATAGAGATGGGTATTTGTAGGGCCGGAGGGATGGTAGTGATGGGGAGAAGGTGAGGAA
GGGTCACCCTCTGTCACCTGTCTGCCTGGCTGGCACCTCATATCTCAGCAGAGAAGCCAGTGGTGGCCACGCAGC
CTTATAAAGCAGGTTTTGGTTTCTACCTTAAGTGAGCCATGTGTGGTTTGTCTGGGGGCCCTGGTGTGGTTGCTG
AGTTGTAGCTCAAGAGGAGAAAACATACAGAACATATTTGGACCGGAAATCCTTTGTTCTGAATTTGAGGGGGTC
TTCTGAGGTCCTTACTTCCTTAGGTCTTTCCTCACCCCTCTCCCACCGCTGTCCTGAGGAGAAACCCTTGAACTT
CCTCAGTAGACAGGCGGAGAGGCCACAACATGCCGAACCCATTTCCTGTCATCCTAGTCTTGGGTCTTCACCGCC
TCCTTCCAAATACCCACCCTGCCAGCAGCCCTAGGTCTTCCTGTTCTGACCCCCCATCACTGCTCGTTCAGCCTT
CTAGATGTCTCTCTCGTGGACATCTGTTCTTTAGCTGTTGGCTTTCTCTGAGGTGTGAGAGGGTCTATGAACTTT
GTGAATTTCCCATGGCCCCAGTGAAGGAGCCCAGATAATCCCAGTAGCTGTTACCTGTCTCCATGTATCAAAGGA
CACAGTCCAGGGGGAGGGTGGAAGGAGATGTGGTTTCTCTATAGTGCAACAAACATGGTTTCTCAATGTTCTGCT
GTGCAGCAAGCAGGGTCTGGCGGCTTGGTAGGTGGGTTTCAGGAGCAGTCACTATTGTAGGATGGGCTTCCAATC
AAACCTCAGACTAAACTCTTGTACTGAACTGATTCTACCTCCCTCCTCTAGACTCAGTAAACAGTGACTATTCAA
T

FIGURE 1614

GGATCTTATTGTCTACGATGTGACGATCCGTGGAGAAAGTAGCAGATGGGCAGATTTTCATTTGGGGAGAATGAG
GGAGAAAAGAACGGGCATTCCGAGCCAAGAGCACTGCATGAGCAAGGAGTTGGGAGGTTGCTTACTTGTTGAACA
TATTTGTTGCGTATTTGCATATTTGCTAAACAGGTAGTGTTAGGAGCTAATCCATGAAAGGTTTTCGTAACACCC
CAGGGCCTGTAAGGTTTGGTGTTTCCCTTTCAAG**ATG**CCACTTTCAGACTTTATTCTGGCTCTGAAGGACAATCC
CTACTTTGGGGCTGGATTTGGGCTGGTGGGTGTGGGCACAGCCCTGGCCCTGGCCCGGAAGGGTGTCCAACTGGG
CCTGGTGGCATTCCGGCGCCATTACATGATCACACTGGAAGTCCCTGCTCGAGACAGGAGCTATGCCTGGTTGCT
TAGCTGGCTCACCCGCCACAGTACCCGTACTCAGCACCTCAGTGTCGAGACTTCGTACCTTCAGCATGAGAGTGG
CCGCATTTCCACTAAGTTTGAATTTGTCCCCAGCCCTGGAAACCATTTTATCTGGTATCGGGGGAAATGGATTCG
GGTAGAACGAAGTCGAGAGATGCAGATGATAGACTTGCAGACGGGGACTCCTTGGGAATCTGTCACCTTCACGGC
CCTGGGCACTGACCGAAAGGTTTTCTTCAACATCCTGGAGGAAGCTCGAGAGCTAGCCTTGCAGCAGGAGGAAGG
GAAGACCGTGATGTACACAGCTGTGGGCTCTGAATGGCGTCCCTTTGGCTATCCACGCCGCCGGCGACCACTGAA
TTCTGTGGTTCTACAACAGGGTCTGGCTGACCGAATTGTCAGAGACGTCCAGGAATTCATCGATAACCCCAAGTG
GTACACTGACAGAGGCATTCCTTACAGACGTGGCTACCTGCTTTATGGGCCCCCTGGTTGCGGAAAGAGCAGTTT
TATCACAGCCCTGGCTGGGGAACTGGAGCACAGCATCTGCCTGCTGAGCCTCACGGACTCCAGCCTCTCTGATGA
CCGACTCAACCACCTGCTGAGCGTGGCCCCGCAGCAGAGCCTGGTACTCCTGGAGGATGTGGATGCTGCTTTTCT
CAGTCGAGACTTGGCTGTGGAGAACCCAGTAAAGTACCAAGGCCTAGGTCGCCTCACCTTCAGTGGACTGCTCAA
TGCCTTGGATGGTGTGGCTTCCACCGAGGCCCGCATCGTGTTCATGACCACCAACCACGTTGACAGGCTGGACCC
TGCCCTGATACGCCCGGGGCGAGTGGACCTGAAGGAGTACGTGGGCTACTGCTCACACTGGCAGCTGACCCAGAT
GTTCCAGAGGTTCTATCCAGGGCAGGCACCTTCCTTAGCTGAGAACTTTGCAGAACATGTCCTTCGAGCTACAAA
CCAGATCAGTCCTGCCCAGGTGCAGGGCTACTTCATGCTGTATAAAAATGACCCTGTAGGGGCAATTCACAATGC
TGAGTCTCTGAGGAGG**TGA**TCAGGCTGGGCTCAGCTCAGCTCTCCTCCTCTAGCTCAATAAACATCTGCCACACT

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FIGURE 1615

TTCTCCCCCAGGCTCACTCACC**ATG**ACCAAGCTGAGCGCCCAAGTCAAAGGCTCTCTCAACATCACCACCCCGGG
GCTGCAGATATGGAGGATCGAGGCCATGCAGATGGTGCCTGTTCCTTCCAGCACCTTTGGAAGCTTCTTCGATGG
TGACTGCTACATCATCCTGGCTATCCACAAGACAGCCAGCAGCCTGTCCTATGACATCCACTACTGGATTGGCCA
GGACTCATCCCTGGATGAGCAGGGGGCAGCTGCCATCTACACCACACAGATGGATGACTTCCTGAAGGGCCGGGC
TGTGCAGCACCGCGAGGTCCAGGGCAACGAGAGCGAGGCCTTCCGAGGCTACTTCAAGCAAGGCCTTGTGATCCG
GAAAGGGGGCGTGGCTTCTGGCATGAAGCACGTGGAGACCAACTCCTATGACGTCCAGAGGCTGCTGCATGTCAA
GGGCAAGAGGAACGTGGTAGCTGGAGAGGTAGAGATGTCCTGGAAGAGTTTCAACCGAGGGGATGTTTTCCTCCT
GGACCTTGGGAAGCTTATCATCCAGTGGAATGGACCGGAAAGCACCCGTATGGAGAGACTCAGGGGCATGACTCT
GGCCAAGGAGATCCGAGACCAGGAGCGGGGAGGGCGCACCTATGTAGGCGTGGTGGACGGAGAGAATGAATTGGC
ATCCCCGAAGCTGATGGAGGTGATGAACCACGTGCTGGGCAAGCGCAGGGAGCTGAAGGCGGCCGTGCCCGACAC
GGTGGTGGAGCCGGCACTCAAGGCTGCACTCAAACTGTACCATGTGTCTGACTCCGAGGGGAATCTGGTGGTGAG
GGAAGTCGCCACACGGCCACTGACACAGGACCTGCTCAGTCACGAGGACTGTTACATCCTGGACCAGGGGGGCCT
GAAGATCTACGTGTGGAAAGGGAAGAAAGCCAATGAGCAGGAGAAGAAGGGAGCCATGAGCCATGCGCTGAACTT
CATCAAAGCCAAGCAGTACCCACCAAGCACACAGGTGGAGGTGCAGAATGATGGGGCTGAGTCGGCCGTCTTTCA
GCAGCTCTTCCAGAAGTGGACAGCGTCCAACCGGACCTCAGGCCTAGGCAAAACCCACACTGTGGGCTCCGTGGC
CAAAGTGGAACAGGTGAAGTTCGATGCCACATCCATGCATGTCAAGCCTCAGGTGGCTGCCCAGCAGAAGATGGT
AGATGATGGGAGTGGGGAAGTGCAGGTGTGGCGCATTGAGAACCTAGAGCTGGTACCTGTGGATTCCAAGTGGCT
AGGCCACTTCTATGGGGGCGACTGCTACCTGCTGCTCTACACCTACCTCATCGGCGAGAAGCAGCATTACCTGCT
CTACGTTTGGCAGGGCAGCCAGGCCAGCCAAGATGAAATTACAGCATCAGCTTATCAAGCCGTCATCCTGGACCA
GAAGTACAATGGTGAACCAGTCCAGATCCGGGTCCCAATGGGCAAGGAGCCACCTCATCTTATGTCCATCTTCAA
GGGACGCATGGTGGTCTACCAGGGAGGCACCTCCCGAACTAACAACTTGGAGACCGGGCCCTCCACACGGCTGTT
CCAGGTCCAGGGAACTGGCGCCAACAACACCAAGGCCTTTGAGGTCCCAGCGCGGGCCAATTTCCTCAATTCCAA
TGATGTCTTTGTCCTCAAGACCCAGTCTTGCTGCTATCTATGGTGTGGGAAGGGTTGTAGCGGGGACGAGCGGGA
GATGGCCAAGATGGTTGCTGACACCATCTCCCGGACGGAGAAGCAAGTGGTGGTGGAAGGGCAGGAGCCAGCCAA
CTTCTGGATGGCCCTGGGTGGGAAGGCCCCCTATGCCAACACCAAGAGACTACAGGAAGAAAACCTGGTCATCAC
CCCCCGGCTCTTTGAGTGTTCCAACAAGACTGGGCGCTTCCTGGCCACAGAGATCCCTGACTTCAATCAGGATGA
CTTGGAAGAGGATGATGTGTTCCTACTAGATGTCTGGGACCAGGTCTTCTTCTGGATTGGGAAACATGCCAACGA
GGAGGAGAAGAAGGCCGCAGCAACCACTGCACAGGAATACCTCAAGACCCATCCCAGCGGGCGTGACCCTGAGAC
CCCCATCATTGTGGTGAAGCAGGGACACGAGCCCCCCACCTTCACAGGCTGGTTCCTGGCTTGGGATCCCTTCAA
GTGGAGTAACACCAAATCCTATGAGGACCTGAAGGCGGAGCTTGGCAACTCTAGGGACTGGAGCCAGATCACTGC
TGAGGTCACAAGCCCCAAAGTGGACGTGTTCAATGCTAACAGCAACCTCAGTTCTGGGCCTCTGCCCATCTTCCC
CCTGGAGCAGCTAGTGAACAAGCCTGTAGAGGAGCTCCCCGAGGGTGTGGACCCCAGCAGGAAGGAGGAACACCT
GTCCATTGAAGATTTCACTCAGGCCTTTGGGATGACTCCAGCTGCCTTCTCTGCTCTGCCTCGATGGAAGCAACA
AAACCTCAAGAAAGAAAAAGGACTATTT**TGA**GAAGAGTAGCTGTGGTTGTAAAGCAGTACCCTACCCTGATTGTA
GGGTCTCATTTTCTCACCGATATTAGTCCTACACCAATTGAAGTGAAATTTTGCAGATGTGCCTATGAGCACAAA
CTTCTGTGGCAAATGCCAGTTTTGTTTAATAATGTACCTATTCCTTCAGAAAGATGATACCCC

FIGURE 1616

CTCAAACTGGGCCTGGAGGGCCTTCAGCTCCTCAGTCGTGGCACTG**ATG**GTGGCCTGCGGGGAGAAGGGAGCCCA
CGGTGGCACCAGGGAGCTGGGCCCAGCAGTGGAGGGTGAGGCTGCTGGGATGAGGAGACATCCACGGCCCCTGAC
AGCTGTGATGTCGCCCTCTCCCGCTGCGCAGTGCCCTGGGGATGGGGCACAAGCCCTCCATCCCGGCTCCGAGTC
ACCGAGCGTCCCCCAAGGCCCCGCTGCCTGGACGCCCCGGCCCCCCAGCAGGCGGCCTGCGCGTGCCTCTGTGCA
GTCAGTGAGAAGGGCTCCCGTTCAGAATGGGCAGAGAAGGGGGCTGCCTCCCGCGCCTGGCACCATGGCCTGTGT
TCTGTTCACTGCACAC**TGA**ACCATACATTCAACGCCAGTCAGGACTCAATGTGGGTGTCCTTTCCTGCCGAGAGT
TTCCTCTGGTGCAGGGCCAGCCGCCTCGGGTTGTTTCTCCTTTGGAAGGATCTCTCTGGGCCCATCTGGGGGAGG
GCAGCCCAGAGACACGTGTGCACCTGTGTGGGCTGACCTATGCGCAGTGTCACCAATGTCTGTGACATTGCTGTA
ATGGCAACAAAGCTGGAGGCAACCCAGATGCCCGTGGAAGGAAGAACAGCCACAGGAAGACCCAGTTCTGGCAGC
TCAGCATGCAGCCCAGAAACAGAAGAACAAAGCTGCAGATACACAGCTGGGAAAGGCCACCGAGATGCTTTGATA
AGTGAGAAGAGGAAAGCCCAGGAGCCGGCATAGACTTTTCATTCCTTTTGTATTAGGAGGGTGTTGCATAACAGA
AGATGTATCAGGTCTTTGTCCTGGATCCTCGGAGGAAGCTTCTAAACCCTGGGGGTTTCTCAGAAGTGTGGAGCG
TCTGCATTAGTCCTGGCGGGCCCCTGGGACCACACCTGAGTTTATGCTAATGAGGTGACTCAGGGTGGGTTCCTA
CTGAATTTCAGGATGGGGACTGTCTGCTGAAAGACCCGTTATTAGAGGGTTGGGGCTTTGAGCCACGGGATGTCA
GCCCAACCTCCCAGCAGTCAGAGAAGTGGGCTTCAATCACCTAACCAATCACTCCACCG

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FIGURE 1617

GCAGCCAAC**ATG**GCGGCGGAACGCGGCGCGGGGCAGCAACAGTCGCAGGAGATGATGGAGGTTGACAGGCGGGTC
GAGTCTGAAGAATCCGGCGATGAAGAAGGGAAGAAACACAGCAGTGGCATCGTGGCCGACCTCAGTGAACAGAGC
CTGAAGGATGGGGAGGAGCGGGGGGAGGAGGACCCAGAAGAAGAACATGAGCTGCCTGTGGACATGGAAACCATC
AACCTGGACAGAGATGCAGAGGATGTTGATTTGAATCACTATCGCATAGGGAAGATTGAAGGATTTGAGGTACTG
AAGAAAGTGAAGACTCTCTGCCTCCGCCAAAATTTAATTAAATGCATTGAGAATCTGGAGGAGCTACAGAGTCTT
CGAGAGCTGGATCTTTACGACAACCAGATCAAGAAGATTGAGAATCTGGAGGCGCTAACAGAGCTGGAGATTCTA
GATATTTCTTTTAATCTGCTGAGAAACATCGAAGGGGTTGACAAGTTGACACGACTGAAAAAACTCTTCTTGGTC
AACAATAAAATCAGTAAAATTGAGAACTTAAGCAACTTACATCAACTACAGATGCTAGAGCTGGGATCTAACCGC
ATCCGGGCAATCGAAAATATCGACACCTTAACCAACCTGGAGAGTTTGTTTTTGGGGAAAAACAAAATTACTAAA
CTTCAGAACCTGGATGCGCTCACCAACCTGACAGTCCTCAGTATGCAGAGCAACCGGCTGACCAAGATCGAGGGT
CTGCAGAACCTGGTGAACCTGCGGGAGCTGTACCTTAGCCACAATGGCATCGAGGTCATCGAGGGCCTGGAGAAC
AATAACAAACTCACGATGTTGGACATTGCATCAAATAGAATCAAAAAGATTGAAAATATCAGCCATCTAACAGAG
CTGCAAGAGTTCTGGATGAACGACAATCTCCTTGAGAGCTGGAGCGACCTCGACGAGCTGAAGGGAGCCAGGAGC
CTGGAGACAGTGTACCTGGAGCGGAACCCCTTGCAGAAGGACCCCCAGTACCGGCGGAAGGTCATGCTCGCCCTC
CCCTCCGTGCGGCAGATCGATGCCACGTTCGTCAGGTTC**TGA**GTCCTTCTTGGCTCCTCATGTGGTCCCTCTCCT
CGGAAGAACTGCCCAGCCACGGGTTTTTAACCCACCTGTTGCTCCTGAGGTCGTCACTATATCAACAGTCACAAA
CCCAATGGCAATAAAGGCACTGACGATAGCTGGCGCGCGCGACGTCACACACCATTTTCAGATGCCGTTGCAATT
AAATCTTGCCACACTGTC

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FIGURE 1618

CCTAAGCCGTGGTCACCCTAGCCTATGAAGCTGGAAGCTATATTCCTTCCAATCCCAATTTACCATTCCTGTAAA
CAGGCCCATTCAGGGCTGCCTGAGCAAATGGGGACTTGCCGAGGCAGCTGCAACTAGACTTGGGCTAAGCCGTCT
GGGTCTACTCAAGAATTCGAGTCTGAAGATGACCAAGCTTGAGTTATTCAACTGAGAGTGAGGTGTCAAGGCGGA
AGCGACTGTCCCCAGGGAAGGGCTGTGAG**ATG**GATGGGCGTGAGTCAGCTTTTCCAAAACTCAAGTACCTGGGAC
AGGACAACTCGCTAGCAGCTCAGTCACCTCCGTGGCGGACACAGATAAGGATGTTAAGACCAGAAAACCAGAGAC
TAGGGCCCCGTCCTCAGCCCTCACAGCATGACACAGATGCCTCCCTCGGAGAGCAGGGTCTCTCGGCATCCAGCG
GCGTGGTCTGCATTCTGCTCTACCTCATGCTC**TAG**GCCCCATGCCATCGTCTCGGCCCTAGACCGTGAAAACTGC
CAGTCACCCGGGACCTGCTCCTAGGGGCTGGCCTGCACAGCCGGATGGCCTGTGGGCGGGGTGGAAGTGCCCACT
CCCACTCCAGATGGGCCTGCTGGCCACTGACCCACCTGTGCTGAGGGAGAGCGCCAGCCTCCAGCTTAGGTACAC
GGCGCCCACCCCCAGCTCCACGGGAAACCCATAACCACCAGAAACATCTCAATCAAGAGACGGGTGTGTGGGGTG
GCACTAACTGCACAGAGACCACTCCACGCCGGCTGAGGTAGAAAGAAGGCAACTGAACACACAGCAGCTAGGGCA
GGGGCAGGGAGGGGCTGCAGGTGGTGTGAAGAAGAGCCCAGCTGTCATCTAAGGCAAACTGCCCCCACTGAGGAC
AAGCGTAAGGCCCTACCTCCCCCAACCTGTGCGCATCTCAATCACAGCAGACACTGTGACGGCCACAGGGGACCC
AGATGGTGCCTACCACCTTGCCTCCAGGCTCCACTCACCAGACCTCAGGCTGAGGGTCTGGCAGTGGAGGTAGGG
GCAGGGACCCTTGGTGCTTTCAGACCCCACGGCAGGTAAAATCAGGACTGCCTGAGAACCCGTCACCCTCTGCCT
CTCAGGTCACCCCCCAGCTCCAGGAACCTGCCTCCTGCTGTCCATTGCCAGGTCTTCCTTGCACCCTGACACCTG
TGCTGAGGCGCTCTGGCAGCTGGAGGAGGCTGATTGCACTCCACAAACAGGACTGTCTGGACCAAGGGAAACTGG
CAGGAGGGAGGTGGGAAAGGAAGAGGGCAAACGTTTGGCTTTTATAAAGTCAAGGACGTTTATTTCCTGAGGTCA
TGACACAGGAAGTGGAATCCTAGCCACGGCTGCGGAGCTCTCGTGATGAAGGCCAGAGTGCTGACTGACATGCCG
GGTGGACCAGGAGCTGGAGTCTGTTATCTTAGCACGAATGCTCATGACCTTGGTTTAGTGTTAAACAGTGGAGCA
GGTCCTGAGCGGGCACGGCCAGGCCTGGAGGA

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FIGURE 1619A

CAAAAGCTGGCAGGCTGACAGAGGCGGCCTCAGGACGGACCTTCTGGCTACTGACCGTTTTGCTGTGGTTTTCCC
GGATTGTGTGTAGGTGTGAGATCAACC**ATG**AGTTCCGTTGCAGTTTTGACCCAAGAGAGTTTTGCTGAACACCGA
AGTGGGCTGGTTCCGCAACAAATCAAAGTTGCCACTCTAAATTCAGAAGAGGAGAGCGACCCTCCAACCTACAAG
GATGCCTTCCCTCCACTTCCTGAGAAAGCTGCTTGCCTGGAAAGTGCCCAGGAACCCTCTGGAGCCTGGGGGAAC
AAGATCCGACCCATCAAGGCTTCTGTCATCACTCAGGTGTTCCATGTACCCCTGGAGGAGAGAAAATACAAGGAT
ATGAACCAGTTTGGAGAAGGTGAACAAGCAAAAATCTGCCTTGAGATCATGCAGAGAACTGGTGCTCACTTGGAG
CTGTCTTTGGCCAAAGACCAAGGCCTCTCCATCATGGTGTCAGGAAAGCTGGATGCTGTCATGAAAGCTCGGAAG
GACATTGTTGCTAGACTGCAGACTCAGGCCTCAGCAACTGTTGCCATTCCCAAAGAACACCATCGCTTTGTTATT
GGCAAAAATGGAGAGAAACTGCAAGACTTGGAGCTAAAAACTGCAACCAAAATCCAGATCCCACGCCCAGATGAC
CCCAGCAATCAGATCAAGATCACTGGCACCAAAGAGGGCATCGAGAAAGCTCGCCATGAAGTCTTACTCATCTCT
GCCGAGCAGGACAAACGTGCTGTGGAGAGGCTAGAAGTAGAAAAGGCATTCCACCCCTTCATCGCTGGGCCGTAT
AATAGACTGGTTGGCGAGATCATGCAGGAGACAGGCACGCGCATCAACATCCCCCCACCCAGCGTGAACCGGACA
GAGATTGTCTTCACTGGAGAGAAGGAACAGTTGGCTCAGGCTGTGGCTCGCATCAAGAAGATTTATGAGGAGAAG
AAAAAGAAGACTACAACCATTGCAGTGGAAGTGAAGAAATCCCAACACAAGTATGTCATTGGGCCCAAGGGCAAT
TCATTGCAGGAGATCCTTGAGAGAACTGGAGTTTCCGTTGAGATCCCACCCTCAGACAGCATCTCTGAGACTGTA
ATACTTCGAGGCGAACCTGAAAAGTTAGGTCAGGCGTTGACTGAAGTCTATGCCAAGGCCAATAGCTTCACCGTC
TCCTCTGTCGCCGCCCCTTCCTGGCTTCACCGTTTCATCATTGGCAAGAAAGGGCAGAACCTGGCCAAAATCACT
CAGCAGATGCCAAAGGTTCACATCGAGTTCACAGAGGGCGAAGACAAGATCACCCTGGAGGGCCCTACAGAGGAT
GTCAATGTGGCCCAGGAACAGATAGAAGGCATGGTCAAAGATTTGATTAACCGGATGGACTATGTGGAGATCAAC
ATCGACCACAAGTTCCACAGGCACCTCATTGGGAAGAGCGGTGCCAACATAAACAGAATCAAAGACCAGTACAAG
GTGTCCGTGCGCATCCCTCCTGACAGTGAGAAGAGCAATTTGATCCGCATCGAGGGGGACCCACAGGGCGTGCAG
CAGGCCAAGCGAGAGCTGCTGGAGCTTGCATCTCGCATGGAAAATGAGCGTACCAAGGATCTAATCATTGAGCAA
AGATTTCATCGCACAATCATTGGGCAGAAGGGTGAACGGATCCGTGAAATTCGTGACAAATTCCCAGAGGTCATC
ATTAACTTTCCAGACCCAGCACAAAAAAGTGACATTGTCCAGCTCAGAGGACCTAAGAATGAGGTGGAAAAATGC
ACAAAATACATGCAGAAGATGGTGGCAGATCTGGTGGAAAATAGCTATTCAATTTCTGTTCCGATCTTCAAACAG
TTTCACAAGAATATCATTGGGAAAGGAGGCGCAAACATTAAAAAGATTCGTGAAGAAAGCAACACCAAAATCGAC
CTTCCAGCAGAGAATAGCAATTCAGAGACCATTATCATCACAGGCAAGCGAGCCAACTGCGAAGCTGCCCGGAGC
AGGATTCTGTCTATTCAGAAAGACCTGGCCAACATAGCCGAGGTAGAGGTCTCCATCCCTGCCAAGCTGCACAAC
TCCCTCATTGGCACCAAGGGCCGTCTGATCCGCTCCATCATGGAGGAGTGCGGCGGGGTCCACATTCACTTTCCC
GTGGAAGGTTCAGGAAGCGACACCGTTGTTATCAGGGGCCCTTCCTCGGATGTGGAGAAGGCCAAGAAGCAGCTC
CTGCATCTGGCGGAGGAGAAGCAAACCAAGAGTTTCACTGTTGACATCCGCGCCAAGCCAGAATACCACAAATTC
CTCATCGGCAAGGGGGGCGGCAAAATTCGCAAGGTGCGCGACAGCACTGGAGCACGTGTCATCTTCCCTGCGGCT
GAGGACAAGGACCAGGACCTGATCACCATCATTGGAAAGGAGGACGCCGTCCGAGAGGCACAGAAGGAGCTGGAG
GCCTTGATCCAAAACCTGGATAATGTGGTGGAAGACTCCATGCTGGTGGACCCCAAGCACCACCGCCACTTCGTC
ATCCGCAGAGGCCAGGTCTTGCGGGAGATTGCTGAAGAGTATGGCGGGGTGATGGTCAGCTTCCCACGCTCTGGC
ACACAGAGCGACAAAGTCACCCTCAAGGGCGCCAAGGACTGTGTGGAGGCAGCCAAGAAACGCATTCAGGAGATC
ATTGAGGACCTGGAAGCTCAGGTGACATTAGAATGTGCTATACCCCAGAAATTCCATCGATCTGTCATGGGCCCC
AAAGGTTCCAGAATCCAGCAGATTACTCGGGATTTCAGTGTTCAAATTAAATTCCCAGACAGAGAGGAGAACGCA
GTTCACAGTACAGAGCCAGTTGTCCAGGAGAATGGGGACGAAGCTGGGGAGGGGAGAGAGGCTAAAGATTGTGAC
CCCGGCTCTCCAAGGAGGTGTGACATCATCATCATCTCTGGCCGGAAAGAAAAGTGTGAGGCTGCCAAGGAAGCT
CTGGAGGCATTGGTTCCTGTCACCATTGAAGTAGAGGTGCCCTTTGACCTTCACCGTTACGTTATTGGGCAGAAA
GGAAGTGGGATCCGCAAGATGATGGATGAGTTTGAGGTGAACATACATGTCCCGGCACCTGAGCTGCAGTCTGAC
ATCATCGCCATCACGGGCCTCGCTGCAAATTTGGACCGGGCCAAGGCTGGACTGCTGGAGCGTGTGAAGGAGCTA
CAGGCCGAGCAGGAGGACCGGGCTTTAAGGAGTTTTAAGCTGAGTGTCACTGTAGACCCCAAATACCATCCCAAG
ATTATCGGGAGAAAGGGGGCAGTAATTACCCAAATCCGGTTGGAGCATGACGTGAACATCCAGTTTCCTGATAAG
GACGATGGGAACCAGCCCCAGGACCAAATTACCATCACAGGGTACGAAAAGAACACAGAAGCTGCCAGGGATGCT
ATACTGAGAATTGTGGGTGAACTTGAGCAGATGGTTTCTGAGGACGTCCCGCTGGACCACCGCGTTCACGCCCGC
ATCATTGGTGCCCGCGGCAAAGCCATTCGCAAAATCATGGACGAATTCAAGGTGGACATTCGCTTCCCACAGAGC

FIGURE 1619B

GGAGCCCCAGACCCCAACTGCGTCACTGTGACGGGGCTCCCAGAGAATGTGGAGGAAGCCATCGACCACATCCTC
AATCTGGAGGAGGAATACCTAGCTGACGTGGTGGACAGTGAGGCGCTGCAGGTATACATGAAACCCCCAGCACAC
GAAGAGGCCAAGGCACCTTCCAGAGGCTTTGTGGTGCGGGACGCACCCTGGACCGCCAGCAGCAGTGAGAAGGCT
CCTGACATGAGCAGCTCTGAGGAATTTCCCAGCTTTGGGGCTCAGGTGGCTCCCAAGACCCTCCCTTGGGGCCCC
AAACGA**TAA**TGATCAAAAAGAACAGAACCCTCTCCAGCCTGCTGACCCAAACCCAACCACACAATGGTTTGTCTC
AATCTGACCCAGCGGCTGGACCCTCCGTAAATTGTTGACGCTCTTCCCCCTTCCCGAGGTCCCGCAGGGAGCCTA
GCGCCTGGCTGTGTGTGCGGCCGCTCCTCCAGGCCTGGCCGTGCCCGCTCAGGACCTGCTCCACTGTTTAACACT
AAACCAAGGTCATGAGCATTCGTGCTAAGATAACAGACTCCAGCTCCTGGTCCACCCGGCATGTCAGTCAGCACT
CTGGCCTTCATCACGAGAGCTCCGCAGCCGTGGCTAGGATTCCACTTCCTGTGTCATGACCTCAGGAAATAAACG
TCCTTGACTTTATAAAAGCC

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FIGURE 1620

CCCAGCTCGGTGCTGCCGCCATCTTCTTGGAGGACAGGAGGAGAGGCGAAGGCTCCCCCTCCCCGTGATCGCTCC
GCACTCCCGCCACCACCTGCCCTCCCGCGACCGCCTCTCTCCTCCTCAGTGGGCACTTGTCTCCTTCTAACAAAC
GGCCTTCCCCCCACTCCAGTTACCCACCGCAAGGCGAAGATTCTCATTACCTGTTCCACTCTTATAAGCATAAGA
AAACCGAGCTCATAAGACGAAGCTTCACAAAAG**ATG**TCTAAGCAACAGCCAACTCAGTTTATAAATCCAGAAACA
CCTGGCTATGTTGGATTTGCAAACCTCCCCAATCAAGTTCACCGAAAATCAGTGAAAAAAGGTTTTGAGTTCACA
CTGATGGTGGTCGGTGAATCAGGTCTAGGAAAATCGACTCTCATAAACAGCCTATTCCTAACTGATCTGTACCCA
GAAAGAGTCATACCTGGAGCAGCAGAAAAAATTGAAAGAACTGTCCAGATTGAGGCTTCAACTGTTGAAATTGAA
GAGCGAGGGGTCAAGCTACGCCTGACAGTGGTAGATACCCCTGGCTATGGTGACGCTATCAACTGCAGAGATTGT
TTTAAGACAATTATCTCCTATATTGATGAGCAATTTGAGAGGTACCTGCATGACGAGAGCGGCTTGAACAGGCGG
CACATCATTGATAATAGGGTGCATTGTTGCTTTTACTTTATTTCACCTTTTGGACATGGACTTAAGCCCTTAGAT
GTGGCGTTTATGAAGGCAATACACAACAAGGTGAATATTGTGCCTGTCATTGCAAAAGCTGACACTCTCACCCTG
AAGGAACGGGAGCGGCTGAAGAAAAGGATTCTGGATGAAATTGAAGAACATAACATCAAAATCTATCACTTACCT
GATGCAGAATCAGATGAAGATGAAGATTTTAAAGAGCAGACTAGACTTCTCAAGGCTAGCATCCCATTCTCTGTG
GTTGGATCCAATCAGTTGATTGAAGCCAAAGGAAAGAAGGTCAGAGGCCGCCTCTACCCCTGGGGTGTTGTGGAA
GTGGAGAACCCAGAGCACAATGACTTTCTGAAGCTGAGAACCATGCTCATCACCCACATGCAGGATCTCCAGGAG
GTGACCCAGGACCTTCATTATGAAAACTTCCGTTCTGAGAGACTCAAGAGAGGCGGCAGGAAAGTGGAGAATGAG
GACATGAATAAAGACCAGATCTTGCTGGAAAAAGAAGCTGAGCTCCGCCGCATGCAAGAGATGATTGCAAGGATG
CAGGCGCAGATGCAGATGCAGATGCAGGGCGGGGATGGCGATGGCGGGGCTCTCGGGCACCACGTG**TAA**GGTGAT
GTGCACATATCAAGAAGTCAGAGAAAACACTTTCCTGGATAAAAAAGAAAACATTCCAGATGCATGATCCAGCTG
TGTGTTTTCAATCCTTGGGAGGGTGCCATCCACATTTTAACAGTACCTGTGCCTGAGAATTTAATTTTTAAAAGA
CTTTGATGTGTTTTTGTATGAAGTACTTTTAACGTATGTATTTCATTGCTGTGTCACACTCTGTGTTTTGTGAGG
TGAATGTCTTCCTTTTCTTTCTCCCTAACCACTAATGTTAGAATTGATTTCCAAGAATCGGCATGTATACTTAAT
ACTGAATTTCTTTGATTTAACTGACTTAACAACTGACTAACCATTGATGAGCACTCCTGATTTTTATCTAGAACA
TTCAGATTTACCATAATGTTCCTTAGTGGTAGAGGTGTGTGCCTAGTGATGTAGAAAGATACACTGACTTGGTGC
AAGGCCATCTGCTTACCACATCACACCACTTGGAGATCTTTGCTTCCTTGCTTTTATGTTTGTACACAACACCTA
AAACCAGTTTTGCTGCTATAATTCTATACTGTTGATTCGTCTGCGATTTTATCTGTTAACCAAATAAAACATAAT
AGAATTTCCTAATGAGATATATCTTTATACTTAAACAGCTTTTTTAGAGGTGAGTTTTAAAGAAGTCTCTTAATT
CTGATGCTAGGTTGTTTTTAAAACCACTATGCAAAGAACTCACCACAAGCCACCTTTTGTAGTGTTCTCCACTAA
TACTGGTTATCCTGTGCTACAGAGAAAATCAAAGCAGTCATAAGCTCCAGTTTTCGTATTGCAAATAAGACTCTT
ACCTACAAAATGAGATTCAGTGAACTAATTTGGTTTTTACTCAACCAAATTAAAAATTTTTTTAAGGAAAATTAG
CAGTTGGTCTATTCAGAATCAAACCTTTTTATATTTTATACTGCACTTTAGTGTATTTTCTGTCACTGTAGGTAT
AGAAGATCTGCCTCCCCTGTGGAAATTGGGGTCTGTTGGTGGGCGTGCCCCTGAAGCCTGGCTTGGGTTGAAAAG
TGTTCCCGCCCTAAGGCCTTGGTGCCCTGAACCTCTGATGCCTACCGGGTTCTCCTGATTTGAGTTTCCTTTAAA
TACTCCCTTTTTGAGTAATTTTCTGATGGGAGGAAAGTAGCAGTCATCATCTTTTTGTGTGCAGGCTGTCTCATT
TATTTTTAGCCATTGTCGTTTCATTCATTTTGTGTAATATAAACCGTGTGTCATGTCAAAGTGAAAGACATTTCA
AATCTGTAGCATAGGCTAGTGGGCAGGTCCGCACAGTCGAAGCCACACCTGGTCTGTTTTCTGTGCACTGTAGCC
TTAGTGTCACCTTTCTTCTTGTGTCTCCTTATGGTACACTCCAGCGGTTGCCTTTTTTATCATTTCTACTGAAGT
TGGGAAATTCAACCCCAGAAATTGACAGATGAAAGGAGACAATGGTTGTGTAGGGAGATGGAGAAAATGCTTAAT
CTGAGGATGAGACAGGGTTTTTTCATTTTTGTGGGGGCTAGAAAAAACATAAAATGAGGCAGTTAAATAATAATA
GTTAATGAAGGTGTGCTACAGAAAATAATCTGGTGTTCTTGCTAACTTTGCCCTTCACTGTTGCTTAATTGTGAA
CAGCCAAAAGCTATATGTTATGGCTTATTGTGTGAAGGTAACTAAGAAGTGGTGTTCCATGACTTCAGAGTACAT
CCATGCGGAGTCCATTATTTGAGTTTGACATTTAATAACTTTGCTGGAAAATCTGTAAAAAAGAAAAACAAGTTT
GCTAGTGACTAAGCCCCGCATATGTGAGTGAAAGTACTTCAGGCACGCTGCCTCCTGGTAACAGCTATGCAGGGA
GGGAGGACCCACACTGCTACACTTCTGATCCCCTTTGGTTTTACTACCCAAATCTAAATAGATACTTTTGATAAT
AGATAACTGCTCTTTTACTAAGACATAGTCTCTACCTATAGAAATGTATTTTGAAAACACTTATTTTACACAGCA
ATTTTGTATCCATTTAAACTAACCTTTTATCAATAAAGCACTATTGTTTAGATATT

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FIGURE 1621A

GGCGACGCCGACGCGAGTCTGGCGGCTGCTGCTTGCGACTGCGGAGGCCGGGCGAGGCCGGTGAGGACGCGGCGG
GCGAGCGAGAGGCCGAGGTGTTTTCTTCACTCATGGTGAAGA**ATG**GGGGAGATAGAAGGAACATACAGAGTCCTG
CAGACTGCAGGGATGCGCTTGGGTGCCCAGACCCCTGTGGGAGTTAGCACCCTTGAGCCTGGGCAGACTCTCTTG
CCCAGAATGCAAGAGAAGCACCTGCACCTCAGAGTAAAGCTGCTGGACAACACCATGGAAATATTTGACATTGAG
CCTAAATGCGATGGCCAGGTATTACTGACACAAGTGTGGAAGCGTTTAAACCTGGTAGAATGTGACTACTTCGGG
ATGGAGTTTCAAAATACTCAGTCCTACTGGATTTGGCTTGAACCTATGAAACCCATCATTAGGCAAATACGAAGG
CCAAAGAATGTGGTGCTTCGCCTAGCTGTAAAATTTTTTCCACCTGATCCTGGTCAGCTACAAGAAGAATATACA
AGATACTTGTTTGCCTTGCAACTTAAGAGAGACCTGCTGGAAGAGCGTTTGACCTGTGCTGACACCACAGCGGCC
CTTCTCACGTCCCATCTCCTGCAGTCGGAAATAGGAGATTACGATGAAACGCTGGACCGAGAGCACCTCAAAGTG
AACGAGTATTTGCCTGGCCAGCAGCACTGCCTTGAGAAGATACTAGAATTCCATCAGAAGCACGTGGGCCAGACA
CCTGCTGAGTCGGATTTCCAGGTGCTCGAAATTGCTCGAAAGTTGGAAATGTACGGCATCAGATTTCACATGGCT
TCTGACAGGGAAGGAACCAAGATTCAACTGGCAGTTTCCCACATGGGTGTACTCGTGTTCCAGGGCACCACCAAA
ATCAACACTTTCAACTGGTCCAAGGTCCGTAAACTAAGCTTCAAGAGGAAAAGATTTCTTATCAAACTTCATCCA
GAGGTTCATGGACCTTACCAGGACACATTAGAATTTTTGTTGGGTAGTAGAGATGAATGTAAGAACTTCTGGAAG
ATTTGTGTGGAGTATCACACCTTTTTTAGACTTTTGGACCAACCTAAGCCAAAAGCAAAAGCCGTCTTCTTCAGC
CGGGGCTCCTCCTTCAGATACAGTGGAAGAACTCAGAAACAACTAGTAGATTATTTCAAAGACAGTGGAATGAAG
AGAATTCCATATGAAAGAAGGCACAGCAAGACCCACACGTCCGTTCGAGCTCTGACTGCAGACCTACCAAAACAG
AGCATCTCATTCCCCGAGGGATTGAGGACTCCTGCCTCCCCATCTTCAGCGAATGCCTTTTACTCGCTCTCTCCC
TCCACTCTGGTCCCCTCTGGCCTGCCAGAGTTTAAGGACAGCAGCAGCTCCCTCACAGATCCCCAGGTTTCCTAC
GTCAAGAGTCCAGCTGCAGAGAGGCGCAGTGGAGCAGTGGCTGGAGGCCCCGACACACCATCGGCCCAGCCCCTC
GGGCCCCCCGCACTCCAGCCTGGTCCAGGCCTTTCCACGAAGAGTCCTCAGCCTTCTCCCTCCAGCCGGAAGAGC
CCCCTGAGTCTGAGCCCTGCATTTCAGGTGCCTTTGGGCCCAGCTGAACAGGGCTCATCCCCACTCCTGAGCCCT
GTCCTCAGTGATGCTGGCGGAGCCGGGATGGACTGCGAGGAGCCCAGACACAAGCGCGTGCCTGCAGACGAGGCC
TACTTCATAGTCAAAGAGATTCTCGCTACAGAACGAACATACCTCAAGGATTTAGAAGTTATTACCGTGTGGTTC
CGCAGCGCAGTGGTGAAGGAGGACGCCATGCCTGCGACTCTGATGACGCTGCTCTTCTCCAACATCGATCCCATC
TATGAGTTCCACAGAGGCTTCCTGCGCGAGGTGGAGCAGAGGCTGGCACTCTGGGAAGGGCCCTCCAAAGCCCAC
ACAAAAGGCAGTCATCAACGAATCGGGGACATCCTGCTCAGGAACATGCGCCAGTTAAAGGAGTTTACCAGCTAC
TTCCAAAGACATGACGAGGTCCTAACAGAACTGGAAAAGGCTACCAAACGCTGTAAGAAGTTGGAGGCAGTGTAC
AAGGAGTTTGAGCTGCAGAAGGTCTGCTACTTGCCTCTCAACACGTTCCTGCTGAAGCCCATCCAGCGGCTGCTG
CACTACCGCCTGCTGCTGCGCCGCCTATGCGGACATTACAGCCCCGGGCACCATGACTACGCTGACTGCCATGAC
GCCCTGAAAGCCATCACAGAGGTGACCACCACACTACAGCACATTCTCATCCGGCTGGAGAACCTGCAGAAGCTA
ACGGAGCTGCAGCGGGACCTGGTGGGCATAGAGAACCTCATTGCTCCTGGCAGGGAGTTCATCCGTGAGGGCTGC
CTTCACAAGCTCACCAAGAAGGGCCTGCAGCAGAGGATGTTTTTTCTGTTCTCAGATATGTTGCTGTACACAAGC
AAAGGAGTTGCAGGGACCAGCCACTTCCGGATCCGGGGCCTCCTTCCCCTCCAAGGCATGCTGGTGGAAGAAAGT
GATAACGAGTGGTCTGTTCCACACTGTTTCACCATCTACGCGGCTCAGAAAACAATCGTGGTGGCAGCCAGCACT
CGGCTGGAGAAAGAGAAGTGGATGCTGGACCTGAACTCCGCGATCCAAGCAGCCAAGAGTGGCGGTGACACGGCC
CCTGCACTGCCAGGCCGCACTGTGTGCACTCGTCCCCCCAGATCCCCCAACGAGGTATCTCTGGAGCAGGAGTCA
GAAGATGATGCTCGGGGTGTCCGCAGCTCCCTGGAGGGGCATGGCCAGCACCGGGCCAACACCACAATGCACGTG
TGCTGGTACCGGAACACCAGCGTGTCCAGGGCAGACCACAGTGCAGCTGTCGAGAACCAGCTTTCAGGATATCTG
CTAAGAAAGTTCAAAAACAGTCATGGCTGGCAGAAGCTCTGGGTCGTCTTTACCAACTTCTGTTTGTTCTTCTAC
AAAACTCATCAGGATGACTACCCACTGGCCAGCCTCCCGCTGCTGGGCTACAGCGTGAGCATCCCCAGGGAGGCC
GATGGCATACACAAAGACTATGTTTTCAAGCTCCAGTTCAAATCCCACGTCTACTTCTTCCGGGCTGAGAGCAAG
TACACATTTGAAAGGTGGATGGAGGTGATCCAGGGGGCCAGCAGCTCAGCCGGGAGGGCCCCAAGCATCGTGCAG
GATGGCCCCCAACCCTCCTCAGGGCTGGAGGGGATGGTCAGGGGGAAGGAGGAA**TGA**CGCTCAACCTGCCCAGGT
TTGGACACAACTACAAAGAACAGCAGGACACAGAGGTGACCTCTGTCCTGAGGCTTCTCAACAGATGGGAAGTGG
CTGTGGTCTCACTGGATCCCCACTGGCACCAGCAGTGTGGGTGGGCCTCATGTAACATCTGGGAGGGGCTTCATC
CCCCCACCCAGGACCTAGTGCATGCCAGCAGCTATCTGGGGCCCTGGGAAAAATGTGCGAGTCTTGAGCGCGGAG
CCGCTCAAGCCACAGCTCCCAGGCCCCTGGCTCAAAGACGCAGACAAGGCCTGAGCAGTGCTCTCGGCATCGGAC

FIGURE 1621B

CAAAGCCTGGGCACACCCTGCCTCTCTCCCCAGAGCAGGGTCCCTGCCGAGGACTGGCCTAGAGCAAGCACTGGA
AAAGAGGCCCTGCCATACACCCTGCGTACCCACTGCCAGGACCCTCTCAGACAAGCGTGGCACAGCCATGCTGAC
CTTCCATCTGGTGAACCAAGTGGCAGCCCCAGGGGCCTGCCCTGCAGGTCACAGCTAAACAAGTCTGGCAGAAGC
CACGCTTGTTCCCCATGTACCTCTAGAGAAGCAGAAACCAAAGTCCCCCTGTGCCCTGGGAGGGTGGGGCCGTCT
AATTTATTACTGCCCAGCATTCCTTCCAACGGGAAGTAGATGGGCGACTGCTTTGTTCACACACATTTGATTAAA
AATAAACAAACAGCATCTCCCC

FIGURE 1622A

AGATAGTGGTCTTGGAGAGGCGTTGGTTTAAAATGCACTTATGTAAGTTTGAGCTGTTTTCTTTTCTTCAGCTTA
ATTGGGAACTAGAAGATACGTGGTTGCAAAAAAAGCAGAACCAGACACACCATGGGCATCATTCTGTCCCAGGAC
AATGGGAAGGGTCCCAGGGGCAGGTGTGCCAAGGTGGCCCTGCCCACCCATCCAGCGTACCCGTAAACACATACC
AGGTGCCATGGGCCCTGCTGGGTACCACATGGAGAGCTTCTCAGTCTAAACCACCATAAAAGTCAAGGCTGATGT
TTGTGGCACAGAGTGGGTAGGTCCATCCAGGGACGTCATGGGGAAACCACTGCCATGCAGCTCAGCACCCACAAG
TGCCGGTCTCAGGCCAGCCCTAGATGACACTGTTCAATTTGTCAAGTCCACAGATAGGGTTGGGGTTTTTGTTGT
TTTTCTTTTCTGATCTTACCTAGTAGTGCAATACCACATTTAAAGTTTAATTCTCTTCCCAGAATGTCTTGTGGA
AACTTTACATTTCATTCCTGTTCACATTGTAAGATCTCTGATGTTTTGCCTGGATGGATTTACTGTGATTGCACA
GGGACCACGTGGCTCAGGTGTCTGAGCCATTGAGGGCATCTTGCAAGGGCTGGTTTTCCTTTTCTCATCAGTGTT
GGCTGGATGCCAGCAGGGGTTTTGTGGCTAACCACATCAGGCAGTTTCCCATTTTTGTAGCTTTGTTATACCTAA
ACCGCAGTCTCATCATTTTGCTTATGCAGCTAGAAGTTTCAGTCTGTATAGTTGTTATTCATTCTGTCCCTGGTA
ATTTAGACCTGCCTTCTTGATGCTTTAGGGGCCATTGGGCACAGCTTTCTACATTGGCTAACAAATACCTGTGAA
AATGTTAACAGACAGAAGCGCAGCAGTGAACCTGAGGTCAGGACAGGACTGTTTGGGAGGTTCTTCTTTTCTTAC
TGTCACTCCAAAAATAAACCTTGGATTTGTGTGCTGGGGAGAAATGAGTATAGATAACATTTAAAACGTTTTCCT
AAACCTTAGTATTCATATGGTAGCTGATGGTTCCTCTCCCCTTCATTACTGTTGCCTGACGACGGTCCTTGCTGA
TGCTGTGAACTAACAAAGTTGTCTTTTTGTTTTTAAGGGAACCCACCCTGGCGTCTGGACAGCAGGTTAGGTTTG
GGTGGTTTTGAGCTAGCACTGCTGTGGGGCAGGGGTGGCCGCTCCCTGGTGAAGCTAATGCTGTGGAAGCTGGAA
TGTTCCTTCCTAAGGAGTGGGATCATGCCCCTACCCCAGCAGAGGTATCTCATCACTCGCTCATGTGCGAGATTC
TAAATAAATTTTGTTCTTGGGCATCTTCTACTAGGCCTCCTATAAAATAGATCTTGCTGTTTTTGGTTTGTGTTA
ATGGAACCTCACTTTCTAGAGATAATTCTTTAGTTTTTTATTTAGGAAGTTTTCAAAATATACAAAGCAGGAATG
TAAGGAACCCGCATCACCTCAAATTCAGTGTTACCCACACTTGACCATGCTTGCCCCAGCTGTGCCTTTTTTCTT
TCCTTGGGTATTTTGTTGCTAAAGTATTTTATTATTACTGTTTTAGAGACAGGGCCTCACTCCTGTCACCCAGGC
TGGAGTATGGTGGCACAGTCACATCTCACTGCAGCCTCAACCTCCTGGGCTCAAGCCATCCCCCCACCCCAGCCT
CCTGAGTAGCTGGGACTACAGGCACACATCACTGCGCCCAGCTAATTTTTAAAAAATTTTTGTGGAGACAGGTTC
TCTTCATGTTGCCCAGGATGGTCTTGAATTCCTGGGCTCCAGCAGTCCTCCTGTCTCAGCCTCCCAAAGTGCCAG
AATTGCAGGC**ATG**AGCCTGGGTGCTAGAGCGAGGCCCTGTCTCAAAAAAAAAAAAAAAAAAAAATCAATCAAGGC
TTTCTTCCGAGTTACTGCTCACAGCCCTCTTACCCCTTTCTCTTGTGAGTGGGTTGTAATGTCCACCCAGAGGGG
ATTTAGACACGGAAGGGAAGGCAAGCGTGGGCACCATGGCTTTAGAACCATAAGGAAGACATTTCCCTCTACAGA
TTCTGTCTTTCCACTTGTAACAGTTAATGAGGCACTGACGTTGCTCTTTTCCACCTTAACAAGACAGTTTACAGT
GGTTAAA**TAG**CAAAACTCCAGGAGCAATTCAGCCTGAGGCCATAGTGCCCTGCAGCAGCATTGGGCTCTGCTTTT
GTTTCTGCTTTGTGCTTTGTGGCTCTTCTTCAAGCCAGTGTTGGGTAGTGCACAGCCTGAGAGGTGTGGCCTGAT
AAACCCTGAAATTGAAAGAAGTATGCAGATTTGACTCAGCACTCCTGGAAGTGTCTGGATACAGCTCACTGAGAG
TGTGGAGGTGAAAGTGCCTGCAAAATATTAACAGTTCTCTCTCAATCTATTGATCTCCTCAGTTACATCCAGAAC
CTTAAAGCCGCACAGTTGTCATCCTCCGCCCGCAGTCTCAGGCAGGGCGCATCAGGGGCTGCACTGGTAGCTCCC
AGGAGGACTTACCCATGGGTCACCGTCATAGCCAGGTGTGTCTACTCAGAGGGGACGCAATCCTGCAGCAGTCCC
CGTCAATGAGAGGCCACCAGCAGACAGTGCCTGTTGGACCCATGAAGTCCACCACTAATTATATACTCTGCTTTA
GGTAGAATATTTTTATTAGCTGTCAAACTGTTTTTGTATTTAAGTTTCCAAAAGTCCAGGTACTTTATGTAGGCC
AATGTATAAATATTTCAAGTCTAACAGTAGCACAGTTATATGTTAATACAACTGACTACACGAAAAATATGTAAT
AGCATATGCTATGTAATTTTTCAAATCACTAGGTATTGATATGTGCCTTTTTTATATTACCAAGAGATTCTCTAA
ATATGGAATTAGATTAGGATTCTCTGCTCCACTTAACACACATTTTTAAATTAGTACTGATGATTGAGGGATGGA
CAATAGCACACCAAAAAAAAAAAGAGTTTAGTATGAAAAATTTAAACCTGTTGGTTAAGTCATTCCCATTAATGTC
ATTTTGCTGAGGGTGACTTGGTCCTTTTGAATTGCTTTGGTGTACGGGTATGTTCTGATTTTTCATGCAAGCTCC
TCTGCCATTCCACCGCTCTGAGGAGTAATTGTAGCACTTCACATGTGCTGTGGTTGTGATCACATGGTGACATAC
ATAGCATGTGTGTTCCCAGCTGTTGTGTGTTTATGTGACATTTGATGCCAATACATATGTCTTCAAGGTATGCTT
GTTCCCTCCCAGCTCGTGGAATATCAAAAAAATTCATTGCTGGAAAAATTATTTCATAGACAAAAATGTTAATGT
TCTCTTGGGGACTTAGAGTTGAAAATATTTGTATAGATTTGGTTCTCAAGTCCACAGAATCGTATCTGCTGTGGT
CTCCCTTTGGTGCTCATCTGGGAGCCATGTGTATGGAAGATTCTGTCACAGGCGGCTGGGATGTGGGCAGATGCT
GTTAGCCTCCCTCTCCACGTGGTGGTCCATGCCTGACGTGTCCCCTAGTTCAAGGAAGCGCCATCTTTAGCATGA

FIGURE 1622B

AAACAATTGCGTTCCCCTAGGAAATGAAGAAAAAATGAGCTGAAATTTCCTTATACATTTGAATTTGTTCATTTT
TTAAAGAGACATTTTTGTTGTCTGCTTTGTGGTACTTATAAAATTTGTTTTCCATTGAAATTGCCATTTATAAAT
TTGCAGATATGTACTAATTTAGATTTTTTTAAGTGTTCAATAAAATAAGGATATATTTACTGTG

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FIGURE 1623

CACCGAGCGCCCCTGGTGTCCCTCGCAGTGGACTGACGCCGCAGGGGCGAGCTAGCCGGCTCCGCGCCTCTCCGC
GGGATCCAGACGCCTCCTGGGGCTGCTGGCGGAGGGTCTGAGGCGGCGCGGCC**ATG**GCTCACCTCCGGGGATTTG
CCAACCAGCACTCTCGAGTGGACCCTGAGGAGCTCTTCACCAAGCTCGACCGCATTGGCAAGGGCTCGTTTGGGG
AGGTCTACAAGGGCATCGATAACCACACAAAGGAGGTGGTGGCCATCAAGATCATCGACCTGGAGGAGGCCGAGG
ATGAGATCGAGGACATCCAGCAGGAGATCACTGTCCTCAGTCAGTGCGACAGCCCCTACATCACCCGCTACTTTG
GCTCCTACCTAAAGAGCACCAAGCTATGGATCATCATGGAGTACCTGGGCGGCGGCTCAGCACTGGACTTGCTTA
AACCAGGTCCCCTGGAGGAGACATACATTGCCACGATCCTGCGGGAGATTCTGAAGGGCCTGGATTATCTGCACT
CCGAACGCAAGATCCACCGAGACATCAAAGCTGCCAACGTGCTACTCTCGGAGCAGGGTGACGTGAAGCTGGCGG
ACTTTGGGGTAGCAGGGCAGCTCACAGACACGCAGATTAAGAGGAACACATTCGTGGGCACCCCCTTCTGGATGG
CACCTGAGGTCATCAAGCAGTCGGCCTACGACTTCAAGGCTGACATCTGGTCCCTGGGGATCACAGCCATCGAGC
TGGCCAAGGGGGAGCCTCCAAACTCTGACCTCCACCCCATGCGCGTCCTGTTCCTGATTCCCAAGAACAGCCCAC
CCACACTGGAGGGCCAGCACAGCAAGCCCTTCAAGGAGTTCGTGGAGGCCTGCCTCAACAAAGACCCCCGATTCC
GGCCCACGGCCAAGGAGCTCCTGAAGCACAAGTTCATCACACGCTACACCAAGAAGACCTCCTTCCTCACGGAGC
TCATCGACCGCTATAAGCGCTGGAAGTCAGAGGGGCATGGCGAGGAGTCCAGCTCTGAGGACTCTGACATTGATG
GCGAGGCGGAGGACGGGGAGCAGGGCCCCATCTGGACGTTCCCCCCTACCATCCGGCCGAGTCCACACAGCAAGC
TTCACAAGGGGACGGCCCTGCACAGTTCACAGAAGCCTGCGGAGCCCGTCAAGAGGCAGCCGAGGTCCCAGTGCC
TGTCCACGCTGGTCCGGCCCGTCTTCGGAGAGCTCAAAGAGAAGCACAAGCAGAGCGGCGGGAGCGTGGGTGCGC
TGGAGGAGCTGGAGAACGCCTTCAGCCTGGCCGAGGAGTCCTGCCCCGGCATCTCAGACAAGCTGATGGTGCACC
TGGTGGAGCGAGTGCAGAGGTTTTCACACAACAGAAACCACCTGACATCCACCCGC**TGA**AGCGCACTGCTGTTCA
GATAGGGGACGGAAGGTCGTTTGTTTTTGTTCTGAGCTCCATAAGAACTGTGCTGACTTGGAAGGTGCCCTGTGC
TATGTCGTGCCTGCAGGGACACGTCGGATCCCGTGGGCCTCACATGCCAGGTCACCAGGTCACCGTCTCCTTCCA
CCCCTGCAGTGTGCTGTTGTGCACGTCAGGGACGCTGTTCTCTATGCCCACTGCCCTCCTCCCTCTCCTGGCCCA
GCAGTATTGCTCACGGGGGCTCCAGCCGCCGGCGTGGCCCTCATGAGCTACGCCTGGGTCTTCTGCAGACTCATG
CAGCCCTATGGCCGCTCAGACCAAGGCGCAGAGCAACTATCAGGGCAGCTCTGCCTCCTCCTCCCATGAGGTGGG
GAGAGGCAACAGGGCAGCCCCCAGAGGAGTGTCCTGGCCGCTGTCCTCCCGGGGCCCATGATGGCCATAGATTTG
CCTTGTGGTGTTGGATCAGGTACTGTGTCTGCTCATAAGTACTTGTGTCATCCAGAATGTTTTGTTTTTTAAGAA
AATTGAATTACTTGTTTCCTGAAA

FIGURE 1624

GACTAGCGGGCCGGCGTACTGGCCTGGTCCAGCACCTGCGGGGCCCTCGGGCTTGGAGGGCTGGGCCGGGCGGGG
AACGGGCGGGGCGGGCCGGAGGCGGCGGCGGCTGACTCGCCTTCTCTCCGGGGCTGCGACCCCGAGGCAACCGGC
TGCAGATGGGAGCCCGCGGAGCCGAGG**ATG**CGGGCGGGCCGGGGCGCGACGCCGGCGAGGGAGCTGTTCCGGGAC
GCCGCCTTCCCCGCCGCGGACTCCTCGCTCTTCTGCGACTTGTCTACGCCGCTGGCCCAGTTCCGCGAGGACATC
ACGTGGAGGCGGCCCCAGGAGATTTGTGCCACACCCCGGCTGTTTCCAGATGACCCACGGGAAGGGCAGGTGAAG
CAGGGGCTGCTGGGGGATTGCTGGTTCCTGTGTGCCTGCGCCGCGCTGCAGAAGAGCAGGCACCTCCTGGACCAG
GTCATTCCTCCGGGACAGCCGAGCTGGGCCGACCAGGAGTACCGGGGCTCCTTCACCTGTCGCATTTGGCAGTTT
GGACGCTGGGTGGAGGTGACCACAGATGACCGCCTGCCGTGCCTTGCAGGGAGACTCTGTTTCTCCCGCTGCCAG
AGGGAGGATGTGTTCTGGCTCCCCTTACTGGAAAAGGTCTACGCCAAGGTCCATGGGTCCTACGAGCACCTGTGG
GCCGGGCAGGTGGCGGATGCCCTGGTGGACCTGACCGGCGGCCTGGCAGAAAGATGGAACCTGAAGGGCGTAGCA
GGAAGCGGAGGCCAGCAGGACAGGCCAGGCCGCTGGGAGCACAGGACTTGTCGGCAGCTGCTCCACCTGAAGGAC
CAGTGTCTGATCAGCTGCTGCGTGCTCAGCCCCAGAGCAGGTGCCCGGGAGCTGGGGGAGTTCCATGCCTTCATT
GTCTCGGACCTGCGGGAGCTCCAGGGTCAGGCGGGCCAGTGCATCCTGCTGCTGCGGATCCAGAACCCCTGGGGC
CGGCGGTGCTGGCAGGGGCTCTGGAGAGAGGGGGGTGAAGGGTGGAGCCAGGTAGATGCAGCGGTAGCATCTGAG
CTCCTGTCCCAGCTCCAGGAAGGGGAGTTCTGGGTGGAGGAGGAGGAGTTCCTCAGGGAGTTTGACGAGCTCACC
GTTGGCTACCCGGTCACGGAGGCCGGCCACCTGCAGAGCCTCTACACAGAGAGGCTGCTCTGCCATACGCGGGCG
CTGCCTGGGGCCTGGGTCAAGGGCCAGTCAGCAGGAGGCTGCCGGAACAACAGCGGCTTTCCCAGCAACCCCAAA
TTCTGGCTGCGGGTCTCAGAACCGAGTGAGGTGTACATTGCCGTCCTGCAGAGATCCAGGCTGCACGCGGCGGAC
TGGGCAGGCCGGGCCCGGGCACTGGTGGGTGACAGTCATACTTCGTGGAGCCCAGCGAGCATCCCGGGCAAGCAC
TACCAGGCTGTGGGTCTGCACCTCTGGAAGGTAGAGAAGCGGCGGGTCAATCTGCCTAGGGTCCTGTCCATGCCC
CCCGTGGCTGGCACCGTGTGCCATGCATACGACCGGGAGGTCCACCTGCGTTGTGAGCTCTCACCGGGCTACTAC
CTGGCTGTCCCCAGCACCTTCCTGAAGGACGCGCCAGGGGAGTTCCTGCTCCGAGTCTTCTCTACCGGGCGAGTC
TCCCTTAGCGCCATCAGGGCAGTGGCCAAGAACACCACCCCCGGGGCAGCCCTGCCTGCGGGGGAGTGGGGGACC
GTGCAGCTACGGGGTTCTTGGAGAGTCGGCCAGACGGCGGGGGGCAGCAGGAACTTTGCCTCATACCCCACCAAC
CCCTGCTTCCCCTTCTCGGTCCCCGAGGGCCCTGGCCCCCGCTGCGTCCGCATCACTCTGCATCAGCACTGCCGG
CCCAGTGACACCGAGTTCCACCCCATCGGCTTCCATATCTTCCAGGTCCCAGAGGGTGGAAGGAGCCAGGACGCA
CCCCCACTGCTGCTGCAGGAGCCGCTGCTGAGCTGCGTGCCACATCGCTACGCCCAGGAGGTGAGCCGGCTCTGC
CTCCTGCCTGCGGGCACCTACAAGGTTGTGCCCTCCACCTACCTGCCGGACACAGAGGGGGCCTTCACAGTGACC
ATCGCAACCAGGATTGACAGGCCATCCATTCACAGCCAGGAGATGCTGGGCCAGTTCCTCCAAGAGGTCTCCGTC
ATGGCAGTGATGAAAACC**TAA**CAGGGTGGCCCCCTGTGCCAGCTCAGGTGACTGGAGCCCGAGGGCCTGACAGGT
TCCCAGCAGCTGGGCCGGCCAGCCTTGCACTGTGGGGGCTGGTCCTGAGTCTTGGCCTGCCTCCCAGCCCTGCCA
GGGGGCTGCGGCCTAGGGGTCCACGGGAAGCCTCCGTCAGGAGAGACGCAGCCCTGGGGGCCAGCTGGTGCTGCA
AGGAAGGGTGGGAAGCTTGCTGGCTTCTGTTGCGCCACTGAGACGGCAGAGACCCCAGGATCCCAGAGCTTCCCA
GGATCCCTCCCAGATCCTCTGCTGACTCCATATGGAGGCCCCACACCCAGAGGGTAGGGCAGCAGATCTTCTTTA
TAACTATTTATTGTTCGAATCACTTTTAGGATGTAACTTTATAAATAAACATGAGCGCTGATGATTTGCA

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FIGURE 1625

GAGACGCCCTGCGCCTTCGCCTTCTCCGCCCCCGGGCCGGGGCCCGCGCCGCCGCCCCCGCTGCCCGCCTTCCCC
GAGGCGCCCGGCTCCGAGCCCGCCTGCTGTCCGCTGGCCTTCAGGGTGGACCCGTTCACCGACTACGGCTCCTCG
CTCACCGTCACGCTGCCGCCCGAGCTGCAGGCGCACCAGCCCTTCCAGGTCATCCTGCGGTACACCTCGACCGAC
GCCCCCGCCATCTGGTGGCTGGACCCAGAGCTGACCTATGGCTGCGCCAAGCCCTTCGTCTTCACCCAGGGCCAC
TCCGTGTGCAACCGCTCCTTCTTCCCGTGCTTCGACACACCTGCCGTGAAGTGCACCTACTCTGCCGTCGTCAAG
GCGCCATCGGGGGTGCAGGTGCTG**ATG**AGTGCCACCCGGAGTGCATACATGGAGGAAGAAGGCGTCTTCCACTTC
CACATGGAGCACCCCGTGCCCGCCTACCTCGTGGCCCTGGTGGCCGGAGACCTCAAGCCGGCAGACATCGGGCCC
AGGAGCCGCGTGTGGGCCGAGCCATGCCTCCTGCCCACGGCCACCAGCAAGCTGTCGGGCGCAGTGGAGCAGTGG
CTGAGTGCAGCTGAGCGGCTGTATGGGCCCTACATGTGGGGCAGGTACGACATTGTCTTCCTGCCACCCTCCTTC
CCCATCGTGGCCATGGAGAACCCCTGCCTCACCTTCATCATCTCCTCCATCCTGGAGAGCGATGAGTTCCTGGTC
ATCGATGTCATCCACGAGGTGGCCCACAGTTGGTTCGGCAACGCTGTCACCAACGCCACGTGGGAAGAGATGTGG
CTGAGCGAGGGCCTGGCCACCTATGCCCAGCGCCGTATCACCACCGAGACCTACGGTGCTGCCTTCACCTGCCTG
GAGACTGCCTTCCGCCTGGACGCCCTGCACCGGCAGATGAAGCTTCTGGGAGAGGACAGCCCGGTCAGCAAACTG
CAGGTCAAGCTGGAGCCAGGAGTGAATCCCAGCCACCTGATGAACCTGTTCACCTACGAGAAGGGCTACTGCTTC
GTGTACTACCTGTCCCAGCTCTGCGGAGACCCACAGCGCTTTGATGACTTTCTCCGAGCCTATGTGGAGAAGTAC
AAGTTCACCAGCGTGGTGGCCCAGGACCTGCTGGACTCCTTCCTGAGCTTCTTCCCGGAGCTGAAGGAGCAGAGC
GTGGACTGCCGGGCAGGGCTGGAATTCGAGCGCTGGCTCAATGCCACAGGCCCGCCGCTGGCTGAGCCGGACCTG
TCTCAGGGATCCAGCCTGACCCGGCCCGTGGAGGCCCTTTTCCAGCTGTGGACCGCAGAACCTCTGGACCAGGCA
GCTGCCTCGGCCAGCGCCATTGACATCTCCAAGTGGAGGACCTTCCAGACAGCACTCTTCCTGGACCGGCTCCTG
GATGGGTCCCCGCTGCCGCAGGAGGTGGTGATGAGCCTGTCCAAGTGCTACTCCTCCCTGCTGGACTCGATGAAC
GCTGAGATCCGCATCCGCTGGCTGCAGATTGAGGTCCGCAACGACTACTATCCTGACCTCCACAGGGTGCGGCGC
TTCCTGGAGAGCCAGATGTCACGCATGTACACCATCCCGCTGTACGAGGACCTCTGCACCGGTGCCCTCAAGTCC
TTCGCGCTGGAGGTCTTCTACCAGACGCAGGGCCGGCTGCACCCCAACCTGCGCAGAGCCATCCAGCAGATCCTG
TCCCAGGGCCTGGGCTCCAGCACAGAGCCCGCCTCAGAGCCCAGCACGGAGCTGGGCAAGGCTGAAGCAGACACA
GACTCGGACGCACAGGCCCTGCTGCTTGGGGACGAGGCCCCCAGCAGTGCCATCTCTCTCAGGGACGTCAATGTG
TCTGCC**TAG**CCCTGTTGGCGGGCTGACCCTCGACCTCCCAGACACCACAATTGTGCCTTCTGTGGGCCAGGCCTG
CCATGACTGCGTCTCGGCTCTGGCCATGAGCTCTGCCCAGGCCCACAAGCCCCTCCCCTGGGCTCTCCCAGGCAG
GGAGAATGGGGAGAGGGACCTCCTTGTGTCTGGCAGAGACCTGTGGACCTGGCCTCCCCACTCCCAGCTCTCTTG
CACTGCAGGCCCTGGGGCCAGCCCGCACACACCATGCCTCCTGTCTCAACACTGACAGCTGTGCCTAGCCCCGGA
TGCCAGCACCTGCCAGGTGCCGCCCCGGGGCAAGGGCCCCAGCAGCCCTATGGTGACCGCCACACTGTGCCTTAA
TGTCTGCCGGGGGCCCAGGCTGTGCTGTCCCTGCAGCACGCCTCCTTGCAGGGATCTGAGCCACCCTCCCCGCAC
AGCCCTGCACCCCGCCCCTAGGGTTGGCAGCCTCAGTTGGCCCCTGGCAGAGGAACAAGGACACAGACATTCCCT
CAGTGTGGGGGGCAGGGGACACAGGGAGAGGATGGTTGTCCCTGGGGAGGGCCCTCTGGCCCCAGGCAACCTTAG
CCCCTCAGAACAGGGAGTCCCAGGACCCAGGGAGAGTGTGGGGACAGGACAGCCTGTCTCTTGTAGCTTCCTGGG
GTGGGAGGCACAGGGGCAAAGCAATACCCCAGGGAAAGTGGGAGGTGGTGCTGGTGCTCTCTCCAGGCCCACCAT
GCTGGGAGAGGCGGCCAGAGCCTGGGGCCTCCAGCCTGGGACTGCTGTGATGGGGTATCACGGTGATGGTCCCAT
TAAACTTCCACTCTGCAAACCTG

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FIGURE 1626

GCAAGAACCAGCGCAAGAGGGAAGCAGAGTTATAGCTACCCCGGCCGCGGAGCCGGCTCACTGCACTACCCCCGC
CCCCTTCTTTCCTCCAGACGCCGAAGTCGCGGGCGCTC**ATG**GCGGGCCTGGAGGTACTGTTCGCATCGGCAGCGC
CGGCCATCACCTGCAGGCAGGACGCGCTCGTCTGCTTCTTGCATTGGGAAGTGGTGACACACGGTTACTTCGGCT
TGGGTGTCGGTGACCAGCCGGGTCCCAATGATAAGAAGTCAGAACTGCTGCCAGCTGGGTGGAACAACAATAAAG
ACCTGTATGTCCTCCGGTATGAGTATAAGGATGGGTCCAGAAAGCTCCTTGTGAAAGCCATCACCGTGGAGAGCA
GCATGATCCTCAATGTGCTGGAATATGGCTCACAGCAAGTGGCAGACTTGACCCTGAACTTGGATGATTATATCG
ATGCAGAACACCTGGGTGACTTCCACAGGACCTACAAGAACAGTGAGGAGCTTCGGTCTCGTATTGTGTCTGGAA
TCATCACACCTATCCATGAGCAGTGGGAAAAGGCTAATGTAAGCAGTCCCCACCGGGAGTTCCCCCCTGCTACCG
CCAGAGAGGTGGACCCACTCCGGATTCCTCCACACCACCCACACACCAGTCGGCAGCCTCCCTGGTGTGATCCCC
TGGGCCCGTTTGTTGTCGGGGGAGAAGACTTAGACCCTTTTGGGCCTCGGAGAGGTGGCATGATTGTGGATCCCC
TGAGATCTGGCTTCCCAAGAGCACTTATTGACCCTTCCTCAGGCCTCCCGAACCGACTTCCTCCAGGCGCTGTGC
CCCCAGGAGCTCGCTTTGACCCCTTTGGACCCATTGGGACCAGCCCACCCGGACCTAACCCAGACCATCTCCCCC
CGCCGGGCTACGATGACATGTACCTG**TGA**AGGCCTCAAGAATGTAACATCCCAGGCTTCCCTCCATTCTCCTGGA
GCTGCCACCGCTGTCCCCATCAGCAACCATGTTCTTGCAGGCTGGGGGCAAGGGATTCTGCTCATGTGTTTGCAG
ACCGGCTGGGATAGCCTCCCCACCCCTTATCAGAGCCAAGACACCTGCTGCAGCTCTCCACCTAGCTGCAGATAG
CTCCCAAAGAGAAATCAGTGTGTCTCTTTCACCATCAGCTCCTCCCCTTTCACCACCAGCTCCTCTCCACTTCCC
AAGGGAGACTCCGGCAACCTTCAGCAACATATATCCTCGACCAGATGCAGTGCTATAAGAACAGAACGCATTTTG
GATGTTATTATTAAGAACCAAATGTCAATACAGAATTCATGTTGCCGGTTTCCCACTTTTCTTTTTACATTAATG
CATAGCTGCTTCCATTTATGAGACTTTAGAGTTTGAGTTTCTGTAGGGCTGAATGACTCTTTTTCCTGCCCAGGG
CCCATTCTTGCTTCTCAGGCACCTTCCGTTTATTAATTGCCATTGCTCCTGACATCACTAAGATGGGTCCCCTTC
TGGCTGCATGAATGGAAATGAGTGACTGGAAATCCCATAGGCCACAAGAATGACTTTCACAAGGGCAGGAACATT
GTGGAAAGACTGCATCATTCTGATGAGGCAAAATCCTCCAGCTATTCCTGTCTGGGCCAGTTTTGTAGGTCCATC
TGTGCATGGGCAGCAGTAGTCAAAAAGCCAAGGAAAAAACAGAGCAGACCTGAAGGCTAATCTTATTTTTGCCAC
TAACTTAGTGAATGACCCTAAGCAAGTTCCTTCTCCTCTTAGGGCCTTGTGCCAAGCCTATGAAATTGGAGGTGG
CTTTCCTGCTCTAAAGCATTTTGATGTCTCATTCTGTGTTTGGTAACCCCTATAAACTGGGGCAGAGGAAAAGAA
TGATGGTTCAAGGCCATACTTCCCTTGAACCTTGTGTGGTTCTTGCCTAACTCTGTGGTTTTTGGACCCCATGGG
GCCCAGACAGAGCACAGGAGCATGGGCTGCCTCTGAGTGTGGTGTTGAACTTCGGGAGGAGCAGGGAGCCCTGCA
CCTTGTGTCCTGGCCCACCTGACCTTTGGTGTTCTCCGGATCCTTTTCAGCCCGAGGCCTGACAGACGCGGGCAG
TGATGAGCCCTGTTCTGGAGTGGAAAGAGCACGATAGAGCACCAGGCTAAGAGGCACGAGATCAAGGCGGTAGTC
ACTTCCGCTCTGCAGCTAGCATTTCAACCATATGTGGATCCTTTCATTTCTCAGCTCCCTGGATTCCTTCCCCTA
AATTAGGACCTATTATTTACCTGTAGGTAAGCAAGCTACTGTAGCTCTTCTGAGGTATCTGCCAGGCTGTTTTCT
GTAGCCTCAGATTGCCTATCTGCTTAGCCTGAGAACAGGTAGATGAAAACTAAACTGATGCCTAGGCCCAGGGTC
AGTCTCAGATGGAAGCTGGGCCTGGGTGGGGAGGCTAGCATGCGTGGCTCCCTGGGTATTTCTGTCAGTCCCCAT
GGCAAGCAGTGATTTAGTAAAACACCCCAGAGTCAGGGAAGCCAACCACCTTGAAACCTTTAGAACATCTCTGCT
TTGGAGAAAGACCCAGAGATCAGGCAGAGGTGCAGATTCAATCATTACTCATAACCTTTGAGAGATGGCAAATGG
GAGGAGTGTTAGTCTTTGTTTTGGAATTGGACCATTCTTGCAACCAAAAGGACTTAGAGCAGTTTGCTCATAAAG
ACATCCTTTATTATAAAAGGAAGTATTTAAAGGATGATAGAGACCATCAGATAGAAGCAGGGAAGGTAGATAACT
TTTAGGACCTTGATGTGAGGAAAAGATAAAATTTAAACAATAAATTTGCCACTTAGATTTTCTAGCAGCAAAGTC
CGAAAAGATAGTTATATACAAAATTCTGTTTTCTGAAAACAAAATTGTGATTCACCTTCAGAATTGGCCATTTTT
TTTGTGAGTTTCCTTGCATCAAGGACACTGAGAAACACAGTCATTGTCTTAGGTGTTCTATGGGAGGAAGTGAAT
AGAGCCTTTAGGAACTTCCTGGTCAAGCTTATGGTGCTTATTTTGATCTGGGCCACTTCCCTCCTTCCAGTCATG
AGTAATCATCAAGGAGCAAGTTGGAGTGTTTCAGGTGTATATTTTGTAGAACCCAAAAGATTGGAGCCTTAACAA
TAAACATCAGCACT

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FIGURE 1627A

GGCGGCCCCTGCAGGGCAGCTGAAGCCATGGAAGCCTCCGCAGGTCGCTGATCAGGGCCAGGCGGCTGCAGCAGC
GACTGCAGAGGCGCTGCGCCAAGCCGGGCCGGAGTGGTGCGAGCCGGCGGGGCTGCGGAGGGCCAGTGGACTCAG
GGTTGTTGAGAGGAGTCAATGGCATAATACGGGAAGCCCCGAACCACGGGCCAACTGGGAAGTTGATGGTCGGCG
AGACCAGCCCATCCTAATTTGGGGTTCCTGGTCCTGCTCCAGGAGTCCTACAGCCTGCAGCCCCTACCAGAGAGG
GAGGACTGAACAGCAAGGGGGTGTGTGGGTCTGAGTATCAGGGTCCTGGGGAAGAAGCAGGCCTGGCTCGTAGAG
TAGAAGACTCGGTGCCGGCAGTCAGGAGGCCCTGCTCCTGAAGCCTCTGTGACCTTGGGCACGGCCTTCACTCTG
TCTGGGGCACATTCACTCATCTGGAGAACACAGGGTTGGACTGATTACTTTTAGCCACTCCTGACAGTTGTGGTT
TTAAGTTGGGTGGTGGGAACCTGTGCACCAGCCCTATTCAATTCACTGGTGGAGGCAGCCGTGGTCTGCCAGGCC
CTCGCTCCTGGGGTGTCCTGCCGAAGGGTGAGAAGAGAAGCC**ATG**CCGGGCAGCGGCCCCAGCGAGAGGATGACG
TGGCCTGGCCCGGCCCTTTCTGCGGGCCCCCCAACCCGCCCTCTCTCCTCAGCCCCCGGGATACCGCCCATCCCA
CCCCTTACTCGGACCCACAGCCTCATGGCCATGTCCCTGCCAGGAAGTAGACGGACCTCTGCTGGATCACGCAGG
CGCACCTCTCCACCTGTGAGCGTGCGGGATGCCTACGGCACCTCTTCGCTCAGCAGCAGCAGCAATTCTGGCTCC
TACAAGGGCAGTGACAGCAGTCCCACGCCAAGGCGCTCCATGAAATACACGCTGTGCAGTGACAACCATGGCATC
AAGCCCCCGACCCCGGAGCAGTACCTGACCCCCCTGCAGCAGAAGGAGGTGTGCATCCGGCACCTGAAAGCCCGG
CTGAAGGACACACAGGACCGGCTCCAGGACCGGGACACAGAGATTGATGACCTGAAGACGCAGCTGTCACGCATG
CAGGAGGACTGGATTGAGGAGGAGTGCCACCGCGTGGAGGCCCAGCTGGCCCTGAAGGAGGCCCGAAAGGAGATC
AAGCAGCTCAAGCAGGTCATCGACACTGTCAAGAACAACCTGATTGACAAGGACAAGGGGCTGCAGAAGTACTTC
GTGGACATCAACATCCAGAACAAGAAGCTGGAGACGCTGCTGCACAGCATGGAGGTGGCCCAGAATGGCATGGCC
AAGGAGGATGGCACTGGGGAGTCAGCCGGTGGGTCCCCTGCCCGCTCCCTCACCCGCAGCTCCACCTACACCAAG
CTGAGTGACCCGGCTGTCTGTGGTGACCGCCAGCCGGGTGATCCCTCCAGCGGCTCTGCTGAGGATGGGGCAGAC
AGTGGCTTTGCAGCAGCCGATGACACACTGAGCCGGACGGACGCGCTGGAAGCCAGCAGCCTGCTGTCGTCGGGG
GTGGACTGTGGCACCGAGGAGACCTCGCTGCACAGCTCCTTCGGCCTGGGCCCCCGCTTCCCTGCCAGCAACACC
TATGAGAAGCTGCTGTGTGGCATGGAGGCTGGTGTGCAGGCCAGCTGCATGCAGGAGCGTGCCATCCAGACAGAC
TTCGTGCAGTACCAGCCTGACCTTGACACCATCCTGGAGAAAGTGACCCAGGCCCAGGTCTGTGGGACAGACCCT
GAGTCAGGGGACAGGTGCCCAGAGCTGGATGCCCACCCTTCAGGGCCCAGAGACCCCAACTCAGCAGTGGTGGTG
ACAGTGGGTGATGAGCTAGAGGCCCCAGAGCCCATCACCCGTGGACCCACCCCACAGCGGCCTGGTGCCAACCCC
AACCCTGGCCAGTCGGTGAGCGTGGTGTGCCCCATGGAAGAGGAGGAGGAGGCTGCCGTGGCTGAGAAGGAGCCC
AAGAGCTACTGGAGCCGCCACTACATCGTGGATCTGCTGGCTGTGGTGGTGCCGGCCGTGCCCACGGTGGCCTGG
CTTTGCCGCTCCCAGCGGCGCCAGGGCCAGCCCATCTACAACATCAGCTCCCTGCTGCGGGGCTGCTGCACTGTG
GCCTTGCACTCCATCCGCAGGATCAGCTGCCGCTCGCTGAGCCAGCCGAGTCCCAGCCCAGCGGGCGGCGGCTCC
CAGCTC**TGA**GGGGGCCCATTCTGGCAGCGGCGCCTGCGGCCTGACCACTGATTGTAGGGATGCCGTTCCCCCCTC
CCTTCTCCCATGGGCATCATCTTATTTATTTAGTTTTGGGTGTGGAACTGTTTCTTTTTTTCAAGATGTTAAAAC
AGTCCCGTGGAAGGAGCAGGGGTTGGAGAAAGGCATCCCAAAGCTTCGATGGAGAGCAGGGAAGGGGGACCCAAG
GCAGGAGGTACACCAGCTGGACAAATTGCAGGGAGGGGAGGGAGCGAGGGCCAACCCGGCCCCTCTGTCCCCTTG
GCTCTTCAGACAGGGCCAGCCCTGCTCAGGAAGTCTCTGGCTGTCTTCATGTGGGGAAGCCGGGCTTGAGTTGCC
CATAGGCCCCTGCCCTGCACCATCCTGTCCAGTGCCCTGCGCACTCCATGCCGTCTCTTCCAAGCCACCTTGCCC
GCAGCCCAGGCTCCTGGGCCAGTGCTCTCTCCTCAAATGGAGGCAGCCATGGCCTGAAGTGCAGATCACTGACCC
AGGGCTCAGAGCAGAGGCCAGAACCACTGGGCCGGCCGGCATTCCAGCCTCCCCAGACTGCTGCCCACCTTGGGA
CTCAGGAGCTCAGTCAAGGCCACAGGCTGGAGGAGAGACGGGGCTGGGCGCAAGGTGGCGGAGGGCAGTGTGGGT
TCTGTGTCTGTCTGTTCATCCCAGGCTTTCCCGTCATCCCTTTCCTCTTGGCACTTCTGGGTGTGTCAGTCATTA
TTCCTGTGAGGTAGCTAAGCCCGGCAAGCTCAGTGCTGGGGTAGGAGGGCCTGCCTGAGTCCCAGCTCCCAGCTG
GAGAATCCACCAGCACAAGAAGAGGAGGCAGGGGCAGAAACCCAAGGGGGCTCCCCCAGCCTTCCAAGGTGAGGC
CATCTCATCTGCAGGCTGGGAGGCAGGGCTGGACTCAGGAACCCACAGCTTACTGAAAAAGCCAGAGGCCATGAC
TGCCCCCAGAAACTTGCCCCGAGTTTCTCTGGGGCCCTCGGGCCCAACTTCTGCTTTGCACTATGTTCACTTTGG
GGTTGGTTCTCAGCCATCCAAGGGTCTCCAGTGAGGTGGCTGCTTGCTGTCTGAGATGAGGGTTCCTAAACCTTA
AACCTCTCTGCCTCTGGAGGAGGGTGGGGTATTCTGGCAGGATGAATCGCAGGATGGCGCGTACTGAAGCCACGA
TGTTCATCCAGGCCAAAGCAGGGTGTCCTGGGATAGGTTTCCTAGGCAGGGGCGTGGCAGAGCAGGTAGGCGCCC
TGCAGCCTCCCTGCTCCCAGCCCAAGGCCAGTCGGCCTGGGAAGTTCACTGCCCCAACTCTTTTCCCGGGACCAT

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FIGURE 1627B

ACTGAGTCCCCCAGCCACGCTGCTGACATTACCATTATTATTTTACCAAGTAAACTCACTCCTTTTCCCCCACAG
GGGTTACACCCATCTGGTTGTCCCACCCACTCTTCAGAGGCTAGGCCCCACCTCTGGGGGTTGGAGGGACCCTGT
GTCTTACTCGCCCCTCTGGCCTAAGGGCCACTCTGGTTATCTGCCAAGGTTGCTTGCCCTCACCCCAATGCTCCA
ACAGCCATTGCCTAACTCATGGGCTCTGCCCTTCTGCTCGGTGCCCTCCACGTGAGGCGGGGCACCTGCATGCAC
TGGGAGGGGGCGGCTGGCCCAGCCCTCGGGGCAGGAGCCCCCTCTGCCACACGCTTTGTGCCTCCAAAGCTCCCC
CCGCCTTGGTCAGGGCCTCAGACCAGCCAACCTTTGTGGAATAAGCCCCAGCCCAGCCAAACCAAACCCAGATGC
CTGAGGCCTGGCTGGGGCTGCCCCCGCAGGACACTGTGGCCATGCCACGGAGGGGGCAGTGGACAAAACCAATCC
AAAGCCAAGCCGGGACTGGCTGCGGACCCAGCCTCCTGTGCCGCGCACTCACGGAGCTGCGTAGTCTCCTCAGAC
ATAGTCAAAGCTTTGCCGAGAAAAGAAATGTATGAACTATATTTGACAACATAAAATCTCTCTATTTTTCACCAC
TGGAATTTAGTCAAGCTTCAGGCCCCTCTGCTCCTGTCTGTGTCTTGCGTCTGTGGCCTTCCTATTGTGTCTTGT
GTTTTGGTGGATGTGACAGGGCTGGGGCCACAGTCTACTCTGTCTCTGCTGCTAGAGAAGCCACCTGTGGAGGAC
TGGGCTGTGGTTGGGCCTGAGGCCTGTGGAGGAGGTGAGTGTAGCCAGCAGCGGCCGTCTACTCCTGTTCTGGCC
TGAGACCACCGGTGTGGGTCACGAGGGCCCTGGCCCACAGTGTTGAGGGTCCTCTCTTTCGGGGGCTCTCCTGGG
GCCTTCGATGGGCTTTTCTTCTTGTCAGTGGAGGGAGCAGCTCCCCACTCAGCCCTGGGACAGGCCCTGGGACTG
TGGTGGCCGGTGGCCCTGGCCCAGCTCTGGAGTGCATGTGTGTGTGCTCAGATCCCGCATCTATGCAAAGGTGCA
GGCTGCCTGTGAGGCTCCAGGCGGTGGAGGTGCGGCAGCTGCTGCTCAGGTGCCATGCCCTGAAGAGGCAGGGTA
CACATGGGGCTGGGAGGGCAAAGATGGGGCGGGGCCTCCCCCTGAGAGAGCTCACCCTCCACAGTGACCCTTTTC
CTTCCTGCCTAATACCTCCTCCCGTTGGGCTGTGACTTTTCCTCCTGCCCTCAGCCTCTGAAACAGAAATCTTTG
GGGCCTCCCCTTTCCCCAGCGTCTGGCAAGAGCTGATGAGGTCCTGAGGAACAGTGTCCCCAGGAACCACCTTCT
GGAGCCTAGCGGCCAGACGTGGCTTCTCCTGAGTTCTAGGGCTCGGGCCAGAGTGGCACTACTGCCCGGCCAGTC
CAGGCTCAGGCAGGAATCGGACGCTGGGGCCCGGGCTCTGCACAGAGAGCTGGGCTTGAGTGGAGTTTATTGTAG
ATTTCTCCCAAGGGGATCACTTAGCTTCTCACTGACACACCCTTCCCAATTGCCACAAGCGCAGGGGTATCTTAC
AGCACTTTGGGGAGGGGTGGGACAAACTGCAAGGTTCTGGGGCCAAGGCCTACCCAGGGGCCTCTGCCCAGAGAA
CTCACAACCCCCTCTCTGACCTGGGGGACAATGCAAACAGGTCACAGTGCATTCCCATATTAGGCCATCCCCTTC
ACGAAGAATTCAGGGGATGTGGGAAGTGGGGAGGCGGGGAGGGATCTTGACTCTTGTCTCCTTTGTCCTTTTGTT
CAGACAGAGTTGTACCTGCAGCAGACAACTCTGAATTAAAGCATGAAAACACAGC

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FIGURE 1628

GCGACGCGCCGAGGTACTAGGCAGAGCCGTGGAACCGCCGCCAGGTCGCTGTTGGTCCACGCCGCCCGTCGCGCC
GCCCGCCCGCTCAGCGTCCGCCGCCGCC**ATG**GGAGTGCAGGTGGAAACCATCTCCCCAGGAGACGGGCGCACCTT
CCCCAAGCGCGGCCAGACCTGCGTGGTGCACTACACCGGGATGCTTGAAGATGGAAAGAAATTTGATTCCTCCCG
GGACAGAAACAAGCCCTTTAAGTTTATGCTAGGCAAGCAGGAGGTGATCCGAGGCTGGGAAGAAGGGGTTGCCCA
GATGAGTGTGGGTCAGAGAGCCAAACTGACTATATCTCCAGATTATGCCTATGGTGCCACTGGGCACCCAGGCAT
CATCCCACCACATGCCACTCTCGTCTTCGATGTGGAGCTTCTAAAACTGGAA**TGA**CAGGAATGGCCTCCTCCCTT
AGCTCCCTGTTCTTGGATCTGCCATGGAGGGATCTGGTGCCTCCAGACATGTGCACATGAATCCATATGGAGCTT
TTCCTGATGTTCCACTCCACTTTGTATAGACATCTGCCCTGACTGAATGTGTTCTGTCACTCAGCTTTGCTTCCG
ACACCTCTGTTTCCTCTTCCCCTTTCTCCTCGTATGTGTGTTTACCTAAACTATATGCCATAAACCTCAAGTTAT
TCATTTTATTTTGTTTTCATTTTGGGGTGAAGATTCAGTTTCAGTCTTTTGGATATAGGTTTCCAATTAAGTACA
TGGTCAAGTATTAACAGCACAAGTGGTAGGTTAACATTAGAATAGGAATTGGTGTTGGGGGGGGGGTTTGCAAGA
ATATTTTATTTTAATTTTTTGGATGAAATTTTTATCTATTATATATTAAACATTCTTGCTGCTGCGCTGCAAAGC
CATAGCAGATTTGAGGCGCTGTTGAGGACTGAATTACTCTCCAAGTTGAGAGATGTCTTTGGGTTAAATTAAAAG
CCCTACCTAAAACTGAGGTGGGGATGGGGAGAGCCTTTGCCTCCACCATTCCCACCCACCCTCCCCTTAAACCCT
CTGCCTTTGAAAGTAGATCATGTTCACTGCAATGCTGGACACTACAGGTATCTGTCCCTGGGCCAGCAGGGACCT
CTGAAGCCTTCTTTGTGGCCTTTTTTTTTTTCATCCTGTGGTTTTTCTAATGGACTTTCAGGAATTTTGTAATC
TCATAACTTTCCAAGCTCCACCACTTCCTAAATCTTAAGAACTTTAATTGACAGTTTCAATTGAAGGTGCTGTTT
GTAGACTTAACACCCAGTGAAAGCCCAGCCATCATGACAAATCCTTGAATGTTCTCTTAAGAAAATGATGCTGGT
CATCGCAGCTTCAGCATCTCCTGTTTTTTGATGCTTGGCTCCCTCTGCTGATCTCAGTTTCCTGGCTTTTCCTCC
CTCAGCCCCTTCTCACCCCTTTGCTGTCCTGTGTAGTGATTTGGTGAGAAATCGTTGCTGCACCCTTCCCCCAGC
ACCATTTATGAGTCTCAAGTTTTATTATTGCAATAAAAGTGCTTTATGCCGGCTTTTCTC

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FIGURE 1629

CTCCAGGGCTAGTGAGCTGGACCGGAAGTAGGTTTCTACCCGACCGCATTTTACGTGGTGCTGCATTTCCGGTAG
CGGCGGCGGGAAATCGGCTGTGGGAGAGAGGCTAGGCCTCTGAGGAGGCGAATCCGGCGGGTATCAGAGCCATCA
GAACCGCCACC**ATG**ACGGTGGGCAAGAGCAGCAAGATGCTGCAGCATATTGATTACAGGATGAGGTGCATCCTGC
AGGACGGCCGGATCTTCATTGGCACCTTCAAGGCTTTTGACAAGCACATGAATTTGATCCTCTGTGACTGTGATG
AGTTCAGAAAGATCAAGCCAAAGAACTCCAAACAAGCAGAAAGGGAAGAGAAGCGAGTCCTCGGTCTGGTGCTGC
TGCGAGGGGAGAATCTGGTCTCAATGACAGTAGAGGGACCTCCTCCCAAAGATACTGGTATTGCTCGAGTTCCAC
TTGCTGGAGCTGCCGGGGGCCCAGGGATCGGCAGGGCTGCTGGCAGAGGAATCCCAGCTGGGGTTCCCATGCCCC
AGGCTCCTGCAGGACTTGCTGGGCCAGTCCGTGGGGTTGGCGGGCCATCCCAACAGGTGATGACCCCACAAGGAA
GAGGTACTGTTGCAGCCGCTGCAGCTGCTGCCACAGCCAGTATTGCCGGGGCTCCAACCCAGTACCCACCTGGCC
GTGGGGGTCCTCCCCCACCTATGGGCCGAGGAGCACCCCCTCCAGGCATGATGGGCCCACCTCCTGGTATGAGAC
CTCCTATGGGTCCCCCAATGGGGATCCCCCCTGGAAGAGGGACTCCAATGGGCATGCCCCCTCCGGGAATGCGGC
CTCCTCCCCCTGGGATGCGAGGCCTTCTT**TGA**CCCTTGGCCACAGAGTATGGAAGTAGCTCCGCAGAGGCGTGGG
CTCGATTCCTCAGGGCCACGTTACCACAGACCTGTTTGTTTCTTATGCTGTTGTTCGTGGAGTCTCATGGGATTG
TCTGGTTTCCCTTACAGGGCCCCCTCCCCCGGGAATGCGCCCACCAAGGCCCTAGACTCATCTTGGCCCTCCTCA
GCTCCCTGCCTGTTTCCCGTAAGGCTGTACATAGTCCTTTTATCTCCTTGTGGCCTATGAAACTGGTTTATAATA
AACTCTTAAG

FIGURE 1630

GCATATCCAGGCTCTCCAGGGTCACCAGCTGTGCTCCACACACAGGGAAGATTGATGGTGGCTTGCTATACATTA
ATTTACTGGTTGTTTGTAGGTACCAGTTACATTCAGGGATGTGACTGTGATCTTCACAGAAGCAGAATGGAAGAG
ACTGAGTCCAGAGCAGAGGAATCTATACAAAGAAGTGATGCTGGAGAATTACAGGAATCTTCTCTCATTGGCAGA
ACCAAAGCCAGAAATCTACACTTGTTCCTCCTGCCTTCTGGCCTTCTCCTGTCAGCAGTTCCTCAGTCAACATGT
ACTTCAGATCTTCCTGGGCTTATGTGCAGAAAATCACTTCCATCCAGGGAATTCTAGCCCAGGGCATTGGAAACA
GCAGGGGCAGCAGTATTCCCATGTAAGCTGTTGGTTTGAAAATGCAGAAGGTCAGGAGAGAGGAGGTGGCTCCAA
ACCCTGGTCTGCAAGGACAGAGGAGAGAGAAACCTCAAGGGCATTCCCCAGCCCACTCCAAAGACAGTCAGCAAG
TCCTAGAAAAGGCAAC**ATG**GTGGTAGAAACAGAGCCCAGCTCAGCCCAAAGACCAAACCCTGTGCAGCTAGACAA
AGGCTTGAAGGAATTAGAAACCTTGAGATTTGGAGCAATCAACTGTAGAGAGTATGAACCGGACCATAACCTGGA
ATCAAACTTTATTACAAACCCGAGGACCCTCTTAGGGAAGAAGCCCTACATTTGCAGTGATTGTGGGCGAAGCTT
TAAAGATAGATCAACCCTCATCAGACACCATCGTATACACTCGATGGAGAAGCCTTATGTGTGCAGTGAGTGCGG
GCGAGGTTTTAGCCAGAAGTCCAACCTCAGCAGACACCAGAGAACACATTCAGAAGAGAAGCCTTATTTGTGCAG
GGAGTGTGGGCAAAGCTTTAGAAGTAAGTCCATCCTCAATAGACATCAGTGGACTCACTCAGAGGAGAAGCCCTA
TGTTTGCAGCGAGTGTGGGCGAGGCTTTAGCGAGAAGTCATCCTTCATCAGACACCAGAGGACACACTCCGGTGA
GAAACCCTATGTGTGCCTGGAGTGTGGACGAAGCTTTTGTGATAAGTCAACCCTCAGAAAACACCAGAGGATACA
CTCAGGGGAGAAGCCTTATGTTTGCAGGGAGTGTGGGCGAGGCTTTAGCCAGAACTCAGATCTCATCAAACACCA
GAGGACACACTTGGATGAGAAGCCTTATGTTTGCAGGGAGTGTGGGCGAGGCTTTTGTGACAAGTCAACCCTCAT
CATACACGAGCGGACGCACTCTGGAGAGAAGCCTTATGTGTGTGGTGAGTGTGGCCGAGGCTTTAGTCGGAAATC
ACTCCTCCTTGTCCACCAGAGGACACACTCAGGGGAGAAGCATTATGTCTGCAGGGAGTGTAGGCGAGGTTTTAG
CCAGAAGTCAAATCTCATCAGACACCAGAGGACGCACTCAAATGAGAAGCCTTATATTTGCAGGGAATGTGGGCG
AGGCTTTTGTGACAAGTCAACCCTCATTGTACATGAGAGGACACACTCAGGAGAGAAGCCTTACGTGTGCAGTGA
GTGTGGCCGAGGCTTTAGCCGGAAATCACTCCTCCTTGTCCACCAGAGGACACACTCAGGGGAGAAGCATTATGT
TTGTAGGGAGTGTGGGCGAGGCTTTAGTCATAAGTCAAATCTCATCAGACACCAGAGGACACAC**TGA**CGGGAGAA
ACCTGTGTATGCAGGGGTCATGAACAAGACCTGAGTGACCAGTCAAGCCTCATGTTACCCCAGAGAGACACATGG
GGAGTAGACCCTGTGTACACAGATTGTGAGTGAAGTTCCAGAGATGTGTCAGCCCTTATCAGGCATGGGAGGGAC
ACGTTCAGGAGAGGAGCCTTATGAGTATAGAGTACGGGCAACTGTAGCCATCAGTCAGCCTTGAGCATGCACAAA
AGGACACACTTAGGAGAGAAGTTTATGTGTAGGGACTGTGGGAAGGCTTTAGCAATAATCAACATTTACCAGACA
TCCAATGACAGCCTCAGGGGAAAGCACCCTTGTCTGGGGAGTGTTGGGGAGCATCAGTAAAAGAATGGACACTCA
GGCACAGAGTGGCCCTCAGGAAGGAGGTCTTTGTTTGTAGGATGTATGGGCAAAGCTTTTGTGATCACACACCAC
AGGGAGAATCTGCATGTGGGGACACTGTGGAGCTCTGCCCAGATGACCTTTTCAGGGGTAACACCCCAGCTGCTT
GAGAGAACAGTGTTGCTGCTGGCAGAGATGCATTCCAGAGATGCACTCCGCTCTGGAACTCACTCTCAGCCACAG
GGAGCTGCATGCACCACAGGGGCAATGCACCTTTGCAGGGGTACCTTCTGGCCCCAACCCTTGACTCAACGGGGA
CAACTCCAGAAGGTCATTCCAGATCCAGAGATCCCCATCGAACTGAAGGATCACTGGGTTGCAGACACATTGCAG
GTCAGCTTCTTCCTCTGCCCAGTCCTGCCCTCACTCCCCAGTGAATCCTCAATTTTCTGTCTCGTTGTCTGTCCA
GATAATTGATTCTAAGACATGTTAGGTATATAAGGAGTGTAGATAAGGCTTCAGCCATGAGTCACCCCGCAGTAA
GCCCCAGAGTATATTGAATAGAAATTCTGCATGTGTGGGGAGAATGGACAAGGACTTAGGAAAAAGTCCTCATCA
AAGAACAGCTTTTTTGGGACAAGCTTTACATGGGTGGGGAGGGAAAATGTGAAACACATTAGCAATAAGTTAAAC
CTCATCTTGTACTAAAGGAGGACACACTCAGGGAGAAGACCTCTGTGGGCAGGGCTTGTGGGTGGAGCTTCATCC
CGATGTCACTCCTCAACTGACTTAGGAGGACAGTCTTGCTACCCCAAGTCACTACCTCACTCACCTCTGAGGGAT
TTTCAGGAAATGTCTTGACTCCCCCATGTACTCTGTATGTGAGCGAAGATGGCAGTAACTGTTAAATAAGCATTC
TTTTCTACTTCTTGGAATCAGATGAAATAAAAAAGCAGGCTTTATTTAAGTAATC

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FIGURE 1631

CATGGCGGCATTGAGCGGAGTCCGCTGGCTGACCCGAGCGCTGGTCTCCGCCGGGAACCCTGGGGCATGGAGAGG
TCTGAGTACCTCGGCCGCGGCGCACGCTGCATCGCGGAGCCAGGCCGAGGACGTGAGGGTGGAGGGCTCCTTTCC
CGTGACCATGCTTCCGGGAGACGGTGTGGGGCCTGAGCTGATGCACGCCGTCAAGGAGGTGTTCAAGGCTGCCGC
TGTCCCAGTGGAGTTCCAGGAGCACCACCTGAGTGAGGTGCAGAATATGGCATCTGAGGAGAAGCTGGAGCAGGT
GCTGAGTTCCATGAAGGAGAACAAAGTGGCCATCATTGGAAAGATTCATACCCCGATGGAGTATAAGGGGGAGCT
AGCCTCCTATGATATGCGGCTGAGGCGTAAGTTGGACTTATTTGCCAACGTAGTCCATGTGAAGTCACTTCCTGG
GTATATGACTCGGCACAACAATCTAGACCTGGTGATCATTCGAGAGCAGACAGAAGGGGAGTACAGCTCTCTGGA
ACATGAGGTGAGGCCCCAGAAACTGGGGGAGGGCAAGG**ATG**AAGATGGGAGAGAGGTGGAGCTCCTTGTTTCCCT
TCCCAGTGTCACCTAGCTGCTGCTTTCTTCTTACCCAGAGTGCAAGGGGTGTGATTGAGTGTTTGAAGATTGTCA
CACGAGCCAAGTCTCAGCGGATTGCAAAGTTCGCCTTTGACTATGCCACCAAGAAGGGGCGGGGCAAGGTCACTG
CTGTCCACAAGGCCAACATCATGAAACTTGGGGATGGGTTGTTCCTGCAGTGCTGTGAGGAAGTTGCTGAACTGT
ACCCCAAAATCAAATTTGAGACAATGATCATAGACAACTGCTGCATGCAGCTGGTGCAGAATCCTTACCAGTTTG
ATGTGCTTGTGATGCCCAATCTCTATGGGAACATTATTGACAATCTGGCTGCTGGCCTGGTTGGGGGAGCTGGTG
TGGTCCCTGGTGAGAGCTATAGTGCAGAATACGCAGTCTTTGAGACGGGTGCCCGGCACCCATTTGCCCAGGCAG
TGGGCAGGAATATAGCCAATCCCACGGCCATGCTGCTGTCGGCTTCCAACATGCTGCGGCATCTTAATCTTGAGT
ATCACTCCAGCATGATCGCAGATGCGGTGAAGAAGGTGATCAAAGTTGGCAAGGTGCGGACTCGAGACATGGGCG
GCTACAGCACCACAACCGACTTCATCAAGTCTGTCATCGGTCACCTGCAGACTAAAGGGAGC**TAG**AGCCCTTTAT
TTCTTCCAACCTTGCAAGGACCACACTCCCCATACCCTTCAGTGCAGTGTACCAGGGAAGAGACCTTGTGCCTCT
AAGCAGTGGACCATGGTCACCTTGCTGGGTAGAGCCTAGGTTGTCCTTGGGCCGGCTTCCTTAGGGGACAGACTG
TTGGGTGGTGATGGGGATTGTTAGGATGGAGCCCAGGCCACATGGATGATGATGATTCTCCCCCACAGGTTCGAA
CCTCTGACATGGGTGGCTATGCTACTTGCCATGACTTCACTGAGGCTGTCATTGCTGCCTTGCCCCACCCATAGG
CCCTGTCCATACCCATGTAAGGTGTTCAATAAAGAACATGAACC

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FIGURE 1632

GATCCCGCCCCCCTCGGAGCGCCCCTGTGGTCTGACTTCAGCAGCACTTTCCGGCAGGAGACTGGGCACTCGCTG
TCACCCGCGAGCTGCCTCCCTCAGCGAGATCTGAGCATCTTTCCGGAGGCTAACAGACCTGGGCTTCGGGGTGAC
CACTGTGCTTGCCTCAGTTTCCTTTTCTGGAGCAGGGGAAGGCCCGGCTCCCTGCCCAAAGGCGGCTGTGCGCTA
AGTGGCAGACGCTCGGGGAGAGCCGGCGCGGGGCGGACCCCAGCGCCAGTAGTGACAGGGGCGAACGCCGCCGGG
AGACTCCAGCCGGCGGGCGAGCAGGCCTGTCGTTGCTGGTGGCGGC**ATG**GTCTTCTGTCTGTCGAGCGAGGAGCC
GCGCCGCCCGCTGCGAAGCGACATGGTCCACTTCCAGGCCTCGGAAGTCCAGCAGCTGCTACACAACAAGTTCGT
GGTCATCTTGGGGGACTCCATTCAGAGGGCTGTGTACAAGGACCTGGTGCTCTTGCTCCAGAAAGACTCACTGCT
CACAGCTGCCCAGCTGAAAGCCAAGTACCTTGAGGATGTTCTGGAAGAGCTGACATATGGACCTGCCCCGGACCT
GGTGATCATCAACTCCTGCCTCTGGGATCTCTCCAGATATGGTCGCTGCTCAATGGAGAGCTACCGGGAGAACCT
GGAGCGGGTGTTTGTGCGCATGGACCAAGTATTGCCAGACTCCTGCCTGCTGGTGTGGAACATGGCGATGCCCCT
CGGGGAACGTATCACTGGGGGTTTCCTCCTGCCAGAGCTCCAGCCCCTGGCAGGCTCCCTGCGGCGGGATGTGGT
TGAAGGGAACTTCTACAGTGCTACGCTGGCCGGGGACCACTGCTTTGATGTCCTAGACCTCCACTTTCACTTCCG
GCATGCAGTACAGCACCGTCATCGGGATGGTGTCCACTGGGACCAGCATGCACACCGCCACCTCTCACACCTGCT
TCTGACCCATGTGGCTGACGCCTGGGGCGTGGAGCTGCCCAAGCGTGGCTATCCCCCTGACCCGTGGATTGAGGA
CTGGGCAGAGATGAATCATCCATTCCAGGGAAGCCATAGGCAGACCCCAGACTTCGGGGAGCACCTGGCCTTGCT
CCCACCCCCACCTTCTTCTTTGCCTCCTCCCATGCCTTTTCCCTACCCGCTTCCTCAGCCCTCGCCACCTCCCCT
CTTCCCACCCCTGCCCCAGGATACCCCTTTTTTCCCAGGCCAGCCCTTCCCACCCCATGAATTCTTCAACTATAA
TCCAGTGGAGGACTTCTCGATGCCACCCCACTTAGGATGTGGCCCTGGAGTGAACTTTGTGCCTGGCCCTCTGCC
ACCTCCAATCCCTGGCCCTAATCCCCATGGTCAGCACTGGGGCCCAGTGGTCCACCGGGGGATGCCACGCTATGT
TCCTAACAGCCCCTACCATGTGCGGAGAATGGGGGGGCCCTGCAGGCAGCGGCTCAGACACTCAGAGAGACTGAT
CCACACATACAAACTGGACAGACGGCCTCCTGCCCATTCGGGGACATGGCCTGGG**TAG**ACTGGATCTTGGGCTGG
GACTGGATGTGCCAATGGCCCTTCAGGGCCTGCCTGGCACCTCAGGTACTGGGCTAGGGTGTCTGCTATGCCTGG
TATTGTTCTTGTCCATTGCTGTCACCAATAAAGGCATGGAAGAACAGAGTGACAAA

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FIGURE 1633A

GGAGTATGAGCCACGCTCAGGGGAGCAGGTACCCCTTCTCCTAAAGATGAAGAGGAGCAAACTGGCACTAAGCAA
GGCCATCGAGAGCGGGGACACTGACCTGGTGTTCACGGTGTTGCTGCACCTGAAGAACGAGCTGAACCGAGGAGA
TTTTTTCATGACCCTTCGGAATCAGCCCATGGCCCTCAGTTTGTACCGACAGTTCTGTAAGCATCAGGAGCTAGA
GACGCTGAAGGACCTTTACAATCAGGATGACAATCACCAGGAATTGGGCAGCTTCCACATCCGAGCCAGCTATGC
TGCAGAAGAGCGTATTGAGGGGCGAGTAGCAGCTCTGCAGACAGCCGCCGATGCCTTCTACAAGGCCAAGAATGA
GTTTGCAGCCAAGGCTACAGAGGATCAAATGCGGCTCCTACGGCTGCAGCGGCGCCTAGAAGACGAGCTGGGGGG
CCAGTTCCTAGACCTGTCTCTACATGACACAGTTACCACCCTCATTCTTGGCGGTCACAACAAGCGTGCAGAGCA
GCTGGCACGTGACTTCCGCATCCCTGACAAGAGGTGACACAACTAAAAAAAAACAAAGGTATTTATGGAATTCCA
CTGAGTGGTAATGGATGATGCAGTTCAAATAACTAAGGACACATGTTCAAAGAGCATAATTAACTTTTTAAAAGA
AGCTAATAAGC**ATG**GATTCCTGGTTCATTCTTGTTCTGCTCGGCAGTGGTCTGATATGTGTCAGTGCCAACAATG
CTACCACAGTTGCACCTTCTGTAGGAATTACAAGATTAATTAACTCATCAACGGCAGAACCAGTTAAAGAAGAGG
CCAAAACTTCAAATCCAACTTCTTCACTAACTTCTCTTTCTGTGGCACCAACATTCAGCCCAAATATAACTCTGG
GACCCACCTATTTAACCACTGTCAATTCTTCAGACTCTGACAATGGGACCACAAGAACAGCAAGCACCAATTCTA
TAGGCATTACAATTTCACCAAATGGAACGTGGCTTCCAGATAACCAGTTCACGGATGCCAGAACAGAACCCTGGG
AGGGGAATTCCAGCACCGCAGCAACCACTCCAGAAACTTTCCCTCCTTCAGGTAATTCTGACTCGAAGGACAGAA
GAGATGAGACACCAATTATTGCGGTGATGGTGGCCCTGTCCTCTCTGCTAGTGATCGTGTTTATTATCATAGTTT
TGTACATGTTAAGGTTTAAGAAATACAAGCAAGCTGGGAGCCATTCCAATTCTTTCCGCTTATCCAACGGCCGCA
CTGAGGATGTGGAGCCCCAGAGTGTGCCACTTCTGGCCAGATCCCCAAGCACCAACAGGAAATACCCACCCCTGC
CCGTGGACAAGCTGGAAGAGGAAATTAACCGGAGAATGGCAGACGACAATAAGCTCTTCAGGGAGGAATTCAACG
CTCTCCCTGCATGTCCTATCCAGGCCACCTGTGAGGCTGCTTCCAAGGAGGAAAACAAGGAAAAAAATCGATATG
TAAACATCTTGCCTTATGACCACTCTAGAGTCCACCTGACACCGGTTGAAGGGGTTCCAGATTCTGATTACATCA
ATGCTTCATTCATCAACGGCTACCAAGAAAAGAACAAATTCATTGCTGCACAAGGACCAAAAGAAGAAACGGTGA
ATGATTTCTGGCGGATGATCTGGGAACAAAACACAGCCACCATCGTCATGGTTACCAACCTGAAGGAGAGAAAGG
AGTGCAAGTGCGCCCAGTACTGGCCAGACCAAGGCTGCTGGACCTATGGGAATATTCGGGTGTCTGTAGAGGATG
TGACTGTCCTGGTGGACTACACAGTACGGAAGTTCTGCATCCAGCAGGTGGGCGACATGACCAACAGAAAGCCAC
AGCGCCTCATCACTCAGTTCCACTTTACCAGCTGGCCAGACTTTGGGGTGCCTTTTACCCCGATCGGCATGCTCA
AGTTCCTCAAGAAGGTGAAGGCCTGTAACCCTCAGTATGCAGGGGCCATCGTGGTCCACTGCAGTGCAGGTGTAG
GGCGTACAGGTACCTTTGTCGTCATTGATGCCATGCTGGACATGATGCATACAGAACGGAAGGTGGACGTGTATG
GCTTTGTGAGCCGGATCCGGGCACAGCGCTGCCAGATGGTGCAAACCGATATGCAGTATGTCTTCATATACCAAG
CCCTTCTGGAGCATTATCTCTATGGAGATACAGAACTGGAAGTGACCTCTCTAGAAACCCACCTGCAGAAAATTT
ACAACAAAATCCCAGGGACCAGCAACAATGGATTAGAGGAGGAGTTTAAGAAGTTAACATCAATCAAAATCCAGA
ATGACAAGATGCGGACTGGAAACCTTCCAGCCAACATGAAGAAGAACCGTGTTTTACAGATCATTCCATATGAAT
TCAACAGAGTGATCATTCCAGTTAAGCGGGGCGAAGAGAATACAGACTATGTGAACGCATCCTTTATTGATGGCT
ACCGGCAGAAGGACTCCTATATCGCCAGCCAGGGCCCTCTTCTCCACACAATTGAGGACTTCTGGCGAATGATCT
GGGAGTGGAAATCCTGCTCTATCGTGATGCTAACAGAACTGGAGGAGAGAGGCCAGGAGAAGTGTGCCCAGTACT
GGCCATCTGATGGACTGGTGTCCTATGGAGATATTACAGTGGAACTGAAGAAGGAGGAGGAATGTGAGAGCTACA
CCGTCCGAGACCTCCTGGTCACCAACACCAGGGAGAATAAGAGCCGGCAGATCCGGCAGTTCCACTTCCATGGCT
GGCCTGAAGTGGGCATCCCCAGTGACGGAAAGGGCATGATCAGCATCATCGCCGCCGTGCAGAAGCAGCAGCAGC
AGTCAGGGAACCACCCCATCACCGTGCACTGCAGCGCCGGGGCAGGAAGGACGGGGACCTTCTGTGCCCTGAGCA
CCGTCCTGGAGCGTGTGAAAGCAGAGGGGATTTTGGATGTCTTCCAGACTGTCAAGAGCCTGCGGCTACAGAGGC
CACACATGGTCCAGACACTGGAACAGTATGAGTTCTGCTACAAGGTGGTGCAGGAGTATATTGATGCATTCTCAG
ATTATGCCAACTTCAAG**TAA**GCGGCAACAAGGGTCCGTGGACCAGGAGGATTGCCTTTAATATTTTGTAATATTC
TGTTTTGTTAATATACCCCAAATTGTGTATATATCTTATAACTGTTTTAGAAATTGGTACATAGGCTTCTATTAC
CTATTAGGTGGAAATTTTATATGTAAATGTGTTAGCACTGATAGTCCTTTTTCCAATGTTTTATTGGGGAATTAA
ATAGTGTGATGTTTGGATTGATATCGTGAAATCCTCAGCCGAGAAATTGGGCTGGATTGTGCTTTGGTTAATACA
TCTTTCCCTAAAGAAGATAAACACAAAATCCATTCCAGGTAGCTCGGCACCAACTAAGAAAAAAAGCACAAAGTT
CTCAGAGCTCTCGAGGAAAGTGGTTGTCCCCGTACCACCATGCACTGTAAATATCCCTCCCCTCTCTCCCTGGTC
CCCTCCCCCATCCCCACCACTGATATCATGGGGAGTAATAGGACCAGAGCGGTATCTCTGGCACCACACTAGGGA

FIGURE 1633B

CTATCAGGTAATAAAAGCTTTGACTCCCTG

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FIGURE 1634

TTTTCATGCTTGCTCCCTGGCCTGAATCTAGAAAGTAAAACTTTGCTGGAATGAAGTTGGGGTTGAAACAGTTTC
GGTTTGTAACCATACTGTCTCTGTCTCATCTACTCAGCTCTGCCTTTGTAATGTAAAAGCAGCCATAGATGGTAT
GTAAATGAATGAACATGGCCATGTTCTGATAGCATTTTATTTACAAAAACAGGCAGTGGGCTAAATTTGGGCTAT
AGTTTGCCGACCCCTCTTCTAGGCAAAGAACTGCCTGAGCGTAGGAAGCTGGACTGAGGTTCTCTGCTAGTGTGT
GAACTTGTGGATGCCAAAGCCAATCTCTTCCCTTCATGTCAGACACTTTGCAAATGTTACCTCTTTTAGATCTCC
CATTAACTCTAAAAGGTGGAGGGTGCTATTATGCTTCCATTTCATACATTGTTCTAAGAGATTATCACACTACTA
GTAAGTTAGGATAGTAGGAATTTGAACTTCAGGTCTGTCAGACCCTAAAACCCCATGCCCTGGAAATGGTTTTCT
AAGGCTGGCCTGTGGTTCGTTGGTTGATTTCAATTAGAATTTAAGAATTTTTTCAGAATACATCTAGGTGTAAAG
ATTTTTTTGTCAATATTACTCCACAAACTAGATTATTTCTTTTGGCCTGATAACTCAGGAACTTTCTTGTATTAC
TTCTCTCCCTTCTTACTGGTTTCTTCTTTGGACTCTCCTGTTGCACAGGTATTGGATCTCCTGGACCTATCCAGT
TCCTTTCTTTTCTATGCTGTCATATTTTTCATCTCTTATTGCTCTGTGTTCTGGGAGCTTCCAGGACAGTTGCTC
TTTCACACAACTAATTTGGTTTTCAGTTATATCAGTTCTCCTATTTAGCCTTTCTTTTTTTGGAGGCAGGGCTGG
GGCAGACTCATGCTCTGTCGCCCAGGCTGGAGTGCAGTGGCCTGATCACAGCTCACTGCAGCCTTGACCTCTGGG
ACTCAAGCGATCCTCCAGCCTCAGCCTCCCGGGTAGCTGGGACTATAGGCATATGCCACCATGCCCAGCTAATCA
GGTGTTTGTTTGTTTGTTTGGTAGAGACAGACTACCAGAGTCTCGCTAAGTTGCCCAGGCTGGTCTCAAACTCCT
GGCCTCAAGCAGTCCTCCCACCCTGGCCTCCCAAAGTGTTGGGCTTACAGGCATGAGCCACCGTGCCCGGCCCTG
TTAAGCCTTTCTATCTAGATTTTTTCCCTCCTAATC**ATG**TTGGTGTTTTTTTGTTTGTTTTCATTTTTGTTTTGT
TTTGTTTTGAGACGGAGTTTTGCTCTTGTTGCCCAAGCTGGTGTGCAATGGCACGATCTCGGTTCACCGCAACCT
CTGCCTTCCAGGTTCAAACGATTCTCCTGCCTCAGCCCCCAGAGTAGCTGGGATTACAGGCATGTGCCACCACAC
CTGGCTAATTTTGTATTTTTAGTAGAGATGGGGTTTCTCTATGTTGGTCAGGCTGCTCTTAAACTACCAACCTCA
GGTGATCTGCCTGCCTCGGCCTCCCAAAGTGTTGGGATTACAGGCGTGAGCCACCATGCCCGGCCAGTTTTTAAA
GAACTCCTTCTTACTACTCAGATTACTCCTTTT**TAA**ATAGTGGCTTTTAAAAAATATCAATGTAGGCTGGGCACA
GTGGCTCACACCTATAATCCCAGCACTTTGGGAGGCTGAGGCAGGCTGATCACCTGAGGTCAGGAGTTCAAGACC
AGGCTGGCCAACATAGTGAAACCCTGTCTCTACTAAAAATACAAAACTTAGCCAGGCCTGCAGTTCCAGCTACTA
GGGAGGCTAAGGTGTGAGGATCGCTCGAACCAGGAGGCCGTTGCAGTGAACCAAGATCACGCCAGTGCACTTCAG
CCTGGGTGACGGAGTGAGACTCCGTCTCGAGAAAAGAAAAAAAAAACGCAATGCAGCAGTGGCTCACGCACATAAT
CATAGCATTTTGGGAGGCCAAGGCAAGAAGATCACTTGAGACCAAGAGTTCAAGACCAGCCTGGGCAACAACAAG
ACCCCCTCCCCCCATCTCTACAAAAAATTTAAGAAAAAAAAATTTTTTTAAATCAATATGGCATCCTGTTGCACAA
ATTGCAGTATATTTTGAAAGATTTATTCTGTTTCTTTTGTCACCTCCATTTCCCAGGGCTACTGTTGCTCTGTTT
GAGCTATGCCCTGGACCATTGAGTGGCTTAGACTGTGCTCACAATAGGTGTCCCTTCATCCCTTCAGAAGACAAA
CATGGACATACGTCCTAAACCAGGAAGGGGTTCAGTGATGGCTCAGGAAAATCGGGGCAGGGTGCAGTTATCCTC
TAGGCGAGCTGCCGTTTTCTTTTTCCTTTCCTCTCTTGTGGTTGCCTAGAATTAGCTTGGGCACTACTATGGTTT
TTTTCTGTCTGCAGGCCCCAGGAGACCTTCTGTGGACCCAATATACTTAACAATCATATGCAGTGTAGACCTGCT
CTGGTGTCAATTCTAACCAAAACAAAAAAAAAGCATTTATGAGACACTCAGGGAAATTCAAGCAGTAACTGAATA
ATATTAGATGATACTAAGGAATTAGTGTTACTTTTTAAATTGGATAATAGTATTATGTTTATGTTAAGAATCTTG
ATCTCTTGGTGATACATACCTAAGTAATTGCATTTGAAATGCTAGGTCTCGGATTTGCCTTAAAAGAATTCAGTT
AGAATGGCGTGAGTATAGACCAGTGGTTCCTTACTGGGGGCTATTTCCCCCACAAAGGCATTTAGCAATGCTTGG
AGATACTTTTGGTCATCAAAATTGGGAATTTGCTACAGACATCTAATAATTAGAGGCTAGGGATATTGTTAAATG
TCCTACAGTGCACATGACAGACCCACATAACAGAGAATTGTATAGCCCAAAATGTCATTAGTGTGACGTTGAGAA
AATATATATGCAGCATATGTTTTGTAAAAAAGAAGCCCTTACCAGTCTCTGTGACAAACTCTCTACTCTGTGTAG
AGCACTGTTTTTCCAGCTGAGTCTAGATGGGAAGCCCCGCTTGTCATTTGGGCTGTGGGTGTACTGGTGCTGGGT
TGGCAGGCCTTTGCTTAAGTACCATCCTGGTACCTCAAGGTCCACTTTCAACCCCAGTCCCAATTCCCTCTGAGC
TTGAGGTGTTTCCAGGCCCAAACTGGTAGAACTAGTACTTAGTTTTCAGCTGGAGGCTCTTTGGCTCTGTTTGAT
CTCTTGGACATCGAGTCTGGTCTGTTTTGTCTTCCAGAAATCTCTCAAAGATTCTGATCTACATATGCCACCGTT
TGCTGCCTTTCAGATATGCTGTTGATTCATTAGTATTTTTATATTTCTTCTACCATGTCAGTGTGCTTTGGGGGA
AGATGAAGTA

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FIGURE 1635

GAGACTCGGCC**ATG**CTACGCGCGCTGAGCCGCCTGGGCGCGGGGACCCCGTGCAGGCCCCGGGCCCCTCTGGTGC
TGCCAGCGCGCGGCCGCAAGACCCGCCACGACCCGCTGGCCAAATCCAAGATCGAGCGAGTGAACATGCCGCCCG
CGGTGGACCCTGCGGAGTTCTTCGTGCTGATGGAGCGTTACCAGCACTACCGCCAGACCGTGCGCGCCCTCAGGA
TGGAGTTCGTGTCCGAGGTGCAGAGGAAGGTGCACGAGGCCCGAGCCGGGGTTCTGGCGGAGCGCAAGGCCCTGA
AGGACGCCGCCGAGCACCGCGAGCTGATGGCCTGGAACCAGGCGGAGAACCGGCGGCTGCACGAGCTGCGGATAG
CGAGGCTGCGGCAGGAGGAGCGGGAGCAGGAGCAGCGGCAGGCGTTGGAGCAGGCCCGCAAGGCCGAAGAGGTGC
AGGCCTGGGCGCAGCGCAAGGAGCGGGAAGTGCTGCAGCTGCAGGAAGAGGTGAAAAACTTCATCACCCGAGAGA
ACCTGGAGGCACGGGTGGAAGCAGCATTGGACTCCCGGAAGAACTACAACTGGGCCATCACCAGAGAGGGGCTGG
TGGTCAGGCCACAACGCAGGGACTCC**TAG**GGGCCCAGTAAGGACAGTGCCCGCCAGGGACCATGTATGTATCATG
GCGGAAGAGTTGGCCCTGACCTGGAATAAAGCAGTTGGTGTTGCTTATGAGGAAGGTTCAGCCTTATCCAGCACA
GCCTTCACGTTTTGCCCTCTGCTGTCACCACTTGGTCAGAAACTTCCAAACGCAGTGCCCTGTTCTGCCGGTGTG
TACAGCCTCAGCGCACCAGGAGACCCTAGAGTGGTTTCCATCTCACAGAGAATCAGACAGGGCCACAGCCCCCTC
AGGCAGCCAGGTCATCTGAGTATCATTAAGAGTAGTGATGGGAAGATTACAGTCTGAGGGCCAAACGTGCCTGCT
TCCTGTTTTTGTAAATAAAGTTTTGTTGGAACAC

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FIGURE 1636

CGCGCGAGCGGCGCCAGCTCGGGGCAGCGGAACCCAGAGAAGCTGAGGGGGCGGTAGCGGCGGCGACGGCGACGA
CGACGACTCCCGCGCGTGTGCCCAGCCTCTTCCCGCCGCAGCCGCCCTTTTCCTCCCTCCCTTACGTCCCCGAGT
GCGGCAGTACCGCCTCCTTCCCAGCCGCGCGGCTTCCTCCAGACCTCTCGGCGCGGGTGAGCCCTATTCCCAGAG
GCAGGTGGTGCTGACCCTGTAACCCAAAGGAGGAAACAGCTGGCTAAGCTCATCATTGTTACTGGTGGGCACC**AT**
GTCCTTGAAGCTTCAGGCAAGCAATGTAACCAACAAGAATGACCCCAAGTCCATCAACTCTCGAGTCTTCATTGG
AAACCTCAACACAGCTCTGGTGAAGAAATCAGATGTGGAGACCATCTTCTCTAAGTATGGCCGTGTGGCCGGCTG
TTCTGTGCACAAGGGCTATGCCTTTGTTCAGTACTCCAATGAGCGCCATGCCCGGGCAGCTGTGCTGGGAGAGAA
TGGGCGGGTGCTGGCCGGGCAGACCCTGGACATCAACATGGCTGGAGAGCCTAAGCCTGACAGACCCAAGGGGCT
AAAGAGAGCAGCATCTGCCATATACAGTGGCTACATCTTTGACTATGATTACTACCGGGACGACTTCTACGACAG
GCTCTTCGACTACCGGGGCCGTCTGTCGCCCGTGCCAGTGCCCAGGGCGGTCCCTGTGAAGCGACCCCGGGTCAC
AGTCCCTTTGGTCCGGCGTGTCAAAACTAACGTACCTGTCAAGCTCTTTGCCCGCTCCACAGCTGTCACCACCAG
CTCAGCCAAGATCAAGTTAAAGAGCAGTGAGCTGCAGGCCATCAAGACGGAGCTGACACAGATCAAGTCCAATAT
CGATGCCCTGCTGAGCCGCTTGGAGCAGATCGCTGCGGAGCAAAAGGCCAATCCAGATGGCAAGAAGAAGGGTGA
TGGAGGTGGCGCCGGCGGCGGCGGCGGTGGTGGTGGCAGCGGTGGCGGTGGCAGTGGTGGTGGCGGTGGCGGTGG
CAGCAGCCGGCCACCAGCCCCCCAAGAGAACACAACTTCTGAGGCAGGCCTGCCCCAGGGGGAAGCACGGACCCG
AGACGACGGCGATGAGGAAGGGCTCCTGACACACAGCGAGGAAGAGCTGGAACACAGCCAGGACACAGACGCGGA
TGATGGGGCCTTGCAG**TAA**GCAGCCTGACAGGAGCAATGGCCACCAGCAGGTGAAGGGCATCGCTGCCCCAGGCC
TCAAGCCGGGCACCCAACCCTGGATGCCACCCCCCAGCGGGTACCAGAGGAAAGCTGGCAGCAGGCGCCTCCTCC
CCCAACGCATCCCAGCCAGTGCCATGTCCTCTGCAGGTGGAGTTACTGGCCTACTCCTTCCCCATGAGCCCTCCC
TGTCTGCACTGCCCAGGCCAGAGGGTAGAGCACAGGGGTTTCCCCATACTACCTCCCCTCCCCAGGACACTCCCA
GGCTTGGGTTTTTTCTATAGGTTTGGCGGGGGGCCACAGGGAGGGGACCCTGACAATAAAGAGATTGGATCCC

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FIGURE 1637

GGTGGTGGGAGAGGTATCGGCAGGGGCAGCGCTGCCGCCGGGGCCTGGGGCTGACCCGTCTGACTTCCCGTCCGT
GCCGAGCCCACTCGAGCCGCAGCC**ATG**TCTGGGGACGAGATGATTTTTGATCCTACTATGAGCAAGAAGAAAAAG
AAGAAGAAGAAGCCTTTTATGTTAGATGAGGAAGGGGATACCCAAACAGAGGAAACCCAGCCTTCAGAAACAAAA
GAAGTGGAGCCAGAGCCAACTGAGGACAAGGATTTGGAAGCTGATGAAGAGGACACTAGGAAAAAAGATGCTTCT
GATGATCTAGATGACTTGAACTTCTTTAATCAAAAGAAAAAGAAGAAAAAAACTAAAAAGATATTTGATATTGAT
GAAGCTGAAGAAGGTGTAAAGGATCTTAAGATTGAAAGTGATGTTCAAGAACCAACTGAACCAGAGGATGACCTT
GACATTATGCTTGGCAATAAAAAGAAGAAAAAGAAGAATGTTAAGTTCCCAGATGAGGATGAAATACTAGAGAAA
GATGAAGCTCTAGAAGATGAAGACAACAAAAAAGATGATGGTATCTCATTCAGTAATCAGACAGGCCCTGCTTGG
GCAGGCTCAGAAAGAGACTACACATACGAGGAGCTGCTGAATCGAGTGTTCAACATCATGAGGGAAAAGAATCCA
GATATGGTTGCTGGGGAGAAAAGGAAATTTGTCATGAAACCTCCACAAGTCGTCCGAGTAGGAACCAAGAAAACT
TCTTTTGTCAACTTTACAGATATCTGTAAACTATTACATCGTCAGCCCAAACATCTCCTTGCATTTTTGTTGGCT
GAATTGGGTACAAGTGGTTCTATAGATGGTAATAACCAACTTGTAATCAAAGGAAGATTCCAACAGAAACAGATA
GAAAATGTCTTGAGAAGATATATCAAGGAATATGTCACTTGTCACACATGCCGATCACCGGACACAATCCTGCAG
AAGGACACACGACTCTATTTCCTACAGTGCGAAACTTGTCATTCTAGATGTTCTGTTGCCAGTATCAAAACCGGC
TTCCAGGCTGTCACGGGCAAGCGAGCACAGCTCCGTGCCAAAGCTAAC**TAA**TTTGCTAATCACTGATTTTGCAAA
GCTTGTTGTGGAGATGTGGCTGGACAGGTTTGCCATCAGAGTGGATATACCGTTGTATTAAAAACAAGATAAAAA
AGCTGCCAAGATTTTTGGCGAGTGGTTGGTCTGAAGTCCTTGCAAGACGCTGATGCTCAAGCTGTTGACATACTC
ATTGCCTACTTTAACACCTGTCAGAGAAACGTGATATGGGGTAAGGAGGTGCTTTTTTAAAATCGTTCATAGACT
TCTGTAAAATGCAAGATAAATTAAAGTTATTATAACAGTGATTCTTTCA

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FIGURE 1638

CTGAGGCCCAGCCCCCTTCGCCCGTTTCCATCACGAGTGCCGCCAGC**ATG**TCTGACAAACTGCCCTACAAAGTCG
CCGACATCGGCCTGGCTGCCTGGGGACGCAAGGCCCTGGACATTGCTGAGAACGAGATGCCGGGCCTGATGCGTA
TGCGGGAGCGGTACTCGGCCTCCAAGCCACTGAAGGGCGCCCGCATCGCTGGCTGCCTGCACATGACCGTGGAGA
CGGCCGTCCTCATTGAGACCCTCGTCACCCTGGGTGCTGAGGTGCAGTGGTCCAGCTGCAACATCTTCTCCACCC
AGGACCATGCGGCGGCTGCCATTGCCAAGGCTGGCATTCCGGTGTATGCCTGGAAGGGCGAAACGGACGAGGAGT
ACCTGTGGTGCATTGAGCAGACCCTGTACTTCAAGGACGGGCCCCTCAACATGATTCTGGACGACGGGGGCGACC
TCACCAACCTCATCCACACCAAGTACCCGCAGCTTCTGCCAGGCATCCGAGGCATCTCTGAGGAGACCACGACTG
GGGTCCACAACCTCTACAAGATGATGGCCAATGGGATCCTCAAGGTGCCTGCCATCAATGTCAATGACTCCGTCA
CCAAGAGCAAGTTTGACAACCTCTATGGCTGCCGGGAGTCCCTCATAGATGGCATCAAGCGGGCCACAGATGTGA
TGATTGCCGGCAAGGTAGCGGTGGTAGCAGGCTATGGTGATGTGGGCAAGGGCTGTGCCCAGGCCCTGCGGGGTT
TCGGAGCCCGCGTCATCATCACCGAGATTGACCCCATCAACGCACTGCAGGCTGCCATGGAGGGCTATGAGGTGA
CCACCATGGATGAGGCCTGTCAGGAGGGCAACATCTTTGTCACCACCACAGGCTGTATTGACATCATCCTTGGCC
GG**TAG**GTGCCAGATGGGGGGTCCCGGGGAGTGAGGGAGGAGGGCAGAGTTGGGACAGCTTTCTGTCCCTGACAAT
CTCCCACGGTCTTGGGCTGCCTGACAGGCACTTTGAGCAGATGAAGGATGATGCCATTGTGTGTAACATTGGACA
CTTTGACGTGGAGATCGATGTCAAGTGGCTCAACGAGAACGCCGTGGAGAAGGTGAACATCAAGCCGCAGGTGGA
CCGGTATCGGTTGAAGAATGGGCGCCGCATCATCCTGCTGGCCGAGGGTCGGCTGGTCAACCTGGGTTGTGCCAT
GGGCCACCCCAGCTTCGTGATGAGTAACTCCTTCACCAACCAGGTGATGGCGCAGATCGAGCTGTGGACCCATCC
AGACAAGTACCCCGTTGGGGTTCATTTCCTGCCCAAGAAGCTGGATGAGGCAGTGGCTGAAGCCCACCTGGGCAA
GCTGAATGTGAAGTTGACCAAGCTAACTGAGAAGCAAGCCCAGTACCTGGGCATGTCCTGTGATGGCCCCTTCAA
GCCGGATCACTACCGCTACTGAGAGCCAGGTCTGCGTTTCACCCTCCAGCTGCTGTCCTTGCCCAGGCCCCACCT
CTCCTCCCTAAGAGCTAATGGCACCAACTTTGTGATTGGTTTGTCAGTGTCCCCCATCGACTCTCTGGGGCTGAT
CACTTAGTTTTTGGCCTCTGCTGCAGCCGTCATACTGTTCCAAATGTGGCAGCGGGAACAGAGTACCCTCTTCAA
GCCCCGGTCATGATGGAGGTCCCAGCCACAGGGAACCATGAGCTCAGTGGTCTTGGAACAGCTCACTAAGTCAGT
CCTTCCTTAGCCTGGAAGTCAGTAGTGGAGTCACAAAGCCCATGTGTTTTGCCATCTAGGCCTTCACCTGGTCTG
TGGACTTATACCTGTGTGCTTGGTTTACAGGTCCAGTGGTTCTTCAGCCCATGACAGATGAGAAGGGGCTATATT
GAAGGGCAAAGAGGAACTGTTGTTTGAATTTTCCTGAGAGCCTGGCTTAGTGCTGGGCCTTCTCTTAAACCTCAT
TACAATGAGGTTAGTACTTTTAGTCCCTGTTTTACAGGGGTTAGAATAGACTGTTAAGGGGCAACTGAGAAAGAA
CAGAGAAGTGACAGCTAGGGGTTGAGAGGGGCCAGAAAAACATGAATGCAGGCAGATTTCGTGAAATCTGCCACC
ACTTTATAACCAGATGGTTCCTTTCACAACCCTGGGTCAAAAAGAGAATAATTTGGCCTATAATGTTAAAAGAAA
GCAGGAAGGTGGGTAAATAAAAATCTTGGTGCCTGG

FIGURE 1639

GGACTCGCTAAGTGTTCGCTACGCGGGGCTACCGGATCGGTCGGAA**ATG**GCAGAGGTGGAGGAGACACTGAAGCG
ACTGCAGAGCCAGAAGGGAGTGCAGGGAATCATCGTCGTGAACACAGAAGGCATTCCCATCAAGAGCACCATGGA
CAACCCCACCACCACCCAGTATGCCAGCCTCATGCACAGCTTCATCCTGAAGGCACGGAGCACCGTGCGTGACAT
CGACCCCCAGAACGATCTCACCTTCCTTCGAATTCGCTCCAAGAAAAATGAAATTATGGTTGCACCAGATAAAGA
CTATTTCCTGATTGTGATTCAGAATCCAACCGAA**TAA**GCCACTCTCTTGGCTCCCTGTGTCATTCCTTAATTTAA
TGCCCCCCAAGAATGTTAATGTCAATCATGTCAGTGGACTAGCACATGGCAGTCGCTTGGAACCCACTCACACCA
ATCCAGTGACCGTGTGTGGGCTGGCGGCTCTTCTCCCCCACCAACGGAACCCCTGTGTGCACCAACCTTCCCCAG
AGCTCCGGAGCGCCCTCTCCTCACTTCCAGGTTTTGGAGCAAGAGCTTGCAGGAAGCCCGCACCCAGCTTCCTTC
TGACCTTCAGTTCACTTTGTCGCCCTTGGAGAAAGCTGTTTTTCTTTAACTAAAAATAACCAAAATGCT

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FIGURE 1640

ATGGCGGCTCCCTTGGTCCTGGTGCTGGTGGTGGCTGTGACAGTGCGGGCGGCCTTGTTCCGCTCCAGTCTGGCC
GAGTTCATTTCCGAGCGGGTGGAGGTGGTGTCCCCACTGAGCTCTTGGAAGAGAGTGGTTGAAGGCCTTTCACTG
TTGGACTTGGGAGTATCTCCGTATTCTGGAGCAGTATTTCATGAAACTCCATTAATAATATACCTCTTTCATTTC
CTAATTGACTATGCTGAATTGGTGTTTATGATAACTGATGCACTCACTGCTATTGCCCTGTATTTTGCAATCCAG
GACTTCAATAAAGTTGTGTTTAAAAAGCAGAAACTCCTCCTAGAACTGGACCAGTATGCCCCAGATGTGGCCGAA
CTCATCCGGACCCCTATGGAAATGCGTTACATCCCTTTGAAAGTGGCCCTGTTCTATCTCTTAAATCCTTACACG
ATTTTGTCTTGTGTTGCCAAGTCTACCTGTGCCATCAACAACACCCTCATTGCTTTCTTCATTTTGACTACGATA
AAAGGCAGTGCTTTCCTCAGTGCTATTTTTCTTGCCTTAGCGACATACCAGTCTCTGTACCCACTCACCTTGTTT
GTCCCAGGACTCCTCTATCTCCTCCAGCGGCAGTACATACCTGTGAAAATGAAGAGCAAAGCCTTCTGGATCTTT
TCTTGGGAGTATGCCATGATGTATGTGGGAAGCCTAGTGGTAATCATTTGCCTCTCCTTCTTCCTTCTCAGCTCT
TGGGATTTCATCCCCGCAGTCTATGGCTTTATACTTTCTGTTCCAGATCTCACTCCAAACATTGGTCTTTTCTGG
TACTTCTTTGCAGAGATGTTTGAGCACTTCAGCCTCTTCTTTGTATGTGTGTTTCAGATCAACGTCTTCTTCTAC
ACCATCCCCTTAGCCATAAAGCTAAAGGAGCACCCCATCTTCTTCATGTTTATCCAGATCGCTGTCATCGCCATC
TTTAAGTCCTACCCGACAGTGGGGGACGTGGCGCTCTACATGGCCTTCTTCCCCGTGTGGAACCATCTCTACAGA
TTCCTGAGAAACATCTTTGTCCTCACCTGCATCATCATCGTCTGTTCCCTGCTCTTCCCTGTCCTGTGGCACCTC
TGGATTTATGCAGGAAGTGCCAACTCTAATTTCTTTTATGCCATCACACTGACCTTCAACGTTGGGCAGATCCTG
CTCATCTCTGATTACTTCTATGCCTTCCTGCGGCGGGAGTACTACCTCACACATGGCCTCTACTTGACCGCCAAG
GATGGCACAGAGGCCATGCTCGTGCTCAAG**TAG**

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FIGURE 1641

CCCTCACTCCTGGTCCCCATACCCAGCATCTAATCATCC**ATG**CCCCCTACTCCTGGCCCCTCCATCCTTTCTTCT
CTGGTCCCCATCCCTGTCTCTCCCTTTCACCCTTGCCCTCCAGTCCTCTACCTCTGGCCTGCCCCTATTTCTGAA
AGCTTCTTCCAGTCCCTGATCTGGCTCATTCCCCACCTTCAACTCCCACCTTACATGTCTCACACTATCCCATGG
TTGGCATTACACTCACTCCTGTTCCCTTATTCTTCATTCCCAGTAATTCCCTACCAAATGGTGGGGACCCTGAGC
CCAGCTCTGACCAGG**TAG**AGCCTGTGCAGCCTGGGCTGCTGTCATTGCCCTCCAGTAAGGGCTCAGGGTTTTGCT
TTTAGTCTCCCCTTCCTTCTGCCTTGGGGGCGGTACTCTGTGGAGCTGCTTAGGCCTGGAAAGGTACAGTATGTA
GAAGAGGACTGTGAGACGTGAGTTAGAGGGAGAAGATGGAGGGAATCTAGGGAACGAGGCAGCCTATTGGAGATG
CGGACAGGACAGACACGTTGAGAAGCTGCAGGGAGCAGGGCACCAAGGGAGTGTGCACTGTGCTTGCTCAGAGAG
GCCAAACCCTGCTCCCAGGCTGAAGCCTGGAGTCTGCCCCCACTTCCCTTTTCTATAATCCACCCTTCTGCAGGC
CCTGAAATCTGAAGGGCTTAGTTAGTACCTTGCCACTCTACCCCCAACACGTCACCCGAGTAGAAGCTGGGCAAG
GCCCTACCATCCTGGCCGTCTGTTCACAAGCCCAAGGTGCTAGAACTAGCTTAGGAGACATGCAGGCCACAGGGC
TTCTAGGCAGGGAAAGGGCACACACCCTAGGTCAGCGTGCAGAGCAGTGATGCTGGAGGACACACCATGGGGTGA
AGCCATCCCAAGGCTGACAGCTCAGTCTTCACCTTGCCTCTGGCCTTGTATTTCACACCCTGCTCAGTATGGCTA
GCCAGCAGTCCTGAGTAGGAGTCCAGGACTCCCACTGTCTCAATCTGCAAATTGTTCCTATCCAGGTTCAGGGCC
TTCAGGGGGCCTCTTTTCATTTTCTCCCACAGGCCTCTCTTTCTTTCTAGGTTGCTGGGGAGAAATGGGTACCCT
ATGATCCCCCTCCCCTTCTCCTCCAGTAAATACCTGGAAGAGGGAACCTGAATCCCTGGGGGGAGACAGAAGGGGC
AGGGGCCACCAGCCTCCCCTTCTTGTGGTGAGACTGAATTTTGGGCTCAGACACCAGCAACAGCCTCTTGGGATG
CCCTGAGTTGCTTCCCATTTCCTCTTTCTAGCCGTCCTTTTCTAGTGTGTGCTCACTCTTCCTAGGAACTTTTAA
GACTTCTTGGTACCTATGAACATAGGTCCTCCCCTCACCCCAACTCTAGGTTTCCAGGCCTCACAGCCAAGCTGA
AGCTTGGAGAAAACTCTGCATTCCCATGAGGGCAAAGGCAGCTGCCCTCCCTGACCCTATAGCCCCAGGCCTCAT
GGGGGGTATGTGGGGAAGGGATGGGGTATCCCCATGGATGCTGGGATGAGGACAGAGGAAGACCTGATGGGGTCT
CCTATTCCAGGGAATAAGCCAAATTAACACTAAAAACGGATCAAAGCTCCCACGCCAGTCCACTAGGGCCCCAGT
AGTTGACAGCCTTGCTCCTCTCCCAAGTTCTCCTTCAGAACCTAGTTGCTTTTATTCTTCCAGCTACCACTTGGG
CACTTCACAGCCAGCCTAGGGTCTTCGGCACCTCCAAGAGCTGAATCTCCCTCCAACCCTTCTTGCCTACTCCTC
ACTGCCAGCTGGGACCTAGGCTCAGTCCTGTGTGGTGCCCATGATCCTTCTGGTGGGGGAAGAGTTTAAGTTATA
GGGCATTTGGCTCAAATTTTAAAAGGCCTTTTGTTTACCTATATTTCTGGAGGCTCCTGTATTCTAGAACCCAAT
CTCTCACCTGCTTGGTTGCAAGGCTCATATTTTTTTGTACCTTTCCTATAGATTCTGTAGCATTTGAGTGTGGCA
ATATTTTAATTGTGTATAGATTTCTAAGAACCAACACTACTCAGTCTCCTGCTAGTCTGACTCCTGAAGCATCAG
CCCTTGTCATACTGTATTGACTGTGTACGTGCCTTTCACCTTGAGCATGCTTCAGGATTTTTTTTTAAACCACAG
AACTTGAATACATGAGGGAACCAGAGTTCAAAGTCCTATGCAACCTTAGGAGGGGGTTAGAGAGTCTGTTTTGAT
TGATGTTTTCTGAGGCCCTAGAGGAGTTTGTATCAATTTGTGAGTATTAATGTCAGTACTACCAGCACTTTGCCA
AAACTGTCAGAGGGACCCGTTTCTAGAGTGAGTCCCAGTTACATCAAACAGTGACTTCCAGTTATTCCCCAGTAA
GTCTGAGTGGTTCCTTCAAGCTGGGTGTCTTTCCAGCCTTTGCCAGTCTAGCCCCAGCAGGGCACCGTGTATGAA
TGCAGTTTGGTGCTGTTTTAGAGTATGCCTGCTCCCCAGCCCCCTGCCTGGAACCCTCTGAGCAACTTGCTCTGA
CCTATAATGTCTTAGGTGCAACACGGACCCCACCAGAGCTCTTGGATACCCCCCTAGATCCATGTGGCTTTATGT
GAGGGGACTGAATGCAGACACACCATAGCCCCCTTCTACTACTTTCCCTCTCGCCCTGCCACCTAGTTCCACATG
GAACCAACAAGTTGAGTGCATCCCTGTTGGGTGTTTTGTGTTGAGACTGGCTGAAATGAGGAGACTTTGACCATG
TGACGTGTCAACAGACTCAAGGAGACAACCACCTCAACTGGGTCATGTGGCATGCCTGTGTATGTGTGTAACAGA
ATTCTGATTGTTAGACTGTAATGCTATTCCTCTATGGGAGAAAAAAATTAATATAAAGAAAAACAAATAAAAATA
TATTTAAAGC

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FIGURE 1642A

CTCCAGCCCAGGCAACAGAGCGTGACTCCGTCTCAAAAAAAAAAAAAAAAAGTGAAAGGAAAATGAGGGGAGAATT
CTCATTGATAATAAGGGCGAAAAGGTTTTTTTGGCAGAGTAATAGAGTTTTGGAAACCATTGCAAAGCTGTCAAG
TGTGGTGTAGTTTTTGGTTAAGGAAATCAGAGGTGTCAGCAGACATAAAAGACAGGGGAAAACATGGGAAGTGTC
CTACCTATAGTGTAGAAAAAGCACAACTATCTATGTCAGAGGTCGACAGACTGTGGTCCATAGGTCAAATCTGGC
CCACGATCTGTTTTTGTAAATAACGTTTTATTGGAACATAGCCACACTCATTTATTTATATATTGTCCATATCTT
CTTTTGTGGTACCAATAGCAGAGTTGAGTAGTCGTGACAGAGATGTGTTGTGTCAGCTCACAAAGCTGGAAATAC
TCTTTACAAAAACATTTGCCAACCCCTGATCTATGTGTTTGAGTGTTGGATGTTCAACCTCTAATTTGCCATCCA
ATGTCTATATGATGATAGAGAATGAATAAACGTCTTGGCTCTGCCCTTTGGGCTGGATTACCCATGCTCTGTGTA
CCTGCAGCATAACACAGACCCCTGAATATTTATATCAGTCAGTGATGGCAAGGTCTATTGTTCTGGAGTGTACTG
TGTGGTAACTGTGGTAGTGCCAGCTTTACACGGATTAGATAATGCTCGGGCTTGTTTTGCCATTTTTTTTATTGG
GTTGTCTTTTACAAAAGATTTATTTATATATTCTGATTATTAATCCTTTGTTGTTGGTAGATATTACAGATGTCA
TTTCCCAGTTTCTTGCTTATTTTAATTTTTTTTTTTTTTTTTTGAGATGAAGTCTTGCTCTGTCGCCCAGGCTG
GAGTGCAGTCGTGCCATCTCAGCTCATTGTAACCTCCGTCTCCCAGGTTCAAGTGATTCTCTTGCCTCAGCCTCC
CAAGTAGCTGGGACTACAGGCATGTGCCACCACACCTGGCTGATTTTTGTGTTTTTAGTAGGGATGGGGTTTCAT
CATGTTGGCCAGGCTGGTCTCAAACTCCTGACCTCAAGTGATCCACCCGTCTTGGCCTCCTAAAGTGCTGGGATT
ACAGGTGTGAGCCACTGCGCCTGGCCTGTTGCTTATTTTAAAACATCTGTTTTAAGGTGTCATTTGTTAAAAAGT
TCTGAATTTTAGTATCAACTTTATCAATCTTTTCCTTTAAGATTTGCAGTTATTCTTTGTTTTGAGGCAGGGTCT
CGCTCTGTCACCGAGGCTGGAGTGCAGTGGTGCGATCTCGGCTCACTGCAGCCTCAACCTCCTGGGCTCAAGCAA
CCCTCCCACCTCCCATGCCAGTTGAGACCACAGGCATGCGCCACCATGCCCTGCTACTTTTTGCATTTTTTGTAG
AGGCGGGGTTTCGCCATGTTGCCCAGGCTAGTCTGGAACTCCTGAGCTCAAGCAGTCCACAAAGTGCTGGGATTA
CAGGTGTGAGCTACTGTGCCCAGCCTGCAATTATTCTTTATATTCTGGAATACCTACTGTTGTTTTCAATGGTTA
GATCTTTAATGTATCTGGAATGGATTCTTATGTGTAGTGTAAGGTCGGGTCCAGTTTCATTTTTTTTCCCTATGT
ATAACCAGTGATCCCAGCATCATTTATTGAATGGGGCTTGCTTTCAAATTGTGAGCTCTTTTTGGTGGAGTCTGT
CTCAGGTCCTTATTAAGCACTGCTGCTTGCTGATTGTGTGACCTTGGACAAATAAAACCTCATTGCGCCTCAGTC
TTTAAGGATAATAGTAATCTCATAGGGTTTTGTGAGGATTAAATGAGTCAATATACATAACGTGTAAAACAGTGC
TTGGCACCTAGAACATGCTCAATAAATATTAGCTGTACTTTAGCACTACTGTTCATTTCTGATTCCTCAGCACCT
GGTACAGAGCAGGGGCTCATTTTGCTCAATTAAATTGCCAAATTAATTTGGTTTTCAGGTCAATCAGAATGGTGA
GAGTTGGGCTGAGTGTTGCAGGAGATGCTTCCAAGGAGCTACTTAGTTTTAGGGGCTGCCTTAGATTATCTGCTA
GGATAGAACTCTTCTCACGCCATCACTTTTGCAGAGAACTTCTGTAGCAGAGGTTGCAAACTGGCAACCTGTGGT
TGGATTTGACCTGTATAAGTATTTTGTTTGGTTTACACAATATTTTTAATGTCTTAAAAATGTACACAGACCTCT
GAGTTTCTGACTTAACCTTGAAAAATTGGAAGATCTGTCAACAGCAAGCCCATATTCATTTATAGCGGTAACCAG
CTGAAACTTTTAGGTCCTGGGAGGAATGGAGAGGGGTCCCACTGACTAACTTTTCTGAGAGTGGTCAGAGAGTTC
TTAAGCAGAATTTTGATTTGGCTGCTGGGCTGCTACCTTGAAATCCAAGCCCTAAAAATGCCAGCTTCTTTGGAC
TTAGAAGATGACCTGGATAAATGATAAAAATTAAGAAAGAGATTTTGAAGTTTTCTTATTGTCCTCTTGGCATAT
GCTTCTGGAATAATATTCACC**ATG**GTTTTGGATGACCTTCCAAACTTAGAAGACATCTATACTTCCTTGTGTTCA
TCAACAATGGAAGACTCAGAGATGGATTTTGACTCTGGACTAGAAGATGATGACACAAAAAGTGATAGTATTTTG
GAGGATTCCACAATTTTTGTGGCCTTCAAAGGAAATATAGATGATAAAGACTTCAAATGGAAATTAGATGCAATA
TTGAAAAACGTGCCCAATTTGTTACACATGGAGTCCAGCAAGCTAAAAGTACAGAAGGTGGAGCCCTGGAACAGC
GTGCGTGTGACATTCAACATCCCCCGGGAAGCAGCGGAGCGGCTACGGATCCTTGCTCAGAGCAACAACCAGCAG
CTTCGGGATTTAGGGATTCTCTCCGTTCAGATTGAAGGGGAAGGTGCTATTAACCTGGCTTTGGCTCAGAACCGA
AGCCAAGATGTGAGAATGAATGGACCCATGGGAGCTGGAAATTCAGTTAGGATGGAGGCGGGATTTCCTATGGCA
AGTGGTCCAGGAATAATAAGGATGAACAACCCTGCCACTGTTATGATACCCCCGGGTGGAAATGTGTCATCTTCC
ATGATGGCACCAGGCCCCAATCCAGAGCTGCAGCCCAGGACTCCTCGCCCTGCTTCTCAGTCAGATGCAATGGAT
CCACTCCTCTCTGGGCTCCATATACAGCAGCAAAGTCATCCCTCAGGATCTTTAGCTCCCCCACATCACCCAATG
CAGCCTGTCTCTGTGAACAGACAAATGAACCCAGCTAATTTTCCCCAGCTGCAGCAGCAGCAGCAACAACAACAA
CAGCAGCAGCAGCAGCAGCAGCAGCAACAACAGCAACAGCAGCAACAACAGTTGCAGGCAAGACCCCCACAGCAA
CATCAGCAGCAACAGCCACAGGGAATTCGACCCCAGTTTACTGCCCCAACTCAGGTGCCTGTTCCTCCAGGCTGG
AACCAGCTGCCTTCTGGAGCCCTTCAACCTCCTCCAGCCCAGGGTTCTCTGGGCACAATGACTGCAAACCAAGGG

FIGURE 1642B

TGGAAGAAGGCTCCCTTGCCCGGCCCAATGCAACAGCAACTCCAGGCAAGACCATCCTTAGCCACGGTACAGACG
CCTTCCCACCCTCCCCCTCCATATCCCTTTGGCAGCCAGCAAGCCTCACAAGCCCACACAAACTTTCCTCAGATG
AGCAACCCAGGCCAGTTCACAGCTCCTCAGATGAAGAGTTTGCAGGGAGGGCCCTCTAGGGTCCCAACTCCCTTG
CAGCAGCCCCACCTCACCAACAAGTCTCCTGCCTCCTCACCCTCCTCCTTCCAGCAGGGATCCCCTGCATCCTCC
CCAACGGTTAACCAAACTCAGCAGCAGATGGGACCAAGGCCACCTCAAAATAACCCACTTCCCCAGGGATTTCAG
CAGCCTGTCAGCTCTCCGGGTCGGAATCCTATGGTTCAACAGGGAAATGTGCCACCTAACTTCATGGTGATGCAG
CAGCAACCACCAAACCAGGGGCCACAGAGTTTACATCCAGGCCTAGGAGGAATGCCTAAACGCCTCCCACCTGGC
TTCTCAGCAGGACAGGCCAATCCGAACTTTATGCAAGGTCAGGTGCCTTCGACCACAGCAACCACCCCTGGGAAT
TCAGGAGCCCCTCAGCTGCAAGCAAATCAAAATGTCCAGCATGCAGGTGGTCAAGGAGCTGGTCCTCCTCAAAAC
CAGATGCAGGTGTCCCACGGGCCGCCAAATATGATGCAGCCCAGCCTCATGGGAATTCATGGCAACATGAACAAT
CAGCAGGCTGGTACTTCTGGGGTTCCTCAAGTGAACCTCAGCAACATGCAAGGCCAGCCCCAGCAGGGCCCACCA
TCTCAGCTGATGGGCATGCACCAGCAAATCGTGCCCTCCCAGGGCCAGATGGTCCAGCAACAAGGAACCTTGAAC
CCTCAGAACCCTATGATCCTTTCAAGGGCCCAGCTTATGCCACAGGGCCAGATGATGGTGAACCCCCCGAGCCAA
AATCTTGGGCCCTCGCCCCAAAGGATGACCCCACCCAAGCAGATGCTTTCCCAGCAGGGCCCACAAATGATGGCG
CCACATAACCAGATGATGGGGCCTCAGGGGCAGGTTTTGCTCCAACAGAACCCAATGATAGAGCAGATTATGACC
AATCAAATGCAGGGGAATAAGCAGCAGTTTAACACTCAGAACCAGTCCAATGTCATGCCGGGACCAGCCCAGATA
ATGAGGGGACCAACTCCAAACATGCAAGGAAATATGGTGCAGTTTACGGGACAGATGTCAGGACAGATGCTGCCC
CAGCAAGGGCCTGTGAACAACAGTCCATCTCAGGTTATGGGCATTCAGGGACAGGTCCTGCGGCCACCAGGGCCC
AGCCCACACATGGCCCAGCAGCATGGTGATCCTGCTACTACAGCAAATAACGATGTCAGTTTATCTCAGATGATG
CCTGATGTTAGCATTCAACAAACCAACATGGTCCCCCCTCATGTGCAGGCCATGCAGGGAAACAGTGCCTCGGGA
AACCACTTCTCAGGCCATGGGATGTCTTTCAATGCACCTTTCAGTGGAGCTCCCAATGGAAATCAGATGTCCTGT
GGTCAAAATCCAGGCTTCCCAGTCAATAAGGATGTCACGCTAACGAGCCCATTGTTGGTCAACTTATTGCAGAGT
GACATATCTGCAGGCCATTTTGGGGTAAACAATAAGCAAAATAATACCAACGCAAATAAACCGAAGAAGAAGAAA
CCCCCTCGGAAGAAGAAAAATAGTCAGCAAGATCTAAACACCCCAGATACTCGCCCAGCTGGTCTGGAAGAGGCT
GATCAGCCACCGTTGCCTGGAGAACAAGGAATTAACTTGGATAACTCAGGCCCTAAACTGCCAGAATTTTCAAAC
CGGCCACCAGGTTATCCTTCTCAACCAGTTGAACAGAGGCCACTTCAGCAGATGCCTCCTCAACTCATGCAGCAT
GTGGCACCCCCACCACAGCCACCACAGCAGCAGCCACAGCCACAACTGCCTCAGCAGCAGCAGCCACCACCTCCC
AGTCAGCCACAGTCTCAGCAGCAGCAGCAGCAGCAGCAACAAATGATGATGATGCTCATGATGCAGCAGGATCCC
AAATCAGTTAGGCTTCCAGTCTCTCAAAATGTCCATCCTCCAAGGGGCCCCCTGAACCCCGACTCCCAGAGAATG
CCCATGCAACAGAGTGGCAGTGTGCCTGTCATGGTCAGTCTGCAAGGACCTGCCTCCGTGCCACCATCACCTGAT
AAACAAAGAATGCCAATGCCTGTGAATACTCCCTTGGGAAGCAATTCAAGGAAAATGGTCTATCAGGAGAGCCCG
CAGAATCCTTCCAGCTCGCCACTGGCGGAGATGGCCTCACTCCCTGAAGCAAGTGGCAGTGAAGCACCATCTGTC
CCAGGAGGCCCAAACAACATGCCTTCACATGTAGTACTTCCCCAGAATCAGTTAATGATGACAGGGCCAAAACCT
GGACCATCGCCCCTTTCAGCAACTCAAGGTGCAACTCCCCAGCAACCCCCTGTAAATTCCCTGCCCAGCTCTCAC
GGCCACCACTTCCCAAATGTGGCTGCGCCAACCCAGACATCTAGGCCCAAAACACCAAACAGAGCCAGCCCCAGA
CCCTATTATCCTCAGACACCCAACAACCGCCCTCCCAGCACAGAACCTTCAGAAATCAGTCTGTCACCAGAAAGA
CTCAATGCCTCCATAGCAGGACTCTTCCCTCCACAGATTAATATTCCTTTACCTCCTAGGCCAAATTTAAACAGG
GGCTTTGATCAACAAGGCCTAAATCCAACAACTTTGAAGGCCATCGGGCAAGCACCTTCAAATCTTACCATGAAT
CCTTCCAATTTTGCTACCCCACAAACTCACAAATTAGATTCTGTGGTAGTGAATTCTGGAAAGCAGTCTAATTCT
GGAGCAACAAAACGGGCAAGTCCAAGCAACAGTCGCAGGTCTAGTCCTGGGTCCAGTAGGAAAACCACTCCAAGC
CCTGGGAGGCAAAATTCAAAAGCCCCTAAACTTACTCTGGCCTCTCAGACAAATGCAGCCCTATTGCAGAATGTG
GAGTTGCCGAGAAATGTATTGGTCAGTCCCACTCCTCTGGCCAATCCCCCTGTACCTGGGAGCTTTCCTAACAAC
AGTGGGCTGAATCCTCAGAATTCTACTGTGTCTGTGGCTGCAGTTGGGGGTGTTGTTGAGGATAACAAGGAGAGC
TTGAATGTGCCTCAGGACAGTGATTGCCAGAATTCCCAGAGTAGGAAGGAACAGGTAAACATTGAACTAAAAGCA
GTCCCTGCCCAAGAAGTTAAAATGGTTGTCCCTGAAGATCAGTCCAAAAAGGATGGGCAGCCTTCGGATCCTAAC
AAACTTCCCAGTGTCGAAGAGAACAAAAATTTGGTGTCTCCTGCTATGAGGGAAGCACCAACATCGTTAAGTCAA
CTTCTTGACAACTCTGGAGCTCCCAATGTGACAATTAAACCCCCTGGGCTTACAGATCTGGAAGTAACACCTCCA
GTAGTTTCTGGGGAGGACCTCAAAAAAGCATCTGTCATTCCCACACTGCAGGATCTGTCTTCTTCTAAAGAACCT

FIGURE 1642C

TCTAATTCCCTAAACTTACCTCACAGTAATGAGCTGTGTTCATCCCTTGTGCATCCCGAATTGAGTGAGGTCAGT
TCTAACGTTGCACCAAGCATCCCTCCAGTAATGTCAAGACCTGTTAGCTCTTCCTCCATTTCCACTCCCTTGCCC
CCAAATCAAATAACTGTATTTGTCACTTCCAATCCCATCACAACTTCAGCTAACACATCAGCAGCTTTGCCAACT
CACTTGCAGTCTGCATTGATGTCAACAGTTGTCACAATGCCCAATGCGGGTAGCAAGGTTATGGTTTCTGAGGGA
CAGTCAGCTGCTCAGTCTAATGCCCGGCCTCAGTTCATTACACCTGTCTTTATCAATTCATCCTCAATAATTCAG
GTTATGAAAGGATCACAGCCAAGCACAATTCCTGCAGCCCCACTGACAACCAACTCTGGCCTGATGCCTCCCTCT
GTTGCAGTTGTTGGCCCTTTACACATACCTCAGAACATAAAATTTTCTTCTGCTCCTGTACCGCCTAATGCCCTC
TCCAGTAGTCCTGCTCCAAACATCCAGACAGGTCGACCTTTGGTCCTTAGCTCACGAGCCACCCCTGTTCAGCTT
CCTTCCCCTCCTTGTACGTCTTCTCCAGTTGTCCCTTCTCATCCCCCTGTGCAGCAAGTGAAAGAATTGAATCCA
GATGAGGCTAGCCCTCAGGTGAACACCTCAGCAGATCAGAACACTCTTCCCTCTTCACAGTCAACCACAATGGTT
TCTCCCCTTTTGACCAATAGTCCAGGGTCCTCTGGCAACCGGCGAAGCCCAGTCTCGTCTAGTAAGGGCAAAGGA
AAAGTGGACAAAATTGGCCAAATTTTGTTGACCAAGGCATGTAAGAAAGTTACAGGCTCTCTTGAGAAAGGGGAA
GAACAATATGGTGCAGATGGAGAGACTGAAGGCCAAGGGCTAGACACCACAGCTCCGGGGCTCATGGGAACAGAG
CAGTTATCCACAGAGCTGGACAGTAAAACCCCAACGCCCCCAGCACCCACTCTGCTAAAAATGACCTCTAGCCCT
GTGGGCCCGGGCACTGCCTCAGCAGGACCCAGCTTACCTGGCGGTGCTCTCCCCACCAGTGTACGCTCGATAGTA
ACCACTCTGGTACCCTCCGAGCTCATCTCCGCCGTACCGACCACAAAAAGCAATCATGGTGGCATAGCATCTGAG
TCACTTGCGGGTGGCCTAGTGGAGGAGAAGGTGGGATCCCATCCAGAACTTCTACCCAGCATAGCCCCGTCGCAG
AATTTAGTCTCAAAGGAAACTTCAACCACAGCACTGCAGGCCTCTGTTGCCAGACCAGAGCTGGAGGTAAATGCT
GCCATAGTCTCTGGACAAAGCAGTGAGCCCAAAGAGATAGTTGAAAAGTCCAAAATCCCAGGCCGAAGAAACTCC
CGAACTGAAGAGCCAACTGTGGCCTCTGAAAGTGTGGAAAATGGACATCGTAAACGATCTTCTCGACCTGCTTCA
GCCTCCAGCTCTACTAAAGACATAACCAGTGCGGTGCAATCCAAGCGAAGAAAATCCAAG**TAA**ACAAGCAGGACT
GCGACTTGATACTTGGAAATGTGTGTGACTTTTACAAAGAGCAATTTTGAGCTGTGACTTTTTTAAATCAATTTC
TGTACAGTTAGTAATTTTAATAATGTGGCCCTTTTCCTAGTCCCTGCAACCTGTTTCATAAAGTGCAATGGGGAA
AGCAGGACTGTTGAGCCCTTTTGGTGTTGCGAGTTGAAGTTCAAGGTTTCTAAAATGTTGTCTTGTATTGAAAGG
AGCTAATGCCATTATAAATGTTACTAGTTTTCACATTTCCTAAGCAGCCTAGAGTACAGGGTGAGCATTTTTAGA
TCTCCTAATGATGTATTGTGCCGTGGAAGTACTGTGTGTGAATAGCAGTAGTGGGGGCAAAAGCAATCTTCTCAT
TTGGAAATGTTGTAAATAATTTTATTATATAGTGTTTTGGATGTATTTGTTGTAGAAATGGACCAGTGAATAAAG
AGAATCTAAGGATTTGTACAATGTGAAATAACGTGTTAAATAAATGTCATTGTCATAGAACATAAAGTTATGTTA
TTGGTAAGGG

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FIGURE 1643

ATGGGGCTTCCTGAGGAGCGGGTCCGGAGCGGCAGCGGGAGCCGGGGCCAGGAGGAAGCTGGAGCCGGAGGCCGG
GCGCGGAGTTGGTCTCCGCCGCCCGAGGTCAGCCGCTCCGCGCACGTCCCCTCGCTGCAGCGCTACCGCGAGCTG
CACCGGCGCTCCGTGGAGGAGCCGCGGGAATTCTGGGGAGACATTGCCAAGGAATTTTACTGGAAGACTCCATGC
CCTGGCCCATTCCTTCGGTACAACTTTGATGTGACTAAAGGGAAAATCTTCATTGAGTGGATGAAAGGAGCAACT
ACCAACATCTGCTACAATGTACTGGATCGAAATGTCCATGAGAAAAAGCTTGGAGATAAAGTTGCTTTTTACTGG
GAGGGCAATGAGCCAGGGGAGACCACTCAGATCACATACCATCAGCTTCTGGTCCAAGTGTGTCAGTTCAGCAAT
GTTCTCCGAAAACAGGGCATTCAGAAGGGGGACCGAGTGGCCATCTACATGCCTATGATCCCAGAGCTTGTGGTG
GCCATGCTGGCATGTGCCCGCATTGGGGCTTTGCACTCCATTGTGTTTGCAGGCTTCTCTTCAGAGTCTCTATGT
GAACGGATCTTGGATTCCAGCTGCAGTCTTCTCATCACTACAGATGCCTTCTACAGGGGGGAAAAGCTTGTGAAC
CTGAAGGAGCTGGCTGACGAGGCCCTGCAGAAGTGTCAGGAGAAGGGTTTCCCAGTAAGATGCTGCATTGTGGTC
AAGCACCTGGGGCGGGCAGAGCTCGGCATGGGTGACTCCACCAGCCAGTCCCCCCCAATTAAGAGGTCATGCCCA
G**ATG**TGCAGATCTCATGGAACCAAGGGATTGACTTGTGGTGGCATGAGCTCATGCAAGAGGCAGGGGATGAGTGT
GAGCCCGAGTGGTGTGATGCCGAGGACCCACTCTTCATCCTGTACACCAGTGGCTCCACAGGCAAACCCAAGGGG
TGTGGTTCACACAGTTGGGGGCTACATGCTCTATGTAGCCACAACCTTCAAGTATGTGTTTGACTTCCATGCAGA
GGATGTGTTCTGGTGCACGGCAGACATTGGTTGGATCACTGGTCATTCCTACGTCACCTATGGGCCACTGGCCAA
TGGTGCCACCAGTGTTTTGTTTGAGGGGATTCCCACATATCCGGACGTGAACCGCCTGTGGAGCATTGTGGACAA
ATACAAGGTGACCAAGTTCTACACAGCACCCACAGCCATCCGTCTGCTCATGAAGTTTGGAGATGAGCCTGTCAC
CAAGCATAGCCGGGCATCCTTGCAGGTGTTAGGCACAGTGGGTGAACCCATCAACCCTGAGGCCTGGCTATGGTA
CCACCGGGTGGTAGGTGCCCAGCGCTGCCCCATCGTGGACACCTTCTGGCAAACAGAGACAGGTGGCCACATGTT
GACTCCCCTTCCTGGTGCCACACCCATGAAACCCGGTTCTGCTACTTTCCCATTCTTTGGTGTAGCTCCTGCAAT
CCTGAATGAGTCCGGGGAAGAGTTGGAAGGTGAAGCTGAAGGTTATCTGGTGTTCAAGCAGCCCTGGCCAGGGAT
CATGCGCACAGTCTATGGGAACCACGAACGCTTTGAGACAACCTACTTTAAGAAGTTTCCTGGATACTATGTTAC
AGGAGATGGCTGCCAGCGGGACCAGGATGGCTATTACTGGATCACTGGCAGGATTGATGACATGCTCAATGTATC
TGGACACCTGCTGAGTACAGCAGAGGTGGAGTCAGCACTTGTGGAACATGAGGCTGTTGCAGAGGCAGCTGTGGT
GGGCCACCCTCATCCTGTGAAGGGTGAATGCCTCTACTGCTTTGTCACCTTGTGTGATGGCCACACCTTCAGCCC
CAAGCTCACCGAGGAGCTCAAGAAGCAGATTAGAGAAAAGATTGGCCCCATTGCCACACCAGACTACATCCAGAA
TGCACCTGGCTTGCCTAAAACCCGCTCAGGGAAAATCATGAGGCGAGTGCTTCGGAAGATTGCTCAGAATGACCA
TGACCTCGGGGACATGTCTACTGTGGCTGACCCATCTGTCATCAGTCACCTCTTCAGCCACCGCTGCCTGACCAT
CCAG**TGA**

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FIGURE 1644

GGGAGAACCGTTCGCGGAGGAAAGGCGAACTAGTGTTGGG**ATG**GCCACCAACTGGGGGAGCCTCTTGCAGGATAA
ACAGCAGCTAGAGGAGCTGGCACGGCAGGCCGTGGACCGGGCCCTGGCTGAGGGAGTATTGCTGAGGACCTCACA
GGAGCCCACTTCCTCGGAGGTGGTGAGCTATGCCCCATTCACGCTCTTCCCCTCACTGGTCCCCAGTGCCCTGCT
GGAGCAAGCCTATGCTGTGCAGATGGACTTCAACCTGCTAGTGGATGCTGTCAGCCAGAACGCTGCCTTCCTGGA
GCAAACTCTTTCCAGCACCATCAAACAGGATGACTTTACCGCTCGTCTCTTTGACATCCACAAGCAAGTCCTAAA
AGAGGGCATTGCCCAGACTGTGTTCCTGGGCCTGAATCGCTCAGACTACATGTTCCAGCGCAGCGCAGATGGCTC
CCCAGCCCTGAAACAGATCGAAATCAACACCATCTCTGCCAGCTTTGGGGGCCTGGCCTCCCGGACCCCAGCTGT
GCACCGACATGTTCTCAGTGTCCTGAGTAAGACCAAAGAAGCTGGCAAGATCCTCTCTAATAATCCCAGCAAGGG
ACTGGCCCTGGGAATTGCCAAAGCCTGGGAGCTCTACGGCTCACCCAATGCTCTGGTGCTACTGATTGCTCAAGA
GAAGGAAAGAAACATATTTGACCAGCGTGCCATAGAGAATGAGCTACTGGCCAGGAACATCCATGTGATCCGACG
AACATTTGAAGATATCTCTGAAAAGGGGTCTCTGGACCAAGACCGAAGGCTGTTTGTGGATGGCCAGGAAATTGC
TGTGGTTTACTTCCGGGATGGCTACATGCCTCGTCAGTACAGTCTACAGAATTGGGAAGCACGTCTACTGCTGGA
GAGGTCACATGCTGCCAAGTGCCCAGACATTGCCACCCAGCTGGCTGGGACTAAGAAGGTGCAGCAGGAGCTAAG
CAGGCCGGGCATGCTGGAGATGTTGCTCCCTGGCCAGCCTGAGGCTGTGGCCCGCCTCCGCGCCACCTTTGCTGG
CCTCTACTCACTGGATGTGGGTGAAGAAGGGGACCAGGCCATCGCCGAGGCCCTTGCTGCCCCTAGCCGGTTTGT
GCTAAAGCCCCAGAGAGAGGGTGGAGGTAACAACCTATATGGGGAGGAAATGGTACAGGCCCTGAAACAGCTGAA
GGACAGTGAGGAGAGGGCCTCCTACATCCTCATGGAGAAGATCGAACCTGAGCCTTTTGAGAATTGCCTGCTACG
GCCTGGCAGCCCTGCCCGAGTGGTCCAGTGCATTTCAGAGCTGGGCATCTTTGGGGTCTATGTCAGGCAGGAAAA
GACACTCGTGATGAACAAGCACGTGGGGCATCTACTTCGAACCAAAGCCATCGAGCATGCAGATGGTGGTGTGGC
AGCGGGAGTGGCAGTCCTGGACAACCCATACCCTGTG**TGA**GGGCACAACCAGGCCACGGGACCTTCTATCCTCTG
TATTTGTCATTCCTCTCCTAGCCCTCCTGAGGGGTATCCTCCTAAAGACCTCCAAAGTTTTTATGGAAGGGTAAA
TACTGGTACCTTCCCCCAGCTTTCCATCTGAGGACCAGAAAAGTTGTGTCTCCCTTAGATGAGATCTAGACGCCC
CCAAATCCTTGAGATGTGGGTATAGCTCAGGGTAAGCTGCTCTGAGGTAAAGGTCCATGAACCCTGCCCCACTCC
TGTCAGCCCCTCATCAGCCTTTTCAGCAGGTTCCAGTGCCTGACTTGGGATAGGACTGAGTGGTAGGAGGAGGGG
GAGTGGAGGGGCATAGCCTTTCCCTAATTCTGCCTTAAATAAAACTGCATTGCTG

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FIGURE 1645

GACATGGCGGCGGCGCCGGTAGCGGCTGGGTCTGGAGCCGGCCGAGGGAGACGGTCGGCAGCCACAGTGGCGGCT
TGGGGCGGATGGGGCGGCCGGCCGCGGCCTGGTAACATTCTGCTGCAGCTGCGGCAGGGCCAGCTGACCGGCCGG
GGCCTGGTCCGGGCGGTGCAGTTCACTGAGACTTTTTTGACGGAGAGGGACAAACAATCCAAGTGGAGTGGAATT
CCTCAGCTGCTCCTCAAGCTGCACACCACCAGCCACCTCCACAGTGACTTTGTTGAGTGTCAAAACATCCTCAAG
GAAATTTCTCCTCTTCTCTCCATGGAGGCTATGGCATTTGTTACTGAAGAGAGGAAACTTACCCAAGAAACCACT
TATCCAAATACTTACATTTTTGACTTGTTTGGAGGTGTTGATCTTCTTGTAGAAATTCTTATGAGGCCTACGATC
TCTATCCGGGGACAGAAACTGAAAAGTAATGATGAAATGTCCAAGGACTGCTTGAGTATCCTGTATAATACCTGT
GTCTGTACAGAGGGAGTTACAAAGCGTTTGGCAGAAAAGAATGACTTTGTGATCTTCCTGTTTACATTGATGACA
AGTAAGAAGACATTCTTACAAACAGCAACCCTCATTGAAGATATTTTGGGTGTTAAAAAGGAAATGATCCGACTA
GATGAAGTCCCCAATCTGAGTTCCTTAGTATCCAATTTCGATCAGCAGCAGCTCGCTAATTTCTGCCGGATTCTG
GCTGTCACCATTTCAGAGATGGATACAGGGAATGATGACAAGCACACGCTTCTTGCCAAAAATGCTCAACAGAAG
AAGAGCTTGAGTTTGGGGCCTTCTGCAGCTGAAATCAATCAAGCGGCCCTTCTCAGCATTCCTGGCTTTGTTGAG
CGGCTTTGCAAACTGGCGACTCGAAAGGTGTCAGAGTCAACGGGCACAGCCAGCTTCCTTCAGGAGTTGGAAGAG
TGGTACACATGGCTAGACAATGCTTTGGTGCTAGATGCCCTGATGCGAGTGGCCAATGAGGAGTCAGAGCACAAT
CAAGCCTCCATTGTGTTCCCTCCTCCAGGGGCTTCTGAGGAGAATGGCCTGCCTCACACGTCAGCCAGAACCCAG
CTGCCCCAGTCAATGAAGATTATGCATGAGATCATGTACAAACTGGAAGTGCTCTATGTCCTCTGCGTGCTGCTG
ATGGGGCGTCAGCGAAACCAGGTTCACAGAATGATTGCAGAGTTCAAGCTGATCCCTGGACTTAATAATTTGTTT
GACAAACTGATTTGGAGGAAGCATTCAGCATCTGCCCTTGTCCTCCATGGTCACAACCAGAACTGTGACTGTAGC
CCGGACATCACCTTGAAGATACAGTTTTTGAGGCTTCTTCAGAGCTTCAGTGACCACCACGAGAACAAGTACTTG
TTACTCAACAACCAGGAGCTGAATGAACTCAGTGCCATCTCTCTCAAGGCCAACATCCCTGAGGTGGAAGCTGTC
CTCAACACCGACAGGAGTTTGGTGTGTGATGGGAAGAGGGGCTTATTAACTCGTCTGCTGCAGGTCATGAAGAAG
GAGCCAGCAGAGTCGTCTTTCAGGTTTTGGCAAGCTCGGGCTGTGGAGAGTTTCCTCCGAGGGACCACCTCCTAT
GCAGACCAGATGTTCCTGCTGAAGCGAGGCCTCTTGGAGCACATCCTTTACTGCATTGTGGACAGCGAGTGTAAG
TCAAGGGATGTGCTCCAGAGTTACTTTGACCTCCTGGGGGAGCTGATGAAGTTCAACGTTGATGCATTCAAGAGA
TTCAATAAATATATCAACACCGATGCAAAGTTCCAGGTATTCCTGAAGCAGATCAACAGCTCCCTGGTGGACTCC
AACATGCTGGTGCGCTGTGTCACTCTGTCCCTGGACCGATTTGAAAACCAGGTGGATATGAAAGTTGCCGAGGTA
CTGTCTGAATGCCGCCTGCTCGCCTACATATCCCAGGTGCCCACGCAGATGTCCTTCCTCTTCCGCCTCATCAAC
ATCATCCACGTGCAGACGCTGACCCAGGAGAACGTCAGCTGCCTCAACACCAGCCTGGTGATCCTGATGCTGGCC
CGACGGAAAGAGCGGCTGCCCCTGTACCTGCGGCTGCTGCAGCGGATGGAGCACAGCAAGAAGTACCCCGGCTTC
CTGCTCAACAACTTCCACAACCTGCTGCGCTTCTGGCAGCAGCACTACCTGCACAAGGACAAGGACAGCACCTGC
CTAGAGAACAGCTCCTGCATCAGCTTCTCATACTGGAAGGAGACAGTGTCCATCCTGTTGAACCCGGACCGGCAG
TCACCCTCTGCTCTCGTTAGCTACATTGAGGAGCCCTACATGGACATAGACAGGGACTTCACTGAGGAGTGACCT
TGGGCCAGGCCTCGGGAGGCTGCTGGGCCAGTGTGGGTGAGCGTGGGTACGATGCCACACGCCCTGCCCTGTTCC
CGTTCCTCCCTGCTGCTCTCTGCCTGCCCCAGGTCTTTGGGTACAGGCTTGGTGGGAGGGAAGTCCTAGAAGCCC
TTGGTCCCCCTGGGTCTGAGGGCCCTAGGTCATGGAGAGCCTCAGTCCCCATAATGAGGACAGGGTACCATGCCC
ACCTTTCCTTCAGAACCCTGGGGCCCAGGGCCACCCAGAGGTAAGAGGACATTTAGCATTAGCTCTGTGTGAGCT
CCTGCCGGTTTCTTGGCTGTCAGTCAGTCCCAGAGTGGGGAGGAAGATATGGGTGACCCCCACCCCCCATCTGTG
AGCCAAGCCTCCCTTGTCCCTGGCCTTTGGACCCAGGCAAAGGCTTCTGAGCCCTGGGCAGGGGTGGTGGGTACC
AGAGAATGCTGCCTTCCCCCAAGCCTGCCCCTCTGCCTCATTTTCCTGTAGCTCCTCTGGTTCTGTTTGCTCATT
GGCCGCTGTGTTCATCCAAGGGGGTTCTCCCAGAAGTGAGGGGCCTTTCCCTCCATCCCTTGGGGCACGGGGCAG
CTGTGCCTGCCCTGCCTCTGCCTGAGGCAGCCGCTCCTGCCTGAGCCTGGACATGGGGCCCTTCCTTGTGTTGCC
AATTTATTAACAGCAAATAAACCAATTAAATGGAGACTATTAAATAACTTTATTTT

FIGURE 1646

GGAAGAACCCGCAGCAGCTCCCAGGATGAACTGGTTGCAGTGGCTGCTGCTGCTGCGGGGGCGCTGAGAGGACAC
GAGCTCT**ATG**CCTTTCCGGCTGCTCATCCCGCTCGGCCTCCTGTGCGCGCTGCTGCCTCAGCACCATGGTGCGCC
AGGTCCCGACGGCTCCGCGCCAGATCCCGCCCACTACAGGGAGCGAGTCAAGGCCATGTTCTACCACGCCTACGA
CAGCTACCTGGAGAATGCCTTTCCCTTCGATGAGCTGCGACCTCTCACCTGTGACGGGCACGACACCTGGGGCAG
TTTTTCTCTGACTCTAATTGATGCACTGGACACCTTGCTGATTTTGGGGAATGTCTCAGAATTCCAAAGAGTGGT
TGAAGTGCTCCAGGACAGCGTGGACTTTGATATTGATGTGAACGCCTCTGTGTTTGAAACAAACATTCGAGTGGT
AGGAGGACTCCTGTCTGCTCATCTGCTCTCCAAGAAGGCTGGGGTGGAAGTAGAGGCTGGATGGCCCTGTTCCGG
GCCTCTCCTGAGAATGGCTGAGGAGGCGGCCCGAAAACTCCTCCCAGCCTTTCAGACCCCCACTGGCATGCCATA
TGGAACAGTGAACTTACTTCATGGCGTGAACCCAGGAGAGACCCCTGTCACCTGTACGGCAGGGATTGGGACCTT
CATTGTTGAATTTGCCACCCTGAGCAGCCTCACTGGTGACCCGGTGTTCGAAGATGTGGCCAGAGTGGCTTTGAT
GCGCCTCTGGGAGAGCCGGTCAGATATCGGGCTGGTCGGCAACCACATTGATGTGCTCACTGGCAAGTGGGTGGC
CCAGGACGCAGGCATCGGGGCTGGCGTGGACTCCTACTTTGAGTACTTGGTGAAAGGAGCCATCCTGCTTCAGGA
TAAGAAGCTCATGGCCATGTTCCTAGAGTATAACAAAGCCATCCGGAACTACACCCGCTTCGATGACTGGTACCT
GTGGGTTCAGATGTACAAGGGGACTGTGTCCATGCCAGTCTTCCAGTCCTTGGAGGCCTACTGGCCTGGTCTTCA
GAGCCTCATTGGAGACATTGACAATGCCATGAGGACCTTCCTCAACTACTACACTGTATGGAAGCAGTTTGGGGG
GCTCCCGGAATTCTACAACATTCCTCAGGGATACACAGTGGAGAAGCGAGAGGGCTACCCACTTCGGCCAGAACT
TATTGAAAGCGCAATGTACCTCTACCGTGCCACGGGGGATCCCACCCTCCTAGAACTCGGAAGAGATGCTGTGGA
ATCCATTGAAAAAATCAGCAAGGTGGAGTGCGGATTTGCAACAATCAAAGATCTGCGAGACCACAAGCTGGACAA
CCGCATGGAGTCGTTCTTCCTGGCCGAGACTGTGAAATACCTCTACCTCCTGTTTGACCCAACCAACTTCATCCA
CAACAATGGGTCCACCTTCGACGCGGTGATCACCCCCTATGGGGAGTGCATCCTGGGGGCTGGGGGGTACATCTT
CAACACAGAAGCTCACCCCATCGACCCTGCCGCCCTGCACTGCTGCCAGAGGCTGAAGGAAGAGCAGTGGGAGGT
GGAGGACTTGATGAGGGAATTCTACTCTCTCAAACGGAGCAGGTCGAAATTTCAGAAAAACACTGTTAGTTCGGG
GCCATGGGAACCTCCAGCAAGGCCAGGAACACTCTTCTCACCAGAAAACCATGACCAGGCAAGGGAGAGGAAGCC
TGCCAAACAGAAGGTCCCACTTCTCAGCTGCCCCAGTCAGCCCTTCACCTCCAAGTTGGCATTACTGGGACAGGT
TTTCCTAGACTCCTCA**TAA**CCACTGGATAATTTTTTTATTTTTATTTTTTTGAGGCTAAACTATAATAAATTGCT
TTTGGCTATC

FIGURE 1647

CAGGTCCGGAGCCTCAACTTCAGG**ATG**TTGACAACATTGCTGCCGATACTGCTGCTGTCTGGCTGGGCCTTTTGT
AGCCAAGACGCCTCAGATGGCCTCCAAAGACTTCATATGCTCCAGATCTCCTACTTCCGCGACCCCTATCACGTG
TGGTACCAGGGCAACGCGTCGCTGGGGGGACACCTAACGCACGTGCTGGAAGGCCCAGACACCAACACCACGATC
ATTCAGCTGCAGCCCTTGCAGGAGCCCGAGAGCTGGGCGCGCACGCAGAGTGGCCTGCAGTCCTACCTGCTCCAG
TTCCACGGCCTCGTGCGCCTGGTGCACCAGGAGCGGACCTTGGCCTTTCCTCTGACCATCCGCTGCTTCCTGGGC
TGTGAGCTGCCTCCCGAGGGCTCTAGAGCCCATGTCTTCTTCGAAGTGGCTGTGAATGGGAGCTCCTTTGTGAGT
TTCCGGCCGGAGAGAGCCTTGTGGCAGGCAGACACCCAGGTCACCTCCGGAGTGGTCACCTTCACCCTGCAGCAG
CTCAATGCCTACAACCGCACTCGGTATGAACTGCGGGAATTCCTGGAGGACACCTGTGTGCAGTATGTGCAGAAA
CATATTTCCGCGGAAAACACGAAAGGGAGCCAAACAAGCCGCTCCTACACTTCGCTGGTCCTGGGCGTCCTGGTG
GGCAGTTTCATCATTGCTGGTGTGGCTGTAGGCATCTTCCTGTGCACAGGTGGACGGCGATGT**TAA**TTACTCTCC
AGCCCCCTCAGAAGGGGCTGGATTGATGGAGGCTGGCAAGGGAAAGTTTCAGCTCACTGTGAAGCCAGACTCCCC
AACTGAAACACCAGAAGGTTTGGAGTGACAGCTCCTTTCTTCTCCCACATCTGCCCACTGAAGATTTGAGGGAGG
GGAGATGGAGAGGAGAGGTGGACAAAGTACTTGGTTTGCTAAGAACCTAAGAACGTGTATGCTTTGCTGAATTAG
TCTGATAAGTGAATGTTTATCTATCTTTGTGGAAAACAGATAATGGAGTTGGGGCAGGAAGCCTATGGCCCATCC
TCCAAAGACAGACAGAATCACCTGAGGCGTTCAAAAGATATAACCAAATAAACAAGTCATCCACAATCAAAATAC
AACATTCAATACTTCCAGGTGTGTCAGACTTGGGATGGGACGCTGATATAATAGGGTAGAAAGAAGTAACACGAA
GAAGTGGTGGAAATGTAAAATCCAAGTCATATGGCAGTGATCAATTATTAATCAATTAATAATATTAATAAATTT
CTTATATTT

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FIGURE 1648

ACGGAAACCTTTTTAGGGAGTCCAAGGTACAGTCGCCGCGTGCGGAGCTTGTTACTGGTTACTTGGCCTC**ATG**GC
GGTCCGAGCTTCGTTCGAGAACAACTGTGAGATCGGCTGCTTTGCCAAGCTCACCAACACCTACTGTCTGGTAGC
GATCGGAGGCTCAGAGAACTTCTACAGTGTGTTCGAGGGCGAGCTCTCCGATACCATCCCCGTGGTGCACGCGTC
TATCGCCGGCTGCCGCATCATCGGGCGCATGTGTGTGGGGAACAGGCACGGTCTCCTGGTACCCAACAATACCAC
CGACCAGGAGCTGCAACACATTCGCAACAGCCTCCCAGACACAGTGCAGATTAGGCGGGTGGAGGAGCGGCTCTC
AGCCTTGGGCAATGTCACCACCTGCAATGACTACGTGGCCTTGGTCCACCCAGACTTGGACAGGGAGACAGAAGA
AATTCTGGCAGATGTGCTCAAGGTGGAAGTCTTCAGACAGACAGTGGCCGACCAGGTGCTAGTAGGAAGCTACTG
TGTCTTCAGCAATCAGGGAGGGCTGGTGCATCCCAAGACTTCAATTGAAGACCAGGATGAGCTGTCCTCTCTTCT
TCAAGTCCCCCTTGTGGCGGGGACTGTGAACCGAGGCAGTGAGGTGATTGCTGCTGGGATGGTGGTGAATGACTG
GTGTGCCTTCTGTGGCCTGGACACAACCAGCACAGAGCTGTCAGTGGTGGAGAGTGTCTTCAAGCTGAATGAAGC
CCAGCCTAGCACCATTGCCACCAGCATGCGGGATTCCCTCATTGACAGCCTCACC**TGA**GTCACCTTCCAAGTTGT
TCCATGGGCTCCTGGCTCTGGACTGTGGCCAACCTTCTCCACATTCCGCCCAATCTGTACCGGATGCTGGCAGGG
AGGTGGCAGAGAGCTCACTGGGACTGAGGGGCTGGGCACCCAACCCTTTTCCACCTGTGCTTATCGCCTGGATCT
ATCATTACTGCAAAAACCTGCTCTGTTGTGCTGGCTGGCAGGCCCTGTGGCTGCTGGCTGAGGGTTCTGCTGTCC
TGTGCCACCCCATTAAAGTGCAGTTCCCTCCGG

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FIGURE 1649

AGGAACCAGACTAGCATTTCTCAGTGGGTTCCAGTATGCAGCCGATTGATACCTGTGTCTCCTACCCAAGGACAG
GGGGACAGGGCTCTGTCTCGCACTTCCCAGTGGCCCCAGATGAGCCAGTCCCGAGCATGTGGTGGATCAGAACAG
ATTCCTGGAATAGACATACAGCTGAATAGGAAGTATCACACCACACGTAAGCTTTCTACTACCAAAGATTCCCCA
CAGCCTGTTGAGGAGAAGGTTGGTGCTTTCACAAAGATAATAGAAGCCATGGGATTCACGGGACCTTTGAAATAC
AGTAAATGGAAGATTAAGATTGCGGCCCTGCGCATGTATACTAGCTGTGTGGAGAAAACTGACTTCGAGGAATTC
TTTCTAAGGTGTCAGATGCCTGATACATTCAATTCATGGTTTCTTATAACCCTACTCCACGTCTGGATGTGTCTA
GTCCGAATGAAGCAGGAAGGCCGGAGTGGGAAGTACATGTGTCGTATCATAGTTCATTTTATGTGGGAGGATGTT
CAGCAGCGCGGCAGAGTCATGGGGGTTAATCCCTATATCCTGAAGAAGAACATGATCCTCATGACAAATCATTTC
TATGCAGCGATCTTGGGATATGATGAGGGGATCCTTTCAGATGATCATGGGCTGGCCGCTGCCCTCTGGAGAACC
TTCTTCAACCGGAAATGTGAAGACCCTCGACATCTTGAATTGCTGGTAGAGTATGTGAGGAAACAGATACAGTAC
CTGGACTCCATGAACGGGGAGGATCTGCTTCTGACAGGGGAGGTGAGCTGGCGCCCTCTAGTGGAGAAGAATCCT
CAGAGCATCCTGAAGCCCCATTCTCCGACTTACAACGACGAGGGACTTTGATGGGCTGGGCCCTCCGCACGGCCC
GCCAGCTGGCTTCGAGGAACCTCCAGGAGAGAAGTGCCTGTTGGTCCAGGACCCTGCAGAAAGTGGCCTGAACTG
ACCTCTGAACAGCATCTGTCAAATACCTGGCCCCATTTGTGTTGAGTTTCCTCTTAGTGTGCCCAGGAGTCTGAT
CTGCTGGGGTACAGGGCTGGGAGAACCCCTAGCTCTCCCGGGGTGTCCTCTCCCTTAGGGGAAGCCCCGAGTGAG
AGTCCCCCAGCACACACTCCCCAACCCCCTCCAGCAACTACATGTGACTGATAGCTTTTCCCAAAGGCCAAGGAA
GGGATGGTGTAGGTTCAAAAGGGAAACCCCCCAGGGCCTGCTGTGGCCTAGGAGCAGATTGTAATGCTGCCGAGT
CCGGTCGGTGACCACGCGTTGTCCCTCGGCTTTCAGCCATGGGGTTGAGTTGGCCATTAAAAGAAACAGAGACTT
CTCTCTGCCATGGCCCTTCTTTATTCCAGGGACTTAGAAACTTGCCTGAGATGGTGGACGCAGTAATGAGGGCAC
CGCGCAGCTCAGTTAGAGACGGAGAAAGGGAAGAGGCTGGGATGGTCTCTGCTGCTCTTGCCTCTAGTTCATGGA
GATGTGTCTCTGTTCAGGCCAAGATACAGCCAGCCAGGCCTGTCGTCTGGGACCCAGGAGGCCTCTGATGACCAA
GGGCTTTCACATCCTAAGTCATTTGGAAGGAGGCCTTGAGAACAAAGTCACCTTTGTCACTCCCAGTGAACTGAA
TGAGGAACATGCTGTCTCCTGTCTTGGCCTCCCCTTTCATGAGATACTGGGGAGAAGAGAACATTCCTCCTGGCT
TAGTTGTAGCAGACCCAGACCTGTGCCCAGCTTTGGTCCCCCTTCCCAACTTCTGAAGCACGTGCTGCAGAGCCA
CCTTGGTCTGAGCACCTGAGGACCAGCCCCTCCTCCCTCAGTGCGGGTCATCTCTTGGGGGATTTTCTTAAAGTG
AAGAAAGGGGGTGGGGAACCATATTGCCCCTCCCTCCCCCATCAAACTTCCTTCATTTAACTTGCTATAAAATGA
GTCATATAAAGAAACTCTATATGGGTGAGGTATATCCCACTTCTGTGAAAACATTACAAATCAAACCGCTTCTCT
CAGTTTATTTAAGATGCTTTTGTTGCGAGCGGAGCTCTAGAGTGAAGCCTCCTGTGTGTGTGTGAGATAATAACA
CCTTGTAACTCATTACAGCTGGGCACTATTTACATAAACCAGAGCTGAGCCAGGCAGGAATTTGCTGATTAATTT
ATTTTTAATGGAGTGAAGTATACCATGCACCAAAATAAACTTTACTGTGTGTACCTAACTGCTCCTGG

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FIGURE 1650A

CGTTCGGGCAGCGGCCTCTTGTTACCCGGGGCCCGCTTGCCTCAGCTTCTTGCTGCCGCCAGCACGCTAAGCTCC
AGTCGGCGCCGAAGGAGAGCTTCCCGACCCTCGTGTCCAGTAGCCGCAATCCCAGGCTGGGAGGGTGAGGCGCCG
CGCTCTGCCGCCCCCCCGCCCCTCGCTCCCTGTGTCCTGGCGGATTTGCACGTAATCTATCCGAAAGCCCAGTCC
CACCCGCCACCCGACTCTGGAGCTCCCATTCTTCAGGACCCTGCTGAAGTATCGCTTCTCAGCCGCCTTCTCCAG
GCGCAGCTGCATTCGCTTCTCGGTTTTTGCACTCGCTGTGCACCGAGTTACTTTCCCGGCCCCTCGTTGACACCG
TTCACAGGTGGCTGTTGGTCTTTAGTAAGGGTGCTGTCTTCCCTGTCTGATCCTTAGCAAAAGTAGGAAGGTAGA
GTTGTTGGCAGAAATCCTGGGATAAGAGAATAGTTTCCTGGAAGATCTGTGCCTCCAACCAGCAGAGAGGGATTG
AGCTTCATTGAACTCAACAGAGCCAACATTTCATAGCACCATGTTCAAGAGGAGGTTGAAGTGGCATGGCAATGG
TTAGAGACCCTGCTGGGCGTGAACACCCTCTGGCTACCTAGGGACCTGTGGGCCTACCACCTGGTGCCCTC**ATG**G
AGACAAGAAGCCCTGGGTTGAACAACATGAAGCCCCAGTCACTGCAGCTGGTACTGGAAGAGCAGGTGCTGGCAC
TACAGCAGCAGATGGCAGAGAATCAGGCAGCCTCCTGGCGGAAGCTGAAGAACTCCCAGGAGGCCCAGCAGAGAC
AAGCAACCCTTGTGAGGAAGCTGCAGGCCAAGGTGCTGCAGTACCGAAGCTGGTGCCAAGAGCTGGAGAAGCGGC
TAGAAGCCACTGGAGGACCAATCCCCCAGAGGTGGGAAAATGTGGAGGAGCCAAACCTGGATGAGCTGCTGGTCC
GATTGGAGGAGGAGCAACAGAGGTGTGAGAGTCTAGCAGAGGTGAACACCCAGCTTCGACTGCACATGGAAAAAG
CTGACGTGGTGAATAAAGCCCTTAGGGAAGATGTGGAAAAACTGACAGTGGACTGGAGCCGGGCCCGGGATGAGC
TAATGAGGAAGGAGAGCCAGTGGCAGATGGAGCAGGAGTTCTTCAAGGGCTACCTGAAAGGGGAGCACGGTCGCC
TTCTCAGTCTATGGCGGGAGGTTGTGACATTCCGACGCCACTTCCTGGAAATGAAGTCAGCTACTGACAGAGATC
TGATGGAGCTAAAAGCTGAGCATGTGAGGCTTTCAGGGTCTCTGTTGACCTGTTGTCTGCGCTTGACTGTGGGAG
CACAGTCTCGGGAACCCAACGGATCTGGAAGAATGGATGGGCGGGAGCCGGCCCAGCTGCTGCTGCTACTAGCCA
AGACCCAGGAGCTGGAGAAGGAAGCCCATGAAAGGAGCCAGGAGTTAATACAGCTGAAGAGTCAAGGGGATCTGG
AGAAGGCTGAACTTCAGGACCGGGTGACCGAGCTCTCTGCTCTGTTGACCCAGTCTCAGAAGCAAAATGAAGATT
ATGAAAAGATGATAAAGGCTCTGAGAGAGACAGTGGAGATCCTGGAGACAAATCACACAGAATTAATGGAACATG
AAGCATCTCTTAGTAGGAATGCGCAAGAGGAGAAGTTGTCTTTACAGCAGGTGATCAAGGATATAACCCAGGTCA
TGGTGGAAGAAGGGGACAATATAGCCCAAGGCTCTGGTCATGAGAACTCTTTGGAATTGGACTCTAGTATCTTCT
CCCAGTTTGATTACCAGGATGCAGACAAGGCTCTTACTCTGGTGCGTTCAGTGCTGACTCGGAGACGCCAGGCTG
TGCAGGACCTAAGGCAGCAGCTTGCAGGCTGTCAAGAGGCTGTGAACTTGTTGCAACAGCAGCATGATCAGTGGG
AGGAAGAGGGCAAAGCCTTGAGACAGCGGCTGCAGAAGCTCACTGGGGAGCGGGACACTCTGGCAGGGCAGACTG
TGGACCTCCAGGGAGAGGTGGACTCTCTCAGCAAGGAGCGAGAGCTGCTGCAGAAGGCCAGGGAAGAGCTGCGGC
AGCAGCTGGAGGTGCTAGAGCAGGAGGCATGGCGCCTGCGAAGGGTAAATGTGGAGCTTCAGCTGCAGGGGGACT
CTGCCCAGGGCCAGAAGGAGGAACAGCAGGAGGAGCTGCACCTGGCTGTCCGGGAGAGGGAGCGTCTTCAGGAGA
TGCTGATGGGCCTGGAAGCCAAACAGTCAGAATCACTCAGTGAACTGATCACTCTTCGGGAAGCCCTGGAGTCAA
GTCACCTGGAAGGGGAGTTACTGAGGCAAGAGCAAACGGAAGTGACCGCAGCGCTGGCTAGGGCAGAGCAGTCAA
TTGCAGAGCTGTCGAGTTCTGAAAACACCCTGAAGACAGAAGTAGCTGATCTTCGGGCTGCAGCTGTCAAGCTCA
GTGCCTTAAATGAGGCTTTGGCGTTAGATAAAGTTGGGCTGAACCAGCAGCTTCTCCAGTTAGAGGAGGAGAACC
AGTCTGTGTGCAGCAGAATGGAGGCCGCAGAGCAGGCGAGAAATGCTTTGCAGGTCGACCTGGCGGAGGCAGAGA
AGAGGAGGGAAGCCCTGTGGGAAAAGAACACTCACCTGGAGGCTCAGCTGCAGAAAGCTGAGGAGGCTGGGGCTG
AGCTGCAGGCAGATCTCAGGGACATCCAAGAAGAGAAGGAAGAAATTCAAAAGAAACTAAGTGAGTCACGTCACC
AGCAGGAGGCAGCCACGACTCAGCTGGAGCAGCTACATCAGGAGGCAAAGCGACAGGAAGAAGTGCTTGCCAGGG
CAGTCCAGGAGAAGGAGGCCCTAGTACGAGAGAAAGCGGCTCTAGAGGTGCGGCTGCAGGCCGTGGAGCGTGACC
GGCAGGACCTCGCTGAACAACTACAGGGGCTCAGCTCAGCCAAGGAGCTACTGGAGAGCAGTCTGTTTGAAGCCC
AACAACAAAATTCTGTGATAGAGGTCACCAAGGGGCAGCTGGAGGTCCAGATTCAAACTGTCACTCAAGCCAAGG
AAGTAATCCAAGGGGAAGTGAGGTGCCTGAAGCTGGAACTGGACACTGAACGGAGTCAGGCAGAGCAGGAGCGGG
ATGCTGCAGCCAGACAGCTGGCCCAGGCTGAGCAAGAAGGGAAGACTGCCTTGGAGCAGCAGAAGGCAGCCCATG
AGAAAGAGGTGAACCAGCTCCGGGAGAAATGGGAGAAGGAGCGCTCCTGGCACCAGCAGGAGCTGGCAAAGGCTC
TGGAGAGCTTAGAAAGGGAAAAAATGGAGCTGGAAATGAGGCTAAAGGAGCAGCAGACAGAAATGGAGGCCATCC
AGGCCCAGAGGGAAGAAGAACGGACCCAGGCAGAGAGTGCCCTATGCCAGATGCAGCTGGAAACAGAGAAGGAGA
GAGTATCCCTCCTGGAGACACTGCTGCAGACGCAGAAGGAGCTAGCAGATGCCAGCCAACAACTGGAACGACTGA
GGCAGGACATGAAAGTCCAGAAATTAAAGGAGCAGGAGACCACTGGGATACTACAGACCCAGCTCCAGGAGGCTC

FIGURE 1650B

AACGGGAGCTGAAGGAGGCAGCCCGGCAGCACAGAGATGACCTTGCTGCCCTCCAAGAAGAGAGCAGCTCCCTGC
TGCAGGATAAGATGGACCTGCAGAAGCAGGTGGAGGACTTGAAGTCTCAGCTGGTGGCCCAGGATGACTCCCAGA
GGCTGGTGGAGCAGGAGGTTCAGGAGAAGCTGAGAGAGACCCAGGAGTATAACCGAATTCAGAAGGAGCTGGAGA
GAGAGAAAGCCAGCCTGACTCTGTCACTGATGGAAAAGGAACAGAGACTCCTTGTTTTACAAGAAGCTGACTCTA
TTCGACAACAAGAGCTGAGTGCCCTGCGCCAGGACATGCAGGAGGCCCAGGGAGAACAGAAAGAGCTCAGTGCTC
AGATGGAATTACTAAGGCAAGAGGTGAAGGAAAAGGAGGCTGACTTTCTGGCCCAGGAAGCACAGCTGCTGGAGG
AGCTGGAGGCGTCTCATATCACGGAGCAGCAGCTGCGAGCCTCCTTGTGGGCCCAGGAAGCCAAGGCAGCCCAAC
TACAGCTGCGACTGCGCAGCACAGAGAGCCAGCTAGAAGCGCTGGCCGCAGAGCAGCAGCCCGGGAACCAGGCCC
AGGCCCAGGCCCAGCTGGCCAGCCTCTACTCTGCCCTGCAGCAGGCCCTGGGGTCTGTTTGTGAGAGCAGGCCTG
AGCTGAGTGGTGGGGGAGACTCTGCTCCTTCCGTCTGGGGCCTTGAGCCAGACCAGAATGGAGCTAGGAGCCTCT
TTAAGAGAGGGCCCCTGCTGACTGCTCTCTCCGCTGAGGCAGTAGCATCTGCCCTCCACAAGCTTCATCAAGACC
TGTGGAAGACTCAACAGACCCGGGATGTTCTGAGGGATCAGGTCCAGAAACTGGAAGAGCGTCTAACTGATACTG
AGGCTGAGAAGAGCCAGGTCCACACAGAGTTGCAGGATCTGCAGAGACAGCTCTCCCAGAATCAGGAAGAGAAAT
CCAAGTGGGAAGGAAAGCAGAACTCCCTAGAATCTGAGCTGATGGAACTACATGAAACTATGGCATCCTTACAGA
GTCGCCTGCGGAGAGCAGAGCTACAGCGAATGGAAGCCCAGGGTGAGCGAGAGTTACTTCAGGCAGCCAAGGAGA
ACCTGACAGCCCAGGTGGAACACCTGCAAGCAGCTGTCGTAGAAGCCAGGGCTCAGGCAAGTGCTGCTGGCATCC
TGGAAGAAGACCTGAGAACGGCTCGCTCAGCACTGAAGCTGAAAAATGAGGAAGTAGAGAGTGAGCGTGAGAGAG
CCCAGGCTCTGCAAGAGCAGGGCGAACTGAAGGTGGCCCAAGGGAAGGCTCTGCAAGAGAATTTGGCCCTCCTGA
CCCAGACCCTAGCTGAAAGAGAAGAGGAGGTGGAGACTCTGCGGGGACAAATCCAGGAACTGGAGAAGCAACGGG
AAATGCAGAAGGCTGCTTTGGAATTGCTGTCTCTGGACCTGAAGAAGAGGAACCAAGAGGTAGATCTGCAGCAAG
AACAGATTCAGGAGCTAGAGAAGTGTAGGTCTGTTTTAGAGCATCTGCCCATGGCCGTCCAGGAGCGAGAGCAGA
AGCTGACTGTGCAGAGGGAGCAGATCAGAGAGCTCGAGAAGGATCGGGAGACTCAGAGGAACGTCTTGGAGCATC
AGCTTCTAGAACTTGAGAAGAAAGACCAAATGATTGAGTCCCAGAGAGGACAGGTTCAGGACCTGAAAAAGCAGT
TGGTTACTCTGGAATGCCTGGCCCTGGAACTGGAGGAAAACCATCACAAGATGGAGTGCCAGCAAAAACTGATCA
AGGAGCTGGAGGGCCAGAGGGAAACCCAGAGAGTGGCTTTGACCCACCTTACGCTGGACCTAGAAGAAAGGAGCC
AGGAGCTGCAGGCACAAAGCAGCCAGATCCATGACCTGGAGAGCCACAGCACCGTTCTGGCAAGAGAGCTGCAGG
AGAGGGACCAGGAGGTGAAGTCTCAGCGAGAACAGATCGAGGAGCTGCAGAGGCAGAAAGAGCATCTGACTCAGG
ATCTCGAGAGGAGAGACCAGGAGCTGATGCTGCAGAAGGAGAGGATTCAGGTTCTCGAGGATCAGAGGACCCGGC
AGACCAAGATCCTGGAGGAGGACCTGGAACAGATCAAGCTGTCCTTGAGAGAGCGAGGCCGGGAGCTGACCACTC
AGAGGCAGCTGATGCAGGAACGGGCAGAGGAAGGGAAGGGCCCAAGTAAAGCACAGCGCGGGAGCCTAGAGCACA
TGAAGCTGATCCTGCGTGATAAGGAGAAGGAGGTGGAATGTCAGCAGGAGCATATCCATGAACTCCAGGAGCTCA
AAGACCAGCTGGAGCAGCAGCTCCAGGGCCTGCACAGGAAGGTAGGTGAGACCAGCCTCCTCCTGTCCCAGCGAG
AGCAGGAAATAGTGGTCCTGCAGCAGCAACTGCAGGAAGCCAGGGAACAAGGGGAGCTGAAGGAGCAGTCACTTC
AGAGTCAACTGGATGAGGCCCAGAGAGCCCTAGCCCAGAGGGACCAGGAACTGGAGGCTCTGCAGCAAGAACAGC
AGCAGGCCCAGGGACAGGAGGAGAGGGTGAAGGAAAAGGCAGACGCCCTCCAGGGAGCTCTGGAGCAAGCCCATA
TGACACTGAAGGAGCGTCATGGAGAGCTTCAGGACCACAAGGAACAGGCACGAAGGCTGGAGGAAGAGCTGGCAG
TGGAGGGACGGCGGGTCCAGGCCCTGGAGGAGGTGCTGGGAGACCTAAGGGCTGAGTCTCGGGAACAGGAGAAAG
CTCTGTTGGCCCTCCAGCAGCAGTGTGCTGAGCAGGCACAGGAGCATGAGGTGGAGACCAGGGCCCTGCAGGACA
GCTGGCTGCAGGCCCAGGCAGTGCTCAAGGAACGGGACCAGGAGCTGGAAGCTCTGCGGGCAGAAAGTCAGTCCT
CCCGGCATCAGGAGGAGGCTGCCCGGGCCCGGGCTGAGGCTCTGCAGGAGGCCCTTGGCAAGGCTCATGCTGCCC
TGCAGGGGAAAGAGCAGCATCTCCTCGAGCAGGCAGAATTGAGCCGCAGTCTGGAGGCCAGCACTGCAACCCTGC
AAGCCTCCCTGGATGCCTGCCAGGCACACAGTCGGCAGCTGGAGGAGGCTCTGAGGATACAAGAAGGTGAGATCC
AGGACCAGGATCTCCGATACCAGGAGGATGTGCAGCAGCTGCAGCAGGCACTTGCCCAGAGGGATGAAGAGCTGA
GACATCAGCAGGAACGGGAGCAGCTGCTGGAGAAGTCTCTGGCCCAGAGGGTCCAAGAGAATATGATCCAAGAGA
AGCAGAATCTGGGGCAAGAGAGAGAAGAGGAGGAGATAAGGGGCCTTCATCAGAGTGTAAGGGAGCTACAGCTGA
CTCTAGCCCAAAAGGAACAGGAGATTCTGGAGCTGAGGGAGACCCAGCAAAGGAACAACCTGGAAGCCTTACCCC
ACAGCCACAAAACCTCCCCAATGGAGGAACAATCTCTAAAACTTGATTCTTTAGAGCCCAGGCTGCAGCGGGAGC
TGGAGCGGCTACAGGCAGCCCTGAGACAGACAGAAGCCAGGGAGATTGAGTGGAGGGAGAAGGCCCAGGACTTGG

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FIGURE 1650C

CACTCTCCCTAGCGCAGACCAAGGCCAGTGTCAGCAGTCTGCAGGAGGTAGCCATGTTCCTACAAGCCTCTGTCC
TGGAGCGGGACTCAGAACAGCAAAGGCTGCAGGATGAACTGGAGCTCACCAGACGGGCTCTGGAGAAGGAGCGGC
TACACAGCCCAGGTGCAACCAGCACAGCAGAACTGGGGTCCAGAGGGGAGCAGGGTGTGCAGCTGGGAGAGGTCT
CAGGAGTGGAGGCTGAGCCTAGTCCTGATGGAATGGAGAAGCAGTCATGGAGACAAAGGCTTGAACACCTGCAGC
AAGCAGTGGCCCGGCTGGAGATTGACAGGAGCAGGCTGCAGCGCCACAATGTCCAGCTGCGGAGTACCTTGGAGC
AGGTGGAGCGAGAACGGAGGAAGCTGAAGAGGGAGGCCATGCGTGCGGCCCAGGCAGGGTCCCTAGAGATCAGCA
AGGCCACGGCTTCTTCACCCACACAGCAGGATGGGAGAGGACAGAAGAACTCAGATGCCAAGTGTGTGGCTGAAC
TGCAGAAAGAGGTGGTCCTGCTGCAAGCTCAGCTGACTTTGGAGCGGAAGCAGAAGCAGGACTACATCACCCGCT
CAGCACAGACCAGCCGTGAGCTAGCAGGCCTGCACCACAGCCTCTCACACTCACTTCTTGCCGTGGCCCAGGCCC
CTGAGGCCACTGTCCTGGAGGCAGAGACCCGCAGGCTGGATGAGTCCCTGACTCAAAGTCTGACATCCCCAGGGC
CAGTCCTGCTACACCCCAGCCCCAGCACTACCCAAGCCGCCTCCAGG**TAG**CAGCCACAGCCAGGAGCACACAGAC
AGAAGACTGTGTCATGGGTCATGGCCCCTCCGCACACCTACAGGTTTGCCAAAGGAAAAGCCTGGCTCTGTTAGG
CACCCAGGAGCCCCAGGTCGGCGGGTGTTCCCAGGAAGAGGAAGTAAATCTGCAACCCTGGGGAGGACCCCAACT
CACCTGGGAATGAGGCAAATTGCATTTGCTTGCTCCCTATGGAATCACCCAGAGGGGTGCCTTGCCCTGGCTGAG
GGACATGTACTGCCTCTCATCTAGAATTTATTTTCCTAGCACTTCACCACCTCCTTCATCTTCTCCTTCAACAAT
AAACCCTGAGATCTTTGCATTC

FIGURE 1651

CTGGCGTCCCCTTTCCGGCCGGTCCCC**ATG**GAGGCGCTGGGGAAGCTGAAGCAGTTCGATGCCTACCCCAAGACT
TTGGAGGACTTCCGGGTCAAGACCTGCGGGGGCGCCACCGTGACCATTGTCAGTGGCCTTCTCATGCTGCTACTG
TTCCTGTCCGAGCTGCAGTATTACCTCACCACGGAGGTGCATCCTGAGCTCTACGTGGACAAGTCGCGGGGAGAT
AAACTGAAGATCAACATCGATGTACTTTTTCCGCACATGCCTTGTGCCTATCTGAGTATTGATGCCATGGATGTG
GCCGGAGAACAGCAGCTGGATGTGGAACACAACCTGTTCAAGCAACGACTAGATAAAGATGGCATCCCCGTGAGC
TCAGAGGCTGAGCGGCATGAGCTTGGGAAAGTCGAGGTGACGGTGTTTGACCCTGACTCCCTGGACCCTGATCGC
TGTGAGAGCTGCTATGGTGCTGAGGCAGAAGATATCAAGTGCTGTAACACCTGTGAAGATGTGCGGGAGGCATAT
CGCCGTAGAGGCTGGGCCTTCAAGAACCCAGATACTATTGAGCAGTGCCGGCGAGAGGGCTTCAGCCAGAAGATG
CAGGAGCAGAAGAATGAAGGCTGCCAGGTGTATGGCTTCTTGGAAGTCAATAAGGTGGCCGGAAACTTCCACTTT
GCCCCTGGGAAGAGCTTCCAGCAGTCCCATGTGCACGTCCATGACTTGCAGAGCTTTGGCCTTGACAACATCAAC
ATGACCCACTACATCCAGCACCTGTCATTTGGGGAGGACTATCCAGGCATTGTGAACCCCCTGGACCACACCAAT
GTCACTGCGCCCCAAGCCTCCATGATGTTCCAGTACTTTGTGAAGGTGGTGCCCACTGTGTACATGAAGGTGGAC
GGAGAGGTACTGAGGACAAATCAGTTCTCTGTGACCAGACATGAGAAGGTTGCCAATGGGCTGTTGGGCGACCAA
GGCCTTCCCGGAGTCTTCGTCCTCTATGAGCTCTCGCCCATGATGGTGAAGCTGACGGAGAAGCACAGGTCCTTC
ACCCACTTCCTGACAGGTGTGTGCGCCATCATTGGGGGCATGTTCACAGTGGCTGGACTCATCGATTCGCTCATC
TACCACTCAGCACGAGCCATCCAGAAGAAAATTGATCTAGGGAAGACAACG**TAG**TCACCCTCGGTGCTTCCTCTG
TCTCCTCTTTCTCCCTGGCCTGTGGTTGTCCCCCAGCCTCTGCCACCCTCCACCTCCTCGGTCAGCCCCAGCCCC
AGGTTGATAAATCTATTGATTGATTGTGATAGT

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FIGURE 1652

CAAATATTCCATTCAGCATTACAAAGATGGATGTTCTTCAGTTCCTAGAAGGAATCCCAGTGGATGAAAATGCTG
TACATGTTCTTGTTGATAACAATGGGCAAGGTCTAGGACAGGCATTGGTTCAGTTTAAAAATGAAGATGATGCAC
ATGGCCCACTGCGTGACCTTGGTTCAGCTGTCCATTTCCTGTGACCATCTCATTGACAAGGACATCGGCTCCAAG
TCTGACCCACTCTGCGTCCTTTTACAGGATGTGGGAGGGGGCAGCTGGGCTGAGCTTGGCCGGACTGAACGGGTG
CGGAACTGCTCAAGCCCTGAGTTCTCCAAGACTCTACAGCTTGAGTACCGCTTTGAGACAGTCCAGAAGCTACGC
TTTGGAATCTATGACATAGACAACAAGACGCCAGAGCTGAGGGATGATGACTTCCTAGGGGGTGCTGAGTGTTCC
CTAGGACAGATTGTGTCCAGCCAGGTACTGACTCTCCCCTTGATGCTGAAGCCTGGAAAACCTGCTGGGCGGGGG
ACCATCACGGTCTCAGCTCAGGAATTAAAGGACAATCGTGTAGTAACCATGGAGGTAGAGGCCAGAAACCTAGAT
AAGAAGGACTTCCTGGGAAAATCAGATCCATTTCTGGAGTTCTTCCGCCAGGGTGATGGGAAATGGCACCTGGTG
TACAGATCTGAGGTCATCAAGAACAACCTGAACCCTACATGGAAGCGTTTCTCAGTCCCCGTTCAGCATTTCTGT
GGTGGGAACCCCAGCACACCCATCCAGGTGCAATGCTCCGATTATGACAGTGACGGGTCACATGATCTCATCGGT
ACCTTCCACACCAGCTTGGCCCAGCTGCAGGCAGTCCCGGCTGAGTTTGAATGCATCCACCCTGAGAAGCAGCAG
AAAAAGAAAAGCTACAAGAACTCTGGAACTATCCGTGTCAAGATTTGTCGGGTAGAAACAGAGTACTCCTTTCTG
GACTATGTGATGGGAGGCTGTCAGATCAACTTCACTGTGGGCGTGGACTTCACTGGCTCCAATGGAGACCCCTCC
TCACCTGACTCCCTACACTACCTGAGTCCAACAGGGGTCAATGAGTACCTGATGGCACTGTGGAGTGTGGGCAGC
GTGGTTCAGGACTATGACTCAGACAAGCTGTTCCCTGCATTTGGATTTGGGGCCCAGGTTCCCCCTGACTGGCAG
GTCTCGCATGAATTTGCCTTGAATTTCAACCCCAGTAACCCCTACTGTGCAGGCATCCAGGGCATTGTGGATGCC
TACCGCCAAGCCCTGCCCCAAGTTCGCCTCTATGGCCCTACCAACTTTGCACCCATCATCAACCATGTGGCCAGG
TTTGCAGCCCAGGCTGCACATCAGGGGACTGCCTCGCAATACTTCATGCTGTTGCTGCTGACTGATGGTGCTGTG
ACGGATGTGGAAGCCACACGTGAGGCTGTGGTGCGTGCCTCGAACCTGCCCATGTCAGTGATCATTGTGGGTGTG
GGTGGTGCTGACTTTGAGGCCATGGAGCAGCTGGACGCTGATGGTGGACCCCTGCATACACGTTCTGGGCAGGCT
GCTGCCCGCGACATTGTGCAGTTTGTACCCTACCGCCGGTTCCAGAATGCCCCTCGGGAGGCATTGGCACAGACC
GTGCTCGCAGAAGTGCCCACACAACTGGTCTCATACTTCAGGGCCCAGGGTTGGGCCCCGCTCAAGCCACTTCCA
CCCTCAGCCAAGGATCCTGCACAGGCCCCCCAGGCC**TAG**GTTCCCTTGGAGGCTGTGGCAAGTCCTCAATCCTGT
GTCCCAGAGGTCCCTCTGGGCCACAACCCAACCCTTCTCACTCTCCTCAGTGCTAGCACTTTGTATTTTTTGATA
CTTTTATACTTGTTTCTGCTTTTGCTGCTCTTGATCCCACCTTTGCTCCTGACAACCCTCATTCAATAAAGACCA
GTGAAGACC

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FIGURE 1653

GGGGCCTGGCTCGGACCACGCGGGGCGGGACCTGGAGCTGACGCGGCCGCCCCGCCCCTGGGACCATAACCGGCC
GCCGCCGCCACCGCGGACCGAGCGCGGAGTTCTGGAGTCTCGGACCCGAAGCCGCCACAGGGCGCCCCGCCTCCC
GCCCGCC**ATG**CCCGCGCCCCGCGCCCCGCGCGCTCTGGCGGCCGCCGCGCCCGCGTCCGGGAAGGCCAAGCTGAC
GCACCCGGGGAAGGCGATCCTGGCAGGCGGCCTGGCGGGTGGCATCGAGATCTGCATCACCTTCCCCACCGAGTA
CGTGAAGACGCAGCTGCAGCTGGACGAGCGCTCGCACCCGCCGCGGTACCGGGGCATCGGGGACTGCGTGCGGCA
GACGGTTCGCAGCCATGGCGTCCTGGGCCTGTACCGCGGCCTTAGCTCCCTGCTCTACGGTTCCATCCCCAAGGC
GGCCGTCAGGTTTGGAATGTTCGAGTTCCTCAGCAACCACATGCGGGATGCCCAGGGACGGCTGGACAGCACGCG
TGGGCTGCTGTGCGGCCTGGGCGCTGGCGTGGCCGAGGCCGTGGTGGTCGTGTGCCCCATGGAGACCATCAAGGT
GAAGTTCATCCACGACCAGACCTCCCCAAACCCCAAGTACAGAGGATTCTTCCACGGGGTTAGGGAGATTGTGCG
GGAACAAGGGCTGAAGGGGACGTACCAGGGCCTCACAGCCACTGTCCTGAAGCAGGGCTCGAACCAGGCCATCCG
CTTCTTCGTCATGACCTCCCTGCGCAACTGGTACCGAGGGGACAACCCCAACAAGCCCATGAACCCTCTGATCAC
TGGGGTCTTCGGAGCTATTGCAGGCGCAGCCAGTGTCTTTGGAAACACTCCTCTGGATGTGATTAAGACCCGGAT
GCAGGGCCTGGAGGCGCACAAATACCGGAACACGTGGGACTGCGGCTTGCAGATCCTGAAGAAGGAGGGGCTCAA
GGCG**TGA**GTGGGGGAGGGGCAGGGCTATTGTCCCCACCTCAAACCTTTCCCGGCCTACCTGGCCTGCCCACTCTG
TCCCCTTCAGGCCTCTGTGCCTCTCACTTCAGTATCTGGGGATTGCCCTGTGCAGGGACACTGTGCTGACCTGCC
TTCCTCTCCCCGCCCCTCCTCCCACCCAGATTCTACAAGGGCACTGTCCCCCGCCTGGGCCGGGTCTGCCTGGAT
GTGGCCATAGTGTTTGTCATCTATGATGAAGTGGTGAAGCTGCTCAACAAAGTGTGGAAGACGGACTAAGCCTAG
AGAGGCCGCAAGGGGACCGCCCCAGGCACCGCCAGAGTGTCCTGCTACCTTTGTCTCACGATTCCAGTGCAGTAG
TGCCAAAAGGCCCCTTCCCACGTCCCTCGAGCTCTGTAGCCTGGTCTGTGCATTGTGGCTGTCAAATCCATGTGT
CCCCCCTGTGGTCTGTGTGTGACACCACCACTGTGTCCCAGTGTCTGGCCCAGCCATGGCTGGATGTGCATCTGG
CCTATGACCCTGTGCCTGTGTTTCATGTTCTGTGTCACGTGACCCTGTGCCCCGCCTCCCGGGGTGCCCGTGTGG
CCTGGGTCCTCGGCCCTGTAGCCCTGGCCCGGTCCCAGTCCGGTGCCTTCCACCCTGCCCTGGCCTACCACAGCT
GCCTCCGGGCCTCGGCCTGGCTTCACCGCATTCCAGGGGCTGCAGCCCCCTGCTTCTCCCGCCATTGGCCTTAAC
TGGCCCTCGGGCCCTCTCTCCGCCCCGGACAGGGTGGCACCCACCACTCTCAGGACCACCCTGCCAAGGCAGAAT
AAACCGGATCCTGTTGC

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FIGURE 1654

TAGCC**ATG**ACGGCCTCCGTGCTGCGAAGTATCTCGCTAGCCCTGCGCCCGACTAGCGGGCTTCTGGGAACTTGGC
AGACGCAGCTTAGAGAGACTCACCAGCGAGCGTCATTGTTGTCTTTCTGGGAACTCATTCCCATGAGATCAGAAC
CTCTTCGAAAAAAGAAGAAGGTAGATCCTAAAAAAGACCAAGAAGCAAAGGAGCGCTTGAAAAGGAAGATCCGAA
AACTGGAAAAGGCTACTCAAGAGCTAATTCCTATTGAAGATTTTATTACCCCTCTAAAGTTCTTGGATAAAGCAA
GAGAGCGGCCTCAGGTGGAGCTCACCTTTGAGGAGACTGAGAGGAGAGCTCTGCTTCTGAAGAAGTGGTCCTTGT
ACAAGCAGCAAGAGCGTAAGATGGAGAGGGACACCATCAGGGCTATGCTAGAAGCCCAGCAGGAAGCTCTGGAGG
AACTGCAACTGGAATCCCCGAAGCTCCATGCTGAGGCCATCAAGCGGGATCCTAACCTGTTCCCCTTTGAGAAGG
AAGGGCCACATTACACACCACCGATCCCTAACTACCAACCCCCTGAAGGCAGGTACAATGACATCACCAAGGTGT
ACACACAAGTGGAGTTTAAGAGA**TAG**ACTTGCAGGCTGCTATCCTTAACATGCTGCCCCTGAGAGTAGGAATGAC
CAGGGTTCAAGTCTGCTTTCCACAGAATCAGGCATGCTGTTAATAAATACTGGTTTAATCAAAAAAAAAAAAACT

FIGURE 1655

GGGCGGGCTTGGCGCGCCGGTCGCCCAGAC**ATG**GCGGACGGCAGCGGCTGGCAGCCGCCGCGCCCCTGCGAGGCC
TACCGCGCCGAGTGGAAGCTCTGCCGCAGCGCCAGGCACTTCCTACACCACTACTACGTCCACGGCGAGCGGCCG
GCCTGCGAACAGTGGCAGCGCGACCTGGCCAGCTGCCGCGACTGGGAGGAGCGCCGGAACGCCGAGGCCCAGCAA
TCCCTCTGTGAGAGCGAGCGGGCACGAGTCCGGGCTGCACGGAAGCACATCCTGGTGTGGGCCCCGAGGCAGAGC
CCCCCTCCAGACTGGCATCTCCCTCTGCCACAGGAGAAGGACGAG**TGA**CAAGCATCCCTGCCATTGGCCTGTGCA
GCTTCCTCAGTCTGTTTCAAGTTGCTGTTGCACAGCCCTGGGGACTGTGACCAGCCTACACAGTCTGGTGGGTCC
CTGTGAGCTCTTGCTCACAGGAACATGGAGCAGGACATTGCTAGCCCTACTTGCCCACCCCTCACCTGCATGCAG
GATACCCTGACACTGCGATGTTCTGCAGGACAATTGCACCGCTTTAGAGCTTCCAGGAGGCCAAGCATTATGGCA
GGTACTTGTGAGCAGCCAGGTCAGGCTGGGCATGGTAGCATAGGAGATGGCGGTCCTGAGGTCTAGGCTTCTCAG
GTAAACTGAAGGGTAGCCCTGACCTGTGTGGACACACAGGTGGGTCATAATGAGGTAGCTAAACAGTTGTGCCAC
TGTGAATGTCTTTCCTAGTCCTTGGGAAACTGCCTGCCACGTCCCAGGTTTGGTGAGCATTGTGAGTGCTCACAC
TCTGCTCCACTCGCTCAGTTCCACTGCACATGCAGGCAGGTGTGCCGAGCAGGTAGGGCTTGCTGGCCCCTCTGC
ACCAGCAGGCTTCACTTCTTAGGCTCCCAGGTCGGCCCCTGGAGACTCTGGTTTTTAAGAAATGCACACAGCTAC
AGAACACACAACCTTGCATAAAGAGGGTTTGTGGACTCAGCTGAAGAAATCCAAGTCCAAGACATATGGAATTAA
GCACTCCTTCCCTCAAAATTTCCCCTGGTGGTTAATGTATCAAAAGCTATTTCATCTGATTTCAAATAGAAGCTG
AAAATTAAGTTCACACTTGTTAGATTTTGTGTGTAACAGTGTTGTACCTGGACAGTATTAGAAATTTGTATGCTT
ATTCTCTTGTTAAGTGTTTTAAAATGTATGAACCACCAAAAACACTATTTCTTGAAGAGGTCTGTTTATTACTAA
TAGAATGGTTTCTCATCCTATGGTGGCCCTGTTGTGTGATGCTGAGGGCTAGGCTGGGTCTGTGCCCAGCACCCT
CCCTGCTCTCTTCCTGGACACAGGCAGCAAGTTGAATATCTTTTAATTTGTTCTTTGGGGCAGAATAATCTATCA
CGTTAGAAGGGTGTCCATTAAAGAACAGTATTTCCCTGCTTGAGTGTGTTTTCTCCTGTGCTCCCTAAGAGCCCC
TGTGTCTGTGAACAGTGGGGGTGGGGGTGGGGGTTGTGCTCACGGGATCCCAAGAGCAGGAGCATCTAAAGAGGA
GCCAGCGTTCCCCCATCATCAGGGGAGTACTGATGTGTCTAAGGCAACCAGGGTGCCTCCAGCATGGCTGTGGCT
GGTTTAATAATGAGCATTTCCACCCAGTGAGGGAAGAGAGGAAGACTGCTAGAGATCTACAAGGTTTTTCTTACT
CTTAAACACAGGGACGGGGCATCTGAATTTGCAGTCTGCTGTAATCCCAGCACTTTGGGAGGCCAAGGTGGGTGG
ATCACTTGAGGTCTGGAGTTTGAGACCAGCCTGGC

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FIGURE 1656

CTGGGGCGTACCGGCTTGGCGCGGCGGCAGCGGCAGCGGCGGCTGGGAGAGCGGTCGGCGGGGTTTCTTCGTTGC
ATTGCCTGAGAGGAGCGGAGTCTGCCAGGTGGTGTCCATC**ATG**TTCTCTTTCAACATGTTCGACCACCCTATTCC
CAGGGTCTTCCAAAACCGCTTCTCCACACAGTACCGCTGCTTCTCTGTGTCCATGCTAGCAGGGCCTAATGACAG
GTCAGATGTGGAGAAAGGAGGGAAGATAATTATGCCACCCTCGGCCCTGGACCAACTCAGCCGACTTAACATTAC
CTATCCCATGCTGTTCAAACTGACCAATAAGAATTCGGACCGCATGACGCATTGTGGCGTGCTGGAGTTTGTGGC
TGATGAGGGCATCTGCTACCTCCCACACTGGATGATGCAGAACTTACTCTTGGAAGAAGGCGGCCTGGTCCAGGT
GGAGAGCGTCAACCTTCAAGTGGCCACCTACTCCAAATTCCAACCTCAGAGCCCTGACTTCCTGGACATCACCAA
CCCCAAAGCCGTATTAGAAAACGCACTTAGGAACTTTGCCTGTCTGACCACCGGGGATGTGATTGCCATCAACTA
TAATGAAAAGATCTACGAACTGCGTGTGATGGAGACCAAACCCGACAAGGCAGTGTCCATCATTGAGTGTGACAT
GAACGTGGACTTTGATGCTCCCCTGGGCTACAAAGAACCCGAAAGACAAGTCCAGCATGAGGAGTCGACAGAAGG
TGAAGCCGACCACAGTGGCTATGCTGGAGAGCTGGGCTTCCGCGCTTTCTCTGGATCTGGCAATAGACTGGATGG
AAAGAAGAAAGGGGTAGAGCCCAGCCCCTCCCCAATCAAGCCTGGAGATATTAAAAGAGGAATTCCCAATTATGA
ATTTAAACTTGGTAAGATAACTTTCATCAGAAATTCACGTCCCCTTGTCAAAAAGGTTGAAGAGGATGAAGCTGG
AGGCAGATTCGTCGCTTTCTCTGGAGAAGGACAGTCATTGCGTAAAAAGGGAAGAAAGCCC**TAA**GTGAGGACTGT
TGGCTGATTGGAAAATAATAAAAGAATCATTTGCAACATCTTGGCTTTTAGTTACTGGCACTGACAGGGACGAGC
CTCATCAGAGAATACTCTGTTACTTAAGATTTATTTAGAGTTACCTAAGAATTATTAAGTTTGACTTGGAAGTGG
AGCAGCAGGACTTTGTAGTTGTATGCTTGATTTGGGGAAAGACAAAGAGCTGTCCCTGAGGGCCTGTAGATAGCT
GCCTCCTCACCTCTTCACGCTTTCAGCTTGAGGGGAGCTCCCACTGCCTCAGCAGGAGCAATTCTGCATCCCTAA
TTCTGTCAAAACCTATGAAGGTGACTAAATTGTCTAACATGAAGTGTTCTTTCTTTTTCTTCATTTATCCTTTCT
TTTCCTACATCAATTGCATAGGTGTCAGTCTTTGGCCTAAAAAAAGGCTTTAAATAGACATGTGTTCTATAAGTA
GTGGCTGTCCCACTACTGTGGCTGCAATTTAAGTATTTGACAAAGAATGTTTCTATTTTTATTTTACATATTTTT
TTCAAAAACACCACTCAGAAGAACCTGATCTGAATGAGTTTGCACTTTTATTCTCATTTCATATGGACATAACTG
GCTCCTTAGTGAACCTGTTCATAGTGAAACAACTCCATGGAGAAGCAAACATGTGAATGTTAGAATGAACAAATG
CTAAAGAGATGTTCCTCTCCTTCTTCCCTACTCCCCAACTCCCAATTTTAATTTATTAAATCATCCAAGCTTCT

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FIGURE 1657

GCCGCCGGGCTCTTGGTACCTCAGCGCGAGCGCCAGGCGTCCGGCCGCCGTGGCT**ATG**TTCGTGTCCGATTTCCG
CAAAGAGTTCTACGAGGTGGTCCAGAGCCAGAGGGTCCTTCTCTTCGTGGCCTCGGACGTGGATGCTCTGTGTGC
GTGCAAGATCCTTCAGGCCTTGTTCCAGTGTGACCACGTGCAATATACGCTGGTTCCAGTTTCTGGGTGGCAAGA
ACTTGAAACTGCATTTCTTGAGCATAAAGAACAGTTTCATTATTTTATTCTCATAAACTGTGGAGCTAATGTAGA
CCTATTGGATATTCTTCAACCTGATGAAGACACTATATTCTTTGTGTGTGACACCCATAGGCCAGTCAATGTCGT
CAATGTATACAACGATACCCAGATCAAATTACTCATTAAACAAGATGATGACCTTGAAGTTCCCGCCTATGAAGA
CATCTTCAGGGATGAAGAGGAGGATGAAGAGCATTCAGGAAATGACAGTGATGGGTCAGAGCCTTCTGAGAAGCG
CACACGGTTAGAAGAGGAGATAGTGGAGCAAACCATGCGGAGGAGGCAGCGGCGAGAGTGGGAGGCCCGGAGAAG
AGACATCCTCTTTGACTACGAGCAGTATGAATATCATGGGACATCGTCAGCCATGGTGATGTTTGAGCTGGCTTG
GATGCTGTCCAAGGACCTGAATGACATGCTGTGGTGGGCCATCGTTGGACTAACAGACCAGTGGGTGCAAGACAA
GATCACTCAAATGAAATACGTGACTGATGTTGGTGTCCTGCAGCGCCACGTTTCCCGCCACAACCACCGGAACGA
GGATGAGGAGAACACACTCTCCGTGGACTGCACACGGATCTCCTTTGAGTATGACCTCCGCCTGGTGCTCTACCA
GCACTGGTCCCTCCATGACAGCCTGTGCAACACCAGCTATACCGCAGCCAGGTTCAAGCTGTGGTCTGTGCATGG
ACAGAAGCGGCTCCAGGAGTTCCTTGCAGACATGGGTCTTCCCCTGAAGCAGGTGAAGCAGAAGTTCCAGGCCAT
GGACATCTCCTTGAAGGAGAATTTGCGGGAAATGATTGAAGAGTCTGCAAATAAATTTGGGATGAAGGACATGCG
CGTGCAGACTTTCAGCATTCATTTTGGGTTCAAGCACAAGTTTCTGGCCAGCGACGTGGTCTTTGCCACCATGTC
TTTGATGGAGAGCCCCGAGAAGGATGGCTCAGGGACAGATCACTTCATCCAGGCTCTGGACAGCCTCTCCAGGAG
TAACCTGGACAAGCTGTACCATGGCCTGGAACTCGCCAAGAAGCAGCTGCGAGCCACCCAGCAGACCATTGCCAG
CTGCCTTTGCACCAACCTCGTCATCTCCCAGGGGCCTTTCCTGTACTGCTCTCTCATGGAGGGCACTCCAGATGT
CATGCTGTTCTCTAGGCCGGCATCCCTAAGCCTGCTCAGCAAACACCTGCTCAAGTCCTTTGTGTGTTCGACAAA
GAACCGGCGCTGCAAACTGCTGCCCCTGGTGATGGCTGCCCCCCTGAGCATGGAGCATGGCACAGTGACCGTGGT
GGGCATCCCCCCAGAGACCGACAGCTCGGACAGGAAGAACTTTTTTGGGAGGGCGTTTGAGAAGGCAGCGGAAAG
CACCAGCTCCCGGATGCTGCACAACCATTTTGACCTCTCAGTAATTGAGCTGAAAGCTGAGGATCGGAGCAAGTT
TCTGGACGCACTTATTTCCCTCCTGTCC**TAG**GAATTTGATTCTTCCAGAATGACCTTCTTATTTATGTAACTGGC
TTTCATTTAGATTGTAAGTTATGGACATGATTTGAGATGTAGAAGCCATTTTTTATTAAATAAAATGCTTATTTT
AGGCTCCGTCCCC

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FIGURE 1658

CACCCCGCAGCCCGGCCTCGGCCTCCGCCGCTTGTCGTCGCGCCCCGCCCGCGAGCCCGCCCCGCACGTCCCCCG
CCGGCGGCCACC**ATG**AGCACAGGCCTGCGGTACAAGAGCAAGCTGGCGACCCCAGAGGACAAGCAGGACATTGAC
AAGCAGTACGTGGGCTTCGCCACACTGCCCAACCAGGTGCACCGCAAGTCGGTGAAGAAAGGCTTTGACTTCACA
CTCATGGTGGCTGGTGAGTCAGGCCTGGGGAAGTCCACACTGGTCCACAGCCTCTTCCTGACAGACTTGTACAAG
GACCGGAAGCTGCTCAGTGCTGAGGAGCGCATCAGCCAGACGGTAGAGATTCTAAAACACACGGTGGACATTGAG
GAGAAGGGAGTCAAGCTGAAGCTCACCATCGTGGACACGCCGGGATTCGGGGACGCTGTCAACAACACCGAGTGC
TGGAAGCCCATCACCGACTATGTGGACCAGCAGTTTGAGCAGTACTTCCGTGATGAGAGCGGCCTCAACCGAAAG
AACATCCAAGACAACCGAGTGCACTGCTGCCTATACTTCATCTCCCCCTTCGGGCATGGGCTGCGGCCAGTGGAT
GTGGGTTTCATGAAGGCATTGCATGAGAAGGTCAACATCGTGCCTCTCATCGCCAAAGCTGACTGTCTTGTCCCC
AGTGAGATCCGGAAGCTGAAGGAGCGGATCCGGGAGGAGATTGACAAGTTTGGGATCCATGTATACCAGTTCCCT
GAGTGTGACTCGGACGAGGATGAGGACTTCAAGCAGCAGGACCGGGAACTGAAGGAGAGCGCGCCCTTCGCCGTT
ATAGGCAGCAACACGGTGGTGGAGGCCAAGGGGCAGCGGGTCCGGGGCCGACTGTACCCCTGGGGGATCGTGGAG
GTGGAGAACCAGGCGCATTGCGACTTCGTGAAGCTGCGCAACATGCTCATCCGCACGCATATGCACGACCTCAAG
GACGTGACGTGCGACGTGCACTACGAGAACTACCGCGCGCACTGCATCCAGCAGATGACCAGCAAACTGACCCAG
GACAGCCGCATGGAGAGCCCCATCCCGATCCTGCCGCTGCCCACCCCGGACGCCGAGACTGAGAAGCTTATCAGG
ATGAAGGATGAGGAACTGAGGCGCATGCAGGAGATGCTGCAGAGGATGAAGCAGCAGATGCAGGACCAG**TGA**CGC
TCGCCGCGGACACACCGTCCGTCTCCGGGACGCCCTCGCACCCCTGGACACCAGACCGGACTGTTCCCGACCCGG
AGACGCGGGGCCACAGCCCCCAGCTGACCCTAATTTATTCTCAGCACCACCCCCTCCCAGGTCATTGTGTCTGTT
TCCGAGGGGCCTGGACCGTAGCCCCCGCCCAGCTGGCCCTCTCTGACCTTGGGGGATCAGGAGCGAAGTTGGGCG
GGACTTCAGAGATCCGCCTCCCTTGCCCTTCCCCCGCCCCCGGACGGTCACAGCACCCAAACCGCAGGCCCTGCT
CTGGCAGGCAGGCAAAGCTAGGCAGAAGAGGATTCCCAGGATCCTGGGTCTGTTCCCTGCCCCAGTGCTGCAGAA
CGGACTTGGGAGCCCTCCTTTGCCTGCTCCCGCGGGTCACCCAGCGAGTGCTGAGACCCCATTTTCTGTCGAGGC
GGGCCGAGTCTTCCCTTATCCCCAGACGCCTAGCGGGCAGGGTTGGGCTGAATCAAATGGGAGCCCTCCAGACAT
AAGGAGGCCAGAGGCTGCAAGGAGCGGGGTCGTGACCGCTTACACCCCTTCTCCACAGCCCGGCCCGACCTGGAG
GGCCCCCGGGGCACTGGGCGGTGAGCCACCTCCTGGCAACTCTCGGTGCCGTCCCCTGCCCTCGCTCGAGGCCTC
TTCTCCCCAGCACCGCTGTGGTGTGCCGGGATCCTGAGCCTAGGCCTCCCGATGTTCCCACCCGCATGATCCCTT
CCCGCCACACGATGCTCCGTTTTCTTCCGTTGTGAATGCCGCGTCCTGTCCTGGTGACAGGAGAACAATGTTGGT
GAACGTC

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FIGURE 1659

CCCAAG**ATG**CCAAAAGGAAAGAAGGCCAAGGGAAAGAAGGTGGCTCTGGCCCCTGCTGTCATGAAGAAGCAGGAG
GCTAAGAAAGTGGTGAATCCCCTGTTTGAGAAAAGGCCTAAGAATTTTGGCATCGGACAGGACATCCAGCCCAAA
AGAGACCTCACCCACTTTGTGAAATGGCCCCGCTATATCAGGCTGCTGGCAAACGGGACGTCCCCACCAAGAGAC
CACCTGTCCTTCGAGCAGGAGTTAACATCGTCACCACCTTGGTGGAGAACAAGAAAGCTCAGCTGGTGG**TGA**TTG
CAGACGACGTGGATCCCATCGAGCTGGTTGTCTTCTTGCCTGCCTTGTGTCGTAAAATGGGGGTCCCTTACTGCA
TTATCAAGGGGAAGGCAAGACTGGGACGTCTAGTCCACAGGAAGACCTGCACCACTGTCACCTTCACATAGGTGA
ACTCGGAAGACAAAGGCACTTTGGCTAAGCTGATGGAAGCTATCAGGACCAATTACAATGACAGATACGATGAGA
TCCGCCGTCACTGGGGCGGCAACATCCTGGGTCCTAAGTCTGTGGCTCGTATCGCCAAGCTCGAAAAGGCAAAGG
CTAAAGAACTTGCCACTAAACTGGGTTAAATGTACACTGTTGAGTTTTCTGTACATTAAAATAATTAAAATAATA
CAAATTTTCCTTC

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FIGURE 1660

GTCTGTGGCTACGGATCCCAGGACCCTCTTCGCGGGCGATTCGCGTAGCCTCAGATTGCCTCGGATGATGGCCTG
CGACTGACAGTCTCTCAGCTCTTCTCAGCTCTCCTGAGGCTGCAGCTGTCAGCTCCCTGATCCTCAGCACTTGCC
TGGACCAGTGCGGGTCTGCCACGCCCTGTTCAGCCATCCCTGTCCTGTTGTGTCGTGCAAGCCACATCTGTCCAC
ACCCCCACCACCCACCAGTGCTGGCTCTCCTCTCTTCTCCCCTGTGCTCCCAGCATGCCTCGTGGCCGGTGCCGT
CAGCAGGGCCCTCGCATTCCCATCTGGGCAGCCGCCAATTATGCCAACGCACATCCATGGCAGCAGATGGACAAG
GCGTCTCCTGGGGTGGCATACACCCCCCTTGTGGATCCCTGGATTGAGCGGCCCTGCTGTGGGGACACCGTGTGT
GTGCGAACGACC**ATG**GAGCAGAAGAGCACAGCTAGTGGCACTTGTGGCGGTAAACCTGCAGAAAGGGGTCCCCTA
GCTGGGCACATGCCCAGCTCCCGACCCCACAGGGTGGACTTCTGCTGGGTACCAGGCTCAGACCCAGGCACCTTT
GATGGCTCCCCGTGGCTACTGGACCGCTTCTTGGCCCAGCTGGGCGATTACATGTCCTTCCACTTTGAGCACTAT
CAGGACAACATCAGCCGTGTCTGCGAGATCCTCAGGCGCCTAACAGGCCGAGCCCAGGCCTGGGCAGCCCCCTAC
CTTGATGGGGACCTGCCCCTGCCTGACGATTACGAGCTCTTCTGCCAGGATCTCAAGGAAGTTGTTCAAGACCCG
AACAGTTTTGCTGAGTACCATGCTGTGGTTACCTGTCCCCTGCCCCTGGCCTCCAGCCAGCTGCCAGTGGCCCCT
CAGCTGCCTGTGGTGAGGCAATACTTAGCTAGGTTCTTAGAGGGCCTGGCACTCGACATGGGTACTGCCCCCAGG
TCTTTACCAGCCGCCATGGCCACCCCTGCTGTGTCTGGGTCCAACTCTGTATCTAGAAGTGCTCTGTTCGAGCAG
CAGCTGACCAAGGAGAGCACCCCTGGGCCCAAGGAGCCCCCAGTCCTGCCCAGTTCTACATGTAGCTCCAAGCCT
GGTCCTGTGGAACCAGCCTCTTCCCAGCCAGAGGAGGCAGCCCCCACACCTGTCCCTAGACTGTCGGAGTCAGCT
AATCCTCCTGCCCAGAGACCAGACCCAGCTCATCCAGGAGGTCCAAAACCCCAGAAAACAGAGGAGGAGGTTTTG
GAGACAGAGGGAGACCAGGAGGTGTCCTTAGGTACCCCACAGGAGGTGGTGGAGGCCCCGGAGACCCCAGGAGAG
CCACCACTTTCTCCTGGGTTC**TGA**ACACAGCCCAGGTGGGAACAATGCTGCCCCTCATGATGAAGTGGCCTGTGT
GGCTTGAGCGCCCCATAGTCCCCAGTCAGAGCAGAGTGGTGTCCCCAGATGACTTCAGACCCCATAGCTGGGCAA
GATGCGCTTGTTTTGGACTCTGCGCTGAGCAGAACCAGCTCCCCCAACTCCAGCAGAGCTTGACCTCCGCCCTGT
GCCCTTTCCCTGCTGCTGGCTCTCTGCTGCATCCCTGCCCGTCTTCTGGGAGTGCCGTCTCACCCAGGCCTGCTC
CCACGAGGGGGTCGTTTTGTAGATCAACTCTCAGCAGATAGTTGCATCATCTTTGTCACCTCCACCCCCATAAAA
CACCCCCCTTGGTGTCTTCCACACTGGCTGGGACTGAACTGGGTCTGCCACGTCTGCCCTGTTGGGACCTCGTTC
CTGTATGGGGTTTCTGTGTCTGTCCCCCTAGCCCCACCCTCTCTGCTCCCTGTGACTTCTGTCCCAGCTGGAATG
TGAGGAAGGCTGCCTGGAGGAAGTGGCCACTTTGATTCTGGGGGATGAGTGGGATAGCATCTTGGCAAAGAATGA
TGTTTCCTGTGGGATTACCAGCAGTTCTGGGCAGCTGGAAGGTTTGGATGCAGGAAGGTGGGATGCAAGCCCCTT
GCCAGGCTCAGCTGCAGGCATTCGCCCTTTGTGTGTTAACACTGTAGCTCTAATCGTGCCTGGTGTTCTGAAGCA
GGCTCCTCTTCCCTGCTGCTGTGCTGCCATCCCCTGCTCACTCCGCACTCGCATGCATTGCGGATTCAGCACTTA
AGCCCTAGTGTGTAAATGACTTGGATCTCCCTCCTGGCAGACTGTGACCCTCAGCACAGGGGCTCTGTCTTAGTC
AGCTCTGTGGCCTGGTACACAATTGGTGCTCATTAAACACGTGTTGGATTACTGGC

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FIGURE 1661A

GGCCGCAACTCGCTCGGCCGCCGCCATCTTGCGAGCTCGTCGTACTGACCGAGCGGGGAGGCTGTCTTGAGGCGG
CACCGCTCACCGACACCGAGGCGGACTGGCAGCCCTGAGCGTCGCAGTC**ATG**CCGGCCGGACCCGTGCAGGCGGT
GCCCCCGCCGCCGCCCGTGCCCACGGAGCCCAAACAGCCCACAGAAGAAGAAGCATCTTCAAAGGAGGATTCTGC
ACCTTCTAAGCCAGTTGTGGGGATTATTTACCCTCCTCCAGAGGTCAGAAATATTGTTGACAAGACTGCCAGCTT
TGTGGCCAGAAACGGGCCTGAATTTGAAGCTAGGATCCGACAGAACGAGATCAACAACCCCAAGTTCAACTTTCT
GAACCCCAATGACCCTTACCATGCCTACTACCGCCACAAGGTCAGCGAGTTCAAGGAAGGGAAGGCTCAGGAGCC
GTCCGCCGCCATCCCCAAGGTCATGCAGCAGCAGCAGCAGACCACCCAGCAGCAGCTGCCCCAGAAGGTCCAAGC
CCAAGTAATCCAAGAGACCATCGTGCCCAAAGAGCCTCCTCCTGAGTTTGAGTTCATTGCTGATCCTCCCTCTAT
CTCAGCCTTCGACTTGGATGTGGTGAAGCTGACGGCTCAGTTTGTGGCCAGGAATGGGCGCCAGTTTCTGACCCA
GCTGATGCAGAAAGAGCAGCGCAACTACCAGTTTGACTTTCTCCGCCCACAGCACAGCCTCTTCAACTACTTCAC
GAAGCTAGTGGAACAGTACACCAAGATCTTGATTCCACCCAAAGGTTTATTTTCAAAGCTCAAGAAAGAGGCTGA
AAACCCCCGAGAAGTTTTGGATCAGGTGTGTTACCGAGTGGAATGGGCCAAATTCCAGGAACGTGAGAGGAAGAA
GGAAGAAGAGGAGAAGGAGAAGGAGCGGGTGGCCTATGCTCAGATCGACTGGCATGATTTTGTGGTGGTGGAAAC
AGTGGACTTCCAACCCAATGAGCAAGGGAACTTCCCTCCCCCCACCACGCCAGAGGAGCTGGGGGCCCGAATCCT
CATTCAGGAGCGCTATGAAAAGTTTGGGGAGAGTGAGGAAGTTGAGATGGAGGTCGAGTCTGATGAGGAGGATGA
CAAACAGGAGAAGGCGGAGGAGCCTCCTTCCCAGCTGGACCAGGACACCCAAGTACAAGATATGGATGAGGGTTC
AGATGATGAAGAAGAAGGGCAGAAAGTGCCCCCACCCCCAGAGACACCCATGCCTCCACCTCTGCCCCCAACTCC
AGACCAAGTCATTGTCCGCAAGGATTATGATCCCAAAGCCTCCAAGCCCTTGCCTCCAGCCCCTGCTCCAGATGA
GTATCTTGTGTCCCCCATTACTGGGGAGAAGATCCCCGCCAGCAAAATGCAGGAACACATGCGCATTGGACTTCT
TGACCCTCGCTGGCTGGAGCAGCGGGATCGCTCCATCCGTGAGAAGCAGAGCGATGATGAGGTGTACGCACCAGG
TCTGGATATTGAGAGCAGCTTGAAGCAGTTGGCTGAGCGGCGTACTGACATCTTCGGTGTAGAGGAAACAGCCAT
TGGTAAGAAGATCGGTGAGGAGGAGATCCAGAAGCCAGAGGAAAAGGTGACCTGGGATGGCCACTCAGGCAGCAT
GGCCCGGACCCAGCAGGCTGCCCAGGCCAACATCACCCTCCAGGAGCAGATTGAGGCCATTCACAAGGCCAAAGG
CCTGGTGCCAGAGGATGACACTAAAGAGAAGATTGGCCCCAGCAAGCCCAATGAAATCCCTCAACAGCCACCGCC
ACCATCTTCAGCCACCAACATCCCCAGCTCGGCTCCACCCATCACTTCAGTGCCCCGACCACCCACAATGCCACC
TCCAGTTCGTACTACAGTTGTCTCCGCAGTACCCGTCATGCCCCGGCCCCCAATGGCATCTGTGGTCCGGCTGCC
CCCAGGCTCAGTGATCGCCCCCATGCCGCCCATCATCCACGCGCCCAGAATCAACGTGGTGCCCATGCCTCCCTC
GGCCCCTCCTATTATGGCCCCCCGCCCACCCCCCATGATTGTGCCAACAGCCTTTGTGCCTGCTCCACCTGTGGC
ACCTGTCCCAGCTCCAGCCCCAATGCCCCCTGTGCATCCCCCACCTCCCATGGAAGATGAGCCCACCTCCAAAAA
ACTGAAGACAGAGGACAGCCTCATGCCAGAGGAGGAGTTCCTGCGCAGAAACAAGGGTCCAGTGTCCATCAAAGT
CCAGGTGCCCAACATGCAGGATAAGACGGAATGGAAACTGAATGGGCAGGTGCTGGTCTTCACCCTCCCACTCAC
GGACCAGGTCTCTGTCATTAAGGTGAAGATTCATGAAGCCACAGGCATGCCTGCAGGGAAACAGAAGCTACAGTA
TGAGGGTATCTTCATCAAAGATTCCAACTCACTGGCTTACTACAACATGGCCAATGGCGCAGTCATCCACCTGGC
CCTCAAGGAGAGAGGCGGGAGGAAGAAG**TAG**ACAAGAGGAACCTGCTGTCAAGTCCCTGCCATTTTGCCTCTCCT
GTCTCCCACCCCCTGCCCCAGACCCAGGAGCCCCCCTGAGGCTTTGCCTTGCCTGCATATTTGTTTCGCTCTTAC
TCAGTTTGGGAATTCAAATTGTCCTGCAGAGGTTCATTCCCCTGACCCTTTCCCCACATTGGTAAGAGTAGCTGG
GTTTTCTAAGCCACTCTCTGGAATCTCTTTGTGTTAGGGTCTCGATTTGAGGACATTCATTTCTTCAGCAGCCCA
TTAGCAACTGAGAGCCCAGGGATGTCCTACAGGATAGTTTCATAGTGACAGGTGGCACTTGGCTAATAGAATATG
GCTGATATTGTCATTAATCATTTTGTACCTTGACATGGGTTGTCTAATAAAACTCGGACCCTTCTTGTGAAATCA
GTTAAATAAGACTTGTCTCGGTCACCTGTGCCCTGTCCAGACTCGAGGCAGTGGTAACACTGCACAGTGCTATGT
GGCTTCTCTTTGAGGATTTTTGGGTTTTGTAACTAAATTCTTGCTGCCCTCATACTTTTTATGTATTAGAATCAT
ATTCGTATTGCCCTTTTAAAACATTGGGATCCTCCAAAGGCCTGCCCCATGTATTTAACAGTAATACAGGAAGCA
TGGCAGGCACCATGCAAACCAAGGATGGATGGTGCAGTCCCTGTGTCAGTGGGCGGTGGTTTCCTGCTGGCCTGG
AATCACTCATCACCTGATTGATTGGCTCTGTGGTCCTGGGCAGGTGCCTCATAGGTGTGTGGATATGATGACGTT
TCTTTAAAATGTATGTATTTAACAAATACTTAATTGTATTAAGGTCATGTACCAAGGATTTGATAAAGTTTAAAT
AATTTACTCTCTACTTTTATCCATTTTATCCATTTTAACTCATGTAATCCTCATGTGAGTATTCCTGTTTAACAC
TTGAGTAAACTGAGGCACAGAGAACATAAGTTGCATGCCATAGTCACACACTGTGAAAGTGAAAAGAGAATGTGT
GCAAAACACGTCACAGTCCTGGTTTCTGAGTAAAGGCAGGCTGTTATCTTTAGAATCAAGCTATCACAGGGAGAT

FIGURE 1661B

AGGCAATGCTGTGGGTGTTGGAGGAAGGTGAGAGCCTGTTGCTAACAATTTCCTGGTTTTAAAGCTAAGGCTGAT
TTTATTGGGAAGATCTCACATGTGTGTGGCCCCTGAGAGTTCCCAGTGCCTTTTATTTGCAGTCCTTCCATTTGG
ACCTCCTAGCTGCCCCATCAGGTCATCTCCAGGGCTCAGAGGGGTGAGACCATTTCCCAAGGTCACAGAACCAGC
TCTCTAGTCACCACCCTGCCTCTCCCTCTCACCCAGAGTCAGTACCAGTTTTATGGCTTTATTACAAACTGCTGG
GTCCCTCCCATTTTCAACTTGATTGATGGGATGTCATCCCTTATCCTGTCTGACATTTGCCTCTGGCCTGGTTGC
TAGAAGTTTGCCCCAGGGGCAAGAGTTGAAATTTGGCTTCCTGAGGTGGGCTTTGTGGTTTGCGTCCCTAAAGTG
AGCCCACTACTGGTTGCTTGTCCATGGCCAACACCAGAAATCCCCTGAGCACTACCTGGGTCTCATTCCAAGAAG
GAAGAGGGTCAGGAGACCTGGGGAGTCTCATATTCCAAGTTCTTCTTTCTTTCTGGGAGCAGTGGGCAGTTCATG
GTGTTAGGGCACTCACCCCCACAGACTGGCAAACCCTGCAGGACTTCCGTGGCTGAGGCTGTGACCGGAGGCCAG
GAATGCCGTTGGGTGGATTGTGAGTGAATGGGCCCTTTGAGCTGCCCTCTAGAGAGCAAATCCAGTTTCCTGGAG
CTCCTGAATGAATATCTGTACTGGCTCGCTCAGATGCAGAAGCTCCATTGACCATGAGGCCTTGTGAACATCAGT
GGCCACAGGCCCAGTGTGCTGCTTGGCACTGCACTAGTTTAGGACCTGCAGCATGTAGGTAGCGTCCTAGTGTTT
ATAATACAAAGCTGCTCTGCACAGCTTTTCTGATTCTTCTTGCAATCTCCTGAGGATTATCTGCCCCATTTTTAA
AACGAGGTGGAATACCCAAGGTCATGTAGCCAGTGAGTGCTCTGGAAAGCCAAAGCAGCTCATCCCTTCCTGGGG
ACCACACTGCTCTGCTCCACCAGACCACACTATGAAATAGGAATAAGTGCTCCTGTTGCAGGACTGCTGGGAAAA
CAGGTGGTGTGGGACTTAAGTCACCATAATTTTGAAGACTTGCATGCAGAGGGCTCCAGGAATTGTAGACATTAA
GGAATTTCACTTTCAGTTCTACCCACTACTTAAGTACTTGTCATGTACTCTTAGAGGAGGCCAGTAATGATCAGA
ACCATTTTACTTTAAAATTAATAATATTGTATTAGAGAATATATTAAATGGTTATATTGGGTTATGTTAGGATAT
ATACTTGAATGGAAATACATGTACTATTAGCAATCATATTTCATTTATCCCTGTAATTAGACAAGAAAGCATAAT
ATAGCTCTACTCATGGGTACACATACCAGTGTATAAGATTTTTAGAAGTTTACTTTTTAAAAATAAAAGCAAAAT
GT

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FIGURE 1662

CCCTACTCCGCCTCTCGGGATCCTTTAAGAGGCGGGGCTTGGCTGCCAGCTCCGCGGCCCGGGCAAAAGGCTGGG
ACTTTACTCCGGGTGGCGGCGAGGACGAGTCTGTGCTCCATCAGCTGCCGCACCCGCCGCCTCCCGCCCCCAAAC
CCCATCCCCGCGGTTGAGCCACG**ATG**AGCGGCAGAGTCGGCGATCTGAGCCCCAGGCAGAAGGAGGCATTGGCCA
AGTTTCGGGAGAATGTCCAGGATGTGCTGCCGGCCCTGCCGAATCCAGATGACTATTTTCTCCTGCGTTGGCTCC
GAGCCAGAAGCTTCGACCTGCAGAAGTCGGAGGCCATGCTCCGGAAGCATGTGGAGTTCCGAAAGCAAAAGGACA
TTGACAACATCATTAGCTGGCAGCCTCCAGAGGTGATCCAACAGTATCTGTCAGGGGGTATGTGTGGCTATGACC
TGGATGGCTGCCCAGTCTGGTACGACATAATTGGACCTCTGGATGCCAAGGGTCTGCTGTTCTCAGCCTCCAAAC
AGGACCTGCTGAGGACCAAGATGCGGGAGTGTGAGCTGCTTCTGCAAGAGTGTGCCCACCAGACCACAAAGTTGG
GGAGGAAGGTGGAGACCATCACCATAATTTATGACTGCGAGGGGCTTGGCCTCAAGCATCTCTGGAAGCCTGCTG
TGGAGGCCTATGGAGAGTTTCTCTGCATGTTTGAGGAAAATTATCCCGAAACACTGAAGCGTCTTTTTGTTGTTA
AAGCCCCCAAACTGTTTCCTGTGGCCTATAACCTCATCAAACCCTTCCTGAGTGAGGACACTCGTAAGAAGATCA
TGGTCCTGGGAGCAAATTGGAAGGAGGTTTTACTGAAACATATCAGCCCTGACCAGGTGCCTGTGGAGTATGGGG
GCACCATGACTGACCCTGATGGAAACCCCAAGTGCAAATCCAAGATCAACTACGGGGGTGACATCCCCAGGAAGT
ATTATGTGCGAGACCAGGTGAAACAGCAGTATGAACACAGCGTGCAGATTTCCCGTGGCTCCTCCCACCAAGTGG
AGTATGAGATCCTCTTCCCTGGCTGTGTCCTCAGGTGGCAGTTTATGTCAGATGGAGCGGATGTTGGTTTTGGGA
TTTTCCTGAAGACCAAGATGGGAGAGAGGCAGCGGGCAGGGGAGATGACAGAGGTGCTGCCCAACCAGAGGTACA
ACTCCCACCTGGTCCCTGAAGATGGGACCCTCACCTGCAGTGATCCTGGCATCTATGTCCTGCGGTTTGACAACA
CCTACAGCTTCATTCATGCCAAGAAGGTCAATTTCACTGTGGAGGTCCTGCTTCCAGACAAAGCCTCAGAAGAGA
AGATGAAACAGCTGGGGGCAGGCACCCCGAAA**TAA**CACCTTCTCCTATAGCAGGCCTGGCCCCCTCAGTGTCTCC
CTGTCAATTTCTACCCCTTGTAGCAGTCATTTTCGCACAACCCTGAAGCCCAAAGAAACTGGGCTGGAGGACAGA
CCTCAGGAGCTTTCATTTCAGTTAGGCAGAGGAAGAGCGACTGCAGTGGGTCTCCGTGTCTATCAAATACCTAAG
GAGTCCCCAGGAGCTGGCTGGCCATCGTGATAGGATCTGTCTGTCCTGTAAACTGTGCCAACTTCACCTGTCCAG
GGACAGCGAAGCTGGGGGTGGCGGGGGGCATGTACCACAGGGTGGCAGCAGGGAAAAAAATTAGAAAAGGGTGAA
AGATTGGGACTTAACACTTCAGGGAAGTCAGCTGCCGGGGAGAAACTTGCTCCTAAATGAACACATAAGTTTAGA
TCGCAATGAGGAGTAGCAGGGTAGCTGGTTGCTAGAGTTACGGTGGGGATCAGAAACTCTTCCAAACATTTTAGC
ACTGAGGCTGGGGTAGCTTTTGGCTTTTCCCAGGTCTCAGGAGGTGGCCTGAGTCAGCACACATCTTCCCACTCG
GTAGACAGGCTGGCCTCTCCCTCACTTTGAGACTTTGGCAACTCCTGGGCCACACGGCCTGCCTCTTTGATTACT
AATGATTGTCAGTGACTCAGAGCTTCCTGGGACTTCGGGTACCCACCCGCTGTTCTCCATGCAAACAAAGCGCCA
GGGAAATGACCCACAGGGATCGCAGCTGCAGGGAGGGCCAGGGAGGTTGGGGGTGGGAGTGAATGCTAAAAGCAG
ATCGTCCAGTGCCCTTTTCAGTGCTACCGGCCTCTCACCAAGCAGTCCTCCATGTGAGCAACCCCGAGACAAAAA
TGCTAAGTGGGATCAAGAGAGCAGCACTCGGAGAGGGTGTTTGCCAGTCTGAGTGTCCCGCGGTGCCCGCCAACC
CGCTTCCTGACTGACCTGAGCAAGGTCTTACTAAGCAGTCCCATCTCTGTGGGAGGCATGCAACGCGTGCAGGGA
GTTCAGGTGCCGGTCGGCGTAGCCAGGCCTGGAGGCCCCCCAGGCAGGAGGCCGCCCAAAGGCGGGGCCGGCGTC
TCGCAGACTAGGGGCTGGGGGCGGCCACAGACGGCCTCGAAACCACAGCCCTTACCCCAATCCCACGAGCCCCGC
CAACGAACCACAGGTGCTGGGCTTTAGAGAACATGGGAAGGCGGCCCCAGACCTGCGGGAACGCCTTTCCCTCAG
AGCCAGGCCCCGGCCCCGTCTGGGAAGCTCATCTTGCGAAGCTGAGGGAGCTCAGGGCAAAGGCCAGGCTAGCGC
GGACCGGAAGGGGCCGAGGCTGCACGGGCCTCTGCCAGAACGCTCAGGACATCCCGGCCTGGGTTTACAACGCTG
TTAGGAAAATTAACCAATGAATAAAGCAACGTTCAGTGCGCA

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FIGURE 1663

ATGAGGTGGGCGAGGCTTTCCGCTCTCTTGTGCCAGCGGCGGTGGTGTGGCTGAGCTATGGCGTGGCCAGCTCCT
ACGTGCTGGCGGATGCCATTGACAAAGGCAAGAAGGCTGGAGAGGTGCCCAGCCCTGAAGCAGGCCGCAGCGCCA
GGGTGACTGTGGCTGTGGTGGACACCTTTGT**ATG**GCAGGCTCTAGCCTCTGTGGCCATTCCGGGCTTCACCATCA
ACCGCGTGTGTGCTGCCTCTCTCTATGTCCTGGGCACTGCCACCCGCTGGCCCCTGGCTGTCCGCAAGTGGACCA
CCACCGCGCTTGGGCTGTTGACCATCCCCATCATTATCCACCCCAT**TGA**CAGGTCGGTGGATTTCCTCCTGGACT
CCAGCCTGCGCAAGCTCTACCCAACAGTGGGGAAGCCCAGCTCCTCCTGATCATACTCTGGTACCTGGCCTGTGC
ATCGGCCTCCTGCTTCATGTCAACCTCCTACTCCTGCCAGGGAATGTGGACACCTGGCTCCCTGGTGTCCAAAGA
CCCTGGCACCTGGGTGGGTTTGAGCTGGACAGAAGCTTAGAGACAAAGGCTTCAAGAAGCAGTGGCTGCAGGGAG
TCACAGAAGGGCAGGACCTGA

FIGURE 1664

GGCAGCCTGGGAGTTGGACGTGGCTCAGGCAGTGGGTAGAAAGGGGCAGCCAGCCACAGCCCGAGGGTCTCACTG
TGTCATCCAGAGCTGGAGTGCAGCGGCACAGTCATGGCTCACTGGAACTCAGGCTCAAGCAATCCTCCCGCCTCA
GCCTTCCAAGTAACTAGGACTACAGGCATGTGCCACCACGCCTGGTGTCTGAG**ATG**CTGCCACCGCAGAAGAAGC
CCTGGGAGTCCATGGCTAAGGGGCTGGTGCTGGGCGCGCTCTTCACTAGTTTCCTGCTGCTGGTGTACTCCTATG
CCGTGCCCCCGCTGCATGCCGGCCTGGCCTCCACGACCCCGGAGGCCGCAGCGTCCTGCTCTCCACCTGCACTCG
AGCCAGAGGCAGTGATCCGGGCCAACGGCTCGGCGGGGGAGTGCCAGCCGCGGCGCAACATCGTGTTCTTGAAGA
CGCACAAGACGGCCAGCAGCACCCTGCTCAACATCCTGTTCCGCTTCGGCCAGAAGCACCGGCTCAAGTTCGCCT
TCCCTAACGGCCGCAATGACTTCGACTACCCGACCTTCTTCGCCCGCAGCCTGGTGCAGGACTATCGGCCCGGGG
CCTGCTTCAACATCATCTGCAACCACATGCGCTTCCACTACGACGAGGTGCGCGGCCTGGTGCCGACCAACGCCA
TCTTCATCACGGTGCTCCGCGACCCCGCCCGCTTGTTCGAGTCCTCCTTCCACTACTTCGGGCCGGTGGTGCCCC
TCACGTGGAAGCTCTCGGCCGGCGACAAGCTGACCGAGTTCCTGCAAGACCCGGATCGCTACTACGACCCCAACG
GCTTCAATGCCCACTACCTCCGAAACCTGCTCTTCTTCGACCTGGGCTATGACAACAGCCTGGACCCCAGCAGCC
CGCAGGTGCAGGAGCACATCCTGGAGGTGGAGCGTCGCTTCCACCTGGTGCTCCTTCAAGAGTACTTCGACGAGT
CGCTGGTGCTGCTGAAGGACCTGCTGTGCTGGGAGCTGGAGGACGTGCTCTACTTCAAGCTCAACGCCCGCCGCG
ACTCGCCCGTGCCGCGGCTCTCGGGGGAGCTGTATGGGCGCGCCACCGCCTGGAACATGCTGGACTCCCACCTCT
ACCGCCACTTCAACGCCAGCTTCTGGCGCAAGGTGGAGGCCTTCGGGCGGGAGCGCATGGCCCGCGAGGTGGCCG
CCCTGCGCCATGCCAACGAGCGCATGCGGACCATCTGCATCGACGGGGGCCACGCCGTGGACGCCGCCGCCATCC
AGGACGAGGCCATGCAGCCCTGGCAGCCGCTGGGCACCAAGTCCATCCTGGGCTACAACCTCAAGAAGAGCATCG
GGCAGCGGCACGCGCAGCTCTGCCGGCGCATGCTCACGCCCGAGATCCAGTACCTGATGGACCTCGGCGCCAACC
TGTGGGTCACCAAGCTCTGGAAGTTCATTCGCGATTTCCTGCGGTGG**TGA**CGTCCCACCGCCCAGCGGCTTGCCT
GCCTGCTCGCTCCCTGCAGAGGGGCTGAGCAGGACGCCGCTGGTGCTGGCCGCCCCCAGCCCCCTCCTGGTGCCA
CCTCAGACCCCGGGGTGAGGGGGGGCTCCCTGGGGGGAGGCAGCCAGCCAAGACTGGGCCCATGAACACAGAGAG
GGCCTAACCGAGATCAGTATTTAACTAATTATACCAGTTTTTATTAAACCCCTTTCCCTCCCCGATAAAGAATGT
TCTATTTCTGCCTCCCCTTAAAGGGGAGACCTCAGAAGTAAAGGAATTTGATGTTGTGTTTTTGTT

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FIGURE 1665

GAGGAAGTGGAGCTCCCTGTACGCGCGGCCCTAGTCGGCTCCTCAACGTGGAGCG**ATG**GGAGGCCTTGAGAAGAA
GAAGTATGAACGAGGCTCGGCCACCAACTACATCACCCGGAACAAAGCCCGGAAGAAGCTCCAGCTGAGCTTGGC
TGACTTTAGGCGGCTGTGCATTCTGAAGGGCATTTATCCCCATGAACCCAAACACAAGAAGAAGGTTAACAAGGG
TTCTACAGCAGCCCGAACGTTTTACCTTATCAAAGACATCAGGTTTCTCCTCCACGAACCCATTGTCAACAAGTT
CCGTGAATACAAGGTGTTCGTCCGGAAGCTCCGGAAGGCTTATGGGAAGAGCGAGTGGAACACTGTAGAGCGTTT
AAAGGACAATAAGCCCAACTACAAACTCGACCACATCATCAAGGAACGGTATCCCACGTTCATCGATGCCCTGCG
GGACCTGGACGATGCCCTCTCCATGTGCTTCCTGTTTTCCACCTTCCCGCGGACTGGCAAGTGCCACGTGCAGAC
CATTCAGCTGTGCCGCCGGCTCACTGTGGAGTTCATGCACTACATTATCGCTGCCCGTGCCCTGCGCAAGGTCTT
CCTGTCCATCAAAGGCATTTACTACCAGGCCGAGGTACTGGGGCAGCCCATCGTGTGGATCACTCCCTATGCCTT
CTCCCATGACCACCCGACAGACGTGGACTACAGGGTCATGGCCACCTTCACCGAGTTCTACACCACGCTGCTGGG
CTTTGTCAACTTCCGCCTTTACCAGTTGCTCAACCTCCACTATCCCCCGAAGCTCGAGGGTCAGGCCCAAGCAGA
GGCAAAGGCCGGTGAGGGCACCTACGCGTTGGACTCCGAGAGTTGTATGGAGAAACTGGCAGCCCTCAGTGCCAG
CCTGGCCCGCGTGGTGGTGCCTGCCACAGAGGAGGAGGCCGAGGTGGATGAGTTTCCCACCGATGGGGAGATGTC
AGCGCAGGAGGAAGACCGCAGGAAGGAGCTGGAGGCGCAGGAGAAGCACAAGAAGCTTTTTGAGGGCCTGAAGTT
CTTCCTGAACCGAGAGGTGCCCCGTGAGGCCCTGGCCTTCATCATCAGGAGTTTTGGTGGGGAAGTGTCCTGGGA
CAAATCTTTGTGCATTGGGGCCACCTATGACGTCACAGACTCCCGCATCACCCATCAGATTGTCGACCGGCCTGG
GCAGCAGACCTCAGTCATTGGCAGGTGCTACGTGCAGCCCCAGTGGGTGTTTGACTCAGTGAACGCCAGGCTCCT
TCTCCCCGTGGCAGAGTACTTCTCTGGGGTGCAGCTGCCCCCACACCTTTCACCCTTTGTGACCGAGAAGGAAGG
AGATTACGTTCCACCTGAGAAGCTGAAGCTGCTGGCTCTGCAGCGGGGAGAGGACCCAGGAAACCTGAATGAGTC
AGAAGAGGAGGAGGAAGAGGACGACAACAACGAAGGTGATGGTGATGAAGAGGGAGAAAATGAGGAGGAGGAGGA
AGATGCAGAGGCTGGTTCAGAAAAGGAGGAAGAGGCCCGGCTGGCAGCCCTGGAAGAGCAGAGGATGGAGGGGAA
GAAGCCCAGGGTGATGGCAGGCACCTTGAAGCTGGAGGATAAGCAGCGGCTGGCCCAGGAGGAGGAGAGTGAGGC
CAAGCGCCTGGCCATTATGATGATGAAGAAGCGGGAGAAGTACCTGTACCAGAAGATCATGTTTGGCAAGAGGCG
AAAAATCCGAGAGGCCAACAAGCTGGCGGAGAAGCGGAAAGCCCACGATGAGGCGGTGAGGTCTGAGAAGAAGGC
CAAGAAGGCAAGGCCGGAG**TGA**GTGCCTGCGGCCCCTCACAGGGCTGAGGCCAGCCCCTAGCAGCTGGATGTGGC
AGAGGCAGGCCAGAGGACCTAAGTGTGATGGACCAGAGTCACTTCTCCTCCTCCTTTCTCCAGCCAGCCCTGACC
CCTCATGCTCTCTGGCTGGGCCAGTGGGCAGCCCTCGCTTCCCTTGGATGGAGCTGCCCTGCTGGTGCCTGGTCA
GAGAAGAGGCCTCTGTGCCCAGCCTGATTCTCTGCTCCCAGGAGCCAGTGACATGAGGTGCAGAGGCCCACCCAG
CCCCCTACCTACTGCCCCCATTCATCCTGGCTTTCCACAGCCCCCTCCCACACAGTTGGACCCGTGATTCTCAGG
GTGCTGTGATGGGGTGAGGGTAGGGGGAGCATTTGTTATTAAATGACTGGACTTTTG

FIGURE 1666

GAGGTGCTGGGGAGCAGCGTGTTTGCTGTGCTTGATTGTGAGCTGCTGGGAAGTTGTGACTTTCATTTTACCTTT
CGAATTCCTGGGTATATCTTGGGGGCTGGAGGACGTGTCTGGTTATTATATAGGTGCACAGCTGGAGGTGAGATC
CACACAGCTCAGACCAGCTGGATCTTGCTCAGTCTCTGTCAGAGGAAGATCCCTTGGAGGAGGCCCCGCAGCGAC
ATGGAGGGAGCTGCTTTGCTGAAAATCTTTGTCGTCTGCATCTGGGTGCAGCAAAACCATCCAGGCTGGACAGTG
GCTGGACAGTTCCAAGAAAAGAAACGCTTCACTGAAGAAGTCATTGAATACTTCCAGAAGAAAGTTAGCCCAGTG
CATCTGAAAATCCTGCTGACTAGCGATGAAGCCTGGAAGAGATTTGTGCGTGTGGCTGAATTGCCCAGGGAAGAG
GCAGATGCTCTCTATGAAGCTCTGAAGAATCTTACACCATATGTGGCTATTGAGGACAAAGACATGCAGCAAAAA
GAACAGCAGTTTAGGGAGTGGTTTTTGAAAGTTTCCTCAAATCAGATGGAAGATTCAGGAGTCCATAGAAAGGCT
TCGTGTCATTGCAAATGAGATTGAAAAGGTCCACAGAGGCTGCGTCATCGCCAATGTGGTGTCTGGCTCCACTGG
CATCCTGTCTGTCATTGGCGTT**ATG**TTGGCACCATTTACAGCAGGGCTGAGCCTGAGCATTACTGCAGCTGGGGT
AGGGCTGGGAATAGCATCTGCCACGGCTGGGATCGCCTCCAGCATCGTGGAGAACACATACACAAGGTCAGCAGA
ACTCACAGCCAGCAGGCTGACTGCAACCAGCACTGACCAATTGGAGGCATTAAGGGACATTCTGCGTGACATCAC
ACCCAATGTGCTTTCTTTTGCACTTGATTTTGACGAAGCCACAAAAATGATTGCGAATGATGTCCATACACTCAG
GAGATCTAAAGCCACTGTTGGACGCCCTTTGATTGCTTGGCGATATGTACCTATAAATGTTGTTGAGACACTGAG
AACACGTGGGGCCCCCACCCGGATAGTGAGAAAAGTAGCCCGGAACCTGGGCAAGGCCACTTCAGGTGTCCTTGT
TGTGCTGGATGTAGTCAACCTTGTGCAAGACTCACTGGACTTGCACAAGGGGGCAAAATCCGAGTCTGCTGAGTC
GCTGAGGCAGTGGGCTCAGGAGCTGGAGGAGAATCTCAATGAGCTCACCCATATCCATCAGAGTCTAAAAGCAGG
C**TAG**GCCCAATTGTTGCGGGAAGTCAGGGACCCCAAACGGAGGGACTGGCTGAAGCCATGGCAGAAGAACGTGGA
TTGTGAAGATTTCATGGACATTTATTAGTTCCCCAAATTAATACTTTTATAATTTCCTATGCCTGTCTTTACCGC
AATCTCTAAACACAAATTGTGAAGATTTCATGGACACTGATCACTTCCCCAATCAATACCCTTGTGATTTCTTAT
GCCTGTCTTTACTTTAATCTCCTAATCCTGTCAGCTGAGGAGGATGTATGTCACCTCAGGACCATGTGATAATTG
CGTTAACTGCACAAATTGTAGAGCATGTGTGTTTGAACAATATGAAATCTGGGCACCTTGAAAAAAGAACAGGAT
AACAGCAATTGTTCAGGGAATAAGAGAGATAACCTTAAACTCTGACCAACAGTGAGCCTGGTGGAACAGAGTCAT
ATTTCTCTTCTTTCAAAAGCAAATGGGAGAAATATCGCTGAATTCTTTTTCTCAGCAAGGAACATCCCTGAGAAA
GAGAATGCACCCCTGAGGGTGGGTCTATAAATGGCCTCCTTGGGTGTGGCCATCTTCTATGGTCGAGACTGTAGG
GATGAAATAAACCCCAGTCTCCCATAGCGCTCCCAGGCTTATTAGGAAGAGGAAATTCCCGCCTAATAAATTTTG
GTCAGACCGGTTGCTCTCAAAACCCTGTCTCCTGATAAGATGTTATCAATGACAATGGTGCCCGAAACCTCATTA
GCAATTTTAATTTCTCCCCGGTCCTGTGTTCCTGTGATCTCGCCCTGCCTCCACTTGCCTTGTGATATTCTATTA
CCTTGTGAAGTAGGTGATCTTTGTGACCCACACCCACACCCTATTCATACACTCCCTCCCCTTTTGAAAGTCCCT
AATAAAAACTTGCTGGTTTTGCGGCTTGTGAGGCATCACGGAACCTACCGATGTGTGATGTCTCCCCTGGACACC
TAGCTTTAAAATTTCTCTCTTTTGTACTCTGTGCCTTTATTTCTCAAACCGGCCAACACTTAGGGAAAATAGAAA
AGAACCTACGTGACCATCGGGGCAGGTTCCCCGATACCCAATGACCCCAGAGCAGTGCAGCCACCAGGGAAGGTG
AGCCAGACACAGGCCGGGACAAAACGCAGACATTTTTTAGGGGAATAAAGAGGGCGAGGTAAAGTTTATGGAACT
CAGTGTTAGGAACTTTGGCATCTGTAGCTGAGCACAGCAGGGGAGGGGTTACTCAAGATGGCAAGTGCGCCAAGG
AGAAGGCAGAAATGCTGGGGCCTGGAATAAGGGAGGAGAGGGGACTGGAGAGTGTGGGGAATGGAAAGAAGCAGT
TTACTCTAGACTAAAGAGTATATTGGGGGAGGAAGAGAGGGAGGCACGTAGGAACAAGCAATGAGAAGACCAGGA
AAAGAAAGAGCTGAAAATGGAGAAAGCCACAGTTAGAACTGTTGGATACAGGAGAAGAAACAGCGGCTCCACTAA
AGACCCGCCCCCCGGTTGGATGTCCTTCCAAGAATGGAATCCTTCCCTGGTGATGGTCTCTCACCCTGTCTTACC
AGCATCCACTCTCCCTTGTCCTCCCGGGGGTGTATCTGAGTCAGCCAGTGGCTTCTTGATGATGGTGGTGGTGGT
TGTAGTGTGACAGGTCCCCTTTAGGTTATTTAAGGGTGCATGTCCCCTGCTTGAACCCTGAAGGCCGGGTAATGA
GCCATTTCCATGGTGCCCAGCTGAGGACCAGGTGTCTCTGAGAATCCAAACATCCTGGAGAGTATCTGAGAACCA
ACCAAGTAAAAGTCTCGTTGCTCATATATAGTAGACAAAGAGCCAGAAAATTAACTGAAAAGCAGTTTAGACATT
GGGGGAGGCTGGATCTCTCGAGCTGTCTTGCTGAGTGCCCTGTGTGTAAGTCCTAATAAACTTAGCTACTCGCCA

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FIGURE 1667

ATGAGTGCACTTTTCCTTGGTGTGGGAGTGAGGGCAGAGGAAGCTGGAGCGAGGGTGCAACAAAACGTTCCAAGT
GGGACAGATACTGGAGATCCTCAAAGTAAGCCCCTCGGTGACTGGGCTGCTGGCACCATGGACCCAGAGAGCAGT
ATCTTTATTGAGGATGCCATTAAGTATTTCAAGGAAAAAGTGAGCACACAGAATCTGCTACTCCTGCTGACTGAT
AATGAGGCCTGGAACGGATTCGTGGCTGCTGCTGAACTGCCCAGGAATGAGGCAGATGAGCTCCGTAAAGCTCTG
GACAACCTTGCAAGACAAATGATCATGAAAGACAAAAACTGGCACGATAAAGGCCAGCAGTACAGAAACTGGTTT
CTGAAAGAGTTTCCTCGGTTGAAAAGTGAGCTTGAGGATAACATAAGAAGGCTCCGTGCCCTTGCAGATGGGGTT
CAGAAGGTCCACAAAGGCACCACCATCGCCAATGTGGTGTCTGGCTCTCTCAGCATTTCCTCTGGCATCCTGACC
CTCGTCGGCATGGGTCTGGCACCCTTCACAGAGGGAGGCAGCCTTGTACTCTTGGAACCTGGGATGGAGTTGGGA
ATCACAGCCGCTTTGACCGGGATTACCAGCAGTACCATGGACTACGGAAAGAAGTGGTGGACACAAGCCCAAGCC
CACGACCTGGTCATCAAAAGCCTTGACAAATTGAAGGAGGTGAGGGAGTTTTTGGGTGAGAACATATCCAACTTT
CTTTCCTTAGCTGGCAATACTTACCAACTCACACGAGGCATTGGGAAGGACATCCGTGCCCTCAGACGAGCCAGA
GCCAATCTTCAGTCAGTACCGCATGCCTCAGCCTCACGCCCCCGGGTCACTGAGCCAATCTCAGCTGAAAGCGGT
GAACAGGTGGAGAGGGTTAATGAACCCAGCATCCTGGAAATGAGCAGAGGAGTCAAGCTCACGGATGTGGCCCCT
GTAAGCTTCTTTCTTGTGCTGGATGTAGTCTACCTCGTGTACGAATCAAAGCACTTACATGAGGGGGCAAAGTCA
GAGACAGCTGAGGAGCTGAAGAAGGTGGCTCAGGAGCTGGAGGAGAAGCTAAACATTCTCAACAATAATTATAAG
ATTCTGCAGGCGGACCAAGAACTG**TGA**

FIGURE 1668A

ATGGCACAGCAAGCTGCCGATAAGTATCTCTATGTGGATAAAAACTTCATCAACAATCCGCTGGCCCAGGCCGAC
TGGGCTGCCAAGAAGCTGGTATGGGTGCCTTCCGACAAGAGTGGCTTTGAGCCAGCCAGCCTCAAGGAGGAGGTG
GGCGAAGAGGCCATCGTGGAGCTGGTGGAGAATGGGAAGAAGGTGAAGGTGAACAAGGATGACATCCAGAAGATG
AACCCGCCCAAGTTCTCCAAGGTGGAGGACATGGCAGAGCTCACGTGCCTCAACGAAGCCTCGGTGCTGCACAAC
CTCAAGGAGCGTTACTACTCAGGGCTCATCTACACCTATTCAGGCCTGTTCTGTGTGGTCATCAATCCTTACAAG
AACCTGCCCATCTACTCTGAAGAGATTGTGGAAATGTACAAGGGCAAGAAGAGGCACGAGATGCCCCCTCACATC
TATGCCATCACAGACACCGCCTACAGGAGTATGATGCAAGACCGAGAAGATCAATCCATCTTGTGCACTGGTGAA
TCTGGAGCTGGCAAGACGGAGAACACCAAGAAGGTCATCCAGTATCTGGCGTACGTGGCGTCCTCGCACAAGAGC
AAGAAGGACCAGGGCGAGCTGGAGCGGCAGCTGCTGCAGGCCAACCCCATCCTGGAGGCCTTCGGGAACGCCAAG
ACCGTGAAGAATGACAACTCCTCCCGCTTCGGCAAATTCATTCGCATCAACTTTGATGTCAATGGCTACATTGTT
GGAGCCAACATTGAGACTTATCTTTTGGAGAAATCTCGTGCTATCCGCCAAGCCAAGGAAGAACGGACCTTCCAC
ATCTTCTATTATCTCCTGTCTGGGGCTGGAGAGCACCTGAAGACCGATCTCCTGTTGGAGCCGTACAACAAATAC
CGCTTCCTGTCCAATGGACACGTCACCATCCCCGGGCAGCAGGACAAGGACATGTTCCAGGAGACCATGGAGGCC
ATGAGGATTATGGGCATCCCAGAAGAGGAGCAAATGGGCCTGCTGCGGGTCATCTCAGGGGTTCTTCAGCTCGGC
AACATCGTCTTCAAGAAGGAGCGGAACACTGACCAGGCGTCCATGCCCGACAACACAGCTGCCCAAAAGGTGTCC
CATCTCTTGGGTATCAATGTGACCGATTTCACCAGAGGAATCCTCACCCCGCGCATCAAGGTGGGACGGGATTAC
GTCCAGAAGGCGCAGACTAAAGAGCAGGCTGACTTTGCCATCGAGGCCTTGGCCAAGGCGACCTATGAGCGGATG
TTCCGCTGGCTGGTGCTGCGCATCAACAAGGCTCTGGACAAGACCAAGAGGCAGGGCGCCTCCTTCATCGGGATC
CTGGACATTGCCGGCTTCGAGATCTTTGATCTGAACTCGTTTGAGCAGCTGTGCATCAATTACACCAATGAGAAG
CTGCAGCAGCTCTTCAACCACACCATGTTCATCCTGGAGCAGGAGGAGTACCAGCGCGAGGGCATCGAGTGGAAC
TTCATCGACTTTGGCCTCGACCTGCAGCCCTGCATCGACCTCATTGAGAAGCCAGCAGGCCCCCCGGGCATTCTG
GCCCTGCTGGACGAGGAGTGCTGGTTCCCCAAAGCCACCGACAAGAGCTTCGTGGAGAAGGTGATGCAGGAGCAG
GGCACCCACCCCAAGTTCCAGAAGCCCAAGCAGCTGAAGGACAAAGCTGATTTCTGCATTATCCACTATGCCGGC
AAGGTGGATTACAAAGCTGACGAGTGGCTGATGAAGAACATGGATCCCCTGAATGACAACATCGCCACACTGCTC
CACCAGTCCTCTGACAAGTTTGTCTCGGAGCTGTGGAAGGATGTGGACCGCATCATCGGCCTGGACCAGGTGGCC
GGCATGTCGGAGACCGCACTGCCCGGGGCCTTCAAGACGCGGAAGGGCATGTTCCGCACTGTGGGGCAGCTTTAC
AAGGAGCAGCTGGCCAAGCTGATGGCTACGCTGAGGAACACGAACCCCAACTTTGTCCGCTGCATCATCCCCAAC
CACGAGAAGAAGGCCGGCAAGCTGGACCCGCATCTCGTGCTGGACCAGCTGCGCTGCAACGGTGTTCTCGAGGGC
ATCCGTATCTGCCGCCAGGGCTTCCCCAACAGGGTGGTCTTCCAGGAGTTTCGGCAGAGATATGAGATCCTGACT
CCAAACTCCATTCCCAAGGGTTTCATGGACGGGAAGCAGGCGTGCGTGCTCATGATAAAAGCCCTGGAGCTCGAC
AGCAATCTGTACCGCATTGGCCAGAGCAAAGTCTTCTTCCGTGCCGGTGTGCTGGCCCACCTGGAGGAGGAGCGA
GACCTGAAGATCACCGACGTCATCATAGGGTTCCAGGCCTGCTGCAGGGGCTACCTGGCCAGGAAAGCATTTGCC
AAGCGGCAGCAGCAGCTTACCGCCATGAAGGTCCTCCAGCGGAACTGCGCTGCCTACCTGAAGCTGCGGAACTGG
CAGTGGTGGCGGCTCTTCACCAAGGTCAAGCCGCTGCTGCAGGTGAGCCGGCAGGAGGAGGAGATGATGGCCAAG
GAGGAGGAGCTGGTGAAGGTCAGAGAGAAGCAGCTGGCTGCGGAGAACAGGCTCACGGAGATGGAGACGCTGCAG
TCTCAGCTCATGGCAGAGAAATTGCAGCTGCAGGAGCAGCTCCAGGCAGAAACCGAGCTGTGTGCCGAGGCTGAG
GAGCTCCGGGCCCGCCTGACCGCCAAGAAGCAGGAATTAGAAGAGATCTGCCATGACCTAGAGGCCAGGGTGGAG
GAGGAGGAGGAGCGCTGCCAGCACCTGCAGGCGGAGAAGAAGAAGATGCAGCAGAACATCCAGGAGCTTGAGGAG
CAGCTGGAGGAGGAGGAGAGCGCCCGGCAGAAGCTGCAGCTGGAGAAGGTGACCACCGAGGCGAAGCTGAAAAAG
CTGGAGGAGGAGCAGATCATCCTGGAGGACCAGAACTGCAAGCTGGCCAAGGAAAAGAAACTGCTGGAAGACAGA
ATAGCTGAGTTCACCACCAACCTCACAGAAGAGGAGGAGAAATCTAAGAGCCTCGCCAAGCTCAAGAACAAGCAT
GAGGCAATGATCACTGACTTGGAAGAGCGCCTCCGCAGGGAGGAGAAGCAGCGACAGGAGCTGGAGAAGACCCGC
CGGAAGCTGGAGGGAGACTCCACAGACCTCAGCGACCAGATCGCCGAGCTCCAGGCCCAGATCGCGGAGCTCAAG
ATGCAGCTGGCCAAGAAAGAGGAGGAGCTCCAGGCCGCCCTGGCCAGAGTGGAAGAGGAAGCTGCCCAGAAGAAC
ATGGCCCTCAAGAAGATCCGGGAGCTGGAATCTCAGATCTCTGAACTCCAGGAAGACCTGGAGTCTGAGCGTGCT
TCCAGGAATAAAGCTGAGAAGCAGAAACGGGACCTTGGGGAAGAGCTAGAGGCTCTGAAAACAGAGTTGGAGGAC
ACGCTGGATTCCACAGCTGCCCAGCAGGAGCTCAGGTCAAAACGTGAGCAGGAGGTGAACATCCTGAAGAAGACC
CTGGAGGAGGAGGCCAAGACCCACGAGGCCCAGATCCAGGAGATGAGGCAGAAGCACTCACAGGCCGTGGAGGAG

FIGURE 1668B

CTGGCGGAGCAGCTGGAGCAGACGAAGCGGGTGAAAGCAAACCTCGAGAAGGCAAAGCAGACTCTGGAGAACGAG
CGGGGGGAGCTGGCCAACGAGGTGAAGGTGCTGCTGCAGGGCAAAGGGGACTCGGAGCACAAGCGCAAGAAAGTG
GAGGCGCAGCTGCAGGAGCTGCAGGTCAAGTTCAACGAGGGAGAGCGCGTGCGCACAGAGCTGGCCGACAAGGTC
ACCAAGCTGCAGGTGGAGCTGGACAACGTGACCGGGCTTCTCAGCCAGTCCGACAGCAAGTCCAGCAAGCTCACC
AAGGACTTCTCCGCGCTGGAGTCCCAGCTGCAGGACACTCAGGAGCTGCTGCAGGAGGAGAACCGGCAGAAGCTG
AGCCTGAGCACCAAGCTCAAGCAGGTGGAGGACGAGAAGAATTCCTTCCGGGAGCAGCTGGAGGAGGAGGAGGAG
GCCAAGCACAACCTGGAGAAGCAGATCGCCACCCTCCATGCCCAGGTGGCCGACATGAAAAAGAAGATGGAGGAC
AGTGTGGGGTGCCTGGAAACTGCTGAGGAGGTGAAGAGGAAGCTCCAGAAGGACCTGGAGGGCCTGAGCCAGCGG
CACGAGGAGAAGGTGGCCGCCTACGACAAGCTGGAGAAGACCAAGACGCGGCTGCAGCAGGAGCTGGACGACCTG
CTGGTGGACCTGGACCACCAGCGCCAGAGCGCGTGCAACCTGGAGAAGAAGCAGAAGAAGTTTGACCAGCTCCTG
GCGGAGGAGAAGACCATCTCTGCCAAGTATGCAGAGGAGCGCGACCGGGCTGAGGCGGAGGCCCGAGAGAAGGAG
ACCAAGGCTCTGTCGCTGGCCCGGGCCCTGGAGGAAGCCATGGAGCAGAAGGCGGAGCTGGAGCGGCTCAACAAG
CAGTTCCGCACGGAGATGGAGGACCTTATGAGCTCCAAGGATGATGTGGGCAAGAGTGTCCACGAGCTGGAGAAG
TCCAAGCGGGCCCTAGAGCAGCAGGTGGAGGAGATGAAGACGCAGCTGGAAGAGCTGGAGGACGAGCTGCAGGCC
ACCGAAGATGCCAAGCTGCGGTTGGAGGTCAACCTGCAGGCCATGAAGGCCCAGTTCGAGCGGGACCTGCAGGGC
CGGGACGAGCAGAGCGAGGAGAAGAAGAAGCAGCTGGTCAGACAGGTGCGGGAGATGGAGGCAGAGCTGGAGGAC
GAGAGGAAGCAGCGCTCGATGGCAGTGGCCGCCCGGAAGAAGCTGGAGATGGACCTGAAGGACCTGGAGGCGCAC
ATCGACTCGGCCAACAAGAACCGGGACGAAGCCATCAAACAGCTGCGGAAGCTGCAGGCCCAGATGAAGGACTGC
ATGCGCGAGCTGGATGACACCCGCGCCTCTCGTGAGGAGATCCTGGCCCAGGCCAAAGAGAACGAGAAGAAGCTG
AAGAGCATGGAGGCCGAGATGATCCAGTTGCAGGAGGAACTGGCAGCCGCGGAGCGTGCCAAGCGCCAGGCCCAG
CAGGAGCGGGATGAGCTGGCTGACGAGATCGCCAACAGCAGCGGCAAAGGAGCCCTGGCGTTAGAGGAGAAGCGG
CGTCTGGAGGCCCGCATCGCCCAGCTGGAGGAGGAGCTGGAGGAGGAGCAGGGCAACACGGAGCTGATCAACGAC
CGGCTGAAGAAGGCCAACCTGCAGATCGACCAGATCAACACCGACCTGAACCTGGAGCGCAGCCACGCCCAGAAG
AACGAGAATGCTCGGCAGCAGCTGGAACGCCAGAACAAGGAGCTTAAGGTCAAGCTGCAGGAGATGGAGGGCACT
GTCAAGTCCAAGTACAAGGCCTCCATCACCGCCCTCGAGGCCAAGATTGCACAGCTGGAGGAGCAGCTGGACAAC
GAGACCAAGGAGCGCCAGGCAGCCTGCAAACAGGTGCGTCGGACCGAGAAGAAGCTGAAGGATGTGCTGCTGCAG
GTGGATGACGAGCGGAGGAACGCCGAGCAGTACAAGGACCAGGCCGACAAGGCATCTACCCGCCTGAAGCAGCTC
AAGCGGCAGCTGGAGGAGGCCGAAGAGGAGGCCCAGCGGGCCAACGCCTCCCGCCGGAAACTGCAGCGCGAGCTG
GAGGACGCCACTGAGACGGCCGATGCCATGAACCGCGAAGTCAGCTCCCTAAAGAACAAGCTCAGGCGCGGGGAC
CTGCCGTTTGTCGTGCCCCGCCGAATGGCCCGGAAAGGCGCCGGGGATGGCTCCGACGAAGAGGTAGATGGCAAA
GCGGATGGGGCTGAGGCCAAACCTGCCGAA**TAA**

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FIGURE 1669

GCTAACGCGGTCCCCGGCACGCACCATCTGTTGCCATCCCGGCCGGCCGAGGCCATTGCAGATTTTGGAAGATGG
CAAAGTTCATGACACCCGTGATCCAGGACAACCCCTCAGGCTGGGGTCCCTGTGCGGTTCCCGAGCAGTTTCGGG
ATATGCCCTACCAGCCGTTCAGCAAAGGAGATCGGCTAGGAAAGGTTGCAGACTGGACAGGAGCCACATACCAAG
ATAAGAGGTACACAAATAAGTACTCCTCTCAGTTTGGTGGTGGAAGTCAATATGCTTATTTCCATGAGGAGGATG
AAAGTAGCTTCCAGCTGGTGGATACAGCGCGCACACAGAAGACGGCCTACCAGCGGAATCGAATGAGATTTGCCC
AGAGGAACCTCCGCAGAGACAAAGATCGTCGGAACATGTTGCAGTTCAACCTGCAGATCCTGCCTAAGAGTGCCA
AACAGAAAGAGAGAGAACGCATTCGACTGCAGAAAAAGTTCCAGAAACAATTTGGGGTTAGGCAGAAATGGGATC
AGAAATCACAGAAACCCCGAGACTCTTCAGTTGAAGTTCGTAGTGATTGGGAAGTGAAAGAGGAAATGGATTTTC
CTCAGTTGATGAAGATGCGCTACTTGGAAGTATCAGAGCCACAGGACATTGAGTGTTGTGGGGCCCTAGAATACT
ACGACAAAGCCTTTGACCGCATCACCACGAGGAGTGAGAAGCCACTGCGGAGCATCAAGCGCATCTTCCACACTG
TCACCACCACAGACGACCCTGTCATCCGCAAGCTGGCAAAAACTCAGGGGAATGTGTTTGCCACTGATGCCATCC
TGGCCACGCTGATGAGCTGTACCCGCTCAGTGTATTCCTGGGATATTGTCGTCCAGAGAGTTGGGTCCAAACTCT
TCTTTGACAAGAGAGACAACTCTGACTTTGACCTCCTGACAGTGAGTGAGACTGCCAATGAGCCCCCTCAAGATG
AAGGTAATTCCTTCAATTCACCCCGCAACCTGGCCATGGAGGCAACCTACATCAACCACAATTTCTCCCAGCAGT
GCTTGAGAATGGGGAAGGAAAGATACAACTTCCCCAACCCAAACCCGTTTGTGGAGGACGACATGGATAAGAATG
AAATCGCCTCTGTTGCGTACCGTTACCGCAGGTGGAAGCTTGGAGATGATATTGACCTTATTGTCCGTTGTGAGC
ACGATGGCGTCATGACTGGAGCCAACGGGGAAGTGTCCTTCATCAACATCAAGACACTCAATGAGTGGGATTCCA
GGCACTGTAATGGCGTTGACTGGCGTCAGAAGCTGGACTCTCAGCGAGGGGCTGTCATTGCCACGGAGCTGAAGA
ACAACAGCTACAAGTTGGCCCGGTGGACCTGCTGTGCTTTGCTGGCTGGATCTGAGTACCTCAAGCTTGGTTATG
TGTCTCGGTACCACGTGAAAGACTCCTCACGCCACGTCATCCTAGGCACCCAGCAGTTCAAGCCTAATGAGTTTG
CCAGCCAGATCAACCTGAGCGTGGAGAATGCCTGGGGCATTTTACGCTGCGTCATTGACATCTGCATGAAGCTGG
AGGAGGGCAAATACCTCATCCTCAAGGACCCCAACAAGCAGGTCATCCGTGTCTACAGCCTCCCTGATGGCACCT
TCAGCTCTGATGAAGATGAGGAGGAAGAGGAGGAGGAAGAAGAGGAAGAAGAAGAGGAAGAAACTTAAACCAGTG
ATGTGGAGCTGGAGTTTGTCCTTCCACCGAGACTACGAGGGCCTTTGATGCTTAGTGGAATGTGTGTCTAACTTG
CTCTCTGACATTTAGCAGATGAAATAAAATATATATCTGTTTAGTCTTT

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FIGURE 1670

GGGAGGCAGAGGAGGCGGAGGCAGAGGCAGAGGCAGAGGCAGAGCCCGAGCCCGGTGCCGAGACCAAGCGACAGA
CCGGCGGGGCTGGGCCTCGCAAAGCCGGCTCGGCGAGCTCTCCCGACACCCGAGCCGGGGAGGAAAAGCAGCGAC
TCCTCGCTCGCATCCCCGGGAGCCGCACTCCAGACTGGCCCGGTAGTCAGGGGCTCAGGAGCAGATCCCGAGGCA
GGCTTTGCTCAGCCTCCGACGAGGGCTGGCCCTTTGGAAGGCGCCTTCAACAGCCGGACCAGACAGGCCACC**ATG**

ACCGAGAATTCCACGTCCGCCCCTGCGGCCAAGCCCAAGCGGGCCAAGGCCTCCAAGAAGTCCACAGACCACCCC
AAGTATTCAGACATGATCGTGGCTGCCATCCAGGCCGAGAAGAACCGCGCTGGCTCCTCGCGCCAGTCCATTCAG
AAGTATATCAAGAGCCACTACAAGGTGGGTGAGAACGCTGACTCGCAGATCAAGTTGTCCATCAAGCGCCTGGTC
ACCACCGGTGTCCTCAAGCAGACCAAAGGGGTGGGGGCCTCGGGGTCCTTCCGGCTAGCCAAGAGCGACGAACCC
AAGAAGTCAGTGGCCTTCAAGAAGACCAAGAAGGAAATCAAGAAGGTAGCCACGCCAAAGAAGGCATCCAAGCCC
AAGAAGGCTGCCTCCAAAGCCCCAACCAAGAAACCCAAAGCCACCCCGGTCAAGAAGGCCAAGAAGAAGCTGGCT
GCCACGCCCAAGAAAGCCAAAAAACCCAAGACTGTCAAAGCCAAGCCGGTCAAGGCATCCAAGCCCAAAAAGGCC
AAACCAGTGAAACCCAAAGCAAAGTCCAGTGCCAAGAGGGCCGGCAAGAAGAAG**TGA**CAATGAAGTCTTTTCTTG
CGGACACTCCCTCCTGTCTCCTATTTTCTGTAAATAATTTTCTCCTTTTTTCTCTCTTGATGCTCACCACCACCT
TTTGCCCCCTTCTGTTCTGACTTTATAAGAGACAGGATTTGGATTCTTCAGAAATTACAGAATAATTCATTTTTC
CTTAACCAGTTGTGCAAGGACAGCAACAACCAATCTAATGATGAGAATGTACTTATATTTTGTTTTGCTATTAAC
CTACTTACGGGGTTAGGGATTTGCGGGGGGGGCTTGTGTGTTTTGTTGGCTTGTTTGCCATGAAGGTAGATGTGG
GTGGGGAGAAGACACAAGGCAGTTTGTTCTGGCTAGATGAGAGGGAACCCAGGAATTGTGAGGTTAGCAGGAATA
TCTTTAGGGTGAGTGAGTTTTCTTTGAGTTGGGCACCCGTTGTGAGAGTTTCAGAACCTTTGGCCAGCAGGAGAG
AGGTGGTAGGGAGCAGCCAGCCGGCAAAGGAAGGAGGGGGAAAAAAACCGCCACCGGGCTGACTTCCACCTCCCA
GTGGTGAGCAGTGGGGGCCCAAACCCAGTTTCCTTCTCATTTTTGTTAGTTTGCGCTTTCGGCCTCCCTATTTTC
TTAGGGAAGGGGAGTGGGGTCCAAGTGACAGCTGGATGGGAGAAGCCATAGTTTCTCCCAGTCAGCTAGGATGTA
GCCATTGGGGGATCTTTGTGGCTTCAGCAAATTCTCTTGTTAAACCGGAGTGAAAACTTCAGGGGAAGGGTGGGG
AGTCAGCCAAGTGCCTCAGTGTGCCCTGTTGAAACTTAGGTTTTTCCACGCAATCGATGGATTGTGTCCTAGGAA
GACTTTTCTTTTCCTCTGGATTTTTGTTCCTCCTGTACAAGAGGTGTCTTTGCTTGGTTTGGTGGGGCTGCGGCC
ACTTAAAACCTCCCGATCTCTTTTTGAGTCCTTTATTATAAGTAGTTGTAGCTGCGGGAGGGGGAGGGGGAGTGG
GCGGGCAGTGGATAGTAAGACTTACTGCAGTCGATTTGGGATTTGCTAAGTAGTTTTACAGAGCTAGATCTGTGT
GCATGTGTGTGTTTGTGTATATATACATATCTAGGGCTAGTACTTAGTTTCACACCCGGGAGCTGGGAGAAAAAA
CCTGTACAGTTGTCTTTCTCTTATTTTTAATAAAATAGAAAAATCGCGCACTTGCGCGTCCCCCCCCCACCCCCT
TTTTTAAACAAGTGTTACTTGTGCCGGGAAAATTTTGCTGTCTTTGTAATTTTAAAACTTTAAAATAAATTGGAA
AAGGGAG

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FIGURE 1671

GCG**ATG**TGGCCTGGGAACGCCTGGCGCGCCGCACTCTTCTGGGTGCCCCGCGGCCGCCGCGCACAGTCAGCGCTG
GCCCAGCTGCGTGGCATTCTGGAGGGGGAGCTGGAAGGCATCCGCGGAGCTGGCACTTGGAAGAGTGAGCGGGTC
ATCACGTCCCGTCAGGGGCCGCACATCCGCGTGGACGGCGTCTCCGGAGGAATCCTTAACTTCTGTGCCAACAAC
TACCTGGGCCTGAGCAGCCACCCTGAGGTGATCCAGGCAGGTCTGCAGGCTCTGGAGGAGTTTGGAGCTGGCCTC
AGCTCTGTCCGCTTTATCTGTGGAACCCAGAGCATCCACAAGAATCTAGAAGCAAAAATAGCCCGCTTCCACCAG
CGGGAGGATGCCATCCTCTATCCCAGCTGTTATGACGCCAACGCCGGCCTCTTTGAGGCCCTGCTGACCCCAGAG
GACGCAGTCCTGTCGGACGAGCTGAACCATGCCTCCATCATCGACGGCATCCGGCTGTGCAAGGCCCACAAGTAC
CGCTATCGCCACCTGGACATGGCCGACCTAGAAGCCAAGCTGCAGGAGGCCCAGAAGCATCGGCTGCGCCTGGTG
GCCACTGATGGGGCCTTTTCCATGGATGGCGACATCGCACCCCTGCAGGAGATCTGCTGCCTCGCCTCTAGATAT
GGTGCCCTGGTCTTCATGGATGAATGCCATGCCACTGGCTTCCTGGGGCCCACAGGACGGGGCACAGATGAGCTG
CTGGGTGTGATGGACCAGGTCACCATCATCAACTCCACCCTGGGGAAGGCCCTGGGTGGAGCATCAGGGGGCTAC
ACGACAGGGCCTGGGCCCCTGGTGTCCCTGCTGCGGCAGCGCGCCCGGCCATACCTCTTCTCCAACAGTCTGCCA
CCTGCTGTCGTTGGCTGCGCCTCCAAGGCCCTAGATCTGCTGATGGGGAGTAACACCATTGTCCAGTCTATGGCT
GCCAAGACCCAGAGGTTCCGTAGTAAGATGGAAGCTGCTGGCTTCACTATCTCGGGAGCCAGTCACCCCATCTGC
CCTGTGATGCTGGGTGATGCCCGGCTGGCCTCTCGCATGGCGGATGACATGCTGAAGAGAGGCATCTTTGTCATC
GGGTTCAGCTACCCCGTGGTCCCCAAGGGCAAGGCCCGGATCCGGGTACAGATCTCAGCAGTGCATAGCGAGGAA
GACATTGACCGCTGCGTGGAGGCCTTCGTGGAAGTGGGGCGACTGCACGGGGCACTGCCC**TGA**GCTCTGGGTAAG
GACGAGAAGAGCCAAGGTCCGCCTACTGCCACAGGGTCAAAGGAGGTTTTCGATCAGCCCAGACCAGAGGCTCTG
AGCCCTGAACCAAAGTCCCAGAGCTGGGCTGGGACGTGACCTGTGCTGAGGGCTGTGAGAATGTGAAACAACAGT
GTGAAAATTGGCTGTG

FIGURE 1672

GGTTTAAGCTGGAAGGGTAGTCATTGGTTCGCCGCTCTGTCTCGGCCTGAGCCCGCCCCCGCTCGGTTGCCGTGG
TTGCGGGCCCTGCCCGCCCGCCAGCTCGCTGACAGCACGACTCAGGGCGGAGGGAAGTAGGTCCGTTGGTCGGTC
GGGAACGAGGCTCAGGCGGCCAGGCCCGCGCGGAGCCGTTGCC**ATG**GCAGCCGCCGCCGGGGACGCGGACGACGA
GCCGCGCTCAGGCCACTCGAGCTCGGAGGGCGAGTGCGCGGTGGCGCCGGAGCCGCTGACTGACGCTGAGGGCCT
CTTCTCCTTCGCTGACTTCGGGTCTGCGCTGGGCGGCGGCGGCGCGGGCCTCTCGGGCCGGGCGTCCGGCGGGGC
CCAGTCGCCGCTGCGCTACTTGCACGTCCTGTGGCAGCAGGATGCGGAGCCGCGCGACGAGCTGCGCTGCAAGAT
ACCCGCTGGCCGGCTGAGGCGCGCTGCCAGGCCCCACCGGCGGCTCGGGCCCACGGGCAAGGAGGTGCACGCTCT
GAAGAGACTGAGGGACTCGGCCAATGCCAATGATGTGGAAACAGTGCAGCAGCTGCTGGAAGATGGCGCGGATCC
CTGTGCAGCTGATGACAAGGGCCGCACAGCTCTACACTTTGCCTCATGCAATGGCAATGACCAGATTGTGCAGCT
GCTCCTGGACCATGGTGCTGATCCTAACCAGCGAGATGGGCTGGGGAACACGCCACTGCACCTGGCGGCCTGCAC
CAACCACGTTCCTGTCATCACCACACTGCTACGAGGAGGGGCCCGTGTAGATGCCCTGGACCGAGCTGGTCGCAC
ACCCCTGCACCTGGCCAAGTCAAAGCTGAATATCCTGCAGGAGGGCCATGCCCAGTGCCTAGAGGCTGTGCGTCT
GGAGGTGAAGCAGATCATCCATATGCTGAGGGAGTATCTGGAGCGCCTAGGGCAACATGAGCAGCGAGAACGCCT
GGATGACCTCTGCACCCGCCTGCAGATGACCAGTACCAAAGAGCAGGTGGATGAAGTGACTGACCTCCTGGCCAG
CTTCACCTCCCTCAGTCTGCAGATGCAGAGCATGGAGAAGAGG**TAG**CAAGAGAGGCTCCCTGCCTTCCTGCCACT
GCCCCACCCTGCCCCACTGCTGTCTCAGTACCAAGAAAAAGCCCAACATCTGGGACTTGGAGCTGCACTTGTCTG
GTGAGGACCTTGCCCTCACCCGCAGATGCCGTGGGGCAGAGATGCTCTCTCTCCACGGCCTCAGAGCCACTCCCA
GCCACAGTTTCCAGCATCTCTGTGGACAGGGACCACAGCTCCCAGCTTCTTCCAGTTCTCGCAGCACCAGACCAG
CCTCTGCAGCTGCACTTCAGCTCCGCAGACCTGCGCTATCTCAGCAGACCTCACTTGCCCCATGGCCTTCATGGC
GCGCTCCAGGCCTCAGACCCTTCTCTGTGTTCCGTCCTGGCCATGGGCTTGTTGCAGTCAGCAGGTGTGGGCTTA
GGCGGGCACCCTGTGGCCAGGGGTACTGCGTGAGGCCCTCAGTTGGTCCTGTGCCTCTCACCAGCACTTAGACAG
ACACGTCACCAGACTTTCAAGGAGATACTGCAGTGAGTTTCTCTGGTTGGAAGGGGAGGGTTGGTGAGTCCCAGA
CCTTAAAAATACAAGGTTAAGAGGGACCCCAAAGCAAAAAATTCCAACCCTTTTCCTCCCAGTCATTGAAACACC
AAAACTATTATACCGGAGGGTGTAATAGTTTTGCTGCCCAGTTGTGGTAGGCCAGTAGTGGCCTCCCAAGATGCC
CATGTCCTAATCCCAGGAACCTGTCAAAATTACCTTGTATGGCCAAAGGGGCTTTGCAGATGTAATGAAGTTAAG
GATCTTTCGCCAGGAAGATTATCCCAGCTTGTTCAGGAGGGCTTGATGTCCTCACCCGGGTCTGTATAACAGAAG
AGCAGGTGACGGGAGAGGAGGTTGGAGGTGTAGCGATGGAGCAGGAAACTGGAGTTGAGGAGGGCAGCTCAAGCC
ACAGAGTCCAGGCCACCTCAGAGCCAGGAAATGCATCCTCCCACAGAGCCCTGGAAGGCCCCAGCCCTGCTCCCA
CCTGGACTGGCTCAGTGAGGCTAATTTTATAATTCTGGCTGATTTTAGAACTCTAAGGGAATAAATTTGTGTTGT
TTTAAGTC

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FIGURE 1673

TCTTTCCGGCGGTGCTCGCAAGCGAGGCAGCC**ATG**TCTTATCCCGCTGATGATTATGAGTCTGAGGCGGCTTATG
ACCCCTACGCTTATCCCAGCGACTATGATATGCACACAGGAGATCCAAAGCAGGACCTTGCTTATGAACGTCAGT
ATGAACAGCAAACCTATCAGGTGATCCCTGAGGTGATCAAAAACTTCATCCAGTATTTCCACAAAACTGTCTCAG
ATTTGATTGACCAGAAAGTGTATGAGCTACAGGCCAGTCGTGTCTCCAGTGATGTCATTGACCAGAAGGTGTATG
AGATCCAGGACATCTATGAGAACAGCTGGACCAAGCTGACTGAAAGATTCTTCAAGAATACACCTTGGCCCGAGG
CTGAAGCCATTGCTCCACAGGTTGGCAATGATGCTGTCTTCCTGATTTTATACAAAGAATTATACTACAGGCACA
TATATGCCAAAGTCAGTGGGGGACCTTCCTTGGAGCAGAGGTTTGAATCCTATTACAACTACTGCAATCTCTTCA
ACTACATTCTTAATGCCGATGGTCCTGCTCCCCTTGAACTACCCAACCAGTGGCTCTGGGATATTATCGATGAGT
TCATCTACCAGTTTCAGTCATTCAGTCAGTACCGCTGTAAGACTGCCAAGAAGTCAGAGGAGGAGATTGACTTTC
TTCGTTCCAATCCCAAAATCTGGAATGTTCATAGTGTCCTCAATGTCCTTCATTCCCTGGTAGACAAATCCAACA
TCAACCGACAGTTGGAGGTATACACAAGCGGAGGTGACCCTGAGAGTGTGGCTGGGGAGTATGGGCGGCACTCCC
TCTACAAAATGCTTGGTTACTTCAGCCTGGTCGGGCTTCTCCGCCTGCACTCCCTGTTAGGAGATTACTACCAGG
CCATCAAGGTGCTGGAGAACATCGAACTGAACAAGAAGAGTATGTATTCCCGTGTGCCAGAGTGCCAGGTCACCA
CATACTATTATGTTGGGTTTGCATATTTGATGATGCGTCGTTACCAGGATGCCATCCGGGTCTTCGCCAACATCC
TCCTCTACATCCAGAGGACCAAGAGCATGTTCCAGAGGACCACGTACAAGTATGAGATGATTAACAAGCAGAATG
AGCAGATGCATGCGCTGCTGGCCATTGCCCTCACGATGTACCCCATGCGTATTGATGAGAGCATTCACCTCCAGC
TGCGGGAGAAATATGGGGACAAGATGTTGCGCATGCAGAAAGGTGACCCACAAGTCTATGAAGAACTTTTCAGTT
ACTCCTGCCCCAAGTTCCTGTCGCCTGTAGTGCCCAACTATGATAATGTGCACCCCAACTACCACAAAGAGCCCT
TCCTGCAGCAGCTGAAGGTGTTTTCTGATGAAGTACAGCAGCAGGCCCAGCTTTCAACCATCCGCAGCTTCCTGA
AGCTCTACACCACCATGCCTGTGGCCAAGCTGGCTGGCTTCCTGGACCTCACAGAGCAGGAGTTCCGGATCCAGC
TTCTTGTCTTCAAACACAAGATGAAGAACCTCGTGTGGACCAGCGGTATCTCAGCCCTGGATGGTGAATTTCAGT
CAGCCTCAGAGGTTGACTTCTACATTGATAAGGACATGATCCACATCGCGGACACCAAGGTCGCCAGGCGTTATG
GGGATTTCTTCATCCGTCAGATCCACAAATTTGAGGAGCTTAATCGAACCCTGAAGAAGATGGGACAGAGACCT**T**
GATGATATTCACACACATTCAGGAACCTGTTTTGATGTATTATAGGCAGGAAGTGTTTTTGCTACCGTGAAACCT
TTACCTAGATCAGCCATCAGCCTGTCAACTCAGTTAACAAGTTAAGGACCGAAGTGTTTCAAGTGGATCTCAGTA
AAGGATCTTTGGAGCCAGA

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FIGURE 1674

CCGCCAGGTGGAACGGCAGGTGGGTTCAGGTACCAGCCTGGCCGGGACCCGGCTGTGGGACCAACGCTTCCGGTG
AGCGACAGAGGCAGCTCCCCAGGGCCTGGAGACCCGTGGGGCGGACTCTGGGATCTGAGCCTATCGCCCTGGCCT
GGAGCCCCCCTTTGTACCTATTCCCCATTCCCCTACCGAGCTGGGCAGTTAGCCAGCCCACTCCAACTCTCGGAA
CC**ATG**TTTGCAGACTTGGATTATGACATCGAAGAGGATAAACTCGGAATCCCGACTGTGCCTGGGAAGGTGACCC
TGCAGAAGGATGCTCAGAACCTGATCGGGATCAGCATTGGAGGAGGGGCCCAGTACTGTCCCTGCCTCTATATCG
TCCAGGTATTTGACAACACCCCAGCAGCCTTGGACGGCACAGTGGCAGCTGGCGATGAGATCACCGGTGTCAATG
GCAGGTCAATCAAAGGGAAAACTAAGGTGGAGGTGGCGAAGATGATTCAGGAGGTGAAGGGGGAGGTGACCATCC
ACTACAACAAGCTGCAGGCGGACCCCAAGCAGGGCATGTCCCTGGACATTGTGTTGAAGAAAGTCAAGCACCGGC
TGGTGGAGAACATGAGTTCAGGGACCGCAGATGCTCTGGGCCTGAGCCGGGCCATCCTGTGCAATGATGGGCTTG
TCAAGAGGCTAGAGGAGCTGGAGCGGACCGCTGAGCTATACAAAGGGATGACGGAACACACCAAGAACCTCCTAC
GGGCCTTTTATGAGCTGTCGCAGACTCACCGGGCCTTTGGGGACGTGTTCTCCGTGATCGGGGTGCGGGAGCCCC
AGCCAGCTGCGAGCGAGGCTTTTGTGAAGTTCGCCGATGCCCACCGCAGCATCGAGAAGTTCGGCATTCGGCTTC
TGAAAACCATCAAGCCGATGCTGACGGATCTGAACACGTACCTCAACAAAGCCATCCCGGACACTCGCCTCACCA
TCAAGAAGTACCTGGACGTGAAGTTTGAGTACCTGTCGTACTGCCTGAAGGTGAAGGAGATGGATGACGAGGAAT
ACAGCTGCATTGCCCTAGGCGAGCCCCTTTACCGGGTGAGCACCGGCAACTATGAGTACCGCCTGATCCTGCGCT
GCCGCCAGGAGGCGCGCGCCCGCTTCTCCCAGATGCGCAAGGATGTGCTGGAGAAGATGGAGCTGCTGGACCAGA
AGCACGTCCAGGACATCGTGTTCCAGCTGCAGCGCCTCGTGTCCACCATGTCCAAGTACTACAACGACTGCTACG
CAGTGCTGCGGGATGCCGACGTCTTCCCCATCGAGGTAGACCTGGCGCACACCACATTGGCCTATGGCCTCAACC
AGGAGGAGTTCACAGATGGGGAGGAGGAGGAGGAGGAGGAAGACACGGCAGCTGGGGAGCCGTCCAGGGATACAC
GAGGGGCTGCTGGGCCCTTGGACAAGGGTGGAAGCTGGTGTGACTCC**TGA**GTGCCCCGCGGCTGTGGTGCCGGGG
GCAGGGTGCGTGGGAGGACGGAGCCTGGGAGCGGGGCGGGGCCGCCGCGCAAGGGGGCGACGCATAAAGGCCTGC
TGGCTTGGGGCGCCTGCCTCCCTGCTCCTCTGTCCTCGCACAGCGAACCTGGGCTCCTGCCCAGGACAGGCACCA
GGGTCATGGCCTGGGACCTGGACACTGGCCCCTCCACCCTCCCTCCCCTCCCGGCTCCCCGGCCAGAGGGAGAGC
TTGGTCTCTGGACCTGCCTTAGGAAGGAGAGGGAGGGCAGGAAGGAAAAGAAAGGACTTGGAGGTGGCAGGAGTC
CGAGCCCTGCTCCTTGTGGGCGCTCACACTGCCCCCGGAGCCTGCTGGGAGTGGGGCCAGCCGTGGACAGCTGAG
GTTGGGGTCAATGCCTCCTGGGCACCCTTGCCTCGCCCCAGACCGGCCCGTCCAGTCCCCATCACACCTCGGCGG
CCTTTATTTATTCTGTTCCCCCAGCTCGGCCACTTCTCTGAAGGAGGGCTGGGTTCTGGGCCTGTATCGAATAAA
CACAAACCTGGATGGCGCA

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FIGURE 1675

CGGGACGCGCCGGCGGCGGCGGAGACTCCGGGGCTGCGGCGCCGCCCGCCCCGCCCGCAGAGTCCGGCTGCCGCG
CATCGTCCGCAGACGCCGCCACCGCCATGGGCTCCTGAGGCTAGCTTGTCACTTTCTGCAAAGGTTTCCCTCAGG
GAGCCTCCTGCTGCCAGGCACCATGACAGTGAGGGGGGATGTGCTGGCCCCGGATCCAGCGTCGCCCACGACCGC
AGCAGCCTCGCCCAGCGTCTCCGTGATCCCCGAGGGCAGCCCCACTGCC**ATG**GAGCAGCCTGTGTTCCTGATGAC
AACTGCCGCTCAGGCCATCTCTGGCTTCTTCGTGTGGACGGCCCTGCTCATCACATGCCACCAGATCTACATGCA
CCTGCGCTGCTACAGCTGCCCCAACGAGCAGCGCTACATCGTGCGCATCCTCTTCATCGTGCCCATCTACGCCTT
TGACTCCTGGCTCAGCCTCCTCTTCTTCACCAACGACCAGTACTACGTGTACTTCGGCACCGTCCGCGACTGCTA
TGAGGCCTTGGTCATCTATAATTTCCTGAGCCTGTGCTATGAGTACCTAGGAGGAGAAAGTTCCATCATGTCGGA
GATCAGAGGAAAACCCATTGAGTCCAGCTGTATGTATGGCACCTGCTGCCTCTGGGGAAAGACTTATTCCATCGG
ATTTCTGAGGTTCTGCAAACAGGCCACCCTGCAGTTCTGTGTGGTGAAGCCACTCATGGCGGTCAGCACTGTGGT
CCTCCAGGCCTTCGGCAAGTACCGGGATGGGGACTTTGACGTCACCAGTGGCTACCTCTACGTGACCATCATCTA
CAACATCTCCGTCAGCCTGGCCCTCTACGCCCTCTTCCTCTTCTACTTCGCCACCCGGGAGCTGCTCAGCCCCTA
CAGCCCCGTCCTCAAGTTCTTCATGGTCAAGTCCGTCATCTTTCTTTCCTTCTGGCAAGGCATGCTCCTGGCCAT
CCTGGAGAAGTGTGGGGCCATCCCCAAAATCCACTCGGCCCGCGTGTCGGTGGGCGAGGGCACCGTGGCTGCCGG
CTACCAGGACTTCATCATCTGTGTGGAGATGTTCTTTGCAGCCCTGGCCCTGCGGCACGCCTTCACCTACAAGGT
CTATGCTGACAAGAGGCTGGACGCACAAGGCCGCTGTGCCCCCATGAAGAGCATCTCCAGCAGCCTCAAGGAGAC
CATGAACCCGCACGACATCGTGCAGGACGCCATCCACAACTTCTCACCTGCCTACCAGCAGTACACGCAGCAGTC
CACCCTGGAGCCTGGGCCCACCTGGCGTGGTGGCGCCCACGGCCTCTCCCGCTCCCACAGCCTCAGTGGCGCCCG
CGACAACGAGAAGACTCTCCTGCTCAGCTCTGATGATGAATTC**TAG**GTGCGGGCTGCAGTGGCGGAAGTGCTGGC
GCCATAGCCACGGTCAGGCTGTGCCCCACCTCCAGCCTCACCACCAGGCCAGGAGGCAGCTGGCACAGTGCTCAC
GCCGCCTTTATTTATTGGACCAGAAACACTCACATGTCACTTCCAGAGGAACGGGGGACAGCCAGGCTCGCCCAT
GGGCCTTCAGGAATATTTATACATGGCCCAGCCTGCACTGCCCGGGCGAGGGCAGAGGACACTGGGAGCAAGGCT
TATGCCCCTGCTGCCCGTCCTGTGCTGGGGGCATGCTGGGACCAGCCGCACCCAGGCCCCAATGCTTGTGTGTGG
ACCAGCGGCTGCAGCCTTCTAGCCCCTCCTCCCCGCGAGACTCTCAGGCTGAGGTCGGCAAGCCGTGGCTCCCCC
ACACACCGTGCAATACCCTGTCTGACCTGGGCTCTTCCCGCCTGCATCCCTCCCCTGTCCACCTTTGTCCAGTGC
TAGATTCACCTCACCCCGGGCAGGAGTGGGGATGTGGGCGCTCTGTGGTCCTCCCCTCCTGACCCAGGCCTCTGT
GGCATGCTGCAAGGATCAGAGCCAGACACCAGGAGTCACAGGCCCCACCCAGGAAGGGCATTCAGGGCCCCTGGG
CACCGCTTCTGTTGAAGCAGGGGCTTCTGGGCCCCTGGGTATCCCCACCTGTCGTGGCCACACCTCTGCCTGCCT
CATGCCCCTTCCCCCTGGCCTACCAAGGACAGCCCACAGCCCGCACTGCCGGCTCACTTGGGTCCTTCCTCGATA
GCTTTGGGCAGAGCCCTTGCTTCCTGGCTGCTTCAGGGCTCAGGGGCTCCCAGCCCTCCTTCCCAGGCTGATGCT
GGGTCCTCTCTCTCTTTGGGGCTTCTCCCTCCCGTTTCAGGGGAAAGGTCTGAGTCTCCACGTTTCAGACCAGCT
TCTGGGGGAAGGCAGTCCGGCAGGGAGACCGGGAGGGGTGGCCACACAGTGGGGAGCTGGGAGGTGGGGGGAATG
GTCCCAGACTCCTCTCGGGGCCCCTATCCACACAGGGCCTGGTGTTCTACCCCATCTGGCCCCTGGCCCATCTCT
TCTGTGCCTTAGTCACATATGAAAGCGCCCCTCCCTGGCTCCCCATCTGTCCCACACGCTCCCTGGGGCTCTTAG
TTCAGCTGCTGGCACTCGCAGGATCCTGCAGTGCTGGGCCCAGAGCCCTTGGACAGGCCTCAGGAGTGGTCAGGA
CCACCAAGCCCCTCCTCTCCCCCTCCACACCTCTAGACCTGGGGCCTCCGGAACCCCCAGCAGGCTGGGCTTATA
CTAGCTCCTGACTTAGGAAGAGCCTCGTGTCACAACACGTGTCCCTACAGGCAAAGTGTCCTGGCATTTAAAACC
CAGATTATCCCTGGGTTTGGGCTGCAGTCACCTGGAGAAGCTGGTAGGGTAAGGGAGAGGGACCCTGCCGGTGTT
CACTGGGGATTCTTTCTTTTGGTCCTTCCTGGAATGAACAGGTTCCCTCCCTGCCACCTGTGAGGAGAGTTGGGG
CCCAGCCGTCTTCCTGGCCTCCTTCCTTTCCTCGTGGCAGAGGCCTGCATGTGGGTGCCAGAGGCCAGCTCTCCC
CCTCCATCTTGGGGGGGCGGAGCAGTTGGGCCCAAGCTGCCCGGGAGGGTGGGTGCAGACACAGGCTGAGGACCA
GCCCTGGCCCTGCCCCGCCATCTGCTTTCACCAAGCTGTCTCTCCACCGTGGCTTCCCTTCTCCCTCCAGGCCAA
AGTGCTGCTGATTCCCACTCCCTTGGTTTTCGCCTGCCCAGCGTTGCTGTTTGCGTGGAGGGTGGGGGGAGCTCA
GTGGCAGGGAATCAGCGGTCCGTGGGGTCGTGGGGACGGGAACATGTGCCCGACCGCTCCATCCCCTCCTCCTCC
TTAGGATGCATAACCTACCTTGTCTTTTTTTTTTTTAATTTTCTTTCCAGGTAGAGTAGCTCTTTGTACATAAAG
AATACTTGAAAAATTAATTGTATGATGTATGAGAAGACAGAGTCTCCTAGTTTTGTATCTTGTTGTATGACTGCC
ATGAGTTCCACCAGAAAGCCACTCTATTTTGGTCTCTGTGACATTTTAAATGCGTGACAGAAGTGAGCAAATAAA
GTGAGGAAGAAATCTATATATGAGATAATATAGATTGTATTG

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FIGURE 1676

AGGCCGGGAGGAGGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGAGAGCCCAGAGCCAGAGCCCGGCCGGGGCCG
AGCGGAGCGCGGCGGCGGCGGCGGCGGCGGCGGCTGGGCCGGGAGAGGCTGGCGCGCCGGGCGGCTCCGCGAATC
CTCCGGCATCCGCCCCGGCGGGCCGCCCCCGCCCGCGGCAGCCCCCCGAGCAGTGGCCCGGCATCGGCGCCTTCC
CGGCGGGCAAGAGTGAGCC**ATG**GAGCTACGTGTGGGGAACAAGTACCGCCTGGGACGGAAGATCGGGAGCGGGTC
CTTCGGAGATATCTACCTGGGTGCCAACATCGCCTCTGGTGAGGAAGTCGCCATCAAGCTGGAGTGTGTGAAGAC
AAAGCACCCCCAGCTGCACATCGAGAGCAAGTTCTACAAGATGATGCAGGGTGGCGTGGGGATCCCGTCCATCAA
GTGGTGCGGAGCTGAGGGCGACTACAACGTGATGGTCATGGAGCTGCTGGGGCCTAGCCTCGAGGACCTGTTCAA
CTTCTGTTCCCGCAAATTCAGCCTCAAGACGGTGCTGCTCTTGGCCGACCAGATGATCAGCCGCATCGAGTATAT
CCACTCCAAGAACTTCATCCACCGGGACGTCAAGCCCGACAACTTCCTCATGGGGCTGGGGAAGAAGGGCAACCT
GGTCTACATCATCGACTTCGGCCTGGCCAAGAAGTACCGGGACGCCCGCACCCACCAGCACATTCCCTACCGGGA
AAACAAGAACCTGACCGGCACGGCCCGCTACGCTTCCATCAACACGCACCTGGGCATTGAGCAAAGCCGTCGAGA
TGACCTGGAGAGCCTGGGCTACGTGCTCATGTACTTCAACCTGGGCTCCCTGCCCTGGCAGGGGCTCAAAGCAGC
CACCAAGCGCCAGAAGTATGAACGGATCAGCGAGAAGAAGATGTCAACGCCCATCGAGGTCCTCTGCAAAGGCTA
TCCCTCCGAATTCTCAACATACCTCAACTTCTGCCGCTCCCTGCGGTTTGACGACAAGCCCGACTACTCTTACCT
ACGTCAGCTCTTCCGCAACCTCTTCCACCGGCAGGGCTTCTCCTATGACTACGTCTTTGACTGGAACATGCTGAA
ATTCGGTGCAGCCCGGAATCCCGAGGATGTGGACCGGGAGCGGCGAGAACACGAACGCGAGGAGAGGATGGGGCA
GCTACGGGGGTCCGCGACCCGAGCCCTGCCCCCTGGCCCACCCACGGGGGCCACTGCCAACCGGCTCCGCAGTGC
CGCCGAGCCCGTGGCTTCCACGCCAGCCTCCCGCATCCAGCCGGCTGGCAATACTTCTCCCAGAGCGATCTCGCG
GGTCGACCGGGAGAGGAAGGTGAGTATGAGGCTGCACAGGGGTGCGCCCGCCAACGTCTCCTCCTCAGACCTCAC
TGGGCGGCAAGAGGTCTCCCGGATCCCAGCCTCACAGACAAGTGTGCCATTTGACCATCTCGGGAAG**TGA**GGAGA
GCCCCCATTGGACCAGTGTTTGCTTAGTGTCTTCACTGTATTTTCTTTAAAAAAAAAAAAAAAAAAAAAAAGGCA
AAAATAAACCACTCAAAAGAACAACAAAAAAACCCAGCAC

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FIGURE 1677

GGGCGGCGGCGCGCGGGTGCGATCGCGGAGCTGTGAGGCGCAGGCAGGGCTCTGGGGCACCTAGAGACCGGGGCC
GGAGACGTGGCAGCCGCCCTGCCCGCCAGAAAGTTTCCTAGAAGTTTGCTGGGCGCGGGCGCACGACTGACTGGC
TGGACC**ATG**AACGTGTTCCGAATCCTCGGCGACCTGAGCCACCTCCTGGCCATGATCTTGCTGCTGGGGAAGATC
TGGAGGTCCAAGTGCTGCAAGGGCATCTCTGGGAAGAGCCAGATCCTGTTTGCTCTCGTCTTCACCACCAGGTAC
CTGGACCTGTTCACCAACTTCATCTCCATCTACAACACAGTAATGAAGGTGGTTTTTCTCCTCTGTGCCTATGTT
ACAGTGTACATGATATATGGGAAATTCCGTAAAACTTTTGACAGTGAGAATGACACATTCCGCCTGGAGTTTCTT
CTGGTCCCAGTCATTGGCCTTTCCTTCCTTGAAAACTACAGTTTCACTCTGCTGGAGATCCTCTGGACTTTCTCT
ATCTATCTGGAATCAGTGGCTATCCTGCCCCAGCTCTTCATGATCAGCAAGACTGGAGAGGCTGAGACCATAACT
ACTCACTACCTGTTCTTTCTGGGTCTGTACCGGGCACTCTACCTGGCTAACTGGATCAGGCGGTACCAGACTGAG
AATTTCTATGACCAAATTGCAGTCGTGTCTGGAGTAGTACAAACCATCTTCTACTGTGACTTCTTCTACTTGTAT
GTGACCAAAGTCCTTAAGGGAAAGAAGTTAAGTCTTCCAATGCCAATC**TGA**GGACCTTCAGAGACAGTCTACGCC
TTAACAAGCACATGAAGGAAACTATTTTGAATGTTCTCTTTGGCAACTTATCCATAATTTGGGATCAAATGTTAA
AACCAGAAAAGTGTTTAGTGTGGATTTCAGCAAAACCTGATCATCCCACCCAGAAGACCTTCTCATCAATAGATC
GCCCTTAAAGACCCATTGTAAGGTCATAAAAAACCTCGGCCACCTGCACAAAGATGGTGCCTCACTGCAACAAGA
AACCTTAAGGTGTCTTACCGACGAAATAAAAAACATAAATGATTGTTCTCCAAGGCCTGAGGGCAAGACTCATGA
TGAGCAAGTCAACCCCAATCTGGAACAATGTCCCTCCTCTTAGAATGTCCCAACTAAAGACCAGTTAAAATATTA
GGGTACGTTCTTGTGAATTTCCACTTTCCAGGTAGATGACCAAATTTAGGTGGTCAAGATATAAAGGTGTCAGCT
AGTTTTAAGTGTGAAACTTATTTCACTTTCACACTGCCTTCAGGCCAGAAGCAAACCAAATTTACCAGGTTTGGC
TGGAGGAGTTTTGTGACTCATCTTTTACTGGTTTGAATTTTTTCAAACCAGTGGCTGATACCTGCCTTGTACTTA
GTACCTTAATACCAATAACCTAATGGTACTTAGGCGAGTACCATTTGCACAATCACTGTTTTACTTATGAGCAGA
TACAGATATATCCAAACCCTTACCTACTAGGTATCCTGCTAGGGTTTTCAATTCCAATTCTTGTATTAAGTTTTT
TCCTTTCAGTTTTAGGTGCGAAAGTAATCAGTCAATCCAATATCCCCCATCTTTGTCTTGAAACAAAAACTGTTT
TAAGACGTCTACGTTGAATTATTCAGAGAATTAAGCAATAAAAGCTCACACCTTA

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FIGURE 1678

ATTTTGTGCAGTCGCTGGGAAGGAAGGAGACGCCTAAACCGCGGCACTGCCCGGTTTGAGCGTAGCCAAACCTGC
CCACCGGCTTTGTAGCCCCGATTCTCTGTGTTTTGCTCCCGTCTCCGACGAGAGAGGCGGCGACGGTGGCGTCTG
CGACGGGAGACAGCGCGTCGGAGCGAGAGAGCGCTGCGCCTGCCGCCGCCCCAACAGCGGAGGCGCCGCCGCCAT
CGGTCGTCACCAGACCGGAGCCGCAGGCCCTCCCGAGCCCGGCCATCCGTGCCCCGCTCCCAGATCTCTATCCTT
TTGGGACC**ATG**CGCGGAGGAGGCTTTGGGGACCGGGACCGGGATCGTGACCGTGGAGGATTTGGAGCAAGAGGTG
GTGGTGGCCTTCCCCCGAAGAAATTTGGTAATCCTGGGGAGCGTTTGCGTAAAAAAAAGTGGGATTTGAGTGAGC
TCCCCAAGTTTGAGAAAAATTTTTATGTGGAACATCCGGAAGTAGCAAGGCTGACACCATATGAGGTTGATGAGC
TACGCCGAAAGAAGGAGATTACAGTGAGGGGGGGAGATGTTTGTCCTAAACCCGTGTTTGCCTTCCATCATGCTA
ACTTCCCACAATATGTAATGGATGTGTTGATGGATCAGCACTTTACAGAACCAACTCCAATTCAGTGCCAGGGAT
TTCCGTTGGCTCTTAGTGGCCGGGATATGGTGGGCATTGCTCAGACTGGCTCTGGGAAGACGTTGGCGTATCTCC
TGCCTGCAATTGTTCATATTAACCACCAGCCATACTTGGAAAGGGGAGATGGCCCAATCTGTCTAGTTCTGGCTC
CTACCAGAGAGCTTGCCCAGCAAGTACAGCAGGTGGCCGATGACTATGGCAAATGTTCTAGATTGAAGAGTACTT
GTATTTATGGAGGTGCTCCTAAAGGTCCCCAGATTCGAGACTTGGAAAGAGGTGTTGAGATCTGCATAGCCACTC
CTGGACGTCTGATAGATTTCCTGGAGTCAGGAAAGACAAATCTTCGCCGATGTACTTACCTTGTATTGGACGAAG
CTGACAGAATGCTTGATATGGGGTTTGAACCCCAGATCCGTAAAATTGTTGACCAAATCAGGCCTGATAGGCAGA
CACTGATGTGGAGTGCAACCTGGCCAAAAGAAGTAAGACAGCTTGCAGAGGATTTCCTTCGTGATTACACCCAGA
TCAACGTAGGCAATCTGGAGTTGAGTGCCAACCACAACATCCTCCAGATAGTGGATGTCTGCATGGAAAGTGAAA
AAGACCACAAGTTGATCCAACTAATGGAAGAAATAATGGCTGAAAAGGAAAACAAAACAATAATATTTGTGGAGA
CAAAGAGACGCTGTGATGATCTGACTCGAAGGATGCGCAGAGATGGTTGGCCAGCTATGTGTATCCATGGAGACA
AGAGTCAACCAGAAAGAGATTGGGTACTTAATGAGTTCCGTTCTGGAAAGGCACCCATCCTTATTGCTACAGATG
TAGCCTCCCGTGGGCTAGATGTGGAAGATGTCAAGTTTGTGATCAACTATGACTATCCAAACAGCTCAGAGGATT
ATGTGCACCGTATTGGCCGAACAGCCCGTAGCACCAACAAGGGTACCGCCTATACCTTCTTCACCCCAGGGAACC
TAAAACAGGCCAGAGAGCTTATCAAAGTGCTGGAAGAGGCCAATCAGGCTATCAATCCAAAACTGATGCAGCTTG
TGGACCACAGAGGAGGCGGCGGAGGCGGGGGTGGTCGTTCTCGTTACCGGACCACTTCTTCAGCCAACAATCCCA
ATCTGATGTATCAGGATGAGTGTGACCGAAGGCTTCGAGGAGTCAAGGATGGTGGCCGGAGAGACTCTGCAAGCT
ATCGGGATCGTAGTGAAACCGATAGAGCTGGTTATGCTAATGGCAGTGGCTATGGAAGTCCAAATTCTGCCTTTG
GAGCACAAGCAGGCCAATACACCTATGGTCAAGGCACCTATGGGGCAGCTGCTTATGGCACCAGTAGCTATACAG
CTCAAGAATATGGTGCTGGCACTTATGGAGCTAGTAGCACCACCTCAACTGGGAGAAGTTCACAGAGCTCTAGCC
AGCAGTTTAGTGGGATAGGCCGGTCTGGGCAGCAGCCACAGCCACTGATGTCACAACAGTTTGCACAGCCTCCGG
GAGCTACCAATATGATAGGTTACATGGGGCAGACTGCCTACCAATACCCTCCTCCTCCTCCCCCTCCTCCTCCTT
CACGTAAA**TGA**AACCACTCAAGTGGTAGTGACTCCAGCAGACTTAATTACATTTTAAGGAACACTGTCTTTCCTT
TTTTTTTCCTCTTCGCCTTTTCTTTTTTTTTCCTTTTTTCTTTTTTTTTTTTTAATTTTTCCCCCCAACCATCGT
GATTTGTCTTTTCATGCAGATTAGTTAGAATTCACTGCCAGGTTTCTTCTGCCCACCAAAATGATCCAGTCTGGA
ATAACATTTTGT

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FIGURE 1679

TCAAGGTAACTCTGGGCTACAGAGTCCTTGCTGGGGGTTCGGGGAGCGCTTGGACCCCGGCTTCTGGGACGCGTC
AGGAGAAGGGAGCACTGGCTTTGCTTTCATCAGGCCAAAG**ATG**CCTTTCTTTGGGAATACGTTCAGTCCGAAGAA
GACACCTCCTCGGAAGTCGGCATCTCTCTCCAACCTGCATTCTTTGGATCGATCAACCCGGGAGGTGGAGCTGGG
CTTGGAATACGGATCCCCGACTATGAACCTGGCAGGGCAAAGCCTGAAGTTTGAAAATGGCCAGTGGATAGCAGA
GACAGGGGTTAGTGGCGGTGTGGACCGGAGGGAGGTTCAGCGCCTTCGCAGGCGGAACCAGCAGTTGGAGGAAGA
GAACAATCTCTTGCGGCTGAAAGTGGACATCTTATTAGACATGCTTTCAGAGTCCACTGCTGAATCCCACTTAAT
GGAGAAGGAACTGGATGAACTGAGGATCAGCCGGAAGAGAAAA**TGA**AGACCCCAGAGACATTTATTGGGGAGTAG
GATGTGGCTGAGTGCTTTTTTTTTGGCCAGACTAGCGGATTCAGTCCTGGAAGAGAGTATCATATAATGAGACCC
ACAGGCACTGGCACCCTTGGGTTGGCAATAGAAGGTGACATGGAATGGAGAAAACCAAGATTCCAGATGGGGATA
GTAACTAGAAGGTGCTTCAGATGCACTGCCTGCGGGTGCCAGTCTGAAAACCAGACCGCACAGAGGCCTGGGGCT
GCTGATGAGCTTTTTGGTGCTCTCCACACACAAGCTCGCAAACACACATGTCCCAGAATAGCTCTGTTGGGTTGT
GTTGGGAGAAGCGGCTGGAGTTCATTCTCTCACCCCCTTATGTTGGTGTTTGGCGTGTGACAGCAGTTCTACAGA
GCTCTGTGTTGGGGTCATGGATGAGCGGCTCTCTTGGCTCTTAAAGGCAGGCCTCTCTCTTCTTGCCTTTAAAGA
ATCCTCCTTCCTCACACCTGGCCTCCTCTGGCTTCAGCTTCTCAGCAGCAAGCACCAGCCTTCCACAACAACACT
ATATTTTTATGCTACTTTCCTGTTTGCACTACTACTTTTTTATTAAACGATGTTAAATAAT

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FIGURE 1680

CAGTC**ATG**GCTGCCGCCGTCGCTGCTGCCGGTGCAGGGGAACCCCAGTCCCCGGACGAATTGCTCCCGAAAGGCG
ACGCGGAGAAGCCTGAGGAGGAGCTGGAGGAGGACGACGATGAGGAGCTAGATGAGACCCTGTCGGAGAGACTAT
GGGGCCTGACGGAGATGTTTCCGGAGAGGGTCCGGTCCGCGGCCGGAGCCACTTTTGATCTTTCCCTCTTTGTGG
CTCAGAAAATGTACAGGTTTTCCAGGGCAGCCTTGTGGATTGGGACCACTTCCTTTATGATCCTGGTTCTTCCCG
TTGTCTTTGAGACGGAGAAGTTGCAAATGGAGCAACAGCAGCAACTGCAGCAGCGGCAGATACTTCTAGGACCTA
ACACAGGGCTCTCAGGAGGAATGCCAGGGGCTCTACCCTCACTTCCTGGAAAGATC**TAG**ATTGTTATTGCTGTTT
GAGCTGTCTCAGTGGGATAAGTTTGAAATTCAAGTGTTTGAACTGCTGATAATTTGGATTTTTTTTTTTTTTTAA
CTTTGGCACATTGATCTATCTAAACCTGGTGGGGAGAATTATCCCCACATTGTCTCATGGAAAGACTCAACTTGC
AACTGTGCCCTCCACACTATCCTTACTTCTGTCTCCACTCTGATACCAGAGTGCAGCCATGCAGATGGTTATTCC
AGCTCTGGTCACCCGACTCCTTTCACCAAATTGCTCCTAACTGGAAGATCTCACTTTCCCCTTGTGGGGTAGGAA
CCGATGCCAGTGGGAGGGATGTGCCCCTGACCATTAACGACTGTTTTTTTTTTTTTTTTTAAAGAATGGAGTTG
TTGGGGCAGGACATGCACACAATGTGAAACAGACAAAATGCATTACACCTGTAGTGTAAAGTGGCCACTATGAAT
CCCTATGTATGAGAGGAGGGAGGCAGGCTGCAGCTTCAGCCACAGAATGGGGACTATGGAAGACAGCAGGAGCTC
ATTTCCTCTGCACATTTTGGCTGTTAGACCTGTGTGTGTGTTTAAAAAAAGAGAAGTCAGTGCTCACTTTTTGTA
TTTAAATATTAAAAATGATTCCAACTG

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FIGURE 1681

GTCTTACATTTTATGTGTTTTTTTAAATTCTGCACTTTGACAGTGGTAGCAAAATAAAAGTAATCCAAAAGTTAT
TTTTCTATTGAGAAGAGAGAAGAGGTGGGTTTTATTTTTTTCCTTTTGATTCCAATCTTTTCTCCCAGTGACAAA
GCATAAATCATGGACACCAGAGAATAAGGTGGACCTCAGGAATCCGGAAAAGACTGAGAAGCTTACATTCTTCCT
CTAGAGGGAAGAGTGGGGTGTTTATAGCCATCTCTGGAACCTAAAACAAAAAACATGAGTTGTGTGCCATGGAAA
GGAGACAAGGCCAAATCTGAATCATTGGAGCTGCCCCAGGCAGCACCCCCACAAATCTACCATGAGAAACAGCGC
AGGGAGCTTTGTGCCCTCCACGCCCTCAATAACGTCTTCCAGGACAGCAATGCCTTCACCCGGGATACGCTGCAA
GAGATTTTCCAGAGGTTGTCTCCAAACACCATGGTGACACCTCACAAGAAGAGCATGCTGGGAAATGGCAACTAC
GATGTGAATGTCATTATGGCAGCACTTCAGACCAAAGGCTATGAAGCTGTTTGGTGGGACAAGCGCAGGGATGTC
GGTGTCATTGCCCTCACTAACGTCATGGGCTTCATCATGAATCTGCCCTCCAGCCTATGCTGGGGTCCACTGAAA
CTGCCCCTCAAAAGGCAGCACTGGATCTGTGTTCGAGAGGTGGGAGGGGCCTACTACAACCTCGACTCCAAACTC
AAGATGCCCGAGTGGATTGGAGGCGAGAGCGAGCTCAGGAAGTTTCTAAAACATCATTTGCGAGGAAAGAACTGT
GAACTCCTGCTGGTGGTACCAGAAGAGGTAGAGGCTCATCAGAGTTGGAGGACCGATGTGTAACAGTTCTGCCCA
ACCTCCCTCTCGCCTCAGCCCCTTCAGTCCTCTGTGACGTGCTGTGGCCTCTACAGTGGGTCTGCCCTTGCCACT
TCCCCAAACATCTCATCAAGTTTTTCCCCTTCAGATCTGACAGTGCAATAGGACAGACGTGTGGACTGTTATAAG
AACTACTCAGTGTTTTGTTCCTGGGCAAGGAAGGTAGGAGTTCTGTGCACTTAAGGCCAGTGGTCACAAACCCTT
GTTTTATTTAAGAGACAGAGGAGAAAGTGGAGCGGGGAGGGAATCCTAGCTTATTTTCCCTTTTCTATGAGGACT
TGACACAGGTTCTGCTGAGTTGTCACTGCTGCTCCAGACTCACCTAGAGATGCTGCCTCCACTTTCCATCCTGTC
TGGGTCTGAAAACAGTGGGTCTGCAGATAGTGCCCACAAACCCCATGTGACTGGTTTGAAGGACCCAGAGCATAA
AGGTCTCTCAGGAAACCATGTCCAAAACCCTAGCAGCGGTACAGCATGCTGTCTCCAACCCTTATCCCCAGGTTT
AAGGGTGGTTTATGGCCATACGTGGAGGTTTTTTGTTGTTGTTTTTGAGACTGAGTTTCACTCTTGTTGCCCAGG
CTGGAGTGCAATGGCACCATCTCGGCTCACTGCAACCTCCACCTCCTGGTTCAAGCGATTCTCAGGCCTCAGCTT
CCCAAGTAGTTGGGATTACAGGCGCCTGCCACCACACCTGGCTAATTTTGTATTTTTAGTAGAGATGGGGTTTCT
CCATGTTGGTCAGGCTGGTCTCAAACTCCCGACCTCAAGTGATCTGCCCGCCTTGGCCTCCCAAAGTGCTGGGAT
TACAGGCGTGAGCCACCGCACCCGGCAGAGTTTTATAATGAAAAATTAACTAATATTCTAGTATGAAGTGAGGAG
GATACTGAACAGGATGTGGCTAAAGCCAACCTGGGACAGCCATGGGGTGGCTTGGTTTCTTCACTCCAGTGTTGT
CCCTACCATTTCGCAGCATTGATTTAGGAGGCTCTGGGACAAAAGAGAAGCCAAAGAGCAGTTTTCCCAGTTCAC
TCACTCTGGCAAAATCAGGAAAAAAAAGTCTGCTTTTGACATCAAATTCCACTAATTTGGGGCAGCGTTGGGTGA
GGAAAGTATTGTGAAGACAGGCTTCTTGGAGTAGGGGCAGCCACAATTCAGTAGACACTCTAGGCTCGGAGGCTG
CCACTGTAGTTGCCAAGCTCAGGTTGGGTGGTTCTGTGCTGTATGGATGGAATAGGACCTGGGCTGGTCATCTTC
ATGTCGTTTCCTCTCTGTATCAATGGAAGTTCAACCCGCCCCTACCTCTTCAGATAGTTGTAGGCCACTTTTCTC
TTGTAACTTTGGAAAACAAAAGAGGAGAAATAAGTATCATACCATATGCGTGTCTCCAAAGTGGATGTGGTTGCC
TCAAGGCAGGTGGCAGGCAGGGGTGACCTGCTGGCCCTCAGATCAATGGTCGTGGCAGGTCTGAGAGCTGTCCCA
CTGGCCAGACTTCTCTCCAGCAGCAAAGCCAGCCTGGGGCTTGCATGTTGATCCTGAGCAAGCTTAACGGGGTGA
AGCTGGGCTTTCTCCCCCCTGTGACTGGAGTGCATGTTGACACCAGCACTTTTTCTGCACATGTATCTTCAATCC
AACAAGGCCGTTTTTTTAATGCTGAGTAACAGGCCACCAAGCGGCTACTGCGTTATATCTTCTCAGCAACTGGCC
GCAGTCTCTTCTGCACCATTTTCTACACCAGACCTGCTTGGCACCACAGGGAGCTCTTTTCCTGCCCTGCACAAT
GACATTCCAACCACCACCAGCCAGACATTACAGCCAACCTTGCTGATTGTCACAAGCAGGACCTTGGGGCCACTG
GCACTGTCAGATAGTAAGCCATTTCTTGGGTAGAGGAGGAAACTCCTCTCCACAAATCCACTTGGGCCTGTGCAA
ATGGCACTTGAAAGAGTCCCCATGCACTTGGAGTCCATGAGCCAATGGGATATGCAAAGACGCTTAAACATTTCA
GGGCTGGTTTCTCTGTTCATATCCAATTCTGGTGCTTAGGAACAGGGACCCATGCTGATGCCCAAGGGCAAAAAG
CCCCACTTCCTTTAAGGAAGTGAACAGGCCTGACCCTGATGCCCAATAACGGGCAACCCTAGGCTTTTTGTTTTT
CTTGCTTTTATTCCTTTTTGTTGTTGGCCTTGTGCTGCGTTTGTTTACAAAAGATGTATTTTGTTTAACCAAATA
TTAAAAATGGAAAACTCC

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FIGURE 1682A

ACTCGCGCAGCGCGGGCCTCCGCCGGCCGCATTGTCCGCCCGCCCGCCTTGTCCCGCGTCGCCGCTCTTCGCGTG
CCCGCGCGCCCCGGGCCCGGCCGCTGTGTCGCCCTGAGCGGAGCGCCGCCCGCGGGATCCCCACGCGGAAAGGGG
GCGCGCCCCGGCGGCGGCCTGGCCTCGGACGCCCCCGGCCGGGCTAGAAGCCGCCGCGGCAGCAGATTCTCTTCA
GGGGAAGAGTCCACATCCCACCTCATC**ATG**TCCCGAAGAAGCCAGCGCCTCACGCGCTACTCCCAGGGTGACGAT
GACGGCAGCAGCAGCAGCGGAGGGAGCTCGGTGGCTGGGAGTCAGAGCACCCTGTTTAAAGACAGTCCTCTCAGG
ACCTTGAAGAGGAAATCCAGCAACATGAAGCGCCTGTCCCCAGCGCCACAGCTGGGCCCGTCCTCTGATGCACAC
ACCTCCTACTACAGTGAGTCGCTGGTCCACGAGTCCTGGTTCCCACCCAGGAGCTCCCTGGAGGAACTGCATGGT
GACGCCAACTGGGGTGAGGACCTGCGGGTGCGGAGGAGGAGAGGCACGGGTGGCTCAGAGAGCAGCAGGGCCAGC
GGGCTTGTGGGGCGCAAGGCCACCGAGGACTTCCTGGGCTCTTCCTCGGGCTACTCCTCTGAGGACGACTACGTG
GGCTACTCGGATGTGGACCAGCAGAGTTCCAGCTCGCGGCTCCGAAGCGCCGTCTCACGGGCGGGCTCCTTACTC
TGGATGGTGGCCACTTCGCCAGGCCGGCTCTTCAGACTTCTCTACTGGTGGGCTGGCACCACCTGGTACCGCCTG
ACCACAGCTGCCTCCCTCCTTGACGTCTTCGTTTTAACCAGGCGCTTCTCGTCCCTGAAGACGTTCCTCTGGTTC
CTGCTGCCGCTGCTCTTGCTGACGTGCCTGACGTATGGTGCTTGGTATTTCTACCCCTATGGGCTGCAGACATTC
CACCCTGCTTTGGTTTCCTGGTGGGCAGCGAAGGACAGCAGGAGGCCGGATGAGGGCTGGGAAGCCAGAGACTCA
TCGCCACATTTCCAGGCTGAGCAGCGTGTTATGTCCCGGGTACACTCTCTGGAGCGGCGTCTGGAAGCTCTTGCT
GCTGAATTTTCCTCCAACTGGCAGAAGGAGGCCATGCGGCTGGAACGTCTGGAGCTGCGGCAAGGGGCTCCTGGC
CAGGGAGGTGGTGGTGGCCTGAGCCACGAGGACACCCTGGCGCTGCTGGAGGGGCTAGTGAGCCGCCGTGAAGCT
GCCCTGAAGGAGGATTTCCGCAGGGAAACTGCTGCTCGCATCCAGGAAGAACTGTCTGCCCTGAGAGCAGAGCAT
CAGCAAGACTCAGAAGACCTCTTCAAGAAGATCGTCCGGGCCTCCCAGGAGTCCGAGGCTCGCATCCAGCAGCTG
AAGTCAGAGTGGCAAAGCATGACCCAGGAGTCCTTCCAGGAGAGCTCTGTGAAGGAGCTGAGGCGGCTGGAGGAC
CAGCTGGCCGGCCTGCAGCAGGAGCTGGCGGCTCTGGCACTGAAGCAGAGCTCGGTGGCGGAAGAAGTGGGCCTG
CTGCCCCAGCAGATCCAGGCCGTGCGGGACGACGTGGAATCTCAGTTCCCGGCCTGGATCAGTCAGTTCCTTGCC
CGAGGTGGAGGGGGCCGCGTGGGGCTCCTTCAGAGAGAGGAGATGCAAGCTCAGCTGCGAGAGCTGGAGAGCAAG
ATCCTCACCCATGTGGCAGAGATGCAGGGCAAGTCGGCCAGGGAAGCCGCGGCCTCCCTGAGCCTGACGCTGCAG
AAAGAAGGTGTGATTGGAGTGACAGAGGAGCAGGTGCACCACATCGTGAAGCAGGCCCTGCAGCGCTACAGTGAG
GACCGCATCGGGCTGGCAGACTACGCCCTGGAGTCAGGAGGGGCCAGCGTCATCAGCACCCGATGTTCTGAGACC
TACGAGACCAAGACGGCCCTCCTCAGCCTCTTCGGCATCCCCCTGTGGTACCACTCCCAGTCACCCCGAGTCATC
CTCCAGCCAGATGTGCACCCAGGCAACTGCTGGGCCTTCCAGGGGCCACAAGGCTTCGCCGTGGTCCGCCTCTCT
GCCCGCATCCGCCCCACAGCCGTTACCTTAGAGCATGTGCCCAAGGCCTTGTCACCCAACAGCACTATCTCCAGT
GCCCCCAAGGACTTCGCCATCTTTGGGTTTGACGAAGACCTGCAGCAGGAGGGGACACTCCTTGGCAAGTTCACT
TACGATCAGGACGGCGAGCCTATTCAGACGTTTCACTTTCAGGCCCCTACGATGGCCACGTACCAGGTGGTGGAG
CTGCGGATCCTGACTAACTGGGGCCACCCCGAGTACACCTGCATCTACCGCTTCAGAGTGCATGGGGAGCCCGCC
CAC**TAG**CCCTGCTTACTGGTGCCTGCTGCCAGCCATCTGGGAGTGGGTGAACAGCACCCCGCCGCTTCCCCCACA
CGCTTGCTCGGCGCTCTGACTTCTAGGAGCACAAGAGAGGAGCCTGTGGCCCCATGCAGATGAAAAGGACGGGCA
GGGTCTCCTGAGCAGCAGGTGGCTCGAGGCGGTTAGCAGGCTCCAGCAGCTCCCTTCTTCCTTCCCTCTGTGCCC
GTGGCGTCTGCTTCCCATCCTGGGAGTGTGTATATATGTAGCATATCATGGGGGACTGGGAAGTTGGGAGAGGTA
GGACCTGACTGGTCTTGGCTGGGGTCAGGGGCTGGTGCCTGGGAGCTGATGAAGCAGGTGCCAGGGCTGTGGGAG
GGGCAAGCTACGGCCTGGGCTAGGTGAGCTGCCTCTGCCCCTGGGCAAGGAAGCGAGGCCCTCTGGGAGGAGGGT
GCTTAGCTCCAGAGCAGGATGGGACTTCCCCAGGCAGGAAGCACTTGATGGAGAGCTGCCCAGCTCTCCTACAAG
GTTAGTGCCCTCCACCTAGGGAAGCATGAACCACAGGGTCCCTGAGGGCCTTCGACAAAAGTGTGTATTTGTCCC
GGGGAGGGTAGCAGTGGGCCATGGGGCTTCTTGTGCCCTAAAGGGGACTGGCTGCTGTGATCTTCTAAGGGGCCC
AGGGCCAACCCTGTAGGCTTCCCCTCTGCTGGGGACGGTAGTTGCTTTTCTCTCTCCTGATGCTAGGTTGGGGCC
CACCCTGCTCCCTGTTCCTGCTAGGGCCTGCCAGTGCCCCTGAGCTTGCTTTCCACATTCTCCCAGGGTATGGAG
ACCTAGACCTGTCTTTGGGGCCATTAGCATCTGGGGTTATAGCAAGAAGAGTGGGGAGCATGGAACTCCTGGGCT
CTTGTGGGGACGTTCAGGGTATCGGGGTGCGAGGTCTGTCTGCACCGGCCCCCACATCTAACCAGGCCCTGATGT
AGGGGTCGTCCGCTCAGGCTGCCCCCTTGGGCTCTTGCAGCTCTTGTTCAGGTAGTCGCCCTTCTGGTTTGTTCT
CTGTGGGGCAGTTGGTGGGGGCTGGGGGAAGAGGCTGGCAGAAGTTACCCTGGATAGGGAAGGGGGAGGAGGGGA
CTTTTAGAGCCAGCAGGCCCCACTGTATTATGTATATATTTTTCAAGGTCTGTTTTTCTAACTGAAAAGCTAAGG

FIGURE 1682B

GCTTGATTCCTAGCCCCGTTCTGTGGGGCACTGGGTGATACTCAGTTTCTTGTTCCTGGCCGTGGAGAGGGGCCT
GGGGCACTGGTTCCGGCTGTGTCTGGTGGTCTGGCTGCGGGGAAGGGGCAAGAAGGCGGGCAGGCCTTCACTGCA
GCACTGAGCCTCAAATCCGCTCTGGAGCATGAGGCTGGATGCAGTGGTGGTGAGGCCGCCCCGCTCCATCCCGAG
GCAGCCAGGGTTTGTTTTGCGCTCTCCTGTCACAAATGCTGCACTATTGGTTCTTAAGTTTTTTATCTCCAGATC
CTAATTTATGCCTATGCAAAAAATAAATGACGCCCAAGA

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FIGURE 1683

ACTTTAAAGAGGGCTGCTCAACTGCAAGGACGCTGTAAGCAGGAAGAGAAGCCACAGCGCTTCAGAAAAGAGTGG
GACAGGGACAAGCATATCTAAGAGGCTGAAC**ATG**AATCCACAGATCAGAAACCCGATGAAGGCAATGTATCCAGG
CACATTCTACTTCCAATTTAAAAACCTATGGGAAGCCAACGATCGGAACGAAACTTGGCTGTGCTTCACCGTGGA
AGGTATAAAGCGCCGCTCAGTTGTCTCCTGGAAGACGGGCGTCTTCCGAAACCAGGTGGATTCTGAGACCCATTG
TCATGCAGAAAGGTGCTTCCTCTCTTGGTTCTGCGACGACATACTGTCTCCTAACACAAAGTACCAGGTCACCTG
GTACACATCTTGGAGCCCTTGCCCAGACTGTGCAGGGGAGGTGGCCGAGTTCCTGGCCAGGCACAGCAACGTGAA
TCTCACCATCTTCACCGCCCGCCTCTACTACTTCCAGTATCCATGTTACCAGGAGGGGCTCCGCAGCCTGAGTCA
GGAAGGGGTCGCTGTGGAGATCATGGACTATGAAGATTTTAAATATTGTTGGGAAAACTTTGTGTACAATGATAA
TGAGCCATTCAAGCCTTGGAAGGGATTAAAAACCAACTTTCGACTTCTGAAAAGAAGGCTACGGGAGAGTCTCCA
G**TGA**GGGGTCTCCCTGGGCCTCATGGTCTGTCTCCTCTAGCCTCCTGCTCATGCTGCACGGGCCTCCCCTCCACC
CTGGACCCGCTCTGTTTCTGCCTGGTCATCCTGAGCCCCTCCTGGCCTCAGGGCCATTCCACAGTGCTCCCCTGC
CTCACCGCTTCCTCCTCGCTCTTCCAGACTCTTCCTGCAGAGGCTCCTTTCTGCCTCCATGGCTATCCATCCACC
CCCACAGACCCCGTTCCTCCAGCCTGCGTGCCCCTAACCTGGCTTTTCCCATCTCCCCAGCATAACCAAATCTTA
CTAAACTCATCCTAGGCTGGGCATGGTGACTCACGCCTGTAATCCCCCAGCAATTTGGGAGGCAAAGGTGGGAGA
ATCGCGTGAGCCCAGGAGTTCCAGACCAGGCTGGGTCACATGACAAAGCCCCATCTCTACAAAAAAAAAAAAAAA
AAAAAAAAAAAAG

FIGURE 1684

GCGGCCTGTCTTTATCAGAGGTCCCTCTGCCAGGGGGAGGGCCCCAGAGAAAACCAGAAAGAGGGTGAGAGACTG
AGGAAGATAAAGCGTCCCAGGGCCTCCTACACCAGCGCCTGAGCAGGAAGGGGGAGGGGCCATGACTACGAGGCC
CTGGGAGGTCACTTTAGGGAGGGCTGTCCTGAAACCTGGAGCCTGGAGCAGAAAGTGAAACCCTGGTGCTCCAGA
CAAAGATCTTAGTCGGGACTAGCCGGCCAAGG**ATG**AAGCCTCACTTCAGAAACACAGTGGAGCGAATGTATCGAG
ACACATTCTCCTACAACTTTTATAATAGACCCATCCTTTCTCGTCGGAATACCGTCTGGCTGTGCTACGAAGTGA
AAACAAAGGGTCCCTCAAGGCCCCGTTTGGACGCAAAGATCTTTCGAGGCCAGGTGCCCAGGTCTTTCATCAGAG
CCCCATTTCAAGTGCTCAGTAGCCCCTTTGGCCAGTGCGCCCCACCACATGGGACAGCGCAGGTCCAGTGGCCTC
CCCAGCTGACCGCAGGCAGGGAACAAGGCAGACCC**TAG**AGGGCCAGGCCACAGCAGGGGCTGAGGATGCCTGGTG
AATGGATGCCTGGGAGAATGGATGCCAGAATTCACGCATGAGGCTCTGAACAGGGCTGGGAAAACTTCCAAACGA
AGGGAAGCTCATGTCTTGGTGCACTTTGTGATGATGCTTCAACAGCAGGACTGAGATGGGGACATTTACAATAAA
CAGAAATGTATGGGCTCG

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FIGURE 1685

CTGCCAGGGGGAGGGCCCCAGAGAAAACCAGAAAGAGGGTGAGAGACTGAGGAAGATAAAGCGTCCCAGGGCCTC
CTACACCAGCGCCTGAGCAGGAAGCGGGAGGGGCCATGACTACGAGGCCCTGGGAGGTCACTTTAGGGAGGGCTG
TCCTAAAACCAGAAGCTTGGAGCAGAAAGTGAAACCCTGGTGCTCCAGACAAAGATCTTAGTCGGGACTAGCCGG
CCAAGG**ATG**AAGCCTCACTTCAGAAACACAGTGGAGCGAATGTATCGAGACACATTCTCCTACAACTTTTATAAT
AGACCCATCCTTTCTCGTCGGAATACCGTCTGGCTGTGCTACGAAGTGAAAACAAAGGGTCCCTCAAGGCCCCCT
TTGGACGCAAAGATCTTTCGAGGCCAGGTGTATTCCGAACTTAAGTACCACCCAGAGATGAGATTCTTCCACTGG
TTCAGCAAGTGGAGGAAGCTGCATCGTGACCAGGAGTATGAGGTCACCTGGTACATATCCTGGAGCCCCTGCACA
AAGTGTACAAGGGATATGGCCACGTTCCTGGCCGAGGACCCGAAGGTTACCCTGACCATCTTTGTTGCCCGCCTC
TACTACTTCTGGGACCCAGATTACCAGGAGGCGCTTCGCAGCCTGTGTCAGAAAAGAGACGGTCCGCGTGCCACC
ATGAAGATCATGAATTATGACGAATTTCAGCACTGTTGGAGCAAGTTCGTGTACAGCCAAAGAGAGCTATTTGAG
CCTTGGAATAATCTGCCTAAATATTATATATTACTGCACATCATGCTGGGGGAGATTCTCAGACACTCGATGGAT
CCACCCACATTCACTTTCAACTTTAACAATGAACCTTGGGTCAGAGGACGGCATGAGACTTACCTGTGTTATGAG
GTGGAGCGCATGCACAATGACACCTGGGTCCTGCTGAACCAGCGCAGGGGCTTTCTATGCAACCAGGCTCCACAT
AAACACGGTTTCCTTGAAGGCCGCCATGCAGAGCTGTGCTTCCTGGACGTGATTCCCTTTTGGAAGCTGGACCTG
GACCAGGACTACAGGGTTACCTGCTTCACCTCCTGGAGCCCCTGCTTCAGCTGTGCCCAGGAAATGGCTAAATTC
ATTTCAAAAAACAAACACGTGAGCCTGTGCATCTTCACTGCCCGCATCTATGATGATCAAGGAAGATGTCAGGAG
GGGCTGCGCACCCTGGCCGAGGCTGGGGCCAAAATTTCAATAATGACATACAGTGAATTTAAGCACTGCTGGGAC
ACCTTTGTGGACCACCAGGGATGTCCCTTCCAGCCCTGGGATGGACTAGATGAGCACAGCCAAGACCTGAGTGGG
AGGCTGCGGGCCATTCTCCAGAATCAGGAAAAC**TGA**AGGATGGGCCTCAGTCTCTAAGGAAGGCAGAGACCTGGG
TTGAGCCTCAGAATAAAAGATCTTCTTCCAAGAAATGCAAACAGGCTGTTCACCACCATCTCCAGCTGATCACAG
ACACCAGCAAAGCAATGCACTCCTGACCAAGTAGATTCTTTTAAAAATTAGAGTGCATTACTTTGAATCAAAAAT
TTATTTATATTTCAAGAATAAAGTACTAAGATTGTGCTCAATACACAGAAAAGTTTCAAACCTACTAATCCAGCG
ACAATTTGAATCGGTTTTGTAGGTAGAGGAATAAAATGAAATACTAAATCTTTCTGT

FIGURE 1686A

GAGGAAAGGCTGTCTCCACCCACCTCTCGCACTCTCCCTTCTCCTTTATAAAGGCCGGAACAGCTGAAAGGGTGG
CAACTTCTCCTCCTGCAGCCGGGAGCGGCCTGCCTGCCTCCCTGCGCACCCGCAGCCTCCCCCGCTGCCTCCCTA
GGGCTCCCCTCCGGCCGCCAGCGCCCATTTTTCATTCCCTAGATAGAGATACTTTGCGCGCACACACATACATAC
GCGCGCAAAAAGGAAAAAAAAAAAAAAAAGCCCACCCTCCAGCCTCGCTGCAAAGAGAAAACCGGAGCAGCCGCA
GCTCGCAGCTCGCAGCTCGCAGCCCGCAGCCCGCAGAGGACGCCCAGAGCGGCGAGCGGGCGGGCAGACGGACCG
ACGGACTCGCGCCGCGTCCACCTGTCGGCCGGGCCCAGCCGAGCGCGCAGCGGGCACGCCGCGCGCGCGGAGCAG
CCGTGCCCGCCGCCCGGGCCCCGCGCCAGGGCGCACACGCTCCCGCCCCCCTACCCGGCCCGGGCGGGAGTTTGC
ACCTCTCCCTGCCCGGGTGCTCGAGCTGCCGTTGCAAAGCCAACTTTGGAAAAAGTTTTTTGGGGGAGACTTGGG
CCTTGAGGTGCCCAGCTCCGCGCTTTCCGATTTTGGGGGCCTTTCCAGAAAATGTTGCAAAAAAGCTAAGCCGGC
GGGCAGAGGAAAACGCCTGTAGCCGGCGAGTGAAGACGAACCATCGACTGCCGTGTTCCTTTTCCTCTTGGAGGT
TGGAGTCCCCTGGGCGCCCCCACACGGCTAGACGCCTCGGCTGGTTCGCGACGCAGCCCCCCGGCCGTGGATGCT
CACTCGGGCTCGGGATCCGCCCAGGTAGCGGCCTCGGACCCAGGTCCTGCGCCCAGGTCCTCCCCTGCCCCCCAG
CGACGGAGCCGGGGCCGGGGGCGGCGGCGCCCGGGGGCCATGCGGGTGAGCCGCGGCTGCAGAGGCCTGAGCGCC
TGATCGCCGCGGACCCGAGCCGAGCCCACCCCCCTCCCCAGCCCCCCACCCTGGCCGCGGGGGCGGCGCGCTCGA
TCTACGCGTCCGGGGCCCCGCGGGGCCGGGCCCGGAGTCGGC**ATG**AATCGCTGCTGGGCGCTCTTCCTGTCTCTC
TGCTGCTACCTGCGTCTGGTCAGCGCCGAGGGGGACCCCATTCCCGAGGAGCTTTATGAGATGCTGAGTGACCAC
TCGATCCGCTCCTTTGATGATCTCCAACGCCTGCTGCACGGAGACCCCGGAGAGGAAGATGGGGCCGAGTTGGAC
CTGAACATGACCCGCTCCCACTCTGGAGGCGAGCTGGAGAGCTTGGCTCGTGGAAGAAGGAGCCTGGGTTCCCTG
ACCATTGCTGAGCCGGCCATGATCGCCGAGTGCAAGACGCGCACCGAGGTGTTCGAGATCTCCCGGCGCCTCATA
GACCGCACCAACGCCAACTTCCTGGTGTGGCCGCCCTGTGTGGAGGTGCAGCGCTGCTCCGGCTGCTGCAACAAC
CGCAACGTGCAGTGCCGCCCCACCCAGGTGCAGCTGCGACCTGTCCAGGTGAGAAAGATCGAGATTGTGCGGAAG
AAGCCAATCTTTAAGAAGGCCACGGTGACGCTGGAAGACCACCTGGCATGCAAGTGTGAGACAGTGGCAGCTGCA
CGGCCTGTGACCCGAAGCCCGGGGGGTTCCCAGGAGCAGCGAGCCAAAACGCCCCAAACTCGGGTGACCATTCGG
ACGGTGCGAGTCCGCCGGCCCCCCAAGGGCAAGCACCGGAAATTCAAGCACACGCATGACAAGACGGCACTGAAG
GAGACCCTTGGAGCC**TAG**GGGCATCGGCAGGAGAGTGTGTGGGCAGGGTTATTTAATATGGTATTTGCTGTATTG
CCCCCATGGGGTCCTTGGAGTGATAATATTGTTTCCCTCGTCCGTCTGTCTCGATGCCTGATTCGGACGGCCAAT
GGTGCTTCCCCCACCCCTCCACGTGTCCGTCCACCCTTCCATCAGCGGGTCTCCTCCCAGCGGCCTCCGGCGTCT
TGCCCAGCAGCTCAAGAAGAAAAAGAAGGACTGAACTCCATCGCCATCTTCTTCCCTTAACTCCAAGAACTTGGG
ATAAGAGTGTGAGAGAGACTGATGGGGTCGCTCTTTGGGGGAAACGGGCTCCTTCCCCTGCACCTGGCCTGGGCC
ACACCTGAGCGCTGTGGACTGTCCTGAGGAGCCCTGAGGACCTCTCAGCATAGCCTGCCTGATCCCTGAACCCCT
GGCCAGCTCTGAGGGGAGGCACCTCCAGGCAGGCCAGGCTGCCTCGGACTCCATGGCTAAGACCACAGACGGGCA
CACAGACTGGAGAAAACCCCTCCCACGGTGCCCAAACACCAGTCACCTCGTCTCCCTGGTGCCTCTGTGCACAGT
GGCTTCTTTTCGTTTTCGTTTTGAAGACGTGGACTCCTCTTGGTGGGTGTGGCCAGCACACCAAGTGGCTGGGTG
CCCTCTCAGGTGGGTTAGAGATGGAGTTTGCTGTTGAGGTGGCTGTAGATGGTGACCTGGGTATCCCCTGCCTCC
TGCCACCCCTTCCTCCCCACACTCCACTCTGATTCACCTCTTCCTCTGGTTCCTTTCATCTCTCTACCTCCACCC
TGCATTTTCCTCTTGTCCTGGCCCTTCAGTCTGCTCCACCAAGGGGCTCTTGAACCCCTTATTAAGGCCCCAGAT
GATCCCAGTCACTCCTCTCTAGGGCAGAAGACTAGAGGCCAGGGCAGCAAGGGACCTGCTCATCATATTCCAACC
CAGCCACGACTGCCATGTAAGGTTGTGCAGGGTGTGTACTGCACAAGGACATTGTATGCAGGGAGCACTGTTCAC
ATCATAGATAAAGCTGATTTGTATATTTATTATGACAATTTCTGGCAGATGTAGGTAAAGAGGAAAAGGATCCTT
TTCCTAATTCACACAAAGACTCCTTGTGGACTGGCTGTGCCCCTGATGCAGCCTGTGGCTTGGAGTGGCCAAATA
GGAGGGAGACTGTGGTAGGGGCAGGGAGGCAACACTGCTGTCCACATGACCTCCATTTCCCAAAGTCCTCTGCTC
CAGCAACTGCCCTTCCAGGTGGGTGTGGGACACCTGGGAGAAGGTCTCCAAGGGAGGGTGCAGCCCTCTTGCCCG
CACCCCTCCCTGCTTGCACACTTCCCCATCTTTGATCCTTCTGAGCTCCACCTCTGGTGGCTCCTCCTAGGAAAC
CAGCTCGTGGGCTGGGAATGGGGGAGAGAAGGGAAAAGATCCCCAAGACCCCCTGGGGTGGGATCTGAGCTCCCA
CCTCCCTTCCCACCTACTGCACTTTCCCCCTTCCCGCCTTCCAAAACCTGCTTCCTTCAGTTTGTAAAGTCGGTG
ATTATATTTTTGGGGGCTTTCCTTTTATTTTTTAAATGTAAAATTTATTTATATTCCGTATTTAAAGTTGTAAAA
AAAAATAACCACAAAACAAAACCAAATGAATCCGCCGGAGGTCTGTCTGTTGGCATCGTGCGTGACAATTAACCT
TTCTGCCTTGGCAGGATGTGCCGACAGCTTGCGGCGTGTTCCTCTCACTCTGGGAGCCTCAGGCGTGATCTCACA

FIGURE 1686B

CACTGGCGTGCACATACACACACACACATACATGCTCACACATGCGTGCACATACACGCAGGCCTGCAACTTG
GGGGAGGCCTCTGTCTGGCGGGAAGAAGAGACACACAGGCTACTCTGTTGGTCTTGGTCCTGGCACAGCTCCTGA
CACGTGGACTTGTGCGTGTCTCTGGCAGTGACGAGAGATGGGTTTCTGCAG

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FIGURE 1687

CTCTACCGGCGGGATTTGATGGCGTG**ATG**TCTCACAGAAAGTTCTCCGCTCCCAGACATGGGTCCCTCGGCTTCC
TGCCTCGGAAGCGCAGCAGCAGGCATCGTGGGAAGGTGAAGAGCTTCCCTAAGGATGACCCGTCCAAGCCGGTCC
ACCTCACAGCCTTCCTGGGATACAAGGCTGGCATGACTCACATCGTGCGGGAAGTCGACAGGCCGGGATCCAAGG
TGAACAAGAAGGAGGTGGTGGAGGCTGTGACCATTGTAGAGACACCACCCATGGTGGTTGTGGGCATTGTGGGCT
ACGTGGAAACCCCTCGAGGCCTCCGGACCTTCAAGACTGTCTTTGCTGAGCACATCAGTGATGAATGCAAGAGGC
GTTTCTATAAGAATTGGCATAAATCTAAGAAGAAGGCCTTTACCAAGTACTGCAAGAAATGGCAGGATGAGGATG
GCAAGAAGCAGCTGGAGAAGGACTTCAGCAGCATGAAGAAGTACTGCCAAGTCATCCGTGTCATTGCCCACACCC
AGATGCGCCTGCTTCCTCTGCGCCAGAAGAAGGCCCACCTGATGGAGATCCAGGTGAACGGAGGCACTGTGGCCG
AGAAGCTGGACTGGGCCCGCGAGAGGCTTGAGCAGCAGGTACCTGTGAACCAAGTGTTTGGGCAGGATGAGATGA
TCGACGTCATCGGGGTGACCAAGGGCAAAGGCTACAAAGGGGTCACCAGTCGTTGGCACACCAAGAAGCTGCCCC
GCAAGACCCACCGAGGCCTGCGCAAGGTGGCCTGTATTGGGGCATGGCATCCTGCTCGTGTAGCCTTCTCTGTGG
CACGCGCTGGGCAGAAAGGCTACCATCACCGCACTGAGATCAACAAGAAGATTTATAAGATTGGCCAGGGCTACC
TTATCAAGGACGGCAAGCTGATCAAGAACAATGCCTCCACTGACTATGACCTATCTGACAAGAGCATCAACCCTC
TGGGTGGCTTTGTCCACTATGGTGAAGTGACCAATGACTTTGTCATGCTGAAAGGCTGTGTGGTGGGAACCAAGA
AGCGGGTGCTCACCCTCCGCAAGTCCTTGCTGGTGCAGACGAAGCGGCGGGCTCTGGAGAAGATTGACCTTAAGT
TCATTGACACCACCTCCAAGTTTGGCCATGGCCGCTTCCAGACCATGGAGGAGAAGAAAGCATTCATGGGACCAC
TGAAGAAAGACCGAATTGCAAAGGAAGAAGGAGCT**TAA**TGCCAGGAACAGATTTTGCAGTTGGTGGGGTCTCAAT
AAAAGTTATTTTCCACTG

FIGURE 1688

CCCGCAGGGGTTCCTCCAAG**ATG**GCGGCGCAGAGGAGGAGCTTGCTGCAGAGTGAGCAGCAGCCAAGCTGGACAG
ATGACCTGCCTCTCTGCCACCTCTCTGGGGTTGGCTCAGCCTCCAACCGCAGCTACTCTGCTGATGGCAAGGGCA
CTGAGAGCCACCCGCCAGAGGACAGCTGGCTCAAGTTCAGGAGTGAGAACAACTGCTTCCTGTATGGGGTCTTCA
ACGGCTATGATGGCAACCGAGTGACCAACTTCGTGGCCCAGCGGCTGTCCGCAGAGCTCCTGCTGGGCCAGCTGA
ATGCCGAGCACGCCGAGGCCGATGTGCGGCGTGTGCTGCTGCAGGCCTTCGATGTGGTGGAGAGGAGCTTCCTGG
AGTCCATTGACGACGCCTTGGCTGAGAAGGCAAGCCTCCAGTCGCAATTGCCAGAGGGAGTCCCTCAGCACCAGC
TGCCTCCTCAGTATCAGAAGATCCTTGAGAGACTCAAGACGTTAGAGAGGGAAATTTCGGGAGGGGCCATGGCCG
TTGTGGCGGTCCTTCTCAACAACAAGCTCTACGTCGCCAATGTCGGTACAAACCGTGCACTTTTATGCAAATCGA
CAGTGGATGGGTTGCAGGTGACACAGCTGAACGTGGACCACACCACAGAGAACGAGGATGAGCTCTTCCGTCTTT
CGCAGCTGGGCTTGGATGCTGGAAAGATCAAGCAGGTGGGGATCATCTGTGGGCAGGAGAGCACCCGGCGGATCG
GGGATTACAAGGTTAAATATGGCTACACGGACATTGACCTTCTCAGCGCTGCCAAGTCCAAACCAATCATCGCAG
AGCCAGAAATCCATGGGGCACAGCCGCTGGATGGGGTGACGGGCTTCTTGGTGCTGATGTCGGAGGGGTTGTACA
AGGCCCTAGAGGCAGCCCATGGGCCTGGGCAGGCCAACCAGGAGATTGCTGCGATGATTGACACTGAGTTTGCCA
AGCAGACCTCCCTGGACGCAGTGGCCCAGGCCGTCGTGGACCGGGTGAAGCGCATCCACAGCGACACCTTCGCCA
GTGGTGGGGAGCGTGCCAGGTTCTGCCCCCGGCACGAGGACATGACCCTGCTAGTGAGGAACTTTGGCTACCCGC
TGGGCGAAATGAGCCAGCCCACACCGAGCCCAGCCCCAGCTGCAGGAGGACGAGTGTACCCTGTGTCTGTGCCAT
ACTCCAGCGCCCAGAGCACCAGCAAGACCAGCGTGACCCTCTCCCTTGTCATGCCCTCCCAGGGCCAGATGGTCA
ACGGGGCTCACAGTGCTTCCACCCTGGACGAAGCCACCCCCACCCTCACCAACCAAAGCCCGACCTTAACCCTGC
AGTCCACCAACACGCACACGCAGAGCAGCAGCTCCAGCTCTGACGGAGGCCTCTTCCGCTCCCGGCCCGCCCACT
CGCTCCCGCCTGGCGAGGACGGTCGTGTTGAGCCCTATGTGGACTTTGCTGAGTTTTACCGCCTCTGGAGCGTGG
ACCATGGCGAGCAGAGCGTGGTGACAGCACCG**TAG**GGCAGCCGGAGAATGCAGCCCAAGCAGGGCCTGGCATGGG
GCAGGACAGGGTCCAGCCTTTTCCTAACATCTGCCTGTGCCACAACGGCCAGCAGGTGCCCCATCCTCTGCCCAC
AGCAGACTCTGTCCCATGGCTCTCCGGGCAGTAGAGTGTGTGAGTGCAGACTGGACCTGTGGTTCATACCTTGTC
ACCACCCGGGAAGCTGAAGGCCACTTCCTCCCAGATGGCCTCAGCCAGGACCATCGCCCTTTCTCAGAGCAGAGG
GCCAGGTATAGAAACCGCAGTGGGCCTGCAAGCCGCCCGAGCCTCCCCAGCAGCCTCCTACAGAGCAGGAAGAGG
CGCCCTGTGAACCCTGAGTGTTGCAGGCCCAGCAGACCCTGCTGTCCCAAGCCCACCCCTCCTCCCACCATCACC
TCCCTCACCTCGGGACAGTAGCCCTCCACTTCTCCAGCCTCTCAGCCCTGTGCTCCTGCATCCAGAGTGGAACCC
AGGCTGGTGTCCGCATCTGTCCCTGGGCCCCACCCCTGGACCTGCCTTGGTTGTGTCATCTGTTGTAAACGTTCA
GGAGGACCAGGGCAGCATCTGGGGCCTGGGATGGCCACAGAAGGGGCAGGCCAGGTGGAAAGGAGCCAGGGGGAA
GTGGTCTAAGAGACCTGGAACTGCCAGAGGATGGCGGCCTGGGCTTCCCCAGAGCCAGGCGTGCGGGAGAGGTGA
GGACTGGCCCCGGTGGGCTGAGGCAGGGGCCGCTGTCGTCAGGCCTGAGCCAGGGTGAGCTGGTGCCTGCCTTGC
ATTTTCCTTCTGGTGCTGTGAAGACCATAGGCTGGCAGGCAGCTGAGATGAACTGTCTTTACCACTGATGAGGGG
CCTCTGCCGGCTGAGGGTAGCAAGCAGGGGTTGTGAGTCAGGCTGGGGGACTTGTTTGAAAGAAAGAGGAGTGGA
AAATGGTTCCAGGAGGGAAGAGGTTCTTTGAGACACAGTACCCTGGGAGGCATAGGAGAAGGGTCGGGCCAGCCC
AGCCCAGGGCCTGAGTTAGACTATTTCCCACATGTTCTCTGCCTTCAGTGGGGAGGGGGTGCCACCAGGGCTGTC
GGCCAGGATTGCCACTCCTGTTTCAGAGGAAGCAGGCCGAGAGACTTGCACCTTGGCCAAGCCACACAATCAGTG
GGGCAGCCAGAGCTCAGACCTGAGCCATTTTGTCAGTATCCAGGACCCCCCGGATTCTCCACGCCCTCCCCATCT
CCCAGTCTCCCTGCCCCCCATGCCCCAGACCGGCCCACCAGGGACTAGCCGCTGTCGCACAGCCTCTGGGGTGCT
TGGTCTCTGCGAAGTCAAAGGCCTGACAGCTCTGTGGCCTGGGAATCCATTTTCCTGCGGCAGAGCAGGGCCTGG
TGTGGAACCAGGGAGCTGTGGGAAGCCACAGCAGAAATGGAAGAAAAACAGGTCTCAGCCCAGGGTCCTCGCTCA
CTCCCTCACTCCCCACTTTGAAGCCATCTCTGTTCTGCAGGTGAGAGGATTTAAAGTCAGTCACAAAGGCTTGGG
AACAAAAGGAATTC

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FIGURE 1689

TTTTTTTTTTTTTTGAGATGGAGTCCAGCCTGGGTGACAGAGTGAGACCCTATTTCAAAAAAATAAAAATTGGAA
GAAGAGCTTAAAAAAGATAAGATTTTAAAGAGTCCCAAGTTATTTAAGTTGAGTGTAATTGTCATTTAAGGAAGG
CAAATGAGTTTATCATCCTTCTTAAAGAGCATCTCTTTTAACTGTTGGACAAAACCATAACTTTGTCATTTTACA
AGGAAGAACCTCTTAAGAAGTCCTCAGAACCAGAAGCAATGTGAACTCTCAGCGCTGGTCCTGGTGGGTTTGCTG
ACCATGACTGGGCAAGCCGTTCTTTTTGCTGCCATCTTCCTCATCATAAAGTGTGGAACATAGGCAATTGCTTTG
AGATTCTTGGATAGAAGAGGACAACATTCTGCACCTGCCCCCTTTTTTAAATCTTTGGGGAAAGATGAGTAACTT
TCCCCACTACTCTGCCTTCCTGTTCAGTAACTCTTACTTTTGCCTGAAGTAACAGCATCTTCTACTTCTCCATCT
AGAGATTTTTGTGTGTGTGCCATCAAGGTTAGCAAACTTTATACGTAGCCTAACACTTAAAAAATGCACTCATTA
TCTTAAACCTAATAAATTCCAGAGTTTATTTTGGTTCTCCTCTGTTGCCCTTCCTAAAAAAATGAGCTGAAGATGA
CAGTATTTTTCTTTACATGCTTGGTTATGACTTTTAAAGTTTTATTTAAATAAATGTTGAAGCTCAAGTTTAAAG
AAGCGTTGCAGAGGCCCACGGTCTCCTGGGTCCCGGCCACCTGTCCATATTCCACATTTGCTGACTGTGCTCCCT
GCACTCCACTCAAGTTGAGAGTTCAAATAGTCTTGAAGGGGAATCAGCTTCAGG**ATG**GAAGGACCCAGGAGAGGC
CCCGAGGTGGGAGGGTTCTGTAAATACAGACTACTGCGAGTGTCCAGAGCTCTCTGCCATGATACTTCCTTGGGA
CTGACTTGGCTGAGAACGTGTTCTGTCAGAGGATTTGTTAGAACTCTGCCCTTTTGTCTGAAACTCAAGGCCAAG
GAGAATGATAGGAGACTTAGGACAGAGCTGACCCTTGCACCAGGCTGGGAGGCTGCAGCCCTTTTAGATGCCACT
TACTGTAAGTGGCCAGAATACCAGAGAGGTGGGTTCCATGGTCAAATGCACAGTAGGTGTTTACCTTTACATTTG
GATCACCTTGTAGTCTTTAAATTCTTGGTCCCTGAGGCCAAGTCCACAACTTGCCTTCTAGTCACTTGCCTGCCC
GCAGTGGTGGTGGATGTGTTAGCTGGTAGATTTGGAATCAGTCACCAGTCTTTCTGTACTGTCTTGGTTAGCTCT
ATA**TAA**GTAGGGGCAGCTTAGCCCTGAGGCCCAGAGACCTGCTGTCCTTTTTCTCCTTGAGGGAGGAAATAAAAC
TGCGGAATACAATGTCCTTCCATAGCATGGGAAGAAGAAAATAAACATCTCCTTTCCAAC

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FIGURE 1690

GAAAACTCAGGCTTGGAACAGCACCTCGCGCGATAACCTGGCGTCCTCGGCCTTCACAATAAAAACTCTTCGCCG
GAAAACGACCTTTCCCCGCCCACTGCGCTGACACCGGAAGCGAGGCGTGTCTGGGAGATCACTCCGCGCTCCGGC
GGCGAAGGAAAGAACGGACTCTGATCATAGAAGCCTAGTAAAGTAGTACACCTCTCTCCTTTCGTGAGGCCATAA
GAACAAACTCCTTTTCTCGTCACAGCTACGCCCTGGGCATAAACGGTTGGGGCGTCAAAGGGAGGGAGGGAAGGG
AGCGGGCGGGAGGAGACGGTCACGTGGTCGCGGCGGAAGGATGCGTCTGTGCTGCGTCCCCATAGAGACGAAGTC
TATAAAGGGCCGGCGGGCGGCCACGGCAGCCATTTCTACTTTGCCCGCCCACAGATGTAGTTTTCTCTGCGCGTG
TGCGTTTTCCCTCCTCCCCGCCCTCAGGGTCCACGGCCACCATGGCGTATTAGGGGCAGCAGTGCCTGCGGCAGC
ATTGGCCTTTGCAGCGGCGGCAGCAGCACCAGGCTCTGCAGCGGCAACCCCCAGCGGCTTAAGCCATGGCCAGCG
TTGCTGTAACCGACAAAGACACCTTCGAATTAAGCACATTCCTCGATTCCAGCAAAGCACCGCAAC**ATG**ACCGAA
ATGAGCTTCCTGAGCAGCGAGGTGTTGGTGGGGGACTTGATGTCCCCCTTCGACCAGTCGGGTTTGGGGGCTGAA
GAAAGCCTAGGTCTCTTAGATGATTACCTGGAGGTGGCCAAGCACTTCAAACCTCATGGGTTCTCCAGCGACAAG
GCTAAGGCGGGCTCCTCCGAATGGCTGGCTGTGGATGGGTTGGTCAGTCCCTCCAACAACAGCAAGGAGGATGCC
TTCTCCGGGACAGATTGGATGTTGGAGAAAATGGATTTGAAGGAGTTCGACTTGGATGCCCTGTTGGGTATAGAT
GACCTGGAAACCATGCCAGATGACCTTCTGACCACGTTGGATGACACTTGTGATCTCTTTGCCCCCCTAGTCCAG
GAGACTAATAAGCAGCCCCCCCAGACGGTGAACCCAATTGGCCATCTCCCAGAAAGTTTAACAAAACCCGACCAG
GTTGCCCCCTTCACCTTCTTACAACCTCTTCCCCTTTCCCCAGGGGTCCTGTCCTCCACTCCAGATCATTCCTTT
AGTTTAGAGCTGGGCAGTGAAGTGGATATCACTGAAGGAGATAGGAAGCCAGACTACACTGCTTACGTTGCCATG
ATCCCTCAGTGCATAAAGGAGGAAGACACCCCTTCAGATAATGATAGTGGCATCTGTATGAGCCCAGAGTCCTAT
CTGGGGTCTCCTCAGCACAGCCCCTCTACCAGGGGCTCTCCAAATAGGAGCCTCCCATCTCCAGGTGTTCTCTGT
GGGTCTGCCCGTCCCAAACCTTACGATCCTCCTGGAGAGAAGATGGTAGCAGCAAAAGTAAAGGGTGAGAAACTG
GATAAGAAGCTGAAAAAAATGGAGCAAAACAAGACAGCAGCCACTAGGTACCGCCAGAAGAAGAGGGCGGAGCAG
GAGGCTCTTACTGGTGAGTGCAAAGAGCTGGAAAAGAAGAACGAGGCTCTAAAAGAGAGGGCGGATTCCCTGGCC
AAGGAGATCCAGTACCTGAAAGATTTGATAGAAGAGGTCCGCAAGGCAAGGGGGAAGAAAAGGGTCCCC**TAG**TTG
AGGATAGTCAGGAGCGTCAATGTGCTTGTACATAGAGTGCTGTAGCTGTGTGTTCCAATAAATTATTTTGTAGGG
AAAGT

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FIGURE 1691

TTTCCGCTTCCGCTCTTCCCTGGTCCAGTCCACCCTGGCGGGGTCGCAGGGTTGGGATGGCGGCTGGAGGCGATC
ATGGTTCGCCCGACAGCTACCGCTCACCTCTTGCCTCCCGCTATGCCAGCCCGGAGATGTGCTTCGTGTTTAGCG
ACAGGTATAAATTCCGGACATGGCGGCAGCTGTGGCTGTGGCTGGCGGAGGCCGAGCAGACATTGGGTTTGCCTA
TCACAGATGAACAAATCCAGGAGATGAAATCAAACCTGGAGAACATCGACTTCAAGATGGCAGCTGAGGAAGAGA
AACGTTTACGACATGATGTGATGGCTCACGTGCACACATTTGGCCACTGCTGTCCAAAAGCTGCAGGCATTATTC
ACCTTGGTGCTACTTCTTGCTATGTTGGAGACAATACTGACTTGATTATTCTTAGAAATGCACTTGACCTGCTTT
TGCCAAAGCTTGCCAGAGTGATCTCTCGGCTTGCCGACTTTGCTAAGGAACGAGCCAGTCTACCCACATTAGGTT
TCACACATTTCCAGCCTGCACAGCTGACCACAGTTGGGAAACGTTGCTGTCTTTGGATTCAGGATCTTTGCATGG
ATCTCCAGAACTTGAAGCGTGTCCGAGATGACCTGCGCTTCCGGGGAGTAAAGGGTACCACTGGCACTCAGGCCA
GTTTCCTGCAGCTCTTTGAGGGAGATGACCATAAGGTAGAGCAGCTTGACAAGATGGTGACAGAAAAGGCAGGAT
TTAAGAGAGCTTTCATCATCACAGGGCAGACATATACACGAAAAGTGGATATTGAAGTACTGTCTGTGCTGGCTA
GCTTGGGGGCATCAGTGCACAAGATTTGCACCGACATACGCCTCCTGGCAAACCTCAAGGAGATGGAGGAACCCT
TTGAAAAACAGCAGATTGGCTCAAGTGCGATGCCATATAAGCGGAATCCCATGCGTTCAGAACGTTGCTGCAGTC
TTGCCCGCCACCTGATGACCCTTGTCATGGACCCGCTACAGACAGCATCTGTCCAGTGGTTTGAACGCACACTGG
ATGATAGTGCCAACCGACGGATCTGTTTGGCCGAGGCATTTCTTACCGCAGATACTATATTGAATACGCTGCAGA
ACATTTCTGAAGGATTGGTCGTGTACCCCAAAGTAATTGAACGGCGCATTCGGCAAGAGCTGCCTTTCATGGCCA
CAGAGAACATCATCATGGCCATGGTCAAAGCTGGAGGTAGCCGCCAGGATTGCCATGAGAAAATCAGAGTGCTTT
CTCAGCAGGCAGCTTCTGTGGTTAAGCAGGAAGGGGGTGACAATGACCTCATAGAGCGTATCCAGGTTGATGCCT
ACTTCAGTCCCATTCACTCCCAGTTGGATCATTTACTGGATCCTTCTTCTTTCACTGGTCGTGCCTCCCAGCAGG
TGCAGAGATTCTTAGAAGAGGAGGTGTATCCCCTGTTAAAACCATATGAAAGCGTGATGAAGGTGAAAGCAGAAT
TATGTCTGTAGAGTTGGAAGAGAATTAAACGAAAATCATTGTTAATTGCTGAGGCATGAAAATTGTGTTACTATA
ATGCCTTATTTTACCTCGAGAATTGTTACCTTAAATTAGTACAGCACTTTCTTCTTCCCATGGTGCTTTCCTGTT
TCTCAGTCTCACATTTCTCAACAAGGCAAAAACAAAGAGCGTTGAAGTTGACTCTGCTCTTGCATAGTAAATGTA
GTTCATACTTGATCTCTGTTCTTTCAAGGCATATTTTCCAGCTGCCTCAAGTTTAGTCCTTTTCACGTGTTCATT
TGCTTGTAAAGTAGCAAGAAATTTCTGGTCCTGTCTTCTAAAAGTGAATTTGATCTAGGTCTAGCAAAATAACCT
GGACTCAGTGATTGAGTCAATGGTCAGATACCTTTTATTTCGGTTATTTTTGGCTAGTATAAGTGATGAAGTTTG
GAACTACAGTAAATACTTAAAAAA

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FIGURE 1692

GGCAGATGATTCTGGACCAGATGAAGCCTGAGGAGCCTTCCAGCTCTAAGATAGCAGGATAGGAGACTTCTAAGA
TTGGAGCTGCAGAAGACTTGCCAGCCCACCAGCACA**ATG**TCAGGAAGCCATACACCTGCCTGTGGCCCTTTCTCA
GCCCTGACTCCGAGCATATGGCCCCAGGAGATCTTGGCCAAGTACACGCAGAAGGAAGAGTCAGCAGAGCAACCA
GAGTTCTACTACGATGAGTTTGGTTTCCGTGTGTACAAGGAAGAAGGTGATGAGCCTGGCTCCAGTCTGCTGGCG
AACTCCCCTCTGATGGAGGATGCTCCACAGAGGCTGCGGTGGCAGGCCCACCTGGAGTTCACCCATAACCACGAT
GTGGGGGATCTCACCTGGGACAAGATTGCCGTCTCCCTACCCCGCTCTGAGAAGCTCCGCTCCCTGGTGCTGGCC
GGCATCCCACATGGCATGAGGCCACAGCTGTGGATGCGGCTCTCTGGGGCCCTGCAGAAGAAGAGGAACTCTGAG
CTGTCCTACCGCGAGATTGTGAAGAACAGCTCCAACGATGAGACCATCGCTGCCAAGCAGATCGAGAAGGACCTG
CTCCGCACCATGCCCAGCAACGCCTGCTTCGCCAGCATGGGTAGCATCGGGGTGCCCCGCCTGCGCAGGGTGCTC
CGGGCCCTGGCCTGGCTCTACCCAGAGATCGGCTACTGCCAGGGCACCGGCATGGTGGCCGCCTGCCTCCTGCTG
TTCCTGGAGGAGGAGGACGCCTTCTGGATGATGTCTGCCATCATCGAGGACCTGCTCCCCGCCTCCTACTTCAGC
ACCACCCTGCTGGGTGTCCAGACTGACCAGCGGGTCCTGCGCCACCTCATTGTCCAGTACCTGCCTCGCCTGGAC
AAGCTGCTCCAGGAGCATGACATTGAGCTGTCCCTGATCACACTGCACTGGTTCCTCACGGCCTTCGCCAGCGTG
GTGGACATCAAGCTGCTCCTGCGCATCTGGGACCTGTTTTTCTACGAGGGCTCCCGGGTGCTGTTCCAGCTCACG
CTGGGCATGCTGCACCTCAAGGAGGAAGAGCTGATCCAGTCAGAGAACTCGGCCTCCATCTTCAACACGCTATCG
GATATCCCGTCGCAGATGGAGGACGCGGAGCTGCTTCTGGGGGTGGCCATGCGGCTGGCCGGCTCCCTCACCGAT
GTGGCCGTGGAGACTCAGCGCCGCAAGCACCTGGCCTATCTCATTGCAGACCAGGGCCAGCTCCTGGGGGCCGGC
ACCCTCACCAACCTCTCTCAGGTTGTTCGCCGCAGGACCCAGCGGAGGAAGTCCACCATCACTGCTCTGCTCTTC
GGGGAGGATGACCTGGAGGCACTCAAGGCCAAGAACATCAAGCAGACGGAACTGGTGGCTGACCTCCGGGAAGCC
ATCCTGCGCGTGGCACGCCACTTCCAGTGCACAGACCCCAAAAACTGCAGCGTGGTGAGTCGCCAGCTCCCTGGG
CTGCTACCAAACACGGCCCTAACTCCTCCAACCCCCTTGGTGGGCCTGTGTTCACTGTGGCAGGAGCTGACTCCA
GACTATAGCATGGAGAGCCACCAGCGGGACCACGAGAACTACGTGGCGTGCTCACGCAGCCACCGGCGCCGAGCC
AAGGCCCTGCTGGACTTTGAGCGGCACGACGACGACGAGCTGGGCTTCCGCAAGAACGACATCATCACAATCGTG
TCTCAGAAGGACGAGCACTGCTGGGTGGGGGAGCTCAACGGCCTGCGAGGCTGGTTTCCAGCCAAGTTCGTGGAA
GTCCTGGATGAGCGCAGCAAAGAGTACTCCATCGCGGGGGATGACTCGGTGACGGAGGGGGTCACAGACCTCGTG
CGAGGGACCCTCTGCCCGGCCCTTAAGGCCCTGTTCGAACATGGACTGAAGAAGCCATCCCTGCTTGGGGGCGCC
TGCCACCCCTGGCTGTTTATCGAGGAGGCTGCAGGCCGGGAGGTCGAGAGAGACTTTGCCTCCGTGTATTCCCGT
CTGGTGCTCTGTAAGACCTTCAGGTTGGATGAAGATGGCAAAGTCCTGACCCCGGAGGAGCTGCTCTACCGGGCT
GTGCAGTCTGTGAACGTGACCCACGATGCAGTGCATGCACAAATGGATGTGAAGCTCCGCTCACTGATCTGCGTG
GGGCTCAAG**TGA**CAGGTGCTGCACCTGTGGCTGGAGGTGCTCTGCTCCAGCCTGCCCACCGTGGAGAAGTGGTAC
CAGCCCTGGTCCTTCCTGCGCAGCCCGGGCTGGGTCCAGATCAAGTGTGAGCTCCGAGTCCTCTGCTGCTTTGCC
TTCAGCCTCTCCCAGGACTGGGAGCTCCCTGCGAAGAGAGAGGCGCAGCAGCCCCTGAAGGAGGGCGTCCGGGAC
ATGCTGGTGAAGCACCACCTCTTCAGCTGGGATGTGGACGGGTGACCCCCTCCTCCCCAGCCCAACCTCGGGCCT
GCGTCTGAGGTGGCCCAGGACCCCAAGCTGCAGAGCCCAGGGAAGAGCAGCTCCAGAGCCCTGGCCGGGGCCGCG
GGATATCAATATCAGGCTGCCCCACTCCACGTTCCCCAGCACATCCCAGGTGGTGGGAGCAGAGGGTACCCTGCC
CCACCAGGGTCCTTAGGGATGCTCTAGGCCAAACCACAGTTTGTACCAAAAACCTTGTGAGGAGGTGGGGGAGCC
ATGTCTGTGCTCAGGAAGAGGGAAGGGGATGGGGGTGGCTAGTAGGCTCCTGGCCTCTTTGGTTTATAAATAAAC
TGTGTCTGTCTTTGAGAAAGCA

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FIGURE 1693

GCGGGTTTGAGAGGGCGGGGATTGCGACTCTCACACCCTGAGCTCCGGTGCTCCTTTCCTAACTCCACTGGCTGC
GGCATCTGTGGGAAAAGTGTGGCTGGGTCTTCGAGGAGCCGCACCA**ATG**GCTTCCGTGCTGTCCTACGAAAGCCT
GGTCCACGCCGTGGCCGGAGCCGTGGGAAGCGTGACAGCAATGACAGTGTTTTTTCCCCTGGATACAGCTAGACT
TCGACTTCAGGTTGATGAGAAAAGAAAATCCAAAACTACACACATGGTGCTCCTGGAGATCATTAAAGAAGAAGG
ACTCCTGGCACCATATCGAGGGTGGTTTCCAGTGATTTCCAGTCTCTGCTGCTCCAATTTTGTCTATTTCTACAC
TTTTAATAGCCTCAAAGCACTCTGGGTCAAAGGTCAACATTCTACCACTGGAAAAGATCTGGTAGTTGGGTTTGT
TGCAGGAGTGGTTAATGTGTTGCTAACAACTCCACTCTGGGTGGTAAACACCAGACTGAAGCTTCAAGGAGCAAA
ATTTAGGAATGAAGACATTGTACCAACAAACTACAAAGGTATCATTGATGCTTTTCATCAGATCATTCGCGATGA
AGGAATCTCGGCTTTATGGAATGGCACATTTCCCTCATTGCTGTTGGTCTTCAATCCTGCCATCCAGTTCATGTT
TTATGAAGGTTTAAAACGGCAGCTTTTAAAGAAACGGATGAAGCTTTCTTCCTTGGATGTGTTCATCATTGGTGC
AGTAGCCAAAGCGATTGCCACCACGGTGACCTATCCCCTGCAGACGGTACAGTCAATTCTGAGGTTTGGGCGTCA
TAGACTAAACCCAGAAAACAGAACATTGGGAAGTCTTCGGAATATTCTCTATCTTCTTCACCAACGAGTAAGACG
TTTTGGAATAATGGGACTCTACAAAGGCCTTGAAGCCAAACTGCTGCAGACAGTCCTCACTGCTGCTCTCATGTT
CCTTGTTTATGAGAAACTGACAGCTGCCACCTTCACAGTTATGGGGCTGAAGCGTGCACACCAACAC**TGA**GACGC
CTTCCCATGAAAAATTCCGAAGATGCTCAAGAGGGAGGTTTCCTCCTGAGTGAAGAGAAGTGATTCTCCCTTGAC
TCTGGCTCCTGCCACCACAAATGTTACCCTCATTGGCTTGAAAAGCATCCAAGGGTGCACAGGGAGTATGGCCAA
CTGGACCTGTTGTCACCTTAATTGTCATGCTGGCTGGTTGGATTTTGGGGTGGCAGTTGGACTAATGTGAAAAAA
ACATTGCTGAAAACCTAAAAATGAAAGTTTGTGAGTGTTTATTGGTTTTCTTAAGAGAAATGGACTATTTTGCTC
TCATGTGTAATGTTTTCTATTTAAATCTTTCTTAAATATACCAGCTGTTCTCTTTCCCTGAACTCTCCCCCAGGT
TCTAGGACAAATTTAATAACATGTAATTCTCCTCAAATACTTTTGTATGTCTCAGTGTTGGTGTTTTCCTCCCTA
AAACTAACATTAGGGCTGTGCCACGGGCATGACTTTATTTTTGTTGGGCTTTTTTTTCCCTGCTTAAGGAGAGGT
GTCTTTTTTGGATATGAGCTATTTATTTTGTGAAATGAAAATTGTTCACCCAAATGATTCTCTTATAAACTATTT
GTAAATGTCACTTATTCATTAGTGTTTGACATAATTTTTAGAATATTTATTTTGAATCAATCCTTTCATTACGAA
AGACTTGAAGTTTTGTGTCCATTCTTACAAGCCCTGGTCAGTCAAGTCCCAATAAATGGTCAGCAC

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FIGURE 1694

GGGTGGGAGGAGCCAGCGGCCGGGGAGGTTCTAGTCTGTTCTGTCTTGCGGCAGCCGCCCCCTTCTGCGCGGTCA
CGCCGAGCCAGCGCCTGGGCCTGGAACCGGGCCGTAGCCCCCCCAGTTTCGCCCACCACCTCCCTACC**ATG**GACC
CCCGCAAAGTGAACGAGCTTCGGGCCTTTGTGAAAATGTGTAAGCAGGATCCGAGCGTTCTGCACACCGAGGAAA
TGCGCTTCCTGAGGGAGTGGGTGGAGAGCATGGGTGGTAAAGTACCACCTGCTACTCAGAAAGCTAAATCAGAAG
AAAATACCAAGGAAGAAAAACCTGATAGTAAGAAGGTGGAGGAAGACTTAAAGGCAGACGAACCATCAAGTGAGG
AAAGTGATCTAGAAATTGATAAAGAAGGTGTGATTGAACCAGACACTGATGCTCCTCAAGAAATGGGAGATGAAA
ATGCGGAGATAACGGAGGAGATGATGGATCAGGCAAATGATAAAAAAGTGGCTGCTATTGAAGCCCTAAATGATG
GTGAACTCCAGAAAGCCATTGACTTATTCACAGATGCCATCAAGCTGAATCCTCGCTTGGCCATTTTGTATGCCA
AGAGGGCCAGTGTCTTCGTCAAATTACAGAAGCCAAATGCTGCCATCCGAGACTGTGACAGAGCCATTGAAATAA
ATCCTGATTCAGCTCAGCCTTACAAGTGGCGGGGGAAAGCACACAGACTTCTAGGCCACTGGGAAGAAGCAGCCC
ATGATCTTGCCCTTGCCTGTAAATTGGATTATGATGAAGATGCTAGTGCAATGCTGAAAGAAGTTCAACCTAGGG
CACAGAAAATTGCAGAACATCGGAGAAAGTATGAGCGAAAACGTGAAGAGCGAGAGATCAAAGAAAGAATAGAAC
GAGTTAAGAAGGCTCGAGAAGAGCATGAGAGAGCCCAGAGGGAGGAAGAAGCCAGACGACAGTCAGGAGCTCAGT
ATGGCTCTTTTCCAGGTGGCTTTCCTGGGGGAATGCCTGGTAATTTTCCCGGAGGAATGCCTGGAATGGGAGGGG
GCATGCCTGGAATGGCTGGAATGCCTGGACTCAATGAAATTCTTAGTGATCCAGAGGTTCTTGCAGCCATGCAGG
ATCCAGAAGTTATGGTGGCTTTCCAGGATGTGGCTCAGAACCCAGCAAATATGTCAAAATACCAGAGCAACCCAA
AGGTTATGAATCTCATCAGTAAATTGTCAGCCAAATTTGGAGGTCAAGCG**TAA**TGTCCTTCTGATAAATAAAGCC
CTTGCTGAAGGAAAAGCAACCTAGATCACCTTATGGATGTCGCAATAATACAAACCAGTGTACCTCTGACCTTCT
CATCAAGAGAGCTGGGGTGCTTTGAAGATAATCCCTACCCCTCTCCCCCAAATGCAGCTGAAGCATTTTACAGTG
GTTTGCCATTAGGGTATTCATTCAGATAATGTTTTCCTACTAGGAATTACAAACTTTAAACACTTTTTAAATCTT
CAAAATATTTAAAACAAATTTAAAGGGCCTGTTAATTCTTATATTTTTCTTTACTAATCATTTTGGATTTTTTTC
TTTGAATTATTGGCAGGGAATATACTTATGTATGGAAGATTACTGCTCTGAGTGAAATAAAAGTTATTAGTGCGA
GGCAAACATAACTCATTTGAGGATAAAGTTTGTGTTGGATATGTGGTTCCTGATGCATTTTGACTTGTCTTTTTA
AATGCTTTATCTTTTTCTTTAAAGATTTATTTCAATAAAACTAATTGGGACCACCCGTATTTCAGTAGGACCTGG
GTAGGGATTGGAAGTACTTGGCAGGGCAGCAGCAATCTTGCTGTGTTTGATATAACATGCATCCTTGGGCAGGTT
GCCCTTAAATCTTACACTGTGGTGAAGGGATGTTTTTTTTGTAATGCTGCAGTAGAGTTGGAGTACTTAGTTCTC
TTGTTGTCCAGTATATCTAATAAGTGTTTTTCATATTATTTCCACGTAAGGGAAATAAGGTAGTACTTTTCTTTT
TATATTTCTATGCTTAAAATTCTCTTTCCTAGTCAAAAATTGCCCAAATCTGTGTTTGCTTTCTGCTTGCTACAT
TTGTCTCCCTTACTTTTCTTGAGCTAAAGACAGGCTTTTTCCACCGGCATCATCACTGCTATCATCATTAACAGC
GTAATTATACAAGCATATTTAATGCTGAGTTTAATTTAATATGTAATACATATGGTAATTGTAGGGTAATACCCA
CAACAACTGTAGTTTCTTACTTGGCCAAGAGAATGCTTATTTAAGTGTTAGACTTCCATTCTGGCAAAATCTTGC
CTTATCAGAAGACATTGGAAAGAGGGATTCCCTTTGGTGTTTGGTCTTCTACTTAGAAAAACCTATTGCAGTTAG
TTTATCTTGTAGTATTCATCTTTGTATTCTGAAGATAAGGTTTGAATTAAATTGATACACACAGAGGGGAACCGA
TTTTTTTTATCCAATGTGAATTATAAATGAGATAATCCACAGTTATTCATTGTGGAGTTGTTGAGACTATGAAAG
ACTCATTGTCTTTGTATTCAGCTCTTAAATAGTGTAACTATATCCCCACCTCTGCTTGCTTTCTTTCCCTCCCCT
CCAATGATAAAGAAAATGATAAATTTTCTGTTGTGCATTCAATTCTTATTTTAAATAAGACTAAGTATAGGCATT
GTACCTGACATTGCTACGTTTCTACCAGTGTTTCAATTTAAAGTGCTAGTGTTTAAAAACATTTTCAAGGGATAA
GGCCTTCTGTACTTTGCTTATTTGAAGAATCAGTGGTAGGAGCAGTGAAGTAAATTCTATGGAGTACATTTCTAA
AATACCACATTTCTGAAATCATAAATAAGTTTATTCAGGTTCTAACCCTTTGCTGTACACAAGCAGACAGAAATG
CATCTGTTACATAAATGAGAAAAAGCTATTATGCTGATGGAGCATGCTTTTTAAATCCTTTAAAAACACTCACCA
TATAAACTTGCATTTGAGCTTGTGTGTTCTTTTGTTAATGTGTAGAGTTCTCCTTTCTCGAAATTGCCAGTGTGT
ACTTGGCTTAACTCAAGAACAGTTTCTTCTGGATTCCTTATTTGATTTATTTAACCTAATTATATTCTAATATTG
CAAATATTACCATAAGTGGGTAAAAGTAAAATTCCTCTTCTG

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FIGURE 1695

CCAAA**ATG**GCGGCAGCGATGGATGTGGATACCCCGAGCGGCACCAACAGCGGCGCGGGCAAGAAGCGCTTTGAAG
TGAAAAAGTGGAATGCAGTAGCCCTCTGGGCCTGGGATATTGTGGTTGATAACTGTGCCATCTGCAGGAACCACA
TTATGGATCTTTGCATAGAATGTCAAGCTAACCAGGCGTCCGCTACTTCAGAAGAGTGTACTGTCGCATGGGGAG
TCTGTAACCATGCTTTTCACTTCCACTGCATCTCTCGCTGGCTCAAAACACGACAGGTGTGTCCATTGGACAACA
GAGAGTGGGAATTCCAAAAGTATGGGCAC**TAG**GAAAAGACTTCTTCCATCAAGCTTAATTGTTTTGTTATTCATT
TAATGACTTTCCCTGCTGTTACCTAATTACAAATTGGATGGAACTGTGTTTTTTTCTGCTTTGTTTTTTCAGTTT
GCTGTTTCTGTAGCCATATTGTATTCTGTGTCAAATAAAGTCCAGTTGGATTCTGG

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FIGURE 1696

GCTCTTTCTCAGTGACCGGGTTCTAGGCTTAGGCGCAGACGGGTTAGGGGAGCCAAC**ATG**CCAGTGGCCCGGAGC
TGGGTTTGTCGCAAAACTTACGTGACCCCGCGGAGATCCTTTGAGAAATCTCGTCTCGACCAAGAGCTGAAGCTG
ATCGAAGAGTATGGGCTCCGGAATAAACGTGAGGTCTGGAGGGTCAAATTTACCCTGGCCAAGATAGAGGATTTC
TTAGAGAGACGCCTACAGACCCAGGTCTTCAAGCTGGGCTTGGCCAAGTCCATCCACCACGCTCGCGTGCTGATC
CGCCAGCGCCATTTCAGGGTCCGCAAGCAGGTGGTGAACATCCCGTCCTTCATTGTCCGCCTGGATTCCCAGAAG
CACATCGACTTCTCTCTGTGCTCTCCCTATGGGGGTGGCCGCCCGGGCCGCGTGAAGAGGAAGAATGCCAAGAAG
GGCCAGGGTGGGGCTGGGGCTGGAGACCACAAGGAGGAGGAT**TAA**GCCCACCTGTCCCTCCTGGGCTGCTGCATT
GTCTAGTTTTCCTGCCAAATAAACAGGATCAGCGCTTTAAAAAAAAAAAAA

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FIGURE 1697A

CTTGTTTGTGTGCTAGGCTGGGGGGGAGAGAGGGCGAGAGAGAGCGGGCGAGAGTGGGCAAGCAGGACGCCGGGC
TGAGTGCTAACTGCGGGAGCCAGAGAGTGCGGAGGGGAGTCGGGTCGGAGAGAGGCGGCAGGGGCCGAGACAGTG
GCAGGGGGCCCGGGGCGCACGGGCTGAGGCGACCCCCAGCCCCCTCCCGTCCGCACACACCCCCACCGCGGTCCA
GCAGCCGGGCCGGCGTCGACGCCTAGGGGGGACCATTACATAACCCCGCGCCCCGCGGCGTCTTCTCCCGCCGCC
GCGGGCGGCCCCGAACGGAGCCCCGGGGGGCGGGCGCTCCCAGCACCTGGCCGCCGGCGGTGGGGGCCGTAGCAG
CGGCCGTATTTATTTATTTTCCGCGGGAAAGGAAGGCGAAGGAGGGGAGCGCGGCGCGAGGAGGGGCCGCCTGCG
CCGCCGCCGGAGCGGGGCCTCCTCGGTGGGCTCCGCGTCGGCGCGGGCGTGCGGGCGGCGCTGCTCGGCCCGGCC
CCCTCGGCCCTCTGGTCCGGCCAGCTCCGCTCCCGGCGTCCTTGCCGCGCCTCCGCCGGCCGCCGCGCGATGTGA
GGCGGCGGCGCCAGCCTGGCTCTCGGCTCGGGCGAGTTCTCTGCGGCCATTAGGGGCCGGTGCGGCGGCGGCGGC
GCGGAGCGCGGCGGCAGGAGGAGGGTTCGGAGGGTGGGGGCGCAGGCCCGGGAGGGGGCACCGGGAGGAGGTGAG
TGTCTCTTGTCGCCTCCTCCTCTCCCCCCTTTTCGCCCCCGCCTCCTTGTGGCGATGAGAAGGAGGAGGACAGCG
CCGAGGAGGAAGAGGTTGATGGCGGCGGCGGAGCTCCGAGAGACCTCGGCTGGGCAGGGGCCGGCCGTGGCGGGC
CGGGGACTGCGCCTCTAGAGCCGCGAGTTCTCGGGAATTCGCCGCAGCGGACGCGCTCGGCGAATTTGTGCTCTT
GTGCCCTCCTCCGGGCTTGGGCCCAGGCCCGGCCCCTCGCACTTGCCCTTACCTTTTCTATCGAGTCCGCATCCC
TCTCCAGCCACTGCGACCCGGCGAAGAGAAAAAGGAACTTCCCCCACCCCCTCGGGTGCCGTCGGAGCCCCCCAG
CCCACCCCTGGGTGCGGCGCGGGGACCCCGGGCCGAAGAAGAGATTTCCTGAGGATTCTGGTTTTCCTCGCTTGT
ATCTCCGAAAGAATTAAAA**ATG**GCCGAGAATGTGGTGGAACCGGGGCCGCCTTCAGCCAAGCGGCCTAAACTCTC
ATCTCCGGCCCTCTCGGCGTCCGCCAGCGATGGCACAGATTTTGGCTCTCTATTTGACTTGGAGCACGACTTACC
AGATGAATTAATCAACTCTACAGAATTGGGACTAACCAATGGTGGTGATATTAATCAGCTTCAGACAAGTCTTGG
CATGGTACAAGATGCAGCTTCTAAACATAAACAGCTGTCAGAATTGCTGCGATCTGGTAGTTCCCCTAACCTCAA
TATGGGAGTTGGTGGCCCAGGTCAAGTCATGGCCAGCCAGGCCCAACAGAGCAGTCCTGGATTAGGTTTGATAAA
TAGCATGGTCAAAAGCCCAATGACACAGGCAGGCTTGACTTCTCCCAACATGGGGATGGGCACTAGTGGACCAAA
TCAGGGTCCTACGCAGTCAACAGGTATGATGAACAGTCCAGTAAATCAGCCTGCCATGGGAATGAACACAGGGAT
GAATGCGGGCATGAATCCTGGAATGTTGGCTGCAGGCAATGGACAAGGGATAATGCCTAATCAAGTCATGAACGG
TTCAATTGGAGCAGGCCGAGGGCGACAGAATATGCAGTACCCAAACCCAGGCATGGGAAGTGCTGGCAACTTACT
GACTGAGCCTCTTCAGCAGGGCTCTCCCCAGATGGGAGGACAAACAGGATTGAGAGGCCCCCAGCCTCTTAAGAT
GGGAATGATGAACAACCCCAATCCTTATGGTTCACCATATACTCAGAATCCTGGACAGCAGATTGGAGCCAGTGG
CCTTGGTCTCCAGATTCAGACAAAAACTGTACTATCAAATAACTTATCTCCATTTGCTATGGACAAAAAGGCAGT
TCCTGGTGGAGGAATGCCCAACATGGGTCAACAGCCAGCCCCGCAGGTCCAGCAGCCAGGCCTGGTGACTCCAGT
TGCCCAAGGGATGGGTTCTGGAGCACATACAGCTGATCCAGAGAAGCGCAAGCTCATCCAGCAGCAGCTTGTTCT
CCTTTTGCATGCTCACAAGTGCCAGCGCCGGGAACAGGCCAATGGGGAAGTGAGGCAGTGCAACCTTCCCCACTG
TCGCACAATGAAGAATGTCCTAAACCACATGACACACTGCCAGTCAGGCAAGTCTTGCCAAGTGGCACACTGTGC
ATCTTCTCGACAAATCATTTCACACTGGAAGAATTGTACAAGACATGATTGTCCTGTGTGTCTCCCCCTCAAAAA
TGCTGGTGATAAGAGAAATCAACAGCCAATTTTGACTGGAGCACCCGTTGGACTTGGAAATCCTAGCTCTCTAGG
GGTGGGTCAACAGTCTGCCCCCAACCTAAGCACTGTTAGTCAGATTGATCCCAGCTCCATAGAAAGAGCCTATGC
AGCTCTTGGACTACCCTATCAAGTAAATCAGATGCCGACACAACCCCAGGTGCAAGCAAAGAACCAGCAGAATCA
GCAGCCTGGGCAGTCTCCCCAAGGCATGCGGCCCATGAGCAACATGAGTGCTAGTCCTATGGGAGTAAATGGAGG
TGTAGGAGTTCAAACGCCGAGTCTTCTTTCTGACTCAATGTTGCATTCAGCCATAAATTCTCAAAACCCAATGAT
GAGTGAAAATGCCAGTGTGCCCTCCCTGGGTCCTATGCCAACAGCAGCTCAACCATCCACTACTGGAATTCGGAA
ACAGTGGCACGAAGATATTACTCAGGATCTTCGAAATCATCTTGTTCACAAACTCGTCCAAGCCATATTTCCTAC
GCCGGATCCTGCTGCTTTAAAAGACAGACGGATGGAAAACCTAGTTGCATATGCTCGGAAAGTTGAAGGGGACAT
GTATGAATCTGCAAACAATCGAGCGGAATACTACCACCTTCTAGCTGAGAAAATCTATAAGATCCAGAAAGAACT
AGAAGAAAAACGAAGGACCAGACTACAGAAGCAGAACATGCTACCAAATGCTGCAGGCATGGTTCCAGTTTCCAT
GAATCCAGGGCCTAACATGGGACAGCCGCAACCAGGAATGACTTCTAATGGCCCTCTACCTGACCCAAGTATGAT
CCGTGGCAGTGTGCCAAACCAGATGATGCCTCGAATAACTCCACAATCTGGTTTGAATCAATTTGGCCAGATGAG
CATGGCCCAGCCCCCTATTGTACCCCGGCAAACCCCTCCTCTTCAGCACCATGGACAGTTGGCTCAACCTGGAGC
TCTCAACCCGCCTATGGGCTATGGGCCTCGTATGCAACAGCCTTCCAACCAGGGCCAGTTCCTTCCTCAGACTCA
GTTCCCATCACAGGGAATGAATGTAACAAATATCCCTTTGGCTCCGTCCAGCGGTCAAGCTCCAGTGTCTCAAGC

FIGURE 1697B

ACAAATGTCTAGTTCTTCCTGCCCGGTGAACTCTCCTATAATGCCTCCAGGGTCTCAGGGGAGCCACATTCACTG
TCCCCAGCTTCCTCAACCAGCTCTTCATCAGAATTCACCCTCGCCTGTACCTAGTCGTACCCCCACCCCTCACCA
TACTCCCCCAAGCATAGGGGCTCAGCAGCCACCAGCAACAACAATTCCAGCCCCTGTTCCTACACCTCCTGCCAT
GCCACCTGGGCCACAGTCCCAGGCTCTACATCCCCCTCCAAGGCAGACACCTACACCACCAACAACACAACTTCC
CCAACAAGTGCAGCCTTCACTTCCTGCTGCACCTTCTGCTGACCAGCCCCAGCAGCAGCCTCGCTCACAGCAGAG
CACAGCAGCGTCTGTTCCTACCCCAACAGCACCGCTGCTTCCTCCGCAGCCTGCAACTCCACTTTCCCAGCCAGC
TGTAAGCATTGAAGGACAGGTATCAAATCCTCCATCTACTAGTAGCACAGAAGTGAATTCTCAGGCCATTGCTGA
GAAGCAGCCTTCCCAGGAAGTGAAGATGGAGGCCAAAATGGAAGTGGATCAACCAGAACCAGCAGATACTCAGCC
GGAGGATATTTCAGAGTCTAAAGTGGAAGACTGTAAAATGGAATCTACCGAAACAGAAGAGAGAAGCACTGAGTT
AAAAACTGAAATAAAAGAGGAGGAAGACCAGCCAAGTACTTCAGCTACCCAGTCATCTCCGGCTCCAGGACAGTC
AAAGAAAAAGATTTTCAAACCAGAAGAACTACGACAGGCACTGATGCCAACTTTGGAGGCACTTTACCGTCAGGA
TCCAGAATCCCTTCCCTTTCGTCAACCTGTGGACCCTCAGCTTTTAGGAATCCCTGATTACTTTGATATTGTGAA
GAGCCCCATGGATCTTTCTACCATTAAGAGGAAGTTAGACACTGGACAGTATCAGGAGCCCTGGCAGTATGTCGA
TGATATTTGGCTTATGTTCAATAATGCCTGGTTATATAACCGGAAAACATCACGGGTATACAAATACTGCTCCAA
GCTCTCTGAGGTCTTTGAACAAGAAATTGACCCAGTGATGCAAAGCCTTGGATACTGTTGTGGCAGAAAGTTGGA
GTTCTCTCCACAGACACTGTGTTGCTACGGCAAACAGTTGTGCACAATACCTCGTGATGCCACTTATTACAGTTA
CCAGAACAGGTATCATTTCTGTGAGAAGTGTTTCAATGAGATCCAAGGGGAGAGCGTTTCTTTGGGGGATGACCC
TTCCCAGCCTCAAACTACAATAAATAAAGAACAATTTTCCAAGAGAAAAAATGACACACTGGATCCTGAACTGTT
TGTTGAATGTACAGAGTGCGGAAGAAAGATGCATCAGATCTGTGTCCTTCACCATGAGATCATCTGGCCTGCTGG
ATTCGTCTGTGATGGCTGTTTAAAGAAAAGTGCACGAACTAGGAAAGAAAATAAGTTTTCTGCTAAAAGGTTGCC
ATCTACCAGACTTGGCACCTTTCTAGAGAATCGTGTGAATGACTTTCTGAGGCGACAGAATCACCCTGAGTCAGG
AGAGGTCACTGTTAGAGTAGTTCATGCTTCTGACAAAACCGTGGAAGTAAAACCAGGCATGAAAGCAAGGTTTGT
GGACAGTGGAGAGATGGCAGAATCCTTTCCATACCGAACCAAAGCCCTCTTTGCCTTTGAAGAAATTGATGGTGT
TGACCTGTGCTTCTTTGGCATGCATGTTCAAGAGTATGGCTCTGACTGCCCTCCACCCAACCAGAGGAGAGTATA
CATATCTTACCTCGATAGTGTTCATTTCTTCCGTCCTAAATGCTTGAGGACTGCAGTCTATCATGAAATCCTAAT
TGGATATTTAGAATATGTCAAGAAATTAGGTTACACAACAGGGCATATTTGGGCATGTCCACCAAGTGAGGGAGA
TGATTATATCTTCCATTGCCATCCTCCTGACCAGAAGATACCCAAGCCCAAGCGACTGCAGGAATGGTACAAAAA
AATGCTTGACAAGGCTGTATCAGAGCGTATTGTCCATGACTACAAGGATATTTTTAAACAAGCTACTGAAGATAG
ATTAACAAGTGCAAAGGAATTGCCTTATTTCGAGGGTGATTTCTGGCCCAATGTTCTGGAAGAAAGCATTAAGGA
ACTGGAACAGGAGGAAGAAGAGAGAAAACGAGAGGAAAACACCAGCAATGAAAGCACAGATGTGACCAAGGGAGA
CAGCAAAAATGCTAAAAAGAAGAATAATAAGAAAACCAGCAAAAATAAGAGCAGCCTGAGTAGGGGCAACAAGAA
GAAACCCGGGATGCCCAATGTATCTAACGACCTCTCACAGAAACTATATGCCACCATGGAGAAGCATAAAGAGGT
CTTCTTTGTGATCCGCCTCATTGCTGGCCCTGCTGCCAACTCCCTGCCTCCCATTGTTGATCCTGATCCTCTCAT
CCCCTGCGATCTGATGGATGGTCGGGATGCGTTTCTCACGCTGGCAAGGGACAAGCACCTGGAGTTCTCTTCACT
CCGAAGAGCCCAGTGGTCCACCATGTGCATGCTGGTGGAGCTGCACACGCAGAGCCAGGACCGCTTTGTCTACAC
CTGCAATGAATGCAAGCACCATGTGGAGACACGCTGGCACTGTACTGTCTGTGAGGATTATGACTTGTGTATCAC
CTGCTATAACACTAAAAACCATGACCACAAAATGGAGAAACTAGGCCTTGGCTTAGATGATGAGAGCAACAACCA
GCAGGCTGCAGCCACCCAGAGCCCAGGCGATTCTCGCCGCCTGAGTATCCAGCGCTGCATCCAGTCTCTGGTCCA
TGCTTGCCAGTGTCGGAATGCCAATTGCTCACTGCCATCCTGCCAGAAGATGAAGCGGGTTGTGCAGCATACCAA
GGGTTGCAAACGGAAAACCAATGGCGGGTGCCCCATCTGCAAGCAGCTCATTGCCCTCTGCTGCTACCATGCCAA
GCACTGCCAGGAGAACAAATGCCCGGTGCCGTTCTGCCTAAACATCAAGCAGAAGCTCCGGCAGCAACAGCTGCA
GCACCGACTACAGCAGGCCCAAATGCTTCGCAGGAGGATGGCCAGCATGCAGCGGACTGGTGTGGTTGGGCAGCA
ACAGGGCCTCCCTTCCCCCACTCCTGCCACTCCAACGACACCAACTGGCCAACAGCCAACCACCCCGCAGACGCC
CCAGCCCACTTCTCAGCCTCAGCCTACCCCTCCCAATAGCATGCCACCCTACTTGCCCAGGACTCAAGCTGCTGG
CCCTGTGTCCCAGGGTAAGGCAGCAGGCCAGGTGACCCCTCCAACCCCTCCTCAGACTGCTCAGCCACCCCTTCC
AGGGCCCCCACCTGCAGCAGTGGAAATGGCAATGCAGATTCAGAGAGCAGCGGAGACGCAGCGCCAGATGGCCCA
CGTGCAAATTTTTCAAAGGCCAATCCAACACCAGATGCCCCCGATGACTCCCATGGCCCCCATGGGTATGAACCC
ACCTCCCATGACCAGAGGTCCCAGTGGGCATTTGGAGCCAGGGATGGGACCGACAGGGATGCAGCAACAGCCACC

FIGURE 1697C

CTGGAGCCAAGGAGGATTGCCTCAGCCCCAGCAACTACAGTCTGGGATGCCAAGGCCAGCCATGATGTCAGTGGC
CCAGCATGGTCAACCTTTGAACATGGCTCCACAACCAGGATTGGGCCAGGTAGGTATCAGCCCACTCAAACCAGG
CACTGTGTCTCAACAAGCCTTACAAAACCTTTTGCGGACTCTCAGGTCTCCCAGCTCTCCCCTGCAGCAGCAACA
GGTGCTTAGTATCCTTCACGCCAACCCCCAGCTGTTGGCTGCATTCATCAAGCAGCGGGCTGCCAAGTATGCCAA
CTCTAATCCACAACCCATCCCTGGGCAGCCTGGCATGCCCCAGGGGCAGCCAGGGCTACAGCCACCTACCATGCC
AGGTCAGCAGGGGGTCCACTCCAATCCAGCCATGCAGAACATGAATCCAATGCAGGCGGGCGTTCAGAGGGCTGG
CCTGCCCCAGCAGCAACCACAGCAGCAACTCCAGCCACCCATGGGAGGGATGAGCCCCCAGGCTCAGCAGATGAA
CATGAACCACAACACCATGCCTTCACAATTCCGAGACATCTTGAGACGACAGCAAATGATGCAACAGCAGCAGCA
ACAGGGAGCAGGGCCAGGAATAGGCCCTGGAATGGCCAACCATAACCAGTTCCAGCAACCCCAAGGAGTTGGCTA
CCCACCACAGCAGCAGCAGCGGATGCAGCATCACATGCAACAGATGCAACAAGGAAATATGGGACAGATAGGCCA
GCTTCCCCAGGCCTTGGGAGCAGAGGCAGGTGCCAGTCTACAGGCCTATCAGCAGCGACTCCTTCAGCAACAGAT
GGGGTCCCCTGTTCAGCCCAACCCCATGAGCCCCCAGCAGCATATGCTCCCAAATCAGGCCCAGTCCCCACACCT
ACAAGGCCAGCAGATCCCTAATTCTCTCTCCAATCAAGTGCGCTCTCCCCAGCCTGTCCCTTCTCCACGGCCACA
GTCCCAGCCCCCCCACTCCAGTCCTTCCCCAAGGATGCAGCCTCAGCCTTCTCCACACCACGTTTCCCCACAGAC
AAGTTCCCCACATCCTGGACTGGTAGCTGCCCAGGCCAACCCCATGGAACAAGGGCATTTTGCCAGCCCGGACCA
GAATTCAATGCTTTCTCAGCTTGCTAGCAATCCAGGCATGGCAAACCTCCATGGTGCAAGCGCCACGGACCTGGG
ACTCAGCACCGATAACTCAGACTTGAATTCAAACCTCTCACAGAGTACACTAGACATACAC**TAG**AGACACCTTGT
AGTATTTTGGGAGCAAAAAAATTATTTTCTCTTAACAAGACTTTTTGTACTGAAAACAATTTTTTTGAATCTTTC
GTAGCCTAAAAGACAATTTTCCTTGGAACACATAAGAACTGTGCAGTAGCCGTTTGTGGTTTAAAGCAAACATGC
AAGATGAACCTGAGGGATGATAGAATACAAAGAATATATTTTTGTTATGGCTGGTTACCACCAGCCTTTCTTCCC
CTTTGTGTGTGTGGTTCAAGTGTGCACTGGGAGGAGGCTGAGGCCTGTGAAGCCAAACAATATGCTCCTGCCTTG
CACCTCCAATAGGTTTTATTATTTTTTTTAAATTAATGAACATATGTAATATTAATAGTTATTATTTACTGGTGC
AGATGGTTGACATTTTTCCCTATTTTCCTCACTTTATGGAAGAGTTAAAACATTTCTAAACCAGAGGACAAAAGG
GGTTAATGTTACTTTAAAATTACATTCTATATATATATAAATATATATAAATATATATTAAAATACCAGTTTTTT
TTCTCTGGGTGCAAAGATGTTCATTCTTTTAAAAAATGTTTAAAAAAAA

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FIGURE 1698

ATGGCCTCGGAAGACATTGCCAAGCTGGCAGAGACACTTGCCAAGACTCAGGTGGCCGGGGGACAGCTGAGTTTC
AAAGGCAAGAGCCTCAAACTCAACACTGCAGAAGATGCTAAAGATGTGATTAAAGAGATTGAAGACTTTGACAGC
TTGGAGGCTCTGCGTCTGGAAGGCAACACAGTGGGCGTGGAAGCAGCCAGGGTCATCGCCAAGGCCTTAGAGAAG
AAGTCGGAGTTGAAGCGCTGCCACTGGAGTGACATGTTCACGGGAAGGCTGCGGACCGAGATCCCACCAGCCCTG
ATCTCACTAGGGGAAGGACTCATCACAGCTGGGGCTCAGCTGGTGGAGCTGGACTTAAGCGACAACGCATTCGGG
CCCGACGGTGTGCAAGGCTTCGAGGCCCTGCTCAAGAGCTCAGCCTGCTTCACCCTGCAGGAACTCAAGCTCAAC
AACTGTGGCATGGGCATTGGCGGCGGCAAGATCCTGGCTGCAGCTCTGACCGAATGTCACCGGAAATCCAGTGCC
CAAGGCAAGCCTCTGGCCCTGAAGGTCTTTGTGGCTGGCAGAAACCGTCTGGAGAATGATGGCGCCACTGCCTTG
GCAGAAGCTTTTAGGGTCATCGGGACCCTGGAGGAGGTCCACATGCCACAGAATGGGATCAACCACCCTGGCATC
ACTGCCCTGGCCCAGGCTTTCGCTGTCAACCCCCTGCTGCGGGTCATCAACCTGAATGACAACACCTTCACTGAG
AAGGGCGCCGTGGCCATGGCCGAGACCTTGAAGACCTTGCGGCAGGTGGAGGTGATTAATTTTGGGGACTGCCTG
GTGCGCTCCAAGGGTGCAGTTGCCATTGCAGATGCCATCCGCGGCGGCCTGCCCAAGCTAAAGGAGCTGAACTTG
TCATTCTGTGAAATCAAGAGGGATGCTGCCCTGGCTGTTGCTGAGGCCATGGCAGACAAAGCTGAGCTGGAGAAG
CTGGACCTGAATGGCAACACCCTGGGAGAAGAAGGCTGTGAACAGCTTCAGGAGGTGCTGGAGGGCTTCAACATG
GCCAAGGTGCTGGCGTCCCTCAGTGATGACGAGGACGAGGAGGAGGAGGAGGAAGGAGAAGAGGAAGAAGAGGAA
GCAGAAGAAGAGGAGGAGGAAGATGAGGAAGAGGAGGAAGAAGAGGAGGAGGAGGAGGAAGAAGAGCCTCAGCAG
CGAGGGCAGGGAGAGAAGTCAGCCACGCCCTCACGGAAGATTCTGGACCCTAACACTGGGGAGCCAGCTCCCGTG
CTGTCCTCCCCACCTCCTGCAGACGTCTCCACCTTCCTGGCTTTTCCCTCTCCAGAGAAGCTGCTGCGCCTAGGG
CCCAAGAGCTCCGTGCTGATAGCCCAGCAGACTGACACGTCTGACCCCGAGAAGGTGGTCTCTGCCTTCCTAAAG
GTGTCATCTGTGTTCAAGGACGAAGCTACTGTGAGGATGGCAGTGCAGGATGCAGTAGATGCCCTGATGCAGAAG
GCTTTCAACTCCTCGTCCTTCAACTCCAACACCTTCCTCACCAGGCTGCTCGTGCACATGGGTCTGCTCAAGAGT
GAAGACAAGGTCAAGGCCATTGCCAACCTGTACGGCCCCCTGATGGCGCTGAACCACATGGTGCAGCAGGACTAT
TTCCCCAAGGCCCTTGCACCCCTGCTGCTGGCGTTCGTGACCAAGCCCAACAGCGCCCTGGAATCCTGCTCCTTC
GCCCGCCACAGTCTGCTGCAGACGCTGTACAAGGTC**TAG**

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FIGURE 1699

AGCAGAGGTCACCTCCTGACATGCGCTCTGGGAAAGGTGGCAGAGGGCAGGACACCATGAGCTCAGGATCTGTGT
GAGGTGTGGGAGGTGGGAAGGGTGAGGGTCTGGGGGAATGCGGAGAAAAGGGAGGCTTGACCCCGGGCACC**ATG**G
GCCACTCCAGGATGGGACACGGCCCCTCTTTCTTGGGGACCCAGTATGTCCTCTCCTCTAGACCCAGACATACAG
TTATAACCGTCTGTCCTAGCCCCTCCCTAATCCCTGGCCCTCCCAGCTGTCTGGGACTTCAGTGGACCCCCAGCC
CCTGCCCCCACTCACCAAGGCCTCGCTCGTCCCTCTCGTCTGACATGTCTGTGTGCACCCCCCTCCTCTCCACCC
TACCTTCCATCAACCAGGGCAGATCCACCGTGCCCTGGTTCCCCAGACATTCCAGAATGCCCCACATCATTGGCA
CAGGAGTGGGGCAGCCCCGGAAGGAACCAGGGATTAGGCTG**TAG**GGGGGTGAGAAGGAGAGAAGGGACCACCCCA
TTCTTCTCAAGCAAGGATTGCCAGCGCGCGCTGACACAGTGATGGGCTGCCCAGGGCTGGAGGGGACGCTGTTCC
TCCCGCCGCCACTGCCCAACCTTTCCTGATAATCGTGGCATGCGCCCTTTCCTCTTCCCTGCCCCACCCCCTGGC
CGCAGCAGGCCAGCACTGCAGAGTTTGGGTGCTGGTGGTGTGGCTGTAGGGGAGGGGAGACCACACCCAAGGTGG
GGGCTGTGGCCATGTGTGGCCGTGATGTCGATGATACTCGTTTTCCCTGATCCGTGGTGTTGCAGTCCGTTGTCA
CCAGCCTTGTTTCTAGTGTGTATATATGTCGCCCCCGTGATGCATATATACACAGGTATTAAATATATCGCTCTA
TATAATATTATATATGTGTGTGGTATCCAAGGAATCACTTTTATGAGGGCTAAAGATAAAGAATTTGGCCAGAAA
ATGCAGCCATCCTTGTGTGATTAGGAGGGTTTCAGGGGCCACTGGACTATTTGCAAGGTGACAGGGACTGGAGCC
ATGGCTCAGAGGTGATTCGGGCAGCCAGGGACAGGAGCCACCCTCCCCAGGCCCAACTCTGCTAGCTTCCCAGAC
CACCCCCATCGAGTGCGGAGAGAGTGGGAGTGCTCAGGGAAAGAAGGTGATTTGTATTTGTCTCCCCGCTGAAAA
GAACAGGATTCAAGTCCAGAGTTTTCATCTTCAGCCTGTGATCTGTCCAGGGACCCTTGGGATCTGGGGCTTCCT
GGCCTGGCCAGAGCTGGAGCCCCCACAGGGTAAGGAAGAGAGAGTGGGAGGCAGAGTGTGATGGGGAGGAGGGAC
AGGAAGACCCTTTTAATGATGAGGGTAACTATTTCAGTTGTGAGCCTTCTAGGGCCCCAGGCTGGGAGGCTCAGA
GGACTGAATCTGGGACCTGTGTTCCCCCCGGCAGGCAGGGACAAGATGGCATGGCAAGCATGGGGGCGGGGTGGG
TGGGGAGGGATGCTGCATTTCTCAGCTGGGCAGTAATCAATTTAATGGTCCTTTAAAATGTCTGTGTATTAAAAA
TTTAAGAATACCACACTTTAATATTAAATATTCATAAGGTCTAGTATCTTGATAATAATGTAGATGTTTTAATAA
CAATTTTTGTCCTTCTTAAAATAAAATGAAAGAAACTTG

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FIGURE 1700

ACTGGGGCCCACAGTCAGACATGAGCCACTGGTGGGGCAGAAATAGGCTCCTGGTTCTGTGTGATCCAAAGTTGG
TGCTTTTCTGTCTATCCCTAGCTGTTGGTCACCACCAGCTTTCTGCATATTTTCTCACGGTGCCTCTCATTTCCC
AGAGCCGCCTGGAGCCCAAGGCTGTACACGTGCCCTGTGCTGATTCTCTGCCTAGGAAAGGACC**ATG**CAGCTAGA
GATCAAAGTGGCCCTGAACTTCATCATCTCCTACTTGTACAACAAGCTGCCCCGGCGCCGGGCAGACCTGTTTGG
GGAGGAGCTAGAGCGGCTTTTGAAAAAGAAATATGAAGGCCACTGGTACCCTGAGAAGCCACTGAAAGGCTCTGG
CTTCCGCTGTGTTCACATTGGGGAGATGGTGGACCCCGTGGTGGAGCTGGCCGCCAAGCGGAGTGGCCTGGCGGT
GGAAGATGTGCGGGCCAATGTGCCTGAGGAGCTGAGTGTCTGGATTGATCCCTTTGAGGTGTCCTACCAGATTGG
TGAGAAGGGAGCTGTGAAAGTGCTGTACCTGGATGACAGTGAGGGTTGCGGTGCCCCAGAGCTGGACAAGGAGAT
CAAGAGCAGCTTCAACCCTGACGCCCAGGTGTTCGTGCCCATTGGCAGCCAGGACAGCTCCCTGTCCAACTCCCC
ATCGCCATCCTTTGGCCAGTCACCCAGCCCTACCTTCATTCCCCGCTCCGCTCAGCCCATCACCTTCACCACCGC
CTCCTTCGCTGCCACCAAATTTGGCTCCACTAAGATGAAGAAGGGGGGCGGGGCAGCAAGTGGTGGGGGTGTAGC
CAGCAGTGGGGCGGGTGGCCAGCAGCCACCACAGCAGCCTCGCATGGCCCGCTCACCCACCAACAGCCTGCTGAA
GCACAAGAGCCTCTCTCTGTCTATGCATTCACTGAACTTCATCACGGCCAACCCGGCCCCTCAGTCCCAGCTCTC
ACCCAATGCCAAGGAGTTCGTGTACAACGGTGGTGGCTCACCCAGCCTCTTCTTTGATGCGGCCGATGGCCAGGG
CAGCGGCACCCCAGGCCCGTTTGGAGGCAGTGGGGCTGGCACCTGCAACAGCAGCAGCTTTGACATGGCCCAGGT
ATTTGGAGGTGGTGCCAACAGCCTCTTCCTGGAGAAGACACCCTTTGTGGAAGGCCTCAGCTACAACCTGAACAC
CATGCAGTATCCCAGCCAGCAGTTCCAGCCCGTGGTGCTGGCCAAC**TGA**CCATCTACCTGCCCGTGGGGCCAGGA
GCACCCAAGACCACAGAAAAGAGAAAGGAAAGGCCAAAAAAAAGAGGAAAAG

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FIGURE 1701

AAAGCTCTGGGTGTGCGGCAGTACCATGTGGCCTCAGTCCTGTGCCAACGGGCCAAGGTGGCG**ATG**AGCCACTTT
GAGCCCAACGAGTACATCCATTATGACCTGCTAGAGAAGAACATTAACATTGTTCGCAAACGACTGAACCGGCCG
CTGACACTCTCGGAGAAGATTGTGTATGGACACCTGGATGACCCCGCCAGCCAGGAAATTGAGCGAGGCAAGTCG
TACCTGCGGCTGCGGCCGGACCGTGTGGCCATGCAGGATGCGACGGCCCAGATGGCCATGCTCCAGTTCATCAGC
AGCGGGCTGTCCAAGGTGGCTGTGCCATCCACCATCCACTGTGACCATCTGATTGAAGCCCAGGTTGGGGGCGAG
AAAGACCTGCGCCGGGCCAAGGACATCAACCAGGAAGTTTATAATTTCCTGGCAACTGCAGGTGCCAAATATGGC
GTGGGCTTCTGGAAGCCTGGATCTGGAATCATTCACCAGATTATTCTGGAAAACTATGCGTACCCTGGTGTTCTT
CTGATTGGCACTGACTCCCACACCCCCAATGGTGGCGGCCTTGGGGGCATCTGCATTGGAGTTGGGGGTGCCGAT
GCTGTGGATGTCATGGCTGGGATCCCCTGGGAGCTGAAGTGCCCCAAGGTGATTGGCGTGAAGCTGACGGGCTCT
CTCTCCGGTTGGTCCTCACCCAAAGATGTGATCCTGAAGGTGGCAGGCATCCTCACGGTGAAAGGTGGCACAGGT
GCAATCGTGGAATACCACGGGCCTGGTGTAGACTCCATCTCCTGCACTGGCATGGCGACAATCTGCAACATGGGT
GCAGAAATTGGGGCCACCACTTCCGTGTTCCCTTACAACCACAGGATGAAGAAGTACCTGAGCAAGACCGGCCGG
GAAGACATTGCCAATCTAGCTGATGAATTCAAGGATCACTTGGTGCCTGACCCTGGCTGCCATTATGACCAACTA
ATTGAAATTAACCTCAGTGAGCTGAAGCCACACATCAATGGGCCCTTCACCCCTGACCTGGCTCACCCTGTGGCA
GAAGTGGGCAAGGTGGCAGAGAAGGAAGGATGGCCTCTGGACATCCGAGTGGGTCTAATTGGTAGCTGCACCAAT
TCAAGCTATGAAGATATGGGGCGCTCAGCAGCTGTGGCCAAGCAGGCACTGGCCCATGGCCTCAAGTGCAAGTCC
CAGTTCACCATCACTCCAGGTTCCGAGCAGATCCGCGCCACCATTGAGCGGGACGGCTATGCACAGATCTTGAGG
GATCTGGGTGGCATTGTCCTGGCCAATGCTTGTGGCCCCTGCATTGGCCAGTGGGACAGGAAGGACATCAAGAAG
GGGGAGAAGAACACAATCGTCACCTCCTACAACAGGAACTTCACGGGCCGCAACGACGCAAACCCCGAGACCCAT
GCCTTTGTCACGTCCCCAGAGATTGTCACAGCCCTGGCCATTGCGGGAACCCTCAAGTTCAACCCAGAGACCGAC
TACCTGACGGGCACGGATGGCAAGAAGTTCAGGCTGGAGGCTCCGGATGCAGATGAGCTTCCCAAAGGGGAGTTT
GACCCAGGGCAGGACACCTACCAGCACCCACCCAAGGACAGCAGCGGGCAGCATGTGGACGTGAGCCCCACCAGC
CAGCGCCTGCAGCTCCTGGAGCCTTTTGACAAGTGGGATGGCAAGGACCTGGAGGACCTGCAGATCCTCATCAAG
GTCAAAGGGAAGTGTACCACTGACCACATCTCAGCTGCTGGCCCCTGGCTCAAGTTCCGTGGGCACTTGGATAAC
ATCTCCAACAACCTGCTCATTGGTGCCATCAACATTGAAAACGGCAAGGCCAACTCCGTGCGCAATGCCGTCACT
CAGGAGTTTGGCCCCGTCCCTGACACTGCCCGCTACTACAAGAAACATGGCATCAGGTGGGTGGTGATCGGAGAC
GAGAACTACGGCGAGGGCTCGAGCCGGGAGCATGCAGCTCTGGAGCCTCGCCACCTTGGGGGCCGGGCCATCATC
ACCAAGAGCTTTGCCAGGATCCACGAGACCAACCTGAAGAAACAGGGCCTGCTGCCTCTGACCTTCGCTGACCCG
GCTGACTACAACAAGATTCACCCTGTGGACAAGCTGACCATTCAGGGCCTGAAGGACTTCACCCCTGGCAAGCCC
CTGAAGTGCATCATCAAGCACCCCAACGGGACCCAGGAGACCATCCTCCTGAACCACACCTTCAACGAGACGCAG
ATTGAGTGGTTCCGCGCTGGCAGTGCCCTCAACAGAATGAAGGAACTGCAACAG**TGA**GGGCAGTGCCTCCCCGCC
CCGCCGCTGGCGTCAAGTTCAGCTCCACGTGTGCCATCAGTGGATCCGATCCGTCCAGCCATGGCTTCCTATTCC
AAG

FIGURE 1702A

GTGATACGAGCGGCGGCACGTGGCGCGGGTGCGGGGCGTGGAGTGGCGTGGCGTGGAGTGGCGTGGCGTGGCGGG
GTCTCGCGGCGCGGGCGCGCACCCGGAGCTGTGGACGGAGAGTGCCTCCCTCTGGCCTCAGTTTCCTCATGTTGT
AGTAGCGGAGCATGGCCCGGACCGGGCCCCCGAGACCGCCCCGTGCAACCTCACCGCCAGCCTGGGGGCCTCAGC
GACTGGGACGGGACCAAGGGGCTCGGGGATTCTCCCTGCCCCCGGCCCTGGTGCGTGACTGACCCTCCTGTTCCC
AGAGCCCCCAGCGCAGGCCGGGATGTTCGTCCTGGTGGAAATGGTGGACACCGTCCGGATCCCCCCTTGGCAGTT
TGAGAGGAAGCTCAACGACTCCATTGCCGAGGAGCTGAACAAGAAGTTGGCCAACAAGGTCGTGTACAACGTGGG
ACTCTGCATTTGTCTGTTTGATATCACCAAACTGGAGGATGCCTATGTATTCCCTGGGGATGGCGCATCACACAC
CAAAGTCCATTTTCGCTGCGTGGTGTTTCATCCATTCCTAGATGAGATTCTCATTGGGAAGATCAAAGGCTGCAG
CCCAGAAGGAGTGCACGTCTCTCTAGGCTTCTTCGATGACATTCTCATCCCCCCAGAGTCACTGCAGCAGCCAGC
CAAGTTCGACGAAGCGGAGCAGGTGTGGGTGTGGGAGTACGAGACGGAGGAAGGAGCACACGACCTCTACATGGA
CACCGGCGAGGAGATCCGCTTCCGGGTGGTGGACGAGAGCTTTGTTGACACGTCCCCCACAGGGCCCAGCTCAGC
AGATGCCACCACTTCCAGTGAGGAGCTGCCAAAGAAGGAGGCTCCGTACACGCTTGTGGGATCCATCAGTGAGCC
AGGCCTGGGCCTTCTCTCCTGGTGGACCAGCAACTAGCCCTGGGGCTGGACAGTGGACCCTACCAGCCTGCGGGA
AGGTGGTATGGCCGGCTGTGAAGACAACAGCAGCTGAGGCCGATGCTAAGGAGATAGTGTCTCGAGCTGGACAGT
GAGGCAAGGCCAGGAGTGCCCACCAGCTTGCCCCGCTCCTCCACCATCTAGGCCCTGCTCCTCCTTCACTGCAGT
GATGGATCCATCTGTGGCTGTGGCTGTTGGGCCTCCACTGACCTTGACTGAAAAGACCCTTCCTGGACCCTGGAC
TTGACAACAAACGGCACAGACACCAATCACTCACAGAACAGTCACTGGTTTTGGATTCTTGTTTTCCTTGCAAGA
ACAAAAGGTTCTCTAGAATCCTTCAGCCACCAATGAAATGATCAGGCAGGAGAAAAACTTTAGATGGGAGTCTTG
TCATCAAAAATAAATACAGTTGCATGGAGCTGCTTAAGATCTGAACCAAACTCAAAATAGGAAGACGGGGGCTAA
AAAGTTATTTTAAGAACCCCCCCACCACAACCACAGTCACTCCGTGGGCTAAGCGGGGAGCAGGAAGCATGTCTG
GTCACACCATCTTGGAATAGGAAGCC**ATG**GCTGGACGGATCGGATCCACTGATGGCACACGTGGAGCTGAACTTG
ACGCCAGCGGCGGGGCGGGGAGGCACTGCCCTCACTGTTGCAGTTCCTTCATTCTGTTGAGGGCACTGCCAGCGC
GGAACCACTCAATCTGCGTCTCGTTGAAGGTGTGGTTCAGGAGGATGGTCTCCTGGGTCCCGTTGGGGTGCTTGA
TGATGCACTTCAGGGGCTGCAAGGAGAAGGTGGGTGTGGGTGGAAGTGGTGGGTACTGTGTGCCCTTGGCCCCGC
AGGGGGGTCAGGGAGACAGGGCACTGCCTGGGGACCTAAGAGGTCAGCAGGCAAACCAAATCCTAGGCCAGTCTG
TGCCTGATGGCCCAGGTCAGACCCAGGTGGCACCTACAGGGGATTCCTGGGGCCCAGAGGGTCCTGCAGTGGGTG
GGCTGTCCCCTGAGTGCCAGGTCCTGGTGAGTAAAGGGAGGTTGGGGAGGTGTGAGGGCCCCGGGTTGACTCCAA
CCCCCAACTCTGAGAAGCCACTTTGCTTTCTCTGTGGGGCCACCTGGAGAACTGGGGGCCTTTCCAGCTGGAATG
AAGCCTCCTGGGAGAAGCTACCCTGGGGCCAGTGCAGGAGGGGAAACAAGGTGGCTGCCCCTCACCCCACCACCT
CAGGGGGACCCGGGCCCCTAACCTTGCCAGGGGTGAAGTCCTTCAGGCCC**TGA**ATGGTCAGCTTGTCCACAGGGT
GAATCTTGTTGTAGTCAGCCGGGTCAGCGAAGGTCAGAGGCAGCAGGCCCTGTTTCTTCAGGTTGGTCTCTGGAA
AGCAGGCGGCATTCGGTCATCGGGGGCCTGACTAGCCTGGAGAGCTTCATTTTCTGAACCCATCTGGGGCTCTGG
GAGATGCCCCTAATCCTGCTGCCTGGGACAATGCCCGGGCAGTGACTATGGGGCCCTGGTCTGCTCCCTTTCACT
AGGGGTGCCCCTAGCAAGTGTGCGCTGGTGCTGAGGTCTGCGAGGCCTTCCTGCTGCACATTCATGATCAGAAAG
AACCCCCTGGCACATGTCCTAGATCTCAGCGGCTCAGATCTACAAGCCTGGAAGCAGGGCCTGCGGGAAGCCGGG
AAGCTGAGCGTCGGATGTGCACTGTGTGAGCCTAAGAAGGGGCAAGAGGCTGACGGGCCTGTGGGCTGCAGTGGA
CACAGCCTAGAACCAGGCCCAACTCAGCCACGGGCAGGGAGAGTGACCTTGATCACTAGGGATGGGATGAGGATG
GCCTGGGTACAGACTCCAGCTCACCGTGGATCCTGGCAAAGCTCTTGGTGATGATGGCCCGGCCCCCAAGGTGGC
GAGGCTCCAGAGCTGCATGCTCCCGGCTCGAGCCCTCGCCGTAGTTCTCGTCTCCGATCACCACCCACCTGATGC
CATGTTTCTGTCAGGCAAGCGGGGGTAAGGTTATAAGGCAGAGGAGGGCACCGTCCTCACCTGTCTGGCCCTACC
TGCCTGGCCTCACCCACCTGGCGCCTGGGCATCCTGAGGCTCCCGGTAAAGGGGCTGGAGGGGCCCTTCCTCGCC
TGCTGCCTAAGGGCAAGTGAAGCCTGCGTGAATGAGACCCAAACGAGGCCCCGAGGGGACAGAGGCACGTGGTTG
TTTGCAGTGGCAAAGAAGACAGAAGCCACCCATTGGTGCTTGGCAGAGGCAGGTGTGTGTGGAGGGAGGTTGGGT
GAGACAGGGACGGCCTCCGGGCCCCACACAAGATGCATCTGTGAAGCTCAAGGCGCCCCCTTCCTGGGAGCACCC
TCTGCCCCACCCAGCCACCAGGGGGTGCCAGAGTCCTTTCACCCGGCTGGGCCAGGACTTGGGTTCAGCCCTGGT
TCTGTTTGTTTCTCAAAGCAGAAAAAGTCCAATCACCTCAGACCCTCTCTGCCTGCTCACTGTGAGGCCCCGTGT
AGCCCCCTCTCTGAGCTTTTGGCCTCTGACTTCCTGAGTCGGCCCCCTTCCTTGTCTTTGTCTAGGGCCAGATAT
CCTAAGATATCTCTCACTAACTCCTCCTGGTGCAGGGACCCGGCTGTACCACCGGACCTGGGCCTCATGCCTTCT

FIGURE 1702B

CAGCCACAGGGAGGGGCTGCAGGCCTCTCCTCCCTTCCACAGCAGTCCCCTTTGGGCTTGGTCGGCCTCCTTCCC
AGTTTCCACTCCCCTAATGTCCTCCCTGCACCTGCCTTGCAGGCCCCTTCAGGAGTGACCACTGGCATTGCCCCT
ATCAACTCTGACCCACCTTGTAGTAGCGGGCAGTGTCAGGGACGGGGCCAAACTCCTGAGTGACGGCATTGCGCA
CGGAGTTGGCCTTGCCGTTTTCAATGTTGATGGCACCAATGAGCAGGTTGTTGGAGATGTTATCCAAGTGCCCAC
GGAACTTGAGCCAGGGGCCAGCAGCTGAGATGTGGTCAGTGGTACACTTCCCTTTGACCTTGGGTGGTAAGTAGA
GAGGACAGAGGTCAGGGCATGGCCCTGGAGGGGTGGATGACAAGCCCTCCAGAGGCAGGCAGCAGGCCCCGGGGC
CCAGGAGGGGTGACAGAGGGGTGAGAGGCAGGCAAGTCTTCAGACACGTGTTCTGTGGTCCTGGTGCTTCCACCC
TAAGGCCACATGGGCTCAGGCCAGGCCTTCATCCCCTCAAAGGCCTCTGGCTGCTCAGTCTCCCTTATGGGGCAG
AGGCCGCCCAAAGTTGGGACAGGTCAATGTTCGCTCACCCTTCAGGCCTCAGCTGCAAGATCAGCCACAGACCTC
ATGCTGGACACAGGAGCCCAGGACATGCCTGGGTCCTGGCTGATGACTGATTAGTCTCTTCTGTCACAGGGGTGC
CTGGAGACCCCTTAATAAGCAGCATAAATAAATATCTGACACAGATTGGAGGCCTCTGGCCACACC

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FIGURE 1703

AGCC**ATG**GCAGTCACCGCCCAGGCAGCCCGCAGGAAGGAGCGCGTCCTCTGCCTGTTTGACGTGGACGGGACCCT
CACGCCGGCTCGCCAGAAAATTGACCCTGAGGTGGCCGCCTTCCTGCAGAAGCTACGAAGTAGAGTGCAGATCGG
TGTGGTGGGCGGCTCTGACTACTGTAAGATCGCTGAGCAGCTGGGTGACGGGGATGAAGTCATTGAGAAGTTTGA
TTATGTGTTTGCCGAGAACGGGACGGTGCAGTATAAGCACGGACGACTGCTCTCCAAGCAGACCATCCAGAACCA
CCTGGGGGGAGGAGCTGCTGCAGGACTTGATCAACTTCTGCCTCAGCTACATGGCCCTGCTCAGGCTGCCCAAGAA
GCGTGGAACCTTCATCGAGTTCCGGAATGGCATGCTGAACATCTCGCCCATCGGCCGGAGCTGCACCCTGGAGGA
GAGGATCGAGTTCTCCGAACTGGACAAGAAAGAGAAGATCCGGGAGAAGTTCGTGGAAGCCCTGAAAACAGAGTT
TGCTGGCAAAGGGCTGAGGTTCTCTCGAGGAGGCATGATCAGCTTTGACGTCTTCCCCGAGGGCTGGGACAAGCG
CTACTGCCTGGATAGCCTGGACCAGGACAGCTTCGACACCATCCACTTCTTTGGGAACGAGACTAGCCCTGGTGG
GAACGACTTTGAGATCTTTGCCGACCCCCGGACTGTTGGCCACAGCGTGGTGTCTCCTCAGGACACGGTGCAGCG
ATGCCGGGAGATTTTCTTCCCAGAGACAGCTCATGAGGCG**TGA**CCGGGGCCCACATCTGTGTGTCGTGACTTCTG
AAGAGTTTGGCCTAGGCCTAAAGAGAGGTCCTGGTGTTGGATAGATGCCAGGGCCCCTCCTCTGGCCCAGGACGC
CTGCTGCAAGCCCACCCAGATGGGGCCAGAGTCTGTGTGGACAACCGTCCCCAGCCAGTCTGCTCCTAGTGGCAC
TGGCTTCGTCCTCCCAGGGCCCAGAGTGTTCCCCATGCTCCACCTGGTGGCCCAGGCCACAGCTGCTGCTTGTAT
TTCGGTACAGAAGAGGTTTCTTTCTGCACCAGGAGGAGGCGTGCTCAAGTATCGGTACGAGATCTAGCCTGCCCT
GCCTGCCTGCCCTGGGCGATGAGGTACGGTGGGGAAGGTGCCTATTTTAGAGAACTTTGTCACAGTATTAAAGTT
CCC

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FIGURE 1704

CCGGTAGCGGGTGTGGGGGCGCGAGCAGCGCAGGGCGGCCTCTCCCCCACCCCTCAGCCCGGGCCCGGGCTCGGT
CCCCCCCCTCTCCCTCCGCTTCGCACTCCCGTCGGGTACGGGAAGGTCCAAGCCGCTGCCGGGTGCCCGAGGGCCG
TCGTGGCCGCCGTCGCCACGGGTCCCA**ATG**GAGCCGCCGAATCTCTATCCGGTGAAGCTCTACGTGTACGACCTG
TCCAAAGGCCTGGCCCGGCGGCTCAGCCCCATCATGCTGGGGAAACAACTGGAAGGCATCTGGCACACATCCATA
GTTGTGCACAAGGATGAGTTCTTCTTCGGCAGTGGTGGTATCTCCAGCTGCCCCCCGGGAGGGACATTGCTTGGG
CCTCCAGACTCTGTGGTTGATGTGGGGAGTACAGAAGTCACAGAAGAAATCTTTCTGGAGTACCTCTCCTCCCTG
GGGGAGTCCCTGTTCCGAGGTGAGGCCTACAACCTCTTTGAACACAATTGTAACACCTTCAGCAACGAAGTGGCA
CAGTTCCTGACTGGGCGGAAGATTCCTTCTTACATCACAGACCTGCCCTCTGAAGTTCTCTCCACGCCCTTTGGA
CAGGCACTTCGGCCCCTCCTGGACTCCATTCAGATCCAGCCTCCAGGAGGGAGCTCCGTGGGCAGACCCAACGGC
CAGAGC**TAA**CAGGACTGCCTGGGACCGCCCTGCCTCACCAGGGCTTTTCCTTTTTAAACAAAACAAACCCTACCA
GATTTCTATTTTATAATTTTACATCAGAGCTAACAACCAGGGGACGGCTTTTTAAATTTCCCAGGGAAGGAGACC
GTCAGGCCGCATGTAGACAATGCTGCTAAGAAACAGAACAAAATGCCACCCCTTCTAATAGTATTATACTAATTT
ATTAAGGCTGTCTTGTCTGTGCGTTCACTTCGGATGCTGTTTCCTAAGCGTCCTCCACACTGGAGAAAGGGAGGG
GCTTTGTTTAAACAGAAAGCGAGTCACAGTTTGCGGGAGCCCCAACCTAGAACTCTTTCCAGAGAACACTCACGC
TCTACCCAAGTTGCCAACACCTGTGGGACCCAGGTGAGTTTTAGAACATCCGTGACCCAGAAAGTTACTCTAGTG
TTAAATGAACCAAAGGATTTGGTGTACATGGGACCGGTTTCAGGATGACTAACCTAACCTAAGTGAACTCTTTAG
CCACAACCCTCACCTTCCCTCCCTTACCCCAAGCAAGGCCAGTGCTGGAGCAGCCATTGCCTCCGGATCAAGGGA
GTAACAGCAAGTATCAGGCCGGAGAAAACAGGATAAAGCCATTCCTCCTTCCACCTAGATGGATTGCCAATCTTC
TGCCATCAATTTTGGGAAACCTGCCTTTGTGCCCCCGAGGCTGCCTTTCCTCAGCATAGCTGACTTGTCATAGTG
GATGAGGTCTGGGCTGGAGCAGTAGAAGCCAAGGCCTTTTTTCTGCAAGTAATGATGTAGGTTATTTGCAGTCTC
TGTAACCACCATCCAGGCCAGTACGCAGTATTTAGCTGGGGACCAAGGGATGGGATTCCCTACTCTAAGAAAATA
CCTTTATTTTAATTATTATTATTTTTTGAGACGGAGTCTCGCTCTACCACCCAGGCTGGTGTGCAGTGGCATGAT
CTCGGCTCACAGAATCGCTTGAACCCGGGAGGCAGAGATTGCGATGAGCCGAGATCGTACCAGTGCACTCCAGCC
TGGGCGACAGAGTGAGACTCCATCTCAAAAAAATAAAATAATGAAGTGGAATCAAGGTGGCAAGAAAATTTAGAA
TCGTTTCTGATAGGGACTTTCCCTTATCCTAAATGTGTTTTGAAGGCACACGTTATTTCCATTGTCATTCTGACT
TTAGAAAGGCAGGTTGGGGCATGAGTGGGCATTTTCCTAATGACTTGCTGCTAGGAGGTTATAGGCAGGGAACAG
TCTGGGAGTC

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FIGURE 1705

GCGGGCCGTTATCCATTTGTGTTGTTCGCCAGCTAGGCCTGGCCTCGTCCCGCTTCGCTCGGTCGGTCTCGCGCG
CCCCCATAGCCTTGCTAGAGGGTTAGCGTTAGCCTTAAGTGTGCGAATCCGAGGAGCAGCGACAGACTCGAGACC
ACGCTCCTTCCTCGGGAAGGAGGCGGCACCTCGCGTTTGAGGCCCGCCTGCGTTTGAGGCCCGCCTGCGCTTGCG
GCCCGCCTGCGCTTGAGGCCTGTCTGCGTTTGAGATCTCATTGGGCGTGATTGAGGAATTTGGGGAGGTTTTTGG
GCGGTATTGAGGACGAGGGGGTCCGTTAGTCAGCATAGAATCCTGGAGCGGGAATCCCTCACCGTCTAAATGGCG
TCGGGGGCGGGACCTCCGGGATCTGGCTTCCGCGGGCCGCCGCCGGCCCTGAAACGTGAGGGATAGCTGAGATGA
GGCAGCTACTGGGATGGCCCCCATGCGCATTTACATGCAGTCCGACTGCCGAGCTTTCGAGGCAGCAGGATTTAC
CGTCCACATTCCTCACTACTAACCAAGCTTTTAGAACAGATCTCACAAGAACCTAGAGGTCGGTATTTTTTCGAT
TTAAATTTGCCTGTTACTGACGTTAACGTCTTTCGCCTAGTGAGCAGTAGCCAAC**ATG**TCAGGGTGGGAGTCATA
TTACAAAACCGAGGGCGATGAAGAAGCAGAGGAAGAACAAGAAGAGAACCTTGAAGCAAGTGGAGACTATAAATA
TTCAGGAAGAGATAGTTTGATTTTTTTGGTTGATGCCTCCAAGGCTATGTTTGAATCTCAGAGTGAAGATGAGTT
GACACCTTTTGACATGAGCATCCAGTGTATCCAAAGTGTGTACATCAGTAAGATCATAAGCAGTGATCGAGATCT
CTTGGCTGTGGTGTTCTATGGTACCGAGAAAGACAAAAATTCAGTGAATTTTAAAAATATTTACGTCTTACAGGA
GCTGGATAATCCAGGTGCAAAACGAATTCTAGAGCTTGACCAGTTTAAGGGGCAGCAGGGACAAAAACGTTTCCA
AGACATGATGGGCCACGGATCTGACTACTCACTCAGTGAAGTGCTGTGGGTCTGTGCCAACCTCTTTAGTGATGT
CCAATTCAAGATGAGTCATAAGAGGATCATGCTGTTCACCAATGAAGACAACCCCCATGGCAATGACAGTGCCAA
AGCCAGCCGGGCCAGGACCAAAGCCGGTGATCTCCGAGATACAGGCATCTTCCTTGACTTGATGCACCTGAAGAA
ACCTGGGGGCTTTGACATATCCTTGTTCTACAGAGATATCATCAGCATAGCAGAGGATGAGGACCTCAGGGTTCA
CTTTGAGGAATCCAGCAAGCTAGAAGACCTGTTGCGGAAGGTTCGCGCCAAGGAGACCAGGAAGCGAGCACTCAG
CAGGTTAAAGCTGAAGCTCAACAAAGATATAGTGATCTCTGTGGGCATTTATAATCTGGTCCAGAAGGCTCTCAA
GCCTCCTCCAATAAAGCTCTATCGGGAAACAAATGAACCAGTGAAAACCAAGACCCGGACCTTTAATACAAGTAC
AGGCGGTTTGCTTCTGCCTAGCGATACCAAGAGGTCTCAGATCTATGGGAGTCGTCAGATTATACTGGAGAAAGA
GGAAACAGAAGAGCTAAAACGGTTTGATGATCCAGGTTTGATGCTCATGGGTTTCAAGCCGTTGGTACTGCTGAA
GAAACACCATTACCTGAGGCCCTCCCTGTTCGTGTACCCAGAGGAGTCGCTGGTGATTGGGAGCTCAACCCTGTT
CAGTGCTCTGCTCATCAAGTGTCTGGAGAAGGAGGTTGCAGCATTGTGCAGATACACACCCCGCAGGAACATCCC
TCCTTATTTTGTGGCTTTGGTGCCACAGGAAGAAGAGTTGGATGACCAGAAAATTCAGGTGACTCCTCCAGGCTT
CCAGCTGGTCTTTTTACCCTTTGCTGATGATAAAAGGAAGATGCCCTTTACTGAAAAAATCATGGCAACTCCAGA
GCAGGTGGGCAAGATGAAGGCTATCGTTGAGAAGCTTCGCTTCACATACAGAAGTGACAGCTTTGAGAACCCCGT
GCTGCAGCAGCACTTCAGGAACCTGGAGGCCTTGGCCTTGGATTTGATGGAGCCGGAACAAGCAGTGGACCTGAC
ATTGCCCAAGGTTGAAGCAATGAATAAAAGACTGGGCTCCTTGGTGGATGAGTTTAAGGAGCTTGTTTACCCACC
AGATTACAATCCTGAAGGGAAAGTTACCAAGAGAAAACACGATAATGAAGGTTCTGGAAGCAAAAGGCCCAAGGT
GGAGTATTCAGAAGAGGAGCTGAAGACCCACATCAGCAAGGGTACGCTGGGCAAGTTCACTGTGCCCATGCTGAA
AGAGGCCTGCCGGGCTTACGGGCTGAAGAGTGGGCTGAAGAAGCAGGAGCTGCTGGAAGCCCTCACCAAGCACTT
CCAGGAC**TGA**CCAGAGGCCGCGCGTCCAGCTGCCCTTCCGCAGTGTGGCCAGGCTGCCTGGCCTTGTCCTCAGCC
AGTTAAAATGTGTTTCTCCTGAGCTAGGAAGAGTCTACCCGACATAAGTCGAGGGACTTTATGTTTTTGAGGCTT
TCTGTTGCCATGGTGATGGTGTAGCCCTCCCACTTTGCTGTTCCTTACTTTACTGCCTGAATAAAGAGCCCTAAG
TTTGTACT

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FIGURE 1706

ATCCGTGTCCTTGCGGTGCTGGGCAGCAGACCGTCCAAACCGACACGCGTGGTATCCTCGCGGTGTCCGGCAAGA
GACTACCAAGACAGACGCT**ATG**ACTGAGGCTGATGTGAATCCAAAGGCCTATCCCCTTGCCGATGCCCACCTCAC
CAAGAAGCTACTGGACCTCGTTCAGCAGTCATGTAACTATAAGCAGCTTCGGAAAGGAGCCAATGAGGCCACCAA
AACCCTCAACAGGGGCATCTCTGAGTTCATCGTGATGGCTGCAGACGCCGAGCCACTGGAGATCATTCTGCACCT
GCCGCTGCTGTGTGAAGACAAGAATGTGCCCTACGTGTTTGTGCGCTCCAAGCAGGCCCTGGGGAGAGCCTGTGG
GGTCTCCAGGCCTGTCATCGCCTGTTCTGTCACCATCAAAGAAGGCTCGCAGCTGAAACAGCAGATCCAATCCAT
TCAGCAGTCCATTGAAAGGCTCTTAGTC**TAA**ACCTGTGGCCTCTGCCACGTGCTCCCTGCCAGCTTCCCCCCTGA
GGTTGTGTATCATATTATCTGTGTTAGCATGTAGTATTTTCAGCTACTCTCTATTGTTATAAAATGTAGTACTAA
ATCTGGTTTCTGGATTTTTGTGTTGTTTTTGTTCTGTTTTACAGGGTTGCTATCCCCCTTCCTTTCCTCCCTCCC
TCTGCCATCCTTCATCCTTTTATCCTCCCTTTTTGGAACAAGTGTTCAGAGCAGACAGAAGCAGGGTGGTGGCAC
CGTTGAAAGGCAGAAAGAGCCAGGAGAAAGCTGATGGAGCCAGGACAGAGATCTGGTTCCAGCTTTCAGCCACTA
GCTTCCTGTTGTGTGCGGGGTGTGGTGGAATTAAACAGCATTCATTGTGTGTCCCTGTGCCTGGCACACAGAATC
ATTCATACGTGTTCAAGTGATCAAGGGGTTTCATTTGCTCTTGGGGGATTAGGTATCATTTGGGGAGGAAGCATG
TGTTCTGTGAGGTTGTTCGGCTATGTCCAAGTGTCGTTTACTAATGTACCCCTGCTGTTTGCTTTTGGTAATGTG
ATGTTGATGTTCTCCCCCTACCCACAACCATGCCCTTGAGGGTAGCAGGGCAGCAGCATACCAAAGAGATGTGCT
GCAGGACTCCGGAGGCAGCCTGGGTGGGTGAGCCATGGGGCAGTTGACCTGGGTCTTGAAAGAGTCGGGAGTGAC
AAGCTCAGAGAGCATGAACTGATGCTGGCATGAAGGATTCCAGGAAGATCATGGAGACCTGGCTGGTAGCTGTAA
CAGAGATGGTGGAGTCCAAGGAAACAGCCTGTCTCTGGTGAATGGGACTTTCTTTGGTGGACACTTGGCACCAGC
TCTGAGAGCCCTTCCCCTGTGTCCTGCCACCATGTGGGTCAGATGTACTCTCTGTCACATGAGGAGAGTGCTAGT
TCATGTGTTCTCCATTCTTGTGAGCATCCTAATAAATCTGTTCCATTTTG

FIGURE 1707A

CCGTCGGTGAGGCGGTGCCGGGCGGGGGTTGTCGGGTGTCATGGGCGGTGGCGACGGCACCGCCCCCGCGTCTCC
CTGAGCGGGACGGCAGGGGGGGCTTCTGCGCTGAGCCGGGCG**ATG**GACGACAGCGGCGAGCTGGGTGGTCTGGAG
ACCATGGAGACCCTCACGGAGCTGGGCGACGAGCTGACCCTGGGAGACATCGACGAGATGCTGCAATTTGTCAGT
AATCAAGTGGGAGAGTTCCCTGACTTGTTTTCAGAACAGCTGTGTAGCTCCTTTCCTGGCAGTGGTGGTAGTGGT
AGCAGCAGCGGCAGCAGTGGCAGCAGCAGCAGCAGCAATGGCAGGGGCAGCAGCAGCGGAGCTGTGGACCCT
TCAGTGCAACGGTCATTCACCCAGGTCACATTACCTTCCTTCTCTCCCTCGGCGGCCTCCCCACAGGCTCCAACT
CTGCAAGTCAAGGTTTCTCCCACCTCAGTTCCCACCACACCCAGGGCAACTCCTATTCTTCAGCCCCGCCCCCAG
CCCCAGCCTCAACCTCAAACTCAGCTGCAACAACAGACGGTAATGATCACGCCAACATTCAGCACCACTCCGCAG
ACGAGGATCATCCAGCAGCCTTTGATATACCAGAATGCAGCTACTAGCTTTCAAGTCCTTCAGCCTCAAGTCCAA
AGCCTGGTGACATCCTCCCAGGTACAGCCGGTCACCATTCAGCAGCAGGTGCAGACAGTACAGGCCCAGCGGGTG
CTGACACAAACGGCCAATGGCACGCTGCAGACCCTTGCCCCGGCTACGGTGCAGACAGTTGCTGCGCCACAGGTG
CAGCAGGTCCCGGTCCTGGTCCAGCCTCAGATCATCAAGACAGATTCCCTTGTTTTGACCACACTGAAGACAGAT
GGCAGCCCTGTTATGGCTGCGGTCCAGAACCCGGCCCTCACCGCCCTCACCACCCCTATCCAGACGGCTGCCCTT
CAAGTACCAACCCTGGTGGGCAGCAGTGGGACCATTCTGACCACAATGCCTGTAATGATGGGGCAAGAGAAAGTG
CCCATTAAGCAGGTACCTGGGGGAGTCAAGCAGCTTGAGCCCCCCAAAGAAGGAGAAAGGCGGACAACCCATAAT
ATCATTGAGAAACGATATCGCTCCTCCATCAATGACAAAATCATCGAATTGAAAGACCTGGTCATGGGGACAGAC
GCCAAGATGCACAAGTCTGGCGTTCTGAGGAAGGCCATTGATTACATCAAATACTTGCAGCAGGTCAATCATAAA
CTGCGCCAGGAGAACATGGTGCTGAAGCTGGCAAATCAAAAGAACAAGCTTCTAAAGGGCATCGACCTAGGCAGT
CTGGTGGACAATGAGGTGGACCTGAAGATCGAGGACTTTAATCAGAATGTCCTTCTGATGTCCCCCCCAGCCTCT
GACTCAGGGTCCCAGGCTGGCTTCTCTCCCTACTCCATTGACTCTGAGCCAGGAAGCCCTCTATTGGATGATGCA
AAGGTCAAAGATGAGCCAGACTCTCCTCCTGTGGCGCTGGGCATGGTAGACCGCTCACGGATTCTTCTGTGTGTC
CTCACCTTCCTGTGCCTCTCCTTTAACCCCCTGACTTCCCTGCTGCAGTGGGGAGGGGCCCACGACTCTGACCAG
CACCCACACTCAGGCTCTGGCCGCAGTGTCCTGTCATTCGAGTCAGGTTCTGGGGGCTGGTTTGACTGGATGATG
CCTACTCTTCTCTTATGGCTGGTAAATGGTGTGATTGTCCTGAGCGTCTTTGTGAAGCTGCTGGTTCATGGGGAG
CCAGTGATCCGGCCACACTCGCGCTCCTCGGTCACCTTCTGGAGGCACCGGAAACAGGCAGATCTGGATCTCGCC
AGAGGAGATTTTGCAGCTGCTGCCGGCAACCTACAAACCTGCCTGGCAGTTTTGGGCCGGGCACTGCCCACCTCC
CGCCTGGACCTGGCCTGCAGCCTCTCCTGGAACGTGATCCGCTACAGCCTGCAGAAGCTACGCCTGGTGCGCTGG
CTGCTCAAGAAAGTCTTCCAGTGCCGGCGGGCCACGCCAGCCACTGAGGCAGGCTTTGAAGACGAAGCTAAGACC
AGCGCCCGGGATGCGGCTCTGGCCTATCACCGGCTGCACCAGCTGCACATCACAGGGAAGCTTCCTGCAGGATCC
GCCTGTTCCGATGTACACATGGCGTTGTGTGCCGTGAACCTGGCTGAATGTGCAGAGGAGAAGATCCCACCGAGC
ACACTGGTTGAGATCCATCTGACTGCTGCCATGGGGCTCAAGACCCGGTGTGGAGGCAAGCTGGGCTTCCTGGCC
AGCTACTTCCTCAGCCGAGCCCAGAGCCTGTGTGGCCCCGAGCACAGTGCTGTTCCTGACTCCCTGCGCTGGCTC
TGCCACCCCCTGGGCCAGAAGTTTTTCATGGAGCGGAGCTGGTCTGTGAAGTCAGCTGCCAAGGAGAGTCTATAC
TGTGCCCAGAGGAACCCAGCTGACCCCATTGCGCAGGTCCACCAGGCCTTCTGCAAGAACCTGCTGGAGCGAGCT
ATAGAGTCCTTGGTGAAACCTCAGGCCAAGAAGAAGGCTGGAGACCAGGAAGAAGAGAGCTGTGAATTCTCCAGT
GCTCTGGAGTACTTGAAATTACTTCATTCTTTTGTGGACTCTGTGGGGGTTATGAGCCCCCCACTCTCCAGGAGC
TCCGTGCTCAAGTCCGCCCTGGGTCCAGACATCATCTGTCGGTGGTGGACGTCTGCAATCACTGTGGCCATCAGC
TGGCTCCAGGGAGACGATGCAGCTGTGCGCTCTCATTTTACCAAAGTGGAACGCATCCCCAAGGCCCTGGAAGTG
ACAGAGAGCCCCCTGGTGAAGGCCATCTTCCATGCCTGCAGAGCCATGCATGCCTCACTCCCTGGGAAAGCAGAT
GGGCAGCAGAGTTCCTTCTGCCATTGCGAGAGGGCCAGTGGCCACCTATGGAGCAGCCTCAACGTCAGTGGGGCC
ACCTCTGACCCTGCCCTCAACCACGTGGTCCAGCTGCTCACCTGTGACCTGCTACTGTCGCTACGGACAGCGCTC
TGGCAAAAACAGGCCAGTGCCAGCCAGGCTGTGGGGGAGACCTACCACGCGTCAGGCGCTGAACTGGCGGGCTTC
CAACGGGACCTGGGCAGCCTGCGCAGGCTGGCACACAGCTTCCGCCCAGCATACCGCAAGGTGTTCCTGCATGAA
GCCACCGTGCGCCTGATGGCAGGAGCCAGCCCCACCCGCACCCACCAGCTGCTGGAACACAGCCTGCGGCGGCGC
ACCACGCAGAGCACCAAGCACGGAGAGGTGGATGCCTGGCCCGGCCAGCGAGAGCGGGCCACCGCCATCCTGCTG
GCCTGCCGCCACCTGCCCCTCTCCTTCCTCTCCTCCCCGGGCCAGCGGGCAGTGCTGCTGGCCGAAGCTGCCCGC
ACCCTGGAGAAGGTGGGCGACCGGCGCTCCTGCAACGACTGCCAGCAGATGATTGTTAAGCTGGGTGGTGGCACT
GCCATTGCCGCCTCC**TGA**CCACCAGGCTCAGCCCACCCCTCCACCTCTCTCTCGATTTCTCTCTCTCCCCCTCAG

FIGURE 1707B

CATCTTCCCGCTGAGAGTGGTGGGGAAGAGCCTTGTCTTCTTAGCTGTCACCTGCCGAGGCTTCTGGGCCACTCA
GGCCAGTGCACCCCTGGGCAGAGCCCCTTAAAGCTGCTGTCACTAGATGCCCATGGTCCAGGGCCTGGTGGGCGT
GAGAGGATAGGTGGCAGGGCAGAAACTGGGCAGCCCTGACTTGATAGCAGCAGGGGGAGCTCCCAAGCTGCCAAG
CCCCTGCCTCCAGCCTTCCTGAGTTTCTCTCTCCTGAACCCTACTCTCTCCTTTTTGCTTCCTCAGTTTTTATCA
GGCTTTCTCTGGGGGACAGCAGTCTCTGAGCACCAGGGAGCAGTTGCCCTCAGGCCTGTGCCCAGCATGCCCTCC
CCTTTTTATACGAATGTTTTCTACCAGTGTGCTTGGGTTTGCCATGATGCGAGGCTGAGTTGCTGTAGCGTCTTG
ATTCTCTCCCTGGGTCTGCGTTCCCTCCCCTGGGCCTGACTGAGCCTGCTCATTGTTTTTCCCTTTATTACACAG
GACAGCCAGGGGAGGAGGGGGGCCCAGCCCTGGGAGGCTGGTGGGAGGCAGGGGGCAGGCCTGCGGATGCATGAA
ATAATGTTGGCATTATTTTTTAATTTTTTAAAAAATAAATGGTATCTTA

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FIGURE 1708

GCACCGCAGGAGCAACGGTTGGTCCTGCGGCTGTG**ATG**TCGGTGTTGAGGCCCCTGGACAAGCTGCCCGGCCTGA
ACACGGCCACCATCTTGCTGGTGGGCACGGAGGATGCTCTTCTGCAGCAGCTGGCGGACTCGATGCTCAAAGAGG
ACTGCGCCTCCGAGCTGAAGGTCCACTTGGCAAAGTCCCTCCCTTTGCCCTCCAGTGTGAATCGGCCCCGAATTG
ACCTGATCGTGTTTGTGGTTAATCTTCACAGCAAATACAGTCTCCAGAACACAGAGGAGTCCCTGCGCCATGTGG
ATGCCAGCTTCTTCTTGGGGAAGGTGTGTTTCCTCGCCACAGGTGCTGGGCGGGAGAGCCACTGCAGCATTCACC
GGCACACCGTGGTGAAGCTGGCCCACACCTATCAAAGCCCCCTGCTCTACTGTGACCTGGAGGTGGAAGGCTTTA
GGGCCACCATGGCGCAGCGCCTGGTGCGCGTGCTGCAGATCTGTGCTGGCCACGTGCCCGGTGTCTCAGCTCTGA
ACCTGCTGTCCCTGCTGAGAAGCTCTGAGGGCCCCTCCCTGGAGGACCTG**TGA**GGGTGGCTGGCCCCTGGGCTGC
CCCTTCTCATGGCTTCGTGCTGACTCCATAAACATTCTCTGTTGAGGATGTCCAGTCAGGGCTTGACAGGCCCAG
GCTCAGCCCGCCGTGGCTGGGAAGGTTCCCTGCAGTGCCAGTGCTGCAGCAGGGAGAGCTGGGCAGAAGCAGCGA
GGGGGCCCAGCTGGCGAGACTGTAGCCCCCTCCCACTCCCACACTCACTCTTGCAGAGCCTGTGTCTTTAAGCAG
CTGGCGTGTTACATCTCCATTTAAGGTTTCCTTTGAACAAAAGGTCTGTGGCTAAAAAAAGTTTAAAAATC

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FIGURE 1709A

GATTCGAGTCAGAAGCGGCGGCAGGTCTGAACGCTTCGGTAGGATAAGTGCGGTGGGAGGGGGCTCTGCGGTTTT
GGGGAGCCCAGGGCGGGAACCCGGACCCGGCTGGAAGTCCGGAGCCTGGCCGCAGCCCCGCCCCTCCGCTCTTTC
TTGGTGACCTTAAGCCAGTGGCTGCCTTTTTCTGAGCCCGGGCGGGGCCGAAGGCGGCCCGTAGGCCCTCGGGAC
TCCCAGCACTGCAGAGGGTGTGAGGTCTGACATCCAAGACACGTTGTTTCGTATTTCTGAAGGAAGAACTGAAGC
TCCGGGAAGTGATGGCTGGGGATGGGGCGGGCAACTTGGGGACCGAGTGTACGATCCACGCCTAAGGTTGAGGGC
GGCCGAGCTAGCCAGGCAGCCGTGACCCCAGTGCTTTTCAGACGTTTCTTAGCTTCCAGAGCCCAACACATACAG
CTGATACACGCAGACCAGATCTGGTCAGGTCCTCGGAAGCTGAGTCCAGAGCG**ATG**CTGCTGAAGACAGTGCTCT
TGCTGGGACATGTGGCCCAGGTGCTGATGCTGGACAATGGGCTCCTGCAGACACCACCCATGGGCTGGCTGGCCT
GGGAACGCTTCCGCTGCAACATTAACTGTGATGAGGACCCAAAGAACTGCATAAGTGAACAGCTCTTCATGGAGA
TGGCTGACCGGATGGCACAGGATGGATGGCGGGACATGGGCTACACATACCTCAACATTGATGACTGCTGGATCG
GTGGTCGCGATGCCAGTGGCCGCCTGATGCCGGATCCCAAGCGCTTCCCTCATGGCATTCCTTTCCTGGCTGACT
ACGTTCACTCCCTGGGCCTGAAGTTGGGTATCTACGCGGACATGGGCAACTTCACCTGCATGGGTTACCCAGGCA
CCACACTGGACAAGGTGGTCCAGGATGCTCAGACCTTCGCCGAGTGGAAGGTAGACATGCTCAAGCTGGATGGCT
GCTTCTCCACCCCCGAGGAGCGGGCCCAGGGGTACCCCAAGATGGCTGCTGCCCTGAATGCCACAGGCCGCCCCA
TCGCCTTCTCCTGCAGCTGGCCAGCCTATGAAGGCGGCCTCCCCCCAAGGGTGAACTACAGTCTGCTGGCGGACA
TCTGCAACCTCTGGCGTAACTATGATGACATCCAGGACTCCTGGTGGAGCGTGCTCTCCATCCTGAATTGGTTCG
TGGAGCACCAGGACATACTGCAGCCAGTGGCCGGCCCTGGGCACTGGAATGACCCTGACATGCTGCTCATTGGGA
ACTTTGGTCTCAGCTTAGAGCAATCCCGGGCCCAGATGGCCCTGTGGACGGTGCTGGCAGCCCCCCTCTTGATGT
CCACAGACCTGCGTACCATCTCCGCCCAGAACATGGACATTCTGCAGAATCCACTCATGATCAAAATCAACCAGG
ATCCCTTAGGCATCCAGGGACGCAGGATTCACAAGGAAAAATCTCTCATCGAAGTGTACATGCGGCCTCTGTCCA
ACAAGGCTAGCGCCTTAGTCTTCTTCAGCTGCAGGACCGATATGCCTTATCGCTACCACTCCTCCCTTGGCCAGC
TGAACTTCACCGGGTCTGTGATATATGAGGCCCAGGACGTCTACTCAGGTGACATCATCAGTGGCCTCCGAGATG
AAACCAACTTCACAGTGATCATCAACCCTTCAGGGGTAGTGATGTGGTACCTGTATCCCATCAAGAACCTGGAGA
TGTCCCAGCAG**TGA**GGAGCTGGGACATGTGACAGGCTGTGGTGGCACCACTGAGCCTAGACCATGGAGCCTTGGC
ATGCCCAGGGCAAGTGGGGAGGTTCTCTGCTCCCCAGGCCTGCTCGGTGACTGACCCCATCATACCCAAAGTGCA
ATCTCACGGCCAGGTTCTATGCCCTGTCCAAGCGTAAACCCTCTTGGAAACTTCTTTTGGGGCAATTTTCCTGTG
GCCTTCCTGGCCTCTACTTCCATGTGCGCAGCCCCACAGACGTTGCTGAGCAACTCGCCAGCCTCCTGAGCTCCA
TGCCCATCAGGACTCTAGCCTCTGACCTTGCTGTTGACTCTGAAATCAGGATTTGGAAGTTTTCGAATTAGGAGT
AGAGAGATCTGACCTCTTGCCAGGAATGCCCATGGATCATGTGATTGGCTTTTCTACCCATAGAGGGCCTTGCAG
CCTGATACCACCTGGGAGTGAGGGTCACAAAGGAGACCTTGGCTCCCTCAGGTCACCAATAAACCTGTTCTTTAA
TCAAGTAGTTGTAATATGGACCTGGGGTACCTTTAGTTAGGGACTCTGGTGGCACTACACGGGGTGCTGGATTCA
AATCTCACCTCTATGGATGATGTCTGGCATCGTCTGGCCCCTCCTTTTCCAAAGTGACCAGAAGATTGTACTTCC
TAGAGATGCCAGACTTGCCTCACACCCAGGAGCTGCCCCTGCTGTGCCTGGTATGCTGGCAGTGGTGATGGTGAC
AACACAATGAGGCCAAGTAGCAATGCTCCCAGGTCCTGCAGCTTGTGCTCTGCCCAGCAGTGCCCCTGGCCCAGC
ACCTCAGCCTGCTCTTCTCTCTGGTGGCTCCACCCCAACCCCTACTTCTTTTCCTTTATTTCTCTCCCAACCTGG
CTGCAAAGGAGGTTCATATTCCCCAGATGTGTCCACAAACCTGTCCAGGAGTTGTGTCTTAAAATTGATTTCCTG
TCCCTCTTCCTAAGGACAGGGGTAACAGTCAAAGTGAAGGAATGATGGGTTCTTGCCTGTCTTGCTTTGGTCCGT
ATTTCCCAAGCCCTCCTCTTTTAGCCAAGGCTACAGGGCACTTGTCTTCCCTGGTGGCTCTCCCCTTTGGAGAGA
GCTAGTGGCAGAGCAACCTAGCTAGGTCCTCCTTGGGCTTTGAATGCAGGAGCACCCAGTGCCCCAGGCCTTGCA
CTGTGCTGCCCAAGGAGTATTTTCTGGGTGGATCTCCCATACTCCTCAGGGTTCTGAGGTCCTTGTATTTAGGGT
ATGGTGTAAAAACTTACATATGCACATTTTGTTACATCATTTAAGATGATTGAAGCTTTACTGGTTAAGTATAGG
GTCACCAGAGAAAGTTCCTTTCCCCAGTTGATGTCTTGAGGCTGTTGAGAAACTTAGGACAGAAGCCTACCTCAT
CCCAGGCCTGCCCCTCCGTGCATAGCTCTGCCTTTGGGTCTTGTTCATAGTGCTGTTCAGGCAAAATGGAATAGT
CTCAGGTGGGAACACCTTCTCTTGCTAGCTCCAGGAAGGCTTTGTGGGAAATGAGTTGAGACCATGGACTTGGGA
GTTGGGGGCCAGAGTTGAGCCTGGACTTGACCAATTAATTCCCTTACCTTTCAGCCCAAGATAGCTACATGTCTT
TACTTGCTGTATAAGTTTTCCTTTTGTCCTGGGGGTGCCTGATTGATCCTATCTCTTCACCCTTCATTCTTTCAA
CAAACATGCCATCTATCTCCCAGGACATTTATTCCCTTCTATTCAAGGCCAGTTAGGAATGCAATTATTTTTTTT
TTTCAGTTAAATACAGACTTGTTTGGACGCAAGGTACCCTTTCTCTTTTTAAAAACTTTTTATCATGAAAACTTT

FIGURE 1709B

CAAATACAAAAATAAAATGGTAGAGTGAACCTCCATG

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FIGURE 1710

GGCGTTTCTGTAGATGAGCATGCGCAGCACCCACCGTTCGCTCAGCCAGAGAGAGGCTTCCCAGCCAATCCGAGA
GCCTCAGAGTCATCCTCCCGCCCACCCAGCATACAGGCGGGGCGTTCCTCCTTAGCCAATGGGAAAAGACATTCG
CCCGCGGTCCGCACGCGCTGCTTGCAAAGGGGTGGGGTTGTGGAGTGGATGCTTTGGCAAG**ATG**GCGGGGAGCGG
CGTCCGCCAAGCTACTTCTACCGCCAGCACCTTCGTGAAGCCCATTTTCAGTCGGGACATGAACGAGGCCAAGCG
GAGGGTGCGCGAGCTCTACCGCGCCTGGTATCGGGAGGTGCCGAACACTGTGCACCAATTCCAGCTGGACATCAC
TGTGAAAATGGGACGGGATAAAGTCCGAGAAATGTTTATGAAGAATGCCCATGTCACAGACCCCAGGGTGGTTGA
TCTTCTGGTCATTAAGGGAAAGATCGAACTGGAAGAAACAATTAAAGTATGGAAGCAGCGGACACATGTTATGCG
GTTCTTCCATGAAACAGAAGCGCCAAGGCCAAAGGATTTCCTATCCAAGTTCTATGTTGGCCACGATCCA**TGA**AG
TCATTCAGTGGAAAGATGCACGTTGATACTATTTTAGAGCACAAATAAACTCACTATACAATGGTCACTTTGTGA
TAGAATTCCATTGATGAACCAATTTTCTGCAGCCTCTTTTTGCCTGAGCAAGTGGGACCTTGGTATACACATCAC
CTGTTCTTTCCCTTTTCTTGAAATGTGGTGTTTGCTGTAAATTGGATTGAATTATTTTTCTCAGAGCCTTGCATG
TCAGTAAACAGGAAGGAAGGAGGCCATCTGTTCAAAAATTGTGACATTGGGCATGAGGCTGGACGACTTGTTAAT
GTAGTTGTTTCTATAGCCCCTATGATTAGACACTTCAGTGTCAGGGCACAGATTATCTAAAATTAGCCAGCTCTT
CCTGTCAGGGATCAGGGCAGCACTAACAGGCGCAAAAGTAGAGCTGTCAAGATGGGCTAGTTTTCCTTGGGTTCT
GAAGAAAATGGATGTGCAAAGGCTTGGCTCCGCTACTTGTAACAAGCTCCAGCCCTTAAAATGAAATTAACTTCC
TACTCAGGCACCCTGCTTAGGTGCACAGCTGTTCAATATACACAGAGAACAGAAATATTCCTACTGTCTTTGGAA
ACCCTGGTGTACCTCTCAGTGGCAGAATAAACATCAACACAGGTTCAAGAACTG

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FIGURE 1711

GTTCCACCGCTGTCGCCGCCGTAGTGCGGCATGCCGCTCGGCGGAGGGGCCGGGCCTGCGTTCTCTCCTCCTTCC
TCCCCGCCTCTGGCTGCCGGCAGGACCTTTCTCTCGCTGCTACTGGGACCCCGTGTCATAGCCCAGGCTGAGCAC
GATGCCCCCTCAAAAGGGAGGTGATGGAATTAAACCACCCCCAATCATTGGAAGATTTGGAACCTCACTGAAAAT
TGGTATTGTTGGATTGCCAAATGTTGGGAAATCTACTTTCTTCAATGTATTAACCAATAGTCAGGCTTCAGCAGA
AAACTTCCCATTCTGCACTATTGATCCTAATGAGAGCAGAGTACCTGTGCCAGATGAAAGGTTTGACTTTCTTTG
CCAATATCACAAACCAGCAAGCAAAATTCCTGCCTTTCTAAATGTAGTGGATATTGCTGGCCTTGTGAAAGGAGC
TCACAATGGGCAGGGCCTGGGGAATGCTTTTTTATCTCATTTTAGTGCTTGTGATGGCATCTTTCATCTAACACG
TGCTTTTGAAGATGATGATATCACACATGTTGAAGAAAGTGTAGATCCTATTCGAGATATAGAAATAATACATGA
AGAGCTTCAGCTTAAAGATGAGGAATGACTGGGCCCATTATAGATAAACTAGAAAAGGTGGCTGTGAGAGGAGGA
GATAAAAAACTAAAACCCAAATATGATATAATGTGCAAAGTAAAATCCTGGGTTATAGATCAAAAGAACCTGTTC
GCTTCTATCATGATTGGAATGACAAAGAGATTGAAGTGTTGAATAAACACTTATTTTTGACTTCAAAACCA**ATG**G
TCTACTTGGTTAATCTTTCTGAAAAAGACTACATTAGAAAGAAAAACAAATGGCTGATAAAAATTAAAGAGTGGG
TGGACAAGTATGACCCAGGTGCCTTGGTCATTCCTTTTAGTGGGGCCTTGGAACTCAAGTTGCAAGAATTGAGTG
CTGAGGAGAGACAGCAGTATCTGGAAGCGAACATGACACAAAGTGCTTTGCCAAAGATCATTAAGGCTGGGTTTG
CAGCACTCCAACTAAAATACTTTTTCACTGCAGGCCCAGATGAAGTGCGTGCACGGACCATCAGGAAAGGGACTA
AGGCTCCTCAGGCTGCAGGAAAGATTCACACAGATTTTGAAAAGGGATTCATTATGGCTGAAGTAATGAAATATG
AAGATTTTAAAGAGGAAGGTTCTGAAAATGCAGTCAAGGCTGCTGGAAAGTACAGACAACAAGGCAGAAATTATA
TTGTTGAAGATGGAGATATTATCTTCTTCAAATTTAACACACCT**TAA**CAACTGAAGAAGAAATAAAATTTAGTTA
CTGCTCAGATAAACATACAACTTCCAAAAGGCATCTGATTTTTTAAAAATTAAAATTTCTGAAAACCAATGGGAC
AAATAAAGTTGGGGAGATGGGAATCTTTGACAAACAAATTATTTTTGTTTTAAAATTAAAATACTGTGTACCCTC
TCCCCCCAATGAAATGCAAGTTCACTAAATGTGAACACCTTTGCTTTTCATGTGATTAAGACCCTACTCCAAATT
ATAGAAGCTTTTCAAGAACCATGTTACTCTCATGATACTTCATTAATCTCCATCATGTATGCCAAGCCTAACACA
TTTGACAGTGAGAACAATGTGGCTTGCTCCTTTTTGAATCTACAGATAATGCATGTTTTATAGTACTCCAGATGT
CTACACTCAATAAAACATTTGACAAAACC

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FIGURE 1712

GAGAGTGTCCTGCCTGGTCCTCTGTGCCTGGTGGGGTGGGGGTGCCAGGTGTGTCCAGAGGAGCCCAGTTGGTAG
TGAGGCAGCCATGGGGCTAGAAGCACTGGTGCCCCTGGCCATGATAGTGGCCATCTTCCTGCTCCTGGTGGACCT
GATGCACCGGCACCAACGCTGGGCTGCACGCTACCCGCCAGGTCCCCTGCCACTGCCCGGGCTGGGCAACCTTGC
TGCATGTGGACTTCCAGAACACACCATACTGCTTCGACCAGTTGCGGCGCCGCTTCGGGGACGTGTTCAGCCTGC
AGCTGGCCTGGACGCCGGTGGTCGTGCTCAATGGGCTGGCGGCCGTGCGCGAGGCG**ATG**GTGACCCGCGGCGAGG
ACACGGCCGACCGCCCGCCTGCGCCCATCTACCAGGTCCTGGGCTTCGGGCCGCGTTCCCAAGGGGTGATCCTGT
CGCGCTATGGGCCCGCGTGGCGCGAGCAGAGGCGCTTCTCCGTGTCCACCTTGCGCAACTTGGGCCTGGGCAAGA
AGTCGCTGGAGCAGTGGGTGACCGAGGAGGCCGCCTGCCTTTGTGCCGCCTTCGCCGACCAAGCCGGACGCCCCT
TTCGCCCCAACGGCCTCTTGGACAAAGCCGTGAGCAACGTGATCGCCTCCCTCACCTGCGGGCGCCGCTTCGAGT
ACGACGACCCTCGCTTCCTCAGGCTGCTGGACCTAGCTCAGGAGGGACTGAAGGAGGAGTCGGGCTTCCTGCGCG
AGGTGCTGAATGCTGTCCCCGTCCTCCCGCACATCCCAGCGCTGGCTGGCAAGGTCCTACGCTTCCAAAAGGCTT
TCCTGACCCAGCTGGATGAGCTGCTAACTGAGCACAGGATGACCTGGGACCCAGCCCAGCCACCCCGAGACCTGA
CTGAGGCCTTCCTGGCAAAGAAGGAGAAGGCCAAGGGGAGCCCTGAGAGCAGCTTCAATGATGAGAACCTGCGCA
TAGTGGTGGGTAACCTGTTCCTTGCCGGGATGGTGACCACCTCGACCACGCTGGCCTGGGGCCTCCTGCTCATGA
TCCTACACCTGGATGTGCAGCTCCGTGTCCAACAGGAGATCGACGACGTGATAGGGCAGGTGCGGCGACCAGAGA
TGGGTGACCAGGCTCACATGCCCTGCACCACTGCCGTGATTCACGAGGTGCAGCGCTTTGGGGACATCATCCCCC
TGAGTGTGACCCATATGACATCCCGTGACATCGAAGTACAGGGCTTCCGCATCCCTAAGGGAACGACACTCATCA
CCAACCTGTCATCGGTGCTGAAGGATGAGGCCGTCTGGAAGAAGCCCTTCCGCTTCCACCCCGAACACTTCCTGG
ATGCCCAGGGCCACTTTGTGAAGCCGGAGGCCTTCCTGCCTTTCTCAGCAGGCCGCCGTGCATGCCTCGGGGAGC
CCCTGGCCCGCATGGAGCTCTTCCTCTTCTTCACCTCCCTGCTGCAGCACTTCAGCTTCTCCGTGGCCGCCGGAC
AGCCCCGGCCCAGCCACTCTCGTGTCGTCAGCTTTCTGGTGACCCCATCCCCCTACGAGCTTTGTGCTGTGCCCC
GC**TAG**AATGGGGTACCTAGTCCCCAGCCTGCTCCCTAGCCAGAGGCTCTAATGTACAATAAAGCAATGTGGTAGT
TCCAACTTGGGTCCCCTGCTCACGCCCTCGTTGGGATCATCCTCCTCAGGGCAACCCCACCCCTGCCTCATTCCT
GCTTACCCCACCGCCTGGCCGCATTTGAGACGGGTACGTTGAGGCTGAGCAGATGTCAGTTACCCTTGCCCATAA
TCCCATGTCCCCCACTGACCCAACTCTGACTGCCCAGATTGGTGACAAGGACTACATTGTCCTGGCATGTGGGGA
AGGGGCCAGAATGGGCTGACTAGAGGTGTCAGTCAGCCCTGGATGTGGTGGAGAGGGCAGGACTCAGCCTGGAGG
CCCATATTTCAGGCCTAACTCAGCCCACCCCACATCAGGGACAGCAGTCCTGCCAGCACCATCACAACAGTCACC
TCCCTTCATATATGACACCCCAAAATGGAAGACAAATCATGTCAGGGAGCTATATGCCAGGGCTACCTCCCAGGG
CTCAGTCGGCAGGTGCCAGAACATTCCCTGGGAAGGCCCCAGGAAAACCCAGGACCGAGCCACCGCCCTCAGCCT
GTCACCTTGTGTCCAAAATTGGTGGGTTCTTGGTCTCACTGACTTCAAGAATGAAGCCGTGGACCCTCACGGTGA
GTGTTACAGTTCTT

FIGURE 1713

ATGGGGCTGGATGCACTGGTGCCCCTGGCAGTGACAGTGGCCATCTTCCTGCTCCTGGTGGACCTGATGCAGCAG
CACCAACGCTGGACTGCACGCTACCCGCCAGGCCCCCTGCCACTGCCCGGGCTGGGCAACTTGCTGCATGTGGAC
TTCCAGAACATATACACCTTCAACCAGCTGCGGCACCGCTTTGGGGACGTGTTCAGCCTGCAGCTGGCCTGGATG
CCGGTGGTCGTGCTCAATGGGCTGGCGGCCGTGCGTGAGGCTCTGGTGACCTGCGGCGAGGACACCGCCGACCGC
CCGCCTGCGCCCATCTACCAGGTCCTGGGCATCGGGCCGCGCTCCCAAGGCAAGCGGCGGTGGGGGACAGAGACT
GCGTTTCCGTGGGTCCTGGGGGTGTTTCTGGCACACTACGGACACGCGTGGCGCGAGCAGAGGCGCTTCTCCGTG
TCCACCTTGCGCAACTTGGGCCTGGGCAAGAAGTCCCTGGAGCGGTGGGTGACCGAGGAGGCCGCCTGCCTCTGT
GCCGCCTTCGCCGACCAAGCCAGACGCCCCTTTCACCCCAACGGCCTCCTGAACAAAGCGGCGAGCAACGTGATC
GCCTCCCTCACCTGCGGGTGCCGCTTCGAGTACGACGACCCTCGCTTCCTCAGGCTACTGGACCTAGCTCAGAAG
GGATTGAAGGAGGAGCTGGGCTTTCTCCCTGCTCAGGCCAAGGGGAACCCTGAGAGCAGCTTCAATGATGAGAAC
CTGCGCATGGTGGTGGCTGACCTGTTCTTTGCCGGGATGGTGACCACCTCGATCACGCTGGCCTGGGGCCTCCTG
CTCATGATCCTACGCCCGGATGTGCAGCAGATGGGTGACCAGGCTCGCATGCCCTGCACCACTGCCGTGATTCAC
GAGGTGCAGCGCTTTGGGGACATCGTCCCCCTGGGTGTGACCCATATGACATCCCGTGACATCGAAGTACAGGGC
TTCCGCATCCCTAAGGGGATGATGCTCTTCACCAACCTGTCATCGGTGCTGAAGGATGAGGCCGTCTGGGAGAAG
CCCTTCCGCTTCCACCCCGAACACTTCCTGGATGCCCAGGGCCACTTTGTGAAGCTGGAGGCCTTCCTGCCTTTC
TCAGCAGGCCGCCGTGCATGCCTCGGGGAGCCCCTGGCCCGCATAGAGCTCTTCCTCTTCTTCACCTCCCTGCTG
CAGCACTTCAGCTTCTCGGTGCCCACCGGACAGCCCCGGCCCAGCCACTCTCGTGTCGTCGGCTTTCTGGTGACG
CCATCCCCCTATGAGCTTTGTGCTGTGCCCCGC**TAG**

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FIGURE 1714

ACACCATCCTCTTAGTTGCTCAGACTGAAAACCTAGCAGCCATCCTGGATTTCTCTCACACTGCCTATTCAACGT
GTGAATGCATGAGTGGAAAGCTGAGTTCGCACTCGTGACTGGCCGGGGTCAACTCTGACATTCGCTCCCACTTTC
GCGCGCTGATTTATCTCTGAGCGG**ATG**AAGGTTGGGCCATGGCGGGCGGGGCCGGGGAGGCGGGCTTGGAGTGAG
GGGGCGGGGCAGGCGCCACGAAAACGCGCTCGCGCCGGCGCCGAACCGCAACTCCCGGCGGCCCCCGCGCTCCCG
GGTGGCAAGATGGTGGCGCGCAGGAGGAAGTGCGCCGCGCGGGACCCGGAGGACCGTATCCCCAGCCCACTGGGC
TACGCAGCTATTCCAATCAAGTTCTCTGAAAAGCAACAGGCTTCTCACTACCTCTATGTGAGAGCACACGGCGTT
CGACAAGGCACCAAGTCCACCTGGCCTCAGAAGAGGACTCTTTTTGTCCTCAATGTGCCCCCATACTGCACAGAG
GAGAGCCTGTCCCGCCTCCTGTCCACCTGTGGCCTCGTCCAGTCTGTAGAGTTGCAGGAGAAGCCGGACCTGGCT
GAGAGCCCAAAGGAGTCAAGGTCGAAGTTTTTTCATCCCAAGCCAGTTCCGGGTTTCCAGGTAGCCTATGTGGTG
TTCCAGAAGCCAAGTGGGGTGTCAGCGGCCTTGGCCCTGAAGGGCCCCCTGCTGGTGTCCACAGAGAGCCACCCT
GTGAAGAGTGGCATTCACAAGTGGATCAGTGACTACGCAGACTCTGTGCCCGACCCTGAGGCCCTGAGGGTGGAA
GTGGACACGTTCATGGAGGCATATGACCAGAAGATCGCTGAGGAAGAAGCTAAGGCCAAGGAGGAGGAGGGGGTC
CCTGACGAGGAGGGCTGGGTGAAGGTGACCCGCCGGGGCCGGCGGCCTGTGCTCCCCCGGACTGAGGCAGCCAGC
TTGCGGGTGCTGGAGAGGGAGAGACGGAAGCGCAGCCGAAAAGAGCTGCTCAACTTCTACGCCTGGCAGCATCGA
GAGAGCAAGATGGAGCATCTAGCGCAGCTGCGCAAGAAGTTCGAGGAGGACAAGCAGAGGATCGAGCTGCTGCGG
GCCCAGCGCAAATTCCGACCGTAC**TGA**GCTGTGAGAGCCGCAGTGAATGGCTGGAGGTGCAGGGCCAGGAGGAGG
CGAGGCAGGGCCTGCAGCGGTCTCTGAGAGGCCGAGCTCTGGCCAACGGGCCCCAGGTTGAAGGCCACCGCGTCC
AACAGCCCCATCAGAGTCCACACAGGCCAGGAGGGAAGGACCAGGCCACCCCTCGGGTCTTGTGCTTCAGCAGTC
CTGGGGACCCAGGCGTGCCGAGAGGAGGACTTGTCCTTCCTGCTTCTTGCCTCCACACCCTCCTCTCCAGGACCC
TGGATGAATCCGTTCTGTGCTTCCTTTTCCCTCAATGCAAAAGCCCTTGCTGGCAACGAAAAAGCCTCAAAAGCA
GTGAGAATACAAGAACCTTTTATTTTCCATCCAGTTGGGCAGCAGGGAAAGGCTAGGTGGGCCCAGCCCGCCCTT
CCTTCCTCCAGCTGGCTGGAGATTATTAGCCAGGAGACAGCAGCCCTGGAACCCAGACTCTGTCTCCCCCTTGAG
GTCACAGATGTTGAAGTTGGAATCTCGCTCCTTCCCCTGACTACCATCCTAGGCTGGGCCTCAAGACTAGTGAGG
CCTGTCCCCACCATCCCTGGCCTTGTTGTGGGGCTCAGGAACTCAGAGTCCCAGTGTTGAGTCTGGGAGCACTAG
GTCTTCATAGTTCCAGGCCCAGAGCTACAGCTGGGCTGGGAGCGTGTGTGTGCACTGTAAGAAGGAGCTGATGAT
ACTGGCCACGTGCTGGGGTTCGCTCATGTGGACACAGTGATTGCCTGGGACTTCCACAAACTGGAACCGCTCTTT
GAGGGTGGATTTCATTGTGTCTATCATGAACGACAGGGACTCCTTGTCAGAGTAATTCTCTCTTGGATCAAAATA
TCCGTGGACTGCTTTGATCAACAGGACATGGGCCTGCAGCTTCCTGATGGAATGCGCACACAGCTCCCTGCTGAC
GAAGTCAATGCTGTTCTCTGCC

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FIGURE 1715

GGCGCGCAGGACGAAGCTCGCGGCGCGGGACCCGGAGGACGGTATCCCGAGCCCACCGTGCTACGCAGCTATTCC
AATCAAGTTCTCTGAAAAGCAACAGGCTTCTCACTACCTCTATGTGAGAGCACACGGCATTCAACAAGGCACCAA
GTCCACCTGGCCTCAGAAGAGGACTCTTTTTGTCTTCAATGTGCCCCCATACTGCACAGAGCAGGAGAGCCTGTC
CTGCCTCCAGTCCACCTGTGGCCTTGTCCAGTCTGTAGAGTTGAAGGAGAAGCTGGAGCTGGCTGGGAGTCAAGG
TCGAAGTTTTTTCATCCAAAGCCAGTTCCGGGTTTCCAGGTAGCCTACGTGGTGTTCCAGAAGCCAAGTGGGGTG
TCAGCGGCCTTGGCCCTGAAGGGCCCCCTGCTGGTGTCCACAGAGAGCCACCCTGTGAAGAGTGGCATTCACAAA
TGGATCAGTGACTACGCAGACTCTGTGCCCGACCCTGAGGCCCTGAGGGTGGAAGTGGACACGTTC**ATG**GAGGCA
TATGACCAGAAGATCGCTGAGGAAGAAGCTAAGGCCAAGGAGGAGGAGGGGGTCCCTGACGAGGAGGGCTGGGTG
AAGGTGACCCGCCGGGGCCGGCGGCCTGTGCTCCCCCGGACTGAGGCAGCCAGCTTGCGGGTGCTGGAGAGGGAG
AGACGGAAGCGCAGCCAAAAAGAGCTGCTCAACTACGCCTGGCAGCATCGAGAGAGCAAGATGGAGCATCTAGCG
CAGCTGCGCAAGAAGTTTGAGGAGGACAAGCAGAGGATCGAGCTGCTGCGGGCCCAGCGCAAATTCCGACCCTAC
TGAGCCGTGAGAGCCGCAGTGGATGGCTGGAGGTGCAGGGCCAGGAGGAACATGAGGTGAGGCAGGGCCTGCAGC
GGTCTCTGAGAGGCCGAGCTCTGGCCAACGGGCCCCAGGTTGAAGGCCATCGCGTCCAACAGCCCCATCAGAGTC
CACACAGGCCAGGAGTGAAGGACCAGGCCACCCCTCGGGTCTTGTGCTTCAGCAGTCCTGGAGACCCAGGCGTGC
CTAGAGGAGGACTTGTCCTTCCCACCTCTTGCCTCCACACCCTTGAGGACCCTGGATGAATCCGTTCTGTGCTTC
CTTTTCCCTCAATGCAAAAGCCCTTGCTGGCAACAAAAAAGCCTCAAAAGCAGTGAGAATACAAGAACCTTTTAT
TTTCCATCCAGTTGGGCAGCAGGGAAAGGCTAGGTGGGCCCAGCCTGCCCTTCCTTCCTCCAGCTGGCTGGATAT
TTATTATTAGCCAGGAGAAAGCAGCCCTGGAACCCAGACTCTGTCTCCCCCTTGAGGTCACAGATGTTGAAGTTG
GAATCTCGCTCCTTCCCCTGACTACCATCCTAGGCTGGGCCTCAAGACTAGTGAGGCCTGTCCCCACCATCCCTG
GCCTTGTTGTGGGGCTCAGGAACTCAGAGTCCCAGTGTTGAGTCTGGGAGCACTAGGTCTTCATAGTTCCAGGCC

FIGURE 1716A

CGATGAAGTGCAACCTTCACATGAATGGGAATGTTATCACCTCAGACCAGCCCATCCTGCTGTGAGTTCCAAAGG
CGGGGTGCTGGGGAGAGGCAGCTCCGTCCATCTCTTTTTGTTCTAATGGGTAAACTGCCTGCATCACAGCTCCCC
TTCATCCCCCCATTCCGTTTCCTCTGTTCTAATGGCAGCTGGCCGTTTCATATGCTTAAACTTGACCAAAATGGT
TTGCTTTGTTATTTCCCCAGGGCTTGACCCTATAGGGACTAGCATTATGATCTCGTTCTCAGCTTTCTGATTTAG
AAATATCTGAGTGGAAGTTGGAGGGGGAGGCTGCTTGGGTCTCCTAGCTGTGTGCATCATCCCGGGAACAGAGAA
CTCCACTGCATGATTGGCTCTGATGGAGACAGTGCCAGATGCTACCCCTTATTTTGTTCCCCAGTGAGGTTTTTT
GTTTGTTTGTTTGTTTGTTTGTTTTTTGCTTTTTCAGTTATTTTGAGAGTCTCACTGTGTTGCCCAGGTTGGTTT
CAAACTCCTGGGGTCAAGCAACCCTCTCCCCTCAGCCTCCTGAGGACCTGGGACTATAGGCGCACACCATCACGC
CCAGCTGGATTTGGCTTTTAAGTACAGTGGGAAGCCATTGAAGGCTTTTGTTGCACACAGCTGAGTATACATGCC
TGGCCCAGGACTGAGGGATGTTTTGAAGCCTGAGATGCATAAAATGTTGAGACTGTGAGGACTTCACCTTCTAGA
TAAGGAAGCAGATACCAGGGAGGAGGTTAGACTTGCCAGGGTGAGTGGGATAGTGTGGGGCAGGGCTGAAATAGA
CTTTGAGATTTAAAAAGACTAGGATTTGAACCCTGGGTAATGAATTATGTGATTTGGATAAGTTCTTAAACTGTG
TTCAAGGAATAAGAAATATTTCTTAGGGTTTTGTAACCTAATAAGTTTGGGAACTACTGGGCTAAACAGAGTTAC
ATCTGTTTCACTTTCGGGCTTCTCAGATTGTGTAATATGCTAATGGATGTTACCATCCAGAAGGAACATGCAGTG
TTTCCTAAACTTAAAACCACAATTAGCCAGGTGTGGTGGCATGCACCTATAGTCCCAGTTACTTGGGGGGCCGAG
GTGGGAGGATCGCTTGAGCCTGGAAGATCGAGACTAGTGAGCCATCATCATGCCACTGCACTTCAGCCTGGGTGA
CAGAGTGAGATTCTGTCTCAAAAAAACCCCACAAAACCCTAGAACATACAGCACTGCCTGCGTCTCCATTTTCTC
ATCAGTAAATAAGAAAAACACAGCCTGGGCCACATAGCAAGACCTGGTCTCTACAAAAAATTTTAAAAATGAGCC
AGGCATGGTGGTACACGCCTGTAGTCCTAGCTCCTTAGGAGGCTGTGGCAGGAGAACTGCTTGAGCCTAGGAGAT
GGAGGCTGATGTGAGCTGTGATTGAGTTTGCTGCGAGGTGGAATGAGATGAAGGGGTATGGAAAGTGTTACACCC
AGTGCCTAGCTCATGACAGATGCCCAGTAAATGGTGGGTCCCCTCCCCATCTAAGGAAAAACTGACAAGAATTTT
TGACTCTTCTCTGCTCTCCACAGGCGGCTGAGTGACAGCCCATCAATGAAAAAGGAGAGCGAGCTGCCTCGCAGG
GTGAACTCTGCCTCCTCCTCCAACCCCCCTGCCGAAGTGGACCCTGACACCATCCTGAAGGCACTCTTCAAGTCC
TCAGGGGCCTCTGTGACCACGCAGCCCACAGAATTCAAAATCAAGCTTTGAGCAGGGGAGTGAGGCAGCCAGAAG
TGGGGGCAGAGGAGGGTGGCTCTGTTTCCCCAAGGCAAAGCTTATGACCAATGGGCCATCGGACTGGAGACCCCT
GATTGTGGGAAGGGTTGCCAGGGATAAAGAGCTTCCTCACTGGATGGGACCCGCCTTTCTGTGTTGTGTTCTGCC
CTGTGCTCTTCTCTCTACGTTAACGTTTCCTGTAGTATGTTTCTTCATCTCATCGCCAAGGTAGGCTTGTGTTTT
TCAGTGTGTGCCTCCCCGAGCCTCAGCCCCAAGCTGATTTCTTATCTGGAAATGGTACACTGAATTCTCTGGGTG
GCTTTCTTGTGGCCCCATGGGATGCAGCGTGGGGGCTGTCTGAAGGACCCTGCTTTTTCCAGGGGCCGAGGGGCT
GCCTTTCCTTTGTGTGTATTAAGCTTTTCAAACAATGGAGGGGATGGAGAGCCCTGGTGTCCTGACGGGAGCCAG
GTCGGCCTGAGAGCTGTGCCGCTCCTCTGTCTTGTCAGTGGAGGTGCCTGGGTGGGGAGCAGGTCTCAGGCCTCT
TGTCCTCTCCCCAGTGGCTCCAGGCCTCACTAGTGGCAAGGGCAGGATGAGGCTGCACCGCTGGGAAGAGTCTAT
CTAAGCTCTTGGCTTGGAGTCCCGTGTCGTCTCCACCCAGAGGAAGTTCTCCAGAGTTCACCTTTCCCTTTTCCT
TGAGTTGTGCTGA**ATG**CCCCACCCCAGCTCTCTTTCCCTTCTGGGTGTCTTTGCTGGGAGGGGGCTGTGTTGTGA
GCCCTCCCGGTTCTCACCTCGCCTGGCACTTAACCACACCCTGGTTTTGTGTAGCCGCCAGCTCTCTTCTGGTTG
GGCCTTTGAAAGGCTCAGCCTCCCATTGTGCAGTGCTTGGGTTTGGAGCTTATTTGAATGGAAGAGGTCAGTTTG
TTCCTGGCTCTCCATTTCTGGCCTCAGTTGTCTACAGGACAGTGGTCAGGGATGCCTGGAGGCATATATCCAGCT
GCCACCAAGGGGCACTGTTTGTTCCCACTTATGTGAG**TGA**CCCCATCCATCCATGACCAGAGGATTATTTTCCTG
CCTTGGCAGAGGAGGAGGAGTCAAGGGAGCAGGGCAGCTCTACCAGGCAAGGTGTTTCCCCAGCATAGGCGCAGA
CAGTTGGGACGAAACTTCAGAGCCCAGGCAGTCCCTGAATGACCAGGCCAGTGTTGTCACTGAGTGGTCCCCTGC
TGGTTGGGAGTGAAGAGAATCCAGGCTGGCAGAGCTGGAGCCAGTTGGGGAGCACGGTTCTGGGAGCTCTGCAAA
ATCAGTAGCAAGTGCTGGAAAAGGCACATGCCGAAGATACTCAAGAGCTCCCAAGATTTGCTTGAGGCTAGCCCA
GTGAAAAAAACCAGAGACTCATGTTTCCAGGGGTCAGTCTGTCAGGCAGGAAGGACCCAGGATTTGAACCCAGCT
TCAGTGTGCAGGCTCTGAGGCTGCCCAGGACGGGAAAGTCCAAGGAAGGGGCCTGGTGGTGCTCCACTTGCAGTT
CTTTAAAGAATGCTGCTTTTTATTCTCCTAACCCTTTCAAGTGGGTGCAGACTTCTCGTTAGCAGCTGGAAGACA
TTCCTCCCACACTTTTCCCTTCCTGGCCCAAGAGAGCATCCAGAAGGCAGTAGGACCTGGTTTTTCAGGTACTGG
GAGCCGGGGGCTCACTGCTTGCACTGTGCTTAGGGTAGGGATGGTAAATATCCTCCCTGCATGGCTTTATCCTCC
CTCTCATCCCAAAGCAGGTATCTTCTGGTTGTCACAGAGTTTCATTGAGTCCAGCTGCAGCCACGTGGCCATCTG

FIGURE 1716B

GAGCTGGTGCTATAGGTGACCATCTGGTACATTGAGGGGACCTGTTTGCCTCCTCCACTCTATAAGCAGTCATCT
TGGGAGACCGGGAGGAGAAGGTGGTGGGCTAGTCCTGTGTCCTCCTCCACTTCCCATGCCTCTATGTTACCCATC
TGTGTCTCCTGTGCAGAAGGAGAGGAAGGGGCATTAAGAGATGAAGGGTGATTATGTATTACTTATCCATTTCTG
AATAAACATTTGTTATTCCTACCTTTGAGTTATCTTTTTTTTTTTTTTTTTTTTTTTTTGAGACAAAGTCTCAC
TCTGTTGCCAAGGCTGGAGTGCAGTGGCACTATCTCAGCTCACTGCAACCTCCGCAGCCAGACTCAAGTAATCCT
CCCACCTCAGCCTCCCAATTAGCTGGGACTGCAGGCGTGCATCACCATGTCTGGCTAATTTTTGTAGAGATGAGG
TTTCACCATGTTGCACAAGCTGGTCTTGAAATCCTGACCTCAGGTGGTCTGCCTGCCTCGGCCTCCCAAAGTTGG
AATTAACAGGCGTGAGCCACCACGCCCAGCCAAGGGTTTTAATCTTGCAGGGATTTCAACATTTGGGGTGGAACT
TAATTATTTAAAAAATAGAGACAGATTCTTGCTATGATACCCAGGATGGTCTTGAACTCCTGGGCACAAGTGATC
CTCCTGCTTCAGCCTCTCAAAGTGTTGGAGTTACAGGCATGAGCCACTGCTCCCCACCAGGGATGCAAATTACTT
GATACTCCTCTCCAGAAGGTGGGGTCCTGTGCCCCTCCTGAACCCAAGTGTGCTCTGTTACTACTTTGACCAGAT
GTGACTCTGCCATTTCTGTGCCTAGGCTTTTAAAGATGGTCACTTCTCCATTTCCTGTGCCTGGAACATTCTCTG
GGAGCCTTGACACCACATTTGAAGTTGCCTATTGGGGCCAGCATGGTGGCTCACGCCTGTAATCCCAGCACTTCA
GAAGGCCGAGGCAGGCAGATCGCATGAAATCAGGAGTTTGAGACCAGCCTAACCAACGTGGTAAAACCCTGTCTC
TACTAAAAATTACAAAAATTAGAGGGGCGCGGTGGTGGGCGCTTGTAATCCCAGCTATTCAGGAGGCTGAGGCAG
GAGAATCACTTGAACCCGGGAGGCGGAGTTTGCAGTGAGGTGAAATCACGCCACTGCACTCCAGCCTGTGCAACA
GAGCGAGGCTCTGTCTCAAAAGAAAAAAAATAGTTGACTGTCGGTTTGGCATGGTGGCTCATGCCTCTTGTCCCA
GCACTTTGGGATGCTGAGGCAGGAAGATTACTGGAGCTCAGGAGTTCGAGACCAGCTTGGGCAATATAGTGAAGC
CCTATCTTTACAAAAAACGAAAAATTAGCTCAGCTACTCAGGAGCCTGAAATGGAGGATCATTTGTGCCCAGGAG
GCAGAGGTCGCAGTGAGCTGTGATCATGCCACTATACTCCATCCTGGGCAACACAGTGAGACGGCAGAAAAAAAA
AAATAGTTGACTATTGAGTCTCATATCTGATTGCCCACCTGACATCTCCCCTGAGTGGCCTAATGGGCATCTCAC
CACGGCCCACAGAGAACTGATCTACTCGATTTTCCCTAAGCTGGCCCCTCTCCTGCAGTCTACCCATGTCAGTCA
ATGGCAACACCATCCTCTTAGTTGCTCAGACTGAAAAGCTAGCAGCCATCCTGGATTTCTCTCACACTGCCTATT
CAACGTGTGAATGCATGAGTGGAAAGCTGAGTTCGCACTCGTGACTGGCCGGGGTCGACTCTGACATTCACTCCC
ACTTTGGCGCGCTGATTTGCCTCTGAGCGGATGAAGGTTGAGCCATGGCGGGCGGGGCCGGGGAGGCGGGCTTGG
AGCGAGGGGGCGGGGCAGGCGCCACAAAAACGCGCTCGCGCCGGCGCCGAACCGCAACTCCCGGCGACCCCCGCG
CTCCCGGGTGGCAAGATGGTGGCGCGCAGGACGAAGCTCGCGGCGCGGGACCCGGAGGACGGTATCCCGAGCCCA
CCGTGCTACGCAGGTGAGGGGATCCGGAACGCGAGACCGGGGGCGGCCAGCATCGCCGGGAGGTGTTTGGGGGCT
GGCGGCGGCCGGGGGTCCCCAGGAGCGGCCGC

FIGURE 1717

CGCGACGGTCTCGGCGGCGGCGGCGGCGGCGACAGAGCGAGCGCGGCGCGGGGCCACC**ATG**GGGGCCCAGCTCAG
CACGTTGGGCCATATGGTGCTCTTCCCAGTCTGGTTCCTGTACAGTCTGCTCATGAAGCTGTTCCAGCGCTCCAC
GCCAGCCATCACCCTCGAGAGCCCGGACATCAAGTACCCGCTGCGGCTCATCGACCGGGAGATCATCAGCCATGA
CACCCGGCGCTTCCGCTTTGCCCTGCCGTCACCCCAGCACATCCTGGGCCTCCCTGTCGGCCAGCACATCTACCT
CTCGGCTCGAATTGATGGAAACCTGGTCGTCCGGCCCTATACACCCATCTCCAGCGATGATGACAAGGGCTTCGT
GGACCTGGTCATCAAGGTTTACTTCAAGGACACCCATCCCAAGTTTCCCGCTGGAGGGAAGATGTCTCAGTACCT
GGAGAGCATGCAGATTGGAGACACCATTGAGTTCCGGGGCCCCAGTGGGCTGCTGGTCTACCAGGGCAAAGGGAA
GTTCGCCATCCGACCTGACAAAAAGTCCAACCCTATCATCAGGACAGTGAAGTCTGTGGGCATGATCGCGGGAGG
GACAGGCATCACCCCGATGCTGCAGGTGATCCGCGCCATCATGAAGGACCCTGATGACCACACTGTGTGCCACCT
GCTCTTTGCCAACCAGACCGAGAAGGACATCCTGCTGCGACCTGAGCTGGAGGAACTCAGGAACAAACATTCTGC
ACGCTTCAAGCTCTGGTACACGCTGGACAGAGCCCCTGAAGCCTGGGACTACGGCCAGGGCTTCGTGAATGAGGA
GATGATCCGGGACCACCTTCCACCCCCAGAGGAGGAGCCGCTGGTGCTGATGTGTGGCCCCCCACCCATGATCCA
GTACGCCTGCCTTCCCAACCTGGACCACGTGGGCCACCCCACGGAGCGCTGCTTCGTCTTC**TGA**GGGCCGGGCAC
GGTCACACGGCCACCCGCCCCGCGCACCCCACGCCCTGTTCACGCTCACCCAGTCACCTCCCCACATCGCACACT
GGGGCCCCGGGTTCAGCCTGGCCTGCCCGTGCCCTGGTGAATCACCTGGCTGAGCAGTTCCCCTGGAGCCCCTTC
GGGAGCAGGGCTGTGTCCCAGATGGGCCACGGCTGAGCCTTCAGAGTACGTCCTGCCTGGCACTTACTGGTCCTT
ACCAGAGACGCCCAGCCCCATCCCTGTCCTCATGACCCCTCGTCCACCCCCCACACACACTATAAGGCTGAGGGC
TGCCAGCAGCCCCGTCTGCCCACCATTCCCGGCCGTGGACCATAGTCGGGATGTCAGCAGACACACATGGGCAGC
CCAAAGCTGCAGGTGCCAGGGCCCACCCCAGCCTCGCCTGTCACCCCCACTCCCGCCTCAGGGCCAGGCCCAGGC
CTCACCACCTGACGCTGCATGAGACATTGACACCAGAAAGCCCTCTTGGGGGCACTGCTCCCTACCCCAGGGCCC
TGGCCAGCCGGGAGCTTGGCTCTCCTCTGGCTAGAGTGGGAAGAGGGGGCTGGCCATGGGGCCCTCCCAGAACCT
CAGCATTTCCTTCCAGCCCATCCAAACACTGAGGCAGCCTTGGGGAACCCCGAGCTGGGGGGTTGGCAGCCCACT
GCACCGCCTCAGGGTTTTGGGGTCCTGGGCTGGGGCCACCATCCCTGATGGCAGAACTCCCACAACCACATGTAT
TTATTCCTCTGTCCTAAACCGTCCCCTCCTTCCCTCACCCCCAGCACAGGGGGATTCTGAGCAGTGCCTCTTGTC
TGAGGGACATATCAGTGACCTCGACGTTGCCTTTAGACTACAGTTGTGTTAGCCTCTTGCGTATTGGCTTTTTCA
GAGTCATTTATGAGCAGAAAAAAAAAAAGTAAAACTTTGCTAATATT

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FIGURE 1718

CAGCGTGCCTGCCAGTGTAGAGCCGGTGGAGCAGCTGGGCTCGGCGCTGAGGTTTCGCCCTGGCTACAACGACCC
C**ATG**TCAGGGTTCGGAGCGACCTTGGCCGTTGGCCTGACCATCTTTGTGCTGTCTGTCGTCACTATCATCATCTG
CTTCACCTGCTCCTGCTGCTGCCTTTACAAGACGTGCCGCCGACCACGTCCCTCCAAGTGTGCCGCCCAGCTACC
CTGGACCAAGCTACCAGGGCTACCACACCATGCCGCCTCAGCCAGGGATGCCAGCAGCACCCTACCCAATGCAGT
ACCCACCACCTTACCCAGCCCAGCCCATGGGCCCACCGGCCTACCACGAGACCCTGGCTGGAGGAGCAGCCGCGC
CCTACCCCGCCAGCCAGCCTCCTTACAACCCGGCCTACATGGATGCCCCGAAGGCGGCCCTCTGAGCATTCCCTG
GCCTCTCTGGCTGCCACTTGGTTATGTTGTGTGTGTGCGTGAGTGGTGTGCAGGCGCGGTTCCTTACGCCCCATG
TGTGCTGTGTGTGTCCAGGCACGGTTCCTTACGCCCCATGTGTGCTGTGTGTGTCCTGCCTGTATATGTGGCTTC
CTCTGATGCTGACAAGGTGGGGAACAATCCTTGCCAGAGTGGGCTGGGACCAGACTTTGTTCTCTTCCTCACC**TG**
AAATTATGCTTCCTAAAATCTCAAGCCAAACTCAAAGAATGGGGTGGTGGGGGGCACCCTGTGAGGTGGCCCCTG
AGAGGTGGGGGCCTCTCCAGGGCACATCTGGAGTTCTTCTCCAGCTTACCCTAGGGTGACCAAGTAGGGCCTGTC
ACACCAGGGTGGCGCAGCTTTCTGTGTGATGCAGATGTGTCCTGGTTTCGGCAGCGTAGCCAGCTGCTGCTTGAG
GCCATGGCTCGTCCCCGGAGTTGGGGGTACCCGTTGCAGAGCCAGGGACATGATGCAGGCGAAGCTTGGGATCTG
GCCAAGTTGGACTTTGATCCTTTGGGCAGATGTCCCATTGCTCCCTGGAGCCTGTCATGCCTGTTGGGGATCAGG
CAGCCTCCTGATGCCAGAACACCTCAGGCAGAGCCCTACTCAGCTGTACCTGTCTGCCTGGACTGTCCCCTGTCC
CCGCATCTCCCCTGGGACCAGCTGGAGGGCCACATGCACACACAGCCTAGCTGCCCCCAGGGAGCTCTGCTGCCC
TTGCTGGCCCTGCCCTTCCCACAGGTGAGCAGGGCTCCTGTCCACCAGCACACTCAGTTCTCTTCCCTGCAGTGT
TTTCATTTTATTTTAGCCAAACATTTTGCCTGTTTTCTGTTTCAAACATGATAGTTGATATGAGACTGAAACCCC
TGGGTTGTGGAGGGAAATTGGCTCAGAGATGGACAACCTGGCAACTGTGAGTCCCTGCTTCCCGACACCAGCCTC
ATGGAATATGCAACAACTCCTGTACCCCAGTCCACGGTGTTCTGGCAGCAGGGACACCTGGGCCAATGGGCCATC
TGGACCAAAGGTGGGGTGTGGGGCCCTGGATGGCAGCTCTGGCCCAGACATGAATACCTCGTGTTCCTCCTCCCT
CTATTACTGTTTCACCAGAGCTGTCTTAGCTCAAATCTGTTGTGTTTCTGAGTCTAGGGTCTGTACACTTGTTTA
TAATAAATGCAATCGTTTGG

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FIGURE 1719

TACTGACTTTCAGCACCAACTTGTGGTCCCAGGTAAGTTTCCACGCTGGTACTTTAGCCCTGGGCTCGAACCTGC
GGACACGCTGTGGCTGCAACTCCCCGCCCGCCAGACCTCAGTACGCAGCGCGGCTGGTGAGAAACATAATGCACT
CTGACTTCCACGCGTGGAATGGGGAGATGGACTGCACGGCGGGCGGACCTGCTCGGGCTGATGGACGGCAGGTGG
ACTGATGTGCGCAGGGACTGGCGGCAGCGCGGTCAGAGCCAGTCAGCCAAAGCCAGGCCAGCACAATAGACTGTC
CCGGTTCCCGCCAGGAGGCGGCCGAGCACCAACTGTACGGTACTGCGCCTGCGCCGCGACCGCCAACGCGCCCAG
TCTACGCTTGCGCGGCGCAACAGGGCCGACTGCAGCTGGAAG**ATG**GCGGCGTCCGTGGTCTGTCGGGCCGCTACC
GCCGGGGCACAAGTGCTATTGCGCGCCCGCCGCTCGCCGGCCCTGCTGCGGACGCCAGCCTTGCGGAGTACGGCA
ACCTTCGCTCAGGCGCTCCAGTTCGTGCCGGAGACGCAGGTTAGCCTGCTGGACAACGGCCTGCGTGTGGCCTCC
GAGCAGTCCTCTCAGCCCACTTGCACGGTGGGAGTGTGGATTGATGTTGGCAGCCGTTTTGAGACTGAGAAGAAT
AATGGGGCAGGCTACTTTTTGGAGCATCTGGCTTTCAAGGGAACAAAGAATCGGCCTGGCAGTGCCCTGGAGAAG
GAGGTGGAGAGCATGGGGGCCCATCTTAATGCCTACAGCACCCGGGAGCACACAGCTTACTACATCAAGGCGCTG
TCCAAGGATCTGCCGAAAGCTGTGGAGCTCCTGGGTGACATTGTGCAGAACTGTAGTCTGGAAGACTCACAGATT
GAGAAGGAACGTGATGTGATCCTGCGGGAGATGCAGGAGAATGATGCATCTATGCGAGATGTGGTCTTTAACTAC
CTGCATGCCACAGCATTCCAGGGCACACCTCTAGCCCAGGCTGTGGAGGGGCCCAGTGAGAATGTCAGGAAGCTG
TCTCGTGCAGACTTGACCGAGTACCTCAGCACACATTACAAGGCCCCTCGAATGGTGCTGGCAGCAGCTGGAGGA
GTGGAGCACCAGCAACTGTTAGACCTCGCCCAGAAGCACCTCGGTGGCATCCCATGGACATATGCAGAGGACGCT
GTGCCCACTCTTACTCCATGCCGCTTCACTGGCAGTGAGATCCGCCACCGTGATGATGCTCTACCTTTTGCCCAC
GTGGCCATTGCAGTAGAGGGTCCTGGCTGGGCCAGCCCGGACAATGTGGCCTTGCAAGTGGCCAATGCCATCATC
GGCCACTATGACTGCACTTATGGTGGTGGCGTGCACCTGTCCAGCCCACTGGCTTCAGGTGCTGTGGCCAACAAG
CTATGCCAGAGTTTCCAGACCTTCAGCATCTGCTATGCAGAGACGGGCTTGCTGGGTGCACACTTTGTCTGTGAC
CGAATGAAAATCGATGACATGATGTTCGTCCTGCAAGGGCAGTGGATGCGCCTGTGTACCAGTGCCACGGAGAGT
GAGGTGGCCCGGGGCAAAAACATCCTCAGAAATGCCCTGGTATCTCATCTAGATGGCACTACTCCTGTGTGTGAG
GACATCGGACGCAGCCTCCTGACCTATGGCCGCCGCATCCCCCTGGCTGAATGGGAAAGCCGGATTGCGGAGGTG
GATGCCAGTGTGGTACGTGAGATCTGCTCCAAGTACATCTATGACCAGTGCCCAGCAGTGGCTGGATATGGCCCC
ATTGAGCAGCTCCCAGACTACAACCGGATCCGTAGCGGCATGTTCTGGCTGCGCTTC**TAG**GCGGGAAGCCTATGT
AAGCAAGAGGGCAGGGCCGGGGTTTGTGGTCCCCCCCCCACCACAAACACAGCACTTCGGCTCCTCTAACCTGTG
CCACAGGTGACCACCAATAAAATCCTCTGCTGAGA

FIGURE 1720A

GGGCTGGAGGGGCGCTGGGCTCGGACCTGCCAAGGCCACGGGGGAGCAAGGGACAGAGGCGGGGGTCCTAGCTGA
CGGCTTTTACTGCCTAGG**ATG**ACGCTGCGGCTTCTGGTGGCCGCGCTCTGCGCCGGGATCCTGGCAGAGGCGCCC
CGAGTGCGAGCCCAGCACAGGGAGAGAGTGACCTGCACGCGCCTTTACGCCGCTGACATTGTGTTCTTACTGGAT
GGCTCCTCATCCATTGGCCGCAGCAATTTCCGCGAGGTCCGCAGCTTTCTCGAAGGGCTGGTGCTGCCTTTCTCT
GGAGCAGCCAGTGCACAGGGTGTGCGCTTTGCCACAGTGCAGTACAGCGATGACCCACGGACAGAGTTCGGCCTG
GATGCACTTGGCTCTGGGGGTGATGTGATCCGCGCCATCCGTGAGCTTAGCTACAAGGGGGGCAACACTCGCACA
GGGGCTGCAATTCTCCATGTGGCTGACCATGTCTTCCTGCCCCAGCTGGCCCGACCTGGTGTCCCCAAGGTCTGC
ATCCTGATCACAGACGGGAAGTCCCAGGACCTGGTGGACACAGCTGCCCAAAGGCTGAAGGGGCAGGGGGTCAAG
CTATTTGCTGTGGGGATCAAGAATGCTGACCCTGAGGAGCTGAAGCGAGTTGCCTCACAGCCCACCAGTGACTTC
TTCTTCTTCGTCAATGACTTCAGCATCTTGAGGACACTACTGCCCCTCGTTTCCCGGAGAGTGTGCACGACTGCT
GGTGGCGTGCCTGTGACCCGACCTCCGGATGACTCGACCTCTGCTCCACGAGACCTGGTGCTGTCTGAGCCAAGC
AGCCAATCCTTGAGAGTACAGTGGACAGCGGCCAGTGGCCCTGTGACTGGCTACAAGGTCCAGTACACTCCTCTG
ACGGGGCTGGGACAGCCACTGCCGAGTGAGCGGCAGGAGGTGAACGTCCCAGCTGGTGAGACCAGTGTGCGGCTG
CGGGGTCTCCGGCCACTGACCGAGTACCAAGTGACTGTGATTGCCCTCTACGCCAACAGCATCGGGGAGGCTGTG
AGCGGGACAGCTCGGACCACTGCCCTAGAAGGGCCGGAACTGACCATCCAGAATACCACAGCCCACAGCCTCCTG
GTGGCCTGGCGGAGTGTGCCAGGTGCCACTGGCTACCGTGTGACATGGCGGGTCCTCAGTGGTGGGCCCACACAG
CAGCAGGAGCTGGGCCCTGGGCAGGGTTCAGTGTTGCTGCGTGACTTGGAGCCTGGCACGGACTATGAGGTGACC
GTGAGCACCCTATTTGGCCGCAGTGTGGGGCCCGCCACTTCCCTGATGGCTCGCACTGACGCTTCTGTTGAGCAG
ACCCTGCGCCCGGTCATCCTGGGCCCCACATCCATCCTCCTTTCCTGGAACTTGGTGCCTGAGGCCCGTGGCTAC
CGGTTGGAATGGCGGCGTGAGACTGGCTTGGAGCCACCGCAGAAGGTGGTACTGCCCTCTGATGTGACCCGCTAC
CAGTTGGATGGGCTGCAGCCGGGCACTGAGTACCGCCTCACACTCTACACTCTGCTGGAGGGCCACGAGGTGGCC
ACCCCTGCAACCGTGGTTCCCACTGGACCAGAGCTGCCTGTGAGCCCTGTAACAGACCTGCAAGCCACCGAGCTG
CCCGGGCAGCGGGTGCGAGTGTCCTGGAGCCCAGTCCCTGGTGCCACCCAGTACCGCATCATTGTGCGCAGCACC
CAGGGGGTTGAGCGGACCCTGGTGCTTCCTGGGAGTCAGACAGCATTCGACTTGGATGACGTTCAGGCTGGGCTT
AGCTACACTGTGCGGGTGTCTGCTCGAGTGGGTCCCCGTGAGGGCAGTGCCAGTGTCCTCACTGTCCGCCGGGAG
CCGGAAACTCCACTTGCTGTTCCAGGGCTGCGGGTTGTGGTGTCAGATGCAACGCGAGTGAGGGTGGCCTGGGGA
CCCGTCCCTGGAGCCAGTGGATTTCGGATTAGCTGGAGCACAGGCAGTGGTCCGGAGTCCAGCCAGACACTGCCC
CCAGACTCTACTGCCACAGACATCACAGGGCTGCAGCCTGGAACCACCTACCAGGTGGCTGTGTCGGTACTGCGA
GGCAGAGAGGAGGGCCCTGCTGCAGTCATCGTGGCTCGAACGGACCCACTGGGCCCAGTGAGGACGGTCCATGTG
ACTCAGGCCAGCAGCTCATCTGTCACCATTACCTGGACCAGGGTTCCTGGCGCCACAGGATACAGGGTTTCCTGG
CACTCAGCCCACGGCCCAGAGAAATCCCAGTTGGTTTCTGGGGAGGCCACGGTGGCTGAGCTGGATGGACTGGAG
CCAGATACTGAGTATACGGTGCATGTGAGGGCCCATGTGGCTGGCGTGGATGGGCCCCCTGCCTCTGTGGTTGTG
AGGACTGCCCCTGAGCCTGTGGGTCGTGTGTCGAGGCTGCAGATCCTCAATGCTTCCAGCGACGTTCTACGGATC
ACCTGGGTAGGGGTCACTGGAGCCACAGCTTACAGACTGGCCTGGGGCCGGAGTGAAGGCGGCCCCATGAGGCAC
CAGATACTCCCAGGAAACACAGACTCTGCAGAGATCCGGGGTCTCGAAGGTGGAGTCAGCTACTCAGTGCGAGTG
ACTGCACTTGTCGGGGACCGCGAGGGCACACCTGTCTCCATTGTTGTCACTACGCCGCCTGAGGCTCCGCCAGCC
CTGGGGACGCTTCACGTGGTGCAGCGCGGGGAGCACTCGCTGAGGCTGCGCTGGGAGCCGGTGCCCAGAGCGCAG
GGCTTCCTTCTGCACTGGCAACCTGAGGGTGGCCAGGAACAGTCCCGGGTCCTGGGGCCCGAGCTCAGCAGCTAT
CACCTGGACGGGCTGGAGCCAGCGACACAGTACCGCGTGAGGCTGAGTGTCCTAGGGCCGGCTGGAGAAGGGCCC
TCTGCAGAGGTGACTGCGCGCACTGAGTCACCTCGTGTTCCAAGCATTGAACTACGTGTGGTGGACACCTCGATC
GACTCGGTGACTTTGGCCTGGACTCCAGTGTCCAGGGCATCCAGCTACATCCTATCCTGGCGGCCACTCAGAGGC
CCTGGCCAGGAAGTGCCTGGGTCCCCGCAGACACTTCCAGGGATCTCAAGCTCCCAGCGGGTGACAGGGCTAGAG
CCTGGCGTCTCTTACATCTTCTCCCTGACGCCTGTCCTGGATGGTGTGCGGGGTCCTGAGGCATCTGTCACACAG
ACGCCAGTGTGCCCCCGTGGCCTGGCGGATGTGGTGTTCCTACCACATGCCACTCAAGACAATGCTCACCGTGCG
GAGGCTACGAGGAGGGTCCTGGAGCGTCTGGTGTTGGCACTTGGGCCTCTTGGGCCACAGGCAGTTCAGGTTGGC
CTGCTGTCTTACAGTCATCGGCCCTCCCCACTGTTCCCACTGAATGGCTCCCATGACCTTGGCATTATCTTGCAA
AGGATCCGTGACATGCCCTACATGGACCCAAGTGGGAACAACCTGGGCACAGCCGTGGTCACAGCTCACAGATAC
ATGTTGGCACCAGATGCTCCTGGGCGCCGCCAGCACGTACCAGGGGTGATGGTTCTGCTAGTGGATGAACCCTTG

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FIGURE 1720B

AGAGGTGACATATTCAGCCCCATCCGTGAGGCCCAGGCTTCTGGGCTTAATGTGGTGATGTTGGGAATGGCTGGA
GCGGACCCAGAGCAGCTGCGTCGCTTGGCGCCGGGTATGGACTCTGTCCAGACCTTCTTCGCCGTGGATGATGGG
CCAAGCCTGGACCAGGCAGTCAGTGGTCTGGCCACAGCCCTGTGTCAGGCATCCTTCACTACTCAGCCCCGGCCA
GAGCCCTGCCCAGTGTATTGTCCAAAGGGCCAGAAGGGGGAACCTGGAGAGATGGGCCTGAGAGGACAAGTTGGG
CCTCCTGGCGACCCTGGCCTCCCGGGCAGGACCGGTGCTCCCGGCCCCCAGGGGCCCCCTGGAAGTGCCACTGCC
AAGGGCGAGAGGGGCTTCCCTGGAGCAGATGGGCGTCCAGGCAGCCCTGGCCGCGCCGGGAATCCTGGGACCCCT
GGAGCCCCTGGCCTAAAGGGCTCTCCAGGGTTGCCTGGCCCTCGTGGGGACCCGGGAGAGCGAGGACCTCGAGGC
CCAAAGGGGGAGCCGGGGGCTCCCGGACAAGTCATCGGAGGTGAAGGACCTGGGCTTCCTGGGCGGAAAGGGGAC
CCTGGACCATCGGGCCCCCCTGGACCTCGTGGACCACTGGGGGACCCAGGACCCCGTGGCCCCCCAGGGCTTCCT
GGAACAGCCATGAAGGTGACAAAGGCGATCGTGGGGAGCGGGGTCCCCCTGGACCAGGTGAAGGTGGCATTGCTC
CTGGGGAGCCTGGGCTGCCGGGTCTTCCCGGAAGCCCTGGACCCCAAGGCCCCGTTGGCCCCCCTGGAAAGAAAG
GAGAAAAAGGTGACTCTGAGGATGGAGCTCCAGGCCTCCCAGGACAACCTGGGTCTCCGGGTGAGCAGGGCCCAC
GGGGACCTCCTGGAGCTATTGGCCCCAAAGGTGACCGGGGCTTTCCAGGGCCCCTGGGTGAGGCTGGAGAGAAGG
GCGAACGTGGACCCCCAGGCCCAGCGGGATCCCGGGGGCTGCCAGGGGTTGCTGGACGTCCTGGAGCCAAGGGTC
CTGAAGGGCCACCAGGACCCACTGGCCGCCAAGGAGAGAAGGGGGAGCCTGGTCGCCCTGGGGACCCTGCAGTGG
TGGGACCTGCTGTTGCTGGACCCAAAGGAGAAAAGGGAGATGTGGGGCCCGCTGGGCCCAGAGGAGCTACCGGAG
TCCAAGGGGAACGGGGCCCACCCGGCTTGGTTCTTCCTGGAGACCCTGGCCCCAAGGGAGACCCTGGAGACCGGG
GTCCCATTGGCCTTACTGGCAGAGCAGGACCCCCAGGTGACTCAGGGCCTCCTGGAGAGAAGGGAGACCCTGGGC
GGCCTGGCCCCCCAGGACCTGTTGGCCCCCGAGGACGAGATGGTGAAGTTGGAGAGAAAGGTGACGAGGGTCCTC
CGGGTGACCCGGGTTTGCCTGGAAAAGCAGGCGAGCGTGGCCTTCGGGGGGCACCTGGAGTTCGGGGGCCTGTGG
GTGAAAAGGGAGACCAGGGAGATCCTGGAGAGGATGGACGAAATGGCAGCCCTGGATCATCTGGACCCAAGGGTG
ACCGTGGGGAGCCGGGTCCCCCAGGACCCCCGGGACGGCTGG**TAG**ACACAGGACCTGGAGCCAGAGAGAAGGGAG
AGCCTGGGGACCGCGGACAAGAGGGTCCTCGAGGGCCCAAGGGTGATCCTGGCCTCCCTGGAGCCCCTGGGGAAA
GGGGCATTGAAGGGTTTCGGGGACCCCCAGGCCCACAGGGGGACCCAGGTGTCCGAGGCCCAGCAGGAGAAAAGG
GTGACCGGGGTCCCCCTGGGCTGGATGGCCGGAGCGGACTGGATGGGAAACCAGGAGCCGCTGGGCCCTCTGGGC
CGAATGGTGCTGCAGGCAAAGCTGGGGACCCAGGGAGAGACGGGCTTCCAGGCCTCCGTGGAGAACAGGGCCTCC
CTGGCCCCTCTGGTCCCCCTGGATTACCGGGAAAGCCAGGCGAGGATGGCAAACCTGGCCTGAATGGAAAAAACG
GAGAACCTGGGGACCCTGGAGAAGACGGGAGGAAGGGAGAGAAAGGAGATTCAGGCGCCTCTGGGAGAGAAGGTC
GTGATGGCCCCAAGGGTGAGCGTGGAGCTCCTGGTATCCTTGGACCCCAGGGGCCTCCAGGCCTCCCAGGGCCAG
TGGGCCCTCCTGGCCAGGGTTTTCCTGGTGTCCCAGGAGGCACGGGCCCCAAGGGTGACCGTGGGGAGACTGGAT
CCAAAGGGGAGCAGGGCCTCCCTGGAGAGCGTGGCCTGCGAGGAGAGCCTGGAAGTGTGCCGAATGTGGATCGGT
TGCTGGAAACTGCTGGCATCAAGGCATCTGCCCTGCGGGAGATCGTGGAGACCTGGGATGAGAGCTCTGGTAGCT
TCCTGCCTGTGCCCGAACGGCGTCGAGGCCCCAAGGGGGACTCAGGCGAACAGGGCCCCCCAGGCAAGGAGGGCC
CCATCGGCTTTCCTGGAGAACGCGGGCTGAAGGGCGACCGTGGAGACCCTGGCCCTCAGGGGCCACCTGGTCTGG
CCCTTGGGGAGAGGGGCCCCCCCGGGCCTTCCGGCCTTGCCGGGGAGCCTGGAAAGCCTGGTATTCCCGGGCTCC
CAGGCAGGGCTGGGGGTGTGGGAGAGGCAGGAAGGCCAGGAGAGAGGGGAGAACGGGGAGAGAAAGGAGAACGTG
GAGAACAGGGCAGAGATGGCCCTCCTGGACTCCCTGGAACCCCTGGGCCCCCCGGACCCCCTGGCCCCAAGGTGT
CTGTGGATGAGCCAGGTCCTGGACTCTCTGGAGAACAGGGACCCCCTGGACTCAAGGGTGCTAAGGGGGAGCCGG
GCAGCAATGGTGACCAAGGTCCCAAAGGAGACAGGGGTGTGCCAGGCATCAAAGGAGACCGGGGAGAGCCTGGAC
CGAGGGGTCAGGACGGCAACCCGGGTCTACCAGGAGAGCGTGGTATGGCTGGGCCTGAAGGGAAGCCGGGTCTGC
AGGGTCCAAGAGGCCCCCCTGGCCCAGTGGGTGGTCATGGAGACCCTGGACCACCTGGTGCCCCGGGTCTTGCTG
GCCCTGCAGGACCCCAAGGACCTTCTGGCCTGAAGGGGGAGCCTGGAGAGACAGGACCTCCAGGACGGGGCCTGA
CTGGACCTACTGGAGCTGTGGGACTTCCTGGACCCCCCGGCCCTTCAGGCCTTGTGGGTCCACAGGGGTCTCCAG
GTTTGCCTGGACAAGTGGGGGAGACAGGGAAGCCGGGAGCCCCAGGTCGAGATGGTGCCAGTGGAAAAGATGGAG
ACAGAGGGAGCCCTGGTGTGCCAGGGTCACCAGGTCTGCCTGGCCCTGTCGGACCTAAAGGAGAACCTGGCCCCA
CGGGGGCCCCTGGACAGGCTGTGGTCGGGCTCCCTGGAGCAAAGGGAGAGAAGGGAGCCCCTGGAGGCCTTGCTG
GAGACCTGGTGGGTGAGCCGGGAGCCAAAGGTGACCGAGGACTGCCAGGGCCGCGAGGCGAGAAGGGTGAAGCTG
GCCGTGCAGGGGAGCCCGGAGACCCTGGGGAAGATGGTCAGAAAGGGGCTCCAGGACCCAAAGGTTTCAAGGGTG

FIGURE 1720C

ACCCAGGAGTCGGGGTCCCGGGCTCCCCTGGGCCTCCTGGCCCTCCAGGTGTGAAGGGAGATCTGGGCCTCCCTG
GCCTGCCCGGTGCTCCTGGTGTTGTTGGGTTCCCGGGTCAGACAGGCCCTCGAGGAGAGATGGGTCAGCCAGGCC
CTAGTGGAGAGCGGGGTCTGGCAGGCCCCCCAGGGAGAGAAGGAATCCCAGGACCCCTGGGGCCACCTGGACCAC
CGGGGTCAGTGGGACCACCTGGGGCCTCTGGACTCAAAGGAGACAAGGGAGACCCTGGAGTAGGGCTGCCTGGGC
CCCGAGGCGAGCGTGGGGAGCCAGGCATCCGGGGTGAAGATGGCCGCCCCGGCCAGGAGGGACCCCGAGGACTCA
CGGGGCCCCCTGGCAGCAGGGGAGAGCGTGGGGAGAAGGGTGATGTTGGGAGTGCAGGACTAAAGGGTGACAAGG
GAGACTCAGCTGTGATCCTGGGGCCTCCAGGCCCACGGGGTGCCAAGGGGGACATGGGTGAACGAGGGCCTCGGG
GCTTGGATGGTGACAAAGGACCTCGGGGAGACAATGGGGACCCTGGTGACAAGGGCAGCAAGGGAGAGCCTGGTG
ACAAGGGCTCAGCCGGGTTGCCAGGACTGCGTGGACTCCTGGGACCCCAGGGTCAACCTGGTGCAGCAGGGATCC
CTGGTGACCCGGGATCCCCAGGAAAGGATGGAGTGCCTGGTATCCGAGGAGAAAAAGGAGATGTTGGCTTCATGG
GTCCCCGGGGCCTCAAGGGTGAACGGGGAGTGAAGGGAGCCTGTGGCCTTGATGGAGAGAAGGGAGACAAGGGAG
AAGCTGGTCCCCCAGGCCGCCCCGGGCTGGCAGGACACAAAGGAGAGATGGGGGAGCCTGGTGTGCCGGGCCAGT
CGGGGGCCCCTGGCAAGGAGGGCCTGATCGGTCCCAAGGGTGACCGAGGCTTTGACGGGCAGCCAGGCCCCAAGG
GTGACCAGGGCGAGAAAGGGGAGCGGGGAACCCCAGGAATTGGGGGCTTCCCAGGCCCCAGTGGAAATGATGGCT
CTGCTGGTCCCCCAGGGCCACCTGGCAGTGTTGGTCCCAGAGGCCCCGAAGGACTTCAGGGCCAGAAGGGTGAGC
GAGGTCCCCCCGGAGAGAGAGTGGTGGGGGCTCCTGGGGTCCCTGGAGCTCCTGGCGAGAGAGGGGAGCAGGGGC
GGCCAGGGCCTGCCGGTCCTCGAGGCGAGAAGGGAGAAGCTGCACTGACGGAGGATGACATCCGGGGCTTTGTGC
GCCAAGAGATGAGTCAGCACTGTGCCTGCCAGGGCCAGTTCATCGCATCTGGATCACGACCCCTCCCTAGTTATG
CTGCAGACACTGCCGGCTCCCAGCTCCATGCTGTGCCTGTGCTCCGCGTCTCTCATGCAGAGGAGGAAGAGCGGG
TACCCCCTGAGGATGATGAGTACTCTGAATACTCCGAGTATTCTGTGGAGGAGTACCAGGACCCTGAAGCTCCTT
GGGATAGTGATGACCCCTGTTCCCTGCCACTGGATGAGGGCTCCTGCACTGCCTACACCCTGCGCTGGTACCATC
GGGCTGTGACAGGCAGCACAGAGGCCTGTCACCCTTTTGTCTATGGTGGCTGTGGAGGGAATGCCAACCGTTTTG
GGACCCGTGAGGCCTGCGAGCGCCGCTGCCCACCCCGGGTGGTCCAGAGCCAGGGGACAGGTACTGCCCAGGACT
GAGGCCCAGATAATGAGCTGAGATTCAGCATCCCCTGGAGGAGTCGGGGTCTCAGCAGAACCCCACTGTCCCTCC
CCTTGGTGCTAGAGGCTTGTGTGCACGTGAGCGTGCGTGTGCACGTCCGTTATTTCAGTGACTTGGTCCCGTGGG
TCTAGCCTTCCCCCCTGTGGACAAACCCCCATTGTGGCTCCTGCCACCCTGGCAGATGACTCACTGTGGGGGGGT
GGCTGTGGGCAGTGAGCGGATGTGACTGGCGTCTGACCCGCCCCTTGACCCAAGCCTGTGATGACATGGTGCTGA
TTCTGGGGGGCATTAAAGCTGCTGTTTTAAAAGGC

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FIGURE 1721

GGCGGGACAACCGCGGCGCGGGTCGCGCTCCCGGCCTGGCGTTGTGGCGCCGCAGCCCTTGCCACCTTCCCTGCA
CCTGCCCTGCCCGGCCTCATGTACCGCGCGCTGTACGCTTCCGCTCGGGTGCCAACGCGCTGGGTTCGCGCGGGA
CGACCTTCCTGGTGCTAGAGCGAAGNCGCGCACTGGTGGCTGGCGCGCGCGCAGTGGTGAGACGGGCTACGTG
CCGCCAGCCTACCTGCGCCGCCTGCAGGGCCTGGAGCAGGATGTCCTCCAGGCCATTGACCGGGCCATCGAGGCT
GTACACAACACAGCCATGCGGGATGGTGGCAAGTACAGCCTGGAACAGCGTGGAGTCCTCCAGAAGCTGATCCAC
CACCGGAAAGAGACCCTGTCACGCAGAGGCCCTTCAGCCTCCAGTGTTGCAGTTATGACCTCATCAACCAGTGAC
CACCACTTGGATGCTGCTGCAGCCAGGCAGCCCAATGGGGTGTGTCGAGCTGGGTTCGAGCGGCAGCACAGCCTA
CCCAGTTCTGAGCATCTTGGGGCAGATGGAGGCCTCTACCAGGTGGCCACAACACCATGCCCTCCGGGGGTAACT
CTGTGTCCAGCGGCTCCTCAGTCAGCAGCACCTCCCTGGACACGCTCTATACCAGCTCCAGCCCATCTGAACCAG
GCTCCAGCTGCTCACCCACACCCCCACCTGTGCCCCGCCGAGGCACCCACACCACCGTGTCCCAAGTCCAGCCCC
CTCCCTCCAAGGCATCAGCACCTGAACCCCCTGCAGAAGAAGAAGTGGCAACTGGTACAACCTCAGCCTCTGATG
ACCTGGAAGCCCTGGGTACACTGAGCCTGGGGACCACAGAGGAGAAGGCAGCAGCTGAGGCGCTGTGCCCAGGAC
CATTGGGGCCGAGCTGATGGAGCTGGTGCGGAGAAACACTGGCCTGAGCCACGAATT**ATG**CCGGGTGGCCATCGG
CATCATAGTGGGTCACATCCAGGCCTCGGTGCCGGCCAGCTCACCAGTCATGGAGCAGGTCCTCCTCTCACTCGT
AGAGGGCAAGGACCTCAGCATGGCCCTGCCTCTGGGCAGGTCTGCCACGACCAGCAGAGGCTGGAGGTGATCTTT
GCAGACCTGGCTCGCCGGAAGGACGACGCCCAGCAGCGCAGTTGGGCACTATATGAGGATGAGGGTGTCATCCGC
TGCTACCTAGAGGAGCTGCTGCATATTCTGACTGATGCAGACCCTGAAGTTTGCAAGAAAATGTGCAAGAGAAAC
GAGTTCGAGTCTGTCCTGGCCTTGGTGGCCTATTACCAAATGGAACACCGAGCATCACTGCGGCTGCTGCTCCTC
AAGTGCTTTGGCGCCATGTGCAGCCTGGATGCAGCCATCATCTCCACGCTTGTGTCATCCGTGCTGCCTGTAGAG
CTGGCGAGGGACATGCAGACAGACACGCAGGACCACCAGAAACTCTGTTACTCTGCCCTCATCCTGGCCATGGTC
TTCTCCATGGGAGAGGCAGTGCCCTATGCACACTATGAGCACCTGGGCACGCCTTTCGCCCAGTTCCTACTGAAC
ATCGTCGAGGATGGGCTGCCCTTGGACACCACAGAGCAGCTGCCGGACCTCTGCGTGAACCTGCTTCTGGCTCTC
AACCTGCACCTGCCAGCTGCTGACCAGAATGTCATCATGGCTGCCCTGAGCAAACACGCCAATGTCAAGATCTTC
TCCGAGAAGCTGTTGTTGCTCCTGAACAGAGGGGATGACCCTGTGCGCATCTTCAAACATGAGCCACAGCCACCA
CACTCTGTCCTCAAGTTCCTGCAGGACGTGTTTGGCAGCCCGGCCACAGCTGCCATCTTCTACCACACAGACATG
ATGGCTCTCATTGACATCACTGTGCGGCACATCGCAGACCTGTCACCAGGAGACAAGGTGC

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FIGURE 1722

GAG**ATG**GCGGAAGGTGGAGGCTGCCGTGAGCGACCGGATGCGGAGACTCAGAAGTCCGAGCTTGGACCCTTAATG
AGGACCACACTCCAACGCGGGGCGCAGTGGTATCTTATTGACAGCCGGTGGTTCAAGCAGTGGAAGAAGTATGTG
GGCTTTGACAGCTGGGACATGTACAATGTGGGTGAACATAACCTATTTCCTGGCCCAATAGACAACTCTGGGCTA
TTTTCAGATCCTGAGAGTCAGACCTTGAAAGAACACTTAATTGATGAATTGGACTATGTATTGGTCCCTACCGAG
GCGTGGAATAAACTACTAAACTGGTACGGCTGTGTAGAAGGCCAGCAACCCATCGTCAGAAAAGTTGTGGAGCAT
GGCCTGTTTGTCAAGCACTGCAAAGTCGAGGTGTATTTGCTGGAACTGAAGCTCTGTGAGAACAGTGACCCCACC
AATGTGCTGAGTTGCCATTTCAGCAAGGCAGACACCATTGCAACCATCGAGAAAGAGATGCGGAAGCTATTCAAC
ATCCCTGCGGAGCGTGAAACACGGCTCTGGAACAAATACATGAGCAACACCTACGAGCAGTTGAGCAAGCTAGAC
AACACTGTCCAGGATGCTGGGCTATACCAGGGTCAGGTGCTAGTAATTGAGCCTCAAAATGAAGATGGCACATGG
CCCAGGCAGACCTTGCAGTCAAAATCAAGCACTGCGCCTAGCAGAAATTTTACTACCTCTCCAAAATCATCAGCA
AGTCCCTATTCCTCAGTGTCTGCCTCTCTCATTGCAAATGGTGATAGCACTAGCACCTGTGGGATGCACAGTTCC
GGTGTCAGCAGGGGTGGATCTGGCTTTTCTGCTTCGTATAATTGTCAGGAGCCACCATCCTCTCATATACAACCT
GGGCTCTGTGGACTTGGAAACCTGGGAAACACCTGCTTCATGAACTCCGCTTTGCAGTGTTTGAGCAACACTGCA
CCACTGACTGACTACTTTCTCAAAGATGAGTATGAAGCCGAAATCAACAGAGACAACCCTCTGGGGATGAAAGGG
GAAATTGCAGAAGCCTATGCTGAACTCATTAAGCAGATGTGGTCTGGAAGGGACGCCCATGTGGCACCTCGCATG
TTCAAAACTCAAGTAGGACGTTTTGCTCCTCAATTTTCTGGCTACCAGCAACAAGATTCTCAGGAGCTGCTGGCC
TTTCTTCTAGATGGATTGCATGAAGATCTGAACCGGGTAAAGAAAAAGCCCTACTTGGAGCTGAAGGATGCCAAT
GGGCGGCCAGATGCGGTGGTGGCAAAGGAAGCCTGGGAGAATCACAGGTTGAGGAATGATTCTGTGATTGTGGAT
ACTTTCCATGGCCTCTTCAAATCTACTTTGGTTTGCCCAGAATGTGCTAAGGTTTCTGTGACCTTTGACCCATTT
TGCTATCTAACGCTGCCACTGCCCTTGAAGAAAGATCGAGTTATGGAGGTTTTCCTGGTTCCTGCTGACCCTCAC
TGCAGACCTACTCAGTACCGTGTGACTGTGCCGCTGATGGGGGCTGTGTCCGACCTGTGCGAGGCTCTCTCCAGG
CTGTCTGGCATTGCTGCAGAAAATATGGTGGTCGCAGATGTGTATAATCACCGATTCCACAAAATTTTCCAAATG
GATGAAGGTTTAAACCACATCATGCCTCGGGATGACATTTTCGTGTACGAGGTCTGCAGCACTTCCGTGGATGGC
TCGGAATGTGTCACGCTTCCAGTCTACTTCAGGGAGAGGAAGTCCAGGCCATCAAGCACTTCCTCCGCATCAGCG
CTATATGGGCAGCCACTATTGCTTTCTGTCCCCAAGCACAAGTTAACCCTTGAGTCTTTGTACCAGGCTGTTTGT
GATCGTATCAGCCGCTATGTGAAACAGCCTTTGCCTGATGAGTTTGGCAGCTCACCATTGGAGCCAGGGGCCTGC
AATGGCTCCAGGAACAGCTGTGAAGGAGAAGATGAGGAAGAAATGGAGCATCAGGAAGAAGGCAAAGAGCAGCTT
TCAGAAACAGAAGGCAGTGGGGAAGATGAGCCAGGAAATGACCCCAGTGAGACCACCCAAAAGAAGATCAAAGGC
CAGCCCTGCCCAAAAAGGCTTTTTACCTTCAGTCTTGTGAACTCCTATGGAACAGCTGACATAAATTCACTTGCA
GCTGATGGAAAACTACTTAAACTCAACTCTCGATCTACACTGGCCATGGATTGGGACAGTGAAACTCGGAGACTT
TACTATGATGAGCAAGAATCTGAGGCCTACGAGAAGCATGTGAGCATGTTGCAGCCTCAGAAGAAGAAGAAGACC
ACAGTGGCCCTGAGAGACTGCATCGAGCTCTTCACCACCATGGAGACCCTTGGGGAGCATGACCCCTGGTACTGT
CCCAACTGTAAGAAGCATCAACAGGCCACAAAAAAGTTTGACCTATGGTCCTTGCCCAAGATCCTGGTGGTCCAC
CTCAAACGTTTCTCCTACAACAGATACTGGAGGGATAAGCTCGACACAGTCGTAGAATTCCCAATCAGAGGGCTG
AACATGTCCGAGTTTGTCTGTAACCTGTCAGCAAGGCCTTATGTGTACGACCTCATTGCCGTGTCCAATCATTAT
GGAGCCATGGGGGTTGGCCACTACACTGCATATGCGAAGAACAAACTGAATGGTAAATGGTATTACTTTGATGAT
AGCAACGTGTCCCTGGCCTCTGAGGATCAGATAGTGACTAAAGCAGCTTATGTGCTATTTTACCAACGTCGAGAT
GATGAATTTTATAAGACACCTTCACTTAGCAGTTCTGGTTCCTCTGATGGAGGGACACGACCAAGCAGCTCTCAG
CAGGGCTTTGGGGATGATGAGGCTTGCAGCATGGACACCAAC**TAA**TGCTGACTCCACGATCCTGCCACCCTGTAG
CGCCAGTGTAATCCCCCAAGAGAACATCTTTGACACTCTGCAGACTGCTAGTGTTCTGTCTAAAAACCAGACAAG
GAAATACCCTTCTTTTATGAGCAGAAGGAAACAAAAAAAAAAAAAGAAGACCGTTTACCTAGAA

FIGURE 1723

CCCTCGAGGGCCCCAGCCCTTGGAAGGGTAACCTGGACCGCTGCCGCCTGGTTGCCTGGGCCAGACCAGACATGC
CTGCTGCTCCTTCCGGCTTAGGAGGAGCACGCGTCCCGCTCGGGCGCACTCTCCAGCCTTTTCCTGGCTGAGGAG
GGGCCGAGCCCTCCGGGTAGGGCGGGGGCCGGATGAGGCGGGACCCTCAGGCCCGGAAAACTGCCTGTGCCACGT
GACCCGCCGCCGGCCAGTTAAAAGGAGGCGCCTGCTGGCCTCCCCTTACAGTGCTTGTTCGGGGCGCTCCGCTGG
CTTCTTGGACAATTGCGCCATGTGTGCTGCTCGGCTAGCGGCGGCGGCGGCGGCGGCCCAGTCGGTGTATGCCTT
CTCGGCGCGCCCGCTGGCCGGCGGGGAGCCTGTGAGCCTGGGCTCCCTGCGGGGCAAGGTACTACTTATCGAGAA
TGTGGCGTCCCTCTGAGGCACCACGGTCCGGGACTACACCCAG**ATG**AACGAGCTGCAGCGGCGCCTCGGACCCCG
GGGCCTGGTGGTGCTCGGCTTCCCGTGCAACCAGTTTGGGCATCAGGAGAACGCCAAGAACGAAGAGATTCTGAA
TTCCCTCAAGTACGTCCGGCCTGGTGGTGGGTTCGAGCCCAACTTCATGCTCTTCGAGAAGTGCGAGGTGAACGG
TGCGGGGGCGCACCCTCTCTTCGCCTTCCTGCGGGAGGCCCTGCCAGCTCCCAGCGACGACGCCACCGCGCTTAT
GACCGACCCCAAGCTCATCACCTGGTCTCCGGTGTGTCGCAACGATGTTGCCTGGAACTTTGAGAAGTTCCTGGT
GGGCCCTGACGGTGTGCCCCTACGCAGGTACAGCCGCCGCTTCCAGACCATTGACATCGAGCCTGACATCGAAGC
CCTGCTGTCTCAAGGGCCCAGCTGTGCC**TAG**GGCGCCCCTCCTACCCCGGCTGCTTGGCAGTTGCAGTGCTGCTG
TCTCGGGGGGGTTTTCATCTATGAGGGTGTTTCCTCTAAACCTACGAGGGAGGAACACCTGATCTTACAGAAAAT
ACCACCTCGAGATGGGTGCTGGTCCTGTTGATCCCAGTCTCTGCCAGACCAAGGCGAGTTTCCCCACTAATAAAG
TGCCGGGTGTCAGCA

FIGURE 1724

AGCA**ATG**GCTGCCATCCGGAAGAAACTGGTGATTGTTGGTGATGGAGCCTGTGGAAAGACATGCTTGCTCATAGT
CTTCAGCAAGGACCAGTTCCCAGAGGTGTATGTGCCCACAGTGTTTGAGAACTATGTGGCAGATATCGAGGTGGA
TGGAAAGCAGGTAGAGTTGGCTTTGTGGGACACAGCTGGGCAGGAAGATTATGATCGCCTGAGGCCCCTCTCCTA
CCCAGATACCGATGTTATACTGATGTGTTTTTCCATCGACAGCCCTGATAGTTTAGAAAACATCCCAGAAAAGTG
GACCCCAGAAGTCAAGCATTTCTGTCCCAACGTGCCCATCATCCTGGTTGGGAATAAGAAGGATCTTCGGAATGA
TGAGCACACAAGGCGGGAGCTAGCCAAGATGAAGCAGGAGCCGGTGAAACCTGAAGAAGGCAGAGATATGGCAAA
CAGGATTGGCGCTTTTGGGTACATGGAGTGTTCAGCAAAGACCAAAGATGGAGTGAGAGAGGTTTTTGAAATGGC
TACGAGAGCTGCTCTGCAAGCTAGACGTGGGAAGAAAAAATCTGGGTGCCTTGTCTTG**TGA**AACCTTGCTGCAAG
CACAGCCCTTATGCGGTTAATTTTGAAGTGCTGTTTATTAATCTTAGTGTATGATTACTGGCCTTTTTCATTTAT
CTATAATTTACCTAAGATTACAAATCAGAAGTCATCTTGCTACCAGTATTTAGAAGCCAACTATGATTATTAACG
ATGTCCAACCCGTCTGGCCCACCAGGGTCCTTTTGACACTGCTCTAACAGCCCTCCTCTGCACTCCCACCTGACA
CACCAGGCGCTAATTCAAGGAATTTCTTAACTTCTTGCTTCTTTCTAGAAAGAGAAACAGTTGGTAACTTTTGTG
AATTAGGCTGTAACTACTTTATAACTAACATGTCCTGCCTATTATCTGTCAGCTGCAAGGTACTCTGGTGAGTCA
CCACTTCAGGGCTTTACTCCGTAACAGATTTTGTTGGCATAGCTCTGGGGTGGGCAGTTTTTTGAAAATGGGCTC
AACCAGAAAAGCCCAAGTTCATGCAGCTGTGGCAGAGTTACAGTTCTGTGGTTTCATGTTAGTTACCTTATAGTT
ACTGTGTAATTAGTGCCACTTAATGTATGTTACCAAAAATAAATATATCTACCCCAGACTAGATGTAGTATTTTT
TGTATAATTGGATTTCCTAATACTGTCATCCTCAAAGAAAGTGTATTGGTTTTTTAAAAAAGAAAGTGTATTTGG
AAATAAAGTCAGATGGAAAATTCATTTTTTAAATTCCCGTTTTGTCACTTTTTCTGATAAAAGATGGCCATATTA
CCCCTTTTCGGCCCCATGTATCTCAGTACCCCATGGAGCTGGGCTAAGTAAATAGGAATTGGTTTCACGCCTGAG
GCAATTAGACACTTTGGAAGATGGCATAACCTGTCTCACCTGGACTTAAGCATCTGGCTCTAATTCACAGTGCTC
TTTTCTCCTCACTGTATCCAGGTTCCCTCCCAGAGGAGCCACCAGTTCTCATGGGTGGCACTCAGTCTCTCTTCT
CTCCAGCTGACTAAACTTTTTTTCTGTACCAGTTAATTTTTCCAACTACTAATAGAATAAAGGCAGTTTTCT

FIGURE 1725

TGAGCCCCAGCTAAGCGCTGCCCTTGAGTATGTGCGGAGTCACCCCTTGGACCCCATCGACACTGTGGACTTCGA
GCGGGAATGTGGCGTGGGTGTCATTGTGACCCCAGAGCAGATTGAGGAGGCTGTGGAGGCTGCTATTAACAGGCA
CCGGCCCCAGCTCCTGGTGGAACGTTACCATTTCAACATGGGGCTGCTGATGGGAGAGGCTCGGGCTGTGCTGAA
GTGGGCAGATGGCAAAATGATCAAGAATGAAGTGGACATGCAGGTCCTCCACCTTCTGGGCCCCAAGTTGGAGGC
TGATCTGGAGAAGAAGTTCAAGGTGGCAAAAGCTCGGCTAGAAGAAACAGACCGGAGGACGGCAAAGGATGTGGT
GGAGAATGGCGAGACTGCTGACCAGACCCTGTCTCTGATGGAGCAGCTCCGGGGGGGAGGCCCTTAAGTTCCACAA
GCCTGGTGAGAACTACAAGACCCCAGGCTATGTGGTCACTCCACACACCATGAATCTACTAAAGCAGCACCTGGA
GATTACTGGTGGGCAGGTACGTACCCGGTTCCCGCCAGAACCCAATGGAATCCTGCATATTGGACATGCCAAAGC
CATCAATTTCAACTTTGGCTATGCCAAGGCCAACAATGGCATCTGTTTTCTGCGTTTTGATGACACCAACCCTGA
GAAGGAGGAAGCAAAGTTCTTCACGGCCATCTGTGACATGGTAGCCTGGCTAGGCTACACACCTTACAAAGTCAC
AT**ATG**CGTCTGACTATTTTGACCAGCTATATGCGTGGGCTGTGGAGCTCATCCGCAGGGGTCTGGCTTATGTGTG
CCACCAGCGAGGAGAGGAGCTCAAAGGCCATAATACTCTGCCTTCACCCTGGAGAGACCGTCCCATGGAGGAGTC
ACTGCTGCTCTTTGAGGCAATGCGCAAGGGCAAGTTTTCAGAGGGCGAGGCCACACTACGGA**TGA**AGCTGGTGAT
GGAGGATGGCAAGATGGACCCTGTAGCCTATCGAGTCAAGTATACACCACACCACCGCACAGGGGACAAATGGTG
CATCTATCCCACCTACGACTACACACACTGCCTCTGTGACTCCATCGAGCACATCACTCACTCACTCTGCACCAA
GGAATTCCAGGCCCG

FIGURE 1726A

TAAGGCGGTGGCGGCGGCGCCGGGACGGGGGAGGGGCGCGCCGGAACCGGAACCGACCTGCGCCGGAACCGGAAC
GGAGAGCGGGTTGCCAGGGCCCGAAGAGGGCTGGCTGCGGCGGTCTCGCTCGGCTGTCCGTTCCTTGCTGGAGAA
TTTGGCCACAAAGAGTTGCCAAGATAGCTGGGCCAGGAAGAAAGCGCCGCAGCCCTGACCCAGACGCTGTTGCCG
ACCCCGGGGCACTCTGGCTGTCGACCAAGCGGCTCAAG**ATG**TCTGGCGGGGCCAGTGCCACAGGCCCAAGGAGAG
GGCCCCCAGGACTGGAGGACACCACTAGTAAGAAGAAGCAGAAGGATCGAGCAAACCAGGAGAGCAAGGATGGAG
ATCCTAGGAAAGAGACAGGGTCTCGATATGTTGCCCAGGCTGGTCTTGAACCTCTGGCCTCAGGTGATCCTTCTG
CCTCAGCCTCCCATGCAGCTGGGATCACAGGCTCACGCCACCGTACCCGGCTGTTCTTTCCTTCATCGTCAGGGT
CAGCATCCACTCCTCAAGAGGAGCAGACCAAAGAGGGAGCTTGTGAAGACCCTCATGATCTCTTGGCTACTCCCA
CTCCAGAGTTGTTGCTCGATTGGAGGCAGAGTGCAGAAGAGGTGATTGTCAAGCTTCGTGTGGGAGTAGGTCCCC
TGCAGCTGGAGGATGTAGATGCTGCTTTCACAGATACAGACTGTGTGGTGCGGTTTGCAGGTGGTCAGCAGTGGG
GTGGTGTCTTCTATGCTGAGATAAAAAGCTCTTGTGCTAAAGTGCAAACCCGCAAGGGCAGTCTCCTGCACCTGA
CACTGCCCAAAAAGGTGCCTATGCTCACGTGGCCCTCCCTCCTGGTTGAGGCTGATGAACAGCTTTGCATACCAC
CGCTGAACTCCCAAACCTGTCTCCTGGGCTCAGAGGAGAATTTAGCCCCTTTGGCAGGAGAGAAAGCAGTGCCTC
CCGGGAATGACCCAGTCTCTCCAGCCATGGTCCGGAGCAGAAACCCTGGGAAAGATGACTGTGCCAAGGAGGAGA
TGGCAGTGGCAGCAGATGCTGCAACCTTGGTGGATGAGCCCGAGTCGATGGTGAACCTGGCGTTTGTCAAGAATG
ACTCGTATGAGAAGGGCCCGGATTCAGTGGTGGTGCACGTGTACGTGAAGGAGATCTGCAGGGACACCTCAAGAG
TACTTTTCCGTGAGCAGGACTTCACGCTCATCTTCCAGACCAGGGATGGAAACTTCCTGAGGCTGCACCCGGGCT
GTGGGCCCCACACCACCTTCCGTTGGCAGGTGAAGCTCAGGAATCTGATTGAGCCAGAGCAGTGCACCTTCTGTT
TCACGGCTTCTCGCATCGACATCTGCCTTCGTAAGAGGCAGAGTCAGCGCTGGGGGGGCCTGGAGGCCCCGGCTG
CACGAGGTGCAGTGGGTGGTGCAAAGGTTGCCGTGCCGACAGGTCCAACCCCTCTGGATTCAACCCCACCAGGAG
GTGCTCCCCACCCCCTGACAGGCCAGGAGGAGGCCCGGGCTGTGGAGAAGGATAAATCCAAGGCACGATCTGAGG
ACACAGGGCTAGACAGTGTGGCAACCCGCACACCCATGGAGCATGTAACCCCAAAGCCAGAGACACACCTGGCCT
CGCCCAAGCCTACATGCATGGTGCCTCCCATGCCCCACAGCCCAGTTAGTGGAGACAGCGTGGAGGAGGAGGAAG
AGGAAGAGAAGAAGGTGTGTCTGCCAGGCTTCACTGGCCTTGTCAATTTAGGCAACACCTGCTTCATGAACAGCG
TCATTCAGTCTCTGTCCAACACTCGGGAACTCCGGGACTTCTTCCATGACCGCTCCTTTGAGGCTGAGATCAACT
ACAACAACCCACTAGGGACTGGTGGGCGTCTGGCCATTGGCTTTGCCGTGCTGCTTCGGGCGCTGTGGAAGGGCA
CCCACCATGCCTTCCAGCCTTCCAAGTTGAAGGCCATTGTGGCGAGTAAGGCCAGCCAGTTCACAGGCTATGCAC
AGCATGATGCCCAGGAGTTCATGGCTTTCCTGCTGGATGGGCTGCACGAGGACCTGAATCGCATTCAGAACAAGC
CCTACACAGAGACCGTGGATTCAGATGGGCGGCCCGATGAGGTGGTAGCTGAGGAAGCATGGCAGCGGCACAAGA
TGAGGAATGACTCTTTCATCGTGGACCTATTTCAGGGGCAGTACAAGTCGAAGCTGGTGTGCCCTGTGTGTGCCA
AGGTCTCCATCACTTTTGACCCGTTTCTTTATCTGCCGGTGCCCTTGCCACAAAAGCAAAAGGTTCTCCCTGTCT
TTTATTTTGCCCGAGAGCCCCACAGCAAGCCCATCAAGTTCCTGGTGAGCGTCAGCAAGGAGAACTCCACTGCGA
GCGAAGTATTGGACTCCCTCTCTCAGAGTGTTCATGTGAAGCCTGAGAACCTGCGTTTGGCAGAGGTAATTAAGA
ATCGTTTTCATCGTGTGTTCCTACCCTCCCACTCACTGGACACTGTGTCCCCATCTGATACGCTCCTCTGCTTTG
AGCTGCTATCCTCAGAGTTGGCTAAGGAGCGGGTAGTGGTGCTAGAGGTGCAACAGCGCCCCCAGGTGCCCAGCG
TCCCCATCTCCAAGTGTGCAGCCTGCCAGCGGAAGCAACAGTCGGAGGATGAAAAGCTGAAGCGCTGTACCCGGT
GCTACCGTGTGGGCTACTGCAACCAGCTCTGCCAGAAAACCCACTGGCCTGACCACAAGGGCCTCTGCCGACCTG
AGAACATTGGCTACCCCTTCCTGGTCAGTGTACCTGCCTCACGCCTCACTTATGCCCGCCTCGCTCAGTTGCTAG
AGGGCTATGCCCGGTACTCTGTGAGTGTATTCCAGCCACCCTTTCAGCCAGGCCGCATGGCCTTGGAGTCTCAGA
GCCCTGGCTGCACCACACTGCTCTCCACAGGTTCCCTGGAGGCTGGGGACAGCGAGAGAGACCCCATTCAGCCAC
CTGAGCTCCAGCTGGTGACCCCTATGGCTGAGGGGGACACAGGGCTTCCCCGGGTGTGGGCAGCCCCTGACCGGG
GTCCTGTGCCCAGCACCAGTGGAATTTCTTCTGAGATGCTGGCCAGTGGGCCCATTGAGGTTGGCTCCTTGCCAG
CTGGCGAGAGGGTGTCCCGACCCGAAGCTGCTGTGCCTGGGTACCAGCATCCAAGTGAAGCTATGAATGCCCACA
CACCCCAGTTCTTCATCTATAAAATTGATTCATCCAACCGAGAGCAGCGGCTAGAGGACAAAGGAGACACCCCAC
TGGAGCTGGGTGACGACTGTAGCCTGGCTCTCGTCTGGCGGAACAATGAGCGCTTGCAGGAGTTTGTGTTGGTAG
CCTCCAAGGAGCTGGAATGTGCTGAGGATCCAGGCTCTGCCGGTGAGGCTGCCCGGGCCGGCCACTTCACCCTGG
ACCAGTGCCTCAACCTCTTCACACGGCCTGAGGTGCTGGCACCCGAGGAGGCCTGGTACTGCCCACAGTGCAAAC
AGCACCGTGAGGCCTCCAAGCAGCTGTTGCTATGGCGCCTGCCAAATGTTCTCATCGTGCAGCTCAAGCGCTTCT

FIGURE 1726B

CCTTTCGTAGTTTTATCTGGCGTGACAAGATCAATGACTTGGTGGAGTTCCCTGTTAGGAACCTGGACCTGAGCA
AGTTCTGCATTGGTCAGAAAGAGGAGCAGCTGCCCAGCTACGATCTATATGCTGTCATCAACCACTATGGAGGCA
TGATTGGTGGCCACTACACTGCCTGTGCACGCCTGCCCAATGATCGTAGCAGTCAGCGCAGTGACGTGGGCTGGC
GCTTGTTTGATGACAGCACAGTGACAACGGTAGACGAGAGCCAGGTTGTGACGCGTTATGCCTATGTACTCTTCT
ACCGCCGGCGGAACTCTCCTGTGGAGAGGCCCCCCAGGGCAGGTCACTCTGAGCACCACCCAGACCTAGGCCCTG
CAGCTGAGGCTGCTGCCAGCCAGGCTTCCCGGATTTGGCAGGAGCTGGAGGCTGAGGAGGAGCCGGTGCCTGAGG
GGTCTGGGCCCCTGGGTCCCTGGGGGCCCCAAGACTGGGTGGGCCCCCTACCACGTGGCCCTACCACACCAGATG
AGGGCTGCCTCCGGTACTTTGTCCTGGGCACCGTGGCGGCTTTGGTGGCCCTCGTGCTCAACGTGTTCTATCCTC
TGGTATCCCAGAGTCGCTGGAGA**TGA**GCTCGCCTGCAGGCAGCTGCTGTGAGCTGGCCTACCTGCCTGCCCCAGG
CCATGCCTGCCTTTGTTGTGGGGAACACCTCTGGGCTTTGGGCCTCAGCTTATGCATCTGGTGGGAGAGGGTGGG
GAGGTTGTGGCCCCTGCAGGGGCAGAGTATCCTAGGGTGTGTATCCATCTGGCTGTCTGTCCATTCATCCTGCTG
CTCTGACCCTTGGCCTCAGGCTTGGCCCTGCCCAAGCTACTTCCTGTACTTAAAAGTGTTAATAAAACCAGACTA
TTCAGGCCC

FIGURE 1727A

GAAGGCAGTTTCCGGAGGGAAGGGGTAGGGTTGGGGTGGGGGCGCTCTCCGCCCGGTGTTGCGCTCCTTCCCAGA
ATCCGCTCCGGCCTTTCCTTCCTGCCGCGATTCCCAACTTTGCTCAAAGTCGCTGGACTCTAAGCTGTCGGAGGG
ACCGCTGGACAGACCTGGGAACTGACAGAGGGCCTGGAGGGAAACAGGCCAAAGACCCACAGGCAGAGTTGACAC
GGAACCCCAAAGCAAGGAGGAGGGCTCGGGCCCGAGACCGTTCACCTCCCCTTATCCCTGTTCCCCTCTTCAGGA
TGGAGCTGACCTCAAGGGAAAGAGGGAGGGGACAGCCTCTGCCCTGGGAACTTCGACTGGGCCTACTGCTAAGCG
GTGAGAGGGCCTGGTGGGGGCTGGGGGTTGTGGAATGTGATGGTAGTCCCTGGGAGTTGCCCTTGGGGCACATGA
GGTGGAGCCACTGGATAGGAACTCCACGGAACTGACTGAGCTACTGTCCCCAGTGCTGGCTGCCACACTGGCACA
GGCCCCTGCCCCCGATGNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNCACCACAGCGGCGGGCAGCCTGGTGGCAGTCAG
AGAATGGTATCCCTGCGGTCACCATCCAGCTGGACCTGGAGGCTGAGTTTCATTTCACACACCTCATTATGACCT
TCAAGACATTTCGCCCTGCTGCCATGCTGGTGGAACGCTCAGCAGACTTTGGCCGCACCTGGCATGTGTACCGAT
ATTTCTCCTATGACTGTGGGGCTGACTTCCCAGGAGTCCCACTAGCACCCCCACGGCACTGGGATGATGTAGTCT
GTGAGTCCCGCTACTCAGAGATTGAGCCATCCACTGAAGGCGAGGTCATCTATCGTGTGCTGGACCCTGCCATCC
CTATCCCAGACCCCTACAGCTCACGGATTCAGAACCTGTTGAAGATCACCAACCTACGGGTGAACCTGACTCGTC
TACACACGTTGGGAGACAACCTACTCGACCCACGGAGGGAGATCCGAGAGAAGTACTACTATGCCCTCTATGAGC
TGGTTGTACGTGGCAACTGCTTCTGCTACGGACACGCCTCAGAGTGTGCACCCGCCCCAGGGGCACCAGCCCATG
CTGAGGGCATGGTGCACGGAGCTTGCATCTGCAAACACAACACACGTGGCCTCAACTGCGAGCAGTGTCAGGATT
TCTATCGTGACCTGCCCTGGCGTCCGGCTGAGGACGGCCATAGTCATGCCTGTAGGAAGTGTGAGTGCCATGGGC
ACACCCACAGCTGCCACTTCGACATGGCCGTATACCTGGCATCTGGCAATGTGAGTGGAGGTGTGTGTG**ATG**GAT
GTCAGCATAACACAGCTGGGCGCCACTGTGAGCTCTGTCGGCCCTTCTTCTACCGTGACCCAACCAAGGACCTGC
GGGATCCGGCTGTGTGCCGCTCCTGTGATTGTGACCCCATGGGTTCTCAAGACGGTGGTCGCTGTGATTCCCATG
ATGACCCTGCACTGGGACTGGTCTCCGGCCAGTGTCGCTGCAAAGAACATGTGGTGGGCACTCGCTGCCAGCAAT
GCCGTGATGGCTTCTTTGGGCTCAGCATCAGTGACCGTCTGGGCTGCCGGCGTATGTCAATGTAATGCACGGGGC
ACAGTGCCTGGGAGCACTCCTTGTGACCCCAACAGTGGATCCTGTTACTGCAAACGTCTAGTGACTGGACGTGGA
TGTGACCGCTGCCTGCCTGGCCACTGGGGCCTGAGCCACGACCTGCTCGGCTGCCGCCCCTGTGACTGCGACGTG
GGTGGTGCTTTGGATCCCCAGTGTGATGAGGGCACAGGTCAATGCCACTGCCGCCAGCACATGGTTGGGCGACGC
TGTGAGCAGGTGCAACCTGGCTACTTCCGGCCCTTCCTGGACCACCTAATTTGGGAGGCTGAGGACACCCGAGGG
CAGGTGCTCGATGTGGTGGAGCGCCTGGTGACCCCCGGGGAAACTCCATCCTGGACTGGCTCAGGCTTCGTGCGG
CTACAGGAAGGTCAGACCCTGGAGTTCCTGGTGGCCTCTGTGCCGAAGGCTATGGACTATGACCTGCTGCTGCGC
TTAGAGCCCCAGGTCCCTGAGCAATGGGCAGAGTTGGAACTGATTGTGCAGCGTCCAGGGCCTGTGCCTGCCCAC
AGCCTGTGTGGGCATTTGGTGCCCAAGGATGATCGCATCCAAGGGACTCTGCAACCACATGCCAGGTACTTGATA
TTTCCTAATCCTGTCTGCCTTGAGCCTGGTATCTCCTACAAGCTGCATCTGAAGCTGGTACGGACAGGGGGAAGT
GCCCAGCCTGAGACTCCCTACTCTGGACCTGGCCTGCTCATTGACTCGCTGGTGCTGCTGCCCCGTGTCCTGGTG
CTAGAGATGTTTAGTGGGGGTGATGCTGCTGCCCTGGAGCGCCAGGCCACCTTTGAACGCTACCAATGCCATGAG
GAGGGTCTGGTGCCCAGCAAGACTTCTCCCTCTGAGGCCTGCGCACCCCTCCTCATCAGCCTGTCCACCCTCATC
TACAATGGTGCCCTGCCATGTCAGTGCAACCCTCAAGGTTCACTGAGTTCTGAGTGCAACCCTCATGGTGGTCAG
TGCCTGTGCAAGCCTGGAGTGGTTGGGCGCCGCTGTGACCTCTGTGCCCCTGGCTACTATGGCTTTGGCCCCACA
GGCTGTCAAGCCTGCCAGTGCAGCCACGAGGGGGCACTCAGCAGTCTCTGTGAAAAGACCAGTGGGCAATGTCTC
TGTCGAACTGGTGCCTTTGGGCTTCGCTGTGACCGCTGCCAGCGTGGCCAGTGGGGATTCCCTAGCTGCCGGCCA
TGTGTCTGCAATGGGCATGCAGATGAGTGCAACACCCACACAGGCGCTTGCCTGGGCTGCCGTGATCACACAGGG
GGTGAGCACTGTGAAAGGTGCATTGCTGGTTTCCACGGGGACCCACGGCTGCCATATGGGGGCCAGTGCCGGCCC
TGTCCCTGTCCTGAAGGCCCTGGGAGCCAACGGCACTTTGCTACTTCTTGCCACCAGGATGAATATTCCCAGCAG
ATTGTGTGCCACTGCCGGGCAGGCTATACGGGGCTGCGATGTGAAGCTTGTGCCCCTGGGCACTTTGGGGACCCA
TCAAGGCCAGGTGGCCGGTGCCAACTGTGTGAGTGCAGTGGGAACATTGACCCAATGGATCCTGATGCCTGTGAC
CCCCACACGGGGCAATGCCTGCGCTGTTTACACCACACAGAGGGTCCACACTGTGCCCACTGCAAGCCTGGCTTC
CATGGGCAGGCTGCCCGACAGAGCTGTCACCGCTGCACATGCAACCTGCTGGGCACAAATCCGCAGCAGTGCCCA
TCTCCTGACCAGTGCCACTGTGATCCAAGCAGTGGGCAGTGCCCATGCCTCCCCAATGTCCAGGGCCCTAGCTGT
GACCGCTGTGCCCCCAACTTCTGGAACCTCACCAGTGGCCATGGTTGCCAGCCTTGTGCCTGCCACCCAAGCCGG

FIGURE 1727B

GCCAGAGGCCCCACCTGCAACGAGTTCACAGGGCAGTGCCACTGCCGTGCCGGCTTTGGAGGGCGGACTTGTTCT
GAGTGCCAAGAGCTCCACTGGGGAGACCCTGGGTTGCAGTGCCATGCCTGTGATTGTGACTCTCGTGGAATAGAT
ACACCTCAGTGTCACCGCTTCACAGGTCACTGCAGCTGCCGCCCAGGGGTGTCTGGTGTGCGCTGTGACCAGTGT
GCCCGTGGCTTCTCAGGAATCTTTCCTGCCTGCCATCCCTGCCATGCATGCTTCGGGGATTGGGACCGAGTGGTG
CAGGACTTGGCAGCCCGTACACAGCGCCTAGAGCAGCGGGCGCAGGAGTTGCAACAGACGGGTGTGCTGGGTGCC
TTTGAGAGCAGCTTCTGGCACATGCAGGAGAAGCTGGGCATTGTGCAGGGCATCGTAGGTGCCCGCAACACCTCA
GCCGCCTCCACTGCACAGCTTGTGGAGGCCACAGAGGAGCTGCGGCGTGAAATTGGGGAGGCCACTGAGCACCTG
ACTCAGCTCGAGGCAGACCTGACAGATGTGCAAGATGAGAACTTCAATGCCAACCATGCACTAAGTGGTCTGGAG
CGAGATAGGCTTGCACTTAATCTCACACTGCGGCAGCTCGACCAGCATCTTGACTTGCTCAAACATTCAAACTTC
CTGGGTGCCTATGACAGCATCCGGCATGCCCATAGCCAGTCTGCAGAGGCAGAACGTCGTGCCAATACCTCAGCC
CTGGCAGTACCTAGCCCTGTGAGCAACTCGGCAAGTGCTCGGCATCGGACAGAGGCACTGATGGATGCTCAGAAG
GAGGACTTCAACAGCAAACACATGGCCAACCAGCGGGCACTTGGCAAGCTCTCTGCCCATACCCACACCCTGAGC
CTGACAGACATAAATGAGCTGGTGTGTGGGGCACCAGGGGATGCACCCTGTGCTACAAGCCCTTGTGGGGGTGCC
GGCTGTCGAGATGAGGATGGGCAGCCGCGCTGTGGGGGCCTCAGCTGCAATGGGGCAGCGGCTACAGCAGACCTA
GCACTGGGCCGGGCCCGGCACACACAGGCAGAGCTGCAGCGGGCACTGGCAGAAGGTGGTAGCATCCTCAGCAGA
GTGGCTGAGACTCGTCGGCAGGCAAGCGAGGCACAGCAGCGGGCCCAGGCAGCCCTGGACAAGGCTAATGCTTCC
AGGGGACAGGTGGAACAGGCCAACCAGGAACTTCAAGAACTTATCCAGAGTGTGAAGGACTTCCTCAACCAGGAG
GGGGCTGATCCTGATAGCATTGAAATGGTGGCCACACGGGTGCTAGAGCTCTCCATCCCAGCTTCAGCTGAGCAG
ATCCAGCACCTGGCGGGTGCGATTGCAGAGCGAGTCCGGAGCCTGGCAGATGTGGATGCGATCCTGGCACGTACT
GTAGGAGATGTGCGTCGTGCCGAGCAGCTACTGCAGGATGCACGGCGGGCAAGGAGCTGGGCTGAGGATGAGAAA
CAGAAGGCAGAGACAGTACAGGCAGCACTGGAGGAGGCCCAGCGGGCACAGGGTATTGCCCAGGGTGCCATCCGG
GGGGCAGTGGCTGACACACGGGACACAGAGCAGACCCTGTACCAGGTACAGGAGAGGATGGCAGGTGCAGAGCGG
GCACTGAGCTCTGCAGGTGAAAGGGCTCGGCAGTTGGATGCTCTCCTGGAGGCTCTGAAATTGAAACGGGCAGGA
AATAGTCTGGCAGCCTCTACAGCAGAAGAAACGGCAGGCAGTGCCCAGGGTCGTGCCCAGGAGGCTGAGCAGCTG
CTACGCGGTCCTCTGGGTGATCAGTACCAGACGGTGAAGGCCCTAGCTGAGCGCAAGGCCCAAGGTGTGCTGGCT
GCACAGGCAAGGGCAGAACAACTGCGGGATGAGGCTCGGGACCTGTTGCAAGCCGCTCAGGACAAGCTGCAGCGG
CTACAGGAATTGGAAGGCACCTATGAGGAAAATGAGCGGGCACTGGAGAGTAAGGCAGCCCAGTTGGACGGGTTG
GAGGCCAGGATGCGCAGCGTGCTTCAAGCCATCAACTTGCAGGTGCAGATCTACAACACCTGCCAG**TGA**CCCCTG
CCCAAGGCCTACCCCAGTTCCTAGCACTGCCCCACATGCATGTCTGCCTATGCACTGAAGAGCTCTTGGCCCGGC
AGGGCCCCCAATAAACCAGTGTGAACCCCC

FIGURE 1728A

AGCTCACAGGAGGCAAAGAGTCCGAAGGTGGAGCTGCACAGCCACTCAGAGGTCCCTTTCCAGATGCTAGATGGC
AACAGTGGCTTGAGTTCTGAGAAGATCAGCCACAACCCCTGGAGCCTGCGTTGTCACAAGCAGCAGCTGAGCCGC
ATGCGCTCCGAGTCCAAGGACCGAAAGCTCTACAAGTTCCTCCTGCTTGAGAACGTGGTGCACCACTTCAAGTAC
CCCTGCGTGTTGGACCTGAAGATGGGCACGCGGCAGCATGGCGATGACGCGTCAGCTGAGAAGGCAGCCCGGCAG
ATGCGGAAATGCGAGCAGAGCACATCAGCCACGCTGGGCGTCAGGGTCTGCGGCATGCAGGTGTACCAGCTGGAC
ACAGGGCATTACCTCTGCAGGAACAAGTACTATGGCCGTGGGCTCTCCATTGAAGGCTTCCGCAATGCCCTCTAT
CAATATCTGCACAATGGCCTGGACCTGCGACGTGACCTGTTTGAGCCTATCCTGAGCAAACTGCGGGGCCTGAAA
GCTGTGCTGGAGCGGCAGGCCTCTTACCGCTTCTACTCCAGTTCCCTGCTTGTCATCTATGATGGCAAGGAGTGC
CGGGCTGAGTCCTGCCTGGACCGCCGGTCTGAGATGCGTCTCAAGCACCTGGACATGGTGCTCCCTGAGGTGGCG
TCATCCTGTGGCCCCAGCACCAGCCCCAGCAACACCAGCCCCGAGGCGGGTCCCTCCTCTCAGCCCAAGGTGGAT
GTCCGCATGATTGACTTTGCACACAGCACATTCAAGGGCTTCCGGGATGACCCCACCGTGCATGATGGGCCAGAC
AGAGGCTACGTGTTTGGCCTGGAGAACCTCATCAGCATCATGGAACAGATGCGGGACGAGAACCAGTAGGCCCTG
TTCTGGGCCCCCAGAACCCCTTCCTCTCCACTGCAGGCAGGGACCATTGTTCTGAACTTGCCGTGAGGACACACA
GACTTGCTTTTAAAGGGTTATATTTCTCTTTGGTGTAAACTAAAAGAAATGTTTTTAGCTGTAGCCTGGAATCCA
TATATATAAAGTGAAGGAGGGCAGACCACACGCCCTCTCAGCCAGGCTCCTCAGCTTTGTGGCTCTGACTGGTGT
GTCCAGGCTGCCTTAGGAAGGAAGAGGTGCCCCTGGTGGGCTTGGCAGCAGGGACAGGGTGCCCTTGGACATTGG
TTTCTCTTGTCTAGATCTTTGAGATCTGTGGCTGCAGGGCCCTGCTGATTGTAAGGTAAAGCCCTGGGCTGGTGC
AGGGCCCCTCCACGCCCACTCTTCCCTTGTTCCCCAGAAGTAGAGGGCTCTGGGTGCCCATTTCTTGGGGGCTTT
CCAGTCTTATGCTGTGGGTGTCAGCTAGCTCTTTAATAGGTGCCCTCAGGGCACCACAGGGCTGACTGCACAAAG
CTGGACCCATCCTTCGGTCTGACCTTAGCATGGGGCTAGATTAATGAAGCTGGGCTGAGGCCAACTTATGGCAGA
GGGCGGCGCCTGGGTTCCCCAGGCACCTGTTGGCACGTGACAGGTTGGCACCTGTCCTATTCCTGAAACAGCCTC
TCTCACCAAGTTCCCTTGCCTAAGAAGGCCACTCCCTCCCACCCCACTGAAGTGGGGGATAGTCGGTGTCCTAGC
AGGCCTCAGGGCCTCTGGTGGCTCTGGCCCAGACAGTATTTGCAGTTCTTGTGCTATGGGTGGGAGTCTTCTTCC
TCAAGTTTCGGCAGCTGTGCTGCTGCTGGATGGGCTGCTCCTCCCAGGGCTCAAGGGCTGTGGTCCGCTCAGGGT
CTCATTTCCCCAGGCCAAGTTCAAGGCAGCAGCCCTTTGTGAGGCGCTCTTGGCCCTGGGCCTGGAGGGAGAACT
TTAAGCTTTTTTGCTCACAGGGACGTGGTATGGGCCCTGGGTGCAGGTGCCCACATTCTGCTAATGAGAGCTTTG
TCTGATCAGTCCTGGGTCCATCAGTTTGTCCATGTGTCCGGCTGCCAGCCCGTCCCTTGGGATCCTTCCCCTGGG
GTGTAGCCTTGTTCATTAGTATATACTCATTCCTTCATGCTTTCCTCAGCAGAACACTTCCACTTCTGAGGTGAG
CTTTTGCCCCATGCCCTTCCTCCACAGGTGTTGCCTTTTTATAAAGACCTGATAGCAGAATAAATTGGTGTTTCC
CTGTTGACCCAGCACCATTTCTGTGGGCCTAGAATATGGCCCTCAACCCTTAGAGTGGGGCAGTGAGGGCTTGAG
GAGTGACCCTTCCTTTCTCATGGTTTTAGTCATTTTGGCTGCCAGCCCTTAATGGCACAGATCTGCTGCTTCTAA
CAGATGGCCAGGAGGTGACACCGATTTCAGCCATTGCCAAGGTTAGCACCCTCTCCTTTGAGCCTAGGGCCACAC
TGTTCATTGTCACTTTAGGCAAGTGCCTGTTTGGCTTTAAAGGTAAGCCTGCCAGCTGTGAGAAGCCTTGGTAAC
TGATGGACTCATTTCCTGGTCCTTAAAGATGCAGCCTCTTAAGGGCTCCTTGATGGATGCCATCTCTCCTAGCCC
CCAGCCCTGGTGCCACTGGTGGGCAGGTTCCCATTCTTTGGGGCTGGGAGGGACAGCTTGCCTGTTTCTGGTCAC
AAATTACAGTCTTCTCTCCTGTACCATTCTGTGGCTTCAGCCATGGGGGCAGTAGCCCTTCATTAGTGTAGATAG
TCATTCCCTGGTAGGGTGGAGGGTAAGACATAGGGTCTGGAACTGTTTGGGACCTTTTGGGGATGTCCTGTGCCT
CCCAGATTCCTCGATTCTGGGAGGAGAGGCTGCCGCATTCTGCTGCTCCTCACAGCGAGCAAAGCTGCACCCACT
TACATTCAGTATTTTCCTGGCACTACAAAGAGTGGGAAGGCCTGGGATTTGCTGCTGCTCCCTTAGAGCAGGGCC
CCTCTTTTCAGCACTTTGGACACCTGGAGACCCAGCCCTGTTATTTAATGGTAGTGGGCAAGTGTGTGTGCATAC
TGTCTGCCACTGCTTTCTCCCTGCCCCATGCCAGAGAGCCCTGTCCCTGCCAGGCCCAGCCTTCTTAGCCCCAAC
TTGGGAACAAAGTGCAACATGGGATCATGGGTTGGGGTGCTCAGGTGAGCCCTCTCTATAGTGCTTCCCTGGGCC
AAGCTGACACCAGCCCCTGAGGGTGGGGTGGGACGGGTGGTGCTTAAAAGAGGAAGGGGACCAGTGTAGCAACTT
GCCAGGGACCCCACCCCTCCCTCTCTGGGCCTGTGCAGTGAGCATGGGGATTCCCATCAAGGGGCCTGGCACCTG
TGCTAGTTACGTAGCCGCTGCTCACGCGCTCACTCCTGACCACATGCACGTTCCCTAGATGCAGACTGCTTTGAA
CTTTAAAGCTGTACAATTTGGTTATGTTTGTGCTGACTTAAAATATATTTTAATGAGGAAAAAATAATGGAGAAC
CCTGGGAAGGACCTGGTTCTTTTGCTTCTCGGGGAACTGTAAGCCCTCGCGTTCTGGGAATCGCTCTCTGCTGCT
CTTTCCTGGAAGCTAAGCCTGTCTCCACCGCCCGAGGCCTGCGCCGGTGGCTCCCGCCGCAGTTGCGTTTGCTTT

FIGURE 1728B

GGACCTTGCGTGCGGGGGAGGGGGTGCTCGGTCCGAGCCCGCTCCTTTCTGTACACCTAGCGCTGCCCGCCCCGC
TTGTGTCTGAGGTCGTGTATGTCAAAAATAAAGCCGCTAGAAACGG

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FIGURE 1729

GAGTTCGGGGCCAGCAGCCGTCTACCCGGTGTCGCGTTCTGTGTTGTGGCGGCCCTGGATCCGGCGTCAGGGCGA
CCGGGCGGACGAGGTGGAGCCAGAGTCTGTCAGGCGGGTTGGTGAAGGGCGCGGGGCCGGGCACGGCGTTGGGAG
TGCGCGGCAGGGACCGGCCAGGCGGGCTGCAGGCACCTCAGAGCCCGGGACACCCCCTCAACGTCCGCAGGCGCG
ATGAAGGCACTGATCTTAGTGGGGGGCTATGGGACGCGGCTACGGCCGCTGACGCTGAGCACCCCGAAGCCACTG
GTGGACTTCTGCAATAAGCCCATCTTGCTGCACCAAGTGGAGGCGCTAGCCGCGGCAGGCGTGGACCACGTGATC
CTGGCCGTGAGCTACATGTCGCAGGTGCTGGAGAAGGAAATGAAGGCACAGGAGCAGAGGCTGGGAATCCGAATC
TCCATGTCCCATGAAGAGGAGCCTTTGGGGACAGCTGGGCCCCTGGCGCTGGCCCGTGACCTACTCTCTGAGACT
GCAGACCCTTTCTTCGTCCTCAACAGTGACGTGATCTGCGATTTCCCCTTCCAAGCCATGGTGCAGTTCCACCGG
CACCATGGCCAGGAGGGCTCCATCCTGGTGACCAAGGTGGAGGAACCCTCCAAGTACGGTGTGGTGGTGTGTGAG
GCTGACACAGGCCGCATTCACCGGTTCGTGGAGAAGCCACAGGTGTTTGTGTCCAATAAGATCAACGCAGGCATG
TACATCCTGAGCCCTGCAGTGCTGCAGCGCATCCAGCTGCAGCCTACGTCCATTGAGAAGGAGGTCTTCCCCATT
ATGGCCAAGGAGGGGCAGCTATATGCCATGGAGTTACAGGGCTTCTGGATGGACATTGGGCAGCCCAAGGACTTC
CTCACTGGCATGTGCCTCTTCCTGCAGTCACTGAGGCAGAAGCAGCCTGAGCGGCTGTGCTCAGGCCCTGGCATT
GTGGGCAACGTGCTGGTGGACCCAAGTGCCCGCATCGGCCAGAACTGCAGCATTGGCCCCAATGTGAGCCTGGGA
CCTGGCGTGGTGGTCGAAGATGGTGTGTGTATCCGGCGGTGCACGGTGCTGCGGGATGCCCGGATCCGTTCCCAT
TCCTGGCTTGAGTCCTGCATTGTGGGCTGGCGCTGCCGCGTGGGTCAGTGGGTAAGCCTGTGGGCTGGGCTGGGT
GGGGAGAGGGGCGGGGAGTGTGCCTGCCTCCCTGACAAGGCCTATCCTCTCCTGGAGGTACGCATGGAGAACGTG
ACAGTGCTGGGTGAGGACGTCATAGTTAATGATGAGCTCTACCTCAACGGAGCCAGCGTGCTGCCCCACAAGTCT
ATTGGCGAGTCAGTGCCAGAGCCTCGTATCATCATG**TGA**GGGGATGCAGTGGGGCTGGCCGAGCCCCGGTTTTCC
CATCAGCAAGGGGAGTGCTGGCCTGACACATCAGAAGACCCTGGACTTGTCATTATTTGTCTGGGGGGCACTGGG
TGAAGCTGAAGCTGTTGGACACCTGCCTTCTCATGTGGACATCATCTGGCAGGATCCCTGCTGGGCACACCCCAC
AAACCCCACTCCCTCAAGAAGGGCCAGGGCCAGGGCTGTATGGAATAATAATTTAATGCTCACTGTG

FIGURE 1730

CTGCAGGAGAACGCCAGTGGCCGGGGGAAC**ATG**CCCATGCTCTGCCCCCCTGAGTACATGGTCTGCTTCTTACAC
CGGCTGATCTCTGCCCTGCGCTACTATTGGGATGAATACAAGGCTTCCAATCCTCATGCTTCCTTCAGTGAGGAG
GCCTACATCCCGCCCCAGGTCTTCTATAATGGCAAGGTGGACTACTTTGACCTGCAGCGCCTGGGGGGCCTCCTC
TCGCACCTGCGGAAGACCCTCAAAGATGACCTTGCTTCCAAAGCCAACATTGTGATCGACCCACTGGAGCTCCAG
TCAACCGCCATGGATGACCTAGATGAGGATGAGGAGCCAGCCCCAGCTATGGCCCAGCGCCCCATGCAGGCCCTG
GCTGTTGGGGGGCCACTGCCCCTGCCCCGGCCCGGCTGGCTCAGTTCTCCAACTTTGGGCCGAGCCAACCGCTTC
CTCAGCACAGCGGCTGTGAGCCTCATGACCCCACGGCGGCCTCTGAGCACCTCGGAGAAAGTGAAGGTCCGCACG
CTGAGCGTGGAGCAGAGGACCCGTGAGGACATTGAAGGCAGCCACTGGAATGAGGGCTTGCTGCTGGGGCGGCCC
CCCGAGGAGCCTGAGCAGCCCCTCACCGAGAACTCGCTGCTGGAAGTCCTGGATGGGGCGGTCATGATGTACAAC
CTCAGCGTACACCAGCAGCTGGGCAAGATGGTGGGTGTCTCCGATGATGTCAATGAATACGCTATGGCTCTGAGG
GACACAGAGGACAAGCTCCGCCGGTGCCCCAAGAGGAGGAAGGACATCCTTGCAGAGTTGACCAAGAGCCAGAAG
GTTTTCTCAGAAAAGCTGGACCACCTGAGCCGCCGTCTTGCCTGGGTCCATGCCACTGTCTACTCCCAGGAGAAG
ATGCTGGACATCTACTGGCTGCTGCGCGTCTGCCTGCGGACCATTGAGCACGGTGATCGCACAGGGTCTCTCTTT
GCCTTCATGCCCGAGTTCTACCTGAGCGTGGCCATCAACAGCTACAGTGCTCTCAAGAATTACTTTGGTCCCGTG
CACAGCATGGAGGAGCTCCCAGGCTATGAAGAGACCCTGACCCGCCTGGCTGCCATTCTCGCCAAACACTTTGCC
GACGCACGCATTGTGGGCACTGACATCCGAGACTCACTGATGCAGGCCCTGGCCAGCTACGTGTGCTACCCACAC
TCCCTGCGGGCTGTGGAGCGAATCCCCGAGGAGCAGCGTATCGCCATGGTGAGGAACCTCCTGGCGCCCTATGAG
CAGCGGCCCTGGGCCCAGACCAACTGGATCCTGGTGCGGCTCTGGAGGGGCTGTGGCTTCGGGTACCGCTATACA
CGGCTGCCACATCTGCTGAAAACCAAACTTGAGGACGCCAATTTGCCCAGCCTCCAGAAGCCCTGCCCTTCCACC
CTGCTGCAGCAGCACATGGCGGACCTCCTACAGCAGGGTCCTGATGTGGCACCCAGCTTCCTCAACAGCGTCCTC
AATCAGCTCAACTGGGCCTTCTCTGAATTCATTGGCATGATCCAAGAGATCCAGCAGGCTGCTGAGCGCCTGGAG
CGGAACTTTGTGGACAGCCGGCAGCTCAAGGTATGTGCCACCTGCTTTGACCTCTCGGTCAGCCTGCTGCGTGTC
TTGGAGATGACTATCACACTGGTGCCTGAGATATTCCTTGACTGGACCCGGCCTACCTCTGAGATGCTGCTGCGG
CGTCTTGCACAGCTGCTAAACCAGGTGCTGAACCGGGTGACAGCTGAGAGGAACCTGTTTGATCGTGTGGTCACC
CTACGGCTGCCTGGCCTAGAGAGCGTGGACCACTATCCCATTCTGGTGGCAGTGACGGGCATCCTGGTGCAGCTC
CTGGTGCGTGGCCCAGCCTCAGAGAGAGAGCAAGCCACATCAGTGCTCCTGGCAGATCCCTGCTTCCAGCTACGC
TCAATATGCTATCTCCTGGGACAGCCAGAGCCCCCAGCACCTGGCACTGCTCTGCCAGCCCCTGACCGGAAGCGC
TTCTCCCTGCAGAGCTATGCGGATTATATCAGTGCCGATGAGCTGGCCCAAGTGGAACAGATGCTGGCGCACCTG
ACCTCTGCATCTGCCCAGGCAGCAGCTGCCTCCCTGCCCACCAGTGAGGAGGACCTCTGCCCCATCTGCTATGCC
CACCCCATCTCTGCTGTGTTCCAGCCCTGTGGCCACAAGTCCTGCAAAGCCTGTATCAACCAGCACCTGATGAAC
AACAAGGACTGCTTCTTCTGCAAAACCACCACATCCAACCTCCTTGCCTGCCTGTATCCTCATTGGTGGGAGCCC
AGCCATGGCCCTAATTGTGCC**TGA**GCTTGACTTTCAGTCAGGGCCACAGTGAGCATTAAATTATTATTCCAT

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FIGURE 1731

AGCCAGAAGG**ATG**GGGTGGCTCCCACTCCTGCTGCTTCTGACTCAATGCTTAGGGGTCCCTGGGCAGCGCTCGCC
ATTGAATGACTTCCAAGTGCTCCGGGGCACAGAGCTACAGCACCTGCTACATGCGGTGGTGCCCGGGCCTTGGCA
GGAGGATGTGGCAGATGCTGAAGAGTGTGCTGGTCGCTGTGGGCCCTTAATGGACTGCCGGGCCTTCCACTACAA
CGTGAGCAGCCATGGTTGCCAACTGCTGCCATGGACTCAACACTCGCCCCACACGAGGCTGCGGCGTTCTGGGCG
CTGTGACCTCTTCCAGAAGAAAGACTACGTACGGACCTGCATCATGAACAATGGGGTTGGGTACCGGGGCACCAT
GGCCACGACCGTGGGTGGCCTGCCCTGCCAGGCTTGGAGCCACAAGTTCCCAAATGATCACAAGTACACGCCCAC
TCTCCGGAATGGCCTGGAAGAGAACTTCTGCCGTAACCCTGATGGCGACCCCGGAGGTCCTTGGTGCTACACAAC
AGACCCTGCTGTGCGCTTCCAGAGCTGCGGCATCAAATCCTGCCGGGAGGCCGCGTGTGTCTGGTGCAATGGCGA
GGAATACCGCGGCGCGGTAGACCGCACGGAGTCAGGGCGCGAGTGCCAGCGCTGGGATCTTCAGCACCCGCACCA
GCACCCCTTCGAGCCGGGCAAGTTCCTCGACCAAGGTCTGGACGACAACTATTGCCGGAATCCTGACGGCTCCGA
GCGGCCATGGTGCTACACTACGGATCCGCAGATCGAGCGAGAGTTCTGTGACCTCCCCCGCTGCGGGTCCGAGGC
ACAGCCCCGCCAAGAGGCCACAACTGTCAGCTGCTTCCGCGGGAAGGGTGAGGGCTACCGGGGCACAGCCAATAC
CACCACCTGCGGGCGTACCTTGCCAGCGTTGGGACGCGCAAATCCCGCATCAGCACCGATTTACGCCAGAAAAAT
ACGCGTGCAAAGACCTTCGGGAGAACTTCTGCCGGAACCCCGACGGCTCAGAGGCGCCCTGGTGCTTCACACTGC
GGCCCGGCATGCGCGCGGCCTTTTGCTACCAGATCCGGCGTTGTACAGACGACGTGCGGCCCCAGGACTGCTACC
ACGGCGCAGGGGAGCAGTACCGCGGCACGGTCAGCAAGACCCGCAAGGGTGTCCAGTGCCAGCGCTGGTCCGC**TG**
AGACGCCGCACAAGCCGCAGTTCACGTTTACCTCCGAACCGCATGCACAACTGGAGGAGAACTTCTGCCGGAACC
CAGATGGGGATAGCCATGGGCCCTGGTGCTACACGATGGACCCAAGGACCCCATTCGACTACTGTGCCCTGCGAC
GCTGCGCTGATGACCAGCCGCCATCAATCCTGGACCCCCCAGACCAGGTGCAGTTTGAGAAGTGTGGCAAGAGGG
TGGATCGGCTGGATCAGCGGCGTTCCAAGCTGCGCGTGGTTGGGGGCCATCCGGGCAACTCACCCTGGACAGTCA
GCTTGCGGAATCGGCAGGGCCAGCATTTCTGCGGGGGGTCTCTAGTGAAGGAGCAGTGGATACTGACTGCCCGGC
AGTGCTTCTCCTCCTGCCATATGCCTCTCACGGGCTATGAGGTATGGTTGGGCACCCTGTTCCAGAACCCACAGC
ATGGAGAGCCAAGCCTACAGCGGGTCCCAGTAGCCAAGATGGTGTGTGGGCCCTCAGGCTCCCAGCTTGTCCTGC
TCAAGCTGGAGAGATCTGTGACCCTGAACCAGCGTGTGGCCCTGATCTGCCTGCCCCCTGAATGGTATGTGGTGC
CTCCAGGGACCAAGTGTGAGATTGCAGGCTGGGGTGAGACCAAAGGTACGGGTAATGACACAGTCCTAAATGTGG
CCTTGCTGAATGTCATCTCCAACCAGGAGTGTAACATCAAGCACCGAGGACGTGTGCGGGAGAGTGAGATGTGCA
CTGAGGGACTGTTGGCCCCTGTGGGGGCCTGTGAGGGTGACTACGGGGGCCCACTTGCCTGCTTTACCCACAACT
GCTGGGTCCTGGAAGGAATTATAATCCCCAACCGAGTATGCGCAAGGTCCCGCTGGCCAGCTGTCTTCACGCGTG
TCTCTGTGTTTGTGGACTGGATTCACAAGGTCATGAGACTGGGTTAGGCCCAGCCTTGATGCCATATGCCTTGGG
GAGGACAAAACTTCTTGTCAGACATAAAGCCATGTTTCCTCTTTA

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FIGURE 1732

GGCGGCAGAGAGGAGACT**ATG**GAACGTCAGGTGCTGCTGAGCGAGCCCGAGGAGGCGGCGGCTCTGTATCGGGGC
CTTAGCCGCCAGCCCGCGCTGAGCGCCGCCTGCCTGGGCCCGGAGGTCACCACGCAGTACGGCGGCCAATACCGG
ACGGTGCACACTGAGTGGACCCAGAGGGACCTGGAACGCATGGAGAACATTCGATTCTGCCGCCAATACCTGGTG
TTCCATGACGGGGACTCAGTGGTGTTTGCAGGACCTGCAGGCAACAGTGTGGAGACCCGGGGGGAACTGCTGAGC
AGAGAGTCTCCTTCAGGCACCATGAAAGCTGTGCTGCGCAAGGCTGGAGGCACGGGCCCTGGGGAAGAGAAGCAG
TTCCTGGAGGTCTGGGAGAAGAACCGGAAGCTCAAGAGCTTCAACCTGTCAGCGCTGGAGAAACATGGGCCTGTT
TATGAGGATGACTGCTTTGGCTGCCTGTCCTGGTCGCACTCGGAGACACACTTGTTGTATGTGGCAGAGAAGAAG
CGCCCCAAGGCCGAGTCCTTCTTTCAGACCAAAGCCTTGGACGTCAGTGCCAGCGATGATGAGATAGCCAGGCTG
AAGAAGCCAGACCAAGCCATCAAGGGGGATCAGTTTGTGTTTTATGAAGACTGGGGAGAAAACATGGTTTCCAAA
AGCATCCCTGTGCTCTGCGTGCTGGATGTCGAGAGTGGCAACATCTCTGTGCTTGAGGGGGTCCCTGAGAATGTG
TCCCCTGGACAGGCATTTTGGGCCCCTGGAGATGCTGGTGTGGTGTTTGTGGGCTGGTGGCATGAGCCCTTCCGG
TTGGGCATCCGCTTTTGCACCAATCGCAGGTCAGCCCTGTATTATGTGGACCTCATCGGGGGGAAGTGTGAGCTC
CTCTCGGATGACTCCCTGGCTGTCTCTTCTCCCCGGCTGAGCCCAGACCAATGTCGCATTGTCTACCTGCAGTAC
CCATCTCTGATCCCCCATCACCAATGCAGCCAGCTGTGCCTGTATGACTGGTATACCAAGGTTACCTCAGTGGTG
GTAGATGTTGTGCCTCGGCAGCTGGGAGAGAACTTCTCTGGGATCTACTGCAGCCTTCTGCCTTTGGGATGCTGG
TCAGCTGACAGCCAGAGAGTGGTCTTTGACTCGGCTCAGCGCAGCCGGCAGGACCTGTTTGCTGTGGACACCCAA
GTGGGCACTGTGACCTCCCTCACAGCTGGAGGGTCAGGTGGGAGCTGGAAGTTGCTCACAATTGACCAGGACCTC
ATGGTGGCACAGTTTTCCACACCCAGCCTACCTCCAACCCTGAAAGTTGGGTTCCTGCCTTCTGCAGGGAAGGAG
CAGTCAGTGTTGTGGGTGTCCCTGGAGGAGGCCGAGCCCATTCCCGACATCCACTGGGGCATCCGGGTGCTACAG
CCACCCCCAGAGCAAGAGAATGTGCAGTATGCTGGCCTTGACTTTGAAGCAATCCTGCTGCAGCCTGGCAGCCCT
CCAGATAAGACCCAAGTGCCCATGGTGGTCATGCCCCACGGGGGGCCCCATTCATCCTTTGTCACTGCCTGGATG
CTGTTCCCAGCCATGCTTTGCAAGATGGGCTTTGCGGTACTACTAGTGAACTATCGTGGCTCCACGGGCTTTGGC
CAGGACAGCATCCTCTCCCTCCCAGGCAATGTGGGCCACCAGGATGTGAAGGATGTCCAGTTTGCAGTGGAACAG
GTGCTCCAGGAGGAACACTTTGATGCAAGCCATGTGGCCCTTATGGGTGGTTCCCATGGTGGCTTCATTTCCTGC
CACTTGATTGGTCAGTACCCAGAGACCTACAGGGCCTGCGTGGCCCGGAACCCCGTGATCAACATCGCCTCCATG
TTGGGCTCCACTGACATCCCTGACTGGTGCGTGGTGGAGGCTGGCTTTCCTTTCAGCAGTGACTGCCTGCCAGAC
CTCAGCGTGTGGGCTGAGATGCTGGACAAATCGCCCATCAGATACATCCCTCAGGTGAAGACACCACTGTTACTG
ATGTTGGGCCAGGAGGACCGGCGTGTGCCCTTCAAGCAGGGCATGGAGTATTACCGTGCCCTCAAGACCCGGAAT
GTGCCTGTTCGGCTCCTGCTCTATCCCAAAAGCACCCACGCATTATCAGAGGTGGAGGTGGAGTCAGACAGCTTC
ATGAATGCTGTGCTCTGGCTACGCACACACTTGGGCAGC**TGA**AGCCCTGCCATTCTGCATGAGCTGATCAGCCTG
TGCCACACTTCGCTCTTGAGGAGCTCAACGGTCTGGCAGGGCAGCAGGAGGCTTTCTGGGCTCTGGACTCCACGG
ATGCGTGGGCAGAGGAATGTGGGCTATGTAGTCATAATAAATTAGGAC

FIGURE 1733A

GCCAGTCGGCGCCGCGCGGAGCTGGCCGCTGGATTGGCTGCAACACTCGCGTGTCAGGCGGTTGCTAGGCTCCGG
CCGCGCGCCCCGCCCTTGCGCTCAGCGCCCTCTCACCGCCCGGTACGTGCTCGCGCGAAGGCTGCGGCGCGGCGC
TCGCGCCTCTTAGGCTTGGCGGTGGCGGCGGCGGCAGCTTCGCGCCGAATCCCCGGGGAGCGGCGGTGGCGGCGT
CCTGGGGCCAGGAGGAGCGAACACCTGCCGCGGTCCTCCCGCCGGCGCTGGGCTCTGTGTGCTCCGGGATGGAGC
AGGTGTGCAGAGGGTGAGAACCCAGCTCTGGGACCAAGTCACTTGCTTCCTTACTTAGCAAGACTATCGACTTGA
GCAAACTTGGACCTGGG**ATG**AGGATGTCTGTGGGCCTCTCGCTGCTGCTGCCCCTCTCGGGGAGGACCTTTCTCC
TCCTGCTCTCTGTGGTTATGGCTCAGTCCCACTGGCCCAGTGAACCCTCAGAGGCTGTCAGGGACTGGGAAAACC
AGCTTGAGGCATCCATGCACTCAGTGCTCTCAGACCTCCACGAGGCTGTTCCCACAGTGGTTGGCATTCCTGATG
GCACGGCTGTCGTCGGGCGCTCATTTCGAGTGACCATTCCAACAGATTTGATTGCCTCCAGTGGAGATATCATCA
AGGTATCAGCGGCAGGGAAGGAGGCTTTGCCATCTTGGCTGCACTGGGACTCACAGAGCCACACCCTGGAGGGCC
TCCCCCTTGACACTGATAAGGGTGTGCATTACATTTCAGTGAGCGCTACACGGCTGGGGGCCAACGGGAGCCACA
TCCCCCAGACCTCCAGTGTGTTCTCCATCGAGGTCTACCCTGAAGACCACAGTGAGCTGCAGTCGGTGAGGACAG
CCTCCCCAGACCCTGGTGAGGTGGTATCATCTGCCTGTGCTGCGGATGAACCTGTGACTGTTTTGACGGTGATTT
TGGATGCCGACCTCACCAAGATGACCCCAAAGCAAAGGATTGACCTCCTGCACAGGATGCGGAGCTTCTCAGAAG
TAGAGCTTCACAACATGAAATTAGTGCCGGTGGTGAATAACAGACTATTTGACATGTCGGCCTTCATGGCTGGCC
CGGGAAATGCAAAAAAGGTGGTGGAGAATGGGGCCCTTCTCTCCTGGAAGCTGGGCTGCTCCCTGAACCAGAACA
GTGTGCCTGACATTCATGGTGTAGAGGCCCCTGCCAGGGAGGGCGCAATGTCTGCTCAGCTTGGCTACCCTGTGG
TGGGTTGGCACATCGCCAATAAGAAGCCCCCTCTTCCCAAACGCGTCCGGAGGCAGATCCATGCTACACCCACAC
CTGTCACTGCCATTGGGCCCCCAACCACGGCTATCCAGGAGCCCCCATCCAGGATCGTGCCAACCCCCACATCTC
CAGCCATTGCTCCTCCAACAGAGACCATGGCTCCTCCAGTCAGGGATCCTGTTCCTGGGAAACCCACGGTCACCA
TCCGGACTCGAGGCGCCATTATTCAAACCCCAACCCTAGGCCCCATCCAGCCTACTCGGGTGTCAGAAGCTGGCA
CCACAGTTCCTGGCCAGATTCGCCCAACGATGACCATTCCTGGCTATGTGGAGCCTACTGCAGTTGCTACCCCTC
CCACAACCACCACCAAGAAGCCACGAGTATCCACACCAAAACCAGCAACGCCTTCAACTGACTCCACCACCACCA
CGACTCGCAGGCCAACCAAGAAACCACGGACACCCCGGCCAGTGCCCCGGGTCACCACCAAAGTTTCCATCACCA
GATTGGAAACTGCCTCACCGCCTACTCGTATTCGCACCACCACCAGTGGAGTGCCCCGTGGCGGAGAACCCAACC
AGCGCCCAGAGCTCAAGAACCATATTGACAGGGTAGATGCCTGGGTTGGCACCTACTTTGAGGTGAAGATCCCGT
CAGACACTTTCTATGACCATGAGGACACCACCACTGACAAGCTGAAGCTGACCCTGAAACTGCGGGAGCAGCAGC
TGGTGGGCGAGAAGTCCTGGGTACAGTTCAACAGCAACAGCCAGCTCATGTATGGCCTTCCCGACAGCAGCCACG
TGGGCAAACACGAGTATTTCATGCATGCCACAGACAAGGGGGGCCTGTCGGCTGTGGATGCCTTCGAGATCCACG
TCCACAGGCGCCCCCAAGGGGATAGGGCTCCTGCAAGGTTCAAGGCCAAGTTTGTGGGTGACCCGGCACTGGTGT
TGAATGACATCCACAAGAAGATTGCCTTGGTAAAGAAACTGGCCTTCGCCTTTGGAGACCGAAACTGTAGCACCA
TCACCCTGCAGAATATCACCCGGGGCTCCATCGTGGTGGAATGGACCAACAACACACTGCCCTTGGAGCCCTGCC
CCAAGGAGCAGATCGCTGGGCTGAGCCGCCGGATCGCTGAGGATGATGGAAAACCTCGGCCTGCCTTCTCCAACG
CCCTAGAGCCTGACTTTAAGGCCACAAGCATCACTGTGACGGGCTCTGGCAGTTGTCGGCACCTACAGTTTATCC
CTGTGGTACCACCCAGGAGAGTGCCCTCAGAGGCGCCGCCCACAGAAGTGCCTGACAGGGACCCTGAGAAGAGCA
GTGAGGATGATGTCTACCTGCACACAGTCATTCCGGCCGTGGTGGTCGCAGCCATCCTGCTCATTGCTGGCATCA
TTGCCATGATCTGCTACCGCAAGAAGCGGAAGGGCAAGCTTACCCTTGAGGACCAGGCCACCTTCATCAAGAAGG
GGGTGCCTATCATCTTTGCAGACGAACTGGACGACTCCAAGCCCCCACCCTCCTCCAGCATGCCACTCATTCTGC
AGGAGGAGAAGGCTCCCCTACCCCCTCCTGAGTACCCCAACCAGAGTGTGCCCGAGACCACTCCTCTGAACCAGG
ACACCATGGGAGAGTACACGCCCCTGCGGGATGAGGATCCCAATGCGCCTCCCTACCAGCCCCCACCGCCCTTCA
CAGCACCCATGGAGGGCAAGGGCTCCCGTCCCAAGAACATGACCCCATACCGGTCACCTCCTCCCTATGTCCCAC
CT**TAA**CCCGCAAGCGCCTGGGTGGAGGCAGGGTAGGGCAGGGGCCTGGAGACGACATGGTGTTGTCTGTGGAGAC
CGGTGGCCTGCAGACCATTGCCCACCGGGAGCCGACACCTGACCTAGCACACACTGACACAGGGGCCTGGACAAG
CCCGCCCTCTCTGGTCCTCCCAAACCCCAAAGCAGCTGGAGAGACTTTGGGGACTTTTTTATTTTTATTTTTTGC
CTAACAGCTTTTGGTTTGTTCATAGAGAATTCTTCGCTTCATTTTTGATGGCTGGCTCTGAAAGCACCATGTGGA
GTGGAGGTGGAGGGAGCGAGGAACCATGAATGAACTCGCAGGCAGTGCCGGGCGGCCCCCTGGCTCTCTGCGTTT
TGCCTTTAACACTAACTGTACTGTTTTTTCTATTCACGTGTGTCTAGCTGCAGGATGTAACATGGAAAACAGTAA
CTAAAGATTAAATTCAAAGGACTTTCAGAAGTTAAGGTTAAGTTTTTACGTTTAATCTGCTGTTTACCTAAACTT

FIGURE 1733B

GTATGTATAATTTTTGGGTGGGTATGGGGAATTGCTTTGCTAAAAATAAGCTCCCAGGGTGTTTCAAACTTAGAG
AAGACCAAGGGACAGTATTTTTTATCAAAGGAATACTATTTTTTCACACTACGTCAACTTGGTTGCTCTGATACC
CCAGAGCCTGATTGGGGGCCTCCCGGCCCTGGCTCACGCCAAGTCCCTGGTGCTGGGTTTGCTCTCCCGCTGTTG
CCAGGGGCTGGAAGCTGGAGGGGTCTCTTGGGCCATGGACATCCCCACTTCCAGCCCATGTACACTAGTGGCCCA
CGACCAAGGGGTCTTCATTTCCATGAAAAAGGGACTCCAAGAGGCAGTGGTGGCTGTGGCCCCCAACTTTGGTGC
TCCAGGGTGGGCCAGCTGCTTGTGGGGGCACCTGGGAGGTCAAAGGTCTCCACCACATCAACCTATTTTGTTTTA
CCCTTTTTCTGTGCATTGTTTTTTTTTTCCTCCTAAAAGGAATATCACGGTTTTTTGAAACACTCAGTGGGGGA
CATTTTGGTGAAGATGCAATATTTTTATGTCATGTGATGCTCTTTCCTCACTTGACCTTGGCCGCTTTGTCCTAA
CAGTCCACAGTCCTGCCCCGACCCACCCCATCCCTTTTCTCTGGCACTCCAGTCCCAGGCCTTGGGCCTGAACTA
CTGGAAAAGGTCTGGCGGCTGGGGAGGAGTGCCAGCAATAGTTCATAATAAAAATCTGTTAGCTCTCAAAGCTAA
TTTTTTACTAAAGTTTTTATACAGCCTCAAATTGTTTTATTAAAAAAAAAGATTTAAAATGGTGATGCTTACAGCA
GTTTGTACGAGCTCTTAAGTGTTGATTCCATGGAACTGACGGCTTTGCTTGTTTTGATTCTTTTCCCCCTACTTT
TCCTAATGGTTTAAATTCTGGAATTACACTGGGGTTCTTTTGCCTTTTTTAGCAGAACATCCGTCCGTCCATCTG
CATCTCTGTCCCATGACTCAGGGGCGCCCACTCTGCTTCGATTCTCCTCCTGTGGAAGAAACCATTTTGAGCATG
ACTTTTCTTGATGTCTGAAGCGTTATTTTGGGTACTTTTTAGGGAGGAATGCCTTTCGCAATAATGTATCCATTC
CCTGATTGAGGGTGGGTGGGTGGACCCAGGCTCCCTTTGCACACAGAGCAGCTACTTCTAAGCCATATCGACTGT
TTTGCAGAGGATTTGTGTGTGCTGCCTCAGGAGGGGAGGGCTGGTAGGAGGGGGGGAGAGGTCTCTGTCCTACTG
CTCTCCAGAGGGCATTTCCCCTTGCGCCTTCTCCCACAGGGCCCAGCCCCTCTCCCCTGCCCCAGTCCCCAGGGG
GTACTCTGGAGTGAGCAGTGCCCCTGTGGGGGAGCCTGTAAATGCGGGCTCAGTGGACCACTGGTGACTGGGCTC
ATGCCTCCAAGTCAGAGTTTCCCTGGTGCCCCAGAGACAGGAGCACAAGTGGGATCTGACCTGGTGAGATTATTT
CTGATGACCTCATCAAAAAATAAACAATTCCCAATGTTCCAGGTGAGGGCTTTGAAAGGCCTTCCAAACAGCTCC
GTCGCCCCTAGCAACTCCACCATTGGGCACTGCCATGCAGAGACGTGGCTGGCCCAGAATGGCCTGTTGCCATAG
CAACTGGAGGCGATGGGGCAGTGAACAGAATAACAACAGCAACAATGCCTTTGCAGGCAGCCTGCTCCCCTGAGC
GCTGGGCTGGTGATGGTCGTTGGACTCTGTGAGATGGAGAGCCAATCTCACATTCAAGTGTTCACCAACCACTGA
TGTGTTTTTATTTCCTTCTATATGATTTTAAGATGTGTTTTCTGCATTCTGTAAAGAAACATATCAAACTAAATA
AAAGCAGTGTCTTTATT

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FIGURE 1734

AGCCTGCCCTTGGGGCTGCCCACGCCCCCTTCAGATCCTTTGCTCCGGAGAGAGACCTGTCCGAGCAGAGGCCTG
GACTACATCTCCCGGCGTGCCTGGCAGTGTGGTGGCCTCTGTGCGCCGTCTGCACTCGTTGCAGGCGACG**ATG**CA
GAGGGCTGTAAGTGTGGTGGCCCGTCTGGGCTTTCGCCTGCAGGCATTCCCCCCGGCCTTGTGTCGTCCACTTAG
TTGCGCACAGGAGGTGCTCCGCAGGACACCGCTCTATGACTTCCACCTGGCCCACGGCGGGAAAATGGTGGCGTT
TGCGGGTTGGAGTCTGCCAGTGCAGTACCGGGACAGTCACACTGACTCGCACCTGCACACACGCCAGCACTGCTC
GCTCTTTGACGTGTCTCATATGCTGCAGACCAAGATACTTGGTAGTGACCGGGTGAAGCTGATGGAGAGTCTAGT
GGTTGGAGACATTGCAGAGCTAAGACCAAACCAGGGGACACTGTCGCTGTTTACCAACGAGGCTGGAGGCATCTT
AGATGACTTGATTGTAACCAATACTTCTGAGGGCCACCTGTATGTGGTGTCCAACGCTGGCTGCTGGGAGAAAGA
TTTGGCCCTCATGCAGGACAAGGTCAGGGAGCTTCAGAACCAGGGCAGAGATGTGGGCCTGGAGGTGTTGGATAA
TGCCCTGCTAGCTCTGCAAGGCCCCACTGCAGCCCAGGTACTACAGGCCGGCGTGGCAGATGACCTGAGGAAACT
GCCCTTCATGACCAGTGCTGTGATGGAGGTGTTTGGCGTGTCTGGCTGCCGCGTGACCCGCTGTGGCTACACAGG
AGAGGATGGTGTGGAGATCTCGGTGCCGGTAGCGGGGGCAGTTCACCTGGCAACAGCTATTCTGAAAAACCCAGA
GGTGAAGCTGGCAGGGCTGGCAGCCAGGGACAGCCTGCGCCTGGAGGCAGGCCTCTGCCTGTATGGGAATGACAT
TGATGAACACACTACACCTGTGGAGGGCAGCCTCAGTTGGACACTGGGGAAGCGCCGCCGAGCTGCTATGGACTT
CCCTGGAGCCAAGGTCATTGTTCCCCAGCTGAAGGGCAGGGTGCAGCGGAGGCGTGTGGGGTTGATGTGTGAGGG
GGCCCCCATGCGGGCACACAGTCCCATCCTGAACATGGAGGGTACCAAGATTGGTACTGTGACTAGTGGCTGCCC
CTCCCCCTCTCTGAAGAAGAATGTGGCGATGGGTTATGTGCCCTGCGAGTACAGTCGTCCAGGGACAATGCTGCT
GGTAGAGGTGCGGCGGAAGCAGCAGATGGCTGTAGTCAGCAAGATGCCCTTTGTGCCCACAAACTACTATACCCT
CAAG**TGA**AGCTGGCTCAGGGTGGGGCTGTCCCTTCCAGGAGTTTTGCCCCTACAAGGGGTTAGTCAAGAAGCTGA
GGCAGAACTCACTGGGGGTGGGCAGTTAAGGTGGAGGCTGATTCTAATTGTCTGGTTGAGGGGCCACACCACCTA
TTCCCCCCACCTAACTCATGCCATTCCAGCTTCCTTCAGGACCCTGCTTCTGAGTGACGGACCAGCTCACACAAT
GTCTTGTTTCAGTCCATGATCCCACTGACCTACTCTTGCCTGCTGGAGGGTAATGAGAAGCTTTGGTTCTGCCAT
CTCTCCCACTCTGCCAGGTGCTGGCTGTGGAGCAAAGGCTCACCTTTGTGGAGAGGATAAAACCTGCCCAACCTA
CCTCACCATGGTTTTTCACATTGCAAAGGGTAATAACATGGGCAGTGCGGACTTAGGCTACCCCCTCCAGTTTGC
TTTCCGTAAATGCAAATTGTCCTTACTGCAAGTCAGGAATGATTGCTGACTCACAGTAGGGCTGCTATGCCTGTG
TGTAAACTTGGGGATGGCTGAGGGAACATAGACTCACTCTTCCACATTCCCAAGTTGGTCTAGTGTGCTGCCCAG
TAGCAAACCATGGCAGACTCACCACCTATTCTGAGTTCCAGGGCTGCTGTAGGGCAGGGTGGGCTTCCTCCCAGA
CTTGCCTTACCCTGGGCTGATCTTTGCCCCTGGTATGCATTAATGGACTCCACTGAATCCTGAAAAAAAAATTAA
ACTTCCTTCTTACTTGCCA

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FIGURE 1735

CC**ATG**TCCCGCGTTTTGGTGCCTTGCCATGTGAAAGGCTCCGTAGCCCTCCAGGTGGGCGACGTGCGGACCTCCC
AAGGCCGGCCTGGCGTGCTGGTCATCGATGTCACCTTCCCCAGCGTCGCTCCCTTCGAGTTGCAGGAAATCACGT
TTAAGAATTACTACACAGCTTTTTTGAGCATCCGTGTCCGTCAGTACACCTCAGCACACACACCTGCCAAGTGGG
TGACCTGCCTGCGGGACTACTGCCTAATGCCTGACCCACACAGTGAGGAGGGAGCCCAGGAGTATGTATCGCTGT
TCAAGCATCAGATGCTGTGTGACATGGCTAGAATATCGGAGCTACGCCTGATTCTGCGGCAGCCATCACCACTGT
GGCTGTCTTTCACAGTGGAGGAGCTGCAGATCTATCAGCAGGGACCAAAGAGCCCCTCCGTGACCTTTCCCAAGT
GGCTCTCCCACCCAGTGCCCTGTGAGCAACCTGCACTCCTCCGTGAGGGTCTCCCAGACCCCAGCAGGGTATCCT
CCGAGGTGCAGCAGATGTGGGCACTGACAGAGATGATCCGGGCCAGTCACACCTCCGCAAGGATCGGCCGCTTTG
ATGTGGATGGCTGTTATGACCTGAACTTGCTCTCCTACACT**TGA**ATGGTTGCTCCTAGCCAAGATGTTGGCCTTT
CTGTGCCCACCCAGACTTGGTTTGGGCCACCAGAGGCTGAAGTGTATTTCCTGTGCATTCCAAGTGTTGCCTGCA
TGCCTGTTCTGTCTGGGCCACATTCACAGATTCAGGATTCTCAGGGGCTTACCGTGTTACTTCAGCATGAGCTCC
TGGCATGGGGGTGCTCTGTCTTCGCCTGGCTGCAACTCAATTCTTCCTTCTACCCAAAAACACTCCAGTCAGTTG
TACTTACTGAGAATCCCTGAGTGCCCTCTGCCCCTTCTGGCAACATGCACATTCCTGTGATCTGCCTGCCTTGGC
CTTCCAAAGTGCTGGGATTACAGGCATGAGCCACCGCGCCCGCCCTGCCCCTTTCCAAGAGATATGCTCAGCATA
ATGAGAGATCAACCGTGGTGGGGAGTGGGTCCAAGTAAGGGTTCTCATTGTTGCCTTTTAAGAGGCCTAAGTCCT
GCATTAACTCAGTCCAACCATTAAGTGATGCAGGCTGCTCTTCCCTCATGTGAGAAAAACCTGTTTCCCTCTGGT
TCTTCCTGGCTTTGCACCTGGTGGCTATTACAAAGCAGTACTGCAGTATGTCTTGGACCTGGAAAGTTGGACATG
TGTGTGGCTCAACAGTTTTCTCGGGGGAGTTCAGTGACCTTTTGGTGGCCACCCTCTGTTCTCACCTGTGAGTTC
TTGCAGGTGGCGACTTCATCTGCAAGGTCACTTACATAGCCCCACTCAGCTGCTTCGGAAAGCGTGACGAAGCAG
TAGTCCTCAGTGTGTGTGTAAGTGAAGAGGACCTTGTGGTAGCAGGGACCATGCTTCATTCGTGGCTGTGTCCCC
ATCTGAGGGCCTGGTATGCAGTAAGATCAATAAATACTTGTGGAATGC

FIGURE 1736

GCCAAATTTGAAGCAAGCGGAGGCGCGGGGGCGCGTCTACGAAGCCGGACCTGTAGCAGTTTCTTTGGCTGCCTG
GGCCCCTTGAGTCCAGCCATC**ATG**CCTATCCGTGCTCTGTGCACTATCTGCTCCGACTTCTTCGATCACTCCCGC
GACGTGGCCGCCATCCACTGCGGCCACACCTTCCACTTGCAGTGCCTAATTCAGTGGTTTGAGACAGCACCAAGT
CGGACCTGCCCACAGTGCCGAATCCAGGTTGGCAAAAGAACCATTATCAATAAGCTCTTCTTTGATCTTGCCCAG
GAGGAGGAGAATGTCTTGGATGCAGAATTCTTAAAGAATGAACTGGACAATGTCAGAGCCCAGCTTTCCCAGAAA
GTTGCAGACAGTCTACTC**TGA**ATTGGATCAGGCCAAGTTAGAACTGAAGTCAGCCCAGAAGGACTTACAGAGTGC
TGACAAGGAAATCATGAGCCTGAAAAAGAAGCTAACGATGCTGCAGGAAACCTTGAACCTGCCACCAGTGGCCAG
TGAGACTGTCGACCGCCTGGTTTTAGAGAGGTTTGTTGAGCCTTGGGCGGTACAGGGGTCACAAGGTGGGAGAGC
TTTCTG

FIGURE 1737A

AGTAAGAGTCTGCGGGACCGGCAGCTGTACTTCATCTCCCAGCGGGCCGAGCGCTGAAGGCAGCGGCGCGGCGCC
TTTGTGGTAGCAGTGGCCCCGCGCGGAGGAAGTTCCGGTGTCCGCGGCGCTGGGTCGGTGGCGGAGGCTGAGGAG
AAGGAGGAGCGGGCCGTGGAGGCTTCGCCGCCTAGGTACTGCTATAACCAGAATTTGGTAGAAAAAGGATTTACT
TGTTGGGGCCCTCTTGATAAAAAGAG**ATG**TGGGGGGATTCTCGACCTGCTAACAGAACTGGACCTTTTCGTGGGA
GCCAAGAAGAAAGGTTTGCTCCCGGGTGGAACAGGGATTATCCTCCTCCTCCCCTTAAGAGTCATGCTCAAGAGA
GACACTCTGGCAACTTTCCTGGCAGAGATTCACTTCCCTTTGATTTCCAGGGGCATTCGGGGCCTCCTTTTGCAA
ATGTAGAGGAGCATTCTTTCAGCTATGGAGCTAGAGACGGACCGCATGGTGACTATCGAGGAGGGGAGGGACCTG
GACATGATTTCAGGGGGGGAGATTTTTCGTCTTCTGATTTCCAGAGCAGAGATTCATCACAGTTGGACTTCAGGG
GTAGGGACATACATTCTGGGGATTTTCGGGATAGAGAAGGACCACCTATGGACTATAGGGGTGGAGATGGTACTT
CTATGGATTATAGAGGTAGGGAGGCACCTCATATGAACTACAGAGACAGGGATGCTCACGCTGTTGACTTCAGAG
GTAGGGATGCTCCTCCATCTGACTTCAGGGGCCGGGGCACTTATGATTTAGATTTTAGAGGCCGGGATGGATCCC
ATGCAGATTTTAGGGGAAGGGATTTATCAGATTTGGATTTTAGGGCCAGAGAACAGTCCCGTTCTGATTTTAGGA
ATAGAGATGTATCTGATTTGGACTTTAGAGACAAAGACGGAACACAAGTAGACTTTAGAGGCCGAGGTTCAGGTA
CTACTGATCTAGACTTTAGGGACAGGGATACGCCACATTCAGATTTCAGAGGTAGACACCGATCTAGGACTGATC
AGGATTTTAGGGGCAGAGAGATGGGATCTTGTATGGAATTTAAAGATAGGGAGATGCCCCCTGTGGATCCAAATA
TTTTGGATTACATTCAGCCCTCTACACAAGATAGAGAACATTCTGGTATGAATGTGAACAGGAGAGAAGAATCCA
CACATGACCATACGATAGAAAGGCCTGCTTTTGGCATTCAGAAGGGAGAATTTGAGCATTCAGAAACAAGAGAAG
GAGAAACACAAGGTGTAGCCTTTGAACATGAGTCTCCAGCAGACTTTCAGAACAGCCAAAGTCCAGTTCAAGACC
AAGATAAGTCACAGCTTTCTGGACGTGAAGAGCAGAGTTCAGATGCTGGTCTGTTTAAAGAAGAAGGCGGTCTGG
ACTTTCTTGGGCGGCAAGACACCGATTACAGAAGCATGGAGTACCGTGATGTGGATCATAGGCTGCCAGGAAGCC
AGATGTTTGGCTATGGCCAGAGCAAGTCTTTTCCAGAGGGCAAAACTGCCCGAGATGCCCAACGGGACCTTCAGG
ATCAAGATTATAGGACCGGCCCAAGTGAGGAGAAACCCAGCAGGCTTATTCGATTAAGTGGGGTACCTGAAGATG
CCACAAAAGAAGAGATTCTTAATGCTTTTCGGACTCCTGATGGCATGCCTGTAAAGAACTTGCAGTTGAAGGAGT
ATAACACAGGTTACGACTATGGCTATGTCTGCGTGGAGTTTTCACTCTTGGAAGATGCCATCGGATGCATGGAGG
CCAACCAGGGAACTCTAATGATCCAGGACAAAGAAGTTACCCTGGAGTATGTATCAAGCCTGGATTTTTGGTACT
GCAAACGATGTAAGGCAAACATTGGTGGGCACCGATCTTCCTGTTCATTCTGCAAGAACCCAAGAGAAGTGACAG
AGGCCAAGCAAGAATTAATAACCTACCCTCAGCCTCAGAAAACATCCATACCAGCACCATTGGAAAAACAGCCCA
ACCAGCCCCTAAGACCAGCTGATAAGGAACCTGAACCCAGGAAGAGGGAAGAAGGCCAAGAGTCACGCTTAGGAC
ATCAAAAGAGAGAAGCAGAAAGGTATCTGCCTCCTTCTCGAAGGGAAGGGCCAACTTTCCGAAGAGACCGAGAGA
GGGAGTCATGGTCTGGAGAGACACGCCAGGATGGAGAGAGCAAAACTATCATGCTAAAGCGTATCTATCGTTCCA
CACCACCTGAGGTGATAGTGGAAGTGCTGGAGCCCTATGTCCGCCTTACTACTGCCAACGTCCGTATCATCAAGA
ACAGAACAGGCCCTATGGGGCATACCTATGGCTTTATTGACCTCGACTCCCATGCGGAAGCTCTTCGTGTGGTGA
AGATCTTACAGAACCTTGATCCGCCATTTAGCATTGATGGGAAGATGGTAGCTGTAAACCTGGCCACTGGAAAAC
GAAGAAATGATTCTGGGGACCATTCTGACCACATGCATTACTATCAGGGTAAAAAATATTTCCGAGATAGGAGGG
GAGGTGGCAGAAATTCAGACTGGTCTTCAGATACAAATCGACAAGGACAACAGTCATCATCTGACTGCTACATAT
ATGATTCTGCTACTGGCTACTATTATGACCCCTTGGCAGGAACTTATTATGACCCCAATACCCAGCAAGAAGTCT
ATGTGCCCCAGGATCCTGGATTACCTGAGGAAGAAGAGATCAAGGAAAAAAAACCCACCAGTCAAGGAAAGTCAA
GTAGCAAGAAGGAAATGTCTAAAAGAGATGGCAAGGAGAAAAAAGACAGAGGAGTGACGAGGTTTCAGGAAAATG
CCAGTGAAGGGAAGGCCCCTGCAGAAGACGTCTTTAAGAAGCCCCTGCCTCCTACTGTGAAGAAGGAAGAGAGTC
CCCCTCCACCTAAAGTGGTAAACCCACTGATCGGCCTCTTGGGTGAATATGGAGGAGACAGTGACTATGAGGAGG
AAGAAGAGGAGGAACAGACCCCTCCCCCACAGCCCCGCACAGCACAGCCCCAGAAGCGAGAGGAGCAAACCAAGA
AGGAGAATGAAGAAGACAAACTCACTGACTGGAATAAACTGGCTTGTCTGCTTTGCAGAAGGCAGTTTCCCAATA
AAGAAGTTCTGATCAAACACCAGCAACTGTCAGACCTGCACAAGCAAAACCTGGAAATCCACCGGAAGATAAAAC
AGTCTGAGCAGGAGCTAGCCTATCTGGAAAGGAGAGAACGAGAGGGAAAGTTTAAAGGAAGAGGAAATGATCGCA
GGGAAAAGCTCCAGTCTTTTGACTCTCCAGAAAGGAAACGGATTAAGTACTCCAGGGAAACTGACAGTGATCGTA
AACTTGTTGATAAAGAAGATATCGACACTAGCAGCAAAGGAGGCTGTGTCCAACAGGCTACTGGCTGGAGGAAAG
GGACAGGCCTGGGATATGGCCATCCTGGATTGGCTTCATCAGAGGAGGCTGAAGGCCGGATGAGGGGCCCCAGTG
TTGGAGCCTCAGGAAGAACCAGCAAAAGACAGTCCAACGAGACTTATCGAGATGCTGTTCGAAGAGTCATGTTTG

FIGURE 1737B

CTCGATATAAAGAACTCGATTAAGAAAGGAGACAAGTTCCATGGGATACAACCTCCCTCTTGTTTTGTTTGTCTC
TCCTTTTCTTTTGTTACTGTTCTTGCTGCTAGAACTTTTTTAAATAAACTTTTTTTCAATGTG

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FIGURE 1738

ACTGTGGGTAGGAGACGGCCGTCGGCGGAGGCGCCATTTTGTGTAGCCGCCGAACCTTGTTGGAGGTTCTGGGGC
GCAGAACCGCTACTGCTGCTTCGGTCTCTCCTTGGGAAAAAATAAAATTTGAACCTTTTGGAGCTGTGTGCTAAA
TCTTCAGTGGGACA**ATG**GGTTCAGACAAAAGAGTGAGTAGAACAGAGCGTAGTGGAAGATACGGTTCCATCATAG
ACAGGGATGACCGTGATGAGCGTGAATCCCGAAGCAGGCGGAGGGACTCAGATTACAAAAGATCTAGTGATGATC
GGAGGGGTGATAGATATGATGACTACCGAGACTATGACAGTCCAGAGAGAGAGCGTGAAAGAAGGAACAGTGACC
GATCCGAAGATGGCTACCATTCAGATGGTGACTATGGTGAGCACGACTATAGGCATGACATCAGTGACGAGAGGG
AGAGCAAGACCATCATGCTGCGCGGCCTTCCCATCACCATCACAGAGAGCGATATTCGAGAAATGATGGAGTCCT
TCGAAGGCCCTCAGCCTGCGGATGTGAGGCTGATGAAGAGGAAAACAGGTGTAAGCCGTGGTTTCGCCTTCGTGG
AGTTTTATCACTTGCAAGATGCTACCAGCTGGATGGAAGCCAATCAGAAAAAGTTGGTGATTCAAGGAAAGCACA
TTGCAATGCATTATAGCAATCCCAGACCTAAGTTTGAAGATTGGCTTTGTAACAAGTGCTGCCTTAACAATTTCA
GGAAAAGACTAAAATGCTTCCGATGTGGAGCAGACAAGTTTGACTCTGAACAGGAAGTGCCTCCTGGAACCACAG
AGTCGGTTCAGTCTGTGGATTACTACTGTGATACGATCATTCTTCGGAACATAGCTCCGCACACTGTGGTGGATT
CCATCATGACAGCACTGTCTCCTTACGCGTCTTTAGCTGTCAATAACATCCGCCTCATAAAAGACAAACAGACCC
AGCAGAACAGAGGCTTCGCATTTGTGCAGCTGTCCTCTGCAATGGATGCTTCTCAGCTGCTTCAGATATTACAGA
GTCTCCATCCTCCTTTGAAAATTGATGGCAAAACTATTGGGGTTGATTTTGCAAAAAGTGCCAGAAAAGACTTGG
TCCTCTCAGATGGTAACCGCGTCAGCGCCTTCTCTGTAGCTAGTACGGCTATTGCTGCTGCTCAGTGGTCATCCA
CCCAGTCTCAAAGTGGTGAAGGAGGCAGTGTTGACTACAGTTATCTGCAACCAGGTCAAGATGGCTATGCCCAAT
ATGCTCAGTATTCACAGGATTATCAGCAGTTTTATCAACAACAAGCTGGAGGATTGGAATCTGATGCATCATCTG
CATCAGGCACAGCAGTGACCACCACCTCAGCGGCTGTAGTGTCCCAGAGTCCTCAGCTGTATAATCAAACCTCCA
ATCCACCTGGCTCTCCGACTGAGGAAGCACAGCCTAGCACTAGCACAAGTACACAGGCCCCAGCCGCTTCCCCTA
CTGGTGTAGTTCCTGGTACCAAATATGCAGTACCTGACACGTCCACTTACCAGTATGATGAATCTTCAGGATATT
ACTATGATCCGACAACAGGGCTCTATTATGACCCCAACTCGCAATACTACTATAATTCCTTGACCCAGCAGTACC
TTTACTGGGATGGGGAAAAAGAGACCTACGTGCCAGCTGCAGAGTCTAGCTCCCACCAGCAGTCGGGCCTGCCTC
CTGCAAAAGAGGGGAAAGAGAAGAAGGAGAAACCCAAGAGCAAAACAGCCCAGCAGATTGCCAAAGACATGGAAC
GCTGGGCTAAGAGTTTGAATAAGCAGAAAGAAAACTTTAAAAATAGCTTTCAGCCTGTCAATTCCTTGAGGGAAG
AAGAAAGGAGAGAATCTGCTGCAGCAGACGCTGGCTTTGCTCTCTTTGAGAAGAAGGGAGCCTTAGCTGAAAGGC
AGCAGCTCATCCCAGAATTGGTGCGAAATGGAGATGAGGAGAATCCCCTCAAAAGGGGTCTGGTTGCTGCTTACA
GTGGTGACAGTGACAATGAGGAGGAGCTGGTGGAGAGACTTGAGAGTGAGGAAGAGAAGCTAGCTGACTGGAAGA
AGATGGCCTGTCTGCTCTGCCGGCGCCAGTTCCCGAACAAAGATGCCCTAGTCAGGCACCAGCAACTCTCAGACC
TTCACAAGCAAAACATGGACATCTACCGACGATCCAGGCTGAGCGAGCAGGAGCTGGAAGCCTTGGAGCTAAGGG
AGAGAGAGATGAAATACCGAGACCGAGCTGCAGAAAGACGGGAGAAGTACGGCATTCCAGAACCTCCAGAGCCCA
AGCGCAAGAAGCAGTTTGATGCCGGCACTGTGTATGTGATGTGCACATTTTCCAGTTCG**TAA**GCTGGGGCCCTGG
CTGTTTTAAGTAACTGTGTGTTTGCCACTGGCAGGAATTACGAGCAACCCACCAAAGATGGCATTGACCACAGTA
ACATTGGCAACAAGATGCTGCAGGCCATGGGCTGGCGGGAAGGCTCTGGCTTGGGACGAAAGTGTCAAGGCATTA
CGGCTCCCATTGAGGCTCAAGTTCGGCTAAAGGGAGCTGGCCTAGGAGCCAAAGCGAGCGCATATGGTTTGTCGG
GCGCCGATTCCTACAAAGATGCTGTCCGGAAAGCCATGTTTGCCCGGTTCACTGAGATGGAGTGAGAGAGAGAGA
GAGAGAGAGATGACAAGGAGCACAAGAAGTGGTCCATCTCCCGAATTCGCTGTTACCGCCTGTCTCTTTAAGGGC
ATGCCTTGTGCTGTTAATAGATCTTAGGGTGAACCACTTCATTCTGCAGGGTTCTCCCTCCCACCTTAAAGAAGT
TCCCCTTATGTGGGTTGCCTGGTGAATGGCCTTCCTTCCCGCCAGAGGGCTTGTGAACAGACCGGAGAGGACAGT
GGATTGTTTATACTCCAGTGTACATAGTGTAATGTAGCGTGTTTACATGTGTAGCCTATGTTGTGGTCCATCAGC
CCCTCACATTCCTAGGGGTTTGAGATGCTGTAGGTGGTATGTGACACCAAAGCCACCTCTGTCATTTGTTGTGAT
GTCTTTTCTTGGCAAAAGCCTTGTGTATATTTGTATATTACACATTTGTACAGAATTTTGGAAGATTTTCAGTCT
AGTTGCCAAATCTGGCTCCTTTACAAAAGAAATACCTTGAG

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FIGURE 1739

GCCGGGAGCAGAGCGAACCGCACCGGCCCGAGCGGAGCGCCGCACGTTCCCAACCGCGAGGCCAGACATCTGACT
GTTGGTGTGAGACCAGTGCTCCTGGTGGTGTGCCCTGAGCCATGGAGGCGCCTTTGCAGACAGAGATGGTGGAGC
TGGTGCCCAATGGCAAACACTCAGAGGGGCTGCTCCCGGTCATCACCCCCATGGCAGGCAACCAGAGGTCGAGGA
CCCTGCACGGAGCTGT**ATG**GAGGGCAAGAGCTTCCTACAGAAAAGTCCCAGCAAGGAGCCACACTTCACTGACTT
CGAGGGGAAGACATCATTCGGGATGTCAGTGTTCAACCTCAGCAATGCCATCATGGGCAGCGGCATCCTGGGACT
CGCCTATGCCATGGCCAATACGGGCATTATCCTTTTCCTGTTCCTGTTGACAGCTGTCGCCTTGCTCTCCAGCTA
CTCCATCCACCTGCTACTCAAGTCCTCAGGGGTCGTGGGCATCCGTGCCTATGAGCAGCTGGGCTACCGTGCCTT
TGGGACCCCAGGAAAGCTGGCAGCAGCCCTGGCCATCACGCTCCAGAACATCGGAGCCATGTCCAGCTACCTGTA
CATCATCAAGTCTGAGCTGCCACTTGTCATACAGACCTTCCTGAACCTGGAGGAGAAAACCTCGGACTGGTACAT
GAACGGGAACTACCTGGTAATCCTTGTCTCTGTCACCATCATTCTGCCCCTGGCACTGATGCGGCAGCTTGGCTA
CCTGGGCTACTCCAGCGGCTTCTCTCTTAGCTGCATGGTGTTCTTCCTAATTGCAGTCATCTACAAAAAGTTCCA
CGTGCCCTGCCCACTGCCCCCCAACTTCAACAACACCACAGGCAACTTCAGCCACGTGGAGATCGTGAAGGAGAA
GGTGCAGCTGCAGGTCGAGCCTGAGGCTTCAGCCTTCTGCACTCCCAGCTACTTCACGCTCAACTCACAGACAGC
ATACACCATCCCCATCATGGCCTTCGCCTTCGTCTGCCACCCCGAGGTGCTGCCCATCTATACTGAGCTCAAGGA
CCCCTCCAAGAAGAAGATGCAGCACATCTCCAACCTGTCCATCGCTGTCATGTACATCATGTACTTCCTGGCTGC
CCTCTTCGGCTACCTCACCTTCTACAACGGGGTGGAGTCGGAGCTGCTGCACACCTACAGCAAGGTGGACCCGTT
TGACGTCCTGATCCTGTGTGTGCGCGTGGCCGTGCTGACAGCAGTCACGCTCACAGTGCCCATCGTTCTGTTCCC
GGTGCGCCGCGCCATCCAGCAGATGCTGTTTCCAAACCAGGAGTTCAGCTGGCTGCGGCATGTGCTTATTGCCGT
TGGCCTGCTCACTTGTATCAACCTGCTGGTCATCTTTGCCCCCAACATCCTGGGCATCTTTGGGGTCATCGGTGC
CACATCTGCCCCATTCCTCATCTTCATCTTCCCTGCCATCTTCTACTTCCGAATCATGCCCACGGAGAAGGAGCC
TGCAAGATCCACCCCCAAAATCCTGGCCCTGTGTTTTGCTATGCTTGGCTTCTTGCTGATGACCATGAGCTTGAG
CTTCATCATCATTGACTGGGCCTCAGGGACCAGCCGGCATGGAGGAAACCAC**TAG**GGTGACCCTCATCCTGTTCT
GTCTACTCACCCTAGCAGCCCTGCCCAGACTCTTCAGCCCCTGCTCCCATCCAGTGGCCAGTCGGGGGAGGAGAA
AGACGCGATTAACACTGTGGCATTCAGCCAGGCCCCATGTCCTCTCTGTGGAAGGTTTTTGTTCAAGAGCCAGGA
CCAAGGCCCTTGGGCCACTACCCTGCTAGGCTCTGGAGCTGTAGAGGCTTCCTGAACTGGGAGCAGGGTAGGGCT
GTCGCCTTAGATCCCGCCCAAGCCCCTCATTCCCTCCTTGCACAGATGCATACACTGGGGCCCAGCAGCTGCCTC
CTGAGGTGACACAGCCTGTAGGAACATACACAGCTGGGATCAGCCTGCAGCCATCCCCCGACCCTGCTGCTAGGC
CACGGTCTGCGCCCTGGGGCCTCATCTCCCCCAGCCCACTTGTTTTCCCCCCTTTTATTCCCTAGGCCCTTTTCA
GACTCCTGGGCCCTTGGATACTCTTCTCCCATCTCCCTTCACAGGATGACACCCTCCCATACCCCATAGCTGGGG
CCAGCAGGTTCTGCTGAGGGTGGGGCTGGTGTAGGGACCCCCAAGAGACCCCTGTCCTGTCCCTTCACCAGTCCT
GGGGAGGCTGGGACTCCCCCTGCCACAAGCCTGGGCCACAGCTCACATTCCACTGCTGGGAGAAGAAACAGGCCG
AGGCCCAGAGTGGCCTGCCCCCGGGAGCCAAAGACCCCAGTGGCCACACTGGGATAGGGTGGGGAGGCTGGCAGC
CCTCTTTTATAAAT

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FIGURE 1740

CCCGAGTGCTTCCCGCAGAGGGCTGGTGGTGGGAGCGGAGTGGGTCGGGCGGGGCCGAGCCGGGCCGTGGGCCGT
GTGGGGGCCGGGCGGCGGCCGGGCCGGCGGACGGCGGGATGGCTGCACCGTGAGCGCCGAGGACAAGGCGGCGG
CCGAGCGCTCTAAGATGATCGACAAGAACCTGCGGGAGGACGGAGAGAAGGCGGCGCGGGAGGTGAAGTTGCTGC
TGTTGGGTGCTGGGGAGTCAGGGAAGAGCACCATCGTCAAGCAGATGAAGATCATCCACGAGGATGGCTACTCCG
AGGAGGAATGCCGGCAGTACCGGGCGGTTGTCTACAGCAACACCATCCAGTCCATCATGGCCATTGTCAAAGCCA
TGGGCAACCTGCAGATCGACTTTGCCGACCCCTCCAGAGCGGACGACGCCAGGCAGCTATTTGCACTGTCCTGCA
CCGCCGAGGAGCAAGGCGTGCTCCCTGATGACCTGTCCGGCGTCATCCGGAGGCTCTGGGCTGACCATGGTGTGC
AGGCCTGCTTTGGCCGCTCAAGGGAATACCAGCTCAACGACTCAGCTGCCTACTACCTGAACGACCTGGAGCGTA
TTGCACAGAGTGACTACATCCCCACACAGCAAGATGTGCTACGGACCCGCGTAAAGACCACGGGGATCGTGGAGA
CACACTTCACCTTCAAGGACCTACACTTCAAGATGTTTGATGTGGGTGGTCAGCGGTCTGAGCGGAAGAAGTGGA
TCCACTGCTTTGAGGGCGTCACAGCCATCATCTTCTGCGTAGCCTTGAGCGCCTATGACTTGGTGCTAGCTGAGG
ACGAGGAGATGAACCGCATGCATGAGAGCATGAAGCTATTCGATAGCATCTGCAACAACAAGTGGTTCACAGACA
CGTCCATCATCCTCTTCCTCAACAAGAAGGACCTGTTTGAGGAGAAGATCACACACAGTCCCCTGACCATCTGCT
TCCCTGAGTACACAGGGGCCAACAAATATGATGAGGCAGCCAGCTACATCCAGAGTAAGTTTGAGGACCTGAATA
AGCGCAAAGACACCAAGGAGATCTACACGCACTTCACGTGCGCCACCGACACCAAGAACGTGCAGTTCGTGTTTG
ACGCCGTCACCGATGTCATCATCAAGAACAACCTGAAGGACTGCGGCCTCTTCTGAGGGGCAGCGGGGCCTGGCG
GGATGGGCCACCGCCGACTTTGTACCCCCCAACCCCTGAGGAAGATGGGGGCAAGAAGATCACGCTCCCCGCCTG
TTCCCCCGCCGCTTTTCTCCTCTTTCCTCTCTTTGTTCTCAGCTCCCCCTGTCCCCTCAGCTCCAGACGTAGGGG
AGGGGTTGCCACAGGCCTCCCTGTTTGAAGCCTGCCCTTGTCTGAGATGCTGGTAATGGCCATGGTACCCCCTTC
TGGGCATCTGTTCTGGTTTTTAACCATTGTCTTGTTCTGTGATGAGGGGAGGGGGGCACATGCTGAGTCTCCCAA
GGCTGCGTCTGGAGGGGCCCCTGCTTCTCCAGCCTGGACCCCCAGCTTTGCCCAACACCAGCCCCTGCCCCAGCC
CAAGTCCAAATGTTTACAGGGAGCCTCCTGCCCAGTCCCCCAACCCCAGCCGCTCGGAGGCCCCAAAGGAAAAAG
CACAAGAAGCGTGAGACGCCACCATTCCTGGAAACCACAGTCC

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FIGURE 1741

TCTGTGATTGTGGCCAGGCGGGGCACCCTCGGAGGGGAGGGTTCGGAAGTGGAATGCGACCCCCCAGCCTCTTTC
CCCTAGGGGCTGTAATCTGATCCCTGGGGACTCCCCCCCTAGCCTCCCGCCCTCGCCCTCACTGCTGACTCCTCT
TCCAGATCCTGGGGCAGAGTCCAGGGCAGCTCAAGGCTCCTCCACACACACACCCGCTGAACCCTGAGCACCCTG
AGCTGCTGAGATGGGGCGGGCCGGGGCTGCCGCCGTGATCCCGGGCCTGGCCCTGCTCTGGGCAGTGGGGCTGGG
GAGTGCCGCCCCCAGCCCCCACGCCTTCGGCTCTCCTTCCAAGAGCTCCAGGCCTGGCATGGTCTCCAGACTTTC
AGCCTGGAGCGAACCTGCTGCTACCAGGCCTTGCTGGTGGATGAGGAGCGTGGACGCCTGTTTGTGGGTGCCGAG
AACCATGTGGCCTCCCTCAACCTGGACAACATCAGCAAGCGGGCCAAGAAGCTGGCCTGGCCGGCCCCTGTGGAA
TGGCGAGAGGAGTGCAACTGGGCAGGGAAGGACATTGGTACTGAGTGC**ATG**AACTTCGTGAAGTTGCTGCATGCC
TACAACCGCACCCATTTGCTGGCCTGTGGCACGGGAGCCTTCCACCCAACCTGTGCCTTTGTGGAAGTGGGCCAC
CGGGCAGAGGAGCCCGTCCTCCGGCTGGACCCAGGAAGGATAGAGGATGGCAAGGGGAAGAGTCCTTATGACCCC
AGGCATCGGGCTGCCTCCGTGCTGGTGGGGGAGGAGCTATACTCAGGGGTGGCAGCAGACCTCATGGGACGAGAC
TTTACCATCTTTCGCAGCCTAGGGCAACGTCCAAGTCTCCGAACAGAGCCACACGACTCCCGCTGGCTCAATGAG
CCCAAGTTTGTCAAGGTATTTTGGATCCCGGAGAGCGAGAACCCAGACGACGACAAAATCTACTTCTTCTTTCGT
GAGACGGCGGTAGAGGCGGCGCCGGCACTGGGACGCCTGTCCGTGTCCCGCGTTGGCCAGATCTGCCGGAACGAC
GTGGGCGGCCAGCGCAGCCTGGTCAACAAGTGGACGACGTTCCTGAAGGCGCGGCTGGTGTGCTCGGTGCCCGGC
GTCGAGGGCGACACCCACTTCGATCAGCTCCAGGATGTGTTTCTGTTGTCCTCGCGGGACCACCGGACCCCGCTG
CTCTATGCCGTCTTCTCCACGTCCAGCAGCATCTTCCAGGGCTCTGCGGTGTGCGTGTACAGCATGAACGACGTG
CGCCGGGCCTTCTTGGGACCCTTTGCACACAAGGAGGGGCCCATGCACCAGTGGGTGTCATACCAGGGTCGCGTC
CCCTACCCGCGGCCAGGCATGTGCCCCAGCAAGACCTTTGGCACCTTCAGTTCCACCAAGGACTTCCCAGACGAT
GTCATCCAGTTTGCGCGGAACCACCCCCTCATGTACAACTCTGTCCTGCCCACTGGGGGGCGCCCTCTTTTCCTA
CAAGTTGGAGCCAATTACACCTTCACTCAAATTGCCGCGGACCGGGTTGCAGCCGCTGACGGACACTATGACGTC
CTCTTCATTGGCACAGACGTTGGCACGGTGCTGAAGGTGATCTCGGTCCCCAAGGGCAGTAGGCCCAGCGCAGAG
GGGCTGCTCCTGGAGGAGCTGCACGTGTTTGAGGACTCGGCCGCTGTCACCAGCATGCAAATTTCTTCCAAGAGG
CACCAGCTGTACGTAGCCTCGCGGAGCGCGGTGGCCCAGATCGCGTTGCACCGCTGCGCTGCCCACGGCCGCGTC
TGCACCGAATGCTGTCTGGCGCGTGACCCCTACTGCGCCTGGGACGGGGTCGCGTGCACGCGCTTCCAGCCCAGT
GCCAAGAGGCGGTTCCGGCGGCAAGACGTAAGGAATGGCGACCCCAGCACGTTGTGCTCCGGAGACTCGTCTCGT
CCCGCGCTGCTGGAACACAAGGTGTTCGGCGTGGAGGGCAGCAGCGCCTTTCTGGAGTGTGAGCCCCGCTCGCTG
CAGGCGCGCGTGGAGTGGACTTTCCAGCGCGCAGGGGTGACAGCCCACACCCAGGTGCTGGCAGAGGAGCGCACC
GAGCGCACCGCCCGGGGACTACTGCTGCGCAGGCTGCGGCGCCGGGACTCGGGCGTGTACTTGTGCGCCGCCGTC
GAGCAGGGCTTTACGCAACCGCTGCGTCGCCTGTCGCTGCACGTGTTGAGTGCTACGCAGGCCGAACGACTGGCG
CGGGCCGAGGAGGCTGCGCCCGCCGCGCCGCCGGGGCCCCAAACTCTGGTACCGGGACTTTCTGCAGCTGGTGGAG
CCGGGCGGAGGTGGCAGCGCGAACTCCCTGCGCATGTGCCGCCCGCAGCCTGCGCTGCAGTCACTGCCCCTGGAG
TCGCGGAGAAAGGGCCGTAACCGGAGGACCCACGCCCCTGAGCCTCGCGCTGAGCGGGGGCCGCGCAGCGCAACG
CACTGG**TGA**CCAGACTGTCCCCACGCCGGGAACCAAGCAGGAGACGACAGGCGAGAGAGGAGCCAGACAGACCCT
GAAAAGAAGGACGGGTTGGGGCCGGGCACATTGGGGGTCACCGGCCGATGGAGACACCAACCGACAGGCCCTGGC
TGAGGGCAGCTGCGCGGGCTTATTTATTAACAGGATAACCCTTGAATGTAGCAGCCCCGGGAGGGCGGCACAGGT
CGGGCGCAGGATTCAGCCGGAGGGAAGGGACGGGGAAGCCGAGCTCCAGAGCAACGACCAGGGCCGAGGAGGTGC
CTGGAGTGCCCACCCTGGGAGACAGACCCCACCTCCTTGGGTAGTGAGCAGTGAGCAGAAAGCTGTGAACAGGCT
GGGCTGCTGGAGGTGGGGCGAGGCAGGCCGACTGTACTAAAGTAACGCAATAAACGCATTATCAGCCA

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FIGURE 1742

TTCCTCCAGGAGTCTCTGGTGCAGCTGGGGTGGAATCTGGCCAGGCCCTGCTTAGGCCCCCATCCTGGGGTCAGG
AAATTTGGAGGATAAGGCCCTTCAGCCCCAAGGTCAGCAGGGACGAGCGGGCAGACTGGCGGGTGTACAGGAGGG
CTGGGTTGACCTGTCCTTGGTCACTGAGGCCATTGGATCTTCCTCCAGTGGCTGCCAGGATTTCTGGTGGAAGAG
ACAGGAAGGCCTCCCCCCCTTGGTCGGGTCAGCCTGGGGGCTGAGGGCCTGGCTGTCAGCCACTCTTCCCAGAAC
ATATGTCATGGCCTCAGTGGCTCATGGGGAAGCAGGGGTGGGCGAGCTTAGGCTAGAGCAAGTCCTGTGGGAGAT
GGCAGAGGCCTGGTCTGAGAGGCAACTCGGATGTGCCCTCCAGTGGCCATGCTCCCCTCCATGCGTCTCCCCTGC
CCTCCTGGAGCCCTGCAGGTCAATGTTTAACAGAAACCAGAGCAGCGGTGGATTAATGCGCAAGGGCTCAGCCCC
CCAGCCCTGAGCAGTGGGGGAATCGGAGACTTTGCAACCTGTTCTCAGCTCTGCCTCCCCTGGCCAGGTTGTCCT
CGACCAGTCCCGTGCC**ATG**GCAGCCCACCTGCTTCCCATCTGCGCCCTCTTCCTGACCTTACTCGATATGGCCCA
AGGCTTTAGGGGCCCCTTGCTACCCAACCGGCCCTTCACCACCGTCTGGAATGCAAACACCCAGTGGTGCCTGGA
GAGGCACGGTGTGGACGTGGATGTCAGTGTCTTCGATGTGGTAGCCAACCCAGGGCAGACCTTCCGCGGCCCTGA
CATGACAATTTTCTATAGCTCCCAGCTGGGCACCTACCCCTACTACACGCCCACTGGGGAGCCTGTGTTTGGTGG
TCTGCCCCAGAATGCCAGCCTGATTGCCCACCTGGCCCGCACATTCCAGGACATCCTGGCTGCCATACCTGCTCC
TGACTTCTCAGGGCTGGCAGTCATCGACTGGGAGGCATGGCGCCCACGCTGGGCCTTCAACTGGGACACCAAGGA
CATTTACCGGCAGCGCTCACGGGCACTGGTACAGGCACAGCACCCTGATTGGCCAGCTCCTCAGGTGGAGGCAGT
AGCCCAGGACCAGTTCCAGGGAGCTGCACGGGCCTGGATGGCAGGCACCCTCCAGCTGGGGCGGGCACTGCGTCC
TCGCGGCCTCTGGGGCTTCTATGGCTTCCCTGACTGCTACAACTATGACTTTCTAAGCCCCAACTACACCGGCCA
GTGCCCATCAGGCATCCGTGCCCAAAATGACCAGCTAGGGTGGCTGTGGGGCCAGAGCCGTGCCCTCTATCCCAG
CATCTACATGCCCGCAGTGCTGGAGGGCACAGGGAAGTCACAGATGTATGTGCAACACCGTGTGGCCGAGGCATT
CCGTGTGGCTGTGGCTGCTGGTGACCCCAATCTGCCGGTGCTGCCCTATGTCCAGATCTTCTATGACACGACAAA
CCACTTTCTGCCCCTGGATGAGCTGGAGCACAGCCTGGGGGAGAGTGCGGCCCAGGGGGCAGCTGGAGTGGTGCT
CTGGGTGAGCTGGGAAAATACAAGAACCAAGGAATCATGTCAGGCCATCAAGGAGTATATGGACACTACACTGGG
GCCCTTCATCCTGAACGTGACCAGTGGGGCCCTTCTCTGCAGTCAAGCCCTGTGCTCCGGCCATGGCCGCTGTGT
CCGCCGCACCAGCCACCCCAAAGCCCTCCTCCTCCTTAACCCTGCCAGTTTCTCCATCCAGCTCACGCCTGGTGG
TGGGCCCCTGAGCCTGCGGGGTGCCCTCTCACTTGAAGATCAGGCACAGATGGCTGTGGAGTTCAAATGTCGATG
CTACCCTGGCTGGCAGGCACCGTGGTGTGAGCGGAAGAGCATGTGG**TGA**TTGGCCACACACTGAGTTGCACATAT
TGAGAACCTAATGCACTCTGGGTCTGGCCAGGGCTTCCTCAAATACATGCACAGTCATACAAGTCATGGTCACAG
TAAAGAGTACACTCAGCCACTGTCACAGGCATATTCCCTGCACACACATGCATACTTACAGACTGGAATAGTGGC
ATAAGGAGTTAGAACCACAGCAGACACCATTCATTCCATGTCCATATGCATCTACTTGGCAAGGTCATAGACAAT
TCCTCCAGAGACACTGAGCCAGTCTTTGAACTGCAGCAATCACAAAGGCTGACATTCACTGAGTGCCTACTCTTT
GCCAATCCCCGTGCTAAGCGTTTTATGTGGACTTATTCATTCCTCACAATGAGGCTATGAGGAAACTGAGTCACT
CACATTGAGAGTAAGCACGTTGCCCAAGGTTGCACAGCAAGAAAAGGGAGAAGTTGAGATTCAAACCCAGGCTGT
CTAGCTCCGGGGGTACAGCCCTTGCACTCCTACTGAGTTTGTGGTAACCAGCCCTGCACGACCCCTGAATCTGCT
GAGAGGCACCAGTCCAGCAAATAAAGCAGTCATGATTTACTT

FIGURE 1743

GAGGCGCTGAGCCGGGCCGCGCCTGGGCGAACGGCCGGAGCGGGCTGGGCTGGGCCCGGGATGGCGGTGGCCCTG
GCGCCGGTCCCGGTGGCGCCCCGCGCGAGTTCCTGAGCTGGTGCCAGGCAGGTGACACCTCCTGCAGCCCCCAGC
ATGCGGGCAGGCCCAGGCCCCACCGTTACATTGGCCCTGGTGCTGGCGGTGTCATGGGCCATGGAGCTCAAGCCC
ACAGCACCACCCATCTTCACTGGCCGGCCCTTTGTGGTAGCGTGGGACGTGCCCACACAGGACTGTGGCCCACGC
CTCAAGGTGCCACTGGACCTGAATGCCTTTGATGTGCAGGCCTCACCTAATGAGGGTTTTGTGAACCAGAATATT
ACCATCTTCTACCGCGACCGTCTAGGCCTGTATCCACGCTTCGATTCTGCCGGAAGGTCTGTGCATGGTGGTGTG
CCACAGAATGTCAGCCTTTGGGCACACCGGAAGATGCTGCAGAAACGTGTGGAGCACTACATTCGGACACAGGAG
TCTGCGGGGCTGGCGGTCATCGACTGGGAGGACTGGCGACCTGTGTGGGTGCGCAACTGGCAGGACAAAGATGTG
TATCGCCGGTTATCACGCCAGCTAGTGGCCAGTCGTCACCCTGACTGGCCTCCAGACCGCATAGTCAAACAGGCA
CAATATGAGTTTGAGTTCGCAGCACAGCAGTTCATGCTGGAGACACTGCGTTATGTCAAGGCAGTGCGGCCCCGG
CACCTCTGGGGCTTCTACCTCTTTCCTGACTGCTACAATCATGATTATGTGCAGAACTGGGAGAGCTACACAGGC
CGCTGCCCTGATGTTGAGGTGGCCCGCAATGACCAGCTGGCCTGGCTGTGGGCTGAGAGCACGGCCCTCTTCCCG
TCTGTCTACCTGGACGAGACACTTGCTTCCTCCCGCCATGGCCGCAACTTTGTGAGCTTCCGTGTTCAGGAGGCC
CTTCGTGTGGCTCGCACCCACCATGCCAACCATGCACTCCCAGTCTACGTCTTCACACGACCCACCTACAGCCGC
AGGCTCACGGGGCTTAGTGAGATGGACCTCATCTCTACCATTGGCGAGAGTGCGGCCCTGGGCGCAGCTGGTGTC
ATCCTCTGGGGTGACGCGGGGTACACCACAAGCACGGAGACCTGCCAGTACCTCAAAGATTACCTGACACGGCTG
CTGGTCCCCTACGTGGTCAATGTGTCCTGGGCCACCCAATATTGCAGCCGGGCCCAGTGCCATGGCCATGGGCGC
TGTGTGCGCCGCAACCCCAGTGCCAGTACCTTCCTGCATCTCAGCACCAACAGTTTCCGCCTAGTGCCTGGCCAT
GCACCTGGTGAACCCCAGCTGCGACCTGTGGGGGAGCTCAGTTGGGCCGACATTGACCACCTGCAGACACACTTC
CGCTGCCAGTGCTACTTGGGCTGGAGTGGTGAGCAATGCCAGTGGGACCATAGGCAGGCAGCTGGAGGTGCCAGC
GAGGCCTGGGCTGGGTCCCACCTCACCAGTCTGCTGGCTCTGGCAGCCCTGGCCTTTACCTGGACCTTG**TAG**GGG
TCTCCTGCCTAGCTGCCTAGCAAGCTGGCCTCTACCACAAGGGCTCTCTTAGGCATGTAGGACCCTGCAGGGGGT
GGACAAACTGGAGTCTGGAGTGGGCAGAGCCCCCAGGAAGCCCAGGAGGGCATCCATACCAGCTCGCACCCCCCT
GTTCTAAGGGGGAGGGGAAGTCCCTGGGAGGCCCCTTCTCTCCCTGCCAGAGGGGAAGGAGGGTACAGCTGGGCT
GGGGAGGACCTGACCCTACTCCCTTGCCCTAGATAGTTTATTATTATTATTATTTTGGGGTCTCTTTTGTAAATT
AAACATAAAACAATTGC

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FIGURE 1744

GCC**ATG**GGCCGCCGCCCCGCCTGTTGTTACCGGTATTGTAAGAACAAGCCGTACCCAAAGTCTCGCTTCTGCCGA
GGTGTCCCTGATGCCAAGATTCGCATTTTTGACCTGGGGCGGAAAAAGGCAAAAGTGGATGAGTTTCCACTTTGT
GGCCACATGGTGTCAGATGAATATGAGCAGCTGTCCTCTGAAGCCCTGGAGGCTGCCCGAATTTGTGCCAATAAG
TACATGGTAAAAAGTTGTGGCAAAGATGGCTTCCATATCCGGGTGCGGCTCCACTCCTTCCACGTCATCCGCATC
AACAAGATGTTGTCCTGTGCTGGGGCTGACAGGCTCCAAACAGGCATGCGAGGTGCCTTTGGAAAGCCCCAGGGC
ACTTTGGCCAGGGTTCACACTGGCCAAGTTATCATGTCCATCCGCACCAAGCTGCAGAACAAGGAGCATGTGATT
GAGGCCCTGGGCAGGGCCAAGTTCAAGTTTCCTGGCCGCCAGAAGATCCACATCTCAAAGAAGTGGGGCTTCACC
AAGTTCAATGCTGATGAATTTGAAGACATGGTGGCTGAAAAGCGGCTCATCCCAGATGGCTGTGGGGTCAAGTAC
ATCCCCAATCGTGGCCCTCTGGACAAGTGGCGGGCCCTGCACTCA**TGA**GGGCTTCCAATGTGCTGCCCCCCTCTT
AATACTCACCAATAAATTCTACTAACTCTCCAAAAAAAAAAAAAAAAAATAGAAAAAAAAAAAAAAAAATAGACCAAA
AAAAAAAAAAAAAAA

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FIGURE 1745

TTTGGCTACAACATTGGAGTCATCAGTGCTCCTGAGACAGTCATACAGGACTTTCTCAGTTACACTTTGAAAGAG
AGGTCAGAAGACTCTCCCTCTGAGGTTTTGCTC**ATG**TCCCCCTGGCCCTTGTCTGTGGCCATCTTCCCCAATGGT
GATATGATTGGCTCCTTTCTGTTGCACTCTTTGTCAACCACTTTGGCAGAGATCTCGCCTACTCCCCTTTGGGGT
ACCTTTAGTGCTCTCAACCAGCTGGACGTCGTTGGTATTCTGGAGATCCAGATCTTTGGTCTGGAGTTCATCTTG
GGGTCTGAAGAGCTATGCCCAGATGAGTATGGTGGGATGAGCTTTGTCTGTAGTGGGGCTATCTTGGTCTTTGTG
GCCTTCTCTGAAGTTGGACCAGACTCCGTTCCCTGGAATACTGTGGCCACACTCTTCAGTTTGCAA**TAG**

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FIGURE 1746

GTGAGACGCTGATGGGAGG**ATG**GACATACTGGTGTCTGAGTGCTCCGCGCGGCTGCTGCAGCAGGAAGAAGAGAT
TAAATCTCTGACTGCTGAAATTGACCGGTTGAAAAACTGTGGCTGTTTAGGAGCTTCTCCAAATTTGGAGCAGTT
ACAAGAAGAAAATTTAAAATTAAAGTATCGACTGAATATTCTTCGAAAGAGTCTTCAGGCAGAAAGGAACAAACC
AACTAAAAATATGATTAACATTATTAGCCGCCTACAAGAGGTCTTTGGTCATGCAATTAAGGCTGCATATCCAGA
TTTGGAAAATCCTCCTCTGCTAGTGACACCAAGTCAGCAGGCCAAGTTTGGGGACTATCAGTGTAATAGTGCTAT
GGGTATTTCTCAGATGCTCAAAACCAAGGAACAGAAAGTTAATCCAAGAGAAATTGCTGAAAACATTACCAAACA
CCTCCCAGACAATGAATGTATTGAAAAAGTTGAAATTGCTGGTCCTGGTTTTATTAATGTCCACTTAAGAAAGGA
TTTTGTATCAGAACAATTGACCAGTCTTCTAGTGAATGGAGTTCAACTACCTGCTCTGGGAGAGAATAAAAAGGT
TATAGTTGACTTTTCCTCCCCTAATATAGCTAAAGAGATGCATGTAGGCCACCTGAGGTCAACTATCATAGGAGA
GAGTATAAGCCGCCTCTTTGAATTTGCAGGGTATGACGTGCTCAGGTTAAATCATGTAGGAGACTGGGGGACCCA
GTTTGGCATGCTCATCGCTCACCTGCAAGACAAATTTCCAGATTATCTAACAGTTTCACCTCCTATTGGGGATCT
TCAGGTCTTTTATAAGGAATCTAAGAAGAGGTTTGATACTGAGGAGGAATTTAAGAAGCGAGCATATCAGTGTGT
AGTTCTGCTCCAGGGTAAAAACCCAGATATTACAAAAGCTTGGAAGCTTATCTGTGATGTCTCCCGCCAAGAGTT
AAATAAAATCTATGATGCATTGGACGTCTCTTTAATAGAGAGAGGGGAATCCTTCTATCAAGATAGGATGAATGA
TATTGTAAAGGAATTTGAAGATAGAGGATTTGTGCAGGTGGATGATGGCAGAAAGATTGTATTTGTCCCAGGGTG
TTCCATACCATTAACCATAGTAAAATCAGATGGAGGTTATACCTATGATACATCTGACCTGGCTGCTATTAAACA
AAGACTATTTGAGGAAAAAGCAGATATGATTATCTATGTTGTGGACAATGGACAATCTGTGCACTTCCAGACAAT
ATTTGCTGCTGCTCAAATGATTGGTTGGTATGACCCTAAAGTAACTCGAGTCTTCCATGCTGGATTTGGTGTGGT
GCTAGGGGAAGACAAGAAAAAGTTTAAAACACGTTCGGGTGAAACAGTGCGCCTCATGGATCTTCTGGGAGAAGG
ACTAAAACGATCCATGGACAAGTTGAAGGAAAAAGAAAGAGACAAGGTCTTAACTGCAGAGGAATTGAATGCTGC
TCAGACATCCGTTGCGTATGGCTGCATCAAATATGCTGACCTTTCCCATAACCGGTTGAATGACTACATCTTCTC
CTTTGACAAAATGCTAGATGACAGAGGAAATACAGCTGCTTACTTGTTGTATGCCTTCACTAGAATCAGGTCTAT
TGCACGTCTGGCCAATATTGATGAAGAAATGCTCCAAAAAGCTGCTCGAGAAACCAAGATTCTTTTGGATCATGA
GAAGGAATGGAAACTAGGCCGGTGCATTTTACGGTTCCCTGAGATTCTGCAAAAGATTTTAGATGACTTATTTCT
CCACACTCTCTGTGATTATATATATGAGCTGGCAACTGCTTTCACAGAGTTCTATGATAGCTGCTACTGTGTGGA
GAAAGATAGACAGACTGGAAAAATATTGAAGGTGAACATGTGGCGTATGCTGCTATGTGAAGCAGTAGCTGCTGT
CATGGCCAAGGGGTTTGATATCCTGGGAATAAAACCTGTCCAAAGGATG**TAA**TCCTTCATAGGTTTGAACACTGT
GTGTTTTTACCAAAGTGGCCATTGGCACTGTTTGCTTTTTTACAATCATGTGGACACAAGCATAAGTAAAGAAAA
TTTGTCAACCAAAAAAAAAAAAAAAAA

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FIGURE 1747

AAATGTCTGATGCTCAGGGCAGCTACAAACTGGATGAAGCTCAGGCTGTCTTGAGAGAAACAAAAGCCATCAAAA
AGGCTATTACCTGTGGGGAAAAGGAAAAGCAAGATCTCATTAAGAGCCTTGCCATGTTGAAGGACGGCTTCCGCA
CTGACAGGGGGTCTCACTCAGACCTGTGGTCCAGCAGCAGCTCTCTGGAGAGTTCGAGTTTCCCGCTACCGAAAC
AGTACCTGGATGTGAGCTCCCAGACAGACATCTCGGGAAGCTTCGGCATCAACAGCAACAATCAGTTGGCAGAGA
AGGTCAGATTGCGCCTTCGATATGAAGAGGCTAAGAGAAGGATCGCCAACCTGAAGATCCAGCTGGCCAAGCTTG
ACAGTGAGGCCTGGCCTGGGGTGCTGGACTCAGAGAGGGACCGGCTGATCCTTATCAACGAGAAGGAGGAGCTGC
TGAAGGAGATGCGCTTCATCAGCCCCCGCAAGTGGACCCAGGGGGAGGTGGAGCAGCTGGAGATGGCCCGGAAGC
GGCTGGAAAAGGACCTGCAGGCAGCCCGGGACACCCAGAGCAAGGCGCTGACGGAGAGGTTAAAGTTAAACAGTA
AGAGGAACCAGCTTGTGAGAGAACTGGAGGAAGCCACCCGGCAGGTGGCAACTCTGCACTCCCAGCTGAAAAGTC
TCTCAAGCAGCATGCAGTCCCTGTCCTCAGGCAGCAGCCCCGGATCCCTCACGTCCAGCCGGGGCTCCCTGGTTG
CATCCAGCCTGGACTCCTCCACTTCAGCCAGCTTCACTGACCTCTACTATGACCCCTTTGAGCAGCTGGACTCAG
AGCTGCAGAGCAAGGTGGAGTTCCTGCTCCTGGAGGGGGCCACCGGCTTCCGGCCCTCAGGCTGCATCACCACCA
TCCACGAGGATGAGGTGGCCAAGACCCAGAAGGCAGAGGGAGGTGGCCGCCTGCAGGCTCTGCGTTCCCTGTCTG
GCACCCCAAAGTCCATGACCTCCCTATCCCCACGTTCCTCTCTCTCCTCCCCCTCCCCACCCTGTTCCCCTCTCA
TGGCTGACCCCCTCCTGGCTGGTGATGCCTTCCTCAACTCCTTGGAGTTTGAAGACCCGGAGCTGAGTGCCACTC
TTTGTGAACTGAGCCTTGGTAACAGCGCCCAGGAAAGATACCGGCTGGAGGAACCAGGAACGGAGGGCAAGCAGC
TGGGCCAAGCTGTGAATACGGCCCAGGGGTGTGGCCTGAAAGTGGCCTGTGTCTCAGCCGCCGTATCGGACGAGT
CAGTGGCTGGAGACAGTGGTGTGTACGAGGCTTCCGTGCAGAGACTGGGTGCTTCAGAAGCTGCTGCATTTGACA
GTGACGAATCGGAAGCAGTGGGTGCGACCCGAATTCAGATTGCCCTGAAGTATGATGAGAAGAATAAGCAATTTG
CAATATTAATCATCCAGCTGAGTAACCTTTCTGCTCTGTTGCAGCAACAAGACCAGAAAGTGAATATCCGCGTGG
CTGTCCTTCCTTGCTCTGAAAGCACAACCTGCCTGTTCCGGACCCGGCCTCTGGACGCCTCAGACACTCTAGTGT
TCAATGAGGTGTTCTGGGTATCCATGTCCTATCCAGCCCTTCACCAGAAGACCTTAAGAGTCGATGTCTGTACCA
CCGACAGGAGCCATCTGGAAGAGTGCCTGGGAGGCGCCCAGATCAGCCTGGCGGAGGTCTGCCGGTCTGGGGAGA
GGTCGACTCGCTGGTACAACCTTCTCAGCTACAAATACTTGAAGAAACAGAGCAGGGAGCTCAAGCCAGTGGGAG
TCATGGCCCCTGCCTCAGGGCCTGCCAGCACGGACGCTGTGTCTGCTCTGTTGGAACAGACAGCAGTGGAGCTGG
AGAAGAGGCAGGAGGGCAGGAGCAGCACACAGACACTGGAAGACAGCTGGAGGTATGAGGAGACCAGTGAGAATG
AGGCAGTAGCCGAGGAAGAGGAGGAGGAGGTGGAGGAGGAGGAGGGAGAAGAGGATGTTTTCACCGAGAAAGCCT
CACCTGATATGGATGGGTACCCAGCATTAAAGGTGGACAAAGAGACCAACACGGAGACCCCGGCCCCATCCCCCA
CAGTGGTGCGACCTAAGGACCGGAGAGTGGGCACCCCGTCCCAGGGGCCATTTCTTCGAGGGAGCACCATCATCC
GCTCTAAGACCTTCTCCCCAGGACCCCAGAGCCAGTACGTGTGCCGGCTGAATCGGAGTGATAGTGACAGCTCCA
CTCTGTCCAAAAAGCCACCTTTTGTTCGAAACTCCCTGGAGCGACGCAGCGTCCGGATGAAGCGGCCTTCCTCGG
TCAAGTCGCTGCGCTCCGAGCGTCTGATCCGTACCTCGCTGGACCTGGAGTTAGACCTGCAGGCGACAAGAACCT
GGCACAGCCAATTGACCCAGGAGATCTCGGTGCTGAAGGAGCTCAAGGAGCAGCTGGAACAAGCCAAGAGCCACG
GGGAGAAGGAGCTGCCACAGTGGTTGCGTGAGGACGAGCGTTTCCGCCTGCTGCTGAGGATGCTGGAGAAGCGGC
AGATGGACCGAGCGGAGCACAAGGGTGAGCTTCAGACAGACAAGATGATGAGGGCAGCTGCCAAGGATGTGCACA
GGCTCCGAGGCCAGAGCTGTAAGGAACCCCCAGAAGTTCAGTCTTTCAGGGAGAAGATGGCATTTTTCACCCGGC
CTCGGATGAATATCCCAGCTCTCTCTGCAGATGACGTCTAATCGCCAGAAAAGTATTTCCTTTGTTCCACTGACC
AGGCTGTGAACATTGACTGTGGCTAAAGTTATTTATGTGGTGTTATATGAAGGTACTGAGTCACAAGTCCTCTAG
TGCTCTTGTTGGTTTGAAGATGAACCGACTTTTTAGTTTGGGTCCTACTGTTGTTATTAAAAACAGAACAAAAAC
AAAACACACACACACAAAAACAGAAACAAAAAAAACCAGCATTAAAATAATAAGATTGTATAGTTTGTATATT
TAGGAGTGTATTTTTGGGAAAGAAAATTTAAATGAACTAAAGCAGTATTGAGTTGCTGCTCTTCTTAAAATCGTT
TAGATTTTTTTTGGTTTGTACAGCTCCACCTTTTAGAGGTCTTACTGCAATAAGAAGTAATGCCTGGGGGACGGT
AATCCTAATAGGACGTCCCGCACTTGTCACAGTACAGCTAATTTTTCCTAGTTAACATATTTTGTACAATATTAA
AAAAATGCACAGAAACCATTGGGGGGGATTCAGAGGTGCATCCACGGATCTTCTTGAGCTGTGACGTGTTTTTAT
GTGGCTGCCCAACGTGGAGCGGGCAGTGTGATAGGCTGGGTGGGCTAAGCAGCCTAGTCTATGTGGGTGACAGGC
CACGCTGGTCTCAGATGCCCAGTGAAGCCACTAACATGAGTGAGGGGAGGGCTGTGGGGAACTCCATTCAGTTTT
ATCTCCATCAATAAAGTGGCCTTTCAAAAAG

FIGURE 1748

GCAAGATGGCTGTGGAGCTGGGCGTGCTGCTCGTCCGGCCCCGGCCCGGAACCGGGCTGGGTAGAGTG**ATG**CGGA
CCCTCCTGCTGGTGCTGTGGCTGGCGACGCGCGGAAGCGCGCTCTACTTTCACATCGGAGAGACGGAGAAGAAGT
GCTTTATTGAGGAGATCCCGGACGAGACCATGGTCATAGGAAACTACCGGACGCAGCTGTATGACAAGCAGCGGG
AGGAGTACCAGCCGGCCACCCCGGGGCTTGGCATGTTTGTGGAGGTGAAGGACCCAGAGGACAAGGTCATCCTGG
CCCGGCAGTATGGCTCCGAGGGCAGGTTCACTTTCACTTCCCATACCCCTGGTGAGCACCAGATCTGTCTTCACT
CCAATTCCACCAAGTTCTCCCTCTTTGCTGGAGGCATGCTGAGAGTTCACCTGGACATCCAGGTAGGTGAACATG
CCAATGACTATGCAGAAATTGCTGCTAAAGACAAGTTGAGTGAGTTGCAGCTACGAGTGCGACAGCTGGTGGAAC
AAGTGGAGCAGATCCAGAAAGAGCAGAACTACCAGCGGTGGCGAGAGGAGCGCTTCCGGCAGACCAGTGAGAGCA
CCAACCAGCGGGTGCTGTGGTGGTCCATTCTGCAGACCCTCATCCTCGTGGCCATCGGTGTCTGGCAGATGCGGC
ACCTCAAGAGCTTCTTTGAAGCCAAGAAGCTTGTG**TAG**CTGTCCCAGGCGTCACAACCCATCCTCCCAGGCTGGG
GGAGGGGAATGGGCAGGCAAGCCAGTCTTCTGTCTTCCTTT

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FIGURE 1749

GCCTCCGCCCCCGCCGCGGACCCTCCGCGGTACACCTTGCACCCAGCGTCTCCCTCTACAAGACGGCCCGGCCCT
TTGGTGCGCCCCCGCCCGCTGACAGCGCCCCGCAGCAGAATGGACAGCCGCTCCGACCGCTGGTCCCAGATGCCA
GCAAGCAGCGGCTG**ATG**GAGAACACAGAGGACTGGCGGCCGCGGCCGGGGACAGGCCAGTCGCGTTCCTTCCGCA
TCCTTGCCCACCTCACAGGCACCGAGTTCATGCAAGACCCGGATGAGGAGCACCTGAAGAAATCAAGCCAGGTGC
CCAGGACAGAAGCCCCAGCCCCAGCCTCATCTACACCCCAGGAGCCCTGGCCTGGCCCTACCGCCCCCAGCCCTA
CCAGCCGCCCGCCCTGGGCTGTGGACCCTGCGTTTGCCGAGCGCTATGCCCCGGACAAAACGAGCACAGTGCTGA
CCCGGCACAGCCAGCCGGCCACGCCCACGCCGCTGCAGAGCCGCACCTCCATTGTGCAGGCAGCTGCCGGAGGGG
TGCCAGGAGGGGGCAGCAACAACGGCAAGACTCCCGTGTGTCACCAGTGCCACAAGGTCATCCGGGGCCGCTACC
TGGTGGCGCTGGGCCACGCGTACCACCCGGAGGAGTTTGTGTGTAGCCAGTGTGGGAAGGTCCTGGAAGAGGGTG
GCTTCTTTGAGGAGAAGGGCGCCATCTTCTGCCCACCATGCTATGACGTGCGCTATGCACCCAGCTGTGCCAAGT
GCAAGAAGAAGATTACAGGCGAGATCATGCACGCCCTGAAGATGACCTGGCACGTGCACTGCTTTACCTGTGCTG
CCTGCAAGACGCCCATCCGGAACAGGGCCTTCTACATGGAGGAGGGCGTGCCCTATTGCGAGCGAGACTATGAGA
AGATGTTTGGCACGAAATGCCATGGCTGTGACTTCAAGATCGACGCTGGGGACCGCTTCCTGGAGGCCCTGGGCT
TCAGCTGGCATGACACCTGCTTCGTCTGTGCGATATGTCAGATCAACCTGGAAGGAAAGACCTTCTACTCCAAGA
AGGACAGGCCTCTCTGCAAGAGCCATGCCTTCTCTCATGTG**TGA**GCCCCTTCTGCCCACAGCTGCCGCGGTGGCC
CCTAGCCTGAGGGGCCTGGAGTCGTGGCCCTGCATTTCTGGGTAGGGCTGGCAATGGTTGCCTTAACCCTGGCTC
CTGGCCCGAGCCTGGGGCTCCCTGGGCCCTGCCCCACCCACCTTATCCTCCCACCCCACTCCCTCCACCACCACA
GCACACCGGTGCTGGCCACACCAGCCCCCTTTCACCTCCAGTGCCACAATAAACCTGTACCCAGCTG

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FIGURE 1750

AGGTGGAGCAAGATGGCTGTGGAGCTGGGCGTGCTGCTCGTCCGGCCCCGGCCCGGAACCGGGCTGGGTAGAGTG
ATGCGGACCCTCCTGCTGGTGCTGTGGCTGGCGACGCGCGGAAGCGCGCTCTACTTTCACATCGGAGAGACGGAG
AAGAAGTGCTTTATTGAGGAGATCCCGGACGAGACCATGGTCATAGGAAACTACCGGACGCAGCTGTATGACAAG
CAGCGGGAGGAGTACCAGCCGGCCACCCCGGGGCTTGGCATGTTTGTGGAGGTGAAGGACCCAGAGGACAAGGTC
ATCCTGGCCCGGCAGTATGGCTCCGAGGGCAGGTTCACTTTCACTTCCCATACCCCTGGTGAGCACCAGATCTGT
CTTCACTCCAATTCCACCAAGTTCTCCCTCTTTGCTGGAGGCATGCTGAGAGTTCACCTGGACATCCAGGTAGGT
GAACATGCCAATGACTATGCAGAAATTGCTGCTAAAGACAAGTTGAGTGAGTTGCAGCTACGAGTGCGACAGCTG
GTGGAACAAGTGGAGCAGATCCAGAAAGAGCAGAACTACCAGCGGTGGCGAGAGGAGCGCTTCCGGCAGACCAGT
GAGAGCACCAACCAGCGGGTGCTGTGGTGGTCCATTCTGCAGACCCTCATCCTCGTGGCCATCGGTGTCTGGCAG
ATGCGGCACCTCAAGAGCTTCTTTGAAGCCAAGAAGCTTGTG**TAG**CTGTCCCAGGCGTCACAACCCATCCTCCCA
GGCTGGGGGAGAAAGGACCTCCTGGAACTGACTTCTTCTGTCAGGAGGACTGGTTTCCAGCCATACCTGTTCTGG
AAGGGAGAGGGGCTGGAGGCACCCACAGGCACAAGCTGAAGGCAGCAGCTTGGCTAATACTGAGCAGGTAGTGGG
GCAAATTCCTGCCCTCTCTCTCTGGCCTCTGGGCCGTTTGGTAGTAATCACCCAGGGGCTGGTAAAGCCCCTCCT
CTTGGCACCTCAGAATCACAGTGTTACTGATCAGGGATGTGAGGCTGCTGTTGGGGGTGGGGGGAGGGGAATGGG
CAGGCAAGCCAGTCTTCTGTCTTCCTTTGCTAACTTAGGGTTTTGAGCAGGTTGGGGTATGGTGCCTGTCATACC
CACCTGCCACCCTGGGAACCTCACTGTTCTCTCTTTCAGCCTAGACCTGCTGATCCAGGGTGTGTGTGAGTTGAG
GGTGGGTGGAGGGGTTTGCAGTGTGGGAATGTGGCCCTGCAGTTGACCTGAGCTGCTTCACATGGTTGTCCATTC
TGGGGCTTAAAGAACTGGGACCAGACCAAGTAGAGGCCTTGGTGCTGGTTGGGGTGGGGCCTGCAGAGTCTTAGT
TACTGATTTCATTTTCAATAAATGTAGGTTTGTTACATGAGTTTCCCAATAAAAAAAAAAATG

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FIGURE 1751

TGAGCGAAGCTCCTGCACCTCATCCTCCACCCACCAGAGAGATGGGAAGTTCTGTGACTGCTGCTACTGTGAGTT
CTTCGGCCACAATGCGCCACCCGCTGCCCCGACGAGTCGGAACTATACCGAGATCCGGGAGAAGCTCCGCTCGAG
GCTGACCAGGCGGAAAGAGGAGCTGCCC**ATG**AAGGGGGGCACCCTGGGCGGGATCCCTGGGGAGCCCGCCGTGGA
CCACCGAGATGTGGATGAGCTGCTGGAATTCATCAACAGCACGGAGCCCAAAGTCCCCAACAGCGCCAGGGCCGC
CAAGCGGGCCCGGCACAAGCTGAAAAAGAAGGAAAAGGAGAAGGCCCAGTTGGCAGCAGAAGCTCTAAAGCAGGC
AAATCGTGTTTCTGGAAGCCGGGAGCCAAGGCCTGCCAGGGAGAGGCTCTTGGAGTGGCCCGACCGGGAACTGGA
TCGGGTCAACAGCTTCCTGAGCAGCCGTCTGCAGGAGATCAAAAACACTGTCAAAGACTCCATCCGTGCCAGCTT
CAGTGTGTGTGAGCTCAGCATGGACAGCAATGGCTTCTCTAAGGAGGGGGCTGCTGAGCCTGAGCCTCAGAGTCT
ACCCCCCTCAAACCTCAGTGGCTCCTCAGAGCAGCAGCCTGACATCAACCTTGACCTGTCCCCTTTGACTTTGGG
CTCCCCTCAGAACCACACGTTACAAGCTCCAGGCGAGCCAGCCCCACCATGGGCAGAAATGAGAGGCCCCCACCC
ACCATGGACAGAGGTGAGGGGGCCCCCTCCCGGTATCGTCCCCGAGAACGGGCTCGTGAGGAGACTCAACACCGT
GCCCAACCTATCCCGGGTGATCTGGGTCAAGACACCCAAGCCGGGCTACCCCAGCTCCGAGGAGCCAAGCTCAAA
GGAAGTTCCCAGTTGCAAGCAGGAGCTGCCTGAGCCTGTGTCCTCAGGTGGGAAGCCACAGAAGGGCAAGAGGCA
GGGCAGTCAGGCCAAGAAGAGCGAGGCAAGCCCAGCCCCCCGGCCCCCAGCCAGCCTAGAGGTTCCCAGTGCCAA
GGGCCAGGTCGCTGGCCCCAAGCAGCCAGGCAGGGTCCTAGAGCTTCCCAAAGTAGGCAGCTGTGCTGAGGCTGG
AGAGGGGAGCCGGGGGAGCCGGCCAGGACCAGGTTGGGCTGGCAGTCCCAAAACTGAGAAGGAGAAGGGCAGCTC
CTGGCGAAACTGGCCAGGCGAGGCCAAGGCACGGCCTCAGGAGCAGGAGTCTGTGCAGCCCCCAGGCCCAGCAAG
GCCACAGAGCTTGCCCCAGGGCAAGGGCCGCAGCCGCCGGAGCCGCAACAAGCAGGAGAAGCCAGCCTCCTCCTT
GGACGATGTGTTCCTGCCCAAGGACATGGACGGGGTGGAGATGGATGAGACTGACCGAGAGGTGGAGTACTTTAA
GAGGTTCTGTTTGGATTCTGCAAAGCAGACTCGTCAGAAAGTTGCTGTGAACTGGACCAACTTCAGCCTCAAGAA
AACCACTCCTAGCACAGCTCAG**TGA**GGCCCTGCCCAGGCTGAGCTGCTTCAGGGCATCCTGAGGCCCTGACTGCC
AGCTGAAGGCGTATAATTTTTCCCTCCGTGTGCCCCACCTACCCGTCCAAGACCCTCTGTGCTCCCCACCATCCT
GGACCAACCAAAAGCTGAACGGATGCCACACTGTGCTGGGGCCCCTTGACCTCAGCAGAGCCGCTTCCTGGTGCT
ACGCAGCCTCCACACTCAGAGCCCGTGGACTGGGCTGGCCTAAGGGCCAGGGCTGATGGTACTGCTGGCCCAACA
CTGCTCTCTTTGTGTTTGGTTTTTTTGTTTTTGTTTTTATTTTGTTTTTTTCCAATTCTTTACTTTTGATACTGT
GAAGATCTTTCGTGCCGAAAGATAAAGCAACATTTGGACAC

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FIGURE 1752

AATGGAGGAGTCGGAACCCGAACGGAAGCGGGCTCGCACCGACGAGGTGCCTGCCGGAGGAAGCCGCTCCGAGGC
GGAAGATGAGGACGACGAGGACTACGTGCCCTATGTGCCGTTACGGCAGCGCCGGCAGCTACTGCTCCAGAAGCT
GCTGCAGCGAAGACGCAAGGGAGCTGCGGAGGAAGAGCAGCAGGACAGCGGTAGTGAACCCCGGGGAGATGAGGA
CGACATCCCGCTAGGCCCTCAGTCCAACGTCAGCCTCCTGGATCAGCACCAGCACCTTAAAGAGAAGGCTGAAGC
GCGCAAAGAGTCTGCCAAGGAGAAGCAGCTGAAGGAAGAAGAGAAGATCCTGGAGAGTGTTGCCGAGGGCCGAGC
ATTGATGTCAGTGAAGGAGATGGCTAAGGGCATTACGTATGATGACCCCATCAAAACCAGCTGGACTCCACCCCG
TTATGTTCTGAGCATGTCTGAAGAGCGACATGAGCGCGTGCGGAAGAAATACCACATCCTGGTGGAGGGAGACGG
TATCCCACCACCCATCAAGAGCTTCAAGGAAATGAAGTTTCCTGCAGCCATCCTGAGAGGCCTGAAGAAGAAAGG
CATTCACCACCCAACACCCATTCAGATCCAGGGCATCCCCACCATTCTATCTGGCCGTGACATGATAGGCATCGC
TTTCACGGGTTCAGGCAAGACACTGGTGTTCACGTTGCCCGTCATCATGTTCTGCCTGGAACAAGAGAAGAGGTT
ACCCTTCTCAAAGCGCGAGGGGCCCTATGGACTCATCATCTGCCCCTCGCGGGAGCTGGCCCGGCAGACCCATGG
CATCCTGGAGTACTACTGCCGCCTGCTGCAGGAGGACAGCTCACCACTCCTGCGCTGCGCCCTCTGCATTGGGGG
CATGTCCGTGAAAGAGCAGATGGAGACCATCCGACACGGTGTACACATGATGGTGGCCACCCCGGGGCGCCTCAT
GGATTTGCTGCAGAAGAAGATGGTCAGCCTAGACATCTGTCGCTACCTGGCCCTGGACGAGGCTGACCGCATGAT
CGACATGGGCTTCGAGGGTGACATCCGTACCATCTTCTCCTACTTCAAGGGCCAGCGACAGACCCTGCTCTTCAG
TGCCACCATGCCGAAGAAGATTCAGAACTTTGCTAAGAGTGCCCTTGTAAAGCCTGTGACCATCAATGTGGGGCG
CGCTGGGGCTGCCAGCCTGGATGTCATCCAGGAGGTAGAATATGTGAAGGAGGAGGCCAAGATGGTGTACCTGCT
CGAGTGCCTGCAGAAGACACCCCCGCCTGTACTCATCTTTGCAGAGAAGAAGGCAGACGTGGACGCCATCCACGA
GTACCTGCTGCTCAAGGGGGTTGAGGCCGTAGCCATCCATGGGGGCAAAGACCAGGAGGAACGGACTAAGGCCAT
CGAGGCATTCCGGGAGGGCAAGAAGGATGTCCTAGTAGCCACAGACGTTGCCTCCAAGGGCCTGGACTTCCCTGC
CATCCAGCACGTCATCAATTATGACATGCCAGAGGAGATTGAGAACTATGTACACCGGATTGGCCGCACCGGGCG
CTCGGGAAACACAGGCATCGCCACTACCTTCATCAACAAAGCGTGTGATGAGTCAGTGCTGATGGACCTCAAAGC
GCTGCTGCTAGAAGCCAAGCAGAAGGTGCCGCCCGTGCTGCAGGTGCTGCATTGCGGGGATGAGTCCATGCTGGA
CATTGGAGGAGAGCGCGGCTGTGCCTTCTGCGGGGGCCTGGGTCATCGGATCACTGACTGCCCCAAACTCGAGGC
TATGCAGACCAAGCAGGTCAGCAACATCGGTCGCAAGGACTACCTGGCCCACAGCTCCATGGACTTCTGAGCCGA
CAGTCTTCCCTTCTCTCCAAGAGGCCTCAGTCCCCAAGACTGCCACCAGTCTACACATACAGCAGCCCCCTGGAC
AGAATCAGCATTTCAGCTCAGCTGGCCTGGAATGGGCCAGGCTGGTCCTGGCTGCCTGTTCCCTGTGCTCTTCAG
AATTACTGTTTTTGTTTCCTTTTACCCCAGCTGCCATTAAAGCCCAAACCTCTAGCCC

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FIGURE 1753

CCCAACGAGGCTCCCTGGAGCCCGACGCAGAGCAGCGCCCTGGCCGGGCCAAGCAGGAGCCGGCATC**ATG**GATTC
CTTCAAAGTAGTGCTGGAGGGGCCAGCACCTTGGGGCTTCCGGCTGCAAGGGGGCAAGGACTTCAATGTGCCCCT
CTCCATTTCCCGGCTCACTCCTGGGGGCAAAGCGGCGCAGGCCGGAGTGGCCGTGGGTGACTGGGTGCTGAGCAT
CGATGGCGAGAATGCGGGTAGCCTCACACACATCGAAGCTCAGAACAAGATCCGGGCCTGCGGGGAGCGCCTCAG
CCTGGGCCTCAGCAGGGCCCAGCCGGTTCAGAGCAAACCGCAGAAGGCCTCCGCCCCCGCCGCGGACCCTCCGCG
GTACACCTTTGCACCCAGCGTCTCCCTCAACAAGACGGCCCGGCCCTTTGGGGCGCCCCCGCCCGCTGACAGCGC
CCCGCAGCAGAATGGACAGCCGCTCCGACCGCTGGTCCCAGATGCCAGCAAGCAGCGGCTGATGGAGAACACAGA
GGACTGGCGGCCGCGGCCGGGGACAGGCCAGTCGCGTTCCTTCCGCATCCTTGCCCACCTCACAGGCACCGAGTT
CATGCAAGACCCGGATGAGGAGCACCTGAAGAAATCAAGCCAGGTGCCCAGGACAGAAGCCCCAGCCCCAGCCTC
ATCTACACCCCAGGAGCCCTGGCCTGGCCCTACCGCCCCCAGCCCTACCAGCCGCCCGCCCTGGGCTGTGGACCC
TGCGTTTGCCGAGCGCTATGCCCCGGACAAAACGAGCACAGTGCTGACCCGGCACAGCCAGCCGGCCACGCCCAC
GCCGCTGCAGAGCCGCACCTCCATTGTGCAGGCAGCTGCCGGAGGGGTGCCAGGAGGGGGCAGCAACAACGGCAA
GACTCCCGTGTGTCACCAGTGCCACAAGGTCATCCGGGGCCGCTACCTGGTGGCGCTGGGCCACGCGTACCACCC
GGAGGAGTTTGTGTGTAGCCAGTGTGGGAAGGTCCTGGAAGAGGGTGGCTTCTTTGAGGAGAAGGGCGCCATCTT
CTGCCCACCATGCTATGACGTGCGCTATGCACCCAGCTGTGCCAAGTGCAAGAAGAAGATTACAGGCGAGATCAT
GCACGCCCTGAAGATGACCTGGCACGTGCACTGCTTTACCTGTGCTGCCTGCAAGACGCCCATCCGGAACAGGGC
CTTCTACATGGAGGAGGGCGTGCCCTATTGCGAGCGAGACTATGAGAAGATGTTTGGCACGAAATGCCATGGCTG
TGACTTCAAGATCGACGCTGGGGACCGCTTCCTGGAGGCCCTGGGCTTCAGCTGGCATGACACCTGCTTCGTCTG
TGCGATATGTCAGATCAACCTGGAAGGAAAGACCTTCTACTCCAAGAAGGACAGGCCTCTCTGCAAGAGCCATGC
CTTCTCTCATGTG**TGA**GCCCCTTCTGCCCACAGCTGCCGCGGTGGCCCCTAGCCTGAGGGGCCTGGAGTCGTGGC
CCTGCATTTCTGGGTAGGGCTGGCAATGGTTGCCTTAACCCTGGCTCCTGGCCCGAGCCTGGGGCTCCCTGGGCC
CTGCCCCACCCACCTTATCCTCCCACCCCACTCCCTCCACCACCACAGCACACCGGTGCTGGCCACACCAGCCCC
CTTTCACCTCCAGTGCCACAATAAACCTGTACCCAGCTG

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FIGURE 1754

GGCGGCCGGACGCGGCCCGGAGGCGCGGGGTCCCGATGTGGGGCCCGGGCCGCGTGGCCTGCGGGAGCCCATCCC
CCACCCTACCCCCCGGGCCCGGGGGACAGGTGTGCACGGGGCGGCCAAGGGCACCTTCGCCACCTTCGAGCGGGC
GAGGTCCGGGCGGGGACGGGGCGGGGACCGAGCTAGCGGAGCCAGCGCAGCCTGCCCGGCTCAGCCCGGCCCGGC
CACAGCACAAAGGAAAGCGAGGGCGGGGGAGGAGCGGAGCGGGCTGGGGGCCGGGCGCCCCGCCCACCGGGGGGC
CTCTCGGAGTGGGCCGCCCTCCCCCCGAAACCTGGGCTGGAGTGAGGTGGAAGGATGTTTGCTGCCACATGGCGA
CCGCGAAGTGACTCCCTTACCGCCGCGGGTCGCGGAGGAGGCAGGGGGAAGGTGCCCATCTGGTTCCTAGGCCTC
CTCTCCCTGCTGGCAGATGGGAACAGGTTCTTCTTGAGGAAACTGAGGCAAAGAGGAGGGCAGGTCTGAGGGACC
CCGCTTGGGCTGGCCTCACCCGCACACTGGGAGGGCAGCCAGGTGGGGACTCTGACCTGGGGGCTTCTGGAGGAG
AGGATGAG**ATG**GCTGGGCATCCATGGCATGGTACTGCAGCACTGGCCAGCAGCCAGGCCTGGAGGGATGGACGCG
AGAGACAAGCTCTCGTGTCCTGCAGGGCTCTGTACACATATGAAGATGGCTCCGATGACCTCAAGCTTGCAGCAT
CAGGAGAAGGGGGCTTGCAGGAGCTTTCGGGACACTTTGAGAACCAGAAGGTGATGTACGGCTTCTGCAGTGTCA
AGGACTCCCAAGCTGCTCTGCCAAAATACGTGCTCATCAACTGGGTGGGCGAAGATGTGCCTGATGCCCGCAAGT
GCGCTTGTGCCAGCCACGTGGCTAAGGTGGCGGAGTTCTTCCAGGGTGTCGACGTGATCGTGAACGCCAGCAGCG
TGGAAGACATAGACGCGGGTGCCATCGGGCAGCGGCTCTCTAACGGGCTGGCGCGACTCTCCAGCCCTGTGCTGC
ACCGACTGCGGCTGCGAGAGGATGAGAACGCAGAGCCCGTGGGCACCACCTACCAGAAGACGGATGCAGCTGTGG
AAATGAAGCGGATTAACCGAGAGCAGTTCTGGGAGCAGGCCAAGAAGGAAGAAGAGCTGCGGAAGGAGGAGGAGC
GGAAGAAGGCCCTGGATGAGAGGCTCAGGTTCGAGCAGGAGCGGATGGAGCAGGAGCGGCAGGAGCAAGAGGAGC
GCGAGCGGCGCTACCGGGAGCGGGAGCAGCAGATCGAGGAGCACAGGAGGAAACAGCAGACTTTAGAAGCGGAAG
AGGCCAAGAGGCGGTTGAAGGAGCAGTCTATCTTTGGTGACCATCGGGATGAGGAGGAAGAGACCCACATGAAGA
AGTCAGAGTCGGAGGTGGAGGAGGCAGCAGCTATTATTGCCCAGCGGCCTGACAACCCAAGGGAGTTCTTCAAGC
AGCAGGAAAGAGTCGCATCGGCCTCTGCGGGCAGCTGTGATGTACCCTCGCCCTTCAACCATCGACCAGGCAGCC
ACCTGGACAGCCACCGGAGGATGGCGCCCACTCCCATCCCCACGCGGAGCCCGTCTGACTCCAGCACCGCCTCCA
CCCCTGTCGCTGAGCAGATAGAGCGGGCCCTGGATGAGGTCACCTCCTCGCAGCCTCCACCACTGCCACCGCCAC
CCCCACCAGCCCAAGAGACCCAGGAGCCCAGCCCCATCCTAGACAGTGAGGAGACCAGAGCAGCAGCCCCTCAGG
CCTGGGCCGGCCCCATGGAGGAGCCCCCTCAGGCACAGGCGCCTCCCCGGGGGCCAGGCAGCCCTGCAGAGGACT
TGATGTTCATGGAGTCTGCAGAGCAGGCTGTCCTGGCTGCTCCCGTGGAGCCTGCCACAGCTGACGCCACGGAGA
TCCACGATGCAGCTGACACCATTGAAACTGACACTGCCACTGCTGACACCACTGTTGCCAACAACGTACCCCCCG
CCGCCACCAGCCTCATTGACCTATGGCCTGGCAACGGGGAAGGGGCCTCCACACTCCAGGGTGAGCCCAGGGCCC
CCACGCCACCCTCGGGTACTGAGGTCACCCTGGCAGAGGTGCCCCTGCTGGATGAGGTGGCTCCGGAGCCACTGC
TGCCAGCAGGCGAAGGCTGTGCCACCCTTCTCAACTTTGATGAGCTGCCTGAGCCGCCAGCCACCTTCTGTGACC
CAGAGGAAGTGGAAGGGGAGCCCCTGGCTGCCCCCCAGACCCCAACTCTGCCCTCAGCCCTTGAGGAGCTGGAGC
AAGAGCAGGAGCCGGAGCCCCACCTGCTAACCAATGGCGAGACCACCCAGAAGGAGGGGACCCAGGCCAGTGAGG
GGTACTTCAGTCAATCACAGGAGGAGGAGTTTGCCCAATCGGAAGAGCTCTGTGCCAAGGCTCCGCCTCCTGTGT
TCTACAACAAGCCTCCAGAGATCGACATCACATGCTGGGATGCAGACCCAGTTCCAGAAGAGGAGGAGGGCTTCG
AGGGTGGTGAT**TAG**CGGTGGCGCCAGCCCTAGGCTACCCTTGCCAAGGCCGCCCACCTGCATCAGCCTCTGGCCA
GACGGCCCGCCGTGCCTGCATTCGCAGCAGCTCCGCCTGGCACCCACTCCGGATTCCGGCCCTGGCTGGGGACTT
GGCCGCTTCCCTACCCACAGGGCCTGACTTTTACAGCTTTTCTCTTTTTTTAAAAAGTTGATAGGAGACTTGTAC
AGTTGACTGGCTTTCCTCTCGTTGGTAGTTGAGACGCTGTTGCAAATTCCACCCCTCCTTCCCTGGTCCAGATTG
TAGCTCTTAGTCCTCCCTGCTCAGCTGGCCGGGTTGGAGGCCTCACCCTGCTTGGGGCCTGGCGTGGGGGGAGCT
CTGGTGGGAAAATGTCCCCCACCTCTTTTCCTAGTTTTATGTTTCTTGGGAAAATATCACTTTGTATTCTCTGTC
CAGGGCTTCAGATATTTTGCACGAATTTTAAAACATGGCAATAAATGGCTCGTGGGCTCTGGCTCCCTGGGACCC
CCTCCCCGCCCTTCTTTTGACCCCTTCCTGTCTGGCCCAAAGGAAGTAGCAGGCCCAGCTGGGGCCCCTCGGCTA
CCCCCCGTCTCCTGCCGGGCAGGTCCCAGGTTGGAGGCCCTAGGCGCGGTTCAGGTCAGGGCTATGGATGGGGCC
CAGGGGCTTTGGTGGCCCCTCCCCAACTCCTTCCTCTTTGCTTGGGTTCCTTTTTCACGTTTAGTAACTGTTTTT
TTTTTTTTTTTTTTTTTTTTTTTGGAAAGCACAAACTTCTGTAACGGGTCGTGCTCATGTCTGTTAATAAAGAAA
TCCAGATCC

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FIGURE 1755

CGGCACTCGCGCGCGATCCCGGCCGGCGGCGCGGCCCGGCGGGCCAGGCGGCGCCACAGCCC**ATG**GAGCTCGAGA
ACATCGTAGCGAACACGGTGCTACTCAAGGCCCGGGAAGGTGGCGGTGGAAATCGCAAAGGCAAAAGCAAGAAAT
GGCGGCAGATGCTCCAGTTCCCTCACATCAGCCAGTGCGAAGAGCTGCGGCTCAGCCTCGAGCGTGACTATCACA
GCCTGTGCGAGCGGCAGCCCATTGGGCGCCTGCTGTTCCGAGAGTTCTGTGCCACGAGGCCGGAGCTGAGCCGCT
GCGTCGCCTTCCTGGATGGGGTGGCCGAGTATGAAGTGACCCCGGATGACAAGCGGAAGGCATGTGGGCGGCAGC
TAACGCAGAATTTTCTGAGCCACACGGGTCCTGACCTCATCCCTGAGGTCCCCCGGCAGCTGGTGACGAACTGCA
CCCAGCGGCTGGAGCAGGGTCCCTGCAAAGACCTTTTCCAGGAACTCACCCGGCTGACCCACGAGTACCTGAGCG
TGGCCCCTTTTGCCGACTACCTCGACAGCATCTACTTCAACCGTTTCCTGCAGTGGAAGTGGCTGGAAAGGCAGC
CAGTGACCAAAAACACCTTCAGGCAATACCGAGTCCTGGGCAAAGGTGGCTTTGGGGAGGTGTGCGCCTGCCAGG
TGCGGGCCACAGGTAAGATGTATGCCTGCAAGAAGCTAGAGAAAAAGCGGATCAAGAAGCGGAAAGGGGAGGCCA
TGGCGCTGAACGAGAAGCAGATCCTGGAGAAAGTGAACAGTAGGTTTGTAGTGAGCTTGGCCTACGCCTATGAGA
CCAAGGACGCGCTGTGCCTGGTGCTGACACTGATGAACGGGGGCGACCTCAAGTTCCACATCTACCACATGGGCC
AGGCTGGCTTCCCCGAAGCGCGGGCCGTCTTCTACGCCGCCGAGATCTGCTGTGGCCTGGAGGACCTGCACCGGG
AGCGCATCGTGTACAGGGACCTGAAGCCCGAGAACATCTTGCTGGATGACCACGGCCACATCCGCATCTCTGACC
TGGGACTAGCTGTGCATGTGCCCGAGGGCCAGACCATCAAAGGGCGTGTGGGCACCGTGGGTTACATGGCTCCGG
AGGTGGTGAAGAATGAACGGTACACGTTCAGCCCTGACTGGTGGGCGCTCGGCTGCCTCCTGTACGAGATGATCG
CAGGCCAGTCGCCCTTCCAGCAGAGGAAGAAGAAGATCAAGCGGGAGGAGGTGGAGCGGCTGGTGAAGGAGGTCC
CCGAGGAGTATTCCGAGCGCTTTTCCCCGCAGGCCCGCTCACTTTGCTCACAGCTCCTCTGCAAGGACCCTGCCG
AACGCCTGGGGTGTCGTGGGGGCAGTGCCCGCGAGGTGAAGGAGCACCCCCTCTTTAAGAAGCTGAACTTCAAGC
GGCTGGGAGCTGGCATGCTGGAGCCGCCGTTCAAGCCTGACCCCCAGGCCATTTACTGCAAGGATGTTCTGGACA
TTGAACAGTTCTCTACGGTCAAGGGCGTGGAGCTGGAGCCTACCGACCAGGACTTCTACCAGAAGTTTGCCACAG
GCAGTGTGCCCATCCCCTGGCAGAACGAGATGGTGGAGACCGAGTGCTTCCAAGAGCTGAATGTCTTTGGGCTGG
ATGGCTCAGTTCCCCCAGACCTGGACTGGAAGGGCCAGCCACCTGCACCTCCTAAAAAGGGACTGCTGCAGAGAC
TCTTCAGTCGCCAAGATTGCTGTGGAAACTGCAGCGACAGCGAGGAAGAGCTCCCCACCCGCCTC**TAG**CCCCCAG
CCCGAGGCCCCCACCAGCAGTTGGCGGTAGCAGCTACTCCGAGCGCCGTTTACAGTTTTGCACAGTGATCTTCCC
CATTGTCCACTCAAGTCGTGGCCTGGGGAACACAGACGGAGCTGTCCCCAGTGTCCTCCGTCCCTCAGCCCCTGG
CCTGGCTGAGTTTGGCAGGGCCTGGGCCATCCCTGGGACAAAGGTGCGTCCCTTCAGCTCTTCTCCGTGGAGCTC
GGGGCTTTCTGTATTTATGTATTTGTACGAATGTATATAGCGACCAGAGCATTCTTAATTCCCGCCGCAGACCTG
GCGCCCCTGCCTTGGCTCCTGGGGGCAGCCAGCCCTGGCTGGGAGAGCGGGAGCTGGCAGAGGAGCCACTGCCAA
ACTCAAGGCTCCTCTGGCCCAGCTTGGATGGCTGAGGGTGGTCACACCCCTGAGCCTTCAGCACTGTGCTGGCCA
CCCCGGCCTCTGAGTAAGACTCGTGCCTCCCCCTGCTGCCCTGGGCTCAGGCTGCTACCCTCTGGGGCCCAAAGC
TGTCCCTTCTCAGTGCTTGTCAGCGCTGGGTCTGGGGCCTCTGTATGCCCTAGGCCTGTGCCAAAGTGGCCAGAG
ATTGGGCTGCCTGTGATACCCATCAGCCCACTGCCCCGGCCGGCCCAGATAGGTCTGCCTCTGCCTTCCAGCTCC
CACAGCCTGGTCCCTGATACTGGGCTCTGTCCTGCAGACACCTCTTTCAGAAACGCCCAAGCCCAGCCCCTAGGA
GGGGGTGGGGCATCCCTGGTCAACCCTCAAACATTCCGGACTCCCCTCATAACAATAGACACATGTGCCCAGCAA
TAATCCGCCCCTTCCTGTGTGCGCCTGTGGGGTGCGTGCGCGCGCGTGTGTACCTGTGTGGGTGAAGGGGATAGG
GCGAGGCTGTGCCTGTGCCCCAGGTCCCAGCCCTGGCCCTTCCCAGACTGTGATGGCCATCCTGGTCCCAGTGTT
AGGGTAGCATGGGATTACAGGGCCCTGTTTTTTCCATATTTAAAGCCAATTTTTATTACTCGTTTTGTCCAACGT
AA

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FIGURE 1756

CTATTGATCTGGACTCCTGGATAGGCAGCTGGACCAACGGACGGATGCC**ATG**AGGGCTCTGCTGCTCCTGGGGTT
CCTGCTGGTGAGCTTGGAGTCAACACTTTCGATTCCACCTTGGGAAGCCCCCAAGGAGCATAAGTACAAAGCTGA
AGAGCACACAGTCGTTCTCACTGTCACCGGGGAGCCCTGCCACTTCCCCTTCCAGTACCACCGGCAGCTGTACCA
CAAATGTACCCACAAGGGCCGGCCAGGCCCTCAGCCCTGGTGTGCTACCACCCCCAACTTTGATCAGGACCAGCG
ATGGGGATACTGTTTGGAGCCCAAGAAAGTGAAAGACCACTGCAGCAAACACAGCCCCTGCCAGAAAGGAGGGAC
CTGTGTGAACATGCCAAGCGGCCCCCACTGTCTCTGTCCACAACACCTCACTGGAAACCACTGCCAGAAAGAGAA
GTGCTTTGAGCCTCAGCTTCTCCGGTTTTTCCACAAGAATGAGATATGGTATAGAACTGAGCAAGCAGCTGTGGC
CAGATGCCAGTGCAAGGGTCCTGATGCCCACTGCCAGCGGCTGGCCAGCCAGGCCTGCCGCACCAACCCGTGCCT
CCATGGGGGTCGCTGCCTAGAGGTGGAGGGCCACCGCCTGTGCCACTGCCCGGTGGGCTACACCGGACCCTTCTG
CGACGTGGACACCAAGGCAAGCTGCTATGATGGCCGCGGGCTCAGCTACCGCGGCCTGGCCAGGACCACGCTCTC
GGGTGCGCCCTGTCAGCCGTGGGCCTCGGAGGCCACCTACCGGAACGTGACTGCCGAGCAAGCGCGGAACTGGGG
ACTGGGCGGCCACGCCTTCTGCCGGAACCCGGACAACGACATCCGCCCGTGGTGCTTCGTGCTGAACCGCGACCG
GCTGAGCTGGGAGTACTGCGACCTGGCACAGTGCCAGACCCCAACCCAGGCGGCGCCTCCGACCCCGGTGTCCCC
TAGGCTTCATGTCCCACTCATGCCCGCGCAGCCGGCACCGCCGAAGCCTCAGCCCACGACCCGGACCCCGCCTCA
GTCCCAGACCCCGGGAGCCTTGCCGGCGAAGCGGGAGCAGCCGCCTTCCCTGACCAGGAACGGCCCACTGAGCTG
CGGGCAGCGGCTCCGCAAGAGTCTGTCTTCGATGACCCGCGTCGTTGGCGGGCTGGTGGCGCTACGCGGGGCGCA
CCCCTACATCGCCGCGCTGTACTGGGGCCACAGTTTCTGCGCCGGCAGCCTCATCGCCCCCTGCTGGGTGCTGAC
GGCCGCTCACTGCCTGCAGGACCGGCCCGCACCCGAGGATCTGACGGTGGTGCTCGGCCAGGAACGCCGTAACCA
CAGCTGTGAGCCGTGCCAGACGTTGGCCGTGCGCTCCTACCGCTTGCACGAGGCCTTCTCGCCCGTCAGCTACCA
GCACGACCTGGCTCTGTTGCGCCTTCAGGAGGATGCGGACGGCAGCTGCGCGCTCCTGTCGCCTTACGTTCAGCC
GGTGTGCCTGCCAAGCGGCGCCGCGCGACCCTCCGAGACCACGCTCTGCCAGGTGGCCGGCTGGGGCCACCAGTT
CGAGGGGGCGGAGGAATATGCCAGCTTCCTGCAGGAGGCGCAGGTACCGTTCCTCTCCCTGGAGCGCTGCTCAGC
CCCGGACGTGCACGGATCCTCCATCCTCCCCGGCATGCTCTGCGCAGGGTTCCTCGAGGGCGGCACCGATGCGTG
CCAGGGTGATTCCGGAGGCCCGCTGGTGTGTGAGGACCAAGCTGCAGAGCGCCGGCTCACCCTGCAAGGCATCAT
CAGCTGGGGATCGGGCTGTGGTGACCGCAACAAGCCAGGCGTCTACACCGATGTGGCCTACTACCTGGCCTGGAT
CCGGGAGCACACCGTTTCC**TGA**TTGCTCAGGGACTCATCTTTCCCTCCTTGGTGATTCCGCAGTGAGAGAGTGGC
TGGGGCATGGAAGGCAAGATTGTGTCCCATTCCCCCAGTGCGGCCAGCTCCGCGCCAGGATGGCGCAGGAACTCA
ATAAAGTGCTTTGAAAATGCTGAG

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FIGURE 1757

ATGGCGGCGGAAGGCTGGATTTGGCGTTGGGGCTGGGGCCGGCGGTGCCTGGGAAGGCCTGGGCTTCTCGGCCCC
GGCCCTGGCCCCACTACACCTCTCTTTCTTCTTTTGTTGTTGGGGTCTGTGACTGCGGATATAACTGACGGCAAC
AGTGAACATCTCAAGCGGGAGCATTCGCTCATTAAGCCCTACCAAGGGGTCGGTTCCAGCTCTATGCCCCTCTGG
GACTTCCAGGGCAGCACTATGCTCACGAGCCAGTACGTACGTCTGACCCCTGACGAGCGCAGCAAAGAGGGCTCT
ATCTGGAACCACCAGCCGTGCTTCCTCAAAGACTGGGAAATGCACGTCCACTTCAAAGTCCACGGCACAGGGAAG
AAGAACCTCCATGGAGACGGCATCGCCTTGTGGTACACCCGGGACCGCCTCGTGCCAGGGCCTGTGTTTGGAAGC
AAAGATAACTTCCACGGCTTAGCCATCTTCCTGGACACCTACCCCAATGATGAGACCACTGAGCGCGTGTTCCCG
TACATCTCGGTGATGGTGAACAATGGCTCCCTGTCCTACGACCACAGCAAGGATGGGCGCTGGACCGAGCTGGCG
GGCTGCACGGCTGACTTCCGCAACCGCGATCACGACACCTTCCTGGCTGTGCGCTACTCCCGGGGCCGTCTGACG
GTGATGACCGACCTGGAGGACAAGAACGAGTGGAAGAACTGCATTGACATCACGGGAGTGCGCCTGCCCACCGGC
TACTACTTCGGGGCCTCCGCCGGCACCGGCGACCTGTCTGACAATCATGACATCATCTCCATGAAGCTGTTCCAG
CTGATGGTGGAGCACACGCCCGACGAGGAGAGCATCGACTGGACCAAGATCGAGCCCAGCGTCAACTTCCTCAAG
TCGCCCAAAGACAACGTGGACGACCCCACGGGGAACTTCCGCAGCGGGCCCCTGACGGGGTGGCGGGTGTTCCTG
CTGCTGCTGTGCGCTCTCCTGGGCATCGTTGTCTGCGCCGTGGTGGGGGCCGTGGTGTTCCAGAAGCGGCAGGAG
CGGAACAAGCGCTTCTAC**TGA**GTGGCGCCTCCGGCGGGGCCTGTCCCTGGGCCCAGGAGCCAATGTGAACTTTTT
TTTTTACCGGGATTATAAAAGAACAACAAGATGACCTTATTTCTTAACTGTTTCAAATAAATGATTAAAGTATTT
TCATACATTTTGCTTCTTGCCCAGCAGGGACAGGTGGCAGAGCCGAGGCTTAGGGTCTGGCACCCCCCACAGCTG
GAGACGGAGGCTCTCCTGGGGCTGGTGTCTCAGGAGCAGGGGTCTGTGTCTACAGATGGGCTGTGGCCCCTGCAG
GCAGCTGTTGAACACTGGAGGGTCCCCCGGACCACACTGGGGTGGGCTCCTGAGGAC

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FIGURE 1758

CAACTCATGGCGGCGGCGGCGGCGGCAGCTGCTTGGGCGCGGTGCGGTGGTGACTGAGCTACGAGCCTGGCG
GCGGGTGTGCGCCGAGCCCCGGCCCGGCCCGGCCCTCGCGTGCCTCCCAGGCTCCGCACCCCTGATGCTGCGCGG
GTGCTGAGCCCGCTTCGGCCGGGACG**ATG**GTGAAGTATTTCCTGGGCCAGAGCGTGCTCCGGAGTTCCTGGGACC
AAGTGTTCGCCGCCTTCTGGCAGCGGTACCCGAATCCCTATAGCAAACATGTCTTGACGGAAGACATAGTACACC
GGGAGGTGACCCCTGACCAGAAACTGCTGTCCCGGCGACTCCTGACCAAGACCAACAGGATGCCACGCTGGGCCG
AGCGACTATTTCCTGCCAATGTTGCTCACTCGGTGTACGTCCTGGAGGACTCTATTGTGGACCCACAGAATCAGA
CCATGACTACCTTCACCTGGAACATCAACCACGCCCGGCTGATGGTGGTGGAGGAACGATGTGTTTACTGTGTGA
ACTCTGACAACAGTGGCTGGACTGAAATCCGCCGGGAAGCCTGGGTCTCCTCTAGCTTATTTGGTGTCTCCAGAG
CTGTCCAGGAATTTGGTCTTGCCCGGTTCAAAAGCAACGTGACCAAGACTATGAAGGGTTTTGAATATATCTTGG
CTAAGCTGCAAGGCGAGGCCCCTTCCAAAACACTTGTTGAGACAGCCAAGGAAGCCAAGGAGAAGGCAAAGGAGA
CGGCACTGGCAGCTACAGAGAAGGCCAAGGACCTCGCCAGCAAGGCGGCCACCAAGAAGCAGCAGCAGCAGCAAC
AGTTTGTG**TAG**CCAGTCTACCACCACCACAGCACCCCAGACAGCTAGGCTTAGCCCCTCTGCCCTCCCTTCATTG
TACTTTATCATTAAAAATCAACTTCCAGCCCTGTCTGCTGTCTACGTGGTGGGTTGTGGGGATGCAGTTTGGCAT
CTGCAGTACACCAAGCACATGATTCATGTCTGAGCCAGGTCTGCTTATTCTCCCATTGGGCAGCTGAGGACCGAG
GCACAGAGGTGCGGTGACTTGCCCGGGGCTCCAGGTAGCCTGCAGGTTAACTGGCGGTAAGTGCTAGACTGTAAG
CCCGACAAGGGCAGGGCTTTTGGTTTTGTTCTCTGATGTGTCTCAGTATCTAGCACATAATAGACACTCAATAAA
TACTTGTTGAATTCA

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FIGURE 1759

AGGAGCCGGGTTGCGGGAGACCCCAGGTTCGGTTGGGATTCCCAGCCAGAACGGAGCTTAAGCCGGGCAGGCGAG
CGAATGACGGAGTAGCGAGCTGCACGGCGGCGTGCTGCGCTGTTGAGGACGCTGTCCCGCGCGCTCCCAGGCCGC
CCCGAGGCTTGGGGTCTTCGAAGGATAATCGGCGCCCGGGGCCGAACAGCGGGGGCACACGGGGCGCTGCCGAAG
TGCAAGGCCACGGCCAGAGCTCGAGCCCGACGCGCTGTCTGGAGTCGTAGGTTGGCGCCGTTTGGGGTCGGGGTC
TGAGGCTTGGGCGCTGCCTGGGCCGAGCGGAGATCGGGGTTTGCCTCCCGTCCCCGCTCAGGACCCTGACGTGGC
TGAAGCGGCCCCGGGAGCATGAGCGGGCAGCGCGTGGACGTCAAGGTGGTGATGCTGGGCAAGGAGTACGTGGGC
AAGACTAGCCTGGTGGAGCGCTACGTGCACGACCGCTTTCTGGTGGGGCCTTATCAGAACGTGAGTGCATCCGGA
GGGGCCAGGCACGGTGGGCGGGGGAGTGGGGGGCCGGTAATCTGCACCT**ATG**GCCCCGATCTCTTCCCTCTCGTT
GCAGACCATCGGGGCCGCCTTCGTGGCCAAGGTGATGTCGGTCGGAGACCGGACTGTGACATTAGGTATTTGGGA
CACAGCAGGCTCTGAGCGCTATGAGGCCATGAGTAGAATCTACTATCGGGGTGCCAAGGCTGCCATCGTCTGCTA
TGACCTCACAGACAGCAGCAGCTTTGAGCGAGCAAAGTTCTGGGTGAAGGAACTGCGCAGCCTAGAGGAGGGCTG
CCAAATCTACTTATGTGGCACCAAGAGTGACCTGCTGGAAGAAGACCGGAGGCGTCGACGTGTGGACTTCCACGA
CGTCCAGGACTATGCAGACAGTAGCTGCTCCTCAGCCCTTTGGGGGGTGGGGGTGTGTGGCTGTCTGGGTGGATC
AAAGAAAATAGGGACTGCCTTGGCTGCCAGGGCAAGGTGCTCTAGGAGGTCTTCCTGGCCTCCT**TGA**ACTGTGGG
GTCCAGGAGACTCCCTGAACTGCTAGCCCTCCCTTTTGTCTGTTTATCTAATTCTCAGGTATGAGGCTTTAGTCA
CTTCTCTTTACAGATATCAAAGCTCAGCTCTTTGAAACATCCAGCAAGACAGGCCAGAGTGTGGACGAGCTCTTC
CAGAAAGTGGCAGAGGATTACGTCAGTGTGGCTGCCTTCCAGGTGATGACAGAGGACAAGGGCGTGGATCTGGGC
CAGAAGCCAAACCCCTACTTCTACAGCTGTTGTCATCACTGAGTCAGCACTCACCTGGCCTGGGGGAATTAAAGG
AATTCCCCGTAAGGGCTGGACCCAGCTCCTTTCTGGGCTTGGGTAGTCAAATGTCTGAGCTACCCCAGGTCCTCA
TGTCAGCAGAGTGGCGCCTGCCTGTGCTGGCCCATGGAACGGAGACAGCATTGGGCTGACTGTGGGCATGAGGAG
GGATAAGGCTGATTTGGACCCCAGGCTTCTGCCCTGGACAGCACTTGTGTCTGCAGATTATTTAAGTGGCTTTTG
ATCTGTAAATAAAATCAGTGCACTGTGAATCAC

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FIGURE 1760

CCGAGGAGCGCTCGGGCTGTCTGCGGACCCTGCCGCGTGCAGGGGTCGCGGCCGGCTGGAGCTGGGAGTGAGGCG
GCGGAGGAGCCAGGTGAGGAGGAGCCAGGAAGGCAGTTGGTGGGAAGTCCAGCTTGGGTCCCTGAGAGCTGTGAG
AAGGAG**ATG**CGGCTGCTGCTGGCCCTGTTGGGGGTCCTGCTGAGTGTGCCTGGGCCTCCAGTCTTGTCCCTGGAG
GCCTCTGAGGAAGTGGAGCTTGAGCCCTGCCTGGCTCCCAGCCTGGAGCAGCAAGAGCAGGAGCTGACAGTAGCC
CTTGGGCAGCCTGTGCGTCTGTGCTGTGGGCGGGCTGAGCGTGGTGGCCACTGGTACAAGGAGGGCAGTCGCCTG
GCACCTGCTGGCCGTGTACGGGGCTGGAGGGGCCGCCTAGAGATTGCCAGCTTCCTACCTGAGGATGCTGGCCGC
TACCTCTGCCTGGCACGAGGCTCCATGATCGTCCTGCAGAATCTCACCTTGATTACAGGTGACTCCTTGACCTCC
AGCAACGATGATGAGGACCCCAAGTCCCATAGGGACCCCTCGAATAGGCACAGTTACCCCCAGCAAGCACCCTAC
TGGACACACCCCCAGCGCATGGAGAAGAAACTGCATGCAGTACCTGCGGGGAACACCGTCAAGTTCCGCTGTCCA
GCTGCAGGCAACCCCACGCCCACCATCCGCTGGCTTAAGGATGGACAGGCCTTTCATGGGGAGAACCGCATTGGA
GGCATTCGGCTGCGCCATCAGCACTGGAGTCTCGTGATGGAGAGCGTGGTGCCCTCGGACCGCGGCACATACACC
TGCCTGGTAGAGAACGCTGTGGGCAGCATCCGCTATAACTACCTGCTAGATGTGCTGGAGCGGTCCCCGCACCGG
CCCATCCTGCAGGCCGGGCTCCCGGCCAACACCACAGCCGTGGTGGGCAGCGACGTGGAGCTGCTGTGCAAGGTG
TACAGCGATGCCCAGCCCCACATCCAGTGGCTGAAGCACATCGTCATCAACGGCAGCAGCTTCGGAGCCGACGGT
TTCCCCTATGTGCAAGTCCTAAAGACTGCAGACATCAATAGCTCAGAGGTGGAGGTCCTGTACCTGCGGAACGTG
TCAGCCGAGGACGCAGGCGAGTACACCTGCCTCGCAGGCAATTCCATCGGCCTCTCCTACCAGTCTGCCTGGCTC
ACGGTGCTGCCAGAGGAGGACCCCACATGGACCGCAGCAGCGCCCGAGGCCAGGTATACGGACATCATCCTGTAC
GCGTCGGGCTCCCTGGCCTTGGCTGTGCTCCTGCTGCTGGCCGGGCTGTATCGAGGGCAGGCGCTCCACGGCCGG
CACCCCCGCCCGCCCGCCACTGTGCAGAAGCTCTCCCGCTTCCCTCTGGCCCGACAGTTCTCCCTGGAGTCAGGC
TCTTCCGGCAAGTCAAGCTCATCCCTGGTACGAGGCGTGCGTCTCTCCTCCAGCGGCCCCGCCTTGCTCGCCGGC
CTCGTGAGTCTAGATCTACCTCTCGACCCACTATGGGAGTTCCCCCGGGACAGGCTGGTGCTTGGGAAGCCCCTA
GGCGAGGGCTGCTTTGGCCAGGTAGTACGTGCAGAGGCCTTTGGCATGGACCCTGCCCGGCCTGACCAAGCCAGC
ACTGTGGCCGTCAAGATGCTCAAAGACAACGCCTCTGACAAGGACCTGGCCGACCTGGTCTCGGAGATGGAGGTG
ATGAAGCTGATCGGCCGACACAAGAACATCATCAACCTGCTTGGTGTCTGCACCCAGGAAGGGCCCCTGTACGTG
ATCGTGGAGTGCGCCGCCAAGGGAAACCTGCGGGAGTTCCTGCGGGCCCGGCGCCCCCCAGGCCCCGACCTCAGC
CCCGACGGTCCTCGGAGCAGTGAGGGGCCGCTCTCCTTCCCAGTCCTGGTCTCCTGCGCCTACCAGGTGGCCCGA
GGCATGCAGTATCTGGAGTCCCGGAAGTGTATCCACCGGGACCTGGCTGCCCGCAATGTGCTGGTGACTGAGGAC
AATGTGATGAAGATTGCTGACTTTGGGCTGGCCCGCGGCGTCCACCACATTGACTACTATAAGAAAACCAGCAAC
GGCCGCCTGCCTGTGAAGTGGATGGCGCCCGAGGCCTTGTTTGACCGGGTGTACACACACCAGAGTGACGTGTGG
TCTTTTGGGATCCTGCTATGGGAGATCTTCACCCTCGGGGGCTCCCCGTATCCTGGCATCCCGGTGGAGGAGCTG
TTCTCGCTGCTGCGGGAGGGACATCGGATGGACCGACCCCCACACTGCCCCCCAGAGCTGTACGGGCTGATGCGT
GAGTGCTGGCACGCAGCGCCCTCCCAGAGGCCTACCTTCAAGCAGCTGGTGGAGGCGCTGGACAAGGTCCTGCTG
GCCGTCTCTGAGGAGTACCTCGACCTCCGCCTGACCTTCGGACCCTATTCCCCCTCTGGTGGGGACGCCAGCAGC
ACCTGCTCCTCCAGCGATTCTGTCTTCAGCCACGACCCCCTGCCATTGGGATCCAGCTCCTTCCCCTTCGGGTCT
GGGGTGCAGACA**TGA**GCAAGGCTCAAGGCTGTGCAGGCACATAGGCTGGTGGCCTTGGGCCTTGGGGCTCAGCCA
CAGCCTGACACAGTGCTCGACCTTGATAGCATGGGGCCCCTGGCCCAGAGTTGCTGTGCCGTGTCCAAGGGCCGT
GCCCTTGCCCTTGGAGCTGCCGTGCCTGTGTCCTGATGGCCCAAATGTCAGGGTTCTGCTCGGCTTCTTGGACCT
TGGCGCTTAGTCCCCATCCCGGGTTTGGCTGAGCCTGGCTGGAGAGCTGCTATGCTAAACCTCCTGCCTCCCAAT
ACCAGCAGGAGGTTCTGGGCCTCTGAACCCCCTTTCCCCACACCTCCCCCTGCTGCTGCTGCCCCAGCGTCTTGA
CGGGAGCATTGGCCCCTGAGCCCAGAGAAGCTGGAAGCCTGCCGAAAACAGGAGCAAATGGCGTTTTATAAATTA
TTTTTTTGAAATAAA

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FIGURE 1761

CTCCGGCGCAGTGTTGGGACTGTCTGGGTATCGGAAAGCAAGCCTACGTTGCTCACTATTACGTATAATCCTTTT
CTTTTCAAGATGCCTGAGGAAGTGCACCATGGAGAGGAGGAGGTGGAGACTTTTGCCTTTCAGGCAGAAATTGCC
CAACTCATGTCCCTCATCATCAATACCTTCTATTCCAACAAGGAGATTTTCCTTCGGGAGTTGATCTCTAATGCT
TCTGATGCCTTGGACAAGATTCGCTATGAGAGCCTGACAGACCCTTCGAAGTTGGACAGTGGTAAAGAGCTGAAA
ATTGACATCATCCCCAACCCTCAGGAACGTACCCTGACTTTGGTAGACACAGGCATTGGCATGACCAAAGCTGAT
CTCATAAATAATTTGGGAACCATTGCCAAGTCTGGTACTAAAGCATTCATGGAGGCTCTTCAGGCTGGTGCAGAC
ATCTCCATGATTGGGCAGTTTGGTGTTGGCTTTTATTCTGCCTACTTGGTGGCAGAGAAAGTGGTTGTGATCACA
AAGCACAACGATGATGAACAGTATGCTTGGGAGTCTTCTGCTGGAGGTTCCTTCACTGTGCGTGCTGACCATGGT
GAGCCCATTGGCAGGGGTACCAAAGTGATCCTCCATCTTAAAGAAGATCAGACAGAGTACCTAGAAGAGAGGCGG
GTCAAAGAAGTAGTGAAGAAGCATTCTCAGTTCATAGGCTATCCCATCACCCTTTATTTGGAGAAGGAACGAGAG
AAGGAAATTAGTGATGATGAGGCAGAGGAAGAGAAAGGTGAGAAAGAAGAGGAAGATAAAGATGATGAAGAAAAA
CCCAAGATCGAAGATGTGGGTTCAGATGAGGAGGATGACAGCGGTAAGGATAAGAAGAAGAAAACTAAGAAGATC
AAAGAGAAATACATTGATCAGGAAGAACTAAACAAGACCAAGCCTATTTGGACCAGAAACCCTGATGACATCACC
CAAGAGGAGTATGGAGAATTCTACAAGAGCCTCACTAATGACTGGGAAGACCACTTGGCAGTCAAGCACTTTTCT
GTAGAAGGTCAGTTGGAATTCAGGGCATTGCTATTTATTCCTCGTCGGGCTCCCTTTGACCTTTTTGAGAACAAG
AAGAAAAAGAACAACATCAAACTCTATGTCCGCCGTGTGTTCATCATGGACAGCTGTGATGAGTTGATACCAGAG
TATCTCAATTTTATCCGTGGTGTGGTTGACTCTGAGGATCTGCCCCTGAACATCTCCCGAGAAATGCTCCAGCAG
AGCAAAATCTTGAAAGTCATTCGCAAAAACATTGTTAAGAAGTGCCTTGAGCTCTTCTCTGAGCTGGCAGAAGAC
AAGGAGAATTACAAGAAATTCTATGAGGCATTCTCTAAAAATCTCAAGCTTGGAATCCACGAAGACTCCACTAAC
CGCCGCCGCCTGTCTGAGCTGCTGCGCTATCATACCTCCCAGTCTGGAGATGAGATGACATCTCTGTCAGAGTAT
GTTTCTCGCATGAAGGAGACACAGAAGTCCATCTATTACATCACTGGTGAGAGCAAAGAGCAGGTGGCCAACTCA
GCTTTTGTGGAGCGAGTGCGGAAACGGGGCTTCGAGGTGGTATATATGACCGAGCCCATTGACGAGTACTGTGTG
CAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAGCTGCCTGAGGATGAG
GAGGAGAAGAAGAAGATGGAAGAGAGCAAGGCAAAGTTTGAGAACCTCTGCAAGCTCATGAAAGAAATCTTAGAT
AAGAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTGTCTTCACCTTGCTGCATTGTGACCAGCACCTACGGC
TGGACAGCCAATATGGAGCGGATCATGAAAGCCCAGGCACTTCGGGACAACTCCACCATGGGCTATATGATGGCC
AAAAAGCACCTGGAGATCAACCCTGACCACCCCATTGTGGAGACGCTGCGGCAGAAGGCTGAGGCCGACAAGAAT
GATAAGGCAGTTAAGGACCTGGTGGTGCTGCTGTTTGAAACCGCCCTGCTATCTTCTGGCTTTTCCCTTGAGGAT
CCCCAGACCCACTCCAACCGCATCTATCGCATGATCAAGCTAGGTCTAGGTATTGATGAAGATGAAGTGGCAGCA
GAGGAACCCAATGCTGCAGTTCCTGATGAGATCCCCCCTCTCGAGGGCGATGAGGATGCGTCTCGCATGGAAGAA
GTCGATTAGGTTAGGAGTTCATAGTTGGAAAACTTGTGCCCTTGTATAGTGTCCCCATGGGCTCCCACTGCAGCC
TCGAGTGCCCCTGTCCCACCTGGCTCCCCCTGCTGGTGTCTAGTGTTTTTTTCCCTCTCCTGTCCTTGTGTTGAA
GGCAGTAAACTAAGGGTGTCAAGCCCCATTCCCTCTCTACTCTTGACAGCAGGATTGGATGTTGTGTATTGTGGT
TTATTTTATTTTCTTCATTTTGTTCTGAAATTAAAGTATGCAAAATAAAGAATATGCCGTTTTTATAC

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FIGURE 1762

GGGCTGCGCTCTCCAGCTGTGGCTATGGCCCCAGCCCCGAGATGAGGAGGGAGAGAACTAGGGGCCCGCAGGCCT
GGGAATTTCCGTCCCCCACCAAGTCCGGATGCTCACTCCAAAGTCTCAGCAGGCCCCTGAGGGAGGGAGCTGTCA
GCCAGGGAAAACCGAGAACACCATCACC**ATG**ACAACCAGTCACCAGCCTCAGGACAGATACAAAGCTGTCTGGCT
TATCTTCTTCATGCTGGGTCTGGGAACGCTGCTCCCGTGGAATTTTTTCATGACGGCCACTCAGTATTTCACAAA
CCGCCTGGACATGTCCCAGAATGTGTCCTTGGTCACTGCTGAACTGAGCAAGGACGCCCAGGCGTCAGCCGCCCC
TGCAGCACCCTTGCCTGAGCGGAACTCTCTCAGTGCCATCTTCAACAATGTCATGACCCTATGTGCCATGCTGCC
CCTGCTGTTATTCACCTACCTCAACTCCTTCCTGCATCAGAGGATCCCCCAGTCCGTACGGATCCTGGGCAGCCT
GGTGGCCATCCTGCTGGTGTTTCTGATCACTGCCATCCTGGTGAAGGTGCAGCTGGATGCTCTGCCCTTCTTTGT
CATCACCATGATCAAGATCGTGCTCATTAATTCATTTGGTGCCATCCTGCAGGGCAGCCTGTTTGGTCTGGCTGG
CCTTCTGCCTGCCAGCTACACGGCCCCCATCATGAGTGGCCAGGGCCTAGCAGGCTTCTTTGCCTCCGTGGCCAT
GATCTGCGCTATTGCCAGTGGCTCGGAGCTATCAGAAAGTGCCTTCGGCTACTTTATCACAGCCTGTGCTGTTAT
CATTTTGACCATCATCTGTTACCTGGGCCTGCCCCGCCTGGAATTCTACCGCTACTACCAGCAGCTCAAGCTTGA
AGGACCCGGGGAGCAGGAGACCAAGTTGGACCTCATTAGCAAAGGAGAGGAGCCAAGAGCAGGCAAAGAGGAATC
TGGAGTTTCAGTCTCCAACTCTCAGCCCACCAATGAAAGCCACTCTATCAAAGCCATCCTGAAAAATATCTCAGT
CCTGGCTTTCTCTGTCTGCTTCATCTTCACTATCACCATTGGGATGTTTCCAGCCGTGACTGTTGAGGTCAAGTC
CAGCATCGCAGGCAGCAGCACCTGGGAACGTTACTTCATTCCTGTGTCCTGTTTCTTGACTTTCAATATCTTTGA
CTGGTTGGGCCGGAGCCTCACAGCTGTATTCATGTGGCCTGGGAAGGACAGCCGCTGGCTGCCAAGCCTGGTGCT
GGCCCGGCTGGTGTTTGTGCCACTGCTGCTGCTGTGCAACATTAAGCCCCGCCGCTACCTGACTGTGGTCTTCGA
GCACGATGCCTGGTTCATCTTCTTCATGGCTGCCTTTGCCTTCTCCAACGGCTACCTCGCCAGCCTCTGCATGTG
CTTCGGGCCCAAGAAAGTGAAGCCAGCTGAGGCAGAGACCGCAGGAGCCATCATGGCCTTCTTCCTGTGTCTGGG
TCTGGCACTGGGGGCTGTTTTCTCCTTCCTGTTCCGGGCAATTGTG**TGA**CAAAGGATGGACAGAAGGACTGCCTG
CCTCCCTCCCTGTCTGCCTCCTGCCCCTTCCTTCTGCCAGGGGTGATCCTGAGTGGTCTGGCGGTTTTTTCTTCT
AACTGACTTCTGCTTTCCACGGCGTGTGCTGGGCCCGGATCTCCAGGCCCTGGGGAGGGAGCCTCTGGACGGACA
GTGGGGACATTGTGGGTTTGGGGCTCAGAGTCGAGGGACGGGGTGTAGCCTCGGCATTTGCTTGAGTTTCTCCAC
TCTTGGCTCTGACTGATCCCTGCTTGTGCAGGCCAGTGGAGGCTCTTGGGCTTGGAGAACACGTGTGTCTCTGTG
TATGTGTCTGTGTGTCTGCGTCCGTGTCTGTCAGACTGTCTGCCTGTCCTGGGGTGGCTAGGAGCTGGGTCTGAC
CGTTGTATGGTTTGACCTGATATACTCCATTCTCCCCTGCGCCTCCTCCTCTGTGTTCTCTCCATGTCCCCCTCC
CAACTCCCCATGCCCAGTTCTTACCCATCATGCACCCTGTACAGTTGCCACGTTACTGCCTTTTTTAAAAATATA
TTTGACAGAAACCAGGTGCCTTCAGAGGCTCTCTGATTTAAATAAACCTTTCTTGTTTTTTT

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FIGURE 1763

CACATGCTGCACGCGCATCTCGCCCCCAGGGGCACTGCCTGGAAGATTCAGGAGCCTGGGCGGCCTTCGCTTACT
CTCACCTGCTTCTGAGTTGCCCAGGAGACCACTGGCAG**ATG**TCCCGGCGAAGAGAAGAGACACATTGTTGGAAGA
AGCAGCCCATGACAGCTCCCCTTCCTGGGACTCGCCCTCATCCTCTTCCTGCTCCCCTTCCTGGGGTGCAGCCTA
AAAGGACCTATGTCCTCACACCATTGAAACCACTAGTTCTGTCCCCCCAGGAGACCTGGTTGTGTGTGTGTGAGT
GGTTGACCTTCCTCCATCCCCTGGTCCTTCCCTTCCCTTCCCGAGGCACAGAGAGACAGGGCAGGATCCACGTGC
CCATTGTGGAGGCAGAGAAAAGAGAAAGTGTTTTATATACGGTACTTATT**TAA**TATCCCTTTTTAATTAGAAATT
AAAACAGTTAATTTAATTAAAGAGTAGGGTTTTTTTTCAGTATTCTTGGTTAATATTTAATTTCAACTATTTATG
AGATGTATCTTTTGCTCTCTCTTGCTCTCTTATTTGTACCGGTTTTTGTATATTTGAACAGATATTTAATTTTGC
TAACACTCAGCTCTGCCCTCCCCGATCCCCTGGCTCCCCAGCACACATTCCTTTGAAATAAGGTTTCAATATACA
TCTACATACTATATATATATTTGGCAACTTGTATTTGTGTGTATATATATATATATA

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FIGURE 1764

GCGCGAGCCGCGCCGGCCCCGGTCGGGCCTCCGAAACC**ATG**AACTTTCTGCTGTCTTGGGTGCATTGGAGCCTTG
CCTTGCTGCTCTACCTCCACCATGCCAAGTGGTCCCAGGCTGCACCCATGGCAGAAGGAGGAGGGCAGAATCATC
ACGAAGTGGTGAAGTTCATGGATGTCTATCAGCGCAGCTACTGCCATCCAATCGAGACCCTGGTGGACATCTTCC
AGGAGTACCCTGATGAGATCGAGTACATCTTCAAGCCATCCTGTGTGCCCCTGATGCGATGCGGGGGCTGCTGCA
ATGACGAGGGCCTGGAGTGTGTGCCCACTGAGGAGTCCAACATCACCATGCAGATTATGCGGATCAAACCTCACC
AAGGCCAGCACATAGGAGAGATGAGCTTCCTACAGCACAACAAATGTGAATGCAGACCAAAGAAAGATAGAGCAA
GACAAGAAAAAAAATCAGTTCGAGGAAAGGGAAAGGGGCAAAAACGAAAGCGCAAGAAATCCCGGTATAAGTCCT
GGAGCGTGTACGTTGGTGCCCGCTGCTGTCTAATGCCCTGGAGCCTCCCTGGCCCCCATCCCTGTGGGCCTTGCT
CAGAGCGGAGAAAGCATTTGTTTGTACAAGATCCGCAGACGTGTAAATGTTCCTGCAAAAACACAGACTCGCGTT
GCAAGGCGAGGCAGCTTGAGTTAAACGAACGTACTTGCAGATGTGACAAGCCGAGGCGG**TGA**GCCGGGCAGGAGG
AAGGAGCCTCCCTCAGGGTTTCGGGAACCAGATCT

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FIGURE 1765

AGGTTTTTGAAG**ATG**GCGGCCCTCAAGGCTCTGGTGTCCGGCTGTGGGCGGCTTCTCCGTGGGCTACTAGCGGGC
CCGGCAGCGACCAGCTGGTCTCGGCTTCCAGCTCGCGGGTTCAGGGAAGTGGTGGAGACCCAAGAAGGGAAGACA
ACTATAATTGAAGGCCGTATCACAGCGACTCCCAAGGAGAGTCCAAATCCTCCTAACCCCTCTGGCCAGTGCCCC
ATCTGCCGTTGGAACCTGAAGCACAAGTATAACTATGACGATGTTCTGCTGCTTAGCCAGTTCATCCGGCCTCAT
GGAGGCATGCTGCCCCGAAAGATCACAGGCCTATGCCAGGAAGAACACCGCAAGATCGAGGAGTGTGTGAAGATG
GCCCACCGAGCAGGTCTATTACCAAATCACAGGCCTCGGCTTCCTGAAGGAGTTGTTCCGAAGAGCAAACCCCAA
CTCAACCGGTACCTGACGCGCTGGGCTCCTGGCTCCGTCAAGCCCATCTACAAAAAAGGCCCCCGCTGGAACAGG
GTGCGCATGCCCGTGGGGTCACCCCTTCTGAGGGACAATGTCTGCTACTCAAGAACACCTTGGAAGCTGTATCAC
TGACAGAGAGCAGTGCTTCCAGAGTTCCTCCTGCACCTGTGCTGGGGAGTAGGAGGCCCACTCACAAGCCCTTGG
CCACAACTATACTCCTGTCCCACCCCACCACGATGGCCTGGTCCCTCCAACATGCATGGACAGGGGACAGTGGGA
CTAACTTCAGTACCCTTGGCCTGCACAGTAGCAATGCTGGGAGCTAGAGGCAGGCAGGGCAGTTGGGTCCCTTGC
CAGCTGCTATGGGGCTTAGGCCATGCTCAGTGCTGGGGACAGGAGTTTTGCCCAACGCAGTGTCATAAACTGGGT
TCATGGGCTTACCCATTGGGTGTGCGCTCACTGCTTGGGAAGTGCAGGGGGTCCTGGGCACATTGCCAGCTGGGT
GCTGAGCATTGAGTCACTGATCTCTTGTGATGGGGCCAATGAGTCAATTGAATTCATGGGCCAAACAGGTCCCAT
CCTCTTCATG

FIGURE 1766

GAGGCGGCTTCTCCTAGCAACTCGACGGGCGTTGAGCGGAGCCGCTGACCTG**ATG**GACGCCGACAGCCTCCTGCT
GTCTCTGGAGCTGGCGTCCGGCAGTGGGCAGGGCCTCAGCCCGGACCGTCGGGCCTCGCTGCTCACGTCTCTTAT
GCTGGTTAAGCGCGACTACCGCTATGATCGGGTTCTCTTCTGGGGCCGCATCCTTGGCCTCGTCGCCGATTACTA
CATCGCGCAGGGCCTGAGTGAGGACCAGCTCGCACCGCGCAAGACGCTCTATAGCCTGAACTGCACAGAGTGGAG
CCTCTTGCCCCCTGCCACAGAGGAGATGGTGGCGCAGTCGTCTGTGGTGAAGGGCCGCTTCATGGGGGACCCATC
ATACGAATATGAACACACTGAGCTGCAGAAGGTGAATGAAGGTGAAAAAGTCTTTGAAGAAGAAATAGTGGTCCA
GATCAAGGAAGAGACCCGCTTGGTGTCTGTCATTGACCAGATTGACAAGGCTGTGGCCATCATCCCCCGAGGCGC
CCTCTTCAAGACCCCTTTTGGACCCACCCATGTCAATCGGACCTTTGAAGGACTGTCCTTGTCTGAGGCCAAGAA
GCTCAGCTCCTACTTCCATTTCAGGGAGCCTGTTGAGCTAAAGAATAAGACCTTGCTTGAGAAGGCTGACCTGGA
CCCCTCCCTGGATTTCATGGACTCCTTGGAGCATGACATTCCCAAAGGGTCTGAGGCAGTTGTTCAGGGTGACTT
CACGTGGCTTCTGAGCAGGTGTGGTTTTGGTTGGCCCTGTTCCTGGGACTCCTGCTCTGTGTCCATGAGGGTCCT
GGAGCATCCAGATGGAGAGGGGCAATGCCCTGGTGGTGCTGCGCAGCCTGCTCTGGCCGGGCCTCACCTTCTACC
ATGCTCCCCGCACCAAGAACTATGGCTACGTCTACGTGGGCACTGGCGAGAAGAACATGGACTTGCCCTTCATGC
TATAGAATGGGAGCCAGCCTGGATGTTTTTAAACAGAGTC**TAA**ACATGATTTTCTTAAGCTTCAGTGAACTTGGC
CTGCCTGTTCTGTCCTATCTTCTTAACTCCACCTCCGTCTGGTTCCAGATTCTGAAAGGCCCACTGAGCCAGGGA
GCTCATTTCTAAACCAAGTGGCAGAGGGGTTGGAATGTGCTAATGAAAGAGATTCTAGACAACGATGGGTGGAAA
TGGCTGTGGGAGAAGGTGACAACCAGGGCCCCTTTGAGGAACGCAGTTTCTTGGATTCACACGAGAGCGGCAAGT
GTGTCAGGCAGCCCACCTTGGCTCCCTGCAGCTCTCCCACAGTAAGGAGCTCACAGCTGTCATGAAGAGGATGGG
ACCTGTTTGGCCCATGAATTCAATTGACTCATTGGCCCCATCACAAGAGATCAGTGACTCAATGCTCAGCACCCA
GCTGGCAATGTGCCCAGGACCCCCTGCACTTCCCAAGCAGTGAGCGCACACCCAATGGGTAAGCCCATGAACCCA
GTTTATGACACTGCGTTGGGCAAAACTCCTGTCCCCAGCACTGAGCATGGCCTAAGCCCCATAGCAGCTGGCAAG
GGACCCAACTGCCCTGCCTGCCTCTAGCTCCCAGCATTGCTACTGTGCAGGCCAAGGGTACTGAAGTTAGTCCCA
CTGTCCCCTGTCCATGCATGTTGGAGGGACCAGGCCATCGTGGTGGGGTGGGACAGGAGTATAGTTGTGGCCAAG
GGCTTGTGAGTGGGCCTCCTACTCCCCAGCACAGGTGCAGGAGGAACTCTGGAAGCACTGCTCTCTGTCAGTGAT
ACAGCTTCCAAGGTGTTCTTGAGTAGCAGACATTGTCCCTCAGAAGGGGTGACCCCACGGGCATGCGCACCCTGT
TCCAGCGGGGGCCTTTTTTGTAGATGGGCTTGACGGAGCCAGGAGCCCAGCGCGTCAGGTACCTGTGGAGGGAGA
ACAAAGAGGTGCCTGTGAGGGCTGGGGGCCCAAGCTGGACGTGGGAGAGTGGAGCACTACCTCCTCAGGCCAGGC
CACGGTTGGGCAAGCAAATCCTTTCACCAGTTTCCCTTTCCTGAAGTGCAGGGATTTTCCTGGGAGTAACTGCTG
AGCGTCCTGTAAACAGATGGGCTGGGCTCTTGCTGCCGCAAGCCTGTGTGGCCAGGTTCAGGCAGCCCAGGGCCA
CAAGCTCCCTTGATCTTTGTAAATGTCAATGTTGGTGTGTGTTTGCTGAGGAAAAGGTGGCGAAGAGGCTGCCTG
AAGAGCAGATCATTCCTCTCTGGCCTCAGCCATGGGGCGAGAAGAGCTGATGTAAGGCTCTGGAGGAACCCATTG
CTCTTCCCCATTTGGCTCACTCAGCTACCCCAACCTTCAGGGAACTCCCCAGGGTACTATAACTGGTATAAGACC
CCTGCCCCTCACCCAACCTGTGATGGGAATCAAGGGGTAAGGGCCCGTGGGCGCAGCCCTAGCCTAGGAAGGTTC
CTGTAAATAGGAGGGGGGTGGGGAAAGATGGCTGCCGCCCATGGACCTTTGGCCTCCTTTGGGGATGGCCAGGGC
CCTGATAGTTCCCAGAAAAGTGGCTCATGCCGGCTAGGATTGGGTTTTACTCTGTCCAGAATAAAACTTGGATCC
TGTCC

FIGURE 1767

CAGTGGCAGTAAGGGCGGCGGCGACGGCGGCGGCGGTCGGGGGAGGGGCCGGGCGGGGGGCTGGCGGCAGCGGCG
G**ATG**GACTCGCGGGTATCGGAGCTGTTCGGCGGCTGCTGCCGGCCCGGAGGGGGCCCGGCCGTGGGCGGAACCCT
CAAGGCTAGGGGGGCCGGCAGCAGCAGCGGCTGCGGGGGGCCAAAGGGAAAGAAGAAGAACGGAAGGAACAGAGG
GGGCAAAGCCAACAACCCCCCGTATTTGCCCCCCGAGGCTGAAGATGGAAACATTGAATATAAATTGAAGCTGGT
GAATCCATCCCAGTACCGCTTTGAGCACCTGGTGACACAAATGAAGTGGCGGCTCCAGGAGGGACGTGGTGAGGC
CGTCTACCAGATTGGGGTAGAGGACAATGGGCTGCTGGTGGGGCTGGCTGAGGAGGAAATGCGAGCTTCGCTCAA
GACCCTGCACCGGATGGCAGAGAAGGTTGGGGCAGACATAACCGTTCTTCGAGAGCGAGAAGTGGATTATGATAG
CGACATGCCCCGGAAGATCACCGAGGTGCTAGTACGAAAGGTCCCTGACAACCAACAGTTCCTAGACCTCCGTGT
GGCCGTCCTGGGGAATGTGGACTCTGGGAAGTCAACTCTGCTTGGAGTCCTGACCCAGGGAGAGCTGGACAATGG
GCGGGGCCGGGCTCGGCTCAACCTTTTCCGCCACCTGCATGAGATTCAGTCTGGCCGAACCTCCAGCATCAGCTT
CGAGATCCTGGGCTTTAACAGCAAGGGAGAGGTGGTGAATTACAGCGACTCACGGACAGCAGAAGAGATCTGTGA
GAGCAGCTCCAAGATGATCACCTTCATCGACCTGGCAGGCCACCATAAGTACCTACACACCACCATCTTTGGCCT
CACATCATACTGCCCCGACTGCGCCCTGCTCCTCGTCAGTGCCAACACTGGGATTGCTGGCACCACAAGGGAACA
TCTGGGGCTGGCCCTGGCCCTGAAAGTGCCCTTCTTCATCGTGGTCAGCAAGATCGACCTATGTGCCAAGACCAC
AGTGGAGAGGACAGTACGCCAGCTGGAGCGGGTCCTCAAGCAGCCTGGCTGCCACAAGGTCCCCATGCTGGTCAC
CTCTGAGGATGATGCCGTCACTGCTGCCCAGCAGTTTGCTCAGTCACCCAATGTCACCCCCATCTTCACATTGTC
CAGTGTGTCTGGAGAGAGTCTGGACCTCCTCAAAGTCTTTCTGAATATTCTGCCGCCACTCACCAACAGCAAAGA
GCAGGAGGAACTCATGCAGCAGCTGACGGAGTTCCAGGTGGATGAAATCTACACAGTACCAGAGGTGGGGACTGT
TGTTGGAGGAACACTTTCCAGTGGGATTTGCCGTGAGGGGGACCAGCTGGTGGTGGGCCCCACGGATGATGGCTG
CTTCCTGGAGCTGAGAGTATGCAGCATCCAGCGCAACCGCTCTGCCTGTCGTGTGCTGCGAGCTGGTCAGGCTGC
TACACTGGCGCTTGGGGACTTTGACCGTGCACTGCTTCGCAAGGGCATGGTGATGGTGAGCCCGGAGATGAATCC
TACCATCTGCTCGGTGTTTGAGGCAGAGATAGTCTTACTGTTCCATGCCACCACCTTCCGACGAGGATTCCAGGT
GACAGTACACGTGGGCAACGTACGTCAGACGGCAGTGGTGGAAAAGATCCATGCCAAGGACAAACTGCGGACAGG
CGAGAAGGCAGTGGTACGTTTCCGCTTCCTGAAACACCCAGAGTACCTGAAGGTGGGCGCCAAACTGCTGTTCCG
GGAGGGTGTCACCAAGGGCATCGGCCATGTCACTGATGTACAAGCCATTACAGCAGGAGAAGCCCAGGCCAACAT
GGGCTTC**TGA**ACCCTTCAGGCAGGGACAGTTCTATTGCTGTCCCTACAATATATAAGGTGACTTCTGGCCATGCT
GCCCTGCCATTGGCGGCTCTGTGTGTTAATAGGCTAGGGAGAGAGGGGTGCTGTCTGCCACTTGCTCCCTGCCAA
CTTTCTGGAGAGGTGCCAAACTTGGTGTGGCCAGGAAAGGGCAGTCCTGAGGGAGAAGACAGGATTCAGGGCAGT
GCTCCGAAGCTGTGTGCTCACCTGGTTGGCTCATCAAACCTGGCAACCCTGTGGCCTGTCTGCCGGAGCTGACTG
GATCCACTCATCAATTCTTCGTCCCCACTACTAAGACTGGGCATGTTTTGCTGGTGTGGTCTCTGCACTTCAGGA
ATGGTCACAACAGGGGGTAGCCCTCAAAAGCACTCCTTTTTCTATACCTCTTCTCAAGGCCATGTAAGTTGCCCA
TCTCTACCTGGCTGTGGACAAAAGGTTATCTGCTCTTGGCCATCTGGTGGTGGTGGCGGCCCAGAGTCTGAAGAA
ATGGCACAGGGACAGTGAATGGTAGTGTTGCCACCCTGTGCTGAGGCCTGAGGCCTCTTCCTCAGCTTTATCTCC
CTTTCCTTCACTCAAGGGCCATTTCCCCAGTCCCTATCTCCCCCATCCCCTCCCGGCTTATAGGCCCCACAGGTG
CTATTTGTTGTGCTGGCCCAGGCGTGGGGCTACCAAGCAAAGGCTTGGCATATACCAAAGGCCAGCTGCATGCCC
ATCAGTCTGGTCTTTTTCCTCTGCGGTCATGTTGGCTTTCATGCTGGATCAAATGTTTTACTTTCCCAGACTGGT
GGCATCTGAGTTCCCCATCCTACCACTCTCACCCCACTTTCCTGCCCCACCTAAACCCTCGTTTTAGTAATTTGT
AGTGACTGTTCCCTTCCCTCTGTTGCAGGGAACCAGGAGGAAAGGGAAAGATGTTGCCATATTTCCTACTCTTTA
GGCATGGACTCTCCTTTCCCTTTGTTAGTGTCCTGGGTTCCCATGGACTCAGGGATTTGTTGGCTAAGGTTTCTC
TGTGCATATATATATATATACATATGTATATATATTTAAATACACATATATATTGTACAGAATAAAAATGTTTTA
TTG

FIGURE 1768A

AGCTGTCGTGCCTCGTGGTCCCGGGACTGCAGTGGTGTGCGCTCTCGGCGCGTGGCGCTAGGC**ATG**GCGATGGAT
CAAGTAAACGCGCTGTGCGAGCAGCTGGTGAAAGCGGTGACGGTCATGATGGACCCCAACTCCACCCAGCGCTAC
CGGCTGGAAGCCCTCAAGTTTTGTGAGGAGTTTAAAGAAAAGTGTCCTATCTGTGTCCCCTGTGGCTTGAGGTTG
GCTGAGAAAACACAAGTTGCCATCGTCAGACATTTTGGCCTTCAGATCCTGGAACACGTTGTCAAGTTTCGGTGG
AACGGCATGTCTCGATTGGAGAAGGTGTATCTGAAGAACAGTGTCATGGAGCTGATTGCAAATGGAACATTGAAC
ATTTTGGAAGAGGAGAACCATATTAAAGATGCTCTGTCTCGAATTGTAGTGGAAATGATCAAGCGAGAGTGGCCA
CAGCATTGGCCTGACATGCTAATAGAATTGGACACTCTTTCCAAACAAGGGGAAACACAGACAGAATTGGTGATG
TTTATCCTTTTGCGACTGGCAGAGGATGTAGTGACTTTTCAGACACTTCCCCCTCAAAGAAGAAGGGACATCCAG
CAAACATTAACCCAGAACATGGAAAGGATCTTCAGTTTTCTGCTTAACACACTTCAAGAAAATGTAAACAAGTAT
CAGCAAGTGAAGACAGATACTTCTCAGGAGTCAAAGGCGCAAGCAAACTGTCGAGTAGGAGTTGCAGCACTGAAT
ACTCTAGCAGGCTATATTGACTGGGTGTCTATGAGTCACATCACTGCTGAAAACTGTAAACTCCTGGAGATACTG
TGTTTGCTGTTGAATGAACAGGAACTTCAGTTGGGAGCCGCTGAGTGTCTTCTCATTGCAGTCAGCAGAAAAGGC
AAGTTGGAAGACCGGAAGCCCTTGATGGTCTTATTTGGAGATGTTGCCATGCATTATATACTCTCCGCCGCACAG
ACTGCTGATGGAGGAGGTTTGGTAGAAAAACACTACGTCTTTCTGAAGAGGCTCTGTCAGGTGTTGTGTGCGCTG
GGCAATCAGCTGTGTGCATTGCTGGGTGCAGATTCTGATGTAGAAACACCATCAAACTTTGGAAAATACCTGGAA
TCTTTTCTTGCTTTCACAACCCATCCAAGTCAGTTTCTACGCTCTTCAACTCAGATGACTTGGGGAGCCCTCTTC
AGGCATGAAATCCTGTCCCGTGATCCTTTGCTATTAGCAATAATACCAAAATATCTTCGTGCTTCCATGACTAAC
TTGGTCAAGATGGGCTTTCCTTCTAAAACAGACAGCCCTAGCTGTGAATATTCTCGGTTTGATTTTGATAGCGAT
GAGGACTTCAATGCTTTCTTCAACTCCTCCCGAGCACAACAAGGAGAGGTGATGAGGTTGGCATGTCGTTTGGAT
CCCAAAACTAGCTTCCAGATGGCTGGGGAGTGGCTAAAGTATCAACTATCAACTTTTCTTGATGCTGGTTCTGTG
AATTCTTGTTCTGCAGTTGGAACTGGAGAAGGAAGCCTCTGTTCCGTCTTCTCACCTTCATTCGTGCAGTGGGAA
GCCATGACTCTTTTTTTGGAAAGTGTTATCACCCAGATGTTTCGAACACTAAATAGAGAAGAAATTCCTGTTAAT
GATGGAATAGAGCTATTGCAGATGGTTCTGAACTTTGATACCAAGGATCCCCTCATCCTGTCCTGCGTCCTTACT
AATGTCTCTGCACTCTTTCCATTTGTCACCTACAGACCAGAGTTCCTGCCCCAGGTCTTCTCTAAGCTATTTTCA
TCTGTCACTTTTGAAACTGTTGAAGAAAGTAAGGCCCCCAGAACCCGGGCAGTGAGGAATGTGAGGAGGCATGCT
TGTTCCTCCATCATCAAGATGTGTCGTGACTACCCCCAGCTTGTGCTGCCCAATTTTGACATGCTTTATAACCAT
GTGAAGCAACTCCTCTCCAATGAGCTACTCCTGACACAAATGGAGAAGTGTGCCCTCATGGAAGCCCTGGTTCTC
ATTAGCAACCAATTTAAGAACTACGAGCGTCAGAAGGTGTTCCTAGAGGAGCTGATGGCACCAGTGGCCAGCATC
TGGCTTTCTCAAGACATGCACAGAGTGCTGTCAGATGTTGATGCTTTCATTGCGTATGTGGGTACAGATCAGAAG
AGCTGTGACCCAGGCCTGGAGGATCCGTGTGGCTTAAACCGTGCACGAATGAGCTTTTGTGTATACAGCATTCTG
GGTGTGGTGAAACGAACTTGCTGGCCCACTGACCTAGAAGAGGCCAAAGCTGGGGGATTTGTGGTGGGTTATACA
TCCAGTGGAAATCCAATCTTCCGTAACCCCTGCACAGAGCAGATTCTGAAACTTCTTGACAATTTGCTTGCGCTT
ATAAGAACCCACAATACATTATATGCACCAGAAATGCTAGCCAAAATGGCAGAGCCTTTCACCAAGGCTCTGGAT
ATGCTTGACGCGGAAAAATCTGCTATATTAGGATTACCTCAACCTCTCTTGGAACTCAATGACTCTCCTGTCTTC
AAAACCGTCTTGGAAAGAATGCAGCGTTTCTTCTCTACCCTCTATGAAAACTGTTTTCATATCCTAGGGAAGGCA
GGCCCTTCCATGCAGCAAGACTTCTATACTGTGGAGGACCTTGCTACCCAGCTTCTCAGCTCAGCCTTTGTCAAC
TTGAACAATATTCCTGACTACCGACTCAGACCCATGCTTCATGTCTTTGTAAAGCCTCTGGTGCTCTTCTGTCCC
CCAGAGCACTATGAAGCCCTGGTATCCCCCATCCTCGGACCTCTTTTCACCTACCTCCATATGAGGCTTTCTCAG
AAATGGCAAGTTATCAACCAAAGGAGCCTGCTGTGTGGAGAAGATGAGGCTGCAGATGAAAACCCAGAGTCTCAA
GAGATGCTGGAGGAGCAACTGGTGAGGATGTTAACCCGAGAAGTCATGGACCTAATCACGGTTTGCTGTGTTTCA
AAGAAGGGTGCTGACCACAGTAGTGCTCCCCCAGCAGATGGAGACGATGAAGAAATGATGGCCACAGAGGTCACC
CCCTCAGCTATGGCAGAGCTTACAGACCTGGGCAAATGTCTGATGAAGCATGAGGATGTTTGTACAGCGCTATTA
ATTACAGCCTTCAATTCCCTGGCCTGGAAAGATACTCTGTCCTGCCAGAGGACAACCTCACAGCTCTGCTGGCCT
CTCCTCAAACAAGTGCTGTCAGGGACACTGCTCGCAGATGCAGTTACGTGGCTTTTCACCAGTGTGCTGAAAGGC
TTACAGATGCACGGGCAGCACGACGGGTGCATGGCTTCCCTGGTCCATCTGGCCTTCCAGATATACGAGGCACTG
CGCCCCAGGTACCTGGAGATAAGAGCTGTAATGGAGCAAATCCCTGAAATACAGAAGGACTCACTGGACCAGTTT
GACTGCAAGCTTTTAAACCCCTCCCTGCAGAAAGTGGCTGACAAGCGCCGAAAGGACCAATTCAAACGCCTCATT
GCTGGTTGCATTGGGAAACCCTTGGGAGAGCAGTTCCGAAAAGAAGTTCACATTAAGAATCTTCCCTCACTTTTC

FIGURE 1768B

AAAAAAACAAAGCCAATGCTGGAGACGGAGGTGCTGGACAATGATGGGGGTGGCCTGGCCACCATCTTTGAACCC
TGAATCAAGCTTTTGGGCATCCTTCCTCGGCCTTTCTTGTCATCTCTTCTTTCCCTTTGTAGCCGATCTCTAGGC
CCTTCTTGCACTGCCACCTCACTTTCCACCACTGTCAGCCTGGAAAGAGATCCAGGTCTGGAGCTGGAGAGAACA
GGCCCTGTGCAGGACCAGAAGTAATTATACTAAAGTATCAAGAAAGGGAGTTAGGGCTTAAACTATTCTGTCTAG
ATGTCCCAGATAGTTCCCATTCTACTTGGAGATTTGGCTTTTCCAAGAAAAGCTAGAGCAGAGCAGCCCTTCTCC
CACAAGCCCTCCCACCCCCGTGCAGCCACATACCTGTACAGAATGGTAACTAAGGGTGCTGTGCCCAACCCTGCG
ACTAGCAAGGCTCGCAGCAAGAGCACAGCCCTCAACTACTTGTGCCAGAGTTTCTCTTGGACCACTCCAACTCCC
ACTGAGCCCTTTTGCTGCTGGGCTGGCAGGAAACTTTCCCCACTCCCTAAGGGGCATGTCTGGGTTAGGTGCTAA
GTGCTGAAGAGAACTTGGTCAGTTCTCTCAACTTTGCTTTGGGCAAGAATCTGGTCACCTGATGGGATCCATGGT
ACAGGCTACTGCTAAACTTGGCACAGTATCAAGTATAGTACCTCCAAGGACCAGGGCTGGGAAGTCTTTAGTGCT
AACATCCCCTTTAGAGTTCACACATCTTGCCCTTCCATGAATGACCCCTCAGTCTGGCCTCCCCAGCCTCAAGGT
CCACTCAGGCACAAGAGCCACAGTACCCTAGATAGTGTCACATGACACCGTTGTCATCCAAGGATAATACAGACC
AACTAGGCTACATCTGTGATGAGCAGCTAGCAAAGCCGCTGGTCTTCTCCTAGGACTAAGTCCAGGTGCCTTCCA
CAATCTCATGGTCTTTCAGGTCCCTGGTTACTTTTCTCAAAGGCCATTTCCAAAAGAATACATGCCTTCACATCA
CAACCTGTACTGTGAGTCCATTCTAGAGGTCACTGAAAGGCCCTGTAAAGAGAGGACATGGATACGGGACCTGGC
CCTGAGGTTATTACTGGCCGTAAGGCAGAGTTAATCCATACAGAAACCAGTGTGTCCATGTGCTCTGCACAAAAA
CAGACCTGTTGTCCATCCAGTCCACTGACAAGAGGGTTTCCCCGAGAGCCGAAGTGGACTGAAGCTACAGTTTTT
AGCTGGTGCGGGCCACAGGCAGGGTCAGATTGAGAAGAAGCAAAGCTGGGGAAGCAGAAGTTGGGAGTCTTGTGT
TGCTCCCTCTTCCTGTGTGGTGCTCTGGGTTTCTGTGGATCGTGAAGGCGATCTCAAGAGTGTTTCCCTCCAAAC
CTGATAGCTGCCTATTCCTGTCTGGTTGGGGCTGTGGAGGATGTAGTTGTATTTATTGCATTGTAATATTTTTAA
CATCCTGTGACTTCATGCTAGAAATTTTCTATTGTTTATAGAAACTTTTTGTAGAAACATTAACTCTAAAGCACA
TCTGCATGTCAGTAAAAATCTCAGTTTCGTACAG

FIGURE 1769

CACCAAATGGCGGATGACGCCGGTGCAGTGGGGGGGCCTGGAGGCCCTGGTGGCCCTGGGATGGGGAACCGCGGT
GGCTTCCGCAGAGGTTTCGCCAGTGGCATCCGGGGCCGGGGTCGCAGCCGTGGACCGGGCCGGGGCTGAGGCCGC
GGAGCTCGCGGAGGCAAGGCCAAAGATAAGGAGTGG**ATG**CCCGTCACCAAGCTGGGCCGCTTGGTCAAGGACATG
AAGATCAAGTCCCTGGAGGAGATCTATCTCTTCTCCCTGCCCATTAAGGAATCAGAGATCATTGACTTTTTCCTG
GGGGCCTCTCTCAAGGATGAGGTTTTGAAGATTATGCCAGTGCAGAAGCAGACCCGTGCTGGCCAGCGCACCAGG
TTCAAGGTGACAGGCCGCCGTGGCTCTGTGCTGGTGCGCCTCATCCCTGCACCCAGGGGCACTGGCATTGTCTCC
GCACCTGTGCCCAAGAAGCTGCTCATGATGGCTGGTATCGATGACTGCTACACCTCAGCCCAGGGCTGCACTGCC
ACCCTGGGCAACTTCGCCAAGGCCACCTTTGATGCCATTTCTAAGACCTACAGCTACCTGACCCCCGACCTCTGG
AAGGAGACTGTATTTACCAAGTCTCCCTATCAGGAATTCACTGACCACCTCGTCAAGACCCACACCAGAGTCTCT
GTGCAGCAGACCCAGGCTCCAGCTGTGGCTACAACA**TAG**GGTTTTTATACAAGAAAAATAAAGTGAATTAAGCGT
G

FIGURE 1770

AGGGCTACTAGGACGCACGCGCGAGATAGAACCTCTAGTCTCGTGGAGAGATTGAAG**ATG**GCGGCTTCTCAGGCG
GTGGAGGAAATGCGGAGCCGCGTGGTTCTGGGGGAGTTTGGGGTTCGCAATGTCCATACTACTGACTTTCCCGGT
AACTATTCCGGTTATGATGATGCCTGGGACCAGGACCGCTTCGAGAAGAATTTCCGTGTGGATGTAGTACACATG
GATGAAAACTCACTGGAGTTTGACATGGTGGGAATTGACGCAGCCATTGCCAATGCTTTTCGACGAATTCTGCTA
GCTGAGGTGCCAACTATGGCTGTGGAGAAGGTCCTGGTGTACAATAATACATCCATTGTTCAGGATGAGATTCTT
GCTCACCGTCTGGGGCTCATTCCCATTCATGCTGATCCCCGTCTTTTTGAGTATCGGAACCAAGGAGATGAAGAA
GGCACAGAGATAGATACTCTACAGTTTCGTCTCCAGGTCAGATGCACTCGGAACCCCCATGCTGCTAAAGATTCC
TCTGACCCCAACGAACTGTACGTGAACCACAAAGTGTATACCAGGCATATGACATGGATCCCCCTGGGGAACCAG
GCTGATCTCTTTCCAGAGGGCACTATCCGACCAGTGCATGATGATATCCTCATCGCTCAGCTGCGGCCTGGCCAA
GAAATTGACCTGCTCATGCACTGTGTCAAGGGCATTGGCAAAGATCATGCCAAGTTTTCACCAGTGGCAACAGCC
AGTTACAGGCTCCTGCCAGACATCACCCTGCTTGAGCCCGTGGAAGGGGAGGCAGCTGAGGAGTTGAGCAGGTGC
TTCTCACCTGGTGTTATTGAGGTGCAGGAAGTCCAAGGTAAAAAGGTGGCCAGAGTTGCCAACCCCCGGCTGGAT
ACCTTCAGCAGAGAAATCTTCCGGAATGAGAAGCTAAAGAAGGTTGTGAGGCTTGCCCGGGTTCGAGATCATTAT
ATCTTCTCTGTTGAGTCAACGGGGGTGTTGCCACCAGATGTGCTGGTGAGTGAAGCCATCAAAGTACTGATGGGG
AAGTGCCGGCGCTTCTTGGATGAACTAGATGCGGTTCAGATGGAC**TGA**GCTTGGATGCTTCTGAGGCAAGCTGAA
GCTTTGGGTTCTGACTGACCCACCCTACAGGACTGCTGAACAGAGAGCCCAGTGTGACTAGGGATCCTGAGTTTT
CTGGGACAATTCCAGCTTTAATCAATACATTTTGTTAAATGTGCCATAAAATGAGACTTTTTACGCCTTTATAAG
GCCTTAGATGTAAATAAACTCACCCAAAC

FIGURE 1771

GTGTTCCGGCCGATCCCACCTCTCCTCGACCCTGGACGTCTACCTTCCGGAGGCCCACATCTTGCCCACTCCGCG
CGCGGGGCTAGCGCGGGTTTCAGCGACGGGAGCCCTCAAGGGAC**ATG**GCAACTACAGCGGCGCCGGCGGGCGGCG
CCCGAAATGGAGCTGGCCCGGAATGGGGAGGGTTCGAAGAAAACATCCAGGGCGGAGGCTCAGCTGTGATTGACA
TGGAGAACATGGATGATACCTCAGGCTCTAGCTTCGAGGATATGGGTGAGCTGCATCAGCGCCTGCGCGAGGAAG
AAGTAGACGCTGATGCAGCTGATGCAGCTGCTGCTGAAGAGGAGGATGGAGAGTTCCTGGGCATGAAGGGCTTTA
AGGGACAGCTGAGCCGGCAGGTGGCAGATCAGATGTGGCAGGCTGGGAAAAGACAAGCCTCCAGGGCCTTCAGCT
TGTACGCCAACATCGACATCCTCAGACCCTACTTTGATGTGGAGCCTGCTCAGGTGCGAAGCAGGCTCCTGGAGT
CCATGATCCCTATCAAGATGGTCAACTTCCCCCAGAAAATTGCAGGTGAACTCTATGGACCTCTCATGCTGGTCT
TCACTCTGGTTGCTATCCTACTCCATGGGATGAAGACGTCTGACACTATTATCCGGGAGGGCACCCTGATGGGCA
CAGCCATTGGCACCTGCTTCGGCTACTGGCTGGGAGTCTCATCCTTCATTTACTTCCTTGCCTACCTGTGCAACG
CCCAGATCACCATGCTGCAGATGTTGGCACTGCTGGGCTATGGCCTCTTTGGGCATTGCATTGTCCTGTTCATCA
CCTATAATATCCACCTCCACGCCCTCTTCTACCTCTTCTGGCTGTTGGTGGGTGGACTGTCCACACTGCGCATGG
TAGCAGTGTTGGTGTCTCGGACCGTGGGCCCCACACAGCGGCTGCTCCTCTGTGGCACCCTGGCTGCCCTACACA
TGCTCTTCCTGCTCTATCTGCATTTTGCCTACCACAAAGTGGTAGAGGGGATCCTGGACACACTGGAGGGCCCCA
ACATCCCGCCCATCCAGAGGGTCCCCAGAGACATCCCTGCCATGCTCCCTGCTGCTCGGCTTCCCACCACCGTCC
TCAACGCCACAGCCAAAGCTGTTGCGGTGACCCTGCAGTCACAC**TGA**CCCCACCTGAAATTCTTGGCCAGTCCTC
TTTCCCGCAGCTGCAGAGAGGAGGAAGACTATTAAAGGACAGTCCTGATGACATGTTTCGTAGATGGGGTTTGCA
GCTGCCACTGAGCTGTAGCTGCGTAAGTACCTCCTTGATGCCTGTCGGCACTTCTGAAAGGCACAAGGCCAAGAA
CTCCTGGCCAGGACTGCAAGGCTCTGCAGCCAATGCAGAAAATGGGTCAGCTCCTTTGAGAACCCCTCCCCACCT
ACCCCTTCCTTCCTCTTTATCTCTCCCACATTGTCTTGCTAAATATAGACTTGGTAATTAAAATGTTGATTGAAG
TCTGG

FIGURE 1772

ACCCGGCCTGCCCCGCGGCAAGATGGCGGCCTGAACGCAGCTGGCAGCGGCGGAAAGCTTAGATCAGCCTTTCCA
CAGCTGTTAGCAGCATCTGCCCCAATTTCAGCTGAAGATTCAGGTGCCCCAGGGACTGGAAGAAATTACAGTGCC
TACTTGGAAAGAAGAAGAGATAGCGACTTGCCCCAGTCCAACCCCAGAGCGGGAGCTGTGGCTAAAGGAAGTGGA
GGGGCCGTGGGATGCGGAGAGCCGAGGGCTAACTCCCGGACAGCGGAACAGAGAGAGCTGCCGACAAACAGACGT
CCAGAGTCCTTCTGGCCACATCTCTGAGCCTGCCTCCTTCTTGCTTCTCAGCAGGCGGAGGAGCCGTCACCTCCC
AGA**ATG**ACTAGTGCCGCCCCTGCTAAGAAACCCTACCGTAAGGCACCACCAGAGCATCGGGAGCTGCGTTTGGAA
ATTCCTGGATCCCGGCTTGAGCAGGAGGAACCCCTGACTGATGCAGAAAGGATGAAGCTCTTACAGGAGGAGAAT
GAAGAGCTTCGCCGGCGCCTGGCCTCCGCCACCAGACGCACTGAGGCCCTGGAACGTGAGCTGGAAATTGGGCAG
GACTGCCTGGAGCTGGAGCTGGGCCAGAGCCGCGAGGAGCTGGACAAATTTAAGGATAAGTTCCGCAGGCTGCAG
AACAGCTACACGGCTTCCCAGCGGACCAACCAGGAGTTGGAGGACAAGCTGCACACACTGATCAAGAAGGCTGAG
ATGGATAGGAAGACGCTGGACTGGGAGATTGTGGAGCTGACCAACAAGCTGCTGGATGCCAAGAACACCATCAAC
AAGCTGGAAGAGCTCAATGAGCGGTACCGGCTGGACTGCAACCTGGCTGTACAGCTCCTCAAGTGCAACAAGTCC
CACTTCCGAAACCACAAGTTTGCCGATCTGCCCTGTGAGCTACAGGACATGGTTCGGAAACATTTGCACAGTGGT
CAAGAGGCCGCCAGCCCAGGTCCTGCTCCCAGCCTAGCCCCAGGGGCTGTGGTGCCTACCTCAGTCATTGCCCGA
GTGTTAGAGAAGCCGGAGTCTCTACTGCTCAATTCAGCCCAGTCAGGCAGCGCCGGGCGCCCCTTGGCTGAGGAT
GTCTTTGTGCATGTGGACATGAGTGAGGGTGTCCCAGGTGATCCAGCCAGTCCCCCGGCCCCTGGCAGCCCCACC
CCACAACCCAATGGGGAGTGCCACTCTCTGGGTACTGCCAGGGGCTCCCCGGAGGAAGAGCTGCCCCTGCCAGCC
TTTGAGAAGCTGAACCCCTACCCAACCCCGTCTCCACCACACCCACTGTATCCTGGCCGCAGGGTAATAGAGTTC
TCTGAGGATAAGGTTCGGATCCCCCGCAACAGCCCCCTGCCCAACTGCACTTACGCTACCCGCCAGGCCATTTCC
CTGAGCCTGGTAGAGGAGGGGAGTGAGCGGGCCCGCCCCAGCCCAGTGCCCAGCACCCCTGCCTCAGCCCAGGCC
TCACCCCACCACCAGCCCAGCCCAGCACCCCTAACACTCAGTGCCCCAGCTAGCTCTGCCAGCTCTGAAGAGGAC
CTGCTGGTCAGCTGGCAGCGGGCATTTGTGGACCGTACTCCACCACCTGCTGCTGTGGCCCAGCGCACAGCCTTT
GGACGCGATGCCCTCCCTGAGCTGCAGCGCCATTTTGCCCATAGCCCCGCTGACAGAGATGAGGTGGTCCAGGCA
CCTTCTGCCCGACCCGAAGAGAGTGAGCTTTTGCTACCCACAGAACCTGACTCTGGCTTTCCCAGGGAGGAAGAA
GAGCTGAACCTGCCTATCAGTCCTGAGGAAGAGCGCCAGAGCCTGCTGCCCATTAACAGGGGCACAGAGGAGGGG
CCAGGCACTTCCCACACCGAGGGCAGGGCCTGGCCACTCCCCAGCTCCAGTCGCCCCCAGCGCAGCCCCAAGAGG
ATGGGGGTTCACCACCTGCACCGCAAGGACAGCCTGACCCAGGCCCAGGAGCAGGGCAACCTGCTCAAC**TAG**GGC
CCCTGCTGGCCTTCCTGCCATTGCTGCACCAGGACTGCAAGGAGTCCCCACACCTTGGCAGCTCAGGGTCCCCAG
TCCAAGCCCTTGACCTCTCCTCTATCCAGACCCGCACAGCTGTTTCCTGTGTGGATGGGGTCAGGTTGTGGGCCA
TGCCAGGCCTGTCAGCTGCGTTGACTGACTGCAGCAGCTTGCCTCATGGTTTTCCCTTTTTCTTAGAATATTTAT
TCTTCAGAGGTAACATGCAGTTGGGTCTCAAGACCTTTCCTCCAATCAGCCCAACCCAGCCCAGACTGGGCTTTT
CTGGGGAGCTGAGGAGTTTATCAGTATTCATCTTCCATCCTTTCATAGTCACAAGTTTTGTTATTTTGTTTTTTT
TTGGGGGTGATGGTGTAATTGTTAACCTCATTTCCGTTTCCTACCTGTTTGCTTCCCCCCCCAGTCCTCCGCATG
AGCTGTTGCCCTCCAGGGGCCTGGCACAGCTGGCCTTGGGGACGAGGGAGAGGACTGATTCAGGGCCCCCTCAGC
TGTCTCCTCCCTCCCTCTGGAAAGGAGGGTGGGGCTCAGGGGCCTCAAGCTGGGCTCTGTGTGAGGCCTGGCCCC
CACTCCCAACCTTGGCTCTAGACTGTTACTCTTAAGCTTTGAGAAATTTTCACATTGATGACTATTTTAAAATCA
AATAAAACTATTTTACTGGT

FIGURE 1773A

CTGCGGCGGCGCGCTCCGAGCCTGCGTCTAGGGCGCCCCCGGGTCAGAGCTGTCGCCGTGGCCGCCGCTGCAAGA
ACCATGTACCGCAGCAGCGCTCGCTCCTCCGTCTCTTCCCACCGGCCTAAAGACGACGGCGGGGGCGGCCCGCGC
AGCGGCCGCAGCTCTGGCTCCTCCTCAGGCCCGGCTCGCCGCAGCTCACCGCCGCCTCCGCCCTCCGGCTCCTCG
TCGCGGACCCCGGCTCGCCGACCCCGCTCGCCCTCAGGGCACCGCGGCCGCCGGGCCTCGCCGTCCCCGCCACGG
GGTCGTCGCGTCTCCCCGTCCCCGCCTCGGGCCCGTCGCGGCTCCCCGTCGCCACCGCGGGGCCGACGACTCTTC
CCGCCGGGCCCGGCCGGCTTCAGAGGCAGCAGCCGGGGGGAGTCCCGCGCCGACTATGCCCGGGACGGCCGCGGA
GACCATCCAGGCGACAGCGGCAGCCGGAGACGCTCTCCTGGTCTGTGTTCTGACTCTTTGGAAAAGAGCTTAAGG
ATCACTGTTGGCAATGACCACTTCTGTGTTAGCACACCAGAACGGCGACGGCTTAGTGATCGGCTGGGGTCACCA
GTGGATAATCTGGAAGAC**ATG**GACAGGGATGACCTGACTGATGATTCTGTCTTCACTCGAAGCTCCCAGTGCTCT
CGGGGTCTTGAGCGATATATTTCCCAGGAGGAAGGGCCTCTCAGTCCCTTCTTGGGACAACTTGATGAGGACTAC
CGAACAAAAGAAACTTTCCTGCATCGATCTGATTATAGTCCCCATATCAGTTGTCATGATGAGCTGTTGCGGGGA
ACAGAACGGAATCGAGAAAAACTCAAAGGCTACTCCATACGATCTGAAGAAAGGAGCCGGGAGGCCAAAAGACCC
CGTTATGATGACACAGTGAAGATAAACAGCATGGGAGGGGATCACCCAAGTTTTACATCAGGAACTCGCAACTAT
CGACAGCGTAGAAGAAGCCCAAGTCCTAGGTTTCTCGACCCTGAGTTTCGAGAACTGGATCTTGCCAGACGAAAG
CGAGAGGAAGAGGAGGAGCGAAGTAGGAGCTTGAGTCAGGAGCTGGTTGGAGTTGATGGTGGTGGTACTGGCTGT
TCCATCCCTGGATTGTCAGGTGTCCTAACAGCATCGGAGCCAGGATATTCTTTGCATCGGCCTGAGGAAGTATCT
GTGATGCCCAAGAAATCCATTTTGAAGAAGCGGATTGAGGTGGACATAATGGAGCCCTCCATGCAGCTTGAGAGT
TTTTCCAGCAGTACCAGCTCCAGCCAGGATCACCCTCTCTACTCTGGGCACCCATCCCTTCCACTAAGTGGTGCT
ATTGCTGCTTTTGCCTCAGAGATTGAAAACAAGGGGACTATGGTAGAGACTGCCTTGAAGGAACCTCAGGGCAAC
CTCTACCAATGGGGTCCCCTTCCTGGGATTCCCAAAGACAACAGTCCTCTCAGAGAAAAATTTGGAAGTTTTCTA
TGCCACAAGGATAATTTGGATTTGAAGGCTGAGGGACCTGAGCGACACACAGACTTCCTGCTGCCCCATGAGAGA
GCTAGCCAGGATGGCAGTGGTTTTTCCCGCATTCTGAGCATGTTGGCTGATTCTACCAGTACACAGGAAAAAAGG
CGACGTAGCTTTCCCGACATTGAAGATGAGGAGAAATTTCTCTATGGGGATGAAGAAGAGGATTTAAAGGCAGAA
TCCGTACCAAAGCCCCTTGGGAGCTCTGAGAGTGAAGTTATGAGGCAGAAGGCAAGCTCCCTGCCGTCTTCAGCT
CCAGCTGTAAAGCTAGAATCACTAGAAGAGACCAATCCAGAATATGCGAAGATCCATGACTTGCTCAAGACAATA
GGGCTGGATATTGGAGTAGCAGAGATTAGTCAATTGGCTGCACGCACCCAGGAACGACTTCATGGCAAGAAGCCA
TCATTACGCTCCTCAGCTGACCGCCGTTCCTCAGTTGACCGATACTTTTCAGCTGACCACTGTTCCTCAGTTGAC
CACCGCTTCTCAGCTGACCGCTGTTCCTCAGTTGACCACTGCTTCTCAGCTGATCGACGTTCCTCAGATCCCCAC
AGACTAGAGAGCAGGGAGGCACATCATAGCAATACCCACTCTCCAGAGGTGTCCCATCCACACCCACCTTCTCCT
GTGGATCCTTACCTGCTCACAAAAAACAGCCCTCCATTCCTAAAGTCTGACCATCCAGTGGGTCATATTTCAGGA
CCAGAGGTGGTTGGTAGTGGGTTTCAGTCATCTGTTGCAGTCAGGTGCATGTTGCCATCAGCCCCATCTGCCCCA
ATTAGACTTCCACACACTGCTGCTTTATCTCAGTTTCACATGCCAAGGGCCTCTCAGTTTGCTGCAGCTCGGATA
CCTCCGAACTACCAGGGACCTGCCATTCCCCCTGCCTCTTTTGATGCCTATAGGCACTACATGGCATATGCAGCC
TCCAGATGGCCCATGTATCCCACCTCTCAACCGTCAAACCACCCTGTACCTGAACCACACAGGATAATGCCAATA
ACCAAACAAGCTACTCGTAGCCGTCCCAATCTTCGTGTGATCCCCACTGTGACTCCTGATAAGCCTAAGCAGAAA
GAGTCTCTGCGAGGCTCAATTCCTGCGGCCCAAGTGCCTGTCCAGGTGTCCATTCCATCACTCATAAGATATAAT
CCAGAGAAGATCTCTGATGAGAAGAACCGTGCTTCCCAGAAGCAAAAGGTTATTGAAGAGAGGGAAAAACTAAAG
AATGACCGGGAAGCCCGCCAGAAGAAGATGTACTATCTTAGGACCGAGTTAGAGCGGCTTCATAAACAACAAGGA
GAAATGCTGCGCAAGAAACGAAGGGAGAAGGATGGCCACAAAGATCCTCTCTTGGTGGAGGTGAGTCGGCTTCAG
GATAACATTATGAAGGACATTGCAGAGCTACGGCAAGAGGCAGAAGAGGCAGAAAAGAAGCAATCTGAACTGGAC
AAAGTGGCTCAGATCTTGGGAATTAACATCTTCGATAAATCCCAGAAGTCTTTAAGTGACAGTAGAGAGCCTACA
GAGAAGCCTGGGAAAGCAGAAAAATCTAAGAGCCCAGAAAAAGTGTCATCGTTCTCAAACTCCTCCTCCAACAAG
GAATCAAAAGTAAACAATGAGAAGTTTCGTACTAAGAGCCCCAAGCCTGCCGAAAGCCCCCAGTCAGCCACTAAG
CAGTTGGATCAGCCCACTGCTGCTTATGAGTATTATGATGCTGGCAATCACTGGTGCAAAGACTGCAACACCATC
TGTGGGACCATGTTTGATTTCTTCACTCATATGCACAATAAGAAGCACACACAGACACTGGATCCCTACAACAGA
CCTTGGGCTTCAAAGACCCAGAGTGAGGCCAAGCAAGATGCCATAAAGCGCACTGACAAGATAACTGTTCCTGCA
AAAGGCTCTGAGTTTCTGGTTCCCATCAGTGGATTTTATTGCCAGCTCTGTGAGGAATTTTTGGGGGATCCAATT
TCTGGGGAGCAACATGTGAAGGGTCACCAACACAATGAGAAATACAAGAAATATGTGGATGAAAACCCATTATAT

FIGURE 1773B

GAGGAGCGGCGGAATCTGGACCGCCAAGCTGGCTTGGCTGTGGTCCTAGAGACAGAACGGCGACGGCAGAGTGAG
CTAAAGCGCAAACTTAGTGAGAAACCAAAGGAGGAGAAGAAAGAAAAAAAGGCAAAGGCTGTGAAAGAAGTAAAG
GAGGATGACAAGGTCTCTGAGAAATTAGAAGACCAACTCTCTGAGGGTAGGAACTCCCCTGAAAAAGCTGAAAAT
AAAAGGAACACTGGCATCAAACTCCAGTTAAAAGAAGAGGTAAAGAAGGAATCACCAACATCATCTTCTTTTGGG
AAATTCAGCTGGAAGAAGCCAGAAAAAGAAGAGGAGAAAAGTTCATTGGTGACCCCAAGTATCTCTAAAGAAGAG
ATTCTAGAAAGTAGTAAGGACAAAGAGGATGGCAAAACTGAAGCTGGGAAGGCAAAGCCTATCAAAATCAAGCTC
TCTGGGAAAACTGTTGTTGCACATACCAGCCCTTGGATGCCTGTTGTGACAACTTCCACACAGACTAAGATCCGA
CCCAACCTGCCTATTCCATCCACAGTACTCCGCAAGTCATGTTCAGCCACAATGAGCAAGCCAGCTCCTCTTAAC
ACCTTTCTGTCTATTAAGTCCTCTGGAACCACTGCTAAACCTCTGCCAGTGGTTAAAGAGTCTTCAGCTGATCTC
CTCTTACCTCCAGACATCATCTCCAAAGCATTTGGAGGGGAAGAGGTGATTCTAAAAGGGTCTCCAGAGGAAAAA
GTGGTGTTGGCTGAAAAGAGTGAGCCATCTCATTTACCTGAACAAATACTACCACCTCCTCCACCACCCCCACCT
CCACCACCTCCACCACCCCCCGTTATACCTCATCCAGCTGCCCCGTCTGCTGCTCAAGCAAATGCTATCTTGGCT
CCAGTAAAATCAAACCCAGTTGTATCTCAGACTCTCAGCCCTGGCTTCGTGGGTCCTAACATTTTGAACCCAGTG
TTGCCTGTAGCCATCATGGCCTCAGCACAGCCAGCTGCCATTCCTTCTGATGAGACAGCTCCTGGGGTGAGTGAG
AGTGACCGAGACCAGACCCTGTTCTCTGTGTTAGTACGTCCTCCACCACCCCTCTCAAGTGTGTTCAGTGAACAA
GCCAAAAAAATTAGAGAAGCGAAATTCATGCTTAGCCACAGCCAATGCTAAGGACCTGTATGACATATTCTATAGT
AGTGGTGGAAAGGGGGCCCCTGAGACTAAGGGGGCCCCTGAGACTAAGCTAAGTGGTGGTCCATTGGCCAATGGG
GAAAATAGCAACCTCTCTAGAACCAAAAGTTCAGACACCTCTTCTACTTCTCCTTTGAACAGCAGTGCATCCCAA
GAGGAGTTGCATCAAGATGAGGGTTTGGTCGCTGCTCCTATAGTTAGCAACTCTGAAAAGCCCATTGCAAAAACT
CTGGTGGCCCTAGGGAAATGGTCAGTTGTAGAACATGTAGGCCCAAAAAGCACAGGCAGCACCTATGGCTTCCTA
CAGCCTCTGACAAGGTTGTGCCAAAGCAGGCCTTATGAAACAATTACCCCAAAGACAGACACTTTGGCCATATGG
ACCTCTAGTTCCTTCCAGAGTGACACTAGTAGGGATATATCTCCAGAGAAGAGTGAGCTTGACCTGGGAGAGCCA
GGACCACCTGGTGTAGAACCACCTCCTCAACTGTTAGATATACAGTGCAAAGAATCTCAGAAGTTGGTAGAAATC
CACCTCAGAGAATCTGTTAACCAGGATAAGGAAAGCCAAGAGCTCCGTAAATCTGAGGATTGTAGAGAAAGTGAG
ATAGAGACAAACACTGAACTAAAAGAAAGGGTAAAGGAGCTGTCTGAGGGGATAGTTGATGAGGGAGTAAGTACC
AGCATTGGACCCCACAGCATAGATGATTCTAATTTGAACCATGGAAACAGATACATGTGGGAGGGAGAAGTAAAA
CAGCCCAACTTGCTAATGATTGACAAAGAGGCTGAACAGTCCAATAAATTGATGACAGGAAGTGAAACTCCAAGT
AAAGTAGTGATCAAATTGAGTCCACAGGCTTGCTCTTTCACAAAGGCAAAATTAGACTCATTTTTATCAGAAGCT
AGGTCTTTACTCAACCCACAAGATACACCTGTGAAAATTTCTGCCCCAGAGTTGCTGCTTCATTCCCCAGCCAGA
TCAGCTATGTGTTTAACAGGTAGTCCACAAGAGCAAGGAGTTTCAGTTGTTAGTGAGGAGGGGCTAGAGAATTCA
GCTCCAGAATCAGCTTCTAGAACTTCTAGGTACAGAAGTCTCAAACTCAAGAGAGAAAGATCAAAAGACTTTCAA
GTTAAAAAGATCTATGAGTTGGCTGTTTGGGATGAAAACAAGAAGAGGCCAGAGACCTGGGAGAGCCCAGAGAAA
CCAAAAACAGAAGCACTGGAGCTACAAGATGTCCATCCAGAGTTAACAGTGACAATAGAAAGCAAGGCCCTAGAA
GACTTTGAAGCTACAGACTTAAAGGTAGAGGAGCTTACTGCCCTGGGGAATCTGGGGGATATGCCTGTTGATTTC
TGCACTACTCGGGTAAGCCCAGCACATAGATCCCCAACTGTCTTGTGTCAGAAAGTGTGTGAAGAAAATTCTGTA
TCACCTATAGGGTGTAATTCCTCCGATCCCGCTGACTTCGAACCAATCCCATCTTTTTCTGGGTTTCCGTTAGAT
TCTCCCAAAACCTTGGTGCTTGACTTTGAGACAGAGGGTGAACGAAACTCACCTAATCCCAGGAGTGTTAGGATC
CCTTCTCCTAACATTTTGAAAACTGGACTTACAGAAAATGTTGACCGTGGCTTGGGGGGCCTAGAGGGAACACAC
CAGGCCCTTGACCTGTTAGCAGGAGGAATGATGCCTGAGGAAGTAAAAGAATCTTCCCAATTAGACAAACAAGAG
TCACTCGGATTGGAATTAAAAACAATTAATTCTGCAGGCCTTGGGCCATCTCCTTGCCTTCCAGACCTTGTTGAC
TTTGTCACACGGACCTCTGGAGTTCAAAAAGATAAACTGTGTTCTCCACTCTCTGAGCCAGGTGACCCTTCTAAA
TGTAGTTCCCTGGAGTTGGGGCCATTACAGCTAGAAATATCGAATGCATCCACCACAGAGGTGGCAATTCTGCAA
GTAGATGATGACAGTGGCGACCCTCTGAATTTGGTTAAAGCTCCAGTGTCAAGGTCCCCTCCAAGGGAGCAGGTA
ATTGAAGACAATATGGTCCCTCAGGGAATGCCTGAACAGGAAACTACAGTTGGTGCCATCCAGGACCACACAGAA
TCCAGTGTTCACAAC**TAA**GAATAAATACCTAGAGCTACTTGTGAGTGAATCATTGGCTTCTAGAAATCAGATGCC
CAGATGATCCAAGACTAGTTTGTTATCTCATCTGGAACCTACACCAAGAGATGCAGTCAGCATCTTAAAGTAAAT
GTTCATGGAAGCTAAAAAATTTACCTCCTTTCCTTTTCCCTTTCCCCTTAAAACACCAGACAAATCGATAACAAC
TTATATATATATATATATATCTGTAAAAATGTATTTTGTTAATTTTTTTGGCCAATTTATTTTCTCCCACTTTGT

FIGURE 1773C

CATTAAAATCACATGTCTAACTGGCTCACCACATAGTGTGCTTTGATTGTATTTTGGCTTTGACTCTGCCATTTC
TGAAATGTGGGGGAGGATGGAGGCAGCTGACCTCTCCAGTTGCTGTGTTGTATTCCTACCCAATTTCCTGGGCAG
TTGATGCATCTCTGGGAAAAACACCAGAAAGCTTGCTGAAATGGAAAACTTGGAAGAATTGTTCATCTCTTAGGC
TTCCATTTGGATGGGCCTGCCTTAACATTGTTTGAAATGCAGCGTGAGTAGCTCTTTTGTTTACTGTTTACACCC
CTTATTGGCATGTCAACTCCTGTACTTCCCTTACTCTGTTGCCTTTCTTGAGATGCATTGTCCTGCTAACCCACA
AACCTGTTTGGAAATAAACATGGAAGAATATCTGGCAGGCTTACTTTTAGAAGACGACAAATCGGTAAGGCTTAT
TCATGGTTCATTGCCAGGAGCAGATATGCTTTTGAGATCACTTTTATTTTTGAAATGGCCTTTGTTCATTGTATT
GTGATCCAATAACACTTTGTATTAAATTGTTTAGCAGCCATTTGTGTTGTGAAGGGGTAGAAGATCTCTGAAACT
TGTCTTGAGATTGAACTCATTCCCTGTTCCACAAACCCATATGTATCCTTTCCTCTACCTCCTCCTTTCCCAATT
AATTTCAACCATAGTACGATGTTTGGGGTTGTATATTTTGTTAAAAAGATTAAAGAATTTATGAGTTGGCTTGGA
CAAGTTTAACTTTATTTTTAATGTGTTAATTACTTGGAATAAATGCATTAATCTCA

FIGURE 1774

CCACCTCCAGAGTCCAAGGGTCTATGTGGTGGGCAGTTTGAGCTGGCTGGATACTAGAGGGAGGCTGCACCTGAA
GCATTTGGTGGGTGAGCAGC**ATG**GGCTTTGAGGAGCTGCTGGAGCAGGTGGGCGGCTTTGGGCCCTTCCAACTGC
GGAATGTGGCACTGCTGGCCCTGCCCCGAGTGCTGCTACCACTGCACTTCCTCCTGCCCATCTTCCTGGCTGCCG
TGCCTGCCCACCGATGTGCCCTGCCGGGTGCCCCTGCCAACTTCAGCCATCAGGATGTGTGGCTGGAGGCCCATC
TTCCCCGGGAGCCTGATGGCACGCTCAGCTCCTGCCTCCGCTTTGCCTATCCCCAGGCTCTCCCCAACACCACGT
TGGGGGAAGAAAGGCAGAGCCGTGGGGAGCTGGAGGATGAACCTGCCACAGTGCCCTGCTCTCAGGGCTGGGAGT
ACGACCACTCAGAATTCTCCTCTACCATTGCAACTGAGTCCTTGCAGTGGGATCTGGTGTGTGAGCAGAAAGGTC
TGAACAGAGCTGCGTCCACTTTCTTCTTCGCCGGTGTGCTGGTGGGGGCTGTGGCCTTTGGATATCTGTCCGACA
GGTTTGGGCGGCGGCGTCTGCTGCTGGTAGCCTACGTGAGTACCCTGGTGCTGGGCCTGGCATCTGCAGCCTCCG
TCAGCTATGTAATGTTTGCCATCACCCGCACCCTTACTGGCTCAGCCCTGGCTGGTTTTACCATCATCGTGATGC
CACTGGAGCTGGAGTGGCTGGATGTGGAGCACCGCACCGTGGCTGGAGTCCTGAGCAGCACCTTCTGGACAGGGG
GCGTGATGCTGCTGGCACTGGTTGGGTACCTGATACGGGACTGGCGATGGCTTCTGCTAGCTGTCACCCTGCCTT
GTGCCCCAGGCATCCTCAGCCTCTGGTGGGTGCCTGAGTCTGCACGCTGGCTTCTGACCCAAGGCCATGTGAAAG
AGGCCCACAGGTACTTGCTCCACTGTGCCAGGCTCAATGGGCGGCCAGTGTGTGAGGACAGCTTCAGCCAGGAGG
CTGTGAGCAAAGTGGCCGCCGGGGAACGGGTGGTCCGAAGACCTTCATACCTAGACCTGTTCCGCACACCACGGC
TCCGACACATCTCACTGTGCTGCGTGGTGGTGTGGTTCGGAGTGAACTTCTCCTATTACGGCCTGAGTCTGGATG
TGTCGGGGCTGGGGCTGAACGTGTACCAGACACAGCTGTTGTTCGGGGCTGTGGAACTGCCCTCCAAGCTGCTGG
TCTACTTGTCGGTGCGCTACGCAGGACGCCGCCTCACGCAAGCTGGGACACTGCTGGGCACGGCCCTGGCGTTCG
GCACTAGACTGCTAGTGTCCTCCGATATGAAGTCCTGGAGCACTGTCCTGGCAGTGATGGGGAAAGCTTTTTCTG
AAGCTGCCTTCACCACTGCCTACCTGTTCACTTCAGAGTTGTACCCTACGGTGCTCAGACAGACAGGGATGGGGC
TGACTGCACTGGTGGGCCGGCTGGGGGGCTCTTTGGCCCCACTGGCGGCCTTGCTGGATGGAGTGTGGCTGTCAC
TGCCCAAGCTTACTTATGGGGGGATCGCCCTGCTGGCTGCCGGCACCGCCCTCCTGCTGCCAGAGACGAGGCAGG
CACAGCTGCCAGAGACCATCCAGGACGTGGAGAGAAAGAGTGCCCCAACCAGTCTTCAGGAGGAAGAGATGCCCA
TGAAGCAGGTCCAGAAC**TAA**GTGGGAGTGGAGGCAGGCCCTCCACAGAAGCTCTGCAGCAGGGGCTGGGAGAGCA
GAAGGGCAGGCCCTGCAACTCAGGCTGGGAG

FIGURE 1775

GCGCGGGCGGCTGGGGA**ATG**GCTGCTGCCATGGTGCCGGGGCGCAGCGAGAGCTGGGAGCGCGGGGAGCCTGGCC
GCCCGGCCCTGTACTTCTGCGGGAGCATTCGCGGCGGACGCGAGGACAGGACGCTGTACGAGCGGATCGTGTCTC
GGCTGCGGCGATTCGGGACAGTGCTCACCGAGCACGTGGCGGCCGCCGAGCTGGGCGCGCGCGGGGAAGAGGCTG
CTGGGGGTGACAGGCTCATCCATGAGCAGGACCTGGAGTGGCTGCAGCAGGCGGACGTGGTCGTGGCAGAAGTGA
CACAGCCATCCTTGGGTGTAGGCTATGAGCTGGGCCGGGCCGTGGCCTTTAACAAGCGGATCCTGTGCCTGTTCC
GCCCGCAGTCTGGCCGCGTGCTTTCGGCCATGATCCGGGGAGCAGCAGATGGCTCTCGGTTCCAGGTGTGGGACT
ATGAGGAGGGAGAGGTGGAGGCCCTGCTGGATCGATACTTCGAGGCTGATCCTCCAGGGCAGGTGGCTGCCTCCC
CTGACCCAACCACT**TGA**CTTAATCTCACTTTCTTAAATTCTTCTATTCTCAGACACTGCTCTAGTACCATTCCTT
CCTCTTAGCCCCAGGAGCAAATTAAAAGGTACAGTTAAAATCCT

FIGURE 1776A

GCGGCCGCTCTTTGCCAGGGAGGGTGGCATCTATGCTGTGCTGGTCTGC**ATG**CAAGAATATAAGACTTCTGTCTT
GGTGCAGCAGGCTGGGCTGGCGGCACTGAAGATGCTGGCCGTCGCCAGCTCCTCGGAGATCCCCACTTTTGTTAC
TGGCCGAGATTCTATCCACTCTTTGTTTGATGCTCAGATGACCAGAGAGATCTTCGCCAGCATCGACTCAGCCAC
ACGCCCGGGCTCTGAGAGCCTGCTCCTCACTGTCCCTGCAGCCGTGATCCTGATGCTGAATACTGAGGGGTGCTC
TTCTGCAGCGAGAAATGGCTTACTCCTGCTCAACCTACTTTTGTGCAACCACCACACTCTGGGAGACCAGATTAT
AACCCAAGAGCTGAGAGACACGTTGTTTAGGCACTCAGGGATAGCACCAAGAACAGAACCTATGCCTACCACACG
CACCATCCTCATGATGCTTCTCAATCGCTACTCAGAGCCGCCGGGCAGCCCTGAGCGTGCAGCACTAGAGACCCC
CATCATCCAGGGTCAGGATGGGTCCCCTGAGCTACTGATTCGATCCCTGGTTGGGGGCCCATCTGCAGAACTACT
CCTGGACTTGGAGCGTGTGCTGTGCCGTGAGGGCAGCCCCGGAGGTGCCGTGAGGCCCCTCCTCAAGCGCCTCCA
GCAGGAGACCCAGCCTTTCCTCCTGTTGCTGCGGACTCTGGATGCTCCGGGGCCCAACAAGACTCTGCTGCTGTC
TGTGCTGAGGGTCATAACCCGACTGCTGGATTTCCCTGAGGCAATGGTCCTCCCCTGGCACGAGGTCTTGGAGCC
CTGCCTCAACTGCCTGAGTGGCCCTAGCAGTGACTCCGAGATTGTTCAGGAGCTGACCTGCTTCCTACATCGCCT
GGCCTCGATGCATAAGGACTATGCTGTGGTGCTCTGCTGCCTGGGAGCAAAAGAGATCCTCTCCAAAGTCCTGGA
CAAGCACTCAGCTCAGCTGCTGCTGGGCTGTGAGCTTCGGGACCTGGTGACAGAGTGTGAGAAGTACGCACAGCT
CTATAGCAACCTCACCTCCAGCATCCTGGCCGGCTGCATTCAGATGGTGCTGGGCCAGATCGAAGACCACAGACG
AACCCACCAACCCATCAATATCCCCTTCTTTGATGTGTTCCTCAGGCATCTCTGCCAGGGCTCCAGTGTGGAAGT
GAAGGAGGACAAGTGCTGGGAGAAGGTGGAGGTGTCCTCCAACCCGCACCGAGCCAGCAAGCTGACGGACCACAA
CCCCAAGACCTACTGGGAGTCCAACGGCAGCACCGGCTCCCACTACATCACCCTGCACATGCACCGTGGTGTTCT
TGTTAGGCAGCTCACTTTGCTGGTGGCCAGTGAGGACTCAAGCTACATGCCAGCCAGGGTGGTGGTGTTTGGGGG
TGACAGCACCAGCTGCATCGGCACTGAGCTCAACACGGTGAATGTGATGCCCTCTGCCAGCCGGGTGATCCTCTT
GGAGAACCTGAACCGCTTCTGGCCCATCATCCAGATCCGCATAAAGCGCTGCCAGCAGGGCGGCATTGACACCCG
GGTTCGGGGTGTGGAGGTCCTGGGCCCTAAGCCCACATTCTGGCCACTGTTCCGGGAGCAGCTGTGTCGCCGAAC
ATGTCTCTTCTACACAATTCGGGCACAAGCCTGGAGCCGGGACATAGCAGAGGACCACCGGCGCCTCCTCCAGCT
CTGTCCCAGACTGAACAGGGTTTTGCGCCACGAGCAGAATTTTGCTGACCGCTTCCTCCCTGATGATGAGGCCGC
CCAGGCACTGGGCAAGACCTGCTGGGAGGCCCTGGTCAGCCCCCTGGTGCAGAACATCACCTCTCCCGATGCGGA
AGGCGTGAGTGCCCTGGGATGGCTGCTGGATCAGTACTTAGAACAGAGAGAGACCTCTCGGAACCCCTTGAGTCG
AGCAGCGTCCTTTGCTTCTCGAGTTCGTCGCCTTTGCCACTTGCTGGTGCATGTGGAACCTCCTCCTGGGCCTTC
TCCTGAGCCATCCACTCGGCCCTTCAGCAAGAACAGCAAGGGTCGGGACCGGAGCCCGGCGCCTTCGCCAGTGCT
TCCAAGCAGCAGCCTGAGGAACATAACCCAGTGCTGGCTGAGCGTGGTGCAGGAGCAGGTCAGCAGATTCCTGGC
TGCAGCTTGGAGGGCCCCAGACTTTGTGCCTCGTTACTGTAAACTCTATGAGCACTTGCAGAGAGCAGGCTCCGA
GCTGTTTGGGCCTCGGGCAGCCTTCATGCTGGCTCTGCGCAGTGGCTTCTCTGGCGCCTTGCTGCAGCAGTCCTT
CCTCACTGCTGCTCACATGAGTGAGCAGTTTGCCAGGTACATTGACCAACAGATCCAGGGTGGCCTGATTGGTGG
AGCCCCTGGAGTGGAAATGCTGGGGCAGCTTCAGCGGCACCTGGAACCCATTATGGTCCTTTCTGGTCTGGAACT
GGCCACAACTTTTGAGCACTTCTATCAGCATTATATGGCGGACCGTCTCCTGAGCTTTGGTTCGAGCTGGCTGGA
GGGGGCTGTGCTAGAGCAGATTGGCCTCTGTTTTCCCAACCGCCTCCCACAGCTGATGCTGCAGAGCCTGAGCAC
CTCTGAGGAGCTGCAGCGCCAGTTCCACCTCTTCCAGCTCCAGCGGCTCGACAAGTTGTTCTTGGAGCAGGAAGA
TGAGGAGGAAAAGAGACTAGAGGAAGAGGAGGAGGAAGAGGAGGAAGAGGAAGCTGAGAAAGAATTATTTATCGA
AGATCCAAGTCCAGCCATTTCTATACTGGTCCTGTCACCACGCTGCTGGCCCGTCTCCCCACTCTGCTACCTGTA
CCATCCCAGAAAGTGCCTTCCCACAGAATTCTGTGATGCCCTTGACCGTTTCTCCAGTTTCTACAGCCAGAGTCA
GAACCATCCAGTCCTGGACATGGGACCACATCGGCGACTGCAGTGGACGTGGCTGGGCCGGGCTGAGCTGCAGTT
TGGGAAGCAGATACTGCATGTGTCCACCGTGCAGATGTGGCTGCTGCTGAAATTCAATCAGACAGAGGAGGTGTC
AGTAGAGACCTTGCTGAAGGATTCTGACCTCTCCCCAGAGCTGCTGCTCCAGGCACTCGTGCCCCTCACCTCAGG
GAATGGCCCTTTGACCCTGCATGAGGGCCAGGACTTTCCACACGGGGGTGTGCTGCGGCTTCATGAGCCTGGGCC
CCAGCGCAGTGGGGAGGCCCTGTGGCTGATACCTCCCCAGGCATACCTGAACGTAGAGAAGGATGAAGGCCGAAC
CCTGGAACAGAAGAGGAATCTCTTGAGCTGTCTTCTTGTTCGTATTCTCAAAGCCCATGGGGAAAAGGGCCTCCA
CATTGATCAGCTGGTTTGTCTGGTGCTGGAGGCCTGGCAGAAGGGTCCAAATCCTCCTGGAACCCTGGGCCACAC
TGTTGCTGGGGGTGTGGCCTGTACCAGTACAGATGTCCTCTCTTGCATCCTGCACCTCTTAGGCCAGGGCTACGT
GAAACGGCGTGATGACCGGCCCCAGATCCTGATGTATGCCGCTCCAGAGCCCATGGGGCCCTGCCGGGGTCAGGC

FIGURE 1776B

AGATGTCCCTTTCTGTGGCAGCCAGAGCGAAACCTCCAAGCCCAGCCCAGAAGCTGTGGCTACCCTGGCATCTCT
ACAGCTGCCTGCAGGCCGCACCATGAGCCCCCAGGAAGTAGAAGGGTTGATGAAGCAGACGGTGCGTCAGGTGCA
GGAGACGCTGAACTTAGAGCCAGATGTCGCTCAGCACCTTTTGGCTCATTCCCACTGGGGCGCTGAACAGCTGCT
GCAGAGCTACAGTGAGGACCCTGAGCCACTGCTGCTGGCAGCTGGGCTGTGCGTACACCAGGCTCAGGCTGTACC
CGTACGGCCTGACCACTGCCCCGTCTGTGTGAGCCCCCTGGGGTGTGACGACGACCTGCCCTCTCTCTGCTGCAT
GCACTATTGCTGTAAGTCTTGCTGGAATGAGTACCTGACAACTCGGATCGAGCAGAACCTTGTTTTGAATTGCAC
CTGCCCCATTGCCGACTGCCCCGCCCAGCCCACCGGAGCCTTCATTCGTGCCATCGTCTCCTCGCCAGAGGTCAT
CTCCAAGTATGAGAAGGCGCTCCTGCGTGGCTATGTGGAGAGCTGCTCCAACCTGACCTGGTGCACCAACCCCCA
GGGCTGCGACCGCATCCTGTGCCGCCAGGGCCTGGGCTGTGGGACCACCTGCTCCAAGTGTGGCTGGGCCTCTTG
CTTCAACTGTAGCTTCCCTGAGGCACACTACCCTGCTAGCTGTGGCCATATGTCTCAGTGGGTCGACGACGGTGG
CTACTATGACGGCATGAGCGTGGAGGCGCAGAGCAAGCACCTGGCCAAGCTCATCTCCAAGCGCTGTCCCAGCTG
TCAGGCTCCCATCGAGAAGAACGAGGGGTGCCTGCACATGACCTGTGCCAAATGTAACCATGGATTCTGCTGGCG
CTGCCTCAAGTCCTGGAAGCCAAATCACAAAGACTATTACAACTGCTCTGCCATGGTAAGCAAGGCAGCTCGCCA
GGAGAAGCGGTTTCAGGACTATAATGAGAGGTGCACTTTCCATCACCAGGCGCGGGAGTTTGCTGTGAACTTGCG
GAACCGGGTGTCTGCCATCCATGAAGTGCCCCCGCCCAGATCCTTCACCTTCCTCAATGATGCCTGCCAGGGACT
GGAGCAGGCTCGGAAGGTGCTGGCCTACGCCTGCGTGTACAGCTTCTACAGCCAGGACGCAGAGTACATGGATGT
GGTGGAGCAGCAGACAGAGAACCTGGAGCTGCACACCAATGCCCTGCAGATCCTCCTGGAGGAAACCCTGCTGCG
GTGCAGAGACCTGGCCTCCTCCCTGCGCCTCCTGCGGGCCGACTGCCTCAGCACGGGCATGGAGCTGCTCCGGCG
GATCCAGGAGAGGCTGCTTGCCATCCTGCAGCATTCTGCCCAGGATTTCCGGGTTGGTCTTCAGAGTCCATCAGT
AGAGGCCTGGGAGGCAAAAGGACCCAACATGCCTGGCAGTCAGCCCCAGGCCTCCTCAGGGCCAGAGGCAGAAGA
GGAGGAGGAAGACGATGAGGATGATGTGCCCGAGTGGCAGCAGGATGAGTTTGATGAGGAGCTGGACAATGACAG
CTTCTCCTACGATGAGTCTGAGAACCTGGACCAAGAGACTTTCTTCTTTGGTGATGAGGAAGAGGATGAAGATGA
GGCCTATGAC**TGA**GGGGGCAGATGCAGGAAACACCTAGAGCAGCCCCAGAGTCACGGGGCTGAGGGGGCGGGAGC
TGCCCCTGTCATAGGGAGGGGGATTCCCAGCGTCTGTAGTGCTTCCTGTTTGCTGAATAAAGGTCTCTTTCTCAC
ACAC

FIGURE 1777A

GGTCGGGGGATCCCTCCGCCGCCAGCGCGTGGTCCCGGCCCCCTCCACCCGCCGTCTCGGCCGCGGCCAGCAGCC
CCTGCCCCCCGGGGGACGCTGACGGCCGCCCGGCGCGCCGCCCTAGCAGACGGACAGGGGGCGCTGCGCGCGGCC
TGGGGCAACCCGGGCCACAGGGGCAGGAAAGTGAGGGCCCAGGTCGGCCCGGGCGTGCAGGGGCCCCGGGTTCGC
AGCGGCGGCCGCGGCAGCGATAGCGGCACTAGCAGCAGCGGGAGTGCCGGGTTGAGCCGGGAAGCCGATGGCGGC
GGCTGCGGCGGCTCCGATTCCTCGCTGACTGCCCGTCCGCCCTCCTGCATCGAGCGCC**ATG**TTACCGACCCAAGC
TGGGGCCGCGGCGGCTCTGGGCCGGGGCTCGGCCCTGGGGGGCAGCCTGAACCGGACCCCGACGGGGCGGCCGGG
CGGCGGCGGCGGGACACGCGGGGCTAACGGGGGCCGGGTCCCCGGGAATGGCGCGGGGCTCGGGCCCGGCCGCCT
GGAGCGGGAGGCTGCGGCAGCGGCGGCAACCACCCCGGCGCCCACCGCGGGGGCCCTCTACAGCGGCAGCGAGGG
CGACTCGGAGTCGGGCGAGGAGGAGGAGCTGGGCGCCGAGCGGCGCGGCCTGAAGCGGAGCCTGAGCGAGATGGA
GATCGGTATGGTGGTCGGTGGGCCCGAGGCGTCGGCAGCGGCCACCGGGGGCTACGGGCCGGTGAGCGGCGCGGT
GAGCGGGGCCAAGCCGGGTAAGAAGACCCGGGGCCGCGTGAAGATCAAGATGGAGTTCATCGACAACAAGCTGCG
GCGCTACACGACCTTCAGCAAGAGGAAGACGGGCATCATGAAGAAGGCCTATGAGCTGTCCACGCTGACAGGGAC
ACAGGTGCTGTTGCTGGTGGCCAGTGAGACAGGCCATGTGTATACCTTTGCCACCCGAAAACTGCAGCCCATGAT
CACCAGTGAGACCGGCAAGGCACTGATTCAGACCTGCCTCAACTCGCCAGACTCTCCACCCCGTTCAGACCCCAC
AACAGACCAGAGAATGAGTGCCACTGGCTTTGAAGAGACAGATCTCACCTACCAGGTGTCGGAGTCTGACAGCAG
TGGGGAGACCAAGGACACACTGAAGCCGGCGTTCACAGTCACCAACCTGCCGGGTACAACCTCCACCATCCAAAC
AGCACCTAGCACCTCTACCACCATGCAAGTCAGCAGCGGCCCCTCCTTTCCCATCACCAACTACCTGGCACCAGT
GTCTGCTAGTGTCAGCCCCAGTGCTGTCAGCAGTGCCAATGGGACTGTGCTGAAGAGTACAGGCAGCGGCCCTGT
CTCCTCTGGGGGCCTTATGCAGCTGCCTACCAGCTTCACCCTCATGCCTGGTGGGGCAGTGGCCCAGCAGGTCCC
AGTGCAGGCCATTCAAGTGCACCAGGCCCCACAGCAAGCGTCTCCCTCCCGTGACAGCAGCACAGACCTCACGCA
GACCTCCTCCAGCGGGACAGTGACGCTGCCCGCCACCATCATGACGTCATCCGTGCCCACAACTGTGGGTGGCCA
CATGATGTACCCTAGCCCGCATGCGGTGATGTATGCCCCCACCTCGGGCCTGGGTGATGGCAGCCTCACCGTGCT
GAATGCCTTCTCCCAGGCACCATCCACCATGCAGGTGTCACACAGCCAGGTCCAGGAGCCAGGTGGCGTCCCCCA
GGTGTTCCTGACAGCATCATCTGGGACAGTGCAGATCCCTGTTTCAGCAGTTCAGCTCCACCAGATGGCTGTGAT
AGGGCAGCAGGCCGGGAGCAGCAGCAACCTCACCGAGCTACAGGTGGTGAACCTGGACACCGCCCACAGCACCAA
GAGTGAA**TGA**TCCGCCCGCCGCCCTGGACAGATGGCCCAAGGGATGGCACCACTTATTTATTGTTGCCTTTTCAC
GTTTTCTTTACACACACGTTGACGGGCCGCAGGAGGGAGGCGGGGAGGAGGAACGGGCAGCCACAGGACTGAGCC
CTCTCACTCCAGCCAAAGAAATGGGCCTGCCTGCCTCCACCCGTCCTCCCTCAGCCTCCCCTTCTTCCCGCCCCA
CCTCCCATTTCTGTTGCTGGAGGGGCTGTCCTCCTTCCTGGGACCCCCTCGCCAGCTTGGCTCGATGTTTGCCAT
GAGTATTAGCTTACCCAATGGGACCGTGCCCCACCTCCCCACACACAGGCCTTCTGTGGGGCTGGGCACCGTGTC
CTCCTCTGAGGAAGCAGTTGGGGCCCTCTTGCCAGCCTCCTTGCTGACCCCAGGTCAGCCCTGTGTCTGTCACAG
GCTGGGTCAAAAGAGCCCTGGCTCTGCCCCTCAGGGGGCCAGCTGGGGAGATGGGGGCTTCTTCCTCACACTGCT
GTCCTCTCCCCCTTCAGCTCCTGAGTAGCTGGGCCTGTGCACTGGGCAGGTTCCTGGGGCCGCCTGCCCTGCCTT
GCCGCTCCCCTTGGACCTCCAGGGGCTCCTGGGTTGGAGGGAACCACCAGCGTTCCCTTCTCCCCCTTGTCTTCC
CCCCTCTCCTCCCAGCTGCTTTACTTAAAGTTGATTTTGAACTTTTTATTTGAGGAGACGAAGTGAAAACAAATC
TATAAATATATATTTTTAAAATATTTAACTTTTTTTTATGGCGTTTTTCTCGTCCCCCTCCCTGCCCAAACTCCC
CTTCCCTGGGGAGCCCTCAGGCTCCCCAGAACTGGCTGGGCCCCTGGGGACAGAGCCACCCCATGAGCTCGGGGT
CCACCAGTGTGTGGGGGAGATTCTGGGTTTGCCCAGTCCTGGGTTGTTTCCAGGAGAAAGCCGGGGGAGGGGCCC
TCAGGCCATTCCCCAACGGGGTGGGGAGGGTGACCCACAGCTCTGGGCCTCTTTTTGCCCTTTAGGGCTGTTGCT
AGGGAGAGGGAAGAGGGAGACCAAATGTCGGGGTTGGGGTGGGAGGGCGTCAGGCAGAGGCAACTGACTTCATTT
GTGCCACACGCATGGGCATTGCAGCCTTGCGCTGTCCCAGGCATGCAGCTGCCTGGGGCCCAAGTTGCAGTGAGC
AGGGTGGGGTCTGGGAGGGGGTGAGAGGCAGGAATGGGGGTCAGAAGAAGTGGGAGCAGCTTCTTGGGCTGAGTG
CAGCCAAAGGGGAGCCAGAAATGGGCAGTTCTCCCAGGGAGTGAGCAGCTACTGTAACTTTTTTAAATTAAGACA
AAAAGCCTTGAAGAAAATGACTTTATTTTTCTAAGTGTAACCTCAGTATTTATGTAATTTGTACAGGGGCCATGC
CCCACCCCCCTCCTCCCCCTTTGGGGTAGACCTTGAGGGTGGGCCAGCATAGGGGGGAGGGTCTTTTACCCTGTG
TCAGAGCCTACCTTCACCACCTATATCCAGAAGGGGAGCTTTTTCAGAAACAGGGCAGCAGTGGGGTGAAATTTT
CTTAACCCCTAAGACTGCCTTCAGTAGGAACAAGCTGGCTTCTGTGATTAGGTGAAGGGATGGGGGAAGATTTTA
TGCACAGCCTAGTTATCAAGGGGATGATTTGCCGACATGTTTGAGAACCCCCTAACCTCTAACCCTCATTGCTGT

FIGURE 1777B

CTTGCCCCAGTTTGGGGTGCCAAGATGGAAGTCACCTTTCTGGGCTTTCTCCTGGAGATAGCTGGGGCTTATGGG
TGGCTTTCAAGGCTGGGGCATGGCAAATCAGGGGCCAGAGAGCAGGGGAGCTTGGGACTCAGGTCTGTAACTGCC
CAGCCCCTTTTCTCTGCTCTTGTTTCACTCCACCATCACTCACTCACTCCCCACTCCCCCACCCATGGGGAGGAG
ACCTTTGATGAATTCTTCCTCTCCTTCCCACAAAAGACAGACCCAGTGAGTGAATCAGGCAAAGTGCTTATAATG
TGTGTTGTGTGAGCGTGGCCTTGGGAGGACATGCGTGTGTCAGGGATGAGTTGAGGTGATATTTTTATGTGCAGC
GACCCTTGGTGTTTCCCTTCCTCGGTGGCTCTGGGGTATGTGTGTGTGGGTGTGTGCGCCTGAGTGAGTGTGTGT
GCTTGAATGTGAGTGTGTATGTCAGTGGTTTCTACTTCCCCTGGGATGCTGACCCAGGAATAGTGGACATGGTCA
CAGTCCTATGTACAGAGCTTTCTTTTGTATTAAAAAAAAATACTCTTTCAATAAATGTATCATTTTTGTGCACAG

FIGURE 1778A

CGCCTCGGGACGCCTCGGGGTCGGGCTCCGGCTGCGGCTGCTGCTGCGGCGCCCGCGCTCCGGTGCGCTCCGCCT
CCTGTGCCCGCCGCGGAGCGCAGTCTGCGCGCCCGCCGTGCGCCCTCAGCTCCTTTTCCTGAGCCCGCCGCG**ATG**

GGAGCTGCGCGGGGATCCCCGGCCAGACCCCGCCGGTTGCCTCTGCTCAGCGTCCTGCTGCTGCCGCTGCTGGGC
GGTACCCAGACAGCCATTGTCTTCATCAAGCAGCCGTCCTCCCAGGATGCACTGCAGGGGCGCCGGGCGCTGCTT
CGCTGTGAGGTTGAGGCTCCGGGCCCGGTACATGTGTACTGGCTGCTCGATGGGGCCCCTGTCCAGGACACGGAG
CGGCGTTTCGCCCAGGGCAGCAGCCTGAGCTTTGCAGCTGTGGACCGGCTGCAGGACTCTGGCACCTTCCAGTGT
GTGGCTCGGGATGATGTCACTGGAGAAGAAGCCCGCAGTGCCAACGCCTCCTTCAACATCAAATGGATTGAGGCA
GGTCCTGTGGTCCTGAAGCATCCAGCCTCGGAAGCTGAGATCCAGCCACAGACCCAGGTCACACTTCGTTGCCAC
ATTGATGGGCACCCTCGGCCCACCTACCAATGGTTCCGAGATGGGACCCCCCTTTCTGATGGTCAGAGCAACCAC
ACAGTCAGCAGCAAGGAGCGGAACCTGACGCTCCGGCCAGCTGGTCCTGAGCATAGTGGGCTGTATTCCTGCTGC
GCCCACAGTGCTTTTGGCCAGGCTTGCAGCAGCCAGAACTTCACCTTGAGCATTGCTGATGAAAGCTTTGCCAGG
GTGGTGCTGGCACCCCAGGACGTGGTAGTAGCGAGGTATGAGGAGGCCATGTTCCATTGCCAGTTCTCAGCCCAG
CCACCCCCGAGCCTGCAGTGGCTCTTTGAGGATGAGACTCCCATCACTAACCGCAGTCGCCCCCCACACCTCCGC
AGAGCCACAGTGTTTGCCAACGGGTCTCTGCTGCTGACCCAGGTCCGGCCACGCAATGCAGGGATCTACCGCTGC
ATTGGCCAGGGGCAGAGGGGCCCACCCATCATCCTGGAAGCCACACTTCACCTAGCAGAGATTGAAGACATGCCG
CTATTTGAGCCACGGGTGTTTACAGCTGGCAGCGAGGAGCGTGTGACCTGCCTTCCCCCCAAGGGTCTGCCAGAG
CCCAGCGTGTGGTGGGAGCACGCGGGAGTCCGGCTGCCCACCCATGGCAGGGTCTACCAGAAGGGCCACGAGCTG
GTGTTGGCCAATATTGCTGAAAGTGATGCTGGTGTCTACACCTGCCACGCGGCCAACCTGGCTGGTCAGCGGAGA
CAGGATGTCAACATCACTGTGGCCACTGTGCCCTCCTGGCTGAAGAAGCCCCAAGACAGCCAGCTGGAGGAGGGC
AAACCCGGCTACTTGGATTGCCTGACCCAGGCCACACCAAAACCTACAGTTGTCTGGTACAGAAACCAGATGCTC
ATCTCAGAGGACTCACGGTTCGAGGTCTTCAAGAATGGGACCTTGCGCATCAACAGCGTGGAGGTGTATGATGGG
ACATGGTACCGTTGTATGAGCAGCACCCCAGCCGGCAGCATCGAGGCGCAAGCCCGTGTCCAAGTGCTGGAAAAG
CTCAAGTTCACACCACCACCCCAGCCACAGCAGTGCATGGAGTTTGACAAGGAGGCCACGGTGCCCTGTTCAGCC
ACAGGCCGAGAGAAGCCCACTATTAAGTGGGAACGGGCAGATGGGAGCAGCCTCCCAGAGTGGGTGACAGACAAC
GCTGGGACCCTGCATTTTGCCCGGGTGACTCGAGATGACGCTGGCAACTACACTTGCATTGCCTCCAACGGGCCG
CAGGGCCAGATTCGTGCCCATGTCCAGCTCACTGTGGCAGTTTTTATCACCTTCAAAGTGGAACCAGAGCGTACG
ACTGTGTACCAGGGCCACACAGCCCTACTGCAGTGCGAGGCCCAGGGGGACCCCAAGCCGCTGATTCAGTGGAAA
GGCAAGGACCGCATCCTGGACCCCACCAAGCTGGGACCCAGGATGCACATCTTCCAGAATGGCTCCCTGGTGATC
CATGACGTGGCCCCTGAGGACTCAGGCCGCTACACCTGCATTGCAGGCAACAGCTGCAACATCAAGCACACGGAG
GCCCCCCTCTATGTCGTGGACAAGCCTGTGCCGGAGGAGTCGGAGGGCCCTGGCAGCCCTCCCCCCTACAAGATG
ATCCAGACCATTGGGTTGTCGGTGGGTGCCGCTGTGGCCTACATCATTGCCGTGCTGGGCCTCATGTTCTACTGC
AAGAAGCGCTGCAAAGCCAAGCGGCTGCAGAAGCAGCCCGAGGGCGAGGAGCCAGAGATGGAATGCCTCAACGGT
GGGCCTTTGCAGAACGGGCAGCCCTCAGCAGAGATCCAAGAAGAAGTGGCCTTGACCAGCTTGGGCTCCGGCCCC
GCGGCCACCAACAAACGCCACAGCACAAGTGATAAGATGCACTTCCCACGGTCTAGCCTGCAGCCCATCACCACG
CTGGGGAAGAGTGAGTTTGGGGAGGTGTTCCTGGCAAAGGCTCAGGGCTTGGAGGAGGGAGTGGCAGAGACCCTG
GTACTTGTGAAGAGCCTGCAGAGCAAGGATGAGCAGCAGCAGCTGGACTTCCGGAGGGAGTTGGAGATGTTTGGG
AAGCTGAACCACGCCAACGTGGTGCGGCTCCTGGGGCTGTGCCGGGAGGCTGAGCCCCACTACATGGTGCTGGAA
TATGTGGATCTGGGAGACCTCAAGCAGTTCCTGAGGATTTCCAAGAGCAAGGATGAAAAATTGAAGTCACAGCCC
CTCAGCACCAAGCAGAAGGTGGCCCTATGCACCCAGGTAGCCCTGGGCATGGAGCACCTGTCCAACAACCGCTTT
GTGCATAAGGACTTGGCTGCGCGTAACTGCCTGGTCAGTGCCCAGAGACAAGTGAAGGTGTCTGCCCTGGGCCTC
AGCAAGGATGTGTACAACAGTGAGTACTACCACTTCCGCCAGGCCTGGGTGCCGCTGCGCTGGATGTCCCCCGAG
GCCATCCTGGAGGGTGACTTCTCTACCAAGTCTGATGTCTGGGCCTTCGGTGTGCTGATGTGGGAAGTGTTTACA
CATGGAGAGATGCCCCATGGTGGGCAGGCAGATGATGAAGTACTGGCAGATTTGCAGGCTGGGAAGGCTAGACTT
CCTCAGCCCGAGGGCTGCCCTTCCAAACTCTATCGGCTGATGCAGCGCTGCTGGGCCCTCAGCCCCAAGGACCGG
CCCTCCTTCAGTGAGATTGCCAGCGCCCTGGGAGACAGCACCGTGGACAGCAAGCCG**TGA**GGAGGGAGCCCGCTC
AGGATGGCCTGGGCAGGGGAGGACATCTCTAGAGGGAAGCTCACAGCATGATGGGCAAGATCCCTGTCCTCCTGG
GCCCTGAGGCCCCTGCCCTAGTGCAACAGGCATTGCTGAGGTCTGAGCAGGGCCTGGCCTTTCCTCCTCTTCCTC
ACCCTCATCCTTTGGGAGGCTGACTTGGACCCAAACTGGGCGACTAGGGCTTTGAGCTGGGCAGTTTTCCCTGCC

FIGURE 1778B

ACCTCTTCCTCTATCAGGGACAGTGTGGGTGCCACAGGTAACCCCAATTTCTGGCCTTCAACTTCTCCCCTTGAC
CGGGTCCAACTCTGCCACTCATCTGCCAACTTTGCCTGGGGAGGGCTAGGCTTGGGATGAGCTGGGTTTGTGGGG
AGTTCCTTAATATTCTCAAGTTCTGGGCACACAGGGTTAATGAGTCTCTTGGCCCACTGGTCCCACTTGGGGGTC
TAGACCAGGATTATAGAGGACACAGCAAGTGAGTCCTCCCCACTCTGGGCTTGTGCACACTGACCCAGACCCACG
TCTTCCCCACCCTTCTCTCCTTTCCTCATCCTAAGTGCCTGGCAGATGAAGGAGTTTTCAGGAGCTTTTGACACT
ATATAAACCGCCCTTTTTGTATGCACCACGGGCGGCTTTTATATGTAATTGCAGCGTGGGGTGGGTGGGCATGGG
AGGTAGGGGTGGGCCCTGGAGATGAGGAGGGTGGGCCATCCTTACCCCACACTTTTATTGTTGTCGTTTTTTGTT
TGTTTTGTTTTTTTGTTTTTGTTTTTGTTTTTACACTCGCTGCTCTCAATAAATAAGCCTTTTTTA

FIGURE 1779

GATTTAAAGGGGCAGTACCGGCAAGAGCGGCAGCCACACCGGCAGATTGCAGACCGGGCAAGGTCCCCCAGGCCA
GGATGTCAGGCCTGGTGTTGGGGCAGCGGGATGAGCCTGCAGGCCACCGGCTCAGCCAAGAGGAGATCCTGGGGA
GCACACGGCTGGTCAGCCAAGGGCTAGAGGCCCTACGCAGTGAACACCAGGCCGTGCTGCAAAGCCTGTCCCAGA
CCATTGAGTGTCTGCAGCAGGGAGGCCATGAGGAAGGGCTGGTGCATGAGAAGGCCCGGCAGCTTCGCCGTTCTA
TGGAAAACATTGAGCTCGGGCTGAGTGAGGCCCAGGTGATGCTGGCTCTAGCCAGCCACCTGAGCACAGTGGAGT
CGGAGAAACAGAAGCTGCGGGCTCAGGTGCGGCGGCTATGCCAGGAGAACCAGTGGCTGCGGGATGAGCTGGCTG
GCACCCAGCAGCGGCTACAGCGCAGTGAACAGGCTGTGGCTCAGCTGGAGGAGGAAAAGAAGCACCTGGAGTTCC
TGGGGCAGCTGCGGCAGTATGATGAGGATGGACATACCTCGGAGGAGAAAGAAGGCGATGCCACCAAGGATTCCC
TGGATGACCTCTTTCCTAATGAGGAGGAAGAGGACCCCAGCAATGGCTTGTCCCGTGGTCAAGGTGCTACAGCAG
CTCAGCAGGGTGGATATGAGATCCCAGCAAGGTTGCGGACGTTGCACAACCTGGTGATCCAGTACGCAGCCCAAG
GTCGCTATGAGGTGGCCGTGCCACTCTGTAAGCAGGCACTAGAGGACCTGGAGCGCACATCAGGCCGTGGCCACC
CTGATGTCGCCACCATGCTCAACATCCTTGCTTTGGTGTATCGTGACCAGAATAAGTATAAGGAAGCTGCCCACC
TGCTGAATGATGCCCTTAGCATCCGGGAGAGCACCTTGGGACCTGACCATCCTGCTGTCAGTATTCCTTGCCCTC
CCCACCCCACGCCCCGCACCCCCCACCATTGCTGTTTTGGCCTCTCTTAGCTCATCCATCTGCTGCCCTCAGTCC
ACTCACTAAGGGTGCTGAGGAAGGAGGCATAAGAAGTCCTTTCTTCCAGGCACTGTCCAGTGATCCTAATGATTC
TCAATTCTCTGAGACTCAGTGACTCCTTTTTATAACAAATATTTTGCTTGAATTTAATTAATAGATAAGTCATAG
GTAAATCCACATATGATTTCTACAAAACTTAATATGCTACTCTAATAAATATAAAAGAAAAACAAG

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FIGURE 1780

CACCGAGCAGCTTGGCTAAAAGTAAGGGTGTCGTGCTG**ATG**GCCCTGTGCGCACTGACCCGCGCTCTGCGCTCTC
TGAACCTGGCGCCCCCGACCGTCGCCGCCCCTGCCCCGAGTCTGTTCCCCGCCGCCCAGATGATGAACAATGGCC
TCCTCCAACAGCCCTCTGCCTTGATGTTGCTCCCCTGCCGCCCAGTTCTTACTTCTGTGGCCCTTAATGCCAACT
TTGTGTCCTGGAAGAGTCGTACCAAGTACACCATTACACCAGTGAAGATGAGGAAGTCTGGGGGCCGAGACCACA
CAGGCCGAATCCGGGTGCATGGTATTGGCGGGGGCCACAAGCAACGTTATCGAATGATTGACTTTCTGCGTTTCC
GGCCTGAGGAGACCAAGTCAGGACCCTTTGAGGAGAAGGTTATCCAAGTCCGCTATGATCCCTGTAGGTCAGCAG
ACATAGCTCTGGTTGCTGGGGGCAGCCGGAAACGCTGGATCATCGCCACAGAAAACATGCAGGCTGGAGATACAA
TCTTGAACTCTAACCACATAGGCCGAATGGCAGTTGCTGCTCGGGAAGGGGATGCGCATCCTCTTGGGGCTCTGC
CTGTGGGGACCCTCATCAACAACGTGGAAAGTGAGCCAGGCCGGGGTGCCCAATATATCCGAGCTGCAGGGACGT
GTGGTGTGCTACTGCGGAAGGTGAATGGCACAGCCATTATCCAGCTGCCCTCTAAGAGGCAGATGCAGGTGCTGG
AAACGTGCGTAGCAACAGTAGGCCGAGTATCCAACGTTGATCATAACAAACGGGTCATTGGCAAGGCAGGTCGCA
ACCGCTGGCTGGGCAAGAGGCCTAACAGTGGGCGGTGGCACCGCAAGGGGGGCTGGGCTGGCCGAAAGATTCGGC
CACTACCCCCCATGAAGAGTTACGTGAAGCTGCCTTCTGCTTCTGCCCAAAGC**TGA**TATCCCTGTACTCTAATAA
AATGCCCCCCCCCCCCCGTTTTAATCTGTTACTGTGGTTTTGTTTTGGGTGTTTTTTGTTTTTTTTGTTGTTGTTT
TTTTTTTGCGGGGGAGGGGATGGTACAGACTAAACGTGGGGAAAAGAAGTAAAAAGTGTGGAAGAGAAAGTACAG
GACACTGGGTCTGTCCCCACCCCAATTCCCTTACAAGTAATGGAGCCGGGGATGGAAATAAATGACGTCCAAGGT
C

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FIGURE 1781A

GTCGCCGCCAGCGTCTGTGCCGCGTCCCTTGCTCTGTGAAGGACAGGCCTCGCGCCAGGACCCCGGTGGACTTCT
GAGGTGCCAGG**ATG**GTGGGAGAACTCCGCTACAGGGAATTCAGGGTGCCCCTGGGGCCCGGCTTACATGCCTATC
CTGATGAGCTGATCCGCCAGCGCGTGGGCCATGATGGGCATCCTGAGTACCAGATCCGTTGGCTCATCCTGCGGC
GTGGCGATGAGGGGGACGGGGGCTCTGGCCAAGTGGACTGCAAGGCTGAGCACATCCTGCTGTGGATGTCCAAGG
ATGAGATCTATGCCAACTGCCACAAGATGCTGGGCGAGGATGGCCAGGTCATCGGGCCCTCCCAGGAGTCTGCAG
GGGAGGTTGGGGCCCTGGACAAATCTGTGCTGGAGGAGATGGAAACCGACGTGAAGTCCCTCATTCAGAGAGCCC
TTCGGCAGCTGGAGGAGTGTGTGGGCACTATCCCTCCTGCTCCTCTACTTCACACTGTCCACGTGCTCAGCGCCT
ATGCCAGCATTGAGCCCCTCACTGGAGTATTCAAGGACCCAAGGGTCCTGGACTTGCTCATGCACATGTTGAGTA
GTCCTGATTATCAGATTCGCTGGAGTGCAGGCCGGATGATACAAGCCCTGTCCTCCCATGACGCTGGGACCCGGA
CTCAGATCCTTCTGTCACTGAGCCAACAAGAAGCCATTGAGAAACACCTGGATTTTGACAGCCGCTGTGCTCTGC
TAGCACTGTTTGCACAGGCCACGCTCTCTGAACACCCCATGTCTTTCGAGGGCATTCAGCTACCACAGGTCCCAG
GAAGGGTGCTCTTCTCCCTGGTGAAGCGGTATTTGCATGTCACCTCGCTCCTGGATCAGCTGAACGACAGTGCTG
CGGAGCCAGGAGCCCAGAACACCTCTGCTCCTGAGGAGTTGAGTGGGGAGAGGGGTCAACTGGAGCTGGAGTTCA
GTATGGCCATGGGCACCCTGATCTCGGAGCTGGTGCAAGCCATGCGCTGGGACCAGGCCTCAGACAGACCAAGGA
GCTCAGCACGGTCCCCCGGTTCCATCTTCCAGCCTCAGCTGGCAGATGTGAGCCCAGGGCTCCCCGCTGCCCAGG
CTCAGCCCTCCTTCAGGAGGTCAAGACGTTTTCGCCCTCGTTCTGAGTTCGCAAGTGGCAATACCTATGCTTTGT
ATGTGCGGGACACACTGCAGCCGGGGATGCGAGTGCGGATGCTGGATGATTATGAGGAGATCAGTGCCGGGGATG
AGGGCGAGTTTCGGCAGAGCAACAACGGTGTGCCTCCTGTGCAGGTATTTTGGGAGTCAACAGGCCGCACCTATT
GGGTGCACTGGCACATGCTGGAGATCTTGGGCTTTGAGGAAGACATTGAGGACATGGTTGAGGCTGATGAGTACC
AAGGGGCAGTGGCCAGTAGAGTCCTGGGTAGAGCCCTGCCTGCCTGGCGCTGGAGGCCCATGACAGAACTCTATG
CTGTGCCTTATGTGCTGCCTGAGGATGAGGACACTGAGGAGTGTGAACACCTGACCCTGGCTGAGTGGTGGGAAC
TCCTCTTCTTCATCAAGAAGCTGGATGGACCTGACCATCAGGAGGTTCTCCAGATCCTCCAGGAGAACCTAGATG
GGGAGATTCTGGATGATGAGATCCTAGCTGAACTGGCCGTGCCCATAGAATTGGCCCAGGACTTGCTGCTGACTC
TGCCACAGCGACTCAATGACAGTGCCCTCAGGGACCTGATCAACTGCCATGTCTACAAGAAGTATGGGCCTGAAG
CCCTAGCAGGGAACCAAGCCTACCCATCCCTTCTAGAAGCCCAAGAAGATGTCCTCCTGCTAGACGCGCAGGCCC
AGGCTAAGGACTCAGAAGATGCAGCCAAAGTGGAAGCAAAAGAACCCCCATCTCAGAGTCCCAACACTCCCCTGC
AGCGTCTGGTGGAGGGTTATGGTCCAGCTGGGAAAATCCTCCTGGATCTAGAGCAAGCCCTCAGCTCAGAGGGGA
CCCAGGAGAACAAGGTCAAGCCACTCCTGCTGCAGCTGCAGCGGCAGCCGCAGCCCTTCCTGGCACTGATGCAGA
GCCTGGACACTCCGGAGACTAACAGGACCCTGCACCTGACTGTGCTGAGAATCCTGAAGCAGCTGGTGGACTTCC
CCGAGGCACTGCTGCTCCCCTGGCACGAGGCCGTGGATGCCTGCATGGCCTGCCTGCGGTCCCCAAACACTGATC
GAGAGGTGCTCCAGGAACTGATTTTCTTCCTGCACCGCCTGACCTCAGTGAGCAGGGACTATGCCGTGGTGCTGA
ATCAGCTGGGAGCAAGAGACGCTATCTCCAAGGCCCTGGAAAAGCACCTGGGAAAGCTGGAGCTGGCTCAGGAGC
TGCGGGACATGGTGTTCAAGTGTGAGAAGCATGCCCACCTCTACCGCAAACTCATCACCAACATCCTGGGAGGCT
GCATCCAGATGGTGCTGGGCCAGATCGAAGACCACAGACGAACCCACCAACCCATCAACATCCCTTTCTTTGATG
TGTTCCTCAGATACCTGTGCCAGGGCTCCAGTGTGGAAGTGAAGGAGGACAAGTGCTGGGAGAAGGTGGAGGTGT
CCTCCAACCCGCACCGGGCCAGCAAGCTGACGGACCACAACCCCAAGACCTATTGGGAGTCCAACGGCAGCGCCG
GCTCCCACTACATCACCCTGCACATGCGCCGGGGCATCCTCATCAGGCAACTGACTCTGCTTGTGGCTAGTGAGG
ACTCGAGTTACATGCCGGCCCGAGTGGTGGTGTGCGGGGGTGATAGCACTAGCTCTCTTCACACGGAACTCAACT
CGGTGAATGTGATGCCCTCTGCCAGCCGGGTGATCCTCCTGGAGAACCTGACCCGCTTCTGGCCCATCATCCAGA
TCCGCATAAAGCGCTGCCAGCAGGGTGGCATTGATACGCGCATTCGGGGGTTAGAGATCCTAGGCCCCAAGCCCA
CGTTCTGGCCAGTGTTCCGGGAGCAGCTCTGTCGTCACACACGCCTCTTCTACATGGTTCGGGCACAGGCCTGGA
GCCAGGACATGGCAGAGGACCGCAGGAGCCTCCTGCACCTGAGTTCTAGACTCAACGGTGCTCTGCGCCAGGAGC
AGAATTTTGCTGACCGCTTCCTCCCTGATGACGAGGCTGCCCAAGCTCTGGGCAAGACCTGCTGGGAGGCCCTGG
TCAGCCCCGTGGTGCAGAACATCACCTCCCCTGATGAGGATGGCATTAGCCCCCTGGGTTGGCTGCTGGACCAGT
ACCTGGAGTGTCAGGAAGCTGTCTTCAACCCCCAGAGCCGCGGCCCAGCTTTCTTCTCGCGGGTGCGCCGTCTCA
CTCACCTGCTGGTGCATGTCGAGCCCTGTGAGGCACCCCCTCCTGTGGTGGCCACTCCTCGGCCCAAAGGCAGAA
ACAGAAGCCACGACTGGAGCTCCTTGGCTACCCGGGGCCTTCCAAGCAGCATCATGAGAAACCTGACGCGCTGTT
GGCGGGCCGTGGTGGAGAAGCAGGTGAACAATTTTCTGACCTCATCCTGGCGGGATGATGACTTTGTGCCACGCT

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FIGURE 1781B

ACTGTGAGCACTTTAATATTCTGCAGAACTCAAGCTCTGAACTGTTTGGGCCTCGGGCAGCCTTCTTGCTGGCGC
TGCAAAATGGCTGTGCGGGAGCCTTGCTGAAGCTCCCTTTTCTCAAAGCTGCCCACGTGAGTGAGCAGTTCGCCC
GGCACATTGACCAGCAGATCCAGGGCAGCCGGATCGGTGGAGCCCAGGAAATGGAGAGGCTGGCACAGCTGCAGC
AATGCCTGCAAGCTGTCCTGATTTTCTCCGGCTTGGAGATAGCCACCACTTTTGAGCATTATTACCAGCACTACA
TGGCGGACCGTCTCCTGGGCGTGGTCTCGAGCTGGCTGGAGGGGGCCGTGCTGGAGCAGATCGGTCCCTGCTTCC
CCAACCGCCTCCCCCAGCAGATGTTGCAGAGCCTGAGCACCTCTAAGGAGCTGCAGCGCCAGTTCCACGTCTACC
AGCTCCAGCAGCTGGATCAGGAACTCCTGAAGCTGGAGGATACAGAGAAGAAAATACAGGTGGGCCTTGGGGCCA
GTGGCAAGGAGCACAAGAGCGAGAAGGAAGAGGAAGCTGGGGCAGCAGCAGTGGTGGATGTGGCGGAGGGAGAGG
AGGAAGAGGAGGAGAATGAGGACCTCTACTATGAAGGGGCAATGCCAGAAGTGTCTGTGCTTGTCCTGTCCCGAC
ACTCCTGGCCTGTTGCCTCAATCTGCCACACACTGAACCCCAGAACCTGCCTGCCCTCCTACCTGAGGGGCACTT
TGAACAGATACTCCAACTTCTACAACAAGAGTCAGAGCCACCCTGCCCTTGAGCGAGGCTCACAGAGGCGACTGC
AGTGGACGTGGCTGGGCTGGGCTGAGCTGCAGTTTGGGAACCAGACCCTGCATGTGTCCACCGTGCAGATGTGGC
TACTGCTGTATCTCAACGACCTGAAGGCGGTCTCTGTGGAGAGTCTGCTGGCGTTCTCAGGGCTCTCCGCAGACA
TGCTCAATCAGGCGATTGGGCCCCTCACCTCTTCAAGAGGCCCCCTGGACCTTCACGAGCAAAAGGATATACCAG
GAGGGGTCCTCAAGATTCGAGATGGCAGCAAGGAACCCAGGTCGAGATGGGACATTGTGCGGCTCATCCCACCTC
AGACGTACCTGCAAGCTGAGGGTGAAGACGGCCAGAACTTGGAGAAGAGACGGAATCTTCTGAACTGCCTCATCG
TCCGAATCCTCAAGGCCCATGGAGATGAGGGGCTGCACATTGACCAGCTTGTCTGTCTGGTGCTGGAGGCTTGGC
AGAAGGGCCCGTGTCCTCCCAGGGGTTTGGTCAGCAGCCTTGGTAAGGGGTCTGCATGCAGCAGCACTGACGTCC
TCTCCTGCATCCTACACCTCCTGGGCAAGGGCACGCTGAGACGCCATGACGACCGGCCCCAGGTGCTGTCCTATG
CAGTCCCTGTGACTGTCATGGAGCCTCACACTGAGTCCCTGAACCCAGGCTCCTCAGGCCCCAACCCACCCCTCA
CCTTCCATACCCTACAGATTCGCTCCCGGGGTGTGCCCTATGCCTCCTGCACTGCCACCCAGAGCTTCTCTACCT
TCCGG**TAG**CCCTAGACTTGGGGTCAGGGGAAGGTAGAGCTGGAGCTTTTACAGAAATAAAACCCAAGAGTTTGAT
TAT

FIGURE 1782

GCGGAAGCGGCGCCATTCGTCTTCCGAGCGCTACTGCCAGCTG**ATG**CCGGGAGCTAACTACCGCGCCGGGGCCGG
GGCCGGGGCCGGGGCCCGACGTCCCCGCGGGGCCCGGGACCGCGAGGAGGACGGCGGGGGCCTGGAGCCCGCGGC
CGTGGCCCGCGACCTATTGAGGGGCACATCTAACATGTCATTTGAGGAGCTGTTGGAATTGCAGAGCCAAGTGGG
GACTAAGACGTACAAACAATTGGTAGCTGGAAATAGTCCTAAGAAACAAGCTTCTAGACCACCTATCCAAAATGC
ATGTGTTGCAGATAAGCACAGGCCTCTGGAAATGTCAGCCAAGATCCGAGTACCATTTTTACGTCAGGTTGTTCC
CATTAGTAAAAAGGTAGCCCGGGACCCTCGCTTTGATGATCTGTCAGGGGAATATAATCCTGAGGTGTTTGACAA
AACATACCAATTCTTGAATGACATCCGAGCGAAAGAGAAAGAGTTGAAGAAGCACCTTTCAGGAGAGGAGCATGA
GAAACTGCAGCAACTGCTTCAGCGAATGGAGCAGCAAGAAATGGCACAGCAGGAACGAAAGCAACAGCAGGAGCT
GCACCTGGCCCTGAAGCAAGAACGTCGGGCTCAGGCCCAGCAGGGCCATCGGCCATACTTCCTGAAAAAATCTGA
GCAGCGCCAGTTGGCACTAGCTGAGAAGTTCAAGGAGCTGAAACGCAGCAAGAAATTGGAGAACTTCTTGAGTCG
AAAGAGGCGACGAAATGCAGGCAAGGACAGGAGACATCTCCCTTTGAGCAAAGAG**TAA**TAAGGAACTATCCTCTG
CTCTGCCACTGCCCCAGGGAGACATGGATCTGTGAGGACAGATTTGGCCACGGCTGGTTTCCGTTCAAGGGCAAG
GATCACAGCTGCCCTTGAATCTCATTGCCTCAGAGAAGACTAGAGGGCTCTTGGACTATCCCTAGGGCTACACAA
GAATAGTTCAGCCTTCTGCCATGCCACACAGCCTCAGCTTGAATCTGGTTCATTGCGTCCTCGTGTTCTTCTCTC
ATCCTTGCCTTAAACCAGGGATTCTGATACCGAAGAAGAGGGGCCAATGAAAACCATGGAGTCTGTTCGTGACTC
CCAGGGCTGGGACATTATGTAGGAGCCACTTCATAAACATTCTCTTTACTCATCTTTTTATTCTGTTTTTTGTGG
CCTTCTTTTTGTGTTTCCCCCCCGAAACAGAGTCTCGCTCTGTCACCCAGGCTAGAGTACAGTGGTGCAATCTCG
CCTCACTGCAACCTCCACCTCCCAGGTTCAAGTGATTCTTGTGCCTCAGCCTCCCGAGTAGCTGACATCCGCCAC
CAAGCCCAGCTAATT

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FIGURE 1783

CGCTGCAGCTGGGGCCATTTGAGGGGAGCCC**ATG**GGGCCTGAAAGGCATCTGTCAGGCGCCCCTGCCCGGATGGC
AACAGTAGTTCTAGGAGGAGACACCATGGGCCCTGAGCGTATCTTCCCCAATCAGACTGAGGAACTGGGACATCA
GGGCCCTTCAGAAGGCACTGGGGATTGGAGCAGTGAGGAGCCTGAGGAAGAGCAGGAGGAAACGGGGTCGGGCCC
AGCTGGCTACTCCTACCAGCCCCTGAACCAAGATCCTGAACAAGAGGAGGTGGAACTGGCACCAGTGGGGGATGG
AGATGTAGTTGCTGACATCCAGGATCGAATCCAGGCCCTGGGGCTTCATTTGCCAGACCCACCATTAGAGAGTGA
AGATGAAGATGAGGAGGGAGCTACAGCGTTGAACAACCACAGCTCTATTCCCATGGACCCAGAACATGTAGAGCT
GGTGAAAAGGACAATGGCTGGAGTAAGCCTGCCTGCGCCAGGGGTTCCTGCCTGGGCTCGGGAGATATCGGATGC
CCAGTGGGAAGATGTGGTACAGAAAGCCCTCCAAGCCCGGCAGGCATCCCCTGCCTGGAAG**TGA**CCACAGTGAGA
GCTGCCTTATATTCCTACATTCCAGGCCAGAACCAGCACAGGACTGAACACATCCCTGGTTGTAATGTCCATTTC
CATCTTCCCCGTCTCCCTTTCCACATCAAGGCACATCAGACTTCTCAGAGACCCACTTTATTCAGTTCTGTACAT
ATGGGGACATCGGTCCAAGCCCAACCCACCTTAGCATGTATCACTCTGTGGAGAATAAAGCACCCTATGTACACA
GCCAAA

FIGURE 1784

GAAGAGACGCCGAGCGGGCCGAGTGCGGCCGAGCAAAGCCGGAGCCGGAGCGGGGCCGCAGGAGACGGGCCGGGT
CCGGACGGGCCGAG**ATG**CCCTATAAACTGAAAAAGGAGAAGGAGCCCCCCAAGGTTGCCAAATGCACAGCCAAGC
CTAGCAGCTCGGGCAAGGATGGTGGAGGCGAGAACACTGAGGAGGCCCAGCCGCAGCCCCAGCCCCAGCCCCAGC
CCCAAGCCCAGTCTCAGCCACCGTCATCCAACAAGCGTCCCAGCAATAGCACGCCGCCCCCCACGCAGCTCAGCA
AAATCAAGTACTCAGGGGGGCCCCAGATTGTCAAGAAGGAGCGACGGCAAAGCTCCTCCCGCTTCAACCTCAGCA
AGAATCGGGAGCTGCAGAAGCTTCCTGCCCTGAAAGATTCGCCAACCCAGGAGCGGGAGGAGCTGTTTATCCAGA
AGCTACGCCAGTGCTGTGTCCTCTTTGACTTCGTGTCAGACCCACTCAGTGACCTCAAATTCAAGGAGGTGAAGC
GGGCAGGACTCAACGAGATGGTGGAGTACATCACCCATAGCCGTGATGTTGTCACTGAGGCCATTTACCCTGAGG
CTGTCACCATGTTTTCAGTGAACCTCTTCCGGACGCTGCCACCTTCATCGAATCCCACAGGGGCTGAGTTTGACC
CAGAGGAAGATGAGCCCACCCTGGAAGCTGCTTGGCCACATCTCCAGCTCGTGTATGAGTTCTTCTTACGTTTCC
TTGAGTCTCCTGATTTCCAGCCAAACATAGCCAAGAAGTACATCGACCAGAAGTTTGTACTTGCTCTCCTAGACC
TATTTGACAGTGAGGATCCTCGAGAGCGGGACTTCCTCAAGACCATTTTGCATCGCATCTATGGCAAGTTTTTGG
GGCTCCGGGCTTATATCCGTAGGCAGATCAACCACATCTTCTACAGGTTCATCTACGAGACGGAGCATCACAACG
GGATTGCTGAGCTCCTGGAGATCCTGGGCAGCATCATCAATGGCTTTGCCCTGCCCCTTAAAGAAGAGCACAAGA
TGTTCCTCATCCGTGTCCTACTTCCCCTTCACAAGGTCAAGTCCCTGAGTGTCTACCACCCTCAGCTGGCATACT
GTGTGGTACAATTCCTGGAGAAGGAGAGCAGTCTGACTGAGCCGGTAATTGTGGGACTTCTCAAGTTTTGGCCCA
AGACCCACAGCCCCAAGGAGGTGATGTTCTTGAATGAGCTGGAGGAGATTCTGGACGTCATTGAACCTTCTGAGT
TCAGCAAAGTGATGGAACCCCTCTTCCGCCAGCTGGCCAAGTGTGTCTCTAGCCCCCATTTCCAGGTGGCAGAGC
GTGCTCTCTATTACTGGAACAATGAGTACATCATGAGCCTGATAAGTGACAATGCTGCCCGAGTCCTCCCCATCA
TGTTCCCTGCACTCTACAGGAACTCCAAGAGCCACTGGAACAAGACAATCCATGGACTGATCTATAATGCCCTGA
AGTTGTTTATGGAAATGAATCAGAAGCTGTTTGATGACTGCACACAACAATACAAGGCAGAGAAGCAGAAGGGCC
GGTTCCGAATGAAGGAAAGGGAAGAGATGTGGCAAAAAATCGAGGAGCTGGCCCGGCTTAATCCCCAGTATCCCA
TGTTCCGAGCCCCTCCACCACTGCCCCCTGTGTACTCGATGGAGACAGAGACCCCCACAGCTGAGGACATCCAGC
TTCTGAAGAGGACTGTGGAGACTGAGGCTGTTCAGATGCTAAAAGACATCAAGAAGGAGAAAGTGCTGCTGCGGA
GGAAGTCGGAGCTGCCCCAGGACGTGTACACCATCAAGGCACTGGAGGCGCACAAGCGGGCGGAAGAGTTCCTAA
CTGCCAGCCAGGAGGCTCTC**TGA**CCCCTCACGTTCCTACCACAGGGCCACAGCCCACACAGCCCTGGGACACTGC
CCTGGCCCTCCATACTCTGCTCCCTACTGGCTGTCTTGGGGGAAGGCAGCGCCTCTCTAGCTACTCAAGGGAGGG
GGATGTGGGCACTTGAAGCAGGGACACCCACAGAATGGTCCCTCTTCTCCCCAAAAGGTGTTCATGCCTCCCTGT
GGCTAGTACAGGCTGAGCACTAAGATGCTTAGTGCTCAGACAACCTGGGGATGCCTGTCCCCTACCTGCTCCTCA
CCCACAGCTACCTGAGGCTGCTCTGAGAAGTACACACAGGAATACATACGCTCCTCTATTCTTCCCTTCATCCTC
ATTTGAACGCCAGGTATCTCCCCTCCTCTCTCTCCCCTGCAGAGGCATGTAGGGAACAGCAGGAGATTATTCTCA
CCAAAGTTATGTCAAGCCCCATTGGTCCCAGAGTAGCTGAAGGGAAGCCAACCCCCCTGCAGCACAAATAGGCCC
CCCAGTCCCAGCCGTGTGCTGGCAGATAGGGTTGTATTATTTCTTCTTACCCCATGCCTGACCAAGGGAGGTCAA
AAGGAGAAAAGTATAGGCTGTGGACAATAACTGATGAATATAGGGCCCAGATGGACCAAGTGGGGCCGGGGAGGG
ATGAATAAACACCCTACCCCGTGCCCTGTCTTTGGTGAGCAGCAGCCCTGGGGTCACAGACATGGAAGGGACCAC
CCTGGGGCTGACTGCTTTTCTGTGCTGTTGGTTCCCAAAACTAGAAAGAAGGAAGCAGGGAGCGGTGCCCCAAGC
ATGGCTCCTGCCAACACCTATTTATTTCCTTGTTTGTGCTATGCTGGGCAGGCCTTCTCTTGTCCCTTATAGGTA
CCTTGGAGGGGCCAGGGGCTGAGGAAGGCCGGACCCAGGTTCCAGGGGCGCAGGCAGTGCGGCTTTTGGCTGTGT
ACATAGGGTGCTTTATTCTCCACAGAGTGATACATGCTAAGGTGGGTTGGGCTTGGACCGATGTCCCCATATGTA
CAGAACTGAATAAAGTGGGTCTCTG

FIGURE 1785

ACACTAGTCGTCTGGCTCTCTGGCTCCGGAAGCTGCGCTCCTTCACCCTCCTCGTTGGTGTCCTGTCACC**ATG**GC
GCTGGCTGTCTTGCGGGTCCTGGAGCCCTTTCCGACCGAGACACCCCCGTTGGCAGTGCTGCTGCCACCCGGGGG
CCCGTGGCCGGCGGCGGAGCTGGGCCTGGTGCTGGCCCTGAGGCCTGCAGGGGAGAGCCCGGCAGGGCCGGCGCT
GCTGGTGGCAGCCCTGGAGGGGCCGGACGCGGGCACCGAAGAGCAGGGTCCCGGGCCGCCGCAGCTACTGGTTAG
CCGCGCGCTGCTGCGGCTCCTGGCACTGGGCTCCGGGGCCTGGGTGCGGGCGCGGGCGGTGCGGCGGCCCCCGGC
GCTAGGTTGGGCACTGCTTGGCACCTCGCTGGGGCCTGGGCTCGGACCGCGAGTCGGGCCGCTGCTGGTGAGGCG
CGGAGAGACCCTCCCAGTGCCCGGACCGCGGGTGCTGGAGACGCGGCCGGCGTTGCAAGGGCTGCTGGGCCCAGG
GACTCGGCTGGCTGTGACTGAGCTCCGCGGGCGGGCCAGACTGTGTCCAGAGTCTGGGGACAGCAGTCGGCCCCC
ACCCCCGCCCGTGGTGTCCTCCTTTGCGGTTTCTGGCACAGTGCGGCGACTCCAGGGAGTTCTGGGAGGGACTGG
AGATTCACTAGGGGTGAGCCGGAGCTGTCTCCGTGGCCTTGGCCTCTTCCAGGGCGAATGGGTGTGGGTGGCCCA
GGCCAGAGAGTCATCGAACACTTCACAGCCGCACTTGGCTAGGGTGCAGGTCCTAGAACCTCGCTGGGACCTCTC
TGATAGACTGGGACCCGGCTCTGGACCGCTGGGAGAGCCCCTCGCTGACGGACTGGCGCTTGTCCCTGCCACTTT
GGCTTTTAATCTTGGCTGTGACCCCCTGGAAATGGGAGAGCTCAGAATTCAGAGGTACTTGGAAGGCTCCATCGC
CCCTGAAGACAAAGGAAGCTGCTCATTGCTGCCTGGGCCTCCATTTGCCAGAGAGTTACACATCGAAATTGTGTC
TTCTCCCCACTACAGCACTAATGGAAATTATGACGGTGTTCTTTACCGGCACTTTCAGATACCCAGGGTAGTCCA
GGAAGGGGATGTTCTATGTGTGCCAACAATTGGGCAAGTAGAGATCCTGGAAGGAAGTCCAGAGAAACTGCCCAG
GTGGCGGGAAATGTTTTTTAAAGTGAAGAAAACAGTTGGGGAAGCTCCAGATGGACCAGCCAGTGCCTACTTGGC
CGACACCACCCATACCTCCTTGTACATGGTGGGTTCTACCCTGAGCCCTGTTCCATGGCTCCCTTCAGAGGAATC
CACTCTCTGGAGCAGTTTGTCTCCTCCAGGCCTGGAGGCCTTGGTGTCTGAACTCTGTGCTGTCCTGAAGCCTCG
CCTCCAGCCAGGGGGTGCCCTGCTGACAGGAACTAGCAGTGTCCTTCTACGGGGCCCCCCAGGCTGTGGGAAGAC
CACAGTAGTTGCTGCTGCCTGTAGTCACCTTGGGCTCCACTTACTGAAGGTGCCCTGCTCCAGCCTCTGTGCAGA
AAGTAGTGGGGCTGTGGAGACAAAACTGCAGGCCATCTTCTCCCGGGCCCGCCGTTGCCGGCCTGCAGTCCTGTT
GCTCACAGCTGTGGACCTTCTGGGCCGGGACCGTGATGGGCTGGGTGAGGATGCCCGTGTGATGGCTGTGCTGCG
TCACCTCCTCCTCAATGAGGACCCCCTCAACAGCTGCCCTCCCCTCATGGTTGTGGCCACCACAAGCCGGGCCCA
GGACCTGCCTGCTGATGTGCAGACAGCATTTCCTCATGAGCTCGAGGTGCCTGCTCTGTCAGAGGGGCAGCGGCT
CAGCATCCTGCGGGCCCTCACTGCCCACCTTCCCCTGGGCCAGGAGGTGAACTTGGCACAGCTAGCACGGCGGTG
TGCAGGCTTTGTGGTAGGGGATCTCTATGCCCTTCTGACCCACAGCAGCCGGGCAGCCTGCACCAGGATCAAGAA
CTCAGGTTTGGCAGGTGGCTTGACTGAGGAGGATGAGGGGGAGCTGTGTGCTGCCGGCTTTCCTCTCCTGGCTGA
GGACTTTGGGCAGGCACTGGAGCAACTGCAGACAGCTCACTCCCAGGCCGTTGGAGCCCCCAAGATCCCCTCAGT
GTCCTGGCATGATGTGGGTGGGCTGCAGGAGGTGAAGAAGGAGATCCTGGAGACCATTCAGCTCCCCCTGGAGCA
CCCTGAGCTACTGAGCCTGGGCCTGAGACGCTCAGGCCTTCTGCTCCATGGGCCCCCTGGCACCGGCAAGACCCT
TCTGGCCAAGGCAGTAGCCACTGAGTGCAGCCTTACCTTCCTCAGCGTGAAGGGGCCAGAGCTCATTAACATGTA
TGTGGGCCAAAGTGAGGAGAATGTGCGGGAAGTGTTTGCCAGGGCCAGGGCTGCAGCTCCATGCATTATCTTCTT
TGATGAACTGGACTCTTTGGCCCCAAGCCGGGGGCGAAGTGGAGATTCTGGAGGAGTGATGGACAGGGTGGTGTC
TCAGCTCCTTGCCGAGCTAGATGGGCTGCACAGCACTCAGGATGTGTTTGTGATTGGAGCCACCAACAGACCAGA
TCTCCTGGACCCTGCCCTTCTGCGGCCTGGCAGATTTGACAAGCTGGTGTTTGTGGGGGCAAATGAGGACCGGGC
CTCCCAGCTACGCGTTCTAAGTGCCATCACACGCAAATTCAAGCTAGAGCCATCTGTGAGCCTGGTAAACGTGCT
AGATTGCTGCCCTCCCCAGCTGACGGGCGCGGACCTCTACTCTCTCTGCTCTGATGCTATGACAGCTGCCCTCAA
ACGCAGGGTTCATGACCTGGAGGAAGGGCTGGAGCCAGGTAGCTCAGCACTGATGCTCACCATGGAGGACTTGCT
GCAGGCTGCCGCCCGGCTGCAACCCTCAGTCAGTGAGCAGGAGCTGCTCCGGTACAAGCGCATCCAGCGCAAGTT
TGCTGCCTGC**TAG**GAGCCCCCCAGGGTCTGGGACCCCGCTCAGCATGGCTGCAGGTACCTTGATAGCCCACAGAG
AGATCTGGGAAGGAAGGGCTCCTCCTCAGGCTGCTGCCAACCCACCTGGAGGCCACCTCCCTCCAGGAGATCCCA
GGGTGCAAAGTGGCATTGAGACAGCAGCAACAGCTCAAGAGATATCTC

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FIGURE 1786

ATGGTGGACAGCGTGTACCGGACCCGCTCCCTGGGGGTGGCGGCCGAAGGGCTCCCGGACCAGTACGCGGACGGG
GAGGCGGCGCGCGTGTGGCAGCTGTATATCGGAGACACCCGCAGCCGCACCGCCGAGTACAAGGCATGGCTGCTT
GGGCTGCTGCGCCAGCACGGCTGCCAGCGGGTGCTCGACGTAGCCTGTGGCACTGGGGTGGACTCCATTATGCTG
GTGGAAGAGGGCTTCAGTGTGACGAGTGTGGATGCCAGTGACAAGATGCTGAAGTATGCACTTAAGGAGCGCTGG
AACCGGCGGCACGAGCCCGCCTTCGACAAGTGGGTCATCGAAGAAGCCAACTGGATGACTCTGGACAAAGATGTG
CCCCAGTCAGCAGAGGGTGGCTTTGATGCTGTCATCTGCCTTGGAAACAGTTTCGCTCACTTGCCAGACTGCAAA
GGGGACCAGAGTGAGCACCGGCTGGCGCTGAAAAACATTGCGAGCATGGTGCGGGCAGGGGGCCTACTGGTCATT
GATCATCGCAACTACGACCACATCCTCAGTACAGGCTGTGCACCCCCAGGGAAGAACATCTACTATAAGAGTGAC
TTGACCAAGGACGTCACAACATCAGTGCTGATAGTGAACAACAAGGCCCACATGGTGACCCTGGACTATACGGTG
CAGGTGCCGGGGGCTGGCCAGGATGGCTCTCCTGGCTTGAGTAAGTTCCGGCTCTCCTACTACCCACACTGTCTG
GCATCCTTCACGGAGCTGCTCCAAGCAGCCTTCGGAGGTAAGTGCCAGCACAGCGTCCTGGGCGACTTCAAGCCT
TACAAGCCAGGCCAAACCTACATTCCCTGCTACTTCATCCACGTGCTCAAGAGGACAGAC**TGA**

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FIGURE 1787

CCCGCCACTGTCGCTGAATGATTGCATCATCGAAAGCAGAAAACCACTTTTGCATCCTTCGGCCTCTGGCGTGCC
TGCCATGACGTCATAGCTCTGCGGAGGTGGAAGTTGGGGAGCTTTGAGGACCTC**ATG**GATCCCAGGGGGACCAAG
AGAGGAGCTGAGAAGACAGAGGTAGCTGAGCCTCGGAACAAACTACCTCGTCCAGCACCTTCTCTGCCCACAGAC
CCTGCCCTCTACTCTGGGCCCTTTCCTTTCTACCGGCGCCCTTCGGAACTGGGCTGCTTCTCCCTGGATGCTCAA
CGCCAGTACCATGGAGATGCCCGAGCCCTGCGCTACTATAGCCCACCCCCCACTAACGGTCCAGGCCCCAACTTT
GACCTCAGAGACGGATACCCGGATCGATACCAGCCCCGGGACGAGGAGGTCCAGGAAAGGCTGGACCACCTGCTG
TGCTGGCTCCTGGAACACCGAGGCCGGTTGGAGGGGGGTCCAGGCTGGCTGGCAGAGGCCATAGTGACGTGGCGG
GGGCACCTGACAAAACTGCTGACGACACCGTATGAGCGGCAGGAGGGCTGGCAGCTGGCAGCCTCCCGGTTCCAG
GGAACACTATACCTGAGTGAAGTGGAGACACCGAACGCTCGGGCCCAGAGGCTTGCTCGGCCACCGCTCCTCCGG
GAGCTTATGTACATGGGATACAAATTTGAGCAGTACATGTGTGCAGACAAACCTGGAAGCTCCCCAGACCCCTCT
GGGGAGGTTAACACCAACGTGGCCTTCTGCTCTGTGCTACGCAGCCGCCTGGGAAGCCACCCTCTGCTCTTCTCA
GGGGAGGTAGACTGCACAGACCCCCAAGCCCCATCCACACAGCCCCCAACCTGCTATGTGGAGCTCAAGACCTCC
AAGGAGATGCACAGCCCTGGCCAATGGAGGAGTTTCTACAGACACAAGCTCCTGAAATGGTGGGCTCAGTCATTC
CTCCCAGGGGTCCCGAATGTTGTTGCTGGCTTCCGTAACCCAGACGGTTTTGTCTCTTCCCTCAAGACCTTTCCT
ACCATGAAGATGTTTGAATATGTCAGGAATGACCGTGACGGCTGGAATCCCTCTGTGTGCATGAACTTCTGTGCC
GCCTTCCTTAGCTTTGCCCAGAGCACGGTTGTCCAGGATGACCCCAGGCTCGTTCATCTCTTCTCTTGGGAGCCT
GGCGGCCCAGTCACCGTGTCTGTACACCAAGATGCACCTTACGCCTTCCTGCCCATATGGTATGTGGAAGCTATG
ACTCAGGACCTCCCATCACCCCCCAAGACTCCCTCTCCCAAA**TAG**TAATGCTTTAGAGGGAGGCAGTCATATCTC
TGTGTGCAGATAATAAAAGCATATTTCTAAGAGGTT

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FIGURE 1788

AGGGGAAGGGAATGTGACCAGGTCTAGGTCTGGAGTTTCAGCTTGGACACTGAGCCAAGCAGACAAGCAAAGCAA
GCCAGGACACACCATCCTGCCCCAGGCCCAGCTTCTCTCCTGCCTTCCAACGCC**ATG**GGGAGCAATCTCAGCCCC
CAACTCTGCCTGATGCCCTTTATCTTGGGCCTCTTGTCTGGAGGTGTGACCACCACTCCATGGTCTTTGGCCCAG
CCCCAGGGATCCTGCTCTCTGGAGGGGGTAGAGATCAAAGGCGGCTCCTTCCGACTTCTCCAAGAGGGCCAGGCA
CTGGAGTACGTGTGTCCTTCTGGCTTCTACCCGTACCCTGTGCAGACACGTACCTGCAGATCTACGGGGTCCTGG
AGCACCCTGAAGACTCAAGACCAAAAGACTGTCAGGAAGGCAGAGTGCAGAGCAATCCACTGTCCAAGACCACAC
GACTTCGAGAACGGGGAATACTGGCCCCGGTCTCCCTACTACAATGTGAGTGATGAGATCTCTTTCCACTGCTAT
GACGGTTACACTCTCCGGGGCTCTGCCAATCGCACCTGCCAAGTGAATGGCCGGTGGAGTGGGCAGACAGCGATC
TGTGACAACGGAGCGGGGTACTGCTCCAACCCGGGCATCCCCATTGGCACAAGGAAGGTGGGCAGCCAGTACCGC
CTTGAAGACAGCGTCACCTACCACTGCAGCCGGGGGCTTACCCTGCGTGGCTCCCAGCGGCGAACGTGTCAGGAA
GGTGGCTCTTGGAGCGGGACGGAGCCTTCCTGCCAAGACTCCTTCATGTACGACACCCCTCAAGAGGTGGCCGAA
GCTTTCCTGTCTTCCCTGACAGAGACCATAGAAGGAGTCGATGCTGAGGATGGGCACGGCCCAGGGGAACAACAG
AAGCGGAAGATCGTCCTGGACCCTTCAGGCTCCATGAACATCTACCTGGTGCTAGATGGATCAGACAGCATTGGG
GCCAGCAACTTCACAGGAGCCAAAAAGTGTCTAGTCAACTTAATTGAGAAGGTGGCAAGTTATGGTGTGAAGCCA
AGATATGGTCTAGTGACATATGCCACATACCCCAAAATTTGGGTCAAAGTGTCTGAAGCAGACAGCAGTAATGCA
GACTGGGTCACGAAGCAGCTCAATGAAATCAATTATGAAGACCACAAGTTGAAGTCAGGGACTAACACCAAGAAG
GCCCTCCAGGCAGTGTACAGCATGATGAGCTGGCCAGATGACGTCCCTCCTGAAGGCTGGAACCGCACCCGCCAT
GTCATCATCCTCATGACTGATGGATTGCACAACATGGGCGGGGACCCAATTACTGTCATTGATGAGATCCGGGAC
TTGCTATACATTGGCAAGGATCGCAAAAACCCAAGGGAGGATTATCTGGATGTCTATGTGTTTGGGGTCGGGCCT
TTGGTGAACCAAGTGAACATCAATGCTTTGGCTTCCAAGAAAGACAATGAGCAACATGTGTTCAAAGTCAAGGAT
ATGGAAAACCTGGAAGATGTTTTCTACCAAATGATCGATGAAAGCCAGTCTCTGAGTCTCTGTGGCATGGTTTGG
GAACACAGGAAGGGTACCGATTACCACAAGCAACCATGGCAGGCCAAGATCTCAGTCATTCGCCCTTCAAAGGGA
CACGAGAGCTGTATGGGGGCTGTGGTGTCTGAGTACTTTGTGCTGACAGCAGCACATTGTTTCACTGTGGATGAC
AAGGAACACTCAATCAAGGTCAGCGTAGGAGGGGAGAAGCGGGACCTGGAGATAGAAGTAGTCCTATTTCACCCC
AACTACAACATTAATGGGAAAAAAGAAGCAGGAATTCCTGAATTTTATGACTATGACGTTGCCCTGATCAAGCTC
AAGAATAAGCTGAAATATGGCCAGACTATCAGGCCCATTTGTCTCCCCTGCACCGAGGGAACAACTCGAGCTTTG
AGGCTTCCTCCAACTACCACTTGCCAGCAACAAAAGGAAGAGCTGCTCCCTGCACAGGATATCAAAGCTCTGTTT
GTGTCTGAGGAGGAGAAAAAGCTGACTCGGAAGGAGGTCTACATCAAGAATGGGGATAAGAAAGGCAGCTGTGAG
AGAGATGCTCAATATGCCCCAGGCTATGACAAAGTCAAGGACATCTCAGAGGTGGTCACCCCTCGGTTCCTTTGT
ACTGGAGGAGTGAGTCCCTATGCTGACCCCAATACTTGCAGAGGTGATTCTGGCGGCCCCTTGATAGTTCACAAG
AGAAGTCGTTTCATTCAAGTTGGTGTAATCAGCTGGGGAGTAGTGGATGTCTGCAAAAACCAGAAGCGGCAAAAG
CAGGTACCTGCTCACGCCCGAGACTTTCACATCAACCTCTTTCAAGTGCTGCCCTGGCTGAAGGAGAAACTCCAA
GATGAGGATTTGGGTTTTCTA**TAA**GGGGTTTCCTGCTGGACAGGGGCGTGGGATTGAATTAAAACAGCTGCGACA
AC

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FIGURE 1789

GGCTCTCTACCTCTCGCCGCCCCTAGGGAGGACACCATGGGCCCACTGATGGTTCTTTTTTGCCTGCTGTTCCTG
TACCCAGGTCTGGCAGACTCGGCTCCCTCCTGCCCTCAGAACGTGAATATCTCGGGTGGCACCTTCACCCTCAGC
CATGGCTGGGCTCCTGGGAGCCTTCTCACCTACTCCTGCCCCCAGGGCCTGTACCCATCCCCAGCATCACGGCTG
TGCAAGAGCAGCGGACAGTGGCAGACCCCAGGAGCCACCCGGTCTCTGTCTAAGGCGGTCTGCAAACCTGTGCGC
TGTCCAGCCCCTGTCTCCTTTGAGAATGGCATTTATACCCCACGGCTGGGGTCCTATCCCGTGGGTGGCAATGTG
AGCTTCGAGTGTGAGGATGGCTTCATATTGCGGGGCTCGCCTGTGCGTCAGTGTCGCCCCAACGGCATGTGGGAT
GGAGAAACAGCTGTGTGTGATAATGGGGCTGGCCACTGCCCCAACCCAGGCATTTCACTGGGCGCAGTGCGGACA
GGCTTCCGCTTTGGTCATGGGGACAAGGTCCGCTATCGCTGCTCCTCGAATCTTGTGCTCACGGGGTCTTCGGAG
CGGGAGTGCCAGGGCAACGGGGTCTGGAGTGGAACGGAGCCCATCTGCCGCCAACCCTACTCTTATGACTTCCCT
GAGGACGTGGCCCCTGCCCTGGGCACTTCCTTCTCCCACATGCTTGGGGCCACCAATCCCACCCAGAAGACAAAG
GAAAGCCTGGGCCGTAAAATCCAAATCCAGCGCTCTGGTCATCTGAACCTCTACCTGCTCCTGGACTGTTCGCAG
AGTGTGTCGGAAAATGACTTTCTCATCTTCAAGGAGAGCGCCTCCCTCATGGTGGACAGGATCTTCAGCTTTGAG
ATCAATGTGAGCGTTGCCATTATCACCTTTGCCTCAGAGCCCAAAGTCCTCATGTCTGTCCTGAACGACAACTCC
CGGGATATGACTGAGGTGATCAGCAGCCTGGAAAATGCCAACTATAAAGATCATGAAAATGGAACTGGGACTAAC
ACCTATGCAGCCTTAAACAGTGTCTATCTCATGATGAACAACCAAATGCGACTCCTCGGCATGGAAACGATGGCC
TGGCAGGAAATCCGACATGCCATCATCCTTCTGACAGATGGAAAGTCCAATATGGGTGGCTCTCCCAAGACAGCT
GTTGACCATATCAGAGAGATCCTGAACATCAACCAGAAGAGGAATGACTATCTGGACATCTATGCCATCGGGGTG
GGCAAGCTGGATGTGGACTGGAGAGAACTGAATGAGCTAGGGTCCAAGAAGGATGGTGAGAGGCATGCCTTCATT
CTGCAGGACACAAAGGCTCTGCACCAGGTCTTTGAACATATGCTGGATGTCTCCAAGCTCACAGACACCATCTGC
GGGGTGGGGAACATGTCAGCAAACGCCTCTGACCAGGAGAGGACACCCTGGCATGTCACTATTAAGCCCAAGAGC
CAAGAGACCTGCCGGGGGGCCCTCATCTCCGACCAATGGGTCCTGACAGCAGCTCATTGCTTCCGCGATGGCAAC
GACCACTCCCTGTGGAGGGTCAATGTGGGAGACCCCAAATCCCAGTGGGGCAAAGAATTCCTTATTGAGAAGGCG
GTGATCTCCCCAGGGTTTGATGTCTTTGCCAAAAAGAACCAGGGAATCCTGGAGTTCTATGGTGATGACATAGCT
CTGCTGAAGCTGGCCCAGAAAGTAAAGATGTCCACCCATGCCAGGCCCATCTGCCTTCCCTGCACGATGGAGGCC
AATCTGGCTCTGCGGAGACCTCAAGGCAGCACCTGTAGGGACCATGAGAATGAACTGCTGAACAAACAGAGTGTT
CCTGCTCATTTTGTCGCCTTGAATGGGAGCAAACTGAACATTAACCTTAAGATGGGAGTGGAGTGGACAAGCTGT
GCCGAGGTTGTCTCCCAAGAAAAAACCATGTTCCCCAACTTGACAGATGTCAGGGAGGTGGTGACAGACCAGTTC
CTATGCAGTGGGACCCAGGAGGATGAGAGTCCCTGCAAGGGAGAATCTGGGGGAGCAGTTTTCCTTGAGCGGAGA
TTCAGGTTTTTTCAGGTGGGTCTGGTGAGCTGGGGTCTTTACAACCCCTGCCTTGGCTCTGCTGACAAAAACTCC
CGCAAAAGGGCCCCTCGTAGCAAGGTCCCGCCGCCACGAGACTTTCACATCAATCTCTTCCGCATGCAGCCCTGG
CTGAGGCAGCACCTGGGGGATGTCCTGAATTTTTTACCCCTCTAGCCATGGCCACTGAGCCCTCTGCTGCCCTGC
CAGAATCTGCCGCCCCTCCATCTTCTACCTCTGAATGGCCACCCTTAGACCCTGTGATCCATCCTCTCTCCTAGC
TGAGTAAATCCGGGTCTCTAGGATGCCAGAGGCAGCGCACACAAGCTGGGAAATCCTCAGGGCTCCTACCAGCAG
GACTGCCTCGCTGCCCCACCTCCCGCTCCTTGGCCTGTCCCCAGATTCCTTCCCTGGTTGACTTGACTCATGCTT
GTTTCACTTTCACATGGAATTTCCCAGTTATGAAATTAATAAAAATCAATGGTTTCCAC

FIGURE 1790A

GCAAGCGGCG**ATG**GCGGCGGCGGCGGGAGCTGCAGCGGCGGCGGCCGCCGAGGGGGAGGCCCCCGCTGAGATGGG
GGCGCTGCTGCTGGAGAAGGAAACCAGAGGAGCCACCGAGAGAGTTCATGGCTCTTTGGGGGACACCCCTCGTAG
TGAAGAAACCCTGCCCAAGGCCACCCCCGACTCCCTGGAGCCTGCTGGCCCCTCATCTCCAGCCTCTGTCACTGT
CACTGTTGGTGATGAGGGGGCTGACACCCCTGTAGGGGCTACACCACTCATTGGGGATGAATCTGAGAATCTTGA
GGGAGATGGGGACCTCCGTGGGGGCCGGATCCTGCTGGGCCATGCCACAAAGTCATTCCCCTCTTCCCCCAGCAA
GGGGGGTTCCTGTCCTAGCCGGGCCAAGATGTCAATGACAGGGGCGGGAAAATCACCTCCATCTGTCCAGAGTTT
GGCTATGAGGCTACTGAGTATGCCAGGAGCCCAGGGAGCTGCAGCAGCAGGGTCTGAACCCCCTCCAGCCACCAC
GAGCCCAGAGGGACAGCCCAAGGTCCACCGAGCCCGCAAAACCATGTCCAAACCAGGAAATGGACAGCCCCCGGT
CCCTGAGAAGCGGCCCCCTGAAATACAGCATTTCCGCATGAGTGATGATGTCCACTCACTGGGAAAGGTGACCTC
AGATCTGGCCAAAAGGAGGAAGCTGAACTCAGGAGGTGGCCTGTCGGAGGAGTTAGGTTCTGCCCGGCGTTCAGG
AGAAGTGACCCTGACGAAAGGGGACCCCGGGTCCCTGGAGGAGTGGGAGACGGTGGTGGGTGATGACTTCAGTCT
CTACTATGATTCCTACTCTGTGGATGAGCGCGTGGACTCCGACAGCAAGTCTGAAGTTGAAGCTCTAACTGAACA
ACTAAGTGAAGAGGAGGAGGAGGAAGAGGAGGAAGAAGAAGAAGAGGAAGAGGAGGAGGAAGAGGAAGAAGAAGA
GGAAGATGAGGAGTCAGGGAATCAGTCAGATAGGAGTGGTTCCAGTGGCCGGCGCAAGGCCAAGAAGAAATGGCG
AAAAGACAGCCCATGGGTGAAGCCGTCTCGGAAACGGCGCAAGCGGGAGCCTCCGCGGGCCAAGGAGCCACGAGG
AGTGAATGGTGTGGGCTCCTCAGGCCCCAGTGAGTACATGGAGGTCCCTCTGGGGTCCCTGGAGCTGCCCAGCGA
GGGGACCCTCTCCCCCAACCACGCTGGGGTGTCCAATGACACATCTTCGCTGGAGACAGAGCGAGGGTTTGAGGA
GTTGCCCCTGTGCAGCTGCCGCATGGAGGCACCCAAGATTGACCGCATCAGCGAGAGGGCGGGGCACAAGTGCAT
GGCCACTGAGAGTGTGGACGGAGAGCTGTCAGGCTGCAATGCCGCCATCCTCAAGCGGGAGACCATGAGGCCATC
CAGCCGTGTGGCCCTGATGGTGCTCTGTGAGACCCACCGCGCCCGCATGGTCAAACACCACTGCTGCCCGGGCTG
CGGCTACTTCTGCACGGCGGGCACCTTCCTGGAGTGCCACCCTGACTTCCGTGTGGCCCACCGCTTCCACAAGGC
CTGTGTGTCTCAGCTGAATGGGATGGTCTTCTGTCCCCACTGTGGGGAGGATGCTTCTGAAGCTCAAGAGGTGAC
CATCCCCCGGGGTGACGGGGTGACCCCACCGGCCGGCACTGCAGCTCCTGCACCCCCACCCCTGTCCCAGGATGT
CCCCGGGAGAGCAGACACTTCTCAGCCCAGTGCCCGGATGCGAGGGCATGGGGAACCCCGGCGCCCGCCCTGCGA
TCCCCTGGCTGACACCATTGACAGCTCAGGGCCCTCCCTGACCCTGCCCAATGGGGGCTGCCTTTCAGCCGTGGG
GCTGCCACTGGGGCCAGGCCGGGAGGCCCTGGAAAAGGCCCTGGTCATCCAGGAGTCAGAGAGGCGGAAGAAGCT
CCGTTTCCACCCTCGGCAGTTGTACCTGTCCGTGAAGCAGGGCGAGCTGCAGAAGGTGATCCTGATGCTGTTGGA
CAACCTGGACCCCAACTTCCAGAGCGACCAGCAGAGCAAGCGCACGCCCCTGCATGCAGCCGCCCAGAAGGGCTC
CGTGGAGATCTGCCATGTGCTGCTGCAGGCTGGAGCCAACATAAATGCAGTGGACAAACAGCAGCGGACGCCACT
GATGGAGGCCGTGGTGAACAACCACCTGGAGGTAGCCCGTTACATGGTGCAGCGTGGTGGCTGTGTCTATAGCAA
GGAGGAGGACGGTTCCACCTGCCTCCACCACGCAGCCAAAATCGGGAACTTGGAGATGGTCAGCCTGCTGCTGAG
CACAGGACAGGTGGACGTCAATGCCCAGGACAGTGGGGGGTGGACGCCCATCATCTGGGCTGCAGAGCACAAGCA
CATCGAGGTGATCCGCATGCTACTGACGCGGGGCGCCGACGTCACCCTCACTGACAACGAGGAGAACATCTGCCT
GCACTGGGCCTCCTTCACGGGCAGCGCCGCCATCGCCGAAGTCCTTCTGAATGCGCGCTGTGACCTCCATGCTGT
CAACTACCATGGGGACACCCCCCTGCACATCGCAGCTCGGGAGAGCTACCATGACTGCGTGCTGTTATTCCTGTC
ACGTGGGGCCAACCCTGAGCTGCGGAACAAAGAGGGGGACACAGCATGGGACCTGACTCCCGAGCGCTCCGACGT
GTGGTTTGCGCTTCAACTCAACCGCAAGCTCCGACTTGGGGTGGGAAATCGGGCCATCCGCACAGAGAAGATCAT
CTGCCGGGACGTGGCTCGGGGCTATGAGAACGTGCCCATTCCCTGTGTCAACGGTGTGGATGGGGAGCCCTGCCC
TGAGGATTACAAGTACATCTCAGAGAACTGCGAGACGTCCACCATGAACATCGATCGCAACATCACCCACCTGCA
GCACTGCACGTGTGTGGACGACTGCTCTAGCTCCAACTGCCTGTGCGGCCAGCTCAGCATCCGGTGCTGGTATGA
CAAGGATGGGCGATTGCTCCAGGAATTTAACAAGATTGAGCCTCCGCTGATTTTCGAGTGTAACCAGGCGTGCTC
ATGCTGGAGAAACTGCAAGAACCGGGTCGTACAGAGTGGCATCAAGGTGCGGCTACAGCTCTACCGAACAGCCAA
GATGGGCTGGGGGGTCCGCGCCCTGCAGACCATCCCACAGGGGACCTTCATCTGCGAGTATGTCGGGGAGCTGAT
CTCTGATGCTGAGGCTGATGTGAGAGAGGATGATTCTTACCTCTTCGACTTAGACAACAAGGATGGAGAGGTGTA
CTGCATAGATGCCCGTTACTATGGCAACATCAGCCGCTTCATCAACCACCTGTGTGACCCCAACATCATTCCCGT
CCGGGTCTTCATGCTGCACCAAGACCTGCGATTTCCACGCATCGCCTTCTTCAGTTCCCGAGACATCCGGACTGG
GGAGGAGCTAGGGTTTGACTATGGCGACCGCTTCTGGGACATCAAAAGCAAATATTTCACCTGCCAATGTGGCTC
TGAGAAGTGCAAGCACTCAGCCGAAGCCATTGCCCTGGAGCAGAGCCGTCTGGCCCGCCTGGACCCACACCCTGA

FIGURE 1790B

GCTGCTGCCCGAGCTCGGCTCCCTGCCCCCTGTCAACACA**TGA**GAACGGACCACACCCTCTCTCCCCAGCATGGA
TGGCCACAGCTCAGCCGCCTCCTCTGCCACCAGCTGCTCGCAGCCCATGCCTGGGGGTGCTGCCATCTTCTCTCC
CCACCACCCTTTCACACATTCCTGACCAGAGATCCCAGCCAGGCCCTGGAGGTCTGACAGCCCCTCCCTCCCAGA
GCTGGTTCCTCCCTGGGAGGGCAACTTCAGGGCTGGCCACCCCCCGTGTTCCCCATCCTCAGTTGAAGTTTGATG
AATTGAAGTCGGGCCTCTATGCCAACTGGTTCCTTTTGTTCTCAATAAATGTTGGGTTTGGTAATAAA

FIGURE 1791

CGGGAAGCGCGGCGGGGCCTCCAGACCGGGGCGGGCTTAAGGGTGACATCTGCGCTTTAAAGGGTCCGGGTCAGC
TGACTCCCGACTCTGTGGAGTCTAGCTGCCAGGGTCGCGGCAGCTGCGGGGAGAG**ATG**ACTGGGGAGCGACCCAG
CACGGCGCTCCCGGACAGACGCTGGGGGCCGCGGATTCTGGGCTTCTGGGGAGGCTGTAGGGTTTGGGTGTTTGC
CGCGATCTTCCTGCTGCTGTCTCTGGCAGCCTCCTGGTCCAAGGCTGAGAACGACTTCGGTCTGGTGCAGCCGCT
GGTGACCATGGAGCAACTGCTGTGGGTGAGCGGGAGACAGATCGGCTCAGTGGACACCTTCCGCATCCCGCTCAT
CACAGCCACTCCGCGGGGCACTCTTCTCGCCTTTGCTGAGGCGAGGAAAATGTCCTCATCCGATGAGGGGGCCAA
GTTCATCGCCCTGCGGAGGTCCATGGACCAGGGCAGCACATGGTCTCCTACAGCGTTCATTGTCAATGATGGGGA
TGTCCCCGATGGGCTGAACCTTGGGGCAGTAGTGAGCGATGTTGAGACAGGAGTAGTATTTCTTTTCTACTCCCT
TTGTGCTCACAAGGCCGGCTGCCAGGTGGCCTCTACCATGTTGGTATGGAGCAAGGATGATGGTGTTTCCTGGAG
CACACCCCGGAATCTCTCCCTGGATATTGGCACTGAAGTGTTTGCCCCTGGACCGGGCTCTGGTATTCAGAAACA
GCGGGAGCCACGGAAGGGCCGCCTCATCGTGTGTGGCCATGGGACGCTGGAGCGGGACGGAGTCTTCTGTCTCCT
CAGCGATGATCATGGTGCCTCCTGGCGCTACGGAAGTGGGGTCAGCGGCATCCCCTACGGTCAGCCCAAGCAGGA
AAATGATTTCAATCCTGATGAATGCCAGCCCTATGAGCTCCCAGATGGCTCAGTCGTCATCAATGCCCGAAACCA
GAACAACTACCACTGCCACTGCCGAATTGTCCTCCGCAGCTATGATGCCTGTGATACACTAAGGCCCCGTGATGT
GACCTTCGACCCTGAGCTCGTGGACCCTGTGGTAGCTGCAGGAGCTGTAGTCACCAGCTCCGGCATTGTCTTCTT
CTCCAACCCAGCACATCCAGAGTTCCGAGTGAACCTGACCCTGCGATGGAGCTTCAGCAATGGTACCTCATGGCG
GAAAGAGACAGTCCAGCTATGGCCAGGCCCCAGTGGCTATTCATCCCTGGCAACCCTGGAGGGCAGCATGGATGG
AGAGGAGCAGGCCCCCCAGCTCTACGTCCTGTATGAGAAAGGCCGGAACCACTACACAGAGAGCATCTCCGTGGC
CAAAATCAGTGTCTATGGGACACTC**TGA**GCTGTGCCACTGCCACAGGGGTATTCTGCCTTCAGGACTCTGCCTTC
AGGAACACGGGTCTGTAGAGGGTCTGCTGGAGACGCCTGAAAGACAGTTCCATCTTCCTTTAGACTCCAGCCTTG
GCAAAATCACCTTCCCTTTACCAGGGAAATCACTTCCTTTAGGACTGAAAGCTAGGCGTCCTCTCCCACAAAAAA
GTCCTGCCCTCATCTGAGAATACTGTCTTTCCATATGGCTAAGTGTGGCCCCACCACCCTCTCTGCCCTCCCGGG
ACATTGATTGGTCCTGTCTTGGGCAGGTCTAGTGAGCTGTAGAATTGAATCAATGTGAACTCAGGGAACTGGGGA
AGGCTGAGCCTCCTCTTTGGTGTTGCGGTAAGATAACCGACAGGGCTGGTGAAAGTCCCCAGATGGCAGGATATT
TGGTTTCAGAGTAAGGACTAGGTGCACCACCATGACTGACTATCAATCAAAATGTTTGTAACTTAAAATTTTTAA
TGAAGGATAATGAATATTT

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FIGURE 1792

GGTCCCAAGGCTTTCCAGAGCGAACCTGTGCGGCTGCAGGCACCGGCGTGTTGAGTTTCCGGCGTTCCGAAGGAC
TGAGCTCTTGTCGCGGATCCCGTCCGCCGTTTCCAGCCCCCAGTCTCAGAGCGGAGCCCACAGAGCAGGGCACCG
GC**ATG**GCCAAAGCCGCGGCGATCGGCATCGACCTGGGCACCACCTACTCCTGCGTGGGGGTGTTCCAACACGGCA
AGGTGGAGATCATCGCCAACGACCAGGGCAACCGCACCACCCCCAGCTACGTGGCCTTCACGGACACCGAGCGGC
TCATCGGGGATGCGGCCAAGAACCAGGTGGCGCTGAACCCGCAGAACACCGTGTTTGACGCGAAGCGGCTGATCG
GCCGCAAGTTCGGCGACCCGGTGGTGCAGTCGGACATGAAGCACTGGCCTTTCCAGGTGATCAACGACGGAGACA
AGCCCAAGGTGCAGGTGAGCTACAAGGGGGAGACCAAGGCATTCTACCCCGAGGAGATCTCGTCCATGGTGCTGA
CCAAGATGAAGGAGATCGCCGAGGCGTACCTGGGCTACCCGGTGACCAACGCGGTGATCACCGTGCCGGCCTACT
TCAACGACTCGCAGCGCCAGGCCACCAAGGATGCGGGTGTGATCGCGGGGCTCAACGTGCTGCGGATCATCAACG
AGCCCACGGCCGCCGCCATCGCCTACGGCCTGGACAGAACGGGCAAGGGGGAGCGCAACGTGCTCATCTTTGACC
TGGGCGGGGGCACCTTCGACGTGTCCATCCTGACGATCGACGACGGCATCTTCGAGGTGAAGGCCACGGCCGGGG
ACACCCACCTGGGTGGGGAGGACTTTGACAACAGGCTGGTGAACCACTTCGTGGAGGAGTTCAAGAGAAAACACA
AGAAGGACATCAGCCAGAACAAGCGAGCCGTGAGGCGGCTGCGCACCGCCTGCGAGAGGGCCAAGAGGACCCTGT
CGTCCAGCACCCAGGCCAGCCTGGAGATCGACTCCCTGTTTGAGGGCATCGACTTCTACACGTCCATCACCAGGG
CGAGGTTCGAGGAGCTGTGCTCCGACCTGTTCCGAAGCACCCTGGAGCCCGTGGAGAAGGCTCTGCGCGACGCCA
AGCTGGACAAGGCCCAGATTCACGACCTGGTCCTGGTCGGGGGCTCCACCCGCATCCCCAAGGTGCAGAAGCTGC
TGCAGGACTTCTTCAACGGGCGCGACCTGAACAAGAGCATCAACCCCGACGAGGCTGTGGCCTACGGGGCGGCGG
TGCAGGCGGCCATCCTGATGGGGGACAAGTCCGAGAACGTGCAGGACCTGCTGCTGCTGGACGTGGCTCCCCTGT
CGCTGGGGCTGGAGACGGCCGGAGGCGTGATGACTGCCCTGATCAAGCGCAACTCCACCATCCCCACCAAGCAGA
CGCAGATCTTCACCACCTACTCCGACAACCAACCCGGGGTGCTGATCCAGGTGTACGAGGGCGAGAGGGCCATGA
CGAAAGACAACAATCTGTTGGGGCGCTTCGAGCTGAGCGGCATCCCTCCGGCCCCCAGGGGCGTGCCCCAGATCG
AGGTGACCTTCGACATCGATGCCAACGGCATCCTGAACGTCACGGCCACGGACAAGAGCACCGGCAAGGCCAGCA
AGATCACCATCACCAACGACAAGGGCCGCCTGAGCAAGGAGGAGATCGAGCGCATGGTGCAGGAGGCGGAGAAGT
ACAAAGCGGAGGACGAGGTGCAGCGCGAGAGGGTGTCAGCCAAGAACGCCCTGGAGTCCTACGCCTTCAACATGA
AGAGCGCCGTGGAGGATGAGGGGCTCAAGGGCAAGATCAGCGAGGCGGACAAGAAGAAGGTTCTGGACAAGTGTC
AAGAGGTCATCTCGTGGCTGGACGCCAACACCTTGGCCGAGAAGGACGAGTTTGAGCACAAGAGGAAGGAGCTGG
AGCAGGTGTGTAACCCCATCATCAGCGGACTGTACCAGGGTGCCGGTGGTCCCGGGCCTGGGGGCTTCGGGGCTC
AGGGTCCCAAGGGAGGGTCTGGGTCAGGCCCTACCATTGAGGAGGTGGAT**TAG**GGGCCTTTGTTCTTTAGTATGT
TTGTCTTTGAGGTGGACTGTTGGGACTCAAGGACTTTGCTGCTGTTTTCCTATGTCATTTCTGCTTCAGCTCTTT
GCTGCTTCACTTCTTTGTAAAGTTAAGTTGTAACCTGATGGTAATTAGCTGGCTTCATTATTTTTGTAGTACAAC
CGATATGTTCATTAGAATTCTTTGCATTTAATGTTGATACTGTAAGGGTGTTTCGTTCCCTTTAAATGAATCAAC
ACTGCCACCTTCTGTACGAGTTTGTTTTTTTTTTTTTTTTTTTTTTTTTTGCTTGGCGAAAACACTACAAAGGC
TGGGAATGTATGTTTTTATAATTTGTTTATTTAAATATGAAAAATAAAATGTTAAACTTT

FIGURE 1793

ACTGCGCAGGCCCAGCAAGCCCCCACAATTAAAAGCCCAGCGCCGACCCTTCCTGTCAATTAGGCGCTGAAGCGC
AGGCGGTCAGCATCGCCATGGAGACCAACACCCTTCCCACCGCCACTCCCCCTTCCTCTCAGGGTCCCTGTCCCC
TCCAGTGAATCCCAGAAGACTCTGGAGAGTTCTGAGCAGGGGGCGGCACTCTGGCCTCTGATTGGTCCAAGGAAG
GCTGGGGGGGCAGGACGGGAGGCGAAACCCCTGGAATATTCCCGACCTGGCAGCCTCATCGAGCTCGGTGATTGGC
TCAGAAGGGAAAAGGCGGGTCTCCGTGACGACTTATAAAAGCCCAGGGGCAAGCGGTCCGGATAACGGCTAGCCT
GAGGAGCTGCTGCGACAGTCCACTACCTTTTTCGAGAGTGACTCCCGTTGTCCCAAGGCTTCCCAGAGCGAACCT
GTGCGGCTGCAGGCACCGGCGCGTCGAGTTTCCGGCGTCCGGAAGGACCGAGCTCTTCTCGCGGATCCAGTGTTC
CGTTTCCAGCCCCCAATCTCAGAGCCGAGCCGACAGAGAGCAGGGAACCGGC**ATG**GCCAAAGCCGCGGCGATCGG
CATCGACCTGGGCACCACCTACTCCTGCGTGGGGGTGTTCCAACACGGCAAGGTGGAGATCATCGCCAACGACCA
GGGCAACCGCACCACCCCCAGCTACGTGGCCTTCACGGACACCGAGCGGCTCATCGGGGATGCGGCCAAGAACCA
GGTGGCGCTGAACCCGCAGAACACCGTGTTTGACGCGAAGCGGCTGATCGGCCGCAAGTTCGGCGACCCGGTGGT
GCAGTCGGACATGAAGCACTGGCCTTTCCAGGTGATCAACGACGGAGACAAGCCCAAGGTGCAGGTGAGCTACAA
GGGGGACACCAAGGCATTCTACCCCGAGGAGATCTCGTCCATGGTGCTGACCAAGATGAAGGAGATCGCCGAGGC
GTACCTGGGCTACCCGGTGACCAACGCGGTGATCACCGTGCCGGCCTACTTCAACGACTCGCAGCGCCAGGCCAC
CAAGGATGCGGGTGTGATCGCGGGGCTCAACGTGCTGCGGATCATCAACGAGCCCACGGCCGCCGCCATCGCCTA
CGGCCTGGACAGAACGGGCAAGGGGGAGCGCAACGTGCTCATCTTTGACCTGGGCGGGGGCACCTTCGACGTGTC
CATCCTGACGATCGACGACGGCATCTTCGAGGTGAAGGCCACGGCCGGGGACACCCACCTGGGTGGGGAGGACTT
TGACAACAGGCTGGTGAACCACTTCGTGGAGGAGTTCAAGAGAAAACACAAGAAGGACATCAGCCAGAACAAGCG
AGCCGTGAGGCGGCTGCGCACCGCCTGCGAGAGGGCCAAGAGGACCCTGTCGTCCAGCACCCAGGCCAGCCTGGA
GATCGACTCCCTGTTTGAGGGCATCGACTTCTACACGTCCATCACCAGGGCGAGGTTCGAGGAGCTGTGCTCCGA
CCTGTTCCGAAGCACCCTGGAGCCCGTGGAGAAGGCTCTGCGCGACGCCAAGCTGGACAAGGCCCAGATTCACGA
CCTGGTCCTGGTCGGGGGCTCCACCCGCATCCCCAAGGTGCAGAAGCTGCTGCAGGACTTCTTCAACGGGCGCGA
CCTGAACAAGAGCATCAACCCCGACGAGGCTGTGGCCTACGGGGCGGCGGTGCAGGCGGCCATCCTGATGGGGGA
CAAGTCCGAGAACGTGCAGGACCTGCTGCTGCTGGACGTGGCTCCCCTGTCGCTGGGGCTGGAGACGGCCGGAGG
CGTGATGACTGCCCTGATCAAGCGCAACTCCACCATCCCCACCAAGCAGACGCAGATCTTCACCACCTACTCCGA
CAACCAACCCGGGGTGCTGATCCAGGTGTACGAGGGCGAGAGGGCCATGACGAAAGACAACAATCTGTTGGGGCG
CTTCGAGCTGAGCGGCATCCCTCCGGCCCCCAGGGGCGTGCCCCAGATCGAGGTGACCTTCGACATCGATGCCAA
CGGCATCCTGAACGTCACGGCCACGGACAAGAGCACCGGCAAGGCCAACAAGATCACCATCACCAACGACAAGGG
CCGCCTGAGCAAGGAGGAGATCGAGCGCATGGTGCAGGAGGCGGAGAAGTACAAAGCGGAGGACGAGGTGCAGCG
CGAGAGGGTGTCAGCCAAGAACGCCCTGGAGTCCTACGCCTTCAACATGAAGAGCGCCGTGGAGGATGAGGGGCT
CAAGGGCAAGATCAGCGAGGCCGACAAGAAGAAGGTGCTGGACAAGTGTCAAGAGGTCATCTCGTGGCTGGACGC
CAACACCTTGGCCGAGAAGGACGAGTTTGAGCACAAGAGGAAGGAGCTGGAGCAGGTGTGTAACCCCATCATCAG
CGGACTGTACCAGGGTGCCGGTGGTCCCGGGCCTGGGGGCTTCGGGGCTCAGGGTCCCAAGGGAGGGTCTGGGTC
AGGCCCCACCATTGAGGAGGTAGAT**TAG**GGGCCTTTCCAAGATTGCTGTTTTTGTTTTGGAGCTTCAAGACTTTG
CATTTCCTAGTATTTCTGTTTGTCAGTTCTCAATTTCCTGTGTTTGCAATGTTGAAATTTTTTGGTGAAGTACTG
AACTTGCTTTTTTTCCGGTTTCTACATGCAGAGATGAATTTATACTGCCATCTTACGACTATTTCTTCTTTTTAA
TACACTTAACTCAGGCCATTTTTTAAGTTGGTTACTTCAAAGTAAATAAACTTTAAAATTCAAGTGA

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FIGURE 1794A

GTCACAAAGGGGGGAACACGTGGGCGCCGGCTGCCGGGGCGGCGATCTTAGGGAACTAGGGTCACCTGGAGAGCC
GCCCACCGTCTCTGCCCGCTCGACTCCTCCGCCCGGGCCGCTCGGCCGGTCCAGCCGCGGCCGGCGCCTGGCTGT
GAGGTGGATTCCCGGCCCAGTCTGACCATCTCCCTCCAGTTTTTCCACTTCGTTCGGACCTTCTCATAACT**ATG**T
CCACCCTCTACGTCTCCCCTCACCCAGATGCCTTCCCCAGCCTCCGAGCCCTCATAGCCGCTCGCTATGGGGAGG
CTGGGGAGGGTCCCGGATGGGGAGGAGCCCACCCCCGCATCTGTCTCCAGCCACCCCCGACTAGCAGGACTCCCT
TTCCCCCACCCCGCCTGCCGGCCCTGGAGCAGGGGCCCGGTGGGCTCTGGGTGTGGGGGGCCACGGCTGTGGCCC
AGCTGCTGTGGCCAGCAGGCCTGGGGGGCCCAGGGGGCAGCCGGGCGGCTGTCCTTGTCCAACAGTGGGTCAGTT
ACGCCGACACGGAGTTAATACCAGCTGCCTGTGGAGCAACGCTGCCGGCCCTGGGACTCCGAAGCTCGGCCCAGG
ACCCCCAGGCTGTGCTGGGGGCCCTGGGCAGGGCCCTGAGCCCCTTGGAGGAGTGGCTTCGGCTGCACACCTACT
TGGCCGGGGAGGCCCCCACTCTGGCTGACCTGGCGGCTGTCACAGCCTTGCTGCTGCCTTTCCGATACGTCCTAG
ACCCACCTGCCCGCCGGATCTGGAATAATGTGACTCGCTGGTTTGTCACGTGTGTCCGGCAGCCAGAATTCCGAG
CCGTGCTAGGAGAAGTGGTTCTATACTCAGGAGCCAGGCCTCTCTCTCATCAGCCAGGCCCCGAGGCTCCTGCCC
TCCCAAAGACAGCTGCTCAGCTCAAGAAAGAGGCAAAGAAACGGGAGAAGCTAGAGAAATTCCAACAGAAGCAGA
AGATCCAACAGCAGCAGCCACCTCCAGGGGAGAAGAAACCAAAACCAGAGAAGAGGGAGAAACGGGATCCTGGGG
TCATTACCTATGACCTCCCAACCCCACCCGGGGAAAAGAAAGATGTCAGTGGCCCCATGCCCGACTCCTACAGCC
CTCGGTATGTGGAGGCTGCCTGGTACCCTTGGTGGGAGCAGCAGGGCTTCTTCAAGCCAGAGTATGGGCGTCCTA
ATGTGTCAGCAGCAAATCCCCGAGGTGTCTTCATGATGTGCATCCCACCCCCCAATGTGACAGGCTCCCTGCACC
TGGGCCATGCACTCACCAACGCCATCCAGGACTCCCTGACTCGATGGCACCGCATGCGTGGGGAGACCACCCTGT
GGAACCCTGGCTGTGACCATGCAGGTATTGCCACCCAGGTGGTGGTGGAGAAGAAGCTATGGCGTGAGCAGGGAC
TGAGCCGGCACCAGCTGGGCCGCGAGGCCTTTCTACAGGAAGTCTGGAAGTGGAAGGAGGAGAAAGGTGACCGGA
TTTACCACCAGTTGAAGAAGCTTGGCAGCTCCTTGGACTGGGATCGAGCCTGTTTCACCATGGACCCTAAACTCT
CAGCAGCTGTGACAGAGGCCTTTGTCCGGCTTCACGAGGAAGGCATCATCTATCGCAGTACCCGCCTTGTTAACT
GGTCCTGCACCCTCAACTCCGCCATCTCTGACATTGAGGTGGATAAGAAGGAGCTGACAGGTCGCACCCTGCTCT
CCGTGCCTGGCTACAAGGAGAAGGTGGAGTTCGGGGTCCTCGTGTCCTTTGCCTATAAGGTCCAAGGCTCAGATA
GCGACGAGGAGGTGGTGGTGGCAACAACTCGGATCGAGACAATGCTGGGAGATGTGGCTGTAGCTGTGCACCCCA
AAGATACCAGATACCAGCACCTGAAGGGGAAGAACGTGATCCACCCATTCCTGTCTCGGAGCCTTCCCATTGTCT
TCGATGAATTTGTGGACATGGACTTTGGCACAGGTGCTGTGAAGATCACCCCCGCACATGACCAAAATGACTATG
AAGTTGGGCAGCGGCACGGGCTGGAGGCCATCAGCATCATGGACTCCCGGGGGGCCCTCATCAATGTGCCTCCGC
CTTTCCTGGGCCTGCCCAGGTTTGAGGCCAGGAAAGCGGTGCTGGTGGCGCTGAAGGAGCGGGGACTGTTCCGTG
GCATTGAGGACAACCCCATGGTGGTGCCACTTTGCAACCGGTCGAAGGACGTGGTAGAGCCTCTGCTGCGGCCGC
AGTGGTACGTTCGCTGCGGGGAGATGGCCCAGGCTGCCAGCGCCGCTGTGACTCGGGGTGACCTCCGCATCCTGC
CTGAGGCCCATCAGCGCACATGGCATGCCTGGATGGACAACATCCGGGAGTGGTGCATTTCCAGGCAGCTGTGGT
GGGGCCATCGCATCCCAGCCTACTTTGTCACTGTCAGTGACCCAGCGGTGCCCCCTGGGGAGGACCCTGATGGGC
GGTACTGGGTGAGTGGACGCAATGAGGCGGAGGCCCGGGAGAAGGCAGCCAAGGAGTTCGGAGTGTCCCCTGACA
AGATCAGTCTCCAGCAAGATGAGGATGTATTGGATACCTGGTTCTCCTCTGGCCTCTTCCCCTTATCCATTTTGG
GCTGGCCCAACCAGTCAGAAGACCTGAGTGTGTTCTACCCCGGGACACTGCTGGAGACCGGTCATGACATCCTCT
TCTTCTGGGTGGCCCGGATGGTCATGCTGGGCCTGAAGCTCACGGGCAGGCTGCCCTTTAGAGAGGTCTACCTCC
ATGCCATCGTGCGAGATGCTCACGGCCGGAAGATGAGCAAGTCTCTAGGCAATGTCATCGATCCCCTGGATGTCA
TCTATGGAATCTCCCTGCAGGGCCTCCACAACCAGCTGCTGAACAGCAACCTGGATCCCAGCGAGGTGGAGAAGG
CCAAAGAAGGGCAGAAAGCTGACTTCCCAGCGGGGATTCCTGAATGTGGCACCGATGCTCTCCGGTTTGGATTAT
GTGCCTACATGTCCCAGGGTCGTGACATCAACCTGGATGTGAACCGGATACTGGGTTACCGCCACTTCTGCAACA
AGCTCTGGAATGCCACCAAGTTTGCCCTTCGTGGCCTTGGGAAGGGTTTTGTGCCCTCACCCACCTCCCAGCCCG
GAGGCCATGAGAGCCTGGTGGACCGCTGGATCCGCAGCCGCCTGACAGAGGCTGTGAGGCTCAGCAATCAAGGCT
TCCAGGCCTACGACTTCCCGGCCGTCACCACTGCCCAGTACAGCTTCTGGCTCTATGAGCTCTGTGATGTCTACT
TGGAGTGCCTGAAACCTGTACTGAATGGGGTGGACCAGGTGGCAGCTGAGTGTGCCCGCCAGACCCTGTACACTT
GCCTGGACGTTGGCCTGCGGCTGCTCTCACCCTTCATGCCCTTCGTGACGGAGGAGCTGTTCCAGAGGCTGCCCC
GGAGGATGCCGCAAGCTCCCCCTAGCCTCTGTGTTACCCCCTACCCGGAGCCCTCAGAGTGCTCCTGGAAGGACC
CCGAGGCAGAAGCCGCCCTTGAGCTGGCGCTAAGCATCACGCGAGCCGTGCGCTCCCTGCGGGCCGACTACAACC

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FIGURE 1794B

TCACCCGGATCCGGCCTGACTGTTTCCTGGAAGTGGCGGATGAGGCCACGGGCGCCCTGGCATCGGCGGTGTCGG
GCTACGTGCAGGCCCTGGCCAGCGCAGGTGTGGTGGCTGTTCTGGCCCTGGGGGCTCCCGCCCCCCAGGGTTGCG
CTGTGGCTCTGGCTTCTGATCGCTGCTCCATCCACCTGCAGCTTCAGGGGCTGGTGGACCCTGCACGGGAGCTGG
GCAAGCTGCAAGCCAAGCGAGTTGAGGCCCAGCGGCAGGCCCAGCGTCTGCGGGAACGCCGTGCTGCCTCGGGCT
ATCCTGTCAAGGTGCCGCTCGAAGTCCAGGAGGCAGATGAAGCCAAGCTCCAACAGACAGAAGCAGAGCTCAGGA
AGGTGGATGAGGCCATCGCCCTATTCCAGAAGATGCTG**TGA**TCCACCACCCAGCTTCACCCCTCACCCCCAGCGG
CTCACCATGGGGATGGCAGCAATAAAATATTTTCCCACAAAA

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FIGURE 1795

GCGGCTCTCTGATCCAGCCCGGGAGAGGACCGAGCTGGAGGAGCTGGGTGTGGGGTGCGTTGGGCTGGTGGGGAG
GCCTAGTTTGGGTGCAAGTAGGTCTGATTGAGCTTGTGTTGTGCTGAAGGGACAGCCCTGGGTCTAGGGGAGAGA
GTCCCTGAGTGTGAGACCCGCCTTCCCCGGTCCCAGCCCCTCCCAGTTCCCCCAGGGACGGCCACTTCCTGGTCC
CCGACGCAACC**ATG**GCTGAAGAACAACCGCAGGTCGAATTGTTCGTGAAGGCTGGCAGTGATGGGGCCAAGATTG
GGAACTGCCCATTCTCCCAGAGACTGTTCATGGTACTGTGGCTCAAGGGAGTCACCTTCAATGTTACCACCGTTG
ACACCAAAAGGCGGACCGAGACAGTGCAGAAGCTGTGCCCAGGGGGGCAGCTCCCATTCCTGCTGTATGGCACTG
AAGTGCACACAGACACCAACAAGATTGAGGAATTTCTGGAGGCAGTGCTGTGCCCTCCCAGGTACCCCAAGCTGG
CAGCTCTGAACCCTGAGTCCAACACAGCTGGGCTGGACATATTTGCCAAATTTTCTGCCTACATCAAGAATTCAA
ACCCAGCACTCAATGACAATCTGGAGAAGGGACTCCTGAAAGCCCTGAAGGTTTTAGACAATTACTTAACATCCC
CCCTCCCAGAAGAAGTGGATGAAACCAGTGCTGAAGATGAAGGTGTCTCTCAGAGGAAGTTTTTGGATGGCAACG
AGCTCACCCTGGCTGACTGCAACCTGTTGCCAAAGTTACACATAGTACAGGTGGTGTGTAAGAAGTACCGGGGAT
TCACCATCCCCGAGGCCTTCCGGGGAGTGCATCGGTACTTGAGCAATGCCTACGCCCGGGAAGAATTCGCTTCCA
CCTGTCCAGATGATGAGGAGATCGAGCTCGCCTATGAGCAAGTGGCAAAGGCCCTCAAA**TAA**GCCCCTCCTGGGA
CTCCCTCAACCCCCTCCATTTTCTCCACAAAGGCCCTGGTGGTTTCCACATTGCTACCCAATGGACACACTCCAA
AATGGCCAGTGGGCAGGGAATCCTGGAGCACTTGTTCCGGGATGGTGTGGTGGAAGAGGGGATGAGGGAAAGAAA
TGGGGGGCCTGGGTCAGATTTTTATTGTGGGGTGGGATGAGTAGGACAACATATTTCAGTAATAAAATACAGAAT
AAAAATCAAGTGTTTTT

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FIGURE 1796

CCGCTTAGACAATGCCCCGGAGCCGCCAGACCGTCGCGCCCCTGCCCCATCGTAGTATATGAGCTCGCCTACACA
AGGACCCCCGCTAAAAGCCAGAGCTCCCAGTCCCCGAGGCTTGAAGACGGGGACTCCCTTCTCCACCAACTCTGT
CCTCGGGGGGTGGGGCCCCAGCCGAGATCACAGCGCGACAGGAGTGGGGGTGGCCGCTGGAGACAGGTGAAGAAA
CAAGAAAACTAAGAAATCCGAGCGGTTGGAGGGGGAGTCTGTGTGGATGGG**ATG**GGGACGCCGGGGGAGGGGCTG
GGCCGCTGCTCCCATGCCCTGATCCGGGGAGTCCCAGAGAGCCTGGCGTCGGGGGAAGGTGCGGGGGCTGGCCTT
CCCGCTCTGGATCTGGCCAAAGCTCAAAGGGAGCACGGGGTGCTGGGAGGTAAACTGAGGCAACGACTGGGGCTA
CAGCTGCTAGAACTGCCACCTGAGGAGTCATTGCCGCTGGGACCGCTGCTTGGCGACACGGCCGTGATCCAAGGG
GACACGGCCCTAATCACGCGGCCCTGGAGCCCCGCTCGTAGGCCAGAGGTCGATGGAGTCCGCAAAGCCCTGCAA
GACCTGGGGCTCCGAATTGTGGAAATAGGAGACGAGAACGCGACGCTGGATGGCACTGACGTTCTCTTCACCGGC
CGGGAGTTTTTCGTAGGCCTCTCCAAATGGACCAATCACCGAGGAGCTGAGATCGTGGCGGACACGTTCCGGGAC
TTCGCCGTCTCCACTGTGCCAGTCTCGGGTCCCTCCCACCTGCGCGGTCTCTGCGGCATGGGGGGACCTCGCACT
GTTGTGGCAGGCAGCAGCGACGCTGCCCAAAAGGCTGTCCGGGCAATGGCAGTGCTGACAGATCACCCATATGCC
TCCCTGACCCTCCCAGATGACGCAGCTGCTGACTGTCTCTTTCTTCGTCCTGGGTTGCCTGGTGTGCCCCCTTTC
CTCCTGCACCGTGGAGGTGGGGATCTGCCCAACAGCCAGGAGGCACTGCAGAAGCTCTCTGATGTCACCCTGGTA
CCTGTGTCCTGCTCAGAACTGGAGAAGGCTGGCGCCGGGCTCAGCTCCCTCTGCTTGGTGCTCAGCACACGCCCC
CACAGC**TGA**GGGCCTGGCCTTGGGGTACTGCTGGCCAGGGGTAGGATAGTATAGGAAGTAGAAGGGGAAGGAGGG
TTAGATAGAGAATGCTGAATAGGCAGTAGTTGGGAGAGAGCCTCAATATTGGGGGAGGGGAGAGTGTAGGGAAAA
GGATCCACTGGGTGAATCCTCCCTCTCAGAACCAATAAAATAGAATTGACCTTTT

FIGURE 1797

GCTGGAAGAGCAGCGGCCCGAGCCGGGGCC**ATG**GCGAAGCTGCTGAGCTGCGTCCTAGGCCCCCGGCTCTACAAA
ATCTACCGGGAGAGGGACTCTGAAAGGGCCCCGGCCAGCGTCCCTGAGACGCCAACGGCAGTCACTGCCCCCCAT
TCCAGCTCCTGGGATACGTACTATCAGCCCCGTGCCCTGGAGAAACATGCTGACAGCATCCTGGCACTGGCTTCA
GTATTCTGGTCCATCTCTTATTACTCCTCTCCCTTCGCCTTCTTCTACTTGTACAGGAAAGGTTACTTGAGTTTG
TCCAAAGTGGTGCCGTTTTCTCACTATGCTGGGACATTGCTGCTACTTCTGGCAGGTGTGGCCTGCCTCCGAGGC
ATTGGCCGCTGGACCAACCCCCAGTACCGGCAGTTCATCACCATCTTGGAAGCAACACATCGGAACCAGTCTTCA
GAAAACAAGAGGCAGCTTGCCAACTACAACTTTGACTTCCGGAGCTGGCCAGTCGACTTCCACTGGGAAGAACCC
AGCAGCCGGAAGGAGTCTCGAGGGGGCCCTTCCCGCCGGGGTGTGGCCCTGCTTCGCCCAGAGCCCCTGCACCGG
GGGACAGCAGACACCCTCCTCAACCGGGTTAAGAAGCTGCCTTGTCAGATCACCAGCTACCTGGTGGCGCACACC
CTAGGGCGCCGGATGCTGTATCCAGGCTCTGTGTACCTGCTGCAGAAGGCCCTCATGCCTGTGCTGCTGCAGGGC
CAGGCCCGACTGGTGGAAGAGTGTAATGGGCGCCGGGCAAAGCTGCTGGCCTGTGATGGCAATGAGATTGACACC
ATGTTTGTGGACCGGCGGGGGACAGCTGAGCCCCAGGGACAGAAGCTGGTGATCTGCTGTGAGGGGAATGCTGGG
TTTTATGAGGTGGGCTGCGTCTCCACGCCCCTGGAAGCTGGATATTCAGTCCTGGGCTGGAATCATCCAGGCTTT
GCTGGAAGCACGGGGGTGCCATTCCCGCAGAATGAGGCTAATGCCATGGATGTGGTGGTCCAGTTTGCCATCCAC
CGCCTGGGCTTCCAGCCCCAGGACATCATCATCTACGCCTGGTCCATCGGCGGCTTCACTGCCACGTGGGCAGCC
ATGTCCTACCCAGATGTTAGTGCCATGATCCTGGATGCCTCCTTTGATGACCTGGTGCCCTTGGCCTTGAAGGTC
ATGCCAGACAGCTGGAGGGGCCTGGTGACCAGGACCGTGAGGCAGCATCTCAATCTAAACAACGCGGAGCAGCTG
TGCAGATACCAGGGTCCTGTACTGCTGATCCGGAGAACCAAGGATGAGATCATCACCACCACGGTTCCTGAGGAC
ATCATGTCCAACCGAGGCAATGACCTCCTGCTGAAGCTCCTGCAGCATCGGTATCCCCGGGTGATGGCAGAGGAG
GGTCTTCGAGTGGTGAGGCAGTGGTTGGAGGCCTCCTCACAGCTGGAGGAAGCCTCAATTTATAGCCGATGGGAG
GTGGAAGAGGACTGGTGTCTGTCTGTCCTCCGCTCCTACCAGGCAGAACACGGGCCCGACTTCCCCTGGAGCGTG
GGGGAGGACATGAGTGCAGATGGACGGCGGCAGCTGGCTTTGTTTCTGGCTCGGAAGCATCTGCACAACTTTGAG
GCCACTCACTGCACCCCACTCCCAGCCCAGAACTTCCAGATGCCCTGGCACCTC**TAG**GGACCAACTGGGACTCAT
TATGGAAGAATGGGGTGAGAGGAGACATGAGGAAAGACCCTCTTATTTGTGATTCTCTGTGTTCATGTTGCTGTT
TATAGTTTGTGGAAAGTGGGGGACCATCCCCCTTCTCACCACTGTTCCTCTTGCACGTTTCCCCTCATTCATGTG
GCTGTACTTAACCTTCTCCAACATACATCCTGCATTACATGAATGGATTATTCCTAATAATTAATAAAAAGGTAT
TTTTTCTACT

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FIGURE 1798

GGAGGAAGCGACCAGGTCCGGCACGAAGGAGGGAGAGGTGGCCTGAGGAGCGGAGGGGGGATGTGTGGATTCCGG
TGAAAGGGACCTGACAATCGCCCCCAACCCCTGACGTGAAG**ATG**AGCAGCTCAGAGGAGGTGTCCTGGATTTCCT
GGTTCTGTGGGCTCCGTGGCAATGAATTCTTCTGTGAAGTGGATGAAGACTACATCCAGGACAAATTTAATCTTA
CTGGACTCAATGAGCAGGTCCCTCACTACCGACAAGCTCTAGACATGATCTTGGACCTGGAGCCTGATGAAGAAC
TGGAAGACAACCCCAACCAGAGTGACCTGATTGAGCAGGCAGCCGAGATGCTTTATGGATTGATCCACGCCCGCT
ACATCCTTACCAACCGTGGCATCGCCCAGATGTTGGAAAAGTACCAGCAAGGAGACTTTGGTTACTGTCCTCGTG
TGTACTGTGAGAACCAGCCAATGCTTCCCATTGGCCTTTCAGACATCCCAGGTGAAGCCATGGTGAAGCTCTACT
GCCCCAAGTGCATGGATGTGTACACACCCAAGTCATCAAGACACCATCACACGGATGGCGCCTACTTCGGCACTG
GTTTCCCTCACATGCTCTTCATGGTGCATCCCGAGTACCGGCCCAAGAGACCTGCCAACCAGTTTGTGCCCAGGC
TCTACGGTTTCAAGATCCATCCGATGGCCTACCAGCTGCAGCTCCAAGCCGCCAGCAACTTCAAGAGCCCAGTCA
AGACGATTCGC**TGA**TTCCCTCCCCCACCTGTCCTGCAGTCTTTGACTTTTCCTTTCTTTTTTGCCACCCTTTCAG
GAACCCTGTATGGTTTTTAGTTTAAATTAAAGGAGTCGTTATTGTGGTGGGAATATGAAATAAAGTAGAAGAAAA
GGCC

FIGURE 1799

GTGACGTTATTTCATTACACGGCTTCTCGGCATTCCACAGGTTTCCCTCCGCCTCCTGAGGGCCTTTCCTAACCC
ACAGAGTGGATTCCTGGCTCCAGAAAATGGGCTTGGAGCGGGGGCCACGTTGAGGAAGGCGAAGGGCATTGTGGG
GGCGTTATGTAAAAGTAGGACCCCAACCGACAGATCCTAGTGCTCGCGCCACCTGGGCGCGCGGAGCTTTGCTCG
TTTACTATTGAAAAAGTTCCAGCGCGGGAAACTGAACCCGGAGCTTTGCGCACGCCCGAGCCCTCAAGTAATGTG
GGTTGTGGTTTTTGTTGTTGTTGTCGCCACGCATGCGTCTTCGTGCCGTGTGGCTATTTGATTGTGTCAACTCTT
CTGATTAGAATGGCGCCATTTTGCGGTACGGAAGCTACACAGCAACACGTATAGGAGACTCTCCCCGAGATCTTC
TAGGGAGTGACCCATCTATTTTTGTTTGGGAAGAGGAAACTCCGAAATGGGATCGCGGAAGACTTAAAGGGCCAG
GCTGATTTTTTTTTCCTACTGGTCTCTGAGGCTGTGGTTGCTACAGGGTCACCACGAGCTTGGCTTACTTGTCTC
ATCCTTCCCTTGCCTGGTATCATTTTCTCAGTTCTCCCAAAAGCC**ATG**TCCCGGCCCTTGCTCATCACCTTCACC
CCAGCCACTGACCCCAGCGACCTCTGGAAGGATGGGCAGCAGCAGCCACAGCCCGAGAAGCCAGAGTCCACCCTG
GATGGGGCTGCAGCCCGAGCTTTCTATGAGGCCCTGATTGGGGATGAGAGCAGCGCTCCTGACTCCCAGAGATCT
CAGACTGAACCTGCCAGAGAAAGAAAGAGAAAGAAAAGAAGAATAATGAAGGCACCAGCAGCAGAAGCAGTGGCA
GAAGGAGCATCAGGAAGACATGGACAAGGGAGATCCCTTGAGGCTGAGGATAAGATGACTCACCGGATACTGAGG
GCAGCCCAGGAGGGGGACCTGCCAGAACTTAGGAGACTGCTGGAACCGCATGAGGCAGGAGGAGCTGGGGGGAAT
ATCAACGCCCGGGATGCCTTCTGGTGGACCCCACTGATGTGTGCTGCTCGAGCGGGCCAGGGGGCAGCTGTGAGC
TATCTCCTGGGCCGTGGGGCTGCCTGGGTGGGGGTCTGTGAGCTGAGTGGCAGGGATGCGGCTCAGCTCGCTGAA
GAAGCTGGCTTCCCTGAGGTAGCCCGCATGGTCAGGGAGAGCCATGGAGAGACAAGGAGCCCGGAAAACCGGTCT
CCTACTCCCTCCCTCCAGTACTGCGAGAACTGTGACACCCACTTCCAAGATTCCAACCACCGCACATCCACTGCT
CACCTGCTGTCACTGTCGCAGGGTCCTCAGCCTCCCAACCTTCCACTTGGGGTGCCCATCTCCAGCCCGGGCTTC
AAACTGCTGCTGAGGGGGGGCTGGGAGCCAGGAATGGGGCTGGGACCCCGGGGTGAGGGCCGTGCCAATCCCATC
CCCACTGTCCTCAAGAGAGACCAGGAAGGACTAGGCTACAGATCAGCACCCCAGCCCCGAGTGACACATTTCCCA
GCTTGGGATACCCGAGCTGTGGCTGGGAGGGAGAGACCCCCTCGGGTGGCCACACTGAGCTGGAGGGAGGAGAGA
AGGAGGGAGGAGAAAGACAGGGCTTGGGAGCGGGATCTAAGGACTTACATGAACCTCGAGTTC**TGA**CTTTGGTAA
AGTCTGACCCTAGTCTGCTGCTGAAGTCTGAACTTGGGCCTCTGACCTGGGCCCTTTGACTTCCCCTTCCTGGGA
TCTGCCCAGATGCAGATCCTGAAGTTTTTGGTCAATAGGCTCTGTCTTCGTGAGAGACGGGCTGAGAGTCAGAAA
TAAATCAACCATTTGTGGTTT

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FIGURE 1800

GGAGAGAGCAGTTAAGGCACACAGAGCACCAGCTCCCTCCTGCCTGAAG**ATG**TTCCACCAAATTTGGGCAGCTCT
GCTCTACTTCTATGGTATTATCCTTAACTCCATCTACCAGTGCCCTGAGCACAGTCAACTGACAACTCTGGGCGT
GGATGGGAAGGAGTTCCCAGAGGTCCACTTGGGCCAGTGGTACTTTATCGCAGGGGCAGCTCCCACCAAGGAGGA
GTTGGCAACTTTTGACCCTGTGGACAACATTGTCTTCAATATGGCTGCTGGCTCTGCCCCGATGCAGCTCCACCT
TCGTGCTACCATCCGCATGAAAGATGGGCTCTGTGTGCCCCGGAAATGGATCTACCACCTGACTGAAGGGAGCAC
AGATCTCAGAACTGAAGGCCGCCCTGACATGAAGACTGAGCTCTTTTCCAGCTCATGCCCAGGTGGAATCATGCT
GAATGAGACAGGCCAGGGTTACCAGCGCTTTCTCCTCTACAATCGCTCACCACATCCTCCCGAAAAGTGTGTGGA
GGAATTCAAGTCCCTGACTTCCTGCCTGGACTCCAAAGCCTTCTTATTGACTCCTAGGAATCAAGAGGCCTGTGA
GCTGTCCAATAAC**TGA**CCTGTAACTTCATCTAAGTCCCCAGATGGGTACAATGGGAGCTGAGTTGTTGGAGGGAG
AAGCTGGAGACTTCCAGCTCCAGCTCCCACTCAAGATAATAAAGATAATTTTTCAATCCTC

FIGURE 1801A

TAGTGCGACGCACGCAGGCGTAGTACGGTCCCCCGGGCGACAGCGGTGGCGGCTCCTCGGGGTGCTCGGCTCCCT
CCCACCTAGGCCGGCCCCGGCCCGACTCGCCCTCAGAAACTCACTGTTTGGGGCTGCGGACTTTCTCGTCGTGCC
CCACAAAAGTAAAGCTTGGGGACCTGGGGGGAGCCGGAAGTATCGCTTCGAGATCCCCAAATACTATCGGGGAAA
CGGAAGTGGCCGTCGGTGGCAGGTTTGGGGGAGACCGGAAGTGACGAGACCTGTCGGCC**ATG**GAGCCTAATGATA
GTACCAGTACCGCTGTGGAGGAGCCTGACAGCTTGGAGGTGTTGGTGAAGACCTTGGACTCTCAAACTCGTACCT
TTATTGTGGGGGCCCAGATGAATGTAAAAGAGTTTAAGGAGCACATTGCTGCCTCTGTCAGCATCCCATCTGAAA
AACAACGGCTCATTTACCAGGGACGAGTTCTGCAAGATGATAAGAAGCTTCAGGAATACAATGTTGGGGGAAAGG
TTATCCACCTGGTGGAACGGGCTCCTCCTCAGACTCACCTCCCTTCTGGGGCATCTTCTGGGACGGGGTCTGCCT
CAGCCACTCATGGTGGGGGATCCCCCCCTGGTACTCGGGGGCCTGGGGCCTCTGTTCATGACCGGAATGCCAACA
GCTATGTCATGGTTGGAACCTTCAATCTTCCTAGTGACGGCTCTGCTGTGGATGTTCACATCAACATGGAACAGG
CCCCGATTCAGAGTGAGCCCCGGGTACGGCTGGTGATGGCTCAGCACATGATCAGGGATATACAGACCTTACTAT
CCCGGATGGAGACTCTCCCCTACCTTCAGTGTCGAGGAGGGCCCCAACCGCAGCACAGTCAGCCGCCCCCGCAGC
CACCGGCTGTGACCCCGGAGCCAGTAGCCTTGAGCTCTCAAACATCAGAACCAGTTGAAAGTGAAGCACCTCCCC
GGGAGCCCATGGAGGCAGAAGAAGTGGAGGAGCGTGCCCCAGCCCAGAACCCGGAGCTCACTCCTGGCCCAGCCC
CAGCGGGCCCAACACCTGCCCCGGAAACAAATGCACCCAACCATCCTTCCCCTGCGGAGTATGTCGAGGTGCTCC
AGGAGCTACAGCGGCTGGAGAGTCGCCTCCAGCCCTTCTTGCAGCGCTACTACGAGGTTCTGGGTGCTGCTGCCA
CCACGGACTACAATAACAATCACGAGGGCCGGGAGGAGGATCAGCGGTTGATCAACTTGGTAGGGGAGAGCCTGC
GACTGCTGGGCAACACCTTTGTTGCACTGTCTGACCTGCGCTGCAATCTGGCCTGCACGCCCCCACGACACCTGC
ATGTGGTCCGGCCTATGTCTCACTACACCACCCCCATGGTGCTCCAGCAGGCAGCCATTCCCATACAGATCAATG
TGGGAACCACTGTGACCATGACAGGAAATGGGACTCGGCCCCCCCCAACTCCCAATGCAGAGGCACCTCCCCCTG
GTCCTGGGCAGGCCTCATCCGTGGCTCCGTCTTCTACCAATGTCGAGTCCTCAGCTGAGGGGGCTCCCCCGCCAG
GTCCAGCTCCCCCGCCAGCCACCAGCCACCCGAGGGTCATCCGGATTTCCCACCAGAGTGTGGAACCCGTGGTCA
TGATGCACATGAACATTCAAGATTCTGGCACACAGCCTGGTGGTGTTCCGAGTGCTCCCACTGGCCCCCTGGGAC
CCCCTGGTCATGGCCAAACCCTGGGACAGCAGGTGCCAGGCTTCCCAACAGCTCCAACCCGGGTGGTGATTGCCC
GGCCCACTCCTCCACAGGCTCGGCCTTCCCATCCTGGAGGGCCCCCAGTCTCTGGGACACTGCAGGGCGCCGGTC
TGGGTACCAATGCCTCGTTGGCCCAGATGGTGAGCGGCCTTGTGGGGCAGCTTCTTATGCAGCCAGTCCTTGTGG
CTCAGGGGACCCCAGGTATGGCTCCACCGCCAGCCCCTGCCACTGCTTCTGCCAGTGCTGGCACCACCAACACAG
CTACCACAGCTGGCCCCGCTCCTGGGGGGCCTGCCCAGCCTCCACCCACCCCTCAACCCTCCATGGCTGATCTTC
AGTTCTCTCAGCTTCTGGGGAACCTGCTAGGGCCTGCAGGGCCAGGGGCTGGAGGGTCTGGTGTGGCTTCTCCCA
CCATCACTGTGGCGATGCCTGGTGTCCCTGCCTTTCTCCAAGGCATGACTGACTTCTTGCAGGCAACACAGACAG
CCCCTCCACCACCCCCACCTCCTCCACCCCCACCACCTGCCCCAGAGCAGCAGACCATGCCCCCACCAGGCTCCC
CTTCTGGTGGCGCAGGGAGTCCTGGAGGCCTGGGTCTTGAGAGCCTGTCACCGGAGTTTTTTACCTCAGTGGTGC
AGGGTGTGCTCAGCTCCCTGCTGGGCTCCCTGGGGGCTCGGGCTGGCAGCAGTGAAAGTATTGCTGCCTTCATAC
AACGCCTCAGTGGATCCAGCAACATCTTTGAGCCTGGAGCTGATGGGGCCCTTGGATTCTTTGGGGCCTTGCTTT
CTCTTCTGTGCCAGAACTTCTCTATGGTGGACGTAGTGATGCTTCTCCATGGGCATTTCCAGCCACTACAACGGC
TCCAGCCCCAGCTGCGATCCTTCTTCCACCAGCACTACCTGGGTGGTCAGGAGCCCACACCCAGTAACATCCGGA
TGGCAACCCACACATTGATCACGGGGCTAGAAGAGTATGTGCGGGAGAGTTTTTCCTTGGTGCAGGTTCAGCCAG
GTGTGGACATCATCCGGACAAACCTGGAATTTCTCCAAGAGCAGTTTAATAGCATTGCTGCGCATGTGCTGCATT
GCACAGATAGTGGATTTGGGGCCCGGTTGCTGGAGTTGTGTAACCAAGGCCTGTTTGAATGCCTGGCCCTAAACC
TGCACTGCTTGGGGGGACAGCAGATGGAGCTTGCTGCTGTTATCAATGGCCGAATTCGTCGTATGTCTCGTGGGG
TGAATCCCTCCTTGGTGAGCTGGCTGACCACTATGATGGGACTGAGGCTTCAGGTGGTACTGGAGCACATGCCTG
TAGGCCCTGATGCCATTCTCAGATACGTTCGCAGGGTTGGTGATCCCCCCCAGCCACTTCCTGAGGAGCCAATGG
AAGTTCAGGGAGCAGAAAGAGCTTCCCCTGAGCCTCAGCGGGAGAATGCTTCCCCAGCCCCTGGAACAACAGCAG
AAGAGGCCATGTCCCGAGGTCCACCTCCTGCTCCTGAGGGGGGCTCCCGGGATGAACAGGATGGAGCTTCAGCTG
AGACAGAACCTTGGGCAGCTGCAGTCCCCCCAGAATGGGTCCCTATTATCCAGCAGGACATTCAGAGCCAGCGGA
AGGTGAAACCGCAGCCCCCTCTGAGTGATGCCTACCTCAGTGGTATGCCTGCCAAGAGACGCAAGACGATGCAGG
GTGAGGGCCCCCAGCTGCTTCTCTCAGAGGCTGTGAGCCGGGCAGCTAAGGCAGCCGGAGCTCGGCCCCTGACGA
GCCCCGAGAGCCTGAGCCGGGACCTGGAGGCACCAGAGGTTCAGGAGAGCTACAGGCAGCAGCTCCGGTCTGATA

FIGURE 1801B

TACAAAAACGACTGCAGGAAGACCCCAACTACAGTCCCCAGCGCTTCCCCAATGCCCAGCGGGCCTTTGCTGATG
ATCCT**TAG**CTCTTTGCTCTATGGCCCTTCCTCATCAGGGGACCGTTTCCCCCCTCTTCCTTCACAGTATTTAAGA
AATAAAAGTCGGATTTTTCTGGC

FIGURE 1802A

CCCTAGGCCCGGGTCCCGGATCCCCGCGCACCCGGCCAGGCTCTGGCACGTTTTGGGGGAGGTGCCTGCAGGACC
CAACATACTCAATGAGCTTCCAGCGCA**ATG**TCCGATCGCTCGGGGCCGACTGCCAAGGGAAAGGATGGAAAGAAG
TATTCCTCGCTCAACCTGTTTGATACGTATAAGGGCAAGTCCTTAGAGATCCAGAAACCCGCTGTTGCCCCTCGC
CATGGCCTGCAGAGTCTCGGGAAAGTTGCCATTGCCCGGCGTATGCCACCTCCAGCCAACCTTCCAAGCCTGAAA
GCCGAGAACAAAGGCAATGACCCCAATGTCTCACTAGTGCCAAAAGACGGAACAGGATGGGCAAGCAAACAGGAG
CAGTCCGACCCCAAGAGTTCCGATGCCTCAACCGCTCAGCCGCCGGAATCGCAGCCACTGCCGGCTTCACAGACG
CCTGCCTCCAACCAGCCGAAACGACCCCCAGCAGCCCCCGAGAACACTCCTTTGGTTCCAAGCGGGGTAAAGTCC
TGGGCACAAGCCAGCGTCACCCATGGAGCACATGGAGATGGTGGAAGGGCATCAAGCCTACTGTCACGATTCTCT
CGAGAGGAATTTCCGACCCTGCAGGCGGCTGGCGACCAGGACAAGGCTGCCAAGGAAAGGGAGTCTGCCGAACAG
TCGTCTGGGCCCGGACCAAGCCTCCGCCCCCAAAATTCTACAACTTGGAGGGACGGAGGTGGGCGTGGCCCTGAT
GAGCTGGAGGGCCCGGACTCCAAACTTCATCATGGTCATGATCCCCGGGGTGGGCTACAGCCTTCAGGCCCACCC
CAGTTCCCTCCCTACCGCGGAATGATGCCGCCTTTCATGTATCCCCCATATCTCCCGTTCCCTCCGCCCTATGGA
CCCCAGGGGCCTTACCGATACCCCACTCCTGATGGGCCCAGCCGTTTTCCCCGTGTGGCGGGCCCCCGAGGCTCA
GGGCCACCAATGCGCTTAGTAGAGCCTGTGGGTCGTCCCTCTATTCTCAAAGAGGATAATCTCAAAGAGTTTGAT
CAGTTGGATCAGGAGAATGATGATGGTTGGGCAGGGGCCCATGAAGAGGTTGACTACACTGAAAAGCTCAAGTTC
AGCGATGAGGAAGATGGGCGAGACTCTGATGAGGAGGGAGCTGAGGGCCACAGGGATTCCCAATCAGCTTCTGGT
GAGGAACGGCCCCCTGAAGCAGATGGCAAAAAGGGCAACTCCCCCAACAGCGAACCGCCCACTCCTAAGACGGCC
TGGGCAGAAACCTCTCGGCCTCCAGAGACAGAGCCGGGACCTCCTGCCCCAAAGCCTCCCCTACCCCCACCTCAC
CGGGGCCCCGCCGGGAACTGGGGCCCCCCTGGGGACTACCCAGATCGTGGGGGTCCTCCCTGCAAGCCCCCAGCA
CCTGAAGATGAGGATGAGGCATGGCGGCAGCGACGAAAGCAGTCGTCATCTGAGATTTCCCTGGCAGTGGAGCGG
GCCCGGCGACGGCGAGAAGAAGAGGAGCGGCGCATGCAAGAAGAGCGCCGGGCAGCCTGTGCTGAGAAGCTCAAG
CGACTCGATGAAAAGTTTGGGGCACCTGACAAGCGGCTCAAAGCAGAGCCTGCTGCCCCACCTGCTGCCCCTTCT
ACCCCAGCTCCACCACCTGCAGTCCCTAAAGAACTCCCTGCACCTCCAGCTCCACCTCCAGCATCAGCCCCAACA
CCAGAGAAAGAACCTGAAGAGCCAGCACAGGCCCCTCCTGCCCAATCTACTCCTACTCCAGGTGTGGCTGCGGCT
CCCACTCTGGTGAGTGGTGGTGGCAGTACCAGTAGCACCAGCAGTGGCAGCTTCGAAGCCAGCCCAGTGGAACCA
CAACTGCCCTCAAAAGAGGGTCCTGAACCACCAGAAGAGGTTCCTCCTCCTACCACACCCCCAGTTCCAAAGGTG
GAACCCAAGGGTGATGGGATTGGTCCCACCCGCCAGCCCCCTAGTCAGGGCTTGGGCTACCCCAAATATCAGAAG
TCGTTGCCTCCTCGTTTCCAGCGGCAGCAGCAGGAGCAGCTCCTGAAGCAGCAGCAGCAGCACCAGTGGCAGCAG
CATCAACAGGGCTCTGCCCCTCCTACCCCAGTGCCCCCATCACCACCACAGCCTGTGACCCTGGGGGCTGTGCCA
GCTCCACAGGCTCCACCCCCGCCCCCCAAGGCCCTGTACCCAGGTGCTCTGGGCCGGCCCCCACCCATGCCCCCA
ATGAACTTTGATCCCCGATGGATGATGATTCCTCCTTATGTGGACCCCCGGCTCCTCCAGGGTCGTCCCCCTCTA
GACTTCTACCCTCCTGGTGTGCATCCCTCTGGCCTAGTTCCCCGAGAGCGTTCAGACAGTGGGGGCTCAAGCTCA
GAGCCATTTGACCGTCATGCACCTGCTATGTTACGGGAACGGGGCACTCCACCGGTGGATCCAAAGTTGGCCTGG
GTAGGAGATGTCTTCACCGCCACACCCGCTGAACCCCGCCCACTTACCTCACCTCTGCGCCAGGCTGCGGATGAG
GATGACAAGGGGATGAGGAGCGAGACTCCTCCAGTACCTCCCCCACCACCCTATCTGGCCAGTTATCCAGGCTTT
CCTGAGAATGGAGCCCCTGGGCCCCCAATCTCTCGCTTTCCTCTGGAGGAACCAGGGCCCCGTCCACTCCCCTGG
CCCCCAGGCAGTGATGAAGTGGCCAAGATACAAACTCCACCACCCAAGAAGGAGCCCCCTAAGGAGGAGACTGCA
CAGCTGACGGGGCCAGAAGCAGGCCGAAAGCCTGCCCGCGGAGTCGGGAGTGGAGGCCAGGGCCCCCCACCACCA
CGCAGAGAGAGTCGCACAGAGACCCGCTGGGGCCCTCGTCCAGGGAGCAGTCGTCGTGGAATCCCTCCAGAGGAG
CCAGGGGCCCCACCCCGCCGGGCTGGGCCTATAAAGAAACCTCCACCACCTACAAAAGTAGAAGAGCTGCCTCCC
AAGCCCCTCGAACAGGGGGATGAAACCCCCAAACCCCCAAAGCCAGACCCACTCAAGATAACCAAGGGGAAGCTA
GGGGGCCCCAAGGAGACCCCACCCAATGGAAATCTTTCCCCTGCCCCAAGGCTTCGGAGGGACTATTCGTATGAA
AGAGTGGGTCCTACCTCTTGCCGGGGTCGGGGCCGAGGCGAGTATTTTGCCAGAGGGAGGGGTTTTCGGGGGACC
TATGGGGGACGAGGGCGGGGAGCCCGAAGCCGGGAATTCCGCAGTTACCGAGAGTTTCGAGGAGATGATGGGCGT
GGAGGTGGGACAGGGGGACCAAACCACCCTCCTGCTCCCCGAGGCCGCACTGCCAGCGAGACACGGAGCGAGGGT
TCAGAGTATGAGGAAATCCCCAAGCGGCGCCGGCAGCGGGGCTCAGAAACAGGCAGCGAGACCCATGAGAGTGAT
CTGGCTCCTTCAGACAAGGAGGCTCCCACACCCAAGGAGGGAACACTCACCCAGGTCCCTCTCGCTCCCCCACCA
CCAGGAGCCCCACCTTCACCAGCCCCAGCCCGCTTCACTGCCCGGGGTGGGCGAGTCTTCACTCCCAGAGGGGTG

FIGURE 1802B

CCATCTCGCCGGGGCCGAGGAGGAGGGAGGCCCCCTCCTCAAGTTTGCCCAGGCTGGAGCCCTCCAGCCAAGTCT
CTGGCTCCCAAGAAACCTCCCACAGGCCCTTTGCCACCAAGTAAGGAGCCTTTGAAAGAGAAGTTGATCCCAGGG
CCTCTGTCCCCTGTGGCGCGCGGAGGCAGCAATGGAGGTAGCAATGTGGGCATGGAAGATGGGGAGCGACCCCGA
AGGAGGCGACATGGGAGGGCTCAGCAGCAGGATAAACCGCCTCGTTTCCGGAGGCTGAAGCAGGAACGGGAGAAT
GCCGCAAGGGGGTCTGAGGGCAAGCCCTCCCTAACCCTTCCAGCCTCCGCTCCTGCACCTGAGGAGGCCCTCACA
ACAGTCACAGTGGCCCCAGCACCTCGCCGGGCAGCTGCCAAGTCTCCTGATCTGTCAAACCAGAACTCAGACCAA
GCCAATGAGGAATGGGAGACTGCATCAGAGAGCAGTGACTTCACCAGTGAGCGCCGAGGGGACAAAGAGGCACCC
CCACCAGTACTGCTGACACCCAAGGCTGTGGGAACTCCTGGGGGGAGGTGGAGGTGGAGCCGTACCAGGTATTTCA
GCCATGTCCCGCGGAGATCTGAGCCAGAGAGCCAAGGATTTGAGTAAACGGAGCTTCTCAAGTCAGCGGCCAGGC
ATGGAACGGCAGAATCGGCGCCCTGGCCCAGGGGGCAAGGCTGGCAGCAGTGGCAGCAGCAGTGGAGGAGGCGGT
GGGGGTCCTGGAGGAAGGACCGGGCCAGGACGAGGCGACAAGAGGAGCTGGCCCTCTCCCAAGAACCGAAGTCGT
CCTCCAGAGGAGCGTCCCCCGGGGCTTCCCCTGCCTCCCCCACCTCCCAGCAGTTCTGCTGTCTTCCGCCTGGAC
CAAGTTATCCACAGCAACCCTGCTGGCATCCAACAGGCTCTGGCCCAGCTTAGTAGCCGTCAAGGGAGTGTAACT
GCACCAGGGGGTCATCCAAGGCACAAGCCTGGGCCTCCCCAAGCCCCTCAGGGCCCCTCTCCTAGGCCCCCAACC
CGATACGAGCCCCAGAGGGTCAACAGCGGCCTCAGTTCTGACCCCCACTTTGAGGAGCCGGGGCCAATGGTGAGA
GGGGTGGGTGGGACTCCTCGGGACTCTGCCGGGGTTAGTCCCTTTCCCCCTAAACGTCGGGAGCGGCCTCCCAGA
AAACCAGAGCTGCTACAGGAGGAATCTTTGCCACCTCCTCATAGCTCTGGATTCTTGGGCTCTAAGCCTGAGGGC
CCAGGCCCTCAGGCAGAGTCCAGAGATACAGGCACAGAGGCCCTGACCCCTCACATCTGGAACCGTTTACATACT
GCCACTAGCCGAAAGAGTTACCGGCCCAGCTCCATGGAGCCTTGGATGGAGCCCCTGAGTCCTTTTGAGGATGTG
GCTGGCACAGAAATGAGTCAGTCTGACAGTGGGGTGGACCTGAGTGGGGATTCTCAGGTGTCATCAGGTCCCTGC
AGCCAGCGAAGTTCCCCTGATGGAGGACTCAAGGGGGCAGCAGAGGGACCCCCCAAGAGGCCTGGAGGCTCCTCA
CCCCTGAATGCTGTTCCTTGTGAGGGTCCACCTGGCTCTGAACCTCCTAGGAGACCACCACCTGCCCCCCACGAT
GGGGACAGAAAGGAGCTGCCCCGGGAGCAGCCTCTGCCCCCTGGCCCCATTGGCACAGAACGATCACAGCATACA
GACCGAGGCACAGAGCCTGGCCCCATTCGGCCATCCCATCGACCTGGTCCCCCAGTCCAGTTTGGCACTAGTGAC
AAGGACTCAGACTTACGCCTAGTGGTAGGAGACAGCTTGAAAGCAGAGAAGGAGCTAACAGCATCAGTCACTGAG
GCCATTCCTGTATCACGAGACTGGGAGCTGCTTCCCAGTGCTGCTGCCTCTGCTGAGCCACAATCCAAGAACCTG
GATTCTGGGCACTGTGTCCCGGAGCCCAGCTCCTCAGGCCAGCGCCTGTATCCTGAGGTTTTCTATGGCAGTGCT
GGGCCTTCCAGTTCTCAGATCTCTGGGGGAGCCATGGACTCTCAATTACATCCAAACAGTGGAGGCTTCCGCCCT
GGGACACCCTCACTGCACCCTTACAGATCACAGCCCCTATACCTACCCCCCGGCCCAGCCCCTCCCTCAGCACTG
CTCTCTGGGGTAGCTCTCAAGGGCCAGTTTCTGGATTTCTCCACAATGCAAGCTACAGAGCTGGGGAAGTTGCCG
GCTGGAGGAGTTCTCTACCCTCCACCTTCCTTCCTCTACTCTCCGGCTTTCTGCCCCAGTCCTTTGCCTGACACA
TCGTTGCTTCAGGTACGCCAGGATCTGCCATCCCCTTCGGATTTTTATTCTACTCCTCTGCAGCCTGGTGGCCAA
AGTGGCTTTCTCCCTTCAGGGGCTCCTGCCCAGCAGATGCTTCTACCCATGGTAGACTCACAGCTGCCTGTGGTG
AACTTTGGCTCCCTGCCGCCAGCACCACCTCCTGCCCCACCTCCCCTTTCTCTGTTACCTGTGGGCCCTGCTCTG
CAGCCCCCCAGCCTGGCTGTGCGGCCCCCACCTGCTCCTGCTACTCGGGTGCTGCCTTCACCTGCCAGGCCCTTC
CCCGCTAGCTTGGGGCGAGCAGAGCTGCATCCAGTGGAACTAAAGCCGTTCCAGGATTATCAAAAACTGAGCAGC
AACCTTGGGGGACCTGGATCATCACGGACTCCCCCAACTGGAAGGTCCTTCTCTGGCCTCAATTCCCGTCTCAAG
GCCACGCCTTCCACCTACAGTGGAGTCTTCCGCACCCAGCGCGTCGACCTTTACCAGCAGGCCTCCCCACCAGAT
GCCCTGCGCTGGATACCTAAGCCTTGGGAGCGGACAGGGCTGCCACCTCGAGAAGGGCCCTCCCGACGGGCAGAG
GAGCCTGGGTCCCGAGGGGACAAGGAGCCTGGGTTGCCCCCACCCCGC**TGA**GGGAGTTCCTCTTGCCCCCTACCC
CCGGGGCTTGTATATAGATTATAAATATATAAGGGGGAAAGGGGTGGGCGGGGAGGGGTTGTGGGGCTGGGGCCT
CACTTCCCCTCCTCCCCCTTCCCCTGGTCCCCTGTCCCTGGGGCTGTTTGTTAAAAAAGAGTAATAAAAGGATTT

FIGURE 1803

GAGGAAAAGCTTTCAGACTGCTGAAGGCCCAGCAGGAAGAGAGGCTGGATGAGATCAACAAGCAATTCCTAGACG
ATCCCAAATATAGCAGTGATGAGGATCTGCCCTCCAAACTGGAAGGCTTCAAAGGTGAGGGGGAAACTGTAGGCG
GTGGAGACAGGGCTGGGGGTAGGAGGGTTAGGATTTCCACAAGAACAAGGCAGGAACAGCAGAGATAAAAAGTTT
ACTTTTGTGGTAGCAAAAGGGGAACCTGCCTTTATTGCCCTCCTGCCACACTGCGGTCCCTTTCCCGGGCCTGCC
TCTCTCAGCATCCCCTCTAGCTCCTTACACCCTAGCGGGGCCCCTCAACTCCCCAACCCCACTTCCTCTGCCTGC
CCCTCCTCCTCCTTCCACGTTGTCTCCTCCACCTAGCAGTTGGTTGGCAACCCCTTCCTCACTCACCCAGAGAAA
TAC**ATG**GAGTTTGACCTTAATGGAAATGGCGATATTGGTGAGAAACGGGTGATTTGCGGGGGCAGGGTGGTGTGC
AGGCCTAAGAAGACAGAGGTCTCTCCTACATGCTCCATTCCTCATGATTTGGGAGGGGGCCCACCTACCACAGTG
GGAGGAAGGAGAATGGGGATGCGGAAGTGGGAGAGGAGAGAGAGGGTCTCCCCACCTTCTCCCCATCCCCATCCT
CTGCCCCCAGATATCATGTCCCTGAAACGAATGCTGGAGAAACTTGGAGTCCCCAAGACTCACCTAGAGCTAAAG
AAATTAATTGGAGAGGTGTCCAGTGGCTCCGGGGAGACGTTCAGCTACCCTGACTTTCTCAGGATGATGCTGGGC
AAGAGATCTGCCATCCTAAAAATG**TGA**GTGTCAATTTCCAACCTCCCCTGTACTTACCTGTTTTCTCCTCCCCCA
TCCCTACCCTTGTCCACAGGCTCAACATTTCTACACGTTGCCCATCATCCCTTCTTCCATCCTTAGAGGGACCCT
TCCAAGGTCCCGACCCCATCCCTATCCATAGTCCTGGTCCCCAGAAACTCCAACCCCTGCCCTTCCTCTTCCCCC
TTCCACCCTCACATCCCCATCCCCTTCTAGCCTTTCCTAGCACCCTATGATTTATTCCCTTGAGAGGAGTGTTCC
CTGATCCCTGTGCCTCTTCCCATCTCAACCAGGATCCTGATGTATGAGGAAAAAGCGAGAGAAAAGGAAAAGCCA
ACAGGCCCCCCAGCCAAGAAAGCTATCTCTGAGTTGCCCTGATTTGAAGGGAAAAGGGATGATGGGATTGAAGGG
GCTTCTAATGACCCAGATATGGAAACAGAAGACAAAATTGTAAGCCAGAGTCAACAAATTAAATAAATTACCCCC
TCCTCCAGATCAA

FIGURE 1804

CCGAGCTTCTTAAACACAGGCCTTGGGCCTACGGCTCTGGGGGTACTTGGGGGGGCGGGGGCAGGTCTG**ATG**AGT
AACCCCTCCCCCCAGGTTCCAGAGGAAGAAGCCTCCACATCTGTCTGCCGGCCCAAGAGTTCCATGGCCTCCACT
TCCCGCCGCCAACGCCGAGAACGTCGCTTTCGTCGTTACTTGTCTGCAGGACGGCTGGTCCGGGCCCAGGCCCTC
CTCCAGCGACACCCAGGCCTCGATGTAGATGCTGGGCAGCCCCCACCACTGCACCGGGCCTGTGCCCGCCACGAT
GCCCCTGCCCTGTGCCTGCTGCTTCGGCTCGGGGCTGACCCTGCCCACCAGGACCGCCATGGGGACACGGCACTG
CATGCTGCTGCCCGCCAGGGCCCAGATGCCTACACCGATTTCTTCCTCCCGCTGCTAAGCCGCTGTCCCTCCGCC
ATGGGAATAAAGAATAAGGATGGGGAGACCCCTGGCCAAATTTTGGGCTGGGGACCCCCCTGGGATTCTGCTGAA
GAGGAGGAAGAAGATGATGCCTCCAAGGAGCGGGAATGGAGACAGAAGCTCCAGGGTGAGCTGGAGGACGAGTGG
CAGGAAGTCATGGGGAGGTTTGAAGGTGATGCCTCCCATGAAACCCAGGAACCTGAGTCCTTCTCAGCCTGGTCA
GATCGCCTGGCCCGGGAACATGCCCAGAAGTGCCAGCAGCAGCAGCGAGAAGCAGAGGGATCCTGTCGACCCCCA
CGTGCTGAGGGCTCCAGCCAGAGCTGGCGACAGCAGGAGGAGGAGCAGCGGCTCTTCAGGGAGCGAGCCCGGGCC
AAGGAGGAAGAGCTGCGTGAGAGCCGAGCCAGGAGGGCGCAGGAGGCTCTAGGGGACCGAGAACCCAAGCCAACC
AGGGCCGGGCCCAGGGAAGAGCACCCCAGAGGAGCGGGGAGGGGCAGCCTCTGGCGATTTGGTGATGTGCCCTGG
CCCTGCCCTGGGGGAGGGGACCCAGAGGCCATGGCTGCAGCCCTGGTGGCCAGGGGCCCCCCTTTGGAGGAACAG
GGGGCTCTGAGGAGGTACTTGAGGGTCCAGCAGGTCCGCTGGCACCCTGACCGCTTCCTGCAGCGATTCCGAAGC
CAGATTGAGACCTGGGAGCTGGGCCGTGTGATGGGAGCAGTGACAGCCCTTTCTCAGGCCCTGAATCGCCATGCA
GAGGCCCTCAAG**TGA**CCCTAGGGAAGAAGCAAGAAACTTCGGGGCTGCAGCCTCAGGATGAGGCAGAAGGAAGGG
TAAGGGAAAGGATGGGGACCACAAGGAAGAGCCAGGTGCTGCTCAGCAGAGGATATGGGTGGGAGCGAAAGTTGT
AACAAGTGGGGGTGGGGGGTGCGGGCCGCCACCACTGCTCCTTGACTCTGCCGTTTCCTAATAAGACCTGGTTCC
ACATCTC

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FIGURE 1805

CAGCATCGGCCATAACAACAGAAATGGCCAGTCAGTCCCAAGGTATCCAGCAGCTTCTGCAAGCTGAGAAGCGGG
CAGCTGAGAAGGTGGCAGATGCCAGAAAGAGGAAGGCCCGGCGACTGAAGCAGGCAAAGGAGGAGGCACAGATGG
AGGTGGAGCAATACCGCAGAGAGCGAGAGCACGAATTCCAGAGCAAGCAGCAGGCGACAGGCATTTTCCAAAGGC
AAGCCTGGAGCGCACGGATCTGTATAACCGCGGAAGGCCCTGTTTCCGGTCCCTTGCGCCTGCGCTCTTGCAGCC
AAGAAGGCGGGAGGCTGGAGTAGAGGGAAGCCTGCAACCGGAAGTGAAGGCAGATTTCCCTCCTTCGTCGCTGTT
GCTGCCGCCATACGCGCTCTCCCTGTTTAGCTCTTCTGTTAGAAATAGTATCTTTGTTTTCCTTTGCTGTTCCTC
AATCCCCTACTCTTCACCCCTTGTTTTCACCTATTTTGCGAGAACCCATCCAGATCCCCCTTCCCTTCTTCCCCT
GCCGGCCCAGTT**ATG**GCAGAGAACGATGTGGACAATGAGCTCTTGGACTATGAAGATGATGAGGTGGAGACAGCA
GCTGGGGGAGATGGGGCTGAGGCCCCTGCCAAGAAGGATGTCAAGGGCTCCTATGTCTCCATCCACAGCTCTGGC
TTTCGTGACTTCCTGCTCAAGCCAGAGTTGCTCCGGGCCATTGTCGACTGTGGCTTTGAGCATCCGTCAGAAGTC
CAGCATGAGTGCATCCCTCAGGCCATTCTGGGAATGGATGTCCTGTGCCAGGCCAAGTCGGGCATGGGAAAGACA
GCAGTGTTTGTCTTGGCCACACTGCAACAGCTGGAGCCAGTTACTGGGCAGGTGTCTGTGCTGGTGATGTGTCAC
ACTCGGGAGTTGGCTTTTCAGATCAGCAAGGAATATGAGCGCTTCTCTAAATACATGCCCAATGTCAAGGTTGCT
GTTTTTTTTGGTGGTCTGTCTATCAAGAAGGATGAAGAGGTGCTGAAGAAGAACTGCCCGCATATCGTCGTGGGG
ACTCCAGGCCGTATCCTAGCCCTGGCTCGAAATAAGAGCCTCAACCTCAAACACATTAAACACTTTATTTTGGAT
GAATGTGATAAGATGCTTGAACAGCTCGACATGCGTCGGGATGTCCAGGAAATTTTTCGCATGACCCCCCACGAG
AAGCAGGTCATGATGTTCAGTGCTACCTTGAGCAAAGAGATCCGTCCAGTCTGCCGCAAGTTCATGCAAGATCCA
ATGGAGATCTTCGTGGATGATGAGACGAAGTTGACGCTGCATGGGTTGCAGCAGTACTACGTGAAACTGAAGGAC
AACGAGAAGAACCGGAAGCTCTTTGACCTTCTGGATGTCCTTGAGTTCAACCAGGTGGTGATCTTTGTGAAGTCT
GTGCAGCGGTGCATTGCCTTGGCCCAGCTACTAGTGGAGCAGAACTTCCCAGCCATTGCCATCCACCGTGGGATG
CCCCAGGAGGAGAGGCTTTCTCGGTATCAGCAGTTTAAAGATTTTCAACGACGAATTCTTGTGGCTACCAACCTA
TTTGGCCGAGGCATGGACATCGAGCGGGTGAACATTGCTTTTAATTATGACATGCCTGAGGATTCTGACACCTAC
CTGCATCGGGTGGCCAGAGCAGGCCGGTTTGGCACCAAGGGCTTGGCTATCACATTTGTGTCCGATGAGAATGAT
GCCAAGATCCTCAATGATGTGCAGGATCGCTTTGAGGTCAATATTAGTGAGCTGCCTGATGAGATAGACATCTCC
TCCTACATTGAACAGACACGG**TAG**AAGACTCGCCCATTTTGGAATGTGACCGTCTGTCCTTCAGGAGAGGACACC
AGGGTGGGGGTGAAGGAGACACTACTGCCCCCACCCCTGACAGCCCCCACCCCATGGCTTCCATCTTTTGCATCA
CCACCACTCCTGAACCCCCATTTCTGATTTGTCAGAATTTTTTTTTAACAAAACTAAAAATGAAACACATGTGTC
TGTGGTATCT

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FIGURE 1806

GGGCC**ATG**GGGCTGGGCCGGGTCCTGCTGTTTCTGGCCGTCGCCTTCCCTTTTGCACCCCCGGCAGCCGCCGCTG
AGCCCCACAGTCTTCGTTACAACCTCATGGTGCTGTCCCAGGATGGATCTGTGCAGTCAGGGTTTCTCGCTGAGG
GACATCTGGATGGTCAGCCCTTCCTGCGCTATGACAGGCAGAAACGCAGGGCAAAGCCCCAGGGACAGTGGGCAG
AAGATGTCCTGGGAGCTGAGACCTGGGACACAGAGACCGAGGACTTGACAGAGAATGGGCAAGACCTCAGGAGGA
CCCTGACTCATATCAAGGACCAGAAAGGAGGCTTGCATTCCCTCCAGGAGATTAGGGTCTGTGAGATCCATGAAG
ACAGCAGCACCAGGGGCTCCCGGCATTTCTACTACAATGGGGAGCTCTTCCTCTCCCAAAACCTGGAGACTCAAG
AATCGACAGTGCCCCAGTCCTCCAGAGCTCAGACCTTGGCTATGAACGTCACAAATTTCTGGAAGGAAGATGCCA
TGAAGACCAAGACACACTATCGCGCTATGCAGGCAGACTGCCTGCAGAAACTACAGCGATATCTGAAATCCGGGG
TGGCCATCAGGAGAACAGTGCCCCCCATGGTGAATGTCACCTGCAGCGAGGTCTCAGAGGGCAACATCACCGTGA
CATGCAGGGCTTCCAGCTTCTATCCCCGGAATATCACACTGACCTGGCGTCAGGATGGGGTATCTTTGAGCCACA
ACACCCAGCAGTGGGGGGATGTCCTGCCTGATGGGAATGGAACCTACCAGACCTGGGTGGCCACCAGGATTCGCC
AAGGAGAGGAGCAGAGGTTCACCTGCTACATGGAACACAGCGGGAATCACGGCACTCACCCTGTGCCCTCTGGGA
AGGCGCTGGTGCTTCAGAGTCAACGGACAGACTTTCCATATGTTTCTGCTGCTATGCCATGTTTTGTTATTATTA
TTATTCTCTGTGTCCCTTGTTGCAAGAAGAAAACATCAGCGGCAGAGGGTCCAGAGCTTGTGAGCCTGCAGGTCC
TGGATCAACACCCAGTTGGGACAGGAGACCACAGGGATGCAGCACAGCTGGGATTTCAGCCTCTGATGTCAGCTA
CTGGGTCCACTGGTTCCACTGAGGGCGCC**TAG**ACTCTACAGCCAGGCGGCCAGGATTCAACTCCCTGCCTGGATC
TCACCAGCACTTTCCCTCTGTTTCCTGACCTATGAAACAGAAAATAACATCACTTATTTATTGTTGTTGGATGCT
GCAAAGTGTTAGTAGGTATGAGGTGTTTGCTGCTCTGCCACGTAGAGAGCCAGCAAAGGGATCATGACCAACTCA
ACATTCCATTGGAGGCTATATGATCAAACAGCAAATTGTTTATCATGAATGCAGGATGTGGGCAAACTCACGACT
GCTCCTGCCAACAGAAGGTTTGCTGAGGGCATTCACTCCATGGTGCTCATTGGAGTTATCTACTGGGTCATCTAG
AGCCTATTGTTTGAGGAATGCAGTCTTACAAGCCTACTCTGGACCCAGCAGCTGACTCCTTCTTCCACCCCTCTT
CTTGCTATCTCCTATACCAATAAATACGAAGGGCTGTGGAAGATCAGAGCCCTTGTTCACGAGAAGCAAGAAGCC
CCCTGACCCCTTGTTCCAAATATACTCTTTTGTCTTTCTCTTTATTCCCACGTTCGCCCTTTGTTCAGTCCAATA
CAGGGTTGTGGGGCCCTTAACAGTGCCATATTAATTGGTATCATTATTTCTGTTGTTTTTGTTTTTGTTTTTGTT
TTTGTTTTTGAGACAGAGTCTCACTCTGTCACCCAGGCTGCAGTTCACTGGTGTGATCTCAGCTCACTGCAACCT
CTGCCTCCCAGGTTCAAGCACTTCTCGTACCTCAGACTCCCGAATAGCTGGGATTACAGACAGGCACCACCACAC
CCAGCTAATTTTTGTATTTTTTGTAGAGACGGGGTTTCGCCAAGTTGACCAGCCCAGTTTCAAACTCCTGACCTC
AGGTGATCTGCCTGCCTTGGCATCCCAAAGTGCTGGGATTACAAGAATGAGCCACCGTGCCTGGCCTATTTTATT
ATATTGTAATATATTTTATTATATTAGCCACCATGCCTGTCCTATTTTCTTATGTTTTAATATATTTTAATATAT
TACATGTGCAGTAATTAGATTATCATGGGTGAACTTTATGAGTGAGTATCTTGGTGATGACTCCTCCTGACCAGC
CCAGGACCAGCTTTCTTGTCACCTTGAGGTCCCCTCGCCCCGTCACACCGTTATGCATTACTCTGTGTCTACTAT
TATGTGTGCATAATTTATACCGTAAATGTTTACTCTTTAAAT

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FIGURE 1807

CACTGCTTGAGCCGCTGAGAGGGTGGCGACGTCGGGGCC**ATG**GGGCTGGGCCCGGTCTTCCTGCTTCTGGCTGGC
ATCTTCCCTTTTGCACCTCCGGGAGCTGCTGCTGAGCCCCACAGTCTTCGTTATAACCTCACGGTGCTGTCCTGG
GATGGATCTGTGCAGTCAGGGTTTCTTGCTGAGGTACATCTGGATGGTCAGCCCTTCCTGCGCTATGACAGGCAG
AAATGCAGGGCAAAGCCCCAGGGACAGTGGGCAGAAGATGTCCTGGGAAATAAGACATGGGACAGAGAGACCAGG
GACTTGACAGGGAACGGAAAGGACCTCAGGATGACCCTGGCTCATATCAAGGACCAGAAAGAAGGCTTGCATTCC
CTCCAGGAGATTAGGGTCTGTGAGATCCATGAAGACAACAGCACCAGGAGCTCCCAGCATTTCTACTACGATGGG
GAGCTCTTCCTCTCCCAAAACCTGGAGACTGAGGAATGGACAGTGCCCCAGTCCTCCAGAGCTCAGACCTTGGCC
ATGAACGTCAGGAATTTCTTGAAGGAAGATGCCATGAAGACCAAGACACACTATCACGCTATGCATGCAGACTGC
CTGCAGGAACTACGGCGATATCTAGAATCCGGCGTAGTCCTGAGGAGAACAGTGCCCCCCATGGTGAATGTCACC
CGCAGCGAGGCCTCAGAGGGCAACATCACCGTGACATGCAGGGCTTCCAGCTTCTATCCCCGGAATATCATACTG
ACCTGGCGTCAGGATGGGGTATCTTTGAGCCACGACACCCAGCAGTGGGGGGATGTCCTGCCTGATGGGAATGGA
ACCTACCAGACCTGGGTGGCCACCAGGATTTGCCGAGGAGAGGAGCAGAGGTTCACCTGCTACATGGAACACAGC
GGGAATCACAGCACTCACCCTGTGCCCTCTGGGAAAGTGCTGGTGCTTCAGAGTCATTGGCAGACATTCCATGTT
TCTGCTGTTGCTGCTGGCTGCTGCTATTTTTGTTATTATTATTTTCTATGTCCGTTGTTG**TAA**GAAGAAAACATC
AGCTGCAGAGGGTCCAGAGCTCGTGAGCCTGCAGGTCCTGGATCAACACCCAGTTGGGACGAGTGACCACAGGGA
TGCCACACAGCTCGGATTTCAGCCTCTGATGTCAGCTCTTGGGTCCACTGGCTCCACTGAGGGCACCTAGACTCT
ACAGCCAGGCGGCTGGAATTGAATTCCCTGCCTGGATCTCACAAGCACTTTCCCTCTTGGTGCCTCAGTTTCCTG
ACCTATGAAACAGAGAAAATAAAAGCACTTATTTATTGTTGTTGGAGGCTGCAAAATGTTAGTAGATATGAGGCA
TTTGCAGCTGTGCCATATT

FIGURE 1808

AGACGCCGAG**ATG**CTGGTCATGGCGCCCCGAACCGTCCTCCTGCTGCTCTCGGCGGCCCTGGCCCTGACCGAGAC
CTGGGCCGGCTCCCACTCCATGAGGTATTTCGACACCGCCATGTCCCGGCCCGGCCGCGGGGAGCCCCGCTTCAT
CTCAGTGGGCTACGTGGACGACACGCAGTTCGTGAGGTTCGACAGCGACGCCGCGAGTCCGAGAGAGGAGCCGCG
GGCGCCGTGGATAGAGCAGGAGGGGCCGGAGTATTGGGACCGGAACACACAGATCTTCAAGACCAACACACAGAC
TGACCGAGAGAGCCTGCGGAACCTGCGCGGCTACTACAACCAGAGCGAGGCCGGGTCTCACACCCTCCAGAGCAT
GTACGGCTGCGACGTGGGGCCGGACGGGCGCCTCCTCCGCGGGCATAACCAGTACGCCTACGACGGCAAGGATTA
CATCGCCCTGAACGAGGACCTGCGCTCCTGGACCGCGGCGGACACCGCGGCTCAGATCACCCAGCGCAAGTGGGA
GGCGGCCCGTGTGGCGGAGCAGGACAGAGCCTACCTGGAGGGCACGTGCGTGGAGTGGCTCCGCAGATACCTGGA
GAACGGGAAGGACACGCTGGAGCGCGCGGACCCCCCAAAGACACACGTGACCCACCACCCCATCTCTGACCATGA
GGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGATGGCGAGGA
CCAAACTCAGGACACTGAGCTTGTGGAGACCAGACCAGCAGGAGATAGAACCTTCCAGAAGTGGGCAGCTGTGGT
GGTGCCTTCTGGAGAAGAGCAGAGATACACATGCCATGTACAGCATGAGGGGCTGCCGAAGCCCCTCACCCTGAG
ATGGGAGCCGTCTTCCCAGTCCACCGTCCCCATCGTGGGCATTGTTGCTGGCCTGGCTGTCCTAGCAGTTGTGGT
CATCGGAGCTGTGGTCGCTGCTGTGATGTGTAGGAGGAAGAGCTCAGGTGGAAAAGGAGGGAGCTACTCTCAGGC
TGCGTGCAGCGACAGTGCCCAGGGCTCTGATGTGTCTCTCACAGCT**TGA**AAAGCCTGAGACAGCTGTCTTGTGAG
GGACTGAGATGCAGGATTTCTTCACGCCTCCCCTTTGTGACTTCAAGAGCCTCTGGCATCTCTTTCTGCAAAGGC
ACCTGAATGTGTCTGCGTCCCTGTTAGCATAATGTGAGGAGGTGGAGAGACAGCCCACCCTTGTGTCCACTGTGA
CCCCTGTTCCCATGCTGACCTGTGTTTCCTCCCCAG

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FIGURE 1809

GCGTG**ATG**TCTCACAGAAAGTTCTCCACTCCCAGACATGGGTCCCTCGGCTTCCTGCCTTGGAAGCGCAGCAGCA
GGCATTGTGGGAAGGTGAAGAGCTTCCCTAAGGATGACCCGTCCAAGCCGGTCCACCTCACAGCCTTCCTGGGAT
ACAAGGCTGGCATGACCCACATCGTGCGGGCTCTGGAGAAGATTGACCTTAAGTTCATTGACACCCCCTCCAAGT
TTGGCCATGGCCACTTCCAGACCATGGAGGAGAAGAAAGCATTCATGGGACCACTCAAGAAAGACCGAATTGCAA
AGGAAGAAGGAGCT**TAA**TGCTGGGAACAGATATTGCAACTGGTGGGATCTCAATAAAAGTTATTTTCCA

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FIGURE 1810

ATTCTCCCCAGAGGCCGAG**ATG**CGGGTCATGGCGCCCCGAGCCCTCCTCCTGCTGCTCTCGGGAGGCCTGGCCCT
GACCGAGACCTGGGCCTGCTCCCACTCCATGAGGTATTTCGACACCGCCGTGTCCCGGCCCGGCCGCGGAGAGCC
CCGCTTCATCTCAGTGGGCTACGTGGACGACACGCAGTTCGTGCGGTTCGACAGCGACGCCGCGAGTCCGAGAGG
GGAGCCGCGGGCGCCGTGGGTGGAGCAGGAGGGGCCGGAGTATTGGGACCGGGAGACACAGAACTACAAGCGCCA
GGCACAGGCTGACCGAGTGAGCCTGCGGAACCTGCGCGGCTACTACAACCAGAGCGAGGACGGGTCTCACACCCT
CCAGAGGATGTATGGCTGCGACCTGGGGCCCGACGGGCGCCTCCTCCGCGGGTATGACCAGTCCGCCTACGACGG
CAAGGATTACATCGCCCTGAACGAGGACCTGCGCTCCTGGACCGCCGCGGACACCGCGGCTCAGATCACCCAGCG
CAAGTTGGAGGCGGCCCGTGCGGCGGAGCAGCTGAGAGCCTACCTGGAGGGCACGTGCGTGGAGTGGCTCCGCAG
ATACCTGGAGAACGGGAAGGAGACGCTGCAGCGCGCAGAACCCCCAAAGACACACGTGACCCACCACCCCCTCTC
TGACCATGAGGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGA
TGGGGAGGACCAGACCCAGGACACCGAGCTTGTGGAGACCAGGCCAGCAGGAGATGGAACCTTCCAGAAGTGGGC
AGCTGTGGTGGTGCCTTCTGGACAAGAGCAGAGATACACGTGCCATATGCAGCACGAGGGGCTGCAAGAGCCCCT
CACCCTGAGCTGGGAGCCATCTTCCCAGCCCACCATCCCCATCATGGGCATCGTTGCTGGCCTGGCTGTCCTGGT
TGTCCTAGCTGTCCTTGGAGCTGTGGTCACCGCTATGATGTGTAGGAGGAAGAGCTCAGGGCATTTTCTTCCCAC
AGGTGGAAAAGGAGGGAGCTGCTCTCAGGCTGCGTGCAGCAACAGTGCCCAGGGCTCTGATGAGTCTCTCATCAC
TTGTAAAGCC**TGA**GACAGCTGCCTGTGTGGGACTGAGATGCAGGATTTCTTCACACCTCTCCTTTGTGACTTCAA
GAGCCTCTGGCATCTCTTTCTGCAAAGGCGTCTGAATGTGTCTGCGTTCCTGTTAGCATAATGTGAGGAGGTGGA
GAGACAGCCCACCCCCGTGTCCACCGTGACCCCTGTCCCCACACTGACCTGTGTTCCCTCCCCGATCATCTTTCC
TGTTCCAGAGAGGTGGGGCTGGATGTCTCCATCTCTGTCTCAAATTCATGGTGCACTGAGCTGCAACTTCTTACT
TCCCTAATGAAGTTAAGAACCTGAATATAAATTTGTGTTCTCAAATATTTGCTATGAAGCGTTGATGGATTAATT
AAATAAGTCAATTCCTAGAAGTTGAGAGAGCAAATAAAGACCTGAGAACCTTCCAG

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FIGURE 1811

AAAGCGCAGTAGGGGGCTCTCGCGGTTGGGGAACATAGATGGCTGAAGACAGAATCTAGAGCCTTCAAATAATGT
GGAG**ATG**TTTCCACCTTCAGGTTCCACTGGGCTGATTCCCCCCTCCCACTTTCAAGCTCGGCCCCTTTCAACTCT
GCCAAGAATGGCTCCCACCTGGCTCTCAGACATTCCCCTGGTCCAACCCCCAGGCCATCAAGATGTCTCAGAGAG
GCGGCTAGACACCCAGAGACCTCAAGTGACCATGTGGGAACGGGATGTTTCCAGTGACAGGCAGGAGCCAGGGCG
GAGAGGCAGGTCCTGGGGGCTGGAGGGGTCACAGGCCCTGAGCCAGCAGGCTGAGGTGATCGTTCGGCAGCTGCA
AGAGCTGCGGCGGCTGGAGGAGGAGGTCCGGCTCCTGCGGGAGACCTCGCTGCAGCAGAAGATGAGGCTAGAGGC
CCAGGCCATGGAGCTAGAGGCTCTGGCACGGGCGGAGAAGGCCGGCCGAGCTGAGGCTGAGGGCCTGCGTGCTGC
TTTGGCTGGGGCTGAGGTTGTCCGGAAGAACTTGGAAGAGGGGAGGCAGCGGGAGCTGGAAGAGGTTCAGAGGCT
GCACCAAGAGCAGCTGTCCTCTTTGACACAGGCTCACGAGGAGGCTCTTTCCAGTTTGACCAGCAAGGCTGAGGG
CTTGGAGAAGTCTCTGAGTAGTCTGGAAACCAGAAGAGCAGGGGAAGCCAAGGAGCTGGCCGAGGCTCAGAGGGA
GGCCGAGCTGCTTCGGAAGCAGCTGAGCAAGACCCAGGAAGACTTGGAGGCTCAGGTGACCCTGGTTGAGAATCT
AAGAAAATATGTTGGGGAACAAGTCCCTTCTGAGGTCCACAGCCAGACATGGGAACTGGAGCGACAGAAGCTTCT
GGACACCATGCAGCACTTGCAGGAGGACCGGGACAGCCTGCATGCCACCGCGGAGCTGCTGCAGGTGCGGGTGCA
GAGCCTCACACACATCCTCGCCCTGCAGGAGGAGGAGCTGACCAGGAAGGTTCAACCTTCAGATTCCCTGGAGCC
TGAGTTTACCAGGAAGTGCCAGTCCCTGCTGAACCGCTGGCGGGAGAAGGTGTTTGCCCTCATGGTGCAGCTAAA
GGCCCAGGAGCTGGAACACAGTGACTCTGTTAAGCAGCTGAAGGGACAGGTGGCCTCACTCCAGGAAAAAGTGAC
ATCCCAGAGCCAGGAGCAGGCCATCCTGCAGCGATCCCTGCAGGACAAAGCCGCAGAGGTGGAGGTGGAGCGTAT
GGGTGCCAAGGGCCTGCAGTTGGAGCTGAGCCGTGCTCAGGAGGCCAGGCGTCGGTGGCAGCAGCAGACAGCCTC
AGCCGAGGAGCAGCTGAGGCTTGTGGTCAATGCTGTCAGCAGCTCTCAGATCTGGCTCGAGACCACCATGGCTAA
GGTGGAAGGGGCTGCCGCCCAGCTTCCCAGCCTCAACAACCGACTCAGCTATGCTGTCCGCAAGGTCCACACCAT
TCGGGGCCTGATTGCTCGAAAGCTTGCCCTTGCTCAGCTGCGCCAGGAGAGCTGTCCCCTACCACCACCGGTCAC
AGATGTGAGCCTTGAGTTGCAGCAGCTGCGGGAAGAACGGAACCGCCTGGATGCAGAACTGCAGCTGAGTGCCCG
CCTCATCCAGCAGGAGGTGGGCCGGGCTCGGGAGCAAGGGGAGGCAGAGCGGCAGCAGCTGAGCAAGGTGGCCCA
GCAGCTGGAGCAGGAGCTGCAGCAGACCCAGGAGTCCCTGGCTAGCTTGGGGCTGCAGCTGGAGGTAGCACGCCA
GGGCCAGCAGGAGAGCACAGAGGAGGCTGCCAGTCTGCGGCAGGAGCTGACCCAGCAGCAGGAACTCTACGGGCA
AGCCCTGCAAGAAAAGGTGGCTGAAGTGGAAACTCGGCTGCGGGAGCAACTCTCAGACACAGAGAGGAGGCTGAA
CGAGGCTCGGAGGGAGCATGCCAAGGCCGTGGTCTCCTTGCGCCAGATTCAGCGCAGAGCCGCCCAGGAAAAGGA
GCGGAGCCAGGAACTCAGGCGTCTGCAGGAGGAGGCCCGGAAGGAGGAGGGGCAGCGACTGGCCCGGCGCTTGCA
GGAGCTAGAGAGGGATAAGAACCTCATGCTGGCCACCTTGCAGCAGGAAGGTCTCCTCTCCCGTTACAAGCAGCA
GCGACTGTTGACAGTTCTTCCTTCCCTACTGGATAAGAAGAAATCTGTGGTGTCCAGCCCCAGGCCTCCAGAGTG
TTCAGCATCTGCACCTGTAGCAGCAGCAGTGCCCACCAGGGAGTCCATAAAAGGGTCCCTCTCTGTCCTGCTCGA
TGACCTGCAGGACCTGAGTGAAGCCATTTCCAAAGAGGAAGCTGTTTGTCAAGGAGACAACCTTGACAGATGCTC
CAGCTCCAATCCCCAGATGAGCAGC**TAA**GCAGCTGACAGTTGGAGGGAAAGCCAGCCTGGGGGCTGGGAGGATCC
TGGAGAAGTGGGTGGGGACAGACCAGCCCTTCCCCATCCTGGGGTTGCCCTGGGGGATACCAGCTGAGTCTGAAT
TCTGCTCTAAATAAAGACGACTACAGAAGG

FIGURE 1812

CCCATCTTTTCCTCGCATTTTTTCACCATCTTTCCCTCAATCTCCAGGAGCCAATGCGAGACTTTGGCTCCGATT
AAGCGACGGCCCGAGACTCGGGGTGCGCGAGGAGGATCGACAGAGTGGTG**ATG**GAGAGCACCCCTTCAAGGGGAC
TGAACCGAGTACACCTACAATGCAGGAATCTGCAGGAATTCTTAGGGGGCCTGAGCCCTGGGGTATTGGACCGAT
TGTATGGGCACCCTGCCACATGTCTGGCTGTCTTCAGGGAGCTCCCATCCTTGGCTAAGAACTGGGTGATGCGGA
TGCTCTTTCTGGAGCAGCCTTTGCCACAGGCTGCTGTAGCTCTGTGGGTAAAGAAGGAATTCAGCAAGGCTCAGG
AGGAAAGTACAGGGCTGCTGAGCGGCCTCCGGATCTGGCACACACAGCTGCTCCCAGGCGGGCTCCAGGGCCTCA
TCCTCAACCCCATTTTCCGCCAGAACCTCCGCATTGCCCTTCTGGGTGGGGGGAAGGCCTGGTCTGATGACACAA
GTCAGCTGGGACCAGACAAGCATGCCCGGGACGTTCCCTCCCTTGACAAGTACGCCGAGGAGCGATGGGAGGTGG
TCTTGCACTTCATGGTGGGCTCCCCCAGTGCAGCTGTCAGCCAGGACTTGGCTCAGCTCCTCAGCCAGGCTGGGC
TCATGAAGAGTACTGAACCTGGAGAGCCGCCCTGCATTACTTCCGCTGGCTTCCAGTTCCTGTTGCTGGACACCC
CGGCTCAGCTCTGGTACTTTATGTTGCAGTATTTGCAGACAGCCCAGAGCCGGGGCATGGACCTGGTAGAGATTC
TCTCCTTCCTCTTCCAGCTCAGCTTCTCTACTCTGGGCAAGGATTACTCTGTGGAAGGTATGAGTGATTCTCTGT
TGAACTTCCTGCAACATCTGCGTGAGTTTGGGCTTGTTTTCCAGAGGAAGAGGAAATCTCGGCGTTACTACCCCA
CACGCCTGGCCATCAATCTCTCATCAGGTGTCTCTGGAGCTGGGGGCACTGTGCATCAGCCAGGTTTCATTGTCG
TGGAAACCAATTACCGACTGTATGCCTACACGGAGTCGGAGCTGCAGATTGCCCTCATTGCCCTCTTCTCTGAGA
TGCTCTATCGGTTCCCCAACATGGTGGTGGCGCAGGTGACCCGGGAGAGTGTGCAGCAGGCAATCGCCAGTGGCA
TCACAGCCCAGCAGATAATCCATTTCCTAAGGACAAGAGCCCACCCAGTGATGCTCAAACAGACACCTGTGCTGC
CCCCCACCATCACCGACCAGATCCGGCTCTGGGAGCTGGAAAGGGACAGACTCCGGTTCACTGAGGGTGTCCTGT
ATAACCAGTTCCTGTCGCAAGTGGACTTTGAGCTGCTGCTGGCCCACGCGCGGGAGCTGGGCGTGCTCGTGTTCG
AGAACTCGGCCAAGCGGCTCATGGTGGTGACCCCGGCCGGGCACAGCGACGTCAAGCGCTTTTGGAAGCGGCAGA
AACATAGCTCC**TGA**GAGCGCGGGACTTGGACACGGACCTCGGCGGGCGGGACTGGGCGGGGCGGGGCATCAGAAC
TCAGGTGTTTTTTATTTACGCGTCAGGGCTTTTCTTGTTTAATAAAGTTATGATAGCT

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FIGURE 1813A

TTAGGAAGTTATTTAACTGATCTCTGCCCTAGTTTCTTCATGTGTTAAATATGGATAGTAATAGTATCTACCTTA
TGAAGTGACTGTGAAGATAAAATTATGGATTCTGTTTAAGGGTTTAGGCCAGTGTCTGGCACAGGGGAAGCATTC
TAAAAATATAGCTGATGCTGTTAAACAATGACTGTTGTTGTTGTTTTACTGTTATTATCCCCAAAGCGGCCCATT
CTGTCTGTTGCTGTCAGCTATGACTCAGTCCCCTGATTAACTTACGCACCACCCATTTTATCCCCTGCAGAGATG
CTGCCCCCACCCCCTTAGGCCCGAGGGATCAGGAGCT**ATG**GGACCAGAGGCCCTGTCATCTTTACTGCTGCTGCT
CTTGGTGGCAAGTGGAGATGCTGACATGAAGGGACATTTTGATCCTGCCAAGTGCCGCTATGCCCTGGGCATGCA
GGACCGGACCATCCCAGACAGTGACATCTCTGCTTCCAGCTCCTGGTCAGATTCCACTGCCGCCCGCCACAGCAG
GTTGGAGAGCAGTGACGGGGATGGGGCCTGGTGCCCCGCAGGGTCGGTGTTTCCCAAGGAGGAGGAGTACTTGCA
GGTGGATCTACAACGACTGCACCTGGTGGCTCTGGTGGGCACCCAGGGACGGCATGCCGGGGGCCTGGGCAAGGA
GTTCTCCCGGAGCTACCGGCTGCGTTACTCCCGGGATGGTCGCCGCTGGATGGGCTGGAAGGACCGCTGGGGTCA
GGAGGTGATCTCAGGCAATGAGGACCCTGAGGGAGTGGTGCTGAAGGACCTTGGGCCCCCCATGGTTGCCCGACT
GGTTCGCTTCTACCCCCGGGCTGACCGGGTCATGAGCGTCTGTCTGCGGGTAGAGCTCTATGGCTGCCTCTGGAG
GGATGGACTCCTGTCTTACACCGCCCCTGTGGGGCAGACAATGTATTTATCTGAGGCCGTGTACCTCAACGACTC
CACCTATGACGGACATACCGTGGGCGGACTGCAGTATGGGGGTCTGGGCCAGCTGGCAGATGGTGTGGTGGGGCT
GGATGACTTTAGGAAGAGTCAGGAGCTGCGGGTCTGGCCAGGCTATGACTATGTGGGATGGAGCAACCACAGCTT
CTCCAGTGGCTATGTGGAGATGGAGTTTGAGTTTGACCGGCTGAGGGCCTTCCAGGCTATGCAGGTCCACTGTAA
CAACATGCACACGCTGGGAGCCCGTCTGCCTGGCGGGGTGGAATGTCGCTTCCGGCGTGGCCCTGCCATGGCCTG
GGAGGGGGAGCCCATGCGCCACAACCTAGGGGGCAACCTGGGGGACCCCAGAGCCCGGGCTGTCTCAGTGCCCCT
TGGCGGCCGTGTGGCTCGCTTTCTGCAGTGCCGCTTCCTCTTTGCGGGGCCCTGGTTACTCTTCAGCGAAATCTC
CTTCATCTCTGATGTGGTGAACAATTCCTCTCCGGCACTGGGAGGCACCTTCCCGCCAGCCCCCTGGTGGCCGCC
TGGCCCACCTCCCACCAACTTCAGCAGCTTGGAGCTGGAGCCCAGAGGCCAGCAGCCCGTGGCCAAGGCCGAGGG
GAGCCCGACCGCCATCCTCATCGGCTGCCTGGTGGCCATCATCCTGCTCCTGCTGCTCATCATTGCCCTCATGCT
CTGGCGGCTGCACTGGCGCAGGCTCCTCAGCAAGGCTGAACGGAGGGTGTTGGAAGAGGAGCTGACGGTTCACCT
CTCTGTCCCTGGGGACACTATCCTCATCAACAACCGCCCAGGTCCTAGAGAGCCACCCCCGTACCAGGAGCCCCG
GCCTCGTGGGAATCCGCCCCACTCCGCTCCCTGTGTCCCCAATGGCTCTGCGTTGCTGCTCTCCAATCCAGCCTA
CCGCCTCCTTCTGGCCACTTACGCCCGTCCCCCTCGAGGCCCGGGCCCCCCCACACCCGCCTGGGCCAAACCCAC
CAACACCCAGGCCTACAGTGGGGACTATATGGAGCCTGAGAAGCCAGGCGCCCCGCTTCTGCCCCCACCTCCCCA
GAACAGCGTCCCCCATTATGCCGAGGCTGACATTGTTACCCTGCAGGGCGTCACCGGGGGCAACACCTATGCTGT
GCCTGCACTGCCCCCAGGGGCAGTCGGGGATGGGCCCCCCAGAGTGGATTTCCCTCGATCTCGACTCCGCTTCAA
GGAGAAGCTTGGCGAGGGCCAGTTTGGGGAGGTGCACCTGTGTGAGGTCGACAGCCCTCAAGATCTGGTTAGTCT
TGATTTCCCCCTTAATGTGCGTAAGGGACACCCTTTGCTGGTAGCTGTCAAGATCTTACGGCCAGATGCCACCAA
GAATGCCAGGAATGATTTCCTGAAAGAGGTGAAGATCATGTCGAGGCTCAAGGACCCAAACATCATTCGGCTGCT
GGGCGTGTGTGTGCAGGACGACCCCCTCTGCATGATTACTGACTACATGGAGAACGGCGACCTCAACCAGTTCCT
CAGTGCCCACCAGCTGGAGGACAAGGCAGCCGAGGGGGCCCCTGGGGACGGGCAGGCTGCGCAGGGGCCCACCAT
CAGCTACCCAATGCTGCTGCATGTGGCAGCCCAGATCGCCTCCGGCATGCGCTATCTGGCCACACTCAACTTTGT
ACATCGGGACCTGGCCACGCGGAACTGCCTAGTTGGGGAAAATTTCACCATCAAAATCGCAGACTTTGGCATGAG
CCGGAACCTCTATGCTGGGGACTATTACCGTGTGCAGGGCCGGGCAGTGCTGCCCATCCGCTGGATGGCCTGGGA
GTGCATCCTCATGGGGAAGTTCACGACTGCGAGTGACGTGTGGGCCTTTGGTGTGACCCTGTGGGAGGTGCTGAT
GCTCTGTAGGGCCCAGCCCTTTGGGCAGCTCACCGACGAGCAGGTCATCGAGAACGCGGGGGAGTTCTTCCGGGA
CCAGGGCCGGCAGGTGTACCTGTCCCGGCCGCCTGCCTGCCCGCAGGGCCTATATGAGCTGATGCTTCGGTGCTG
GAGCCGGGAGTCTGAGCAGCGACCACCCTTTTCCCAGCTGCATCGGTTCCTGGCAGAGGATGCACTCAACACGGT
G**TGA**ATCACACATCCAGCTGCCCCTCCCTCAGGGAGCGATCCAGGGGAAGCCAGTGACACTAAAACAAGAGGACA
CAATGGCACCTCTGCCCTTCCCCTCCCGACAGCCCATCACCTCTAATAGAGGCAGTGAGACTGCAGGTGGGCTGG
GCCCACCCAGGGAGCTGATGCCCCTTCTCCCCTTCCTGGACACACTCTCATGTCCCCTTCCTGTTCTTCCTTCCT
AGAAGCCCCTGTCGCCCACCCAGCTGGTCCTGTGGATGGGATCCTCTCCACCCTCCTCTAGCCATCCCTTGGGGA
AGGGTGGGGAGAAATATAGGATAGACACTGGACATGGCCCATTGGAGCACCTGGGCCCCACTGGACAACACTGAT
TCCTGGAGAGGTGGCTGCGCCCCCAGCTTCTCTCTCCCTGTCACACACTGGACCCCACTGGCTGAGAATCTGGGG
GTGAGGAGGACAAGAAGGAGAGGAAAATGTTTCCTTGTGCCTGCTCCTGTACTTGTCCTCAGCTTGGGCTTCTTC

FIGURE 1813B

CTCCTCCATCACCTGAAACACTGGACCTGGGGGTAGCCCCGCCCCAGCCCTCAGTCACCCCCACTTCCCACTTGC
AGTCTTGTAGCTAGAACTTCTCTAAGCCTATACGTTTCTGTGGAGTAAATATTGGGATTGGGGGGAAAGAGGGAG
CAACGGCCCATAGCCTTGGGGTTGGACATCTCTAGTGTAGCTGCCACATTGATTTTTCTATAATCACTTGGGGTT
TGTACATTTTTGGGGGGGAGAGACACAGATTTTTACACTAATATATGGACCTAGCTTGAGGCAATTTTAATCCCCT
GCACTAGGCAGGTAATAATAAAGGTTGAGTTTTCCAC

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FIGURE 1814

ACTTGGCCTTACACTCCGCTCGGCTCACC**ATG**TGTCACTCTCGCAGCTGCCACCCGACCATGACCATCCTGCAGG
CCCCGACCCCGGCCCCCTCCACCATCCCGGGACCCCGGCGGGGCTCCGGTCCTGAGATCTTCACCTTCGACCCTC
TCCCGGAGCCCGCAGCGGCCCCTGCCGGGCGCCCCAGCGCCTCTCGCGGGCACCGAAAGCGCAGCCGCAGGGTTC
TCTACCCTCGAGTGGTCCGGCGCCAGCTGCCAGTCGAGGAACCGAACCCAGCCAAAAGGCTTCTCTTTCTGCTGC
TCACCATCGTCTTCTGCCAGATCCTGATGGCTGAAGAGGGTGTGCCGGCGCCCCTGCCTCCAGAGGACGCCCCTA
ACGCCGCATCCCTGGCGCCCACCCCTGTGTCCCCCGTCCTCGAGCCCTTTAATCTGACTTCGGAGCCCTCGGACT
ACGCTCTGGACCTCAGCACTTTCCTCCAGCAACACCCGGCCGCCTTC**TAA**CTGTGACTCCCCGCACTCCCCAAAA
AGAATCCGAAAAACCACAAAGAAACACCAGGCGTACCTGGTGCGCGAGAGCGTATCCCCAACTGGGACTTCCGAG
GCAACTTGAACTCAGAACACTACAGCGGAGACGCCACCCGGTGCTTGAGGCGGGACCGAGGCGCACAGAGACCGA
GGCGCATAGAGACCGAGGCACAGCCCAGCTGGGGCTAGGCCCGGTGGGAAGGAGAGCGTCGTTAATTTATTTCTT
ATTGCTCCTAATTAATATTTATATGTATTTATGTACGTCCTCCTAGGTGATGGAGATGTGTACGTAATATTTATT
TTAACTTATGCAAGGGTGTGAGATGTTCCCCCTGCTGTAAATGCAGGTCTCTTGGTATTTATTGAGCTTTGTGGG
ACTGGTGGAAGCAGGACACCTGGAACTGCGGCAAAGTAGGAGAAGAAATGGGGAGGACTCGGGTGGGGGAGGACG
TCCCGGCTGGGATGAAGTCTGGTGGTGGGTCGTAAGTTTAGGAGGTGACTGCATCCTCCAGCATCTCAACTCCGT
CTGTCTACTGTGTGAGACTTCGGCGGACCATTAGGAATGAGATCCGTGAGATCCTTCCATCTTCTTGAAGTCGCC
TTTAGGGTGGCTGCGAGGTAGAGGGTTGGGGGTTGGTGGGCTGTCACGGAGCGACTGTCGAGATCGCCTAGTATG
TTCTGTGAACACAAATAAAATTGATTTACTGTCTGC

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FIGURE 1815

AGCAACGGGGTGCGGCAGGGTGGGGAACGCGGGAGCGGGGCCAGCTCCCAGGAAAGCTGGTCTGCGAGCGGCCCC
TGCCCGGCTCCCAGGTCCCTGCGCGACCCCGCCCTTCCCGAGACCCCAGCCGGGCTGCCGCCCGCGTCCCGGAAG
CTCCAGCCTGAACC**ATG**TTTTTCACTTGTGGCCCAAATGAGGCCATGGTGGTCTCCGGGTTCTGCCGAAGCCCCC
CAGTCATGGTGGCTGGAGGGCGTGTCTTTGTCCTGCCCTGCATCCAACAGATCCAGAGGATCTCTCTCAACACAC
TGACCCTCAATGTCAAGAGTGAAAAGGTTTACACTCGCCATGGGGTCCCCATCTCAGTCACTGGCATTGCCCAGG
TAAAAATCCAGGGGCAGAACAAGGAGATGTTGGCGGCCGCCTGTCAGATGTTCCTGGGGAAGACGGAGGCTGAGA
TTGCCCACATTGCCCTGGAGACGTTAGAGGGCCACCAGAGGGCCATCATGGCCCACATGACTGTGGAGGAGATCT
ATAAGGACAGGCAGAAATTCTCAGAACAGGTTTTCAAAGTGGCCTCCTCAGACCTGGTCAACATGGGCATCAGTG
TGGTTAGCTACACTCTGAAGGACATTCACGATGACCAGGACTATTTGCACTCTTTGGGGAAGGCTCGAACAGCTC
AAGTCCAAAAAGATGCACGGATTGGAGAAGCAGAGGCCAAGAGAGATGCTGGGATCCGGGAAGCTAAAGCCAAGC
AGGAAAAGGTGTCTGCTCAGTACCTGAGTGAGATCGAGATGGCCAAGGCACAGAGAGATTACGAACTGAAGAAGG
CCGCCTATGACATCGAGGTCAACACCCGCCGAGCACAGGCTGACCTGGCCTATCAGCTTCAGGTGGCCAAGACTA
AGCAGCAGATTGAGGAGCAGCGGGTGCAGGTGCAGGTGGTGGAGCGGGCCCAGCAGGTGGCAGTGCAGGAGCAGG
AGATCGCCCGGCGGGAGAAGGAGCTGGAGGCCCGGGTGCGGAAGCCAGCGGAAGCGGAGCGCTACAAGCTGGAGC
GCCTAGCCGAGGCAGAGAAGTCCCAACTAATTATGCAGGCGGAGGCAGAAGCCGCGTCTGTGCGGATGCGTGGGG
AAGCTGAGGCCTTTGCCATAGGGGCCCGAGCCCGAGCCGAGGCTGAGCAGATGGCCAAGAAGGCAGAAGCCTTCC
AGCTGTACCAAGAGGCTGCTCAGCTGGACATGCTGCTAGAGAAGCTGCCCCAGGTGGCAGAGGAGATCAGTGGTC
CCTTGACTTCAGCCAATAAGATCACACTGGTGTCCAGCGGCAGTGGGACCATGGGGGCAGCCAAAGTGACTGGGG
AAGTACTGGACATTCTAACTCGCCTGCCAGAGAGTGTGGAAAGACTCACAGGCGTGAGCATCTCCCAGGTGAATC
ACAAGCCTTTGAGAACAGCC**TGA**GCCTTCAGCCCTCACAGATGCCCAGCCTCATAGCTGAAGTTGCCTGAATGAT
CCTCCTGTTGCATGTAACCCACTGGCCTCCCTGAGCATGTCCATTGACAGTGAGGTCCCACCCCTCATCTCTCCT
TGCCAAATAGTTTGTGCCTTGTCTTGAAGGGGGTTGCTCCCCTTGCCAACCTCACACTGCTATGATTGCCAACTC
CAGCGGTCCCATGTCAGCCTTCTGATGATCCCACTCCACCCCACCTCAACTTATTTAACTTCCTAATTAAATCAG
ACTGTTTGAGCCTGTTGTCTAGAATATTTTCCTGACCAAGACTGAGGGATGGGCTGGAGGTTTTCAACTTTGCTA
CCCAAATAAATTGCTGTAAGTAAGTACT

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FIGURE 1816

CGCTGCTCCAGCCTCTGGGGCGCATTCCAACCTTCCAGCCTGCGACCTGCGGAGAAAAAAAAATTACTTATTTTCT
TGCCCCATACATACCTTGAGGCGAGCAAAAAAATTAAATTTTAACC**ATG**AGGGAAATCGTGCACATCCAGGCTGG
TCAGTGTGGCAACCAGATCGGTGCCAAGTTCTGGGAGGTGATCAGTGATGAACATGGCATCGACCCCACCGCTGT
CTTCCGTGGTCGGATGTCCATGAAGGAGGTCGATGAGCAGATGCTTAACGTGCAGAACAAGAACAGCAGCTACTT
TGTGGAATGGATCCCCAACAATGTCAAGACAGCCGTCTGTGACATCCCACCTCGTGGCCTCAAGATGGCAGTCAC
CTTCATTGGCAATAGCACAGCCATCCAGGAGCTCTTCAAGCGCATCTCGGAGCAGTTCACTGCCATGTTCCGCCG
GAAGGCCTTCCTCCACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCTGAGAGCAACATGAA
CGACCTCGTCTCTGAGTATCAGCAGTACCAGGATGCCACCGCAGAAGAGGAGGAGGATTTCGGTGAGGAGGCCGA
AGAGGAGGCC**TAA**GGCAGAGCCCCCATCACCTCAGGCTTCTCAGTTCCCTTAGCCGTCTTACTCAACTGCCCCTT
TCCTCTCCCTCAGAATTTGTGTTTGCTGCCTCTATCTTGTTTTTTGTTTTTTCTTCTGGGGGGGGTCTAGAACAG
TGCCTGGCACATAGTAGGCGCTCAATAAATACTTGTTTGTTGAATGTCTCCTCTCTCTTTCCACTCTGGGAAACC
TAGGTTTCTGCCATTCTGG

FIGURE 1817A

AGATC**ATG**GAGGACACCCAGGCTATTGACTGGGATGTTGAAGAAGAGGAGGAGACAGAGCAATCCAGTGAATCCT
TGAGGTGTAACGTGGAGCCAGTAGGGCGGCTACATATCTTTAGTGGTGCCCATGGACCAGAAAAAGATTTCCCAC
TACACCTCGGGAAGAATGTGGTAGGCCGAATGCCTGACTGCTCTGTGGCCCTGCCCTTTCCATCTATCTCCAAAC
AACATGCAGAGATTGAAATCTTAGCCTGGGACAAGGCACCTATCCTCCGAGACTGTGGGAGCCTTAATGGTACTC
AAATCCTGAGACCTCCTAAGGTTTTGAGCCCTGGGGTGAGTCACCGTCTGAGGGACCAGGAATTGATTCTCTTTG
CTGACTTGCTCTGCCAGTACCATCGCCTGGATGTCTCTCTGCCCTTTGTCTCCCGGGGCCCTCTGACAGTAGAAG
AGACACCCAGAGTACAGGGAGAAACTCAACCCCAGAGGCTTCTGTTGGCTGAGGACTCGGAGGAGGAAGTAGATT
TTCTTTCTGAAAGGCGTATGGTAAAAAAATCAAGGACCACATCTTCCTCTGTGATAGTTCCAGAGAGTGATGAAG
AGGGGCATTCCCCGGTCCTGGGCGGCCTTGGGCCGCCTTTTGCCTTCAATTTGAACAGTGACACAGATGTGGAAG
AAGGTCAGCAACCAGCCACAGAGGAGGCCTCCTCAGCTGCCAGAAGAGGTGCCACTGTAGAGGCAAAGCAGTCTG
AAGCTAAAGTTGTAACTGAAATCCAGCTTGAAAAGGATCAGCCTTTAGTGAAGGAGAGGGACAATGATACAAAAG
TCAAGAGGGGTGCAGGGAATGGGGTGGTTCCAGCTGGGGTGATTCTGGAGAGGAGCCAACCTCCTGGAGAGGACA
GTGACACAGATGTGGATGATGACAGCAGGCCTCCTGGAAGGCCAGCTGAGGTCCATTTGGAAAGGGCTCAGCCTT
TTGGCTTCATCGACAGCGACACTGATGCGGAAGAAGAGAGGATCCCAGCAACCCCAGTTGTCATTCCTATGAAGA
AGAGGAAGATCTTCCATGGAGTAGGTACAAGGGGCCCTGGAGCACCAGGCCTGGCCCATCTGCAGGAGAGCCAGG
CTGGTAGTGATACAGATGTGGAAGAAGGCAAGGCCCCACAGGCTGTCCCTCTGGAGAAAAGCCAAGCTTCCATGG
TTATCAACAGCGATACAGATGACGAGGAAGAAGTCTCAGCAGCGCTGACTTTGGCACATCTGAAAGAGAGCCAGC
CTGCTATATGGAACAGAGATGCAGAAGAGGACATGCCCCAACGTGTGGTCCTTCTGCAGCGAAGCCAAACCACCA
CTGAGAGAGACAGTGACACAGACGTGGAGGAGGAAGAGCTCCCAGTGGAAAATAGAGAAGCTGTCCTCAAGGATC
ACACAAAGATTAGAGCCCTTGTTAGAGCACATTCAGAAAAGGACCAACCTCCTTTTGGGGACAGTGATGACAGTG
TGGAAGCAGATAAGAGCTCACCTGGGATCCACCTGGAGAGAAGCCAAGCCTCCACCACAGTGGACATCAACACAC
AAGTGGAGAAGGAAGTCCCGCCAGGGTCAGCCATTATACATATAAAGAAGCATCAGGTGTCTGTGGAGGGGACAA
ATCAAACAGATGTGAAAGCAGTTGGGGGACCAGCAAAGCTGCTTGTGGTATCTCTAGAGGAAGCCTGGCCTCTGC
ATGGGGACTGTGAAACAGATGCAGAGGAGGGCACCGCCCTAACAGCCTCAGTAGTTGCAGATGTAAGAAAGAGCC
AGCTTCCAGCAGAAGGGGATGCTGGGGCAGAGTGGGCTGCAGCTGTTCTTAAGCAGGAGAGAGCTCATGAGGTGG
GGGCCCAGGGTGGGCCACCTGTGGCACAAGTGGAGCAGGACCTCCCTATCTCAAGAGAGAACCTCACAGATCTGG
TGGTGGACACAGACACTCTAGGGGAATCCACCCAGCCACAGAGAGAGGGAGCCCAGGTCCCCACAGGAAGGGAGA
GAGAACAACATGTGGGTGGGACCAAGGACTCTGAAGACAACTATGGTGATTCTGAAGATCTGGACCTACAAGCTA
CCCAGTGCTTTCTGGAGAATCAGGGCCTGGAAGCAGTCCAGAGCATGGAGGATGAACCTACCCAGGCCTTCATGT
TGACTCCACCCCAAGAGCTTGGCCCTTCCCATTGCAGCTTCCAGACAACAGGTACCCTAGATGAACCATGGGAGG
TCCTGGCTACACAGCCATTCTGTCTGAGAGAGTCTGAGGACTCTGAGACCCAGCCTTTTGACACGCACCTTGAGG
CCTATGGACCTTGCCTGTCTCCACCTAGGGCAATACCAGGAGACCAACATCCAGAGAGCCCAGTTCACACAGAGC
CAATGGGGATTCAAGGCAGAGGGAGGCAGACTGTGGATAAAGTCATGGGTATACCAAAAGAAACAGCAGAGAGGG
TGGGCCCTGAGAGAGGGCCATTGGAGAGAGAAACTGAGAAACTGCTACCAGAAAGACAGACAGATGTGACAGGAG
AGGAAGAATTAACCAAGGGGAAACAGGACAGAGAACAAAAACAGTTGTTAGCTAGAGACACCCAGAGACAAGAAT
CTGACAAAAATGGGGAAAGTGCAAGTCCTGAAAGAGATAGGGAGAGTTTGAAGGTAGAAATTGAGACATCTGAGG
AAATACAAGAGAAACAAGTACAGAAGCAGACCCTTCCAAGCAAAGCATTTGAGAGAGAAGTAGAGAGACCAGTAG
CAAACAGAGAGTGCGATCCAGCCGAGTTAGAAGAGAAGGTGCCCAAAGTGATCCTGGAGAGAGATACACAGAGAG
GGGAGCCAGAGGGAGGGAGCCAGGACCAGAAAGGGCAGGCCTCCAGCCCAACACCAGAGCCTGGGGTGGGGGCGG
GGGACCTTCCGGGACCTACCTCAGCCCCCGTACCTTCTGGGAGCCAGTCAGGTGGAAGGGGATCCCCAGTGAGCC
CCAGGAGGCATCAGAAAGGCCTCCTGAATTGCAAGATGCCACCTGCTGAGAAGGCTTCCAGGATCAGAGCTGCTG
AGAAGGTTTCCAGGGGCGATCAGGAATCTCCAGATGCTTGTCTGCCTCCTACAGTACCTGAAGCCCCAGCCCCAC
CCCAAAAGCCCCTTAACTCTCAGAGCCAGAAACATCTTGCACCTCCGCCCCTTCTTTCTCCCCTTTTACCTTCTA
TCAAGCCAACCGTTCGTAAGACCAGGCAAGATGGGAGTCAGGAAGCTCCAGAGGCTCCCTTGTCCTCAGAGCTGG
AGCCTTTCCACCCAAAGCCTAAAATTAGAACTCGGAAGTCCTCCAGAATGACACCCTTTCCAGCTACCTCTGCTG
CCCCTGAGCCCCACCCTTCCACCTCCACAGCCCAGCCAGTCACTCCCAAGCCCACATCTCAGGCCACTAGGAGCA
GGACAAATAGGTCCTCTGTCAAGACCCCTGAACCAGTTGTCCCCACAGCCCCTGAGCTCCAGCCTTCCACCTCCA
CAGACCAGCCTGTCACCTCTGAGCCCACATCTCAGGTTACTAGGGGAAGAAAAAGTAGATCCTCTGTCAAGACCC

FIGURE 1817B

CTGAAACAGTTGTGCCCACAGCCCTTGAGCTCCAGCCTTCCACCTCCACCGACCGACCTGTCACCTCTGAACCCA
CCTCTCAGGCTACTAGGGGAAGAAAAAATAGATCCTCTGTCAAGACCCCTGAACCAGTTGTCCCCACAGCCCCTG
AGCTCCAGCCTTCCACCTCCACAGACCAGCCTGTCACTTCTGAGCCCACATATCAGGCTACTAGGGGAAGAAAAA
ATAGATCCTCTGTCAAGACCCCTGAACCAGTTGTGCCCACAGCCCCTGAGCTCCGGCCTTCCACCTCCACAGACC
GACCTGTCACCCCCAAGCCCACATCTCGGACCACTAGGAGCAGGACAAATATGTCCTCTGTCAAGACCCCTGAAA
CAGTTGTCCCCACAGCCCCTGAGCTCCAGATTTCCACCTCCACAGACCAACCTGTCACCCCTAAGCCCACATCTC
GGACCACTAGGAGCAGGACAAATATGTCCTCTGTGAAGAACCCTGAATCAACTGTCCCTATAGCCCCTGAGCTCC
CACCTTCCACCTCCACAGAGCAGCCTGTCACCCCTGAGCCCACATCTCGGGCTACTAGGGGAAGAAAAAATAGAT
CCTCTGGCAAGACCCCTGAAACACTTGTCCCCACAGCCCCTAAGCTCGAGCCTTCCACTTCCACAGACCAACCTG
TCACTCCTGAGCCCACATCTCAGGCCACCAGGGGCAGGACAAATAGGTCCTCTGTGAAGACCCCTGAAACAGTTG
TCCCCACAGCCCCTGAGCTCCAGCCTTCCACCTCCACAGACCAGCCTGTTACCCCTGAGCCTACGTCTCAGGCTA
CTAGGGGAAGAACAGATAGATCCTCTGTCAAGACTCCTGAAACAGTTGTCCCCACAGCCCCTGAGCTACAGGCTT
CCGCCTCCACAGACCAGCCTGTCACCTCTGATCCCACATCTCGGACCACTAGGGGAAGAAAAAATCGGTCCTCTG
TCAAGACCCCTGAAACAGTTGTGCCCGCAGCCCCTGAGCTCCAGCCTCCCACCTCCACAGACCAACCTGTCACCC
CTGAGCCCACATCTCGGGCCACTAGGGGCAGGACAAATAGGTCCTCTGTCAAGACCCCTGAATCAATTGTCCCTA
TAGCCCCTGAGCTTCAGCCTTCCACCTCCAGAAACCAGCTTGTCACCCCTGAGCCCACATCTCGGGCCACTAGGT
GCAGGACAAATAGGTCCTCTGTCAAGACCCCTGAGCCAGTTGTCCCCACAGCCCCTGAGCCCCATCCTACCACCT
CCACAGACCAGCCTGTCACCCCCAAGCTCACATCTAGGGCCACTAGGAGAAAGACAAATAGGTCCTCTGTCAAGA
CTCCCAAACCAGTTGAACCAGCAGCCTCTGATCTTGAGCCTTTTACCCCCACAGACCAGTCCGTCACCCCTGAGG
CCATAGCTCAGGGTGGTCAGAGCAAAACACTGAGGTCTTCCACAGTAAGAGCTATGCCGGTTCCTACCACCCCTG
AATTCCAATCTCCTGTCACCACAGACCAGCCTATTTCCCCTGAGCCTATTACTCAACCCAGTTGCATCAAGAGGC
AGAGAGCCGCTGGGAACCCTGGCTCCCTCGCAGCTCCCATTGACCATAAGCCTTGCTCTGCACCCTTGGAACCTA
AATCCCAGGCCTCAAGGAACCAAAGATGGGGAGCAGTGAGAGCAGCTGAATCCCTTACAGCCATTCCTGAGCCTG
CCTCTCCCCAGCTTCTTGAGACACCAATTCATGCCTCCCAGATCCAAAAGGTGGAACCAGCAGGTAGATCTAGGT
TCACCCCGGAGCTCCAGCCTAAGGCCTCTCAAAGCCGCAAGAGGTCTTTAGCTACCATGGATTCACCACCACATC
AAAAACAGCCCCAAAGAGGGGAAGTCTCCCAGAAGACAGTGATTATCAAGGAAGAGGAAGAAGATACTGCAGAGA
AGCCAGGGAAGGAAGAGGATGTCGTGACTCCAAAACCAGGCAAGAGAAAGAGAGACCAGGCAGAGGAGGAGCCCA
ACAGAATACCAAGCCGCAGCCTCCGACGGACCAAACTTAACCAAGAATCAACAGCCCCCAAAGTGCTCTTCACAG
GAGTGGTGGATGCTCGGGGAGAGCGGGCTGTGCTGGCACTGGGGGGAAGTCTGGCTGGTTCAGCGGCAGAGGCTT
CCCACCTGGTCACTGATCGCATCCGCCGGACAGTCAAGTTCCTGTGTGCCCTGGGGCGGGGAATCCCCATTCTGT
CCCTGGACTGGCTGCATCAGTCCCGCAAGGCTGGTTTCTTCTTACCCCCGGATGAATATGTGGTGACCGACCCTG
AGCAAGAGAAGAACTTTGGCTTTAGCCTTCAAGACGCACTGAGCAGGGCTCGGGAGCGAAGGCTGCTAGAGGGCT
ATGAGATCTATGTGACCCCTGGAGTCCAGCCACCACCACCTCAGATGGGAGAGATTATTAGCTGCTGTGGAGGCA
CATACCTACCCAGCATGCCTCGGTCCTATAAGCCTCAGAGAGTTGTGATCACATGCCCTCAGGACTTCCCTCATT
GCTCCATTCCACTACGGGTTGGGCTGCCCCTCCTCTCGCCTGAGTTCCTGCTGACTGGAGTGCTGAAGCAGGAAG
CCAAGCCAGAGGCCTTTGTCCTCTCCCCTTTGGAGATGTCATCCACC**TGA**GAACTCCACTACCCTTTTCCCTCCC
AGACCACGAATTAGAAGATATGTGGAAGAAAGAACTCAGGGCGTTAGAAAGGATTGGGGTATATTGATACAACTT
GTCCTGGAACATGGGTGGGACCAGAAATCTTTATGAATAAATGAAAAGATAAGGGATTTGGAAGCCACAGGTTGT
TTTTTGTTTGTTTGTTTGTTTTTTTAATGGCCATTTTATTTTATTTGTATTTATAGTTTTTTATTTGTATAGATT
TAGGGGATACAAGATTTCTTACATGCATGTATTAAATGGCCATTTTAAAATTAGCTAGTTTCATGCTCAGATGTC
ATAAGTGGCAGCTATCTTTAGCCAGACTGTTGCAGTTATTGCTCGATGCCACTCATGGTGTCCTACCTCCTATTT
GGAAACCATCTCTATTTTTTTCTTACTGAGATTCTTACTTTGGGGTCAGGAACTTGAAGGGATGCTTGGAGTGAG
TAGATTTGAGGGTCCAGTTATGGAGTGCTACTAAAACATTTTCTTCTCTCCTGGCCTCTGGAAGCATCTTTAGCT
TTGACTTTGGGCAAGTCTCTGTACTTTTCTGGCCAGCTTTTCCAGGATTTATAAAATTAGAGCTTCGGCTTGACC
TCTGTGATAAATAAATATTCACTCTGTGCCTT

FIGURE 1818

ATGGCCCCTGCACTGCTCCTGATCCCTGCTGCCCTCGCCTCTTTCATCCTGGCCTTTGGCACCGGAGTGGAGTTC
GTGCGCTTTACCTCCCTTCGGCCACTTCTTGGAGGGATCCCGGAGTCTGGTGGTCCGGATGCCCGCCAGGGATGG
CTGGCTGCCCTGCAGGACCGCAGCATCCTTGCCCCCCTGGCATGGGATCTGGGGCTCCTGCTTCTATTTGTTGGG
CAGCACAGCCTCATGGCAGCTGAAAGAGTGAAGGCATGGACATCCCGGTACTTTGGGGTCCTTCAGAGGTCACTG
TATGTGGCCTGCACTGCCCTGGCCTTGCAGCTGGTGATGCGGTACTGGGAGCCCATACCCAAAGGCCCTGTGTTG
TGGGAGGCTCGGGCTGAGCCATGGGCCACCTGGGTGCCCCTCCTCTGCTTTGTGCTCCATGTCATCTCCTGGCTC
CTCATCTTTAGCATCCTTCTCGTCTTTGACTATGCTGAGCTCATGGGCCTCAAACAGGTATACTACCATGTGCTG
GGGCTGGGCGAGCCTCTGGCCCTGAAGTCTCCCCGGGCTCTCAGACTCTTCTCCCACCTGCGCCACCCAGTGTGT
GTGGAGCTGCTGACAGTGCTGTGGGTGGTGCCTACCCTGGGCACGGACCGTCTCCTCCTTGCTTTCCTCCTTACC
CTCTACCTGGGCCTGGCTCACGGGCTTGATCAGCAAGACCTCCGCTACCTCCGGGCCCAGCTACAAAGAAAACTC
CACCTGCTCTCTCGGCCCCAGGATGGGGAGGCAGAG**TGA**GGAGCTCACTCTGGTTACAAGCCCTGTTCTTCCTCT
CCCGCTGAATTCTAAATCCTTAACATCCAGGCCCTGGCTGCTTCATGCCAGAGGCCCAAATCCATGGACTGAAGG
AGATGCCCCTTCTACTACTTGAGACTTTATTCTCTGGGTCCAGCTCCATACCCTAAATTCTGAGTTTCAGCCACT
GAACTCCAAGGTCCACTTCTCACCAGCAAGGAAGAGTGGGGTATGGAAGTCATCTGTCCCTTCACTGTTTAGAGC
ATGACACTCTCCCCCTCAACAGCCTCCTGAGAAGGAAAGGATCTGCCCTGACCACTCCCCTGGCACTGTTACTTG
CCTCTGCGCCTCAGGGGTCCCCTTCTGCACCGCTGGCTTCCACTCCAAGAAGGTGGACCAGGGTCTGCAAGTTCA
ACGGTCATAGCTGTCCCTCCAGGCCCCAACCTTGCCTCACCACTCCCGGCCCTAGTCTCTGCACCTCCTTAGGCC
CTGCCTCTGGGCTCAGACCCCAACCTAGTCAAGGGGATTCTCCTGCTCTTAACTCGATGACTTGGGGCTCCCTGC
TCTCCCGAGGAAGATGCTCTGCAGGAAAATAAAAGTCAGCCTTTTTCTAC

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FIGURE 1819A

AGACAAAGCGGTCGCCGCCCCCGCCCGGCCCCCTGGTCTCTGTCTCCGTCCCTCCTCCTTTGCTGCCTCTTTCCC
TCCTCCTCTCCCTCCCTCCTCCCCTCCCTCCAGTCTCCGGATCTCCCTCGGTCCCTCTCTCCTCCTCTTCCTCTC
TCTGGACGCCCGGCTCCTCCGCACCCCCTCCCCCGGGGGTCCCGCGGCCTGTGAGTTGACTGAGGGGCTCAGACT
TGGGGAGTGGGTGTCTCCTCGCCCCTGTCCTTGCTCCCGTCCCTGGCCCGGACCTTGGCTGTCTCCTCTTTGTGC
CGAGATTGTCAGTCTGTGCGGCTACAGCGGGGTGGAGACGGCCGGCTCTGTCACGGCTTCATGAGAGCGGGGACG
GGGCGCAGGACTTGCAGGCGCCGGGGAGAAGAGACATGGAGCCGGCCCTTGGCACTCTGGGGTCGCGTGGGGCAG
TCGGTGGGGGAGGCAGGCGGTGGTGACAGGACAGGGTGGGGGTGGACGCCAGGGTTCTGGGAACGCGCTGGCAGC
CCTGACGCCCGGGTTCCGAAAGTCTCGGGGGTGGGTATTTCCCCCGACCCGCCTCGGGGGCGGAGTGCGGGGCAG
AGGGGTGGGGGCTGGGGAGAGGCGTGGCCCGAGCGGTGCTGGAAGCGGAGCCGGGACCTTTGGGGCCCGCGCTGA
GACGCGCCCGGCTGCTGCCGCCGCCCTCCTTTCCCCTCTTCCCTGGTTTCCCTTCTCCTCTAGACCTGTTCGCTC
TCCGCCCCTCCTTGCCTCCCCAACACCCCCTCAGGTCCCGTTGCCTCCTGGTCCTTTCAGGGATTCCTGGTCCTT
CCTTCCCACACTAGCCTCCCTGGGGTATCGCTGAGGCAGCCTGGCCTGCACCCAGGTTCCCCTCACCCCTGCCAC
ATTTCTCTCTTCTCCCTCACGCCAACTTTCCTTTTCGCCCTTCTCTCTCTTTCTCACATCCTAGAGACGGTCTTT
AATACGCATTAACCCTGTGCTGCCACATCTGGCTCCTGCCCTCATTGCCTCCAATCCGGACTCTTCCTCTCACAT
CACCCCCACCACCCCCAACTTGGGCTCACAACTTCTCTTCACTTTTTCCATTTCCCCAGTTCTCTGCCTTCCGTC
TTTCCCTCTGTCCTCATCCTTAGCCCCTCTGCCCTGCTTTGTGTCCCACCTCTCCCCCTCCACTTCCTCTCCTCC
CACCCTCAGTCTCACCCCCGGGCTGTCTCACTCTCTGGAGCCTCTCCTTCCTGTTCTCTGTCCCCAGTGCTCCCT
ACCCTCACCTCAAGACGACC**ATG**GCCACCATCCCAGACTGGAAGCTACAGCTGCTAGCCCGGCGCCGGCAGGAGG
AGGCGTCCGTTCGAGGCCGAGAGAAAGCAGAACGGGAGCGCCTGTCCCAGATGCCAGCCTGGAAACGAGGGCTCC
TGGAGCGCCGCCGGGCCAAGCTTGGGCTGTCCCCTGGGGAGCCTAGCCCTGTGCTAGGGACTGTAGAGGCTGGAC
CTCCAGACCCGGATGAGTCTGCGGTCCTTCTGGAGGCCATCGGGCCAGTGCACCAGAACCGATTCATCCGGCAGG
AGCGGCAGCAGCAGCAGCAGCAACAACAACGGAGTGAAGAGCTGCTAGCAGAGAGAAAGCCTGGGCCTCTGGAGG
CCCGGGAGCGGAGACCCAGCCCTGGGGAGATGCGGGATCAGAGCCCCAAGGGAAGAGAGTCAAGAGAAGAGAGAC
TAAGTCCGAGGGAGACCAGAGAGAGGAGGCTGGGGATAGGGGGAGCCCAAGAGTTGAGCCTGAGGCCTCTGGAGG
CTCGGGACTGGAGGCAAAGCCCAGGAGAGGTGGGAGACAGGAGCTCCCGACTGTCAGAGGCATGGAAATGGAGGC
TGAGTCCTGGAGAAACTCCAGAGCGGAGTCTGAGACTAGCAGAGTCTCGAGAGCAAAGCCCCAGGAGAAAAGAGG
TGGAAAGTAGACTGAGCCCAGGGGAATCTGCCTACCAGAAGTTGGGCCTGACAGAGGCCCATAAATGGAGACCTG
ACTCCAGAGAGTCTCAGGAACAGAGTTTGGTACAACTGGAGGCAACAGAGTGGAGGCTGAGGTCAGGAGAAGAAA
GACAAGACTACTCGGAAGAATGTGGGAGAAAAGAAGAGTGGCCAGTTCCAGGGGTAGCTCCAAAAGAGACTGCAG
AGCTGTCCGAGACCCTGACAAGGGAGGCCCAAGGCAACAGTTCCGCAGGAGTGGAGGCAGCAGAGCAGAGGCCTG
TGGAAGATGGCGAGAGGGGCATGAAGCCAACAGAAGGGTGGAAATGGACCCTGAACTCCGGGAAGGCTCGAGAAT
GGACACCCAGGGACATAGAGGCTCAAACTCAGAAACTAGAACCTCCAGAGTCAGCAGAGAAGCTTCTGGAATCTC
CCGGTGTGGAGGCTGGAGAAGGGGAGGCTGAGAAGGAGGAGGCGGGGGCTCAGGGCAGGCCTCTGAGAGCCCTGC
AGAACTGCTGCTCTGTGCCCTCCCCCCTCCCACCAGAGGACGCTGGGACTGGAGGCCTGAGACAGCAGGAAGAGG
AAGCAGTGGAGCTCCAGCCCCCACCACCAGCCCCTCTGTCTCCCCCACCCCCAGCCCCAACTGCCCCCCAACCTC
CTGGGGATCCCCTCATGAGCCGCCTGTTCTATGGGGTGAAGGCAGGGCCAGGGGTGGGGGCCCCCCGCCGCAGTG
GACACACCTTCACCGTCAACCCCCGGCGGTCTGTGCCCCCTGCGACCCCAGCCACCCCAACCTCTCCAGCCACAG
TTGATGCTGCAGTCCCGGGGGCTGGGAAGAAGCGGTACCCAACTGCCGAGGAGATCTTGGTTCTGGGGGGCTACC
TCCGTCTCAGCCGCAGCTGCCTTGCCAAGGGGTCCCCCGAAAGACACCACAAACAGCTTAAGATCTCCTTCAGCG
AGACAGCCCTGGAGACCACGTACCAATACCCCTCCGAGAGTTCGGTACTGGAGGAGCTGGGCCCGGAGCCTGAGG
TCCCCAGTGCCCCCAACCCTCCAGCAGCCCAACCCGACGACGAAGAGGATGAGGAAGAGCTGCTGCTGCTGCAGC
CAGAGCTCCAGGGCGGGCTGCGCACCAAGGCCCTGATTGTGGATGAGTCCTGCCGGCGG**TGA**CCATCTTCCAACA
TAGGGATATACCTCCCTCCTTCTTATAACTGAAGATCCTGGAGCCCGGAAGATTCAGGGCAGACAGACCCTGATA
ATGAGCCTGGCAGGGAAGGGCAACCAACATCTTGTAACTTGCTTTCCCCACCCTGTTTCTGGGGGCAGAGCCAAT
TGCCCAATTTCTACCCTAATCCAAAGTCCCTGGTGTGGGTGGGGTTAAACGTGCTGGTGCATCCTAGGTCATCCA
AGAGTGAGCGCCAAGTCCTGAGAAGGGGCACAGAACTCCCTGGAGGGTGGAGATGGAGCACCTGCCCCCCATGGC
AGGGTACACTCTCCCCACAGCCTTCCTCCCCACCATCCCGTGGGGACTCTCGGGATTTAAGCACTCGTCTCTCTG
GGAGGCCCAGACCCCACTCCATTTATAGGCACATCTCCTTCATTTCCTAGGTCACTGCCCCTTTGTTTACAGCTC

FIGURE 1819B

CTGCCTCCTCCCTTGACCACAGCCTGGTTTACAAATTCCATCAGCTCCCAGCCCCACCTGCCAAAGTCCCAGGTT
TACAAGCCACGCTTACTTGCTGTGTCTGCGTGGAATTCTCTCCTCTGTCCCCTCCAGTCTCCTCATTGGAGTGAC
CTGAAGGTGTGGCTTCCTCCACTTTTTCTCAGTATTACTTTGCCTTAGTTTTCCCCAAGAGGGAAGGCTGGAACT
CTTAACTCTGTACCCCTTGATAGTTATTTAATTCTGTTTCTCCTAGTGGTTCACAATTGAACTGAATTGAGATGG
TGTCGGGTGGCTAAGGAGACACCTCACCTCTCCTTCCCCATTGTGCCGCCTTTATCAATTGCCTGTTTTGTTTTG
TTTGTTTTTTAACTTTCCATAATAAAATGGAGTTCTCTTC

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FIGURE 1820

GTCGGAAGATCCTAGAGGTCCCAAGGTAGCTGACTTGCGAAGCTGAGGCTCCAGCCGAGGGCTCCAGGCCTCTGA
CCGGCCCAGCAGTGAGCGCGGCTGCCCGACGCTTCAGGGCCGGGAGCAGGGAGCGTGAGTCGCC**ATG**GCGACGCC
GGCGGGTCTGGAGCGCTGGGTTCAGGACGAGCTGCACTCGGTGTTGGGGCTGAGCGAGCGGCACGTCGCCCAGTT
TCTGATCGGTACCGCACAGCGCTGCACCTCTGCCGAGGAGTTCGTGCAGCGCCTACGAGACACTGATACCTTGGA
TCTCAGTGGGCCGGCCCGGGACTTCGCCCTGAGACTCTGGAACAAGGTACCACGAAAGGCAGTGGTAGAAAAGCC
AGCTCGGGCAGCAGAGCGAGAGGCCCGGGCCCTGCTGGAGAAGAACCGATCTTATAGGTTACTGGAAGACAGTGA
AGAGAGCAGTGAGGAGACTGTGAGTAGGGCTGGAAGCAGCCTCCAGAAGAAACGTAAAAAGCGGAAACACCTCAG
GAAGAAGCGTGAGGAAGAAGAGGAGGAAGAGGCTTCTGAGAAAGGGAAGAAGAAAACAGGGGGGAGTAAACAGCA
GACAGAGAAGCCAGAGTCGGAAGATGAGTGGGAACGGACAGAGCGTGAACGCCTTCAGGACCTGGAGGAGCGTGA
TGCCTTTGCTGAGCGGGTTCGACAGCGGGACAAGGATCGGACTCGAAATGTCCTGGAACGGTCAGACAAGAAGGC
TTATGAAGAGGCTCAGAAGCGCCTCAAGATGGCCGAGGAAGACCGGAAGGCCATGGTCCCTGAGCTGCGGAAGAA
ATCTCGCCGAGAGTACCTGGCTAAGCGGGAGCGAGAGAAGCTTGAGGACCTGGAGGCGGAGCTGGCTGATGAGGA
GTTCCTTTTTGGGGACGTGGAGCTGAGCCGGCACGAGCGGCAGGAGCTCAAATATAAGCGGCGAGTGCGGGATCT
CGCCCGGGAGTACCGGGCAGCTGGGGAGCAGGAGAAGCTGGAGGCCACCAATCGCTACCACATGCCCAAGGAAAC
CCGAGGACAGCCAGCCCGAGCTGTGGATCTAGTGGAGGAGGAATCAGGAGCCCCTGGGGAGGAGCAGCGGCGCTG
GGAGGAGGCGCGGCTTGGGGCAGCGTCCCTGAAGTTTGGGGCCCGAGATGCTGCCTCTCAGGAGCCCAAGTATCA
ACTGGTGCTGGAGGAGGAGGAGACCATTGAGTTTGTCCGGGCCACTCAGCTCCAGGGTGATGAGGAGCCGTCAGC
TCCACCCACTTCAACTCAGGCCCAGCAGAAAGAGTCCATCCAGGCCGTCCGCCGCAGCCTCCCGGTGTTCCCATT
TCGAGAGGAGCTCCTGGCTGCTATTGCAAATCACCAAGTCCTCATCATTGAAGGCGAGACAGGCTCAGGGAAGAC
CACCCAGATCCCGCAGTATCTCTTTGAGGAGGGTTATACAAACAAGGGTATGAAGATTGCCTGCACCCAACCCCG
GAGAGTGGCTGCCATGAGTGTGGCCGCCCGAGTGGCCCGGGAGATGGGTGTGAAGCTTGGGAATGAGGTTGGCTA
CAGCATCCGCTTTGAGGACTGCACATCAGAGCGAACTGTCCTCCGCTACATGACAGATGGGATGCTTCTCCGGGA
GTTCCTCTCTGAGCCTGACCTGGCGAGTTACAGCGTGGTGATGGTGGATGAGGCACACGAAAGGACCCTACACAC
AGACATTCTCTTTGGATTGATCAAGGATGTTGCTCGCTTCCGACCTGAGCTCAAGGTCCTGGTGGCTTCAGCCAC
AATGGACACTGCCCGTTTTTCCACCTTCTTTGATGACGCCCCTGTGTTTCGAATCCCCGGACGCAGGTTTCCTGT
GGACATCTTCTACACCAAGGCTCCAGAGGCTGACTACTTGGAAGCTTGTGTAGTATCTGTGTTGCAGATCCATGT
GACCCAGCCCCCTGGGGATATCCTGGTGTTCCTGACAGGACAGGAGGAGATTGAGGCTGCCTGTGAGATGCTCCA
GGATCGCTGCCGCCGCCTGGGCTCCAAAATCCGGGAGCTCCTGGTGCTGCCCATTTATGCCAATCTGCCCTCTGA
CATGCAGGCCCGTATCTTCCAGCCCACACCACCTGGGGCACGAAAGGTGGTTGTGGCAACGAACATTGCTGAGAC
ATCACTCACCATTGAGGGCATCATTTATGTGCTGGATCCAGGGTTCTGTAAGCAGAAGAGCTACAACCCCCGCAC
AGGCATGGAATCGCTCACTGTCACACCCTGCAGCAAGGCCTCAGCCAATCAGCGAGCTGGCAGGGCAGGTCGGGT
GGCTGCAGGGAAGTGCTTCCGCCTGTATACCGCCTGGGCCTATCAGCACGAGCTTGAGGAAACCACAGTGCCTGA
GATCCAGAGGACCAGCTTGGGCAATGTCGTGTTGCTGCTCAAGAGCTTAGGGATCCATGACCTAATGCACTTTGA
TTTCCTGGACCCTCCACCATATGAGACACTGCTGCTGGCTTTGGAGCAGCTGTATGCTCTGGGAGCCCTCAACCA
CCTTGGGGAGCTCACCACGTCTGGTCGAAAGATGGCAGAGCTGCCGGTGGACCCCATGCTGTCCAAAATGATCTT
AGCCTCTGAGAAGTACAGCTGTTCAGAGGAGATCCTGACAGTGGCTGCCATGCTCTCTGTCAACAACTCCATCTT
CTACCGACCAAAGGACAAGGTCGTCCATGCTGACAATGCCCGTGTCAACTTCTTTCTCCCTGGCGGTGACCACCT
GGTTCTGCTAAATGTTTACACACAGTGGGCTGAGAGTGGTTACTCTTCCCAGTGGTGCTATGAGAACTTTGTACA
GTTCAGATCGATGCGCCGAGCCCGGGATGTGCGGGAACAGCTGGAAGGGCTCTTGGAACGTGTGGAAGTTGGTCT
CAGTTCCTGCCAGGGGGACTATATCCGTGTACGCAAGGCCATCACTGCTGGTTACTTTTACCACACGGCACGGTT
GACTCGGAGTGGCTACCGCACAGTGAAACAGCAGCAGACAGTCTTCATTCATCCCAACTCCTCCCTCTTTGAGCA
ACAGCCACGCTGGCTGCTCTACCACGAACTTGTCTTGACCACCAAAGAGTTCATGAGACAGGTACTGGAGATTGA
GAGCAGTTGGCTTCTGGAGGTGGCTCCCCATTATTATAAGGCCAAGGAGCTAGAAGATCCCCATGCTAAGAAAAT
GCCCAAAAAAATAGGCAAAACACGAGAAGAGCTAGGG**TAA**GAGAAGGACGTAAACAGAACCTGACACCAGCTCCT
TTTCCTTCTATACATTATTTAATACCTATTAAATAAAATTATTTTTGGAATAAAGCTTGTGGGAACATTTGGGAT
CT

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FIGURE 1821

GCCTTTCCGTCAATTCCTGTCCTGGGCGTACGTCAAG**ATG**GCGGCGTCTGTATTAAACACCGTGCTGAGGCGGCT
TCCTATGCTATCTCTCTTCCGAGGTTCTCACAGAGTTCAGGTTCCCCTCCAGACTCTTTGCACCAAAGCTCCCTC
TGAGGAAGATTCTTTGTCCTCAGTTCCCATTTCTCCTTATAAGGATGAGCCCTGGAAATATCTGGAATCAGAAGA
ATACCAGGAGCGATATGGTTCTCGCCCCGTCTGGGCTGACTACCGCCGCAACCACAAGGGTGGTGTACCCCCACA
GCGGACTCGGAAGACATGTATTCGTCGGAATAAAGTTGTTGGGAATCCCTGCCCCATCTGTCGAGATCACAAGTT
GCATGTTGACTTTAGGAACGTGAAGCTCTTGGAGCAATTTGTCTGCGCCCACACGGGTATCATCTTCTATGCTCC
ATACACAGGAGTCTGTGTGAAGCAGCACAAGCGGTTGACCCAGGCCATCCAGAAAGCCAGGGATCATGGTCTCCT
CATTTACCACATCCCCCAGGTTGAACCACGGGACCTTGACTTCAGTACCTCTCATGGGGCTGTGAGTGCTACTCC
GCCAGCCCCCACCCTGGTCTCAGGTGACCCCTGGTACCCATGGTACAACTGGAAACAGCCACCGGAGAGAGAACT
GTCTCGCCTTCGCCGGCTTTACCAGGGTCATCTCCAAGAAGAGAGTGGCCCCCCACCTGAGTCAATGCCCAAGAT
GCCCCCTAGAACACCAGCGGAAGCCTCCTCCACTGGGCAGACAGGCCCTCAGAGTGCTCTG**TAG**GAGCTGTAGAC
TGGGAAGAGAGGCCAGGCGTGGTGGCTCACTCCTGTAATCCCAGCACTTTGGGAAGCCAAGGTGGGCTGATCACT
TGATCCCAGGAGTTTGAGACCAGCCTGGGCACCATGGTGAAACCTCGTCTTTACCAAAAAATACAAAAATTAGCT
GGGTGTGGTGGTGCACACCTGTAGTCTCAACTATTGGGGAGGCTAAGGTAGGATCACTTGATCCCAGGAGGCGGA
GGTTGCAGTGAGTTGCAGTCACACCCCTGCACTCCAGCCTGGGTGACAGCTAGACCCTGTCTCAAAAAAAAAAAA
AAAGACTGGGAAGAGAGCTAGAGGGACTAGGAGATAATGTGTATGTAGGTTTATGTGATGGGATATCACCCTGAA
GAGTTGTGTCTTTTGTGGCCAGTGACAAATCCAGGAAATGAATGTTGCTGATAGGGATAAATCTTGAGGCTGAGG
GCGGGTGGTACAGATGTGTATGGGAAACCCCAACCCCTATATATTGTAAATAGATGGGCTGGGCTAAACATTGTT
GCCGTTTCATACTTCTACCAACTCAGCTTTTACACAATAAAGCTCTACTGTCTCTGG

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FIGURE 1822

CGGGGGCGGGGTTGGCCGCGCCAGCTTGGAGAGCCAGCCCCATCGGGGTTCCCCGCCGCCGGAAGCGGAAATAGC
ACCGGGCGCCGCCACAGTAGCTGTAACTGCCACCGCG**ATG**CCGAAGGCGCCCAAGCAGCAGCCGCCGGAGCCCGA
GTGGATCGGGGACGGAGAGAGCACGAGCCCATCAGACAAAGTGGTGAAGAAAGGGAAGAAGGACAAGAAGATCAA
AAAAACGTTCTTTGAAGAGCTGGCAGTAGAAGATAAACAGGCTGGGGAAGAAGAGAAAGTGCTCAAGGAGAAGGA
GCAGCAGCAGCAGCAACAGCAACAGCAGCAAAAAAAAAAGCGAGATACCCGAAAAGGCAGGCGGAAGAAGGATGT
GGATGATGATGGAGAAGAGAAAGAGCTCATGGAGCGTCTTAAGAAGCTCTCAGTGCCAACCAGTGATGAGGAGGA
TGAAGTACCCGCCCCAAAACCCCGCGGAGGGAAGAAAACCAAGGGTGGTAATGTTTTTGCAGCCCTGATTCAGGA
TCAGAGTGAGGAAGAGGAGGAGGAAGAAAAACATCCTCCTAAGCCTGCCAAGCCGGAGAAGAATCGGATCAATAA
GGCCGTATCTGAGGAACAGCAGCCTGCACTCAAGGGCAAAAAGGGAAAGGAAGAGAAGTCAAAAGGGAAGGCTAA
GCCTCAAAATAAATTCGCTGCTCTGGACAATGAAGAGGAGGATAAAGAAGAAGAAATTATAAAGGAAAAGGAGCC
TCCCAAACAAGGGAAGGAGAAGGCCAAGAAGGCAGAGCAGGGTTCAGAGGAAGAAGGAGAAGGGGAAGAAGAGGA
GGAGGAAGGAGGAGAGTCTAAGGCAGATGATCCCTATGCTCATCTTAGCAAAAAGGAGAAGAAAAAGCTGAAAAA
ACAGATGGAGTATGAGCGCCAAGTGGCTTCATTAAAAGCAGCCAATGCAGCTGAAAATGACTTCTCCGTGTCCCA
GGCGGAGATGTCCTCCCGCCAAGCCATGTTAGAAAATGCATCTGACATCAAGCTGGAGAAGTTCAGCATCTCCGC
TCATGGCAAGGAGCTGTTCGTCAATGCAGACCTGTACATTGTAGCCGGCCGCCGCTACGGGCTGGTAGGACCCAA
TGGCAAGGGCAAGACCACACTCCTCAAGCACATTGCCAACCGAGCCCTGAGCATCCCTCCCAACATTGATGTGTT
GCTGTGTGAGCAGGAGGTGGTAGCAGATGAGACACCAGCAGTCCAGGCTGTTCTTCGAGCTGACACCAAGCGATT
GAAGCTGCTGGAAGAGGAGCGGCGGCTTCAGGGACAGCTGGAACAAGGGGATGACACAGCTGCTGAGAGGCTAGA
GAAGGTGTATGAGGAATTGCGGGCCACTGGGGCGGCAGCTGCAGAGGCCAAAGCACGGCGGATCCTGGCTGGCCT
GGGCTTTGACCCTGAAATGCAGAATCGACCCACACAGAAGTTCTCAGGGGGCTGGCGCATGCGTGTCTCCCTGGC
CAGGGCACTGTTCATGGAGCCCACACTGCTGATGCTGGATGAGCCCACCAACCACCTGGACCTCAACGCTGTCAT
CTGGCTTAATAACTACCTCCAGGGCTGGCGGAAGACCTTGCTGATCGTCTCCCATGACCAGGGCTTCTTGGATGA
TGTCTGCACTGATATCATCCACCTCGATGCCCAGCGGCTCCACTACTATAGGGGCAATTACATGACCTTCAAAAA
GATGTACCAGCAGAAGCAGAAAGAACTGCTGAAACAGTATGAGAAGCAAGAGAAAAAGCTGAAGGAGCTGAAGGC
AGGCGGGAAGTCCACCAAGCAGGCGGAAAAACAAACGAAGGAAGCCCTGACTCGGAAGCAGCAGAAATGCCGACG
GAAAAACCAAGATGAGGAATCCCAGGAGGCCCCTGAGCTCCTGAAGCGCCCTAAGGAGTACACTGTGCGCTTCAC
TTTTCCAGACCCCCCACCACTCAGCCCTCCAGTGCTGGGTCTGCATGGTGTGACATTCGGCTACCAGGGACAGAA
ACCACTCTTTAAGAACTTGGATTTTGGCATCGACATGGATTCAAGGATTTGCATTGTGGGCCCTAATGGTGTGGG
GAAGAGTACGCTACTCCTGCTGCTGACTGGCAAGCTGACACCGACCCATGGGGAAATGAGAAAGAACCACCGGCT
GAAAATTGGCTTCTTCAACCAGCAGTATGCAGAGCAGCTGCGCATGGAGGAGACGCCCACTGAGTACCTGCAGCG
GGGCTTCAACCTGCCCTACCAGGATGCCCGCAAGTGCCTGGGCCGCTTCGGCCTGGAGAGTCACGCCCACACCAT
CCAGATCTGCAAACTCTCTGGTGGTCAGAAGGCGCGAGTTGTGTTTGCTGAGCTGGCCTGTCGGGAACCTGATGT
CCTCATCTTGGACGAGCCAACCAATAACCTGGACATAGAGTCTATTGATGCTCTAGGGGAGGCCATCAATGAATA
CAAGGGTGCTGTGATCGTTGTCAGCCATGATGCCCGACTCATCACAGAAACCAATTGCCAGCTGTGGGTGGTGGA
GGAGCAGAGTGTTAGCCAAATCGATGGTGACTTTGAAGACTACAAGCGGGAGGTGTTGGAGGCCCTGGGTGAAGT
CATGGTCAGCCGGCCCCGAGAG**TGA**AGCTTTCCTTCCCAGAAGTCTCCCGAGAGACATATTTGTGTGGCCTAGAA
GTCCTCTGTGGTCTCCCCTCCTCTGAAGACTGCCTCTGGCCTGCAGCTGACCTGGCAACCATTCAGGCACATGAA
GGTGGAGTGTGACCTTGATGTGACCGGGATCCCACTCTGATTGCATCCATTTCTCTGAAAGACTTGTTTGTTCTG
CTTCTCTTCATATAACTGAGCTGGCCTTATCCTTGGCATCCCCCTAAACAAACAAGAGGTGACCACCTTATTGTG
AGGTTCCATCCAGCCAAGTTTATGTGGCCTATTGTCTCAGGACTCTCATCACTCAGAAGCCTGCCTCTGATTTAC
CCTACAGCTTCAGGCCCAGCTGCCCCCCAGTCTTTGGGTGGTGCTGTTCTTTTCTGGTGGATTTAATGCTGACTC
ACTGGTACAAACAGCTGTTGAAGCTCAGAGCTGGAGGTGAGCTTCTGAGGCCTTTGCCATTATCCAGCCCAAGAT
TTGGTGCCTGCAGCCTCTTGTCTGGTTGAGGACTTGGGGCAGGAAAGGAATGCTGCTGAACTTGAATTTCCCTTT
ACAAGGGGAAGAAATAAAGGAAAGGAGTTGCTGCCG

FIGURE 1823

AACCCAAGCGGGACAAGGACTTTTGGGGGGAGGTCAAAGGGCACGAAGTTGTGCCTGCAGCTGTTACCATAGTAA
CCGAGGACCGGATGTGGCGATCTTACGGTGCGACAGTCCTCTTCTCAGGCCCTCTGGCCCGAGAGCCTGTTGACT
CTGTGACACACTCTGAGGAGCTGGTTGTGGTGTTTTCCAGCGAGGGAAGAAAAGAGTAATTTTTTCAAAGCATTT
ATAGAAACGCAGCAAAGGGAAGGTGTGAGGTTGCCGCCATGCCTGGCAGAGACGGAGGGAGGCAGTTGGCTCCGG
A**ATG**CGGCCGCCGCAGATGTTCTCCGCAACCTTCCGGAAGTGGAATGGCGGGAGCCTCAGCATTGCTGCCCACCG
ACCCCCCGGAAGCGGAAACAGAATCCCCGCGTGCCCCTTCCTCACTACCCTCCAAATCCCGCTGCAGCCATTGCC
GCAGACACGATGCCGAAACGAAAGAAGCAGAATCATCACCAGCCACCGACACAGCAGCAGCCCCCGCTGCCCGAG
CGGGAAGAGACTGGAGATGAGGAGGATGGGAGTCCCATCGGACCACCCAGCCTTCTGGGCCCTCCCCCCATGGCC
AATGGAAAACCTGGCGACCCTAAGTCAGCCCCAAACTGGATACCACCCACATGTCCATCATCAG**TAG**AATGGATA
AATAAATTGTTGTGTATGCATGCAATGGGACTACACTGCAACGAAAATGAATGAACTGCTGCTACAGGCAACCTG
GATGAATCTCACAAACATGATGTTGAGCGAAAGGAGCCAGACATAAAAGAATGCAGACTCTCTTCACAGAGGTCC
TCCAGGATCAAGGGGACCACTGATTCCACCACTGCTGAGTCTCCCACCTCCTCCTTGGGGTAGAGGCCCAATTCG
GAGAGGGCTTGGCCCCAGGTCTAGCCCATATGGTCGTGGTTGGTGGGGAGTCAATGCAGAACCTCCTTTTCCGGG
GCCAGGCCATGGGGGTCCCACCAGGGGAAGCTTTCACAAGGAACAGAGAAACCCTCGAAGGCTCAAAAGCTGGTC
TCTTATCAAGAATACCTGCCCGCCCAAGGATGACCCCCAGGTTATGGAAGACAAATCCGACCGCCCTGTCTGCCG
ACATTTTGCCAAAAAGGGCCACTGTCGATATGAGGACCTCTGTGCCTTCTACCACCCAGGCGTCAATGGACCTCC
TCTGTGAGACTGTGCCTTCCCATCCAGGCTGGAAGGAGCTCTCTGTGACCTAGCGGCCATTTATTTCTCTGTAGC
CCTATGATGGCTACTGTGAGGCTCTTCTAACACCCTCAGTCAGTGACACACCCATCCCATCCACCACTTCCCCCG
TGTGGGGTCCAGAGTGGTGTTGCATCACTGGTGCGCGGCATACGCGCTTTCTTCTGATCCAGCCTGTAGAGACTC
GCCTTTGGGACCCATCTTTGCTTCCTTTCAGTTGCCTCCTGGATCTTCTTTCCCGTCATCAAATGACTGCTGAAC
AGGAAACCTCTTTGGTGCTGTTTCTTGTGCATCTGTCCACCTGTTCCCCAGTATTGCCCTCAATTCCTGAGAGCC
CTGGAGCGGTTTCCTACCATTCCCTTCTTTTAGCTGCTTGTTTTAAGTCCTTTTTATGTGACATTCCCTACCCCC
AATGTTGTCAGCTGCTTGTGAAACTCAGCCAGGTTGTCTAACCTGGGGTCAAGTTTGGGTGACTGGTGCAGAGTT
ACTTCCTAAAAGGCCACTCTCCCTGCCTTTGGATTTCATAGTTTCTCTGTCAGTAGCATGATCCCCACCGCTATG
GTCTATCTATGATCACCGTGCTTTGTGAAACTGTGCATCCCCTTGTAGCCTTTCTCAGTGTCCGTGGCATTTTTG
TGACTTCCCAGCACTAGAATAAGTTTTCCTGCCAAAATGAGTGAGGCGCTTGGTGCCCTCTGGACTTTCCCACTT
CCCAACATGGGAGAATTGTGAACTTTCCATCAGACTGCCTCCCTGGCCCTCCCCATTCTTCTCCTGTTGGTTATT
CTGAGTCTGACACAGACCCATGACATGTCTTATAAAGCCTCCAATGGCTTTATCCTACCTAGATCCCTTCCAGCC
CATTTTAATTAGACTATGTCATTGTGAGGCCACCAGTCCATTCATTTGAATTCTGTGAATCTCCACCTTGCCTAT
CTTTGGGTAGAAGCTGGACAGTACTGTTGCCCTCTTCCAATCCTCTTCCCCTACATCCCTGGCACTGGTTGTTTT
CTGTGAAAACAGCAGTGAACAGGTTCAGTTTTGAACTGGCCCTGAGGAAATGGGTCAGGAGTTGTATTGGCAAGA
GGGAGGGGTGAGAGCTGTTGGAGAACTGAGAATGAGGTTTTTTTTTTTTTTTCTTTTTAACTTTTTTTATATTA
GTAATAAATGCAGTGGAAACCAGCATTTTATTT

FIGURE 1824

GGGAGCTCGGCGGAGGGCGGGCCAGGTGACTGGTCCGGGCC**ATG**CCGAGGAAGAAGCCATTCAGCGTGAAGCAGA
AGAAGAAGCAGTTGCAGGACAAACGGGAGCGGAAGAGAGGGCTTCAAGATGGGCTGCGCTCCAGTTCCAACAGCC
GCAGCGGGAGCCGGGAGCGGCGAGAGGAACAGACCGACACCTCGGACGGGGAGTCTGTGACCCATCATATCCGCA
GGCTTAACCAGCAGCCTTCTCAGGGGCTGGGTCCACGAGGCTACGACCCAAATCGATACCGACTGCATTTTGAGA
GAGACAGCAGGGAGGAGGTAGAGAGGAGAAAGAGAGCAGCCCGGGAGCAAGTTCTACAGCCGGTCAGTGCTGAGT
TGTTGGAGCTGGACATCCGGGAGGTGTATCAGCCTGGCTCAGTTCTGGACTTTCCTCGACGTCCTCCTTGGAGCT
ATGAGATGTCCAAGGAGCAACTAATGAGCCAAGAGGAACGGAGCTTCCAAGACTATCTTGGGAAGATTCATGGGG
CTTACTCCTCTGAGAAACTCAGCTACTTTGAGCACAATCTGGAGACATGGAGGCAGCTGTGGCGGGTGTTAGAGA
TGTCTGACATCGTCCTGCTTATCACTGATATCCGACATCCAGTTGTGAATTTCCCGCCAGCACTTTATGAGTATG
TGACTGGAGAACTTGGACTGGCCCTGGTGCTGGTTTTGAACAAGGTGGATCTGGCCCCGCCAGCTCTTGTGGTTG
CCTGGAAGCATTATTTCCATCAACACTATCCCCAGCTCCACGTCGTCCTTTTCACCTCTTTTCCTCGGGACCCCC
GCACCCCACAGGATCCTAGTAGTGTCTTGAAGAAGAGTCGGAGGCGGGGGAGAGGATGGACTCGGGCCCTGGGGC
CAGAGCAGTTGCTGAGAGCCTGTGAAGCCATCACTGTGGGGAAAGTGGACTTGAGCAGCTGGCGGGAGAAGATTG
CTCGGGATGTGGCTGGGGCCACCTGGGGTAATGGCTCTGGGGAGGAGGAGGAAGAGGAGGATGGCCCAGCAGTCC
TGGTGGAGCAGCAGACTGATTCAGCAATGGAGCCAACTGGCCCAACCCAAGAGCGCTACAAGGATGGGGTGGTGA
CCATCGGCTGTGTGGGTTTCCCTAATGTGGGAAAGTCCTCGCTGATCAATGGGCTGGTGGGGCGGAAAGTCGTGA
GTGTCTCCAGAACCCCGGGCCATACCCGATACTTTCAGACCTACTTTCTTACCCCCTCTGTGAAGCTCTGTGACT
GCCCAGGCCTCATCTTCCCATCTCTTCTGCCTAGGCAGTTGCAGGTTCTGGCAGGGATCTACCCTATCGCCCAGA
TCCAGGAGCCCTACACTGCTGTGGGCTACCTGGCCTCCCGAATTCCCGTGCAGGCCCTGCTCCACCTGCGCCACC
CAGAGGCTGAGGACCCCTCAGCGGAACACCCCTGGTGTGCCTGGGACATCTGTGAAGCCTGGGCAGAGAAACGTG
GTTACAAGACAGCCAAGGCGGCTCGGAATGATGTGTACAGAGCAGCCAACAGTCTCTTGCGGCTGGCAGTGGACG
GCCGCCTCAGCCTGTGTTTTCATCCCCCAGGCTACAGTGAACAGAAAGGCACCTGGGAGTCCCATCCAGAGACCA
CGGAGCTGGTGGTTTTGCAGGGCAGGGTGGGGCCAGCAGGTGACGAGGAGGAGGAGGAAGAGGAAGAGCTGAGCA
GCTCCTGTGAGGAGGAGGGAGAGGAGGACCGGGATGCGGATGAGGAGGGAGAAGGGGATGAGGAGACCCCAACCT
CGGCTCCAGGGTCCAGCCTGGCTGGCCGAAACCCTTATGCCCTGCTGGGTGAGGATGAGTGC**TGA**GTTCCTCGCC
CAGCGCCATCTTCCCTCCCAGTATCTTTGCTTTTGGACTGACCTGGGGGTATCTCCCCTCTGCCACCCCAATTGT
GAATAAAGATTGTTTGCTTTGTAGCCCCTTCCCCAGATGAACTGAGGTGAGAGCGGCTGTTCCAGGCTAACAGCT
GTGGGAGGCTTCTCTCCTCTTCTCCCTTCTTTTTT

FIGURE 1825

GGGATC**ATG**GTAGATGGAACCCTCCTTTTACTCCTCTCGGAGGCCCTGGCCCTTACCCAGACCTGGGCGGGCTCC
CACTCCTTGAAGTATTTCCACACTTCCGTGTCCCGGCCCGGCCGCGGGGAGCCCCGCTTCATCTCTGTGGGCTAC
GTGGACGACACCCAGTTCGTGCGCTTCGACAACGACGCCGCGAGTCCGAGGATGGTGCCGCGGGCGCCGTGGATG
GAGCAGGAGGGGTCAGAGTATTGGGACCGGGAGACACGGAGCGCCAGGGACACCGCACAGATTTTCCGAGTGAAC
CTGCGGACGCTGCGCGGCTACTACAATCAGAGCGAGGCCGGGTCTCACACCCTGCAGTGGATGCATGGCTGCGAG
CTGGGGCCCGACAGGCGCTTCCTCCGCGGGTATGAACAGTTCGCCTACGACGGCAAGGATTATCTCACCCTGAAT
GAGGACCTGCGCTCCTGGACCGCGGTGGACACGGCGGCTCAGATCTCCGAGCAAAAGTCAAATGATGCCTCTGAG
GCGGAGCACCAGAGAGCCTACCTGGAAGACACATGCGTGGAGTGGCTCCACAAATACCTGGAGAAGGGGAAGGAG
ACGCTGCTTCACCTGGAGCCCCCAAAGACACACGTGACTCACCACCCCATCTCTGACCATGAGGCCACCCTGAGG
TGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCAGGATGGGGAGGGCCATACCCAGGAC
ACGGAGCTCGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAGTGGGCAGCTGTGGTGGTGCCTTCTGGA
GAGGAGCAGAGATACACGTGCCATGTGCAGCATGAGGGGCTACCCGAGCCCGTCACCCTGAGATGGAAGCCGGCT
TCCCAGCCCACCATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGATCTGTGGTCTCTGGAGCTGTG
GTTGCTGCTGTGATATGGAGGAAGAAGAGCTCAGGTGGAAAAGGAGGGAGCTACTCTAAGGCTGAGTGGAGCGAC
AGTGCCCAGGGGTCTGAGTCTCACAGCTTG**TAA**AGCCTGAGACAGCTGCCTTGTGTGCGACTGAGATGCACAGCT
GCCTTGTGTGCGACTGAGATGCAGGATTTCCTCACGCCTCCCCTATGTGTCTTAGGGGACTCTGGCTTCTCTTTT
TGCAAGGGCCTCTGAATCTGTCTGTGTCCCTGTTAGCACAATGTGAGGAGGTAGAGAAACAGTCCACCTCTGTGT
CTACCATGACCCCCTTCCTCACACTGACCTGTGTTCCTTCCCTGTTCTCTTTTCTATTAAAAATAAGAACCTGGG
CAGAGTGCGGCAGCTCATGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGAGGGCAGATCACGAGGTCAGGAGAT
CGAAACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAATTAGCTGGGCGCAGAGGCA
CGGGCCTGTAGTCCCAGCTACTCAGGAGGCGGAGGCAGGAGAATGGCGTCAACCCGGGAGGCGGAGGTTGCAGTG
AGCCAGGATTGTGCGACTGCACTCCAGCCTGGGTGACAGGGTGAAACGCCATCTCAAAAAATAAAAATTAAAAAA
TAAAAAAAGAACC

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FIGURE 1826

CCTGAGTCAGACGGGCATGGAGACGCTTCTGGAAGGAACACCGCA**ATG**GCTGCGCAGGGACAGCCCCAGGTCCAG
TTCAAACTTGTATTGGTTGGTGATGGTGGTACTGGAAAAACGACTTTCGTGAAACATCATTTGACTGGTGAATTT
GAGAAGAAGTATGTAGCCACCTTGGGTGTTGAGGTTCATCCCCTAGTGTTCCATACCAACAGAGGACCTGTTAAG
TTCAATGTATGGGACACAGCCGGCCTGGAGAAATTCAGTGGACTGAGAGATGGCTATTATATCCAAGCCCAGAGT
ACCATCATAGTGTTTGATGTAACATCGAGAGTTACTTACAAGAATGTGCCTAACTGGCATAGAGATCTGGTATGA
GTGTGTGAAAACACCCCCACTGTGTTGAGTGGCAACAAAGTGGATATTAAGGACAGGAAAGTGAAGGCGAAATCC
ATTGTCTTCCACCGAAAGAAGAATCTTCAGTACTACGACATTTCTGCCAAAAGTAACTATAACTTTGAAAAGCCC
TTCCTCTGGCTTGCTAGGAAGCTCATTGGAGACCCTAACTTGGAATTTGTTGCCATGCCTGCTCTCGCCCCACCA
GAAGTTGTCATGGACCCAGCTTTGGCAGCACAGTATGAGCACGACTTAGAGGTTGCTCAGACAACTGCTCTCCCG
GACGAGGATGATGACCTG**TGA**GAATGAAGCTGGAGCCCAGCGTCAGAAGTCTAGTTTTATAGGCAGCTGTCCTGT
GATGTCAGTTGTGCAGCGTGTGTGCCACCTCATTATTATCTAGCTAAGCGGAACATGTGCTTCATCTGTGGGATG
CTGAAGGAGATGAGTGGGCTTCGCAGTGAATGTGGCAGTTCAAAAAATACCTTCATTGTTTGGACCTGCATATTT
AGCTGTTTTGGAACACAGTTGATTCCTTGAGTTTCAAATATAGACTGCTACAGTCACATCACAATATTCAGCGGT
GAAATCTTGTTTGTTACTGTCATTCCCATTCCTTTTCGTTTAGAATCAGAATAAAGTTGTATTTCAAATATCTAA

FIGURE 1827

ATGTTCTTCCGCCCGCTGTTGGTGGCCGCCACCCTTCGGACCACACTGCGGGCTGCTGCTCAGGTTCTGGGAAGT
TCTGGATTGTTTAATAACCATGGACTCCAAGTACAGCAGCAACAGCAAAGGAATCTCTCACTACATGAATACATG
AGTATGGAATTATTGCAAGAAACTGGAAGTTTACATAGTGGGGCCAACATTGAAGATGTTGCTGCTGAGACTCCT
GAAGCAATAATTAAAGTACCTATTGATATTGTAGAAGCAGCAGAAAACATGATCAAGCTTTACAGCCTTTTTCTG
AAATACGATGCAACCATGATAGAAATAAATTCAATGGTGGAAGATTCAGATGGAGCTGCATTGTGTAAGGATGCA
AAGATCAATTTTGACTCTAATTCAGCCTATCGCCAAAAGAAAATGTTTGATCTACAGGACTGGACCCAGGAAGAT
GAAAGGAACAAAGATGCTGCTAAGGCAGATCTCAACTACACTGGCCTCGATGGAAGTATAGGCTGCCTAGTAAAT
GGTGCTGGTTTGGCTATGGCCACAATGGATATAATAAAACTTCATGGAGAGACTCCAGCTAATTTCCTTGTTGGT
GGTGGTGCTACAGTCCATCAAGTAACAGAAGCATTTAAGCCTATCACTTCAGATAAAAAGGTACTGGCTATTCTG
GTCAACATTTGTGGAGGAATCATGCACTGTGATATTACAGCAAAGGGTATAGTCATGGCAGTAAAAAGTTTGGAA
ATTAAAATACCTGTTGTGGTACAGTTACAAGGGAGTCTGGGCCAAAGCGCCAAAATCCGCCGCTGTCGCTCAGCT
GCAGCACGTTTCGCGCTGGGGAGCCTCTCCTGGTGGGCGACCGTCATGGACAATCGACAAGACCAGAAATTAGAT
TTGAGTCCAGAATCAAGGACCTTTAAGCAGGGATTGGAGATGGCAGGGGGCCAGGAT**TAA**

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FIGURE 1828

AGCGCGGCGGTG**ATG**GCGGGGCCGGTGAAGGACCGCGAGGCCTTCCAGAGGCTCAACTTCCTGTACCAGGCCGCC
CATTGTGTCCTTGCCCAGGACCCCGAGAACCAGGCGCTGGCGAGGTTTTACTGCTACACTGAGAGGACCATTGCG
AAGCGGCTCGTCTTGCGGCGGGATCCCTCGGTGAAGAGGACTCTCTGTCGAGGCTGCTCTTCCCTCCTCGTCCCG
GGCCTCACCTGCACCCACCGCCAGAGACGCTGCAGGGGACAGCGCTGGACCGTACAGACCTGCCTAACATGCCAG
CGCAGCCAACGCTTCCTCAATGATCCCGGGCATTTACTCTGGGGAGACAGGCCTGAGGCCCAGCTCGGGAGCCAA
GCAGATTCCAAACCACTACAACCCTTGCCAAACACAGCCCACTCCATTTCAGACCGCCTTCCTGAGGAGAAAATG
CAGACTCAGGGTTCCAGTAACCAG**TGA**TGGATTCACCCCATCTCCCAAATAAAGTTTACTTGTTTTACATTC

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FIGURE 1829

GGAGTCAGGAATGGAGAGAAGGGTAATGGTGTTACCTCTTATTGTGGAAACCTGTTGAGATCACAGAGAATATAC
TGACGGCATAAAAGGGCAGAACCATAGCAGGGTGCGCGCTGCTGTAGTTGCCTTCCATGGATCTATAGGAGAGCA
AGTCCTCCAGGAGAAGAAGTCCTCACCAGTGAACGGAGACCTCTCTGAACTAAGAATACC**ATG**GCCACGTCAGCC
CCACTACGGAGCCTGGAAGAGGAGGTGACCTGCTCCATCTGTCTTGATTACCTGCGGGACCCTGTGACCATTGAC
TGTGGCCACGTCTTCTGCCGCAGCTGCACCACAGACGTCCGCCCCATCTCAGGGAGCCGCCCCGTCTGCCCACTC
TGCAAGAAGCCTTTTAAGAAGGAGAACATCCGACCCGTGTGGCAACTGGCCAGCCTGGTGGAGAACATTGAGCGG
CTGAAGGTGGACAAGGGCAGGCAGCCGGGAGAGGTGACCCGGGAGCAGCAGGATGCAAAGTTGTGCGAGCGACAC
CGAGAGAAGCTGCACTACTACTGTGAGGACGACGGGAAGCTGCTGTGCGTGATGTGCCGGGAGTCCCGGGAGCAC
AGGCCCCACACGGCCGTCCTCATGGAGAAGGCCGCCCAGCCCCACAGGGAAAAAATCCTGAACCACCTGAGTACC
CTAAGGAGAGACAGAGACAAAATTCAGGGCTTCCAGGCAAAGGGAGAAGCTGATATCCTGGCCGCGCTGAAGAAG
CTCCAGGACCAGAGGCAGTACATTGTGGCTGAGTTTGAGCAGGGTCATCAGTTCCTGAGGGAGCGGGAGGAACAC
CTGCTGGAACAGCTGGCGAAGCTGGAGCAGGAGCTCACGGAGGGCAGGGAGAAGTTCAAGAGCCGGGGCGTCGGG
GAGCTTGCCCGGCTGGCCCTGGTCATCTCCGAACTGGAGGGCAAGGCGCAGCAGCCAGCTGCAGAGCTCATGCAG
GACACGAGAGACTTCCTAAACAGGTATCCACGGAAGAAGTTCTGGGTTGGGAAACCCATTGCTCGAGTGGTTAAA
AAAAAGACCGGAGAATTCTCAGATAAACTCCTCTCTCTGCAACGAGGCCTGAGGGAATTCCAGGGGAAGCTGCTG
AGAGACTTGGAATATAAGACAGTGAGCGTCACCCTGGACCCACAGTCGGCCAGTGGGTACCTGCAGCTGTCAGAG
GACTGGAAGTGCGTGACCTACACCAGCCTGTACAAGAGTGCCTACCTGCACCCCCAGCAGTTTGACTGTGAGCCT
GGGGTGCTGGGCAGCAAGGGCTTCACCTGGGGCAAGGTCTACTGGGAAGTGGAAGTGGAGAGGGAGGGCTGGTCT
GAGGATGAAGAAGAGGGGGATGAGGAGGAAGAGGGAGAAGAGGAGGAGGAGGAAGAGGAGGCCGGCTATGGGGAT
GGATATGACGACTGGGAAACGGACGAAGATGAGGAATCGTTGGGCGATGAAGAGGAAGAAGAGGAGGAGGAAGAG
GAGGAAGTTCTGGAAAGCTGCATGGTGGGGGTGGCTAGAGACTCTGTGAAGAGGAAGGGAGACCTCTCCCTGCGG
CCAGAGGATGGCGTGTGGGCGCTGCGCCTCTCCTCCTCCGGCATCTGGGCCAACACCAGCCCCGAGGCTGAGCTT
TTCCCAGCACTGCGGCCCCGGAGAGTGGGCATCGCCCTGGATTATGAAGGGGGCACCGTGACTTTCACCAACGCA
GAGTCACAGGAACTCATCTACACCTTCACTGCCACCTTCACCCGGCGCCTGGTCCCCTTCCTGTGGCTCAAGTGG
CCAGGAACACGCCTCCTGCTAAGACCC**TGA**GCCCTGACATCTGCCCCCAGCCCCAACCCTCAGATGCTTCACTTC
TTTGGAATTCCAGGACTCTCAATGGGGGGACGGGATGCCTGGCCTAAGCACCTGGAGCAGGGGACCCCATATCCA
CTGGTAGCCACCTCCCCATTGCTGTGGCCCCCTGAAATCTCACTCAGTGCTGTTGCTCCATCTACTGCCCTAATG
GGGCTCTTTTCCCACCTCCTGCTGGTTTCCCGAGGGAACTTCTGACCCTGGAGTCCATGAGGGCTCCTTTCCTTT
TTGACCACGACCTTGGCCCTAGCTCTGCACTCTCTGGAATAAGGGCCCGATGCAGCATTTTCTTGCCCAGTGTGG
CAAGACCTCAGAAAAACCAGTCAATTACGCCTAAGATCATTTTGCTGTCCTTAAACCCCCCAGGTTCCTTCTTGC
ACAAATCCACTCTGCTGCCCACCTTCCCTGGCATTTTAAACAGACCTACCCCACCCCAACTCAGAGTTAAGCATA
CATGGCAATGCTGAAAATAAACAAAATCCACTGAGGCTTCCCAGGCCATTTAAAGCCTGGAGTACCAGCGCATAT
CATCTCATGGGGTCCAGAGTGGAGTCCAGGCTTCTCTGAAACCAGGGCTGAGCATATTTCCATAGCCAAGGAGGT
GGGACTCCCTGGAGCTATCTGTGGTCTTAGGGAAGGATCCAGACATACACGGCTTTGGGGTACAAGCTGTGATCA
CTGATCAATAAATTATCTCTAGATTGGTCCTTGTGAGGGGAGTTTTAAGAATCCAGAACATCTTGCTCTTGATCA
GCACATCCAAAAACACCAAGACAAACATCCAGTGGAGCAGAACCTCTCCTGCCTCGGGAGTTCTGACCGGGTTCC
CCAGCAGGGTGTTAAGCCTCTGTCTCTGGCCCTACCAGCATCCAGGTTCCACTTTCCTAGGAGAGAGTGGAGATG
GGAAGACAGGGAAAGGAAGGCAGCAGGAGGCCACAAGCCCACCAGGTCTTCATGTCAAGAGAGGGAGTAACATGT
CTTCTCATTGCCCACGGACCCAACCTCTGTCCAGGTGCCCCTCATCATCACAGTTTAACACAAGCTCCCCTGCTC
CAGCCAAATTGATCTCCCAGTCTTGTCCTTACCCATTCCAAGTGCTCTGCCAGCCCCTGTTCATCCAAGTTTTAA
GTCCTCCACCCTGTTATAAGAGACTGTTCCAACGGCTCTGGGCCTCAGTGGTCACTTGACCACCATTGTCTCAGA
GCTGCCCACTTTGTGTGTGTCACATGCTGCCTGAGTCACATGTACATCTTATTTCTGCCTCTAGTTTTGTAAGCT
CCTGGAGGGCGGATAACATCTTATACTACTCTTGTATTCTCATGGCACCTAGTGCAGTGCTGGGCACAGAGTAGG
TGCTCAATAAAGACTTGTTGAATGA

FIGURE 1830

CGGCGAGCCGGAAGTGGGGTTAGCCAGGTTATCCCCAGGGGTGGAGAAGCGGAGGCCCAGGAGGAGGGGGAATAA
AGAAGGTGGAGGATCCTGGCTACCACTCTGAATCCGATACCGCTTCTCTTAGACCTCAGCGACAGAAAAAGGGAA
GGGTGTCTCATCCCCCTTCCTCCTCTCCTCCCTGTCCTGAGCCTTAGCC**ATG**GCCGAGGCAGGGGCTGGGCTGAG
CGAGACCGTCACTGAGACAACGGTTACCGTGACAACCGAGCCCGAGAACCGGAGCCTTACCATCAAACTTCGGAA
ACGGAAGCCAGAGAAAAAGGTAGAATGGACAAGTGACACTGTGGACAATGAACACATGGGCCGCCGCTCATCCAA
ATGCTGCTGTATTTATGAGAAACCTCGGGCCTTTGGCGAGAGCTCCACGGAAAGTGATGAGGAGGAAGAAGAGGG
CTGTGGTCATACACACTGTGTACGTGGCCACCGCAAAGGACGGCGTCGTGCAACCCTAGGACCGACCCCCACCAC
CCCTCCCCAGCCTCCTGACCCTTCCCAGCCCCCTCCAGGGCCAATGCAGCAC**TAA**ATCCCTCTCTCCTCCAGCAT
TCCTGTGTCTGTCTGGCCCTAAATGTATCCATGTGGCTACTTCTCCAGCCCCCTCCTTCCCTCTCTTCTGCCTGA
TAGAGGGAAGAGGAAGAGGAGGACGAACAGAGATCCTGAAATTCTGACTTGCTGCTATTCCAGAACCCAGCCTCC
TGGGTTTCCCCAGTCCTCATTTTTCCTCCCAATACCCACCCTTCTCTCTCGAGGGATCTAGGCACCTTGGTCCCA
GTGTCTTCCTTTTGTTCTCACTGCCAAACTGCCTGTCCTGGGATCTAGTTATCTTGGCCCTGCACTCTCAACATG
AGTAGCGAACACTTAAATTGGGTTTTCAACAGTCCCAGCTTTCACTGCCAGGGTCCCAGTCAGATTCCAGGAATT
TGCGCCCTAACTTTGCTTGCTAATCCTGGTTTAGAGCTATCCCACTAAAATATTTAATCCTAATTCTTAGTCCTT
GCCTGTGAGATATGAGGTCTTACAGGAGACCTCAGAGCTCCCAGCCCTTCTCCTCCTGCTAACCCTTCTCACACC
CTCAAGAGGAGTTAGAAAAGAGGTCCTTGTCATTCTCACCTCTTATGGAAAATGGAATAAGAAATAATCATATCC
TTTCTTCCCACCCTTCTCCTGTTATTTAGGATTTCTGACAAAGCTGGCTTGAGATTGGTCACTTAGAGCCGACTG
TCTCCTCTGCCTTTTGTTTTTCAGCTTCAGAGACAGATCCAATATAGTCCCAGGGACCTGGGTCTCTGGGAGAGG
AAGGAAGAGGGAGGGAGCAAAGAGATTGGGGTATGTCCCCTGTAGTACACTCTTACCTCTTACTTCCTAGACTTT
GATTTCTCCGGCAGCCCAGATGTTCAGTTCTCTTGGCCCCTCTCTACCCCTTACTGGGATCTGGTTTTCATTTTC
CGGTCCTTTTGCCATACACAGTTACAGAGATCAGTCAAATCCATACCACCACTGAGATCTCATTTATTGCCACAG
ATGCACAAAATAAATAACCCAAAATCAC

FIGURE 1831

GCAGAGCTGGCGCTCTAGCCCACGGAGTTGGTTAACTCCTCTCACCGGCCCCTGGAAAGGGTTCCAAGTCCTTTA
GTACCCGACGCTGTCTGGGAATTCCGGGCGTTTCGGCTCCTTGGTCGCAGAGGCAGGAGGCACCCGACCGC**ATG**T
CTGTCATGGACCTCGCCAATACTTGCTCCAGCTTTCAGTCGGACCTGGATTTCTGTTCAGATTGCGGCTCGGTCC
TGCCTCTGCCCGGGGCTCAGGATACGGTCACCTGTATTCGCTGTGGCTTCAACATCAACGTTCGGGACTTTGAGG
GGAAGGTTGTGAAGACTTCGGTTGTGTTCCACCAACTGGGGACAGCCATGCCTATGTCGGTGGAGGAAGGGCCTG
AGTGCCAGGGACCTGTGGTTGACAGGCGCTGCCCTCGATGTGGTCATGAAGGAATGGCATACCACACCAGACAGA
TGCGTTCAGCCGATGAAGGGCAAACTGTCTTCTACACCTGTACCAACTGCAAGTTCCAGGAGAAGGAAGACTCT**T**
GACCTTTTTCCTGGGCAACTCTACAGTCCCTCCCTCCTTTCGGAAGGTGAAGGATACTGGGTTTTTAGATGCCTT
GTCCATCCTGTCTGGTTGCAATGTTTTGCTCCCAGAAGAGAATCAGATCATCATGTGGGGATTACCATTGTTCCT
GGAGTACTCCTACCCTTAGTTGAATTTCCTTATTAAAGTTATATTTTTCTATAAGACCCTGA

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FIGURE 1832

CCCCAGACGCCGAGGATGGCCGTCATGGCGCCCCGAACCCTCCTCCTGCTACTCTCGGGGGCCCTGGCCCTGACC
CAGACCTGGGCGGGCTCCCACTCCATGAGGTATTTCTTCACATCCGTGTCCCGGCCCGGCCGCGGGGAGCCCCGC
TTCATCGCCGTGGGCTACGTGGACGACACGCAGTTCGTGCGGTTCGACAGCGACGCCGCGAGCCAGAGGATGGAG
CCGCGGGCGCCGTGGATAGAGCAGGAGGGGCCGGAGTATTGGGACCAGGAGACACGGAATGTGAAGGCCCAGTCA
CAGACTGACCGAGTGGACCTGGGGACCCTGCGCGGCTACTACAACCAGAGCGAGGCCGGTTCTCACACCATCCAG
ATAATGTATGGCTGCGACGTGGGGTCGGACGGGCGCTTCCTCCGCGGGTACCGGCAGGACGCCTACGACGGCAAG
GATTACATCGCCCTGAACGAGGACCTGCGCTCTTGGACCGCGGCGGACATGGCGGCTCAGATCACCAAGCGCAAG
TGGGAGGCGGCCCATGAGGCGGAGCAGTTGAGAGCCTACCTGGATGGCACGTGCGTGGAGTGGCTCCGCAGATAC
CTGGAGAACGGGAAGGAGACGCTGCAGCGCACGGACCCCCCCAAGACACATATGACCCACCACCCCATCTCTGAC
CATGAGGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGATGGG
GAGGACCAGACCCAGGACACGGAGCTCGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAGTGGGCGGCT
GTGGTGGTGCCTTCTGGAGAGGAGCAGAGATACACCTGCCATGTGCAGCATGAGGGTCTGCCCAAGCCCCTCACC
CTGAGATGGGAGCTGTCTTCCCAGCCCACCATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGAGCT
GTGATCACTGGAGCTGTGGTCGCTGCCGTGATGTGGAGGAGGAAGAGCTCAGATAGAAAAGGAGGGAGTTACACT
CAGGCTGCAAGCAGTGACAGTGCCCAGGGCTCTGATGTGTCCCTCACAGCTTGTAAAGTGTGACAGCTGCCTT
GTGTGGGACTGAGAGGCAAGAGTTGTTCCTGCCCTTCCCTTTGTGACTTGAAGAACCCTGACTTTGTTTCTGCAA
AGGCACCTGCATGTGTCTGTGTTCGTGTAGGCATAATGTGAGGAGGTGGGGAGACCACCCCACCCCCATGTCCAC
CATGACCCTCTTCCCACGCTGACCTGTGCTCCCTCCCCAATCATCTTTCCTGTTCCAGAGAGGTGGGGCTGAGGT
GTCTCCATCTCTGTCTCAACTTCATGGTGCACTGAGCTGTAACTTCTTCCTTCCCTATTAAAATTAGAACCTTAG
TATAAATTTACTTTCTCAAATTCTTGCCATGAGAGGTTGATGAGTTAATTAAAGGAGAAGATTCCTAAAATTTGA
GAGACAAAATAAATGGAAGACATGAGAAC

FIGURE 1833

CAAGTCGCAGCCATACATTATCTGGAGGGTGTTAGACCCTGGCCCCGCCCCCGCGGTCAGCCCCGCCCACCGAGC
CCCGCCCCCGCCCCGACCAACCCGCGGGGATTTTGGCCTAAACGGAAAATGAAACCTGGTAAAGGCGCCTGGGCC
TCTCCCGGGTCGAGGATCTGGCGGGTCCCGCAGCCTCGGGGTGGATCTTGGAGCCGGAGACTCGCGGGGGGGACC
CGGGACGTCCGTGGGGG**ATG**AGGAGGGGTCGTGACCTTCGCCCCAGGCCGGGGTCATTCACCGGCCTAGCTCTGG
TGGTAGTAGCGGCGCGGCATGGGCAGGTTCACTCTTGTCAGTCTGTGCGCGGGCCTGATGTTCCGTGTGCTCCGG
TCCCAATACTCCGGTCCCTCCTGCTCCAACCACGGCGACTGCGGCTACATCCTCGGAGTCGCCGCGTCGCTGTCG
AACCGCACGAACTGCGTGTCGTCCACGTAGCCCACTGCGATGTACCGGGGCTCCCCGCGACCCGGCCGGGACACG
GCGGTGCTGAAATACCTTATGGAGTGGGTACCTGGGGGCGAGGAGGGGCTGAGACCCGTCCGACCCTCCTCCTTG
CGCTGCTCCCCGGGTCCTGCGCCCCAGTGCGCGGGCCCCTACCTCCTCCCCGCAGAGGCCATTTCCCTCCGGATC
CCGCACTCACCCGCCCAGGTCTCGGTCAGGGCCAGGGCCCCCAAGAGCAGCAGGAGGAGGGTTCGGGACGCCATG
ACCCCATCCTCGGCGTCTGGGGAGAATCTGAGTCCCAATGGGTTCGCGGGGACTTCTGGAACAGGGACCCCAGCG
ACGCCGATTGGCTTCGC**TAG**AAACCCGACACCAAATGGGGGTGAGAACTGAGTCCACATCCTGAGTGTCCAGGAA
GAAGGACCCTACATAAGTTGGGAGAGGGAGAAGAGAAACTGCGGAGATGGGGAATCCCCAACCCTGGGCCTCCCC
AATCAATACATCGCCTTCGGGGCCTGAAACCCTGAGAGCCACGCCTGGGGCCATAGGACTTCGCCCTGACCCCGC
TCCTCCTGTGCCAAGCGCTCTGTCTCAATGTCTCCCTGAGTCTTGGCCCAAGAGCTGTCTGAGAAACCAGGGAGA
AACCCTCGTCATGGGCCCCGTCCCTCTTCATTTTTCATCCCGGAATCCCCGTCCCAGAACTGGACTCCCTGCCTC
CCACTCCTTACCTATTTCCCTGAACTCTTCTAGAAAAAAACTCACCCCAGGGAGCTTGGTGACAGAGAGGGAGCT
CGCCGCCAGAGAGGGAGCTCGCCCTGGGAATGGAGGCGTAGAGACAGGTTTTTGTTTTTTTTTTCTTTAAATCCG
GAAAAGTTGTGCCTGAGTACATGAGACAGCATAGAGACAAGTTTTCTCTTTGTTTATTAACTACAGTGGGTAGCA
GAATCTTGGCAACCCCTAAATGATCAGGTATCTAATCGGTAAAAAAATGTAACTTTGGCCCCTTGATACATAAAT
GTGTCTGAAAGCATTACAACAGGACTCACAAAGCTACTAAGTTTGACTTTCGCAGACAATGTATCTGTGACTCCC
GCTTGTTTTTTACATTTACCTTCATTCCACAGCCCTGAGTTACTGGGTGAGTCCAAGACATCTCCTCAATATAAA
GTAGCACACTGCGTTACTATATGTTGCAACCGGGAGCCAGTACAGACTTTATTCACCTCACAGTTGCAAGTGTTC
AATGCAGTCACAATGCCCCTCAGCAGTGCTCATGTGCTGCCTGTTTTTAGGAAGTATTCACGTCTAAGTGGTGTG
TATATCTTATAGGAACACTTAGTATTTTTAAAACCTGATTAATTAAAAAAAATTAGTTTCTAGGCAGTCCCAAAT
ATAGTATTAAAGGCCAACTGCAAAGAAGGAACACTAAGTGTTTTTTAAACCTTATTAACATAAAAAACATTAGTT
TTTAGGCAGTCCTACATTAGGTATTAAAGGCCAACTGCAAAGAACACTGAGCGAGGCTCTGTAGATGGATGTAAT
AAAAATCTATAAAACAATGTGTTTAAACCTAAGAATTCTACTGCTTTCCAATTCCTTCCCTCTGCTCCTTTTCCT
AACCTCCTGCTTCTCCAGCCCTTCCCTCTGTCCCTTTCATCCCTCAGGCCCTCCTCTCCCCTTAGTCCCCACCAC
CCTGTCACTTCTAAATTGTGGCTCTAGCATTGTCCCATTACCTGCTACGTGACTGTTCTCTCCACAGTGGTCCTG
CTCCTGTGAGTCAGAGTGTGTCATTTCCTCACCTAAAACACTCCAGTGGCTCCACCTCGGTCTTGTGAAGCTTCT
AGAATGTCAGGCACGTGAGCATATGAGGGCATACCTGGTTCATCTTAGGCACTAAATTTTTGTTGACTGAATGAA
TGAAATATGAATGTATTAAATTGCATCACAGAAAGTTATAAAATGTAAAACACTG

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FIGURE 1834

ATGGTGCTCATGGCGCCCCGAACCCTCCTCCTGCTGCTCTCAGGGGCCCTGGCCCTGACCCAGACCTGGGCGCGC
TCCCACTCCATGAGGTATTTCTACACCACCATGTCCCGGCCCGGCCGCGGGGAGCCCCGCTTCATCTCCGTCGGC
TACGTGGACGATACGCAGTTCGTGCGGTTCGACAGCGACGACGCGAGTCCGAGAGAGGAGCCGCGGGCGCCGTGG
ATGGAGCGGGAGGGGCCGGAGTATTGGGACCGGAACACACAGATCTGCAAGGCCCAAGCACGGACTGAACGAGAG
AACCTGCGGATCGCGCTCCGCTACTACAACCAGAGCGAGGGCGGTTCTCACACCATGCAGGTGATGTATGGCTGC
GACGTGGGGCCCGACGGGCGCTTCCTCTGCGGGTATGAACAGCACGCCTACGACGGCAAGGATTACATCGCTCTG
AACGAGGACCTGCGCTCCTGGACCGCGGCGGACATGGCAGCTCAGATCACCAAGCGCAAGTGGGAGGCGGCCCGT
CGGGCGGAGCAGCGGAGAGTCTACCTGGAGGGCGAGTTCGTGGAGTGGCTCCGCAGATACCTGGAGAACGGGAAG
GAGACGCTGCAGCGCGCGGACCCCCCCAAGACACATATGACCCACCACCCCATCTCTGACCATGAGGCCACCCTG
AGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGATGGGGAGGACCAGACCCAC
ACACGGAGCTCGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAAGCCATCTTCCCAGCCCACCATCCCC
ATCGTGGGCATCGTTGCTGGCCTGGTTCTACTTGTAGCTGTGGTCACTGGAGCTGTGGTCGCTGCTGTAATGTGG
AGGAAGAAGAGCTCAGATAGAAAAGGAGGGAGCTACTCTCAGGCTGCAAGGCCATCTTCCCAGCCCACATTCCTC
ATCATGGGCATCGTTACCGTCCTGGTTGTTCTAGGTGCTGTGGTCACTGCTGTGATGTGGAAGAATAAGACCCCA
GGTAGGAAAGGGGTGGCACAGGGCTTGACCATCACATTTGTGTCAGGTGACAATAATGCCAGGATCCTCAGTATG
GGCAGCATCGCTTTGAGGTCAGTGATAGAGGGCCTGGTCCAGCTCCAGCTGCTGTGCAAGCAACTCCTCAGCTTG
GGCCAGCTCAGCTGTGTGGGGGGCTCAGGGCCCTGGTCAGAGGGAGTGGAGGAGGGAGCATCAGCCAGGGTAGAG
GGGTTGAGGCCCTTGGAACCTGTGTTGCAAGATCTCATGCCCTGCATGCTGCAAGGGTTTGCCTTCTCTGACAGA
CCATCCACTCATAAGGAGGTCAAAAACAAGTTCCACACAGCACTGAGACACAACCACCTCATTGTCCTCACCTCC
ACGGACAGAGCCCAGGACTTTGATAAGCGGGGGGCCAAACCCACCGCTGGGGTGAATCCATATAGACTAGAAAAA
ATGATGCCTAACTCTCAACAAGGTAGACGTGACTTAGTTGCCCTGGAACTTGCACAGGATGGAATAACAAGGCTG
AGGGAAGTGGGCATGGTGAAGGCCCACCAGTACCATGCTCCACAAGACAGTCCAAAGGAAACACCTTCCACCAGA
GCCTCAGAAACG**TGA**

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FIGURE 1835

GAGAGCACGACGTGCGCGCACCCTCTCCCCTTGTCCACTGCTGCCGCCTCCTTCTTCTGCCGCTCCTGGTGCTGC
TTGTGTGCTCGTTTGGAGCGGACCTGGTACCTCTTTTGTGAAGCGGCAGCTGAGGAGACTCCGGCGCTCGCC**ATG**

GCCGAAGAAAAGCCCAAGGAAGGAGTCAAGACTGAGAACAACGATCATATTAATTTGAAGGTGGCGGGGCAGGAT
GGTTCTGTGGTGCAGTTTAAGATTAAGAGGCATACACCACTTAGTAAACTAATGAAAGCCTATTGTGAACGACAG
GGATTGTCAATGAGGCAGATCAGATTCCGATTCGACGGGCAACCAATGAAACAGACACACCTGCACAGTTGGAAA
TGGAGGATGAAGATACAATTGATGTGTTCCAACAGCAGACGGGAGGTGTCTACTGAAAAGGGAACCTGCTTCTTT
ACTCCAGAACTCTGTTCTTTAAAGACCAAGATTACATTCTCAATTAGAAAACTGCAATTTGCTTCCACCACATCC
TGACTACTACCGTATAGTTTTCTCTATTCTTTCATTTCCCCCTTCCCCATTCCTTTACTGTACATAAAGTAACTG
GTATATGTGCACAAGCATATTACTTTTTTTTTTTAAAACTAAACAGCCAATGGTATGTTTTGATTGACATCAAGT
GGAGACGGGGCGGAAAAATACTGATTCTGTGAAAATACCCCCTTTCTCCATTAGTGGCATGCTCATTCAGCTCTT
ATCTTTATATTCCAGTAAGTTATTTTGCTCTCACTGTTTTAACAACAACAACAAAAAAACAACAACATAAAAATC
CTTGCATACCTTGTTCAATTGGAGAATTTTAATGTTTTTCATTTATCATTGTAAAACCAAGGACAATTTTATAAC
TTTTTTGTACTTAGCTGTTACATGCAGAGCAATCTGTCTTTAAGTAGGGATAAATTACTCTAAAACAAAAAAGAA
TCCTAGATAGTTTTCCCTTCAAGTCAAGCGTCTTGTTGTTTAAATAAACTTCTTGTTTAAAA

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FIGURE 1836

ATGAAGGCCAACTACAGCGCAGAGGAGCGCTTTCTCCTGCTGGGTTTCTCCGACTGGCCTTCCCTGCAGCCGGTC
CTCTTCGCCCTTGTCCTCCTGTGCTACCTCCTGACCTTGACGGGCAACTCGGCGCTGGTGCTGCTGGCGGTGCGC
GACCCGCGCCTGCACACGCCCATGTACTACTTCCTCTGCCACCTGGCCTTGGTAGACGCGGGCTTCACTACTAGC
GTGGTGCCGCCGCTGCTGGCCAACCTGCGCGGACCAGCGCTCTGGCTGCCGCGCAGCCACTGCACGGCCCAGCTG
TGCGCATCGCTGGCTCTGGGTTCCGCCGAATGCGTCCTCCTGGCGGTGATGGCTCTGGACCGCGCGGCCGCAGTG
TGCCGCCCGCTGCGCTATGCGGGGCTCGTCTCCCCGCGCCTATGTCGCACGCTGGCCAGCGCCTCCTGGCTAAGT
GGCCTCACCAACTCGGTTGCGCAAACCGCGCTCCTGGCTGAGCGGCCGCTGTGCGCGCCCCGCCTGCTGGACCAC
TTCATCTGTGAGCTGCCGGCGTTGCTCAAGCTGGCCTGCGGAGGCGACGGAGACACTACCGAGAACCAGATGTTC
GCCGCCCGCGTGGTCATCCTGCTGCTGCCGTTTGCCGTCATCCTGGCCTCCTACGGTGCCGTGGCCCGAGCTGTC
TGTTGCATGCGGTTCAGCGGAGGCCGGAGGAGGGCGGTGGGCACGTGTGGGTCCCACCTGACAGCCGTCTGCCTG
TTCTACGGCTCGGCCATCTACACCTACCTGCAGCCCGCGCAGCGCTACAACCAGGCACGGGGCAAGTTCGTATCG
CTCTTCTACACCGTGGTCACACCTGCTCTCAACCCGCTCATCTACACCCTCAGGAATAAGAAAGTGAAGGGGGCA
GCGAGGAGGCTGCTGCGGAGTCTGGGGAGAGGCCAGGCTGGGCAG**TGA**

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FIGURE 1837

GGGGGGCTCGGGCTGGGGGCGCGGCCTGTGCCGGCCGCCCCACCCTCCTTGCATAAAAGCCGGAGCCCGCGGGGC
CGGCGCTCTCAGCCCGTCGGTTCCCGAGCGCCTTCCCGGTGACCCCGCAGTGGGTGTGTGAGGGGAGGACGGACA
GACCCAGACGCCGCCGGACCAGGAGGACGCTGACGAGGCACC**ATG**CGTGAGATCGTGCACATCCAGGCGGGCCAG
TGCGGCAACCAGATCGGCGCCAAGTTTTGGGAGGTCATCAGTGATGAGCATGGGATTGACCCCACTGGCAGTTAC
CATGGAGACAGTGATTTGCAGCTGGAGAGAATCAATGTTTACTACAATGAAGCCACTGGTAACAAATATGTTCCT
CGGGCCATCCTCGTGGATCTGGAGCCAGGCACGATGGATTCGGTTAGGTCTGGACCATTCGGCCAGATCTTCAGA
CCAGACAATTTCGTGTTTGGCCAGAGTGGAGCCGGGAATAACTGGGCCAAGGGCCACTACACAGAGGGAGCCGAG
CTGGTCGACTCGGTCCTGGATGTGGTGAGGAAGGAGTCAGAGAGCTGTGACTGTCTCCAGGGCTTCCAGCTGACC
CACTCTCTGGGGGGCGGCACGGGGTCCGGGATGGGCACCCTGCTCATCAGCAAGATCCGGGAAGAGTACCCAGAC
CGCATCATGAACACCTTCAGCGTCATGCCCTCACCCAAGGTGTCAGACACGGTGGTGGAGCCCTACAACGCCACC
CTCTCGGTCCACCAGCTGGTGGAAAACACAGATGAAACCTACTGCATTGACAACGAGGCCCTGTATGACATCTGC
TTCCGCACCCTGAAGCTGACCACCCCCACCTACGGGGACCTCAACCACCTGGTGTCGGCCACCATGAGCGGGGTC
ACCACCTGCCTGCGCTTCCCGGGCCAGCTGAACGCAGACCTGCGCAAGCTGGCGGTGAACATGGTGCCCTTCCCT
CGCCTGCACTTCTTCATGCCCGGCTTCGCGCCCCTGACCAGCCGGGGCAGCCAGCAGTACCGGGCGCTCACGGTG
CCCGAGCTCACCCAGCAGATGTTCGACTCCAAGAACATGATGGCCGCCTGCGACCCGCGCCACGGCCGCTACCTG
ACGGTGGCTGCCATCTTCCGGGGCCGCATGTCCATGAAGGAGGTGGACGAGCAGATGCTCAACGTGCAGAACAAG
AACAGCAGCTACTTCGTGGAGTGGATCCCCAACAACGTGAAGACGGCCGTGTGCGACATCCCGCCCCGCGGCCTG
AAGATGTCGGCCACCTTCATCGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTCACG
GCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCC
GAGAGCAACATGAACGACCTGGTGTCCGAGTACCAGCAGTACCAGGACGCCACGGCCGACGAACAAGGGGAGTTC
GAGGAGGAGGAGGGCGAGGACGAGGCG**TAG**ATGCCCCCGCGAGACGGGTTAGGGAAAGCGGAGGAGGAAAGCGAG
GGGGTGGGGGGCTTCCCGGGACGATAACCTGGCAGTGGAAGGAAAGAAGCATGGTCTACTTTAGGTGTGCGCTGG
GTCTCTGGTGCTCTTCACTGTTGCCTGTCACTTTTTTTTTCCTTTTTTGTAATATTGATGACATCAATGTAACAT
TTGAGATATTTCTGAATTACTGTTGTAATGGCTAAAATCACATAAACGTTTGTGTCGG

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FIGURE 1838

GCCCGCCGGTCCACGCCGCGCACCGCTCCGAGGGCCAGCGCCACCCGCTCCGCAGCCGGCACC**ATG**CGCGAGATC
GTGCACATCCAGGCGGGCCAGTGCGGCAACCAGATCGGCGCCAAGTTTTGGGAGGTCATCAGCGATGAGCATGGG
ATCGACCCCACAGGCAGTTACCATGGAGACAGTGACTTGCAGCTGGAGAGAATCAACGTGTACTACAATGAGGCT
GCTGGTAACAAATATGTACCTCGGGCCATCCTGGTGGATCTGGAGCCTGGCACCATGGACTCTGTCAGGTCTGGA
CCCTTCGGCCAGATCTTCAGACCAGACAACTTCGTGTTCGGCCAGAGTGGAGCCGGGAATAACTGGGCCAAGGGC
CACTACACAGAGGGAGCCGAGCTGGTCGACTCGGTCCTGGATGTGGTGAGGAAGGAGTCAGAGAGCTGTGACTGT
CTCCAGGGCTTCCAGCTGACCCACTCTCTGGGGGGCGGCACGGGGTCCGGGATGGGCACCCTGCTCATCAGCAAG
ATCCGGGAAGAGTACCCAGACCGCATCATGAACACCTTCAGCGTCATGCCCTCACCCAAGGTGTCAGACACGGTG
GTGGAGCCCTACAACGCCACCCTCTCTGTCCACCAGCTGGTGGAAAACACAGATGAAACCTACTCCATTGATAAC
GAGGCCCTGTATGACATCTGCTTCCGCACCCTGAAGCTGACCACCCCCACCTACGGGGACCTCAACCACCTGGTG
TCGGCCACCATGAGCGGGGTCACCACCTGCCTGCGCTTCCCGGGCCAGCTGAACGCAGACCTGCGCAAGCTGGCG
GTGAACATGGTGCCCTTCCCTCGCCTGCACTTCTTCATGCCCGGCTTCGCGCCCCTGACCAGCCGGGGCAGCCAG
CAGTACCGGGCGCTCACGGTGCCCGAGCTCACCCAGCAGATGTTCGACTCCAAGAACATGATGGCCGCCTGCGAC
CCGCGCCACGGCCGCTACCTGACGGTGGCTGCCATCTTCCGGGGCCGCATGTCCATGAAGGAGGTGGACGAGCAG
ATGCTCAACGTGCAGAACAAGAACAGCAGCTACTTCGTGGAGTGGATCCCCAACAACGTGAAGACGGCCGTGTGC
GACATCCCGCCCCGCGGCCTGAAGATGTCGGCCACCTTCATCGGCAACAGCACGGCCATCCAGGAGCTGTTCAAG
CGCATCTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGAC
GAGATGGAGTTCACCGAGGCCGAGAGCAACATGAACGACCTGGTGTCCGAGTACCAGCAGTACCAGGACGCCACG
GCCGACGAACAAGGGGAGTTCGAGGAGGAGGAGGGCGAGGACGAGGCT**TAA**AAACTTCTCAGATCAATCGTGCAT
CCTTAGTGAACTTCTGTTGTCCTCAAGCATGGTCTTTCTACTTGTAAACTATGGTGCTCAGTTTTGCCTCTGTTA
GAAATTCACACTGTTGATGTAATGATGTGGAACTCCTCTAAAAATTACAGTATTGTCTGTGAAGGTATCTATACT
AATAAAAAAGCATGTGTAG

FIGURE 1839

GGATCCACGTCCCACGGGCCGGACCCGCGGCCGCGTTCGGAAATCAGCCTGAGCCTGAGTACCGCTAAGGCTTTA
ATCACGGGTCCCGAGAGCCCTAAGTCTTCTCTTTGCTTGCTGATCTCGTACCTTAATGTGCAAAAGAATCACGTT
GGGAACTGAAAATTCAGAATCCTGGGCCTCACTCCCAGAGGATCTGATCTACATGTGTGGAG**ATG**CCCAGGAATC
TGCTTTATTCTCTTTTGTCCTCCCACCTGTCCCCCCATTTCAGCACCTCGGTAACCTCTGCCAAAGTGGCTGTGA
ATGGCGTTCAGCTGCATTACCAGCAGACTGGAGAGGGAGATCACGCAGTCCTGCTACTTCCTGGGATGTTAGGAA
GTGGAGAGACTGATTTTGGACCTCAGCTCAAGAACCTCAATAAGAAGCTCTTCACGGTGGTCGCCTGGGATCCTC
GAGGCTATGGACATTCCAGGCCCCCAGATCGCGATTTCCCAGCAGACTTTTTTGAAAGGGATGCAAAAGATGCTG
TTGATTTGATGAAGGCGCTGAAGTTTAAGAAGGTTTCTCTGCTGGGGTGGAGTGATGGGGGCATAACCGCACTCA
TTGCTGCTGCAAAATATCCATCTTACATCCACAAGATGGTGATCTGGGGCGCCAACGCCTACGTCACTGACGAAG
ACAGCATGATATATGAGGGCATCCGAGATGTTTCCAAATGGAGTGAGAGAACAAGAAAGCCTCTAGAAGCCCTCT
ATGGGTATGACTACTTTGCCAGAACCTGTGAAAAGTGGGTGGATGGCATAAGACAGTTTAAACATCTCCCAGATG
GTAACATCTGCCGGCACCTGCTGCCCCGGGTCCAGTGCCCCGCCTTGATTGTGCACGGTGAGAAGGATCCTCTGG
TCCCACGGTTTCATGCCGACTTCATTCATAAGCACGTGAAAGGCTCACGGCTGCATTTGATGCCAGAAGGCAAAC
ACAACCTGCATTTGCGTTTTGCAGATGAATTCAACAAGTTAGCAGAAGACTTCCTACAA**TGA**GAATGCACACTCC
AGTCTTGGTGGTTCCTTCGTGTGGGGCTTGATCGTGTTGCTGCCTGTTAACATGATGCCTTTGAAACTCTCCGCC
TTTGAAACTTTCTACCCCTCCCTTCAATCTTATCCTAACCAAATGAGAATAATGACATATTGAAAACAGCCTCTA
GCTTCAGGCTGGGCACGGTGGCTCACAGCTATAATCTCAGCACTTTGGGAGGCTGAGGTGGGAGAATTGCCTGAG
CCCAGGAGTTCAAGACCAGCTTGTGCAATATAGGGAGACTCCGGCTCTACAAAAAAGAGTTTTTCAAAATTAGCC
AGGCGAAGTGGCACACATCTGTGGTCCCAGGTGCTCAGGAAGCTGAGGTGGGAGGATCACTTGAGCCCAATTCAA
AGCTGCAGTGAGCTGTAATTGCATCACTGCACTCCAACCTGGGCAACAGAGTAAGACCTTGTCTTAAAAAAAAAT
AAAAACATAAAAAAAAATAAAA

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FIGURE 1840

CCGGAACCTGGCGCAACTCCTAGAGCGGTCCTTGGGGAGACGCGGGTCCCAGTCCTGCGGCTCCTACTGGGGAGT
GCGCTGGTCGGAAGATTGCTGGACTCGCTGAAGAGAGACTACGCAGGAAAGCCCCAGCCACCCATCAAATCAGAG
AGAAGGAATCCACCTTCTTACGCT**ATG**GCAGGTAAGAAAGTACTCATTGTCTATGCACACCAGGAACCCAAGTCT
TTCAACGGATCCTTGAAGAATGTGGCTGTAGATGAACTGAGCAGGCAGGGCTGCACCGTCACAGTGTCTGATTTG
TATGCCATGAACCTTGAGCCGAGGGCCACAGACAAAGATATCACTGGTACTCTTTCTAATCCTGAGGTTTTCAAT
TATGGAGTGGAAACCCACGAAGCCTACAAGCAAAGGTCTCTGGCTAGCGACATCACTGATGAGCAGAAAAAGGTT
CGGGAGGCTGACCTAGTGATATTTCAGTTCCCGCTGTACTGGTTCAGCGTGCCAGCCATCCTGAAGGGCTGGATG
GATAGGGTGCTGTGCCAGGGCTTTGCCTTTGACATCCCAGGATTCTACGATTCCGGTTTGCTCCAGGGTAAACTA
GCGCTCCTTTCCGTAACCACGGGAGGCACGGCCGAGATGTACACGAAGACAGGAGTCAATGGAGATTCTCGATAC
TTCCTGTGGCCACTCCAGCATGGCACATTACACTTCTGTGGATTTAAAGTCCTTGCCCCTCAGATCAGCTTTGCT
CCTGAAATTGCATCCGAAGAAGAAAGAAAGGGGATGGTGGCTGCGTGGTCCCAGAGGCTGCAGACCATCTGGAAG
GAAGAGCCCATCCCCTGCACAGCCCACTGGCACTTCGGGCAA**TAA**CTCTGTGGCACGTGGGCATCACGTAAGCAG
CACACTAGGAGGCCCAGGCGCAGGCAAAGAGAAGATGGTGCTGTCATGAAATAAAATTACAACATAGCTACCTGG

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FIGURE 1841

GAGAACGGCGACGCGGCCGGGTGAGTCGTGCGTGGCCGCGAGCCCGGCCGGTGACGCCGCGGACCCGAGGACCCC
GGGCGCCCAGGCCCAGCGCCCACGGAAGAGGCGGCCGGCGCGGG**ATG**GGGGCGGCGCAGAGCCTCCCGGGCCACA
GGTCTGCCATCATGGATGTTCTCGCAGAAGCAAATGGCACCTTTGCCTTAAACCTTTTGAAAACGCTGGGTAAAG
ACAACTCGAAGAATGTGTTTTTCTCACCCATGAGCATGTCCTGTGCCCTGGCCATGGTCTACATGGGGGCAAAGG
GAAACACCGCTGCACAGATGGCCCAGATACTTTCTTTCAATAAAAGTGGCGGTGGTGGAGACATCCACCAGGGCT
TCCAGTCTCTTCTCACCGAAGTGAACAAGACTGGCACGCAGTACTTGCTTAGGATGGCCAACAGGCTCTTTGGGG
AAAAGTCTTGTGATTTCCTCTCATCTTTTAGAGATTCCTGCCAAAAATTCTACCAAGCAGAGATGGAGGAGCTTG
ACTTTATCAGCGCCGTAGAGAAGTCCAGAAAACACATAAACACCTGGGTAGCTGAAAAGACAGAAGGTAAAATTG
CGGAGTTGCTCTCTCCGGGCTCAGTGGATCCATTGACAAGGCTGGTTCTGGTGAATGCTGTCTATTTCAGAGGAA
ACTGGGATGAACAGTTTGACAAGGAGAACACCGAGGAGAGACTGTTTAAAGTCAGCAAGAATGAGGAGAAACCTG
TGCAAATGATGTTTAAGCAATCTACTTTTAAGAAGACCTATATAGGAGAAATATTTACCCAAATCTTGGTGCTTC
CATATGTTGGCAAGGAACTGAATATGATCATCATGCTTCCGGACGAGACCACTGACTTGAGAACGGTGGAGAAAG
AACTCACTTACGAGAAGTTCGTAGAATGGACGAGGCTGGACATGATGGATGAAGAGGAGGTGGAAGTGTCCCTCC
CGCGGTTTAAACTAGAGGAAAGCTACGACATGGAGAGTGTCCTGCGCAACCTGGGCATGACTGATGCCTTCGAGC
TGGGCAAGGCAGACTTCTCTGGAATGTCCCAGACAGACCTGTCTCTGTCCAAGGTCGTGCACAAGTCTTTTGTGG
AGGTCAATGAGGAAGGCACGGAGGCTGCAGCCGCCACAGCTGCCATCATGATGATGCGGTGTGCCAGATTCGTCC
CCCGCTTCTGCGCCGACCACCCCTTCCTTTTCTTCATCCAGCACAGCAAGACCAACGGGATTCTCTTCTGCGGCC
GCTTTTCCTCTCCG**TGA**GGACAGGGCAGTCTTGGTGTGCAGCCCCTCTCCTCTCTGTCCCCTGACACTCCACAGT
GTGCCTGCAACCCAAGTGGCCTTATCCGTGCAGTGGTGGCAGTTCAGAAATAAAGGGCCCATTTGTGGGATGCCG
CATTC

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FIGURE 1842

ACTTAGGCGACCTCGGGAGCTCGGACTCCTACGCAGTCACCGGGAAGGGCCGCCGCCCCGCCCGCGGCTGCTGGC
CCGGGTGACGCTTCCGCCTGCTATAAGAGCAGCGGCCCTCGGTGCCTCCTTCCTGACCTCGCACCCAGCTCGGAG
CCCGGAGCGTGCCTCGGCGGCCTGTCGGTTTTCACC**ATG**GAGCAGCTGAGCTCAGCAAACACCCGCTTCGCCTTG
GACCTGTTCCTGGCGTTGAGTGAGAACAATCCGGCTGGAAACATCTTCATCTCTCCCTTCAGCATTTCATCTGCT
ATGGCCATGGTTTTTCTGGGGACCAGAGGTAACACGGCAGCACAGCTGTCCAAGACTTTCCATTTCAACACGGTT
GAAGAGGTTCATTCAAGATTCCAGAGTCTGAATGCTGATATCAACAAACGTGGAGCGTCTTATATTCTGAAACTT
GCTAATAGATTATATGGAGAGAAAACTTACAATTTCCTTCCTGAGTTCTTGGTTTCGACTCAGAAAACATATGGT
GCTGACCTGGCCAGTGTGGATTTTCAGCATGCCTCTGAAGATGCAAGGAAGACCATAAACCAGTGGGTCAAAGGA
CAGACAGAAGGAAAAATTCCGGAACTGTTGGCTTCGGGCATGGTTGATAACATGACCAAACTTGTGCTAGTAAAT
GCCATCTATTTCAAGGGAAACTGGAAGGATAAATTCATGAAAGAAGCCACGACGAATGCACCATTCAGATTGAAT
AAGAAAGACAGAAAAACTGTGAAAATGATGTATCAGAAGAAAAAATTTGCATATGGCTACATCGAGGACCTTAAG
TGCCGTGTGCTGGAACTGCCTTACCAAGGCGAGGAGCTCAGCATGGTCATCCTGCTGCCGGATGACATTGAGGAC
GAGTCCACGGGCCTGAAGAAGATTGAGGAACAGTTGACTTTGGAAAAGTTGCATGAGTGGACTAAACCTGAGAAT
CTCGATTTCATTGAAGTTAATGTCAGCTTGCCCAGGTTCAAACTGGAAGAGAGTTACACTCTCAACTCCGACCTC
GCCCGCCTAGGTGTGCAGGATCTCTTTAACAGTAGCAAGGCTGATCTGTCTGGCATGTCAGGAGCCAGAGATATT
TTTATATCAAAAATTGTCCACAAGTCATTTGTGGAAGTGAATGAAGAGGGAACAGAGGCGGCAGCTGCCACAGCA
GGCATCGCAACTTTCTGCATGTTGATGCCCGAAGAAAATTTCACTGCCGACCATCCATTCCTTTTCTTTATTCGG
CATAATTCCTCAGGTAGCATCCTATTCTTGGGGAGATTTTCTTCCCCT**TAG**AAGAAAGAGACTGTAGCAATACAA
AAATCAAGCTTAGTGCTTTATTACCTGAGTTTTTAATAGAGCCAATATGTCTTATATCTTTACCAATAAAACCAC
TGTTCAGAAACAAGTCTTTCATTTTCTTTGTAAGTTTGGCTCTGTTGGCTGTTTACACCCATGAATTTTGGCATG
GGTATCTATTTTTCTTTTTTACATTGAAAAAAATCCAGTGGTTGCTTTTGAATGCATCAAGTAAAGAAGAAGAAA
AGAATACATCCGATGCGTAGATTCTTGACCATGTAGTAATCTATAAAATTGCTATATCCTCCTGATAGCCATGGG
AAAACATGATAAGATGGTCATTTATTTTGCAGTTAGAATTTTGGAAGCCACAAAATAGACAGACACCCTGACTGT
TGAAGGGAGGTTTAAAAACAGATATTCAATTGAAATGTAAGAGAGCACCCCAATTGAGAGCCCAGGTTACGAAGA
CAAGCTTGCCTCGCCTGACTTTTCTGTCCCTTGTTCTGCAGGATTAGTATTCTGTTACAGACCTCTAGTTTTTAG
ACTCTTCAATTAAAGGGCCAATGGTTATAACCTGCATTCCCTTTTTTGTTCTTCTTTATGTATAATATATAGTTC
ATGTGGCGCTGCATGAAATCAAGAAGTGGGTGTCTTAGGATAAAAGATACCAAGAGTCTACAAAAATAACCATGT
AGTAAGATAAACTGCTGAACAAAGGTTTTACTGTTAGCCACCTTCTCATGTGTTTTCTTTTCTCTTTTTCTTTTT
CTTTCTTTCTTTCTTTTTTTTTTTTT

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FIGURE 1843

GGCCGAGGGCGGGCGGACGCGGGAGCTGCGGACGTGAGGCATGAGCGGCGCCCTCCTCCGGCCCGCGAGCGTCCT
GCTGGTTCCCCGAGCGAGGGTCTCGCGGCGCGGGGCCTAGCGGAGGGCATCGAAGGCCTCCGCGTGCGCACGGGT
TGCTGCGGCCGCGCCGGGCGCCGGGGAGGGCGGCGGCCGCC**ATG**GAGGTGAGCGGGCCGGAAGACGACCCCTTCC
TTTCGCAGCTGCACCAGGTGCAGTGCCCCGTGTGCCAGCAGATGATGCCCGCCGCGCACATCAACTCGCACCTGG
ACCGCTGTCTGCTGCTCCACCCGGCGGGGCACGCGGAGCCCGCGGCCGGGTCGCACCGCGCCGGGGAGCGGGCCA
AGGGGCCCTCGCCGCCCGGCGCCAAGAGGCGGCGGCTGTCGGAGAGCTCGGCGCTGAAGCAGCCAGCCACCCCGA
CGGCAGCCGAGAGCAGCGAGGGCGAGGGTGAGGAGGGCGACGACGGCGGCGAGACCGAGAGCCGCGAGAGCTACG
ACGCGCCGCCCACACCCAGCGGCGCCCGCCTTATCCCCGACTTCCCGGTGGCCCGCTCCAGCAGCCCCGGGAGGA
AGGGGTCGGGGAAGAGGCCGGCGGCCGCCGCCGCGGCGGGGAGCGCGTCTCCGCGCAGCTGGGACGAGGCGGAGG
CGCAGGAGGAGGAGGAGGCCGTGGGCGACGGCGATGGCGACGGGGACGCGGACGCGGACGGCGAGGACGACCCGG
GGCACTGGGACGCGGACGCTGCCGAAGCCGCCACCGCCTTCGGGGCCAGTGGCGGGGGCCGCCCGCACCCCCGGG
CGCTGGCTGCCGAGGAGATCCGACAGATGCTACAGGGCAAGCCGCTGGCCGACACGATGCGTCCTGACACGCTGC
AGGATTACTTCGGGCAGAGCAAGGCCGTGGGCCAGGATACCCTGCTGCGCTCGCTCCTGGAGACCAACGAAATCC
CCTCGCTTATCCTGTGGGGGCCGCCGGGCTGCGGCAAGACCACTCTGGCTCACATCATAGCCAGCAACAGCAAGA
AACATAGCATAAGGTTTGTGACATTATCTGCAACAAATGCCAAGACAAATGATGTGCGAGATGTCATAAAACAAG
CTCAAAATGAAAAGAGCTTTTTCAAAAGGAAAACCATCCTTTTTATTGATGAGATTCATCGGTTCAATAAATCTC
AGCAGGACACTTTCCTTCCTCACGTGGAATGTGGGACGATCACTCTGATTGGGGCAACCACTGAAAACCCTTCCT
TCCAGGTCAACGCTGCTCTTCTGAGCCGCTGTCGAGTGATTGTTCTTGAGAAGCTTCCAGTAGAGGCAATGGTGA
CTATTTTAATGCGAGCGATCAACTCCCTGGGAATCCACGTCCTAGACTCTAGCCGTCCCACTGACCCTCTGAGCC
ACAGCAGCAACAGCAGCTCAGAGCCCGCCATGTTCATAGAGGATAAAGCAGTAGACACCCTGGCTTACCTCAGTG
ACGGTGACGCCCGAGCTGGGTTGAACGGACTGCAGCTGGCGGTGCTGGCTAGGTTAAGCTCTAGGAAGATGTTCT
GTAAGAAGAGTGGGCAATCCTATTCTCCCAGTAGAGTTCTGATCACAGAGAATGACGTGAAGGAGGGCCTACAGC
GATCCCACATTTTATATGACCGGGCAGGTGAGGAGCATTACAACTGCATCTCCGCCCTGCACAAGTCCATGCGGG
GCTCAGACCAGAACGCCTCCCTCTACTGGCTGGCTCGCATGCTCGAGGGAGGAGAGGACCCACTCTACGTGGCAC
GGAGGCTTGTCAGGTTTGCCAGCGAGGACATAGGTCTGGCAGACCCGTCTGCGTTAACACAAGCGGTTGCTGCCT
ACCAAGGCTGTCATTTTATAGGCATGCCTGAATGTGAGGTGCTTCTGGCCCAGTGTGTGGTCTACTTTGCCAGAG
CCCCAAAGTCCATTGAGGTGTACAGCGCCTACAACAACGTCAAAGCCTGCCTGAGGAACCACCAGGGGCCACTGC
CCCCCGTGCCCCTGCACCTGAGGAACGCGCCCACTAGGCTGATGAAGGATTTGGGCTATGGCAAAGGCTACAAGT
ACAACCCCATGTACAGCGAGCCTGTGGATCAGGAGTACCTGCCTGAAGAGTTGAGGGGGGTAGATTTCTTCAAGC
AGAGGAGGTGC**TGA**CTCCTCAGGGCACGACAGCAGAAGGATGTTGCTTTTTTAAGGGAGGGCCAGAAAGAAAGTT
AGTGGATTGCAAAGTTGGTTGCCTGGTGGAAGTTAGAACAGACCAACATTTTGTGCCAGAAATTTAAGAGTTCCA
TAGGTGGAGGCGCAGTTCTTTCGAATAAATGTGTAACTTTGAAATTGTGTTCATTTGCACTCGGTGCAGCGGTTA
TGCTTATGAAAATACCTGGCAGCTTTGTGCAATGAATTAATGTTATAAGGAATTATCTATTTTGTCATAGTATTT
AAGTCATAATGTCATTTCAGAATTCAGTTCTGTAGGATTTTCTTTTCTTTAAAAAATGTATATTCTGGGTAGTTT
TAATTGGTAAAAAAATGTAATTGTGATTTAATACTGCATAGTGTTTTGGGTATTTTTTTTATATGCAAAGGTCTT
ACGAGCCAATAAAACTATTTCAAAGT

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FIGURE 1844

GGCCGCC**ATG**GACGACAAGGCGTTCACCAAGGAGCTGGACCAGTGGGTCGAGCAGCTGAACGAGTGTAAGCAGCT
GAACGAGAACCAAGTGCGGACGCTGTGCGAGAAGGCAAAGGAAATTTTAACAAAAGAATCAAATGTGCAAGAGGT
TCGTTGCCCTGTTACTGTCTGTGGAGATGTGCATGGTCAATTTCATGATCTTATGGAACTCTTTAGAATTGGTGG
AAAATCACCGGATACAAACTACTTATTCATGGGTGACTATGTAGACAGAGGATATTATTCAGTGGAGACTGTGAC
TCTTCTTGTAGCATTAAAGGTGCGTTATCCAGAACGCATTACAATATTGAGAGGAAATCACGAAAGCCGACAAAT
TACCCAAGTATATGGCTTTTATGATGAATGTCTGCGAAAGTATGGGAATGCCAACGTTTGGAAATATTTTACAGA
TCTCTTTGATTATCTTCCACTTACAGCTTTAGTAGATGGACAGATATTCTGCCTCCATGGTGGCCTCTCTCCATC
CATAGACACACTGGATCATATAAGAGCCCTGGATCGTTTACAGGAAGTTCCACATGAGGGCCCAATGTGTGATCT
GTTATGGTCAGATCCAGATGATCGTGGTGGATGGGGTATTTCACCACGTGGTGCTGGCTACACATTTGGACAAGA
CATTTCTGAAACCTTTAACCATGCCAATGGTCTCACACTGGTTTCTCGTGCCCACCAGCTTGTAATGGAGGGATA
CAATTGGTGTCATGATCGGAATGTGGTTACCATTTTCAGTGCACCCAATTACTGTTATCGTTGTGGGAACCAGGC
TGCTATCATGGAATTAGATGACACTTTAAAATATTCCTTCCTTCAATTTGACCCAGCGCCTCGTCGTGGTGAGCC
TCATGTTACACGGCGCACCCCAGACTACTTCCTA**TAA**ATTTCTCCTGGGAAACCTGCCTTTGTATGTGGAAGTAT
ACCTGGCTTTTTAAAATATATGTATTTAAAAACAAAAAGCAACAGTAATCTATGTGTTTCTGTAACAAATTGGGA
TCTGTCTTGGCATTAAACCACATCATGGACCAAATGTGCCATACTAATGATGAGCATTTAGCACAATTTGAGACT
GAAATTTAGTACACTATGTTCTAGGTCAGTCTAACAGTTTGCCTGCTGTATTTATAGTAACCATTTTCCTTTGGA
CTGTTCAAGCAAAAAAGGTAACTAACTGCTTCATCTCCTTTTGCGCTTATTTGGAAATTTTAGTTATAGTGTTTA
ACTGGCATGGATTAATAGAGTTGGAGTTTTATTTTTAAGAAAAATTCACAAGCTAACTTCCACTAATCCATTATC
CTTTATTTTATTGAAATGTATAATTAACTTAACTGAAGAAAAGGTTCTTCTTGGGAGTATGTTGTCATAACATTT
AAAGAGATTTCCCTTCATTTAAACTAAATTACTGTTTTATGTTGATCTGCATATTTCTGTATATTTGTCATGACA
GTGCTTGCATCCTATTTGGTGT

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FIGURE 1845

CTTCCTGCCGCCGCGTTCGCACCTCGCTGCTCCAGCATCTAGGGCATATTCCAACCTTCCAGCCTGCGACCTGCA
GAGAAAAAAAAATTACTTATTTTCTTGCCCCGTACATACCTTGAAGTGAGCAAAAAAATTAAATTTTAACC**ATG**A
GGGAAATCGTGCACATCCAGGCTGGTCAGCGTGGCAACCAGATCGGTGCCAAGTTCTGGGAGGTGATCAGTGATG
AACATGGCATCGACCCCACTGGCACCTACCACGGGGACAGCGACCTGCAGCTGGACCGCATCTCCGTGTACTACA
GTGAAGCCACTGATGGCAAATATGTTCCTCGTGCCATACTGGTGGATCTAGAACCCCTTCCCACGTCTCCATTTC
TTTATGCCTGGCTTTGCCCCTCTCACCAGCCATGGAAGCCAGCAGTATCGAGCTCTCACAGTGCCGGAACTCACC
CAGCAGGTCTTCGATGCCAAGAGCATGATGGCTGCCTG**TGA**CCCCCGCCACGGCCGATACCTCACCGTGGCTGCT
GACTTCCGTGGTCGGATGTCCATGAAGGAGGTCGATGAGCAGATGTTTAACGTGCAGAACAAGAACAGCAGCTAC
TTTGTGGAATGGATCCCCAACAATATCAAGACAGCTGTCTGTGACATCCCACCTCGTGGCCTCAAGATGGCAGTC
ACCTTCATCGGCAGTAGCACGGCCATCCAGGAGCTCTTCAAGCACATCTCGGAGCAGTTCACTGCCATGTTCCGC
CGGAAGGCCTTCCTCCACTGGTACACAGGCGAGGGCATGGACGAGA

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FIGURE 1846

ACTCCAGCGCGCGGCTACCTACGCTTGGTGCTTGCTTTCTCCAGCCATCGGAGACCAGAGCCGCCCCCTCTGCTC
GAGAAAGGGGCTCAGCGGCGGCGGAAGCGGAGGGGGACCACCGTGGAGAGCGCGGTCCCAGCCCGGCCACTGCGG
ATCCCTGAAACCAAAAAGCTCCTGCTGCTTCTGTACCCCGCCTGTCCCTCCCAGCTGCGCAGGGCCCCTTCGTGG
GATCATCAGCCCGAAGACAGGG**ATG**GAGAGGCCTCTGTGCTCCCACCTCTGCAGCTGCCTGGCTATGCTGGCCCT
CCTGTCCCCCCTGAGCCTGGCACAGTATGACAGCTGGCCCCATTACCCCGAGTACTTCCAGCAACCGGCTCCTGA
GTATCACCAGCCCCAGGCCCCCGCCAACGTGGCCAAGATTCAGCTGCGCCTGGCTGGGCAGAAGAGGAAGCACAG
CGAGGGCCGGGTGGAGGTGTACTATGATGGCCAGTGGGGCACCGTGTGCGATGACGACTTCTCCATCCACGCTGC
CCACGTCGTCTGCCGGGAGCTGGGCTACGTGGAGGCCAAGTCCTGGACTGCCAGCTCCTCCTACGGCAAGGGAGA
AGGGCCCATCTGGTTAGACAATCTCCACTGTACTGGCAACGAGGCGACCCTTGCAGCATGCACCTCCAATGGCTG
GGGCGTCACTGACTGCAAGCACACGGAGGATGTCGGTGTGGTGTGCAGCGACAAAAGGATTCCTGGGTTCAAATT
TGACAATTCGTTGATCAACCAGATAGAGAACCTGAATATCCAGGTGGAGGACATTCGGATTCGAGCCATCCTCTC
AACCTACCGCAAGCGCACCCCAGTGATGGAGGGCTACGTGGAGGTGAAGGAGGGCAAGACCTGGAAGCAGATCTG
TGACAAGCACTGGACGGCCAAGAATTCCCGCGTGGTCTGCGGCATGTTTGGCTTCCCTGGGGAGAGGACATACAA
TACCAAAGTGTACAAAATGTTTGCCTCACGGAGGAAGCAGCGCTACTGGCCATTCTCCATGGACTGCACCGGCAC
AGAGGCCCACATCTCCAGCTGCAAGCTGGGCCCCCAGGTGTCACTGGACCCCATGAAGAATGTCACCTGCGAGAA
TGGGCTACCGGCCGTGGTGAGTTGTGTGCCTGGGCAGGTCTTCAGCCCTGACGGACCCTCAAGATTCCGGAAAGC
GTACAAGCCAGAGCAACCCCTGGTGCGACTGAGAGGCGGTGCCTACATCGGGGAGGGCCGCGTGGAGGTGCTCAA
AAATGGAGAATGGGGGACCGTCGGCGACGACAAGTGGAACCTGGGGCCGGCCAAGATGGTCGGCAAAAAGCTGGG
CTTTGGGAGTGCCAAAGAGGCAGTCACTGGCTCCCGACTGGGGCAAGGGATCGGACCCATCCACCTCAACGAGAT
CCAGTGCACAGGCAATGAGAAGTCCATTATAGACTGCAAGTTCAATGCCGAGTCTCAGGGCTGCAACCACGAGGA
GGATGCTGGTGTGAGATGCAACACCCCTGCCATGGGCTTGCAGAAGAAGCTGCGCCTGAACGGCGGCCGCAATCC
CTACGAGGGCCGAGTGGAGGTGCTGGTGGAGAGAAACGGGTCCCTTGTGTGGGGGATGGTGTGTGGCCAAAACTG
GGGCATCGTGGAGGCCATGGTGGTCTGCCGCCAGCTGGGCCTGGGATTCGCCAGCAACGCCTTCCAGGAGACCTG
GTATTGGCACGGAGATGTCAACAGCAACAAAGTGGTCATGAGTGGAGTGAAGTGCTCGGGAACGGAGCTGTCCCT
GGCGCACTGCCGCCACGACGGGGAGGACGTGGCCTGCCCCCAGGGCGGAGTGCAGTACGGGGCCGGAGTTGCCTG
CTCAGAAACCGCCCCTGACCTGGTCCTCAATGCGGAGATGGTGCAGCAGACCACCTACCTGGAGGACCGGCCCAT
GTTCATGCTGCAGTGTGCCATGGAGGAGAACTGCCTCTCGGCCTCAGCCGCGCAGACCGACCCCACCACGGGCTA
CCGCCGGCTCCTGCGCTTCTCCTCCCAGATCCACAACAATGGCCAGTCCGACTTCCGGCCCAAGAACGGCCGCCA
CGCGTGGATCTGGCACGACTGTCACAGGCACTACCACAGCATGGAGGTGTTCACCCACTATGACCTGCTGAACCT
CAATGGCACCAAGGTGGCAGAGGGCCACAAGGCCAGCTTCTGCTTGGAGGACACAGAATGTGAAGGAGACATCCA
GAAGAATTACGAGTGTGCCAACTTCGGCGATCAGGGCATCACCATGGGCTGCTGGGACATGTACCGCCATGACAT
CGACTGCCAGTGGGTTGACATCACTGACGTGCCCCCTGGAGACTACCTGTTCCAGGTTGTTATTAACCCCAACTT
CGAGGTTGCAGAATCCGATTACTCCAACAACATCATGAAATGCAGGAGCCGCTATGACGGCCACCGCATCTGGAT
GTACAACTGCCACATAGGTGGTTCCTTCAGCGAAGAGACGGAAAAAAAGTTTGAGCACTTCAGCGGGCTCTTAAA
CAACCAGCTGTCCCCGCAG**TAA**AGAAGCCTGCGTGGTCAACTCCTGTCTTCAGGCCACACCACATCTTCCATGGG
ACTTCCCCCCAACAACTGAGTCTGAACGAATGCCACGTGCCCTCACCCAGCCCGGCCCCCACCCTGTCCAGACCC
CTACAGCTGTGTCTAAGCTCAGGAGGAAAGGGACCCTCCCATCATTCATGGGGGGCTGCTACCTGACCCTTGGGG
CCTGAGAAGGCCTTGCGGGGGTGGGGTTTGTCCACAGAGCTGCTGGAGCAGCACCAAGAGCCAGTCTTGACCGGG
ATGAGGCCCACAGACAGGTTGTCATCAGCTTGTCCCATTCAAGCCACCGAGCTCACCACAGACACAGTGGAGCCG
CGCTCTTCTCCAGTGACACGTGGACAAATGCGGGCTCATCAGCCCCCCCAGAGAGGGTCAGGCCGAACCCCATTT
CTCCTCCTCTTAGGTCATTTTCAGCAAACTTGAATATCTAGACCTCTCTTCCAATGAAACCCTCCAGTCTATTAT
AGTCACATAGATAATGGTGCCACGTGTTTTCTGATTTGGTGAGCTCAGACTTGGTGCTTCCCTATCCACAGCCCC
CACCCCTTGTTTTTCAAGATACTATTATTATATTTTCACAGACTTTTGAAGCACAAATTTATTGGCATTTAATAT
TGGACATCTGGGCCCTTGGAAGTACAAATCTAAGGAAAAACCAACCCACTGTGTAAGTGACTCATCTTCCTGTTG
TTCCAATTCTGTGGGTTTTTGATTCAACGGTGCTATAACCAGGGTCCTGGGTGACAGGGCGCTCACTGAGCACCA
TGTGTCATCACAGACACTTACACATACTTGAAACTTGGAATAAAAGAAAGATTTATG

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FIGURE 1847

GATGGCGGCGGAGCAGGACCCCGAGGCGCGCGCGGGGCGGCCGCTGCTCACTGACCTCTACCAGGCCACCATGGC
GTTGGGCTATTGGCGCGCGGGCCGGGCGCGGGACGCCGCCGAGTTCGAGCTCTTCTTCCGCCGCTGCCCGTTCGG
CGGCGCCTTCGCCTTGGTAGCCGGCTTGCGCGACTGTGTGCGCTTCCTGCGCGCCTTCCGCCTGCGGGACGCCGA
CGTGCAGTTCCTGGCCTCGGTGCTGCCCCCAGACACGGATCCTGCGTTCTTCGAGCACCTTCGGGCCCTCGACTG
CTCCGAGGTGACGGTGCGAGCCCTGCCCGAGGCTCCCTCGCCTTCCCCGGAGTGCCGCTCCTGCAGGTGTCCGGG
CCGCTCCTGGTGGTGCAGCTGCTGGAGACACCGCTGCTCTGCCTGGTCAGCTACGCCAGCCTGGTGGCCACCAAC
GCAGCGCGCGTTCGCTTGATCGCAGGGCCAGAGAAGCGGCTGCTAGAGATGGGCCTGAGGCGGGCTCAGGGCCCG
ATGGGGCCTGACAGCCTCCACCTACAGCTACCTGGGCGGCTTCGACAGCAGCAGCAACGTGCTAGCGGGCCAGCT
GCGAGGTGTGCCGGTGGCCGGGACCCTGGCCCACTCCTTCGTCACTTCCTTTTCAGGCAGCGAGGTGCCCCCTGA
CCCG**ATG**TTGGCGCCAGCAGCTGGTGAGGGCCCTGGGGTGGACCTGGCGGCCAAAGCCCAGGTGTGGCTGGAGCA
GGTGTGTGCCCACCTGGGGCTGGGGGTGCAGGAGCCGCATCCAGGCGAGCGGGCAGCCTTTGTGGCCTATGCCTT
GGCTTTTCCCCGGGCCTTCCAGGGCCTCCTGGACACCTACAGCGTGTGGAGGAGTGGTCTCCCCAACTTCCTAGC
AGTCGCCCTGGCCCTGGGAGAGCTGGGCTACCGGGCAGTGGGCGTGAGGCTGGACAGTGGTGACCTGCTACAGCA
GGCTCAGGAGATCCGCAAGGTCTTCCGAGCTGCTGCAGCCCAGTTCCAGGTGCCCTGGCTGGAGTCAGTCCTCAT
CGTAGTCAGCAACAACATTGACGAGGAGGCGCTGGCCCGACTGGCCCAGGAGGGCAGTGAGGTGAATGTCATTGG
CATTGGCACCAGTGTGGTCACCTGCCCCCAACAGCCTTCCCTGGGTGGTGTCTATAAGCTGGTGGCCGTGGGGGG
CCAGCCACGAATGAAGCTGACCGAGGACCCCGAGAAGCAGACGTTGCCTGGGAGCAAGGCTGCTTTCCGGCTCCT
GGGCTCTGACGGGTCTCCACTCATGGACATGCTGCAGTTAGCAGAAGAGCCAGTGCCACAGGCTGGGCAGGAGCT
GAGGGTGTGGCCTCCAGGGGCCCAGGAGCCCTGCACCGTGAGGCCAGCCCAGGTGGAGCCACTACTGCGGCTCTG
CCTCCAGCAGGGACAGCTGTGTGAGCCGCTCCCATCCCTGGCAGAGTCTAGAGCCTTGGCCCAGCTGTCCCTGAG
CCGACTCAGCCCTGAGCACAGGCGGCTGCGGAGCCCTGCACAGTACCAGGTGGTGCTGTCCGAGAGGCTGCAGGC
CCTGGTGAACAGTCTGTGTGCGGGGCAGTCCCCC**TGA**GACTCGGAGCGGGGCTGACTGGAAACAACACGAATCAC
TCACTTTTCCCC

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FIGURE 1848

CAGAAAAATGGCTACAAACTTCCTAGCACATGAGAAGATCTGGTTCGACAAGTTCAAATATGACGACGCAGAAAG
GAGATTCTACGAGCAGATGAACGGGCCTGTGGCAGGTGCCTCCCGCCAGGAGAACGGCGCCCGTGATCCTCCGTG
ACATTGCGAGAGCCAGAGAGAACATCCAGAAATCCCTGGCTGGAAGCTCAGGCCCCGGGGCCTCCAGCGGCACCA
GCGGAGACCACGGTGAGCTCGTCGTCCGGATTGCCAGTCTGGAAGTGGAGAACCAGAGTCTGCGTGGCGTGGTAC
AGGAGCTGCAGCAGGCCATCTCCAAGCTGGAGGCCCGGCTGAACGTGCTGGAGAAGAGCTCGCCTGGCCACCGGG
CCACGGCCCCACAGACCCAGTGACA**ATG**AGGAGGAGGACAAGGAGGCGGCACAGCTGCGGGAGGAGCGGCTACGG
CAGTACGCGGAGAAGAAGGCCAAGAAGCCTGCACTGGTGGCCAAGTCCTCCATCCTGCTGGATGTCAAGCCTTGG
GATGATGAGACGGACATGGCCCAGCTGGAGGCCTGTGTGCGCTCTATCCAGCTGGACGGGCTGGTCTGGGGGGCT
TCCAAGCTGGTGCCCGTGGGCTACGGTATCCGGAAGCTACAGATTCAGTGTGTGGTGGAGGACGACAAGGTGGGG
ACAGACTTGCTGGAGGAGGAGATCACCAAGTTTGAGGAGCACGTGCAGAGTGTCGATATCGCAGCTTTCAACAAG
ATCTGAAGCC**TGA**GTGTGTGTACGTGCGCGCGTGCGTGAGGCCCTGCCACGATTAAAGACTGAGAC

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FIGURE 1849

CCTGGGCGGGCCCTGCGTCAGGTTGCAGTTTCACTTTTAGCTCTGGGCACCTCCAGCTCCTGCTCGCCGGACGGC
TCCCAGGGAGAGCAGACGCGCCAGACGCGCCACCCTCGGGGCGCCGACGGTCACGGAGC**ATG**GGGTCGGCCTTTG
AGCGGGTAGTCCGGAGAGTGGTCCAGGAGCTGGACCATGGTGGGGAGTTCATCCCTGTGACCAGCCTGCAGAGCT
CCACTGGCTTCCAGCCCTACTGCCTGGTGGTTAGGAAGCCCTCAAGCTCATGGTTCTGGAAACCCCGTTATAAGT
GTGTCAACCTGTCTATCAAGGACATCCTGGAGCCGGATGCCGCGGAACCAGACGTGCAGCGTGGCAGGAGCTTCC
ACTTCTACGATGCCATGGATGGGCAGATACAGGGCAGCGTGGAGCTGGCAGCCCCAGGACAGGCAAAGATCGCAG
GCGGGGCCGCGGTGTCTGACAGCTCCAGCACCTCAATGAATGTGTACTCGCTGAGTGTGGACCCTAACACCTGGC
AGACTCTGCTCCATGAGAGGCACCTGCGGCAGCCAGAACACAAAGTCCTGCAGCAGCTGCGCAGCCGCGGGGACA
ACGTGTACGTGGTGACTGAGGTGCTGCAGACACAGAAGGAGGTGGAAGTCACGCGCACCCACAAGCGGGAGGGCT
CGGGCCGGTTTTCCCTGCCCGGAGCCACGTGCTTGCAGGGTGAGGGCCAGGGCCATCTGAGCCAGAAGAAGACGG
TCACCATCCCCTCAGGCAGCACCCTCGCATTCCGGGTGGCCCAGCTGGTTATTGACTCTGACTTGGACGTCCTTC
TCTTCCCGGATAAGAAGCAGAGGACCTTCCAGCCACCCGCGACAGGCCACAAGCGTTCCACGAGCGAAGGCGCCT
GGCCACAGCTGCCCTCTGGCCTCTCCATGATGAGGTGCCTCCACAACTTCCTGACAGATGGGGTCCCTGCGGAGG
GGGCGTTCACTGAAGACTTCCAGGGCCTACGGGCAGAGGTGGAGACCATCTCCAAGGAACTGGAGCTTTTGGACA
GAGAGCTGTGCCAGCTGCTGCTGGAGGGCCTGGAGGGGGTGCTGCGGGACCAGCTGGCCCTGCGAGCCTTGGAGG
AGGCGCTGGAGCAGGGCCAGAGCCTTGGGCCGGTGGAGCCCCTGGACGGTCCAGCAGGTGCTGTCCTGGAGTGCC
TGGTGTTGTCCTCCGGAATGCTGGTGCCGGAACTCGCTATCCCTGTTGTCTACCTGCTGGGGGCACTGACCATGC
TGAGTGAAACGCAGCACAAGCTGCTGGCGGAGGCGCTGGAGTCGCAGACCCTGTTGGGGCCGCTCGAGCTGGTGG
GCAGCCTCTTGGAGCAGAGTGCCCCGTGGCAGGAGCGCAGCACCATGTCCCTGCCCCCCGGGCTCCTGGGGAACA
GCTGGGGCGAAGGAGCACCGGCCTGGGTCTTGCTGGACGAGTGTGGCCTAGAGCTGGGGGAGGACACTCCCCACG
TGTGCTGGGAGCCGCAGGCCCAGGGCCGCATGTGTGCACTCTACGCCTCCCTGGCACTGCTATCAGGACTGAGCC
AGGAGCCCCAC**TAG**CCTGTGCCCGGGCATGGCCTGGCAGCTCTCCAGCAGGGCAGAGTGTTTGCCCACCAGCTGC
TAGCCCTAGGAAGGCCAGGAGCCCAGTAGCCATGTGGCCAGTCTACCATGGGGCCCAGGAGTTGGGGAAACACAA
TAAAGGTGGCATACGAAGG

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FIGURE 1850A

GCACCACAGACCAGTCTGTCCTGGTGTTGGATGTTAAAAGTGGAGCCACAAAGAAGCCATCTTATGTGGGACAGG
CTTGGGTGTGAGACCAGAGCTGTGGGTAGCAGCATGTTGGGTCAGGATGAGGGGCAGAGGAAACACTTTCCACCT
CTTGGATATGGATTTTATCCTGCCCTGATTCAGGAGATCCCCATCTGTTAAGTAAGGGGAAAG**ATG**ATTTTGTTG
TCTTTTGTTTCAGATTCTAATGTAGGAACTGGTGAGAAGAAGGTGACTGAAGCCTGGATTTCTGAGGATGAAAAC
TCACATAGGACGACGTCAGACAGACTCACGGTGATGGAGCTCCCCTCTCCCGAGTCTGAGGAAGTCCACGAGCCC
AGATTAGGGGAGCTCTTGGGAAATCCAGAAGGTCAGAGCCTGGGGAGTTCCCCCTCTCAGGACAGGGGCTGCAAG
CAGGTGACAGTGACCCATTGGAAGATCCAGACAGGAGAGACAGCTCAAGTGTGCACCAAGTCAGGAAGAAACCAT
ATTCTGAACTCAGACCTTCTTCTGCTTCAGAGAGAGCTCATAGAGGGGGAAGCCAATCCTTGCGATATCTGTGGC
AAAACCTTCACGTTTAATTCGGACCTAGTTAGGCATCGGATTTCGCATGCTGGGGAGAAACCTTACACGTGCGAT
CAGTGTGGGAAAGGCTTTGGCCAGAGCTCACACCTTATGGAGCATCAGAGAATTCACACTGGAGAGAGACTCTAC
GTCTGTAATGTGTGTGGGAAAGACTTCATTCACTATTCAGGTCTCATTGAGCATCAGCGCGTTCATTCAGGAGAA
AAGCCCTTCAAATGTGCGCAGTGTGGGAAGGCGTTTTGTCACAGTTCAGACCTGATTAGGCACCAGAGAGTTCAC
ACCAGAGAGAGACCTTTTGAATGCAAAGAGTGTGGGAAAGGCTTCAGTCAGAGCTCCTTACTTATTCGCCATCAG
AGGATTCACACGGGAGAAAGGCCCTATGAGTGCAATGAATGTGGGAAATCCTTCATAAGGAGCTCGAGCCTCATT
CGCCATTATCAGATCCACACAGAAGTGAAACAGTATGAATGCAAAGAATGTGGGAAGGCATTCCGTCATCGCTCA
GACCTTATTGAACACCAGAGAATTCACACCGGAGAGAGACCCTTTGAATGCAATGAGTGTGGGAAAGCCTTTATT
CGGAGTTCAAAGCTCATTCAGCATCAGAGGATCCATACTGGGGAGAGGCCTTACGTATGCAATGAGTGTGGGAAG
CGCTTCAGCCAGACGTCAAACTTCACCCAGCATCAGAGAATTCACACTGGAGAGAAACTCTATGAATGTAACGAG
TGTGGGAAAGCTTTCTTTCTGAGTTCATACCTTATTCGACACCAGAAAATCCACACTGGAGAGAGAGTGTATGAA
TGTAAGGAATGTGGGAAAGCGTTTCTCCAGAAAGCCCATCTCACTGAGCACCAGAAGATCCACTCTGGGGACAGG
CCCTTCGAATGTAAAGACTGTGGGAAAGCCTTCATCCAGAGCTCCAAGCTGCTTCTGCACCAGATTATTCACACT
GGAGAAAAGCCCTATGTGTGCAGTTATTGTGGGAAAGGCTTTATTCAGAGGTCAAACTTCCTTCAACACCAGAAA
ATTCATACTGAAGAGAAGCTCTATGAATGTAGTCAGTATGGGAGAGATTTTAACTCAACTACAAACGTTAAAAAT
AATCAAAGGGTTCACCAAGAGGGACTCTCCTTGAGTAAGGCCCCCATACATTTGGGTGAGAGGTCTGTAGATAAG
GGGGAACACACAGGTAACTTA**TAA**AATAATTACTTTCCCGCCCAGTGAGTGATGTTTGGAAATGCGTGGAATTAG
GATTCATGTGGTTTCTAAGATTTGGACATGTCAGAATTTTGTGAGTCATGGATGGGGCTGCTTTTGCAGTGGGTG
CCACCTGCCACTGTGCAGCCCTACTCGGCTCAGCCCTTCTCCTCAGCTGTGAGCACTGTCCTCAGGAGAGTCACA
GGGCTTGACACCTGACTCTGAGCTGGAACAGTAGGGGCAGGGAGAAGACAGGTCTCAAGAAAAGGTTTTTAAGAA
GTTTCATCCCCAGTTAAGCAGAGTCCATCCTTGACTTAAATCCCTTATTACAGCACAACTGTGTATCTAATCTTA
CGATTTAGGAGAATGTTACCTAGGACATTTTGATGTGTTAAGTTGAAGAAAGGTAACTCGTGTATGAACCCCGAG
CCATTTCCCTGTTGTCCTGAGGAGGAACTCCAGGCCTCCCATCGTGTGCCCTAAGGCCTCCTGCGTCCTGGAGCC
CTGCCTCCCACTGCCTGACTTCCTGCCACACGGTTAATGCTGCAGCAACACCGACTGCTTCATCTTCCCTGTGCT
CCACGTGGCTTCCTACCTCTCTCGCCTTTGTTCTTGTTGAAGGGTCTCTTCTCAGCTAATTAACTCTGAATCATG
GTTCAAGACAAGCCTCAGGCATCATGTCAATGGGTGTTTCCCTCAAGCTTAGTTGGCAGCACTCTCCACACTTCT
GTGGCTCAGTGATTACTGCTATTACTATATTTACTTGCATATGTCAGAATGATGTGATAGACTATCTCTGTCACT
ATGCTGTTGGGTTCCTGAGGACAGTGATCATATCTGATTGATTTCCATGTGTCCACTGTCTAGCACAGGGCAATA
AAAAATACACCCCTAAATCTATGTGTAATTGGCATCTCTCTTGCTTTGTCCTTTCTATACTGCCATTCTAAAAAT
TTTCAGCTGTTGGCTGTTTTTTTTGTTGTTTGTTCATTTTGTATCAGTATAATCTACGATTCTGTTAGAAGTATC
TTCTCAGCCCTGCTACTGTCTGCTGCTCCTACTTAGAAGTTGCAGGCAATATCCTGTGCACATCCACGCCCTCCT
GTGTGCCACCTTACAGCTCATGCAGAACTGTCTACTTGATCTGGAGGGCATTGACACCTGGCTCAGCTGGAACAG
TGGGGACAGGAGGAGGCAGGTCTCAAGAGAAGGTCTTTACTTACTTGTCTGTATCTTTCTGTCTCACTCGAAAGG
CACAGTCTCAATGCGCTACGTAACTCTTCTGTTGTAGCAGTTCTGAGGTTGAACTGAGCTCTTGTCATTTTCCAT
GCTCTCTGGCTCATTGTGTCATTTCAAAATGTATTGATATCTATAAGGAATAGTCCTCAATGTTGGGAAAACAGA
TGAGCAACCCACTACCCTGAAGTCATCCACCGTGTAGTGGGGAAGACGGAGATCACAGTAGGGTGAGTTAAGTAT
GTGCCCTCAGGTGTGAAGGAGCACAGGTGAGGGGGTGCCTGCTGTGGCACAGAGCTGGGAAGGCCTTACAGAAGA
GGTGACATTTCAGCTGGGCCAGAGATCAGTAGAGAGCAGCTGAAGAAGAAAATAGGGTCCAGGAGAGGAATCTGC
AGAAACATGGAGCCATGACAGATGGCTTTTTGGCTAGGACTGTTCGAAAGCAGGCGAGGTAAATGGACAGTGGAC
AGCCGCCTCGCCAAACTGTTAGTCTTTACCTCTGAATTTCATCTGGACATGAACCCCAAAGTCCAGTTTTGTAAC

FIGURE 1850B

GATATAATTTTTTTCTCATGAGGCCATATTTTGAGTTCTTAAATACTACCAACCCTGAACGTCTCAGGACAAATA
ATTCAAAAAAGAGATCTACATTTTCTGGAAAATCAGCATTACTAGAGATGTTTCAAATGTAGATTTTACCAGACC
ATTTTAATCAACTTTATTGAGATTCAATTTTCATATAGTAAAACGCCTATTTAAGTGTACAAGGTTTTGAAAAAT
CTATACACCTGTGTAACCACCACCACCTGTGTAACCACCACCGCCAGAACCAAAAACGTTTCTGTCACCCAAAGA
AGTTCCCTTTTGCCTTTTCCTAGTTAAGCCCACTCCAGCCCCAGATAACCACTTTCTATCCTCATAGATTAGTGT
TGCTTGGTTTAGAGCCTCATACAAATGGATTCATTTACTATGTGTTCTTTTGCGTCTGATGTCTCACTTTGGCAT
GTTTTTAGACTCATCCAAGCTGTTTTGTGTTTCAGTAGTTCTCCTTGCTGAATAGTATTCCATTGTGTGGATAAG
CCATCATTTGTTTATTCATCCACATGTTAATGGGTTTCCAGTCTCGGCTCTTAAAACTATGAGCATTTGTGTAAA
AGTATGTATTTGCACATGTGTTTTTATTTCTCTTGGGTAAGTACCTAGGACTTTAATTGCTGTGTTGTAAGTGTC
TTAGTTCATTCAGGCTGCCATAACAAAATACCATCAACTGGGAGGCTTAGAAACAACAGAAATTTATGTTTTACA
GTTCTGGAGGCTGGGAAGTCCAAGATGAGGGTGTCAACATTTGGTGTCTAGTCAGGGCCTGCTTCCTTTTAAGTA
GATGTCTTTTTACTGTGACTGCACGTGGTGGAAAGGGACTAGCAAGCTTACCCCATTCATGAGGGCTCTCCCCTT
GTGATTCTGTCCCCTCCCCAAGACCCCACCTCATATCATCTTATGGGTTAGGAATTTGACATGAATTGTGCAAGG
ATGTAAACATTCAGTCCATTGCAATACGTGTTTCTAACTTCCTAAGAAATTGTCACACAGCCCTCTGTAGTGGTT
GAATCATTTTACACTATTACTACATTATGGGAAGATTCCAGTTGCTCCATATCTTTGCTAACACTTGGCATTGTC
AGTCTCTTAAAATTTAATCCACTCTAGCCTCCTTATGATTTTAATTTGTATTTGCCCACTGAATAATGTATGTCT
ATGATTTCATCTGCTTATTGCTTTTCCGTGTTGTCTTTTGTGATGTGTCTGTTCGTGCCTTTTGCCTGTTTTTAA
GTTGGGATGCTTATTGTTGACTCAAGTTCTTTCCATATTCTGCATGAAAAACATACATGTAATATATAGAATTCT
TTGTCTCCATTTGTGACAAATATTGTGAATATTTTCATGTTTGGTTTGCCTGTTCATTTTCTTAATGGTGTCTTT
TGAATATTTTTTATTAAGCC

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FIGURE 1851

CAGGTGCAACTGAC**ATG**GGTGAACCCCAGGGATCCATGCGGATTCTAGTGACAGGGGGCTCTGGGCTGGTAGGCA
AAGCCATCCAGAAGGTGGTAGCAGATGGAGCTGGACTTCCTGGAGAGGACTGGGTGTTTGTCTCCTCTAAAGACG
CCGATCTCACGGATACAGCACAGACCCGCGCCCTGTTTGAGAAGGTCCAACCCACACACGTCATCCATCTTGCTG
CAATGGTGGGGGGCCTGTTCCGGAATATCAAATACAATTTGGACTTCTGGAGGAAAAACGTGCACATGAACGACA
ACGTCCTGCACTCGGCCTTTGAGGTGGGCGCCCGCAAGGTGGTGTCCTGCCTGTCCACCTGTATCTTCCCTGACA
AGACGACCTACCCGATAGATGAGACCATGATCCACAATGGGCCTCCCCACAACAGCAATTTTGGGTACTCGTATG
CCAAGAGGATGATCGACGTGCAGAACAGGGCCTACTTCCAGCAGTACGGCTGCACCTTCACCGCTGTCATCCCCA
CCAACGTCTTCGGGCCCCACGACAACTTCAACATCGAGGATGGCCACGTGCTGCCTGGCCTCATCCACAAGGTGC
ACCTGGCCAAGAGCAGCGGCTCGGCCCTGACGGTGTGGGGTACAGGGAATCCGCGGAGGCAGTTCATATACTCGC
TGGACCTGGCCCAGCTCTTTATCTGGGTCCTGCGGGAGTACAATGAAGTGGAGCCCATCATCCTCTCCGGTGGGC
GAGGAAGA**TGA**GGTCTCCATCAAGGAGGCAGCCGAGGCGGTGGTGGAGGCCATGGACTTCCATGGGGAAGTCACC
TTTGATACAACCAAGTCGGATGGGCAGTTTAAGAAGACAGCCAGTAACAGCAAGCTGAGGACCTACCTGCCCGAC
TTCCGGTTCACACCCTTCAAGCAGGCGGTGAAGGAGACCTGTGCTTGGTTCACTGACAACTACGAGCAGGCCCGG
AAGTGAAGCTGGAAGACAGGATCAGGTGCCAGCGGACCATCGGCTGGCAGAGCCCAGCGGCCACCACCCGTCAAC
CCTGCCAGGAGCTGAGGGCACCACCCAGCAACCTGGGCCTGCATTCCATCCGCTCTGCAGCCCCAAGCATCTTTC
CAGTGGGGCCCCCATTCACGTTGGTCCTCAGGGAAACCAGGGTCCCGGGCAGGCCCGGCGCTTTGCTCCCCACAC
CAGCCCCCTGCGCGTGTCCACTCTGATCCTGCATCCCACTCCCTGGGAGCCAATAAAGTGCATTTTCACAG

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FIGURE 1852

TCCAGGCGCAGGCCGAGGCCTTCGCGCGCCAGATCTACGGGCCCGAGTGCACCTTCAAGGCCAGCCACGGCTGGT
TCTGGCGCTGGCAGAAGCGCCACGGCATCTCCAGCCAGCGCTTCTACGGCGAGGCCGGGCCCCCAGCCCCGAGCC
CCGCGCCCGGCCCGCCCGTCAAGGAGGAGCCCGCGCTGCCCTCCGGCGCCGGCCCCCTGCCCGACCGCGCCCCGG
CCCCGCCGCCCCCGGCCGAGGGCGGCTACGGGGACGAGCAGATTTACAGCGCCAGCGTCACCGGCCTCTACTGGA
AGCTGCTTCCGGAGCAGGCTGCGCCCCCGGGCGCAGGGGACCCCGGGGCGGGGGGCTGTGGCCGGCGCTGGCGGG
GCGACCGCGTAACGGTGCTGCTGGCCGCAAACCTGACCGGCAGCCACAAGCTGAAGCCGCTGGTCATCGGGCGGC
TGCCGGACCCGCCCAGCCTGCGCCACCACAACCAGGACAAGTTCCCGGCCTCCTACCGCTACAGCCCCGACGCCT
GGCTCAGCCGCCCGCTGCTGCGGGGCTGGTTCTTTGAGGAATTTGTCCCAGGCGTCAAACGCTACCTGCGCCGAA
GCTGCCTGCAGCAGAAGGCCGTGCTGCTGGTGGCCCACCCGCCCTGCCCAAGCCCAGCTGCCAGT**ATG**CCCGCCC
TGGACAGCGAGGATGCCCCCGTGCGGTGCAGGCCGGAGCCCCTCGGTCCCCCGGAGGAGCTGCAGACACCGGATG
GCGCTGTGCGGGTGCTGTTCCTGTCCAAAGGCAGCAGCCGGGCACATATCCCCGCACCGCTGGAGCAGGGCGTGG
TGGCCGCCTTCAAACAGCTGTACAAGCGCGAGCTGCTGCGACTGGCTGTGTCCTGCGCCAGCGGCTCCCCGCTGG
ACTTCATGCGCAGCTTCATGCTCAAGGACATGCTCTACCTGGCTGGCCTCTCCTGGGACCTGGTGCAGGCGGGCA
GCATTGAGCGCTGCTGGCTGCTGGGCCTGCGGGCTGCCTTCGAGCCCCGGCCCGGCGAGGACAGTGCTGGGCAGC
CGGCCCAGGCCGAGGAAGCCGCCGAGCACAGCAGGGTGCTCAGCGACCTCACCCACCTGGCGGCTCTGGCCTACA
AGTGCCTGGCTCCGGAGGAGGTTGCGGAGTGGCTGCACCTGGACGATGATGGGGGTCCGCCCGAGGGCTGCAGGG
AGGAGGTGGGCCCAGCCCTGCCCCCTGCAGCGCCTCCGGCCCCAGCCAGTCTGCCCTCTGCCATGGGGGGCGGAG
AGGACGAGGAGGAGGCCACCGACTATGGAGGGACCTCAGTGCCGACTGCCGGGGAGGCCGTGCGGGGGCTAGAAA
CAGCTCTGCGGTGGCTGGAGAACCAGGACCCCAGAGAGGTGGGGCCACTGAGGCTGGTGCAGTTGCGCTCACTCA
TCAGCATGGCCCGGAGGCTGGGGGGCATCGGGCATACCCCAGCAGGCCCCTATGACGGTGTG**TGA**CCAGGCCAGC
CCAGTGACCTTTCTCCTGCTGCACTTGGAGGGAGGGGACATACACACAGTCTCCCATCTCTCCTCCCCTCCCCCT
GGGGTGGCCCACCGCATGGGTACAGGGGGTTCCAGGAATCCAAATCCAGCATGGCTTGGAGGAGCTCTGTTGGTG
AGAGGTCGCCCTGCCTCACTGGCACCCTGGGGGCACAGCTGGAAGAGAGGCCTGGCCCATGCTCCTCTCAGGGCA
GGCACATGTACGGGGCATACAAGGCACAGCGCCTGTTGGAACAGGTGGCTGTGTTCCTGCTCTGGCCCCCGTGGG
GCTGGGCCTCCGCCCCTGCACCAGTCACATGCACTGGACGAGGGCCGAAACTCCTGTCTGCTATCGAGCCCTGGT
GCTATGTGGCCCCGGAGCCACAGCACAATCATCTCAGTGGCGAAGCACACCACTTGATTCTATTTTTTTTTAACA
CATTAAATCTGTTTTTAAAGAT

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FIGURE 1853

GCCCCCGAGGCCCGAGGGAGAGGGAAGAGCGCCGGGCCCGGGTCGCGGAGGCGGGCGCCGCCGGAACGCGAAGCG
CGGGGCTACTGCGGGCAGGCGCGAGTTCGCGCAGCACCGCCCCCGGCGTGACCTGCTGGTCGCTTCCGGCGCGGG
AGGAGA**ATG**TGGCCGCCTTGCGGGACGCTCCGGACCCTGGCCTTGGCGCGGTCGCGGGGAGCCCGGGCCTGCAGC
GGGGATGGGGGCGTTTCCTACACGCAGGGCCAGAGTCCGGAGCCGCGGACCCGCGAGTATTTCTACTACGTGGAC
CACCAGGGCCAGCTTTTCCTGGATGATTCCAAAATGAAGAATTTCATCACCTGCTTCAAAGACCCGCAGTTCCTG
GTCACCTTCTTCTCCCGCCTGAGACCCAACCGCAGCGGGCGCTACGAGGCCGCTTTCCCCTTCCTCTCGCCCTGC
GGCAGAGAGCGCAACTTCCTGCGCTGCGAGGACCGGCCGGTGGTCTTCACGCACCTGCTGACCGCGGACCACGGG
CCTCCGCGCCTCTCCTACTGCGGCGGTGGCGAGGCCCTGGCCGTGCCCTTCGAGCCGGCGCGCCTGCTGCCCCTG
GCCGCCAACGGGCGCCTGTACCACCCGGCGCCGGAGCGTGCGGGCGGCGTGGGCCTGGTGCGCTCCGCCCTGGCC
TTCGAGCTCAGCGCCTGCTTCGAGTACGGGCCCGGCGCGCCTGCGCTGCCCTCGCACGTGCGCTGGCAGGGCCGC
CGCCTCGCCCTCACCATGGACCTGGCCCCGCTGCTGCTCGCGGCTCGGTCGCCC**TGA**GCGGGGCCAAGGGAAAGG
CGGGAGGCCGCGGGCGCCTCTCGCCCCGCTCCCCCGGGACTCCACGCCCCGGAAAGCCCGCGCCACCCGCGCTCG
CGGCAGCCTAGTGCGCCTGCGCGCTCGG

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FIGURE 1854A

AGCCTGAGAAGCCAGGCCCCGGCAGCAAGGACCCCAAGGCCGACAGCGTGCGGGCCATCAGCGTGCGCACCCTCT
ACCTGGTCAGCACCACCGTGGACAGG**ATG**AGTCACGTCCTCTGGCCATACCTGCTCCAGTTCCTCACCCCTGTGC
GCTTCACTGGGGCCCTGACTCCGCTCTGCAGGAGCCTCGTGCATCTGGCGCAGAAGAGGCAGGAGGCCGGGGCCG
ACGCCTTCCTCATCCAGTACGACGCCCATGCGAGCCTCCCGTCTCCCTATGCTGTAACCGGAAGACTGTTGGTTG
TGTCTTCCAGCCCCTACCTAGGGGACGGACGTGGGGCAGCGGCGCTGCGCCTCCTCAGTGTTCTGCACCCAAACA
TTCACCCTTTGCTGGGTCAGCATTGGGAAACGACTGTCCCGCTGCTGCTGGGGTACCTGGATGAGCACACAGAAG
AGACCCTGCCACAGGAGGAGTGGGAGGAGAAGCTGTTGATGTTCCTGCGAGACACCCTGGCCATCATTTCTGACA
ACGCGTGGATCTGCCAGCTGAGCCTGGAGCTGTGCAGGCAGCTGCCCTGCTACGATGAGGCACCCCAGGAGAAGA
ACTTCCTGTACAAATGCATAGGCACCACCCTGGGTGCTGCTTCAAGTAAGGAGGTGGTGAGGAAGCACCTTCAAG
AGCTGCTGGAGACGGCCAGATACCAGGAGGAGGCAGAACGCGAGGGCCTCGCCTGCTGCTTCGGGATCTGTGCCA
TCTCCCACCTCGAGGACACGCTGGCCCAGCTGGAGGACTTCGTGAGGTCAGAGGTCTTCAGAAAATCCATTGGCA
TTCTCAACATTTTTAAGGATCGAAGTGAGAACGAAGTGGAGAAGGTGAAGAGTGCTCTGATCCTGTGCTATGGGC
ACGTGGCGGCCCGGGCCCCCCGGGAGCTGGTGCTGGCCAAGGTAGAGTCAGACATCCTCCGGAACATCTGCCAGC
ACTTCAGCACCAAGGACCCAGCCCTGAAGCTGTGCCTTGTCCAGAGTGTGTGCATGGTCAGCCGCGCCATCTGCA
GCAGCACCCAGGCTGGCTCCTTCCACTTCACCCGGAAAGCAGAGCTGGTGGCACAGATGATGGAGTTCATCAGGG
CAGAGCCCCCGGACTCCTTGAGGACACCTATTCGGAAGAAAGCCATGCTCACCTGCACTTACTTGGTCTCCGTGG
AGCCAGCGCTGGACGAGCAGGCCCGGGCGGATGTGATCCATGGCTGCCTGCACAGCATCATGGCCCTGCTGCCTG
AGCCCAAGGAGGAGGACGGAGGCTGCCAGAAGTCCCTGTATCTGGAGACACTGCACGCCCTTGAGGATCTGCTGA
CGAGCCTCCTGCAGCGGAACATGACCCCCCAAGGCCTGCAGATCATGATTGAGCACCTGAGCCCATGGATCAAGT
CCCCAAGAGGTCACGAGCGGGCGCGGGCCCTGGGCCTGAGCGCCCTCCTGCTGCGCTACTTCCTGGAGCACCTGC
GTGTCAGCGCCCTGGTGCCCTTCCACAACCTGGGCCTTCTCATCGGCCTCTTCTCCCCACGGTGTGCGGACCTGT
GGCCTGCCACCCGCCAGGAGGCCGTGGACTGTGTCTACTCCCTGCTGTACCTCCAGCTCGGCTATGAGGGCTTCT
CCCGGGACTACCGCGATGACGTGGCGGAGCGGCTCCTCAGCCTCAAGGACGGCCTCGTGCACCCTGACCCCGCCA
TTCTCTTCCACACCTGCCACAGTGTAGGCCAGATTATTGCCAAGCGCCTCCCCCCAGACCAGCTCATCAGCCTCT
TGCTAACCATGTTTGAGGCCCTGGGAGACCCCGAAAAGAACTGCTCCCGAGCAGCTACCGTCATGATCAACTGCC
TGCTGCAGGAGCGGGGCGGTGTGCTCCAGGAGAAGGTGCCCGAGATCGTGAGCGTCCTGCGCTCCAAGCTTCAGG
AGGCCCAGGGAGAGCACGTCCTGCCGGCCGCCCAGCACAGCGTGTACCTCCTGGCCACCCAGCACTGCGCAGCCG
TGGTGTCCAGCCTCCTGGGCAGCCCCTTGCCCTTGGACAGGTACCCAGCTCAGACTCCAGGCTTAGGGGTCCCTC
TGGAA**TGA**TGCTCCCCCTGGAATGATGCTCCCCGAGCCCTCCACCCGGCTCTGCACCCCGACTTTCTGCATGAGT
TCCCATGGCTGTAGGCCACGTGGGACAGAAAGTGACATGGAGCCAGGCCCCAGTCTCTCAGGTACCCACGGGGAC
CTCTCCTCTCCAGGCGTTTTGGGATCCTCACTGGCTCCGGTGGGCCCTGCACAGCACCCCCACAGGGAAGCTGCT
GTTTCTGCCTTCCTCTAAGGTCCCAAAACTGCCTGGCTGCTCTGTTGGCCCCAGGCTCCAGCACACACTGGAGGC
TGCCCCTCACCCTGTGTCTTGGTTCCGGCTACTCCAAGCCTTGTCCTCTGCAGGGCATCCACTGCTGCCTGTGAG
CAGACCCCTGGGAACTGCCTGATCTGAGCCCCCTCAGGAGCCCAAGGACAACCTTGTCTGTACCATACATCACTA
TGTCTTCCCAAGCTCACACCTCCCAGCTCCCAGCAAAGGGCAGGGCGTGTCTACCACCCACCAGCCCACTGGGGT
CCCCCTTCCTCGCCGAGGCCTCCGGAGCATGGGTCTGCTGGCCCTTCCTTTCTTTGCCATCTTAGTCATGGACAG
AGGCTGGCCCAGGGGCACCTGGCTTCCTGTGACCTCCGGGAGACTCCATGCTGGGCAAGGCAGAGTGACCCTTCC
CCTGGCAGGCGGGGGCATGAGGCTGCCACGGGGAACACAGGTTTCCTTGCACCTGGCCCTTTACCCTGTCAGCTT
TGCTGTTTTCATGTGCTCTGACGCCCTCCCATTAGGTGCATCCAAGCTGCAATGCCCACTTCCTCCTGGCAGGGG
GGACCCGCAGGCACCTTCTGCTCAGAGGTGCACTTGTCTGGTGGCCCTGCTCCTTCCTGGTACTGTTGACCTTTC
TGTGTGTTTGTTTTAAATCTCTTGCATGGTAAATAGCTGCATTTTGTTACTGATAAGAGTGAGTTTAAATCCACT
GTCATATCTTTTGCGTCTTTGTTACACATTTTGTTTTTTAAAAATCTTCTTTCTTGTCCTTTTTTAGATTGACAG
TGTCCCTCTTACCTCACTTTCTCCACTCAGTTTGTAATCCTGCAGTCTGTTGCTTTTCTTTTAGCGTTTGCCCTA
AAGGTGGCTGCATGTGTCCTCACTGAAGTCCAGCATGGGCCCCAAATGCAGGCTGAGGTCTGGGTCTGGCTGGGC
TGCTGGGCGCCCGAGTCATCATGACCATTGTTCCTGGGCACAGCCGGCGTTGACTTGTATTTCCTCCGTGATTAC
CGCCTGGCTCATCAATCACTGTTTTCGTTTTCCGTGGAGGCGTGGCTCACACAAAGGGCAAGCACGGAGTCACTG
GGTCCTGCAGGACTTTCCAGGTCAAGGCAGAGGAGGTGTCCGGTCCCCAGCAGGCTCCTGTGTGCCCCTCAGTCC
CCTAGAGGGTCACGGCCACCTGACCGCCACCACTAGAGGTTTTGGCGATTGTGCTGTGTGGTGGGTCTTCCCGGC

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FIGURE 1854B

CTCTGCTTAGCACAGCAGTGCTGCTGCCCATCCTTCCTCCTTGCCAGGTAGTGCCGGGTGCTGCTGCCCATCCTT
CCTCTGCCGGGCAGTGCCGGGTGCTGCTGCCCATCCTTTCTCCTTGCCGGGTAGTGCCGGGTGCTGCTGCCCATC
CTTTCTCCTTGCCGGACAGTGCTGGGTGCCGTGTGGGCTGCACTGTGTGTGTGTTTCTAGGTGATGGACATTCAG
ATTGTTTTTTGGTTTGGGGCTGCTGGGGATGGCGATGCTTTGAATGTTCCTGGGAGTGTCTGTTGGTGGGTAGAG
CATGCATTTCTCTTTCGTGTGTATATAGGAGTGGAATCAAGGCCGGGCACTGTGGCTCATACCTGTAATCCCAGC
AGTGTGGGAGGCTGAGGCAGGAGGATTACCTGAGGTCAGAAGTTTGCGACCAGCCTGGCCAACATGGCAAAACCC
CGTCTCTACTGAAAATATAAAAATTGGCCAGGCATGGCCAGGCGCAGTGGCTCACCCCTGTAATCCCAGCACTTT
GGGAGGCTGAGGTGGGTGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACATGGTAAAACCCCGTCTCT
ACTAAAAATATAAAAAATTAGCCAGGCGAGGTGGCAGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGG
AGAATGGTGTGAACCCAGGAGGCGGAGCTTGCAGTGAGTTGAGATTGCACCACTGCACTCCAGCCTGGGCGACAG
AGCAAGAACTCTGTCTC

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FIGURE 1855

CTCCTGCGCACGCGGCCCGGTCGCTGTCGGAAGCGGCTGTGCGGGTGGCGGCCGGCGCGCGGTGGGGC**ATG**GCGG
GTTCGCGGGGTGCGGGGCGCACGGCGGCGCCGAGCGTGCGGCCGGAGAAGCGGCGGTCTGAGCCCGAACTGGAGC
CTGAGCCCGAGCCGGAGCCCCCCCTCCTCTGCACCTCTCCTCTCAGCCACAGCACCGGCAGCGATTCTGGCGTCT
CCGACAGCGAGGAGAGTGTGTTCTCAGGCCTGGAAGATTCCGGCAGTGACAGCAGTGAGGATGATGACGAAGGCG
ACGAGGAGGGAGAGGACGGAGCCCTTGATGACGAGGGCCACAGTGGGATTAAAAAGACCACTGAGGAGCAGGTGC
AGGCCAGCACTCCTTGCCCGAGGACAGAGATGGCGAGCGCCCGGATTGGGGATGAGTATGCGGAGGACAGCTCTG
ATGAGGAGGACATCCGGAACACGGTGGGCAACGTGCCCTTGGAGTGGTACGATGACTTCCCCCACGTGGGCTACG
ACCTGGATGGCAGGCGCATCTACAAGCCCCTGCGGACCCGGGATGAGCTGGACCAGTTCCTGGACAAGATGGACG
ATCCTGACTACTGGCGCACCGTGCAGGACCCGATGACAGGGCGGGACCTGAGACTGACGGATGAGCAGGTGGCCC
TGGTGCGGCGGCTGCAGAGTGGCCAGTTTGGGGATGTGGGCTTCAACCCCTATGAGCCGGCTGTCGACTTCTTCA
GCGGGGACGTCATGATCCACCCGGTGACCAACCGCCCGGCCGACAAGCGCAGCTTCATCCCCTCCCTGGTGGAGA
AGGAGAAGGTCTCTCGCATGGTGCACGCCATCAAGATGGGCTGGATCCAGCCTCGCCGGCCCCGAGACCCCACCC
CCAGCTTCTATGACCTGTGGGCCCAGGAGGACCCCAACGCCGTGCTCGGGCGCCACAAGATGCACGTACCTGCTC
CCAAGCTGGCCCTGCCAGGCCACGCCGAGTCGTACAACCCACCCCCTGAATACCTGCTCAGCGAGGAGGAGCGCT
TGGCGTGGGAACAGCAGGAGCCAGGCGAGAGGAAGCTGAGCTTTTTGCCACGCAAGTTCCCGAGCCTGCGGGCCG
TGCCTGCCTACGGACGCTTCATCCAGGAACGCTTCGAGCGCTGCCTTGACCTGTACCTGTGCCCACGGCAGCGCA
AGATGAGGGTGAATGTAGACCCTGAGGACCTCATCCCCAAGCTGCCTCGGCCGAGGGACCTGCAGCCCTTCCCCA
CGTGCCAGGCCCTGGTCTACAGGGGCCACAGTGACCTTGTCCGGTGCCTCAGTGTCTCTCCTGGGGGCCAGTGGC
TGGTTTCAGGCTCTGACGACGGCTCCCTGCGGCTCTGGGAGGTGGCCACTGCCCGCTGTGTGAGGACTGTTCCCG
TGGGGGGCGTGGTGAAGAGTGTGGCCTGGAACCCCAGCCCCGCTGTCTGCCTGGTGGCTGCAGCCGTGGAGGACT
CGGTGCTGCTGCTGAACCCAGCTCTGGGGGACCGGCTGGTGGCGGGCAGCACAGATCAGCTGTTGAGCGCCTTCG
TCCCGCCTGAGGAGCCCCCCTTGCAGCCGGCCCGCTGGCTGGAGGCCTCAGAGGAGGAGCGCCAAGTGGGCCTGC
GGCTGCGCATCTGCCACGGGAAGCCAGTGACGCAGGTGACCTGGCACGGGCGTGGGGACTACCTGGCCGTGGTGC
TGGCCACCCAAGGCCACACCCAGGTGCTGATTCACCAGCTGAGCCGTCGCCGCAGCCAGAGTCCGTTCCGCCGCA
GCCACGGACAGGTGCAGCGAGTGGCCTTCCACCCTGCCCGGCCCTTCCTGTTGGTGGCGTCCCAGCGCAGCGTCC
GCCTCTACCACCTGCTGCGCCAGGAGCTCACCAAGAAGCTGATGCCCAACTGCAAGTGGGTGTCCAGCCTGGCGG
TGCACCCTGCAGGTGACAACGTCATCTGTGGGAGCTACGATAGCAAGCTGGTGTGGTTTGACCTGGATCTTTCCA
CCAAGCCATACAGGATGCTGAGACACCACAAGAAGGCTCTGCGGGCTGTGGCCTTCCACCCGCGGTACCCACTCT
TTGCGTCAGGCTCGGACGACGGCAGTGTCATCGTCTGCCATGGCATGGTGTACAATGACCTTCTGCAGAACCCCT
TGCTGGTGCCCGTCAAGGTGCTGAAGGGACACGTGCTGACCCGAGATCTGGGAGTGCTGGACGTCATCTTCCACC
CCACCCAGCCGTGGGTCTTCTCCTCGGGGGCAGACGGGACTGTCCGCCTCTTCACC**TAG**CTGTTCTGCCTGCCTG
GGGCTGGGGTGGTCGTGCTGAAGTCAACAGAGCCTTTACCCTGTGCTGCCTGGTGCTCCCACCTTCTTGAATTGG
GGTTGCCAACAAAGCCGCCCCCACCACA

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FIGURE 1856

GCCCGTTGCAAGATGGCGGCGGCCATGCTGGGCCCCGGGGGCTGTGTGTGCGCAGCGGGCGGCGGCGCGGCCCGGA
AGGCTGGCGCGGCGACGGCGTTAGCCCGGCCCTCGGCCCCTCTTTGCGGCCGCTCCCTCCGCCTATTCCCTCCTT
GCTCGAG**ATG**GATCTGCCCGTGGGCCCCGGCGCGGCGGGGCCCAGCAACGTCCCGGCCTTCCTGACCAAGCTGTG
GACCCTCGTGAGCGACCCGGACACCGACGCGCTCATCTGCTGGAGCCCGAGCGGGAACAGCTTCCACGTGTTCGA
CCAGGGCCAGTTTGCCAAGGAGGTGCTGCCCAAGTACTTCAAGCACAACAACATGGCCAGCTTCGTGCGGCAGCT
CAACATGTATGGCTTCCGGAAAGTGGTCCACATCGAGCAGGGCGGCCTGGTCAAGCCAGAGAGAGACGACACGGA
GTTCCAGCACCCATGCTTCCTGCGTGGCCAGGAGCAGCTCCTTGAGAACATCAAGAGGAAAGTGACCAGTGTGTC
CACCCTGAAGAGTGAAGACATAAAGATCCGCCAGGACAGCGTCACCAAGCTGCTGACGGACGTGCAGCTGATGAA
GGGGAAGCAGGAGTGCATGGACTCCAAGCTCCTGGCCATGAAGCATGAGAATGAGGCTCTGTGGCGGGAGGTGGC
CAGCCTTCGGCAGAAGCATGCCCAGCAACAGAAAGTCGTCAACAAGCTCATTCAGTTCCTGATCTCACTGGTGCA
GTCAAACCGGATCCTGGGGGTGAAGAGAAAGATCCCCCTGATGCTGAACGACAGTGGCTCAGCACATTCCATGCC
CAAGTATAGCCGGCAGTTCTCCCTGGAGCACGTCCACGGCTCGGGCCCCTACTCGGCCCCCTCCCCAGCCTACAG
CAGCTCCAGCCTCTACGCCCCTGATGCTGTGGCCAGCTCTGGACCCATCATCTCCGACATCACCGAGCTGGCTCC
TGCCAGCCCCATGGCCTCCCCCGGCGGGAGCATAGACGAGAGGCCCCTATCCAGCAGCCCCCTGGTGCGTGTCAA
GGAGGAGCCCCCCAGCCCGCCTCAGAGCCCCCGGGTAGAGGAGGCGAGTCCCGGGCGCCCATCTTCCGTGGACAC
CCTCTTGTCCCCGACCGCCCTCATTGACTCCATCCTGCGGGAGAGTGAACCTGCCCCCGCCTCCGTCACAGCCCT
CACGGACGCCAGGGGCCACACGGACACCGAGGGCCGGCTTCCTTCCCCCCCGCCCACCTCCACCCATGAAAAGTG
CTTCAGGGTAGCCTGCCTGGACAAGAATGAGCTCAGTGACCACTTGGATGCTATGGACTCCAACCTGGATAACCT
GCAGACCATGCTGAGCAGCCACGGCTTCAGCGTGGACACCAGTGCCCTGCTGGACCTGTTCAGCCCCTCGGTGAC
CGTGCCCGACATGAGCCTGCCTGACCTTGACAGCAGCCTGGCCAGTATCCAAGAGCTCCTGTCTCCCCAGGAGCC
CCCCAGGCCTCCCGAGGCAGAGAACAGCAGCCCGGATTCAGGGAAGCAGCTGGTGCACTACACAGCGCAGCCGCT
GTTCCTGCTGGACCCCGGCTCCGTGGACACCGGGAGCAACGACCTGCCGGTGCTGTTTGAGCTGGGAGAGGGCTC
CTACTTCTCCGAAGGGGACGGCTTCGCCGAGGACCCCACCATCTCCCTGCTGACAGGCTCGGAGCCTCCCAAAGC
CAAGGACCCCACTGTCTCC**TAG**AGGCCCCGGAGGAGCTGGGCCAGCCGCCCACCCCCACCCCCAGTGCAGGGCTG
GTCTTGGGGAGGCAGGGCAGCCTCGCGGTCTTGGGCACTGGTGGGTCGGCCGCCATAGCCCCAGTAGGACAAACG
GGCTCGGGTCTGGGCAGCACCTCTGGTCAGGAGGGTCACCCTGGCCTGCCAGTCTGCCTTCCCCCAACCCCGTGT
CCTGTGGTTTGGTTGGGGCTTCACAGCCACACCTGGACTGACCCTGCAGGTTGTTCATAGTCAGAATTGTATTTT
GGATTTTTACACAACTGTCCCGTTCCCCGCTCCACAGAGATACACAGATATATACACACAGTGGATGGACGGACA
AGACAGGCAGAGATCTATAAACAGACAGGCTCT

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FIGURE 1857

GTCCCTGGGCCGGACGGCGGTGTCCCGGCGTGGCGGGAAGCCGGCACTGGAGCGGGAGCGCACTGGGCGCGGGAC
CGGGAGGCGCAGGGACCGGACGGCTCCCGAGTCGCCCACCTGACGCTAGAAGAAGTCTTCACTTCCCAGGAGAGC
CAAAGCGTGTCTGGCCCTAGGTGGGAAAAGAACTGGCTGTGACCTTTGCCCTGACCTGGAAGGGCCCAGCCTTGG
GCTGA**ATG**GCAGCACCCACGCCCGCCCGTCCGGTGCTGACCCACCTGCTGGTGGCTCTCTTCGGCATGGGCTCCT
GGGCTGCGGTCAATGGGATCTGGGTGGAGCTACCTGTGGTGGTCAAAGAGCTTCCAGAGGGTTGGAGCCTCCCCT
CTTACGTCTCTGTGCTTGTGGCTCTGGGGAACCTGGGTCTGCTGGTGGTGACCCTCTGGAGGAGGCTGGCCCCAG
GAAAGGACGAGCAGGTCCCCATCCGGGTGGTGCAGGTGCTGGGCATGGTGGGCACAGCCCTGCTGGCCTCTCTGT
GGCACCATGTGGCCCCAGTGGCAGGACAGTTGCATTCTGTGGCCTTCTTAGCACTGGCCTTTGTGCTGGCACTGG
CATGCTGTGCCTCGAATGTCACTTTCCTGCCCTTCTTGAGCCACCTGCCACCTCGCTTCTTACGGTCATTCTTCC
TGGGTCAAGGCCTGAGTGCCCTGCTGCCCTGCGTGCTGGCCCTAGTGCAGGGTGTGGGCCGCCTCGAGTGCCCGC
CAGCCCCCATCAACGGCACCCCTGGCCCCCCGCTGGACTTCCTTGAGCGTTTTCCCGCCAGCACCTTCTTCTGGG
CACTGACTGCCCTTCTGGTCGCTTCAGCTGCTGCCTTCCAGGGTCTTCTGCTGCTGTTGCCGCCACCACCATCTG
TACCCACAGGGGAGTTAGGATCAGGCCTCCAGGTGGGAGCCCCAGGAGCAGAGGAAGAGGTGGAAGAGTCCTCAC
CACTGCAAGAGCCACCAAGCCAGGCAGCAGGCACCACCCCTGGTCCAGACCCTAAGGCCTATCAGCTTCTATCAG
CCCGCAGTGCCTGCCTGCTGGGCCTGTTGGCCGCCACCAACGCGCTGACCAATGGCGTGCTGCCTGCCGTGCAGA
GCTTTTCCTGCTTACCCTACGGGCGTCTGGCCTACCACCTGGCTGTGGTGCTGGGCAGTGCTGCCAATCCCCTGG
CCTGCTTCCTGGCCATGGGTGTGCTGTGCAGGTCCTTGGCAGGGCTGGGCGGCCTCTCTCTGCTGGGCGTGTTCT
GTGGGGGCTACCTGATGGCGCTGGCAGTCCTGAGCCCCTGCCCGCCCCTGGTGGGCACCTCGGCGGGGGTGGTCC
TCGTGGTGCTGTCGTGGGTGCTGTGTCTTGGCGTGTTCTCCTACGTGAAGGTGGCAGCCAGCTCCCTGCTGCATG
GCGGGGGCCGGCCGGCATTGCTGGCAGCCGGCGTGGCCATCCAGGTGGGCTCTCTGCTCGGCGCTGTTGCTATGT
TCCCCCCGACCAGCATCTATCACGTGTTCCACAGCAGAAAGGACTGTGCAGACCCCTGTGACTCC**TGA**GCCTGGG
CAGGTGGGGACCCCGCTCCCCAACACCTGTCTTTCCCTCAATGCTGCCACCATGCCTGAGTGCCTGCAGCCCAGG
AGGCCCGCACACCGGTACACTCGTGGACACCTACACACTCCATAGGAGATCCTGGCTTTCCAGGGTGGGCAAGGG
CAAGGAGCAGGCTTGGAGCCAGGGACCAGTGGGGGCTGTAGGGTAAGCCCCTGAGCCTGGGACCTACATGTGGTT
TGCGTAATAAAACATTTGTATTT

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FIGURE 1858

GAAGCTCTGGGAAGGGGATGCCCCCGAGGGTGCCAGTCCAGCTAGCTGCCCCACCCCTCAGGCCCAGCCTGGCCC
CCAAGCTCCCCACTCTGGTGCCCCGAGCAGCCCTGTGGGCAAGCAGCCGCCGCC**ATG**GCCGAGCACCTGGAGCTG
CTGGCAGAGATGCCCATGGTGGGCAGGATGAGCACACAGGAGCGGCTGAAGCATGCCCAGAAGCGGCGCGCCCAG
CAGGTGAAGATGTGGGCCCAGGCTGAGAAGGAGGCCCAGGGCAAGAAGGGTCCTGGGGAGCGTCCCCGGAAGGAG
GCAGCCAGCCAAGGGCTCCTGAAGCAGGTCCTCTTCCCTCCCAGTGTTGTCCTTCTGGAGGCCGCTGCCCGAAAT
GACCTGGAAGAAGTCCGCCAGTTCCTTGGGAGTGGGGTCAGCCCTGACTTGGCCAACGAGGACGGCCTGACGGCC
CTGCACCAGTGCTGCATTGATGATTTCCGAGAGATGGTGCAGCAGCTCCTGGAGGCTGGGGCCAACATCAATGCC
TGTGACAGTGAGTGCTGGACGCCTCTGCATGCTGCGGCCACCTGCGGCCACCTGCACCTGGTGGAGCTGCTCATC
GCCAGTGGCGCCAATCTCCTGGCGGTCAACACCGACGGGAACATGCCCTATGACCTGTGTGATGATGAGCAGACG
CTGGACTGCCTGGAGACTGCCATGGCCGACCGTGGCATCACCCAGGACAGCATCGAGGCCGCCCGGGCCGTGCCA
GAACTGCGCATGCTGGACGACATCCGGAGCCGGCTGCAGGCCGGGGCAGACCTCCATGCCCCCCTGGACCACGGG
GCCACGCTGCTGCACGTCGCAGCCGCCAACGGGTTCAGCGAGGCGGCTGCCCTGCTGCTGGAACACCGAGCCAGC
CTGAGCGCTAAGGACCAAGACGGCTGGGAGCCGCTGCACGCCGCGGCCTACTGGGGCCAGGTGCCCCTGGTGGAG
CTGCTCGTGGCGCACGGGGCCGACCTGAACGCAAAGAGGTGCGGGCCAAGCTTCTGGAAC**TGA**AACACAAGCACG
ACGCCCTCCTGCGCGCCCAGAGCCGCCAGCGCTCCTTGCTGCGCCGCCGCACCTCCAGCGCCGGCAGCCGCGGGA
AGGTGGTGAGGCGGGTGAGCCTAACCCAGCGCACCGACCTGTACCGCAAGCAGCACGCCCAGGAGGCCATCGTGT
GGCAACAGCCGCCGCCCACCAGCCCGGAGCCGCCCGAGGACAACGATGACCGCCAGACAGGCGCAGAGCTCAGGC
CGCCGCCCCCGGAGGAGGACAACCCCGAAGTGGTCAGGCCGCACAATGGCCGAGTAGGGGGCTCCCCAGTGCGGC
ATCTATACTCCAAGCGACTAGACCGGAGTGTCTCCTACCAGCTGAGCCCCCTGGACAGCACCACCCCCCACACCC
TGGTCCACGACAAGGCCCACCACACCCTGGCTGACCTGAAGCGCCAGCGAGCTGCTGCCAAGCTGCAGCGACCCC
CACCTGAGGGGCCCGAGAGCCCTGAGACAGCTGAGCCTGGCCTGCCTGGTGACACGGTGACCCCCCAGCCTGACT
GTGGCTTCAGGGCAGGCGGGGACCCACCCCTGCTCAAGCTCACAGCCCCGGCGGTGGAGGCTCCCGTGGAGAGGA
GGCCGTGCTGCCTGCTCATGTGAGGCTGTTGCTCAGCATGCAGGGGCCCTGTCTCGGGCACAGCCCAAGGCTGCC
TCCCCACGGTGCGTGCCCTGGTGCTGCGGGTGCAGCACGGAAACCCCGGCTTCTACTGTACAGGACACTGGCCCC
TCTCAGGTCAGAAGACATGCCTGGAGGGATGTCTGGCTGCAAAGACTATTTTTATCCTGCAACTCTTGATAAAGG
GCTGTTTTGCCATGG

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FIGURE 1859

GGGCCACACAGCGGACCCCTAAGCGGACCGCTGGCACCGGTCGGGTGGCAGCAGAGTGTCGCTCGACATGGGGGA
GGCCGGGGCTGGCGCTGGCGCCTCGGGAGGGCCGGAGGCAAGCCCGGAGGCAGAGGTGGTGAAGCTGCTGCCCTT
CCTGGGCGCCGGGCGCGCGGGCGGACCTGCAGGCGGCGGCGGTGCGGCACGTGCTGGCGCTGACTGGCTGCGGAC
CCGGCCGCGCGCTGTTGGCGGGGCAGGCGGCGCTGCTGCAGGCGCTG**ATG**GAGCTGGCGCCGGCCTCTGCCCCGG
CCCGGGACGCCGCCCGCGCGCTCGTGAACTTGGCCGCCGACCCCGGCCTGCACGAGACATTGCTGGCGGCCGACC
CCGGGCTGCCAGCGCGCCTGATGGGCCGCGCGTTGGACCCGCAGTGGCCCTGGGCCGAGGAGGCGGCCGCCGCGC
TAGCCAACCTCAGTCGCGAGCCGGCGCCGTGTGCAGCGCTCATGGCGGCGCTGGCGGCCGCGGAGCCGGCAGACT
CGGGCCTGGAGCGGCTGGTGCGCGCGCTGTGCACGCCCGGCTACAACGCCCGCGCGCCCCTGCACTACCTAGCGC
CGCTGCTCTCCAACCTCAGCCAACGCCCTGCGGCGCGGGCCTTCCTACTGGACCCCGACAGGTGCGTGGTCCAGC
GGCTGCTGCCCCTTACCCAGTACCCCGACTCCTCTGTACGCAGGGGCGGGGTGGTGGGGACGCTGCGGAATTGCT
GCTTCGAGCACCGACATCACGAGTGGTTGCTTGGACCTGAGGTGGACATTCTCCCCTTTTTGCTCCTGCCCTTGG
CTGGGCCTGAGGATTTCTCCGAGGAAGAGATGCAACGGCTGCCTGTCGACTTGCAGTACCTGCCACCAGACAAGC
AGCGAGAACCTGATGCAGACATCCGCAAGATGCTTGTTGAAGCCATCATGCTGCTGACAGCCACAGCACCAGGTC
GGCAGCAGGTGCGGGACCAGGGAGCCTACCTGATCCTTCGAGAGCTGCACAGCTGGGAGCCGGAGCCCGACGTGC
GGACGGCTTGTGAGAAGCTCATCCAGGTGCTTATTGGGGACGAGCCTGAACGTGGCATGGAAAACCTGCTGGAGG
TGCAGGTGCCTGAGGATGTGGAGCAGCAGCTGCAGCAGCTGGATTGCAGGGAGCAGGAGCAGTTGGAGCGGGAGC
TGGCCCCAGAGCCATGGGTGGAGAGGGCCACACCCACC**TGA**GGCCCCTGCAGCCGGACACCAGCTCCAGGGTCCC
CTTTGCCAGGCTTTCTCAGACCAGGCCTTCCTGCAGCTGTCTGCAGGCCCCCTGGGTCCCCTTGTTCAGAGACTG
TGCTCTTCTGAGAAGCAGAGCTACGCTTAGGCTCCAGTAAGGATTGGAGGCACTTTCCAGCCCTGTGCAGTGTTG
CTACCAGCAAGAATGAAGGTTGTGCAGAGCAGTACTGTGAGGTAGGCACCGTGACTCGGCTGCCTGTGCAGAAGG
TGGAGGTGGCAGGCGGATGGCCAGGGAGCCATGAGAAGACTCTTCCTGGGCACGGCGTGGGGACTGGACAGAAAA
CCACTGCAAGCCCCAAGGAGCCAGCTGAAGCCTCCCAATCCCCAGGGCACTGCAGAGTCTGGGCAGAGGTGGGCG
CATAGGTACAAGTGCTGCTTTGTCAGCCTCACTCCCTGCAGCTCTCAGCTCCCTGTTCCCTGAGACCTGGCCTCA
AAGGGCTGACCCAGCCATACGTAGATCCTGGGGTCTTTCTAGGACTGTGCCTCCCTGCTTGACCTATGCTCCAGG
ACCCTGCCCTCAACCCTTGTCAGCTCCCTAAGTCTTCCTGTTTCCCAGTCTCAGATTGAGTGGGTGCTCTCATTG
GCCTCTCTAGCTAGGCCGTCTCCCTGGTCAGCTTCCTTGAGCCTGGGCCACTCCTCCCTGGCCTTCTTACCTCTG
CCAAGAGCCTCCAGATGTGCCTGCAGCCTAGTCCCTGCCCAAGCTTCTCCCCCAGCCACCCTCTGCCCCTGTGGT
AGAGCCCACTATAGGCCCAGGCGCCTTACGTGCTTCTCCCCTGGACCTATGTGCATCCCTCACCTGCCAGTTATG
TGGCTGCCAAGCCCCACAGGCTGTCATGGTGGCTCTTGCCACACTTCCCTTCCTGAGCTGACCTGACCTCACTGC
CACCTCTTGCATTGGGATCCTGAGGGCTGGCCCCTGCTCACTGATGGGCCCTCCCAGGCCCGTCAAGCCCTGGTG
AAGGAGCTTAGCTTGTCTTCTTGGCAATTCACAATGCCTCACTCCACACCCTAAAACTGGAGCGTCCCCTATGGT
CTCCTGCTGTGGCTTGGGTGCCGGGCGTCTCCCGCCTCCAGGATCTCCTCTCACCTGCCCCCATTAAAGCTCTGC
CACTCATGCAGGCATGTGTGGACCATGTTTTCCCCTGGCCAGAGCCCCCACCTGCCACTGGAGGCCAGTTGCCCT
CTTAGCACTCAGACATCAGCACTGTCTTCACAGAATAAATGCTTTATCTGGCCTTG

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FIGURE 1860

CGCTCGCTCCGGCAACTGGAGGCACGGCAGAGGAGGCAGGGCCGACGGCGGTGGGCGGTGCGTTGCGCAGGCTCG
GGCCTCCCGCTCGCCGCTGCGTTGGGACCGCGCAGCCCGGTGTGTGCAGTGGCCTCAGGGATCCGGAAAGTCTAG
GACTGAACTTCTCCTAACATCCAGTAATGGGGACCTGGAACCTGGGCGTACTAGAGTGCCGCGCGTAGGGCTCCA
GGTCGCTGGCTTCTGCGCTTTCTTCCTCTCCAAAGTTGAGTATCTCCTATCTGTGTCCTCATACATACTGCCGCC
TGAGGTGCC**ATG**GCCCCCAAGCCGGGGGCCGAGTGGAGCACAGCCCTGTCCCATCTGGTGCTGGGAGTGGTGTCT
CTGCACGCAGCCGTGAGCACAGCCGAGGCAAGTCGAGGGGCTGCTGCTGGCTTCCTGCTCCAGGTCTTGGCTGCC
ACCACCACGCTGGCCCCAGGGCTGAGCACACATGAAGACTGCCTTGCTGGAGCCTGGGTGGCCACCGTCATCGGC
CTTCCCCTTCTGGCCTTCGATTTCCACTGGGTGAATGGGGACCGCTCCTCTGCCAACCTGCTCCTGGGAGGAGGC
ATGGTGCTGGCAGTGGCTGGCGGCCACCTCGGCCCTGAGGGCCGCTCTGTGGCTGGTCAGGCAATGCTGTTGGTG
GTCGCAGTGACCATCCTCATTGTAGCTGTCTTCACGGCCAACACTTATGGGATGTGGGGGGGGGCGATGCTGGGT
GTGGCAGGCCTCCTGAGCCGGCTGGAGGAGGACAGGCTGCTGCTGCTACCGAAGGAGGATGTCTGTCGCTGGGCC
TTGGCTGTAGGCAGCTGGGCTTACTGCCGGGCCCTGCATACACAGCGCCTCCAGTGGGAG**TGA**CAGTTGGATACA
GCCAGGCAGGGTTTCTGCCCTGCCGAACACTTTCCCTCCCACCTGCCTGCTCCTGGCGCCTTCTCCCTAGGGGTA
GACTCTTCTGCCTACTGAAGTGGGTTTGCTGCACATTGACTGGTCAGGGGCAGAGTCTGGGTGCTGTCCTTTGGC
CACGTGTGGGGACTTGTCTAGACCAGAATGAAAGGGACAGGGTCCCAGACACGTTTGGGGGTCCTGATTCTGGGC
TGGACACGGTTGTGGATCCAGAGAAGAGGCCTAGTCTCCAATAAATCTTAGGAATTTTGCAGG

FIGURE 1861

AATGGACGAGAGAGGCGGCCGTCCATTAGTTAGCGGCTCCGGAGCAACGCAGCCGTTGTCCTTGAGGCCGACGGG
CCTGACGCGGGCGGGTTGAACGCGCTGGTGAGGCGGTCACCCGGGCTACGGCGGCCGGCAGGGGGCAGTGGCGGC
CGTTGTCTAGGGCCCGGAGGTGGGGCCGCGCGCCTCGGGCGCTACGAACCCGGCAGGCCCACGCTTGGCTGCGGC
CGGGTGCGGGCTGAGGCC**ATG**GGCGACCGCGGCAGCTCCCGGCGCCGGAGGACAGGGTCGCGGCCCTCGAGCCAC
GGCGGCGGCGGGCCTGCGGCGGCGGAAGAGGAGGTGCGGGACGCCGCTGCGGGCCCCGACGTGGGAGCCGCGGGG
GACGCGCCAGCCCCGGCCCCCAACAAGGACGGAGACGCCGGCGTGGGCAGCGGCCACTGGGAGCTGAGGTGCCAT
CGCCTGCAGGATTCTTTATTCAGCTCTGACAGTGGCTTCAGCAACTACCGTGGCATCCTGAACTGGTGTGTGGTG
ATGCTGATCTTGAGCAATGCCCGGTTATTTCTGGAGAACCTCATCAAGTATGGCATCCTGGTGGACCCCATCCAG
GTGGTTTCTCTGTTCCTGAAGGATCCCTATAGCTGGCCCGCCCCATGCCTGGTTATTGCGGCCAATGTCTTTGCT
GTGGCTGCATTCCAGGTTGAGAAGCGCCTGGCGGTGGGTGCCCTGACGGAGCAGGCGGGACTGCTGCTGCACGTG
GCCAACCTGGCCACCATTCTGTGTTTCCCAGCGGCTGTGGTCTTACTGGTTGAGTCTATCACTCCAGTGGGCTCC
CTGCTGGCGCTGATGGCGCACACCATCCTCTTCCTCAAGCTCTTCTCCTACCGCGACGTCAACTCATGGTGCCGC
AGGGCCAGGGCCAAGGCTGCCTCTGCAGGGAAGAAGGCCAGCAGTGCTGCTGCCCCGCACACCGTGAGCTACCCG
GACAATCTGACCTACCGCGATCTCTACTACTTCCTCTTCGCCCCCACCTTGTGCTACGAGCTCAACTTTCCCCGC
TCTCCCCGCATCCGGAAGCGCTTTCTGCTGCGACGGATCCTTGAGATGCTGTTCTTCACCCAGCTCCAGGTGGGG
CTGATCCAGCAGTGGATGGTCCCCACCATCCAGAACTCCATGAAGCCCTTCAAGGACATGGACTACTCACGCATC
ATCGAGCGCCTCCTGAAGCTGGCGGTCCCCAATCACCTCATCTGGCTCATCTTCTTCTACTGGCTCTTCCACTCC
TGCCTGAATGCCGTGGCTGAGCTCATGCAGTTTGGAGACCGGGAGTTCTACCGGGACTGGTGGAACTCCGAGTCT
GTCACCTACTTCTGGCAGAACTGGAACATCCCTGTGCACAAGTGGTGCATCAGACACTTCTACAAGCCCATGCTT
CGACGGGGCAGCAGCAAGTGGATGGCCAGGACAGGGGTGTTCCTGGCCTCGGCCTTCTTCCACGAGTACCTGGTG
AGCGTCCCTCTGCGAATGTTCCGCCTCTGGGCGTTCACGGGCATGATGGCTCAGATCCCACTGGCCTGGTTCGTG
GGCCGCTTTTTCCAGGGCAACTATGGCAACGCAGCTGTGTGGCTGTCGCTCATCATCGGACAGCCAATAGCCGTC
CTCATGTACGTCCACGACTACTACGTGCTCAACTATGAGGCCCCAGCGGCAGAGGCC**TGA**GCTGCACCTGAGGGC
CTGGCTTCTCACTGCCACCTCACACCCGCTGCCAGAGCCCACCTCTCCTCCTAGGCCTCGAGTGCTGGGGATGGG
CCTGGCTGCACAGCATCCTCCTCTGGTCCCAGGGAGGCCTCTCTGCCCCTATGGGGCTCTGTCCTGCACCCCTCA
GGGATGGCGACAGCAGGCCAGACACAGTCTGATGCCAGCTGGGAGTCTTGCTGACCCTGCCCCGGGTCCGAGGGT
GTCAATAAAGTGCTGTCCAGTG

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FIGURE 1862

ATGCAATCAGTGTGGGAAGGCCTTCAGTCAGAGCTCAAGCCTTTTCCTCCATCATCGGGTTCATACTGGAGAGAA
ACCCTATGTATGTAATGAATGCGGCAGAGCCTTTGGTTTTAACTCTCATCTTACTGAACACGTAAGGATTCACAC
AGGAGAAAAACCCT**ATG**TTTGTAATGAGTGCGGCAAAGCCTTTCGTCGGAGTTCCACTCTTGTTCAGCATCGAAG
AGTTCACACTGGGGAGAAGCCCTACCAGTGCGTTGAATGTGGGAAAGCTTTCAGCCAGAGCTCCCAGCTCACCCT
ACATCAGCGAGTTCACACTGGAGAGAAGCCCTATGACTGTGGTGACTGTGGGAAGGCCTTCAGCCGGAGGTCAAC
CCTCATTCAGCATCAGAAAGTTCACAGCGGAGAGACTCGTAAGTGCAGAAAACATGGTCCAGCCTTTGTTCATGG
CTCCAGCCTCACAGCAGATGGACAGATTCCCACTGGAGAGAAGCACGGCAGAGCCTTTAACCATGGTGCAAATCT
CATTCTGCGCTGGACAGTTCACACTGGTGAGAAATCCTTTGGATGTAATGAATATGGAAAAGCTTTCAGTCCCAC
CTCACGACCCACTGAAGATCAGA**TAA**TGCATGCTGGGGAAAAGCCCTATAAATGTCAAGAATGTGGAAACGCCTT
CAGTGGAAAGTCAACCCTTATTCAACATCAGGTAACTCACACTGGTCAGAAACCATGTCATTGCAGTGTGTATGG
GAAAGCCTTCAGCCAGAGTTCACAGCTCACACCACCTCAGCAGACTTGTGTTGGAGAGAAACCTGCTTTAAATGA
TGGCTCTAAAAGATACTTTATTCATATCAAGAAGATTTTCCAAGAAAGACATTTTTAATGTGATAAATGCAGAAG
ACAGTTTAGCAACTGTTCACTTGACATTAGAAGATAAGATGGCATAATGAAAGATATATAAGGTCTAAATATTAC
TGGCAAAGTAAAATAAATAGTTCAGATGACTACTAAAGTCAAAGTCATTAAATCTGGAAGTAAACACGAGAATTC
ATTCTGGGAAATCAGGCTGTCTGTGTAAAGGTTACTGCTGTGCTCAGGAGTTGAACCGTGTGGTGCTGTATCCGG
ATACTCATGACGAATGGATGGAGGGCGTGAAAAGTGAGCCCAGCTGGTGCTCTGGGTCTACCCTACCTGACATCC
TTCCAGTCTTATCCTTTGTTTCCTATCCAGGCCCAGGCTTGTGGCTGAGAACATCCACTTTCAGTCCCATATACC
TGCCTCCAAGTGTGGTACAGAGAACTTGGGCCTGCTGGGGGCGCTTAGCCTTACTCTCTCCACCACCTCTCCCAC
CAACCCCCAGATGAACTGCAGGTAGACGTTTCTTCCTTGCTTGGAGCCCCAGTTTTTGCATTTCATTTTCATTAA
AATGAAAGGTGGTTTGGTTTTGGTTCTAAGGAGCTCTACAGTTTAACAGAGAGAGGGACCTTAGGGGCCAAGAAA
GCAGGGGCCTACCAAGTATCTCCACTTTTGAAAATTGTAATTACTGATAAAAAATTTTTTAAAGGCAGGTTTATT
GAAGCATAATTTATAAACAATAAAATTTACTCTTTTTAGTGT

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FIGURE 1863

GCGGCATGGGCAGTATCCGCCGCCATCCTCTTCCGTGAGGCGCGCTGAGACCCGGACCGGCCCTCCTGAGAGGAT
GCCGGTGCGGGCGCCCGCGGAGAGGGACCCGTCGCC**ATG**GGCCGTGTGATCCGTGGACAGAGGAAGGGCGCCGGG
TCTGTGTTCCGCGCGCACGTGAAGCACCGTAAAGGCGCTGCGCGCCTGCGCGCCGTGGATTTCGCTGAGCGGCAC
GGCTACATCAAGGGCATCGTCAAGGACATCATCCACGACCCGGGCCGCGGCGCGCCCCTCGCCAAGGTGGTCTTC
CGGGATCCGTATCGGTTTAAGAAGCGGACGGAGCTGTTCATTGCCGCCGAGGGCATTCACACGGGCCAGTTTGTG
TATTGCGGCAAGAAGGCCCAGCTCAACATTGGCAATGTGCTCCCTGTGGGCACCATGCCTGAGGGTACAATCGTG
TGCTGCCTGGAGGAGAAGCCTGGAGACCGTGGCAAGCTGGCCCGGGCATCAGGGAACTATGCCACCGTTATCTCC
CACAACCCTGAGACCAAGAAGACCCGTGTGAAGCTGCCCTCCGGCTCCAAGAAGGTTATCTCCTCAGCCAACAGA
GCTGTGGTTGGTGTGGTGGCTGGAGGTGGCCGAATTGACAAACCCATCTTGAAGGCTGGCCGGGCGTACCACAAA
TATAAGGCAAAGAGGAACTGCTGGCCACGAGTACGGGGTGTGGCCATGAATCCTGTGGAGCATCCTTTTGGAGGT
GGCAACCACCAGCACATCGGCAAGCCCTCCACCATCCGCAGAGATGCCCCTGCTGGCCGCAAAGTGGGTCTCATT
GCTGCCCGCCGGACTGGACGTCTCCGGGGAACCAAGACTGTGCAGGAGAAAGAGAAC**TAG**TGCTGAGGGCCTCAA
TAAAGTTTGTGTTTATGCC

FIGURE 1864

GCTCCTCCCCGCGCTGTCTCGGCGGCCCAGGAATTCACTGTCTGTAGCATCTGCTCCTCCACAGAGGGACCCTGG
AATGGCGATGGCACTCCCGATGCCTGGACCTCAGGCTTTCTTGTTGCCAAACCAGCACTGATCTCCCTATTGGAG
CAAGGAGAGGAGCCGGGGGCCTTGATTCTGCAGGTGGCTGAACAGAGCGTGGCCAAAGCCAGCCTGTGCACAGAT
TCCAGG**ATG**GAGGCTGGGATCATGGAGTCTCCTCTGCAGAGAAAGCTCTCCAGGCAGGCAGGACTGCCGGGCACC
GTGTGGGGGTGCCTCCCCTGGGGGCACCCTGTGGGGGGGCACCCTGCACCACCCCACCCGCATGGCGGTCCTGAG
GACGGGTCAGATAAACCCACCCACCCCGGGTCTTCGTGCAGAACCATTGGGCACAGCCAGGCCTTAGCGCCAGGC
TCCGTGTGGCGGTCAATTCCAGGTGCTGTAAAGCCGACTAACAGGGTACAGGGAGCCTTAGCTGGCTGCCATGTC
TCCTGCCTG**TAA**TCCCATCACTTTGGGAGGCTGAGGTGGGAGGTTTGCTTAAGCCCAGGAGTTTGAGACCAGCTT
GGGCAACATGGTGAA

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FIGURE 1865

CTGCCACTGCCACCTCGCGGATCAGGAGCCAGCGTTGTTCGCCCGACGCCTCGCTGCCGGTGGGAGGAAGCGAGA
GGGAAGCCGCTTGCGGGTTTGTCGCCGCTGCTCGCCCACCGCCTGGAAGAGCCGAGCCCCGGCCCAGTCGGTCGC
TTGCCACCGCTCGTAGCCGTTACCCGCGGGCCGCCACAGCCGCCGGCCGGGAGAGGCGCGCGCC**ATG**GCTTCTGG
AGCCGATTCAAAAGGTGATGACCTATCAACAGCCATTCTCAAACAGAAGAACCGTCCCAATCGGTTAATTGTTGA
TGAAGCCATCAATGAGGACAACAGTGTGGTGTCCTTGTCCCAGCCCAAGATGGATGAATTGCAGTTGTTCCGAGG
TGACACAGTGTTGCTGAAAGGAAAGAAGAGACGAGAAGCTGTTTGCATCGTCCTTTCTGATGATACTTGTTCTGA
TGAGAAGATTCGGATGAATAGAGTTGTTCGGAATAACCTTCGTGTACGCCTAGGGGATGTCATCAGCATCCAGCC
ATGCCCTGATGTGAAGTACGGCAAACGTATCCATGTGCTGCCCATTGATGACACAGTGGAAGGCATTACTGGTAA
TCTCTTCGAGGTATACCTTAAGCCGTACTTCCTGGAAGCGTATCGACCCATCCGGAAAGGAGACATTTTTCTTGT
CCGTGGTGGGATGCGTGCTGTGGAGTTCAAAGTGGTGGAAACAGATCCTAGCCCTTATTGCATTGTTGCTCCAGA
CACAGTGATCCACTGCGAAGGGGAGCCTATCAAACGAGAGGATGAGGAAGAGTCCTTGAATGAAGTAGGGTATGA
TGACATTGGTGGCTGCAGGAAGCAGCTAGCTCAGATAAAGGAGATGGTGGAACTGCCCCTGAGACATCCTGCCCT
CTTTAAGGCAATTGGTGTGAAGCCTCCTAGAGGAATCCTGCTTTACGGACCTCCTGGAACAGGAAAGACCCTGAT
TGCTCGAGCTGTAGCAAATGAGACTGGAGCCTTCTTCTTCTTGATCAATGGTCCTGAGATCATGAGCAAATTGGC
TGGTGAGTCTGAGAGCAACCTTCGTAAAGCCTTTGAGGAGGCTGAGAAGAATGCTCCTGCCATCATCTTCATTGA
TGAGCTAGATGCCATCGCTCCCAAAAGAGAGAAAACTCATGGCGAGGTGGAGCGGCGCATTGTATCACAGTTGTT
GACCCTCATGGATGGCCTAAAGCAGAGGGCACATGTGATTGTTATGGCAGCAACCAACAGACCCAACAGCATTGA
CCCAGCTCTACGGCGATTTGGTCGCTTTGACAGGGAGGTAGATATTGGAATTCCTGATGCTACAGGACGCTTAGA
GATTCTTCAGATCCATACCAAGAACATGAAGCTGGCAGATGATGTGGACCTGGAACAGGTAGCCAATGAGACTCA
CGGGCATGTGGGTGCTGACTTAGCAGCCCTGTGCTCAGAGGCTGCTCTGCAAGCCATCCGCAAGAAGATGGATCT
CATTGACCTAGAGGATGAGACCATTGATGCCGAGGTCATGAACTCTCTAGCAGTTACTATGGATGACTTCCGGTG
GGCCTTGAGCCAGAGTAACCCATCAGCACTGCGGGAAACCGTGGTAGAGGTGCCACAGGTAACCTGGGAAGACAT
CGGGGGCCTAGAGGATGTCAAACGTGAGCTACAGGAGCTGGTCCAGTATCCTGTGGAGCACCCAGACAAATTCCT
GAAGTTTGGCATGACACCTTCCAAGGGAGTTCTGTTCTATGGACCTCCTGGCTGTGGGAAAACTTTGTTGGCCAA
AGCCATTGCTAATGAATGCCAGGCCAACTTCATCTCCATCAAGGGTCCTGAGCTGCTCACCATGTGGTTTGGGGA
GTCTGAGGCCAATGTCAGAGAAATCTTTGACAAGGCCCGCCAAGCTGCCCCCTGTGTGCTATTCTTTGATGAGCT
GGATTCGATTGCCAAGGCTCGTGGAGGTAACATTGGAGATGGTGGTGGGGCTGCTGACCGAGTCATCAACCAGAT
CCTGACAGAAATGGATGGCATGTCCACAAAAAAAAAATGTGTTCATCATTGGCGCTACCAACCGGCCTGACATCAT
TGATCCTGCCATCCTCAGACCTGGCCGTCTTGATCAGCTCATCTACATCCCACTTCCTGATGAGAAGTCCCGTGT
TGCCATCCTCAAGGCTAACCTGCGCAAGTCCCCAGTTGCCAAGGATGTGGACTTGGAGTTCCTGGCTAAAATGAC
TAATGGCTTCTCTGGAGCTGACCTGACAGAGATTTGCCAGCGTGCTTGCAAGCTGGCCATCCGTGAATCCATCGA
GAGTGAGATTAGGCGAGAACGAGAGAGGCAGACAAACCCATCAGCCATGGAGGTAGAAGAGGATGATCCAGTGCC
TGAGATCCGTCGAGATCACTTTGAAGAAGCCATGCGCTTTGCGCGCCGTTCTGTCAGTGACAATGACATTCGGAA
GTATGAGATGTTTGCCCAGACCCTTCAGCAGAGTCGGGGCTTTGGCAGCTTCAGATTCCCTTCAGGGAACCAGGG
TGGAGCTGGCCCCAGTCAGGGCAGTGGAGGCGGCACAGGTGGCAGTGTATACACAGAAGACAATGATGATGACCT
GTATGGC**TAA**GTGGTGGTGGCCAGCGTGCAGTGAGCTGGCCTGCCTGGACCTTGTTCCCTGGGGGTGGGGGCGCT
TGCCCAGGAGAGGGACCAGGGGTGCGCCCACAGCCTGCTCCATTCTCCAGTCTGAACAGTTCAGCTACAGTCTGA
CTCTGGACAGGGGGTTTCTGTTGCAAAAATACAAAACAAAAGCGATAAAATAAAAGCGATTTTCATTTGGTAGGC
GGAGAGTGAATTACCAACAGGGAATTGGGCCTTGGGCCTATGCCATTTCTGTTGTAGTTTGGGGCAGTGCAGGGG
ACCTGTGTGGGGTGTGAACCAAGGCACTACTGCCACCTGCCACAGTAAAGCATCTGCACTTGACTCAATGCTGCC
CGAGCCCTCCCTTCCCCCTATCCAACCTGGGTAGGTGGGTAGGGGCCACAGTTGCTGGATGTTTATATAGAGAGT
AGGTTGATTTATTTTACATGCTTTTGAGTTAATGTTGGAAAACTAATCACAAGCAGTTTCTAAACCAAAAAATGA
CATGTTGTAAAAGGACAATAAACGTTGGGTCAAAATGG

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FIGURE 1866

GGCTTCTGGGAGCGACCGCTCCGCTCGTCTCGTTGGTTCCGGAGGTCGCTGCGGCGGTGGGAA**ATG**CTGGCGCGC
GCGGCGCGGGGCACTGGGGCCCTTTTGCTGAGGGGCTCTCTACTGGCTTCTGGCCGCGCTCCGCGCCGCGCCTCC
TCTGGATTGCCCCGAAACACCGTGGTACTGTTCGTGCCGCAGCAGGAGGCCTGGGTGGTGGAGCGAATGGGCCGA
TTCCACCGGATCCTGGAGCCTGGTTTGAACATCCTCATCCCTGTGTTAGACCGGATCCGATATGTGCAGAGTCTC
AAGGAAATTGTCATCAACGTGCCTGAGCAGTCGGCTGTGACTCTCGACAATGTAACTCTGCAAATCGATGGAGTC
CTTTACCTGCGCATCATGGACCCTTACAAGGCAAGCTACGGTGTGGAGGACCCTGAGTATGCCGTCACCCAGCTA
GCTCAAACAACCATGAGATCAGAGCTCGGCAAACTCTCTCTGGACAAAGTCTTCCGGGAACGGGAGTCCCTGAAT
GCCAGCATTGTGGATGCCATCAACCAAGCTGCTGACTGCTGGGGTATCCGCTGCCTCCGTTATGAGATCAAGGAT
ATCCATGTGCCACCCCGGGTGAAAGAGTCTATGCAGATGCAGGTGGAGGCAGAGCGGCGGAAACGGGCCACAGTT
CTAGAGTCTGAGGGGACCCGAGAGTCGGCCATCAATGTGGCAGAAGGGAAGAAACAGGCCCAGATCCTGGCCTCC
GAAGCAGAAAAGGCTGAACAGATAAATCAGGCAGCAGGAGAGGCCAGTGCAGTTCTGGCGAAGGCCAAGGCTAAA
GCTGAAGCTATTCGAATCCTGGCTGCAGCTCTGACACAACATAATGGAGATGCAGCAGCTTCACTGACTGTGGCC
GAGCAGTATGTCAGCGCGTTCTCCAAACTGGCCAAGGACTCCAACACTATCCTACTGCCCTCCAACCCTGGCGAT
GTCACCAGCATGGTGGCTCAGGCCATGGGTGTATATGGAGCCCTCACCAAAGCCCCAGTGCCAGGGACTCCAGAC
TCACTCTCCAGTGGGAGCAGCAGAGATGTCCAGGGTACAGATGCAAGTCTTGATGAGGAACTTGATCGAGTCAAG
ATGAGT**TAG**TGGAGCTGGGCTTGGCCAGGGAGTCTGGGAACAAGGAAGCAGATTTTCCTGATTCTGGCTCTAGCT
TCCCTGCCAAGATTTTGGTTTTTATTTTTTTATTTGAACTTTAGTCGTGTAATAAACTCACCAGTGGCAAACC

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FIGURE 1867

ACAGCTTCAAGTGAAGTTAATCTGAGGTGAAGCAAACAGAAAATTGTGGAGGTTTTGTTGGTGTGCAATGGAGGA
AC**ATG**GCTCAAGAAACTAATCACAGCCAAGTACCTATGCTTTGTTCCACTGGCTGCGGATTTTATGGAAACCCTC
GTACAAATGGCACGTGTTCAGTATGCTATAAAGAACATCTTCAAAGACTGAATAGTAGTAATGGTAGAATAAGCC
AACCTGCAACCTCTGAATCTTTACCAGTTCAATGCACAGATGGCAGTGTCCCAGAAGCCCAGTCAACATTAGACT
CTACATCTTCATCTATGCAGCCAAGCCCTGTATCAAATCAGTCACTTTTATCAGAATCTGTAGCATCTTCTCAAT
TGGACAGTACATCTGTGGACAAGCAGTACCTGAAACAGAAGATCTGCAGGCTTCAGTATCAGACATGGCACAGCA
GCCATCTGAAGAGCAAAGCAAGTCTCTTGAAAAACCAAAACAAAAAAAGAATCTCTGTTTCATGTGCAGGAAGAA
AGTGGGACTTACTAGGTTTGAATGCGGTG**TAG**AAATGTTTACTGTGGTGTACACTGTTACTCAGATCTACACAAT
TGCTCTTAAAATTACAAAGCTGATGCCGCTGAGAAAATCAGAAAAGAAAATCCAGTAGTTGTTGGCGAGAAGATC
CAAAAGATTTGAACTCCTGCTGGAATACAAAATTCTTGATCATCTGCAAACTAAAAATTGACTTGAGGTTTTTTT
TTCCCTAGTCATTGGGAAAGTAGAGCAGTGTATCTTGCATGTCATCGGATGAATAGATTTTTGTTTTGATTTTGT
TTTGAAAATGACTCTGAACATTTATTTCCATTGCAATTTCTGTGGCTGAGAAGACTTAAACTTTACAAGTATTAT
CCTTATAAGATCATTTTAATTTTAGTTGAGTGCAGAGGGCTTTTATAACAAACGTGCAGAAATTTTGGTGGACTG
TGATTTTTCCAGTATTAAATATGCATGCATTAATCTTGCAGTTTATTTTCTCATTGTGTACATATATATTGCTTT
TCTTTGCAGCACGATTTCTCTTTTGATAATGCCCTTTGGGGCACAACTAGTTATCGGTAACTGAATGTATCTTAA
TCATTATGGCTGCTTCTGTTTTTTCATTAACAAAGGTTATTCATATGTTAGCATATAGTTTCTTTGCACCCACTA
TTTATGTCTGAATCATTTGTCACGAGAGTGTGTGCTGATGAGATTCTAAGTTTGTGTGTTTAAACTTTTTTTTGA
GCGAGGGAAGAAAAAGCTGTATGCATTTCATTGCTGTCTACAGGTTTCTTTCAGATTATGTTCATGGGTTTGTGT
GTATACGATATGAAGAATGATCTGAAGTAATTGTGCTGTATTTATGTTTATTCACCAGTCTTTGATTAAATAAAA
AGGAAAACCAG

FIGURE 1868A

TCCCGTGGAACAGTGTCTCAGCTGGAACTGTCGCGGTAGAGCTTGGTCGGAGTGCAAAAGGGACAGACGCATCAG
GGGTCCAGCTCAAGGCTCCTGACAGAGGTGCCAAGCTCTCCTGATGAAATGTGTTCTGCCCCACTGGGCTCCAGG
GACAGTGTCTGGTGCTGTTGAAGCCCTTATTCGAACTTTCCAGA**ATG**GATAGTCCCCCAAAGCTGACTGGAGAGA
CCCTCATCGTTCATCACATCCCCCTGGTGCACTGCCAAGTCCCAGACAGGCAGTGCTGTGGAGGGGCAGGTGGAG
GTGGTGGGAGCACAAGACCTAATCCCTTCTGCCCACCTGAGCTGGGCATCACCCAGCCCGATCAAGACCTAGGAC
AAGCTGACTCCCTGCTATTCAGCAGCCTGCACTCTACTCCAGGAGGAACTGCACGGTCTATAGACAGCACCAAGA
GTAGGAGTCGGGATGGAAGAGGCCCTGGAGCCCCCAAACGACACAACCCCTTCTTGCTGCAGGAGGGTGTGGGTG
AGCCAGGACTTGGTGACCTGTATGATGACAGCATTGGTGACAGTGCCACCCAGCAGTCCTTCCACCTGCATGGCA
CTGGCCAGCCCAACTTTCATCTATCCTCTTTCCAGCTGCCACCATCTGGCCCCAGAGTGGGCAGGCCATGGGGGA
CAACACGCAGTCGGGCTGGAGTGGTGGAAGGGCAGGAACAGGAGCCAGTGATGACCTTGGATACTCAGCAGTGCG
GCACCAGCCACTGCTGCCGGCCAGAGCTGGAAGCAGAGACTATGGAGCTGGATGAGTGTGGGGGACCTGGTGGGA
GTGGCAGTGGGGGTGGAGCCAGCGATACCTCTGGCTTTTCCTTTGACCAGGAATGGAAGCTCAGTTCAGATGAAT
CCCCAAGGAACCCTGGATGCTCCGGCTCAGGGGACCAGCACTGCCGCTGCAGTAGCACATCCAGTCAGTCCGAGG
CAGCTGACCAGTCCATGGGCTATGTGAGCGACTCCTCCTGCAACAGTTCAGATGGTGTGCTGGTCACCTTCAGCA
CCCTCTACAACAAGATGCATGGCACCCCCCGTGCCAATCTCAACTCTGCCCCACAGTCCTGCAGCGACTCTTCCT
TCTGCAGCCACTCAGACCCTGGCGCCTTCTATCTGGATCTGCAGCCCTCCCCATTTGAGTCTAAGATGTCTTATG
AGTCCCATCACCCTGAAAGTGGAGGAAGGGAAGGGGGCTATGGTTGCCCTCATGCCTCTTCTCCTGAGCTTGATG
CCAACTGCAACTCCTACCGCCCACACTGTGAGCCGTGCCCAGCAGTGGCTGACCTCACAGCCTGCTTCCAAAGCC
AGGCCCGTCTTGTTGTGGCCACACAAAATTACTATAAACTTGTCACCTGTGACCTATCTTCCCAATCATCCCCAA
GCCCTGCTGGCTCTTCCATCACTAGCTGCTCTGAGGAACACACCAAGATAAGTCCCCCACCAGGCCCTGGCCCAG
ACCCAGGCCCCAGCCAGCCCTCTGAGTATTACCTATTCCAGAAGCCAGAAGTCCAGCCAGAGGAACAAGAAGCAG
TGAGTTCCTCCACCCAAGCAGCAGCTGCTGTGGGCCCCACTGTGCTTGAGGGACAAGTATACACGAATACTTCAC
CCCCCAACCTCAGCACTGGACGTCAGCGCTCCCGCAGCTATGATCGCAGCCTGCAGCGCAGCCCTCCTGTCCGCC
TGGGCTCGCTGGAACGTATGTTGAGTTGCCCAGTGCGCTTGAGTGAGGGCCCTGCAGCCATGGCCGGGCCTGGCT
CCCCACCCAGGAGGGTCACCTCCTTTGCCGAGCTGGCCAAGGGCCGGAAGAAAACTGGAGGCTCTGGCTCGCCCC
CACTTCGTGTGAGTGTTGGGGACTCCTCCCAGGAGTTCTCACCCATCCAAGAAGCCCAGCAAGATCGGGGGGCCC
CACTGGATGAGGGCACTTGCTGTAGCCATAGCCTGCCACCCATGCCTTTGGGGCCAGGCATGGACCTACTTGGCC
CAGACCCAAGTCCACCCTGGTCCACCCAGGTCTGTCAGGGACCCCACTCCAGTGAGATGCCTCCTGCTGGCCTCA
GAGCTACTGGGCAAGGCCCCCTGGCTCAGCTGATGGATCCAGGGCCTGCTCTCCCAGGGAGCCCAGCCAACAGCC
ATACCCAGAGGGATGCAAGAGCTAGAGCTGACGGGGGTGGCACCGAGAGCCGACCAGTCCTTCGCTACAGCAAGG
AACAGAGGCCAACCACACTGCCCATCCAGCCCTTCGTGTTCCAGCACCACTTCCCCAAGCAGCTGGCCAAGGCCC
GGGCCCTCCACAGCCTTTCCCAGCTCTACAGCCTCTCAGGCTGCAGCCGTACACAGCAGCCTGCCCCACTGGCTG
CCCCTGCTGCTCAAGTCTCAGTCCCAGCTCCCTCAGGGGAACCGCAGGCATCCACTCCCCGAGCCACTGGCAGAG
GTGCCAGGAAAGCTGGGTCTGAGCCAGAGACCTCTCGGCCATCGCCCCTGGGCAGCTACTCCCCCATCCGGAGTG
TTGGCCCCTTTGGGCCCAGCACTGACTCTTCTGCCTCCACTTCGTGCTCCCCTCCCCCAGAGCAGCCCACAGCCA
CAGAAAGCCTGCCCCCATGGAGCCACTCCTGTCCTTCTGCTGTCCGGCCTGCCACCTCCCAGCAGCCGCAGAAGG
AGGATCAGAAGATACTGACCTTGACTGAGTACCGGCTCCATGGAACAGGAAGCTTGCCGCCTCTGGGCTCCTGGC
GATCTGGCCTCAGCCGAGCAGAGAGCCTGGCCCGGGGAGGTGGTGAGGGCAGCATGGCCACCAGGCCCAGTAATG
CCAACCACCTATCCCCTCAAGCCCTCAAGTGGCGGGAATACAGGAGGAAGAACCCACTAGGGCCACCTGGTTTGT
CAGGGAGCCTAGACCGAAGATCACAAGAAGCTCGGCTGGCCCGAAGAAACCCTATCTTTGAGTTCCCTGGCTCCC
TCAGTGCTGCCAGCCATCTGAACTGCCGGCTGAATGGCCAAGCAGTGAAGCCGTTACCACTGACCTGCCCTGACT
TCCAGGACCCCTTTTCCTTGACGGAGAAGCCTCCAGCTGAGTTTTGTCTGTCCCCAGATGGCAGCTCAGAGGCCA
TTTCCATTGACCTGCTTCAGAAAAAAGGGCTGGTAAAAGCTGTTAACATCGCTGTGGACCTCATTGTGGCTCATT
TTGGCACAAGCCGGGATCCCGGGGTGAAGGCAAAGCTGGGAAACAGTTCTGTGAGCCCCAATGTGGGCCACCTGG
TTCTGAAGTACTTGTGCCCTGCCGTCCGCGCCGTGCTGGAGGATGGGCTCAAGGCCTTTGTACTGGACGTCATCA
TCGGGCAGCGTAAGAACATGCCATGGAGTGTGGTTGAGGCTTCCACACAGCTAGGCCCATCCACCAAGGTCCTGC
ATGGCCTCTACAACAAAGTCAGCCAATTCCCAGAGCTCACCAGTCATACCATGCGCTTCAACGCCTTCATCCTCG
GCCTGCTCAACATCCGGTCCCTGGAGTTCTGGTTTAATCACCTCTATAACCACGAAGACATCATCCAGACCCACT

FIGURE 1868B

ACCAGCCCTGGGGCTTCCTGAGTGCAGCTCATACCGTGTGTCCCGGCCTCTTTGAAGAGCTGCTGCTGCTGCTAC
AGCCCCTGGCCCTGCTGCCCTTCAGCCTCGACTTGCTGTTCCAGCACCGGCTGCTGCAAAGTGGGCAGCAGCAGC
GGCAGCACAAGGAACTGCTGCGGGTGTCCCAGGACCTGCTGCTGTCTGCCCACTCCACGCTGCAGCTGGCCCGGG
CCCGGGGCCAGGAGGGCCCTGGAGACGTGGACAGGGCAGCCCAAGGGGAGCGGGTGAAGGGTGTGGGTGCCTCAG
AAGGTGGAGAAGAGGAAGAGGAAGAAGAGGAGACAGAAGAGGTGGCAGAGGCAGCCGGGGGCTCAGGGCGTGCCA
GGTGGGCCCGAGGTGGGCAGGCCGGCTGGTGGTACCAGCTCATGCAGAGCTCCCAGGTCTACATCGATGGCTCCA
TTGAGGGTTCCAGGTTCCCTCGTGGTAGCAGCAACAGCAGCAGCGAGAAAAAGAAAGGGGCAGGAGGTGGGGGAC
CTCCCCAGGCTCCACCACCCCGAGAGGGAGTAGTGGAGGGGGCTGAGGCCTGCCCTGCCTCTGAGGAGGCCCTGG
GCCGGGAAAGGGGCTGGCCCTTCTGGATGGGGAGCCCCCCTGACTCTGTGCTGGCCGAGCTGAGGCGCAGTCGGG
AGAGGGAAGGGCCCGCTGCCTCGCCAGCAGAAAATGAGGAAGGGGCCTCAGAGCCTTCACCTGGAGGCATCAAGT
GGGGACACCTCTTTGGCTCCCGAAAAGCCCAGCGGGAGGCCCGGCCCACAAATAGGCTCCCCTCGGACTGGCTGA
GCCTGGACAAGTCCATGTTCCAACTAGTGGCGCAGACAGTGGGTTCCCGCCGGGAGCCAGAGCCCAAGGAGAGCC
TGCAGGAGCCACACTCCCCAGCCCTGCCCTCCAGTCCTCCGTGTGAGGTGCAGGCACTGTGCCACCACCTGGCCA
CCGGCCCTGGACAGCTGAGCTTCCACAAAGGAGACATCCTACGAGTGCTGGGGCGAGCTGGAGGAGACTGGCTGC
GCTGCAGCCGTGGCCCCGACTCTGGCCTGGTGCCCCTGGCCTACGTGACATTGACCCCAACTCCAAGTCCAACCC
CTGGAAGCAGCCAAAAC**TGA**GGCCCTGTGCATGCTGGTGGCCTCAGGGACCCTCATAACCCCCAGACTCAGAGCC
CGAGAGCCCTTCCCAAGCCATTGGCTTGGCTGCAGAGTAGACTGAGAGCTGGGGCCACGTATCCCTGTGCTGGCA
CCTGCTCCCTGTGCTCAGTATTAATTACGCCCCCTTAACTGTCCCAGTGACCTTGTCCAGACCTCCACCCAGGAG
AGGGATGGGACACAGCACTGGGCTGCCAGGATTCCCCTGGCCCGTCTGGGCCAACCCTTCCATGGGTGAAGACAA
GCAAGTCCCCCTGGAGGCGGGTGGCCCAGAAAGCCATCTACAGGGTTCCCTAGGCCAGGTGGAGATGAGGATGGG
TAACAGTATTGGGGCCAGATCCCTAAGCCCCCCAGCTGTAAATAGGCTGTGGCCAGTGCCTGGTCATCAGAAGAG
GGAGGAGGAGCCCAGGCGTCTGTTTATGTATTTATTTATTTATTTATTATACCTATTAATAAAAAAGGTGCTCAG
CCTCC

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FIGURE 1869

GGGCGGCCGGCCAATGCCGGACCGCTTCGGCACCGCCCGCCCGATCCCTCCACCCGTGGGCCGGCA**ATG**GCGGGC
GCAGTTTCGCTCTTGGGTGTGGTGGGGCTGCTGCTTGTGTCTGCGCTGTCCGGGGTCCTAGGAGACCGCGCCAAT
CCCGACCTCCGGGCACACCCAGGGAACGCAGCCCACCCCGGCTCTGGAGCCACGGAACCCCGGCGGCGACCACCG
CTCAAGGATCAACGCGAGCGGACCCGGGCCGGGTCGCTGCCTCTGGGGGCGCTGTACACCGCGGCCGTCGCGGCT
TTTGTGCTGTACAAGTGTTTGCAGGGGAAAGATGAAACTGCGGTTCTCCACGAGGAGGCAAGCAAGCAGCAGCCA
CTGCAGTCAGGTGGGTTTAGCAGAAGTCTGTGCTGGGTCGGGGGAGTT**TAG**GGGACAGCAGAAGATACATAACCA
CTTCTGCCCCCTTTTTTCCCTTATCCCCAGAGCAACAGCTGGCCCAGTTGACACAACAGCTGGCCCAGACAGAGC
AGCACCTGAACAACCTGATGGCCCAGCTGGACCCCCTTTTTGAGCGGTGAGGAGAGCAATGATTCTGTGAATTTT
TGGGGAATTTGTGGCAGGAGGGAGGAATGGGGACATAGGTTGGGAGCCACTGAGTGGACATTTCTTCAGTGTGAC
TACTCTGGCTGGAGCCCAGCAGGAGCTTCTGAACATGAAGCTATGGACCATCCACGAGCTGCTGCAAGATAGCAA
GCCGGACAAGGATATGGAGGCTTCAGAACCAGGTGAAGGCTCGGGAGGCGAGTCTGCTGGAGGTGGAGACAAAGT
CTCTGAAACTGGAACATTCCTGATCTCTCCCCACACAGAGGCCAGCAGACCTCTTCCTGAGGACTTCTGTTTAAA
GGAGGACGAGGAGGAGATTGGTGACAGTCAGGCCTGGGAGGAGCCCACAAACTGGAGCACAGAGACATGGAACCT
AGCTACTTCCTGGGAGGTGGGGCGGGGACTACGGAGAAGGTGCAGCCAGGCTGTGGCAAAGGGCCCCAGTCACAG
CCTTGGCTGGGAAGGAGGGACGACAGCTGAAGGTCGACTAAAACAAAGTCTGTTTTCATG

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FIGURE 1870

AGTGTCGATCCCTCAGCCAGGGC**ATG**GAGCTCTCCTGCCCCGGTTCGCGGTGCCCGGTGCAAGAGCAGCGTGCCC
GCTGGGAGCGGAAACGCGCCTGCACCGCCCGGGAGCTGCTAGAGACCGAGCGGCGCTACCAAGAACAGCTGGGGC
TGGTGGCCACGTACTTTTTGGGGATCCTGAAAGCCAAGGGGACCCTGCGACCACCTGAGCGCCAGGCCCTGTTTG
GCTCCTGGGAGCTCATCTACGGCGCCAGCCAGGAGCTGCTTCCCTACCTGGAAGGAGGATGCTGGGGCCAAGGGC
TGGAGGGCTTCTGCCGCCACTTGGAGCTCTATAACCAATTTGCTGCCAACTCAGAGAGGTCCCAGACCACCCTGC
AGGAGCAGCTAAAGAAAAATAAAGGTTTCCGGAGGTTTGTACGGCTTCAGGAAGGCCGCCCTGAGTTTGGGGGCC
TTCAGCTCCAGGACCTGCTCCCTCTGCCTCTGCAACGGCTCCAGCAGTATGAGAATCTCGTCGTAGCTTTGGCTG
AAAACACAGGTCCCAACAGCCCTGACCATCAACAGCTCACACCTGTCCTTCCCTCA**TGA**GAAGCTACTGCTTATG
TCCACAGACCAGGAGGAGCTGTCACGCTGGTACCACAGTCTGACTTGGGCTATCAGCAGCCAGAAAAACTAGAGG
AATCTTATAGATTCCAGAACTCAGGATACCTCAGGGATAGGTCACAGCCAAGAGTACAAAGGAATCTTCAGTACT
GAACAAAACAGAACCCTTCATGATTTGACAAAGGTCACTTTCTGTTTGCCTGGACCAAGCTACTCCAGATCATCT
GACCAACTCTTAAAAATCACGGCCAGGCACAGTGGCTCATGCCTGTAATCCCAGCACTTTGGGAAGCAGAGGTGG
CAGGATCATTCCAGCCCAGGAGTTCAAGACCAGCCTGGGCAACACAGTGAGTGAGACCCTGTCTCTATTTAAGAA
AAAATAATTAAGAAATTTTATTAAAAAAGAAGAATCAGGAAACCAAGTCCAACCCAACTAAACCTCAAATGAACC
AGCCCCTAACACAGATGAGGGGATTTGGGACTGATAAGCTCTGTGCTGTGTCCATGGCCCGTCATTTATCAAGGC
TGCAGCTTTGTAAATGTGGCTATTTTTATGTTGTGTATAGTTTCTATCATTTATTTTTCCACTGGATTTGAGTAA
AGTTTTTTTTCTTTTTTTTGGGAAAGACCCTTCTGTCTCAGTTTTGCTATGAGAAAAGGGATTTTTGGGCCCTGA
ACGCGGGCATGCTGGTGGCCTCAGGAATACGAGGAAAAGAGCTGGAGCTCCCTCTATCTTCTCTGCTGTCACACT
GGAAGGCAGCCTCTTTTTGTCCTAATAAGGACAGCTCTTCAAGAAGGCCCAGTTGTCCTTAGGCACCTAGTATGG
GTGTGTACAACCAACTAGGATCGAAAAAACACACAGGAGCACTCCATCATGAAAACAGACTTTGTTTTAGTCGAC
CTTCAGCTGTCGTCCCTCCTTCCCAGCCAAGGCTGTGACTGGGGCCCTTTGCCACAGCCTGGCTGCACCTTCTCC
GTAGTCCCCGCCCCACCTCCCAGGAAGTAGCTAGGTTCCATGTCTCTGTGCTCCAGTTTGTGGGCTCCTCCCAGG
CCTGACTGTCACCAATCTCCTCCTCGTCCTCCTTTAAACAGAAGTCCTCAGGAAGAGGTCTGCTGGCCTCTGTGT
GGGGAGAGATCAGGAATGTTCCAGTTTCAGAGACTTTGTCTCCACCTCCAGCAGACTCGCCTCCCGAGCCTTCAC
CTGGTTCTGAAGCCTCCATATCCTTGTCCGGCTTGCTATCTTGCAGCAGCTCGTGGATGGTCCATAGCTTCATGT
TCAGAAGCTCCTGCTGGGCTCCAGCCAGAGTAGTCACACTGAAGAAATGTCCACTCAGTGGCTCCCAACCTATGT
CCCCATTCCTCCCTCCTGCCACAAATTCCCCAAAAATTCACAGAATCATTGCTCTCCTCACCGCTCAAAAAGGGG
GTCCAGCTGGGCCATCAGGTTGTTCAGGTGCTGCTCTGTCTGGGCCAGCTGTTGTGTCAACTGGGCCAGCTGTTG
CTCTGGGGATAAGGGAAAAAAGGGGGCAGAAGTGGTTATGTATCTTCTGCTGTCCCCTAAACTCCCCCGACCCAG
CACAGACTTCTGCTAAACCCACCTGACTGCAGTGGCTGCTGCTTGCTTGCCTCCTCGTGGAGAACCGCAGTTTCA
TCTTTCCCCTGTTGTGGAAGAAGGAAAGGGCAGTACTGAAGCAACAAGGTTCTGCTCCATCACCTCAGTCTCCAG
AGCCAGCCAAGAGAGAGTGCAATTTGAGATGGAGACAGTGATTGGGTTTTTACCTCAGAGAATCACAATCCTAGT
CTATCTAGCTCCTCACCCAGCATATGAAGCGACGTCCTATGTCCCACACATGGTCAGTTTGCTGAAACACCTCCA
GGAATGAGCAACTCCCTCCGGTTTGAAAAAAGCTCTGGTGGCTGAGTGCTGTGGCTCACACCTGTAATCCCAGCA
CTTCGGGAAGCCAAGGGCCTCCTCCCAAGGAGAACATGAGACCACTTCATATCTGGAACTCTAGAAACACTGGCT
GCAGCAATCAACCTCCTGTGCCAAGGCTGGCCCCACTCTTGTAGCATGGACACTGCTAGCTGGGTTCAAATCCCA
GCTCCAGCAGTTGCCAGCGCTGGGTGACCTCGAGCAAGTGACTACTCCTCACTGGATTGTAGGAGAACTAAATGT
GATAGTCATTATTTACAGTTCACCACACGCTCTTCACATCCGTTACCTCCCTGGATCCTCAAAATAACCTCATAA
TATTGGAAGGCC

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FIGURE 1871

TCCCGCTCCGTCCTCCTCGCCTGCCACCGGTGCACCCAGTCCGCTCACCCAGCCCAGTCCGTCCGGTCCTCACCG
CCTGCCGGCCGGCCCACCCCCCACCGCAGCC**ATG**GACGCCATCAAGAAGAAGATGCAGATGCTGAAGCTGGACAA
GGAGAACGCCATCGACCGCGCCGAGCAGGCCGAAGCCGACAAGAAGCAAGCTGAGGACCGCTGCAAGCAGCTGGA
GGAGGAGCAGCAGGCCCTCCAGAAGAAGCTGAAGGGGACAGAGGATGAGGTGGAAAAGTATTCTGAATCCGTGAA
GGAGGCCCAGGAGAAACTGGAGCAGGCCGAGAAGAAGGCCACTGATGCTGAGGCAGATGTGGCCTCCCTGAACCG
CCGCATTCAGCTGGTTGAGGAGGAGCTGGACCGGGCCCAGGAGCGCCTGGCTACAGCCCTGCAGAAGCTGGAGGA
GGCCGAGAAGGCGGCTGATGAGAGCGAGAGAGGAATGAAGGTCATCGAAAACCGGGCCATGAAGGATGAGGAGAA
GATGGAACTGCAGGAGATGCAGCTGAAGGAGGCCAAGCACATCGCTGAGGATTCAGACCGCAAATATGAAGAGGT
GGCCAGGAAGCTGGTGATCCTGGAAGGAGAGCTGGAGCGCTCGGAGGAGAGGGCTGAGGTGGCCGAGAGCCGAGC
CAGACAGCTGGAGGAGGAACTTCGAACCATGGACCAGGCCCTCAAGTCCCTGATGGCCTCAGAGGAGGAGTATTC
CACCAAAGAAGATAAATATGAAGAGGAGATCAAACTGTTGGAGGAGAAGCTGAAGGAGGCTGAGACCCGAGCAGA
GTTTGCCGAGAGGTCTGTGGCAAAGTTGGAGAAAACCATCGATGACCTAGAAGAGACCTTGGCCAGTGCCAAGGA
GGAGAACGTCGAGATTCACCAGACCTTGGACCAGACCCTGCTGGAACTCAACAACCTG**TGA**GGGCCAGCCCCACC
CCCAGCCAGGCTATGGTTGCCACCCCAACCCAATAAAACTGATGTTACTAGCCTCTC

FIGURE 1872A

AACTCGGGCGTCGTCCTGGCGTCCTCTCCGGATTGCGCCGCACCCTCGCTTCCTGCCAGGGAGGGGCTGCCGGGC
TTTGGCGGCTCCCGAGCATCGAGAACGGGGCCAGAGCAGCTTCCTGCCTGCCCCCCGCGACCATAGAGCGCGGGC
CCAGGGCGCCGCCCGCGGGTGGGGGACGTTCCCAGGACGGAAGTGGCCGAGAGAGTGTCGAAGGGAGGGCGAGGC
CGGAGCCCGAGGGCGACCCGAGAAGCGGCGGGGCGGCGGGCCGGCGGGCGGGGCGCAGAGCCAGGCAGCGCAGGT
ATAGCCAGGCTGGAGAAAAGAAGCTGCCACC**ATG**GTTGCACTTTCACTGAAGATCAGCATTGGGAATGTGGTGAA
GACGATGCAGTTTGAGCCGTCTACCATGGTGTACGACGCCTGCCGCATCATTCGTGAGCGGATCCCAGAGGCCCC
AGCTGGTCCTCCCAGCGACTTTGGGCTCTTTCTGTCAGATGATGACCCCAAAAAGGGTATATGGCTGGAGGCTGG
GAAAGCTTTGGACTACTACATGCTCCGAAATGGGGACACTATGGAGTACAGGAAGAAACAGAGACCCCTGAAGAT
CCGTATGCTGGATGGAACTGTGAAGACGATCATGGTGGATGACTCTAAGACTGTCACTGACATGCTCATGACCAT
CTGTGCCCGCATTGGCATCACCAATCATGATGAATATTCATTGGTTCGAGAGCTGATGGAAGAGAAAAAGGAGGA
AATAACAGGGACCTTAAGAAAGGACAAGACATTGCTGCGAGATGAAAAGAAGATGGAGAAACTAAAGCAGAAATT
GCACACAGATGATGAGTTGAACTGGCTGGACCATGGTCGGACACTGAGGGAGCAGGGTGTAGAGGAGCACGAGAC
GCTGCTGCTGCGGAGGAAGTTCTTTTACTCAGACCAGAATGTGGATTCCCGGGACCCTGTACAGCTGAACCTCCT
GTATGTGCAGGCACGAGATGACATCCTGAATGGCTCCCACCCTGTCTCCTTTGACAAGGCCTGTGAGTTTGCTGG
CTTCCAATGCCAGATCCAGTTTGGGCCCCACAATGAGCAGAAGCACAAGGCTGGCTTCCTTGACCTGAAGGACTT
CCTGCCCAAGGAGTATGTGAAGCAGAAGGGAGAGCGTAAGATCTTCCAGGCACACAAGAATTGTGGGCAGATGAG
TGAGATTGAGGCCAAGGTCCGCTACGTGAAGCTAGCCCGTTCTCTCAAGACTTACGGTGTCTCCTTCTTCCTGGT
GAAGGAAAAAATGAAAGGGAAGAACAAGCTAGTGCCCAGGCTTCTGGGCATCACCAAGGAGTGTGTGATGCGAGT
GGATGAGAAGACCAAGGAAGTGATCCAGGAGTGGAACCTCACCAACATCAAACGCTGGGCTGCGTCTCCCAAAAG
CTTCACCCTGGATTTTGGAGATTACCAAGATGGCTATTACTCAGTACAGACAACTGAAGGGGAGCAGATTGCACA
GCTCATTGCCGGCTACATCGATATCATCCTGAAGAAGAAAAAAAGCAAGGATCACTTTGGGCTGGAAGGAGATGA
GGAGTCTACTATGCTGGAGGACTCAGTGTCCCCCAAAAAGTCAACAGTCCTGCAGCAGCAATACAACCGGGTGGG
GAAAGTGGAGCATGGCTCTGTGGCCCTGCCTGCCATCATGCGCTCTGGAGCCTCTGGTCCTGAGAATTTCCAGGT
GGGCAGCATGCCCCCTGCCCAGCAGCAGATTACCAGCGGCCAGATGCACCGAGGACACATGCCTCCTCTGACTTC
AGCCCAGCAGGCACTCACTGGAACCATTAACTCCAGCATGCAGGCCGTGCAGGCTGCCCAGGCCACCCTGGATGA
CTTTGACACTCTGCCGCCTCTTGGCCAGGATGCTGCCTCTAAGGCCTGGCGTAAAAACAAGATGGATGAATCAAA
GCATGAGATCCACTCTCAGGTAGATGCCATCACAGCTGGTACTGCGTCTGTGGTGAACCTGACAGCAGGGGACCC
TGCTGAGACAGACTATACCGCAGTGGGCTGTGCAGTCACCACAATCTCCTCCAACCTGACGGAGATGTCCCGTGG
GGTGAAGCTGCTGGCTGCCTTGCTGGAGGACGAAGGCGGCAGTGGTCGGCCCCTGTTGCAGGCAGCAAAGGGCCT
TGCGGGAGCAGTGTCAGAACTGCTGCGCAGTGCCCAACCAGCCAGTGCTGAGCCCCGTCAGAACCTGCTGCAAGC
AGCTGGGAACGTGGGCCAGGCCAGTGGGGAGCTGTTGCAACAAATTGGGGAAAGTGATACTGACCCCCACTTCCA
GGATGCGCTAATGCAGCTCGCCAAAGCTGTGGCAAGTGCTGCAGCTGCCCTGGTCCTCAAGGCCAAGAGTGTGGC
CCAGCGGACAGAGGACTCGGGACTTCAGACCCAAGTTATTGCTGCAGCAACACAGTGTGCCCTATCCACTTCCCA
ACTAGTGGCCTGTACTAAGGTGGTGGCACCTACAATCAGCTCACCTGTCTGCCAAGAGCAACTGGTGGAGGCTGG
ACGACTGGTAGCCAAAGCCGTGGAGGGCTGTGTGTCTGCCTCCCAGGCAGCTACAGAGGATGGGCAACTGTTGCG
AGGGGTAGGAGCAGCAGCCACAGCTGTCACCCAGGCCCTAAATGAGCTGCTGCAGCATGTGAAAGCCCATGCCAC
AGGGGCTGGGCCTGCTGGCCGTTATGACCAGGCTACTGACACCATCCTAACCGTCACTGAGAACATCTTTAGCTC
CATGGGTGATGCTGGGGAGATGGTGCGACAGGCCCGCATCCTGGCCCAAGCCACATCTGACCTGGTCAATGCCAT
CAAGGCTGATGCTGAGGGGGAAAGTGATCTGGAGAACTCCCGCAAGCTCTTAAGTGCTGCCAAGATCCTAGCTGA
TGCCACAGCCAAGATGGTAGAGGCTGCCAAGGGAGCAGCTGCCCACCCTGACAGTGAGGAGCAGCAGCAGCGGCT
GCGGGAGGCAGCTGAGGGGCTGCGCATGGCCACCAATGCAGCTGCGCAGAATGCCATCAAGAAAAAGCTGGTGCA
GCGCCTGGAGCATGCAGCCAAGCAGGCTGCAGCCTCAGCCACACAGACCATCGCTGCAGCTCAGCACGCAGCCTC
TACCCCCAAGGCCTCTGCCGGCCCCCAGCCCCTGCTGGTGCAGAGCTGCAAGGCAGTGGCAGAGCAGATTCCACT
GCTGGTGCAGGGCGTCCGAGGAAGCCAAGCCCAGCCTGACAGCCCCAGCGCTCAGCTTGCCCTCATTGCTGCCAG
CCAGAGCTTCCTGCAGCCAGGTGGGAAGATGGTGGCAGCTGCAAAGGCCTCAGTGCCAACGATTCAGGACCAGGC
TTCAGCCATGCAGCTGAGTCAGTGTGCCAAGAACCTGGGCACCGCGCTGGCTGAACTCCGGACGGCTGCCCAGAA
GGCTCAGGAAGCATGTGGACCTTTGGAGATGGATTCTGCACTGAGTGTGGTACAGAATCTAGAGAAAGATCTACA
GGAAGTGAAGGCAGCAGCTCGAGATGGCAAGCTTAAACCCTTACCTGGGGAGACAATGGAGAAGTGTACCCAGGA

FIGURE 1872B

CCTGGGCAACAGCACCAAAGCCGTGAGCTCAGCCATCGCCCAGCTACTGGGAGAGGTTGCCCAGGGCAATGAGAA
TTATGCAGGTATTGCAGCTCGGGATGTGGCAGGTGGGCTGCGGTCACTGGCCCAGGCCGCTAGGGGAGTCGCTGC
ACTGACGTCAGATCCTGCAGTGCAGGCCATTGTACTTGATACGGCCAGTGATGTGCTGGACAAGGCCAGCAGCCT
CATTGAGGAGGCGAAAAAGGCAGCTGGCCATCCAGGGGACCCTGAGAGCCAGCAGCGGCTTGCCCAGGTGGCTAA
AGCAGTGACCCAGGCTCTGAACCGCTGTGTCAGCTGCCTACCTGGCCAGCGCGATGTGGATAATGCCCTGAGGGC
AGTTGGAGATGCCAGCAAGCGACTCCTGAGTGACTCGCTTCCTCCTAGCACTGGGACATTTCAAGAAGCTCAGAG
CCGGTTGAATGAAGCTGCTGCTGGGCTGAATCAGGCAGCCACAGAACTGGTGCAGGCCTCTCGGGGAACCCCTCA
GGACCTGGCTCGAGCCTCAGGCCGATTTGGACAGGACTTCAGCACCTTCCTGGAAGCTGGTGTGGAGATGGCAGG
CCAGGCTCCGAGCCAGGAGGACCGAGCCCAAGTTGTGTCCAACTTGAAGGGCATCTCCATGTCTTCAAGCAAACT
TCTTCTGGCTGCCAAGGCCCTGTCCACGGACCCTGCTGCCCCTAACCTCAAGAGTCAGCTGGCTGCAGCTGCCAG
GGCAGTAACTGACAGCATCAATCAGCTCATCACTATGTGCACCCAGCAGGCACCCGGCCAGAAGGAGTGTGATAA
CGCCCTGCGGGAATTGGAGACGGTCCGGGAACTCCTGGAGAACCCAGTCCAGCCCATCAATGACATGTCCTACTT
TGGTTGCCTGGACAGTGTAATGGAGAACTCAAAGGTGCTGGGCGAGGCCATGACTGGCATCTCCCAAAATGCCAA
GAACGGAAACCTGCCAGAGTTTGGAGATGCCATTTCCACAGCCTCAAAGGCACTTTGTGGCTTCACCGAGGCAGC
TGCACAGGCTGCATATCTGGTTGGTGTCTCTGACCCCAATAGCCAAGCTGGACAGCAAGGGCTAGTGGAGCCCAC
ACAGTTTGCCCGTGCAAACCAGGCAATTCAGATGGCCTGCCAGAGTTTGGGAGAGCCTGGCTGTACCCAGGCCCA
GGTGCTCTCTGCAGCCACCATTGTGGCTAAACACACCTCTGCACTGTGTAACAGCTGTCGCCTGGCTTCTGCCCG
TACCACCAATCCTACTGCCAAGCGCCAGTTTGTACAGTCAGCCAAGGAGGTGGCCAACAGCACAGCTAATCTTGT
CAAGACCATCAAGGCGCTAGATGGGGCCTTCACAGAGGAGAACCGTGCCCAGTGCCGAGCAGCAACAGCCCCTCT
GCTGGAGGCTGTGGACAATCTGAGTGCCTTTGCGTCCAACCCTGAGTTCTCCAGCATTCCTGCCCAGATCAGCCC
TGAGGGTCGGGCTGCCATGGAGCCCATTGTGATCTCTGCCAAGACAATGTTAGAGAGTGCCGGGGGACTCATCCA
GACAGCCCGGGCCCTCGCAGTCAATCCCCGGGACCCCCCGAGCTGGTCGGTGCTGGCCGGCCACTCCCGTACTGT
CTCAGACTCCATCAAGAAGCTAATTACAAGCATGAGGGACAAGGCTCCAGGGCAGCTGGAGTGTGAAACGGCCAT
TGCAGCTCTGAACAGTTGTCTACGGGACCTAGACCAGGCTTCCCTCGCTGCAGTCAGCCAGCAGCTTGCTCCCCG
TGAGGGAATCTCTCAAGAGGCCTTGCACACTCAGATGCTCACTGCAGTCCAAGAGATCTCCCATCTCATTGAGCC
GCTGGCCAATGCTGCCCGGGCTGAAGCCTCCCAGCTGGGACACAAGGTGTCCCAGATGGCGCAGTACTTTGAGCC
GCTCACCCTGGCTGCAGTGGGTGCTGCCTCCAAGACCCTGAGCCACCCGCAGCAGATGGCACTCCTGGACCAGAC
TAAAACATTGGCAGAGTCTGCCCTGCAGTTGCTATACACTGCCAAGGAGGCTGGTGGTAACCCAAAGCAAGCAGC
TCACACCCAGGAAGCCCTGGAGGAGGCTGTGCAGATGATGACCGAGGCCGTAGAGGACCTGACAACAACCCTCAA
CGAGGCAGCCAGTGCTGCTGGGGTCGTGGGTGGCATGGTGGACTCCATCACCCAGGCCATCAACCAGCTAGATGA
AGGACCAATGGGTGAACCAGAAGGTTCCTTCGTGGATTACCAAACAACTATGGTGCGGACAGCCAAGGCCATTGC
AGTGACCGTTCAGGAGATGGTTACCAAGTCAAACACCAGCCCAGAGGAGCTGGGCCCTCTTGCTAACCAGCTGAC
CAGTGACTATGGCCGTCTGGCCTCGGAGGCCAAGCCTGCAGCGGTGGCTGCTGAAAATGAAGAGATAGGTTCCCA
TATCAAACACCGGGTACAGGAGCTGGGCCATGGCTGTGCCGCTCTGGTCACCAAGGCAGGCGCCCTGCAGTGCAG
CCCCAGTGATGCCTACACCAAGAAGGAGCTCATAGAGTGTGCCCGGAGAGTCTCTGAGAAGGTCTCCCACGTCCT
GGCTGCGCTCCAGGCTGGGAATCGTGGCACCCAGGCCTGCATCACAGCAGCCAGCGCTGTGTCTGGTATCATTGC
TGACCTCGACACCACCATCATGTTCGCCACTGCTGGCACGCTCAATCGTGAGGGTACTGAAACTTTCGCTGACCA
CCGGGAGGGCATCCTGAAGACTGCGAAGGTGCTGGTGGAGGACACCAAGGTCCTGGTGCAAAACGCAGCTGGGAG
CCAGGAGAAGTTGGCGCAGGCTGCCCAGTCCTCCGTGGCGACCATCACCCGCCTCGCTGATGTGGTCAAGCTGGG
TGCAGCCAGCCTGGGAGCTGAGGACCCTGAGACCCAGGTGGTACTAATCAACGCAGTGAAAGATGTAGCCAAAGC
CCTGGGAGACCTCATCAGTGCAACGAAGGCTGCAGCTGGCAAAGTTGGAGATGACCCTGCTGTGTGGCAGCTAAA
GAACTCTGCCAAGGTGATGGTGACCAATGTGACATCATTGCTTAAGACAGTAAAAGCCGTGGAAGATGAGGCCAC
CAAAGGCACTCGGGCCCTGGAGGCAACCACAGAACACATACGGCAGGAGCTGGCGGTTTTCTGTTCCCCAGAGCC
ACCTGCCAAGACCTCTACCCCAGAAGACTTCATCCGAATGACCAAGGGTATCACCATGGCAACCGCCAAGGCCGT
TGCTGCTGGCAATTCCTGTCGCCAGGAAGATGTCATTGCCACAGCCAATCTGAGCCGCCGTGCTATTGCAGATAT
GCTTCGGGCTTGCAAGGAAGCAGCTTACCACCCAGAAGTGGCCCCTGATGTGCGGCTTCGAGCCCTGCACTATGG
CCGGGAGTGTGCCAATGGCTACCTGGAACTGCTGGACCATGTACTGCTGACCCTGCAGAAGCCAAGCCCAGAACT
GAAGCAGCAGTTGACAGGACATTCAAAGCGTGTGGCTGGTTCCGTCACTGAGCTCATCCAGGCTGCTGAAGCCAT

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FIGURE 1872C

GAAGGGAACAGAATGGGTAGACCCAGAGGACCCCACAGTCATTGCTGAGAATGAGCTCCTGGGAGCTGCAGCCGC
CATTGAGGCTGCAGCCAAAAAGCTAGAGCAGCTGAAGCCCCGGGCCAAACCCAAGGAGGCAGATGAGTCCTTGAA
CTTTGAGGAGCAGATACTAGAAGCTGCCAAGTCCATTGCAGCAGCCACCAGTGCACTGGTAAAGGCTGCGTCGGC
TGCCCAGAGAGAACTAGTGGCCCAAGGGAAGGTGGGTGCCATTCCAGCCAATGCACTGGACGATGGGCAGTGGTC
CCAGGGCCTCATTTCTGCTGCCCGGATGGTGGCTGCGGCCACCAACAATCTGTGTGAGGCAGCCAATGCAGCTGT
ACAAGGCCATGCCAGCCAGGAGAAGCTCATCTCATCAGCCAAGCAGGTAGCTGCCTCCACAGCCCAGCTCCTTGT
GGCCTGCAAGGTCAAGGCTGACCAGGACTCGGAGGCAATGAAACGACTTCAGGCTGCTGGCAACGCAGTGAAGCG
AGCCTCAGATAATCTGGTGAAAGCAGCACAGAAGGCTGCAGCCTTTGAAGAGCAGGAGAATGAGACAGTGGTGGT
GAAAGAGAAGATGGTTGGCGGCATTGCCCAGATCATCGCAGCACAGGAAGAAATGCTTCGGAAGGAACGAGAGCT
GGAAGAGGCGCGGAAGAAACTGGCCCAGATCCGGCAGCAGCAGTACAAGTTTCTGCCTTCAGAGCTTCGAGATGA
GCAC**TAA**AGAAGCCTCTTCTATTTAATGCAGACCCGGCCCAGAGACTGTGCGTGCCACTACCAAAGCCTTCTGGG
CTGTCGGGGCCCAACCTGCCCAACCCCAGCACTCCCCAAAGTGCCTGCCAAACCCCAGGGCCTGGCCCCGCCCAG
TCCCGCAGTACATCCCCTGTCCCCTCCCCAACCCCAAGTGCCTTCATGCCCTAGGGCCCCCCAAGTGCCTGCCCC
TCCCCAGAGTATTAACGCTCCAAGAGTATTATTAACGCTGCTGTACCTCGATCTGAATCTGCCGGGGCCCCAGCC
CACTCCACCCTGCCAGCAGCTTCCGGCCAGTCCCCACAGCCTCATCAGCTCTCTTCACCGTTTTTTGATACTATC
TTCCCCCACCCCCAGCTACCCATAGGGGCTGCAGAGTTATAAGCCCCAAACAGGTCATGCTCCAATAAAAATGAT
TCTACCTAC

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FIGURE 1873

ATGGAGCTGGAATTGGATGCTGGTGACCAAGACCTGCTGGCCTTCCTGCTAGAGGAAAGTGGAGATTTGGGGACG
GCACCCGATGAGGCCGTGAGGGCCCCACTGGACTGGGCGCTGCCGCTTTCTGAGGTACCGAGCGACTGGGAAGTA
GATGATTTGCTGTGCTCCCTGCTGAGTCCCCCAGCGTCGTTGAACATTCTCAGCTCCTCCAACCCCTGCCTTGTC
CACCATGACCACACCTACTCCCTCCCACGGGAAACTGTCTCTATGGATCTAGAGAGTGAGAGCTGTAGAAAAGAG
GGGACCCAGATGACTCCACAGCATATGGAGGAGCTGGCAGAGCAGGAGATTGCTAGGCTAGTACTGACAGATGAG
GAGAAGAGTCTATTGGAGAAGGAGGGGCTTATTCTGCCTGAGACACTTCCTCTCACTAAGACAGAGGAACAAATT
CTGAAACGTGTGCGGAGGAAGATTCGAAATAAAAGATCTGCTCAAGAGAGCCGCAGGAAAAAGAAGGTGTATGTT
GGGGGTTTAGAGAGCAGGGTCTTGAAATACACAGCCCAGAATATGGAGCTTCAGAACAAAGTACAGCTTCTGGAG
GAACAGAATTTGTCCCTTCTAGATCAACTGAGGAAACTCCAGGCCATGGTGATTGAGATATCAAACAAAACCAGC
AGCAGCAGCACCTGCATCTTGGTCCTACTAGTCTCCTTCTGCCTCCTCCTTGTACCTGCTATGTACTCCTCTGAC
ACAAGGGGGAGCCTGCCAGCTGAGCATGGAGCCAGCTTCGTGCCCTCCCCAGTGAGGACCCTTACCAGCTGGAGC
TGCCTGCCCTGCAGTCAGAAGTGCCGAAAGACAGCACACACCAGTGGTTGGACGGCTCAGACTGTGTACTCCAGG
CCCCTGGCAACACTTCCTGCCTGCTGCATTACATGCCTCAGGCTCCCAGTGCAGAGCCTCCCCTGGAGTGGCCAT
TCCCTGACCTCTTCTCAGAGCCTCTCTGCCGAGGTCCCATCCTCCCCCTGCAGGCAAATCTCACAAGGAAGGGAG
GATGGCTTCCTACTGGTAGCCCCTCTGTCATTTTGCAGGACAGATACTCAGGCTAG

FIGURE 1874

AGACCGGAAAGGGCTCGGGTCATCCCGGCGCCCAGGGTCACCTTCCCACGGGCTGGCACCTGGGCGCGGGCGCTG
CCCCGGAGCCGGCCGGCGGGACCTGGCGCCCAATCCTGGGGGACCCGGTGCCGTGGCCCAGGGGCCGGGCCGAGG
TCCCGGGGGCGGTGCCTTGCGGGCCCGTCCCGGGGCGGTGCCTGGTGGGCTGGCCCCGCGGCTCCTCCCCTCTCT
GCGGGCCCAGTCGCCCTTTGGCCGGGCGAGCTAATCGTCGGCTCAATGACGACGAGGCCCGACCCTTCCCGTCCA
GGACCTACAGAGACAACCGAAGGAGAGCCCAAGGCGGCTTCTTTGCTGTCGCCGCCCCCACTGAAGCAAGAGCTC
CCCGGCTCCACTGAAACACCAGCTCATTTAAGCTTTCCCCAACGCCCGGCCCTCCGGGACGATACCTAACAACGA
CCGGCGCCCGCATCTGGAATAGGCTGGCGAGATACTTAGTATCCGAGGGCTCGGGACTTGGCGCCATCGAGGTCA
TGGGGACCCAGGATCCAGGGAACATGGGAACCGGCGTCCCAGCCTCGGAGCAGATAAGCTGTGCCAAAGAGGATC
CACAAGTTTATTGCCCTGAAGAGACTGGCGGCACCAAGGATGTGCAGGTTACAGACTGTAAGAGTCCCGAAGACA
GCCGACCCCCAAAAGAGACGGACTGCTGCAATCCGGAGGACTCTGGGCAGCTGATGGTTTCCTATGAGGGTAAAG
CTATGGGCTACCAGGTGCCTCCCTTTGGCTGGCGCATCTGTCTGGCTCATGAGTTTACAGAGAAGAGGAAACCCT
TTCAAGCTAACAACGTCTCCCTAAGCAACATGATAAAGCATATAGGCATGGGCTTGAGGTACCTGCAGTGGTGGT
ACCGGAAGACCCATGTGGAAAAGAAGACACCTTTCATCGACATGATCAATTCTGTACCCCTAAGACAGATTTATG
GTTGTCCCTTGGGTGGCATCGGGGGAGGCACTATTACCCGTGGCTGGAGAGGCCAGTTCTGTCGTTGGCAGCTTA
ACCCTGGAATGTATCAGCACCGGACAGTCATCGCTGACCAAGACAGCAGCCTGCCTGTAGGAGTCTTTGTGTGGG
ATGTGGAAAATGAAGGGGACGAAGCTCTAGATGTGTCCATCATGTTCTCCATGCGGAATGGACTGGGTGGTGGAG
ACGATGCCCCAGGGGTTTGTGGAATGAGCCCTTCTGTCTGGAGCGTAGCGGGGAAACTGTCCGGGGGCTGCTCCT
GCATCATCCAACCCTTCCAAACCCCTACACG**ATG**GCTGTGGCTGCACGAGTCACGGCAGCTACCACGGTAACCCA
CATCACAGCCTTTGACCCTGACAGCACGGGGCAGCAGGTGTGGCAGGATCTACTTCAGGATGGACAGCTGGACTC
TCCCACTGGCCAAAGCACCCCTACGCAGAAAGGAGTAGGCATTGCTGGAGCTGTGTGTGTTTCCAGCAAGTTGCG
ACCTCGAGGCCAGTGCCGCCTGGAGTTTTCACTGGCTTGGGACATGCCCAGGATCATGTTTGGAGCTAAAGGCCA
AGTCCACTACAGGCGGTATACAAGGTTCTTTGGCCAGGATGGAGATGCAGCACCTGCCCTCAGCCACTATGCACT
GTGCCGATACGCAGAGTGGGAAGAGAGGATCTCAGCTTGGCAGAGCCCGGTATTGGATGACAGATCACTGCCTGC
CTGGTACAAATCTGCGCTGTTCAATGAACTATACTTCCTGGCTGATGGAGGCACAGTGTGGCTGGAAGTTCTTGA
GGACTCCCTACCAGAGGAGCTGGGCAGAAACATGTGTCACCTCCGCCCCACCCTACGGGACTACGGTCGATTTGG
CTACCTTGAGGGCCAGGAGTACCGCATGTACAACACATATGATGTCCACTTTTATGCTTCCTTTGCCCTCATCAT
GCTCTGGCCCAAACTTGAGCTCAGCCTACAGTATGACATGGCTCTGGCCACTCTCAGGGAGGACCTGACACGGCG
ACGGTACCTGATGAGTGGGGTGATGGCACCTGTGAAAAGGAGGAACGTCATCCCCCATGATATTGGGGACCCAGA
TGATGAACCATGGCTCCGCGTCAATGCATATTTAATCCATGATACTGCTGATTGGAAGGACCTGAACCTGAAGTT
TGTGCTGCAGGTTTATCGGGACTATTACCTCACGGGTGATCAAAACTTCCTGAAGGACATGTGGCCTGTGTGTCT
AGCTGTGATGGAATCTGAAATGAAGTTTGACAAGGACCATGATGGACTCATTGAAAATGGAGGCTATGCAGACCA
GACCTATGATGGATGGGTGACCACAGGCCCCAGTGCTTACTGTGGAGGGCTGTGGCTGGCAGCTGTGGCTGTGAT
GGTCCAGATGGCTGCTCTGTGTGGGGCACAGGACATCCAGGATAAGTTTTCTTCTATCCTCAGCCGGGGCCAAGA
AGCCTATGAGAGACTGCTGTGGAATGGCCGCTATTACAACTATGACAGCAGCTCTCGGCCTCAGTCTCGTAGTGT
TATGTCTGACCAGTGTGCTGGACAGTGGTTCCTGAAGGCCTGTGGCCTAGGAGAAGGAGACACTGAGGTGTTTCC
TACCCAACATGTGGTCCGTGCTCTCCAAACTATCTTTGAGCTGAACGTCCAGGCCTTTGCAGGAGGGGCCATGGG
GGCTGTGAATGGGATGCAGCCCCATGGTGTCCCTGATAAATCCAGTGTGCAGTCTGATGAAGTCTGGGTGGGTGT
GGTCTACGGGCTGGCAGCTACCATGATCCAAGAGGGCCTGACTTGGGAGGGCTTCCAGACAGCTGAAGGCTGCTA
CCGTACCGTGTGGGAGCGCCTGGGTCTGGCCTTCCAGACCCCAGAGGCATACTGCCAGCAGCGAGTGTTCCGCTC
ACTGGCCTACATGCGGCCACTGAGCATATGGGCCATGCAGCTAGCCCTGCAACAGCAGCAGCACAAAAAGGCCTC
CTGGCCAAAAGTCAAACAGGGCACAGGACTAAGGACAGGGCCTATGTTTGGACCAAAGGAAGCCATGGCAAACCT
GAGCCCAGAG**TGA**GCCGTCTGAACTGTGGGAGGGAAGTGCTAACAGCCCAGCCTCCAGCCTGGCCTTTCCTCCTT
CCCCTCTGAACCTCCTGCAACCCTGAGCCATCAGGACAATCATACCCCTTCCCTTCTCTCCACCCAATTGTGCCA
GTAAATGGGGGTTGAGGGTGACCTAGGCAGCATTAGAATCACTTATTTATTTCTTTCCTCACCTGTTCCCTGACT
GCGTGAAATGTTCAGGGAGGTCAGTTGATTTCCCCAGGTACATTCATGGTGTGACAGACACATGGGTACAAATAA
AAGACCCAGAAAGCC

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FIGURE 1875

ATGGCGCTGCCATCACTTCTGCTGTTGGTGGCAGCCCTGGCAGGTGGGGTGCGTCCTCCCGGGGCGCGGAACCTG
ACGCTGGCGGTGGTGCTGCCAGAACACAACCTGAGCTATGCCTGGGCCTGGCCACGGGTGGGACCCGCTGTGGCA
CTAGCTGTGGAGGCTCTGGGCCGGGCACTGCCCGTGGACCTGCGGTTTGTCAGCTCCGAACTGGAAGGCGCCTGC
TCTGAGTACCTGGCACCGCTGAGCGCTGTGGACCTCAAGCTGTACCATGACCCCGACCTGCTGTTAGGTCCCGGT
TGCGTGTACCCTGCTGCCTCTGTGGCCCGCTTTGCCTCCCACTGGCGCCTTCCCCTGCTGACTGCGGGTGCTGTG
GCCTCTGGTTTTTCGGCTAAGAATGACCATTATCGTACCCTGGTTCGCACTGGCCCCTCTGCTCCCAAGCTGGGT
GAGTTTGTGGTGACACTACACGGGCACTTCAATTGGACTGCCCGTGCTGCCTTGCTGTACCTGGATGCTCGCACA
GATGACCGGCCTCACTACTTCACCATCGAGGGCGTCTTTGAGGCCCTGCAGGGCAGCAACCTCAGTGTGCAGCAC
CAGGTGTATGCCCGAGAGCCAGGGGGCCCCGAGCAGGCCACCCACTTCATCCGGGCCAACGGGCGCATTGTGTAT
ATCTGCGGCCCTCTGGAGATGCTGCATGAGATCCTGCTTCAGGCCCAGAGGGAGAATCTGACCAATGGGGATTAT
GTCTTCTTTTACCTGGATGTCTTTGGGGAGAGTCTCCGTGCAGGCCCCACACGTGCTACAGGCCGGCCCTGGCAG
GACAATCGCACCCGGGAACAGGCCCAGGCCCTCAGAGAGGCCTTTCAGACTGTATTGGTGATCACGTACCGAGAA
CCCCCAAATCCTGAGTATCAGGAATTCCAGAATCGTCTGCTGATAAGAGCCCGGGAAGACTTTGGTGTGGAGCTG
GGCCCTTCCCTGATGAACCTCATCGCTGGCTGCTTCTATGATGGGATCCTGCTATATGCTGAAGTCCTGAATGAG
ACAATACAGGAAGGAGGCACCCGGGAGGATGGACTTCGAATTGTGGAAAAGATGCAGGGACGAAGATATCACGGT
GTAACTGGGCTGGTTGTCATGGACAAGAACAATGACCGAGAGACTGACTTTGTCCTCTGGGCCATGGGAGACCTG
GATTCTGGGGACTTTCAGCCTGCAGCCCACTACTCGGGAGCTGAGAAGCAGATTTGGTGGACGGGACGGCCTATT
CCCTGGGTGAAGGGGGCTCCTCCCTCGGACAATCCCCCCTGTGCCTTTGACTTGGACGACCCATCCTGTGATAAA
ACTCCACTTTCAACCCTGGCAATTGTGGCTCTGGGCACAGGAATCACCTTCATCATGTTTGGTGTTTCCAGCTTC
CTAATTTTCCGAAAGCTGATGCTGGAGAAGGAGCTGGCTAGCATGTTGTGGCGTATTCGCTGGGAAGAACTGCAG
TTTGGCAACTCAGAGCGTTATCACAAAGGTGCAGGCAGTCGCCTCACACTGTCGCTGCGGGGATCCAGTTACGGC
TCGCTCATGACAGCCCATGGGAAATACCAGATCTTTGCCAACACCGGTCACTTCAAGGGAAATGTTGTCGCCATC
AAACATGTGAATAAGAAGCGCATTGAGCTGACCCGGCAGGTTCTGTTTGAACTCAAACATATGAGAGATGTTCAG
TTCAACCATCTCACTCGCTTCATTGGCGCCTGCATAGACCCTCCCAACATTTGCATTGTCACTGAATACTGTCCT
CGTGGGAGTTTACAGGATATTCTAGAAAATGACAGCATCAACTTGGACTGGATGTTTCGTTATTCACTCATTAAT
GACCTTGTTAAGGGCATGGCCTTTCTCCACAACAGCATTATTTCATCGCATGGGAGTCTCAAGTCCTCCAACTGT
GTGGTGGATAGTCGTTTTGTGCTCAAAATCACAGACTATGGCCTGGCCAGCTTCCGATCAACTGCTGAACCTGAT
GACAGCCATGCCCTCTATGCCAAGAAGCTGTGGACTGCCCCAGAACTGCTCAGTGGGAACCCCTTGCCAACCACA
GGCATGCAGAAGGCTGACGTCTATAGCTTTGGGATCATCCTGCAGGAGATAGCACTTCGCAGTGGTCCTTTCTAC
TTGGAGGGCCTGGACCTCAGCCCCAAAGAGATTGTCCAGAAGGTACGAAATGGTCAGCGGCCATATTTCCGGCCA
AGCATTGACCGGACCCAACTGAATGAAGAGCTAGTTTTGCTGATGGAGCGATGTTGGGCTCAGGACCCAGCTGAG
CGGCCAGACTTTGGACAGATTAAGGGCTTCATTCGGCGCTTTAACAAGGAGGGTGGCACCAGCATATTGGACAAC
CTCCTGCTGCGCATGGAACAGTATGCCAATAACTTGGAGAAGCTGGTGGAGGAACGCACACAGGCCTATCTGGAG
GAAAAACGCAAGGCTGAAGCTCTGCTCTACCAAATCCTACCCCATTCAGTGGCAGAGCAGTTAAAACGGGGAGAG
ACTGTACAGGCTGAGGCCTTTGACAGTGTTACCATCTACTTCAGTGACATTGTTGGCTTCACAGCATTGTCAGCA
GAGAGCACCCCCATGCAGGTAGTGACACTTCTTAATGACCTGTATACCTGCTTTGATGCCATAATTGACAACTTT
GATGTCTACAAGGTGGAGACGATTGGGGATGCTTACATGGTGGTATCTGGCCTCCCAGGCCGAAATGGTCAACGC
CATGCACCAGAAATTGCTCGTATGGCCCTAGCATTACTAGATGCAGTTTCTTCCTTTCGCATCCGCCACCGACCC
CATGACCAGCTGAGGCTACGCATAGGGGTCCATACTGGTAAGGCTGACTCTCACTCCAGCCCTAGTCTCCACCTT
TCCCAGACTCTCCCAACCTGTTTCTTCTCAAAGGGCCAGTCTGTGCTGGGGTTGTTGGCCTGAAGATGCCCCGTT
ATTGTCTTTTTGGAGACACAGTGAACACTGCTTCTCGAATGGAGTCTAATGGTCAAGCGCTGAAGATCCATGTCT
CCTCTACCACCAAGGATGCCCTAGATGAGCTAGGATGCTTCCAGCTAGAGCTTCGGGGGGATGTGGAAATGAAGG
GAAAAGGAAAGATGCGAACATACTGGCTCTTAGGAGAGCGGAAAGGACCTCCTGGACTCCTGTAAACCCCCATTC
TTTCCAAGTCAGATAGTCTTCTGCTGCTGGTACCTGGGTGGGCAATGGCCACCATGTCTGCACACACCAGAAATG
GACATTTTCATATGCAATGGAAAACAGCCACAAAAAAACCTACCTTATATGGAAGTTGTAGCCCTCTGCAGCTCA
GCCCTGTACATATACCTGTCCCTCTCTGGCTTGGTCCCCTTCCTCCCTACTTTCTGTAAATATCTGTATCTAAAC
CAGAATATTTTGGTCAAATATAAAACAATAAT

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FIGURE 1876

GTCTGAAG**ATG**GAGACCAACGAGTCTACGGAGGGATCGCGGTCGCGGTCGCGATCTTTAGACATACAGCCCAGCT
CCGAAGGACTGGGGCCCACTTCGGAACCGTTTCCTTCTTCAGATGACAGTCCCAGGTCGGCCCTGGCAGCTGCAA
CCGCAGCAGCTGCAGCGGCTGCATCAGCTGCTGCAGCTACTGCAGCCTTCACCACTGCCAAAGCAGCTGCATTAT
CTACAAAGACCCCAGCGCCCTGTTCTGAGTTCATGGAGCCGTCCTCTGACCCCAGCCTTCTTGGGGAGCCCTGTG
CGGGACCCGGCTTTACCCACAATATAGCCCATGGGAGTCTTGGCTTTGAGCCCGTCTATGTTTCCTGTATTGCTC
AGGACACTTGCACTACAACTGACCATAGTTCTAATCCTGGCCCTGTTCCAGGCTCTAGCTCTGGGCCTGTTCTTG
GTTCCAGCTCAGGTGCTGGCCATGGCTCTGGCTCTGGCTCTGGTCCTGGCTGTGGCTCTGTCCCTGGCTCTGGCT
CTGGTCCTGGTCCTGGCTCTGGTCCTGGCTCTGGTCCTGGTCATGGCTCTGGCTCTCATCCTGGTCCTGCCTCTG
GGCCTGGTCCAGACACTGGCCCTGACTCTGAGCTCAGCCCCTGTATTCCTCCAGGGTTCAGAAACCTGGTGGCAG
ATCGGGTCCCTAACTATACCTCCTGGAGTCAGCACTGCCCCTGGGAGCCCCAGAAACAACCACCTTGGGAATTTT
TGCAAGTCTTAGAACCGGGTGCCCGAGGACTATGGAAACCCCCAGACATTAAAGGGAAGCTTATGGTTTGCTATG
AAACTTTGCCGCGGGGCCAGTGCCTCCTCTACAACTGGGAGGAAGAGAGAGCCACCAACCACCTGGATCAAGTCC
CAAGCATGCAGGATGGCTCTGAGAGTTTTTTCTTCCGACACGGACACCGGGGACTGCTGACTATGCAACTAAAGT
CACCCATGCCCTCCAGCACCACCCAGAAAGACTCGTACCAGCCACCAGGAAACGTCTATTGGCCACTTCGAGGGA
AGCGTGAAGCCATGCTGGAGATGCTCCTGCAGCATCAGATCTGTAAAGAGGTGCAGGCAGAACAGGAACCCACAA
GGAAGCTCTTCGAGGTTGAGTCTGTGACACACCATGACTACCGAATGGAGCTGGCACAAGCAGGGACTCCTGCCC
CAACAAAGCCTCACGACTACCGCCAGGAGCAACCTGAGACCTTCTGGATACAGAGGGCACCACAGCTGCCGACAT
GGTGGCCATTGCCCACCCAGGTACCAGCAGCAGAAGACTATCTGACTTGGAAAGAATGGGGGTTTACAGGAGTCC
AGGAGGTCCTTTCCGCTCTCCTAAGAGCCACACCTGGTGAATACTCAGTAAACATTTGCGGAATGAATGAACACC
CTGTCTGCAGCAGGACATGGACAAATAGGCTCTGCCATCAGGAAATGGGAAGCAAGAAAACGGTAACTCAAGAGG
ACAGAGGCTGG**TGA**GGAGGTAAAGCAGGCCCAGTGAAATGGACCTGACAGCCCAAACTGTCAGAGAGGAGGAAAG
CAGGCATTTGATTTTGGTAATTGTGCCAAAGCTATGTAAGAGAATAAATGCCATTGTTTTAAGGA

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FIGURE 1877

AAAAAGAAATCAAGAATGCAATTTTATTTACAATAGTCACGCCAAAAATACCTAGAAATAAATTTAACTGAGGAT
GTAAAAGACCTCTACAAGGAGAGTTCAATCGGTAGCGGGAGCGGAGAGCTGACCCCAGAGAGCCCTGGGCAGCCC
CACCTCCGCCGCCGGCCTAGTTACCATCACACCCCGGGAGAAGCCGCAGCTGCCGCAGCCGGCCCCAGTCACCAT
CACCGCAACTATGAGCAGCGAGGCCGAGACCCAGCAGCCGCCCGCCGCTCCCCCACGCCGCCCCCGCCCTCAGCG
CCGCCGACACCCACCCCAGCACTGCAGGCAGCGGCGCAGGAAGCGGTGGCCCGGGCGGCCTCACATCGGCGGCGC
CTGCCGGCGGGGACAAGAAGGTCATCGCAACGAAGGTTTTGGGAACAGTAAAATGGTTCAGTGTAAGGAACGGAT
ATGGTTTCATCAACAGGAATGACACCAAGGAAGATGTATTTGTACACCAGACTGCCAGAAAGAAGAATAACCCCA
GGAAGTACCTTCGCAGTGTAGGAGATGGAGAGACTGTGGAGTTTGATGTTGTTGAAGGAGAAAAGGGTGCGGAGG
CAGCAAATGTTACAGGGCCTGGTGGTGTTCCAGTTCAAGGCAGTACATATGCAGCAGACCGTAACCATTATAGAC
GCTATCCACGTCGTAGGGTCCTCCACGCAATTACCAGCAAAATTACCAGAATAGTGAGAGTGGGGAAAAGAACGA
GGGATCGGAGAGTGCTCCCGCAGGCCAAGCCCAACAACGCCGGCCCTACCGCAGGCGAAGGTTCCCACCTTACTA
C**ATG**CGGAGACCCTATGGGCGTCGACCACAGTATTCCAACCCTCCTGTGCAGGGTGAAGTGATGGAGGGTGCTGA
CAACCAGGGTGCAGGAGAACAAGGTAGACCAGTGAGGCAGAATACGTATCGGGGATATAGACCACGATTCCGCAG
GGGCCCTCCACGCCAAAGACAGCCTAGAGAGGACGGCAATGATGAAGATAAAGAAAATCAAGGAGATGAGACCCA
AGGTCAGCAGCCACCTCAACGTCGGTACCGCCGCAACTTCAATTGCCGACGCAGACACCCAGAAAACCCTAAACC
ACAAGATGGCAAAGAGACAAAAGCAGCCGATCCACCAGCTGAGAATTCGTCCACTCCTGAGGCTGAGCGGGGCAG
GACTGAG**TAA**ATGCCAGCTTACCATCTCTACCATCATCCGGTTTAGTCATCCAACAGGAAGAAATATGAAATTCC
AGCTATAAGAAATGAACAAAAGATTGGAGCTGAAGACCTTAAGTGCTTGCTTTTTGCCCGTTGACCAGATAAATA
GAACTATCTGCATTATCTATGCAGCATGGGATTTTTATTATTTTTACCTAAAGACGTCTCTTTTTTGGTAATAACA
AACGTGTTTTTTTAAAAAAGCCTGGTTTTTTTCAATACGCCTTTAAAGG

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FIGURE 1878

GGTAGCAGGAGGCTGGAAGAAAGGACAGAAGTAGCTCTGGCTGTG**ATG**GGGATCTTACTGGGCCTGCTACTCCTG
GGGCACCTAACAGTGGACACTTATGGCCGTCCCATCCTGGAAGTGCCAGAGAGTGTAACAGGACCTTGGAAAGGG
GATGTGAATCTTCCCTGCACCTATGACCCCCTGCAAGGCTACACCCAAGTCTTGGTGAAGTGGCTGGTACAACGT
GGCTCAGACCCTGTCACCATCTTTCTACGTGACTCTTCTGGAGACCATATCCAGCAGGCAAAGTACCAGGGCCGC
CTGCATGTGAGCCACAAGGTTCCAGGAGATGTATCCCTCCAATTGAGCACCCTGGAGATGGATGACCGGAGCCAC
TACACGTGTGAAGTCACCTGGCAGACTCCTGATGGCAACCAAGTCGTGAGAGATAAGATTACTGAGCTCCGTGTC
CAGAAACTCTCTGTCTCCAAGCCCACAGTGACAACTGGCAGCGGTTATGGCTTCACGGTGCCCCAGGGAATGAGG
ATTAGCCTTCAATGCCAGGCTCGGGGTTCTCCTCCCATCAGTTATATTTGGTATAAGCAACAGACTAATAACCAG
GAACCCATCAAAGTAGCAACCCTAAGTACCTTACTCTTCAAGCCTGCGGTGATAGCCGACTCAGGCTCCTATTTC
TGCACTGCCAAGGGCCAGGTTGGCTCTGAGCAGCACAGCGACATTGTGAAGTTTGTGGTCAAAGACTCCTCAAAG
CTACTCAAGACCAAGACTGAGGCACCTACAACCATGACATACCCCTTGAAAGCAACATCTACAGTGAAGCAGTCC
TGGGACTGGACCACTGACATGGATGGCTACCTTGGAGAGACCAGTGCTGGGCCAGGAAAGAGCCTGCCTGTCTTT
GCCATCATCCTCATCATCTCCTTGTGCTGTATGGTGGTTTTTACCATGGCCTATATCATGCTCTGTCGGAAGACA
TCCCAACAAGAGCATGTCTACGAAGCAGCCAGGGCACATGCCAGAGAGGCCAACGACTCTGGAGAAACCATGAGG
GTGGCCATCTTCGCAAGTGGCTGCTCCAGTGATGAGCCAACTTCCCAGAATCTGGGCAACAACTACTCTGATGAG
CCCTGCATAGGACAGGAGTACCAGATCATCGCCCAGATCAATGGCAACTACGCCCGCCTGCTGGACACAGTTCCT
CTGGATTATGAGTTTCTGGCCACTGAGGGCAAAAGTGTCTGT**TAA**AAATGCCCCATTAGGCCAGGATCTGCTGAC
ATAATTGCCTAGTCAGTCCTTGCCTTCTGCATGGCCTTCTTCCCTGCTACCTCTCTTCCTGGATAGCCCAAAGTG
TCCGCCTACCAACACTGGAGCCGCTGGGAGTCACTGGCTTTGCCCTGGAATTTGCCAGATGCATCTCAAGTAAGC
CAGCTGCTGGATTTGGCTCTGGGCCCTTCTAGTATCTCTGCCGGGGGCTTCTGGTACTCCTCTCTAAATACCAGA
GGGAAGATGCCCATAGCACTAGGACTTGGTCATCATGCCTACAGACACTATTCAACTTTGGCATCTTGCCACCAG
AAGACCCGAGGGAGGCTCAGCTCTGCCAGCTCAGAGGACCAGCTATATCCAGGATCATTTCTCTTTCTTCAGGGC
CAGACAGCTTTTAATTGAAATTGTTATTTCACAGGCCAGGGTTCAGTTCTGCTCCTCCACTATAAGTCTAATGTT
CTGACTCTCTCCTGGTGCTCAATAAATATCTAATCATAACAGC

FIGURE 1879

CAGTAGTGCTAGCAGCTTCGCGGTTCGGTCCTCGGACCCGGCAGCCACCACTGGTGCTGAGCTGCTAGGAAGCCC
CTATCGGCGAGCTCTTTGGAGCTTGAACCCATTGTCACTCCTCCGACTCACCGGAAAAAACAAAAAATGGGTGAA
GCAGATCGCCTAGGAAAGTTTTTCATTGGTGGGCTTAATACGGAAACAAATAAGAAAGCTCTTGAAGCAGTATTT
GGCAAATATGGACAAATAGTGGAAGTACACTTGATGAAAGACTGTGAAACCAACAAATCAAGAGGATTTGCTTTT
ATCACCTTTGAAAGACCAGCAGACGCTAAGGATGCAGCCAGAGACATGAATGGAAAGTCATTAG**ATG**GAAAAGCC
ATCAAGGTGGAACAAGCCACCAAACCGTCATTTGAAAGTGGTAGACGTGGACCGCCTCCACCTCCAAGAAGTAGA
GGCCCTCCAAGAGTTCTTAGAGGTGGAAGAGGAGGAAGTGGAGGAACCAGGGAACCTCCCTCACGGGGAGGACAC
ATGGATGACTGGTGGATATTCCATGAATTTTAACATGAGTTCTTCCAGGGGACCACTCCCAGTAAAAAGAGGACC
ACCACCAAGAAGTGGGGGTCTTCCTCCTAAGAGATCTGCACCTTCAGGACCAGTTCGCAGTAGCAGTGGAATGGG
AGGAAGAGCTCCTGTATCACGTGGAAGAGATAGTTACCGAGGTCCACCTCGAAGGGAATCGCTGCCCTCTTGTAG
AGAGCTCCACCTACACGAGGGCGCCCCCATCTTATGGTGGAAGCAGTCGCTA**TGA**TGATTACAGCAGCTCACGTG
ACGGATATGGTGGAAGTCGAGACAGTTACTCAAGCAGTCGAAGTGATCTCTACTCAAGTGGTCGTGATCAGGTTG
GCAGACAAGAAAGAGGGCTTCCCCCTTCTATGGAAAGGGGGTACCCTCCTCCACGTGATTCCTACAGCAGTTCAA
GCCGTGGAACACCAAGAGGTGGTGGCCGTGGAGGAAGCCGATCTGATAGAGGGGGAGGCAGAAGCAGATACTAGA
AACAAACAAAACTTTGTACCAAAATCCCAGTTCAAAGAAACAAAAAGTGGAAACTATTCTATCATAACTACCCAA
GAACTACTAAAAGGAAAAATTGTGTTACCTTTTTTAAAATTCCCTGTTAAGCTCCCCTCCATAATTTTTATGTTC
TTGTGAGGAAAAAAAGTAAAACATGTTTAATTTTATTTGACTTTTGCATTGCTTTTCAACAAGCAAATGTTAAAT
GTGTTAAGACTTATACTAGTGTTGTAACTTTCCAAGTAAAAGTATCCCTAAAGGCCACTTCCTATCTGATTTTTC
CCAGTAAATGAGGCAGGCAATTCTAAGATCTTCCACAAAACATCTAGCCATCTAAAATGGAGAGATGAATCATTC
TACCTACACAAACAAGCTAGCTATTAGAGGGTGGTTGGGATATGCTACTCATAAGATTTCAGGGTGTCTTCCAAC
TGAAATCTCAATGTTCTTAGTATGAAAAACCTGAAATCGCATGCCTATTCACCCAGTAAACCCAAAAAAGCAAAT
GGATAATGCTGGCCATTCTGCCTTTCTGACATTTCCTTGGGAATCTGCAAGAACCTCCCCTTTCCCCTCCCCCAA
TAAGACCATTTAAGTGTGTGCTAAACAACTAAGAATACTAAATAAAATGTTTGGCCAAAACC

FIGURE 1880A

GGCCAGCCGAATCCAAGCCGTGTGTACTGCGTGCTCAGCACTGCCCGACAGTCCTAGCTAAACTTCGCCAACTCC
GCTGCCTTTGCCGCCACC**ATG**CCCAAAACGATCAGTGTGCGTGTGACCACCATGGATGCAGAGCTGGAGTTTGCC
ATCCAGCCCAACACCACCGGGAAGCAGCTATTTGACCAGGTGGTGAAAACTATTGGCTTGAGGGAAGTTTGGTTC
TTTGGTCTGCAGTACCAGGACACTAAAGGTTTCTCCACCTGGCTGAAACTCAATAAGAAGGTGACTGCCCAGGAT
GTGCGGAAGGAAAGCCCCCTGCTCTTTAAGTTCCGTGCCAAGTTCTACCCTGAGGATGTGTCCGAGGAATTGATT
CAGGACATCACTCAGCGCCTGTTCTTTCTGCAAGTGAAAGAGGGCATTCTCAATGATGATATTTACTGCCCGCCT
GAGACCGCTGTGCTGCTGGCCTCGTATGCTGTCCAGTCTAAGTATGGCGACTTCAATAAGGAAGTGCATAAGTCT
GGCTACCTGGCCGGAGACAAGTTGCTCCCGCAGAGAGTCCTGGAACAGCACAAACTCAACAAGGACCAGTGGGAG
GAGCGGATCCAGGTGTGGCATGAGGAACACCGTGGCATGCTCAGGGAGGATGCTGTCCTGGAATATCTGAAGATT
GCTCAAGATCTGGAGATGTATGGTGTGAACTACTTCAGCATCAAGAACAAGAAAGGCTCAGAGCTGTGGCTGGGG
GTGGATGCCCTGGGTCTCAACATCTATGAGCAGAATGACAGACTAACTCCCAAGATAGGCTTCCCCTGGAGTGAA
ATCAGGAACATCTCTTTCAATGATAAGAAATTTGTCATCAAGCCCATTGACAAAAAAGCCCCGGACTTCGTCTTC
TATGCTCCCCGGCTGCGGATTAACAAGCGGATCTTGGCCTTGTGCATGGGGAACCATGAACTATACATGCGCCGT
CGCAAGCCTGATACCATTGAGGTGCAGCAGATGAAGGCACAGGCCCGGGAGGAGAAGCACCAGAAGCAGATGGAG
CGTGCTATGCTGGAAAATGAGAAGAAGAAGCGTGAAATGGCAGAGAAGGAGAAAGAGAAGATTGAACGGGAGAAG
GAGGAGCTGATGGAGAGGCTGAAGCAGATCGAGGAACAGACTAAGAAGGCTCAGCAAGAACTGGAAGAACAGACC
CGTAGGGCTCTGGAACTTGAGCAGGAACGGAAGCGTGCCCAGAGCGAGGCTGAAAAGCTGGCCAAGGAGCGTCAA
GAAGCTGAAGAGGCCAAGGAGGCCTTGCTGCAGGCCTCCCGGGACCAGAAAAAGACTCAGGAACAGCTGGCCTTG
GAAATGGCAGAGCTGACAGCTCGAATCTCCCAGCTGGAGATGGCCCGACAGAAGAAGGAGAGTGAGGCTGTGGAG
TGGCAGCAGAAGGCCCAGATGGTACAGGAAGACTTGGAGAAGACCCGTGCTGAGCTGAAGACTGCCATGAGTACA
CCTCATGTGGCAGAGCCTGCTGAGAATGAGCAGGATGAGCAGGATGAGAATGGGGCAGAGGCTAGTGCTGACCTA
CGGGCTGATGCTATGGCCAAGGACCGCAGTGAGGAGGAACGTACCACTGAGGCAGAGAAGAATGAGCGTGTGCAG
AAGCACCTGAAGGCCCTCACTTCGGAGCTGGCCAATGCCAGAGATGAGTCCAAGAAGACTGCCAATGACATGATC
CATGCTGAGAACATGCGACTGGGCCGAGACAAATACAAGACCCTGCGCCAGATCCGGCAGGGCAACACCAAGCAG
CGCATTGACGAATTTGAGTCTATG**TAA**TGGGCACCCAGCCTCTAGGGACCCCTCCTCCCTTTTTCCTTGTCCCCA
CACTCCTACACCTAACTCACCTAACTCATACTGTGCTGGAGCCACTAACTAGAGCAGCCCTGGAGTCATGCCAAG
CATTTAATGTAGCCATGGGACCAAACCTAGCCCCTTAGCCCCCACCCACTTCCCTGGGCAAATGAATGGCTCACT
ATGGTGCCAATGGAACCTCCTTTCTCTTCTCTGTTCCATTGAATCTGTATGGCTAGAATATCCTACTTCTCCAGC
CTAGAGGTACTTTCCACTTGATTTTGCAAATGCCCTTACACTTACTGTTGTCCTATGGGAGTCAAGTGTGGAGTA
GGTTGGAAGCTAGCTCCCCTCCTCTCCCCTACCACTGTCTTCTTCAGGGTCCTGAGATTTACACGGTTGGAGTGT
TATGCGGTCTAGGGAATGAGACAGGACCTAGGATATCTTCTCCAGGATGTCAACTGACCTAAAATTTGCCCTCCC
ATCCCGTTTAGAGTTATTTAGGCTTTGTAACGATTGGGGGATAAAAAGATGTTCAGTCATTTTTGTTTCTACCTC
CCAGATCGGATCTGTTGCAAACTCAGCCTCAATAAGCCTTGTCGTTGACTTTAGGGACTCAATTTCTCCCCAGGG
TGGATGGGGGAAATGGTGCCTTCAAGACCTTCACCAAACATACTAGAAGGGCATTGGCCATTCTATTGTGGCAAG
GCTGAGTAGAAGATCCTACCCCAATTCCTTGTAGGAGTATAGGCCGGTCTAAAGTGAGCTCTATGGGCAGATCTA
CCCCTTACTTATTATTCCAGATCTGCAGTCACTTCGTGGGATCTGCCCCTCCCTGCTTCAATACCCAAATCCTCT
CCAGCTATAACAGTAGGGATGAGTACCCAAAAGCTCAGCCAGCCCCATCAGGACTCTTGTGAAAAGAGAGGATAT
GTTCACACCTAGCGTCAGTATTTTCCCTGCTAGGGGTTTTAGGTCTCTTCCCCTCTCAGAGCTACTTGGGCCATA
GCTCCTGCTCCACAGCCATCCCAGCCTTGGCATCTAGAGCTTGATGCCAGTAGGCTCAACTAGGGAGTGAGTGCA
AAAAGCTGAGTATGGTGAGAGAAGCCTGTGCCCTGATCCAAGTTTACTCAACCCTCTCAGGTGACCAAAATCCCC
TTCTCATCACTCCCCTCCAAAGAGGTGACTGGGCCCTGCCTCTGTTTGACAAACCTCTAACCCAGGTCTTGACAC
CAGCTGTTCTGTCCCTTGGAGCTGTAAACCAGAGAGCTGCTGGGGATTCTGGCCTAGTCCCTTCCACACCCCCAC
CCCTTGCTCTCAACCCAGGAGCATCCACCTCCTTCTCTGTCTCATGTGTGCTCTTCTTCTTTCTACAGTATTATG
TACTCTACTGATATCTAAATATTGATTTCTGCCTTCCTTGCTAATGCACCATTAGAAGATATTAGTCTTGGGGCA
GGATGATTTTGGCCTCATTACTTTACCACCCCCACACCTGGAAAGCATATACTATATTACAAAATGACATTTTGC
CAAAATTATTAATATAAGAAGCTTTCAGTATTAGTGATGTCATCTGTCACTATAGGTCATACAATCCATTCTTAA
AGTACTTGTTATTTGTTTTTATTATTACTGTTTGTCTTCTCCCCAGGGTTCAGTCCTCAAGGGGCCATCCTGTCC
CACCATGCAGTGCCCCTAGCTTAGAGCCTCCCTCAATTCCCCCTGGCCACCACCCCCCACTCTGTGCCTGACCTT

FIGURE 1880B

GAGGAGTCTTGTGTGCATTGCTGTGAATTAGCTCACTTGGTGATATGTCCTATATTGGCTAAATTGAAACCTGGA
ATTGTGGGGCAATCTATTAATAGCTGCCTTAAAGTCAGTAACTTACCCTTAGGGAGGCTGGGGGAAAAGGTTAGA
TTTTGTATTCAGGGGTTTTTTGTGTACTTTTTGGGTTTTTTAAAAATTGTTTTTGGAGGGGTTTATGCTCAATCC
ATGTTCTATTTCAGTGCCAATAAAATTTAGGAAGACTTC

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FIGURE 1881A

AGAGGAACAGCTGCCCCCTGGGTTCCCTTCCATCGACATGGGGCCTCAGCTGAAGGTGGTGGAGAAGGCACGCAC
AGCCACCATGCTATGTGCCGCAGGCGGAAATCCAGACCCTGAGATTTCTTGGTTCAAGGACTTCCTTCCTGTAGA
CCCTGCCACGAGCAACGGCCGCATCAAGCAGCTGCGTTCAGGTGCCTTGCAGATAGAGAGCAGTGAGGAATCCGA
CCAAGGCAAGTACGAGTGTGTGGCGACCAACTCGGCAGGCACACGTTACTCAGCCCCTGCGAACCTGTATGTGCG
AGTGCGCCGCGTGGCTCCTCGTTTCTCCATCCCTCCCAGCAGCCAGGAGGTGATGCCAGGCGGCAGCGTGAACCT
GACATGCGTGGCAGTGGGTGCACCCATGCCCTACGTGAAGTGGATGATGGGGGCCGAGGAGCTCACCAAGGAGGA
TGAGATGCCAGTTGGCCGCAACGTCCTGGAGCTCAGCAATGTCGTACGCTCTGCCAACTACACCTGTGTGGCCAT
CTCCTCGCTGGGCATGATCGAGGCCACAGCCCAGGTCACAGTGAAAGCTCTTCCAAAGCCTCCGATTGATCTTGT
GGTGACAGAGACAACTGCCACCAGTGTCACCCTCACCTGGGACTCTGGGAACTCGGAGCCTGTAACCTACTATGG
CATCCAGTACCGCGCAGCGGGCACGGAGGGCCCCTTTCAGGAGGTGGATGGTGTGGCCACCACCCGCTACAGCAT
TGGCGGCCTCAGCCCTTTCTCGGAATATGCCTTCCGCGTGCTGGCGGTGAACAGCATCGGGCGAGGGCCGCCCAG
CGAGGCAGTGCGGGCACGCACGGGAGAACAGGCGCCCTCCAGCCCACCGCGCCGCGTGCAGGCACGCATGCTGAG
CGCCAGCACCATGCTGGTGCAGTGGGAGCCTCCCGAGGAGCCCAACGGCCTGGTGCGGGGATACCGCGTCTACTA
TACTCCGGACTCCCGCCGCCCCCCGAACGCCTGGCACAAGCACAACACCGACGCGGGGCTCCTCACGACCGTGGG
CAGCCTGCTGCCTGGCATCACCTACAGCCTGCGCGTGCTTGCCTTCACCGCCGTGGGCGATGGCCCTCCCAGCCC
CACCATCCAGGTCAAGACGCAGCAGGGAGTGCCTGCCCAGCCCGCGGACTTCCAGGCCGAGGTGGAGTCGGACAC
CAGGATCCAGCTCTCGTGGCTGCTGCCCCCTCAGGAGCGGATCATCATGTATGAACTGGTGTACTGGGCGGCAGA
GGACGAAGACCAACAGCACAAGGTGACCTTCGACCCAACCTCCTCCTACACACTAGAGGACCTGAAGCCTGACAC
ACTCTACCGCTTCCAGCTGGCTGCACGCTCGGATATGGGGGTGGGCGTCTTCACCCCCACCATTGAGGCCCGCAC
AGCCCAGTCCACCCCCTCCGCCCCTCCCCAGAAGGTGATGTGTGTGAGCATGGGCTCCACCACGGTCCGGGTAAG
TTGGGTCCCGCCGCCTGCCGACAGCCGCAACGGCGTTATCACCCAGTACTCCGTGGCCTACGAGGCGGTGGACGG
CGAGGACCGCGGGCGGCATGTGGTGGATGGCATCAGCCGTGAGCACTCCAGCTGGGACCTGGTGGGCCTGGAGAA
GTGGACGGAGTACCGGGTGTGGGTGCGGGCACACACAGACGTGGGCCCCGGCCCCGAGAGCAGCCCGGTGCTGGT
GCGCACCGATGAGGACGTGCCCAGCGGGCCTCCGCGGAAGGTGGAGGTGGAGCCACTGAACTCCACTGCTGTGCA
TGTCTACTGGAAGCTGCCTGTCCCCAGCAAGCAGCATGGCCAGATCCGCGGCTACCAGGTCACCTACGTGCGGCT
GGAGAATGGCGAGCCCCGTGGACTCCCCATCATCCAAGACGTCATGCTAGCCGAGGCCCAGTGGCGGCCAGAGGA
GTCCGAGGACTATGAAACCACTATCAGCGGCCTGACCCCGGAGACCACCTACTCCGTTACTGTTGCTGCCTATAC
CACCAAGGGGGATGGTGCCCGCAGCAAGCCCAAAATTGTCACTACAACAGGTGCAGTCCCAGGCCGGCCCACCAT
GATGATCAGCACCACGGCCATGAACACTGCGCTGCTCCAGTGGCACCCACCCAAGGAACTGCCTGGCGAGCTGCT
GGGCTACCGGCTGCAGTACTGCCGGGCCGACGAGGCGCGGCCCAACACCATAGATTTCGGCAAGGATGACCAGCA
CTTCACAGTCACCGGCCTGCACAAGGGGACCACCTACATCTTCCGGCTTGCTGCCAAGAACCGGGCTGGCTTGGG
TGAGGAGTTCGAGAAGGAGATCAGGACCCCCGAGGACCTGCCCAGCGGCTTCCCCCAAAACCTGCATGTGACAGG
ACTGACCACGTCTACCACAGAACTGGCCTGGGACCCGCCAGTGCTGGCGGAGAGGAACGGGCGCATCATCAGCTA
CACCGTGGTGTTCCGAGACATCAACAGCCAACAGGAGCTGCAGAACATCACGACAGACACCCGCTTTACCCTTAC
TGGCCTCAAGCCAGACACCACTTACGACATCAAGGTCCGCGCATGGACCAGCAAAGGCTCTGGCCCACTCAGCCC
CAGCATCCAGTCCCGGACCATGCCGGTGGAGCAAGTGTTTGCCAAGAACTTCCGGGTGGCGGCTGCAATGAAGAC
GTCTGTGCTGCTCAGCTGGGAGGTTCCCGACTCCTATAAGTCAGCTGTGCCCTTTAAGATTCTGTACAATGGGCA
GAGTGTGGAGGTGGACGGGCACTCGATGCGGAAGCTGATCGCAGACCTGCAGCCCAACACAGAGTACTCGTTTGT
GCTGATGAACCGTGGCAGCAGCGCAGGGGGCCTGCAGCACCTGGTGTCCATCCGCACAGCCCCCGACCTCCTGCC
TCACAAGCCGCTGCCTGCCTCTGCCTACATAGAGGACGGCCGCTTCGATCTCTCCATGCCCCATGTGCAAGACCC
CTCGCTTGTCAGGTGGTTCTACATTGTTGTGGTGCCCATTGACCGTGTGGGCGGGAGCATGCTGACGCCAAGGTG
GAGCACACCCGAGGAACTGGAGCTGGACGAGCTTCTAGAAGCCATCGAGCAAGGCGGAGAGGAGCAGCGGCGGCG
GCGGCGGCAGGCAGAACGTCTGAAGCCATATGTGGCTGCTCAACTGGATGTGCTCCCGGAGACCTTTACCTTGGG
GGACAAGAAGAACTACCGGGGCTTCTACAACCGGCCCCTGTCTCCGGACTTGAGCTACCAGTGCTTTGTGCTTGC
CTCCTTGAAGGAACCCATGGACCAGAAGCGCTATGCCTCCAGCCCCTACTCGGATGAGATCGTGGTCCAGGTGAC
ACCAGCCCAGCAGCAGGAGGAGCCGGAGATGCTGTGGGTGACGGGTCCCGTGCTGGCAGTCATCCTCATCATCCT
CATTGTCATCGCCATCCTCTTGTTCAAAAGGAAAAGGACCCACTCTCCGTCCTCTAAGGATGAGCAGTCGATCGG
ACTGAAGGACTCCTTGCTGGCCCACTCCTCTGACCCTGTGGAGATGCGGAGGCTCAACTACCAGACCCCAGGTAT

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FIGURE 1881B

GCGAGACCACCCACCCATCCCCATCACCGACCTGGCGGACAACATCGAGCGCCTCAAAGCCAACGATGGCCTCAA
GTTCTCCCAGGAGTATGAGTCCATCGACCCTGGACAGCAGTTCACGTGGGAGAATTCAAACCTGGAGGTGAACAA
GCCCAAGAACCGCTATGCGAATGTCATCGCCTACGACCACTCTCGAGTCATCCTTACCTCTATCGATGGCGTCCC
CGGGAGTGACTACATCAATGCCAACTACATCGATGGCTACCGCAAGCAGAATGCCTACATCGCCACGCAGGGCCC
CCTGCCCGAGACCATGGGTGATTTCTGGAGGATGGTGTGGGAACAGCGCACGGCCACTGTGGTCATGATGACACG
GCTGGAGGAGAAGTCCCGGGTAAAATGTGATCAGTACTGGCCAGCCCGTGGCACCGAGACCTGTGGCCTTATTCA
GGTGACCCTGTTGGACACAGTGGAGCTGGCCACATACACTGTGCGCACCTTCGCACTCCACAAGAGTGGCTCCAG
TGAGAAGCGCGAGCTGCGTCAGTTTCAGTTCATGGCCTGGCCAGACCATGGAGTTCCTGAGTACCCAACTCCCAT
CCTGGCCTTCCTACGACGGGTCAAGGCCTGCAACCCCCTAGACGCAGGGCCCATGGTGGTGCACTGCAGCGCGGG
CGTGGGCCGCACCGGCTGCTTCATCGTGATTGATGCCATGTTGGAGCGGATGAAGCACGAGAAGACGGTGGACAT
CTATGGCCACGTGACCTGCATGCGATCACAGAGGAACTACATGGTGCAGACGGAGGACCAGTACGTGTTCATCCA
TGAGGCGCTGCTGGAGGCTGCCACGTGCGGCCACACAGAGGTGCCTGCCCGCAACCTGTATGCCCACATCCAGAA
GCTGGGCCAAGTGCCTCCAGGGGAGAGTGTGACCGCCATGGAGCTCGAGTTCAAGTTGCTGGCCAGCTCCAAGGC
CCACACGTCCCGCTTCATCAGCGCCAACCTGCCCTGCAACAAGTTCAAGAACCGGCTGGTGAACATCATGCCCTA
CGAATTGACCCGTGTGTGTCTGCAGCCCATCCGTGGTGTGGAGGGCTCTGACTACATCAATGCCAGCTTCCTGGA
TGGTTATAGACAGCAGAAGGCCTACATAGCTACACAGGGGCCTCTGGCAGAGAGCACCGAGGACTTCTGGCGCAT
GCTATGGGAGCACAATTCCACCATCATCGTCATGCTGACCAAGCTTCGGGAGATGGGCAGGGAGAAATGCCACCA
GTACTGGCCAGCAGAGCGCTCTGCTCGCTACCAGTACTTTGTTGTTGACCCGATGGCTGAGTACAACATGCCCCA
GTATATCCTGCGTGAGTTCAAGGTCACGGATGCCCGGGATGGGCAGTCAAGGACAATCCGGCAGTTCCAGTTCAC
AGACTGGCCAGAGCAGGGCGTGCCCAAGACAGGCGAGGGATTCATTGACTTCATCGGGCAGGTGCATAAGACCAA
GGAGCAGTTTGGACAGGATGGGCCTATCACGGTGCACTGCAGTGCTGGCGTGGGCCGCACCGGGGTGTTCATCAC
TCTGAGCATCGTCCTGGAGCGCATGCGCTACGAGGGCGTGGTCGACATGTTTCAGACCGTGAAGACCCTGCGTAC
ACAGCGTCCTGCCATGGTGCAGACAGAGGACCAGTATCAGCTGTGCTACCGTGCGGCCCTGGAGTACCTCGGCAG
CTTTGACCACTATGCAACGTAACTACCGCTCCCCTCTCCTCCGCCACCCCCGCCGTGGGGCTCCGGAGGGGACCC
AGCTCCTCTGAGCCATACCGACCATCGTCCAGCCCTCCTACGCAGATGCTGTCACTGGCAGAGCACAGCCCACGG
GGATCACAGCGTTTCAGGAACGTTGCCACACCAATCAGAGAGCCTAGAACATCCCTGGGCAAGTGGATGGCCCAG
CAGGCAGGCACTGTGGCCCTTCTGTCCACCAGACCCACCTGGAGCCCGCTTCAAGCTCTCTGTTGCGCTCCCGCA
TTTCTCATGCTTCTTCTCATGGGGTGGGGTTGGGGCAAAGCCTCCTTTTTAATACATTAAGTGGGGTAGACTGAG
GGATTTTAGCCTCTTCCCTCTGATTTTTCCTTTCGCGAATCCGTATCTGCAGAATGGGCCACTGTAGGGGTTGGG
GTTTATTTTGTTTTGTTTTTTTTTTTCTTGAGTTCACTTTGGATCCTTATTTTGTATGACTTCTGCTGAAGGACA
GAACATTGCCTTCCTCGTGCAGAGCTGGGGCTGCCAGCCTGAGCGGAGGCTCGGCCGTGGGCCGGGAGGCAGTGC
TGATCCGGCTGCTCCTCCAGCCCTTCAGACGAGATCCTGTTTCAGCTAAATGCAGGGAAACTCAATGTTTTTTTA
AGTTTTGTTTTCCCTTTAAAGCCTTTTTTTAGGCCACATTGACAGTGGTGGGCGGGGAGAAGATAGGGAACACTC
ATCCCTGGTCGTCTATCCCAGTGTGTGTTTAACATTCACAGCCCAGAACCACAGATGTGTCTGGGAGAGCCTGGC
AAGGCATTCCTCATCACCATCGTGTTTGCAAAGGTTAAAACAAAAACAAAAAACCACAAAAATAAAAAACAAAAA
AAACAAAAAACCCAAGAAAAAAAAAAAGAGTCAGCCCTTGGCTTCTGCTTCAAACCCTCAAGAGGGGAAGCAACT
CCGTGTGCCTGGGGTTCCCGAGGGAGCTGCTGGCTGACCTGGGCCCACAGAGCCTGGCTTTGGTCCCCAGCATTG
CAGTATGGTGTGGTGTTTGTAGGCTGTGGGGTCTGGCTGTGTGGCCAAGGTGAATAGCACAGGTTAGGGTGTGTG
CCACACCCCATGCACCTCAGGGCCAAGCGGGGGCGTGGCTGGCCTTTCAGGTCCAGGCCAGTGGGCCTGGTAGCA
CATGTCTGTCCTCAGAGCAGGGGCCAGATGATTTTCCTCCCTGGTTTGCAGCTGTTTTCAAAGCCCCCGATAATC
GCTCTTTTCCACTCCAAGATGCCCTCATAAACCAATGTGGCAAGACTACTGGACTTCTATCAATGGTACTCTAAT
CAGTCCTTATTATCCCAGCTTGCTGAGGGGCAGGGAGAGCGCCTCTTCCTCTGGGCAGCGCTATCTAGATAGGTA
AGTGGGGGCGGGGAAGGGTGCATAGCTGTTTTAGCTGAGGGACGTGGTGCCGACGTCCCCAAACCTAGCTAGGCT
AAGTCAAGATCAACATTCCAGGGTTGGTAATGTTGGATGATGAAACATTCATTTTTACCTTGTGGATGCTAGTGC
TGTAGAGTTCACTGTTGTACACAGTCTGTTTTCTATTTGTTAAGAAAAACTACAGCATCATTGCATAATTCTTGA
TGGTAATAAATTTGAATAATCAGATTTCTTAC

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FIGURE 1882

AGTTACAGACAGCTGACC**ATG**GAAGCGAATGGGTTGGGACCTCAGGGTTTTCCGGAGCTGAAGAATGACACATTC
CTGCGAGCAGCCTGGGGAGAGGAAACAGACTACACTCCCGTTTGGTGCATGCGCCAGGCAGGCCGTTACTTACCA
GAGTTTAGGGAAACCCGGGCTGCCCAGGACTTTTTCAGCACGTGTCGCTCTCCTGAGGCCTGCTGTGAACTGACT
CTGCAGCCACTGCGTCGCTTCCCTCTGGATGCTGCCATCATTTTCTCCGACATCCTTGTTGTACCCCAGGCACTG
GGCATGGAGGTGACCATGGTACCTGGCAAAGGACCCAGCTTCCCAGAGCCATTAAGAGAAGAGCAGGACCTAGAA
CGCCTACGGGATCCAGAAGTGGTAGCCTCTGAGCTAGGCTATGTGTTCCAAGCCATCACCCTTACCCGACAACGA
CTGGCTGGACGTGTGCCGCTGATTGGCTTTGCTGGTGCCCCATGGACCCTGATGACATACATGGTTGAGGGTGGT
GGCTCAAGCACCATGGCTCAGGCCAAGCGCTGGCTCTATCAGAGACCTCAGGCTAGTCACCAGCTGCTTCGCATC
CTCACTGATGCTCTGGTCCCATATCTGGTAGGACAAGTGGTGGCTGGTGCCCAGGCATTGCAGCTGTTTGAGTCC
CATGCAGGGCATCTTGGCCCACAGCTCTTCAACAAGTTTGCACTGCCTTACATCCGTGATGTGGCCAAGCAAGTG
AAGGCCAGGTTGCGGGAGGCAGGCCTGGCACCAGTGCCCATGATCATCTTTGCTAAGGATGGGCATTTTGCCCTG
GAGGAGCTGGCCCAAGCTGGCTATGAGGTGGTTGGGCTTGACTGGACAGTGGCCCCAAAGAAAGCCCGGGAGTGT
GTGGGGAAGACGGTGACATTGCAGGGCAACCTGGACCCCTGTGCCTTGTATGCATCTGAGGAGGAGATCGGGCAG
TTGGTGAAGCAGATGCTGGATGACTTTGGACCACATCGCTACATTGCCAACCTGGGCCATGGGCTTTATCCTGAC
ATGGACCCAGAACATGTGGGCGCCTTTGTGGATGCTGTGCATAAACACTCACGTCTGCTTCGACAGAAC**TGA**GTG
TATACCTTTACCCTCAAGTACCACTAACACAGATGATTGATCGTTTCCAGGACAATAAAAGTTTCGGAGTTGAAC
TATTGTGTAGTTTTGTTTGTGAAAGATTGTGCCCATATCCTCAGTTCTTCTTAGCCTCTGCTCCTTCCCTGGGAA
CCCTCTCTATATCCTCTT

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FIGURE 1883

CTGTCCTCCTGCAGAGGTGGCTGTGGTCCTGGACCTATGGGCCCTTCCCTTCCCCCAACATTGAGCCTTGTGTGT
CTGCATGGAGGAGGTTCCCAAGGTCTCATAGTATAAGCTGTTCAAGGGTCAGAGAAGCCCCCAGGTCCTGCCTTT
TCCTGTCCCTTTATGTTGGGGAGTTGGGGGTGTTACAGGTATGCTAAACTCTTTAGCTGCAGTCTATCTACCCAT
GCCAGATTCATCAAGATCCTCGATAGTGTCCTGCACCACCTGGTACCTGCCTGGGACCACACACTGGGCACCTTC
AGTGAGATTAAGCAAGTGAAGCAGTTCCTACTGCTGTCCCGCCAGCGGCCAGGCCTGGTGGCTCAGTGCCTGCGT
GACTCTGAGAGCAGCAAGCCCAGCTTCATGCCACGCCTATACATCAACCGCCGTCTTGCCATGGAACACCGTGCC
TGCCCCTCTCGAGACCCTGCCTGCAAGAATGCAGTCTTCACCCAGGTATATGAAGGCCTCAAGCCCTCTGACAAA
TATGAAAAGCCCCTGGACTACAGGTGGCCCATGCGCTATGACCAGTGGTGGGAGTGTAAATTTATTGCAGAAGGC
ATCATTGACCAAGGGGGTGGTTTCCGGGACAGCCTGGCAGATATGTCAGAAGAGCTGTGCCCTAGCTCAGCGGAT
ACCCCCGTGCCCCTGCCCTTCTTTGTACGCACAGCCAACCAGGGCAATGGCACTGGTGAGGCTCGGGACATGTAT
GTACCCAACCCCTCCTGCCGAGACTTTGCCAAGTATGAATGGATCGGACAGCTGATGGGGGCTGCCCTTCGGGGT
AAGGAGTTCCTGGTCCTGGCCCTGCCTGGTTTTGTGTGGAAGCAGCTTTCTGGTGAGGAGGTGAGCTGGAGCAAG
GACTTCCCAGCTGTGGACTCTGTGCTGGTGAAGCTCCTGGAAGTG**ATG**GAAGGAATGGACAAGGAGACGTTTGAG
TTCAAGTTTGGGAAGGAACTAACATTCACCACTGTACTGAGTGACCAACAGGTGGTGGAGCTGATCCCTGGGGGT
GCAGGCATCGTCGTGGGATATGGGGACCGTTCTCGTTTCATCCAACTGGTCCAGAAGGCACGGCTAGAGGAGAGC
AAGGAGCAGGTGGCAGCTATGCAGGCAGGTCTGCTGAAGGTGGTACCACAGGCTGTGCTGGACTTGCTGACCTGG
CAAGAGTTGGAGAAGAAAGTGTGTGGGGATCCAGAGGTCACTGTGGATGCTCTGCGCAAGCTCACCCGGTTTGAG
GACTTCGAGCCATCTGACTCGCGGGTGCAGTATTTCTGGGAGGCACTGAACAACTTCACCAACGAGGACCGGAGC
CGCTTCCTGCGCTTTGTCACGGGCCGCAGTCGCCTGCCAGCACGGATCTACATCTACCCAGACAAGCTGGGCTAC
GAGACCACAGACGCGCTGCCCGAGTCTTCCACTTGCTCCAGCACCCTCTTCCTGCCACACTATGCCAGTGCCAAG
GTATGCGAGGAGAAGCTCCGCTATGCGGCCTACAACTGCGTGGCCATCGACACTGACATGAGCCCTTGGGAGGAG
TGAGGCGTGCCGCCGGCTGTGGGACCAGCAAGACTGCACGTGTCCCTCTTGGCCTTGCCCAGGGCGAAGACACCT
TCCCTGCCCTGGTTTGGCTGACGTGCTCAGCAAAACCCCATGTGCCCTGCTCCTGTGTGCAGTTGGGGTAGGGGC
AGCTGGCATGGTCAGGTAACACTAGTGGCCCAGCCCCGCAGACCCACAAGCCCTACCCGTGCTGGGGCTTGCTTC
CCGAGGTATTTCACCTCTTAAGAGGGAATCTTCCACAAGCCCAGCACAAGCTGCCAGGCCTGAGCTACTTGAAGG
GGGCCATCTAGGTCCCCAACCCATGGACTTTGCCTCCATTTTCAGCTCCGCCTTTTTTCTCCTATTTTCTCTCTG
GCTTTCTTCAGCCATGACTCACAACTAAAAACATAAAACACTGGAGGTTAGTGGAGGCCCCTCCCCAAGCAGGGA
GCCTGGGATGGGCAGGGAGTGATAGCCAAACTCCTTGGTCACCTGCTCCAAGAAGGAAGCAGTAGCTGAGCACCT
GCCCTCACATTCTGCTCTTTTCCCCTCTCCCTCCATACCAGAGATGTGGTGAGCTCTGTTCTTCTACCAACCCAG
TCTCAACACACAAAGTGCCACCACCTTCCCTGACTCAGAACCCACATCCACTCAATGTGAACTCTACTACCACGA
CCTCCCCATATTCCTCACTTCTCCATCACCTCCAGCCTGACTCCCTGTCTGCCCTTTCACCCCCAAGATTTTGCA
CAGGTTAAGGCCAGTTATGGCCTTTTTGAAATCTGTAATAGCTCCCCTTTCCCCAACTCTAAAGCCTAGACCTTA
AACCTGTTCCTAGAGCTATGCACACCCCTGCCCCAGTTTACCGTTCCTCCCTCAGGGCCTCCGTGACACTCCATG
AAAAGAAGTTCTTGCATACCGGAAAGTTGAATAAATGGATGAATTC

FIGURE 1884

ATTGGGCTGTCAGTCAGAGGCGGCGTGGAGATCGCTGGGAGCGGTTGCGGCGTGCCGGGAGCTGAGTTATAGCTG
TGACTTCTGCCCTGCCAGGCCGCACACAAGCTGGCTGACCCGGTTTGTAAAA**ATG**GAATTTCAAGCAGTAGTGAT
GGCAGTAGGTGGAGGATCTCGGATGACAGACCTAACTTCCAGCATTCCCAAACCTCTGCTTCCAGTTGGGAACAA
ACCTTTAATTTGGTACCCATTGAACCTGCTTGAGCGTGTTGGATTTGAAGAAGTCATTGTGGTTACAACCAGGGA
TGTTCAAAAGGCTCTATGTGCAGAATTCAAGATGAAAATGAAGCCAGATATTGTGTGTATTCCTGATGACGCTGA
CATGGGAACTGCAGATTCTTTGCGCTACATATATCCAAAACTTAAGACAGATGTGCTGGTGCTGAGCTGTGATCT
GATAACAGACGTTGCCTTACATGAGGTTGTGGACCTGTTTAGAGCTTATGATGCATCACTTGCTATGTTGATGAG
AAAAGGCCAAGATAGCATAGAACCTGTTCCCGGTCAAAAGGGGAAAAAAAAAAGCAGTGGAGCAGCGTGACTTCAT
TGGAGTGGACAGCACAGGAAAGAGGCTGCTCTTCATGGCTAATGAAGCAGACTTGGATGAAGAGCTGGTCATTAA
GGGATCCATCCTACAGAAGCATCCTAGAATACGTTTCCACACGGGTCTTGTGGATGCCCACCTCTACTGTTTGAA
AAAATACATCGTGGATTTCCTAATGGAAAATGGGTCAATAACTTCTATCCGGAGTGAACTGATTCCATATTTAGT
GAGAAAACAGTTTTCCTCAGCTTCCTCACAACAGGGACAAGAAGAAAAAGAGGAGGATCTAAAGAAAAAGGAGCT
GAAGTCCTTAGATATCTACAGTTTTATAAAAGAAGCCAATACACTGAACCTGGCTCCCTATGATGCCTGCTGGAA
TGCCTGTCGAGGAGACAGGTGGGAAGACTTGTCCAGATCACAGGTGCGCTGCTATGTCCACATCATGAAAGAGGG
GCTCTGCTCTCGAGTGAGCACACTGGGACTCTACATGGAAGCAAACAGACAGGTGCCCAAATTGCTGTCTGCTCT
CTGTCCAGAAGAACCACCAGTCCATTCGTCAGCCCAGATTGTCAGCAAACACCTGGTTGGAGTTGACAGCCTCAT
TGGGCCAGAGACACAGATTGGAGAGAAGTCATCCATTAAGCGCTCAGTCATTGGCTCATCCTGTCTCATAAAAGA
TAGAGTGACTATTACCAATTGCCTTCTCATGAACTCAGTCACTGTGGAGGAAGGAAGCAATATCCAAGGCAGTGT
CATCTGCAACAATGCTGTGATCGAGAAGGGTGCAGACATCAAGGACTGCTTGATTGGAAGTGGCCAGAGGATTGA
AGCCAAAGCTAAACGAGTGAATGAGGTGATCGTGGGGAATGACCAGCTCATGGAGATC**TGA**GTTCTGAGCAAGTC
AGACTCCTTCCTTTTGGCCTCCAAAGCCACAGATGTTGGCCGGCCCACCTGTTTAACTCTGTATTTATTTCCCAA
TAAAGAAGGGCTTCCAAAGGCATGCTGGAGACTTGTGGAGCAGTCCAAAGCTCCATGTCAGGTGGGCTCCAGGTG
TACACAGTGTATGTTCATGTGTCATGTGGTAAAGATCATCTGGAGC

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FIGURE 1885

CACGGATGAAATTCAAGTTTCTGCTAAAAATAGAAGTATCCTTGAGTCAGGAAGGGAACAAGTGGAGGAAGATAA
GCATCCTGAAAGAAGGGGAGAATTTTGCATGGCCTTTATCTGGTTTTGATTAGTGGCGAATGTACTAGAAGCTGT
GCCTGCAGTTTGTGGTGAAGGTGCTGGATGTGGACTTGGTTTGTGAGGCCCTGCAGGTGGCCGTAACCTTTGGCC
TGGGGCAGCTGCAGGAGCGCTGCGTGGCTTTCATAGAGGCCCACAGCCAGGTACTGCTCCCTTCATACTCCTCAC
CCTACGCACCGCATTCTGCTCCTCCCTGACCCATTTGCCGGCTCGCAGGAGGCCCTCCGGACCCGAGGCTTCCTG
GAGCTGTCGGCGGCCGCGCTGCTGCCCCTGCTCCGCAGCGACAAGCTCTGCGTGGACGAGGCTGAACTGGTCCGC
GCGGCCCGAAGCTGGGCGCGCGTGGGCGCGGCGGTGCTGGAGCGGCCGGTGGCTGAGGTGGCGGCCCCGGTGGTG
AAAGAGCTGAGACTAGCCTTGCTGGCCCCGGCGGAGCTGAGCGCCCTGGAAGAGCAGAACCGGCAGGAACCACTC
ATCCCGGTGGAGCAGATTGTGGAGGCGTGGAAATGCCATGCCCTGCGGAGAGGGGATGAGGCCCGGGGCGCCCCG
TGTCGCCGCCGGAGAGGCACCCTGCCCCGGGAGCATCACCGCTTTCTGGACCTGTCCTTCAAATGATCCAACGCC
GGGACTCGCAGGGAGCCCTCGACCCGCCCAGCTGAGCCTGCCCCAAACTACAGCTCCCGAAGTGCTCGGCGTTCG
GAGCGGGCTTCCGTTCCCAGCGTGCCCAGTGAGCCGGGCGCCGGAAGAACCGTTGTCTGCCACGCGCAGCCCCTT
GTGCGGGATCAAGCCCGTGTGGGCGAGGTGGGGTCGGGCCGGGCAGGGCTTGGGCTGGGCCTCCCTGAGGGGGTG
AAACTCGAAAACGAGGATTTCCTTCGTTCCACACCCTGACTCTACGCCCTGCCCCTGGGCATTGTCGTCTACTAG
TCTATTCTG**ATG**ACTCCCACATATCTATCTGTTCAGCTCAGCTCCCTCTTTCTTTTCTTTTTCTTTCTCTTTCTT
TCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTTTCTTTCTTTCTCTTTCC
TTCCTTCCTTCCTTCCTTCCTTCTTTCTTTCTCTTTCTCTATCTCTTTCTTTCTTTCTTTCTTTCTCTCCTCTCT
CTTTTTTTTGAGACGGAGTCTCGCACTCTCGCCCAGGCCGGAGGGCAGTGGTGCCATCTCGGCTCACTGCAAGCT
CCGCCTCCCGGGTTCACGCCGTTCTCCTGCCTCAGCCTCCGGAGTAGCTGGTACTACAGGCGCCCATCACCACGC
CCGGCTAATTTTTTTGAATTTTTAGTAGAGACGGAGTTTCACCGTATTAGCCAGGATGGTCTCGATCTCCTGACC
TTG**TGA**TCCGCCCGCCTCGGCCTTTTTTTTTTTTTTTTTGAGACAGAGTCTTGCTCTGTCGTCGAGGCTGGAGTG
TAGTGGTGCGATTTCGGCTCACTTCAAACTCCGCCTCCCGGGTTCAAGCGATTCTCGTGCCTCAGCCTCCTGAGT
AGCTGGGATTACAGACATGCACCACAACGCCCGGCTAATTGTTGTATTTTTAGTAGAGACGGGGGTTTCACCATG
TTGGCCAGGTTGGTCTCGAACTCCTGACTTCATGTGATCCGCCAGCCTCGGCCTCCCAAAGTGCTGGGATTACAG
GTGTGCGCCACCATGCCCGGCCTCAGCTCCTTCTTTCATTCCAGACCTGCCCCCCTGGAGATCGCTCCCTGAATG
CCCCTCAGACACCACAGGCTCGGCGAGAAATTGATCTCCCCAGCTTTTCCCCAGCTCTGCCCCCATCGTGTTTCT
CATTTCCGTGGACACCCACGCCAGAAACCTGGATCTCATCCTTGCCTTATCGCTCTTCACACCTGCCTTAGGTCT
CTTTTTACCTTGTAAGAGACCTTAAGAGACCTTTCCAGTTGGTTCAGTTCTCTCAGCCCCAGGTTCAACCTGTCC
TGTCTGACACGTCTCACAGCCTTCCTGCCTTCACTCCAGCGCCCCCTCAATCCATTTCCCACAGTGCAGCCAGAC
CTGTTTTTGATTGTCAGTCCTATGGGGCTTAAGTCCTGGAACATCCCATTGACCTCCAGGACAAAATTCAATCTA
TTTCACTTTCAGGGC

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FIGURE 1886

CCGCCTCCGAGTGCCTTGCGCGGACCTGAGCTGGAG**ATG**CTGGCCGGGCTACCGACGTCAGACCCCGGGCGCCTC
ATCACGGACCCGCGCAGCGGCCGCACCTACCTCAAAGGCCGCTTGTTGGGCAAGGGGGGCTTCGCCCGCTGCTAC
GAGGCCACTGACACAGAGACTGGCAGCGCCTACGCTGTCAAAGTCATCCCGCAGAGCCGCGTCGCCAAGCCGCAT
CAGCGCGAGAAGATCCTAAATGAGATTGAGCTGCACCGAGACCTGCAGCACCGCCACATCGTGCGTTTTTCGCAC
CACTTTGAGGACGCTGACAACATCTACATTTTCTTGGAGCTCTGCAGCCGAAAGTCCCTGGCCCACATCTGGAAG
GCCCGGCACACCCTGTTGGAGCCAGAAGTGCGCTACTACCTGCGGCAGATCCTTTCTGGCCTCAAGTACTTGCAC
CAGCGCGGCATCTTGCACCGGGACCTCAAGTTGGGAAATTTTTTCATCACTGAGAACATGGAACTGAAGGTGGGG
GATTTTGGGCTGGCAGCCCGGTTGGAGCCTCCGGAGCAGAGGAAGAAGACCATCTGTGGCACCCCCAACTATGTG
GCTCCAGAAGTGCTGCTGAGACAGGGCCACGGCCCTGAGGCGGATGTATGGTCACTGGGCTGTGTCATGTACACG
CTGCTCTGCGGGAGCCCTCCCTTTGAGACGGCTGACCTGAAGGAGACGTACCGCTGCATCAAGCAGGTTCACTAC
ACGCTGCCTGCCAGCCTCTCACTGCCTGCCCGGCAGCTCCTGGCCGCCATCCTTCGGGCCTCACCCCGAGACCGC
CCCTCTATTGACCAGATCCTGCGCCATGACTTCTTTACCAAGGGCTACACCCCCGATCGACTCCCTATCAGCAGC
TGCGTGACAGTCCCAGACCTGACACCCCCCAACCCAGCTAGGAGTCTGTTTGCCAAAGTTACCAAGAGCCTCTTT
GGCAGAAAGAAGAAGAGTAAGAATCATGCCCAGGAGAGGGATGAGGTCTCCGGTTTGGTGAGCGGCCTCATGCGC
ACATCCGTTGGCCATCAGGATGCCAGGCCAGAGGCTCCAGCAGCTTCTGGCCCAGCCCCTGTCAGCCTGGTAGAG
ACAGCACCTGAAGACAGCTCACCCCGTGGGACACTGGCAAGCAGTGGAGATGGATTTGAAGAAGGTCTGACTGTG
GCCACAGTAGTGGAGTCAGCCCTTTGTGCTCTGAGAAATTGTATAGCCTTCATGCCCCCAGCGGAACAGAACCCG
GCCCCCCTGGCCCAGCCAGAGCCTCTGGTGTGGGTCAGCAAGTGGGTTGACTACTCCAATAAGTTCGGCTTTGGG
TATCAACTGTCCAGCCGCCGTGTGGCTGTGCTCTTCAACGATGGCACACATATGGCCCTGTCGGCCAACAGAAAG
ACTGTGCACTACAATCCCACCAGCACAAAGCACTTCTCCTTCTCCGTGGGTGCTGTGCCCCGGGCCCTGCAGCCT
CAGCTGGGTATCCTGCGGTACTTCGCCTCCTACATGGAGCAGCACCTCATGAAGGGTGGAGATCTGCCCAGTGTG
GAAGAGGTAGAGGTACCTGCTCCGCCCTTGCTGCTGCAGTGGGTCAAGACGGATCAGGCTCTCCTCATGCTGTTT
AGTGATGGCACTGTCCAGGTGAACTTCTACGGGGACCACACCAAGCTGATTCTCAGTGGCTGGGAGCCCCTCCTT
GTGACTTTTGTGGCCCGAAATCGTAGTGCTTGTACTTACCTCGCTTCCCACCTTCGGCAGCTGGGCTGCTCTCCA
GACCTGCGGCAGCGACTCCGCTATGCTCTGCGCCTGCTCCGGGACCGCAGCCCAGCC**TAG**GACCCAAGCCCTGAG
GCCTGAGGCCTGTGCCTGTCAGGCTCTGGCCCTTGCCTTTGTGGCCTTCCCCCTTCCTTTGGTGCCTCACTGGGG
GCTTTGGGCCGAATCCCCCAGGGAATCAGGGACCAGCTTTACTGGAGTTGGGGGCGGCTTGTCTTCGCTGGCTCC
TACCCCATCTCCAAGATAAGCCTGAGCCTTAGCTCCCAGCTAGGGGGCGTTATTTATGGACCACTTTTATTTATT
GTCAGACACTTATTTATTGGGATGTGAGCCCCAGGGGGGCCTCCTCCTAGGATAATAAACAATTTTGCA

FIGURE 1887

CACA**ATG**GTGCGCATGAATGCCCTGGCAGATGCTCTCAAGAGCATCAACAATGCCGAAAAGAGAGGCAAACGCCA
GGTGCTTCTTAGGCCATGCTCCAAAGTCATCGTCCAGTTTCTCACTGTGATGATGAAGCATGGTTACATTGGCGA
ATTTGAAATCACTGATGATCACAGAGCTGGGAAAATTGTTGTGAACCTCACAGGCAGGCTAAACAAGTGTGGAGC
GATCAGCCCCAGATTTGATGTGCAACTCAAAGATCTGGAAAAATGGCAGAATAATCTGCTTCCATCCCGCCAGTT
TGATTTCATTGTACTGACAACCTCAGCTGGCATCATGGACCATGAAGCAAGACGAAAACACACAGGAGGGAAAAT
CCAGGGATTCTTTTTC**TAG**GGATGTAATACATATATTTACAAATAAAATGCCTCAAGGAC

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FIGURE 1888

CTCTTTCCAGCCAGCGCCGAGCG**ATG**GGCATCTCTCGGGACAACTGGCACAAGCGCCGCAAAACCGGGGGCAAGA
GAAAGCCCTACCACAAGAAGCGGAAGTATGAGTTGGGGCGCCCAGCTGCCAACACCAAGATTGGCCCCCGCCGCA
TCCACACAGTCCGTGTGCGGGGAGGTAACAAGAAATACCGTGCCCTGAGGTTGGACGTGGGGAATTTCTCCTGGG
GCTCAGAGTGTTGTACTCGTAAAACAAGGATCATCGATGTTGTCTACAATGCATCTAATAACGAGCTGGTTCGTA
CCAAGACCCTGGTGAAGAATTGCATCGTGCTCATCGACAGCACACCGTACCGACAGTGGTACGAGTCCCACTATG
CGCTGCCCCTGGGCCGCAAGAAGGGAGCCAAGCTGACTCCTGAGGAAGAAGAGATTTTAAACAAAAAACGATCTA
AAAAAATTCAGAAGAAATATGATGAAAGGAAAAAGAATGCCAAAATCAGCAGTCTCCTGGAGGAGCAGTTCCAGC
AGGGCAAGCTTCTTGCGTGCATCGCTTCAAGGCCGGGACAGTGTGGCCGAGCAGATGGCTATGTGCTAGAGGGCA
AAGAGTTGGAGTTCTATCTTAGGAAAATCAAGGCCCGCAAAGGCAAA**TAA**ATCCTTGTTTTGTCTTCACCCATGT
AATAAAGGTGTTTATTGTTTTGTTCCCACA

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FIGURE 1889

ACGCTTGCGCGCGGGATTTAAACTGCGGCGGTTTACGCGGCGTTAAGACTTCGTAGGGTTAGCGAAATTGAGGTT
TCTTGGTATTGCGCGTTTCTCTTCCTTGCTGACTCTCCGAATGGCCATGGACTCGTCGCTTCAGGCCCGCCTGTT
TCCCGGTCTCGCTATCAAGATCCAACGCAGTAATGGTTTAATTCACAGTGCCAATGTAAGGACTGTGAACTTGGA
GAAATCCTGTGTTTCAGTGGAATGGGCAGAAGGAGGTGCCACAAAGGGCAAAGAGATTGATTTTGATGATGTGGC
TGCAATAAACCCAGAACTCTTACAGCTTCTTCCCTTACATCCGAAGGACAATCTGCCCTTGCAGGAAAATGTAAC
AATCCAGAAACAAAAACGGAGATCCGTCAACTCCAAAATTCCTGCTCCAAAAGAAAGTCTTCGAAGCCGCTCCAC
TCGCATGTCCACTGTCTCAGAGCTTCGCATCACGGCTCAGGAGAATGACATGGAGGTGGAGCTGCCTGCAGCTGC
AAACTCCCGCAAGCAGTTTTCAGTTCCTCCTGCCCCCACTAGGCCTTCCTGCCCTGCAGTGGCTGAAATACCATT
GAGGATGGTCAGCGAGGAGATGGAAGAGCAAGTCCATTCCATCCGAGGCAGCTCTTCTGCAAACCCTGTGAACTC
AGTTCGGAGGAAATCATGTCTTGTGAAGGAAGTGGAAAAAATGAAGAACAAGCGAGAAGAGAAGAAGGCCCAGAA
CTCTGAAATGAGAATGAAGAGAGCTCAGGAGTATGACAGTAGTTTTCCAAACTGGGAATTTGCCCGAATGATTAA
AGAATTTCGGGCTACTTTGGAATGTCATCCACTTACTATGACTGATCCTATCGAAGAGCACAGAATATGTGTCTG
TGTTAGGAAACGCCCACTGAATAAGCAAGAATTGGCCAAGAAAGAAATTGATGTGATTTCCATTCCTAGCAAGTG
TCTCCTCTTGGTACATGAACCCAAGTTGAAAGTGGACTTAACAAAGTATCTGGAGAACCAAGCATTCTGCTTTGA
CTTTGCATTTGATGAAACAGCTTCGAATGAAGTTGTCTACAGGTTCACAGCAAGGCCACTGGTACAGACAATCTT
TGAAGGTGGAAAAGCAACTTGTTTTGCATATGGCCAGACAGGAAGTGGCAAGACACATACTATGGGCGGAGACCT
CTCTGGGAAAGCCCAGAATGCATCCAAAGGGATCTATGCCATGGCCTCCCGGGACGTCTTCCTCCTGAAGAATCA
ACCCTGCTACCGGAAGTTGGGCCTGGAAGTCTATGTGACATTCTTCGAGATCTACAATGGGAAGCTGTTTGACCT
GCTCAACAAGAAGGCCAAGCTGCGCGTGCTGGAGGACGGCAAGCAACAGGTGCAAGTGGTGGGGCTGCAGGAGCA
TCTGGTTAACTCTGCTGATGATGTCATCAAGATGATCGACATGGGCAGCGCCTGCAGAACCTCTGGGCAGACATT
TGCCAACTCCAATTCCTCCCGCTCCCACGCGTGCTTCCAAATTATTCTTCGAGCTAAAGGGAGAATGCATGGCAA
GTTCTCTTTGGTAGATCTGGCAGGGAATGAGCGAGGCGCGGACACTTCCAGTGCTGACCGGCAGACCCGCATGGA
GGGCGCAGAAATCAACAAGAGTCTCTTAGCCCTGAAGGAGTGCATCAGGGCCCTGGGACAGAACAAGGCTCACAC
CCCGTTCCGTGAGAGCAAGCTGACACAGGTGCTGAGGGACTCCTTCATTGGGGAGAACTCTAGGACTTGCAGATT
GCCACGATCTCACCAGGCATAAGCTCCTGTGAATATACTTTAAACACCCTGAGATATGCAGACAGGGTCAAGGAG
CTGAGCCCCCACAGTGGGCCCAGTGGAGAGCAGTTGATTCAAATGGAAACAGAAGAGATGGAAGCCTGCTCTAAC
GGGGCGCTGATTCCAGGCAATTTATCCAAGGAAGAGGAGGAACTGTCTTCCCAGATGTCCAGCTTTAACGAAGCC
ATGACTCAGATCAGGGAGCTGGAGGAGAAGGCTATGGAAGAGCTCAAGGAGATCATACAGCAAGGACCAGACTGG
CTTGAGCTCTCTGAGATGACCGAGCAGCCAGACTATGACCTGGAGACCTTTGTGAACAAAGCGGAATCTGCTCTG
GCCCAGCAAGCCAAGCATTTCTCAGCCCTGCGAGATGTCATCAAGGCCTTGCGCCTGGCCATGCAGCTGGAAGAG
CAGGCTAGCAGACAAATAAGCAGCAAGAAACGGCCCCAGTGACGACTGCAAATAAAAATCTGTTTGGTTTGACAC
CCAGCCTCTTCCCTGGCCCTCCCCAGAGAACTTTGGGTACCTGGTGGGTCTAGGCAGGGTCTGAGCTGGGACAGG
TTCTGGTAAATGCCAAGTATGGGGGCATCTGGGCCCAGGGCAGCTGGGGAGGGGGTCAGAGTGACATGGGACACT
CCTTTTCTGTTCCTCAGTTGTCGCCCTCACGAGAGGAAGGAGCTCTTAGTTACCCTTTTGTGTTGCCCTTCTTTC
CATCAAGGGGAATGTTCTCAGCATAGAGCTTTCTCCGCAGCATCCTGCCTGCGTGGACTGGCTGCTAATGGAGAG
CTCCCTGGGGTTGTCCTGGCTCTGGGGAGAGAGACGGAGCCTTTAGTACAGCTATCTGCTGGCTCTAAACCTTCT
ACGCCTTTGGGCCGAGCACTGAATGTCTTGTACTTTAAAAAAATGTTTCTGAGACCTCTTTCTACTTTACTGTCT
CCCTAGAGATCCTAGAGGATCCCTACTGTTTTCTGTTTTATGTGTTTATACATTGTATGTAACAATAAAGAGAAA
AAATAAA

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FIGURE 1890

GTGCTCTGGGCCGGCGCCTTCACC**ATG**GCCTCGGCAGAGCTGGACTACACCATCGAGATCCCGGATCAGCCCTGC
TGGAGCCAGAAGAACAGCCCCAGCCCAGGTGGGAAGGAGGCAGAAACTCGGCAGCCTGTGGTGATTCTCTTGGGC
TGGGGTGGCTGCAAGGACAAGAACCTTGCCAAGTACAGTGCCATCTACCACAAAAGGGGCTGCATCGTAATCCGA
TACACAGCCCCGTGGCACATGGTCTTCTTCTCCGAGTCACTGGGTATCCCTTCACTTCGTGTTTTGGCCCAGAAG
CTGCTCGAGCTGCTCTTTGATTATGAGATTGAGAAGGAGCCCCTGCTCTTCCATGTCTTCAGCAACGGTGGCGTC
ATGCTGTACCGCTACGTGCTGGAGCTCCTGCAGACCCGTCGCTTCTGCCGCCTGCGTGTGGTGGGCACCATCTTT
GACAGCGCTCCTGGTGACAGCAACCTGGTAGGGGCTCTGCGGGCCCTGGCAGCCATCCTGGAGCGCCGGGCCGCC
ATGCTGCGCCTGTTGCTGCTGGTGGCCTTTGCCCTGGTGGTCGTCCTGTTCCACGTCCTGCTTGCTCCCATCACA
GCCCTCTTCCACACCCACTTCTATGACAGGCTACAGGACGCGGGCTCTCGCTGGCCCGAGCTCTACCTCTACTCG
AGGGCTGACGAAGTAGTCCTGGCCAGAGACATAGAACGCATGGTGGAGGCACGCCTGGCACGCCGGGTCCTGGCG
CGTTCTGTGGATTTCGTGTCATCTGCACACGTCAGCCACCTCCGTGACTACCCTACTTACTACACAAGCCTCTGT
GTCGACTTCATGCGCAACTGCGTCCGCTGC**TGA**GGCCATTGCTCCATCTCACCTCTGCTCCAGAAATAAATGCCT
GACACCTCCCCACAACCTGCAATCTGTCGGGCACTCTTCTCGTTCAACTCCCTGTAGCCCTTTGGGACTTTGCGG
TCCCCTAAGTAGAAAATTCCTATGGGCCTGTCTCCTGGGGGCCTCTGTCTGCTGGTGGTCTGCTTACCACAGAAT
CCTAAGGGGCAGGAGTGCCTGGGCATGTGTCTGTGGGAGCCTTGCAGTCAGTTGTGTTTGGACAAGTGCAACAGT
CAGGCTGCTGATTCCTGTGGCATGCAGGCTGTAGAGGTTGACAAATGGAGGGGGGTGTTGAGGGTGAGCCCTAGT
TGATTTTTTAAAATTTAAACTCTGGTAAGAACATTT

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FIGURE 1891

AGACCTTTCTGCGAGTACGAGCCAACCGGCAGACCCGACTGAATGCTCGGATTGGGAAA**ATG**AAACGGAGGAAGC
AAGATGAAGGGCAGAGGGAAGGCTCCTGCATGGCTGAGGATGATGCTGTGGACATCGAGCATGAGAACAACAACC
GCTTTGAGGAGTATGAGTGGTGTGGACAGAAGCGGATACGGGCCACCACTCTCCTGGAAGGTGGCTTCCGAGGCT
CTGGCTTCATCATGTGCAGCGGCAAAGAGAACCCGGACAGTGATGCTGACTTGGATGTGGATGGGGATGACACTC
TGGAGTATGGGAAGCCACAATACACAGAGGCTGATGTCATCCCCTGCACAGGCGAGGAGCCTGGTGAAGCCAAGG
AGAGAGAGGCACTTCGGGGCGCAGTCCTAAATGGCGGCCCTCCCAGCACGCGCATCACACCTGAGTTCTCTAAAT
GGGCCAGTGATGAGATGCCATCCACCAGCAATGGTGAAAGCAGCAAGCAGGAGGCCATGCAGAAGACCTGCAAGA
ACAGCGACATCGAGAAAATCACCGAAGATTCAGCTGTGACCACGTTTGAGGCTCTGAAGGCTCGGGTCAGAGAAC
TTGAACGGCAGCTATCTCGTGGGGACCGTTACAAATGCCTCATCTGCATGGACTCGTACTCGATGCCCCTAACGT
CCATCCAGTGTTGGCACGTGCACTGCGAGGAGTGCTGGCTGCGGACCCTGGTGAGGTGGCATGGGGGTCGGGGAA
TGGGAGGCCGCTCCGGGCACTGCCCAGATGTCTGTGCTTATGCC**TGA**GCCTGCCTGGGGGAAGTGGGGAGCATGG
CGCAAAGGAGAACAGAGCCAGGAGCCAGGATATTTACCCGCAGGATATTTACCCCCAGGCTCGCTGCCTCTCCTC
CCCAACTGCAGGTTTAGGAACTTCTCCCCCTCCATGAGTTCACTGCATTCTCCCTTCCCCGCCCCGGTCCCCGAA
GGCCCACTGCATCACACAGACTGGTGAGGCCTGGGGTCAGGAGGAGGCTGGCTGTAGGTAAACAGGACCAGGGCC
TTGGCCCCTCCCCCTCCCATTACTAAGCTCCTTCTGCTCCTGCCCCTGTTCTTCGCTCAGGAGCAGCCATTAAAA
TGTCGCCCGGAGACAGTAATAAAAGGCTCGGACGTGGGCTCTGTGTCCTGATCAAAGGCCGCGTGTAATCTCGTT
AGGGCTGCGGCTGCCACAGCTGGACCCAGCCTTGTTCTCATTACTGGGGCTCCTGCTGCGGGGCTGGCCAGGCGG
TTTGATCCTGGCGTCCCCCCAACACAGGAGCGTGCCTGCCTGCTCACAGAAGCTGCCTATGCGTCCCCAGCCTGG
GCTGACAGGACCAAGGTCTCAGCACACACTGGTGCAGAGAGACATGGCTGCAGGCCCAGGTGCTCACATGCGCAC
ACATGGCTCATTGTGTAGACCAGAGCCCTCCCTGTTCTCCCTGCAGGGTGCCAAGAAGCTCTGCCCTCAGTGCAA
CACGATCACAGCGCCCGGAGACCTGCGGAGGATCTACTTGTGAGCTATCTGCCCCAGGCAGGCCTCGCCTCCAGC
AGCCCCACCTGCCCCCAGCCTCTGTGACAGTGACCGTCTCCCTTTGTACATACTTGCACACAGGTTCCCCATGTA
CATACATGCACATACTCAAACATGCGTACACACACACACATTTACACACGCAGGACTCTGGAGCCAGAGTAGAGG
CTGTGGCCCAGGCACTACCTGCTGGCTCCCACCTATGGTTTGGGGGCCATACCTGTTCCAGCTCTGTTCCCAGGG
TGGGGCAGGGAGGTGGGGGTTGGGGGAGTAGTGGGGCACGGCTCCTAAGATCCAGCCCCCATACTGACAGACGGA
CAGACAGACATGCAAACACCAGACTGAAGCACATGTAATATAGACCGTGTATGTTTACAATGTTGTGTATAAATG
GGACAACTCCTCGCCCTCTACCTGTCCCCTCCCCCTTTGGTTGTATGATTTTCTTCTTTTTTAAGAACCCCTGGA
AGCAGCGCCTCCTTCAGGGTTGGCTGGGAGCTCGGCCCATCCACCTCTTGGGGTACCTGCCTCTCTCTCTCCTGT
GGTGTCCCTTCCCTCTCCCATGTGCTCGGTGTTCAGTGGTGTATATTTCTTCTCCCAGACATGGGGCACACGCCC
CAAGGGACATGATCCTCTCCTTAGTCTTAGCTCATGGGGCTCTTTATAAGGAGTTGGGGGGTAGAGGCAGGAAAT
GGGAACCGAGCTGAAGCAGAGGCTGAGTTAGGGGGCTAGAGGACAGTGCTCCTGGCCACCCAGCCTCTGCTGAGA
ACCATTCCTGGGATTAGAGCTGCCTTTCCCAGGGAAAAAGTGTCGTCTCCCCGACCCTCCCGTGGGCCCTGTGGT
GTGATGCTGTGTCTGTATATTCTATACAAAGGTACTTGTCCTTTCCCTTTGTAAACTACATTTGACATGGATTAA
ACCAGTATAAACAGTT

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FIGURE 1892

ATGCAAGAAAAGAAAAGAGAGCGTCAGGCGCGGCCTGCAGTCCTGGCCCCCGCCCCAGCACCGGACCCCCGACCA
AAGCTGCTCCGCCCCAAACAGCCCGTAAACAAACCTACTTCCTCCCTCCCGCCGGCCCCTCTGCTCCTCCGGCCG
CTCCGGGCTCTCGGCATAGCCGCCGGGCGCTGCTCTAACGGGACCCCGTGGCCGCTGCGCGGTGCCGCCCCAGCC
CTGGCCTCCGGCGCTCTGGGCCCCACGGCCGCCCGGCCGGCGAGGGCGGCGATGCGGGCGGATTCCCCGTGGCTG
CCCGGCGGCGGCGGCACTTCAGCTCCAAGCGGCGGCGGCGGCCATGTTGGCCCTAATCACGTGATCTGCCGCCGT
CGCGCGCTGGGGGTGAAAGTTCACAATGCGGCGGGGGCGGCCGGACAGAGACCAGGAAGCTGCCGTTTGTACTCG
GGTAGCAACCGGCAGAAGCCTCCCCGGGGTCCCTCCCACCGCCCG**TGA**

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FIGURE 1893

GGTTTTGCTCCGCTTTAGCAGCGGCGAAGGGAGGACCCCCGGGAGCCGGTCCCCGGCGTCCGGTCGCCCAGCCCT
TTTCAGGCTTGGGCCCGC**ATG**GAGGGGACCGTGGAGTCCCAGACGCCTGACCTGCGGGATGTGGAGGGTAAGGTG
GGCAGGAAGACCCCTGAAGGGCTGCTCCGCGGGCTGCGAGGCGAGTGTGAGCTGGGAACCTCTGGCGCCCTGCTG
CTCCCAGGGGCGTCTAGCACCGGCCACGACTTGGGGGACAAGATCATGGCGCTGAAGATGGAGCTGGCTTACCTG
CGAGCCATCGATGTGAAGATCCTGCAGCAGCTGGTGACCTTGAATGAGGGCATCGAGGCAGTGCGCTGGCTGTTG
GAGGAGCGGGGGACGTTGACCAGTCATTGCAGCAGCCTCACCAGCAGTCAATATAGCCTGACAGGCGGGAGCCCA
GGCCGCTCAAGGCGAGGCAGCTGGGACAGCCTGCCAGACACCAGCACCACCGACCGGCTGGACAGTGTCTCTATT
GGCAGCTTCCTGGACACAGTGGCCCCCAGCGAGCTGGATGAACAGGGCCCACCTGGGGCTCCACGTTCCGAGATG
GACTGGGCAAAAGTTATAGCTGGTGGAGAGAGGGCCAGGACTGAGGTGGATGTGGCAGCCACCAGGCTAGGGAGC
TTGAGAGCTGTGTGGAAGCCCCCAGGGGAGAGGCTTCAAGGTGGACCACCTGAGTCACCAGAGGATGAGAGTGCC
AAGCTGGGCTTCGAGGCCCACTGGTTCTGGGAGCAGTGCCAGGATGATGTGACCTTCTTG**TAA**CAACTATTCCAC
CCTTTTGTAATCCTGTGGCTCTTTTATCCATTAGATGTGGTCTCCCCCAAAATTGATTCTCCCTCAGTCTGAGAC
TAGGAAGAGGCTGCACTGAAATCAGTTACCATGGAAACCTGGCTCATCATTTCTCTAGTCCCTAGGGAGTCTCTG
CCTTTATCCCTCAATTATTGGGTCCCTAGAGCTAGCTTGCTCTTTCTTTCTTTCTTTCTTTTTTTGAGACAGGGT
CTTATGCTGTTACCCAAGATAGAGAGCAGTGGCATGATCACAGCTCACTGCAGCCTTGACCTCCTGGGCTCAAGC
GATCCTCCTATTTCAGCCTCCCCCATAGTTAGGACCACAGGCATGCACCACCATGCCCAGCTAATTGTTTATTTA
TTTATTTTTTTTTTGTAGAGATAGGGTTTCCCTGTGTTGCCCAGGCTGGTCTCAAACTCCTGGGCTCAAGGGATC
CTCCCGCCTCAGCCTCCCAAAGTGCTGGGATTATGCCCAGCCCCTAGAGATACTTCTATAGAGATATTGACTCTA
AAGGATTGACCTATGGCTTTTGGTATTTAGTATCTCTCACTACTCCCCCCAGCTAAGTAAGGATTTAAGGAATTT
AGGACTCCCTGGAGTTAACAGATGAAGAGATGGGGGCATAATTACTTCACCCAAAGTCTAGAAGCCTTGGCCTCT
CTCTTGGCCAAGATGGAGGATTGAGGAGGGACATGGACCTTCAGGACTAACCCTCTATGGATTGGCCCTCCCAGA
AGCGTTTGGGCTGGTAGACCCACCCCTTCCTACCTGCTGAGTGATGTCATTTCCTGCCAGGATGGGTAGCCCTTT
GTACGGGTCCTTGGATGGTAGTAGGTCATATAGGGGCATCTGAGCCCCTGCTGCTAAGTGAGATCACATTATTTA
TCGTCCATACCATTACTTCTTGTGAACAGTAACATGTCACTCCTCCTGGCAGGAAAGTTTCTCATTGTCAGATGT
TTGTGCTTCTTTTCAGGTCTTACTTTTTAAATAGAGTGTTCTCATTTTATCCTAGGGGATCTCACTTCCTCTGTG
GCTCCATCCCTGCATCCCTGTCTGGGCCAGCACTCCTGACTGCTTTTAGGGAGAGAAGCTTTCAGGGGCCTCCAT
TTATTTCTCTCAAGTCTGTTTGGCTCACCCTGCCATGGTCCCCTGTCTTACCCTGTCCCTGTGTTGCCCCTATTC
CTGTATTCCATTTTTTTGTTTTGTTTTGTTGTTTTTTTTGAGATAGGGTG

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FIGURE 1894

AAGCGTCATGGAGGAGGCGGAGACCGCGACGAGCCGGGCCGAGCAGTGAGGGCCCTAGAGGGGCCCGAGCGGGGC
CCGGGGCCCTTAAGCCATTCCTGAAGTCATGGGCTGGCCAGGACATTGGTGACCCGCCAATCCGGT**ATG**GACGAC
TGGAAGCCCAGCCCCCTCATCAAGCCCTTTGGGGCTCGGAAGAAGCGGAGCTGGTACCTTACCTGGAAGTATAAA
CTGACAAACCAGCGGGCCCTGCGGAGATTCTGTCAGACAGGGGCCGTGCTTTTCCTGCTGGTGACTGTCATTGTC
AATATCAAGTTGATCCTGGACACTCGGCGAGCCATCAGTGAAGCCAATGAAGACCCAGAGCCAGAGCAAGACTAT
GATGAGGCCCTAGGCCGCCTGGAGCCCCCACGGCGCAGAGGCAGTGGTCCCCGGCGGGTCCTGGACGTAGAGGTG
TATTCAAGTCGCAGCAAAGTATATGTGGCAGTGGATGGCACCACGGTGCTGGAGGATGAGGCCCGGGAGCAGGGC
CGGGGCATCCATGTCATTGTCCTCAACCAGGCCACGGGCCACGTGATGGCAAAACGTGTGTTTGACACGTACTCA
CCTCATGAGGATGAGGCCATGGTGCTATTCCTCAACATGGTAGCGCCCGGCCGAGTGCTCATCTGCACTGTCAAG
GATGAGGGCTCCTTCCACCTCAAGGACACAGCCAAGGCTCTGCTGAGGAGCCTGGGCAGCCAGGCTGGCCCTGCC
CTGGGCTGGAGGGACACATGGGCCTTCGTGGGACGAAAAGGAGGTCCTGTCTTCGGGGAGAAACATTCTAAATCA
CCTGCCCTCTCTTCCTGGGGGGACCCAGTCCTGCTGAAGACAGATGTGCCATTGAGCTCAGCAGAAGAGGCAGAG
TGCCACTGGGCAGACACAGAGCTGAACCGTCGCCGCCGGCGCTTCTGCAGCAAAGTTGAGGGCTATGGAAGTGTA
TGCAGCTGCAAGGACCCCACACCCATCGAGTTCAGCCCTGACCCACTCCCAGACAACAAGGTCCTCAATGTGCCT
GTGGCTGTCATTGCAGGGAACCGACCCAATTACCTGTACAGGATGCTGCGCTCTCTGCTTTCAGCCCAGGGGGTG
TCTCCTCAGATGATAACAGTTTTCATTGACGGCTACTATGAGGAACCCATGGATGTGGTGGCACTGTTTGGTCTG
AGGGGCATCCAGCATACTCCCATCAGCATCAAGAATGCCCGCGTGTCTCAGCACTACAAGGCCAGCCTCACTGCC
ACTTTCAACCTGTTTCCGGAGGCCAAGTTTGCTGTGGTTCTGGAAGAGGACCTGGACATTGCTGTGGATTTTTTC
AGTTTCCTGAGCCAATCCATCCACCTACTGGAGGAGGATGACAGCCTGTACTGCATCTCTGCCTGGAATGACCAG
GGGTATGAACACACGGCTGAGGACCCAGCACTACTGTACCGTGTGGAGACCATGCCTGGGCTGGGCTGGGTGCTC
AGGAGGTCCTTGTACAAGGAGGAGCTTGAGCCCAAGTGGCCTACACCGGAAAAGCTCTGGGATTGGGACATGTGG
ATGCGGATGCCTGAACAACGCCGGGGCCGAGAGTGCATCATCCCTGACGTTTCCCGATCCTACCACTTTGGCATC
GTCGGCCTCAACATGAATGGCTACTTTCACGAGGCCTACTTCAAGAAGCACAAGTTCAACACGGTTCCAGGTGTC
CAGCTCAGGAATGTGGACAGTCTGAAGAAAGAAGCTTATGAAGTGGAAGTTCACAGGCTGCTCAGTGAGGCTGAG
GTTCTGGACCACAGCAAGAACCCTTGTGAAGACTCTTTCCTGCCAGACACAGAGGGCCACACCTACGTGGCCTTT
ATTCGAATGGAGAAAGATGATGACTTCACCACCTGGACCCAGCTTGCCAAGTGCCTCCATATCTGGGACCTGGAT
GTGCGTGGCAACCATCGGGGCCTGTGGAGATTGTTTCGGAAGAAGAACCACTTCCTGATGGTGGGGGTCCCGGCT
TCCCCCTACTCAGTGAAGAAGCCACCCTCAGTCACCCCAATTTTCCTGGAGCCACCCCCAAAGGAGGAGGGAGCC
CCAGGAGCCCCAGAACAGACA**TGA**GACCTCCTCCAGGACCCTGCGGGGCTGGGCCTGGCTCAGAATCTAACCTAT
TTATTGACTGTCCTGAGGGCCTTGAAAACAGGCCGAACCTGGAGGGCCTGGATTTCTTTTTGGGCTGGAATGCTG
CCCTGAGGGTGGGGCTGGCTCTTACTCAGGAAACTGCTGTGCCCAACCCATGGACAGGCCCAGCTGGGGCCCACA
TGCTGACACAGACTCACTCAGAGACCCTTAGACACTGGACCAGGCCTCCTCTCAGCCTTCTCTTTGTCCAGATTT
CCAAAGCTGGATAAGTTGGTCATTGATTAAAAAAGGAGAAGCCCTCTGGG

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FIGURE 1895

ATGCAGTGCTTCAGCTTCATTAAGACCATGATGATCCTCTTCAATTTGCTCATCTTTCTGTGTGGTGCAGCCCTG
TTGGCAGTGGGCATCTGGGTGTCAATCGATGGGGCATCCTTTCTGAAGATCTTCGGGCCACTGTCGTCCAGTGCC
ATGCAGTTTGTCAACGTGGGCTACTTCCTCATCGCAGCCGGCGTTGTGGTCTTTGCTCTTGGTTTCCTGGGCTGC
TATGGTGCTAAGACTGAGAGCAAGTGTGCCCTCGTGACGTTCTTCTTCATCCTCCTCCTCATCTTCATTGCTGAG
GTTGCAGCTGCTGTGGTCGCCTTGGTGTACACCACAATGGCTGAGCACTTCCTGACGTTGCTGGTAGTGCCTGCC
ATCAAGAAAGATTATGGTTCCCAGGAAGACTTCACTCAAGTGTGGAACACCACCATGAAAGGGCTCAAGTGCTGT
GGCTTCACCAACTATACGGATTTTGAGGACTCACCCTACTTCAAAGAGAACAGTGCCTTTCCCCCATTCTGTTGC
AATGACAACGTCACCAACACAGCCAATGAAACCTGCACCAAGCAAAAGGCTCACGACCAAAAAGTAGAGGGTTGC
TTCAATCAGCTTTTGTATGACATCCGAACTAATGCAGTCACCGTGGGTGGTGTGGCAGCTGGAATTGGGGGCCTC
GAGCTGGCTGCCATGATTGTGTCCATGTATCTGTACTGCAATCTACAA**TAA**GTCCACTTCTGCCTCTGCCACTAC
TGCTGCCACATGGGAACTGTGAAGAGGCACCCTGGCAAGCAGCAGTGATTGGGGGAGGGGACAGGATCTAACAAT
GTCACTTGGGCCAGAATGGACCTGCCCTTTCTGCTCCAGACTTGGGGCTAGATAGGGACCACTCCTTTTAGGCGA
TGCCTGACTTTCCTTCCATTGGTGGGTGGATGGGTGGGGGGCATTCCAGAGCCTCTAAGGTAGCCAGTTCTGTTG
CCCATTCCCCCAGTCTATTAAACCCTTGATATGCCCCCTAGGCCTAGTGGTGATCCCAGTGCTCTACTGGGGGAT
GAGAGAAAGGCATTTTATAGCCTGGGC

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FIGURE 1896A

TAGGCAGGCGGCTGAGCCGGCGGCGGGTGGCCTGCCCAACGTGTGCTGGGTGGGAGAAGGCGAGGCGTCAGCGAT
GCTGTCTCTTCCGTGAGGAGCGCAGAGGAGGTCGCGGCGCCGGAGGCCCCAGAAGGCTCGAAGGCGCCGCGGGCT
GGGGTCGGTGGCTTAGGGAGCCCGTCCGGCCATGGTGGCCGCGGGTGGTGGTTGGCGCGGCTGCGCTGCGGCCCG
GGGCAGTGCGGAGCCGGGACAGTCGCGGCGCTGACGCCCGCGGGCCCCAGCTGCAGAT**ATG**AAGCGGAGCCGCTG
CCGCGACCGACCGCAGCCGCCGCCGCCCGACCGCCGGGAGGATGGAGTTCAGCGGGCAGCGGAGCTGTCTCAGTC
TTTGCCGCCGCGCCGGCGAGCGCCGCCCGGGAGGCAGCGGCTGGAGGAGCGGACGGGCCCCGCGGGGCCCGAGGG
CAAGGAGCAGGATGTAGTAACTGGAGTTAGTCCCCTGCTCTTCAGGAAACTCAGTAATCCTGACATATTTTCATC
CACTGGAAAAGTTAAACTTCAGCGACAACTGAGTCAGGATGATTGTAAGTTATGGAGAGGAAACCTGGCCAGCTC
TCTATCGGGTAAGCAGCTGCTCCCTTTGTCCAGCAGTGTACATAGCAGTGTGGGACAGGTGACTTGGCAGTCGTC
AGGAGAAGCATCAAACCTGGTTCGAATGAGAAACCAGTCCCTTGGACAGTCTGCACCTTCTCTTACTGCTGGCCT
GAAGGAGTTGAGCCTTCCAAGAAGAGGCAGCTTTTGTCGGACAAGTAACCGCAAGAGCTTGATTGTGACCTCTAG
CACATCACCTACACTACCACGGCCACACTCACCACTCCATGGCCACACAGGTAACAGTCCTTTGGACAGCCCCCG
GAATTTCTCTCCAAATGCACCTGCTCACTTTTCTTTTGTTCCTGCCCGTAGGACTGATGGGCGGCGCTGGTCTTT
GGCCTCTTTGCCCTCTTCAGGATATGGAACTAACACTCCTAGCTCCACTGTCTCATCATCATGCTCCTCACAGGA
AAAGCTGCATCAGTTGCCTTTCCAGCCTACAGCTGATGAGCTGCACTTTTTGACGAAGCATTTCAGCACAGAGAG
CGTACCAGATGAGGAAGGACGGCAGTCCCCAGCCATGCGGCCTCGCTCCCGGAGCCTCAGTCCCGGACGATCCCC
AGTATCCTTTGACAGTGAAATAATAATGATGAATCATGTTTACAAAGAAAGATTCCCAAAGGCCACCGCACAAAT
GGAAGAGCGACTAGCAGAGTTTATTTCCTCCAACACTCCAGACAGCGTGCTGCCCTTGGCAGATGGAGCCCTGAG
CTTTATTCATCATCAGGTGATTGAGATGGCCCGAGACTGCCTGGATAAATCTCGGAGTGGCCTCATTACATCACA
ATACTTCTACGAACTTCAAGATAATTTGGAGAAACTTTTACAAGATGCTCATGAGCGCTCAGAGAGCTCAGAAGT
GGCTTTTGTGATGCAGCTGGTGAAAAAGCTGATGATTATCATTGCCCGCCCAGCACGTCTCCTGGAATGCCTGGA
GTTTGACCCTGAAGAGTTCTACCACCTTTTAGAAGCAGCTGAGGGCCACGCCAAAGAGGGACAAGGGATTAAATG
TGACATTCCCCGCTACATCGTTAGCCAGCTGGGCCTCACCCGGGATCCCCTAGAAGAAATGGCCCAGTTGAGCAG
CTGTGACAGTCCTGACACTCCAGAGACAGATGATTCTATTGAGGGCCATGGGGCATCTCTGCCATCTAAAAAGAC
ACCCTCTGAAGAGGACTTCGAGACCATTAAGCTCATCAGCAATGGCGCCTATGGGGCTGTATTTCTGGTGCGGCA
CAAGTCCACCCGGCAGCGCTTTGCCATGAAGAAGATCAACAAGCAGAACCTGATCCTACGGAACCAGATCCAGCA
GGCCTTCGTGGAGCGTGACATACTGACTTTCGCTGAGAACCCCTTTGTGGTCAGCATGTTCTGCTCCTTTGATAC
CAAGCGCCACTTGTGCATGGTGATGGAGTACGTTGAAGGGGGAGACTGTGCCACTCTGCTGAAGAATATTGGGGC
CCTGCCTGTGGACATGGTGCGTCTATACTTTGCGGAAACTGTGCTGGCCCTGGAGTACTTACACAACTATGGCAT
CGTGCACCGTGACCTCAAGCCTGACAACCTCCTAATTACATCCATGGGGCACATCAAGCTCACGGACTTTGGACT
GTCCAAAATTGGCCTCATGAGTCTGACAACGAACTTGTATGAGGGTCATATTGAAAAGGATGCCCGGGAATTCCT
GGACAAGCAGGTATGCGGGACCCCAGAATACATTGCGCCTGAGGTGATCCTGCGCCAGGGCTATGGGAAGCCAGT
GGACTGGTGGGCCATGGGCATTATCCTGTATGAGTTCCTGGTGGGCTGCGTCCCTTTTTTTGGAGATACTCCGGA
GGAGCTCTTTGGGCAGGTGATCAGTGATGAGATTGTGTGGCCTGAGGGTGATGAGGCACTGCCCCCAGACGCCCA
GGACCTCACCTCCAAACTGCTCCACCAGAACCCTCTGGAGAGACTTGGCACAGGCAGTGCCTATGAGGTGAAGCA
GCACCCATTCTTTACTGGTCTGGACTGGACAGGACTTCTCCGCCAGAAGGCTGAATTTATTCCTCAGTTGGAGTC
AGAGGATGATACTAGCTATTTTGACACCCGCTCAGAGCGATACCACCACATGGACTCGGAGGATGAGGAAGAAGT
GAGTGAGGATGGCTGCCTTGAGATCCGCCAGTTCTCTTCCTGCTCTCCAAGGTTCAACAAGGTGTACAGCAGCAT
GGAGCGGCTCTCACTGCTCGAGGAGCGCCGGACACCACCCCCGACCAAGCGCAGCCTGAGTGAGGAGAAGGAGGA
CCATTCAGATGGCCTGGCAGGGCTCAAAGGCCGAGACCGGAGCTGGGTGATTGGCTCCCCTGAGATATTACGGAA
GCGGCTGTCGGTGTCTGAGTCATCCCACACAGAGAGTGACTCAAGCCCTCCAATGACAGTGCGACGCCGCTGCTC
AGGCCTCCTGGATGCGCCTCGGTTCCCGGAGGGCCCTGAGGAGGCCAGCAGCACCCTCAGGAGGCAACCACAGGA
GGGTATATGGGTCCTGACACCCCCATCTGGAGAGGGGGTATCTGGGCCTGTCACTGAACACTCAGGGGAGCAGCG
GCCAAAGCTGGATGAGGAAGCTGTTGGCCGGAGCAGTGGTTCCAGTCCAGCTATGGAGACCCGAGGCCGTGGGAC
CTCACAGCTGGCTGAGGGAGCCACAGCCAAGGCCATCAGTGACCTGGCTGTGCGTAGGGCCCGCCACCGGCTGCT
CTCTGGGGACTCAACAGAGAAGCGCACTGCTCGCCCTGTCAACAAAGTGATCAAGTCCGCCTCAGCCACAGCCCT
CTCACTCCTCATTCCTTCGGAACACCACACCTGCTCCCCGTTGGCCAGCCCCATGTCCCCACATTCTCAGTCGTC
CAACCCATCATCCCGGGACTCTTCTCCAAGCAGGGACTTCTTGCCAGCCCTTGGCAGCATGAGGCCTCCCATCAT

FIGURE 1896B

CATCCACCGAGCTGGCAAGAAGTATGGCTTCACCCTGCGGGCCATTCGCGTCTACATGGGTGACTCCGATGTCTA
CACCGTGCACCATATGGTGTGGCACGTGGAGGATGGAGGTCCGGCCAGTGAGGCAGGGCTTCGTCAAGGTGACCT
CATCACCCATGTCAATGGGGAACCTGTGCATGGCCTGGTGCACACGGAGGTGGTAGAGCTGATCCTGAAGAGTGG
AAACAAGGTGGCCATTTCAACAACTCCCCTGGAGAACACATCCATTAAAGTGGGGCCAGCTCGGAAGGGCAGCTA
CAAGGCCAAGATGGCCCGAAGGAGCAAGAGGAGCCGCGGCAAGGATGGGCAAGAAAGCAGAAAAAGGAGCTCCCT
GTTCCGCAAGATCACCAAGCAAGCATCCCTGCTCCACACCAGCCGCAGCCTTTCTTCCCTTAACCGCTCCTTGTC
ATCAGGGGAGAGTGGGCCAGGCTCTCCCACACACAGCCACAGCCTTTCCCCCCGATCTCCCACTCAAGGCTACCG
GGTGACCCCCGATGCTGTGCATTCAGTGGGAGGGAATTCATCACAGAGCAGCTCCCCCAGCTCCAGCGTGCCCAG
TTCCCCAGCCGGCTCTGGGCACACACGGCCCAGCTCCCTCCACGGTCTGGCACCCAAGCTCCAACGCCAGTACCG
CTCTCCACGGCGCAAGTCAGCAGGCAGCATCCCACTGTCACCACTGGCCCACACCCCTTCTCCCCCACCCCCAAC
AGCTTCACCTCAGCGGTCCCCATCGCCCCTGTCTGGCCATGTAGCCCAGGCCTTTCCCACAAAGCTTCACTTGTC
ACCTCCCCTGGGCAGGCAACTCTCACGGCCCAAGAGTGCGGAGCCACCCCGTTCACCACTACTCAAGAGGGTGCA
GTCGGCTGAGAAACTGGCAGCAGCACTTGCCGCCTCTGAGAAGAAGCTAGCCACTTCTCGCAAGCACAGCCTTGA
CCTGCCCCACTCTGAACTAAAGAAGGAACTGCCGCCCAGGGAAGTGAGCCCTCTGGAGGTAGTTGGAGCCAGGAG
TGTGCTGTCTGGCAAGGGGGCCCTGCCAGGGAAGGGGGTGCTGCAGCCTGCTCCCTCACGGGCCCTAGGCACCCT
CCGGCAGGACCGAGCCGAACGACGGGAGTCGCTGCAGAAGCAAGAAGCCATTCGTGAGGTGGACTCCTCAGAGGA
CGACACCGAGGAAGGGCCTGAGAACAGCCAGGGTGCACAGGAGCTGAGCTTGGCACCTCACCCAGAAGTGAGCCA
GAGTGTGGCCCCTAAAGGAGCAGGAGAGAGTGGGGAAGAGGATCCTTTCCCGTCCAGAGACCCTAGGAGCCTGGG
CCCAATGGTCCCAAGCCTATTGACAGGGATCACACTGGGGCCTCCCAGAATGGAAAGTCCCAGTGGTCCCCACAG
GAGGCTCGGGAGCCCACAAGCCATTGAGGAGGCTGCCAGCTCCTCCTCAGCAGGCCCCAACCTAGGTCAGTCTGG
AGCCACAGACCCCATCCCTCCTGAAGGTTGCTGGAAGGCCCAGCACCTCCACACCCAGGCACTAACAGCACTTTC
TCCCAGCACTTCGGGACTCACCCCCACCAGCAGTTGCTCTCCTCCCAGCTCCACCTCTGGGAAGCTGAGCATGTG
GTCCTGGAAATCCCTTATTGAGGGCCCAGACAGGGCATCCCCAAGCAGAAAGGCAACCATGGCAGGTGGGCTAGC
CAACCTCCAGGATTTGGAAAACACAACTCCAGCCCAGCCTAAGAACCTGTCTCCCAGGGAGCAGGGGAAGACACA
GCCACCTAGTGCCCCCAGACTGGCCCATCCATCTTATGAGGATCCCAGCCAGGGCTGGCTATGGGAGTCTGAGTG
TGCACAAGCAGTGAAAGAGGATCCAGCCCTGAGCATCACCCAAGTGCCTGATGCCTCAGGTGACAGAAGGCAGGA
CGTTCCATGCCGAGGCTGCCCCCTCACCCAGAAGTCTGAGCCCAGCCTCAGGAGGGGCCAAGAACCAGGGGGCCA
TCAAAAGCATCGGGATTTGGCATTGGTTCCAGATGAGCTTTTAAAGCAAACA**TAG**CAGTTGTTTGCCATTTCTTG
CACTCAGACCTGTGTAATATATGCTCCTGGAAACC

FIGURE 1897

GCAAG**ATG**GTGGGTGAAAAAGTTGAGAAGCCAGATGCTAAAGAGAAGAAACCCAAAGCCAAGAAGGCTGATGTTG
GTGGCAAGGTGAAAAAGGGTAACCTCAAGGCTAAAAAGCCCAAGAAGGGAAAGCCCCATTGCAGCCGCAACCCTG
TCCTTGTCAGAGGAATTGGCAGGTATTGCCGATCTGCCATGTATTCCAGAAAGGCCATGTACAAGAGGAAGTACT
CAGCCGCTAAATCTAAGGTTGAAAAGAAAAAGAAGGAGAAGGTTCTTGCAACTGTTACAAAACCAGTTGGTTGTG
ACAAGAATGGCGGTGCCCGGGTGGTTAAACTTCGCAAAATGCCTAGATATTATCCTACTGAAGATGTGCCTCGAA
AGCTGTTGAGCCATGGCAAAAAATCCTTCAGTCAGCACGTGAGGCCA**TAG**GGGCAAGAAGGTGGTTTTCCTGAAG
CAGCTGGCTAGTGGTTTGTTACTTGTGACTGGACCTCTGGTCCTCAATCGAATTCCTCTACGAAGAACATACCAG
AAATTTGTCATTGCCAC

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FIGURE 1898

ACTTGCCGGAAGTGCCTTTCCAGTGGACCTGGGCTGTTGTTGCGGTTGTTTTCCTTCTCTCCGTGCAACGCTGGC
AAGTCTCAAAGTCGCCACAGAAACATGCCCCTGATTCAGTGCCTCTGCTTAGCTGTAACATGTTAATCAGAACTA
CCTGGCATCTTCCTGAACAAGACTTTCAATAGGGGCCAGT**ATG**CTTCGCTTCATCCAGAAGTTTTCTCAAGCATC
TTCAAAGATACTGAAGTACTCTTTCCCAGTGGGACTAAGAACCAGCAGAACAGATATACTTTCTCTCAAGATGTC
TCTCCAGCAAAACTTTTCCCCATGTCCAAGGCCTTGGCTTTCCTCATCATTTCCAGCGTATATGAGCAAGACACA
GTGCTATCATACATCCCCCTGCAGCTTTAAAAAGCAGCAGAAGCAAGCACTTCTAGCCAGACCCTCAAGCACCAT
CACTTACCTAACTGACAGCCCAAAGCCAGCATTATGTGTAACTCTGGCAGGACTAATCCCCTTCGTTGCTCCACC
ACTGGTCATGCTGATGACAAAAACTTATATTCCCATATTAGCTTTTACTCAGATGGCTTATGGAGCCAGTTTCCT
ATCTTTCTTGGGTGGGATCAGATGGGGTTTTGCTCTACCAGAAGGTAGTCCAGCCAAACCAGACTACCTTAATTT
AGCTAGCAGTGCAGCTCCTCTTTTCTTTTCATGGTTTGCCTTCCTTATTTCTGAAAGACTTAGTGAAGCCATAGT
CACAGTAATAATGGGTATGGGAGTAGCATTCCACCTTGAACTTTTTCTCTTACCACATTATCCCAACTGGTTTAA
AGCCCTGAGGATAGTAGTCACTTTATTGGCCACTTTTTCATTTATAATCACTTTAGTAGTTAAAAGTAGTTTTCC
AGAAAAAGGACATAAGAGACCTGGTCAAGTA**TAA**AAAATATAAAAGTCTGGGAAGTGAGGAGCACCTCTGCCCAG
CTGCTGCCCCGTCTGGGAAGTGAGGAGCGCCTCTGCCTGGCCGCCTGACCATCTGGGAAGTGTGACAAGCGCCTC
TGCCCGGCCGCTGTGCAACCTTCCACGTGTGAAGTGACAGCCTTGTGTGTGATCTTTTCTGTCTTCCCCAAGTTT
GCATTTTCGACATTAAAGTTTACTTTTTAGTT

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FIGURE 1899

TGCTTCATCATAAGTCGTGCTGCCGGCCAGGTTACTTAAGCACCCTTTTAACAAGGAAACCTTGTGGGAGATCCA
GCTGGCCGACTCGAGTTCAGAAACAGGACCACAGAGGTTACACTCTGGGATCCTGGCCATGAGGTTGGATGCCTC
ACCTTACTGAAAGGAGACACTGGACCTAA**ATG**GCGCAGCATGATTTTGTTCCTGCTTGGCTAAATTTCTCAACAC
CACAGTCAGCTAAGTCACCTACTGCCACCTTCGAAAAACACGGAGAGCACCTACCCAGAGGAGAAGGTAGATTTG
GAGTAAGCCGCCGTCGACATAATTCCTCTGATGGTTTTTTTAACAATGGTCCCCTACGAACTGCAGGAGATTCTT
GGCACCAGCCCTCCCTGTTCCGCCATGATTCTGTGGACTCTGGTGTCTCTAAGGGAGCATATGCTGGAATCACAG
GGAACCCATCTGGTTGGCATAGCTCTTCCCGAGGTCATGATGGCATGAGCCAACGTAGTGGAGGTGGCACAGGGA
ACCATCGCCATTGGAATGGCAGCTTCCACTCCCGGAAAGGGTGTGCTTTTCAGGAAAAGCCACCTATGGAGATTA
GGGAAGAAAAGAAAGAAGACAAGGTGGAAAAGTTGCAGTTTGAAGAGGAGGACTTTCCTTCCTTGAATCCAGAAG
CTGGCAAACAGCATCAGCCATGCAGACCTATTGGGACACCTTCTGGAGTATGGGAAAACCCGCCTAGTGCCAAGC
AACCCTCCAAGATGCTAGTTATCAAAAAAGTTTCCAAAGAGGATCCTGCTGCTGCCTTCTCTGCTGCATTCACCT
CACCAGGATCTCACCATGCAAATGGGAACAAATTGTCATCCGTGGTTCCAAGTGTCTATAAGAACCTGGTTCCTA
AGCCTGTACCACCTCCTTCCAAGCCTAATGCATGGAAAGCTAACAGGATGGAGCACAAGTCAGGATCCCTTTCCT
CTAGCCGGGAGTCTGCTTTTACCAGTCCAATCTCTGTTACCAAACCAGTGGTACTGGCTAGTGGTGCAGCTCTGA
GTTCTCCCAAAGAGAGTCCCTCCAGCACCACCCCTCCAATTGAGATCAGCTCCTCTCGTCTGACCAAGTTGACCC
GCCGAACCACCGACAGGAAGAGTGAGTTCCTGAAAACTCTGAAGGATGACCGGAATGGAGACTTCTCAGAGAATA
GAGACTGTGACAAGCTGGAAGATTTGGAGGACAACAGCACACCTGAACCAAAGGAAAATGGGGAGGAAGGCTGTC
ATCAAAATGGTCTTGCCCTCCCTGTAGTGGAAGAAGGGGAGGTTCTCTCACACTCTCTAGAAGCAGAGCACAGGT
TATTGAAAGCTATGGGTTGGCAGGAATATCCTGAAAATGATGAGAATTGCCTTCCCCTCACAGAGGATGAGCTCA
AAGAGTTCCACATGAAGACAGAGCAGCTGAGAAGAAATGGCTTTGGAAAGAATGGCTTCTTGCAGAGCCGCAGTT
CCAGTCTGTTCTCCCCTTGGAGAAGCACTTGCAAAGCAGAGTTTGAGGACTCAGACACCGAAACCAGTAGCAGTG
AAACATCAGATGACGATGCCTGGAAG**TAG**GCATATAAATGCTCACAGTTAAATCTGACCCAGTAAACTCTGTGTG
TTTAGGGAGTATACAAAAGAAATCGTTCTTTTCCTTTTCTTATGTTGTTGAATACTTCATTCACAAGGGAAATAA
TCATATCCCAAAGAGAGAGCAATTGGCTTGTTTTGCTTTTGTTATTGTTCTTCCCTGTTATCTGCTTTATAGAGA
GAAGTTTGTGTGGTGGGACAGATTTTTTAAACACACTCACACACACACACACATACACACCCAGTATATATGGGG
CGATGCACAGGTAGGAGCTGGCAGTGCAGGGAAGAGGAGACACTGGTCTGCAGCAACAGCTTCTACTACCAGCCC
TTGGGGCACTCACCCCTGTGATCAAGCAATCATTGTCAATGACAAAGTGACTATTGAAGTTATAATTGTATTAAA
TTAATGCTAATAATTTGGATATTTTATTTTATTTTTGGCTGCTCGGGTAACTTTAGCCCTTAACCAAGCATATGT
GGGTTTTTTTGGTTGTTTTTTTTTGTTTTTTTTTTCTTTTTCCTTTTTGGGTACAGCTGTAAAATATTTGGATAT
AGGAAATGTTGTGTTATTCTTGCAGCCTTGATATTCAGGGTGGATTGTAAAATATAAATTTTTGTGAGATTTCAA
AGATTAAGATTATTTTGATAACATTATTTACAGATTTAAAAGATGTGGTTATCACAAGTCTCGAGGGGGAAACTA
CTGCATAAAATAACTAACTTGGAATAAATATTTTGCATCAGT

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FIGURE 1900

GCCAGGTAGTTCTCTGGATTGGAGAATGGTACAAACTGTTACATCCACTTGGGAGTACAGCAATGAAAAAGATGA
CACTTGCCTTTTAGAGGCTATTAAATGACCAATGATGTAGTAAGTGATAAGGGCCCAGCCTAGTCTAGGAGGCAG
CTGCTTTTTCCTCTTTATTAATAGTCAGGGAAACCAAGCTACAATTAGAGACTTGCCCACGTTCAGACTTTGTAA
CACTTTTTCAAGCCAGTGGCTCCTCCCAAACGGCCGAGGTTTCCCCACCCATTCTCCTGACCTGCCCAGCCCTGT
GGTTGCTGTCCAGGGAGCTAAGGCTCTCCCCAAACAAACTTGAAGATCTCACAGACCTAATAGACACGGCCTTTC
CTCTCTGCCTCTGGCTTTATGTCTCTTTCATCCTCCTCTGCCTTTCCCCTGCCCTTGATCCCTTCTGCAGGTCTT
GGCTGGTTTCAGGAAACGGGTCCCATCCC**ATG**GACTCCCACTCTGGGGAGCCTGCGCTCCTGCCCTGTGGGACCT
GTGACATGGTTTTCCGCTCCTCAGCTCTGTTAGCCACCCATACTCAGCGCTTCTGCATTGGCCACCCGACCCAAG
AGATGACATTTGGAGCACAGGCATCAGTTGCCACTGAACCCCAGCGGGCCGCGGTGCAGTGGCTGCGGCTATCCC
TACAGGAAATGCGGCCCTGGATAACAGAGGTCCCCAGGGTGTTCGCGGGGCCCTGGACACGTTCCGAGGCGCGGC
CTCAGAGTCCCATGTCCGAGGCGGTGGGAAGCCCCAGCGAGCGGCTGCGGGCGCTGTTCAGGACTCGCGCGAGGC
GCGTGGCGGAGATGGAAGCGCAGAGCCGGGCCCTGCAGCTACGCGGCGAGGAACTGAGCCGACGCCTCCAAGTTG
TGGCCTGTACGCGGGGCGGGATGTCCCGCCTCTTCGGCCTGGAGCAGGAGATTCGAGAACTACAAGCTGAGGCCG
GGAGGACGCGGGGAGCTCTAGAGGTGTTGGGGGCCCGCATTCAGGAGCTGCAGGCGGAGCCAGGGAACCCGCTGA
GCTCCCGGCGAGAGGCAGAACTTTATTCTCCAGTGCAAAAGGCCAACCCGGGAACTCTGGCTGCCGAAATCCGGG
CGCTGCGGGAGGCCTACATTCGAGACGGGGGCCGGGACCCCGGCGTGCTGGGCCAGATATGGCAGTTGCAGGTGG
AGGCGTCTGCACTGGAGCTGCAGCGGTCGCAGACCCGCAGAGGAAGGGCAGGTGCCACCTCAGGGGAGCTTCCAG
TAGTGGAGGCTGAAAACCGGCGCTTGGAGGCAGAAATCTTGGCCTTGCAAATGCAGAGGGGTCGGGCACCCTTGG
CCCCAGGATCTGCGACTCCTGGGGGATGCCAGCCTACAACCGAAGGGGAGGAGAGATCCCCCACTCCTCCCGCCA
CCGGTGGCACCACCGCTGCCACCACTTCCAGGCTTCTCGGAGCCACAGCTTCCTGGAACAATGACCAGAAACCTG
GGCCTGGACTCACACTTCCTCCTGCCCACATCGGACATGCTGGGCCCTGCACCCTA**TGA**TCCTGGGGCTGGCCTG
GTCATTTTCTATGATTTCCTGCGGGGCCTTGAGGCTTCCTGGATTTGGGTGCAACTAAGGACTGGCTTGGCACGC
GATGGACGGGATACAGGAAGGACCACAGCGTTGCCCCCAGCCCTTTGCCTGCCCCCACCTCCTGCTCCCGGGCCC
ATGGGCAACTGTGCCATCCTTGCCAGCAGGCAGCCTGTGCCCAGACTACCACCCTCATCATCAGTATCTTTGGTC
TGTGAGCTGCAGGTCTGGCAGGGGCTAGCATGGGCTAGGGCACCACAGCCAAAGGCTTGGGTCTCACTTGGACTA
TTTGACCAAGATCAGCGGGTGCTAAGTGGCCGCTGGCGCCTCCCACTTCGGGCCCTTCCTCTGGACCCCAGCCTT
AGCCTTGGGCAGCTGAATGGGATTCCTCAGGCAGGTCAGGCTGAGCTCTTTCTGCGGCTGGTGAATGCAAGAGAT
GCAGCTGTACAGACACTGGCAGAGATCAATCCAGCAAGTGTCCATGAGTACCAGTACCCACCTCCGGTGAGGGCC
CAGCTGCAGCTAGGGACACCACAGCTACACATACCGGTGTGGCTGGTATGGCTAACGGCCAGCCTTTATTGACCA
CTGTGTGCCAGTCATTACCAATGCTTTCTTGTTTGATCCTCACATCTCTATGAAGTCCTACTATGTAACAGATAA
GGAAATCAAAGCAGGAGCAGGTTAACTTGGTTCACAGTGTCCAGCACATCTTCACTGGAAGCCAGCTTCCTCACC
CCCGCAGTTGGCTTTGCTGATCCCCCACCTCGTACAGAAGAGCCCCTCAGTGGAGTCAAGGATAGAGATGAGGGT
TTGGGCCCTCACCACAGTTCTGACTTGCCCCCAGTGAGTTTCTGAACCCAAGTGAATGTGGAGATGAGCATCTGA
ACATGCACAGGACTGGGGCCTATTTCCAGACCTACAGGTTTACTACTCCATGTTCTGACATTGGGTCTAGAAGCA
TCTAGCAGTTGAGTACAGAAAACCAGTTCCAACCACAGCTTTACCACCTCCCGTTAAGTCCTTAACTTTTCTGTA
CCTCTTCTGTTTTTGTAAAACAGATTAAGGATTAAATGAGTTTGTCAGGT

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FIGURE 1901

AATCTGCCATTTTCTGTCCCTGAGTGAGTCTCTGGCGTCCCAAATTGCCTGTTTTTCTCGCAGGCTCTATTCCGT
TCGCTGGTTCGCCACCTCAGGGGAACGATGGCCATGGAGTCCACAGCCACTGCCGCCGTCGCCGCGGAGCTGGTT
TCTGCCGACAAAATTGAAGATGTTCCTGCTCCTTCTACATCTGCAGATAAAGTGGAGAGTCTGGATGTGGATAGT
GAAGCTAAGAAACTATTGGGTTTAGGACAGAAACATCTGGTGATGGGGGATATTCCAGCAGCTGTCAATGCATTC
CAGGAAGCAGCTAGTCTTTTAGGTAAGAAGTATGGAGAGACAGCTAATGAGTGTGGAGAAGCCTTCTTTTTCTAT
GGGAAATCACTTCTGGAGTTGGCAAGAATGGAGAATGGTGTGTTGGGAAACGCCTTGGAAGGTGTGCATGTGGAA
GAGGAAGAAGGAGAAAAAACAGAAGATGAATCTCTGGTAGAAAATAATGATAACATAGATGAGGAAGCAAGGGAA
GAGTTGAGAGAACAGGTTTATGACGCCATGGGAGAAAAAGAAGAAGCCAAAAAAACAGAAGACAAGTCTTTGGCA
AAGCCTGAAACTGATAAAGAACAGGACAGTGAAATGGAGAAGGGTGGAAGAGAAGATATGGATATAAGTAAATCT
GCAGAGGAGCCACAGGAAAAAGTTGACTTGACTCTAGATTGGTTAACTGAAACCTCTGAAGAGGCAAAAGGAGGA
GCAGCACCAGAAGGACCGAATGAAGCTGAGGTCACTTCTGGGAAGCCAGAACAGGAAGTACCAGATGCTGAGGAA
GAAAAATCAGTTTCTGGAACTGATGTCCAAGAAGAGTGCAGAGAAAAAGGAGGTCAGGAGAAGCAGGGAGAGGTA
ATTGTGAGCATAGAGGAGAAGCCAAAAGAAGTTTCAGAAGAGCAGCCTGTGGTGACTCTAGAAAAGCAGGGCACT
GCAGTGGAGGTAGAAGCAGAGTCTTTAGACCCGACAGTCAAGCCAGTGGATGTGGGTGGGGACGAGCCAGAGGAG
AAGGTAGTTACCTCTGAAAACGAGGCAGGAAAGGCGGTTCTTGAACAACTGGTAGGTCAAGAAGTACCACCTGCT
GAAGAGTCACCAGAGGTGACAACAGAGGCTGCAGAGGCCTCAGCTGTAGAGGCTGGATCAGAAGTCTCTGAAAAG
CCTGGGCAGGAGGCTCCAGTTCTCCCTAAGGATGGTGCAGTCAATGGACCGTCAGTTGTAGGAGATCAGACTCCT
ATTGAACCACAGACTTCTATAGAAAGACTGACAGAAACAAAAGATGGCTCAGGACTAGAGGAGAAGGTCAGGGCA
AAGCTGGTTCCTAGTCAGGAGGAGACTAAGCTGTCTGTAGAAGAGTCTGAGGCAGCTGGAGATGGGGTTGATACC
AAGGTAGCCCAGGGAGCTACTGAGAAATCACCTGAAGACAAAGTTCAGATAGCTGCTAATGAAGAGACACAAGAG
AGAGAAGAACAGATGAAAGAGGGTGAAGAAACTGAAGGCTCAGAAGAGGATGATAAAGAAAATGATAAGACCGAA
GAAATGCCAAATGATTCAGTCCTTGAAAACAAGTCTCTTCAAGAAAATGAGGAGGAGGAGATTGGGAACCTAGAG
CTTGCCTGGGATATGCTGGATTTAGCAAAGATCATTTTTAAAAGGCAAGAAACAAAAGAAGCACAGCTTTATGCT
GCCCAGGCACATCTTAAACTCGGAGAAGTTAGTGTTGAATCTGAAAACTATGTGCAAGCTGTGGAGGAGTTCCAG
TCCTGCCTTAACCTGCAGGAACAGTACCTGGAAGCCCACGACCGTCTCCTTGCAGAGACCCACTACCAGCTGGGC
TTGGCTTATGGGTACAACTCTCAGTATGATGAGGCAGTGGCACAGTTCAGCAAATCTATTGAAGTCATTGAGAAC
AGAATGGCTGTACTAAACGAGCAGGTGAAGGAGGCTGAAGGATCGTCTGCTGAATACAAGAAAGAAATTGAGGAA
CTAAAGGAACTGCTACCCGAAATTAGAGAGAAGATAGAAGATGCAAAGGAGTCTCAGCGTAGTGGGAATGTAGCT
GAACTGGCTCTGAAAGCTACTCTGGTGGAGAGTTCTACTTCAGGTTTCACTCCTGGTGGAGGAGGCTCTTCAGTC
TCCATGATTGCCAGTAGAAAGCCAACAGACGGTGCTTCCTCATCAAATTGTGTGACTGATATTTCCCACCTTGTC
AGAAAGAAGAGGAAACCAGAGGAAGAGAGTCCCCGGAAAGATGATGCAAAGAAAGCCAAACAAGAGCCGGAGGTG
AACGGAGGCAGTGGGGATGCTGTCCCCAGTGGAAATGAAGTTTCGGAAAACATGGAGGAGGAGGCTGAGAATCAG
GCTGAAAGCCGGGCAGCAGTGGAGGGGACAGTGGAGGCTGGAGCTACAGTTGAAAGCACTGCATGTTAAGAGGGG
GCACAGCCCTCCTCCCAAGGGAAAGTGTTTTTGTATATAATGTATTTTTTCACTTTTGGAGGATTCTTTTTGTAT
AACTTCAATAAAGATTGTAAGCAAAGGTTGAGGCTTTGATGGTTTTTTTCTTAATTATTGGCTGAATCTGCCTTG
GAGCACTGCTGGTTTTATATATTAGCCAAAGGTTTTGTTCTGGCCTTCTGTACTGATCTGTGTTCCTGATCCTAA
TTCCTATCTGTCTAACGTGGAGGTGATCAAGTGTGGCTGTAGGCCTTTGTTTTCCAATGGTGCTATATTCTGTTT
TCAAACACTTCACTGAACCCAGCTGTCTTGCAAACTTTCAGTGGTGCTGTCCCTGGATGGGGGCTACAAAAACAA
GAATTGGTGAAGATCTTGCTCTTCAGTGCTGAAAATGGATGATGGACTTTGGCTGTGAGCCAGGCCTAGGATGGT
TCTTGTCCTATATCCACCTAGTCTTCACCTGGGGCTATAATTCTGTCCTGGAAAAAGAACTCTGAAAACCTGGGT
CAGGGGAATGATTCCTAAGGAAAACGGTCTGCATTTGAGCTCTGGTTTGAAAGTAGCCAAGGGGACTGATGGTGG
ACACTCCAGATGTGGTTGGAAGCATATGTGGGGAGGCTGGCTGGTTGAGTTTTGTTATTTTCTGTATAGAAAGGT
TGAGATATATCAACACTTGGAATTGTTACCCATCTGCAGAATTGACTTCTCAAATAAAGATGCTAAAAATCT

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FIGURE 1902

AGCCAGAAATGTGAAGTGCTAGCTGAAGGATGAGCAGCAGCTAGCCAGGCAAAGGGGGCA**ATG**GCGGCTTCCTGT
GTTCTACTGCACACTGGGCAGAAGATGCCTCTGATTGGTCTGGGTACCTGGAAGAGTGAGCCTGGTCAGGTAAAA
GCAGCTGTTAAGTATGCCCTTAGCGTAGGCTACCGCCACATTGATTGTGCTGCTATCTACGGCAATGAGCCTGAG
ATTGGGGAGGCCCTGAAGGAGGACGTGGGACCAGGCAAGGCGGTGCCTCGGGAGGAGCTGTTTGTGACATCCAAG
CTGTGGAACACCAAGCACCACCCCGAGGATGTGGAGCCTGCCCTCCGGAAGACTCTGGCTGACCTCCAGCTGGAG
TATCTGGACCTGTACCTGATGCACTGGCCTTATGCCTTTGAGCGGGGAGACAACCCCTTCCCCAAGAATGCTGAT
GGGACTATATGCTACGACTCCACCCACTACAAGGAGACTTGGAAGGCTCTGGAGGCACTGGTGGCTAAGGGGCTG
GTGCAGGCGCTGGGCCTGTCCAACTTCAACAGTCGGCAGATTGATGACATACTCAGTGTGGCCTCCGTGCGTCCA
GCTGTCTTGCAGGTGGAATGCCACCCATACTTGGCTCAAAATGAGCTAATTGCCCACTGCCAAGCACGTGGCCTG
GAGGTAACTGCTTATAGCCCTTTGGGCTCCTCTGATCGTGCATGGCGTGATCCTGATGAGCCTGTCCTGCTGGAG
GAACCAGTAGTCCTGGCATTGGCTGAAAAGTATGGCCGATCTCCAGCTCAGATCTTGCTCAGGTGGCAGGTCCAG
CGGAAAGTGATCTGCATCCCCAAAAGTATCACTCCTTCTCGAATCCTTCAGAACATCAAGGTGTTTGACTTCACC
TTTAGCCCAGAAGAGATGAAGCAGCTAAATGCCCTGAACAAAAATTGGAGATATATTGTGCCTATGCTTACGGTG
GATGGGAAGAGAGTCCCAAGGGATGCAGGGCATCCTCTGTACCCCTTTAATGACCCGTAC**TGA**GACCACAGCTTC
TTGGCCTCCCTTCCAGCTCTGCAGCTAATGAGGTCCTGCCACAACGGAAAGAGGGAGTTAATAAAGCCATTGGAG
CATCCAT

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FIGURE 1903

GTTCTTGCCTGGTGTCGGTGGTTAGTTTCTGCGACTTGTGTTGGGACTGCTGATAGGAAG**ATG**TCTTCAGGAAAT
GCTAAAATTGGGCACCCTGCCCCCAACTTCAAAGCCACAGCTGTTATGCCAGATGGTCAGTTTAAAGATATCAGC
CTGTCTGACTACAAAGGAAAATATGTTGTGTTCTTCTTTTACCCTCTTGACTTCACCTTTGTGTGCCCCACGGAG
ATCATTGCTTTCAGTGATAGGGCAGAAGAATTTAAGAAACTCAACTGCCAAGTGATTGGTGCTTCTGTGGATTCT
CACTTCTGTCATCTAGCATGGGTCAATACACCTAAGAAACAAGGAGGACTGGGACCCATGAACATTCCTTTGGTA
TCAGACCCGAAGCGCACCATTGCTCAGGATTATGGGGTCTTAAAGGCTGATGAAGGCATCTCGTTCAGGGGCCTT
TTTATCATTGATGATAAGGGTATTCTTCGGCAGATCACTGTAAATGACCTCCCTGTTGGCCGCTCTGTGGATGAG
ACTTTGAGACTAGTTCAGGCCTTCCAGTTCACTGACAAACATGGGGAAGTGTGCCCAGCTGGCTGGAAACCTGGC
AGTGATACCATCAAGCCTGATGTCCAAAAGAGCAAAGAATATTTCTCCAAGCAGAAG**TGA**GCGCTGGGCTGTTTT
AGTGCCAGGCTGCGGTGGGCAGCCATGAGAACAAAACCTCTTCTGTATTTTTTTTTCCATTAGTAAAACACAAG
ACTTCAGATTCAGCCGAATTGTGGTGTCTTACAAGGCAGGCCTTTCCTACAGGGGGTGGAGAGACCAGCCTTTCT
TCCTTTGGTAGGAATGGCCTGAGTTGGCGTTGTGGGCAGGCTACTGGTTTGTATGATGTATTAGTAGAGCAACCC
ATTAATCTTTTGTAGTTTGTATTAAACTTGAACTGAG

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FIGURE 1904

GTGTAACGTGCGCT**ATG**GAGCCGAAAGTCGCAGAGCTGAAGCAGAAGATCGAGGACACGCTATGTCCTTTTGGCT
TCGAGGTTTACCCCTTCCAGGTGGCATGGTACAATGAACTCTTGCCTCCAGCCTTCCACCTACCGCTGCCAGGAC
CTACCCTGGCCTTCCTGGTACTCAGCACGCCTGCCATGTTTGACCGGGCCCTCAAGCCCTTCTTGCAGAGCTGCC
ACCTCCGAATGCTGACTGACCCAGTGGACCAGTGTGTGGCCTACCATCTGGGCCGTGTTAGAGAGAGCCTCCCAG
AGCTGCAGATAGAAATCATTGCTGACTACGAGGTGCACCCCAACCGACGCCCCAAGATCCTGGCCCAGACAGCAG
CCCATGTAGCTGGGGCTGCTTACTACTACCAACGACAAGATGTGGAGGCTGACCCATGGGGGAACCAGCGCATAT
CAGGTGTGTGCATACACCCCCGATTTGGGGGCTGGTTTGCCATCCGAGGGGTAGTGCTGCTGCCAGGGATAGAGG
TGCCAGATCTGCCACCCAGAAAACCTCATGACTGTGTACCTACAAGAGCTGACCGTATCGCCCTACTCGAAGGCT
TCAATTTCCACTGGCGTGATTGGACTTACCGGGATGCTGTGACACCCCAGGAGCGCTACTCAGAAGAGCAGAAGG
CCTACTTCTCCACTCCACCTGCCCAACGATTGGCCCTATTGGGCTTGGCTCAGCCCTCAGAGAAGCCTAGTTCTC
CCTCCCCGGACCTTCCCTTTACCACACCCGCCCCCAAGAAGCCTGGGAATCCCAGCAGAGCCCGGAGCTGGCTCA
GCCCCAGGGTCTCACCACCTGCATCCCCTGGCCCT**TGA**TTTTCTCCCATGTGGACCCTGATTTATGGTGGTACTT
GCTAGGACTTAATTGGCTTTGGCAAAGCAAAAGGTTTTGAGTACAAGATTACTATTTTTGATAATATAGTAGAGA
TCTTCCATGAAGATAACAAGGCTCAAGGAAGTTAGGTTTGGCCAAGATAAAGGCCAGGGAACCAGAATTCCCATC
TGCCTTCAAATGAGTTTTTTTTTTTTTTTTAGACAGAGTCTTACTCTGTCACCTAGGCTGGAGTGCAGTGGCACA
GTCTCTACTCAGGAGGCTGAGGCAGTAGAATCATTTGAACCAGGGAGGCAGAGATTGCAGTGAGCCGAGATTGCA
TGGCTGCACTCTAGCCTGGGTGACAGTGTGAGACTCTGTCTCAAAAAAAAAAAAAAAAAGTACCTACCTCAGGTAG
GGACTGAATAAACACGTGTAAGGCACTTTGGAAAAATACCTGGCATATATAGTAAGCAGTATGTTGGCCATTACC
AAAGGCCCTGGGAATTCTGTACTGCTGCTCATGGGTGTAGTCGGTTCTAGAGGGGTGGGCAGGTGGGAGTAGCTG
AGGAAGACAAGTGGCTGGAATGGTATCACATGATACACAGAAGTATCCTCAGTTCTGAATCTACCTTGGCCTCAA
GGGCCCAGGAGAATAACTTTTCCCAGCTGACAGCCTCTCTGAGGACAATGACATATGAATGAGGATCAAAACGAG
CTTTGGCCAGGCACTGTGGCGCTCACCTGTAATCCCACCATTTTGGGAGGCTGAGGCGGAGGACCGCCTGAGGCA
AGGAATTCAGAACCACTCTGGGCAACATAATGACACTAAAAAAGACTATCTCTAATCAAGGCTAGAACCAAGGGA
AGGCTAAGAATTGCCCAGTACTGTGCAACTACGAAAGCCCTACCCAAGGCCACCAGCCTTGTCTTCCTCTTTCCT
CTGTCAGTTCAAAAAGAACAGAAACCTCCAGCTCTTTTACATAGCAGGTACCAGGCATTTATCAGAAGAGGCCAA
GCTTCTGGTTCCCATGCAGCCCTTTGAATAGTGTGTCTAAACAAAAATAGGTGTCCAAGTAGTCACACTGAGACT
TTAACTGGTAACCCAGCCTGTGGCGTCAGTCGCAGTGCTCTGGCCAACACTATAGCAGGGCTTATTCTTCTCCCT
CATGTGTAGTGAAACAAAATGTAACACCTTGGGTTCATTCAGTTCCATTCCCTATATCTACCTGTGTCAATATAA
TTCCCTGATTTGGAGGCAGCTCTCCTCATTTTCCCCAAAACAGGGAAAGCAAGGAGTAAATTCCTCTTAAAATCA
AAAGCTAATAATATGCTTCCTAAAATAAAGACTCATCAAGGTCTC

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FIGURE 1905

GACGGCGAGACCCCGCCCCATCCCCGACTGCCTGAACCGCGCCAGGAGACGGACCGCAAGTCCAGCGTACCCACA
GACGACTCAGGCGGGAGACGAGCGGTGTC**ATG**GCCGCCGACAGTGACGATGGCGCAGTTTCAGCTCCCGCAGCTT
CCGACGGTGGTGTCAGCAAAAGCACAACATCTGGGGAGGAGCTAGTAGTCCAGGTTCCCGTAGTGGATGTGCAAA
GCAACAACTTCAAGGAGATGTGGCCATCCCTCCTGCTAGCCATAAAGACAGCTAATTTCGTGGCTGTGGACACGG
AGCTGAGTGGGCTTGGGGACAGGAAGAGTTTGCTGAACCAGTGCATTGAGGAACGTTACAAGGCCGTGTGTCATG
CTGCCAGGACCCGTTCTATCCTTTCCCTGGGCCTCGCCTGCTTCAAGCGGCAGCCAGACAAGGGTGAACATTCCT
ATCTGGCTCAAGTGTTCAATCTCACTCTGCTGTGCATGGAGGAGTATGTCATAGAACCAAAGTCTGTGCAGTTCC
TGATACAGCATGGCTTCAACTTCAACCAGCAGTATGCCCAAGGCATCCCCTACCATAAGGGCAATGACAAGGGTG
ATGAGAGCCAGAGCCAGTCAGTACGGACCCTATTCCTGGAGCTAATCCGAGCCCGCCGGCCCCTGGTGCTACACA
ATGGCCTTATAGACTTGGTGTTCCTGTACCAGAACTTCTATGCACACCTCCCTGAGAGTCTGGGAACCTTCACCG
CTGACCTGTGTGAGATGTTCCCAGCAGGCATTTATGACACCAAATATGCTGCTGAGTTTCATGCCCGTTTCGTGG
CCTCCTACTTAGAATATGCCTTCCGGAAATGTGAACGGGAAAATGGGAAGCAGCGGGCAGCTGGCAGCCCACACC
TTACCCTGGAGTTCTGCAACTATCCTTCCAGCATGAGGGACCATATTGATTACCGCTGCTGCCTGCCCCCAGCAA
CCCACCGTCCTCATCCCACCAGCATCTGTGACAACTTCTCGGCTTATGGCTGGTGCCCCCTGGGACCACAGTGTC
CTCAGTCTCACGATATTGACCTTATCATTGACACTGATGAGGCTGCGGCAGAGGACAAGCGGCGACGGCGACGAC
GTAGGGAAAAACGGAAGAGGGCTTTATTGAACCTACCGGGGACACAGACCTCTGGGGAAGCTAAGGATGGTCCTC
CCAAGAAGCAGGTCTGTGGGGATAGCATCAAGCCTGAAGAAACCGAGCAGGAGGTGGCTGCCGATGAAACTAGGA
ACCTGCCTCACTCCAAGCAAGGCAACAAAAATGACTTAGAGATGGGGATTAAGGCAGCAAGGCCTGAAATAGCTG
ATAGAGCTACCTCAGAAGTGCCAGGGAGCCAAGCCAGTCCTAACCCAGTGCCTGGGGATGGATTGCACCGGGCTG
GTTTTGATGCCTTTATGACAGGTTATGTGATGGCCTATGTGGAAGTGAGCCAGGGACCGCAGCCCTGCAGCTCTG
GACCCTGGCTCCCTGAATGCCACAATAAGGTATATTTGAGTGGCAAAGCTGTACCCCTCACAGTGGCCAAGAGCC
AGTTCTCTCGTTCCTCCAAAGCCCACAATCAGAAGATGAAGCTCACTTGGGGCAGTAGC**TGA**TGCAACTTCCACC
TTGCTCTCAGGTGGAACAGAGGTATTTTGGGTCTCTCTAGCCTGAAATGTCATCCTCAACTGCTACTGAGTTTAG
GGGAGGGGGAATGTCTTGACAGACATCACTGCATTGCCCTGGACCGCCTCCTTTATCCCAGTGTTTGAGGTACAA
GTAAGAAGGCTGACCAGCACCTGTAACACTGACTTTATTTTTAAGTCTGAAAATGTCTTGGGAAAGTTTTAC

FIGURE 1906

GGAGCCTCTAGAACTATGAGCCCGAGGCCTTCCCCTCTCCCAGAGCGCAGAGGCTTTGAAGGCTACCTCTGGGAA
GCCGCTCACCGTCGGAAGCTGCGGGAGCTGAAACTGCGCCATCGTCACTGTCGGCGGCC**ATG**ACACCGCTCGTCT
CCCGCCTGAGTCGTCTGTGGGCCATCATGAGGAAGCCACGAGCAGCCGTGGGAAGTGGTCACAGGAAGCAGGCAG
CCAGCCAGGAAGGGAGGCAGAAGCATGCTAAGAACAACAGTCAGGCCAAGCCTTCTGCCTGTGATGGGATGATTG
CTGAGTGTCCTGGGGCCCCAGCAGGCCTGGCCAGGCAGCCGGAAGAGGTGGTATTGCAGGCCTCTGTCTCCTCAT
ACCATCTATTCAGAGACGTAGCTGAAGTCACAGCCTTCCGAGGGAGCCTGCTAAGCTGGTACGACCAAGAGAAAC
GGGACCTACCATGGAGAAGACGGGCAGAAGATGAGATGGACCTGGACAGGCGGGCATATGCTGTGTGGGTCTCAG
AGGTCATGCTGCAGCAGACCCAGGTTGCCACTGTGATCAACTACTATACCGGATGGATGCAGAAGTGGCCTACAC
TGCAGGACCTGGCCAGTGCTTCCCTGGAGGAGGTGAATCAACTCTGGGCTGGCCTGGGCTACTATTCTCGTGGCC
GGCGGCTGCAGGAGGGAGCTCGGAAGGTGGTAGAGGAGCTAGGGGGCCACATGCCACGTACAGCAGAGACCCTGC
AGCAGCTCCTGCCTGGCGTGGGGCGCTACACAGCTGGGGCCATTGCCTCTATCGCCTTTGGCCAGGCAACCGGTG
TGGTGGATGGCAACGTAGCACGGGTGCTGTGCCGTGTCCGAGCCATTGGTGCTGATCCCAGCAGCACCCTTGTTT
CCCAGCAGCTCTGGGGTCTAGCCCAGCAGCTGGTGGACCCAGCCCGGCCAGGAGATTTCAACCAAGCAGCCATGG
AGCTAGGGGCCACAGTGTGTACCCCACAGCGCCCACTGTGCAGCCAGTGCCCTGTGGAGAGCCTGTGCCGGGCAC
GCCAGAGAGTGGAGCAGGAACAGCTCTTAGCCTCAGGGAGCCTGTCGGGCAGTCCTGACGTGGAGGAGTGTGCTC
CCAACACTGGACAGTGCCACCTGTGCCTGCCTCCCTCGGAGCCCTGGGACCAGACCCTGGGAGTGGTCAACTTCC
CCAGAAAGGCCAGCCGCAAGCCCCCCAGGGAGGAGAGCTCTGCCACCTGTGTTCTGGAACAGCCTGGGGCCCTTG
GGGCCCAAATTCTGCTGGTGCAGAGGCCCAACTCAGGTCTGCTGGCAGGACTGTGGGAGTTCCCGTCCGTGACCT
GGGAGCCCTCAGAGCAGCTTCAGCGCAAGGCCCTGCTGCAGGAACTACAGCGTTGGGCTGGGCCCCTCCCAGCCA
CGCACCTCCGGCACCTTGGGGAGGTTGTCCACACCTTCTCTCACATCAAGCTGACATATCAAGTATATGGGCTGG
CCTTGGAAGGGCAGACCCCAGTGACCACCGTACCACCAGGTGCTCGCTGGCTGACGCAGGAGGAATTTCACACCG
CAGCTGTTTCCACCGCCATGAAAAAGGTTTTCCGTGTGTATCAGGGCCAACAGCCAGGGACCTGTATGGGTTCCA
AAAGGTCCCAGGTGTCCTCTCCGTGCAGTCGGAAAAAGCCCCGCATGGGCCAGCAAGTCCTGGATAATTTCTTTC
GGTCTCACATCTCCACTGATGCACACAGCCTCAACAGTGCAGCCCAG**TGA**CACCTCTGAAAGCCCCCATTCCCTG
AGAATCCTGTTGTTAGTAAAGTGCTTATTTTTGTAGTT

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FIGURE 1907

GCTCGGCTCACTGAGACCCGGTGGTCCAGACGCTGCTCCTGGCTGGGGTGGCGCTGCAGGGAGAACCGCGAGCTC
TCAGGGGTCGGCGGGTGACTTCTTTCCGGAAGAAAGCGAGGAACGCGCTCTGCGGGGTGAGCCGGACTCCCCAAC
TCCGGACGATCAGCCCAGGACTGAGAGCCCCGAAGTCCCCAACCACAAGTAAGCGGCCCCAGAAGGACAAGTCTA
GGTCGCCGTCCAGAGCGCC**ATG**GCCGCGCCCGCCCTTCGTTTGTGCCACATCGCCTTCCACGTGCCCGCCGGGCA
GCCCCTAGCCCGGAACCTGCAGCGCCTCTTCGGCTTCCAGCCCCTGGCTTCGCGGGAGGTGGACGGCTGGCGGCA
GCTAGCCCTGCGCAGCGGCGACGCGGTCTTTTTGGTGAACGAGGGCGCAGGGTCTGGAGAGCCGCTGTACGGCCT
GGATCCGCGTCACGCCGTGCCCAGCGCCACAAACCTGTGCTTCGACGTGGCGGACGCCGGCGCTGCAACCCGGGA
GCTGGCAGCGCTGGGCTGCAGCGTGCCTGTCCCTCCCGTTCGCGTGCGGGACGCGCAGGGTGCCGCCACTTACGC
CGTGGTCAGCTCGCCTGCCGGCATCCTCAGCCTGACCTTGCTGGAGCGCGCTGGCTACCGCGGACCCTTCCTACC
CGGCTTCAGGCCCGTGTCCTCTGCGCCTGGCCCCGGGTGGGTCAGCCGCGTGGACCACCTGACCTTGGCCTGCAC
CCCCGGCAGCTCCCCCACACTTTTGCGCTGGTTCCACGACTGCCTGGGCTTTTGCCACTTGCCGCTGAGCCCAGG
TGAGGATCCCGAGCTGGGCCTCGAAATGACAGCAGGGTTTGGGCTTGGGGGACTGAGGCTTACAGCCCTGCAGGC
CCAGCCGGGCAGCATTGTCCCCACTCTTGTTCTGGCTGAGTCCCTTCCGGGGGCGACGACACGACAGGACCAGGT
GGAGCAGTTCCTGGCCCGGCACAAGGGGCCAGGCCTGCAGCACGTGGGGCTGTATACGCCTAACATTGTGGAGGC
CACTGAGGGGGTGGCAACTGCTGGAGGCCAGTTCCTGGCTCCCCCTGGGGCATACTACCAGCAGCCAGGAAAGGA
GAGGCAGATCCGAGCTGCAGGGCACGAGCCTCATCTGCTTGCTCGACAGGGGATCCTGCTAGATGGTGATAAAGG
CAAGTTTCTGCTTCAGGTCTTCACCAAGTCCCTTTTTACTGAGGACACTTTCTTCCTGGAGCTGATTCAGAGGCA
GGGGGCCACTGGCTTTGGTCAGGGCAACATCAGAGCTCTGTGGCAGTCCGTACAGGAGCAATCTGCCAGGAGCCA
GGAAGCC**TAA**GGATGCCCAGGGCTGGGTGCAGCCAGCTGTCCTGCAGCTCTGGGGAGACCAGCACAGAACTGAGG
AACATCTGCAGGAGGCCCAACTAGTGAAAGGCTTTGCCTCCGGGGGGCAGGTGTGACTTCCATTTCATCAGTGCC
TGCCAGAAGCTGTGTCTCTCATTGGGCTCCAAAGAGGTGGGATTTTTTAAAACTAAAACATTTCTTATATACAGT
CTATAATAAATATGTAAGATACAAAGAACAATAAAAGAATTACACACTAGG

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FIGURE 1908

GGTCTTGGCGGGTCGGTGAGTCTTGGCGGCTGTTAACGCGCGCTTTGGGAACAGGAAGGTTGAGAGAGAGGTGCT
GGGGTCTGCGTCTATCTCTGTCGCTCTTTTCAGCCCCTCCTGGTATTCCCCTCCTAACCTGGGTTTTTTACACGC
CCGCGTGGCTTCCTGCTCGACCTCCCTGAGTCTGATCCTGGTTTCCACCTCCAGCCCTGGGAAATTTCCTTTCTC
CAGACTCGCCCTCCCCACCCGGGCCTCGGACTTTCACCCCAGCTTCTCTCTCCTGGCCAGTGATTACCCACCCCC
AATCCCACCCCGCCCCGCCGCGCAACTACCTCCTCCCTTCACCCGGACTGGGACCATCATCCCCACTCCACTCCG
CCCAGTCTGGGACTCCACCTGCCTCCTCCCCAATCCCACACTAATCTCTGCTTGGTCTCTTCCTCTTTGGCCTAA
TCTCTCGTCTCGGCTTATTGGGGACGGCCACTCTCACAGTTTGGTTCCAAACACCAGTTCCTGGATGGATTCCCG
CCATCCATGCCCCCTCTTTAATTAGCCGGTCCTCTCAATAATGTAGCAGCCCCCTCTACAGATTAGACCCTGGTC
CTACACTCTTAGCCGCTGCCTGCTTTTGACCTTTGGCTCATGGGTACTTGACGTTTTAAACTCCTAGGCCCAGGA
TGAGGAGGAGCTTGGCTCCCAGCCAGCTGGCCAAGAGAAAACCTGAAGGCAGGTCCTGTGATGATGAAGACTGGC
AACCTGGCCTAGTGACTCCTAGGAAACGGAAATCCAGCAGTGAGACCCAGATCCAGGAGTGTTTCCTGTCTCCTT
TTCGGAAACCTTTGAGTCAGCTAACCAATCAACCACCTTGTCTGGACAGCAGTCAGCATGTAAGCATTTATTCGA
AGCATTTTGTCAAAGCCTTTCAAAGTCCCCATTCCAAATTATCAAGGTCCTCTGGGCTCTCGAGCATTGGGCCTG
AAAAGGGCTGGGGTCCGCCGGGCCCTCCATGACCCCCTGGAAAAAGATGCCTTGGTTCTGTATGAGCCTCCCCCG
CTGAGCGCTCATGACCAGCTGAAGCTTGACAAGGAGAAACTCCCTGTCCATGTGGTTGTTGACCCTATTCTCAGT
AAGGTTTTGCGGCCTCATCAGAGAGAGGGAGTGAAATTCCTGTGGGAGTGTGTCACCAGTCGGCGCATCCCTGGC
AGCCATGGCTGCATC**ATG**GCTGATGAGATGGGCCTAGGAAAGACGCTGCAGTGCATCACATTGATGTGGACACTT
TTACGCCAGAGTCCAGAGTGCAAGCCAGAAATTGACAAGGCAGTGGTGGTGTCGCCTTCCAGCCTGGTGAAGAAC
TGGTACAATGAGGTTGGGAAATGGCTCGGAGGGAGGATCCAACCTCTGGCCATCGATGGAGGATCTAAGGATGAA
ATAGACCAAAAGCTGGAAGGATTCATGAACCAGCGTGGAGCCAGGGTGTCTTCTCCCATCCTCATCATTTCCTAT
GAGACCTTCCGCCTTCATGTTGGAGTCCTCCAGAAAGGAAGTGTTGGTCTGGTCATATGTGACGAGGGACACAGG
CTCAAGAACTCTGAGAATCAGACTTACCAAGCCCTGGACAGCTTGAACACCAGCCGGCGGGTGCTCATCTCCGGA
ACTCCCATCCAGAATGATCTGCTTGAGTATTTCAGCTTGGTACATTTTGTTAATTCCGGCATCCTAGGGACTGCC
CATGAATTCAAGAAGCATTTTGAATTGCCAATTTTGAAGGGTCGAGACGCTGCTGCTAGTGAGGCAGACAGGCAG
CTAGGAGAGGAGCGGCTGCGGGAGCTCACCAGCATTGTGAATAGATGCCTGATACGGAGGACTTCTGATATCCTT
TCTAAATATCTGCCTGTGAAGATTGAGCAGGTCGTTTGTTGTAGGCTGACACCCCTTCAGACTGAGTTATACAAG
AGGTTTCTGAGACAAGCCAAACCGGCAGAAGAATTGCTTGAGGGCAAGATGAGTGTGTCTTCCCTTTCTTCCATC
ACCTCGCTAAAGAAGCTTTGTAATCATCCAGCTCTAATCTATGATAAGTGTGTGGAAGAGGAGGATGGCTTTGTG
GGTGCCTTGGACCTCTTCCCTCCTGGTTACAGCTCTAAGGCCCTGGAGCCCCAGCTGTCAGGTAAGATGCTGGTC
CTGGATTATATTCTGGCGGTGACCCGAAGCCGTAGCAGTGACAAAGTAGTGCTGGTGTCGAATTACACCCAGACT
TTGGATCTCTTTGAGAAGCTGTGCCGTGCCCGAAGGTACTTATACGTCCGCCTGGATGGCACGATGTCCATTAAG
AAGCGAGCCAAGGTTGTAGAACGCTTCAATAGTCCATCGAGCCCTGACTTTGTCTTCATGCTGAGCAGCAAAGCT
GGGGGCTGTGGCCTCAATCTCATTGGGGCTAACCGGCTGGTCATGTTTGACCCTGACTGGAACCCAGCCAATGAT
GAACAAGCCATGGCCCGGGTCTGGCGAGATGGTCAAAAGAAGACTTGCTATATCTACCGCCTGCTGTCTGCAGGG
ACCATTGAGGAGAAGATCTTCCAGCGTCAGAGCCACAAGAAGGCACTGAGCAGCTGTGTGGTGGATGAGGAGCAG
GATGTAGAGCGCCACTTCTCTCTGGGCGAGTTGAAGGAGCTGTTTATCCTGGATGAAGCTAGCCTCAGTGACACA
CATGACAGGTTGCACTGCCGACGTTGTGTCAACAGCCGTCAGATCCGGCCACCCCCTGATGGTTCTGACTGCACT
TCAGACCTGGCAGGGTGGAACCACTGCACTGATAAGTGGGGGCTCCGGGATGAGGTACTCCAGGCTGCCTGGGAT
GCTGCCTCCACTGCCATCACCTTCGTCTTCCACCAGCGTTCTCATGAGGAGCAGCGGGGCCTCCGC**TGA**TAACCA
GCTGGTCTGGGTGTAGCTCTTAGAGGAAGGAGATAGGGAAAAGGGGCTCCTTGCTCCACAGGGCCCTGTTGAATT
TTGTTCTCTGGGAGAAAATCATCAAGAAGGGCTGCATGATGTTTGCCCAAAATTTATTTTATAAGAAAAACTTTT
TTGGTTAAAAAAAAGAATAAAGGTATGAAAGGG

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FIGURE 1909

ATGAGTGCTGGCTTCTGGCAACCAGGGCCTGGTGGCCCACCCTGCCGCCTCTGTGGAGAGGCCTCCCGAGGCCGG
GCCCCATCCCGAGATGAAGGGTCCCTCTTATTGGGCTCACGTCGGCCCCGCCGGGATGCTGCTGAGCGATGTGCT
GCAGCCCTGATGGCCAGCCGGCGTAAGAGTGAAGCCAAGCAGATGCCCAGAGCTGCACCTGCCACTCGGGTAACA
CGCCGGAGCACACAGGAGAGCCTGACAGCAGGCGGAACAGACCTTAAGAGGGAGCTGCACCCCCCAGCCACCTCC
CATGAGGCTCCTGGCACCAAGCGGTCACCTTCTGCTCCAGCAGCCACCTCCTCTGCCTCTTCTTCTACATCCTCA
TACAAACGGGCACCAGCTAGCTCAGCCCCACAGCCTAAGCCCCTAAAGCGTTTCAAGCGAGCTGCAGGGAAGAAG
GGTGCTCGCACCCGTCAGGGGCCTGGTGCAGAGTCTGAAGACCTGTATGACTTCGTTTTTATTGTGGCTGGCGAG
AAGGAGGATGGCGAAGAGATGGAGATTGGGGAAGTGGCTTGTGGAGCTTTGGATGGATCAGATCCCAGCTGCCTG
GGGCTTCCAGCACTGGAAGCTTCACAAAGATTCCGCAGCATCTCCACCTTGGAGCTATTCACAGTTCCACTCTCC
ACAGAGGCAGCCCTGACACTATGCCACCTGCTGAGCTCCTGGGTGTCACTGGAGAGCCTCACACTCTCCTACAAT
GGCCTGGGCTCTAACATCTTCCGCCTGCTAGACAGCCTGCGGGCCCTGTCAGGCCAGGCTGGATGTCGCCTCCGT
GCCCTGCATCTCAGTGACCTGTTCTCACCACTGCCCATCCTGGAGCTGACACGTGCTATCGTGCGAGCACTGCCC
CTGCTACGGGTCCTCTCTATTCGTGTTGACCACCCAAGCCAGCGGGACAACCCTGGTGTGCCAGGGAATGCAGGG
CCCCCTAGCCACATAATAGGCGATGAGGAGATACCAGAAAACTGCCTGGAGCAGTTGGAGATGGGATTTCCACGG
GGAGCCCAGCCAGCCCCACTGCTGTGCTCCGTTCTGAAGGCCTCGGGTTCTCTGCAGCAGCTGTCCCTGGATAGT
GCCACCTTTGCCTCTCCCCAGGATTTTGGGCTTGTTTTGCAAACACTCAAAGAGTACAACCTAGCCCTGAAAAGA
CTGAGCTTCCATGACATGAATCTCGCTGACTGTCAGAGCGAGGTGCTCTTTTTGCTACAGAATCTGACTCTGCAA
GAGATTACCTTCTCCTTCTGCCGTCTGTTTGAGAAGCGCCCAGCCCAATTTCTGCCTGAGATGGTTGCTGCTATG
AAGGGCAACTCCACACTGAAGGGCCTCCGGCTGCCAGGGAACCGCCTGGGGAATGCTGGCCTGCTGGCCTTGGCA
GATGTTTTCTCAGAGGATTCATCCTCCTCTCTCTGTCAGCTGGACATCAGTTCCAACTGCATCAAGCCAGATGGG
CTTCTGGAGTTCGCCAAGCGGCTGGAGCGCTGGGGCCGTGGAGCCTTTGGTCACCTGCGCCTCTTCCAAAACTGG
CTGGACCAGGATGCAGTCACAGCCAGGGAAGCCATCCGGCGGCTCCGGGCTACCTGCCATGTGGTTAGCGACTCA
TGGGACTCATCCCAGGCCTTCGCAGATTATGTTAGCACCATG**TGA**TGGGGCCCGTACCTCACAGTCTCATGCTCG
GTACCATCAGCTTGCAGGGGCTGAAGCATGGGCTGCCCAGAACCCCAACCACCAGTTCTATCTTTCTCTTTCTGT
CACCTTTTTTCTCTTTTTTCCTTCTTCCCTTGCACTGAGGTCCTGGAGGCCTTGATGAGGCCCAGCAAACAGGCA
TTCTCACAGCTGGGTTTATAGTCTTTGGGCCCCTTACTCAGTATCCTGGGAACCCTGGGCCAGGAGGTTACAGTG
GTCATCATAATTGCTGAAGAGATCCCCTCCCCTGCCCCTGGGTTCCTGCCTTCCCTCCTCAAGCAGGCACCCAGG
CTTTAGAGAAGTATAGGGGGCTTCTTCCCTGCTGGGCTTACCACACTGCTCTCAGGCCTCAAACCCTTTCATACC
TTTATTCTTTTTTTTAACCAAAAAAGTTTTTCTTATAAAATAAATTTTGGGCAAACATC

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FIGURE 1910

GAGCCAAGTTTATGGAGGCCTTTTTTTCCC**ATG**TTCTACGTGGGACCATTGATGTGTCTTCTGACAGGCGTCTTT
GTGATCAGCGGTTCTCACCTCTTCTGCACAGCTCCCGCCATGTCCGACAGCTCACCATCTGTAACATGCTGCAGG
GTGCAACCGAGCTGGTGGCTGAGCCCAACCGCAGGGTTCTGGAGACCCTGGCCAGCTCCCTGCACACTCTCAAGT
TCCGCCACCTGCTGTTCTCTGATGTGGCTGCTCAGCAGTCACTTCGGCAGCTGTTGCATCAGCTCATTCACCATG
GGGCTGTCAGTCAAGTGTCGCTATACTCCTGGCCTGTGCCTGAGTCAGCCCTTTTCATCCTTATTCTCACCACCT
CCCTCTATGCCATAT**TAA**TAAACTGTTATCTCCTGTTCTTC

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FIGURE 1911

GACCACGATGAGTGTGCCGCACTTCCGGCCAGATCGCCGGATTTCCGCTGAGTGACCCTTACAAGTCCTTCTTGA
TCCTGAACTGGGTTAGGTGCCGCTGTTGCTGCTCGTGTTGAATCTAGAACCGTAGCCAGAC**ATG**GGACTGGAGGA
CGAGCAAAAGATGCTTACCGAATCCGGAGATCCTGAGGAGGAGGAAGAGGAAGAGGAGGAATTAGTGGATCCCCT
AACAACAGTGAGAGAGCAATGCGAGCAGTTGGAGAAATGTGTAAAGGCCCGGGAGCGGCTAGAGCTCTGTGATGA
GCGTGTATCCTCTCGATCACATACAGAAGAGGATTGCACGGAGGAGCTCTTTGACTTCTTGCATGCGAGGGACCA
TTGCGTGGCCCACAAACTCTTTAACAACTTGAAA**TAA**ATGTGTGGACTTAATTCACCCCAGTCTTCATCATCTGG
GCATCAGAATATTTCCTTATGGTTTTGGATGTACCATTTGTTTCTTATTTGTGTAACTGTAAGTTCACATGAACC
TCATGGGTTTGGCTTAGGCTGGTAGCTTCTATGTAATTCGCAATGATTCCATCTAAATAAAAGTTCTATGATCTG
C

FIGURE 1912A

AATTGGCTCATTTAAGAATTTCAAAACATTTAATGTAAAAGCTTTTTTTTTTTTAAGGAAGTCCATAAATTTTGG
TTCCCAGGGTTGCACTGGACTTGGAAGGAGTGCTGTTGTGTACATACTATTGTATGGTTTTATTTATTATTTTAC
TGTACAAATCAGCCGAAAGAATTTTTCCAAGTGCCATTTCGGATTTATTAATCCTTTTTTTTTTCCTTTCCTCAA
AGATATTTGCTGTTGTCATATTAAGCATTGGAGACTAGAAAATTACTTTCCCCCTTTGAGCTAGAGGGTCTCTTG
CCAACAGAAGGACAGCTGAGAAAGCTGGATTTAAAGGATGGTTTTATCTGTACTTTGCAGTTAACAGTGATATTT
TGAAGGCACATTTTTCTGTGATTCATTTTTTTTTGGCCATAGTGCTAACCTTGAAGAGATTCGTGGCTGGGTTTT
TGGTTTCTGAGAAGGTCGTAGTTTTTCCTCTTTTCCTTTTTTTTTCTTTTTTCTTTTCTTTTCTTTTTTTTAAA
GCGGGGGAGGGGAAGAGGGGCTGAGAAAGGAAATCATGTTCACTGGTAGAAGTAGAGTGGAGCATCAGTTACCAG
GGTCCTGAGAGCTGGAGGAGAAAGGATTCTATCTTCAAGTTGGGAGGCCCTCCTCTCACCTTGCTCAAAAATTGC
AAGCGATTCAATCCTGATCAAGACACCAAAGCTACAGGATTCTGGAACCGTGGAGACACCGAGAAACC**ATG**AGTG
TAAGGTTACCCCAGAGTATAGACAGGTTAAGTAGCCTGTCTTCTCTGGGAGATTCTGCACCAGAGCGCAAGTCCC
CTTCCCACCATCGCCAGCCTTCGGATGCCTCTGAGACAACAGGTCTCGTTCAACGCTGTGTCATTATCCAAAAGG
ACCAGCATGGCTTCGGCTTCACAGTCAGTGGGGATCGCATTGTTCTGGTGCAGTCTGTGCGGCCTGGAGGTGCAG
CCATGAAGGCCGGTGTGAAAGAGGGCGACCGGATCATCAAAGTCAACGGCACCATGGTGACCAATAGCTCACACC
TGGAAGTGGTAAAGCTGATCAAATCTGGCGCCTATGTCGCACTCACCCTCCTGGGCTCTTCACCTTCATCCATGG
GCATCTCTGGGCTCCAGCAGGACCCATCCCCAGCAGGAGCTCCCCGAATCACGTCAGTGATCCCCTCACCACCAC
CTCCTCCACCTCTACCACCTCCACAACGCATCACAGGACCCAAACCTCTGCAGGATCCCGAAGTTCAAAAACATG
CCACCCAGATCCTCAGGAATATGCTGAGGCAGGAAGAAAAAGAATTACAGCGTATCTGTGAGGTCTATAGCCGGA
ACCCCGCCAGCCTACTGGAAGAGCAGATCGAAGGTGCCCGGCGGCGAGTCACTCAGTTACAGCTGAAGATCCAGC
AGGAGACTGGTGGCTCAGTGGACATACTTCCACTATATGGTGACACCAGCCAGAGACCATCAGAAGGCCGGCTCT
CTCTGGATTCCCAGGAGGGGGACAGTGGCTTGGACTCTGGGACAGAACGCTTTCCTTCCCTCAGTGAGTCATTGA
TGAATCGGAACTCGGTACTGTCAGACCCTGGGCTAGACAGTCCTCGAACCTCCCCTGTGATCATGGCCAGGGTGG
CCCAGCACCACAGGCGGCAGGGCTCGGATGCAGCAGTCCCCTCAACCGGTGACCAGGGTGTAGATCAAAGCCCAA
AGCCTTTAATTATTGGCCCAGAGGAAGACTATGACCCGGGTTATTTCAACAACGAGAGCGACATCATATTCCAGG
ATCTGGAGAAACTGAAGTCTCGGCCAGCTCACCTGGGGGTTTTTCTACGTTACATCTTCTCTCAGGCGGACCCCA
GTCCACTGCTTTTTTACCTGTGTGCAGAAGTTTATCAGCAGGCAAGCCCCAAGGATTCCCGAAGCTTGGGGAAAG
ACATCTGGAATATTTTCCTGGAGAAAAATGCGCCTCTGAGAGTGAAGATCCCTGAGATGCTACAGGCTGAAATTG
ACTCGCGCCTGCGGAACAGCGAAGATGCCCGTGGTGTTCTCTGTGAAGCTCAAGAGGCAGCCATGCCTGAGATCC
AAGAGCAGATCCACGACTACAGAACGAAGCGCACACTGGGGCTGGGCAGCCTGTATGGTGAAAATGACCTGCTGG
ACCTGGATGGGGACCCTCTCCGAGAGCGCCAAGTGGCTGAGAAGCAGCTGGCTGCCCTTGGAGATATTTTGTCCA
AGTATGAGGAAGACAGGAGCGCCCCCATGGACTTCGCCCTCAATACCTACATGAGCCATGCTGGGATCCGTCTTC
GAGAGGCACGACCTTCCAACACAGCTGAAAAGGCCCAGTCTGCTCCTGACAAGGACAAGTGGCTACCGTTCTTCC
CTAAGACCAAGAAGAGCAGCAATTCCAAGAAAGAAAAGGATGCCTTGGAGGACAAGAAGCGAAACCCTATCCTCA
AATACATTGGGAAGCCCAAAAGCTCTTCTCAAAGCACATTTCATATTCCCTTGTCCCCTGTGGAAGTCAAACCAG
GCAATGTGAGGAACATCATTCAGCACTTTGAGAACAACCAGCAGTATGATGCCCCAGAACCTGGGACACAACGAC
TCTCGACCGGAAGCTTTCCTGAGGACCTGCTGGAGAGTGACAGTTCACGCTCAGAGATTCGCCTGGGCCGCTCTG
AAAGCCTCAAGGGCCGGGAAGAGATGAAACGGTCTCGAAAGGCAGAGAACGTGCCCCGCTCTCGCAGTGATGTTG
ACATGGATGCTGCTGCGGAGGCTACTCGCCTGCACCAGTCAGCCTCGTCCTCTACCTCCAGCCTCTCCACCAGGT
CTCTTGAGAACCCAACCCCTCCATTCACTCCCAAAATGGGCCGCAGGAGCATTGAGTCCCCCAGTTTGGGGTTCT
GCACAGATACCCTCCTTCCCCACCTCCTAGAGGATGATCTGGGCCAGCTGTCTGACCTGGAGCCAGAGCCAGATG
CCCAAAATTGGCAGCATACAGTGGGCAAGGATGTGGTGGCTGGGCTAACCCAGCGGGAGATTGACCGGCAAGAGG
TCATCAATGAGCTGTTTGTGACTGAAGCTTCCCACCTGCGCACACTCCGGGTCCTGGACCTGATCTTCTACCAGC
GAATGAAGAAGGAGAACCTGATGCCCCGGGAGGAGCTGGCCCGGCTCTTCCCGAACCTGCCTGAACTCATAGAGA
TTCACAATTCCTGGTGTGAAGCCATGAAGAAGCTCCGGGAGGAAGGCCCCATCATCAAAGAGATCAGTGACCTCA
TGCTGGCCCGGTTTGATGGCCCTGCCCGAGAGGAACTCCAGCAAGTGGCTGCACAGTTCTGTTCCTATCAGTCAA
TAGCCCTAGAGCTAATCAAGACCAAGCAACGCAAGGAGAGTCGATTCCAGCTCTTCATGCAGGAGGCTGAGAGCC
ACCCTCAGTGTCGGCGGCTGCAGCTGAGAGACCTCATCATCTCTGAGATGCAGCGGCTCACCAAGTACCCGCTGC
TGCTGGAGAGCATCATCAAGCACACAGAGGGTGGCACCTCTGAGCATGAGAAGCTGTGCCGGGCCCGGGACCAGT

FIGURE 1912B

GCCGGGAGATTCTCAAGTATGTGAATGAAGCGGTAAAACAAACAGAGAACCGCCACCGTTTAGAGGGCTACCAGA
AACGCCTGGATGCCACCGCCCTGGAGAGGGCCAGCAACCCCCTGGCAGCAGAGTTCAAGAGCCTGGATCTTACAA
CCAGAAAAATGATCCATGAGGGACCCCTGACCTGGAGGATCAGCAAGGATAAGACCTTGGACCTCCACGTGCTGC
TGCTGGAGGACCTCCTAGTGCTGCTACAGAAACAGGATGAGAAGCTATTGCTGAAGTGCCACAGCAAGACTGCTG
TGGGCTCCTCAGACAGCAAGCAGACCTTCAGCCCCGTGCTCAAGCTCAATGCTGTGCTCATCCGCTCTGTGGCCA
CAGATAAACGGGCCTTCTTCATCATCTGCACCTCCAAGCTGGGCCCACCCCAGATCTATGAGCTGGTTGCATTGA
CGTCATCAGACAAGAACACATGGATGGAGCTCTTAGAAGAGGCCGTGCGGAATGCCACCAGGCACCCCGGAGCTG
CCCCAATGCCCGTCCATCCTCCACCCCCAGGTCCCCGGGAGCCAGCCCAGCAGGGCCCCACACCCAGCAGGGTAG
AACTGGATGACTCAGACGTGTTCCATGGTGAACCTGAACCTGAGGAGCTGCCTGGAGGCACTGGGTCCCAGCAGA
GGGTCCAAGGGAAGCACCAGGTCCTGCTAGAGGACCCTGAGCAGGAGGGCAGTGCAGAGGAAGAGGAACTGGGTG
TCCTGCCTTGCCCTTCCACATCCCTGGATGGAGAGAACAGGGGCATCAGGACAAGGAACCCCATCCACTTGGCCT
TCCCAGGCCCTCTGTTCATGGAAGGGCTCGCTGACTCCGCTCTGGAAGATGTGGAGAACCTGCGACATCTGATCC
TGTGGAGCCTGCTGCCAGGTCACACCATGGAAACTCAGGCTGCCCAGGAGCCCGAGGACGACCTGACACCCACAC
CTTCTGTCATCAGCGTCACCTCTCACCCCTGGGACCCAGGCTCCCCAGGGCAAGCACCCCCTGGGGGTGAAGGGG
ACAACACCCAGCTTGCAGGGCTGGAGGGGGAACGGCCAGAGCAGGAAGACATGGGTCTCTGTTCTCTGGAACACC
TACCCCCAAGGACCAGAAATTCTGGGATATGGGAGTCTCCAGAACTGGACAGGAATCTGGCTGAAGATGCTTCAA
GCACAGAGGCAGCAGGAGGTTACAAAGTTGTGAGAAAAGCTGAGGTGGCAGGCAGCAAGGTTGTCCCTGCACTAC
CAGAGAGTGGCCAGTCAGAGCCTGGGCCACCTGAAGTGGAAGGCGGAACAAAGGCTACGGGGAACTGCTTTTATG
TCAGCATGCCATCAGGACCCCCGGACTCAAGCACCGACCACTCAGAGGCACCCATGAGCCCCCCTCAGCCTGACA
GCCTCCCTGCAGGGCAGACAGAGCCTCAGCCTCAGCTGCAGGGAGGCAACGATGATCCAAGACGCCCCAGCCGCT
CTCCTCCAAGCCTGGCCCTCAGGGACGTGGGCATGATCTTCCATACCATTGAGCAGCTCACTCTCAAGCTCAACA
GGCTCAAGGATATGGAGCTGGCCCACAGAGAGCTGCTCAAGTCCCTTGGGGGAGAGTCATCTGGTGGCACCACGC
CTGTGGGCAGTTTCCACACAGAAGCAGCTAGATGGACAGATGGCTCCCTCTCACCTCCCGCTAAGGAGCCCCTAG
CTTCTGACTCCAGGAACAGCCATGAACTGGGGCCCTGCCCTGAGGATGGCTCTGACGCCCCCCTGGAAGACAGCA
CAGCAGACGCAGCCGCGTCACCAGGACCA**TAA**CCGTACAAACCACCAAATCCTCTGCGTCCCCACTCCTCCTTCA
GGGACTGGCCTGAGACCGGGGCACAGGGTAGGGGGGATCCCAACACTCCTCCCTGTGGAGGAGGCAGTTAGGGAA
ACTAGGATCCAGCCAAGGCCCGGGGGGAGACCCGCATGTTGCTTGGTCTGCTCAAGTCGGAGTCAGGTTTCAGTG
TCTTTTCCCTCCCTTAGCCCAACCCTCCAAGGCCTCATGTCTCCTAAGCATGCTGACTGCATCCGAAAGGCCCCC
ACTCACCATGGTCTGCCCTCACCCCACATATGTGTGTACACGCGCACGCCTGTATGTGCGCTGCCCTCAGACATG
CAAGTGAAAGGAGGAGGCTTCTGTGTAAATGCACTTTCTTCCTCCCCTCTTTCTCCATAAGACCCCAGGCAGAGG
TGGGTGCCTCCCCTCCCCTCTTTGTCACTTTGGTTTCCTATAAATATGTATGTATCGT

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FIGURE 1913

GGAGAGATGATGAGTTGCTGAGTGTGCACACCTTTCCGGAACACATACACACACCCTGCTCTGGGATCCCTTGTG
AGGCTGCCCTC**ATG**GAGTTCCCCCTGGCCCAGATATGTCCCCAAGGGAGTCACGAAGCCCCCATCCCAACCTTCA
GCACCTTCCAGATCACAGACATGACCCGCAGGAGCTGCCAGAACCTGGGCTACACTGCGGCATCTCCCCAGGCCC
CGGAGGCTGCCTCCAACACAGGGAATGCTGAGAGGGCAGAGGAGGTGCCTGGAGAAGGAAGCCTGTTCCTGCAGG
CCGAGACCCGGGCTTGGTTCCAGAAGACCCAGGCCCACTGGCTCCTGCAGCACGGGGCAGCCCCTGCCTGGTTCC
ATGGCTTCATCACCCGGAGGGAGGCAGAGAGGCTGCTGGAGCCCAAGCCTCAGGGGTGCTACTTGGTGCGGTTCA
GCGAGAGCGCGGTGACCTTCGTGCTGACTTACAGGAGCCGGACTTGCTGCCGCCACTTCCTGCTGGCCCAGCTCA
GGGACGGGCGCCACGTGGTGCTGGGCGAGGACAGCGCCCACGCGCGGCTGCAGGACCTGCTGCTGCACTACACCG
CGCACCCGCTCAGCCCCTACGGGGAGACGCTCACCGAGCCCCTCGCCCGACAGACTCCTGAGCCTGCAGGACTTT
CCCTGAGGACCGAAGAATCAAACTTTGGAAGCAAAAGCCAGGACCCAAACCCCCAGTACAGCCCAATCATCAAAC
AGGGGCAAGCCCCAGTCCCGATGCAGAAAGAGGGGGCCGGGGAGAAGGAGCCCTCCCAGCTGCTCAGGCCCAAGC
CTCCCATCCCCGCCAAACCTCAGCTGCCCCCAGAAGTCTACACAATCCCTGTTCCACGACACCGCCCGGCCCCAC
GCCCCAAGCCCTCCAATCCTATCTACAATGAGCCTGATGAACCCATAGCTTTCTATGCCATGGGCCGGGGCAGCC
CTGGGGAAGCCCCCAGCAACATCTATGTGGAAGTGGAAGATGAGGGCCTACCCGCCACCCTTGGGCACCCTGTCC
TACGGAAGAGCTGGTCCAGGCCTGTCCCAGGAGGCCAGAATACAGGTGGCTCCCAGCTGCATTCTGAGAACTCTG
TGATTGGGCAAGGCCCTCCCCTGCCCCACCAGCCCCCACCCGCCTGGAGACACACCCTCCCCCACAATCTTTCTA
GACAGGTGCTTCAGGACAGAGGACAGGCATGGCTTCCCCTTGGGCCTCCTCAG**TAG**GCGGTCTGGCCTGACCCCC
AACAAAGAAGCCTGGAGGTCAGAGAAGCAAATGCGGAGCCTGCTCCCTCCTAAGAAGATCCCAAGAATCCAATGG
CTCAGTCCTTGGTGATCTAAGACAGCAAAGAAGTGTGCAAGGAGGGCCCTGTTAGCTCCCACTGTCCTGGTTTCT
CCTCCTGGAGTCTAATTTCCTTGGCCCTCTGAGCCTTTTGAGTCTGGGCCCTGGTCCAATGCTGCTGTTGTCTGA
GGAATGGTTTGGTGAGAACAGATGTTAGAACTTGTTTGTTGATTCTTGTCTGGCTAATAAATCATCACCAACTGC
CTTCTCCTACAGGGA

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FIGURE 1914

CTGCGGCAAAGAACCGGGCTGTGTCCAAAGTGTTCTCTGGAAGTTGTAGTTCCTGTATTGGTGAGGCAAGGAGGA
GGCGGAGTGACTCGGCGGCCATTAGCTGTGTGTAGTTGCCCGGGACTAGGAGCTTAAGTGAAGAGGTACGCCTTG
TTCGGTGGAAATCAGCCGTAGCCATGAGTTTCTGCCGGGGCTAGCCCTAGAGTACGGAGCAGGCGGACTTTTCGG
TTCCCCGCCCCGCCAGGTGGCGGGGCCTACTAGGCCTCCGGGCATCCCCGGTCTCAAGTAGGCCTCATCTGCCGG
CAAGGGCGCCCGAAACGCGGGAGGCGCC**ATG**TCGCTGGTTGCTTACGCCAGCAGCGATGAGAGCGAGCCGGATGA
GGCTGAGCCCGAGCCGGAGGAAGAGGAGGCGGTGGCTCCTACATCTGGGCCCGCTTTAGGGGGCTTGTTCGCTTC
TCTCCCTGCGCCCAAGGGTCCGGCCTTGCTGCCTCCGCCCCCTCAGATGCTGGCGCCAGCCTTTCCCCCGCCGCT
GTTGCTTCCCCCACCCACCGGAGACCCCAGGCTTCAGCCTCCTCCCCCCTTGCCCTTCGGCCTGGGAGGCTTCCC
CCCACCTCCAGGCGTGAGCCCGGCTGAAGCGGCGGGAGTTGGGGAGGGACTGGGATTGGGGTTGCCCTCGCCCCG
AGGCCCTGGCCTCAATCTGCCCCCTCCAATTGGCGGTGCCGGTCCCCCGCTGGGGCTTCCCAAGCCAAAGAAGAG
GAAAGAGCCCGTGAAGATCGCGGCGCCGGAGTTGCATAAGGGAGATTCAGATTCTGAGGAAGATGAACCCACAAA
GAAGAAAACTATCCTTCAGGGATCCAGTGAGGGGACTGGTTTGTCTGCCTTGCTTCCCCAACCTAAAAACCTGAC
TGTGAAAGAGACTAACAGGTTGCTCCTGCCCCATGCCTTCTCCCGCAAACCCTCGGATGGCTCCCCTGATACTAA
GCCCTCCAGACTGGCTTCTAAGACCAAGACTTCCTCTCTTGCCCCTGTTGTGGGCACCACAACCACCACTCCGTC
GCCCTCTGCTATCAAGGCTGCTGCCAAGAGTGCTGCCCTGCAGGTGACAAAGCAGATCACGCAGGAAGAAGACGA
CAGTGATGAGGAAGTAGCCCCCGAAAACTTTTTCTCCCTCCCTGAAAAGGCTGAGCCACCTGGAGTTGAGCCATA
CCCTTACCCCATCCCCACTGTCCCTGAAGAGCTGCCTCCAGGCACGGAACCAGAGCCGGCTTTCCAGGACGATGC
AGCCAATGCCCCCCTTGAATTCAAGATGGCAGCAGGTTCAAGTGGGGCCCCTTGGATGCCTAAGCCTGGGGACGA
CTACAGCTACAATCAGTTTTCCACATATGGCGATGCCAATGCCGCTGGTGCTTATTATCAGGATTATTACAGTGG
TGGCTACTATCCTGCACAGGACCCGGCCCTGGTCCCCCCCCAGGAAATTGCCCCAGATGCCTCCTTCATCGATGA
CGAAGCATTTAAGCGGCTGCAGGGCAAGAGGAACCGAGGGAGAGAAGAAATCAACTTTGTGGAGATCAAAGGTGA
TGACCAGCTCAGTGGGGCCCAGCAATGGATGACTAAGTCATTGACAGAAGAGAAAACCATGAAGTCATTCAGCAA
AAAGAAAGGTGAGCAGCCAACAGGCCAGCAGCGGCGGAAACACCAGATCACATATCTTATTCATCAGGCCAAGGA
GCGGGAGCTGGAACTGAAGAACACCTGGTCAGAGAACAAGCTCAGCCGCCGTCAGACCCAAGCCAAATATGGATT
C**TAG**GGCTCTGGAACTGATTGCTCCCAGGATCTCCTGCCAGCCCAGCTGGCCTGGCCCCCAGCTTCACCTCTGGG
ACCCCAGCTGCTCTAAGCCCAGGATCTCTTTCCCCAAGGACCCAGCCCTCGCCTCTGCGAGAATGAACATATTTG
ATAGATTTTTCTTAACAAGTTAGAAAATTCAGCTCCTTTCTGTCCTGGAGCTAGCAAAGACTTGTGTGATGCCTC
CGAAGGGGCTCTGAGTTCTGGGGTGGGAGTTTTGCTCTCTGTCAGGTGTGATAAAATGTTGAACCCTCCCCACCA
CCACTTTTTTTTTTTTAAACCAGGGATGTCTGTTGAAATAAAACATTCAGTCTGAC

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FIGURE 1915

GAGGAGGAGTGGGGACCGGGCGGGGGGGTGGAGGAAGAGGCCTCGCGCAGAGGAGGGAGCAATTGAATTTCAAACA
CAAACAACTGCACGAGCGCGCACCCACCGCGCCGGAGCCTTGCCCCGATCCGCGCCCGCCCCGTCCGTGCGGCGC
GCGGGCGGAGACGCCGTGGCCGCGCCGGAGCTCGGGCCGGGGGCCACCATCGAGGCGGGGGCCGCGCGAGGGCCG
GAGCGGAGCGGCGCCGCCACCGCCGCACGCGCAAACTTGGGCTCGCGCTTCCGGCCCGGCGCGGAGCCCGGGGC
GCCCGGAGCCCCGCC**ATG**TCGCGATCCAACCGGCAGAAGGAGTACAAATGCGGGGACCTGGTGTTCGCCAAGATG
AAGGGCTACCCACACTGGCCGGCCCGGATTGACGAGATGCCTGAGGCTGCCGTGAAATCAACAGCCAACAAATAC
CAAGTCTTTTTTTTCGGGACCCACGAGACGGCATTCCTGGGCCCCAAAGACCTCTTCCCTTACGAGGAATCCAAG
GAGAAGTTTGGCAAGCCCAACAAGAGGAAAGGGTTCAGCGAGGGGCTGTGGGAGATCGAGAACAACCCTACTGTC
AAGGCTTCCGGCTATCAGTCCTCCCAGAAAAAGAGCTGTGTGGAAGAGCCTGAACCAGAGCCCGAAGCTGCAGAG
GGTGACGGTGATAAGAAGGGGAATGCAGAGGGCAGCAGCGACGAGGAAGGGAAGCTGGTCATTGATGAGCCAGCC
AAGGAGAAGAACGAGAAAGGAGCGTTGAAGAGGAGAGCAGGGGACTTGCTGGAGGACTCTCCTAAACGTCCCAAG
GAGGCAGAAAACCCTGAAGGAGAGGAGAAGGAGGCAGCCACCTTGGAGGTTGAGAGGCCCCTTCCTATGGAGGTG
GAAAAGAATAGCACCCCCTCTGAGCCCGGCTCTGGCCGGGGGCCTCCCCAAGAGGAAGAAGAGGAGGAGGATGAA
GAGGAAGAGGCTACCAAGGAAGATGCTGAGGCCCCAGGCATCAGAGATCATGAGAGCCTG**TAG**CCACCAATGTTT
CAAGAGGAGCCCCCACCCTGTTCCTGCTGCTGTCTGGGTGCTACTGGGGAAACTGGCCATGGCCTGCAAACTGGG
AACCCCTTTCCCACCCCAACCTGCTCTCCTCTTCTACTCACTTTTCCCACTCCAAGCCCAGCCCATGGAGATTGA
CCTGGATGGGGCAGGCCACCTGGCTCTCACCTCTAGGTCCCCATACTCCTATGATCTGAGTCAGAGCCATGTCTT
CTCCCTGGAATGAGTTGAGGCCACTGTGTTCCTTCCGCTTGGGAGGGGCAATCCTCAAATGCGGGGTGGGGGCAG
CACAGGAGGGCGGCCTCCTTCTGAGCTCCTGTCCCCTGCTACACCTATTATCCCAGCTGCCTAGATTCAGGGAAA
GTGGGACAGCTTGTAGGGGAGGGGCTCCTTTCCATAAATCCTTGATGATTGACAACACCCATTTTTCCTTTTGCC
GACCCCAAGAGTTTTGGGAGTTGTAGTTAATCATCAAGAGAATTTGGGGCTTCCAAGTTGTTCGGGCCAAGGACC
TGAGACCTGAAGGGTTGACTTTACCCATTTGGGTGGGAGTGTTGAGCATCTGTCCCCCTTTAGATCTCTGAAGCC
ACAAATAGGATGCTTGGGAAGACTCCTAGCTGTCCTTTTTCCTCTCCACACAGTGCTCAAGGCCAGCTTATAGTC
ATATATATCACCCAGACATAAAGGAAAAGACACATTTTTTAGGAAATGTTTTTAATAAAAGAAAATTACAAAAAA
AAATTTTAAAGACCCCTAACCCTTTGTGTGCTCTCCATTCTGCTCCTTCCCCATCGTTGCCCCCATTTCTGAGGT
GCACTGGGAGGCTCCCCTTCTATTTGGGGCTTGATGACTTTCTTTTTGTAGCTGGGGCTTTGATGTTCCTTCCAG
TGTCATTTCTCATCCACATACCCTGACCTGGCCCCCTCAGTGTTGTCACCAGATCTGATTTGTAACCCACTGAGA
GGACAGAGAGAAATAAGTGCCCTCTCCCACCCTCTTCCTACTGGTCTCTCTATGCCTCTCTACAGTCTCGTCTCT
TTTACCCTGGCCCCTCTCCCTTGGGCTCTGATGAAAAATTGCTGACTGTAGCTTTGGAAGTTTAGCTCTGAGAAC
CGTAGATGATTTCAGTTCTAGGAAAATAAAACCCGTTGATTACT

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FIGURE 1916

GCGGGGGAGGGGACGCTGAGGGCCCATGTGCTGAAAATCCGAAGTGCCGCGGAAAGTGGAGAGCTGACAAGGAAG
GTTTCGAGCGTTTTGCTGGCAAAGGGATTTCTTACAACCTCCAGGC**ATG**CGTCTTTCTGCCCTGCTGGCCTTGGC
ATCCAAGGTCACTCTGCCCCCCCATTACCGCTATGGGATGAGCCCCCCAGGCTCTGTTGCAGACAAGAGGAAGAA
CCCCCCATGGATCAGGCGGCGCCCAGTGGTTGTGGAACCCATCTCTGATGAAGACTGGTATCTGTTCTGTGGGGA
CACGGTGGAGATCCTAGAAGGCAAGGATGCCGGGAAGCAGGGCAAAGTGGTTCAAGTTATCCGGCAGCGAAACTG
GGTGGTCGTGGGAGGGCTGAACACACATTACCGCTACATTGGCAAGACCATGGATTACCGGGGAACCATGATCCC
TAGTGAAGCCCCCTTGCTCCACCGCCAGGTCAAACTTGTGGATCCTATGGACAGGAAACCCACTGAGATCGAGTG
GAGATTTACTGAAGCAGGAGAGCGGGTACGAGTCTCCACACGATCAGGGAGAATTATCCCTAAACCCGAATTTCC
CAGAGCTGATGGCATCGTCCCTGAAACGTGGATTGATGGCCCCAAAGACACATCAGTGGAAGATGCTTTAGAAAG
AACCTATGTGCCCTGTCTAAAGACACTGCAGGAGGAGGTGATGGAGGCCATGGGGATCAAGGAGACCCGGAAATA
CAAGAAGGTCTATTGGTAT**TGA**GCCTGGGGCAGAGCAGCTCCTCCCCAACTTCTGTCCCAGCCTTGAAGGCTGAG
GCACTTCTTTTTCAGATGCCAATAAAGAGCACTTTATGAGTC

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FIGURE 1917

AAGGCAGGCGCGCGGGTTAGAACGCGCCAGAGGTCGGCGCGCGCACACCCGCACCGCCCCGACCCCAGGTAGTGA
GGCCAGTGATTCCGAGTGTGTGAGGAGAGGAGTGTACGGCAAGGGGCGGGAACTGGAACTTGGCCCGCCTCGTTG
TGAGCTGAGCTCAGCGGCACGCTTTTGTGGCGTCACTGCACTGTTACCCCGCCCTACGTGTCTCTGACGCTGACA
CCTTCTCACTGTGAAACGTCGCGACCTGTGACGTCTGGGGGGCGCCTCAAATCTTCCACTCCAGCATCGGATCCC
GGAAAGGCAGCGTCGGAGACTGGACCCAAAACTCTTCCTGTTCTGCCTGCAGAGTTGAGCCCCGTCCGGGTCCTG
GACCCGCGTAGTACTGACCCTGGATCCCTGTTCACTGCGTTCTCGCTCCCCGCGCTCCCTGCTGGACCCCGGG**AT**
GCCGGGCATCTCCGCCCGAGGCCTCTCTCATGAGGGGAGGAAGCAGCTAGCTGTTAACCTCACCCGTGTCCTGGC
ACTCTACCGTTCCATCTTGGATGCCTACATCATCGAATTTTTCACAGACAACCTATGGGACACACTCCCTTGCTC
ATGGCAGGAAGCATTGGATGGACTGAAACCACCACAGCTGGCCACAATGCTGCTGGGGATGCCTGGGGAAGGGGA
GGTCGTCAGGTACAGGTCAGTGTGGCCACTCACCCTGCTGGCCCTGAAGTCCACGGCGTGTGCCCTGGCCTTTAC
CCGGATGCCTGGCTTTCAGACCCCCTCAGAATTCCTGGAGAACCCCAGCCAGAGCTCCCGACTAACAGCTCCATT
CCGGAAACATGTCAGGCCCAAGAAGCAGCATGAGATCCGGAGGCTGGGAGAGTTGGTGAAGAAGCTGAGTGATTT
CACAGGCTGCACCCAGGTTGTAGACGTGGGCTCAGGCCAGGGCCATCTCTCCCGCTTCATGGCTCTTGGCCTGGG
GTTGATGGTGAAGAGCATCGAAGGGGATCAGAGACTGGTGGAGAGAGCCCAGCGCCTGGACCAGGAGCTTCTGCA
GGCTCTGGAGAAAGAGGAGAAGAGGAACCCGCAGGTGGTCCAAACCAGCCCTCGTCACTCCCCACACCACGTGGT
TAGGTGGGTAGACCCCACAGCCCTGTGTGAGGAGCTTCTGCTTCCACTGGAGAACCCGTGTCAGGGCAGGGCCCG
CTTGCTGCTCACAGGCCTCCACGCCTGTGGGGATCTGAGTGTTGCCTTGCTGAGACACTTCTCCTGCTGTCCTGA
GGTGGTGGCCCTGGCCTCAGTGGGCTGCTGCTACATGAAGCTGAGTGACCCTGGCGGCTACCCACTGAGTCAGTG
GGTGGCTGGGCTGCCTGGCTATGAACTGCCCTACCGGCTTCGGGAGGGGGCCTGCCATGCCCTGGAGGAATATGC
TGAGCGGCTACAGAAAGCTGGCCCTGGCCTTCGAACTCACTGCTACCGTGCAGCACTGGAGACAGTCATCCGACG
GGCCCGGCCCGAGCTCCGTCGGCCAGGCGTGCAGGGTATCCCCAGGGTCCACGAGCTCAAGATTGAAGAATATGT
GCAGCGGGGGCTACAGCGAGTGGGGCTAGATCCCCAGCTGCCACTGAATCTGGCTGCCCTTCAGGCCCACGTGGC
CCAGGAGAACCGTGTGGTGGCCTTCTTCAGCCTGGCTCTACTGCTTGCCCCACTGGTGGAGACGCTTATTCTACT
GGACCGGCTGCTGTACCTTCAGGAACAGGGTTTCCATGCTGAGCTCCTGCCCATCTTCAGTCCTGAACTCTCTCC
CAGAAACCTGGTTCTGGTGGCCACCAAGATGCCCCTGGGTCAGGCTCTTTCTGTTCTGGAGACTGAAGACAGC**TG**
ATGCAGCCTGAGGAAACATCTCAGACCCCATCATCTGAAAGTGCCCAGAGAGCACAGTGGCAGAGTACATCTCAT
CCAGAGAAACAGCATCCTGCATCCTCCAGAGTCCTGGTTCCTTCAGTTTCATCCCCTTTCTCTCCTTCCATGGAT
TATGTAATACATTGTAAAGTTTTAATTAATTAAAAATTGGATATCTG

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FIGURE 1918

CTGGGAGGTAGGTTTGTGAGCGTGAGAGATCGATCTGTACCGCGGGGATCCGAAGTATGCTTATCCAGGTGGGCT
GCCTCAAGCCTCGATCCCACCCCCGCGCTGGTAGATGGTGTCAAGGTCCTTGCGTGGGAGAAGGACTTGGGTGAG
ATGCATGCGGAGATTGCCCCCAATTCCGGCCTGGAGCCAAGGGAAAGGGATGCCTGGATTTGTGTCTCTATTGGT
GGTCCACGCTGCGGATGCCTGGGTAGCCCAGAGGTTATCTACGCCATACTTCTCACTGTTTTTGAGCATACCTAG
ATGTTCCTTTCCTAGGCGGAGTATAGATCGCACGTGTTCTAGCCTCTTAGACTCAGAGGGTTCGAGCTCTATAAG
CCCCTCCACTCCCTTCATTTTACAAATGAGACTCAAACCTAGAGCGCGGTAATGACCTTACTAAGACCAAATGGC
TGGTGAATTGGGCTTCACTAGAATCCAGGCTTGCTGGCTAACACCAATGCTCCCTCCATCATTTCATGTTATGTT
TTCATTTCCCCTCTGTCTGAGAGATTGCTCTGATGTCTTTCCTTCCATAAGTCCTACGGAGATCGAGCTTACCTC
ATTTTTCTCCCAGGCCTAGGAGCTCAATTACCAGGATCACTTTCTTCCCCAGGGTGTACTACAGACCTCCACATG
TTGGACAGTAGGATTCAGCAGAGAATGAGTCCCACATCCTCTTTTCATCCATAAGCCACTCTTCCCAACTACTCT
TCCGCCTTCCATTGTCCCT**ATG**TCTACTTTACTGCTCAATCTGGATTTTGGGGAACCTCCTCCCAAAAAGGCATT
AGAAGGAAATGCCAAGCACCGAAATTTTGTCAAGAAGCGGAGGCTCTTAGAACGGAGAGGCTTTCTGAGTAAAAA
GAACCAACCCCCTAGCAAGGCGCCTAAGTTGCACTCTGAACCTTCAAAGAAAGGGGAAACTCCTACGGTCGATGG
CACTTGGAAGACCCCTTCCTTCCCAAAAAAGAAGACAGCTGCTTCCAGCAATGGGTCAGGACAGCCCCTGGACAA
GAAAGCTGCAGTGTCTTGGTTGACCCCTGCCCCTTCAAAAAAGGCTGATTCTGTTGCTGCTAAAGTAGATTTGCT
GGGGGAGTTCCAGAGTGCCCTTCCAAAGATCAATAGCCACCCAACCCGCTCTCAGAAGAAGAGCTCCCAGAAGAA
ATCCTCTAAAAAGAACCATCCTCAGAAGAATGCCCCACAGAACTCCACCCAAGCTCATTCAGAGAATAAATGCTC
CGGAGCATCCCAGAAGTTGCCACGGAAGATGGTGGCAATTGACTGTGAGATGGTGGGCACAGGACCAAAGGGGCA
TGTTAGTTCCTTGGCTCGATGTAGCATTGTCAACTACAACGGAGATGTGCTTTATGACGAGTACATTCTTCCCCC
CTGCCACATTGTGGACTACCGAACCAGGTGGAGTGGTATCCGGAAGCAGCACATGGTGAATGCCACACCCTTCAA
GATTGCTCGAGGCCAGATCTTGAAGATACTCACAGGGAAGATAGTGGTGGGGCATGCCATCCACAACGACTTCAA
AGCCCTTCAGTACTTTCACCCCAAGTCCCTCACCCGTGACACCTCCCATATCCCCCCCCTCAACCGGAAGGCTGA
CTGCCCGGAGAATGCCACCATGTCTCTGAAGCATCTCACCAAGAAGCTGCTAAACCGGGATATCCAGGTTGGGAA
GAGCGGACATTCCTCTGTGGAAGATGCCCAGGCCACCATGGAGCTATATAAGTTGGTTGAAGTCGAGTGGGAAGA
GCACCTAGCCCGGAATCCCCCTACAGAC**TAG**TGGCAGTGGGGACGCTGGTGATATGAGGAGGCAGAGGCAGCACC
CAGGAGAAACAGGGCAGTGGACCAATGGACAGCTCCACCAGCTCCACATCTTTGGAAGCTAGATTTGGGGAGAGA
GAAGCTCTACCCCAGACTTAATACCCATTGAAATTTCACCTCAGGTGTTGTGTCCTGTGTCTGGTTAAGTGTCCC
ATGGAAGGGGAAAGCCTTCACGTCAGAACCCAACCCTATACCTTTTACTTCTTAAATGGTGCTAACCACAGGTGT
CCCAGGGTGCTCTGTGCCAGTTAAGATTTTTAACTTTCAAGGGGCAGGGCATACTGGGAAATGTAGTTTCCCAAA
CTGCCTTATCACTTGGGTGGACATATGTCTCCTTTTATGCCTTTTGGTCTTGAGTAATTAACAGCATCCTCTTCC
ACGCTCAGAAGTGTTCTGGTTGGGGCCAGGCATGGTGGCTCACACCTGTAGTCCCAACACTTAGGGAGGCCGAGG
CGGGCGGATCACCTGAGATCAGGAGTTCAAGACCAGCCTGGCCAACATGGCGAATTCCCGTTCTCTACTAAAAAT
ACAAAAAATGTGTGGGGTGTGGTGGCAGGAGCCTGTAATCCTAGCTACTCAGGAGGCTGAGGCAGGAGAATCGCT
TGAGCCCAGGAGGCGGAGATTGCAGTGAGCCGAGATCGTGTCACTGCACTCCAGCCTGGGTGACAAGAGTGAGAC
TCCGTCTCCAAAAAAAAAAAAAAAGAATTTATTAACCTGGTTGGTTAATAAATTGTGTGGTCCCTGCCGGGCGTG
GTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGACGGGCAGATCACGAGGTCAGGAGATCGAGACCAT
CCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCAGGCGTGGTGGCGGGCACCTGTA
GTTCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCAGGAGGCGGAGCTTGCAGTGAGCCGAGATT
GTGCCACTGCACTCCAGCCTGGGCCACGGCCACAGAGCGAGACTCTGTCTC

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FIGURE 1919

AGCTTTGGGGTTGTCCCTGGACTTGTCTTGGTTCCAGAACCTGACGACCCGGCGACGGCGACGTCTCTTTTGACT
AAAAGACAGTGTCCAGTGCTCCAGCCTAGGAGTCTACGGGGACCGCCTCCCGCGCCGCCACC**ATG**CCCAACTTCT
CTGGCAACTGGAAAATCATCCGATCGGAAAACTTCGAGGAATTGCTCAAAGTGCTGGGGGTGAATGTGATGCTGA
GGAAGATTGCTGTGGCTGCAGCGTCCAAGCCAGCAGTGGAGATCAAACAGGAGGGAGACACTTTCTACATCAAAA
CCTCCACCACCGTGCGCACCACAGAGATTAACTTCAAGGTTGGGGAGGAGTTTGAGGAGCAGACTGTGGATGGGA
GGCCCTGTAAGAGCCTGGTGAAATGGGAGAGTGAGAATAAAATGGTCTGTGAGCAGAAGCTCCTGAAGGGAGAGG
GCCCCAAGACCTCGTGGACCAGAGAACTGACCAACGATGGGGAACTGATCCTGACCATGACGGCGGATGACGTTG
TGTGCACCAGGGTCTACGTCCGAGAG**TGA**GTGGCCACAGGTAGAACCGCGGCCGAAGCCCACCACTGGCCATGCT
CACCGCCCTGCTTCACTGCCCCCTCCGTCCCACCCCCTCCTTCTAGGATAGCGCTCCCCTTACCCCAGTCACTTC
TGGGGGTCACTGGGATGCCTCTTGCAGGGTCTTGCTTTCTTTGACCTCTTCTCTCCTCCCCTACACCAACAAAGA
GGAATGGCTGCAAGAGCCCAGATCACCCATTCCGGGTTCACTCCCCGCCTCCCCAAGTCAGCAGTCCTAGCCCCA
AACCAGCCCAGAGCAGGGTCTCTCTAAAGGGGACTTGAGGGCCTGAGCAGGAAAGACTGGCCCTCTAGCTTCTAC
CCTTTGTCCCTGTAGCCTATACAGTTTAGAATATTTATTTGTTAATTTTATTAAAATGCTTTAAAAAAA

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FIGURE 1920

AGTCGCTCAGGCTACTCCCACCCCGCCCCGCCCCGTCATTGTCCCCGTCGGTCTCTTTTCTCTTCCGTCCTAAAA
GCTCTGCGAGCCGCTCCCTTCTCCCGGTGCCCCGCGTCTGTCCATCCTCAGTGGGTCAGACGAGCAGGATGGAGG
GCTGCAGAACTGGCTCAGGAAAGCCCTCCTGGG**ATG**GCTGGAGTGGAAAATGAGGATGAGGCAGAGCTGAATCTG
AGGGAGCAGGATGGCTTCACTGGGAAGGAGGAGGTGGTAGAGCAGGGAGAGCTGAATGCCACAGAGGAGGTCTGG
ATCCCAGGCGAGGGGCACCCAGAGAGCCCTGAGCCCAAAGAGCAGAGAGGCCTGGTTGAGGGAGCCAGTGTGAAG
GGAGGGGCTGAGGGCCTCCAGGACCCTGAAGGGCAATCACAACAGGTGGGGGCCCCAGGCCTCCAGGCTCCCCAG
GGGCTGCCAGAGGCGATAGAGCCCCTGGTGGAAGATGATGTGGCCCCAGGGGGTGACCAAGCCTCCCCAGAGGTC
ATGTTGGGGTCAGAGCCTGCCATGGGTGAGTCTGCTGCGGGAGCTGAGCCAGGCCCGGGGCAGGGGGTGGGAGGG
CTGGGGGACCCAGGCCATCTGACCAGGGAAGAGGTGATGGAACCACCCCTGGAAGAGGAGAGTTTGGAGGCAAAG
AGGGTTCAGGGCTTGGAAGGGCCTAGAAAGGACCTAGAGGAGGCAGGTGGTCTGGGGACAGAGTTCTCCGAGCTG
CCTGGGAAGAGCAGAGACCCTTGGGAGCCTCCCAGGGAGGGTAGGGAGGAGTCAGAGGCTGAGGCCCCCAGGGGA
GCAGAGGAGGCGTTCCCTGCTGAGACCCTGGGCCACACTGGAAGTGATGCCCCTTCACCTTGGCCTCTGGGGTCA
GAGGAAGCTGAGGAGGATGTACCACCAGTGCTGGTCTCCCCCAGCCCAACGTACACCCCGATCCTGGAAGATGCC
CCTGGGCCTCAGCCTCAGGCTGAAGGGAGTCAGGAGGCTAGCTGGGGGGTGCAGGGGAGGGCTGAAGCCCTGGGG
AAAGTAGAGAGCGAGCAGGAGGAGTTGGGTTCTGGGGAGATCCCCGAGGGCCCCCAGGAGGAAGGGGAGGAGAGC
AGAGAAGAGAGCGAGGAGGATCAGGAGGAGGGGAGGGAGCCAGGGGCTGGGCGGTGGGGGCCAGGGTCTTCTGTT
GGCAGCCTCCAGGCCCTGAGTAGCTCCCAGAGAGGGGAATTCCTGGAGTCTGATTCTGTGAGTGTCAGTGTCCCC
TGGGATGACAGCTTGAGGGGTGCAGTGGCTGGTGCCCCCAAGACTGCCCTGGAAACGGAGTCCCAGGACAGTGCT
GAGCCTTCTGGCTCAGAGGAAGAGTCTGACCCTGTTTCCTTGGAGAGGGAGGACAAAGTCCCTGGCCCTCTAGAG
ATCCCCAGTGGGATGGAGGATGCAGGCCCAGGGGCAGACATCATTGGTGTTAATGGCCAGGGTCCCAACTTGGAG
GGGAAGTCACAGCATGTGAATGGGGGAGTGATGAACGGGCTGGAGCAGTCTGAGGAAGTGGGGCAAGGAATGCCG
CTAGTCTCTGAGGGAGACCGAGGGAGCCCCTTTCAGGAGGAGGAGGGGAGTGCTCTGAAGACCTCTTGGGCAGGG
GCTCCTGTTCACCTGGGCCAGGGTCAGTTCCTGAAGTTCACTCAGAGGGAAGGAGATAGAGAGTCCTGGTCCTCA
GGGGAGGAC**TAG**GAAAAGACCATCTGCCCGGCACTGGGGACTTAGGGGTGCGGGGAGGGGAAGGACGCCTCCAAG
CCCGCTCCCTGCTCAGGAGCAGCACTCTTAACTTACGATCTCTTGACATATGGTTTCTGGCTGAGAGGCCTGGCC
CGCTAAGGTGAAAAGGGGTGTGGCAAAGGAGCCTACTCCAAGAATGGAGGCTGTAGGAATATAACCTCCCACCCT
GCAAAGGGAATCTCTTGCCTGCTCCATCTCATAGGCTAAGTCAGCTGAATCCCGATAGTACTAGGTCCCCTTCCC
TCCGCATCCCGTCAGCTGGAAAAGGCCTGTGGCCCAGAGGCTTCTCCAAAGGGAGGGTGACATGCTGGCTTTTGT
GCCCAAGCTCACCAGCCCTGCGCCACCTCACTGCAGTAGTGCACCATCTCACTGCAGTAGCACGCCCTCCTGGGC
CGTCTGGCCTGTGGCTAATGGAGGTGACGGCACTCCCATGTGCTGACTCCCCCCATCCCTGCCACGCTGTGGCCC
TGCCTGGCTAGTCCCTGCCTGAATAAAGTAATGCCTCCGCTTC

FIGURE 1921

CGCTCGTCCTTGCTCTCGCCGCTGCTGCCGGAGCCGAAGCAGAGAAGGCAGCGGGTCCCGTGACCGTCCCGAGAG
CCCCGCGCTCCCGACCAGGGGGCGGGGGCGGCCCCGGGGAGGGCGGGGCAGGGGCGGGGGGAAGAAAGGGGGTTT
TGTGCTGCGCCGGGAGGGCCGGCGCCCTCTTCCGAATGTCCTGCGGCCCCAGCCTCTCCTCACGCTCGCGCAGTC
TCCGCCGCAGTCTCAGCTGCAGCTGCAGGACTGAGCCGTGCACCCGGAGGAGACCCCCGGAGGAGGCGACAAACT
TCGCAGTGCCGCGACCCAACCCCAGCCCTGGGTAGCCTGCAGC**ATG**GCCCAGCTGTTCCTGCCCCTGCTGGCAGC
CCTGGTCCTGGCCCAGGCTCCTGCAGCTTTAGCAGATGTTCTGGAAGGAGACAGCTCAGAGGACCGCGCTTTTCG
CGTGCGCATCGCGGGCGACGCGCCACTGCAGGGCGTGCTCGGCGGCGCCCTCACCATCCCTTGCCACGTCCACTA
CCTGCGGCCACCGCCGAGCCGCCGGGCTGTGCTGGGCTCTCCGCGGGTCAAGTGGACTTTCCTGTCCCGGGGCCG
GGAGGCAGAGGTGCTGGTGGCGCGGGGAGTGCGCGTCAAGGTGAACGAGGCCTACCGGTTCCGCGTGGCACTGCC
TGCGTACCCAGCGTCGCTCACCGACGTCTCCCTGGCGCTGAGCGAGCTGCGCCCCAACGACTCAGGTATCTATCG
CTGTGAGGTCCAGCACGGCATCGATGACAGCAGCGACGCTGTGGAGGTCAAGGTCAAAGGGGTCGTCTTTCTCTA
CCGAGAGGGCTCTGCCCGCTATGCTTTCTCCTTTTCTGGGGCCCAGGAGGCCTGTGCCCGCATTGGAGCCCACAT
CGCCACCCCGGAGCAGCTCTATGCCGCCTACCTTGGGGGCTATGAGCAATGTGATGCTGGCTGGCTGTCGGATCA
GACCGTGAGGTATCCCATCCAGACCCCACGAGAGGCCTGTTACGGAGACATGGATGGCTTCCCCGGGGTCCGGAA
CTATGGTGTGGTGGACCCGGATGACCTCTATGATGTGTACTGTTATGCTGAAGACCTAAATGGAGAACTGTTCCT
GGGTGACCCTCCAGAGAAGCTGACATTGGAGGAAGCACGGGCGTACTGCCAGGAGCGGGGTGCAGAGATTGCCAC
CACGGGCCAACTGTATGCAGCCTGGGATGGTGGCCTGGACCACTGCAGCCCAGGGTGGCTAGCTGATGGCAGTGT
GCGCTACCCCATCGTCACACCCAGCCAGCGCTGTGGTGGGGGCTTGCCTGGTGTCAAGACTCTCTTCCTCTTCCC
CAACCAGACTGGCTTCCCCAATAAGCACAGCCGCTTCAACGTCTACTGCTTCCGAGACTCGGCCCAGCCTTCTGC
CATCCCTGAGGCCTCCAACCCAGCCTCCAACCCAGCCTCTGATGGACTAGAGGCTATCGTCACAGTGACAGAGAC
CCTGGAGGAACTGCAGCTGCCTCAGGAAGCCACAGAGAGTGAATCCCGTGGGGCCATCTACTCCATCCCCATCAT
GGAGGACGGAGGAGGTGGAAGCTCCACTCCAGAAGACCCAGCAGAGGCCCCTAGGACGCTCCTAGAATTTGAAAC
ACAATCCATGGTACCGCCCACGGGGTTCTCAGAAGAGGAAGGTAAGGCATTGGAGGAAGAAGAGAAATATGAAGA
TGAAGAAGAGAAAGAGGAGGAAGAAGAAGAGGAGGAGGTGGAGGATGAGGCTCTGTGGGCATGGCCCAGCGAGCT
CAGCAGCCCGGGCCCTGAGGCCTCTCTCCCCACTGAGCCAGCAGCCCAGGAGGAGTCACTCTCCCAGGCGCCAGC
AAGGGCAGTCCTGCAGCCTGGTGCATCACCACTTCCTGATGGAGAGTCAGAAGCTTCCAGGCCTCCAAGGGTCCA
TGGACCACCTACTGAGACTCTGCCCACTCCCAGGGAGAGGAACCTAGCATCCCCATCACCTTCCACTCTGGTTGA
GGCAAGAGAGGTGGGGGAGGCAACTGGTGGTCCTGAGCTATCTGGGGTCCCTCGAGGAGAGAGCGAGGAGACAGG
AAGCTCCGAGGGTGCCCCTTCCCTGCTTCCAGCCACACGGGCCCCTGAGGGTACCAGGGAGCTGGAGGCCCCCTC
TGAAGATAATTCTGGAAGAACTGCCCCAGCAGGGACCTCAGTGCAGGCCCAGCCAGTGCTGCCCACTGACAGCGC
CAGCCGAGGTGGAGTGGCCGTGGTCCCCGCATCAGGTGACTGTGTCCCCAGCCCCTGCCACAATGGTGGGACATG
CTTGGAGGAGGAGGAAGGGGTCCGCTGCCTATGTCTGCCTGGCTATGGGGGGGACCTGTGCGATGTTGGCCTCCG
CTTCTGCAACCCCGGCTGGGACGCCTTCCAGGGCGCCTGCTACAAGCACTTTTCCACACGAAGGAGCTGGGAGGA
GGCAGAGACCCAGTGCCGGATGTACGGCGCGCATCTGGCCAGCATCAGCACACCCGAGGAACAGGACTTCATCAA
CAACCGGTACCGGGAGTACCAGTGGATCGGACTCAACGACAGGACCATCGAAGGCGACTTCTTGTGGTCGGATGG
CGTCCCCCTGCTCTATGAGAACTGGAACCCTGGGCAGCCTGACAGCTACTTCCTGTCTGGAGAGAACTGCGTGGT
CATGGTGTGGCATGATCAGGGACAATGGAGTGACGTGCCCTGCAACTACCACCTGTCCTACACCTGCAAGATGGG
GCTGGTGTCCTGTGGGCCGCCACCGGAGCTGCCCCTGGCTCAAGTGTTCGGCCGCCCACGGCTGCGCTATGAGGT
GGACACTGTGCTTCGCTACCGGTGCCGGGAAGGACTGGCCCAGCGCAATCTGCCGCTGATCCGATGCCAAGAGAA
CGGTCGTTGGGAGGCCCCCCAGATCTCCTGTGTGCCCAGAAGACCTGCCCGAGCTCTGCACCCAGAGGAGGACCC
AGAAGGACGTCAGGGGAGGCTACTGGGACGCTGGAAGGCGCTGTTGATCCCCCCTTCCAGCCCCATGCCAGGTCC
C**TAG**GGGGCAAGGCCTTGAACACTGCCGGCCACAGCACTGCCCTGTCACCCAAATTTTCCCTCACACCCTGCGCT
CCCGCCACCACAGGAAGTGACAACATGACGAGGGGTGGTACTGGAGTCCAGGTGACAGTTCCTGAAGGGGCTTCT
GGGAAATACCTAGGAGGCTCCAGCCCAGCCCAGGCCCTCTCCCCCTACCCTGGGCACCAGATCTTCCATCAGGGC
CGGAGTAAATCCCTAAGTGCCTCAACTGCCCTCTCCCTGGCAGCCATCTTGTCCCCTCTATTCCTCTAGGGAGCA
CTGTGCCCACTCTTTCTGGGTTTTCCAAGGGAATGGGCTTGCAGGATGGAGTGTCTGTAAAATCAACAGGAAATA
AAACTGTGTATGAGCCC

FIGURE 1922

GGCGGCGCACAAGTCAGGTCCGGCACATGTTTCCGCGGAGCGGACCCAGCAATGACGGATGATATCACCTCTTCT
TCTCTGGTGAGAGTCTGAGGATAGAGACTTTTTTCTCACC**ATG**AATGTCACCCCAGAGGTCAAGAGTCGTGGGAT
GAAGTTTGCTGAGGAGCAGCTGCTAAAGCATGGATGGACTCAAGGCAAAGGCCTCGGCCGGAAGGAGAATGGTAT
CACTCAGGCTCTCAGGGTGACACTGAAGCAAGACACTCATGGGGTAGGACATGACCCTGCCAAGGAGTTCACAAA
CCACTGGTGGAATGAGCTCTTCAACAAGACTGCGGCCAACTTGGTAGTGGAAACTGGGCAGGATGGAGTACAGAT
AAGGAGCCTTTCTAAGGAGACCACCCGTTATAATCATCCCAAGCCCAACTTGCTGTATCAGAAGTTTGTGAAGAT
GGCTACATTGACTTCAGGTGGAGAGAAGCCAAACAAAGACTTGGAGAGCTGCAGTGATGACGACAACCAGGGGTC
CAAGTCCCCAAAGATTCTGACTGATGAGATGCTGCTCCAAGCCTGTGAGGGGCGAACAGCACACAAGGCTGCCCG
TCTTGGGATCACAATGAAGGCCAAGCTTGCTCGCCTAGAGGCCCAGGAGCAGGCCTTCCTGGCTCGTCTCAAAGG
CCAGGACCCTGGGGCCCCTCAACTGCAGTCAGAGAGCAAGCCCCCCAAAAAAAAGAAAAAGAAAAGGAGGCAGAA
AGAGGAGGAAGAAGCTACAGCATCTGAAAGGAATGATGCAGATGAGAAGCACCCAGAACATGCTGAGCAGAACAT
CAGAAAAAGCAAGAAGAAGAAAAGGCGACATCAAGAAGGAAAGGTCTCAGATGAAAGAGAGGGTACAACTAAAGG
GAATGAGAAGGAGGACGCTGCAGGAACAAGTGGGCTTGGGGAATTGAATAGCAGAGAGCAAACCAATCAGTCCCT
CAGGAAAGGGAAGAAAAAGAAGAGGTGGCACCATGAAGAGGAGAAGATGGGGGTCTTGGAGGAAGGAGGAAAAGG
CAAGGAGGCTGCAGGCAGTGTCAGGACAGAGGAGGTAGAGAGCAGGGCATATGCTGACCCATGCAGCCGAAGAAA
GAAGAGGCAGCAACAGGAGGAGGAGGACTTGAACCTAGAAGATAGAGGTGAGGAAACTTTTAGGTGGTGGAACCA
GGGAAGCAGAGAGCAGAGCATGCAG**TGA**TGGAAGAAGCAGGAAAAGCAAGAAGAAAAGACAGCAGCATCAAGAGG
AGGAGGACATCTTGGATGTAAGGGATGAGAAGGATGGCGGGGCTAGGGAAGCAGAGAGCAGAGCACACACTGGCT
CAAGCAGCAGAGGTAAGAGGAAGAGGCAGCAGCATCCCAAGAAGGAAAGAGCTGGAGTCAGCACTGTCCAGAAAG
CCAAAAAGAAACAGAAGAAGAGAGACTAAAGGTCTGGTAAAGGTAGGGCTCAATTGATTGATTTTCAGGAGTTGA
AGCCTCAAAGACCAGGGTTGATGCAGGTCTGCAGGTCTTCTGCACCCCCCTCAATGAGGAGTCCCTCCCAGAAAG
GAAACTGATCTCTGGGACGTCAGCTGCTGAGAGGAGCAAGCGGTAGTACCACCCCTTAGTTGAGGGAGTCAGCAC
AGTCCTTTCTGCAGCTTCTAACCCAGGACCATGAACTCAGGTGCCTAGAGAAGCCAGGCAGCTAAAGGACAAGGA
ATGCTGGGGGCTGTGGGAACAGGAATGCAGATACCCTTTGAAGGAGCATTCCTGCTAAAAGAAGCTGAAAATGTA
GACCTATGTGAAGTGCTCTGATTTCTAAATATTGTGAAGGTTAAGAAAAACATAAATTTAGGTCTATGGGCTAGA
TTTAGCCCACAGTTGCCAGTTTCTAGCGCTACCAAATGAATGAATAAACATGAGCTTGCGCTCCTAGCCTAGAGA
TAAATCCTGACTGGCATCTCTGTTCCCAGCCTGGGAAGGTCCTGAATACAAATTAGAAGATATTCCTTGGAGGCC
TTTGAAGAAATTCCTTCGGTTAACCTCTTTGTAGTCTTGCTACACTGATAAGTAGAAGTAGCTCCCTGTCTGTGT
CCCAAATGAATAAGAATTGTGTAAAGGACAGCA

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FIGURE 1923

ATAAGGCCTTCTCAACACCATCACCATCCCTATTCCCTTGTGGAAGCCCCCTAAGAATTTATAGCTCCAGGCAGT
GGTTTGCCAGCCCCCACCATTGCTCCTTGAGGAGCCACAGGGAGGTGTGCCATCCTGCATACTCGAACTTGGATA
GGAGATGGGCTGCTGCTGCTGGG**ATG**TGCAGCAGCTTTGGCCTCTCTCACCCACAGCTGGCTGGTGAGCAGAACA
AGAAGAGGAAATGCTCTGGTTCATCAGGTCTTCACAGTGGACAAGTGCCAGTGACTGACAGTAAAGATGCCCCGC
TCCACCCCGACCATAGTACCTGTTCACAGTACCTTCATTTAATCAGATTAATTGAGAGTCTACTATGGGCCAAGG
AGTTGGGGATTCAGAGTGGAATAAGAATGAGATGGGCCCAGCCCAGATGGAATCTACATAGGCAATTA**TGA**TGGA
AGTGTTGCCTGTGATAGAGGAAGGGTACTCAACTCAGACTTCAGAGAATGGCTTCTAAAAGTAACTGATGTATAA
GCTGAGCTCTGGAGGATAAGAGAAACTCAGAAGGTAAAGGGGGAAAGGGAGAAGAATGTCCCAAGCAGAGGGAGC
AACATGTGCAATAACCTGAAGATGGAAGACTGTCGTACCTTCAAAGAAAAGAAACAGATTGGAATCTGTTATGCT
AATGGTTAGGCTAAAGTAGTGGTCCTGGAGAAAAGTGAAGAGATGAGGCTGGAGATGGCAGGAACAGGCATGCAG
AGCCATATAAGCCAGTCCGATAAATCTGGATTGTGTCATCCTAGGTCAAACAAGACCCAGTGACATGATGACATT
TATGTTTTAGAGAGAACACTGGATGCTTTGTGGAGAAGTCCATCCTCCACAAAGGTTGGGGTGGGGAGTGAGACT
ACAGGTGTTCTTAGGAGGCTGCTGGAGAAAGAAATTAGGCAAGAGATGATGATGGCCCGAAGTGGGGTAGTAGAT
GGTAACAGAGATGTAGAGAAATGGGAAAGATTTGCTAGGTAACATGTATAGCCCTTAGCACATAATGACCATTAC
ATGTTAGCTTCCTCCTATTGGTACAGTAGAAAGTGGAGGCCTGAAGTCCTGGGTTCCAGTCCTGTTTGCCATTAC
TAGCCAGCTGTGGGCTCTTCAGCAAACCACTTTTCACCCTTTTAGCCACATCTGCAAAGCAGGGATGGTCCAGAT
AATCTCTCAGGTCTCCTCTGGCTTCTAAGTCCTTTGAATTAGATGTCCCCTGGCCCCCCCAAAATTTGGCAGCTC
CTGACTTAAGAGACTGTACCCTACCTCCCACGCCCTATTGCTGCTCCCTTAACAGATGGCAGGATCCACGGAACC
TGAAGATCTCAATTCCTGCTGAGGGTCTGGGCAGTCTAAGTAAGCAACAGCAAGGCTGGTCACAGGATCCCACTA
TGTTAGGAAAGTTCTGAGAATTGATAAGGCATACAAGGCAACTGTTCAGGCCCCAGGGAAACCAGGGAAGAGAAA
AAGGATGGACTCTGTTACCCACAGCCTCTAATACCTTCACAAACTTCTGATACAGCAAGTTGGGCTTGGGATGAT
TATAACGGGTGGTCTCCTTAGAAAGGCTCCTTATCTGTACTCCATCCTGTAGAGAATTATCAGTACCAGTGAATG
GGTGACATATCATGACTGCCTACGCCACAGGTCCCAGGCCCTCTGTTTCATGTGCCCATCTATCAAGAGCTCATA
CCTGCCCAGTTTCCACTACCAAGTTGGCCGCAGTCTTGTTGAAGAGCTCATTCCACCAGTGGTTTGTGAACTCCT
TGGCAGGGTCATGTCCTACCTGCCAGGGGAATAAATATGAGCTCTGAGTGCCTGCCTCACCTGCCCTCAAGGGTC
CCCTCTCCCACACATGCTAACCTTCCTCAGTCCACCCAGTCTTACCCCATGAGTGTCTTGCTTCAGTGTCACCCT
GAGAGCCTGAGTGATACCATTCTCCTTCCGGCCGAGGCCTTTGCCTGCAGAGGACAGTGAGCGATTTGGCTTATT
CTCCTGCCTGCTGTGAGACCTCACAAGGCACCCCCCACACAGGCCTCTTGCCATTCCACACACCTGACATTGGGG
TATACTCTGTACCTCTCAGAAGACCTCCTAGCGCACTTCTTTCTAGTACCACTCCATATAGTCCCCTGCCTTTGT
GTGAGCCTGAACTATCTCTTCCTTCAAATTCTTTTGGTAGAGAGCCCATATCTCTTTTTCCCTCCCCTAGTCCTC
CCAACCACCACTTCTTCATTATCCACTGTCAAATTTCTTCCTTTCTTCCCTTTTCTGGGAAAGTTAGAAATTTTC
TTCTGCAAATTTCCCTTTAAACTAGCTTTTCCTCCTTTAATTAAATGGACTACATGGGGGGGTAATCCAGGATGA
TGGCTTTCCCCTGGGCAGATGGTAGGCAGGGAGCTGGGGGATGTGGAAGAGGCCCCATGGGGATCACCTTGAGTC
CATCCATGCTTTAGCAGCTGCTCCTCAGCAAACTTCATCCCACGACTCTTGACCTCTGGGGTGACATTCATGGTG
AGAAAAAAGTCTCTATCCTCAGACTCTCACCAGAGAAGAAGAGGTGATATCATCCTTTTAAGAAGAAAGTAGAAA
GTGCCCAAACAGCCATCAGTTCCATCCTGACTGCTTGTTAAGAATTCTCTGCTAGTTGGGTGCAGTGGCACACAC
CTGTAGTCCCAGCTACATGGGAGGCTGAGGCGGGATTGCTTGAGTCCAGCCTGGGCAGTATAGCAAGACCCTCTC
TCATAAAAAGAATAAAGCGGCCAGGCACAGTGGTTCACATTTGTAATCCCAGCACTTTGGAAGGCCAAGGTAGAA
GAATCACTTGAGCCCAGGAGTTCCAGACCAGTGTGGGCAACGTAGTGAAACCCTGCCTCTAGAAAAAATAAAAAA
TTAAAAAG

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FIGURE 1924

GGGCCGGGGGCGCGCGCTCTGCGAGCTGG**ATG**TCCAGGCTGCGGGCGCTGCTGGGCCTCGGGCTGCTGGTTGCGG
GCTCGCGCGTGCCGCGGATCAAAAGCCAGACCATCGCCTGTCGCTCGGGACCCACCTGGTGGGGACCGCAGCGGC
TGAACTCGGGTGGCCGCTGGGACTCAGAGGTCATGGCGAGCACGGTGGTGAAGTACCTGAGCCAGGAGGAGGCCC
AGGCCGTGGACCAGGAGCTATTTAACGAATACCAGTTCAGCGTGGACCAACTTATGGAACTGGCCGGGCTGAGCT
GTGCTACAGCCATCGCCAAGGCATATCCCCCCACGTCCATGTCCAGGAGCCCCCCTACTGTCCTGGTCATCTGTG
GCCCGGGGAATAATGGAGGAGATGGTCTGGTCTGTGCTCGACACCTCAAACTCTTTGGCTACGAGCCAACCATCT
ATTACCCCAAAAGGCCTAACAAGCCCCTCTTCACTGCATTGGTGACCCAGTGTCAGAAAATGGACATCCCTTTCC
TTGGGGAAATGCCCGCAGAGCCCATGACGATTGATGAACTGTATGAGCTGGTGGTGGATGCCATCTTTGGCTTCA
GCTTCAAGGGCGATGTTCGGGAACCGTTCCACAGCATCCTGAGTGTCCTGAAGGGACTCACTGTGCCCATTGCCA
GCATCGACATTCCCTCAGGATGGGACGTGGAGAAGGGAAATGCTGGAGGGATCCAGCCAGACTTGCTCATATCCC
TCACAGCCCCCAAAAAATCTGCAACCCAGTTTACCGGTCGCTACCATTACCTGGGGGGTCGTTTTGTGCCACCTG
CTCTGGAGAAGAAGTACCAGCTGAACCTGCCACCCTACCCTGACACCGAGTGTGTCTATCGTCTGCAG**TGA**GGGA
AGGTGGGTGGGTATTCTTCCCAATAAAGACTTAGAGCCCCTCTCTTCCAGAACTGTGGATTCCTGGGAGCTCCTC
TGGCAATAAAAGTCAGTGAATGGTGGAAGTCAGAGACCAACCCTGGGGATTGGGTGCCATCTCTCTAGGGGTAAC
ACAAAGGGCAAGAGGTTGCTATGGTATTTGGAAACAATGAAAATGGACTGTTAGATGCC

FIGURE 1925

CAGGGGCGAGGGCTACCCGCTCTTTGCCGTGACAACACCGTTCCCCCAGCCGGGCTGGAGGCTGTGCAGAAGGTA
TCCTGCAGACCATGAACTGAGCACTGTTCCCAGACCGTTCATGAGCACAGTGTAAGGTGTGCCGAGACCCACCAC
CCAGCGAGCCCCTCCCCTCCGTAGCACTGAGGACCCCCGGAGAAG**ATG**GGGAGGAAAAAGATTCAGATCCAGCGA
ATCACCGACGAGCGGAACCGACAGGTGACTTTCACCAAGCGGAAGTTTGGCCTGATGAAGAAGGCGTATGAGCTG
AGCGTGCTATGTGACTGCGAGATCGCACTCATCATCTTCAACCACTCCAACAAGCTGTTCCAGTACGCCAGCACC
GACATGGACAAGGTGCTGCTCAAGTACACGGAGTACAATGAGCCACACGAGAGCCGCACCAACGCCGACATCATC
GAGACCCTGAGGAAGAAGGGCTTCAACGGCTGCGACAGCCCCGAGCCCGACGGGGAGGACTCGCTGGAACAGAGC
CCCCTGCTGGAGGACAAGTACCGACGCGCCAGCGAGGAGCTCGACGGGCTCTTCCGGCGCTATGGGTCAACTGTC
CCGGCCCCCAACTTTGCCATGCCTGTCACGGTGCCCGTGTCCAATCAGAGCTCACTGCAGTTCAGCAATCCCAGC
GGCTCCCTGGTCACCCCTTCCCTGGTGACATCATCCCTCACGGACCCGCGGCTCCTGTCCCCCCAGCAGCCAGCA
CTACAGAGGAACAGTGTGTCTCCTGGCCTGCCCCAGCGGCCAGCTAGTGCGGGGGCCATGCTGGGGGGTGACCTG
AACAGTGCTAACGGAGCCTGCCCCAGCCCTGTTGGGAATGGCTACGTCAGTGCTCGGGCTTCCCCTGGCCTCCTC
CCTGTGGCCAATGGCAACAGCCTAAACAAGGTCATCCCTGCCAAGTCTCCACCCCCACCTACCCACAGCACCCAG
CTTGGAGCCCCCAGCCGCAAGCCCGACCTGCGAGTCATCACTTCCCAGGCAGGAAAGGGGTTAATGCATCACTTG
ACTGAGGACCATTTAGATCTGAACAATGCCCAGCGCCTTGGGGTCTCCCAGTCTACTCATTCGCTCACCACCCCA
GTGGTTTCTGTGGCAACGCCGAGTTTACTCAGCCAGGGCCTCCCCTTCTCTTCCATGCCCACTGCCTACAACACA
GATTACCAGTTGACCAGTGCAGAGCTCTCCTCCTTACCAGCCTTTAGTTCACCTGGGGGGCTGTCGCTAGGCAAT
GTCACTGCCTGGCAACAGCCACAGCAGCCCCAGCAGCCGCAGCAGCCACAGCCTCCACAGCAGCAGCCACCGCAG
CCACAGCAGCCACAGCCACAGCAGCCTCAGCAGCCGCAACAGCCACCTCAGCAACAGTCCCACCTGGTCCCTGTA
TCTCTCAGCAACCTCATCCCGGGCAGCCCCCTGCCCCACGTGGGTGCTGCCCTCACAGTCACCACCCACCCCCAC
ATCAGCATCAAGTCAGAACCGGTGTCCCCAAGCCGTGAGCGCAGCCCTGCGCCTCCCCCTCCAGCTGTGTTCCCA
GCTGCCCGCCCTGAGCCTGGCGATGGTCTCAGCAGCCCAGCCGGGGGATCCTATGAGACGGGAGACCGGGATGAC
GGACGGGGGGACTTCGGGCCCCACACTGGGCCTGCTGCGCCCAGCCCCAGAGCCTGAGGCTGAGGGCTCAGCTGTG
AAGAGGATGCGGCTTGATACCTGGACATTAAAG**TGA**CGATTCCCACTCCCCTCCTCTCAGCCTCCCTGATGAAGA
GTTGACAATCTCACCGCCCGCCCTTCCCTGCCCCGGGCTCCTCCCGCTCGACCCCCACTTCCTTTCTTGTGCTTC
GTGTCCTGTTGACGGTTACATTTGTGTATAATTATTATATTATT

FIGURE 1926

TTGCGTAGGGGGCGGGACTAAGGCTGTCAATTGGTCTGTTTTTGTGCCGATCAATGAGATGGGTGCGGTGATTGG
CGACTACCTTGAGAGTAGCGGGTTGAGGTGTAAGCCCTGAGGAGGCAGCGTTTTCTGGGCTTCTGTCTGGTTCTC
TCTCTCCAGAAGGTTCTGCCGGTTCCCCCAGCTCTGGGTACCCGGCTCTGCATCGCGTCGCCATG**ATG**GGCCATC
GTCCAGTGCTCGTGCTCAGCCAGAACACAAAGCGTGAATCCGGAAGAAAAGTTCAATCTGGAAACATCAATGCTG
CCAAGACTATTGCAGATATCATCCGAACATGTTTGGGACCCAAGTCCATGATGAAGATGCTTTTGGACCCAATGG
GAGGCATTGTGATGACCAATGATGGCAATGCCATTCTTCGAGAGATTCAAGTCCAGCATCCAGCGGCCAAGTCCA
TGATCGAAATTAGCCGGACCCAGGATGAAGAGGTTGGAGATGGGACCACATCAGTAATTATTCTTGCAGGGGAAA
TGCTGTCTGTAGCTGAGCACTTCCTGGAGCAGCAGATGCACCCAACAGTGGTGATCAGTGCTTACCGCAAGGCAT
TGGATGATATGATCAGCACCCTAAAGAAAATAAGTATCCCAGTCGACATCAGTGACAGTGATATGATGCTGAACA
TCATCAACAGCTCTATTACTACCAAAGCCATCAGTCGGTGGTCATCTTTGGCTTGCAACATTGCCCTGGATGCTG
TCAAGATGGTACAGTTTGAGGAGAATGGTCGGAAAGAGATTGACATAAAAAAATATGCAAGAGTGGAAAAGATAC
CTGGAGGCATCATTGAAGACTCCTGTGTCTTGCGTGGAGTCATGATTAACAAGGATGTGACCCATCCACGTATGC
GGCGCTATATCAAGAACCCTCGCATTGTGCTGCTGGATTCTTCTCTGGAATACAAGAAAGGAGAAAGCCAGACTG
ACATTGAGATTACACGAGAGGAGGACTTCACCCGAATTCTCCAGATGGAGGAAGAGTACATCCAGCAGCTCTGTG
AGGACATTATCCAACTGAAGCCCGATGTGGTCATCACTGAAAAGGGCATCTCAGATTTAGCTCAGCACTACCTTA
TGCGGGCCAATATCACAGCCATCCGCAGAGTCCGGAAGACAGACAATAATCGCATTGCTAGAGCCTGTGGGGCCC
GGATAGTCAGCCGACCAGAGGAACTGAGAGAAGATGATGTTGGAACAGGAGCAGGCCTGTTGGAAATCAAGAAAA
TTGGAGATGAATACTTTACTTTCATCACTGACTGCAAAGACCCCAAGGCCTGCACCATTCTCCTCCGGGGGGCTA
GCAAAGAGATTCTCTCGGAAGTAGAACGCAACCTCCAGGATGCCATGCAAGTGTGTCGCAATGTTCTCCTGGACC
CTCAGCTGGTGCCAGGGGGTGGGGCCTCCGAGATGGCTGTGGCCCATGCCTTGACAGAAAAATCCAAGGCCATGA
CTGGTGTGGAACAATGGCCATACAGGGCTGTTGCCCAGGCCCTAGAGGTCATTCCTCGTACCCTGATCCAGAACT
GTGGGGCCAGCACCATCCGTCTACTTACCTCCCTTCGGGCCAAGCACACCCAGGAGAACTGTGAGACCTGGGGTG
TAAATGGTGAGACGGGTACTTTGGTGGACATGAAGGAACTGGGCATATGGGAGCCATTGGCTGTGAAGCTGCAGA
CTTATAAGACAGCAGTGGAGACGGCAGTTCTGCTACTGCGAATTGATGACATCGTTTCAGGCCACAAAAAGAAAG
GCGATGACCAGAGCCGGCAAGGCGGGGCTCCTGATGCTGGCCAGGAG**TGA**GTGCTAGGCAAGGCTACTTCAATGC
ACAGAACCAGCAGAGTCTCCCCTTTTCCTGAGCCAGAGTGCCAGGAACACTGTGGACGTCTTTGTTCAGAAGGGA
TCAGGTTGGGGGGCAGCCCCCAGTCCCTTTCTGTCCCAGCTCAGTTTTCCAAAAGACACTGACATGTAATTCTTC
TCTATTGTAAGGTTTCCATTTAGTTTGCTTCCGATGATTAAATCTAAGTCATTTG

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FIGURE 1927

GAATTGCGGCCGT**ATG**CGCGGCTCTGTGGAGTGCACCTGGGGTTGGGGGCACTGTGCCCCCAGCCCCCTGCTCCT
TTGGACTCTACTTCTGTTTGCAGCCCCATTTGGCCTGCTGGGGGAGAAGACCCGCCAGGTGTCTCTGGAGGTCAT
CCCTAACTGGCTGGGCCCCCTGCAGAACCTGCTTCATATACGGGCAGTGGGCACCAATTCCACACTGCACTATGT
GTGGAGCAGCCTGGGGCCTCTGGCAGTGGTAATGGTGGCCACCAACACCCCCCACAGCACCCTGAGCGTCAACTG
GAGCCTCCTGCTATCCCCTGAGCCCGATGGGGGCCTGATGGTGCTCCCTAAGGACAGCATTCAGTTTTCTTCTGC
CCTTGTTTTTACCAGGCTGCTTGAGTTTGACAGCACCAACGTGTCCGATACGGCAGCAAAGCCTTTGGGAAGACC
ATATCCTCCATACTCCTTGGCCGATTTCTCTTGGAACAACATCACTGATTCATTGGATCCTGCCACCCTGAGTGC
CACATTTCAAGGCCACCCCATGAACGACCCTACCAGGACTTTTGCCAATGGCAGCCTGGCCTTCAGGGTCCAGGC
CTTTTCCAGGTCCAGCCGACCAGCCCAACCCCCTCGCCTCCTGCACACAGCAGACACCTGTCAGCTAGAGGTGGC
CCTGATTGGAGCCTCTCCCCGGGGAAACCGTTCCCTGTTTGGGCTGGAGGTAGCCACATTGGGCCAGGGCCCTGA
CTGCCCCTCAATGCAGGAGCAGCACTCCATCGACGATGAATATGCACCGGCCGTCTTCCAGTTGGACCAGCTACT
GTGGGGCTCCCTCCCATCAGGCTTTGCACAGTGGCGACCAGTGGCTTACTCCCAGAAGCCGGGGGGCCGAGAATC
AGCCCTGCCCTGCCAAGCTTCCCCTCTTCATCCTGCCTTAGCATACTCTCTTCCCCAGTCACCCATTGTCCGAGC
CTTCTTTGGGTCCCAGAATAACTTCTGTGCCTTCAATCTGACGTTCGGGGCTTCCACAGGCCCTGGCTATTGGGA
CCAACACTACCTCAGCTGGTCGATGCTCCTGGGTGTGGGCTTCCCTCCAGTGGACGGCTTGTCCCCACTAGTCCT
GGGCATCATGGCAGTGGCCCTGGGTGCCCCAGGGCTCATGCTGCTAGGGGGCGGCTTGGTTCTGCTGCTGCACCA
CAAGAAGTACTCAGAGTACCAGTCCATAAAT**TAA**GGCCCGCTCTCTGGAGGGAAGGACATTACTGAACCTGTCTT
GCTGTGCCTCGAAACTCTGGAGGTTGGAGCATCAAGTTCCAGCCGGCCCCTTCACTCCCCCATCTTGCTTTTCTG
TGGAACCTCAGAGGCCAGCCTCGACTTCCTGGAGACCCCCAGGTGGGGCTTCCTTCATACTTTGTTGGGGGACTT
TGGAGGCGGGCAGGGGACAGGGCTATTGATAAGGTCCCCTTGGTGTTGCCTTCTTGCATCTCCACACATTTCCCT
TGGATGGGACTTGCAGGCCTAAATGAGAGGCATTCTGACTGGTTGGCTGCCCTGGAAGGCAAGAAAATAGATTTA
TTTTTTTTC

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FIGURE 1928A

GTCGCGGGCAGCCGCCTCACAGCGATGGCGGCCGAGCAGGGCCGGTGGCGGCGGCGGCTGCGGCTACGGCCGGAG
ACGGCAGTGTTGGCGGTAGTGGTGGGTGGCAGGGGCCTGTGACCGGGAGCTGCCCCCGGACCCGGGCACCATGAG
CCAAGGCCCCCCCACAGGGGAGAGCAGCGAGCCCGAAGCAAAAGTCCTCCACACTAAGCGGCTTTACCGGGCTGT
GGTGGAGGCTGTGCATCGACTTGACCTCATCCTTTGCAACAAAACTGCTTATCAAGAAGTATTCAAACCAGAAAA
CATTAGCCTGAGGAACAAGCTGCGTGAGCTCTGCGTCAAGCTTATGTTCCTGCACCCAGTGGACTATGGGAGAAA
GGCTGAGGAGCTGCTGTGGAGAAAGGTATACTATGAAGTTATCCAGCTTATCAAGACTAACAAAAAGCACATCCA
CAGCCGGAGCACTTTGGAATGTGCCTACAGGACGCACCTGGTTGCTGGTATTGGCTTCTACCAGCATCTCCTTCT
CTATATCCAGTCCCACTACCAGCTGGAACTGCAGTGCTGCATCGACTGGACCCATGTCACTGACCCCCTCATAGG
ATGCAAGAAGCCAGTGTCTGCCTCAGGGAAGGAGATGGATTGGGCACAGATGGCATGTCACCGATGTCTGGTGTA
TCTGGGGGATTTGTCCCGATATCAGAATGAATTAGCTGGCGTAGATACCGAGCTGCTAGCCGAGAGATTTTACTA
CCAAGCCCTGTCAGTAGCTCCTCAGATTGGAATGCCCTTCAATCAGCTGGGCACCCTGGCAGGCAGCAAGTACTA
TAATGTGGAAGCCATGTATTGCTACCTGCGCTGCATCCAGTCAGAAGTGTCCTTTGAGGGAGCCTATGGGAACCT
CAAGCGGCTGTATGACAAGGCAGCCAAAATGTACCACCAACTGAAGAAGTGTGAGACTCGGAAACTGTCTCCTGG
CAAAAAGCGATGTAAAGACATTAAAAGGTTGCTAGTGAACTTTATGTATCTGCAAAGCCTCCTACAGCCCAAAAG
CAGCTCCGTGGACTCAGAGCTGACCTCACTTTGCCAGTCAGTCCTGGAGGACTTCAACCTCTGCCTCTTCTACCT
GCCCTCCTCACCCAACCTCAGCCTGGCCAGTGAGGATGAGGAGGAGTATGAGAGTGGATATGCTTTCCTCCCGGA
CCTTCTCATCTTTCAAATGGTCATCATCTGCCTTATGTGTGTGCACAGCTTGGAGAGAGCAGGATCCAAGCAGTA
CAGTGCAGCCATTGCCTTCACCCTGGCCCTCTTTTCCCACCTCGTCAATCATGTCAACATACGGCTGCAGGCTGA
GCTGGAAGAGGGCGAGAATCCCGTCCCGGCATTCCAGAGTGATGGCACAGATGAACCAGAGTCCAAGGAACCTGT
GGAGAAAGAGGAGGAGCCAGATCCTGAGCCTCCTCCTGTAACACCCCAAGTGGGTGAGGGCAGAAAGAGCCGTAA
GTTCTCTCGCCTCTCCTGTCTCCGCCGTCGCCGCCACCCACCCAAAGTTGGTGATGACAGTGACCTGAGTGAAGG
CTTTGAATCGGACTCAAGCCATGACTCAGCCCGGGCCAGTGAGGGCTCAGACAGTGGCTCTGACAAGAGTCTTGA
AGGTGGGGGAACGGCCTTTGATGCTGAAACAGACTCGGAAATGAATAGCCAGGAGTCCCGATCAGACTTGGAAGA
TATGGAGGAAGAGGAGGGGACACGGTCACCAACCCTGGAGCCCCCTCGGGGCAGATCAGAGGCTCCCGATTCCCT
CAATGGCCCACTGGGCCCCAGTGAGGCTAGCATTGCCAGCAATCTACAAGCCATGTCCACCCAGATGTTCCAGAC
TAAGCGCTGCTTCCGACTGGCCCCCACCTTTAGCAACCTGCTCCTCCAGCCCACCACCAACCCTCATACCTCGGC
CAGCCACAGGCCTTGCGTCAATGGGGATGTAGACAAGCCTTCAGAGCCAGCCTCTGAGGAGGGCTCTGAGTCGGA
GGGGAGTGAGTCCAGTGGACGCTCCTGTCGGAATGAGCGCAGCATCCAGGAGAAGCTTCAGGTCCTGATGGCCGA
AGGTCTGCTTCCTGCTGTGAAAGTCTTCCTGGACTGGCTTCGGACCAACCCCGACCTCATCATCGTGTGTGCGCA
GAGCTCTCAAAGTCTGTGGAACCGCCTGTCTGTGTTGCTGAATCTGTTGCCTGCTGCTGGTGAACTCCAGGAGTC
TGGCCTGGCCTTGTGTCCTGAGGTCCAAGATCTTCTTGAAGGTTGTGAACTGCCTGACCTCCCCTCTAGCCTTCT
GCTCCCAGAGGACATGGCTCTTCGTAACCTGCCCCCGCTCCGAGCTGCCCACAGACGCTTTAACTTTGACACGGA
TCGGCCCCTGCTCAGCACCTTAGAGGAGTCAGTGGTGCGCATCTGCTGCATCCGCAGCTTTGGTCATTTCATCGC
CCGCCTGCAAGGCAGCATCCTGCAGTTCAACCCAGAGGTTGGCATCTTCGTCAGCATTGCCCAGTCTGAGCAGGA
GAGCCTGCTGCAGCAGGCCCAGGCACAGTTCCGAATGGCACAGGAGGAAGCTCGTCGGAACAGGCTCATGAGAGA
CATGGCTCAGCTACGACTTCAGCTCGAAGTGTCTCAGCTGGAGGGCAGCCTGCAGCAGCCCAAGGCCCAGTCAGC
CATGTCTCCCTACCTCGTCCCTGACACCCAGGCCCTCTGCCACCATCTCCCTGTCATCCGCCAACTGGCCACCAG
TGGCCGCTTCATTGTCATCATCCCAAGGACAGTGATCGATGGCCTGGATTTGCTGAAGAAGGAACACCCAGGGGC
CCGGGATGGGATTCGGTACCTGGAGGCAGAGTTTAAAAAAGGAAACAGGTACATTCGCTGCCAGAAAGAGGTGGG
AAAGAGCTTTGAGCGGCATAAGCTGAAGAGGCAGGATGCAGATGCCTGGACTCTCTATAAGATCCTAGACAGCTG
CAAACAGCTGACTCTGGCCCAGGGGGCAGGTGAGGAGGATCCGAGTGGCATGGTGACCATCATCACAGGCCTTCC
ACTGGACAACCCCAGCGTGCTTTCAGGCCCCATGCAGGCAGCCCTGCAGGCCGCTGCCCACGCCAGTGTGGACAT
CAAGAATGTTCTGGACTTCTACAAGCAGTGGAAGGAAATTGGTTGATACTGACCCCCAGGCCCTGCAGTGGGGCT
GACTCCAGATCTCTCCTGCCCTCCCTGGCAGCCAGGACCAGCACCTGTAGTCACCCCACCACACGCAGACTCATG
CACGCACACAGGAGGGAGGCCTAGCTGCTCAGAGGCTGCAGGGAGGGCCCAGGAGCCGGCTGGGAGGGTGGGGTC
CCTTTGTTGCCAAGACGTTAGGAAAGCGAGGAAAGTGCTTGGATTAGGAGAGTCTTGTGGGCCCCTGGCCAGCCT
TCCTGCCTCAGCTCCCCTGCTGTCTCCAGGGGCAGGTGGTAGGCATGGGTACCTGCATTTCACTGGAATGGGTTC
TTGGATCTCTGAGGGGAAGGAACAGCAAAAGAGGCCCTTCTTCCTCACCCAAGATGCAGGGTGGTTGGGGCCAGG

FIGURE 1928B

AGTTTGGACCCTCTAGGTCTTGGGGGAAGAGCTGGGTAATACCTGGTGTCTGAGTGATTCTCTGCAGACCCTTCC
CCTCCTCAAGGATCACCCATCCTCCTTTCAGCCCCCTTTATGGGGACCAGGCAGCTCTGGAGCCAGCCACAGGGG
CTGTTAGAGAAGCAAGGCCTGGAGTGGCCTGCACCGAGTAGCAGGGTCAGGGTTCGTGTGCTCCTCCTCCTGCTG
CAGGGGCTGCACATCCCATTGCCCCACTTCTGCTTTGTGTCTCCCTCTGTCTAGCTTCCAGGGCAGGGAGCAGGC
CCCACCTAGGGCTGCAGGCAGTCTGGCCTGTGCCAGCACGGTCTCCTGTGCCCACCAGCCCCACAGGTGCTGTGC
TTTGTGCTCTTGGCTGCTGTGCTGGGACAGAATGGGATGCCAGGAAGAGAAGAAAGGGGGTGCAGTCTGAGGCCA
CCACCCCCCTTCCTATCTAAGGGAGGGCTGAAGACAAGGGGCCGGCATTCAGTGGGCAGCAGAAAGGAGAGGCTC
CTTGAAGCTGCTCAGTCAGAGGCCCCCGTCCCTCCTTTTGCCTTCCGCAGGACTGAAGACCTGAAGGGGCTGGCT
TTTGGAGTGTTGAGGTGAATATCTGGGAGCAGAGATCATGAATAGCTCAGGGCAGTGAATGGCGCACCAAGAGCA
GGGCTGTGTGTGGGAGGCTGCAGCCAGGATTGCCTCAGCTCCTCCCCCTCAGGCTGGGAGGATAGCACAGGCTAG
GGGCTCGGGGTGGAGGGTCTCAGCTCTGCTGCCCCCACCCCAGTACTAGCCTAGCTTCCCAAGCTGTGGCTTAGA
GGATAGTTGGCTTCCTGCCTCTCTCCTCTAAAATAGCAAGTCTGGGAAATCCTGGGGTGAGTGGAGTCACCCCAC
TCCCAGTTGCTGGCAGAGACTGAGACTAAAGCATCACTTAATAAACCCCCCAAGCCC

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FIGURE 1929

ACTCCCCGCCCAGGCCTGGCCCGCCTGCCTGGCCACTCTTCCTCCATCAGCCTGGCTGGCAGCAGCCTTGGACTC
CGCCCGTGGAGCCCTGGGCCTGTTGACCCACCAGCTTAGGAGCACCCACCAAGCTCTGGGTGTTCTGGGAAGATG
GCATC**ATG**TCTGGCTACCGCCGCCCCACCAGCTCGGCTTTGGACTGTGTCCTCAGCTCCTTCCAGATGACCAACG
AGACGGTCAACATCTGGACTCACTTCCTGCCCACCTGGTACTTCCTGTGGCGGCTCCTGGCGCTGGCGGGCGGCC
CCGGCTTCCGTGCGGAGCCGTACCACTGGCCGCTGCTGGTCTTCCTGCTGCCCGCCTGCCTCTACCCCTTCGCGT
CGTGCTGCGCGCACACCTTCAGCTCCATGTCGCCCCGCATGCGCCACATCTGCTACTTCCTCGACTACGGCGCGC
TCAGCCTCTACAGTCTGGGCTGCGCCTTCCCCTATGCCGCCTACTCCATGCCGGCCTCCTGGCTGCACGGCCACC
TGCACCAGTTCTTTGTGCCTGCCGCCGCACTCAACTCCTTCCTGTGCACCGGCCTCTCCTGCTACTCCCGTTTCC
TGGAGCTGGAAAGCCCTGGGCTCAGTAAGGTCCTCCGCACAGGAGCCTTCGCCTATCCATTCCTGTTCGACAACC
TCCCACTCTTTTATCGGCTCGGGCTGTGCTGGGGCAGGGGCCACGGCTGTGGGCAGGAGGCCCTGAGCACCAGCC
ATGGCTACCATCTCTTCTGCGCGCTGCTCACTGGCTTCCTCTTCGCCTCCCACCTGCCTGAAAGGCTGGCACCAG
GACGCTTTGATTACATCGGCCACAGCCACCAGTTATTCCACATCTGTGCAGTGCTGGGCACCCACTTCCAGCTGG
AGGCAGTGCTGGCTGATATGGGATCACGCAGAGCCTGGCTGGCCACACAGGAACCTGCCCTGGGCCTGGCAGGCA
CAGTGGCCACACTGGTCTTGGCTGCAGCTGGGAACCTACTCATTATTGCTGCTTTCACAGCCACCCTGCTTCGGG
CCCCCAGTACATGCCCTCTGCTGCAGGGTGGCCCACTGGAGGGGGGTACCCAGGCCAAACAACAG**TGA**GGCCCCA
TCCCTGACCCTGTCCTGGAGGGGGCAGAGGCCAGGCCCCAGTGCTGACGAGGAGCCCAGATTTGGGCCTAATCAG
GTGGGGACGCATCTCAGCCTGGAACCAACAGGGGCTGAGGAGAGAGGGCACAGGAGAGAGGGCAGAGAAGAGGAG
GGGTGTCTAGGGGGACTGGCAGAGTGTGAGAGGGACCGTGAGGGGGCTCTTGATGGGAGTGGAAGAAGTGCTGAG
GGTCTGAGAGGGGAGATGCATGCGTGTCCAGGCTGAAGATGCCCCTATATTCTGTCAAAGGTTGGCGGGGGGAGG
TGTTGGGGTCCTTTCATCTGGCTCCGTTTCTGGTGCTTCTGGAAGTCTCTGCTCAGCACAGGGAAGAACTAACAC
GACTAACCTAGGCCTACCCTGAATGCTTCTTGCTAACCAGGCCGAGAGGCCACACACTTGCCCCCCCATCCCCAC
AAACCAGGTAATGCCAGTTTGCCAGCAGCTATTTGCCTATAGAGATGAGTCTGTCCTGGTCATAACTGTGTGCTC
AAGGTGTCCAGGCTTTTGGGGGTGGGCCTATCTGGGTGCATTATGGATGGTTTGGTGGATTGAGGTGTGGGGAGG
AGGGTCCTAGGCTAGAGGGGGTATCCCTAGTTAGACTTTGGGAAGCCACCTTCAACGTTTTCTGGAACAAGGCAG
GTACAAATAAAAAAATAAAACTTTGGAAAGC

FIGURE 1930

GCAAGTAGCGCCAATCTAGGCAGCGGCTGTGAGGAAAAAAGGCATGAGGGGTCGTCTTCGGAATCTGTGCCACCC
GGCACTACCATTTCGAGGGTGAAGCTCCTCGACACC**ATG**GTGGACACTTTTCTTCAGAAGCTGGTCGCCGCCGGC
AGCTACCAGAGATTCACTGACTGCTATAAGTGCTTCTACCAGTTGCAGCCTGCGATGACACAGCAAATCTATGAC
AAGTTTATAGCTCAGTTGCAGACATCTATCCGGGAGGAAATCTCTGACATCAAAGAGGAGGGGAACCTAGAAGCT
GTCTTGAATGCCTTGGATAAAATTGTGGAAGAAGGCAAAGTCCGCAAAGAGCCAGCCTGGCGCCCCAGCGGGATC
CCAGAGAAGGATCTGCACAGTGTTATGGCACCCTACTTCCTGCAGCAACGGGACACCCTGCGGCGCCATGTGCAG
AAACAGGAGGCCGAGAACCAGCAGCTGGCAGATGCCGTCCTGGCAGGGCGGAGGCAGGTGGAGGAGCTGCAGCTA
CAGGTCCAGGCCCAGCAGCAGGCCTGGCAGGCTCTACACAGAGAACAGAGGGAGCTGGTTGCTGTGCTGAGGGAG
CCTGAG**TGA**GGAGACCGCCAGCCCCAGAAGCAGAGGGCAGTCAAGGTCAAGAGCCTGTGGTCCAGCATGCCTGGC
CTGGGCGGGCTACCTCTGAGAACGGCTGAAATGGTGCCCAGTCCATCAGCAGTGATGGAATTTGCTGGAGGACTA
GGCCAGAGCAAGCCTCACTGCCACTGTGCCTTTGGGGCACCCTTGGGGTTGGACATACACCCCCTTTAGATTCCT
CTGTTTCTTCTACCTGGATAATTCTTGGCCATGTTCTCTCTTCTCTAGGTTCAGGTCAGCTCTGCCCCTCCGCCC
CCCTCCTGCTGGTTCCCCAGCCCTTTTCCCTGGCCCTGGCTTGGAGAATCTGTTTTCAATCTCCACTGATTGCCC
CCTTGCTGGCCAGCCCAGGGGCCTTTACCATGTTCTCTCCACATCCGTAAATAAACTTCCTTCACTAC

FIGURE 1931A

AAACAAGAAGAATGGGATTGATATTTCCGCAGGAAGTTTGGAAGTTATGTAACAGAGCAGGTTGAGATCCTACCT
TTTAGGAGCAGCCTGCCCCTTTTGAAGGGGTAAAGGGAGTGGGTGCAGTGCCCTCTCTTCTGTTGTAGTGGCTTA
TCCCTCTAAGGCATGACCCTTGGATAGGGGTTACCTGCCTCGGAAAGTCCCCACTTCCTTGTGGGAGTTTAAAAT
AGATTGGCATATGTGAGAGATGGAGACAAGGTGGGAAATCGGATCCTGTCTTAGGATTTCTCATCAGGAGATGCT
GATACTTGGTGTTTCAGCTTGATAAATTGAGAAGGTGCCATGAAACCAGGTCCTGGAACAGAATCCCTGGTTGCT
CTGTCTTTTAGCTGCTCTGACCCTCTGCCCTGCAGAGCATGCATTTTGCATGTGCCTGGCAGGAGGCCCTCCTGC
TTGAGCCCTGCTGTATTTGTCTGTGTTGACAACGTGACTGCCAGCCATTAAGCTTGGTCAGTCCACAGACACACT
AGGAAAGCAGAGGCAGCTCTTGGTTTCTCTGGAACAGAGCTGCAAGAAGTCTCTGGGCATCTGCATGGCCAGGAG
CTTATGCTTAACTGTTGAGTGACCTGCAGCCATAAGGGCATTAATTCTGCCTTCCAGAGGTGGGAATGACTTGGC
TTTAAACAGTGATTTGTGTGAGAATTCTTCAAATCCCATAAGGTAGAAGGCATGGTGGAGTAGAGGAGAAATCTT
GGCTCATATCTGCCTCTTCCATTGACCAGCTGTGTGACCTTGGGCCTGTTACTTTTAACCTACCTGACCCTCCAT
TTCCTCATTTATCAGAAGTGTCTAACTGTACACAAGTTAAACTGTAAGGATTACATGAGGTAGTAGTCAATCCTG
GTGTTTCTCTGTATCTTCTCACTTCTCACTGGTGTTGGAAATATGATCTTGCGACCCTAGATGGCAGCCACTCTG
GGGCAGAAGAGACAGTGACCACCTTTTGAAGAGCTCAAAGGAGAATATTGCCCCACAGGGCTTAGTGGGTCCCCC
AGGCTGAGGCTGGGGAGGAGGGCCACCTTTGCCTACAGCAAGTGGCATATCATTGTTCTAGGGGTTCTCTTGACG
GCAGAACTTTGCCTCTAGCTCATTTTCCACAGCCTAGATTTTCCAATCTTGCCAATCCAGTTGACTTCTGTCTTC
TCATTTCCAAGCCATTGTTCTCTCTCTTTCACTATCTACATGGATTATCCTTCATTCAAACTGCTTTGTCCCGGC
TGGGTGCGGTGGCTCATGCCTGTAATCCTAGCACTTTGGGAAGCCGAGGCGGGTGGATCACGAGGTCAGGAGATC
GAGACCATCCTGGCTAACATGGTGAAACCCCGTCTCTACTAAAATTAAAAAAATTAGCCGGGCGTGGTGGCAGGC
GCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCATGAACCCGGGAGGTGGAGCTTGCAGTGGGT
GGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTGAAAAAAAAAAACAAAAAAACTGCT
TTGTCCTGTAGGAATCCTGTGCGGGTTATGTGCACCTCCCTCAATCCTTACCTTGAAGCTAAGGTTTCCCCTCAG
CTCTCAAGTACTCAGTTTGCACTGCAGGTAGTCCCTATTTTAACGAAAGTTATACGGTCCAGCTCAGGGAATCCT
GAAAAGCTGCCCTTGCTTCCATGGTAATCAAAAGGCAGTTCTCATGGAATAAAAGCTACCTGAAGCCTGAGTTGG
GACCTTTGGCTGGGGAAGGTGGTTGAGGACGTTCTCTGATTAGATGCTTGGCATGAGGTTTGCTACTGGAACTGC
TAGTGTAGAATGTTTCAGCCCCCTAGAGTTGTCCCTGTGATGTGGCTACCTCCTTTCTCTGGGATTTCTCTTAAA
GTCTGGGGAGCCCCTGCTTCTCATTTCCTGGAATTTATCTTCCCAGTCTCCCTTTCTGGCTGAAAATTTCTAGTA
TCTTACAGAACAGCGGTGGGATACACTGGAGCACATCATATTACCACTAAGTATGTCTAATAAATGATGTCCTCT
GATTTGACATTTCCTAAATGTGAAGCTCCTGATTTTATACAATTTTGAAATTAGTAAGCTTGTTAGTTTTGTTTG
AAATTCTAGGCATTGGATACACTTAACATGAGGGCTACATGTGCATCAACATACTCTGGTTTCCTTCCCTCTGTA
TCTTTTTTTTTTTTGAGATGGAGTCTCACTGTCTCCTAGGCTGGAGTGCAGTGGTGTGATCATGGCTCACTGCAG
CCCCAACCTTCAGGGCTCAGGTGATCCTCCCACCTCAGCCACCCAAGTAGCTGGGACCACAGGTGCATGCCACCA
TGCCTGGCTAACTTATTTTTATATATTGTAGAGACGGAGTCTCCCTATGTTGCCTAGGCTGACCTTGAGCTCTTG
GGCTCAGGTGATCCTCCCACCTTGGCCTCCCAAAGTGTTGGGATTATAGGCGTGAGCCACTGTGTCCAGCCTTTT
CCTCTGTATCTTGTATCCATTCCCCAGAGCGATACTGTGTATCCTTGAACAGACGGTTTCTTGAAGTCAGAGTCT
ATCTCCTCTGTCACTTCTCCCCCTTCATTATCTAAGACTGAGGTTGTGGTTTATATGCTTAGAGTTGAAAGCATG
GGGTCCAACGTGTTCTGTACTCTGTAGTTCCCCAGACTCTTCAGGGAAACTACTTAGCTCTCAGGTGGTTCTTTT
CTGTTTTTCTCAGAGCAAGTTATCTAATAACTGAAGAGGACTCTGCCCTTTGGCCTGTTCCTGACTTTCTAACTC
CTTTTGCTGGAGGAAGGGGAGGTTGAGGGGGGTGCCCTGTGGTGTGAAAGCCCCACTTGCCCTCTCCTCTATACT
TTCTTCCAATGCAGACGGGAGAAAGTATCATAAATGTAGTGACTGTGGGTCAGGGGAGCTCTGAGAGGCCAGCAC
AGGAAACCAGAAACAAAATGAGTCAGTTCGTAGGTGGCGATCAGAGGCACCCTGCTGAGGGTGCAAGGCCACAGG
TGATGCCTCCTCAGTAGGCCCAGGAGCATCAAAACGGGAACAGTCCCTTTCAGCCTTCAGGAGCCTCCCAAATGT
CACTTAGTGATGTCCCATTCACCTGCTTAAAGGCCCTGCATCCTGCCAGGTAGTTGGTTTGTCCATAGCATCCTG
AGCTCTGCTTGGGTGAGCCAGACAAAAAGAATGATTCCTGGCCAGAGTAGTGATACCAGGGCCCAGACAGAGGCA
GAGAGTCCGGATAGAAGATCCTGTAAGCTGGGGTAGGGAGCCGAGGAGGCCATGGAGCCAGGGGAATCATTGAAG
TGAGGGACAATTTCTGGAGGAGGGAAACTGAGTAAGGAAGGCCTGGCCAAGGACCAAGAAGGGGACAGTATCCTG
ATCTATGAAAGAAGACTCAAGTGGGGATTGACAGAGCCAGATTGGGTGGAGTCCAAGCTTTGGGCAGGTGAGTGT
CCAGGAG**ATG**AGGGCTGAGAATGGGCCTTCAGAGCCCAGCCAGAAGGGGAAAGCACAAAGCTCCACCCTCCTTCT

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FIGURE 1931B

TCACATCCCTCCATACTGCTCAAATCCCAGGTCTTCAGGCACCATGGAGGACAAACGCAACATCCAGATCATCGA
GTGGGAACACCTGGACAAGAAGAAGTTCTACGTGTTTGGTGTGGCAATGACAATGATGATCCGTGTCAGTGTCTA
CCCATTCACCCTCATCCGCACCCGGTTGCAAGTTCAGAAGGGGAAGAGCCTCTACCATGGGACCTTCGATGCCTT
CATCAAGATCCTGCGAGCAGATGGTATCACTGGCCTCTACCGAGGGTTCCTGGTCAATACCTTCACCCTCATCTC
TGGCCAGTGTTATGTCACCACTTATGAGCTCACCCGGAAGTTTGTAGCTGACTACAGCCAGAGTAACACAGTCAA
ATCACTGGTGGCTGGTGGCTCAGCCTCCCTTGTGGCCCAGAGCATCACAGTGCCCATTGATGTAGTCTCCCAGCA
CCTGATGATGCAACGCAAGGGTGAGAAAATGGGCCGCTTTCAGGTGCGGGGGAACCCAGAGGGACAAGGGGTAGT
TGCCTTTGGCCAAACCAAGGACATCATCAGGCAGATCCTGCAGGCTGATGGACTTCGCGGCTTCTATCGAGGCTA
TGTGGCTTCACTGCTTACCTATATCCCAAACAGTGCTGTCTGGTGGCCCTTCTATCACTTCTATGCAGAGCAGCT
CTCCTACCTGTGTCCTAAGGAGTGCCCTCACATTGTCTTTCAAGCTGTCTCGGGGCCCCTGGCTGCAGCCACTGC
CTCCATCCTCACCAATCCCATGGATGTCATACGAACCCGTGTGCAGGTTGAGGGCAAGAACTCCATCATCCTGAC
CTTCAGACAGCTGATGGCAGAAGAAGGGCCTTGGGGCCTCATGAAGGGCCTCTCGGCCAGAATCATCTCAGCCAC
ACCTTCCACCATTGTCATTGTGGTGGGCTATGAGAGCCTCAAGAAACTCAGCCTCCGACCTGAGCTGGTGGACTC
GAGACACTGG**TAA**CCAGTGGTGGGGAGAGAAGCCTGCTGTTTTCCACACTACCGTGGGTCAGGGGCAGAGTGGAG
AGGACAGCACCCTCTCCAGGTGCTCCCACCACACACCCAGCCCTGCCCTGGGCCAAGTGGCCTATCTGGGATAGG
GATAGAGACTTTGAACTGCTCTTGCTGAAGAGGCTCCACGCCTGGATCCCTTGCCCCCACTATTTAAAATTCTCT
TCTGAGCTGGGCTCCCTCACTCAGTCCCTGTATTTGATACTGGCCTAAAGACCCCACCCCCCACCCTGCCAGCCC
TTCTTCTGGCTTCCCCTTCCATCTGTGTCCCTGAGACCCTGAGAAGAGCTGTACATAGAGCTTGCTTACTACCAC
TGGTTCTTCCTCTTGGGCTTTCAGCCCAGACTCCAAGCAGCTGCTATCAACCCTCTCTCCCTTCATCTCTTAGCC
TTGCTTATTTTTATTTTGGGACCGAGCTGCCCACTAGATGACTCTGCTTTTCCCTGCATTTGGGGCTAAGGTGCC
AGGTACTTATTTGCACAGGGAGCAGGAGCAGCAAAAAATCTCTGGTTCTCCAGAGCACTCGTCCTCTCTTTGGAG
GGGTTATTAGGTTGGGAGAAATGTTGATACTTTTGTTTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT
GTGTGTGTTTTAACATCTGTGAACCAGGCTATTAGTCCTGCTAAAGCGCCAATCCTGCTGTCAGAGCTCACCCCC
TTCCTAAGACAGGTAGAAAAATGTAATGTAGCTTTTTCCACAAGCCACTTCCCTGTCCCTTCAGTCTCAGGAGCC
CTAGGAGAGTCTAAGCTGGGGCATCCCCTGGCCCAGAGGACTCCCGTGGTGGGCACAGTTCTAAGTGGATCAGGC
TGTCTTGGGTGCACTGGACTTGGAGCACTACCTTGAGAAGTCAGGTTGAGAAAGTAGTTGATCTAGAAGGCAACA
AGTGGGCATGTGTTCCCCAGCACATTACCCAGGCCAGCAGAGCCAAACCTAGGAGAGGGCAGTGGGTAGATTCTC
TGCCCCAGGCAGCCATGACATACACATAAATACCCCAATCACTCAGACTTACGGCAACAAGTGTTGTCTCACTAT
GGTGATCTCTAAGATCCACATCACTGGATGCGTAGTCATCCCAGTCATGGTACCCTGTGGAGGAATGCTGGAAGA
ACATAAAGAGCAGTTCAGAAAGTCACCCAATACCAGGACCACTGCATTTACCAGCCTGATACTGCCAAGATTATC
TGATGCTCTCCTCAGGAGCTAGGAGAGGAGTGCTCCTTCCTCCCTACCGCTACTCTCCCCAAGCCTGTGTTGCAG
GTAGAGAGGTGCAGCAAATAGAGAAGGCATGTCAAACCCTGCATTTCTACCTGAGACGTGTGACCTGGATGATCC
TCCAAACCCTATTGGTCCCACCCCCTGGGAAAGGCCATGGTGCCAGTTTGAAAGGTGCTAGCTACCTGAAGCCTT
GATATTTCTTCATGGCTGCCGCACATTCTTCCACCTTGGCCAGAACAGGTTCTGAAAACCACTTCTCTACCTTCA
CCACCACCACTGCCCATCTTGATCTCTTTGAGGGTTTTCCCATTTCACTTGATCTTATTTTTGTTTATCCCTTCC
TGCACTTTGTCAAGAGAGTCCTCCAGTTTCTATCCAGGAATGTTCACATCCAAAGGGTTGGACCCACGGATCATT
CTGAATCTTCCTGCCCCTCCTCACTGCTTAACCCTGAGAACCACAAATATAATGGAAGCAGTTCCCCCCACCCTC
ACCCCATCTCTTTAAGCTCATCCTAGCAAGACCTCTAGAGACCCTAGAGACTCGACTTTAGTCCTTCCCCGCCAT
GGCACAGTGGGGAAGGTGTCAATGGGGAGTGTCACGGACAGGAGGTAGGATCCTGCCGCTCGCGTCTTAGTGTTT
CTCCCTCAAGACTTTCCTTCTGTTTTGTTGTCTTGTGCAGTATTTTACAGCCCCTCTTGTGTTTTTCTTTATTTC
TCGTACACACACGCAGTTTTAAGGGTGATGTGTGTATAATTAAAAGGACCCTTGGCCCATACTTTCCTAATTCTT
TAGGGACTGGGATTGGGTTTGACTGAAATATGTTTTGGTGGGGATGGGACGGTGGACTTCCATTCTCCCTAAACT
GGAGTTTTGGTCGGTAATCAAAACTAAAAGAAACCTCTGGGAGACTGGAAACCTGATTGGAGCACTGAGGAACAA
GGGAATGAAAAGGCAGACTCTCTGAACGTTTGATGAAATGGACTCTTGTGAAAATTAACAGTGAATATTCACTGT
TGCACTGTACGAAGTCTCTGAAATGTAATTAAAAGTTTTTATTGAGCCCCCG

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FIGURE 1932

CCCATGTTTGGTGGTACCAGGAAAGAGAGACTGATTATCTAGAGAACGCCTGAACACACCTGTAGGTGGGAGAGG
AGAG**ATG**AAAGATGAGGAAGTGGGTAAAGCGAGTGGGGATGCTGGAGGTCAGATGATTAGAGAACAGATCCCTGG
CAGTGATGGGGGGAGAGATGTGCTGGTTAGTCTTGGTGGAAGAGGGACCTGTGCCTTTGTGACAGAGGGTAGAGG
AGGAAGGTGGTGTGGAGGTGTGGACAGAGCATTATCAGATACTGAGAGAGATGTGGCCAGGATGGGGGTGGATGC
ACAGTCTTTCTATAAATTTGTCTACCAACAGTTGAAGCCAACTGCTGCAGTGGGGAAGCAGGGC**TGA**ATTGGAGT
CACGAGAAGTGTGGGAGAGGTGTGGACAGCAACTGTGGGGGCCGCAGCAGGGGAGTTAGTGATGGATGAGGTATC
GCCTGTCTAGCAGAAGGATACAAGCTGAGCCTGGTCAACACCAACCTGTGGTTGGCCCAAAAGGCAAAAGTTTGC
AGCACCCTCTAGCAATGCTCAGAGTGGAGGAAAGTGCTGTGGGCTGGTTCTGGGTGGGCTGGTTCTGGGTGGGGA
GCTGGCAGGGCAGAGGAGGTAGTCTGGAGTTGGAG

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FIGURE 1933

GATGAGCAAGTGGTGGGGACGCCCCTGCTGGTGAAATCTGGCGTGGAGTATACACGGCTTGCAGTGGAGACAGCC
CAGGGCCTTGATGGGCACAGCCATCTTGTC**ATG**TACCTGGGAACCACCACAGGGTCGCTCCACAAGGCTGTGGTA
AGTGGGGACAGCAGTGCTCATCTGGTGGAAGAGATTCAGCTGTTCCCTGACCCTGAACCTGTTCGCAACCTGCAG
CTGGCCCCCACCCAGGGTGCAGTGTTTGTAGGCTTCTCAGGAGGTGTCTGGAGGGTGCCCCGAGCCAACTGTAGT
GTCTATGAGAGCTGTGTGGACTGTGTCCTTGCCCGGGACCCCCACTGTGCCTGGGACCCTGAGTCCCGAACCTGT
TGCCTCCTGTCTGCCCCCAACCTGAACTCCTGGAAGCAGGACATGGAGCGGGGGAACCCAGAGTGGGCATGTGCC
AGTGGCCCCATGAGCAGGAGCCTTCGGCCTCAGAGCCGCCCGCAAATCATTAAAGAAGTCCTGGCTGTCCCCAAC
TCCATCCTGGAGCTCCCCTGCCCCCACCTGTCAGCCTTGGCCTCTTATTATTGGAGTCATGGCCCAGCAGCAGTC
CCAGAAGCCTCTTCCACTGTCTACAATGGCTCCCTCTTGCTGATAGTGCAGGATGGAGTTGGGGGTCTCTACCAG
TGCTGGGCAACTGAGAATGGCTTTTCATACCCTGTGATCTCCTACTGGGTGGACAGCCAGGACCAGACCCTGGCC
CTGGATCCTGAACTGGCAGGCATCCCCCGGGAGCATGTGAAGGTCCCGTTGACCAGGGTCAGTGGTGGGGCCGCC
CTGGCTGCCCAGCAGTCCTACTGGCCCCACTTTGTCACTGTCACTGTCCTCTTTGCCTTAGTGCTTTCAGGAGCC
CTCATCATCCTCGTGGCCTCCCCATTGAGAGCACTCCGGGCTCGGGGCAAGGTTCAGGGCTGTGAGACCCTGCGC
CCTGGGGAGAAGGCCCCGTTAAGCAGAGAGCAACACCTCCAGTCTCCCAAGGAATGCAGGACCTCTGCCAGTGAT
GTGGACGCTGACAACAACTGCCTAGGCACTGAGGTAGCT**TAA**ACTCTAGGCACAGGCCGGGGCTGCGGTGCAGGC
ACCTGGCCATGCTGGCTGGGCGGCCCAAGCACAGCCCTGACTAGGATGACAGCAGCACAAAAGACCACCTTTCTC
CCCTGAGAGGAGCTTCTGCTACTCTGCATCACTGATGACACTCAGCAGGGTGATGCACAGCAGTCTGCCTCCCCT
ATGGGACTCCCTTCTACCAAGCACATGAGCTCTCTAACAGGGTGGGGGCTACCCCCAGACCTGCTCCTACACTGA
TATTGAAGAACCTGGAGAGGATCCTTCAGTTCTGGCCATTCCAGGGACCCTCCAGAAACACAGTGTTTCAAGAGA
CCCTAAAAAACCTGCCTGTCCCAGGACCCTATGGTAATGAACACCAAACATCTAAACAATCATATGCTAACATGC
CACTCCTGGAAACTCCACTCTGAAGCTGCCGCTTTGGACACCAACACTCCCTTCTCCCAGGGTCATGCAGGGATC
TGCTCCCTCCTGCTTCCCTTACCAGTCGTGCACCGCTGACTCCCAGGAAGTCTTTCCTGAAGTCTGACCACCTTT
CTTCTTGCTTCAGTTGGGGCAGACTCTGATCCCTTCTGCCCTGGCAGAATGGCAGGGGTAATCTGAGCCTTCTTC
ACTCCTTTACCCTAGCTGACCCCTTCACCTCTCCCCCTCCCTTTTCCTTTGTTTTGGGATTCAGAAAACTGCTTG
TCAGAGACTGTTTATTTTTTATTAAAAATATAAGGCTT

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FIGURE 1934

ACTCAGTGTTCGCGGGAGCGCCGCACCTACACCAGCCAACCCAGATCCCGAGGTCCGACAGCGCCCGGCCCAGAT
CCCCACGCCTGCCAGGAGCAAGCCGAGAGCCAGCCGGCCGGCGCACTCCGACTCCGAGCAGTCTCTGTCCTTCGA
CCCGAGCCCCGCGCCCTTTCCGGGACCCCTGCCCCGCGGGCAGCGCTGCCAACCTGCCGGCC**ATG**GAGACCCCGT
CCCAGCGGCGCGCCACCCGCAGCGGGGCGCAGGCCAGCTCCACTCCGCTGTCGCCCACCCGCATCACCCGGCTGC
AGGAGAAGGAGGACCTGCAGGAGCTCAATGATCGCTTGGCGGTCTACATCGACCGTGTGCGCTCGCTGGAAACGG
AGAACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTGGTCAGCCGCGAGGTGTCCGGCATCAAGGCCG
CCTACGAGGCCGAGCTCGGGGATGCCCGCAAGACCCTTGACTCAGTAGCCAAGGAGCGCGCCCGCCTGCAGCTGG
AGCTGAGCAAAGTGCGTGAGGAGTTTAAGGAGCTGAAAGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTG
CTCAGGCTCGGCTGAAGGACCTGGAGGCTCTGCTGAACTCCAAGGAGGCCGCACTGAGCACTGCTCTCAGTGAGA
AGCGCACGCTGGAGGGCGAGCTGCATGATCTGCGGGGCCAGGTGGCCAAGCTTGAGGCAGCCCTAGGTGAGGCCA
AGAAGCAACTTCAGGATGAGATGCTGCGGCGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAACTGG
ACTTCCAGAAGAACATCTACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTCATGAGACCCGACTGGTGGAGATTG
ACAATGGGAAGCAGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAACTGCGGGCCCAGCATGAGGACC
AGGTGGAGCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAGTCTGCTGAGA
GGAACAGCAACCTGGTGGGGGCTGCCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATCGACAGCCTCTCTGCCC
AGCTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGACCTGGAGGACTCACTGGCCCGTG
AGCGGGACACCAGCCGGCGGCTGCTGGCGGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCAAGGATGCAGCAGC
AGCTGGACGAGTACCAGGAGCTTCTGGACATCAAGCTGGCCCTGGACATGGAGATCCACGCCTACCGCAAGCTCT
TGGAGGGCGAGGAGGAGAGGCTACGCCTGTCCCCCAGCCCTACCTCGCAGCGCAGCCGTGGCCGTGCTTCCTCTC
ACTCATCCCAGACACAGGGTGGGGGCAGCGTCACCAAAAAGCGCAAACTGGAGTCCACTGAGAGCCGCAGCAGCT
TCTCACAGCACGCACGCACTAGCGGGCGCGTGGCCGTGGAGGAGGTGGATGAGGAGGGCAAGTTTGTCCGGCTGC
GCAACAAGTCCAATGAGGACCAGTCCATGGGCAATTGGCAGATCAAGCGCCAGAATGGAGATGATCCCTTGCTGA
CTTACCGGTTCCCACCAAAGTTCACCCTGAAGGCTGGGCAGGTGGTGACGATCTGGGCTGCAGGAGCTGGGGCCA
CCCACAGCCCCCCTACCGACCTGGTGTGGAAGGCACAGAACACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTC
TCATCAACTCCACTGGGGAAGAAGTGGCCATGCGCAAGCTGGTGCGCTCAGTGACTGTGGTTGAGGACGACGAGG
ATGAGGATGGAGATGACCTGCTCCATCACCACCACGTGAGTGGTAGCCGCCGC**TGA**GGCCGAGCCTGCACTGGGG
CCACCCAGCCAGGCCTGGGGGCAGCCTCTCCCCAGCCTCCCCGTGCCAAAAATCTTTTCATTAAAGAATGTTTTG
GAACTTT

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FIGURE 1935

GCGCAGACGCCCCAGCCCCCCACCGCCCCCAAAGGGGCGAGCGACGCCAAGCTCTGCGCTCTCTACAAAGAGGCC
GAGCTGCGCCTGAAGGGCAGCAGCAACACCACGGAGTGTGTTCCCGTGCCCACCTCCGAGCACGTGGCCGAGATC
GTGGGCAGGCAAGGCTGCAAGATTAAGGCCTTGAGGGCCAAGACCAACACCTACATCAAGACACCGGTGAGGGGC
GAGGAACCAGTGTTC**ATG**GTGACAGGGCGACGGGAGGACGTGGCCACAGCCCGGCGGGAAATCATCTCAGCAGCG
GAGCACTTCTCCATGATCCGTGCCTCCCGCAACAAGTCAGGCGCCGCCTTTGGTGTGGCTCCTGCTCTGCCCGGC
CAGGTGACCATCCGTGTGCGGGTGCCCTACCGCGTGGTGGGGCTGGTGGTGGGCCCCAAAGGGGCAACCATCAAG
CGCATCCAGCAGCAAACCAACACATACATTATCACACCAAGCCGTGACCGCGACCCCGTGTTCGAGATCACGGGT
GCCCCAGGCAACGTGGAGCGTGCGCGCGAGGAGATCGAGACGCACATCGCGGTGCGCACTGGCAAGATCCTCGAG
TACAACAATGAAAACGACTTCCTGGCGGGGAGCCCCGACGCAGCAATCGATAGCCGCTACTCCGACGCCTGGCGG
GTGCACCAGCCCGGCTGCAAGCCCCTCTCCACCTTCCGGCAGAACAGCCTGGGCTGCATCGGCGAGTGCGGAGTG
GACTCTGGCTTTGAGGCCCCACGCCTGGGTGAGCAGGGCGGGGACTTTGGCTACGGCGGGTACCTCTTTCCGGGC
TATGGCGTGGGCAAGCAGGATGTGTACTACGGCGTGGCCGAGACTAGCCCCCCGCTGTGGGCGGGCCAGGAGAAC
GCCACGCCCACCTCCGTGCTCTTCTCCTCTGCCTCCTCCTCCTCCTCTTCCGCCAAGGCCCGCGCTGGGCCC
CCGGGCGCACACCGCTCCCCTGCCACTTCCGCGGGACCCGAGCTGGCCGGACTCCCGAGGCGCCCCCCGGGAGAG
CCGCTCCAGGGCTTCTCTAAACTTGGTGGGGGCGGCCTGCGGAGCCCCGGCGGCGGGCGGGATTGCATGGTCTGC
TTTGAGAGCGAAGTGACTGCCGCCCTTGTGCCCTGCGGACACAACCTGTTCTGCATGGAGTGTGCAGTACGCATC
TGCGAGAGGACGGACCCAGAGTGTCCCGTCTGCCACATCACAGCCACGCAAGCCATCCGAATATTCTCC**TAA**GCC
CCGTGCCCCATGCCTCCGGGGCCCACTCCACTGGGCCCACCCTGGACCTGTTTTCCACTAAAGCCTTTTGGAAAG
CGGTGATTTGAGGGGCAAGGTGCTTAGAGATACTCGCTCGCTGGGGAAGGGGGGAGGGAGGCAGTGGTGGCTGGA
GGGTGCGCCACTTTCAGAGCCTCTGGTCACCCTGTCCTGGAAAGATTGGGAGGGGGCCAGACTGAAAATTTTACT
AGAGTTACAACTCTGATACCTCAACACACCCTTAAATCTGGAAGCAGCTAAGAGAAACTTTTGTTTTGCCAGAGG
TGGCCACTAAGGCATTCTGACGCCCTCTGCCCACCTCCCCCGCTGTGTGTCACTCCACCCCTTCTTCCGAGGAGG
GGGTGGGTAAAAGGGAGAGGGAGAATTACCACCTGTATCTAGAGGTGCTCTTTGCAATCCCTAAGCCCTCTGGTC
CTGACCTCCGACCTCCCAGCTCTGTCTTGTTCCTTGTCTTTGTCTTTCTTCCCTTCCCCCTGCCCCTGCCCCTAC
CAGCCCAGCTTTGGGGACACCATCCTTCTGGGGAGAAGTAGGGGGAGGAATATTTGGATGGTCCCTCCATTCCTC
TTCAGGCATCTGGAGGCCCTCTCCCCCACTCCTCCAAAGAAACATCTCAAATTATTGATGGAATGTATCCCCATT
CTCAGTGAAAATGTGAGGAGGGGACTAATACTGGGGTAAAGGGTCAAACCCCCACCTTCATCACTATGGGCATTA
TATTTAGGGAGTAGTTCTTGGGCTGGATTTTCTGGTTGTGGAAGTGGGGGCGCCAGAGTAGTGTGTCTGCTATTT
AAAGGAGCAGGAAAGGGCGTGAGGCAGGAGGAGAGACTGGTGGAGGGAAGAGCTGCTCCTCCCATGCAGTGCCCG
ACTCCCTGCACCCCTCTCAACCTGACCTGAACCTTTATTGAATCCTTATTAGCTTGAATCCTTATTAGCTTGAAT
CCTCCATGCAAATCATGGAGTCTGTGTCCCACCTGATGTGGTTGAGGAGAAGCCAGGTCTTCAAAGAGGGGTCAG
CCTGGGGCAAAGCAGGACTGGGGGGAGGTGGGCAGCAGGGCCTATTCTGAGAATCACATATTGTTACAGGCCTTG
CACCCCCTTTGCTGCTTCCCTCCTGCTCATTTGGGGCTGCCACCAGCTCTCCACCCTCCTGGTTCCGCTGGCCGG
GCCAAGAGAGGATGGAGGGATGGGAGTCCCAGGAGATCCTTGTAAATAGTGGGGTGGGACTGTTCTGAGTGATCA
CCCGAGCACTTAAAGCTCCAGAGTCCCATTCTTCCTGGATGGAGCAGGTGGAGGTGCAGAGGGGATTTCCTCCTC
TCCTTCCTCCTGTCGAGAATTAACACCTCTCCACAGCCTTCCCCTCCAGAACACCAGCCAGGGAGGGGTGGGGAA
GGAGGTCACAGCCAAGAAAACTGCCCTGTGACGACTTCCCTCCTTCCCGCCTATGTGAGCCATCCTGAGATGTCT
GTACAATAGAAACCAAACCAAATGGGCACCCTCGGTTGCCGGGGGGCAGGTGGGGAGGGGGGTGGGAAGAAGGGA
TGTCTGTCTGTCGTCCCCCTCCCCCTCTCCACTCTTTACCCACAAAGGCAGAAGACTGTTACACTAGGGGGCTCA
GCAAATTCAATCCCACCCTTACCAATTGAGCCAAACCTAGAAACAAACACAAAACACGAATAGTGAGAGACAAAA
TAGAGGAGAGAAAGAGAGCATGAGAGGGAGCGAGACAGGCGACCAACACAGAGGAGAGAAAACAAAAATAGC

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FIGURE 1936

CTCTGCTTCCTTACAGCACCCCCACCTGCCAGAGCTGATCCTCCCTAGGCCCTGCCTAACCTTGAGTTGGCCCCC
AATCCCTCTGGCTGCAGAAGTCCCCTTACCCCCAATGAGAGGAGGGGCAGGACCAGATCTTTTGAGAGCTGAGGG
TTGAGGGCATTGAGCCAACACACAGATTTGTCGCCTCTGTCCCCGAAGACACCTGCACCCTCCATGCGGAGCCAA
G**ATG**GGGAATGGAACTGAGGAAGATTATAACTTTGTCTTCAAGGTGGTGCTGATCGGCGAATCAGGTGTGGGGAA
GACCAATCTACTCTCCCGATTCACGCGCAATGAGTTCAGCCACGACAGCCGCACCACCATCGGGGTTGAGTTCTC
CACCCGCACTGTGATGTTGGGCACCGCTGCTGTCAAGGCTCAGATCTGGGACACAGCTGGCCTGGAGCGGTACCG
AGCCATCACCTCGGCGTACTATCGTGGTGCAGTGGGGGCCCTCCTGGTGTTTGACCTAACCAAGCACCAGACCTA
TGCTGTGGTGGAGCGATGGCTGAAGGAGCTCTATGACCATGCTGAAGCCACGATCGTCGTCATGCTCGTGGGTAA
CAAAAGTGACCTCAGCCAGGCCCGGGAAGTGCCCACTGAGGAGGCCCGAATGTTCGCTGAAAACAATGGACTGCT
CTTCCTGGAGACCTCAGCCCTGGACTCTACCAATGTTGAGCTAGCCTTTGAGACTGTCCTGAAAGAAATCTTTGC
GAAGGTGTCCAAGCAGAGACAGAACAGCATCCGGACCAATGCCATCACTCTGGGCAGTGCCCAGGCTGGACAGGA
GCCTGGCCCTGGGGAGAAGAGGGCCTGTTGCATCAGCCTC**TGA**CCTTGGCCAGCACCACCTGCCCCCACTGGCTT
TTTGGTGCCCCTTGTCCCCACTTCAGCCCCAGGACCTTTCCTTGCCCTTTGGTTCCAGATATCAGACTGTTCCCT
GTTCACAGCACCCTCAGGGTCTTAAGGTCTTCATGCCCTATCACAAATACCTCTTTTATCTGTCCACCCCTCACA
GACTAGGACCCTCAAATAAAGCTGTTTTATATC

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FIGURE 1937

GGAAGCAGCGGGCAGCGGCCCGCGGGAGGCACCTCGGAGATCTGGGTGCAAAAGCCCAGGGTTAGGAACCGTAGG
C**ATG**CTGCGCCCCAAGGCTTTGACCCAGGTGCTAAGCCAAGCCAACACTGGAGGCGTCCAGAGCACCCTGCTGCT
GAATAACGAGGGATCACTGCTGGCCTACTCTGGTTACGGGGACACTGACGCCCGGGTCACCGCTGCCATAGCCAG
TAACATCTGGGCCGCCTACGACCGGAACGGGAACCAAGCGTTTAATGAAGACAATCTCAAATTCATCCTCATGGA
CTGCATGGAGGGCCGTGTAGCCATCACCCGAGTGGCCAACCTTCTGCTGTGTATGTATGCCAAGGAGACCGTGGG
CTTTGGAATGCTCAAGGCCAAGGCCCAGGCTTTGGTGCAGTACCTGGAGGAGCCCCTCACCCAAGTGGCGGCATC
T**TAA**CGGCATTGGTGGAAGCTGGGGTCAGAAAAGAGAAATGACCATTTGGAGGGGCGGGGCCTCCTAGAAGAACC
TTCTTAGACAATGGGGGGAGGATGGGACTTTGTTTTTTCCAAGAATAAACTTCAACTCCTGT

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FIGURE 1938

GGAGGAGCCGGGCGGGCTGGCGGGCGGCCGGGTGGCGGCGGCGGCATGGCGGAGCCGAGCGGGGCCGAGACGAGG
CCCCCCATTCGGGTCACCGTCAAGACCCCCAAGGACAAGGAGGAAATTGTGATCTGCGATCGAGCCTCGGTCAAG
GAGTTCAAAGAGGAAATCTCCCGGAGGTTTAAGGCTCAGCAGGATCAGCTGGTCCTGATCTTCGCAGGCAAGATC
CTCAAGGATGGGGACACACTGAACCAGCACGGAATCAAGGACGGGCTCACTGTCCATCTGGTCATCAAGACCCCT
CAGAAGGCTCAAGATCCAGCTGCTGCCACTGCTTCTTCCCCCTCCACACCTGACCCTGCCTCAGCACCCTCCACC
ACGCCTGCTTCACCCGCCACCCCTGCCCAGCCCTCCACCTCTGGCAGTGCCTCTTCAGATGCTGGCAGTGGAAGC
CGGAGGAGCAGTGGTGGGGGGCCCTCTCCGGGGGCTGGGGAGGGATCCCCCAGTGCTACTGCGTCCATACTCTCT
GGCTTTGGGGGCATCCTGGGGCTGGGCAGCCTAGGCCTGGGCTCTGCCAACTTCATGGAGCTGCAGCAGCAGATG
CAGCGGCAGCTGATGTCCAATCCTGAGATGCTGTCACAGATCATGGAGAACCCCCTGGTCCAGGATATGATGTCT
AACCCTGATCTGATGCGTCACATGATTATGGCCAACCCCCAGATGCAGCAGTTGATGGAGCGGAACCCTGAGATC
AGCCACATGCTCAATAACCCTGAACTCATGAGGCAGACAATGGAGCTTGCTCGGAATCCAGCCATGATGCAAGAG
ATGATGCGGAACCAGGACCGGGCCCTGAGCAACCTTGAGAGCATCCCTGGAGGGTATAATGCCCTCCGCCGCATG
TACACGGACATCCAGGAGCCCATGTTCAGTGCTGCCCGGGAACAGTTTGGCAACAATCCCTTCTCTTCCCTGGCC
GGGAACTCCGACAGCTCATCCTCCCAGCCTCTGCGGACTGAGAATCGAGAGCCCCTCCCTAACCCCTGGAGCCCC
TCGCCCCCCACCTCCCAGGCCCCCGGGTCCGGTGGGGAGGGCACCGGAGGATCGGGGACCAGCCAGGTGCACCCG
ACAGTCTCGAACCCCTTTGGGATCAATGCGGCTAGCCTGGGGTCAGGGATGTTCAATAGCCCAGAAATGCAAGCC
CTCCTCCAGCAGATCTCTGAGAACCCCCAGCTGATGCAGAATGTGATCTCAGCACCCTACATGCGCAGCATGATG
CAGACGCTTGCCCAGAACCCCGACTTTGCTGCTCAGATGATGGTGAATGTGCCGCTCTTCGCGGGGAACCCCCAA
CTGCAGGAGCAGCTCCGCCTGCAGCTCCCAGTCTTCCTGCAGCAGATGCAGAACCCAGAGTCACTCTCCATCCTT
ACCAATCCCCGAGCCATGCAGGCATTGCTGCAGATCCAGCAGGGACTACAGACCTTGCAGACCGAGGCCCCTGGG
CTGGTACCCAGCCTTGGCTCCTTTGGGATATCCCGGACCCCAGCACCCTCAGCAGGCAGCAACGCAGGGTCTACG
CCCGAGGCCCCCACTTCCTCACCAGCCACGCCAGCCACATCTTCTCCAACAGGGGCTTCCAGCGCCCAGCAGCAA
CTCATGCAGCAGATGATCCAGCTTTTGGCTGGAAGTGGAAACTCACAGGTGCAGACGCCAGAAGTGAGATTTCAG
CAGCAGCTGGAGCAGCTCAACTCCATGGGCTTCATCAATCGTGAGGCTAACCTGCAGGCCCTGATTGCCACAGGA
GGGGACATCAACGCAGCTATCGAGAGACTGCTGGGCTCCCAGCTCTCCTAATCCCTCGGCCCATGCCTCCTGCCT
CTCCCCTCCCTCGATGTCAGCATTCGGTTCTTCTGTCAATCCTTACCCTCTGCAGCTTGTCCTCCCTTCCGTCTT
CTCCCTCATCCTTTCCAAACAGCAGGGTGACTTTAGAGGCATGGGCTCCAACCCCTTAGCTCTGTCTGAGAATTA
TGGTTTTACTGCTACGTCTCTAACAGACTCTTCTCTCCTGGTCTCCTTGAGCAGTGCTACTTAAACAGTTTTCAC
AGTTTCATTGATTGACTCTACCTCCTTGCCCCACACCACTTTTGCAATCTTTAAACTTTCAGTGGCTGTGCAGAG
TCGAGGGAGGAACCAGCTCTCTGGTTTACTGGAACATAGTCTTCCATCTATACCACTAGGGTTTTGTCTTATGTT
TACTTTTGGTAACTCTCTTCCTTCTTTTTCTCCCTACCCCCCAACCCCTAGCCCAACCAATGCTAGAATTTCTTG
CTCTGAAGGAGGAGCAGGTGAAACAGGTGGTAATTTTCCTTCTCGGCCCCTATTCTGGTTCATTCAGCACTTTTT
GGTGGGAACTGTTGGAAATTCCAGGGTAAGGAGGAAGATGCCTGTTCTCCCTGTCTGAAGAGGGAGATGAGACAG
CTCTCTGGACAGGAATTAACAAACGCTGGAGCAGCCCAGAGGAAATTCGTGTGAAAGAGGAGGGAATGAGATTAT
TCGGAGGAAGGGAATGGGGGAGACAGCCTGAGTAAAAGGCTTGGAAGTTGGAATTAACAGTGGGGAGCAGAAGCA
CTCATAGCTCTTTTAGGCAGAAGAATCCAGGCCCGAGCTGGCAGAAGAGACTTAGAGATGCTAATGGAATTTAAA
CTGAAAAAAGGAGCCCAATGAAGCTAAGCGCCACGCCCCACAAGGGGTCATATTGGCTTTAGTTCCTCAAGCATA
TGTGCTTATATGCACACACACACACATTTCCATGGACCCAGGTCTTGCTTGTGTCCCCAGGCACCAGTAGTTTGA
GCCCCCCTCAAAAGACATGAAGGGGGTTGGGGTCTGTGTGAGTAGTGGGGAGGTGCATGTGTATCCACATGTGTG
CATACACTCTTAAGTTGGGTGGGAAGTGGATTCCTTGTTGGTTTCTGGTTCAGAGTGCTCTCCCACCACCAGAGA
CAAGTGGGTAAAAAGGTCAGTCCATTGCAGGAATATATATCCGGGAGAGCTAGGTCCCTTGGGGCTCTGGATGCT
GGGTAACCCAGAGGTAATGTGGGTACCCTTTCTGAAGCTGTCAGGGCTGTGACTAGCACCCTTATCACCCCTCAC
TGCCTTGTGGGAATAGTAGAGGGTTTTTTTCCTCCAGAGCCCCTGGCCTTTCAGTTCTTAACTATTTCCCTCCAG
GCCAGAAAGTTTTCTTTGAGGAAGGAGAGGAGAGGGTGGCAATGATGCCTTTGATCTGGAATTGGACATTTCTCT
GTCAGAGCACAGAGGAGGCTCATATCACCTCTTCCCTCTCCTACTTGGCCCAGCTGCTTGGAGGACCGACCCCAT
GGCTGAGAATATGACGGCAAGAGGAACAGAGTTTGCTCCAAGTGGGAAAGGGTCCCAAGCAGTCCAGAGAAGATG
TCTGTGTGGCTTTCCCTCCCTGCCTCCCCCAGCTCCCACACTGGCCTTTGTAAATAAATGGCGTGGTCTTTGTTG
TG

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FIGURE 1939

GCTCTCTTCCTGTCTTTGTGGCTCCGGAAAGGCGTTTGGGATGCCAACG**ATG**AGGCTGCTGTCATTTGTGGTGTT
GGCTCTATTTGCTGTCACTCAAGCAGAGGAAGGAGCCAGGCTTTTGGCTTCCAAATCACTGCTGAACAGATACGC
CGTGGAGGGACGAGACCTGACCTTGCAGTACAACATCTACAATGTTGGCTCAAGTGCTGCATTAGACGTGGAACT
ATCTGATGATTCCTTCCCTCCAGAAGACTTTGGCATTGTGTCTGGAATGCTCAATGTCAAATGGGACCGGATTGC
CCCTGCTAGCAATGTCTCCCACACTGTGGTCCTGCGCCCTCTCAAGGCTGGTTATTTCAACTTCACCTCGGCAAC
AATTACTTACCTGGCCCAGGAGGATGGGCCCGTTGTGATTGGCTCTACCAGTGCACCTGGACAGGGAGGAATCCT
GGCTCAGCGGGAGTTTGACAGGCGATTCTCCCCTCATTTTCTGGACTGGGCAGCCTTTGGGGTCATGACCCTTCC
CTCCATCGGCATCCCCCTGCTATTGTGGTACTCCAGCAAGAGGAAATATGACACTCCCAAAACGAAGAAGAAC**TG**
ATTGGGGCTTCCACAGCCCTCCTCTCCCAAGAAATCCAGGCTCCTCTCCCAAGAAATCCAGGTGCTTTCCAGACT
CCAAAGGGTATCTTAAATGCAATCTCTTCTCTCTTAGCCCTTGGCCACTTTCTCCTGGATCCTGCCCTGCTCTCA
GCCATAGTGAAGGACCAGCCCTAGGAGTCTGCGAGAGCCTCCTTGGTTCCATCGTGAAGCCATAAACAGGAATGC
CTTTGGCAATAGCCTTGAGCCTAGAGGGCCCTCTGATGCCCCACTGAGGTGCTGTTGGTTTATTGCTGGCAACGT
GAATTCTCTCAGGGGTCTAGGAGGGGCATTTTGGAGACTGCCTGACACCACCCCTATCCCCTGCCTCCCCCTCTC
AGAAGAGGGTGGAAGATGAAATGAAAGCTATGGGACTCTTGGAGGATACCCAGTGTCTATTCTGGGTTAGAGAAG
TGCTTACTAAGGGGTTTTCTAATAAAAACAAATGCCACATTG

FIGURE 1940A

GAGACCAACGCGTGCGGGCCGAACCCCTCCCCCCGCCTTCCCCCAACAATACAGGACGCCGGGGTCCGCGCCGCG
TCCTCCCTGGTCCCCCCGTCCGATTATGTCTCGGATCGAATCCCTCACGCGGGCGCGGATCGACCGGAGCAGAGA
GCTGGCGAGCAAGACCCGGGAAAAGGAGAAA**ATG**AAGAAAGCCAAGGATGCCCGCTATACAAATGGGCACCTCTT
CACCACCATTTCAGTTTCAGGCATGACCATGTGCTATGCCTGTAACAAGAGCATCACAGCCAAGGAAGCCCTCAT
CTGCCCAACCTGCAATGTGACTATCCACAACCGCTGTAAAGACACCCTCGCCAACTGTACCAAGGTCAAGCAGAA
GCAACAGAAAGCGGCCCTGCTGAAGAACAACACCGCCTTGCAGTCCGTTTCTCTTCGAAGTAAGACAACCATCCG
GGAGCGGCCAAGCTCGGCCATCTACCCCTCCGACAGCTTCCGGCAGTCCCTCCTGGGCTCCCGCCGTGGCCGCTC
CTCCTTGTCTTTAGCCAAGAGTGTTTCTACCACCAACATTGCTGGACATTTCAATGATGAGTCTCCCCTGGGGCT
GCGCCGGATCCTCTCACAGTCCACAGACTCCCTCAACATGCGGAACCGAACCCTATCCGTGGAATCCCTCATTGA
CGAAGAGGTAATCTACAGTGAGCTGATGAGTGACTTTGAGATGGATGAGAAGGACTTTGCAGCTGACTCTTGGAG
TCTTGCTGTGGACAGCAGCTTCCTGCAGCAGCATAAAAAGGAGGTGATGAAGCAGCAAGATGTCATCTATGAGCT
AATCCAGACAGAGCTGCACCATGTGAGGACACTGAAGATCATGACCCGCCTCTTCCGCACGGGGATGCTGGAAGA
GCTACACTTGGAGCCAGGAGTGGTCCAGGGCCTGTTCCCCTGCGTGGACGAGCTCAGTGACATCCATACACGCTT
CCTCAGCCAGCTATTAGAACGCCGACGCCAGGCCCTGTGCCCTGGCAGCACCCGGAACTTTGTCATCCATCGCTT
GGGTGATCTGCTCATCAGCCAGTTCTCAGGTCCTAGTGCGGAGCAGATGTGTAAGACCTACTCGGAGTTCTGCAG
CCGCCACAGCAAGGCCTTAAAGCTCTATAAGGAGCTGTACGCCCGAGACAAACGCTTCCAGCAATTCATCCGGAA
AGTGACCCGCCCCGCCGTGCTCAAGCGGCACGGGGTACAGGAGTGCATCCTGCTGGTGACTCAGCGCATCACCAA
GTACCCGTTACTCATCAGCCGCATCCTGCAGCATTCCCACGGGATCGAGGAGGAGCGCCAGGACCTGACCACAGC
ACTGGGGCTAGTGAAGGAGCTGCTGTCCAATGTGGACGAGGGTATTTATCAGCTGGAGAAAGGGGCCCGTCTGCA
GGAGATCTACAACCGCATGGACCCTCGGGCCCAAACCCCAGTGCCTGGCAAGGGCCCCTTTGGCCGAGAGGAACT
TCTGAGGCGCAAACTCATCCACGATGGCTGCCTGCTCTGGAAGACAGCGACGGGGCGCTTCAAAGATGTGCTAGT
GCTGCTGATGACAGATGTACTGGTGTTTCTCCAGGAAAAGGACCAGAAGTACATCTTTCCTACCCTGGACAAGCC
TTCAGTGGTATCGCTGCAGAATCTAATCGTACGAGACATTGCCAACCAGGAGAAAGGGATGTTTCTGATCAGCGC
AGCCCCACCTGAGATGTACGAGGTGCACACAGCATCCCGGGATGACCGGAGCACCTGGATCCGGGTCATTCAGCA
GAGCGTGCGCACATGCCCATCCAGGGAGGACTTCCCCCTGATTGAGACAGAGGATGAGGCTTACCTGCGGCGAAT
TAAGATGGAGTTGCAGCAGAAGGACCGGGCACTGGTGGAGCTGCTGCGAGAGAAGGTCGGGCTGTTTGCTGAGAT
GACCCATTTCCAGGCCGAAGAGGATGGTGGCAGTGGGATGGCCCTGCCCACCCTGCCCAGGGGCCTTTTCCGCTC
TGAGTCCCTTGAGTCCCCTCGTGGCGAGCGGCTGCTGCAGGATGCCATCCGTGAGGTGGAGGGTCTGAAAGACCT
GCTGGTGGGGCCAGGAGTGGAACTGCTCTTGACACCCCGAGAGCCAGCCCTGCCCTTGGAACCAGACAGCGGTGG
TAACACGAGTCCTGGGGTCACTGCCAATGGTGAGGCCAGAACCTTCAATGGCTCCATTGAACTCTGCAGAGCTGA
CTCAGACTCTAGCCAGAGGGATCGAAATGGAAATCAGCTGAGATCACCGCAAGAGGAGGCGTTACAGCGATTGGT
CAATCTCTATGGACTTCTACATGGCCTACAGGCAGCTGTGGCCCAGCAGGACACTCTGATGGAAGCCCGGTTCCC
TGAGGGCCCTGAGCGGCGGGAGAAGCTGTGCCGAGCCAACTCTCGGGATGGGGAGGCTGGCAGGGCTGGGGCTGC
CCCTGTGGCCCCTGAAAAGCAGGCCACGGAACTGGCATTACTGCAGCGGCAACATGCGCTGCTGCAGGAGGAGCT
ACGGCGCTGCCGGCGGCTAGGTGAAGAACGGGCAACCGAAGCTGGCAGCCTGGAGGCCCGGCTCCGGGAGAGTGA
GCAGGCCCGGGCACTGCTGGAGCGTGAGGCCGAAGAGGCTCGAAGGCAGCTGGCCGCCCTGGGCCAGACCGAGCC
ACTCCCAGCTGAGGCCCCCTGGGCCCGCAGACCTGTGGATCCTCGGCGGCGCAGCCTCCCCGCAGGCGATGCCCT
GTACTTGAGTTTCAACCCCCCACAGCCCAGCCGAGGCACTGACCGCCTGGATCTACCTGTCACTACTCGCTCTGT
CCATCGAAACTTTGAGGACCGAGAGAGGCAGGAACTGGGGAGCCCCGAAGAGCGGCTGCAAGACAGCAGTGACCC
TGACACTGGCAGCGAGGAGGAAGGTAGCAGCCGTCTGTCTCCGCCCCACAGTCCACGAGACTTTACCAGAATGCA
GGACATCCCGGAGGAGACGGAGAGCCGCGACGGGGAGGCTGTAGCCTCCGAGAGC**TAA**GGGGGCCCCTCCCCCCT
GCCCCGTGCCCCACTGAAGAACATTACTGAGGGGGCTAACCTTGGGGACTCCAATTTGCCAATGATGAGGGAACA
TTTGAAAGAACTGCAAATTGTCCTTGCCAGCTCTTGGGATCCTTGGATACCTGGGGCCATTTAAGAAGCTAGGGG
AATTAGGCCACAACACCCCCTGGGACATCCGAAAGCTACACCACAGATGCCAGTGGTTCATGCCTTCTTCCCGCA
ACTTTAGGAAAATTTATTTATTTATTGTTTATTAGTTATGGGGGGAGAGGGGAGATTTAAAGGACCAGGGACATG
GGAACCAAGCCATAGGGATCAGAGGGCCTTGTCCTTGAACACTACTGGGGTATATTCAGGCTCATCCACGCAGCT
GCTGGGTTCTTGCCCTAACGGCCCTCCCCTGCAACATCCGTCTTGGAGGAGAGGCTGCAGCCACAGCACCCTACT
GCCCTTTAAATAAAGGAGGGCTGTGGGCAGGGCCATGTCCCTTTCTCCTCTCCCCTCAACCTCTTACTGCTGTTC

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FIGURE 1940B

TCCCTTTCTCCGTCCTTCATGGAAGCCCTGGGAGATAACCTGGCTTCCTGGAGTTGATGGAATAAAGGTTGGGGT
GGCCATAATGGTTTGTTGGGGGTGAGGGAAAAAACCCACAGGGACCAGAATGTTTTGTTGTTCTTTTGTTTTCTT
TTTTGTACCAAAGTCAACTGCACGTGTTTTATATTTTTAAGAGATCGTAGGCAATTAGAGATCGAAGCCTCCTAT
CTCCACATCTCTGAAGAAGTTGAGGGGTGGGGGGAGAGAATGACTTCTGCCTTCATCTGCAGTAACGGGGGGACCT
ATACTGACCTCTTCCCCAGCCATTTAGAAACAAGTTCTAGGGTGGGTTGGAAAATCTCCAAGAGCCCTGACCTCA
TCTTCCACCTCAGCAACCATGACCTGAAACCTCAGCGTGAATTTGGGGGATTTTTCAGTGGAACCCTTGCCCCCA
AATGTCGACCAGCCCCCAAATGTCGAAGAATTTTCTTCTTGCCAATTTTGTTGTTTAAAAAAAAAATTCAGGGAA
AATTAAAAACCTGGAACTCCA

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FIGURE 1941A

CGGGTGGTTGAGTAGAAGCGGTCGCC**ATG**TCCGCGGGGAGCGCGACACATCCTGGAGCTGGCGGGCGCCGCAGCA
AATGGGACCAACCAGCTCCAGCCCCACTTCTCTTCCTCCCGCCAGCGGCCCCAGGTGGGGAGGTCACCAGCAGTG
GGGGAAGTCCTGGGGGCACCACAGCTGCTCCTTCAGGAGCCTTGGATGCTGCTGCTGCTGTGGCTGCCAAGATTA
ATGCCATGCTCATGGCAAAAGGGAAGCTGAAACCAACTCAGAATGCTTCTGAGAAGCTTCAGGCTCCTGGCAAAG
GCCTAACTAGCAATAAAAGCAAGGATGACCTGGTGGTAGCTGAAGTAGAAATTAATGATGTGCCTCTCACATGTA
GGAACTTGCTGACTCGAGGACAGACTCAAGACGAGATCAGCCGACTTAGTGGGGCTGCAGTATCAACTCGAGGGA
GGTTCATGACAACTGAGGAAAAAGCCAAAGTGGGACCAGGGGATCGTCCATTATATCTTCATGTTCAGGGCCAGA
CACGGGAATTAGTGGACAGAGCTGTAAACCGGATCAAAGAAATTATCACCAATGGAGTGGTAAAAGCTGCCACAG
GAACAAGTCCAACTTTTAATGGTGCAACAGTAACTGTCTATCACCAGCCAGCACCCATCGCTCAGTTGTCTCCAG
CTGTTAGCCAGAAGCCTCCCTTCCAGTCAGGGATGCATTATGTTCAAGATAAATTATTTGTGGGTCTAGAACATG
CTGTACCCACTTTTAATGTCAAGGAGAAGGTGGAAGGTCCAGGCTGCTCCTATTTGCAGCACATTCAGATTGAAA
CAGGTGCCAAAGTCTTCCTGCGGGGCAAAGGTTCAGGCTGCATTGAGCCAGCATCTGGCCGAGAAGCTTTTGAAC
CTATGTATATTTACATCAGTCACCCCAAACCAGAAGGCCTGGCTGCTGCCAAGAAGCTTTGTGAGAATCTTTTGC
AAACAGTTCATGCTGAATACTCTAGATTTGTGAATCAGATTAATACTGCTGTACCTTTACCAGGCTATACACAAC
CCTCTGCTATAAGTAGTGTCCCTCCTCAACCACCATATTATCCATCCAATGGCTATCAGTCTGGTTACCCTGTTG
TTCCCCCTCCTCAGCAGCCAGTTCAACCTCCCTACGGAGTACCAAGCATAGTGCCACCAGCTGTTTCATTAGCAC
CTGGAGTCTTGCCGGCATTACCTACTGGAGTCCCACCTGTGCCAACACAATACCCGATAACACAAGTGCAGCCTC
CAGCTAGCACTGGACAGAGTCCGATGGGTGGTCCTTTTATTCCTGCTGCTCCTGTCAAAACTGCCTTGCCTGCTG
GCCCCCAGCCCCAGCCCCAGCCCCAGCCCCCACTCCCAAGTCAGCCCCAGGCACAGAAGAGACGATTCACAGAGG
AGCTACCAGATGAACGGGAATCTGGACTGCTTGGATACCAGCATGGACCCATTCATATGACTAATTTAGGTACAG
GCTTCTCCAGTCAGAATGAGATTGAAGGTGCAGGATCGAAGCCAGCAAGTTCCTCAGGCAAAGAGAGAGAGAGGG
ACAGGCAGTTGATGCCTCCACCAGCCTTTCCAGTGACTGGAATAAAAACAGAGTCCGATGAAAGGAATGGGTCTG
GGACCTTAACAGGGAGCCATGGTGAGTGTGATATAGCTGGGGGAACAGGGGAGTGGCTAAGACTGGTC**TAA**AGCT
ATTAGTTTTCTCAGCCGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGGGCAGATCA
CCTAAGGTCAGGAGTTCAAGACCAGCTTGGCCAACATAGTGAAATCCCATCTCTACTAAAAATACAAAAACTAGC
GGGCATGGTGGTGGGCGCCTGTAATTCCAGCTACTCAGGGGGTTGAGGCAGGAGAATCGCTTCAACCTGGGAGGC
AGAGGTTGCAGTGAGCCAAGATCAGACCACTGCCCTCCAGCCTGGGCAATAGAGCAAGACTCCATCTCATAAATA
AATAAATACATAAATAAAGCTATTAATTTTCTAACCTGATGTTCATTCAGGTGTTTAATCCAACCTCTATAATCT
GTTGGCCAGTGAAAATACTTTTGGGCTGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGG
TGGGCGGATAACCTGAGGTCAGGAGTTTGAGACCAGCGTGGCTAACATGGTGAAACCCCGTCTCTACTAAAAATA
GAAAAATTAAGCTGGGCATGGTGGTGCATGCCTGTAATTCCAGCGGCTTGGAAGGCTGAGGCAGGAGAATCACTT
GAACTTGGGAGGTGGAGGTTGCAGTGAGCCAAGATCACACCACTGCATTCCAGCCTGGGCACTAGAGTGAGACTC
TGTCTCAAAAAAAAAGAAAGAGAAAGAGAAAATAGTTTCTAAAAAATTGTATACAGACAACCTTTTATTTCCAAC
AAACGTGTGCCGAGAGAGAGAGAGAGAAAATAGTTTTAAAAAAATTGTATACAGACAACCTTTTGTTTCCAACCA
ACGTGTATCTAGAAAAGAGTTAGTCGACTTATTTTATACATAGCATCAGTGAATAGTAATGAGTGGTAGGTCATT
TCAAAATCCTGTTGCCTATATTATGTGAATACCAGGAGGTCATCTGATACGGACTTAATAAAGGTTGATTTTGCT
TTATATTGGGAGCTGAGCCACACCTCCCCTTATAACTCTATTGGTCAGTAATGGTCAGTTTGTGGCTGTTAGGAA
AATGTTGCCTTTTAGCATTCCAGAACTCTAAATCCTGTAGAGGTACATGGGATATTTTATTCTTTGCCTGTACTC
ATAAAAATGAACAGAAGAAAATACGTTTTTTTCTTTTCTTAACTTCTTTTCTTTTAACTCTTTAAAAGGTGAAAT
ATCAGCCCTCAAGAGACTCACTTGCTAACTTTCCTTTTTTTCTTTTTTTTTCTTTTTTTGTGTTTCTTTTTTCTT
TCTCTGTTTTCTTACATGGTTCTGGTGGATTCACATTTGCTGATGCTGGTGCTGTTTTTCGTGTGATCTTCAACG
TTTTTGGGTGACCATTGACCCTGTGACCTCAAAATGGTGTCCAACTAACCACTTAAAATTAACATCTTTTTTTTA
ATTAACGAATTTATGGTATTTTTTTTTTCCCTTGGCGGGGATGGGGTTGGGGTTGTTTTTTCTCTATTCTAGAT
TATCCAGCCAAGAAGATGAAAACTACAGAGAAGGGATTTGGCTTGGTGGCTTATGCTGCAGATTCATCTGATGAA
GAGGAGGAACATGGAGGTCATAAAAATGCAAGTAGTTTTCCACAGGGCTGGAGTTTGGGATACCAATATCCTTCA
TCACAACCACGAGCTAAACAACAGATGCCATTCTGGATGGCTCCCTAGGAAACAGTGGAACAGAGTTTTGACCCT
CAGTGACTCTTCTTAGCAATAATGCATGCATTTGATTTAACAAGACTCTGGGGCCTGTGCTGGGAACCATCTGGA
CCTTTGCAGAAGTTAGAGATTCAGTGCCCCCCTTTCTTAAAGGGGTTCCTTAACAACCACAAAAATCCTTATTTC

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FIGURE 1941B

TGCAGTGGCATAGAATCTGTTAAAATTTAATTAGAATCACAAATTTATCTCAGAAGCTTTTTAACAGTTGGTGAA
ATGTGCTTGTCCAACAAAGCATCCTAACAGGGTCGTTCCCATACACATTTGACCTGGTCAGCCTTTTCCAGGTGA
ATAGCCCCAGTTCTGACATAAAGAAAGTTTTATTTGTATTTTACTACTGTTTGGTCAATTTTGATATATAACTGG
TTACAAACAGAGCCTTACTATTTATTAGTGGGGAAATGATTTTAAGACCGTCCTTTTCAGTATTTAATTCTGACA
GATCTGCATCCCTGTTTTGTTTTGGATTATTTCTGTTTTGGAAAATGCTGTCTCATTTAAAACTGTTGGATATAG
CTGGATCCTGGATAGGAAAATGAAATTATTTTTTCATTGTGTTTTTTAATTGGGGTGATCCAAAGCTGGCACCTT
CAGGCACATTGGTCTCATAGCCATTACTGTTTTTATTGCCCTTCTAAGATCCTGTCTTCAGCTGGGTCAGAGAAA
ACTTCTTGACTAAAACTGGTCAGAACTCATCACAGAAATGAAATACAGTGGTCTCTCTCTCCCAGAACTGGTTGC
AGCTAAAACAGAGAGATCTGACTGCTGGCTATAGGATTTTGGACTTAATGACTGAAATTGCAAATTGTCCTTTTT
CTTGGCATTACAGATTTTGCCAAAATAACTTTTTGTATCAAATATTGATGTGTGAAAGTGAAGGAGCTAGTCTGC
TGAACCAGGAATAGTTTGAGATATTGAACTGTCATTTTTGCACATTTGAATACTTTGCAGGCTGGCTTTGTATAA
ACTTATCCTCTGGTTTCCTATATGTTGTAAATATTTAGACCATAATTTCATTATAAATAAATCTATAAATATTC

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FIGURE 1942

CGCGAGTGAAGGAAGACGAAGTGCGTGACCCGACCGGCTGTGGTGTTCCAGTCCCCACTGACCAGTAGGAGCAGC
AGGGCGTCGGCTTGTGAGGTGGCTTTTCCTCGGGGCAACCGAGGAAGGCCCCAAGAGGACA**ATG**GATTCTGGAAC
TCGCCCAGTTGGTAGCTGCTGTAGCAGCCCCGCTGGGCTCTCACGGGAGTACAAACTAGTGATGCTGGGTGCTGG
TGGTGTAGGGAAGAGTGCCATGACCATGCAGTTCATCAGCCACCGATTCCCAGAAGATCATGATCCCACCATTGA
AGATGCTTATAAGATCAGGATCCGTATTGATGATGAGCCTGCCAATCTGGACATTTTGGATACAGCTGGACAGGC
AGAGTTTACAGCCATGCGGGACCAGTATATGAGGGCAGGAGAAGGGTTTATCATCTGTTACTCTATCACGGATCG
TCGAAGTTTCCATGAAGTTCGTGAGTTTAAACAGCTTATTTATCGAGTCCGACGTACTGACGATACACCTGTGGT
TCTTGTGGGAAACAAGTCAGACCTCAAACAGCTAAGACAGGTCACCAAGGAAGAAGGATTGGCCTTGGCCCGAGA
ATTCAGCTGTCCCTTTTTTGAGACATCTGCTGCATACCGCTACTATATTGATGATGTTTTCCATGCCCTTGTACG
GGAGATACGTAGGAAAGAAAAGGAGGCAGTACTGGCCATGGAGAAAAAATCTAAGCCCAAAAACAGTGTATGGAA
GAGGCTAAAATCACCATTCCGGAAGAAGAAAGATTCAGTAACT**TGA**AGAGAAGATGTGAAGTGTTTATCTGTGAA
CTGCAGTGCTGTATCAAAGCAGTCCAGTAACCTGCAGTACTGAGTATGGTGCTTGCTCTTTCACTTAACTGATAA
GAGGGACATGCCTACTAGGAGTTTTTAATGATGTGGTATTTAAAGTATTGTCTCTTAGTTAAGTATGATTTATTA
ACCCAGTGGAGCACTGTCTGCTTTTAAATTGTCACATTAGAATTTGTTCTACC

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FIGURE 1943

AGAAATCTTCAGCCAAACAGCTGCAGGAAGTAGAGAAGGTTAAACCCCAGAGTGAGAAAGTTCATCAGACTCTGA
TTCTGGACCCAGCACAGAGGAAGAGACTCCAGCAGCAG**ATG**CAGCAGCACGTTCAGCTCTTGACCCAAATCCACC
TTCTTGCCACCTGCAACCCCAACCTCAATCCGGAGGCCACTACCACCAGGATATTTCTTAAAGAGCTGGGAACCT
TTGCTCAAAGCTCCATCGCCCTTCACCATCAGTACAACCCCAAGTTTCAGACCCTGTTCCAACCCTGTAACTTGA
TGGGAGCTATGCAGCTGATTGAAGACTTCAGCACACATGTCAGCATTGACTGCAGCCCTCATAAAACTGTCAAGA
AGACTGCGAATGAATTTCCCTGTTTGCCAAAGCAAGTGGCTTGGATTCTGGCCACAAGCAAGGTTTTCATGTATC
CAGAGTTACTTCCAGTGTGTTCCCTGAAGGCAAAGAATCCCCAGGATAAGATCGTCTTCACCAAGGCTGAGGACA
ATTTGTTAGCTTTAGGACTGAAGCATTTTGAAGGAACTGAGTTTCCTAATCCTCTAATCAGCAAGTACCTTCTAA
CCTGCAAAACTGCCCACCAACTGACAGTGAGAATCAAGAACCTCAACATGAACAGAGCTCCTGACAACATCATTA
AATTTTATAAGAAGACCAAACAGCTGCCAGTCCTAGGAAAATGCTGTGAAGAGATCCAGCCACATCAGTGGAAGC
CACCTATAGAGAGAGAAGAACACCGGCTCCCATTCTGGTTAAAGGCCAGTCTGCCATCCATCCAGGAAGAACTGC
GGCACATGGCTGATGGTGCTAGAGAGGTAGGAAATATGACTGGAACCACTGAGATCAACTCAGATCGAAGCCTAG
AAAAAGACAATTTGGAGTTGGGGAGTGAATCTCGGTACCCACTGCTATTGCCTAAGGGTGTAGTCCTGAAACTGA
AGCCAGTTGCCACCCGTTTCCCCAGGAAGGCTTGGAGACAGAAGCGTTCATCAGTCCTGAAGCCCCTCCTTATCC
AACCCAGCCCCTCTCTCCAGCCCAGCTTCAACCCTGGGAAAACACCAGCCCGATCAACTCATTCAGAAGCCCCTC
CGAGCAAAATGGTGCTCCGGATTCCTCACCCAATACAGCCAGCCACTGTTTTACAGACAGTTCCAGGTGTCCCTC
CACTGGGGGTCAGTGGAGGTGAGAGTTTTGAGTCTCCTGCAGCACTGCCTGCTGTGCCCCCTGAGGCCAGGACAA
GCTTCCCTCTGTCTGAGTCCCAGACTTTGCTCTCTTCTGCCCCTGTGCCCAAGGTAATGCTGCCCTCCCTTGCCC
CTTCTAAGTTTCGAAAGCCATATGTGAGACGGAGACCCTCAAAGAGAAGAGGAGTCAAGGCCTCTCCCTGTATGA
AACCTGCCCCTGTTATCCACCACCCTGCATCTGTTATCTTCACTGTTCCTGCTACCACTGTGAAGATTGTGAGCC
TTGGCGGTGGCTGTAACATGATCCAGCCTGTCAATGCGGCTGTGGCCCAGAGTCCCCAGACTATTCCCATCACTA
CCCTCTTGGTTAACCCTACTTCCTTCCCCTGTCCATTGAACCAGTCCCTTGTGGCCTCCTCTGTCTCACCCTTAA
TTGTTTCTGGCAATTCTGTGAATCTTCCTATACCATCCACCCCTGAAGATAAGGCCCACGTGAATGTGGACATTG
CTTGTGCTGTGGCTGATGGGGAAAATGCCTTTCAGGGCCTAGAACCCAAATTAGAGCCCCAGGAACTATCTCCTC
TCTCTGCTACTGTTTTCCCGAAAGTGGAACATAGCCCAGGGCCTCCACTAGCAGATGCAGAGTGCCAAGAAGGAT
TGTCAGAGAATAGTGCCTGTCGCTGGACCGTTGTGAAAACAGAGGAGGGGAGGCAAGCTCTGGAGCCGCTCCCTC
AGGGCATCCAGGAGTCTCTAAACAACCCTACCCCTGGGGATTTAGAGGAAATTGTCAAGATGGAACCTGAAGAAG
CTAGAGAGGAAATCAGTGGATCCCCTGAGCGTGATATTTGTGATGACATCAAAGTGGAACATGCTGTGGAATTGG
ACACTGGTGCCCCAAGCGAGGAGTTGAGCAGTGCTGGAGAAGTAACGAAACAGACAGTCTTACAGAAGGAAGAGG
AGAGGAGTCAGCCAACTAAAACCCCTTCATCTTCTCAAGAGCCCCCTGATGAAGGAACCTCAGGGACAGATGTGA
ACAAAGGATCATCAAAGAATGCTTTGTCCTCAATGGATCCTGAAGTGAGGCTTAGTAGCCCCCCAGGGAAGCCAG
AAGATTCATCCAGTGTTGATGGTCAGTCAGTGGGGACTCCAGTTGGGCCAGAAACTGGAGGAGAGAAGAATGGGC
CAGAAGAAGAGGAAGAAGAGGACTTTGATGACCTCACCCAAGATGAGGAAGATGAAATGTCATCAGCTTCTGAGG
AATCTGTGCTTTCTGTCCCAGAACTCCAGGTGAGAGCTGGAGAATATTCTCAAGTATTTCGTGGACTCAGTAATA
TGTATCACTTATTGATATGCCACCTGCTTGCTTGCTGCACTATGGATAGTCCTAAAATCATTTGTATT**TGA**TTTG
TGAATGCATTATGGGACATGATTGTGGAGTTGAGGTGAAATGAGATGGAAAGGATGAAATTTTACTTATTATATT
AAACTCGTTTACACATTAAA

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FIGURE 1944

ATGAAATGACGGATGAAGCAGTTGGAGACTCTGCTGAGAAGCCTCCTACTTTTGCTTCACCTGAGACTGCTCCAG
AAGTGGAGACCAGCAGAACTCCACCAGGAGAGAGCATCAAAGCTGCTGGAAAAGGCCGGAACAATCATCGAGCTC
GCAACAAGCGGGGAAGTCGGGCTCGGGCCAGCAAGGACACCTCCAAGCTGCTGTTGCTGTATGATGAGGACATTC
TCGAGCGAGATCCACTCAGGGAGCAGAAGGACTTGGCCTTTGCCCAAGCTTATCTGACCAGGGTGCGAGAAGCCC
TACAACATATCCCTGGCAAGTATGAAGACTTCCTTCAAGTCATCTATGAATTTGAGTCAAGTACCCAGAGACGGA
CGGCTGTAGATCTCTACAAAAGCCTGCAAATTCTGCTCCAAGACTGGCCTCAGCTGTTGAAAGACTTTGCTGCTT
TCCTGTTACCTGAGCAAGCTCTGGCCTGTGGATTATTTGAGGAGCAGCAGGCTTTTGAGAAGAGCCGCAAGTTCC
TTCGGCAGCTGGAGATTTGCTTTGCAGAGAACCCCTCACACCACCAGAAGATTATCAAGGTCCTCCAAGGCTGTG
CAGACTGCCTTCCCCAGGAGATCACCGAGCTCAAGACACAGATGTGGCAGCTCCTCAAGGGCCACGACCACCTGC
AGGATGAGTTTTCTATCTTCTTTGACCACTTGCGCCCAGCAGCTAGCCGGATGGGTGACTTTGAAGAGATCAATT
GGACTGAGGAAAAGGAGTATGAGTTTGATGGCTTTGAAGAAGTGGCCCTGCCTGATGTGGAAGAAGAGGAGGAGC
CTCCCAAGATACCCACAGCCTCAAAGAACAAGAGGAAAAAAGAGATCGGGGTCCAAAATCATGATAAGGAGACTG
AATGGCCAGATGGGGCCAAGGACTGTGCCTGCTCCTGCCATGAAGGAGGTCCAGATTCCAAGCTGAAGAAGAGCA
AAAGGCGGAGCTGTAGCCACTGTAGCAGCAAGGTCTGTGACAGCAAATCCTACAAGAGCAAGGAGCCCCATGAGT
TGGTGGGCAGCAGCCCCCACCGAGAGGCTAGTCCTATGCCTGGTGCTAAGGAAGCTGGGCAGGGCAAGGATATGA
TGGAAGAGGAAGCCCCAGAGGAGCGGGAGAGCACTGAGGCCACCCAGAGCAGGACTGTCAGGACCACCAGAAAGG
GAGAGATGCCTGTTTCAGGATTGGCAGTGGGGAGCACTTTGCCATCCCCTCGAGAAGTGACTGTTACAGAACGGC
TCCTCCTGGATGGCCCACCACCTCATTCACCAGAGACTCCTCAATTTCCCCCCACAACTGGAGCTGTACTGTACA
CTGTTAAGAGAAACCAGGTTGGGCCTGAGGTTCGCTCCTGCCCCAAGGCATCCCCCAGACTTCAGAAAGAGAGGG
AGGGCCAAAAGGCAGTGAGTGAGTCAGAGGCTTTGATGCTGGTCTGGGATGCATCAGAAACTGAGAAATTGCCTG
GTACCGTGGAACCCCCTGCTTCCTTCCTGAGTCCTGTTTCCTCAAAGACCAGAGATGCAGGGAGAAGACATGTGT
CCGGGAAACCAGACACTCAAGAGAGATGGCTGCCCTCAAGCAGAGCTCGGGTGAAGACAAGAGACAGGACGTGCC
CTGTCCATGAATCTCCATCAGGAATTGACACCTCAGAGACTTCTCCCAAAGCCCCTAGAGGGGGTTTGGCTAAAG
ACAGTGGAACACAGGCCAAGGGTCCAGAGGGGGAGCAGCAGCCAAAGGCCGCAGAAGCTACGGTGTGTGCCAACA
ACAGCAAGGTCAGCTCCACTGGGGAAAAGGTTGTCCTGTGGACAAGGGAAGCTGACCGTGTGATCCTCACCATGT
GCCAGGAGCAAGGGGCACAGCCACAGACCTTCAACATCATCTCCCAGCAGCTGGGAAATAAGACCCCTGCTGAGG
TTTCCCACCGTTTTCGAGAACTCATGCAGCTCTTCCACACTGCCTGTGAAGCCAGCTCTGAGGATGAGGATGATG
CAACCAGTACCAGCAATGCAGACCAGCTGTCTGACCATGGGGACCTTCTGTCTGAAGAGGAGCTGGATGAATGAG
ACTCTGGGAATCATCTACACAGGACCAAACCCAACAGGCGCCCTGGCACCGGGGAGGGGGTAGTTGTACTCTGCT
TGTACAGTCCTTGAGCCCAGTTTACAGATCTGGAGAGCAGGAGGCCAGGACAAGGACAAAGGCTGGAGGATGGAG
TAGGACCCAGGGGCTCTGCCATCCTAGGCATCATTCAAGGTCTTTTATGAAGACTTTACAGATGTCCTCTGTAAA
TAGCATCGAGAGTGGAGTTCAGCTCCTTTCTCTACTTTTTTTTGGTCTGATGGCACATATTTATTGTTCTGTGGT
CTAATCACAGTGTTTCTAAATGTAAAAAGTGCATATGTTGGTGTAGCTAGTCCCGCGACATTGAGCTCCTCTGCA
TGAAGACACTGGGCTCCTGCATCCAGCTGTTTTTATTGCAAACTAGCTCCTTTCTCCCACACTGGGAACTTTAGT
CCACGAGGCTGTCACCACCCTGGTAGCACTGGGCCAGGCTTTGTAGCTCCTGCAGCAGCTCTGCTACGTCATCGT
GCTCCACTCCAGCATCCATGAAGCTGGCCCAGCGCCGCAAGTCGAGTTTGGTGAGGTCTCTGGCCAAGGCTTCCA
GGGTCTGGTGCAGGGACGAAGAGGAACACAGTGCCCCAAACACTGGGATGCTCTCCACTGCTGTGGAGGGAGAGG
AAACAGAGACCTGTAGATGGATGATTATTCTGCCCTGGGACTCGCCAAACTGATAAGGAAGTCCAACCTTAGTAG
ACTTGATTGTAAACTCAACAAATTTGGTGTATTGTCCCCTTAGTACACCAGTACTCCAGAGGAAGAATGCTTTTC
TTGGGAGCCATAGGGTGAATAAAGGAATGTTTAACTGTGG

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FIGURE 1945

CCTTTTTTGCAGTCTCAGGACGGGCGCTTTGGAGCCGGCCCCAGGCAGCGTGTGTCGGTCGCCTAGTCTGGAGAA
CTAGTCCTCGACTCACGGTGAGGGAATGGACCGACACGGGTATTGTACCGCTGAGGGAAAGGAGCGGGACTCCGG
ACCTCCAGGAGTGCAAGG**ATG**ATGCTGAAAGGAATAACAAGGCTTATCTCTAGGATCCATAAGTTGGACCCTGGG
CGTTTTTTACACATGGGGACCCAGGCTCGCCAAAGCATTGCTGCTCACCTAGATAACCAGGTTCCAGTTGAGAGT
CCGAGAGCTATTTCCCGCACCAATGAGAATGACCCGGCCAAGCATGGGGATCAGCACGAGGGTCAGCACTACAAC
ATCTCCCCCCAGGATTTGGAGACTGTATTTCCCCATGGCCTTCCTCCTCGCTTTGTGATGCAGGTGAAGACATTC
AGTGAAGCTTGCCTGATGGTAAGGAAACCAGCCCTAGAACTTCTGCATTACCTGAAAAACACCAGTTTTGCTTAT
CCAGCTATACGATATCTTCTGTATGGAGAGAAGGGAACAGGAAAAACCCTAAGTCTTTGCCATGTTATTCATTTC
TGTGCAAAACAGGACTGGCTGATACTACATATTCCAGATGCTCATCTTTGGGTGAAAAATTGTCGGGATCTTCTG
CAGTCCAGCTACAACAAACAGCGCTTTGATCAACCTTTAGAGGCTTCAACCTGGCTGAAGAATTTCAAAACTACA
AATGAGCGCTTCCTGAACCAGATAAAAGTTCAAGAGAAGTATGTCTGGAATAAGAGAGAAAGCACTGAGAAAGGG
AGTCCTCTGGGAGAAGTGGTTGAACAGGGCATAACACGGGTGAGGAACGCCACAGATGCAGTTGGAATTGTGCTG
AAAGAGCTAAAGAGGCAAAGTTCTTTGGGTATGTTTCACCTCCTAGTGGCCGTGGATGGAATCAATGCTCTTTGG
GGAAGAACCACTCTGAAAAGAGAAGATAAAAGCCCGATTGCCCCCGAGGAATTAGCACTTGTTCACAACTTGAGG
AAAATGATGAAAAATGATTGGCATGGAGGCGCCATTGTGTCGGCTTTGAGCCAGACTGGGTCTCTCTTTAAGCCC
CGGAAAGCCTATCTGCCCCAGGAGTTGCTGGGAAAGGAAGGATTTGATGCCCTGGATCCCTTTATTCCCATCCTG
GTTTCCAACTATAACCCAAAGGAATTTGAAAGTTGTATTCAGTATTATTTGGAAAACAATTGGCTTCAACATGAG
AAAGCTCCTACAGAAGAAGGGAAAAAAGAGCTGCTGTTCCTAAGTAACGCGAACCCCTCGCTGCTGGAGCGGCAC
TGTGCCTACCTC**TAA**GCCAAGATCACAGCATGTGAGGAAGACAGTGGACATCTGCTTTATGCTGGACCCAGTAAG
ATGAGGAAGTCGGGCAGTACACAGGAAGAGGAGCCAGGCCCTTGTACCTATGGGATTGGACAGGACTGCAGTTGG
CTCTGGACCTGCATTAAAATGGGTTTCACTGTGAATGCGTGACAATAAGATATTCCCTTGTTCCTAAAACTTTAT
ATCAGTTTATTGGATGTGGTTTTTCACATTTAAGATAATTATGGCTCTTTTCCTAAAAAATAAAATATCTTTCT

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FIGURE 1946

CAAACAGCAGAAGGAGGTAGAGAAGGTTAAACCCCAGTGTAAGGAAGTTCATCAGACCCTGATTCTGGACCCAGC
ACAAAGGAAGAGACTCCAGCAGCAG**ATG**CAGCAGCATGTTCAGCTCTTGACACAAATCCACCTTCTTGCCACCTG
CAACCCCAATCTCAATCCGGAGGCCAGTAGCACCAGGATATGTCTTAAAGAGCTGGGAACCTTTGCTCAAAGCTC
CATCGCCCTTCACCATCAGTACAACCCCAAGTTTCAGACCCTGTTCCAACCCTGTAACTTGATGGGAGCTATGCA
GCTGATTGAAGACTTCAGCACACATGTCAGCATTGACTGCAGCCCTCATAAAACTGTCAAGAAGACTGCCAATGA
ATTTCCCTGTTTGCCAAAGCAAGTGGCTTGGATCCTGGCCACAAGCAAGGTTTTCATGTATCCAGAGTTACTTCC
AGTGTGTTCCCTGAAGGCAAAGAATCCCCAGGATAAGATCCTCTTCACCAAGGCTGAGGACAATTTGTTAGCTTT
AGGACTGAAGCATTTTGAAGGGACTGAGTTTCTTAACCCTCTAATCAGCAAGTACCTTCTAACCTGCAAGACTGC
CCGCCAACTGACAGTGAGAATCAAGAACCTCAACATGAACAGAGCTCCTGACAACATCATTAAATTTTATAAGAA
GACCAAACAGCTGCCAGTCCTAGGAAAATGCTGTGAAGAGATCCAGCCACATCAGTGGAAGCCACCTATAGAGAG
AGAAGAACACCGGCTCCCATTCTGGTTAAAGGCCAGTCTGCCATCCATCCAGGAAGAACTGCGGCACATGGCTGA
TGGTGCTAGAGAGGTAGGAAATATGACTGGAACCACTGAGATCAACTCAGATCAAGGCCTAGAAAAAGACAACTC
AGAGTTGGGGAGTGAAACTCGGTACCCACTGCTATTGCCTAAGGGTGTAGTCCTGAAACTGAAGCCAGTTGCCGA
CCGTTTCCCCAAGAAGGCTTGGAGACAGAAGCGTTCATCAGTCCTGAAACCCCTCCTTATCCAACCCAGCCCCTC
TCTCCAGCCCAGCTTCAACCCTGGGAAAACACCAGCCCAATCAACTCATTCAGAAGCCCCTCCGAGCAAAATGGT
GCTCCGGATTCCTCACCCAATACAGCCAGCCACTGTTTTACAGACAGTTCCAGGTGTCCCTCCACTGGGGGTCAG
TGGAGGTGAGAGTTTTGAGTCTCCTGCAGCACTGCCTGCTATGCCCCCTGAGGCCAGGACAAGCTTCCCTCTGTC
TGAGTCCCAGACTTTGCTCTCTTCTGCCCCTGTGCCCAAGGTAATGATGCCCTCCCCTGCCTCTTCCATGTTTCG
AAAGCCATATGTGAGACGGAGACCCTCAAAAAGAAGGGGAGCCAGGGCCTTTCGCTGTATCAAACCTGCCCCTGT
TATCCACCCTGCATCTGTTATCTTCACTGTTCCTGCTACCACTGTGAAGATTGTGAGCCTTGGCGGTGGCTGTAA
CATGATCCAGCCTGTCAATGCGGCTGTGGCCCAGAGTCCCCAGACTATTCCCATCGCCACCCTCTTGGTTAACCC
TACTTCCTTCCCCTGTCCATTGAACCAGCCCCTTGTGGCCTCCTCTGTCTCACCCTTAATTGTTTCTGGCAATTC
TGTGAATCTTCCTATACCATCCACCCCTGAAGATAAGGCCCACATGAATGTGGACATTGCTTGTGCTGTGGCTGA
TGGGGAAAATGCCTTTCAGGGCCTAGAACCCAAATTAGAGCCCCAGGAACTATCTCCTCTCTCTGCTACTGTTTT
CCCCAAAGTGGAACATAGCCCAGGGCCTCCACCAGTCGATAAACAGTGCCAAGAAGGATTGTCAGAGAACAGTGC
CTATCGCTGGACCGTTGTGAAAACAGAGGAGGGAAGGCAAGCTCTGGAGCCGCTCCCTCAGGGCATCCAGGAGTC
TCTAAACAACTCTTCCCCTGGGGATTTAGAGGAAGTTGTCAAGATGGAACCTGAAGATGCTACAGAGGAAATCAG
TGGATTTCTT**TGA**GCTAGGAGAATAAGAGTCTGGAGACTGGGAGCCTTCACTTCGGCCTCCGATTGGTGGCGCAT
AGGGTGTAACCAATAGGAAACCCCTAAAGGGTACTTAAACCCCAGATTTTGCAACTGGGGCTCTTGAGCAGCTTG
CTTTAGCCTGCTCCCACTCTGTGGAATATACTTTTGCTTCAATAAATCTGTGCTTTTATTGC

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FIGURE 1947

AGCGCAGT**ATG**GCGGGCGGGGCCCGGGAGGTGCTCACACTGCAGTTGGGACATTTTGCCGGTTTCGTGGGCGCGC
ACTGGTGGAACCAGCAGGATGCTGCGCTGGGCCGAGCGACCGATTCCAAGGAGCCCCCGGGAGAGCTGTGCCCCG
ACGTCCTGTATCGTACGGGCCGGACGCTGCACGGCCAGGAGACCTACACGCCGCGACTCATCCTCATGGATCTGA
AGGGTAGTTTGAGCTCCCTAAAAGAGGAAGGTGGACTCTACAGGGACAAACAGTTGGATGCTGCAATAGCATGGC
AGGGGAAGCTCACCACACACAAAGAGGAACTCTATCCCAAGAACCCTTATCTCCAAGACTTTCTGAGTGCAGAGG
GAGTGCTGAGTAGTGATGGTGTCTGGAGGGTCAAATCCATTCCCAATGGCAAAGGTTCCTCACCACTCCCCACCG
CTACAACTCCAAAACCACTTATCCCTACAGAGGCCAGCATCAGGGTCTGGTCAGACTTCCTCAGAGTCCATCTCC
ATCCCCGGAGCATCTGTATGATTCAGAAGTACAACCACGATGGGGAAGCAGGTCGGCTGGAGGCTTTTGGCCAAG
GGGAAAGTGTCCTAAAGGAACCCAAGTACCAGGAAGAGCTGGAGGACAGGCTGCATTTCTACGTGGAGGAATGTG
ACTACTTGCAGGGCTTCCAGATCCTGTGTGACCTGCACGATGGCTTCTCTGGGGTAGGCGCGAAGGCGGCAGAGC
TGCTACAAGATGAATATTCAGGGCGGGGAATAATAACCTGGGGCCTGCTACCTGGTCCCTACCATCGTGGGGAGG
CCCAGAGAAACATCTATCGTCTATTAAACACAGCTTTTGGTCTCGTGCACCTGACTGCTCACAGCTCTCTTGTCT
GCCCCTTGTCCTTGGGTGGGAGCCTGGGCCTGCGACCCGAGCCACCTGTCAGCTTCCCTTACCTGCATTATGATG
CC**TGA**GGCCAAGTGCCCATCTTGGTGTCTTCTTACAGGCCACTCTGCCCTTCCACTGCAGTGCCATCCTGGCTAC
AGCCCTGGACACAGTCACTGTTCCTTATCGCCTGTGTTCCTCTCCAGTTTCCATGGTTCATCTGGCTGACATGCT
GAGCTTCTGTGGGAAAAAGGTGGTGACAGCAGGAGCAATCATCCCTTTCCCCTTGGCTCCAGGCCAGTCCCTTCC
TGATTCCCTGATGCAGTTTGGAGGAGCCACCCCATGGACCCCACTGTCTGCATGTGGGGAGCCTTCTGGAACACG
TTGCTTTGCCCAGTCAGTGGTGCTGAGGGGTATAGACAGAGCATGCCACACAAGCCAGCTCACCCCAGGGACACC
TCCACCCTCTGCCCTTCATGCATGTACCACTGGGGAAGAAATCTTGGCTCAGTATTTACAACAGCAGCAGCCTGG
AGTCATGAGTTCTTCCCATCTGCTGCTGACTCCCTGCAGGGTGGCTCCTCCTTACCCCCACCTCTTCTCAAGCTG
CAGTCCACCGGGTATGGTTCTGGATGGTTCCCCCAAGGGAGCAGCAGTGGAGAGCATCCCAGTGTTTGGGGCACT
GTGTTCCTCTTCGTCCCTGCACCAGACCCTGGAAGCCTTGGCCAGAGACCTCACCAAACTCGACTTGCGGCGCTG
GGCCAGCTTCATGGATGCTGGAGTGGAGCACGATGACGTAGCAGAGCTGCTGCAGGAGCTACAAAGCCTGGCCCA
GTGCTACCAGGGTGGTGACAGCCTCGTGGACTAAAGTTCCCAGTGTGGGAGAAAGGAGCTAGTTTGCAATAAAAA
CAGCTGGATGCAGGAGCCCAGTGTCTTCATGCAGAGGAGCTCAATGTCGCGGGACTAGCTACACCAACATATGCA
CTTTTTACATTTAGAAACACTGTGATTAGACCACAGAACAATAAATATGTGCCATCAGACC

FIGURE 1948A

CGCCTCCCCTCAGTTTGCCCCCTTTAGCCTTCCACCTTTCCCTTCTCCTCTCTCGCATTTCCGCCAGTCAGCTTA
CCCGCTGGCCGCCTCCTGACAAGCGGGAGGGATCCGCCGTGGACCCAGGGAAGCGGAGGAGCCTGGCGGCCACCC
CCTCTTCCCCACTTCCCTGCACTCTCATCGCTCTCGGCCTCGGCCTCGGCCTCCGACACGAGAAAGATGCTGGTT
TCGAGTTTTGGAGATCCTTGTTTTTTATGGAACACAGTTCTGTAAAATTTTCATAAGATTCCTTGGCAATAACAT
ACGCTTGTG**ATG**GACCCTAGAAATACTGCTATGTTAGGATTGGGTTCTGATTCCGAAGGTTTTTCAAGAAAGAGT
CCTTCTGCCATCAGTACTGGCACATTGGTCAGTAAGAGAGAAGTAGAGCTAGAAAAAAACACAAAGGAGGAAGAG
GACCTTCGCAAACGGAATCGAGAAAGAAACATCGAAGCTGGGAAAGATGATGGTTTGACTGATGCACAGCAACAG
TTTTCAGTGAAAGAAACAAACTTTTCAGAGGGAAATTTAAAATTGAAAATTGGCCTCCAGGCTAAGAGAACTAAA
AAACCTCCAAAGAACTTGGAGAACTATGTATGTCGACCTGCCATAAAAACAACTATTAAGCACCCAAGGAAAGCA
CTTAAAAGTGGAAAGATGACGGATGAAAAGAATGAACACTGTCCTTCAAAACGAGACCCTTCAAAGTTGTACAAG
AAAGCAGATGATGTTGCAGCCATTGAATGCCAGTCTGAAGAAGTCATCCGTCTTCATTCACAGGGAGAAAACAAT
CCTTTGTCTAAGAAGCTGTCTCCAGTACACTCAGAAATGGCAGATTATATTAATGCAACGCCATCTACTCTTCTT
GGTAGCCGGGATCCTGATTTAAAGGACAGAGCATTACTTAATGGAGGAACTAGTGTAACAGAAAAGTTGGCACAG
CTGATTGCTACCTGTCCTCCTTCCAAGTCTTCCAAGACAAAACCGAAGAAGTTAGGAACTGGCACTACAGCAGGA
TTGGTTAGCAAGGATTTGATCAGGAAAGCAGGTGTTGGCTCTGTAGCTGGAATAATACATAAGGACTTAATAAAA
AAGCCAACCATCAGCACAGCAGTTGGATTGGTAACTAAAGATCCTGGGAAAAAGCCAGTGTTTAATGCAGCAGTA
GGATTGGTCAATAAGGACTCTGTGAAAAAACTGGGAACTGGCACTACAGCGGTATTCATTAATAAAAACTTAGGC
AAAAAGCCAGGAACTATCACTACAGTAGGACTGCTAAGCAAAGATTCAGGAAAGAAGCTAGGAATTGGTATTGTT
CCAGGTTTAGTGCATAAAGAGTCTGGCAAGAAGTTAGGACTTGGCACTGTGGTTGGACTGGTTAATAAAGATTTG
GGAAAGAAATTGGGTTCTACTGTTGGCCTAGTGGCCAAGGACTGTGCAAAGAAGATTGTAGCAAGTTCAGCAATG
GGATTGGTTAATAAGGACATTGGAAAGAAACTAATGAGTTGTCCTTTGGCAGGTCTGATCAGTAAAGATGCCATA
AACCTTAAAGCCGAAGCACTGCTCCCCACTCAGGAACCGCTTAAGGCTTCTTGTAGTACAAACATCAATAATCAG
GAAAGTCAGGAACTTTCTGAATCCCTGAAAGATAGTGCCACCAGCAAAACTTTTGAAAAGAATGTTGTACGGCAG
AATAAAGAAAGCATATTGGAAAAGTTCTCAGTACGAAAAGAAATCATTAATTTGGAGAAAGAAATGTTTAATGAA
GGAACATGCATTCAGCAAGACAGTTTCTCATCCAGTGAAAAGGGATCTTATGAAACCTCAAAGCATGAAAAGCAG
CCTCCTGTATATTGCACTTCTCCGGACTTTAAAATGGGAGGTGCTTCTGATGTATCTACCGCTAAATCCCCATTC
AGTGCAGTAGGAGAAAGCAATCTCCCTTCCCCATCACCTACTGTATCTGTTAATCCTTTAACCAGAAGTCCCCCT
GAAACTTCTTCACAGTTGGCTCCTAATCCATTACTTTTAAGTTCTACTACAGAACTAATCGAAGAAATTTCTGAA
TCTGTTGGAAAGAACCAGTTTACTTCTGAAAGTACCCACTTGAACGTTGGTCATAGGTCAGTTGGTCATAGTATA
AGTATTGAATGTAAAGGGATTGATAAAGAGGTAAATGATTCAAAAACTACCCATATAGATATTCCAAGAATAAGC
TCTTCCCTTGGAAAAAAGCCAAGTTTGACTTCTGAATCCAGCATTCATACTATTACTCCTTCAGTTGTTAACTTC
ACTAGTTTATTTAGTAATAAGCCTTTTTTAAAACTGGGTGCAGTATCTGCATCAGACAAACACTGCCAAGTTGCT
GAAAGCCTAAGTACTAGTTTGCAGTCCAAACCATTAAAAAAAAGAAAAGGAAGAAAACCTCGGTGGACTAAAGTG
GTGGCAAGAAGCACATGCCGGTCTCCAAAAGGGCTAGAATTAGAAAGATCAGAGCTTTTTAAAAACGTTTCATGT
AGCTCACTATCAAATAGTAATTCTGAGCCAGCCAAGTTTATGAAAAACATTGGACCCCCTTCATTTGTAGATCAT
GACTTCCTTAAACGCCGATTGCCAAAGTTGAGCAAATCCACAGCTCCATCTCTTGCTCTCTTAGCTGATAGTGAA
AAACCATCTCATAAGTCTTTTGCTACTCACAAACTATCCTCCAGTATGTGTGTCTCTAGTGACCTTTTGTCTGAT
ATTTATAAGCCCAAAAGAGGAAGGCCTAAATCTAAGGAGATGCCTCAACTGGAAGGGCCACCTAAAAGGACTTTA
AAAATCCCTGCTTCTAAAGTGTTTTCTTTACAGTCTAAGGAAGAACAAGAACCCCCAATTTTACAGCCAGAAATT
GAAATCCCTTCCTTCAAACAAGGTCTGTCTGTGTCTCCTTTTCCAAAAAAGAGAGGCAGGCCTAAGAGGCAAATG
AGGTCACCAGTCAAGATGAAGCCACCTGTACTGTCAGTGGCTCCATTTGTTGCCACTGAAAGTCCAAGCAAGCTA
GAATCTGAAAGTGACAACCATAGAAGTAGCAGTGATTTCTTTGAGAGCGAGGATCAACTTCAGGATCCAGATGAC
CTAGATGACAGTCATAGGCCAAGTGTCTGTAGTATGAGTGACCTTGAGATGGAACCAGATAAAAAAATTACCAAG
AGAAACAATGGACAATTAATGAAAACAATTATCCGCAAAATAAATAAAATGAAGACTTTAAAGAGAAAGAAACTG
TTGAATCAGATTCTTTCAAGTTCTGTAGAATCAAGTAATAAAGGGAAAGTGCAATCCAAACTCCATAATACGGTA
TCAAGTCTTGCTGCCACATTTGGCTCTAAATTGGGCCAACAGATAAATGTCAGCAAGAAAGGAACCATTTATATA
GGAAAGAGAAGAGGTCGCAAACCAAAAACTGTCTTAAATGGTATTCTTTCTGGTAGTCCTACTAGCCTTGCTGTT
CTTGAGCAAACAGCTCAACAGGCAGCTGGGTCAGCATTAGGACAGATTCTTCCCCCATTACTGCCTTCATCTGCT

FIGURE 1948B

AGTAGTTCTGAGATTCTTCCATCACCTATTTGCTCTCAGTCTTCTGGGACTAGTGGAGGTCAGAGCCCTGTAAGT
AGTGATGCAGGTTTTGTTGAACCCAGTTCAGTGCCATATTTGCATTTACACTCCAGACAGGGCAGTATGATTCAG
ACTCTTGCAATGAAGAAGGCCTCAAAGGGGAGGAGGCGGTTATCTCCTCCTACTTTGTTGCCAAATTCTCCTTCG
CACTTGAGTGAACTCACATCTCTAAAAGAAGCTACTCCTTCCCCAATCAGTGAGTCTCATAGTGATGAGACCATT
CCCAGTGATAGTGGAATTGGAACAGATAATAACAGCACATCAGACAGGGCAGAGAAATTTTGTGGGCAAAAAAAG
AGGAGGCATTCTTTTGAGCATGTTTCTCTGATTCCCCCTGAAACCTCTACAGTGCTAAGCAGTCTTAAAGAAAAA
CATAAACACAAATGTAAGCGCAGGAATCATGATTACCTCAGCTATGACAAGATGAAAAGGCAGAAACGAAAACGG
AAAAAGAAATATCCCCAGCTTCGAAATAGACAGGATCCAGACTTTATTGCAGAGCTGGAGGAACTAATAAGTCGC
CTAAGTGAAATTCGGATCACTCATCGAAGTCATCATTTTATCCCCCGAGATCTTCTGCCAACTATCTTTCGAATC
AACTTTAATAGTTTCTATACACATCCTTCTTTCCCCTTAGACCCTTTGCACTACATTCGAAAACCTGACTTAAAA
AAGAAAAGAGGGAGACCCCCTAAGATGAGGGAGGCAATGGCTGAAATGCCTTTTATGCACAGCCTTAGTTTTCCT
CTTTCTAGTACTGGATTCTATCCATCTTATGGTATGCCTTACTCTCCTTCACCCCTTACAGCTGCTCCCATAGGA
TTAGGTTACTATGGAAGGTATCCTCCCACTCTTTATCCACCTCCTCCATCTCCTTCTTTCACCACGCCACTTCCA
CCTCCTTCCTATATGCATGCTGGTCATTTACTTCTCAATCCTGCCAAATACCATAAGAAAAAGCATAAGCTACTT
CGACAGGAGGCCTTTCTTACAACCAGCAGGACTCCCCTCCTTTCCATGAGTACCTACCCCAGTGTTCCTCCTGAG
ATGGCCTATGGTTGGATGGTTGAGCACAAACACAGGCACCGTCACAAACACAGAGAACACCGTTCTTCTGAACAA
CCCCAGGTTTCTATGGACACTGGCTCTTCCCGATCTGTCCTGGAATCTTTGAAGCGCTATAGATTTGGAAAGGAT
GCTGTTGGAGAGCGATATAAGCATAAGGAAAAGCACCGTTGTCACATGTCCTGCCCTCATCTCTCTCCTTCAAAA
AGCTTAATAAACAGAGAGGAACAGTGGGTCCACCGAGAGCCTTCAGAATCTAGTCCATTGGCCTTGGGATTGCAG
ACACCTTTACAGATTGACTGTTCAGAAAGTTCTCCAAGCTTATCCCTTGGAGGATTCACTCCCAACTCTGAGCCA
GCCAGCAGTGATGAACATACAAACCTTTTCACAAGTGCAATAGGCAGCTGCAGAGTTTCAAACCCTAACTCCAGT
GGCCGGAAGAAATTAACTGACAGCCCTGGACTCTTTTCTGCACAGGACACTTCACTAAATCGGCTTCACAGAAAG
GAGTCACTGCCTTCTAACGAAAGGGCAGTACAGACTTTGGCAGGCTCCCAGCCAACCTCTGATAAACCCTCCCAG
CGGCCATCAGAGAGCACAAATTGTAGCCCTACCCGGAAAAGGTCTTCATCTGAGAGTACTTCTTCAACAGTAAAC
GGAGTTCCCTCTCGAAGTCCAAGATTAGTTGCTTCTGGGGATGACTCTGTGGATAGTCTGCTGCAGCGGATGGTA
CAAAATGAGGACCAAGAGCCCATGGAGAAAAGTATTGATGCTGTGATTGCAACTGCCTCTGCACCACCTTCTTCC
AGTCCAGGCCGTAGCCACAGCAAGGACCGAACCCTGGGAAAACCAGACAGCCTTTTAGTGCCTGCAGTCACAAGT
GACTCTTGCAATAATAGCATCTCACTCCTATCTGAAAAGTTGACAAGCAGCTGTTCCCCCCATCATATCAAGAGA
AGTGTAGTGGAAGCTATGCAACGCCAAGCTCGGAAAATGTGCAATTACGACAAAATCTTGGCCACAAAGAAAAAC
CTAGACCATGTCAATAAAATCTTAAAAGCCAAAAAACTTCAAAGGCAGGCCAGGACAGGGAATAACTTTGTGAAA
CGTAGGCCAGGTCGACCTCGGAAATGTCCCCTTCAGGCTGTCGTATCAATGCAAGCATTCCAGGCTGCTCAGTTT
GTCAACCCAGAATTGAACAGAGACGAGGAAGGAGCAGCACTGCACCTCAGTCCTGACACAGTTACAGATGTAATT
GAGGCTGTTGTTCAGAGTGTAAATCTGAACCCAGAACATAAAAAGGGGTTGAAGAGAAAAGGTTGGCTATTGGAA
GAACAGACCAGAAAAAAGCAGAAGCCATTACCAGAGGAAGAAGAGCAAGAGAATAATAAAAGCTTTAATGAAGCA
CCAGTTGAGATTCCCAGTCCTTCTGAAACCCCAGCTAAACCTTCTGAACCTGAAAGTACCTTGCAGCCTGTGCTT
TCTCTCATCCCAAGGGAAAAGAAGCCCCCACGTCCCCCAAAGAAGAAGTATCAGAAAGCAGGGCTGTATTCTGAC
GTTTACAAAACTACAGACCCAAAGAGTCGATTGATCCAATTAAAGAAAGAGAAGCTGGAGTATACTCCAGGAGAG
CATGAATATGGATTATTTCCAGCGCCCATTCATGTTGTGTTTTTTGTTTCAGGAAAGTATCTAAGACAAAAGAGA
ATTGACTTCCAGCTTCCTTATGATATCCTTTGGCAGTGGAAACACAATCAGCTATACAAAAAGCCAGATGTCCCA
CTATATAAGAAAATTCGTTCAAATGTCTACGTTGATGTCAAACCCCTTTCTGGTTACGAAGCTACCACCTGTAAC
TGTAAGAAGCCAGATGATGACACCAGGAAGGGCTGTGTTGATGACTGCCTCAATAGAATGATCTTTGCTGAGTGT
TCCCCCAACACTTGCCCATGTGGCGAGCAATGCTGTAACCAGAGGATACAGAGGCATGAATGGGTGCAATGTCTA
GAACGATTTCGAGCTGAGGAAAAAGGTTGGGGAATCAGAACCAAAGAGCCCCTAAAAGCTGGGCAGTTCATCATT
GAATACCTAGGGGAGGTCGTCAGTGAACAGGAGTTCAGGAACAGGATGATTGAGCAGTATCATAATCACAGTGAC
CACTACTGCCTGAACCTGGATAGTGGGATGGTGATTGACAGTTACCGCATGGGAAATGAGGCCCGATTCATCAAC
CATAGCTGTGACCCAAATTGTGAAATGCAGAAATGGTCTGTTAATGGAGTATACCGGATTGGACTCTATGCTCTT
AAAGACATGCCAGCTGGGACTGAACTCACTTATGATTATAACTTTCATTCCTTCAATGTGGAAAAACAGCAACTT
TGTAAGTGTGGCTTTGAGAAATGTCGAGGAATCATCGGAGGCAAGAGTCAGCGTGTGAATGGACTCACCAGCAGC

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FIGURE 1948C

AAAAACAGCCAGCCCATGGCCACACACAAAAAATCTGGACGGTCAAAAGAGAAGAGAAAGTCTAAGCACAAGCTG
AAGAAAAGGAGAGGCCATCTCTCTGAGGAACCCAGTGAAAATATCAACACCCCAACTAGATTGACCCCCCAATTA
CAGATGAAGCCAATGTCCAATCGTGAAAGGAACTTTGTGTTAAAGCATCATGTATTCTTGGTCCGAAACTGGGAG
AAGATTCGTCAAAAACAGGAGGAAGTAAAGCACACCAGTGATAATATTCACTCAGCATCATTATATACCCGTTGG
AATGGGATCTGCCGAGATGATGGGAATATCAAGTCTGATGTCTTCATGACCCAGTTCTCTGCCCTGCAGACAGCT
CGATCTGTTCGAACAAGACGGTTGGCAGCTGCAGAGGAAAATATTGAAGTGGCTCGGGCAGCCCGCCTAGCCCAG
ATCTTCAAAGAAATTTGTGATGGTATCATCTCTTATAAAGATTCTTCCCGGCAAGCACTGGCAGCTCCACTTTTG
AACCTTCCCCCAAAGAAAAAGAATGCTGATTATTATGAGAAGATCTCTGATCCCCTAGATCTTATCACCATAGAG
AAGCAGATCCTCACTGGTTACTATAAGACAGTGGAAGCTTTTGATGCTGACATGCTCAAAGTCTTTCGGAATGCT
GAGAAGTACTATGGGCGTAAATCCCCAGTTGGGAGAGATGTTTGTCGTCTACGAAAGGCCTATTACAATGCCCGG
CATGAGGCATCAGCCCAGATTGATGAGATTGTGGGAGAGACAGCAAGTGAGGCAGACAGCAGTGAGACCTCAGTC
TCTGAAAAGGAGAATGGGCATGAGAAGGACGACGATGTTATTCGCTGTATCTGTGGCCTCTACAAGGATGAAGGT
CTCATGATCCAGTGTGACAAGTGCATGGTATGGCAGCACTGTGATTGTATGGGAGTGAACTCAGATGTGGAGCAC
TACCTTTGTGAGCAGTGTGACCCAAGGCCTGTGGACAGGGAGGTTCCCATGATCCCTCGGCCCCACTATGCCCAA
CCTGGCTGTGTCTACTTCATCTGTTTGCTCCGAGATGACTTGCTGCTTCGTCAGGGTGACTGTGTGTATCTGATG
AGGGATAGTCGGCGCACCCCTGATGGCCACCCGGTCCGTCAGTCCTATCGACTGTTATCTCACATTAACCGAGAT
AAACTTGACATCTTTCGCATTGAGAAGCTTTGGAAGAATGAAAAAGAGGAACGGTTTGCCTTTGGTCACCATTAT
TTCCGTCCCCACGAAACACACCACTCTCCATCCCGTCGGTTCTATCATAATGAACTATTTCGGGTGCCACTCTAT
GAGATCATTCCCTTGGAGGCTGTAGTGGGGACCTGCTGTGTGTTGGACCTTTATACGTATTGTAAAGGGAGACCC
AAAGGAGTAAAGGAGCAAGATGTGTACATCTGTGATTATCGGCTTGACAAGTCAGCACACCTGTTTTACAAGATC
CACCGGAACCGCTATCCTGTCTGCACCAAACCCTATGCTTTTGATCACTTCCCCAAGAAGCTCACTCCCAAAAAA
GATTTCTCGCCTCATTACGTCCCAGACAACTACAAGAGGAATGGAGGACGATCATCCTGGAAGTCTGAGCGCTCA
AAGCCACCCCTAAAAGACTTGGGCCAGGAGGATGATGCTCTACCCTTGATTGAAGAGGTTCTAGCCAGTCAAGAG
CAAGCAGCCAATGAGATACCCAGCCTGGAGGAGCCAGAACGGGAAGGGGCCACTGCTAACGTCAGTGAGGGTGAA
AAAAAAACAGAGGAAAGTAGTCAAGAACCCCAGTCAACCTGTACCCCTGAGGAACGACGGCATAACCAACGGGAA
CGACTCAACCAGATCTTGCTCAATCTCCTTGAAAAAATCCCTGGAAAAAATGCCATTGATGTGACCTACTTGCTG
GAGGAAGGATCAGGCAGGAAACTGCGAAGGCGTACTTTGTTTATCCCAGAAAACAGCTTTCGAAAG**TGA**CCCTCA
AAGAATGAGAACCTCAAGCATCTGGGATCCAGTGGAGCTAATCAGTCCTGCCTCCTGCTCTCTGGGTATAGACAG
GGGTGGGAAGGGTCCATCTGGGCAAGGGGAATGGGGCCATGTTGTTGACATTAGGTACTTAATAAGCCTTGGAGC
TAGTGGAGAGGGAGAGGAAAGGGTTCTGTCCAAGACAGTTCAGGTTAATTAATTTTCTTCTCCATTGCTTCACCT
TAAGGGTTAATAATGTAGAGAGGAGGGAGGACCACATTGATGACCAGAACCTACTGGTACTTTATAGCATTTGCC
CCACCCCACAGCTTAGGTTTTTCTGTCATCCTCAGATCCCACAGGCATTGCGAAGAAGCTGCTTCCTATACCCAG
GTATAACTCAAAATCCAAAGGGATAGGGCCAGGATCCCTATTCCTACCCCATCTATTCTCTGTTGGCTCCAAGAG
CTACCCCAGAGACCTTAAACAGAAACAGTAGCTGAGGCTTCTTCCTAGATACCTGACTAGGGAAGTTTGTCTCTC
CTTTCTTGCCCAACCAGGTCAAAGTAAAATGTGAGTTGACAGCTCAAAGCACTTGTAACTGCTGCCCCCTCCCTA
CCTCTACTCCCCAAAATGGAATCATGGGATAGGGAAGGCCCCCATGGGGTCAGAAGGGCACGGTAGTTCTTGCAA
TTATTTTTGTTTTACCCTTCATAACC

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FIGURE 1949

CATTTCACCAGGCCCCCAGCTTGGGGCGCCTTCCTTCCCCATGGCGGGACACCTGGCTTCGGATGCCTGCCTTCT
TGCCCCCTCCAGGCGGTGGAGGTGATGGGCCAGGGGGGCCGGAGCCGGGCTGGGTTGATCCTCGGACCTGGCTAA
GCTTCCAAGGCCCTCCTGGAGGGCCAGGAATCGGGCCGGGAGTTGGGTCAGGCTCTGAGGTGTGGGGGATTCCCC
CATGCCCCCCGCTGTATGAGTTCTGTGGGGGGATGGCGTACTGTGGGCCTCAGGTTGGAGTGCGGCTAGTGCCCC
AAGGCGGCTTGGAGACCTCTCAGCCTGAGGGCGAAGCAGGAGTCAGGGTGGAGAGCAACTCCGATGGCACCTCCC
TGGAGCCCTGCACCGTCCCCCCTGGTGCCGTGAAACTGGAGAAGGAGAAGCTGGAGCAAAACCCGCAGGAGTCCC
AGAACATCAAAGCTCTGCAGAAAGAACTCGAACAATTTGCCAAGCTCCTGAAGCAGAAGAGGATCACCCTGGGAT
ATACACAGGCCGATGTGGGGCTCACCCTGGGGGTTCTATTTGGGAAGGTGTTCAGCCAAACGACCATCTGCCGCT
TTGAGGGTCTGCAGCTTAGCTTCAAGAACATGTGTAAGCTGCGGCCCTTGCTGCAGAAGTGGGTGGAGGAAGCTG
ACAACAATGAAAATCTTCAGGAGACATGCAAAGCAGAAACCCTCTTGCAGGCTCGAAAGAGAAAGCGAACCAGTA
TCGAGAACCGAGTGAGAGGCAACCTGGAGAATTTGTTCCTGCAGTGCCCGAAACCCACACTGCAGCAGATCAGCC
ACATCGCCCAGCAGCTTGGGCTCGAGAAGGATGTGGTCCGAGTGTGGTTCTGTAACCGGTGCCAGAAAGGCAAGC
AATCAAGCAGCGACTATGCATAACGAGAGGATTTTGAGGCTGCTGGGTCTCCTTTCTCAGGGGTACCAGTATCCT
TTCCTCTGGCCCCAGGGCCCCATTTTGGTACCCCAGGCTATGGGAGCCCTCACTTCACTGCACTGTACTCCTCGG
TCCCTTTCCCTGAGGGGGAAGCCTTTCCCCCGTCTCCGTCACCACCCTGGGCTCTCCCATGCATTCAAACTGAGG
TGCCTGCCCTTCTAGGAATGGGGGACAGGGGGAGGGGAGGAGCTAGGGAAAGAGAACCTGGAGTTTGTGCCAGGG
CTTTTGGAATTAAGTTCTTCATTCACTAAGGAAGGAATTGGGAACACAAAGGGTGGGGGCAGGGGAGTTTGGGGC
AACTGGTTGGAGGGAAGGTGAAGTTCAATGATGTTCTTGATTTTAATCCCACATCATGTATCACTTTTTTCTTAA

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FIGURE 1950

CGCCCTACAGGCCCTAGCAGGGCAGGCGGGAGGTGAGCGCGGCCATCCCGCTCCCGGAGTTCCGGGATCCTGGAG
TCCGTAGTTCGTGGTCCTTCGCCGGTGTCCCCGGAGCCCAGCGGCTGTGG**ATG**GCAGAAGCCCAGAGTGGGACTG
GTCAGCTGCAGGAGCAGAAGAAAGGTCTTCTGATAGCCGTCAGCGTCTCCGTTGATAAAATCATCTCGCATTTCG
GGGCCGCCCGGAACTTGGTGCAGAAGGCCCAGTTGGGTGATAGCCGGCTGAGCCCGGATGTGGGGCACCTGGTGC
TGACCACCCTCTGCCCGGCCCTCCACGCCCTGGTGGCGGACGGGCTGAAGCCTTTCCGGAAGGACCTCATCACCG
GGCAGCGCAGGAGCAGCCCCTGGAGCGTGGTGGAGGCGTCGGTGAAGCCAGGCTCCAGCACCCGCTCCCTTGGAA
CCCTGTATAGCCAGGTCAGCCGTCTAGCCCCGCTGAGCAGCAGCCGTAGCCGCTTCCATGCCTTTATCCTGGGCC
TCCTCAACACCAAGCAGTTGGAGCTGTGGTTTTCCAGTCTCCAGGAAGATGCAGGCCTGCTCTCCCTCCTGTACC
TGCCAACAGGATTTTTCTCCCTGGCCCGCGGTGGTTGTCCCTCCCTGTCCACAGAGCTGCTGCTCCTGCTGCAGC
CATTGTCGGTGCTCACTTTCCACCTGGACCTGCTCTTTGAGCACCACCACCACCTGCCCCTGGGCCCACCTCAGG
CCCCTGCCCCTCCAGGCCCACCTCCAGCTCTGCAGCAGACTATGCAAGCCATGCTGCACTTTGGGGGCCGGCTGG
CCCAGAGCCTTCGGGGGACTTCCAAGGAAGCTGCTTCAGACCCCTCTGACTCTCCAAACCTTCCCACACCAGGGA
GCTGGTGGGAGCAGTTGACCCAGGCCTCCCGGGTCTATGCCTCTGGGGGCACTGAGGGCTTTCCTCTTTCCCGAT
GGGCACCGGGGCGTCATGGGACTGCAGCTGAAGAAGGTGCACAGGAGAGACCCCTGCCCACAGATGAGATGGCAC
CAGGCAGGGGCCTCTGGTTGGGAAGACTATTTGGAGTGCCTGGGGGCCCCGCAGAAAATGAGAATGGAGCCCTAA
AGTCCAGGAGACCATCTAGCTGGCTGCCCCCGACAGTGAGTGTGTTGGCTCTTGTGAAGCGGGGGGCACCTCCCG
AGATGCCTTCTCCTCAGGAGCTTGAGGCCTCAGCACCCAGGATGGTGCAAACCCATAGGGCAGTGCGGGCTCTCT
GTGATCACACTGCTGCAAGACCTGACCAGTTGAGCTTCCGGCGTGGGGAAGTGCTGCGTGTCATCACCACAGTGG
ATGAGGACTGGCTCCGCTGTGGGCGGGATGGCATGGAGGGTCTGGTGCCTGTGGGGTATACCTCCCTTGTTCTG**T**
AGCCCTGGGACCCTTTCCTGCGTATGTGTCTCCTTCCTGTCACCTGGGAATGGAATGGCCAGTGAACACCATCCC
AGAAGCATTTTCCCTCTGCAAAATGACGTTTCTTCCCACGTCTGTTTCTGCTAATATTTAAAATAAACTTTCCTT
CTTCCCTCCTATACCCACCTGTAAGGTGAAATCTGCTCTTCTTCCAAATATATAAAAAAGGAATTGCCCTCCAGG
TAATCCCTTTCCTTTTTCCCGTCTATATAAGGGAATGTCTTCCTTCCTATCTATCTGCAAAATGGAAATCTAGAC
CTCCTTCTTCATCCATAAGTGGACTGTGCCAGTACAATACATGCCTCAGCCCCCAAGCCTAGAAGGACCTCTAGT
CTCCTTCCTGTGTGGAATCTTCCCCACTCCATCCCTCCCAAGTTGCCTGTATTGATAATGTACTCACTCATGCTG
TACTAGGTGCTGAAGCCTGGACACCCTTGGTGGGTGGGCCTGTGGTGATGGTTTGCATCCTTCCTCCTTTGTCCC
AATAAAGTATGGGAGTTG

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FIGURE 1951

AGGTGAGAGAGGATGTGTGCTGGGCCTTGGAGGAAGGGGGCCGAGACCGGGCCTTACTTCTGTAACGATACTGTG
AGGCATCGGAAGGCCAGCCTGTTGTGTCCGTTTTGAAGG**ATG**CCCCTGTCCCGCTGGTTGAGATCTGTGGGGGTC
TTCCTGCTGCCAGCCCCCTACTGGGCACCCCGGGAGAGGTGGCTGGGTTCCCTACGGCGGCCCTCCCTGGTGCAC
GGGTACCCAGTCCTGGCCTGGCACAGTGCCCGCTGCTGGTGCCAAGCGTGGACAGAGGAACCTCGAGCCCTTTGC
TCCTCCCTCAGAATGAACGGAGACCAGAATTCAGATGTTTATGCCCAAGAAAAGCAGGATTTCGTTCAGCACTTC
TCCCAGATCGTTAGGGTGCTGACTGAGGATGAGATGGGGCACCCAGAGATAGGAGATGCTATTGCCCGGCTCAAG
GAGGTCCTGGAGTACAATGCCATTGGAGGCAAGTATAACCGGGGTTTGACGGTGGTAGTAGCATTCCGGGAGCTG
GTGGAGCCAAGGAAACAGGATGCTGATAGTCTCCAGCGGGCCTGGACTGTGGGCTGGTGTGTGGAACTGCTGCAA
GCTTTCTTCCTGGTGGCAGATGACATCATGGATTCATCCCTTACCCGCCGGGGACAGATCTGCTGGTATCAGAAG
CCGGGCGTGGGTTTGGATGCCATCAATGATGCTAACCTCCTGGAAGCATGTATCTACCGCCTGCTGAAGCTCTAT
TGCCGGGAGCAGCCCTATTACCTGAACCTGATCGAGCTCTTCCTGCAGAGTTCCTATCAGACTGAGATTGGGCAG
ACCCTGGACCTCCTCACAGCCCCCCAGGGCAATGTGGATCTTGTCAGATTCACTGAAAAGAGGTACAAATCTATT
GTCAAGTACAAGACAGCTTTCTACTCCTTCTACCTTCCTATAGCTGCAGCCATGTACATGGCAGGAATTGATGGC
GAGAAGGAGCACGCCAATGCCAAGAAGATCCTGCTGGAGATGGGGGAGTTCTTTCAGATTCAGGATGATTACCTT
GACCTCTTTGGGGACCCCAGTGTGACCGGCAAAATTGGCACTGACATCCAGGACAACAAATGCAGCTGGCTGGTG
GTTCAGTGTCTGCAACGGGCCACTCCAGAACAGTACCAGATCCTGAAGGAAAATTACGGGCAGAAGGAGGCTGAG
AAAGTGGCCCGGGTGAAGGCGCTATATGAGGAGCTGGATCTGCCAGCAGTGTTCTTGCAATATGAGGAAGACAGT
TACAGCCACATTATGGCTCTCATTGAACAGTACGCAGCACCCCTGCCCCCAGCCGTCTTTCTGGGGCTTGCGCGC
AAAATCTACAAGCGGAGAAAG**TGA**CCTAGAGATTGCAAGGGCGGGGAGAGGAGGCTCTCAATAAATAATCGTGTA
ACCTT

FIGURE 1952

CATTCCATGGTCCCGCAGCCCCAGGCCCACACTGAAAGC**ATG**TCGATCCAGGAGAACATATCATCCCTGCAGCTT
CGGTCATGGGTCTCTAAGTCCCAAAGAGACTTAGCAAAGTCCATCCTGATTGGGGCTCCAGGAGGGCCAGCGGGG
TATCTGCGGCGGGCCAGTGTGGCCCAACTGACCCAGGAGCTGGGCACTGCCTTCTTCCAGCAGCAGCAGCTGCCA
GCTGCTATGGCAGACACCTTCCTGGAACACCTCTGCCTACTGGACATTGACTCCGAGCCCGTGGCTGCTCGCAGT
ACCAGCATCATTGCCACCATCGGGCCAGCATCTCGCTCCGTGGAGCGCCTCAAGGAGATGATCAAGGCCGGGATG
AACATTGCGCGACTCAACTTCTCCCACGGCTCCCACGAGTACCATGCTGAGTCCATCGCCAACGTCCGGGAGGCG
GTGGAGAGCTTTGCAGGTTCCCCACTCAGCTACCGGCCCGTGGCCATCGCCCTGGACACCAAGGGACCGGAGATC
CGCACTGGGATCCTGCAGGGGGGTCCAGAGTCGGAAGTGGAGCTGGTGAAGGGCTCCCAGGTGCTGGTGACTGTG
GACCCCGCGTTCCGGACGCGGGGGAACGCGAACACCGTGTGGGTGGACTACCCCAATATTGTCCGGGTCGTGCCG
GTGGGGGGCCGCATCTACATTGACGACGGGCTCATCTCCCTAGTGGTCCAGAAAATCGGCCCAGAGGGACTGGTG
ACCCAAGTGGAGAACGGCGGCGTCCTGGGCAGCCGGAAGGGCGTGAACTTGCCAGGGGCCCAGGTGGACTTGCCC
GGGCTGTCCGAGCAGGACGTCCGAGACCTGCGCTTCGGGGTGGAGCATGGGGTGGACATCGTCTTTGCCTCCTTT
GTGCGGAAAGCCAGCGACGTGGCTGCCGTCAGGGCTGCTCTGGGTCCGGAAGGACACGGCATCAAGATCATCAGC
AAAATTGAGAACCACGAAGGCGTGAAGAGGTTTGATGAAATCCTGGAGGTGAGCGACGGCATCATGGTGGCACGG
GGGGACCTAGGCATCGAGATCCCAGCAGAGAAGGTTTTCCTGGCTCAGAAGATGATGATTGGGCGCTGCAACTTG
GCGGGCAAGCCTGTTGTCTGTGCCACACAGATGCTGGAGAGCATGATTACCAAGCCCCGGCCAACGAGGGCAGAG
ACAAGCGATGTCGCCAATGCTGTGCTGGATGGGGCTGACTGCATCATGCTGTCAGGGGAGACTGCCAAGGGCAAC
TTCCCTGTGGAAGCGGTGAAGATGCAGCATGCGATTGCCCGGGAGGCAGAGGCCGCAGTGTACCACCGGCAGCTG
TTTGAGGAGCTACGTCGGGCAGCGCCACTAAGCCGTGATCCCACTGAGGTCACCGCCATTGGTGCTGTGGAGGCT
GCCTTCAAGTGCTGTGCTGCTGCCATCATTGTGCTGACCACAACTGGCCGCTCAGCCCAGCTTCTGTCTCGGTAC
CGACCTCGGGCAGCAGTCATTGCTGTCACCCGCTCTGCCCAGGCTGCCCGCCAGGTCCACTTATGCCGAGGAGTC
TTCCCCTTGCTTTACCGTGAACCTCCAGAAGCCATCTGGGCAGATGATGTAGATCGCCGGGTGCAATTTGGCATT
GAAAGTGGAAAGCTCCGTGGCTTCCTCCGTGTTGGAGACCTGGTGATTGTGGTGACAGGCTGGCGACCTGGCTCC
GGCTACACCAACATCATGCGGGTGCTAAGCATATCC**TGA**GACGCCCCTCCCTCCTCTGGCCCAGCCTACCCTTGT
ACCCCATCCCTTCCTCCCCAGTCTACGTTCTCCAGCCCACACCCCTCCAAAGCCCCACCTTTAAGTCCTCTCTTC
TCTATTCCTGACCCTCCCTACCTGAGGCCTATCTGAGACTATAACTGTCATCTAGCCCCTTCGAGGTTGCCCCTT
CCCCATCTCCATTTCACACAGGTCCTGAAAGTCTGTGTCCAATTATGCACTGGCCACCCAACAGCACCAATTGTA
CATTCCCTGCATCC

FIGURE 1953

TCCTGAAAGTCTGTGTCCAATTATGCACTGGCCACCCAACAGCACCAATTGTACATTCCCTGCATCCAATCTGCT
CAGCAGGCCCTC**ATG**ATAATCTGGGCATCTCGTGCCAGGGCAGGCTACCCCTTCATGGTGACTAACAGTTACATG
AAAGTCCACGCTTTTGGGAAAACTGGGTGGGATGGATGCTGGGGAGAAGTGAGGGCTGGGCAGCTGATTTTGTCA
CTGTCTTCACAACCTCCGTGCTGGGCTTGTAGACCACTGTCCTGGCTGCTCTCATGCCTGCCTGATACCCTGCTT
GGTCAAATCCCCGGCTGCTTCCTTCTGCACCCAGAAATTCCTTCCCACTCATGTTGTTCCCACACACAAACCAAG
AGCCAAAAA**TGA**GTGTGTCTATTTTATATTTAA

FIGURE 1954A

ATCCCCAAATCTGGGCCTGAGCCTAAGAGGAGGCACCTTGGGACGCTGCTCCAGCCTACGGTCAACAAGTTCTCC
CTTCGGGTGTTCGGCAGCCACAAAGCAGTGGAAATCGAGCAGGAGCGGGTGAAGTCAGCGGGGGCCTGGATCATC
CACCCCTACAGCGACTTCCGGTTTTACTGGGACCTGATC**ATG**CTGCTGCTGATGGTGGGGAACCTCATCGTCCTG
CCTGTGGGCATCACCTTCTTCAAGGAGGAGAACTCCCCGCCTTGGATCGTCTTCAACGTATTGTCTGATACTTTC
TTCCTACTGGATCTGGTGCTCAACTTCCGAACGGGCATCGTGGTGGAGGAGGGTGCTGAGATCCTGCTGGCACCG
CGGGCCATCCGCACGCGCTACCTGCGCACCTGGTTCCTGGTTGACCTCATCTCTTCTATCCCTGTGGATTACATC
TTCCTAGTGGTGGAGCTGGAGCCACGGTTGGACGCTGAGGTCTACAAAACGGCACGGGCCCTACGCATCGTTCGC
TTCACCAAGATCCTAAGCCTGCTGAGGCTGCTCCGCCTCTCCCGCCTCATCCGCTACATACACCAGTGGGAGGAG
ATCTTTCACATGACCTATGACCTGGCCAGTGCTGTGGTTCGCATCTTCAACCTCATTGGGATGATGCTGCTGCTA
TGTCACTGGGATGGCTGTCTGCAGTTCCTGGTGCCCATGCTGCAGGACTTCCCTCCCGACTGCTGGGTCTCCATC
AACCACATGGTGAACCACTCGTGGGGCCGCCAGTATTCCCATGCCCTGTTCAAGGCCATGAGCCACATGCTGTGC
ATTGGCTATGGGCAGCAGGCACCTGTAGGCATGCCCGACGTCTGGCTCACCATGCTCAGCATGATCGTAGGTGCC
ACATGCTACGCCATGTTCATCGGCCATGCCACGGCACTCATCCAGTCCCTGGACTCTTCCCGGCGTCAGTACCAG
GAGAAGTACAAGCAGGTGGAGCAGTACATGTCCTTCCACAAGCTGCCAGCAGACACGCGGCAGCGCATCCACGAG
TACTATGAGCACCGCTACCAGGGCAAGATGTTCGATGAGGAAAGCATCCTGGGCGAGCTGAGCGAGCCGCTTCGC
GAGGAGATCATTAACTTCACCTGTCGGGGCCTGGTGGCCCACATGCCGCTGTTTGCCCATGCCGACCCCAGCTTC
GTCACTGCAGTTCTCACCAAGCTGCGCTTTGAGGTCTTCCAGCCGGGGGATCTCGTGGTGCGTGAGGGCTCCGTG
GGGAGGAAGATGTACTTCATCCAGCATGGGCTGCTCAGTGTGCTGGCCCGCGGCGCCCGGGACACACGCCTCACC
GATGGATCCTACTTTGGGGAGATCTGCCTGCTAACTAGGGGCCGGCGCACAGCCAGTGTTCGGGCTGACACCTAC
TGCCGCCTTTACTCACTCAGCGTGGACCATTTCAATGCTGTGCTTGAGGAGTTCCCCATGATGCGCCGGGCCTTT
GAGACTGTGGCCATGGATCGGCTGCTCCGCATCGGCAAGAAGAATTCCATACTGCAGCGGAAGCGCTCCGAGCCA
AGTCCAGGCAGCAGTGGTGGCATCATGGAGCAGCACTTGGTGCAACATGACAGAGACATGGCTCGGGGTGTTCGG
GGTCGGGCCCCGAGCACAGGAGCTCAGCTTAGTGGAAAGCCAGTACTGTGGGAGCCACTGGTACATGCGCCCCTT
CAGGCAGCTGCTGTGACCTCCAATGTGGCCATTGCCCTGACTCATCAGCGGGGCCCTCTGCCCCTCTCCCCTGAC
TCTCCAGCCACCCTCCTTGCTCGCTCTGCTTGGCGCTCAGCAGGCTCTCCAGCTTCCCCGCTGGTGCCCGTCCGA
GCTGGCCCATGGGCATCCACCTCCCGCCTGCCCGCCCCACCTGCCCGAACCCTGCACGCCAGCCTATCCCGGGCA
GGGCGCTCCCAGGTCTCCCTGCTGGGTCCCCCTCCAGGAGGAGGTGGACGGCGGCTAGGACCTCGGGGCCGCCCA
CTCTCAGCCTCCCAACCCTCTCTGCCTCAGCGGGCAACAGGCGATGGCTCTCCTGGGCGTAAGGGATCAGGAAGT
GAGCGGCTGCCTCCCTCAGGGCTCCTGGCCAAACCTCCAAGGACAGCCCAGCCCCCCAGGCCACCAGTGCCTGAG
CCAGCCACACCCCGGGGTCTCCAGCTTTCTGCCAACATG**TAA**AACCTTTGAGTACATCCAGCCTTAGTTCTTGGG
GTGCAGTAGTATGTACCCAAGGGCAGATGCCTCTTGGGGAAGGCCATGGGGACCTGAAACATTGCCCCATGGAAA
TGTCGACCCTGTGCGGACATTCCGCATACTGCCATGAAGACGGTCTCTGTGTCCTCAGCTCAAGAATCCTGTAGC
TTGTCCCATCATAATCCATTCACCCGTTCATCATGTGTACTGAGCAGCTACCATGTTCAAGGTAATATGCCAGGC
GCTGTATGTCTCCACTGCCAAGTAGAAGTGACTCAAAACCCTCTGACAAGGATATTCCCTTGGCTATGGTCCTGC
CAGGTGCAGGCCCAGGCCCATGACCCCACCTTTACTAAGCACAAGTACTTGCCACTGCCATCACTGCCAAGTAAC
TAGATGTCTCTGTTTCCCTGCCAATGATCCTGCAGGTTCTGCCCGGTCTGGTTATCTTCCTGTTCCTGTAGCATA
GCCAGGCACTGCCAGTCACCTGTGCCCCCATTGCTGTCAGCAGATGTCTTGGGTCCTGAGTGTGGGTATCCACTT
TTACCCGCTCACTGCCACCTGTGGACACTCTGTGTCTACCCTCTGAGTGGGAACATACTTCTAAGTTCCCTGCAG
TCTCTGTCCTGTGGTAGACCATCTTTTTGTAAACTGCGAGCTTCCTCTTCCCTGTACCCTCTGCCCCAGTCGTGA
CCCCCTAAAAGTTAAGGGGTAGTTGGCACCTCCTTATTAATATGCCAGCCTAGATCCCCCCCGGTGGAGGGGCAA
ATGGCTGAATCCTTGTGTGATATTTTTTTCTTCGCTTGTTTATTTATTCATTTATTTAATTGTATTTATTCATTT
ACTAACTTTATGTGTTACCAATTAATTTTGTTTACCCATTCCTTTATCCATCCCTCCCCTCCTTTTCAGGTAAGG
AGACAGGAGGAGTAGGAGGAGGCAGGGCCTCTCCATGCCAGCCTCTGTGGTCCTTGCCCAAACCCATCAGCGCAA
TACTTGAACCTTCTCCCAGGTAGGGGCAGGAGGAGCCACATGAGAGAGGGAGAAGGACCGCGTTTACCTTTAGAG
TTTTGTTTTGTTTTTTCCTTCTGAGTTTGCTGTTGGTGCAGGAATAAGGGAAAGGCCCAAGGTATCCAAGCCTGG
GGAAGGGCAGGCCAGCCAGCACCTCTGCCTTCTCAGGGACAAGAGTAGTCCTTTACCACCCTCACTCTGCCTGTC
CCCTCTCCTACTCTACAGCATTAAAGACTGTGGGACCAGGACCCTAAGTCTCCTTTCCTTCTGGGTGGGGAGTTC
TGGGGTTCTTGGTGTGTGGGAGAAGTTTTATAATTGCTTCCAAACAGCTGGGTTTAAATATAAAATAGACACACT

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FIGURE 1954B

C

FIGURE 1955

TCCCAGGGTCCCGGGTTGGGGGGGTGGAGCAGCATTTCGTCGCCGCGGGGGTGCCGGGACTCCGGCCGCAGTGTC
GCCGCCATCACGGACTTCCTGTGGGACAAGCGCACGGGCCTCGCCGCCAGAACG**ATG**CCGCATCCTCGAAGGTAC
CACTCCTCAGAGCGAGGCAGCCGGGGGAGTTACCGTGAACACTATCGGAGCCGAAAGCATAAGCGACGAAGAAGT
CGCTCCTGGTCAAGTAGTAGTGACCGGACACGACGGCGTCGGCGAGAGGACAGCTACCATGTCCGTTCTCGAAGC
AGTTATGATGATCGTTCGTCCGACCGGAGGGTGTATGACCGGCGATACTGTGGCAGCTACAGACGCAACGATTAT
AGCCGGGATCGGGGAGATGCCTACTATGACACAGACTATCGGCATTCCTATGAATATCAGCGGGAGAACAGCAGT
TACCGCAGCCAGCGCAGCAGCCGGAGGAAGCACAGACGGCGGAGGAGGCGCAGCCGGACATTTAGCCGCTCATCT
TCGCAGCACAGCAGCCGGAGAGCCAAGAGTGTAGAGGACGACGCTGAGGGCCACCTCATCTACCACGTCGGGGAC
TGGCTACAAGAGCGATATGAAATCGTTAGCACCTTAGGAGAGGGGACCTTCGGCCGAGTTGTACAATGTGTTGAC
CATCGCAGGGGTGGGGCTCGAGTTGCCCTGAAGATCATTAAGAATGTGGAGAAGTACAAGGAAGCAGCTCGACTT
GAGATCAACGTGCTAGAGAAAATCAATGAGAAAGACCCTGACAACAAGAACCTCTGTGTCCAGATGTTTGACTGG
TTTGACTACCATGGCCACATGTGTATCTCCTTTGAGCTTCTGGGCCTTAGCACCTTCGATTTCCTCAAAGACAAC
AACTACCTGCCCTACCCCATCCACCAAGTGCGCCACATGGCCTTCCAGCTGTGCCAGGCTGTCAAGTTCCTCCAT
GATAACAAGCTGACACATACAGACCTCAAGCCTGAAAATATTCTGTTTGTGAATTCAGACTATGAGCTCACCTAC
AACCTAGAGAAGAAGCGAGATGAGCGCAGTGTGAAGAGCACAGCTGTGCGGGTGGTAGACTTTGGCAGTGCCACC
TTTGACCATGAGCACCATAGCACCATTGTCTCCACTCGCCATTACCGAGCACCAGAAGTCATCCTTGAGTTGGGC
TGGTCACAGCCTTGTGATGTGTGGAGTATAGGCTGCATCATCTTTGAATACTATGTGGGATTCACCCTCTTCCAG
ACCCATGACAACAGAGAGCATCTAGCCATGATGGAAAGGATCTTGGGTCCTATCCCTTCCCGGATGATCCGAAAG
ACAAGAAAGCAGAAATATTTTTACCGGGGTCGCCTGGATTGGGATGAGAACACATCAGCTGGGCGCTATGTTCGT
GAGAACTGCAAACCGCTGCGGCGGTATCTGACCTCAGAGGCAGAGGAACACCACCAGCTCTTCGATCTGATTGAA
AGCATGCTAGAGTATGAACCAGCTAAGCGGCTGACCTTGGGTGAAGCCCTTCAGCATCCTTTCTTCGCCCGCCTT
CGGGCTGAGCCGCCCAACAAGTTGTGGGACTCCAGTCGGGATATCAGTCGG**TGA**CGATCAGGCCCTGGGCCCCCC
TGCATCTTTTATAGCAGTGGGTGTCCAGTCCAGGACACTGGTGCTTTTTTATACAAGAGAACGAGCCAGAGTTCA
CTCCTTCCTCCTGGCTCTCTATATACCTGTGAATATGTGAAATAGTGTAAATATGAAAGAACTTGTACCTATCAC
TTCAACCCCTGCCTTGTACATAATACTATTCCATCCACACAGTTTCCACCCTCACCTGCCCCCTCATACGGAGTT
GGATGGGGGCCGAGTGAGGTAACCAGGTGGCATCTACCCCATGTTTTATAAGGAATTTTGTACAGTCTTTGTGAA
ATAAAATAACGTGCTTCATTTGA

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FIGURE 1956

GGTAGTTGGTTGTGGGCACTGGGTTAGAGGTATCACGTGGGGGCACTTTCGTCTTAGCTTTTGGACAAGACGCAG
GCGCAACCCACGGCTGCTGCGGGGATCCTTGTGGCCCTTCCGGTCGGTGGAACCAATCCGTGCACAGAGAAGCGG
GGCGAACTGAGGCGAGTGAAGTGGACTCTGAGGGCTACCGCTACCGCCACTGCTGCGGCAGGGGCGTGGAGGGCA
GAGGGCCGCGGAGGCCGCAGTTGCAAAC**ATG**GCTCAGAGCAGAGACGGCGGAAACCCGTTCGCCGAGCCCAGCGA
GCTTGACAACCCCTTTCAGGACCCAGCTGTGATCCAGCACCGACCCAGCCGGCAGTATGCCACGCTTGACGTCTA
CAACCCTTTTGAGACCCGGGAGCCACCACCAGCCTATGAGCCTCCAGCCCCTGCCCCATTGCCTCCACCCTCAGC
TCCCTCCTTGCAGCCCTCGAGAAAGCTCAGCCCCACAGAACCTAAGAACTATGGCTCATACAGCACTCAGGCCTC
AGCTGCAGCAGCCACAGCTGAGCTGCTGAAGAAACAGGAGGAGCTCAACCGGAAGGCAGAGGAGTTGGACCGAAG
GGAGCGAGAGCTGCAGCATGCTGCCCTGGGGGGCACAGCTACTCGACAGAACAATTGGCCCCCTCTACCTTCTTT
TTGTCCAGTTCAGCCCTGCTTTTTCCAGGACATCTCCATGGAGATCCCCCAAGAATTTCAGAAGACTGTATCCAC
CATGTACTACCTCTGGATGTGCAGCACGCTGGCTCTTCTCCTGAACTTCCTCGCCTGCCTGGCCAGCTTCTGTGT
GGAAACCAACAATGGCGCAGGCTTTGGGCTTTCTATCCTCTGGGTCCTCCTTTTCACTCCCTGCTCCTTTGTCTG
CTGGTACCGCCCCATGTATAAGGCTTTCCGGAGTGACAGTTCATTCAATTTCTTCGTTTTCTTCTTCATTTTCTT
CGTCCAGGATGTGCTCTTTGTCCTCCAGGCCATTGGTATCCCAGGTTGGGGATTCAGTGGCTGGATCTCTGCTCT
GGTGGTGCCGAAGGGCAACACAGCAGTATCCGTGCTCATGCTGCTGGTCGCCCTGCTCTTCACTGGCATTGCTGT
GCTAGGAATTGTCATGCTGAAACGGATCCACTCCTTATACCGCCGCACAGGTGCCAGCTTTCAGAAGGCCCAGCA
AGAATTTGCTGCTGGTGTCTTCTCCAACCCTGCGGTGCGAACCGCAGCTGCCAATGCAGCCGCTGGGGCTGCTGA
AAATGCCTTCCGGGCCCCG**TGA**CCCCTGACTGGGATGCCCTGGCCCTGCTACTTGAGGGAGCTGACTTAGCTCCC
GTCCCTAAGGTCTCTGGGACTTGGAGAGACATCACTAACTGATGGCTCCTCCGTAGTGCTCCCAATCCTATGGCC
ATGACTGCTGAACCTGACAGGCGTGTGGGGAGTTCACTGTGACCTAGTCCCCCCATCAGGCCACACTGCTGCCAC
CTCTCACACGCCCCAACCCAGCTTCCCTCTGCTGTGCCACGGCTGTTGCTTCGGTTATTTAAATAAAAAGAAAGT
GGAACTGGAACTGAC

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FIGURE 1957

CCTGCGGCAGCCGGAGCTCGGGGAGCGGAGCGTGGTGGGGAGGGGAGCGGGACAGGCGACACAGGAGACAGCGGC
GCCGCGGCCTCTCCCCACCAGGCGGCCCCGGATCCTACTGGACGCCCTGAGGGCACACCGACCGCGCCTCTAGAG
TCACCCCACGCCGACCCCTCCCCTCTTCTCTAGACTTATTTCCATCCTTCCCGCTTTTACCCTCCCCACCCCTCC
CTGGGCTCCAGGCCGCCGCCCCCTCCTCACTCCTGGACCGGCCCTTCTCGGTGCCCCTCTTCCCTAGGGAGATGC
GATGAGCCGGTGCCCCCGCGTCCTCATCGTCGCCCCGGGCACGGTGCCCGTCCAGTGCCCGTGGTGGGGAGGGAG
CACTCCGCGGTCCCTCCGTGACGCCCCTCGCTTGGCCCCCCCCACAGCTGGCGTCCCTCGGCCATGCCCCAGGGG
ACCCAGCCAGGGGGTGGGCTCTAGAGCGAGTGGGGTGGAGAGGAGAAAGGACGGGGCCTTGGGCGCCTCTGAGAT
GCTCCCAAGTGCCAGGGAGGGCCGAGCGAGGCGCAGGCAACCGGGCAGCAGGC**ATG**ATGCCCTCGCCTAGTGACT
CCAGCCGCTCGCTGACCAGCCGGCCCAGCACCAGGGGCCTTACCCACCTCCGCCTCCACCGACCCTGGCTGCAGG
CCCTGCTTACGCTGGGGCTGGTCCAAGTGCTCCTGGGCATCCTGGTGGTCACCTTCAGCATGGTGGCCTCTTCCG
TCACCACCACCGAGAGCATCAAGAGGTCCTGCCCGTCTTGGGCTGGGTTCTCGCTGGCGTTCTCCGGGGTGGTTG
GCATTGTGTCCTGGAAGCGGCCATTCACTCTAGTGATCTCCTTCTTCTCCTTGCTTTCGGTGCTCTGTGTCATGC
TTAGCATGGCTGGCTCTGTTCTCTCCTGTAAGAATGCTCAACTGGCCCGAGACTTCCAACAGTGCTCTCTGGAAG
GAAAGGTCTGTGTGTGCTGTCCCTCTGTTCCCCTCCTCCGGCCCTGTCCAGAGTCGGGGCAGGAACTGAAAGTTG
CCCCTAACTCCACCTGTGATGAAGCCCGAGGGGCCCTCAAGAACCTGCTCTTCAGCGTCTGTGGGCTCACCATTT
GTGCCGCTATAATCTGTACACTCTCTGCTATTGTCTGCTGCATCCAAATCTTCTCCCTGGACCTCGTGCATACGC
AGCTGGCCCCTGAGCGGTCAGTCTCAGGCCCACTGGGACCTCTGGGCTGCACGTCCCCGCCCCCAGCCCCTCTCC
TACACACCATGCTGGACCTGGAGGAATTTGTCCCGCCTGTGCCCCCACCGCCCTACTATCCCCCAGAGTATACCT
GCAGCTCAGAAACAGATGCACAGAGCATCACGTACAATGGCTCCATGGACAGCCCAGTGCCCTTGTACCCTACCG
ATTGCCCCCCTTCTTATGAGGCAGTCATGGGACTACGAGGAGACAGCCAGGCCACTCTCTTTGACCCTCAGCTTC
ACGATGGCTCGTGCATCTGTGAACGAGTGGCCTCCATTGTAGACGTGTCCATGGACAGCGGGTCTCTGGTGCTGT
CAGCCATTGGTGACCTCCCTGGGGGCTCTAGCCCGTCGGAGGACTCGTGCCTGCTGGAGCTGCAGGGCTCCGTGC
GCTCCGTGGACTACGTTCTCTTTCGCTCCATCCAGCGCAGCCGTGCCGGCTACTGCCTCAGCCTGGACTGTGGCC
TGCGGGGCCCCTTCGAGGAAAGCCCCCTGCCACGGCGCCCCCCACGGGCTGCCCGCTCCTATTCCTGCTCTGCCC
CTGAAGCTCCACCCCCACTGGGTGCCCCCACAGCTGCCCGCAGCTGCCACCGGTTGGAGGGCTGGCCGCCCTGGG
TGGGACCCTGCTTCCCCGAGCTGAGGCGGCGGGTCCCCCGGGGAGGGGGCCGCCCAGCCGCAGCCCCGCCCACCC
GAGCCCCGACTCGTCGCTTCAGCGATAGCTCAGGTTCCCTCACCCCACCGGGGCACCGGCCTCCTCATCCGGCAT
CCCCACCACCGCTGCTGCTGCCACGGTCCCACAGCGACCCAGGCATCACGACCTCCAGTGACACTGCTGACTTCA
GGGACCTTTATACCAAAGTGCTTGAGGAAGAAGCTGCTTCTGTTTCCTCTGCAGATACAGGGCTCTGCTCTGAAG
CCTGCCTCTTCCGCCTAGCCCGCTGCCCTTCCCCCAAGTTGCTACGTGCCCGGTCAGCCGAGAAACGGCGCCCTG
TGCCCACCTTCCAAAAAGTTCCCCTGCCCTCGGGCCCTGCACCTGCCCACTCCCTGGGGGACCTAAAGGGCAGCT
GGCCAGGTCGGGGCCTGGTCACTCGTTTCCTCCAGATATCCAGGAAAGCCCCAGACCCCAGTGGGACTGGAGCTC
ATGGACATAAGCAGGTGCCCCGGAGCCTGTGGGGCCGGCCTGGCCGAGAGAGCCTCCACCTTCGCAGCTGCGGAG
ATCTGAGCTCTAGCTCTTCCCTGCGGCGTCTCCTGTCTGGCCGCAGGCTGGAGCGTGGTACCCGCCCCCACAGCC
TCAGCCTCAACGGGGGCAGCCGGGAGACTGGGCTC**TGA**CCTAGGCTTCTTGTCACACTGAACACATCCAGCCACA
GGCACCAGCTGGTTGGGACCAGCAGCCCCCAGCATCCTCTTGCACTGGCTGGCACAAAAAGAAACCTGCTGTATA
CCCCCCAAAGTGTCCCTTTCCCTCCTACCTCTGGGGTCTCTTGCTGCTTGCCTCTGCTGCTCTGGACTGGGAGAG
CTTCTGTCCTGTGCTGCATGGGTATTTAGACTGTGGGGGAGATGCCCCTTCTTATAGCACTGGAGGAGGAAAACA
AATTCTTGTCCCCCTCAGAATGAGAGTGGCTCTTTCTGATTTGCAAGGGCACTATGGTCAGGGCAAAGGCATGGC
CCAGGTGTTTAAGTACAGGGTGACGTGTGCCTATGCAATGGGGTGGTAAGGCAGGCACGAAGAGTCCAAAAAATC
TAGGTGGCCTCTCAGCTCTGCCACCTCTAGCTGCATGACCTTGGGCAAGCTATGTAACCCCAATTGCCTGCTCCA
TTAAAGACTGTGAAGGTAGAATGTTTGTAAAGCTCTTAACAGTATGTAAGCCTTCAATAAATTTCAGTTTTCCCC
TT

FIGURE 1958

AATCCAGGTCCCGCCCCGACTCCCCAGGGCTGCTTTTCTCGCGGCTGCGGGTGGTCGGGCTGCATCCTGCCTTCA
GAGTCTTACTGCGCGGGGCCCCAGTCTCCAGTCCCGCCCAGGCGCCTTTGCAGGCTGCGGTGGGATTTCGTTTTG
CCTCCGGTTGGGGCTGCTGTTTCTCTTCGCCGACGAGACGGGGTTTCACCATGTTGGTCAGGCTGGTCTCCAATT
CCTGACCTCGTGATCCGCCCGCCTCGGCCTGCCAAACAGCTGTGATTATAGGCGTGAGCCACCGCGCCCGGCCAA
CCATCATTATTATTTTTAACGAGACTCTGGAACCCCTGTGGTCTTCTCTTCATCTAATGACCCTGAGGGG**ATG**GA
GTTTTCAAGTCCTTCCAGAGAGGAATGTCCCAAGCCTTTGAGTAGGGTAAGCATCATGGCTGGCAGCCTCACAGG
ATTGCTTCTACTTCAGGCAGTGTCGTGGGCATCAGGTGCCCGCCCCTGCATCCCTAAAAGCTTCGGCTACAGCTC
GGTGGTGTGTGTCTGCAATGCCACATACTGTGACTCCTTTGACCCCCCGACCTTTCCTGCCCTTGGTACCTTCAG
CCGCTATGAGAGTACACGCAGTGGGCGACGGATGGAGCTGAGTATGGGGCCCATCCAGGCTAATCACACGGGCAC
AGGCCTGCTACTGACCCTGCAGCCAGAACAGAAGTTCCAGAAAGTGAAGGGATTTGGAGGGGCCATGACAGATGC
TGCTGCTCTCAACATCCTTGCCCTGTCACCCCCTGCCCAAAATTTGCTACTTAAATCGTACTTCTCTGAAGAAGG
AATCGGATATAACATCATCTGGGTACCCATGGCCAGCTGTGACTTCTCCATCCGCACCTACACCTATGCAGACAC
CCCTGATGATTTCCAGTTGCACAACTTCAGCCTCCCAGAGGAAGATACCAAGCTCAAGATACCCCTGATTCACCG
AGCCCTGCAGTTGGCCCAGCGTCCCGTTTCACTCCTTGCCAGCCCCTGGACATCACCCACTTGGCTCAAGACCAA
TGGAGCGGTGAATGGGAAGGGGTCACTCAAGGGACAGCCCGGAGACATCTACCACCAGACCTGGGCCAGATACTT
TGTGAAGTTCCTGGATGCCTATGCTGAGCACAAGTTACAGTTCTGGGCAGTGACAGCTGAAAATGAGCCTTCTGC
TGGGCTGTTGAGTGGATACCCCTTCCAGTGCCTGGGCTTCACCCCTGAACATCAGCGAGACTTCATTGCCCGTGA
CCTAGGTCCTACCCTCGCCAACAGTACTCACCACAATGTCCGCCTACTCATGCTGGATGACCAACGCTTGCTGCT
GCCCCACTGGGCAAAGGTGGTACTGACAGACCCAGAAGCAGCTAAATATGTTCATGGCATTGCTGTACATTGGTA
CCTGGACTTTCTGGCTCCAGCCAAAGCCACCCTAGGGGAGACACACCGCCTGTTCCCCAACACCATGCTCTTTGC
CTCAGAGGCCTGTGTGGGCTCCAAGTTCTGGGAGCAGAGTGTGCGGCTAGGCTCCTGGGATCGAGGGATGCAGTA
CAGCCACAGCATCATCACGAACCTCCTGTACCATGTGGTCGGCTGGACCGACTGGAACCTTGCCCTGAACCCCGA
AGGAGGACCCAATTGGGTGCGTAACTTTGTCGACAGTCCCATCATTGTAGACATCACCAAGGACACGTTTTACAA
ACAGCCCATGTTCTACCACCTTGGCCACTTCAGCAAGTTCATTCCTGAGGGCTCCCAGAGAGTGGGGCTGGTTGC
CAGTCAGAAGAACGACCTGGACGCAGTGGCACTGATGCATCCCGATGGCTCTGCTGTTGTGGTCGTGCTAAACCG
CTCCTCTAAGGATGTGCCTCTTACCATCAAGGATCCTGCTGTGGGCTTCCTGGAGACAATCTCACCTGGCTACTC
CATTCACACCTACCTGTGGCGTCGCCAG**TGA**TGGAGCAGATACTCAAGGAGGCACTGGGCTCAGCCTGGGCATTA
AAGGGACAGAGTCAGCTCACACGCTGTCTGTGACTAAAGAGGGCACAGCAGGGCCAGTGTGAGCTTACAGCGACG
TAAGCCCAGGGGCAATGGTTTGGGTGACTCACTTTCCCCTCTAGGTGGTGCCAGGGGCTGGAGGCCCCTAGAAAA
AGATCAGTAAGCCCCAGTGTCCCCCCAGCCCCCATGCTTATGTGAACATGCGCTGTGTGCTGCTTGCTTTGGAAA
CTGGGCCTGGGTCCAGGCCTAGGGTGAGCTCACTGTCCGTACAAACACAAGATCAGGGCTGAGGGTAAGGAAAAG
AAGAGACTAGGAAAGCTGGGCCCAAAACTGGAGACTGTTTGTCTTTCCTGGAGATGCAGAACTGGGCCCGTGGAG
CAGCAGTGTCAGCATCAGGGCGGAAGCCTTAAAGCAGCAGCGGGTGTGCCCAGGCACCCAGATGATTCCTATGGC
ACCAGCCAGGAAAAATAGCAGCTCATATGGGAGAAATGTTTGAGCC

FIGURE 1959

CAGTGCCCCACAGCTCTTCAGGCCCTTCCTGTGCCTGGCTGCCCTCCCACCCTACCCTTTTGTACCTCTGAGAAG
GCTCTGGCCCCACGCACAGCCCCACTGTCACCAGGGCCAGTATCTGTCTCAGGGACCTCCTATCCAGAGCCTGAG
CCAGCCCCAGCCCCAGCCCCAGCTCCAGCTGCTCCATCTGAACCTGTATCTTCTTCCAAGCCACCCATTACCCTC
TTGGAGTCAGACTCACGCATCTCCAAAGAAGAACTTTTGAGAGCCCAGGCGCTGAGAGAGCAGGGTCAGACACTC
CCGAGCCTCTCGGTACAGCTGTAGGGGCGACACAGGTAGGCTTGCAGCTGCGGGAACAGTGCCACCTCCGCACCT
AAGCACTCCCATTCCTGGCCAGCATCCTTGGGGCTCATCTCATACAATAGCCCCCGGTCTCAGAGCTACCTCCTT
CTCCAGCTCTTCCTCGTCCTCAGGCCTGTGCTCCCCAGTCAGCAGCTGTAGCCGTTCCATGTACTGCCGCTGCAT
GCGGCCAGGCAGGAAGAAGTTGAGGGGAAAGGGCATAGCCTCTGCATACCACTTCCGGGTCACTTCTACGTAGTT
CTTGGTGTCTATCCAAAAAGTATGTACCTGGATTGGGTGGGCAGGAAGAAACAGGCAGGTCTGAGCCAGTGCACC
TGTCTGATTCAAGGTGGGCTTCTGACCTCCATGCTCTCCTGAGTCTCTGTGTGGGTCTGTGTGTTCCCGTCCCCT
CCCCGGCTGGCCATGGATGCTGGGAGGTCTGGGCACACTCACCAGCACCGGGATCAACTTCTCCTCCAGGAGAGA
CATGAAGGCCAGGGTGTCTGCCCCTTGCTGAGCTGACAGATCATAATCAGCATTGTACTTCTGTGGAGGAAATAT
CC**ATG**GCGTGGACGCTGGGGAGCTGCAAGGGCACTTCACCAGGGAGGAAGGAGTCCTGTCTGGTACCCCCCTCAC
TGGCCTCTGAGTGCAGTGGAGGTACAGCAAGGAACTTTTCCTGCCAAGGCCCCCTTGCCTGGGCCCAGCCAGTAG
CCTGTTGCTGTTGGCAAAAAGCCTGGGCCTTGGAGCCCGCTGGCCGTCAAGGTCCTGGGCCCATTGAGAAGAAGG
AAGAAAGGTTGGGCCGCAAACTAGGAGCAGCTCCCAGAATTTCCATGGAAAGCTGGAACAATGCCTGC**TGA**CAGC
AACTTTCTAACAGTAACTTTCCCGACCCAGACACCACAAAGCTAGCACAACGGAGCTCAGATGCAGGCTAGGACT
CGGTCCATGCCTCAGGAACCAGGGAAAGCCATCCTCACACTCCCTGGATCCAGGGAACCCACGCCCAGGGCCCCC
CAGCTTGTTCCCTCAGTGCCCAGCTCTTGGCTATTTCTTTCACTTCATTCCATCGCCCAGACACCATTACCACAT
ACACATTCCATCCATACCCCCAGGTCTCAGCCTGCCCTACCTTCCCAGGCTCCAGTCCCTGTTCCTCAGCATCCC
CCACCACATCCTGAGTAAGCTTTGTCCCCAGATAACCTCTTCAGCATGATCCTTAAATCTCCCTAAGCCTCAGTT
TCTCCCCTGTGGAATGGGGGTAAGAATCTCTTTCTCTGAATGCCCCTGTGTTAGGAAATAATTTAGAATACTTCG
GAAACAAAAAGCTCTGTTCACACCTAAGCAATCAGGGCAGTGGCCCTGGCCTTGCCAGGAACTTAGGCTTTTATC
TGGATCCTCTTTCCAGGCCTCTCAATTAATTCCCCAGGTCCTTAACCTTTGGGAAATTAGAAATTAGGAAGAGTG
TCCCACTTCTGACACTGTGTTCCCTCTTGGAACCTGACCGTCAATGCTAGAAGAACCCTTGGAAAACATGCTGGC
CCAGCCCTCTAGTTTTACAAATAAGGGAGTGCACAGCCCTGAGAGGTTACATGGCCTGCCCAAGATCACGCAGTC
AATGGCAGAGTAAAGAGCATAGCCTAGGCCTCCCCACTCCTCTAGTAATGCTCTTTCATCTTCTCCAACCTGGCT
CTAAGCCTTGTCCATCCTGAGCCCCATATCTAGCCCAACCTAGTCCCTGAAAACAAGAAGTGGCCCTTAGAAATC
TCTCTCCAGTCCCACTATCAGAGGCCAACTGCTGTCTTCCAGTCTCCTTCAGCCTGTGCTCCTCTCCCTCCCTGA
CTGACAGGCAGAAGGTACCGTGCCTCTGGATATCCCCACAGTGCCCTGAGCTGCATCTCTTGCCGACTGCTTTAA
TACATCACAGTGACATTGTGTGTGTCTCTGCCACCAGACTATTGCTCCTTGATGCTCTGGGTCACCTGCATCTAG
CATGGCATATATCTAGTGCTCAATAAATGTGTATTGTACGG

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FIGURE 1960

AAGCCCCAGCCCGGCCTCCGCTCCGGCCGCCGCCACCGCCCCTGTTTTGTTTCCATGGCGACAGGCGGCGCAGGG
CCCGCTCCAAACATAACGCGCTGTGGAAAACATGCTGCTCGGGGGACCCCCCCGCAGTCCCCGCTCGGGGACGAG
CCCCAAGGGGCCCTGGAGCAGTACAGGCCACGTGCAGTTTGGCAAGAGCCCCCAGACCTGGCCCAGGCGCACAAG
ACCCCGCTCTCCAGAGCCTGCCGCGCCTTCAAGGGTTCGGGGCTCCACTTGGACGAGGCGCCGTGACTCTCCGAG
GCGCGCCGGGCCGACAGCGCTGTCCCGCTACGTGGGCCACCTCTGGATGGGCCGGCGGCCGCCCTCCCCCGAGGC
CCGCGGCCCAGTCCCCCGCAGTTCAGCTGCCAGTCGGGCCAGAAGAAGCCTCGCCTCCCCGGGGATCTCCCCAGG
CCCCCTGACCGCAACGATCGGAGGGGCGGTGGCGGGGGGCGGGCCCAGGCAGGGGAGGGCAGAAGCACACAAGGA
AGTGTTTCCGGGACAGAGGGTGGGCAAGATGGCGGCGCCCATGGAGCTGTTCTGCTGGTCAGGGGGCTGGGGGCT
GCCGTCAGTGGACCTGGACAGCCTGGCCGTGCTGACCTATGCCAGATTTACTGGTGCTCCACTGAAGGTACACAA
GATCAGCAACCCCTGGCAGAGCCCTTCAGGAACTCTGCCTGCCCTTCGGACCAGTCATGGAGAGGTCATCTCAGT
TCCACACAAGATCATCACCCACCTTCGAAAAGAGGTACATACTTTTTGGATAGACACCAAGAACTACGTGGAAGT
GACCCGGAAGTGGTATGCAGAGGCTATGCCCTTTCCCCTCAACTTCTTCCTGCCTGGCCGCATGCAGCGGCAGTA
CATGGAACGGCTACAGCTGCTGACTGGGGAGCACAGGCCTGAGGACGAGGAAGAGCTGGAGAAGGAGCTGTACCG
AGAGGCTCGGGAGTGTCTGACCCTGCTCTCTCAGCGCCTGGGCTCTCAAAAGTTCTTCTTTGGAGATGCCCCTGC
CTCCTTGGACGCCTTCGTCTTCAGCTACTTGGCCCTGCTGCTGCAGGCAAAGCTGCCCAGTGGGAAGCTGCAGGT
CCACCTGCGTGGGCTGCACAACCTCTGTGCCTATTGTACCCACATTCTCAGTCTCTACTTCCCCTGGGATGGAGC
TGAGGTACCACCGCAACGCCAGACACCAGCAGGCCCAGAGACTGAGTGAGTGAGCCATACCGGCGCCGGAACCAG
ATCCTATCTGTGCTGGCAGTGACTGGCAGCCATGGTGGGCTACGCCTTGCTCAGCGGCATTGTCTCCATCCAGCG
GGCAACGCCTGCTCGTGGCCCCAGGCACCCGGACCCTGGGCATGGCTGAGGAGGATGAAGAGGAATGATTTGTCC
TCACGCTCCCAAGACTGGTTTTTCTACTCTCATGCATTCCAGAGGCCCCCGTGCCTCCTCGTTGTTGGTACAGCC
GGACACGGGGTGTGCCACCCAGAATAAAGCCACTCACACTG

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FIGURE 1961

ATGGAGACGCAGGAACTTCGGGGGGCCCTGGCTCTTCTCCTCCTTTGCTTTTTCACATCTGCCAGTCAGGATCTG
CAGGTAATTGACCTGCTGACTGTGGGCGAGTCTCGGCAGATGGTAGCTGTGGCAGAGAAGATCCGGACAGCCTTG
CTCACTGCTGGGGACATCTACCTCTTATCCACCTTCCGCCTGCCCCCCAAGCAGGGTGGTGTCCTCTTTGGCCTC
TATTCTCGCCAAGACAACACTCGATGGCTGGAGGCCTCTGTTGTAGGCAAGATCAACAAAGTACTGGTGCGATAC
CAGCGGGAGGATGGCAAAGTCCACGCCGTGAACCTACAGCAAGCGGGCCTGGCTGATGGGCGCACACACACAGTT
CTCCTGCGACTCCGAGGTCCCTCCAGACCCAGCCCTGCCCTACATCTCTACGTGGACTGCAAACTGGGTGACCAA
CATGCAGGCCTTCCAGCACTGGCCCCCATTCCTCCAGCGGAGGTCGATGGGCTGGAGATTAGGACTGGACAGAAG
GCGTATTTGAGGATGCAGGGCTTTGTGGAATCTATGAAAATTATTCTGGGTGGGTCCATGGCCCGGGTAGGAGCC
CTGAGTGAGTGTCCATTCCAAGGGGACGAGTCCATCCACAGTGCAGTGACCAATGCACTGCACTCCATTCTAGGG
GAGCAGACCAAGGCGCTGGTCACCCAACTCACCCTCTTCAACCAGATCCTGGTGGAGCTGCGGGATGATATACGA
GACCAGGTGAAGGAAATGTCCCTGATCCGAAACACCATTATGGAGTGTCAGGTGTGCGGCTTCCATGAGCAGCGT
TCCCACTGCAGCCCCAATCCCTGCTTCCGAGGTGTGGACTGCATGGAAGTGTACGAGTACCCAGGCTACCGCTGT
GGGCCCTGCCCCCCTGGCCTGCAGGGCAACGGCACCCACTGCAGTGACATCAATGAGTGTGCTCACGCTGACCCC
TGTTTCCCGGGCTCCAGCTGCATCAACACCATGCCCGGCTTCCACTGTGAGGCCTGTCCTCGAGGGTACAAGGGC
ACACAGGTGTCTGGTGTGGGCATTGACTATGCCCGGGCCAGCAAACAGGTCTGCAATGACATCGATGAATGCAAC
GATGGCAACAATGGTGGCTGTGACCCAAACTCCATCTGCACCAACACTGTGGGCTCTTTCAAGTGTGGTCCCTGC
CGCCTGGGTTTCCTGGGCAACCAGAGCCAGGGCTGCCTCCCAGCCCGGACCTGCCACAGCCCAGCCCACAGCCCC
TGCCACATCCATGCTCACTGTCTCTTTGAACGCAATGGTGCAGTGTCCTGCCAGTGTAACGTGGGCTGGGCTGGG
AATGGGAACGTGTGTGGGACTGACACAGACATCGATGGCTACCCAGACCAAGCACTGCCCTGCATGGACAACAAC
AAACACTGCAAACAGGACAACTGCCTTTTGACACCCAACTCTGGGCAGGAAGATGCTGATAATGATGGTGTGGGG
GACCAGTGTGATGATGATGCTGATGGGGATGGGATCAAGAATGTTGAGGACAACTGCCGGCTGTTCCCCAACAAA
GACCAGCAGAACTCAGATACAGATTCATTTGGTGATGCCTGTGACAATTGCCCCAACGTTCCCAACAATGACCAG
AAGGACACAGATGGCAATGGGGAAGGAGATGCCTGTGACAACGACGTGGATGGGGATGGCATCCCCAATGGATTG
GACAATTGCCCTAAAGTCCCCAACCCACTACAGACAGACAGGGATGAGGACGGGGTGGGAGATGCTTGCGACAGC
TGCCCTGAAATGAGCAATCCTACCCAGACAGATGCAGACAGCGACCTGGTGGGGGATGTCTGTGATACTAATGAA
GACAGCGATGGGGATGGGCATCAGGACACCAAGGACAACTGCCCACAGCTGCCAAATAGCTCCCAGCTGGACTCT
GATAACGATGGACTTGGAGATGAGTGTGATGGGGATGATGACAATGATGGCATCCCAGATTATGTGCCTCCTGGT
CCCGATAACTGCCGCCTGGTACCCAATCCCAATCAGAAGGACTCAGATGGCAATGGCGTTGGTGATGTGTGTGAG
GATGACTTTGACAATGATGCTGTGGTCGACCCCCTGGATGTGTGTCCTGAAAGTGCAGAGGTAACGCTTACGGAT
TTTCGGGCCTATCAGACCGTCGTCCTGGATCCTGAGGGTGATGCTCAGATTGACCCAAACTGGGTTGTGCTCAAC
CAGGGCATGGAAATCGTTCAGACCATGAACAGTGACCCTGGCTTGGCAGTTGGATACACGGCCTTCAATGGTGTG
GACTTTGAAGGCACCTTCCATGTGAACACAGTGACTGATGATGACTACGCAGGCTTTCTCTTCAGTTATCAAGAC
AGTGGCCGCTTCTACGTAGTCATGTGGAAGCAGACCGAGCAGACCTACTGGCAGGCTACACCCTTCCGGGCGGTT
GCCCAGCCCGGGCTGCAGCTCAAGGCAGTGACATCAGTGTCTGGCCCAGGTGAGCACCTCCGAAATGCCCTGTGG
CATACTGGCCACACCCCTGATCAGGTACGACTGCTGTGGACAGACCCACGAAATGTGGGCTGGCGGGACAAGACC
TCCTATCGCTGGCAGCTTCTGCACCGGCCTCAAGTTGGCTACATTCGGGTGAAGCTCTATGAGGGACCCCAGCTT
GTGGCGGATTCTGGGGTGATCATTGACACATCCATGCGAGGGGGGCGTCTTGGTGTATTCTGCTTCTCCCAAGAA
AACATAATTTGGTCCAATCTCCAGTATCGATGCAATGACACAGTGCCTGAGGACTTTGAGCCATTCCGGAGGCAG
CTGCTCCAGGGAAGGGTG**TGA**

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FIGURE 1962

CGCTCCACCTCTCAAGCAGCCAGCGCCTGCCTGAATCTGTTCTGCCCCCTCCCCACCCATTTCACCACCACC**ATG**

ACACCGGGCACCCAGTCTCCTTTCTTCCTGCTGCTGCTCCTCACAGTGCTTACAGTTGTTACAGGTTCTGGTCAT
GCAAGCTCTACCCCAGGTGGAGAAAAGGAGACTTCGGCTACCCAGAGAAGTTCAGTGCCCAGCTCTACTGAGAAG
AATGCTGTGAGTATGACCAGCAGCGTACTCTCCAGCCACAGCCCCGGTTCAGGCTCCTCCACCACTCAGGGACAG
GATGTCACTCTGGCCCCGGCCACGGAACCAGCTTCAGGTTCAGCTGCCACCTGGGGACAGGATGTCACCTCGGTC
CCAGTCACCAGGCCAGCCCTGGGCTCCACCACCCCCCCAGCCCACGGTGTCACCTCGGCCCCGGACACCAGGCCG
GCCCGGGGCTCCACCGCCCCCCCAGCCCACGGTGTCACCTCGGCCCCGGACACCAGGCCGGCCCCGGGCTCCACC
GCCCCCCCAGCCCATGGTGTCACCTCGGCCCCGGACAACAGGCCCGCCTTGGGCTCCACCGCCCCTCCAGTCCAC
AATGTCACCTCGGCCTCAGGCTCTGCATCAGGCTCAGCTTCTACTCTGGTGCACAACGGCACCTCTGCCAGGGCT
ACCACAACCCCAGCCAGCAAGAGCACTCCATTCTCAATTCCCAGCCACCACTCTGATACTCCTACCACCCTTGCC
AGCCATAGCACCAAGACTGATGCCAGTAGCACTCACCATAGCACGGTACCTCCTCTCACCTCCTCCAATCACAGC
ACTTCTCCCCAGTTGTCTACTGGGGTCTCTTTCTTTTTCCTGTCTTTTCACATTTCAAACCTCCAGTTTAATTCC
TCTCTGGAAGATCCCAGCACCGACTACTACCAAGAGCTGCAGAGAGACATTTCTGAAATGTTTTTGCAGATTTAT
AAACAAGGGGGTTTTCTGGGCCTCTCCAATATTAAGTTCAGGCCAGGATCTGTGGTGGTACAATTGACTCTGGCC
TTCCGAGAAGGTACCATCAATGTCCACGACGTGGAGACACAGTTCAATCAGTATAAAACGGAAGCAGCCTCTCGA
TATAACCTGACGATCTCAGACGTCAGCGTGAGTGATGTGCCATTTCCTTTCTCTGCCCAGTCTGGGGCTGGGGTG
CCAGGCTGGGGCATCGCGCTGCTGGTGCTGGTCTGTGTTCTGGTTGCGCTGGCCATTGTCTATCTCATTGCCTTG
GCTGTCTGTCAGTGCCGCCGAAAGAACTACGGGCAGCTGGACATCTTTCCAGCCCGGGATACCTACCATCCTATG
AGCGAGTACCCCACCTACCACACCCATGGGCGCTATGTGCCCCCTAGCAGTACCGATCGTAGCCCCTATGAGAAG
GTTTCTGCAGGTAATGGTGGCAGCAGCCTCTCTTACACAAACCCAGCAGTGGCAGCCACTTCTGCCAACTTG**TAG**

GGGCACGTCGCCCGCTGAGCTGAGTGGCCAGCCAGTGCCATTCCACTCCACTCAGGTTCTTCAGGGCCAGAGCCC
CTGCACCCTGTTTGGGCTGGTGAGCTGGGAGTTCAGGTGGGCTGCTCACAGCCTCCTTCAGAGGCCCCACCAATT
TCTCGGACACTTCTCAGTGTGTGGAAGCTCATGTGGGCCCCTGAGGGCTCATGCCTGGGAAGTGTTGTGGTGGGG
GCTCCCAGGAGGACTGGCCCAGAGAGCCCTGAGATAGCGGGGATCCTGAACTGGACTGAATAAAACGTGGTCTCC
CACTG

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FIGURE 1963

GC**ATG**CGCATAGCTAACCGCACCCGGTTCAGCTCGCCTTTCTTGGCCAGAGGCGCCGGTTGGACTCACGGGCGGG
GCATGATGGTGGTGGGTACGGGCACCTCGCTGGCGCTCTCCTCCCTCCTGTCCCTGCTGCTCTTTGCTGGGATGC
AGATGTACAGCCGTCAGCTGGCCTCCACCGAGTGGCTCACCATCCAGGGCGGCCTGCTTGGTTCGGGTCTCTTCG
TGTTCTCGCTCACTGCCTTCAATAATCTGGAGAATCTTGTCTTTGGCAAAGGATTCCAAGCAAAGATCTTCCCTG
AGATTCTCCTGTGCCTCCTGTTGGCTCTCTTTGCATCTGGCCTCATCCACCGAGTCTGTGTCACCACCTGGTATC
TTCATCTTCTCCATGGTTGGTCTGTACTACATCAACAAGATCTCCTCCACCCTGTACCAGGCAGCAGCTCCAGTC
CTCACACCAGCCAAGGTCACAGGCAAGAGCAAGAAGAGAAACTGACCCTGAATGTTCAA**TAA**AGTTGATTCTTTG
T

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FIGURE 1964

GCCACCACC**ATG**CCCAAGGGAAAGGCTGAAGGGGATCCTAAAGGAGATAAAGCCAAGGTGAAGGACGAACCACAA
AGGAGATCCGCGAGGTTGTCTGCTAAACCTTCTTCTCCAAAGCCAGAGCCCAAGCCTAAAAAGGCCCCTGCAAAG
AAGGGAGAGAAGGTACTCAAAGAGAAGAAGGGAAAAGCTGATGCTGGAAAGGAGGGGAATAACCCTGCAGAAAAT
GGAGATGCCAAAACAGACCAGGAACAGAAAGCTGAAGGTGCTGGAGATGCCAGAGGAAGTGTGTGCATTTTTGAT
AACTGTGTACTTCTGGTGAGTGTACAGTTTGAAATACTATTTTGTATCAAGTTTTATAAAAATGCAGATTTTTCA
GATTTTTTTTTTTTTTTTAAGCTATGTTGT**TAG**CACACAGAACACTTCATTGTTGCTTTTAGGAGAAGGAGCAAA
TGTCACTAATAGAATGTCTCTGAAGCTGGATTGATATGGGGAAATCGTCTTTTCCTTCTAGTTCCGAGAGACTTC
CTCTTGGCTCCCAGGAGGAGGGATTCCCTGACTTTGACACACATGGCCACCTTGGCACAAAAGCCTTGTGAAAGG
GAAAAGCAAATTTGTTTTTATGTCCTCTTCTCCCTTTCCATCTTTCAGCATAGACTTAACTCCCTTAAGCCCAGA
CATCTATTGGAACCTGACCTCCAATCATTGGTTACTAGTGTGTCAGGCAATCTGGACTTTCCAGTGATGTCACTG
AGATGGCACCTGTCAAAAAAGTAGTGGTTCTGTTTCTAGATTGTAGATCTTCAGATAAATTCTGCCATTTTAATT
TCACTTCCTGAAAGTCAGGGTTGACTTGTGAAAAGTTGTTAAACAACATGCTAAATGTGAAATGTCAACTCTCAC
TCTAAACTTTCCCTGTTCAGATCATCAGATGAAGACTTCATTGGGTTTTATAGTGGCTTTCTGATTTCTGGTAGT
CCATTGAAGAAGGGAGTTTGAAAGTTGTTGTATACTGTTAATGATTGTCTGCCCATGTCCTGCCTGAAATACCAT
GATTGTTTATGCAAAGTATCTTTAATAAAACTGGATACAGTTAGGCTTGG

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FIGURE 1965

GTAGGTCCCGGCAACCGCAGGCTCGCGGCGGGCGCTGGGCGCGGGATCCGACTCCAGTCGTA**ATG**GAGGCGGGCG
GCTTTCTGGACTCGCTCATTTACGGAGTCATGCACATGCGAATGACCCGGAGTGTGGACAACGTCCAGTTCCTGC
CCTTTCTCACCACGGAAGTCAACAACCTGGGCTGGCTGAGTTATGGGGCTTTGAAGGGAGACGGGATCCTCATCG
TCGTCAACACAGTGGGTGCTGCGCTTCAGACCCTGTATATCTTGGCATATCTGCATTACTGCCCTCGGAAGCGTG
TTGTGCTCCTACAGACTGCAACCCTGCTAGGGGTCCTTCTCCTGGGTTATGGCTACTTTTGGCTCCTGGTACCCA
ACCCTGAGGCCCGGCTTCAGCAGTTGGGCCTCTTCTGCAGTGTCTTCACCATCAGCATGTACCTCTCACCACTGG
CTGACTTGGCTAAGGTGATTCAAACTAAATCAACCCAATGTCTCTCCTACCCACTCACCATTGCTACCCTTCTCA
CCTCTGCCTCCTGGTGCCTCTATGGGTTTCGACTCAGAGATCCCTATATCATGGTGTCCAACTTTCCAGGAATCG
TCACCAGCTTTATCCGCTTCTGGCTTTTCTGGAAGTACCCCCAGGAGCAAGACAGGAACTACTGGCTCCTGCAAA
CC**TGA**GGCTGCTCATCTGACCACTGGGCACCTTAGTGCCAACCTGAACCAAAGAGACCTCCTTGTTTCAGCTGGG
CCTGCTGTCCAGCTTCCCAGGTGCAGTGGGTTGTGGGAACAAGAGATGACTTTGAGGATAAAAGGACCAAAGAAA
AAGCTTTACTTAGATGATTGATTGGGGCCTAGGAGATGAAATCACTTTTTATTTTTTAGAGATTTTTTTTTTTAA
TTTTGGAGGTTGGGGTGCAATCTTTAGAATATGCCTTAAAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAG
CACTTTGGGAGGCCAAGGTGGGCGGATCGCCTGAGGTCAGGAGTTCAAGACCAACCTGACTAACATGGTGAAACC
CCATCTCTACTAAAAATACAAAATTAGCCAGGCATGATGGCACATGCCTGTAATCCCAGATACTTGGGAGGCTGA
GGCAGGAGAATTGCTTGAACCCAGGAGGTGGAGGTTGCAGTGAGCTGAGATCGTGCCATTGTGATATGAATATGC
CTTATATGCTGATATGAATATGCCTTAAAATAAAGTGTTCCCCACCCCTG

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FIGURE 1966

CCCAGGTTCCGGAATGAGGACTACACCATACATGTGCAGCTGAATGACTACGTGGACATCATCTGTCCGCACTAT
GAAGATCACTCTGTGGCAGACGCTGCC**ATG**GAGCAGTACATACTGTACCTGGTGGAGCATGAGGAGTACCAGCTG
TGCCAGCCCCAGTCCAAGGACCAAGTCCGCTGGCAGTGCAACCGGCCCAGTGCCAAGCATGGCCCGGAGAAGCTG
TCTGAGAAGTTCCAGCGCTTCACACCTTTCACCCTGGGCAAGGAGTTCAAAGAAGGACACAGCTACTACTACATC
TCCAAACCCATCCACCAGCATGAAGACCGCTGCTTGAGGTTGAAGGTGACTGTCAGTGGCAAAATCACTCACAGT
CCTCAGGCCCATGACAATCCACAGGAGAAGAGACTTGCAGCAGATGACCCAGAGGTGCGGGTTCTACATAGCATC
GGTCACAGTGCTGCCCCACGCCTCTTCCCACTTGCCTGGACTGTGCTGCTCCTTCCACTTCTGCTGCTGCAAACC
CCG**TGA**AGGTGTATGCCACACCTGGCCTTAAAGAGGGACAGGCTGAAGAGAGGGACAGGCACTCCAAACCTGTCT
TGGGGCCACTTTCAGAGCCCCCAGCCCTGGGAACCACTCCCACCACAGGCATAAGCTATCACCTAGCAGCCTCAA
AACGGGTCAGTATTAAGGTTTTCAACCGGAAGGAGGCCAACCAGCCCGACAGTGCCATCCCCACCTTCACCTCGG
AGGGATGGAGAAAGAAGTGGAGACAGTCCTTTCCCACCATTCCTGCCTTTAAGCCAAAGAAACAAGCTGTGCAGG
CATGGTCCCTTAAGGCACAGTGGGAGCTGAGCTGGAAGGGGCCACGTGGATGGGCAAAGCTTGTCAAAGATGCCC
CCTCCAGGAGAGAGCCAGGATGCCCAGATGAACTGACTGAAGGAAAAGCAAGAAACAGTTTCTTGCTTGGAAGCC
AGGTACAGGAGAGGCAGCATGCTTGGGCTGACCCAGCATCTCCCAGCAAGACCTCATCTGTGGAGCTGCCACAGA
GAAGTTTGTAGCCAGGTACTGCATTCTCTCCCATCCTGGGGCAGCACTCCCCAGAGCTGTGCCAGCAGGGGGGCT
GTGCCAACCTGTTCTTAGAGTGTAGCTGTAAGGGCAGTGCCCATGTGTACATTCTGCCTAGAGTGTAGCCTAAAG
GGCAGGGCCCACGTGTATAGTATCTGTATATAAGTTGCTGTGTGTCTGTCCTGATTTCTACAACTGGAGTTTTTT
TATACAATGTTCTTTGTCTCAAAATAAAGCAATGTGTTTTTTCGG

FIGURE 1967A

CGCCGGCCGAGGAGGAGGGGTGGGGGTAGCGGCGGCGCCCGCGGCCCGGAGCGGGGGTTGGGGGAGTAGAGAAAG
CGGGGCGCGCGGAGGAACGCTGGGTCCCCGGCGCCGCGGGAGCTGGGAGGACCGAGCCGGCCGAGCGAGCAGCGC
GGCAGCACAGTCCCCGCGTGGCGCAGCGCGGCGGGGACGCGGGGACCGCCCGGATCTCCTTCCACTGCGCCCCGC
GCTCTGCGGTCCTCGGCCGCCTCTTCTTCCTTCACTCACTGCCCGGGCGGGAGCGGCGCCCAAGTCGGGTGCGCC
ATGTCTGGGGCCGGGTAGCCCCGCCGCCCGCCGGCCCGCCAGCTCGCCCTCCGAGCCACCCGCCAGCGGGCCGGC
CGGCCGGGAAGCGCGGGACAGGCAGATGCAGTGAGTGAGGGGGGGGCCATGGCGGAGGAGCGGCCCCCCCGGCTG
GTGGATTACTTCGTGGTAGCTGGGCTTGCAGGGAACGGAGCACCCATCCCTGAGGAAACGTGGGTTCCTGAACCC
AGTGGGCCCCTGCGCCCTCCCCGGCCAGCTGAGCCCATCACAG**ATG**TGGCAGTCATCGCTAGGGCACTGGGCGAG
GAAGTGCCCCAGGGCTACACATGCATCCAGGCTTCTGCTGGGGGCCACCCCTTGGAACTCAGTGCTGGACTTCTG
GGTGGAACTCAACCCGTCATCTGCTACCGCAGGGGCCGTGACAAGCCCCCCCTCGTTGAGCTGGGGGTGTTGTAT
GAGGGGAAGGAACGTCCCAAGCCTGGCTTCCAAGTGCTTGACACGACACCCTACAGCCACTCAGCAAACCTGGCC
CCTCCAGGCCCCGGGCACCCCCGCACCTACCTCACTTACCGGCGGGCAGCAGAGGGGGCAGGGCTGCATGCCCTG
GGCATCACTGACCTCTGCCTGGTGCTGCCCAGTAAGGGCGAGGGCACTCCTCATACTTACTGCCGGCTGCCCCGC
AACCTCAACCCTGGCATGTGGGGCCCAGCAGTGTACCTGTGCTATAAGGTGGGCCTGGCGAAGGCCAACACGCTG
GTGTACGAGGCAGTTCTACGAGGCGTTCCCAAGGGCCAGGCTATCAGAGCGACAGGCACGGGCACTGGGCCTGCT
GAGCGCCGTGGAGCGGGGTCGGGCACTGGGGGGCAGAGCTGTGCGCAGCCGGCGTGCCATCGCTGTGCTGTCCCG
CTGGCCTGCCTTCCCTGCCTTCCGCGCCTTCCTCACCTTCCTTTACCGCTACTCCGTCTCAGGCCCCCACCGCCT
ACCCTTGGAAGCGCACATCTCCCACTTCATTCACAACGTTCCCTTCCCTTCCCCACAGAGACCCCGCATCCTAGT
GCAGATGTCTCCCTATGACAACTTGCTCCTCTGTCAGCCTGTATCCTCACCCCTGCCCCTCAGTGGTGCCAGCTT
CCTGCAGCTGCTGCAGAGCCTGGGCCCTGAGCTGGCTATCACACTGCTGCTGGCTGTGCTCACAGAGCACAAGCT
GCTAGTCCACTCGCTGCGGCCAGACCTGCTCACCAGCGTCTGTGAGGCCCTCGTCTCGATGATCTTCCCACTGCA
CTGGCAGTGCCCCTACATTCCTCTGTGCCCGCTGGTGCTGGCAGATGTGCTGAGTGCCCCAGTGCCCTTCATTGT
GGGTATCCACTCCAGCTACTTTGATCTGCATGACCCGCCTGCTGATGTCATCTGTGTAGACCTTGATACCAACAC
GCTCTTCCAGACTGAGGAAAAGAAGCTCCTCTCCCCTCGGACCCTGCCCCGCAGACCCTACAAGGTTCTGCTGGC
CACACTGACAAACCTGTACCAGCAGCTGGACCAGACATACACTGGACCTGAGGAGGAAGCATCCCTGGAGTTCCT
ACTGACAGACTACGAGGCAGTGTGTGGCCGCAGGGCCCGGCTGGAGCGCGAAGTCCAAGGAGCCTTCCTCCGCTT
CATGGCCTGTCTGCTCAAGGGCTACCGGGTCTTCCTGCGCCCACTCACCCAGGCCCCCTCCGAGGGAGCTCGTGA
TGTTGACAACCTTTTCTTCCTGCAGGGCTTCCTCAAATCCCGGGAACGCTCCAGCCACAAACTTTACTCTCAGCT
GCTGCACACACAGATGTTCTCACAGTTCATTGAGGAGTGCTCTTTTGGCTCTGCTCGCCATGCTGCCCTTGAATT
CTTTGACTCTTGTGTTGAAAAGGTCCACCCAGAGCAGGAGAAGCCTGAGCCGACACCCTTAGTGGAGCTAGAGGA
GCTGTCAGGAAGTGAGCTCACTGTCTTTATCACACCTCCCGAGGAGCCTGCCTTACCAGAGGGCAGTGAATCCAC
TCCCCAGTACTGCTATGATGGATTCCCAGAGCTACGGGCTGAGTTGTTTGAGTCTCTTCAAGAGCAACCTGGGGC
CCTGCCTGTGCCAGGCCCTTCCCGTAGCGCCCCCAGCAGTCCTGCTCCTCGCCGTACCAAACAGGAGATGAAAGT
TGCACAGCGGATGGCACAGAAGTCAGCAGCTGTGCCTGAGCTGTGGGCCCGGTGCCTGCTGGGGCACTGCTATGG
GCTGTGGTTCCTGTGTCTGCCTGCCTATGTGCGGTCGGCACCCTCCCGAGTGCAGGCACTGCACACAGCCTACCA
TGTGCTGCGCCAGATGGAGAGCGGCAAGGTGGTGCTCCCTGATGAGGTGTGTTACCGGGTACTGATGCAGCTCTG
CTCACACTATGGGCAGCCTGTGCTGTCTGTGCGGGTCATGCTGGAGATGCGTCAGGCAGGCATTGTGCCCAACAC
CATCACCTATGGCTACTACAATAAGGCTGTGTTGGAAAGCAAGTGGCCGTCTGGCACACCAGGTGGGCGTCTGCG
CTGGGCCAAGCTCCGGAATGTTGTCCTGGGGGCTGCTCAGTTCCGCCAGCCCTTGAGAGAACGGCAACAGCAGCA
GCAGCAGCAACAGCAGCAGCAGCAGCAGCAGCAGCAGGAGCAGGTGTCAGCACATCAAGAGGCAGGCAGCTCCCA
GGCAGAGCCCTATTTGGAGCGCCCTTCCCCTACTCGCCCTCTTCAGCGCCAGACTACTTGGGCTGGGCGAAGTCT
GAGAGACCCAGCCTCACCCCCTGGACGCCTGGTGAAGAGTGGTAGCCTGGGCAGTGCCCGAGGGGCACAGCCCAC
TGTGGAGGCCGGTGTGGCCCACATGATAGAGGCCTTGGGGGTCCTGGAACCCCGGGGATCACCTGTGCCCTGGCA
CGATGGAAGTCTCTCAGACCTGAGCCTGACAGGGGAGGAGCCGCTCCCTGGAGGCAGCCCAGGGGGCTCAGGCTC
AGCCCTGAGTGCCCAGTCCACTGAGGCCCTGGAAGGGCTAAGTGGGCGGGGACCCAAGGCTGGTGGGCGACAGGA
TGAGGCAGGCACCCCCCGACGAGGGCTGGGTGCCCGCCTCCAACAGCTGCTCACTCCTTCCCGCCACTCCCCTGC
CTCCCGCATTCCCCCACCTGAGCTGCCTCCTGACCTGCCACCCCCAGCCCGCCGCAGCCCCATGGACAGTCTTCT
GCACCCCCGGGAGCGCCCTGGATCCACTGCCTCCGAGAGCTCAGCCTCTCTGGGCAGTGAGTGGGACCTCTCAGA

FIGURE 1967B

ATCTTCTCTCAGCAACCTGAGTCTTCGCCGTTCCTCAGAGCGCCTCAGTGACACCCCTGGATCCTTCCAGTCACC
TTCCCTGGAAATTCTGCTGTCCAGCTGCTCCCTGTGCCGTGCCTGTGATTCGCTGGTGTATGATGAGGAAATCAT
GGCTGGCTGGGCACCTGATGACTCTAACCTCAACACAACCTGCCCCTTCTGCGCCTGCCCCTTTGTGCCCCTGCT
CAGTGTCCAGACCCTTGATTCCCGGCCCAGTGTCCCCAGCCCCAAATCTGCTGGTGCCAGTGGCAGCAAAGATGC
TCCTGTCCCTGGTGGTCCTGGCCCTGTGCTCAGTGACCGAAGGCTCTGCCTTGCTCTGGATGAGCCCCAGCTCTG
CAACGGGCACATGGGGGGAGCCTCCCGGCGGGTTGAGAGTGGGGCATGGGCATACCTGAGCCCCCTGGTGCTGCG
TAAGGAGCTGGAGTCGCTGGTAGAGAACGAGGGCAGTGAGGTGCTGGCGTTGCCTGAACTGCCCTCTGCCCACCC
CATCATCTTCTGGAACCTTTTGTGGTATTTCCAACGGCTACGCCTGCCCAGTATTCTACCAGGCCTGGTGCTGGC
CTCCTGTGATGGGCCTTCGCACTCCCAGGCCCCATCTCCTTGGCTAACCCCTGATCCAGCCTCTGTTCAGGTACG
GCTGCTGTGGGATGTACTGACCCCTGACCCCAATAGCTGCCCACCTCTCTATGTGCTCTGGAGGGTCCACAGCCA
GATCCCCCAGCGGGTGGTATGGCCAGGCCCTGTACCTGCATCCCTTAGTTTGGCACTGTTGGAGTCAGTGCTGCG
CCATGTTGGACTCAATGAAGTGCACAAGGCTGTGGGGCTCCTGCTGGAAACTCTAGGGCCCCCACCCACTGGCCT
GCACCTGCAGAGGGGAATCTACCGTGAGATATTATTCCTGACAATGGCTGCTCTGGGCAAGGACCACGTGGACAT
AGTGGCCTTCGATAAGAAGTACAAGTCTGCCTTTAACAAGCTGGCCAGCAGCATGGGCAAGGAGGAGCTGAGGCA
CCGGCGGGCGCAGATGCCCACTCCCAAGGCCATTGACTGCCGAAAATGTTTTGGAGCACCTCCAGAATGC**TAG**AG
ACCTTAAGCTTCCCTCTCCAGCCTAGGGTGGGGAAGTGAGGAAGAAGGGATTCTAGAGTTAAACTGCTTCCCTGT
TGCCTTCATGGAGTTGGGAACAGGCTGGGAAGGATGCCCAGTCAAAGGCTCCAAGCGAGGACAACAGGAAGAGGG
ATCCACTGTTACCAAAAGTCCTGATTCCCCCATCACCAACCTACCCAGTTTGTTCGTGCTGATGTTGGGGGAGAT
CTGGGGGGAGTTGGTACAGCTCTGTTCTTCCCTTGTCCTATACCGGGAACTCCCCTCCAGGGTACCCACAGATCT
GCATTGCCCTGGTCATTTTAGAAGTTTTTGTTTTAAAAAACAACTGGAAAGATGCAGAGCTACTGAGCCTTTGCC
CTGAATGGGAGGTAGGGATGTCATTCTCCACCAATAATGGTCCCTCTTCCCTGACGTTGCTGAAGGAGCCCAAGG
CTCTCCATGCCTTTCTACCTAAGTGTTTGTATTTTATTTTAAATTATTTATTCTGGAGCCACAGCCCCCTTGCTT
ATGAGGTTCTTATGGAGAGTGAGAAAGGGAAGGGAAATAGGGCACCATGGTCCGGTGGTTTGTAGTTCCTTCAAA
GTCAGGCACTGGGAGCTAGAGGAGTCTCAAGCTCCCCTTAGGAAGAACTGGTGCCCCCTCCAGTCCTAATTTTTC
TTGCCTGCCCCGCCTTGGGGAATGCCTCACCCACCCAGGTCCTGACCTGTGCAATAAGGATTGTTCCCTGCGAAG
TTTTGTTGGATGTAAATATAGTAAAAGCTGCTTCTGTCTTTTTC

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FIGURE 1968

ATCCACCTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCATACCCGGCCTCC**ATG**GAGCTATT
TAAAGCAGGTAGGCAAGTGAGCACTGCAGCCAATGCCACTGTATCCCTTGCAGGTATTCTGGATGGTGAAATGGA
CCCCAAAGGTATGTGTTCCTCACTGCTGTGGGTACTGAATGCCAAAGAATTTCTGGGCTGGTGTTGGGATTGTGT
GCAGGTTCAGGGAGCAGGACTCCTTCCCACCTGCTTCTGCTTCCTGTCCTGCCTTACTGGCTCTTTCTCCAACTC
TCCCATCACCAGTCTTTCTCTTTCAAGTACCTGCTAT**TGA**GGAGAACTTGCTAGATGACAAGCATTTGCTGAAGC
CATGGGATGCTAAGAAGCTATCCTCATCCTCTTCCCGACCTCGGTCCTGTGAAGTCCCTGGAATTAACATCTTTC
CATCTCCTGACCAGCCTGCCAATGTGCCTGTCCTCCCACCTGCCATGAACACGGGGGGCTCCCTACCTGACCTCA
CCAACCTGCACTTTCCCCCACCACTGCCCACCCCCCTGGACCCTGAAGAGACAGCCTACCCTAGCCTGAGTGGGG
GCAACAGTACCTCCAATTTGACCCACACCATGACTCACCTGGGCATCAGCAGGGGCATGGGCCTGGGCCCAGGCT
ATGATGCACCAGGACTTCATTCACCTCTCAGCCACCCATCCCTGCAGTCCTCCCTAAGCAATCCCAACCTCCAGG
CTTCCCTGAGCAGTCCTCAGCCCCAGCTTCAGGGCTCCCACAGCCACCCCTCTCTGCCTGCCTCCTCCTTGGCCC
GCCATGTACTGCCCACCACCTCCCTGGGCCACCCCTCACTCAGTGCTCCGGCTCTCTCCTCCTCCTCTTCCTCCT
CCTCCACTTCATCTCCTGTTTTGGGCGCCCCCTCTTACCCTGCTTCTACCCCTGGGG

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FIGURE 1969

GCCGGAAGCGCGCGGAGACCATGTAGTGAGACCCTCGCGAGGTCTGAGAGTCACTGGAGCTACCAGAAGCATCATG
GGGGCCCTGGGGAGAGCCAGAGCTCCTGGTGTGGCGCCCCGAGGCGGTAGCTTCAGAGCCTCCAGTGCCTGTGGG
GCTGGAGGTGAAGTTGGGGGCCCTGGTGCTGCTGCTGGTGCTCACCCTCCTCTGCAGCCTGGTGCCCATCTGTGT
GCTGCGCCGGCCAGGAGCTAACCATGAAGGCTCAGCTTCCCGCCAGAAAGCCCTGAGCCTAGTAAGCTGTTTCGC
GGGGGGCGTCTTTTTGGCCACTTGTCTCCTGGACCTGCTGCCTGACTACCTGGCTGCCATAGATGAGGCCCTGGC
AGCCTTGCACGTGACGCTCCAGTTCCCACTGCAAGAGTTCATCCTGGCCATGGGCTTCTTCCTGGTCCTGGTGAT
GGAGCAGATCACACTGGCTTACAAGGAGCAGTCAGGGCCGTCACCTCTGGAGGAAACAAGGGCTCTGCTGGGAAC
AGTGAATGGTGGGCCGCAGCATTGGCATGATGGGCCAGGGGTCCCACAGGCGAGTGGAGCCCCAGCAACCCCCTC
AGCCTTGCGTGCCTGTGTACTGGTGTTCTCCCTGGCCCTCCACTCCGTGTTCGAGGGGCTGGCGGTAGGGCTGCA
GCGAGACCGGGCTCGGGCCATGGAGCTGTGCCTGGCTTTGCTGCTCCACAAGGGCATCCTGGCTGTCAGCCTGTC
CCTGCGGCTGTTGCAGAGCCACCTTAGGGCACAGGTGGTGGCTGGCTGTGGGATCCTCTTCTCATGCATGACACC
TCTAGGCATCGGGCTGGGTGCAGCTCTGGCAGAGTCGGCAGGACCTCTGCACCAGCTGGCCCAGTCTGTGCTAGA
GGGCATGGCAGCTGGCACCTTTCTCTATATCACCTTTCTGGAAATCCTGCCCCAGGAGCTGGCCAGTTCTGAGCA
AAGGATCCTCAAGGTCATTCTGCTCCTAGCAGGCTTTGCCCTGCTCACTGGCCTGCTCTTCATCCAAATCTAGGG
GGCTTCAAGAGAGGGGCAGGGGAGATTGATGATCAGGTGCCCCTGTTCTCCCTTCCCTCCCCCAGTTGTGGGGAA
TAGGAAGGAAAGGGGAAGGGAAATACTGAGGACCAAAAAGTTCTCTGGGAGCTAAAGATAGAGCCTTTGGGGCTA
TCTGACTAATGAGAGGGAAGTGGGCAGACAAGAGGCTGGCCCCAGTCCCAAGGAACAAGAGATGGTCAAGTCGCT
AGAGACATATCAGGGGACATTAGGATTGGGGAAGACACTTGACTGCTAGAATCAGAGGTTGGACACTATACATAA
GGACAGGCTCACATGGGAGGCTGGAGGTGGGTACCCAGCTGCTGTGGAACGGGTATGGACAGGTCATAAACCTAG
AGTCAGTGTCCTGTTGGTCCTAGCCCATTTCAGCACCCTGCCACTTGGAGTGGACCCCTCCTACTCTTCTTAGCG
CCTACCCTCATACCTATCTCCCTCCTCCCATCTCCTAGGGGACTGGCGCCAAATGGTCTCTCCCTGCCAATTTTG
GTATCTTCTCTGGCCTCTCCAGTCCTGCTTACTCCTCTATTTTTAAAGTGCCAAACAAATCCCCTTCCTCTTTCT
CAAAGCACAGTAATGTGGCACTGAGCCCTACCCAGCACCTCAGTGAAGGGGGCCTGCTTGCTCTTTATTTTGGTC
CCGGATCCTGGGGTGGGGCAGAAATATTTTCTGGGCTGGGGTAGGAGGAAGGTTGTTGCAGCCATCTACTGCTGC
TGTACCCTAGGAATATGGGGACATGGACATGGTGTCCCATGCCCAGATGATAAACACTGAGCTGCCAAAACATTT
TTTTAAATACACCCGAGGAGCCCAAGGGGGAAGGGCAATGCCTACCCCCAGCGTTATTTTTGGGGAGGGAGGGCT
GTGCATAGGGACATATTCTTTAGAATCTATTTTATTAACTGACCTGTTTTGGGACCTGTTACCCAAATAAAAGAT
GTTTCTAG

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FIGURE 1970

AGAAAGAAAAGGTGTAGTGTTTGGGGAGGTCAACGGGCTATGCTGGCTTGACAGGGCTGGGCTCTTCAGAACAGA
AGC**ATG**GATCTCGGAATCCCTGACCTGCTGGACGCGTGGCTGGAGCCCCCAGAGGATATCTTCTCGACAGGATCC
GTCCTGGAGCTGGGACTCCACTGCCCCCCTCCAGAGGTTCCGGTAACTAGGCTACAGGAACAGGGACTGCAAGGC
TGGAAGTCCGGTGGGGACCGTGGCTGTGGCCTTCAAGAGAGTGAGCCTGAAGATTTCTTGAAGCTTTTCATTGAT
CCCAATGAGGTGTACTGCTCAGAAGCATCTCCTGGCAGTGACAGTGGCATCTCTGAGGACCCCTGCCATCCAGAC
AGTCCCCCTGCCCCCAGGGCAACCAGTTCTCCTATGCTCTATGAGGTTGTCTATGAGGCAGGGGCCCTGGAGAGG
ATGCAGGGGGAAACTGGGCCAAATGTAGGCCTTATCTCCATCCAGCTAGATCAGTGGAGCCCAGCATTTATGGTG
CCTGATTCCTGCATGGTCAGTGAGCTGCCCTTTGATGCTCATGCCCACATCCTGCCCAGAGCAGGCACCGTAGCC
CCAGTGCCCTGTACAACCCTGCTGCCCTGTCAAACCCTGTTCCTGACCGATGAGGAGAAGCGTCTGCTGGGGCAG
GAAGGGGTTTCCCTGCCCTCTCACCTGCCCCTCACCAAGGCAGAGGAGAGGGTCCTCAAGAAGGTCAGGAGGAAA
ATCCGTAACAAGCAGTCAGCTCAGGACAGTCGGCGGCGGAAGAAGGAGTACATTGATGGGCTGGAGAGCAGGGTG
GCAGCCTGTTCTGCACAGAACCAAGAATTACAGAAAAAAGTCCAGGAGCTGGAGAGGCACAACATCTCCTTGGTA
GCTCAGCTCCGCCAGCTGCAGACGCTAATTGCTCAAACTTCCAACAAAGCTGCCCAGACCAGCACTTGTGTTTTG
ATTCTTCTTTTTTCCCTGGCTCTCATCATCCTGCCCAGCTTCAGTCCATTCCAGAGTCGACCAGAAGCTGGGTCT
GAGGATTACCAGCCTCACGGAGTGACTTCCAGAAATATCCTGACCCACAAGGACGTAACAGAAAATCTGGAGACC
CAAGTGGTAGAGTCCAGACTGAGGGAGCCACCTGGAGCCAAGGATGCAAATGGCTCAACAAGGACACTGCTTGAG
AAGATGGGAGGGAAGCCAAGACCCAGTGGGCGCATCCGGTCCGTGCTGCATGCAGATGAGATG**TGA**GCTGGAACA
GACCTTCCTGGCCCACTTCCTGATCACAAGGAATCCTGGGCTTCCTTATGGCTTTGCTTCCCACTGGGATTCCTA
CTTAGGTGTCTGCCCTCAGGGGTCCAAATCACTTCAGGACACCCCAAGAGATGTCCTTTAGTCTCTGCCTGAGGC
CTAGTCTGCATTTGTTTGCATATATGAGAGGGTACCTCAAATACTTCTGTTATGTATCTGTGATTTTATTTCTTC
TTTGGGTATAGGGTTGAGGGGAAATAAGTTTTGAGTGAGAAATAAACGTTTTAGCTGAAATTGT

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FIGURE 1971

GCGAGGCGCCACCGACGCGGAAGACTATAAGCCCCAGCGGGCGACGACCGAACGCCCCCGGGAACACCGGGCCCC
GAGCTCGGTCCCGCGCCCGAGGATCCTCCACGGGGCTAGATGGCTGCGTCGGGGGCGGGAGCGGAGGTGAGCGGG
CGCTAGGGCCGCGAGCCCCCGCCGGCCCTTCCTCCAGCGCCCTGCGGACCCCGCAGAAGGCGCTCGCCTCCCTAG
CCCGCAAAAACATATCGATTTTTCTCGCTGTGGCAACGGGGACGTCCTGATAGATCCTCTGCTCCAATAGGCAAC
TCCGGCCTTCCCTGCCCTGACCTGGAACCTCTGGGAGGGCTGCAGAGTAAGTGCCGCCTCTGCGCTCCGACGGAG
GCACGAGGCCTGTGGAGTAGGTCCCTCTGTTCCGACAGGTGCGACACTTGGCGCTCC**ATG**CTTGCGGGTGCCGGG
AGGCCTGGCCTCCCCCAGGGCCGCCACCTCTGCTGGTTGCTCTGTGCTTTCACCTTAAAGCTCTGCCAAGCAGAG
GCTCCCGTGCAGGAAGAGAAGCTGTCAGCAAGCACCTCAAATTTGCCATGCTGGCTGGTGGAAGAGTTTGTGGTA
GCAGAAGAGTGCTCTCCATGCTCTAATTTCCGGGCTAAAACTACCCCTGAGTGTGGTCCCACAGGATATGTAGAG
AAAATCACATGCAGCTCATCTAAGAGAAATGAGTTCAAAAGCTGCCGCTCAGCTTTGATGGAACAACGCTTATTT
TGGAAGTTCGAAGGGGCTGTCGTGTGTGTGGCCCTGATCTTCGCTTGTCTTGTCATCATTCGTCAGCGACAATTG
GACAGAAAGGCTCTGGAAAAGGTCCGGAAGCAAATCGAGTCCATA**TAG**CTACATTCCACCCTTGTATCCTGGGTC
TTAGAGACCCTATCTCAGACAGTGAAAGTGAAATGGACTGATTTGCACTCTTGGTTCTTTGGAGCCTTGTGGTGG
AATCCCCTTTTCCCCATCTTCTTCTTTCAGATCATTAATGAGCAGAATAAAAAGAGTAAAATGGT

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FIGURE 1972

GGGAGGAAAACTTCTTCCTGGCCTGGGCTCCGTGCCGCTCTGTTTGCCAACCGTCCAGTCCCGCCTACCAGTGCC
GGGCGCTCCCCACCCCTCCCCCGGCTCCCCCGGTGTCCGCC**ATG**GCCAAAGCCTACGACCACCTCTTCAAGTTGC
TGCTGATCGGGGACTCGGGGGTGGGCAAGACTTGTCTGATCATTCGCTTTGCAGAGGACAACTTCAACAACACTT
ACATCTCCACCATCGGAATTGATTTCAAGATCCGCACTGTGGATATAGAGGGGAAGAAGATCAAACTACAAGTCT
GGGACACGGCTGGCCAAGAGCGGTTCAAGACAATAACTACTGCCTACTACCGTGGAGCCATGGGCATTATCCTAG
TATACGACATCACGGATGAGAAATCTTTCGAGAATATTCAGAACTGGATGAAAAGCATCAAGGAGAATGCCTCGG
CTGGGGTGGAGCGCCTCTTGCTGGGGAACAAATGTGACATGGAGGCCAAGAGGAAGGTGCAGAAGGAGCAGGCCG
ATAAGTTGGCTCGAGAGCATGGAATCCGATTTTTCGAAACTAGTGCTAAATCCAGTATGAATGTGGATGAGGCTT
TTAGTTCCCTGGCCCGGGACATCTTGCTCAAGTCAGGAGGCCGGAGATCAGGAAACGGCAACAAGCCTCCCAGTA
CTGACCTGAAAACTTGTGACAAGAAGAACACCAACAAGTGCTCCCTGGGC**TGA**GGACCCTTTCTTGCCTCCCCAC
CCCGGAAGCTGAACCTGAGGGAGACAACGGCAGAGGGAGTGAGCAGGGGAGAAATAGCAGAGGGGCTTGGAGGGT
CACATAGGTAGATGGTAAAGAGAATGAGGAGAAAAAGGAGAAAAGGGAAAAGCAGAAAGGAAAAAAAGGAAGAGA
GAGGAAGGGAGAAGGGAGAGGAATGAATTGAGGAAGTGAAAGAAGGCAAGGAGGTAGGAAGAGAGGGAGGAGGAA
AGGAAGGAGAGATGCCTCAGGCTTCAGACCTTACCTGGGTTTTCAGGGCAAACATAAATGTAAATACACTGATTT
ATTCTGTTACTAGATCAGGTTTTAGGGTCCTGCAAAAGGCTAGCTCGGCACTACACTAGGGAATTTGCTCCTGTT
CTGTCACTTGTCATGGTCTTTCTTGGTATTAAAGGCCACCATTTGCACAAAAAAAAAAAAAAA

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FIGURE 1973

CCTTTCCGGCGGTGACGACCTACGCACACGAGAAC**ATG**CCTCTCGCAAAGGATCTCCTTCATCCCTCTCCAGAAG
AGGAGAAGAGGAAACACAAGAAGAAACGCCTGGTGCAGAGCCCCAATTCCTACTTCATGGATGTGAAATGCCCAG
GATGCTATAAAATCACCACGGTCTTTAGCCATGCACAAACGGTAGTTTTGTGTGTTGGCTGCTCCACTGTCCTCT
GCCAGCCTACAGGAGGAAAAGCAAGGCTTACAGAAGGATGTTCCTTCAGGAGGAAGCAGCAC**TAA**AAGCACTCTG
AGTCAAGATGAGTGGGAAACCATCTCAATAAACACATTTTGGAT

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FIGURE 1974

ACTCAGGCAGCAGCCCCTTCTTTCTTGCCCCAGTCTCCAGTTCTCCAGTGTTCACAGGTGAGCCTACCAACAGCC
ACTGCTC**ATG**ATGGAGGCCATCAAGAAAAAGATGCAGATGCTGAAGTTAGACAAGGAGAATGCTCTGGATCGGGC
AGAGCAAGCTGAAGCTGAGCAGAAGCAGGCAGAAGAAAGAAGTAAACAGCTGGAGGATGAGCTGGCAGCCATGCA
GAAGAAGCTGAAAGGGACAGAGGATGAGCTGGACAAGTATTCTGAAGCTTTGAAGGATGCCCAGGAGAAGCTGGA
ACTGGCAGAGAAGAAGGCTGCTGATGCTGAGGCTGAGGTGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGA
AGAGCTGGACCGTGCTCAGGAGCGCCTGGCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAAAGCTGCTGATGA
GAGTGAGAGAGGTATGAAGGTTATTGAAAACCGGGCCTTAAAAGATGAAGAAAAGATGGAACTCCAGGAAATCCA
ACTCAAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGATCAT
TGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGGCAGAGTCTAAGTGTTCTGAGCTGGAGGAGGAGCT
GAAGAATGTCACCAACAACCTCAAGTCTCTTGAGGCTCAGGCGGAGAAGTACTCTCAAAAAGAAGATAAATATGA
GGAAGAAATCAAGATTCTTACTGATAAACTCAAGGAGGCAGAGACCCGTGCTGAGTTTGCTGAGAGATCGGTAGC
CAAGCTGGAAAAGACAATTGATGACCTGGAAGATGAGCTCTATGCCCAGAAACTGAAGTACAAGGCCATTAGCGA
GGAGCTGGACCACGCCCTCAATGACATGACCTCTATA**TAA**TTATCACCGTTTCTGCTCTGTTCTGGATCTGCCCC
CTTTACTCCTCGGGGAACCCAAGGCCCCACTCTCGCTCTGGATTCCATTTGGGTCAGCCTGGCTGGTCCCCAAGG
CATTAGGATGGGGGAGCAAAAAGCAACTTATGTATTTTCTTCCACCCCCACCCCAAATTAAAATGTTAAGCTGCT
GGA

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FIGURE 1975

GTCAGGGGGAAGCTGGAAGGCGTCGTTCTCCTTTCCCAGCTCTCCTGCCTGTCCGCCATGTTTTCAGGCCGGGTC
TGGCTTGGTCTTCCCCCGTAAGGAAATGGCCGGGGAGCTCCAGGGGACCCAGGCGCCGTCGCTTCGGCGGAGCCT
GGGCTGACCAGCCAGGACAGCGGGGTAAACCCGAACAATTCTGCGCGAGGTAGGGAGGCC**ATG**GCGTCCGGCAGT
AACTGGCTCTCCGGGGTGAATGTCGTGCTGGTGATGGCCTACGGGAGCCTGGACTTGAAAGAGGAGATTGATATT
CGACTCTCCAGGGTTCAGGATATCAAGTATGAGCCCCAGCTCCTTGCAGATGATGATGCTAGACTACTACAACTG
GAAACCCAGGGAAATCAAAGTTGCTACAACTATCTGTATAGGATGAAAGCTCTGGATGCCATTCGTACCTCTGAG
ATCCCATTTCATTCTGAAGGCCGGCATCCCCGTTCCTTAATGGGCAAGAATTTCCGCTCCTACCTGCTGGATCTG
CGAAACACTAGTACGCCTTTCAAGGGTGTACGCAAAGCACTCATTGATACCCTTTTGGATGGCTATGAAACAGCC
CGCTATGGGACAGGGGTCTTTGGCCAGAATGAGTACCTACGCTATCAGGAGGCCCTGAGTGAGCTGGCCACTGCG
GTTAAAGCACGAATTGGGAGCTCTCAGCGACATCACCAGTCAGCAGCCAAAGACCTAACTCAGTCCCCTGAGGTC
TCCCCAACAACCATCCAGGTGACATACCTCCCCTCCAGTCAGAAGAGTAAACGTGCCAAGCACTTCCTTGAATTG
AAGAGCTTTAAGGATAACTATAACACATTGGAGAGTACTCTG**TGA**CGGAGCTGAAGGACTCTTGCCGTAGATTAA
GCCAGTCAGTTGCAATGTGCAAGACAGGCTGCTTGCCGGGCCGCCCTCGGAACATCTGGCCCAGCAGGCCCAGAC
TGTATCCATCCAAGTTCCCGTTGTATCCAGAGTTCTTAGAGCTTGTGTCTAAAGGGTAATTCCCCAACCCTTCCT
TATGAGCATTTTTAGAACATTGGCTAAGACTATTTTCCCCCAGTAGCGCTTTTTTCTGGATTTGCATTCAGGTGT
TATTCTTAATGTTTCTGTCAAAGCTTCTTAAAAATCTTCACTTGGTTTCAGCCATAGTTCACCTTCCCTGTTCCA
GGTTTATTTAATTCCAAAGGTGAGAGTTGGAGTGAGATGTCTTCCATATCTATACCTTTGTGCACAGTTGAATGG
GAACTGTTTGGGTTTAGGGCATCTTAGAGTTGATTGATGGAAAAAGCAGACAGGAACTGGTGGGAGGTCAAGTGG
GGAAGTTGGTGAATGTGGAATAACTTACCTTTGTGCTCCACTTAAACCAGATGTGTTGCAGCTTTCCTGACATGC
AAGGATCTACTTTAATTCCACACTCTCATTAATAAATTGAATAAAAGGGAATGTTTTGGCACCTGATATAATCTG
CCAGGCTATGTGACAGTAGGAAGGAATGGTTTCCCCTAACAAGCCCAATGCACTGGTCTGACTTTATAAATTATT
TAATAAAATGAACTATTATCAAATAAAACGTATGAATCAGT

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FIGURE 1976

CCCGACTAAGTGACTTAAACTCCCACCTACTCCTGGAATAAGGAGTCAAAGCCCGGATAGGCGCAGTATTCTACC
TTGTAAATACTGTTATTTGTATATACTGTAA**ATG**ATGACATCGGTGGGCACTAACCGAGCCCGGGGAAACTGGGA
ACAACCTCAAAACCAAAACCAGACACAGCACAAGCAGCGGCCACAGGCCACTGCAGAACAAATTAGACTTGCACA
GATGATTTCGGACCATAATGATGCTGACTTTGAGGAGAAGGTGAAACAATTGATTGATATTACAGGCAAGAACCA
GGATGAATGTGTGATTGCTTTGCATGACTGCAATGGAGATGTCAACAGAGCTATCAATGTTCTTCTGGAAGGAAA
CCCAGACACGCATTCCTGGGAGATGGTCGGGAAGAAGAAGGGAGTCTCAGGCCAGAAGGATGGTGGCCAGACGGA
ATCCAATGAGGAAGGCAAAGAAAATCGAGACCGGGACAGAGACTATAGTCGGCGACGTGGTGGGCCACCAAGACG
GGGGAGAGGTGCCAGCCGTGGACGAGAGTTTCGAGGTCAGGAAAATGGATTGGATGGCACCAAGAGTGGAGGGCC
TTCTGGAAGAGGAACAGAAAGAGGCAGAAGGGGCCGTGGCCGAGGCAGAGGTGGCTCTGGTAGGCGAGGAGGAAG
GTTTTCTGCTCAAGGAATGGGAACCTTTAACCCAGCTGATTATGCAGAGCCAGCCAATACTGATGATAACTATGG
CAATAGCAGCGGCAATACGTGGAACAACACTGGCCACTTTGAACCAGATGATGGGACGAGTGCATGGAGGACTGC
AACAGAGGAGTGGGGGACTGAAGATTGGAATGAAGATCTTTCTGAGACCAAGATCTTCACTGCCTCTAATGTGTC
TTCAGTGCCTCTGCCTGCGGAGAATGTGACAATCACTGCTGGTCAGAGAATTGACCTTGCTGTTCTGCTGGGGAA
GACACCATCTACAATGGAGAATGATTCATCTAATCTGGATCCGTCTCAGGCTCCTTCTCTGGCCCAGCCTCTGGT
GTTCAGTAATTCGAAGCAGACTGCCATATCACAGCCTGCTTCAGGGAACACATTTTCTCATCACAGTATGGTGAG
CATGTTAGGGAAAGGATTTGGTGATGTCGGTGAAGCTAAAGGCGGCAGTACTACAGGCTCCCAGTTCTTGGAGCA
ATTCAAGACTGCCCAAGCCCTGGCTCAGTTGGCAGCTCAGCATTCTCAGTCTGGAAGCACCACCACCTCCTCTTG
GGACATGGGCTCGACGACACAATCCCCATCACTGGTGCAGTATGATTTGAAGAACCCAAGTGATTCAGCAGTGCA
CAGCCCCTTTACAAAGCGCCAGGCTTTTACCCCATCTTCAACCATGATGGAGGTGTTCCTTCAGGAGAAGTCACC
TGCAGTGGCTACCTCCACAGCTGCACCTCCACCTCCGTCTTCTCCTCTGCCAAGCAAATCCACATCGGCTCCACA
GATGTCGCCTGGATCTTCAGACAACCAGTCCTCTAGCCCTCAGCCGGCTCAGCAGAAACTGAAACAGCAGAAGAA
AAAAGCCTCCTTGACTTCTAAGATTCCTGCTCTGGCTGTGGAGATGCCTGGCTCAGCAGATATCTCAGGGCTAAA
CCTGCAGTTTGGGGCATTGCAGTTTGGGTCAGAGCCTGTCCTTTCTGATTATGAGTCCACCCCCACCACGAGCGC
CTCTTCAAGCCAGGCTCCAAGTAGCCTGTATACCAGCACGGCCAGTGAATCATCCTCTACAATTTCATCTAACCA
GAGTCAGGAGTCTGGTTATCAGAGCGGCCCAATTCAGTCGACAACCTATACCTCCCAAAATAATGCTCAGGGCCC
TCTTTATGAACAGAGATCCACACAGACTCGGCGGTACCCCAGCTCCATCTCTTCATCACCCCAAAAGGACCTGAC
TCAGGCAAAGAATGGCTTCAGTTCTGTGCAGGCCACGCAGTTACAGACCACACAATCTGTTGAAGGTGCTACAGG
CTCTGCAGTGAAATCTGATTCACCTTCCACTTCTAGCATCCCCCCTCTCAATGAAACGGTATCTGCAGCTTCCTT
ACTGACGACAACCAATCAGCATTCATCCTCCTTGGGTGGCTTGAGCCACAGTGAGGAGATTCCAAATACTACCAC
CACACAACACAGCAGCACGTTATCTACGCAGCAGAATACCCTTTCATCATCAACATCTTCTGGGCGCACTTCGAC
ATCCACTCTTTTGCACACAAGTGTGGAGAGTGAGGCGAATCTCCATTCTTCCTCCAGCACTTTTTCCACCACATC
CAGCACAGTCTCTGCACCTCCCCCAGTGGTCAGTGTCTCCTCCAGTCTCAATAGTGGCAGTAGCCTGGGCCTCAG
CCTAGGCAGCAACTCCACTGTCACAGCCTCGACTCGAAGCTCAGTTGCTACGACTTCAGGAAAAGCTCCTCCCAA
CCTCCCTCCTGGGGTCCCGCCGTTGTTGCCTAATCCGTATATTATGGCTCCAGGGCTGTTACATGCCTACCCGCC
ACAAGTATATGGTTATGATGACTTGCAGATGCTTCAGACAAGATTTCCATTGGATTACTACAGCATCCCATTTCC
CACACCCACTACTCCGCTGACTGGGAGGGATGGTAGCCTGGCCAGCAACCCTTATTCTGGTGACCTCACAAAGTT
CGGCCGTGGGGATGCCTCCTCCCCAGCCCCGGCCACAACCTTGGCCCAACCCCAACAGAACCAGACGCAGACTCA
CCATACCACGCAGCAGACATTCCTGAACCCGGCGCTGCCTCCTGGCTACAGTTACACCAGCCTGCCATACTATAC
AGGGGTCCCGGGCCTCCCCAGCACCTTCCAGTATGGGCCTGCTGTGTTCCCTGTGGCTCCTACCTCTTCCAAGCA
GCATGGTGTGAATGTCAGTGTGAATGCATCGGCCACCCCTTTCCAACAGCCGAGTGGATATGGGTCTCATGGATA
CAACACTGGAAGAAAATATCCACCCCCTTACAAGCATTTCTGGACGGCTGAGAGC**TAA**TTTGGCCCAAGGCTGGG
GGCTGTGTTTTGTGTGTGTGTATAAATTTGCACTGAAGTCTTGTTTCAGAAACCAGACCACTGAGGAGAGCCTGC
TGAGCTGAGGCCATGGCCTGCGTGGCTTGGGGAAATGAGTTGGTGGATACCTTCTGGGCTTTTGAACTTGCCCCT
CCCCCATTTCCCTCTCCCCCATGTGTCTGACCCTGTCTTACCCATTTCAAGTTCAAGCGGTGCAGCACCTTCGAA
GCATCAATGCACACACCTGCTGTTGCTTTTGATTTCTGGAAGGCATGTAGTTTCAACTTGTAACAAAAATATTTG
TAGTCTTCAATAAACTGTGGTATTTCTTTAGCTAAC

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FIGURE 1977

GTCCGGCTTACCGTCGTTTACGACAGTGTCAGGATCGCGGGCTTGCTTTCCGGTAGCGTGGGCTGACGCCTCGCT
CAATTTCTCACAGGGCTGCGCAGGTTTCCCCCGTCTGCGAATGGACCACTGGAGGGGTTCAAAGGTTCGCGTCCC
AGTACGGGA**ATG**AGCCTCTTTGATCTCTTCCGGGGCTTTTTCGGCTTTCCTGGACCTCGGAGCCACAGAGATCCC
TTTTTTGGAGGGATGACTCGAGATGAAGATGATGATGAGGAAGAAGAAGAAGAAGGGGGCTCATGGGGCCGTGGG
AACCCAAGGTTCCATAGTCCTCAGCACCCCCCTGAGGAATTTGGCTTCGGCTTCAGCTTCAGCCCAGGAGGAGGG
ATACGTTTCCACGATAACTTCGGCTTTGATGACCTAGTACGAGATTTCAATAGCATCTTCAGCGATATGGGGGCC
TGGACCTTGCCTTCCCATCCTCCTGAACTTCCAGGTCCTGAGTCAGAGACACCTGGTGAGAGACTACGGGAGGGA
CAGACACTTCGGGACTCAATGCTTAAGTATCCAGATAGTCACCAGCCCAGGATCTTTGGGGGGGTCTTGGAGAGT
GATGCAAGAAGTGAATCCCCCCAACCAGCACCAGACTGGGGCTCCCAGAGGCCATTTCATAGGTTTGATGATGTA
TGGCCTATGGACCCCCATCCTAGAACCAGAGAGGACAATGATCTTGATTCCCAGGTTTCCCAGGAGGGTCTTGGC
CCGGTTCTACAGCCCCAGCCCAAATCCTATTTCAAGAGCATCTCTGTGACCAAGATCACTAAACCAGATGGGATA
GTGGAGGAGCGCCGGACTGTGGTGGACAGTGAGGGCCGGACAGAGACTACAGTAACCCGACACGAAGCAGATAGC
AGTCCTAGGGGTGATCCAGAATCACCAAGACCTCCAGCCCTGGATGATGCCTTTTCCATCCTGGACTTATTCCTG
GGACGTTGGTTCCGGTCCCGG**TAG**CCTTGTTAACCCTCAGAGGCCTTCAAGTCCTTTCCACCTCTCACCCATTGC
CCACCATTAATAAGCTTAGCTTCTCTTGCCACCTCAGGGGCTTGGATATGTGGAATAGTGAACTGGGGCCATGTC
AGTTTGTCACTCACCCAAACTGACCAATAAAACCTTTATTTATGCT

FIGURE 1978A

AGCTCGCGGTGTCCCCGAGCGCCGGCGGCCGGGAGGATGGCCTGGGCTGCGGGTGGGGCGCGCGCCCGACGGCTG
GGGCTCCCCTCTGAGCGGCTGCGGCTCCTGCACCTCCCCGGGGAGCCGCCCCGTCGATGCCACTAAGGCCAAGGA
CATATAGACGGTCTGCCCTCCCCCACTCAAACCGGGATCATGACGGTCCCCAAGGAGATGCCCGAGAAGTGGGCC
CGGGCCCAGGCGCCTCCCTCTTGGAGCCGAAAGAAGCCCTCTTGGGGGACAGAAGAAGAAAGGAGGGCGCGGGCT
AATGACCGAGAATACAATGAGAAATTCCAGTATGCGAGTAACTGCATCAAGACCTCCAAGTACAATATTCTCACC
TTCCTGCCTGTCAACCTCTTTGAGCAGTTCCAGGAAGTTGCCAACACTTACTTCCTGTTCCTCCTCATTCTGCAG
TTGATCCCCCAGATCTCTTCCCTGTCCTGGTTCACCACCATTGTGCCTTTGGTTCTTGTCCTCACCATCACAGCT
GTTAAAGATGCCACTGATGACTATTTCCGCCACAAGAGCGATAACCAGGTGAATAACCGCCAGTCTCAGGTGCTG
ATCAATGGAATCCTCCAGCAGGAGCAGTGGATGAATGTCTGTGTTGGTGATATTATCAAGCTAGAAAATAACCAG
TTTGTGGCGGCGGATCTCCTCCTCCTTTCCAGCAGTGAGCCCCATGGGCTGTGTTACATAGAGACAGCAGAACTT
GATGGCGAGACCAACATGAAAGTACGTCAGGCGATTCCAGTCACCTCAGAATTGGGAGACATCAGTAAGCTTGCC
AAGTTTGACGGTGAAGTGATCTGTGAACCTCCCAACAACAAACTGGACAAATTCAGCGGAACCCTCTACTGGAAG
GAAAATAAGTTCCCTCTGAGCAACCAGAACATGCTGCTGCGGGGCTGTGTGCTGCGAAACACCGAGTGGTGCTTC
GGGCTGGTCATCTTTGCAGGTCCCGACACTAAGCTGATGCAAAACAGCGGCAGAACAAAGTTCAAAAGAACGAGT
ATCGATCGCCTAATGAATACCCTGGTGCTCTGGATTTTTGGATTCCTGGTTTGCATGGGGGTGATCCTGGCCATT
GGCAATGCCATCTGGGAGCACGAGGTGGGGATGCGTTTCCAGGTCTACCTGCCGTGGGATGAGGCAGTGGACAGT
GCCTTCTTCTCTGGCTTCCTCTCCTTCTGGTCCTACATCATCATCCTCAACACCGTTGTGCCCATTTCACTCTAT
GTCAGTGTGGAGGTCATCCGTCTGGGCCACAGCTACTTCATCAACTGGGATAAGAAGATGTTCTGCATGAAGAAG
CGGACGCCTGCAGAAGCCCGCACCACCACCCTAAACGAGGAGCTGGGCCAGGTGGAGTACATCTTCTCCGACAAG
ACGGGCACCCTCACCCAGAACATCATGGTTTTCAACAAGTGCTCCATCAATGGCCACAGCTATGGTGATGTGTTT
GACGTCCTGGGACACAAAGCTGAATTGGGAGAGAGAGGCCTGAACCTGTTGACTTCTCCTTCAATCCTCTGGCTG
ACAAGAAGTTCTTATTTTGGGACCCCAGCCTGCTGGAGGCTGTCAAGATCGGGGACCCCCACACGCATGAGTTCT
TCCGCCTCCTTTCCCTGTGTCATACTGTC**ATG**TCAGAAGAAAAGAACGAAGGAGAGCTGTACTACAAAGCTCAGT
CCCCAGATGAGGGGGCCCTGGTCACCGCAGCCAGGAACTTTGGTTTTGTTTTCCGCTCTCGCACCCCCAAAACAA
TCACCGTCCATGAGATGGGCACAGCCATCACCTACCAGCTGCTGGCCATCCTGGACTTCAACAACATCCGCAAGC
GGATGTCGGTCATAGTGCGGAATCCAGAGGGGAAGATCCGACTCTACTGCAAAGGGGCTGACACTATCCTACTGG
ACAGACTGCACCACTCCACTCAAGAGCTGCTCAACACCACCATGGACCACCTTAATGAGTACGCAGGGGAAGGGC
TGAGGACCCTGGTGCTGGCCTACAAGGATCTGGATGAAGAGTACTACGAGGAGTGGGCTGAGCGACGCCTCCAGG
CCAGCCTGGCCCAGGACAGCCGGGAGGACAGGCTGGCTAGCATCTATGAGGAGGTTGAGAACAACATGATGCTGC
TGGGTGCAACGGCCATTGAGGACAAACTTCAGCAAGGGGTTCCAGAGACCATTGCCCTCCTGACACTGGCCAACA
TCAAGATTTGGGTGCTAACCGGAGACAAGCAAGAGACGGCTGTGAACATCGGCTATTCCTGCAAGATGCTGACGG
ATGACATGACTGAGGTTTTCATAGTCACTGGCCATACTGTCCTGGAGGTGCGGGAGGAGCTCAGGAAAGCCCGGG
AGAAGATGATGGACTCATCCCGCTCCGTAGGCAACGGCTTCACCTATCAGGACAAGCTTTCTTCTTCCAAGCTAA
CTTCTGTCCTGGAGGCCGTTGCTGGGGAGTACGCCCTGGTCATAAATGGTCACAGCCTGGCCCACGCACTGGAGG
CAGACATGGAGCTGGAGTTTCTGGAGACAGCGTGTGCCTGCAAAGCTGTCATCTGCTGCCGGGTGACCCCCTTGC
AGAAGGCACAGGTGGTAGAACTGGTCAAGAAGTACAAGAAGGCTGTGACGCTTGCCATTGGAGACGGAGCCAATG
ATGTCAGCATGATCAAAACGGCTCACATTGGTGTGGGGATCAGTGGGCAGGAAGGGATCCAGGCTGTCTTGGCCT
CCGATTACTCCTTCTCCCAGTTCAAGTTCCTGCAGCGCCTCCTGCTGGTGCATGGGCGCTGGTCCTACCTGCGAA
TGTGCAAGTTTCTTTGCTATTTCTTCTACAAAAACTTTGCTTTCACCATGGTCCACTTCTGGTTTGGCTTCTTCT
GTGGCTTCTCAGCCCAGACCGTCTATGACCAGTATTTCATCACCCTGTATAACATCGTGTACACCTCCCTGCCAG
TCCTGGCTATGGGGGTCTTTGATCAGGATGTCCCCGAGCAGCGGAGCATGGAGTACCCTAAGCTGTATGAGCCGG
GCCAGCTGAACCTTCTCTTCAACAAGCGGGAGTTCTTCATCTGCATCGCCCAGGGCATCTACACCTCCGTGCTCA
TGTTCTTCATTCCCTATGGGGTGTTTGCTGATGCCACCCGGGATGATGGCACTCAGCTGGCTGACTACCAGTCCT
TTGCAGTCACTGTGGCCACATCCTTGGTCATTGTGGTTAGCGTGCAGATTGGGCTCGACACAGGCTACTGGACGG
CCATCAACCACTTCTTCATCTGGGGAAGCCTTGCTGTTTACTTTGCCATCCTCTTTGCCATGCACAGCAATGGGC
TCTTCGACATGTTTCCCAACCAGTTCCGGTTTGTGGGGAATGCCCAGAACACCTTGGCCCAGCCCACGGTGTGGC
TGACCATTGTGCTCACCACAGTCGTCTGCATCATGCCCGTGGTTGCCTTCCGATTCCTCAGGCTCAACCTGAAGC
CGGATCTCTCCGACACGGTCCGCTACACACAGCTCGTGAGGAAGAAGCAGAAGGCCCAGCACCGCTGCATGCGGC

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FIGURE 1978B

GGGTTGGCCGCACTGGCTCCCGGCGCTCCGGCTATGCCTTCTCCCATCAGGAGGGCTTCGGGGAGCTCATCATGT
CTGGCAAGAACATGCGGCTGAGCTCTCTCGCGCTCTCCAGCTTCACCACCCGCTCCAGCTCCAGCTGGATTGAGA
GCCTGCGCAGGAAGAAGAGTGACAGTGCCAGTAGCCCCAGTGGCGGTGCCGACAAGCCCCTCAAGGGC**TGA**AGGC
CGAGGATGGATGCCCTGTGCCAGTGACCAGAGCACCCAGGGCTGGCCAGTCACTGAGGGAACAGCGTCTCGGAAC
TGCTGGTCCTCATTCCTTGCTTCCCGTCCCCCCGGTAGACTCTGTCCTGCTGGTCCCACCACACATGGCTGGGAC
ATCTGTTCCCAGCTGTAGGCCCTTCCACCAGCTGGGGAGCTAGAGGGAGCAGGCCCAAGGGCAGAGCAGAGGCTG
AGGCACGGGGAGCCAGCCCCACTCGGGGACCAGAAGTGGAACCAAAAACAAGAAAAAACTGTGAGAGATTGTGTC
TGCCCCTGCCCTGCCTGGGACCCACAGGGAGACTATAATCTCCTTATTTTTTTACTCCTACTCCCCAGAGGGGCC
CTAGTGCCTCTGTTCCTGAATTACATAAGAATGTACCATGCCGGGAAGCCAGAGACCTGCAGGGGCCTCGGCCCC
TCACATCGTGTATGTCTCTCCTTGATTTGTGTTGTGTCCAGTTTGGTTTTGTCTTTTTTTATTTGGCAAGTGGAG
GAGGCTTTTATGTGACTTTTATGTTGTGGTTGGTGTCTTAACTCTCCTGGGAAAAGGAGGCTGGCACACACTGGG
ATGCCGCAGCCTGGCCGGCTGTGGGGTGGTTTGGGAGGATCCATGTCGGCTCTGCCTGCAGTGACCAGTGCTCTG
TGGGGCAGAGGAGCTGACCAGGGAGGGAGGTACCCATGAGCAGAGGGTAGTGGGAGAGTGTAAAGGAGGGTTTGG
TCCTGTCTGCTTCCTCACCTTGAGAGTAAAGTGCTGCCCTCTGCCCCCAACACACACACATATCAATTCCTGGAT
TCCTTAGTCCTGCTGGCCTTGGGCTGGAGCCTAGGAAAGTGGCCCCCAAATCCTTAGTGAGCTAAAGCTGGGTCT
GAAATTTGGTCAGTGGGGAGGGGTAGTTTTCTTTTCTTTTTTCTTTTTCTTTTTTTTCTTTTTTTTTTTGAGATGG
AGTCTCACTCTTGTCACCTAGGCAAGAGTGCAATGGCACAATCTCAGCTCACTGCAACCTCCACCTCCTGGGTTC
AAGCGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAGGCACACACCACCACGCTTGGTTAATTTTTGT
ATTTTTAGTAGAGATGTTTCACCATGTTGGCCAGGCTAGTCTTGAATTCCTGACCTCCTGACCTGCCCACCTCAA
CCTCCCAAAGTGCTGAGATTACAGGCGTGAGCCACCACACCCAGCTCAGGGAGGCGTAGTTTTCTTTAATTTTAA
ATTTAAACCCAAGTTTATTGGCAGACTCCCTTTTGACCTCCCTTTGCCTCCCCATCTGGTGCTTTCTTGCATCTA
CACCCCAGGGCCCTGTGGTGGGGCTGCAGGGGGAAGCTGTGCACCTGAGATGAGGCTGGAACGGGAATTGGCCTC
TCTGCTCCCTTCTTCAGTAAGCAAGGAGCCCCGCCCCTCAGGCCCAGCCTCTGGCAAGAGGTGGTGGAATCCTTG
TGCCGGGTAGTAGAGGAGGATAAGGGCAAAACCAGGCCCAGGCCAGTGCCTGGCTTGGTCTGGATGGGACACTGT
CAGAGTTTGGCCACAGCCTGTCCTTTACTTCATCCACACCTATGAAGCTATTCCCTAAATAAGGCATTTCCCAAG
TTAGTCGCTACCTAATCAGCCTTGAGAAGAATCCTTTCCTCTTCTTTGATAGTGGGTCGGGGGATTCTTCAGGAA
TGGTTTGGAGCTGGGAGTGGGTAGGGGGATTTTAAATGTTCCATATGGGAGCCCCAAAGGAACTGGATGGGCTGC
AGTGAGGTGGGGGCGGGTGGGCAGGGAATGGGAGAGGGGAAGTCTTGGCAGGGAAATCCCTTTTGGCCACACAGT
TTACAAACCCAGTATCATGTCTGTCTGTGTGTCTCTCAAGGTGAGAGTCTGATTTTTATACCAAAGAGGAAATGA
TTTTTTTTCATATTTTGTTTGTCTATATTATATAAATATATATATACAGTTATATATATATATATTATTTTTGG
TTCTCTCTCGTTTTTTAGGGAGGGAAGAAAGTACCAAGTTGCATTGAGCTGTAATTAAGGAACATTATAATTTAT
GACACATTTCTATACTTGCAAAAATTATATCATTTTATGGATATAAGAGAAAAATGCCTTTTTATAAAATTTCAA
TTTCTGA

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FIGURE 1979

CCTACAGAGGGGTCCATACCGTGTTGTTCTGGATTCCCGTTGTAACTTAAAGGGAAATTTTCACA**ATG**TCCAGAG
CCCTTGATGTCCTGCAAATGAAGGAGGAGGATGTCCTTAAGTTCCTTGCAGCAGGAACCCACTTAGGTGGCACTA
ATCTTGACTTCCAGATGGAACAGTACATCTATAAAAGGAAAAGTGATGGCATCTACATCATAAATCTGAAGAGGA
CCTGGGAGAAGCTTCTGCTGGCAGCTCGTGCCATTGTTGCCATTGAAAACCCTGCTGATGTCAGTGTTATATCCT
CCAGGAATACTGGCCAGAGGGCCATGCTGAAGTTTGCTGCTGCCACTGGAGCCACTCCAATTGCTGGCCACTTCA
CTCCTGGAACCTTCACTAACCGGATCCAGGCAGCCTTCCGGGAGCCACAGCTTCCTGTGGTTACTGACCCCAGGG
CTGACCACCAGCCTCTCACGGAGGTATCTTATGTTAACTTACCTACCATTGCGCTGTGTAACACAGATTCTCCTC
TGCGCTATGTGGACATTGCCATCCCATGCAACAATAAGGGAGCTCACTCAGTGGGTTGGATGTGGTGGATGCTGG
CTCAGGAAGTTCTGCGCATGCGTGGCACCATTTCCCGTGAACACCCATGGGAGGTCATGCCTGATCTCTGCTTCT
ACAGAGATCCTGAAGAGATTGAAAAAGAAGAGCAGGCTGCTGCTGAAGAGGCAGTGACCAAGGAGGAATTTCAGG
GTGAATGGACTGCTCCAGCTCCTGAGTTCACTGCTACTCAGCCTGAGGTTGCAGACTGGTCTGAAGGTCTGCAGG
TGCCCTCTGTGTCTATTCAG**TAG**TTCCCTACTGAAGACTGGAGCGCTCAGCCTGCCACGGAAGACTGGTCTGCAG
CTCCCACTGCTCAGGCCACTGAATGGGTAGGAGCAACCACTGAATGGTCTTAAGCTGTTCTTGCATGGGCTCTTA
AGCAACATGGAAAAATGGTTGATGGAAAATAAATAAACATCAGTTTCT

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FIGURE 1980

GGCGGTCCCCTGTTCTCCCCGCTCAGGTGCGGCGCTGTGGCAGGAAGCCACCCCCTCGGTCGGCCGGTGCGCGGG
GCTGTTGCGCCATCCGCTCCGGCTTTCGTAACCGCACCCTGGGACGGCCCAGAGACGCTCCAGCGCGAGTTCCTC
AAATGTTTTCCTGCGTTGCCAGGACCGTCCGCCGCTCTGAGTCATGTGCGAGTGGGAAGTCGCACTGACACTGAG
CCGGGCCAGAGGGAGAGGAGCCGAGCGCGGCGCGGGGCCGAGGGACTCGCAGTGTGTGTAGAGAGCCGGGCTCCT
GCGGATGGGGGCTGCCCCCGGGGCCTGAGCCCGCCTGCCCGCCCACCGCCCCGCCCCGCCCCTGCCACCCCTGCC
GCCCGGTTCCCATTAGCCTGTCCGCCTCTGCGGGACCATGGAGTGGTAGCCGAGGAGGAAGC**ATG**CTGGCCGTCG
GCTGCGCGCTGCTGGCTGCCCTGCTGGCCGCGCCGGGAGCGGCGCTGGCCCCAAGGCGCTGCCCTGCGCAGGAGG
TGGCGAGAGGCGTGCTGACCAGTCTGCCAGGAGACAGCGTGACTCTGACCTGCCCGGGGGTAGAGCCGGAAGACA
ATGCCACTGTTCACTGGGTGCTCAGGAAGCCGGCTGCAGGCTCCCACCCCAGCAGATGGGCTGGCATGGGAAGGA
GGCTGCTGCTGAGGTCGGTGCAGCTCCACGACTCTGGAAACTATTCATGCTACCGGGCCGGCCGCCCAGCTGGGA
CTGTGCACTTGCTGGTGGATGTTCCCCCCGAGGAGCCCCAGCTCTCCTGCTTCCGGAAGAGCCCCCTCAGCAATG
TTGTTTGTGAGTGGGGTCCTCGGAGCACCCCATCCCTGACGACAAAGGCTGTGCTCTTGGTGAGGAAGTTTCAGA
ACAGTCCGGCCGAAGACTTCCAGGAGCCGTGCCAGTATTCCCAGGAGTCCCAGAAGTTCTCCTGCCAGTTAGCAG
TCCCGGAGGGAGACAGCTCTTTCTACATAGTGTCCATGTGCGTCGCCAGTAGTGTCGGGAGCAAGTTCAGCAAAA
CTCAAACCTTTCAGGGTTGTGGAATCTTGCAGCCTGATCCGCCTGCCAACATCACAGTCACTGCCGTGGCCAGAA
ACCCCCGCTGGCTCAGTGTCACCTGGCAAGACCCCCACTCCTGGAACTCATCTTTCTACAGACTACGGTTTGAGC
TCAGATATCGGGCTGAACGGTCAAAGACATTCACAACATGGATGGTCAAGGACCTCCAGCATCACTGTGTCATCC
ACGACGCCTGGAGCGGCCTGAGGCACGTGGTGCAGCTTCGTGCCCAGGAGGAGTTCGGGCAAGGCGAGTGGAGCG
AGTGGAGCCCGGAGGCCATGGGCACGCCTTGGACAGAATCCAGGAGTCCTCCAGCTGAGAACGAGGTGTCCACCC
CCATGCAGTGCAAGATTCTTCTTCAGTACCACTGCCCACATTCCTGGTTGCTGGAGGGAGCCTGGCCTTCGGAAC
GCTCCTCTGCATTGCCATTGTTC**TGA**GGTTCAAGAAGACGTGGAAGCTGCGGGCTCTGAAGGAAGGCAAGACAAG
CATGCATCCGCCGTACTCTTTGGGGCAGCTGGTCCCGGAGAGGCCTCGACCCACCCCAGTGCTTGTTCCTCTCAT
CTCCCCACCGGTGTCCCCCAGCAGCCTGGGGTCTGACAATACCTCGAGCCACAACCGACCAGATGCCAGGGACCC
ACGGAGCCCTTATGACATCAGCAATACAGACTACTTCTTCCCCAGATAGCTGGCTGGGTGGCACCAGCAGCCTGG
ACCCTGTGGATGATAAAACACAAACGGGCTCAGCAAAAGATGCTTCTCACTGCCATGCCAGCTTATCTCAGGGGT
GTGCGGCCTTTGGCTTCACGGAAGAGCCTTGCGGAAGGTTCTACGCCAGGGGAAAATCAGCCTGCTCCAGCTGTT
CAGCTGGTTGAGGTTTCAAACCTCCCTTTCCAAATGCCCAGCTTAAAGGGGCTAGAGTGAACTTGGGCCACTGTG
AAGAGAACCATATCAAGACTCTTTGGACACTCACACGGACACTCAAAAGCTGGGCAGGTTGGTGGGGGCCTCGGT
GTGGAGAAGCGGCTGGCAGCCCACCCCTCAACACCTCTGCACAAGCTGCACCCTCAGGCAGGTGGGATGGATTTC
CAGCCAAAGCCTCCTCCAGCCGCCATGCTCCTGGCCCACTGCATCGTTTCATCTTCCAACTCAAACTCTTAAAAC
CCAAGTGCCTTAGCAAATTCTGTTTTTCTAGGCCTGGGGACGGCTTTTACTTAAACCGCCAAGGCTGGGGGAAGA
AGCTCTCTCCTCCCTTTCTTCCCTACAGTTGAAAAACAGCTGAGGGTGAGTGGGTGAATAATACAGTATCTCAGG
GCCTGGTCGTTTTCAACAGAATTATAATTAGTTCCTCATTAGCATTTTGCTAAATGTGAATGATGATCCTAGGCA
TTTGCTGAATACAGAGGCAACTGCATTGGCTTTGGGTTGCAGGACCTCAGGTGAGAAGCAGAGGAAGGAGAGGAG
AGGGGCACAGGGTCTCTACCATCCCCTGTAGAGTGGGAGCTGAGTGGGGGATCACAGCCTCTGAAAACCAATGTT
CTCTCTTCTCCACCTCCCACAAAGGAGAGCTAGCAGCAGGGAGGGCTTCTGCCATTTCTGAGATCAAAACGGTTT
TACTGCAGCTTTGTTTGTTGTCAGCTGAACCTGGGTAACTAGGGAAGATAATATTAAGGAAGACAATGTGAAAAG
AAAAATGAGCCTGGCAAGAATGTGTTTAAACTTGGTTTTTAAAAAACTGCTGACTGTTTTCTCTTGAGAGGGTGG
AATATCCAATATTCGCTGTGTCAGCATAGAAGTAACTTACTTAGGTGTGGGGGAAGCACCATAACTTTGTTTAGC
CCAAAACCAAGTCAAGTGAAAAAGGAGGAAGAGAAAAAATATTTTCCTGCCAGGCATGGTGGCCCACGCACTTCG
GGAGGTCGAGGCAGGAGGATCACTTGAGTCCAGAAGTTTGAGATCAGCCTGGGCAATGTGATAAAACCCCATCTC
TACAAAAAGCATAAAAATTAGCCAAGTGTGGTAGAGTGTGCCTGAAGTCCCAGATACTTGGGGGGCTGAGGTGGG
AGGATCTCTTGAGCCTGGGAGGTCAAGGCTGCAGTGAGCCGAGATTGCACCACTGCACTCCAGCCTGGGTGACAG
AGCAAGTGAGACCCTGTCTC

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FIGURE 1981A

GGACAAGGGCAAGATTATTAAGCAGCAAGAGACGGTCATCATTTTAGAAGACTATGCTGACCCTTATGATGCCAA
ACGGACAAAGGGTCAAAGGGATGCAGAGAGAGTCGGAGAGAACGACGGTTACATGGAACCATATGATGCACAGCA
AATGATAACAGAAATTAGACGACGGGGTTCCAAAGATCCCCTGGTGAAGGCTCTCCAGCTGCTTGACAGTCCCTG
TGAACCCGCAGACGGTGGCCTGAAATCAGAGACCTTGGCCAAAAGACGGAGTTCCAAGGACCTCCTGGGGAAGCC
GCCACAGCTATACGACACTCCCTACGAGCCTGCAGAAGGGGGGCCCAGGGCAGAGGGGAAGGCGCGGCCCCCAGA
CAGCCGGCTGCCCGAGAACGACGAGAGGCCCGCGGCAGAGTACGAGCAGCCATGGGAGTGGAAGAAGGAGCAGAT
CGTGCGGGCTCTGTCAGTCCAGTTTGAAGGAGCTGAGCGACCTTCCTTCAGGGAGGAGACAGTGAGGCAGCACCA
CCGGCAGAAGAGCTGGACCCAGAAGATCCTGAAGCCAGCCCTCTCGGACCACAGTGAGGGAGAGAAAGTGGACCC
GGGCCTGCCCCTGGAGAAGCAGCCCTGGTATCATGGTGCCATCAGCCGTGCTGAGGCTGAGAGTCGACTACAGCC
CTGCAAAGAAGCTGGTTACCTGGTTCGAAATAGTGAGTCAGGGAACAGCAGGTACTCCATTGCCCTAAAGACTAG
TCAAGGATGTGTCCACATCATAGTGGCTCAGACCAAAGACAACAAATACACACTGAATCAGACAAGCGCTGTGTT
TGACAGCATCCCTGAAGTGGTACACTATTATTCCAATGAAAAGTTGCCTTTCAAAGGGGCAGAACACATGACTTT
ACTCTACCCAGTGCACAGCAAGCTTCACTAAGATTCAGCCACTGCAAGCCCTGGGCCTCTGGCACCTTCAAGGGC
ATCATCAGCGCACAACCAGCATCTCAGAGGACAAGGCTGGACTAGCAACTGCTAGAAAATGGGAGTCTTCCTTGA
AAAGTCAGAGAGTGATTTGTTTTGTTTTGTTTGAGACGAAGTCTCGCTGTGTTGCCCAGGCTGGAGTGCAATGGC
GCAATCTTGGCTCACTGCAACATCTGACTCCTGGGTTCAAGCAGTTCTTCCCCATCAGCCTCCCAAGTAGGTGGG
ACTATAGGTTCGCACCACCACTCCCAGCTAATTTTTTTTTTTGTATTTTTAGTAGAGATGGGGTTTCGCCGTCTT
CGTCAGGCTGGTCTCAAACTCCTGACCTCAAATGATCCACCCACCTCAGTCTCCCCGAGTGCCTGGATTACAGGC
ATGAGCCACTGCACCCGGCCAAGTCTTTGGTCTTAAAGTGATTCCATGACACTTTGTTTGTGGCCTGTCCCTTGT
TTCCTTGCTAAGTAGTTCTACAATAAGAAATCATGATTTAGCTGTTGCCTCCAGCTCTGGGGTAGGGTGTTCTTT
TTATGGTGTGACCCTCAGGAAGGTTAAGTCAGGAGTTCAGGAGCATCAGAGTTCTCTAGAAATGTGCCTACTTGT
TACCTGGAATACCTGGTCTCTAAACAAACCAACAAAAAATCCACGTGGCTTTTCCACATGATGGTGCAGACTGGA
AGAGGATGTTATATTGGACTCGTTATTGGGGAAATGAATGAGCGGGAGAAAATGTGAATGACGGGCAAGAAGGTG
GTCTTTCTCCCTCAGAAGTCCTAATTCAGCTCTGGAGTTCATGGAAATCCGCAACTTCAGAGTGTGGCCTAAGGA
TTATTTTGTTGGTCAGCCTTTCCAAGAAAGTGTGTGTTCTCTCAATCTCTGTGGATTTTCTCATTTTTTAGCAAA
TCAGTGAGATAAGCATAAATAGGAAGGAAGATACCCCAGGTTTAAGAATCACCAATATCATTAGGCATTGGCATC
ATTATTAGAATTCTGAATTATAGAATAAAAGGTACAACAAAAATTTCATTTCTGAATTTTAAAATTCTGGAAATT
TGCAAAGCTCCACAACTGTTTTTTTACTGAATTAATTACATAGAACTTCGATGTCTTTTGTTTCATCATCATTGG
GCATTTTAGTTGCTATGGAATAATTTTTAATTTTTGTCTCTAAAATTAGATTTGCTTTGTAGTAAATTTTTTAAA
AATGCAACCCTAAGATCTGATTATATGAACTGGGTCTCTAAAGCCTACAAAGATTCTCTCGTTCTGTACCAAGCA
GACTGCCTTGTACTATACAGAAGTGTTTGAAAAGACCTAGAGGTTTTCTCTTAAATACCATTACTTAAGATTCAT
AGTATTAGGATCTTTATGATTTATCATGAGCTTATATCACCAGTTTATTTACTGTGAAAAAAACCATGGGAATGG
CATACTGTGAGAAGAGTACTATGGTGAATGGCTCCAGAATTAAAATTCAGCAGATGTGTCTGTATTCTGGGGTTG
GTCATTTGGGTCTCAAAACTGCCCCATATGCAAATGTACTGACTGTCATCAATGAAAAGTTAACCTTTGTAGCTT
ATAAATACACACAAAATGTTGATTTGGTTAATTTTTTAGGAAAGTATACCTTTGTAGTTACTAGTTACATTTGAC
TGTAAGATTTAGAGGTTAGTAAATTTTTGCTTCTTTATTCAGATAAGATCTCAGCCAAAAGGTTGTGTGATCTTT
GATTTTAAAAATTTAAGAGGAACTTTTCCTCACTGGAACACAATGATTTTATTAATAAAGAATGTAGGCTGGGTG
CGGTGGCTCATGCACGTAATCCCAACAATTTGGGAGGCTGAGGCAGGCAGATCACGTGAGGTCAGGAGTTTGAGA
CCAGCCTGGCCAACATGGTGAAACCCTGTCTGTAGTAAAAATACAAAAATTAGCTGGGCACGGTGGCGGGCACCT
GTAGTTCCAGCTGCTTGGGAGGCTGAGGCACGAGAATCACTTGAGCCCAGGAGGTGGAGGTTGCAGTGAGCCAAG
ATTATGTCACTGCACTCCATCCTGGGTGACAAGAGCGAAACTCCATCTCAAAAAAAAAAAAAAAAAAAAGCCTGG
CCTGGTGGTGGATGCCTGTGGTTCCAGCTATTCGGGAGGCTGAGGTAGGTGGATCACCTCTGCTCAGGTCAAGGC
TGCAGCGAGCCATGATCGCACCATTGCACTCCAGCCTGAGTGACAGAGTGAGACCCTGTCTCAACAAGCAAGCAA
ACAAAAAACCAAAAGGAATGTTTTTTTCAGATACTGATAGAATGTTTTCAGTGTGTATTGGTTCATTTACTATAT
CTTTAGTGTAAGATTTTAAAAGGTTTTTTCAGCATCCATTCAACAAATATTTATTATCTTTATACAAATTATTCA
TTGTGTTAAACTTATTTTTAGTTTAACATTCTAGAAATGAAACGTTTTTACTTAACCTTATTCTACAAAGGGAAT
ACAGCAGTTATTCTAATTTTAATAAATGCTAAAAGCTTTATACAATTTTTCTTTGTGCACTAAATGATTTTTGGC
CCATACCCAGCAACTGTGATGAATGTATAATGAAATAACATCTTGAAAACAGGCCAGATACATTAAGTATTTATT

FIGURE 1981B

GAGCTTCTGTCATATGCCCAGTATTATGCTTCTTCTATACTGTTTCTCTGTGACAAGTCATACTATATTCTTTAT
AGAATTAAAAGTAGAGGAGAGGCAGAGTTTACATATTGTCCAGTTGCTTTACAGTTGTACAGGAGGTTATAAGAA
GAAATATAGTAAATTAGTGGGAAGTCAGAGGTGGGGGCGTTAGTGAGCTATTTTCTTCTTGAGGTTGTGACACAA
GCTGACAAAAGCCAGGGAGTTCACAGCTGTGTGGTGGCACAAAGTTCCATATGTTCTAAAAACAATTAGGCCCAG
CAGGGTGTCCCTAATGGCTTCCTTGTTAAACCTCCATGGCCAGCTGATCTGAAGCTCTGTGACATGTTCTCTGAG
CTCTGAATGCTCTGGCTTTTTGTCATTTTGTCTTGAGACAAGTATTTTCCTGTAGTCCTCATTCCTTCGAGTTAT
TCCATCTCCCAGGATATTCTCTGGTGAGAAGAATGTCTTTCAGTGAATTTGCCTTGAATTTAGCATCCATAGAGC
TGTGTCAGTGTTCTTCTTGATCACACCTTCTTTAAAAAAAATACTTGCTTGCGATGACTGGACAAGTTCAGTTGG
TTAGTTTCAGGCCTATAAGAAGAGAGAGTAAAGGACCTTGCTATTTACTTTGATACCATAGTTGTATCTCAGGAT
GGCCTGCAAACCACTGGCCTTGTGTGTATTTAAGCTAGGAATAAAATAATGGAGAAGTGTTAATATGTATACAAA
AAGGTAAATATTGATATATCTACTCTCTGTTGGGGGCAGAAGTGTCATTTTAAGTTATTCAAAGCACTTTCTTAA
GCATTTTAGAAAGCCTTTATTCTTTGCTGTTGGAAGTCTCCGTACTTTGCAGAATTGGTATTTGTGTACTAGCCT
CTGCCGCAGGATGGGGAGGTGGGCAGGTAGCTGATAGGGGCAGCCAGGAGTTTTTGAGGCAGGTGGTGGGAAATT
GTCCTAATTTGTTAATTGGATTATGTAACTCTGTTACTAGTCTGTTATTGGCTGTTGTTACTGGATGCATCTTGA
TATTCAGAAGAATAACTGTGAGGCATTCTTCAGTTGCGGGTTAAGTGGGGTTAGTTTCTGTTCTGTCAGATGCCC
TTTTTCAGTCAAAGGTTAGCCCCTTGTTTCTCCCTCCTTCCAGGGTTTAGGGAGTGCAGTGATGTCGATTTCATT
TCCCTTCCCCGCACCCCTTGACACTCAGCAGGATTGCACTGAAACCCTTCACAGATCTCTCGTTCACTAGTTGTC
TCCTATTTTTCCATAACTAGCACTAGTTTGGCCTTATGACCTGGTTAGAATCACTCTTCTGTATTCTCATTTCCA
ATTTTTGTGCCCCACTAACGTGGACTAGAGAAACTTGGCCTGCTGTGCAGTGGGCCTTCTGTTCAACTTACCCTC
CACCGCTGACCCTGTGTGAAGAGAGATGGTGCGTTACTGCCATCTAATGGGAAAAGAGAAAACTGCAGTTGGGAA
AAGCAGCTGTGCATTTAAGGGTAGGGCTTTCTGAAGGATTTCTGATACAGTCCAGAAAAGGGAAAATGATGACAC
AGCAGTTGCCATCTTGAAAAATGCCCTTTCCTGCGGAAAGGGTGTTTTGAAGTCTAATACAACTATCATCACAAG
GTCCCTGGACTAAGGCTGGATCGTGTAATTTAGAATCTCAAATTGTATTTTAATTAATATGCTGGCAACAGAATC
ATTGAAACAGGCGTCTCATTTTGTCAAGTTCTTAGCCGTTCAGTTTGTCAGGGGCTTTAATATTTTAGATATCAA
CTAATACATAGTTTCAACTTTTAAAAATGTTTGAAGATTGTATGTAATATAGGTGTCTATCTATAGTGCCTTAGT
AATTTAAATCAGAAATATTTTATAAAACTTCTGGTTGTTTTGCAGTAGCCAATATAGGCTTCATGCCCTCCTGAA
GATAGTTTCCTCTGAAATGTAACTTTAAATAAACATTATTCCAAG

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FIGURE 1982

GGGGGGGGCCTGTCCCGGAGGTGGCGGCGGCGCCATCTTGGCGAAGGGGGGATCAGGAAGTGCGGACCGCGGCGG
CGGCGGCGGCGGCGGCGGCGGCGGCGGAGCCCGGAGCGCAGGCCGGAGGCTCCCGGCCCGCCGGCCCCGGAGCGG
AGCGGAGCGGAGGATGCAGCAGCCGCAGCCGCAGGGGCAGCAGCAGCCGGGGCCGGGGCAGCAGCTGGGGGGCCA
GGGGGCGGCGCCGGGGGCCGGGGGCGGCCCAGGGGGGGGCCCGGGGCCGGGGCCCTGCCTGAGGCGAGAGCTGAA
GCTGCTCGAGTCCATCTTCCACCGCGGCCACGAGCGCTTCCGCATTGCCAGCGCCTGCCTGGACGAGCTGAGCTG
CGAGTTCCTGCTGGCTGGGGCCGGAGGGGCCGGGGCGGGGGCCGCGCCCGGACCGCATCTCCCCCCACGGGGGTC
GGTGCCTGGGGATCCTGTCCGCATCCACTGCAACATCACGGAGTCATACCCTGCTGTGCCCCCCATCTGGTCGGT
GGAGTCTGATGACCCTAACTTGGCTGCTGTCTTGGAGAGGCTGGTGGACATAAAGAAAGGGAATACTCTGCTATT
GCAGCATCTGAAGAGGATCATCTCCGACCTGTGTAAACTCTATAACCTCCCTCAGCATCCAGATGTGGAGATGCT
GGATCAACCCTTGCCAGCAGAGCAGTGCACACAGGAAGACGTGTCTTCAGAAGATGAAGATGAGGAGATGCCTGA
GGACACAGAAGACTTAGATCACTATGAAATGAAAGAGGAAGAGCCAGCTGAGGGCAAGAAATCTGAAGATGATGG
CATTGGAAAAGAAAACTTGGCCATCCTAGAGAAAATTAAAAAGAACCAGAGGCAAGATTACTTAAATGGTGCAGT
GTCTGGCTCGGTGCAGGCCACTGACCGGCTGATGAAGGAGCTCAGGGATATATACCGATCACAGAGTTTCAAAGG
CGGAAACTATGCAGTCGAACTCGTGAATGACAGTCTGTATGATTGGAATGTCAAACTCCTCAAAGTTGACCAGGA
CAGCGCTTTGCACAACGATCTCCAGATCCTCAAAGAGAAAGAAGGAGCCGACTTCATTCTACTTAACTTTTCCTT
TAAAGATAACTTTCCCTTTGACCCACCATTTGTCAGGGTTGTGTCTCCAGTCCTCTCTGGAGGGTATGTTCTGGG
CGGAGGGGCCATCTGC**ATG**GAACTTCTCACCAAACAGGGCTGGAGCAGTGCCTACTCCATAGAGTCAGTGATCAT
GCAGATCAGTGCCACACTGGTGAAGGGGAAAGCACGAGTGCAGTTTGGAGCCAACAAATCTCAATACAGTCTGAC
AAGAGCACAGCAGTCCTACAAGTCCTTGGTGCAGATCCACGAAAAAAACGGCTGGTACACACCCCCAAAAGAAGA
CGGC**TAA**CCCTGGAGTATCACCCTTCCTCCCTCCCCAGGCACCACTGGACCAATTACCTTTGAATGCTGTATTTG
GATCTCACGCTGCCTCTGTGGTTCCCTCCCTCATTTTTCCTGGACGTGATAGCTCTGCCTATTGCAGGACAATGA
TGGCTATTCTAAACGCTAAGGAAAAAAAACAAACACAGAACTGTTTCAAGTACTCAAGACTGACTTACAGACCAA
CCAACCACCTTGCTGGAACCCTTGCTAGCAGGCATTCTTATAAAAGAAACTTTCGAGCCTCCTTATATTGCTGGA
AACTCAGCTGTGCTCCAGACTAGAGCCTCCTTACCTATGCTATGGATTTTTAATTTATTTTCTCTTATTTCATGT
ACACTGCTTTTTTTGGTTACAGTGTATGATGGATGTGTATGAAAAAAATGTATCTTTGGGAAAACAATTACAGTT
TGTTAATTTGAAGATGCTGGTCTTGACTCATCTTTATTTTTATTCGCACATCCCACCCCATCCCCTGAACTACTT
GGGAGGTGGGGAGGGGTACGAGTCCACTGTTGCTTTGGTAGAGATGAGAGGCCGCATTTTGCTGCTAAAGCAAGA
GAAACTTGGAGCTGAAGCACACACCTGGTCTGCCCCTAGATTTCTCCTCAAGGCCTCTGGAGCAACCAGCACTTG
CCCCCTTGGAATGCAGAGCCTGGCCTGCCAAACTACAATGTGGTAGGCTGAAACGATGGTGTTAATTCTTAGGAC
TACTTTTCTAGTCACAGATGTTTTCAAATTTCTAAGAAAAAGAAAATGAGGCTCAAGAGGCTGCTTCGTAGAATT
CCTTTTGAATGAATTGAGTGGGGATGGGGACACAGTCTCCAAGTGTGTATGTGGTCTTTTCTGATCTCAGCTGTG
TGGCTGCAACTCTTCGCTGTTCATTGGTTCCTCTCCTGGAAAGTGGCTTCTAACCAGCACTGGATGGTGATCATT
GGTAAGCTTTGCTCACCTCCCTCTCTCTTGCTTCATTTGGCTTTATCAAAAAGAACAGACCTAGCTCTGAATTTG
TTTGGCTTGGGAAATTATGGATTCTTTCAAGCCACTCCCACAAGGTGGGTCCTACTAGAAAGGGTTAGCATTTTA
AGGGGGGTTGTTCTATACACCTGTGTCCTTACCCCAGGCTCAGGAACTGCCAGGGAGGGAAGATGAGGTGGGGAG
TCTGTACTGAGATGGAACTGTCAGTGCTGTGTTGTATGTACTTGCTGTTGTAAAAGTTTGGGCATGACTTTGCAT
CTAGCGGGTGCTGCCTGCATCTCTTTGTCTGTAAGCTTGCTCTGGGACTCAGCCTCTTAGGACCTACGATGCCAG
CAGCTCTCATTAACAGTGAAATGACAGAGGCCAAAGATGGCCAAGTGAAGACCCAAGTCTCAGAAAACCCAGACT
TGGGACAACTGCCTGGGAACTAGGATGCTAGAGCAGTTCTGTAATGCTTTGAGACACAGCAATTTTCACATTGGC
CATTCTTTCCCCTCCCCTACCCCTTTTCTTTTGAGGGACTTTTAATGTTTGCTGCTTTAGGTGGATGGAGAGTCC
ACCAGTCCCACTCAATGCTGCTCTAACTCTACCCACACCCACCTAATTAGGGGTGCTAATAAAACATGCTGAGGT
TGAGATAAAGACGGGACATAAGGGGAAAATTCATTCCATAGAGCTGAAATCTGGTTTTCAAGGCCTCTGTGGCTT
TCTTCTGAACTTACCACCAGCCCTGGCTGGAATGTAGATTGTGTTTTTAGTAATGTGTACTGTGAGCTGTCTTCT
GTATAATGTATTTTGTAATGTATTTTTCTCATCTACCAAAGGATGAAACAAATAAAATTATTTAAATA

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FIGURE 1983

CTCCTCCCCCTCACCGTCCCAATTGTATTCCCTGGAAGAGCAGCCGGAAAAGCCTCCGCCTGCTCATACCAGGAT
AGGCAAGAAGCTGGTTTCTCCTCGCAGCCGGCTCCCTGAGGCCCAGGAACCACCGCGGCGGCCGGCACCACCTGG
ACCCAGCTCCAGGCGGGCGCGGCTTCAGCACCACGGACAGCGCCCCACCCGCGGCCCTCCCCCCGGCGGCGCGCT
CCAGCCGGTGTAGGCGAGGCAGCGAGCTATGCCCGCGGC**ATG**GCCCGGCGCTGCGGCCCCGTGGCGCTGCTCCTT
GGCTTCGGCCTCCTCCGGCTGTGCTCAGGGGTGTGGGGTACGGATACAGAGGAGCGGCTGGTGGAGCATCTCCTG
GATCCTTCCCGCTACAACAAGCTTATCCGCCCAGCCACCAATGGCTCTGAGCTGGTGACAGTACAGCTTATGGTG
TCACTGGCCCAGCTCATCAGTGTGCATGAGCGGGAGCAGATCATGACCACCAATGTCTGGCTGACCCAGGAGTGG
GAAGATTATCGCCTCACCTGGAAGCCTGAAGAGTTTGACAACATGAAGAAAGTTCGGCTCCCTTCCAAACACATC
TGGCTCCCAGATGTGGTCCTGTACAACAATGCTGACGGCATGTACGAGGTGTCCTTCTATTCCAATGCCGTGGTC
TCCTATGATGGCAGCATCTTCTGGCTGCCGCCTGCCATCTACAAGAGCGCATGCAAGATTGAAGTAAAGCACTTC
CCATTTGACCAGCAGAACTGCACCATGAAGTTCCGTTCGTGGACCTACGACCGCACAGAGATCGACTTGGTGCTG
AAGAGTGAGGTGGCCAGCCTGGACGACTTCACACCTAGTGGTGAGTGGGACATCGTGGCGCTGCCGGGCCGGCGC
AACGAGAACCCCGACGACTCTACGTACGTGGACATCACGTATGACTTCATCATTCGCCGCAAGCCGCTCTTCTAC
ACCATCAACCTCATCATCCCCTGTGTGCTCATCACCTCGCTAGCCATCCTTGTCTTCTACCTGCCATCCGACTGT
GGCGAGAAGATGACGTTGTGCATCTCAGTGCTGCTGGCGCTCACGGTCTTCCTGCTGCTCATCTCCAAGATCGTG
CCTCCCACCTCCCTCGACGTGCCGCTCGTCGGCAAGTACCTCATGTTCACCATGGTGCTTGTCACCTTCTCCATC
GTCACCAGCGTGTGCGTGCTCAACGTGCACCACCGCTCGCCCACCACGCACACCATGGCGCCCTGGGTGAAGGTC
GTCTTCCTGGAGAAGCTGCCCGCGCTGCTCTTCATGCAGCAGCCACGCCATCATTGCGCCCGTCAGCGCCTGCGC
CTGCGGCGACGCCAGCGTGAGCGCGAGGGCGCTGGAGCCCTCTTCTTCCGCGAAGCCCCAGGGGCCGACTCCTGC
ACGTGCTTCGTCAACCGCGCGTCGGTGCAGGGGTTGGCCGGGGCCTTCGGGGCTGAGCCTGCACCAGTGGCGGGC
CCCGGGCGCTCAGGGGAGCCGTGTGGCTGTGGCCTCCGGGAGGCGGTGGACGGCGTGCGCTTCATCGCAGACCAC
ATGCGGAGCGAGGACGATGACCAGAGCGTGAGTGAGGACTGGAAGTACGTCGCCATGGTGATCGACCGCCTCTTC
CTCTGGATCTTTGTCTTTGTCTGTGTCTTTGGCACCATCGGCATGTTCCTGCAGCCTCTCTTCCAGAACTACACC
ACCACCACCTTCCTCCACTCAGACCACTCAGCCCCCAGCTCCAAG**TGA**GGCCCTTCCTCATCTCCATGCTCTTTC
ACCCTGCCACCCTCTGCTGCACAGTAGTGTTGGGTGGAGGATGGACGAGTGAGCTACCAGGAAGAGGGGCGCTGC
CCCCACAGATCCATCCTTTTGCTTCATCTGGAGTCCCTCCTCCCCCACGCCTCCATCCACACACAGCAGCTCCAA
CCTGGAGGCTGGACCAACTGCTTTGTTTTGGCTGCTCTCCATCTCTTGTACCAGCCCAGGCAATAGTGTTGAGGA
GGGGAGCAAGGCTGCTAAGTGGAAGACAGAGATGGCAGAGCCATCCACCCTGAGGAGTGATGGGCAAGGGGCCAG
GAAGGGGACAGGATTGTCTGCTGCCTCCAAGTCATGGGAGAAGAGGGGTATAGGACAAGGGGTGGAAGGGCAGGA
GCTCACACCGCACCGGGCTGGCCTGACACAATGGTAGCTCTGAAGGGAGGGGAAGAGAGAGGCCTGGGTGTGACC
TGACACCTGCCGCTGCTTGAGTGGACAGCAGCTGGACTGGGTGGGCCCCACAGTGGTCAGCGATTCCTGCCAAGT
AGGGTTTAGCCGGGCCCCATGGTCACAGACCCCTGGGGGAGGCTTCCAGCTCAGTCCCACAGCCCCTTGCTTCTA
AGGGATCCAGAGACCTGCTCCAGATCCTCTTTCCCCACTGAAGAATTC

FIGURE 1984A

CGAAATTGAACCGGAGCCATCTTGGGCCCGGCGCGCAGACCCGCGGAGTTTCCCGTGCCGACGCCCCGGGGCCAC
TTCCAGTGCGGAGTAGCGGAGGCGTGGGGGCCTCGAGGGGCTGGCGCGGCCCAGCGGTCGGGCCAGGGTCGTGCC
GCCGGCGGGTCGGGCCGGGCAATGCCTCGCGGGCGCAATGAATCCGCGGCAGGGGTATTCCCTCAGCGGATACTA
CACCCATCCATTTCAAGGCTATGAGCACAGACAGCTCAGGTACCAGCAGCCTGGGCCAGGATCTTCCCCCAGTAG
TTTCCTGCTTAAGCAAATAGAATTTCTCAAGGGGCAGCTCCCAGAAGCACCGGTGATTGGAAAGCAGACACCGTC
ACTGCCACCTTCCCTCCCAGGACTCCGGCCAAGGTTTCCAGTACTACTTGCCTCCAGTACCAGAGGCAGGCAAGT
GGACATCAGGGGTGTCCCCAGGGGCGTGCATCTCAGAAGTCAGGGGCTCCAGAGAGGGTTCCAGCATCCTTCACC
ACGTGGCAGGAGTCTGCCACAGAGAGGTGTTGATTGCCTTTCCTCACATTTCCAGGAACTGAGTATCTACCAAGA
TCAGGAACAAAGGATCTTAAAGTTCCTGGAAGAGCTTGGGGAAGGGAAGGCCACCACAGCACATGATCTGTCTGG
GAAACTTGGGACTCCGAAGAAAGAAATCAATCGAGTTTTATACTCCCTGGCAAAGAAGGGCAAGCTACAGAAAGA
GGCAGGAACACCCCCTTTGTGGAAAATCGCGGTCTCCACTCAGGCTTGGAACCAGCACAGCGGAGTGGTAAGACC
AGACGGTCATAGCCAAGGAGCCCCAAACTCAGACCCGAGTTTGGAACCGGAAGACAGAAACTCCACATCTGTCTC
AGAAGATCTTCTTGAGCCTTTTATTGCAGTCTCAGCTCAGGCTTGGAACCAGCACAGCGGAGTGGTAAGACCAGA
CAGTCATAGCCAAGGATCCCCAAACTCAGACCCAGGTTTGGAACCTGAAGACAGCAACTCCACATCTGCCTTGGA
AGATCCTCTTGAGTTTTTAGACATGGCCGAGATCAAGGAGAAAATCTGCGACTATCTCTTCAATGTGTCTGACTC
CTCTGCCCTGAATTTGGCTAAAAATATTGGCCTTACCAAGGCCCGAGATATAAATGCTGTGCTAATTGACATGGA
AAGGCAGGGGGATGTCTATAGACAAGGGACAACCCCTCCCATATGGCATTTGACAGACAAGAAGCGAGAGAGGAT
GCAAATCAAGAGAAATACGAACAGTGTTCCTGAAACCGCTCCAGCTGCAATCCCTGAGACCAAAAGAAACGCAGA
GTTCCTCACCTGTAATATACCCACATCAAATGCCTCAAATAACATGGTAACCACAGAAAAAGTGGAGAATGGGCA
GGAACCTGTCATAAAGTTAGAAAACAGGCAAGAGGCCAGACCAGAACCAGCAAGACTGAAACCACCTGTTCATTA
CAATGGCCCCTCAAAAGCAGGGTATGTTGACTTTGAAAATGGCCAGTGGGCCACAGATGACATCCCAGATGACTT
GAATAGTATCCGCGCAGCACCAGGTGAGTTTCGAGCCATCATGGAGATGCCCTCCTTCTACAGTCATGGCTTGCC
ACGGTGTTCACCCTACAAGAAACTGACAGAGTGCCAGCTGAAGAACCCCATCAGCGGGCTGTTAGAATATGCCCA
GTTCGCTAGTCAAACCTGTGAGTTCAACATGATAGAGCAGAGTGGACCACCCCATGAACCTCGATTTAAATTCCA
GGTTGTCATCAATGGCCGAGAGTTTCCCCCAGCTGAAGCTGGAAGCAAGAAAGTGGCCAAGCAGGATGCAGCTAT
GAAAGCCATGACAATTCTGCTAGAGGAAGCCAAAGCCAAGGACAGTGGAAAATCAGAAGAATCATCCCACTATTC
CACAGAGAAAGAATCAGAGAAGACTGCAGAGTCCCAGACCCCCACCCCTTCAGCCACATCCTTCTTTTCTGGGAA
GAGCCCCGTCACCACACTGCTTGAGTGTATGCACAAATTGGGGAACTCCTGCGAATTCCGTCTCCTGTCCAAAGA
AGGCCCTGCCCATGAACCCAAGTTCCAATACTGTGTTGCAGTGGGAGCCCAAACTTTCCCCAGTGTGAGTGCTCC
CAGCAAGAAAGTGGCAAAGCAGATGGCCGCAGAGGAAGCCATGAAGGCCCTGCATGGGGAGGCGACCAACTCCAT
GGCTTCTGATAACCAGCCTGAAGGTATGATCTCAGAGTCACTTGATAACTTGGAATCCATGATGCCCAACAAGGT
CAGGAAGATTGGCGAGCTCGTGAGATACCTGAACACCAACCCTGTGGGTGGCCTTTTGGAGTACGCCCGCTCCCA
TGGCTTTGCTGCTGAATTCAAGTTGGTCGACCAGTCCGGACCTCCTCACGAGCCCAAGTTCGTTTACCAAGCAAA
AGTTGGGGGTCGCTGGTTCCCAGCCGTCTGCGCACACAGCAAGAAGCAAGGCAAGCAGGAAGCAGCAGATGCGGC
TCTCCGTGTCTTGATTGGGGAGAACGAGAAGGCAGAACGCATGGGTTTCACAGAGGTAACCCCAGTGACAGGGGC
CAGTCTCAGAAGAACTATGCTCCTCCTCTCAAGGTCCCCAGAAGCACAGCCAAAGACACTCCCTCTCACTGGCAG
CACCTTCCATGACCAGATAGCCATGCTGAGCCACCGGTGCTTCAACACTCTGACTAACAGCTTCCAGCCCTCCTT
GCTCGGCCGCAAGATTCTGGCCGCCATCATTATGAAAAAAGACTCTGAGGACATGGGTGTCGTCGTCAGCTTGGG
AACAGGGAATCGCTGTGTGAAAGGAGATTCTCTCAGCCTAAAAGGAGAAACTGTCAATGACTGCCATGCAGAAAT
AATCTCCCGGAGAGGCTTCATCAGGTTTCTCTACAGTGAGTTAATGAAATACAACTCCCAGACTGCGAAGGATAG
TATATTTGAACCTGCTAAGGGAGGAGAAAAGCTCCAAATAAAAAAGACTGTGTCATTCCATCTGTATATCAGCAC
TGCTCCGTGTGGAGATGGCGCCCTCTTTGACAAGTCCTGCAGCGACCGTGCTATGGAAAGCACAGAATCCCGCCA
CTACCCTGTCTTCGAGAATCCCAAACAAGGAAAGCTCCGCACCAAGGTGGAGAACGGAGAAGGCACAATCCCTGT
GGAATCCAGTGACATTGTGCCTACGTGGGATGGCATTCGGCTCGGGGAGAGACTCCGTACCATGTCCTGTAGTGA
CAAAATCCTACGCTGGAACGTGCTGGGCCTGCAAGGGGCACTGTTGACCCACTTCCTGCAGCCCATTTATCTCAA
ATCTGTCACATTGGGTTACCTTTTCAGCCAAGGGCATCTGACCCGTGCTATTTGCTGTCGTGTGACAAGAGATGG
GAGTGCATTTGAGGATGGACTACGACATCCCTTTATTGTCAACCACCCCAAGGTTGGCAGAGTCAGCATATATGA
TTCCAAAAGGCAATCCGGGAAGACTAAGGAGACAAGCGTCAACTGGTGTCTGGCTGATGGCTATGACCTGGAGAT

FIGURE 1984B

CCTGGACGGTACCAGAGGCACTGTGGATGGGCCACGGAATGAATTGTCCCGGGTCTCCAAAAAGAACATTTTTCT
TCTATTTAAGAAGCTCTGCTCCTTCCGTTACCGCAGGGATCTACTGAGACTCTCCTATGGTGAGGCCAAGAAAGC
TGCCCGTGACTACGAGACGGCCAAGAACTACTTCAAAAAAGGCCTGAAGGATATGGGCTATGGGAACTGGATTAG
CAAACCCCAGGAGGAAAAGAACTTTTATCTCTGCCCAGTA**TAG**TATGCTCCAGTGACAGATGGATTAGGGTGTGT
CATACTAGGGTGTGAGAGAGGTAGGTCGTAGCATTCCTCATCACATGGTCAGGGGATTTTTTTTTCTCCTTTTTT
TTTCTTTTTAAGCCATAATTGGTGATACTGAAAACTTTGGGTTCCCATTTATCCTGCTTTCTTTGGGATTGCTAG
GCAAGGTCTGGCCAGGCCCCCCTTTTTTCCCCCAAGTGAAGAGGCAGAAACCTAAGAAGTTATCTTTTCTTTCTA
CCCAAAGCATACATAGTCACTGAGCACCTGCGGTCCATTTCCTCTTAAAAGTTTTGTTTTGATTTGTTTCCATTT
CCTTTCCCTTTGTGTTTGCTACACTGACCTCTTGCGGTCTTGATTAGGTTTCAGTCAACTCTGGATCATGTCAGG
GACTGATAATTTCATTTGTGGATTACGCAGACCCCTCTACTTCCCCTCTTTCCCTTCTGAGATTCTTTCCTTGTG
ATCTGAATGTCTCCTTTTCCCCCTCAGAGGGCAAAGAGGTGAACATAAAGGATTTGGTGAAACATTTGTAAGGGT
AGGAGTTGAAAACTGCAGTTCCCAGTGCCACGGAAGTGTGATTGGAGCCTGCAGATAATGCCCAGCCATCCTCCC
ATCCTGCACTTTAGCCAGCTGCAGGGCGGGCAAGGCAAGGAAAGCTGCTTCCCTGGAAGTGTATCACTTTCTCCG
GCAGCTGGGAAGTCTAGAACCAGCCAGACTGGGTTAAGGGAGCTGCTCAAGCAATAGCAGAGGTTTCACCCGGCA
GGATGACACAGACCACTTCCCAGGGAGCACGGGCATGCCTTGGAATATTGCCAAGCTTCCAGCTGCCTCTTCTCC
TAAAGCATTCCTAGGAATATTTTCCCCGCCAATGCTGGGCGTACACCCTAGCCAACGGGACAAATCCTAGAGGGT
ATAAAATCATCTCTGCTCAGATAATCATGACTTAGCAAGAATAAGGGCAAAAAATCCTGTTGGCTTAACGTCACT
GTTCCACCCGGTGTAATATCTCTCATGACAGTGACACCAAGGGAAGTTGACTAAGTCACATGTAAATTAGGAGTG
TTTTAAAGAATGCCATAGATGTTGATTCTTAACTGCTACAGATAACCTGTAATTGAGCAGATTTAAAATTCAGGC
ATACTTTTCCATTTATCCAAGTGCTTTCATTTTTCCAGATGGCTTCAGAAGTAGGCTCGTGGGCAGGGCGCAGAC
CTGATCTTTATAGGGTTGACATAGAAAGCAGTAGTTGTGGGTGAAAGGGCAGGTTGTCTTCAAACTCTGTGAGGT
AGAATCCTTTGTCTATACCTCCATGAACATTGACTCGTGTGTTCAGAGCCTTTGGCCTCTCTGTGGAGTCTGGCT
CTCTGGCTCCTGTGCATTCTTTGAATAGTCACTCGTAAAAACTGTCAGTGCTTGAAACTGTTTCCTTTACTCATG
TTGAAGGGACTTTGTTGGCTTTTAGAGTGTTGGTCATGACTCCAAGAGCAGAGCAGGGAAGAGCCCAAGCATAGA
CTTGGTGCCGTGGTGATGGCTGCAGTCCAGTTTTGTGATGCTGCTTTTACGTGTCCCTCGATAACAGTCAGCTAG
ACACACTCAGGAGGACTACTGAGGCTCTGCGACCTTCAGGAGCTGAGCCTGCCTCTCTCCTTTAGATGACAGACC
TTCATCTGGGAACGTGCTGAGCCAGCACCCTCAGATGATTTCCCTCCAAACTGCTGACTAGGTCATCCTCTGTCT
GGTAGAGACATTCACATCTTTGCTTTTATTCTATGCTCTCTGTACTTTTGACCAAAAATTGACCAAAGTAAGAAA
ATGCAAGTTCTAAAAATAGACTAAGGATGCCTTTGCAGAACACCAAAGCATCCCAAGGAACTGGTAGGGAAGTGG
CGCCTGTCTCCTGGAGTGGAAGAGGCCTGCTCCCTGGCTCTGGGTCTGCTGGGGGCACAGTAAATCAGTCTTGGC
ACCCACATCCAGGGCAGAGAGGTCTGTGGTTCTCAGCATCAGAAGGCAGCGCAGCCCCTCTCCTCTTCAGGCTAC
AGGGTTGTCACCTGCTGAGTCCTCAGGTTGTTTGGCCTCTCTGGTCCATCTTGGGCATTAGGTTCTCCAGCAGAG
CTCTGGCCAGCTGCCTCTTCTTTAACTGGGAACACAGGCTCTCACAAGATCAGAACCCCCACTCACCCCCAAGAT
CTTATCTAGCAAGCCTGTAGTATTCAGTTTCTGTTGTAGGAAGAGAGCGAGGCATCCCTGAATTCCACGCATCTG
CTGGAAACGAGCCGTGTCAGATCGCACATCCCTGCGCCCCCATGCCCCTCTGAGTCACACAGGACAGAGGAGGCA
GAGCTTCTGCCCACTGTTATCTTCACTTTCTTTGTCCAGTCTTTTGTTTTTAATAAGCAGTGACCCTCCCTACTC
TTCTTTTTAATGATTTTTGTAGTTGATTTGTCTGAACTGTGGCTACTGTGCATTCCTTGAATAATCACTTGTAAA
AATTGTCAGTGCTTGAAGCTGTTTCCTTTACTCACATTGAAGGGACTTCGTTGGTTTTTTGGAGTCTTGGTTGTG
ACTCCAAGAGCAGAGTGAGGAAGACCCCCAAGCATAGACTCGGGTACTGTGATGATGGCTGCAGTCCAGTTTTAT
GATTCTGCTTTTATGTGTCCCTTGATAACAGTGACTTAACAATATACATTCCTCATAAATAAAAAAAAAACAAGA
ATCTGAATTCTT

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FIGURE 1985

ATGCGTGCAGGCCCGGAGCCCCAGGCGCTGGCGGGGCAGAAACGCGGCGCCCTGCGTCTTCTGGTTCCGAGGCTG
GTCCTCACCGTTTCCGCTCCGGCGGAAGTGAGGAGGAGGGTCCTTCGACCCGTGCTGAGCTGGATGGACCGCGAG
ACGCGCGCCCTCGCCGACAGCCACTTCCGAGGCCTGGGGGTCGATGTCCCCGGCGTCGGCCAGGCTCCGGGCCGG
GTAGCCTTCGTCTCGGAGCCGGGCGCCTTCTCCTACGCCGACTTTGTGCGGGGCTTCTTGCTGCCCAACCTGCCC
TGCGTGTTTTCCAGCGCCTTCACGCAGGGCTGGGGCAGCCGGCGGCGCTGGGTGACGCCCGCGGGGAGGCCCGAC
TTCGACCACCTGCTACGGACCTACGGAGACGTGGTTGTACCAGTTGCAAACTGTGGGGTCCAGGAATACAACTCG
AACCCCAAAGAGCACATGACTCTCAGAGACTACATCACCTACTGGAAAGAGTACATACAGGCGGGCTACTCCTCT
CCCAGGGGCTGTCTCTACCTCAAAGACTGGCACTTGTGCAGGGACTTTCCGGTGGAGGACGTTTTCACCCTGCCT
GTGTACTTCTCGTCCGACTGGCTGAATGAGTTCTGGGATGCACTGGATGTGGATGACTACCGCTTTGTCTACGCG
GGGCCTGCGGGCAGCTGGTCCCCGTTCCATGCTGACATCTTCCGCTCCTTCAGCTGGTCTGTCAATGTCTGTGGG
AGGAAGAAGTGGCTCCTCTTCCCCCCAGGGCAGGAAGAGGCCCTGCGGGACCGCCACGGCAACCTGCCCTACGAC
GTGACCTCCCCAGCACTCTGCGACACACACCTGCACCCACGGAACCAGCTTGCTGGCCCACCCTTGGAGATCACG
CAGGAAGCGGGCGAGATGGTGTTTGTGCCCAGTGGCTGGCACCACCAGGTGCACAACCTGGATGACACCATCTCC
ATCAACCACAACTGGGTCAATGGCTTCAACCTGGCCAACATGTGGCGCTTCTTGCAGCAGGAGCTATGCGCCGTG
CAGGAGGAGGTCAGCGAGTGGAGGGACTCCATGCCCGACTGGCACCACCACTGCCAGGTCATCATGAGGTCCTGC
TCGGGCATCAACTTTGAAGAGTTTTACCACTTCCTCAAGGTCATCGCTGAGAAGAGGCTCCTGGTCCTGAGGGAG
GCAGCCGCTGAGGACGGTGCTGGGTTGGGTTTCGAACAGGCAGCCTTTGATGTTGGGCGCATCACAGAGGTGCTG
GCCTCCTTGGTTGCGCACCCCGACTTCCAGAGAGTGGACACCAGCGCGTTCTCACCACAGCCCAAAGAGCTGCTG
CAGCAGCTGAGAGAGGCTGTTGATGCTGCTGCGGCCCCATAGCACCTGTCGTGAGGATAGAAGGACGGGTGGAAG
AGAGGCAGCCTCCTGCTCCGGGGCCCTTCCAGAAATAAAGACCGCCCTCCCTGTGACCTGGGGCCCACCCCTGTC
GAGGCTTGTGGCCTGGCTGTTCATGGCCACTGCCTGGGTGCCTGTTTTCAGGTGAGGCCCAATGAGGTCAGGGAC
CCAAGATGGGATGTGGCCCTTCTGACCTGCAGCAGGCCTGCTGGGAGCTCGGAGATGGTGCCAGGACCTGGCTCT
TTTGGGGGCCCTGCCTCCTTAGGCCAGGACGCCTGAGCTGACAGGAGTCTGTGTCTGGTGTGCCTTCTCTGGTGG
CTCCTCTTAATAGGCCAGCCCTGTCCCCTCGTCTCAGGCCATTGGACCACCCCTGGCTCTGCCCTGTGGGTTCAG
GGAGGGGTTGGAGCAGTGCTGGGCAAGCTCACCAGGGCCTCCAGGCAGGGCTGGGGTTGGCCTCCATCACCTCCA
GGTGATGGGCTGTGGAACCAGCGGCCTGCGCCTTCCTCTGGGTACCCAGAGTGGAGGGCTGGGTTGGGCTGGCCT
TTGCCACCTCCCTGCCTTTGCAGGGCCTGTGGACAGCTGGAGAGGCCACAGATGGGGTGGAATCCCATCTGCTGC
TGAATCCTCACCTGGGCCTGAGGGACTGTGCCTGCTGTGCACTCACAGCTGGGTCTTCCCAAGGATGCTGTTCTC
AGGAGTGGTGGGTCCCCAGCCCCTCTTCACACTGGGTATGATGGAGGTGTGGGCGGGCTCGTCCAGGCCGATCAA
GGCACAGCAGTGAGCAGCGGAGGCCTGTGGTGGGGAATGGACTCTCGTGGGATCCTCTTGCAGAGGATGCCCCAG
GCCTGAACCCTCTAGTGGATCCACAGTTTGTGGAGACTGGCACTCTCCCAGCCCTGTCCTTGACCGAGAGTCCAG
CATTTTTTCAGTTGGCCCCTGGTTGGCTGCCTCACCCCAGCAGGGGAGGAGGCATCCGAATCCACAGGGACGGCA
CGTGCCATGGCTATGCACATTGCCTGCCCGTGGCATCAACTGGGGCCGCTGGCACTTGTCTAGGATGGAAGCCCC
CAAGAAGGGCAGGGGTTTCTGTCTGCTCTGTTCAGTGAATCATGTGAAGTGCTTGCAAAGGCAGCTTTACACAGT

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FIGURE 1986

GAAGGCGCCCGGCTCCGAGACGAAGGCTACCCGGCCCGGAGCCTGGCCGACGCCGGGGACATCGACCCCCAGGCC
TCGGAAGTGGCTGTCGGCGAGGGCGCGCGTCTCGCGGTCCATCCAGCTCAGCACGGGTCGAAGGACCCTCCTCCT
CACTTCCGCCGGAGCGGAAACGGTGAGGACCAGCCTCGGAACCAGAAGACGCAGGGCGCCGCGTTTCTGCCCCGC
CAGCGCCTGGGGCTCCGGGCCTGCACGC**ATG**CGCGCGGCTCGCCGCGGTCTTCACTGCGCAGGCGCCGAGCGGCC
GAGGCGCCGCGGTCGGCTCTGGGACTCGTCTGGCGTCCCTCAGAGGCAGAAGAGGCCTGGACCTTGGCGCACACA
GACCCAGGAACAGATGAGCAGGGATGTCTGCATCCACACCTGGCCGTGCACCTACTACCTGGAGCCCAAGAGGCG
ATGGGTTACTGGACAGCTGTCCTTAACATCGCTGTCGCTCAGGTTCATGACTGACAGCACTGGAGAGATTCTGGT
CAGCTTCCCCCTCTCCAGCATAGTTGAGATCAAGAAGGAGGCTTCACATTTTATCTTCAGCTCCATCACCATCCT
GGAGAAGGGCCATGCCAAGCACTGGTTCAGCTCCCTGCGGCCAAGTCGAAATGTGGTCTTCAGCATCATCGAGCA
TTTCTGGAGGGAGCTGCTGCTGTCTCAGCCTGGAGCCGTGGCAGACGCATCTGTCCCAAGGACCCGGGGCGAGGA
GCTGACGGGACTCATGGCTGGATCCCAGAAACGCCTGGAGGACACGGCGAGGGTCCTGCACCACCAGGGCCAGCA
GCTGGACAGCGTCATGAGAGGCCTGGACAAGATGGAGTCAGACCTGGAGGTGGCGGACAGATTGCTGACAGAACT
GGAATCTCCTGCTTGGTGGCCCTTTAGCTCCAAGCTTTGGAAGACACCACCGGAAACAAAGCCCAGGGAAGATGT
CTCCATGACCAGTTGTGAACCCTTTGGGAAAGAAGGGATACTGATAAAAATTCCTGCTGTTATTTCCCACAGAAC
AGAGTCTCACGTTAAACCAGGGAGGCTCACCGTCCTTGTGTCTGGGTTGGAAATACATGACTCCAGTTCTTTGCT
CATGCACAGGTTTGAAAGAGAAGACGTGGACGACATCAAGGTCCACTCACCTTACGAAATTAGCATCCGCCAGCG
GTTTATTGGAAAGCCAGACATGGCCTATCGTTTGATATCTGCCAAGATGCCAGAGGTTATCCCCATTTTAGAAGT
GCAGTTCAGCAAGAAGATGGAGCTGTTAGAAGATGCATTGGTGCTCAGAAGCGCAAGAACCTCTTCCCCCGCAGA
GAAGAGCTGCTCAGTCTGGCATGCAGCATCTGGGCTGATGGGCCGTACCCTGCACCGTGAGCCACCCGCAGGAGA
CCAGGAGGGCACAGCACTGCACCTGCAGACAAGCCTGCCAGCCCTTTCTGAGGCAGATACCCAGGAACTAACCCA
GGGCTTCCGGCCTATGTCGCTGTCAACCCAGACAGTGTTGGTGATGCTTTGCTCCGAGTCTGCAGGAGCTTTGTG
GAGACAGAGACTTTCC**TAG**CAGGGCAGCAAGCGGAAGCTTTTCTTCCAGAACAGCCTTTGCTCAGGGCATGAGGG
AGCCGGCCAGGCCCACAGCGCCCAGGGCATCCTCCTCACGGATGTGTTGGAGGAAAGTGGCTTTGGTGCTATCCT
GGGGGACCATGGCCATAAGCTGGCAGTGTCAGCCACGCATCAGTTGCGTTTCTTTGTTCAGGTTGTGCCTCTTGC
TGCCTGCCTGAGTCACCCAGGGCTGCTCCCCTTCCTGGCTCTGACGCCCTCAGCGGGTCCCACAAGCCGCTCAGG
ACCACAGAGTCTGGCCATGGGTCTGGCCAGGCATCCACTGATGCTCTAAGCTGCAGCTTCTCTTAGGAACACTTC
TATCAGGTCTGGCTCGCAGGCATGCCCCAGGGCCAGCCTGGATTGTACTGTCCTTCAAGCACTCCTTGCTCTATT
TCTTTGAAGTTTATAAAAGTTTGTTTCCCCCAAAACCCAAAGCACTTTTAATCAGGTAGTTTCTGTGGAGGTCGA
ACTGGCTGGAAGGAAGGCTGGTTCCTGGATTTCTTTACTCATGTAGCAGGGACTCAAGGAAGTCTGATTTGCGCC
TCGCCTCTGACTCAGAGCCCATGAAGGTTCCTGTGTGAGGCCACTGGCTGCCTCGGAGCTGACAGCATCCTGCAC
AATGGCTAGATGGCTTGTCACCCCAGGCCGCAGAGGAACAACTGTTTCTAGGGTTTGGCCAGACTTCACATTCTC
CATTCTTTCCATCCCTGTTATGTGGAATGCACACGATGCCATGTAATTACTTCAGTCCCTTCTCAAAGGAAAAAG
AATCTGGACCTGCACTCCAGGACACTAGCAGTTTGAAGGTTCGCTCAGGAATGTTCTTTGTCTGCAGACCTAGCA
GCTGTACAGATCGCTCTTGTGTTTTTGCACTATTAATTAACTTCAAGTGCAATTTTGGCAGGCAGGCCAAGGGTC
TCAACAGGCTATTTGGAATGAGTTCTCTTTTAAGGCCTTCAACGTAGTGAGACATTTTCAAATCAAAAAGTACAG
CAGGAGCCAGCCTTTATTTTGTCTGTGTACACAATAAAATATTCCGCTTCTATAGGC

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FIGURE 1987

GCTTCCGCCTCGGCTCCTCTTCCTGCCGGCATCCGGGATCCCTACGTCCCGCGTCCCCCGAGCGCTCGGAGCCTA
CGCGCCCAGCGCTACCGAAACCCAGAGTCCTGCGCCCTGGAGTCCCCGCGCCCCGGAGCCCGAGCACCCGGGAGT
CCCGAGCCTCGCGCCCCGGAGTGCCCGAGCCTGCGCCGCCGCACCCGGATACCCCGGGTCCCCGCGAGCTGCCGA
GGCCGCCCGCCGCCGCCCCGCGGACAGTACCGCCTTCCTCCCCTCTGTCCGCGCCATGGCCGCCCCCGACCTGTC
CACCAACCTCCAGGAGGAGGCCACCTGCGCCATCTGCCTCGACTACTTCACGGATCCGGTGATGACCGACTGCGG
CCACAACTTCTGCCGCGAGTGCATCCGGCGCTGCTGGGGCCAGCCCGAGGCCCGTACGCGTGCCCCGAGTGCCGC
GAGCTGTCCCCGCAGAGGAACCTGCGGCCCAACCGCCCGCTTGCTAAGATGGCCGAGATGGCGCGGCGCCTGCAC
CCGCCGTCGCCGGTCCCGCAGGCGTGTGCCCGCGCACCGCGAGCCACTGGCCGCCTTCTGTGGCGACGAGCTGCG
CCTCCTGTGTGCGGCCTGCGAGCGCTCTGGGGAGCACTGGGCGCACCGCGTTGGCCGCTGCAGGACGCGGCCGAA
GACCTCAAGGCGAAGCTGGAGAAGTCACTGGAGCATCTCCGGAAGCAGATGCAGGATGCGTTGCTGTTCCAAGCC
CAGGCGGATGAGACCTGCGTCTTGTGGCAGAAGATGGTGGAGAGCAGCGGCAGAACGTGCTGCGTGAGTTCGAGC
GTCTTCGCCGTTTGCTGGCAGAGGGAGGGACAGCAGCTGCTGCAGAGGCTGGAGAGGAGGAGCTGAAGGTGCTGC
CCCGGCTGCGGGAGGCGCAGCCCACCTAGGCCAGCAGAGCGCCCACCTAGCTGAGCTCATCGCCGAGCTCGAGAG
GCCGCTGCCAGCTGCCTGCGCTGGGGCTGCTGCAGGACATCAAGGACGCCCTGCGCAGGGTCCAGGATGTGAAGC
TGCAGCCCCCAGAAGTTGTGCCTATGGAGCTGAGGACCGTGTGCAGGGTCCCGGGACTGGTAGAGACACTGCGGA
GGTTTCGAGGGGACGTGACCTTGGACCCGGACACCGCCAACCCTGAGCTGATCCTGTCTGAAGACAGGCGGAGCG
TGCAGCGGGGGGACCTACGGCAGGCCCTGCCGGACAGCCCAGAGCGCTTTGACCCCGGCCCCTGCGTGCTGGGCC
AGGAGCGCTTCACCTCAGGCCGCCACTACTGGGAGGTGGAGGTTGGGGACCGCACCAGCTGGGCCCTGGGGGTGT
GCAGGGAGAACGTGAACAGGAAGGAGAAGGGCGAGCTGTCCGCGGGCAACGGCTTCTGGATCCTGGTCTTCCTGG
GGAGCTATTACAATTCCTCGGAACGGGCCTTGGCTCCACTCCGGGACCCACCCAGGCGCGTGGGGATCTTTCTGG
ACTACGAGGCTGGACATCTCTCTTTCTACAGTGCCACCGATGGGTCACTGCTATTCATCTTTCCCGAGATCCCCT
TCTCGGGGACGCTGCGGCCCCTCTTCTCACCCCTGTCCAGCAGCCCGACCCCGATGACTATCTGCCGGCCGAAAG
GTGGGTCCGGGGACACCCTGGCTCCCCAGTGACTCGGGCCCTCCTGGAGGAGTCCTGTTGCCTCTCCTGCCCCTC
CAGGCCACTGAGTGTTTTGGCCACTTGGAGGACCTGGGAGGAGGGAGTGTGTCCTTTGAGCAAGAGGAGGAACTC
CTGGTGCCTTTCTGAGCCTGCGTGGGAGAACCCCAATTCTAGCACTCCAGGAAACTGTGGGAGAGTGTGGGGCAG
GCTCCGTCCTCCCTGGGAGACCCCTCCAGCCACCGGGTGCCACTTAATGCCAACAGCCCTTACCAAAGCTGGGAG
CCCCATTGCCCCGGCAGCTCTGGCCTGTGGTTCCAGAAGCTGAGAAAACTCCACTGGGGCTTGCAGAATCCAGGG
TTCACCTAAGCTGCACAGTTCCTGCAGCTTTGTCAGCCCCCTGAAAGTCTTGTGTACCCCACCTCTGAAGATGCT
GGGGAAGGCAGCTGGGATGGGAGCCAGCCCCATGCCTGTCTGTGACCCCACAGTGGGTGAGAGCCCGTCACAGTC
CTGGGTGTGGCTGCTCTGGAAGAATTAGGAGGCAGCCATAATAAGAGTCTTCAGAGAGATGATGGGAGGGGCCAG
TGAGGACAGGAACAGAGAGTAGATGTCCTATAATAAAGGGGCTTCTGGGAGGTGCCTGGGCACAGATGTCTGTTC
AGCAGGTGTGTGGGCCTAGAGGAGAGAGCAGAGCCCAGAAATGTCTTTTGCAGGCCCACGTTCTGACTTGAAGCT
TTCGTGGGCATGTTGCCATTGGGTTTTGCCCTTGCAAAGGCTTCCTAGGTCTCCAGTGGCCCCTCAGGACCCAGG
GTCCCAGCTGCTGCTTGGGGATGTGCACTGCTGCGCCGGCCTTGCAGTCTCTCTACCCTGGGGAGGAACAGTGGC
TTCTCAGAGCCTGGGGCATACAGAAGAAGGCAGGAGTTGATTTTTGTGTTGGGTTTGGGGTTTCTTTGTCCTCAA
GGTACTGTTCTGTTTCTCTTTACCCCTCTGCTTTATTTATTGTAAGCATTCCCACGTTAAATAAACTTTGGCTGT
TGTCTAC

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FIGURE 1988

CTCGCTTTTCGGTTGCCGTTGTCTTTTTTCCTTGACTCGGAA**ATG**TCCGGTCGTGGTAAGCAGGGTGGCAAGGCG
CGCGCCAAGGCTAAGTCGCGCTCGTCGCGCGCGGGGCTGCAGTTCCCCGTGGGCCGCGTGCACCGGTTGCTCCGC
AAGGGCAACTATTCGGAGCGCGTGGGCGCCGGCGCCCCGGTCTATCTGGCCGCGGTGCTCGAGTACTTGACTGCC
GAGATCCTGGAGCTTGCCGGCAACGCGGCGCGCGACAACAAGAAGACGCGCATCATCCCGCGCCACCTGCAGCTG
GCCATCCGCAACGACGAGGAGCTCAACAAGCTGCTGGGCCGCGTGACCATCGCGCAGGGTGGCGTCCTGCCCAAC
ATCCAGGCCGTACTGCTGCCCAAGAAGACGGAGAGCCACCACAAGGCCAAGGGCAAG**TGA**GGCCGCCCGCCGCCC
CCGGGGCCCCTTTGATGGACATAAAGGCTCTTTTCAGAGCCACCTACTATCTCGAGAAAAGAGCCGCACTGATCC
TGCAGTTCTTTATAGGCCGGAGGCCTGATCACCCTAGGCTCATGAATGAGCGCAGTGGCCATGGGGAAGGGCGCA
ACGGGAACCGAGACCCTGGGGACTGATTGGGCTGCATACTTGCGAGGTGGGCAACGTGTTCTGTTAACAACAGGG
AACCCTCGTCCACAGGTGGCCACCCCTTGCTCTTGAGTCCCACCCAAAACCTCTAGTAGGGTTTTAATAACGCTC
ACCGTAAAGGTGTCTTCATAATTACTAGTGACAAGTTCTCTTGACTCTAGCAAGGTTCCCGTGTGGTCATCAAGT
ACAGAATGCAATTTCTTAATGATTTATCTGATATTAAAAGTATTTATGATCTCT

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FIGURE 1989

CCGCAGGCAGTAGAGTGAAGCGCGCAGCTGCCAGGACTTGCGCGGTGACGTGCGCCGCTGCCAGGACCTTGCAGG
TGGAGAGCATAGTTGCCAAAATCAAGGCGGAGGAGCGCACCGCCGCTAGGATCCAGGCGGAGAAGCCCACCGCGG
CCAGGACCTAAGG**ATG**CAGTACACTGCTGCCAGGATCTTGTCTGTGGAGCGCAGCGCGGCCAGGACCTCCGGCTG
CAGCACACCGCTGCCAGGATCTTATCGGCAGAGCGCTCCGCGGTCCGGACCCCGCCCCGTGCGCGTCCCCGACCC
CGCCCCGTGCGCGTCCCCGGCGTTGGCGTCTTCGTCCTGTTGCTGGTCTCCGTCCGGTCGCCGGCCGTCTAGGTC
TCCGGCCCTCCCCAGCCGCTCCTGCGCCCTTGCCGGCCCCGCCGCCCGCAGCCCTGGCGCTCCCTGCGGGCCCCG
CCGAGGCCGCCTGCGCCCTGTGCCAGCGCGCGCCCCCGGGAACCGGTGCGCGCCGACTGCGGCCACCGCTTCTGTC
GGGCGTGCGTGGTGCGCTTCTGGGCCGAGGAGGACGGGCCCTTCCCGTGCCCCGAGTGCGCCGACGACTGCTGGC
AGCGCGCCGTGGAGCCCGGCAGGCCCCCGCTCAGCCGCCGCCTTCTGGCGCTCGAGGAGGCGGCCGCGGCGCCCG
CGCGCGACGGCCCGGCCAGCGAGGCCGCGCTGCAGCTGCTGTGCCGCGCCGACGCCGGCCCGCTCTGCGCCGCCT
GCCGTATGGCTGCGGGCCCCGAGCCGCCCGAGTGGGAACCGCGCTGGAGGAAGGCGCTGCGCGGCAAGGAGAACA
AGGGGTCTGTGGAAATCATGAGAAAGGACTTGAA**TGA**CGCCCGGGACCTGCATGGCCAGGCAGAGTCAGCAGCTG
CAGTGTGGAAGGGACACGTGATGGACCGTAGGAAGAAGGCACTGACCGACTACAAGAAGCTGCGGGCCTTCTTTG
TGGAGGAGGAGGAGCATTTCCTGCAGGAGGCTGAGAAGGAGGAGGGGCTCCCTGAGGACGAGCTGGCTGACCCCA
CTGAGCGGTTCAGGTCACTGCTGCAGGCGGTCTCGGAGCTGGAGAAGAAGCATCGCAACCTGGGCCTCAGCATGC
TGCTGCAGTGATGGCGCCAACCCGTGGCAGTCCCAGAGCTGGAGGCAGGAGGATGGATCCTCATCTCCATGGGAA
GTGTCAGCGTGTGGCTGCCAGGGAAGCGTGGCAGGCGCCTGGCCTTGGGTCCATCTACATAGTTGCGTGTTTCAA
CAATGTCCATTTATCCTTCACCCCGAGGCGTGTTTTGGGGGCTGCAAACACCTCCCTGTGCTCCACCTGCCTCCG
CAGAAGGAAGCCTCTTTCTCTGTTTCCCTGGGTGAGGGGGCTGGCAGGTGGCTAACCCCATTTAGCATCTCCAGG
CCCTGCCATCGTGTCTCATCTTGCTGTTATCTCTAGCTCTTTCCCTCCTCCCATTTCCTTTAGTAGTTGAATTTT
GCAAAGCTTGTAGCAGTAGCTCAGTTGCCTGCAGCATCCTTGTGTGTAGATAAATTAGTCGACAGAAACTCAGCA
CTGGGGACAGGATTGCAAAGTCGGGGACATAGATGCAGACAGTTGTTGAGATTTGGGGATAGCCGGGCTTGTGAG
CGGTGCCCATTTCCAGATGAAGCCTTTCAGCCCTTCTGAGTCCCCGGCCCTTGGTGCGATGTCTGTGAGTTTGAC
CTGCCCAGCGTGTGGGCTGGCTCAATGCTGAATAAAGTGGGTTTGTGTCAGCTCGTTTGCTTCGTCTCCGTGTGT
CCACCTGGCCTCTTCCCCCTGCCCTGGCCACCCTCCAGTGTCAAAGGAAACTTCCTCGTGACACGTGCTAAAGCA
TGGTGAGGAGGACTTTGATTGGGACCATTGAGATGGGTGTGGGACCCTTTCCTTGGGGCCTGGGGGGAGATGGGG
CTCCACCCCGACGTAGCAGGGCAGGGGTTGGAGGAGCGAGGAGCAGTATAGGGTCCATGGGTGGGAATGACTGTG
AGGAGACATCAGGGCTGAGGGGGCTCTGGCTAAACCCACCTCACAGAGTCCTTGCTGCAGGCAGGCAGGGCGATC
AGA

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FIGURE 1990

GGTGGCCCCGGATGCTGCGGCGCCCGCTGGCCGGGCTGGCTGCGGCCGCCCTGGGCCGGGCCCCACCGGACGGCT
TGCTCTGCTCTTTACCTGGGGTTGCTGTCGAGGACCCTGTGCAAGACTCGGCCGGTTTTTCTTTCTCCCTGATGG
ACAGACCCAAACATAGCCGCGCAGCATCGTGAAGGGCTGGGGCCTTCACTCCTCTGTGGCTCTGGAAGAGCCCGA
TTTCCTCAGGAGGC**ATG**TCGGGCCCCAGGCCTGTGGTGCTGAGCGGGCCTTCGGGAGCTGGGAAGAGCACCCTGC
TGAAGAGGCTGCTCCAGGAGCACAGCGGCATCTTTGGCTTCAGCGTGTCCCATACCACGAGGAACCCGAGGCCCG
GCGAGGAGAACGGCAAAGATTACTACTTTGTAACCAGGGAGGTGATGCAGCGTGACATAGCAGCCGGCGACTTCA
TCGAGCATGCCGAGTTCTCGGGGAACCTGTATGGCACGAGCAAGGTGGCGGTGCAGGCCGTGCAGGCCATGAACC
GCATCTGTGTGCTGGACGTGGACCTGCAGGGTGTGCGGAACATCAAGGCCACCGATCTGCGGCCCATCTACATCT
CTGTGCAGCCGCCTTCACTGCACGTGCTGGAGCAGCGGCTGCGGCAGCGCAACACTGAAACCGAGGAGAGCCTGG
TGAAGCGGCTGGCTGCTGCCCAGGCCGACATGGAGAGCAGCAAGGAGCCCGGCCTGTTTGATGTGGTCATCATTA
ACGACAGCCTGGACCAGGCCTACGCAGAGCTGAAGGAGGCGCTCTCTGAGGAAATCAAGAAAGCTCAAAGGACCG
GCGCC**TGA**GGCTTGCTGTCTGTTCTCGGCACCCCGGGCCCATACAGGACCAGGGCAGCAGCATTGAGCCACCCCC
TTGGCAGGCGATACGGCAGCTCTGTGCCCTTGGCCAGCATGTGGAGTGGAGGAGATGCTGCCCCTGTGGTTGGAA
CATCCTGGGGTGACCCCCGACCCAGCCTCGCTGGGCTGTCCCCTGTCCCTATCTCTCACTCTGGACCCAGGGCTG
ACATCCTAATAAAATAACTGTTGGATTAG

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FIGURE 1991

AGTGACGTCGTGGGCTGCAGCGCAGCAGCACCCAACGCAGTGAGTACCTTGATCTCCTGCGTGGCCTCGTCCCTG
GTCTTAGTTCCACCGGGCAGCGGGAGTCAGGACCGCCTGTCCTCAGACCCCTCCGCAGCGACTGTGGCGGCCGCA
GGTTGCACGCCAGGGCCTGTACTGACCACCTCCACGTGCCACTGGGGCTGTAAGGAGGA**ATG**GCGGCCGTGGGCA
GCCTGCTTGGCCGGCTGAGGCAGAGCACCGTGAAGGCCACCGGACCTGCACTCCGCCGCCTGCACACATCCTCCT
GGCGAGCTGACAGCAGCAGGGCCTCACTCACTCGTGTGCACCGCCAGGCTTATGCACGACTCTACCCCGTGCTGC
TGGTGAAGCAGGATGGCTCCACCATCCACATCCGCTACAGGGAGCCACGGCGCATGCTGGCGATGCCCATAGATC
TGGACACCCTGTCTCCTGAGGAGCGCCGGGCCAGGCTGCGGAAGCGTGAGGCTCAGCTCCAGTCGAGGAAGGAGT
ACGAGCAGGAGCTCAGTGATGACTTGCATGTGGAGCGCTACCGACAGTTCTGGACCAGGACCAAGAAG**TGA**CCGT
GGCTCCAGCCACCCCGGGACATTGCTAAGATGGGAGGGCTGTTCTTAAATCACTCGTTCTTGAAGCTGC

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FIGURE 1992

GGTCGGGCCTGGGTCCGACGGTAGTGGGTAGCGGGTCTCGGGTTGCGGGTTGCAGGTTGCAAGCCGCAGGCCCCA
GGCAACTGCCTTCCCGGCGCC**ATG**TTCGGCTCCAGTCGTGGAGGCGTGCGCGGCGGGCAGGACCAGTTCAACTGG
GAGGACGTGAAGACTGACAAGCAGCGGGAGAACTACCTGGGCAACTCGCTGATGGCGCCGGTAGGCCGCTGGCAG
AAGGGCCGCGACCTCACCTGGTACGCCAAGGGCCGGGCGCCATGCGCGGGCCCGAGCCGCGAGGAGGAACTGGCA
GCCGTGCGGGAGGCGGAGCGCGAGGCGCTGCTGGCCGCCCTTGGCTACAAGAACGTGAAGAAGCAGCCCACGGGC
CTGAGCAAGGAGGACTTCGCGGAGGTCTGCAAGCGGGAAGGAGGCGACCCCGAGGAGAAGGGCGTGGACCGGCTG
CTGGGGCTGGGGAGCGCAAGTGGCTCCGTGGGCCGCGTGGCGATGTCCCGAGAGGACAAGGAGGCCGCCAAACTG
GGGCTGTCTGTGTTCACGCATCACCGCGTAGAGAGCGGCGGGCCCGGGACCTCGGCAGCCTCGGCCAGGAGGAAG
CCGCGGGCGGAGGATCAGACGGAAAGCAGTTGTGAGAGCCACAGGAAAAGCAAGAAGGAGAAGAAGAAAAAGAAA
AAGAGGAAACACAAGAAAGAGAAGAAGAAGAAAGACAAAGAGCACAGGCGGCCAGCTGAGGCCACCTCCTCTCCC
ACATCTCCTGAGAGGCCCAGGCACCACCACCATGACTCCGACTCCAACTCCCCCTGCTGTAAGAGGAGGAAGCGG
GGACACAGTGGGGACAGGAGGAGCCCGTCTCGCAGGTGGCATGACAGAGGCTCTGAGGCC**TGA**TGGCTGGACCCT
GCTCACTGCTGTTGTGGGACCCTGAACCCTCCCTTCACCTTGCTTGCCTCCTGCCTCGGAAGCTCCTTGGGTGTG
GGTGAAGCCCGAGGCTGCTCCTGTGGAAGTGGCTCTGGGCACCAGCCTGTGGGGCTAAAGACTTGACAGCTAGCT
CTGGAGCAGCCGGCTTCCTGGAAAACCTCCAGGTTTCGCATACCAGGGATGGCCCCTGGCTTGGCCTGCGAAGGT
GAACCTGCCCAGATTTATCAGTAGAGGCTGGACTCCCTCTGTGTCCTGCCCATGGTTGCAGCAGCCATGGGCCTA
TGAGCGGTCTAACTGTGGCCAAGTATGGTGACCTCTATTTTTCTTTATATTGACTCTTTGTATTTCAATAAATAT
ATTTTAAAAGGAAGGT

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FIGURE 1993

AGGAAGCCCTGCTTGATGAGCATGAGGCTCCACGGGGGCAGTGGCTGTGACGGTGAGTGCCACACAGAGCTGCCC
ACACTGGTGGAGGGAAGGCAGGGAGATACCAGGACCATCCGGAAGGGGCTGAGTGTCATTTGACAGGTGCCATGT
GAGCAGAGATGTGAAGGAGTGGCCCGGGACAATCAGGGCAGAATCCCTGAGGTGTCCCTGGCCAGTGTCCTTCCA
CCTGTCCACAAGC**ATG**GGGAACATCTTCGCCAACCTCTTCAAGGGCCTTTTTGGCAAAAAAGAAATGCGCATCCT
CATGGTGGGCCTGGATGCTGCAGGGAAGACCACGATCCTCTACAAGCTTAAGCTGGGTGAGATCGTGACCACCAT
TCCCACCATAGGCTTCAACGTGGAAACCGTGGAGTACAAGAACATCAGCTTCACTGTGTGGGACGTGGGTGGCCA
GGACAAGATCCGGCCCCTGTGGCGCCACTACTTCCAGAACACACAAGGCCTGATCTTCGTGGTGGACAGCAATGA
CAGAGAGCGTGTGAACGAGGCCCGTGAGGAGCTCATGAGGATGCTGGCCGAGGACGAGCTCCGGGATGCTGTCCT
CCTGGTGTTCGCCAACAAGCAGGACCTCCCCAACGCCATGAATGCGGCCGAGATCACAGACAAGCTGGGGCTGCA
CTCACTACGCCACAGGAACTGGTACATTCAGGCCACCTGCGCCACCAGCGGCGACGGGCTCTATGAAGGACTGGA
CTGGCTGTCCAATCAGCTCCGGAACCAGAAG**TGA**ACGCGACCCCCCTCCCTCTCACTCCTCTTGCCCTCTGCTTT
ACTCTCATGTGGCAAACGTGCGGCTCGTGGTGTGAGTGCCAGAAGCTGCCTCCGTGGTTTGGTCACCGTGTGCAT
CGCACCGTGCTGTAAATGTGGCAGACGCAGCCTGCGGCCAGGCTTTTTATTTAATGTAAATAGTTTTTGTTTCCA
ATGAGGCAGTTTCTGGTACTCCTATGCAATATTACTCAGCTTTTTTTATTGTAAAAAGAAAAATCAACTCACTGT
TCAGTGCTGAGAGGGGATGTAGGCCCATGGGCACCTGGCCTCCAGGAGTCGCTGTGTTGGGAGAGCCGGCCACGC
CCTTGGCTTTAGAGCTGTGTTGAAATCCATTTTGGTGGTTGGTTTTTAACCCAAACTCAGTGCATTTTTTAAAAT
AGTTAAGAATCCAAGTCGAGAACACTTGAACACACAGAAGGGAGACCCCGCCTAGCATAGATTTGCAGTTACGGC
CTGGATGCCAGTCGCCAGCCCAGCTGTTCCCCTCGGGAACATGAGGTGGTGGTGGCGCAGCAGACTGCGATCAAT
TCTGCATGGTCACAGTAGAGATCCCCGCAACTCGCTTGTCCTTGGGTCACCCTGCATTCCATAGCCATGTGCTTG
TCCCTGTGCTCCCACGGTTCCCAGGGGCCAGGCTGGGAGCCCACAGCCACCCCACTATGCCGCAGGCCGCCCTAC
CCACCTTCAGGCAGCCTATGGGACGCAGGGCCCCATCTGTCCCTCGGTCGCCGTGTGGCCAGAGTGGGTCCGTCG
TCCCCAACACTCGTGCTCGCTCAGACACTTTGGCAGGATGTCTGGGGCCTCACCAGCAGGAGCGCGTGCAAGCCG
GGCAGGCGGTCCACCTAGACCCACAGCCCCTCGGGAGCACCCCACCTCTGTGTGTGATGTAGCTTTCTCTCCCTC
AGCCTGCAAGGGTCCGATTTGCCATCGAAAAAGACAACCTCTACTTTTTTCTTTTGTATTTTGATAAACACTGAA
GCTGGAGCTGTTAAATTTATCTTGGGGAAACCTCAGAACTGGTCTATTTGGTGTCGTGGAACCTCTTACTGCTTT
CAATACACGATTAGTAATCAACTGTTTTGTATACTTGTTTTCAGTTTTCATTTCGACAAACAAGCACTGTAATTA
TAGCTATTAGAATAAAATCTCTTAACTATT

FIGURE 1994A

GTGGGACCATCCAGTTGCAGGAAAACAAGCTTAACACGCCCACTGATTCTACATTATGCTCCTACCTCCCAGCAG
CCTCTCCAGGCCCAGAACTTTCTCCAGTCAGCCTCTACAGACCAAGCTCATGACTCACAATGGCCTATTTAGGCC
CATACCCTACCTCACGGCAGTCTCCGCAGATGAGCCTACTGCCTCACAACAGCCTCCACAGGCACAGCTCCATCG
TTACAATGGCCTCTTTAGACCCAGCTCCTGCCTCCCAGCCTTCTCTCCAGGCCCTGAACTTTCTCAAGTCGACCT
CACCAGGCCCAGCTCATGCTTCTTTGCAGCCTCTCCAGGCCCAGCTCCTGCATCTTGGTGGCACCTCCAGGCCCA
GCCTCTGCCTCCCGTCGGCCTCTACAATCCCAACATCTGCCTCACAGCAGATTCTTCAGGCCCAGCATCTGCCTC
ACTGTGGACCCCCCAAGCCAAGCTCCCAACCTTTCAGCAGCTTCTACACACCCAACTCCTGCCACCCAGTGGCCT
CTTTAGGCCAAGCTCATGCTTCACAAGGGCCTTTCCAGGCTCAACTTTTGTCTCATGGCAACCTTTCCTGGCCAG
ATTCCTGCCTGTCTCCCAGCAGCCTAGACAGGCCCAGGTCTTGCCTCACACTGGCCTCTCTACATCCAGCTCATG
CCTCACGGTGGCCTCTCCAGGCCCAACTCCTGTCCCAGGACGTCATCTCCGGGCCCAAAACTTACTCAAGTCAGA
CTCTCTAGTCCCAACTGCTGCCTCCTGGTGGCCTATGAAGGCCCAAAATCTCCTCAAGTGGACCTCTCCAGGCCC
AGCTCCTGCCTCCTGTCAGCGTCTACAGGCCCAACCTCTGCCTCATGGGGGCTTCTCCAGGCCCACCTCTTCCTC
TTGGCTGGGTCTACAGGCACAACTGCTGCCTCACAACAGCCTTTTTTGGCCCAGTTCCTGTCCAGCTCATGGCGG
CCAATGTAGGCCCAAAACTTCCTCAAGTCAAACTCTCCAGGCCCACCTTCTGCTTCCCGGTGGCATGAACAGGCC
CAGCTTTGACTTGAGAACAGCCTCTGCAGGCCCTGCTCTTGCCTCCCAGGGGCTTTTTCCAGACCCAGCTCCTGC
CTCATGGCAGCTGCCCCAGGCCAAATTTCTGCCTGCCTGCCAGCAGCCTCAACAGGCACAGCTCCTCCCTCACAG
TGGCCCATTTAGGCCCAACTCATGACTGTCGGGCCATTTCCAGGCCTAGTGCCTGCCTCGTGGCTGACTCTTGAA
GCCCAAAACTTCCTCAAATCAGCCTTTTGCCCAACTTCTGTCTACTGTCGGACTCTACAGGCCAGCCTCTGCCTC
ACAGTGGACCCTCCAGACCCAGATGGTGTCTCACTGTGGCATCCTCAGGCGAAGCTCCTGCCTTTCCGCAGCCTC
TACAGGCCCAGCTCCTGCCTTGCAGTGGCCTCTTTAGGCCAAGCTCATGCCCCATGGCGACTTTTCCAGGCACAG
CTTTTGCCTTTTGCAGCCTGTCGAGGCCCAGAATGTCCTTAACTCGGCATCTCCAGGATGAGCTCATCCTCCCAG
TGCGTCTACAGGCCCGTCTCCTGCCTCACAACAACCTCCTTTGGCCCAACTCCTGCTGAGCTGCTGGCAGCCTCT
GTAGGCCACAGAATTCTTAAGGTAAAGCTTTCCAGGCCCACCTTTGGCCTCCCGGCAGGCTCAGCAATCAAACTA
TTCCCTCACTGCGGCCACCGAAAGCCAAGTTTCTCCCTGCCTCACGGCATCCTCCGAAAACTGAGCATTTGCCTC
ACGGTGGCCTCCCCAGGCCATGAATCTGCCTGCCTCCCAGGCAGCTGCTGCCTCACAATGGTCTCTTTAGGCCCA
GCTCATGCTAAAAGATGGACTCTCCAGGCACAGCTCTTGCCTCCTGGCAGCCTCTGCAGGCCCAAATTCTCCAAA
AGTTGGCCTCTCCTAACTCAGCTCCTGCCTCATGTCTGCCTACACAGGCCCAGACTCTTACCACACAGTAGACCC
TCCAGGCCCACCACTTGCCTGATCATAGCCTCCTAAGGCCAAGCTCCTGCCTTTCGGCAGCCTCTACAGGCCAAG
CTCCTGCCTCGCAATTGCCTCTGTAGGCCAAGATCATGCCGTGAAGTGGCCTTCCCTAGCCTAACTTTTGCTTTT
TGACGCATACTCCAGTCCCAAAACTTCCTCCAGTCAGCCGGTCCAGGCCAAGCTCTTCCTCCCAAAGGCTTCTGC
AGGCCAAAATCATCCTGAAGTCACCCTCTGCAGGCGCAGCTCCTGCCTCCAAGTGCTGTGTAGGCCAAGCTA**ATG**

CCTCACAGCACACTTTCCAGGCTGAGCATTTCCTTTTGTGCATCCTCTCCAAGCCCTGAACTTACTCCAGTTGGC
CTCTCCAGACCAAGCTCTCCCTCCCAGTGGCCTCTACAGGCCAAAATTGTCCTCAGGTCAGCCTCTCCAGGGCCA
ACTCCTAGCTACCGGTGGCTTCTGCAGGCCAAAATCGACCTCAAGTCAGCCTCTTCACACCCAGCTCTTGCCTCT
GAGTGGCCTCTCCAGGAGCAAAACTTTCTCAAGTCGGCCTCTCCAGGCCCAGCCTCCTGCTTCCCGAGGGCATGT
ACAGGCCCAGCCTCTGCCTCACAGCAGACTCTTCACACCCAGCTCTTCCCTGTCTGCGGCCTCTCCAGTCCAAAG
CTGCTCCTGCCTTTTGGCAGCTTGTACAGGCCCAGCTCCTCCCTCACGGTGGCCTCTTTCGGCCCAACTCATGCC
TCTTGCAACGTGCCCAAGTGTCAGCTCCTGCCTCACACTGGCCTGTTGAGGCCCAGCTCATGCCTCTCGTGGCCT
CAACGGGCCCATCCCCTGCCTGTCGGCGGCCTCTACAGGCCCGGCCTCTACCTCACAGTGGGCTCTCCAGGCCCA
CCTCTTCCTCACCGTGGCCTCCTGGGGCAATGCTCCTCCCTCTCGGGAGCCTCTGTGGGCCCAGCTCCTGCCTCC
CAGTGGCCTCTGCTGGCCAAGCCCGTGCCTCAGGGCAGCCTTTCCAGGCCTAGCGTTTGCTGCTTTGCATCCTCT
CCAGGCCCTGGACTTCCTCCAGTCGGCCTCTCCAGGCCCAGCTCTTCCTCTCGGCGGCCTCTGCAGGCCCAGACT
GTCGTCAAGTCGGCCTGTCCAGGGCCAGCTCCTGCCTCCCGGCGGCCTCTGCAGGCCCAAGTCGTCCTCAAGTTG
GCCTCCCCAGGCCCAGCAACGGCCTCTCGGCGGCCTTTCCGGGTGCAAAAGTTCCTCGAGTCAGCCTCTCCAGGC
CCAGCTCCTCCTGCCTCCCAGTGGCCTCTTTCGGCCCAGCCCAGCTCATGCCTCCCGGCGGCCTTCCCAGGCCCT
GCTTTTGACTTTCGGTGGCCTCTGCAGGCCTCGACAAGGCCAGGCCTCCTGCCTCCCAAAGGCCTGCACAGGCCC
AGCCTCTGCCTCACAGCAGACTCTCCACGCCCAGCTAGCTCTCGCCTCACTGCGGCTTCCCGAGTCCAAAGCTCC
TGCCTCTCAGCCGCTTCGGCAGGCCCAGCTCCCGCCTGCCAGTGGCCTCTTCAGGCCCATGGGGCTCATTCCTCA

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FIGURE 1994B

CAACGGCCTTTCCAGGCCCAGTTTTTCCCTTCCGGCGGCCTCTTGGCCTCTAATTTGTTTATCTTTTGGGTA**TAA**
ATCCCAAAATATTGAATTTTGGAATATTTCCACCATT

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FIGURE 1995

TGCTAACCAGGCCAGTGACAGAA**ATG**GATTCGAAATACCAGTGTGTGAAGCTGAATGATGGTCACTTCATGCCTG
TCCTGGGATTTGGCACCTATGCGCCTGCAGAGGTTCCTAAAAGTAAAGCTCTAGAGGCCGTCAAATTGGCAATAG
AAGCCGGGTTCCACCATATTGATTCTGCACATGTTTACAATAATGAGGAGCAGGTTGGACTGGCCATCCGAAGCA
AGATTGCAGATGGCAGTGTGAAGAGAGAAGACATATTCTACACTTCAAAGCTTTGGAGCAATTCCCATCGACCAG
AGTTGGTCCGACCAGCCTTGGAAAGGTCACTGAAAAATCTTCAATTGGACTATGTTGACCTCTATCTTATTCATT
TTCCAGTGTCTGTAAAGCCAGGTGAGGAAGTGATCCCAAAAGATGAAAATGGAAAAATACTATTTGACACAGTGG
ATCTCTGTGCCACATGGGAGGCCATGGAGAAGTGTAAAGATGCAGGATTGGCCAAGTCCATCGGGGTGTCCAACT
TCAACCACAGGCTGCTGGAGATGATCCTCAACAAGCCAGGGCTCAAGTACAAGCCTGTCTGCAACCAGGTGGAAT
GTCATCCTTACTTCAACCAGAGAAAACTGCTGGATTTCTGCAAGTCAAAAGACATTGTTCTGGTTGCCTATAGTG
CTCTGGGATCCCATCGAGAAGAACCATGGGTGGACCCGAACTCCCCGGTGCTCTTGGAGGACCCAGTCCTTTGTG
CCTTGGCAAAAAAGCACAAGCGAACCCCAGCCCTGATTGCCCTGCGCTACCAGCTGCAGCGTGGGGTTGTGGTCC
TGGCCAAGAGCTACAATGAGCAGCGCATCAGACAGAACGTGCAGGTGTTTGAATTCCAGTTGACTTCAGAGGAGA
TGAAAGCCATAGATGGCCTAAACAGAAATGTGCGATATTTGACCCTTGATATTTTTGCTGGCCCCCCTAATTATC
CATTTTCTGATGAATAT**TAA**CATGGAGGGCATTGCATGAGGTCTGCCAGAAGGCCCTGCGTGTGGATGGTGACAC
AGAGGATGGCTCTATGCTGGTGACTGGACACATCGCCTCTGGTTAAATCTCTCCTGCTTGGTGATTTCAGCAAGC
TACAGCAAAGCCCATTGGCCAGAAAGGAAAGACAATAATTTTGTTTTTTCATTTTGAAAAAATTAAATGCTCTCT
CCTAAAGATTCTTCACCT

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FIGURE 1996

CTCTGAGGAGAAGCAGCAGCAAACATTTGCTAGTCAGACAAGTGACAGGGA**ATG**GATTCCAAACACCAGTGTGTA
AAGCTAAATGATGGCCACTTCATGCCTGTATTGGGATTTGGCACCTATGCACCTCCAGAGGTTCCGAGAAGTAAA
GCTTTGGAGGTCACAAAATTAGCAATAGAAGCTGGGTTCCGCCATATAGATTCTGCTCATTTATACAATAATGAG
GAGCAGGTTGGACTGGCCATCCGAAGCAAGATTGCAGATGGCAGTGTGAAGAGAGAAGACATATTCTACACTTCA
AAGCTTTGGTCCACTTTTCATCGACCAGAGTTGGTCCGACCAGCCTTGGAAAACTCACTGAAGAAAGCTCAATTG
GACTATGTTGACCTCTATCTTATTCATTCTCCAATGTCTCTAAAGCCAGGTGAGGAACTTTCACCAACAGATGAA
AATGGAAAAGTAATATTTGACATAGTGGATCTCTGTACCACCTGGGAGGCCATGGAGAAGTGTAAGGATGCAGGA
TTGGCCAAGTCCATTGGGGTGTCAAACTTCAACCGCAGGCAGCTGGAGATGATCCTCAACAAGCCAGGACTCAAG
TACAAGCCTGTCTGCAACCAGGTAGAATGTCATCCGTATTTCAACCGGAGTAAATTGCTAGATTTCTGCAAGTCG
AAAGATATTGTTCTGGTTGCCTATAGTGCTCTGGGATCTCAACGAGACAAACGATGGGTGGACCCGAACTCCCCG
GTGCTCTTGGAGGACCCAGTCCTTTGTGCCTTGGCAAAAAAGCACAAGCGAACCCCAGCCCTGATTGCCCTGCGC
TACCAGCTGCAGCGTGGGGTTGTGGTCCTGGCCAAGAGCTACAATGAGCAGCGCATCAGACAGAACGTGCAGGTT
TTTGAGTTCCAGTTGACTGCAGAGGACATGAAAGCCATAGATGGCCTAGACAGAAATCTCCACTATTTTAACAGT
GATAGTTTTGCTAGCCACCCTAATTATCCATATTCAGATGAATAT**TAA**CATGGAGGGCTTTGCCTGATGTCTACC
AGAAGCCCTGTGTGTGGATGGTGACGCAGAGGACGTCTCTATGCCGGTGACTGGACATATCACCTCTACTTAAAT
CCGTCCTGTTTAGCGACTTCAGTCAACTACAGCTGAGTCCATAGGCCAGAAAGACAATAAATTTTTATCATTTTG
AAAT

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FIGURE 1997

ATGGATCCCAAATATCAGTGTGTGGAGCTAAATGATGGTCATTTCATGCCTGTATTAGGATTTGGCACCTGTGTA
CCTCCAGAGGTGATTGACTGCAGTGGAATGGTTTCTCCGTTTCTTTCTATAATTGAAGAAATTGTTTGTTCTTCC
AAGAATAGAGTTGTGGAGGTTACAAAATTAGCAATAGAAGCTGGTTTCTTCCATATTGATTCTGCTCATTTATAC
AATAATGAGGAGCAGGTGGAATGTCATCCTTACCTCAACCAGAGCAAACTGCTGGATTTCTGCAAGTCAAAAGAC
ATTGTTCTGGTTGCCCACACCCTGATTGCTCTGTGCTACCAGCTGCAGCGTGGGGCTGTGGTCCTGGTCAAGAGC
TCCAATGAACAGCAGATCAGAGAGAACATGCAGGTTTTTGACTTTGAGTTGACTCCAGAGGACATGAAAGCCATT
GACAGCCTCAACGGAAATCTCCGACATGCTAAGTTACAATTT**TAA**

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FIGURE 1998

GCAAGCA**ATG**GATCCCAAATATCAGCGTGTAGAGCTAAATGATGGTCACTTCATGCCCGTATTGGGATTTGGCAC
CTATGCACCTCCAGAGGTTCCGAGGAACAGAGCTGTAGAGGTCACCAAATTAGCAATAGAAGCTGGCTTCCGCCA
TATTGATTCTGCTTATTTATACAATAATGAGGAGCAGGTTGGACTGGCCATCCGAAGCAAGATTGCAGATGGCAG
TGTGAAGAGAGAAGACATATTCTACACTTCAAAGCTTTGGTGCACTTTCTTTCAACCACAGATGGTCCAACCAGC
CTTGGAAAGCTCACTGAAAAAACTTCAACTGGACTATGTTGACCTCTATCTTCTTCATTTCCCAATGGCTCTCAA
GCCAGGTGAGACGCCACTACCAAAAGATGAAAATGGAAAAGTAATATTCGACACAGTGGATCTCTCTGCCACATG
GGAGGTCATGGAGAAGTGTAAGGATGCAGGATTGGCCAAGTCCATCGGGGTGTCAAACTTCAACTGCAGGCAGCT
GGAGATGATCCTCAACAAGCCAGGACTCAAGTACAAGCCTGTCTGCAACCAGGTAGAATGTCATCCTTACCTCAA
CCAGAGCAAACTGCTGGATTTCTGCAAGTCAAAAGACATTGTTCTGGTTGCCCACAGTGCTCTGGGAACCCAACG
ACATAAACTATGGGTGGACCCAAACTCCCCAGTTCTTTTGGAGGACCCAGTTCTTTGTGCCTTAGCAAAGAAACA
CAAACAAACCCCAGCCCTGATTGCCCTGCGCTACCAGCTGCAGCGTGGGGTTGTGGTCCTGGCCAAGAGCTACAA
TGAGCAGCGGATCAGAGAGAACATCCAGGTTTTTGAATTCCAGTTGACATCAGAGGATATGAAAGTTCTAGATGG
TCTAAACAGAAATTATCGATATGTTGTCATGGATTTTCTTATGGACCATCCTGATTATCCATTTTCAGATGAATA
T**TAG**CATAGAGGGTGTTGCACGACATCTAGCAGAAGGCCCTGTGTGTGGATGGTGATGCAGAGGATGTCTCTATG
CTGGTGACTGGACACACAGCCTCTGGTTAAATCCCTCCCCTCCTGCTTGGCAACTTCAGCTAGCTAGATATATCC
ATGGTCCAGAAAGCAAACATAATAAATTTTTATCTTGAAGT

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FIGURE 1999

GTCGCCGCGCGGCCGCCGGTGAGCCGC**ATG**GAGCCCCGGGCGGCGGACGGCTGCTTCCTGGGCGACGTGGGTTTC
TGGGTGGAGCGGACCCCTGTGCACGAGGCAGCCCAGCGGGGTGAGAGCCTGCAGCTGCAACAGCTGATCGAGAGC
GGCGCCTGCGTGAACCAGGTCACCGTGGACTCCATCACGCCCCTGCACGCAGCCAGTCTGCAGGGCCAGGCGCGG
TGTGTGCAGCTGCTGCTGGCGGCTGGGGCCCAGGTGGATGCTCGCAACATCGACGGCAGCACCCCGCTCTGCGAT
GCCTGCGCCTCGGGCAGCATCGAGTGTGTGAAGCTCTTGCTGTCCTACGGGGCCAAGGTCAACCCTCCCCTGTAC
ACAGCGTCCCCCCTGCACGAGGCCTGCATGAGCGGGAGTTCCGAATGTGTGAGGCTTCTTATTGACGTCGGGGCC
AATCTGGAAGCGCACGATTGCCATTTTGGGACCCCTCTGCACGTTGCCTGTGCCCGGGAGCATCTGGACTGTGTC
AAAGTGCTGCTCAATGCAGGGGCCAACGTGAATGCGGCAAAGCTTCATGAGACTGCCCTTCACCACGCGGCCAAG
GTCAAGAATGTTGACCTCATCGAGATGCTTATCGAGTTTGGCGGCAACATCTACGCCCGGGACAACCGCGGGAAG
AAGCCGTCTGACTACACGTGGAGCAGCAGCGCTCCCGCCAAGTGCTTCGAGTACTACGAAAAGACACCTCTGACT
CTGTCACAGCTCTGCAGGGTGAACTTGAGGAAGGCCACTGGCGTCCGAGGGCTGGAGAAGATTGCCAAGTTAAAC
ATCCCGCCCCGGCTCATTGATTACCTCTCCTACAAC**TGA**ATTGCAGGTGGGGTCCGGACCGTGGCTGCCCCCGTT
GTGCCCAGCATTGCCCGGGTGAGGGCTCTGCCTGTTCCTCTGAAGCAGCGTGATTGCTGTAGATAGAACAACGCT
CCTTCGAGTCCCTTCCTGCGATCCTGTTTAGGCTTCTCTCCTGGATCCTGGATAATGTTTCCAGGGTGTTGGGAA
GGCCTGCGTCTCAGGTCACAGTTGTGGGTGTGGCCCTGCGCTGTTCTACAGAACCTACCCTCTCAATGGGCATGG
GCCCAACCATCCAGTTTTCCTCTTTTACGGACCATCCTCAAAGGCACTCTCAGGACAGACGGCGTGGGGAGCACA
GAGGAGGCTGGCAGAGCTGGGGACTGAGGGCATTGTTGCTGATTCTCACTCACCGGGGCAGCCTGCCGCAGATGC
ACAGGCCCCAGGTGCAGGCCACCACCTCCGGGTCGGCACCAGGACTGCCCTCGGTGCTCATAGGGAATGGCTGGG
CCCACGGAAGGTCGGCCTGGGATGTGGCCTGGGACTGCTGCTCTGCTGGCTGCTGTGTGGATGCTTTTCCTGGAG
CACTTTCCAAGGCATCCCCCAGCCCCAAGCCTGCGCGCATCTGTCACTCAGGGACTTTCTATGGGTCTTTGTGGG
GGAAGGCCCTGGCTTTGTATTCCCCACAAGTAGCACTGAGTTTCTTAGGAAATTTGTCTTCAGTATTAGGTCTCC
AACTCTTGTAAAAAGTTTATATGTAGGATAAAAACCTTTTAGAGGACACGTAGGCGGTACCACTAAGGTTTTGGT
AATGAGCCATTCAAACCGACAGCAGTGTGAAGGTGTGTCAAGGTGTATATTCTCGTGGCTCGGCATTCTCAGTGC
AAAGGCCTGTTTGGAGACTCTGTGGGAATTGTTTTTCATCTGTTTCTATGGTTGTCAAATGAATTCTTCACCCAC
CCTACAGTTTGCTAACTCCTTGAAGCTATCAAATTAGTAAGA

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FIGURE 2000

CAATGCTACATTAACCCATTATGTAAGACCAATAAATGCAGAGCCAGTGTTTCAAGCACAGGAAATACCAGCAGG
CAGA**ATG**GCCAGTTTGCTTAAGAATGGTGAGCCTGAAGCTGAGTTACATAAAGAAACCACAGGTCCAGGCACTGC
TGGCCCTCAGTCCAACACCACATCTTCTCTAAAAGGTGAACGCAAAGCCATCCACACGCTGCAAGATGTGTCAAC
ATGTGAAACAAAGGAGCTATTGAATGTCGGGGTTTCCTCCCTTTGTGCTGGTCCCTACCAAAATACAGCAGACAC
CAAGGAAAACCTCAGTAAAGAGCCTTTGGCCTCCTTTGTTTCAGAATCCTTTGATACTTCTGTTTGTGGAATAGC
CACAGAGCACGTAGAAATTGAGAACAGTGGGGAGGGGCTCAGGGCTGAGGCTGGTTCTGAAACCCTAGGCAGAGA
TGGAGAGGTCGGTGTGAATTCCGACATGCACTATGAACTCTCTGGAGATTCTGATCTAGACCTGCTTGGTGATTG
TAGAAATCCCAGACTGGATTTGGAGGATTCTTATACTTTAAGAGGTAGTTACACCAGGAAAAAAGATGTTCCCAC
AGATGGCTATGAGTCGTCGTTGAACTTCCACAACAACAACCAAGAGGACTGGGGCTGCTCTAGCTGGGTTCCAGG
CATGGAGACGAGCCTCCCTCCCGGGCACTGGACTGCTGCGGTAAAGAAAGAAGAGAAGTGTGTGCCGCCTTACGT
CCAAATCCGAGATCTCCACGGGATCCTCAGGACTTACGCCAACTTCTCTATAACAAAAGAACTCAAAGATACCAT
GAGAACTTCACACGGCCTGAGGAGGCACCCGAGTTTCAGTGCAAACTGTGGCCTGCCCAGCTCCTGGACAAGCAC
TTGGCAGGTGGCAGACGACCTCACCCAGAACACTTTAGACCTGGAGTATCTGCGTTTTGCACATAAACTAAAACA
GACCATAAAGAATGGGGATTCTCAGCATTCTGCCTCCTCTGCCAATGTCTTTCCAAAGGAGTCACCAACCCAGAT
CTCCATTGGTGCTTTCCCTTCGACAAAAATCTCTGAGGCCCCATTTCTGCATCCTGCACCTAGGAGCAGAAGCCC
CCTTCTGGTAACAGTTGTGGAGTCAGATCCCAGACCACAGGGGCAGCCCAGGAGAGGCTACACAGCCAGCAGTCT
GGACAGCTCTTCCTCTTGGAGAGAGAGATGTAGTCATAATAGAGATCTTAGAAATTCTCAAAGAAATCACACTGT
TTCATTCCACCTCAACAAACTGAAATACAACAGTACTGTGAAGGAATCTCGGAATGATATTTCACTTATTCTCAA
TGAGTATGCTGAATTCAACAAGGTGATGAAGAATAGCAACCAATTCATTTTCCAAGACAAAGAGCTAAATGATGT
TTCTGGAGAAGCCACTGCTCAAGAGATGTATCTGCCTTTCCCAGGACGGTCAGCCTCCTATGAAGACATAATCAT
AGACGTGTGCACCAATTTGCACGTCAAACTAAGAAGTGTTGTGAAAGAGGCTTGTAAAAGTACCTTCCTGTTCTA
CCTTGTCGAAACAGAAGACAAATCATTCTTTGTAAGAACAAAGAACCTTCTGAGGAAAGGAGGCCATACAGAAAT
TGAACCTCAGCACTTCTGTCAAGCTTTCCACAGAGAGAATGATACACTAATCATCATCATCAGAAATGAAGATAT
ATCATCACATTTGCATCAGATTCCTTCTTTGCTGAAGCTGAAGCATTTCCCCAGTGTCATCTTTGCTGGAGTAGA
CAGCCCTGGAGATGTTCTTGATCACACCTACCAAGAACTGTTTCGTGCAGGAGGCTTTGTGATATCAGATGACAA
GATACTAGAAGCTGTAACATTAGTTCAACTGAAGGAAATTATCAAAATCCTGGAAAAACTAAATGGAAATGGAAG
ATGGAAGTGGTTGCTTCACTACAGGGAAAATAAAAAGCTAAAAGAAGATGAAAGAGTGGATTCAACTGCACATAA
GAAGAACATAATGTTGAAGTCATTTCAGAGTGCAAATATCATTGAATTGCTTCATTATCACCAGTGTGACTCTCG
ATCATCAACAAAAGCAGAAATTCTGAAATGTTTGCTAAACCTGCAAATTCAGCATATTGATGCCAGGTTTGCTGT
CCTCCTAACAGACAAGCCTACTATCCCCAGAGAAGTCTTTGAAAATAGTGGAATCCTTGTTACAGATGTAAATAA
CTTTATAGAAAACATAGAAAAAATAGCAGCTCCATTTAGGAGTAGCTATTGG**TGA**CTCAACTACAGCCTGCCTGG
ATATGGATGATGCCAATAAAAAATTAGTATTTTCCCTTTGGAAAACTTGTGAACATGTGAATACACATGTGAACA
GTCTTACATTTGAAAAACCAATGTTCTACAACTTGGAAAGTTTTCATTTTTTATATTTTGCTGAAATATGTCACA
GTGGCATTGCAGTTGTCTGTTAGCTTTGGGTTGCAGTGCTAGATATTGTTTTAAATTATTTTCATTTTAAACAAG
ATGCCTTCTAAGCTATTGAGCTTATTAAAAATAATTTTACATGTTTACTTAGTTGGAGCAAAAATAAGTCTATTT
TAACAAATAGCTTTGTTTTTGCATGCTAATGTCAGAAAGGCATACGATGCACATTATGCTCTGTTTTAAAGGTTT
TACCACCCTTGTAAAAACTATAATCTTAAATGGTTTTATTTGCTGTTACACAAACAACACTACATAAAACATTTT
TTCCTAAATGGTACAAATTTATAAACTATCATTTTTCACTTACGGTATTTGTAAATACTACACTACAAAAATCAG
CTTTCTGAGAAAGAAATAATCATTTATTTATGATATTGAAAATTTCTACAGTAAACACTCAAAACCAAGCAAAAA
ACATTTGTAAGATACACGGTATCTATTTGGAGCAACGGTTTTTGTAACTAATGTGTTTCATTTTTTAAATAAAGA
CAACTAAAAATAA

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FIGURE 2001

GGCGGTCGGTCTCGCCTTGTCGCCAGCTCCATTTTCCTCTCTTTCTCTTCCCCTTTCCTTCGCGCCCAAGAGCGC
CTCCCAGCCTCGTAGGGTGGTCACGGAGCCCCTGCGCCTTTTCCTTGCTCGGGTCCTGCGTCCGCGCCTGCCCCG
CC**ATG**AATGAGGAGTACGACGTGATCGTGCTGGGCACCGGCCTGACGGAATGTATCCTGTCAGGTATAATGTCAG
TGAATGGCAAGAAAGTTCTTCATATGGATCGAAACCCTTACTACGGAGGAGAGAGTGCATCTATAACACCATTGG
AAGATTTATACAAAAGATTTAAAATACCAGGATCACCACCCGAGTCAATGGGGAGAGGAAGAGACTGGAATGTTG
ACTTGATTCCCAAGTTCCTTATGGCTAATGGTCAGCTGGTTAAGATGCTGCTTTATACAGAGGTAACTCGCTATC
TGGATTTTAAAGTGACTGAAGGGAGCTTTGTCTATAAGGGTGGAAAAATCTACAAGGTTCCTTCCACTGAAGCAG
AAGCCCTGGCATCTAGCCTAATGGGATTGTTTGAAAAACGTCGCTTCAGGAAATTCCTAGTGTATGTTGCCAACT
TCGATGAAAAAGATCCAAGAACTTTTGAAGGCATTGATCCTAAGAAGACCACAATGCGAGATGTGTATAAGAAAT
TTGATTTGGGTCAAGACGTTATAGATTTTACTGGTCATGCTCTTGCACTTTACAGAACTGATGATTACTTAGATC
AACCGTGTTATGAAACCATTAATAGAATTAAACTTTACAGTGAATCTTTGGCAAGATATGGCAAAAGCCCATACC
TTTATCCACTCTATGGCCTTGGAGAACTGCCCCAAGGATTTGCAAGGCTAAGTGCTATTTATGGAGGTACCTATA
TGCTGAATAAACCCATTGAAGAAATCATTGTACAGAATGGAAAAGTAATTGGTGTAAAATCTGAAGGAGAAATTG
CTCGCTGTAAGCAGCTCATCTGTGACCCCAGCTACGTAAAAGATCGGGTAGAAAAAGTGGGCCAGGTGATCAGAG
TTATTTGCATCCTCAGCCACCCCATCAAGAACACCAATGATGCCAACTCCTGCCAGATCATTATTCCACAGAACC
AAGTCAATCGAAAGTCAGATATCTACGTCTGCATGATCTCCTTTGCGCACAATGTAGCAGCACAAGGGAAGTACA
TTGCTATAGTTAGTACAACTGTGGAAACCAAGGAGCCTGAGAAGGAAATCAGACCAGCTTTGGAGCTCTTGGAAC
CAATTGAACAGAAATTTGTTAGCATCAGTGACCTCCTGGTACCAAAAGACTTGGGAACAGAAAGCCAGATCTTTA
TTTCCCGCACATATGATGCCACCACTCATTTTGAGACAACGTGTGATGACATTAAAAACATCTATAAGAGGATGA
CAGGATCAGAGTTTGACTTTGAGGAAATGAAGCGCAAGAAGAATGACATCTATGGGGAAGAC**TAA**CAGCAGTACA
TGTTATTATGTAATTAGGACACATTTAAAATTTGGCAAATAATGCATATAATGAAATCAATATTGTAAGGCCTGC
TTTTGTAATGAAAATGGAGAGAATGAAGAGCGCTGTGCCAGTAAATACTCCCCTTCACCTTTCTAATTATTAACT
TGTTTTCATGGAGTGGCTATTCAGCATTGGCAGTTACCACATTCTGTTCAATTTAACCAAACTGGCTTTTTTTTT
TTCTAGTGAAGTTAAACAAACATTGGGATACCGACACAGACAACTTGAGACAGTTTTTTTAATCTTTTAATCAGT
GTAGCTATGTGCTGCTGCTGCTCAAGAGCTGGATCCATACAGGTTGTGTGTCATCTGTCCTCTTGAGGTTCAGGA
GATTCTAAATTGAATATTCCACGGTTTGGGACAGCATCCGGAAGTTTTCCCTATGACTTTATATTTTGTATTATG
TCAAATGTTATGGCAGGGCCCAAATAGCATAGCCACAAGTTTGGTTTATGTGGGCATAAAATTCTAACCAAACCC
CAGACATAGGGAGTCATTTGGAGAAAGCCTGTATGTGGTGTTTTAACCTAATAAAGTTGATGAGAGAGAAGGGGA
GAGGAAGCGAACATAAAGCGGGTCAAGTGTAGTGCATCTTTTGTATCTCAGGCGTGGCTTCTTCAGTGGACCAAG
CTGCAATGCAGTATTGACTTGACAGAGCCTCTACTTCTGTCTCAAAATGGCTCCAAATGATTTCTGTACTGCAAA
ATAAAGCCAAATTCTGGAAACTA

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FIGURE 2002

AGGCTGGGGCGGCCCTGAGGACGCGTGCGGGGCAGGTCACGCTTGGGCCTGGCTGCCTCAGGAGCCACCCTGCAC
GGCGCCGGGCGAGGCTGTGCGCGCCCTCCCGGACCCTCCACTTTGGGGCTTTGCGGTGTAGCGGCGCGCCCCACT
CCCTTACGTGTTCAGTCCCGAATCACGTACGGGCCGCTGCAGCTCCAGGACGGCGGACGCCAGCGCTCTCGGATC
CCCAGGCCCCTCCGTGCTCATCCCGGACCGCTCCGTCCCTGAGGAAAAACCGCCCCGTGCCCGGAACCGCGGCTT
CTCCCACGCGGGGCAGGCCGGGGCTGTGAGGGGGCAGCCCGCCTGCGGACTAGGCCGGGGGTTTGAGGAGGCGGC
TCTGCCGGGGACAAAGCCGGGGGCGTGAGGGGCGGTTCTGCCGGGTTCGGGGCGCGCGGGGCAGGTTGCGTGAAG
AGGCGGAAAGTCCCACTCGCCCTCGGCTTCTCCCTGCCCGGCCGCCGGTGTCCCGCCCGCCGCCTCCCCGCGCAG
CCCGGCCCGACCCGCGGCG**ATG**GCCCAGCCCGGGGACCCGCGGCGCCTCTGCAGGCTGGTGCAGGAGGGCCGGCT
GCGCGCCCTGAAGGAGGAGCTGCAGGCGGCCGGGGGCTGCCCGGGGCCGGCCGGGGATACCCTCCTGCACTGCGC
CGCGCGCCACGGGCATCGGGACGTGCTGGCCTATCTGGCCGAGGCCTGGGGCATGGACATCGAGGCCACCAACCG
AGACTACAAGCGGCCTCTGCACGAGGCGGCCTCCATGGGCCACCGAGACTGCGTGCGCTACCTGCTGGGCCGGGG
GGCAGCGGTCGACTGCCTGAAGAAGGCCGACTGGACTCCTCTGATGATGGCCTGCACAAGGAAGAACCTGGGGGT
GATCCAGGAGCTGGTGGAACATGGCGCCAATCCACTCCTGAAGAACAAAGATGGCTGGAACAGTTTCCACATTGC
CAGTCGAGAAGGCGACCCTCTGATCCTCCAGTACCTGCTCACTGTTTGCCCAGGTGCCTGGAAGACAGAGAGCAA
AATTAGAAGGACTCCTCTGCATACTGCAGCAATGCATGGCCATTTGGAGGCAGTCAAGGTGCTTCTTAAGAGGTG
CCAATATGAACCAGACTACAGAGACAACTGTGGCGTCACCGCCTTGATGGACGCAATCCAGTGTGGGCACATCGA
CGTCGCTAGGCTGCTCCTCGATGAACATGGGGCTTGCCTTTCAGCAGAAGACAGCCTGGGTGCCCAGGCTCTGCA
CAGGGCAGCTGTCACAGGGCAGGACGAAGCCATCCGATTCTTGGTCTCTGAACTTGGCGTCGATGTAGATGTGAG
AGCCACATCAACCCACCTCACAGCACTTCATTATGCAGCTAAGGAAGGACATACAAGTACAATTCAGACTCTCTT
ATCCTTGGGAGCTGACATCAATTCTAAAGATGAAAAAAATCGATCAGCCCTGCATCTGGCCTGTGCAGGTCAGCA
CTTGGCCTGTGCCAAGTTTCTCCTGCAGTCGGGACTGAAGGATTCTGAAGACATCACGGGCACCCTGGCTCAGCA
GCTCCCAAGGAGAGCAGATGTCCTTCAGGGCTCTGGCCATAGCGCAATGACA**TAA**GGATGTTTCCAAGAGGAGGC
AATAAAGTGCATGGTAATTC

FIGURE 2003

AGAGGAGGAGCTCGCTGCCGGGGGACGCTGGGCTGAGCGGCCGGCGGCGCGGGCCCGGCGGCGGCGGCAGCGGGG
TCCGGGTCCGGAGCGCCACAGTCAGGGAAGTCAAAGATGCATCCCTGAGTTCTTCCTAGCAGGCAAGCAGCCGTG
CACCAATGAC**ATG**GCCAAAAGCAATTCTGTTGGCCAGGACAGCTGTCAGGACTCTGAGGGTGACATGATCTTTCC
TGCAGAGAGCAGCTGTGCACTGCCTCAGGAAGGCAGTGCAGGGCCGGGCTCACCAGGGTCTGCCCCGCCCTCCAG
GAAGCGGTCTTGGTCCTCTGAGGAAGAGAGTAACCAGGCTACCGGGACCAGCCGGTGGGATGGAGTTTCTAAGAA
AGCTCCACGGCACCATTTGTCTGTGCCATGCACAAGGCCTAGGGAGGCCAGGCAAGAAGCAGAGGACAGTACGTC
TCGGCTCTCTGCGGAGTCTGGTGAAACCGACCAAGATGCTGGGGACGTGGGTCCTGATCCCATTCCTGACTCATA
CTATGGGCTTCTTGGGACCTTGCCCTGCCAGGAAGCACTGAGCCACATTTGCAGCCTGCCTAGTGAGGTCCTGAG
GCACGTGTTTGCCTTCCTCCCGGTGGAAGACCTCTATTGGAACCTGAGCTTGGTGTGCCACTTGTGGAGGGAGAT
CATCAGTGACCCGCTGTTCATTCCTTGGAAGAAGCTGTACCATCGATACCTGATGAATGAAGAGCAAGCTGTCAG
CAAAGTGGACGGCATCCTGTCTAACTGTGGCATAGAAAAGGAGTCAGACCTGTGTGTGCTGAACCTCATACGATA
CACAGCCACCACTAAGTGCTCTCCGAGTGTGGATCCCGAGAGGGTGCTGTGGAGTCTGAGGGACCACCCCCTCCT
CCCCGAGGCTGAGGCGTGTGTGCGGCAACACCTCCCCGACCTCTACGCTGCTGCCGGGGGTGTCAACATCTGGGC
CCTGGTGGCGGCTGTGGTGCTCCTCTCCAGCAGTGTGAATGACATCCAGCGACTGCTCTTCTGCCTCCGGAGACC
CAGCTCCACGGTGACCATGCCAGATGTCACCGAGACCCTGTACTGCATAGCCGTGCTTCTCTACGCCATGAGGGA
GAAGGGGATTAACATCAGCAATAGGATTCACTACAACATTTTCTATTGCCTATATCTTCAGGAGAATTCCTGCAC
TCAGGCCACAAAAGTTAAAGAGGAGCCATCTGTCTGGCCAGGCAAGAAAACCATCCAACTTACACATGAACAACA
GCTGATTCTGAATCACAAGATGGAACCTCTCCAGGTGGTGAAAATTATGGCCTTTGCCGGCACTGGGAAGACCTC
AACGCTGGTCAAGTATGCAGAGAAGTGGTCTCAGAGCAGGTTTCTGTATGTGACATTCAACAAGAGCATCGCAAA
GCAGGCCGAACGCGTCTTCCCCAGCAACGTCATCTGCAAAACCTTCCACTCCATGGCCTACGGGCACATAGGGCG
GAAGTACCAGTCAAAGAAGAAGTTGAATCTCTTCAAGTTAACACCCTTCATGGTCAACTCCGTCCTTGCTGAAGG
GAAGGGTGGATTCATAAGAGCCAAGCTTGTGTGTAAGACTCTAGAAAACTTCTTTGCCTCGGCTGACGAAGAGCT
GACCATTGATCACGTGCCTATTTGGTGTAAGAACAGCCAAGGACAGAGAGTCATGGTTGAGCAGAGTGAAAAACT
GAATGGTGTCCTTGAAGCGAGCCGCCTCTGGGATAACATGCGGAAGCTGGGGGAGTGCACAGAAGAGGCGCACCA
GATGACTCATGACGGCTACTTGAAACTCTGGCAGCTGAGCAAGCCTTCGCTGGCCTCTTTTGACGCCATCTTTGT
GGATGAGGCCCAGGACTGCACACCAGCTATCATGAACATAGTTCTGTCTCAGCCATGTGGGAAAATCTTTGTAGG
GGACCCGCACCAGCAGATCTATACCTTCCGGGGTGCGGTCAACGCCCTGTTCACAGTGCCCCACACCCACGTCTT
CTATCTCACGCAGAGTTTTCGGTTTGGTGTGGAAATAGCTTATGTGGGAGCTACTATCTTGGATGTTTGCAAGAG
AGTCAGGAAAAAGACTTTGGTTGGAGGAAACCATCAGAGTGGCATTAGAGGTGACGCAAAGGGGCAAGTGGCCTT
GTTGTCCCGGACCAACGCCAACGTGTTTGATGAGGCCGTACGGGTGACGGAAGGGGAATTCCCTTCAAGGATACA
TTTGATTGGGGGGATTAAATCATTTGGATTGGACAGAATCATTGATATTTGGATCCTTCTTCAGCCAGAGGAAGA
ACGGAGGAAACAAAACCTCGTCATTAAAGACAAATTTATCAGAAGATGGGTGCACAAAGAAGGCTTTAGTGGCTT
CAAGAGGTATGTGACCGCTGCCGAGGACAAGGAGCTTGAAGCCAAGATCGCAGTTGTTGAAAAGTATAACATCAG
GATTCCAGAGCTGGTGCAAAGGATAGAAAAATGCCATATAGAAGATTTGGACTTTGCAGAGTACATTCTGGGCAC
TGTGCACAAAGCCAAAGGCCTGGAGTTTGACACTGTGCATGTTTTGGATGATTTTGTGAAAGTGCCTTGTGCCCG
GCATAACCTGCCCCAGCTTCCGCACTTCAGAGTTGAGTCATTTTCTGAGGATGAATGGAATTTACTGTATGTTGC
AGTAACTCGAGCCAAGAAGCGTCTCATCATGACCAAATCATTGGAAAACATTTTGACTTTGGCTGGGGAGTACTT
CTTGCAAGCAGAGCTGACAAGCAACGTCTTAAAAACAGGCGTGGTGCGCTGCTGCGTGGGACAGTGCAACAATGC
CATCCCTGTTGACACCGTCCTTACCATGAAGAAGCTGCCCATCACCTATAGCAACAGGAAGGAAAACAAGGGGGG
CTACCTCTGCCACTCCTGTGCGGAGCAGCGCATCGGGCCCCTGGCGTTCCTGACAGCCTCCCCGGAGCAGGTGCG
CGCCATGGAGCGCACTGTGGAGAACATCGTACTGCCCCGGCATGAGGCCCTGCTCTTCCTCGTCTTC**TGA**GGACA
AGGCGCACGTTCTCCGCAGTGCAGAGCAGCTTGCCGAGGACCCCGCGTGAAGAAAGCCAGCGAGGGGGGCTTCTG
CTCCCTGAGACTCTGGGTTCACCCACAGCACTTTCTGAGGAAGAGGACACCAGCCCAAGCTGGACCTGCCATTTC
TCCACTCCCTACAGACAGCCAGTCTCCACTTGCCTCCCCTCTGGATGTATCTGGTCAGGGAAGTGGGGGATGTTC
TTTTGATAAAAAAAAAAAAAAAAAATTTATGTATTTAAACTTTTATTACAAGATTTCAATTAAACAGGCACCATAG
CACTGGC

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FIGURE 2004

CCCAGAGCAGCGCTCGCCACCTCCCCCCGGCCTGGGCAGCGCTCGCCCGGGGAGTCCAGCGGTGTCCTGTGGAGC
TGCCGCC**ATG**GCCCCGCGGCGGGCGCGCGGCTGCCGGACCCTCGGTCTCCCGGCGCTGCTACTGCTGCTGCTGCT
CCGGCCGCCGGCGACGCGGGGCATCACGTGCCCTCCCCCCATGTCCGTGGAACACGCAGACATCTGGGTCAAGAG
CTACAGCTTGTACTCCAGGGAGCGGTACATTTGTAACTCTGGTTTCAAGCGTAAAGCCGGCACGTCCAGCCTGAC
GGAGTGCGTGTTGAACAAGGCCACGAATGTCGCCCACTGGACAACCCCCAGTCTCAAATGCATTAGAGACCCTGC
CCTGGTTCACCAAAGGCCAGCGCCACCCTCCACAGTAACGACGGCAGGGGTGACCCCACAGCCAGAGAGCCTCTC
CCCTTCTGGAAAAGAGCCCGCAGCTTCATCTCCCAGCTCAAACAACACAGCGGCCACAACAGCAGCTATTGTCCC
GGGCTCCCAGCTGATGCCTTCAAAATCACCTTCCACAGGAACCACAGAGATAAGCAGTCATGAGTCCTCCCACGG
CACCCCCTCTCAGACAACAGCCAAGAACTGGGAACTCACAGCATCCGCCTCCCACCAGCCGCCAGGTGTGTATCC
ACAGGGCCACAGCGACACCACTGTGGCTATCTCCACGTCCACTGTCCTGCTGTGTGGGCTGAGCGCTGTGTCTCT
CCTGGCATGCTACCTCAAGTCAAGGCAAACTCCCCCGCTGGCCAGCGTTGAAATGGAAGCCATGGAGGCTCTGCC
GGTGACTTGGGGGACCAGCAGCAGAGATGAAGACTTGGAAAACTGCTCTCACCACCTA**TGA**AACTCGGGGAAACC
AGCCCAGCTAAGTCCGGAGTGAAGGAGCCTCTCTGCTTTAGCTAAAGACGACTGAGAAGAGGTGCAAGGAAGCGG
GCTCCAGGAGCAAGCTCACCAGGCCTCTCAGAAGTCCCAGCAGGATCTCACGGACTGCCGGGTCGGCGCCTCCTG
CGCGAGGGAGCAGGTTCTCCGCATTCCCATGGGCACCACCTGCCTGCCTGTCGTGCCTTGGACCCAGGGCCCAGC
TTCCCAGGAGAGACCAAAGGCTTCTGAGCAGGATTTTTATTTCATTACAGTGTGAGCTGCCTGGAATACATGTGG
TAATGAAATAAAAACCCTGCCCCGAATCTTCCGTCCCTCATCCTAACTTTCAGTTCACAGAGAAAAGTGACATAC
CCAAAGCTCTCTGTCAATTACAAGGCTTCTCCTGGCGTGGGAGACGTCTACAGGGAAGACACCAGCGTTTGGGCT
TCTAACCACCCTGTCTCCAGCTGCTCTGCACACATGGACAGGGACCTGGGAAAGGTGGGAGAGATGCTGAGCCCA
GCGAATCCTCTCCATTGAAGGATTCAGGAAGAAGAAAACTCAACTCAGTGCCATTTTACGAATATATGCGTTTAT
ATTTATACTTCCTTGTCTATTATATCTATACATTATATATTATTTGTATTTTGACATTGTACCTTGTATAAACAA
AATAAAACATCTATTTTCAATATTTTTAAAATGCA

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FIGURE 2005

AGAGACTGGATGGACCCACAAGGGTGACAGCCCAGGCGGACCGATCTTCCCATCCCACATCCTCCGGCGCGATGC
CAAAAAGAGGCTGACGGCAACTGGGCCTTCTGCAGAGAAAGACCTCCGCTTCACTGCCCCGGCTGGTCCCAAGGG
TCAGGAAG**ATG**GATTCATACCTGCTGATGTGGGGACTGCTCACGTTCATCATGGTGCCTGGCTGCCAGGCAGAGC
TCTGTGACGATGACCCGCCAGAGATCCCACACGCCACATTCAAAGCCATGGCCTACAAGGAAGGAACCATGTTGA
ACTGTGAATGCAAGAGAGGTTTCCGCAGAATAAAAAGCGGGTCACTCTATATGCTCTGTACAGGAAACTCTAGCC
ACTCGTCCTGGGACAACCAATGTCAATGCACAAGCTCTGCCACTCGGAACACAACGAAACAAGTGACACCTCAAC
CTGAAGAACAGAAAGAAAGGAAAACCACAGAAATGCAAAGTCCAATGCAGCCAGTGGACCAAGCGAGCCTTCCAG
GTCACTGCAGGGAACCTCCACCATGGGAAAATGAAGCCACAGAGAGAATTTATCATTTCGTGGTGGGGCAGATGG
TTTATTATCAGTGCGTCCAGGGATACAGGGCTCTACACAGAGGTCCTGCTGAGAGCGTCTGCAAAATGACCCACG
GGAAGACAAGGTGGACCCAGCCCCAGCTCATATGCACAGGTGAAATGGAGACCAGTCAGTTTCCAGGTGAAGAGA
AGCCTCAGGCAAGCCCCGAAGGCCGTCCTGAGAGTGAGACTTCCTGCCTCGTCACAACAACAGATTTTCAAATAC
AGACAGAAATGGCTGCAACCATGGAGACGTCCATATTTACAACAGAGTACCAGGTAGCAGTGGCCGGCTGTGTTT
TCCTGCTGATCAGCGTCCTCCTCCTGAGTGGGCTCACCTGGCAGCGGAGACAGAGGAAGAGTAGAAGAACAATC**T**
AGAAAACCAAAAGAACAAGAATTTCTTGGTAAGAAGCCGGGAACAGACAACAGAAGTCATGAAGCCCAAGTGAAA
TCAAAGGTGCTAAATGGTCGCCCAGGAGACATCCGTTGTGCTTGCCTGCGTTTTGGAAGCTCTGAAGTCACATCA
CAGGACACGGGGCAGTGGCAACCTTGTCTCTATGCCAGCTCAGTCCCATCAGAGAGCGAGCGCTACCCACTTCTA
AATAGCAATTTCGCCGTTGAAGAGGAAGGGCAAAACCACTAGAACTCTCCATCTTATTTTCATGTATATGTGTTC
ATTAAAGCATGAATGGTATGGAACTCTCTCCACCCTATATGTAGTATAAAGAAAAGTAGGTTTACATTCATCTCA
TTCCAACTTCCCAGTTCAGGAGTCCCAAGGAAAGCCCCAGCACTAACGTAAATACACAACACACACACTCTACCC
TATACAACTGGACATTGTCTGCGTGGTTCCTTTCTCAGCCGCTTCTGACTGCTGATTCTCCCGTTCACGTTGCCT
AATAAACATCCTTCAAGAACTCTGGGCTGCTACCCAGAAATCATTTTACCCTTGGCTCAATCCTCTAAGCTAACC
CCCTTCTACTGAGCCTTCAGTCTTGAATTTCTAAAAAACAGAGGCCATGGCAGAATAATCTTTGGGTAACTTCAA
AACGGGGCAGCCAAACCCATGAGGCAATGTCAGGAACAGAAGGATGAATGAGGTCCCAGGCAGAGAATCATACTT
AGCAAAGTTTTACCTGTGCGTTACTAATTGGCCTCTTTAAGAGTTAGTTTCTTTGGGATTGCTATGAATGATACC
CTGAATTTGGCCTGCACTAATTTGATGTTTACAGGTGGACACACAAGGTGCAAATCAATGCGTACGTTTCCTGAG
AAGTGTCTAAAAACACCAAAAAGGGATCCGTACATTCAATGTTTATGCAAGGAAGGAAAGAAAGAAGGAAGTGAA
GAGGGAGAAGGGATGGAGGTCACACTGGTAGAACGTAACCACGGAAAAGAGCGCATCAGGCCTGGCACGGTGGCT
CAGGCCTATAACCCCAGCTCCCTAGGAGACCAAGGCGGGAGCATCTCTTGAGGCCAGGAGTTTGAGACCAGCCTG
GGCAGCATAGCAAGACACATCCCTACAAAAAATTAGAAATTGGCTGGATGTGGTGGCATACGCCTGTAGTCCTAG
CCACTCAGGAGGCTGAGGCAGGAGGATTGCTTGAGCCCAGGAGTTCGAGGCTGCAGTCAGTCATGATGGCACCAC
TGCACTCCAGCCTGGGCAACAGAGCAAGATCCTGTCTTTAAGGAAAAAAAGACAAG

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FIGURE 2006

GGACTCAGCGAAGGGTGGGCGCCGCCGAGGCCTCCTGCCGCTGGCGGGTTTCCGCGGAGTGCCGCCCGGCTCCGC
TCTGCCGCCGGCGCGGCTCATGGGCAGAGTCGGCCGGGCGGGCCGGCATTAAACTGAAGAAAAG**ATG**TCCCTGTA
CGATGACCTAGGAGTGGAGACCAGTGACTCAAAAACAGAAGGCTGGTCCAAAAACTTCAAACTTCTGCAGTCTCA
GCTTCAGGTGAAGAAGGCAGCTCTCACTCAGGCAAAGAGCCAAAGGACGAAACAAAGTACAGTCCTCGCCCCAGT
CATTGACCTGAAGCGAGGTGGCTCCTCAGATGACCGGCAAATTGTGGACACTCCACCGCATGTAGCAGCTGGGCT
GAAGGATCCTGTTCCCAGTGGGTTTTCTGCAGGGGAAGTTCTGATTCCCTTAGCTGACGAATATGACCCTATGTT
TCCTAATGATTATGAGAAAGTAGTGAAGCGCCAAAGAGAGGAACGACAGAGACAGCGGGAGCTGGAAAGACAAAA
GGAAATAGAAGAAAGGGAAAAAAGGCGTAAAGACAGACATGAAGCAAGTGGGTTTGCAAGGAGACCAGATCCAGA
TTCTGATGAAGATGAAGATTATGAGCGAGAGAGGAGGAAAAGAAGTATGGGCGGAGCTGCCATTGCCCCACCCAC
TTCTCTGGTAGAGAAAGACAAAGAGTTACCCCGAGATTTTCCTTATGAAGAGGACTCAAGACCTCGATCACAGTC
TTCCAAAGCAGCCATTCCTCCCCCAGTGTACGAGGAACAAGACAGACCGAGATCTCCAACCGGACCTAGCAACTC
CTTCCTCGCTAACATGGGGGGCACGGTGGCGCACAAGATCATGCAGAAGTACGGCTTCCGGGAGGGCCAGGGTCT
GGGGAAGCATGAGCAGGGCCTGAGCACTGCCTTGTCAGTGGAGAAGACCAGCAAGCGTGGCGGCAAGATCATCGT
GGGCGACGCCACAGAGAAAGATGCATCCAAGAAGTCAGATTCAAATCCGCTGACTGAAATACTTAAGTGTCCTAC
TAAAGTGGTCTTACTAAGGAACATGGTTGGTGCGGGAGAGGTGGATGAAGACTTGGAAGTTGAAACCAAGGAAGA
ATGTGAAAAATATGGCAAAGTTGGAAAATGTGTGATATTTGAAATTCCTGGTGCCCCTGATGATGAAGCAGTACG
GATATTTTTAGAATTTGAGAGAGTTGAATCAGCAATTAAAGCGGTTGTTGACTTGAATGGGAGGTATTTTGGTGG
ACGGGTGGTAAAAGCATGTTTCTACAATTTGGACAAATTCAGGGTCTTGGATTTGGCAGAACAAGTT**TGA**TTTTA
AGAACTAGAGCACGAGTCATCTCCGGTGATCCTTAAATGAACTGCAGGCTGAGAAAAGAAGGAAAAAGGTCACAG
CCTCCATGGCTGTTGCATACCAAGACTCTTGGAAGGACTTCTAAGATATATGTTGATTGATCCCTTTTTTATTTT
GTGGTTTTTTAATATAGTATAAAAATCCTTTTAAAAAAACAA

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FIGURE 2007A

AGGACTCTCTTAGCCTCCACCCATGTGAACCATAATATCTATATTACGGAGGTGAAGACTGGCAAGTGTGTTCAT
TCCCTGATTGGACACCGCCGTACTCCATGGTGTGTCACTTTTCATCCCACCATCTCAGGCCTTATTGCTTCTGGC
TGCCTAGATGGGGAGGTTAGGATTTGGGATTTACACGGTGGCAGTGAAAGCTGGTTCACAGATAGCAACAATGCC
ATTGCCTCCCTGGCTTTCCACCCTACGGCTCAGCTCCTGCTGATTGCCACTGCCAATGAGATCCACTTCTGGGAC
TGGAGTCGACGGGAACCCTTTGCTGTGGTGAAGACAGCTAGTGAG**ATG**GAACGGGTCCGTCTGGTGAGATTTGAT
CCACTTGGACACTACTTACTCACAGCAATTGTTAACCCCTCTAATCAACAGGGTGATGACGAACCAGAGATCCCC
ATAGATGGAACAGAATTATCCCACTACCGTCAGCGTGCCCTCCTGCAATCACAGCCAGTTCGCCGGACGCCTCTC
CTCCACAATTTCCTGCACATGCTGTCCTCCCGCTCTTCTGGCATCCAGGTGGGAGAGCAAAGCACAGTGCAAGAT
TCTGCTACCCCCTCACCCCCACCGCCTCCCCCTCAGCCCTCCACGGAGCGCCCCAGGACTTCCGCTTACATCAGG
CTCCGACAGCGGGTCAGTTACCCCACAGCTGAGTGCTGCCAGCACCTTGGGATCCTGTGCCTTTGCAGCCGCTGC
TCTGGCACTCGAGTTCCTTCCCTCTTGCCACACCAGGACAGTGTCCCCCCTGCTTCTGCCAGAGCTACTACCCCT
TCCTTTTCTTTTGTACAGACCGAGCCCTTCCATCCCCCGGAGCAGGCCTCGTCAACGCAGCAGGACCAGGGCCTC
CTGAACCGGCCGTCTGCCTTCAGTACAGTCCAGAGCAGCACTGCCGGCAACACGCTCCGCAACCTCAGTCTGGGT
CCTACCCGCCGCTCTTTGGGAGGGCCTCTGTCTAGCCACCCTTCTAGGTATCACCGAGAAATAGCTCCTGGGTTG
ACAGGATCTGAGTGGACCCGGACAGTACTCAGTCTGAACTCCCGCTCTGAGGCGGAATCCATGCCCCCGCCCAGA
ACCAGTGCCTCTTCGGTGAGTTTGCTGTCTGTGCTGAGACAGCAGGAAGGTGGCTCTCAGGCATCTGTGTACACT
TCAGCCACAGAAGGGAGGGGTTTTCCGGCATCAGGGTTGGCAACTGAGTCAGATGGAGGGAATGGCTCCAGCCAA
AACAACTCAGGCAGCATTCGCCATGAGCTTCAGTGTGACCTGAGACGCTTCTTTCTGGAGTATGACCGGCTTCAG
GAGCTGGATCAGAGCCTGAGTGGGGAAGCTCCCCAGACCCAACAGGCCCAGGAAATGCTCAACAATAACATTGAA
TCTGAGAGGCCAGGCCCTTCCCACCAGCCCACCCCACACAGCAGTGAGAACAACTCCAACCTGTCCCGTGGCCAC
CTGAATCGCTGTCGTGCTTGCCACAATCTCCTGACCTTCAACAACGATACCCTGCGCTGGGAAAGAACCACACCT
AACTACTCCTCTGGCGAGGCTAGTTCCTCTTGGCAGGTCCCCAGCTCCTTTGAGAGTGTGCCATCAAGTGGCAGC
CAGTTGCCACCTCTCGAGCGGACTGAGGGCCAAACGCCCAGCTCCAGCAGGCTGGAGTTGAGCAGCTCTGCTAGT
CCGCAGGAGGAGAGGACTGTGGGGGTGGCCTTTAACCAGGAGACAGGCCACTGGGAAAGAATTTACACCCAGTCC
AGCAGATCTGGAACTGTGTCACAGGAGGCCTTACATCAGGATATGCCTGAGGAGAGCTCTGAGGAGGATTCACTC
AGGAGGAGGCTGCTGGAATCTTCCCTCATTTCATTATCCCGTTATGATGGAGCAGGATCCAGAGAGCACCCAATT
TACCCAGACCCAGCGAGGGACAATGGTGACAGATCCAGGCACCGAGCTCCACGCAATGCCCGGATGTCTGCACCT
TCGCTTGGACGCTTTGTCCCAAGGCGTTTCTTGCTGCCTGAGTACTTGCCTTATGCTGGGATTTTTCATGAACGT
GGACAGCCTGGCTTGGCTACTCACTCTTCTGTTAACAGGGTCCTGGCAGGGGCAGTGATCGGTGATGGACAGTCT
GCTGTGGCCAGTAACATTGCCAATACTACCTACCGGCTCCAGTGGTGGGACTTCACTAAGTTTGACCTCCCTGAA
ATCAGTAATGCTTCCGTGAATGTGCTGGTGCAGAACTGCAAGATCTACAATGATGCCAGCTGTGACATTTCTGCA
GATGGCCAGCTCCTGGCAGCTTTCATCCCCAGCAGCCAGAGGGGCTTTCCTGATGAAGGCATCCTGGCAGTGTAC
TCCCTGGCCCCCCATAACCTGGGCGAAATGCTCTACACCAAGCGATTTGGTCCCAATGCCATTTCGGTGAGCCTG
TCCCCAATGGGCAGATATGTAATGGTGGGCTTGGCCTCACGAAGGATCCTGCTGCACCCCTCCACAGAGCACATG
GTGGCCCAGGTCTTCAGGCTGCAACAGGCCCATGGTGGAGAGACCTCCATGAGGAGAGTTTTCAACGTCCTTTAT
CCCATGCCTGCCGACCAGCGGAGACATGTCAGTATCAACTCTGCCCGTTGGCTGCCTGAGCCAGGGCTTGGCTTG
GCCTATGGTACTAACAAAGGAGACCTGGTGATCTGCCGACCAGAGGCCTTAAACTCTGGTGTTGAGTACTACTGG
GACCAGCTGAACGAGACGGTCTTCACTGTCCATTCCAACAGCAGGAGCAGCGAGCGGCCTGGAACCAGCAGAGCC
ACATGGAGGACAGACAGAGACATGGGGCTGATGAATGCCATTGGGCTTCAGCCCCGGAACCCTGCCACCTCAGTG
ACATCTCAGGGCACCCAGACTCTGGCCCTTCAGCTGCAGAATGCCGAAACACAGACTGAGAGGGAGGTGCCGGAG
CCAGGGACAGCCGCCTCAGGTCCTGGTGAAGGTGAGGGTTCAGAGTATGGTGCCAGTGGAGAAGATGCGCTCAGC
AGGATCCAGAGGCTGATGGCGGAGGGCGGCATGACAGCCGTGGTGCAGCGGGAGCAGAGCACCACCATGGCCTCC
ATGGGCGGCTTCGGCAACAACATCATCGTCAGCCACCGCATTCACCGCAGCTCTCAGACGGGCACTGAACCTGGT
GCCGCCCACACCTCCTCACCCCAGCCCTCCACCTCTCGGGGACTGCTCCCAGAGGCCGGGCAACTGGCAGAGCGA
GGCCTAAGCCCCCGGACAGCTTCCTGGGACCAGCCTGGTACCCCTGGGCGGGAGCCAACCCAGCCAACCCTGCCC
TCTTCCTCCCCCTGTCCCCATTCCTGTTTCCCTTCCCAGCGCTGAGGGACCAACCCTCCACTGCGAGTTGACCAAT
AACAACCACCTTCTGGATGGTGGCAGCAGCAGGGGGGACGCTGCAGGCCCTAGGGGAGAACCACGGAACAGG**TAG**

AGACAAACGTTGCACTGGTGCCTCCCCTCGAACCGCCAAGCAGAAACCGGACCTCACAGCTGACTGGGAACTGGA

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FIGURE 2007B

CATGTGGAAGAGCTGCTGGCTGCATCAGGGAACAGGAGGAGGAAGAGGGTCAGGGTGGAGAGGAAGATCAGTCAG
TGGGCACAAGACAGTCAAATGGGCAAGGCCTGCCTCGGGGAACTAGAACCTTCCAGGATCTGGAGCCCGGGAGAG
CCACACTGTGGGCTTAATGTGAATAGAGGAACAAGTGGGTATCTCTGCCAGGCACCCCACTTTCTCCTAGTAACA
TGGGCTCAGGGGACTCAGCCCTGGACAGAGAGCCTCCAGAGAGTGAACAGTCTTCCAGATCTGGGCCAATCATCC
TGGACAGAGGCCCGCGAGGCAGCTTTGCCCTGTCCACCTGTTGGGTGGGCAGAGCCACCAGGAACCCAGACACCA
CCTCCAACTCTGAGCCTTCCAGAGCTTCAGCCTCTCTTCGTCGTCTTACCCCACTGAAACCAACAGGGATCGGGC
CAGGCTCCCAGATTCTTGAGGACAGGGACTTCGGCATTTACTAATGGGGGACTACTGTGGGGTAAGGGGGCGCCT
GCTTGCCTGATACAGGATGGGGTCAAGGGACAGTGGGCAGGTCCTCACTCAGGAGTGGGGGGTGTAGGCTGGCCA
GCCCCCAGGGCTTGTCCACCAGTCTTCTCCCCGCAAGGCCCTCAGAGCAGCGCCTGTGGGTGTCAGTATTACCTG
AGCCTAGGCCAAAGCTAGCCCAAGGCTGGGGAAGGGGAGGAGACTCCAGGTCAGAATGTGAGGTCTCAGTCTGTG
ATTTAAGGTGTTGCATGTGGACTCTTAACTGTACGTGTAGTTTCTAGTGGAGAAATCAAGGCTCTGATCATTTTG
TTTTTAGTATGAAAATGTGATTTCCTTTCTGTTTGTAACTCCTCATAGAAACATTGTGGTGGGAGGAGAGGGGAT
AGTCTACAGCTAATGAGGGAAACACCAAAGATCACATCATTAAAATGATGACATGCCCCTC

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FIGURE 2008

TTTTCATTTAAATATTCTTCTTTTGCTTCTCTTAAGCAGAAGCTGGTCTCTGCTTTTCACCACCTGGAATCCCAG
TCCCAACAGCTGCTCTTCTAACCCTTCCGGCCTAATTGTGGAATAATCGTTTAAATCATTAAGAGACAGAATCTG
ATGTTGGTAGCTCTGACAGACCTCTCTAGCTTCTTTCATAAGCCAGGGCTCTTGCCCAGCTCCTGCACACAGCCT
GCCAGTTCTCCATCTTAGCACAGTTCCACTTTTCCATAGTAGCCAGAAACATCTGGCTGAAGACAAACAGTTACA
AAGCAGAAGCCAAGGTGATGGGATCTGTTGTCACATATGGGGCTGGCAGCTCAAGGAATGTGGTTCTCTGCTGAG
GAGATGTGGTAATCCAGTCAGCCCCTGGCTGTCCTGCCAAGGGTCTCAAGGCAGCTAGCCAGCAGCTGCATGCTT
GGTGACTGGAGCTACTACTACTGCCAGGCTGCCTGGTGAACCTTTTTTGATTCTCAGTAGGTACCATCTGCCACC
AAGCACTAAGAAAGGGAGCTGAAGTACCTAGAAAGTTCCCATTTGGGAAGTGTTCCTGTCACCCAAGAGACAGGA
TCAAGGCATCTCAACAAGGTTTAGGTCAACCAAGTGTCCACCCAGTCTGACTTTAAACCCCCATGCTACAGAAAG
GTTTCTGGTTTTCCAGGTCTTGGTTGCCCCTTACGTCCAAAGGCACCAGATCACTCAGCAAATGTCCCTGAATTC
AGTGATTGGTGGAAGGGAAGACACCAGCTTTTTTGGATAGCTGTGCTGTATCACCGTTTAAGGCAAGAAGTGAAT
TTTTGTCTGAGAACAGGGAGCAAGGGTTTAATGGGACAGTACAGCATCTCCCTCTTTGCACAGGTAAGTATAGGT
GGGTGTCTCCATCTCTAATGTCAAGCTCTGACCATAAAGGAATGCTTTAGTGGGTAATGGGCCTGTCCTAGAGCT
TTGCTACCCAGAATTCCCCTTCTGTCTGGTGTTACCTCTTGGAATTCACTGTGGTAATGTTCAGAGAGGCAAATG
TGTTGGGCCAACAGACATTCCCAGGAGAACATCCTCCAGAGCATTGATTTATTTTAAGATGGCACTAAGTGACAT
CTCTCCCCAAGAGATGATCTCTGACACAATCCCATATGAAAACTCTTCTGAAAATGAATTGCTAATTGCTATTAG
CCTTGATGCACTTACTCTAAGCAGTTCTTCAGACTTCTGGATCAGTGCTTCTCAAACTGTGGTTCTTGGACAACT
TACAGTAGAACTACATGGGTCCTTATTAAAATACAGATCCATTTCAGACCTAAAATCAGAATAAGAATGGGAGTC
AGAGGGACCCAGGATTAGTATTTTTAAAACAAGATTTCTTCATTTTAGGTGTCTGCCCTCAGCCTCCTCAGCAAG
GCAGAGTCAGTCTCAGGTCTACTTGCCATTGTGGTTTTGTGCATGGTGCTTTGATTCTTTGCTAATTATGTTGCA
GGCACAGTGGTGTTTGTCTTCTGTTTCCTACCAAACTCAGCTTTTTTGGCTGTCTGCGCCTCACCTCCCATCTTT
TCTAGGCTGTTGCTGCTTTCCAGGTTTCTCCCTTGAATAGCTGTATGTGCTGGAGTCTTTTCTTTATGTTGAATC
ATTTTAATTTTTGTCCTTATTTCTAGGATCTAGGGTCCTTTTGATCTTTCCCTTCTCTGTTTATCGTGCTAGTCC
TCCCAGTTTTAATGATGGGTAAGTCAGGAAAGTAAGACTGGGCACATATTTTCTCTCTCCCTTCCCACTGTCCAT
TTGCGATTCCTCCAGATTGGATATGCTACTCTCTATGACTCAGAATCTTATTTTCTGTCTGATTCCCTTCTGCTT
GAGCCAGAGAGGGCTTTTTGTTAATTTTTGTTTTGTTTTTAGGTTAAGCTTTTAGAGACTGCTGAGCTGAAGTTT
TGCTGAATTCTCAAAACACTAAACTGCCTGTGTTCCCTCTCGGCTTTCATTTTCTAATTGGAACCAGGCACAGTA
TTGTAACAGAGAACTGCAATTAATTTTCTAAAATAGTGGCAACTTGCACAGTATAATAACTTTGGTTGTAACCAA
GTGAAAGCATAATAACAAAAATACAAAATTACTGATGAAACCAGAAAGAGTCATATACCACATTCTTCCTTTAGT
TTGTATCTCAGTAAGTGCTGTGTTACTTAGGAATAGGGGCAGAAGCCTGCAACTGGGCAGGGAGGTTCAGGGACA
TGAGGACGAAGCTAGGGCATTTTGAGCTAGAAAGCAAGAATAAGGATTAGTGCTTTCAACACTGGAATTAACATG
GACCACCCCCCCACCTCCCAATAAGTGGGGATTGTAGGCACATAAGTGGTTTAGTAAGAAGTGGAAAAGGTTTTT
CTGTGGAGTTCGAGTTCCATCGGCTCCCATCCGGGCTATCCTGCCACCTTAGCGGCTGCTCCTCCCCAGGATGCG
GGCAGGGGGCCTCTCTCCCACTCCCCACACACCGATTTCTGAGTAGCGATAGGGGCTGGAGGCTTATTTTATGGG
GTAGGGGGCCGCTGGTAGGCGAAGATTGTCCGAGGGAGAGGGGGAGGATGAAGCCAGTGCGTGGCGGAGACCTGC
CAG**ATG**TTGATGCCTAAGAAGAACCGGATTGCCATTTATGAACTCCTTTTTAAGGAGGGAGTCATGGTGGCCAAG
AAGGATGTCCACATGCCTAAGCACCCGGAGCTGGCAGACAAGAATGTGCCCAACCTTCATGTCATGAAGGCCATG
CAGTCTCTCAAGTCCCGAGGCTACGTGAAGGAACAGTTTGCCTGGAGACATTTCTACTGGTACCTTACCAATGAG
GGTATCCAGTATCTCCGTGATTACCTTCATCTGCCCCCAGAGATTGTGCCTGCCATCCTACGCCGTAGCCGTCCA
GAGACTGGCAGGCCTCGGCCTAAAGGTCTGGAGGGTGAGCGACCTGCGAGACTCACAAGAGGGGAAGCTGACAGA
GATACCTACAGACGGAGTGCTGTGCCACCTGGTGCCGACAAGAAAGCCGAGGCTGGGGCTGGGTCAGCAACCGAA
TTCCAGTTTAGAGGCGGATTTGGTCGTGGACGTGGTCAGCCACCTCAG**TAA**AATTGGAGAGGATTCTTTTGCATT
GAATAAACTTATAGCCAAAAAACCTT

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FIGURE 2009

GCGAAGCAGCGCGGGCAGCGAG**ATG**CAGCACCGAGGCTTCCTCCTCCTCACCCTCCTCGCCCTGCTGGCGCTCAC
CTCCGCGGTCGCCAAAAAGAAAGATAAGGTGAAGAAGGGCGGCCCGGGGAGCGAGTGCGCTGAGTGGGCCTGGGG
GCCCTGCACCCCCAGCAGCAAGGATTGCGGCGTGGGTTTCCGCGAGGGCACCTGCGGGGCCCAGACCCAGCGCAT
CCGGTGCAGGGTGCCCTGCAACTGGAAGAAGGAGTTTGGAGCCGACTGCAAGTACAAGTTTAAAAAATGGGGTGA
AGTG**TGA**TGGGGGCACAGGCACCAAAGTCCGCCAAGGCACCCTGAAGAAGGCGCGCTACAATGCTCAGTGCCAGG
AGACCATCCGGGTCCCCCAGCCCTGCACCCCCAAGACCAAAGCAAAGGCCAAAGCCAAGAAAGGGAAGGGAAAGG
ACTAGACGCCAAGCCTGGATGCCAAGGAGCCCCTGGTGTCACATGGGGCCTGGCCCACGCCCTCCCTCTCCCAGG
CCCGAGATGTGACCCACCAGTGCCTTCTGTCTGCTCGTTAGCTTTAATCAATCATGCCCTGCCTTGTCCCTCTCA
CTCCCCAGCCCCACCCCTAAGTGCCCAAAGTGGGGAGGGACAAGGGATTCTGGGAAGCTTGAGCCTCCCCCAAAG
CAATGTGAGTCCCAGAGCCCGCTTTTGTTCTTCCCCACAATTCCATTACTAAGAAACACATCAAATAAACTGACT
TTTTCCCCCCAATAAAAGCTCTTCTTTTTTAATAT

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FIGURE 2010

GCGGCGCGGAGCGGGCGTGCTGAACCCCGGCCGCCGGCCCGGCATGGGCGTCTCCCGCGGGCCCTCCGCCGGCCG
GGGCTAGGGCCGG**ATG**GAGCCGCGGGACGGTAGCCCCGAGGCCCGGAGCAGCGACTCCGAGTCGGCTTCCGCCTC
GTCCAGCGGCTCCGAGCGCGACGCCGGTCCCGAGCCGGACAAGGCGCCGCGGCGACTCAACAAGCGGCGCTTCCC
GGGGCTGCGGCTCTTCGGGCACAGGAAAGCCATCACCAAGTCGGGCCTCCAGCACCTGGCCCCCCCTCCGCCCAC
CCCTGGGGCCCCGTGCAGCGAGTCAGAGCGGCAGATCCGGAGTACAGTGGACTGGAGCGAGTCAGCGACATATGG
GGAGCACATCTGGTTCGAGACCAACGTGTCCGGGGACTTCTGCTACGTTGGGGAGCAGTACTGTGTAGCCAGGAT
GCTGAAGTCAGTGTCTCGAAGAAAGTGCGCAGCCTGCAAGATTGTGGTGCACACGCCCTGCATCGAGCAGCTGGA
GAAGATAAATTTCCGCTGTAAGCCGTCCTTCCGTGAATCAGGCTCCAGGAATGTCCGCGAGCCAACCTTTGTACG
GCACCACTGGGTACACAGACGACGCCAGGACGGCAAGTGTCGGCACTGTGGGAAGGGATTCCAGCAGAAGTTCAC
CTTCCACAGCAAGGAGATTGTGGCCATCAGCTGCTCGTGGTGCAAGCAGGCATACCACAGCAAGGTGTCCTGCTT
CATGCTGCAGCAGATCGAGGAGCCGTGCTCGCTGGGGGTCCACGCAGCCGTGGTCATCCCGCCCACCTGGATCCT
CCGCGCCCGGAGGCCCCAGAATACTCTGAAAGCAAGCAAGAAGAAGAAGAGGGCATCCTTCAAGAGGAAGTCTAG
CAAGAAAGGGCCTGAGGAGGGCCGCTGGAGACCCTTCATCATCAGGCCCACCCCCTCCCCGCTCATGAAGCCCCT
GCTGGTGTTTGTGAACCCCAAGAGTGGGGGCAACCAGGGTGCAAAGATCATCCAGTCTTTCCTCTGGTATCTCAA
TCCCCGACAAGTCTTCGACCTGAGCCAGGGAGGGCCCAAGGAGGCGCTGGAGATGTACCGCAAAGTGCACAACCT
GCGGATCCTGGCGTGCGGGGGCGACGGCACGGTGGGCTGGATCCTCTCCACCCTGGACCAGCTACGCCTGAAGCC
GCCACCCCCTGTTGCCATCCTGCCCCTGGGTACTGGCAACGACTTGGCCCGAACCCTCAACTGGGGTGGGGGCTA
CACAGATGAGCCTGTGTCCAAGATCCTCTCCCACGTGGAGGAGGGGAACGTGGTACAGCTGGACCGCTGGGACCT
CCACGCTGAGCCCAACCCCGAGGCAGGGCCTGAGGACCGAGATGAAGGCGCCACCGACCGGTTGCCCCTGGATGT
CTTCAACAACTACTTCAGCCTGGGCTTTGACGCCCACGTCACCCTGGAGTTCCACGAGTCTCGAGAGGCCAACCC
AGAGAAATTCAACAGCCGCTTTCGGAATAAGATGTTCTATGCCGGGACAGCTTTCTCTGACTTCCTGATGGGCAG
CTCCAAGGACCTGGCCAAGCACATCCGAGTGGTGTGTGATGGAATGGACTTGACTCCCAAGATCCAGGACCTGAA
ACCCCAGTGTGTTGTTTTCCTGAACATCCCCAGGTACTGTGCGGGCACCATGCCCTGGGGCCACCCTGGGGAGCA
CCACGACTTTGAGCCCCAGCGGCATGACGACGGCTACCTCGAGGTCATTGGCTTCACCATGACGTCGTTGGCCGC
GCTGCAGGTGGGCGGACACGGCGAGCGGCTGACGCAGTGTCGCGAGGTGGTGCTCACCACATCCAAGGCCATCCC
GGTGCAGGTGGATGGCGAGCCCTGCAAGCTTGCAGCCTCACGCATCCGCATCGCCCTGCGCAACCAGGCCACCAT
GGTGCAGAAGGCCAAGCGGCGGAGCGCCGCCCCCCTGCACAGCGACCAGCAGCCGGTGCCAGAGCAGTTGCGCAT
CCAGGTGAGTCGCGTCAGCATGCACGACTATGAGGCCCTGCACTACGACAAGGAGCAGCTCAAGGAGGCCTCTGT
GCCGCTGGGCACTGTGGTGGTCCCAGGAGACAGTGACCTAGAGCTCTGCCGTGCCCACATTGAGAGACTCCAGCA
GGAGCCCGATGGTGCTGGAGCCAAGTCCCCGACATGCCAGAAACTGTCCCCCAAGTGGTGCTTCCTGGACGCCAC
CACTGCCAGCCGCTTCTACAGGATCGACCGAGCCCAGGAGCACCTCAACTATGTGACTGAGATCGCACAGGATGA
GATTTATATCCTGGACCCTGAGCTGCTGGGGGCATCGGCCCGGCCTGACCTCCCAACCCCCACTTCCCCTCTCCC
CACCTCACCCTGCTCACCCACGCCCCGGTCACTGCAAGGGGATGCTGCACCCCCTCAAGGTGAAGAGCTGATTGA
GGCTGCCAAGAGGAACGACTTCTGTAAGCTCCAGGAGCTGCACCGAGCTGGGGGCGACCTCATGCACCGAGACGA
GCAGAGTCGCACGCTCCTGCACCACGCAGTCAGCACTGGCAGCAAGGATGTGGTCCGCTACCTGCTGGACCACGC
CCCCCCAGAGATCCTTGATGCGGTGGAGGAAAACGGGGAGACCTGTTTGCACCAAGCAGCGGCCCTGGGCCAGCG
CACCATCTGCCACTACATCGTGGAGGCCGGGGCCTCGCTCATGAAGACAGACCAGCAGGGCGACACTCCCCGGCA
GCGGGCTGAGAAGGCTCAGGACACCGAGCTGGCCGCCTACCTGGAGAACCGGCAGCACTACCAGATGATCCAGCG
GGAGGACCAGGAGACGGCTGTG**TAG**CGGGCCGCCCACGGGCAGCAGGAGGGACAATGCGGCCAGGGGACGAGCGC
CTTCCTTGCCCACCTCACTGCCACATTCCAGTGGGACGGCCACGGGGGGACCTAGGCCCCAGGGAAAGAGCCCCA
TGCCGCCCCCTAAGGAGCCGCCCAGACCTAGGGCTGGACTCAGGAGCTGGGGGGGCCTCACCTGTTCCCCTGAGG
ACCCCGCCGGACCCGGAGGCTCACAGGGAACAAGACACGGCTGGGTTGGATATGCCTTTGCCGGGGTTCTGGGGC
AGGGCGCTCCCTGGCCGCAGCAGATGCCCTCCCAGGAGTGGAGGGGCTGGAGAGGGGGAGGCCTTCGGGAAGAGG
CTTCCTGGGCCCCCTGGTCTTCGGCCGGGTCCCCAGCCCCCGCTCCTGCCCCACCCCACCTCCTCCGGGCTTCCT
CCCGGAAACTCAGCGCCTGCTGCACTTGCCTGCCCTGCCTTGCTTGGCACCCGCTCCGGCGACCCTCCCCGCTCC
CCTGTCATTTCATCGCGGACTGTGCGGCCTGGGGGTGGGGGGCGGGACTCTCACGGTGACATGTTTACAGCTGGG
TGTGACTCAGTAAAGTGGATTTTTTTTCTTT

FIGURE 2011A

GAAGAAGTCCCGGGCGGTACCCGGCCGTAGGCCCATCCTGCAACTCTCTCCGCCGGGTCCTCGGGGCAGCACGCC
GGGCCGGGACCCGGAGCCGGAACCCGACACTGAGCCGGACTCAACCGCGGCGGTCCCCAGCCAGCCCGCCCCGTC
GGCGGCGACGACCACCACCACCGCGGTGACTGCCGCCGCGGCCTCGGACGACTCGCCTTCAGAAGATGAACAGGA
AGCGGTGCAGGAGGTTCCTAGAGTTGTTCAGAATCCTCCAAAACCAGTC**ATG**ACCACTAGACCCACAGCTGTTAA
AGCAACAGGCGGTCTATGCTTGCTTGGTGCTTATGCTGACAGTGATGACGATGACAATGATGTTTCCGAAAAACT
AGCACAATCCAAAGAGACAAATGGAAACCAGTCAACTGATATTGATAGTACATTGGCCAACTTCCTAGCGGAGAT
CGATGCCATAACAGCTCCTCAGCCTGCAGCTCCTGTAGGAGCTTCTGCTCCACCTCCAACTCCACCTCGACCAGA
GCCAAAGGAAGCAGCAACATCTACCCTTTCTTCTTCTACTTCAAATGGAACAGACTCCACCCAAACATCTGGTTG
GCAATATGATACTCAGTGTTCACTGGCAGGAGTCGGAATTGAGATGGGCGATTGGCAGGAAGTCTGGGATGAGAA
CACGGGATGTTATTATTATTGGAATACACAAACAAATGAAGTGACTTGGGAGTTACCCCAATATCTTGCCACACA
GGTACAGGGATTACAGCATTACCAGCCCAGTTCTGTGCCAGGTGCTGAAACTAGTTTTGTGGTAAATACAGACAT
ATATTCTAAGGAGAAAACGATTTCTGTTTCCAGTAGTAAAAGTGGACCAGTCATAGCCAAGCGAGAAGTTAAAAA
GGAAGTAAATGAAGGAATTCAGGCTCTCTCAAATAGTGAGGAGGAGAAGAAAGGGGTGGCAGCATCGCTGCTTGC
TCCTTTATTGCCTGAGGGAATAAAAGAAGAAGAAGAGAGATGGAGAAGAAAAGTAATTTGTAAAGAGGAGCCAGT
TTCAGAAGTAAAAGAAACAAGTACAACAGTAGAAGAAGCAACAACAATAGTAAAGCCACAGGAAATTATGTTGGA
CAATATAGAAGACCCTTCTCAGGAGGATCTTTGCAGTGTTGTCCAATCTGGAGAAAGTGAGGAGGAAGAGGAACA
AGATACCCTTGAACTGGAGCTAGTTTTGGAAAGGAAAAAAGCAGAGTTGCGAGCCTTGGAGGAAGGAGATGGTAG
TGTGTCAGGGTCTAGTCCACGTTCTGATATCAGCCAGCCAGCATCTCAAGATGGAATGCGTAGGCTTATGTCTAA
AAGAGGAAAATGGAAGATGTTTGTTCGAGCTACCAGTCCAGAATCTACCAGTAGGAGTTCTAGTAAAACTGGACG
AGATACTCCAGAAAATGGAGAAACTGCAATTGGTGCTGAAAATTCAGAAAAAATAGATGAGAATTCAGATAAAGA
GATGGAAGTAGAAGAATCTCCAGAGAAAATAAAAGTACAGACAACACCAAAAGTAGAAGAAGAACAGGATTTGAA
ATTTCAGATTGGAGAACTGGCAAATACCCTGACAAGTAAATTCGAGTTTCTAGGCATTAATAGACAATCCATCTC
CAACTTTCATGTGCTGCTCTTACAGACTGAGACTCGAATTGCAGACTGGCGGGAAGGGGCTCTTAATGGAAACTA
CCTTAAACGAAAACTTCAGGATGCAGCAGAACAACTAAAACAGTATGAAATAAACGCCACTCCTAAAGGCTGGTC
CTGCCACTGGGACAGGGATCATAGACGGTATTTCTATGTAAACGAACAGTCGGGCGAGTCTCAGTGGGAGTTTCC
AGATGGTGAAGAGGAAGAAGAAGAAAGCCAAGCACAAGAAAATAGAGATGAGACTCTTGCCAAACAGACCTTGAA
AGACAAAACTGGCACTGATTCAAATTCAACAGAATCCTCTGAAACTTCCACAGGTTCTCTTTGTAAAGAATCCTT
TTCTGGTCAAGTTTCTTCTTCATCACTCATGCCACTTACTCCATTCTGGACCCTCCTTCAGTCAAATGTTCCTGT
GCTTCAACCTCCATTACCCTTGGAAATGCCACCACCCCCACCTCCACCTCCAGAATCACCTCCACCCCCTCCTCC
ACCACCTCCTCCTGCGGAAGATGGTGAGATCCAGGAGGTAGAGATGGAGGATGAGGGAAGTGAGGAGCCCCCTGC
CCCAGGAACAGAGGAAGATACCCCTTTGAAACCTTCAGCACAAACCACAGTTGTAACTAGCCAGAGTTCAGTTGA
TTCCACCATCTCTAGTTCTTCTTCCACTAAAGGAATAAAGAGGAAAGCTACAGAAATTAGCACTGCAGTGGTTCA
GAGGTCAGCTACCATTGGCAGTTCTCCAGTTCTCTATAGCCAGTCAGCTATAGCTACAGGTCACCAGGCAGCAGG
GATTGGAAACCAGGCAACAGGAATTGGACATCAGACAATACCAGTTAGCCTTCCAGCAGCAGGAATGGGTCATCA
GGCCAGAGGAATGAGCCTGCAGTCAAATTACCTTGGACTAGCGGCAGCACCTGCAATTATGAGTTATGCAGAATG
TTCTGTCCCAATTGGAGTGACTGCTCCCTCATTGCAGCCAGTTCAGGCCCGAGGTGCTGTGCCTACCGCTACCAT
TATAGAACCACCACCACCACCTCCTCCNTNCCTCCTCCTCCACCACCACCAGCTCCCAAAATGCCACCACCTGAA
AAGACAAAAAAAGGAAGGAAAGACAAGGCAAAGAAGAGTAAGACCAAAATGCCATCTTTGG**TAA**AAAAGTGGCAG
AGTATCCAGCGTGAGTTAGATGAAGAGGACAATTCTAGTTCCAGTGAAGAGGATCGGGAATCAACTGCACAGAAG
CGAATTGAAGAGTGGAAACAGCAGCAGCTGGTTAGTGGCATGGCAGAGAGAAATGCTAATTTTGAAGCCCTTCCT
GAGGATTGGAGAGCAAGGCTGAAGAGAAGGAAAATGGCTCCAAACACATAGTTTTTAAGTTTTTAAAACTTTTTT
GTATTATTGTTTGTTTTGTGTTCAGTTCAAAGTCTTAACCAGTTTTATTGTCAAATAAACTATAAATGTTATGGG
GGAGATCTTATAAATTTCCTGGGCAAGAGTGTATGCATACAAAGTTTTCACTTTTGTGAAATGTAATTTTTCTGT
TTTTGCAAAGGGATGAGGTGATTGGAATTGCTTTGACCATGCTGCCTTTATTCTCAAACTGGCAAACTTAGCATG
TTAGGTGTATTAACCTCATCAGTCTTGAAGAACATGTGGCTCATGAGTATAACACTTCTGTAGAGGACTCCCTGA
CAAAAGTGAAGAATTAACTTCTCCTCCAGAACAAGTGCAATTCAGAAGGCAGCTCTGCATTCTACCTTGCTTGAC
TGGAATTGTCTGAAGCTTTTTCTGGCCTCTTTTCTCTAGTCGGCCACCCCTGAAGTGCTGAGGTCTAAGTGGTTT
ACCTCGTGCTGATAGATGGCCACACTCTTTAGAGTAGTTCTCATAAGTTCTAGAACTGGTAGCTCGGTCGTTTCG

FIGURE 2011B

CACACTAGGTGGCATACAGGCAGCAGCAGGTGTTCATATCCTTGATTTTGAGAATTTCCCCTCAAGTATGTGGCA
GTAAATACAACAAGACACTCTATGTATTAATGTCTCCATTGTCTTAACCCTGTTCCAAAACAAAATTCACCTCCT
TTCTTTATGTGAATGTATTCTCCATAAAATTCCAGTATTTAAAAAGCAGTTTACTGTTCTGTACTTTCTGTTGTA
TCACAATCAGGTAAAAGTCACTTTAAACTGAGGAAACGGCAAATTGTGTTTTAAAGCTCTTTGTATTTCTCCAGT
TTCTGACCTTGTAAATTTGTATATATGCACTAATAAAGCTTTTTTTAT

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FIGURE 2012

CTCTTCTGGATTCCTCGCTGCCCACCCTCATTCTCCCGGTGGAAGCCTCGCAACGAAGGGCCGGAGCCGCCTTTC
TGCTCCCGGA**ATG**CTTCACCTGTCCGCAGCTCCGCCCGCCCCACCCCCGGAAGTGACGGCGACCGCGCGGCCCTG
CCTTTGTTCCGTTGGGCGTCGCGGCGACGGCGGGAAGATGGCGGCGGCGGGAGCCCTGGAACGGAGCTTCGTGGA
GCTAAGCGGAGCTGAGCGCGAAAGGCCGAGGCACTTTCGGGAATTCACAGTCTGCAGCATTGGGACTGCAAATGC
CGTGGCTGGCGCCGTAAAATACAGTGAAAGCGCGGGAGGCTTTTACTACGTGGAGAGTGGCAAGTTGTTCTCCGT
AACCAGAAACAGGTTCATTCATTGGAAGACCTCTGGAGATACATTGGAGCTGATGGAGGAGTCACTGGACATAAA
TCTGTTGAATAATGCCATTCGCCTAAAATTCCAAAATTGCAGTGTTTTACCTGGAGGGGTTTATGTCTCTGAGAC
TCAGAATCGTGTGATAATCTTGATGTTAACCAATCAAACAGTGCACAGGTTACTTTTACCACACCCCTCCCGGAT
GTATAGGAGTGTAAGTTGGCTAAGTGCAATATCTTTTATTTCCCAAATTACTCTGGGTGTCACAAATGTAGTGCT
GGAGCGATGTCTTTTGGAATTGAAGGAAATTTGGATTCTCGTTATCCCTCACCAAGCATACTTTGATAGCTACCG
CTTAAAA**TGA**TCAGGCATACATTTTAAGTTGAGAATTAGTTTTCATTAAGAAGAATAGCTTTCTTAAACTTGACA
GTTTTTTACTTTAAAAACTTTTTTAGCAATAGAGAGGAACTGAGCAAAATTCTGGTTATTTTGATTTAATAGATT
TTTCTTTTTAATTACTCAACAGGAGTTGGTAGTTGACAGTCAGATGCAGTCAATATTCACTGACATTGGAAAAGT
TGATTTCACAGATCCTTGCAACTATCAGTTAATTCCAGCAGTACCTGGAATATCTCCTAATTCCACCGCCTCTAC
AGCCTGGCTCAGCAGTGATGGGGAGGCCCTGTTTGCCTTACCATGTGCTTCTGGGGGAATCTTTGTTCTTAAGCT
ACCTCCTTATGACATACCTGGTAAGAATGGGAACTGAGCATGGATTTAACTTTAAACAAGGAATGTTAACATTGA
AACAGTTCAACCTCGTCATCCAATGCAGGGATTGCATCTCTACTGCCCCGGAACTGGTCATTCATTATTGCTTGC
CTAATGAGTCCCTAATGCTTTACTTTTATACAGTGGATAAGGAACTATAAAGCATATTGGAGCACGGAAAAACAA
ATAGACAAGTATAAGACAGCCTATTCTAAATCTTGTAGTAGAGATGGGTTGCCTAATTGTCTGCCCTGAGATGGA
GGCATTATAACATTATAATTAAATTAATTGAAACAAAGACATTAAATACCCTGCACC

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FIGURE 2013

GTGATGGAGGATATTTGTAGTAAACTGCAAGAGATTAGGAACCCAATCCATGCAATTGGACTACTTATACGGGAA
ATGGATTATGAAACAGAAGTGGAAATGGAAAAGGGATTCAATCCAGCTCAGCCTTTGAATATTCGAATGAATCTT
ACCCAGCTCTATGGTAGTAACACAGCAGGGTATATTGTGTGCAGAGGGGTGCATAAAATCGCCAGTACTCGTTTC
CTGATCTGCAGAGATCTTTTGATCTTACAGCAGCTGTTAATGAGGCTTGGAGATGCTGTGATTTGGGGAACTGGT
CAGCTCTTTCAAGCTCAGCAAGACCTACTACATCGAACAGCTCCCCTACTCTTATCTTATTACCTCATTAAATGG
GGAAGTGAGTGCTTGGCAACTGATGTTCCACTTGACACACTGGAGTCTAATCTCCAACACTTATCAGTACTGGAA
TTAACAGACTCTGGTGCTTTAATGGCAAATAGGTTTGTATCTAGTCCTCAGACTATTGTGGAGTTATTCTTCCAA
GAAGTTGCAAGAAAACACATTATATCTCACCTCTTCTCTCAGCCAAAGGCACCTCTGAGCCAAACTGGATTGAAT
TGGCCTGAAATGATTACTGCAATTACCAGTTATTTATTGCAGCTTTTATGGCCTAGCAATCCTGGTTGTCTCTTT
CTAGAATGTTTGATGGGAAATTGCCAATATGTACAATTGCAGGATTATATTCAACTGCTACATCCCTGGTGTCAA
GTCAATGTTGGTTCCTGTCGATTTATGCTGGGAAGGTGTTACCTAGTTACAGGAGAAGGACAGAAGGCTCTGGAA
TGTTTTTGTCAGGCAGCATCTGAAGTAGGCAAAGAGGAATTCTTGGATCGCTTGATTCGCTCAGAGGATGGGGAG
ATCGTGTCTACCCCCAGGCTGCAGTATTATGACAAGGTTTTACGACTACTAGATGTCATTGGTTTGCCTGAACTG
GTTATTCAGTTGGCTACATCAGCCATAACTGAAGCAGGTGATGACTGGAAAAGTCAGGCTACTCTAAGGACATGT
ATTTTCAAACATCATTTGGATTTGGGTCACAATAGCCAAGCATATGAAGCCTTAACCCAAATTCCTGATTCCAGC
AGGCAATTAGATTGTTTACGGCAGTTGGTGGTAGTTCTTTGTGAACGCTCACAGCTACAGGATCTTGTAGAGTTT
CCCTATGTGAATCTGCATAATGAGGTTGTGGGAATAATTGAGTCACGTGCTAGAGCTGTGGACCTTATGACTCAC
AATTACTATGAACTTCTGTATGCCTTTCACATCTATCGCCACAATTACCGCAAGGCTGGCACAGTGATGTTTGAG
TATGGAATGCGGCTTGGCAGAGAAGTTCGAACTCTCCGGGGACTTGAGAAACAAGGCAACTGTTATCTGGCTGCT
CTCAATTGTTTACGACTTATTCGTCCAGAATATGCGTGGATTGTGCAGCCAGTGTCTGGTGCAGTGTATGATCGC
CCTGGAGCATCCCCTAAGAGGAATCATGATGGAGAATGCACAGCTGCCCCCACAAATCGACAAATTGAAATCCTG
GAACTGGAAGATCTGGAGAAAGAGTGTTCCTTGGCTCGCATCCGCCTCACTTTGGCTCAGCATGATCCATCAGCG
GTTGCAGTTGCTGGAAGTTCATCAGCAGAGGAAATGGTCACTCTCTTGGTTCAGGCGGGCCTCTTTGACACTGCC
ATATCACTCTGTCAGACTTTTAAGCTTCCCTTAACGCCAGTCTTTGAAGGGCTTGCCTTCAAATGCATCAAATTG
CAATTTGGAGGAGAGGCAGCACAAGCAGAAGCCTGGGCCTGGCTAGCAGCCAATCAGCTCTCATCTGTCATCACT
ACTAAGGAGTCTAGTGCTACAGATGAAGCATGGCGACTATTATCCACTTACCTGGAGAGGTACAAAGTCCAGAAT
AACTTGTATCACCACTGTGTAATCAACAAGCTCTTGTCTCATGGAGTGCCTCTGCCTAATTGGCTTATAAACAGT
TACAAGAAGGTTGATGCTGCTGAATTGCTTCGTTTATACTTAAACTATGACCTTTTAGAAGAAGCTGTGGATTTG
GTGTCAGAATATGTGGATGCTGTATTGGGAAAAGGACATCAATACTTCGGAATTGAGTTTCCACTGTCCGCAACA
GCCNCNCAATGGTGTGGCTTCCATACTCCTCTATTGATCAGCTTCTCCAAGCTCTGGGAGAGAACAGTGCCAACA
GTCACAACATCGCACTGTCCCAGAAAATACTTGACAAATTGGAGGACTACCAGCAAAAAGTTGATAAGGCAACAC
GGGATTTATTATATCGTCGGACCTTGTGATTTGGATTGTCACCTAGCCTTTGTAACCGCTTGGTGCCTCTTAGGA
CTTAAGACTACCCTACAGGAACCCTGTACTCAAGGCCGATTTTTGTAACTGTAAATGATGTGTACAACATTCAAG
TCTGCATTCTGCACAAGATAGGAGGGCGGAAGAGTCAGAGGACCCTGTGCTTGCTGGTGGTGCTAACACAATTTC
TGGTGTTCAACCTTGGTCTCAAATAGCTGCTTTTGTATATGATTCACGAGCTTTTTTAGAGTTTATATTTTTTTA
AACTACCGAAGACATTCATTATCTGCAAATTAAGACTCACCTTCACTTTCCAAAATAGCTGAGGGTTGTTGGCTT
GTTGTAGCTGACCACCAAAAGCAGTCACTGCAAATCTTTTAATTCTTCCCTATCACCTTTTGTATTTTAATGCAA
TTATTTTGGTCCAGAACTGACCTGTATTTTCTGTATTGTACACAAAAGCTAATAATTTTGTGTACTTTTTATTTA
TTTTGGAGGTTTTATATGATCTTCAATTGAGTATTAAATAATTTGCCTAGATTAAGCCTAAAATGATGACCAGCT
AATTAAAGAAGATATTTTGAATCTGGTTCTGAGCTAAAGTTGAGTAAATTCTTAGCTAAGAAAAAATTGGAAATC
CATCATCTATATTAGCAACAGATTCTCAGAGTAAATTGTTAACTTCTATGATTTATGATAATCAAGCTGGACTTG
ATCATACAAGTTAGTCTCATAATGTATTGGACCAAAATGTAAACTTCATTGGTCAGATTTAGAAGCATTCATGCT
CACAAGTTTTGGGAAAGTGAAAAATAATAAAATCATCTTGGATTTTATTCTGTATATTAAAATTTATCTTTTAAG
GAAACAATCTGTATACTACTTGCTTGTATAGCCTTTTGACCCTTCTTGAGTTTTTCAGAAGCCTTTAATTTTTAT
ACTTTCAATACCATATTTACATTATATACTTTAAT

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FIGURE 2014

GGTCGCTTGGTGGCTCCGTCTGTCTGTCCGTCCGCCCGCGGGTGCCATC**ATG**GCGGACGCGGCCAGTCAGGTGCT
CCTGGGCTCCGGTCTCACCATCCTGTCCCAGCCGCTCATGTACGTGAAAGTGCTCATCCAGGTGGGATATGAGCC
TCTTCCTCCAACAATAGGACGAAATATTTTTGGGCGGCAAGTGTGTCAGCTTCCTGGTCTCTTTAGTTATGCTCA
GCACATTGCCAGTATCGATGGGAGGCGCGGGTTGTTCACAGGCTTAACTCCAAGACTGTGTTCGGGAGTCCTTGG
AACTGTGGTCCATGGTAAAGTTTTACAGCATTACCAGGAGAGTGACAAGGGTGAGGAGTTAGGACCTGGAAATGT
ACAGAAAGAAGTCTCATCTTCCTTTGACCACGTTATCAAGGAGACAACTCGAGAGATGATCGCTCGTTCTGCTGC
TACCCTCATCACACATCCCTTCCATGTGATCACTCTGAGATCTATGGTACAGTTCATTGGCAGAGAATCCAAGTA
CTGTGGACTTTGTGATTCCATAATAACCATCTATCGGGAAGAGGGCATTCTAGGATTTTTCGCGGGTCTTGTTCC
TCGCCTTCTAGGTGACATCCTTTCTTTGTGGCTGTGTAACTCACTGGCCTACCTCGTCAATACCTATGCACTGGA
CAGTGGGGTTTCTACCATGAATGAAATGAAGAGTTATTCTCAAGCTGTCACAGGATTTTTTGCGAGTATGTTGAC
CTATCCCTTTGTGCTTGTCTCCAATCTTATGGCTGTCAACAACTGTGGTCTTGCTGGTGGATGCCCTCCTTACTC
CCCAATATATACGTCTTGGATAGACTGTTGGTGCATGCTACAAAAAGAGGGGAATATGAGCCGAGGAAATAGCTT
ATTTTTCCGGAAGGTCCCCTTTGGGAAGACTTATTGTTGTGACCTGAAAATGTTAATT**TGA**AGATGTGGGGCAGG
GACAGTGACATTTCTGTAGTCCCAGATGCACAGAATTATGGGAGAGAATGTTGATTTCTATACAGTGTGGCGCGC
TTTTTTAATAATCATTTAATCTTGGGAAAATT

FIGURE 2015

CATCTGAGTAAC**ATG**GCGGCGGCGGCGGTAGCCAGGCTGTGGTGGCGCGGGATCTTGGGGGCCTCGGCGCTGACC
AGGGGGACTGGGCGACCCTCCGTTCTGTTGCTGCCGGTGAGGCGGGAGAGCGCCGGGGCCGACACGCGCCCCACT
GTCAGACCACGGAATGATGTGGCCCACAAGCAGCTCTCAGCTTTTGGAGAGTATGTGGCTGAAATCTTGCCCAAG
TATGTCCAACAAGTTCAGGTGTCCTGCTTCAATGAGTTAGAGGTCTGTATCCATCCTGATGGCGTCATCCCAGTG
CTGACTTTCCTCAGGGATCACACCAATGCACAGTTCAAATCTCTGGTTGACTTGACAGCAGTGGACGTCCCAACT
CGGCAAAACCGTTTTGAGATTGTCTACAACCTGTTGTCTCTGCGCTTCAACTCACGGATCCGTGTGAAGACCTAC
ACAGATGAGCTGACGCCCATTGAGTCTGCTGTCTCTGTGTTCAAGGCAGCCAACTGGTATGAAAGGGAGATCTGG
GACATGTTTGGAGTCTTCTTTGCTAACCACCCTGATCTAAGAAGGATCCTGACAGATTATGGCTTCGAGGGACAT
CCTTTCCGGAAAGACTTTCCTCTATCTGGCTATGTTGAGTTACGTTATGATGATGAAGTGAAGCGGGTGGTGGCA
GAGCCGGTGGAGTTGGCCCAAGAGTTCCGCAAATTTGACCTGAACAGCCCCTGGGAGGCTTTCCCAGTCTATCGC
CAACCCCCGGAGAGTCTCAAGCTTGAAGCCGGAGACAAGAAGCCTGATGCCAAG**TAG**CTCCAGGGAACGCATGTG
GATCCTAGACAGCGCCTTATCTATGATTGAGTGTCCGTGTAAATAAATTCCTACTTAGACTT

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FIGURE 2016

GCTCAAAGAAA**ATG**AACGGCACCCTGGACCACCCAGACCAACCAGATCTTGATGCTATCAAGATGTTTGTGGGCC
AGGTTCCAAGGACCTGGTCTGAAAAGGACTTGCGGGAACTCTTCGAACAGTATGGTGCTGTGTATGAAATCAACG
TCCTAAGGGATAGGAGCCAAAACCCGCCTCAGAGCAAAGGGTGCTGTTTTGTTACATTTTACACCCGTAAAGCTG
CATTAGAAGCTCAGAATGCTCTTCACAACATGAAAGTCCTCCCAGGGATGCATCACCCTATACAGATGAAACCTG
CTGACAGTGAGAAGAACAATGCAGTGGAAGACAGGAAGCTGTTTATTGGTATGATTTCCAAGAAGTGCACTGAAA
ATGACATCCGAGTCATGTTCTCTTCGTTTGGACAGATTGAAGAATGCCGGATATTGCGGGGACCTGATGGCCTGA
GCCGAGGTTGTGCATTTGTGACTTTTACAACAAGAGCCATGGCACAGACGGCTATCAAGGCAATGCACCAAGCAC
AGACCATGGAGGGTTGCTCATCACCCATGGTGGTAAAATTTGCTGATACACAGAAGGACAAAGAACAGAAGAGAA
TGGCCCAGCAGCTCCAGCAGCAGATGCAGCAAATCAGCGCCATCTGTGTGGGGAAACCTTGCTGGTCTAAATACT
CTTGGACCCCAGTATTTAGCACTCCTTCAGCAGACTGCCTCCTCTGGGAACCTCAACACCCTGAGCAGCCTCCAC
CCAATGGGAGGGTTGAATGCAATGCAGTTACAGAATTTGGCTGCACTAGCTGCTGCAGC**TAG**TGCAGCTCAGAAC
ACACCAAGTGGTACCAATGCTCTCACTACATCCAGCAGTCCCCTCAGCGTGCTCACTAGTTCAGGGTCCTCACCT
AGCTCTAGCAGCAGTAATTCTGTCAACCCCATAGCCTCACTTGGAGCCCTGCAGACATTAGCTGGAGCAACGGCT
GGCCTCAATGTTGGCTCTTTGGCAGGAATGGCTGCTTTAAATGGTGGCCTGGGCAGCAGTGGCCTTTCCAATGGC
ACCGGGAGCACCATGGAGGCCCTCACTCAGGCCTACTCGGGTATCCAGCAATATGCTGCTGCTGCGCTCCCCACT
CTGTACAACCAGAATCTTCTGACACAGCAGAGTATTGGTGCTGCTGGAAGCCAGAAGGAAGGTCCAGAGGGAGCC
AACCTGTTCATCTACCACCTGCCCCAGGAGTTTGGTGATCAGGACCTGCTGCAGATGTTTATGCCCTTTGGGAAT
GTCGTGTCTGCCAAGGTTTTCATAGACAAGCAGACAAACCTGAGCAAGTGTTTTGGTTTTGTAAGTTACGACAAT
CCTGTTTCGGCCCAAGCTGCCATCCAGTCCATGAACGGCTTTCAGATTGGCATGAAGCGGCTTAAAGTGCAGCTC
AAACGTTCGAAGAATGACAGCAAGCCCTACTGAGCGTGCTCCCCTCTGAGACTGGAGTGAGAGGGTCTTCTGATT
CCTGCCGTTTGTTCATCGTTGTGCCTAAAGCATGTCGATGTGGCGTCAAGTACATCGTCCAAATCCCTGTCTCTT
CAGCTTCTCTGATGCTTGAACTCTCACCTTTGACCTTGTGTTGACCTTTGATGCTGATGTGTATTTTTATTATGT
TTGTTTCTTTCTTCGTTTTTTTTTCTTTTTTTCTTTCCTTTTTTTTTCCTTTTGTGCTGCCAAATTGGTTTTGCT
AGAACGACTGCTGAAGGGGAAATATTTAAACTTGCATTTGAATATAAAAAAAATCTATTTTTCTAGAACTTCATA
AGATAACCACTTGATTTTGTGATTCCAATTCTTTGTAATTGTCTTCAGAGCAGCCCTACTAGCACATACCGCGTG
GTGTTTGTATTTCTGTGAACACACAGCCAGTCCGTTTCTAGGCTTTGTTTCTCTGTGTGCTTAGTTTTAAAGACA
ACTTTGAAGTAAACAATGAAATAAAAGATGTCACT

FIGURE 2017

TAAAGTGCAGCTCAAACGTTCGAAGAATGACAGCAAGCCCTACTGAGCGTGCTCCCCTCTGAGACTGGAGTGAGA
GGGTCTTCTGGTAAGTGGGGGAGGAGCACCCTTAATGATTCGAAGCCCTGAGGCTGTGTGTTGACAGCCCTGGAC
CCTGATCCCTGCCACTCTCGCAGGCACAGCTTGCCCTGAAGACTCGGCTACTGCCTTCTGTGGGAGTTTCGCTTC
GTACAGAGGACAAGTTTGTGCTTTGGTTTCCAGTGTTTTACTTTGGAGTTTAGGTGCCATATCCTGAGGTTTTTT
TTGTTTTTGTTTTTGTTTCTCCTTTATTTAAAGTTTGCTGTGTTTGTAACCAGTGTGTGTTGAGAAGGACCAACA
CCAAACCACCCTGGGGAAGGGGGACAGGGAAACATTTAACACAGACGATGATCAGGATTTGCCCCAAACCACCCC
AAGAGAGAGGACTGAGTGGAACAAAAAAGTGACCCCCAGAACCTCTCTTAGTGTGAGGGTGGGTAGAATGAGAAC
TGACACCTGGGAGCTGTGGGGAGCAGAGCGGCTTTGGGGAAGAGTGGAGTGACTAGACACCTAATGCCCTGGCAG
CTGGAGACTCAAACTCCTGTACAGCTACCTTCTGGGAAATAGTTTTTGACACCTATTTTTCAGATTCTTGTCCGG
AATTTCTGCTGCTCTTTTCAAAAAAGGGCATTAACAATTCTCTGGAAATAAAGCACCTGTTAGCCTGACAT**ATG**C
AAAAAGCAGGGCGGCATCACCCATTACGAGCTCCCCCAGCCAGCAGTCAGTATTGGATTGGCCTTGCCTGGCTGG
TGGCAGTTTGGGAGAAACAGCCAAAGAGGTTAGTTTATTTCAACACCAAATTAGACCATGGCCCATTTCCAACGG
GTCTCTTTAAAGGCCTCTATGGAATACATTGCCTGGTTTCCTTCTTTGCAGTTCACCACAGCAAGGAATGTCACC
TCCATCCCAAGCCACCATTTTCTCATGAAGGCAAATCCAAGAAGGGCTTGCAGTTCTTGCTGAAGGGGGTACCAT
TTGTGGGCAGAGTGATCAATACCATC**TAG**TTGGGGGAGGAGGAGCTTATTTCTTGGTGTACTTGAATCAGAAGGT
CCCTGCAAGCCAGTATGCTTCATTTGCCAGTGGCCAGAAATTCTCCCTTGCCTCCTTGATTGAGGTGTCCCAGAT
GTAGTATTCCCACAGGGGTCTGGCAGGCCCCTCCTGTAACCACTCCAGTCACATTTTCTGCTCTTGAGGCAGAGG
TGACATCAGGACGTTTACAGCCTCCACATGAATTGAGTGTTCATTTACCTCAGTATTACCGTGTTCATTTTTGTC
CTCGTGCTACAGTTAGCTCCCTGCCGCCTCTTGCAGGTCTTACTTCAGCTCTTGCCTGTGACCCACACAGCTTCT
GGGCTCTGCCTCTGCTCTAAGAAGTGCTGTGGGGGTAGAGAACCAGGAAGGACATGCTGTTGGGAATGTACACCT
GGGCAGAGGTGGCCCTGTTAAGATGTGACTGTAGCCACAGCCAGGGATGGGATCCCTGGGTCTCTGGAATCTGAA
ACCTCAACAAATACCAGTCTTGACCCCTAGCAGCAGAGATAAGAATAAAGGGGTTGGTTTGCTATTAAGTCAGAT
GGGGGCTCTCTCCTTGTCATGCTGTCCCTGTGGGTAACAGACAGGGATTGACCATCTTACTGTTGTACAGGTAGC
TGGTGGTGTTGGATTATCCCATTGAAGCTGGGACAGCTGTTCCTTTCTCATAGTGATAACTTGGGTCTGTTGTCC
TCTAAGGAACGTGAAACATACACTTCTTAAGCTGAACCACGTAAACTTGAAATTCTGCGCACTGGGAGAAATGTG
TCCTGTGTTTCAAAGGATAAAACTGTTCTAAAGGCTTCCAGGGTCATGATGGGATTTTTTAAATAAATGCAAAAA
AT

FIGURE 2018A

GCTAGGTTGGGGAGGCGCTGTTCTGAATCCCAACCGGCTGGAACCAAGAATGTCGTTTCTATTTTTATAGAAGTT
TTATACAGCTCCGGGGGTGGAGAATATTTATTACCTAAATTATATCTCTGGAAAAGGCCAGGATTTTGTAGAATCC
AGAATGTGATTGTTATACACACAGGGTGCTGTGTATGATTGAAACTACTGACTTTCTGTGGCCCGTTTGCAGCCC
AGCTAACCTGCCCAAGGGGAAGGTGTTAATGCTGTGAATTGGCAGAGGAGAGAGCTGTGCTCCATAGGGTGCTGC
CGGTGCTGTGCTCCCTAGCCTTCTGTTCTGTCTTCCTCCTTAGCCAGAACGCCACTCCCTTCCCACATCCCCTTC
TTCTCTCCGCCTTCCCCCATCTCACCATTATTTGTCCATGGATTTGTCCTGGGCTCTGGGACCTTATGAAACCCC
TTTCCTAATGACATAAGAGGCCAAGGTGCAATCCACCCACCTTTGATACCAGACCCTGAGGGCTTCATACCTGCT
GATGGGTTTTCTTTTCTAAAAGGAATGCTCGCCCCAGCAGGGTCCTGGGCTGCTTGAGCAGCCAGCTGGTGAGAC
CATGCACTTCTCTGTTCTCTCCTCCCCCTGCCCAGTGAGTTAGCACAGCAGTAGCACTGCCCTTGAGCACAGTTC
TTTCCCCAGGCCAAAGATGGTTTTGTGAAGAAGCTGCTCCCCTACAAGTCTCACGTGTGAAAGGGCTCAGCTCAG
AGTGGAGACTCGCTGTCAAGTCTTAAGCAATCCTTTTCTGTTGTGTGAAGGTTTCACTTACAATGTGTTTTCTGC
TGTAGTTTTGTTTCTTACTTGGGTTACATCATGAAATTGATTTGCCTTGAATGCAGCCAGACCACTGTCTCCTGG
GTTCCCCTTGAGTGGCCAGGGCCTGGATGGAAGCTAAGAGCTTGGATTTCTGGGAACAAAGGGCCATCCCCATAA
GATTGAGCAGAAATTCTGGTCCTCTTCCCTGAAAAATTTTCCCCACCCCAGCCAGCATCTTCTGCTTCCCCTTGG
GTTGTGACCAGGGAGTGGGGAGAGAGGCTGAGGCTCTGCTCCCCTGGAGACCTTCTCTTAGGAGTTGGGTGCTTC
ATGGAAAATCCAAGCCTTAGGTTCCCTTCTGTCTCTGGCAATTAGATGTGTTCTTGGTGTCCTCCATGTCCTTTT
TGACTTTTCCCTGTGTCCATTGTTAGCATGTGCAAAAGTTCCCTGTCATTACCCAACCCCTGCCCGCCCACCTCA
TTTCAGGGCTGTACACACAGTGAGTGTTCCTGTTCTCTCTCTCTTTGTTTGGATGTATTGCTCTGTGTAACTCAG
TGGGTCTCCCTCTTTCTGGTTTGTTTTTTTTTCTAGATTCCTGCCGTTTGTTCATCGTTGTGCCTAAAGCATGTC
GATGTGGCGTCAAGTACATCGTCCAAATCCCTGTCTCTTCAGCTTCTCTGATGCTTGAACTCTCACCTTTGACCT
TGTGTTGACCTTTGATGCTGATGTGTATTTTTATTATGTTTGTTTCTTTCTTCGTTTTTTTTTCTTTTTTTCTTT
CCTTTTTTTTTCCTTTTGTGCTGCCAAATTGGTTTTGCTAGAACGACTGCTGAAGGGGAAATATTTAAACTTGCA
TTTGAATATAAAAAAAATCTATTTTTCTAGAACTTCATAAGATAACCACTTGATTTTGTGATTCCAATTCTTTGT
AATTGTCTTCAGAGCAGCCCTACTAGCACATACCGCGTGGTGTTTGTATTTCTGTGAACACACAGCCAGTCCGTT
TCTAGGCTTTGTTTCTCTGTGTGCTTAGTTTTAAAGACAACTTTGAAGTAAACAATGAAATAAAAGATGTCACTA
AAACCTCTGAGGCTCCTGAGCACATTTTGCTGATACAGTCTGTGGGGCTTGAGGAGACCGCATGTATTGTTCTTT
CTTTTGTTTTTCTTCTGAGTTCTCAACTGCGGAGAGCACCTGAACCCCCTTTCCTTTTTGACCGCAGGCTGCACT
TTGGGCCCCAGCCAGCCCTTTTTCTTTTTCTTTTTCTTTTGTGGTTCTTCCCTGGAGCGACTCTGGGGAGTCCTG
GATATCCCGCCTGCCCCTTCCCCTCAGCCCCATGCTTGTTCCAACAGTCTCCACAGCAAAATGTGATGCTTTGAT
TTTTTTGTTGTTGTTTTTGTTTTTGTATTGTTTTTGTGTTTTTGTTTTGAATTTTTTCCTTTCCTACTAAGATTA
TGCCCAGAAAAAAGTTTTGCATGTTTCCTGCTGTTTCTTCACACCTTCGTATATATCACCTTCACCTCTCTGTTT
TCTATAGTTTGTGCAAAAACTGATCGATTTAAAAGGGTTTCAAAGAAGCTGTTTTAAATTGTTGTAGGGTTGATT
ATTTTTTTCAAGATTGTATTGTTTAATTTTGAAGTGGCAACTTTCTCCTCTATTGCCCTTAGAGCGTTTGCCTGT
GCACTTAGACTGTCACTTCGTGTGGCCTCCAGGTCTTACCGGGGCTTCCGGGAGGCTGGCTGCTTTGCTCAGAGA
GGGTGGGAAGGGGGCCTGGAGAGACACGAGAAGCAGAGGTAGAGCCTAGAAGGTGGCAGCAGGTGGGTAAGAGGC
TTATTTAGCACATTAGGGGCAGTGAGCACCTGGAGGAAGGAGGGCGCTCCCAATCACCCGTAGGAGGCCATCTGC
ACACCAAGCGGCAATTCACCTGCTGGCGCTTTTCCTAGGTGACAAGCACAATACTACAGTCTTCACACTGTTTAC
AGCCCTGGGCACCAGCCACCCGGCACTGGCTCTTCATCACAGCTCTGCTCTTGCTTAGCTAGTGGGGTGGGGGAA
AGGGCAGGGATTTGTTTTTTTAATTGGGTGGAGAGCCAAACAGCTACTGTCCCTGGGTGCCAAGCAAGCCAGTTT
TTTGGTTCCCTGAGGGAAACTGACCCTCCTCTCTTGTGGCACCATCCAGCCTCAGGGTCTTGGAGACTTGAGTAA
GAATGTGAGTGGAGGGGGAGAGGTGAGGAGAGGAGCACAGGGTGGATCTGTGGAGGGAAGAGGTTACAGGGGGAG
GAGCTGATGATAGATCCCACCCAGACTTAAGCTGCTGGTGGGTGGGTGAGCTGGGAAGTAGGACTGTCCAGGGAA
GGGTGGAGAGATGTAGCTAGGGGCTGGGGAGGGGGAGGTGGAAGCGCTATTGAGCATCCTCCACACCAAGGTTG**A**
TGAAGGAAGGGATCCCAGCAGGGTTTCTGCTCTGGGGCTGGCAGGTTGCCTGGTATTATGCCCAAGGCCGCTCTG
CCTGGGGGAAAGGGCAGCCAGGCAGAGGCCCAGTGTCTGGTAGGCTGCTGAATTTCCTGGAAGGGGTGATTGGAT
GGAAAGAGGCCAGAAACCCCAGCCTGAGAGACTGCTGTGCACCCCACAGTCTGACTGCACAGAGCCGCCTCTGTT
GGCAGGAGGCACTGAGGCTCCCCTTCCTGTGTATTGAGAAGCAGTGTTTGCCAATATATTTTGCTTTCAATTCCA
AGAGGAGCTCTGGGAAAACCTGTGGA**TAA**AACCAAATGCCAAATGTTGGACGTTGTTTCCTTTTCCTTTTCTCTC

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FIGURE 2018B

TCTGATTGTTTTAATTGTTCTGTGGTGGTTTTAATGGATTTGAGACCCTGGAGCGGCAGCTGCCTTTCTGATTTC
CAGCTGCTTTTTGTGAATAATTT

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FIGURE 2019

GATTCGCTGCTCCGCAGCACGGCCGGAGCTGGTCGGGTCAAGAGTCGGGATTTGTGGGGAGAGGTTTTCCACTGG
TCAAGAGAAGGCTTTAAGAAAGACGGTATTAATCTCCCGTTGCGGCTCCCGCCTGGTCCCATCTTCTGCCCGCTC
CTCCAGGAA**ATG**AATCTGCTGCCGAATATTGAGAGTCCAGTGACTCGGCAGGAGAAGATGGCGACCGTGTGGGAT
GAGGCCGAGCAAGATGGAATTGGGGAGGAGGTGCTCAAGATGTCCACGGAGGAGATCATCCAGCGCACACGGCTG
CTGGACAGTGAGATCAAGATCATGAAGAGTGAAGTGTTGAGAGTCACCCATGAGCTCCAAGCCATGAAGGACAAG
ATAAAAAGAGAACAGTGAGAAAATCAAAGTGAACAAGACCCTGCCGTACCTTGTCTCCAACGTCATCGAGCTCCTG
GATGTTGATCCTAATGACCAAGAGGAGGATGGTGCCAATATTGACCTGGACTCCCAGAGGAAGGGCAAGTGTGCT
GTGATCAAAACCTCTACACGACAGACGTACTTCCTTCCTGTGATTGGGTTGGTGGATGCTGAAAAGCTAAAGCCA
GGAGACCTGGTGGGTGTGAACAAAGACTCCTATCTGATCCTGGAGACGCTGCCCACAGAGTATGACTCGCGGGTG
AAGGCCATGGAGGTAGACGAGAGGCCCACGGAGCAATACAGTGACATTGGGGGTTTGGACAAGCAGATCCAGGAG
CTGGTGGAGGCCATTGTCTTGCCAATGAACCACAAGGAGAAGTTTGAGAACTTGGGGATCCAACCTCCAAAAGGG
GTGCTGATGTATGGGCCCCCAGGGACGGGGAAGACCCTCCTGGCCCGGGCCTGTGCCGCACAGACTAAGGCCACC
TTCCTAAAGCTGGCTGGCCCCCAGCTGGTGCAGATGTTCATTGGAGATGGTGCCAAGCTAGTCCGGGATGCCTTT
GCCCTGGCCAAGGAGAAAGCGCCCTCTATCATCTTCATTGATGAGTTGGATGCCATCGGCACCAAGCGCTTTGAC
AGTGAGAAGGCTGGGGACCGGGAGGTGCAGAGGACAATGCTGGAGCTTCTGAACCAGCTGGATGGCTTCCAGCCC
AACACCCAAGTTAAGGTAATTGCAGCCACAAACAGGGTGGACATCCTGGACCCCGCCCTCCTCCGCTCGGGCCGC
CTTGACCGCAAGATAGAGTTCCCGATGCCCAATGAGGAGGCCCGGGCCAGAATCATGCAGATCCACTCCCGAAAG
ATGAATGTCAGTCCTGACGTGAACTACGAGGAGCTGGCCCGCTGCACAGATGACTTCAATGGGGCCCAGTGCAAG
GCTGTGTGTGTGGAGGCGGGCATGATCGCACTGCGCAGGGGTGCCACGGAGCTCACCCACGAGGACTACATGGAA
GGCATCCTGGAGGTGCAGGCCAAGAAGAAAGCCAACCTACAATACTACGCC**TAG**GGCACACAGGCCAGCCCCAGT
CTCACGGCTGAAGTGCGCAATAAAAGATGGTTTAGGGTCCCTGCC

FIGURE 2020

GGGGCCGCCCGGATCGCCGCCGCCGCCGCCGCACGTACGTGGC**ATG**CCTGGATGTCCCTGCCCTGGCTGTGGCAT
GGCGGGCCCAAGGCTCCTCTTCCTCACTGCCCTTGCCCTGGAGCTCTTGGAAAGGGCTGGGGGTTCCCAGCCGGC
CCTCCGGAGCCGGGGGACTGCGACGGCCTGTCGCCTGGACAACAAGGAAAGCGAGTCCTGGGGGGCTCTGCTGAG
CGGAGAGCGGCTGGACACCTGGATCTGCTCCCTCCTGGGTTCCCTCATGGTGGGGCTCAGTGGGGTCTTCCCGTT
GCTTGTCATTCCCCTAGAGATGGGGACCATGCTGCGCTCAGAAGCTGGGGCCTGGCGCCTGAAGCAGCTGCTCAG
CTTCGCCCTGGGGGGACTCTTGGGCAATGTGTTTCTGCATCTGCTGCCCGAAGCCTGGGCCTACACGTGCAGCGC
CAGCCCTGGTGGTGAGGGGCAGAGCCTGCAGCAGCAGCAACAGCTGGGGCTGTGGGTCATTGCTGGCATCCTGAC
CTTCCTGGCGTTGGAGAAGATGTTCCTGGACAGCAAGGAGGAGGGGACCAGCCAGGCCCCCAACAAAGACCCCAC
TGCTGCTGCCGCCGCGCTCAATGGAGGCCACTGTCTGGCCCAGCCGGCTGCAGAGCCCGGCCTCGGTGCCGTGGT
CCGGAGCATCAAAGTCAGCGGCTACCTCAACCTGCTGGCCAACACCATCGATAACTTCACCCACGGGCTGGCTGT
GGCTGCCAGCTTCCTTGTGAGCAAGAAGATCGGGCTCCTGACAACCATGGCCATCCTCCTGCATGAGATCCCCCA
TGAGGTGGGCGACTTTGCCATCCTGCTCCGGGCCGGCTTTGACCGATGGAGCGCAGCCAAGCTGCAACTCTCAAC
AGCGCTGGGGGGCCTACTGGGCGCTGGCTTCGCCATCTGTACCCAGTCCCCCAAGGGAGTAGTTGGGTGTTCTCC
CGCTGCAGAGGAGACGGCAGCCTGGGTCCTGCCCTTCACCTCTGGCGGCTTTCTCTACATCGCCTTGGTGAACGT
GCTCCCTGACCTCTTGGAAGAAGAGGACCCGTGGCGCTCCCTGCAGCAGCTGCTTCTGCTCTGTGCGGGCATCGT
GGTAATGGTGCTGTTCTCGCTCTTCGTGGAT**TAA**CTTTCCCTGATGCCGACGCCCCTGCCCCCTGCAGCAATAAG
ATGCTCGGATTCACTCTGTGACCGCATATGTGAGAGGCAGAGAGGGCGAGTGGCTGCGAGAGAGAATGAGCCTCC
CGCCAGACAGGAGGGAGGTGCGTGTGGATGTATGTGGTGTGCACATGTGGCCAGAGGTGTGTGCGCGAGACCGAC
ACTGTGATCCCTGTGCTGGGTCCGGGGCCCAGTGTAGCGCCTGTCCCCAGCCATGCTGTGGTTACCTCTCCTTGC
CGCCCTGTCACCTTCACCTCCCGGAGTAAGCAGCGAGGAAGAGCAGCACTGGTCCCAAGCAGAGGCCTTGCCCTG
CTGGGACCCCGGGAGTGAGAGCAGCCCAAGGATCCAGGGTGCAGGGAACTCCAGAGCTGCCCACCTCCCACTGCC
CCCTCAGCACACACACAGTCCCCAGGCGGCCTAGGGGCCAAGGCTGGGGCGGCTTTGGTCCCTTTTCCTGGCCCT
TCCTTCCCCACTTCTAAGCCAAAGAAAGGAGAGGCAGGTGCTCCTGTACCCCAGCCCCACTCAGCACTGACAGTC
CCCAGCTCCTAGTAGTGAGCTGGGAGGCGCTTCCTAAGACCCTTTCCTCAGGGCTGCCCTGGGAGCTCATTCCTG
GCCAACACGCCCTGGCAGCACCAGCAGCTCTTGCCACCTCCAGCTGCCAAACAGCAGCCTGCCGGGCAGGGAGCA
GCCCCAGGCCAGAGAGGCCTCCCGGTCCAGCTCAGGGATGCTCCTGCCAGCACAGGGGCCAGGGACTCCTGGAGC
AGGCACATAGTGAGCCCGGGCAGCCCTGCCCAGCTCAGGCCCCTTTCCTTCCCCATTGAGGTTGGGGTAGGTGGG
GGCGGTGAGGGCTCCACGTTGTCAGCGCTCAGGAATGTGCTCCGGCAGAGTGCTGAAGCCATAATCCCCAACCAT
TTCCCTTGGCTGACGCCCAGGTACTCAGCTGGCCCACTCCACAGCCAGGCCTGGCCCTGCCCTTCACCGTGGATG
TTTTCAGAAGTGGCCATCGAGAGGTCTGGATGGTTTTATAGCAACTTTGCTGTGATTCCGTTTGTATCTGTAAAT
ATTTGTTCTATAGATAAGATACAAATAAATATTATCCACAT

FIGURE 2021

AAAATCAGGAACTTGTGCTGGCCCTGCAATGTCAAGGGAGGGGGCTCACCCAGGGCTCCTGTAGCTCAAGGGGCA
GGCCTGAGCCCTGCACCCGCCCCACGACCGTCCAGCCCCTGACGGGGCACCCCATCCTGAGGGGCTCTGCATTGG
CCCCCACCGAGGCAGGGGATCTGACCGACTCGGAGCCCGGCTGGATGTTACAGGCGTGCAAA**ATG**GAAGGGTTTC
CCCTCGTCCCCCCTCCATCAGAAGACCTGGTGCCCTATGACACGGATCTATACCAACGCCAAACGCACGAGTATT
ACCCCTATCTCAGCAGTGATGGGGAGAGCCATAGCGACCATTACTGGGACTTCCACCCCCACCACGTGCACAGCG
AGTTCGAGAGCTTCGCCGAGAACAACTTCACGGAGCTCCAGAGCGTGCAGCCCCCGCAGCTGCAGCAGCTCTACC
GCCACATGGAGCTGGAGCAGATGCACGTCCTCGATACCCCCATGGTGCCACCCCATCCCAGTCTTGGCCACCAGG
TCTCCTACCTGCCCCGGATGTGCCTCCAGTACCCATCCCTGTCCCCAGCCCAGCCCAGCTCAGATGAGGAGGAGG
GCGAGCGGCAGAGCCCCCCACTGGAGGTGTCTGACGGCGAGGCGGATGGCCTGGAGCCCGGGCCTGGGCTCCTGC
CTGGGGAGACAGGCAGCAAGAAGAAGATCCGCCTGTACCAGTTCCTGTTGGACCTGCTCCGCAGCGGCGACATGA
AGGACAGCATCTGGTGGGTGGACAAGGACAAGGGCACCTTCCAGTTCTCGTCCAAGCACAAGGAGGCGCTGGCGC
ACCGCTGGGGCATCCAGAAGGGCAACCGCAAGAAGATGACCTACCAGAAGATGGCGCGCGCGCTGCGCAACTACG
GCAAGACGGGCGAGGTCAAGAAGGTGAAGAAGAAGCTCACCTACCAGTTCAGCGGCGAAGTGCTGGGCCGCGGGG
GCCTGGCCGAGCGGCGCCACCCGCCCCAC**TGA**GCCCGCAGCCCCCGCCGGGCCCCGCCAGGCCTCCCCGCTGGCC
ATAGCATTAAGCCCTCGCCCGGCCCGGACACAGGGAGGACGCTCCCGGGGCCCAGAGGCAGGACTGTGGCGGGCC
GGGCCTCGCCTCACCCGCCCCCTCCCCCCACTCCAGGCCCCCTCCACATCCCGCTTCGCCTCCCTCCAGGACTCC
ACCCCGGCTCCCGGACGCCAGCTGGGCGTCAGACCCCACCGGGGCAACCTTGCAGAGGACGACCCGGGGTACTGC
CTTGGGAGTCTCAAGTCCGTATGTAAATCAGATCTCCCCTCTCACCCCTCCCACCCATTAACCTCCTCCCAAAAA
ACAAGTAAAGTTATTCTCAATCC

FIGURE 2022A

ACCGCGGCCGCGCGCCCCCCTCTGCCCCCGCTGCCCAGGATTGGTAGGCTCCACCGCTCGGCAGCCGGCTTCCCT
GCTCGGACGCCGAGCACCGCCAAAGCGCACTTCGATTTTCAGAATTCCTCCTGGGAATGCTGACTCCTTGCTTGG
TGCCCTGATGCTTCTCTGAGATAAACTGATGAATTGGAACC**ATG**GTGCAAAAGAAGAAGTTCTGTCCTCGGTTAC
TTGACTATCTAGTGATCGTAGGGGCCAGGCACCCGAGCAGTGATAGCGTGGCCCAGACTCCTGAATTGCTACGGC
GATACCCCTTGGAGGATCACACTGAGTTTCCCCTGCCCCCAGATGTAGTGTTCTTCTGCCAGCCCGAGGGCTGCC
TGAGCGTGCGGCAGCGGCGCATGAGCCTTCGGGATGATACCTCTTTTGTCTTCACCCTCACTGACAAGGACACTG
GAGTCACGCGATATGGCATCTGTGTTAACTTCTACCGCTCCTTCCAAAAGCGAATCTCTAAGGAGAAGGGGGAAG
GTGGGGCAGGGTCCCGTGGGAAGGAAGGAACCCATGCCACCTGTGCCTCAGAAGAGGGTGGCACTGAGAGCTCAG
AGAGTGGCTCATCCCTGCAGCCTCTCAGTGCTGACTCTACCCCTGATGTGAACCAGTCTCCTCGGGGCAAACGCC
GGGCCAAGGCGGGGAGCCGCTCCCGCAACAGTACTCTCACGTCCCTGTGCGTGCTCAGCCACTACCCTTTCTTCT
CCACCTTCCGAGAGTGTTTGTATACTCTCAAGCGCCTGGTGGACTGCTGTAGTGAGCGCCTTCTGGGCAAGAAAC
TGGGCATCCCTCGAGGCGTACAAAGGGACACCATGTGGCGGATCTTTACTGGATCGCTGCTGGTAGAGGAGAAGT
CAAGTGCCCTTCTGCATGACCTTCGAGAGATTGAGGCCTGGATCTATCGATTGCTGCGCTCCCCAGTACCCGTCT
CTGGGCAGAAGCGAGTAGACATCGAGGTCCTACCCCAAGAGCTCCAGCCAGCTCTGACCTTTGCTCTTCCAGACC
CATCTCGATTCACCCTAGTGGATTTCCCACTGCACCTTCCCTTGGAACTTCTAGGTGTGGACGCCTGTCTCCAGG
TGCTAACCTGCATTCTGTTAGAGCACAAGGTGGTGCTACAGTCCCGAGACTACAATGCACTCTCCATGTCTGTGA
TGGCATTCGTGGCAATGATCTACCCACTGGAGTATATGTTTCCTGTCATCCCGCTGCTACCCACCTGCATGGCAT
CAGCAGAGCAGCTGCTGTTGGCTCCAACCCCGTACATCATTGGGGTTCCTGCCAGCTTCTTCCTCTACAAACTGG
ACTTCAAAATGCCTGATGATGTATGGCTAGTGGATCTGGACAGCAATAGGGTGATTGCCCCCACCAATGCAGAAG
TGCTGCCTATCCTGCCAGAACCAGAATCACTAGAGCTGAAAAAGCATTTAAAGCAGGCCTTGGCCAGCATGAGTC
TCAACACCCAGCCCATCCTCAATCTGGAGAAATTTCATGAGGGCCAGGAGATCCCCCTTCTCTTGGGAAGGCCTT
CTAATGACCTGCAGTCCACACCGTCCACTGAATTCAACCCACTCATCTATGGCAATGATGTGGATTCTGTGGATG
TTGCAACCAGGGTTGCCATGGTACGGTTCTTCAATTCCGCCAACGTGCTGCAGGGATTTCAGATGCACACGCGTA
CCCTGCGCCTCTTTCCTCGGCCTGTGGTAGCTTTTCAAGCTGGCTCCTTTCTAGCCTCACGTCCCCGGCAGACTC
CTTTTGCCGAGAAATTGGCCAGGACTCAGGCTGTGGAGTACTTTGGGGAATGGATCCTTAACCCCACCAACTATG
CCTTTCAGCGAATTCACAACAATATGTTTGATCCAGCCCTGATTGGTGACAAGCCAAAGTGGTATGCTCATCAGC
TGCAGCCTATCCACTATCGCGTCTATGACAGCAATTCCCAGCTGGCTGAGGCCCTGAGTGTACCACCAGAGCGGG
ACTCTGACTCCGAACCTACTGATGATAGTGGCAGTGATAGTATGGATTATGACGATTCAAGCTCTTCTTACTCCT
CCCTTGGTGACTTTGTCAGTGAAATGATGAAATGTGACATTAATGGTGATACTCCCAATGTGGACCCTCTGACAC
ATGCAGCACTGGGGGATGCCAGCGAGGTGGAGATTGACGAGCTGCAGAATCAGAAGGAAGCAGAAGAGCCTGGCC
CAGACAGTGAGAACTCTCAGGAAAACCCCCCACTGCGCTCCAGCTCTAGCACCACAGCCAGCAGCAGCCCCAGCA
CTGTCATCCACGGAGCCAACTCTGAACCTGCTGACTCTACGGAGATGGATGATAAGGCAGCAGTAGGCGTCTCCA
AGCCCCTCCCTTCCGTGCCTCCCAGCATTGGCAAATCGAACGTGGACAGACGTCAGGCAGAAATTGGAGAGGGGT
CAGTGCGCCGGCGAATCTATGACAATCCATACTTCGAGCCCCAATATGGCTTTCCCCCTGAGGAAGATGAGGATG
AGCAGGGGGAAAGTTACACTCCCCGATTCAGCCAACATGTCAGTGGCAATCGGGCTCAAAAGCTGCTGCGGCCCA
ACAGCTTGAGACTGGCAAGTGACTCAGATGCAGAGTCAGACTCTCGGGCAAGCTCTCCCAACTCCACCGTCTCCA
ACACCAGCACCGAGGGCTTCGGGGGCATCATGTCTTTTGCCAGCAGCCTCTATCGGAACCACAGTACCAGCTTCA
GTCTTTCAAACCTCACACTGCCCACCAAAGGTGCCCGAGAGAAGGCCACGCCCTTCCCCAGTCTGAAAGTATTTG
GGCTAAATACTCTAATGGAGATTGTTACTGAAGCCGGCCCCGGGAGTGGTGAAGGAAACAGGAGGGCGTTAGTGG
ATCAGAAGTCATCTGTCATTAAACACAGCCCAACAGTGAAAAGAGAACCTCCATCACCCCAGGGTCGATCCAGCA
ATTCTAGTGAGAACCAGCAGTTCCTGAAGGAGGTGGTGCACAGCGTGCTGGACGGCCAGGGAGTTGGCTGGCTCA
ACATGAAAAAGGTGCGCCGGCTGCTGGAGAGCGAGCAGCTGCGAGTCTTTGTCCTGAGCAAGCTGAACCGCATGG
TGCAGTCAGAGGACGATGCCCGGCAGGACATCATCCCGGATGTGGAGATCAGTCGGAAGGTGTACAAGGGAATGT
TAGACCTCCTCAAGTGTACAGTCCTCAGCTTGGAGCAGTCCTATGCCCACGCGGGTCTGGGTGGCATGGCCAGCA
TCTTTGGGCTTTTGGAGATTGCCCAGACCCACTACTATAGTAAAGAACCAGACAAGCGGAAGAGAAGTCCAACAG
AAAGTGTAAATACCCCAGTTGGCAAGGATCCTGGCCTAGCTGGGCGGGGGGACCCAAAGGCTATGGCACAACTGA
GAGTTCCACAACTGGGACCTCGGGCACCAAGTGCCACAGGAAAGGGTCCTAAGGAACTGGACACCAGAAGTTTAA
AGGAAGAAAATTTTATAGCATCTATTGAATTGTGGAACAAGCACCAGGAAGTGAAAAAGCAAAAAGCTTTGGAAA

FIGURE 2022B

AACAGAGGCCTGAAGTAATCAAACCTGTCTTTGACCTTGGTGAGACAGAGGAGAAAAAGTCCCAGATCAGCGCAG
ACAGTGGTGTGAGCCTGACGTCTAGTTCCCAGAGGACTGATCAAGACTCTGTCATCGGCGTGAGTCCAGCTGTTA
TGATCCGCAGCTCAAGTCAGGATTCTGAAGTTAGCACCGTGGTGAGTAATAGCTCTGGAGAGACCCTTGGAGCTG
ACAGTGACTTGAGCAGCAATGCAGGTGATGGACCAGGTGGCGAGGGCAGTGTTCACCTGGCAAGCTCTCGGGGCA
CTTTGTCTGATAGTGAAATTGAGACCAACTCTGCCACAAGCACCATCTTTGGTAAAGCCCACAGCTTGAAGCCAA
GCATAAAGGAGAAGCTGGCAGGCAGCCCCATTCGTACTTCTGAAGATGTGAGCCAGCGAGTCTATCTCTATGAGG
GACTCCTAGGAAGGGACAAAGGATCCATGTGGGACCAGTTAGAGGATGCAGCTATGGAGACCTTTTCTATAAGCA
AAGAGCGTTCTACTTTATGGGACCAAATGCAATTCTGGGAAGATGCCTTCTTAGATGCTGTGATGTTGGAGAGAG
AAGGGATGGGTATGGACCAGGGTCCCCAGGAAATGATCGACAGGTACCTGTCCCTTGGAGAACATGACCGGAAGC
GCCTGGAAGATGATGAAGATCGCTTGTTGGCCACACTTCTGCACAACCTCATCTCCTACATGCTGCTGATGAAGG
TAAATAAGAATGACATCCGCAAGAAGGTGAGGCGCCTAATGGGAAAGTCGCACATTGGGCTTGTGTACAGCCAGC
AAATCAATGAGGTGCTTGATCAGCTGGCGAACCTGAATGGACGCGATCTCTCTATCTGGTCCAGTGGCAGCCGGC
ACATGAAGAAGCAGACATTTGTGGTACATGCAGGGACAGATACAAACGGAGATATCTTTTTCATGGAGGTGTGCG
ATGACTGTGTGGTGTTGCGTAGTAACATCGGAACAGTGTATGAGCGCTGGTGGTACGAGAAGCTCATCAACATGA
CCTACTGTCCCAAGACGAAGGTGTTGTGCTTGTGGCGTAGAAATGGCTCTGAGACCCAGCTCAACAAGTTCTATA
CTAAAAAGTGTCGGGAGCTGTACTACTGTGTGAAGGACAGCATGGAGCGCGCTGCCGCCCGACAGCAAAGCATCA
AACCCGGACCTGAATTGGGTGGCGAGTTCCCTGTGCAGGACCTGAAGACTGGTGAGGGTGGCCTGCTGCAGGTGA
CCCTGGAAGGGATCAACCTCAAATTCATGCACAATCAGGTTTTCATAGAGCTGAATCACATTAAAAAGTGCAATA
CAGTTCGAGGCGTCTTTGTCCTGGAGGAATTTGTTCCTGAAATTAAAGAAGTGGTGAGCCACAAGTACAAGACAC
CAATGGCCCACGAAATCTGCTACTCCGTATTATGTCTCTTCTCGTACGTGGCTGCAGTTCATAGCAGTGAGGAAG
ATCTCAGAACCCCGCCCCGGCCTGTCTCTAGC**TGA**TGGAGAGGGGCTACGCAGCTGCCCCAGCCCAGGGCACGCC
CCTGGCCCCTTGCTGTTCCCAAGTGCACGATGCTGCTGTGACTGAGGAGTGGATGATGCTCGTGTGTCCTCTGCA
AGCCCCCTGCTGTGGCTTGGTTGGTTACCGGTTATGTGTCCCTCTGAGTGTGTCTTGAGCGTGTCCACCTTCTCC
CTCTCCACTCCCAGAAGACCAAACTGCCTTCCCCTCAGGGCTCAAGAATGTGTACAGTCTGTGGGGCCGGTGTGA
ACCCACTATTTTGTGTCCTTGAGACATTTGTGTTGTGGTTCCTTGTCCTTGTCCCTGGCGTTATAACTGTCCACT
GCAAGAGTCTGGCTCTCCCTTCTCTGTGACCCGGCATGACTGGGCGCCTGGAGCAGTTTCACTCTGTGAGGAGTG
AGGGAACCCTGGGGCTCACCCTCTCAGAGGAAGGGCACAGAGAGGAAGGGAAGAATTGGGGGGCAGCCGGAGTGA
GTGGCAGCCTCCCTGCTTCCTTCTGCATTCCCAAGCCGGCAGCTACTGCCCAGGGCCCGCAGTGTTGGCTGCTGC
CTGCCACAGCCTCTGTGACTGCAGTGGAGCGGCGAATTCCCTGTGGCCTGCCATGCCTTCGGCATCAGAGGATGG
AGTGGTCGAGGCTAGTGGAGTCCCAGGGACCGCTGGCTGCTCTGCCTGAGCATCAGGGAGGGGGCAGGAAAGACC
AAGCTGGGTTTGCACATCTGTCTGCAGGCTGTCTCTCCAGGCACGGGGTGTCAGGAGGGAGAGACAGCCTGGGTA
TGGGCAAGAAATGACTGTAAATATTTCAGCCCCACATTATTTATAGAAAATGTACAGTTGTGTGAATGTGAAATA
AATGTCCTCAACTCCC

FIGURE 2023

CAGTGCCTTGGTAATGACCAGGGCTCCAGGAAGAG**ATG**TCCTTGTGGCTGGGGGCCCCTGTGCCTGACATTCCTC
CTGACTCTGCGGTGGAGCTGTGGAAGCCAGGCGCACAGGATGCAAGCAGCCAGGCCCAGGGAGGCAGCAGCTGCA
TCCTCAGAGAGGAAGCCAGGATGCCCCACTCTGCTGGGGGTACTGCAGGGGTGGGGCTGGAGGCTGCAGAGCCCA
CAGCCCTGCTCACCAGGGCAGAGCCCCCTTCAGAACCCACAGAGATCCGTCCACAAAAGCGGAAAAAGGGGCCAG
CCCCCAAAATGCTGGGGAACGAGCTATGCAGCGTGTGTGGGGACAAGGCCTCGGGCTTCCACTACAATGTTCTGA
GCTGCGAGGGCTGCAAGGGATTCTTCCGCCGCAGCGTCATCAAGGGAGCGCACTACATCTGCCACAGTGGCGGCC
ACTGCCCCATGGACACCTACATGCGTCGCAAGTGCCAGGAGTGTCGGCTTCGCAAATGCCGTCAGGCTGGCATGC
GGGAGGAGTGTGTCCTGTCAGAAGAACAGATCCGCCTGAAGAAACTGAAGCGGCAAGAGGAGGAACAGGCTCATG
CCACATCCTTGCCCCCCAGGGCTTCCTCACCCCCCCAAATCCTGCCCCAGCTCAGCCCGGAACAACTGGGCATGA
TCGAGAAGCTCGTCGCTGCCCAGCAACAGTGTAACCGGCGCTCCTTTTCTGACCGGCTTCGAGTCACGCCTTGGC
CCATGGCACCAGATCCCCATAGCCGGGAGGCCCGTCAGCAGCGCTTTGCCCACTTCACTGAGCTGGCCATCGTCT
CTGTGCAGGAGATAGTTGACTTTGCTAAACAGCTACCCGGCTTCCTGCAGCTCAGCCGGGAGGACCAGATTGCCC
TGCTGAAGACCTCTGCGATCGAGGTGATGCTTCTGGAGACATCTCGGAGGTACAACCCTGGGAGTGAGAGTATCA
CCTTCCTCAAGGATTTCAGTTATAACCGGGAAGACTTTGCCAAAGCAGGGCTGCAAGTGGAATTCATCAACCCCA
TCTTCGAGTTCTCCAGGGCCATGAATGAGCTGCAACTCAATGATGCCGAGTTTGCCTTGCTCATTGCTATCAGCA
TCTTCTCTGCAGACCGGCCCAACGTGCAGGACCAGCTCCAGGTAGAGAGGCTGCAGCACACATATGTGGAAGCCC
TGCATGCCTACGTCTCCATCCACCATCCCCATGACCGACTGATGTTCCCACGGATGCTAATGAAACTGGTGAGCC
TCCGGACCCTGAGCAGCGTCCACTCAGAGCAAGTGTTTGCACTGCGTCTGCAGGACAAAAAGCTCCCACCGCTGC
TCTCTGAGATCTGGGATGTGCACGAA**TGA**CTGTTCTGTCCCCATATTTTCTGTTTTCTTGGCCGGATGGCTGAGG
CCTGGTGGCTGCCTCCTAGAAGTGGAACAGACTGAGAAGGGCAAACATTCCTGGGAGCTGGGCAAGGAGATCCTC
CCGTGGCATTAAAAGAGAGTCAAAGGGT

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FIGURE 2024

TTGCTGCATAGATTACAACGGTG**ATG**GCGGGCAAGCGGTCCGGCTGGAGCCGGGCGGCTCTCCTCCAGCTCCTTC
TCGGCGTGAACCTGGTGGTGATGCCGCCCACCCGGGCCCGGAGTCTGCGCTTCGTTACCTTGCTGTACCGCCATG
GAGACCGTTCACCAGTGAAGACATATCCCAAGGACCCCTATCAGGAAGAAGAATGGCCCCAGGGGTTTGGTCAGT
TAACCAAGGAGGGGATGCTACAGCACTGGGAACTGGGCCAGGCCCTGCGGCAGCGCTATCACGGCTTCCTAAACA
CCTCTTATCACCGGCAAGAGGTTTATGTGCGAAGCACAGACTTTGACCGGACTCTCATGAGTGCTGAGGCCAACC
TGGCTGGACTCTTCCCTCCCAACGGGATGCAGCGCTTCAACCCGAACATCTCGTGGCAGCCTATTCCTGTGCACA
CTGTGCCCATCACTGAGGACAGGCTGCTGAAGTTCCCGTTGGGCCCATGTCCCCGTTATGAGCAGCTGCAGAACG
AGACCCGGCAGACACCAGAGTATCAGAATGAGAGTTCTCGGAATGCACAATTTCTGGACATGGTGGCCAACGAGA
CAGGGCTTACAGACCTGACACTGGAGACCGTCTGGAATGTCTATGACACACTCTTCTGTGAGCAAACGCACGGGC
TGCGCCTGCCGCCCTGGGCCTCACCCCAAACCATGCAGCGTCTCAGCCGGCTAAAGGACTTCAGCTTCCGCTTCC
TCTTCGGAATCTACCAGCAGGCGGAGAAGGCCCGGCTTCAGGGGGGAGTCCTGCTGGCTCAGATAAGGAAGAACC
TGACCCTAATGGCGACCACCTCCCAGCTCCCCAAGCTGCTGGTTTACTCTGCGCACGACACTACCCTGGTTGCCC
TGCAAATGGCACTGGATGTCTACAATGGTGAACAAGCCCCCTACGCCTCCTGCCACATATTTGAACTGTACCAGG
AAGATTCTGGGAATTTCTCAGTGGAGATGTACTTTCGGAACGAGAGTGACAAGGCCCCCTGGCCGCTCAGCCTGC
CTGGCTGCCCTCACCGCTGCCCACTGCAGGACTTCCTTCGCCTCACAGAGCCCGTCGTGCCCAAGGATTGGCAGC
AGGAGTGCCAGCTGGCAAGCGGTCCTGCAGACACAGAGGTGATTGTGGCCTTGGCTGTATGTGGCTCCATCCTCT
TCCTCCTCATAGTGCTGCTCCTCACCGTCCTCTTCCGGATGCAGGCCCAGCCTCCTGGCTACCGCCACGTCGCAG
ATGGGGAGGACCACGCC**TGA**CAACCACTCAGCCCCCTTCCCTCCACCTCCTAGGGGAGGTGGGCTGGGCCCTCGC
TCCTGACTGTTGCTGCTCCCCAGCCCATGGACAGGAGATCCTGGGTTGGGCCTCCCTCTGATGACCCCAGCCAGA
TGAGCGAGTGGGGCTCAGCGTGGCCCATGGTGCCTGTCACTCAGCATTCCCATGCCTGATGTTTACCAAGTGCTG
TGTTGGACACTGGCTTTCTCCAAACAGGATTTGCCTCCTCCACGCTCCCTACACACCTGAGATGTAAACTGGCAG
TCAGTGTTCACTCAGGACCTAGGATTAGAAAATGGCAGAGTTGGTGCTGGATCCACCTTGCACTTCTATCAAGCC
CTGTTCTTTTTCCTCCAGCCTGAAGTCTTCGGCAAATAGCTCAGAGGGACACGGTCTTGCCTCTCAGTGCTTATT
TTAGTGGGAAAAACAGCTAATACCAGGGGTACAAACATTGGCTCCCAAGGAACTGGATCACCCAACAGCCAGCCA
GCCACATTTCCCTGTGTCTGGCTAGAGCCACCATTAGACTCAGACAGAATGCTTCAGGAATCGTTGTCACCCCTT
CAACTGGAGCAGGACGGAAGGTTGTCTGTACTTGGGAGGGAGTAGGGAGTGGTGGGAAGGGAGTTGCTTGTCACA
CGAATCAGGAAACTGCTCTCCCTCAGCTGGGCTGGGGTCTCCAGGGACCTGAGCTACATGCAGGTTGTGAGCTGG
AAAAGAAAGTTCTAGACTGTGGCCCAGAATAGGGCTGGGGCAGCTCCCAGAGAATGAATAGTGCTGTTTCCTATT
GGACTGATA

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FIGURE 2025

GAGCTCCAAGCTGGTTTGAACAAGCCCTGGGCATGTTTGGCGGGAAGTTGGCTTAGCTCGGCTACCTGTGGCCCC
GCAGTTTTGTAGTCCCCGCCTTGTTTCTCCCCAGAGGCCTCTCAATCCTCCCTCCATGATCTTCGCATAGAGCAC
AGTACCCCTTCACACGGAGGACGCG**ATG**GCTCCCAAGAAACGCCCAGAAACCCAGAAGACCTCCGAGATTGTATT
ACGCCCCAGGAACAAGAGGAGCAGGAGTCCCCTGGAGCTGGAGCCCGAGGCCAAGAAGCTCTGTGCGAAGGGCTC
CGGTCCTAGCAGAAGATGTGACTCAGACTGCCTCTGGGTGGGGCTGGCTGGCCCACAGATCCTGCCACCATGCCG
CAGCATCGTCAGGACCCTCCACCAGCATAAGCTGGGCAGAGCTTCCTGGCCATCTGTCCAGCAGGGGCTCCAGCA
GTCCTTTTTGCACACTCTGGATTCTTACCGGATATTACAAAAGGCTGCCCCCTTTGACAGGAGGGCTACATCCTT
GGCGTGGCACCCAACTCACCCCAGCACTGTGGCTGTGGGTTCCAAAGGGGGAGATATCATGCTCTGGAATTTTGG
CATCAAGGACAAACCCACCTTCATCAAAGGGATTGGAGCTGGAGGGAGCATCACTGGGCTGAAGTTTAACCCTCT
CAATACCAACCAGTTTTACGCCTCCTCAATGGAGGGAACAACTAGGCTGCAAGACTTTAAAGGCAACATTCTACG
AGTTTTTGCCAGCTCAGACACCATCAACATCTGGTTTTGTAGCCTGGATGTGTCTGCTAGTAGCCGAATGGTGGT
CACAGGAGACAACGTGGGGAACGTGATCCTGCTGAACATGGACGGCAAAGAGCTTTGGAATCTCAGAATGCACAA
AAAGAAAGTGACGCATGTGGCCCTGAACCCATGCTGTGATTGGTTCCTGGCCACAGCCTCCGTAGATCAAACAGT
GAAAATTTGGGACCTGCGCCAGGTTAGAGGGAAAGCCAGCTTCCTCTACTCGCTGCCGCACAGGCATCCTGTCAA
CGCAGCTTGTTTCAGTCCCGATGGAGCCCGGCTCCTGACCACGGACCAGAAGAGCGAGATCCGAGTTTACTCTGC
TTCCCAGTGGGACTGCCCCCTGGGCCTGATCCCGCACCCTCACCGTCACTTCCAGCACCTCACACCCATCAAGGC
AGCCTGGCATCCTCGCTACAACCTCATTGTTGTGGGCCGATACCCAGATCCTAATTTCAAAAGTTGTACCCCTTA
TGAATTGAGGACGATCGACGTGTTCGATGGAAACTCAGGGAAGATGATGTGTCAGCTCTATGACCCAGAATCTTC
TGGCATCAGTTCGCTTAATGAATTCAATCCCATGGGGGACACGCTGGCCTCTGCAATGGGTTACCACATTCTCAT
CTGGAGCCAGGAGGAAGCCAGGACACGGAAG**TGA**GAGACACTAAAGAAGGTGTGGGCCAGACAAGGCCTTGGAGC
CCACACATGGGATCAAGTCCTGCAAGCAGAGGTGGCGATTTGTTAAAGGGCCAAAAGTATCCAAGGTTAGGGTTG
GAGCAGGGGTGCTGGGACCTGGGGCACTGTGGGACTGGGACACTTTTATGTTAATGCTCTGGACTTGCCTCCAGA
GACTGCTCCAGAGTTGGTGACACAGCTGTCCCAAGGGCCCCTCTGTATCTAGCCTGGAACCAAGGTTATCTTGGA
ACTAAATGACTTTTCTCCTCTCAGTGGGTGGTAGCAGAGGGATCAAGCAGTTATTTGATTTGTGCTCACTTTTGA
TATGGCCAATAAAACCATACCG

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FIGURE 2026

ATGGCTTTTAAGGATACCGGAAAAACACCCGTGGAGCCGGAGGTGTGTGCTGACTTGATCAGAGGCGCAAAGGAA
AAGAATCTCAAAGTGAAAGGACCAGTCCGAATGCTTACCAAGACTTTGAGAATCACTACAAGAAAAACCCCTTGT
GGTGAAGGTTCTAAGACATGGGATCGTTTCCAGATGAGAATCCACCAGCGACTCATTGACTTGCACAGTCCTTCT
GAGATTGTTAAGCAGATTACTTCCATCAGTATTGAGCCAGGAGTTGAGGTGGAAGTCACCATTGCAGGATGCTTA
AGTCAACAATTT**TAA**

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FIGURE 2027

AGGACTCGGGCCGGAGCGTGGCCGGACCCCCACCCGCCGAGGGGCCCAGGGAGGACGCGGCAGAGTCACGGTGGC
AGCATTGAGAGTTGGACACCCGGGTCCTTGAAGTGATCTCTAGGCCCCAGCCCCAAATCCGCCACCATTCCGTGC
TGCGGGGACACC**ATG**GCTCCAGAAGAGGACGCTGGAGGGGAGGCCTTAGGGGGCAGTTTCTGGGAGGCTGGCAAC
TACAGGCGCACGGTACAGCGGGTGGAGGACGGGCACCGGCTGTGCGGGGACCTGGTCAGCTGCTTCCAGGAGCGC
GCCCGCATCGAGAAGGCTTATGCCCAGCAGTTGGCTGACTGGGCCCGAAAGTGGAGGGGGACCGTGGAGAAGGGC
CCCCAGTATGGCACACTGGAGAAGGCCTGGCATGCCTTTTTCACGGCGGCTGAGCGGCTGAGCGCGCTGCACCTG
GAGGTGCGGGAGAAGCTGCAAGGGCAGGACAGTGAGCGGGTGCGCGCCTGGCAGCGGGGGGCTTTCCACCGGCCT
GTGCTGGGCGGCTTCCGCGAGAGCCGGGCGGCCGAGGACGGCTTCCGCAAGGCCCAGAAGCCCTGGCTGAAGAGG
CTGAAGGAGGTTGAGGCTTCCAAGAAAAGCTACCACGCAGCCCGGAAGGATGAGAAGACCGCCCAGACGAGGGAG
AGCCACGCAAAGGCAGACAGCGCCGTCTCCCAGGAGCAGCTGCGCAAACTGCAGGAACGGGTGGAACGCTGTGCC
AAGGAGGCCGAGAAGACAAAAGCTCAGTATGAGCAGACGCTGGCAGAGCTGCATCGCTACACTCCACGCTACATG
GAGGACATGGAACAGGCCTTTGAGACCTGCCAGGCCGCCGAGCGCCAGCGGCTTCTTTTCTTCAAGGATATGCTG
CTCACCTTACACCAGCACCTGGACCTTTCCAGCAGTGAGAAGTTCCATGAACTCCACCGTGACTTGCACCAGGGC
ATTGAGGCAGCCAGTGACGAAGAGGATCTGCGCTGGTGGCGCAGCACCCACGGGCCAGGCATGGCCATGAACTGG
CCACAGTTCGAGGAGTGGTCCTTGGACACACAGAGGACAATCAGCCGGAAAGAGAAGGGTGGCCGGAGCCCTGAT
GAGGTTACCCTGACCAGCATTGTGCCTACAAGAGATGGCACCGCACCCCCACCCCAGTCCCCGGGGTCCCCAGGC
ACGGGGCAGGATGAGGAGTGGTCAGATGAAGAGAGTCCCCGGAAGGCTGCCACCGGGGTTCGGGTGAGGGCACTC
TATGACTACGCTGGCCAGGAAGCTGATGAGCTGAGCTTCCGAGCAGGGGAGGAGCTGCTGAAGATGAGTGAGGAG
GACGAGCAGGGCTGGTGCCAAGGCCAGTTGCAGAGTGGCCGCATTGGCCTGTACCCTGCCAACTACGTGGAGTGT
GTGGGCGCC**TGA**GTGTCCTGACAGCCCTTCTGCAACGTTTACCCACCCTGGTTCAGAGCCCAGCTTCTCCTGGAG
AGCCGGACCCTCAGGGCCCTGAACCGTCGCTCTCTGGCTGCTCCTCTGTCCCTTGAGGGAGGAAGTCCTGGGACC
CAGGGAGGGGAGGGGCCTTTGTCTAGGGAAGGGACTGGTAGGGAAGGGACGAGTCTAGGCTGAGGGCAAGATGGG
AGGTCAGAGGTGACAGAAGCGTTCAGGGGTGCCTGGGCCTCCCCAGGAGCTGTGGACTCAGTTCCTGACCTCTGC
TTTGGGGTTCCTGGGGTGGGCTTGGGGTGAGTGTAGTTCTGGCCTAGCAGCACCCTCTTGTGGCTTGTTCTAGCG
TGTATTAAAACTTGACACACACCCACACACAAAAAC

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FIGURE 2028

TGGGAAGGAGAGAAA**ATG**GCGGCGGAGCCGAACAAGACCGAAATCCAGACTCTTTTTAAGAGGCTTCGCGCAGTT
CCAACCAACAAGGCCTGTTTCGACTGCGGCGCCAAGAATCCGAGTTGGGCCAGCATCACGTACGGTGTTTTCTTG
TGCATTGACTGTTCCGGGGTGCACCGCTCCCTGGGCGTCCATCTGAGCTTCATCAGGTCCACAGAGTTGGATTCC
AACTGGAACTGGTTCCAGCTGAGGTGTATGCAGGTCGGCGGGAATGCCAATGCGACGGCTTTTTTTCGCCAACAT
GGATGCACAGCCAATGATGCCAACACCAAATATAATAGCCGAGCTGCCCAGATGTACCGGGAGAAGATCCGGCAG
CTGGGGAGTGCGGCCCTGGCTAGGCATGGCACTGATCTTTGGATAGACAACATGAGTAGTGCCGTTCCTAATCAC
TCCCCAGAGAAGAAGGACTCTGATTTCTTCACAGAACACACTCAACCCCCTGCCTGGGATGCGCCAGCCACTGAG
CCTTCAGGGACCCAGCAGCCAGCCCCGTCTACAGAGAGCAGTGGCCTGGCACAGCCGGAGCATGGCCCCAACACA
GACCTGCTTGGCACCTCACCCAAAGCCTCACTGGAACTGAAAAGCTCCATCATTGGCAAGAAGAAGCCAGAGCTT
CAG**TGA**GATTGAGCGGCAGGCTCAGGTGGCAGAGAAGCTCCGTGAGCAGCAGGCAGCCGATGCCAAGAAGCAGGC
GGAGGAGTCCATGGTCGCCTCCATGCGTCTGGCCTACCAGGAGCTCCAGATTGATCGTAAGAAAGAGG

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FIGURE 2029

TTCCGCCGCGTGGGTGCCATGGCAACGGAGAGAGACGGCAACCTGGGTTCCGGAAGCCGGAGAGCTGGAGCTTTG
AAGCCACCCCGGTCAAAGG**ATG**CTGAGTCCGGAGCGCCTAGCCCTACCGGACTACGAGTATCTGGCTCAGCGACA
TGTCCTCACCTACATGGAGGATGCAGTGTGCCAGCTGCTAGAAAACAGGGAAGATATTAGCCAATATGGAATTGC
CAGGTTCTTCACTGAATATTTTAACAGTGTATGCCAGGGAACACACATTCTCTTTCGAGAATTCAGCTTCGTCCA
AGCCACCCCCCACAATAGGGTATCATTTTTACGGGCCTTCTGGAGATGCTTCCGAACTGTGGGCAAAAATGGCGA
TTTGCTGACCATGAAAGAATATCACTGTTTGCTGCAATTACTGTGTCCTGATTTCCCGCTGGAGCTCACTCAGAA
AGCAGCCAGGATTGTGCTCATGGACGATGCCATGGACTGCTTGATGTCTTTTTCAGATTTCCTCTTTGCCTTCCA
GATCCAGTTTTACTACTCAGAATTCCTGGACAGTGTGGCTGCCATCTATGAGGACCTGCTGTCAGGCAAGAACCC
CAACACAGTGATTGTGCCGACGTCGTCCAGTGGGCAGCACCGCCAACGACCTGCCTTGGGCGGGGCCGGCACGCT
GGAGGGCGTGGAGGCGTCGCTGTTCTACCAGTGTCTGGAAAACCTGTGTGATCGGCACAAGTACAGCTGCCCACC
CCCAGCACTTGTCAAAGAGGCCCTCAGCAATGTTCAGAGACTGACCTTCTATGGATTCCTCATGGCTCTCTCAAA
GCACCGTGGAATCAACCAAGCCCTCGGAGCTTTGCCTGACAAGGGGGATCTGATGCACGACCCAGCAATGGATGA
AGAGCTGGAACGGCTG**TAA**GTGTCAAGTGGGAGGATACTGCCCCCTTGTGGGGGCCAGACGGGTCGGACACGGCT
GTGCCCCATCTGGGGCCAACACCACTTGTCTGTAACATCCCACATCTGCCAGGGAAGGGTCTGGGGGCCAGTGGA
GGCCTGAGGTGTCCCTCCCTCTGAGTCCTTTGGGGGCTGCAGCCCAGGGGTTTACCCTAGTGTTAAGAGTGGGCA
TGGAGGCCCTGCTCTCTGTACAGGAGGCCTCTCGCTGCCCTCCAGGCTTCTTCCCTTCTTCAGGCTGGCCCAGGT
CCCAGGCCTGGTCAACTCGGTCACAGCCAGTCCAGAGGCCAGTTGCCTGCCTTCCCGGACCCCTCCCCGGGTTGG
CTCTCCCTGGAGACCTCTCCATCATTCCCGAAAAGTGGATGGAGAGAGTGATGGCTCCACTGAAGAGACAGACGA
GTCGGAGACTTGAGGAGTCCAAAGGGTCCTGCCCACAGCGCCCTGTACCTGCTCCCACCCAGCCCTTGGTGTGCC
CACCCAGCCTCCTCTCCAGCACCTTGCTGTGCTGCCCTCTGCTGCTGACAAGGTGAATAACAGCCCCAAGACCAG
CCAGAGGGGCTCTGATGATCAGCCCAGCCAGTGGCCCCGGAAGGTGAATGGCCTGCTCTCCCTGGCCCTATCAGC
CTGTGAACTTCACTTAGGCCCCAAGCTGACAGACTGTGCTGAGGCCACCTTGTCACGCCGTAGCCTGTTAGTCCT
CCTAACCTCTTAAGAGCAGTCTCTTCTGAGCCAGCCTCTGCGGGTCCCCCAATAAGGTTCATCTCCTCACAGCAA
CTCCATTAAGGGGGAGAACCCGAATAGCCACGCAGGGCCTTGCACCATCAAGGGTGACACCTGCGACGCAAGTAC
CAGGAGGACATAACCGCTGTGGCCTGTTGGAGAACAGCCAGTAGCCTTGGTAATATGAAGGGTGGGCCAGAAGAT
GATTTCACTTGCAAAAACTGCTTCAAGTCTTGACCCCTTTGTGTCTAATAGCTAAACAAACATGTGAAACGAATA
AAAAGTCCCTCATGTCTGGT

FIGURE 2030

GACTGTGCAGACAACAGCGATGAAGAGAACTGTGAGAATACAGGAAGCCCCCAATGTGCCTTGGACCAGTTCCTG
TGTTGGAATGGGCGCTGCATTGGGCAGAGGAAGCTGTGCAACGGGGTCAACGACTGTGGTGACAACAGCGACGAA
AGCCCACAGCAGAATTGCCGGCCCCGGACGGGTGAGGAGAACTGCAATGTTAACAACGGTGGCTGTGCCCAGAAG
TGCCAG**ATG**GTGCGGGGGGCAGTGCAGTGTACCTGCCACACAGGCTACCGGCTCACAGAGGATGGGCACACGTGC
CAAGATGTGAATGAATGTGCCGAGGAGGGGTATTGCAGCCAGGGCTGCACCAACAGCGAAGGGGCTTTCCAATGC
TGGTGTGAAACAGGCTATGAACTACGGCCCGACCGGCGCAGCTGCAAGGCTCTGGGGCCAGAGCCTGTGCTGCTG
TTCGCCAATCGCATCGACATCCGGCAGGTGCTGCCACACCGCTCTGAGTACACACTGCTGCTTAACAACCTGGAG
AATGCCATTGCCCTTGATTTCCACCACCGCCGCGAGCTTGTCTTCTGGTCAGATGTCACCCTGGACCGGATCCTC
CGTGCCAACCTCAACGGCAGCAACGTGGAGGAGGTTGTGTCTACTGGGCTGGAGAGCCCAGGGGGCCTGGCTGTG
GATTGGGTCCATGACAAACTCTACTGGACCGACTCAGGCACCTCGAGGATTGAGGTGGCCAATCTGGATGGGGCC
CACCGGAAAGTGTTGCTGTGGCAGAACCTGGAGAAGCCCCGGGCCATTGCCTTGCATCCCATGGAGGGTACCATT
TACTGGACAGACTGGGGCAACACCCCCCGTATTGAGGCCTCCAGCATGGATGGCTCTGGACGCCGCATCATTGCC
GATACCCATCTCTTCTGGCCCAATGGCCTCACCATCGACTATGCCGGGCGCCGTATGTACTGGGTGGATGCTAAG
CACCATGTCATCGAGAGGGCCAATCTGGATGGGAGTCACCGTAAGGCTGTCATTAGCCAGGGCCTCCCGCATCCC
TTCGCCATCACAGTGTTTGAAGACAGCCTGTACTGGACAGACTGGCACACCAAGAGCATCAATAGCGCTAACAAA
TTTACGGGGAAGAACCAGGAAATCATTCGCAACAAACTCCACTTCCCTATGGACATCCACACCTTGCACCCCCAG
CGCCAACCTGCAGGGAAAAACCGCTGTGGGGACAACAACGGAGGCTGCACGCACCTGTGTCTGCCCAGTGGCCAG
AACTACACCTGTGCCTGCCCCACTGGCTTCCGCAAGATCAGCAGCCACGCCTGTGCCCAGAGTCTTGACAAGTTC
CTGCTTTTTGCCCGAAGGATGGACATCCGTCGAATCAGCTTTGACACAGAGGACCTGTCTGATGATGTCATCCCA
CTGGCTGACGTGCGCAGTGCTGTGGCCCTTGACTGGGACTCCCGGGATGACCACGTGTACTGGACAGATGTCAGC
ACTGATACCATCAGCAGGGCCAAGTGGGATGGAACAGGACAGGAGGTGGTAGTGGATACCAGTTTGGAGAGCCCA
GCTGGCCTGGCCATTGATTGGGTCACCAACAAACTGTACTGGACAGATGCAGGTACAGACCGGATTGAAGTAGCC
AACACAGATGGCAGCATGAGAACAGTACTCATCTGGGAGAACCTTGATCGTCCTCGGGACATCGTGGTGGAACCC
ATGGGCGGGTACATGTATTGGACTGACTGGGGTGCGAGCCCCAAGATTGAACGAGCTGGCATGGATGCCTCAGGC
CGCCAAGTCATTATCTCTTCTAATCTGACCTGGCCTAATGGGTTAGCTATTGATTATGGGTCCCAGCGTCTATAC
TGGGCTGACGCCGGCATGAAGACAATTGAATTTGCTGGACTGGATGGCAGTAAGAGGAAGGTGCTGATTGGAAGC
CAGCTCCCCCACCCATTTGGGCTGACCCTCTATGGAGAGCGCATCTATTGGACTGACTGGCAGACCAAGAGCATA
CAGAGCGCTGACCGGCTGACAGGGCTGGACCGGGAGACTCTGCAGGAGAACCTGGAAAACCTAATGGACATCCAT
GTCTTCCACCGCCGCCGGCCCCCAGTGTCTACACCATGTGCTATGGAGAATGGCGGCTGTAGCCACCTGTGTCTT
AGGTCCCCAAATCCAAGCGGATTCAGCTGTACCTGCCCCACAGGCATCAACCTGCTGTCTGATGGCAAGACCTGC
TCACCAGGCATGAACAGTTTCCTCATCTTCGCCAGGAGGATAGACATTCGCATGGTCTCCCTGGACATCCCTTAT
TTTGCTGATGTGGTGGTACCAATCAACATTACCATGAAGA

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FIGURE 2031A

CAGGC**ATG**AACAGTTTCCTCATCTTCGCCAGGAGGATAGACATTCGCATGGTCTCCCTGGACATCCCTTATTTTG
CTGATGTGGTGGTACCAATCAACATTACCATGAAGAACACCATTGCCATTGGAGTAGACCCCCAGGAAGGAAAGG
TGTACTGGTCTGACAGCACACTGCACAGGATCAGTCGTGCCAATCTGGATGGCTCACAGCATGAGGACATCATCA
CCACAGGGCTACAGACCACAGATGGGCTCGCGGTTGATGCCATTGGCCGGAAAGTATACTGGACAGACACGGGAA
CAAACCGGATTGAAGTGGGCAACCTGGACGGGTCCATGCGGAAAGTGTTGGTGTGGCAGAACCTTGACAGTCCCC
GGGCCATCGTACTGTACCATGAGATGGGGTTTATGTACTGGACAGACTGGGGGGAGAATGCCAAGTTAGAGCGGT
CCGGAATGGATGGCTCAGACCGCGCGGTGCTCATCAACAACAACCTAGGATGGCCCAATGGACTGACTGTGGACA
AGGCCAGCTCCCAACTGCTATGGGCCGATGCCCACACCGAGCGAATTGAGGCTGCTGACCTGAATGGTGCCAATC
GGCATACATTGGTGTCACCGGTGCAGCACCCATATGGCCTCACCCTGCTCGACTCCTATATCTACTGGACTGACT
GGCAGACTCGGAGCATCCACCGTGCTGACAAGGGTACTGGCAGCAATGTCATCCTCGTGAGGTCCAACCTGCCAG
GCCTCATGGACATGCAGGCTGTGGACCGGGCACAGCCACTAGGTTTTAACAAGTGCGGCTCGAGAAATGGCGGCT
GCTCCCACCTCTGCTTGCCTCGGCCTTCTGGCTTCTCCTGTGCCTGCCCCACTGGCATCCAGCTGAAGGGAGATG
GGAAGACCTGTGATCCCTCTCCTGAGACCTACCTGCTCTTCTCCAGCCGTGGCTCCATCCGGCGTATCTCACTGG
ACACCAGTGACCACACCGATGTGCATGTCCCTGTTCCTGAGCTCAACAATGTCATCTCCCTGGACTATGACAGCG
TGGATGGAAAGGTCTATTACACAGATGTGTTCCTGGATGTTATCAGGCGAGCAGACCTGAACGGCAGCAACATGG
AGACAGTGATCGGGCGAGGGCTGAAGACCACTGACGGGCTGGCAGTGGACTGGGTGGCCAGGAACCTGTACTGGA
CAGACACAGGTCGAAATACCATTGAGGCGTCCAGGCTGGATGGTTCCTGCCGCAAAGTACTGATCAACAATAGCC
TGGATGAGCCCCGGGCCATTGCTGTTTTCCCCAGGAAGGGGTACCTCTTCTGGACAGACTGGGGCCACATTGCCA
AGATCGAACGGGCAAACTTGGATGGTTCTGAGCGGAAGGTCCTCATCAACACAGACCTGGGTTGGCCCAATGGCC
TTACCCTGGACTATGATACCCGCAGGATCTACTGGGTGGATGCGCATCTGGACCGGATCGAGAGTGCTGACCTCA
ATGGGAAACTGCGGCAGGTCTTGGTCAGCCATGTGTCCCACCCCTTTGCCCTCACACAGCAAGACAGGTGGATCT
ACTGGACAGACTGGCAGACCAAGTCAATCCAGCGTGTTGACAAATACTCAGGCCGGAACAAGGAGACAGTGCTGG
CAAATGTGGAAGGACTCATGGATATCATCGTGGTTTCCCCTCAGCGGCAGACAGGGACCAATGCCTGTGGTGTGA
ACAATGGTGGCTGCACCCACCTCTGCTTTGCCAGAGCCTCGGACTTCGTATGTGCCTGTCCTGACGAACCTGATA
GCCGGCCCTGCTCCCTTGTGCCTGGCCTGGTACCACCAGCTCCTAGGGCTACTGGCATGAGTGAAAAGAGCCCAG
TGCTACCCAACACACCACCTACCACCTTGTATTCTTCAACCACCCGGACCCGCACGTCTCTGGAGGAGGTGGAAG
GAAGATGCTCTGAAAGGGATGCCAGGCTGGGCCTCTGTGCACGTTCCAATGACGCTGTTCCTGCTGCTCCAGGGG
AAGGACTTCATATCAGCTACGCCATTGGTGGACTCCTCAGTATTCTGCTGATTTTGGTGGTGATTGCAGCTTTGA
TGCTGTACAGACACAAAAAATCCAAGTTCACTGATCCTGGAATGGGGAACCTCACCTACAGCAACCCCTCCTACC
GAACATCCACACAGGAAGTGAAGATTGAAGCAATCCCCAAACCAGCCATGTACAACCAGCTGTGCTATAAGAAAG
AGGGAGGGCCTGACCATAACTACACCAAGGAGAAGATCAAGATCGTAGAGGGAATCTGCCTCCTGTCTGGGGATG
ATGCTGAGTGGGATGACCTCAAGCAACTGCGAAGCTCACGGGGGGGCCTCCTCCGGGATCATGTATGCATGAAGA
CAGACACGGTGTCCATCCAGGCCAGCTCTGGCTCCCTGGATGACACAGAGACGGAGCAGCTGTTACAGGAAGAGC
AGTCTGAGTGTAGCAGCGTCCATACTGCAGCCACTCCAGAAAGACGAGGCTCTCTGCCAGACACGGGCTGGAAAC
ATGAACGCAAGCTCTCCTCAGAGAGCCAGGTC**TAA**ATGCCCACATTCTCTTCCCTGCCTGCCTGTTCCTTCTCCT
TTATGGACGTCTAGTCCTTGTGCTCGCTTACACCGCAGGCCCCGCTTCTGTGTGCTTGTCCTCCTCCTCCTCCCA
CCCCATAACTGTTCCTAAGCCTTCACCGGAGCTGTTTACCACGTGAGTCCATAACTACCTGTGCACAAGAAATGA
TGGCACATCACGAGAATTTAGACCTGGATTTTACCATGAACCTCACATCTTGTACTCCATCCTGGGCCCCCTGAA
ACTGCTTATTCGTGATTCCTCACCAGCGTAGAGCTCCACCTCCCCTTTCCCCAGTACCCTCAGTGCCTGCTTCTC
AGTGCTGATGCAGCTGATGACCCAGGACTGCGCTCTGCCCCATCACAGCCAGCATGACTGCTTCTCTGAGAGAAC
TTGCCCATCAGGGGCTGGGACATGGGGGTGTGGGTAAAGACAGGGATGAAGGATAGAGGCTGAGAGAAGAAGGAA
GAATCAGCCCAGCAGGTATGGGCATCTGGGAAACCTCCAGCCTCAAGTGTGTTAGTAACATGAAAAAGCTTTGGG
GGGTAGTTGGATCTGGGTGTCTGGTCCATTGCTGGCAGTGGACATTATTCTTGCCCTAAGAGACACTGCCTTTTC
AGCAGCAGATACTGGTGAGATGGGGGTGGCTCAGGCTGTTCTTCCTCCTCCTAGAATGTCTGGAGCTGTTTCTAC
ATTCAGATAACTGGGTCCCCTATCACAAGGCTACTGGCTAATAGGAATTCCCTCCTGGTGCCACCACTGGCCAGT
ACCTTTCCTAAGTCTTTGCTCAAATTAACCAGGTTGTGAGCCAGTGGCTTGAGTGAATGTTAGGCCTTGGGGGCT
GAGTCTCTGAAAAGTCTAAGAAGCTCTGCCTAGACCAAATATGGTATACCTCCTGACCCCTCTCTCCCTCATGTC
CTGGGATTCTGGGGAAGAGACCTAGAAACAAGCTTTCAAAGAAAAACCAGAAGTTGTCATAAATGGTCAGAAAGA

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FIGURE 2031B

ACGATCAGGTTGGAGACTTGGGAAACCCAGGGCCTAAAGAGAAGTATCCATGAGGGTCAAACTTCCTGTTGAACT
TCCTATGTTCTTTCTCAAGTGCTCAGGGATCTAAGTTAGTGGACAGCAAGCCTGTGGCTACGGGGTGGTGATGTT
CCTCTTCCAGCTGTCCCCTCAGCTAAGGGGCTTAGTTTCCATGTGGGATGCCATCACTTGGTTCATGCTCATTCA
CACAAAGGGCACGTGTCTCAGCCTGGTATCAGGGAAATTGAGACTTATTTTTGCCCTAAAACGTCTCCCTAGCTG
TTCTTCGTGGGGTTTTTTTGTTTGTTTTTTTGCCTAATTTGCTTTTTCTGACCAAGCCTTGTGGCACCAGCAATC
TCCAAAGTCCTGTGGTGGGAGGGCTGAATAAATAAAAATACAAAGAGGTGGGTAAGGAGTAGGAAGGTAGAGAGC
ACCACTGATGAGGCCCTCCTAGCCCATGGCAGACCCAGACCTCTTCTCCCCCAGGAATTAGAAGTGGCAGGAGAG
AACAACAGGGGCTGGGAATGGAGGGGAGAATTTCTAGGGGAAGTTTCCTGAGTTGAAACTTCTCCTGTGGTTACT
GGTATTGAGAAATCAGCTACCAAAGTGAAAAAGGACAAGATCAATTCTTTTCTAGTCAGTTCTAAGACTGCTAGA
GAGAGATACCAGGCCCTTAGCCTTGCTCTCAGTAGCGTCAGCCCCAGTTCTGAGCCTCCCCACATTACACTTAAC
AAGCAGTAAAGGAGTGAGCACTTTGGGTCCTTAGACTCACGTCTGGGGAGGAAGAGCAAGTAGAAAAGTGGCATT
TTCTTGATTGGAAAGGGGGAAGGATCTTATTGCACTTGGGCTGTTCAGAATGTAGAAAGGACATATTTGAGGAAG
TATCTATTTGAGCACTGATTTACTCTGTAAAAAGCAAAATCTCTCTGTCCTAAACTAATGGAAGCGATTCTCCCA
TGCTCATGTGTAATGGTTTTAACGTTACTCACTGGAGAGATTGGACTTTCTGGAGTTATTTAACCACTATGTTCA
GTATTTTAGGACTTTATGATAATTTAATATAAATTTAGCTTTTCTTAATC

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FIGURE 2032

CGCCGCCGCTCCAGCGCCGCGCAGCCACCGCCGCCGCCGCCGCCTCTCCTTAGTCGCCGCC**ATG**ACGACCGCGTC
CACCTCGCAGGTGCGCCAGAACTACCACCAGGACTCAGAGGCCGCCATCAACCGCCAGATCAACCTGGAGCTCTA
CGCCTCCTACGTTTACCTGTCCATGTCTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAACTTTGCCAAATA
CTTTCTTCACCAATCTCATGAGGAGAGGGAACATGCTGAGAAACTGATGAAGCTGCAGAACCAACGAGGTGGCCG
AATCTTCCTTCAGGATATCAAGAAACCAGACTGTGATGACTGGGAGAGCGGGCTGAATGCAATGGAGTGTGCATT
ACATTTGGAAAAAAATGTGAATCAGTCACTACTGGAACTGCACAAACTGGCCACTGACATGAAAGCCATCAAAGA
ATTGGGTGACCACGTGACCAACTTGCGCAAGATGGGAGCGCCCGAATCTGGCTTGGCGGAATATCTCTTTGACAA
GCACACCCTGGGAGACAGTGATAATGAAAGC**TAA**GCCTCGGGCTAATTTCCCCATAGCCGTGGGGTGACTTCCCT
GGTCACCAAGGCAGTGCATGCATGTTGGGG

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FIGURE 2033

CTGGTGGGGGGAAGAAGGCTCCTGCTACCTCCCTTCCCGGCACCCTCCAGAGGGACCCTCAGTCTGGCCTTGCAA
GCATGGACTCTTCTGAGGAGCACGCTGGGTGCCCCGCCCGAGGGACATGTCCCGTGTTCCTGGCCATGAGTGCAG
GGACTGTCCGCTACGCCCCATCAGGCCTGTGCCCTGTACTTGAGGGGAACTTGAGAGAAGAGCCCTGGGGCACAG
ACAGCCCACCCCAGCCAGACCAGGGCCTCCCGCCGCCCCTTGCAGCTGTCCCGGTCCCCTGGAAGAGCACGGACC
CCTGCCAAGGCCACAGGGAGTCCCCAGGAGCCCTGGTGGAGACCTCTGCAGGGGAGGAGGCCCGAGGCCAGGAGG
GCCCCGCAGCCGCCCAGCTGGACGTGTTGCGCCTGCGCAGCTCTTCC**ATG**GAGATCCGAGAGAAGGGCTCCGAGT
TCCTGAAGGAGGAGCTGCACAGAGCGCAGAAGGAGCTGAAGCTAAAGGACGAGGAATGTGAGCGGCTGTCCAAGG
TGCGGGAGCAGCTAGAACAGGAGCTGGAAGAGCTGACGGCCAGCCTGTTTGAGGAAGCTCACAAGATGGTTCGAG
AAGCCAACATGAAGCAGGCGGCATCAGAAAAGCAGCTGAAGGAGGCTCGGGGCAAGATCGACATGCTGCAGGCAG
AGGTGACAGCCTTGAAGACGCTGGTCATCACGTCCACACCAGCCTCTCCCAACCGCGAGCTTCACCCCCAGCTGC
TGAGCCCCACCAAGGCCGGGCCCCGAAAGGGCCACTCTCGCCACAAGAGCACCAGCAGCACCCTCTGCCCCGCCG
TGTGTCCCGCTGCGGGACACACCCTCACCCCAGACAGAGAGGGCAAGGAGGTGGACACAATCCTGTTTGCAGAGT
TCCAGGCCTGGAGGGAATCCCCCACCCTGGACAAGACCTGCCCCTTCCTGGAAAGGGTGTACCGGGAGGACGTGG
GCCCCTGCCTGGACTTCACGATGCAGGAGCTCTCGGTGCTGGTACGGGCCGCCGTGGAGGACAACACGCTCACCA
TTGAGCCGGTGGCTTCGCAGACGCTGCCCACAGTGAAGGTGGCCGAGGTTGACTGTAGCAGCACCAACACATGTG
CCCTGAGCGGGCTGACCCGCACCTGCCGCCACCGAATCCGGCTCGGGGACTCCAAAAGCCATTACTACATCTCGC
CATCTTCCCGGGCCAGGATCACCGCAGTGTGCAACTTCTTCACCTACATCCGCTACATCCAGCAAGGCCTGGTGC
GGCAGGACGCAGAGCCCATGTTCTGGGAGATCATGAGGTTGCGGAAGGAGATGTCACTGGCCAAGCTCGGCTTCT
TCCCCCAGGAGGCT**TAG**GGCGCGGCCCAGGCCTGAAGGGGAGCTCTGAGACAGAGCAAACACCCACCCCAGAACA
AGCCGACACACAGGGAGACGGGGGCCTGGAGCCAGCCCTGAGCCAGAGGCAGAATGGATGGACAGACAGGCCATG
GAGGCAGCACTGAGCCAGCACCACACGTCCATCCTGGGACAGACGGGCCTGGACTTCACGGCAAGACCCCCCTCT
CTTCCCCACTGGGTTCTGCCACCACCAGGAGGATTTCAAGAAAGCACCAAAGACCAGGGAGCTCGGATCCATACT
CGGGGGGCCTCAGCCCTTGGGAGGGGACACCTGAGGCAGCCAGCGCCCCCTCCCCAGTCCCCAGAACTGCCTGCA
GGTGCCTTGTTGCTGGCTTGTCTTCAGAAAGGGACTGTTCTGGGTGGCTGGATCTCCAGGGTACCCTCCACCCCA
GCTGCCAAGCCCTGGGCCAGCAGCACCCCCTTGTGGCCATCCTGTGCCTTGTTCCCGGTGGCCTCCCTATTGGAC
TACTAGGAGGGGCTGGCAGGGCCTCCATAGCACAGAATTGCCCCAAAGCCTTGTTAAGATGAGTCAAGACCCCTC
CCCCGCTTCCTCCCTTCCTTTCCCCCTTCCTCCCTCCCCCTTCACAAAGGCCTCCCTTGTCACCTTCCCTCCCAC
CCCGTCTCAGCCCTGTGCTCCTGGAGGCCCTGCTCCCAAAACCGCTGGAAGGACTGGGGCACTTTCTGCCACAGT
AGAACACAGACAGGGCTTCAGATCGCCCACGCCTGTTTTCAGCTGTGGGTGGCCATGCAGACACGCGCCCTGGCA
TGTGGGGCCTGGGTGGGCAGGCAGGACCTGGGCCCTCCCACCCATCAGAGCCCACTCAGGACCAGCGTTCGGAGC
TCCCACCTGGACGCATCCCTCACCACGTCCGGATTTCCTTCTTTGGATGGAATGTAACGCGATCTCTATTTAATA
AAGGCAGGCTTTGTTGGT

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FIGURE 2034

GAGGCGCACGCTCGCTCGTACGGCGGCCGCGGCGGCAGGGCGGGGCCGGAGCAGCGGGCGGCGGCGGAGGCGGCG
CCCGGGAGCGCTCTTCGCTTCCCTCGGGGTCTTGCTCGGACCTCGGCCACCGCCTGGGATCCCCAGGACTCGTGC
GTGCAGC**ATG**GGCGGCGTCGGGGAGCCGGGACCGCGGGAGGGACCCGCGCAGCCGGGGGCGCCGCTGCCCACCTT
CTGCTGGGAGCAGATCCGCGCGCACGACCAGCCCGGCGACAAGTGGCTGGTCATCGAGCGCCGCGTCTACGACAT
CAGCCGCTGGGCACAGCGGCACCCAGGGGGCAGCCGCCTCATCGGCCACCACGGCGCTGAGGACGCCACGGATGC
CTTCCGTGCCTTCCATCAAGATCTCAATTTTGTGCGCAAGTTCCTACAGCCCCTGTTGATTGGAGAGCTGGCTCC
GGAAGAACCCAGCCAGGATGGACCCCTGAATGCGCAGCTGGTCGAGGACTTCCGAGCCCTGCACCAGGCAGCCGA
GGACATGAAGCTGTTTGATGCCAGTCCCACCTTCTTTGCTTTCCTACTGGGCCACATCCTGGCCATGGAGGTGCT
GGCCTGGCTCCTTATCTACCTCCTGGGTCCTGGCTGGGTGCCCAGTGCCCTGGCCGCCTTCATCCTGGCCATCTC
TCAGGCTCAGTCCTGGTGTCTGCAGCATGACCTGGGCCATGCCTCCATCTTCAAGAAGTCCTGGTGGAACCACGT
GGCCCAGAAGTTCGTGATGGGGCAGCTAAAGGGCTTCTCCGCCCACTGGTGGAACTTCCGCCACTTCCAGCACCA
CGCCAAGCCCAACATCTTCCACAAAGACCCAGACGTGACGGTGGCGCCCGTCTTCCTCCTGGGGGAGTCATCCGT
CGAGTATGGCAAGAAGAAACGCAGATACCTACCCTACAACCAGCAGCACCTGTACTTCTTCCTGATCGGCCCGCC
GCTGCTCACCCTGGTGAACTTTGAAGTGGAAAATCTGGCGTACATGCTGGTGTGCATGCAGTGGGCGGATTTGCT
CTGGGCCGCCAGCTTCTATGCCCGCTTCTTCTTATCCTACCTCCCCTTCTACGGCGTCCCTGGGGTGCTGCTCTT
CTTTGTTGCTGTCAGGGTCCTGGAAAGCCACTGGTTCGTGTGGATCACACAGATGAACCACATCCCCAAGGAGAT
CGGCCACGAGAAGCACCGGGACTGGGTCAGCTCTCAGCTGGCAGCCACCTGCAACGTGGAGCCCTCACTTTTCAC
CAACTGGTTCAGCGGGCACCTCAACTTCCAGATCGAGCACCACCTCTTCCCCAGGATGCCGAGACACAACTACAG
CCGGGTGGCCCCGCTGGTCAAGTCGCTGTGTGCCAAGCACGGCCTCAGCTACGAAGTGAAGCCCTTCCTCACCGC
GCTGGTGGACATCGTCAGGTCCCTGAAGAAGTCTGGTGACATCTGGCTGGACGCCTACCTCCATCAG**TGA**AGGCA
ACACCCAGGCGGGCAGAGAAGGGCTCAGGGCACCAGCAACCAAGCCAGCCCCCGGCGGGATCGATACCCCCACCC
CTCCACTGGCCAGCCTGGGGGTGCCCTGCCTGCCCTCCTGGTACTGTTGTCTTCCCCTCGGCCCCCTCACATGTG
TATTCAGCAGCCCTATGGCCTTGGCTCTGGGCCTGATGGGACAGGGGTAGAGGGAAGGTGAGCATAGCACATTTT
CCTAGAGCGAGAATTGGGGGAAAGCTGTTATTTTTATATTAAAATACATTCAGATGT

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FIGURE 2035

AGGGGGCGCGGTGGGAGGAGTAGGAGAAGACAAAAGCCGAAAGCGAAGAGGGCCCGGGCTGCACACACCGGCTGG
GAGGCAGCCGTCTGTGCAGCGAGCAGCCGGCGCGGGGAGGCCGCAGTGCACGGGGCGTCACAGTCGGCAGGCAGC
ATGGGGAAGGGAGGGAACCAGGGCGAGGGGGCCGCCGAGCGCGAGGTGTCGGTGCCCACCTTCAGCTGGGAGGAG
ATTCAGAAGCATAACCTGCGCACCGACAGGTGGCTGGTCATTGACCGCAAGGTTTACAACATCACCAAATGGTCC
ATCCAGCACCCGGGGGGCCAGCGGGTCATCGGGCACTACGCTGGAGAAGATGCAACGGATGCCTTCCGCGCCTTC
CACCCTGACCTGGAATTCGTGGGCAAGTTCTTGAAACCCCTGCTGATTGGTGAACTGGCCCCGGAGGAGCCCAGC
CAGGACCACGGCAAGAACTCAAAGATCACTGAGGACTTCCGGGCCCTGAGGAAGACGGCTGAGGACATGAACCTG
TTCAAGACCAACCACGTGTTCTTCCTCCTCCTCCTGGCCCACATCATCGCCCTGGAGAGCATTGCATGGTTCACT
GTCTTTTACTTTGGCAATGGCTGGATTCCTACCCTCATCACGGCCTTTGTCCTTGCTACCTCTCAGGCCCAAGCT
GGATGGCTGCAACATGATTATGGCCACCTGTCTGTCTACAGAAAACCCAAGTGGAACCACCTTGTCCACAAATTC
GTCATTGGCCACTTAAAGGGTGCCTCTGCCAACTGGTGGAATCATCGCCACTTCCAGCACCACGCCAAGCCTAAC
ATCTTCCACAAGGATCCCGATGTGAACATGCTGCACGTGTTTGTTCTGGGCGAATGGCAGCCCATCGAGTACGGC
AAGAAGAAGCTGAAATACCTGCCCTACAATCACCAGCACGAATACTTCTTCCTGATTGGGCCGCCGCTGCTCATC
CCCATGTATTTCCAGTACCAGATCATCATGACCATGATCGTCCATAAGAACTGGGTGGACCTGGCCTGGGCCGTC
AGCTACTACATCCGGTTCTTCATCACCTACATCCCTTTCTACGGCATCCTGGGAGCCCTCCTTTTCCTCAACTTC
ATCAGGTTCCTGGAGAGCCACTGGTTTGTGTGGGTCACACAGATGAATCACATCGTCATGGAGATTGACCAGGAG
GCCTACCGTGACTGGTTCAGTAGCCAGCTGACAGCCACCTGCAACGTGGAGCAGTCCTTCTTCAACGACTGGTTC
AGTGGACACCTTAACTTCCAGATTGAGCACCACCTCTTCCCCACCATGCCCCGGCACAACTTACACAAGATCGCC
CCGCTGGTGAAGTCTCTATGTGCCAAGCATGGCATTGAATACCAGGAGAAGCCGCTACTGAGGGCCCTGCTGGAC
ATCATCAGGTCCCTGAAGAAGTCTGGGAAGCTGTGGCTGGACGCCTACCTTCACAAA**TGA**AGCCACAGCCCCCGG
GACACCGTGGGGAAGGGGTGCAGGTGGGGTGATGGCCAGAGGAATGATGGGCTTTTGTTCTGAGGGGTGTCCGAG
AGGCTGGTGTATGCACTGCTCACGGACCCCATGTTGGATCTTTCTCCCTTTCTCCTCTCCTTTTTCTCTTCACAT
CTCCCCCATAGCACCCTGCCCTCATGGGACCTGCCCTCCCTCAGCCGTCAGCCATCAGCCATGGCCCTCCCAGTG
CCTCCTAGCCCCTTCTTCCAAGGAGCAGAGAGGTGGCCACCGGGGGTGGCTCTGTCCTACCTCCACTCTCTGCCC
CTAAAGATGGGAGGAGACCAGCGGTCCATGGGTCTGGCCTGTGAGTCTCCCCTTGCAGCCTGGTCACTAGGCATC
ACCCCCGCTTTGGTTCTTCAGATGCTCTTGGGGTTCATAGGGGCAGGTCCTAGTCGGGCAGGGCCCCTGACCCTC
CCGGCCTGGCTTCACTCTCCCTGACGGCTGCCATTGGTCCACCCTTTCATAGAGAGGCCTGCTTTGTTACAAAGC
TCGGGTCTCCCTCCTGCAGCTCGGTTAAGTACCCGAGGCCTCTCTTAAGATGTCCAGGGCCCCAGGCCCGCGGGC
ACAGCCAGCCCAAACCTTGGGCCCTGGAAGAGTCCTCCACCCCATCACTAGAGTGCTCTGACCCTGGGCTTTGAC
GGGCCCCATTCCACCGCCTCCCCAACTTGAGCCTGTGACCTTGGGACCAAAGGGGGAGTCCCTCGTCTCTTGTGA
CTCAGCAGAGGCAGTGGCCACGTTCAGGGAGGGGCCGGCTGGCCTGGAGGCTCAGCCCACCCTCCAGCTTTTCCT
CAGGGTGTCCTGAGGTCCAAGATTCTGGAGCAATCTGACCCTTCTCCAAAGGCTCTGTTATCAGCTGGGCAGTGC
CAGCCAATCCCTGGCCATTTGGCCCCAGGGGACGTGGGCCCTGCAGGCTGCAGGAGGGCACTGGAGCTGGGAGGT
CTCGTCCCAGCCCTCCCCATCTCGGGGCTGCTGTGTGGACGGCGCTGCCTCAGGCACTCTCCTGTCTGAACCTGC
CCTTACTGTGTTTAACCTGTTGCTCCAGGATGCATTCTGATAGGAGGGGGCGGCAGGGCTGGGCCTTGTGACAAT
CTGCCTTTCACCACATGGCCTTGCCTCGGTGGCCCTGACTGTCAGGGAGGGCCAGGGAGGCAGAGCGGGAGGGAG
TCTCAGGAGGAGGCTGCCCTGAGGGGCTGGGGAGGGGGTACCTCATGAGGACCAGGGTGGAGCTGAGAAGAGGAG
GAGGTGGGGGCTGGAGGTGCTGGTAGCTGAGGGGACGGGCAAGTGAGAGGGGAGGGAGGGAAGTCCTGGGAGGAT
CCTGAGCTGCTGTTGCAGTCTAACCCACTAATCAGTTCTTAGATTCAGGGGAAGGGCAGGCACCAACAACTCAGA
ATGGGGGCTTTCGGGGAGGGCGCCTAGTCCCCCCAGCTCTAAGCAGCCAGGAGGGACCTGCATCTAAGCATCTGG
GTTGCCATGGCAATGGCATGCCCCCCAGCTACTGTATGCCCCCGACCCCCGCAGAGGCAGAATGAACCCATAGGG
AGCTGATCGTAATGTTTATCATGTTACTTCCCCACCCCTACATTTTTTGAAATAAAATAAGGAATTTTATTCTC

FIGURE 2036A

TCCACTCCTGGAGCCCGCGGACCCCGAGCACGCGCCTGACAGCCCCTGCTGGCCCGGCGCGCGGCGTCGCCAGGC
CAGCT**ATG**GCCCCCGACCCGGTGGCCGCCGAGACCGCGGCTCAGGGACCTACCCCGCGCTACTTCACCTGGGACG
AGGTGGCCCAGCGCTCAGGGTGCGAGGAGCGGTGGCTAGTGATCGACCGTAAGGTGTACAACATCAGCGAGTTCA
CCCGCCGGCATCCAGGGGGCTCCCGGGTCATCAGCCACTACGCCGGGCAGGATGCCACGGATCCCTTTGTGGCCT
TCCACATCAACAAGGGCCTTGTGAAGAAGTATATGAACTCTCTCCTGATTGGAGAACTGTCTCCAGAGCAGCCCA
GCTTTGAGCCCACCAAGAATAAAGAGCTGACAGATGAGTTCCGGGAGCTGCGGGCCACAGTGGAGCGGATGGGGC
TCATGAAGGCCAACCATGTCTTCTTCCTGCTGTACCTGCTGCACATCTTGCTGCTGGATGGTGCAGCCTGGCTCA
CCCTTTGGGTCTTTGGGACGTCCTTTTTGCCCTTCCTCCTCTGTGCGGTGCTGCTCAGTGCAGTTCAGGCCCAGG
CTGGCTGGCTGCAGCATGACTTTGGGCACCTGTCGGTCTTCAGCACCTCAAAGTGGAACCATCTGCTACATCATT
TTGTGATTGGCCACCTGAAGGGGGCCCCCGCCAGTTGGTGGAACCACATGCACTTCCAGCACCATGCCAAGCCCA
ACTGCTTCCGCAAAGACCCAGACATCAACATGCATCCCTTCTTCTTTGCCTTGGGGAAGATCCTCTCTGTGGAGC
TTGGGAAACAGAAGAAAAAATATATGCCGTACAACCACCAGCACAAATACTTCTTCCTAATTGGGCCCCCAGCCT
TGCTGCCTCTCTACTTCCAGTGGTATATTTTCTATTTTGTTATCCAGCGAAAGAAGTGGGTGGACTTGGCCTGGA
TGATTACCTTCTACGTCCGCTTCTTCCTCACTTATGTGCCACTATTGGGGCTGAAAGCCTTCCTGGGCCTTTTCT
TCATAGTCAGGTTCCTGGAAAGCAACTGGTTTGTGTGGGTGACACAGATGAACCATATTCCCATGCACATTGATC
ATGACCGGAACATGGACTGGGTTTCCACCCAGCTCCAGGCCACATGCAATGTCCACAAGTCTGCCTTCAATGACT
GGTTCAGTGGACACCTCAACTTCCAGATTGAGCACCATCTTTTTCCCACGATGCCTCGACACAATTACCACAAAG
TGGCTCCCCTGGTGCAGTCCTTGTGTGCCAAGCATGGCATAGAGTACCAGTCCAAGCCCCTGCTGTCAGCCTTCG
CCGACATCATCCACTCACTAAAGGAGTCAGGGCAGCTCTGGCTAGATGCCTATCTTCACCAA**TAA**CAACAGCCAC
CCTGCCCAGTCTGGAAGAAGAGGAGGAAGACTCTGGAGCCAAGGCAGAGGGGAGCTTGAGGGACAATGCCACTAT
AGTTTAATACTCAGAGGGGGTTGGGTTTGGGGACATAAAGCCTCTGACTCAAACTCCTCCCTTTTATCTTCTAGC
CACAGTTCTAAGACCCAAAGTGGGGGGTGGACACAGAAGTCCCTAGGAGGGAAGGAGCTGTTGGGGCAGGGGTGT
AAATTATTTCCTTTTTCTAGTTTGGCACATGCAGGTAGTTGGTGAACAGAGAGAACCAGGAGGGTAACAGAAGAG
GAGGGACCTACTGAACCCAGAGTCAGGAAGAGATTTAACACTAAAATTCCACTCATGCCGGGCGTGGTGGCACGC
GCCTGTAATCCCAGCTACCCAGGAGGCTGAGGCAGGAGAATCGCTTGAACCGGGGAGGTGGAGGTTGCAGTGAGC
TGAGATCACGCCATTGTACTCCAGCCTGGGCGACAGAGCAAGACTCCATTTCAAAAAAAAAAAAAAAATCCACTC
ATATAAAAGGTGAGCTCAGCTCACTGGTCCATTTCTCAGTGGCTTCTCCATCCTCATTTGCAAACCTCAGAGGGA
TAAGGCAGTTGAACCTGATGAGCAAGAATTATAACAGCAAGGAAACATTAATGCTTAGAATTCTGAGATCCAGCA
CAACTCAGTCTGTGGGAGCTCAGCTCGCTGCCCAGGGATAGGTATGACCTATGTCTGCCTTAGGCTGCTGGGAGA
TGCCATTCTCCAGTTTCAGAAGCAGGCAGGGCAAAGGTCAAGACTGTGGTATTGGGGTCTTTTGGCTCTGAAGGA
TCCTGGAACCACTGATTTTGGTTTATTCCCTCCAGGGTCTAAAGAGAACAAGAGGTGCTAGCTCTTACCAAAACA
GATGGTAGAGAGAGTTGCTGGCTATTTAAAAAGCTCTTTCATCTTTTAATTCACCTCTTCTTTTCACCTCTTTAA
CCACTCCTCAGGAACAGAACACTTCTAGGACTGGGGGTCTTTTAGCTCCATAAGCAAGTGAGCAGATGGGACAAG
TTAGTCTTTTCTCCCTAGAAACAAAGGGGATGCCCAGTGGTTTCCCTTTGCTTCCCAACCTAAAATTTCAAGTTT
AATAAAATAGCAATTAGCAGAAGTGACCAAATTGGGAGATAATTATCAGTCATGAGGAAAGACACAGATTTCGGT
CATAAAGAATGTAAGGGCTATAAGTAGAAACTTTCTATAACCTAAATGATGTTATAGAATTATTTTTGAGCAGGA
GCAGAAAGATTAAATATGATCACTTCATACTTCTAAATCAGAAATAGGAAGATTAAAACCACAGAACAGTTTGTG
ATTTCTATTGCTGTAGCTAGGTATCTTACTCTGTCCACTCTTGTTCAAGTATCTAACTCTTCTGGAAACCAAATA
GGCTTTAGAAGAGATTATCCTATATTCCTATCAGTATAATACTAAAATGTAACTTTTTAATCATCTGGTTTTTAA
AAGATAAACAGTTTAGCCCATCTCTCCAGAGAGCAAACATAGGAATATGACTCAGGAGCCTCCTAGGGCTTATCA
TCAGCCCTCACACCCGCTTCCCCCTCCAACCCACAGCCTTTGCTTCCAGGTGGCAGGATTACTACTTTGCCTCTT
CAGCAGCATCTACTCTAGGCATATTGATCATTTTAGACACTGGGAGAAGAGAACCTCAAACTAGGAGGAAAAGAC
AGAGCCTCCACTTAGTTTTGGGAGGGGATGGCAGACAGTCAAGGAGATGAGCGTCCTAAGGCATGTTGGGATAGG
GTCAGATGCACCACCCATGGAGAGGTTTGTCAACACAAAGACATGGAAGGTTAGAGGTTTGTCAACAAAAAGACA
TGGAAGGTTAGGTTTGTCAACACAAAGACATGGAAGATTAGAGGTTTGTCAACACAAAGACACAGGAAGAATGGG
CTGCAGAAGATTTAGATGTTTTCCATTTGGGCACATTTTACTTAGCTGGAGAACTAGGTTTAAAACAGCCTGGGT
AGGAAAATTAGAAGCAAGCTGGATGCAGTGGCTCATGCCTGTAATCCCAACACTTTTGGGAGGTCCAGGCAGGAG
GATCACTTGGGCCCAGGAGGTCAAGCCTGCAGCGAGCTGAGATCACACCACTGCACTCCAGCCTGGGGTGATAGA

FIGURE 2036B

ACAAGACCCTGTCTCAAAAAAAAAAAAAAACAACAAAAACTTAGAATTGAGGAGTTGTACCTCCATTGGCTTCCTC
ACTCCAAAATAGGTGCTGATCCTTCCTATTCCTATTCTTTGCCACCTTTTGGGTGTGGTGTCACCAGCCTGTTTA
GCCAAGTAGCTTTGGGCATAGGCTGCCCAATCTGAGCAAACACCAGTGAGGCTCTATTGAGCCAAGACCAAGTCC
TCAAAGCACCTGAACCACTGTGGCCTTCTCAGCCTACAGCAGTGTGGTCTCTTACATGGCCACAAAGGGACACAC
AGTGACAAAAGGCTCGGAATGTTACAATGGTAAAATGAGTGATCTCAAATCCACTGACAGATATAAAATAGGCTT
AGAGAGGAAAAGCTGCCTCTGGTCAAGTAGATCATGGCAGCATGAATTCCAACTCACTTTTTTACAACTCCAACT
TCTATGTTTATCTTTGTTACTTTCACTTTTTTACAACCTGGCCAGAGGCATTTTTTAAATCAGGCCCAATATCAG
TATTCTTTTTGTGTGTGCCAATTTTGTTATCACATCCCTATGAAGTTGAAAAATAAAGTTAATTTTGACC

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FIGURE 2037

AGTCCTGCGATTTCGGGTGTAGAGGGAGCAGGGGCCTGCGGGGACCTGGTGTGGGTGGAGTGGGGACAAGCGGTG
GAGAAGGGTACGCCAGGGTCGCTGAGAGACTCTGTTCTCCCTGGAGGGACTGGTTGCCATGAGAGCAGCCGTCTG
AGGGGACGCAGCCTGCACTACGCGCCCCAAGAGGCTGTGCGTGGCGAGCAGGTCACGTGACGGGAGCGCGGGCTT
TGGAAGGCGGCTGAACGTCAGGCCACCCGCCGCTAAGCTGAGAAGGGAGAGCGAGCTTAGGACCGCCTGCCCGGG
GCAACCCCGAACCAAGCTTTAGCCGCCGAGGCCGCGTGTCCCAAAGGCCAGTCATCCCTCCTCTGTGTTGCC**ATG**

GGAATTCAAGGCCTGGCCAAACTAATTGCTGATGTGGCCCCCAGTGCCATCCGGGAGAATGACATCAAGAGCTAC
TTTGGCCGTAAGGTGGCCATTGATGCCTCTATGAGCATTTATCAGTTCCTGATTGCTGTTCGCCAGGGTGGGGAT
GTGCTGCAGAATGAGGAGGGTGAGACCACCAGCCACCTGATGGGCATGTTCTACCGCACCATTCGCATGATGGAG
AACGGCATCAAGCCCGTGTATGTCTTTGATGGCAAGCCGCCACAGCTCAAGTCAGGCGAGCTGGCCAAACGCAGT
GAGCGGCGGGCTGAGGCAGAGAAGCAGCTGCAGCAGGCTCAGGCTGCTGGGGCCGAGCAGGAGGTGGAAAAATTC
ACTAAGCGGCTGGTGAAGGTCACTAAGCAGCACAATGATGAGTGCAAACATCTGCTGAGCCTCATGGGCATCCCT
TATCTTGATGCACCCAGTGAGGCAGAGGCCAGCTGTGCTGCCCTGGTGAAGGCTGGCAAAGTCTATGCTGCGGCT
ACCGAGGACATGGACTGCCTCACCTTCGGCAGCCCTGTGCTAATGCGACACCTGACTGCCAGTGAAGCCAAAAAG
CTGCCAATCCAGGAATTCCACCTGAGCCGGATTCTGCAGGAGCTGGGCCTGAACCAGGAACAGTTTGTGGATCTG
TGCATCCTGCTAGGCAGTGACTACTGTGAGAGTATCCGGGGTATTGGGCCCAAGCGGGCTGTGGACCTCATCCAG
AAGCACAAGAGCATCGAGGAGATCGTGCGGCGACTTGACCCCAACAAGTACCCTGTGCCAGAAAATTGGCTCCAC
AAGGAGGCTCACCAGCTCTTCTTGGAACCTGAGGTGCTGGACCCAGAGTCTGTGGAGCTGAAGTGGAGCGAGCCA
AATGAAGAAGAGCTGATCAAGTTCATGTGTGGTGAAAAGCAGTTCTCTGAGGAGCGAATCCGCAGTGGGGTCAAG
AGGCTGAGTAAGAGCCGCCAAGGCAGCACCCAGGGCCGCCTGGATGATTTCTTCAAGGTGACCGGCTCACTCTCT
TCAGCTAAGCGCAAGGAGCCAGAACCCAAGGGATCCACTAAGAAGAAGGCAAAGACTGGGGCAGCAGGGAAGTTT
AAAAGGGGAAAA**TAA**ATGTGTTTCCCCATTATACCTCCTTCACCCCAGAATATTTGCCGTCTTGTACCCTTAAGA
GCTACAGCTAGAGAAACCTTCACGGGGTGGAGAGAGGATTCTAAGGCTTTTCTAGCGTGACCCTTTTCAGTAGTG
CTAGTCCCTTTTTTACTTGATCTTAATGGCAAGAAGGCCACAGAGGTACTTTTCCTTTTTTAGCTCAGGAAAATA
TGTCAGGCTCAAACCACTTCTCAGGCAGTTTAATGGACACTAAGTCCATTGTTACATGAAAGTGATAGATAGCAA
CAAGTTTTGGAGAAGAGAGAGGGAGATAAAAGGGGGAGACAAAAGATGTACAGAAATGATTTCCTGGCTGGCCAA
CTGGTGGCCAGTGGGAGGTGATGGTGGACCTAGACTGTGCTTTTCTGTCTTGTTCAGCCTTGACCCACCTTGAGA
GAGAGCCACCAGGAAGGCGCATCTTAGCAGATGGGAGGAACTGCTGAGAGAAGATGGGCAGAAAGCTGGAGCCCC
TGGAGTTGGCTGTGTCTGTGTTTGTGACTGATTACTGGCTGTGTCTTGGGTGGGCAGAAACTCGAACTTGCTATG
TAATTTGTGTCTAGTTATTCAGAGGAGTAAGATGGTGATGTTCACCTGGCAATCAGCTGAGTTGAGACTTTGGAA
TAAGACACTGGTTTTCATGCGCTGTTTTTGTTTTAAAGTTATGAAGAAAAAAGTCAATAAAATTCTAAAAGT

FIGURE 2038

CCTGCCGACGTGTTCTTCCGGTGGCGGAGCGGCGGATTAGCCTTCGCGGGGCAAA**ATG**GAGCTCGAGGCCATGAG
CAGATATACCAGCCCAGTGAACCCAGCTGTCTTCCCCCATCTGACCGTGGTGCTTTTGGCCATTGGCATGTTCTT
CACCGCCTGGTTCTTCGTTTACGAGGTCACCTCTACCAAGTACACTCGTGATATCTATAAAGAGCTCCTCATCTC
CTTAGTGGCCTCACTCTTCATGGGCTTTGGAGTCCTCTTCCTGCTGCTCTGGGTTGGCATCTACGTG**TGA**GCACC
CAAGGGTAACAACCAGATGGCTTCACTGAAACCTGCTTTTGTAAATTACTTTTTTTTACTGTTGCTGGAAGTGTC
CCACCTGCTGCTCATAATAAATGCAGATGTATA

FIGURE 2039A

CACAGGGCCTGCAGAGAGGGGACCCACCGGGCAGGATGCACTGGCTTCCAGCAGGCCACGACATCAACGGTGCCC
TGGAGCCCTCCAACATAGACACCAGCATCCTGGAGGAGTACATCAGCAAGGAGGATGCCTCCGACCTCTGCTTCC
CTGACATCTCTGCTCCAGCCAGCTCGGCCTCCTACTCCCACGGGCAGCCTGCGATGCCTGGCTCCAGCGGGGTCC
ACCACCTGAGCCCCCCTGGGGGTGGACCCTCCCCGGGGCGCCATGGTCCCCTCCCACCCCCGGGCTACGGCACCC
CGCTGAACTGCAACAACAACAACGGCATGGGCGCTGCCCCCAAGCCCTTCCCGGGGGGCACCGGGCCCCCCATCA
AGGCTGAGCCCAAGGCTCCCTATGCCCCAGGCACACTGCCGGACTCTCCCCCAGACTCGGGCTCCGAGGCCTACT
CCCCCCAGCAGGTGAATGAGCCCCACCTCCTGCGCACGATAACCCCTGAGACACTGTGCCACGTGGGAGTGCCCT
CCCGCCTGGAGCATCCGCCCCCACCTCCAGCCCACTTGCCAGGCCCCCCGCCACCCCCACCACCCCCCACCTCACT
ACCCTGTCCTGCAGCGGGATCTGTACATGAAGGCCGAGCCCCCGATCCCCCACTACGCTGCCATGGGGCAGGGGC
TGGTGCCCACTGATCTTCACCACACCCAGCAGTCCCAGATGCTGCACCAGCTCCTGCAGCAGCACGGAGCTGAGC
TCCCTACACACCCCTCCAAGAAGAGGAAGCACTCTGAATCCCCCCCGAGCACCCTCAATGCCCAGATGCTGAATG
GAATGATCAAACAGGAGCCTGGGACCGTGACAGCCCTGCCTCTGCACCCCACTCGAGCCCCATCGCCACCCTGGC
CTCCCCAGGGTCCGCTCTCCCCGGGCCCTGGTTCCTTGCCTCTCAGCATTGCCCGTGTCCAGACACCGCCTTGGC
ACCCGCCAGGTGCCCCCTCCCCAGGCCTCCTGCAGGACAGTGACAGCCTCAGTGGCTCCTACCTGGACCCCAACT
ACCAGTCCATCAAGTGGCAGCCTCATCAGCAGAACAAGTGGGCGACCCTGTACGATGCTAACTACAAGGAGCTGC
CCATGCTCACCTACCGCGTGGATGCGGACAAGGGCTTCAACTTTTCGGTGGGCGACGACGCCTTTGTGTGCCAGA
AGAAGAACCACTTCCAGGTGACAGTGTACATCGGCATGCTGGGCGAGCCCAAGTACGTCAAGACGCCCGAGGGCC
TCAAGCCCCTCGACTGCTTCTATCTGAAGCTGCACGGAGTGAAGCTGGAGGCCCTGAACCAGTCCATTAACATCG
AGCAGTCCCAGTCAGACCGGAGCAAGCGGCCCTTCAACCCGGTCACGGTCAATCTGCCCCCTGAGCAGGTCACGA
AGGTGACTGTGGGGCGGCTGCACTTCAGCGAGACCACCGCTAACAACATGCGTAAGAAGGGCAAGCCCAACCCGG
ACCAGAGGTACTTCATGCTGGTGGTGGCCCTCCAGGCTCATGCACAGAACCAGAACTACACGCTGGCCGCCCAGA
TCTCAGAGCGCATCATTGTGCGGGCCTCCAACCCAGGCCAGTTCGAGAGCGACAGCGATGTGTTGTGGCAGCGGG
CACAGGTGCCCGACACCGTCTTCCACCACGGCCGCGTGGGCATCAACACAGACCGGCCGGATGAGGCGCTGGTTG
TGCACGGGAATGTCAAGGTCATGGGCTCGCTTATGCACCCCTCCGACCTGCGCGCCAAGGAACACGTGCAGGAGG
TGGACACCACCGAGCAATTGAAGAGGATCTCGCGCATGCGGCTGGTGCACTACAGATACAAGCCCGAGTTCGCCG
CCAGCGCGGGCATCGAGGCCACCGCGCCAGAGACAGGTGTCATCGCTCAGGAGGTGAAGGAGATCTTGCCTGAGG
CTGTGAAAGACACCGGAGACATGGTCTTTGCCAATGGGAAAACCATAGAGAACTTCCTGGTGGTGAACAAGGAGC
GCATCTTCATGGAGAACGTAGGGGCCGTGAAGGAGCTGTGCAAGCTGACAGACAACCTGGAGACGCGCATTGATG
AGCTGGAGCGCTGGAGCCACAAGCTGGCCAAGCTGCGGCGGCTCGACAGCCTCAAGTCCACCGGCAGCTCGGGCG
CCTTCAGCCATGCAGGGAGCCAGTTCAGTCGGGCGGGCAGCGTCCCCCACAAGAAGAGGCCCCCCAAGGTGGCCA
GCAAGTCATCGTCCGTGGTTCCGGACCAGGCCTGCATCAGCCAGCGCTTCCTGCAGGGAACCATCATTGCCCTGG
TGGTGGTCATGGCCTTCAGCGTGGTGTCCATGTCCACACTGTACGTGCTGAGCCTGCGCACAGAGGAGGACCTGG
TAGACACTGATGGCAGGTCCAGCCAGAGCTTTGGGACCACGCAGCTCCGACAGTCCCCCTTGACCACGGGGCTAC
CAGGCATACAGCCCTCTTTGCTGCTGGTGACCACCAGCCTCACCAGCTCGGCCCCAGGTTCTGCTGTCCGCACCT
TGGACATGTGTTCCAGCCACCCCTGCCCTGTCATCTGCTGTTCCTCACCCACTACCAACCCTACCACTGGTCCTA
GTCTTGGCCCCAGCTTTAACCCTGGCCATGTTCTCAGCCCAAGTCCCAGCCCCAGCACCAACCGCTCAGGCCCCA
GCCAGATGGCCCTTCTGCCAGTCACCAACATCAGAGCCAAGTCCTGGGGTCTTTCAGTCAATGGCATTGGCCACT
CCAAGCATCACAAGAGTCTGGAGCCTCTGGCCAGCCCTGCAGTCCCCTTCCCTGGGGGGCAGGGCAAAGCCAAGA
ACAGTCCCAGCCTTGGTTTCCATGGCCGGGCCCGCCGAGGGGCCCTCCAGTCCAGCGTGGGCCCTGCTGAGCCCA
CCTGGGCCCAGGGCCAGTCAGAGCCAGTGCCCTCCCTGACCTCCATCCAGGTGCTGGAGAATTCGATGTCCATCA
CCTCCCAGTACTGTGCTCCAGGGGATGCCTGCAGGCCTGGGAACTTCACCTACCACATCCCTGTCAGTAGTGGCA
CCCCACTGCACCTCAGCCTGACTCTGCAGATGAACTCCTCCTCCCCCGTGTCTGTGGTGCTGTGCAGCCTGAGGT
CAAAGGAGGAACCATGTGAGGAGGGGAGCCTTCCACAGAGTCTCCACACCCACCAGGACACCCAGGGCACCTCTC
ACCGGTGGCCAATAACCATCCTGTCCTTCCGTGAATTCACCTACCACTTCCGGGTGGCACTGCTGGGTCAGGCCA
ACTGCAGTTCAGAGGCTCTCGCCCAGCCAGCCACAGACTACCACTTCCACTTCTACCGCCTGTGTGACTGAGCTG
CCCTCCTGAGGCAGCACCACACCAGGGACCAGGGGTGCCCAGGCACCCCCCAACACTGGATGCAATGGTGTTACA
CTGGAGCCCGCTGCAGGCCAGCTCTGCTGTTCACTGGCCCTACCCGAGACTGGTGAAACTGGAAGTCTTCACACT
GGAGTTGCTGTTCCAGCTGGTCGCCCCTCACGGCACAGAGGGAACCTGAGAGCCAGAGACTTCTTGGGCCTTCCT

FIGURE 2039B

GCCTGCCACCCCCTAGGGGCCAGGACAGGACCAGTTTACCTCTTTCCAGATATGGTGGTTGGAGGGCTGGTTCAG
GTGCCCTGGAGGGAAGGGGAAGCCTGTGGCCCTGATTTGTTCAGAGCCCATTCTCCCTTGCCTCCCCTTTTGAGA
CTGGAGCCAACCCTTTTGGAGAGAGGACCTGCCCACCTTTGAGATCAGCAGGGGGCTCGGATCCAGCCCTAAGAG
ACTTGGGTGGACCCCCATGAGTCAATGGAGGGCAGACGGCTCTCCCCCTTAAAGCTGTTCCCTGGGGGATGGCTT
GGTAGTGGACTTTCTGGGGTTTGCCTGTTACGCCAGACTCGGACTTCTAAGCTTTAAGTGTGGCCCAGGAGGTTT
CTTCTCCCTGGGAGGGCTTGGCTCCCAAGAAGTCCCAGGGCAGCCGAGGCCAGCCCTGCCTGGGTTGGAGAAACT
GACTTTGTGCCTTAAGTCTACTCAGTGCCTGGTGAAGCCACCCTCAGCCCTTCACAGGCCTGAACCAGTAGGGGC
CAGTGGGCCAGGTAAGCCCTAGAGCCTTGAACCAGGAATATCCAGGAAGAGGAAATTCCCTTTGAGCCCCCAGAT
GGTATTGCAGCTTCACTGCCTGCGTTCCTGGGAGCGTCTGGAGCTCACAGTGATCAGTGACCACATCATTCTCTC
TGAGCAGAGGAGCAGGAATCCCTCAAGCAGCAGCCTGGTCTTGGCTGGTGGGCAGATGCAAATAGCTTTTGCTGT
TATTAATGAAGTAATTACTAAATGCACTTAAACCAGGGCAGGAAGGAATGGAAGGATGGAGCTAGAAAGCTCAGA
GTGGGCCAGAGCAGGGGTGTGACACTTGCAAAGACAGGGCTCTGACTCTGATCCCTCCCAGGGAGCCTCCGACAC
CCATCCCACTCCCAACCACCAAGACCCTGGGTTAGGGAAGAAGTTGTATCTTAAGTGCCACCTTCAAGTTTCTTA
GTGGTGCCTGGTGCATTCCGAGGCTACATCCAGGCTCATGGAAGGAGTGTAGTATTCATTTAGCCATGTCTGCCA
TGGGTCCAGAAATGGGAAAGGGAATTGCTGTCCTTGCCCTGTGGTATGCTGCCACCTCTTTGGGAAGCAGGCCTT
GCCCCTGTCCCACCACTCATTCTCAGCTTTGAATGGGAGGCCTTTCTATAGTGGAGGCCTTTCCTTGAAGCCTAT
GAACTGCAGGCCCCCTTTTGCCATTGATCTCAAAGCACTTGTCCTCAGGATAGGGAAGAGCAGGGGGATGCAGGA
ATAGCAGGGATAGCTTGCTCCCAGCCCCCTCCCCAATTTGGTTCCGTTGACATAGGAATTTTACGATTCCCAAAC
CATGCAGGGGCTGAGCCTTCCTTATGATGACTTTGTTCTCCCTCCCACTGGGGGAATCCTCCCTATGCCTTAAAA
CTGCCGAGCCCCACTCCATGTAATAGGATTCCTGGGCTTCCTCAATGGGGGTTCATGTTCTTGGACTGCGGGCCC
TCAGTCCTTAACTGGAAAGTGACCGTCCACTGCCCCATGGAGCCCATCTGGACACAGCACAGCCCCAAAACCGTT
AGCAGCTGGCTCTGTTTCCAAGCCTGGGGAGGGGTTCCTCAGTGCAGGAGTTGGGGACAGGCTGGGGATCCAAGC
TGCTTGAGGGGGTCAACCTTGGACCAAAGTTGCCTTAAGCCTGTGGTAAAAGGGCTTCAGGGAAGGTAAGTGGGC
CACCTGCTGGAAGCTGCCAGCTGCCCGGCTGGCAATGGTGTGAGTGTCTTGGCCCTGTCCCTGCCCTGGGGTCCA
GCAGGTCATCCCTCCCTTCTTCTCTCTCCTTTGGCGTTTGTTCCTGTAGTCACTGGGCTAATCTCCCCCTAGCTT
CAAGCTGTACATAGGGCCTCCCAGTGCAAATCCTCCTGCCCATACCGTGCACCCTTAGAAGCCTGCGTGTGCATA
GAGCGCCCCCTACTTCCCAGTTAACTCCCAGTTCTTCTCCCTGAGCTTGGTATTTGTCATGTGCCAACTCTGACT
CTGAGGTGGGCAGTGAGGGAAGCAGCCCCGGGCCTGCTTGCTTCCTGTCCCCGAAATGTTCGTTTCTTCTGAAGT
AAATATACATATATAAATAAATGTATAAATACTGCTTTGTATCTG

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FIGURE 2040

ATTGCTGGGGCTGCAGCGCTGCCTCCGAGACCGCGAGGTGGGTGGATCGGGTCTTCCTGGAAGGGTGCGATAAGG
CCGGGCGAGGTGCCTGGGATGCTTCTCCCCTTCCGCGAGGAAGAGATCTAATTGGGTAGGGCGGGTGTAGACTAG
CCTGCCGAGCCGCCCGCTGGCACCTGCAGCCTCCTGGGCGCCCGCCGGGCCCCGGCGAGAAAGTTGTTAAAGGGA
GCGAGGTGGTTGTTCCTGGGGTGCTTGGCGCGCCCTCTCACGCCCTGCCCAACAGAAGCCGCAGTCCCGTGGGGT
CTGGAGACGCAGTTTCCTGTTAATGACAATAAATCCCTGCTCCCCCTGCCTCAGACATCTACGCAGCGAAATCGA
GCCTGGCCTTGAGGGTCCACACCGCGAGGGAAG**ATG**CGTGCGCCCATTCCAGAGCCTAAGCCTGGAGACCTGATT
GAGATTTTTCGCCCTTTCTACAGACACTGGGCCATCTATGTTGGCGATGGATATGTGGTTCATCTGGCCCCTCCA
AGTGAGGTCGCAGGAGCTGGTGCAGCCAGTGTCATGTCCGCCCTGACTGACAAGGCCATCGTGAAGAAGGAATTG
CTGTATGATGTGGCCGGGAGTGACAAGTACCAGGTCAACAACAAACATGATGACAAGTACTCGCCGCTGCCCTGC
AGCAAAATCATCCAGCGGGCGGAGGAGCTGGTGGGGCAGGAGGTGCTCTACAAGCTGACCAGTGAGAACTGCGAG
CACTTTGTGAATGAGCTGCGCTATGGAGTCGCCCGCAGTGACCAGGTCAGAGATGTCATCATCGCTGCAAGCGTT
GCAGGAATGGGCTTGGCAGCCATGAGCCTTATTGGAGTCATGTTCTCAAGAAACAAGCGACAAAAGCAA**TAA**CTG
AAAAAGACTGTCCTGTCAGCGATGACTTTATACATCAAGGGGGTCTTGTTTTGCTAGAGAGTTTGGGGTTTGGTT
TGTGGATTTCATTGTGATTTATAATAAGGCTTATTTTCACAGAATAAAATAAAGCAAAACGAGGGAGGATTTTAT
TGGGGGAAGTGCAGC

FIGURE 2041

AGTTAAACACCAAAGCTGTCTCTCACACTGGTGGTTCCAGGATAAAGCCTCGGCCTGGGGCCTGGTCTGCACGTT
AGGCGCCGGCCGCAGCTCGCAGGAGGACCCGAGCCAGCCCGCCCCTTCCCGCACAGCCTGCTGGGAGTTGTAGTT
CAGTCGTCGGAGAACCACGCCAAGCCCCGCCCCAGATGAGTGCGCAGT**ATG**AGGACCGCTGGCCGGGACCCAGTG
AGCGCGGGACTACAATTCCCAAAGGACGGTAGCACTCAGCGCCCCGCCAACAGAGATGATGCCATGGAGAGCAGC
AAGCCTGGTCCAGTGCAGGTTGTTTTGGTTCAGAAAGATCAACATTCCTTTGAGCTAGATGAGAAAGCCTTGGCC
AGCATCCTCTTGCAGGACCACATCCGAGATCTTGATGTGGTGGTGGTTTCAGTGGCTGGTGCCTTCCGAAAGGGC
AAGTCCTTCATTCTGGATTTTATGCTACGATACTTATATTCTCAGAAGGAAAGTGGCCATTCAAATTGGTTGGGT
GACCCAGAAGAACCGTTAACAGGATTTTCCTGGAGAGGGGGATCTGATCCAGAAACCACTGGGATTCAAATCTGG
AGTGAAGTTTTCACTGTGGAGAAGCCAGGTGGGAAGAAGGTTGCAGTTGTTCTGATGGATACCCAGGGGGCATTT
GACAGCCAGTCAACTGTGAAAGACTGTGCTACCATCTTTGCTCTAAGCACTATGACTAGTTCTGTTCAGATTTAT
AATTTATCTCAGAACATTCAAGAAGATGATCTTCAACAGCTGCAGCTCTTCACAGAATACGGTCGTCTGGCAATG
GATGAAATTTTCCAAAAGCCTTTCCAGACACTGATGTTTTTGGTTAGAGATTGGAGTTTCCCTTATGAATATAGC
TATGGACTCCAAGGAGGAATGGCATTTTTGGATAAGCGTTTACAGGTGAAGGAACATCAACATGAAGAAATTCAG
AATGTTCGAAATCACATTCACTCATGTTTCTCCGATGTCACCTGCTTTCTCTTACCACATCCAGGACTCCAGGTG
GCCACAAGCCCTGACTTTGATGGGAAATTAAAAGATATTGCTGGTGAATTCAAAGAGCAGTTACAGGCACTGATA
CCGTATGTATTAAACCCATCTAAGTTAATGGAAAAGGAGATCAATGGCTCAAAGGTCACCTGTCGGGGACTACTG
GAGTATTTTAAGGCATATATTAAAATTTATCAAGGAGAAGATCTGCCTCACCCCAAGTCCATGCTTCAGGCCACT
GCTGAAGCCAACAACTTAGCAGCTGCAGCCTCTGCCAAGGACATTTATTATAACAACATGGAAGAGGTTTGTGGG
GGAGAGAAACCTTATTTGTCTCCAGACATTCTAGAGGAGAAGCACTGTGAATTCAAACAACTTGCTCTGGACCAT
TTTAAGAAGACCAAGAAGATGGGTGGGAAGGATTTCAGCTTTCGTTACCAGCAGGAGCTGGAGGAGGAAATCAAG
GAATTATATGAGAACTTCTGCAAGCACAATGGTAGCAAGAACGTCTTCAGCACCTTCCGAACCCCTGCAGTGCTG
TTCACGGGCATTGTAGCTTTGTACATAGCCTCAGGCCTCACTGGCTTCATAGGTCTTGAGGTTGTAGCCCAGTTG
TTCAACTGTATGGTTGGACTACTGTTAATAGCACTCCTCACCTGGGGCTACATCAGGTATTCTGGTCAATATCGT
GAGCTGGGCGGAGCTATTGATTTTGGTGCCGCATATGTGTTGGAGCAGGCTTCTTCTCATATCGGTAATTCCACT
CAGGCCACTGTGAGGGATGCAGTTGTTGGAAGACCATCCATGGATAAAAAAGCTCAA**TAG**CATCTTAACGTGAAG
ATCAAACAAGAACACAACAAGCCCCTACTGATTTCTGGGTTTCTGCCACGGCCACAGGTTCATATCCAGAGGAAT
GGCAGATCTGAGACGATCCAGGAAGAGCTAAAACATGGCCCTGTAATAAATGAGCAGACCTCTCCTGTGGTTTCA
AATTATTAAACACACTTCCATTTCTCTTGGAAGCATTTCTTTTCCTTGCTGTTATAGATGCAAGCCTGTGTCTAT
TTTCATATTACTCTGCTTTGTGCACTTTATGGAGGAGGAAGCTAGAGGAAAAATGGAAATGCAGCTTTTAAGTTC
TTTATGTGCCACTTAGTGCCTTTTAAGATTGATTCCATGGTTTTGCACACACGATGGGGAGGGGATGGAGGATAA
CCTCATGAAAGGTGCCGTTTTCGGGTGAAACTTGACATTTCTTTTATACTTTACTCTTTTGAGAAGGATTCTTTT
TTTTTTTTTTTTTTTTTTGAGTTGGAGTCTCGCTCTGTCACCAGGCTTGAGTGCAGTGGTGTGATCTTGGCTCA
CTGCAACCTCTGCCTGCCGGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGTGTACG
CCACCATA

FIGURE 2042

CAGGTGACCAGCGCC**ATG**TCCAGCCAGGTGGTGGGCATTGAGCCTCTCTACATCAAGGCAGAGCCGGCCAGCCCT
GACAGTCCAAAGGGTTCCTCGGAGACAGAGACCGAGCCTCCTGTGGCCCTGGCCCCTGGTCCAGCTCCCACTCGC
TGCCTCCCAGGCCACAAGGAAGAGGAGGATGGGGAGGGGGCTGGGCCTGGCGAGCAGGGCGGTGGGAAGCTGGTG
CTCAGCTCCCTGCCCAAGCGCCTCTGCCTGGTCTGTGGGGACGTGGCCTCCGGCTACCACTATGGTGTGGCATCC
TGTGAGGCCTGCAAAGCCTTCTTCAAGAGGACCATCCAGGGGAGCATCGAGTACAGCTGTCCGGCCTCCAACGAG
TGTGAGATCACCAAGCGGAGACGCAAGGCCTGCCAGGCCTGCCGCTTCACCAAGTGCCTGCGGGTGGGCATGCTC
AAGGAGGGAGTGCGCCTGGACCGCGTCCGGGGTGGGCGGCAGAAGTACAAGCGGCGGCCGGAGGTGGACCCACTG
CCCTTCCCGGGCCCCTTCCCTGCTGGGCCCCTGGCAGTCGCTGGAGGCCCCCGGAAGACAGCAGCCCCAGTGAAT
GCACTGGTGTCTCATCTGCTGGTGGTTGAGCCTGAGAAGCTCTATGCCATGCCTGACCCCGCAGGCCCTGATGGG
CACCTCCCAGCCGTGGCTACCCTCTGTGACCTCTTTGACCGAGAGATTGTGGTCACCATCAGCTGGGCCAAGAGC
ATCCCAGGCTTCTCATCGCTGTCGCTGTCTGACCAGATGTCAGTACTGCAGAGCGTGTGGATGGAGGTGCTGGTG
CTGGGTGTGGCCCAGCGCTCACTGCCACTGCAGGATGAGCTGGCCTTCGCTGAGGACTTAGTCCTGGATGAAGAG
GGGGCACGGGCAGCTGGCCTGGGGGAACTGGGGGCTGCCCTGCTGCAACTAGTGCGGCGGCTGCAGGCCCTGCGG
CTGGAGCGAGAGGAGTATGTTCTACTAAAGGCCTTGGCCCTTGCCAATTCAGACTCTGTGCACATCGAAGATGCC
GAGGCTGTGGAGCAGCTGCGAGAAGCTCTGCACGAGGCCCTGCTGGAGTATGAAGCCGGCCGGGCTGGCCCCGGA
GGGGGTGCTGAGCGGCGGCGGGCGGGCAGGCTGCTGCTCACGCTACCGCTCCTCCGCCAGACAGCGGGCAAAGTG
CTGGCCCATTTCTATGGGGTGAAGCTGGAGGGCAAGGTGCCCATGCACAAGCTGTTCTTGGAGATGCTCGAGGCC
ATGATGGAC**TGA**GTGCAAGGGGTGGGACTGGTGGGGGTTCTGGCAGGACCTGCCTAGCATGGGGTCAGCCCCAAG
GGCTGGGGCGGAGCTGGGGTCTGGGCAGTGCCACAGCCTGCTGGCAGGGCCAGGCAATGCCATCAGCCCCTGGGA
ACAGGCCCCACGCCCTCTCCTCCCCCTCCTAGGGGGTGTCAGAAGCTGGGAACGTGTGTCCAGGCTCTGGGCACA
GTGCTGCCCCTTGCAAGCCATAACGTGCCCCCAGAGTGTAGGGGGCCTTGCGGAAGCCATAGGGGGCTGCACGGG
ATGCGTGGGAGGCAGAAACCTATCTCAGGGAGGGAAGGGGATGGAGGCCAGAGTCTCCCAGTGGGTGATGCTTTT
GCTGCTGCTTAATCCTACCCCCTCTTCAAAGCAGAGTGGGACTTGGAGAGCAAAGGCCCATGCCCCCTTCGCTCC
TCCTCTCATCATTTGCATTGGGCATTAGTGTCCCCCCTTGAAGCAATAACTCCAAGCAGACTCCAGCCCCTGGAC
CCCTGGGGTGGCCAGGGCTTCCCCATCAGCTCCCAACGAGCCTCCTCAGGGGGTAGGAGAGCACTGCCTCTATGC
CCTGCAGAGCAATAACACTATATTTATTTTTGGGTTTGGCCAGGGAGGCGCAGGGACATGGGGCAAGCCAGGGCC
CAGAGCCCTTGACTGTACAGAGACTCTATTTTAATGTATATTTGCTGCAAAGAGAAACCGCTTTTGGTTTTAAAC
CTTTAATGAGAAAAAAATATATAATACCGAGCTC

FIGURE 2043

TCCGGTTCCGGCCTGGCGAGAGTTTGTGCGGCGAC**ATG**AAACTGCTTACCCACAATCTGCTGAGCTCGCATGTGC
GGGGGGTGGGGTCCCGTGGCTTCCCCCTGCGCCTCCAGGCCACCGAGGTCCGTATCTGCCCTGTGGAATTCAACC
CCAACTTCGTGGCGCGTATGATACCTAAAGTGGAGTGGTCGGCGTTCCTGGAGGCGGCCGATAACTTGCGTCTGA
TCCAGGTGCCGAAAGGGCCGGTTGAGGGATATGAGGAGAATGAGGAGTTTCTGAGGACCATGCACCACCTGCTGC
TGGAGGTGGAAGTGATAGAGGGCACCCTGCAGTGCCCGGAATCTGGACGTATGTTCCCCATCAGCCGCGGGATCC
CCAACATGCTGCTGAGTGAAGAGGAAACTGAGAGT**TGA**TTGTGCCAGGCGCCAGTTTTTCTTGTTATGACTGTGT
ATTTTTGTTGATCTATACCCTGTTTCCGAATTCTGCCGTGTGTATCCCCAACCCTTGACCCAATGACACCAAACA
CAGTGTTTTTGAGCTCGGTATTATATATTTTTTTCTCATTAAAGGTTTAAAACC

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FIGURE 2044

AGGGCACAGCCAGCAGCGAGGTGAATGCCACTGAGGAG**ATG**TCCACGCTTGTCAACTACATCGAACCTGTCAAGT
TCAAGTCCTTTGAGGCTGCTCGAAAGAGGAACAAATGCTTCGAGATGTCGTCCTTTGTGGAGACCAAGGCCATGG
AGCAACTGACCAAGAGCCCCATGGAGTTTGTGGAATACAACAAGCAGCAGCTCAGCCGCATCTACCCCAAGGGCA
CCCGCGTGGACTCCTCCAACTACATGCCCCAGCTCTTCTGGAACGTAGGGTGCCAGCTTGTTGCGCTCAACTTCC
AGACCCTCGATGTGGCGATGCAGCTCAACGCGGGCGTTTTTGAGTACAACGGGCGCAGCGGGTACCTGCTCAAGC
CGGAGTTCATGCGGCGGCCGGACAAGTCCTTCGACCCCTTCACTGAGGTCATCGTGGATGGCATCGTGGCCAATG
CCTTGCGGGTCAAGGTGATCTCAGGGCAGTTCCTGTCCGACAGGAAGGTGGGCATCTACGTGGAGGTGGACATGT
TTGGCCTCCCTGTTGATACGCGGCGCAAGTACCGCACCCGGACCTCTCAGGGGAACTCGTTCAACCCCGTGTGGG
ACGAAGAGCCCTTCGACTTCCCCAAGGTGGTGCTGCCCACGCTGGCTTCACTTCGCATTGCAGCCTTTGAGGAGG
GGGGTAAATTCGTAGGGCACCGGATCCTGCCTGTCTCTGCCATCCGCTCCGGATACCACTACGTCTGCCTGCGGA
ACGAGGCCAACCAACCGCTGTGCCTGCCGGCCCTGCTCATCTACACCGAAGCCTCGGACTACATTCCTGACGACC
ACCAGGACTATGCGGAGGCCCTGATCAACCCCATTAAGCACGTCAGCCTGATGGACCAGAGGGCCCGGCAGCTGG
CCGCCCTCATTGGGGAGAGTGAGGTCAGTGTGATGATCTCATCGCCAGCATCCTCTCAGGATGAGCTCCGAGGTC
ACAAGGCTCTGGTCAAGCTCCGGAGCCGGCAAGAGCGAGACCTGCGGGAGCTGCGCAAGAAGCATCAGCGGAAGG
CAGTCACCCTCACCCGCCGCCTGCTGGATGGCCTGGCTCAGGCACAGGCTGAGGGCAGGTGCCGGCTGCGGCCAG
GTGCCCTAGGTGGGGCCGCTGATGTGGAGGACACGAAGGAGGGGGAGGACGAGGCAAAGCGGTATCAGGAGTTCC
AGAACAGACAGGTGCAGAGCCTGCTGGAGCTGCGGGAGGCCCAGGTGGACGCAGAGGCCCAGCGGAGGCTGGAAC
ACCTGAGACAGGCTCTGCAGCGGCTCAGGGAGGTCGTCCTTGATGCAAACACAACTCAGTTCAAGAGGCTGAAAG
AGATGAACGAGAGGGAGAAGAAGGAGCTGCAGAAGATCCTGGACAGAAAGCGCCATAACAGCATCTCGGAGGCCA
AGATGAGGGACAAGCATAAGAAGGAGGCGGAACTGACGGAGATTAACCGTCGGCACATCACTGAGTCAGTCAACT
CCATCCGTCGGCTGGAGGAGGCCCAGAAGCAGCGGCATGACCGTCTTGTGGCTGGGCAGCAGCAGGTCCTGCAAC
AGCTGGCAGAAGAGGAGCCCAAGCTGCTGGCCCAGCTGGCCCAGGAGTGTCAGGAGCAGCGGGCGAGGCTCCCCC
AGGAGATCCCGCCGGAGCCTGCTGGGCGAGATGCCGGAGGGGCTGGGGGACAGGGCCTCTGGTGGCCTGTGCAAG
CAACCGGTCACGCACCCCGGGAGCAGCGGGCACCTGTCGGGCGC**TGA**CTCGGAGAGCCAGGAGGAGAACACGCAG
CTCTGA

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FIGURE 2045

CACGGGCGGGGCGGGGCCTGGGTCCACCGGGGTTCTGAGGGGAGACTGAGGTCCTGAGCCGACAGCCTCAGCTCC
CTGCCAGGCCAGACCCGGCAGACAGATGAGGGCCCAGGAGGCCTGGCGGGCCTGGGGGCGCTACGGTGGGAGAGG
AAGCCAGGGGTACCTGCCTCTGCCTTCCAGGGCCACCGTTGGCCCCAGCTGTGCCTTGACTACGTAACATCTTGT
CCTCACAGCCCAGAGC**ATG**TTCCAGATCCCAGAGTTTGAGCCGAGTGAGCAGGAAGACTCCAGCTCTGCAGAGAG
GGGCCTGGGCCCCAGCCCCGCAGGGGACGGGCCCTCAGGCTCCGGCAAGCATCATCGCCAGGCCCCAGGCCTCCT
GTGGGACGCCAGTCACCAGCAGGAGCAGCCAACCAGCAGCAGCCATCATGGAGGCGCTGGGGCTGTGGAGATCCG
GAGTCGCCACAGCTCCTACCCCGCGGGGACGGAGGACGACGAAGGGATGGGGGAGGAGCCCAGCCCCTTTCGGGG
CCGCTCGCGCTCGGCGCCCCCCAACCTCTGGGCAGCACAGCGCTATGGCCGCGAGCTCCGGAGGATGAGTGACGA
GTTTGTGGACTCCTTTAAGAAGGGACTTCCTCGCCCGAAGAGCGCGGGCACAGCAACGCAGATGCGGCAAAGCTC
CAGCTGGACGCGAGTCTTCCAGTCCTGGTGGGATCGGAACTTGGGCAGGGGAAGCTCCGCCCCCTCCCAG**TGA**CC
TTCGCTCCACATCCCGAAACTCCACCCGTTCCCACTGCCCTGGGCAGCCATCTTGAATATGGGCGGAAGTACTTC
CCTCAGGCCTATGCAAAAAGAGGATCCGTGCTGTCTCCTTTGGAGGGAGGGCTGACCCAGATTCCCTTCCGGTGC
GTGTGAAGCCACGGAAGGCTTGGTCCCATCGGAAGTTTTGGGTTTTCCGCCCACAGCCGCCGGAAGTGGCTCCGT
GGCCCCGCCCTCAGGCTCCGGGCTTTCCCCCAGGCGCCTGCGCTAAGTCGCGAGCCAGGTTTAACCGTTGCGTCA
CCGGGACCCGAGCCCCCGCGATGCCCTGGGGGCCGTGCTCACTACCAAATGTTAATAAAGCCCGCGTCTGTGCCG
CC

FIGURE 2046

CAGGAACCAGGAGCAGGGACTTGTGGGATCCAAGGGAAGGCATGGGATTGGGGCGGGGTGGACTAGGCTAAATGC
TGCTGGCAGGGCAGGTCCATAAGCGCAGGTCCTTGAGGCATCCCCAAGGCACTGCGGCTGTCCCGC**ATG**ACCTCC
CAGGGACTCTCCTTGCAGCTGCGCCAGGGCCCCGCGGGGCTGGGGCCCAAAAAGCGTGCGGAGCCTCAGCTGGTG
GAGACCCAGAATGTGCGGCTTATTGAGGTGGAGCGCAGTGTGAGTGTGGGCCCACAGTGGGCCCTGGGGAGGTGC
CCCGTGCAGTGTGAGTGTGGGTCCACGGTGGACCCTGGGCTGGGGGGTATCCCGTGCAGTGTGAGTGTGGACTCA
CAGTGGGCCCGGGGGTGGGGGTGCCCCATGCAGTGTGAGTGTGGGCCTGTGGTAGGCACTAGGGGGTGCCCCCGC
CACCTGGCTATTGCTAACCCCCACTTCTGGGCAGAATGCGATGCTGGTGGCAGAGAAGGCAGCTTTGCAGGGGCA
GCTGCAGCACCTGGAGGGGCAGCTGGGGAGCCTGCAGGGCCGTGCCCAGGAGCTGCTGCTGCAGAGCCAGCGGGC
GCAGGAGCACAGCAGCCGCCTGCAGGCCGAGAAGTCTGTGCTGGAGATTCAGGGCCAGGAGCTGCACCGGAAGCT
GGAGGTGCTGGAGGAGGAGGTGCGGGCGGCACGGCAGTCCCAGGAGGAGACCCGCGGGCAGCAGCAGGCCCTGCT
TCGGGACCACAAGGCCCTGGCACAGCTGCAGCGGCGGCAGGAGGCCGAGCTAGAGGGACTGCTGGTGCGGCACCG
AGACCTCAAGGCCAACATGCGGGCACTGGAGCTGGCCCACCGGGAGCTGCAGGGCCGGCACGAGCAGCTGCAGGC
CCAGCGGGCCAGCGTGGAGGCACAGGAGGTGGCCCTGCTGGCAGAGCG**TGA**ACGCCTGATGCAAGATGGGCATCG
GCAGCGGGGCCTGGAGGAGGAGCTGCGGAGGCTTCAGAGCGAGCACGACAGGGCTCAGATGCTGCTGGCAGAGTT
GTCTCGGGAGCGGGGTGAGCTGCAGGGTGAACGCGGGGAGCTACGGGGCCGGCTGGCGCGGCTGGAGCTGGAGCG
GGCACAGCTGGAGATGCAGAGCCAGCAGCTGCGCGAGTCCAACCAGCAGCTGGACCTGAGCGCCTGCCGGCTGAC
CACGCAGTGTGAGCTATTGACACAGCTGCGAAGTGCCCAGGAAGAGGAGAACCGGCAGCTGCTGGCTGAAGTTCA
GGCCCTGAGCCGGGAGAACAGGGAGCTCCTGGAGCGCAGCCTGGAGAGTCGGGACCACCTGCACCGCGAACAGCG
GGAGTAC

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FIGURE 2047

AGCGGCCGCTGCCCTGACCCGACGGGTATCAGCCGGCTCTCCCCCTCCACCCAGGACGACATGAACGACCGAGGC
CAGGGAGTCCTCTCCTTGGGCCTCTGCATCCCCCCATCCTTGGCTCTGGGGTAGGCCCAGGGAGGAGACACCCCC
AACCCCTATCCGGTCTGTCCTGGAGAAAAGAGACTGCCCTTCCATGCCCCTGAGTGAGGGGCCTGGGGCCCAGGC
TGCCTGTGTTCCCCAAGGGCAAGGGTCTCTCTGTTGAGGAGGAGGGGCCTGTCAGCCACAACTTCTTTCCTCCTG
AGCGCCCCATCTCCCTCTCTGCACCCTGCAATTCCCACCCCTCCGTATTTATTTCCCTGGTCCCGCCGACAGTCC
CCTCCTTGTCTGTCTCCGGGATTCAGGCCTCCCTCCCTGAC**ATG**GAGAGTAACCTGTCTGGCCTGGTGCCTGCTG
CCGGGCTGGTGCCTGCGCTGCCACCTGCTGTGACCCTGGGGCTGACAGCTGCCTACACCACCCTGTATGCCCTGC
TCTTCTTCTCCGTCTATGCCCAGCTCTGGCTGGTGCTTCTGTATGGGCACAAGCGTCTCAGCTATCAGACGGTGT
TCCTGGCCCTCTGTCTGCTCTGGGCCGCCTTGCGTACCACCCTCTTCTCCTTCTACTTCCGAGATACTCCCCGCG
CCAACCGCCTGGGGCCCTTGCCCTTCTGGCTTCTCTACTGCTGCCCCGTCTGCCTGCAGTTCTTCACCTTGACGC
TTATGAACCTCTACTTTGCCCAGGTGGTGTTCAAGGCCAAGGTGAAGCGTCGGCCGGAGATGAGCCGAGGCTTGC
TCGCTGTCCGAGGGGCCTTTGTGGGGGCCTCGCTGCTCTTTCTGCTGGTGAACGTGCTGTGTGCTGTGCTCTCCC
ATCGGCGCCGGGCACAGCCCTGGGCCCTGCTGCTTGTCCGCGTCCTGGTGAGCGACTCCCTGTTCGTCATCTGCG
CGCTGTCTCTTGCTGCCTGCCTCTGCCTCGTCGCCAGGCGGGCGCCCTCCACTAGCATCTACCTGGAGGCCAAGG
TAGGGCTGCAGCAC**TGA**TGCCCAGGTGTCTTTTGGGTCTCTCGGCAGCGGTTCTCAGGGTGTAGAG

FIGURE 2048

GCGCCGTAAATAGAGTCCAAGTGGGCGGAGAGCCGTCCCGCGCCGCCCGCTC**ATG**TCTCTACAGAGCCGACTGTC
CGGCCGCCTGGCACAGCTGCGCGCGGCGGGGCAGCTGCTCGTCCCCCCGCGCCCCCGGCCCGGACACTTGGCGGG
TGCCACGAGGACCCGCAGCAGCACGTGCGGTCCCCCGGCGTTCCTGGGCGTGTTCGGCCGCCGTGCGCGGACCTC
GGCGGGAGTTGGGGCGTGGGGGGCGACGNCGGTGGGGCGGACAGCCGGGGTGCGCACTTGGGCCCCCCTGGCCAT
GGCGGCGAAGGTGGACCTGAGCACCTCCACCGACTGGAAGGAGGCGAAATCCTTTCTGAAGGGCCTGAGTGACAA
GCAGCGGGAGGAACATTACTTCTGCAAGGACTTTGTCAGGCTGAAGAAGATCCCGACATGGAAGGAGATGGCGAA
AGGGGTGGCTGTGAAGGTGGAGGAGCCCAGGTATAAAAAGGACAAGCAGCTCAATGAGAAAATCTCCCTGCTCCG
CAGCGACATCACCAAGCTGGAGGTGGACGCCATCGTCAACGCCGCCAACAGCTCCCTGCTCGGAGGCGGTGGCGT
GGACGGCTGCATTCATCGGGCCGCCGGCCCCCTGCTTACCGACGAGTGCCGGACCCTGCAGAGCTGTAAGACTGG
CAAGGCCAAGATCACCGGCGGCTATCGGCTCCCGGCCAAGTACGTCATCCACACAGTGGGGCCCATCGCCTACGG
GGAGCCCAGCGCCAGCCAGGCTGCCGAGCTCCGCAGCTGCTACCTGAGCAGTCTGGACCTGCTGCTGGAGCACCG
GCTCCGCTCGGTGGCGTTCCCCTGCATCTCCACCGGCGTGTTTGGCTACCCCTGTGAGGCGGCCGCCGAGATCGT
GCTGGCCACGCTGCGAGAGTGGCTGGAGCAGCACAAGGACAAGGTGGACCGGCTGATCATCTGCGTGTTCCTCGA
GAAGGACGAGGACATCTACCGGAGCCGGCTCCCCCACTACTTCCCCGTGGCC**TGA**GGCTCCCGCAGCCCACCCTG
ACCGGGACTGACCCGCCTTCGGGACCCCGCTCCCAGCTCTGAGAGGTCGCCAAAGCCTGCAGCCTGGCCTGGGCC
TGGCCACCCCTTCTTTCCCTCCGCGCCCCGCCCCCGAGGAGCCTAATAAAGATCTCGTTGTGGC

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FIGURE 2049

GGCGAGGAAGGGGCGGGAGCCGGGGTCCCGGTAGCTTCTAGTAGGTTCCAGAAGGCGGCGCGTGCGGTTGGGAAC
GCGGAGCGGACGGATTCGATTCAACGGGGTTCCGGACCGCGCTGCGCTATGGAGCAGGTCAATGAGCTGAAGGAG
AAAGGCAACAAGGCCCTGAGCGTGGGTAACATCG**ATG**ATGCCTTACAGTGCTACTCCGAAGCTATTAAGCTGGAT
CCCCACAACCACGTGCTGTACAGCAACCGTTCTGCTGCCTATGCCAAGAAAGGAGACTACCAGAAGGCTTATGAG
GATGGCTGCAAGACTGTCGACC**TAA**AGCCTGACTGGGGCAAGGGCTATTCACGAAAAGCAGCAGCTCTAGAGTTC
TTAAACCGCTTTGAAGAAGCCAAGCGAACCTATGAGGAGGGCTTAAAACACGAGGCAAATAACCCTCAACTGAAA
GAGGGTTTACAGAATATGGAGGCCAGGTTGGCAGAGAGAAAATTCATGAACCCTTTCAACATGCCTAATCTGTAT
CAGAAGTTGGAGAGTGATCCCAGGACAAGGACACTACTCAGTGATCCTACCTACCGGGAGCTGATAGAGCAGCTA
CGAAACAAGCCTTCTGACCTGGGCACGAAACTACAAGATCCCCGGATCATGACCACTCTCAGCGTCCTCCTTGGG
GTCGATCTGGGCAGTATGGATGAGGAGGAAGAGATTGCAACACCTCCACCACCACCCCCTCCCAAAAAGGAGACC
AAGCCAGAGCCAATGGAAGAAGATCTTCCAGAGAATAAGAAGCAGGCACTGAAAGAAAAAGAGCTGGGGAACGAT
GCCTACAAGAAGAAAGACTTTGACACAGCCTTGAAGCATTACGACAAAGCCAAGGAGCTGGACCCCACTAACATG
ACTTACATTACCAATCAAGCAGCGGTATACTTTGAAAAGGGCGACTACAATAAGTGCCGGGAGCTTTGTGAGAAG
GCCATTGAAGTGGGGAGAGAAAACCGAGAAGACTATCGACAGATTGCCAAAGCATATGCTCGAATTGGCAACTCC
TACTTCAAAGAAGAAAAGTACAAGGATGCCATCCATTTCTATAACAAGTCTCTGGCAGAGCACCGAACCCCAGAT
GTGCTCAAGAAATGCCAGCAGG

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FIGURE 2050

CCCAACGCACAGTACTGGTCCCAGTTTCACAGCGTGAGGCCACAGGGGCCCCAGTTGAGGCAGCAGCAACACAAA
CAAAACAAACAAGTGCTGGGGTACTGCCTCCTCCTCATGCTGGCGGGCATGGGCCTGCACTACATTGCCTTCAGG
AAGGTGAAGCAGATGCACCTTAACTTCATGG**ATG**AAAAGGATCGGATCATCACAGCCTTCTACAACGAAGCCCGG
GCACGGGCCAGGTCTGTCCCTGCTCTATTCTGCTCCCTGCTCCCTGTCCAGGAACCACACTTCGGGATCCCTATC
CCAACCACCCAGGTGCCCTCTCCTCCAGGGCCAACAGAGGCATCCTTCAGCAGGAGCGACAACGGCTAGGGCAGC
GGCAGCCGCCACCATCCGAGCCAACCCAAGGCCCCGAGATCGTGCCCCGGGGCGCCGGCCCCTGAGGGGCTCACC
TGGATGGGGCCTGCAGTGCGTTCCCGCTTTGCTTCCTTCCTGGACGGCCCGCTCCCCGAAACGCGCGCAA**TAA**AG
TGATTCGCAGA

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FIGURE 2051

GGCGGCTGGTGAGCGCCCGCTGGAGGCTGGAGCTTCCGGGCCCTGGAAAGGGGTCCCCGCGCGCCCCGGGTCGGA
GGCAGACCCCTGGGTTTGGGGGACATGGGCATTTGGGGCGCCTGAACCCAAGACCTCTGG**ATG**AGCTGCCCCGTT
CAGACCATGGATCCTGAGGTGACCTTGCTGCTGCAGTGCCCTGGCGGGGGCCTGCCCCAGGAGCAGATACAGGCC
GAGCTGAGCCCCGCCCATGACCGTCGCCCACTGCCAGGTGGGGACGAGGCCATCACTGCCATCTGGGAGACCCGG
CTAAAGGCCCAACCCTGGCTCTTCGACGCCCCCAAGTTCCGCCTGCACTCAGCCACCCTGGCGCCTATTGGCTCT
CGGGGGCCACAGCTGCTCCTGCGCCTGGGCCTTACTTCCTACCGAGACTTCCTGGGCACCAACTGGTCCAGCTCA
GCTGCCTGGCTGCGACAGCAGGGTGCCACCGACTGGGGTGACACGCAGGCCTATCTGGCGGACCCACTGGGGGTG
GGCGCTGCACTAGCCACAGCCGATGACTTCCTTGTCTTCCTGCGCCGCTCCCGGCAGGTGGCTGAGGCCCCTGGG
CTGGTGGACGTACCTGGTGGGCACCCTGAGCCTCAGGCCCTGTGCCCTGGTGGCAGCCCCCAGCACCAGGACCTC
GCTGGGCAGCTGGTGGTACATGAACTCTTTTCCAGTGTCCTTCAGGAGATCTGTGATGAGGTGAACCTGCCGCTG
CTCACCCTGAGCCAGCCCCTGCTGTTGGGCATCGCCCGAAATGAGACCAGTGCTGGCCGAGCCAGTGCCGAGTTC
TATGTCCAGTGCAGCCTGACTTCTGAGCAGGTGAGGAAGCACTACCTGAGTGGGGGACCCGAGGCCCACGAGTCT
ACAGGAATCTTCTTTGTGGAGACACAGAACGTGCAGAGATTGCTCGAGACGGAGATGTGGGCTGAACTCTGCCCC
TCGGCCAAAGGCGCCATCATCCTCTACAACCGGGTTCAGGGAAGTCCCACTGGAGCGGCCCTAGGGTCCCCAGCC
CTACTCCCGCCGCTC**TGA**AAATAATAAACGACTTTATTCTTGG

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FIGURE 2052

GGCACGTCGGCCCTGCCTCCCGGACCACCCTGCGGGGCGCACCAGCGATCTGGGGTGCGGGGCTCGGCCTCCCTG
CGCTCCTGGCTGACCGTGTGACCTTGGGACCGAGACGTGCAGCTGTCCAAGGCTCTGTCCTATGCCCTGCGCCAT
GGGGCCTTGAAGCTGGGGCTTCCC**ATG**GGAGCTGATGGCTTCGTGCCCCTGGGCACCCTCCTGCAGTTGCCCCAG
TTCCGCGGCTTCTCTGCTGAAGATGTGCAGCGCGTGGTGGACACCAATAGGAAGCAGCGGTTCGCCCTGCAGCTG
GGGGATCCCAGCACTGGCCTTCTCATCCGGGCCAACCAGGGCCATTCCCTGCAGGTACCTAAGTTGGAGCTGATG
CCCCTGGAGACACCGCAGGCCCTGCCCCCGATGCTAGTCCATGGTACATTCTGGAAGCACTGGCCATCCATCCTA
CTCAAAGGCCTGTCCTGCCAGGGAAGGACGCACATTCACCTGGCCCCAGGACTGCCTGGAGACCCCGGTATCATC
AGTGGCATGCGGTCCCATTGTGAAATAGCTGTGTTCATCGATGGACCCCTGGCTCTGGCAGATGGAATACCCTTC
TTCCGCTCTGCCAATGGGGTGATTCTGACTCCAGGGAATACTGATGGCTTCCTCCTTCCCAAGTACTTCAAGGAG
GCCCTGCAGCTACGCCCTACCCGAAAGCCCCTTTCCTTGGCTGGTGATGAAGAGACAGAGTGTCAGAGTAGCCCC
AAGCACAGCTCCAGAGAAAGGAGGAGGATCCAACAA**TAA**AATATTAATTTATAAAAAAGAAATTTTAAAAAGTAA
CAAGAAAGAACTCGTTTGAAACCATGTTTCATCATCCTGT

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FIGURE 2053

AGACAGACCCCGTGCGGCTGACACAGCTGTATGAGCAGGCCCGGTGGGACCTGCTGCTGGAGGAGATTGACTGCA
CCGAGGAGGAGATGATGGTGTTTGCCGCCCTGCAGTACCACATCAACAAGCTGTCCCAGAGCGGGGAGGTGGGGG
AGCCGGCTGGCACAGACCCAGGGCTGGACGACCTGGATGTGGCCCTGAGCAACCTGGAGGTGAAGCTGGAGGGGT
CGGCGCCCACAGATGTGCTGGACAGCCTCACCACCATCCCAGAGCTCAAGGACCATCTCCGAATCTTTCGGCCCC
GGAAGCTGACCCTGAAGGGCTACCGCCAACACTGGGTGGTGTTCAAGGAGACCACACTGTCCTACTACAAGAGCC
AGGACGAGGCCCCTGGGGACCCCATTCAGCAGCTCAACCTCAAGGGCTGTGAGGTGGTTCCCGATGTTAACGTCT
CCGGCCAGAAGTTCTGCATTAAACTCCTAGTGCCCTCCCCTGAGGGC**ATG**AGTGAGATCTACCTGCGGTGCCAGG
ATGAGCAGCAGTATGCCCGCTGGATGGCTGGCTGCCGCCTGGCCTCCAAAGGCCGCACCATGGCCGACAGCAGCT
ACACCAGCGAGGTGCAGGCCATCCTGGCCTTCCTCAGCCTGCAGCGCACGGGCAGTGGGGGCCCGGGCAACCACC
CCCACGGCCCTGATGCCTCTGCCGAGGGCCTCAACCCCTACGGCCTCGTTGCCCCCCGTTTCCAGCGAAAGTTCA
AGGCCAAGCAGCTCACCCCACGGATCCTGGAAGCCCACCAGAATGTGGCCCAGTTGTCGCTGGCAGAGGCCCAGC
TGCGCTTCATCCAGGCCTGGCAGTCCCTGCCCGACTTCGGCATCTCCTATGTCATGGTCAGGTTCAAGGGCAGCA
GGAAAGACGAGATCCTGGGCATCGCCAACAACCGACTGATCCGCATCGACTTGGCCGTGGGCGACGTGGTCAAGA
CCTGGCGTTTCAGCAACATGCGCCAGTGGAATGTCAACTGGGACATCCGGCAGGTGGCCATCGAGTTTGATGAAC
ACATCAATGTGGCCTTCAGCTGCGTGTCTGCCAGCTGCCGAATTGTACACGAGTATATCGGGGGCTACATTTTCC
TGTCGACGCGGGAGCGGGCCCGTGGGGAGGAGCTGGATGAAGACCTCTTCCTGCAGCTCACCGGGGGCCATGAGG
CCTTC**TGA**GGGCTGTCTGATTGCCCCTGCCCTGCTCACCACCTGTCACAGCCACTCCCAAGCCCACACCCACAGG
GGCTCACTGCCCCACACCCGCTCCAGGCAGGCACCCAGCTGGGCATTTCACCTGCTGTCACTGACTTTGTGCAGG
CCAAGGACCTGGCAGGGCCAGACGCTGTACCATCACCCAGGCCAAGGATGGGGGTGGGGGTCCCTGAGCTCATGT
GGTGCCCCCTTTCCTTGTCTGAGTGGCTGAGGCTGATACCCCTGACCTATCTGCAGTCCCCCAGCACACAAGGAA
GACCAGATGTAGCTACAGGATGATGAAACATGGTTTCAAACGAGTTCTTTCTTGTTACTTTTTAAAATTTCTTTT
TTATAAATTAATATTTTATTGTTGG

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FIGURE 2054

GGCTACGGCTGACCGTTTTTTTGTGGTGTACTCCGTGCCATC**ATG**TCCGTCCTGACGCCGCTGCTGCTGCGGGGCT
TGACAGGCTCGGCCCGGCGGCTCCCAGTGCCGCGCGCCAAGATCCATTCGTTGCCGCCGGAGGGGAAGCTTGGGA
TCATGGAATTGGCCGTTGGGCTTACCTCCTGCTTCGTGACCTTCCTCCTGCCAGCGGGCTGGATCCTGTCACACC
TGGAGACCTACAGGAGGCCAGAG**TGA**AGGGGTCCGTTCTGTCCCTCACACTGTGACCTGACCAGCCCCACCGGCC
CATCCTGGTCATGTTACTGCATTTGTGGCCGGCCTCCCCTGGATCATGTCATTCAATTCCAGTCACCTCTTCTGC
AATCATGACCTCTTGATGTCTCCATGGTGACCTCCTTGGGGGTCACTGACCCTGCTTGGTGGGGTCCCCCTTGTA
ACAATAAAATCTATTTAAACTTT

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FIGURE 2055

GGTTGAATGTCTCCATTGAATGTAAGCGAGTGTCTGGACTGGAGCCAGCCACCGTGGATTGGGCCTTCGACCTGA
CCAAAACGAAT**ATG**CAAACCATGTATGAGCAGAGCGAGTGGGGCTGGAAGGACCGAGAGAAACGGGAGGAAATGA
CAGATGACCGAGCCTGGTACCTCATCGCGTGGGAAAACAGCTCCGTCCCTGTTGCCTTTTCTCACTTCCGGTTTG
ACGTGGAGTGTGGGGATGAAGTCCTGTACTGCTATGAAGTGCAGTTGGAAAGCAAGGTGCGGCGGAAAGGCCTGG
GGAAGTTCCTCATACAGATCCTGCAGCTCATGGCCAACAGCACACAGATGAAGAAGGTTATGTTAACAGTATTTA
AACACAATCATGGTGCCTACCAGTTCTTCAGAGAAGCGTTGCAGATT**TGA**AATTGATGACTCTTCCCCCAGCATG
TCCGGTTGCTGTGGGGAGGATTGCTCCTATGAGATCCTGAGCCGGAGGACCAAGTTTGGGGACAGCCATCACTCC
CACGCGGGTGGGCACTGTGGTGGCTGCTGCCACTGAACTCTCAGAGCCACTTTCAAGTCACAATGCTCTCTCCTA
AGGCCTTTCCTCTTTCCTGGTCTCACTGTTCACCGGGTGTCCTCAGAGCTGTGGCCTCCCCAGCCCTGCACGTGC
CAGGCTGCGCCCTGAGAGCACAGAACCCTGGGGAGAAGTGGTATCAGCTGCTCCTCCTCTCCTAGGAGACCAGAG
TGCTAGAAGGGAATGAAAGGGAGAGGGAAGAGTAGGTGGGGCCGGGCAGTGAAGCTCATCCTCCACAGTGGCTGC
CTCCTCATTTGGCTCCTGGGGCCTGCAGTGGAGGTTCTCGCACCTCTGCAGCCCCTAGATTCCTGGCAACCTCCC
CTCCCCTGACACATACACACTTGGACAAATGGAATGTTTATGTCCACCTTTATGAAAGTTCTGGAGTCCTGGGTC
TGGGGTTTGCTGGTCCCCAAAGAGGAACACACTGGGTGTAAGATCTGGGTGTAGAGGGCGGCTTCAGAGAGACTC
ACGCTTGCGCAGTTGGAATTGCTGTTAACGGAGACTGGGAAGATCTTTTGTGCCAAGATGCAGGGAAATGAAGAA
AGCTCTTTCCAGCTGTTTTTATGGATTCATGGAGTGGGCTCATGTTGGGACCAGCTGACTCTGGGAGGAAGACTG
CCTCTCCATCGCTGTCAGAGAGCCTGAAAGGACCAACAATGAGGTGTTCTTGGGACCCGCCATGGGGATGATTGC
TTCTCTAGGCTCCTGGATGTTGCTGCATTCTAAGCTTAACCTCCTGGTCTCATGGCAGTGACTTGAGCTTTTGAT
TCATAGAAGAAAGCCAGAGGTTCTGCTTGTTCTTGTCTGCCAGCCCTCGTCGTTCTTTCTCCTCTGCCTCTCACC
TCTACCCCAAATACCTCTGTTCTTAGTCTCAAGGGGAGAATAACATCAGGGAGCCCCTCATCTTCCCCAGAAGGA
CTTCTCGTTCCTCATGTAGTTAACTCCATTGATTTTCCTATCTTGGTGCTGATAGCTCTCTAAGGGTAGGGCACA
CCTCCCCACAGCCACCCTCCCTCTTCAGAGAGCCCCCAGCCAGCAGCAGGCCCCTCTGCCTGCACTCCTCAGGCT
TGCCCCTCGCTGCCTCAGTGAGGCACTAGTGCCACTGCCGTGGCCCAGCCGGGCCATAGCTCAGGCTGCAGCAGA
AATGCCTCTCAGTGGCCAACAGTTGCTTTTCTCTCTGGTGTCACCCTGTGGCAACAGGCTGGAGCAGGGGAAGGA
GAAAGCCTTCCTCTTCTCTCATAGGATAGAAAGGCAGGCTCAGAACTAATGCTCATCCTGATCTCTAGGCCTTGT
TCCTCTTCCAGGGAAGAAAAGCCAAATCCTTATCAAGGAAAAAGCACCTAACAGCTCCCTTTGGATATCCCTGAG
CTCTGCTGTGGGGAGTATCATAAAGGTTCTAGCCTTCGTGAAGTTGTTCTCGTGGAGGTCTGTTGGTCCCTCTGA
CCTCAGCATCTGCTCACATCCCACCCTCTGCCCAACTCTGGCAGTCTCTCCTGGCAGATCTCCCCAGAGTGGTCC
TTGCTTCTCACCTGGATTCCTGCTTGTGCAGGAGCCTGTGTACACAGGGCCTCCCTCACCCAGCCTGGCCCCTCT
GCTGAGCACTTTGCGCTGCTCTTGATGGGCAGCAGTGGGACTGGGAACTCCTTAGAGAGGGCCTTGCAGCTTTAC
ACTGGAATAAGTCTGCCTCTGCCTCTGCCTCACCCTGCTGGCTCCTGGTGGGTTTCATCCCAGGCAGAGTTGACA
TTGCTGGAGGGGTTTGGTGGACTCCTAAGAATCATGAAACCACAGGAGCATGTTTAGGAAGAGATTTGTCTCTGG
TCCCTGTCTCTGAAAGGACACAGATGCTAAATATTTATTGTCTTAGATCATGGATTCCTGATACCTCTCACTCAA
GGGGACCAAAAGGGACCCCCCCGTGTTCATCCCTTGTAAGGTGAGTTCAGTCTACGTTGTCTCTTTCCAGTCACT
GGATACGTGGCACCAACTGGTCAATGGGTGCTTGGTGCCATACCCTGCTCACCCTAGTCTCTGCAGGCCATGTCC
TGAAGGGTTCCTCAGGAGGTCGGGACTAGGGTGGGAGAGGCACTATCTGAGACCTGCAATCACTCTTGTTGGTCT
TGAGCCCATTCATTTCCAAAACATCCATCTTTCTCCACTTTCCCCAGGTCTTGGTTTTGAGAAACAGCAGGCATG
GCTGAGTGCGGTGGCTTACACCTGTAATCCCAGCACTTTGGGAGGCTGAGGCAGGCGGGTCACCTGAGGTCAGGA
GTTCAAGACCAGCCTGGTCAACATGGCAAAAGCCCATCTCTACTAAAAAATACAAAAATCACCCAGGCGTGGTTG
TGGCCTGTGATCCCAGCTACTCGGGAGGCTGAGGCAGGAGACTCGCTTGAACCCAGCAGGTGGAGGTTGTGGTGA
GCTGAGATCACGCCATTGCACTCCAGCCTAGGCGACCGAGTGAGACTCCATCTC

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FIGURE 2056

AGGTGTTAACTGTCTGGCCTATGATGAAGCCATC**ATG**GCTCAGCAGGACCGAATTCAGCAAGAGATTGCTGTGCA
GAACCCTCTGGTGTCAGAGCGGCTGGAGCTCTCGGTCCTATACAAGGAGTATGCTGAAGATGACAACATCTATCA
ACAGAAGATCAAGGACCTCCACAAAAAGTACTCGTACATCCGCAAGACCAGGCCTGACGGCAACTGTTTCTATCG
GGCTTTCGGATTCTCCCACTTGGAGGCACTGCTGGATGACAGCAAGGAGTTGCAGCGGTTCAAGGCTGTGTCTGC
CAAGAGCAAGGAAGACCTGGTGTCCCAGGGCTTCACTGAATTCACAATTGAGGATTTCCACAACACGTTCATGGA
CCTGATTGAGCAGGTGGAGAAGCAGACCTCTGTCGCCGACCTGCTGGCCTCCTTCAATGACCAGAGCACCTCCGA
CTACCTTGTGGTCTACCTGCGGCTGCTCACCTCGGGCTACCTGCAGCGCGAGAGCAAGTTCTTCGAGCACTTCAT
CGAGGGTGGACGGACTGTCAAGGAGTTCTGCCAGCAGGAGGTGGAGCCCATGTGCAAGGAGAGCGACCACATCCA
CATCATTGCGCTGGCCCAGGCCCTCAGCGTGTCCATCCAGGTGGAGTACATGGACCGCGGCGAGGGCGGCACCAC
CAATCCGCACATCTTCCCTGAGGGCTCCGAGCCCAAGGTCTACCTTCTCTACCGGCCTGGACACTACGATATCCT
CTACAAA**TAG**GGCTGGCTCCAGCCCGCTGCTGCCCTGCTGCCCCCCTCTGCCAGGCGCTAGACATGTACAGAGGT
TTTTCTGTGGTTGTAAATGGTCCTATTTCACCCCCTTCTTCCTGTCACATGACCCCCCCCCCATGTTTTATTAAAG
GGGGTGCTGGTGGTGAGCCGTGTGTGCGTGTCCCTGCTCTGCTGCCCGCCTGGCTGCTCTGTCTGCTGCCCCCTC
CCCCCAGGTGGGTCCCCCTGCTTTTCACCTATCTACTCCTGAGCTTCCCCAACAGGAGCAGGTTTGAGGGGCCAG
GCCTCTTGGAGGCCCCTCCTGCTTCGTTGGGTTCTGCTTCCTTCCCTTCTTAGCTGGCTCAGGGGCTTCTATGGG
ATCCTGGAAGTTCCTTAGGGACTTGCCCAGGGTCCCAGGGCCACCCACACTTCATCTGCTCCCTCATAGGCCCCA
CCTCCACGTCCCGGCTGGGCCCCAGACCCCAGCTTCCTGCCCTCCACCGGGAGTCTGCATGGTTGGGAGTCCTGG
GTGGAGGGGCCTTTGTGAGGCTGGACCCGGCTCAGGGCAGGTGGAGGAGCTGGGCCTCCCACAGGGTGCCCGGGC
AGTGCCATCCTGGTGGGGGAGGGCAGCCTTCAAACGTGTGGGGTCTACAGTCCTCAGGTCTAGGCAGGGCTGCCG
GTTCTCCACCTCCCCATCCGCCCCAGGCCCCCTGCCTGTGCCTGCCTTGCACCCCCTCTGCTTGGGCCACGGTGT
CTCTGCATTGCCTGCCTTTTTGCCTTCACCTCTTTTCTTCCCCGCCCCCTGCACATTCGGGGTCTCAGCCCCCAG
GCTGTGAGCTCCTTGGGGGCAGGCCCTCAATAAATGTGAACTGCTGCTGCCGCC

FIGURE 2057

CCTTCAGCATAAAAGCTGATCCACAAACAAGAGGAGCACCAGACCTCCTCTTGGCTTCGAG**ATG**GCTTCGCCACA
CCAAGAGCCCAAACCTGGAGACCTGATTGAGATTTTCCGCCTTGGCTATGAGCACTGGGCCCTGTATATAGGAGA
TGGCTACGTGATCCATCTGGCTCCTCCAAGTGAGTACCCCGGGGCTGGCTCCTCCAGTGTCTTCTCAGTCCTGAG
CAACAGTGCAGAGGTGAAACGGGAGCGCCTGGAAGATGTGGTGGGAGGCTGTTGCTATCGGGTCAACAACAGCTT
GGACCATGAGTACCAACCACGGCCCGTGGAGGTGATCATCAGTTCTGCGAAGGAGATGGTTGGTCAGAAGATGAA
GTACAGTATTGTGAGCAGGAACTGTGAGCACTTTGTCACCCAGCTGAGATATGGCAAGTCCCGCTGTAAACAGGT
GGAAAAGGCCAAGGTTGAAGTTGGTGTGGCCACGGCGCTTGGAATCCTGGTTGTTGCTGGATGCTCTTTTGCGAT
TAGGAGATACCAAAAAAAAGCGACAGCC**TGA**AGCAGCCACAAAATCCTGTGTTAGAAGCAGCTGTGGGGGTCCCA
GTGGAGATGAGCCTCCCCCATGCCTCCAGCAGCCTGACCCTCGTGCCCTGTCTCAGGCGTTCTCTAGATCCTTTC
CTCTGTTTCCCTCTCTCGCTGGCAAAAGTATGATCTAATTGAAACAAGACTGAAGGATCAATAAACAGCCATCTG
CCCCTTC

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FIGURE 2058

AGAGTGGGCGTCTGGCGGGGTCCGCAGTTTCAGCAGAGCCGTGCAGCC**ATG**GCCCCAATCAAGGTGGGAGATGCC
ATCCCAGCAGTGGAGGTGTTTGAAGGGGAGCCAGGGAACAAGGTGAACCTGGCAGAGCTGTTCAAGGGCAAGAAG
GGTGTGCTGTTTGGAGTTCCTGGGGCCTTCACCCCTGGATGTTCCAAGACACACCTGCCAGGGTTTGTGGAGCAG
GCTGAGGCTCTGAAGGCCAAGGGAGTCCAGGTGGTGGCCTGTCTGAGTGTTAATGATGCCTTTGTGACTGGCGAG
TGGGGCCGAGCCCACAAGGCGGAAGGCAAGGTTCGGCTCCTGGCTGATCCCACTGGGGCCTTTGGGAAGGAGACA
GACTTATTACTAGATGATTCGCTGGTGTCCATCTTTGGGAATCGACGTCTCAAGAGGTTCTCCATGGTGGTACAG
GATGGCATAGTGAAGGCCCTGAATGTGGAACCAGATGGCACAGGCCTCACCTGCAGCCTGGCACCCAATATCATC
TCACAGCTC**TGA**GGCCCTGGGCCAGATTACTTCCTCCACCCCTCCCTATCTCACCTGCCCAGCCCTGTGCTGGGG
CCCTGCAATTGGAATGTTGGCCAGATTTCTGCAATAAACACTTGTGGTTTGCGG

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FIGURE 2059A

AGCCGGGGGCCGGCGTGGTGCTGGCACTGTCTGGGCCAGATCCTGGGGAGCTGGCACCTGCCGAGCTGGAGATGC
TGTCCCGGAGCCTGATGGGGACACTGTCGAAGCTGGCACGGGAGCGTGACCTGGGGGCCCAGCGGCTGGCTGAAC
TGCTGCTGGAGCGAGAACCCCTCTGCTTGAGGCCTGAGGCTCCCTCTAGGGCTCCCGCCGAGGGCCCCTCGCACC
ATCTGGCCCTGCAGCTGGCCAACGCCAAGGCTCAGCTGCGGCGTCTGCGGCAGGAGCTGGAGGAGAAGGCCGAGC
TGCTGCTAGACTCCCAGGCCGAGGTGCAGGGTTTGGAGGCCGAAATAAGAAGGCTCCGCCAGGAGCTCCACACCG
TCTGGCCCAGGCCCAGGCGCTGTCGGGACAGGCCAAGCGGGCCGAGCTGTACCGCGAGGAGGCAGAGGCGCTGCG
GGAGCGGGCCGGCCGCCTGCCCCGCCTGCAGGAGGAGCTGAGGCGCTGCCGCGAGCGGCTGCAGGCGGCTGAGGC
CTACAAGAGTCAGCTGGAGGAGGAGCGGGTGCTCTCGGGGGTGCTGGAGGCGTCCAAGGCGCTGCTGGAAGAGCA
GCTGGAGGCTGCCCGAGAGCGCTGCGCCCGGCTGCACGAGACCCAGCGCGAGAACCTGCTGCTGCGAACCCGGCT
GGGCGAGGCCCATGCGGAGCTGGACTCTCTGCGGCATCAGGTGGACCAGCTGGCTGAGGAGAATGTGGAGCTGGA
GCTGGAGCTTCAGCGGAGCTTGGAGCCACCTCCAGGATCCCCTGGGGAGGCACCCCTAGCAGGAGCGGCCCCCTC
GCTGCAAGATGAGGTGAGGGAGGCAGAGGCTGGGCGGCTTCGGACCCTTGAGAGGGAGAACCGGGAGCTTCGGGG
GCTGCTTCAGGTGCTTCAGGGGCAGCCAGGGGGCCAGCACCCCCTGCTGGAGGCACCGAGAGAGGACCCTGTTCT
TCCAGTGCTGGAGGAGGCTCCCCAGACTCCTGTGGCCTTCGACCACAGCCCTCAGGGCTTGGTTCAGAAGGCAAG
GGATGGAGGCCCCCAGGCCTTGGACTTGGCTCCCCCGGCATTAGACTCAGTGCTCGAGGCATCAGCTGAGTGTCC
CCAGGCACCTGATTCAGACCCACAGGAGGCAGAGAGTCCCCTTCAGGCAGCTGCC**ATG**GACCCCCAGGCCTCAGA
CTGGTCCCCGCAAGAGTCAGGCTCTCCTGTGGAGACACAGGAGTCCCCGGAGAAGGCTGGCCGTAGATCCTCTCT
CCAGAGCCCTGCCTCTGTGGCCCCACCTCAGGGTCCAGGGACCAAAATTCAGGCCCCGCAGTTGCTGGGAGGAGA
GACAGAGGGAAGAGAGGCTCCCCAAGGCGAGTTGGTGCCTGAGGCCTGGGGGTTGAGACAGGAGGGCCCTGAGCA
CAAGCCAGGGCCTTCGGAGCCCAGCTCTGTGCAGCTGGAGGAGCAGGAGGGCCCAAACCAGGGCCTGGACCTGGC
CACGGGACAAGCAGAGGCCAGAGAGCATGACCAGAGGCTGGAAGGGACGGTCAGGGACCCAGCCTGGCAAAAACC
ACAGCAGAAGTCAGAAGGGGCTCTTGAGGTCCAGGTCTGGGAAGGCCCAATCCCAGGGGAGAGCCTGGCCAGTGG
TGTCGCAGAGCAGGAGGCCCTCAGGGAGGAGGTGGCACAGTTGAGGAGAAAGGCTGAGGCCCTTGGAGATGAGCT
GGAAGCCCAGGCCCGCAAGCTGGAGGCCCAAAACACGGAGGCTGCCCGCCTCTCCAAGGAGCTGGCCCAAGCGCG
AAGGGCAGAGGCCGAGGCCCACCGGGAGGCAGAGGCCCAGGCCTGGGAGCAAGCCCGGCTGCGGGAGGCAGTGGA
GGCTGCTGGCCAGGAGCTGGAGTCTGCGTCCCAGGAACGGGAGGCGCTGGTGGAGGCGCTGGCAGCAGCGGGCCG
GGAGCGGAGGCAGTGGGAGCGTGAGGGGTCCAGGCTGCGGGCCCAGTCGGAGGCCGCCGAGGAACGGATGCAGGT
GCTGGAGAGCGAGGGCCGCCAGCACTTGGAGGAGGCTGAGAGGGAGCGCCGGGAGAAGGAGGCCCTCCAGGCGGA
GCTGGAGAAAGCTGTGGTGCGGGGCAAGGAGTTGGGGGACCGGCTGGAGCATTTGCAGCGTGAGCTGGAGCAGGC
GGCTCTCGAGCGCCAGGAATTTCTGCGAGAAAAGGAAAGCCAGCACCAGAGGTACCAGGGCTTGGAGCAGCGGCT
GGAAGCTGAGCTGCAGGCGGCGGCGACCAGCAAGGAGGAGGCGCTGATGGAGCTCAAGACCAGGGCCCTGCAGCT
GGAAGAGGAGCTGTTCCAGCTGCGCCAGGGCCCCGCGGGGCTGGGGCCCAAAAAGCGTGCGGAGCCTCAGCTGGT
GGAGACCCAGAATGTGCGGCTTATTGAGGTGGAGCGCAGTGTGAGTGTGGGCCCACAGTGGGCCCTGGGGAGGTG
CCCCGTGCAGTGTGAGTGTGGGTCCACGGTGGACCCTGGGCTGGGGGGTATCCCGTGCAGTGTGAGTGTGGACTC
ACAGTGGGCCCGGGGGTGGGGGTGCCCCATGCAGTGTGAGTGTGGGCCTGTGGTAGGCACTAGGGGGTGCCCCCG
CCACCTGGCTATTGCTAACCCCCACTTCTGGGCAGAATGCGATGCTGGTGGCAGAGAAGGCAGCTTTGCAGGGGC
AGCTGCAGCACCTGGAGGGGCAGCTGGGGAGCCTGCAGGGCCGTGCCCAGGAGCTGCTGCTGCAGAGCCAGCGGG
CGCAGGAGCACAGCAGCCGCCTGCAGGCCGAGAAGTCTGTGCTGGAGATTCAGGGCCAGGAGCTGCACCGGAAGC
TGGAGGTGCTGGAGGAGGAGGTGCGGGCGGCACGGCAGTCCCAGGAGGAGACCCGCGGGCAGCAGCAGGCCCTGC
TTCGGGACCACAAGGCCCTGGCACAGCTGCAGCGGCGGCAGGAGGCCGAGCTAGAGGGACTGCTGGTGCGGCACC
GAGACCTCAAGGCCAACATGCGGGCACTGGAGCTGGCCCACCGGGAGCTGCAGGGCCGGCACGAGCAGCTGCAGG
CCCAGCGGGCCAGCGTGGAGGCACAGGAGGTGGCCCTGCTGGCAGAGCG**TGA**ACGCCTGATGCAAGATGGGCATC
GGCAGCGGGGCCTGGAGGAGGAGCTGCGGAGGCTTCAGAGCGAGCACGACAGGGCTCAGATGCTGCTGGCAGAGT
TGTCTCGGGAGCGGGGTGAGCTGCAGGGTGAACGCGGGGAGCTACGGGGCCGGCTGGCGCGGCTGGAGCTGGAGC
GGGCACAGCTGGAGATGCAGAGCCAGCAGCTGCGCGAGTCCAACCAGCAGCTGGACCTGAGCGCCTGCCGGCTGA
CCACGCAGTGTGAGCTATTGACACAGCTGCGAAGTGCCCAGGAAGAGGAGAACCGGCAGCTGCTGGCTGAAGTTC
AGGCCCTGAGCCGGGAGAACAGGGAGCTCCTGGAGCGCAGCCTGGAGAGTCGGGACCACCTGCACCGCGAACAGC
GGGAGTACCTGGACCAGCTTAATGCCCTGCGCCGCGAGAAGCAGAAGCTCGTGGAGAAGATCATGGACCAATACC

FIGURE 2059B

GCGTGCTGGAGCCTGTGCCCCTGCCCCGGACCAAGGTCCCCTTCCCCGGCACCCATGCGCCGGGCCCAGAGCTCC
CTCTGCCTGCGGGATGAGACCTTGGCAGGCGGGCAGCGGCGGAAACTCAGCTCAAGGTTCCCGGTGGGGCGAAGC
TCTGAGTCATTCAGCCCTGGGGACACCCCTAGGCAACGATTCCGACAGCGCCATCCAGGCCCCCTGGGGGCGCCC
GTCTCCCACAGCAAAGGACCTGGTGTGGGATGGGAGAACTCCGCTGAGACCCTGCAGGAACACGAAACAGATGCC
AACCGAGAGGGCCCTGAGGTACAGGAACCGGAGAAACGTCCCCTCACCCCATCCCTCAGCCAGTGACACCGTGGG
AACAGCAGGCTTGGGAGTGCAGCCTTCTCGGCACTGGAGTGTCAGCGGAGGCCCCAGGCAGCCCAAGAGCTCAGG
GAGCCAGGGACCCCAAGGGGAGTCCTTGGACAAGGAGGCCTGGGCCCTGAGATCCTCCACGGTCAGCGCCGGGGC
CCGGAGATGGAGCTGGGACGAGTGTGTGGACAGGGGGGATGGCTGGCCCCCACGAGCAGCTCCAGGCTGGAGTTC
TGGTTCTTCCAGGTGGCTCCCGCTGAGGCAGCGGTCTCTGGGGGATCCCCCAGCTGAAGGAGGCTGGCAGGAGTT
GGCAAGAGAACCCCCTGCCCTGTCCAGGTGGGAAGCTGAGTCCCAGTGCTGGGGGACTGTGGCCTGGGCTGATCT
TGAGCCTTAACTGGACATGAGGGGCATGAGAATAAAGCTGAACTGCAGCCTCCTG

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FIGURE 2060

GGAGCCGCCATGTAACCGGCGCCGCCCGGAGCCCGAGCCGCGCGGGCCCCAGCGACCCGCCCGCC**ATG**GGGGACG
AGGACGACGATGAGAGCTGCGCCGTGGAGCTGCGGATCACAGAAGCCAACCTGACCGGGCACGAGGAGAAGGTGA
GCGTGGAGAACTTCGAGCTGCTCAAGGTGCTGGGCACGGGAGCCTACGGCAAGGTGTTCCTGGTGCGGAAGGCGG
GCGGGCACGACGCGGGGAAGCTGTACGCCATGAAGGTGCTGCGCAAGGCGGCGCTGGTGCAGCGCGCCAAGACGC
AAGAGCACACGCGCACCGAGCGCTCGGTGCTGGAGCTGGTGCGCCAGGCGCCCTTCCTGGTCACGCTGCACTACG
CTTTCCAGACGGATGCCAAGCTGCACCTCATCCTGGACTATGTGAGCGGCGGGGAGATGTTCACCCACCTCTACC
AGCGCCAGTACTTCAAGGAGGCTGAGGTGCGCGTGTATGGGGGTGAGATCGTGCTGGCCCTGGAACACCTGCACA
AGCTCGGCATCATTTACCGAGACCTGAAACTGGAGAATGTGCTGCTGGACTCCGAGGGCCACATTGTCCTCACGG
ACTTCGGGCTGAGCAAGGAGTTCCTGACGGAGGAGAAAGAGCGGACCTTCTCCTTCTGTGGCACCATCGAGTACA
TGGCCCCCGAAATCATCCGTAGCAAGACGGGGCATGGCAAGGCTGTGGACTGGTGGAGCCTGGGCATCTTGCTCT
TCGAGCTGCTGACGGGGGCCTCGCCCTTCACCCTGGAGGGCGAGAGGAACACGCAGGCTGAGGTGTCTCGACGGA
TCCTGAAGTGCTCCCCTCCCTTCCCCCCTCGGATCGGGCCCGTGGCGCAGGACCTGCTGCAGCGGCTGCTTTGTA
AGGATCCTAAGAAGCGATTGGGCGCGGGGCCCCAGGGGGCACAAGAAGTCCGGAACCATCCCTTCTTCCAGGGCC
TCGATTGGGTGGCTCTGGCTGCCAGGAAGATTCCAGCCCCATTCCGGCCCCAAATCCGCTCAGAGCTGGATGTGG
GCAACTTTGCGGAGGAATTCACTCGGCTGGAGCCTGTCTACTCACCCCCTGGCAGCCCCCCACCTGGGGACCCCC
GAATCTTTCAGGGATACTCCTTTGTGGCACCCTCCATTCTCTTTGACCACAACAACGCGGTGATGACCGATGGGC
TGGAAGCGCCTGGTGCTGGAGACCGGCCAGGTCGGGCAGCGGTGGCCAGGAGCGCTATGATGCAGGACTCGCCCT
TCTTCCAGCAGTACGAGCTGGACCTGCGGGAGCCTGCGCTGGGCCAGGGCAGCTTTTCTGTGTGTCGCCGCTGCC
GCCAGCGCCAGAGCGGCCAGGAGTTCGCAGTCAAGATCCTCAGTCGCAGGCTGGAGGCGAACACGCAGCGCGAAG
TGGCTGCCCTGCGCCTGTGCCAGTCACACCCCAACGTGGTGAATCTGCACGAGGTGCATCACGACCAGCTGCACA
CGTACCTGGTCCTGGAGCTGCTGCGGGGCGGGGAGCTGCTGGAGCACATCCGCAAGAAGCGGCACTTCAGCGAGT
CGGAAGCAAGCCAGATCCTGCGCAGCCTCGTGTCGGCCGTGAGCTTCATGCACGAGGAGGCGGGCGTGGTGCACC
GCGACCTCAAGCCGGAGAACATCCTGTACGCCGACGACACGCCCGGGGCCCCGGTGAAAATCATCGACTTCGGGT
TCGCGCGGTTGCGGCCGCAGAGTCCCGGGGTGCCCATGCAGACGCCCTGCTTCACGCTGCAGTACGCTGCCCCCG
AGCTGCTGGCGCAGCAGGGCTACGACGAGTCCTGCGACCTCTGGAGCCTGGGCGTCATTCTGTACATGATGCTGT
CGGGGCAGGTCCCCTTCCAGGGGGCCTCTGGCCAGGGCGGGCAGAGCCAGGCGGCCGAGATCATGTGCAAAATCC
GCGAGGGGCGCTTCTCCCTTGACGGGGAGGCCTGGCAGGGTGTATCCGAGGAAGCCAAGGAGCTGGTCCGAGGGC
TCCTGACCGTGGACCCCGCCAAGCGGCTGAAGCTCGAGGGACTGCGGGGCAGCTCGTGGCTGCAGGACGGCAGCG
CGCGCTCCTCGCCCCCGCTCCGGACGCCCGACGTGCTCGAGTCCTCTGGGCCCGCAGTGCGCTCGGGTCTCAACG
CCACCTTCATGGCATTCAACCGGGGCAAGCGGGAGGGCTTCTTCCTGAAGAGCGTGGAGAATGCACCCCTGGCCA
AGCGGCGGAAGCAGAAGCTGCGGAGCGCCACCGCCTCCCGCCGGGGCTCCCCTGCACCAGCCAACCCGGGCCGAG
CCCCCGTCGCCTCCAAAGGGGCCCCCCGCCGAGCCAACGGCCCCCTGCCCCCCTCC**TAA**TCCCCACCACTGTGAC
CCCCTTCCCTCATAGGGGCTGTGACCTGGGAGCCCGGCTCACTCCCGGAGGCCTCTGCCTGCGGCTGACCTGATC
CCCAAGGGACTGTCCTTTCCTCTCCTACCCCACCCCACTCCCAGACAGAGCAGAAGTATTTTTATAAGCAGAGAA
TTTTTTATGTCTTACCAGATAGAGTTGCAGGGAAGGGGGGGCCTGCTGGGGAGTGGGGTTTGGGGGGCCCTCTCC
CAGGACACTGCCTCTTCTGGGCAGAAGGCCCCTCCAGGGGGACTGCTCCAACAGGAAAGAGCCCCTCCCCCACTT
CTAAGCACTGAGTTAGGAGTGCTAACTCCTAAACTGGGACCCCCTACCCTGTTCTCCCCTGAGGCCCCGTTCCTG
GGAGGGGCACCCCTCAACTGTCACTTTATGGACTGTCTGTGCAATTACGTCCACCAAAGACCCGTGTTGGGGGTA
CTGAAGGAGAGGCCCTGGGGGACCCTCTGAAGCATTTCTGCCTCACTTTATGTCATCTGCTTCTCCCCTGTTGGG
GCTAAGGAAGGAGATAGGTGGCTCCTAAAAGAGGAGGCCATCTTCTCACCCACCCCTTCCTCTTTGGCACAGCTA
CTCCTGGCTGGGGGTGGGGCCTTGGGGGTCTGGGCTGGGCATCCATGGTCACTGCCTCAGCCCAGCCAGGCTGTG
CCTTTGACTTTAAAATAAAAGTCCACCCAGTGCTGTGTGTGGC

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FIGURE 2061

AAATGAAGTGCGCGCTGCGACACCTCCCAGCCCACCGAACTCCGCCGCCATTTCCTCGCTTGGCCTAACGGTTCG
GCCAATCCCAGCGCGCATCAAGAAGGACTGAGGCTCCGCCAATCGGAGGCCGCCGATTTCGACCCTTCGCCTCGG
CCCGGCCCAATCCAGGCCCCGGCCCCGCCGCCCCCGGCCCGCCCCCGCGGTGCCCTCTCTCCTCCCTCTTTGTGC
GTCTCGCGCCGCCGCCGCCCGCCGCGTGAGAGGACGGGCTCCGCGCGCTCCGGCAGCGCATTCGGGTCCCCTCCC
CCCGGGAGGCTTGCGAAGGAGAAGCCGCCGCAGAGGAAAAGCAGGTGCCGGTGCCTGTCCCCGGGGGCGCC**ATG**G
CGACCGGAGCGAACGCCACGCCGTTGGACTTCCCAAGTAAGAAGCGGAAGAGGAGCCGCTGGAACCAAGACACAA
TGGAACAGAAGACAGTGATTCCAGGAATGCCTACAGTTATTCCCCCTGGACTTACTCGAGAACAAGAAAGAGCTT
ATATAGTGCAACTGCAGATAGAAGACCTGACTCGTAAACTGCGCACAGGAGACCTGGGCATCCCCCCTAACCCTG
AGGACAGGTCCCCTTCCCCTGAGCCCATCTACAATAGCGAGGGGAAGCGGCTTAACACCCGAGAGTTCCGCACCC
GCAAAAAGCTGGAAGAGGAGCGGCACAACCTCATCACAGAGATGGTTGCACTCAATCCGGATTTCAAGCCACCTG
CAGATTACAAACCTCCAGCAACACGTGTGAGTGATAAAGTCATGATTCCACAAGATGAGTACCCAGAAATCAACT
TTGTGGGGCTGCTCATCGGGCCCAGAGGGAACACCCTGAAGAACATAGAGAAGGAGTGCAATGCCAAGATTATGA
TCCGGGGGAAAGGGTCTGTGAAAGAAGGGAAGGTTGGGCGCAAAGATGGCCAGATGTTGCCAGGAGAAGATGAGC
CACTTCATGCCCTGGTTACTGCCAATACAATGGAGAACGTCAAAAAGGCAGTGGAACAGATAAGAAACATCCTGA
AGCAGGGTATCGAGACTCCAGAGGACCAGAATGATCTACGGAAGATGCAGCTTCGGGAGTTGGCTCGCTTAAATG
GGACCCTTCGGGAAGACGATAACAGGATCTTAAGACCCTGGCAGAGCTCAGAGACCCGCAGCATTACCAACACCA
CAGTGTGTACCAAGTGTGGAGGGGCTGGCCACATTGCTTCAGACTGTAAATTCCAAAGGCCTGGTGATCCTCAGT
CAGCTCAGGATAAAGCACGGATGGATAAAGAATATTTGTCCCTCATGGCTGAACTGGGTGAAGCACCTGTCCCAG
CATCTGTGGGCTCCACCTCTGGGCCTGCCACCACACCCCTGGCCAGCGCACCTCGTCCTGCTGCTCCCGCCAACA
ACCCACCTCCACCGTCTCTCATGTCTACCACCCAGAGCCGCCCACCCTGGATGAATTCTGGCCCTTCAGAGAGTC
GGCCCTACCACGGCATGCATGGAGGTGGTCCTGGTGGGCCCGGAGGTGGCCCCCACAGCTTCCCACACCCATTAC
CCAGCCTGACAGGTGGGCATGGTGGACATCCCATGCAGCACAACCCCAATGGACCCCCACCCCCTTGGATGCAGC
CACCACCACCACCGATGAACCAGGGCCCCCACCCTCCTGGGCACCATGGCCCTCCTCCAATGGATCAGTACCTGG
GAAGTACGCCTGTGGGCTCTGGGGTCTATCGCCTGCATCAAGGAAAAGGTATGATGCCGCCACCACCTATGGGCA
TGATGCCGCCGCCGCCGCCGCCTCCCAGTGGGCAGCCCCCACCCCCTCCCTCTGGTCCTCTTCCCCCATGGCAAC
AACAGCAGCAGCAGCCTCCGCCACCCCCTCCGCCCAGCAGCAGTATGGCTTCCAGTACCCCCTTGCCATGGCAGC
AAAATACGACGACTACCACCACGAGCGCTGGCACAGGGTCCATCCCGCCATGGCAACAGCAGCAGGCGGCTGCCG
CAGCTTCTCCAGGAGCCCCTCAGATGCAAGGCAACCCCACTATGGTGCCCCTGCCCCCCGGGGTCCAGCCGCCTC
TGCCGCCTGGGGCCCCTCCCCCTCCGCCCCGTAGCATCGAGTGTCTTCTTTGTCTTCTTTCTCTCCTCACCCAAC
TCCCTTTGCCTCTCCCCAAACCGGGCCGCCAGGATCCCTCCCCGCGGCGGCGATGGCCCGAGCCA**TGA**GAGTGAG
GACTTTCCGCGCCCATTGGTGACCCTTCCAGGCAGACAGCCTCAGCAACGCCCCTGGTGGACAGGATGGTTCGGC
AAAGCAGCCTGAGTTATTTTTGTGGACGGAATCGGAACACGCTGGCTCCATATCGTGAAATTTTTATTAATTTTT
TTCTTTTTCCTTTGTTACTTCTTTATCTTTTCCTTTCTTCAGACTCCGTCCAAGGAGATGCTCTCCCCGGTCTTC
TGCTGCAATTTAGATTCCTTTCCCTTCTCTCCAGTTCTCCTTCCCTTACCAAGGAGAGGGGAGCAAATGGTTTTG
GGCAAGGGCTTTGGCCATTCATGTCAAGCTGGTTGTGGGTTTTTCAAGGTGCCATAGCCACCCCCAAATATGTTT
GTTTAAAGCGTGGGGTTTTTTAATCTCTGCCACCCTTGTCAAGGGAGTCTTGTAAAGTTGCCGAGGGTAGGTTCA
TCTCCAGGTTTCGGGATTCCCATCCGTCCTGGCGATCCTGCCAGCAGTGGGTGGGCAGCCTGAGCTCCCTCGGGC
TCGCCTGCCAGCCTGGAGTTCTTCCTGTGCTCCTTGATCACCTGAGCTGCCTCAGATTCCATTTGGTCCTCTCCT
TCCTGGAAGGCTTCCTTTTATGTTTTGTTTTAATCCCAAATGTCTGAATGTTTTGCAGTGTGTAGGGGTTTGAGC
CCCTTGTTCATTCTCCTTCCTTTTTCCTCCCGCTTCCCTCTCCATGAAGTGATTCTGTTGACAATAATGTATACT
GCGCGTTCTCTTCACTGGTTTATCTGCAGAAATTTCTCTGGGCTTTTTTCGGTGTTAGATTCAACACTGCGCTAA
AGCGGGGATGTTCCATTGAATAAAAGAGCAGTGTGGTTTTCTGGG

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FIGURE 2062

GCGCCGGGCC**ATG**GCGCTGCTGCGGGATGTGTCGCTGCAGGACCCGCGGGACCGCTTCGAGCTGCTGCAGCGCGT
GGGGGCCGGGACCTATGGCGACGTCTACAAGGCCCGCGACACGGTCACGTCCGAACTGGCCGCCGTGAAGATAGT
CAAGCTAGACCCAGGGGACGACATCAGCTCCCTCCAGCAGGAAATCACCATCCTGCGTGAGTGCCGCCACCCCAA
TGTGGTGGCCTACATTGGCAGCTACCTCAGGAATGACCGCTTGTGGATCTGCATGGAGTTCTGCGGAGGGGGCTC
CCTGCAGGAGATTTACCATGCCACTGGGCCCCTGGAGGAGCGGCAGATTGCCTACGTCTGCCGAGAGGCACTGAA
GGGGCTCCACCACCTGCATTCTCAGGGGAAGATCCACAGAGACATCAAGGGAGCCAACCTTCTCCTCACTCTCCA
GGGAGATGTCAAACTGGCTGACTTTGGGGTGTCAGGCGAGCTGACAGCGTCTGTGGCCAAGAGGAGGTCTTTCAT
TGGGACTCCCTACTGGATGGCTCCCGAGGTGGCTGCTGTGGAGCGCAAAGGTGGCTACAATGAGCTATGTGACGT
CTGGGCCCTGGGCATCACTGCCATTGAGCTGGGCGAGCTGCAGCCCCCTCTGTTCCACCTGCACCCCATGAGGGC
CCTGATGCTCATGTCGAAGAGCAGCTTCCAGCCGCCCAAACTGAGAGATAAGACTCGCTGGACCCAGAATTTCCA
CCACTTTCTCAAACTGGCCCTGACCAAGAATCCTAAGAAGAGGCCGACAGCAGAGAAGCTCCTGCAGCACCCGTT
CACGACTCAGCAGCTCCCTCGGGCCCTCCTCACACAGCTGCTGGACAAAGCCAGTGACCCTCATCTGGGGACCCC
CTCCCCTGAGGACTGTGAGCTGGAGACCTATGACATGTTTCCAGACACCATTCACTCCCGGGGGCAGCACGGCCC
AGCCGAGAGGACCCCCTCGGAGATCCAGTTTCACCAGGTGAAATTTGGCGCCCCACGCAGGAAGGAAACTGACCC
ACTGAATGAGCCGTGGGAGGAAGAGTGGACACTACTGGGAAAGGAAGAGTTGAGTGGGAGCCTGCTGCAGTCGGT
CCAGGAGGCCCTGGAGGAAAGGAGTCTGACTATTCGGTCAGCCTCAGAATTCCAGGAGCTGGACTCCCCAGACGA
TACCATGGGAACCATCAAGCGGGCCCCGTTCCTAGGGCCACTCCCCACTGACCCTCCAGCAGAGGAGCCTCTGTC
CAGTCCCCCAGGAACCCTGCCCCCACCTCCTTCAGGCCCCAACAGCTCCCCACTGCTGCCCACGGCCTGGGCCAC
CATGAAGCAGCGGGAGGATCCTGAGAGGTCATCCTGCCACGGGCTCCCCCCAACTCCCAAGGTGCATATGGGCGC
CTGCTTCTCCAAGGTCTTCAATGGCTGCCCCCTGCGGATCCACGCTGCTGTCACCTGGATTCACCCTGTTACTCG
GGACCAGTTCCTGGTGGTAGGGGCCGAGGAAGGCATCTACACACTCAACCTGCATGAACTGCATGAGGATACGCT
GGAGAAGCTGATTTCACATCGCTGCTCCTGGCTCTACTGCGTGAACAACGTGCTGCTGTCACTCTCAGGGAAATC
CACGCACATCTGGGCCCATGACCTCCCAGGCCTGTTTGAGCAGCGGAGGCTACAGCAACAGGTTCCCCTCTCCAT
CCCCACCAACCGCCTCACCCAGCGCATCATCCCCAGGCGCTTTGCTCTGTCCACCAAGATTCCTGACACCAAAGG
CTGCTTGCAGTGTCGTGTGGTGCGGAACCCCTACACGGGTGCCACCTTCCTGCTGGCCGCCCTGCCCACCAGCCT
GCTCCTGCTGCAGTGGTATGAGCCGCTGCAGAAGTTTCTGCTGCTGAAGAACTTCTCCAGCCCTCTGCCCAGCCC
AGCTGGGATGCTGGAGCCGCTGGTGCTGGATGGGAAGGAGCTGCCGCAGGTGTGTGTTGGGGCCGAGGGGCCTGA
GGGGCCCGGCTGCCGCGTCCTGTTCCATGTCCTGCCCCTGGAGGCTGGCCTGACGCCCGACATCCTCATCCCACC
TGAGGGGATCCCAGGCTCGGCCCAGCAGGTGATCCAGGTGGACAGGGACACAATCCTAGTCAGCTTTGAACGCTG
TGTGAGGATTGTCAACATGCAGGGCGAGCCCACGGCCACACTGGCACCTGAGCTGACCTTTGATTTCCCCATCGA
GACTGTGGTGTGCCTGCAGGACAGTGTGCTGGCCTTCTGGAGCCATGGGATGCAAGGCCGAAGCCTGGATACCAA
TGAGGTGACCCAGGAGATCACAGATGAAACAAGGATCTTCCGAGTGCTTGGGGCCCACAGAGACATCATCCTGGA
GAGCATTCCCACTGACAACCCAGAGGCGCACAGCAACCTCTACATCCTCACGGGCCACCAGAGCACCTAC**TAA**GA
GCAGCGGGCCTGTCCAGGGGCTCCCCGCCCCACCCCACGCCTTAGCTGCAGGCCCTTTTGGGCAAAGGGGCCCAT
CCTAGACCAGAGGAGCCCAGGCCCTGGCCCTGCTGGGGCTGAAGGTCAGAAGTAATCCTGAGAAATGTTTCAGGC
CTGGGGAGGGAGGGGAGCCCCCGACGCCTCTGCAATAACTGGACCAGGGGGAGCTGCTGTCACTCCCCCATCCCC
GAGGCAGCCCAGTCCCTAGTGCCCAAGGCAGGGACCCTGGGCCTGGGCCATCCATTCCATTTTGTTCCACATTTC
CTTTCTACTCTTTCTGCCAAGAGCCTGCCCCTGCATTTGTCCTGGGAAACACGGTATTTAAGAGAGAACTATATT
GGTATTAAAGCTGGTTTGTTTT

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FIGURE 2063

TATATTTATGTATATGCACATACACACAAAATTAGGCGGGAGTGGTGGCGCACGCCTGTGATCACAGCTACTCGG
GAGGCTGAGGCACGAGAATCGCTTGAGCCCGTGAAGTCGAGGCTGCAGTGAGCCCAGATCGAGCCACTGCATTCC
AGCCTGGGCGAAAGAGAAAGACCGTGTCTCAAAACAAACAAACAAAAGCTACTCTTAGCACGTGTTAGAGTATCT
CGCGGGCGGAAGTGGGAAACGAGTGCTGCACACAGACAACCTGATCTTTTTCCTCATAACTTGCCGACCGACCCG
TGACAGCAAAACCGGCAGAAGCTCGGCGACCTCCCACCCCGAGTCTGCAGGTAGCCGCCGCCCACCGCCCGCCGT
C**ATG**GGGCTGAAGGCCGCCCAGAAGACGCTGTTCCCGCTGCGCTCCATCGACGACGTGGTGCGCCTGTTTGCTGC
CGAGCTGGGCCGAGAGGAGCCGGACCTGGTGCTCCTTTCCTTGGTGCTGGGCTTCGTGGAGCATTTTCTGGCTGT
CAACCGCGTCATCCCTACCAACGTTCCCGAGCTCACCTTCCAGCCCAGCCCCGCCCCCGACCCGCCTGGCGGCCT
CACCTACTTTCCCGTGGCCGACCTGTCTATCATCGCCGCCCTCTATGCCCGCTTCACCGCCCAGATCCGAGGCGC
CGTCGACCTGTCCCTCTATCCTCGAGAAGGGGGTGTCTCCAGCCGTGAGCTGGTGAAGAAGGTCTCCGATGTCAT
ATGGAACAGCCTCAGCCGCTCCTACTTCAAGGATCGGGCCCACATCCAGTCCCTCTTCAGCTTCATCACAGGTTG
GAGCCCAGTAGGCACCAAATTGGACAGCTCCGGTGTGGCCTTTGCTGTGGTTGGGGCCTGCCAGGCCCTGGGTCT
CCAGGATGTCCACCTCGCCCTGTCTGAGGATCATGCCTGGGTAGTGTTTGGGCCCAATGGGGAGCAGACAGCTGA
GGTCACCTGGCACGGCAAGGGCAACGAGGACCGCAGGGGCCAGACAGTCAATGCCGGTGTGGCTGAGCGGAGCTG
GCTGTACCTGAAAGGATCATACATGCGCTGTGACCGCAAGATGGAGGTGGCGTTCATGGTGTGTGCCATCAACCC
TTCCATTGACCTGCACACCGACTCGCTGGAGCTTCTGCAGCTGCAGCAGAAGCTGCTCTGGCTGCTCTATGACCT
GGGACATCTGGAAAGGTACCCCATGGCCTTAGGGAACCTGGCAGATCTAGAGGAGCTGGAGCCCACCCCTGGCCG
GCCAGACCCACTCACCCTCTACCACAAGGGCATTGCCTCAGCCAAGACCTACTATCGGGATGAACACATCTACCC
CTACATGTACCTGGCTGGCTACCACTGTCGCAACCGCAATGTGCGGGAAGCCCTGCAGGCCTGGGCGGACACGGC
CACTGTCATCCAGGACTACAACTACTGCCGGGAAGACGAGGAGATCTACAAGGAGTTCTTTGAAGTAGCCAATGA
TGTCATCCCCAACCTGCTGAAGGAGGCAGCCAGCTTGCTGGAGGCGGGCGAGGAGCGGCCGGGGGAGCAAAGCCA
GGGCACCCAGAGCCAAGGTTCCGCCCTCCAGGACCCTGAGTGCTTCGCCCACCTGCTGCGATTCTACGACGGCAT
CTGCAAATGGGAGGAGGGCAGTCCCACGCCTGTGCTGCACGTGGGCTGGGCCACCTTTCTTGTGCAGTCCCTAGG
CCGTTTTGAGGGACAGGTGCGGCAGAAGGTGCGCATAGTGAGCCGAGAGGCCGAGGCGGCCGAGGCCGAGGAGCC
GTGGGGCGAGGAAGCCCGGGAAGGCCGGCGGCGGGGCCCACGGCGGGAGTCCAAGCCAGAGGAGCCCCCGCCGCC
CAAGAAGCCAGCACTGGACAAGGGCCTGGGCACCGGCCAGGGTGCAGTGTCAGGACCCCCCCGGAAGCCTCCTGG
GACTGTCGCTGGCACAGCCCGAGGCCCTGAAGGTGGCAGCACGGCTCAGGTGCCAGCACCCGCAGCATCACCACC
GCCGGAGGGTCCAGTGCTCACTTTCCAGAGTGAGAAGATGAAGGGCATGAAGGAGCTGCTGGTGGCCACCAAGAT
CAACTCGAGCGCCATCAAGCTGCAACTCACGGCACAGTCGCAAGTGCAGATGAAGAAGCAGAAAGTGTCCACCCC
TAGTGACTACACTCTGTCTTTCCTCAAGCGGCAGCGCAAAGGCCTC**TGA**ACTACTGGGGACTTCGGACCGCTTGT
GGGGACCCAGGCTCCGCCCTTAGTCCCCCAACTCTGAGCCCATGTTCTGCCCCCAGCCCAAAGGGGACAGGCCTC
ACCTCTACCCAAACCCTAGGTTCCCGGTCCCGAGTACAGTCTGTATCAAACCCACGATTTTCTCCAGCTCAGAAC
CCAGGGCTCTGCCCCAGTCGTTAGAATATAGGTCTCTTCTCCCAGAATCCCAGCCGGCCAATGGAAACCTCACGC
TGGGTCCTAATTACCAGTCTTTAAAGGCCCAGCCCCTAGAAACCCAAGCTCCTCCTCGGAACCGCTCACCTAGAG
CCAGACCAACGTTACTCAGGGCTCCTCCCAGCTTGTAGGAGCTGAGGTTTCACCCTTAACCCAAGGAGCACAGGT
CCCACCTCCAGCCCGGGAGCCTAGGACCACTCAGCCCCTAGGAGTATATTTCCGCACTTCAGAATTCCATATCTT
GCGAATCCAAGCTCCCTGCCCCAAATAACTTCAGTCCTGCTCCAGAATTTGGAAATCCTAGTTTCCTCTCCTTCG
TATCCCGAGTCTGGGACACAAAACTCCGCCCCCAGCCTATGAGCATCCTGAGCCCCGCCCTCTTCCTGACGAAAC
TGGCCCCGGATCAGAGCAGGACCTCCCTTCCGACCCTCTGGGAACCTCCCAGAGGTCCAGCCCATCTCGGAGCAT
CCCGGAGGAAATCTGCAGAGGGTTAGGAGTGGGTGACAAGAGCCTGATCTCTTCCTGTTTTGTACATAGATTTAT
TTTTCAGTTCCAAGAAAGATGAATACATTTTGTT

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FIGURE 2064

TGCCGCTCAAGAAGGTGCGGCCCCTCAATCCAGAGGGCTCCCTGTTCCTCTACGGCACCGAGAAGGTCCGCCTGA
CCTACCTCAGGAACCAGCTGGCAGAGAAGGACGAGTTCGACATCCCGGACCTCACCGACAACAGCCGGCGCCAGC
TGTTCCGCACCAAGAGCAAGCGCCGCTTCTTTTTCCGCGTGTCGGAGGAGCAGCAGAAGCAGCAGCGCAGGGAG**A**
TGCTGAAGGACCCTTTTGTGCGCTCCAAGCTCATCTCGCCGCCTACCAACTTCAACCACCTAGTACACGTGGGCC
CTGCCAACGGGCGGCCCGGCGCCAGGGACAAGTCCCCGGCTCCCGAAGAGAAGGGCCGAGTTGCCCGCGGCTCCG
GCCCACAGCGGCCCCACAGCTTCTCCGAGGCGTTGCGGCGCCCAGCCTCCATGGGCAGCGAAGGCCTCGGTGGAG
ACGCAGACCCCATGAAGAGGAAACCCTGGACATCCCTGTCCAGCGAGTCTGTGTCCTGCCCCCAGGGATCGCTGA
GCCCTGCAACCTCCCTAATGCAGGTCTCAGAACGGCCCCGAAGCCTCCCCCTATCCCCTGAATTGGAGAGCTCTC
CT**TGA**TGCCCTCTGTTAGGGCCCACCCCAATCCCAGGGCAGAAGGACATGAGGGAGCAAAGAGCTTGAGGAATGC
CATACTCCGGCTGGTCCGGGACATGGAAATTCGGACTCAGGGAGGACCCGGGCTGGGCAATGACTGGGAGACTTG
CCTGGGTTCCCAGGACTTGGGGGTCCTGACTCCCAGCCCTCATCCTGCCTTACCCCTCTGTTCCCAGCCCCAGCC
TTTCTAAGCCATTGGGAATAGAATGGCCCCTTTTGTTCTGGTGTCTAGGGGTGATTGTGCCAAAGCTCTTATTTC
CAGTGCCAAGCCCCCAGAGGCTTGTAAGAGTTGGGATGAGGGATGGAGAGGGACTGGGTCTCTGGGAACAGGTTG
GAGGTCTTATCTGTGGACTGTCTGACTCCCAGCTGAGGCCAAGATGGGGCATCATGTCCCCGTCTCTGCTTAGCG
TCTGGGTGAGAAAAACAGGCTGTGATCCAGAAGAAGGGAAGATAGAGAAGGAGGGAAAGGATGTAGGCGAAGGAG
GTGAGAGACAGGATAGGAGGAAGGAAGTGGAGGAGGAGGTGATAGGAATTGGAAGGAGGTAGAAGCCGTGCAGAG
GAAGAGGGGAGAGGGACGAAGGAGGAGCGATGAAGAAGAGGAGGGAGACAAAAAGAGGGATGGAGGAGAGAGGGA
GTCTGGAGAACAAAGGGTCCTTTCTCTGGGGAGGGGTGCAGTGGGCGGGGCTGACACTGTCAGCCAATCCTCCCA
TCGGGGAAGAGAATCCTGGACAGGGACAGGATGGGGAGGGTATTTATAAGGGCTTTTTGGTGGGAGATGGGTACC
CAGTGGGGGCCACTGGAGGGTCTCCGGGCACACTCTGGCCCTTCCCAGAAAGGGGGTCGTTTTTCTCGAATCTTC
AACCAGTTGTGTATTGGAAACTAGGGCGCATTTTACTATTGATCACAGTCATTATATTGTTATTATATTACTATT
TTTATTAAACCTCCCCCCACTGAAGTGTGG

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FIGURE 2065

GGCACCAGTCGGAGGGGCGGGGCTGGGAGGGGCTCCTCCCTACCGCCCCCAATTCCGCCCTGCCCCCGCCGCGGC
GGCGCTAGCCGCCACTGAGGGACCGACCCTATAAAGGCCGCTCCGCGAGGGGTGCGCAGCATTCGGCAGAGGGCG
CTTCGACGGGCTGGGCTGTGCGCCTGCGCAGTGTGGGTCGCTCCCGATTCCCTGCCCCGGCCGGCCCCGCCTCGG
CTCCGCACCCTCGCCCCGCTCTCAGCCGCCGCTCTGCCCCGCAGCAGCCAGCCCCGTGTCCGGCAGT**ATG**TTCAG
CTGGGTCAGCAAGGATGCCCGCCGCAAGAAGGAGCCGGAGCTCTTCCAGACGGTGGCTGAGGGGCTGCGGCAGCT
GTACGCGCAGAAGCTGCTACCCCTGGAGGAGCACTACCGCTTCCACGAGTTCCACTCGCCCGCGCTGGAGGACGC
TGACTTCGACAACAAGCCTATGGTGCTCCTCGTGGGGCAGTACAGCACGGGCAAGACCACCTTCATCCGACACCT
GATCGAGCAGGACTTCCCGGGGATGCGCATCGGGCCCGAGCCCACCACCGACTCCTTCATCGCCGTCATGCACGG
CCCCACTGAGGGCGTGGTGCCGGGCAACGCGCTCGTGGTGGACCCGCGGCGCCCCTTCCGCAAGCTCAACGCGTT
TGGCAACGCTTTCCTCAACAGGTTCATGTGTGCCCAGCTGCCCAACCCCGTCCTGGACAGCATCAGCATCATCGA
CACCCCCGGGATCCTGTCTGGAGAGAAGCAGCGGATCAGCAGAGGCTATGACTTTGCAGCCGTCCTGGAGTGGTT
CGCGGAGCGTGTGGACCGCATCATCCTGCTCTTCGACGCCCACAAGCTGGACATCTCCGATGAGTTCTCGGAAGT
GATCAAGGCTCTGAAGAACCATGAGGACAAGATCCGCGTGGTGCTGAACAAGGCAGACCAGATCGAGACGCAGCA
GCTGATGCGGGTGTACGGGGCCCTCATGTGGTCCCTGGGCAAGATCATCAACACCCCCGAGGTGGTCAGGGTCTA
CATCGGCTCCTTCTGGTCCCACCCGCTCCTCATCCCCGACAACCGCAAGCTCTTTGAGGCCGAGGAGCAGGACCT
CTTCAAGGACATCCAGTCACTGCCCCGAAACGCCGCCCTCAGGAAGCTCAATGACCTGATCAAGCGGGCACGGCT
GGCCAAGGTTCACGCCTACATCATCAGCTCCCTCAAGAAAGAGATGCCCAATGTCTTTGGTAAAGAGAGCAAAAA
GAAAGAGCTGGTGAACAACCTCGGAGAGATCTACCAGAAGATTGAGCGCGAGCACCAGATCTCCCCTGGGGACTT
CCCGAGCCTCCGCAAGATGCAGGAACTCCTGCAGACCCAGGACTTCAGCAAGTTCCAGGCGCTGAAGCCCAAGCT
GCTGGACACGGTGGATGACATGCTGGCCAACGACATCGCGCGGCTGATGGTGATGGTGCGGCAGGAGGAGTCCCT
GATGCCTTCCCAGGTGGTCAAGGGCGGCGCCTTTGACGGCACCATGAACGGGCCGTTCGGGCACGGCTACGGCGA
GGGGGCCGGCGAGGGCATCGACGACGTGGAGTGGGTGGTGGGCAAGGACAAGCCCACCTACGACGAGATCTTCTA
CACGCTGTCCCCTGTCAACGGCAAGATCACGGGCGCCAACGCCAAGAAGGAGATGGTGAAGTCCAAGCTCCCCAA
CACCGTGCTAGGGAAGATCTGGAAGCTGGCCGACGTGGACAAGGACGGGCTGCTGGACGACGAGGAGTTCGCGCT
GGCCAACCACCTCATCAAGGTCAAGCTGGAGGGCCACGAGCTGCCTGCCGACCTGCCCCCGCACCTGGTGCCGCC
CTCCTCTGCCTGGGGCCAT**TGA**GCCCAGCCTCCAGGGCCCGGGCGCGTTTGCAGGCCAGTGGCCACTGTCCGGGC
TGTGATGGCACCAAGGCAGGTGGAGCACCAGGTACCACACAGCTGGGCTTCCCACCAGGCTTTCCCGCGGGGGTC
TCAGGGAGCTTCTCCCCAGCGCTGCTCGGAGTCTGCAGGAACTGGCCTTGTTCTCCTTAGCCCGTCACTCCATAC
AGTATTAGGTGAGGATGGATGCGGGCGCTGTCCTTGCCGGGAAGTCACTGTTGAAGTTGCAGTGGCTTGTTCACA
CCTGTGGGAAGAGAAGTGAAGACTTTCTCCTTGCATTAAAAAGTCTGAACTGTG

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FIGURE 2066A

ACGGGGATCGCCGGCGGGCGGCAAGCGGAGGCGGCCCAGGCCCGGCGGTCTCCGAG**ATG**TCACGATGGCTGTGGC
CATGGTCAAACTGTGTGAAAGAGCGGGTCTGCCGCTACTTGCTGCACCACTACTTAGGTCACTTCTTCCAAGAGC
ACCTCAGCCTGGACCAGCTCAGCCTCGATCTGTACAAGGGCAGCGTTGCCCTGCGAGACATCCACCTGGAAATCT
GGTCTGTGAACGAGGTGCTGGAGTCAATGGAGTCACCGCTGGAGCTGGTGGAAGGCTTCGTGGGCTCCATCGAGG
TGGCCGTGCCCTGGGCTGCTCTGCTCACCGACCACTGCACAGTGCGCGTGTCCGGCCTCCAGCTCACCTTGCAGC
CCCGCCGGGGTCCAGCGCCAGGGGCTGCCGACTCACAGAGCTGGGCCTCATGCATGACCACAAGCCTGCAGCTGG
CCCAGGAGTGTCTGCGGGATGGGCTACCGGAGCCCTCTGAGCCACCACAGCCCCTGGAGGGGCTGGAGATGTTTG
CCCAGACCATTGAGACTGTGCTTCGGAGGATCAAAGTGACCTTCCTGGACACTGTCGTGAGGGTGGAGCACTCTC
CGGGTGATGGGGAACGTGGTGTGGCCGTCGAGGTCCGTGTGCAGAGACTGGAGTACTGTGATGAGGCAGTGCGGG
ACCCAAGCCAGGCGCCGCCGGTGGACGTGCATCAGCCGCCTGCCTTCCTGCACAAGCTGCTGCAGCTGGCAGGGG
TCCGCCTGCACTACGAGGAGCTCCCGGCACAGGAAGAGCCTCCAGAGCCCCCCTTGCAGATCGGCAGCTGCTCAG
GGTACATGGAGCTGATGGTGAAGTTGAAGCAAAATGAGGCCTTCCCTGGCCCCAAGTTGGAGGTGGCGGGACAGC
TGGGCTCCCTGCACCTGCTCCTGACCCCGAGGCAGCTCCAGCAACTTCAGGAACTGCTCAGCGCCGTGAGCCTTA
CAGACCACGAGGGCCTGGCTGACAAGCTGAACAAGAGCCGCCCGCTAGGTGCCGAAGACCTGTGGCTGATTGAGC
AGGACCTGAACCAGCAGCTGCAGGCAGGGGCAGTGGCTGAGCCCCTCAGCCCAGACCCCCTTACCAACCCCCTTC
TCAACCTGGATAACACTGACCTCTTCTTCTCCATGGCTGGCCTCACAAGCAGTGTGGCCTCAGCCCTCTCTGAGC
TCTCCCTCTCCGATGTAGACCTGGCCTCCTCTGTGCGCAGCGACATGGCCTCCCGCCGGCTCTCTGCCCAGGCCC
ACCCAGCTGGCAAGATGGCCCCCAACCCCCTCCTGGACACCATGCGCCCTGACTCGCTGCTGAAGATGACCTTGG
GGGGTGTGACCCTGACCTTGCTTCAGACGTCTGCCCCATCTTCCGGACCACCTGACCTCGCCACGCACTTTTTCA
CCGAGTTTGATGCCACCAAGGATGGGCCCTTCGGTTCCCGAGACTTCCATCACCTTCGACCACGCTTCCAGAGGG
CCTGTCCCTGTAGCCATGTTCGGCTAACGGGCACAGCCGTGCAGCTGTCCTGGGAGCTGCGGACGGGCAGTCGGG
GCCGGCGGACAACCAGCATGGAAGTGCACTTCGGGCAGCTGGAGGTGCTGGAGTGTCTGTGGCCCCGGGGCACCT
CTGAGCCTGAGTACACGGAGATCCTGACCTTTCCTGGTACGCTGGGCTCCCAGGCCTCAGCTCGGCCCTGCGCCC
ATCTGCGCCACACACAGATCCTGCGCCGTGTGCCTAAGAGCCGACCCCGGCGCTCAGTTGCCTGCCATTGCCACT
CAGAACTGGCCCTGGACCTGGCCAACTTCCAGGCGGACGTGGAGCTGGGGGCCCTGGACCGGCTGGCCGCCCTAC
TGCGCCTGGCCACCGTACCTGCTGAGCCTCCAGCCGGCCTGCTGACAGAGCCCCTGCCGGCGATGGAGCAGCAGA
CGGTATTTCGGCTCTCTGCACCCCGGGCCACGCTGCGGCTGCGCTTCCCCATTGCCGACCTGCGGCCTGAGCCGG
ACCCCTGGGCGGGCCAGGCCGTGCGGGCTGAGCAGCTTCGGCTGGAGCTGAGTGAGCCCCAGTTCCGGTCAGAGC
TTAGCAGTGGGCCTGGTCCCCCAGTCCCCACCCACCTGGAACTCACCTGCTCCGACCTACATGGTATCTATGAAG
ATGGAGGGAAGCCACCTGTCCCTTGCCTGCGTGTCTCCAAAGCCCTGGACCCCAAGAGCACTGGGCGCAAGTACT
TCCTGCCCCAGGTAGTGGTGACTGTGAACCCCCAGTCCAGCAGCACACAGTGGGAGGTGGCCCCGGAGAAGGGAG
AGGAACTGGAGCTGTCAGTGGAGAGTCCCTGTGAGCTGCGGGAACCTGAGCCCTCGCCCTTCTCCTCTAAGAGGA
CCATGTATGAGACAGAGGAGATGGTGATCCCTGGAGACCCTGAGGAGATGAGGACGTTCCAGAGCCGGACCCTGG
CACTGTCCCGCTGCAGCCTGGAAGTGATCCTGCCCAGTGTCCACATCTTTCTGCCCAGCAAGGAGGTCTACGAGA
GCATCTACAACAGGATCAACAACGACCTGCTCATGTGGGAGCCTGCAGATCTGCTTCCCACCCCCGACCCCGCCG
CCCAGCCCTCGGGCTTCCCCGGCCCCTCAGGCTTCTGGCACGACAGCTTTAAGATGTGCAAGTCAGCCTTCAAGC
TGGCCAACTGCTTTGATCTCACCCCAGACTCGGACTCGGATGACGAGGATGCCCACTTCTTCTCAGTGGGGGCAT
CAGGTGGCCCACAGGCCGCTGCCCCTGAGGCCCCAAGTCTTCACTTGCAGAGCACCTTCTCTACACTGGTGACAG
TGCTGAAGGGGCGGATCACAGCCCTCTGTGAGACCAAGGATGAGGGTGGGAAGCGGCTGGAGGCTGTGCACGGGG
AGCTGGTGCTGGACATGGAGCACGGTACCCTCTTCAGCGTCTCCCAGTACTGTGGCCAGCCAGGACTTGGCTACT
TCTGTCTGGAAGCTGAAAAGGCAACACTCTACCACCGAGCGGCCGTGGATGACTACCCGCTGCCCAGTCACCTGG
ACCTTCCCAGTTTCGCTCCCCCGGCTCAGCTGGCCCCAACCATCTACCCATCGGAGGAAGGGGTGACCGAGCGGG
GAGCCTCGGGCCGCAAGGGCCAGGGCCGGGGACCCCACATGTTGTCCACTGCTGTGCGCATCCACCTGGACCCCC
ACAAGAATGTGAAGGAGTTCCTGGTGACACTGCGGTTGCACAAAGCCACCTTGCGCCACTACATGGCCCTGCCCG
AGCAGAGCTGGCATTCCCAGTTGTTGGAGTTCCTAGACGTGCTGGATGACCCTGTGCTGGGCTACCTGCCCCCGA
CGGTCATCACCATCCTGCACACACACCTGTTCTCCTGCTCTGTGGACTATAGGCCACTCTACCTCCCAGTGCGTG
TCCTCATCACCGCGGAGACCTTCACTCTCTCCAGCAACATCATCATGGACACCTCCACCTTCCTGCTCAGGTTCA
TCCTCGATGACTCCGCCTTGTACCTGTCCGACAAGTGTGAGGTGGAGACCCTGGACCTGCGGCGAGATTATGTCT

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FIGURE 2066B

GTGTTTTGGATGTTGACCTCTTGGAACTTGTGATTAAAACCTGGAAAGGGAGCACCGAGGGCAAACTGAGCCAGC
CACTATTCGAGCTGCGCTGCTCCAACAATGTGGTACACGTGCACAGCTGTGCCGACTCCTGTGCCCTGCTGGTCA
ACCTGCTCCAGTACGTAATGAGCACAGGCGATCTGCACCCCCCACCCCGGCCCCCCAGCCCCACGGAGATCGCCG
GCCAGAAGCTCTCGGAGAGTCCTGCCTCTCTGCCCTCGTGCCCCCCAGTGGAGACGGCCCTCATCAACCAGCGTG
ACCTGGCCGACGCCCTCCTGGACACCGAGCGCAGCCTACGGGAGCTGGCCCAGCCTTCAGGTGGCCACCTCCCTC
AGGCGTCGCCCATCTCCGTCTACCTATTCCCAGGTGAACGGAGTGGGGCCCCACCCCCTTCACCACCTGTCGGGG
GCCCTGCTGGCAGCTTAGGGTCATGCTCAGAGGAGAAGGAAGATGAAAGGGAAGAGGAGGGCGATGGAGACACCC
TGGACAGTGATGAGTTCTGCATCCTTGATGCTCCCGGCCTGGGCATCCCGCCCCGAGATGGGGAGCCTGTGGTGA
CACAGCTGCATCCCGGCCCCATCGTTGTGAGGGACGGTTACTTCTCACGGCCGATCGGCAGCACGGACTTGCTGC
GGGCACCTGCCCATTTCCCAGTGCCCAGCACTCGGGTGGTGCTACGTGAGGTCTCCCTCGTCTGGCACCTCTATG
GGGGCCGAGACTTTGGCCCCCACCCCGGCCACAGGGCAAGAACTGGCCTCTCAGGTCCCAGGAGCTCCCCTTCCC
GCTGCTCTGGCCCCAACCGGCCCCAGAACTCATGGCGCACGCAGGGGGGCAGCGGGCGGCAGCACCATGTCCTCA
TGGAGATCCAGCTGAGCAAGGTAAGCTTCCAGCACGAGGTGTACCCAGCGGAGCCAGCCACAGGCCCTGCGGCCC
CCAGCCAGGAGCTGGAGGAGCGACCGCTGTCCCGTCAGGTGTTCATCGTGCAGGAGCTGGAGGTCCGAGACCGGC
TCGCCTCCTCCCAGATCAACAAGTTCCTGTACCTACACACGAGTGAGCGGATGCCGCGACGTGCCCACTCTAACA
TGCTCACCATCAAAGCGCTGCATGTGGCCCCCACTACCAACCTGGGTGGGCCTGAGTGCTGTCTCCGCGTCTCGC
TGATGCCCCTGCGGCTCAATGTGGACCAGGATGCCCTCTTCTTCCTCAAGGACTTCTTCACTAGTCTGGTGGCCG
GCATCAACCCCGTGGTCCCAGGGGAGACCTCCGCTGAGGCTCGCCCCGAGACTCGAGCCCAGCCCAGCAGCCCCC
TGGAAGGGCAGGCCGAAGGCGTAGAGACCACTGGTTCGCAGGAGGCCCCAGGAGGTGGACACAGCCCCTCCCCTC
CTGACCAGCAGCCCATCTACTTCAGAGAGTTCCGCTTCACGTCTGAGGTCCCCATCTGGCTGGATTACCATGGCA
AGCACGTCACGATGGACCAGGTGGGCACTTTTGCTGGCCTCCTCATCGGCCTGGCCCAACTCAACTGCTCCGAGC
TGAAGCTAAAGCGGCTCTGTTGCAGGCACGGGCTCCTGGGTGTGGACAAGGTGCTGGGCTATGCCCTCAACGAGT
GGCTGCAGGACATCCGCAAGAACCAGCTGCCCGGCCTGCTGGGAGGCGTGGGCCCCATGCACTCGGTTGTCCAGC
TCTTCCAAGGGTTCCGGGACCTGCTGTGGCTGCCCATTGAGCAGTACAGGAAGGATGGCCGCCTCATGCGGGGGC
TGCAGCGAGGGGCTGCCTCCTTTGGCTCATCCACAGCCTCTGCCGCCCTGGAACTCAGCAACCGGTTGGTACAGG
CTATCCAGGCCACAGCTGAGACCGTGTATGACATCCTGTCCCCGGCAGCCCCCGTCTCCCGCTCCCTGCAGGATA
AGCGCTCTGCGCGGAGGCTGCGCAGGGGCCAGCAGCCTGCCGACCTGCGGGAGGGTGTGGCCAAGGCCTACGACA
CAGTGCGAGAGGGCATCTTGGATACAGCTCAGACCATCTGTGACGTGGCATCGCGGGGCCATGAGCAGAAGGGGC
TGACGGGCGCCGTGGGGGGCGTGATCCGCCAGCTGCCCCCGACTGTGGTGAAGCCGCTCATCCTGGCCACGGAGG
CCACGTCCAGCCTGCTCGGGGGCATGCGCAACCAGATTGTCCCCGACGCCCACAAGGACCACGCCCTCAAGTGGC
GCTCGGACAGTGCCCAAGAC**TGA**GCCTGGGGTGCCCGGCACCCAGAGGGTGCTGCCCACCATGCTCCTGAGCCTC
CCAAGAGCTGCAGCCCACGGGCCCGGCCCGGCCTGGCCCTTCAGGGGATGGCCACTGTGAAGGACGCCTTCCCAG
CCTGCCCGTTGCCAATCTGCTGTGAGAGGGGGGCCTCCCTGCCTTGGGGCCTTAGCCCTGGCTCTGCACTTTTCC
TCCGGGGAGAAAGGACACTGCCCCTCCCCCGACCTGGGCCCACACTGCTGCCTTCTCCCAGGACGGAGGCTTTTG
GACCCTCGGACCCCATCCCACTCAGCCAAGTGTCTTTCTGTGTCTGGGGGGAGGAGGGGATGATATCCGTGTGGT
TCGATGTATTATTTTTAAGCTCCGTGAGTGCGTGGGTCAGTGTCTGCATGAAGTGGAATAAACTGCCCACCGCC

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FIGURE 2067

CCGTCGCCCTCCCTACGGGCAGCCCCCGGGGGGTTGGCGACCGAAGTCTAGGTTTTCGAGAAAGCCAGGGTGGGAA
CCCTAACTGGACTCTTCGGGACCCCCAGGAAGGATCTGAGGCCTGAGCCATCCTCCTTTCTACCCTGTCTGCCCC
CCAGGACTGGGCAGTTGCAGGAGGCCCTGGGGGGGGGCCCAGGACTGTGGTTGTGCCCCCCCCCCAAAGGCCGGA
CAGGATGGGACCAAGTTAGTCTGTCCAGTCTCACCCAGCACCTCCCAGGCCCAGAGAGAACCCCCGGGGCTCTGA
AAGCTTGCCCTGCCGCCTGACCGCC**ATG**GAGACGAAGCTGCCCCCTGCAAGCACCCCCACTAGCCCCTCCTCCCC
CGGGCTGTCGCCTGTGCCCCCACCCGACAAGGTGGACGGCTTCTCCCGCCGTTCCCTCCGCAGAGCCCGGCCCCG
CCGCTCCCACAGCTCCTCTCAGTTCCGCTATCAGAGCAACCAGCAAGAGCTCACACCGCTGCCCCTGCTCAAAGA
TGTGCCGGCTTCCGAGCTGCACGAGCTGCTGAGCCGGAAGCTGGCCCAGTGTGGGGTGATGTTTGACTTCTTGGA
CTGTGTGGCCGACCTCAAGGGGAAGGAGGTGAAGCGGGCAGCCCTCAACGAGCTGGTGGAGTGTGTGGGGAGCAC
CCGGGGTGTCCTCATCGAGCCCGTCTACCCAGACATCATCCGCATGATCTCAGTGAATATCTTCCGGACTCTGCC
GCCCAGTGAGAACCCTGAATTTGACCCTGAAGAGGATGAGCCCAATCTTGAGCCTTCGTGGCCACACCTGCAGCT
GGTATATGAGTTTTTCCTGCGTTTCTTGGAGAGCCCAGACTTCCAGCCCTCCGTGGCCAAGAGATATGTGGATCA
AAAGTTTGTCCTGATGCTCCTGGAGCTATTTGATAGTGAGGATCCCCGGGAGCGTGAGTACCTCAAGACCATCCT
GCACCGGGTCTATGGCAAGTTCCTGGGTCTCCGGGCCTACATCCGCAAACAGTGCAACCACATCTTCCTCCGGTT
CATCTATGAATTCGAGCACTTCAATGGTGTGGCTGAGCTGCTGGAGATCCTAGGAAGCATCATCAATGGCTTTGC
GCTGCCCCTGAAGACGGAGCACAAGCAGTTCCTGGTTCGCGTCCTGATCCCCCTGCACTCTGTCAAGTCGCTGTC
TGTCTTCCATGCCCAGCTGGCATACTGTGTGGTGCAGTTCCTGGAGAAGGATGCCACTCTGACAGAGCACGTGAT
CCGGGGGCTGCTCAAATACTGGCCAAAAACCTGCACCCAGAAGGAGGTGATGTTTCTGGGGGAGATGGAAGAGAT
TCTTGATGTCATCGAGCCCTCCCAGTTTGTGAAGATCCAGGAGCCCCTTTTTAAGCAGGTGGCTCGCTGTGTTTC
CAGCCCCCATTTCCAGGTTGCAGAGCGGGCTCTGTATTTCTGGAACAATGAGTATATCCTAAGCCTCATTGAGGA
CAACTGCCACACTGTGCTGCCTGCTGTGTTTGGGACCCTCTACCAAGTCTCCAAGGAGCACTGGAACCAAACCAT
CGTATCACTGATCTACAATGTGCTCAAGACCTTCATGGAGATGAATGGGAAGCTGTTTGATGAGCTCACAGCCTC
CTACAAGCTGGAAAAGCAGCAGGAGCAGCAGAAGGCCCAGGAGCGTCAGGAGTTATGGCAAGGTCTGGAGGAGCT
GCGGCTACGCCGGCTACAGGGGACCCAGGGGGCCAAGGAGGCCCCCCTCCAGCGGCTTACACCCCAGGTGGCCGC
CAGTGGGGGTCAGAGC**TAG**ACAGCACCTCAGAAGGGGAAAAGCTAAACCCAGAGCTGTCAGTCCCTCTATCCCTT
CTCCTGTCCAGGGGCCCAGAGAGAAACACACCTACCCCTGGCCTTGCCAGAGTGGCTTCTGAGGACTCCCTGCCC
AGCCCAGCTTTCACTGGGGGGAGACGAGGAGAGGCAATGGTGGTCTTGGCAACAGAATGCTCAGCCCCTCGTGGC
AGGACTTGACAAGGGCAAGCTTGACCAGGAAGCTGCCATCAGGGATCTTCCCCTGCCCCGCAAAGCTAGGCTCCA
GCTGCAGGCGGGCTCCCACCCTCTGCTCCTGGCCTTGGGCAAGGGCACTCAGCGCCTCGCCTGCCCCTGCCTTGG
CCAATGCGAGGTCCTTCCTTATCCCCACCATGGGGTCCATGGTCTATTTATTCTCGCCCAGCTCACCCTCTACAC
AGACACTGTCCTGGGTGCACACTCCTCCCTTCCCTCGCTGTGTACTTCCTTGTCCCCTTTTTATTTATTGGGCAG
GGGGAGGGGGAGGGCACAGGCAAGAAGAGATTCACAGTGTCCTGGGGTAAGGGGGGGTTCACAGTAATCATGGTC
TACTCCTCTTTCCGTGGCTGGGGGTAGACTTAATAAAGAGAGAAATTC

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FIGURE 2068

AAGGAGAGAGGGAGGGCGGAGGGCGGAGGGGCGGCGGGAGGAGGGCGGGGAGGAGCGCTCTTCCTGGTTGGGCCC
TGCCCTGAGCTGCCACCGGGAAGCCAGCCTCAGGGACTGCAGCGACCCCCAAACACCCCTCCCCCAGGATGTCGG
AGGAGATCATCACGCCGGTGTACTGCACTGGGGTGTCAGCCCAAGTGCAGAAGCAGCGGGCCAGGGAGCTGGGCC
TGGGCCGCCATGAGAATGCCATCAAGTACCTGGGCCAGGATTATGAGCAGCTGCGGGTGCGATGCCTGCAGAGTG
GGACCCTCTTCCGTGATGAGGCCTTCCCCCCGGTACCCCAGAGCCTGGGTTACAAGGACCTGGGTCCCAATTCCT
CCAAGACCTATGGCATCAAGTGGAAGCGTCCCACGGAACTGCTGTCAAACCCCCAGTTCATTGTGGATGGAGCTA
CCCGCACAGACATCTGCCAGGGAGCACTGGGGGACTGCTGGCTCTTGGCGGCCATCGCCTCCCTCACTCTCAACG
ACACCCTCCTGCACCGAGTGGTTCCGCACGGCCAGAGCTTCCAGAATGGCTATGCCGGCATCTTCCATTTCCAGC
TGTGGCAATTTGGGGAGTGGGTGGACGTGGTCGTGGATGACCTGCTGCCCATCAAGGACGGGAAGCTAGTGTTCG
TGCACTCTGCCGAAGGCAACGAGTTCTGGAGCGCCCTGCTTGAGAAGGCCTATGCCAAGGTAAATGGCAGCTACG
AGGCCCTGTCAGGGGGCAGCACCTCAGAGGGCTTTGAGGACTTCACAGGCGGGGTTACCGAGTGGTACGAGTTGC
GCAAGGCTCCCAGTGACCTCTACCAGATCATCCTCAAGGCGCTGGAGCGGGGCTCCTGCTGGGCTGCTCCATAGA
CATCTCCAGCGTTCTAGACATGGAGGCCATCACTTTCAAGAAGTTGGTGAAGGGCCATGCCTACTCTGTGACCGG
GGCCAAGCAGGTGAACTACCGAGGCCAGGTGGTGAGCCTGATCCGGATGCGGAACCCCTGGGGCGAGGTGGAGTG
GACGGGAGCCTGGAGCGACAGCTCCTCAGAGTGGAACAACGTGGACCCATATGAACGGGACCAGCTCCGGGTCAA
GATGGAGGACGGGGAGTTCTGGATGTCATTCCGAGACTTCATGCGGGAGTTCACCCGCCTGGAGATCTGCAACCT
CACACCCGACGCCCTCAAGAGCCGGACCATCCGCAAATGGAACACCACACTCTACGAAGGCACCTGGCGGCGGGG
GAGCACCGCGGGGGGCTGCCGAAACTACCCAGCCACCTTCTGGGTGAACCCTCAGTTCAAGATCCGGCTGG**ATG**A
GACGGATGACCCGGACGACTACGGGGACCGCGAGTCAGGCTGCAGCTTCGTGCTCGCCCTTATGCAGAAGCACCG
TCGCCGCGAGGCCGCTTCGGCCGCGACATGGAGACTATTGGCTTCGCGGTCTACGAGGTCCCTCCGGAGCTGGTC
GCGAGCCGGCCGTACACTTGAAGCGTGACTTCTTCCTGGCCAATGCGTCTCGGGCGCGCTCAGAGCAGTTCATCA
ACCTGCGAGAGGTCAGCACCCGCTTCCGCCTGCCACCCGGGGAGTATGTGGTGGTGCCCTCCACCTTCGAGCCCA
ACAAGGAGGGCGACTTCGTGCTGCGCTTCTTCTCAGAGAAGAGTGCTGGGACTGTGGAGCTGGATGACCAGATCC
AGGCCAATCTCCCCGATGAGCAAGTGCTCTCAGAAGAGGAGATTGACGAGAACTTCAAGGCCCTCTTCAGGCAGC
TGGCAGGGGAGGACATGGAGATCAGCGTGAAGGAGTTGCGGACAATCCTCAATAGGATCATCAGCAAACACAAAG
ACCTGCGGACCAAGGGCTTCAGCCTAGAGTCGTGCCGCAGCATGGTGAACCTCATGGATCGTGATGGCAATGGGA
AGCTGGGCCTGGTGGAGTTCAACATCCTGTGGAACCGCATCCGGAATTACCTGTCCATCTTCCGGAAGTTTGACC
TGGACAAGTCGGGCAGCATGAGTGCCTACGAGATGCGGATGGCCATTGAGTCGGCAGGCTTCAAGCTCAACAAGA
AGCTGTACGAGCTCATCATCACCCGCTACTCGGAGCCCGACCTGGCGGTCGACTTTGACAATTTCGTTTGCTGCC
TGGTGCGGCTAGAGACCATGTTCCGATTTTTCAAAACTCTGGACACAGATCTGGATGGAGTTGTGACCTTTGACT
TGTTTAAGTGGTTGCAGCTGACCATGTTTGCA**TGA**GGCAGGGACTCGGTCCCCCTTGCCGTGCTCCCCTCCCTCC
TCGTCTGCCAAGCCTCGCCTCCTACCACACCACACCAGGCCACCCCAGCTGCAAGTGCCTTCCTTGGAGCAGAGA
GGCAGCCTCGTCCTCCTGTCCCCTCTCCTCCCAGCCACCATCGTTCATCTGCTCCGGGCAGAACTGTGTGGCCCC
TGCCTGTGCCAGCCATGGGCTCGGGATGGACTCCCTGGGCCCCACCCATTGCCAAGCCAGGAAGGCAGCTTTCGC
TTGTTCCTGCCTCGGGACAGCCCCGGGTTTCCCCAGCATCCTGATGTGTCCCCTCTCCCCACTTCAGAGGCCACC
CACTCAGCACCACCGGCCTGGCCTTGCCTGCAGACTATAAACTATAACCACTAGCTCGACACAGTCTGCAGTCCA
GGCGTGTGGAGCCGCCTCCCGGCTCGGGGAGGCCCCGGGGCTGGGAACGCCTGTGCCTTCCTGCGCCGAAGCCAA
CGCCCCCTCTGTCCTTCCCTGGCCCTGCTGCCGACCAGGAGCTGCCCAGCCTGTGGGCGGTCGGCCTTCCCTCCT
TCGCTCCTTTTTTATATTAGTGATTTTAAAGGGGACTCTTCAGGGACTTGTGTACTGGTTATGGGGGTGCCAGAG
GCACTAGGCTTGGGGTGGGGAGGTCCCGTGTTCCATATAGAGGAACCCCAAATAATAAAAGGCCCCACATCTGTC
TGTG

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FIGURE 2069

GTTCCGGTTCGCAGGGGGTGGGGAGTGTTGTTAACCGGAGGGGCAGCCGCAGTCGCGCGGATTGAGCGGGCTCGC
GGCGCTGGGTTCCTGGTCTCCGGGCCAGGGCA**ATG**TTCCGCACGGCAGTGATGATGGCGGCCAGCCTGGCGCTGA
CCGGGGCTGTGGTGGCTCACGCCTACTACCTCAAACACCAGTTCTACCCCACTGTGGTGTACCTGACCAAGTCCA
GCCCCAGCATGGCAGTCCTGTACATCCAGGCCTTTGTCCTTGTCTTCCTTCTGGGCAAGGTGATGGGCAAGGTGT
TCTTTGGGCAACTGAGGGCAGCAGAGATGGAGCACCTTCTGGAACGTTCCTGGTACGCCGTCACAGAGACTTGTC
TGGCCTTCACCGTTTTTCGGGATGACTTCAGCCCCCGCTTTGTTGCACTCTTCACTCTTCTTCTCTTCCTCAAAT
GTTTCCACTGGCTGGCTGAGGACCGTGTGGACTTTATGGAACGCAGCCCCAACATCTCCTGGCTCTTTCACTGCC
GCATTGTCTCTCTTATGTTCCTCCTGGGCATCCTGGACTTCCTCTTCGTCAGCCACGCCTATCACAGCATCCTGA
CCCGTGGGGCCTCTGTGCAGCTGGTGTTTGGCTTTGAGTATGCCATCCTGATGACGATGGTGCTCACCATCTTCA
TCAAGTATGTGCTGCACTCCGTGGACCTCCAGAGTGAGAACCCCTGGGACAACAAGGCTGTGTACATGCTCTACA
CAGAGCTGTTTACAGGCTTCATCAAGGTTCTGCTGTACATGGCCTTCATGACCATCATGATCAAGGTGCACACCT
TCCCACTCTTTGCCATCCGGCCCATGTACCTGGCCATGAGACAGTTCAAGAAAGCTGTGACAGATGCCATCATGT
CTCGCCGAGCCATCCGCAACATGAACACCCTGTATCCAGATGCCACCCCAGAGGAGCTCCAGGCAATGGACAATG
TCTGCATCATCTGCCGAGAAGAGATGGTGACTGGTGCCAAGAGACTGCCCTGCAACCACATTTTCCATACCAGCT
GCCTGCGCTCCTGGTTCCAGCGGCAGCAGACCTGCCCCACCTGCCGTATGGATGTCCTTCGTGCATCGCTGCCAG
CGCAGTCACCACCACCCCCGGAGCCTGCGGATCAGGGGCCACCCCCTGCCCCCCACCCCCCACCACTCTTGCCTC
AGCCCCCCAACTTCCCCCAGGGCCTCCTGCCTCCTTTTCCTCCAGGCATGTTCCCACTGTGGCCCCCCATGGGCC
CCTTTCCACCTGTCCCGCCTCCCCCCAGCTCAGGAGAGGCTGTGGCTCCTCCATCCACCAGTGCAGCCCTTTCTC
GGCCCAGTGGAGCAGCTACAACCACAGCTGCTGGCACCAGTGCTACTGCTGCTTCTGCCACAGCATCTGGCCCAG
GCTCTGGCTCTGCCCCAGAGGCTGGCCCTGCCCCTGGTTTCCCCTTCCCTCCTCCCTGGATGGGTATGCCCCTGC
CTCCACCCTTTGCCTTCCCCCCAATGCCTGTGCCCCCTGCGGGCTTTGCTGGGCTGACCCCAGAGGAGCTACGAG
CTCTGGAGGGCCATGAGCGGCAGCACCTGGAGGCCCGGCTGCAGAGCCTGCGTAACATCCACACACTGCTGGACG
CCGCCATGCTGCAGATCAACCAGTACCTCACCGTGCTGGCCTCCTTGGGGCCCCCCCGGCCTGCCACTTCAGTCA
ACTCCACTGAGGAGACTGCCACTACAGTTGTTGCTGCTGCCTCCTCCACCAGCATCCCTAGCTCAGAGGCCACGA
CCCCAACCCCAGGAGCCTCCCCACCAGCCCCTGAAATGGAAAGGCCTCCAGCTCCTGAGTCAGTGGGCACAGAGG
AGATGCCTGAGGATGGAGAGCCCGATGCAGCAGAGCTCCGCCGGCGCCGCCTGCAGAAGCTGGAGTCTCCTGTTG
CCCAC**TGA**CACTGCCCCAGCCCAGCCCCAGCCTCTGCTCTTTTGAGCAGCCCTCGCTGGAACATGTCCTGCCACC
AAGTGCCAGCTCCCTCTCTGTCTGCACCAGGGAGTAGTACCCCCAGCTCTGAGAAAGAGGCGGCATCCCCTAGGC
CAAGTGGAAAGAGGCTGGGGTTCCCATTTGACTCCAGTCCCAGGCAGCCATGGGGATCTCGGGTCAGTTCCAGCC
TTCCTCTCCAACTCTTCAGCCCTGTGTTCTGCTGGGGCCATGAAGGCAGAAGGTTTAGCCTCTGAGAAGCCCTCT
TCTTCCCCCACCCCTTTCCAGGAGAAGGGGCTGCCCCTCCAAGCCCTACTTGTATGTGCGGAGTCACACTGCAGT
GCCGAACAGTATTAGCTCCCGTTCCCAAGTGTGGACTCCAGAGGGGCTGGAGGCAAGCTATGAACTTGCTCGCTG
GCCCACCCCTAAGACTGGTACCCATTTCCTTTTCTTACCCTGATCTCCCCAGAAGCCTCTTGTGGTGGTGGCTGT
GCCCCCTATGCCCTGTGGCATTTCTGCGTCTTACTGGCAACCACACAACTCAGGGAAAGGAATGCCTGGGAGTGG
GGGTGCAGGCGGGCAGCNNTGNGGGNCCNNGCNCCGCCCCTCCCCCCAGGCCCCTTTCCTCTGCAGCTTCTCAAG
TGAGACTGACCTGTCTCACCCAGCAGCCACTGCCCAGCCGCACTCCAGGCAAGGGCCAGTGCGCCTGCTCCTGAC
CACTGCAATCCCAGCGCCCAAGGAAGGCCACTTCTCAACTGGCAGAACTTCTGAAGTTTAGAATTGGAATTACTT
CCTTACTAGTGTCTTTTGGCTTAAATTTTGTCTTTTGAAGTTGAATGCTTAATCCCGGGAAAGAGGAACAGGAGT
GCCAGACTCCTGGTCTTTCCAGTTTAGAAAAGGCTCTGTGCCAAGGAGGGACCACAGGAGCTGGGACCTGCCTGC
CCCTGTCTTTTCCCCTTGGTTTTGTGTTACAAGAGTTGTTGGAGACAGTTTCAGATGATTATTTAATTTGTAAAT
ATTGTACAAATTTTAATAGCTTAAATTGTATATACAGCCAAATAAAAACTTGCATTAAC

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FIGURE 2070

GTAGCAGGTAAAG**ATG**GCAGCTACCATGTTCCGGGCTACGCTGCGGGGATGGAGAACCGGTGTCCAGCGGGGCTG
CGGGCTACGGCTGTTGAGCCAGACCCAGGGCCCTCCAGATTACCCCAGGTTTGTGGAGTCTGTGGATGAATATCA
GTTTGTGGAGCGCCTGTTACCGGCTACCAGGATCCCAGATCCCCCAAAGCATGAACATTATCCTACCCCTAGTGG
CTGGCAGCCTCCCAGAGACCCCCCACCCAACCTGCCTTACTTTGTACGACGCTCTCGGATGCACAACATCCCCGT
CTACAAGGACATCACGCATGGCAACCGGCAGATGACTGTGATCCGGAAAGTGGAAGGGGACATCTGGGCCCTGCA
GAAAGACGTGGAAGATTTTCTGAGCCCGCTGCTGGGGAAGACACCTGTCACCCAGGTCAATGAGGTGACAGGTAC
CCTACGGATCAAGGGCTACTTTGACCAGGAGCTTAAAGCCTGGCTCTTGGAGAAAGGCTTC**TGA**GGCCCAGCCGA
GCAGCCTGCTTGTCAGCATGCCCTGTGGATCAAGTCTAGGGGGCCTCAGGAGGAGGGAGGTGGGTGTTGGAGCCC
CTGAGACAGGGGATACAGAAACTAGGGCTAAAGGACTTTGGGGTCAGGCCTTGCTTGCATAAAGGAGAAAACAAC
TCTATGTACATGCTGGGGGAGAGTGCCTAATGTGGGAGACCAAATAGGGATCACCAGGCTAATGGGGGGCGTCAG
CAGCTTTCTCTCCCTCCTATCTTGGCCTGTTCTTTTTTGTTTTTTGAGACGGAGTCTCACTCTGTTGCCCAGGGT
GGAGTGCAGTGGCATGATCTTGGCTCACTGCAACTTCCACCTCTGGGATCAAGGGATTCTCCTGCCTCAGCCTCT
TGAGTAGCTGGGATTACAGGCGCCCACCACCACAGCCTGCTAATTTTTGTATTTTTAGTAGAGATGGGGTTTCAC
CATGTTGGCCAGGCTGGTCTCAAACTCCTGACTCGAAGTGATCCGCCCACCTTGGCCTCCCAAAGCGTTGGGATT
ATAGGCATGAGCCATGTGCCTGGTCCACCTTGGCCTGTTTTGTTTTTCTTTCCTTGGGCTCAGCAATTCAAATTC
TAGTTGTTATTTGGTGGAAGCAGTAGCCCAACCCCAGTTTAGGGGAAGGTAGCACAGGGCAGAGCCACTGGGCAC
TTTGTTTCCTTGGCCCTCCGAAGCTCACTGTTGCAAATACCCCCAAGCCTTTGCTCTAGGCCAGATCTTGTTTGG
TGCAGGTGATGGAGAACACAGATGACTCGGGCATGGGTCTTGGAGATCTTCTGTTCAAAGTACAGTGCTGGCACT
GGGGCACAGAGTGCCCACGTTAGCCCCGGGCTCTGATAGAGAGGTAGGAGGCACGTTCTTGGTCACTGTTCCATT
GCAGACCAGACTTGCTGGCCTGACCACAAGGGAGTGGCTGGGAACTCACAGCCAGCATAGGGACATCCCCCTGCA
GCCTTCTGACCTGCAATCAAGGCTGGGGAGGGGTTTGCAGGCAGGAATATGCTGACCTTTCACCCTGCCATCCCA
TCCCAACCCCAGCTCACTAGCCTTCATATATGCCTTATACTTGGAGTCACAGGGGCCAAAGGCCTGAGACCCCAC
CCTGCCCCCAAACTGGCTAAGACAGCTTTCAGTTCCTGACTCCCCAACTTGGTCTCTGCCCTGAAGCAGGGCACT
GAACTCTGGGCTGCTTCTCTGTGTGTAAAATGGGCACATCTTCCTAATCTGTTAATGGTCAGTGGTGTCCCCAAG
GATAGTGCTGGCTTCCATGGAAACCCTCACTCCTGGAGATTCCATTCCATTTTCAAGTGTACAGCCACAGCAAGG
AGCCCGACACTGATTTGATCGATTCTGTGACACAAACCCCACCAATTGTTAATGCAAGTTTTTATTTGGCTGTAT
ATACAATTTAAGCTATTAAAATTTGTACAATATTTACAAATTAAA

FIGURE 2071

CAGTGACGTGACACGCAGCCCACGGTCTGTACTGACGCGCCCTCGCTTCTTCCTCTTTCTCGACTCCATCTTCGC
GGTAGCTGGGACCGCCGTTCAGTCGCCAATATGCAGCTCTTTGTCCGCGCCCAGGAGCTACACACCTTCGAGGTG
ACCGGCCAGGAAACGGTCGCCCAGATCAAGGCTCATGTAGCCTCACTGGAGGGCATTGCCCCGGAAGATCAAGTC
GTGCTCCTGGCAGGCGCGCCCCTGGAGGATGAGGCCACTCTGGGCCAGTGCGGGGTGGAGGCCCTGACTACCCTG
GAAGTAGCAGGCCGCATGCTTGGAGGTAAAGTCCATGGTTCCCTGGCCCGTGCTGGAAAAGTGAGAGGTCAGACT
CCTAAGGTGGCCAAACAGGAGAAGAAGAAGAAGAAGACAGGTCGGGCTAAGCGGCGGATGCAGTACAACCGGCGC
TTTGTCAACGTTGTGCCCACCTTTGGCAAGAAGAAGGGCCCCAATGCCAACTCTTAAGTCTTTTGTAATTCTGGC
TTTCTCTAATAAAAAAGCCACTTAGTTCAGTC

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FIGURE 2072

GTCCAGGCAGGTGCAGGCGCCGCGGGGCCGGATCCTCCGCGCGGCCGAGTCCATCTCCTGGGAAATGGGGCGGAC
AGTGTTTCCTTGACTGACTATTGTGAGCGCCCTCTCTCTCCGGCGGAGCGGAGACC**ATG**GCCCCCACTCAGGGCC
CCCGGGCCCCGCTGGAATTCGGAGGGCCCCTGGGCGCCGCGGCTCTGCTACTGCTGCTGCCCGCCACCATGTTCC
ACCTGCTCCTGGCGGCCCGTTCGGGCCCCGCGCGCCTGCTGGGTCCACCCGCGTCCCTGCCGGGGCTGGAGGTGC
TGTGGAGCCCACGGGCGCTGCTGCTGTGGCTCGCCTGGCTCGGCCTGCAGGCGGCGCTCTACCTACTGCCGGCGC
GCAAGGTGGCCGAGGGGCAGGAATTGAAGGACAAGAGTCGCCTGCGCTATCCTATTAACGGCTTCCAGGCCCTGG
TGCTGACAGCCCTGTTGGTGGGGCTGGGGATGTCAGCGGGGCTGCCTCTGGGGGCGCTCCCGGAAATGCTCCTGC
CCTTGGCGTTTGTCGCCACCCTCACCGCTTTCATCTTCAGCCTCTTTCTCTACATGAAGGCGCAGGTAGCCCCAG
TTTCGGCCCTGGCACCTGGGGGGAACTCAGGCAATCCGATTTACGACTTTTTTCTGGGACGAGAGCTCAACCCTC
GTATCTGTTTCTTCGACTTCAAATATTTCTGTGAACTGCGACCCGGCCTCATCGGCTGGGTCCTCATCAACCTGG
CCCTGTTGATGAAGGAGGCAGAGCTTCGAGGCAGTCCCTCACTGGCCATGTGGCTGGTCAATGGCTTCCAGTTGC
TCTACGTGGGTGATGCCCTCTGGCACGAGGAGGCCGTCCTCACCACCATGGATATCACACATGACGGGTTTGGCT
TCATGCTGGCGTTTGGGGACATGGCCTGGGTGCCCTTCACCTACAGCCTGCAGGCCCAGTTCCTGCTGCACCACC
CGCAGCCCCTGGGGTTGCCCATGGCCTCTGTCATCTGCCTCATCAATGCTACTGGTTACTACATCTTCCGTGGGG
CGAATTCCCAGAAAAACACTTTCCGAAAGAATCCTTCTGACCCCAGAGTGGCTGGGCTTGAGACCATCTCTACAG
CCACAGGGCGGAAACTGCTGGTGTCTGGGTGGTGGGGTATGGTCCGCCATCCCAACTATCTTGGAGACCTCATCA
TGGCTCTGGCTTGGTCCTTGCCCTGCGGGGTGTCACACCTGCTGCCCTACTTCTACCTCCTCTACTTCACCGCGC
TGCTGGTGCACCGTGAGGCCCGGGATGAGCGGCAGTGCCTGCAGAAGTACGGCCTGGCCTGGCAGGAGTACTGCC
GGCGTGTGCCTTACCGCATCATGCCCTACATCTAC**TGA**AGCGGCTCCACCACCCCAGGTGGGGGCATGTGCCCAC
TCATCCACCAGCACACCCAGGACCAGGAGCCTCGACACACTTGGGACTCAAGGGCTTGCACCCCACCCAGCCCTG
AGGATGAACAACCTCAGAGAAGAGGTGGTTTAGAGCAAGGAAAAAAATGAAACCAGTGACC

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FIGURE 2073

GGAAGTGCCTCCTCCCCGTCCCCTTCCTTTCCAGCCTCACGCCCGTGGGCTGCAGTTGGAACG**ATG**GCGGCGGCA
GCTGCCGCCGGGCCTAGCCCGGGGTCTGGACCTGGGGACTCCCCAGAAGGGCCCGAGGGGGAGGCTCCGGAGCGT
CGGCGGAAGGCGCACGGGATGCTGAAGCTTTACTACGGCCTCTCGGAAGGGGAGGCGGCGGGACGCCCCGCGGGG
CCCGACCCCCTGGACCCGACTGATCTGAACGGGGCGCACTTCGACCCGGAAGTTTACCTAGACAAGCTGCGTAGA
GAGTGCCCTCTGGCCCAGTTGATGGACAGTGAGACGGACATGGTGCGGCAGATCCGGGCTCTAGACAGCGACATG
CAGACCCTGGTCTATGAGAACTACAACAAGTTCATCTCAGCCACAGACACCATCCGGAAGATGAAGAACGATTTC
CGGAAGATGGAGGATGAGATGGACCGGCTGGCCACCAACATGGCAGTGATCACCGACTTCAGCGCTCGCATCAGC
GCCACGCTGCAGGACCGCCACGAGCGCATCACCAAGCTGGCAGGTGGGCGCTGCCGGGCAGGGCCTGCAGTGGGC
CTTTCCTGGGGCTCTGGGGCTAACGTCACCCTCCGTCCCCCAGGGGTCCACGCGCTGCTGCGGAAGCTGCAGTTC
CTCTTTGAGCTGCCCTCGCGCCTCACCAAGTGCGTGGAACTGGGCGCCTATGGGCAGGCGGTGCGCTACCAGGGC
CGCGCGCAGGCCGTGCTGCAGCAGTACCAACACCTGCCCTCGTTCCGCGCCATCCAGGACGACTGCCAGGTCATC
ACGGCCCGCCTGGCCCAGCAGCTGCGGCAGCGCTTTAGGGAGGGCGGCTCAGGCGCCCCGGAGCAGGCAGAGTGC
GTGGAGCTGCTGCTGGCCCTGGGCGAGCCTGCGGAGGAGCTGTGCGAGGAGTTCCTGGCGCACGCCCGCGGCCGG
CTGGAGAAGGAGCTGAGAAACCTGGAGGCCGAGCTGGGGCCCTCACCTCCGGCTCCCGACGTGTTAGAGTTCACC
GACCATGGAGGCAGTGGCTTCGTGGGCGGCCTCTGCCAGGTGGCGGCGGCCTACCAGGAGCTGTTTGCGGCCCAG
GGCCCAGCAGGTGCCGAGAAGCTGGCGGCCTTCGCCCGGCAGCTGGGCAGCCGCTATTTTGCGCTGGTGGAGCGG
CGGCTGGCGCAGGAGCAGGGTGGTGGTGACAACTCACTGCTGGTGCGGGCGCTGGACCGCTTCCACCGGCGCTTG
CGGGCTCCCGGGGCCCTGCTGGCCGCTGCCGGGCTCGCAGACGCTGCCACGGAGATCGTGGAACGAGTGGCCCGC
GAGCGCCTGGGCCACCACCTGCAGGGTCTCCGGGCGGCCTTCCTGGGCTGCCTGACAGACGTCCGCCAGGCGCTG
GCAGCACCTCGCGTGGCTGGGAAGGAGGGCCCTGGCCTGGCCGAGTTGCTGGCCAATGTGGCCAGCTCCATCCTG
AGCCACATTAAGGCCTCTCTGGCAGCAGTGCACCTTTTCACCGCCAAAGAGGTGTCCTTCTCCAACAAGCCCTAC
TTCCGGGGTGAGTTCTGCAGTCAGGGTGTCCGTGAGGGCCTCATCGTGGGCTTCGTCCACTCTATGTGCCAGACG
GCTCAGAGCTTCTGCGACAGCCCTGGGGAGAAGGGGGGTGCCACACCACCTGCCCTGCTCCTGCTGCTCTCCCGC
CTCTGCCTGGACTACGAGACGGCCACCATCTCCTACATCCTCACTCTCACTGATGAACAGTTTCTGGTGCAGGAT
CAGTTCCCAGTGACGCCCGTGAGCACGCTGTGTGCAGAGGCCAGGGAAACGGCGCGGCGGCTGCTGACCCACTAC
GTGAAGGTGCAGGGCCTGGTCATATCACAGATGCTGCGCAAGAGCGTGGAGACTCGCGACTGGCTCAGCACTCTG
GAGCCCCGGAATGTGCGGGCCGTCATGAAGCGGGTGGTGGAGGATACCACCGCCATCGACGTGCAGGTGGGGCTC
CTGTACGAAGAGGGTGTTCGCAAGGCCCAGAGCAGCGACTCCAGCAAGAGGACTTTCTCCGTGTACAGCAGCTCT
CGGCAGCAGGGCCGCTACGCCCCCAGCTATACCCCCAGTGCCCCGATGGACACCAACCTCTTGAGCAATATCCAG
AAGCTATTCTCTGAACGTATTGATGTGTTCAGCCCTGTGGAGTTCAACAAGGTGTCGGTGCTGACCGGCATCATC
AAGATCAGCCTGAAGACGCTGCTGGAGTGTGTGCGGCTGCGCACCTTTGGGCGCTTCGGGCTGCAGCAGGTGCAA
GTGGACTGCCACTTTCTGCAGCTCTACCTGTGGCGTTTTGTGGCCGACGAAGAACTCGTGCACTTGCTGCTGGAC
GAAGTGGTGGCCTCTGCTGCCCTGCGCTGCCCAGACCCTGTGCCCATGGAGCCCAGTGTGGTTGAGGTCATCTGC
GAGCGCGGC**TAG**GCGCAGCCGCTGCCATGCACCGGTCTGTCCCTGCACCCCATGGCACCCAGGATCTGGTCTCGG
TGGTCCTTCCCCGCAGGCAGGTGTCAGGACCGGCCTAATAAACATGTGTGGCCTCCTCCTCTCGCTTGCTGGGCG
GGCCTTTCCGGGGGCGGGGTTTTGAAGCTGAGGCTTCTGAGGCGCCCGCGTCGGGTCCGCCCCCGAGCGCCGATT
GGCTGGTGTGCTGGGCCCAGCATGGGCAGGGGGCGGTTCCACTTAAAAACCCTGGGACGA

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FIGURE 2074

GAGGGATAATCGGGGCGGCCGGGGCTGAAGGGAGAGGCGCAGGAGCCCTGGGGAGAGTGGTCCCTGCCCTTCCGC
GCCTCGAGCCATCGCTACCGCCCTTCGGAACCAGTGCAGCGGCCGATCAGTAAACACAGAGACTGGGGATCGATC
ATGGGGCTTTGTAAGTGCCCCAAGAGAAAGGTGACCAACCTGTTCTGCTTCGAACATCGGGTCAACGTCTGCGAG
CACTGCCTGGTAGCCAATCACGCCAAGTGCATCGTCCAGTCCTACCTGCAATGGCTCCAAGATAGCGACTACAAC
CCCAATTGCCGCCTGTGCAACATACCCCTGGCCAGCCGAGAGACGACCCGCCTTGTCTGCTATGATCTCTTTCAC
TGGGCCTGCCTCAATGAACGTGCTGCCCAGCTACCCCGAAACACGGCACCTGCCGGCTATCAGTGCCCCAGCTGC
AATGGCCCCATCTTCCCCCCAACCAACCTGGCTGGCCCCGTGGCCTCCGCACTGAGAGAGAAGCTGGCCACAGTC
AACTGGGCCCGGGCAGGACTGGGCCTCCCTCTGATCGATGAGGTGGTGAGCCCAGAGCCCGAGCCCCTCAACACG
TCTGACTTCTCTGACTGGTCTAGTTTTAATGCCAGCAGTACCCCTGGACCAGAGGAGGTAGACAGCGCCTCTGCT
GCCCCAGCCTTCTACAGCCAGGCCCCCCGGCCCCCAGCTTCCCCAGGCCGGCCCGAGCAGCACACAGTGATCCAC
ATGGGCAATCCTGAGCCCTTGACTCACGCCCCTAGGAAGGTGTATGATACGCGGGATGATGACCGGACACCAGGC
CTCCATGGAGACTGTGACGATGACAAGTACCGACGTCGGCCGGCCTTGGGTTGGCTGGCCCGGCTGCTAAGGAGC
CGGGCTGGGTCTCGGAAGCGGCCGCTGACCCTGCTCCAGCGGGCGGGGCTGCTGCTACTCTTGGGACTGCTGGGC
TTCCTGGCCCTCCTTGCCCTCATGTCTCGCCTAGGCCGGGCCGCAGCTGACAGCGATCCCAACCTGGACCCACTC
ATGAACCCTCACATCCGCGTGGGCCCCTCC**TGA**GCCCCCTTGCTTGTGGCTAGGCCAGCCTAGGATGTGGGTTCT
GTGGAGGAGAGGCGGGGTAATGGGGAGGCTGAGGGCACCTCTTCACTGCCCCTCTCCCTCAAGCCTAAGACACTA
AGACCCCAGACCCAAAGCCAAGTCCACCAGAGTGGCTGCAGGCCAGGCCTGGAGTCCCCGTGGGTCAAGCATTTG
TCTTGACTTGCTTTCCTCCCGGGTCTCCAGCCTCCGACCCCTCGCCCCATGAAGGAGCTGGCAGGTGGAAATAAA
CAACAACTTTATTAAAAC

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FIGURE 2075

GCAGCGAGTGGCCTTCCCGGTTGGCGCGCGCCCGGGGCGGCGGCGCTGGAGGAGCTCGAGACGGAGCCTAAGTTA
TGTCTGGGAGGCGAACGCGGTCCGGAGGAGCCGCTCAGCGCTCCGGGCCAAGGGCCCCATCTCCTACTAAGCCTC
TGCGGAGGTCCCAGCGGAAATCAGGCTCTGAACTCCCGAGCATCCTCCCTGAAATCTGGCCGAAGACACCCAGTG
CGGCTGCAGTCAGAAAGCCCATCGTCTTAAAGAGGATCGTGGCCCATGCTGTAGAGGTCCCAGCTGTCCAATCAC
CTCGCAGGAGCCCTAGGATTTCCTTTTTCTTGGAGAAAGAAAACGAGCCCCCTGGCAGGGAGCTTACTAAGGAGG
ACCTTTTCAAGACACACAGCGTCCCTGCCACCCCCACCAGCACTCCTGTGCCGAACCCTGAGGCCGAGTCCAGCT
CCAAGGAAGGAGAGCTGGACGCCAGAGACTTGGAAATGTCTAAGAAAGTCAGGCGTTCCTACAGCCGGCTGGAGA
CCCTGGGCTCTGCCTCTACCTCCACCCCAGGCCGCCGGTCCTGCTTTGGCTTCGAGGGGCTGCTGGGGGCAGAAG
ACTTGTCCGGAGTCTCGCCAGTGGTGTGCTCCAAACTCACCGAGGTCCCCAGGGTTTGTGCAAAGCCCTGGGCCC
CAGACATGACTCTCCCTGGAATCTCCCCACCACCCGAGAAACAGAAACGTAAGAAGAAGAAAATGCCAGAGATCT
TGAAAACGGAGCTGGATGAGTGGGCTGCGGCCATGAATGCCGAGTTTGAAGCTGCTGAGCAGTTTGATCTCCTGG
TTGAATGAGATGCAGTGGGGGGTGCACCTGGCCAGACTCTCCCTCCTGTCCTGTACATAGCCACCTCCCTGTGGA
GAGGACACTTAGGGTCCCCTCCCCTGGTCTTGTTACCTGTGTGTGTGCTGGTGCTGCGCATGAGGACTGTCTGCC
TTTGAGGGCTTGGGCAGCAGCGGCAGCCATCTTGGTTTTAGGAAATGGGGCCGCCTGCCCAGCCACTCACTGGTG
TCCTGTCTCTTGTCGTCCTGTCCTTCCTATCTCCCCAAAGTACCATAGCCAGTTTCCAGATGGGCCACAGACTGG
GGAGGAGAATCAGTGGCCCAGCCAGAAGTTAAAGGGCTGAGGGTTGAGGTGAGAGGCACCTCTGCTCTTGTTGGG
AGGGGTGGCTGCTTGGAAATAGGCCCAGGGCTCTGCCAGCCTCGGCCTCTCCCTCCTGAGTTGCCTTCTGTTGGT
GGCTTTCTTCTTGAACCCACCTGTGTAAAGAGGTTTTCAGTTCCGTGGGTTTCCCCTTTGATTCTGTAAATAGTC
CCAGAGAGAATTCGTGGGCTGAGGGCAATTCTGTCTTGGAGGAAGAAGCTGGACATTCAGCCTGTGGAGTCTGAG
TTTTGAAGGATGTAGGGAGCCTTAGTTGGGTCTCAGACCATAAGTGTGTACTACACAGAAGCTGTGTTTTCTAGT
TCTGGTCTGCTGTTGAGATGTTTGGTAAATGCCAGGTTGATAGGGCGCTGGCTGCTTGGAGCAAAGGGTGCATTT
CAGGGTGTGGCCACCAGGTGCTGTGAGTTTCTGTGGCTCATGGCCTCTGGGCTGGTCCCTTGCACAGGGCCCACG
CTGGAGTCTTACCACTCTGCTGCAGGGGTGGAAGGTGGCCCCTCTTGTCACCCATACCCATTTCTTACAAAATAA
GTTACACCGAGTCTACTTGGCCCTAGAAGAGAAAGTTGAAGAGTCCCAGACCTACTAGCATTTTGCAACTATGCT
TGTAAAGTCCTCGGAAAGTTTCCTCGCGTACCAGACAGCGGCGGGGGCTGATAGCAATTTTAGTTTTTGGCCTCC
CTATCCTCTCACATGAGAACACTGCCTGGATGCATCTCATGATCTCTGGAGAATTTCCCCATCTTTCTCTTCTTT
CCATCGTGTGGATTCAATAGTGTGGATTTGAAGGCTGCCCTGCCCCCGACTCTCCTGCCGCACCCCTGGCCATTG
TACCTTTTGATGTTTAGAAGTTCGTGGAAGTAGACGCTGAGGTGTGCAGAGGAGCTGGTGGATAACAGAGAATGC
CAGGGAAGATGAGTGCTGGGTCAGGGTACTTGGATGAAACGGTGCAGGCCAGGCGGGCCCTAATAAAACCCTCTG
CCAGGTCTGGGAGTCCCAGGCCATCTGCTCAACGCTCTGTGGTTTGTCAGACCTGCAAGCAAGCCCCCTGCTGGG
GAAGCCTAGGTGTCCTTGAGCTGAACCGCACTGAAGAACTCTTGTCCTCACTGGCTGATGCAGCAGAACTCTTGG
GAAATGTCTTAGTCCTGCAGAATCAGGAGTCACCAGATGATGCAGAGTTGAGATCATCATTGCAAAGTTCTCTGT
TCCTGAGGAACTAAATTTAAGGAAAAAATGGGATTTTGTTTTAGAGTTGGAAAAAAAGCCTGATTAAAGAGTTTC
TGCCTGTT

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FIGURE 2076

GTGCACGATCTGATTTTCTGGAGAGATGTGAAGAAGACTGGGTTTGTCTTTGGCACCACGCTGATC**ATG**CTGCTT
TCCCTGGCAGCTTTCAGTGTCATCAGTGTGGTTTCTTACCTCATCCTGGCTCTTCTCTCTGTCACCATCAGCTTC
AGGATCTACAAGTCCGTCATCCAAGCTGTACAGAAGTCAGAAGAAGGCCATCCATTCAAAGCCTACCTGGACGTA
GACATTACTCTGTCCTCAGAAGCTTTCCATAATTACATGAATGCTGCCATGGTGCACATCAACAGGGCCCTGAAA
CTCATTATTCGTCTCTTTCTGGTAGAAGATCTGGTTGACTCCTTGAAGCTGGCTGTCTTCATGTGGCTGATGACC
TATGTTGGTGCTGTTTTTAACGGAATCACCCTTCTAATTCTTGCTGAACTGCTCATTTTCAGTGTCCCGATTGTC
TATGAGAAGTACAAGACCCAGATTGATCACTATGTTGGCATCGCCCGAGATCAGACCAAGTCAATTGTTGAAAAG
ATCCAAGCAAAACTCCCTGGAATCGCCAAAAAAAAGGCAGAA**TAA**GTACATGGAAACCAGAAATGCAACAGTTAC
TAAAACACCATTTAATAGTTATAACGTCGTTACTTGTACTATGAAGGAAAATACTCAGTGTCAGCTTGAGCCTGC
ATTCCAAGCTTTTTTTTTAATTTGGTGTTTTCTCCCATCCTTTCCCTTTAACCCTCAGTATCAAGCACAAAAATT
GATGGACTGATAAAAGAACTATCTTAGAACTCAGAAGAAGAAAGAATCAAATTCATAGGATAAGTCAATACCTTA
ATGGTGGTAGAGCCTTTACCTGTAGCTTGAAAGGGGAAAGATTGGAGGTAAGAGAGAAAATGAAAGAACACCTCT
GGGTCCTTCTGTCCAGTTTTCAGCACTAGTCTTACTCAGCTATCCATTATAGTTTTGCCCTTAAGAAGTCATGAT
TAACTTATGAAAAAATTATTTGGGGACAGGAGTGTGATACCTTCCTTGGTTTTTTTTTGCAGCCCTCAAATCCTA
TCTTCCTGCCCCACAATGTGAGCAGCTACCCCTGATACTCCTTTTCTTTAATGATTTAACTATCAACTTGATAAA
TAACTTATAGGTGATAGTGATAATTCCTGATTCCAAGAATGCCATCTGATAAAAAAGAATAGAAATGGAAAGTGG
GACTGAGAGGGAGTCAGCAGGCATGCTGCGGTGGCGGTCACTCCCTCTGCCACTATCCCCAGGGAAGGAAAGGCT
CCGCCATTTGGGAAAGTGGTTTCTACGTCACTGGACACCGGTTCTGAGCATTAGTTTGAGAACTCGTTCCCGAAT
GTGCTTTCCTCCCTCTCCCCTGCCCACCTCAAGTTTAATAAATAAGGTTGTACTTTTCTTACTATAAAATAAATG
TCTGTAACTGCTGTGCACTGCTGTAAACTTGTTAGAGAAAAAAATAACCTGCATGTGGGCTCCTCAGTTATTGAG
TTTTTGTGATCCTATCTCAGTCTGGGGGGGGAACATTCTCAAGAGGTGAAATACAGAAAGCCTTTTTTTCTTGATC
TTTTCCCGAGATTCAAATCTCCGATTCCCATTTGGGGGCAAGTTTTTTTCTTCACCTTCAATATGAGAATTCAGC
GAACTTGAAAGAAAAATCATCTGTGAGTTCCTTCAGGTTCTCACTCATAGTCATGATCCTTCAGAGGGAATATGC
ACTGGCGAGTTTAAAGTAAGGGCTATGATATTTGATGGTCCCAAAGTACGGCAGCTGCAAAAAGTAGTGGAAGGA
AATTGTCTACGTGTCTTGGAAAAATTAGTTAGGAATTTGGATGGGTAAAAGGTACCCTTGCCTTACTCCATCTTA
TTTTCTTAGCCCCCTTTGAGTGTTTTAACTGGTTTCATGTCCTAGTAGGAAGTGCATTCTCCATCCTCATCCTCT
GCCCTCCCAGGAAGTCAGTGATTGTCTTTTTGGGCTTCCCCTCCAAAGGACCTTCTGCAGTGGAAGTGCCACATC
CAGTTCTTTTCTTTTGTTGCTGCTGTGTTTAGATAATTGAAGAGATCTTTGTGCCACACAGGATTTTTTTTTTTT
TTAAGAAAAACCTATAGATGAAAAATTACTAATGAAACTGTGTGTACGTGTCTGTGCGTGCAACATAAAAATACA
GTAGCACCTAAGGAGCTTGAATCTTGGTTCCTGTAAAATTTCAAATTGATGTGGTATTAATAAAAAAAAAAAAA

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FIGURE 2077

GAACCCGCCCTGCTCGTGATAAGGCACAAGCAAGGGCTGCCCTGAAGGAAGCTCCAAAGAGAAAGGAGGGCAGGA
AGCCCACGGCCCACAGGGGTGTAGCCCGAGACCCACCTGCAGCCCCCAGCCCTTGCCAGGAAAGCAGCAGCCGCA
GCC**ATG**GCGGGGATGAAGACAGCCTCCGGGGACTACATCGACTCGTCATGGGAGCTGCGGGTGTTTGTGGGAGAG
GAGGACCCAGAGGCCGAGTCGGTCACCCTGCGGGTCACTGGGGAGTCGCACATCGGCGGGGTGCTCCTGAAGATT
GTGGAGCAGATCAATCGCAAGCAGGACTGGTCAGACCATGCTATTTGGTGGGAACAGAAGAGGCAGTGGCTGCTG
CAGACCCACTGGACACTGGACAAGTACGGGATCCTGGCCGACGCACGCCTCTTCTTTGGGCCCCAGCACCGGCCC
GTCATCCTTCGGTTGCCCAACCGCCGCGCACTGCGCCTCCGTGCCAGCTTCTCCCAGCCCCTCTTCCAGGCTGTG
GCTGCCATCTGCCGCCTCCTCAGCATCCAGGCACCCCGAGGAGCTGTCCCTGCTCCGGGCTCC**TGA**GAAGAAGGA
G

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FIGURE 2078

AGTAGAGATGGGGTTTCACCATGTTGGCCAGGCTGGTGTCAAACTCCTGACCTCAGGTGATCCACCCACCTTGGC
CTTCCAGAGTGCTGGGATTACAGGCATGAGCCACCGCACCCAGCGTTGTTTTGTTTTTTAGTCAGCAATGGTTTT
GGATTCCAAAGCTCTCAGGACCAAGGCCCACGCATTTTGTCTAGTTGTCATGTACTCTTCAGTTTCTCAAACTGG
AATTGTCCCCCGCTATGTGTTTTTCATAACATCAGCCTCTTGCAGAGTCCAGGCAGTTTGTCTTGTGTGGGATGA
TCCATCATCTGGAGTTGTCTTTCCTGATGTTGTCCCCTCTGTTTGGTGCTGGGTGAGGCATTAGAGTTGGAAGTC
CACATGCTTGAGTTGCCTGTACTGAGCTTGTCCAAGGGAATGAGCCTAATTTCTTTCTGTTGCTTCATTCTAGGA
CTGTGAGGAATGTATCCAGCTGGAGCCGACCTTCATCAAGGGTTATACACGGAAAGCCGCTGCGCTGGAAGCG**AT**
GAAGGACTACACCAAAGCCATGGATGTGTACCAGAAGGCGCTAGACCTGGACTCCAGCTGTAAGGAGGCGGCAGA
CGGCTACCAGCGCTGTATGATGGCGCAGTACAACCGGCACGACAGCCCCGAAGATGTGAAGCGACGAGCCATGGC
CGACCCTGAGGTGCAGCAGATCATGAGTGACCCAGCCATGCGCCTTATCCTGGAACAGATGCAGAAGGACCCCCA
GGCACTCAGCGAACACTTAAAGAATCCTGTAATAGCACAGAAGATCCAGAAGCTGATGGATGTGGGTCTGATTGC
AATTCGG**TGA**TGACTTGTTCATCCCCCCTTCCCTTCGCCCTCATGTGGAAAGAGGAGCTGGGACCGCGGCGAGCA
GCACGGAGCGGAAGGGAGAGCAGGGGAGAGAAGGCCTCATCTCTCTATATTTATACATAACCCCGGGGAAGACAC
AGAGACTCGTACCTGCGCTGTTTGTGCCGCCGCTGCCTCTGGGCCCTCCCAGCACACGCATGGTCTCTTCACCGC
TGCCCTCGAGTTCCATGTCTCTTTCCCCTGCCCCTAGTTGCTGTCTCGGCTGCTCTCCCATAGTTGGTTTTTTTT
TTATTTGGGGGCAGTGGGCATGTTATGGGGAGGGGAGGGGGTTCTTCCAGCCTCAGGTCCCAGCTGTCTCACGTT
GTTTATTCTGCGTCCCCTTCTCCAATAAAACAAGCCAGTTGGGCGTGGTTATATGTT

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FIGURE 2079

AAAACACTAAGGGGAGCGCGCGAAGCTGAACTTGGCGCTCGATGGGGGCCGTTAGCCGCCCTAGAGCGCGCGGAG
CCGCAGAGGCGTAGCTGGACTACAACGCAGTGCATCTCGGGAGGCCAACTCGACTGGACTGGGTGAGAGGACAGA
GGTGGCTCG**ATG**GGCGGCCCGAAGGCCGGGGATCATGGCGGGAAGGCGGGCCCAGACAGGTTCAGCCCCGCCCCC
GACCCGCCGCTCCCCACCCCCCGGCCGGCCTCGCGTGCCTTCCCGCAGCACTGCCGTCCCCGGGATGCTGAGCGC
CCACCGTCTCCCCGCAGCCCCCTCATGCCCGGCTGCGAGCTGCCCGTGGGCACCTGCCCGGACATGTGCCCGGCC
GCCGAGCGCGCCCAGCGCGAAAGGGAGCACCGCCTGCACCGCTTGGAGGTGGTGCCGGGTTGCCGCCAGGACCCG
CCCCGCGCGGATCCGCAGCGCGCGGTGAAGGAGTACAGCCGACCCGCCGCCGGCAAGCCCCGGCCCCCGCCCAGC
CAGTTGCGTCCGCCCTCCGTGCTGCTGGCCACCGTGCGCTACCTGGCCGGTGAGGTGGCGGAGAGCGCCGACATC
GCCCGCGCCGAGGTGGCCAGCTTCGTGGCAGACCGCTTGCGAGCTGTGCTCCTGGACCTGGCGCTGCAGGGAGCG
GGCGACGCCGAGGCAGCTGTGGTGCTGGAGGCGGCGCTGGCCACGCTGCTGACCGTAGTGGCGCGGCTCGGGCCC
GACGCGGCGCGGGGACCCGCGGACCCGGTGCTGCTGCAGGCCCAGGTGCAGGAGGGCTTCGGCTCGCTGCGGCGC
TGCTACGCGCGGGGCGCCGGGCCGCACCCCCGCCAACCCGCCTTCCAGGGCCTCTTTCTGCTCTATAACCTGGGT
GAGTCGGGATCCTGGCGGCTGGGCAGAGCGTGGGGACAGGAGCCCACCATGACAGTGGAGGCTCGGTGGAAGCCC
TGCATGAGGTTCTACAGCTGCCTGCTGCCCTGCGCGCCTGCCCGCCCCTCCGCAAGGCCTTGGCGG**TAG**ATGCTG
CCTTCCGAGAGGGCAATGCTGCCCGCCTGTTCCGTCTGCTCCAGACCCTGCCCTACCTGCCAAGTTGCGCTGTGC
AGTGCCATGTGGGCCATGCCCGCCGGGAAGCCCTGGCCCGCTTCGCTCGTGCCTTTAGCACCCCCAAGGGCCAGA
CCTTGCCTCTGGGCTTCATGGTCAACCTCTTGGCCCTGGATGGACTCAGGGAAGCACGGGACCTGTGCCAGGCCC
ACGGGCTGCCCTTGGACGGAGAGGAGAGAGTTGTGTTCCTGAGGGGTCGCTACGTGGAGGAAGGGCTACCGCCTG
CCAGTACGTGCAAGGTGTTAGTGGAGAGCAAACTTCGAGGACGTACCCTGGAGGAGGTGGTCATGGCAGAGGAGG
AAGATGAGGGCACGGACAGACCTGGGTCCCCAGCCTGAGGAGGGAGCGTGAGCCTCCCAGAGCCCCAGGACTGGG
CCAGAGCACTTAGGTTTCTTTTTCCATGGTTTCCAGGTAATAAAAGGAACTTGTTTTGTTGGT

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FIGURE 2080

GCGCAGGCCTGGCGAGGCGGCGGCGGGCGGAGGCTGGGCCGGAGGGGTGGGGACGGCGAGGAGGTGGAGGCCGGC
GCTCCGCTCCGCTCCAGCTCGGTTTC**ATG**TCCCGCCAGGCGAAGGATGACTTCCTGCGGCACTACACAGTGTCGG
ACCCCAGGACTCACCCCAAGGGCTACACCGAGTACAAAGTAACCGCGCAGGTGGTGGTCTGGAAGCGGTACAGCG
ACTTCCGCAAGCTGCATGGAGACCTGGCCTACACCCACCGCAACCTCTTCCGCCGCCTCGAGGAGTTCCCTGCTT
TCCCCCGGGCCCAGGTGTTTGGCCGGTTTGAAGCCTCAGTGATCGAGGAGCGGCGAAAGGGGGCAGAGGACCTGC
TTCGCTTCACTGTGCACATACCTGCGCTCAACAACAGCCCCCAGCTCAAGGAGTTCTTCCGGGGTGGGGAGGTGA
CCCGACCCTTGGAGGTGTCCAGGGACCTACACATCCTGCCACCCCCTCTGATCCCCACCCCGCCCCCTGATGACC
CCCGGCTATCCCAACTGCTCCCTGCAGAAAGGAGGGGCCTCGAGGAATTGGAGGTGCCAGTGGACCCCCCACCAT
CCAGCCCTGCCCAGGAGGCCCTGGATCTCCTCTTTAACTGTGAGAGCACCGAGGAGGCATCTGGTTCCCCTGCCC
GAGGCCCCCTCACCGAGGCTGAGCTTGCCCTCTTCGACCCCTTCTCCAAGGAAGAAGGCGCAGCCCCCAGCCCCA
CCCATGTGGCTGAGCTGGCAACGATGGAGGTGGAGTCTGCAAGGCTGGACCAGGAACCCTGGGAGCCAGGAGGGC
AGGAGGAGGAAGAGGATGGGGAAGGAGGGCCCACCCCTGCCTACCTAAGCCAGGCCACAGAGCTCATCACCCAGG
CCCTGCGGGATGAGAAGGCAGGCGCTTACGCTGCTGCACTCCAGGGCTATCGAGATGGCGTGCACGTCTTGCTTC
AGGGAGTCCCCAGTGACCCGTTGCCTGCCCGCCAGGAAGGTGTGAAGAAGAAGGCAGCTGAGTACCTGAAGCGGG
CAGAGGAGATCCTGTGCCTGCACCTGTCTCAACTCCCACCC**TAA**CAGGGAGTGGGCCCTTCCCTGGGACTCTCGC
TCCTGCACTGCCAGCCCCTTCTCCTCTCCCCAGGGCCTGGCCCTACCTCCTGGTCTTGTAATTACAGGAGCCATT
TCTGTAGGTAACTGGACCAAGAATGAGAAAAATAATGAATTCTTAGCTCCCTGATTACACCTGCCACCTTGGAAT
CAAGGACTCACACTTCTGACCCTGCCTGTCTTTTTGGGGTTTTTTTGAGTTGGAGTCTCGCTGTGTCGCCCAGAC
TGGAGTGCAGTGGTGGGATCGCGGCTCACTGCAACCTCCACCTCCCAGGTTCAAGCAGTTCTCCTGTCTCAGCCT
CCCCAGTAGCTGAGATTGCAGGCACATGCCACCACGCCCAGCTAATATTTTGTATTTTCAGTAGGGACGGGGTTA
CACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAAGTGATCCACCCGCCTCAGTCTCCCAAAGTGCTGAG
ATTACAGGCATGAGTCACTACGCCCGGCCCATGTCTGTCTGTCTTGATGTGTGAGCAGCAGCTGTGGTCATTAAA
CCATTAGTTTACCCCTCTAGAACTGGGGTCTGCAAACTCCCACCTGCAGCCAAATCTGGCCCACCTCCTTTTTAA
TGTAAGGGCTGTGAGAGTGGTTTTTACTTTTTTTAATGATTAAAAAAATCAAAATAATATTCTGTGACAATGACA
GGTGAAATTTATATGTGACAAGTGAAAATTATATGAAATTTAAGAGTCCATAAATAAAATTTGTTGGAACAC

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FIGURE 2081

CTCCGGGGACC**ATG**GGGCTCCTGACCATTCTGAAGAAGATGAAGCAGAAAGAGCGGGAGCTGCGACTGCTCATGC
TTGGCCTGGACAATGCTGGAAAGACAACCATCCTGAAGAAGTTCAATGGGGAGGACATCGACACCATCTCCCCAA
CGCTGGGCTTCAACATCAAGACCCTGGAGCACCGAGGATTCAAGCTGAACATCTGGGATGTGGGTGGCCAGAAGT
CCCTGCGGTCCTACTGGCGGAACTACTTTGAGAGCACCGATGGCCTCATCTGGGTAGTGGACAGCGCAGACCGCC
AGCGCATGCAGGACTGCCAGCGGGAGCTCCAGAGCCTGCTGGTGGAGGAGCGCCTGGCCGGAGCAACCCTCCTCA
TCTTTGCTAATAAGCAGGACCTGCCTGGAGCACTGTCCTCTAACGCCATCCGCGAGGTCCTGGAGCTGGACTCCA
TCCGCAGCCACCACTGGTGCATCCAGGGCTGCAGCGCCGTCACCGGGGAGAACCTGCTGCCGGGCATCGACTGGC
TCCTGGATGACATTTCCAGCCGCATTTTCACAGCTGAC**TGA**ACCACTCCAGATGCCCCCCACCTAGCAGTCCAGG
TCCCTCAACCTTCACCAAACACTACCCATGGGGGGTTGGGAGTCAGCCGGCCAAACTAACACTCCCCCTCCTCCA
CCCCAGCCTGCTGCTGCTACTGCTGCCCGCTGCTGCTCTGTGGCCACCCGGCTCCCATGGCGGGAGGGCTGTGCC
CTGGCTGTCTCTCTGGCTCCTGACCTGGCCTTTGGCTACCATACCAAGAAGAGAGGGCTGGGCGGGGAGGAGCTG
CTACTGCTGCTACCGAGGCTGTGGGCCTCATCCTTCACTCAGTTGTGAAATAAACCGCTCCTTGCCCCG

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FIGURE 2082

GGAGACCGGAGGTCTGAGCTGCAGCCACTACACAGGCCTGGAATTCTACCACAGGGAATTTGCAGCACGAGTCTC
TGGAAAAAGACAACCTCGCCCTGCGGAAGGAGATCCAGTCCCTGCAGGCCGAGCTGGCGTGGTGGAGCCGGACCC
TGCACGTGCATGAGCGCCTGTGCCCC**ATG**GATTGTGCCTCCTGCTCAGCTCCAGGGCTCCTGGGCTGCTGGGACC
AGGCTGAGGGGCTCCTGGGCCCTGGCCCACAGGGACAACATGGCTGCCGGGAGCAGCTGGAGCTGTTCCAGACCC
CGGGTTCCTGTTACCCAGCTCAGCCGCTCTCTCCAGGTCCACAGCCTCATGATTCTCCCAGCCTCCTCCAGTGCC
CCCTGCCCTCACTGTCCCTTGGCCCCGCTGTGGTTGCTGAACCTCCTGTCCAGCTGTCCCCCAGCCCTCTCCTGT
TTGCCTCGCACACTGGTTCCAGCCTGCAGGGGTCTTCCTCTAAGCTCAGTGCCCTCCAGCCCAGCCTCACGGCCC
AAACTGCCCCTCCACAGCCCCTCGAGCTGGAGCATCCCACCAGAGGGAAGCTGGGGTCCTCTCCCGACAACCCTT
CCTCTGCCCTGGGGCTTGCACGTCTGCAGAGCAGGGAGCACAAACCTGCTCTCTCAGCAGCCACTTGGCAAGGGC
TGGTTGTGGATCCCAGCCCTCACCCTCTCCTGGCCTTTCCTCTGCTCTCCTCTGCTCAAGTCCACTTC**TAA**CCTG
GTCTTCGGAGCTGGGTTGGCCCCTTCTTTGGGCTCAGGAAGCAGCCTTAGCACACGGGCCTCTCCTCCCTCACTA
CTGGGTGCTGCCCTGCGTGGCTGACCAGCTGGCCCAGGATTTCACAGTCGAAAAGGAAGCCACCACTGATGCCTC
CCACTGTGACAGGCCCTGTCACCACCAATATCTTATTTCAACCTCACAGTTGACCTGAGAAATCGAGATTATCAC
TCCACTTTTTCAGACAAGGAAACTGAGGCTCAGGGAAGCCAAGTGACAAGTCCAAGGTCACGAAGACTTTCTTGG
AGCCCGAAACACCACCCTCTGCTCCTCCTTCTCCTGTCCTGGCCCAGGCATCCTAGGGGCTGAAATCCTGGAAAC
CGTGGGCTGGTGTGAGAAGGTTTGCATGCTCAGAGCAGAGAAGGGCTCTCCCCACTGCTTCGTGATTCCAGGGCC
AGAGCCATGCAGTCCCAGAAACCCCAACCTAGCTGGGGCAGGTCCAGAGTCCAAGCCCTGGTGGGTAGAGGCCAA
GCAGAAGCCCTGAAGTGGACTCTTGCTTCCCCTAGTAGTGTTTTCAGTGCCAAGAAGCTGAAACTGTGAGCTGGA
GTTGGGGAGAGGTCTGGAAGAGGACCATCTGGGATTTCTACAGCCTGGGTACCCATAGCCACACCAAGGCTTCTG
GGAGATTCTGCAGGGTCAGCTTTCCAGGCTGTTCCCAAATAGCTCCCTGCCTCCCCACTGCCCCTAAAGCCACAG
CAGAAGAGCCATTCATCTCATAAACAAAAAGGAAGAGGAAAGAATGAGGAAGGACCCTGTGCAAGGTTATTTGCA
GGCAGGGATGGGCTTGTACCTGACAGCACCCACCCCTGTGTGGCCCCCAGGCCCTCATCACCCTCAGACCCCTCC
TAAGCAGTTCCCTCATTGCTCTTTGGACTAGGCTGACAGCAGGAAGAGCAGGGCCCATGACCGGGTGGAAGTTCA
GTTTTGGTGTCTGCTTCAAGAGGGGGTTTTACACTCTGATTCCAGGACAAGCACTCTGAGGCGGGTGGGGGAGAG
AAACCCTGGCTCTTCACCCAGGTTTCACACACATGTAAATGAAACACTATGTTAGTATCTAACACACTCCTGGAT
ACAGAACACAAGTCTTGGCACATATGTGATGGAAATAAAGTGTTTTGCAATCTTT

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FIGURE 2083

ATGAATGCAGCACTGAGCTCTGTTTGCCCTCTAAGCTTGTCCCCAGAAAAAACAAGATATACCCTAAATATGCAC
GATCTGATTTTCTGGAGAGATGTGAAGAAGACTGGGTTTGTCTTTGGCACCACGCTGATCATGCTGCTTTCCCTG
GCAGCTTTCAGTGTCATCAGTGTGGTTTCTTACCTCATCCTGGCTCTTCTCTCTGTCACCATCAGCTTCAGGATC
TACAAGTCCGTCATCCAAGCTGTACAGAAGTCAGAAGAAGGCCATCCATTCAAAGCCTACCTGGACGTAGACATT
ACTCTGTCCTCAGAAGCTTTCCATAATTACATGAATGCTGCCATGGTGCACATCAACAGGGCCCTGAAACTCATT
ATTCGTCTCTTTCTGGTAGAAGATCTGGTTGACTCCTTGAAGCTGGCTGTCTTCATGTGGCTGATGACCTATGTT
GGTGCTGTTTTTAACGGAATCACCCTTCTAATTCTTGCTGAACTGCTCATTTTCAGTGTCCCGATTGTCTATGAG
AAGTACAAGGAGATGGGCCAC**TAA**

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FIGURE 2084

GGCCTGAGGGCGCCGCACTCGACTGCTTCGAGGTGACGCTGAAATGCGAGGAAGGGGAGGACGAGGAGGAGGCCA
TGGTGGTGGCCGTAATTCCGCGGCCCGAGCCGATGCTCAGAGTGACCCAACAGGAGAAGACCCCACCGCCTAGAC
CCAGCCCGCTAGAGGCAGGCAGTGATGGCTGTGAGGAGCCGAAGCAGCAGGTGTCTTGGGAGCAGGAGTTCCTGG
TGGGCAGCAGCCCAGGAGGCAGCGGGCGGGCACTGTGCATGGTGTGTGGCGCTGAGATCCGGGCACCCTCGGCCG
ACACAGCTCGCTCGCACATCTTGGAGCAGCACCCTCACACCTTGGACCTGAGCCCTTCTGAGAAGAGCAATATCC
TGGAGGCCTGGAGTGAAGGGGTGGCCCTCTTGCAAGACGTGAGAGCTGAGCAGCCGTCCCCACCCAACTCAGACT
CGGGCCAGGATGCCCACCCAGACCCAGACGCCAACCCAGACGCTGCCAGAATGCCAGCCGAAATCGTCGTTCTCC
TTGACTCTGAGGATAACCCATCCCTCCCTAAAAGGAGCAGGCCCAGGGGACTCCGCCCCCTCGAGCTTCCTGCTG
TCCCTGCCACAGAGCCAGGAAATAAGAAGCCCCGTGGTCAGAGATGGAAGGAACCCCCAGGGGAAGAGCCAGTCA
GAAAGAAAAGAGGCAGACCTATGACCAAAAACCTGGACCCTGACCCAGAGCCCCCATCGCCAGACTCGCCCACGG
AGACTTTCGCAGCACCAGCCGAGGTCCGACACTTCACTGACGGCAGCTTCCCCGCCGGCTTCGTCTTGCAGCTCT
TCTCCCACACCCAGCTCAGGGGCCCAGACAGCAAGGACTCACCCAAAGACAGGGAAGTGGCAGAAGGAGGCCTTC
CCCGGGCGGAGAGCCCCTCTCCAGCTCCCCCTCCGGGGCTCCGCGGGACACTGGATCTCCAGGTTATCCGCGTGC
GGATGGAGGAGCCCCCAGCGGTCAGCCTCCTGCAAGACTGGTCCAGGCACCCCCAGGGCACCAAGCGTGTGGGAG
CAGGTGACACCTCAGACTGGCCCACAGTTCTGTCAGAATCCAGCACCACTGTGGCAGGGAAGCCGGAAAAAGGGA
ATGGAGTGTAAATTCTTGCTTTCCTGGGGAGGGAGGGAGGGATGAGGCAGCGTCCCCCAGTGGCTTATAACTCAG
AGCTGCCTGGCTCACCCACCTGGTGGAGAGAGTAGAAACAGGTGCCAGGGCAGGAGGGGGCTGGGGCAGCATCCA
CTGTTATTTCGGGGCACTGGAAAGTGTCTGTTCCTGGCCAGGCCTGAGGTCGGCGAGGGTGGCTGAGGCTGTTGT
GCAGTAGGGCACTGGGCCTGTGGAGAACACCTACCCCAGTCCTTCGCTGACCCCCACCTCTGTTTGTCCCCCATG
ACCTCCTCCCACCCTCCCCCTGCTCCCCACCATTCTCCCTTGGCACAGTGCCTTACACAAGAGTGGTCATAAGGG
GGTTTGAACTGAGTCCCACTACCTCGGGGGACACCTCTCCTCCCCACTTGTTCAGGCTTCTAAACCAGGAGGCCT
CCATTACCTCTTCCTGTCCCACCCCTGCAGAGGCCTGAAGCTGGGCCTGGGCACCCCATTCACTCCCGTTCTCAT
TTACATCTGTTTTCCTGTTGTATATATCACCTTTGTTGACAATAAATTATTTTTTTTTATT

FIGURE 2085

CCCACCTTGGGACACCTTGACTCCAAGCCCAGCAGTAAGTCCAAC**ATG**ATTCGGGGCCGCAACTCAGCCACCTCT
GCTGATGAGCAGCCCCACATTGGAAACTACCGGCTCCTCAAGACCATTGGCAAGGGTAATTTTGCCAAGGTGAAG
TTGGCCCGACACATCCTGACTGGGAAAGAGGTAGCTGTGAAGATCATTGACAAGACTCAACTGAACTCCTCCAGC
CTCCAGAAACTATTCCGCGAAGTAAGAATAATGAAGGTTTTGAATCATCCCAACATAGTTAAATTATTTGAAGTG
ATTGAGACTGAGAAAACGCTCTACCTTGTCATGGAGTACGCTAGTGGCGGAGAGGTATTTGATTACCTAGTGGCT
CATGGCAGGATGAAAGAAAAAGAGGCTCGAGCCAAATTCCGCCAGATAGTGTCTGCTGTGCAGTACTGTCACCAG
AAGTTTATTGTCCATAGAGACTTAAAGGCAGAAAACCTGCTCTTGGATGCTGATATGAACATCAAGATTGCAGAC
TTTGGCTTCAGCAATGAATTCACCTTTGGGAACAAGCTGGACACCTTCTGTGGCAGTCCCCCTTATGCTGCCCCA
GAACTCTTCCAGGGCAAAAAATATGATGGACCCGAGGTGGATGTGTGGAGCCTAGGAGTTATCCTCTATACACTG
GTCAGCGGATCCCTGCCTTTTGATGGACAGAACCTCAAGGAGCTGCGGGAACGGGTACTGAGGGGAAAATACCGT
ATTCCATTCTACATGTCCACGGACTGTGAAAACCTGCTTAAGAAATTTCTCATTCTTAATCCCAGCAAGAGAGGC
ACTTTAGAGCAAATCATGAAAGATCGATGGATGAATGTGGGTCACGAAGATGATGAACTAAAGCCTTACGTGGAG
CCACTCCCTGACTACAAGGACCCCCGGCGGACAGAGCTGATGGTGTCCATGGGTTATACACGGGAAGAGATCCAG
GACTCGCTGGTGGGCCAGAGATACAACGAGGTGATGGCCACCTATCTGCTCCTGGGCTACAAGAGCTCCGAGCTG
GAAGGCGACACCATCACCCTGAAACCCCGGCCTTCAGCTGATCTGACCAATAGCAGCGCCCCATCCCCATCCCAC
AAGGTACAGCGCAGCGTGTCGGCCAATCCCAAGCAGCGGCGCTTCAGCGACCAGGCTGGTCCTGCCATTCCCACC
TCTAATTCTTACTCTAAGAAGACTCAGAGTAACAACGCAGAAAATAAGCGGCCTGAGGAGGACCGGGAGTCAGGG
CGGAAAGCCAGCAGCACAGCCAAGGTGCCTGCCAGCCCCCTGCCCGGTCTGGAGAGGAAGAAGACCACCCCAACC
CCCTCCACGAACAGCGTCCTCTCCACCAGCACAAATCGAAGCAGGAATTCCCCACTTTTGGAGCGGGCCAGCCTC
GGCCAGGCCTCCATCCAGAATGGCAAAGACAGCCTAACCATGCCAGGGTCCCGGGCCTCCACGGCTTCTGCTTCT
GCCGCAGTCTCTGCGGCCCGGCCCCGCCAGCACCAGAAATCCATGTCGGCCTCCGTGCACCCCAACAAGGCCTCT
GGGCTGCCCCCCACGGAGAGTAACTGTGAGGTGCCGCGGCCCAGCACAGCCCCCCAGCGTGTCCCTGTTGCCTCC
CCATCCGCCCACAACATCAGCAGCAGTGGTGGAGCCCCAGACCGAACTAACTTCCCCCGGGGTGTGTCCAGCCGA
AGCACCTTCCATGCTGGGCAGCTCCGACAGGTGCGGGACCAGCAGAATTTGCCCTACGGTGTGACCCCAGCCTCT
CCCTCTGGCCACAGCCAGGGCCGGCGGGGGGCCTCTGGGAGCATCTTCAGCAAGTTCACCTCCAAGTTTGTACGC
AGAAATCTGTCTTTCAGGTTTGCCAGAAGGAACCTGAATGAACCTGAAAGCAAAGACCGAGTGGAGACGCTCAGA
CCTCACGTGGTGGGCAGTGGCGGCAACGACAAAGAAAAGGAAGAATTTCGGGAGGCCAAGCCCCGCTCCCTCCGC
TTCACGTGGAGTATGAAGACCACGAGCTCCATGGAGCCCAACGAGATGATGCGGGAGATCCGCAAGGTGCTGGAC
GCGAACAGCTGCCAGAGCGAGCTGCATGAGAAGTACATGCTGCTGTGCATGCACGGCACGCCGGGCCACGAGGAC
TTCGTGCAGTGGGAGATGGAGGTGTGCAAACTGCCGCGGCTCTCTCTCAACGGGGTTCGATTTAAGCGGATATCG
GGCACCTCCATGGCCTTCAAAAACATTGCCTCCAAAATAGCCAACGAGCTGAAGCTT**TAA**CAGGCTGCCAGGAGC
GGGGGCGGCGGGGGGCGGGCCAGCTGGACGGGCTGCCGGCCGCTGCGCCGCCCCACCTGGGCGAGACTGCAGCGA
TGGATTGGTGTGTCTCCCCTGCTGGCACTTCTCCCCTCCCTGGCCCTTCTCAGTTTTCTCTTACATGTTTGTGGG
GGGTGGGAGATTGTTNTCCAGCACCCCACATTCACCCCTGCCCAGAGATTCCCCCTTCTCCTCTCCCCTACTGGA
GGCAAAGGAAGGGGAGGGTGGATGGGGGGGCAGGGCTCCCCCTCGGTACTGCGGTTGCACAGAGTATTTCGCCTA
AACCAAGAAATTTTTTATTACCAAAAAG

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FIGURE 2086

GCGCCCAGCCGCTGAACGGCGTGGGCAGGTGGGCGGTGGGGTTCCAGGGCGCCCCGAGGACAGGGGGCCCCGACT
TCAGGGGAACCCCAACCCTGAGGGGCGTACATAGTAATCACGCCCCAGCCGCACCGGACCTTGCGCTCATCCCTT
GCGTCCCCCACTTCTGCACAAACTTTTCTGACGCCCTGGCTCGTGGGGGTCGTGGAGAGCGCTGGGGCTACCAGG
TGGGCTCCCACCCCGCCGGACCCTAGCCACGCTGACCTCCTGCCTCTCCTAACCTCAGTGGCGACCTCTCCAGGC
CGGGCCGGGCTCGGCACTCGGAGCGAGTGCGGCAACCACTGTCGCTCTCCGAAGGCTCCTGCGCCCCCCGGGGCA
GCTGGGCGGGGTA**ATG**CCCTCAGTGATGGAGAAGCCGAGCGCGGGCTCTGGGATCCTGTCCCGTAGCCGGGCCAA
GACGGTGCCCAACGGCGGACAGCCCCACTCGGAGGATGACAGCAGCGAGGAGGAGCACTCGCACGTCCCTTCTGT
GGCTGCAGACAGCATGATCCGCGTTGGAACCAATTACCAGGCCGTAATTCCGGAGTGCAAGCCTGAGAGCCCCGC
ACGCTACAGCAACAAGGAGCTGAAGGGGATGCTGGTGTGGTCACCCAACCACTGTGTGTCAGATGCCAAGCTTGA
CAAGTACATTGCGATGGCCAAGGAGAAGCATGGCTACAACATTGAGCAGGCGCTGGGCATGCTTCTGTGGCATAA
GCACGATGTGGAGAAGTCGCTGGCCGACCTGGCCAACTTCACCCCATTCCCTGACGAGTGGACAGTAGAGGACAA
GGTGCTGTTTGAACAGGCCTTTGGCTTCCATGGCAAATGCTTCCAGCGGATCCAGCAGATGCTGCCTGACAAGTT
GATTCCCAGCCTGGTGAAATACTACTACTCTTGGAAGAAGACCCGCAGCCGAACTAGTGTGATGGACAGACAGGC
CCGGCGGCTGGGGGGCCGCAAGGACAAAGAAGACAGTGATGAGCTCGAAGAGGGTCGAGGAGGCGTGAGTGAGGG
AGAGCCCGATCCTGCAGATCCCAAGAGAGAGCCTCTACCCTCTCGGCCCCTGAATGCACGCCCAGGCCCTGGGAA
AAAGGAGGTCCAGGTGTCTCAGTACCGCCACCATCCCTTGCGAACCCGGCGTCGCCCACCCAAGGGCATGTACCT
GAGCCCTGAAGGCCTCACGGCAGTGTCAGGAAGCCCGGACCTTGCCAACCTCACGCTCCGAGGTCTTGACTCTCA
GCTCATCTCCCTCAAGCGCCAGGTACAGAGCATGAAGCAGACGAACAGCAGCCTGCGCCAAGCCCTGGAGGGCGG
TATTGATCCACTACGCCCCCCGGAGGCCAACACCAAGTTCAACTCCCGCTGGACCACAGATGAGCAGCTTTTGGC
TGTTCAAGCCATCCGTAGGTATGGCAAAGACTTTGGGGCTATTGCAGAGGTGATTGGGAACAAGACTCTGACCCA
GGTGAAGACTTTCTTTGTGAGCTACCGGCGCCGCTTCAATCTGGAGGAGGTGCTGCAGGAATGGGAGGCTGAGCA
GGATGGGGCCCCTGGAGCCCCAGTCCCCATGGAGGAGGCTAGGAGAGGGGCTCCATTGCCAGCCCCAGCCCTAGA
GGAAGATGATGAGGTCCAGATTACATCGGTCTCCACGTCCGTGCCCCGATCAGTGCCCCCTGCGCCACCACCCCC
TCCACCTCCCACCTCGCTGTCCCAGCCACCCCCGCTGCTGAGGCCACCTTTGCCCACGGCTCCCACTCTGCTCCG
ACAGCCACCCCCACTGCAGCAGGGCCGCTTCCTCCAGCCCCGGCTGGCCCCCAACCAGCCCCCACCGCCTCTCAT
CCGCCCCGCTCTGGCTGCCCCCCGCCACAGCGCCCGCCCTGGCCCTCAGCCCCCACCCACCCTGATTGGAACCCC
TCTGGAGCCCCCAGCACCCTCACTC**TGA**GCCCTGACGTCCTCCACCAACCACGGGCTCCAGGACCCCTTTGCTGG
CCATCCCCAGGCATCTCTGGTGTCACTGAGGACAGAAGGGACTAGGGCTCTGGCGGGGTCTTTGTAAGACCAGAG
TTTCGGACAGCCCAGCCCCGCCCTTTGGGTTCTGCATGTGTTCCTGGCAGCTGGGCCTGTCTCCTGGGGCCATGG
CCGGGCTCAGGGGCCTTTGAGCTGGCCTGAGGGCACTTTCGCTTCCTGGCCGGTACTGGAATGGCTGTGTCCTAG
TCTGCTGGGGCTTGGCCTCTGGGTCCTGCCCTTTGTGTGTCCGGGGTAGTGACCTTAGCGTGGAGTGGGGAGAGG
GCAGTTGGGTGTGCTGGCTGTTCTCATTCCTCTTTCCCTTCTTTTAGCAATAAGTCTGGGGTGAGGTGGGGAGGG
AGGCTGCAGGGGGGGAGGTGGGCAGAGGGGCCTTACAGCAGCAGAGGCTGGAAGAGAAGCTCTGTCTTCAGGGGC
CAGCTGGGAAATGCTAAGGAGCTGAGGGTGCCCACCAAGCCCACCTTCCAGAAACTTGGAGAAATGGGGGTTGGG
AACTTATGCAGACATGGATTTATTTTTCAACATTTTTTAAAAATTAAAAAAAATAAAATCTAA

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FIGURE 2087

GCTGCTGACTGGCGGGCCGCCAGGCGCGTGCGTAGAGACGCCCACACGCCCGCTGATGCGCACGCGCCCTGGGCC
GCGCGTGCGCGCGTGGGGTTCCGGAATGAGCCGGGGAAAGCAAGGGGAAGGTTTGGGGTTGGCTCCCGGTTTCGC
GCATGCGTGCACTGCACAAACCATTTGGCGGGTTTTTCCGGCCACTCAGTTCTGCCACCGTCACTGAGAAGCTCA
GCGGTAGCTTTTGGGAAGCAGGACGTTCTCACCAGGAGAGCGTCCTCTCGAGATTTCTGCTCCCTCCATTCAGGG
CGTTTGGGAGCCACCCCTTCATTTTTTAAAAAAAGTATTTCTCTGTGACCGACGGCCGGGGCCTTCTGACGGTCT
GAGGTCTTGCTTGGGCCAGTCACCTCCTGTCACGGTCCGCGGAGGGGGGAAGGATAAGAGGGCGAGGAGCTCATC
GCTCGCCACCCCCGTGGGCTTCTTGGGCGCAGGTCGGAGCTGGGTGGGCCGGCTCCCCGGCCCCTGGCTTGGGCG
ACC**ATG**TCCGCATCCGCCCAGCAGCTGGCGGAGGAGCTGCAGATCTTCGGCCTAGACTGCGAGGAGGCTCTAATT
GAGAAATTGGTAGAGCTTTGTGTTCAGTATGGACAGAATGAGGAGGGAATGGTAGGCGAGCTTATAGCCTTCTGC
ACCAGCACACATAAAGTTGGCCTTACCTCAGAGATCCTGAACTCTTTTGAGCATGAGTTTCTGAGCAAAAGATTA
TCGAAAGCCAGGCATAGTACCTGCAAGGACAGTGGCCATGCAGGAGCTAGAGACATTGTTTCCATTCAAGAGCTA
ATTGAAGTGGAAGAAGAAGAGGAAATCCTCTTGAACTCTTACACCACACCTTCAAAGGGTTCTCAGAAGCGAGCT
ATCTCTACCCCAGAAACCCCCCTAACAAAAAGGAGTGTGTCAACTCGTAGCCCCCATCAGCTACTCTCACCGTCA
AGTTTCTCTCCAAGTGCTACTCCCTCCCAGAAATACAACTCACGAAGTAACCGAGGAGAAGTGGTTACCTCCTTC
GGCTTAGCACAGGGAGTATCTTGGTCTGGGAGAGGAGGAGCTGGAAACATCAGCCTGAAGGTCTTGGGATGTCCA
GAGGCACTAACTGGGAGCTACAAATCCATGTTTCAGAAGCTCCCAGACATTCGAGAAGTTCTGACCTGTAAGATA
GAAGAACTTGGCAGCGAACTCAAGGAACATTACAAGATTGAAGCTTTCACTCCTTTGCTAGCCCCAGCACAGGAG
CCTGTCACTCTGCTGGGCCAGATTGGCTGTGATAGCAACGGGAAGCTGAACAACAAGTCAGTGATTCTCGAGGGA
GACCGGGAACATTCCTCGGGTGCTCAAATTCCAGTGGATTTATCTGAGCTTAAGGAATATTCTCTGTTTCCTGGA
CAGGTTGTAATTATGGAAGGAATCAACACCACTGGTAGGAAACTTGTTGCCACCAAACTCTACGAGGGTGTGCCA
CTTCCATTTTATCAGCCCACTGAAGAGGATGCAGACTTTGAGCAAAGCATGGTCCTGGTTGCCTGTGGACCATAC
ACCACATCTGACAGCATCACGTATGACCCCCTGCTTGACCTGATTGCTGTCATCAACCATGACCGGCCAGATGTC
TGCATCCTGTTTGGCCCTTTCCTGGATGCTAAGCATGAACAGGTGGAGAATTGTCTACTGACAAGTCCATTTGAA
GACATTTTCAAGCAGTGTCTACGAACAATTATTGAAGGCACAAGAAGCTCCGGCTCCCACCTTGTCTTTGTCCCG
TCATTGAGAGATGTGCACCATGAGCCTGTGTACCCCCAGCCGCCTTTCAGCTACTCCGATCTGTCTCGAGAGGAC
AAAAAGCAAGTACAGTTTGTGTCCGAGCCCTGCAGCCTCTCCATAAACGGAGTGATCTTCGGCTTGACATCCACA
GATCTGCTTTTCCACCTGGGGGCCGAGGAGATCAGTAGTTCTTCCGGAACTTCAGACAGATTCAGCCGAATACTC
AAGCACATCTTGACCCAGAGGAGCTACTACCCACTCTACCCGCCCCAAGAAGACATGGCCATTGACTATGAGTCG
TTCTATGTTTACGCACAGCTGCCTGTCACCCCAGATGTCCTCATCATCCCGTCAGAGCTGAGGTACTTCGTGAAG
GATGTCCTCGGCTGTGTCTGTGTGAACCCTGGGCGCCTTACCAAAGGGCAGGTGGGAGGCACCTTCGCCCGACTC
TACCTTAGGAGGCCGGCAGCGGACGGGGCAGAGAGGCAGAGCCCATGCATTGCTGTGCAGGTCGTCAGGATC**TGA**

GGCTTCTGTCCTCTGCTGTTCTCTGCTGTGTGGGCCCTTAAAGTCTTAGCCAAGAGCCAAGACATAGCCCTGTGA
CAAGGTGAACAGTTGGGTGGGAAAGGAGAGAGGAGCCAGCCAGGGAGGGGCAGCTGCAGTGACCAGGCCCAGCAG
GGAGGACTTGTGCAGCCGGGCCTGCCTCTGAGTGGTGCCTCTCCTGGAAGGAAGCTCTTGCTTCTCAGTCCATGC
TCCGTGTCCAGAAGTAAGCCAGCTGTGGATCCCGCCCACTCAGAAAAGGCGAGAAGGCTTTGTGATTTTCTACAT
GAATCAAACACAGAAACAACTTTTGGAGAAATTAAATTCTGAGTGTGACTTCTGAGTTTGACCTTTCTTCTATTT
TCTTTTATTTATTTATTTTGTTTTTAGACGGAGTCTCGATCTGTCGCCCAGGCTGGAGTGCAGTGGTGAGATCTC
GGCTCACTGCAAGCTCTGCCGCCCGGGTTCATGCCATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA

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FIGURE 2088

AAG**ATG**GCGGCTGTGGTGGAGAATGTAGTGAAGCTCCTTGGGGAGCAGTACTACAAAGATGCCATGGAGCAGTGC
CACAATTACAATGCTCGCCTCTGTGCTGAGCGCAGCGTGCGCCTGCCTTTCTTGGACTCACAGACCGGAGTAGCC
CAGAGCAATTGTTACATCTGGATGGAAAAGCGACACCGGGGTCCAGGATTGGCCTCCGGACAGCTGTACTCCTAC
CCTGCCCGGCGCTGGCGGAAAAAGCGGCGAGCCCATCCCCCTGAGGATCCACGACTTTCCTTCCCATCTATTAAG
CCAGACACAGACCAGACCCTGAAGAAGGAGGGGCTGATCTCTCAGGATGGCAGTAGTTTAGAGGCTCTGTTGCGC
ACTGACCCCCTGGAGAAGCGAGGTGCCCCGGATCCCCGAGTTGATGATGACAGCCTGGGCGAGTTTCCTGTGACC
AACAGTCGAGCGCGAAAGCGGATCCTAGAACCAGATGACTTCCTGGATGACCTCGATGATGAAGACTATGAAGAA
GATACTCCCAAGCGTCGGGGAAAGGGGAAATCCAAGGGTAAGGGTGTGGGCAGTGCCCGTAAGAAGCTGGATGCT
TCCATCCTGGAGGACCGGGATAAGCCCTATGCCTGTGACATTTGTGGAAAACGTTACAAGAACCGACCAGGCCTC
AGTTACCACTATGCCCACTCCCACTTGGCTGAGGAGGAGGGCGAGGACAAGGAAGACTCTCAACCACCCACTCCT
GTTTCCCAGAGGTCTGAGGAGCAGAAATCCAAAAAGGGTCCTGATGGATTGGCCTTGCCCAACAACTACTGTGAC
TTCTGCCTGGGGGACTCAAAGATTAACAAGAAGACGGGACAACCCGAGGAGCTGGTGTCCTGTTCTGACTGTGGC
CGCTCAGGGCATCCATCTTGCCTCCAATTTACCCCCGTGATGATGGCGGCAGTGAAGACATACCGCTGGCAGTGC
ATCGAGTGCAAATGTTGCAATATCTGCGGCACCTCCGAGAATGACGACCAGTTGCTCTTCTGTGATGACTGCGAT
CGTGGCTACCACATGTACTGTCTCACCCCGTCCATGTCTGAGCCCCCTGAAGGAAGTTGGAGCTGCCACCTGTGT
CTGGACCTGTTGAAAGAGAAAGCTTCCATCTACCAGAACCAGAACTCCTCT**TGA**TGTGGCCACCCACCTGCTCCC
CGACATATCTAAGGCTGTTTCTCTCCTCCACTTCATATTTCATACCCATCTTTCCCTTCTTCCTCCTCTCCTTCA
CAAATCCAGAGAACCTTGGGGTGGTTGTGCCAGCCTGCCTTTGGCAGCTGCAAGCTGAGGTGGCAGCTCTGACCA
CCTCTGGCCCCAGGCCCTCAGGGAGAAAGGAGCAACACACTGCCCCTAGGCGTGCGTGTGGCCCAGTTTCTCTCT
GCTCTCCATTAAGTGCATTCACTCTGCTTGCCTTGGGCCCAGCCCCTGGTGATCACAGGGTTCAAACAGTGTCCT
CCTAGAAAGAGTGGGAGAGCAGCTCACTTCTCTGTGTTCTGCCTCCCCTCTGGTCTCCAGAGTTTTCCTGTCCTC
TAGAGGCAAGCCAGGCCAGGGAGCTGGGAGCGAGCAAGCTGAGGCCACGTCCACAAGGAGCTTTTCATGCCCCTG
TGCCGCATAGCCTCACCTCTTTCCTCCAGAGTGGCTCTCTGCGGCCCTGTGTTCCTGCTACAGAGTGTTCTTTTC
TGGAGTCAGGATGTTCTCGGTCACCCTCCTGGTTCTGCCCTGTCCCATTCCACCCCACCCCAGGGGGAACAGTAG
CTTCACCTTGTTATTCCCATTGCTCTCCTGGCTCACTCTTACGGTCGGTCTCCAGTGACTGAAGCATTCCCCACC
CTTGGAATTTCTCATCTTCTGCCTCCCTTCCTACTCCTTTTGGTTTTGTGGGGAGAGGGGAAGGATCAGGGGGCC
AGGCCAGCAGCTCGGGGGCCACAAGGAGATGGATAATGTGCCTGTTTTTTAACACAACAAAAAAGCCTACCTCCA
AAATCCCCTTTTTGTTCTTCCTGGACCTGGGCATTCAGCCTCCTGCTCTTAACTGAATTGGGAGCCTCTGCCACC
TGCCCCGTGTATCCTGGCTCTCAGCTCATGGGGAAGCCACATAGACATCCCTTTCTTCCCTTGCACGCTCGCTAG
CAGCTGGTAAGGTCTTCACACCCTGATTCCTCAAGTTTTCTGCTTAGTGGCACTGACATTAAGTAGTGGGGGGAC
AGTCCATGCCAGGACACCCTGGAGTAGCCTTCCCCCTTGGCCGTGGGCAGGCCCTAACTCACTGTCGCTTTGGAG
TTGAGGTGTCTTTTCTTTTTCTTTCTTTAGTTCCTGTATTCTAAACATTAGTAAAAATAAATGTTTTTACACAGA

FIGURE 2089A

GGAATTCTCTGGGGCTTTGGGGAATTTAGTGCGTGGGTGAGCCAAGAAAATACTAATTAATAATAGTAAGTTGTT
AGTGTTGGTTAAGTTGTTGCTTGGAAGTGAGAAGTTGCTTAGAAACTTTCCAAAGTGCTTAGAACTTTAAGTGCA
AACAGACAAACTAACAAACAAAAATTGTTTTGCTTTGCTACAAGGTGGGGAAGACTGAAGAAGTGTTAACTGAAA
ACAGGTGACACAGAGTCACCAGTTTTCCGAGAACCAAAGGGAGGGGTGTGTGATGCCATCTCACAGGCAGGGGAA
ATGTCTTTACCAGCTTCCTCCTGGTGGCCAAGACAGCCTGTTTCAGAGGGTTGTTTTGTTTGGGGTGTGGGTGTT
ATCAAGTGAATTAGTCACTTGAAAGATGGGCGTCAGACTTGCATACGCAGCAGATCAGCATCCTTCGCTGCCCCT
TAGCAACTTAGGTGGTTGATTTGAAACTGTGAAGGTGTGATTTTTTCAGGAGCTGGAAGTCTTAGAAAAGCCTTG
TAAATGCCTATATTGTGGGCTTTTAACGTATTTAAGGGACCACTTAAGACGAGATTAGATGGGCTCTTCTGGATT
TGTTCCTCATTTGTCACAGGTGTCTTGTGATTGAAAATCATGAGCGAAGTGAAATTGCATTGAATTTCAAGGGAA
TTTAGTATGTAAATCGTGCCTTAGAAACACATCTGTTGTCTTTTCTGTGTTTGGTCGATATTAATAATGGCAAAA
TTTTTGCCTATCTAGTATCTTCAAATTGTAGTCTTTGTAACAACCAAATAACCTTTTGTGGTCACTGTAAAATTA
ATATTTGGTAGACAGAATCCATGTACCTTTGCTAAGGTTAGAATGAATAATTTATTGTATTTTTAATTTGAATGT
TTGTGCTTTTTAAATGAGCCAAGACTAGAGGGGAAACTATCACCTAAAATCAGTTTGGAAAACAAGACCTAAAAA
GGGAAGGGGATGGGGATTGTGGGGAGAGAGTGGGCGAGGTGCCTTTACTACATGTGTGATCTGAAAACCCTGCTT
GGTTCTGAGCTGCGTCTATTGAATTGGTAAAGTAATACCAATGGCTTTTTATCATTTCCTTCTTCCCTTTAAGTT
TCACTTGAAATTTTAAAAATCATGGTTATTTTTATCGTTGGGATCTTTCTGTCTTCTGGGTTCCATTTTTTAAAT
GTTTAAAAATATGTTGACATGGTAGTTCAGTTCTTAACCAATGACTTGGGGATGATGCAAACAATTACTGTCGTT
GGGATTTAGAGTGTATTAGTCACGCATGTATGGGGAAGTAGTCTCGGGTATGCTGTTGTGAAATTGAAACTGTAA
AAGTAGATGGTTGAAAGTACTGGTATGTTGCTCTGTATGGTAAGAACTAATTCTGTTACGTCATGTACATAATTA
CTAATCACTTTTCTTCCCCTTTACAGCACAAATAAAGTTTGAGTTCTAAACTCATTAGAATTGTTGTATTGCTAT
GTTACATTTCTCGACCCCTATCACATTGCCTTCATAACGACTTTGGATGTATCTTCATATTGTAGATTTAGGTCT
AGATTTGCTAGCTCCAAGTAATTAAGGCCATGTAGGAGAGCATGGTAACCACAGATAGAACTGGTATTATCCCAA
GTGGTCTGCAGACTGCTGAGTGGGGATGGGATCTGCTCTCTGTTGAGAGTTGGTAATCATTGGTTTGAAATGTGA
TGAAACCACTCAAGCCAATGAAGGTGGGTGTGTAGGTGGGGAGTACTTTGCCATAATATTTTAAAACATTACCTG
GTTAGAGTTCTAAGTGGTACTTATTTTTGTTTGGTTAGGGGAAAGCCTGAATAAAAACAGAAATGGACACATAAT
ATGCATATTCCATAGTCTTTGGGAGGCTGGAATGTGCCTGGGATTTGGGTCTAAGTGTATGCGTAATTCTTACCT
CACTAAAGAATTTGCCTTGTTTTTTTCCTTTTGGTGAGTGACTAAAACGTCTGGGCTTCCCTGTGTGCGTGCTAC
AGTAAGCAAGCAGAGGCTGTGCAAAGGTGTGAGCAGGATCACGTGGAATCTGGAGGATACATCTTGGCTTGCAAA
CTGCCTCTGTCTCCTGGGTGGGACTGTTCTGTCCTTGCACTGCTGTTCTGTGTTACCTCTTGGGGTGTAAGGTTT
TGCTTACAGGAGACAAACTTTGGGCGTAGAATGGAAGCCACTGCCAGCCTCTGTGCTGAGAAGGAAGGTGCTTGT
TTCAAAGGGAGCAGCAAGGGAGGCTTGTTCTACTCACCTGGGCCTGTTTGCCTGAGAAGGGGAGATAAGGGCTGA
ACTGGGACTAGCCAGGGGGACCAACACAAATGGTGGGGGATCATGACCTGAAGGATTCTTTCCTTCCCATGAGCT
GCAGGGCTGGTTGCCGTCCTTGCAACTGTGTCTTATTTGCCTGTGCCGTTATATCTTGGTGACCCCTCCACGTGT
ACACTACTGACAAACGGGTGGAGTGCTGGGGAGAAGTCACTGTGCCGCCCACCTAGTAAACCTTCTGTCTGTGCT
CATGGCATCTCCAAGATGGGGCACTGCTGTGTGCAGAATCCAGGGTCCTCTTTCTGCTTGCAACTCCTTTCCCTG
GATGCCCCAGAAACAATCCAGGCCTCCTTTCCTATCTTACCCCTTTGCTTTGCTTTTTACCCCAGCACCTCTATA
ACCGCCTTCTCTTCTTTTCAGAACTCCTTGTTTCTCATCCTGTTTTTTATGATTACAAAACTCTTGCTTCCACCC
TGGAAGATAACTGCTATAGATGCCTGTATGTAAATGGTGCTGTCTCCAGCAACTGGCATGCTGAAGAAGAATTGA
TTCACGGGGTATAAATGTTGGGGATTGGAAGTGGGGATGAAATGGCACTTGTTGATACAGGAGCAGAGAGGTGAG
GCCGACTGCTGAAGACAGCTCGCCACCCTCCTTGCCTCCACTCCAATCCAGGGGCTGGGGCCACATTCTTTGCCT
TCATTTATCCTCAGATCAGGTGAGATCGACAGGAGGTGTTGATGGCAGTGCCAGCAATTATTGCTAATCCGTTTG
CATCCTTATGCATAGATCTGAATTCAGACTTTGTGAATTTCCAGAGGTGTGGGTAATATAATAGAATTCAGTGAG
TGGGCATGGCTGATCTTGTGCAAATTAAAAGTTATGGGGCATAAGAATAGCAAAAGTTGAACTTCTTTTAAAAAG
GAAAGTACCCTGAGAGCCAGTATTGGTTGAGGCTCTTCAGTATGCCCAGGTTGGCAGCACTGAGAACCGCAGGAA
CGGCCTGTTGTTACAAAAAGGAGATTGACTCAGCTGCCCTTGGTGCATCTGACTGACTATGACTGCTGAGAGATT
CCAAGGACCCTTAATGCCAGGGCTAACCTCTCCATGTGCAGTGAGACCTCTGGAGGAAGTGTCATCCTCTGGCTT
TGTGTGGTACTCATTATGGTGCAGTGCGGGCATGAAATGAAGACACCCAAATAGGCTTACAGATACGATATGTTT
TAAATGTTCGTATTTAACAAAAACATACTGACACTGTTTGGAAATGGCAACAGGAAGATAGCAAAATGAATACTA

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FIGURE 2089B

ACATTACGAAAAGATGAACAGGTACATGTTCCAAGGCAGGTGGCTGTGAACTTCCTCTGAGTGAAGGCATCCCCT
CCAGCACCTTTCAGCCTGCTAGTTAGGACGACCCGCCGCCACCCTCCAGGACCTCCAGCCCTGCACTGCCTTTCC
TCTCTTTTAAATAATTCTTCATTGAGTTCTAATATGTAAAAAAAAAAAGTTTACTGTAAAGTTTGCAAATAAGGA
AATTTTTTTTAAAAGTCCTCAGTAATCTTACCAGTAACAATTGTTATGGGCACATTTGCTTTTGGAAGATTTCTT
TTGTATGCATGGGATAAGTACATTTTTAAACAAAAATGGGATTATGCCATAAATTCTATTTTGTGACTTTAATAT
ATAGTGAACACCTTTTTTAATGATGACAGGATGTTCCCTTGCATGGCTGTATCAATTTAAACAATCTTGTTTCAA
TGGGCATACAGGGTATTTTCTAGTTTTTTTTTCCTCTTAGAAAATAATACTTGCGATGACTTTCCTTGTAGCTCA
GACTTTTTCACGTCTGTTGTTATCTCTTTGGGAATGCTGAATACATACATTTCGAGAAGGAAATGACTGTTAAAC
TCTTAAGACTTCAGGTTCATATTGCTAAACTGCCCAGCAGGGAGGGATTTTTTCAATTAGTGTTCTCACTGGTGA
GGCAAACCTGATGCCTTCCCCTCTTCCTCAGAACCGGCTTTATCACATTGAAAACCTTTGCTCCTCCGACGGATC
GAGTCTGCTTTCCCTGTGGATGTGAGCATTGCTTTGTCTGCTGGTGACTGAACATCTCTACCATGTGTCAATTGG
CCATTTGTGGTGTGTGTGTGTGTGCGTGTGTGTGTGTGTGTGTGTGTGTATGATTTTCTAATTCCTAGTCATTTT
TCTATTGATTGTTTTGCAAAAGCCATTTACATCTTAAGGATATTGATAATCTTTTGTTATATTTGATGCAAATAT
TTTTTTCCAGTTTATAGGTTGCCTTTTAATTTTGTGTTTCAGGTAGATAAAAGTTAAACGATTTTCTTAGGTTAG
TTTATCACTGTGGTTTCTGAACTTGTTATGTGTAGATCTTTTCCACCCCAAGAGTACATAAATATTAATCCATAC
TTTCTTATGGAACTTGTATGGTTTCGTTTTTTACATTTAAACCTTCTTCCCCGTGGTGTGTGTTGTGGAATCTGT
GTTTGTGTGAGGAGGGGCATGGTGCTCTCAGAACCCACCTCCTGTGGCCAGAGAGCCCTGTCCTGTGAGGGTGGT
TATCACAGTGGCAGGGTTCAATTCAGAAGACCTTGAGGGCAGGCTGATGTTTCCTGAATGGGCCCCTGGTTGTTG
CTTGTCCCTGACTCTCCATTTCCCCATCTGAGTGGATTTGGACCTAATAGGGCACTGGAGCTGGTTCGAATCCTG
ACTGGACTACTTGGCAACTTTATGTCTGGGAGCAAGTTACTTAACCTCCCCAAGCCTGTGTCTGTGAAATGCGGG
TAAATGAATGTAG**ATG**TTTGGCAGCAGCTACTCCTTGTTGAGCTCTCACAGTGAACTCTCCTGCCTCTGCCCTCC
TTCCCCGCCTCCCCTGGTGCCTAGCGTCAGGTCTAGCCACTTCCTCCTGGGCCCCTCTCCCTTTTCTGTGGCTGG
CTGCCTGCCCGCCTGGCGCTGGACCTTTCATGTAACGGGAATCAGCATGTATATTCTGGTCTGGTCTGTTTCTAC
ACTTAATTTTGTTTCCAGTAGTATTTCCCTGTACCGGCAGAGTTCACAAACACATTTGAAGAGGCTTTTTCTCAG
GATTCTTAACCTTCCCAAAGGAAGTCCCATGGATGGGTTTCTAGAAGTCTATAAATGCTCTGAAATTGTATTTTT
CTGTGGAAAGCATAACTTTCATCTGCTTGTTCGTGCTCAAAAAAGATCA**TGA**ATGAATGATTGCATGATTTTATG
CCATTGTGCTTATACTAAAGGATATGTAGCCCATCTCTTGAGCTGTTAAACTGTTTTGACTACTTTAAATCGTGC
AGCTGTGAGCATCTCTGTAAATTTAGTGTACACATGTATCCCCTGGAGTGGCATTGCCTCGGCAGTGAGCACTTA
TGGTTTTATAACTCTCTTCACAGACTCAAATGACTCCAGAAAGCTACACTTCCTGTTGTGAGTATATGATATCCA
TTTCCCTACATAGCCACTAACATCAGGTTTTTACAATTTTATTTATTTCTTGCTACTTTAAGAAATTTTTGTGGT
GAAATACATATAATAGAAGTTGACTATCTGAATCATTTTTAAGTATACATTCAGTAGTGTTAAGTATGTCGCCAT
TGTTGTACAACCAATCTCCAGAACTTTTTCATCTTGCAAAACAAACTCTGTACCCATTAAATAACATTAAACATT
CCATTCCCTCCAGCCTCAGCAACCCCATTCTACTTTCTGTTTCTGTGAGTTTGACTATTCCAAGCACTTCATATC
AGTTAAATCATGAAGTATTTGTCTGTCTGTGACTGGCTTATTTCTCTGAGCACAGTGTCCTCGAGATGCGTCTAT
GTTGTAGCATATGTCAGAATTTCCTTCCTTTTTAAAAGATCCAAATAATATTCTTATTTTATATCTTTTTTTTAT
CCATTCATCCATTAGTGGACACTTGGGTTGCTTTTGGCTATTGTAAATAATGGTGCTATGTACAAATATCTATAT
TATTGTATTTACAAGTATAATGCTGTAATGTACACACATCTTTTTGAGATCCTACCTTCAGTTCTTTTGAGTATA
TAGCCAGAAGTGGTATTACTAAATCTTACGATATTTCTATTTTTAATTTATTGAGGAACCACTGTAGTTTTTCAT
AGCAACTGCACCATTTTACGTTCTCACCAAGAGTGCACAAGGGTTCCGAGGTTCCCACATCCTCCCCAACACTTG
TTATTTTCTGCTTTTTTTAGATTGCAGCCATCATAGTGGGTGTGAGGTGACATTTCATTGTGGTTTTGATTTGCA
TTTCCCTAATGAGGAGTGATGCTGAGCATCTTTTCATATGCTTACTGGTCATTTGTATGTTGTCTTTGGAAAAAT
GTCTATTCAAGTCCTTTGACTATTTTAAAAATTGGGTTATTAGAGTTATCGTTGTTGTTGACTTGTAGGAGTTTC
TTTCTATATTCTGGATATTAATCCCCTATCAGATATATGATTTGCAAATATCTTCTCTTATTCCATAAGGTTACT
TTTTCACTTTGTTGATTGTGTTCTTTGATGTATAGAAGTTTTTAGTTTTGAAATAGTCTAATTTATCTGTTTTTA
CTTTTGTGGTCTGTGCTTTTGGTGTCATATCCAAGAAATCCTTGCCAAATCCAACGTTATAAGGTACTTTTAAGG
TATTTTAGTTGTCTTAGTCTATATTTCTGTACTCACCTTTCTTTATCCACTCATCAGTTGATGGGCATGTAGGTT
GGTTCCATATCTTTGCAATTCTGAATTGTGCTGTGATCAGGTGTCTTTTTAGTATAATGATTTACTCTCCTTTGG
GTAGATACCCAGTAGTGGGATTGCTGGATCGAATGGTTTTTATAATTTTCTATTTTACCACAGTTTCTCTCTGCA

FIGURE 2089C

TTTTTCCTCTTTGACCACTAACCATGTGAAATTCTCATATTGACCTTTATAATGATCATGAACTCTTAGTATCAT
TGGGAAGGCCACATTTGCCACTTATGATTGTAAACCTTATCCTCCATTTTTCCTGTTATTGTTGGTGCAAAAAGC
ACCTATTATACCAGGACTTTAAAAATCAGTCTGATAAGTCTTTGATAAGTCTAATAATAATAACTGATAAGTCCA
TTGAATTTGCTTCTGATTACTTTTTCTTTAGTAGCTAAACATGTATGTACTCCTATGATTACAATGAACACTCCT
CTCCATTTAAATTAATTATTTACATTGATGAAATAGCAAAATGTTAATGACTAAATACTGTCTTGGTTTTTTCGT
TCCAGGTCAGTCAATATTAACTTCTTATAATTTTCTTTTTTTTCTTTATGTGTGTGTGTGTGTGTATTTTTTTTT
TTTTAATTTCAATGGCTTTTGGGGTACAAATGGCTTTTGGTCATATAGATGAATTCTACAGTAGTGAAGTCTGAG
ATTTTACTGCACCGGTCACCTGAGTAGTGTACATTGTACCCAATATGTGGTTTTTTATACCTTGCCCCCCTCTTA
CCCTCCCCACTTTGAGTCTCTAGTGTCCATTATGTCACTCTGTATACCTTTTTGTACCCATAAGTTAGCTCTCAC
TTATAAGTGAGAACACACAGTATTTGGTTTTCCATTCCTGAGTTGCTTCACTTAGAATAATATCCTCCAGCTCCA
TCCAAAATTGCTGCAAAAAAAAAAAAAACCACAAACATTATTTTGTTCTTTTTTATTGCTAAGTCATATTCCATG
GTGTAGAGATACCACATTTTATTTATCCACTCACTGGTTGATGGGTTGGTTCCACATCTTTGCAATTGTGACTTG
TACTGCCATCAAGTGTCTTTCTGGTATAATGACTTCTTTTCCTTTGGGTAGATACCCAGGAGTGGGATTGCTAGA
TCAAATGGTTCTTAACATTTTCTCTCTGGATCTATTTCTGGAAATTTTAGGCTCCAGTTTTTGTTGTTGTTGTTA
ATAAAATGCAATGGAATGTAATGATCATCACTTTTCATTATGCTTTAAAATCTGGTAAATGGAGGCTAGAACACT
CCTGTAAGGCAAGAATATTCTCTCTGTTGGAACTCAAATACACAGAACTGGGTAAATCTCAATCTTAATCTTTGA
TTCAGGACACAACATGGCTCTCTTTTACTTGCTTTCTTTAATTGTTTTTTAATAATGTGGTAAGCATTTCTGAAT
CTCCTATCCAATACAAAAACTAGGACAATACAGACAGTAACTCCTATGGTTACAATGAACACTCCTCTCCACTTA
AATTAATTATTTACACTGATGAAATTGAAATAGCAAAATTTTAATGACTAAATACTGTCTTTGATTTTTTGTTCC
AGGTCTGTCAATATTAACTTCTTATAATTTTCTTTTTTTTTCTTTATGTGTGTGTGTGTGTGTATATATATATAT
ATTTAATTTCAATGGCTTTTGGGGTACAAATGGCTTTTGGTCATATATATGAGTTCTACAGTAGTGAAGTCTGAG
ATTTTACTACACCTTCCACTTATGTGGTCCCACACCACCCGCCTCCCCTGCCGCCTCCTGCCACCCCCTAGGCCA
AGGTAATAATCATCCTGAATCCTGGGTTTATCTCTCACTTGCTTTCTTTTCATATAATTTTGCAAAAGAATCTGA
TCTAAATGTGTTTTTCAGAGTATATATTTATATTTTAGCTGTTCTTAGAGAAAATTTATTATTTTGCATGTAATC
TTATGGAACATTCTCATTTAATACCATGGTAAGATTCAGCCCTTGCCCAGGGGATAGTTCATTTAGTTTGTTTAC
TGGATAGAGCTCATCATGTGACTATACCTCAGTTAGTTTATCAGTTCTCCCATCCATGGTGACTAGGTTGCCTCT
CAGCCTCTCAACAACACTGTTTCTCAGTGTCCTTGTAGAAGTGATATGTGGGTGTTTTCTCCTTACACAGAGTTG
AAAGGTGACGACAACAACGTTGGCACTACCAATCCCCCACCCTCCAGAGGGGTAACCAGTGTTACCAGTTTGCTG
TGTTTCCTGCTACACCTCGCCTTATTCACTTCCATTTGTATCTGAAAAACGTGTTGCATGGTTTCTTTTCTATAG
AAGTGGTAAAATGCTATTGTGTCCTGTACATTATTGATTACTTTTTTTCATTTAACAGTAGGGAGATGCCTGGGA
GTACACAGAGAACTGCCCTCATTGTTTTCAACTTCTGCACTGTATGTCTGTGAGTTTAGCCATTCTGCTGTTAAT
GGAAATTTACAGTATTCTAATCTTTTGATATTACAAACAGTTCTGTGCGATCATCGTCATACACAACCCCTTGTG
CACAATGCATGAGTGTTTCTCAGGGTAGGTACCAAGAAGTGAAATTCCTGGGTCATAGGGCGTGAGTCCGACATT
TTTCTCCATTCTGCCCTGTTGCCCTCCAGAGTGGGTGTCCAGCTTTGCATACCTAAGTATGAGAGTATCTGTTGT
TCATATCCTCTACGACGCTCCATATATGAAACTTAAGTTTCTGCTAGTTGCCATCTTTGATCTATCATGTATGCA
GTGACCTACTAAGACTGTAATTGGTACAGTAGATTCTTGTCATCTGTGTGTGAATTTAGCATTCATGGGCTTAAT
GCTGACAAGGCCCCCAGGGTCCAAGACATATAATCATGTATAATTTTGTCAAGGTATAATTTTTTAAATTGCTTT
TGTCATGTGTCTGCTGGTGATGCCCAACCCAGTGCTCTGCACCCAGGTCACACTGTGGCTTTGTCCTCTGCTTAT
GCCTGCATTGCAGCAACTGTCCTGAAGAGACCAAAATTATGCAGATTTAGGTAAGTCCATGGCTAATGTTATTAT
ATTATGTGCTATTGTAATGGATGGGGCTGTGGAGTGTATGAATTTATAAATCACTGGTCTTGTAATTAAAATTCA
AACACTATAGAAAAAGGCCATGTAGAAGATAAAAGTTCCTCTATAATCCCGGACCCCTAAGATAACTACTAATGA
CAACTTCATTTATATTCCTTCAGACATTTTCTGGCTGTGGATGTACTAAAATGTATCCTATTATTCTCTGCCCTA
AAATGGAATCATACAAGGTGTACTGTTATTTTTATGGCTCTATAACATGTCATATTGTACGTGTTGGTATGGTCA
TTTTAACCATTTTTCTAGTGATGGCTTTGAGGTTATTTGCAGTTTCCTAGCCATCTCAAAGTGTGCTGCGGGGAT
CTCTTTTGCATCCCTCTGGGTGCAGAGCTGAGGCACCCAGAGGCAGTGTCCAGAGGAGGCAGCATCTGTAGGTGT
CTTCACCTGCTCTGGCTCTTGGCACATCTGGTTGGTGACACTGTTTTGTGAGATGGGTTGAAAGCACGTGCTGCC
AAAATAGAATAATGTTGGTCCTCTCCTCATGTGCCGTGGAACTGGGGTAAAACTGCGTAGTGGCTGCAGCTGCCT
GTCCATACCGGAATCGAGTATAACACGGTGCCTGGCTTAGCACAAAACAGTAGTGGGTCCTGCAGGCCCCAGAGT

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FIGURE 2089D

CTAATTCCTGGTATTCTTTCCCCTACACAGATTAAATAAACCAAAAACAAACTATTCTAGGAAAGCGTCTGTGAC
ATTTGTAAAAAGTGGTATTTAATGATCTTTTATTCACTTGTCTGTTTAGTTTGTTGAAATCTTAAGTGGCATCCT
GGTCTGGGAAGGAGTGCTGTCTGCGCCTGCCCTCCGCTGGGCACAGCGTGGCTGCTTCAGGGGCTAAGCACACAC
TTTCTGTCTTCTAAAGGGCCGCCACATGCCAGGAGCTCAGGTGTGAGCCCGGCTCTGGCTCTTACCTCATAGGGT
CACTCATAGGGGCACAGGGAGCAGAACATTGTACACAGCGAGGCACCACCCGGCTTGGCATCTGCCTCGGTGGAC
TTACTACCTCTAGAAGGAAATACCTGAGTTCCTCTGGCCTCAGCTCCTAGAGTGACTGGTGTGCTGTCCCTGTTA
CTCTTCTGTCAAGGTGACAACTGTGTGACCCATCATCTGTGTGTCAAAGCAAGGCCCTGCCTGGGCCTCTGCTCC
TGTGCTGACCCCAAAGGCAAATGCTTTGCTAGTTTCCTTCCAGTTAATTTCACCTATGAATAGATGTGTGAAAAC
TGTTCAAAGCCATACCTGCACATGTTTGAACTTCAAACCCTGTGGGTGATTCAGTGGCATCTTTCTCTAACCCCC
AGCCTCCCTTCCCACAGAGGCCACCGTCATGGCCAGTTGCTGCAGTTTCTTTCCAGAGAACCTGTGTATGTGTAA
AGCTGTACAGGCGTGGGTACACCACACAGCCTGTCTTGCACTGTGGACTGTTGAGTTACTAGTACATCTAGGTAA
GCACCGCATATCTGTATTCATGTCTGCCTTGGTCTTTTCAACATCTGTGTGGTAGCCGTGTTTGAATTACCCATT
CCCTTTTTGGGGAACCATTAAGTTGTTTCAGCAATTTTTACTGTAGATAAGGCTATACCGCATATCTGTGTACAT
GGGTTTTTATGTACATGGGCAAGTATATCTGTGAGAGAAAAGTTTCCTCAGGAGGAATTCTGGGCACAGCATGTG
TAAATTTCTAAATATGATGGACACCCCCAGCTTCCACCTCAAGGAGGTTGGTCCCATTGACATTTCCCCACACCT
TCACCCAGGCTGTGCCCTTAAACTTGGTTATTTGTCAATGTGAGAAGTGGAAAATAGTATTTAATTGTAGTTTGG
ATTTGTATTTCTATTGGGTTGTATACTTACTGATTAATAATAAGAGCTCTTTACATATTAAGGAAATTAACCCTT
TTCAAATACATTCCTATTTCTCACTAATCTTTAAGTTTTATTGTAATATTTTGCTCTTTAGTTTATATATATATG
TATATATATATATATGTATATATATATATATATACATATATATATACATATATATATA

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FIGURE 2090

ATGGTCCGCTGCGTCCGACTGGTGGAAGCAGGATCTGTGGTGAGATACCTCAGCACAAGCATATGCAGGCCTGTG
GTAGACGCCGGAAGTAGGGCCCTTTGTCTCCAAGAATGGGCAGACTCTCAACAGGTGAAAGAAAAACAGTACTCC
AGCAGAGATGTCCAGAGAGCAGCCGCTCTCAACATCTACCGTATCCCACCGTCTAGCAGGAAGCCCGCTCTCTGT
CCAACTCCGCGGGACCGACTAGAGTACGACGAGGACCGACTAGAGCACATCGCCTACGTGCGCGCCCGGGAGCTG
CACACTCTTGAAGTGACCGGCCTGGAGACGGTTGCCCAGAGCAAGCCACTACTTGCCTTTCCTCCTGTGGCTTCC
CCAGACAACACTCTTGACTCTCCCTTTCCTTTGAAGGCCCATGTAGCATCCCTGGAGGGCCTCATCCCTGAAGAT
AAGGTTGTGCTTCTGGCAGGTTCTCCCTTACAGAATGAAGCCACCCTGGGTCAGTGTGGGGTGGAAGCCCTGACA
ACCCTGGAAGTGGTTGGCCGCAGGCTAGGAGTGGTAAGAGTGCCAGGAACGGAGCGCGTTTGCTGCACACCATTT
GCCATTGGTGCATCGAGCACACTCCCAGCTCCAGGATTATGGGAAGACCTTTTTGGGGCTGGAACAGCGCGCAGT
GGCCACCGCCGCCGGGTCTCCAGCCCCCAGGAGCGCGGCCTCCTCCCGGACTCTCTCCGATGCGGTCCTGCCCTG
GGGACACGGCAGGAAGAAGGGACCTGGCTGGGGGACGTGGCCCCGGCGCGGGGGCAGGGGAGGCAGCGCGGGACT
CCCAGCGGCCCCTGCGCGGGCCTTCCTGAACAGCAGCAGCAGCTGGGAATGCAAAATGACATCCCTATGTTGTCC
CTGCCCTTTGTCCAGGGTGAGAGGGACCCTTCCTCGGTGGAGTTGACACAGACCTGCCTCTCTCTCATGTCTGTA
CTGGGACCCACAGTGCTACAGCTGGGCTGCCACAGCCAGGCCTTTCGGGAGGATCCACCAATAGGCTTCAGGGCC
CAGGGCCAAGGAGGGCGGCTCACGGCCCTCGCGTATCCCTGCGCGGCGCTCGCGAGCCGCCCCTCCCCCGGCGTT
TGTCCC**TGA**

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FIGURE 2091

AGCCCCCCCATCCCCGCCCCTCTCCCGCCCCTCCCTTGTCCCCGCCCCTTCCCGCCCCAACTCAGGTTCTGCCCC
ACCCCGCCCCAATTCACGTCCTGCTCCGCCCCGACGTAGGCCCCGCCCTGGCCCCCGGGCCCCGCCCCCGTCTGA
CGCAGGCCCCGCCCCCTCTCCGCCCCGCCCCGGCTCGGGCGGCCGGAGGACCCGGAGCTAAGGCGCCCGAACCCG
CGGCGGCGGTGGGGACG**ATG**TGGTTCTTTGCCCGGGACCCGGTCCGGGACTTTCCGTTCGAGCTCATCCCGGAGC
CCCCAGAGGGCGGCCTGCCCGGGCCCTGGGCCCTGCACCGCGGCCGCAAGAAGGCCACAGGCAGCCCCGTGTCCA
TCTTCGTCTATGATGTGAAGCCTGGCGCGGAAGAGCAGACCCAGGTGGCCAAAGCTGCCTTCAAGCGCTTCAAAA
CTCTACGGCACCCCAACATCCTGGCTTACATCGATGGACTGGAGACAGAAAAATGCCTCCACGTCGTGACAGAGG
CTGTGACCCCGTTGGGAATATACCTCAAGGCGAGAGTGGAGGCTGGTGGCCTGAAGGAGCTGGAGATCTCCTGGG
GGCTACACCAGATCGTGAAAGCCCTCAGCTTCCTGGTCAACGACTGCAGCCTCATCCACAACAATGTCTGCATGG
CCGCCGTGTTCGTGGACCGAGCTGGCGAGTGGAAGCTTGGGGGCCTGGACTACATGTATTCGGCCCAGGGCAACG
GTGGGGGACCTCCCCGCAAGGGGATCCCCGAGCTTGAGCAGTATGACCCCCCGGAGTTGGCTGACAGCAGTGGCA
GAGTGGTCAGAGAGAAGTGGTCAGCAGACATGTGGCGCTTGGGCTGCCTCATTTGGGAAGTCTTCAATGGGCCCC
TACCTCGGGCAGCAGCCCTACGCAACCCTGGGAAGATCCCCAAAACGCTGGTGCCCCATTACTGTGAGCTGGTGG
GAGCAAACCCCAAGGTGCGTCCCAACCCAGCCCGCTTCCTGCAGAACTGCCGGGCACCTGGTGGCTTCATGAGCA
ACCGCTTTGTAGAAACCAACCTCTTCCTGGAGGAGATTCAGATCAAAGAGCCAGCCGAGAAGCAAAAATTCTTCC
AGGAGCTGAGCAAGAGCCTGGACGCATTCCCTGAGGATTTCTGTCGGCACAAGGTGCTGCCCCAGCTGCTGACCG
CCTTCGAGTTCGGCAATGCTGGGGCCGTTGTCCTCACGCCCCTCTTCAAGGTGGGCAAGTTCCTGAGCGCTGAGG
AGTATCAGCAGAAGATCATCCCTGTGGTGGTCAAGATGTTCTCATCCACTGACCGGGCCATGCGCATCCGCCTCC
TGCAGCAGATGGAGCAGTTCATCCAGTACCTTGACGAGCCAACAGTCAACACCCAGATCTTCCCCCACGTCGTAC
ATGGCTTCCTGGACACCAACCCTGCCATCCGGGAGCAGACGGTCAAGTCCATGCTGCTCCTGGCCCCAAAGCTGA
ACGAGGCCAACCTCAATGTGGAGCTGATGAAGCACTTTGCACGGCTACAGGCCAAGGATGAACAGGGCCCCATCC
GCTGCAACACCACAGTCTGCCTGGGCAAAATCGGCTCCTACCTCAGTGCTAGCACCAGACACAGGGTCCTTACCT
CTGCCTTCAGCCGAGCCACTAGGGACCCGTTTGCACCGTCCCGGGTTGCGGGTGTCCTGGGCTTTGCTGCCACCC
ACAACCTCTACTCAATGAACGACTGTGCCCAGAAGATCCTGCCTGTGCTCTGCGGTCTCACTGTAGATCCTGAGA
AATCCGTGCGAGACCAGGCCTTCAAGGCCATTCGGAGCTTCCTGTCCAAATTGGAGTCTGTGTCGGAGGACCCGA
CCCAGCTGGAGGAAGTGGAGAAGGATGTCCATGCAGCCTCCAGCCCTGGCATGGGAGGAGCCGCAGCTAGCTGGG
CAGGCTGGGCCGTGACCGGGGTCTCCTCACTCACCTCCAAGCTGATCCGTTCGCACCCAACCACTGCCCCAACAG
AAACCAACATTCCCCAAAGACCCACGCCTGAAGGCCACTGGGAGACGCAGGAGGAGGACAAGGACACAGCAGAGG
ACAGCAGCACTGCTGACAGATGGGACGACGAAGACTGGGGCAGCCTGGAGCAGGAGGCCGAGTCTGTGCTGGCCC
AGCAGGACGACTGGAGCACCGGGGGCCAAGTGAGCCGTGCTAGTCAGGTCAGCAACTCCGACCACAAATCCTCCA
AATCCCCAGAGTCCGACTGGAGCAGCTGGGAAGCTGAGGGCTCCTGGGAACAGGGCTGGCAGGAGCCAAGCTCCC
AGGAGCCACCTCCTGACGGTACACGGCTGGCCAGCGAGTATAACTGGGGTGGCCCAGAGTCCAGCGACAAGGGCG
ACCCCTTCGCTACCCTGTCTGCACGTCCCAGCACCCAGCCGAGGCCAGACTCTTGGGGTGAGGACAACTGGGAGG
GCCTCGAGACTGACAGTCGACAGGTCAAGGCTGAGCTGGCCCGGAAGAAGCGCGAGGAGCGGCGGCGGGAGATGG
AGGCCAAACGCGCCGAGAGGAAGGTGGCCAAGGGCCCCATGAAGCTGGGAGCCCGGAAGCTGGAC**TGA**ACCGTGG
CGGTGGCCCTTCCCGGCTGCGGAGAGCCCGCCCCACAGATGTATTTATTGTACAAACCATGTGAGCCCGGCCGGC
CCAGCCAGGCCATCTCACGTGTACATAATCAGAGCCACAATAAATTCTATTTCAC

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FIGURE 2092

CAGAGACTGATGAGTGCCGACTGAACCAGAACATCTGTGGCCACGGAGAGTGCGTGCCGGGCCCCCCTGACTACT
CCTGCCACTGCAACCCCGGCTACCGGTCACATCCCCAGCACCGCTACTGCGTGGATGTGAACGAGTGCGAGGCAG
AGCCCTGTGGCCCGGGGAGGGGCATCTGC**ATG**AACACCGGCGGCTCCTACAATTGCCACTGCAACCGCGGCTACC
GCCTGCACGTGGGCGCCGGGGGGCGCTCGTGCGTGGACCTGAACGAATGCGCCAAGCCCCACCTGTGCGGCGACG
GCGGCTTCTGCATCAACTTTCCCGGTCACTACAAGTGCAACTGCTACCCCGGCTACCGGCTCAAAGCCTCCCGGC
CTCCTGTGTGCGAAGACATCGACGAGTGCCGGGACCCAAGCTCTTGCCCGGATGGCAAATGCGAGAACAAGCCCG
GGAGCTTCAAGTGCATCGCCTGTCAGCCTGGCTACCGCAGCCAGGGGGGCGGGGCCTGTCGCGACGTGAACGAGT
GCGCCGAGGGCAGCCCCTGCTCGCCTGGCTGGTGCGAGAACCTCCCGGGCTCCTTCCGCTGCACCTGTGCCCAGG
GCTACGCGCCCGCGCCCGACGGCCGCAGTTGCTTGGATGTGGACGAGTGTGAGGCTGGGGACGTGTGTGACAATG
GCATCTGCAGCAACACGCCAGGATCTTTCCAGTGTCAGTGCCTCTCTGGCTACCATCTGTCCAGGGACCGGAGCC
ACTGCGAGGACATTGATGAGTGTGACTTCCCTGCAGCCTGCATTGGGGGTGACTGCATCAATACCAATGGCTCCT
ACAGATGTCTTTGCCCCCAGGGGCATCGGCTGGTGGGTGGCAGGAAATGCCAAGACATAGATGAGTGCAGCCAGG
ACCCGAGCCTGTGCCTTCCCCATGGGGCCTGCAAGAACCTTCAGGGCTCCTATGTGTGTGTCTGCGATGAGGGCT
TCACTCCCACCCAGGACCAGCACGGTTGTGAGGAGGTGGAGCAGCCCCACCACAAGAAGGAGTGCTACCTGAACT
TCGATGACACAGTGTTCTGCGACAGCGTATTGGCCACCAACGTGACCCAGCAGGAGTGCTGCTGCTCTCTGGGGG
CCGGCTGGGGCGACCACTGCGAAATCTACCCCTGCCCAGTCTACAGCTCAGCCGAGTTCCACAGCCTCTGCCCAG
ACGGAAAGGGCTACACCCAGGACAACAACATCGTCAACTACGGCATCCCAGCCCACCGTGACATCGACGAGTGCA
TGTTGTTCGGGTCGGAGATTTGCAAGGAGGGCAAGTGCGTGAACACGCAGCCTGGCTACGAGTGCTACTGCAAGC
AGGGCTTCTACTACGACGGGAACCTGCTGGAATGCGTGGACGTGGACGAGTGCCTGGACGAGTCCAACTGCCGGA
ACGGAGTGTGTGAGAACACGCGCGGCGGCTACCGCTGTGCCTGCACGCCCCCTGCCGAGTACAGTCCCGCGCAGC
GCCAGTGCCTGAGCCCGGAAGAGATGGACGTGGACGAGTGCCAGGACCCGGCAGCCTGCCGCCCTGGCCGCTGCG
TCAACCTGCCGGGCTCCTACCGCTGCGAGTGTCGCCCGCCCTGGGTGCCCGGGCCCTCCGGCCGCGATTGCCAGC
TCCCCGAGAGCCCGGCCGAGCGTGCCCCGGAGCGGCGCGACGTGTGCTGGAGCCAGCGCGGAGAGGACGGCATGT
GCGCTGGCCCCCTGGCCGGGCCTGCCCTCACCTTCGACGACTGCTGCTGCCGCCAGGGCCGCGGCTGGGGCGCCC
AATGCCGACCGTGCCCGCCGCGCGGCGCGGGGTCCCATTGCCCGACATCGCAGAGCGAGAGCAATTCCTTCTGGG
ACACAAGCCCCCTGCTGTTGGGGAAGCCCCCAAGAGATGAGGACAGTTCAGAGGAGGATTCAGACGAGTGTCGCT
GCGTGAGTGGCCGCTGCGTGCCGCGGCCGGGCGGCGCCGTGTGCGAGTGTCCCGGCGGCTTCCAGCTCGACGCCT
CCCGCGCCCGCTGCGTGGATATCGACGAGTGCCGAGAGCTGAACCAGCGCGGGCTGCTGTGCAAGAGCGAGCGCT
GCGTGAACACCAGCGGCTCCTTCCGCTGCGTCTGCAAAGCCGGCTTCGCGCGCAGCCGCCCGCACGGGGCCTGCG
TTCCCCAGCGCCGCCGC**TGA**CGCCGCCGACGCCGCCCTCGGCCCAGACCTCGGTGATCACTGAGGGATTTCCGCG
AGCTCGGCCTCACTTCTGCCCCGACTTGTGGCTCGGACCCAGGGACCTTCAGGGCCCGCAGACCCTCCCGGCGCC
TTGAGACCCGAGGCGCCCCTACCGGCCCCCCTCCCCGGTTAGCGGGCGGTTGTAAGGTCTCCGGCGGGCGCTGCC
TGCCTTCCTCCCAGAGGGTGTTTCCTAGAAACTGATAAATCAGATCGTGCCTCTTTACCCTTGGCTTTCG

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FIGURE 2093

CTCCCAAAGCAGAATTGCAGCTGCCGCCGCCGCCACCTCCAGGCCACTATGGCGCCTGGGCTGCCCAGGAGCTTC
AGGCCAAGTTGGCAGAGATCGGAGCTCCGATCCAGGGTAATCGCGAGGAGCTGGTGGAGCGGCTGCAGAGCTACA
CCCGCCAGACTGGCATCGTGCTGAATCGGCCGGTTTTGAGAGGGGAAGATGGGGACAAAGCCGCTCCACCTCCCA
TGTCGGCACAGCTCCCTGGAATTCCCATGCCACCACCACCTTTGGGACTCCCCCCTCTGCAGCCTCCTCCGCCAC
CCCCACCACCTCCACCAGGCCTTGGCCTTGGCTTTCCTATGGCCCACCCACCAAATTTGGGGCCCCCGCCTCCTC
TCCGTGTGGGTGAGCCAGTGGCACTGTCAGAGGAGGAGCGGCTGAAGTTGGCTCAGCAGCAGGCGGCATTGCTGA
TGCAGCAGGAGGAGCGTGCCAAGCAGCAGGGAGATCATTCGCTGAAGGAACATGAGCTCTTGGAGCAGCAGAAGC
GGGCAGCTGTGTTACTGGAGCAGGAACGACAGCAGGAGATTGCCAAGATGGGCACCCCAGTCCCTCGGCCCCCAC
AAGACATGGGCCAGATTGGTGTGCGCACTCCTCTGGGTCCTCGAGTAGCTGCTCCAGTGGGCCCAGTGGGCCCCA
CTCCTACAGTTTTGCCCATGGGAGCCCCTGTTCCCCGGCCTCGTGGTCCCCCACCGCCCCCTGGAGATGAGAACA
GAGAGATGGATGACCCCTCTGTGGGCCCCAAGATCCCCCAGGCTTTGGAGAAGATCCTGCAGCTGAAGGAGAGCC
GCCAGGAAGAGATGAATTCTCAGCAGGAGGAAGAGGAAATGGAAACAGATGCTCGCTCGTCCCTGGGCCAGTCAG
CGTCAGAGACTGAGGAGGACACAGTGTCCGTATCTAAAAAGGAGAAAAACCGGAAGCGTAGGAACCGAAAGAAGA
AGAAAAAGCCCCAGCGGGTGCGAGGGGTGTCCTCTGAGAGCTCTGGGGACCGGGAGAAAGACTCAACCCGGTCCC
GTGGCTCTGATTCCCCAGCAGCTGATGTTGAGATTGAGTATGTGACTGAAGAACCTGAAATTTACGAGCCCAACT
TTATCTTCTTTAAGAGGATCTTTGAGGCTTTTAAGCTCACTGATGATGTGAAGAAGGAGAAAGAGAAGGAGCCAG
AGAAACTTGACAAACTGGAGAACTCTGCAGCCCCCAAGAAGAAGGGATTTGAAGAGGAGCACAAGGACAGTGATG
ATGACAGCAGTGATGACGAGCAGGAAAAGAAGCCAGAAGCCCCCAAGCTGTCCAAGAAGAAGTTGCGCCGAATGA
ACCGCTTCACTGTGGCTGAACTCAAGCAGCTGGTGGCTCGGCCCGATGTCGTGGAGATGCACGATGTGACAGCGC
AGGACCCTAAGCTCTTGGTTCACCTCAAGGCCACTCGGAACTCTGTGCCTGTGCCACGCCACTGGTGTTTTAAGC
GCAAATACCTGCAGGGCAAACGGGGCATTGAGAAGCCCCCCTTCGAGCTGCCAGACTTCATCAAACGCACAGGCA
TCCAGGAGATGCGAGAGGCCCTGCAGGAGAAGGAAGAACAGAAGACCATGAAGTCAAAAATGCGAGAGAAAGTTC
GGCCTAAGATGGGCAAAATTGACATCGACTACCAGAAACTGCATGATGCCTTCTTCAAGTGGCAGACCAAGCCAA
AGCTGACCATCCATGGGGACCTGTACTATGAGGGGAAGGAGTTCGAGACACGACTGAAGGAGAAGAAGCCAGGAG
ATCTGTCTGATGAGCTAAGGATTTCCTTGGGGATGCCAGTAGGACCAAATGCCCACAAGGTCCCTCCCCCATGGC
TGATTGCCATGCAGCGATATGGACCACCCCCATCGTATCCCAACCTGAAAATCCCTGGGCTGAACTCGCCCATCC
CTGAGAGCTGTTCCTTTGGGTACCATGCTGGTGGCTGGGGCAAACCTCCAGTGGATGAGACTGGGAAACCGCTCT
ATGGGGACGTGTTTGGAACCAATGCTGCTGAATTTCAGACCAAGACTGAGGAAGAAGAGATTGATCGGACCCCTT
GGGGGGAACTGGAACCATCTGATGAAGAATCCTCAGAAGAAGAGGAAGAGGAAGAAAGTGATGAAGACAAACCAG
ATGAGACAGGCTTTATTACCCCTGCAGACAGTGGCCTTATCACTCCTGGAGGCTTTTCATCAGTGCCTGCTGGAA
TGGAGACCCCTGAACTCATTGAGCTGAGGAAGAAGAAGATTGAGGAGGCGATGGACGGAAGTGAGACACCTCAGC
TCTTCACTGTGTTGCCAGAGAAGAGAACAGCCACTGTTGGAGGGGCCATGATGGGATCAACCCACATTTATGACA
TGTCCACGGTTATGAGCCGGAAGGGCCCGGCTCCTGAGCTGCAAGGTGTGGAAGTGGCGCTGGCGCCTGAAGAGT
TGGAGCTGGATCCTATGGCCATGACCCAGAAGTATGAGGAGCATGTGCGGGAGCAGCAGGCTCAAGTAGAGAAGG
AGGACTTCAGTGACATGGTGGCTGAGCACGCTGCCAAACAGAAGCAAAAAAAACGGAAAGCTCAGCCCCAGGACA
GCCGTGGGGGCAGCAAGAAATATAAGGAGTTCAAGTTTTAGGTCCCCTCACACTAGCCCTTTTTTTGGCCCTACG
TCTGGATGCCTGGGCTTCACACAAGAACCACCTCTCCCGCAGTTCCCAAGGACTTGTCATTTCATGTTCTTATTT
TAGACCTGTTTTGTAAATAAAGCTGTTTCCCAAGGAAAGAGATG

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FIGURE 2094

GGAGTTTCGCCGCCGCAGTCTTCGCCACC**ATG**CCGCCCTACACCGTGGTCTATTTCCCAGTTCGAGGCCGCTGCG
CGGCCCTGCGCATGCTGCTGGCAGATCAGGGCCAGAGCTGGAAGGAGGAGGTGGTGACCGTGGAGACGTGGCAGG
AGGGCTCACTCAAAGCCTCCTGCCTATACGGGCAGCTCCCCAAGTTCCAGGACGGAGACCTCACCCTGTACCAGT
CCAATACCATCCTGCGTCACCTGGGCCGCACCCTTGGGCTCTATGGGAAGGACCAGCAGGAGGCAGCCCTGGTGG
ACATGGTGAATGACGGCGTGGAGGACCTCCGCTGCAAATACATCTCCCTCATCTACACCAACTATGAGGCGGGCA
AGGATGACTATGTGAAGGCACTGCCCGGGCAACTGAAGCCTTTTGAGACCCTGCTGTCCCAGAACCAGGGAGGCA
AGACCTTCATTGTGGGAGACCAGATCTCCTTCGCTGACTACAACCTGCTGGACTTGCTGCTGATCCATGAGGTCC
TAGCCCCTGGCTGCCTGGATGCGTTCCCCCTGCTCTCAGCATATGTGGGGCGCCTCAGTGCCCGGCCCAAGCTCA
AGGCCTTCCTGGCCTCCCCTGAGTACGTGAACCTCCCCATCAATGGCAACGGGAAACAG**TGA**GGGTTGGGGGGAC
TCTGAGCGGGAGGCAGAGTTTGCCTTCCTTTCTCCAGGACCAATAAAATTTCTAAGAGAGCT

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FIGURE 2095

GCGTGACGTCTTTCCTGCGCGCCACCTAGCGTCTCTATCGCGCCAGTTCCTCAGCCTCAGTGCTATGAAGGTGAC
AGCGTGAGGTGACCCATCTGGCCCGCCGCG**ATG**CTGGCAACACGGCGGCTGCTCGGCTGGTCGCTTCCCGCGCGG
GTATCTGTGCGTTTCAGCGGCGACACGACAGCACCCAAGAAAACCTCATTTGGCTCGCTGAAGGATGAAGACCGG
ATTTTCACCAACCTGTACGGCCGCCATGACTGGAGGCTGAAAGGTTCCCTGAGTCGAGGTGACTGGTACAAGACA
AAGGAGATCCTGCTGAAGGGGCCCGACTGGATCCTGGGCGAGATCAAGACATCGGGTTTGAGGGGCCGTGGAGGC
GCTGGCTTCCCCACTGGCCTCAAGTGGAGCTTCATGAATAAGCCCTCAGATGGCAGGCCCAAGTATCTGGTGGTG
AACGCAGACGAGGGGGAGCCGGGCACCTGCAAGGACCGGGAGATCTTACGCCATGATCCTCACAAGCTGCTGGAA
GGCTGCCTGGTGGGGGGCCGGGCCATGGGCGCCCGCGCTGCCTATATCTACATCCGAGGGGAATTCTACAATGAG
GCCTCCAATCTGCAGGTGGCCATCCGAGAGGCCTATGAGGCAGGTCTGATTGGCAAGAATGCTTGTGGCTCTGGC
TATGATTTTGACGTGTTTGTGGTGCGCGGGGCTGGGGCCTACATCTGTGGAGAGGAGACAGCGCTCATCGAGTCC
ATTGAGGGCAAGCAGGGCAAGCCCCGCCTGAAGCCCCCCTTCCCCGCAGACGTGGGAGTGTTTGGCTGCCCCACA
ACTGTGGCCAACGTGGAGACAGTGGCAGTGTCCCCCACAATCTGCCGCCGTGGAGGTACCTGGTTTGCTGGCTTT
GGCAGAGAACGCAACTCAGGCACCAAACTATTCAACATCTCTGGCCATGTCAACCACCCTTGCACTGTGGAGGAG
GAGATGTCTGTGCCCTTGAAAGAACTGATTGAGAAGCATGCTGGGGGTGTCACGGGCGGCTGGGACAACCTCCTT
GCTGTGATCCCTGGCGGCTCGTCTACCCCACTGATCCCCAAGTCTGTGTGTGAGACGGTGCTGATGGACTTCGAT
GCGCTGGTGCAGGCACAGACAGGCCTGGGCACAGCTGCGGTGATCGTCATGGACCGCTCGACGGACATCGTGAAA
GCCATCGCCCGCCTCATTGAGTTCTATAAGCACGAGAGCTGTGGCCAGTGTACCCCATGCCGTGAGGGTGTGGAC
TGGATGAACAAGGTGATGGCACGTTTCGTGAGGGGGGATGCCCGGCCGGCCGAGATCGACTCCCTGTGGGAGATC
AGCAAGCAGATAGAAGGCCATACGATTTGTGCTCTGGGTGACGGGGCCGCCTGGCCTGTGCAGGGTCTGATCCGC
CACTTTCGGCCGGAGCTCGAGGAGCGGATGCAGCGGTTTGCCCAGCAGCATCAGGCCCGGCAGGCTGCCTCT**TAG**

CCCACCACCCTGGCCTGCTGTCCTGCGTCTATCCATGTGGAATGCTGGACAATAAAGCGAGTGCTGCCCACCCTC
C

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FIGURE 2096

CGCGCAGGACTTGACATGCTGCCCGACTGCCTGTCGGCCGAGGGCGAGCTGCGCTGCCGCCGGCTGCTGGCAGGG
GCCACGGCCCGGCTCCGCGCGCGGCCCGGTCGGCCGCGGTGCTCGTGCCGCTCTGCTCAGTGCGTGGGGTCCCGG
CGCTGCTGTACACGCTGCGGTCCAGCCGCCTGACCGGGAGGCACAAGGGCGACGTCAGTTTCCCAGGCGGCAAGT
GCGACCCGGCTGACCAAGATGTGGTGCACACGGCCTGCGGGAAACCCGGGAGGAGCTGGGCCTGGCAGTGCCCGA
GGAGCACGTGTGGGGCCTGCTGCGGCCTGTGTATGATCCGCAAAAGGCCACCGTGGTGCCAGTGCTTGCTGGTGT
AGGCCCACTGGATCCCCAGAGCCTCAGGCCCAACTCGGAGGAGGTGAGCTGGGGGAT**ATG**AGGGGGTTGGGCTGT
TCCAGTCCTCTGTCTACCCTCTCTGCCTCCTGCCTGCAGGTAGATGAGGTGTTTGCACTGCCGCTGGCCCACCTG
CTGCAGACGCAGAATCAGGGCTATACCCACTTCTGCCGGGGTGGCCACTTCCGCTACACACTACCCGTCTTCCTG
CATGGACCACACCGGGTCTGGGGCCTCACAGCTGTCATCACTGAGTTTGCCCTGCAGCTGCTGGCACCTGGTACC
TACCAGCCCCGCCTGGCCGGCCTGACCTGCTCAGGGGCTGAGGGTCTGGCCCGCCCTAAGCAGCCCCTGGCTTCA
CCCTGTCAGGCCAGCTCCACTCCAGGACTGAATAAAGGTCTT**TGA**CAGCTCT

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FIGURE 2097

GTCAAAGCCCTGCGTCCTTCGGCCCCCAGAGCGGAGAAGCGCGCAAGGCACCGGTGGCAGCGGCGACGGCAGCTG
CGACAGCAACCCCTGCTGGGCCGAAACTGGGCAGAGCGGAGCAGACGTCTGAAGCAGCGCGAGTGAGGCGCGAGG
GTAGCGCCCGCGCCCGGGAAGACCCCTCGGCGCGAACCGGCAGCCCAGCCCCGGGTCCCGGTTCCCAAGGCCCCG
CCTCTAGGGCCTGGGGACTAATCGGATTGAGAGCGCGCCGGCCCGGGCCGCGAACTCGCCAATTGCGGAGGGCGG
TGGCCACCGCCCAATCCGGAGCAGACAGGTGCGAGGTCCGGAAGGCGGAGGCCAATCGGCGGCGGTTGCGACCTG
CTGGGGCAGGTCTCGGCCAATAAGGAGGCTCGAGTGACATCTTCGCGCACCAATCGGGAGTGAGGGAGCATTCGT
GCCCGCTCGCCCTTCCGGCCAGACCTCTATTTACCAGGGGCGTGCAGCCCGCTTGCCAATCAGAGCGCGGCTGAG
CGGCCCCGCAGCCAACCCCCGAGGAGCGGCCGGCTGGCGTCCGCCGCGCCCAGGAGTTGGGGATGTCCTACAAAC
CCATCGCCCCTGCTCCCAGCAGCACCCCTGGCTCCAGCACCCCTGGGCCGGGCACCCCGGTCCCTACAGGTGAGG
ATCCAGCTCCACCCCTGCTCGCCTGCCGGGCGGTCGAGGTCTCGAAGAGAAGACGGCCTGAGTTCTGCAATACTG
GGCCTGCCGCCTACCCTCGCTGAGCCTCAGTTTGCTGGCCTGTGAAGTGGGCGTGGTCACGTAAGGGCTTGTAGG
TGGAGCGCAGTGGGAGGGATTTGTCCCTGAAGTTGATCAGCATGGA**ATG**AAGCATCCTTTGGAGGGAATCGGGCG
AACCCGGTCCTGGGCTTGGAAAAGCTGGGAGGCGGCGTCCCTGCCCCGCGCTGACCTCTTACTCGCGCCTGTTGC
TGCAGGAAGCGTCCCGTCGCCGTCGGGCTCAGTGCCAGGAGCCGGCGCTCCTTTCAGACCGCTGTTTAACGACTT
TGGACCGCCTTCCATGGGCTACGTGCAGGCGATGAAGCCACCCGGCGCCCAGGGCTCCCAGAGCACCTACACGGA
CCTGCTGTCAGTCATAGAGGAGATGGGCAAAGAGATCCGGCCTACCTATGCTGGCAGCAAGAGCGCCATGGAGCG
CCTGAAGAGAGGTATCATCCATGCCCGGGCCCTAGTCAGAGAGTGCCTGGCAGAGACAGAGCGGAACGCCCGCAC
G**TAA**CAGGAAGCGCCTCGGCCTCAGCGTCTGGACCTATCCGGCCACTGCAGAGCACCCGCTTCTCCCTGGCCTTC
ATCCCGAGTTGCACTAACCATCCTGGGCTTCCTGTCCTGTGTCCCTTGGTGGGTCCCCTCCAGGAACCAAGGAGT
GGCCCTCCAGGTGGCAGCACTAAGGACACCCCCCCACAACAAGAGTTAGCAGCGAGGTCCCCATGAGTCCCACCC
ATGACCTGCCGACAGTGTTGCCCACCGGAACTTTTGTGGCCCCTACCGCTCAGCCCTTCCCAGCACTTCTCCCAC
TTTGTCCCGAGCCTCCTTCTCCCCCAGCAGGGGCACAGGCCTGGCACCTCCCTGCCTTGTGTCCTGAGCCATAGT
GACTCTTTTATCTGTGTGTCTTTTGCTAAATATGCCCTTTTTATATTAATAAAAGATGATTTGGAGTTGTGCTCT
C

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FIGURE 2098

CGCGGGCGGCGGTGCTAGGCTCGCCTCTGCCTCCCTCGTGGCGGGCCCGGACATGGGGTCCCGTGGCCTGAGTCC
CTCGGCCGGCGCGCAGGGCTCGGGCCGCGCGCAGCCTCCCCGCACTGACTGTCGCGCCGTGCCCTGCGCCAGGAG
GAGCGGAGGCCGCGCGCCCGCCGAGCGCCTTCAGGATGCTCATCAAGGAATACCACATTCTGCTGCCCATGAGCC
TGGACGAGTACCAGGTGGCCCAGCTCTACATGATCCAGAAAAAGAGCCGGGAGGAGTCTAGTGGTGAGGGCAGCG
GCGTGGAGATCCTGGCCAACCGGCCCTACACGGATGGGCCCGGGGGCAGCGGGCAATACACACACAAGGTGTACC
ACGTGGGCTCCCACATCCCAGGCTGGTTCCGGCACTGCTGCCCAAGGCTGCCCTGCAGGTAGAAGAGGAATCCTG
GAATGCCTACCCCTACACCCGAACCCGGTACACCTGCCCTTTCGTGGAGAAATTCTCCATTGAAATTGAGACCTA
TTACCTGCCTGATGGGGGGCAGCAGCCAAACGTCTTCAACCTGAGCGGGGCCGAGAGGAGACAGCGCATCCTGGA
CACCATCGACATCGTGCGGGATGCAGTGGCCCCAGGCGAGTACAAAGCAGAAGAGGACCCCCGGCTTTATCACTC
GGTCAAGACGGGCCGAGGGCCACTGTCTGATGACTGGGCACGGACGGCGGCACAGACGGGGCCCCTTATGTGTGC
CTATAAGCTGTGCAAGGTTGAGTTCCGCTACTGGGGCATGCAAGCCAAGATCGAGCAGTTCATCCATGATGTAGG
TACTGCGTCGGGTGATGCTGCGGCCCACCGCCAGGCCTGGTGCTGGCAGGATGAGTGGACAGAGCTGAGCATGGC
TGACATCCGGGCACTGGAAGAGGAGACTGCTCGCATGCTGGCCCAGCGCATGGCCAAGTGCAACACAGGCAGTGA
GGGTCCGAGCCCAGCCCCCCGGGAAACCGAGCACCGAGGCCCGGTCTGCGGCAGCAACACTGGCACCCCCGATGG
GCCTGAGCCCCCCCAGGCCCAGATGCCTCCCCCGATGCCAGCTTTGGGAAGCAGTGGTCCTCATCCTCCCGTTCC
TCCTACTCATCCCAACATGGAGGGGCTGTGTCTCCCCAGAGCTTGTCTGAGTGGCGC**ATG**CAGAACATTGCCCGA
GACTCTGAGAACAGCTCCGAGGAAGAGTTCTTTGATGCCCACGAAGGCTTCTCGGACAGTGAGGAGGTCTTCCCC
AAGGAGATGACCAAGTGGAACTCCAATGACTTCATTGATGCCTTTGCCTCCCCAGTGGAGGCAGAGGGAACGCCA
GAGCCTGGAGCCGAGGCAGCTAAAGGCATTGAGGATGGGGCCCAAGCACCCAGGGACTCAGAGGGCCTGGATGGA
GCCGGGGAGCTGGGGGCTGAGGCATGCGCAGTCCACGCCCTCTTCCTTATCCTGCACAGCGGCAACATCCTGGAC
TCAGGCCCTGGAGACGCCAACTCCAAGCAGGCGGATGTGCAGACGCTGAGCTCCGCCTTCGAGGCCGTCACCCGC
ATCCACTTCCCTGAGGCCTTGGGCCACGTGGCGCTGCGACTGGTGCCCTGTCCACCCATCTGCGCCGCCGCCTAT
GCCCTTGTCTCCAACCTGAGCCCTTACAGCCACGATGGGGACAGCCTGTCTCGCTCCCAAGACCACATTCCACTG
GCTGCCCTGCCACTGCTGGCCACCTCATCCTCCCGCTACCAGGGCGCCGTGGCCACCGTCATTGCCCGCACCAAC
CAGGCCTACTCAGCCTTCCTGCGCTCACCTGAGGGTGCCGGCTTCTGTGGGCAGGTCGCACTGATTGGAGATGGT
GTTGGTGGCATCCTGGGCTTTGATGCACTCTGCCACAGTGCTAACGCGGGCACCGGGAGTCGGGGCAGCAGCCGC
CGTGGGAGCATGAACAATGAGCTGCTCTCTCCGGAGTTTGGCCCAGTGCGGGACCCCCTGGCAGATGGTGTGGAA
GGCCTGGGTCGGGGCAGCCCAGAACCCTCGGCCTTGCCTCCCCAGCGCATCCCCAGCGACATGGCCAGTCCTGAG
CCCGAGGGCTCTCAGAACAGCCTTCAGGCAGCCCCCGCAACCACCTCCTCCTGGGAGCCCCGGCGGGCAAGCACG
GCCTTCTGCCCACCCGCTGCCAGTTCCGAGGCACCTGACGGCCCCAGCAGCACTGCCCGCCTTGACTTCAAGGTC
TCTGGCTTCTTCCTCTTCGGCTCCCCACTGGGCCTGGTGCTGGCTCTGCGCAAAACTGTGATGCCCGCCCTGGAG
GCAGCCCAGATGCGCCCAGCCTGTGAACAGATCTACAACCTCTTCCACGCGGCTGACCCCTGCGCCTCACGCCTC
GAGCCCCTGCTGGCCCCGAAGTTCCAGGCCATCGCCCCACTGACCGTGCCCCGCTACCAGAAGTTCCCCCTGGGA
GATGGCTCATCCCTGCTGCTGGCCGACACTCTGCAGACGCACTCCAGCCTCTTTCTGGAGGAGCTGGAGATGCTG
GTGCCCTCAACACCCACCTCTACTAGCGGTGCCTTCTGGAAGGGCAGTGAGTTGGCCACTGACCCCCCGGCCCAG
CCAGCCGCCCCCAGCACCACCAGTGAGGTGGTTAAGATCCTGGAGCGCTGGTGGGGGACCAAGCGGATCGACTAC
TCGCTGTACTGCCCCGAGGCGCTCACCGCCTTTCCCACCGTCACGCTGCCCCACCTCTTCCACGCCAGCTACTGG
GAGTCCGCCGACGTGGTGGCGTTCATCCTGCGCCAGGTGATCGAGAAGGAGCAGGCCACAGCTGGCGGAATGCGA
GGAGCCGTCCATCTACAGCCCGGCCTTCCCCAGGCAGAAGTGGCAGCGAAAACGCACGCAGGTCAAGATCCGGGT
AGAACTGAACATCGTGGCCGGTTATGGGTCTCCCAAAGATGTGGCTGTATACGCGGCGCTGGGGCTGTCCCCGAG
CCAGACCTACATCGTGGGCCGTGCCGTGCGGAAGCTACAGGCGCAGTGCCAGTTCCTGTCAGACGGCTATGTGGC
CCACCTGGGCCAGCTGGAAGCGGGCTCGCACTCGCATGCCTCCTCGGGACCCCCGAGAGCTGCCTTGGGCAAGAG
CAGCTATGGTGTGGCTGCCCCCGTGGACTTCCTGCGCAAACAGAGCCAGCTGCTTCGCTCGAGGGGCCCCAGCCA
GGCGGAGCG**TGA**GGGCCCGGGAACACCACCCACCACCCTGGCACGGGGCAAAGCACGGAGCATCAGCCTGAAGCT
GGACAGCGAGGAGTGAGGCCCACACCAGCCTGGACCTGGGTTATTTATTGACACACCCAAGGGGCCCGAGGGGCT
GCGTGTGGGAGGCTGGGGACCCAGACTTTTGGCCCCAGCGCTGGCCCCCCCAGCCCCACACCCTATATCTCCGTG
TGCTCCTCGGTGTTACTTCCCTTTCATATGAGGGGACCCAGCGCCGGGGGGAGGGAGGAGGGCGTGGGCATGGGC
GCAGAGGCTTTTCCAGTGTGTATAAATCCATGAAAATAAACGCCACCTGCACCCC

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FIGURE 2099

AGGCCACGTTCCACTACCGGACGCTGCACAGTGACGACGAGGGCACCGTGCTGGACGACAGCCGGGCTCGTGGCA
AGCCCATGGAGCTCATCATTGGCAAGAAGTTCAAGCTGCCTGTGTGGGAGACCATCGTGTGCACCATGCGAGAAG
GGGAGATTGCCCAGTTCCTCTGTGACATCAAGCATGTGGTCCTGTACCCGCTGGTGGCCAAGAGTCTCCGCAACA
TCGCGGTGGGCAAGGACCCCCTGGAGGGCCAGCGGCACTGCTGCGGTGTTGCACAGATGCGTGAACACAGCTCCC
TGGGCCATGCTGACCTGGACGCCCTGCAGCAGAACCCCCAGCCCCTCATCTTCCACATGGAGATGCTGAAGGTGG
AGAGCCCTGGCACGTACCAGCAGGACCCATGGGCCATGACAGACGAAGAGAAGGCAAAGGCAGTGCCACTTATCC
ACCAGGAGGGCAACCGGTTGTACCGCGAGGGGCATGTGAAGGAGGCTGCTGCCAAGTACTACGATGCCATTGCCT
GCCTCAAGAACCTGCAGATGAAGGAACAGCCTGGGTCCCCTGAATGGATCCAGCTGGACAAGCAGATCACGCCGC
TGCTGCTCAACTACTGCCAGTGCAAGCTGGTGGTCGAGGAGTACTACGAGGTGCTGGACCACCTAGCTCTTCCAT
CCTCAACAAGTACGACGACAACGTCAAGGCCTACTTCAAGCGGGGCAAGGCCCACGCGGCCGTGTGGAATGCCCA
GGAGGCCCAGGCTGACTTTGCCAAAGTGCTGGAGCTGGACCCAGCCCTGGCGCCTGTGGTGAGCCGAGAGCTGCT
GGGCCCTGGAGGCACGGATCCGGCAGAAGGACGAAGAGGACAAAGCCCGGTTCCGGGGGGATCTTCTCCCATTGAC
AGGAGCACTTGGCCCTGCCTTACCTGCCAAGCCCACTGCTGCAGCTGCCAGCCCCCCTGCCCGTGCTGCGTCATG
CTTCTGTGTATATAAAGGCCTTTATTTATCTCTC

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FIGURE 2100

GCCCACGTC**ATG**GCGCCCGAGGAGAACGCGGGGACCGAACTCTTGCTGCAGAGTTTGGAGCGCCGCTTCCTGGCG
GCGCGTGCACTGCGCTCCTTCCCCTGGCAGAGCTTAGAAGCAAAGTTAAGAGACTCATCAGATTCTGAGCTGCTG
CGGGATATTTTGCAGAAGACGTGCTGTATAGCCCAGAAGCCATCGTGTCGCTGGTCGGGGTCCTGCGGAGGCTGG
CTGCCTGCCGGGAGCACCAGCGGGCTCCTCAAGTCTATGTGGCCCTTACCATCTGCAACCCAGAGACGTGCCAGC
TGTTCACCACTGAGCTATGCCGGGCTGGGATCAGATGGGAAGTGGAACCTCGTCATGACCAGAAACTGTTTCCCT
ACGAAGAGCACTTGGAGATGGCAATGC**TGA**ACCTCACACTGTAGGACTCACATACGACTCCAACGGGATTGTGAG
AATCAAGTCACTCTAGTGGGAAGAGTTTTTATATGGGAAAGCGGATAAAACTTTCATTGGACTGGAATGTTTGGA
GAATGTTAATTTCCAAATCAGGAACCACAAACTGCCCTCTAATAAGACATCAGCTATCTAAGCATGTGGGTGCTC
CCTTTCTGCCAGCAGTTCTGGTTCTTAAGAAAATCGCCATCAATCAGACATGAAATCTCTGGCTCCAAAAATAGC
ATTTTCTTTGTGCAAATAAAAACGTGTGTATCAAGTATGATGTTCCCCCAATGTGGACACACTCGGTTCCCCACA
AAGCCAAGCCCGCTGCAGCTGCCACATCCCTGGACACATTCGGTTCCTCACAAAGCCAAGCCCGCTGCAGCTGCC
ACATCCGTGGACACACTCGGTTCTTCACAAAGCCAAGCCCACTGCAGCTGCCACATCCCTGGGCTTACAGTGCAG
CAGGTGCTTTTTTCAAGACAGGAATCAAAATGTTAGGAACACGGCGGAAAGATGACACCTGGAGAGCAAACGCAG
GATGAGGAGTACTGCAGAGGTCACACGGAAGTCGCAGAACAGTAATCCGCT

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FIGURE 2101

ATTTCTTAACAGCAGGGCCACCAGGCAGAGCGGGACAGCCAGGAGGAAGGGCAGCTTGGCAGAGCCTCAGGATGG
ACCCCCTTGGGGACACGCTGCGGCGACTGCGGGAGGCCTTCCACGCGGGGCGCACGCGGCCAGCTGAGTTCCGGG
CTGCGCAGCTCCAAGGCCTGGGCCGCTTCCTGCAAGAAAACAAGCAGCTTCTGCACGACGCACTGGCCCAGGACC
TGCACAAGGCCACGCAGCTGGACTCCGCCTTCATCCGGAAGGAGCCCTTTGGCCTGGTCCTCATCATTGCGCCCT
GGAACTATCCGCTGAACCTGACGCTGGTGCCCCTCGTGGGAGCCCTCGCTGCAGGGAACTGTGTGGTGCTGAAGC
CATCGGAGATTAGCAAGAACGTCGAGAAGATCCTGGCCGAGGTGCTGCCCCAATACGTGGACCAGAGCTGCTTTG
CTGTGGTGCTGGGCGGGCCCCAGGAGACGGGGCAGCTGCTAGAGCACAGGTTCGACTACATCTTCTTCACAGGGA
GCCCTCGTGTGGGCAAGATTGTTATGACTGCTGCCGCCAAGCACCTGACACCTGTCACCCTGGAGCTGGGGGGCA
AGAACCCTTGCTACGTGGACGACAACTGCGACCCCCAGACCGTGGCCAACCGCGTGGCCTGGTTCCGCTACTTCA
ACGCCGGCCAGACCTGCGTGGCCCCCGACTACGTCCTATGCAGCCCTGAGATGCAGGAGAGGCTGCTGCCTGCCC
TGCAGAGCACCATCACCCGTTTCTATGGCGACGACCCCCAGAGCTCCCCAAACCTGGGCCGCATCATCAACCAGA
AACAGTTCCAGCGGCTGCGGGCATTGCTGGGCTGCGGCGTGTGGCCATTGGGGGCCAGAGCGATGAGAGCGATCG
CTACATCGCCCCCACGGTGCTGGTGGATGTGCAGGAGATGGAGCCTGTGATGCAGGAGGAGATCTTCGGGCCCAT
CCTGCCCATCGTGAACGTGCAGAGCTTGGACGAGGCCATCGAGTTCATCAACCGGCGGGAGAAGCCCCTGGCCCT
GTACGCCTTCTCCAACAGCAGCCAGGTGGTCAAGCGGGTGCTGACCCAGACCAGCAGCGGGGGCTTCTGTGGGAA
CGACGGCTTCATGCACATGACCCTGGCCAGCCTGCCTTTTGGAGGAGTGGGTGCCAGTGGGATGGGCCGGTACCA
TGGCAAGTTCTCCTTCGACACCTTCTCCCACCATCGCGCCTGCCTCCTGCGCAGCCCGGGGATGGAGAAGCTCAA
CGCCCTCCGCTACCCGCCGCAATCGCCGCGCCGCCTGAGGATGCTGCTGGTGGCCATGGAGGCCAAGGCTGCAGC
TGCACACTGCTCTGAGCCCTTCCCCAGGCCCAGGCTGTAGACCACCATGACAGCTGTCGCCTGCGGCTGGTGGAG
ACGGGGCCTGGGCTCCCGGGCCCGAGGAGGAAAAGGATTGCCAAGGCTCCAGGGCACCCCTCAAAGCAGCGCCTG
CCTCCTCCCTCCTGGGTCTTCCCTCTCCCTGCCTCAGCCTCCTCCCTCAGCCGCTCCCAACCATGAGAGCCGAGG
TGGGAGGCATGGGAAACAGTGCAGTGACTCACCCCCTGCCCCCGCACCAACCACCCATATTCAGGAGAAGAGGAC
AGACACGGCACCTCTGAGTCACCCCTCTCCTGTGGAGCGGGCGTCCGAGGGGCCCTGGCATCTGACTCAGGCCAC
ACCATGGAATCACTGCATCCAAGGCCATTCCTGCCCTCTCTGAGTCTCAGTTTTTCCATTTGTTCAGTGGAGAGA
ATTAACCATTGATACCTCCTGGCTGGGTGAGGCGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCCGAGGCAG
GCGGATCACCTGAAATCAGGAGTTCAAGATCAGCCTGGCTAACATGGCGAAACCCCGTCTCTACTAAAAATACAA
AAATTAGCCTGGCGTGGTGGCGCATGCCTGTAATCCCAGCTACTCAGGAGGCTAAGGCAGGAGAATCGCTTGAAC
CCGGGAGGTGGAGGTTGCCGTGAGCTGAGATTGCGTCACTGAACTCCGGCCTGGGTGACAGAAGGAGGCTCTGCC
TTAAAAAAAAAAAAAAAAAAAACCTCCTGGGACTGTTGCAAGGATGAAATGAAGGATTGAGGGATTGAGGGATTG
CTGAGCTGGAGCTCCAGGTGTCCTATCTTTCTCAGTGGGGTGGCACGGAGCGGGGCCGCCTCCCTCTTCTCTCCA
GGCAGGTGGGGCTGTGGTTATGCGATAGGGTCTCCCTTCCCTCCAGCCCATGCCAGAGGAGCTTGTAACTCTTTA
TCCTCATGGTGCCCACTACGAGTCATACTCTTCCCCATGCTGCTCATCCTCCTGGGCCCCATCCACTCAGCCAAA
GCAGAATGCAGGGTTTCCTGCCTGACAACCCTTCTCACCTCCCAAGTCCCACTTTTGAACAAGCTGATGATTCTG
AAACTGGCCCAATTTCCTAACAAGCCGGATGCTTGAGAAACCTACATTTGGACAATGAGAGGCTGCTCCTGCGGC
CTGCGGGCCACCTCCTCTTCCTTGGCTCCTGCTTTCTTTTTAGACTATATCAACCTACAACTTTAGTCGGGAAGA
GGGACAGGGGTGGACCTGAGTTTCGTCTCCTGTCTCTCTGGCTGATGTCACCTGAATAAAGCCTTCTTCCCTGGC

FIGURE 2102

CCCGCTGGCCCAATGGCAGCGTCCTACAGTGTAGCCTCCGCCTCCCGATTGACTGGCCTGCTTGGCAAGGCAAGT
AGCGGCGGCGCTTCAAG**ATG**CGCTGCCTGACCACGCCTATGCTGCTGCGGGCCCTGGCCCAGGCTGCACGTGCAG
GACCTCCTGGTGGCCGGAGCCTCCACAGCAGTGCAGTGGCAGCCACCTACAAGTATGTGAACATGCAGGATCCCG
AGATGGACATGAAGTCAGTGACTGACCGGGCAGCCCGCACCCTGCTGTGGACTGAGCTCTTCCGAGGCCTGGGCA
TGACCCTGAGCTACCTGTTCCGGGAACCGGCCACCATCAACTACCCGTTCGAGAAGGGCCCGCTGAGCCCTCGCT
TCCGTGGGGAGCATGCGCTGCGCCGGTACCCATCCGGGGAGGAGCGTTGCATTGCCTGCAAGCTCTGCGAGGCCA
TCTGCCCCGCCCAGGCCATCACCATCGAGGCTGAGCCAAGAGCTGATGGCAGCCGCCGGACCACCCGCTATGACA
TCGACATGACCAAGTGCATCTACTGCGGCTTCTGCCAGGAGGCCTGTCCCGTGGATGCCATCGTCGAGGGCCCCA
ACTTTGAGTTCTCCACGGAGACCCATGAGGAGCTGCTGTACAACAAGGAGAAGTTGCTCAACAACGGGGACAAGT
GGGAGGCCGAGATCGCCGCCAACATCCAGGCTGACTACTTGTATCGG**TGA**CGCCCCACCGGCCCGCAGCCCCTGC
TGCCCAATAAAACCACTCCGACCCCACGG

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FIGURE 2103

GCGGCGCCTAGTCCCGGGCTGGCGGGAGTGCAGTTCTGAGTCCCGCCCGGCGTGCGCGGAGCGGGGCAGCCAGCA
GCGGAGGCGCGGCGCGCAGCACACCCGGGGACC**ATG**GGCTCCATGTTCCGGAGCGAGGAGGTGGCCCTGGTCCAG
CTCTTTCTGCCCACAGCGGCTGCCTACACCTGCGTGAGTCGGCTGGGCGAGCTGGGCCTCGTGGAGTTCAGAGAC
CTCAACGCCTCGGTGAGCGCCTTCCAGAGACGCTTTGTGGTTGATGTTCGGCGCTGTGAGGAGCTGGAGAAGACC
TTCACCTTCCTGCAGGAGGAGGTGCGGCGGGCTGGGCTGGTCCTGCCCCCGCCAAAGGGGAGGCTGCCGGCACCC
CCACCCCGGGACCTGCTGCGCATCCAGGAGGAGACGGAGCGCCTGGCCCAGGAGCTGCGGGATGTGCGGGGCAAC
CAGCAGGCCCTGCGGGCCCAGCTGCACCAGCTGCAGCTCCACGCCGCCGTGCTACGCCAGGGCCATGAACCTCAG
CTGGCAGCCGCCCACACAGATGGGGCCTCAGAGAGGACGCCCCTGCTCCAGGCCCCCGGGGGGCCGCACCAGGAC
CTGAGGGTCAACTTTGTGGCAGGTGCCGTGGAGCCCCACAAGGCCCCTGCCCTAGAGCGCCTGCTCTGGAGGGCC
TGCCGCGGCTTCCTCATTGCCAGCTTCAGGGAGCTGGAGCAGCCGCTGGAGCACCCCGTGACGGGCGAGCCAGCC
ACGTGGATGACCTTCCTCATCTCCTACTGGGGTGAGCAGATCGGACAGAAGATCCGCAAGATCACGGACTGCTTC
CACTGCCACGTCTTCCCGTTTCTGCAGCAGGAGGAGGCCCGCCTCGGGGCCCTGCAGCAGCTGCAACAGCAGAGC
CAGGAGCTGCAGGAGGTCCTCGGGGAGACAGAGCGGTTCCTGAGCCAGGTGCTAGGCCGGGTGCTGCAGCTGCTG
CCGCCAGGGCAGGTGCAGGTCCACAAGATGAAGGCCGTGTACCTGGCCCTGAACCAGTGCAGCGTGAGCACCACG
CACAAGTGCCTCATTGCCGAGGCCTGGTGCTCTGTGCGAGACCTGCCCGCCCTGCAGGAGGCCCTGCGGGACAGC
TCGATGGAGGAGGGAGTGAGTGCCGTGGCTCACCGCATCCCCTGCCGGGACATGCCCCCCACACTCATCCGCACC
AACCGCTTCACGGCCAGCTTCCAGGGCATCGTGGATGCCTACGGCGTGGGCCGCTACCAGGAGGTCAACCCCGCT
CCCTACACCATCATCACCTTCCCCTTCCTGTTTGCTGTGATGTTCGGGGATGTGGGCCACGGGCTGCTCATGTTC
CTGTTCGCCCTGGCCATGGTCCTTGCGGAGAACCGACCGGCTGTGAAGGCCGCGCAGAACGAGATCTGGCAGACT
TTCTTCAGGGGCCGCTACCTGCTCCTGCTTATGGGCCTGTTCTCCATCTACACCGGCTTCATCTACAACGAGTGC
TTCAGTCGCGCCACCAGCATCTTCCCCTCGGGCTGGAGTGTGGCCGCCATGGCCAACCAGTCTGGCTGGAGTGAT
GCATTCCTGGCCCAGCACACGATGCTTACCCTGGATCCCAACGTCACCGGTGTCTTCCTGGGACCCTACCCCTTT
GGCATCGATCCTATTTGGAGCCTGGCTGCCAACCACTTGAGCTTCCTCAACTCCTTCAAGATGAAGATGTCCGTC
ATCCTGGGCGTCGTGCACATGGCCTTTGGGGTGGTCCTCGGAGTCTTCAACCACGTGCACTTTGGCCAGAGGCAC
CGGCTGCTGCTGGAGACGCTGCCGGAGCTCACCTTCCTGCTGGGACTCTTCGGTTACCTCGTGTTCCTAGTCATC
TACAAGTGGCTGTGTGTCTGGGCTGCCAGGGCCGCCTCGGCCCCCAGCATCCTCATCCACTTCATCAACATGTTC
CTCTTCTCCCACAGCCCCAGCAACAGGCTGCTCTACCCCCGGCAGGAGGTGGTCCAGGCCACGCTGGTGGTCCTG
GCCTTGGCCATGGTGCCCATCCTGCTGCTTGGCACACCCCTGCACCTGCTGCACCGCCACCGCCGCCGCCTGCGG
AGGAGGCCCGCTGACCGACAGGAGGAAAACAAGGCCGGGTTGCTGGACCTGCCTGACGCATCTGTGAATGGCTGG
AGCTCCGATGAGGAAAAGGCAGGGGGCCTGGATGATGAAGAGGAGGCCGAGCTCGTCCCCTCCGAGGTGCTCATG
CACCAGGCCATCCACACCATCGAGTTCTGCCTGGGCTGCGTCTCCAACACCGCCTCCTACCTGCGCCTGTGGGCC
CTGAGCCTGGCCCACGCCCAGCTGTCCGAGGTTCTGTGGGCCATGGTGATGCGCATAGGCCTGGGCCTGGGCCGG
GAGGTGGGCGTGGCGGCTGTGGTGCTGGTCCCCATCTTTGCCGCCTTTGCCGTGATGACCGTGGCTATCCTGCTG
GTGATGGAGGGACTCTCAGCCTTCCTGCACGCCCTGCGGCTGCACTGGGTGGAATTCCAGAACAAGTTCTACTCA
GGCACGGGCTACAAGCTGAGTCCCTTCACCTTCGCTGCCACAGATGAC**TAG**GGCCCACTGCAGGTCCTGCCAGAC
CTCCTTCCTGACCTCTGAGGCAGGAGAGGAATAAAGACGGTCCGCCCTGGC

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FIGURE 2104

GGCCGGAGGTTCCTGCAGAGGGAGCGTCAAGGCCCTGTGCTGCTGTCCCTGGGGGCCAGAGGGGTTGCCCAGCAT
GCCCACTGGCAGGAGAGAGGGAACTGACCCACTTGCTCCTACCAGCTTCTGAAGGCTCCAAAGTCCGGAGGTGCA
GAAAGCCAGGACCAAGAGACAGGCAGCTCACCAGGGTGGACAAATCGCCAGAG**ATG**TGGTGCATTGTCCTGTTTT
CACTTTTGGCATGGGTTTATGCTGAGCCTACCATGTATGGGGAGATCCTGTCCCCTAACTATCCTCAGGCATATC
CCAGTGAGGTAGAGAAATCTTGGGACATAGAAGTTCCTGAAGGGTATGGGATTCACCTCTACTTCACCCATCTGG
ACATTGAGCTGTCAGAGAACTGTGCGTATGACTCAGTGCAGATAATCTCAGGAGACACTGAAGAAGGGAGGCTCT
GTGGACAGAGGAGCAGTAACAATCCCCACTCTCCAATTGTGGAAGAGTTCCAAGTCCCATACAACAAACTCCAGG
TGATCTTTAAGTCAGACTTTTCCAATGAAGAGCGTTTTACGGGGTTTGCTGCATACTATGTTGCCACAGACATAA
ATGAATGCACAGATTTTGTAGATGTCCCTTGTAGCCACTTCTGCAACAATTTCATTGGTGGTTACTTCTGCTCCT
GCCCCCCGGAATATTTCCTCCATGATGACATGAAGAATTGCGGAGTTAATTGCAGTGGGGATGTATTCACTGCAC
TGATTGGGGAGATTGCAAGTCCCAATTATCCCAAACCATATCCAGAGAACTCAAGGTGTGAATACCAGATCCGGT
TGGAGAAAGGGTTCCAAGTGGTGGTGACCTTGCGGAGAGAAGATTTTGATGTGGAAGCAGCTGACTCAGCGGGAA
ACTGCCTTGACAGTTTAGTTTTTGTTGCAGGAGATCGGCAATTTGGTCCTTACTGTGGTCATGGATTCCCTGGGC
CTCTAAATATTGAAACCAAGAGTAATGCTCTTGATATCATCTTCCAAACTGATCTAACAGGGCAAAAAAAGGGCT
GGAAACTTCGCTATCATGGAGATCCAATGCCCTGCCCTAAGGAAGACACTCCCAATTCTGTTTGGGAGCCTGCGA
AGGCAAAATATGTCTTTAGAGATGTGGTGCAGATAACCTGTCTGGATGGGTTTGAAGTTGTGGAGGGACGTGTTG
GTGCAACATCTTTCTATTCGACTTGTCAAAGCAATGGAAAGTGGAGTAATTCCAAACTGAAATGTCAACCTGTGG
ACTGTGGCATTCCTGAATCCATTGAGAATGGTAAAGTTGAAGACCCAGAGAGCACTTTGTTTGGTTCTGTCATCC
GCTACACTTGTGAGGAGCCATATTACTACATGGAAAATGGAGGAGGTGGGGAGTATCACTGTGCTGGTAACGGGA
GCTGGGTGAATGAGGTGCTGGGCCCGGAGCTGCCGAAATGTGTTCCAGTCTGTGGAGTCCCCAGAGAACCCTTTG
AAGAAAAACAGAGGATAATTGGAGGATCCGATGCAGATATTAAAAACTTCCCCTGGCAAGTCTTCTTTGACAACC
CATGGGCTGGTGGAGCGCTCATTAATGAGTACTGGGTGCTGACGGCTGCTCATGTTGTGGAGGGAAACAGGGAGC
CAACAATGTATGTTGGGTCCACCTCAGTGCAGACCTCACGGCTGGCAAAATCCAAGATGCTCACTCCTGAGCATG
TGTTTATTCATCCGGGATGGAAGCTGCTGGAAGTCCCAGAAGGACGAACCAATTTTGATAATGACATTGCACTGG
TGCGGCTGAAAGACCCAGTGAAAATGGGACCCACCGTCTCTCCCATCTGCCTACCAGGCACCTCTTCCGACTACA
ACCTCATGGATGGGGACCTGGGACTGATCTCAGGCTGGGGCCGAACAGAGAAGAGAGATCGTGCTGTTCGCCTCA
AGGCGGCAAGGTTACCTGTAGCTCCTTTAAGAAAATGCAAAGAAGTGAAAGTGGAGAAACCCACAGCAGATGCAG
AGGCCTATGTTTTCACTCCTAACATGATCTGTGCTGGAGGAGAGAAGGGCATGGATAGCTGTAAAGGGGACAGTG
GTGGGGCCTTTGCTGTACAGGATCCCAATGACAAGACCAAATTCTACGCAGCTGGCCTGGTGTCCTGGGGGCCCC
AGTGTGGGACCTATGGGCTCTACACACGGGTAAAGAACTATGTTGACTGGATAATGAAGACTATGCAGGAAAATA
GCACCCCCCGTGAGGAC**TAA**TCCAGATACATCCCACCAGCCTCTCCAAGGGTGGTGACCAATGCATTACCTTCTG
TTCCTTATGATATTCTCATTATTTCATCATGACTGAAAGAAGACACGAGCGAATGATTTAAATAGAACTTGATTG
TTGAGACGCCTTGCTAGAGGTAGAGTTTGATCATAGAATTGTGCTGGTCATACATTTGTGGTCTGACTCCTTGGG
GTCCTTTCCCCGGAGTACCTATTGTAGATAACACTATGGGTGGGGCACTCCTTTCTTGCACTATTCCACAGGGAT
ACCTTAATTCTTTGTTTCCTCTTTACCTGTTCAAAATTCCATTTACTTGATCATTCTCAGTATCCACTGTCTATG
TACAATAAAGGATGTTTATAAGC

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FIGURE 2105

AATGCGCACGCCGTGGGCGGGCCCCGAGCCGGAATTGGGGGTGAAGCGATAGCGTTTTGCCCGCATTCGGGGCGC
GCGGAGCTGGGGGGTCCCTGTGGGGCTCCCGGAGTTAAG**ATG**GCGTCCTCAGCGGAGGGGGACGAGGGGACTGTG
GTGGCGCTGGCGGGGGTTCTGCAGTCGGGTTTCCAGGAGCTGAGCCTTAACAAGTTGGCGACGTCCCTGGGCGCG
TCAGAACAGGCGCTGCGGCTGATCATCTCCATCTTCCTGGGTTACCCCTTTGCTTTGTTTTATCGGCATTACCTT
TTCTACAAGGAGACCTACCTCATCCACCTCTTCCATACCTTTACAGGCCTCTCAATTGCTTATTTTAACTTTGGA
AACCAGCTCTACCACTCCCTGCTGTGTATTGTGCTTCAGTTCCTCATCCTTCGACTAATGGGCCGCACCATCACT
GCCGTCCTCACTACCTTTTGCTTCCAGATGGCCTACCTTCTGGCTGGATACTATTACACTGCCACCGGCAACTAC
GATATCAAGTGGACAATGCCACATTGTGTTCTGACTTTGAAGCTGATTGGTTTGGCTGTTGACTACTTTGACGGA
GGGAAAGATCAGAATTCCTTGTCCTCTGAGCAACAGAAATATGCCATACGTGGTGTTCCTTCCCTGCTGGAAGTT
GCTGGTTTCTCCTACTTCTATGGGGCCTTCTTGGTAGGGCCCCAGTTCTCAATGAATCACTACATGAAGCTGGTG
CAGGGAGAGCTGATTGACATACCAGGAAAGATACCAAACAGCATCATTCCTGCTCTCAAGCGCCTGAGTCTGGGC
CTTTTCTACCTAGTGGGCTACACACTGCTCAGCCCCCACATCACAGAAGACTATCTCCTCACTGAAGACTATGAC
AACCACCCCTTCTGGTTCCGCTGCATGTACATGCTGATCTGGGGCAAGTTTGTGCTGTACAAATATGTCACCTGT
TGGCTGGTCACAGAAGGAGTATGCATTTTGACGGGCCTGGGCTTCAATGGCTTTGAAGAAAAGGGCAAGGCAAAG
TGGGATGCCTGTGCCAACATGAAGGTGTGGCTCTTTGAAACAAACCCCCGCTTCACTGGCACCATTGCCTCATTC
AACATCAACACCAACGCCTGGGTGGCCCGCTACATCTTCAAACGACTCAAGTTCCTTGGAAATAAAGAACTCTCT
CAGGGTCTCTCGTTGCTATTCCTGGCCCTCTGGCACGGCCTGCACTCAGGATACCTGGTCTGCTTCCAGATGGAA
TTCCTCATTGTTATTGTGGAAAGACAGGCTGCCAGGCTCATTCAAGAGAGCCCCACCCTGAGCAAGCTGGCCGCC
ATTACTGTCCTCCAGCCCTTCTACTATTTGGTGCAACAGACCATCCACTGGCTCTTCATGGGTTACTCCATGACT
GCCTTCTGCCTCTTCACGTGGGACAAATGGCTTAAGGTGTATAAATCCATCTATTTCCTTGGCCACATCTTCTTC
CTGAGCCTACTATTCATATTGCCTTATATTCACAAAGCAATGGTGCCAAGGAAAGAGAAGTTAAAGAAGATGGAA
TAATCCATTTCCCTGGTGGCCTGTGCGGGACTGGTGCAGAAACTACTCGTCTCCCTTTTCACAGCACTCCTTTGC
CCCAGAGCAGAGAATGGAAAAGCCAGGGAGGTGGAAGATCGATGCTTCCAGCTGTGCCTCTGCTGCCAGCCAAGT
CTTCATTTGGGGCCAAAGGGGAAACTTTTTTTTGGAGAAGGCGTCTTGCTTTGTCACCCACGCTGGAATGCAGTG
GCGGGATCTCAGCTCACCGCAACCTCCACCTCCTGGGTTCAAGTGATTTTCCTGCCTCAGCCTCCCAAGTAGCTG
GGAATACAGGCACGCCACCATGCCCAGCTAATTTTTGTATTTTCAGTAGAAACGGGATTTCACCACGTTGGCCAG
GCTGGTCTCGAACTCCTGACCGCAAGTGATCCACCCGCCTCCGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGC
CACCGTGCCCGGCCCAAAGGGGAAACTCTTGTGGGAGGAGCAGAGGGGCTCACATCTCCCCTCTGATTCCCCCAT
GCACATTGCCTTATCTCTCCCCATCTAGCCAGGAATCTATTGTGTTTTTCTTCTGCCAATTTACTATGATTGTGT
ATGTGCCGCTACCACCACCCCCCCCATGGGGGGGTGGAGAGGGGTGCAAGGCCCTGCCTGCTCCACTTTTTCTAC
CTTGGAACTGTATTAGATAAAATCACTTCTGTTTGTTCAGTTTTTC

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FIGURE 2106

AAGTTCGGGTCCGTAGTGGGCTAAGGGGGAGGGTTTCAAAGGGAGCGCACTTCCGCTGCCCTTTCTTTCGCCAGC
CTTACGGGCCCGAACCCTCGTGTGAAGGGTGCAGTACCTAAGCCGGAGCGGGGTAGAGGCGGGCCGGCACCCCCT
TCTGACCTCCAGTGCCGCCGGCCTCAAGATCAGAC**ATG**GCCCAGAACTTGAAGGACTTGGCGGGACGGCTGCCCG
CCGGGCCCCGGGGCATGGGCACGGCCCTGAAGCTGTTGCTGGGGGCCGGCGCCGTGGCCTACGGTGTGCGCGAAT
CTGTGTTCACCGTGGAAGGCGGGCACAGAGCCATCTTCTTCAATCGGATCGGTGGAGTGCAGCAGGACACTATCC
TGGCCGAGGGCCTTCACTTCAGGATCCCTTGGTTCCAGTACCCCATTATCTATGACATTCGGGCCAGACCTCGAA
AAATCTCCTCCCCTACAGGCTCCAAAGACCTACAGATGGTGAATATCTCCCTGCGAGTGTTGTCTCGACCCAATG
CTCAGGAGCTTCCTAGCATGTACCAGCGCCTAGGGCTGGACTACGAGGAACGAGTGTTGCCGTCCATTGTCAACG
AGGTGCTCAAGAGTGTGGTGGCCAAGTTCAATGCCTCACAGCTGATCACCCAGCGGGCCCAGGTATCCCTGTTGA
TCCGCCGGGAGCTGACAGAGAGGGCCAAGGACTTCAGCCTCATCCTGGATGATGTGGCCATCACAGAGCTGAGCT
TTAGCCGAGAGTACACAGCTGCTGTAGAAGCCAAACAAGTGGCCCAGCAGGAGGCCCAGCGGGCCCAATTCTTGG
TAGAAAAAGCAAAGCAGGAACAGCGGCAGAAAATTGTGCAGGCCGAGGGTGAGGCCGAGGCTGCCAAGATGCTTG
GAGAAGCACTGAGCAAGAACCCTGGCTACATCAAACTTCGCAAGATTCGAGCAGCCCAGAATATCTCCAAGACGA
TCGCCACATCACAGAATCGTATCTATCTCACAGCTGACAACCTTGTGCTGAACCTACAGGATGAAAGTTTCACCA
GG**TGA**GTGACAGCCTCATCAAGGGTAAGAAATGAGCCTAGTCACCAAGAACTCCACCCCCAGAGGAAGTGGATCT
GCTTCTCCAGTTTTTGAGGAGCCAGCCAGGGGTCCAGCACAGCCCTACCCCGCCCCAGTATCATGCGATGGTCCC
CCACACCGGTTCCCTGAACCCCTCTTGGATTAAGGAAGACTGAAGACTAGCCCCTTTTCTGGGGAATTACTTTCC
TCCTCCCTGTGTTAACTGGGGCTGTTGGGGACAGTGCGTGATTTCTCAGTGATTTCCTACAGTGTTGTTCCCTCC
CTCAAGGCTGGGAGGAGATAAACACCAACCCAGGAATTCTCAATAAATTTTTATTACTTAACCTG

FIGURE 2107

AGTGGAGTGGCAGCCCCAGAACTGGGACCACCGGGGGTGGTGAGGCGGCCCGGCACTGGGAGCTGCATCTGAGGC
TTAGTCCCTGAGCTCTCTGCCTGCCCAGACTAGCTGCACCTCCTCATTCCCTGCGCCCCCTTCCTCTCCGGAAGC
CCCCAGG**ATG**GTGAGGTGGTTTCACCGAGACCTCAGTGGGCTGGATGCAGAGACCCTGCTCAAGGGCCGAGGTGT
CCACGGTAGCTTCCTGGCTCGGCCCAGTCGCAAGAACCAGGGTGACTTCTCGCTCTCCGTCAGGGTGGGGGATCA
GGTGACCCATATTCGGATCCAGAACTCAGGGGATTTCTATGACCTGTATGGAGGGGAGAAGTTTGCGACTCTGAC
AGAGCTGGTGGAGTACTACACTCAGCAGCAGGGTGTCCTGCAGGACCGCGACGGCACCATCATCCACCTCAAGTA
CCCGCTGAACTGCTCCGATCCCACTAGTGAGAGGTGGTACCATGGCCACATGTCTGGCGGGCAGGCAGAGACGCT
GCTGCAGGCCAAGGGCGAGCCCTGGACGTTTCTTGTGCGTGAGAGCCTCAGCCAGCCTGGAGACTTCGTGCTTTC
TGTGCTCAGTGACCAGCCCAAGGCTGGCCCAGGCTCCCCGCTCAGGGTCACCCACATCAAGGTCATGTGCGAGGG
TGGACGCTACACAGTGGGTGGTTTGGAGACCTTCGACAGCCTCACGGACCTGGTGGAGCATTTCAAGAAGACGGG
GATTGAGGAGGCCTCAGGCGCCTTTGTCTACCTGCGGCAGCCGTACTATGCCACGAGGGTGAATGCGGCTGACAT
TGAGAACCGAGTGTTGGAACTGAACAAGAAGCAGGAGTCCGAGGATACAGCCAAGGCTGGCTTCTGGGAGGAGTT
TGAGAGTTTGCAGAAGCAGGAGGTGAAGAACTTGCACCAGCGTCTGGAAGGGCAGCGGCCAGAGAACAAGGGCAA
GAACCGCTACAAGAACATTCTCCCCTTTGACCACAGCCGAGTGATCCTGCAGGGACGGGACAGTAACATCCCCGG
GTCCGACTACATCAATGCCAACTACATCAAGAACCAGCTGCTAGGCCCTGATGAGAACGCTAAGACCTACATCGC
CAGCCAGGGTTGTCTGGAGGCCACGGTCAATGACTTCTGGCAGATGGCGTGGCAGGAGAACAGCCGTGTCATCGT
CATGACCACCCGAGAGGTGGAGAAAGGCCGGAACAAATGCGTCCCATACTGGCCCGAGGTGGGCATGCAGCGTGC
TTATGGGCCCTACTCTGTGACCAACTGCGGGGAGCATGACACAACCGAATACAAACTCCGTACCTTACAGGTCTC
CCCGCTGGACAATGGAGACCTGATTCGGGAGATCTGGCATTACCAGTACCTGAGCTGGCCCGACCATGGGGTCCC
CAGTGAGCCTGGGGGTGTCCTCAGCTTCCTGGACCAGATCAACCAGCGGCAGGAAAGTCTGCCTCACGCAGGGCC
CATCATCGTGCACTGCAGCGCCGGCATCGGCCGCACAGGCACCATCATTGTCATCGACATGCTCATGGAGAACAT
CTCCACCAAGGGCCTGGACTGTGACATTGACATCCAGAAGACCATCCAGATGGTGCGGGCGCAGCGCTCGGGCAT
GGTGCAGACGGAGGCGCAGTACAAGTTCATCTACGTGGCCATCGCCCAGTTCATTGAAACCACTAAGAAGAAGCT
GGAGGTCCTGCAGTCGCAGAAGGGCCAGGAGTCGGAGTACGGGAACATCACCTATCCCCCAGCCATGAAGAATGC
CCATGCCAAGGCCTCCCGCACCTCGTCCAAGAGCTTGGAGTCTAGTGCAGGGACCGTGGCTGCGTCACCTGTGAG
ACGGGGTGGCCAGAGGGGACTGCCAGTGCCGGGTCCCCCTGTGCTGTCTCCTGACCTGCACCAACTGCCTGTACT
TGCCCCCCTGCACCCGGCTGCAGACACAAGGAGGATGTGTATGAGAACCTGCACACTAAGAACAAGAGGGAGGAG
AAAG**TGA**AGAAGCAGCGGTCAGCAGACAAGGAGAAGAGCAAGGGTTCCCTCAAGAGGAAGTGAGCGGTGCTGTCC
TCAGGTGGCCATGCCTCAGCCCTGACCCTGTGGAAGCATTTCGCGATGGACAGACTCACAACCTGAACCTAGGAG
TGCCCCATTCTTTTGTAATTTAAATGGCTGCATCCCCCCCACCTCTCCCTGACCCTGTATATAGCCCAGCCAGGC
CCCAGGCAGGGCCAACCCTTCTCCTCTTGTAAATAAAGCCCTGGGATCACTGTG

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FIGURE 2108

ATTTGTCTAGTAGGCTTTCTGGCTTTTTACCGGAAAGCCCCTCTTATGATGTTTGTTGCCAATGATAGATTGTTT
TCACTGTGCAAAAATTATGGGTAGTTTTGGTGGTCTTGATGCAGTTGTAAGCTTGGGGTATGAAGGTTTGGGCCA
CGCCTGGGCGCTTCCGGCTGCGCCGGATGCTGTTTCCTTTCCGCTCCCAGGGGCGTTGGGAACGGTTGTAGGACG
TGGCTCTTTATTCGTGAGTTTTCCATTTACCTCCGCTGAACCTAGAGCTTCAGACGCCCT**ATG**GCGTCCGCCTCG
ACCCAACCGGCGGCCTTGAGCGCTGAGCAAGCAAAGGTGGTCCTCGCGGAGGTGATCCAGGCGTTCTCCGCCCCG
GAGAATGCAGTGCGCATGGACGAGGCTCGGGATAACGCCTGCAACGACATGGGTAAGATGCTGCAATTCGTGCTG
CCCGTGGCCACGCAGATCCAGCAGGAGGTTATCAAAGCCTATGGCTTCAGCTGCGACGGGGAAGGTGTCCTTAAG
TTTGCTCGCTTGGTCAAGTCCTACGAAGCCCAGGATCCTGAGATCGCCAGCCTGTCAGGCAAGCTGAAGGCGCTG
TTTCTGCCGCCCATGACCCTGCCACCCCATGGGCCTGCTGCTGGTGGCAGCGTGGCCGCCTCC**TGA**GAGTTGGCC
CTCCCTTGTGCCACTGCCAGGGGAGGAAAGGCCTTGATGTTCCAGACAATAATAAATGCGCCTGTGACTT

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FIGURE 2109A

ACGCCATACTGGACGCCAAGTGGGAGGAACTTCAAGGCTGTCCCCTGCGGGCCTCCCGCTCTGCTTCTGCGAAGG
TTTCATTGAAAACAGATCCTGCAAAAGTTCCAGGTGCCCACACTGGAAACTTGGAGATCCTGCTTCCCAGACCAC
AGCTGTGGGGAACTTGGGGTGGAGCAGAGAAGTTTCTGTATTCAGCTGCCCAGGCAGAGGAGAATGGGGTCTCCA
CAGCCTGAAGA**ATG**AAGACACGACAGAATAAAGACTCGATGTCAATGAGGAGTGGACGGAAGAAAGAGGCCCCTG
GGCCCCGGGAAGAACTGAGATCGAGGGGCCGGGCCTCCCCTGGAGGGGTCAGCACGTCCAGCAGTGATGGCAAAG
CTGAGAAGTCCAGGCAGACAGCCAAGAAGGCCCGAGTAGAGGAAGCCTCCACCCCAAAGGTCAACAAGCAGGGTC
GGAGTGAGGAGATCTCAGAGAGTGAAAGTGAGGAGACCAATGCACCAAAAAAGACCAAAACTGAGCAGGAACTCC
CTCGGCCACAGTCTCCCTCCGATCTGGATAGCTTGGACGGGCGGAGCCTTAATGATGATGGCAGCAGCGACCCTA
GGGATATCGACCAGGACAACCGAAGCACGTCCCCCAGTATCTACAGCCCTGGAAGTGTGGAGAATGACTCTGACT
CATCTTCTGGCCTGTCCCAGGGCCCAGCCCGCCCCTACCACCCACCTCCACTCTTTCCTCCTTCCCCTCAACCGC
CAGACAGCACCCCTCGACAGCCAGAGGCTAGCTTTGAACCCCATCCTTCTGTGACACCCACTGGATATCATGCTC
CCATGGAGCCCCCCACATCTCGAATGTTCCAGGCTCCTCCTGGGGCCCCTCCCCCTCACCCACAGCTCTATCCTG
GGGGCACTGGTGGAGTTTTGTCTGGACCCCCAATGGGTCCCAAGGGGGGAGGGGCTGCCTCATCAGTGGGGGGCC
CTAATGGGGGTAAGCAGCACCCCCCACCCACTACTCCCATTTCAGTATCAAGCTCTGGGGCTAGTGGTGCTCCCC
CAACAAAGCCGCCTACCACTCCAGTGGGTGGTGGGAACCTACCTTCTGCTCCACCACCAGCCAACTTCCCCCATG
TGACACCGAACCTGCCTCCCCCACCTGCCCTGAGACCCCTCAACAATGCATCAGCCTCTCCCCCTGGCCTGGGGG
CCCAACCACTACCTGGTCATCTGCCCTCTCCCCACGCCATGGGACAGGGTATGGGTGGACTTCCTCCTGGCCCAG
AGAAGGGCCCAACTCTGGCTCCTTCACCCCACTCTCTGCCTCCTGCTTCCTCTTCTGCTCCAGCGCCCCCCATGA
GGTTTCCTTATTCATCCTCTAGTAGTAGCTCTGCAGCAGCCTCCTCTTCCAGTTCTTCCTCCTCTTCCTCTGCCT
CCCCCTTCCCAGCTTCCCAGGCATTGCCCAGCTACCCCCACTCTTTCCCTCCCCCAACAAGCCTCTCTGTCTCCA
ATCAGCCCCCCAAGTATACTCAGCCTTCTCTCCCATCCCAGGCTGTGTGGAGCCAGGGTCCCCCACCACCTCCTC
CCTATGGCCGCCTCTTAGCCAACAGCAATGCCCATCCAGGCCCCTTCCCTCCCTCTACTGGGGCCCAGTCCACCG
CCCACCCACCAGTCTCAACACATCACCATCACCACCAGCAACAGCAACAGCAGCAGCAGCAGCAGCAGCAGCAGC
AGCAGCAGCAGCAGCAGCATCACGGAAACTCTGGGCCCCCTCCTCCTGGAGCATTTCCCCACCCACTGGAGGGCG
GTAGCTCCCACCACGCACACCCTTACGCCATGTCTCCCTCCCTGGGGTCTCTGAGGCCCTACCCACCAGGGCCAG
CACACCTGCCCCCACCTCACAGCCAGGTGTCCTACAGCCAAGCAGGCCCCAATGGCCCTCCAGTCTCTTCCTCTT
CCAACTCTTCCTCTTCCACTTCTCAAGGGTCCTACCCATGTTCACACCCCTCCCCTTCCCAGGGCCCTCAAGGGG
CGCCCTACCCTTTCCCACCGGTGCCTACGGTCACCACCTCTTCGGCTACCCTTTCCACGGTCATTGCCACCGTGG
CTTCCTCGCCAGCAGGCTACAAAACGGCCTCCCCACCTGGGCCCCCACCGTACGGAAAGAGAGCCCCGTCCCCGG
GGGCCTACAAGACAGCCACCCCACCCGGATACAAACCCGGGTCGCCTCCCTCCTTCCGAACGGGGACCCCACCGG
GCTATCGAGGAACCTCGCCACCTGCAGGCCCAGGGACCTTCAAGCCGGGCTCGCCCACCGTGGGACCTGGGCCCC
TGCCACCTGCGGGGCCCTCAGGCCTGCCATCGCTGCCACCACCACCTGCGGCCCCTGCCTCAGGGCCGCCCCTGA
GCGCCACGCAGATCAAACAGGAGCCGGCTGAGGAGTATGAGACCCCCGAGAGCCCGGTGCCCCCAGCCCGCAGCC
CCTCGCCCCCTCCCAAGGTGGTAGATGTACCCAGCCATGCCAGTCAGTCTGCCAGGTTCAACAAACACCTGGATC
GCGGCTTCAACTCGTGCGCGCGCAGCGACCTGTACTTCGTGCCACTGGAGGGCTCCAAGCTGGCCAAGAAGCGGG
CCGACCTGGTGGAGAAGGTGCGGCGCGAGGCCGAGCAGCGCGCGCGCGAAGAAAAGGAGCGCGAGCGCGAGCGGG
AACGCGAGAAAGAGCGCGAGCGCGAGAAGGAGCGCGAGCTTGAACGCAGCGTGAAGTTGGCTCAGGAGGGCCGTG
CTCCGGTGGAATGCCCATCTCTGGGCCCAGTGCCCCATCGCCCTCCATTTGAACCGGGCAGTGCGGTGGCTACAG
TGCCCCCCTACCTGGGTCCTGACACTCCAGCCTTGCGCACTCTCAGTGAATATGCCCGGCCTCATGTCATGTCTC
CTGGCAATCGCAACCATCCATTCTACGTGCCCCTGGGGGCAGTGGACCCGGGGCTCCTGGGTTACAATGTCCCGG
CCCTGTACAGCAGTGATCCAGCTGCCCGGGAGAGGGAACGGGAAGCCCGTGAACGAGACCTCCGTGACCGCCTCA
AGCCTGGCTTTGAGGTGAAGCCTAGTGAGCTGGAACCCCTACATGGGGTCCCTGGGCCGGGCTTGGATCCCTTTC
CCCGACATGGGGGCCTGGCTCTGCAGCCTGGCCCACCTGGCCTGCACCCTTTCCCCTTTCATCCGAGCCTGGGGC
CCCTGGAGCGAGAACGTCTAGCGCTGGCAGCTGGGCCAGCCCTGCGGCCTGACATGTCCTATGCTGAGCGGCTGG
CAGCTGAGAGGCAGCACGCAGAAAGGGTGGCGGCCCTGGGCAATGACCCACTGGCCCGGCTGCAGATGCTCAATG
TGACTCCCCATCACCACCAGCACTCCCACATCCACTCGCACCTGCACCTGCACCAGCAAGATGCTATCCATGCAG
CCTCTGCCTCGGTGCACCCTCTCATTGACCCCCTGGCCTCAGGGTCTCACCTTACCCGGATCCCCTACCCAGCTG
GAACTCTCCCTAACCCCCTGCTTCCTCACCCTCTGCACGAGAACGAAGTTCTTCGTCACCAGCTCTTTGCTGCCC

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FIGURE 2109B

CTTACCGGGACCTGCCGGCCTCCCTTTCTGCCCCGATGTCAGCAGCTCATCAGCTGCAGGCCATGCACGCACAGT
CAGCTGAGCTGCAGCGCTTGGCGCTGGAACAGCAGCAGTGGCTGCATGCCCATCACCCGCTGCACAGTGTGCCGC
TGCCTGCCCAGGAGGACTACTACAGTCACCTGAAGAAGGAAAGCGACAAGCCACTG**TAG**AACCTGCGATCAAGAG
AGCACCATGGCTCCTACATTGGACCTTGGAGCACCCCCACCCTCCCCCCACCGTGCCCTTGGCCTGCCACCCAGA
GCCAAGAGGGTGCTGCTCAGTTGCAGGGCCTCCGCAGCTGGACAGAGAGTGGGGGAGGGAGGGACAGACAGAAGG
CCAAGGCCCGATGTGGTGTGCAGAGGTGGGGAGGTGGCGAGGATGGGGACAGAAAGCGCACAGAATCTTGGACCA
GGTCTCTCTTCCTTGTCCCCCCTGCTTTTCTCCTCCCCCATGCCCAACCCCTGTGGCCGCCGCCCCTCCCCTGCC
CCGTTGGTGTGATTATTTCATCTGTTAGATGTGGCTGTTTTGCGTAGCATCGTGTGCCACCCCTGCCCCTCCCCG
ATCCCTGTGTGCGCGCCCCCTCTGCAATGTATGCCCCTTGCCCCTTCCCCACACTAATAATTTATATATATAAAT
ATCTATATGACGCTCTTAAAAAAACATCCCAACCAAAACCAACCAAACAAAAACATCCTCACAACTCCCCAGGA

FIGURE 2110

ACCCGCGCTCGTACGTGCGCCTCCGCCGGCAGCTCCTGACTCATCGGGGGCTCCGGGTCACATGCGCCCGCGCGG
CCCTATAGGCGCCTCCTCCGCCCGCCGCCCGGGAGCCGCAGCCGCCGCCGCCACTGCCACTCCCGCTCTCTCAGC
GCCGCCGTCGCCACCGCCACCGCCACCGCCACTACCACCGTCTGAGTCTGCAGTCCCGAGATCCCAGCCATC**ATG**

TCCATAGAGAAGATCTGGGCCCGGGAGATCCTGGACTCCCGCGGGAACCCCACAGTGGAGGTGGATCTCTATACT
GCCAAAGGTCTTTTCCGGGCTGCAGTGCCCAGTGGAGCCTCTACGGGCATCTATGAGGCCCTGGAGCTGAGGGAT
GGAGACAAACAGCGTTACTTAGGCAAAGGTGTCCTGAAGGCAGTGGACCACATCAACTCCACCATCGCGCCAGCC
CTCATCAGCTCAGGTCTCTCTGTGGTGGAGCAAGAGAAACTGGACAACCTGATGCTGGAGTTGGATGGGACTGAG
AACAAATCCAAGTTTGGGGCCAATGCCATCCTGGGTGTGTCTCTGGCCGTGTGTAAGGCAGGGGCAGCTGAGCGG
GAACTGCCCCTGTATCGCCACATTGCTCAGCTGGCCGGGAACTCAGACCTCATCCTGCCTGTGCCGGCCTTCAAC
GTGATCAATGGTGGCTCTCATGCTGGCAACAAGCTGGCCATGCAGGAGTTCATGATCCTCCCAGTGGGAGCTGAG
AGCTTTCGGGATGCCATGCGACTAGGTGCAGAGGTCTACCATACACTCAAGGGAGTCATCAAGGACAAATACGGC
AAGGATGCCACCAATGTGGGGGATGAAGGTGGCTTTGCCCCCAATATCCTGGAGAACAGTGAAGCCTTGGAGCTG
GTGAAGGAAGCCATCGACAAGGCTGGCTACACGGAAAAGATCGTTATTGGCATGGATGTTGCTGCCTCAGAGTTT
TATCGTGATGGCAAATATGACTTGGACTTCAAGTCTCCCACTGATCCTTCCCGATACATCACTGGGGACCAGCTG
GGGGCACTCTACCAGGACTTTGTCAGGGACTATCCTGTGGTCTCCATTGAGGACCCATTTGACCAGGATGATTGG
GCTGCCTGGTCCAAGTTCACAGCCAATGTAGGGATCCAGATTGTGGGTGATGACCTGACAGTGACCAACCCAAAA
CGTATTGAGCGGGCAGTGGAAGAAAAGGCCTGCAACTGTCTGCTGCTCAAGGTCAACCAGATCGGCTCGGTCACT
GAAGCCATCCAAGCGTGCAAGCTGGCCCAGGAGAATGGCTGGGGGGTCATGGTGAGTCATCGCTCAGGAGAGACT
GAGGACACATTCATTGCTGACCTGGTGGTGGGGCTGTGCACAGGCCAGATCAAGACTGGTGCCCCGTGCCGTTCT
GAACGTCTGGCTAAATACAACCAGCTCATGAGAATTGAGGAAGAGCTGGGGGGATGAAGCTCGCTTTGCCGGACAT
AACTTCCGTAATCCCAGTGTGCTG**TGA**TTCCTCTGCTTGCCTGGAGACGTGGAACCTCTGTCTCATCCTCCTGGA
ACCTTGCTGTCCTGATCTGTGATAGTTCACCCCCTGAGATCCCCTGAGCCCCAGGGTGCCCAGAACTTCCCTGAT
TGACCTGCTCCGCTGCTCCTTGGCTTACCTGACCTCTTGCTGTCTCTGCTCGCCCTCCTTTCTGTGCCCTACTCA
TTGGGGTTCCGCACTTTCCACTTCTTCCTTTCTCTTTCTCTCTTCCCTCAGAAACTAGAAATGTGAATGAGGATT
ATTATAAAAGGGGGTCCGTGGAAGAATGATCAGCATCTGTGATGGGAGCGTCAGGGTTGGTGTGCTGAGGTGTTA
GAGAGGGACCATGTGTCACTTGTGCTTTGCTCTTGTCCCACGTGTCTTCCACTTTGCATATGAGCCGTGAACTGT
GCATAGTGCTGGGATGGAGGGGAGTGTTGGGCATGTGATCACGCCTGGCTAATAAGGCTTTAGTGTATTTATTTA
TTTATTTATTTTATTTGTTTTTCATTCATCCCATTAATCATTTCCCCATAACTCAATGGCCTAAAACTGGCCTGA
CTTGGGGGAACGATGTGTCTGTATTTCATGTGGCTGTAGATCCCAAGATGACTGGGGTGGGAGGTCTTGCTAGAA
TGGGAAGGGTCATAGAAAGGGCCTTGACATCAGTTCCTTTGTGTGTACTCACTGAAGCCTGCGTTGGTCCAGAGC
GGAGGCTGTGTGCCTGGGGGAGTTTTCCTCTATACATCTCTCCCCAACCCTAGGTTCCCTGTTCTTCCTCCAGCT
GCACCAGAGCAACCTCTCACTCCCCATGCCACGTTCCACAGTTGCCACCACCTCTGTGGCATTGAAATGAGCACC
TCCATTAAAGTCTGAATCAGTGC

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FIGURE 2111

GAAAGTGGCGTGGTAACCAGGCAACTACTGATCAATCCCCTCCCCGGCTGATTTGCGCATCAGGAGGAGGACTGA
GCTTATCTGACTCCAGAGCTTTCAGGAGGGAAGAAAG**ATG**TCAGATGAAGATGATCTAGAAGACTCTGAGCCAGA
CCAGGATGATTCTGAGAAAGAAGAGGACGAGAAGGAGACAGAGGAGGGGGAGGACTACAGAAAAGAGGGGGAAGA
GTTCCCTGAGGAATGGCTGCCCACCCCCCTCACGGAGGACATGATGAAGGAAGGGCTTTCTCTGCTCTGTAAGAC
AGGCAATGGGCTGGCTCATGCTTATGTCAAGCTGGAGGTTAAAGAGAGGGACCTGACAGACATCTACTTGCTGCG
CTCCTACATCCATCTGCGCTATGTGGATATTTCTGAGAACCACCTGACAGACCTGTCTCCACTCAACTACCTCAC
CCACCTGCTCTGGCTCAAGGCTGATGGCAATCGGCTGCGAAGTGCCCAGATGAATGAACTGCCCTACCTGCAGAT
TGCTAGTTTTGCTTATAACCAGATTACTGACACTGAAGGCATCTCTCATCCTCGTCTTGAAACCCTGAATCTCAA
AGGGAACAGCATCCACATGGTGACAGGTCTGGACCCCGAGAAGTTGATCAGCCTGCACACAGTGGAGCTTCGGGG
GAACCAGCTGGAAAGCACCCTGGGAATCAATCTTCCTAAGCTGAAGAACCTCTACCTGGCCCAAAACATGCTGAA
GAAGGTGGAAGGCTTGGAGGATCTGAGCAATCTCACCACCTTGCATCTTCGAGACAACCAGATTGACACCCTGAG
TGGCTTCTCCAGAGAAATGAAATCATTGCAGTACCTCAACCTGAGGAGATCAAAGACGCTGGCCTTCAGACCTGA
TCAGACTCCCAGGGGCAGCCACCACATGTATGACAGAGAACAGAGGATGCCTGTTTTTGCCCCAAAGCTGGAAAT
TCATCACAACCTGAGGCCCAGGATCTGCTCTGTGCCGGTCCTCTGGGCAGTGTGGGGTGCAGAATGGGGTGCC**TA**
GGCCTGAGCGTTGCCTGGAGCCTAGGCCGGGGGCCGCCCTCGGGCAGGCGTGGGTGAGAGCCAAGACCGCGTGGG
CCGCGGGGTGCTGGTAGGAGTGGTTGGAGAGACTTGCGAAGGCGGCTGGGGTGTTCGGATTTCCAATAAAGAAAC
AGAGTGAT

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FIGURE 2112

CTTCAGAGGCCCGGCGACCTCCAGGGCTGGGAAGTCAACCGAGCTCCCTTCCAGGTCAATCCAAACTGGAGCTCA
ACTTTCAGAAGAGAAAGACGCCCCAGCAAGCCTCTTTCGGGGAGTCCTCTAGCTCCTCACCTCC**ATG**GGCCAGAC
AGCTCTGGCAGGGGGCAGCAGCAGCACCCCCACGCCACAGGCCCTGTACCCTGACCTCTCCTGTCCCGAGGGCTT
GGAAGAGCTGCTGTCTGCACCCCCTCCTGACCTGGGGGCCCAGCGGCGCCACGGTTGGAACCCCAAAGACTGTTC
AGAGAACATCGAGGTCAAGGAAGGAGGGTTGTACTTTGAGCGGCGGCCCGTGGCCCAGAGCACTGATGGGGCCCG
GGGTAAGAGGGGCTATTCAAGGGGCCTGCACGCCTGGGAGATCAGCTGGCCCCTAGAGCAGAGGGGCACGCATGC
CGTGGTGGGCGTGGCCACGGCCCTCGCCCCGCTGCAGACTGACCACTACGCGGCGCTGCTGGGCAGCAACAGCGA
GTCGTGGGGCTGGGACATCGGGCGGGGGAAGCTGTACCATCAGAGCAAGGGGCCCGGAGCCCCCCAGTATCCAGC
GGGAACTCAGGGTGAGCAGCTGGAGGTGCCAGAGAGACTGCTGGTGGTTCTGGACATGGAGGAGGGAACTCTGGG
CTACGCTATTGGGGGCACCTACCTGGGGCCAGCATTCCGCGGACTGAAGGGCAGGACCCTCTATCCGGCAGTAAG
CGCTGTCTGGGGCCAGTGCCAGGTCCGCATCCGCTACCTGGGCGAAAGGAGAGCGGAGCCACACTCCCTTCTGCA
CCTGAGCCGCCTGTGTGTGCGCCACAACCTGGGGGATACCCGGCTCGGCCAGGTGTCTGCCCTGCCCTTGCCCCC
TGCCATGAAGCGCTACCTGCTCTACCAG**TGA**GCCCTGTGATACCACAGACTGTGCTGAGGTCTTGCCACCACCCC
TCCCCTTGGGGAGGTGGGGAGGCACTGCTGGCCTAGACCAGCTGCTGAAAGCTGGTGAGGCTGAGCCCCTACCCC
AACCCAAGCTCTGCGGAAATCAACAGCCCCAGAGCCACTTGGAGGGAGGAAGAAAGGGAGCCGGCGTTCAAGGCT
ATGACAGTCTGCTACGCAAAACATTTTTTCAAGTAAAAATAGTAAGAGATGTTGTTATAG

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FIGURE 2113

TCCCACAGTTGGAGAGGGGCCCTCTCTGCCCCAGTGGGCGATCTGGGCTACGGCCAAGTTGCCACCAGCTAGTTC
CGCTTGAAAACCACTTCTGGCCCCGTGGGGGACTCAAGTCGCCAAGCGAGGGTTCCCCTGAGCGCCGGAGCTCAC
AGGTCTCGCCTTGTCCCGAAAGCCCCGCAATCGAGGCGGAGGCGACCGAGCCCCCGACTCTCCTAGAACGTTGCC
ACAAGAAGGGGGAACGTCGGAACAGTGCATCATCGGGCGGCGGCCGGGGCGGCGGCAGGAGGGCGGGCGGGGGGC
AGGGCTCCGGGGGACTGGGCGGGCCATGGCGGAGGACGGCGAGGAGGCGGAGTTCCACTTCGCGGCGCTCTATAT
AAGTGGGCAGTGGCCGCGACTGCGCGCAGACACTGACCTTCAGCGCCTCGGCTCCAGCGCC**ATG**GCGCCCTCCAG
GAAGTTCTTCGTTGGGGGAAACTGGAAGATGAACGGGCGGAAGCAGAGTCTGGGGGAGCTCATCGGCACTCTGAA
CGCGGCCAAGGTGCCGGCCGACACCGAGGTGGTTTGTGCTCCCCCTACTGCCTATATCGACTTCGCCCGGCAGAA
GCTAGATCCCAAGATTGCTGTGGCTGCGCAGAACTGCTACAAAGTGACTAATGGGGCTTTTACTGGGGAGATCAG
CCCTGGCATGATCAAAGACTGCGGAGCCACGTGGGTGGTCCTGGGGCACTCAGAGAGAAGGCATGTCTTTGGGGA
GTCAGATGAGCTGATTGGGCAGAAAGTGGCCCATGCTCTGGCAGAGGGACTCGGAGTAATCGCCTGCATTGGGGA
GAAGCTAGATGAAAGGGAAGCTGGCATCACTGAGAAGGTTGTTTTCGAGCAGACAAAGGTCATCGCAGATAACGT
GAAGGACTGGAGCAAGGTCGTCCTGGCCTATGAGCCTGTGTGGGCCATTGGTACTGGCAAGACTGCAACACCCCA
ACAGGCCCAGGAAGTACACGAGAAGCTCCGAGGATGGCTGAAGTCCAACGTCTCTGATGCGGTGGCTCAGAGCAC
CCGTATCATTTATGGAGGCTCTGTGACTGGGGCAACCTGCAAGGAGCTGGCCAGCCAGCCTGATGTGGATGGCTT
CCTTGTGGGTGGTGCTTCCCTCAAGCCCGAATTCGTGGACATCATCAATGCCAAACAA**TGA**GCCCCATCCATCTT
CCCTACCCTTCCTGCCAAGCCAGGGACTAAGCAGCCCAGAAGCCCAGTAACTGCCCTTTCCCTGCATATGCTTCT
GATGGTGTCATCTGCTCCTTCCTGTGGCCTCATCCAAACTGTATCTTCCTTTACTGTTTATATCTTCACCCTGTA
ATGGTTGGGACCAGGCCAATCCCTTCTCCACTTACTATAATGGTTGGAACTAAACGTCACCAAGGTGGCTTCTCC
TTGGCTGAGAGATGGAAGGCGTGGTGGGATTTGCTCCTGGGTTCCCTAGGCCCTAGTGAGGGCAGAAGAGAAACC
ATCCTCTCCCTTCTTACACCGTGAGGCCAAGATCCCCTCAGAAGGCAGGAGTGCTGCCCTCTCCCATGGTGCCCG
TGCCTCTGTGCTGTGTATGTGAACCACCCATGTGAGGGAATAAACCTGGCACTAGGTCTTGTGGTTTGTCTGCCT
TCACTGGACTTGCCCAGATAATCTTCCTTTTTGAGGCAGCTATATAAATGATCATTTGTGCAAGAAAAAAAAAAA
AACAAGAACAGGTTTCTATAACAACATCTCTTACTATTTTTACTTGAAAAAATGTTTTGCGTAGCAGACTGTCAT
AGCCTTGAACGCCGGCTCCCTTTCTTCCTCCCTCCAAGTGGCTCTGGGGCTGTTGATTTCCGCAGAGCTTGGGTT
GGGGTAGGGGCTCAGCCTCACCAGCTTTCAG

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FIGURE 2114

GGAGAAGCTGCTGCCGGTGTC**ATG**GCGGAGCTGAGTGAGGAGGCGCTGCTGTCAGTATTACCGACGATCCGGGTC
CCTAAGGCTGGAGACCGGGTCCACAAAGACGAGTGCGCCTTCTCCTTCGACACGCCGGAGTCTGAGGGGGGCCTC
TACATCTGTATGAACACGTTTCTGGGCTTTGGGAAACAGTATGTGGAGAGACATTTCAATAAGACCGGCCAGCGA
GTCTACTTGCACCTCCGGCGGACCCGGCGCCCGAAAGAGGAGGACCCTGCTACAGGCACTGGAGACCCACCCCGG
AAGAAGCCCACGCGGCTGGCTATTGGTGTTGAAGGCGGATTTGACCTTAGCGAGGAGAAGTTTGAATTAGACGAG
GATGTGAAGATTGTCATTTTGCCAGATTACCTGGAGATTGCCCGGGATGGACTGGGGGGACTGCCTGACATTGTC
AGAGATCGGGTGACCAGTGCAGTGGAGGCCCTACTGTCGGCCGACTCAGCCTCCCGCAAGCAGGAGGTGCAGGCA
TGGGATGGGGAAGTACGGCAGGTGTCTAAGCATGCCTTCAGCCTCAAGCAGTTGGACAACCCTGCTCGAATCCCT
CCCTGTGGCTGGAAGTGCTCCAAGTGTGACATGAGAGAGAACCTGTGGCTCAACCTGACTGATGGCTCCATCCTC
TGTGGGCGACGCTACTTCGATGGCAGTGGGGGCAACAACCACGCTGTGGAGCACTACCGAGAGACAGGCTACCCG
TTAGCTGTCAAGCTGGGCACCATCACCCCTGATGGAGCTGACGTGTACTCATATGATGAGGATGACATGGTCCTG
GACCCCAGCCTGGCTGAGCACCTGTCCCACTTCGGCATCGACATGCTGAAGATGCAGAAGACAGACAAGACGATG
ACTGAGTTGGAGATAGACATGAACCAGCGGATTGGTGAATGGGAGCTGATCCAGGAGTCAGGTGTGCCACTCAAG
CCCCTGTTTGGGCCTGGCTACACAGGCATCCGGAACCTGGGTAACAGCTGCTACCTCAACTCTGTGGTCCAGGTG
CTCTTCAGCATCCCTGACTTCCAGAGGAAGTATGTGGATAAGCTGGAGAAGATCTTCCAGAATGCCCCGACGGAC
CCTACCCAGGATTTCAGCACCCAGGTGGCCAAGCTGGGCCATGGCCTTCTCTCCGGGGAGTATTCCAAGCCAGTA
CCGGAGTCGGGCGATGGGGAGCGGGTGCCAGAACAGAAGGAAGTTCAAGATGGCATTGCCCCTCGGATGTTCAAG
GCCCTCATCGGCAAGGGCCACCCTGAATTCTCCACCAACCGGCAGCAGGATGCCCAGGAGTTCTTCCTTCACCTT
ATCAACATGGTGGAGAGGAATTGCCGGAGCTCTGAAAATCCTAATGAAGTGTTCCGCTTCTTGGTGGAGGAAAAG
ATCAAGTGCCTGGCCACAGAGAAGGTGAAGTACACCCAGCGAGTTGACTACATCATGCAGCTGCCTGTGCCCATG
GATGCAGCCCTTAACAAAGAGGAGCTTCTGGAGTACGAGGAGAAGAAGCGGCAAGCCGAAGAGGAGAAGATGGCA
CTGCCAGAACTGGTTCGGGCCCAGGTGCCCTTCAGCTCTTGCCTGGAGGCCTACGGGGCCCCTGAGCAGGTCGAT
GACTTCTGGAGCACGGCCCTGCAGGCCAAGTCAGTAGCTGTCAAGACCACACGATTTGCCTCATTCCCTGACTAC
CTGGTCATCCAGATCAAGAAGTTCACCTTCGGCTTAGACTGGGTGCCCAAGAAACTGGATGTGTCCATCGAGATG
CCAGAGGAGCTCGACATCTCCCAGTTGAGGGGCACAGGGCTGCAGCCCGGAGAGGAGGAGCTGCCAGACATTGCC
CCACCCCTGGTCACTCCGGATGAGCCCAAAGCGCCCATGCTGGATGAATCAGTCATCATCCAGCTGGTGGAGATG
GGATTCCCTATGGACGCCTGCCGCAAAGCTGTCTACTACACGGGCAACAGCGGGGCTGAGGCCGCCATGAACTGG
GTCATGTCACACATGGATGATCCAGATTTTGCAAACCCCCTCATCCTGCCTGGCTCTAGTGGGCCGGGCTCCACA
AGCGCAGCAGCCGACCCCCCTCCTGAGGACTGTGTGACCACCATTGTCTCCATGGGCTTCTCCCGGGACCAGGCC
TTGAAAGCGCTGCGGGCCACGAACAATAGTTTAGAACGGGCTGTGGACTGGATCTTCAGTCACATTGACGACCTG
GATGCTGAAGCTGCCATGGACATCTCAGAGGGCCGCTCAGCTGCCGACTCCATCTCTGAGTCTGTGCCAGTGGGA
CCTAAAGTCCGGGATGGTCCTGGAAAGTATCAGCTCTTTGCCTTCATTAGTCACATGGGCACCTCTACCATGTGT
GGTCACTACGTCTGCCACATCAAGAAAGAAGGCAGATGGGTGATCTACAATGACCAGAAAGTGTGTGCCTCCGAG
AAGCCGCCCAAGGACCTGGGCTACATCTACTTCTACCAGAGAGTGGCCAGC**TAA**GAGCCTGCCTCACCCCTTACC
AATGAGGGCAGGGGAAGACCACCTGGCATGAGGGAGAGGGGCTGAGGGATGGACTTCAGCCCCTCTGCTCTGTAC
CCTTTTTCCTTTTGTCCCCGGCAGCAGGGAAGAAGCTGGAGGCCGTGGGAGAATGGCTGGGCAGAGCAGAGGGGC
AGCGATAGACTCTGGGGATGGAGCAGGACGGGGACGGGAGGGGCCGGCCACCTGTCTGTAAGGAGACTTTGTTGC
TTCCCCTGCCCCCGGAATCCACAGTGCTCTGCTTCTCTGTGTCGCCCCGCCCAGCCCCCTGGTGTGGAGGGAGGG
GTCTCGTTTGTGCGCGTGGGTGTAGCTTTGTGCATCCTCTCCCAGTGGAGCGATCACCTGTGCCTCCCCTCCCCC
TTTGTTTGCCCCTGTGTGGTTGGTCAAGGAGGGATGTGAGGGAAATAGGGACCCCCCGACTTGCCCTCCTGCCTC
AGTCTTTCCCCCACCCTGTCTCTTCCTTGTCCTTCTCTGGAAAATGCCAAAATACACGATGTGAATAAAAGTACA
ACGGCT

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FIGURE 2115

AAGTTTGAAACTGGTAACTTCGGGAGTTGAGCCACGAGCTGTTGTGCATCCAGAGGTGGAATTGGGGCCCGGCAT
TCCCTCCTCGTCCCGGGCTGGCCCTTGCCCCCACCCTGCAACTCCTGGTTGAG**ATG**GGCTCAGCCAAGAGCGTCC
CAGTCACACCAGCGCGGCCTCCGCCGCACAACAAGCATCTGGCTCGAGTGGCGGACCCCCGTTCACCTAGTGCTG
GCATCCTGCGCACTCCCATCCAGGTGGAGAGCTCTCCACAGCCAGGCCTACCAGCAGGGGAGCAACTGGAGGGTC
TTAAACATGCCCAGGACTCAGATCCCCGCTCTCCTACTCTTGGTATTGCACGGACACCTATGAAGACCAGCAGTG
GAGACCCCCCAAGCCCACTGGTGAAACAGCTGAGTGAAGTATTTGAAACTGAAGACTCTAAATCAAATCTTCCCC
CAGAGCCTGTTCTGCCCCCAGAGGCACCTTTATCTTCTGAATTGGACTTGCCTCTGGGTACCCAGTTATCTGTTG
AGGAACAGATGCCACCTTGGAACCAGACTGAGTTCCCCTCCAAACAGGTGTTTTCCAAGGAGGAAGCAAGACAGC
CCACAGAAACCCCTGTGGCCAGCCAGAGCTCCGACAAGCCCTCAAGGGACCCTGAGACTCCCAGATCTTCAGGTT
CTATGCGCAATAGATGGAAACCAAACAGCAGCAAGGTACTAGGGAGATCCCCCCTCACCATCCTGCAGGATGACA
ACTCCCCTGGCACCCTGACACTACGACAGGGTAAGCGGCCTTCACCCCTAAGTGAAAATGTTAGTGAACTAAAGG
AAGGAGCCATTCTTGGAACTGGACGACTTCTGAAAACTGGAGGACGAGCATGGGAGCAAGGCCAGGACCATGACA
AGGAAAATCAGCACTTTCCCTTGGTGGAGAGC**TAG**GCCCTGCATGGCCCCAGCAATGCAGTCACCCAGGGCCTGG
TGATATCTGTGTCCTCTCACCCCTTCTTTCCCAGGGATACTGAGGAATGGCTTGTTTTCTTAGACTCCTCCTCAG
CTACCAAACTGGGACTCACAGCTTTATTGGGCTTTCTTTGTGTCTTGTGTGTTTCTTTTATATTAAAGGAAGTAA
TTTTAAATGTTACTTTAAAAAGGTA

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FIGURE 2116

CCACAATAGGGGCAGACCTGTCCATCCTTCTCTGTGGGTCCCCTGTACCTTTCTCCCCCAACAGGATCAGACCCA
GAGGCAGCTGGTTGGGGTTTGTCGAGAAGAAGGATTATCCAGATCAGTCCTTTCTAATCTCAGCTCCTGCCTGTA
CCCTCCCATACTCACCAAACCCTCTTCCCCACCACCCTGAGCTGAGGAGCACAGTTTGAGGCCCCCCCAACCCCC
CGCCGGTCGGGGCCAGGCCAGGCCAGGCCAGCTCCTCTGGCAGCAGAGCCTGGGCAGGTGACGGGCGGGCGCGGG
CGTCGCAGCTGAGGGAGTAAGGAGGCTCCCAGGAACCGGAGCTGGAAACCCGGCCGAGGTCCAGCCAGAGCCCAA
GAGCCAGAGTGACCCCTCGACCTGTCAGCCATGGGGGAGATGGAGCAACTGCGTCAGGAAGCGGAGCAGCTCAAG
AAGCAGATTGCAGGATGCCAGGAAAGCCTGTGCTGACGTTACTCTGGCAGAGCTGGTGTCTGGCCTAGAGGTGGT
GGGACGAGTCCAG**ATG**CGGACGCGGCGGACGTTAAGGGGACACCTGGCCAAGATTTACGCCATGCACTGGGCCAC
TGATTCTAAGCTGCTGGTAAGTGCCTCGCAAGATGGGAAGCTGATCGTGTGGGACAGCTACACCACCAACAAGGT
GCACGCCATCCCACTGCGCTCCTCCTGGGTCATGACCTGTGCCTATGCCCCATCAGGGAACTTTGTGGCATGTGG
GGGGCTGGACAACATGTGTTCCATCTACAACCTCAAATCCCGTGAGGGCAATGTCAAGGTCAGCCGGGAGCTTTC
TGCTCACACAGGTTATCTCTCCTGCTGCCGCTTCCTGGATGACAACAATATTGTGACCAGCTCGGGGGACACCAC
GTGTGCCTTGTGGGACATTGAGACTGGGCAGCAGAAGACTGTATTTGTGGGACACACGGGTGACTGCATGAGCCT
GGCTGTGTCTCCTGACTTCAATCTCTTCATTTCGGGGGCCTGTGATGCCAGTGCCAAGCTCTGGGATGTGCGAGA
GGGGACCTGCCGTCAGACTTTCACTGGCCACGAGTCGGACATCAACGCCATCTGTTTCTTCCCCAATGGAGAGGC
CATCTGCACGGGCTCGGATGACGCTTCCTGCCGCTTGTTTGACCTGCGGGCAGACCAGGAGCTGATCTGCTTCTC
CCACGAGAGCATCATCTGCGGCATCACGTCCGTGGCCTTCTCCCTCAGTGGCCGCCTACTATTCGCTGGCTACGA
CGACTTCAACTGCAATGTCTGGGACTCCATGAAGTCTGAGCGTGTGGGCATCCTCTCTGGCCACGATAACAGGGT
GAGCTGCCTGGGAGTCACAGCTGACGGGATGGCTGTGGCCACAGGTTCCTGGGACAGCTTCCTCAAAATCTGGAA
C**TGA**GGAGGCTGGAGAAAGGGAAGTGGAAGGCAGTGAACACACTCAGCAGCCCCCTGCCCGACCCCATCTCATTC
AGGTGTTCTCTTCTATATTCCGGGTGCCATTCCCACTAAGCTTTCTCCTTTGAGGGCAGTGGGGAGCATGGGACT
GTGCCTTTGGGAGGCAGCATCAGGGACACAGGGGCAAAGAACTGCCCCATCTCCTCCCATGGCCTTCCCTCCCCA
CAGTCCTCACAGCCTCTCCCTTAATGAGCAAGGACAACCTGCCCCTCCCCAGCCCTTTGCAGGCCCAGCAGACTT
GAGTCTGAGGCCCCAGGCCCTAGGATTCCTCCCCCAGAGCCACTACCTTTGTCCAGGCCTGGGTGGTATAGGGCG
TTTGGCCCTGTGACTATGGCTCTGGCACCACTAGGGTCCTGGCCCTCTTCTTATTCATGCTTTCTCCTTTTTCTA
CCTTTTTTTCTCTCCTAAGACACCTGCAATAAAGTGTAGCACCCTGGT

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FIGURE 2117

CTCTGATGCCCTCCTCCCTTCGCCTCCTCAGTTGAAGAAGCTGGATCTGGCAGCTGCGGCAGCACACACCTTCTT
TGTAGCAAACCCC**ATG**CACCTGCAGATGCGGGAGGACATGGCTAAGTACAGACGAATGTCGGGAGTTCGGCCCCA
GAGCTTCCGGGACCTGGAGACGCCCCCACACTGGGCAGCCTATGACACTGGCCTGGAGCTACTGGGGCGCCAGGA
GGCAGGACTGGCACTGCCCAGGCTAGAGGAGGCTCTTCAGGGGAGCCTGGCCCAGATGGAGAGCTGCCGTGCTGA
CTGTGAGGGGCCTGAGGAGCAGCAGGGGGCTGAAGAAGAGGAGGATGGGGCTGCGAGCCAGGGGGGCCTCTATGA
GGCCATTGCAGGACACTGGATTCAGGTCCTGCAGTGCCGGCAACGCTGTGTGGGGGAAACAGCCACACGCCCTGG
TCGCAGCTTCCCTGTCCCAGACTTCCTTCCCAACCAGCTGAGGCGGCTACATGAGGCCCATGCTCAGGTGGGCAA
TCTGTCCCAGGCTATAGAAAATGTCCTGAGTGTCCTGCTCTTCTACCCGGAGGATGAGGCTGCCAAGAGGGCTCT
GAACCAGTACCAGGCCCAGCTGGGAGAGCCGAGACCTGGCCTCGGACCCAGAGAGGACATCCAGCGCTTCATCCT
CCGATCCCTGGGGGGAGAAGAGGCAGCTCTACTATGCCATGGAGCACCTGGGGACCAGCTTCAAGGATCCTGACCC
CTGGACCCCTGCAGCTCTCATCCCTGAGGCACTTAGAGAAAAGCTCAGAGAGGATCAAGAGAAGAGGCCTTGGGA
CCATGAGCCCGTGAAGCCAAAGCCCTTGACCTACTGGAAGGATGTCCTTCTCCTGGAGGGTGTGACCTTGACCCA
GGATTCCAGGCAGCTGAATGGGTCGGAGCGGGCGGTGTTGGATGGGCTGCTCACCCCAGCCGAGTGTGGGGTGCT
GCTGCAGCTGGCTAAGGATGCAGCTGGGGCTGGAGCCAGGTCTGGCTATCGTGGTCGCCGCTCCCCTCACACCCC
CCATGAACGCTTCGAGGGGCTCACGGTGCTTAAGGCTGCGCAGCTGGCCCGGGCTGGGACAGTGGGCAGTCAGGG
TGCTAAGCTGCTTCTGGAGGTGAGCGAGCGGGTGCGGACCTTGACCCAGGCCTACTTCTCCCCGGAACGGCCCCT
GCATCTGTCCTTCACCCACCTGGTGTGCCGCAGCGCCATAGAAGGAGAGCAAGAGCAGCGCATGGACCTGAGTCA
CCCAGTGCACGCAGACAACTGCGTCCTGGACCCTGACACGGGAGAGTGCTGGCGGGAGCCCCCAGCCTACACCTA
TCGGGACTACAGCGGACTCCTCTACCTCAACGATGACTTCCAGGGTGGGGACCTGTTCTTCACGGAGCCCAACGC
CCTCACTGTCACGGCTCGGGTGCGTCCTCGCTGTGGGCGCCTTGTGGCCTTCAGCTCCGGTGTCGAGAATCCCCA
TGGGGTGTGGGCCGTGACTCGGGGACGGCGCTGTGCCCTGGCACTGTGGCACACGTGGGCACCTGAGCACAGGGA
GCAGGAGTGGATAGAAGCCAAAGAACTGCTGCAGGAGTCACAGGAGGAGGAGGAAGAGGAAGAGGAAGAAATGCC
CAGCAAAGACCCTTCCCCAGAGCCCCCTAGCCGCAGGCACCAGAGGGTCCAAGACAAGACTGGAAGGGCACCTCG
GGTTCGGGAGGAGCTG**TGA**GTGGCTGAGCCAGCTCCTTGAGGATGTGGCCACTTGACTTGTGGAAGGCCATCTTG
ATGCCAGGACACACAGGAAGCCCCTGTGTGACATCAGGAGCAGAACAGCAAGCTCTCTGTCCCTGCACCCCCACC
ATCTTGGGGACCTACAAGGGCCTGGACTCAGAGGACAGTGCACAGGCTAGCCTGGAGCTCACCAGGCCTGGGGAG
CTGGGACGGGGCCCCGCTGCCGGACCTGCAGCCCTGGACAGATGGGGAACACTGTGCCTCCCTGAACAGAAATGG
CAGGGGAGGAGGCTGATGCTTTAAATGAAGAGGATGGTGGGGTTGGGAGGTATAACCCTGCTCCTCTCTCCCAGT
CTGTGCAATAAAGGTCGTGAAGATCTCTC

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FIGURE 2118

GAGGGAGGAGGGCGGGCGAGCTGGAGCCGGCAGGCAGCGGGAGCCCGAGAGAGCCGCGTCGGGAGTGCGGTCTCC
ATGGCAGTGCTGGGCGCAGCCGGAGAGAGCCTGTCCAGGGGGCTGAGCCCCACCCCCAAATCCCTGGGGCATCCA
GAAGATTCCTGACTGGTCAAGAACCAGAGGCAAAAGAGACCTGGAAGTCCCAGCATGGGGACCAGAACCCCCCAG
CCAGCCTCATAGTTGGGAAAGTAGCCAGCTTGCCTGCCCCATCAATTGCAGGGATGCTTAAGGAAGGCCCCGCCC
AGTATGAAAGCTGAGGATTGCCTCTGCTGACCCTCAGTCTCCTCCCCTGCCCTCTACATCTGCCCTCAGCTGGGT
CCATCATGCAATGCTGAGCACTGGGGTGAGCCTGGGGGCAGCCTGCCTGCTGACAGGGCGAGGATTGTGGGGATC
ATGGGAGTGTTTGTGAGTGGGGCTCCTGGGTGAGACCTAGCCCCCACCCCCACAGAGCTCAAGGGGGTGGGGGGC
TGAGGATAGG**ATG**GCTCGGGGCGGGGCGGGGGCAGAGGAGGCCTCCCTGCGCTCCAACGCATTGTCCTGGCTGGC
CTGTGGGCTCCTGGCGCTGCTGGCCAATGCCTGGATCATCCTCAGCATCTCGGCCAAGCAGCAGAAGCACAAGCC
ACTGGAGCTGCTGCTCTGCTTCCTAGCGGGCACACACATACTCATGGCAGCTGTGCCCCTCACCACCTTTGCCGT
GGTGCAGCTGCGTCGTCAGGCTTCCTCCGACTATGACTGGAACGAGAGTATCTGCAAGGTCTTCGTGTCCACCTA
CTACACCCTGGCGCTGGCCACCTGCTTCACGGTCGCCTCCCTCTCCTACCATCGCATGTGGATGGTGCGCTGGCC
CGTCAACTACCGCCTCAGCAACGCCAAGAAGCAGGCACTGCATGCCGTCATGGGCATCTGGATGGTCAGCTTCAT
CCTCTCCACACTGCCCTCCATTGGCTGGCACAACAACGGCGAGCGCTACTATGCCCGCGGCTGCCAGTTCATAGT
CTCCAAGATCGGCCTCGGCTTTGGCGTTTGCTTCAGCCTCTTGCTACTTGGGGGAATTGTCATGGGTCTGGTCTG
TGTGGCCATCACCTTCTACCAGACACTGTGGGCCCGGCCCCGGAGGGCTCGGCAGGCCCGGAGAGTGGGGGGTGG
TGGGGGGACCAAAGCGGGTGGGCCAGGGGCCTTGGGTACCCGGCCAGCTTTTGAGGTACCAGCCATTGTGGTGGA
GGATGCCCGAGGGAAGCGGCGGTCCTCGCTGGATGGCTCGGAGTCTGCCAAGACATCCCTGCAGGTCACCAACTT
GGTCAGCGCCATCGTCTTTCTCTATGACTCACTCACAGGGGTGCCCATCTTGGTGGTGAGCTTCTTCTCCCTCAA
GTCGGACTCGGCGCCCCCCTGGATGGTGCTGGCTGTGCTGTGGTGCTCCATGGCACAGACGCTGCTGCTGCCCTC
CTTCATCTGGTCCTGCGAGCGCTACCGCGCCGACGTGCGCACAGTGTGGGAGCAATGCGTGGCCATCATGTCTGA
GGAGGATGGAGATGACGATGGGGGCTGTGACGACTATGCAGAGGGCCGAGTTTGCAAAGTTCGCTTTGATGCTAA
CGGAGCCACAGGACCAGGGAGCCGGGACCCCGCCCAGGTGAAGCTGCTGCCTGGAAGGCACATGCTCTTCCCTCC
TCTTGAGAGAGTCCACTACTTACAGGTCCCCCTATCCCGGCGTCTGTCCCATGATGAGACAAACATCTTCTCTAC
CCCTCGGGAACCAGGCTCCTTCCTGCACAAGTGGTCATCCTCTGATGACATCCGGGTCCTCCCAGCCCAGAGCCG
GGCCCTCGGGGGTCCTCCTGAGTACCTGGGACAAAGACACAGGTTGGAGGACGAGGAGGACGAGGAAGAGGCTGA
AGGTGGGGGGCTGGCCAGCCTTCGCCAATTCTTGGAGAGTGGGGTTCTGGGGTCAGGTGGGGGACCCCCACGGGG
TCCTGGCTTCTTCCGGGAGGAGATCACCACCTTCATCGATGAGACACCTCTGCCTTCTCCGACTGCCTCACCAGG
GCACTCTCCTCGTCGGCCCCGGCCACTGGGCCTCTCACCCCGCCGACTCTCCCTTGGGTCCCCTGAGAGCAGAGC
CGTTGGACTTCCTTTGGGACTAAGCGCAGGGAGACGCTGCTCCCTGACGGGGGGTGAAGAAAGTGCAAGGGCTTG
GGGAGGATCCTGGGGCCCAGGCAACCCCATCTTTCCCCAGCTGACCCTG**TGA**GCCCAAGCAGGCCTGCTGAACTC
AGAGGAGAAAGCCTGAGTGAGTAACACCTCATTCTGGCCGAGAGTAGGGCAGCTGCCTCCAGACTCTGGGGAGAC
GGGCGCTAGATTTGGGGCTCAGAAGGCCCTGCTCTCTCCCATCCAAGTGACCAGATGCCCTACTCAGCTTCCATC
ACCCCTAGCAATATGTATTAAAGTCTGAAGTGTTGCCATGG

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FIGURE 2119

TACGCCCACAGTGAAGCATGCCAAGGTGTACACCTGGACTATCTGCAGTCGGGGATACACATCCCAGGAAACATA
CCTT**ATG**AAACATATGCGCAAACACAACCCGCCTGATCTTCAGCAACAGGTGCAGGCAGCAGCAGCAGCGGCAGC
AGTGGCCCAGGCCCAGGCTCAAGCTCAAGCCCAGGCTCAGGCTCAGGCTCAAGCCCAGGCCCAGGCCCAGGCCTC
CCAGGCATCACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAACAGCCACCACCACACTTCCA
GTCTCCTGGGGCAGCCCCCCAGGGTGGGGGTGGTGGGGACAGCAATCCCAACCCTCCACCCCAGTGTTCCTTTGA
CCTGACCCCGTATAAGACGGCGGAGCATCATAAGGACATCTGCCTCACTGTCACCACCAGCACCATCCAGGTGGA
GCACCTGGCCAGCTCT**TAG**AGATCCGTGCTGCCACCCACTGGGAAGAGGAAGAAGTAGTCCTGGTGTCTTCTTTC
TCCAACTCTTGGTGGGAAAAGTCCTTTTCTTCCTTGACAGGCCTTGGCTCCATCTCCTTGGGCCTCTGTCACGGC
TTTCCTTCACAGGATACCATCCTTTTTCTGAACTCTTCTTCAAAAGGAACATCAGCCCTCCTGATTGCAAAGGAA
TACTGAGCTGATGGTGTCATCCAGCAGCCTCCCCTCCCAAGCAAAGCTTCTAAAACTGGGGGTCGGTGCTCAAGG
GAAGGATTTGCTATGACCTCATAGAACCTTGTCCAGTGTGGCCACTTACCCTATCCTTACCCTCCTTATCCTCAA
AGTTTGGGCTGATGTAAGACTAGAGGCTGGCCCTCCCAGATAACAGAGAAAAGGGAGCCCCAAATGCAACCAGCC
TCTTGTTCTATTCTTGCCTGCAAAAGAACAGAGGTTTCTCAAATGCCTCAGTCCCTGAGAGCCATTTCTTCCCCT
ACATCGTCTCACTTTGCTTCCTATTGACTGCTGGTAGAAGGAGATTTGGGGTAGGGGCTAGACCTCCTTTTATTT
GAAGGGGGCAAGGGCTGAGATGTGGTCCCCAAGGGGCCAGAAATTCCCAAGTTGGTCACAGGTGGCTTAGAAGTG
TGTGTTATGGTTTTACGGATTTCCTTGAAGCCTCTCTCCTTCTCTGCCTACAAAGACCCTATACTCTCAGTCTCC
CCAACCCACCCCCAAGGAGCTGTGGGAGGCTTTGTGTTATCTGTGAAACTCCAAAACAGGGGTGTTGCGGAGAAG
GGAGAGTTCAAGGCAAACGCAAGGACTGGACTTAGCTCCCTAGGTGCCACAGTCAGATGCCGGACACGGATTTAT
ATATAAATATATATATATAAATATATTATACTCACTCATCACGGCCATCTTTGTTGTAACCATTTCTGTGTTTAT
AAATGCATTATCTCTGAGAATTTTCATATTTGATGTTTTGTTTATTTTTGTCCTTTTTTTCCCTCTCTCCACCCC
TGTCCTCTAGCCACAGCATTTTTCTTTTTGTC

FIGURE 2120

ATGGGGCCAAAAAGTGGAGTTCCAAACAGGCTGGCTGAGAGTGACTTTGCCTCTACCTTCCGGCTGCTCACAGTG
TTTGCTTATGGGACATACGCTGACTACTTAGATCTGCTCTTCTTGCCTAATTTTCTTAAGCTGACCGATACTTTC
CTGGAAACGATTGAGGAAAATGGTGTGGTCCTGGGTATTCATGACACTGCCCACAAGGGCTCACTGGCCTCAGCA
GCTACAAGCTCCCACCTGATGTGTCTTTTCAACCTTTGTCAAGTATCTCAAGGCAAGAATGTCCTGAAGCCCTTC
CCCCAAATAGAAGCTTTGGTCCGAGCCCCCAACCCGCAGGAGCATCAAGAGGAGGCCAAGGAGACAGACACCGCA
GACTCTCTCTGCAAACTTGACCTGGGCATCGCACGGACTCGCGTTCGCATCCGAAGACCCCACACGTCCCCCGCA
CTGTCCCCACAGCATCCCACGCCCGCGGTGCACGCTCACCTGCCGGTAGACGAGCCACACGCCTCGGCGGTCCAG
ACTTCCGTGTCGACCTCCGTGGGCGAGCCTACGCGCTGGGTGCCCGGCGCGCCCTCAGGAGTGGCTGGGACCGCG
GGCTGGCGCCGGGCAGGGCGGTGGGACGCCTGGAGCCGGCGGGAGGAGCACGCCCAGGCGGCCACCCCATCAGGC
TTTGAGGAGGGGCCGCCCTCATCCCAATACCCCTGGGCTATCGTGTGGGGTCCCACCGTGTCTCGAGAGGATGGA
GGGGACCCCAACTCTGCCAATCCCGGATTTCTGGACTATGGTTTTGCAGCCCCTCATGGGCTCGCAACCCCACAC
CCCAACTCAGACTCCATGCGAGGTGATGGAGATGGGCTTATCCTTGGAGAGGCACCTGCCACCCTGCGGCCATTC
CTGTTCGGGGGCCGTGGGGAATGT**TAG**

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FIGURE 2121

GTCACTTCCGGGGCGGATCGGAAGTTGCTTTGTTTTGCTTCGAG**ATG**GCTGCGGGGATGTATTTGGAACATTATC
TGGACAGTATTGAAAACCTTCCCTTTGAATTACAGAGAAACTTTCAGCTCATGAGGGACCTAGACCAAAGAACAG
AGGACCTGAAGGCTGAAATTGACAAGTTGGCCACTGAGTATATGAGTAGTGCCCGCAGCCTGAGCTCCGAGGAAA
AATTGGCCCTTCTCAAACAGATCCAGGAAGCCTATGGCAAGTGCAAGGAATTTGGTGACGACAAGGTGCAGCTTG
CCATGCAGACCTATGAGATGGTGGACAAACACATTCGGCGGCTGGACACAGACCTGGCCCGTTTTGAGGCTGATC
TCAAGGAGAAACAGATTGAGTCAAGTGACTATGACAGCTCTTCCAGCAAAGGCCGGACTCAAAAGGAGAAGAAAG
CTGCTCGTGCTCGTTCCAAAGGGAAAAACTCGGATGAAGAAGCCCCCAAGACTGCCCAGAAGAAGTTAAAGCTCG
TGCGCACAAGTCCTGAGTATGGGATGCCCTCAGTGACCTTTGGCAGTGTCCACCCCTCTGATGTGTTGGATATGC
CTGTGGATCCCAACGAACCCACCTATTGCCTTTGTCACCAGGTCTCCTATGGAGAGATGATTGGCTGTGACAACC
CTGATTGTTCCATTGAGTGGTTCCATTTTGCCTGTGTGGGGCTGACAACCAAGCCTCGGGGGAAATGGTTTTGCC
CACGCTGCTCCCAAGAACGGAAGAAGAAA**TAG**ATAAGGGCCTTGGATTCCAACACAGTTTCTTCCACATCCCCTG
ACTTGGGCTAGTGGGCAGAGGAATGCCTGTGCTGGGGCCAGGGGTTCAGGGAGGAGTGGATGGCACAGTGCTGTC
ATCCCTTCTCCTCCCCTCTCCCCACTCCCGGTGCTGAGGCTGCATCAGACCCTGGTAGGGAGGGGTGCCGCAGCC
ACTAACGGTATGTGCTCTCCTTCAGCCCTCTCCCTTCGGAGGGACGTGGTCTTGCCCACTGTCCTTTTGCCTCCA
TGCTGAGGTCGGTGCTGTATTTCAGAGGGAGGGTCCTTTTCATTCTCCTTGCTTTGTATTTAAGGACTGGGGCAT
AGCATGGGGGCAGTCCCCCAGACCTCTTCATTCCCCCTCCTGTGGTGAGGGCTAGGTGTGATCAACACTTTTCTT
CTCCATTCCCTTCCTGCTTTTTTCATGGTGGGGGATCCACCAGGTCATCTAGGCTCTGGCCCTAGTTGAAGGGGC
ACCCCTTCCTCTGTGCCAAGAGGATTCATCCTGGGAGAGGGGGCAAGGTGGAATGCAGATAACTCACATGTAAAA
GGAACTTGGGTAGGTAAATAAAAGCTATACATGTTG

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FIGURE 2122

AGCGACTCTTCAGGGAGGTGGCAGGAAAGGCTTGGAACAGCTGCCGGAGGTGACGGAGCGGCGGCCCCGCCCGGT
GCGCTGGAGGTCGAAGCTTCCAGCTCTGGACATCCTGAGCCCAAGTCCCCCACACTCAGTGCAGTG**ATG**AGTGCG
GAAGTGAAGGTGACAGGGCAGAACCAGGAGCAATTTCTGCTCCTAGCCAAGTCGGCCAAGGGGGCAGCGCTGGCC
ACACTCATCCATCAGGTGCTGGAGGCCCCTGGTGTCTACGTGTTTGGAGAACTGCTGGACATGCCCAATGTTAGA
GAGCTGGCTGAGAGTGACTTTGCCTCTACCTTCCGGCTGCTCACAGTGTTTGCTTATGGGACATACGCTGACTAC
TTAGCTGAAGCCCGGAATCTTCCTCCACTAACAGAGGCTCAGAAGAATAAGCTTCGACACCTCTCAGTTGTCACC
CTGGCTGCTAAAGTAAAGTGTATCCCATATGCAGTGTTGCTGGAGGCTCTTGCCCTGCGTAATGTGCGGCAGCTG
GAAGACCTTGTGATTGAGGCTGTGTATGCTGACGTGCTTCGTGGCTCCCTGGACCAGCGCAACCAGCGGCTCGAG
GTTGACTACAGCATCGGGCGGGACATCCAGCGCCAGGACCTCAGTGCCATTGCCCGAACCCTGCAGGAATGGTGT
GTGGGCTGTGAGGTCGTGCTGTCAGGCATTGAGGAGCAGGTGAGCCGTGCCAACCAACACAAGGAGCAGCAGCTG
GGCCTGAAGCAGCAGATTGAGAGTGAGGTTGCCAACCTTAAAAAAACCATTAAAGTTACGACGGCAGCAGCAGCC
GCAGCCACATCTCAGGACCCTGAGCAACACCTGACTGAGCTGAGGGAACCAGCTCCTGGCACCAACCAGCGCCAG
CCCAGCAAGAAAGCCTCAAAGGGCAAGGGGCTCCGAGGGAGCGCCAAGATTTGGTCCAAGTCGAAT**TGA**AAGGAC
TGTCGTTTCCTCCCTGGGGATGTGGGGTCCCAGCTGCCTGCCTGCCTCTTAGGAGTCCTCAGAGAGCCTTCTGTG
CCCCTGGCCAGCTGATAATCCTAGGTTCATGACCCTTCACCTCCCCTAACCCCAAACATAGATCACACCTTCTCT
AGGGAGGAGGCAAATGTAGGTCATGTTTTTGTTGGTACTTTCTGTTTTTTGTGACTTCATGTGTTCCATTGCTCC
CCGCTGCCATGCTCTCTCCCTTGTTTCCTTAAGAGCTCAGCATCTGTCCCTGTTCATTACATGTCATTGAGTAGG
TGGGTAGCCCTGATGGGGGTCGCTCTGTCTGGAGCATAACCCACAGGCGTTTTTTCTGCCACCCCATCCCTGCAT
GCCTGATCCCCAGTTCCTATACCCTACCCCTGACCTATTGAGCAGCCTCTGAAGAGCCATAGGGCCCCCACCTTT
ACTCACACCCTGAGAATTCTGGGAGCCAGTCTGCCATGCCAGGAGTCACTGGACATGTTCATCCTAGAATCCTGT
CACACTACAGTCATTTCTTTTCCTCTCTCTGGCCCTTGGGTCCTGGGAATGCTGCTGCTTCAACCCCAGAGCCTA
AGAATGGCAGCCGTTTCTTAACATGTTGAGAGATGATTCTTTCTTGGCCCTGGCCATCTCGGGAAGCTTGATGGC
AATCCTGGAAGGGTTTAATCTCCTTTTGTGAGTTTGGTGGGGAAGGGAAGGGTATATAGATTGTATTAAAAAAAA
AAAGGTATATATGCATATATCTATATATAATATGACGCAGAAATAAATCTATGAGAAATCTATCTAC

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FIGURE 2123

GAGGACGGATGAAGAGAAATAGAAGGACCAGGCGAATAAAAGTGAGGACCTGAAGGAGAAGAAGGAGAAGGTGGA
GGAGAAGGCAAGCCGGAAAGAGCGAAAGAAAGAAGTGGTGGAGGCTCCAGTCCCATTGGTGGTGATGGTGGGCAA
GGCATGCAGCCAGCCTGAGGCTACTCCCTCTCCTGGTCCCCACAGGAGGAGGAGAACGGGGCTGAGGAGGAAGAA
GAAGAAACTGCCGAGGATGGAGAGGAGGAAGATGAAGGGGAAGAAGAAGATGAGGAAGAAGAAGAAGAGGATGAT
GAAGGGCCCGCGCTGAAGAGAGCTGCCGAAGAGGAGG**ATG**AAGCGGATCCCAAACGGCAGAAGACAGAAAATGGG
GCATCGGCGTGAGCCCCTGCCAACAGGCTGGGGTTGGGAGGCCTCTCTGGGCCTGGAGGTGGGGGTGGGGGCAGC
CAAGTCCAGCCACTCTTCACCTGGCTCCCTGCTCTGGGCCCTGCACCAGAGCTGCCACCCTCTTCTTTCTCCCCA
GCCTTCTCATTTCCGCCTCTCCAGACACTGCGCCCTCCACCCTCACTCTGCCATTGTTCCACCTCCTGACCTGCT
CCATCTGAGCTCTCCAGCTGGCCCCCAATTGCTCCTCTCTCTCTTTGCTCTCTTTCTCCCTCCCCTACCAGCCTC
ATTCTTCCTCCGG**TAG**CCTCTCCCACCTAACCTCTGCATCCCCCAGCCTCATGTCCTGCCCCATCCCTATCCTGC
CTGATCCCTGGATCTCCCTCAGATCCCCTCTTCTCAGACAGCGCCAGGCCGGGGTGGGGCCGGGGTTGGGGCCGA
GCCCCACAGCTGCCCCCCTCCCCTCCCTTTTTGTATAATTTAATAAAGAAATGGTCGCGCTTCTGTTTTT

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FIGURE 2124

GCCGAGGGGGCCGTACGGAGGTGGCAGCTGTGGGAGGAGGCGGCGTGGAAGGCCGAGGAGCTCAAGCCCGGACCA
ATCCCCACGTTCCGGGCCGCGACCCTGACCCTGCAGCGTACCGGGAAGCGAAACCGGCCGGATGGGCCGCTGAGC
CCGAATCGGGCACTGTGTGGAGCCCCCTGGAGCTGAGATCAGG**ATG**TTCCGCTTCATGAGGGACGTGGAGCCTGA
GGATCCCATGTTCCTGATGGATCCCTTTGCTATTCACCGTCAGCATATGAGCCGTATGTTGTCAGGTGGCTTTGG
ATATAGCCCCTTCCTCAGCATCACAGATGGCAACATGCCAGGGACCAGGCCTGCCAGCCGCCGGATGCAGCAGGC
TGGAGCTGTCTCCCCCTTTGGGATGCTGGGAATGTCGGGTGGTTTCATGGACATGTTTGGGATGATGAATGACAT
GATTGGAAACATGGAACACATGACAGCTGGAGGCAATTGCCAGACCTTCTCATCTTCCACTGTCATCTCCTACTC
CAATACGGGTGATGGTGCCCCCAAGGTCTACCAAGAGACATCAGAGATGCGCTCGGCACCAGGCGGGATCCGGGA
GACACGGAGGACTGTTCGGGATTCAGACAGTGGACTGGAGCAGATGTCCATTGGGCATCACATCCGGGACAGGGC
TCACATCCTCCAGCGCTCCCGAAACCATCGCACGGGGGACCAGGAGGAGCGGCAGGACTATATCAACCTGGATGA
GAGTGAGGCCGCAGCGTTTGATGACGAGTGGCGGCGGGAGACCTCCCGATTCCGGCAGCAGCGTCCCCTGGAGTT
TCGGCGGCTTGAGTCCTCAGGGGCTGGGGGACGAAGGGCGGAGGGGCCTCCCCGCCTGGCCATCCAGGGACCTGA
GGACTCCCCTTCCCGACAGTCCCGCCGCTATGACTGG**TGA**GGGCCCCGGGCCCTCAGCCTCTCTTGTACAGGCTG
AGAGGCTGAGAAATCATCCCCTGAATAACTTTTTCCTCTCGATTCCCATCCCCAATTTAATATTAAATTAACAGG
CAAGCCGGCCCCCACCTCTCCCTGGGGGTCTCAGGGAGAACCTTTCACGGCACCCTTTCCCTACCTTTTCCTTCT
TTAATCTCCTGGTTTACCATTGATGACTTCGCCTCTGCATCTACTGACTTGATTTTTCATTCTGCCACTCCATCT
TCAAACCCCCTCACCTTTCCCATCCTACTCCTGCCATGCATTGAAGGGTCAATGCATTTTGGGGTGAGCTCTGGG
TTTAGGGGCCCCCTCCATCCCTCAGCTACCCTGGATCTTTGCCCACCTCTTCCTCAGAGCCCCCACTGAGGGGCC
GTAGCCCTATCTAGGGCTGTGGAAGGAGCAGACTGGTTCCTAACTCTCTCCCTCCTCCTGCCCACACACATCAAA
AGAATCTTCCCTACACCCTTCTCTGCCTTTATTTTTTGATTTGTGCAACTTGTAACTAGGTGTTTATGGAATAAA
GGAGAATGGAAAAAAG

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FIGURE 2125A

ATTTTCCCCCCTTCGGCCGCGGCGAGGAGGAGCCGGAGCGGGAGTGACACCGAGCCGGACCCAGCGCGACCTGCG
GCGGCTCCGGGTGACTCGGGCCAGTGTAGAGGTCCTCAGGCCGCCGGCAGGAGCAGCTGGGCCAATTCCCTGGCC
GGGAGCGGAAGGGG**ATG**GCGTCGGGCCTGGGCTCCCCGTCCCCCTGCTCGGCGGGCAGTGAGGAGGAGGATATGG
ATGCACTTTTGAACAACAGCCTGCCCCCACCCCACCCAGAAAATGAAGAGGACCCAGAAGAGGATTTGTCAGAAA
CAGAGACTCCAAAGCTCAAGAAGAAGAAAAAGCCTAAGAAACCTCGGGACCCTAAAATCCCTAAGAGCAAGCGCC
AAAAAAAGGAGCGTATGCTCTTATGCCGGCAGCTGGGGGACAGCTCTGGGGAGGGGCCAGAGTTTGTGGAGGAGG
AGGAAGAGGTGGCTCTGCGCTCAGACAGTGAGGGCAGCGACTATACTCCTGGCAAGAAGAAGAAGAAGAAGCTTG
GACCTAAGAAAGAGAAGAAGAGCAAATCCAAGCGGAAGGAGGAGGAGGAGGAGGATGATGATGATGATTCAA
AGGAGCCTAAATCATCTGCTCAGCTCCTGGAAGACTGGGGCATGGAAGACATTGACCACGTGTTCTCAGAGGAGG
ATTATCGAACCCTCACCAACTACAAGGCCTTCAGCCAGTTTGTCAGACCCCTCATTGCTGCCAAAAATCCCAAGA
TTGCTGTCTCCAAGATGATGATGGTTTTGGGTGCAAAATGGCGGGAGTTCAGTACCAATAACCCCTTCAAAGGCA
GTTCTGGGGCATCAGTGGCAGCTGCGGCAGCAGCAGCGGTAGCTGTGGTGGAGAGCATGGTGACAGCCACTGAGG
TTGCACCACCACCTCCCCCTGTGGAGGTGCCTATCCGCAAGGCCAAGACCAAGGAGGGCAAAGGTCCCAATGCTC
GGAGGAAGCCCAAGGGCAGCCCTCGTGTACCTGATGCCAAGAAGCCTAAACCCAAGAAAGTAGCTCCCCTGAAAA
TCAAGCTGGGAGGTTTTGGTTCCAAGCGTAAGAGATCCTCGAGTGAGGATGATGACTTAGATGTGGAATCTGACT
TCGATGATGCCAGTATCAATAGCTATTCTGTTTCTGATGGTTCCACCAGCCGTAGTAGCCGCAGCCGCAAGAAAC
TCCGAACCACTAAAAAGAAAAAGAAAGGCGAGGAGGAGGTGACTGCTGTGGATGGTTATGAGACAGACCACCAGG
ACTATTGCGAGGTGTGCCAGCAAGGCGGTGAGATCATCCTGTGTGATACCTGTCCCCGTGCTTACCACATGGTCT
GCCTGGATCCCGACATGGAGAAGGCTCCCGAGGGCAAGTGGAGCTGCCCACACTGCGAGAAGGAAGGCATCCAGT
GGGAAGCTAAAGAGGACAATTCGGAGGGTGAGGAGATCCTGGAAGAGGTTGGGGGAGACCTCGAAGAGGAGGATG
ACCACCATATGGAATTCTGTCGGGTCTGCAAGGATGGTGGGGAACTGCTCTGCTGTGATACCTGTCCTTCTTCCT
ACCACATCCACTGCCTGAATCCCCCACTTCCAGAGATCCCCAACGGTGAATGGCTCTGTCCCCGTTGTACGTGTC
CAGCTCTGAAGGGCAAAGTGCAGAAGATCCTAATCTGGAAGTGGGGTCAGCCACCATCTCCCACACCAGTGCCTC
GGCCTCCAGATGCTGATCCCAACACGCCCTCCCCAAAGCCCTTGGAGGGGCGGCCAGAGCGGCAGTTCTTTGTGA
AATGGCAAGGCATGTCTTACTGGCACTGCTCCTGGGTTTCTGAACTGCAGCTGGAGCTGCACTGTCAGGTGATGT
TCCGAAACTATCAGCGGAAGAATGATATGGATGAGCCACCTTCTGGGGACTTTGGTGGTGATGAAGAGAAAAGCC
GAAAGCGAAAGAACAAGGACCCTAAATTTGCAGAGATGGAGGAACGCTTCTATCGCTATGGGATAAAACCCGAGT
GGATGATGATCCACCGAATCCTCAACCACAGTGTGGACAAGAAGGGCCACGTCCACTACTTGATCAAGTGGCGGG
ACTTACCTTACGATCAGGCTTCTTGGGAGAGTGAGGATGTGGAGATCCAGGATTACGACCTGTTCAAGCAGAGCT
ATTGGAATCACAGGGAGTTAATGAGGGGTGAGGAAGGCCGACCAGGCAAGAAGCTCAAGAAGGTGAAGCTTCGGA
AGTTGGAGAGGCCTCCAGAAACGCCAACAGTTGATCCAACAGTGAAGTATGAGCGACAGCCAGAGTACCTGGATG
CTACAGGTGGAACCCTGCACCCCTATCAAATGGAGGGCCTGAATTGGTTGCGCTTCTCCTGGGCTCAGGGCACTG
ACACCATCTTGGCTGATGAGATGGGCCTTGGGAAAACTGTACAGACAGCAGTCTTCCTGTATTCCCTTTACAAGG
AGGGTCATTCCAAAGGCCCCTTCCTAGTGAGCGCCCCTCTTTCTACCATCATCAACTGGGAGCGGGAGTTTGAAA
TGTGGGCTCCAGACATGTATGTCGTAACCTATGTGGGTGACAAGGACAGCCGTGCCATCATCCGAGAGAATGAGT
TCTCCTTTGAAGACAATGCCATTCGTGGTGGCAAGAAGGCCTCCCGCATGAAGAAAGAGGCATCTGTGAAATTCC
ATGTGCTGCTGACATCCTATGAATTGATCACCATTGACATGGCTATTTTGGGCTCTATTGATTGGGCCTGCCTCA
TCGTGGATGAAGCCCATCGGCTGAAGAACAATCAGTCTAAGTTCTTCCGGGTATTGAATGGTTACTCACTCCAGC
ACAAGCTGTTGCTGACTGGGACACCATTACAAAACAATCTGGAAGAGTTGTTTCATCTGCTCAACTTTCTCACCC
CCGAGAGGTTCCACAATTTGGAAGGTTTTTTGGAGGAGTTTGCTGACATTGCCAAGGAGGACCAGATAAAAAAAC
TGCATGACATGCTGGGGCCGCACATGTTGCGGCGGCTCAAAGCCGATGTGTTCAAGAACATGCCCTCCAAGACAG
AACTAATTGTGCGTGTGGAGCTGAGCCCTATGCAGAAGAAATACTACAAGTACATCCTCACTCGAAATTTTGAAG
CACTCAATGCCCGAGGTGGTGGCAACCAGGTGTCTCTGCTGAATGTGGTGATGGATCTTAAGAAGTGCTGCAACC
ATCCATACCTCTTCCCTGTGGCTGCAATGGAAGCTCCTAAGATGCCTAATGGCATGTATGATGGCAGTGCCCTAA
TCAGAGCATCTGGGAAATTATTGCTGCTGCAGAAAATGCTCAAGAACCTTAAGGAGGGTGGGCATCGTGTACTCA
TCTTTTCCCAGATGACCAAGATGCTAGACCTGCTAGAGGATTTCTTGGAACATGAAGGTTATAAATACGAACGCA
TCGATGGTGGAATCACTGGGAACATGCGGCAAGAGGCCATTGACCGCTTCAATGCACCGGGTGCTCAGCAGTTCT
GCTTCTTGCTTTCCACTCGAGCTGGGGGCCTTGGAATCAATCTGGCCACTGCTGACACAGTTATTATCTATGACT

FIGURE 2125B

CTGACTGGAACCCCCATAATGACATTCAGGCCTTTAGCAGAGCTCACCGGATTGGGCAAAATAAAAAGGTAATGA
TCTACCGGTTTGTGACCCGTGCGTCAGTGGAGGAGCGCATCACGCAGGTGGCAAAGAAGAAAATGATGCTGACGC
ATCTAGTGGTGCGGCCTGGGCTGGGCTCCAAGACTGGATCTATGTCCAAACAGGAGCTTGATGATATCCTCAAAT
TTGGCACTGAGGAACTATTCAAGGATGAAGCCACTGATGGAGGAGGAGACAACAAAGAGGGAGAAGATAGCAGTG
TTATCCACTACGATGATAAGGCCATTGAACGGCTGCTAGACCGTAACCAGGATGAGACTGAAGACACAGAATTGC
AGGGCATGAATGAATATTTGAGCTCATTCAAAGTGGCCCAGTATGTGGTACGGGAAGAAGAAATGGGGGAGGAAG
AGGAGGTAGAACGGGAAATCATTAAACAGGAAGAAAGTGTGGATCCTGACTACTGGGAGAAATTGCTGCGGCACC
ATTATGAGCAGCAGCAAGAAGATCTAGCCCGAAATCTGGGCAAAGGAAAAAGAATCCGTAAACAGGTCAACTACA
ATGATGGCTCCCAGGAGGACCGAGATTGGCAGGACGACCAGTCCGACAACCAGTCCGATTACTCAGTGGCTTCAG
AGGAAGGTGATGAAGACTTTGATGAACGTTCAGAAGCTCCCCGTAGGCCCAGTCGTAAGGGCCTGCGGAATGATA
AAGATAAGCCATTGCCTCCTCTGTTGGCCCGTGTTGGTGGGAATATTGAAGTACTTGGTTTTAATGCTCGTCAGC
GAAAAGCCTTTCTTAATGCAATTATGCGATATGGTATGCCACCTCAGGATGCTTTTACTACCCAGTGGCTTGTAA
GAGACCTGCGAGGCAAATCAGAGAAAGAGTTCAAGGCATATGTCTCTCTTTTCATGCGGCATTTATGTGAGCCGG
GGGCAGATGGGGCTGAGACCTTTGCTGATGGTGTCCCCCGAGAAGGCCTGTCTCGCCAGCATGTCCTTACTAGAA
TTGGTGTTATGTCTTTGATTCGCAAGAAGGTTCAGGAGTTTGAACATGTTAATGGGCGCTGGAGCATGCCTGAAC
TGGCTGAGGTGGAGGAAAACAAGAAGATGTCCCAGCCAGGGTCACCCTCCCCAAAAACTCCTACACCCTCCACTC
CAGGGGACACGCAGCCCAACACTCCTGCACCTGTCCCACCTGCTGAAGATGGGATAAAAATAGAGGAAAATAGCC
TCAAAGAAGAAGAGAGCATAGAAGGAGAAAAGGAGGTTAAATCTACAGCCCCTGAGACTGCCATTGAGTGTACAC
AGGCCCCTGCCCCTGCCTCAGAGGATGAAAAGGTCGTTGTTGAACCCCCTGAGGGAGAGGAGAAAGTGGAAAAGG
CAGAGGTGAAGGAGAGAACAGAGGAACCTATGGAGACAGAGCCCAAAGGTGCTGCTGATGTAGAGAAGGTGGAGG
AAAAGTCAGCAATAGATCTGACCCCTATTGTGGTAGAAGACAAAGAAGAGAAGAAAGAAGAAGAAGAGAAAAAAG
AGGTGATGCTTCAGAATGGAGAGACCCCCAAGGACCTGAATGATGAGAAACAGAAGAAAAATATTAAACAACGTT
TCATGTTTAACATTGCAGATGGTGGTTTTACTGAGTTGCACTCCCTTTGGCAGAATGAAGAGCGGGCAGCCACAG
TTACCAAGAAGACTTATGAGATCTGGCATCGACGGCATGACTACTGGCTGCTAGCCGGCATTATAAACCATGGCT
ATGCCCGGTGGCAAGACATCCAGAATGACCCACGCTATGCCATCCTCAATGAGCCTTTCAAGGGTGAAATGAACC
GTGGCAATTTCTTAGAGATCAAGAATAAATTTCTAGCTCGAAGGTTTAAGCTCTTAGAACAAGCTCTGGTGATTG
AGGAACAGCTGCGCCGGGCTGCTTACTTGAACATGTCAGAAGACCCTTCTCACCCTTCCATGGCCCTCAACACCC
GCTTTGCTGAGGTGGAGTGTTTGGCGGAAAGTCATCAGCACCTGTCCAAGGAGTCAATGGCAGGAAACAAGCCAG
CCAATGCAGTCCTGCACAAAGTTCTGAAACAGCTGGAAGAACTGCTGAGTGACATGAAAGCTGATGTGACTCGAC
TCCCAGCTACCATTGCCCGAATTCCCCCAGTTGCTGTGAGGTTACAGATGTCAGAGCGTAACATTCTCAGCCGCC
TGGCAAACCGGGCACCCGAACCTACCCCACAGCAGGTAGCCCAGCAGCAG**TGA**AGATGCAGACTGATACCACCTC
CACCGCTGAGCAGTGACCTTCCTCACTTTCTCTTGTCCCAGCTTCTCCCCTGGGGGCCTGAGAGACCCTCACCTT
CCTTCTGCCCATCTTCCATGTTGTAAAGGAACAGCCCCAGTGCACTGGGGGAGGGGAGGGAGTGAGGGGCAGTGG
TGCCCTTCCTGCAGAAGAGACATGCAGCAGTAGCGCTGGCGCCATCTGCAGGAGCTGGCGGGCTGGCCTTCTGGA
CCCTGGCTTCTCCCCACTGTAACGCCTGTTACACACAAACTGTTGTGGGTTCCTGCCAGGCTTGAAGAAAATGAT
CTGAATTTTTTCCTCCTTTTGGTTTTATTTTGTTGGTTTATTTTGTGTTTTCTTTTCTCCTTTTTGGGGGGTATT
CAGAGTGGGCTGGGCCCCTGGGCGAGACACAGCTACCTCTGTTGGCATCTTTTTAATACCAGGAACCCAGCGGCT
CTAGCCACTGAGCGGCTAAATGAAATAAAGTGGAAAAAAAAAAAAAGGAAAAAACCAAAAGCATAAAAAACCACA
GCAAATTTCTTGATGAAAATTGAAAATAAAAGTTTCCTTGT

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FIGURE 2126

ATGGGGCGCAAGTTGGACCCTACGAAGGAGAAGCGGGGGCCAGGCCGAAAGGCCCGGAAGCAGAAGGGTGCCGAG
ACAGAACTCGTCAGATTCTTGCCTGCAGTAAGTGACGAAAATTCCAAGAGGCTGTCTAGTCGTGCTCGAAAGAGG
GCAGCCAAGAGGAGATTGGGCTCTGTTGAAGCCCCTAAGACAAATAAGTCTCCTGAGGCCAAACCATTGCCTGGA
AAGCTACCAAAAGGGATCTCTGCAGGAGCTGTCCAGACAGCTGGTAAGAAGGGACCCCAGTCCCTATTTAATGCT
CCTCGAGGCAAGAAGCGCCCAGCACCTGGCAGTGATGAGGAAGAGGAGGAGGAAGACTCTGAAGAAGATGGTATG
GTGAACCACGGGGACCTCTGGGGCTCCGAGGACGATGCTGATACGGTAGATGACTATGGAGCTGACTCCAACTCT
GAGGATGAGGAGGAAGGTGAAGCGTTGCTGCCCATTGAAAGAGCTGCTCGGAAGCAGAAGGCCCGGGAAGCTGCT
GCTGGGATCCAGTGGAGTGAAGAGGAGACCGAGGACGAGGAGGAAGAGAAAGAAGTGACCCCTGAGTCAGGCCCC
CCAAAGGTGGAAGAGGCAGATGGGGGCCTGCAGATCAATGTGGATGAGGAACCATTTGTGCTGCCCCCTGCTGGG
GAGATGGAGCAGGATGCCCAGGCTCCAGACCTGCAACGAGTTCACAAGCGGATCCAGGATATTGTGGGAATTCTG
CGTGATTTTGGGGCTCAGCGGGAGGAAGGGCGGTCTCGTTCTGAATACCTGAACCGGCTCAAGAAGGATCTGGCC
ATTTACTACTCCTATGGAGACTTCCTGCTTGGCAAGCTCATGGACCTCTTCCCTCTGTCTGAGCTGGTGGAGTTC
TTAGAAGCTAATGAGGTGCCTCGGCCCGTCACCCTCCGGACCAATACCTTGAAAACCCGACGCCGAGACCTTGCA
CAGGCTCTAATCAATCGTGGGGTTAACCTGGATCCCCTGGGCAAGTGGTCAAAGACTGGACTAGTGGTGTATGAT
TCTTCTGTGCCCATTGGTGCTACCCCCGAGTACCTGGCTGGGCACTACATGCTGCAGGGAGCCTCCAGCATGTTG
CCCGTCATGGCCTTGGCACCCCAGGAACATGAGCGGATCCTGGACATGTGTTGTGCCCCTGGAGGAAAGACCAGC
TACATGGCCCAGCTGATGAAGAACACGGGTGTGATCCTTGCCAATGACGCCAATGCTGAGCGGCTCAAGAGTGTT
GTGGGCAACTTGCATCGGCTGGGAGTCACCAACACCATTATCAGCCACTATGATGGGCGCCAGTTCCCCAAGGTG
GTGGGGGGCTTTGACCGAGTACTGCTGGATGCTCCCTGCAGTGGCACTGGGGTCATCTCCAAGGATCCAGCCGTG
AAGACTAACAAGGATGAGAAGGACATCCTGCGCTGTGCTCACCTCCAGAAGGAGTTGCTCCTGAGTGCTATTGAC
TCTGTCAATGCGACCTCCAAGACAGGAGGCTACCTGGTTTACTGCACCTGTTCTATCACAGTAGAAGAGAATGAG
TGGGTGGTAGACTATGCTCTGAAAAAGAGGAATGTGCGACTGGTGCCCACGGGCCTAGACTTTGGCCAGGAAGGT
TTTACCCGCTTTCGAGAAAGGCGCTTCCACCCCAGTCTGCGTTCTACCCGACGCTTCTACCCTCATACCCACAAT
ATGGATGGGTTCTTCATTGCCAAGTTCAAGAAATTTTCCAATTCTATCCCTCAGTCCCAGACAGGAAATTCTGAA
ACAGCCACACCTACAAATGTAGACTTGCCTCAGGTCATCCCCAAGTCTGAGAACAGCAGCCAGCCAGCCAAGAAA
GCCAAGGGGGCTGCAAAGACAAAGCAGCAGCTGCAGAAACAGCAACATCCCAAGAAGGCCTCCTTCCAGAAGCTG
AATGGCATCTCCAAAGGGGCAGACTCAGAATTGTCCACTGTACCTTCTGTCACAAAGACCCAAGCTTCCTCCAGC
TTCCAGGATAGCAGTCAGCCAGCTGGAAAAGCCGAAGGGATCAGGGAGCCAAAGGTGACTGGGAAGCTAAAGCAA
CGATCACCTAAATTACAGTCCTCCAAGAAAGTTGCTTTCCTCAGGCAGAATGCCCCTCCCAAGGGCACAGACACA
CAAACACCGGCTGTGTTATCCCCATCCAAGACTCAGGCCACCCTGAAACCTAAGGACCATCATCAGCCCCTTGGA
AGGGCCAAGGGGGTTGAGAAGCAGCAGTTGCCAGAGCAGCCTTTTGAGAAAGCTGCCTTCCAGAAACAGAATGAT
ACCCCCAAGGGGCCTCAGCCTCCCACTGTGTCTCCCATCCGTTCCAGCCGCCCCCCACCAGCAAAGAGGAAGAAA
TCTCAGTCCAGGGGCAACAGCCAGCTGCTGCTATCT**TAG**ATGGTTGAAAACTAGACGGGTGGCTCACTGCCATTG
TCACCAGGTTGGAACTCTTGCCTCTGTGAGGATGCCTTCTCTACTGTGCATACCCATGAAATTTAATACACATTT
TAAAACCTCTGGCCACTGA

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FIGURE 2127

CACCGGTCTGCATCTCCCAGCAGAAGGCGCAGCCATGAATCCGTTATTCGGCCCCAACCTCTTCCTCCTGCAGCA
GGAGCAGCAGGGCCTGGCCGGGCCACTGGGGGACTCACTGGGAGGCGACCACTTCGCCGGGGGAGGAGACTTGCC
CCCGGCGCCTCTCTCGCCGGCCGGCCCTGCTGCCTACTCGCCGCCCGGGCCGGGCCCGGCCCCGCCTGCCGCCAT
GGCCCTCCGCAATGACCTGGGCTCCAACATCAACGTGCTCAAGACCCTGAACCTCCGGTTCCGCTGCTTCCTGGC
CAAGGTGCATGAGCTGGAGCGCCGGAACCGGCTGTTGGAGAAGCAACTGCAGCAAGCGCTGGAGGAGGGTAAGCA
GGGCCGGCGGGGCCTGGGTCGTCGCGACCAGGCAGTGCAGACCGGCTTCGTCAGCCCCATCCGGCCCCTGGGGCT
GCAGCTGGGCGCCCGGCCGGCCGCTGTCTGCAGCCCTTCGGCGCGCGTGCTGGGCTCGCCCGCGCGCTCCCCGGC
CGGCCCCCTCGCGCCCTCCGCGGCCAGCCTCTCGTCGTCCTCCACCTCCACCTCCACCACCTATTCCTCGTCGGC
CCGCTTCATGCCCGGCACCATCTGGTCGTTCTCGCACGCCCGCCGGCTCGGGCCGGGACTGGAGCCCACTCTGGT
GCAAGGGCCTGGCTTGTCGTGGGTGCACCCGGATGGGGTGGGCGTCCAGATCGACACCATCACGCCCGAGATCCG
CGCTCTCTACAACGTGCTGGCCAAAGTGAAGCGGGAGCGGGACGAGTACAAGCGGAGATGCTTTTACAGGGTTAA
ATGATACCACAAGAGGCAGGGCAGCGGGCTCGACGAGCTCTGTTCTGGTGCGGGCAGGAGGCGGGAGCCCGGATC
TGTGCGACTGAAGGTGGGAAGAGGAGTACACGGTGCGGATCCAGCTGCAAGACCGTGTAAATGAGCTCCAGGAGG
AAGCCCAGGAGGCTGATGCCTGCCAGGAGGAGCTGGCACTGAAGGTGGAACAGTTGAAGGCTGAGCTGGTGGTCT
TCAAGGGGCTCATGAGTAACAACCTGTCGGAGCTGGACACCAAGATCCAGGAGAAAGCCATGAAGGTGGATATGG
ACATCTGCCGCCGCATCGACATCACCGCCAAGCTCTGCGATGTGGCTCAGCAGCGCAACTGCGAGGACATGATCC
AGATGTTCCAGGTCCCATCCATGGGGGGGCGGAAGCGGGAGCGCAAGGCTGCCGTCGAGGAGGACACCTCCCTGT
CGGAGAGTGAGGGGCCCCGCCAGCCCGATGGGGATGAGGAGGAGAGCACAGCCCTCAGCATCAACGAGGAGATGC
AGCGCATGCTCAACCAGCTGAGGGAGTATGATTTTGAGGACGACTGTGACAGCCTGACTTGGGAGGAGACTGAGG
AGACCCTGCTGCTTTGGGAGGATTTCTCAGGCTATGCCATGGCAGCTGCAGAGGCCCAGGGAGAGCAGCAGGAAG
ATAGCCTGGAGAAGGTGATTAAAGATACGGAGTCCCTGTTCAAAACCCGGGAGAAGGAGTATCAGGAGACCATTG
ACCAGATAGAGCTGGAGTTGGCCACGGCCAAGAACGACATGAACCGGCACCTGCACGAGTACATGGAGATGTGCA
GCATGAAGCGCGGCCTGGACGTGCAGATGGAGACCTGCCGCCGGCTCATCACCCAGTCTGGAGACCGAAAGTCTC
CTGCTTTCACTGCGGTCCCGCTTAGCGACCCGCCGCCGCCGCCAAGCGAGGCTGAGGACTCCGATCGCGATGTCT
CATCTGACAGCTCCATGAGATAGAGACCTGCCTCCCCCTTGCACCCGAGGCCCTCGCAGCAGGGAGCTCAGCGAG
GCAGAGGGTGGGGCTGCACAGAGGGGAACATCAGCTGCAGCTCTGCACCAGGCCGGTCCCTGGGGACTGGGGCGC
TCCTCCCTCAGGCTTTCTCCCTCAGTCTTGGCTTCTCCAGGGCTCTGGGGTGTCTGGAGCTAGGCTTGGCCCTAC
CATTCTGGGGCCATTTCCACCACAGTTGGGGCTCTCCTGCCTTCACGCGTGGGTGTCTGCTACTTCCCCATCTTT
AAAATGCTGCCAGAGCGATTGCGGCCCCTCACCTTGTCCACGTATCAGGAATGTGAATGTGGGACCTTTCCTCCA
TCCCTGTTGTCCGGAGCCAGCTCACTGTCTTCCACACTGGTGCTAACTGGCCCAGGCACTGGAGTGGAATAGAAT
GCAGCTGGAGGCTACGCATGGCCTCTGCAGCACACGCAGCTGGAGAGGGCTTCTGTCCCTGTCAGCGGCAGAGGG
CGTTGGGGCTGGCCGGGGCACCTTGTCCCTGCTATGGTCCACGTGCTCACGCTGTCCACCTGCCAGGTGGAGTGT
ATGTGGCTGTGGCCCTCCCTCGTGGAGGTGCCGTGCTTTAAAGAGGCCTTAGTGCCCGGGATGGGCACAGTGTTT
TGAAGGGAGGTGGGAGCTCTTGCTCTCCTGGTCACTGCAGAATGACAGAGAAGGTGAAGCTCCATGCATGTGTGC
GCGGGTGTATGTGCGCTCAGGGTCTCTGTTTAAGTATCAGCTAAAGATGTGCTTCCTCCGTGTCTGTCATACACT
GAGACCAACAGGCTACAGTGTCCCTGATTCTTGGAAAAGCCTGGAGAAGCTGGGGAGATGCGGTTCACAATGCCT
CGGTATAGGAGGCTGTGTTGAGCTGACATTCAAATGGATTCTTTAATAATAATGAAACTGGCGAGT

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FIGURE 2128

CTCTCTGCTCCTCCTGTTCGACAGTCAGCCGCATCTTCTTTTGCGTCGCCAGCCGAGCCACATCGCTCAGACACC
ATGGGGAAGGTGAAGGTCGGAGTCAACGGATTTGGTCGTATTGGGCGCCTGGTCACCAGGGCTGCTTTTAACTCT
GGTAAAGTGGATATTGTTGCCATCAATGACCCCTTCATTGACCTCAACTACATGGTTTACATGTTCCAATATGAT
TCCACCCATGGCAAATTCCATGGCACCGTCAAGGCTGAGAACGGGAAGCTTGTCATCAATGGAAATCCCATCACC
ATCTTCCAGGAGCGAGATCCCTCCAAAATCAAGTGGGGCGATGCTGGCGCTGAGTACGTCGTGGAGTCCACTGGC
GTCTTCACCACCATGGAGAAGGCTGGGGCTCATTTGCAGGGGGGAGCCAAAAGGGTCATCATCTCTGCCCCCTCT
GCTGATGCCCCCATGTTCGTCATGGGTGTGAACCATGAGAAGTATGACAACAGCCTCAAGATCATCAGCAATGCC
TCCTGCACCACCAACTGCTTAGCACCCCTGGCCAAGGTCATCCATGACAACTTTGGTATCGTGGAAGGACTCATG
ACCACAGTCCATGCCATCACTGCCACCCAGAAGACTGTGGATGGCCCCTCCGGGAAACTGTGGCGTGATGGCCGC
GGGGCTCTCCAGAACATCATCCCTGCCTCTACTGGCGCTGCCAAGGCTGTGGGCAAGGTCATCCCTGAGCTGAAC
GGGAAGCTCACTGGCATGGCCTTCCGTGTCCCCACTGCCAACGTGTCAGTGGTGGACCTGACCTGCCGTCTAGAA
AAACCTGCCAAATATGATGACATCAAGAAGGTGGTGAAGCAGGCGTCGGAGGGCCCCCTCAAGGGCATCCTGGGC
TACACTGAGCACCAGGTGGTCTCCTCTGACTTCAACAGCGACACCCACTCCTCCACCTTTGACGCTGGGGCTGGC
ATTGCCCTCAACGACCACTTTGTCAAGCTCATTTCCTGGTATGACAACGAATTTGGCTACAGCAACAGGGTGGTG
GACCTCATGGCCCACATGGCCTCCAAGGAG**TAA**GACCCCTGGACCACCAGCCCCAGCAAGAGCACAAGAGGAAGA
GAGAGACCCTCACTGCTGGGGAGTCCCTGCCACACTCAGTCCCCCACCACACTGAATCTCCCCTCCTCACAGTTG
CCATGTAGACCCCTTGAAGAGGGGAGGGGCCTAGGGAGCCGCACCTTGTCATGTACCATCAATAAAGTACCCTGT
GCTCAACC

FIGURE 2129

GGTTGAGCACAGGGTACTTTATTGATGGTACATGACAAGGTGCGGCTCCCTAGGCCCCTCCCCTCTTCAAGGGGT
CTACATGGCAACTGTGAGGAGGGGAGATTCAGTGTGGTGGGGGACTGAGTGTGGCAGGGACTCCCCAGCAGTGAG
GGTCTCTCTCTTCCTCTTGTGCTCTTGCTGGGGCTGGTGGTCCAGGGGTCTTACTCCTTGGAGGCCATGTGGGCC
ATGAGGTCCACCACCCTGTTGCTGTAGCCAAATTCGTTGTCATACCAGGAAATGAGCTTGACAAAGTGGTCGTTG
AGGGCAATGCCAGCCCCAGCGTCAAAGGTGGAGGAGTGGGTGTCGCTGTTGAAGTCAGAGGAGACCACCTGGTGC
TCAGTGTAGCCCAGG**ATG**CCCTTGAGGGGGCCCTCCGACGCCTGCTTCACCACCTTCTTGATGTCATCATATTTG
GCAGGTTTTTCTAGACGGCAGGTCAGGTCCACCACTGACACGTTGGCAGTGGGGACACGGAAGGCCATGCCAGTG
AGCTTCCCGTTCAGCTCAGGGATGACCTTGCCCACAGCCTTGGCAGCGCCAGTAGAGGCAGGGATGATGTTCTGG
AGAGCCCCGCGGCCATCACGCCACAGTTTCCCGGAGGGGCCATCCACAGTCTTCTGGGTGGCAGTGATGGCATGG
ACTGTGGTCATGAGTCCTTCCACGATACCAAAGTTGTCATGGATGACCTTGGCCAGGGGTGCTAAGCAGTTGGTG
GTGCAGGAGGCATTGCTGATGATCTTGAGGCTGTTGTCATACTTCTCATGGTTCACACCCATGACGAACATGGGG
GCATCAGCAGAGGGGGCAGAGATGATGACCCTTTTGGCTCCCCCCTGCAAA**TGA**ACCCCAGCCTTCTCCATGGTG
GTGAAGACGCCAGTGGACTCCACGACGTACTCAGCGCCAGCATCGCCCCACTTGATTTTGGAGGGATCTCACTCC
TGGAAGATGGTGATGGGATTTCCATTGATGACAAGCTTCCCGTTCTCAGCCTTGACGGTGCCATGGAATTTGCCA
TGGGTGGAATCATATTGGAACATGTAAACCATGTAGTTGAGGTCAATGAAGGGGTCATTGATGGCAACAATATCC
ACTTTACCAGAGTTAAAAGCAGCCCTGGTGACCAGGCGCCCAATACGACCAAATCCGTTGACTCCGACCTTCACC
TTCCCCATGGTGTCTGAGCGATGTGGCTCGGCTGGCGACGCAAAAGAAGATGCGGCTGACTGTCGAAC

FIGURE 2130A

AAGTTTTGGAGCGCCGGACAAGCTGAGGTCCGCGACTCGTCGCTAAGATTCCCCAAAACTGAGATTTCAAGAAAA
TTCACCCTTTCCGCTTTCTTTGGCGTCCTTCAACCGTGAAGGAAATGAAGGTTGAGAACCTGGAACCCGCTTCCA
ATGACCAAGCCCTTTCTCTGTGCCTCACAACAGTCTTCCGCTGTAGCTGTTTTTATTACCCCTATTTTACTACTG
GGGAGGAGATTTGAGGTCCTGAAAGTGAAGTGACTTGCTGGACGTCACTTAGCAGAGGAGATGGCGAAACCTGGA
TTAGAGGCGATGCCTTCTAACTCCCAGCGTGGACTTGCCTCCTTTCCTGGGGGTGACTGAATGCCCAGCCAGGGA
CGCGACGTCTCTGGCCAGCAGAAATACGGCCTCCTCCCCGCCGACTGGGCAAAGGGGGACCTTGCGGCCAAGGAG
GGATTCGCAGGCGGGCCGGGGGTGGGAGCGGGGGCCGGAGCCGGAGCCTTGGCCCGCCCCCGGGCGGCGCTGTGA
TTGGCCGGCCGCTCCGGCGGGCGTCGCGATTGGCCGTCCTGCAGCCGTTGAGATTTGAACTCGGTATTTGTGGCT
TTGCCCGCGCGTTGCCAGACTCAGAGGCGGCCCTTTGCCTCTGCCTGCCGGGGATTGGCCGGATTCTCCGCCGAC
TTGAAAACTGCCTTGCTAATTGGTGCGTGTTGTGCACGCGTGTTTTTTCCTTTTCATTTCAGCCTGACTGCCGGA
ATCAGAGCCGCGGGTGAGATCCCCAGCCCTGTGAGCCTGTAGGAGTAGA**ATG**GCTCCCCAAATGTATGAGTTCCA
TCTGCCATTATCCCCAGAGGAGTTGTTGAAAAGTGGAGGGGTGAATCAGTATGTTGTGCAAGAGGTACTGTCCAT
CAAACATCTTCCACCACAGCTTAGAGCTTTTCAGGCTGCCTTTCGAGCTCAGGGGCCCCTGGCTATGCTGCAGCA
CTTTGATACTATCTACAGCATTTTGCATCACTTTCGAAGTATAGATCCTGGCCTCAAAGAAGATACTCTGCAATT
CCTGATAAAAGTGGTATCCCGCCACTCCCAGGAGCTTCCAGCTATCCTGGATGATACAACTTTGAGTGGATCAGA
TAGAAACGCCCATCTAAATGCCCTCAAAATGAACTGTTATGCTCTGATACGTCTCCTGGAATCCTTTGAGACCAT
GGCCAGCCAGACAAACCTTGTGGACCTGGACCTTGGTGGGAAGGGTAAGAAAGCTCGGACCAAGGCAGCCCATGG
CTTTGACTGGGAAGAAGAGAGGCAACCAATTCTTCAGCTTTTAACACAGCTACTTCAGTTGGACATCCGTCACCT
GTGGAACCACTCAATAATTGAAGAAGAATTTGTCAGTTTGGTTACTGGCTGTTGCTACCGCCTTCTGGAGAATCC
CACCATTAATCACCAGAAGAACCGCCCCACTCGGGAAGCCATAACACACCTGCTTGGTGTAGCCTTGACCCGTTA
TAACCATATGCTCAGTGCTACAGTGAAGATCATCCAGATGCTGCAGCACTTTGAACACCTGGCACCTGTACTGGT
TGCAGCCGTGAGTCTATGGGCAACTGACTATGGAATGAAGAGCATAGTGGGAGAGATTGTAAGAGAGATTGGACA
AAAGTGTCCCCAAGAGCTGAGTCGAGACCCTTCAGGGACAAAGGGCTTTGCAGCATTCCTGACAGAACTAGCAGA
ACGTGTCCCAGCTATCCTGATGTCCAGCATGTGCATTTTGCTAGATCACCTGGATGGAGAAAATTACATGATGCG
TAATGCTGTGCTGGCAGCCATGGCGGAGATGGTGCTGCAGGTTCTCAGTGGCGATCAACTGGAAGCAGCAGCCCG
AGACACCAGAGACCAGTTCTTGGATACTTTACAAGCCCATGGCCATGATGTCAACTCCTTTGTGCGGAGCCGTGT
TTTGCAGCTCTTCACCCGAATTGTCCAGCAGAAGGCTCTCCCCCTGACACGTTTCCAGGCAGTGGTGGCTTTAGC
TGTGGGACGTCTGGCAGACAAGTCAGTGCTAGTATGTAAAAATGCCATCCAGCTGCTGGCCAGTTTTCTAGCCAA
TAATCCTTTCTCCTGCAAGCTTAGTGATGCTGACCTTGCCGGACCACTGCAGAAGGAGACCCAGAAATTACAAGA
GATGAGGGCCCAGAGGCGAACTGCAGCAGCTTCTGCAGTGCTGGACCCAGAGGAGGAGTGGGAAGCCATGCTGCC
AGAGTTGAAGTCTACCCTGCAGCAGCTTCTACAGCTTCCCCAGGGAGAGGAGGAGATTCCTGAGCAAATTGCCAA
TACAGAGACAACTGAAGATGTGAAAGGACGCATCTATCAACTGCTTGCCAAAGCTAGTTACAAAAAGGCCATCAT
TCTCACTCGAGAAGCCACAGGCCACTTCCAGGAGTCCGAACCCTTCAGTCATATAGACCCAGAGGAGTCAGAGGA
GACCAGGCTCTTGAATATCTTAGGACTTATCTTCAAAGGCCCAGCAGCTTCCACACAAGAAAAGAATCCCCGGGA
GTCTACAGGAAACATGGTCACAGGACAGACTGTCTGTAAAAATAAACCCAATATGTCGGATCCTGAGGAATCCAG
GGGAAATGATGAACTAGTGAAGCAGGAGATGCTGGTACAGTATCTGCAGGATGCCTACAGCTTCTCCCGGAAGAT
TACAGAGGCCATTGGCATCATCAGCAAGATGATGTATGAAAACACAACTACAGTGGTGCAGGAGGTGATTGAATT
CTTTGTGATGGTCTTCCAATTTGGGGTACCCCAGGCCCTGTTTGGGGTGCGCCGTATGCTGCCTCTCATCTGGTC
TAAGGAGCCTGGTGTCCGGGAAGCCGTGCTTAATGCCTACCGCCAACTCTACCTCAACCCCAAAGGGGACTCTGC
CAGAGCCAAGGCCCAGGCTTTGATTCAGAATCTCTCTCTGCTGCTAGTGGATGCCTCGGTTGGGACCATTCAGTG
TCTTGAGGAAATTCTCTGTGAGTTTGTGCAGAAGGATGAGTTGAAACCAGCAGTGACCCAGCTGCTGTGGGAGCG
GGCCACCGAGAAGGTCGCCTGCTGTCCTCTGGAGCGCTGTTCCTCTGTCATGCTTCTTGGCATGATGGCACGAGG
AAAGCCAGAAATTGTGGGAAGCAATTTAGACACACTGGTGAGCATAGGGCTGGATGAGAAGTTTCCACAGGACTA
CAGGCTGGCCCAGCAGGTGTGCCATGCCATTGCCAACATCTCGGACAGGAGAAAGCCTTCTCTGGGCAAACGTCA
CCCCCCCTTCCGGCTGCCTCAGGAACACAGGTTGTTTGAGCGACTGCGGGAGACAGTCACAAAAGGCTTTGTCCA
CCCAGACCCACTCTGGATCCCATTCAAAGAGGTGGCAGTGACCCTCATTTACCAACTGGCAGAGGGCCCCGAAGT
GATCTGTGCCCAGATATTGCAGGGCTGTGCAAAACAGGCCCTGGAGAAGCTAGAAGAGAAGAGAACCAGTCAGGA
GGACCCGAAGGAGTCCCCCGCAATGCTCCCCACTTTCCTGTTGATGAACCTGCTGTCCCTGGCTGGGGATGTGGC

FIGURE 2130B

TCTGCAGCAGCTGGTCCACTTGGAGCAGGCAGTGAGTGGAGAGCTCTGCCGGCGCCGAGTTCTCCGGGAAGAACA
GGAGCACAAGACCAAAGATCCCAAGGAGAAGAATACGAGCTCTGAGACCACCATGGAGGAGGAGCTGGGGCTGGT
TGGGGCAACAGCAGATGACACAGAGGCAGAACTAATCCGTGGCATCTGCGAGATGGAACTGTTGGATGGCAAACA
GACACTGGCTGCCTTTGTTCCACTCTTGCTTAAAGTCTGTAACAACCCAGGCCTCTATAGCAACCCAGACCTCTC
TGCAGCTGCTTCACTTGCCCTTGGCAAGTTCTGCATGATCAGTGCCACTTTCTGCGACTCCCAGCTTCGTCTTCT
GTTCACCATGCTGGAAAAGTCTCCACTTCCCATTGTCCGGTCTAACCTCATGGTTGCCACTGGGGATCTGGCCAT
CCGCTTTCCCAATCTGGTGGACCCCTGGACTCCTCATCTGTATGCTCGTCTCCGGGACCCTGCTCAGCAAGTGCG
GAAAACAGCGGGGCTGGTGATGACCCACCTGATCCTCAAGGACATGGTGAAGGTGAAGGGGCAGGTCAGCGAGAT
GGCGGTGCTGCTCATCGACCCCGAGCCTCAGATTGCTGCCCTGGCCAAGAACTTCTTCAATGAGCTCTCCCACAA
GGGCAACGCAATCTATAATCTCCTTCCAGATATCATCAGCCGCCTGTCAGACCCCGAGCTGGGGGTGGAGGAAGA
GCCTTTCCACACCATCATGAAACAGCTCCTCTCCTACATCACCAAGGACAAGCAGACAGAGAGCCTGGTGGAAAA
GCTGTGTCAGCGGTTCCGCACATCCCGAACTGAGCGGCAGCAGCGAGACCTGGCCTACTGTGTGTCACAGCTGCC
CCTCACAGAGCGAGGCCTCCGTAAGATGCTTGACAATTTTGACTGTTTTGGAGACAAACTGTCAGATGAGTCCAT
CTTCAGTGCTTTTTTGTCAGTTGTAGGCAAGCTGCGACGTGGGGCCAAGCCTGAGGGCAAGGCTATAATAGATGA
ATTTGAGCAGAAGCTTCGGGCCTGTCATACCAGAGGTTTGGATGGAATCAAGGAGCTTGAGATTGGCCAAGCAGG
TAGCCAGAGAGCGCCATCAGCCAAGAAACCATCCACTGGTTCTAGGTACCAGCCTCTGGCTTCTACAGCCTCAGA
CAATGACTTTGTCACACCAGAGCCCCGCCGTACTACCCGTCGGCATCCAAACACCCAGCAGCGAGCTTCCAAAAA
GAAACCCAAAGTTGTCTTCTCAAGTGATGAGTCCAGTGAGGAAGATCTTTCAGCAGAGATGACAGAAGACGAGAC
ACCCAAGAAAACAACTCCCATTCTCAGAGCATCGGCTCGCAGGCACAGATCC**TAG**GAAGTCTGTTCCTGTCCTCC
CTGTGCAGGGTATCCTGTAGGGTGACCTGGAATTCGAATTCTGTTTCCCTTGTAAAATATTTGTCTGTCTCTTTT
TTTTAAAAAAAAAAAAAGGCCGGGCACTGTGGCTCACGCCTGTAATCCCAGCACTTTGCGATACCAAGGCGGGTGG
ATAACCTGAGGTAGGGAGTTCGAGACCAGCCTGACCAACATGGAGAAACCCCATCTCTACTAAAAATAAAAAATT
AGCCGGGCGTATTGGCGTGCGCCTGTAATCCCAGCTACTCAAGAGGCTGAGGCAGGAGAATCGCCTGAACCCAGA
GGCGGAGGTTGTAGTGAGCCGAAATCACACCATTGCACTCCAGCTTGGGCAACAATAGCGAACCTCCATCTCAAA
TTAAAAAAAAAAATGCCTACACGCTCTTTAAAATGCAAGGCTTTCTCTTAAATTAGCCTAACTGAACTGCGTTGAG
CTGCTTCAACTTTGGAATATATGTTTGCCAATCTCCTTGTTTTCTAATGAATAAATGTTTTTATATACTTTT

FIGURE 2131

GCTGTTGCGGATGGGGCGTAGGTGGGCGGTGCGCCCACAGCTGCCTGGGTAAGGCCCAAGATGGCTGTCTTCGCC
TTAGTACTCGTGTGAAGTTGGCGGGGACGGTTCCTGTCATCTTCTTGGGCTTATTTGGTGTGCTGTTGAAGGGGG
GAGACTAGAGAA**ATG**GCAGGGAACCTCTTATCCGGGGCAGGTAGGCGCCTGTGGGACTGGGTGCCTCTGGCGTGC
AGAAGCTTCTCTCTTGGTGTGCCTAGATTGATCGGTATAAGGCTCACTCTCCCGCCCCCCAAAGTGGTTGATCGT
TGGAACGAGAAAAGGGCCATGTTCGGAGTGTATGACAACATCGGGATCCTGGGAAACTTTGAAAAGCACCCCAAA
GAACTGATCAGGGGGCCCATATGGCTTCGAGGTTGGAAAGGGAATGAATTGCAACGTTGTATCCGAAAGAGGAAA
ATGGTTGGAAGTAGAATGTTCGCTGATGACCTGCACAACCTTAATAAACGCATCCGCTATCTCTACAAACACTTT
AACCGACATGGGAAGTTTCGA**TAG**AAGAGAAAGCTGAGAACTTCGGAAAAGGCTCATCTGTCACCCTGGAGAAGG
GAAACTGTACTTTTCCCTGTGAGGAAACGGCTTTGTATTTTCTCTGTAATAAAATGGGGCTTCTTTGGAAACAAA
CAAAAAAATT

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FIGURE 2132

GCGGGGTAGTCGGCGCGAGGCGGAGCTTGGCAGTTCCGTCCACTTCAGCCGCAGCGTCCCTCACCGGGTGTCTCG
CCGCAGCCTCCGGAGAGGAACAGACCCTCACTCTCTCTGTCAGAAAA**ATG**TCTGCTCCAGCTCAGCCACCTGCTG
AAGGGACAGAAGGGACTGCCCCAGGTGGGGGTCCCCCTGGCCCTCCTCCTAACATGACCAGTAACAGACGACTAC
AGCAAACCCAGGCACAAGTGGAGGAGGTGGTGGACATCATACGTGTGAACGTGGACAAGGTCCTGGAGAGGGACC
AGAAGCTGTCAGAGCTGGATGACCGAGCTGATGCCTTGCAGGCAGGAGCATCACAATTTGAGAGCAGTGCTGCCA
AGCTAAAGAGGAAGTATTGGTGGAAAAACTGCAAGATGATGATCATGCTGGGAGCCATCTGTGCCATCATCGTGG
TAGTTATTGTAAGGCGGGAC**TGA**AGAGCTGGAAGAAAGCAGTCAGTACCCTCCCAACGGCCCCCCTCGAAGGTCT
CCACTCTCCTCTGGGCTCCTCCTTGCCTAATGCAGGGGGTCACCGCTGGAGAAGAACCACCACTGTCCTCGATGT
GTCCCAAGCCTGGAGCGAATCCGTCCTCTTGGCTCTCCCAGCCCTATCACAGGAATCATTCCTGGGTTTCTGTCC
CTCTGAGGCTCACCAGGTGTAGTTGGCCTTGTTCTTTGGGGGTATTAGCCCTTCTACTTTCTTTCTCACCCACCC
TGTACCCTCTTCTGTGTGTCTCTGCTATCCCCCTTTCCTCCCACCACCCATGTGCATGAGCAAATGTGCAACAAA
ACCCTGGGACTTTGCAGTCAAATGAAGCTGA

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FIGURE 2133

GGGGTGCAAAGAAGAGACAGCAGCGCCCAGCTTGGAGGTGCTAACTCCAGAGGCCAGCATCAGCAACTGGGCACA
GAAAGGAGCCGCCTGGGCAGGGACC**ATG**GCACGGCCACATCCCTGGTGGCTGTGCGTTCTGGGGACCCTGGTGGG
GCTCTCAGCTACTCCAGCCCCCAAGAGCTGCCCAGAGAGGCACTACTGGGCTCAGGGAAAGCTGTGCTGCCAGAT
GTGTGAGCCAGGAACATTCCTCGTGAAGGACTGTGACCAGCATAGAAAGGCTGCTCAGTGTGATCCTTGCATACC
GGGGGTCTCCTTCTCTCCTGACCACCACACCCGGCCCCACTGTGAGAGCTGTCGGCACTGTAACTCTGGTCTTCT
CGTTCGCAACTGCACCATCACTGCCAATGCTGAGTGTGCCTGTCGCAATGGCTGGCAGTGCAGGGACAAGGAGTG
CACCGAGTGTGATCCTCTTCCAAACCCTTCGCTGACCGCTCGGTCGTCTCAGGCCCTGAGCCCACACCCTCAGCC
CACCCACTTACCTTATGTCAGTGAGATGCTGGAGGCCAGGACAGCTGGGCACATGCAGACTCTGGCTGACTTCAG
GCAGCTGCCTGCCCGGACTCTCTCTACCCACTGGCCACCCCAAAGATCCCTGTGCAGCTCCGATTTTATTCGCAT
CCTTGTGATCTTCTCTGGAATGTTCCTTGTTTTCACCCTGGCCGGGGCCCTGTTCCTCCATCAACGAAGGAAATA
TAGATCAAACAAAGGAGAAAGTCCTGTGGAGCCTGCAGAGCCTTGTCATTACAGCTGCCCCAGGGAGGAGGAGGG
CAGCACCATCCCCATCCAGGAGGATTACCGAAAACCGGAGCCTGCCTGCTCCCCC**TGA**GCCAGCACCTGCGGGAG
CTGCACTACAGCCCTGGCCTCCACCCCCACCCCGCCGACCATCCAAGGGAGAGTGAGACCTGGCAGCCACAACTG
CAGTCCCATCCTCTTGTCAGGGCCCTTTCCTGTGTACACGTGACAGAGTGCCTTTTCGAGACTGGCAGGGACGAG
GACAAATATGGATGAGGTGGAGAGTGGGAAGCAGGAGCCCAGCCAGCTGCGCCTGCGCTGCAGGAGGGCGGGGGC
TCTGGTTGTAAAACACACTTCCTGCTGCGAAAGACCCACATGCTACAAGACGGGCAAAATAAAGTGACAGATGAC
CACC

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FIGURE 2134

ATGTCGTTGGAGAGCAAGCAATTCCTGACGGAGCTGACCAGACTCTACCAGAAGTGCCGGACGTTGGGCAGCGTC
TATATCACCTTGAAGAAGTATGATGGTCGAACCAAACCCATTCCAAAGAAAGGTTCTGTGGAGGGCTTTGAGCCC
TCAGACAACAAGTGTCTGTTAAGAGCTATCGATGGGAAAAAGAAGATGAGCACTGTGGTGAACTCCAAGGAAGTG
AGTGGCCTCTCAAAGCCTTGCTGGGAAGGAGGCTTTAAGGTGGTGGGGGCAGCAGTGCTGGTGGTGGTCATCGAA
GAAAGTGGGAGTCGGGGAGGAAGCAATGGGGAGCAGGGGACAAAGAGGGCCAGACAAACTCAGAGCTTCAGTGAA
CACATTTACCACAACCTGGAAATGGCTGGTGACAGAAAAGTCCTCACGGCCACAACACTCTCTGCGGTGGGAATT
CAGGTGCCTTGCCTGATGGTGACAAAGCTGGTTTTGCATAAACAGCTCTCTGAATCACACCCAAATGTGGCTTCT
GACTTGAGTGGACCCCCA**TGA**

FIGURE 2135

GCCCTGGAGGCCCGGCCTGGCCGCTCCCGGCCCTGGGGTGCACATCGGCCCTGAGTCCCGTCCCAGGCTCTGGGC
TCGGGCAGCCGCCGCCACCGCTGCCCAGGACGTCGGGCCTCCTGCCTTCCTCCCAGGCCCCCACGTTGCTGGCCG
CCTGGCCGAGTGGCCGCC**ATG**CTCCTGCCTTGGGCCACCTCTGCCCCCGGCCTGGCCTGGGGGCCTCTGGTGCTG
GGCCTCTTCGGGCTCCTGGCAGCATCGCAGCCCCAGGCGGTGCCTCCATATGCGTCGGAGAACCAGACCTGCAGG
GACCAGGAAAAGGAATACTATGAGCCCCAGCACCGCATCTGCTGCTCCCGCTGCCCGCCAGGCACCTATGTCTCA
GCTAAATGTAGCCGCATCCGGGACACAGTTTGTGCCACATGTGCCGAGAATTCCTACAACGAGCACTGGAACTAC
CTGACCATCTGCCAGCTGTGCCGCCCCTGTGACCCAGTGATGGGCCTCGAGGAGATTGCCCCCTGCACAAGCAAA
CGGAAGACCCAGTGCCGCTGCCAGCCGGGAATGTTCTGTGCTGCCTGGGCCCTCGAGTGTACACACTGCGAGCTA
CTTTCTGACTGCCCGCCTGGCACTGAAGCCGAGCTCAAAGATGAAGTTGGGAAGGGTAACAACCACTGCGTCCCC
TGCAAGGCCGGGCACTTCCAGAATACCTCCTCCCCCAGCGCCCGCTGCCAGCCCCACACCAGGTGTGAGAACCAA
GGTCTGGTGGAGGCAGCTCCAGGCACTGCCCAGTCCGACACAACCTGCAAAAATCCATTAGAGCCACTGCCCCCA
GAGATGTCAGGAACCATGCTGATGCTGGCCGTTCTGCTGCCACTGGCCTTCTTTCTGCTCCTTGCCACCGTCTTC
TCCTGCATCTGGAAGAGCCACCCTTCTCTCTGCAGGAAACTGGGATCGCTGCTCAAGAGGCGTCCGCAGGGAGAG
GGACCCAATCCTGTAGCTGGAAGCTGGGAGCCTCCGAAGGCCCATCCATACTTCCCTGACTTGGTACAGCCACTG
CTACCCATTTCTGGAGATGTTTCCCCAGTATCCACTGGGCTCCCCGCAGCCCCAGTTTTGGAGGCAGGGGTGCCG
CAACAGCAGAGTCCTCTGGACCTGACCAGGGAGCCGCAGTTGGAACCCGGGGAGCAGAGCCAGGTGGCCCACGGT
ACCAATGGCATTCATGTCACCGGCGGGTCTATGACTATCACTGGCAACATCTACATCTACAATGGACCAGTACTG
GGGGGACCACCGGGTCCTGGAGACCTCCCAGCTACCCCCGAACCTCCATACCCCATTCCCGAAGAGGGGGACCCT
GGCCCTCCCGGGCTCTCTACACCCCACCAGGAAGATGGCAAGGCTTGGCACCTAGCGGAGACAGAGCACTGTGGT
GCCACACCCTCTAACAGGGGCCCAAGGAACCAATTTATCACCCATGAC**TGA**CTGAGTCTGAGAAAAGGCAGAAGA
AGGGGGGCACAAGGGCACCTTCTCCCTTGAGGCTGCCCTGCCCACGTGGGATTCACAGGGGCCTGAGTAGGGCCC
GGGGAAGCAGAGCCCTAAGGGATTAAGGCTCAGACACCTCTGAGAGCAGGTGGGCACTGGCTGGGTACGGTGCCC
TCCACAGGACTCTCCCTACTGCCTGAGCAAACCTGAGGCCTCCCGGCAGACCCACCCACCCCCTGGGGCTGCTCA
GCCTCAGGCACGGACAGGGCACATGATACCAACTGCTGCCCACTACGGCACGCCGCACCGGAGCACGGCACCGAG
GGAGCCGCCACACGGTCACCTGCAAGGACGTCACGGGCCCCTCTAAAGGATTCGTGGTGCTCATCCCCAAGCTTC
AGAGACCCTTTGGGGTTCCACACTTCACGTGGACTGAGGTAGACCCTGCATGAAGATGAAATTATAGGGAGGACG
CTCCTTCCCTCCCCTCCTAGAGGAGAGGAAAGGGAGTCATTAACAACTAGGGGGTTGGGTAGGATTCCTAGGTAT
GGGGAAGAGTTTTGGAAGGGGAGGAAAATGGCAAGTGTATTTATATTGTAACCACATGCAAATAAAAAGAATGGG
ACCTA

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FIGURE 2136

CCGGCCAGCGGGCGGGCTCCCCAGCCAGGCCGCTGCACCTGTCAGGGGAACAAGCTGGAGGAGCAGGACCCTAGA
CCTCTGCAGCCCATACCAGGTCTC**ATG**GAGGGGAACAAGCTGGAGGAGCAGGACTCTAGCCCTCCACAGTCCACT
CCAGGGCTCATGAAGGGGAACAAGCGTGAGGAGCAGGGGCTGGGCCCCGAACCTGCGGCGCCCCAGCAGCCCACG
GCGGAGGAGGAGGCCCTGATCGAGTTCCACCGCTCCTACCGAGAGCTCTTCGAGTTCTTCTGCAACAACACCACC
ATCCACGGCGCCATCCGCCTGGTGTGCTCCCAGCACAACCGCATGAAGACGGCCTTCTGGGCAGTGCTGTGGCTC
TGCACCTTTGGCATGATGTACTGGCAATTCGGCCTGCTTTTCGGAGAGTACTTCAGCTACCCCGTCAGCCTCAAC
ATCAACCTCAACTCGGACAAGCTCGTCTTCCCCGCAGTGACCATCTGCACCCTCAATCCCTACAGGTACCCGGAA
ATTAAAGAGGAGCTGGAGGAGCTGGACCGCATCACAGAGCAGACGCTCTTTGACCTGTACAAATACAGCTCCTTC
ACCACTCTCGTGGCCGGCTCCCGCAGCCGTCGCGACCTGCGGGGGACTCTGCCGCACCCCTTGCAGCGCCTGAGG
GTCCCGCCCCCGCCTCACGGGGCCCGTCGAGCCCGTAGCGTGGCCTCCAGCTTGCGGGACAACAACCCCCAGGTG
GACTGGAAGGACTGGAAGATCGGCTTCCAGCTGTGCAACCAGAACAAATCGGACTGCTTCTACCAGACATACTCA
TCAGGGGTGGATGCGGTGAGGGAGTGGTACCGCTTCCACTACATCAACATCCTGTCGAGGCTGCCAGAGACTCTG
CCATCCCTGGAGGAGGACACGCTGGGCAACTTCATCTTCGCCTGCCGCTTCAACCAGGTCTCCTGCAACCAGGCG
AATTACTCTCACTTCCACCACCCGATGTATGGAAACTGCTATACTTTCAATGACAAGAACAACTCCAACCTCTGG
ATGTCTTCCATGCCTGGAATCAACAACGGTCTGTCCCTGATGCTGCGCGCAGAGCAGAATGACTTCATTCCCCTG
CTGTCCACAGTGACTGGGGCCCGGGTAATGGTGCACGGGCAGGATGAACCTGCCTTTATGGATGATGGTGGCTTT
AACTTGCGGCCTGGCGTGGAGACCTCCATCAGCATGAGGAAGGAAACCCTGGACAGACTTGGGGGCGATTATGGC
GACTGCACCAAGAATGGCAGTGATGTTCCTGTTGAGAACCTTTACCCTTCAAAGTACACACAGCAGGTGTGTATT
CACTCCTGCTTCCAGGAGAGCATGATCAAGGAGTGTGGCTGTGCCTACATCTTCTATCCGCGGCCCCAGAACGTG
GAGTACTGTGACTACAGAAAGCACAGTTCCTGGGGGTACTGCTACTATAAGCTCCAGGTTGACTTCTCCTCAGAC
CACCTGGGCTGTTTCACCAAGTGCCGGAAGCCATGCAGCGTGACCAGCTACCAGCTCTCTGCTGGTTACTCACGA
TGGCCCTCGGTGACATCCCAGGAATGGGTCTTCCAGATGCTATCGCGACAGAACAATTACACCGTCAACAACAAG
AGAAATGGAGTGGCCAAAGTCAACATCTTCTTCAAGGAGCTGAACTACAAAACCAATTCTGAGTCTCCCTCTGTC
ACGATGGTCACCCTCCTGTCCAACCTGGGCAGCCAGTGGAGCCTGTGGTTCGGCTCCTCGGTGTTGTCTGTGGTG
GAGATGGCTGAGCTCGTCTTTGACCTGCTGGTCATCATGTTCCTCATGCTGCTCCGAAGGTTCCGAAGCCGATAC
TGGTCTCCAGGCCGAGGGGGCAGGGGTGCTCAGGAGGTAGCCTCCACCCTGGCATCCTCCCCTCCTTCCCACTTC
TGCCCCCACCCCATGTCTCTGTCCTTGTCCCAGCCAGGCCCTGCTCCCTCTCCAGCCTTGACAGCCCCTCCCCCT
GCCTATGCCACCCTGGGCCCCCGCCCATCTCCAGGGGGCTCTGCAGGGGCCAGTTCCTCCACCTGTCCTCTGGGG
GGGCCC**TGA**GAGGGAAGGAGAGGTTTCTCACACCAAGGCAGATGCTCCTCTGGTGGGAGGGTGCTGGCCCTGGCA
AGATTGAAGGATGTGCAGGGCTTCCTCTCAGAGCCGCCCAAACTGCCGTTGATGTGTGGAGGGGAAGCAAGATGG
GTAAGGGCTCAGGAAGTTGCTCCAAGAACAGTAGCTGATGAAGCTGCCCAGAAGTGCCTTGGCTCCAGCCCTGTA
CCCCTTGGTACTGCCTCTGAACACTCTGGTTTCCCCACCCAACTGCGGCTAAGTCTCTTTTTCCCTTGGATCAGC
CAAGCGAAACTTGGAGCTTTGACAAGGAACTTTCCTAAGAAACCGCTGATAACCAGGACAAAACACAACCAAGGG
TACACGCAGGCATGCACGGGTTTCCTGCCCAGCGACGGCTTAAGCCAGCCCCCGACTGGCCTGGCCACACTGCTC
TCCAGTAGCACAGATGTCTGCTCCTCCTCTTGAACTTGGGTGGGAAACCCCACCCAAAAGCCCCCTTTGTTACTT
AGGCAATTCCCCTTCCCTGACTCCCGAGGGCTAGGGCTAGAGCAGACCCGGGTAAGTAAAGGCAGACCCAGGGCT
CCTCTAGCCTCATACCCGTGCCCTCACAGAGCCATGCCCCGGCACCTCTGCCCTGTGTCTTTCATACCTCTACAT
GTCTGCTTGAGATATTTCCTCAGCCTGAAAGTTTCCCCAACCATCTGCCAGAGAACTCCTATGCATCCCTTAGAA
CCCTGCTCAGACACCATTACTTTTGTGAACGCTTCTGCCACATCTTGTCTTCCCCAAAATTGATCACTCCGCCTT
CTCCTGGGCTCCCGTAGCACACTATAACATCTGCTGGAGTGTTGCTGTTGCACCATACTTTCTTGTACATTTGTG
TCTCCCTTCCCAACTAGACTGTAAGTGCCTTGCGGTCAGGGACTGAATCTTGCCCGTTTATGTATGCTCCATGTC
TAGCCCATCATCCTGCTTGGAGCAAGTAGGCAGGAGCTCAATAAATGTTTGTTGCATG

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FIGURE 2137

AGATCACTGGGACCAGGCCGTGATCTCTATGCCCGAGTCTCAACCCTCAACTGTCACCCCAAGGCACTTGGGACG
TCCTGGACAGACCGAGTCCCGGGAAGCCCCAGCACTGCCGCTGCCACACTGCCCTGAGCCCAAATGGGGGAGTGA
GAGGCCATAGCTGTCTGGC**ATG**GGCCTCTCCACCGTGCCTGACCTGCTGCTGCCACTGGTGCTCCTGGAGCTGTT
GGTGGGAATATACCCCTCAGGGGTTATTGGACTGGTCCCTCACCTAGGGGACAGGGAGAAGAGAGATAGTGTGTG
TCCCCAAGGAAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACCAAGTGCCACAAAGGAACCTACTTGTA
CAATGACTGTCCAGGCCCGGGGCAGGATACGGACTGCAGGGAGTGTGAGAGCGGCTCCTTCACCGCTTCAGAAAA
CCACCTCAGACACTGCCTCAGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGT
GGACCGGGACACCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTTTTCCAGTGCTT
CAATTGCAGCCTCTGCCTCAATGGGACCGTGCACCTCTCCTGCCAGGAGAAACAGAACACCGTGTGCACCTGCCA
TGCAGGTTTCTTTCTAAGAGAAAACGAGTGTGTCTCCTGTAGTAACTGTAAGAAAAGCCTGGAGTGCACGAAGTT
GTGCCTACCCCAGATTGAGAATGTTAAGGGCACTGAGGACTCAGGCACCACAGTGCTGTTGCCCCTGGTCATTTT
CTTTGGTCTTTGCCTTTTATCCCTCCTCTTCATTGGTTTAATGTATCGCTACCAACGGTGGAAGTCCAAGCTCTA
CTCCATTGTTTGTGGGAAATCGACACCTGAAAAAGAGGGGGAGCTTGAAGGAACTACTACTAAGCCCCTGGCCCC
AAACCCAAGCTTCAGTCCCACTCCAGGCTTCACCCCCACCCTGGGCTTCAGTCCCGTGCCCAGTTCCACCTTCAC
CTCCAGCTCCACCTATACCCCCGGTGACTGTCCCAACTTTGCGGCTCCCCGCAGAGAGGTGGCACCACCCTATCA
GGGGGCTGACCCCATCCTTGCGACAGCCCTCGCCTCCGACCCCATCCCCAACCCCCTTCAGAAGTGGGAGGACAG
CGCCCACAAGCCACAGAGCCTAGACACTGATGACCCCGCGACGCTGTACGCCGTGGTGGAGAACGTGCCCCCGTT
GCGCTGGAAGGAATTCGTGCGGCGCCTAGGGCTGAGCGACCACGAGATCGATCGGCTGGAGCTGCAGAACGGGCG
CTGCCTGCGCGAGGCGCAATACAGCATGCTGGCGACCTGGAGGCGGCGCACGCCGCGGCGCGAGGCCACGCTGGA
GCTGCTGGGACGCGTGCTCCGCGACATGGACCTGCTGGGCTGCCTGGAGGACATCGAGGAGGCGCTTTGCGGCCC
CGCCGCCCTCCCGCCCGCGCCCAGTCTTCTCAGA**TGA**GGCTGCGCCCCTGCGGGCAGCTCTAAGGACCGTCCTGC
GAGATCGCCTTCCAACCCCACTTTTTTCTGGAAAGGAGGGGTCCTGCAGGGGCAAGCAGGAGCTAGCAGCCGCCT
ACTTGGTGCTAACCCCTCGATGTACATAGCTTTTCTCAGCTGCCTGCGCGCCGCCGACAGTCAGCGCTGTGCGCG
CGGAGAGAGGTGCGCCGTGGGCTCAAGAGCCTGAGTGGGTGGTTTGCGAGGATGAGGGACGCTATGCCTCATGCC
CGTTTTGGGTGTCCTCACCAGCAAGGCTGCTCGGGGGCCCCTGGTTCGTCCCTGAGCCTTTTTCACAGTGCATAA
GCAGTTTTTTTTGTTTTTGTTTTGTTTTGTTTTGTTTTTAAATCAATCATGTTACACTAATAGAAACTTGGCACT
CCTGTGCCCTCTGCCTGGACAAGCACATAGCAAGCTGAACTGTCCTAAGGCAGGGGCGAGCACGGAACAATGGGG
CCTTCAGCTGGAGCTGTGGACTTTTGTACATACACTAAAATTCTGAAGTT

FIGURE 2138

AGCGCCTCGCGGGGGTCTGGCCCGGAGTGGAGGGCGCGCGGTCCCAGCCCTCCCGCTCGGCCGGCGGGTGTCGAG
TTCAGCCCTAGGGGACCTCTTTCTCCTGGACATTGAAGATATGGCCCTTTGGAGGTGACCCAGGAGAGAAGGGATT
GAAGGCCTTTGGTCCTCCACATGAGGGCCCCCTCCAAGGACTCGTGGCCTCCCGCATTGAGACTTATGGGGGCCG
GCATCGAGCCTCTGCTCAGAGCACTGCTGGCAGACTCTATCCCCGAGGATACCCTGTGCTGGATCCCAGTCGCCG
ACGCCTCCAGCAGTATGTCCCCTTTGCCAGGGGTTCTGGCCAGGCCCGAGGCCTGTCACCCATGAGACTGCGAGA
TCCAGAGCCCGAGAAGAGGCACGGGGGCCATGTGGGGGCTGGCCTGCTTCACTCCCCCAAACTCAAGGAACTCAC
CAAGGCCCATGAGCTGGAGGTGAGGCTGCACACTTTCAGCATGTTTGGGATGCCCCGGCTGCCCCCTGAGGACCG
GCGGCACTGGGAGATAGGAGAGGGTGGCGACAGTGGCCTGACCATCGAGAAGTCCTGGAGGGAGCTGGTGCCTGG
GCACAAGGAGATGAGCCAGGAGCTCTGCCACCAACAGGAGGCCCTGTGGGAGCTCCTGACCACCGAGCTGATCTA
CGTGAGAAAGCTCAAGATCATGACTGATCTGCTAGCCGCCGGCCTGCTGAACCTGCAGCGAGTGGGACTGCTGAT
GGAAGTGTCAGCTGAGACCCTGTTTGGAAATGTCCCCAGCCTGATTCGAACCCACCGGAGCTTTTGGGATGAGGT
GCTGGGGCCCACCCTGGAGGAGACTCGGGCCTCGGGCCAGCCTCTGGACCCCATTGGTCTGCAAAGTGGCTTCCT
GACGTTTGGCCAGCGGTTCCACCCCTATGTCCAGTACTGCCTCCGAGTGAAGCAGACCATGGCTTACGCCCGAGA
ACAGCAAGAAACTAACCCTCTCTTCCATGCCTTCGTGCAGTGGTGTGAGAAGCACAAGCGCTCTGGGAGGCAGAT
GCTCTGTGACTTGCTTATCAAGCCCCACCAGCGCATCACCAAGTACCCACTGCTGCTCCATGCTGTGCTCAAGAG
GAGCCCCGAGGCACGAGCCCAAGAGGCCCTGAATGCCATGATTGAAGCCGTGGAGTCATTCCTGCGACACATCAA
TGGGCAGGTCCGCCAGGGCGAAGAGCAAGAGAGCTTGGCGGCTGCAGCACAACGCATCGGGCCCTACGAGGTGCT
GGAGCCACCCAGTGATGAGGTGGAGAAGAACCTGCGCCCATTCTCCACCCTGGACCTGACGTCCCCCATGCTGGG
GGTTGCATCTGAGCACACCAGACAGCTGCTGCTGGAGGGGCCTGTGCGAGTGAAGGAGGGACGAGAAGGGAAGCT
GGACGTGTACCTGTTCCTCTTCTCTGATGTGCTCCTTGTGACCAAGCCCCAGCGCAAGGCGGACAAAGCCAAGGT
CATCCGACCCCCTCTCATGCTGGAGAAGCTCGTGTGCCAACCCCTGCGAGACCCCAACAGCTTCCTGCTGATCCA
CCTCACTGAATTCCAGTGTGTCTCCAGCGCCCTCCTTGTGCACTGTCCCAGTCCTACAGACCGTGCCCAGTGGCT
GGAGAAGACCCAGCAGGCCCAGGCCGCCCTACAGAAGCTGAAGGCAGAGGAGTATGTTCAACAGAAGAGGGAGCT
CCTGACCCTCTATCGGGACCAGGACAGGGAGTCCCCCAGCACCAGGCCCTCCACGCCTTCCCTGGAGGGCTCTCA
GAGCAGCGCAGAGGGGAGGACTCCTGAGTTCTCGACCATTATCCCCCACCTGGTGGTGACAGAAGACACAGATGA
AGATGCTCCCCTTGTGCCAGATGATACCTCAGACTCTGGCTACGGCACTTTGATCCCAGGCACCCCCACGGGGTC
CCGCTCCCCACTGAGCCGTCTACGCCAAAGAGCCCTTCGGCGGGACCCTCGCCTCACCTTCTCCACCCTGGAACT
CCGGGACATCCCTCTGCGTCCCCACCCTCCCGACCCCCAAGCTCCTCAACGCCGAAGCGCCCCCGAACTGCCGGA
AGGAATCCTAAAAGGAGGCAGTCTTCCCCAGGAAGACCCACCAACCTGGTCTGAGGAAGAAGATGGGGCCTCCGA
GCGAGGGAATGTGGTGGTGGAAACACTCCACAGGGCCCGGCTTCGGGGCCAGCTTCCCTCCTCCCCAACCCATGC
TGACTCTGCCGGGGAAAGCCCCTGGGAGTCCTCAGGGGAGGAGGAAGAAGAGGGGCCTCTGTTCCTGAAAGCTGG
CCACACATCCCTGCGCCCAATGCGGGCTGAGGACATGCTCAGAGAGATCCGGGAGGAGCTGGCCAGCCAAAGGAT
TGAGGGGGCCGAGGAGCCCCGGGACAGCAGGCCACGGAAGCTGACTCGGGCCCAGCTGCAGAGGATGCGGGGGCC
CCACATCATTCAGCTGGACACCCCTCTGTCCGCATCAGAGGTATGAGGAATGCAGAGGACCTTTGGCATGCATCT
CTCCCAGAGGAGATCTCTCCCCAGTAGTGCTGGTCACCCTCCGGCATCTGTGACTCTACCTCAAGGACCACATTT
CCCAAAGGAAGCCTGGCCCAGGCACCCTGCCTCCTGCTCTGTTTGGGGATCAAGAACTGTAAATTTATGTATCAT
AGGTGCACCTGAGCCCCACAGAAAGTTGTGCATAAAAATGACTGCCCTGGCTGGGCATGGCTGCCTGTAATCCCA
GCACTTTGGGAGGCTGAGGTGGGAGGATCCCTTGAGCCCAGGAGTTCCAGACCAGCCTGGGCAATATAGGGAAAC
CCTGTCTTTACAAAAAAAAATTTTAAAAATT

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FIGURE 2139

AGACTATCTTTCTAGACAAGGCAGTTGAGGAGGAGGGAGCGCTTGAGGGGGACTGGCCTGGCGTGCACTCCGCAC
CTCGGGGACATTATTGCGCGTGGAACGGCTGCTTTTGGAAGGCACAACTTCCTGAATGGACCATGACTCCCACCA
AAGATCCCTGTCTCTGATTCACCAAACAGCTTCAACCCTGAAACCAGGACGAGAAGTTGACAACATCTGAGTGGA
CAGCTAATTGACCTAAGACTTCAGACCAGACTATTGCCCAGAAGAAAAG**ATG**TTTGGTTTTCACAAGCCAAAGAT
GTACCGAAGTATAGAGGGCTGCTGTATTTGCAGAGCTAAGTCCTCCAGTTCTCGATTCACTGACAGTAAACGCTA
TGAAAAGGACTTCCAGAGCTGTTTTGGATTGCATGAGACTCGTTCAGGAGACATCTGCAATGCCTGTGTCCTGCT
TGTGAAAAGATGGAAGAAGTTGCCAGCAGGATCAAAAAAAAACTGGAATCATGTGGTAGATGCAAGGGCTGGACC
CAGTCTAAAGACTACATTGAAACCAAAGAAAGTGAAAACTCTATCTGGGAACAGGATAAAAAGCAACCAGATCAG
TAAACTGCAGAAGGAATTTAAACGTCATAATTCTGATGCTCACAGTACCACCTCAAGTGCCTCCCCAGCTCAATC
TCCTTGTTACAGTAACCAGTCAGATGACGGCTCAGATACAGAGATGGCTTCTGGTTCTAACAGAACACCAGTTTT
TTCCTTTTTAGATCTCACTTACTGGAAAAGACAGAAGATATGTTGTGGGATCATCTATAAAGGCCGTTTTGGGGA
AGTCCTCATTGACACACATCTCTTCAAGCCTTGCTGCAGCAATAAGAAAGCAGCTGCTGAGAAGCCAGAGGAGCA
GGGGCCAGAGCCTCTGCCCATCTCCACTCAGGAGTGG**TGA**CTGAGGTTTTTATGTAGAAGGGGAACAAAAAAAAA
AATATCTGAATTTTGAAAAACCACAAAGCTACAAACTGACCCTCTTTTTTTTTTGAGACGGAGTTTTGCTCTTGT
TACCCAGGCTGGAGTGCAGTGGCGTGATCTTGGCTCACTGCAACTTCCGTCTCCCGGGTTCAAGTGATTCTCCTG
CCTCAGCCTCCCAAGTAGCTGGGTTTATAGGTGCCCGCCACCAGACCCGGCTAATTTTTTAGTTTTAGTAGAGAC
GGGGTTTCACCACGTTGGCCAGGCTGGTCTTAAATGACCCTCTTATTTTTAACTTGGATACCTGCTATTCTGCCA
AAAGACAATTTCTAGAGTAGTTTTGAATGGGTTGATTTCCCCCACTCCCACAAACTCTGAAGCCAGTGTCTAGCT
TACTAAAAAAAAGAGTTGTATATAATATTTAAGATGCTGAGTATTTCATAGGAAAGCTGAATGCTGCTGTAAAGTG
CTCTTTAAGTCTTTTTTTTTTTTAATCCCCTTCTAATGAATGAAACTAGGGGAATTTCAGGGGACAGAGATGGGA
TTTGTTGTATGATAAACTGTATGTAGTTTTTAGTCTTTCTGTTTTGAGAAGCAGTGGTTGGGGCATTTTTAAGAT
GGCTGGCTACTCTTGTTTTCCCTCATGATAATAAATTTGTCATAACTCAGTAACATGAACTTGCCCCTAGAGGTA
GTTGTTAATAATTTTGAAATATTAAGGTCTTGCCAAGCTTCTGATGATTCACACCTGTACTACTGATTATTAAGC
AGGACAGACTGAGCTTTCTGTTGCAAATACCTTGGAGGAGAAAGTAATTTCTAAATATACAGAGAGGTAACTTGA
CTATATATGTTGCATCCTGTGCCTCCCTTCATATTAATATTTGATAAAGATTTTAATTTATGTAAAACTTCTAAA
GCAGAATCAAAGCTCCTCTTGGGGAAATGGCAAGTCTTTAGGATAGGCAAGACCCTGTATGAATAGTACCAAAGC
ATTACCGCATGGTAGAGAACACACTCGATTAAAAATGTTAAGCTATCTGAAAAATAAAATGTGCAAGTCTTCAGG
ATGGCACAAAACAAAGGTTAATGCTTCTTGGGGCACATTTCTTAGAGGGCTTGCTGAGTGTGTAAATATAATCGA
CTTTTGTTTGTGTTACATGACTTCTGTGACTTCATTGAAAATCTGCACAATTCAGTTTCAGCTCTGGATTACTTC
AGTTGACCTTTGTGAAGGTTTTTATCTGTGTAGAATGGGTGTTTGACTTGTTTTAGCCTATTAAATTTTTATTTT
CTTTCACTCTGTATTAAAAGTAAAACTTACTAAAAGAAAAGAGGTTTGTGTTCACATTAAATGGTTTTGGTTTGG
CTTCTTTTAGTCAGGCTTTCTGAACATTGAGATATCCTGAACTTAGAGCTCTTCAATCCTAAGATTTTCATGAAA
AGCCTCTCACTTGAACCCAAACCAGAGTACTCTTACTGCCTCTTTTCTAAATGTTCAGGAAAAGCATTGCCAGTT
CAGTCTTTTCAAAATGAGGGAGAAACATTTGCCTGCCTTGTAATAACAAGACTCAGTGCTTATTTTTTAAACTGC
ATTTTAAAAATTGGATAGTATAATAACAATAAGGAGTAAGCCACCTTTTATAGGCACCCTGTAGTTTTATAGTTC
TTAATCTAAACATTTTATATTTCCTTCTTTTGGAAAAAACCTACATGCTACAAGCCACCATATGCACAGACTATA
CAGTGAGTTGAGTTGGCTCTCCCACAGTCTTTGAGGTGAATTACAAAAGTCCAGCCATTATCATCCTCCTGAGTT
ATTTGAAATGATTTTTTTTGTACATTTTGGCTGCAGTATTGGTGGTAGAATATACTATAATATGGATCATCTCTA
CTTCTGTATTTATTTATTTATTACTAGACCTCAACCACAGTCTTCTTTTTCCCCTTCCACCTCTCTTTGCCTGTA
GGATGTACTGTATGTAGTCATGCACTTTGTATTAATATATTAGAAATCTACAGATCTGTTTTGTACTTTTTATAC
TGTTGGATACTTATAATCAAAACTTTTACTAGGGTATTGAATAAATCTAGTCTTACTAGAAAATAAAA

FIGURE 2140

CTTTCCCAAGCGGCTGGCGAAGACGGCAGAGGTGCAGGTCCTGGTGCTTGATGGTCGAGGCCATCTCCTGGGCCG
CCTGGCGGCCATCGTGGTAAACAGGTACTGCTGGGCCGGAAGGTGGTGGTCGTACGCTGCGAAGGCATCAACATT
TCTGGCAATTTCTACAGAAACAAGTTGAAGTACCTCGCTTTCCTCCGCAAGCGG**ATG**AACACCAACTCTTACCGA
GGCTCCTACCACTTCCGGGCCCCCAGCCGCATCTTCTGGCGGACCGTGCGAGGTATGCTGCCCCACAAGACCAAG
CGAGGCCAGGCCGCTCTGGACCGCCTCAAGGTGTTTGATGGCATCCCACCGCCCTACGACAAGAAAAAGCGGATG
GTGGTTCCTGTTGCCCTCAAGGTTGTGCGTCTGAAGCCTACAAGAAAGTTTGCCTATCTGGGGCGCCTGGCTCAC
GAGTTTGGCTGGAAGTACCAGGCAGGGACAGCCACCCTGGAGGAGAAGAGGAAAGAGAAAGCCAAGATCCACTAC
GGGAAGAAGAAACAGCTCATGAGGCTACGGAAACAGGCCGAGAAGAACGTGGAGAAGAAAATTGACAAATACACA
GAGGTCCTCAAGACCCACGGCCTCCTGATC**TGA**GCCCAATAAAGACTGTTAATTCCTCA

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FIGURE 2141A

ATGCTCTATATGCAGTATGTTCTGCTGATTCCTTCTGTTCTACAAGAAGGCTCTTTGGATAAAGCTTGTGCCCAG
CTTTTTAATCTCACTGAATCTGTTGTTTTGACGGTCTCCCTCAACTATGGTGAGGTCCAGACCAAAATATTTGAA
GAAAATGTTACTGGAGAAAATTTCTTCAAATGCATCAGCTTTGAGGTTCCTCAGGCCAGATCTGACCCACTGGCA
TTTATTACATTTTCTGCTAAAGGAGCCACTCTCAACCTGGAAGAGAGGAGATCTGTGGCAATCAGATCCAGAGAG
AATGTGGTCTTTGTACAGACTGATAAACCCACCTACAAGCCTGGACAGAAAGCATGCAAAAATACACTTTCTTAT
TCTCAGGATCCAGAAGGCAATCGAATACAACAGTGGGTGAATGAGGAGTCTGTGGGAGGGATTCTACAACTCTCC
TTCCAGTTAATCTCAGAGCCCATCCTCGGATGGTATGAAATCACCGTGGAGATGCTCAATGAGAAGAAAACATAT
CACTCCTTCTCTGTGGAAGAATATGTGTTACCCAAATTTCAAATGACTGTGGATGCACCAGAAAATATCTTAGTT
GTGGACTCTGAATTCAAAGTGAATGTCTGTGCCTTATATACCTATGGTGAACCTGTGGACGGGAAGGTCCAACTT
AGTGTGTGCAGAGAATCTACGGCTTATCATTCATGTGCTCATCTTATCAGTTCACTCTGTAAAAATTTTACCATT
CAGATTAAATTGCTTAATCCAGACAACTCTCCAATCCCAAATGAAGTTGTTCAGTTGCATCTGAAGGACAAAATC
GTGGGAAACTACACCACAGATGTAAATGGCATCGCTCAGTTTTTCTTGGACACATATACGTTTACATACCCAAAT
ATCACTTTGAAAGCAGCCTACAAGGCCAATGAAAATTGCCAGGCTCATGGCTGGGTGTTGCCTCAATACCCTCAG
CCCGAGTACTTTGCATATCGATTTTACTCCAAGATGAATAGCTTCCTAAAGATTGTCCAAGAGATGGAAGAACTG
AGATGCAACCAGCAGAAGAGGGTGCTAGTGCACTGCATTCTCAATATGGAAGACTTTGAAGACAAAACCTACACA
GCAGACTTCAATTATTTGGTGATTTCAAAAGGTGTAATCATTCTTCATGGGCAACAGAAAATTGAGATCAACGAA
AATGGGAGGAAGGGCATATTTTCCATTTCTATAGACATTAACCCTGAATTAGCGCCCTCAGTACATATGCTTGTC
TATAGCTTGCATCCTGGAGGAGAAATGGTCAACTTAAATTTTTCTAAAGAAAAAAGTTTACCAGGATCCAATGTC
GATCTTCAAGTCTCGGCTGCTTCAAACTCTCTTTATGCTCTTTGGGCGGTAGACCAGAGGGTATTGCTACTAAGG
AATTATGGTCAGCTGCCAGCACAAACTGTGTATAGTCAGCTACATTCCAGCGAACTACATGGCTATTATTTCAGA
GGACTTAACTTAGAAGATGGCCTTAAAGTGCCGTGTCTTGAAGATGGACATATCCTTTACAATGGAATTTATTAC
ACACCTGCATGGGCTGACTTTGGAAAAGATGGCTATGACCTTGTGAAGGATCCTCAAAACAATCGGATTTTTCAA
TGGCAAAATGTGACTTCTTTCCGAAATATTACCCAACTCTCGTTCCAACTGATTTCAGAACCAATGTTTGGAGAT
TACTGGATTGTTGTGAAAAGAAACTCAAGGAAGACAGTGACACACCAATTTGCTGTTAAAAGATATGTGCTGCCC
AAGTTTGAAGTTACGGTCAATGCACCACAAACAGTAACTATTTCAGATGATGAATTCCAAGTGGATGTATGTGCT
AAGTACACCTTTGGCCAACCTGTGCAAGGGAAAACCCAAATCCGGGTGTGCAGAGAGTATTTTTCTTCAAGCAAT
TGTGAGAAAAATGACAATGAAATATGTGAGCAATTTATTGCACAGCTTAAATTTTCGGATCCCAATAATGTACCT
ATGGTGAACAAGTTGTTGCAACTGGAGCTCAATGATGAATTTATAGGAAATTATACTACGGACGAGAATGGCGAA
GCTCAATTTTCCATTGACACTTCAGACATATTTGATCCAGAGTTCAACCTAAAAGCCACATATGTTCGACCTAAG
AGCTGCTATCTTCCCAGCTGGTTGACGCCTCAGTACTTGGATGCTCACTTCTTAGTCTCACGCTTTTACTCCCGA
ACGAACAGCTTCCTGAAGATTGTTCCAGAACCAAAGCAGCTTGAATGTAATCACCAGAAGGTTGTTACTGTGCAT
TACTCCCTAAACAGTGAAGCATATGAGGATGATTCCAATGTAAAGTTCTTCTATTTGATGATGGTAAAAGGAGCT
ATCTTACTCAGTGGACAAAAGGAAATCAGAAACAAAGCCTGGAATGGAAACTTCTCGTTCCCACTCAGCATCAGT
GCTGATCTGGCTCCTGCAGCCGTCCTGTTTGTCTACACCCTTCACCCCAGTGGGGAAATTGTGGCTGACAGTGTC
AGATTCCAGGTTGACAAGTGCTTTAAACACAAGGTTAACATAAAGTTCTCTAACGAGCAGGGCTTACCTGGTTCC
AATGCTAGTCTCTATCTTCAAGCGGCGCCTGTCTTATTCTGTGCCCTCGGGGCTGTGGATGGGAACGTCCTTCTA
CTGAAATCTGAACAACAGCTGTCAGCTGAAAGTAGGGATATGTTCTACAATGGTTTATATTACACACCTGTAAGC
AACTATGGGGATGGAGATATCTATAATATTGTCAGGAACATGGGTCTCAAAGTCTTTACCAATCTCCATTACCGA
AAACCAGAAGTATGTGTGATGGAGAGAAGGCTGCCACTCCCTAAGCCGCTTTATCTAGAAACAGAAAATTATGGT
CCAATGCATAGTGTTCCGTCTAGAATTGCATCTAGTGGAATCAGAGGGGAGAATGCTGACTATGTAGAACAGGCT
ATAATTCAAACAGTAAGAACAAACTTCCCAGAGACATGGATGTGGGACCTCGTCAGTGTCGATTCCTCAGGCTCT
GCCAATCTTTCGTTCCTCATTCCTGATACGATAACCCAATGGGAGGCAAGTGGCTTTTGTGTGAATGGCGACGTT
GGATTTGGCATTTCCTCTACAACCACTCTAGAAGTCTCCCAACCTTTCTTTATTGAAATTGCCTCACCCTTTTCG
GTTGTTCAAAATGAACAATTTGATTTGATTGTCAATGCCTTCAGCTACCTGAATACATGTGTAGAGATTTCTGTT
CAAGTGGAGGAGTCTCAGAATTATGAAGCAAATATTAATACCTGGAAAATCAATGGCAGTGAGGTTATTCAAGCT
GGAGGGAGGAAAACAAACATCTGGACTATTATACCTAAGAAATTGGGTGCCAAAGCCTCCAAGCAGGGAGTTTTG
GACTTGCCAAATGATGTAGTAGAAGGGTCAGCCAGAGGCTTTTTCACTGTTGTGGGGGATATTCTAGGACTTGCC
ATGCAGAATCTGGTTGTTCTCCAAATGCCCTATGGAGGTGGAGAGCAGAATGCTGCCCTACTAGCATCTGATACT

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FIGURE 2141B

TATGTTCTGGACTATCTGAAATCTACTGAGCAACTGACAGAGGAAGTTCAATCTAAGGCTTTCTTTCTCTTATCT
AATGGTTATCAAAGGCAATTATCTTTCAAAAACTCTGATGGTTCCTATAGTGTGTTTTGGCAGCAGAATCAGAAA
GGAAGCATATGGCTCAGTGCTCTTACTTTTAAGACATTGGAGAGAATGAAAAAATTTGTATTCATTGATGAAAAT
GTTCAAAAACAGACCTTAATCTGGCTTTCAAGCCAACAGAAAACAAGCGGCTGCTTTAAGAATGATGGCCAGCTT
TTCAACCACGCCTGGGAGTTTCCTGCTCTACGAAACGCACTCTTTTGCCTTGAAGCGGCATTGGACAGTGGTGTC
ACTAATGGCTACAATCATGCAATTCTAGCTTATGCTTTTGCCTTAGCTGGAAAAGAGAAGCAAGTGGAATCTTTA
CTCCAAACCCTGGATCAATCTGCCACAAAACTAAATAATGTCATCTACTGGGAAAGAGAAAGGAAACCCAAGACA
GAAGAATTTCCATCCTTTATTCCCTGGGCACCTTCTGCTCAGACTGAGAAGAGTTGCTATGTGCTGTTGGCTGTC
ATTTCCCGGAAAATTCCTGACCTCACCTATGCTAGTAAGATTGTGCAGTGGCTTGCCCAACAGATGAATTCCCAT
GGAGGCTTTTCTTCCAACCAGACACCTGATGATACTCTGTTCAAATTATATACGGGCCAAAAAGAAAGCTTTCGC
TCTAGTTCTGTGGGCTATACACTGGGAAAAGCAAATGAAAAGAAGGAAAACAGGAGAAATGGGGGAGCCGGTGGG
GAAGAGTGGCTGGCTCTCAGTCCCCGCCTCGCGGGCGGTGCCTCCCCACACTTCGATGGGGTTCCCAAGAGCCGG
GGGGAGCCAGGCGGGGAAGAGGGGCTCTTCTCTAAGAATCAAAACACTGTCACCTTTAGCAGTGAAGGATCCAGT
GAGATCCAGTTTAACGGTCATAACCGCCTACTGGTCCAACGTTCAGAAGTAACACAGGCACCTGGACAATACACA
GTAGATGTGGAAGGACGCGGTTGTACATTTATCCAGGCCACCCTTAAGTACAATGTTCTCCTACCTAAGAAGGCA
TCTGGATTTTCTCTTTCCTTGGAAATAGTAAAGAACTACTCTTTGACTGTTTTTGACCTCACAGTGAACCTCAAA
TACACTGGAATTCGCAATAAATCCAGTATGGTGGTTATAGATGTAAAAATGCTATCAGGATTTACTCCAACCATG
TCATCCATTGAAGAGGAGAAGCTGAAGTCCTTTCCTGTGTGTGTGAGCGCCAAGCTGGAGCCCAAGGATGACATG
GAGGAGGCGCTTGGGGGGTCTCCCCAGGTCTCCATGCTGCTCGTCAACATCAGAGAGATCCTGTGTAGCAGAAAA
TGGAGTCGCAGGGTATACAAGAAGTCTGTCTTCCCAGACGGACTGGCTGGTGCTGTAACAAAGACCCATGTGATG
CTGGGGGGTAGAGACAGATAAACTGTTCAGTGCCCCTTGTCCATCAGTGAGAGAGCAGCTGGAGCAGAAGGTGGAG
AGGGAGGGGCAGCATCACCCACTCTGCCCTGGCACCAGGCTCAAGTCGCTCAAGCCCAGTGAGCTGGGTGTTAGG
ATGGCAGCCAGGCTCCCTGCTCAGTCACCTCCTTCCCTAGGCACCCCACACTTTCTCCCATTTCCACTTCCTACC
TATAAGATGGCACGT**TAA**

FIGURE 2142A

CTGAGGGGACCCGCCAGTTTCTAACTCAGTGGCGTTTGCCCTGATTCCCGGGGCCTGGCTTTCAGCGTAGCAATT
CTGCCGGCGAAGAAGGTGAGCGCAGTGCTGTGTGGCAGCAGAGCTCCTTAGGACGAGGAGCAGCGGGACGAGGAA
GGGCAGACTGGTGAAATCGCAAACTGGGCGTCTGTTCCGGCGCCGGACCCCTATTTGCAAAGGTCC**ATG**GCTAAT
GAAACACAGAAGGTTGGTGCCATCCATTTTCCTTTTCCCTTCACACCCTATTCCATCCAGGAAGACTTCATGGCA
GAGCTGTACCGGGTTTTGGAGGCTGGCAAGATTGGGATATTTGAGAGTCCAACTGGCACTGGGAAGTCCTTAAGT
CTTATTTGTGGGGCCCTCTCTTGGCTCCGTGACTTTGAACAGAAGAAGCGTGAAGAAGAGGCACGACTCCTTGAA
ACTGGAACTGGCCCCTTACATGATGAGAAAGATGAATCCCTGTGTCTGTCTTCTTCCTGCGAAGGGGCTGCAGGC
ACCCCGAGGCCTGCTGGAGAACCGGCCTGGGTTACTCAGTTTGTGCAGAAGAAAGAAGAGAGGGACCTGGTGGAC
CGACTAAAGGCGGAGCAGGCCAGGAGGAAGCAGCGAGAAGAACGCCTGCAGCAGCTGCAGCACAGGGTGCAGCTC
AAGTATGCAGCCAAGCGCCTGAGGCAGGAAGAAGAAAGAGAGAATCTCCTCCGCCTCAGCAGGGAGATGCTA
GAGACAGGCCCGGAGGCTGAGCGGCTGGAGCAGCTGGAGTCTGGGGAGGAGGAGCTGGTCCTCGCCGAATACGAG
AGTGATGAGGAGAAAAAGGTGGCGAGCAGAGTGGATGAGGATGAGGATGACCTGGAGGAAGAACACATAACTAAG
ATTTATTACTGTAGTCGGACACACTCCCAGCTGGCCCAGTTTGTGCATGAGGTGAAGAAGAGCCCCTTTGGCAAG
GATGTTCGGCTGGTCTCCCTTGGCTCCCGGCAGAACCTTTGTGTAAATGAAGACGTGAAAAGCCTAGGTTCTGTG
CAGCTTATCAACGACCGCTGTGTGGACATGCAGAGAAGCAGGCACGAGAAGAAGAAAGGAGCTGAGGAGGAGAAG
CCAAAGAGGAGGAGGCAGGAGAAGCAGGCAGCCTGCCCCTTCTACAACCACGAGCAGATGGGCCTTCTCCGGGAT
GAGGCCCTGGCAGAGGTGAAGGACATGGAGCAGCTGCTGGCCCTTGGGAAGGAGGCCCGGGCCTGTCCCTATTAC
GGGAGCCGCCTTGCCATCCCTGCAGCCCAGCTGGTGGTGCTGCCCTATCAGATGCTGCTGCATGCGGCCACTCGG
CAGGCCGCGGGCATCCGGCTGCAGGACCAGGTGGTGATCATCGACGAGGCGCACAACCTGATCGACACCATCACG
GGCATGCACAGCGTGGAGGTCAGCGGCTCCCAGCTCTGCCAGGCCCATTCCCAGCTGCTGCAGTACGTGGAGCGA
TACGGGAAGCGTTTGAAGGCCAAGAACCTGATGTACCTGAAGCAGATCCTGTATTTGCTGGAGAAATTCGTGGCT
GTGCTAGGGGGGAACATTAAGCAAAATCCCAATACACAGAGTCTGTCACAGACAGGGACGGAGCTGAAGACCATC
AACGACTTTCTCTTCCAGAGCCAGATCGACAACATCAACCTGTTCAAGGTGCAGCGATACTGTGAGAAGAGCATG
ATCAGCAGAAAGCTCTTTGGATTCACTGAACGGTACGGAGCAGTGTTCTCATCCCGGGAGCAGCCCAAACTGGCT
GGGTTTCAGCAATTCCTGCAGAGCCTGCAGCCCAGGACGACTGAAGCTCTTGCAGCCCCTGCAGACGAGAGTCAG
GCCAGCACCCTGCGACCAGCTTCTCCACTGATGCACATCCAAGGCTTCCTGGCAGCTCTCACTACGGCCAACCAG
GACGGCAGGGTCATCCTGAGCCGCCAAGGCAGCCTCAGTCAGAGCACCCTGAAGTTTTTGCTCCTGAATCCAGCT
GTGCACTTTGCCCAAGTGGTGAAGGAATGCCGGGCAGTGGTCATTGCGGGGGGTACCATGCAGCCGGTGTCTGAC
TTCCGGCAGCAGCTGCTGGCCTGTGCCGGGGTGGAAGCTGAGCGCGTGGTGGAGTTTTCCTGTGGTCACGTGATC
CCTCCAGACAACATCCTGCCCCTCGTCATCTGCAGCGGGATCTCCAACCAGCCGCTGGAATTCACGTTCCAGAAA
AGAGAGCTGCCTCAGATGATGGACGAGGTGGGTCGCATTCTCTGTAACCTGTGCGGTGTGGTTCCTGGAGGGGTG
GTCTGTTTCTTCCCCTCCTACGAGTACCTGCGCCAGGTCCATGCCCACTGGGAGAAGGGTGGCCTGCTGGGCCGT
CTGGCTGCCAGGAAGAAGATATTCCAGGAACCTAAGAGCGCACACCAGGTGGAGCAGGTGCTGCTGGCATATTCC
AGGTGCATCCAGGCCTGTGGCCAGGAGAGAGGCCAGGTGACAGGGGCCCTGCTCCTCTCTGTGGTTGGAGGAAAG
ATGAGTGAAGGGATCAACTTCTCTGACAACCTAGGCCGGTGTGTGGTGATGGTGGGCATGCCCTTCCCCAACATC
AGGTCTGCAGAGCTGCAGGAGAAGATGGCCTACTTGGATCAAACCCTCAGCCCCCGGCCAGGCACCCCCAGGGAA
GGCTCTGGTGGAGAACCTGTGCATGAAGGCCGTCAACCAGTCCATAGGCAGGGCCATCAGGCACCAGAAGGATTT
TGCCAGCGTAGTGCTCCTGGACCAGCGATATGCCCGGCCCCCTGTCCTGGCCAAGCTGCCGGCCTGGATCCGAGC
CCGTGTGGAGGTCAAAGCTACCTTTGGCCCCGCCATTGCTGCTGTGCAGAAGTTTCACCGGGAGAAGTCGGCCTC
TTCCTGATGGGCAACCACACCACTGCCTGGCGCCGTGCCCTTCCTTTGTCCTGCCCGCTGGAGACAGTGTTTGTC
GTGGGCGTGGTCTGCGGGGATCCTGTTACAAAGGTGAAACCCAGGAGGAGAGTGTGGAGTCCAGAGTGCTGCCAG
GACCCAGGCACAGGCGTTAGCTCCCGTAGGAGAAAATGGGGGAATCCTGAA**TGA**ACAGTGGGTCCTGGCTGTCCT
TGGGGCGTTCCAGGGCAGCTCCCCTCCTGGAATAGAATCTTTCTTTCCATCCTGCATGGCTGAGAGCCAGGCTTC
CTTCCTGGTCTCCGCAGGAGGCTGTGGCAGCTGTGGCATCCACTGTGGCATCTCCGTCCTGCCCACCTTCTTAAG
AGGCGAGATGGAGCAGGCCCATCTGCCTCTGCCCTTTCTAGCCAAGGTTATAGCTGCCCTGGACTGCTCACTCTC
TGGTCTCAATTTAAAATGATCCATGGCCACAGGGCTCCTGCCCAGGGGCTTGTCACCTTCCCCTCCTCCTTCCTG
AGTCACTCCTTCAGTAGAAGGCCCTGCTCCCTATCCTGTCCCACAGCCCTGCCTGGATTTGTATCCTTGGCTTCG
TGCCAGTTCCTCCAAGTCTATGGCACCTCCCTCCCTCTCAACCACTTGAGCAAACTCCAAGACACCTTCTACCCC

FIGURE 2142B

AACACCAGCAATTATGCCAAGGGCCGTTAGGCTCTCAACATGACTATAGAGACCCCGTGTCATCACGGAGACCTT
TGTTCCTGTGGGAAAATATCCCTCCCACCTGCAACAGCTGCCCCTGCTGACTGCGCCTGTCTTCTCCCTCTGACC
CCAGAGAAAGGGGCTGTGGTCAGCTGGGATCTTCTGCCACCATCAGGGACAAACGGGGGCAGGAGGAAAGTCACT
GATGCCCAGATGTTTGCATCCTGCACAGCTATAGGTCCTTAAATAAAAGTGTGCTGTTGGTT

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FIGURE 2143

AGTGCGGCGCAGCGCAGCTCCTGAGGTTTTGGTTATGAACAGGATTCGGATTCACGTCTTGCCAACCAATCGGGG
GAGGATCACTCCAGTGCCCAGGTCTCAGGAACCTCTGTCTTGTGCATTCACTCATCGTCCATGCTCTCACCCTCG
TCTGGAGGGGCAGGAGTTTTGCATTAAGCATATCCTTGAAGACAAGAATGCACCCTTCAAGCAGTGTAGTTATAT
ATCGACGAAGAATGGAAAAAGATGTCCCAATGCTGCCCCAAAGCCAGAGAAGAAAGATGGGGTGTCCTTCTGTGC
TGAACATGTCCGTAGGAATGCCCTGGCACTTCATGCTCAAATGAAGAAGACCAACCCAGGGCCTGTGGGTGAAAC
ACTCCTGTGCCAGCTGAGCTCATATGCTAAGACAGAGCTGGGGTCTCAGACTCCAGAAAGTAGTCGCAGTGAAGC
CAGCCGAATACTAGACATGCTGGTGTCTACACAGCAGAAGAAGTGGCCCTGATT**ATG**CGTGAAAAGCTAATTCGT
TTGCAGTCGTTGTATATTGATCAGTTTAAACGACTTCAGCATCTGCTCAAGGAGAAGAAGCGCCGATACTTACAT
AATCGCAAAGTGGAACATGAAGCTCTAGGCAGTAGTCTCCTGACTGGCCCAGAGGGACTTTTGGCCAAAGAACGA
GAGAACTTAAAGCGATTAAAATGTCTGCGACGATACCGCCAGCGCTATGGAGTGGAAGCCTTACTGCATAGGCAG
TTGAAGGAACGGAGAATGCTGGCCACAGATGGTGCTGCCCAACAGGCCCATACCACTCGTTCCAGTCAGAGGTGC
TTGGCCTTTGTGGATGATGTTCGTTGTTCCAATCAGTCTCTTCCAATGACCAGACACTGCCTTACCCAGAAAGAT
GCGACTGCCATTGGTGACCTGTTAACTCTTTACTGTGGTCTAATGGAGACAGCACTCGAC**TGA**AAGTGAAGGACC
CAGACTCTAGTTGACTTGGATGTTGTGGGTGATGGTATGCAGTGTCCTCCTTCACCTTTGCTTTTTGATCCTTCA
CTAACCCTTGAAGATCATTTAGTCAAAGAAATTGCTGAAGACCCAGTGGATATTTTGGGCCAGATGCAGATGGCT
GGAGATGGGTGCAGATCCCAGGGATCTCGAAATTCTGAGAAAGCCTCTGCACCATTGTCTCAGAGTGGATTGGCT
ACTGCAAATGGGAAGCCAGAACCCACTTCTATTAGTTGATAGTTTGGGGAACCATTTTACTTTGGTGGATTTAAA
TTTCTCGTTCTTCAAAGAAGTATTTCTGATCATCTCTCACAAAACACAGGCAACCCAGACTACCTTGTTTTTCTT
CTGGATTGAGTATTATAGTCAAACGTAAAGCCAAATTTTGAGGACGTGGACCGTGGGTTTCTTCCCACTCAGGGC
AAGGAAGAGAAAGAGAGATAATCCCTATCAAAGCTTCTGGGATTATTTGGGACTATACCTAAAAGGAAAGTGACA
TCTTTGTAATGGGATTTCCCAAGTCATGGATAGAAATCCACTTAAGTAGCTAGGTGGGAGCTGTCTTTGTGAGTG
GTGTCTTTGAGATACTGATGGCCCTAATATCGGTTATCTCTATCTGAAGACCTGCAGTTTAGCTTTTCTTCACCT
CTACTTAATTGGGCAGTCTTTAACCCCTTTCCCTGGTGAACTCTGGCTTTTTATCCTCTGAGAAAACAGCCCACA
GGACTGGGTCCTCCTTATCCGTCTTGCTTTTAACCTATGTAAATTTCTGTGGTTGCTATCTTATGTAAAATATAG
TAAAAATTTATTGTATATAGTTTCTATTAAATGTTAAAGAAAATGTTATGAAAATATCAAACAGTCACCTGAATT
GAATGC

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FIGURE 2144

GCCATTGCTGGGTATAAAACGAGGAGCTCTCTGTTGACCTGTAAATCATTAATACTTCTTGACTTAGAGTGTCAC
TTCACTTTATAGATGACATTTTCCTCTTTCCCCTTGATATTTTCTATGTTGTGTTAGATAATTGGTAGATATATA
GTTGTGGTTTAGTACATTTAGGGCTTCTATTTATTTAGATTTTGTTTGTTGGAGTCTGTTTCCAAAAGGGAATGT
GCCATTTAGTCTGCATCTGTATCTTTGTGGACTTGATGATCACTGGTTTGATTTTGAAAAATGTCTTTTCCAGCT
TTTAGTTACTCTCATCAAATGTCACATATTTTCTAATCACATGCACTCCTTTACCACAGAGGCACATAATCATTT
GGCCTCATAGCAGTTATCCATGGCCGTACTGTAGTAAAGTTCCTTAGAACTTTGCCAGGAGTGAACTAGAAAAAA
GTGCTTACTAGGGCCTAAGAGTTGCTTTGTGCCGTGTAGTCCGGCCTTTGCACTAGTAGATCATTGCTGACATAG
GTCAGTTTAGAGACCTTTCTGTGTTA**ATG**CCTCCTGGTACTGTCTTAAGATACGTACAGTGTCTGTTTTTAGATC
TATGCATATGTCATGAAGCTCCTTGTGGGCTCTGCATGAAGCTGCTGCTTTGTTTTTGGGTTAACAGATGTGCCT
GTCAACTAGCATGTGTATTGTCCAAATTCCATAAACTTAAGGTTTTTAAGGGCTGTGTGGTTTCTGAGCTCTATG
TGTCTTTCCTATCCTTGTACCTTCAAAGGGTGAGAAATGAGATTTATACATCCAAAGTTAGTCTGATAAATATGG
CTTTTTGTTTCTCCATG**TAA**CCTAGACTGTCAAAAATAAGTGATGGTGATAAGTAGGCCTGGAGCCTCAGCTTCT
GTAAATCTCATTCCTAAAATTTTGCTAGACTCGTGTTGGCAAAAACAAATACCTGTGGATTGTCCTTAAGGCTTT
TAATCAGATACCTGTGTTGCTGTTAGCTGAACTGTAGTGAAGCATCGATCCAAATCGGTCTTCTGAAGTATCAGT
TATGCTTTTGAGTTTAGAAAATACTTAGGTGTTAGTCTAGTCTTCCCATTCATGAATCAGTGTATGTCCATATCA
GAGAGCCTCAACTTCTTTTTTCTTCCTTTTTAAAAATGATTTTAGTGTTTTGATTTAGTGTATACTACATAGTTC
AGTATTATTGGCTTTACCAGTGTTGACAGAAAAATTTTAAATCTCCAGTTGCAAACAGCAATGGATTAGGATATG
GAAATAAAATCATGGTGACATCACTGCTGAGTTATCTTAAACCTCTGCTACTTAATTCTCCATATTGAAATGCAT
ACTCCTCCACATACATGGCTTCCAAGTAAAGGCAATTGTAGAGGGGCCCTGTCTATCCCAGTATGGTTGGATTTT
AAACATATCTGTGTTTCCGTTATTTTGGGAACTGATTAATATTTACAATTTTTTTTGTTTATGAGTTATTTTGAT
ACTAAGAAAAGAGAGAATCTAGAACATCTTGCAGTTGAAATACAAATTTTATTCTTTTGGTCTTGGGAGAATTTA
AGCAGTCTATGCAACTCATCAAATGGTGAGAAATAGCCCTCCGAGGTTCCAGTAAGCTTTCAGTGACTTTGATAC
CTCCCCAAGTTTCTTGAGTTGCTGCTTGTTAACACCCAGCTTTTAACTGAGTGTTTGCTCCTGATGGTTTAGGAG
ATTTTCATGTTGTATCACACTGTCAAGTTTTATTTTGTCTTTTTATCCCTCCGTGGATGTGAGTTTGAAACAAGC
ACGGTACAGTAATCCTGCCTGATAGAGTAGTCTGGAATGAGAATTACTTTTTGGGTGAGAGAGTTCTCCATTTTA
ATGTTTCTAAAGTTTTTCATATGAACTTGGCATTGGAAAAGGGAGGTAAAGAAAAAGGACGTTTACTAAAAGCAG
TGTCTACTCTTCCCCTTTGTGAGTGTTTATTCATGGCTAATGAAAAAAAGAGAAGGACTCTTGGGTTTTGTGTTG
CCATGTTAAGCATGGAGAGGGATGCTTGACAGCATGCTAATTGAAGCCAGAGCAAGTATGTCCTTCATCAGGTAA
TCAGGAACTCTTCAGTTGAAGCTGAGGAACTAACTGATTAGTTGTTGATCATAATATAATTGGTTACAAAGTGGA
AGTGCCAGCTGGCTTAAGTACCCAAAGAAAAGAATGCAGCAGCCTAACTTAGTGTTACCATATGTTACTGAATTT
GAAACTGACCTTTTTTCCCACCCTACTTCACACACCTAAAACTCTTTTCTTGTCAGACCAAAGAGCGAAAAGAAA
AAAAAAAGTAAAACACTTTACCAATCTGTCACTCAGGTACAATTTTGTGGTGAGATTTTTGTCTGTTCTCTTTGT
ATTGCTCTTAAGAGTCCTTTCTCAGCATATTATTCTGCCATTGCCTCTGTCTTCCTTGGGGCACCTCAGCTCTGG
ATGCTACCCCTGGGATATCTACTGCTGTTATGTGAATGATAGGAGGTAAGTGACCATTATAGTAAGGGCTCTTTG
TAAAAAAATTCAAAAAATTTAAAAAGGATGTATACATTTTATAGTCTGGCTATCAGTTTGATATCTTGCTGTCAA
GTATGTTTCTCAATCTGTATTTATCCATCCCATCAATAAATGTTAATGGTAAAAC

FIGURE 2145A

CCGGTCTATAGGTGCATACCACCACACCAGGCTAATTTTTTTTTTTTTTGAGACGGAGTCTCACTCTGTCACCCAG
GCTGGAGTGCAATGGCGCGATCTTTGCTCACTGCAACCTCTGCCACCCGGGTTCAAGCAATTCTCCTGCCTCAGC
TCCTGAGTAGCTGGGATTACAGGCGCCCGCCACCACGCCCGGCTAATTTTTGTATTTTTAGTAGAGACGAGGTTT
CACCATCTTGGCCAGGCTGGTCTTGAACTCCTGACCTTGTGATCTACCTGCCAGGGCCTTCCAAAGTGCTGGGAT
TACGGACGTGAGCCACCACGCCTGGCCCAGGCTAATTTTTTGAAATTTTAATAGAGGCAGGGTCTTGCTGTATTG
CCCAGGTTGCTCTCACATTCCTAGCCTTAAGCCATCCTCCTATCTCGGCCTCACAAAGTGCTGGGATTACAGGTG
TAAGCCACTGTGCCTGGTTTTGGGCAAGTTTCTTGTCCTGACTGTGTCTTGGGTTCTCACCTGTTGATTGGGGAT
ACCCTTGTTGCCTACCTCCAAGTAATTTTATGAGGATGAAACTCATAGCTTGTCAGTGGGAAGTGCTTAGGTAAT
GAGCTACTAGTGGTGGCAGTGGCTGTGATGGTGGTATTAATACCACTCCTACTGGATGGTCTCTAATACTATCTC
CTTCCTTCCCTACCAGCAAC**ATG**TCATGGTTTAGTGGCCTCCTGGTCCCTAAAGTGGATGAACGGAAAACAGCCT
GGGGTGAACGCAATGGGCAGAAGCGTTCGCGGCGCCGTGGCACTCGGGCCGGTGGCTTCTGCACGCCCCGCTATA
TGAGCTGCCTCCGGGATGCAGAGCCACCCAGCCCCACCCCTGCGGGCCCCCCTCGGTGCCCCTGGCAGGATGACG
CCTTCATCCGGAGGGGCGGCCCAGGCAAGGGCAAGGAGCTGGGGCTGCGGGCAGTGGCCCTGGGCTTCGAGGATA
CCGAGGTGACAACGACAGCGGGCGGGACGGCTGAGGTGGCGCCCGACGCGGTGCCCAGGAGTGGGCGATCCTGCT
GGCGCCGTCTGGTGCAGGTGTTCCAGTCGAAGCAGTTCCGTTCGGCCAAGCTGGAGCGCCTGTACCAGCGGTACT
TCTTCCAGATGAACCAGAGCAGCCTGACGCTGCTGATGGCGGTGCTGGTGCTGCTCACAGCGGTGCTGCTGGCTT
TCCACGCCGCACCCGCCCGCCCTCAGCCTGCCTATGTGGCACTGTTGGCCTGTGCCGCCGCCCTGTTCGTGGGGC
TCATGGTGGTGTGTAACCGGCATAGCTTCCGCCAGGACTCCATGTGGGTGGTGAGCTACGTGGTGCTGGGCATCC
TGGCGGCAGTGCAGGTCGGGGGCGCTCTCGCAGCAGACCCGCGCAGCCCCTCTGCGGGCCTCTGGTGCCCTGTGT
TCTTTGTCTACATCGCCTACACGCTCCTCCCCATCCGCATGCGGGCTGCCGTCCTCAGCGGCCTGGGCCTCTCCA
CCTTGCATTTGATCTTGGCCTGGCAACTTAACCGTGGTGATGCCTTCCTCTGGAAGCAGCTCGGTGCCAATGTGC
TGCTGTTCCTCTGCACCAAÇGTCATTGGCATCTGCACACACTATCCAGCAGAGGTGTCTCAGCGCCAGGCCTTTC
AGGAGACCCGCGGTTACATCCAGGCCCGGCTCCACCTGCAGCATGAGAATCGGCAGCAGGAGCGGCTGCTGCTGT
CGGTATTGCCCCAGCACGTTGCCATGGAGATGAAAGAAGACATCAACACAAAAAAAGAAGACATGATGTTCCACA
AGATCTACATACAGAAGCATGACAATGTCAGCATCCTGTTTGCAGACATTGAGGGCTTCACCAGCCTGGCATCCC
AGTGCACTGCGCAGGAGCTGGTCATGACCCTGAATGAGCTCTTTGCCCGGTTTGACAAGCTGGCTGCGGAGAATC
ACTGCCTGAGGATCAAGATCTTGGGGGACTGTTACTACTGTGTGTCAGGGCTGCCGGAGGCCCGGGCCGACCATG
CCCACTGCTGTGTGGAGATGGGGGTAGACATGATTGAGGCCATCTCGCTGGTACGTGAGGTGACAGGTGTGAATG
TGAACATGCGCGTGGGCATCCACAGCGGGCGCGTGCACTGCGGCGTCCTTGGCTTGCGGAAATGGCAGTTCGATG
TGTGGTCCAATGATGTGACCCTGGCCAACCACATGGAGGCAGGAGGCCGGGCTGGCCGCATCCACATCACTCGGG
CAACACTGCAGTACCTGAACGGGGACTACGAGGTGGAGCCAGGCCGTGGTGGCGAGCGCAACGCGTACCTCAAGG
AGCAGCACATTGAGACTTTCCTCATCCTGGAAAGAGGAGAAGGCCATGCTGGCCAAGCTGCAGCGGACTCGGGCC
AACTCCATGGAAGGGCTGATGCCGCGCTGGGTTCC**TGA**TCGTGCCTTCTCCCGGACCAAGGACTCCAAGGCCTTC
CGCCAGATGGGCATTGATGATTCCAGCAAAGACAACCGGGCACCCAAGATGCCCTGAACCCTGAGGATGAGGTGG
ATGAGTTCCTGAGCCGTGCCATCGATGCCCGCAGCATTGATCAGCTGCGGAAGGACCATGTGCGCCGGTTTCTGC
TCACCTTCCAGAGAGAGGATCTTGAGAAGAAGTACTCCCGGAAGGTGGATCCCCGCTTCGGAGCCTACGTTGCCT
GTGCCCTGTTGGTCTTCTGCTTCATCTGCTTCATCCAGCTTCTCATCTTCCCACACTCCACCCTGATGCTTGGGA
TCTATGCCAGCATCTTCCTGCTGCTGCTAATCACCGTGCTGATCTGTGCTGTGTACTCCTGTGGTTCTCTGTTCC
CTAAGGCCCTGCAACGTCTGTCCCGCAGCATTGTCCGCTCACGGGCACATAGCACCGCAGTTGGCATCTTTTCCG
TCCTGCTTGTGTTTACTTCTGCCATTGCCAACATGTACTTCATCGGGAACATGCTGCTGAGTCTCTTGGCCAGCT
CTGTCTTCCTGCACATCAGCAGCATCGGGAAGTTGGCCATGATCTTTGTCTTGGGGCTCATCTATTTGGTGCTGC
TTCTGCTGGGTCCCCCAGCCACCATCTTTGACAACTATGACCTACTGCTTGGCGTCCATGGCTTGGCTTCTTCCA
ATGAGACCTTTGATGGGCTGGACTGTCCAGCTGCAGGGAGGGTGGCCCTCAAATATATGACCCCTGTGATTCTGC
TGGTGTTTGCGCTGGCGCTGTATCTGCATGCTCAGCAGGTGGAGTCGACTGCCCGCCTAGACTTCCTCTGGAAAC
TACAGGCAACAGGGGAGAAGGAGGAGATGGAGGAGCTACAGGCATACAACCGGAGGCTGCTGCATAACATTCTGC
CCAAGGACGTGGCGGCCCACTTCCTGGCCCGGGAGCGCCGCAATGATGAACTCTACTATCAGTCGTGTGAGTGTG
TGGCTGTTATGTTTGCCTCCATTGCCAACTTCTCTGAGTTCTATGTGGAGCTGGAGGCAAACAATGAGGGTGTCG
AGTGCCTGCGGCTGCTCAACGAGATCATCGCTGACTTTGATGAGATTATCAGCGAGGAGCGGTTCCGGCAGCTGG

FIGURE 2145B

AAAAGATCAAGACGATTGGTAGCACCTACATGGCTGCCTCAGGGCTGAACGCCAGCACCTACGATCAGGTGGGCC
GCTCCCACATCACTGCCCTGGCTGACTACGCCATGCGGCTCATGGAGCAGATGAAGCACATCAATGAGCACTCCT
TCAACAATTTCCAGATGAAGATTGGTGTCATCGGGGCTCGGAAGCCACAGTATGACATCTGGGGGAACACAGTGA
ATGTCTCTAGTCGTATGGACAGCACGGGGGTCCCCGACCGAATCCAGGTGACCACGGACCTGTACCAGGTTCTAG
CTGCCAAGGGCTACCAGCTGGAGTGTCGAGGGGTGGTCAAGGTGAAGGGCAAGGGGGAGATGACCACCTACTTCC
TCAATGGGGGCCCCAGCAGTTAACAGGGCCCAGCCACAAATTCAGCTGAAGGGACCAAGGTGGGCATTGAGTGGA
CTCTGTGCTCACTGGGTGGAGCTGTGGCAGGGGGCACTGAGCCTCCAGACCCTGCTAACCACAAAAGGGAACATC
CCAGCAGGCTGTGCTTGGATCATGCTCGTCTGCCCTCAAGCTGGAAAACAAGGGGCTACCTACCGAGAGGATTAT
GCAAGTGACTTTCTTTCTTACTTGGGGTAGGGCTGTTCCCTCTCCAATCTTCCAGCCTTTGGGAGCAGGGGAGGG
GTCAGTAGCAGAAGCAGAGGGAGGCCTCTTGCCTGAGGGATTAAAATGGCAGCTTGCCATGCCTACCCTTCCCTG
TCTGTCTGGGCAGCAGGTTCAGGGCTGAGCCCTTCTTTTCCCTCTTTTTTCCTGGGAATATTTTGTACAATATTT
TGTACAAAGACAGGCATGAGGAGTGCCTATTCCATGCTTGCCTTTGCAATACCTGCATCCCCAGCACTGGTCCTG
GGCACTTCCCCACCCCAGCCAGGTGTCCCTCCTATGCACAGAGCAGAGGAGGGAGAAGCTCTGGGGAGCCAGCTT
TGGCCATATTTCAGGAGAATGTTTCCATGTGCCAAATCTTAGTCCCATGATCTGTCCCCAAAGGGGAACAAAGGG
ACCTCTGACAGCTTAGATTTAGCCCCAGTTCCTGCACGCTCCAGGGAACGGGGTGTCTGGCCTCACTGGTACTGT
GAAAAATGCTCAGAGAGCAAGCCTGTGTGTGGGGATGTCAGGTCAGGAGCTGGAAGTTCACCTGCAGGTGCCAAA
GAGCAGGCCGGCCAGGGCTGGGGCAGTGCCAGACTCTGATCTGAGGACCCCGTCGGGGTCCAGATCAGGTCACTC
TGCCCCAGTGCTCTCTTGCTGTCTGCTGACAAGGGGGCATGGAGCATCTCTTCCTCTTCTGTTGCCAAATAGAAA
AGGGTCAGGGCATGGAGAAAGGTGACCCTGATCCCAAACCTGCCCTCCCAAGTCTCTGGTGTTGGGGAGGGCCCG
TGTGTTTGTGTAACTGTGTGTGCATGTTGGTCTTTGTGTGCATATCTGTTTTCCAGGTCTATGTGAGTCCTTGTG
CTCCTGCTCCTCAGCTCTCCACCCCAGGTTGCCTCTCTCCTGTGGGCCTCTGTCTTCTGGGAATAAAGCAGGGTT
TCCTACTTCAGGGGATGTAGAGAGATGCCCAGGTTGCACAGGAGTGGGATGGGGTGTGGTAGCAAAAGGAGGGAG
AGGAGTCCTTTTTGTGCCAAATCCCTAAGTGCCGTTCGGGGGCCATGTGTGCAGCATGACTCTCCCTGTCTGTGG
CAGGGACCCAAGCGCTTGCTTAAGCCCCAGTGCTCCATGCCAGCACTTGAACTGTCTGGGGTTTGATGGACAGAG
GCTGAGGAATTTCCTGGCTTCCCCAGATAGTGTCCTGGGACATGGTATGCTTTGGGGCTGGGGTAGCATGGAATC
CCTCTGAGGACCTGGATACTGGTACTACGGGGTGGGGAAGAGGAACCTTAAACTTGGCTTTCCCCAGCCTTCAGC
CTGAGTCTAGCATGTTTCTAGCTCCCCAGTCCCTTGTGAAGCCTTGAGGGCTGGCAGAAGGGTTAGGAGGTTGAA
CTCTAGATTCCCTTCCTGTCTTTGCCTTCCTTTTACCCCTTTCCCTGCAACCTCCTTGACTCTGGCCTGAATTTG
TTGGTGCCTCAGTTTCTCTGTCTGTACCTATTTAAGCCAAAGGCACTAGCCTGAATTTTGCTTGAAGATCACTTT
GTCTTGGAAATGACTAGAGAGGCAGAGGAGAAGGGTTTCCAGAGTTGCTAGGTTTGGGAGTGGAAGGGGCAGGCA
GTGCACTTGCCCCTCCTCATGCCCCTTCTGACACCAGCTCCCTGTGGAGGCCTGGTTTCTGGGTAATGCCTCCCT
TGGGCATCTTCATGCATCAACCAAATGGGCCATCAGGTACTTCATTAGTCATGGCAGAAGGAGGGGAAAAGACTT
GTTTTCCAGACAGAAAATCTACTCCCCTGTCCCCAGCCATATCCCTGGATAGGAAGGGATAGGAAGAGACTACTT
GGTGCCATGGGGTAGGGGTGAGGGTATAAGTAGATCAGAGTGGGAAGACCTCAGCCTTGGGTGGCTTGTCTCTGC
TTCTTGCCAGGTGGGAGGGCCTGTCCACACCCTGGATCCCCGTACCACAGTGCCAGCCATGCCCTTCCCCTGGGC
TACCATTGTCCCTTTCCTCACCCAGTTGGTAGAGGAGTCAGGAGGTGGGAGGCCGTGGGCTTTGGTTTTATAATG
TAACCACTGTGGGGGTGGGGGAGGATGGTGAACCATGTATTTCAGTGAAATATTTAATATATTTAAATATCAATA
AAATCAAACTCTTTGT

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FIGURE 2146

ATGTATGACGACTCCTACGTGCCCGGGTTTGAGGACTCGGAGGCGGGTTCAGCCGACTCCTACACCAGCCGCCCA
TCTCTGGACTCAGACGTCTCCCTGGAGGAGGACCGGGAGAGTGCCCGGCGTGAAGTAGAGAGCCAGGCTCAGCAG
CAGCTCGAAAGGGCCAAGCACAAACCTGTGGCATTTGCGGTGAGGACCAATGTCAGCTACTGTGGCGTACTGGAT
GAGGAGTGCCCAGTCCAGGGCTCTGGAGTCAACTTTGAGGCCAAAGATTTTCTGCACATTAAAGAGAAGTACAGC
AATGACTGGTGGATCGGGCGGCTAGTGAAAGAGGGCGGGGACATCGCCTTCATCCCCAGCCCCCAGCGCCTGGAG
AGCATCCGGCTCAAACAGGAGCAGAAGGCCAGGAGATCTGGGAACCCTTCCAGCCTGAGTGACATTGGCAACCGA
CGCTCCCCTCCGCCATCTCTAGCCAAGCAGAAGCAAAAGCAGGCGGAACATGTTCCCCCATATGACGTGGTGCCC
TCCATGCGGCCTGTGGTGCTGGTGGGACCCTCTCTGAAAGGTTATGAGGTCACAGACATGATGCAGAAGGCTCTC
TTCGACTTCCTCAAACACAGATTTGATGGCAGGATCTCCATCACCCGAGTCACAGCCGACCTCTCCCTGGCAAAG
CGATCTGTGCTCAACAATCCGGGCAAGAGGACCATCATTGAGCGCTCCTCTGCCCGCTCCAGCATTGCGGAAGTG
CAGAGTGAGATCGAGCGCATATTTGAGCTGGCCAAATCCCTGCAGCTAGTAGTGTTGGACGCTGACACCATCAAC
CACCCAGCACAGCTGGCCAAGACCTCGCTGGCCCCCATCATCGTCTTTGTCAAAGTGTCCTCACCAAAGGTACTC
CAGCGTCTCATTCGCTCCCGGGGGAAGTCACAGATGAAGCACCTGACCGTACAGATGATGGCATATGATAAGCTG
GTTCAGTGCCCACCGGAGTCATTTGATGTGATTCTGGATGAGAACCAGCTGGAGGATGCCTGTGAGCACCTGGCT
GAGTACCTGGAGGTTTACTGGCGGGCCACGCACCACCCAGCCCCTGGCCCCGGACTTCTGGGTCCTCCCAGTGCC
ATCCCCGGACTTCAGAACCAGCAGCTGCTGGGGGAGCGTGGCGAGGAGCACTCCCCCCTTGAGCGGGACAGCTTG
ATGCCCTCTGATGAGGCCAGCGAGAGCTCCCGCCAAGCCTGGACAGGATCTTCACAGCGTAGCTCCCGCCACCTG
GAGGAGGACTATGCAGATGCCTACCAGGACCTGTACCAGCCTCACCGCCAACACACCTCGGGGCTGCCTAGTGCT
AACGGGCATGACCCCCAAGACCGGCTTCTAGCCCAGGACTCAGAACACAACCACAGTGACCGGAACTGGCAGCGC
AACCGGCCTTGGCCCAAGGATAGCTAC**TGA**

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FIGURE 2147

CGACGTTGAGGCCGCGTTGGGCGGTTCAGACTCAGGGTG**ATG**GCAGGAGAGCTGGCTGACAAAAAGGACCGTGAT
GCATCACCTTCCAAGGAGGAAAGGAAGCGATCACGGACTCCTGACAGAGAGCGGGATAGAGACCGGGACCGGAAG
TCTTCCCCATCTAAAGATAGAAAGCGGCATCGTTCAAGGGATAGACGTCGAGGAGGCAGCCGTTCTCGCTCTCGT
TCCCGTTCCAAATCTGCAGAAAGAGAACGACGGCACAAAGAACGAGAACGAGATAAGGAGCGGGATCGGAATAAG
AAGGACCGAGATCGAGACAAGGATGGGCACAGACGGGACAAGGACCGTAAACGATCCAGCTTATCTCCTGGTCGA
GGAAAAGACTTTAAATCTCGGAAGGACAGAGACTCTAAGAAGGATGAAGAGGATGAACATGGTGATAAGAAGCCT
AAGGCCCAGCCATTATCCCTGGAGGAGCTTCTGGCCAAGAAAAAGGCTGAGGAAGAAGCTGAGGCTAAGCCCAAG
TTCCTCTCTAAAGCAGAACGAGAGGCTGAAGCTCTAAAGCGACGGCAGCAGGAGGTGGAAGAGCGGCAGAGGATG
CTTGAAGAAGAGAGGAAGAAAAGGAAACAGTTCCAAGACTTGGGCAGGAAGATGTTGGAAGATCCTCAGGAACGG
GAACGTCGGGAACGCAGGGAGAGGATGGAACGGGAGACCAATGGAAATGAGGATGAGGAAGGGCGGCAGAAGATC
CGGGAAGAGAAGGATAAGAGCAAGGAACTGCATGCCATTAAGGAGCGTTACCTGGGTGGCATCAAAAAGCGGCGC
CGAACGAGACATCTCAATGACCGGAAATTTGTTTTTGAGTGGGATGCATCTGAGGACACATCCATTGACTACAAC
CCCCTGTACAAAGAACGGCACCAGGTGCAGTTGTTAGGGCGAGGCTTCATTGCAGGCATTGACCTCAAGCAGCAG
AAGCGAGAGCAGTCACGTTTCTATGGAGACCTAATGGAGAAGAGGCGAACCCTGGAAGAAAAGGAGCAGGAGGAG
GCAAGACTCCGCAAACTTCGTAAGAAGGAAGCCAAGCAGCGCTGGGATGATCGTCATTGGTCTCAGAAAAAGTTA
GATGAGATGACGGACAGGGACTGGCGGATCTTCCGTGAGGACTACAGCATCACCACCAAAGGTGGCAAGATCCCC
AATCCCATCCGATCCTGGAAAGACTCTTCTCTGCCCCCACACATCTTGGAGGTCATTGATAAGTGTGGCTACAAG
GAACCAACACCTATCCAGCGTCAGGCAATTCCCATTGGGCTACAGAATCGTGACATCATTGGTGTGGCTGAGACT
GGCAGTGGCAAGACAGCAGCCTTCCTCATCCCTCTGCTGGTCTGGATCACCACACTTCCCAAAATTGACAGGATC
GAAGAGTCAGACCAAGGCCCTTATGCCATCATCCTGGCTCCCACCCGTGAGTTGGCTCAACAGATTGAGGAAGAG
ACCATCAAGTTTGGGAAACCGCTAGGTATCCGCACTGTGGCTGTCATTGGTGGCATCTCCAGAGAAGACCAGGGC
TTCAGGCTGCGCATGGGTTGTGAGATTGTGATTGCTACCCCTGGGCGTTTGATTGATGTGCTGGAGAACCGCTAC
CTGGTGCTGAGCCGCTGTACCTATGTGGTTCTGGATGAGGCAGATAGGATGATTGACATGGGCTTTGAGCCAGAT
GTCCAGAAGATCCTGGAGCACATGCCTGTCAGCAACCAGAAGCCAGACACGGATGAGGCTGAGGACCCTGAGAAG
ATGCTGGCCAACTTTGAGTCGGGAAAACATAAGTACCGCCAAACAGTCATGTTCACGGCCACCATGCCCCCAGCG
GTGGAGCGTCTGGCCAGGAGCTATCTTCGGCGACCTGCTGTGGTGTACATTGGCTCCGCAGGCAAGCCCCATGAG
CGTGTGGAACAGAAGGTCTTCCTCATGTCAGAGTCAGAAAAGAGGAAAAAGCTGCTGGCAATCTTGGAGCAAGGC
TTTGACCCACCCATCATTATTTTTGTCAACCAGAAGAAGGGCTGCGACGTGTTGGCCAAATCCCTGGAGAAGATG
GGGTACAATGCTTGCACACTGCACGGTGGAAAAGGCCAGGAGCAGCGAGAGTTTGCGTTGTCCAACCTCAAGGCT
GGGGCCAAGGATATTTTGGTGGCTACAGATGTGGCTGGTCGTGGTATTGACATCCAAGATGTGTCTATGGTTGTC
AACTATGATATGGCCAAAAATATTGAAGATTACATCCACCGCATTGGCCGCACGGGACGAGCAGGCAAGAGTGGG
GTGGCCATCACCTTCCTCACAAAAGAGGACTCTGCTGTGTTCTACGAGCTGAAGCAAGCTATCCTGGAAAGCCCA
GTGTCTTCCTGTCCCCCCGAACTAGCCAACCACCCAGATGCCCAGCATAAGCCAGGCACCATCCTCACCAAGAAG
CGCCGGGAAGAGACCATCTTTGCC**TGA**CACAGCACTCTTCCTGTGGGCTGAGGGCATCTCCAAAGCTGCCTGATG
CCTGTTTTTCAGAACCCTCACATCCCTCTTTCCAGGTCCTCACTCTTGGGATATGGGGGCTTAGGAAAACAATCC
AACTCCCTAGCCCAGACCCTCAGGTCAGGAGGCCTGCGTGTGGGGCTGCAAAAGGAGAGGACGACGCTGTCGGAG
GCAGGGAGAGCAAATTACCACAGCTTCTTGGCCCAGTTCTGCCCTTCTTTGCTTTGGGATTGCACTGGGCCATCA
GCTCATGCCAGGCTATGGGGGCAGCCAGTTGGCATTGCTCCCCAGACTGAACAGAAACCTGGCCGCCGGATGGGA
CCTCCTTTGGCACAGACTTGACTGTGTAACTGCATAAACTGCAGTAGCATCATTGCCCTAGATGCCCCAGGAGAC
CTGGCACCATGAGGATTACAGACAGTGGAATCTTACTGTCATCTGGACAGCTGTTTTCCTGTTTGGATGGTAAAG
GAAGTTGAGAGTCTTTAGACCTGTGCACAGCCCCACACCAAGGGGTGCTGTATGCTCCTAGGCATCCCCTCCCCC
AGGGGATTTTCTAAGTAGATGGGGGGACACGGTGAACTGGCTGTGTCCATCTTTGTCACTGAGTGAAATCTCTGT
TTTCTATTCTCTGAGAAGATAAGTTTGTATGTTCTGAGAATAAATACATGAATATTAAGACTGTT

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FIGURE 2148

ATGAAGGAGAGACGGGCCCCCCAGCCAGTCGTGGCCAGATGTAAGCTCGTTCTGGTCGGGGACGTGCAGTGTGGG
AAGACCGCGATGTTGCAAGTGTTAGCGAAGGATTGCTATCCAGAGACCTATGTGCCCACCGTGTTCGAAAATTAC
ACAGCCTGTTTGGAGACAGAGGAACAGAGGGTGGAGCTTAGTCTCTGGGATACCTCAGGATCTCCCTACTACGAT
AATGTCCGTCCACTCTGCTACAGCGACTCGGATGCAGTATTACTATGTTTTGACATCAGCCGTCCAGAGACAGTG
GACAGCGCACTCAAGAAGTGGAGGACAGAAATCCTAGATTATTGTCCCAGCACCCGCGTTTTGCTCATTGGCTGC
AAGACAGACCTGCGAACAGACCTGAGTACTCTGATGGAGCTGTCCCACCAGAAGCAGGCGCCCATCTCCTATGAG
CAGGGTTGTGCAATAGCAAAGCAGCTGGGTGCAGAAATCTACCTGGAAGGCTCAGCTTTCACCTCAGAAAAGAGC
ATCCACAGCATCTTTCGGACGGCATCCATGCTGTGTCTGAACAAGCCTAGCCCACTGCCCCAGAAGAGCCCTGTC
CGAAGCCTCTCCAAACGACTGCTCCACCTCCCCAGTCGCTCTGAACTCATCTCTTCTACCTTCAAGAAGGAAAAG
GCCAAAAGCTGTTCCATTATG**TGA**

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FIGURE 2149A

ATGGACAGCCAGAAGCTGGCTGGTGAGGATAAAGATTCAGAACCGGCAGCTGATGGACCTGCAGCTTCTGAGGAC
CCAAGTGCCACTGAGTCAGACCTGCCCAACCCACATGTGGGAGAGGTCTCTGTCCTTAGTTCTGGGAGTCCCAGG
CTTCAGGAGACTCCTCAGGACTGCAGTGGGGGTCCGGTGCGGCGTTGTGCTCTCTGTAACTGCGGGGAGCCCAGT
CTACACGGGCAGCGGGAGCTACGGCGCTTTGAGTTGCCATTTGATTGGCCCCGGTGTCCAGTGGTGTCCCCTGGG
GGGAGCCCAGGGCCCAATGAGGCAGTGCTGCCCAGTGAGGACCTATCACAGATTGGTTTCCCTGAGGGCCTTACA
CCTGCCCACCTAGGAGAACCTGGAGGGTCCTGCTGGGCTCACCATTGGTGTGCTGCATGGTCGGCAGGCGTATGG
GGGCAGGAGGGCCCAGAACTATGTGGTGTGGACAAGGCCATCTTCTCAGGGATCTCACAGCGCTGCTCCCACTGC
ACCAGGCTCGGTGCCTCCATCCCTTGCCGCTCACCTGGATGTCCACGGCTTTACCACTTCCCCTGCGCGACTGCC
AGCGGTTCCTTCCTATCCATGAAAACACTGCAGCTGCTATGCCCAGAGCACAGTGAGGGGGCTGCATATCTGGAG
GAGGCTCGCTGTGCAGTGTGTGAGGGGCCAGGGGAGTTGTGTGACCTGTTCTTCTGTACCAGCTGTGGGCATCAC
TATCACGGGGCCTGCCTGGACACTGCTCTGACTGCCCGCAAACGTGCTGGCTGGCAGTGCCCTGAATGCAAAGTG
TGCCAAGCCTGCAGGAAACCTGGGAATGACTCTAAGATGTTGGTTTGTGAGACGTGTGACAAAGGATACCATACT
TTCTGCCTAAAACCACCCATGGAGGAACTGCCTGCTCACTCTTGGAAGTGCAAGGCGTGCCGGGTGTGCCGGGCC
TGTGGGGCGGGCTCAGCAGAACTGAATCCCAACTCGGAGTGGTTTGAGAACTACTCTCTCTGTCACCGCTGTCAC
AAAGCCCAGGGAGGTCAGACTATCCGCTCCGTTGCTGAGCAGCATACCCCGGTGTGTAGCAGATTTTCACCCCCA
GAGCCTGGCGATACCCCCACTGACGAGCCCGATGCTCTGTACGTTGCATGCCAAGGGCAGCCAAAGGGTGGGCAC
GTGACCTCTATGCAACCCAAGGAACCAGGGCCCCTGCAATGTGAAGCCAAACCACTAGGGAAAGCAGGGGTCCAA
CTTGAGCCCCAGTTGGAGGCCCCCCTAAACGAGGAGATGCCACTGCTGCCCCCACCTGAGGAGTCACCCCTGTCC
CCACCACCTGAGGAATCACCCACGTCCCCACCACCTGAGGCATCACGCCTGTCACCACCACCTGAGGAATTGCCC
GCATCCCCACTTCCTGAGGCATTGCACCTGTCCCGGCCGCTGGAGGAATCGCCCCTCTCTCCGCCGCCTGAGGAG
TCTCCTCTGTCTCCCCCACCTGAATCATCACCTTTTTCTCCACTGGAGGAGTCGCCCTTGTCTCCACCGGAAGAG
TCACCCCCATCTCCTGCACTTGAGACGCCTCTATCCCCACCACCTGAAGCATCGCCCCTGTCCCCACCATTTGAA
GAATCTCCTTTGTCCCCGCCACCTGAGGAATTGCCCACTTCCCCGCCACCTGAAGCATCTCGCCTGTCTCCACCA
CCTGAGGAGTCACCCATGTCCCCTCCACCTGAAGAGTCACCCATGTCTCCACCACCGGAGGCATCTCGTCTGTTC
CCACCATTTGAAGAGTCTCCTCTGTCCCCTCCACCTGAGGAGTCTCCCCTTTCCCCACCACCTGAGGCATCACGC
CTGTCCCCACCACCTGAGGACTCGCCTATGTCCCCACCACCTGAAGAATCACCTATGTCCCCCCCACCTGAGGTA
TCGCGCCTATCCCCCCTGCCTGTGGTGTCACGCCTGTCTCCACCGCCTGAGGAATCTCCCTTGTCCCCACCGGCC
CTGTCTCCTTTGGGGGAGTTAGAGTACCCCTTTGGTGCCAAAGGGGACAGTGACCCTGAGTCACCGTTGGCTGCC
CCCATCCTGGAGACACCCATCAGCCCTCCACCAGAAGCTAACTGCACTGACCCTGAGCCTGTCCCCCCTATGATC
CTTCCCCCATCTCCAGGCTCCCCAGTGGGGCCGGCTTCTCCCATCCTGATGGAGCCCCTTCCTCCTCAGTGTTCG
CCACTCCTTCAGCATTCCCTGGTTCCCCAAAACTCCCCTCCTTCCCAGTGCTCTCCTCCTGCCCTACCACTGTCC
GTTCCCTCCCCGTTGAGTCCCATAGGGAAGGTAGTGGGGGTCTCAGATGAGGCTGAGCTGCACGAGATGGAGACT
GAGAAAGTTTCAGAACCTGAATGCCCAGCCTTGGAACCCAGTGCCACCAGTCCTCTCCCTTCCCCAATGGGGGAC
CTTTCCTGCCCCGCCCCCAGCCCTGCCCCAGCCCTGGATGACTTCTCTGGCCTAGGGGAAGACACAGCCCCTCTG
GATGGGATTGATGCTCCGGGTTCACAGCCAGAGCCTGGACAGACCCCTGGCAGTTTGGCTAGTGAACTTAAAGGC
TCCCCTGTGCTCCTGGACCCCGAGGAGCTGGCCCCTGTGACCCCTATGGAGGTCTACCCCGAATGCAAGCAGACA
GCAGGGCAGGGCTCACCATGTGAAGAACAGGAAGAGCCACGTGCACCGGTGGCCCCCACACCACCCACTCTCATC
AAATCCGACATCGTTAACGAGATCTCTAATCTGAGCCAGGGTGATGCCAGTGCCAGTTTTCCTGGCTCAGAGCCC
CTCCTGGGCTCTCCAGACCCGGAGGGGGGTGGCTCCCTGTCCATGGAGTTGGGGGTCTCTACGGATGTTAGTCCA
GCCCGAGATGAGGGCTCCCTACGGCTCTGTACTGACTCACTGCCAGAGACTGATGACTCACTATTGTGCGATGCT
GGGACAGCTATCAGCGGAGGCAAAGCTGAGGGGGAGAAGGGGCGGCGGCGCAGCTCCCCAGCCCGTTCCCGCATC
AAACAGGGTCGCAGCAGCAGTTTCCCAGGAAGACGCCGGCCTCGTGGAGGAGCCCATGGAGGACGTGGTAGAGGA
CGGGCCCGGCTAAAGTCAACTGCTTCTTCCATTGAGACTCTGGTAGTTGCTGACATTGATAGCTCTCCCAGTAAG
GAGGAGGAGGAAGAAGATGATGACACCATGCAGAATACCGTGGTTCTCTTCTCCAACACAGACAAATTTGTCCTA
ATGCAGGACATGTGTGTGGTATGTGGCAGCTTTGGCCGGGGGGCAGAGGGCCACCTCCTTGCCTGTTCGCAGTGC
TCTCAGTGCTATCACCCTTACTGTGTCAACAGCAAGATCACCAAGGTGATGCTGCTCAAGGGCTGGCGTTGTGTG
GAGTGTATTGTGTGTGAGGTGTGTGGCCAGGCCTCCGACCCCTCACGCCTGCTGCTCTGTGATGACTGTGATATT
AGCTACCACACATACTGCCTGGACCCCCCACTGCTCACCGTCCCCAAGGGCGGCTGGAAGTGCAAGTGGTGTGTG

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FIGURE 2149B

TCCTGTATGCAGTGTGGGGCTGCTTCCCCTGGCTTCCACTGTGAATGGCAGAATAGTTACACACACTGTGGGCCC
TGTGCCAGCCTGGTGACCTGCCCTATCTGTCATGCTCCTTACGTAGAAGAGGACCTACTAATCCAGTGCCGCCAC
TGTGAACGGTGGATGCATGCAGGCTGTGAGAGCCTCTTCACAGAGGACGATGTGGAGCAGGCAGCCGATGAAGGC
TTTGACTGTGTCTCCTGCCAGCCCTACGTGGTAAAGCCTGTGGCGCCTGTTGCACCTCCAGAGCTGGTGCCCATG
AAGGTGAAAGAGCCAGAGCCCCAGTACTTTCGCTTCGAAGGTGTGTGGCTGACAGAAACTGGCATGGCCTTGCTG
CGTAACCTGACCATGTCACCACTGCACAAGCGGCGCCAACGGCGAGGACGGCTTGGCCTCCCAGGCGAGGCAGGA
TTGGAGGGTTCTGAGCCCTCAGATGCCCTTGGCCCTGATGACAAGAAGGATGGGGACCTGGACACCGATGAGCTG
CTCAAGGGTGAAGGTGGTGTGGAGCACATGGAGTGCGAAATTAAACTGGAGGGCCCCGTCAGCCCTGATGTGGAG
CCTGGCAAAGAGGAGACCGAGGAAAGCAAAAAACGCAAGCGTAAACCATATCGGCCTGGCATTGGTGGTTTCATG
GTGCGACAGCGGAAATCCCACACACGCACGAAAAAGGGGCCTGCTGCACAGGCGGAGGTGTTGAGTGGGGATGGG
CAGCCCGACGAGGTGATACCTGCTGACCTGCCTGCAGAGGGCGCCGTGGAGCAGAGCTTAGCTGAAGGGGATGAG
AAGAAGAAGCAACAGCGGCGAGGGCGCAAGAAGAGCAAACTGGAGGACATGTTCCCTGCTTACTTGCAGGAAGCC
TTCTTTGGGAAGGAGCTGCTGGACCTGAGCCGTAAGGCCCTTTTTGCAGTTGGGGTGGGCCGGCCAAGCTTTGGA
CTAGGGACCCCAAAAGCCAAGGGAGATGGAGGCTCAGAAAGGAAGGAACTCCCCACATCGCAGAAAGGAGATGAT
GGTCCAGATATTGCAGATGAAGAATCCCGTGGCCTCGAGGGCAAAGCCGATACACCAGGACCTGAGGATGGGGGC
GTGAAGGCATCCCCAGTGCCCAGTGACCCTGAGAAGCCAGGCACCCCAGGTGAAGGGATGCTTAGCTCTGACTTA
GACAGGATTTCCACAGAAGAACTGCCCAAGATGGAATCCAAGGACCTGCAGCAGCTCTTCAAGGATGTTCTGGGC
TCTGAACGAGAACAGCATCTGGGTTGTGGAACCCCTGGCCTAGAAGGCAGCCGTACGCCACTGCAGAGGCCCTTT
CTTCAAGGTGGACTCCCTTTGGGCAATCTGCCCTCCAGCAGCCCAATGGACTCCTACCCAGGCCTCTGCCAGTCC
CCGTTCCTGGATTCTAGGGAGCGCGGGGGCTTCTTTAGCCCGGAACCCGGTGAGCCCGACAGCCCCTGGACGGGC
TCAGGTGGCACCACGCCCTCCACCCCCACAACCCCCACCACGGAGGGTGAGGGCGACGGACTCTCCTATAACCAG
CGGAGTCTTCAGCGCTGGGAGAAGGATGAGGAGTTGGGCCAGCTGTCCACCATCTCACCTGTGCTCTATGCCAAC
ATTAATTTTCCTAATCTCAAGCAAGACTACCCAGACTGGTCAAGCCGTTGCAAACAAATCATGAAGCTCTGGAGA
AAGGTTCCAGCAGCTGACAAAGCCCCCTACCTGCAAAAGGCCAAAGATAACCGGGCAGCTCACCGCATCAACAAG
GTGCAGAAGCAGGCTGAGAGCCAGATCAACAAGCAGACCAAGGTGGGCGACATAGCCCGTAAGACTGACCGACCG
GCCCTACATCTCCGCATTCCCCCGCAGCCAGGGGCACTGGGCAGCCCGCCCCCCGCTGCTGCCCCCACCATTTTC
ATTGGCAGCCCCACTACCCCCGCCGGCTTGTCTACCTCTGCGGACGGGTTCCTGAAGCCGCCGGCGGGCTCGGTG
CCTGGCCCTGACTCGCCTGGTGAGCTCTTCCTCAAGCTCCCACCCCAGGTGCCCGCCCAAGTGCCTTCGCAGGAC
CCCTTTGGACTGGCCCCTGCCTATCCCCTGGAGCCCCGCTTCCCCACGGCACCGCCCACCTATCCCCCCTATCCT
AGTCCTACGGGGGCCCCTGCGCAGCCCCCGATGCTGGGCGCCTCATCTCGTCCTGGGGCTGGCCAGCCAGGGGAA
TTCCACACTACCCCACCTGGCACCCCCAGACACCAGCCCTCCACACCTGACCCATTCCTCAAACCCCGCTGCCCC
TCGCTGGATAACTTGGCTGTGCCTGAGAGCCCTGGGGTAGGGGGAGGCAAAGCTTCCGAGCCCCTGCTCTCGCCC
CCACCTTTTGGGGAGTCCCGGAAGGCCCTAGAGGTGAAGAAGGAAGAGCTTGGGGCATCCTCTCCTAGCTATGGG
CCCCCAAACCTGGGCTTTGTTGACTCACCCTCCTCAGGCACCCACCTGGGTGGCCTGGAGTTAAAGACACCTGAT
GTCTTCAAAGCCCCCCTGACCCCTCGGGCATCTCAGGTAGAGCCCCAGAGCCCGGGCTTGGGCCTAAGGCCCCAG
GAGCCACCCCCTGCCCAGGCTTTGGCACCTTCTCCTCCAAGTCACCCAGACATCTTTCGCCCTGGCTCCTACACT
GACCCATATGCTCAGCCCCCATTGACTCCTCGGCCCCAACCTCCGCCCCCTGAGAGCTGCTGTGCTCTGCCCCCT
CGCTCACTGCCCTCCGACCCTTTCTCCCGAGTGCCTGCCAGTCCTCAGTCCCAGTCCAGCTCCCAGTCTCCACTG
ACACCCCGGCCTCTGTCTGCTGAAGCTTTTTGCCCATCACCCGTTACCCCTCGCTTCCAGTCCCCTGACCCTTAT
TCTCGCCCACCCTCACGCCCTCAGTCCCGTGACCCATTTGCCCCATTGCATAAGCCACCCCGACCCCAGCCCCCT
GAAGTTGCCTTTAAGGCTGGGTCTCTAGCCCACACTTCGCTGGGGGCTGGGGAGTTCCCAGCAGCCCTGCCCGCG
GGGCCAGCAGGTGAGCTCCATGCCAAGGTCCCAAGTGGGCAGCCCCCCAATTTTGTCCGGTCCCCTGGGACGGGT
GCATTTGTGGGCACCCCCTCTCCCATGCGTTTCACTTTCCCTCAGGCAGTAGGGGAGCCTTCCCTAAAGCCCCCT
GTCCCTCAGCCTGGTCTCCCGCCACCCCATGGGATCAACAGCCATTTTGGGCCCGGCCCCACCTTGGGCAAGCCT
CAAAGCACAAACTACACAGTAGCCACAGGGAACTTCCACCCATCGGGCAGCCCCCTGGGGCCCAGCAGCGGGTCC
ACAGGGGAGAGCTATGGGCTGTCCCCACTACGCCCTCCGTCGGTTCTGCCACCACCTGCACCCGACGGATCCCTC
CCCTACCTGTCCCATGGAGCCTCACAGCGATCAGGCATCACCTCTCCTGTCGAAAAGCGAGAAGACCCAGGGACT
GGAATGGGTAGCTCTTTGGCGACAGCTGAACTCCCAGGTACCCAGGACCCAGGCATGTCCGGCCTTAGCCAAACA

FIGURE 2149C

GAGCTGGAGAAGCAACGGCAGCGCCAGCGACTACGAGAGCTGCTGATTCGGCAGCAGATCCAGCGCAACACCCTG
CGGCAGGAGAAGGAAACAGCTGCAGCAGCTGCAGGAGCAGTGGGGCCTCCAGGCAGCTGGGGTGCTGAGCCCAGC
AGCCCTGCCTTTGAGCAGCTGAGTCGAGGCCAGACCCCCTTTGCTGGGACACAGGACAAGAGCAGCCTTGTGGGG
TTGCCCCCAAGCAAGCTGAGTGGCCCCATCCTGGGGCCAGGGTCCTTCCCTAGCGATGACCGACTCTCCCGGCCA
CCTCCACCAGCCACGCCTTCCTCTATGGATGTGAACAGCCGGCAACTGGTAGGAGGCTCCCAAGCTTTCTATCAG
CGAGCACCCTATCCTGGGTCCCTGCCCTTACAGCAGCAACAGCAACAACTGTGGCAGCAACAACAGGCAACAGCA
GCAACCTCCATGCGATTTGCCATGTCAGCTCGCTTTCCATCAACTCCTGGACCTGAACTTGGCCGCCAAGCCCTA
GGTTCCCCGTTGGCGGGAATTTCCACCCGTCTGCCAGGCCCTGGTGAGCCAGTGCCTGGTCCAGCTGGTCCTGCC
CAGTTCATTGAGCTGCGGCACAATGTACAGAAAGGACTGGGACCTGGGGGCACTCCGTTTCCTGGTCAGGGCCCA
CCTCAGAGACCCCGTTTTTACCCTGTAAGTGAGGACCCCCACCGACTGGCTCCTGAAGGGCTTCGGGGCCTGGCG
GTATCAGGTCTTCCCCCACAGAAACCCTCAGCCCCACCGGCCCCTGAATTGAACAACAGTCTTCATCCAACACCC
CACACCAAGGGTCCTACCCTGCCAACTGGTTTGGAGCTGGTCAACCGGCCCCCGTCGAGCACTGAGCTTGGCCGC
CCCAATCCTCTGGCCCTGGAAGCTGGGAAGTTGCCCTGTGAGGATCCCGAGCTGGATGACGATTTTGATGCCCAC
AAGGCCCTAGAGGATGATGAAGAGCTTGCTCACCTGGGTCTGGGTGTGGATGTGGCCAAGGGTGATGATGAACTT
GGCACCTTAGAAAACCTGGAGACCAATGACCCCCACTTGGATGACCTGCTCAATGGAGACGAGTTTGACCTGCTG
GCATATACTGATCCTGAGCTGGACACTGGGGACAAGAAGGATATCTTCAATGAGCACCTGAGGCTGGTAGAATCG
GCTAATGAGAAGGCTGAACGGGAGGCCCTGCTGCGGGGGGTGGAGCCAGGACCCTTGGGCCCTGAGGAGCGCCCT
CCCCCTGCTGCTGATGCCTCTGAACCCCGCCTGGCATCTGTGCTCCCTGAGGTGAAGCCCAAGGTGGAGGAGGGT
GGACGCCACCCTTCTCCTTGCCAATTCACCATTGCTACCCCCAAGGTAGAGCCCGCACCTGCTGCCAATTCCCTT
GGCCTGGGGCTAAAGCCAGGACAGAGCATGATGGGCAGCCGGGATACCCGGATGGGCACAGGGCCATTTTCTAGC
AGTGGGCACACAGCTGAGAAGGCCTCCTTTGGGGCCACGGGAGGACCACCAGCTCACCTGCTGACCCCCAGCCCA
CTGAGTGGCCCAGGAGGATCCTCCCTGCTGGAAAAGTTTGAGCTCGAGAGTGGGGCTTTGACCTTGCCTGGTGGA
CCTGCAGCATCTGGGGATGAGCTAGACAAGATGGAGAGCTCACTGGTAGCCAGCGAGTTACCCCTGCTCATTGAG
GACCTGTTGGAGCATGAGAAGAAGGAGCTGCAGAAGAAGCAGCAGCTTTCAGCACAGTTGCAGCCTGCCCAGCAG
CAGCAGCAACAGCAGCAGCAGCATTCCCTACTGTCTGCACCAGGCCCTGCCCAGGCCATGTCTTTGCCACATGAG
GGCTCTTCTCCCAGTTTGGCTGGGTCCCAACAGCAGCTTTCCCTGGGTCTTGCAGGTGCCCGACAGCCAGGTTTG
CCCCAGCCACTGATGCCCACCCAGCCACCAGCTCATGCCCTCCAGCAACGCCTGGCTCCATCCATGGCTATGGTG
TCCAATCAAGGGCATATGCTAAGTGGGCAGCATGGAGGGCAGGCAGGCTTGGTACCCCAGCAGAGCTCACAGCCA
GTGCTATCACAGAAGCCCATGGGCACCATGCCACCTTCCATGTGCATGAAGCCGCAGCAATTGGCAATGCAGCAG
CAGCTGGCAAACAGCTTCTTCCCAGATACAGACCTGGACAAATTTGCTGCAGAAGATATCATTGATCCCATTGCA
AAGGCCAAGATGGTGGCTTTGAAAGGCATCAAGAAAGTGATGGCTCAGGGCAGCATTGGGGTGGCACCTGGTATG
AACAGACAGCAAGTGTCTCTGCTAGCCCAGAGGCTCTCGGGGGGACCTAGCAGTGATCTGCAGAACCATGTGGCA
GCTGGGAGTGGCCAGGAGCGGAGTGCTGGTGATCCCTCCCAGCCTCGTCCCAACCCGCCCACTTTTGCTCAGGGA
GTGATCAATGAAGCTGACCAGCGGCAGTATGAGGAGTGGCTGTTCCATACCCAGCAGCTCCTACAGATGCAGCTG
AAGGTGCTAGAGGAGCAGATTGGTGTACACCGCAAGTCCCGGAAGGCTCTGTGTGCCAAGCAGCGCACTGCCAAA
AAAGCTGGCCGTGAGTTCCCAGAAGCTGATGCTGAGAAGCTCAAGCTGGTTACAGAGCAGCAGAGCAAGATCCAG
AAACAACTGGATCAGGTCCGGAAACAGCAGAAGGAGCACACTAATCTCATGGCAGAATATCGGAACAAGCAGCAG
CAACAACAGCAGCAGCAGCAGCAACAACAGCAACAGCACTCAGCTGTGCTGGCTCTCAGCCCTTCCCAGAGTCCC
CGGCTGCTCACCAAGCTCCCTGGTCAGCTGCTCCCTGGCCATGGGCTGCAGCCACCACAGGGGCCTCCGGGTGGG
CAAGCCGGAGGTCTTCGCCTGACCCCTGGGGGTATGGCACTACCTGGACAGCCTGGTGGCCCCTTCCTTAATACA
GCTCTGGCCCAACAGCAGCAACAGCAACATTCTGGTGGGGCTGGATCCCTGGCTGGCCCTTCAGGGGGCTTCTTC
CCTGGCAACCTTGCTCTTCGAAGCCTCGGACCTGATTCAAGGCTTTTACAGGAAAGGCAGCTGCAGCTGCAGCAG
CAACGTATGCAGCTGGCCCAGAAACTGCAGCAGCAGCAGCAGCAGCAACAGCAGCAGCAGCACCTTCTAGGACAG
GTGGCAATCCAGCAGCAACAGCAGCAGGGTCCTGGAGTACAGACAAACCAAGCTCTGGGTCCCAAGCCCCAGGGC
CTTATGCCTCCCAGCAGCCACCAAGGCCTCCTGGTCCAGCAGCTGTCCCCTCAACCACCCCAGGGGCCCCAGGGC
ATGCTGGGCCCTGCCCAGGTGGCTGTGTTGCAGCAGCAGCACCCTGGAGCTTTGGGCCCCCAGGGCCCTCACAGA
CAGGTGCTTATGACCCAGTCCCGGGTGCTCAGTTCCCCCCAGCTGGCACAGCAGGGTCAGGGCCTTATGGGACAC
AGGCTGGTCACAGCCCAGCAGCAGCAGCAACAACAGCACCAACAGCAAGGGTCCATGGCAGGGCTGTCCCAT

FIGURE 2149D

CTTCAGCAGAGTCTGATGTCACACAGTGGGCAGCCCAAACTGAGCGCTCAGCCCATGGGCTCTTTACAGCAGCTT
CAGCAGCAGCAGCAGCTGCAACAGCAACAGCAACTTCAGCAGCAGCAGCAGCAGCAGCTACAACAGCAACAGCAA
CTTCAGCAGCAACAGCTTCAACAGCAGCAACAGCAGCAGCAGCTTCAACAACAGCAGCAGCAACAGCTTCAACAG
CAGCAACAGCAGCTACAACAGCAACAGCAACAACAACAGCAGCAGTTTCAACAGCAGCAGCAACAGCAGCAGATG
GGCCTTTTAAACCAGAGTCGAACTTTACTGTCTCCTCAGCAACAACAGCAGCAGCAAGTGGCACTTGGCCCTGGC
ATGCCAGCAAAGCCTCTTCAACACTTTTCTAGCCCTGGAGCCCTGGGTCCAACCCTCCTCCTGACGGGCAAGGAA
CAAAACACCGTAGACCCAGCCGTTTCTTCAGAGGCCACTGAGGGGCCCTCTACACATCAGGGAGGGCCGTTAGCA
ATAGGAACTACCCCTGAGTCAATGGCCACTGAACCAGGAGAGGTAAAGCCCTCACTCTCTGGGGACTCACAACTC
CTGCTTGTCCAACCCCAGCCCCAGCCTCAGCCCAGCTCTCTGCAGCTGCAGCCACCTCTGAGGCTTCCAGGACAA
CAGCAGCAGCAAGTTAGCCTGCTCCACACAGCAGGTGGAGGAAGCCATGGGCAGCTAGGCAGTGGATCATCTTCT
GAGGCCTCATCTGTGCCCCACCTGCTGGCTCAGCCCTCTGTTTCCTTAGGGGATCAGCCTGGGTCCATGACCCAG
AACCTTCTGGGCCCCCAACAGCCCATGCTAGAGCGGCCCATGCAAAATAATACAGGGCCACAACCTCCCAAACCA
GGACCTGTCCTCCAGTCTGGGCAGGGTCTGCCTGGGGTTGGAATCATGCCTACGGTGGGTCAGCTTCGAGCACAG
CTCCAAGGAGTCCTGGCCAAAAACCCACAGCTGCGGCACTTAAGTCCTCAGCAGCAGCAGCAGCTACAGGCACTC
CTCATGCAGCGGCAGCTGCAGCAGAGTCAGGCAGTACGCCAGACCCCACCCTACCAGGAGCCTGGGACCCAGACC
TCTCCCCTCCAGGGCCTCCTGGGCTGCCAACCTCAACTTGGGGGCTTCCCTGGACCACAGACAGGCCCCCTCCAG
GAGCTAGGGGCAGGGCCTCGACCTCAGGGCCCACCCCGGCTCCCTGCCCCACCAGGAGCCTTATCTACAGGACCA
GTCCTTGGCCCTGTCCATCCCACACCTCCACCATCCAGCCCTCAAGAGCCAAAGAGACCTTCACAATTACCTTCC
CCCAGCTCCCAGCTTCCCACTGAGGCCCAGCTCCCTCCCACCCATCCAGGGACCCCCAAACCTCAGGGGCCAACC
TTGGAGCCGCCTCCTGGGAGGGTCTCACCTGCTGCTGCCCAGCTTGCAGATACCTTGTTTAGCAAGGGTCTGGGA
CCTTGGGATCCCCCAGACAACCTAGCAGAAACCCAGAAGCCAGAGCAGAGCAGCCTGGTACCTGGGCATCTGGAC
CAGGTGAATGGACAGGTGGTGCCTGAGGCATCCCAACTCAGCATCAAGCAGGAACCTCGGGAAGAGCCATGTGCC
CTGGGAGCCCAGTCAGTGAAGAGGGAGGCCAATGGGGAGCCAATAGGGGCACCAGGAACCAGCAACCACCTCCTG
CTGGCAGGCCCTCGCTCAGAAGCTGGGCATCTGCTCTTGCAGAAGCTACTCCGGGCAAAGAATGTGCAACTCAGC
ACTGGGCGGGGGTCCGAGGGGCTGCGAGCTGAGATCAACGGGCACATTGACAGCAAGCTGGCTGGGCTGGAGCAG
AAACTACAGGGTACCCCCAGCAACAAGGAGGATGCAGCAGCAAGGAAGCCTTTGACACCGAAGCCCAAGCGGGTA
CAGAAGGCAAGCGACAGGTTGGTGAGCTCCCGAAAGAAGCTGCGGAAGGAGGACGGGGTCAGGGCCAGCGAGGCC
TTGCTGAAACAGCTGAAACAGGAGCTGTCCCTGCTGCCCCTAACGGAGCCTGCTATCACCGCCAATTTTAGCCTC
TTTGCCCCCTTTGGCAGTGGCTGCCCAGTCAATGGGCAGAGCCAGCTGAGGGGGGCCTTTGGAAGTGGGGCGCTG
CCCACTGGCCCTGACTACTATTCCCAGCTGCTTACCAAGAATAACCTGAGTAACCCGCCGACACCACCCTCGTCG
CTGCCCCCCACCCCACCCCCATCGGTGCAGCAGAAGATGGTGAATGGCGTCACCCCATCTGAAGAGCTGGGGGAG
CACCCCAAGGATGCTGCCTCTGCCCGGGATAGTGAAAGGGCACTGAGGGATACTTCAGAGGTGAAGAGTCTAGAC
CTGCTGGCTGCCTTGCCTACACCCCCTCACAATCAGACTGAGGATGTCAGGATGGAGAGTGATGAGGATAGCGAT
TCTCCTGACAGCATTGTGCCAGCTTCATCCCCTGAGAGCATCTTGGGGGAGGAGGCCCCTCGTTTCCCTCATCTG
GGCTCAGGCCGGTGGGAGCAAGAGGACCGGGCCCTCTCCCCTGTCATCCCCCTCATTCCTCGGGCCAGCATCCCA
GTCTTCCCAGATACCAAACCTTATGGGGCCCTTGGCCTGGAGGTCCCTGGAAAGCTGCCTGTCACAACTTGGGAA
AAGGGCAAAGGAAGTGAGGTGTCAGTCATGCTCACAGTCTCTGCTGCTGCAGCCAAGAACCTGAATGGCGTGATG
GTGGCAGTGGCGGAGCTGCTGAGCATGAAGATCCCCAACTCCTATGAGGTGCTGTTCCCAGAGAGCCCCGCCCGG
GCAGGCACTGAGCCAAAGAAGGGGGAAGCTGAGGGTCCTGGTGGGAAGGAAAAGGGTCTGGAAGGCAAGAGCCCA
GACACTGGCCCTGATTGGCTGAAGCAGTTTGATGCAGTGTTGCCTGGCTATACCCTGAAGAGCCAACTAGACATC
TTGAGCCTCCTGAAACAGGAGAGCCCCGCCCCAGAGCCACCCACTCAGCACAGCTATACCTACAATGTCTCCAAT
CTGGATGTGCGACAGCTCTCGGCCCCACCTCCTGAAGAACCCTCCCCGCCCCCTTCCCCCTTGGCACCTTCTCCT
GCCAGTCCCCCTACTGAGCCCTTGGTTGAACTTCCCACCGAACCCTTGGCTGAGCCACCCGTCCCCTCACCTCTG
CCACTGGCCTCATCCCCTGAATCAGCCCGACCCAAGCCCCGTGCCCGGCCCCCTGAAGAAGGTGAAGATTCCCGT
CCTCCTCGCCTCAAGAAATGGAAAGGAGTGCGCTGGAAGCGGCTTCGGCTGCTGCTGACCATCCAGAAGGGCAGT
GGGCGGCAGGAGGATGAGCGGGAAGTGGCAGAGTTTATGGAGCAGCTTGGCACAGCCTTGCGACCTGACAAGGTA
CCGCGAGACATGCGTCGCTGCTGTTTCTGTCATGAGGAGGGTGACGGGGCCACTGATGGGCCTGCCCGTCTGCTG
AACCTGGACCTGGACCTGTGGGTGCACCTCAACTGTGCCCTTTGGTCCACGGAGGTGTATGAGACCCAGGGCGGG

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FIGURE 2149E

GCACTGATGAATGTGGAGGTTGCCCTGCACCGAGGACTGCTAACCAAGTGCTCCCTGTGCCAGCGAACTGGTGCC
ACCAGCAGCTGCAATCGCATGCGTTGCCCCAATGTCTACCATTTTGCTTGTGCCATCCGTGCCAAGTGCATGTTC
TTCAAGGACAAGACCATGCTGTGTCCAATGCATAAGATCAAGGGGCCCTGTGAGCAAGAGCTGAGCTCTTTTGCT
GTCTTCCGGCGGGTCTACATTGAGCGGGACGAGGTGAAGCAAATCGCTAGCATCATTCAGCGGGGAGAACGGCTG
CACATGTTCCGTGTGGGGGGCCTTGTGTTCCACGCCATCGGACAGCTGCTGCCTCACCAGATGGCTGACTTTCAT
AGTGCCACTGCCCTCTATCCCGTGGGCTACGAGGCCACGCGCATCTATTGGAGCCTCCGCACCAACAATCGTCGC
TGCTGCTATCGCTGTTCTATTGGTGAGAACAACGGGCGGCCGGAGTTTGTAATCAAAGTCATCGAGCAGGGCCTG
GAGGACCTGGTCTTCACTGACGCCTCTCCCCAGGCCGTGTGGAATCGCATCATTGAGCCTGTGGCTGCCATGAGA
AAAGAGGCTGACATGCTGCGACTCTTCCCTGAGTATCTGAAGGGCGAGGAGCTCTTTGGGCTGACGGTGCATGCC
GTGCTTCGCATAGCTGAATCACTGCCCGGGGTGGAGAGCTGTCAAAACTATTTATTCCGCTATGGGCGCCACCCC
CTTATGGAGCTGCCACTCATGATCAACCCCACTGGCTGTGCCCGATCAGAGCCTAAAATCCTCACACACTACAAA
CGGCCCCATACCCTGAACAGCACCAGCATGTCTAAGGCATATCAGAGCACCTTCACAGGCGAGACCAACACCCCC
TACAGCAAGCAGTTTGTGCACTCCAAGTCATCTCAGTACCGGCGGCTGCGCACCGAATGGAAGAACAACGTGTAC
CTGGCTCGCTCCCGTATCCAGGGCCTGGGGCTCTATGCAGCCAAGGACCTAGAAAAGCACACAATGGTTATCGAG
TACATTGGCACCATCATTCGGAACGAGGTGGCCAACCGGCGGGAGAAAATCTACGAAGAGCAGAATCGAGGCATC
TACATGTTCCGAATAAACAATGAACATGTGATTGATGCTACGTTGACCGGCGGCCCTGCCAGGTACATTAACCAT
TCCTGTGCCCCTAACTGTGTGGCCGAAGTCGTGACATTTGACAAAGAGGACAAAATCATCATCATCTCCAGCCGG
CGAATCCCCAAAGGAGAGGAGCTAACCTATGACTATCAGTTTGATTTTGAGGACGATCAGCACAAGATCCCCTGC
CACTGTGGAGCCTGGAATTGTCGGAAATGGATGAAC**TAA**

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FIGURE 2150

CCGGGCGCCTCTTGCA**ATG**GAGACGGTCATTTCTTCAGATAGCTCCCCAGCTGTGGAAAATGAGCATCCTCAAGA
GACCCCAGAATCCAACAATAGCGTGTATACTTCCTTCATGAAGTCTCATCGCTGCTATGACCTGATTCCCACAAG
CTCCAAATTGGTTGTATTTGATACGTCCCTGCAGGTGAAGAAAGCTTTTTTTGCTTTGGTGACTAACGGTGTACG
AGCTGCCCCTTTATGGGATAGTAAGAAGCAAAGTTTTGTGGGCATGCTGACCATCACTGATTTCATCAATATCCT
GCACCGCTACTATAAATCAGCCTTGGTACAGATCTATGAGCTAGAAGAACACAAGATAGAAACTTGGAGAGAGGT
GTATCTCCAGGACTCCTTTAAACCGCTTGTCTGCATTTCTCCTAATGCCAGCTTGTTTGATGCTGTCTCTTCATT
AATTCGGAACAAGATCCACAGGCTGCCAGTTATTGACCCAGAATCAGGCAATACTTTGTACATCCTCACCCACAA
GCGCATTCTGAAGTTCCTCAAATTGTTTATCACTGAGTTCCCCAAGCCAGAGTTCATGTCCAAGTCTCTGGAAGA
GCTACAGATTGGCACCTATGCCAATATTGCTATGGTTCGCACTACCACCCCCGTCTATGTGGCTCTGGGGATTTT
TGTACAGCATCGAGTCTCAGCCCTGCCAGTGGTGGATGAGAAGGGGCGTGTGGTGGACATCTACTCCAAGTTTGA
TGTTATCAATCTGGCAGCAGAAAAGACCTACAACAACCTAGATGTATCTGTGACTAAAGCCTTGCAACATCGATC
ACATTACTTTGAGGGTGTTCTCAAGTGCTACCTGCATGAGACTCTGGAGACCATCATCAACAGGCTAGTGGAAGC
AGAGGTTCACCGACTTGTAGTGGTGGATGAAAATGATGTGGTCAAGGGAATTGTATCACTGTCTGACATCCTGCA
GGCCCTGGTGCTCACAGGTGGAGAGAAGAAGCCC**TGA**GCTGGGGGGAAGGGGTCATGCAGCACCAGGGGATATGCC
CAACTCACTGCCTGCTGGAAGCTCTGTGGGAATCAGATGAAACTTGAGGGAATTGTGACTCTGTTCCCTGTTCAG
GGTCCCCTGCCCTTCTATCTGGGAGCTAGGGAAGGTATGGGGGAGGAAAGAGAATGGATTTATAGCTACCCTTAC
CCTCACACATACACTTGAAAAAACTTTCAGCCTAGCCAGTTCTAGCCCCTGTCCTCTTAGATATATCCCCCTTTC
TGGGTGAACTATAGGCTCTGTGCCTCTCAGACAAATTCTGATCTCTAAGAGATCCCCAGACCTCACTTGCCTCTG
CCTCCATCTTGGCCCTGATTCAACCCTAAGATAATAGCACAACAAAATTCTTCATAAAGATATTTTTATTCACCT
GTTCCGTGCTATATGGAGGAGGCCAAGTCCATTTAGTGACATTTCTTCCCATAATGTGAGTGGGGAGGATTGTGG

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FIGURE 2151

CTCGACTCTTAGCTTGTCGGGGACGGTAACCGGGACCCGGTGTCTGCTCCTGTCGCCTTCGCCTCCTAATCCCTA
GCCACTATGGTGATGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTA
CTGCCTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTT
CAACACCTTCTTCAGTGAGACGGGCGCTGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAG
GAAGATGCTGCCAATAACTATGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTTGTGTTGGACCGA
ATTCGCAAGCTGGCTGACCAGTGCACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACTGGT
TCTGGGTTCACCTCCCTGCTC**ATG**GAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATT
TACCCAGCACCCCAGGTTTCCACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCACACCACCCTGGAG
CACTCTGATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTCGATATCGAGCGC
CCAACCTACACTAACCTTAACCGCCTTATTAGCCAGATTGTGTCCTCCATCACTGCTTCCGTCATCTCTGCTGAG
AAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCAGCCAACCAGATGGTGAAA
TGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGTCAAT
GCTGCCATTGCCACCATCAAAACCAAGCGCAGCATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGTTGGC
ATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGCGAGTTTTCAGAGGCCCGTGAAGATA
TGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGG
AATACTAATTATCCATTCCTTTTGGCCCTGCAGCATGTCATGCTCCCAGAATTTCAGCTTCAGCTTAAC**TGA**CAG
ACGTTAAAGCTTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTTTTCC
ATCATATCTCAAAGTAAAGTCATTAACATC

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FIGURE 2152

CTCCAGCAGCACCCGAGAGGGTCAGGAGAAAAGCGGAGGAAGCTGGGTAGGCCCTGAGGGGCCTCGGTAAGCCAT
C**ATG**ACCACCCGGCAAGCCACGAAGGATCCCCTCCTCCGGGGTGTATCTCCTACCCCTAGCAAGATTCCGGTACG
CTCTCAGAAACGCACGCCTTTCCCCACTGTTACATCGTGCGCCGTGGACCAGGAGAACCAAGATCCAAGGAGATG
GGTGCAGAAACCACCGCTCAATATTCAACGCCCCCTCGTTGATTCAGCAGGCCCCAGGCCGAAAGCCAGGCACCA
GGCAGAGACATCACAAAGATTGGTGGGGATCAGTCAGCCTCGGAACCCCTTGGAAGAGCTCAGGCCTAGCCCTAG
GGGTCAAAATGTGGGGCCTGGGCCCCCTGCCCAGACAGAGGCTCCAGGGACCATAGAGTTTGTGGCTGACCCTGC
AGCCCTGGCCACCATCCTGTCAGGTGAGGGTGTGAAGAGCTGTCACCTGGGGCGCCAGCCTAGTCTGGCTAAAAG
AGTACTGGTTCGAGGAAGTCAGGGAGGCACCACCCAGAGGGTCCAGGGTGTTCGGGCCTCTGCATATTTGGCCCC
CAGAACCCCCACCCACCGACTGGACCCTGCCAGGGCTTCCTGCTTCTCTAGGCTGGAGGGACCAGGACCTCGAGG
CCGGACATTGTGTCCCCAGAGGCTACAGGCTCTGATTTCACCTTCAGGACCTTCCTTTCACCCTTCCACTCGCCC
CAGTTTCCAGGAGCTAAGAAGGGAGACAGCTGGCAGCAGCCGGACTTCAGTGAGCCAGGCCTCAGGATTGCTCCT
GGAGACCCCAGTCCAGCCTGCTTTCTCTCTTCCTAAAGGAGAACGCGAGGTTGTCACTCACTCAGATGAAGGAGG
TGTGGCCTCTCTTGGTCTGGCCCAGCGAGTACCATTAAGAGAAAACCGAGAAATGTCACATACCAGGGACAGCCA
TGACTCCCACCTGATGCCCTCCCCTGCCCCTGTGGCCCAGCCCTTGCCTGGCCATGTGGTGCCATGTCCATCACC
CTTTGGACGGGCTCAGCGTGTACCCTCCCCAGGCCCTCCAACTCTGACCTCATATTCAGTGTTGCGGCGTCTCAC
CGTTCAACCTAAAACCCGGTTCACACCCATGCCATCAACCCCCAGAGTTCAGCAGGCCCAGTGGCTGCGTGGTGT
CTCCCCTCAGTCCTGCTCTGAAGATCCTGCCCTGCCCTGGGAGCAGGTTGCCGTCCGGTTGTTTGACCAGGAGAG
TTGTATAAGGTCACTGGAGGGTTCTGGGAAACCACCGGTGGCCACTCCTTCTGGACCCCACTCTAACAGAACCCC
CAGCCTCCAGGAGGTGAAGATTCAACGCATCGGTATCCTGCAACAGCTGTTGAGACAGGAAGTAGAGGGGCTGGT
AGGGGGCCAGTGTGTCCCTCTTAATGGAGGCTCTTCTCTGGATATGGTTGAACTTCAGCCCCTGCTGACTGAGAT
TTCTAGAACTCTGAATGCCACAGAGCATAACTCTGGGACTTCCCACCTTCCTGGACTGTTAAAACACTCAGGGCT
GCCAAAGCCCTGTCTTCCAGAGGAGTGCGGGGAACCACAGCCCTGCCCTCCGGCAGAGCCTGGGCCCCCAGAGGC
CTTCTGTAGGAGTGAGCCTGAGATACCAGAGCCCTCCCTCCAGGAACAGCTTGAAGTACCAGAGCCCTACCCTCC
AGCAGAACCCAGGCCCCTAGAGTCCTGCTGTAGGAGTGAGCCTGAGATACCGGAGTCCTCTCGCCAGGAACAGCT
TGAGGTACCTGAGCCCTGCCCTCCAGCAGAACCCAGGCCCCTAGAGTCCTACTGTAGGATTGAGCCTGAGATACC
GGAGTCCTCTCGCCAGGAACAGCTTGAGGTACCTGAGCCCTGCCCTCCAGCAGAACCCGGGCCCCTTCAGCCCAG
CACCCAGGGGCAGTCTGGACCCCCAGGGCCCTGCCCTAGGGTAGAGCTGGGGGCATCAGAGCCCTGCACCCTGGA
ACATAGAAGTCTAGAGTCCAGTCTACCACCCTGCTGCAGTCAGTGGGCTCCAGCAACCACCAGCCTGATCTTCTC
TTCCCAACACCCGCTTTGTGCCAGCCCCCCTATCTGCTCACTCCAGTCTTTGAGACCCCCAGCAGGCCAGGCAGG
CCTCAGCAATCTGGCCCCTCGAACCCTAGCCCTGAGGGAGCGCCTCAAATCGTGTTTAACCGCCATCCACTGCTT
CCACGAGGCTCGTCTGGACGATGAGTGTGCCTTTTACACCAGCCGAGCCCCTCCCTCAGGCCCCACCCGGGTCTG
CACCAACCCTGTGGCTACATTACTCGAATGGCAGGATGCCCTGTGTTTCATTCCAGTTGGTTCTGCTGCCCCCCA
GGGCTCTCCA**TGA**TGAGACAACCACTCCTGCCCTGCCGTACTTCTTCCTTTTAGCCCTTATTTATTGTCGGTCTG
CCCATGGGACTGGGAGCCGCCCACTTTTGTCCTCAATAAAGTTTCTAAAGTA

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FIGURE 2153

AATAC**ATG**GCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGTCAATGCTGCCATTGCCACCATCA
AGACCAAGCGTACCATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCA
CTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTG
AGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAACGTGCCTTTGTTCACTGGTACGTTGGGG
AGGGGATGGAGGAAGGTGAGTTTTCAGAGGCCCGTGAGGACATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTG
GTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATAC**TAA**AGTTAAAACGTCACAAAGGTGCTGC
TTTTACAGGGAAGCTTATTCTGTTTTAAACATTGAAAAGTTGTGGTCTGACATGAATGCTTTGTTACAGACCCAA
GCTGTCCATTTCTGTGATGGGTTTTGAATAAAGTATTCCC

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FIGURE 2154

GCGGTGGGCGTGGCCGCGGTAGGCTGCCAGCCAGGCTGGGAAAGCGGTGGTAGCTGGTTGGGTTGCTGGGGCTCG
GTTGTTGTAGTCGCG**ATG**TTCTTCTCCGAGGCCAGAGCCAGGTCGCGGACGTGGGAAGCCAGTCCCTCGGAACAC
AGGAAGTGGGTGGAAGTATTTAAAGCATGTGATGAAGATCACAAAGGATATCTCAGCAGAGAGGACTTTAAAACT
GCTGTTGTAATGCTGTTTGGGTACAAGCCCTCCAAGATAGAAGTGGATTCTGTGATGTCTTCAATAAATCCAAAT
ACTTCTGGTATATTACTCGAGGGGTTTTTAAATATTGTCAGGAAAAAGAAGGAAGCTCAACGATATCGGAACGAA
GTAAGACACATCTTCACAGCCTTTGACACCTACTATCGTGGATTTTTAACTTTGGAAGATTTCAAAAAAGCATTT
AGGCAGGTGGCTCCCAAATTACCGGAAAGGACTGTTCTTGAGGTATTCAGGGAAGTAGATCGAGATTCAGATGGT
CACGTCAGCTTTAGAGACTTTGAATATGCCCTGAACTATGGACAGAAGGAAGCC**TAA**CTATTGTGAACTACTTTT
GGTAACTCTGGGGAGATCAATAGATTGTAATGTCAGCAGACTCGACTCTACTAATGATGTCATGCTACAGACTTG
TGATTAAACATTTAAAAATTTTTAATTTTTGTGGGTACATAGTAGGTGCATATGTATACATACACACACATATAT
GGGTTACGGGAGATATTTTGGCACAGGCATGCAATAAGTAATTGACTAAATTTTTAATCATAATTTTTGGATGCT
GATGATAGACTTGCATCTCAGAATCCTAGAGATGGTTGCTGCCGGGGGTCTCCTTCTGTGTGGCCAGCAGCCCTG
AGTCAGGCCGCCATTGCTAGAGCTGGGGCTAGGGATGGCACTGGTGGTCCTCCTCCTCCTCACTCTTCTTGCCCC
CTACCCTCTCCACACTGCAGGCCACGGTGCTCTACTCACTCACTTCATTGTCCTCACCATCCCACCCTGAATCTC
ATCATCTCCTAATATCTGCAGAGGGGCAGACTTTTCCTGCCAATGGTGCCAGTTTCCTTCATTTGCTCAACATTG
GTTGAACAAATAATAGCACCTACACATACAGAATACTTACTATGTTCCAAGCAATCAGCCAGGCCTTGGGAAGCA
TAGGCTTAAGACTTCTCTAAGATAGGCTCATGCCTACAATCCCAGCACTTTGGGAGGCCAAAGCAGGAGGATCAC
TTGAGCCTAGGAATTGGAGACTAGCCTGGGCAACATACCGAGACCCCATCCCTACCAAAAAATTAATAATAAAAA
ATTATCTGGATTTAGTGGTGTGTACCTGTAGTCCCAGCTACTTGGGAGGCTGAGGTGGAAGGATCATTTGAGCCC
AGGGGTTTGAAGCTTCAGTGAGCCATGATTGCACTGTCGCACTCCAGCCTGGATGATAGAGCAAGACCCTGTCTC
TAAAAAAACACTTTCAATTAAAAAAAAACATATAAAGACTTCTCTAAGATAATGTCCCTGAGTCCAAATCATCAC
TGTAAAGTGGTCCCAGGGCACTGTCTGTGCAAGACAAAGAAATCGGCTTGGGCTAACATGAGCAAGCCCTCTCGG
GCTATATACAGAGGAAGAACAGGGTGATGAGGGTACTGGGGGCAAGAGACATGTTTGCAGAACCCTTTAGGATGG
TCTAGGCTTGGGAGTCTCACTGTGGAGAAGCAAGCCTTGAGCTGCTCAGCTGCCCTCTGCTCCATACCCCCTGGT
TTCTAGCAGTCACGTCCTGCACCCAGACACTTAGCCATGTGTGTTCACGTTCCCCATGCCTTGCCTGTCCTGCTG
GGCTCCAGTAACTGCTATACTGGAGCAAGAACAGCAATGCTGGACACTCAGCATTTAGTGAAGGTAATTCCAAAA
TACTGGTATCAGTACTCTTATTTATAAGTGTACGGAATGCATAACATGAACATTAGTCAAAGAACTTTTAATATA
ATTCACTTTTTAAGTGTTAAAATTTAAAGGTCAAGTAAAATTGTAAATTTGTAATATGGAAACATTAAGCGTCAT
TATCATACAAATTATTAGCAGATAACCTTAATAAAAATAAACGTTTGCGGGTTTTTTTTGAGACAGAGTCTCACT
TTGTCACCTAAGCTGGAGTACAGTGCGCGATCTCGGCTCACTGCAACTTCCGCCTCCTGGGATCAAGTGATTCTC
CTGCCTTAGCCTCCTGAGTATCTGGGTTTACAGGTGTGTACCGCCACACCCG

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FIGURE 2155A

GCGGCGGCCGCCGAAGGGGCGGGATCCGAGGCAAGCGTTGGTTCTGTGCGCCTCAGAGTTGGAGCACACAGCTGT
ATTAAAAAGGCAAATCGAAGGCCGGGCGCGGTGACTCACGCCTGTCATCCTAGCACTTTGGGAGGCCGAGGCGGC
TGAATCACTTGAGGTTAGGAGTTTGAGATCAGCCCGGGCAACATGGTGAAACCCCGTCTCTACAAAAATAGAAAA
ATTAGCCGAGCGTGATGGTGGATGCCTGTAATCCTAGCTCCTCGGGAGGCTAAGGAGTATA**ATG**TCTCAGGAAGG
CGATTATGGGAGGTGGACCATATCTAGTAGTGATGAAAGTGAGGAAGAAAAGCCAAAACCAGACAAGCCATCTAC
CTCTTCTCTTCTCTGTGCCAGGCAAGGAGCAGCAAATGAGCCCAGGTACACCTGTTCCGAGGCCCAGAAAGCTGC
ACACAAGAGGAAAATATCACCTGTGAAATTCAGCAATACAGATTCAGTTTTACCTCCCAAAAGGCAGAAAAGCGG
TTCCCAGGAGGACCTCGGCTGGTGTCTGTCCAGCAGTGATGATGAGCTGCAACCAGAAATGCCGCAGAAGCAGGC
TGAGAAAGTGGTGATCAAAAAGGAGAAAGACATCTCTGCTCCCAATGACGGCACTGCCCAAAGAACTGAAAATCA
TGGCGCTCCCGCCTGCCACAGGCTCAAAGAGGAGGAAGACGAGTATGAGACATCAGGGGAGGGCCAGGACATTTG
GGACATGCTGGATAAAGGGAACCCCTTCCAGTTTTACCTCACTAGAGTCTCTGGAGTTAAGCCAAAGTATAACTC
TGGAGCCCTCCACATCAAGGATATTTTATCTCCTTTATTTGGGACGCTTGTTTCTTCAGCTCAGTTTAACTACTG
CTTTGACGTGGACTGGCTCGTAAAACAGTATCCACCAGAGTTCAGGAAGAAGCCAATCCTGCTTGTGCATGGTGA
TAAGCGAGAGGCTAAGGCTCACCTCCATGCCCAGGCCAAGCCTTACGAGAACATCTCTCTCTGCCAGGCAAAGTT
GGATATTGCGTTTGGAACACACCACACGAAAATGATGCTGCTGCTCTATGAAGAAGGCCTCCGGGTTGTCATACA
CACCTCCAACCTCATCCATGCTGACTGGCACCAGAAAACTCAAGGAATATGGTTGAGCCCCTTATACCCACGAAT
TGCTGATGGAACCCACAAATCTGGAGAGTCGCCAACACATTTTAAAGCTGATCTCATCAGTTACTTGATGGCTTA
TAATGCCCCTTCTCTCAAGGAGTGGATAGATGTCATTCACAAGCACGATCTCTCTGAAACAAATGTTTATCTTAT
TGGTTCAACCCCAGGACGCTTTCAAGGAAGTCAAAAAGATAATTGGGGACATTTTAGACTTAAGAAGCTTCTGAA
AGACCATGCCTCATCCATGCCTAACGCAGAGTCCTGGCCTGTCGTAGGTCAGTTTTCAAGCGTTGGCTCCTTGGG
AGCCGATGAATCAAAGTGGTTATGTTCTGAGTTTAAAGAGAGCATGCTGACACTGGGGAAGGAAAGCAAGACTCC
AGGAAAAAGCTCTGTTCCTCTTTACTTGATCTATCCTTCTGTGGAAAATGTGCGGACCAGTTTAGAAGGATATCC
TGCTGGGGGCTCTCTTCCCTATAGCATCCAGACAGCTGAAAAACAGAATTGGCTGCATTCCTATTTTCACAAATG
GTCAGCTGAGACTTCTGGCCGCAGCAATGCCATGCCACATATTAAGACATATATGAGGCCTTCTCCAGACTTCAG
TAAAATTGCTTGGTTCCTTGTCACAAGCGCAAATCTGTCCAAGGCTGCCTGGGGAGCATTGGAGAAGAATGGCAC
CCAGCTGATGATCCGCTCCTACGAGCTCGGGGTCCTTTTCCTCCCTTCAGCATTTGGTCTAGACAGTTTCAAAGT
GAAACAGAAGTTCTTCGCTGGCAGCCAGGAGCCAATGGCCACCTTTCCTGTGCCATATGATTTGCCTCCAGAACT
GTATGGAAGTAAAGATCGGCCATGGATATGGAACATTCCTTATGTCAAAGCACCGGATACGCATGGGAACATGTG
GGTGCCCTCC**TGA**GAATCTTGAGGCACTGTGAAATTTAAGTGTAAGACATTGAGCCACAAACATGGAATCTCTTC
TTTGTACTGGATGTCCACTTCCCTTAAAGTCTTATTTGCACCCTTACAAAATCTTTCCAAAGGTCACTCTTATGA
ATGGATGTTGGTTATACTTTTAATGGACATTAACATTCCTAATAAAGTATTAGTTTCTTAATTCACTTTTATATG
TTTTGGAAAGAAAATTAGTGAACTTCTCTATGTTAAAAATACGTACTGCTTGAGTATCCCCTGTCTGAAATGCTT
GGGACCAGAAGTGTTTCAGCTTTTGGATTTTTTTGAATTTTGGAATATTTGCATAGCATAATGAGATATCTTGGG
AATGGGACCCAAATCTAAACACAAAATTCATTTATGTTTCATATACACCTTATATACAATAACCTAAAGGTGATT
TTATATGATATTTTGAGTAATTTTATGCATGAAACAAAGTTTTGACAGGCTTTTGACCGTGATTCATCACATGAG
TTCAGGCATGGAAATTTTCATTTGGAGCATCATGTCAGCACTCAAAAAGTTCTGGATCTTGGAGCAGTTCAGATT
TTCAGATTAGGGATGCTCAAATCTATATAGATATAAAATTATCCTCACAGTAACATAGAATCTCTTGGTGCTGTC
AGCTGTTGGGAATTGAAGATTGACTTTGTGCTTCCACCCTCCATCCAGAAAGGCACCCTTCATTCCACCAGAACT
TTACCCAGGAAGAACACGATCATTTCCTTTTTCACCGATGCCCTCTCTCAGCTTTCTGAGTACGTCTCTTGGGGT
CGCTGGAGGTGATCCTAGGATCTGTCTCTGAGACCAATGTGCTGTTTCAGCCCCCTGCAGCTAAGAATTGTATTG
ACTGTCCTCACAGCGGCTTTTCATAGCTTTCAGCTTCAGCTTTACGAGGCTTCTCCTCTCTCCCTGGCACCCTGC
TGGCTGCCTCACTGCTTACAGACAGGTCCCACCAAACCCAAACACCTGCCTAGGGTAAATGGGTCTCTCTTCTAT
CCCCAGAAACTTTCAGAGGAAGCAGCTCATAGAAACATACAAAAGCACACAAGTATTTTGGGAAAAAATCCTAAA
AGGTGACTTAATTTGATGCCTTAAATTCACAAGTGAGGAAGCTAAGGCCTAGAAGGTTAAGGATGTCCCCAGGGT
CACACAGTGAGCGGGGCTCAGAGCTTGAGTGTCTTTGTGCTTTGTGTACATTGTGTTCTCCCTAGGGTGCTTTAG
ACCCTGTTTGTTTTCTTCTGCATGAGGCTGATTTCCAGTTTGTCATCAACCTCTTTATCTTATAATTTAGGATAG
AGTTGAACGTTAGTCTTGAAAGATTTTCTAAAGTAGTCTTTCAAACTGTTCCTCAGAGGCCTAGGATTTTCCAAA
AGTACCTTAGGAACCTTGTAGGCTGCAGTGGGGGTGTGGCGATAGAGCAGGAGGCAGGGAGACAGGGCTGCAGGG

FIGURE 2155B

CCTCCCACCTTCCAACAGACAGGCTCTGCTGTATCTGTTGTACATACTGGGATTCTGTAAAGGACATTATCTGGG
GTGTTGTATGTATTTTTGTGTGTTCTGCTTTTTTTAAATAAACTTGAAAAGCTACTG

FIGURE 2156

GCGGGAAACTCGAGTTGGCTCGAGCTTGCCCTGAAGACGCGCCACGCCCCCTCCCCTATCTGAGCCGGACAGGGA
GCCGGGGTGGAAACTGCGCCCGCATCCCAGCGCCAAGCAGACGTGAACTCTGCGCCCGTTCCCCGGGACCTTCAG
CGTTAAGGAGAACTCCGAGGAGAGCAGGGGGAGTGGAGGGGAACGGCGGCGACAAAGCGGATTTGAAACTAGGAG
TCAAGGAGGACGTGGGGAGCTGGCGCCACAGGAGCTACCGAGGCGGCGGCCGGGGGAGCCTCGCGGCCTGCGGGA
GAGCCCGGCGGTCATGGGCGAGCCGGCGGTGGGGCGCCCGGGAGCTGGCTGAGCGCCGGGGCCCTTATTTCCCGG
GGGTGTGGGCGAGACTCCGCCGACGCCCGGTGCCGTGGGCCTGGGGGCTGCCCCCGGGGGCCCGGCC**ATG**GCTGG
CCGGGGTTTCAGCTGGGGCCCGGGCCACCTGAACGAGGACAACGCGCGCTTTCTGCTGCTGGCCGCGCTCATCGT
GCTCTACCTGCTGGGCGGCGCCGCCGTCTTCTCCGCGCTGGAGCTGGCGCACGAGCGCCAGGCCAAGCAGCGCTG
GGAGGAGCGCCTGGCCAACTTCAGCCGCGGCCACAACCTGAGCCGCGACGAGCTGCGCGGCTTCCTCCGCCACTA
CGAGGAGGCCACTCGGGCCGGCATCCGCGTGGACAACGTCCGCCCGCGCTGGGACTTCACCGGCGCCTTCTACTT
CGTGGGCACCGTCGTTTCCACCATAGGGTTTGGGATGACAACTCCGGCGACAGTAGGAGGAAAAATCTTTCTGAT
CTTTTACGGCCTTGTTGGGTGTTCCAGCACCATCTTGTTCTTCAACCTCTTCCTGGAGCGCCTGATCACCATCAT
CGCCTACATCATGAAGTCGTGCCACCAGCGGCAGCTCCGGAGACGAGGGGCCCTGCCCCAGGAGAGCCTGAAGGA
TGCGGGGCAGTGTGAGGTGGACAGCCTGGCCGGCTGGAAGCCCTCCGTGTACTACGTCATGCTGATCCTATGCAC
AGCCTCCATCCTCATCTCTTGCTGCGCCTCAGCCATGTACACCCCCATTGAAGGCTGGAGCTACTTTGACTCACT
CTACTTCTGTTTTGTGGCTTTCAGCACCATTGGCTTTGGGGACCTGGTCAGCAGCCAGAACGCCCACTATGAGAG
CCAAGGCCTCTATCGCTTTGCCAACTTCGTCTTCATCCTCATGGGTGTCTGCTGCATCTACTCCTTGTTCAATGT
CATCTCTATCCTCATCAAACAGTCCTTGAACTGGATCCTGAGGAAAATGGACAGCGGGTGCTGCCCGCAATGCCA
GAGAGGACTCTTGCGATCACGCAGGAACGTGGTGATGCCAGGCAGCGTCCGGAACCGCTGCAACATCTCCATAGA
GACAGACGGGGTGGCAGAGAGTGACACGGACGGGCGCCGGCTCTCAGGGGAGATGATCTCCATGAAGGACTTGCT
GGCAGCCAACAAGGCCTCGTTGGCCATCCTGCAGAAGCAACTGTCTGAGATGGCCAACGGCTGCCCCCACCAGAC
CAGCACACTGGCCCGGGACAATGAATTCTCAGGGGGGGTGGGAGCCTTTGCAATCATGAACAACAGGTTGGCAGA
GACCAGTGGGGACAGG**TAG**AAGCCAGGAGTGGATGCTGGGCAGAGGCCAGAGTAGAATGGAGGATGATTGCCGCC
CAGGGGACGAGCTCAGCCCTGCGCCTTGGCTCTGTTCCTTCTGGGAGCTGTTCCCGGGAGCCTCCGCAAGCATCT
TTAGAAATCTGATCTCGGCTCCAACCAACAGCCACCTTCCAGGGATGGGGGGCCTGAAGCCTCGATGCTTGTCTC
CTGATCCTTATTCTTTAAGTCTAAATTCAGTCTTTTCAAAACAAATCACAAAAGCAGCATTAGACATTGCCTTGT
TTCATTAATCTTGTTTCAGAGCTTTAGCTGCCTGAGGAGATAGGTTTTCCTTAAGCCTTGATTTCCTGAAGCTCT
CTCTGTTCCTTATTTGGGAACAAAAATTGCGAAGACTCATCTTTCCCTAGAACTCTGAATGGATGAATTTTTAAA
AGTGGGGAGAATGTTTGGGGATGTGTCTGGGCTTTCTTTTTGCCAGGCTTCCTTCAAAGCATACCTGCCAATGGT
GTCTGCATAGGGAAAATGTCTGTTGTACTCTTTATACCTGTTTCTGTTTTTTGTTGTCCCTTTCTTTTTATTTTT
AAGGCCTTAATGCCTGGCTGTGGCGTCTGTGAGACCTCAATGTAATAAGAAAATTAAATTCAGCTTCAGGCCTTT
AAACTGCAGCAAGATGGTGGTGTAGGGGTGTGGGACGGGGAGAGACTCACTTTTGTAACTAAAGAACATAGCTTA
ACATTTTCCCTTTGAATGGTCACACAGACCATTTCATTTTTACCAGGGCTTGGGGACCCAATGCAAAGATGATGA
CTATTTAATAAAATGGAAAATTTAATAAATCCTCATTTTATT

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FIGURE 2157

AGTGGTGGAGGAACTTCCGGCAGCGGCAGCTCAAGTGGCCAAGGCAAG**ATG**GGTCAAAGTCAGAGTGGTGGTCAT
GGTCCTGGAGGTGGCAAGAAGGATGACAAGGACAAGAAAAAGAAATATGAACCTCCTGTACCAACTAGAGTGGGG
AAAAAGAAGAAGAAAACAAAGGGACCAGATGCTGCCAGCAAACTGCCACTGGTGACACCTCACACTCAGTGCCGG
TTAAAATTACTGAAGTTAGAGAGAATTAAAGACTATCTTCTCATGGAGGAAGAATTCATTAGAAATCAGGAACAA
ATGAAACCATTAGAAGAAAAGCAAGAGGAGGAAAGATCAAAAGTGGATGATCTGAGGGGGACCCCGATGTCAGTA
GGAACCTTGGAAGAGATCATTGATGACAATCATGCCATCGTGTCTACATCTGTGGGCTCAGAACACTACGTCAGC
ATTCTTTCATTTGTAGACAAGGATCTGCTGGAACCTGGCTGCTCGGTCCTGCTCAACCACAAGGTGCATGCCGTG
ATAGGGGTGCTGATGGATGACACGGATCCCCTGGTCACAGTGATGAAGGTAGAAAAGGCCCCCCAGGAGACCTAT
GCAGATATTGGGGGGTTGGACAACCAAATTCAGGAAATTAAGGAATCTGTGGAGCTTCCTCTCACCCATCCTGAA
TATTATGAAGAGATGGGTATAAAGCCTCCTAAGGGGGTCATTCTCTATGGTCCACCTGGCACAGGTAAAACCTTG
TTAGCCAAAGCAGTAGCAAACCAAACCTCAGCCACTTTCTTGAGAGTGGTTGGCTCTGAACTTATTCAGAAGTAC
CTAGGTGATGGGCCCAAACTCGTACGGGAATTGTTCCGAGTTGCTGAAGAACATGCACCGTCCATCGTGTTTATT
GATGAAATTGACGCCATTGGGACAAAAAGATATGACTCCAATTCTGGTGGTGAGAGAGAAATTCAGCGAACAATG
TTGGAACTGCTGAACCAGTTGGATGGATTTGATTCTAGGGGAGATGTGAAAGTTATCATGGCCACAAACCGAATA
GAAACTTTGGATCCAGCACTTATCAGACCAGGCCGCATTGACAGGAAGATTGAGTTCCCCCTGCCTGATGAAAAG
ACGAAGAAGCGCATCTTTCAGATTCACACAAGCAGGATGACGCTGGCTGATGATGTAACCCTGGACGACCTGATC
ATGGCTAAAGATGACCTCTCTGGTGCTGACATCAAGGCAATCTGTACAGAAGCTGGTCTGATGGCCTTAAGAGAA
CGTAGAATGAAAGTAACAAATGAAGACTTCAAAAAATCTAAAGAAAATGTTCTTTATAAGAAACAGGAAGGCACC
CCTGAGGGGCTGTATCTC**TAA**TGAACCATGGCTGTCATCAGGAAAATGGTTGGGAGATTTCTCAATCCCTGAAAG
GGATGAGGTTGGGGGAGTTGCCCAGAGGAATCCCTGTTCCCACTGATTTTTATTAGCAAAACATCCTGTGTCTTT
TGGAGTACGATGTGTAAGTGCCCATTGGGTGGCCTGTTGGTCACTGTGCAGCAGTCTGCTTCCCAATAAAGCGTG
CTCTTTCACAA

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FIGURE 2158

CCTTTCGGCCGGAACCGCCATGTTCCAGTAATTCGCCAAA**ATG**ACGAACACAAAGGGAAAGAGGAGAGGCACCCG
ATATATGTTCTCTAGGCCTTTTAGAAAACATGGAGTTGTTCCTTTGGCCACATATATGCGAATCTATAAGAAAGT
TGATATTGTAGACGTCAAGGGAATGGGTACTGTTCAAAAAGGAATGCCCCACAAGTGTTACCATGGCAAAACTGG
AAGAGTCTACAGTGTTACCCAGCATGCTGTTGGCATTGTTGTAAACAAACAAGTTAAGGGCAAGATTCTTGCCAA
GAGAATTAATGTGCGTATTAAGCACATTAAGCACTCTAAGAGCCAAGATAGCTTCCTGAAACGCGTGAAGGAAAA
TGATCCTCCACCCAGAGAAGCACACTTTGTGAGAACCAGTGGGAAGGAGCCTGAGCTGCTGGAACCTATTCCCTG
TGAATTCATGGCA**TAA**TAGGTGTT

FIGURE 2159

AGTGGTGCTGGGAGTGTCGTGGACGCCGTGCCGTTACTCGTAGTCAGGCGGCGGCGCAGGCGGCGGCGGCGGCAT
AGCGCACAGCGCGCCTTAGCAGCAGCAGCAGCAGCGGCATCGGAGGTACCCCCGCCGTCGCAGCCCCCGCGC
TGGTGCAGCCACCCTCGCTCCCTCTGCTCTTCCTCCCTTCGCTCGCACC**ATG**GCTGATCAGCTGACCGAAGAACA
GATTGCTGAATTCAAGGAAGCCTTCTCCCTATTTGATAAAGATGGCGATGGCACCATCACAACAAAGGAACTTGG
AACTGTCATGAGGTCACTGGGTCAGAACCCAACAGAAGCTGAATTGCAGGATATGATCAATGAAGTGGATGCTGA
TGGTAATGGCACCATTGACTTCCCCGAATTTTTGACTATGATGGCTAGAAAAATGAAAGATACAGATAGTGAAGA
AGAAATCCGTGAGGCATTCCGAGTCTTTGACAAGGATGGCAATGGTTATATCAGTGCAGCAGAACTACGTCACGT
CATGACAAACTTAGGAGAAAAACTAACAGATGAAGAAGTAGATGAAATGATCAGAGAAGCAGATATTGATGGAGA
CGGACAAGTCAACTATGAAGAATTCGTACAGATGATGACTGCAAAA**TGA**AGACCTACTTTCAACTCCTTTTTCCC
CCCTCTAGAAGAATCAAATTGAATCTTTTACTTACCTCTTGCAAAAAAAAGAAAAAAGAAAAAAGTTCATTTATT
CATTCTGTTTCTATATAGCAAAACTGAATGTCAAAAGTACCTTCTGTCCACACACACAAAATCTGCATGTATTGG
TTGGTGGTCCTGTCCCCTAAAGATCAAGCTACACATCAGTTTTACAATATAAATACTTGTACTACCTTAATGATA
AGGACTCCTTAAAGTTCCATTTGCTAATGATTAATACACTGTTTGGGCTGGCCAGTTTTTCATGCATGCAGCTTG
ACGATTGAGCACAGTCAGGCCTTTGTATTAAAAATGAAAAATGAAAAAACAAATTCAAAACCTATTCAAATGGGT
TCTAGTTCAATTTGTTTAGTATAAATTGTCATAGCTGGTTTACTGAAAACAAACACATTTAAAATTGGTTTACCT
CAGGATGACGTGCAGAAAAATGGGTGAAGGATAAACCGTTGAGACGTGGCCCCACTGGTAGGATGGTCCTCTTGT
ACTTCGTGTGCTCCGACCCATGGTGACGATGACACACCCTGGTGGCATGCCCGTGTATGTTGGTTTAGCGTTGTC
TGCATTGTTCTAGAGTGAAACAGGTGTCAGGCTGTCACTGTTCACACAAATTTTTAATAAGAAACATTTACCAAG
GGAGCATCTTTGGACTCTCTGTTTTTAAAACCTTCTGAACCATGACTTGGAGCCGGCAGAGTAGGCTGTGGCTGT
GGACTTCAGCACAACCATCAACATTGCTGTTCAAAGAAATTACAGTTTACGTCCATTCCAAGTTGTAAATGCTAG
TCTTTTTTTTTTTTTTTCCAATAAA

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FIGURE 2160

CACTACTGCCCTGCACCTGCAGCCCCCCCGTGGCGGGAGGC**ATG**GAGGAGGTCATCGTGGCCCAGGTGGACCATG
GCTTGGGCTCAGCATGGGTCCCCAGCCATCGGCGGGTGAACCCACCCACACTGCGCATGAAGAAGCTGAACTGGC
AGAAGCTGCCATCCAACGTGGCACGTGAGCACAACTCTATGTGGGCGTCCCTGAGCAGCCCCGACGCCGAGGCTG
TGGAGCCCGACTTCTCCAGCATCGAGCGACTATTCTCCTTCCCTGCAGCCAAGCCCAAGGAGCCCACCATGGTGG
CCCCCCGGGCCAGGAAGGAGCCCAAGGAGATCACTTTCCTCGATGCCAAGAAGAGCCTGAACCTCAACATCTTCC
TGAAGCAATTTAAGTGCTCCAACGAGGAGGTCGCTGCTATGATCCGGGCTGGAGATACCACCAAGTTTGATGTGG
AGGTTCTCAAACAACTCCTTAAGCTCCTTCCCGAGAAGCACGAGATTGAAAACCTGCGGGCATTCACAGAGGAGC
GAGCCAAGCTGGCCAGCGCCGACCACTTCTACCTCCTCCTGCTGGCCATTCCCTGCTACCAGCTGCGAATCGAGT
GCATGCTGCTGTGTGAGGGCGCGGCCGCCGTGCTGGACATGGTGCGGCCCAAGGCCCAGCTGGTGCTGGCTGCCT
GCGAAAGCCTGCTCACCAGCCGCCAGCTGCCCATCTTCTGCCAGCTGATCCTGAGAATTGGGAACTTCCTCAACT
ACGGCAGCCACACCGGTGACGCCGACGGCTTCAAGATCAGCACATTGCTGAAGCTCACGGAGACCAAGTCCCAGC
AGAACCGCGTGACGCTGCTGCACCACGTGCTGGAGGAAGCGGAAAAGAGCCACCCCGACCTCCTGCAGCTGCCCC
GGGACCTGGAACAGCCCTCGCAAGCAGCAGGGATCAACCTGGAGATCATCCGCTCAGAGGCCAGCTCCAACCTGA
AGAAGCTTCTGGAGACCGAGCGGAAGGTGTCTGCCTCCGTGGCCGAGGTCCAGGAGCAGTACACCGAGCGCCTCC
AGGCCAGCATCTCGGCCTTCCGGGCACTGGATGAGCTGTTTGAGGCCATCGAGCAGAAGCAACGGGAGCTGGCCG
ACTACCTGTGTGAGGACGCCCAGCAGCTGTCCCTGGAGGACACGTTCAGCACCATGAAGGCTTTCCGGGACCTTT
TCCTCCGCGCCCTGAAGGAGAACAAGGACCGGAAGGAGCAGGCGGCGAAGGCAGAGAGGAGGAAGCAGCAGCTGG
CGGAGGAGGAGGCGCGGCGGCCTCGGGGAGAGGACGGGAAGCCTGTCAGGAAGGGGCCCGGGAAGCAGGAGGAGG
TGTGTGTCATCGATGCCCTGCTGGCTGACATCAGGAAGGGCTTCCAGCTGCGGAAGACAGCCCGGGGCCGCGGGG
ACACCGACGGGGGCAGCAAGGCAGCCTCCATGGATCCCCCAAGAGCCACAGAGCCTGTGGCCACCAGTAACCCTG
CAGGAGATCCCGTGGGCAGCACGCGCTGTCCCGCCTCTGAGCCCGGCCTTGATGCTACAACAGCCAGCGAGTCCC
GGGGCTGGGACCTTGTAGACGCCGTGACCCCCGGCCCTCAGCCCACCCTGGAGCAGTTGGAGGAGGGTGGTCCAC
GGCCCCTGGAGAGGCGTTCTTCCTGGTATGTGGATGCCAGCGATGTCCTAACCACTGAGGATCCCCAGTGCCCCC
AGCCCTTGGAGGGGGCCTGGCCGGTGACTCTGGGAGATGCTCAGGCCCTGAAGCCCCTCAAGTTCTCCAGCAACC
AGCCCCCTGCAGCCGGAAGTTCAAGGCAAGATGCCAAGGATCCCACGTCCTTGCTGGGCGTCCTCCAGGCCGAGG
CCGACAGCACAAGTGAGGGGCTGGAGGACGCTGTCCACAGCCGTGGTGCCAGACCCCCTGCAGCAGGCCCAGGTG
GGGATGAGGACGAGGACGAGGAGGACACGGCCCCAGAGTCCGCACTGGACACATCCCTGGACAAGTCCTTCTCCG
AGGATGCGGTGACCGACTCCTCGGGGTCGGGCACACTCCCCAGGGCCCGGGGCCGGGCCTCAAAGGGGACCGGGA
AGCGAAGGAAGAAGCGTCCCTCCAGGAGCCAGGAAGGCCTCAGGCCCAGGCCCAAGGCCAAG**TGA**GAGAGCCCAG
GCCACAGGACATGCTGCCATTCTGCCAAGAGAGGCTCTTCTGGGGGCCAGGCTGGGACTGGGCCCCGGAAACCAA
AACTCCGTGCCTTACCCAGCCGGGGCCCTCCTGGAGCCTTCTTGGGGTGTTGTGGCTGGGAACCCGACAGGCACC
AGTGCCCTGCCAGGCCTGGTGCCCTCCTGGACCGCCTGCACGTGCCAGCCTCCCACCTGCTTCCTAAAGGCAACC
CTGGCCCACACCCGCATGCGCCCGGTGCAGCCTGCCAAGGGCCAGTCGGGGGGTGCTGCGTCCTGCCAGTGTCCA
CCACAGCTCTGCCTGCCCTTCAGCCCAGCAAGGTTTAATCAAAATGCAATGCTTTGCAAGTCTTTACTGCTTGGA
GGTGGCTGAGTTGGGGGCCCTGGGCAGGGGTAAGCTGGCAGGCAGTGCCATGGCAGGCCAGGGTCCCCTCCCATG
GGGTCTGGCCCCCGTTCCAGCATGTCCAGCCCCTGAAGTTGGAGTGGGGGGCGGTCTGCCTTTGCTGCCACTGCC
AGGCCTCTGCCCTGCAGCTGAAACTTGGCCATCACATCAACAGAAAACCCCTCCCAGTGCCAGCTGCCCAGCGTG
GGCAGGCCCTGGGGACAATACAGGTCCACCTGAGGGGCTGCAGGGTGACACCCAGCAGCCGCTGCCCCCTCACTG
CCCACCCAGCGAGGGCAGCCTACCCGAGCCTGCCCCCTGCCAGGTGTGTGCCCTGAGGCTGGCGGCTGGATGCGT
GGCCAATAAAAAGCAGACCTAG

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FIGURE 2161

GCGGCCGGGGAGCTGCGTAGCTCCCGGCCCCGCGGCC**ATG**CCCAAGCGGAGCTGCCCCTTCGCGGACGTGGCCCC
GCTACAGCTCAAGGTCCGCGTGAGCCAGAGGGAGTTGAGCCGCGGCGTGTGCGCCGAGCGCTACTCGCAGGAGGT
CTTCGAGAAGACCAAGCGACTCCTGTTCCTCGGGGCCCAGGCCTACCTGGACCACGTGTGGGATGAAGGCTGTGC
CGTCGTTCACCTGCCAGAGTCCCCAAAGCCTGGCCCTACAGGGGCCCCGAGGGCTGCACGTGGGCAGATGCTGAT
TGGACCAGACGGCCGCCTGATCAGGAGCCTTGGGCAGGCCTCCGAAGCTGACCCATCTGGGGTAGCGTCCATTGC
CTGTTCCTCATGCGTGCGAGCCGTGGATGGGAAGGCGGTCTGCGGTCAGTGTGAGCGAGCCCTGTGCGGGCAGTG
TGTGCGCACCTGCTGGGGCTGCGGCTCCGTGGCCTGTACCCTGTGTGGCCTCGTGGACTGCAGTGACATGTACGA
GAAAGTGCTGTGCACCAGCTGTGCCATGTTCGAGACC**TGA**GGCTGGCTCAAGCCGGCTGCCTTCACCGGGAGCCA
CGCCGTGCATGGCAGCCTTCCCTGGACGAGCGCTCGGTGTTCACACTGAACTGTGGGGTCGACGGGAGGGGTGCC
TTTTACATGTTCTATTTTGTATCCTAATGACAGAATGAATAAACCTCTTTATATTTGC

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FIGURE 2162

GGGCCATCTGTCACCAGGGGCTTAGGGAAGGCCGAGCCAGCCTGGGTCAAAGAAGTCAAAGGGGCTGCCTGGAGG
AGGCAGCCTGTCAGCTGGTGCATCAGAGGCTGTGGCCAGGCCAGCTGGGCTCGGGGAGCGCCAGCCTGAGAGGAG
CGCGTGAGCGTCGCGGGAGCCTCGGGCACC**ATG**AGCGACGTGGCTATTGTGAAGGAGGGTTGGCTGCACAAACGA
GGGGAGTACATCAAGACCTGGCGGCCACGCTACTTCCTCCTCAAGAATGATGGCACCTTCATTGGCTACAAGGAG
CGGCCGCAGGATGTGGACCAACGTGAGGCTCCCCTCAACAACTTCTCTGTGGCGCAGTGCCAGCTGATGAAGACG
GAGCGGCCCCGGCCCAACACCTTCATCATCCGCTGCCTGCAGTGGACCACTGTCATCGAACGCACCTTCCATGTG
GAGACTCCTGAGGAGCGGGAGGAGTGGACAACCGCCATCCAGACTGTGGCTGACGGCCTCAAGAAGCAGGAGGAG
GAGGAGATGGACTTCCGGTCGGGCTCACCCAGTGACAACTCAGGGGCTGAAGAGATGGAGGTGTCCCTGGCCAAG
CCCAAGCACCGCGTGACCATGAACGAGTTTGAGTACCTGAAGCTGCTGGGCAAGGGCACTTTCGGCAAGGTGATC
CTGGTGAAGGAGAAGGCCACAGGCCGCTACTACGCCATGAAGATCCTCAAGAAGGAAGTCATCGTGGCCAAGGAC
GAGGTGGCCCACACACTCACCGAGAACCGCGTCCTGCAGAACTCCAGGCACCCCTTCCTCACAGCCCTGAAGTAC
TCTTTCCAGACCCACGACCGCCTCTGCTTTGTCATGGAGTACGCCAACGGGGGCGAGCTGTTCTTCCACCTGTCC
CGGGAACGTGTGTTCTCCGAGGACCGGGCCCGCTTCTATGGCGCTGAGATTGTGTCAGCCCTGGACTACCTGCAC
TCGGAGAAGAACGTGGTGTACCGGGACCTCAAGCTGGAGAACCTCATGCTGGACAAGGACGGGCACATTAAGATC
ACAGACTTCGGGCTGTGCAAGGAGGGGATCAAGGACGGTGCCACCATGAAGACCTTTTGCGGCACACCTGAGTAC
CTGGCCCCCGAGGTGCTGGAGGACAATGACTACGGCCGTGCAGTGGACTGGTGGGGGCTGGGCGTGGTCATGTAC
GAGATGATGTGCGGTCGCCTGCCCTTCTACAACCAGGACCATGAGAAGCTTTTTGAGCTCATCCTCATGGAGGAG
ATCCGCTTCCCGCGCACGCTTGGTCCCGAGGCCAAGTCCTTGCTTTCAGGGCTGCTCAAGAAGGACCCCAAGCAG
AGGCTTGGCGGGGGCTCCGAGGACGCCAAGGAGATCATGCAGCATCGCTTCTTTGCCGGTATCGTGTGGCAGCAC
GTGTACGAGAAGAAGCTCAGCCCACCCTTCAAGCCCCAGGTCACGTCGGAGACTGACACCAGGTATTTTGATGAG
GAGTTCACGGCCCAGATGATCACCATCACACCACCTGACCAAGATGACAGCATGGAGTGTGTGGACAGCGAGCGC
AGGCCCCACTTCCCCCAGTTCTCCTACTCGGCCAGCGGCACGGCC**TGA**GGCGGCGGTGGACTGCGCTGGACGATA
GCTTGGAGGGATGGAGAGGCGGCCTCGTGCCATGATCTGTATTTAATGGTTTTTATTTCTCGGGTGCATTTGAGA
GAAGCCACGCTGTCCTCTCGAGCCCAGATGGAAAGACGTTTTTGTGCTGTGGGCAGCACCCTCCCCCGCAGCGGG
GTAGGGAAGAAAACTATCCTGCGGGTTTTAATTTATTTCATCCAGTTTGTTCTCCGGGTGTGGCCTCAGCCCTCA
GAACAATCCGATTCACGTAGGGAAATGTTAAGGACTTCTGCAGCTATGCGCAATGTGGCATTGGGGGGCCGGGCA
GGTCCTGCCCATGTGTCCCCTCACTCTGTCAGCCAGCCGCCCTGGGCTGTCTGTCACCAGCTATCTGTCATCTCT
CTGGGGCCCTGGGCCTCAGTTCAACCTGGTGGCACCAGATGCAACCTCACTATGGTATGCTGGCCAGCACCCTCT
CCTGGGGGTGGCAGGCACACAGCAGCCCCCCAGCACTAAGGCCGTGTCTCTGAGGACGTCATCGGAGGCTGGGCC
CCTGGGATGGGACCAGGGATGGGGGATGGGCCAGGGTTTACCCAGTGGGACAGAGGAGCAAGGTTTAAATTTGTT
ATTGTGTATTATGTTGTTCAAATGCATTTTGGGGGTTTTTAATCTTTGTGACAGGAAAGCCCTCCCCCTTCCCCT
TCTGTGTCACAGTTCTTGGTGACTGTCCCACCGGGAGCCTCCCCCTCAGATGATCTCTCCACGGTAGCACTTGAC
CTTTTCGACGCTTAACCTTTCCGCTGTCGCCCCAGGCCCTCCCTGACTCCCTGTGGGGGTGGCCATCCCTGGGCC
CCTCCACGCCTCCTGGCCAGACGCTGCCGCTGCCGCTGCACCACGGCGTTTTTTTACAACATTCAACTTTAGTAT
TTTTACTATTATAATATAATATGGAACCTTCCCTCCAAATTCT

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FIGURE 2163

TTCCAAACAAGGTCACATTCTGAGGCCCTGGGGGTTAGGCCTTCAACATATGAATTCGAGGGGACACAATTCGAC
CCGTAACAGCTTCTGTCTCCCCACACATCCGATGTGCTTCTCCCTCTGCCACGCTTAGGCTGGGGTCTCTACCAG
GCACCTCGACCCGAGTCCTCACTCAGGCCGGCTCTGAGCCTCACAGCTCTGTCTGTGGGAGCTGCCCTAGTTTTC
CACGGACCTTTATTAGGTGAC**ATG**GGAATATCGAGCAGTGCCCCAGAATCCCTGGGTTTTGACACAGTGCTTCCT
CCTCACCTGAGGCAGCATTCCCACCCTCCTGCAGGGATCTCTCCGAAGAGATTCCTCTGCAGAGATCTCTGGCCC
GCGGAGCTCCCTTCTCCAGCGGTCAGCTCGGCAGTGAGCGGCCCCACATGGCCAGAGGGCATCTCTGCTCCTGTG
TTTGGGAAGCAGACCCACGTTCCCCAGAGGACCGGGAGCCAGGACTGCCACTCCTGCGACCCCACCTTACCAGAG
TGGGAAAGAAAAATCCCTCCA**TAG**CCGATTAGCTGTCACGGCCACTCTGTGTAAGGACTGCAGAGGCGTGGCAAG
GCCGTGACTGGCGTCCGTCCACAGAAGCCCTCTCACAGGCATGGCCACCTCCAGTTCGGCATTCTGGCGGTGGGG
AAACGGCCTCCTAGGTCGGTCCCAGGTTAGAAGCCTGTTCTGCCCCCCACAGGCCTGCATCTCAGTGTTAAGGGG
TGCAGTCTCCCCGCTGCAACCATTCCACCAGTCTGTTAGGCCTCCTGCTTCTAGGTGAAGGGCGTGGAGTGAGAC
CAGTGGAACTGATGGACACAAGCTTATCGCCACACTGGTTTTCCTCTGAAACAAGGCCCTGGATTACAAGTGTCA
TTTGTGGAATCCCAAGGCAGCGAAGGAGGCCAAGGATGGCATGCTGGCGGGAGAAGCCTGCGAGGACCCGTCCCT
TTGAGGATCCATCCCTGCAAGGACTGGCTCTCGACAAAAGGCACGCCGTGTGCTCTGCCTGCTTCCTGGAGGCTG
GCTGCCCTCCCCACAGGGGGTGGTGCCACATCAGGGCTCAGACACCATCCTCGCTGTTGGAAAGATGGGCGCCCA
GCTGTCCATGCTGCTGGAAGGGTCTGGTGGGGGTGAATAGGCTACGGAGCCTGTGTGGCCACCATGCCTGTGGCC
TCAGCCACTTTGTGCAAAGGACTGCAGAGGCGTGGCAAGGCCATGATGTGTCCGTCCACCGAAGGCCTCCCTGGT
TTTGAGCCCCTCCTCTGCAGGGAATGCTTCCAGCATTTTCATGGATTACAAATGTCTTAGCCCCTGCCCTTTCAA
GCAGTTCCTTAGCTCCCCTCCCCAGTCCACAGAGCCATCTCCTGCCTGTGAGTTAGGCCTAATCAACGTAAATCT
GTCCTCCAGGCCCTCCCTTCCCTCCAGATGAGGTGCGCAACCAGTGGTGCTGCTGGACGTTTGAAAATACAAAAG
GCCGGGCGTGGTGGCT

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FIGURE 2164

GCCAGGGCCAAGGCTGCGGAGCTCGCGGAGGCAAGGCTGAGGATAAGGAGTGG**ATG**CCTGTCACCAAGCTGGGCC
GCTTGGTCAAGGAGATGAAGATCAAGTCCCTGGAGGAGATCTATCTCTTTTCCCTGCCCATTAAGGAATCTGAGA
TCATTGACTTTTTCCTGGGGGGCCTCTCTCAAGGATGAGGTTTTGAAGATTATGCTGGCGCAGAAGCAGACCCGTG
CCGGCCAGCGCACCAGGTTCAAGGCGTTCTTTGCTATCGGAGACTACAATGGCCACGTCGGTCTGGGTGTTAAGT
GCTCCAAGGAGGTGGCCACCGCCATCCGTGGGGCCATCATCCTGGCCAAGCTCTCCATTGTCCCTGTGCACAGAG
GCTACTGGGGGAACAAGATCGGCAAGCCCCACACCGTCCCTTGCAAGGTGACAGGCCGCTGCGGCTCTGTGCCGG
CGCGCCTCATCCCTGCACACGGGGGCACTGGCATCGTCTCCGCACCTGTGCCCAAGAAGCTGCTCATGATGGCTG
GTATCGATGACTGCTACACCTCAGTCCGGGGCTGCACTGCCACCCTGGGCAACTTCGCCAAGGCCACCTTTGATG
CCATCTCTAAGACCTACAGCTACCTGACCCCCAACCTCTGGAAGGAGACTGTATTCACCAAGTCTCCCTATCAGG
ATCCTGCTGTGGCTACAACA**TAG**GGTTTTTATACAAGAGAAGTAAAGTGAATTAAGC

FIGURE 2165A

GGTGAAGGACCTGGGCAGCCTCAATGGGACGTTTGTGAATGAC**ATG**CGCATCCCGGACCAGAAGTACGTCACGCT
GAAGCTCAACGATGTCATCCGCTTCGGCTACGATTCCAACATGTATGTGCTGGAGCGTGTGCAGCACCGAGTCCC
GGAGGAGGCACTCAAGCATGAAAAGTACACCAGCCAGCTGCAGGTGAGCGTGAAGGGTTTGGCGCCCAAGAGGAG
CGAGGCACTGCCGGAACACACACCATACTGCGAGGCCTCGAACCCCAGGCCGGAGAAGGGGGACCGGAGACCAGG
AACAGAGGCAGCCTCTTACCGCACACCCCTGTATGGGCAGCCCTCCTGGTGGGGTGAGGACGATGGTAGCACGCT
GCCTGACGCCCAGCGCCAGGGAGAGCCCTACCCAGAGCGCCCCAAGGGACCAGTGCAGCAGGACGGGGAGCTCCA
CGGCTTCCGCGCCCCTGCTGAGCCTCAGGGCTGCTCGTTCCGGCGGGAGCCCAGCTACTTCGAGATCCCCACGAA
GGAGACCCCGCAGCCGTCGCAGCCCCCCGAGGTGCCGGCACACGAGATGCCCACGAAGGATGCAGAGGCAGGTGG
GGGCGGAGCGGCCCCTGTGGTGCAGAGCCACGCCTCCTTCACCATCGAGTTTGATGACTGCAGCCCTGGCAAGAT
GAAGATCAAGGACCATATCACCAAGTTTTCCCTGCGCCAGCGGCGGCCCCCGGGCAAGGAGGCCACACCTGGCGA
GATGGTGTCGGCTGAGACCAAGGTGGCCGACTGGCTGGTGCAGAATGACCCGAGCCTGCTGCACCGGGTTGGCCC
TGGGGATGACCGCCACAGCACCAAGAGCGACCTGCCTGTCCACACCCGCACCCTGAAGGGCCACAAGCACGAGGA
CGGCACGCAGAGTGACTCAGAGGACCCCCTGGCCAAGGCGGCCTCGGCCGCTGGGGTGCCCTTGGAGGCCAGCGG
GGAGCAGGTGCGGCTGCAGAGGCAGATCAAGCGGGACCCCCAGGAGCTACTACATAACCAGCAGGCCTTTGTCAT
CGAGTTCTTCGACGAGGACACACCCCGAAAGAAGCGCTCCCAGTCCTTCACGCACAGCCCGTCCGGGGACCCCAA
GGCCGACAAGCGCCGTGGCCCAACGCCGGCCGATAGGGACCGCCCCAGTGTCCCAGCCCCAGTCCAGGCAGGGGG
CCGCAGCTCGGGGCCACAGAGGGCCGGCTCGCTCAAGCGGGAGAAGACAGAGGAACGGCTGGGCAGCCCCTCGCC
CGCCTCCCGAACCCCTGCCCGCCCCTTCGGAAGCGTGGGGCGCCGCTCCCGCCTGGCCCAGGACTTCATGGCCCA
GTGTCTGCGGGAGAGCTCCCCGGCCGCCCGGCCCAGCCCCGAGAAGGTTCCTCCGGTGCTGCCCGCTCCCCTGAC
ACCCCATGGGACCAGCCCCGTGGGCCCCCCGACCCCACCGCCCGCCCCCACGGACCCCCAGCTGACCAAGGCACG
GAAACAGGAGGAGGACGACAGCCTCAGTGACGCAGGGACATACACCATCGAGACCGAGGCGCAGGACACGGAGGT
GGAGGAGGCCCGGAAGATGATCGACCAGGTCTTTGGGGTGTTGGAGTCCCCTGAACTCTCCAGGGCATCTTCGGC
CACCTTTCGCCCAGTCATCAGAGGGGACAGAGATGAGTCTGATGACGGGGGCGTGGCCCAGCGGATGGCGCTACT
GCAGGAGTTTGCCTCCCGGCCACTGGGTGCGGCCCCCCAGGCGGAGCACCAGGGCCTCCCGGTGCCGGGCTCCCC
TGGGGGTCAGAAGTGGGTGTCCCGCTGGGCCAGCCTGGCTGACAGCTACTCAGACCCGGGCCTCACAGAGGATGG
CCTGGGACGTAGAGGCGGGGAGCCGGAGGGGTCCCTGCCTGTGCGCATGCGGCGACGGCTCCCTCAGCTGCCCAG
TGAGAGGGCTGACAGCCCTGCGGGCCCAGAGAGCAGCAGGAGGAGTGGGCCTGGGCCACCGGAGCTGGACAGTGA
GCAGCCCAGCCGCCTCTTCGGCCAGGAGGAGTTGGATCCTGACAGCCTCAGCGATGCCAGTGGGTCGGACGGGGG
CCGAGGCCCCGAGCCAGGGGTGGAGCCACAGGACAGCAGACGCAGGAGCCCCCAGGAGGGGCCCACGTGGAGCAG
GGGTCGGCGCTCACCAAGGGCCCCCGGGGAGCCAACTCCCGCCTCTTTCTTCATTGGGGACCAGAATGGGGACGC
TGTGTTATCTAGGAAACCGCTTGCGGCTCCAGGGGATGGGGAGGGCCTAGGGCAGACAGCCCAGCCCAGCCCCCC
AGCACGGGATGGCGTCTATGTCAGTGCCAATGGGAGAATGGTCATCCAGCTACGGCCTGGACGGTCCCCAGAACC
CGACGGCCCTGCCCCAGCCTTTCTCCGGCAAGAGAGCTTCACTAAGGAGCCAGCCAGTGGTCCCCCAGCGCCCGG
CAAGCCCCCCCCACATCTCCAGCCACCCGCTTCTACAGGACCTGGCCGCTACCCGGGCCGCACGCATGGACTTCCA
CTCCCAGGACACCCACCTGATCTTGAAGGAGACGGAGACGGCCCTGGCGGCCCTGGAGGCCCGACTCCTCTCTAA
TTCTGTGGATGCCGAGTGTGAGGGGGGCAGCACCCCGAGGCCGCCGGAGGACGCCCTGTCTGGGGACTCGGACGT
GGACACAGCCAGCACCGTCAGCCTGCGTAGTGGCAAGAGCGGGCCCAGCCCCACAACCCCCCAGCCTCTGCGGGC
ACAGAAGGAGATGTCGCCATCCCCGCCAGCTGCACAGGACCCGGGAGGCACCGCCCTGGTCAGTGCCCGTGAGCA
GTCCTCAGAGAGGCAGCATCACCCACTTGGCCCGACGGACATGGGCCGTGGAGAGCCGGTACGGCGCTCAGCCAT
AAGGCGTGGCCACAGGCCCCGAGGGTCCCTGGATTGGCCCAGTGAGGAGCGTGGCCCTGTCCTCGCCCACCTACC
CAGCTCAGATGTGATGGCCTCCAACCACGAAACCCCTGAGGCCACCGGGGCAGGACGGCTAGGTTCTCGCCGGAA
ACCAGCGGCCCCACCGCCATCCCCAGCTGCCCGGGAGGAGCAGAGCCGTAGCTCAGCCAGCTCCCAGAAGGGGCC
GCAGGCCTTGACCCGCTCCAACAGCCTGTCCACCCCTCGCCCCACACGGGCCTCCCGGCTGAGGCGGGCCCGGCT
GGGGGACGCTTCAGACACTGAGGCTGCGGATGGTGAGCGGGGGTCCCTGGGCAACCCTGAGCCCGTGGGCCGGCC
AGCTGCTGAGCAGGCCAAGAAGCTGTCACGCCTGGACATCCTGGCCATGCCCCGGAAGCGGGCCGGCTCCTTCAC
AGGGACTAGTGACCCCGAGGCAGCCCCTGCCCGCACCAGCTTCTCTGGCCGCAGTGTGGAGTTGTGCTGTGCCAG
CCGCAAGCCCACCATGGCCGAAGCACGGGCTGTCTCCAGGAAGGCTGCCAACACAGCCACCACCACGGGTCCCCG
CCAGCCCTTCAGCAGGGCCCGCTCAGGCAGTGCCCGATACACCTCCACCACTCAGACCCCGAGGGCTGGCAGCTC

FIGURE 2165B

CAGCCGGGCTCGTTCCCGGGCCCCCGGCCCCCGGGACACGGACGACGATGAGGAGGAGCCTGACCCTTATGGTTT
CATCGTGCAGACGGCAGAGATTGCGGAGATTGCCAGGCTGAGCCAGACGCTGGTGAAGGACGTGGCCATCCTAGC
CCAGGAGATCCACGATGTGGCTGGGGACGGTGACACACTGGGCTCCTCGGAGCCTGCCCACAGCGCCTCCCTCAG
CAACATGCCCAGCACCCCCGCCTCGACCATCTCTGCCCGGGAGGAGCTGGTGCAGCGCATCCCCGAGGCCAGCCT
CAACTTCCAGAAGGTGCCGCCCGGCTCGCTGAACTCTCGGGACTTTGACCAGAACATGAACGACAGCTGTGAGGA
CGCCCTGGCCAACAAGACGCGGCCTCGGAACCGAGAGGAGGTGATCTTCGATAACCTGATGCTGAACCCGGTGTC
CCAGCTGTCGCAGGCCATCCGTGAGAACACAGAGCACCTTGCCGAGAAGATGAAGATCCTCTTTCAGAACACAGG
GAGAGCTTGGGAGGACCTGGAAGCCAGGATCAACGCCGAGAACGAGGTGCCCATCCTGAAGACATCTAACAAGGA
AATCAGCTCCATCCTGAAGGAACTGAGGCGGGTGCAGAAACAGCTGGAAGTTATCAATGCCATCGTGGACCCCAG
TGGGAGCCTGGACCTGCTCACAGGAAACAGGAGCTTGGCCAGCTCTGCACAGCCGGGGCTGGGGAAGGGCCGCGT
GGCTGCCCAGAGCCCACCCTCACCCGCCTCAGCCGAGGCCCTGCTGCCAGCCCTGCCCCTGAGGAATTTCCCACA
GCGGGCCAGCTGTGGGCCTCCCAGCCTCCCGGACCCCACCTTCCTCCCTGATGCCGAGAGGTTCCTGATC**TAG**GC
CCCAGACCTGGCCAGGCCAGCCTCCCTGTGCGTGTGCGTCTCTGCCTTCCGTCCGCCGCACACCCGCCTGCCTGG
CCGCAGGTGGTTCTCCCTGAAGACCCCCACATGTGCCATATCCCTGTGGGCGGGTGCCTCCCACGCCCTTGCCCC
CTCGTCAGCTCCCAGCCAGCACCCTACTCACCCTGTCCAGCCCCATGGCCACCCCCACCCCTGCCTCGCCCCCTA
CAGGCCTCTGGGCCCAGCTCCTGGCCAGGCTGCTGCCAAGGTCAAGCCCTCAAGGGCATTACCCCGCCTCCTCTT
CATCACTGTTATTTTTGTCTTTAGCTTTAAAGGAAAGAGTTGTTGGTGCCATTGCAGGTGCCCCCTCCAGGCCTG
ACTGGCTCCGCCAGGCACTAACCTGCCATAACCCTTTGTGCTGGCCTGCGGCCAGGCAGAGGAAGAGAGGTCGAC
TGTGGGGTCATTTGGTGCCAAACATGGAGGTGGGCAGGCTCACCTGTTCCTGGGACTGTCTGAGATGGCAGGGCA
CTTGCCCTGGTGGCTCCCACCTGACCCCAGGCCTTTTATAGGCAGGAGCCCCACTGCTTCCAGCCTCTGGTGCCA
ACACAGTTGCCAAACCCATTGAGCTTGGGGCTGCCCTGTGGAGGCCTCCTGGGTATGGACCAGGGGCTTGTTGAG
AGCTGAGCCATGCACACAGGTGCAGACACCCCCCAACTCCCATGCACACGGCTAGTCCAGGCGCCTCCACGCTGC
ACCGTGAGGACTGCAGGGCATGTCCCCGTGAGGGGCTATGGGCCTCTGTAGGTGGGCTTCCAAGGTCCTGGGTGC
AGCCGGGTGCATGGCAGCCCTTCTGGCGGGGGTGAGCGCACGACCAAAGTCACTGGAAGCCGGGTTTCCGGAAGC
TCGCAGCTTGGCCTGCACCACACGCCCTCCCCTTTTGGCTTCACGCCATCAGGCCTCAAGTGGGCATGGGGGCAG
GGACGGGCCCAGGAACTGTTGTTTTCTCAGGATTCTTTCAGCTGGGAACATGGCAGGTGAGCAGAGCTTGGTGCC
TCTGCCGTGGCCCCTGCTGGGGCAGCCCGTGTTGCCGGAGCCTCTAAGCCAAAGAGCCCGTTGGCCGTGGTTGGT
GGGGGTGGACGTGGGGGTGTCCCACCTGGACCAGACTGGCGTGGGTGAGCTCCACACCCTGCCTGGCAATGGTAT
GAGAGTCGGACCTGGACAGGGCCAGCTGCTGGGGGAGCGGCACTGGGGACTGGAGGCTGGAAGCGGGTGGTGTGT
GTCCCCTGTTTACTTTTAGCTGAGCTGGGGTTGGGTGTACGGGTTCTGTTCCTCTGAGCCTGCGGCCCACCTGAT
GTTTACGTGTGTGTGTGAGGGGGGGCGGGGGTGGCAGGTGTCCCCCCCTGGTCCCCGCCCCAAGAGCCTGCTGTC
TGTATGGAGGAGGTGCTAGCCCGGTCCACCGGGCTGCTGCCCACCCCTGCATGCCCCAGTTGCCCACCCCGCCTG
CCCCTGGACATGAAGTGGTCACGCTTCATCCACGGCTCCTTCCCACCCCTCGGCAGTGGCTGTGCAATGTTTTAA
GTTCACAAGTTCCTGCTCCTCCCCACACTGAGCTCCTTTGTTCCTCCCCCTCCAGCCTTTGCCTGGGAACTGGTC
CTTGTTTGCCGGGCTTCTCGGAGGGTTCACTGTACATTCGTTCTCAGGTGGTCTTGTGGCTGTCTTTCGGAAAAT
GGTTATTTTATATGATTTGTCATGGAATTTGTTCTAATAAATCATTCTTCTATC

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FIGURE 2166

ATGACCTTGCCAGC**ATG**GAGGATAAAACAGAGAAATGGTCTTCCCAGCCTGAAGGTCCACTTAAATTGAAAGCTT
CAAGTACTGATATGCCATCCCAGATTTCTGTGGTTAATGTGGATCAACTGTGGGAAGATTCTGTCCTAACTGTCA
AATTCCCCAAATTAATGGTACCAAGGTTCTCCTTCCCTGCCCCCAGCTCAGAGGATGATGTGTTCATCCCCACTG
TGAGGGAAGTGCAGTGTCCAGAGGCCAATATTGATACAGCCCTTTGTAAGGAAAGTCCGGGGCTCTGGGGAGCCA
GCATCCTGAAGGCAGGTGCTGGGGTCCCTGGGGAGCAGCCTGTGGACCTTAACCTGCCTTTGGAAGCTCCCCCAA
TTTCAAAGGTCAGAGTGCATATTCAGGGTGCTCAGGTTGAAAGTCAAGAGGTCACTATACACAGCATAGTGACAC
CAGAGTTTGTAGATCTCTCAGTACCCAGGACTTTTTCCACTCAGATTGTGCGGGAATCAGAGATCCCCACGTCAG
AGATTCAAACACCTTCGTACGGATTTTCCTTATTAAAAGTGAAAATCCCAGAGCCCCACACGCAGGCTAGAGTGT
ACACAACAATGACTCAACACTCTAGGACTCAGGAGGGCACAGAAGAGGCTCCCATACAAGCCACCCCAGGAGTAG
ACTCCATTTCTGGAGATCTCCAGCCTGACACTGGAGAACCATTTGAGATGATCTCTTCCAGCGTCAATGTACTGG
GACAGCAAACACTCACATTTGAAGTTCCTTCTGGCCACCAGCTTGCAGACAGCTGTTCAGATGAGGAGCCAGCAG
AAATTCTTGAGTTTCCCCCTGATGATAGCCAAGAGGCAACCACACCACTGGCAGATGAAGGCAGGGCTCCAAAAG
ACAAACCAGAAAGTAAAAAATCTGGTCTGCTCTGGTTTTGGCTTCCAAACATTGGGTTTTCCTCTTCTGTTGATG
AGACAGGTGTTGATTCCAAAAATGACGTCCAGAGATCTGCTCCCATTCAAACACAGCCTGAGGCACGACCAGAGG
CAGAACTGCCTAAAAAAACAGGAGAAGGCAGGCTGGTTCCGATTTCCCAAATTAGGGTTCTCCTCATCTCCTACCA
AGAAAAGCAAAAGCACCGAAGATGGGGCAGAGCTGGAAGAACAAAAACTTCAAGAAGAAACAATCACGTTTTTTG
ATGCCCGAGAAAGTTTCTCCCCTGAAGAGAAGGAAGAGGGTGAACTGATCGGGCCTGTGGGCACTGGGCTGGACT
CCAGAGTGATGGTGACATCCGCGGCAAGAACAGAGTTAATCCTGCCCGAGCAGGACAGAAAAGCTGACGATGAAA
GCAAAGGGTCAGGCCTGGGACCAAATGAAGGC**TGA**GAGGTATGGCTCATCAGTACAAGAGAGATGCAAAAAACTA
AGTTGGAAAGTAAAGGCTACACACACATATGGAGCACCCCATCCCACAGCACATTACATCCACCTCACTTCACAG
AACGGAGAACAGAGCAGAAATGACCAGAACACCTTTGTCACCATCACACAGCCCTCCTAAAATGGAACCAAAGCT
TCCCAGCTCCCTCAAAGCTTTGGATGCAAAGAAGGCACCCTGACTTCCACAAGACACCAGAATTCACACGGTACT
CAGAGGCACTGCTGGGGAAGTTTGTTGGTCTTTATTAGATAAATTTCCAGAGACCTGTCCATAATACCCAACAGA
ACATGACTGTTTCTTTGAGGAAAGGGTTATAATGTCTGTGGTGTACAAGTCGTTTTTGGTATAACTTCTTTCCTG
CTGCTGCTGCTTCCCGGCAAACATAGTTTTCCTATTTCAGGCAGAGTGCGGTATATTCCAGGAAACACTGTTTCC
TACTCACTTAGCTTACTTCTTTGTTGAATGCCTCACTAATGGCAAGTTTCAAGATGTTTTGGGTGACAATGCACA
CATGCTGGGCAAAAGGGTGATGGCCAGTGGCTGGCAGCTGGGCCAGCAGAAGCTAGGACATCTGTGAGTTGTCAT
TCTCATCTATCCATGTCCACTGGCCTGCCAGCATCCGCCAGTGCCTTGCCAGTGTGCACGGTCCCACACTGTGGC
CCCTGAGTCCCCTAATGTACACGCTGCAGCCAGAATGCAGATGGAGCTGGCTTGGCTGTTCCCTGGATGGGCAAT
AAAGAAAGTGCTGCATCCC

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FIGURE 2167

GTCAGCCACTGGGCAGCCCGGGGCACTCCTGCAGCGTCCCCTGGCCCTCTCCAGGGCAGGGGAAGGTTGGGCAGT
CCTGGGCGGCCAGCACCCCGGCGTGCATGTCTCCTGAGCAGCTGCCCATCGGGCCTCTGCTGGCCTGGGGGCTCC
AAG**ATG**CAAGGCCGGCGGGAGCTGGGGGGAGAGCCTTTGAGTGACCTCCAGGAGGAAGCAGCCAGCGCTTCCCTC
CGAGTGGCACCTGAGAGGCTGAGTGATGACAGTTTGGAATGGAGACGGACCTGCCCCGACCTTCTCCTGTCCGAT
GGGAAAGCCAGCATCTCCATGCCCCGTGAGGGCGGTTCCACCTGCACTGCCCGATGTCCTGACCCTGGGGAACAC
AGCAGCACTTGGGGGGAGTTTGAAGGCTTTCGGGAATCTTCAGCCAAGTCTGGACAATTCTCACAGTCCCTTGAA
CTCCTCGAGGGACCCACAGAACCCCAGCCACCGAGAACCACTTCTGCCCCAAAAGAGTGCAGTTCTCACCAACCA
TGCCAGGGTGGACCTTGGGTGACAGGAACTTCTGCCGTCCCACCTTCTGAGCCCATTCTCAGCTATGAGAACATT
TTAAAGTGTGCTTTTCAAGAAATAACAGTCCAGCAGGCAGCTGAAGACGTTTCCACCATAGACCATTTCCTAGAA
ATAAGCAGTGAAGAAAAACCTGGCGTTGAACGTGTACATAAATTGTGTAACGAATCCAGAAAACTCTGGAGAGCC
CTTCAGAGCATACACACCACGTCTACTTCTCAGCGCCTCTGGAGCGAGTCCCGTTGCCAGGAGAACTTCTTTCTT
GTTCTCGGAATAGATGCTGCGCAGAAGAACCTTTCTGGAGGCCAGGGCCACATCATGGAAGATTGTGACCTCAAA
GAGCCTGAAGGACTCCTCACTGTCAGCAGCTTCTGTCTCCAGCATTGCAAAGCCCTGATCCAGACCAAGCTCTCG
GGGCCGCCTGGCAGCAAACAGGGGAGGCTGATGACATGCAGCCGCTTCCTGAAGACCCCCTCATGCGGAGGTGGC
CAGCACATCACTATTCCAAGGAAAAGGATGTTCACTCCACGCAAGCTCAAACTGACACTCTTTAATAGCGACGTT
TGC**TAA**AATCAGGAGGACTTTGTACCTTTATGAGGAATTTTTCATTTTCTTCCTGGCTGGGTTGATGTGGAAACC
AGAGCTGTCTGTGGAGCTGTTTTCCAGACCCCAGGCCCATTCCTGGGATCTCTCCAACAGGACCTGTCCTGTGTT
CTGGGCTTGTCTCGGGTCTGACCAGGAGATGGAGGATGTGTCCTTGGCAGAGCCAAGGGGAGACAGAGGTTTCTG
GATGCCATGACAGGCTGTCGGGGTCCAGGTGGCACTCATGGGCCCCCTGCCCCATGTGAATGCTGCTGGCACCTG
GTGGGGGGTTGCCCAGGGATGGACCCTGGGCATGGCTTCTGGGCTGCTTAGTCCAGGGGGAGCAACTTGTGGCCA
AATCCATGAGTTCAGAGGAAAAGGGGAAGGCACTGAAACGTCACCAGAGAGACAGCTGTTGAGACCGCTCAGAAA
CCCTCTGTCTGTCACACTCTGCCCTGGCTGCTGTGTGGTCAGGGCACCATGAGGGTGTACAGATGTGCTGTGTCC
TCAGAGCCTCGCAGGTGCCCTCACTTACTGCCTGGGCCCCTGCCCAGCAGCCTCAAGGACAGGCCTTTGTCCCTC
ACGGTTGTGGACAGGAGGTCGCACCACTGGCCTGCGAGAGCCTCTGGTGGGCCCGTGGCTTCCCCCAGTTATCTG
CTAAGGAAAACTGTGCTCTTCGAAGGGCAGAGCCAAGAAGTCAGCCCTGACTTTTGTAAAATTTTACTAAATAAA
ACCACCTGGAT

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FIGURE 2168

TTATTCAAACAACACGTGCCATCCTTCAACACCCCAACCCACCTCCCGTGCCCCCTCTATGCCTCACAGCACCTG
CCCTGGAGTAGCTGACTTACTGCCGTTACTGTCTCCTCCAAGGAGTGGAAGCTCCGTGAGACCAGATATTTTGCT
GGTTTTGTTCACTCAAGTGCCTAGAACTGTGCTGAGTACAAAACAGATGCTCCCAAACTACGAGTACCAGTGCAT
GCTCAGGAGAACAAATGAGCAAACCAACGGTGAATGTCTACTATGTGCCACACGTCACTGCTACGCACTGTGAGG
GACTGAGAAGGTCTGCCTGCAGGAAGTTCACGTTCTAGTATGGAAGGGAAAATGAGTGCAAGGGCAGGTGCGGCA
GCTCACACCTGTAAACCCAGCACTTTGGGAGACTGAGGAGGGCAAATCACTTGAGCTCAGGAGTTTGAGACCAGC
CTGAGCAACATAGCAAAACCCTGTCTCTACAAAAAATACAAAAATTAGCTGGGTGTAGTGGCGGGTGCCTGTAGT
CCCAGTACTCAGGAGGCTGAGGCAGGAAGATCGCTTAAGCCTAGGAGACGGAGGCTGTAGTGAGCTGAGATGGTG
CCACTGCACTCCAGATGAGTACAGAAGAAGAGCAAATGTGCTAAACACCAAACCATTTCCAAAAATACCCCAGTG
TTTCAGAACACACAAACC**ATG**CTCTACTCCACCCCCAAAGTACCATCCAGCCTTCTGTCCCACGAGTGTCCAGCC
CCGCCAAGTCCTGACACCCAGGACTCCCCATGCCTCTGGGTCCGCGAGTTGTGCTGCTGGGGACAGAGATGTCAA
TGCTGCCAGCACAGAGCCCACCCCCACCGTCAGCTTGCTGGGACCACATTCTCCACAGTTTTTCCCCAGGGATCA
TGCTTTGCAGAAGCACCACACACAGAGGGCACACGGGCCATCTGGGCAATGCTGGTTGCGGCCTTCTGGGCTCCA
GGCCTCTGTCCTCAAGCCCCTGTAGAGGGTACCCTGGGGCAGGTGCTGGTTGGACCCCAGCAGAGGACACGGTGG
GCCAGGGCTGGAGCCCAGAATGGCCTGTCTGCAGAGCTCTCTGAAAGTCCAGGCCTGCTCAGAGACACAAAAATC
AGCAGGCTGACCTGGCTCTCCCCTGGCTGCTGGGAGACCCACTCCGCAGACCACACCGAGGGACAGGGAAGC**TAG**

CTCACCCCAACCTTCACTTCCCTCCTCCCTCTGGGGCCTTGGGCCAACTTACCTCGAGCTTCTCAACCACTGCGG
CCTAATCCACTCGAGCGCTGTCTGTCTTTCAATGCTCAGTTGAAAGTGTGTCCCTGGAAAATGGCCATCTGCGAG
TGACTGCGGGTGCACTTTCCCCTAGGAGCCTGTGGCCCTGCAGGCAGCACCGGGAGCACCCCTGGGGCTGGGCCT
GGGGCTGACAATGGGGCTCCAGAGTGTGGAACGTTTTCTAGAACTCTGTGGCTGAGAACCATGAGGCAGCCGGTG
CCCACTCAGCCAAGTCCCCCAGAAGGCCCCTGTGCCCACTGCCCAGGCCCACCAGCCACTCGCACTGAATGCGAG
GCCCCCACCCACTCCACCAGCACTGGCACTGAGACCCAAGGGGAGCTGGGCTTGGGTCCAGCTGCTCCAGGTGAG
CTGGCTGGGGAGGAGGATGAATAGGGCTCAGAGTGGAAGGCCACAGCTGGAGCGCCAATCGTGCTGCCCCTTCTC
ATAGGACCCCTATGACCCACAGATGGCAGGGACCTCAGGAGAGATGCTACTCTCCATAAAGGCAAAAACAAAGCC
TCACACACCTACTTTTATCAAACAAAAGTACAAAAGCAGTTGCTGTAAGAAATATTTCTTCAGTTCATTACCACA
ATTTATGTACACGTTCAACGCCAGGTTTTTCTTCACTGCTTATTTCTAGGAAATGGTCTATGGTGGAAACGTCTT
CAGCTGCCTGCTGGACTGTTATTTCTTGAAAAGCACACTTTAAAATGTTCTCATAGCTGAGAATGGGCTGAAAAG
AAAAGAAGAAAAGCATACCAAAGTTAGGAGAAAGACATACATAACGTTACCTTATTCCAAAGAAATAATTGTGAT
AGAAATGAAATTTGTAATTGATCATACCATTAGTGTTACTATCACTTGACATATTCATTCCTAAAAATCACCAAG
TTAGCAAAATCACACAAAACCAGAGGACTCATGGGAAAGGTGGGGTTAGGGCAAAACATTCAAACTTCATCAGTG
ACACATGAAAAAAGATGACCACCCAATAATGTCAGTGCTGTTTTCCAGTTTGGTTAAGAAATTATACATGCGGCC
GGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGCCCCAGGTGGGCAGATCACGAGGTCAGGAGTTCG
AGACCAGCCTGGCCAACATGGTGAAACCCCCATCTCTACTAAAAATACAAAAATTAGCTGGGTGTGGTGGTACAC
GCCTATAATCCCAGCTACTTAGGAGGCTGAGGCAGGAGAATCGCTTGAATCCGGCGGGTGGGGGGCAGAAGTTGC
AGTGAGCCGAGATTGTGCCACTGCACTCCAGCCTGGGTGACAGAGAGAGACTCCGTCTC

FIGURE 2169

GAAGCTGGCGGCAGCGGCGGTGGCGGTGGCTGAGCAGAGGACCCGGCGGGCGGCCTCGCGGGTCAGGACACAATG
TTTGCACGAGGACTGAAGAGGAAATGTGTTGGCCACGAGGAAGACGTGGAGGGAGCCCTGGCCGGCTTGAAGACA
GTGTCCTCATACAGCCTGCAGCGGCAGTCGCTCCTGGAC**ATG**TCTCTGGTGAAGTTGCAGCTTTGCCACATGCTT
GTGGAGCCCAACCTGTGCCGCTCAGTCCTCATTGCCAACACGGTCCGGCAGATCCAAGAGGAGATGACGCAGGAT
GGGACGTGGCGCACAGTGGCACCCCAGGCTGCAGAGCGGGCGCCGCTCGACCGCTTGGTCTCCACGGAGATCCTG
TGCCGTGCAGCGTGGGGGCAAGAGGGGGCACATCCTGCTCCTGGCTTGGGGGACGGCCACACACAGGGTCCAGTT
TCTGACCTTTGCCCAGTCACCTCAGCACAGGCACCAAGGCACCTGCAGAGCAGCGCCTGGGAGATGGATGGCCCT
CGAGAAAACAGAGGAAGCTTTCACAAGTCACTTGATCAGATATTTGAAACGCTGGAGACTAAAAACCCCAGCTGC
ATGGAAGAGCTGTTCTCAGACGTGGACAGCCCCTACTACGACCTGGACACAGTACTGACAGGCATGATGGGGGGT
GCCAGGCCGGGCCCCTGCGAAGGGCTCGAGGGCTTGGCTCCGGCCACCCCAGGCCCTAGCTCCAGCTGCAAGTCC
GACCTGGGCGAGCTGGACCACGTGGTGGAGATCCTGGTGGAGACC**TGA**GCAGGAGCCCTGAGTGCTCACAGCCGC
CTCTGACGCATTGACACGTGAGCACTGGCTCCCACGGAGGGTGCGCCTGCCGCCAGCGGCCCAGCCTTGCTGCCC
TGTCTGCTGATTCTGAGAAATCCCAGAACAGCCCATTACCAGTGGGGCTGCAGCCCTAGGCCCGTCCCACTCACC
TCCCCCCTGTGGAGCGCCAGGCAGAGGCTGTTCTGGAAGGCTTCTTGTCTTCTGACGTCCCCACAGCCCTGGGCC
CCTCGTGTCTCTTTGTGTCCCCCACTGTAGAGGACGGTGAGCCGCAGCTGCATCAACCTCCTTTTACCTTTAGAT
AGGTGAATTTTTACAATTCAGTTTTACATGTTTTGGGCAGTATTTTGTCTTAAGATATATTTTTTAAACTTTTTA
TACCTTATCTCTTTAGATTTTTTCAGCTATTTTCTTAAAAGTATATTTTTTCTATAAACATCCTTTGCTGCTACA
TTAGAACTTTTATAGCCTAAACAATTGCAGTTGGTGTGTTTCATTTTTTTAAGGTTTAAATAAGGGTTTTTTGTT
TTGTTTTGTTTTTTGCAGTGAGCATCACTACAGTCTCAGTCAACAGTGTGAATGTATCATGTTTTACTTTAAATG
TGTGTGTGATACTTCTTCATTATGTCCTGCGCTGCAGTGAGACCTGGGTGAAAATCAGGAGCCGCACACAGCCAC
ATCTTCCTAGACCTAAGAGTAAATTATGGAGGATTTTATTTATGTCTATTTATATGTAAATGTCATTGAAGACAA
AGGTCAAATATTTGTCTGTTTGTAGATCACAGGCACCAGTTGGTCTTCAGGGACCTCATAGCCCCTCGGTGGTGC
CTTCTCAAGGCAGTGTTCCTGGAGGCTCCCATCAGGGTCAGCCCATGCACCTGCCCTGGGTGAGGAAGTAGCATT
GCTGCTGGATGAGAAACGCCTGCGCTGCTCTGTTAGACTGGTGCTGAAACAAAAGGTTAAGGCTAGGTTGAAGTC
TAGAATGAAAGAAATCTGAATCCATGTCATTCATAACCCCTTGATCTGTAGTGTCATGGGTGCTGCCGCAGGCAG
GGAGTGAGCTGGGGGTGCCTGCAGCCTTCCACTCCTGCCCCGCCTCACCCCACATGCTCCCTGTTTCTCATGCTT
TCTCTAACTTCCTCACCCCTTAACCAAAAAGGTGTGTTTTCTTTTGTGCATATAGCCATTCTTAAATATCAGTGA
TGTAAACCTCACTTTATTAAAAAATTATCCAGC

FIGURE 2170A

ATGCTGTCATCACCAGTAAGATACCCCAGCCCGGTTGGCTAACCCCTAGCTCAGCCCTGTTTGTGGTTAGGGGAG
TTCTAGACAGAACATAATTAGACCCCTGCTACTTCCTGAAACCTCAGCTAGGACTGCAGGGAGGGGTGCGAGGCT
AGCCACGCAGGCGGGGCCCTGGGTCATTTTAAACTCTCAGAGTGAACGTCTTGATAGGACCGACAAGACGCATGA
CATGTACTTAGAAAGCTTATCTTAGAGCCACACTGAGATTGGAACCCGCAAAATATGCCAGGGAGGAAGGTGAGC
AAGGGACACGACACTCACCCGGAGAAACCCAGCAAGCGCAGCGAGGCTGTGGGGAGACCGGAGCCCTGCACACCG
CCGGGGGAAGGTGGGCCAGCGCCACCACCGTGGAGAACAGCGCGGAGGCACCCCACGAGATGAGACGGAACTGCC
GTGAGATCCAGCAATGCCAACTGTGGGTCTGACCCAGGAGAACGGAAAGCAGGGACGTGAACAGCCCTCCTCATG
TTCTTGACACCGTCATTCTCAGCAGCTCAGCTAAGGCACAGAGGCAGCCGAGCGTCTGTCAGCGGAGTCGTGGCT
GAGCAGAACACGCCACACGCCACACGCCACACGCCACACGTGCAGGATTGCTCAAGATGGAAGGGCACAGTGGAA
TATATATATATATTTATATTTTTGGCGAGACCCTGGAGGACACACTGAATACAATGGAATACCATCCCGCCTTTG
AAAGGAAGGGAAATCCTGGCACACGCTGCAACAGGAGGGAGCTTGAGGACACTGTGGTGAGTGGAGCACGTGAGA
CACGGAAGGACACACGCTGAAGACACGCAGAGATGCCCACCCACGTGGGGAGGTGACAGGGGAGCCCAGCGCACA
GAGACAAAGTGGAATGGAGGCCTGGGGGCTGGGAGCAAATGCGGAGCGAGTGCTTCCTGGGGCAGAGTCTCCGTT
TGGGAAGATGAGAAGGTTCTGCCGACGGATGCTGGCGATGGTTGCAGAAGAATGTGA**ATG**TGCCCAATGCTACTG
AAAAACGGTTACAATGGAAACGCCACCCCAGTGACCACCACTGCCCCGTGGGCCTCCCTGGGCCTCTCCGCCAAG
ACCTGCAACAACGTGTCCTTCGAAGAGAGCAGGATAGTCCTGGTCGTGGTGTACAGCGCGGTGTGCACGCTGGGG
GTGCCGGCCAACTGCCTGACTGCGTGGCTGGCGCTGCTGCAGGTACTGCAGGGCAACGTGCTGGCCGTCTACCTG
CTCTGCCTGGCACTCTGCGAGCTGCTGTACACAGGCACGCTGCCACTCTGGGTCATCTATATCCGCAACCAGCAC
CGCTGGACCCTAGGCCTGCTGGCCTGCAAGGTGACCGCCTACATCTTCTTCTGCAACATCTACGTCAGCATCCTC
TTCCTGTGCTGCATCTCCTGCGACCGCTTCGTGGCCGTGGTGTACGCGCTGGAGAGTCGGGGCCGCCGCCGCCGG
AGGACCGCCATCCTCATCTCCGCCTGCATCTTCATCCTCGTCGGGATCGTTCACTACCCGGTGTTCCAGACGGAA
GACAAGGAGACCTGCTTTGACATGCTGCAGATGGACAGCAGGATTGCCGGGTACTACTACGCCAGGTTCACCGTT
GGCTTTGCCATCCCTCTCTCCATCATCGCCTTCACCAACCACCGGATTTTCAGGAGCATCAAGCAGAGCATGGGC
TTAAGCGCTGCCCAGAAGGCCAAGGTGAAGCACTCGGCCATCGCGGTGGTTGTCATCTTCCTAGTCTGCTTCGCC
CCGTACCACCTGGTTCTCCTCGTCAAAGCCGCTGCCTTTTCCTACTACAGAGGAGACAGGAACGCCATGTGCGGC
TTGGAGGAAAGGCTGTACACAGCCTCTGTGGTGTTTCTGTGCCTGTCCACGGTGAACGGCGTGGCTGACCCCATT
ATCTACGTGCTGGCCACGGACCATTCCCGCCAAGAAGTGTCCAGAATCCATAAGGGGTGGAAAGAGTGGTCCATG
AAGACAGACGTCACCAGGCTCACCCACAGCAGGGACACCGAGGAGCTGCAGTCGCCCGTGGCCCTTGCAGACCAC
TACACCTTCTCCAGGCCCGTGCACCCACCAGGGTCACCATGCCCTGCAAAGAGGCTGATTGAGGAGTCCTGC**TGA**

GCCCACTGTGTGGCAGGGGGATGGCAGGTTGGGGGTCCTGGGGCCAGCAATGTGGTTCCTGTGCACTGAGCCCAC
CAGCCACAGTGCCCATGTCCCCTCTGGAAGACAAACTACCAATTTCTCGTTCCTGAAGCCACTCCCTCCGTGACC
ACTGGCCCCAGGCTTTCCCACATGGAAGGTGGCTGCATGCCAAGGGGAGGAGCGACACCTCCAGGCTTCCGGGAG
CCCAGAGAGCATGTGGCAGGCAGTGGGGCCTCTTCATCAGCAGCCTGCCTGGCTGGCTCCCTTGGCTGTGGGCAG
GTAGCACGCCTGCTGGCAGAGGTACCTGGTGGCTGCCCTGTTCGCATCAGTGGCGATGACTTTATTTGCGGAGCA
TTTCTGCAAGCGTTGCCTGGATGCGGTGGTGCATTGTGGGCCCTCTGGGCTCCTGCCTCAGAATGTCAGTGAGCA
CCATGCTGGAGGTCACCCAGCACTGTGGCAGCGCCCAGGAGGGCATAGGGCAGCCTACCACCTCCAAGGGGGCAG
GCGCCCTCATCTGGGGTTGGGTCTGTGCTGAGCTGGAGGGCCTCTAGGGAACCGTGGGGCAGGGTGGCCAGCTGC
TGGCTCCCAGAGCGCAGCCCAGGCGTCCTCAACGGGGAGCCCCAAATGTCCACGCCCAGAACAACAGTTGGCAGG
ACAGGTGTGACACAGCCACAGCAGAGGCAAGGGGTGCCAGGAGTCCCCAGCGGCATCCTCGGGGAGATGCTGGTG
AGGGGTCCGTACAGGGTGGGGTCCCCACCCCTAGCCCCTTACTGAGGGGGGAGTGCAGCAGTTGGCCTGCTTGTC
TGGCGGAGAAAGCCAGCTCCCTGCACCCTCGGGGCTGAGTCAGATCTGGGTCTGCCGCAAAGGCCTTGCCTAGAC
CAGGTCACACTGATGCCCTGGTTTCCCTATCTGTAAAATGGGGCCAATGACACCTACCTCACTGGGTCACCATCG
AGATCAATCCTCCTCCCTGCCCCGACACCTCGGGCACATCGCATGCACTCAGAGCACAGAGCCGGGCAGACGCAG
CACCTGCATGGGGAGCCCAGTGCCCGGCACAGCACAGGGGCTTCCAGGGAGGCCGCGCAGGGCCGTGGGGCTGAG
CCACGCTCTCGTTTTGTCAGGCAGCTATGCAGTTGCTCTTCCTTGTTTTTGTTTTGTTTTTGTTTTTGTTTTTAA
TATTTATTTTTTTAGAGACAGGGCCTTGCTCTGTTGCCTGGGCTGGAGAACAGTGGCACCATCATAGCTCACTGC
AGCCTCAAACTCCTGGGCTCAAGCGATCCTCCCCGCTCAGCCTCCTGAGTAGCTGGGACTACAGGTGTGCACCAC
CACACCCAGCCAAAACAGCCATCCTCCCCTTGAGAGTCATCAGAAAAATACATTAGGAAAATGTGTTTAGAAATA

FIGURE 2170B

AAAGCACAAGGCAGGGCAGTGCTCACGCCTGTCATCCCAGCACTTTGGGAGGCCGAGACGGGAGGATCAGTTGAG
GTCAGGAGTTTGAGACCAGCCTCGGCAACATGGCAAAATCTTGTCTCTTTTTTTTGGTATTAAAAAAATCATAAA
AATAAAAGAAATAATGC

FIGURE 2171A

CTCATGCATATGCAGGTGCGCGGGTGACGAATGGGCGAGCGAGCTGTCAGTCTCGTTCCGAACTTGTTGGCTGCG
GTGCCGGGAGCGCGGGCGCGCAGAGCCGAGGCCGGGACCCGCTGCCTTCACCGCCGCCGCCGTCGCCGCCGGGTG
GGAGCCGGGCCGGGCAGCCGGAGCGCGGCCGCCAGCGAGCCGGAGCTGCCGCCGCCCCTGCACGCCCGCCGCCCA
GGCCCCGCGCGCCGCGGCGCTGCGCTCGACCCCGCCCGCGCCGCCGCCGCCGCCTCTGCCGCTGCCGCTGCCT
CTGCGGGCGCTCGGAGGGCGGGCGGGCGCTGGGAGGCCGGCGCGGCGGCTGGGAGCCGGGCGCGGGCGGCGGCGG
CGGGGCCGGGCGGGCGGGTCGCGGGGGCA**ATG**CGGGCGCAGGGCCGGGGGCGCCTTCCCCGGCGGCTGCTGCTGC
TGCTGGCGCTCTGGGTGCAGGCGGCGCGGCCCATGGGCTATTTCGAGCTGCAGCTGAGCGCGCTGCGGAACGTGA
ACGGGGAGCTGCTGAGCGGCGCCTGCTGTGACGGCGACGGCCGGACAACGCGCGCGGGGGGCTGCGGCCACGACG
AGTGCGACACGTACGTGCGCGTGTGCCTTAAGGAGTACCAGGCCAAGGTGACGCCCACGGGGCCCTGCAGCTACG
GCCACGGCGCCACGCCCGTGCTGGGCGGCAACTCCTTCTACCTGCCGCCGGCGGGCGCTGCGGGGGACCGAGCGC
GGGCGCGGGCCCGGGCCGGCGGCGACCAGGACCCGGGCCTCGTCGTCATCCCCTTCCAGTTCGCCTGGCCGCGCT
CCTTTACCCTCATCGTGGAGGCCTGGGACTGGGACAACGATACCACCCCGAATGAGGAGCTGCTGATCGAGCGAG
TGTCGCATGCCGGCATGATCAACCCGGAGGACCGCTGGAAGAGCCTGCACTTCAGCGGCCACGTGGCGCACCTGG
AGCTGCAGATCCGCGTGCGCTGCGACGAGAACTACTACAGCGCCACTTGCAACAAGTTCTGCCGGCCCCGCAACG
ACTTTTTCGGCCACTACACCTGCGACCAGTACGGCAACAAGGCCTGCATGGACGGCTGGATGGGCAAGGAGTGCA
AGGAAGCTGTGTGTAAACAAGGGTGTAATTTGCTCCACGGGGGATGCACCGTGCCTGGGGAGTGCAGGTGCAGCT
ACGGCTGGCAAGGGAGGTTCTGCGATGAGTGTGTCCCCTACCCCGGCTGCGTGCATGGCAGTTGTGTGGAGCCCT
GGCAGTGCAACTGTGAGACCAACTGGGGCGGCCTGCTCTGTGACAAAGACCTGAACTACTGTGGCAGCCACCACC
CCTGCACCAACGGAGGCACGTGCATCAACGCCGAGCCTGACCAGTACCGCTGCACCTGCCCTGACGGCTACTCGG
GCAGGAACTGTGAGAAGGCTGAGCACGCCTGCACCTCCAACCCGTGTGCCAACGGGGGCTCTTGCCATGAGGTGC
CGTCCGGCTTCGAATGCCACTGCCCATCGGGCTGGAGCGGGCCCACCTGTGCCTCTGCAGACATCGATGAGTGTG
CTTCGAACCCGTGTGCGGCCGGTGGCACCTGTGTGGACCAGGTGGACGGCTTTGAGTGCATCTGCCCCGAGCAGT
GGGTGGGGGCCACCTGCCAGCTGGACGCCAATGAGTGTGAAGGGAAGCCATGCCTTAACGCTTTTTCTTGCAAAA
ACCTGATTGGCGGCTATTACTGTGATTGCATCCCGGGCTGGAAGGGCATCAACTGCCATATCAACGTCAACGACT
GTCGCGGGCAGTGTCAGCATGGGGGCACCTGCAAGGACCTGGTGAACGGGTACCAGTGTGTGTGCCCACGGGGCT
TCGGAGGCCGGCATTGCGAGCTGGAACGAGACGAGTGTGCCAGCAGCCCCTGCCACAGCGGCGGCCTCTGCGAGG
ACCTGGCCGACGGCTTCCACTGCCACTGCCCCCAGGGCTTCTCCGGGCCTCTCTGTGAGGTGGATGTCGACCTTT
GTGAGCCAAGCCCCTGCCGGAACGGCGCTCGCTGCTATAACCTGGAGGGTGACTATTACTGCGCCTGCCCTGATG
ACTTTGGTGGCAAGAACTGCTCCGTGCCCCGCGAGCCGTGCCCTGGCGGGGCCTGCAGAGTGATCGATGGCTGCG
GGTCAGACGCGGGGCCTGGGATGCCTGGCACAGCAGCCTCCGGCGTGTGTGGCCCCCATGGACGCTGCGTCAGCC
AGCCAGGGGGCAACTTTTCCTGCATCTGTGACAGTGGCTTTACTGGCACCTACTGCCATGAGAACATTGACGACT
GCCTGGGCCAGCCCTGCCGCAATGGGGGCACATGCATCGATGAGGTGGACGCCTTCCGCTGCTTCTGCCCCAGCG
GCTGGGAGGGCGAGCTCTGCGACACCAATCCCAACGACTGCCTTCCCGATCCCTGCCACAGCCGCGGCCGCTGCT
ACGACCTGGTCAATGACTTCTACTGTGCGTGCGACGACGGCTGGAAGGGCAAGACCTGCCACTCACGCGAGTTCC
AGTGCGATGCCTACACCTGCAGCAACGGTGGCACCTGCTACGACAGCGGCGACACCTTCCGCTGCGCCTGCCCCC
CCGGCTGGAAGGGCAGCACCTGCGCCGTCGCCAAGAACAGCAGCTGCCTGCCCAACCCCTGTGTGAATGGTGGCA
CCTGCGTGGGCAGCGGGGCCTCCTTCTCCTGCATCTGCCGGGACGCGTGGGAGGGTCGTACTTGCACTCACAATA
CCAACGACTGCAACCCTCTGCCTTGCTACAATGGTGGCATCTGTGTTGACGGCGTCAACTGGTTCCGCTGCGAGT
GTGCACCTGGCTTCGCGGGGCCTGACTGCCGCATCAACATCGACGAGTGCCAGTCCTCGCCCTGTGCCTACGGGG
CCACGTGTGTGGATGAGATCAACGGGTATCGCTGTAGCTGCCCACCCGGCCGAGCCGGCCCCCGGTGCCAGGAAG
TGATCGGGTTCGGGAGATCCTGCTGGTCCCGGGGCACTCCGTTCCCACACGGAAGCTCCTGGGTGGAAGACTGCA
ACAGCTGCCGCTGCCTGGATGGCCGCCGTGACTGCAGCAAGGTGTGGTGCGGATGGAAGCCTTGTCTGCTGGCCG
GCCAGCCCGAGGCCCTGAGCGCCCAGTGCCCACTGGGGCAAAGGTGCCTGGAGAAGGCCCCAGGCCAGTGTCTGC
GACCACCCTGTGAGGCCTGGGGGGAGTGCGGCGCAGAAGAGCCACCGAGCACCCCCTGCCTGCCACGCTCCGGCC
ACCTGGACAATAACTGTGCCCGCCTCACCTTGCATTTCAACCGTGACCACGTGCCCCAGGGCACCACGGTGGGCG
CCATTTGCTCCGGGATCCGCTCCCTGCCAGCCACAAGGGCTGTGGCACGGGACCGCCTGCTGGTGTTGCTTTGCG
ACCGGGCGTCCTCGGGGGCCAGTGCTGTGGAGGTGGCCGTGTCCTTCAGCCCTGCCAGGGACCTGCCTGACAGCA
GCCTGATCCAGGGCGCGGCCCACGCCATCGTGGCCGCCATCACCCAGCGGGGGAACAGCTCACTGCTCCTGGCTG

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FIGURE 2171B

TCACCGAGGTCAAGGTGGAGACGGTTGTTACGGGCGGCTCTTCCACAGGTCTGCTGGTGCCTGTGCTGTGTGGTG
CCTTCAGCGTGCTGTGGCTGGCGTGCGTGGTCCTGTGCGTGTGGTGGACACGCAAGCGCAGGAAAGAGCGGGAGA
GGAGCCGGCTGCCGCGGGAGGAGAGCGCCAACAACCAGTGGGCCCCGCTCAACCCCATCCGCAACCCCATTGAGC
GGCCGGGGGGCCACAAGGACGTGCTCTACCAGTGCAAGAACTTCACGCCGCCGCCGCGCAGGGCGGACGAGGCGC
TGCCCGGGCCGGCCGGCCACGCGGCCGTCAGGGAGGATGAGGAGGACGAGGATCTGGGCCGCGGTGAGGAGGACT
CCCTGGAGGCGGAGAAGTTCCTCTCACACAAATTCACCAAAGATCCTGGCCGCTCGCCGGGGAGGCCGGCCCACT
GGGCCTCAGGCCCCAAAGTGGACAACCGCGCGGTCAGGAGCATCAATGAGGCCCGCTACGCCGGCAAGGAG**TAG**G
GGCGGCTGCCAGCTGGGCCGGGACCCAGGGCCCTCGGTGGGAGCCATGCCGTCTGCCGGACCCGGAGGCCGAGGC
CATGTGCATAGTTTCTTTATTTTGTGTAAAAAAACCACCAAAAACAAAAACCAAATGTTTATTTTCTACGTTTCT
TTAACCTTGTATAAATTATTCAGTAACTGTCAGGCTGAAAACAATGGAGTATTCTCGGATAGTTGCTATTTTTGT
AAAGTTTCCGTGCGTGGCACTCGCTGTATGAAAGGAGAGAGCAAAGGGTGTCTGCGTCGTCACCAAATCGTAGCG
TTTGTTACCAGAGGTTGTGCACTGTTTACAGAATCTTCCTTTTATTCCTCACTCGGGTTTCTCTGTGGCTCCAGG
CCAAAGTGCCGGTGAGACCCATGGCTGTGTTGGTGTGGCCCATGGCTGTTGGTGGGACCCGTGGCTGATGGTGTG
GCCTGTGGCTGTCGGTGGGACTCGTGGCTGTCAATGGGACCTGTGGCTGTCGGTGGGACCTACGGTGGTCGGTGG
GACCCTGGTTATTGATGTGGCCCTGGCTGCCGGCACGGCCCGTGGCTGTTGACGCACCTGTGGTTGTTAGTGGGG
CCTGAGGTCATCGGCGTGGCCCAAGGCTGGCAGGTCAACCTCGCGCTTGCTGGCCAGTCCACCCTGCCTGCCGTC
TGTGCTTCCTCCTGCCCAGAACGCCCGCTCCAGCGATCTCTCCACTGTGCTTTCAGAAGTGCCCTTCCTGCTGCG
CAGTTCTCCCATCCTGGGACGGCGGCAGTATTGAAGCTCGTGACAAGTGCCTTCACACAGACCCCTCGCAACTGT
CCACGCGTGCCGTGGCACCAGGCGCTGCCCACCTGCCGGCCCCGGCCGCCCCTCCTCGTGAAAGTGCATTTTTGT
AAATGTGTACATATTAAAGGAAGCACTCTGTATATTTGATTGAATAATGCCACC

FIGURE 2172A

CGGCTGCGCTCACCGGTAGGCCCCGCTCGGGTTCCGCCGAAGCCCAGCCCCCGCAGGTCGCCCCTCCGACGCCGG
CGCGCCGCAAGGGAGGCCAGCTCGCTCGCAGTGGGGAGGTCGCGGCTCCAGTCCTCGCGTCCCCGCCGTGGTCCC
GGTGCCTGTCCCATCCCGCGGGCGCGGCCGTTGCGGGCGGCGCGGCCCGGGCGCGCGCGGCGAATCTGCGGCTGC
GAATCGGCTGGAGCGGGGCCTCGCGAGAGCGGCGAGGCCTGGGCGGCTGGGCCTGGGCGGGCGGCGCGGGCTGCT
CCGGAGGCTCGGGTGGCTTGAGAGTCTTGGGAGGCTCCGGGCGCTGCCCGCGCGGTCGCCGGC**ATG**ACGGGCCGC
GTGTGCCGCGGTTGCGGCGGCACGGACATCGAGCTGGACGCGGCGCGCGGGGACGCGGTGTGCACCGCCTGCGGC
TCAGTGCTGGAGGACAACATCATCGTGTCCGAGGTGCAGTTCGTGGAGAGCAGCGGCGGCGGCTCCTCGGCCGTG
GGCCAGTTCGTGTCCCTGGACGGTGCTGGCAAAACCCCGACTCTGGGTGGCGGCTTCCACGTGAATCTGGGGAAG
GAGTCGAGAGCGCAGACCCTGCAGAATGGGAGGCGCCACATCCACCACCTGGGGAACCAGCTGCAGCTGAACCAG
CACTGCCTGGACACCGCCTTCAACTTCTTCAAGATGGCCGTGAGCAGGCACCTGACCCGCGGCCGGAAGATGGCC
CACGTGATTGCTGCCTGCCTCTACCTGGTCTGCCGTACGGAGGGCACGCCGCACATGCTCCTGGACCTCAGCGAC
CTGCTCCAGGTGAATGTGTACGTGCTTGGAAAGACGTTTCTTCTCTTGGCAAGAGAGCTCTGCATCAATGCGCCG
GCCATAGACCCGTGCCTGTATATTCCACGCTTTGCGCACCTGCTGGAATTCGGGGAGAAGAACCACGAGGTGTCC
ATGACTGCCCTGAGGCTCCTACAGAGGATGAAGCGGGACTGGATGCACACAGGCCGGCGCCCCTCGGGCCTCTGC
GGAGCAGCGCTCCTGGTTGCAGCCAGAATGCATGACTTCAGGAGGACTGTGAAGGAGGTCATCAGTGTGGTCAAA
GTGTGTGAGTCCACGCTGCGGAAGAGGCTCACGGAATTTGAAGACACCCCCACCAGTCAGTTGACCATTGATGAG
TTCATGAAGATCGACCTGGAGGAGGAGTGCGACCCCCCCTCGTACACAGCTGGGCAGAGGAAGCTGCGGATGAAG
CAGCTTGAACAAGTCCTGTCAAAAAAACTGGAGGAGGTTGAAGGTGAAATATCCAGTTACCAGGATGCAATTGAG
ATTGAACTAGAAAACAGCCGGCCAAAGGCCAAGGGGGGCCTGGCCAGCCTGGCAAAAGATGGCTCCACCGAGGAC
ACCGCGTCCAGCTTGTGTGGCGAGGAGGACACAGAGGACGAGGAGCTGGAAGCCGCGGCCAGCCACCTGAACAAA
GACTTATACCGGGAGCTCCTTGGTGGTGCCCCCGGCAGCTCGGAAGCAGCAGGAAGCCCCGAGTGGGGCGGCAGA
CCTCCGGCCCTGGGGTCCCTGCTGGACCCCCTCCCCACTGCAGCCAGCCTGGGCATCTCAGACTCCATCCGCGAA
TGCATCTCCTCTCAGAGCAGCGACCCCAAAGATGCTTCAGGAGACGGTGAGCTGGACCTCAGTGGCATTGATGAC
CTGGAGATTGACAGGTACATCCTGAATGAGTCGGAAGCCCGCGTGAAGGCCGAGCTGTGGATGAGGGAGAACGCC
GAGTACCTGCGGGAACAGAGGGAAAAAGAAGCAAGAATAGCGAAAGAGAAGGAGCTCGGCATCTACAAGGAACAC
AAGCCCAAGAAGTCTTGCAAGCGACGGGAGCCAATTCAGGCCAGTACCGCCAGGGAGGCCATCGAGAAGATGCTG
GAGCAGAAGAAGATCTCCAGCAAGATCAATTATAGCGTGCTCCGGGGCCTCAGCAGCGCCGGCGGGGGCAGTCCG
CACAGGGAGGATGCACAGCCCGAGCATAGCGCCAGTGCCAGGAAGCTGTCACGAAGGAGGACGCCGGCCAGCAGA
AGTGGGGCTGACCCTGTGACCAGTGTGGGGAAAAGGTTGAGGCCTCTGGTGTCTACGCAGCCAGCAAAGAAGGTG
GCCACGGGAGAGGCTTTGCTCCCAAGCTCTCCCACCCTCGGAGCTGAGCCTGCCAGGCCCCAGGCGGTGCTGGTG
GAGAGCGGGCCCGTGTCATACCACGCCGACGAGGAGGCTGACGAGGAGGAGCCTGACGAGGAGGACGGGGAGCCC
TGCGTCAGTGCCCTGCAGATGATGGGCAGCAACGACTATGGCTGTGATGGCGATGAGGACGACGGCTAC**TGA**AGT
GTGGCCTCCAGGCAGGTGATGTCCTGGCAGGGGGCCTCGCGGGTCTCCTCAGCATCAGACGGGCTTCCAGGACCG
CAGCAGGCAGGCCCCAGCGCCGAGACTCCTGGTGACAGGTGGCACCTGTCCCACAGCCCTCGTCCCATGTGGAAC
TTACCATTGGGATTGTGTTTCTATTCAGCAAGGGAAACCGGACCAAGCGTCTGCATGTGTGTGATCAGATGTGGG
CCGGGTGTGTGCAGGGCTGGGTCCCGCTGCCTGCCGTCGACTCATCCAAGGACCCTCCAAGGCTGGCAGTGTGGT
GTTGCTACTATTAAGGAAACAGGCTTGGGGCAGCCCCACTGCTGGTCCAAGTGTGTGGAGGGCTGAGTGTGCTGG
CCCTGTGACTCAGGACCAGCTCTGGAGTCTCCAGCCCACCCTCCGCACCGTCCCCTCCTGAGCAGCACTCGGCGC
CAGCAGCCTCTGCCAGAGTGGAAGCCAGAGCCCTGCAGGTGTCCGGCGCAGCCGTGGGAGCTGAGGATCTGGCAC
TTGAGAGGCAGCAGCTCCTTGAAGGTCCTCTGCCTCCAGCTGTGGCCCTGCATCCAGATACCTGCCTCGTCCGAG
GCAGACACCCCCACCCCTGCCTCCTCCAGACCCCCCTCCCCGCTGCCTGCACCGCCTGGAGCAGCATGGGGGTCA
GACCCCTGCTCCAGGGCCACTTGAGTTGTGGGCCCAGGAGCCCTGCGGCTGCCGGCAGGTGAACTGAGTGCCCGA
CAGCTGAGACCGGCGCCCACCCGTCCTGAGCATAGCTCTGTAGGCAGTGCGGGCATAGCCTGCATAGTGTCCTGG
CGCTGGGAGTTCCCCGTGGACAGAGCCAGAGGGCAGTGGCGCTCCCTGTCAGAGCTGGATCAGGCCCCCCATCGA
GGAGGGAGGGCAGACGGAGGCCCGAGAGCCTCCCCAGGCCTCTTCGTGGGAAGGCCCCAGTACCACTCGTAGGAG
GTCTCAGCTCTGGCATGGCTGCCCCGGATGTGGCCGAGGGGGCTTCACCCTGTGTCCTTAGGAGGGGGTGGCCTT
GAGGCAGAGCCGTGCCTCACTGACCCCCAGGGGCCTCATCCTCCCCATGGAATGGGCTGTATGTCCTGCCCCAAC
TTGGCCCGCAGCAGGCCAGACCCCCCTACCCCCGCCCAGAGCTCAGTAGCCAGCCTGGGTCCTGCCAGGGCTTCT

FIGURE 2172B

CGAGGGCTTGGGGGAAGAATAGATTTAGTAAAGCAGGAAGATCTGTTGTTACTTAACAGA

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FIGURE 2173

GCAACGCCGGCGCCGCCGTGGGCAGGAAGGCCGGGCCGCGCAGCCCGCCCAGCGCCCCCGCGCCAGCGCCGCCGC
CGCCCGCGCCCGCGCCGCCCACACTCGGCAACAACCACCAGGAGAGCCCCGGCTGGCGGTGCTGCCGCCCCACGC
TGCGCGAGAGGTGAGCCCGTGCCCCGCGGCCCCCGCGCCCGCGCGCGCCCACGCCCCCAGCCCGTGCCTCTACCT
TTGCAGGAACGCGCTC**ATG**TTCAACAACGAGCTCATGGCCGACGTGCACTTCGTCGTGGGGCCCCCGGGGGCGAC
CAGGACGGTGCCCGCCCACAAGTACGTCTTGGCTGTCGGCAGCTCCGTCTTCTATGCCATGTTCTACGGAGACCT
GGCGGAAGTCAAATCTGAAATTCACATTCCAGACGTGGAGCCCGCAGCCTTTCTGATCCTCTTAAAGTACATGTA
CAGTGATGAGATCGATCTGGAAGCCGACACGGTGCTGGCCACTCTGTACGCTGCTAAGAAGTACATCGTCCCAGC
ATTGGCAAAAGCCTGTGTCAACTTTCTGGAGACAAGTTTGGAAGCCAAGAACGCCTGCGTCCTGCTGTCCCAGAG
CCGGCTGTTTGAGGAGCCCGAGCTGACGCAGCGCTGCTGGGAGGTCATTGACGCACAGGCCGAGATGGCCCTACG
GTCCGAAGGCTTCTGTGAGATAGACCGGCAGACGCTGGAGATCATTGTCACTCGGGAGGCCCTCAACACCAAAGA
GGCGGTGGTCTTCGAGGCCGTCCTGAACTGGGCCGAGGCGGAGTGCAAGAGGCAGGGGCTGCCAATCACCCCACG
AAACAAGAGGCATGTTCTGGGGCGAGCCCTCTATCTGGTCCGAATTCCAACCATGACCCTAGAGGAGTTTGCCAA
CGGCGCTGCCCAGTCAGACATCCTGACTCTGGAGGAGACCCACAGCATCTTCCTGTGGTACACGGCCACCAACAA
GCCCCGCCTGGACTTTCCCCTGACCAAGAGGAAGGGCCTCGCCCCGCAGAGGTGCCACCGATTCCAGTCTTCTGC
CTACCGCAGCAACCAGTGGCGGTACCGCGGGCGCTGCGACAGCATCCAGTTTGCAGTGGACAGAAGGGTATTTAT
TGCAGGGCTGGGCCTGTATGGCTCCAGCTCTGGGAAGGCTGAGTACAGCGTGAAGATTGAGCTCAAGCGGCTCGG
GGTGGTTCTGGCTCAGAACTTGACCAAGTTCATGTCAGACGGATCCAGTAACACCTTCCCGGTCTGGTTTGAACA
CCCGGTCCAGGTTGAACAAGACACCTTCTACACGGCCAGTGCCGTCCTGGACGGCAGCGAACTCAGCTACTTTGG
GCAGGAGGGGATGACGGAAGTGCAGTGTGGAAAGGTGGCCTTCCAGTTCCAGTGCTCCTCGGACAGCACCAACGG
GACTGGGGTCCAGGGTGGGCAGATCCCTGAGCTCATTTTCTATGCC**TGA**GGTGCCCGGGGAGGCTGCAGCAGGTC
AGCGAGTGAGTGGAGGGGAAGTCAAGATGCTAACTGCTTCTTGACACCATGAAAGGCTGCTCTTAACTTTGTCTC
TCTTTGACATGTAGTCAGCTGAAGCTTGACTGTGTAGAGACATTTTCCACACAGCCAGAACCCAGGGATTGGAGT
CTTAGGCATCTCTGGTACAGTGGGGTGCACGTCTCAGGTGGAGGAAGATTTACGGCTCAAGACAGGCCCCAGATC
CCCTCCCAGTGGCACCCATGCCACCTGCTTTGAGGGGTTGGATCTTCCTGCTACCCTCTTGGATTCTAAGTGGTT
CCAAGCTTAACTTGAGACCTTCCCTTCAAATCTAAAATTGGCAAAAAGTCACTTAAAATAGTGGACTTCTGTAAT
AAAGGTTGCCTAAAATAA

FIGURE 2174

TCTCCAACAAAGGCCTCCCAGCCCCCATCGAGAA**ATG**ACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGG
CTTCTACCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACACCTCC
CATGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAA
CGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGG
TAAA**TGA**GTGCCACGGCCGGCAAGCCCCCGCTCCCCAGGCTCTCGGGGTCGCGTGAGGATGCTTGGCACGTACCC
CGTGTACATACTTCCCAGGCACCCAGCATGGAAATAAAGCACCCAGCGCTGCCCTGGGCCCCTGC

FIGURE 2175

GGACTCCCCCTCGCCCTCTGACACAGAAACCACCAGAAGAAAAGGGAACTTCAGGAACTTCCACCAAGGGCCCAT
CCGTCTTCCCCCTGGCGCCCTGCTCCAGGAGCACCTCCGAGAGCACAGCCGCCCTGGGCTGCCTGGTCAAGGACT
ACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCC
TACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACGAAGACCTACA
CCTGCAACGTAGATCACAAGCCCAGCAACACCAAGGTGGACAAGAGAGTTGAGTCCAAATATGGTCCCCCATGCC
CATCATGCCCAGCACCTGAGTTCCTGGGGGGACCATCAGTCTTCCTGTTCCCCCCAAAACCCAAGGACACTCTC**A**
TGATCTCCCGGACCCCTGAGGTCACGTGCGTGGTGGTGGACGTGAGCCAGGAAGACCCCGAGGTCCAGTTCAACT
GGTACGTGGATGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTTCAACAGCACGTACCGTG
TGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAACGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAG
GCCTCCCGTCCTCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAGCCACAGGTGTACACCCTGC
CCCCATCCCAGGAGGAGATGACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCCAGCGACA
TCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACG
GCTCCTTCTTCCTCTACAGCAGGCTAACCGTGGACAAGAGCAGGTGGCAGGAGGGGAATGTCTTCTCATGCTCCG
TGATGCATGAGGCTCTGCACAACCACTACACACAGAAGAGCCTCTCCCTGTCTCTGGGTAAA**TGA**GTGCCAGGGC
CGGCAAGCCCCCGCTCCCCGGGCTCTCGGGGTCGCGCGAGGATGCTTGGCACGTACCCCGTCTACATACTTCCCA
GGCACCCAGCATGGAAATAAAGCACCCACCACTGCCCTGGG

FIGURE 2176

ATGGAGTTTGGGCTGAGCTGGGTTTTCCTTGTTGCTATTTTAAAAGGTGATTCATGGGGAACTAGAGATACTGAG
TGTGTCCAGTGTGAGGTGCAGCTGGTGGAGTCCGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAAACTCTCC
TGTGCAGCCTCTGGGTTCACCTTCAGTGGCTCTGCTATGCACTGGGTCCGCCAGGCTTCCGGGAAAGGGCTGGAG
TGGGTTGGCCGTATTAGAAGCAAAGCTAACAGTTACGCGACAGCATATGCTGCGTCGGTGAAAGGCAGGTTCACC
ATCTCCAGAGATGATTCAAAGAACACGGCGTATCTGCAAATGAACAGCCTGAAAACCGAGGACACGGCCGTGTAT
TACTGTACTAGACACACAGTGAGGGGAGGCTTC**TGA**

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FIGURE 2177

ATGGAGTTTGGGCTGAGCTGGGTTTTCCTTGTTGTTATTTTACAAGGTGTCCAGTGTGAGGTGCAGCTGGTGGAG
TCTGGGGGAGGCTTGGTCCAGCCTGGAGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCACCTTCAGTGAC
CACTACATGGACTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGGTTGGCCGTACTAGAAACAAAGCTAAC
AGTTACACCACAGAATACGCCGCGTCTGTGAAAGGCAGATTCACCATCTCAAGAGATGATTCAAAGAACTCACTG
TATCTGCAAATGAACAGCCTGAAAACCGAGGACACGGCCGTGTATTACTGTGCTAGAGACACAGCGAGGGGAGAA
CCATCTCGGGAGGAAGAGGTTGGAGATTTTTCTGATGTGTCCTCAATCCTGGCAGAAAAGGTTTCAATAGCAATA
GGATTCCCTCAGTTGTATGTCCTC**TGA**

FIGURE 2178

ATGGAGTCATGGCTGAGCTGGGTTTTTCTTGCCGCTATTTTAAAAGGTGTCCAGTGTGAGGTGCAGCTGGTGGAG
TCCGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCACCTTCAGTGAC
TACTACATGAGCTGGGTCCGCCAGGCTCCCGGGAAGGGGCTGGAGTGGGTAGGTTTCATTAGAAACAAAGCTAAT
GGGGTCTTATCCCAGGTCACCTTGAGGGAGTCTGGTCCTGCGCTGGTGAAACCCACACAGACCCTCACACTGACC
TGCACCTTCTCTGGGTTCTCACTCAGCACTAGTGGAATGTGTGTGAGCTGGATCCGTCAGCCCCCAGGGAAGGCC
CTGGAGTGGCTTGCACTCATTGATTGGGATGATGATAAATACTACAGCACATCTCTGAAGACCAGGCTCACCATC
TCCAAGGACACCTCCAAAAACCAGGTGGTCCTTACAATGACCAACATGGACCCTGTGGACACAGCCACGTATTAT
TGTGCACGGATACCACAGAGACACAGCCCAGGGCGCTTCCTGTACAAGAACCCAGGTGTTTTTCAGTGGTGCTCC
CTCCCCACTTCTGCAGAACAGGATAGTGTGGCTGAGATGCCATTTCCTGCCCAGGGCGTGCGTTTCCCATCCCCA
TCTGACTCAGAGCCTTGTTTTCCTCCTTTTTCTTTACTAATAAATGGCATGTCCCCTGTTAGTGGTTCATGCAAG
CAGAAGCTGTATCCTGTT**TGA**

FIGURE 2179

ATGGAGTTTGGGCTGAGCTGGGTTTTCCTTGTTGCTATTTTTAAAGGTGTCCAGTGTGAGGTGCAGCTGGTGGAG
TCTGGGGAAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCACCTTCAGTAGC
TATGCTATGCACTGGGTCCGCCAGGCTCCAGGGAAGGGACTGGAATATGTTTCAGCTATTAGTAGTAATGGGGGT
AGCACATATTATGCAGACTCTGTGAAGGGCAGATTCACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTT
CAAATGGGCAGCCTGAGAGCTGAGGACATGGCTGTGTATTACTGTGCGAGAGACACAGAAGATGTTTTTGCTGTG
GTCAAAATTCCAGACCTCAAGCCCTTTTCTTGGCGCTCAGGTGGGTCTCAGGCTGTGGCTGCTGCAGTCACGCAG
GAGAGTCTGGTGGGACTTTCTTCACTCTTCGTCACTCAGGACCCTCCACTGTGTTGCATGGAGACTCATCTGGAA
ATGCAAGTTGCCAGTGGGAAC**TGA**

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FIGURE 2180

TTCTGAGAGTCCTGGACCTCCTGTGCAAGAAC**ATG**AAACATCTGTGGTTCTTCCTTCTCCTGGTGGCAGCTCCCA
GATGGGTCCTGTCCCAGGTGCAGCTGCAGGAGTCGGGCCCAGGACTGGTGAAGCCTTCGGAGACCCTGTCCCTCA
CCTGCACTGTCTCTGGTGGCTCCATCAGTAGTTACTACTGGAGCTGGATCCGGCAGCCCCCAGGGAAGGGACTGG
AGTGGATTGGGTATATCTATTACAGTGGGAGCACCAACTACAACCCCTCCCTCAAGAGTCGAGTCACCATATCAG
TAGACACGTCCAAGAACCAGTTCTCCCTGAAGCTGAGCTCTGTGACCGCTGCGGACACGGCCGTGTATTACTGTG
CGAGAGACACAGTGAGGGGAGACGTGTCGTCTTTA**TAA**GAAGAGGAAGAGACACCAGAGACCTCTCACTTTTCAC
GTGCAGGCAGAGAAGAGGCCATGTGGAGACGTAATGCACTAGAAGGTGGCCCAGTGCAAGCCAGGAAGAAGCCTC
ACCAAGAACCAACCCTGCCAGAACATTGATCTTCAACATTCAGACTGCAGAATTTTAAGAAAATCAATATTTGTT
GTTTAAGCCACCCACTCCTGTTGTCTTCTTATGAAGATCCAGACAGACTAATACCACATAACTCTGTTAGCGCTG
TCCCCTGGATGCAGAATCAGCCCGCTGGGGCTGGGCACATCTCTCAGATTTCCACATAAAGTAGGCAAAAAATAG
TAGTTCTGATATAAAAATTTGTCATGTCCCTGTTGGCCAATTTCTGGGCAAGGTCTTTTAAAGAAGCCCTGGGGG
CTTTGTCACAAAAGTTGCCTTTTATCATTTATTAGGACATAACTGATGAACAATGAGTACCAGTTGGATGGAGAC
TGACCACTGACCATCTTCTGCTGTCTCCTAAGTATGCCACAGAAAACCACACCAACATTACTCTATGT

FIGURE 2181

ATGGAGTCATGGCTGAGCTGGGTTTTTCTTGCCGCTATTTTAAAAGGTAATTCATTGAGAACTATTGAAATTGAG
TGTGTCCAGTGTGAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCC
TGTGCAGCCTCAGGATTCTCCTTTAGTAGCTATGGCATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAA
CTCTGTGAAGGGCCGATTCACAATCTCCGAGACAATTCTAAGAGCATGCTCTATCTGCAAATGGACAGTCTGAAA
GCTAAGGACACGGCCATGTATTACTGTACCAGACACAGGCTTGAGTGGATGGGATGGATCATCACCTACACTGGG
AACCCAACATATACCAACGGCTTCACAGGACGGTTTCTATTCTCCATGGACACCTCTGTCAGCATGGCGTATCTG
AAGATCAGCAGCCTAAAGGCTGAGGACACGGCCGTGTATGACTGTATGAGAGACACAGTGTGGAAACCCACATCC
CGAGGGAGTCAGAAACCCCGAGGGAGGAGGCAGCTGTGC**TGA**

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FIGURE 2182

GAGCCCAGCACTAGAAGTCGGCGGTGTTTCCATTCGGTGATCAGCACTGAACACAGAGGACTCACC**ATG**GAGTTT
GGGCTGAGCTGGGTTTTCCTCGTTGCTCTTTTAAGAGGTGTCCAGTGTCAGGTGCAGCTGGTGGAGTCTGGGGGA
GGCGTGGTCCAGCCTGGGAGGTCCCTGAGACTCTCCTGTGCAGCGTCTGGATTCACCTTCAGTAGCTATGGCATG
CACTGGGTCCGCCAGGCTCCAGGCAAGGGGCTGGAGTGGGTGGCAGTTATATGGTATGATGGAAGTAATAAATAC
TATGCAGACTCCGTGAAGGGCCGATTCACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTGCAAATGAAC
AGCCTGAGAGCCGAGGACACGGCTGTGTATTACTGTGCGAGAGACACAGTGAGGGGAGGTCATTGTGCGCCCAGA
CACAAACCTCCCTGCAGGAACGCTGGCGGGAAATCAGCTGCAGGGGGCGCTCAGGAGCCACTGATCAGAGTCAGC
CCTGGAGGCAGGTGCAGATGGAGGCTGTTTCCTGTCAGGATGTGGGACTTTGTCTTCTTC**TGA**CAGTTCCCCAGG
GAACCTCTTAAATTTAGAAAACTGTGCCTAACAATGTCTTCTCTATGCATATGAGGACCTTTTCTCCCTGGCACA
AAATGCAGATTGACGCTGACACGGATGAAAATTCCTCAACCATGGTCACAAGGATCAGAGTCCTGAGTAACCTCA
GGGCTTCCTGGTGATTCTTCTCCAATCAGACCCAGGACAGGGACCTCCGTGAGATTCCCTGACTGGAACAGTCTT
TATGGATCCTGGTCACAGACAATAGAGAGGCTGAACCAGGGTCAGCGTCATGTAGAACGTCACAGATTTCACGTC
TGATCCTTCTCCTGACACGAAAGTATGCAAATCAGTATCAGCACCGATCTGGTGCTTCTTTTGTTCCTAATCCAT
TTACTTTCTTTTTTCGTCGTTTTTCTCCTTTTTCCATTTGTTTTTCCTGCTTTTTGCAAAAGGAAGATGTTTTCC
CTGTGAGATGCAGGGGATGACAATTTTGGGAGATGGCTGGAACATCCAATATCCTCAGGGCCGACCATCAGTAAG
TGCAGGCTAGAAGTCTCAGAAAGAGCTGAAGCTGCTTAATCACCGTGGAGTTTTACCTTCTCCAGTTCTG

FIGURE 2183

ATGGAGTTTGGGCTGAGCTGGGTTTTCCTCGTTGCTCTTTTAAGAGGTGTCCAGTGTCAGGTGCAGCTGGTGGAG
TCTGGGGGAGGCGTGGTCCAGCCTGGGAGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCACCTTCAGTAGC
TATGGCATGCACTGGGTCCGCCAGGCTCCAGGCAAGGGGCTGGAGTGGGTGGCAGTTATATCATATGATGGAAGT
AATAAATACTATGCAGACTCCGTGAAGGGCCGATTCACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTG
CAAATGAACAGCCTGAGAGCTGAGGACACGGCTGTGTATTACTGTGCGAGAGACACAATATTGGACCAAAATATT
CTAACCTTTTACTAT**TGA**

FIGURE 2184

ATGTACTGGACCTGGAGGATCCTCTTCTTGGTGGCAGCAGCAACAGGTGTCCACTCACAGGTGCAGCTGGTGCAG
TCTGGGCCTGAGGTGAAGAAGCCTGGAGCCTCATTGAAGGTTTCCTGCAAGGCTTCTGGATACACCTTCACAAGC
TATGCTATCAGCTGGGCCCATGGACAAGGGCTTGAGGAAATGGGATGGATCAACACCAACACTGGGAACCTAACG
TATGCCCAGGGCTTCACAGGACGGTTTGTCTTCTCCATGGACACCTCCGTCAGCATGGCATATCTTCATATCAGC
AGCCTAAAGGCTGAGGACACGTGCAAGAGGCACAGTGTCCTGTCCCAGGTGCAGCTGCAGGAGTCAGGTCCAGGA
CCCATGAGGCCCTCAGACACTGCCCTCTGCCTGTGCTGTGTCCATGTCCCCATCAACAGTGACTCAACCAAGAGC
CAGTTCTCTGTGAAGCTCAGCTCCATGACCACC**TAG**

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FIGURE 2185

ATGGAGTTTGGGCTGAGCTGGCTTTTTCTTGTGGCTATTTTAAAAGGTGTCCAGTGTGAGGTGCAGCTGTTGGAG
TCTGGGGGAGGCTTGGTACAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCACCTTTAGCAGC
TATGCCATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGGTCTCAGCTATTAGTGGTAGTGGTGGT
AGCACATACTACGCAGACTCCGTGAAGGGCCGGTTCACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTG
CAAATGAACAGCCTGAGAGCCGAGGACACGGCCGTATATTACTGTGCGAAAGACACAATAGAGCACATTGTCCTC
ACTCTGAGTCTGAGGGAGGAGCTGTTCCTGTACAACTCAGGGCCTGCAGAGACCCCCGTGTGCAGCTTTGCAGAG
TCAGATCTTTCCTCATGTCAATCTTATTCTGAAAATCACCGTAATTATAGACAGAGTGCTTCCTGCTGGAGCTGG
ATCCGTCACCCCCCGGGGAAGGGACTGGAGCGAATCAGGTGCACAGGTCATGAGGGAGTGCACAATCCAACCCAC
TCCTCAAGAGTCCAGTCACCATCTCCAGATCCACATCCAAAAAACAGTTTCTCCTACAGC**TGA**

FIGURE 2186

ATGGAGTCATGGCTGAGCTGGGTTTTTCTTGCCGCTATTTTAAAAGGTAATTCATTGAGAACTATTGAAATTGAG
TGTGTCCAGTGTGAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTACAGCCTGGGGGGTCCCTGAGACTCTCC
TGTGCAGCCTCTGGATTCACCTTCAGTTACTACTACATGAGCGGGGTCCGCCAGGCTCCCGGGAAGGGGCTGGAA
TGGGTAGGTTTCATTAGAAACAAAGCTAATGGTGGGACAACAGAA**TAG**

FIGURE 2187

ATGGAATTTGGGCTGAGCTGGGTTTTTCTTGCTGGTATTTTAAAAGGTGTCCAGTGTGAGGTGCAGCTGGTGGAG
TCTGGGGGAGGCTTGGTACAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCACCTTCAGTAAC
AGTGACATGAACTGGGCCCGCAAGGCTCCAGGAAAGGGGCTGGAGTGGGTATCGGGTGTTAGTTGGAATGGCAGT
AGGACGCACTATGTGGACTCCGTGAAGCGCCGATTCATCATCTCCAGAGACAATTCCAGGAACTCCCTGTATCTG
CAAAAGAACAGACGGAGAGCCGAGGACATGGCTGTGTATTACTGTGTGAGAAATCCTGATACTCCACTCTGTTTT
CTGGAGACGCGTCTGAGAACGCGTGTGGCCATTAGTAATGAGGGCACAAGCTTCTTTGGTCAAAATGGGTGCACT
CATGTTCTAGTAAAGCCCTCAGAGACCCTCTCCTTCACCTGTGCTGTCTCTGGATTTCCAATCATAACCAGTACT
TCCTCCTGGAGCTGTATCTGCCAGCCCCCAGGGAAGAAGCTGAAGTGGGTCAGATCCACATTCAGAAAACAGTTT
TTCCTACAGCTGAGCTACCCGCACAATGAG**TAA**

FIGURE 2188

ATGGAGTTTGGGCTGAGCTGGATTTTCCTTGCTGCTATTTTAAAAGGTGTCCAGTGTGAGGTGCAGCTGGTGGAG
TCTGGGGGAGGCTTGGTAAAGCCTGGGGGGTCCCTTAGACTCTCCTGTGCAGCCTCTGGATTCACTTTCAGTAAC
GCCTGGATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGGTTGGCCGTATTAAAAGCAAAACTGAT
GGTGGGACAACAGACTACGCTGCACCCGTGAAAGGCAGATTCACCATCTCAAGAGATGATTCAAAAAACACGCTG
TATCTGCAAATGAACAGCCTGAAAACCGAGGACACAGCCGTGTATTACTGTACCACAGACACAGTGAGGGGAGGT
CCGAAGAAGAGAGCACAGGTTTGTCCTGATTATATGACTCACCCAGCTTCTGATGACTCTCCTGTTGCCAGCGTC
CATGGCCTCAGTGAAGGTCTCCTGCAAAGCTCTGGATACACCTTCGCCAGCTACGACATTCACTGGAGCTACTCT
GGCAATGGTAACACAGGCTATGCACAGAAGTTTCAGGGCAGAGTCACCATGACCAGGGACACGTCCACGAGCACA
GCCTACATGGAGCTGAGCAGTCAGAGATCTGAGGACATAGATGTGTACTACTGTGCGAGACACACAGTG**TGA**

FIGURE 2189

ATGGAGTTGGGGCTGAGCTGGGTTTTCCTTGTTGCTATATTAGAAGGTGTCCAGTGTGAGGTGCAGCTGGTGGAG
TCTGGGGGAGGCTTGGTACAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCACCTTCAGTAGC
TACGACATGCACTGGGTCCGCCAAGCTACAGGAAAAGGTCTGGAGTGGGTCTCAGCTATTGGTACTGCTGGTGAC
ACATACTATCCAGGCTCCGTGAAGGGCCGATTCACCATCTCCAGAGAAAATGCCAAGAACTCCTTGTATCTTCAA
ATGAACAGCCTGAGAGCCGGGGACACGGCTGTGTATTACTGTGCAAGAGACACACACCCTCCAGTGTGTCACGTG
GAGACTCACCTGCGAATGGAAGTGGCCAACAGTAGTGAAGGGGATGAGCTTGTGTGGACAAAATGGGATGTGGAT
GTGAAATTTATCCTGTGCTGTGCAAAG**TAG**

FIGURE 2190

ATGGAATTGGGGCTGAGCTGGGTTTTCCTTGTTGCTATTTTAGAAGGTGTCCAGTGTGAGGTGCAGCTGGTGGAG
TCTGGGGGAGGCTTGGTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCACCTTTAGTAGC
TATTGGATGAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAGTGGGTGGCCAACATAAAGCAAGATGGAAGT
GAGAAATACTATGTGGACTCTGTGAAGGGCCGATTCACCATCTCCAGAGACAACGCCAAGAACTCACTGTATCTG
CAAATGAACAGCCTGAGAGCCGAGGACACGGCTGTGTATTACTGTGCGAGAGACACAGGAAAATCCCAGGGCTCA
GGTCTGCAGGACCTGGTTAGCTCTTTGAACCTGGGTTATTTTTCTGAGAATGTCATCTTCGTCATCAACATCATG
GTCATCATGTCAAAATCAACAGGCAAATCCAGTCACCGTGAAGACAGTTTCATGGCA**TGA**

FIGURE 2191

ATGGACACACTTTGCTCCACGCTCCTGCTGCTGACCATCCCTTCATGGGTCTTGTCCCAGATCACCTTGAAGGAG
TCTGGTCCTACGCTGGTGAAACCCACACAGACCCTCACGCTGACCTGCACCTTCTCTGGGTTCTCACTCAGCACT
AGTGGAGTGGGTGTGGGCTGGATCCGTCAGCCCCCAGGAAAGGCCCTGGAGTGGCTTGCACTCATTTATTGGAAT
GATGATAAGCGCTACAGCCCATCTCTGAAGAGCAGGCTCACCATCACCAAGGACACCTCCAAAAACCAGGTGGTC
CTTACAATGACCAACATGGACCCTGTGGACACAGCCACATATTACTGTGCACACAGACCACAAAGACACAGCCCA
GGGCACCTCCTGTACAAAAACCCAGGCTGCTTCTCATTGGTGCTCCCTCCCCACCTCTGCAGAACAGGAAAGTGC
AGC**TGA**

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FIGURE 2192

CTCTTTCCAGCCAGCGCCGAGCG**ATG**GGCACCTCTCGGGACAACTGGCACAAGGGCCGCAAAGCTGGGGGCAAGA
GAAGGCCCTGCCACAAGAAGCGGAAGTATGAGTTGGGGCGCCCAGCTGCCAACAGCAAGACTGACCCGTGCCGCA
TCCACACAGTCCGTGTGCGAGGAGGTAACAAGAAATACTGTGCCCCGAGGCTGGACGTGGGGAATTTCTCCTGGG
GCTCAGAATGCTGCGCTGGTGAAACAAGGGTCATCGATGTTGTCTACAATGCATCCAATAACGAGCTGGTTCGTA
CCAAGACCGTGGTGAAGAATTGCATCGTGCCCATCGACAGCACGCCCTACCGACAGTGGTACGAGTCCCACTGTG
CACTGCCCCTGGGCCGCAAGAAGGGAGCCAAGCTGACTCCTGAGGAAGAAGAGATTTTAAACAAAAAACGATCTA
AAAAAATTCAGAAGAAATATGATGAAAGGAAGAAGAATGCCAAAATGAGCAGTCTCCTGGGGGAGCAGTTCCAGC
AGGGCAAGCTTCTTGCGTGCATGGCTTCAAGGCCGGGACAGTGTGGCCGAGCAGATGGCTATGTGCTAGAGGGCA
AAGAGTTGGAGTTCTATCTTAGGAAAATCAAGGCCCAGAAAGGCAAA**TAA**ATCCTTGTTTTGTCTTCACCCATGT
AATAAAGGTGTTTATTGTTTTGTTCCCA

FIGURE 2193

TCTTCCAGCACCCACCAAGGCTCCGGATGTGTTCCCCATCATATCAGGGTGCAGACACCCAAAGGATAACAGCCC
TGTGGTCCTGGCATGCTTGATAACTGGGTACCACCCAACGTCCGTGACTGTCACCTGGTAC**ATG**GGGACACAGAG
CCAGCCCCAGAGAACCTTCCCTGAGATACAAAGACGGGACAGCTACTACATGACAAGCAGCCAGCTCTCCACCCC
CCTCCAGCAGTGGCGCCAAGGCGAGTACAAATGCGTGGTCCAGCACACCGCCAGCAAGAGTAAGAAGGAGATCTT
CCGCTGGCCAGAGTCTCCAAAGGCACAGGCCTCCTCAGTGCCCACTGCACAACCCCAAGCAGAGGGCAGCCTCGC
CAAGGCAACCACAGCCCCAGCCACCACCCGTAACACAGGAAGAGGAGGAGAAGAGAAGAAGAAGGAGAAGGAGAA
AGAGGAACAAGAAGAGAGAGAGACAAAGACACCAGAGTGTCCGAGCCACACCCAGCCTCTTGGCGTCTACCTGCT
AACCCCTGCAGTGCAGGACCTGTGGCTCCGGGACAAAGCCACCTTCACCTGCTTCGTGGTGGGCAGTGACCTGAA
GGATGCTCACCTGACCTGGGAGGTGGCCGGGAAGGTCCCCACAGGGGGCGTGGAGGAAGGGCTGCTGGAGCGGCA
CAGCAACGGCTCCCAGAGCCAGCACAGCCGTCTGACCCTGCCCAGGTCCTTGTGGAACGCGGGGACCTCCGTCAC
CTGCACACTGAACCATCCCAGCCTCCCACCCCAGAGGTTGATGGCGCTGAGAGAACCCGCTGCGCAGGCACCCGT
CAAGCTTTCCCTGAACCTGCTGGCCTCGTCTGACCCTCCCGAGGCGGCCTCGTGGCTCCTGTGTGAGGTGTCTGG
CTTCTCGCCCCCCAACATCCTCCTGATGTGGCTGGAGGACCAGCGTGAGGTGAACACTTCTGGGTTTGCCCCCGC
ACGCCCCCCTCCACAGCCCGGGAGCACCACGTTCTGGGCCTGGAGTGTGCTGCGTGTCCCAGCCCCGCCCAGCCC
TCAGCCAGCCACCTACACGTGTGTGGTCAGCCACGAGGACTCCCGGACTCTGCTCAACGCCAGCCGGAGCCTAGA
AGTCAGCTATGTAACAGACCATGGCCCCATGAAA**TGA**TCCCGGACCAGATCCGTCCACACCCGCCACTCAGCAGC
TCTGGCCGAGCTCACAGTACAACCACAATAAACTCTTGTTGAATGAACTCT

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FIGURE 2194

CTTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCGCCCTGCTCCAGGAGCACCTCTGGGGGCACAGCGGCCCTGG
GCTGCCTGGTCAAGGACTACTTCCCAGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGC
ACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCT
TGGGCACCCAGACCTACACCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAGAGTTGAGCTCA
AAACCCCACTTGGTGACACAACTCACACATGCCCACGGTGCCCAGAGCCCAAATCTTGTGACACACCTCCCCCGT
GCCCACGGTGCCCAGAGCCCAAATCTTGTGACACACCTCCCCCATGCCCACGGTGCCCAGCACCTGAACTCCTGG
GAGGACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGATACCCTT**ATG**ATTTCCCGGACCCCTGAGGTCACGT
GCGTGGTGGTGGACGTGAGCCACGAAGACCCCGAGGTCCAGTTCAAGTGGTACGTGGACGGCGTGGAGGTGCATA
ATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTTCCGTGTGGTCAGCGTCCTCACCGTCCTGCACC
AGGACTGGCTGAACGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAGAAAACCA
TCTCCAAAACCAAAGGACAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGAGGAGATGACCAAGA
ACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCCAGCGACATCGCCGTGGAGTGGGAGAGCAGCGGGC
AGCCGGAGAACAACTACAACACCACGCCTCCCATGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCA
CCGTGGACAAGAGCAGGTGGCAGCAGGGGAACATCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCGCT
TCACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAA**TGA**GTGCGACGGCCGGCAAGCCCCCGCTCCCCGGGCTCTC
GGGGTCGCGCGAGGATGCTTGGCACGTACCCCGTGTACATACTTCCCGGGCACCCAGCATGGAAATAAAGCACCC
AGCGCTGCCCTGGG

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FIGURE 2195

GCGATCGTGGCCGCTGCCGCCGCCAGAGCCGGCCGGAGTCGGCCCGGAGCCGCGTCCACGCGGAGCGGGCGGGTG
GGAGCTGGCGGCTGGGCCCCTGCGGCGCCCCCGCGGCCTGCCCCGCGTCCGCCTCCGGGCCGCCGAGCCGCAGCC
GCCGAGATGGGGGCCGCCCCGGGCCGCGCCCCCGCCGGGTCCCGCCCGCCGCGCTGCCGCTGAGCGC**ATG**GGCCC
GGACCGCGCCGCGCCGCTCCGGGAGCCGGGCCCGGGGTCCCGCCACCACCGCGCGCGGGACAGATTGATTCACTT
TGGAGCTGTAAGTACTGATGTATTAGGGTGCAGCGCTCATTGTTCCTTGACGCAGAGTCCCAAAATGAATATCCA
AGAGCAGGGTTTCCCCTTGGACCTCGGAGCAAGTTTCACCGAAGATGCTCCCCGACCCCCAGTGCCTGGTGAGGA
GGGAGAACTGGTGTCCACAGACCCGAGGCCCGCCAGCTACAGTTTCTGCTCCGGGAAAGGTGTTGGCATTAAAGG
TGAGACTTCGACGGCCACTCCGAGGCGCTCGGATCTGGACCTGGGGTATGAGCCTGAGGGCAGTGCCTCCCCCAC
CCCACCATACTTGAAGTGGGCTGAGTCACTGCATTCCCTGCTGGATGACCAAGATGGGATAAGCCTGTTCAGGAC
TTTCCTGAAGCAGGAGGGCTGTGCCGACTTGCTGGACTTCTGGTTTGCCTGCACTGGCTTCAGGAAGCTGGAGCC
CTGTGACTCGAACGAGGAGAAGAGGCTGAAGCTGGCGAGAGCCATCTACCGAAAGTACATTCTTGATAACAATGG
CATCGTGTCCCGGCAGACCAAGCCAGCCACCAAGAGCTTCATAAAGGGCTGCATCATGAAGCAGCTGATCGATCC
TGCCATGTTTGACCAGGCCCAGACCGAAATCCAGGCCACTATGGAGGAAAACACCTATCCCTCCTTCCTTAAGTC
TGATATTTATTTGGAATATACGAGGACAGGCTCGGAGAGCCCCAAAGTCTGTAGTGACCAGAGCTCTGGGTCAGG
GACAGGGAAGGGCATATCTGGATACCTGCCGACCTTAAATGAAGATGAGGAATGGAAGTGTGACCAGGACATGGA
TGAGGACGATGGCAGAGACGCTGCTCCCCCCGGAAGACTCCCTCAGAAGCTGCTCCTGGAGACAGCTGCCCCGAG
GGTCTCCTCCAGTAGACGGTACAGCGAAGGCAGAGAGTTCAGGTATGGATCCTGGCGGGAGCCAGTCAACCCCTA
TTATGTCAATGCCGGCTATGCCCTGGCCCCAGCCACCAGTGCCAACGACAGCGAGCAGCAGAGCCTGTCCAGCGA
TGCAGACACCCTGTCCCTCACGGACAGCAGCGTGGATGGGATCCCCCCATACAGGATCCGTAAGCAGCACCGCAG
GGAGATGCAGGAGAGCGTGCAGGTCAATGGGCGGGTGCCCCTACCTCACATTCCCGTAAGTACCGGGTGCCGAAG
GAGGTCCGCGTGGAGCCTCAGAAGTTCGCGGAGGAGCTCATCCACCGCCTGGAGGCTGTGCAGCGCACGCGGGAG
GCCGAGGAGAAGCTGGAGGAGCGGC**TGA**AGCGCGTGCGCATGGAGGAGGAAGGTGAGGACGGCGATCCATCGTCA
GGGCCCCCAGGGCCGTGTCACAAGCTGCCTCCCGCCCCCGCTTGGCACCACTTCCCGCCCCGCTGTGTGGACATG
GGCTGTGCCGGGCTCCGGGATGCACACGAGGAGAACCCTGAGAGCATCCTGGACGAGCACGTACAGCGTGTGCTG
AGGACACCTGGCCGCCAGTCGCCTGGGCCTGGCCATCGCTCCCCGGACAGTGGGCACGTGGCCAAGATGCCAGTG
GCACTGGGGGGTGCCGCCTCGGGGCACGGGAAGCACGTACCCAAGTCAGGGGCGAAGCTGGACGCGGCCGGCCTG
CACCACCACCGACACGTCCACCACCACGTCCACCACAGCACAGCCCGGCCCAAGGAGCAGGTGGAGGCCGAGGCC
ACCCGCAGGGCCCAGAGCAGCTTCGCCTGGGGCCTGGAACCACACAGCCATGGGGCAAGGTCCCGAGGCTACTCA
GAGAGTGTTGGCGCTGCCCCCAACGCCAGTGATGGCCTCGCCCACAGTGGGAAGGTGGGCGTGGCGTGCAAAAGA
AATGCCAAGAAGGCTGAGTCGGGGAAGAGCGCCAGCACCGAGGTGCCAGGTGCCTCGGAGGATGCGGAGAAGAAC
CAGAAAATCATGCAGTGGATCATTGAGGGGGAAAAGGAGATCAGCAGGCACCGCAGGACCGGCCACGGGTCTTCG
GGGACGAGGAAGCCACAGCCCCATGAGAACTCCAGACCCTTGTCCCTTGAGCACCCCTGGGCCGGCCCTCAGCTC
CGGACCTCCGTGCAGCCCTCCCACCTCTTCATCCAAGACCCCACCATGCCACCCCACCCAGCTCCCAACCCCCTA
ACCCAGCTGGAGGAGGCGCGCCGACGTCTGGAGGAGGAAGAAAAGAGAGCCAGCCGAGCACCCTCCAAGCAGAGG
ACAAGATCGCAGAGGAAGGTGGGCGGCGGGAGTGCCCAGCCGTGTGACAGCATCGTTGTGGCGTACTACTTCTGC
GGGGAACCCATCCCCTACCGCACCCTGGTGAGGGGCCGCGCTGTCACCCTGGGCCAGTTCAAGGAGCTGCTGACC
AAAAAGGGCAGCTACAGATACTACTTCAAGAAAGTGAGCGACGAGTTTGACTGTGGGGTGGTGTTTGAGGAGGTT
CGAGAGGACGAGGCCGTCCTGCCCGTCTTTGAGGAGAAGATCATCGGCAAAGTGGAGAAGGTGGACTGATAGGCT
GGTGGGCTGGCCGCTGTGCCAGGCGAGGCCCTTGGCGGGCACGGGTGTCACGGCCAGGCAGATGACCTCGTACTC
AGGAGCCCGATGGGGAACAGTGTTGGGTGTACCACCCATCCCTGTGGTCTACCCGTGTCTAGAGGCAGGTAGGGG
GTCCCTCCAAGTGGTCCACAAGCTTCTGTCCTGCCCCCAAGGAGGCAGCCTGGACCACTCCTCATAGCAATACTT
GGAGGGCCCAGCCCAAGTGAGGCAGCCGAGGTCCCTGCTGCCAGCTTCAGGTGACCCCCCCCCATCCCCCGGCAC
CTCCCTTGGGCACGTGTGCTGGGATCTACTTTCCCTCTGGGATTTGCCCACGTACCCAGGTCTGGGTGGGGCCCA
GGCCCGGATGCAGAGGCCTGCAGGGCCTCTGTCAATTGTACGCGCCACCGAGTGCCTTCAACACAGCTTGTCTCT
TGCCTGCCACTGTGTGAATCGGCGACGGAGCACTGCACCTGCCTCCAGCCGCCGGCTGTGCAGTCCTGGGTCCTC
CTTTCTGAGGGCCCGTGTAAATATGTACATTTCTCAGGCTAGGCCAGCAGGGGCTGCCCGAGTCTGTTTTTCATG
CGATGACACTTGTACAATTAATTATCTTTTCAAAGGTACTTGGATAATAATGAAATAAAACTGTTTTTGAACCTG

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FIGURE 2196

GCGGCGAGGGCTGGATCCTGGGCCAAATATATGCCAACAACGACAAGCTCTCCAAGAGGCTGAAGAAAGTGTGGA
AGCCACAGCTGTTTGAGCGAGAGTTCTACAGTGAGATCCTGGACAAGAAGTTCACAGTGACTGTGACC**ATG**CGGA
CCCTGGACCTCATCGATGAGGCTTATGGGCTCGACTTTTACATCCTCAAGACCCCGAAGGAGGACCTGTGCTCCA
AGTTTGGGATGGACCTGAAGCGAGGGATGCTGCTGCGGCTTGCCCGGCAGGACCCCCAGCTGCACCCCGAGGACC
CCGAGCGGCGGGCAGCCATCTACGACAAGTACAAGGAATTTGCCATCCCAGAGGAGGAGGCAGAGTGGGTGGGCC
TCACGCTGGAGGAGGCCATTGAGAAGCAGAGACTTTTGGAGGAGAAGGACCCTGTACCCCTGTTCAAGATCTATG
TGGCGGAGCTGATCCAGCAGCTGCAGCAGCAGGCACTGTCAGAGCCGGCGGTGGTGCAGAAGAGAGCCAGTGGCC
AG**TGA**CCACACAGCTCCTCCATGCCTGACCAACAGGCCCAGCTTTCCCTGCCAGGCCCTTTGCACTGAGGACACA
GATCCCGGGGAGCTGTGAGGGCCACCGGTGGGCAGTGGGTGGATCCTGGTTTCGTGTGCTGCCCATGCACCTTCC
AGCCCGGGGCCAGCTTGGCAGGGATCCCCAGGAGGCCTGGGCCGCCCAGAGGCTCCTCTCAGGCTGGGCCCCGAC
GTTTGCGGCAGTGTTCCTTGTGCCCGTGGGGCCGGGAGCGAGTAAAGTCTGGGCCAGGC

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FIGURE 2197

GCGGAGGCGGCAGAGGCTGCCCGGGCGGCGGCGGGGGCCGGCGGCGCGGGACGCGGGCCGGGTAGCGCCGGGCCG
AGCGCGGAGCC**ATG**GGCCGGGCTGGCACCGGGACCGGGGGCGAGGCGGTGGCCGCGGTGGTGGCGGGGCCGCTGC
TGCTGCTGCTGCTTGCCCGGCCCCCGCCTGCCTCCGCCGGCTACAGCGGGAAGAGCGAGGTGGGGCTGGTGTCCG
AGCACTTCTCGCAGGCCCCGCAGAGGCTGTCCTTCTACAGCTGGTACGGCAGTGCCAGGCTCTTCCGCTTCCGCG
TGCCCCCAGATGCTGTGCTTCTACGCTGGCTCCTGCAGGTCTCCCGGGAGAGCGGCGCTGCCTGCACCGACGCGG
AGATCACCGTGCACTTCCGTTCCGGCGCCCCTCCGGTCATCAACCCGCTGGGCACCAGCTTCCCGGACGACACCG
CGGTACAGCCCTCCTTCCAGGTCGGGGTGCCGCTGAGCACCACACCGAGAAGCAATGCCTCCGTCAACGTTTCCC
ACCCGGCCCCCGGGGACTGGTTCGTGGCCGCCCACCTGCCCCCCTCATCCCAGAAGATCGAGTTGAAGGGCTTGG
CTCCCACCTGTGCCTACGTCTTCCAGCCTGAACTGCTGGTCACGCGGGTGGTCGAGATTTCCATCATGGAGCCGG
ACGTGCCCCTTCCTCAGACCCTCCTCTCCCATCCCAGCTACCTCAAGGTCTTTGTCCCCGATTACACGCGGGAGC
TTCTGCTGGAGCTGCGGGACTGCGTGTCCAATGGGAGCCTGGGCTGCCCCGTGCGTCTCACCGTGGGCCCGGTCA
CCCTGCCTAGCAACTTCCAGAAGGTGCTCACCTGCACCGGTGCCCCCTGGCCCTGCCGCCTGCTGCTGCCCTCAC
CGCCCTGGGACCGGTGGCTGCAAGTGACAGCTGAGAGCCTGGTGGGGCCCCTCGGGACAGTGGCTTTCAGTGCTG
TAGCTGCCCTCACAGCTTGCAGGCCACGGAGCGTGACCATCCAGCCCCTTCTGCAGAGCAGCCAAAACCAGAGCT
TCAATGCCTCCTCTGGTCTGCTGTCCCCGAGCCCCGACCACCAGGACCTGGGCAGGAGTGGCAGGGTGGACCGCA
GCCCCTTCTGCCTCACAAACTACCCAGTCACGCGGGAGGACATGGACGTGGTGTCGGTGCACTTCCAGCCCCTGG
ACAGGGTCTCGGTGAGGGTGTGTTCGGACACGCCCTCCGTGATGCGGCTGCGCCTGAACACCGGCATGGACAGCG
GGGGTTCCCTCACCATCTCCCTGCGGGCCAACAAGACAGAGATGCGGAACGAGACCGTCGTAGTGGCCTGCGTGA
ATGCTGCCTCGCCCTTCCTTGGCTTCAATACTTCGCTCAACTGCACCACAGCCTTCTTCCAGGGCTACCCTTTGT
CTCTGAGCGCCTGGTCTCGCAGGGCCAACCTCATCATCCCCTACCCAGAGACAGACAACTGGTACCTCTCCCTGC
AGCTCATGTGCCCTGAGAATGCTGAGGACTGTGAGCAGGCTGTGGTCCACGTGGAGACCACCTTGTACCTGGTGC
CCTGTTTGAACGATTGTGGACCCTATGGCCAGTGCCTCCTGCTCCGCAGACACAGCTACCTGTATGCCAGCTGCA
GCTGCAAGGCAGGCTGGCGTGGGTGGAGCTGCACGGACAACAGCACAGCCCAGACGGTGGCCCAGCAGAGGGCGG
CCACACTGCTGCTCACGCTCAGCAACCTCATGTTCCTGGCCCCCATCGCCGTCTCAGTGCGGCGATTCTTCCTGG
TGGAGGCCTCCGTCTACGCCTACACCATGTTCTTCTCCACGTTCTACCACGCCTGCGACCAGCCCGGGGAGGCGG
TGCTGTGCATCCTCAGCTACGACACGCTGCAGTACTGCGACTTCTTGGGCTCCGGGGCGGCCATCTGGGTCACCA
TCCTGTGCATGGCACGGCTCAAGACAGTCCTGAAATACGTGCTGTTTCTTCTGGGTACACTGGTCATCGCCATGT
CCTTGCAGCTGGACCGCAGGGGCATGTGGAACATGCTGGGGCCCTGCCTCTTTGCCTTCGTGATCATGGCCTCCA
TGTGGGCTTACCGCTGCGGGCACCGGCGCCAGTGCTACCCCACCTCGTGGCAGCGCTGGGCCTTCTACCTCCTGC
CCGGCGTCTCTATGGCCTCTGTGGGCATCGCCATCTACACCTCCATGATGACTAGCGACAACTACTACTACACCC
ACAGCATCTGGCACATCCTGCTGGCCGGGAGCGCAGCCTTGCTGCTGCCGCCACCTGACCAGCCCGCCGAGCCCT
GGGCCTGCTCGCAGAAATTCCCCTGCCACTATCAGATCTGCAAGAACGATCGGGAGGAACTGTACGCAGTGACG**T**
GACACTGGCCTGGGGACAGCTGCTGCTCTGATGACCTCTTCAGCCAGGAGCTGTATCGAGGGGGAGGCGCCTGGT
CCAGCCCTGGACAGATTGATTTCCAGCTGAATAAATTGGCCTAGATACCCTCTT

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FIGURE 2198

GGCCGGGCGTC**ATG**GGCGGCCTCTTCTGGCGCTCCGCGCTGCGGGGGCTGCGCTGCGGCCCGCGGGCCCCGGGCC
CGAGCCTGCTAGTGCGCCACGGCTCGGGAGGGCCCTCCTGGACCCGGGAGCGGACCCTGGTGGCGGTGAAGCCCG
ATGGCGTGCAACGGCGGCTCGTTGGGGACGTGATCCAGCGCTTTGAGAGGCGGGGCTTCACGCTGGTGGGGATGA
AGATGCTGCAGGCACCAGAGAGCGTCCTTGCCGAGCACTACCAGGACCTGCGGAGGAAGCCCTTCTACCCTGCCC
TCATCCGCTACATGAGCTCTGGGCCTGTGGTGGCCATGGTCTGGGAAGGGTACAATGTCGTCCGCGCCTCGAGGG
CCATGATTGGACACACCGACTCGGCTGAGGCTGCCCCAGGAACCATAAGGGGTGACTTCAGCGTCCACATCAGCA
GGAATGTCATCCACGCCAGCGACTCCGTGGAGGGGGCCCAGCGGGAGATCCAGCTGTGGTTCCAGAGCAGTGAGC
TGGTGAGCTGGGCAGACGGGGGCCAGCACAGCAGCATCCACCCAGCC**TGA**GGCTCAAGCTGCCCTTACCACCCCA
TCCCCCACGCAGGACCAACTACCTCCGTCAGCAAGAACCCAAGCCCACATCCAAACCTGCCTGTCCCAAACCACT
TACTTCCCTGTTCACCTCTGCCCCACCCCAGCCCAGAGGAGTTTGAGCCACCAACTTCAGTGCCTTTCTGTACCC
CAAGCCAGCACAAGATTGGACCAATCCTTTTTGCACCAAAGTGCCGGACAACCTTTGTGGTGGGGGGGGGTCTTC
ACATTATCATAACCTCTCCTCTAAAGGGGAGGCATTAAAATTCACTGTGCCCAG

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FIGURE 2199

GCAGTCCCCGACGGGAGCGCC**ATG**GCCCAGCCGCCGCCCGACGTGGAGGGGGACGACTGTCTCCCCGCGTACCGC
CACCTCTTCTGCCCGGACCTGCTGCGGGACAAAGTGGCCTTCATCACAGGAGGCGGCTCTGGGATTGGGTTCCGG
ATTGCTGAGATTTTCATGCGGCACGGCTGCCATACGGTGATTGCCAGTAGGAGCCTGCCGCGAGTGCTGACGGCC
GCCAGGAAGCTGGCTGGGGCCACCGGCCGGCGCTGCCTCCCTCTCTCTATGGACGTCCGAGCGCCCCCAGCTGTC
ATGGCCGCCGTGGACCAGGCTCTGAAGGAGTTTGGCAGAATCGACATTCTCATTAACTGTGCGGCCGGGAACTTC
CTGTGCCCCGCTGGCGCCTTGTCCTTCAACGCCTTCAAGACCGTGATGGACATCGATACCAGCGGCACCTTCAAT
GTGTCTCGTGTGCTCTATGAGAAGTTCTTCCGGGACCACGGAGGGGTGATCGTGAACATCACTGCCACCCTGGGG
AACCGGGGGCAGGCGCTCCAGGTGCATGCAGGCTCCGCCAAGGCCGCTGTGGACGCGATGACGCGGCACTTGGCT
GTGGAGTGGGGTCCCCAAAACATCCGCGTCAACAGCCTCGCCCCTGGCCCCATCAGTGGCACAGAGGGGCTCCGG
CGACTGGGTGGCCCTCAGGCCAGCCTGAGCACCAAGGTCACTGCCAGCCCGCTGCAGAGGCTGGGGAACAAGACC
GAGATCGCCCACAGCGTGCTCTACCTGGCCAGCCCTCTGGCTTCCTACGTGACGGGGGCCGTGCTGGTGGCCGAT
GGCGGGGCATGGTTGACGTTCCCAAACGGTGTCAAAGGGCTGCCGGATTTCGCATCCTTCTCTGCTAAGCTC**TAG**

GAATCTTCCGGCCGCTGCTTCCTGCCGCCTCACTCAGCCAGGTGGAGAGCACCAATCTGAACCAGCAATGCCTGC
AGCCCAGCCCCTCCTCTGAACACTCAGCTATTACTGCGCTTTCCCTCCCCACGGCCCCAACTCCAGGGCAGGAGC
AACTGGACAGTGGGCCTGGCCCGTGGAGCTGCCACGCAGGTGCCTGAGGGCCAGGTGCCACGCAGGTGTCTGAGG
ACCAGGTGCCACGCAGGTGGTGGGGGTACAGACAAGATGCTGGGATGTCCCCTGCCCCATGGTCAAGGGTGTCCT
GCCTGCCTGGGTCCAGGGCCTGAGGGAGCCACATGGATCCCGAGACTTGTGTTCTCTTGGCTGAAAACACTGAGG
TGCTCCCATCTGTGCGTGGCCCATGAGCTGGGATGGTCCTCCAGCTGCCCACAAGGTCCGCCCCTCTGTCTCTGC
ACCACCTGTTTGCATAAACACACTTTGCTACAATCTTGCTAGTGCGTTTTCTTAAAAGATAATCTATTTACTGTA
AAAATAAATTGGACTTTGCAAAAGCTTTTAGAAGGAAAAGAAAGAGGATTAAAGAGAATTGCTGGTGATCCTA

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FIGURE 2200A

CCGCGGCTGAGGAGCGGGAGGCCGTCCGGGCAGCGCGGCCGGCGGCGAGAGGGGCCCCGCCGCTCTCCGGAGGCA
GAAGTTGTGGATCGGCCGGCGGGGGCGAGCGGGCCCGGGGGCCGGGGCCGCGCTGCCCGGGCCGCGAGGACGAGG
CGGCGCCGCCGGGCTGTGGAGGCAGCAGCCCAGACGCGGCACAGAGAGGGCCTGGGAGCTTGCTGCAGCTTCAGA
CAGGGAGCCAGGATGGGAACCACGGACTGACCTGACCTGCGTCCTCGGGGCCACTGCACTGGGTGATTCACGTGT
GCCCAGGCCCTGAGGTGGGCCGGACCTGGGAGTGGCAGCCACACCCACTCGCCCGGGTCT**ATG**GCCACGGTCGGA
GAGTGGTCCTGTGTGCGCTGCACCTTCCTGAACCCGGCCGGCCAGCGCCAGTGCTCCATCTGCGAGGCTCCCCGG
CACAAGCCCGACCTCAACCACATCCTGCGGCTCAGCGTGGAGGAGCAGAAATGGCCCTGCGCCCGCTGCACCTTC
CGCAACTTCCTGGGCAAGGAGGCCTGCGAGGTGTGCGGCTTCACCCCGGAGCCTGCGCCTGGGGCTGCCTTCCTG
CCAGTCCTCAACGGGGTCCTCCCCAAGCCACCCGCCATCCTGGGGGAGCCCAAGGGCAGCTGCCAGGAGGAAGCA
GGTCCAGTGAGGACTGCGGGGCTGGTGGCCACGGAGCCCGCCAGGGGGCAGTGCGAGGACAAGGACGAGGAGGAG
AAGGAGGAGCAGGAGGAGGAGGAGGGAGCGGCGGAGCCCAGAGGGGGCTGGGCGTGTCCGCGTTGCACGCTGCAC
AACACGCCCGTGGCCAGCTCCTGCTCCGTCTGCGGGGGCCCACGCAGGCTCTCGCTGCCACGGATCCCTCCTGAG
GCCCTGGTGGTCCCGGAAGTGGTGGCCCCGGCCGGCTTCCACGTCGTGCCTGCCGCGCCTCCACCTGGCCTCCCC
GGGGAAGGTGCCGAGGCCAACCCCCCAGCCACCAGCCAGGGCCCAGCTGCCGAACCAGAGCCGCCCAGGGTCCCG
CCCTTCAGCCCCTTCTCGTCCACCCTGCAGAACAACCCCGTGCCGCGCAGCCGACGCGAGGTTCCCCCCCAGCTG
CAGCCACCGGTGCCTGAGGCTGCCCAGCCGTCACCCTCTGCCGGCTGCAGGGGAGCCCCCCAGGGCTCGGGCTGG
GCTGGGGCCTCCCGCCTAGCAGAGTTGCTGTCTGGCAAGCGGCTGAGTGTGCTGGAGGAAGAGGCCACGGAGGGT
GGCACCAGCCGCGTAGAGGCCGGCAGCTCCACCTCGGGCAGTGACATCATTGACCTGGCCGGAGACACCGTGCGT
TACACGCCCGCCAGCCCCTCCAGCCCCGACTTCACCACCTGGTCATGTGCCAAGTGCACGCTCAGAAACCCCACA
GTGGCCCCCAGGTGCTCGGCCTGCGGCTGCTCCAAACTGCACGGCTTCCAGGAGCATGGCGAGCCCCCCACCCAC
TGCCCCGACTGTGGGGCCGACAAGCCCAGCCCCTGCGGCAGAAGCTGCGGACGGGTGTCCTCGGCCCAGAAGGCC
GCCCGCGTCCTGCCCGAGCGCCCGGGCCAGTGGGCCTGCCCTGCCTGTACCCTGCTCAACGCACTGCGGGCCAAG
CACTGCGCCGCCTGCCACACGCCTCAGCTCCTGGTGGCCCAGCGGCGGGGGGCCGCGCCCCTGAGGCGCAGGGAG
AGCATGCACGTGGAGCAGCGGCGGCAGACAGACGAGGGCGAGGCCAAGGCACTCTGGGAGAACATCGTGGCCTTC
TGCCGGGAGAACAATGTGAGCTTCGTGGATGACAGCTTCCCTCCCGGGCCCGAGTCTGTCGGCTTCCCCGCGGGT
GACAGCGTGCAGCAGCGTGTGAGGCAGTGGCTGCGACCCCAGGAGATCAACTGCTCCGTCTTCAGGGACCACAGG
GCCACGTGGTCTGTGTTCCACACACTGCGGCCCTCAGACATCCTGCAGGGGCTGCTGGGGAACTGCTGGTTCCTG
AGCGCCCTGGCGGTGCTGGCGGAGCGGCCGGACCTGGTGGAGCGGGTGATGGTCACGCGCAGCCTGTGTGCAGAG
GGCGCCTACCAGGTGCGGCTGTGCAAGGACGGCACGTGGACCACGGTGCTGGTGGACGACATGCTGCCCTGTGAT
GAGGCCGGCTGCCTCCTCTTCTCACAGGCGCAGCGGAAGCAGCTGTGGGTGGCCCTCATCGAGAAGGCGCTGGCC
AAGCTGCACGGCTCCTACTTTGCGCTCCAGGCGGGCCGCGCCATCGAAGGCCTGGCCACGCTCACCGGCGCCCCC
TGTGAGAGCCTGGCGCTGCAGCTCAGCTCCACTAACCCCCGCGAGGAGCCCGTTGACACTGACCTCATCTGGGCC
AAAATGCTGAGTTCTAAGGAGGCTGGGTTCCTCATGGGTGCCTCCTGTGGCGGGGGCAACATGAAGGTGGACGAT
TCGGCCTACGAGAGCCTGGGCCTGCGCCCCCGGCATGCCTACTCCATCCTGGATGTCCGAGATGTCCAGGGCACC
AGGCTTCTGCGGCTCCGAAACCCGTGGGGCCGTTTCTCCTGGAACGGCAGCTGGTCCGACGAGTGGCCACACTGG
CCGGGGCACCTGCGTGGCGAGCTCATGCCGCACGGCAGCAGTGAGGGTGTCTTCTGGATGGAGTACGGCGACTTT
GTCAGGTACTTCGACTCCGTGGACATCTGTAAGGTGCACTCGGACTGGCAGGAGGCGCGGGTGCAGGGCTGCTTT
CCCAGCTCGGCCAGCGCGCCCGTGGGGGTAACAGCGCTCACGGTGCTGGAGCGGGCCTCGCTGGAGTTCGCGCTC
TTCCAGGAGGGCAGCAGGCGCTCGGACGCCGTGGACAGCCACCTGCTGGACCTGTGCATCCTGGTGTTCCGGGCC
ACGTTCGGCAGCGGCGGCCACCTCAGCCTGGGCCGCCTCCTGGCCCACAGTAAGCGCGCGGTCAAGAAGTTCGTC
AGCTGCGACGTCATGCTGGAGCCTGGCGAGTACGCTGTGGTGTGCTGCGCCTTCAACCACTGGGGGCCGCCCCTG
CCGGGCACCCCTGCCCCCCAGGCCTCCAGCCCCTCGGCAGGGGTCCCGAGAGCCTCCCCAGAGCCGCCGGGCCAC
GTGCTGGCTGTGTACAGCTCGAGGCTGGTCATGGTGGAGCCCGTGGAAGCCCAGCCGACCACGCTGGCCGACGCC
ATCATCCTGCTCACCGAGAGCCGCGGAGAGCGGCACGAGGGCCGTGAGGGCATGACCTGCTACTACCTGACACAC
GGTTGGGCGGGGCTCATCGTGGTGGTGGAGAACCGACACCCCAAGGCCTACCTGCACGTGCAGTGTGACTGCACC
GACAGCTTCAACGTGGTGTCCACACGCGGCAGCCTGCGTACCCAGGATAGCGTGCCACCCCTGCACAGGCAGGTC
CTGGTGATCTTGTCCCAGCTAGAGGGCAACGCCGGCTTCTCTATCACCCACCGCCTGGCACATCGCAAGGCAGCC
CAGGCCTTCCTCAGTGACTGGACAGCCTCCAAGGGGACCCACAGCCCCCCACTCACGCCAGAGGTCGCCGGTCTG

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FIGURE 2200B

CATGGGCCCCGACCGCTG**TGA**CCACCATGCCTGGGGCAGGGGCTGTGCACAGACGGACCCCCCACCCCCACACGC
ACTTTATGAGGGAGACCCCGACAGAGGACGCTTGAGCCAGAATCTCAGGACCCCGCCCAGGGAGCTGCCAGCCCA
GGGCTCAGCTTCCCATGGGCCCCCCGCCCCCCTCCTTCCCCTCCCTGAACCCCACAGTCCGCCTGGCCAGGCCTC
CTGGCCGCCACGCAGAATACCTCGAACCAGGCGGGCTGTGAACCAGCCCCGCTCACCTGCCAGCCCCAACACCCG
ACGGGGGCCGAGGCCAGGCTGCCCCTCCCTGTGGGCTCAGGGTCTCCTGCGGGCTAGGCAGCCAGGAGCTCTGTC
CGCAAAACCAAATCTGGGTGTCAGAGGCCAAGACCCTGGGGTGGGATCAGGGACCACCCCTCACGGGGCATAAGG
TCAGTTTTCCCCCAGAGCCCGGGTCCCTGTCCCCCACAGGGCAGGCGGGGTCCCTGGAGCCCTGGTGTGGAGCGG
CGAGTCCCGGGGCGGTGCCTGTCTCAGAAGAAGGG

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FIGURE 2201

GCCGGCGGAAGTGGGGCTCGGGTCCCGCGGCGGGGCTGGAGGCAGCGAGCGCCGTCGTCTGCCCGGGCCCGCCCA
TCGGGGTCCCCAACCCCATCCGGACCCCGCCGCCCGAGCGCGCGGCCCCGGAAGCACCCGCCTCCCGGC**ATG**GTG
CTCAAGGCCTTCTTCCCCACGTGCTGCGTCTCGACGGACAGCGGGCTGCTGGTGGGACGGTGGGTGCCGGAGCAG
AGCAGCGCCGTGGTCCTGGCGGTCCTGCACTTTCCCTTCATCCCCATCCAGGTCAAGCAGCTCCTGGCCCAGGTG
CGGCAGGCCAGCCAGGTGGGCGTGGCCGTGCTGGGCACCTGGTGCCACTGCCGGCAGGAGCCCGAGGAGAGCCTG
GGCCGCTTCCTGGAGAGCCTGGGTGCTGTCTTCCCCCATGAGCCCTGGCTGCGGCTGTGCCGGGAGAGAGGCGGC
ACGTTCTGGAGCTGCGAGGCCACCCACCGGCAAGCGCCCACTGCCCCCGGTGCCCCTGGTGAGGACCAGGTCATG
CTCATCTTCTATGACCAGCGCCAGGTGTTGCTGTCACAGCTACACCTGCCCACCGTCCTGCCCGACCGCCAGGCT
GGAGCCACCACTGCCAGCACGGGGGGCCTGGCTGCCGTCTTCGACACGGTAGCACGCAGTGAGGTGCTCTTCCGC
AGTGACCGCTTTGATGAGGGCCCCGTGCGGCTGAGCCACTGGCAGTCGGAGGGCGTGGAGGCCAGCATCCTCGCG
GAGCTGGCCAGGCGAGCCTCGGGACCCATTTGCCTGCTGTTGGCCAGCCTGCTGTCGCTGGTCTCAGCTGTCAGT
GCCTGCCGAGTGTTCAAGCTCTGGCCCCTGTCCTTCCTCGGGAGCAAACTCTCCACGTGCGAACAGCTCCGGCAC
CGGCTGGAGCACCTCACGCTAATCTTCAGTACACGGAAGGCGGAGAACCCTGCCCAGCTGATGAGGAAGGCCAAC
ACGGTGGCCTCTGTGCTGCTGGACGTGGCCCTGGGCCTCATGCTGCTGTCCTGGCTCCACGGGAGAAGCCGCATC
GGGCATCTGGCCGACGCCCTCGTTCCTGTGGCTGACCACGTGGCCGAGGAGCTCCAGCATCTGCTGCAGTGGCTG
ATGGGTGCTCCCGCCGGGCTCAAGATGAACCGTGCACTGGACCAGGTGCTGGGCCGCTTCTTCCTCTACCACATC
CACCTGTGGATCAGCTACATCCACCTCATGTCCCCCTTCGTGGAGCACATCCTTTGGCACGTGGGCCTCTCGGCC
TGCCTGGGCCTGACGGTGGCCCTGTCCCTCCTCTCGGACATTATCGCCCTCCTCACCTTCCACATCTACTGCTTT
TACGTCTATGGAGCCAGGCTGTACTGCCTGAAGATCCATGGCCTGTCCTCACTGTGGCGTCTGTTCCGGGGGAAG
AAGTGGAACGTTCTGCGCCAGCGCGTGGACTCCTGTTCCTATGACCTGGACCAGCTGTTCATCGGGACTCTGCTC
TTCACCATCCTGCTCTTCCTCCTGCCTACCACAGCCCTGTACTACCTGGTGTTCACCCTGCTCCGGCTCCTGGTG
GTCGCCGTGCAGGGCCTGATCCATCTGCTCGTGGACCTCATCAACTCCCTGCCGCTGTACTCACTGGGTCTTCGG
CTCTGCCGGCCCTACAGGCTGGCGGATAAACCCACTGCCCTACAGCCGCGTGGTGCACACCTACCGCCTCCCCAG
CTGTGGCTGCCACCCCAAGCACTCCTGGGGCGCCCTGTGCCGCAAGCTGTTCCTTGGGGAGCTCATCTACCCCTG
GAGGCAGAGAGGGGACAAGCAGGACTGAGGGAACTGCTGGCTCGCCTGGCACCACCACACGGCCACAGCCAGCCA
TCTGCTCTGCCAGGGTGGCACCAGCTCAGCTGGCGCATGTCCTGTGCTTTGTGGACGCTGCTGTGTGCTCCTGAA
CACGGCAGGCCCTGCTATCACACCTTGGGCTTGGAGGTCATTGGGAGTGAGCAGATGTGGGGGTGGCCAGCCAGG
CTGGCCGCACTCCATCACTGGCACTGCCTGCCTTGGGACCCGCTTCCCACCTGCTGCGGTCACCATGGTGGCGAG
CACAGCAACCCCAGGTGTCCAGAGCACTGCCCCATGCCCACCCTGTGTACCCAGGTCCAGAGGGTCCGTCCACCA
CAGCAGCCCCAGGTGGAGGGCTGGTCTCCCTGGGGGCTCCCCAGTGGCTCTGCCCTGGCTGTGGGGGTGGAGGGA
CCTTGCCAGGATGAACCCCCCAGTCCCAGGCACCCTCTAGCTCCCTCAGCCGAACAGCACCCTGCATCTGGGGGA
TTGAAGCAGTCGCTGACCCCCGTCCCCAGCGGGCCCGGGCCCTCACTCCCTGAACCACACGGGGTTTATTTGCGG
ATGTTCCCTGGAGAGGTCGCTTTG**TGA**AGAAACCATCAGCAGGCTGTGAGCATCGCCAGGCTGCTGTGGGGGCGG
GAGCAGCCTCAGTGTCAAGGGCCCGCCCACTGACCCAGCCGTACCTATTCGTCCACGGTGCCCCGTAGCAGCAGG
TCCTGCGGCCAAATCTGTCTCCCTTCATGGGCCTCCCAGGGAAGGAGGAAGCCCTGCTGTGCAGACACCTCTGTG
GCCCCCCAGGAGTGTGAGTGGCCTGGGGAGGGGGCCGTGGCACTGAGGCCGAAAGTGCCTGCCAGACGGCACGGT
CTGGGTGCGGGTGTTCCCTGTGAGCCCGAGTCCGCTTCAGGAGGGGAGCCTGCAGGTGCCGGCTGGTGAGGGGAT
GACGCGCTGTGGGTGGGAGGAGGCAGCGCCCATCTCAGCAGCACCAGGACTGCCTGGGACTCCCTGGCAACCCAG
CACCGGGGAAGCCGTCAGCTGCTGTGACAATAAAACCTGCCCCGTGTCTGG

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FIGURE 2202

GGCC**ATG**GGCTCGCAGGGCAGTCCGGTGAAGAGCTACGACTACCTGCTCAAGTTCCTGCTGGTGGGCGACAGCGA
CGTGGGCAAGGGCGAGATCCTGGAGAGCCTGCAGGACGGCGCGGCAGAGTCCCCGTACGCCTACAGTAACGGGAT
CGACTACAAGACCACCACCATCCTGCTGGACGGCCGGCGCGTGAAGCTGGAGCTCTGGGACACGTCGGGCCAGGG
CCGGTTCTGCACCATCTTCAGGTCCTACTCCAGGGGCGCTCAGGGGATCCTCTTGGTGTATGACATCACCAACCG
CTGGTCCTTTGACGGCATCGACCGCTGGATCAAGGAGATCGATGAGCATGCACCCGGAGTCCCCCGGATCTTGGT
TGGAAACCGGCTGCACCTGGCCTTCAAGCGGCAGGTCCCGACGGAGCAGGCCCGCGCGTACGCAGAGAAGAACTG
CATGACCTTCTTTGAGGTCAGCCCCCTGTGCAACTTCAACGTCATCGAGTCCTTCACGGAGCTATCCCGCATCGT
GCTCATGCGGCACGGCATGGAGAAGATCTGGAGGCCCAACCGAGTGTTCAGCCTGCAGGACCTCTGCTGCCGGGC
CATCGTCTCCTGCACCCCCGTGCACCTCATCGACAAGCTTCCACTGCCCGTCACCATCAAGAGCCACCTCAAGTC
CTTCTCGATGGCCAACGGCATGAACGCGGTCATGATGCACGGCCGTTCCTACTCCCTGGCCAGCGGGGCCGGGGG
CGGCGGCAGCAAGGGCAACAGCCTCAAGAGGTCCAAGTCCATCCGTCCACCCCAGAGCCCCCCCCAGAACTGCTC
GCGGAGTAACTGCAAGATCTCC**TAG**CGGGGATGGGCGGGGCCGCCTGTGCAGATGCCAGGAGGGCTCGAGCTGGA
CACTCCTGGCTGGACGCCAGGCCAGTGCCGCCTACGTGGAGACTGTCCACACAGCTGCCTCAGAAGCGCCGGGCT
TTCCTCACACCTGAGCCGGGTGCGAGGAGGAGCATGCACGGACCAAGCGCGGCAGGCGGGAGGAGGGGGCGCGGC
TGGGCTGCTGGTGCTTCCGGGAATCTTGGTCGGAAACAAGCCGGGCCTCCCCAGCTGCCTGGGCTTGACCGGCGG
GGAGCCTGGTTGGCCTTTCTTATTTATATAGAGAACACTTCACTTTTTTGTACATTTTTAAGGGGCCTTCAGGGA
AGCCTGGGTGTGGCCCGGTGGTGGTGCACTGGTGACTTCATGGCCACGCCAGCTGCGGGGACGCACTTGGGACTC
CTCGAGAGGGGACTCGCGGCCGCGATGGCAAGGCATCCTGTGAATTCATGCGCTGCGAGTGGCGGGGCTGCCCAG
AGGCCGGGGGAGCAGACAGGGCCGGTGCTCCCTCTGGAAGCTTGGGTGACCGGGGCCCTGGCTCCCACGGGATGG
AGGGTGTGGTCCTGTGGTCAGAGCCCAAGCAGCACTCAGGAGAGGGGAGAAAGGAGGTGCACCTGGCAGCCCACA
TTTTTGTTGCTCCCCAAATCCCTCCCCACGTGGGGATGAGAACCTTCCTGCTGTGATGTGACACCTTCGGGGACA
TTGACCACTCAAAACTCAGATCATCTCGCCCACCCTGGAGAGTGCAGAGCTATCTGTAGACTTAGGAATACTTGA
TGGGCAGCGGTGCAGACCCCGGGCACCTGCGTGCAGCCTCCTGTTCTCGGCAGCTTCTGTCGCTGGCCCTGGGGT
CCCCACAGCTGCAGCTCTCCTGTGAGGTTGCACGGCATCAGAACCATCCTGACCTTCTTAGGGACGTGCCTGGAA
CCACCTCGTCCACGTCCACGTCCACCTGGGGGCCTCGGGAGGCTAGGCCCCTCCTCAAAGGCCCACCAGCCCGGC
GCTCATGCTGAGCCCCAGGCACGCAGGGCCGGCCACCTCTCTCCTGAAGCCATTGGCCGCTCCTCCACCCAGTGC
TTCTGCCCATGCCTGCCCCAGCAGCCCCTCTGCACGGTCACCATCGCCTGGGCCTGCCCACAGCACTGGTGCTCA
CCTCTACCTCCTGTCCTCAGGCCGTGCGGCACGACATGGCCAGCACGCAGAAGGAGCCCTCCCGGGACCCAGGAC
CCCCCGTGGTGGACTCCGCGGCACATGCTTCCCAAGGTGGTCCCACGGAGGGTGTTACTGGGCACCAGTGGACTC
GCCCCATGGCCCGTTCCTGGGAGATGAGGGCCGTGGCCTGCATGAACTACCAGATGAGTAAGGGAACCCCAGGCA
GGCGGCCCTGCCACAGCCCCCAAAGACACTGGCCTCCTGCTCCAGCTTCCCTGTCCTGGCCCCACCTGTCCTGTT
GCTGCCAGCAGGGCCCTTGTTTGGGATTATGAACAAACCTCACAGACTTTGAGGACCTGGATGGTCCTGCATTCA
CGGCATCAACACTACCCGCGCTGCTGTTAGACACTCCGCCATTCCTGGTTCTCTCCGAACCGTTCTTTGTACAGT
AAATGTAATTCAGCTG

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FIGURE 2203

CGCGGCGGGGAGTTGTTGCTGCCGCG**ATG**CTGGTGGCGGCGGCCGCGGAGCGGAACAAGGATCCCATCTTGCACG
TGCTGCGGCAGTACCTGGATCCGGCCCAGCGTGGCGTCCGCGTCCTCGAGGTGGCCTCGGGCTCCGGCCAGCACG
CAGCGCACTTCGCGCGGGCCTTCCCCCTGGCCGAGTGGCAGCCGTCGGACGTGGACCAGCGCTGCCTGGACAGGT
GCGGCCCCCGGGGCGGCCACTTCTATCGGTGCGGCGGTCCGGGGCCTCAAGAGCCCACGGCCCGCAGCCCCGGAG
GAAAAGGATGCGGCTCGGGCTCTGAGGGTGCGGGGTGGGAGCCTGGGGGTGCCCCCGGGGCAGGCCCTAGCTGTG
CGGCCCCCGCGGCTGCGGAAGTGGGTGGACCTCGGGGTCCCCCTTCCCAGCCGCTTTGGTCTCCGCTCCTCAACG
TGCCCCCCAGCCTCCCC**TAA**GAAATTCTGTGGGGGCGTCGGAAAGGCGGGTGCACAGGACTCGGCCCCCACCCAA
GCGTTCGCCTCCTGCAGCATCGCGGCCACCACGCAAGCCCAGGGCCTGACCAACGTGAAGGCCCCGCTACACCTG
GACGTGACGTGGGGCTGGGAGCACTGGGGCGGGATCCTGCCACAGTCGCTGGACCTGTTGCTCTGCATCAACATG
GCCCATGTCAGCCCCCTGCGCTGCACGGAGGTCTGTGGGGAGCCCAGCATGGGTGTCTGCCGTGGCACCACTCAC
CCTGCATGGGGGCAGCTGGGATGCCAGATTTGCCCCCATCACAGTCGGGGTGAGGGTCTCCAGCCTCCCCCATCA
CAGTCGGGGTGAGGGTCTCCAGCCTCCCCCATCACAGTCGGGGTGAGGGTCTCCAGCCTCCCCCATCACAGTCGG
GGTGAGGGTCTCCAGCCTC

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FIGURE 2204

GCGGGAGCCATCTCCTTTGGCATCGCCCCTTGTCTCGGGCCGGTGGGGAGTGGGCGAGGGTTATAGTCACTCTCC
CGACTCAGGGACTGCCCATCCCGGCACCCAGTCCTCATCCCATGGGACGTGGGGGCAGCCAGGGAGAGGGCAAAG
GCCCCCGTTCCCGTCCAGGTCCATCCGTCCATGGAGGGAAACATCGTGGAGATGGAGGTGCTTCTGTGGGGCGAG
AATGTGGCCTAGAACTACACCCAGAGTGGGGGGGTTGGGGCAGAGAGACATGGTCATGGACTGGGTCGTGGCTCA
GGTCAGAATCTGGGCTGCTGATGGGATGCAGGTGGCAGCATGGGCACCTGCAAGACCCTCGGGGAGGGGTACTGA
GTGGGGCCCGACCAAAGGTTTGGGACACTCTAAGACTGAGGCCCCCACCCTACAGTCACTCACTTCCCTCAGGAC
ACAGGGCTGCAGGTGTGAGCTGAGCTGCCGATGGCTTGGGGACTGCAAGAGAGGCCTGGGCCACCGGCTGCTGTG
GGTGGCTGCTCTCTCTGGTTCAGGAAGTGCCTAGGCTGGCCAAGTCTGGGGAAAGTGGGCTGGCCCGGGGCTGCT
CCTGAGTTCTGCCAGGCAGCACCGCACCTGGG**ATG**GGCACCAACCATGTCCGTCTCCTCCCTTCCTGCAGTCCAG
GGCCAAGGCTTGTGTTCAATCGTGTGAATGGCCGGCGGGCCCCCTCCACGTCCCCATCCTTCGAGGGGACCCAGG
AGACCTACACAGTGGCCCACGAGGAGAATGTCCGCTTTGTGTCCGAAGGTAGCGAGCGGGGCCAGAGGGTGCGGC
ATAGGCTGCTGGGTCGCAAAACCATGGACCCGGGATGGCCCCACTTCAAGCTGACCCACAGCCGCTGCATGGCTG
TGCTTTTCCTTGGCACTCTGCCCTTGTGTCCTGTGACCAGCCCTGTGTGGGGCTGGAGTCCAGGG**TGA**CCATCAG
GCCCTGGGTGGGCGATGGGGTGCCTGGGACCTGGCTCAGCCCGACTGCCCTCCTCCCACAGCCTGGCAGCAGGTG
CAACAGCAGCTGGATGGTGGCCCAGCCGGTGAGGGCGGGCCAAGGCCTGTGCAGTACGTGGAGAGGACCCCCAAT
CCCCGGCTGCAGAGTGAGCCCCCCAACCCTGTCCCCCCAGGAGAGACCCCCCAGCCCCTCTGATCCTGACCCAGG
CCCTGCCAGGTTCCCACCCCAGGGGATGAGGGAGGGGACTCTTGTGCAGAAACCCCTTCTTCCCAGCGCCTGCCG
CACTCGGAGTCCGGGTGAGCGGCTTGTGGTTAGCTCCAGGGGAGACTTGCCGGCTGGCCTGGGAGGCAGCATCAC
TGCCCAGCCTTCTCTGCCCACAGACTTTGTGCCCATTGACCTAGACGAGTGGTGGGCGCAGCAGTTCCTGGCGAG
AATCACCAGCTGTTCCTAGTGGCTGCTGGGAGGGGGCGCTGCTACACGGCCGACCTGTCGCCAGGAGAGAAGCAT
GGCGCCCTGCCCACCCACTGCGCCTGGCTGGGTGCCGGCCACACCTGAAGTGCCAGCATTTGGACTTTTGCACCT
TTTTTTCCCTTGGCCCGGCTGTCCCAACCAAGCTGCCATGGCCAAGGGCCGAACCCGTCTGACCTCAGCCCTGCT
CACTGTGCCCAGGGACCAGCGACCAGCCCCTGGGGCTGGCAGGGAGGAGCTCCAGGCTAATAAAGTGGAGAAACT
GTC

FIGURE 2205

TTTGGACTCACCCAGATCTAGTGCAGGGACACACACGGGGGCCGGCATTGCTCCTTTCCGCCATGTGGAGTTGGC
CGGGGCCAGAGGCAC**ATG**CTCTGGTTTGGACAGCCCGGCCCTGGGGGCTGGAATAGGAAATGCCTGCGTCCCTTT
ACCCTGCCCAGGGGCCAACACCCCCAGCCTAGCTACGGCTTCCCCCAGGTGAACGAGGTGGTCTTCAGCCCCGGG
GAGTCCCACTGCGCCACATGCAGTGAGGATGGGAGTGTGCGGGTGTGGGCCTTGGCCAGCATGGAGCTTGTGATC
CAGTTCCAGGTGCTGAACCAGAGCTGCCTCTGCCTGGCATGGAGCCCCCCGTGCTGTGGCCGCCCTGAGCAGCAG
CGGCTAGCGGCTGGCTACGGTGACGGCTCCCTGCGCATCTTCAGCGTCTCCCGCACGGCCATGGAGCTCAAGATG
CACCCCCACCCGGTGGCGCTGACCACTGTTGCCTTCTCCACCGATGGTCAGACTGTCCTCTCTGGAGACAAGGAT
GGGCTCGTGGCTGTGAGCCACCCCTGCACAGGGACAACCTTCCGTGTGCTGAGTGACCACCAGGGCGCCCCAATC
TCTACCATCTGTGTCACGTGCAAAGAGTGTGAAGACTTAGGGGTGGAGGGCACAGACCTATGGCTGGCTGCCAGT
GGGGACCAGCGGGTCAGCGTCTGGGCCTCCGACTGGCTGCGGAACCACTGTGAGCTTGTGGACTGGTTGAGTTTC
CCAATGCCTGCCACCACGGAGACTCAGGGCCACCTGCCACCCTCCCTCGCTGCCTTCTGCCCTTGGGATGGGGCG
CTCCTGATGTACGTGGGCCCCGGTGTTTACAAGGAGGTGATCATCTACAACCTCTGCCAGAAGCAGGTGGTGGAG
AAGATACCACTGCCCTTTTTTGCCATGTCCCTGAGCCTGTCCCCCGGGACCCACCTCCTGGCTGTTGGCTTTGCT
GAGTGCATGCTGAGGCTGGTAGACTGTGCCATGGGGACTGCCCAAGACTTTGCCGGCCACGACAACGCAGTGCAC
CTGTGCAGGTTTACACCGTCCGCCAGGCTGCTCTTCACGGCCGCCCGCAACGAGATCCTTGTGTGGGAGGTCCCC
GGCCTC**TGA**GATGCAGCAGGGACTGTGGTGGTGGGCATCACGCCTGGTCATGCCAGGCACCTGGACACAGGCTTG
GCAGAGGCGCCAGGTTGTCAATGGCCTCATGCTGGGACAGGCCAGGATTCACGTAAATCGCCTGGAGCAAGCTGT
TGTAAATTTGGCGCCCTGTGAATACTTTCATACCTGTTGCCCTTTTGCCTAAGAAATCTTTAATGTTTCTATCTT
GTAATAAACATGGGCATTTATTGC

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FIGURE 2206

AGCGAAAGGCTTGAGGACCAGGTCGGGGCCGGGTTCCGGGTCGGGGAGCGGCTCCGGGCGGCAGCT**ATG**AGGCGG
GACGTGCGCATCCTGTTACTGGGCGAGGCCCAGGTGGGGAAGACGTCGCTGATCCTGTCCCTGGTGGGCGAGGAG
TTCCCCGAGGAGGTCCCTCCCCGCGCGGAGGAGATCACCATCCCCGCGGACGTCACCCCGGAGAAGGTGCCCACC
CACATCGTGGACTACTCAGAAGCCGAGCAGACGGACGAGGAGCTGCGGGAGGAGATCCACAAGGCAAACGTGGTG
TGTGTGGTGTATGACGTCTCTGAGGAGGCCACCATTGAGAAGATTCGAACTAAGTGGATCCCACTGGTGAATGGG
GGGACCACGCAGGGGCCCAGGGTGCCCATCATCCTAGTGGGCAACAAGTCAGACCTGCGGTCGGGGAGCTCCATG
GAGGCCGTGCTCCCCATCATGAGCCAGTTTCCCGAGATTGAGACCTGCGTGGAGTGTTCGGCCAAGAACCTGAGG
AACATCTCAGAGCTGTTCTACTACGCCCAGAAGGCCGTCCTGCATCCCACAGCCCCCCTCTATGACCCTGAGGCC
AAGCAGTTGAGGCCCGCGTGCGCCCAGGCGCTGACGCGCATCTTCAGGCTCTCAGATCAGGACCTGGACCAGGCG
CTCAGTGACGAAGAGCTCAACGCTTTCCAGAAATCCTGCTTTGGGCACCCCCTGGCCCCGCAGGCCCTGGAGGAC
GTGAAGACGGTGGTGTGCAGGAACGTGGCGGGCGGCGTGCGGGAGGACCGGCTGACCCTGGATGGTTTCCTCTTC
CTGAACACGCTCTTCATCCAGCGCGGCCGGCACGAGACCACCTGGACCATCCTGCGGCGCTTCGGCTACAGCGAT
GCCCTGGAGCTGACTGCGGACTATCTCTCCCCTCTGATCCACGTGCCCCCCGGCTGCAGCACGGAGCTCAACCAC
CTTGGCTACCAGTTTGTGCAGAGAGTGTTTGAGAAGCACGACCAGGACCGCGACGGCGCCCTCTCGCCCGTGGAG
CTGCAAAGCCTTTTCAGTGTGTTCCCAGCAGCGCCCTGGGGCCCCGAGCTCCCACGCACAGTCCGCACAGAGGCC
GGCCGGTTGCCCCTGCACGGATACCTCTGCCAGTGGACCCTGGTGACCTACCTGGACGTCCGGAGCTGCCTTGGA
CACCTAGGCTACCTGGGCTACCCCACCCTCTGTGAGCAGGACCAGGCCCATGCCATCACAGTCACTCGTGAGAAG
AGGCTGGACCAGGAGAAGGGACAGACGCAGCGGAGCGTCCTCCTGTGCAAGGTGGTAGGGGCCCGTGGAGTGGGC
AAGTCTGCCTTCCTGCAGGCCTTTCTCGGCCGCGGCCTGGGGCACCAGGACACGAGGGAGCAGCCTCCCGGCTAC
GCCATCGACACGGTGCAGGTCAATGGACAGGAGAAGTACTTGATCCTCTGTGAGGTGGGCACAGATGGTCTGCTG
GCCACATCGCTGGACGCCACCTGTGACGTTGCCTGCTTGATGTTTGATGGCAGTGACCCAAAGTCCTTTGCACAT
TGTGCCAGCGTCTACAAGCACCATTACATGGACGGGCAGACCCCCTGCCTCTTTGTCTCCTCCAAGGCCGACCTG
CCCGAAGGTGTCGCGGTGTCTGGCCCATCACCGGCCGAGTTTTGCCGCAAGCACCGGCTACCCGCTCCCGTGCCG
TTCTCCTGTGCTGGCCCAGCCGAGCCCAGCACCACCATCTTCACCCAGCTCGCCACCATGGCCGCCTTCCCACAT
TTGGTCCACGCAGAGCTGCATCCCTCTTCCTTCTGGCTCCGGGGGGCTGCTGGGGGTTGTCGGGGCCGCCGTGGCC
GCAGTCCTCAGCTTCTCACTCTACAGGGTCCTGGTGAAGAGCCAG**TGA**GGCCCCTGGTACCCAAGCCCCCTCCCC
TGACCTGGGTGTGCCTCGCTGCTGGGGCTCTGCAGGGGCAGCACAGCTGGGGTGCAGGCCAGGCTGCCACTCCGG
GAACGCCTTTGCGCCGGGACTTTTTGTTTCTGAAGGCAGTCGATCTGCAGCGGGGCCTTATGCTGCCATGCACTG
CCCTGGCTCCTGCCGGACCCCCAGGGTGGGCCGTGGCAGGTGGCTGAGCAGGAGCTCCCAAGTGCCGGCCACCGC
TGTCAGGGATTGCCCACCCCTGGGCATCATGTGTGTGGGGCCGGGGAGCACAGGTGTGGGAGCTGGTGACCCCAG
ACCCAGAATTCTCAGGGCTCTACCCCCCTTTCCTGGTCCTAGGTGGCCAGTGGGTATGAGGAGGGCTGGAAGGCA
GAGCTTTGGGCCAAAAGCAGGCGTTGGGGGGTCCCCCCTCAAGTTTGGAGCCGTTTCCGTGGTTGTAGCAGAGGA
CCGGAGGTTGGGTTCCTGATTAAACTTCACTGTGTGTTTTCTATCTCGGATCCCAGTCTCTGAAGACAACTTGCT
TTGATTCAA

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FIGURE 2207

CTGGGCCGCGAGGCGCGGAGCTTGGGAGCGGAGCCCAGGCCGTGCCGCGCGGCGCC**ATG**AAGGGCAAGGAGGAGA
AGGAGGGCGGCGCACGGCTGGGCGCTGGCGGCGGAAGCCCCGAGAAGAGCCCGAGCGCGCAGGAGCTCAAGGAGC
AGGGCAATCGTCTGTTCGTGGGCCGAAAGTACCCGGAGGCGGCGGCCTGCTACGGCCGCGCGATCACCCGGAACC
CGCTGGTGGCCGTGTATTACACCAACCGGGCCTTGTGCTACCTGAAGATGCAGCAGCACGAGCAGGCCCTGGCCG
ACTGCCGGCGCGCCCTGGAGCTGGACGGGCAGTCTGTGAAGGCGCACTTCTTCCTGGGGCAGTGCCAGCTGGAGA
TGGAGAGCTATGATGAGGCCATCGCCAATCTGCAGCGAGCTTACAGCCTGGCCAAGGAGCAGCGGCTGAACTTCG
GGGACGACATCCCCAGCGCTCTTCGAATCGCGAAGAAGAAGCGCTGGAACAGCATTGAGGAGCGGCGCATCCACC
AGGAGAGCGAGCTGCACTCCTACCTCTCCAGGCTCATTGCCGCGGAGCGTGAGAGGGAGCTGGAAGAGTGCCAGC
GAAACCACGAGGGTGATGAGGACGACAGCCACGTCCGGGCCCAGCAGGCCTGCATTGAGGCCAAGCACGACAAGT
ACATGGCGGACATGGACGAGCTTTTTTCTCAGGTGGATGAGAAGAGGAAGAAGCGAGACATCCCCGACTACCTGT
GTGGCAAGATCAGCTTTGAGCTGATGCGGGAGCCGTGCATCACGCCCAGTGGCATCACCTACGACCGCAAGGACA
TCGAGGAGCACCTGCAGCGTGTGGGTCATTTTGACCCCGTGACCCGGAGCCCCCTGACCCAGGAACAGCTCATCC
CCAACTTGGCTATGAAGGAGGTTATTGACGCATTCATCTCTGAGAATGGCTGGGTGGAGGACTAC**TGA**GGTTCCC
TGCCCTACCTGGCGTCCTGGTCCAGGGGAGCCCTGGGCAGAAGCCCCCGGCCCCTATACATAGTTTATGTTCCTG
GCCACCCCGACCGCTTCCCCCAAGTTCTGCTGTTGGACTCTGGACTGTTTCCCCTCTCAGCATCGCTTTTGCTGG
GCCGTGATCGTCCCCCTTTGTGGGCTGGAAAAGCAGGTGAGGGTGGGCTGGGCTGAGGCCATTGCCGCCACTATC
TGTGTAATAAAATCCGTGAGCACGA

FIGURE 2208

GCGGCTTCCGGCGCGGCGGTTCCGGACAACCGTGCGCTTTTAGTAAAAGATTGGGGTTCGCGCGGGGGAGAAGGG
CTGCCCCGGGCCCTCTGGTTCTCGTCCCGCAGCGTCCGCTCCCCCGCGCCACTGCGCCGCTCCCAGGAACCCTGT
ACTCCGGGGTCGCCGGCTTCTCTCCTGCCTCCGGTCCCGCCAGACACCTCGAGCTCCTTAAGTAGCTCGGTCCTT
GACGTCCCTCTGGGCCCTTCCCGCGTCTATCGCCTGAGTCCCCGGGCCCCTCTAGCCCTCTGTTCCCTCCCCTCT
TTTGTTCCTCCCTAGAGCCCCGCCGCCCTCAGGGCTGACAGTGTGGACGGCGGGAGTCTCCTCGCTCCCCTGCTG
GGATTGACTGACCGAGCGTTTAGTGACTGCCCAGATCTGGCTGATGGGGGTACCGAGAGGTGGCCTGGGCCGGGA
ATGTCCAGCTAGAGTCTTCCGTGGAAGTCAGACATGAAACTGACAGGCCTAAGGGAAGCTAGGAAGTCCCCTCAC
CGCTCAGCCAGGGTGATGGGCTGGACTGACAGACTCCAGTGAATTTGAGCTTGCCTGTCAGGCTGATTGGCTGAT
AGACAGCCCTGGATTGGCTCACTAAGACTGACCAGCCCGGGACCAAGCAGTTCTGGGGTCCCAACCTGGGTGGAA
GGTCTGAACTGATGACCCACCCAGGCTGACCAGGCCAGCCCACCTCACTGACCTCCTGACCCCTGACCTCATCAC
CTGTGCAGCC**ATG**GAGAAGATGTCCCGTGTGACCACAGCCCTGGGTGGCAGCGTGCTGACAGGCCGCACCATGCA
CTGCCACCTGGATGCTCCCGCCAATGCCATCAGTGTGTGCCGCGACGCAGCCCAGGTGGTCGTGGCAGGCCGTAG
CATCTTCAAGATCTATGCCATCGAGGAGGAACAGTTCGTGGAAAAGCTGAACCTGCGTGTGGGGCGCAAGCCTTC
GCTTAACCTGAGCTGTGCTGACGTGGTCTGGCACCAGATGGATGAGAACCTGCTGGCCACAGCAGCCACCAATGG
CGTGGTGGTCACGTGGAACCTGGGCCGGCCATCCCGCAACAAGCAGGACCAGCTGTTCACAGAACACAAGCGCAC
GGTAAACAAAGTCTGCTTCCACCCCACCGAAGCCCACGTGCTGCTCAGTGGCTCCCAGGATGGCTTCATGAAGTG
CTTTGACCTCCGCAGAAAGGACTCTGTCAGCACCTTCTCGGGCCAGTCGGAGAGCGTGCGGGACGTGCAGTTCAG
TATCCGGGACTACTTCACCTTCGCCTCCACCTTTGAGAACGGCAATGTGCAGCTCTGGGACATCCGGCGTCCCGA
CCGGTGCGAGAGGATGTTCACAGCCCACAACGGACCCGTCTTCTGCTGCGACTGGCACCCCGAGGACAGGGGCTG
GTTGGCCACTGGAGGGCGCGACAAGATGGTGAAGGTCTGGGACATGACCACGCACCGTGCCAAGGAGATGCACTG
TGTGCAGACCATCGCCTCGGTGGCCCGTGTGAAGTGGCGGCCAGAGTGCCGCCACCACCTGGCCACGTGCTCCAT
GATGGTGGACCACAACATCTATGTTTGGGACGTGCGCCGGCCCTTCGTGCCAGCTGCCATGTTTGAGGAACACCG
AGACGTCACCACGGGAATTGCCTGGCGCCACCCCCACGACCCCTCCTTCCTGCTGTCTGGCTCCAAGGACAGCTC
GCTGTGCCAGCACCTGTTCCGCGACGCCAGCCAGCCCGTCGAGCGCGCCAACCCTGAGGGCCTCTGCTACGGCCT
CTTCGGGGACCTGGCCTTCGCCGCCAAGGAGAGCCTCGTGGCTGCCGAGTCGGGGCGCAAGCCCTACACTGGCGA
CCGGCGCCACCCCATCTTCTTTAAGCGCAAGCTGGACCCTGCCGAGCCCTTCGCAGGCCTCGCCTCCAGTGCCCT
CAGTGTCTTTGAGACGGAGCCAGGTGGCGGCGGCATGCGCTGGTTTGTGGACACAGCTGAGCGTTATGCGCTGGC
TGGCCGGCCACTGGCCGAGCTCTGTGACCACAACGCAAAGGTGGCTCGAGAGCTTGGCCGCAACCAGGTGGCGCA
AACGTGGACCATGCTGCGGATCATCTACTGCAGCCCTGGCCTAGTGCCCACTGCAAACCTCAACCACAGTGTGGG
CAAGGGTGGCTCCTGTGGCCTCCCGCTCATGAACAGTTTCAACCTGAAGGATATGGCCCCAGGGTTGGGCAGTGA
GACGCGGCTGGACCGCAGCAAAGGAGATGCACGGAGCGACACAGTTCTGCTCGACTCCTCGGCCACACTCATCAC
CAATGAGGATAACGAGGAAACCGAGGGCAGCGACGTACCTGCCGACTACCTGCTGGGTGACGTGGAAGGTGAGGA
GGACGAGCTGTACCTGCTGGATCCGGAACACGCGCACCCCGAGGACCCTGAGTGCGTGCTGCCGCAGGAGGCCTT
TCCGCTGCGCCACGAGATCGTGGACACGCCTCCCGGGCCCGAGCACCTGCAGGACAAGGCCGACTCCCCGCACGT
GAGCGGCAGCGAGGCGGATGTGGCCTCCCTGGCCCCCGTGGACTCCTCCTTCTCGCTCCTGTCTGTCTCACACGC
GCTCTACGACAGCCGCCTGCCGCCCGACTTCTTCGGCGTGCTGGTGCGCGACATGCTGCACTTCTACGCTGAGCA
GGGCGACGTGCAGATGGCTGTGTCTGTGCTCATCGTCCTGGGTGAACGGGTGCGCAAGGACATCGACGAGCAGAC
CCAGGAGCACTGGTACACTTCCTACATCGACCTGCTGCAGCGCTTCCGCCTCTGGAACGTGTCCAACGAGGTGGT
CAAGCTGAGCACCAGCCGCGCCGTCAGCTGCCTCAACCAGGCCTCCACCACCCTGCACGTCAACTGCAGCCACTG
CAAGCGGCCCATGAGCAGCCGGGGCTGGGTCTGCGACAGGTGCCACCGCTGCGCCAGCATGTGTGCCGTCTGCCA
CCACGTAGTCAAGGGTCTCTTCGTGTGGTGCCAGGGCTGCAGCCACGGCGGCCACCTGCAGCACATCATGAAGTG
GCTGGAAGGCAGCTCCCACTGTCCCGCAGGCTGCGGCCACCTCTGCGAGTACTCC**TGA**CGGGGCATCTGCTGGGC
TTGCCCGGGCGGCCG

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FIGURE 2209

GGGCTCTTCTGGTATTTCTCGGCCTGCGAGAAGTGTGTGCTGGCCCAGGTGTGCAAGGCCTGGCGGCGCGTGCTG
TACCAGCCCAAGTTCTGGGCAGGCCTCACGCCGGTGCTGCATGCCAAGGAGCTCTACAACGTGCTGCCTGGTGGC
GAGAAGGAGTTCGTGAACCTGCAGGGTTTTGCCGCCAGAGGCTTCGAGGGCTTCTGCCTGGTTGGCGTCTCCGAC
CTGGACATCTGTGAGTTCATTGACAACTATGCGCTCTCCAAGAAGGGTGTCAAAGCC**ATG**AGCCTCAAGCGCTCC
ACCATCACGGACGCAGGCCTCGAGGTTATGCTTGAACAGATGCAGGGCGTGGTGCGTCTGGAGCTGTCGGGCTGC
AACGACTTCACCGAGGCCGGGCTGTGGTCCAGCCTGAGCGCGCGCATCACCTCGCTGAGCGTGAGTGACTGCATC
AACGTGGCCGACGACGCCATCGCGGCCATCTCGCAGCTGCTGCCCAACCTGGCGGAGCTGAGCCTGCAGGCCTAC
CACGTGACGGACACGGCGCTGGCCTACTTCACGGCGCGCCAGGGCCACAGCACGCACACGCTGCGCCTGCTCTCC
TGCTGGGAGATCACCAACCACGGCGTGGTCAACGTGGTGCACAGCCTGCCCAACCTCACCGCGCTCAGCCTCTCG
GGCTGCTCCAAGGTCACCGACGACGGCGTGGAGCTCGTGGCCGAGAACCTGCGCAAGCTGCGCAGCCTTGACCTC
TCGTGGTGCCCACGCATCACCGACATGGCGCTGGAGTACGTGGCCTGCGACCTGCACCGCCTAGAGGAGCTCGTG
CTCGACAGGTGTGTACGCATCACGGACACTGGCCTCAGCTATCTGTCCACCATGTCGTCCCTCCGCAGCCTCTAC
CTGCGATGGTGCTGCCAGGTGCAAGACTTCGGGCTGAAGCACCTCCTGGCCCTGGGGAGTTTGCGCCTCCTGTCT
CTGGCAGGCTGCCCGCTGCTCACCACCACCGGGCTGTCGGGCCTGGTGCAGCTGCAGGAGCTGGAGGAGCTGGAG
CTGACCAACTGCCCCGGGGCCACCCCCGAGCTCTTCAAGTATTTCTCGCAGCACCTGCCCCGCTGCCTCGTCATT
GAG**TAG**CGCGAGGCCCCCGCCCCGGTCGCGGGAACCCGGCCATGACCTGGGCGGGGGCGC

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FIGURE 2210

GGGCTTCGCCGGGGCCGGGCGGCCGGCGCCCCCGGCTGCTCCCGCCGCCGCCCGGACCCGCGCCCCGCCGGGGCA
GCGGTGGTGAGAGCCCCGACTCCCCGGACGCCGCCCGCCGTGCC**ATG**GGGTTCCCGGCCGCGGCGCTGCTCTGCG
CGCTGTGCTGCGGCCTCCTGGCCCCGGCTGCCCGCGCCGGCTACTCCGAGGAGCGCTGCAGCTGGAGGGGCAGCG
GCCTCACCCAGGAGCCCGGCAGCGTGGGGCAGCTGGCCCTGGCCTGTGCGGAGGGCGCGGTTGAGTGGCTGTACC
CGGCTGGGGCGCTGCGCCTGACCCTGGGCGGCCCCGATCCCAGAGCGCGGCCCGGCATCGCCTGTCTGCGGCCGG
TGCGGCCCTTCGCGGGCGCCCAGGTCTTCGCGGAGCGCGCAGGGGGCGCCCTGGAGCTGCTGCTGGCCGAGGGCC
CGGGCCCGGCAGGGGGCCGCTGCGTGCGCTGGGGTCCCCGCGAGCGCCGGGCCCTCTTCCTGCAGGCCACGCCGC
ACCAGGACATCAGCCGCCGCGTGGCCGCCTTCCGCTTTGAGCTGCGCGAGGACGGGCGCCCCGAGCTGCCCCCGC
AGGCCCACGGTCTCGGCGTAGACGGTGCCTGCAGGCCCTGCAGCGACGCTGAGCTGCTCCTGGCCGCATGCACCA
GCGACTTCGTAATTCACGGGATCATCCATGGGGTCACCCATGACGTGGAGCTGCAGGAGTCTGTCATCACTGTGG
TGGCCGCCCGTGTCCTCCGCCAGACACCGCCGCTGTTCCAGGCGGGGCGATCCGGGGACCAGGGGCTGACCTCCA
TTCGTACCCCACTGCGCTGTGGCGTCCACCCGGGCCCAGGCACCTTCCTCTTCATGGGCTGGAGCCGCTTTGGGG
AGGCCCGGCTGGGCTGTGCCCCACGATTCCAGGAGTTCCGCCGTGCCTACGAGGCTGCCCGTGCTGCCCACCTCC
ACCCCTGCGAGGTGGCGCTGCAC**TGA**GGGGCTGGGTGCTGGGGAGGGGCTGGTAGGAGGGAGGGTGGGCCCACTG
CTTTGGAGGTGATGGGACTATCAATAAGAACTCTGTTCACGC

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FIGURE 2211

TGAGAGGGAGAGCAGATGTCAGGAGGAGCTACACCCACATTCCGGGGAGGGGCCGCTGCTGGGTGGGGGGCACGT
GGGGACCTGCACTCATGCAAGCTTCTGCTCTGCTGCACCCACCAGCCCCGTCCTTGCCCGCACCCTTGCCTGCTT
CCCTGGCTGGCTCCCACTTGCCTCCCGTGCCAGGTGCTTCTGGGGCTCAGCAGGAGAGGAAAGGGGCAGAGGGGC
ATAGGGTCCCTCGGGTACGGTGGGGGCAGGCGGGCGCACAGCGCTCCGGCTCTGAGCCAGGCCTGTGAGGGAAGG
GGCTGCAGGCTGGCAGGGTGCCGACTTCCCCCATGGCTGCTGTGAGCCCGCAGAGTCATCCTTGGCCCCGTCCCG
CCCTTGGGGAAGA**ATG**GGCCCCTCTGTCCTCAGGCCCCTTCGACGTGCTGAGCATCCAGACGTGGCGAGGAGCCC
GAAGGGTGTGGGGTCCCCTCTGCAGGGTCCTGCTTGTTGCCTGTTTCCGGCGGGCGGGGTGCACAATGGGGTCTC
TAAGGACCGTTTCCCGCCACTGGCCCCATTGTCACTGTCTCCGCCTTCCTCCTCGGCCTTTCAGCCGCATAAAGG
GCCAGTGAGGTTTGGGACAGCCACAGCCCAAGGCTCCGAGGCTAAAAGCCCCTGGGTGGGGGTGTTCCAGGACAC
CTGGCCCTGTGTGAGCTGCCTCCTCTCACCCCAACCCCTCGGATCCTGGGAAAGAGACAGCCATGGCTCAAGGGC
CAGGGACCCCTGGGCTGAGCCCCAGAAATGGCTTTCCATTCTCGCCTGGGCCGGGGGTGGGGGTGGAGGCCAGAGG
CCCTGCCCAGGCAGATGAAGCCCCCAGCTTTCAAGGGGGAAAC**TGA**GGCTGTGTGAGGGACACAGCTGTGCAGGG
CCCACAAACACGGTCCTTTCTCTAGGTTAGCGGATGCAGATGCCTGATGAGTGCCATGCCCTCTGTGGACACCTG
GGGAGGGGGGTCACCTCCAGCGCCGCCCTGGGACTTCCACTGCACGTGCAAGAGACTTACCCTTTCACACAGATC
ACCTGCCTGCCGCAGGGCTGATGAGGATGGGTGAGGAGCGCAGCCACTGGGTGTCATGCACTGTGGGGGTTCTCC
CACCTTCTGCCCCTCCTCAGGTTCCTTGCTGCTTCTCTCCTCTCCCAACTGTGGCACGCTGAGGGCTCAGGCACA
GGACCGCTCCTCTGGGGCAGCCTCCAATAACCCTTGGACAACCTCCACTTTTTCATCTTCAGCCCTGACCACTCC
CTGGGGCCCATAGCCTTACATCCATCTGCCCCCAGCCCAAACACTTCTGCAAACACTAGAAAAGGAGGTAGCCCG
TGTGCCCTCCTGCACCGCCTCCTCCACTCCTGTCTTGGAGAGGCTTTCCCGTGGGCCGAGCAACCCCCTTACCTT
TGGCACTTGCCCTGATTCTCTGGCCAGCTTCCTACAACCTCTCCTTTTCAGCCACACCCAAGTCCACCTGTTCAC
AAACACCCTGGGCTGGGCCCTGGCCGAACCCTGGCTTCTACCTACCTGTCTCAGGAAGTGCCTGAGCCTTGCACC
TACAGACCCTCCCAGAGAAAGCCCTGGCTTTGCAACCAGCTGTCTTCTCATGAGACACAGGGCCACAGGAGCACC
ACGGTGCCCAAATGGGTCTTGGAGCATTAGACCAGGGGCTTCATGCCTGCCCTGGGGACAGGTGGCCAAAGTGGC
ATGGGAGATAGGGAGACAGTGTGGGTGAGCAGGTGGGCAGGAGCTACAGGAGCCTGGGGCCTGTGGATCACAGAC
ACCGCCAGGCAAGTGCCAGTTCACACAGGTACAGGTGGCTGCAGAGTGCCCAAAGGCCAAGCAGCAGAGTGCCTG
GTGTGGACGGGAGAGGAGTGGGGAGGTTGGGCGCAGTGGCTCACGCCTGTAATCCCAACACTTTGGGAGGCCCAG
GCAAGCAGATCATGAGGTCAGGAGATGGAGACCATCCTGGCCAACATGGTGAAACCGTCTCTAATAAAACACAAA
AAATTAGCCAG

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FIGURE 2212

GCGCGGCGGCTCCCGGCAGGAGGCAGAGGGCACACCGCCAGCCCCAGGCCAGGCTGCGAGGGCCGCGGACCCGAG
CCGGGAAGGACCTTGGGCGGACGAGCCGCGCGTCCCGCAGCC**ATG**GAGCAGGACGACCCGGTCGAGGCGCTGACG
GAGCTGCGCGAGCGGCGGCTGGGCGCGCTGGAGCTGCTGCAGGCGGCGGCCGGCTCGGGCTTGGCAGCCTACGCG
GTGTGGGCGCTGCTGCTCCAGCCCGGCTTCCGGCGCGTGCCGCTGCGGCTGCAGGTGCCCTACGTCGGCGCGAGC
GCGCGGCAGGTGGAGCACGTGTTGTCGCTGCTGCGAGGACGCCCCGGAAAAACGGTGGATCTGGGCTCTGGCGAC
GGCAGGATCGTGCTGGCGGCCCACAGGTGCGGCCTCCGCCCGGCCGTGGGCTACGAGCTGAACCCCTGGCTGGTG
GCGCTGGCGCGGCTGCACGCCTGGAGGGCCGGCTGTGCCGGCAGCGTCTGCTATCGCCGCAAGGATCTCTGGAAG
GTGAGCCTGAGGGACTGCCGCAACGTGTCTGTGTTCCTGGCCCCTAGCGTGCTCCCGCTGCTGGAGGACAAGCTG
CGGACAGAGCTGCCTGCTGGGGCCCGCGTGGTGTCTGGGCGCTTCCCACTCCCCACCTGGCAGCCTGTGACCGCG
GTTGGCGAGGGCCTGGACCGAGTATGGGCTTATGATGTTCCTGAGGGTGGGCAGGCTGGGGAGGCCGCCTCCTCG
CGGATACCCATCCAGGCTGCCCCCGGACCTAGTTCTGCCCCCATCCCGGGGGGCCTTATTTCTCAGGCCAGC**TGA**
GTATTAGACACGATAAAGACTCTGTGGGTTCT

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FIGURE 2213

ACTTAGCAGTGCCAGTGGCAGCAGCAGCCATGGGGAAGCCGGGCGTGGAGGCAGCACCGGGCTCGGAGCTGGCCA
GGGTTCCCTAGCCT**ATG**GAGCACGCAGCCACCACAGGCCCCAGGCCTGGACCTCCCTCTCGGCGGGTGGAGAATG
TTGTGCTACGAGCCAAGGACTGGCTGCCAGGAGCTCCTGGGGGCACCGCAGTGTGGGCCACCAGCTTGGAAGCAG
AGGTCCCACCAGATCTAGCGCTCAATAAGGAGCAGCAGCTGCAGATCTCCAAGGAGCTGGTCGACATTCAGATCA
CAACCCACCACCTACATGAGCAGCATGAGGCTGAAATCTTCCAGCTGAAGAGTGAGATCCTTCGGCTGGAGAGCC
GGGTACTGGAGCTGGAGCTGCGAGGAGATGGCACCAGCCAGGGCTGTGCAGTCCCAGTGGAGTCTGACCCCAGGC
ATCCCCGGGCAGCAGCCCAAGAGCTCAGACACAAAGCCCAGGTGCCTGGACACTCTGATGACCACAGATTCCAGG
TGCAGCCCAAGAACACCATGAACCCCGAGAATGAGCAGCACAGGCTGGGGAGCGGCCTGCAGGGGGAAGTGAAGT
GGGCGCTGGAGCATCAGGAGGCCCGGCAGCAGGCACTGGTGACGCGTGTG**TGA**GTGGCCATCTCACCTGGGGCCC
CATCCTGGAGCAGAGAGAACCCCTGATCGTGGGCCTGCTGAGCCTCACCCCCGTGTCTTCAGGGCAACCCTGGGC
CGGCAGCTGCAGGGAGCCCGAGAGGAGGCCAGGGCAGCCGGGCAGCGACTGGCCACACAGGCTGTGGTGCTGTGC
AGCTGCCAAGGCCAGCTCCGTCAGGCAGAGGCTGAAAATGCCCGGCTGCAGCTGCAGCTCAAGAAACTGAAGGAT
GAGTACGTCCTACGGCTGCAACACTGCGCC

FIGURE 2214

GCGGAGCTTCCAGGGTCTCTGGGTCGCCAGCGCGCGGGCGCGCGGCTGGAGCCGGCGCCGGGCACGGCATCGGGG
GCCTGGACTGCACGGCCCGGCAGCAGGTTGGTCTTGGCGTGGGCGTGGGCGCGGGAGGGGCTCGGAGCCAGGGTC
GGCCTGCCCACCGGGCCTGTGCGGGGCGCGGGTCTGCGCGGACTGCGGGGAGCGAGGAGGCCCCAGCCCTAACCC
GCGCTGCGGGCAGACCTGGCTGCCGGGCCTGGTAGTGCTGCAGCCCCTCCCCGCCCCCACCGTCGGGCAGAGGCA
TTCACGTGCATCCCCTGGAGGGGAGGGTCTGTGGGGAGGATCTGTGGGGCAGGTTTGGAACGGGCTCTTTCTCCA
GGCTTAGGTCAGGCAGGGCCCTTCAGGTCAGCCCGGAGCAGGCTGACTCCTTGACTCCCCAGCTGACGCCCTGGG
GACTGATCTCGGGGACTGAGGATGCAGGTGCACAGTAGGGCTGCGGACCCGGCTCGGTGGCTTCGCACCGGAGCC
CGGGTGGGGCGGTGCGGGTACCTCTGTATGCTGGGCTGGGGGCGCACCACGTGCTCACAGCACACGCACCCACGC
GTGGCTCGGCAGGCCGGCC**ATG**GAGCCAGGCAGCGTGGAGAACCTGTCCATCGTGTACCGGAGCCGCGACTTCCT
GGTGGTCAACAAGCACTGGGACGTTCGCATTGACAGCAAGGCGTGGCGGGAGACTCTGACCCTGCAGAAGCAGCT
GCGGTACCGCTTTCCCGAGCTGGCCGACCCTGACACCTGCTACGGGTTCAGGTTCTGCCACCAGCTGGATTTCTC
CACCAGCGGGGCGCTGTGCGTGGCCCTAAACAAGGCAGCCGCCGGCAGCGCGTACAGGTGCTTCAAGGAGCGGCG
CGTGACCAAGGCTTACCTGGCATTGCTGCGGGGGCACATCCAGGAGAGCCGGGTAACCATCAGCCATGCCATTGG
CAGGAACAGCACGGAGGGCCGGGCCCACACCATGTGCATCGAGGGCTCGCAGGGTTGTGAGAACCCAAAGCCAAG
CCTCACAGATCTCGTGGTTCTGGAACACGGGCTGTACGCAGGCGATCCTGTCTCCAAAGTGCTGCTGAAGCCGCT
CACGGGCCGGACACACCAGCTGCGCGTGCACTGCAGTGCCCTGGGCCACCCCGTGGTGGGCGACCTGACCTACGG
AGAAGTCTCGGGCCGGGAGGACCGGCCGTTCAGAATGATGCTGCACGCTTTCTACCTGCGCATCCCCACGGACAC
CGAGTGTGTGGAGGTCTGCACGCCTGACCCCTTCCTGCCCTCCCTGGATGCCTGCTGGAGCCCCCACACACTGCT
GCAGTCGCTGGACCAGCTCGTGCAGGCCTTACGGGCCACCCCCGACCCTGACCCCGAGGATAGGGGCCCCAGGCC
AGGCAGCCCCTCCGCACTCCTGCCTGGGCCCGGCCGGCCTCCTCCACCCCCAACCAAGCCCCCTGAGACTGAGGC
ACAGCGGGGCCCCTGCCTGCAGTGGCTGTCGGAGTGGACGCTGGAACCGGACAGC**TGA**GAGCCGTGGGGCTGGGG
CAGGGGGTGTCAGCTGCACAGCGGGACTCTAGGGAGATGGGCGAGCGAGCGTCTGCTCACTGGCTCTGGGGCCTC
GAGGTGCCAGGCAGCATCAGGCCCACTGGGTTGCCCCGGCCAGGCCTGCGAGGAAGGGCTGAGGTGGGGCCGGCA
GGGGGCGCCAGGCAGCCGTGATCACAGGTGACGACCGCACCGCGGCCGTGGGACTGATGCGGGATCCCGAGGGCC
TTCCTGCCCACATGCCCCGGGAGAAACCGAGGCCCCTCCCTCCTCCTGGAACAGCTTCCGGCTCTCAAGCGTCAC
CCCAGGGGCGTCAGTTTTACGGACTCAAGGTCACCTCAGGAAGAGGCAGGGCCAGGTTTTGGGATAGGCTTTGCC
TCCAGGATGGGCTGCTCCTGGGCCTGGTGAGCTACTGCCCCCAACCTACCCTCTAGAGGGGCTGGGAAGGGCCGT
TCTGGGCTCACCTGGCCTGGGAGACCCATCTGGTCCCTGCGTCCTCTGCCCCTCACTGCTCTGTGCAGATCCTGT
CGCCCTCAGCTGCCTCCTCCCGAGACCTAATGGTCCCTGCTGGGCTCGAGTCTGCAGGCCCGGCTGCGTGTGCCT
TGGCCTCACTGTACCAGTGGTTCCCTCTCTGCCCGGATTCTGAGCTCAGTGTGGTGTTTGGTGCACAGGGGTTGG
TCAGGGGCCATGGCCAAGGCCCTGCCACGCACGCCCATCCCTCAGATCCACTGTGAGCACCAACCTGCTGCAGTC
TCTTGGGCCCCTGCTGGCAGCTCTGCCACGTCACCGCCTGCCTGGCTCCCACACAGCCATGCATTGTCACTCTGC
CTCCGGGACCCCAGCTTGGGAGCTGTGGGTCTGCCAGGTCCCACCTCCTCTGTCCCCCATGCCACAACCTGGGCT
CCTGGCTACAGCAGGGCTCCAGGGACTCCAAATAAATGTTCAGTGACTGGCTCCAAGGATGAC

FIGURE 2215

GCGGGAGGTTCGGAGCGGGAGCTCGGGCTCGCGGACGGT**ATG**GAGGACTACGAGCAGGAGCTGTGCGGCGTCGAG
GATGATTTCCACAACCAGTTCGCGGCCGAGCTGGAGGTGCTGGCAGAGCTGGAAGGGGCGTCGACTCCGTCGCCC
TCCGGGGTCCCCCTGTTCACCGCGGGCCGACCCCCGCGGACGTTCGAGGAGGCCCTTGCCAGAGGGGACGCGGCC
TCCAGTCCCGCCCCAGCCGCATCTGTGGGCAGCAGCCAGGGCGGCGCCAGGAAGAGGCAGGTGGACGCCGACCTG
CAGCCGGCCGGGTCCCTGCCCCACGGTAGGTTGGCGGCATTGCCCCAGGGCCTCCGGAGTGGGCGCGAGGCTGAG
GAGGCCTCTGGTTCCCTGCATGTGTCTCCCCCAGCCCCCAGGATCAAACGGCCTAGGCTGCAGGTGGTCAAGAGG
CTGAACTTCAGATCGGAGGAGATGGAGGAGCCGCCCCCTCCCGACTCCTCGCCGACGGACATCACCCCGCCGCCG
AGCCCTGAGGACCTCGCAGAGCTTTGGGGCCACGGAGTCTCAGAAGCTGCTGCCGACGTGGGTCTCACACGGGCC
TCACCAGCTGCCCGCAATCCCGTCCTGAGGCGGCCCCCCATCTTGGAGGACTACGTCCACGTGACATCCACGGAG
GGCGTCCGGGCTTATCTGGTGCTGCGTGCTGACCCCATGGCCCCGGGGGTGCAGGGCTCTCTCCTCCACGTCCCA
TGGCGAGGCGGTGGCCAGCTGGACCTGCTGGGTGTGTCCTTAGCCTCCCTGAAGAAGCAGGTCGACGGCGAGCGG
CGGGAGCGGCTGCTTCAGGAGGCCCAGAAGCTTTCAGACACCCTGCACAGTCTCAGGTCGGGGGAGGAGGAGGCA
GCCCAGCCCTTGGGGGCCCCTGAGGAGGAGCCGACTGACGGTCAAGACGCCTCCAGTCACTGCCTCTGGGTGGAT
GAGTTTGCACCCCGCCACTACACGGAGCTGCTCAGTGATGACTTCACCAACCGCTGCCTGCTCAAGTGGCTGAAG
TTGTGGGACCTGGTGGTGTTTGGCCACGAGAGGCCTTCCCGGAAGCCCAGGCCCAGTGTTGAGCCGGCCCGGGTC
AGCAAGGAGGCCACAGCCCCAGGCAAGTGGAAGAGCCACGAACAGGTGC**T**GGAGGAGATGCTGGAGGCTGGGCTG
GACCCGAGCCAGCGACCGAAGCAGAAGGTGGCACTGCTCTGTGGGCCCCCGGGGCTGGGGAAGACCACCCTGGCA
CACGTGATTGCGCGTCACGCGGGGTACTCTGTGGTGGAGATGAACGCCAGTGACGACCGTAGCCCGGAGGTCTTC
CGCACACGCATCGAGGCGGCCACCCAGATGGAGTCGGTGCTGGGTGCTGGCGGGAAGCCCAACTGCCTGGTCATC
GATGAGATCGACGGGGCCCCCGTGGCCGCCATCAACGTCCTCCTGAGCATCCTGAACCGCAAGGGGCCACAGGAG
GTGGGGCCACAGGGCCCGGCTGTGCCTTCGGGAGGCGGCCGACGGCGCCGGGCAGAGGGGGGGCTCCTCATGAGG
CCCATTATCTGCATTTGCAATGACCAGTTCGCACCGTCCCTGCGGCAGCTGAAGCAGCAGGCCTTCCTGCTCCAC
TTCCCGCCGACTCTGCCCTCGAGGCTGGTGCAGCGGCTCCAGGAGGTCTCCCTGCGGCAGGGCATGAGGGCCGAC
CCAGGGGTGCTGGCCGCCCTCTGTGAGAAAACTGACAATGACATCCGGGCCTGCATCAACACCCTGCAGTTCCTG
TACAGCCGGGGCCAGCGGGAGCTGAGCGTGCGGGACGTGCAGGCCACACGCGTGGGCCTCAAGGACCAGCGCAGA
GGGCTCTTCTCGGTGTGGCAGGAGGTCTTCCAGCTGCCTCGAGCCCAGAGGCGCCGTGTGGGCCAGGACCCCGCC
CTGCCTGCTGACACACTCCTGCTGGGTGACGGGGACGCGGGCTCCCTCACCTCCGCCTCACAGCGATTCTACCGT
GTCCTGCATGCCGCTGCCTCTGCGGGCGAGCACGAGAAGGTGGTCCAGGGCTTGTTTGACAACTTCCTGCGTCTG
CGGCTGCGAGACTCCAGCCTGGGTGCTGTGTGTGTGGCCCTCGACTGGCTGGCCTTCGATGACCTGCTGGCGGGG
GCTGCTCATCACAGCCAGAGCTTCCAGCTGCTGCGCTACCCACCCTTCCTGCCCGTGGCCTTCCATGTGCTGTTT
GCTTCCAGCCACACACCCAGGATCACCTTCCCCAGCAGCCAGCAGGAGGCCCAGAACCGGATGAGCCAGATGAGG
AACCTGATCCAGACGCTGGTGTCCGGCATCGCGCCAGCCACGCGCAGCCGGGCCACGCCCCAGGCCCTGCTCCTC
GATGCCCTCTGCCTGCTCCTGGACATTCTTGCACCCAAGCTCCGCCCCGTGAGCACACAGCTGTACAGCACCCGT
GAAAAGCAACAGCTGGCCAGCCTGGTGGGCACGATGCTCGCTTACAGCCTGACCTACCGCCAGGAGCGCACGCCC
GATGGCCAGTACATCTACAGGCTGGAGCCGAACGTGGAGGAACTCTGCCGCTTCCCTGAGCTGCCTGCCCGCAAG
CCCCTCACCTACCAGACGAAGCAGCTCATCGCCCGCGAGATCGAGGTGGAGAAGATGCGGCGGGCGGAGGCTTCT
GCCCGGGTAGAGAACAGCCCCCAGGTGGATGGGAGCCCCCCAGGGCTCGAGGGTCTGCTGGGGGGCATTGGGGAG
AAAGGGGTGCACCGACCTGCCCCACGCAACCATGAGCAGCGGCTGGAGCACATCATGAGGCGAGCGGCCCGGGAG
GAACAGCCTGAGAAGGACTTCTTTGGACGTGTGGTCGTCAGGAGCACAGCAGTCCCGAGTGCAGGGGACACGGCC
CCGGAGCAGGACTCAGTGGAGCGGCGCATGGGCACAGCGGTGGGCAGGAGCGAGGTCTGGTTCCGCTTCAACGAG
GGTGTCTCCAACGCCGTGCGGCGCAGCCTGTACATCAGGGACTTGCTC**TAG**TTCTCTGAGCCGCGGACATGCCCT
CGCATTGCTTCCCGCAGAGTGCAGAGACAGGAAGCTGGAGATGTCTTTATAAAGTCACACCTTTACAGACTGT

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FIGURE 2216

GATGCTGAATCTGCTGCTGCTGGCGCTGCCCGTCCTGGCGAGCCGCGCCTACGCGGCCCCTGCCCCAGGCCAGGC
CCTGCAGCGAGTGGGCATCGTTGGGGGTCAGGAGGCCCCCAGGAGCAAGTGGCCCTGGCAGGTGAGCCTGAGAGT
CCGCGACCGATACTGGATGCACTTCTGCGGGGGCTCCCTCATCCACCCCCAGTGGGTGCTGACCGCAGCGCACTG
CGTGGGACCGGACGTCAAGGATCTGGCCGCCCTCAGGGTGCAACTGCGGGAGCAGCACCTCTACTACCAGGACCA
GCTGCTGCCGGTCAGCAGGATCATCGTGCACCCACAGTTCTACACCGCCCAGATCGGAGCGGACATCGCCCTGCT
GGAGCTGGAGGAGCCGGTGAACGTCTCCAGCCACGTCCACACGGTCACCCTGCCCCCTGCCTCAGAGACCTTCCC
CCCGGGGATGCCGTGCTGGGTCACTGGCTGGGGCGATGTGGACAATGATGAGCGCCTCCCACCGCCATTTCCTCT
GAAGCAGGTGAAGGTCCCCATAATGGAAAACCACATTTGTGACGCAAAATACCACCTTGGCGCCTACACGGGAGA
CGACGTCCGCATCGTCCGTGACGACATGCTGTGTGCCGGGAACACCCGGAGGGACTCATGCCAGGGCGACTCCGG
AGGGCCCCTGGTGTGCAAGGTGAATGGCACCTGGCTGCAGGCGGGCGTGGTCAGCTGGGGCGAGGGCTGTGCCCA
GCCCAACCGGCCTGGCATCTACACCCGTGTCACCTACTACTTGGACTGGATCCACCACTATGTCCCCAAAAAGCC
GTGAGTCAGGCCTGGGGTGTCCACCTGGGTCACTGGAGAGCCAGCCCCTCCTGTCCAAAACACCACTGCTTCCTA
CCCAGGTGGCGACTGCCCCCCACACCTTCCCTGCCCCGTCCTGAGTGCCCCTTCCTGTCCTAAGCCCCCTGCTCT
CTTCTGAGCCCCTTCCCCTGTCCTGAGGACCCTTCCCCATCCTGAGCCCCCTTCCCTGTCCTAAGCCTGACGCCT
GCACCGGGCCCTCCGGCCCTCCCCTGCCCAGGCAGCTGGTGGTGGGCGCTAATCCTCCTGAGTGCTGGACCTCAT
TAAAGTGCATGGAAATC

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FIGURE 2217

GTCACCGTCCTGCGACGCTTCAGAGGATCCTTAGGCCTCAGTGGTCTTTGACCCCCGGCCCCAGGACCTGACCCC
AAGGAAACCTCCGGGACCTGTGGCTGGAGAGGTGACCGCCAGGCATCCGGGGAGCCTTTGGAGATCTCGGCTTCC
TTTTTCCCCCGCTGCTTGCCGGCGTGTCCTCGGGTGGACGCGGGCAGCCCGAAGGAGATTTACAGACGCTCCCTC
ACATCGGGGACGCGGCTCCTTTAAGGGCAGGGACTTTGAAC**ATG**TCGGGGATCGCCCTCAGCAGACTCGCCCAGG
AGAGGAAAGCATGGAGGAAAGACCACCCATTTGGTTTCGTGGCTGTCCCAACAAAAAATCCCGATGGCACGATGA
ACCTCATGAACTGGGAGTGCGCCATTCCAGGAAAGAAAGGGACTCCGTGGGAAGGAGGCTTGTTTAAACTACGGA
TGCTTTTCAAAGATGATTATCCATCTTCGCCACCAAAATGTAAATTCGAACCACCATTATTTCACCCGAATGTGT
ACCCTTCGGGGACAGTGTGCCTGTCCATCTTAGAGGAGGACAAGGACTGGAGGCCAGCCATCACAATCAAACAGA
TCCTATTAGGAATACAGGAACTTCTAAATGAACCAAATATCCAAGACCCAGCTCAAGCAGAGGCCTACACGATTT
ACTGGTTAGTAGCAGCCCTGGCCCCGCTGGTGGCAGCTCCTCCCCGTCCCAGCCAAGGCCGCCTGGCAGGACGGG
AGTGGAGGACACAGGCTCACCCTACGGACAGCCAGGGTCCACGCCTCTGTGGGGAAGGTCGGGGGGCA**TAA**ACCC
TGTGGGCAGCAGGCACCGTTGCACACCGTCTGCGGTGGGCATGGATGGCGCCGGAGCCGTGTCCCGGGGAGGGAG
CAGGCCAGGTGACGGGCTGTCTTGGGCCACTGCCCCAGTGAGTTGTGGCCAGCTAGGAGGGGAAGGACCCTGGGC
GTGGGTGCCAGAGGAGGCCATGCTGAGAGGCCTCTCCACCGGCTCAGCCTCCCATGGACCCCAGCCTCCCGCGCC
GCCCTTGCTGCTTGTCCCCATCCCCTCTACAACTTGGTTCCTTCTGTGGGGGGGCCCAGCCCAGCAGGGCTCAGT
GACGTGATGCTGTCACACGGACCCTGGGCTTCCACCCTGTCCCTGTGAGGTGCTGCTGTGGCTAGAAGGGTCCCC
GTGGGCCTGGGGTCCTGTCTGCACCGAGGAGGGCCTGGTGTGAGTTAGGATGCAGACGACAGCCAAACAGTGCTG
GGGAAAGCAGGGAGGACCCTGCCCTGAGCAGAGGCCATGCGCCCGCCTGTCCTGTTCCCTCTGCAGCTGTTCTGG
GCAGGTCCATAAGAAGGTGGGTTGGGGCCTCCGACCCCCCACTGCTCCGCCTGCAGCGTTGAGAAACCCAGCCCC
ATCTCACCACGGGTCCCCACACCTCTGAGGGGGTCTCAGGGCCCCCAATGGCCAGGGACCCAGAAGGCTCACCTG
CAGCCACCCCACACATCCCTGCCACTGTGGGCATCAGAGGCCCTCTCCCTCCAGGGTGCATCTCCTGGTCAGGAG
GGGGGAGGCTGAGGGGTCCCGGTTGCCTTAGGCCCGGCCTGCACAGGTCGTGAGGAAAAGCACCTGGTTTCGGCC
GGGCGCAGTGGCTCACGCTTGTAATCCCAGCACTTTGGGAGGCCGAGGTGGGTGAATCATGCGGTCAGGAGTTCG
AGACCAGCCTGGCCAACATGGCGAAACCCTCGTCCCTACTAAAAATACAAAAAATTAGTTGGGCGTAGTGGTGGG
TGCCTCTAATCCCAGCTACCTGGGAGGCTGAGACAGGAGAATCACTTGAACCCGGGAGGCGGAAGTTGCAGTGAG
CCGAGATCCTGCCACTGCTCTCCAGCCTGGCGACGGAGGAATGCTGTCTC

FIGURE 2218A

ATGAGACCCCGGGGAGCAGCGTTTGCAGCGGGCCCGCCAGGTGACCTGCACCTGGGCACCGCCATCGGCTTCGCA
GGGGCCATCTGGAGGAGTCGGTCACCCGCCATGTCGACCTTGCTGGACATTAAGAGCAGCGTGCTCAGGCAGGTG
CAGGTGTGCCCGTCCTTCCGCCGCAGGACTGAGCAGGACCCAGGGAGTGCCAGCGCCGACCCGCAGGAGCCTGCC
ACGGGGGCCTGGAAACCCGGGGATGGCGTGGAGTTCTTTGCCCACATGCGCCTCATGCTGAAGAAGGGGGAAGGC
AGACAGGGCTTGCCGTGCCTCGAGGTCCCCCTGCGCAGTGGCTCGCCAGCACCCCCGGAGCCTGTGGATCCCAGC
CTCGGCCTGAGAGCCCTGGCCCCAGAGGAGGTGGAGATGCTCTACGAGGAGGCCCTGTACACGGTGCTTTACCGC
GCGGGTACCATGGGCCCTGACCAGGTGGACGACGAGGAGGCCCTGCTCAGCTATCTCCAGCAGGTGTTTGGCACC
AGCCTTGAGGAGCACACTGAGGCCATCGAGCGAGTGAGGAAGGCCAAGGCCCCCACGTATGCCCTGAAAGTCTCT
GTCATGCGTGCCAAGAACCTTCTGGCCAAGGACCCCAACGGCTTCAGCGACCCATACTGCATGCTGGGCATCCTG
CCTGCCTCGGACGCCACGCGGGAGCCCCGTGCACAGAAGGAGCAGCGCTTCGGCTTCCGCAAGGGCAGCAAGCGC
GGTGGACCCCTGCCTGCCAAGTGCATCCAGGTCACCGAGGTGAAGAGCAGCACCCTGAACCCCGTCTGGAAGGAG
CACTTCCTCTTCGAGATTGAGGATGTGAGCACGGACCAGCTGCACCTGGACATCTGGGATCATGACGACGATGTA
TCCCTGGTAGAAGCGTGCAGGAAGCTGAATGAAGTCATCGGCCTGAAGGGCATGGGCAGGTACTTCAAACAGATC
GTCAAGTCAGCCCGCGCAAACGGGACAGCAGGACCCACCGAGGACCACACCGATGACTTCCTGGGGTGCCTCAAC
ATACCTGTCCGGGAGGTGCCTGTGGCTGGCGTCGACCGCTGGTTCAAGCTGGAGCCACGCTCCAGTGCCTCGCGT
GTGCAGGGACACTGCCACCTGGTTCTCAAGCTGATCACTACGCAGAGGGATACGGCCATGAGCCAGCGCGGGCGA
TCCGGCTTCCTGTCCCACCTGCTGCTGCTCAGCCATCTGCTGCGGTTGGAGCACTCAGCAGAGGAGCCCAACTCC
AGCAGCTGGCGAGGAGAGCTCAGCACACCAGCCGCCACCATCCTCTGCCTGCACGGAGCCCAGAGCAACCTGTCA
CCCTTGCAGCTGGCCGTGCTGCACTGGCAGGTCAGCAGCCGCCACCATCAAACCTGCACGCTGGACTACAGCTAC
CTGCTGGGGCTGCTGGAGGACATGCAGGCACACTGGGAAGAGGCTCCTTCACTGCCCCAGGAGCAGGAGGAGAGC
CTGGCTGATAGCCTTTCCGCCTTCTCTGAGTTCGGGCTGCAGCTGCTGCGCCAGCTCCGAGACTACTTCCCTGCC
ACCAACAGCACCGCTGTCCACCGCCTGGAGCTGCTGCTGAAGTGTCTGGGCAAGCTGCAGCTCTTCCAACCCTCC
TTTGAGATCTGCCCCTTCGAGTCGGAGCTGAACATGGACATTGCTGCGGCCCTGAAGAGAGGCAACCGTGAGTGG
TACGACAGGATCCTGAATGACAAGAGTCCCCGAGAGCAGCCAGGACCACAGCGCCTGCCTGGGCTGGTTGTGCTG
GCTGACGCCGTCTATGATGACCTTCAGTTCTGCTACAGTGTGTACGCCAGCCTCTTCCACAGCATCCTCAATGTG
GACGTCTTCACCCTGACCTTCCGGCAGCTGGAGCGTCTGGTGGCTGAGGAGGCGTGGGTGCTGACGGAGGAGCTG
AGCCCCAAGATGACCCTGGAGGTGGCCTCGGGGCTCTTTGAGCTCTACCTGACCCTGGCTGACCTCCAGCGCTTC
TGGGATAGCATCCCTGGCCGGGACAGCCGCTCTCTGGCCCTGGCTGGCATCCACGCCCCCTTCCTGCCTGCTGTG
AAGCTCTGGTTCCAAGTGCTGAGGGACCAGGCCAAGTGGAGGCTTCAGGGAGCCGTGGACATGGACACGCTGGAG
CCCGTGGACGCCTCCTCCAGGCACAGCAGCTCCGCAGCCACTGCTGGTCTCTGCCTCAGCCACATCCAGGAGTTG
TGGGTGCGCCTGGCGTGGCCTGACCCTGCCCAGGCTCAGGGGCTGGGCACCCAGCTTGGCCAGGACGTGTGTGAG
GCCACCCTCTTCTATACGGAGCTGCTTCGGAAGAAGGTGGACACTCAGCCAGGGGCGGCCGGTGAAGCAGTGAGC
GAGGCGCTCTGCGTGGTCCTCAACAATGTGGAGCTCGTGCGCAAGGCTGCTGGGCAGGCCTTGAAGGGCCTGGCA
TGGCCAGAGGGGGCCACGGGGCCCGAGGGGGTGCTCCCCCGCCCTCTGCTCAGCTGCACACAGGCCCTGGACGAT
GATCTGCAACGGGAGGCCCACACGGTGACAGCGCACCTGACCTCTAAGATGGTGGGCGACATCCGCAAGTATGTA
CAGCACATCAGTCTCTCGCCTGACTCCATCCAGAACGATGAGGCCGTGGCCCCGCTCATGAAGTACCTGGATGAG
AAGCTGGCCCTGCTGAACGCCTCGCTGGTGAAGGGGAACCTGAGCAGGGTGCTGGAGGCCCTGTGGGAGCTACTC
CTCCAGGCCATTCTGCAGGCGCTGGGTGCAAACCGTGACGTCTCTGCTGATTTCTACAGCCGCTTCCATTTCACG
CTGGAGGCCCTGGTCAGTTTTTTCCACGCAGAGGGTCAGGGTTTGCCCCTGGAGAGCCTGAGGGATGGAAGCTAC
AAGAGGCTGAAGGAGGAGCTGCGGCTGCACAAATGTTCCACCCGCGAGTGCATCGAGCAGTTCTACCTGGACAAG
CTCAAACAGAGGACCCTGGAGCAGAACCGGTTTGGACGCCTGAGCGTCCGTTGCCATTACGAGGCGGCTGAGCAG
CGGCTGGCCGTGGAGGTGCTGCACGCCGCGGACCTGCTCCCCCTGGACGCCAACGGCTTAAGTGACCCCTTTGTG
ATCGTGGAGCTGGGCCCACCGCATCTCTTTCCACTGGTCCGCAGCCAGAGGACCCAGGTGAAGACCCGGACGCTG
CACCCTGTATACGACGAACTCTTCTACTTTTCCGTGCCTGCCGAGGCGTGCCGCCGCCGCGCGGCCTGTGTGTTG
TTCACCGTCATGGACCACGACTGGCTGTCCACCAACGACTTCGCTGGGGAGGCGGCCCTCGGCCTAGGTGGCGTC
ACTGGTGTCGCCCGGCCCCAGGTGGGCGGGGGTGCAAGGGCTGGGCAGCCTGTCACCCTGCACCTGTGCCGGCCC
AGAGCCCAGGGTGAATCTGCGCTGAGGAGGCTGGAAGGCCGCACCAGCAAGGAGGCGCAGGAGTTCGTGAAGAAA
CTCAAGGAGCTGGAGAAGTGCATGGAGGCGGACCCCTGAGTCCATCAGCTGCCAGCCCCGGCCCTGGCCCCCACC

FIGURE 2218B

CCAAGTTCCCTGAAGCATCCTCCAGCTCACTGTGGCCAGCTTTGTGCAACCAGGGCCCACGGCGCCCCTCCTGTG
CTGTGACGTGTGTGTCGTGGCTGGCCCCGCGGCGCCTACCGCCCTGGCCGTGTCTGTCTGGTGTGTGCTGTGAAC
CCCTGCACCCAACCCCACATCTGGGTGGCCAACTTGGCAGGACTTGGCCAGCAGCTGCCCAGGACACAGTGCAGG
CCAGAGCGGGCTTGACCACCTGGTGGGCCTCCCTGCCCGCTTCCTTGGGCTCCCCGGCCCTGGGTGGGCGGTGGG
CAGCTGGTCTCCAGGGACTCAGTGAGTGGCTGTGCTCTCTGCACAACGGGCAATGTGCAGACGCATTTTTGGTAA
TCACAGCTGGGGAGTGAAAAGGGTGCCACTGGCACCACTGGGTGGATGGTCCAGAGCCTCCACCCACAGAGGGGA
TGCAAAGGGCAGGTGAGTCAAGAACCGCATAGGTCTCCAGTCCCCACGGGGCTCCCAGGCCGGGGAAAGGTTCCC
CTGAGGTCACTCTGAGGCCAGGGACGTCACCCAAGGCTGGTGGTCAGTGTGAAGGGCTCCGTGCCAACTGGTCAG
CTGTCCTTCACGCACATATCCGTGGCCACCTGAGACCTGCTCCACGACCCTTCCAGGCAGAGCCGAGAGTTCGCC
CCAACCCTTCCCCAGGCCCAGTGTGAAAAACAGACTCACAAGGGGCTTCTTGGCCTGCAGCTTCATTTGCGAGAG
CGCCGAGGCAGGACACAGAGCACAGCTGTGCTGGAAGTGTGGGGAGAACCCGGACAGCTCAGTCCTGCCAGCAGC
CGCAAAGAGCCGAGGCTGCCAGGCCCATTTATGTCCCTCATGTCTCTAGATTTTCTCGTCACCCAGCCTCAAAAA
TATATGTGTCTGCAACCCTCAGT

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FIGURE 2219

GAGGCCGAGGGGCGCGGCCGTGGGGTGGGGAGTCCCCGGCACCCCAGGTCCGCGCC**ATG**GGCCGCAGGAGGGCAG
CGCGCGGGCCGGGGGCGGAAGGCGGCCGCCCTCGGCACCTCCCGACGCGCTCCCTGGAGGCCTTCGCCGAGGAGG
TCGGCGCCGCGCTGCAGGCCGTGGAGCCAGGGGCGGCTGACGGCGAGGGCGGCCCGGGCCCGGCGGCGCTGCCCT
GCACGCTGGCCATGTGGGAGTTGGGCCACTGCGACCCCCGGCGCTGCACGGGCCGCAAGCTGGCCCGCCTGGGGC
TGGTGCGCTGCCTGCGCCTGGGCCACAGATTCGGCGGTCTGGTGCTGAGCCCCGTGGGCAAGCAGTACGCGTCCC
CCGCAGACAGACAGCTGGTGGCGCAGTCTGGGGTCGCCGTCATCGACTGCTCCTGGGCCAGGCTGGACGAGACAC
CGTTTGGGAAGATGCGAGGGAGCCACTTGCGCCTGTTGCCCTACCTGGTGGCCGCCAACCCCGTGAACTATGGCC
GGCCCTACAGACTTTCCTGCGTGGAAGCGTTTGCTGCCACCTTCTGCATCGTAGGCTTTCCAGACCTTGCTGTCA
TTTTGCTGCGGAAGTTTAAATGGGGCAAGGGCTTCTTGGACCTGAACCGCCAGCTCCTGGACAAGTACGCGGCCT
GCGGCAGCCCGGAGGAGGTGCTGCAGGCGGAGCAGGAGTTCTTGGCCAATGCCAAGGAGAGCCCCCAGGAGGAGG
AGATCGATCCCTTCGATGTGGATTCAGGGAGAGAGTTTGGAAACCCCAACAGGCCTGTGGCCAGCACCCGGCTGC
CCTCGGACACTGATGACAGTGATGCGTCTGAGGACCCAGGGCCTGGCGCCGAGCGCGGAGGAGCCAGCAGCAGCT
GCTGTGAAGAGGAGCAGACGCAGGGACGGGGGGCTGAGGCCAGGGCCCCGGCTGAGGTTTGGAAAGGAATCAAGA
AACGGCAGAGAGAC**TGA**GGGTTGCAGACACATATATTTTTGAGGCTGGGTGACGAGAAAATCTAGAGACATGAGG
GACATAAATGGGCCTGGCAGCCTCGGCTCTTTGCGGCTGCTGGCAGGACTGAGCTGTCCGGGTTCTCCCCACACT
TCCAGCACAGCTGTGCTCTGTGTCCTGCCTCGGCGCTCTCGCAAATGAAGCTGCAGGCCAAG

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FIGURE 2220

ATGGCGGCGGGGCTGGCGCGGCTCCTGTTGCTCCTCGGGCTCTCGGCCGGCGGGCCCGCGCCGGCAGGTGCAGCG
AAGATGAAGGTGGTGGAGGAGCCCAACGCGTTTGGGGTGAACAACCCGTTCTTGCCTCAGGCCAGTCGCCTCCAG
GCCAAGAGGGATCCTTCACCCGTGTCTGGACCCGTGCATCTCTTCCGACTCTCGGGCAAGTGCTTCAGCCTGGTG
GAGTCCACGTACAAGTATGAGTTCTGCCCGTTCCACAACGTGACCCAGCACGAGCAGACCTTCCGCTGGAACGCC
TACAGTGGGATCCTCGGCATCTGGCACGAGTGGGAGATCGCCAACAACACCTTCACGGGCATGTGGATGAGGGAC
GGTGACGCCTGCCGTTCCCGGAGCCGGCAGAGCAAGGTGGAGCTGGCGTGTGGAAAAAGCAACCGGCTGGCCCAT
GTGTCCGAGCCGAGCACCTGCGTCTACGCGCTGACGTTCGAGACCCCCCTCGTCTGCCACCCCCACGCCTTGCTA
GTGTACCCAACCCTGCCAGAGGCCCTGCAGCGGCAGTGGGACCAGGTAGAGCAGGACCTGGCCGATGAGCTGATC
ACCCCCCAGGGCCATGAGAAGTTGCTGAGGACACTTTTTGAGGATGCTGGCTACTTAAAGACCCCAGAAGAAAAT
GAACCCACCCAGCTGGAGGGAGGTCCTGACAGCTTGGGGTTTGAGACCCTGGAAAACTGCAGGAAGGCTCATAAA
GAACTCTCAAAGGAGATCAAAAGGCTGAAAGGTTTGCTCACCCAGCACGGCATCCCCTACACGAGGCCCACAGAA
ACTTCCAACTTGGAGCACTTGGGCCACGAGACGCCCAGAGCCAAGTCTCCAGAGCAGCTGCGGGGTGACCCAGGA
CTGCGTGGGAGTTTG**TGA**

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FIGURE 2221

CACCGACGTGTTTCTCCCCGACCGTGGCTTTGCCAAAGACTTTTAATAGCATTTTTTAAGTGCAAAACGTCTAGG
TAAAAATCTTTATCATCAGTGACCAAATTAGAATGTATTTAATATAGTAGGTGGTTTAAGAACTGTTTTAACGTA
AGACAAACTGATAGCAACATTCTGTTGTTTTAAAGGAAGTGGGTCCGTGACATTCTGCAGCTAGTCCACTACTCC
AAGGTAACTATCGACTTGGTTTCAGTGAATCTATTTTGTTTTTAACTACAGTGATTTATTAGCTCAGTATCTAGA
AATTACGTATATTTTGTGCTACTGTCATCG**ATG**TGTAAACTCTGTTTTTATTTGTATTTATGCACTTGGTTCCCA
TTTGGAGCCTCTGGTCTTTTCTGGGATAAGTGGTGTCTGCCGAGACATCTCCCGGTTGTCAGTGGTCAGGAGCAG
CTGAGCTCTAGTCTGCCAGCTGCTCTGCTCTTTCTGGGAAGGAGGTGGCGCCCGCCCCTCAGGGTGTCTCCAGGG
CTCAGCTTCCGGGGTGGTAGAGCTGGGGAGCCCCAGGGGTGGGGGGACAGCTGGGAGATGGAGGTGGCACCTGCT
CCCCTAGATCAGTACTGGCTC**TGA**GGACAGGTGAGCAGTGGGAAGACCAAAGAATGGCTGGCAGCGCTGCCAGGG
TTGGAAATGGGGGCAAGATCCTGGGGCTGTGTGCCCTGGGGCCTCCCTCACCTGTCTTGGTGGCCATGGCCTCAG
GGATGGCTCCTAGGTGGCTGAGGCACAGCAGTGGCTGGAAGGTGCCCCGTGGAGGCTGAGGTGGAGGCGCGCCCA
GCAGCTCCCCCCTGTGGCCATGGCGGGCACGGGGCGTAGGAGCTGGCTGGCGGCCGGCTCTGCATGTTCTTGTTG
CCTGTCGTCTGTAACTCTAGTGTTCGACATTCGCCGTGATACAGTGGTGTCACGACGTGTGTAACTGTGGTCAGC
AGACCTTGTTCCGCGTGGACGCCTCAAGTGGATTAATTTCTGGAAGCCTCAATCTGTATGTTTGAGTATTTACAT
GAGAATGTTATTTGAATGGAATTTTCTTAACCCAGAAGGTAGTATTTATAATCATTTACTTGTAGCGAACTGTTT
AAAGTTAACACTTGTTTAAATTTTTTTACACTATAGCATTTATGCAATGGTTTACAGAATTCATGGAGTTATTTT
TATCAGTATGGGAATTAATTAAAACCTTGAATCTTT

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FIGURE 2222

ATGCCGTCGGTTTCGAAAGCGGCGGCAGCGGCGCTGAGCGGGTCCCCCCCCGCAGACTGAGAAGCCGACCCACTAC
AGGTACCTGAAGGAGTTCAGGACGGAGCAGTGCCCCCTGTTTTCACAGCACAAGTGCGCGCAGCACCGGCCGTTC
ACCTGCTTCCACTGGCACTTCCTCAACCAGCGGCGCCGCAGGCCCCTCCGCAGGCGCGACGGCACCTTCAACTAC
AGCCCCGACGTGTACTGCTCCAAGTACAACGAAGCCACCGGCGTGTGCCCCGACGGCGACGAGTCACTTCTCGGC
GTCCTCTATCCTCTGTGGGCACCCCCTCCGGTGCCTGCCCCCGTGGGTGCCCCCACTGTGCACCCTTTCCTAGCC
CGGTGGTTCTCGCACGTTCCCTGGGAACCAGCCGGCAGTGCAGATCCACGGGCCTCGTCCACACCAGCTGGGGGG
ACCACATGGGCCACGGGCCTCCTAGGTGATTTTGATGCATGTGGCTCGCAGTCTCGAGAATGTGTTAAGGGGGTC
TGGTGGACCCTCCTTGGGTTCAGGTGTCCCTACCTGCACCGGACGACGGGGGACACAGAACGCAAGTACCACCTG
CGTTACTACAAAACAGGAACCTGCATCCACGAGACAGACGCACGTGGCCACTGCGTGAAGAATGGGCTGCACTGT
GCCTTCGCGCACGGCCCCCTGGACCTGCGGCCGCCCGTGTGTGACGTCAGGGAGCTGCAGGCCCAGGAAGCCTTG
CAGAACGGCCAGCTGGGCGGCGGGGAAGGGGTCCCGGATCTGCAGCCTGGGGTCTTGGCCAGCCAGGCCATGATT
GAGAAGATCCTGAGCGAGGACCCCCGGTGGCAAGCATTGCTTCCAGTCGCGCTGCTCAGGCACCGTGTGGCCCAT
TTTTCAGATGCCAACTTCGTGCTGGGCAGCTACAAGACGGAGCAGTGCCCGAAGCCGCCACGCCTGTGCCGCCAG
GGCTATGCGTGCCCACACTACCACAATAGCCGGGACAGGCGGCGCAACCCCCGGCGGTTCCAGTACAGGTCCACG
CCCTGCCCCAGTGTGAAGCACGGGGATGAGTGGGGGGAACCCTCACGCTGCGATGGCGGCGACGGCTGCCAGTAT
TGCCACTCCCGCACGGAGCAGCAGTTCCATCCCGAGGGGCCTGTCGGGAGTCCGGTGTCCGGGGCGTTTTCTGTG
TTCAGTCACGCAGGCCTGGTTGCAGACCCCAGTCTCTGGTACCCAGCTGAGTGGAGCTGGCACCACGTGGGCCAC
AGCCGCACCATAAATCCTGAGGGAGATAAACCCTCCCGCCTGGGCCCCGCCCCAGAAAATATCAAGCGGGGAAAT
GACTTTGCCTGTGATGGGAGGGCAGATGCTGCGGGAATGGCCCCACATGTGTGCGTGTTCCCTATCTACAAATCT
ACAAAATGCAACGACATGCGCCAAACCGGGTACTGCCCGCGCGGCCCCTTCTGTGCCTTTGCACACGTTGAGAAG
AGCCTGGGGATGGTGAATGAATGGGGCTGTCACGACCTCCACCTCACGAGTCCTTCCTCCACGGGCAGCGGCCAG
CCGGGAAATGCCAAGCGGAGAGACTCGCCGGCCGAGGGTGGCCCTAGGGGCAGCGAGCAAGACAGCAAGCAGGGG
GTGCGCGCTCACGGTGTTTATGTCTTTGAACAGAACCACCTGGCCGTGTTTGCAGCGGTCCACCCGCCGGCCCCC
AGCGTGAGCTCCAGCGTGGCGTCCAGCCTGGCGTCCAGCGCCGGCTCCGGCAGCTCCTCCCCCACTGCGCTGCCC
GCGCCCCCCGCCCGTGCCCTCCCGCTCGGCCCCGCCAGCAGCACTGTGGAGGCCGTCCTCGCCCTGGAGCCCACC
CCTTCCTCTCCTACATCCTCTGCTGTGCAGGGTGTGGCGGGGGAGCTGGGCATGGGATCAGGAGGACAGGGCTGC
TGGAGCCACGTGGTGGGGGCCCTCGCTGCAGTCCCTGCCTGGACACACTCTGGGGACTTGGAGTGGGACCCCAGC
ACCATCAGGACCCGCGTCAATGTGGGCGGCGGCCCGGCGGCCAGACCCGCAATGACTCTTGCCCGAGAGCCGCAG
CTTCTGGTCGTTGGTGGTTGCCCCACACGGAACTGCTCAGGCCCAGCTGCAAGCCCCCAGCAACTCCTAGACGAT
GCCGGCCAAGGAGGCCGAGGAGAGAGAGACTCTTCCCAGCGGCCACTTAGGCCACAGACCACACATCGGCAGGAC
ACTAGACCAGTCCCATCC**TGA**

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FIGURE 2223

AGTCGAGGAGTCAAGGCAGCA**ATG**AATCGTGTCTTGTGTGCCCCGGCGGCCGGGGCCGTCCGGGCGCTGAGGCTC
ATAGGCTGGGCTTCCCGAAGCCTTCATCCGTTGCCCGGTTCCCGGGATCGGGCCCACCCTGCCGCCGAGGAAGAG
GACGACCCTGACCGCCCCATTGAGTTTTCCTCCAGCAAAGCCAACCCTCACCGCTGGTCGGTGGGCCATACCATG
GGAAAGGGACATCAGCGGCCCTGGTGGAAGGTGCTGCCCCTCAGCTGCTTCCTCGTGGCGCTGATCATCTGGTGC
TACCTGAGGGAGGAGAGCGAGGCGGACCAGTGGTTGAGACAGGTGTGGGGAGAGGTGCCAGAGCCCAGTGATCGT
TCTGAGGAGCCTGAGACTCCAGCTGCCTACAGAGCGAGAACT**TGA**CGGGGTGCCCGCTGGGGCTGGCAGGAAGGG
AGCCGACAGCCGCCCTTCGGATTTGATGTCACGTTTGCCCGTGACTGTCCTGGCTATGCGTGCGTCCTCAGCACT
GAAGGACTTGGCTGGTGGATGGGGCACTTGGCTATGCTGATTCGCGTGAAGGCGGAGCAGAATCTCAGCAGATCG
GAAACTGCTCCTCGCCTGGCTCTTGATGTCCAAGGATTCCATCGGCAAGACTTCTCAGATCCTTGGGGAAGGTTT
CAGTTGCACTGTATGCTGTTGGATTTGCCAAGTCTTTGTATAACATAATCATGTTTCCAAAGCACTTCTGGTGAC
ACTTGTCATCCAGTGTTAGTTTGCAGGTAATTTGCTTTCTGAGATAGAATATCTGGCAGAAGTGTGAAACTGTAT
TGCATGCTGCGGCCTGTGCAAGGAACACTTCCACATGTGAGTTTTACACAACAACAAATGAAAATAAATTTTAAT
TTTATAA

FIGURE 2224A

GCCGGCGCGGGTCACGAGAACAAACACGGGGGCAGCCGGCGCTTCCCGGCCGGTGTCGCTCCGCGGCGGGCC**ATG**

GCCAACGTCTCTAAGAAGGTGTCCTGGTCCGGCCGGGACCGGGACGACGAGGAGGCGGCGCCGCTGCTGCGGAGG
ACGGCGCGGCCCGGCGGGGGGACGCCGCTGCTGAACGGGGCTGGGCCTGGGGCTGCGCGCCAGTCACCACGTTCT
GCGCTTTTCCGAGTCGGACATATGAGCAGCGTGGAGCTGGATGATGAACTTTTGGACCCGGATATGGACCCTCCA
CATCCCTTCCCCAAGGAGATCCCACACAACGAGAAGCTCCTGTCCCTCAAGTATGAGAGCTTGGACTATGACAAC
AGTGAGAACCAGCTGTTCCTGGAGGAGGAGCGGCGGATCAATCACACGGCCTTCCGGACGGTGGAGATCAAGCGC
TGGGTCATCTGCGCCCTCATTGGGATCCTCACGGGCCTCGTGGCCTGCTTCATTGACATCGTGGTGGAAAACCTG
GCTGGCCTCAAGTACAGGGTCATCAAGGGCAATATCGACAAGTTCACAGAGAAGGGCGGACTGTCCTTCTCCCTG
TTGCTGTGGGCCACGCTGAACGCCGCCTTCGTGCTCGTGGGCTCTGTGATTGTGGCTTTCATAGAGCCGGTGGCT
GCTGGCAGCGGAATCCCCCAGATCAAGTGCTTCCTCAACGGGGTGAAGATCCCCCACGTGGTGCGGCTCAAGACG
TTGGTGATCAAAGTGTCCGGTGTGATCCTGTCCGTGGTCGGGGGCCTGGCCGTGGGAAAGGAAGGGCCGATGATC
CACTCAGGTTCAGTGATTGCCGCCGGGATCTCTCAGGGAAGGTCAACGTCACTGAAACGAGATTTCAAGATCTTC
GAGTACTTCCGCAGAGACACAGAGAAGCGGGACTTCGTCTCCGCAGGGGCTGCGGCCGGAGTGTCAGCGGCGTTT
GGAGCCCCCGTGGGTGGGGTCCTGTTCAGCTTGGAGGAGGGTGCGTCCTTCTGGAACCAGTTCCTGACCTGGAGG
ATCTTCTTTGCTTCCATGATCTCCACGTTCACCCTGAATTTTGTTCTGAGCATTTACCACGGGAACATGTGGGAC
CTGTCCAGCCCAGGCCTCATCAACTTCGGAAGGTTTGACTCGGAGAAAATGGCCTACACGATCCACGAGATCCCG
GTCTTCATCGCCATGGGCGTGGTGGGCGGTGTGCTTGGAGCAGTGTTCAATGCCTTGAACTACTGGCTGACCATG
TTTCGAATCAGGTACATCCACCGGCCCTGCCTGCAGGTGATTGAGGCCGTGCTGGTGGCCGCCGTCACGGCCACA
GTTGCCTTCGTGCTGATCTACTCGTCGCGGGATTGCCAGCCCCTGCAGGGGGGCTCCATGTCCTACCCGCTGCAG
CTCTTTTGTGCAGATGGCGAGTACAACTCCATGGCTGCGGCCTTCTTCAACACCCCGGAGAAGAGCGTGGTGAGC
CTCTTCCACGACCCGCCAGGCTCCTACAACCCCCTGACCCTCGGCCTGTTCACGCTGGTCTACTTCTTCCTGGCC
TGCTGGACCTACGGGCTCACGGTGTCTGCCGGGGTCTTCATCCCGTCCCTGCTCATCGGGGCTGCCTGGGGCCGG
CTCTTTGGGATCTCCCTGTCCTACCTCACGGGGGCGGCGATCTGGGCGGACCCCGGCAAATACGCCCTGATGGGA
GCTGCTGCCCAGCTGGGCGGGATTGTGCGGATGACACTGAGCCTGACCGTCATCATGATGGAGGCCACCAGCAAC
GTGACCTACGGCTTCCCCATCATGCTGGTGCTCATGACCGCCAAGATCGTGGGCGACGTCTTCATTGAGGGCCTG
TACGACATGCACATTCAGCTGCAGAGTGTGCCCTTCCTGCACTGGGAGGCCCCGGTCACCTCACACTCACTCACT
GCCAGGGAGGTGATGAGCACACCAGTGACCTGCCTGAGGCGGCGTGAGAAGGTCGGCGTCATTGTGGACGTGCTG
AGCGACACGGCGTCCAATCACAACGGCTTCCCCGTGGTGGAGCATGCCGATGACACCCAGCCTGCCCGGCTCCAG
GGCCTGATCCTGCGCTCCCAGCTCATCGTTCTCCTAAAGCACAAGGTGTTTGTGGAGCGGTCCAACCTGGGCCTG
GTACAGCGGCGCCTGAGGCTGAAGGACTTCCGAGACGCCTACCCGCGCTTCCCACCCATCCAGTCCATCCACGTG
TCCCAGGACGAGCGGGAGTGCACCATGGACCTCTCCGAGTTCATGAACCCCTCCCCCTACACGGTGCCCCAGGAG
GCGTCGCTCCCACGGGTGTTCAAGCTGTTCCGGGCCCTGGGCCTGCGGCACCTGGTGGTGGTGGACAACCGCAAT
CAGGTTGTCGGGTTGGTGACCAGGAAGGACCTCGCCAGGTACCGCCTGGGAAAGAGAGGCTTGGAGGAGCTCTCG
CTGGCCCAGACG**TGA**GGCCCAGCCCTGCCCATAATGGGCACTGGCGCTGGCACCCCGGCCCTTCTGCATTTCCTC
CCGGAGTCACTGGTTTCTCGGCCCAAACCATGCTCCCCAGCAGTGGCAATGGCGAGCACCCTGCAGCTGGGCGGG
CAGGCGGCAGGCGCGGAACTGACCCTCTCGCGGGACTGACCCTGTTGTGGGCAGTGGTCTCCCCCCTTGGCGCCT
CCTTGCGCAGGCCCAGCCTCCACTCTCCTCGTCTAGGTTTCTTTACCTCCAGGGATCAGCTGTGTGTGTGTGACC
TCCCTACCGGGCTATCGGCCTCTTGGGAGCCAGCGGCAGGGCCGGCACCTGCGTGCCTGTGCCCGTGTGCGTGAG
ACAGAGCCCTTGCCCCTGCTGCTGCCCCGAGGGCTGCCCTGCCCTGGAAGGGCCCCTCTGCCTCCACACCAGTGG
AGTCTTCGAGACTTGGGAGCTGCTTGGCCTCATTTTCAGCCATGAGCAGACGGCCTGTGGTCCCTGGGCCTGAGG
CACGGACTCGTAGCACCAGGGTTTGGAGGCTGCGACCGCCCCGGAGAGCAGCTTCACACTGGCGCCACAGAGGAG
CCCCACGTGCACTCCCCGGCCTGCATCCGGCTTGGGTACACAGGCCCAGAGGACTGGGGTGACTCACGGGCCCTG
TGCTGTGATGTTGAGAGCTGAGAAAAACCTCCAAGGCCCTGAGCCCCATGCCCAGCCCTGCCTTGGTCCCCCAAC
CCCCAGAGCTTGGAGTCTGGGCCCCACACCCAGCCCTGCCTTGGTCCCTGAGCCTCAGAGCGTGGAATTGCTGCC
CTGTGGACACTGGCTGGGAAGGCAGGTCTTCCCCTAGCACATGGGGACCCCGGCCTCGAGGGTGACCTCCCTACC
CCGCCCCTGCCAGCCACCAAGCGCAGGTGCAGCGGGGGCCAGACTCCTGCCGGCCTCAGAGGACACCTGGCCCAG
CACAGGCAGCTAGAAGGGCCGGTGGGCACCGGGGCCGGGAAGCCCCCACCTCACCACCTGAGGGCCCCTGGGAGG
CTCCTCTGGCCTGGCTGGGCTGGGTCTGGGGCCGCCACAGGCCCCTCACGGGGCGGCAGAGGCAACTTCAGTGTC

FIGURE 2224B

CCTGTTAGAGCAACACGGGTCCCTCCGTGGGGGGCTGGGTGCGGCCCCCTGCCGTGTATTTCCTCCCCAGGGAGT
GGGGCCTCCCCGGGAGCTGACGCCACCACCCTGCTTAGCCCTCACAGGGCCCCAAGGTGTCCGAGTGTGTTGGGT
CTGAACGCGAAATAAAGAAATCCTCTC

FIGURE 2225

CGCCCCAGAGGCTCAAGAAAACCCGCGGGAGCCTCGCCCGGACCCAGGAACTCGTGCTCGGGGCCAACCGGCTGG
GCCGCGATCGCGTTTCGTCCGGGGCCGCGGCGGCCGTGGGGAATCGGCTGCAGCGAATCGGTGGCGCGCGGCGCC
TGAGCGCGCTGCAGTCACCCGGGAGCCGGGTCCAGGTCGTCTTCCCGTGACGCCCAGATCTGTCCTGCAGGATGG
AGCCAGCACCCTCAGAGGTTCGACTCGCCGTCCGGGAAGCCATTCATGCCCTCTCGTCTTCGGAGGATGGCGGCC
ACATCTTCTGCACCCTGGAGTCCCTGAAGCGGTATCTCGGTGAGATGGAGCCTCCAGCGCTCCCGAGGGAGAAGG
AGGAGTTTGCCTCGGCCCACTTCTCGCCTGTCCTCAGATGTCTTGCCAGCAGGCTGAGCCCAGCCTGGCTGGAGC
TGCTGCCCCATGGCCGCCTGGAGGAGCTGTGGGCCAGCTTCTTCCTGGAGGGCCCGGCGGACCAAGCCTTCCTGG
TGTTGATGGAGACCATCGAGGGTGCTGCGGGCCCCAGCTTCCGGCTGATGAAGATGGCGCGGCTGCTGGCCAGAT
TCCTGCGCGAGGGCCGGCTGGCAGTGCTGATGGAGGCGCAGTGTCGGCAGCAGACGCAGCCCGGCTTCATCCTGC
TCCGGGAGACGCTGCTGGGCAAGGTGGTGGCCCTGCCCGATCACCTGGGCAACCGCCTGCAGCAGGAGAACTTGG
CCGAGTTCTTCCCCCAGAACTACTTCCGCCTGCTCGGCGAGGAGGTCGTCCGGGTGCTGCAGGCGGTTGTGGACT
CTCTCCAAGGTGGCCTGGATTCCTCCGTGTCCTTCGTGTCTCAGGTCCTTGGGAAAGCCTGTGTCCACGGGAGGC
AGCAGGAGATCCTGGGCGTGCTGGTACCCCGGCTGGCAGCGCTCACCCAGGGCAGCTACCTGCACCAGCGCGTCT
GCTGGCGCCTGGTGGAGCAAGTGCCGGACCGGGCCATGGAGGCTGTGCTGACCGGGCTGGTGGAGGCCGCACTGG
GGCCTGAGGTCCTTTCGAGACTGCTGGGGAACCTGGTGGTGAAGAACAAGAAGGCCCAGTTTGTGATGACCCAGA
AGCTTCTGTTCTTACAGTCCCGGCTCACGACGCCCATGCTGCAGAGCCTGCTGGGCCATCTGGCCATGGACAGCC
AGCGGCGCCCGCTCCTGCTGCAGGTGCTGAAGGAGCTGTTGGAGACGTGGGGCAGCAGCAGTGCCATCCGCCACA
CTCCCCTGCCGCAGCAGCGCCACGTCAGCAAGGCTGTCCTCATCTGCCTGGCGCAACTCGGGGAGCCGGAACTGC
GGGACAGCCGGGATGAACTGCTGGCCAGCATGATGGCGGGCGTGAAGTGCCGCCTGGACAGTAGCCTGCCCCCCG
TGCGACGCCTGGGCATGATCGTGGCAGAGGTCGTTAGTGCCCGGATCCACCCCGAGGGGCCTCCCCTGAAATTCC
AGTACGAAGAGGATGAACTGAGCCTCGAGCTGCTGGCCTTGGCCTCCCCCCAGCCTGCGGGTGACGGCGCCTCGG
AGGCGGGCACGTCCCTCGTTCCAGCCACGGCAGAGCCCCCTGCAGAGACCCCCGCAGAGATCGTGGATGGCGGCG
TCCCCCAAGCACAGCTGGCGGGCTCTGACTCGGACCTGGACAGCGATGATGAGTTTGTCCCCTACGACATGTCGG
GGGACAGAGAGCTGAAGAGCAGCAAGGCTCCTGCCTACGTCCGGGACTGCGTGGAAGCCCTGACCACGTCTGAGG
ACATAGAGCGCTGGGAGGCAGCCCTGCGGGCCCTTGAGGGCCTGGTCTACAGGAGCCCCACAGCCACTCGGGAGG
TGAGCGTGGAGCTGGCCAAGGTGCTTCTGCATCTGGAGGAGAAGACCTGTGTGGTGGGATTTGCAGGGCTGCGCC
AGAGAGCCCTGGTGGCCGTCACGGTCACAGACCCGGCCCCGGTGGCCGACTATCTGACCTCACAGTTCTATGCCC
TCAACTACAGCCTCCGGCAGCGCATGGACATCCTGGATGTGCTGACTCTGGCTGCCCAGGAGCTGTCTAGGCCTG
GGTGCCTCGGGAGGACTCCCCAACCTGGCTCCCCAAGTCCCAACACCCCGTGCCTGCCAGAGGCAGCCGTCTCTC
AGCCTGGCAGTGCCGTGGCGTCTGACTGGCGGGTGGTGGTGGAGGAGCGGATCAGAAGCAAGACCCAGCGGCTCT
CCAAGGGTGGCCCGAGGCAGGGCCCGGCAGGCAGCCCCAGCAGATTCAACTCCGTGGCCGGCCACTTCTTCTTCC
CCCTCCTTCAGCGCTTTGACAGGCCTCTGGTGACCTTCGACCTCTTGGGAGAAGACCAGCTGGTTCTCGGAAGGC
TGGCGCACACCTTAGGGGCCCTGATGTGCCTGGCTGTTAACACCACGGTGGCTGTGGCCATGGGCAAGGCCCTGC
TGGAATTCGTGTGGGCCCTTCGCTTCCACATCGATGCCTACGTGCGCCAGGGGCTGTTGTCGGCCGTCTCCTCCG
TCCTGCTCAGCCTGCCTGCTGCGCGCCTGCTGGAGGACCTGATGGACGAGCTGCTGGAAGCCCGGTCCTGGCTGG
CGGACGTGGCTGAGAAAGACCCGGACGAGGACTGCAGGACGCTGGCACTGAGGGCCCTGCTGCTTCTGCAGAGAC
TCAAGAACAGGCTCCTCCCACCCGCGTCTCCCTAGTCCCTGGAGGCCTCCCCAGGACCACCCTCGCCGACAGCAA
GGCAGGCGGCTGAGCAGCGGCCTGGAGCAGCAGAGCCAGGCTTTGTAGCGAGGCCAGGTCTTCGGCCGCATCCGG
TACGGAGAGTGCAGATGCAGGAAGGCCCGGCCTGCCGCTATTTATAGTGCAGCCAGTCCGCTAAAAATACACTGG
GCCTGGGCACTGCCCGCCGGGACATGGCAGCCTGGACGTGGGGCTGGGGCTGTGGGCGCTGCTGGCGGGGTTGAC
TCTTCCAGTGAGGGCAGAACCAGGCTGGCAGGAGGGGAGGACGGTGTACCTGCTGCTCAGAGCCCCCAAGGCTCT
CCTCTGAGAGCCACCAAGCAGGACAGAGCAGCTCTTGTCCCAGGTCCCTCGGGCTGAGCGCCGTGTCACCAGGAG
AATAGTGCTCACAGCCCAGGCAGGGTGTGTGGCTCCTGGATGGGCTCGTGGGGCGGGATGGGACAGGGCACGGGC
TCTCAGAAAATAAACTGCTTTATTGG

FIGURE 2226A

CGCGCGGCGGCTCAGCGGCCTGGCAGAGGTTTCAGCGCTGAGGAGGCCTGAGTTCCGTC**ATG**GCCCTCTATTATG
ACCACCAGATAGAAGCCCCGGATGCAGCAGGGTCACCCTCATTTATCAGCTGGCACCCTGTCCATCCATTCTTGG
CAGTTGCTTACATCAGCACAACCTCAACAGGCAGCGTGGATATTTACCTGGAGCAAGGGGAGTGCGTGCCAGATA
CACACGTCGAGAGGCCGTTCCGGGTTGCTTCCCTGTGCTGGCACCCGACGCGGCTGGTGCTGGCTGTGGGCTGGG
AGACTGGAGAAGTGACGGTGTTTAACAAGCAGGACAAGGAGCAGCACACGATGCCCCTGACACACACAGCCGACA
TCACCGTGCTCCGTTGGAGCCCCAGTGGAAACTGCCTGCTGTCTGGGGACAGGCTTGGTGTCTTGCTCTTGTGGA
GGTTGGACCAAAGGGGCCGAGTGCAAGGGACGCCTCTGCTGAAACACGAGTATGGGAAACACCTCACGCACTGCA
TCTTCCGGCTCCCCCCTCCTGGCGAGGACCTGGTTCAGTTGGCAAAGGCAGCTGTGAGCGGTGATGAGAAAGCCC
TGGACATGTTTAACTGGAAGAAGAGCAGTTCTGGAAGTTTGCTGAAGATGGGGTCTCACGAGGGGCTGTTGTTCT
TTGTCAGTCTGATGGACGGGACAGTGCACTATGTGGATGAGAAGGGCAAGACCACTCAGGTGGTGTCCGCAGACA
GCACGATTCAGATGCTGTTCTACATGGAGAAGAGGGAGGCACTGGTGGTGGTCACAGAGAACCTCCGGCTGTCCC
TGTACACGGTGCCTCCTGAGGGCAAAGCAGAAGAAGTGATGAAGGTCAAGCTGAGCGGGAAAACCGGCCGCCGGG
CAGACATCGCTTTGATTGAAGGCAGCCTTCTCGTGATGGCCGTCGGGGAGGCTGCCCTCAGATTCTGGGACATAG
AACGAGGAGAGAATTATATACTGAGTCCAGATGAGAAGTTTGGCTTTGAGAAAGGAGAGAATATGAACTGTGTGT
GTTACTGTAAAGTCAAAGGTCTTCTGGCCGCTGGTACCGACAGAGGGCGAGTAGCCATGTGGAGGAAAGTACCAG
ACTTCCTGGGCAGCCCCGGGGCAGAGGGCAAGGACAGGTGGGCCCTTCAGACCCCTACCGAGCTCCAAGGAAACA
TCACGCAAATCCAGTGGGGTTCCAGGAAGAACCTGCTGGCAGTGAACAGCGTCATCTCCGTGGCCATCCTCAGCG
AGCGGGCCATGTCGTCACACTTCCACCAGCAAGTGGCCGCCATGCAGGTCTCCCCGAGTCTGCTGAATGTGTGCT
TCCTGTCCACGGGGGTCGCACACAGCCTGCGCACCGACATGCACATCAGTGGAGTGTTTGCCACCAAGGATGCTG
TCGCAGTCTGGAACGGAAGGCAGGTGGCGATCTTCGAGCTTTCTGGAGCCGCGATACGGAGTGCAGGGACCTTCT
TGTGTGAGACGCCTGTGTTAGCAATGCATGAAGAAAACGTTTACACGGTGGAGTCAAACCGAGTTCAAGTTCGAA
CCTGGCAGGGGACTGTCAAACAACTCCTCCTTTTCTCGGAGACTGAGGGGAATCCCTGCTTCTTGGACATCTGTG
GGAATTTCCTGGTTGTAGGGACAGACTTGGCTCACTTTAAAAGCTTTGATCTTTCCCGAAGAGAGGCCAAAGCAC
ACTGTAGCTGCAGGAGCCTGGCGGAGCTGGTCCCTGGGGTGGGGGGCATCGCTTCTCTGCGGTGCAGCAGCAGCG
GGAGCACCATCAGCATCCTCCCCAGCAAGGCTGACAACAGCCCTGATTCCAAAATCTGCTTCTACGATGTTGAAA
TGGACACAGTGACCGTCTTTGACTTCAAGACTGGACAAATTGATCGGAGAGAGACGCTGTCCTTTAATGAGCAAG
AGACTAATAAGAGCCACCTCTTTGTGGATGAGGGACTGAAAAATTATGTTCCCGTGAACCACTTCTGGGACCAGA
GTGAGCCCCGGCTGTTTGTATGCGAAGCCGTGCAGGAGACGCCGCGCTCCCAGCCTCAGTCTGCAAACGGGCAGC
CCCAAGATGGGCGCGCTGGCCCTGCGGCAGATGTTTTGATCCTGTCCTTCTTCATTTCCGAAGAGCACGGCTTCC
TGCTTCATGAGAGCTTCCCCCGGCCTGCCACCTCCCACAGTCTCCTGGGGATGGAAGTGCCTTATTACTACTTCA
CAAGAAAGCCCGAAGAAGCAGACAGAGAAGACGAGGTGGAGCCTGGGTGCCACCACATCCCTCAGATGGTGTCCA
GGAGACCCCTGCGAGACTTTGTGGGGCTGGAGGACTGCGACAAGGCCACCCGGGACGCCATGCTCCACTTCAGCT
TCTTTGTCACCATAGGAGACATGGACGAAGCCTTCAAATCCATCAAGCTCATCAAAAGTGAGGCCGTCTGGGAGA
ACATGGCGCGCATGTGCGTGAAGACCCAGCGGCTGGACGTGGCCAAGGTGTGCCTGGGGAACATGGGCCATGCCC
GCGGGGCCCGAGCGCTGCGTGAGGCGGAGCAGGAGCCGGAGCTAGAGGCCCGCGTGGCCGTGCTGGCCACGCAGC
TGGGCATGCTGGAGGACGCCGAGCAGCTGTACAGGAAGTGCAAGCGCCACGACCTCCTGAACAAGTTCTACCAGG
CTGCGGGCCGGTGGCAGGAGGCCCTCCAGGTAGCCGAGCACCACGATCGCGTGCACCTGCGCAGCACCTACCACC
GCTATGCCGGGCACCTGGAGGCCAGCGCCGACTGCAGCCGGGCCCTCAGTTACTACGAGAAGTCGGACACGCACC
GCTTCGAGGTGCCCAGGATGCTGTCGGAGGACCTGCCGTCCCTGGAGCTCTACGTGAATAAAATGAAGGATAAGA
CCCTGTGGCGGTGGTGGGCGCAGTACCTGGAGAGCCAGGGCGAGATGGACGCCGCGCTGCACTACTACGAGCTGG
CCCGGGACCACTTCTCCCTGGTCCGCATCCACTGCTTCCAGGGCAATGTCCAGAAGGCTGCGCAAATAGCCAACG
AGACAGGAAACCTGGCGGCCTCCTACCACCTCGCCCGCCAGTACGAGAGCCAGGAGGAGGTCGGGCAGGCGGTGC
ACTTCTACACCCGGGCACAGGCCTTCAAGAATGCCATCCGCCTGTGCAAGGAGAACGGCCTGGACGACCAGCTCA
TGAACTTGGCCCTGCTGAGCTCCCCCGAGGACATGATCGAGGCGGCCCGATACTACGAGGAGAAGGGCGTGCAGA
TGGACAGGGCGGTCATGCTGTACCACAAGGCTGGCCACTTCTCCAAGGCCCTGGAGCTGGCCTTTGCCACCCAGC
AGTTTGTGGCCCTACAGCTCATAGCAGAGGACCTGGATGAGACGTCAGACCCTGCGCTCCTGGCCCGCTGCTCCG
ACTTCTTCATCGAGCACAGTCAGTACGAGAGGGCGGTAGAGCTGCTGCTGGCTGCCAGGAAGTATCAGGAAGCCC
TGCAGCTGTGCCTGGGGCAGAACATGAGCATCACCGAGGAGATGGCGGAAAAGATGACCGTGGCCAAGGACTCCT

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FIGURE 2226B

CGGACCTGCCTGAGGAGTCGCGGCGGGAGCTGCTGGAGCAGATAGCAGACTGCTGCATGCGCCAGGGCAGCTACC
ACCTGGCCACCAAGAAGTACACGCAGGCCGGCAACAAGCTGAAGGCCATGAGGGCGCTGCTCAAATCCGGAGACA
CGGAGAAAATCACGTTCTTCGCGAGCGTGTCCAGGCAGAAGGAAATCTACATCATGGCTGCTAACTACCTGCAGT
CCCTGGACTGGCGGAAGGAGCCGGAGATCATGAAGAACATCATCGGCTTCTACACCAAGGGGCGGGCCCTGGACC
TCCTGGCTGGCTTTTATGACGCTTGTGCCCAGGTGGAGATTGATGAATACCAGAACTACGACAAAGCCCACGGGG
CGCTGACCGAGGCCTACAAGTGCCTGGCCAAGGCCAAGGCCAAGAGCCCCCTGGACCAGGAGACCAGGCTGGCGC
AGCTGCAGAGCAGGATGGCACTGGTGAAGAGGTTCATCCAGGCCCGCAGGACGTACACAGAGGACCCCAAGGAGT
CCATCAAGCAGTGTGAGCTGCTCCTGGAGGAACCAGACCTGGACAGCACCATCCGCATCGGGGACGTCTATGGCT
TCCTGGTGGAGCACTACGTGCGGAAGGAGGAATACCAGACGGCCTACAGATTCCTGGAGGAGATGCGGCGGCGGC
TTCCCTTGGCCAACATGTCCTACTACGTGAGCCCGCAGGCCGTGGACGCCGTGCACCGGGGGCTGGGTCTCCCAC
TGCCACGCACCGTCCCCGAGCAGGTCCGCCACAACAGCATGGAGGACGCCAGGGAGCTGGACGAGGAGGTGGTGG
AAGAGGCAGATGACGACCCC**TGA**GGGGCCTGGGCCCCAGGACCAGCGTGCTGCTGCAGAAAGGCATCTTCTGGAA
TTTTTTTGTCAGCTGTGGCAAAGCCAGCATTTTTGCTGGGAAAAAACATGTCTGTGTTGGAATACGCGACAGAGC
TGGGCGAGAACGCAGCGGCCCGGGCCGGCGGAGGGTGTGACCCGTCTGCACCTTGCTCTGTCCCACCTGCCTCTG
GGTGCCCGGCAGCTCCACTAGATTTTTGGATTCATTCCTTTGAAGGGAGTCGGGTTCACCCTTCCATCGTATTCT
CCCAACTACACATTGTAAAGCCTGAGAAACTTCTAGAACCTCAGGAAGCTGCAGCTGGAGGGCTGGGGCACCTGC
CCCCCTGCTCCCCACACATCATATCCTCCCCATACTCCTGCAGGGCCCACGGCTCCTGAGCAACAGCTGGGACAC
CCGGGCCTTGGCGGCTGCACCCCCTGCTAGGCTCTGCCCACCGGCCACCAACACTCCTGTAATTCCAATAAAGCA
GTTTATTTTCTG

FIGURE 2227

AAAAACAACCATTTCCTCTCTGCTGAGAGCCAGGGAAGGCGAGCTCTGCGCACACGGGCGTCCCTGCAGCAGCCA
CTCTGCTTTCCAGGACCGGCCAACTGCCCTGGAGGCATCCACACAGGGGCCCAGGCAGCACAGAGGAGCTGTGAA
CCCGCTCCACACCGGCCACCCTGCCCGGAGCCTGGCACTCACAGCAGGCCGGTGCTAAGGAGTGTGGCGCGGGCT
CGACTCCCACTGCTGCCGGCCTCCCGAGTGACTCTGTTTTCCACTGCTGCAGGCGAGAAGAGGCACGCGCGGCAC
AGGCCGGCCTCCGCTTCCCGGGAAGACGGCGCACTCCTGGCCCTGGGTTCTTGCTGCTGCCCACCCTCTGCTCCC
TGGGATGGGCCCCGAGGCGAGCAGCTTCAGCACAGGCCTGGCCCTGCTCCAGGTGCAGGAAGGAGGATAAGGCCG
GGCCGAGAGGCGGCACACCTGGACCATCCCATGGGCCTCCGCCCGCGCCGCCCCGAGGATGAGTGGTGATGTCCT
CTAGCCACCCCTAGCAGCGTCGGCTCTCCCTGGACGTGCGGCCGCGGACTGGGACTTGGCTTTCTCCGGATAAGC
GGCGGCACCGGCGTCAGCG**ATG**ACCGTGCAGAGACTCGTGGCCGCGGCCGTGCTGGTGGCCCTGGTCTCACTCAT
CCTCAACAACGTGGCGGCCTTCACCTCCAACTGGGTGTGCCAGACGCTGGAGGATGGGCGCAGGCGCAGCGTGGG
GCTGTGGAGGTCCTGCTGGCTGGTGGACAGGACCCGGGGAGGGCCGAGCCCTGGGGCCAGAGCCGGCCAGGTGGA
CGCACATGACTGTGAGGCGCTGGGCTGGGGCTCCGAGGCAGCCGGCTTCCAGGAGTCCCGAGGCACCGTCAAACT
GCAGTTCGACATGATGCGCGCCTGCAACCTGGTGGCCACGGCCGCGCTCACCGCAGGCCAGCTCACCTTCCTCCT
GGGGCTGGTGGGCCTGCCCCTGCTGTCACCCGACGCCCCGTGCTGGGAGGAGGCCATGGCCGCTGCATTCCAACT
GGCGAGTTTTGTCCTGGTCATCGGGCTCGTGACTTTCTACAGAATTGGCCCATACACCAACCTGTCCTGGTCCTG
CTACCTGAACATTGGCGCCTGCCTTCTGGCCACGCTGGCGGCAGCCATGCTCATCTGGAACATTCTCCACAAGAG
GGAGGACTGCATGGCCCCCCGGGTGATTGTCATCAGCCGCTCCCTGACAGCGCGCTTTCGCCGTGGGCTGGACAA
TGACTACGTGGAGTCACCATGC**TGA**GTCGCCCTTCTCAGCGCTCCATCAACGCACACCTGCTATCGTGGAACAGC
CTAGAAACCAAGGGACTCCACCACCAAGTCACTTCCCCTGCTCGTGCAGAGGCACGGGATGAGTCTGGGTGACCT
CTGCGCCATGCGTGCGAGACACGTGTGCGTTTACTGTTATGTCGGTCATATGTCTGTACGTGTCGTGGGCCAACC
TCGTTCTGCCTCCAGCTTTCCTGGTTAGCGCAACGCGGCTCCACGACCACACGCACTTCAGGGTGGAAGCTGGAA
GCTGAGACACAGGTTAGGTGGCGCGAGGCTGCCCTGCGCTCCGCTTTGCTTTGGGATTAATTTATTCTGCATCTG
CTGAGAGGGGCACCCCAGCCATATCTTACACTTTGGTAAAGCAGAAAACCAGGAAAATTTTCTTAAAATATCCAC
AATATTCCTTGAGTGAGTCAGAATCTATAGCCGGTTAGTGATGGTTTCAGACAGAATCGTGTTCGTGTCTGTTTT
GCTCGATTCTTTTCCTAAGTTAAATAAATGCAAGCCTCTGAACTCTGTCTAT

FIGURE 2228A

GGCCTCCTCCCAGGCACCAGGACACTGGGCCATGTCTTGAGAAGACCCCTGCAGAAGGCAGGGACAGTCCCACCC
GGGAGCCAGGGGCCTTGCCGTGTGCCTGTGGCCAGCTCCCAGACCTGGAGGACGAGCTCTCGCTTCTAGACCCCT
TGCCCCGCTACCTAAAGTCCTGTCAGGACCTCATTGTCCCCGAGCAGTGCCGCTGTGCGGACACACGGCCTGGGA
GCGAGCAGCCCCCTCTGGGCGGGGCGGCCTCCCCAGAGGTGCTGGCTCCTGTCAGCAAGGAGGCTGCTGACCTTG
CTCCCACTGGCCCATCCCCGAGGCCCGGCCCCGGGCTCCTGCTGGATGTTTGCACTAAAGACTTGGCAGATGCAC
CTGCGGAGGAGCTCCAGGAGAAGGGGAGCCCCGCGGGGCCTCCGCCGTCTCAGGGACAGCCTGCCGCCAGGCCCC
CGAAGGAGGTCCCCGCCAGCCGGCTGGCTCAGCAGCTCCGTGAGGAGGGCTGGAACCTGCAGACCTCCGAAAGCC
TCACGCTGGCCGAAGTCTACCTC**ATG**ATGGGCAAGCCCAGCAAGCTGCAGCTGGAGTACGACTGGCTGGGGCCCG
GCCGCCAGGACCCCCGCCCCGGCTCCCTACCCACCGCCCTCCACAAGCAGCGCCTCCTCAGCTGCCTCCTGAAGC
TCATTTCCACCGAGGTCAACCCCAAGCTGGCTCTGGAAGCAAACACCATCTCTACAGCCTCAGTAAGGCCCGCCC
AGGAGGAGCAGTCGATGACGCCCCCAGGGAAGGTGGTGACCGTCAGCTCTCGCAGCCCCCGCTGCCCTCGGAACC
AGGCCTCCCTCCGCAGCAGCAAGACCTTCCCGCCCAGCTCTGCACCCTGCTCCTCAGGTTTGAGAAACCCTCCAA
GACCCCTCTTGGTGCCTGGTCCCTCCAGCACAGGAAGCAATGACTCAGATGGAGGCCTTTTTGCTGTCCCGACAA
CCTTGCCACCCAACAGCCGACACGGGAAGCTCTTCTCTCCCAGTAAAGAAGCAGAGCTGACTTTCCGCCAGCATC
TGAACTCCATCAGTATGCAGTCGGATTTCTTCCTGCCAAAGCCCCGGAAGCTGCGGAACCGGCACCTGCGGAAGC
CACTGGTGGTCCAGAGAACACTGCTCCCTAGACCATCGGAAAACCAGTCCCACAACGTTTGTTCCTTCTCCATCC
TGTCTAACTCTTCCGTAACTGGGAGAGGTTCGTTCCGGCCCATCCAGTCTTCTCTGACCAAAGCAGCTCTGTCTC
GGCCGATCGTGCCCAAGGTCCTTCCACCCCAGGCCACGAGTCACCTGGCCAGTGCTATCGACTTAGCAGCTACAA
GTGCCGGCATCCTTTCCGGGAACCCCCTCCCTGCCTTGGACACCGAGGGCTTGTCTGGCATCTCTCCACTGTCTT
CAGACGAGGTGACGGGTGCCATCTCGGGGCAGGACTCTACTGGAACTCACCAGGATGGAGACACCCTCCCCACCG
TGGGGGGCTCCGACCCATTTGTCAGCATCCCTTCGAGGCCTGAGCAGGAGCCAGTGGCAGACAGTTTCCAGGGCT
CATCTGTTCTCTCCTTATCTGAGCTGCCCAAGGCCCCTCTCCAGAATGGCCTCTCCATACCGCTGTCCTCGTCAG
AGAGCTCCAGCACCCGGCTGTCTCCACCAGACGTCTCTGCTCTGCTCGACATCTCCCTGCCCGGCCCACCTGAGG
ATGCGCTGTCACAGGGCGAGCCTGCCACACACATTAGCGACTCCATCATTGAGATCGCCATCAGCTCCGGTCAGT
ACGGTGAAGGAGTCCCTCTTTCTCCAGCAAAACTGAATGGCAGTGACAGTTCCAAGAGCCTTCCCTCCCCGTCCA
GCAGCCCCCAGCCACACTGGATCGCCTCTCCCACCCACGACCCCCAGTGGTACCCCAGTGACTCCACCGACTCCT
CGCTCAGCAGCCTGTTTGCAAGCTTCATCTCCCCAGAGAAGAGCCGGAAGATGTTGCCGACTCCCATTGGGACCA
ACAGTGGCACTTCCTTGCTTGGCCCCAGCTTGTTGGATGGAAACTCGCGGGACTCATTTGTGTCCAGGTCCCTGG
CTGACGTTGCAGAGGTTGTGGATTCCCAGCTGGTGTGCATGATGAACGAAAACAGCATTGATTACATTTCTCGGT
TCAATGACCTGGCCCAAGAGCTGTCCATCGCTGAGCCTGGCCGCCGAGAAGCTCTGTTTGATGGTGGTGGAGGCG
GCCCCGCTGTCAGTGACCTGTCCCAG**TGA**CCACACGTCCTGGTGGCGGATGAAGCCCTCTTCGAGCTAGAGAAAA
ATAGATAAGCCCAGCAGCCCCAGAAGATGGTCTGAACAGAGGCATCTCCGCACCCAAGACTGTGCAACGGGCAGG
AACGTGGTCACAGAGCTGCTTCCCCACGAGCAGCAGGCAACGGCGTCCAAGGAGACTAGGATGAGTTCTTGGCAA
GGGCCAGCGTTAGAAATCACTGTGGTACTAGAGCCGTTCTTCACCACGCCTGGGCCCATGTTAGGGTCTGCATAA
TGATCCCATTTCAGCCTGTGCTCTGCCTCGATTGTTGTGTTGGACATTCCGGTGGCATTTCCTTCTGAGACAAGG
GAGTATGTGTGCCTTGGTGTAGTTGCTGTGCACTAGGAGCTGTGATCTCCCTCTCTGCAGGGAGGCCCCAGCCCC
TGCTGCTTGCTTTCTGCCAAACCTGTGCTATGCATCAGCTGTGCCCTCTGTGGACTGTAACGGGCAGGACAGTTG
GGTGTGGCCTGGGCTCATGCCTGGTGGTGTCACATCCCAAGGCAGCAAGAGCATGGATACCGATCACAGGGCTGC
TGCGGAGTCGTGGGGCCCTGGGCTGGTGCCTCCCCTCCCTAGAGGTTTTGTTCGTACTCTTAACAGGGAGTGGGG
GCAGGAAGAGTCCTGTACTATGCAGGTTGTGTGGACTTTACATGGGACCCTGCTAAGCTGGTTGAAAATGTTTTT
CTTGTGTTTTAAGAATTAGGAGACATGGAAGAGGAAGAACAAAGTCCCCTCTGTAGTTGGTTTCCTTCCTGTGTC
CCTTTGCAAGCTTCCAGGCGATCTAAGGTGTCATTTCTCCCTCCTGGGGTGACCCTTAGGCGCTAATATGATTAC
AGCGAAGACTTTCCTGATAAGTTCTCAAACTCGATGTGTGACTGTTTGGCACTTGAGACAAACCTGCCTTTGCAG
GGAAAGTGTCTCTCACGGGCATTGGTGTGGGCGTGCCTGACATACGTGTTCAGTCCCTTGCATACCTTTGCCTTG
AGACTTCTGTGTCTCCTTCCCATTTGGGACACCCAGGTGAGGGCCCAGACATCTGGATGTGGTCAGACCTCACCA
AATATATGCCTTCGTGGTGGTCTCCCTCCTTGCGCCCTCTTGGGTGGCCAGCGTTCCTACTGCAGACGGCCCAAC
ATCCAGTCTTTCCCCAGGACAGAGCTAACAAGGGCCCCTTTGCCTTCTCATCCTCAGGAGTTCCAGGCACATGAG
TCACCGTCCATCCACATCCAGTGTGGCCTGGAGCTGCTACAGAGGTGTTGGGCAGGCCATGCCTGTGCCGCCATC

FIGURE 2228B

TCTCCCTTCCTGCCTCATTTCATCCCCCGCAGCAGCCGGGATTGATTGTGCTTTCCTAACCCCCTTGGACCTACT
CTCCCTCCTCCCCACCATTCCTCTTCCCCCACATGTGTGGCACGCTGCAGCCCTCAAGGCCAGCCCTGGCCCCTC
CACTGCTTCTCTCCCCATCCACAATGGAGAAGGTGAAAAGAGGAGGGAAAGGCCTTTGGTGTGGACAAGCATGTG
GACGCCCTCCGTCCTGCAGTCTTGCCAGCCCACCACAGCCACTGTAGACCACAGGCAGGCCGTGTACTGCACCAC
TGGGAGGACGTGGAGAGGACAGTGAACTTCCAGGCAAGAGCTTCCTTCTTTTGTCTCACGAGTTTTTCTTAGAGC
TCTTGCCTGAGCTGGCTTCCCTCCTTCAGACATTGACATGAGATCTTAAGCAAACAGTCCCAAACCTCTTAGGGG
TGAAAAAAGAAACATGCCACTTGATTAGGAGAGAGACAGCAGTGTTTGAACTACAGCATCTTTACACTAGCTTGT
GTTTTGTGCTACGTATACCAGCTTCCAAAATTAGCATCTCATTGAGCCAGAGAAGACAAGGAGATCTCCCTCTGG
GCATCTGGCTTTGCTGCGTCTCTAGAGGGTTAGGATACCAGGCCGAGTTCAGGCCACTGCTAGCTTTCTCATACT
CCCACAGGCTAGACCAGAGATGCCAAGTCCCAACAGCACTGAGCTGTGTGCACTGTGCCAGGGACAGGAGGGTTT
GTGAACTGCCTGTCAGGGTACCTGTTAGCCCCTGACAACTCAGTGGGGTGAAGTTTTGGAGGTCAGAGTCTGCTT
TCGTAGGCTCTTTAGACAGCACCTACCACTTGGTTCTCCAGCGTAGACTCCTGGGAGCAGCCAACTGCAGCCATT
GCCATCCAGTGGGGAGATGGGTTAGGGAGGAGGACGGGCTGACTCCTCTCCTGTAATAAAGCTGACAAGAGTTCT
AGAGGATTCTGCTTCTCTAGTAACTAGACAGGTGATACGCATTTGCTTGCCACATTAAGGGAAAATGGTGTCATT
TGTTGCAGAAAAACAATGGATACATTTTCTTCTGGCCTAAATGAATATTTATGTGCAAACATAGGCAACTGTTAA
AGGCTGGAATTTTCAAAAGATCCAAACAGAGACTTCCTGCATCTTCTGCCTTTCCAACAGAAGCGGTGATCGTCT
AAGTATGAGCCTGTGGCTTCCTTTGTGCATTTGAGCATGCTGTAATTAAGATGAGATCAGTTTCTTAGAAAAAGC
TTTCCTGAATCCCTCTGACGTTGCCTGGGATCTTTCTGTTGATTCGTCTTTTCTGGAGATTGGGACAGAGCATCT
GTGGTCCAGGGAAGTTAGTCCTCTGGCCTCAATTCTGTTGTGGATGTGCAGTGATAAGCGGGCATTGCGTGCCTC
GGGGGATGCCTAGTTCGTGGCTTCCTGGCTGTTTTGTCCTTCTGTGTCTTGTAGCTGTAGGGTGCCAGCTCAGGG
AGTGGGGTGTTGGCGGCGTTTCCGCGGTTGGCCTCCTTGCTTTGCCGCACCTCCAGGTTCTGGGCATGAGAGGCC
GTGGCCTCATTTCTGGTGGATAACCTTTTTAGTTTAATAGCATCTTTAATTAGATCACAGCATTGAATTCAAAAT
TTCTTCTGCAAAGAAAGTTGTGGGGCATAAGACACCGGGAATGAGGGAGGAGGAAGACAGTTGTGTTTTCTCTTT
AAACCTTGAGCTCTAGCCGATGCATTTGTCAGGAAATACAGCACTTTGTCTTAAGAAAACAAGGAAGGAGGCCGG
GCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACCTGAGGTGGGGAGTATG
AGACCACCCTGACTAACATGGAGAGACCCTGTCTCTACTAAAAGTACAGAATTAGCCGGGCGTGGTGGCGCATGC
CCATAATCCCAGCTACTGAGGAGACTTGAGGTAGGAGAATCACTTGAACCTCAGCGGCGGAGGTTGCAGTGAGTC
GAGATCGCGCCAGTGCACTCCAGCCTGGGCAAGAAGAGCGAAACTGGGTCTCAAGTTAAAAAAAGAAAGCAAGGA
AAGAGTAATTTACAACGAAGGAAAAAAACCCACAGCACACCCTTCGCGGCTGTCAGCGCTCTCCTGATGTCACAG
TGGCTGCGTGTCCTTGGGGTGGGTGAGGTGTGGGGAGCCCAGCCCCTGGCCCTGCCTCCCGCGCCCCGCTCCCCT
TCTCTCTCTTACTCGGTTAAGCCATAGCGAGGCCTCCGCTCGTTTCAGATATGAATTTGTTTTATAGATTATAAA
TATGCATATACAGTGTATGTATAAAGCAGAATGCCTGCCTTTCCTGGTTATTTTTTGTACCATATTGTAAATTAT
ATTATTTATTCTTTACCAATTTTGGGAATAAAAGGTGTTTTGGTTATTTAATATAATAAGAGCTGTTAAACTTCT
GTTTAAATTTCCAGTTCAACTTGTAAATGTTTTTATTGTGCATAAATACATACTAATGTTGATCT

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FIGURE 2229

GGCGCGCGGCGAGCTGAGGGTGGCGGCGGTCGAC**ATG**TTCCAGGTCCCGGATAGCGAGGGCGGCCGCGCCGGCTC
CAGGGCCATGAAGCCCCCAGGAGGAGAATCGAGCAATCTTTTTGGAAGTCCAGAAGAAGCTACTCCTTCCAGCAG
GCCTAATAGGATGGCATCTAATATTTTTGGACCAACAGAAGAACCTCAGAACATACCCAAGAGGACAAATCCCCC
AGGGGGTAAAGGAAGTGGTATCTTTGACGAATCAACCCCCGTGCAGACTCGACAGCACCTGAACCCACCTGGAGG
GAAGACCAGCGACATTTTTGGGTCTCCGGTCACTGCCACTTCACGCTTGGCACACCCAAACAAACCCAAGGATCA
TGTTTTCTTATGTGAAGGAGAAGAACCAAAATCGGATCTTAAAGCTGCAAGGAGCATCCCGGCTGGAGCAGAGCC
AGGTGAGAAAGGCAGCGCCAGAAAAGCAGGCCCCGCCAAGGAGCAGGAGCCCATGCCCACAGTCGACAGCCATGA
GCCCCGGCTGGGGCCGCGGCCTCGCTCTCACAACAAGGTCCTGAACCCACCGGGAGGCAAATCCAGCATCTCCTT
CTAC**TAA**GAGAAGCCACTGCTCCACCCGGAGCCAGACCAGAAACTCAAGAGATAGGGTAGCCATGTTTTCATTTC
CTTTTGCCCAAATGAGCGGGGTGGGAAGAGGGTTAGTCTTATGTGAGCCTGGCTGCTCAGCGTCTCCTGGCCGTC
ATGACAGCTGCTTGGAGACCCGTGCCTTCCAGATGGCTGGGAGATGCCTCTGTGGGGATGAAATGGGGCACCCCT
GGCCATCACTCATGTGTAGTCCAGGTTTGAGAGGAACTGGAAGGGGGGTGAGGGTGGGGAGGTGGGGCAGGGCAT
GGTCCTTGGATCAACAGCCCGCCAGCTGATTGGATGTCTAGGAATGACTGAAAGAAACCAAAACAGCCTGTCCAC
TGCTGCTGTGGGATGGAGGAGGCGTAAGCAGAAACACTAACAGTATATTGACCTCTTAGCAGAACCGCTTCCATT
CTGGAGATCACGGCTGCTAAATCCAGCATCCCCACTTCATTTTACCCCCAGCATATTGTTCTGTAGTCTTTTCTT
GAAACATCTTGATTGCTTTTCCTCGGCAGCTTTCAAAAAACCAAATAATAATAGTTATCCGTCTTCTACTTCATG
GAAGATTGTTTTGGTGCCCTGACCCTCTGAAGTGCCCAGTTCCTGCCATCTGAAACCTCGGCCTGATCTGATCTC
ATGTTGGAATCTGCCTGTCTTTCACACAGGGCTGGTCTTGGTCCTTTACATGCCAGTTTTGCTTGTGAATTCTTG
CTTTTTTCCTCTCATCAGCCTTAAGTTTAGGCGTTTGTTGTTCTCCAGTGATGTAGACAGTTCCCTTCACAAGTC
ACAGTTCTTCCCATAAATGAGGCCCGCTGACCTCTGCGGGACTTTAAAAATCTATTCAGATATTTCCGAGTAAGT
GGCTTGTTTAAATTCTTCCTGTGTCTTTCTTTATTCCTTAATTGGTTGGTGGAAAGAAGAGATGCTTGGGAACCT
TGGGTTCTTAGGTTTGGATTCTTTAATAATATCTAAAAAGCTAAATTTTAAATACCAGCTTTACATAAATGATTG
TTGACTCTGGTCTGTTTCTGACACCTTTCCAGAAAAAAGTCAATTGTTCAGGTACACCAAAGAGGAAGAAGAGCT
GTGGAGGCCACCCTCTACAAAGCTTTATAGAACTTCTGGATCTAACTCACAAACAAGCTTCCAGAAGAGACTAGA
GACCTTAGGCCAGGAGATGAAGGAGTTCAGTAGCAAAGTCACACCTGTCCAATTCCCTGAGCTTTGCTCACTCAG
CTAATGGGATGGCAAAGGTGGTGGTGCTTTCATCTTCAGGCAGAAGCCTCTGCCCATCCCCCTCAAGGGCTGCAG
GCCCAGTTCTCATGCTGCCCTTGGGTGGGCATCTGTTAACAGAGGAGAACGTCTGGGTGGCGGCAGCAGCTTTGC
TCTGAGTGCCTACAAAGCTAATGCTTGGTGCTAGAAACATCATCATTATTAAACTTCAGAAAAGCAGCAGCCATG
TTCAGTCAGGCTCATGCTGCCTCACTGCTTAAGTGCCTGCAGGAGCCGCCTGCCAAGCTCCCCTTCCTACACCTG
GCACACTGGGGTCTGCACAAGGCTTTGTCAACCAAAGACAGCTTCCCCCTTTTGATTGCCTGTAGACTTTGGAGC
CAAGAAACACTCTGTGTGACTCTACACACACTTCAGGTGGTTTGTGCTTCAAAGTCATTGATGCAACTTGAAAGG
AAACAGTTTAATGGTGGAAATGAACTACCATTTATAACTTCTGTTTTTTTATTGAGAAAATGATTCACGAATTCC
AAATCAGATTGCCAGGAAGAAATAGGACGTGACGGTACTGGGCCCTGTGATTCTCCCAGCCCTTGCAGTCCGCTA
GGTGAGAGGAAAAGCTCTTTACTTCCGCCCCTGGCAGGGACTTCTGGGTTATGGGAGAAACCAGAGATGGGAATG
AGGAAAATATGAACTACAGCAGAAGCCCCTGGGCAGCTGTGATGGAGCCCCTGACATTACTCTTCTTGCATCTGT
CCTGCCTTCTTTCCCTCTGCGAGGCAGTGGGGTGGGATTCAGAGTGCTTAGTCTGCTCACTGGGAGAAGAAGAGT
TCCTGCGCATGCAAGCCCTGCTGTGTGGCTGTCGTTTACATTTGGGAGGTGTCCTGTATGTCTGTACGTTGGGGA
CTGCCTGTATTTGGAAGATTTAAAAACCTAGCATCCTGTTCTCACCCTCTAAGCTGCATTGAGAAATGACTCGTC
TCTGTATTTGTATTAAGCCTTAACACTTTTCTTAAGTGCATTCGGTGCCAACATTTTTTAGAGCTGTACCAAAAC
AAAAAGCCTGTACTCACATCACAATGTCATTTTGATAGGAGCGTTTTGTTATTTTTACAAGGCAGAATGGGGTGT
AACAGTTGAATTAAACTTAGCAATCACGTGCTCAGAG

FIGURE 2230A

ATGATGGAGATCCAGATGGACGAGGGCGGCGGCGTGGTGGTGTACCAGGACGACTACTGCTCCGGCTCGGTGATG
TCGGAGCGGGTGTCGGGCCTGGCGGGCTCCATCTACCGCGAGTTCGAGCGCCTCATCCACTGCTACGACGAGGAG
GTGGTCAAGGAGCTCATGCCGCTGGTGGTGAACGTGCTGGAGAACCTAGACTCGGTGCTCAGCGAGAACCAGGAG
CACGAGGTGGAGCTGGAGCTGCTGCGCGAGGACAACGAGCAGCTGCTCACCCAGTACGAGCGTGAGAAGGCGCTG
CGCAGGCAGGCGGAGGAGAAATTCATTGAGTTTGAAGATGCTCTGGAACAAGAGAAGAAAGAGCTGCAAATCCAG
GTGGAGCACTACGAGTTCCAGACGCGCCAGCTGGAGCTGAAGGCCAAGAACTATGCCGATCAGATTTCCCGGTTG
GAGGAGCGGGAGTCGGAGATGAAGAAGGAGTACAATGCCCTGCACCAGCGGCACACAGAGATGATACAGACCTAC
GTGGAGCACATTGAGAGGTCCAAGATGCAGCAGGTCGGAGGAAACAGCCAGACCGAGAGCAGCCTGCCGGGGCGG
AGCAGGAAGGAGCGCCCCACCTCCCTGAACGTGTTCCCCCTGGCTGACGGCACGGTACGTGCACAGATCGGGGGC
AAGCTCGTGCCTGCGGGGGACCACTGGCACCTGAGTGACCTCGGCCAGCTGCAGTCCAGCTCCAGCTACCAGTGT
CCACAGGATGAAATGTCCGAGTCAGGCCAGTCCTCGGCGGCCGCCACACCCAGCACCACAGGCACCAAGTCCAAC
ACGCCCACATCCTCCGTGCCCTCGGCCGCCGTCACACCCCTCAACGAGAGCCTGCAGCCCCTGGGGGACTATGGC
GTGGGCTCCAAGAACAGCAAGCGTGCCCGGGAGAAGCGCGACAGCCGCAACATGGAAGTACAGGTCACCCAGGAG
ATGCGCAACGTCAGTATAGGCATGGGCAGCAGTGACGAGTGGTCTGATGTTCAAGACATTATTGACTCCACGCCA
GAGCTGGACATGTGTCCAGAGACCCGCCTGGACCGCACAGGAAGCAGCCCAACCCAGGGCATCGTGAACAAAGCT
TTCGGCATCAACACCGACTCCCTGTACCATGAGCTGTCGACGGCAGGGTCTGAGGTCATCGGGGATGTGGACGAA
GGGGCCGACCTCCTAGGTGAAACCTCCGCACCTTCTGTTTCAGGAATGGGCAAAGAAGTGGGGAATCTGCTACTG
GAAAACTCACAGCTTCTGGAAACCAAAAACGCCTTGAATGTGGTGAAGAATGACCTGATTGCCAAGGTCGACCAG
CTGTCCGGGGAGCAGGAGGTGCTGAGGGGCGAGTTGGAGGCTGCTAAGCAGGCCAAAGTCAAGCTGGAAAACCGT
ATCAAGGAGCTGGAAGAGGAACTGAAAAGAGTGAAGTCCGAGGCCATCATCGCCCGCCGTGAACCCAAAGAAGAG
GCGGAGGATGTAAGCAGCTATCTCTGTACAGAATCGGACAAAATCCCCATGGCCCAGCGCCGCCGCTTCACGCGG
GTGGAGATGGCCCGTGTGCTCATGGAGCGGAACCAGTACAAGGAGCGGCTGATGGAGCTGCAGGAGGCTGTGCGG
TGGACTGAGATGATCAGAGCGTCCCGAGAGCACCCATCCGTCCAGGAGAAGAAGAAGTCGACCATCTGGCAGCTT
CAGCCGCCTCTTCAGCTCTTCCTCCAGCCCCCCTCCGGCCAAGCGCCCCTATCCCTCGGTGAACATCCACTACAA
GTCACCCACCACTGCCGGCTTCAGCCAGCGCCGCAACCATGCCATGTGCCCGATCTCGGCAGGCAGCCGGCCCCT
GGAATTCTTCCC**TGA**CGACGACTGCACGTCCTCCGCCCGTCGAGAGCAGAAGCGCGAGCAGTACCGCCAGGTGCG
TGAGCACGTGCGTAACGACGACGGCCGTCTGCAGGCCTGCGGCTGGAGCCTGCCCGCCAAGTACAAGCAGCTGAG
TCCCAACGGGGGCCAGGAGGACACGCGGATGAAGAACGTGCCGGTGCCGGTGTACTGCCGCCCTCTGGTGGAGAA
GGACCCCACCATGAAGCTGTGGTGTGCCGCGGGCGTCAACCTGAGCGGGTGGAGGCCCAATGAGGACGACGCTGG
GAATGGAGTCAAGCCAGCGCCAGGCCGCGATCCCCTGACCTGCGACCGCGAAGGAGACGGCGAGCCCAAGAGCGC
CCACACGTCTCCCGAGAAGAAGAAGGCCAAGGAGCTCCCTGAAATGGACGCCACCTCCAGCCGGGTGTGGATCCT
GACCAGCACCCTGACCACCAGCAAGGTGGTGATCATCGACGCCAACCAGCCGGGCACGGTGGTGGACCAGTTCAC
CGTCTGCAACGCGCACGTGCTGTGCATCTCCAGCATCCCCGCGGCCAGCGACAGCGACTACCCTCCCGGGGAGAT
GTTCCTGGACAGCGACGTGAACCCAGAGGACCCGGGCGCAGATGGCGTGCTGGCCGGTATCACCCTGGTGGGCTG
TGCCACCCGCTGCAACGTGCCGCGGAGCAACTGCTCCTCCCGAGGGGACACCCCAGTGCTAGACAAGGGGCAGGG
GGAGGTGGCCACCATCGCCAACGGGAAGGTCAACCCGTCCCAGTCCACAGAGGAGGCCACAGAGGCCACGGAGGT
GCCAGACCCTGGGCCCAGCGAGCCAGAGACAGCCACATTGCGGCCCGGGCCTCTCACAGAGCACGTCTTCACTGA
CCCAGCCCCGACCCCGTCCTCTGGCCCCCAGCCTGGCAGCGAGAACGGGCCAGAGCCTGACAGCAGCAGCACACG
GCCAGAGCCAGAGCCCAGCGGGGACCCCACGGGAGCAGGCAGCAGTGCTGCACCCACCATGTGGCTGGGAGCCCA
GAACGGCTGGCTCTATGTGCACTCGGCTGTGGCCAACTGGAAGAAGTGCCTGCACTCCATCAAGCTGAAGGATTC
TGTGCTGAGCCTGGTGCATGTCAAAGGCCGTGTGCTGGTGGCTCTGGCGGACGGGACCCTGGCCATCTTCCACCG
TGGTGAAGATGGCCAGTGGGATCTGAGCAACTATCACCTAATGGACCTGGGCCACCCGCACCACTCCATCCGCTG
CATGGCTGTTGTGTACGACCGCGTGTGGTGTGGCTACAAGAACAAGGTGCACGTCATCCAGCCCAAGACCATGCA
GATAGAGGCGACCATGACTCCACAGAAGTCATTTGACGCCCACCCGCGGCGGGAGAGCCAGGTGCGGCAGCTGGC
GTGGATCGGCGATGGCGTATGGGTGTCCATCCGCCTGGACTCCACCCTGAGGCTCTACCATGCACACACGCACCA
GCATCTACAGGACGTGGACATTGAGCCCTACGTCAGCAAGATGCTAGGCACTGGCAAGCTGGGTTTCTCCTTCGT
ACGCATCACGGCCCTGCTTGTCGCGGGCAGCCGGCTCTGGGTGGGCACCGGCAACGGAGTGGTCATCTCCATCCC
CCTGACAGAGAGTGATGGTCCTGCACCGAGGCCAGCTCCTGGGGCTCCGAGCCAATAAGACATCCCCCACCTCTG

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FIGURE 2230B

GGGAGGGCGCCCGTCCCGGGGGCATCATCCACGTGTATGGCGATGACAGCAGTGACAGGGCGGCCAGCAGCTTCA
TCCCCTACTGCTCCATGGCCCAGGCCCAGCTATGCTTCCATGGGCACCGCGATGCCGTGAAGTTCTTTGTCTCGG
TGCCAGGGAACGTGCTGGCCACCCTGAATGGCAGTGTGCTGGACAGCCCAGCCGAGGGCCCTGGGCCAGCTGCCC
CTGCCTCGGAGGTCGAGGGCCAGAAGCTGCGGAACGTGCTGGTGCTGAGCGGCGGGGAGGGCTACATCGACTTCC
GCATTGGAGACGGAGAGGACGACGAGACGGAGGAGGGCGCAGGGGACATGAGCCAGGTGAAGCCCGTGCTGTCCA
AGGCAGAGCGCAGTCACATCATCGTGTGGCAGGTGTCCTACACCCCCGAGTGA

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FIGURE 2231

CGCTCCCGCACCGCCATC**ATG**ATCTGCCTGGTGCTGACCATCTTCGCTAACCTCTTCCCCGCGGCCTGCACCGGC
GCACACGAACGCACCTTCCTGGCCGTGAAGCCGGACGGCGTGCAGCGGCGGCTGGTGGGCGAGATTGTGCGGCGC
TTCGAGAGGAAGGGCTTCAAGTTGGTGGCGCTGAAGCTGGTGCAGGCCTCCGAGGAGCTGCTGCGTGAGCACTAC
GCCGAGCTGCGTGAACGCCCGTTCTACGGCCGCCTTGTCAAGTATATGGCCTCCGGGCCGGTGGTGGCCATGGTT
TGGCAGGGGCTGGACGTGGTGCGCACCTCGCGGGCGCTCATCGGAGCCACGAACCCGGCCGACGCCCCGCCCGGC
ACCATCCGCGGGGATTTCTGCATCGAGGTTGGCAAGAACCTGATTCACGGCAGCGACTCGGTGGAGAGTGCCCGC
CGCGAGATCGCTCTCTGGTTCCGCGCAGACGAGCTCCTCTGCTGGGAGGACAGCGCTGGGCACTGGCTGTATGAG
TAGCCCGGCAGATGCGCGTCACAGAGGCTCTCACACTCCAGCCTCCTCCAGGGCCCAGGTGGGCGGGCTTCTGGC
CCCACCCCACAGCGCTTGGAGCATCCCTTTGGACGGGCTGCTGAACATCCACCTGTCTGGACGTTGCATGGAGGG
TGGCGCAGGCCTCTCCAATCCCTGGCGTACAGGGTTTCCTGCCCGAGGAGCTGCTCCAGGAGCCTGCGCGGCTCG
CCTGGAAACGTGCCAGGACACTGTCCTGGTGCCCAGCCCAACGTGGTCCAACGTTTTTTTATAATAAAGTCCTCG
TTTTCGTT

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FIGURE 2232

GCTGAGGACGCGGACCCGCC**ATG**GCGCGGAAGAAGGTGCGTCCGCGGCTGATCGCGGAGCTGGCCCGCCGCGTGC
GCGCCCTGCGGGAGCAACTGAACAGGCCGCGCGACTCCCAGCTCTACGCGGTGGACTACGAGACCTTGACGCGGC
CGTTCTCTGGACGCCGGCTGCCGGTCCGGGCCTGGGCCGACGTGCGCCGCGAGAGCCGCCTCTTGCAGCTGCTCG
GCCGCCTCCCGCTCTTCGGCCTGGGCCGCCTGGTCACGCGCAAGTCCTGGCTGTGGCAGCACGACGAGCCGTGCT
ACTGGCGCCTCACGCGGGTGCGGCCCGACTACACGGCGCAGAACTTGGACCACGGGAAGGCCTGGGGCATCCTGA
CCTTCAAAGGGAAGACTGAGAGCGAGGCGCGGGAGATCGAACACGTCATGTACCATGACTGGCGGCTGGTGCCCA
AGCACGAGGAGGAGGCCTTCACCGCGTTCACGCCGGCGCCGGAAGACAGCCTGGCCTCCGTGCCGTACCCGCCTC
TCCTCCGGGCCATGATTATCGCAGAACGACAGAAAAATGGAGACACAAGCACCGAGGAGCCCATGCTGAATGTGC
AGAGGATACGCATGGAACCCTGGGATTACCCTGCAAAACAGGAAGACAAAGGAAGGGCCAAGGGCACCCCCGTC**T**
AGAATGCCAGAACCAGCGGGTGGCCTTAGGGGCTGTGAGGCAGTGGGGACCTTATTGATGAAAGAAACCGTCTTT
GCGTTACACCCGAGTCTGCCTCTCGGAGCAGGGAGCTCACCTTCCGCGACGTGTTCTGAGGGTCTGCATCTTAGG
GGGGAGGGCTGGGGCAAATCGCCACCTGTGCCTTTCCTCTGGCCCTGCTGCCCCCACACCCAACTCCGAGGGCCC
ACGCTGGGGAAAGCGGGAAGCGCTCGCTCCCTTTCCCCCATTAGTGCTCTCTCTGCCTGGATCCCGGCAGAAGCT
ATGAAAGGGAATAAAGAGAAAAGAAGT

FIGURE 2233A

CTCAGACTCCGACGCTGAGGACTCCGCCGGCTCGGAGGCCGCCGCGAGAGCCCGGGACCCAGCGGGTGAGCGCAG
GGCGGCTGCCGAGGCGTTGCGGCTGCTGCGGCCGGAGCAGGTGCTGAAGCGCCTCGCGGTGTGCGTGGACACAGC
CATCCTGGAAGACGCCGGTGCCGACGTCCTGATGGAGGCCCTGGAGGCCCTGGGCTGCGAGTGCCGCATCGAGCC
CCAGCGCCCGGCCCGCAGCCTGCGGTGGACCCGAGCGAGTCCCGACCCCTGCCCCCGCAGCCTGCCTCCTGAAGT
GTGGGCTGCAGGTGAACAGGAATTGCTGCTGCTGCTGGAGCCCGAGGAGTTTCTGCAGGGCGTCGCCACACTGAC
CCAGATCTCTGGCCCAACCCACTGGGTGCCCTGGATCTCCCCCGAGACCACCGCCCGGCCCCACCTGGCTGTCAT
CGGGCTGGATGCCTACCTGTGGTACCGCTCACTCTC**ATG**CCCACAGCAGGGCTGGCTGGGACGGGGGTTCAGGGG
AGGTGGGCACACTTCTGGGGTTGCTGTGGCACAGCTGATCCCACTTCTCCAGGTGGGCTCTGGCAGAGGCCAAGC
TCGGGCAGGGCAGGCCCCATGGGGAGCGGGGAGGAATGGTCACCTCTGCTCAGGTCTCGCCAGCACGTTTCCCGG
GGGACACAGCAGCCAGAGAGCCCGAAGGTGGCCGGTGCCGAGGTGGCCGTCAGCTGGCCGGAGGTGGAAGAGGCC
CTGGTACTCCTGCAGCTCTGGGCAAACCTGGACGTGCTACTGGTGGCCTCTTGGCAGGAGCTGAGTCGGCACGTG
TGCGCCGTTACCAAGGCTCTCGCCCAGTATCCCCTCAAGCAGTACCGGGAATCCCAGGCCTTCTCCTTCTGCACA
GCAGGGCGCTGGGCAGCCGGCGAGCCAGTGGCAAGAGACGGCGCAGGGCTGCAGGCGGCCTGGCGGAGGCAGATC
AGGCAGTTCAGTCGGGTCAGCCCAGCCGTGGCTGATGCAGTTGTCACAGCCTTCCCCTCCCCCCGCCTTCTGCAG
CAGGCGCTGGAGGCCTGCAGCACGGAGCGGGAGCGCATGGGCCTCCTGGCCGACCTTCCTGTGCCGCCCAGTGAA
GGCGGGCGTCCCCGCAGGGTGGGGCCTGACCTCTCCCGCCGCATCTGCCTCTTCCTGACCACAGCCAACCCTGAT
CTCCTGCTGGACCTGGGCTCC**TGA**CCACACGTGGGACCACCAGGACAGCATGCAGCCTTGGGGACAGACCAGACA
CCCTGGGCGGTTGGGGAGGACCCCCAGCCACATGTGGACCCTCAGCCTGGGTGGGTTCTCTGGCTGAGCAGGTCT
GACCTCAGGGGGAGGGTGGGTGGTTGCAGGGGAAGTTTTAGGTAGCTGGGAGAAGAGGGGCTTCTGGCTGGCAGA
TGGCTGGCGGTTCCTGTGCTGAGTCCTGAACACGTAGGCCCCAGGGGAGCTCAGCAGCAGGGCTGTGCCCCCCCA
ACACACACACACACTCGGCAGGGACCAGAAGGCAGCTCCAGGGCCCCACTGCCACCTGGAGGCTTGGGGTGTGGC
ACCCTCAGCCAGAAGCAGTAGGGGACTCCCAAGGATGTGGAGGGGCAGTGAGGCCTGGGAGAAGGCCCAGGCTGC
TCGCAAGCCCGGCCTCTGCACGGATACGTTTCAGCTCACGCCATGTGGGTGTTAGACATCAACTCTACATTTATT
GCAGTCCTTTAAGTCTATGACGGCGGGGCAGCCGCTGACAGCATGCAGAGCAAGTTAGGAAAAACCGAGGCCCTG
TGGGAACAGCAACGCGGGCTCCAGCCAGGCTCTCGTCCTCGCAGCCTCCCACAAGACCTGGGGCTCAGGGCAGCC
GCTTCCCCACCCAGCACAGCAGCAGAGGGGCCCTAGAGCCCCCACAGAAAGGACTGTCCCAGCCTCGGGAGCAAG
AGATGGCTCCCTCCGGACGGGCCTCATCCAACTCCGCCCTGGAGTGTGGCTGGAAGGAAGGGACAGAGAAAGAAG
GGACAGAGGAAAGGGGCTGTCCCAGCCCAAGAAGGCAGTTCCACTGGGAAGTCAGTCAGGTCCGGCGGCAGCGCT
TCCTCTGGCAGGGCCGAGGCTCGCGACTGCTGGGGTGGGCGGAGGTCGCTGCCTGGGGATCGGACACTGGAGCCT
TGCGGCGGCTGCAACTCATGCTCAGGACCCAGCCCAGCTTGTTGTGTAGCACCTGCTTGAGGCCCGGCGGCAGCG
GCAGACCCTCCAGCGTGTCTCCCGAGTCTGGCCGCAGCTGGCGCAGGCGGTGGCAGCACAGGTACTGGAGGGAAG
TGGCGCTGGCACAGGAGCGGGTGACCTTCATGCTGCTCCGGGCCGCCGTGGAGCACACCATCGGGTAGAATCTCT
TGTTCTGCAGCTTGGTGGCTGCCACACCTGGAAGGGAGGGGCCCAGCCTGAACCCCAGGCAGGGAAGGGGCCAGC
TACTGGGCGCAGCCCCTCAGACCTCACGCTACAGTCACCCGGGTGGGCAGCTGGCACAGCTGAGGCAAGGCAGGG
TGCACGCGCTGGCCCTGCCACTCCAGCCTGGCCTCACTGTCCCACCCCCTGGGACCCTGGGGCCTCAGGCTTCTG
GGAGGAACCCTTTCAGAAAACCTCAGTGTCCCCTGGGCTGGGGCGGGGTGGCTGCCTCCCTCGGGGTGACAGCTG
AGAGGAGCTCAAGTCCTGTGACGGCCTCACCTATACACTTCCTGTTCTTGAAAAAGGTGAGTGTGCCGTGCCAGG
TGTCCAGGTGCACGCCAATGATGGAGCCCTGGCCGAACCGCGACGAGAAGCTGGTCTTGTCGCCCTTGTGGTGGA
GGAGGCCTGGGGGCAGCCAGGGTCGCAGTGAGCCCGGGAGCTCCAGGCTCGGCCCCGCCCCACCCTGGGCCTCAC
GCACCCGTGTAGGAGAGGCCCCAGCTGTCCTCATCCCTGCCCAGCAGGCTGCAGAACGTGTGGCGGTATTTGTCC
AGGTCCACATCCGACGTCCCGATGCCCACCATCTAGGAACAGGGGCCAGGCAGAGGGCGCGGGGCTGGGCTGCCG
GAGCCAGGTTCCCCAGAAGCACCCTGGGCCGAAGCAACTTACCATGTCGGTGCCGTAGACGGGAGAGGTCATCTT
GATCTCCCAGAAGTGCTGGCCCTCCCCCAGCTCCTTGGTGCCCCGGATGGCCGCTGTGCCGCAGCTGTACTCCAT
GTGGAAGCTGACCTTACGGTTGTCACAGCTCAGCAGGGTGGCTGATGACTTATTTAAGTCATCCCAGACCCAGTC
GAAATCTGCAAGAGAGGCCCAGGCTGGGGCAGCCCTGAGAGCTCCATGGGGCTCTGCCCTGCCCACCCCCAGGCC
CGCCCGCAGTGCAGTCCCAGCAGGGGCTGGGCCCCACGCTCACACTCGTCTTCCTCTCCGCAGCGGCAGTCCCTG
CCCCGGTGGGCCGAGTGCAGGCTGCTACAGAAGGAGGCCTCGCTCTGCCCAGCACAGTCACAGAAGGACTCGCCG
GTCACGGGCACCGCACTGGGGATGGATGGCGGCAGCGTGGAGTACTCGGGGTCGGAGTCCGAGTCGCTGTGCTGG

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FIGURE 2233B

GAGAGAAGGGCCGGCTGTTACTACCTGTTGCCCGCTCTCTACCCTCTCACCCTTGCCCTCTGTCCCTGTCCCACC
CTGTCCCTGACCCACCCAGGAAAGGATGGGGGTCCAGGCCTCCAGGGACTTCACAGTACCCCGAGCGCACAGCCC
AGGCTCCCTCCCAACGGGCTCCGGCTCTGCCCCATTCTGCATGACCAGGAGGGCCCTGGAGGCCCAGCCACAGAG
CAGTAGCCAAGGCTGCCTGGCCTCCAAGTGGTTTCTAGACGGTGGATAAGCCCCAGGTCCACCCCACCTGCCCAG
AGCTGAGATGGTGTGGACACCTTCCCTGCTAGGCCAGCCCTGCAGGGGCCCCCAGGCAAGGCCACCACCCCCACA
CCAGGCCCAGCTGCAGCCACCCGGCCTCAGGGCAGTCCCCACCACACTGTGGCCCAACGACCTTCCTGTTACCTG
AGCAGACCTGGCTCACCACAGGGTCCTACTGCCCAGTGCCCACTACAGGCCCCGCCCCTCCTGGTGCAGGTTTCA
GCTGTCACCTCCCTGAGGCTTCTCCAGCCCCTTCACCCCTGTTCCATTTTTCTTCTTTTGCTTCACTGAAGTTCT
CCTTGGTCCTGATTCTTGGCCTCCTCCCACCAGAACGTGAGCTCCTTGTGGGAGGCAGTGCCCCTCCCAGCCTCC
TCCCTGTCACAGACTGTGTGGGGGCCACCCAGGGGCTGAATGGACCAGGGGGTCAGCAGGGAGAGTGCTAAGTGG
TGGCGGGGGGCCTGTGGCAGAGGCCTTGTGACAGTGAGGGTTGAGGGCTGGTCCAGAGAGATGATGTGATCCCCA
GGAGAAGCCACAGGGGACCATGACATGGGCGCCACCAGCTTCCAGGTGAACGTGGACCTATCGAAAGCCAGCTTC
AGGGCAGGACACTGTCCTTTCTGGAGGGGATGGCCCCACCCCACAGACAAGGCAGGCCCAGACAACTCTACCCCA
CTGCCTAGAAGTGCGGGTCCCCAGAGCCAGGGTAGACCCCCTGAGTCAGGAGCCCGGGCACAGAACTGAGCACCT
GCACTGCAGGCCCAGGGCCGGGTTCCCTGGAGAAGGAGAAAGACTGAAGCCACTGCCTACCTCCTGCCCACAACA
GACTGCAGGCCCATTTGGTGACACAGGACAAGCAGCACATGTGTCGAACACTGCCGAGCCCGCAGGCACGCCTGC
ATCCCACAGCCACGAGCCTGTGAGGCTCAGGCATGTGACCTGCAGGAGCTGGAGGCGGGCGGGAAGGCAGGTGGG
GGCCTCTCCCTGGCTGGAGCAGGGAGCTCCAGGAGACCTCAGGACGGCCCCCACCCGGTGGGTAAGGACCCTGTT
TCCCAATTTGCCCCCAAGGCCTAATGGACCCACCGGGCTTAGGGAGTCCTCACTCAGAGGAGAGGAGCCCACCCC
TCCCAGGACACCTGGCTGAGCCGGAACAGCAGCGCAGGGGAGCTGTGACAGCAGAGAGCAGCACCAGGTCACACA
AGCAGCCGCCCCGGAAGGACACGGCCCATGGTGACAGAGGACAAGCAGCATGCGTGTGTCAGACACTGGCCTGGC
CTGTGGACACGCCCGCGTCCCACAGCCATGACCCTGCGAGGCCAGGAGAGACTGCTCCAGGGCACATGACCTGTG
GTAGCTGGAAGTGGGGCAGGGAGGCGCAGCCACACTCCTGCTCTGGTCCGAGGGAGATCTCAGGAAACCGACTGG
GAAATCACCCCCCACAGGGACCCCCACCCCTCCCAGCCTCACTGCGCCCCGTCAGGCCAGGCAGCTGCCCTCAGG
GTCTGCCAAGGTGGGGGTCAAGGGCCATGGGGGCAGGTAGCTCTGCCTGCAAAGCCCACAAGCATGTCAGATCAC
CTGGGCTGCAGACAGACAAACACCTGAGCTGTTCTGAATACCTTCAGGTTCCTGGCCTCGCTGAGCAAGTGCAGA
AATTTTTACCTTCAAGGATCAGGGTTTTTCTGTTTGTTTGTTTTTTAACACACACATATGTG

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FIGURE 2234

GTTTACGTCTCGCTCCGGGGCGGAAAGTGGGTCAGGGCCGGGCCGGCGGAGCGCGCAGCGGGGGCTGCAGATTCT
TTCCACC**ATG**GCCAGACGCCCCCGGAACAGCAGGGCCTGGCACTTCGTCCTGAGTGCAGCCCGCCGAGACGCAGA
TGCCCGGGCCGTGGCTCTAGCAGGCTCCACTAACTGGGGCTACGACTCTGATGGGCAGCACAGCGACTCGGACTC
CGACCCCGAGTACTCCACGCTGCCGCCATCCATCCCCAGTGCGGTGCCCGTGACCGGCGAGTCCTTCTGTGACTG
TGCTGGGCAGAGCGAGGCCTCCTTCTGTAGCAGCCTGCACTCGGCCCACCGGGGCAGGGACTGCCGCTGCGGAGA
GGAAGACGAGTATTTCGACTGGGTCTGGGATGACTTAAATAAGTCATCAGCCACCCTGCTGAGCTGTGACAACCG
TAAGGTCAGCTTCCACATGGAGTACAGCTGCGGCACAGCGGCCATCCGGGGCACCAAGGAGCTGGGGGAGGGCCA
GCACTTCTGGGAGATCAAGATGACCTCTCCCGTCTACGGCACCGACATGATGGTGGGCATCGGGACGTCGGATGT
GGACCTGGACAAATACCGCCACACGTTCTGCAGCCTGCTGGGCAGGGATGAGGACAGCTGGGGCCTCTCCTACAC
GGGCCTCCTCCACCACAAGGGCGACAAGACCAGCTTCTCGTCGCGGTTCGGCCAGGGCTCCATCATTGGCGTGCA
CCTGGACACCTGGCACGGCACACTCACCTTTTTCAAGAACAGGAAGTGTATAGGTGTGGCAGCCACCAAGCTGCA
GAACAAGAGATTCTACCCGATGGTGTGCTCCACGGCGGCCCGGAGCAGCATGAAGGTCACCCGCTCCTGTGCCAG
CGCCACTTCCCTCCAGTACCTGTGCTGCCACCGCCTGCGCCAGCTGCGGCCAGACTCGGGAGACACGCTGGAGGG
TCTGCCGCTGCCGCCGGGCCTCAAGCAGGTGCTACACAACAAGCTGGGCTGGGTCCTGAGCATGAGTTGCAGCCG
CCGCAAGGCTCCAGTGTCCGATCCCCAGGCAGCGACCTCCGCCCACCCCAGCAGTCGCGAGCCTCGGCCCTGCCA
GAGGAAGCGCTGCCGCCGGACC**TGA**CTGACTTCCCAGTGGAACTGCCTTCTTGGGCTGGGACAGCCCCTTTCCTC
TGTCCCTTCTTTCTCTGTCCCTTCCTTCCAGCCACACTCCAGGGCGGAGTTGGATGAGGCCCGTCCGGAGGGAGC
CATCTCTTGCTCCCGAGGCTGGGACAGTCCTTTCTGTGGGGGCTCTAGGGCCCCTCTGCTGCTGTGCTGGGTGGG
GAAGCGGCTGCCCTGAGCCCCAGGTCTTGTGGGAGGCTGCGAGGACGAGAGCCTGGCTGGAGCCCGCGTTGCTGT
TCCCACAGGGCCTCGGTTTTTCCTAACTTGCTCTGCATGCTGTCAGCGGCTGCCCCGCCGTCATAGACTTAAAGG
ACTGCAATAAATGTAGAGTTGATGTCTAACACCC

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FIGURE 2235

CTGGGAGGCTGACGGCCCGCGGGCGTAAGCGGACTGCAGCCGCGAGCTCCTGGAGGCGGCGGGATGGAGGCGGCG
GCCGAGCCTGGAAACCTGGCCGGCGTCAGGCACATCATCCTGGTCCTCTCAGGAAAGGGGGGCGTTGGGAAAAGC
ACCATCTCCACGGAGCTGGCCCTGGCACTGCGCCATGCAGGCAAGAAGGTGGGAATCCTGGATGTGGACCTGTGT
GGCCCCAGTATACCCCGCATGCTCGGGGCGCAGGGCAGGGCTGTGCACCAGTGCGACCGCGGCTGGGCACCCGTC
TTCCTGGACCGGGAGCAGAGCATCTCGCTCATGTCTGTGGGCTTCCTGCTGGAGAAGCCGGACGAGGCCGTGGTG
TGGAGAGGCCCCAAGAAAAACGCGCTGATAAAGCAGTTTGTGTCCGACGTGGCCTGGGGGGAGCTGGACTACCTG
GTGGTGGACACGCCCCCGGGGACCTCCGATGAGCACATGGCCACCATAGAAGCCCTGCGTCCCTACCAGCCCCTG
GGGGCCCTCGTGGTCACCACGCCCCAGGCGGTGTCCGTGGGGGACGTGAGGCGCGAGCTGACCTTCTGTAGGAAG
ACGGGCTTGCGGGTGATGGGAATCGTGGAGAATATGAGCGGCTTCACCTGCCCACACTGCACGGAGTGCACCAGC
GTCTTCTCCAGGGGCGGCGGAGAGGAGCTGGCCCAGCTCGCCGGGGTGCCCTTCTTAGGCTCCGTGCCCCTGGAC
CCTGCGCTCATGAGGACCCTGGAGGAGGGCCACGACTTCATCCAGGAGTTCCCCGGGAGCCCCGCCTTCGCTGCA
CTCACCTCCATAGCCCAGAAGATTCTGGACGCGACGCCCGCGTGCCTCCCCTGACTAAGGCCACCTTGCAGCCGC
TTTCCAGGGCCACCAAGGGCTCTGCTCCAGCCTCTCAGAGAAACAGAGGCCTGGGCTCGGTTCCCGGGCCCTGCA
GGGGCAGGCCCAGGCAGCGTCAGCGGGAGAGCTTCTCCCCGACCAGCCCAGCCCCAGGATGTGTCGCACCAGCAG
CTCTGCCTGGTTGGCCTGCAGTGCCGTGGTCTGCGTGCTCTGCAGCTGTGAGACGGGGGCGGCCTGGGCTCTCTT
CCCATCCATGTTGCCTACCTGTGCCCCTGGCAGCCGCGTGTCCACACAGTTAGCGGAGCGCAGGACTTCTGCAGT
CCTCAGGTGACCCCGGGCCTCCAGCACCCTGGGTCGCTGTCATCTGTGTTTAGCTCGGGGAGTGCCCCCTAAGGG
GGCGAACTGACCTCAGGCATGTCTTGTAACTGTAGAGGCGCCTGCCATTAAACGTGTCCGCTGCTGTGGCGACAG

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FIGURE 2236

CGCAGCGACGGCCCGTTCCACCTCGCGATCTGCCGGGTACCCGGGCGGCGTGGCGCTCGGCCTCCAGGGATCCAC
TGTGCGGTGCCAAAAAAGAGGCGGAGGCTCGCGGCACAGCTCTCCCGGCGCAGCTCTCGGGCCGCCGCCGCCGCT
CCCAGGCCCGTCTCCCGGCCCGTGGCAGTCGGGGCTCGCGGACAAAACAAGTTGAGCGCGAGCGCGTTGATTGGT
TGGCGGACGGTGCGAGGTGGACGCTGATTGGCTGAGGGCAGCGCGAGGCGGGCGCTGATTGGCTGCGACGCGCCG
ACGCCGGTGTTTTGCAGTCCTGGGCAGCTCGGCAGTCCAGCCCGGCCCGGGTCATGGTGGTGGGCCGAGGGCTGC
TCGGCCGCCGCAGCCTCGCCGCGCTGGGAGCCGCCTGCGCCCGCCGAGGCCTCGGTCCAGCCCTGCTGGGAGTTT
TCTGCCACACAGATTTGCGGAAGAACCTGACCGTGGACGAGGGCACC**ATG**AAGGTAGAGGTGCTGCCTGCCCTGA
CCGACAACTACATGTACCTGGTCATTGATGATGAGACCAAGGAGGCTGCCATTGTGGATCCGGTGCAGCCCCAGA
AGGTCGTGGACGCGGCGAGAAAGCACGGGGTGAAACTGACCACAGTGCTCACCACCCACCACCACTGGGACCATG
CTGGCGGGAATGAGAAACTGGTCAAGCTGGAGTCGGGACTGAAGGTGTACGGGGGTGACGACCGTATCGGGGCCC
TGACTCACAAGATCACTCACCTGTCCACACTGCAGGTGGGGTCTCTGAACGTCAAGTGCCTGGCGACCCCGTGCC
ACACTTCAGGACACATTTGTTACTTCGTGAGCAAGCCCGGAGGCTCGGAGCCCCCTGCCGTGTTCACAGGTGACA
CCTTGTTTGTGGCTGGCTGCGGGAAGTTCTATGAAGGGACTGCGGATGAGATGTGTAAAGCTCTGCTGGAGGTCT
TGGGCCGGCTCCCCCCGGACACAAGAGTCTACTGTGGCCACGAGTACACCATCAACAACCTCAAGTTTGCACGCC
ACGTGGAGCCCGGCAATGCCGCCATCCGGGAGAAGCTGGCCTGGGCCAAGGAGAAGTACAGCATCGGGGAGCCCA
CAGTGCCATCCACCCTGGCAGAGGAGTTTACCTACAACCCCTTCATGAGAGTGAGGGAGAAGACGGTGCAGCAGC
ACGCAGGTGAGACGGACCCGGTGACCACCATGCGGGCCGTGCGCAGGGAGAAGGACCAGTTCAAGATGCCCCGGG
AC**TGA**GGCCGCCCTGCACCTTCAGCGGATTTGGGGATTAGGCTCTTTTAGGTAACTGGCTTTCCTGCTGGTCCGT
GCGGGAAATTCAGTCTTGATTTAACCTTAATTTTACAGCCCTTGGCTTGTGTTATCGGACGTTTTAATGCATATT
TATAAGAGAAGTTTAACAAGTATTTATTCCCAT

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FIGURE 2237

CACTTG**ATG**GGAATCATGGCAGCATCCAGGCCATTGTCCCGCTTCTGGGAGTGGGGAAAGAACATCGTCTGCGTG
GGGAGGAACTACGCGGACCACGTCAGGGAGATGCGCAGCGCGGTGTTGAGCGAGCCCGTGCTGTTCCTGAAGCCG
TCCACGGCCTACGCGCCCGAGGGCTCGCCCATCCTCATGCCCGCGTACACTCGCAACCTGCACCACGAGCTGGAG
CTGGGCGTGGTGATGGGCAAGCGCTGCCGCGCAGTCCCCGAGGCTGCGGCCATGGACTACGTGGGCGGCTATGCC
CTGTGCCTGGATATGACCGCCCGGGACGTGCAGGACGAGTGCAAGAAGAAGGGGCTGCCCTGGACTCTGGCGAAG
AGCTTCACGGCGTCCTGCCCGGTCAGCGCGTTCGTGCCCAAGGAGAAGATCCCTGACCCTCACAAGCTGAAGCTC
TGGCTCAAGGTCAACGGCGAACTCAGACAGGAGGGTGAGACATCCTCCATGATTTTTTCCATCCCCTACATCATC
AGCTATGTTTCTAAGATCATAACCTTGGAAGAAGGAGATATTATCTTGACTGGGACGCCAAAGGGAGTTGGACCG
GTTAAAGAAAACGATGAGATCGAGGCTGGCATACACGGGCTGGTCAGTATGACATTTAAAGTGGAAAAGCCAGAA
TAT**TGA**GTTATTTCTTAACAAGTTTCGAGAGAGAAGGGAGCAAGACAAGAGCAAGCAACGGCTATTAAATGTCAC
AATCCTTTAATTAGAAACCATTTATTGGCCGGACGCGGTGGCTCACGCCTGTAATCGCAGCACTTTGGGAGGCCG
AGGCGGGCGGCTCACGACGTCAGGAGATCCAGACCATCTTGGCTAACAGGGTGAAACCCCGTCTCTACTAAAAAT
ACAAAAAATTAGCCGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCTGGAGGCTGAGGCAGGAGAATCAAT
TGAACCCGGGAGGCGGAGCTTACAGTGAGCTGAGATTGCGCCACTGTACTCCTGGGCAACAGCGAGACTCCGTCT
CAAAAAAAAAAAAAAAAAAAAGAAACCATTTATTTTAAAAATGATTAGATTGCTATGCCTCAACTCATAGAAGAT
GAACCCTTCAAGAAAACGTGAAGTAGAACGGGTGGGCCAGAAATGAAAACAGGCAAGTAAAGTATTTCTTCGGAA
AACATTTTATCAAACCAAATGTTAAAAAGACTTTCCTTTTGTAAAACTGGATTAGAGAAGACTTTTCAGTGGGTT
ATCTCTAGGATGATCAGTAGTTCAGCACTTAAAAACTGCAGAGAAAACTGAAAGTTATGTTCCAGATAACTTTCC
GTTGTTTACCAAATTTTCTTAGATTTGGTCATCATCAGGAAGCATTTGTAAAAATAAAAATCTCCACAAATTACT
GGCCCATCTCGGACTTGCTGAATCAATTTGATAGGATTAATCTCCAGTGAAGCTGTGTTTACAGGGCATTCCAAG
TGATTCTTATCAGGAAATGTGAAAAACACTCCTGTACATAATCGGTTAATTTAAAATTTTACTTAATAAGTGAAC
AAGTAATGAAGATTTCACCTGTTTACTTAGGGTATCTACCCAGACCCATCGATTCTGAGTTCGGGAGATGATTTT
GAAATTACTGTTTTCCAAATAAAGGTGCTCCCTTC

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FIGURE 2238

GGGGAGGTGGACGCGGGTACCGGCGGTCGTCGGGTCGGCAGCCTTTGGTCAGTTGGCAGCGGCAAGCGCGCTGCG
GTTCCGGTGGCGCC**ATG**TCGTTCTGCAGCTTCTTCGGGGGCGAGGTTTTCCAGAATCACTTTGAACCTGGCGTTT
ACGTGTGTGCCAAGTGTGGCTATGAGCTGTTCTCCAGCCGCTCGAAGTATGCACACTCGTCTCCATGGCCGGCGT
TCACCGAGACCATTCACGCCGACAGCGTGGCCAAGCGTCCGGAGCACAATAGATCTGAAGCCTTGAAGGTGTCCT
GTGGCAAGTGTGGCAATGGGTTGGGCCACGAGTTCCTGAACGACGGCCCCAAGCCGGGGCAGTCCCGATTCTGAA
TATTCAGCAGCTCGCTGAAGTTTGTCCCTAAAGGCAAAGAAACTTCTGCCTCCCAGGGTCAC**TAG**GCGGGCAGCC
CACACCCACCCCAGACGGCCACCACACTGAGGCCACACGTTGGCCATTCCACCTTGGAGTTGGAACCCTGGGCGT
CGAGACAGGAAGGCAGGGCGCAGTGGTTGAAACATCAGGACACTCCCAAGGCCCCGGCTCTGAACAAGACCTTTT
CGTTTCTTGGAAAAGAGACTCATTTGCTGATGGTTCATGCCTTCTGCTGGGACAGGCCTGGGCTGTGCAGCCACA
CTGTCGGCTGACTTAGCCCCCTGCTCACTCTAGGTGCCTCCAGGAGGTGAGCCCTGGGTGCAGCTGGTCTCTGAA
TGACGTTACACCCTCACCTTCTTTTCCTGGCCCTGTCTCTGGACTCTCCCCTGTGAGGCCCAATTCCAAGACAGA
CTCTCGTCCTCACCGAAGCTTAGGCCCACATCTCCCAGGCTGCTTAGGAGACAGAATGGAAACGGAGGCCGCCCC
TGCCAGCCGCCCTGGCCCTGGTCACTGCATGATCCGCTCTGGTCAAACCCTTCCAGGCCAGCCAGAGTGGGGATG
GTCTGTGACCTGCTGGGAAGGCAGGCTGATGGGGCACACCCTTGGCCTCTCGTCCACGAGGGGAGAAACCTAAAC
CCTGTTTCACAATCTGTGCGGAAGTAGCTTGCCTCACTTCTGCTTAGGAAAGCGGCTGTTGCTCCATAACTCTAA
CCAGCACAGGGCTGAGGCCTGCAGTGCACACCTGCAGGGAGGCCCTTCCCAAGGTGTGGTGACTGTGCCTTACTG
TACATGCTCGGAGGCCTGGCCATATAGGAGGGTGGGTGATGCTGAAATCACCCCCCATCTTAAGTAATTACTTTC
TGGAGTAATCAGGTGGAAATCCATAGACAAATG

FIGURE 2239

AGCCGCCCTCGGCGTCCTCTGTAGCGGGCGACCTAGGCCGCGGGACCCGGACGGAGGTAGAGGCCAGGGCAGCGC
GTCCGGGAGCGGAGTCCGCGCCCGCCGCCGCCATGCCGGACAGCTGGGACAAGGATGTGTACCCTGAGCCCCCGC
GCCGCACGCCGGTGCAGCCCAATCCCATCGTCTACATGATGAAAGCGTTCGACCTCATCGTGGACCGACCCGTGA
CCCTCGTGAGAGAATTTATAGAGCGGCAGCACGCAAAGAACAGGTATTACTACTACCACCGGCAGTACCGCCGCG
TGCCAGACATCACTGAGTGCAAGGAGGAGGACATCATGTGCATGTATGAAGCCGAAATGCAGTGGAAGAGGGACT
ACAAAGTCGACCAAGAAATTATCAACATTATGCAGGATCGGCTCAAAGCCTGTCAGCAGAGGGAAGGACAGAACT
ACCAGCAGAACTGTATCAAGGAAGTGGAGCAGTTCACCCAGGTGGCCAAGGCCTACCAGGACCGCTATCAGGACC
TGGGGGCCTACAGTTCTGCCAGGAAGTGCCTGGCCAAACAGAGGCAGAGGATGCTGCAAGAGAGAAAAGCTGCAA
AAGAGGCCGCCGCTGCCACCTCCTGAGGCAGCTGTGGGTGCCCCTGCTGTGTGGCTCTGTATGACTGTTGCTGAA
ATATAAAGCCCTGCAACCTG

FIGURE 2240

CAA**ATG**GCGGATGACGCCGGTGCAGCGGGGGGGCCCGGGGGCCCTGGTGGCCCTGGGATGGGGAACCGCGGTGGC
TTCCGCGGAGGTTTCGGCAGTGGCATCCGGGGCCGGGGTCGCGGCCGTGGACGGGGCCGGGGCCGAGGCCGCGGA
GCTCGCGGAGGCAAGGCCGAGGATAAGGAGTGGATGCCCGTCACCAAGTTGGGCCGCTTGGTCAAGGACATGAAG
ATCAAGTCCCTGGAGGAGATCTATCTCTTCTCCCTGCCTATTAAGGAATCAGAGATCATTGATTTCTTCCTGGGG
GCCTCTCTCAAGGATGAGGTTTTGAAGATTATGCCAGTGCAGAAGCAGACCCGTGCCGGCCAGCGCACCAGGTTC
AAGGCATTTGTTGCTATCGGGGACTACAATGGCCACGTCGGTCTGGGTGTTAAGTGCTCCAAGGAGGTGGCCACC
GCCATCCGTGGGGCCATCATCCTGGCCAAGCTCTCCATCGTCCCCGTGCGCAGAGGCTACTGGGGGAACAAGATC
GGCAAGCCCCACACTGTCCCTTGCAAGGTGACAGGCCGCTGCGGCTCTGTGCTGGTACGCCTCATCCCTGCACCC
AGGGGCACTGGCATCGTCTCCGCACCTGTGCCTAAGAAGCTGCTCATGATGGCTGGTATCGATGACTGCTACACC
TCAGCCCGGGGCTGCACTGCCACCCTGGGCAACTTCGCCAAGGCCACCTTTGATGCCATTTCTAAGACCTACAGC
TACCTGACCCCCGACCTCTGGAAGGAGACTGTATTCACCAAGTCTCCCTATCAGGAGTTCACTGACCACCTCGTC
AAGACCCACACCAGAGTCTCCGTGCAGCGGACTCAGGCTCCAGCTGTGGCTACAACA**TAG**GGTTTTTATACAAGA
AAAATAAAGTGAATTAAGCGTG

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FIGURE 2241

GGGAGTGTGGCGTTCTGTGAAGAGTTCGGTGCTAACCTCCCTCACGCGGCGGTGGCTGCCGGGACCCTAGCAGGT
TTCAGCTGGAGCGGCGGCGGCGGCAAC**ATG**GCAGAGACCGCGGCCGGAGTGGGCCGCTTCAAGACCAACTATGCT
GTGGAGCGCAAAATTGAGCCTTTCTACAAGGGCGGAAAAGCACAGCTGGACCAGACTGGCCAGCACCTCTTCTGC
GTCTGTGGCACCAGAGTCAACATTCTGGAAGTGGCCTCGGGGGCCGTGCTGCGGAGTCTGGAGCAGGAGGACCAG
GAGGACATCACTGCCTTTGACCTCAGCCCTGACAACGAGGTGCTGGTGACAGCCAGTCGGGCATTGCTGCTGGCT
CAGTGGGCCTGGCAAGAGGGCAGCGTTACCCGCCTGTGGAAGGCGATACACACGGCCCCCGTGGCCACCATGGCC
TTCGACCCCACCTCCACTCTGCTAGCCACAGGTGGCTGTGATGGGGCCGTGCGCGTCTGGGACATCGTGCGGCAC
TACGGGACACACCACTTCCGAGGCTCGCCCGGTGTCGTGCACCTAGTGGCCTTCCACCCGGACCCTACACGCCTG
CTGCTCTTCTCCTCGGCCACGGATGCCGCCATCCGCGTGTGGTCACTGCAGGACCGGTCATGCCTGGCTGTGCTG
ACTGCCCACTACAGCGCCGTCACCTCACTGGCCTTCAGCGCCGACGGCCACACCATGCTCAGCTCCGGCCGTGAC
AAGATATGTATCATCTGGGACCTTCAGAGCTGCCAGGCCACGAGGACCGTGCCTGTGTTTGAGAGCGTGGAGGCT
GCTGTGCTGTTGCCAGAGGAGCCAGTGTCCCAGCTGGGTGTGAAGTCCCCAGGGCTGTACTTTCTGACAGCTGGC
GACCAAGGCACTCTGCGCGTGTGGGAGGCAGCTTCTGGGCAGTGTGTGTACACGCAGGCCCAGCCGCCGGGCCCT
GGGCAGGAGCTGACCCACTGCACCCTGGCACACACCGCCGGCGTGGTCCTCACCGCCACCGCCGACCACAACCTG
TTGCTCTACGAGGCTCGCTCCCTGCGGCTGCAGAAACAGTTCGCTGGCTACAGTGAGGAGGTTTTGGATGTCCGG
TTTCTTGGGCCCGAGGACTCCCACGTTGTCGTGGCCTCCAATAGCCCCTGCCTAAAAGTGTTTGAGCTGCAGACG
TCAGCCTGCCAGATCCTCCACGGCCACACGGATATCGTCCTGGCCCTGGATGTGTTCCGGAAGGGGTGGCTCTTT
GCCAGCTGTGCCAAGGATCAGAGCGTCCGTATCTGGAGAATGAACAAGGCTGGCCAGGTGATGTGCGTGGCTCAG
GGTTCCGGTCACACACACAGTGTGGGCACCGTCTGCTGCTCTAGGCTGAAGGAGTCCTTCCTGGTGACAGGCAGC
CAGGACTGCACTGTGAAGCTGTGGCCTCTTCCCAAAGCCTTGCTGTCCAAGAACACAGCCCCAGACAACGGCCCT
ATCCTCCTGCAGGCCCAGACCACTCAGCGCTGCCATGATAAGGACATCAACAGCGTGGCTATTGCCCCCAACGAC
AAGCTGCTGGCCACAGGCTCACAGGACCGCACGGCCAAGCTCTGGGCCCTGCCACAGTGCCAGCTGCTGGGTGTC
TTCTCAGGCCACCGGCGTGGCCTCTGGTGCGTCCAGTTCTCTCCCATGGACCAGGTGCTGGCCACGGCCTCAGCT
GATGGCACCATCAAGCTCTGGGCACTCCAGGACTTCAGCTGTCTCAAGACATTTGAGGGGCACGATGCTTCTGTG
CTGAAGGTGGCCTTTGTGAGCCGTGGCACGCAGCTGCTGTCCAGCGGTTCGGATGGCCTCGTGAAGCTCTGGACC
ATCAAGAACAACGAGTGTGTGCGGACGCTGGATGCCCACGAGGACAAGGTCTGGGGGCTGCACTGCAGCCGGCTG
GACGACCACGCCCTCACTGGGGCCAGTGACTCCCGAGTCATCCTCTGGAAGGATGTGACCGAGGCGGAGCAGGCA
GAGGAGCAGGCCAGGCAAGAGGAGCAGGTGGTCAGGCAGCAAGAGCTGGACAACCTGCTGCATGAGAAGCGGTAC
CTGCGGGCGCTGGGCCTGGCCATCTCCCTGGATCGGCCCCACACCGTGCTGACTGTCATCCAGGCCATCCGGAGG
GACCCTGAGGCCTGCGAGAAGCTGGAAGCCACCATGCTCCGACTGCGGCGCGACCAGAAAGAGGCCCTGCTGCGC
TTCTGCGTCACGTGGAACACCAACTCGCGGCACTGCCACGAGGCCCAGGCCGTGCTGGGTGTGCTCTTGAGGCGA
GAGGCCCCCGAGGAGCTGCTGGCCTACGAAGGCGTGCGGGCAGCGCTTGAGGCCCTGCTGCCCTACACTGAGCGG
CACTTTCAGCGGCTCAGCAGGACCCTCCAGGCCGCCGCTTTCTTGGACTTCCTGTGGCACAACATGAAGCTCCCT
GTGCCGGCCGCCGCCCCCACCCCCTGGGAAACCCATAAAGGCGCACTGCCC**TAG**CCGGTCCGGCCTCTCTCCAGT
CCATCCTGAACCCCTGGAAAACCCATAAAGGCCGCTCTCCTGGC

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FIGURE 2242

GGCTGGAAAGCTCATTCTTCTTCTTCCTCCCAGCAGCTCTGCCTGGAAGTCCCCCAATCCCTGTGCTCCTGCCCC
CAGATCGTGGGCTTGGGGGACAGCAAGAAAGCTGCAAAGGACTCAGCTGGGGCGGCTCCACAAGGACCCCACAGG
CTTGAGGTGTTGCCAGGATTCTATCCCAGGGGGTTTTCTGGGTCCCCCAGAGCCCTCTCAAGCACGGGGAGGCAG
AAGGGTCCTCGCCCATTTCAGGAATCTGCAGCCTGGAAGCCACAGCC**ATG**GCAGGCCCCCGATACCCAGTTTCAG
TGCAAGGGGCAGCCCTGGTGCAGATCAAGAGGCTCCAAACGTTTGCCTTCTCTGTGCGCTGGTCAGACGGCAGCG
ACACCTTCGTGCGCAGGAGTTGGGACGAATTCAGGCAGCTCAAGACCCTCAAGGAGACCTTCCCGGTGGAGGCGG
GCCTGCTGCGGAGATCTGACCGCGTTCTCCCAAAGCTTCTCGATGCACCACTGTTGGGACGCGTGGGGCGCACGA
GCCGCGGCCTGGCGCGCCTGCAGCTGTTGGAAACCTATTCTCGGAGGCTGCTGGCGACTGCAGAGCGCGTGGCAC
GGAGCCCGACGATCACTGGCTTCTTCGCACCGCAACCCCTGGACCTGGAGCCCGCGCTGCCACCCGGCAGCCGGG
TGATCCTGCCCACCCCAGAGGAGCAGCCTCTTTCTCGCGCTGCGGGCCGCCTCTCCATCCACAGTCTGGAGGCTC
AGAGCCTGCGCTGCCTGCAGCCCTTCTGTACCCAGGACACGCGGGATAGGCCTTTTCAGGCGCAGGCCCAGGAGA
GCCTGGACGTGCTGCTGCGGCACCCCTCAGGCTGGTGGCTGGTGGAGAACGAAGACCGGCAGACCGCCTGGTTTC
CAGCGCCCTACCTGGAGGAGGCGGCCCCGGGCCAAGGCCGGGAGGGAGGCCCGTCCCTAGGGAGCAGCGGTCCCC
AGTTCTGTGCTTCCCGCGCCTACGAGAGCAGCCGCGCAGATGAGCTGTCCGTGCCCGCGGGGGCGCGCGTGCGCG
TGTTGGAAACGTCAGACCGCGGCTGGTGGCTATGCAGGTACGCGGGAGCGGGCGGGCCTACTCCCCGCGGTGCTG
CTGCGGCCGGAAGGGCTGGGCGCTCTCCTGAGCGGGACGGGGTTCCGTGGAGGAGACGACCCGGCGGG**TGA**GGCC
CGGGGCTTCCCTGAACCCTCCCAGGCCACCGCCCCTCCCCCCACCGTGCCCACCCGACCTTCGCCGGGCGCCATC
CAGAGCCGCTGCTGCACCGTCACACGCAGGGCCCTGGAGCGGCGCCCACGGCGCCAGGGCCGCCCTCGAGGGTGC
GTGGACTCTGTGCCGCACCCCACGACGGAGCAGTGAGCGCGAGGATCCCGATGAGGGGATGGACCGCGCCATCCC
AGGGCTGGGGAGGAGCGGGGAGGGCGGATCTCCCTGGCCAGCAGGGATGGGAGGGGGCCATTTGCTGTTCCTCTG
AGTAAAGCTTGTTCTGCATG

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FIGURE 2243

GGCC**ATG**GAGGGCGCCTCCTTCGGCGCGGGCCGCGCAGGGGCCGCCCTGGACCCCGTGAGCTTTGCGCGGCGGCC
CCAGACCCTGCTCCGGGTCGCGTCCTGGGTGTTCTCCATCGCCGTCTTCGGGCCCATCGTCAACGAGGGCTACGT
GAACACCGACAGCGGCCCCGAGCTGCGCTGCGTGTTCAACGGGAACGCGGGCGCCTGCCGCTTCGGCGTCGCGCT
GGGCCTCGGAGCCTTCCTCGCCTGCGCCGCCTTCCTGCTGCTCGATGTGCGCTTCCAGCAAATCAGCAGCGTCCG
CGACCGCCGGCGCGCGGTGTTGCTGGACCTGGGCTTCTCAGGACTCTGGTCCTTCCTGTGGTTCGTGGGCTTCTG
CTTCCTCACCAATCAGTGGCAGCGCACGGCGCCAGGGCCGGCCACGACGCAGGCGGGGGACGCGGCGCGGGCCGC
CATCGCCTTCAGCTTCTTCTCCATCCTCAGCTGGGTGGCGCTCACCGTGAAGGCCCTGCAGCGGTTCCGCCTGGG
CACCGACATGTCACTCTTCGCCACCGAACAGCTGAGCACCGGGGCGAGCCAGGCCTACCCCGGCTATCCGGTGGG
CAGCGGCGTGGAGGGCACCGAGACCTACCAGAGCCCGCCCTTCACCGAGACCCTGGACACCAGCCCCAAAGGGTA
CCAGGTGCCCGCCTAC**TAG**CGGCTGGCAGGCACAGACCAGGGCTCCAAGGCCACCCCACCAACGCAGGCCCCAGG
GTCTCCGGGACCTCCCTTGGGTCCTTCCAGCTCAGTGCCGCGGACAGAGTAGGTGGCCGCTTTGCGCCATCCGGG
GCCAAGAGGGGGTGGACCCGCGTGTCTGGGCTGCCCCTGCCAAGTTCCCCCAGTCCCTCAGCACCTGGCCCCAGG
ACTGAGGTCCTGAGAAGGGGATAGCACTGCCCAGGACGTGTGTCCCTAGCCTGGAATGGACTGGCCTGGGGAAGG
CTTTCCCCTCTTGGGCCACACCTGCTCACTCTGGGGTTGGGGGTCCAGCTGCCCTCTACGATCAGGTGCAGGGGC
TGCCCAGGACAAAGCGGGGGCAGGGGAAAGACACCACCCTCGCCCCAAGACTGGGGATCCTGGCCACTGTTCCCA
TCCCATGTCCCTGTGGGTAGTGACTGTCTCGTTTCTGTCATGGTGGTGCGTCCCGTCCGGAGCCACTCTCCACTT
TCTCTCACAGGCTGCTAGAACAGCCCAGCCCTGTCAGTGTTGTGATCATGGTCCAGTCTTCGGGTTTCACCTCCT
AGTACTCCACAAGCTGCTCCTCTCTCTGTGGCCCCGGCCCCTGCCCAGGTGTGGGTGGTTCTGGCCAGGAAGGCA
CAAGGTAGCTGTGGGCCAAGACACCAGCCCTGTCCTAGCCCTTCAGTAAGACCTTGCCAGGAGAGGAGAAGGATG
CCTGGGTGCCAGGCAAGACAAGCCCCTCAGCAGGAGAGAGGCCCAGAGGCTCCAGCTGGCCACCGTGCCCCACAA
GATGGCCCCTGTGTGGTTCCCTTTACCTTGGCTTCCTGGCCCAGTCCCTGCCTCTCCACCTGCACCCTGCTTCCT
GGCCCAGTCCCAGGTTGGAGTCCCTCTGCATAGCTGACTACTCATGCATTGCTCAAAGCTGGCTTTTCACATTAA
GTCAACACCAAACGTGGTTGCCACATTTCATCAGACAGACACCTCCCTCTGGAGATGCAGTTGAGTGACAACCTT
GTTACATTGTAGCCTAGACCAATTCTGTGTGGATATTTAAGTGAACATGTTTACAATTTTTGTATATATCACTCT
CTCCCTCTCCTGAAAGACCAGAGATTGTGTATTTTCAGTGTCCCATGTTCCGACTGCACCTTCTTTACAATAAAG
ACTGTAACTGAGCTGACTGTG

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FIGURE 2244A

GGCCGCTCGGCGCCACGACCGGCCGAGAGGGGGGCCGGATCCCGGACCATGGCGGCGGCCGGGGGGCGCCGAGGG
GCGGCGCGCGGACATGGAGGCGGAGGCGGCGGCAGCTCCTGAGCGGGAAGGCGGGAGCTGCGTGCTGTGCTGCGG
AGACCTGGAGGCCACGGCGCTGGGGCCGCTGCGACCACCCGGTGTGCTACCGCTGCTCTACCAAG**ATG**CGGGTGC
TCTGCGAGCAGCGCTACTGCGCCGTGTGCCGCGAGGAGCTGCGCCAGGTGGTCTTTGGGAAGAAGCTTCCTGCCT
TTGCCACCATCCCCATCCACCAGCTGCAGCATGAGAAGAAATATGATATCTACTTTGCAGATGGAAAGGTGTACG
CATTGTACAGGCAGCTGCTGCAGCACGAGTGCCCGCGGTGCCCCGAGCTGCCACCTTTCAGCCTCTTCGGGGACC
TGGAGCAGCACATGCGGAGGCAGCATGAGCTCTTCTGCTGCCGTCTGTGCCTCCAGCACCTCCAGATCTTCACAT
ATGAGCGCAAGTGGTACTCGCGCAAGGACCTGGCCCGGCATCGCATGCAGGGTGACCCCGATGACACGTCGCACC
GTGGGCACCCGCTCTGCAAGTTCTGTGACGAGCGCTACCTGGACAATGATGAGCTGCTTAAGCACCTGCGCCGCG
ACCACTACTTCTGCCACTTCTGCGACTCGGACGGGGCCCAGGACTACTACAGCGACTATGCCTACCTGCGTGAGC
ACTTCCGGGAGAAGCACTTTCTGTGTGAGGAAGGCCGCTGCAGCACGGAGCAGTTCACCCACGCCTTCCGCACCG
AGATCGACCTCAAGGCCCACAGGACGGCCTGCCACAGTCGCAGCCGCGCCGAGGCACGCCAGAACCGCCACATCG
ACCTGCAGTTCAGCTACGCGCCACGGCACTCGCGCCGGAACGAGGGGGTCGTTGGTGGCGAAGACTACGAGGAGG
TGGACAGGTACAGCCGCCAGGGCCGAGTGGCCCGGGCTGGCACTCGCGGAGCCCAGCAGAGCCGCCGAGGAAGCT
GGAGGTACAAAAGGGAAGAAGAGGACCGAGAAGTAGCAGCTGCTGTCCGGGCCTCCGTGGCCGCACAGCAGCAGG
AGGAGGCTCGCAGGAGTGAGGATCAGGAGGAAGGCGGTAGGCCCAAGAAGGAGGAGGCAGCGGCGCGGGGACCTG
AGGATCCCCGTGGCCCCCGGCGCTCACCCCGGACTCAGGGCGAAGGCCCAGGCCCCAAGGAAACCTCGACAAATG
GTCCTGTAAGCCAAGAAGCCTTCTCGGTGACAGGCCCAGCCGCCCCAGGGTGTGTGGGGGTGCCAGGG**TGA**GAGT
ATGGGCGCCCAGGGGTGAATGGTGCATGGTGGGCGGGTGCGGGCAGCCACAGGTGGGTGCCGGGAGGGCAGGTAT
GGAGCCACGGGGCCTGATAGCTGTTGACCAGCTGTGCTTCCCTGCACCCAGCGCCCTCCCACCACCCAGCCCGAA
GCTCAAGGACGAAGACTTCCCCAGCCTCTCTGCCTCCACTTCCTCCTCCTGCTCCACTGCAGCAACCCCGGGCCC
TGTGGGGTTGGCGCTGCCGTACGCCATCCCTGCCAGAGGCAGGAGTGCCTTCCAGGAGGAGGACTTCCCCGCCCT
GGTGTCCTCGGTGCCCAAGCCTGGCACCGCCCCCACCAGCCTTGTCTCTGCCTGGAACAGCAGCAGTAGCAGCAA
GAAGGTAGCACAGCCCCCACTCTCGGCGCAGGCTACCGGCAGCGGCCAGCCCACCAGGAAGGCTGGGAAGGGGAG
CAGGGGCGGCAGGAAGGGCGGCCCGCCCTTCACACAGGAGGAGGAGGAGGACGGCGGCCCGGCCCTGCAGGAGCT
TCTGAGCACACGCCCCACGGGCTCCGTCTCCTCCACACTGGGGCTGGCCTCCATCCAACCCTCTAAAGTTGGGAA
GAAGAAGAAAGTGGGCTCGGAGAAGCCAGGCACCACATTGCCACAGCCCCCGCCCGCTACCTGTCCCCCAGGGGC
TTTGCAGGCCCCGGAAGCTCCTGCCAGCAGAGCCGAGGGGCCAGTTGCCGTCGTCGTTAATGGACACATGGAGGG
CCCGGCCCCTGCTCGGAGTGCCCCCAAGGAACCCCCTGGGCTCCCAAGGCCCCTGGGGTCCTTCCCCTGCCCCAC
GCCACAGGAGGACTTCCCAGCGCTCGGCGGCCCCTGCCCACCCCGGATGCCGCCGCCCCCAGGCTTCAGCGCTGT
GGTGCTCCTGAAGGGCACGCCTCCCCCACCCCCGCCGGGCCTGGTGCCCCCAATCAGCAAGCCGCCCCCTGGCTT
CTCTGGCCTTCTGCCTAGCCCCCACCCGGCCTGTGTCCCCAGCCCCGCCACCACCACCACCACAAAAGCGTAAGT
GTGGGTGAGCTGCCTGGTGTCCACCGGGGGTGGAGGAACGGTACCCTCCCCTTGGGCCACTGTGAAGGCTGAAGC
CTCCACCTCCTCTTTACCTTCTGACCCCCAGACCCAGGCTGCTGCCTGCCCCACGGGCGTACCTAGTCCCCGAGA
ACTTCCGGGAGAGGAACCTTCAGCTCATCCAGTCCATCAGGGACTTCCTGCAGAGCGACGAGGCCCGCTTCAGCG
AGTTCAAGAGCCACTCAGGGGAGTTCAGACAGGTCAGGCGGGCCCGGGGAGTCCAGATGGGTCAGGCGGGCCCGG
GGCGGGGTGCCAGCCCGTCTTCATCCAGGGCCCGGGCCAGAGGGGATGACTGAGTCCGGCTCTCCGGTGGCAGGG
CCTGATCTCCGCAGCCCAGTATTACAAGAGTTGCCGGGACCTGCTGGGGGAGAATTTCCAGAAGGTCTTTAATGA
GCTGCTGGTCCTGCTGCCCGACACGGCCAAGCAGCAGGAGCTCCTGTCTGCACACACGGACTTCTGCAACCGCGA
GAAGCCTCTGAGCACCAAGTCCAAGAAGAACAAGAAGAGCGCGTGGCAGGCCACCACCCAGCAGGCGGGCCTGGA
CTGCCGTGTGTGCCCCACCTGCCAGCAGGTGCTCGCGCATGGCGATGCCAGCAGCCACCAGGCGCTGCATGCTGC
CCGGGACGACGACTTCCCCTCCCTGCAAGCCATCGCCAGGATCATCACGTAGCTCCCGCCAGCGTGGCCAGAGCT
GTCGCACCGTGAGCGTCCTTCCTCCTTCCTCTCCGGGCTGCCAGGCAGCCAGGTAAGGCCTGGTGAGGCCACTTG
GCCTCTTGGTTGGCCAGGCCCACCAGGAAGTCACCAGGACAGTCCACCCGCCCTGTTGGCACACTCAAGCGGGAG
TCCACCCCTGCCTCAGTGGTGGGCCAGTCTCGGTTTGCATTCTTGTGCTTTTGGGAGGTGCCAGGGGAGGGAAGG
GCTGGGATGCTGGGACCTGTTGTTGCTGGCAAAGCCAGAGGTCACAGTGGCCTGATCTGGGCCCTCCCAAAGCTG
AGGGCTGCAGCCCGTGGGGCCTCAGAGCTGAAAGCTGCGGCGCCACTGGTGCCAGAGTCAGATGTCACAGATGTG
TTGTGTAAACAGTTGGCTGTTTCATGCTTCAAGAATGTTCAGGATTAAAAGCAGACAAGAAATTGTGCTACTTGA

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FIGURE 2244B

AGTTGAATCTTTTTATGAGACAAGCTGAATCTGGGATCTCAAATTGCCTCTGACCTTTTATAAGACAGTTTATCT
TCAAATAAATTTATTTTGCAATACCACGC

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FIGURE 2245

GCCGCCGCTGAAGCCACCGCCGGGTGCCCAGCGCCGCCGCCGCCCCCGAGCTCCCCCGCGCCCCTGCCCGCGGGC
GGCCGGTGGGCAGCGGGCGCC**ATG**GCCGCGCCGGAGCCGCTGCGGCCGCGCCTGTGCCGCTTGGTGCGCGGAGAG
CAGGGCTACGGCTTCCACCTGCACGGCGAGAAGGGCCGCCGCGGGCAGTTCATCCGGCGCGTGGAACCCGGTTCC
CCCGCCGAGGCCGCCGCGCTGCGCGCTGGGGACCGCCTGGTCGAGGTCAACGGCGTCAACGTGGAGGGCGAGACG
CACCACCAGGTGGTGCAAAGGATCAAGGCTGTGGAGGGGCAGACTCGGCTGCTGGTGGTGGACCAGGAGACAGAT
GAGGAGCTCCGCCGGCGGCAGCTGACCTGTACCGAGGAGATGGCCCAGCGAGGGCTCCCACCCGCCCACGACCCC
TGGGAGCCGAAGCCAGACTGGGCACACACCGGCAGCCACAGCTCCGAAGCTGGCAAGAAGGATGTCAGTGGGCCC
CTGAGGGAGCTGCGCCCTCGGCTCTGCCACCTGCGAAAGGGACCTCAGGGCTATGGGTTCAACCTGCATAGTGAC
AAGTCCCGGCCCGGCCAGTACATCCGCTCTGTGGACCCGGGCTCACCTGCCGCCCGCTCTGGCCTCCGCGCCCAG
GACCGGCTCATTGAGGTGAACGGGCAGAATGTGGAGGGACTGCGCCATGCTGAGGTGGTGGCCAGCATCAAGGCA
CGGGAGGACGAGGCCCGGCTGCTGGTCGTGGACCCCGAGACAGATGAACACTTCAAGCGGCTTCGGGTCACACCC
ACCGAGGAGCACGTGGAAGGTCCTCTGCCGTCACCCGTCACCAATGGAACCAGCCCTGCCCAGCTCAATGGTGGC
TCTGCGTGCTCGTCCCGAAGTGACCTGCCTGGTTCCGACAAGGACACTGAGGATGGCAGTGCCTGGAAGCAAGAT
CCCTTCCAGGAGAGCGGCCTCCACCTGAGCCCCACGGCGGCCGAGGCCAAGGAGAAGGCTCGAGCCATGCGAGTC
AACAAGCGCGCGCCACAGATGGACTGGAACAGGAAGCGTGAAATCTTCAGCAACTTC**TGA**GCCCCTTCCTGCCTG
TCTCGGGACCCTGGGACCCCTCCCGCACGGACCTTGGGCCTCAGCCTGCCCCGAGCTCCCCCAGCCTCAGTGGAC
TGGAGGGTGGTCCTGCCATTGCCCAGAAATCAGCCCCAGCCCCGGTGAGCCCCCATCCTGCCCCTGCCCACCAGG
TACTGGGGGCCTGTGGCAGCAAGATAGGGGGAGAGAGACCCAGAGATGTGAGAGAGAGTCAGAGACAGAGACAGA
GAGAGAGAGAGAGAGACACAGAGAGAGACAGAGAGAGAGCGAGCGAGCGCGCGGCAGCCGCGGGGCGAGGGCCTT
TGCTGCTCTGCCGGGGCCTGCTGACTGAAAGGAATTTGTGTTTTTGCTTTTTTTCCAAAAAGATCTCCAGCTCCA
CACATGTTTCCACTTAATACCAGAGACCCCCCCCCTTCCCCTCCCCCTTGGGACGCGCTCTAAATAATTGCAATA
AAACAAACCTTTCTCTGC

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FIGURE 2246

ATGTGTAGTCCGCAGGAGTCCGGCATGACCGCCTTGAGCGCGAGGATGCTGACCCGGAGCCGGAGCCTGGGACCC
GGGGCTGGGCCGCGGGGGTGTAGGGAGGAGCCCGGGCCTCTCCGGAGAAGAGAGGCTGCAGCAGAAGCGAGGAAA
AGCCACAGCCCCGTGAAGCGTCCGCGGAAAGCACAGAGACTGCGTGTGGCCTATGAGGGCTCGGACAGTGAGAAA
GGTGAGGGGGCTGAGCCCCTCAAGGTGCCAGTCTGGGAGCCCCAGGACTGGCAGCAACAGCTGGTCAACATCCGT
GCCATGAGGAACAAAAAGGATGCACCTGTGGACCATCTGGGGACTGAGCACTGCTATGACTCCAGTGCCCCCCCA
AAGGTACGCAGGTACCAGGTGCTGCTGTCACTGATGCTCTCCAGCCAAACCAAAGACCAGGTGACGGCGGGCGCC
ATGCAGCGACTGCGGGCGCGGGGCCTGACGGTGGACAGCATCCTGCAGACAGATGATGCCACGCTGGGCAAGCTC
ATCTACCCCGTCGGTTTCTGGAGGAGCAAGGTGAAATACATCAAGCAGACCAGCGCCATCCTGCAGCAGCACTAC
GGTGGGGACATCCCAGCCTCTGTGGCCGAGCTGGTGGCGCTGCCGGGTGTTGGGCCCAAGATGGCACACCTGGCT
ATGGCTGTGGCCTGGGGCACTGTGTCAGGCATTGCAGTGGACACGCATGTGCACAGAATCGCCAACAGGCTGAGG
TGGACCAAGAAGGCAACCAAGTCCCCAGAGGAGACCCGCGCCGCCCTGGAGGAGTGGCTGCCTAGGGAGCTGTGG
CACGAGATCAATGGACTCTTGGTGGGCTTCGGCCAGCAGACCTGTCTGCCTGTGCACCCTCGCTGCCACGCCTGC
CTCAACCAAGCCCTCTGCCCGGCCGCCCAGGGTCTC**TGA**

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FIGURE 2247A

GGTGCGTCCTGGTCCACC**ATG**GCCAAACCAACAAGCAAAGATTCAGGCTTGAAGGAGAAGTTTAAGATTCTGTTG
GGACTGGGAACACCGAGGCCAAATCCCAGGTCTGCAGAGGGTAAACAGACGGAGTTTATCATCACCGCGGAAATA
CTGAGAGAACTGAGCATGGAATGTGGCCTCAACAATCGCATCCGGATGATAGGGCAGATTTGTGAAGTCGCAAAA
ACCAAGAAATTTGAAGAGCACGCAGTGGAAGCACTCTGGAAGGCGGTCGCGGATCTGTTGCAGCCGGAGCGGCCG
CTGGAGGCCCGGCACGCGGTGCTGGCTCTGCTGAAGGCCATCGTGCAGGGGCAGGGCGAGCGTTTGGGGGTCCTC
AGAGCCCTCTTCTTTAAGGTCATCAAGGATTACCCTTCCAACGAAGACCTTCACGAAAGGCTGGAGGTTTTCAAG
GCCCTCACAGACAATGGGAGACACATCACCTACTTGGAGGAAGAGCTGGCTGACTTTGTCCTGCAGTGGATGGAT
GTTGGCTTGTCCTCGGAATTCCTTCTGGTGCTGGTGAACTTGGTCAAATTCAATAGCTGTTACCTCGACGAGTAC
ATCGCAAGGATGGTTCAGATGATCTGTCTGCTGTGCGTCCGGACCGCGTCCTCTGTGGACATAGAGGTCTCCCTG
CAGGTGCTGGACGCCGTGGTCTGCTACAACTGCCTGCCGGCTGAGAGCCTCCCGCTGTTCATCGTTACCCTCTGT
CGCACCATCAACGTCAAGGAGCTCTGCGAGCCTTGCTGGAAGCTGATGCGGAACCTCCTTGGCACCCACCTGGGC
CACAGCGCCATCTACAACATGTGCCACCTCATGGAGGACAGAGCCTACATGGAGGACGCGCCCCTGCTGAGAGGA
GCCGTGTTTTTTGTGGGCATGGCTCTCTGGGGAGCCCACCGGCTCTATTCTCTCAGGAACTCGCCGACATCTGTG
TTGCCATCATTTTACCAGGCCATGGCATGTCCGAACGAGGTGGTGTCCTATGAGATCGTCCTGTCCATCACCAGG
CTCATCAAGAAGTATAGGAAGGAGCTCCAGGTGGTGGCGTGGGACATTCTGCTGAACATCATCGAACGGCTCCTT
CAGCAGCTCCAGACCTTGGACAGCCCGGAGCTCAGGACCATCGTCCATGACCTGTTGACCACGGTGGAGGAGCTG
TGTGACCAGAACGAGTTCCACGGGTCTCAGGAGAGATACTTTGAACTGGTGGAGAGATGTGCGGACCAGAGGCCT
GAGTCCTCCCTCCTGAACCTGATCTCCTATAGAGCGCAGTCCATCCACCCGGCCAAGGACGGCTGGATTCAGAAC
CTGCAGGCGCTGATGGAGAGATTCTTCAGGAGCGAGTCCCGAGGCGCCGTGCGCATCAAGGTGCTGGACGTGCTG
TCCTTTGTGCTGCTCATCAACAGGCAGTTCTATGAGGAGGAGCTGATTAACTCAGTGGTCATCTCGCAGCTCTCC
CACATCCCCGAGGATAAAGACCACCAGGTCCGAAAGCTGGCCACCCAGTTGCTGGTGGACCTGGCAGAGGGCTGC
CACACACACCACTTCAACAGCCTGCTGGACATCATCGAGAAGGTGATGGCCCGCTCCCTCTCCCCACCCCCGGAG
CTGGAAGAAAGGGATGTGGCCGCATACTCGGCCTCCTTGGAGGATGTGAAGACAGCCGTCCTGGGGCTTCTGGTC
ATCCTTCAGACCAAGCTGTACACCCTGCCTGCAAGCCACGCCACGCGTGTGTATGAGATGCTGGTCAGCCACATT
CAGCTCCACTACAAGCACAGCTACACCCTGCCAATCGCGAGCAGCATCCGGCTGCAGGCCTTTGACTTCCTGTTG
CTGCTGCGGGCCGACTCACTGCACCGCCTGGGCCTGCCCAACAAGGATGGAGTCGTGCGGTTCAGCCCCTACTGC
GTCTGCGACTACATGGAGCCAGAGAGAGGCTCTGAGAAGAAGACCAGCGGCCCCCTTTCTCCTCCCACAGGGCCT
CCTGGCCCGGCGCCTGCAGGCCCCGCCGTGCGGCTGGGGTCCGTGCCCTACTCCCTGCTCTTCCGCGTCCTGCTG
CAGTGCTTGAAGCAGGAGTCTGACTGGAAGGTGCTGAAGCTGGTTCTGGGCAGGCTGCCTGAGTCCCTGCGCTAT
AAAGTGCTCATCTTTACTTCCCCTTGCAGTGTGGACCAGCTGTGCTCTGCTCTCTGCTCCATGCTTTCAGGCCCA
AAGACACTGGAGCGGCTCCGAGGCGCCCCAGAAGGCTTCTCCAGAACTGACTTGCACCTGGCCGTGGTTCCAGTG
CTGACAGCATTAATCTCTTACCATAACTACCTGGACAAAACCAAACAGCGCGAGATGGTCTACTGCCTGGAGCAG
GGCCTCATCCACCGCTGTGCCAGCCAGTGCGTCGTGGCCTTGTCCATCTGCAGCGTGGAGATGCCTGACATCATC
ATCAAGGCGCTGCCTGTTCTGGTGGTGAAGCTCACGCACATCTCAGCCACAGCCAGCATGGCCGTCCCACTGCTG
GAGTTCCTGTCCACTCTGGCCAGGCTGCCGCACCTCTACAGGAACTTTGCCGCGGAGCAGTATGCCAGTGTGTTC
GCCATCTCCCTGCCGTACACCAACCCCTCCAAGTTTAATCAGTACATCGTGTGTCTGGCCCATCACGTCATAGCC
ATGTGGTTCATCAGGTGCCGCCTGCCCTTCCGGAAGGATTTTGTCCCTTTCATCACTAAGGGCCTGCGGTCCAAT
GTCCTCTTGTCTTTTGATGACACCCCCGAGAAGGACAGCTTCAGGGCCCGGAGTACTAGTCTCAACGAGAGACCC
AAGAGTCTGAGGATAGCCAGACCCCCCAAACAAGGCTTGAATAACTCTCCACCCGTGAAAGAATTCAAGGAGAGC
TCTGCAGCCGAGGCCTTCCGGTGCCGCAGCATCAGTGTGTCTGAACATGTGGTCCGCAGCAGGATACAGACGTCC
CTCACCAGTGCCAGCTTGGGGTCTGCAGATGAGAACTCCGTGGCCCAGGCTGACGATAGCCTGAAAAACCTCCAC
CTGGAGCTCACGGAAACCTGTCTGGACATGATGGCTCGATACGTCTTCTCCAACTTCACGGCTGTCCCGAAGAGG
TCTCCTGTGGGCGAGTTCCTCCTAGCGGGTGGCAGGACCAAAACCTGGCTGGTTGGGAACAAGCTTGTCACTGTG
ACGACAAGCGTGGGAACCGGGACCCGGTCGTTACTAGGCCTGGACTCGGGGGAGCTGCAGTCCGGCCCGGAGTCG
AGCTCCAGCCCCGGGGTGCATGTGAGACAGACCAAGGAGGCGCCGGCCAAGCTGGAGTCCCAGGCTGGGCAGCAG
GTGTCCCGTGGGGCCCGGGATCGGGTCCGTTCCATGTCGGGGGGCCATGGTCTTCGAGTTGGCGCCCTGGACGTG
CCGGCCTCCCAGTTCCTGGGCAGTGCCACTTCTCCAGGACCACGGACTGCACCAGCCGCGAAACCTGAGAAGGCC
TCAGCTGGCACCCGGGTTCCTGTGCAGGAGAAGACGAACCTGGCGGCCTATGTGCCCCTGCTGACCCAGGGCTGG

FIGURE 2247B

GCGGAGATCCTGGTCCGGAGGCCCACAGGGAACACCAGCTGGCTGATGAGCCTGGAGAACCCGCTCAGCCCTTTC
TCCTCGGACATCAACAACATGCCCCTGCAGGAGCTGTCTAACGCCCTCATGGCGGCTGAGCGCTTCAAGGAGCAC
CGGGACACAGCCCTGTACAAGTCACTGTCGGTGCCGGCAGCCAGCACGGCCAAACCCCCTCCTCTGCCTCGCTCC
AACACAGTGGCCTCTTTCTCCTCCCTGTACCAGTCCAGCTGCCAAGGACAGCTGCACAGGAGCGTTTCCTGGGCA
GACTCCGCCGTGGTCATGGAGGAGGGAAGTCCGGGCGAGGTTCCTGTGCTGGTGGAGCCCCCAGGGTTGGAGGAC
GTTGAGGCAGCGCTAGGCATGGACAGGCGCACGGATGCCTACAGCAGGTCGTCCTCAGTCTCCAGCCAGGAGGAG
AAGTCGCTCCACGCGGAGGAGCTGGTTGGCAGGGGCATCCCCATCGAGCGAGTCGTCTCCTCGGAGGGTGGCCGG
CCCTCTGTGGACCTCTCCTTCCAGCCCTCGCAGCCCCTGAGCAAGTCCAGCTCCTCTCCCGAGCTGCAGACTCTG
CAGGACATCCTCGGGGACCCTGGGGACAAGGCCGACGTGGGCCGGCTGAGCCCTGAGGTTAAGGCCCGGTCACAG
TCAGGGACCCTGGACGGGGAAAGTGCTGCCTGGTCGGCCTCGGGCGAAGACAGTCGGGGCCAGCCCGAGGGTCCC
TTGCCTTCCAGCTCCCCCCGCTCGCCCAGTGGCCTCCGGCCCCGAGGTTACACCATCTCCGACTCGGCCCCATCA
CGCAGGGGCAAGAGAGTAGAGAGGGACGCCTTAAAGAGCAGAGCCACAGCCTCCAATGCAGAGAAAGTGCCAGGC
ATCAACCCCAGTTTCGTGTTCCTGCAGCTCTACCATTCCCCCTTCTTTGGCGACGAGTCAAACAAGCCAATCCTG
CTGCCCAATGAGTCACAGTCCTTTGAGCGGTCGGTGCAGCTCCTCGACCAGATCCCATCATACGACACCCACAAG
ATCGCCGTCCTGTATGTTGGAGAAGGCCAGAGCAACAGCGAGCTCGCCATCCTGTCCAATGAGCATGGCTCCTAC
AGGTACACGGAGTTCCTGACGGGCCTGGGCCGGCTCATCGAGCTGAAGGACTGCCAGCCGGACAAGGTGTACCTG
GGAGGCCTGGACGTGTGTGGTGAGGACGGCCAGTTCACCTACTGCTGGCACGATGACATCATGCAAGCCGTCTTC
CACATCGCCACCCTGATGCCCACCAAGGACGTGGACAAGCACCGCTGCGACAAGAAGCGCCACCTGGGCAACGAC
TTTGTGTCCATTGTCTACAATGACTCCGGTGAGGACTTCAAGCTTGGCACCATCAAGGGCCAGTTCAACTTTGTC
CACGTGATCGTCACCCCGCTGGACTACGAGTGCAACCTGGTGTCCCTGCAGTGCAGGAAAGACATGGAGGGCCTT
GTGGACACCAGCGTGGCCAAGATCGTGTCTGACCGCAACCTGCCCTTCGTGGCCCGCCAGATGGCCCTGCACGCA
AATATGGCCTCACAGGTGCATCATAGCCGCTCCAACCCCACCGATATCTACCCCTCCAAGTGGATTGCCCGGCTC
CGCCACATCAAGCGGCTCCGCCAGCGGATCTGCGAGGAAGCCGCCTACTCCAACCCCAGCCTACCTCTGGTGCAC
CCTCCGTCCCATAGCAAAGCCCCTGCACAGACTCCAGCCGAGCCCACACCTGGCTATGAGGTGGGCCAGCGGAAG
CGCCTCATCTCCTCGGTGGAGGACTTCACCGAGTTTGTG**TGA**GGCCGGGGCCCTCCCTCCTGCACTGGCCTTGGA
CGGTATTGCCTGTCAGTGAAATAAATAAAGTCCTGACCCCAGTGCACAGACATAGAGGCACAGATTGC

FIGURE 2248

GGCGCTGCCGCTCCCGGGCGGCCGCGGGCGGGAGGTGCTTCCCAAGGACCGTAGATGCCTCTCTAGAGCATGAGC
TCAGGCAAGAGTGCCCGCTACAACCGCTTCTCCGGGGGGCCCAGCAATCTTCCCACCCCAGACGTCACCACAGGG
ACCAGAATGGAAACGACCTTCGGACCCGCCTTTTCAGCCGTCACCACCATCACAAAAGCTGACGGGACCAGCACC
TACAAGCAGCACTGCAGGACACCCTCCCCCCCCATCAGCACTCCCCGCCGCTCCGACTCCGCCATCTCTGTCCGCT
CCCTGCACTCAGAGTCCAGC**ATG**TCTCTGCGCTCCACATTCTCACTGCCCGAGGAGGAGGAGGAGCCGGAGCCAC
TGGTGTTTGCGGAGCAGCCCTCGGTGAAGCTGTGCTGTCAGCTCTGCTGCAGCGTCTTCAAAGACCCCGTGATCA
CCACGTGTGGGCACACGTTCTGTAGGAGATGCGCCTTGAAGTCAGAGAAGTGTCCCGTGGACAACGTCAAACTGA
CCGTGGTGGTGAACAACATCGCGGTGGCCGAGCAGATCGGGGAGCTCTTCATCCACTGCCGGCACGGCTGCCGGG
TAGCGGGCAGCGGGAAGCCCCCCATCTTTGAGGTGGACCCCCGAGGGTGCCCCTTCACCATCAAGCTCAGCGCCC
GGAAGGACCACGAGGGCAGCTGTGACTACAGGCCTGTGCGGTGTCCCAACAACCCCAGCTGCCCCCCGCTGCTCA
GGATGAACCTGGAGGCCCACCTCAAGGAGTGCGAGCACATCAAATGCCCCCACTCCAAGTACGGGTGCACGTTCA
TCGGGAACCAGGACACTTACGAGACCCACCTGGAGACTTGCCGCTTCGAGGGCCTGAAGGAGTTTCTGCAGCAGA
CGGATGACCGCTTCCACGAGATGCACGTGGCTCTGGCCCAGAAGGACCAGGAGATCGCCTTCCTGCGCTCCATGC
TGGGAAAGCTCTCGGAGAAGATCGACCAGCTAGAGAAGAGCCTGGAGCTCAAGTTTGACGTCCTGGACGAAAACC
AGAGCAAGCTCAGCGAGGACCTCATGGAGTTCCGGCGGGACGCATCCATGTTAAATGACGAGCTGTCCCACATCA
ACGCGCGGCTGAACATGGGCATCCTAGGCTCCTACGACCCTCAGCAGATCTTCAAGTGCAAAGGGACCTTTGTGG
GCCACCAGGGCCCTGTGTGGTGTCTCTGCGTCTACTCCATGGGTGACCTGCTCTTCAGTGGCTCCTCTGACAAGA
CCATCAAGGTGTGGGACACATGTACCACCTACAAGTGTCAGAAGACACTGGAGGGCCATGATGGCATCGTGCTGG
CTCTCTGCATCCAGGGGTGCAAACTCTACAGCGGCTCTGCAGACTGCACCATCATTGTGTGGGACATCCAGAACC
TGCAGAAGGTGAACACCATCCGGGCCCATGACAACCCGGTGTGCACGCTGGTCTCCTCACACAACGTGCTCTTCA
GCGGCTCCCTGAAGGCCATCAAGGTCTGGGACATCGTGGGCACTGAGCTGAAGTTGAAGAAGGAGCTCACAGGCC
TCAACCACTGGGTGCGGGCCCTGGTGGCTGCCCAGAGCTACCTGTACAGCGGCTCCTACCAGACAATCAAGATCT
GGGACATCCGAACCCTTGACTGCATCCACGTCCTGCAGACGTCTGGTGGCAGCGTCTACTCCATTGCTGTGACAA
ATCACCACATTGTCTGTGGCACCTACGAGAACCTCATCCACGTGTGGGACATTGAGTCCAAGGAGCAGGTGCGGA
CCCTCACGGGCCACGTGGGCACCGTGTATGCCCTGGCGGTCATCTCGACGCCAGACCAGACCAAAGTCTTCAGTG
CATCCTACGACCGGTCCCTCAGGGTCTGGAGTATGGACAACATGATCTGCACGCAGACCCTGCTGCGTCACCAGG
GCAGTGTCACCGCGCTGGCTGTGTCCCGGGGCCGACTCTTCTCAGGGGCTGTGGATAGCACTGTGAAGGTTTGGA
CTTGC**TAA**CAGGATCCAGGCCAGGCTGTGGTTTCCCCTGAACCAGCCCTGGACCTTTCTGAGCCAGGCTGGCCAC
ATGGGGTGGTCTCGGGGTTTCTGCCTGCCCCGTGGGCATAGGTGGACAGGCTCTGGCAGCCGGGCAGTGCCCTCC
CCGTCCCATGCTCGGCGAGCCTCCCTCTACTCGGCACTGTCCTTGCTGCCCAGCCCCTCTCTGGGTGCCAGGTAC
GACGCTTGCCCCGGCCCACCCTCCATCCCCACCCTCCATCCCCACCCTAGATGGAGCGAGGGCCTTTTTACTCAC
CTTTTCTACCGTTTTTAGACTGTATGTAGATTTGGTTACCTCCTGGTTGAAATAAATGCTCCACAGACTGTGGCT
GTGAGTGGGGACAGCTCCTCGGGACAAGGGGGCTGTGTGTGGCCTTGAGGTTGGTGTGCACAGGCACTGGCTGCT
GTGAGTGGGGGGGCATGGGGCAGTTTCCTTTGGTGGACCCCAGGACTTCGGCCCACTCCGGGGCCTCCCCTCCCT
GCTAGGAGGCAACTCGTCACACCCAAGCTGCTGGCCTCCAGTCCCATCTCCCCCAACACATGTGCCCCCAAAAAG
TGAGCCAGGCACCTCTGTTTCCTGCTGTTTATTGACAGCCGACGGCAGCGCCTTGCCCAGACCTCCCCTGCCCAC
CTGCTGGAGCCCAGCCTGTGCCGCCCTCTGAGGAGAGGCCTGGGGGGACAGCTGGGCACGTCCACTCGCAGGGAA
ACACGGGGTGAGACAGCAGGAAGGGGCCCTGCACGCCGGGACGCCACCTCCGCCAGCCGCCTCCACCCGCCCCAC
ACCACAATCGCTGGTTTTCGGCATTTTTTAAATTTTTTTTTTAAGAAACGTCAAAGTTGTGCCCAACACTGTGGA
TCAGCAAACACGATAGAGGAGACCAGTCAGTACTTCTTGGAGGGGGCAGGAGGAGAGAGGAAAAGGGAGGGCGAG
AATGACCACACAACACAGCCTTGGACCATGAGCAGAAGCGTCCGTGGGAACTCCACTGGGGTGGATGGGCTGCCT
GCACAGCCCCTGGAGAGGGGGCCAGGCACACCCTCAGAGGAGCTGCAAGCCCGTGGCCTGGCCTGCTACATGCCC
TGCTTCCACGTGGCTGCCACGCTGACACACCCACATTCACCAAACCCACCCGCGCCCTGGGACGCAGCCACGCCA
GGAGGAGGACACGGCCGCCGAGAGCAAGGCACAACCTCGAGTTCTTGGGGCGCAGAGAACTTAGGAGAGAAGCAC
GGAGGAGCCCCCGGCAGAGCACCCGCCCCCGGGCCCCAGCCTTCCACCTGTGCTAGCAGCCTGGGGCCTCCACTC
TGGCCGGAGGAAGGACCGCAGGCAGACAGCCTGGGCCTCTAACAGCTTTTGTCCGGAGCTAGACTTCGTGTCCTT
TCAGTTGGTAAATGGTTTTCTATAGAATCAATAATATTTCTTTCTTTAAATATATATTTGTTAAAGTTATACCTT
TTTGTTTCTCTGGGGAAATCCGCCTCAGCTCATTCCCAATAAATTAATACTCTTGATA

FIGURE 2249A

GGGAGGCGGCCGGTGCCGCGGGGCCGCCGCCGCCTCTGAGCCGCGCCGAGCTCACGAGCGCAGCCGCGTCGCTGC
GGCCCCGGCCGCGCC**ATG**GGGAAGGAGCAGGAGCTGGTGCAGGCGGTGAAGGCGGAGGACGTAGGGACCGCGCAG
AGGCTGCTGCAGAGGCCGCGGCCCGGGAAGGCCAAGCTCCTGGGTTCCACCAAGAAGATCAATGTCAACTTCCAG
GACCCGGATGGGTTCTCGGCTCTGCACCATGCGGCCCTGAACGGCAACACGGAATTGATCAGCCTGCTGCTGGAG
GCCCAGGCCGCTGTGGACATCAAGGACAACAAAGGCATGCGGCCGCTGCACTATGCGGCCTGGCAGGGCCGGAAG
GAGCCCATGAAGCTGGTGCTGAAGGCGGGCTCGGCCGTGAACATCCCGTCTGATGAGGGCCACATCCCCCTGCAC
CTGGCGGCCCAGCATGGTCACTATGATGTGTCTGAGATGCTGCTACAGCACCAGTCTAACCCGTGCATGGTGGAC
AACTCGGGGAAGACGCCCCTGGACCTGGCCTGCGAGTTCGGCCGCGTTGGGGTGGTCCAGCTGCTCCTCAGCAGC
AATATGTGTGCGGCGCTGCTGGAGCCCCGGCCGGGAGACGCCACCGACCCCAACGGCACCAGCCCTTTGCACCTC
GCAGCTAAAAACGGCCACATCGACATCATCAGGCTCCTCCTCCAAGCCGGCATCGACATTAACCGCCAGACCAAG
TCCGGCACGGCCCTGCACGAGGCTGCGCTCTGCGGAAAGACAGAGGTGGTGCGGCTGCTGCTGGATAGCGGGATC
AATGCCCACGTGAGGAACACCTACAGCCAGACAGCCCTGGACATCGTGCACCAGTTCACCACGTCCCAGGCCAGC
AGGGAGATCAAGCAGCTGTTGCGAGAGGCCTCAGCGGCCCTGCAGGTCCGGGCGACCAAGGATTATTGCAACAAT
TACGACCTGACCAGCCTCAACGTGAAGGCAGGGGACATCATCACAGTCCTCGAGCAGCATCCGGATGGCCGGTGG
AAGGGCTGCATCCATGACAACCGGACGGGCAATGACCGGGTGGGCTACTTCCCGTCCTCCCTGGGCGAGGCCATT
GTCAAGCGAGCAGGTTCCCGAGCAGGCACTGAACCAAGCCTGCCCCAGGGAAGCAGCTCATCGGGACCCTCTGCA
CCCCCAGAGGAGATCTGGGTGCTGAGGAAGCCTTTTGCAGGTGGGGACCGAAGCGGCAGCATTAGCGGCATGGCT
GGCGGCCGGGGCAGCGGGGGTCACGCCCTACACGCGGGCTCTGAAGGCGTCAAGCTCCTGGCAACGGTGCTTTCC
CAGAAGTCCGTCTCTGAGTCCGGCCCGGGGGACAGCCCCGCCAAGCCTCCGGAAGGCTCTGCAGGTGTGGCCCGG
TCCCAGCCTCCAGTGGCCCACGCCGGGCAGGTCTATGGGGAGCAGCCGCCCAAGAAGCTGGAGCCAGCATCGGAG
GGCAAGAGCTCTGAGGCCGTGAGCCAGTGGCTCACCGCGTTCCAGCTGCAGCTCTACGCCCCCAACTTCATCAGC
GCCGGCTACGACCTGCCCACCATCAGCCGCATGACTCCCGAGGACCTCACGGCCATTGGTGTCACCAAGCCGGGC
CACCGGAAGAAGATCGCGGCAGAGATCAGCGGCCTAAGCATCCCTGACTGGCTGCCTGAGCACAAACCCGCTAAC
CTGGCCGTGTGGCTGTCCATGATCGGCCTGGCCCAGTACTACAAGGTGTTGGTGGACAATGGCTACGAGAACATT
GATTTCATCACCGACATCACCTGGGAGGACCTGCAGGAGATCGGCATCACCAAGCTGGGGCACCAGAAGAAGCTG
ATGCTCGCTGTGAGGAAGCTGGCAGAGCTGCAGAAGGCTGAATACGCCAAGTATGAGGGGGGCCCCCTGCGCCGG
AAGGCGCCCCAGTCTCTTGAAGTGATGGCCATCGAGTCGCCGCCCCCGCCTGAGCCCACACCGGCCGACTGCCAG
TCCCCTAAAATGACCACCTTCCAGGACAGCGAGCTCAGTGACGAGCTGCAGGCTGCCATGACTGGCCCGGCTGAG
GTGGGGCCCACCACTGAGAAGCCCTCCAGCCACCTGCCACCCACCCCGAGGGCCACCACGCGGCAGGACTCCAGC
CTGGGTGGTCGGGCACGGCACATGAGCAGCTCGCAGGAGCTGCTGGGAGATGGGCCCCCTGGGCCCAGCAGCCCC
ATGTCTCGAAGCCAGGAGTACCTCCTGGATGAGGGCCCCGCCCCCGGCACCCCGCCCAGGGAGGCCCGGCCCGGC
CGCCACGGCCACAGCATCAAGAGGGCCAGCGTGCCCCCCGTGCCTGGCAAGCCACGGCAGGTCCTCCCACCAGGC
ACTAGCCACTTCACGCCCCCCCAGACGCCCACCAAAACCCGACCAGGCTCTCCCCAGGCCCTTGGGGGACCTCAT
GGTCCAGCCCCAGCTACGGCCAAGGTGAAGCCCACCCCGCAGCTGCTGCCGCCGACAGAGCGCCCCATGTCACCC
CGCTCCCTGCCTCAGTCACCGACGCACCGCGGCTTTGCCTACGTGCTGCCCCAGCCCGTGGAGGGCGAGGTGGGG
CCGGCTGCCCCGGGGCCTGCGCCCCCACCCGTGCCGACGGCTGTGCCCACACTGTGCCTGCCCCCTGAGGCCGAC
GCGGAGCCGGGGCGGCCCAAGAAGCGGGCCCACAGCCTGAATCGCTATGCGGCGTCCGACAGCGAGCCGGAGCGG
GACGAGCTGCTGGTGCCTGCGGCTGCCGGCCCCTATGCCACGGTCCAGCGGCGCGTGGGCCGCAGCCACTCAGTG
AGGGCGCCCGCAGGTGCCGACAAGAACGTCAACCGCAGCCAGTCCTTTGCCGTGCGGCCCCGAAAGAAGGGGCCC
CCGCCGCCCCCACCCAAGCGCTCCAGCTCGGCCCTGGCTAGTGCCAACCTGGCGGATGAGCCGGTGCCTGACGCC
GAGCCTGAGGATGGCCTGCTGGGGGTCCGGGCACAGTGCCGGCGGGCCAGTGACCTGGCCGGCAGCGTGGACACG
GGTAGTGCCGGCAGTGTGAAGAGCATCGCGGCCATGCTGGAGCTGTCCTCCATTGGGGGTGGGGGCCGGGCTGCC
CGCAGGCCTCCTGAGGGCCACCCCACTCCCCGCCCTGCCAGCCCAGAGCCGGGCCGGGTGGCCACCGTGCTGGCC
TCAGTGAAACACAAAGAGGCCATCGGGCCTGGCGGGGAGGTGGTGAACCGGCGCCGCACGCTCAGCGGGCCAGTC
ACCGGACTTCTGGCCACTGCCCGCCGGGGGCCTGGGGAGTCGGCAGACCCAGGCCCCTTTGTGGAGGATGGCACT
GGCCGGCAGCGGCCTCGGGGTCCCTCCAAGGGCGAGGCGGGTGTCGAAGGCCCGCCCTTGGCCAAGGTGGAAGCC
AGCGCCACACTCAAGAGGCGCATCCGGGCCAAGCAGAACCAGCAGGAGAACGTCAAGTTCATCCTGACCGAGTCT
GACACGGTCAAGCGCAGGCCCAAGGCCAAGGAGCGGGAGGCCGGGCCTGAGCCACCACCGCCACTGTCCGTGTAC

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FIGURE 2249B

CATAATGGCACTGGCACCGTGCGCCGCCGACCGGCCTCGGAGCAGGCTGGGCCTCCGGAGCTGCCTCCACCGCCC
CCGCCTGCCGAACCCCCGCCCACCGACCTGGCGCACCTACCCCCATTGCCCCCGCCCGAGGGCGAAGCCCGGAAG
CCGGCCAAGCCGCCTGTCTCTCCCAAGCCCGTCCTGACGCAGCCTGTGCCCAAGCTCCAGGGCTCGCCCACACCC
ACCTCCAAGAAGGTGCCGCTGCCAGGCCCTGGCAGCCCAGAGGTGAAGCGCGCCCACGGCACGCCACCGCCCGTG
TCTCCCAAGCCGCCGCCGCCGCCCACAGCGCCCAAGCCCGTCAAGGCGGTCGCGGGGCTGCCTTCGGGCAGCGCC
GGCCCTTCACCCGCACCCTCGCCCGCGCGACAGCCGCCCGCCGCCCTCGCCAAGCCGCCCGGTACGCCGCCCTCG
CTGGGCGCCAGCCCCGCCAAGCCCCCGTCCCCCGGCGCGCCCGCGCTGCACGTGCCCGCCAAGCCCCCGCGAGCC
GCCGCCGCCGCCGCCGCCGCCGCCGCCGCGCCCCCCGCCCCGCCCGAAGGCGCCTCGCCAGGGGACAGCGCCCGG
CAGAAACTGGAGGAGACAAGCGCGTGCCTGGCCGCGGCGCTGCAGGCGGTGGAGGAGAAGATCCGGCAGGAGGAC
GCGCAGGGCCCGCGCGACTCGGCGGCGGAAAAGAGCACTGGCAGCATCCTGGACGACATCGGCAGCATGTTCGAC
GACCTGGCCGACCAGCTGGATGCCATGCTGGAG**TGA**ACGCCGCCTGGCCGGGCCCTCCCGCGCCGCCCGGGCCCT
CCCCGCACACTGACCTATACCTCAGGATGGGCGCGTCTGGGCGCGGCGCGAGCGGCCGGGCAGGGCCCTGCAGAA
GCACAACTCCGGCCCCTGGACCCGGGCCGGGGCGCCCACCGGGGACCGCCTGGCCGGGGGCTCCAAGGGCTCTAG
GCAGACCCTGCGCCCGCGGGTCCTCCCCACCTGCTGCTCCCCGTGCAATACCTGCTGGGCCTCCTGCCCGCGCGG
GAGGGGAGGGCGCCCCGGGACCAGGGATGGGGCAGCGCACAGGCCCGGGCCCAGCACAGAACTGCCCATCGGGAC
GCCCGGCCAGCCGCTCGGGCGCAGCACAAGGGACAGGGGACCAAGGTCAGGGCCCCCCTGCCCCACCGCACCCCC
AGAATATAAGCTATCAAGAGTATTAATTTATTGGGAATGAGCTGAGGCGGATTTCCCCAGAGAAACAAAAAGGTA
TAACTTTAACAAATATATATTTAAAGAAAGAAATATTATTGATTCTATAGAAAACCATTTACCAACTGAAAGGAC
ACGAAGTCTAGCTCCGGACAAAAGCTGTTAGAGGCCCAGGCTGTCTGCCTGCGGTCCTTCCTCCGGCCAGAGTGG
AGGCCCCAGGCTGCTAGCACAGGTGGAAGGCTGGGGCCCGGGGGCGGGTGCTCTGCCGGGGGCTCCTCCGTGCTT
CTCTCCTAAGTTCTCTGCGCCCCAAGAACTCGAGGTTGTGCCTTGCTCTCGGCGGCCGTGTCCTCCTCCTGGCGT
GGCTGCGTCCCAGGGCGCGGGTGGGTTTGGTGAATGTGGGTGTGTCAGCGTGGCAGCCACGTGGAAGCAGGGCAT
GTAGCAGGCCAGGCCACGGGCTTGCAGCTCCTCTGAGGGTGTGCCTGGCCCCCTCTCCAGGGGCTGTGCAGGCAG
CCCATCCACCCCAGTGGAGTTCCCACGGACGCTTCTGCTCATGGTCCAAGGCTGTGTTGTGTGGTCATTCTCGCC
CTCCCTTTTCCTCTCTCCTCCTGCCCCCTCCAAGAAGTACTGACTGGTCTCCTCTATCGTGTTTGCTGATCCACA
GTGTTGGGCACAACTTTGACGTTTCTTAAAAAAAAAATTTAAAAAATGCCGAAAACCAGCGATTGTGGTGTGGGG
CGGGTGGAGGCGGCTGGCGGAGGTGGCGTCCCGGCGTGCAGGGCCCCTTCCTGCTGTCTCACCCCGTGTTTCCCT
GCGAGTGGACGTGCCCAGCTGTCCCCCCAGGCCTCTCCTCAGAGGGCGGCACAGGCTGGGCTCCAGCAGGTGGGC
AGGGGAGGTCTGGGCAAGGCGCTGCCGTCGGCTGTCAATAAACAGCAGGAAAC

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FIGURE 2250

AGCGCGACCCGACAGCCTGGGAAACGGACAGCCGTGTCAGAAGGGCAGGTGCCAGTGGGCAGGAGGCCGGAGAGA
AAGCCGCAGCTTCCTTCCACCTCGCGCCGGGCCCGCGGCCGCGCACGGGGACCGCTCCGAGTTCCTCCCGGCGGG
AACCCCCCGCCCCAGAACTTTGGTCTCGTCCCACCCACCCCCGCCCGCGCCATGGTCTCGCCCTAGGGAGCCATC
GATAACTCTACGCTCGGCCTCGATCGACTCGCTCCGGCTCCCCTCGCCGTCCTGGACACGGCGGAGTGCGGAGCC
GCCCGTAAGATGCTCTGACCTTTGACCCCTGCCGTTCAGCTCTAGGGCCCGTGCAGGCCACACC**ATG**AACACCTC
CCCAGGCACGGTGGGCAGTGACCCGGTCATCCTGGCCACTGCAGGCTACGACCACACCGTGCGCTTCTGGCAGGC
CCACAGCGGCATCTGCACCCGGACGGTGCAGCACCAGGACTCCCAGGTGAATGCCTTGGAGGTCACACCGGACCG
CAGCATGATTGCTGCTGCAGGTTACCAGCACATCCGCATGTATGATCTCAACTCCAATAACCCTAACCCCATCAT
CAGCTACGACGGCGTCAACAAGAACATCGCGTCTGTGGGCTTCCACGAAGACGGCCGCTGGATGTACACGGGCGG
CGAGGACTGCACAGCCAGGATCTGGGACCTCAGGTCCCGGAACCTGCAGTGCCAGCGGATCTTCCAGGTGAACGC
ACCCATTAACTGCGTGTGCCTGCACCCGAACCAGGCAGAGCTCATCGTGGGTGACCAGAGCGGGGCTATCCACAT
CTGGGACTTGAAAACAGACCACAACGAGCAGCTGATCCCTGAGCCCGAGGTCTCCATCACGTCCGCCCACATCGA
TCCCGACGCCAGCTACATGGCAGCTGTCAATAGCACCGGAAACTGCTATGTCTGGAATCTGACGGGGGGCATTGG
TGACGAGGTGACCCAGCTCATCCCCAAGACTAAGATCCCTGCCCACACGCGCTACGCCCTGCAGTGTCGCTTCAG
CCCCGACTCCACGCTCCTCGCCACCTGCTCGGCTGATCAGACGTGCAAGATCTGGAGGACGTCCAACTTCTCCCT
GATGACGGAGCTGAGCATCAAGAGCGGCAACCCCGGGGAGTCCTCCCGCGGCTGGATGTGGGGCTGCGCCTTCTC
GGGGGACTCCCAGTACATCGTCACTGCTTCCTCGGACAACCTGGCCCGGCTCTGGTGTGTGGAGACTGGAGAGAT
CAAGAGAGAGTATGGCGGCCACCAGAAGGCTGTTGTCTGCCTGGCCTTCAATGACAGTGTGCTGGGC**TAG**CCTGT
GACCCCTCGGGACTGCCTGGTGCAGGTGGTGGCAGCTGGAGGGACCCATGCAGCACCCAGGTCAGAGCAGACCCT
CCCCTGCCGGCCTGCGCCAGCTGGACCTGATGGCCCCCTGTGGCGCCTTGACCTGCTGGGCCAGGCTGCCCTGGG
ACTCTCAGCCCCCAGTTGCTTATCCAGATGTGACAGAGCTCGACCCAAGCCAGGCTGCACACTCCTGGACTGGGC
TAGCCTGCACTGCCTGGGAAAGTCGGCCGAGGGCCCAAAGCTGCTGAGGGGTCTGAGGCTGGTGCCCACCCCCAA
GCTAGTGCGTTCTCTGCCCCTCCCTGCCCGCGTTTCAGGGCCTCGGTCCATAGAGAACACCACCACCATGGCCAG
GTGGAAGGGTTTATTAGTCCCTGCCAGCAGCTGTCCTCCCTGGTGCAGGTGGCCTGGCCAGCCCACTGGATTGGG
GACGGGCCAGGCTGGGCCAGGTCGGGGGCTCAGTCTGGGAGGTAATAAAAGCAGACCGACACGC

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FIGURE 2251

CCACCTCAGAGCAACCACAGCTGGGCGGTGCTGTTCGACGGGCAGAGCGGCTGCATCTGTTACCGCCCTGAGGAG
CACCAGGTCTGCTTCCTCCGCCTG**ATG**GAGGACAGTGATCGGGAGACCCTGCGGCTGCTGGTGGATACCTCCAAG
GTCCAAGAGGCTTGGGTCCCCAGCCAGGACACCCACCACACCCAGGAGCTGCTGGCAGTGCAGGGGAGCCTCGAA
GTGGACCCCGCCCAGGCGGGGGCTTTGGTGCAGCGCCTGTGCATGAGGACCCCCATCTACTGGGCCCGGCGAGCA
GAGGGGCCCCGGAGACAGCGGCTGATTTATCTCTGCATCGACATCTGCTTCCCGAGCAACATCTGCGTGTCGGTC
TGCTTTTATTACCTCCCAGAC**TGA**GCCCCCGACCTGGCCCAGCCTGGCCCGTCCCCAATCCAGTGGGCTGGCCAG
GCCACCTGCACCAGGGAGGACAGCTGCTGGCAGGGACTAATAAACCCTTCCACCTGGC

FIGURE 2252

GCCATCTTCCTGCGGCGCGTTGCGAC**ATG**GAGGGCGCGATGGCAGTGCGGGTGACGGCCGCTCATACGGCAGAAG
CCCAGGCCGAAGCCGGGCGGGAAGCGGGCGAGGGTGCAGTTGCGGCGGTGGCGGCGGCCTTGGCCCCCAGCGGCT
TCCTCGGCCTCCCGGCGCCCTTCAGCGAGGAAGATGAGGACGATGTGCACAGATGCGGCCGCTGCCAGGCAGAGT
TCACCGCCTTGGAGGATTTTGTTCAGCACAAGATTCAGAAGGCCTGCCAGCGGGCCCCTCCGGAGGCCCTGCCTG
CCACCCCTGCCACCACAGCGTTGCTGGGCCAGGAGGTGGTGCCGGCAGCACCAGGCCCAGAGGAGCCCATCACTG
TGGCCCACATCGTGGTGGAGGCGGCCTCTCTGGCAGCAGACATCAGCCACGCATCTGACCTTGTTGGTGGTGGGC
ACATCAAAGAGGTCATCGTGGCTGCTGAGGCGGAGCTGGGAGACGGTGAGATGGCCGAGGCCCCGGGCAGCCCCC
ACCAGCAGGGGCTGGGGCTCGCAGGGGAGGGTGAGCAGGCCCAGGTGAAGCTACTGGTGAACAAGGATGGCCGCT
ATGTGTGTGCGCTGTGCCACAAGACCTTCAAGACGGGCAGCATCCTCAAGGCCCACATGGTCACTCACAGCAGCC
GCAAGGACCACGAGTGCAAGCTCTGTGGGGCCTCCTTCCGCACCAAGGGCTCACTCATCCGGCACCACCGGCGGC
ACACGGATGAGCGCCCCTACAAGTGCTCCAAGTGTGGAAAGAGCTTCCGGGAGTCGGGTGCACTGACCCGGCACC
TCAAGTCTCTCACCCCCTGCACAGAGAAAATCCGCTTCAGTGTGAGCAAGGACGTGGTTGTCAGCAAAGAGGACG
CACGTGCAGGTTCTGGAGCTGGAGCTGCCGGCTTGGGGACAGCCACATCATCGGTGACAGGCGAGCCTATAGAGA
CTTCACCCGTGATTCACCTGGTGACAGATGCCAAGGGCACCGTCATCCACGAAGTCCACGTCCAGATGCAGGAGC
TGTCCCTGGGCATGAAAGCCCTGGCCCCAGAGCCCCCCGTCTCCCAGGAGCTCCCCTGCTCCAGCGAGGGCAGCC
GTGAGAACCTGCTGCACCAGGCCATGCAGAACTCCGGCATCGTCCTTGAGCGCGCTGCTGGGGAGGAGGGTGCCC
TGGAGCCAGCTCCTGCTGCCGGGTCCAGTCCCCAGCCCCTGGCAGTGGCAGCCCCGCAGCTGCCGGTACTGGAAG
TGCAGCCGCTGGAGACACAGGTGGCCAGCGAGGCCTCAGCGGTGCCCAGGACCCACCCATGTCCTCAGTGCAGTG
AGACCTTCCCGACAGCAGCCACCCTGGAGGCCCACAAGAGGGGCCACACCGGGCCGAGGCCGTTCGCCTGCGCGC
AGTGTGGCAAGGCCTTCCCCAAGGCCTACCTGCTCAAGAAGCACCAGGAGGTGCACGTGCGTGAGCGCCGCTTCC
GCTGTGGCGACTGCGGGAAGCTCTACAAGACCATTGCCCATGTGCGTGGCCACCGGCGCGTCCACTCAGACGAGC
GGCCCTACCCTTGTCCCAAGTGTGGCAAGCGCTACAAGACTAAGAACGCACAGCAGGTGCACTTCAGGACACACC
TGGAGGAGAAGCCGCACGTGTGCCAGTTCTGCAGCCGTGGCTTCCGAGAGAAGGGCTCACTGGTGCGGCACGTGC
GACACCACACAGGCGAGAAGCCGTTCAAGTGCTACAAGTGCGGCCGTGGCTTCGCCGAGCACGGCACGCTGAACC
GGCACCTGCGCACCAAAGGGGGCTGCCTGCTGGAGGTGGAGGAGTTGCTGGTGTCTGAGGACAGCCCCGCGGCAG
CCACCACCGTCCTCACGGAAGACCCGCACACAGTGTTGGTGGAGTTCTCGTCCGTGGTAGCTGACACCCAGGAGT
ATATCATCGAGGCCACTGCGGACGATGCGGAGACCAGTGAGGCCACGGAGATCATCGAGGGCACCCAGACAGAGG
TGGACAGCCACATCATGAAGGTGGTGCAGCAGATCGTGCACCAGGCTAGCGCCGGCCACCAGATCATCGTGCAGA
ACGTCACCATGGACGAGGAGACGGCGCTGGGCCCAGAGGCGGCTGCCGCCGACACCATCACCATTGCCACCCCCG
AGAGCCTGACAGAGCAGGTGGCCATGACGCTGGCCTCGGCCATCAGCGAGGGCACTGTGCTTGCCGCCCGGGCAG
GGACAAGTGGCACTGAACAGGCCACTGTGACCATGGTGTCATCAGAGGACATCGAGATCCTGGAGCATGCAGGCG
AGCTGGTCATCGCCTCGCCGGAGGGCCAGCTGGAGGTGCAGACGGTCATCGTC**TAG**CATGAGGTCTGCGGGGTCC
TGGCCGGGCAGGGACAGGGCAGAGGACTCTGAGCGCCCCACCCATGCCTGCCTGGCCTGGTAGAGAAGATGGCAC
AGGATGGAGGCGCCCCAAGACGGACAGTGTACATAAGAGTTTCTTGTTGCTTTACAATAAAACATGAGAACCTGC

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FIGURE 2253

AGCCCGCGACCTTTATCCCGCGCGTTGCGGTCAAG**ATG**GCGCTGGTGGCTTCTGTTGCGAGTCCGGCGCGCGTTC
TGCTCCGCGCGGGGGCCCGGCTCCCGGGCGCGGCCCTCGGGCGGACGGAGCGGGCGGCCGGCGGCGGAGACGGCG
CGCGGCGCTTCGGGAGCCAGCGGGTGCTGGTGGAGCCGGACGCGGGCGCAGGGGTCGCTGTGATGAAATTCAAGA
ACCCCCCAGTGAACAGCCTGAGCCTGGAGTTTCTGACGGAGCTGGTCATCAGCCTGGAGAAGCTGGAGAATGACA
AGAGCTTCCGCGGTGTCATTCTGACCTCGGACCGCCCGGGTGTCTTCTCGGCCGGCCTGGACCTGACGGAGATGT
GTGGGAGGAGCCCCGCCCACTACGCTGGGTACTGGAAGGCCGTTCAGGAGCTGTGGCTGCGGTTGTACCAGTCCA
ACCTGGTGCTGGTCTCCGCCATCAACGGAGCCTGCCCCGCTGGAGGCTGCCTGGTGGCCCTGACCTGTGACTACC
GCATCCTGGCGGACAACCCCAGGTACTGCATAGGACTCAATGAGACCCAGCTGGGCATCATCGCCCCTTTCTGGT
TGAAAGACACCCTGGAGAACACCATCGGGCACCGGGCGGCGGAGCGTGCCCTGCAGCTGGGGCTGCTCTTCCCGC
CGGCGGAGGCCCTGCAGGTGGGCATAGTGGACCAGGTGGTCCCGGAGGAGCAGGTGCAGAGCACTGCGCTGTCAG
CGATAGCCCAGTGGATGGCCATTCCAGACCATGCTCGACAGCTGACCAAGGCCATGATGCGAAAGGCCACGGCCA
GCCGCCTGGTCACGCAGCGCGATGCGGACGTGCAGAACTTCGTCAGCTTCATCTCCAAAGACTCCATCCAGAAGT
CCCTGCAGATGTACTTAGAGAGGCTCAAAGAAGAAAAAGGC**TAA**CGATTGGGCTGCCACAGGCTTACGGCCACAC
GTGCCCCTGTGGGTCCCAGGGAGGTCTTAAACAAGGTATTTTTCAACTT

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FIGURE 2254

GGCCCGCGGGACTCAGACCAGCGGGGAGCGCGGCCTCCGCCCTTGGGGCCCTCCCGCCGGGCCGGAGACCCAAGC
CCCCAACGCCAGGCCCTGCCCTGGAAGCGCTCGCGGCCCGGCGCCTGGACGGGGGAGTTGCTGCTCTTTGGCGTA
AATTGCAATCGATTAGGGATCGTTTCTCAGAATCAAGTTAGAAGTGAGAGTTCAGATAAGTGAGGCCGCCATTGC
TGCTTTGAACACCTCAGAAGGGGAGA**ATG**GATTTATCAGGAGTGAAAAAGAAGAGCTTGCTAGGAGTCAAAGAAA
ATAATAAAAAGTCCAGCACTAGGGCTCCTTCACCTACCAAACGCAAAGACCGCTCAGATGAGAAGTCCAAGGATC
GCTCAAAAGATAAAGGGGCCACCAAGGAGTCGAGTGAGAAGGATCGCGGCCGGGACAAAACCCGAAAGAGGCGCA
GCGCTTCCAGTGGTAGCAGCAGTACCAGGTCTCGGTCCAGCTCGACTTCCAGCTCAGGCTCCAGCACCAGCACTG
GCTCAAGCAGTGGCTCCAGCTCTTCCTCAGCATCCAGCCGCTCAGGAAGCTCCAGCACCTCCCGCAGCTCCAGCT
CTAGCAGCTCTTCTGGCTCTCCAAGTCCTTCTCGGCGCAGACACGACAACAGGAGGCGCTCCCGCTCCAAATCCA
AACCACCTAAAAGAGATGAAAAGGAGAGGAAAAGGCGGAGCCCATCTCCTAAGCCCACCAAAGTGCACATTGGGA
GACTCACCCGGAATGTGACAAAGGATCACATCATGGAGATATTTTCCACCTATGGGAAAATTAAAATGATTGACA
TGCCCGTGGAAAGGATGCATCCCCATCTGTCCAAAGGCTATGCGTACGTAGAGTTTGAGAATCCAGATGAAGCCG
AGAAGGCGCTGAAGCACATGGATGGAGGACAAATTGATGGCCAGGAGATCACTGCCACCGCCGTGCTGGCCCCCT
GGCCTAGGCCACCCCCCAGGAGATTCAGCCCTCCCAGGAGAATGTTGCCACCACCGCCTATGTGGCGCAGGTCTC
CCCCACGGATGAGGAGAAGGTCCCGCTCCCCGAGGCGCAGGTCCCCCGTGCGCCGGAGATCACGGTCCCCGGGCC
GCCGCCGCCACAGGAGCCGCTCCAGCTCCAACTCCTCCCGA**TAA**ACAGGCCACTGAAGCTCTCGCCCCCTGTAACT
TATACCCCACCCAGCTCAGTTTTGTCACTTTTCTAGCCAAAGGAAGACCAGTAGGAAAGCAAACCCTTGACTCTG
GCAGGATTTGCAGGCAGCAGGCAGCACCCCTCTGCCAGCCGGGCCCCGGCTGCAGAAGTGCTGTTGGTTTGGATG
CTGTGTGCCTGTCAAGATTCCCTCCGGTTTTCTGGCTAGAAAGCTCATCCGTTTCCGGTTTCTAAGAGTCAGTTC
AGTGGCAGAGCCACCAGGGAAAAGTGAGGCTCTTGGGGGTGGTTTGACCCTGCTTACCTGGGAGCACACTTTTCC
CTTCCCCGATGACCTGGGATGGTGGCCAGGCCGTGCCCTTGCTGTTGCTGGGCAGTGTCCTTTTGGAAAGGGAGC
TGCCCCAGGCTTTAGTGCAGCTGCCAACCCTGTTAGGCCTGGCCTCTCGAGGCCTCTTCTGACCTCAAGGGTCAC
ACCCCCTCAAAGATCCTCTCACCCATGGTAGTTGCTGCTCGTGGTTCTGTCTGTCCGTGCACCGATGCACACACC
GCACCCCACCACTGTACTCTGAAATTGGCGAGTGAGTTGAGAGCCAGCTCTGCGGGGTCATCACGCAGCCATGGT
TGTGCCTGCCGTTCATGGTGGTCTTTCAGGTTATCTTGGCAACATGTACATTGCTTTTATTTTTTTTCTTTTTTG
CTTTCATTGTACAGTCAGTACTATAAAATTTCTCTTTTGAGTTTTATACCTTTGTAGCATTTTAGATGACATTGT
GTTTGTACTTTGTTGTGTAGAGTGGAAGAATTGTGTTGAATAAACCCAAGATCGGAATGC

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FIGURE 2255

GGCTCCCGTGAGCAGACGGCCCATGGGCCACGAGCCAGGTAACGCACCGACCCAGCTGCTGTTCAGCTCCCCCTC
TGGGCCAGCACCATGCTCATGGCATAGGCCGGCTGGGCCCTCTGAGACCCCCACTCCCACACAGACTGGTCTGC**A**
TGGAGGCTGGCAAGGGGAGGAGCTCAGGGCCGTGGCCAGAGCCCACGAGAAGCCCGTGCCCAGCTCAGCAGGTGA
CCCTCCGCTCTGGGAAGAGGCGCCACCTCTGGACTCTCCCAGGGTCGGACCCTGGTCGACAGTGCTCCCTGCCCG
GACCCTGCACCGGCCGATGGATGAAGCCTCGGCGCTGCGCCGTTCACACGCTCCGTGCCGCTGCCGCGAAGCTCG
CGCGGGCCTGCGAGCCGCGAACCTCGGCGCCTGCTGTTCCCCCGCCGGGCGCGCCCTTCCATTCGGGTCTCAGCG
GCAGTGTCACCTCCCCGGAGAGGCCCGCCGTTGCACCCCATCTCCCACTCTCAAGCTCGTCGCTCTTCCTGCCCG
CACAGCCCGCCTGCCGCGCCCACCCGGTGGAGGCGTTTACGTCATCGCTGCGCGCCGGGCGGCGGCGACTTCCCG
CTCCT**TGA**CTCTGACGTCAGAGCGGCGCCGGCCTCGGCGGCTGAGGAAAGCAGGAGGAGGTGGCGGCGGCGGGAA
GAT

FIGURE 2256A

GTGCTGGAGAGTCATGCCTGTGAGCCCTGGGCACCTCCTGATGTTCTGCGAGGTCACGGTGTTCCCAAACCTCAG
GGTTGCCCTGCCCCACTCCAGAGGCTCTCAGGCCCCACCCCGGAGCCCTCTGTGCGGAGCCGCCTCCTCCTGGCC
AGTTCCCCAGTAGTCCTGAAGGGAGACCTGCTGTGTGGAGCCTCTTCTGGGACCCAGCCATGAGTGTGGAGCTGA
GCAACTGAACCTGAAACTCTTCCACTGTGAGTCAAGGAGGCTTTTCCGCACATGAAGGACGCTGAGCGGGAAGGA
CTGCTCTCTGCCTGCAGTTGTAGCGAGTGGACCAGCACCAGGGGCTCTCTAGACTGCCCCTCCTCCATCACCTTC
CCTGCCTCTCCAGGACAGAGCAGCCACGTCTGCACACCTCGCCCTCTTTACACTCAGTTTTCAGAGCACGTTTCT
CCTATTTCCTGCGGGTTGCAGCGCCTACTTGAACTTACTCAGACCACCTACTTCTCTAGCAGCACTGGGCGTCCC
TTTCAGCAAGACG**ATG**GCTGTGCTCAGGCAGCTGGCGCTCCTCCTCTGGAAGAACTACACCCTGCAGAAGCGGAA
GGTCCTGGTGACGGTCCTGGAACTCTTCCTGCCATTGCTGTTTTCTGGGATCCTCATCTGGCTCCGCTTGAAGAT
TCAGTCGGAAAATGTGCCCAACGCCACCATCTACCCGGGCCAGTCCATCCAGGAGCTGCCTCTGTTCTTCACCTT
CCCTCCGCCAGGAGACACCTGGGAGCTTGCCTACATCCCTTCTCACAGTGACGCTGCCAAGACCGTCACTGAGAC
AGTGCGCAGGGCACTTGTGATCAACATGCGAGTGCGCGGCTTTCCCTCCGAGAAGGACTTTGAGGACTACATTAG
GTACGACAACTGCTCGTCCAGCGTGCTGGCCGCCGTGGTCTTCGAGCACCCCTTCAACCACAGCAAGGAGCCCCT
GCCGCTGGCGGTGAAATATCACCTACGGTTCAGTTACACACGGAGAAATTACATGTGGACCCAAACAGGCTCCTT
TTTCCTGAAAGAGACAGAAGGCTGGCACACTACTTCCCTTTTCCCGCTTTTCCCAAACCCAGGACCAAGGGAACC
TACATCCCCTGATGGCGGAGAACCTGGGTACATCCGGGAAGGCTTCCTGGCCGTGCAGCATGCTGTGGACCGGGC
CATCATGGAGTACCATGCCGATGCCGCCACACGCCAGCTGTTCCAGAGACTGACGGTGACCATCAAGAGGTTCCC
GTACCCGCCGTTCATCGCAGACCCCTTCCTCGTGGCCATCCAGTACCAGCTGCCCCTGCTGCTGCTGCTCAGCTT
CACCTACACCGCGCTCACCATTGCCCGTGCTGTCGTGCAGGAGAAGGAAAGGAGGCTGAAGGAGTACATGCGCAT
GATGGGGCTCAGCAGCTGGCTGCACTGGAGTGCCTGGTTCCTCTTGTTCTTCCTCTTCCTCCTCATCGCCGCCTC
CTTCATGACCCTGCTCTTCTGTGTCAAGGTGAAGCCAAATGTAGCCGTGCTGTCCCGCAGCGACCCCTCCCTGGT
GCTCGCCTTCCTGCTGTGCTTCGCCATCTCTACCATCTCCTTCAGCTTCATGGTCAGCACCTTCTTCAGCAAAGC
CAACATGGCAGCAGCCTTCGGAGGCTTCCTCTACTTCTTCACCTACATCCCCTACTTCTTCGTGGCCCCTCGGTA
CAACTGGATGACTCTGAGCCAGAAGCTCTGCTCCTGCCTCCTGTCTAATGTCGCCATGGCAATGGGAGCCCAGCT
CATTGGGAAATTTGAGGCGAAAGGCATGGGCATCCAGTGGCGAGACCTCCTGAGTCCCGTCAACGTGGACGACGA
CTTCTGCTTCGGGCAGGTGCTGGGGATGCTGCTGCTGGACTCTGTGCTCTATGGCCTGGTGACCTGGTACATGGA
GGCCGTCTTCCCAGGGCAGTTCGGCGTGCCTCAGCCCTGGTACTTCTTCATCATGCCCTCCTATTGGTGTGGGAA
GCCAAGGGCGGTTGCAGGGAAGGAGGAAGAAGACAGTGACCCCGAGAAAGCACTCAGAAACGAGTACTTTGAAGC
CGAGCCAGAGGACCTGGTGGCGGGGATCAAGATCAAGCACCTGTCCAAGGTGTTCAGGGTGGGAAATAAGGACAG
GGCGGCCGTCAGAGACCTGAACCTCAACCTGTACGAGGGACAGATCACCGTCCTGCTGGGCCACAACGGTGCCGG
GAAGACCACCACCCTCTCCATGCTCACAGGTCTCTTTCCCCCCACCAGTGGACGGGCATACATCAGCGGGTATGA
AATTTCCCAGGACATGGTTCAGATCCGGAAGAGCCTGGGCCTGTGCCCGCAGCACGACATCCTGTTTGACAACTT
GACAGTCGCAGAGCACCTTTATTTCTACGCCCAGCTGAAGGGCCTGTCACGTCAGAAGTGCCCTGAAGAAGTCAA
GCAGATGCTGCACATCATCGGCCTGGAGGACAAGTGGAACTCACGGAGCCGCTTCCTGAGCGGGGGCATGAGGCG
CAAGCTCTCCATCGGCATCGCCCTCATCGCAGGCTCCAAGGTGCTGATACTGGACGAGCCCACCTCGGGCATGGA
CGCCATCTCCAGGAGGGCCATCTGGGATCTTCTTCAGCGGCAGAAAAGTGACCGCACCATCGTGCTGACCACCCA
CTTCATGGACGAGGCTGACCTGCTGGGAGACCGCATCGCCATCATGGCCAAGGGGGAGCTGCAGTGCTGCGGGTC
CTCGCTGTTCCTCAAGCAGAAATACGGTGCCGGCTATCACATGACGCTGGTGAAGGAGCCGCACTGCAACCCGGA
AGACATCTCCCAGCTGGTCCACCACCACGTGCCCAACGCCACGCTGGAGAGCAGCGCTGGGGCCGAGCTGTCTTT
CATCCTTCCCAGAGAGAGCACGCACAGGTTTGAAGGTCTCTTTGCTAAACTGGAGAAGAAGCAGAAAGAGCTGGG
CATTGCCAGCTTTGGGGCATCCATCACCACCATGGAGGAAGTCTTCCTTCGGGTCGGGAAGCTGGTGGACAGCAG
TATGGACATCCAGGCCATCCAGCTCCCTGCCCTGCAGTACCAGCACGAGAGGCGCGCCAGCGACTGGGCTGTGGA
CAGCAACCTCTGTGGGGCCATGGACCCCTCCGACGGCATTGGAGCCCTCATCGAGGAGGAGCGCACCGCTGTCAA
GCTCAACACTGGGCTCGCCCTGCACTGCCAGCAATTCTGGGCCATGTTCCTGAAGAAGGCCGCATACAGCTGGCG
CGAGTGGAAAATGGTGGCGGCACAGGTCCTGGTGCCTCTGACCTGCGTCACCCTGGCCCTCCTGGCCATCAACTA
CTCCTCGGAGCTCTTCGACGACCCCATGCTGAGGCTGACCTTGGGCGAGTACGGCAGAACCGTCGTGCCCTTCTC
AGTTCCCGGGACCTCCCAGCTGGGTCAGCAGCTGTCAGAGCATCTGAAAGACGCACTGCAGGCTGAGGGACAGGA
GCCCCGCGAGGTGCTCGGTGACCTGGAGGAGTTCTTGATCTTCAGGGCTTCTGTGGAGGGGGGCGGCTTTAATGA

FIGURE 2256B

GCGGTGCCTTGTGGCAGCGTCCTTCAGAGATGTGGGAGAGCGCACGGTCGTCAACGCCTTGTTCAACAACCAGGC
GTACCACTCTCCAGCCACTGCCCTGGCCGTCGTGGACAACCTTCTGTTCAAGCTGCTGTGCGGGCCTCACGCCTC
CATTGTGGTCTCCAACTTCCCCCAGCCCCGGAGCGCCCTGCAGGCTGCCAAGGACCAGTTTAACGAGGGCCGGAA
GGGATTCGACATTGCCCTCAACCTGCTCTTCGCCATGGCATTCTTGGCCAGCACGTTCTCCATCCTGGCGGTCAG
CGAGAGGGCCGTGCAGGCCAAGCATGTGCAGTTTGTGAGTGGAGTCCACGTGGCCAGTTTCTGGCTCTCTGCTCT
GCTGTGGGACCTCATCTCCTTCCTCATCCCCAGTCTGCTGCTGCTGGTGGTGTTTAAGGCCTTCGACGTGCGTGC
CTTCACGCGGGACGGCCACATGGCTGACACCCTGCTGCTGCTCCTGCTCTACGGCTGGGCCATCATCCCCCTCAT
GTACCTGATGAACTTCTTCTTCTTGGGGGCGGCCACTGCCTACACGAGGCTGACCATCTTCAACATCCTGTCAGG
CATCGCCACCTTCCTGATGGTCACCATCATGCGCATCCCAGCTGTAAAACTGGAAGAACTTTCCAAAACCCTGGA
TCACGTGTTCCTGGTGCTGCCCAACCACTGTCTGGGGATGGCAGTCAGCAGTTTCTACGAGAACTACGAGACGCG
GAGGTACTGCACCTCCTCCGAGGTCGCCGCCCACTACTGCAAGAAATATAACATCCAGTACCAGGAGAACTTCTA
TGCCTGGAGCGCCCCGGGGGTCGGCCGGTTTGTGGCCTCCATGGCCGCCTCAGGGTGCGCCTACCTCATCCTGCT
CTTCCTCATCGAGACCAACCTGCTTCAGAGACTCAGGGGCATCCTCTGCGCCCTCCGGAGGAGGCGGACACTGAC
AGAATTATACACCCGGATGCCTGTGCTTCCTGAGGACCAAGATGTAGCGGACGAGAGGACCCGCATCCTGGCCCC
CAGTCCGGACTCCCTGCTCCACACACCTCTGATTATCAAGGAGCTCTCCAAGGTGTACGAGCAGCGGGTGCCCCT
CCTGGCCGTGGACAGGCTCTCCCTCGCGGTGCAGAAAGGGGAGTGCTTCGGCCTGCTGGGCTTCAATGGAGCCGG
GAAGACCACGACTTTCAAAATGCTGACCGGGGAGGAGAGCCTCACTTCTGGGGATGCCTTTGTCGGGGGTCACAG
AATCAGCTCTGATGTCGGAAAGGTGCGGCAGCGGATCGGCTACTGCCCGCAGTTTGATGCCTTGCTGGACCACAT
GACAGGCCGGGAGATGCTGGTCATGTACGCTCGGCTCCGGGGCATCCCTGAGCGCCACATCGGGGCCTGCGTGGA
GAACACTCTGCGGGGCCTGCTGCTGGAGCCACATGCCAACAAGCTGGTCAGGACGTACAGTGGTGGTAACAAGCG
GAAGCTGAGCACCGGCATCGCCCTGATCGGAGAGCCTGCTGTCATCTTCCTGGACGAGCCGTCCACTGGCATGGA
CCCCGTGGCCCGGCGCCTGCTTTGGGACACCGTGGCACGAGCCCGAGAGTCTGGCAAGGCCATCATCATCACCTC
CCACAGCATGGAGGAGTGTGAGGCCCTGTGCACCCGGCTGGCCATCATGGTGCAGGGGCAGTTCAAGTGCCTGGG
CAGCCCCCAGCACCTCAAGAGCAAGTTCGGCAGCGGCTACTCCCTGCGGGCCAAGGTGCAGAGTGAAGGGCAACA
GGAGGCGCTGGAGGAGTTCAAGGCCTTCGTGGACCTGACCTTTCCAGGCAGCGTCCTGGAAGATGAGCACCAAGG
CATGGTCCATTACCACCTGCCGGGCCGTGACCTCAGCTGGGCGAAGGTTTTCGGTATTCTGGAGAAAGCCAAGGA
AAAGTACGGCGTGGACGACTACTCCGTGAGCCAGATCTCGCTGGAACAGGTCTTCCTGAGCTTCGCCCACCTGCA
GCCGCCCACCGCAGAGGAGGGGCGA**TGA**GGGGTGGCGGCTGTCTCGCCATCAGGCAGGGACAGGACGGGCAAGCA
GGGCCCATCTTACATCCTCTCTCTCCAAGTTTATCTCATCCTTTATTTTTAATCACTTTTTTCTATGATGGATAT
GAAAAATTCAAGGCAGTATGCACAGAATGGACGAGTGCAGCCCAGCCCTCATGCCCAGGATCAGCATGCGCATCT
CCATGTCTGCATACTCTGGAGTTCACTTTCCCAGAGCTGGGGCAGGCCGGGCAGTCTGCGGGCAAGCTCCGGGGT
CTCTGGGTGGAGAGCTGACCCAGGAAGGGCTGCAGCTGAGCTGGGGGTTGAATTTCTCCAGGCACTCCCTGGAGA
GAGGACCCAGTGACTTGTCCAAGTTTACACACGACACTAATCTCCCCTGGGGAGGAAGCGGGAAGCCAGCCAGGT
TGAACTGTAGCGAGGCCCCCAGGCCGCCAGGAATGGACCATGCAGATCACTGTCAGTGGAGGGAAGCTGCTGACT
GTGATTAGGTGCTGGGGTCTTAGCGTCCAGCGCAGCCCGGGGGCATCCTGGAGGCTCTGCTCCTTAGGGCATGGT
AGTCACCGCGAAGCCGGGCACCGTCCCACAGCATCTCCTAGAAGCAGCCGGCACAGGAGGGAAGGTGGCCAGGCT
CGAAGCAGTCTCTGTTTCCAGCACTGCACCCTCAGGAAGTCGCCCGCCCCAGGACACGCAGGGACCACCCTAAGG
GCTGGGTGGCTGTCTCAAGGACACATTGAATACGTTGTGACCATCCAGAAAATAAATGCTGAGGGGACAC

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FIGURE 2257

GCATGGCCTTGCCTTTCACAGCCTGAGCCTATGCTGGCTGGGTACTTAGCACCTTGCTTTCTTCCTGTTTGAGCT
GGCCAAGCCCAGGGTTGCCTTTTGTTATTCTGCTGCTAGAAGTTAGAACATTCAAGAATTGAGGGTACACCTATA
AACAGACTGGCAGATGATATAGTGCTTAATGTCTTGCCTCAGTTTGTCATTGTGTCAGAACATCCGAAAAAAGAT
AGGAGAAAAGTTGGAGTTTAGGGCATAATTTTCCTGTAATAATTTGGAGCTCAAAAATATTACAATGAGAAAATA
AAAAGCTATTAATTAGCAGGAGACTTAATCACATGAAGAATTTCAATTAGATATTTCTTCTACGTAGTATAGTTA
TAACTTTGCATTCCATTGTTTTCCTTCTCTATAGTCCATTGTATTTCTGTGGGGTTTTTTTTTTTCAGGTTTTGA
GTTCAAGAACGAGATTAAAAAAGAAAATCTAAAATGGGATGATTCAGAGGAAGTAGAAATAAACAAGGCTTTACA
GAGAAAGTCCAGAGGAGTTTATTGGCACTCTGAGCTACAAAAAGGCTTGGAGAGTGAGCCAACATCAAGAAGGCA
ATGTAGAAATTCTCCAGGGGAGAGTGAGGAGAAAACCCCATCCCAGGAGAAG**ATG**AGTCACCAGAGTTTTTGTGC
CAGGGACAAAGCCTGTACACATATCCTCTGTGGGAAAAACTGCTCTCAGAGTGTGCACTCTCCCCACAAGCCAGC
GCTCAAACTGGAAAAAGTATCTCAATGTCCTGAATGTGGGAAAACCTTTAGCCGAAGTTCTTATCTTGTTCGGCA
TCAAAGAATCCACACAGGCGAGAAGCCTCACAAGTGCAGTGAGTGCGGGAAGGGCTTTAGTGAGCGCTCCAACCT
CACTGCCCACCTACGAACTCACACAGGGGAGAGGCCCTATCAGTGTGGGCAATGTGGGAAAAGCTTCAACCAGAG
TTCCAGCCTCATTGTCCACCAGAGGACCCATACCGGGGAAAAGCCTTACCAGTGCATTGTCTGTGGAAAGAGATT
CAACAACAGTTCCCAGTTCAGTGCTCACCGGCGCATCCACACTGGGGAGAGCCCATACAAGTGTGCAGTGTGTGG
GAAAATCTTCAACAATAGCTCCCACTTCAGTGCCCACCGAAAAACCCACACTGGTGAAAAGCCTTACAGGTGTTC
TCACTGTGAGAGAGGCTTCACTAAGAACTCTGCCCTCACCCGTCATCAGACAGTACACATGAAAGCAGTACTCTC
ATCACAGGAAGGAAGAGATGCGTTA**TGA**GTGTGTCGGTAAACTGTCAGATTAAGTTCCTCAGGTCAGCATGTATG
AGCTTTCTTCTGCTGTGGAGAGATCTAGCCAGTCCCTGACTTTGCAACAGACCTACTGACTACTGGATCTTAAGA
CCCATGTCTAGGACCAGGAGTCAGCATAAGGACGCTGACCTCTCCTGGCTGTGCCTGTGACTCCAGAGTCCTATC
TTACTGTGACTTAAAGTTTGATGGAGAGAAAGCTGTAGGATCCATAAATTCTACCAGGAAACCAGGGTCTTCCTG
TTCCTAGCACTGAGAATGGGCACCCAGTGGTCCAAGAACACTTTCTGGGCTAACATAGTCCTCACACAGGGCTGA
GAAAGAAAGTGTCTCCTTTCCTGGAAAGCACATGTAAAAGTTAAGGGCCTGAATCTCTTCTAAACCAATAATTGA
CCTCTAGGCACCCACCATAATACTGCTACCTTCAGGGCAGAAGACACTGCTCTTTGTAACCCAGCCACCACCAAA
AAGCAAACAGAAAGAAGGAAGGATGGTTAAGCCATTGGATAATACTGAATCTGTTTCCCTAAGTGACTTAACCTT
AGAGCAAGCACAACATCCAGGTTAATTTTTTGTAAGATTTCTCCTTTTATTATTGCCCTCATCATAGTTCCTGAT
TGTCTCTTAAAGTAAGTGGTTTATAGACATTACTATTTCTGATAATAATTTACAAACTACTATAAACAAATTTAT
AAACATTACTAATTTCTGATGAAAATAAAGTTGTTTCTCCCTCC

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FIGURE 2258

CCGCCCTGGAGGCCGGAGCCACTGGGCCTGCGGCGCCTCGGCAGCGAGCAGCCGCTTTGCTCGCGTGCAGGAGGC
TGTTCGCTACCTCACACCCCCGGCTGGCGCTGTGGCCTCGCTTAGCTCTACCGTTTAGCACCCGGCGACATGCAC
CCGGTCGGTTTCCGCCAGGATGCGGGAGAGTTGGGGCAAGCTACCTGCGACAGCTTGAACTTTTCCTAGGGATTC
CGCTCCACCCGCCGGTTAGAGCGTATTGCTCATTAAATCCGAGACCTGTGTGCTTGCTACTGAAATAAAAGAAGT
ATTTTTTCCCCAGAGTCCTTTTAGGACGTTATGACTTTTCTCCTTTGCAAGACTGCAAAAAACTGACAAGAAGAC
AAAACTCTTCCCACTCCCAGGGACCGCGTTGTCTTGAGTTTGGCTAGTAAAGGCTAGCAAGTGAGGCTTTGTCTC
TGCATCCCGTTTCCCCTAACATCCTCAGAGAACCTTCGTTTCTAGAATCTTTCTAGTATTCAGAGACTTCTCCAG
GGTCATGATCCCAAAGGCTTAACCCGTTTACAAGGAGAGAGTTGTCTCCTGACGCCCAAA**ATG**GCAGCTAAAATG
GAGATAACTTTAAGCTCCAACACTGAAGCTTCCTCCAAGCAAGAGAGACACATAATAGCCAAACTAGAAGAGAAA
CGGGGCCCTCCTCTGCAAAAAAACTGCCCAGATCCTGAGCTCTGCCGCCAGAGCTTCAGACGCTTTTGTTATCAA
GAGGTGTCTGGACCCCAAGAGGCGCTCTCCCAGCTCCGACAGCTCTGCCGTCAGTGGTTGCAACCCGAGCTGCAC
ACCAAGGAGCAGATTTTGGAGCTTCTGGTGATGGAGCAGTTCCTGACCATCCTGCCCCCGGAGATCCAGGCTCGG
GTCAGGCATCGATGTCCAATGAGCAGCAAGGAGATTGTGACCCTCGTGGAAGATTTTCACAGAGCATCCAAGAAA
CCAAAGCAGTGGGTGGCCGTTTGTATGCAGGGGCAAAAGGTGCTCTTGGAGAAAACTGGATCTCAGCTTGGAGAA
CAGGAACTGCCAGACTTTCAACCGCAGACTCCTAGGAGAGATCTCAGGGAGAGCTCTCCAGCAGAGCCTTCCCAG
GCAGGAGCTTATGACCGGCTGAGCCCCCATCATTGGGAGAAATCCCCACTCCTCCAAGAACCAACCCCCAAATTG
GCTGGGACAGAGGCCCCCAGAATGAGAAGTGACAACAAGGAAAATCCACAACAGGAAGGGGCTAAAGGAGCAAAG
CCATGTGCAGTGTCAGCTGGCAGATCCAAAGGGAATGGTCTGCAGAATCCTGAACCAAGAGGGGCAAATATGAGT
GAACCTCGGTTGTCACGGAGGCAGGTCAGCTCCCCAAATGCTCAAAAGCCATTTGCTCACTACCAGAGACATTGC
AGGGTGGAATACATCAGCAGCCCCCTAAAAAGCCACCCACTGAGAGAGCTAAAGAAAAGCAAAGGAGGTAAACGG
AGTCTGAGCAACCGTTTGCAACATCTTGGTCACCAGCCCACCCGCTCAGCAAAGAAACCCTACAAATGTGATGAC
TGTGGGAAAAGCTTCACGTGGAATTCAGAGCTGAAGAGACACAAGAGAGTCCACACAGGAGAGAGACCCTACACG
TGCGGAGAGTGTGGAAACTGCTTTGGGCGGCAGTCAACCCTGAAGCTGCACCAGAGGATCCACACTGGAGAGAAG
CCATACCAGTGTGGCCAGTGTGGGAAAAGCTTTCGCCAGAGCTCAAACCTTCACCAGCATCACCGACTTCACCAT
GGGGAC**TAA**AAGGAGCACTCCATGCTTTAGATTCACACGGAAGGTGTTTGTGTTTCTCCTCCCCCTTACTTGCAT
GTAAATCACAAAAACTGTGTGACTTACAAGGAAAGCACGAGGCCCTTGAGGAATGATGATGCACATTCTGCTGTG
AGGAGGCCCAGAAAAGGCCAACCAGGGCCCAACCGTGCATGATGACAGGGTGAAGAGAAGGCAGGTCTGGGCACT
GGGGCAAAGAGAACTTAAGTCTCTGCAGAGAGCAAGGAGTAACTACTGAGAGAGAATCAGGACAATCCTGCAGGT
GGCCCGCTTACTGTTAAATCGTCCCTCTGTTGCTTTATCCTCTAAAATATGTTAAGGGATAAATTCTATATATAT
AGTTATGCATTTGCTGTCATACCAGACAATTTTTTATCATGAGCACACTTCTTTAATAAAGATGAGTGATCTACC
AG

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FIGURE 2259

GTCTGAGTCTTGCGTGGGTCCTCTATATAGGGTGAGAAGCGTGGCGCTCGGTTCCTGCCTCGGGGAAGTCCTGGC
GCAGATGGGCCACGGGGCCGGCGTGGCGGCGCCTGGGACCGACTGAGGCCTAGGCGCCGGAGCCGGCCGCGCCTG
GGCTGGAGCGGGGCTCCTCGGCCTGGACTGGGAGCCCCCGGCCCCGGGCTCCTGCTGGCGCCGTCCAACCTTACA
TGGGTTCAGGGCGCCTTCGTAGGCGGGCACGGCTGGTTTCGGGCTAAGGCGCTCTGGAGACCTGACG**ATG**GCGTC
GGGCCCGGGCTCCCAGGAACGGGAAGGGCTCCTGATAGTGAAGCTGGAGGAGGACTGCGCCTGGAGCCAGGAGCT
GCCCCCACCTGACCCAGGACCGAGCCCCGAGGCCTCCCACTTGCGCTTCAGACGGTTCCGCTTCCAAGAGGCAGC
TGGTCCCCGGGAAGCCCTCAGCCGGCTCCAAGAGCTTTGCCATGGGTGGCTTCGGCCTGAGATGCGCACGAAGGA
GCAGATCTTGGAGCTGCTGGTGTTAGAGCAGTTCCTGACCATCCTGCCCCAGGAGATCCAGAGCAGGGTGCAGGA
GCTGCATCCGGAGAGCGGCGAAGAAGCGGTGACCCTTGTGGAGGATATGCAGAGAGAGCTTGGGAGACTGAGACA
ACAGGTCACAAACCATGGGCGGGGAACAGAAGTGCTTTTGGAGGAGCCTTTGCCTCTGGAAACAGCACGAGAGTC
ACCGAGCTTCAAGCTGGAGCCAATGGAGACTGAGCGAAGCCCTGGCCCCAGGCTGCAGGAGCTGCTAGGCCCCAG
CCCCCAAAGGGACCCCCAGGCTGTAAAGGAGAGGGCATTATCTGCTCCCTGGCTTTCTCTTTTTCCTCCTGAAGG
GAACATGGAAGACAAGGAGATGACTGGGCCCCAGTTGCCTGAGAGCTTAGAGGACGTGGCAATGTACATCTCCCA
GGAGGAGTGGGGGCATCAGGATCCTAGTAAGAGGGCCCTCTCCAGGGACACGGTGCAGGAGAGTTATGAGAATGT
GGACTCACTGGAGTCTCACATTCCCAGTCAGGAGGTCCCAGGCACCCAGGTGGGACAAGGAGGAAAGCTATGGGA
TCCCAGTGTCCAGAGCTGCAAGGAGGGCCTGAGCCCCAGAGGCCCAGCTCCAGGAGAAGAGAAATTTGAGAACCT
GGAAGGTGTTCCGTCTGTATGCTCTGAGAACATCCACCCTCAGGTGCTGCTTCCTGACCAGGCCCGAGGGGAGGT
GCCCTGGAGTCCTGAGCTGGGAAGACCTCATGACCGGTCGCAAGGGGATTGGGCGCCTCCCCCAGAGGGTGGAAT
GGAGCAGGCCTTGGCAGGAGCCTCAAGTGGCAGAGAACTGGGGCGACCGAAGGAACTGCAGCCAAAGAAACTCCA
TTTATGTCCCTTGTGTGGCAAAAATTTCTCTAACAACTCAAACCTAATTAGGCACCAGAGAATACATGCAGCTGA
AAGACTGTGTATGGGTGTGGACTGCACTGAAATCTTTGGTGGGAACCCACGTTTCCTGTCACTACACAGAGCACA
CCTGGGAGAGGAGGCCCACAAGTGCCTTGAATGTGGGAAATGCTTCAGTCAGAACACCCATCTGACTCGCCACCA
ACGCACCCACACGGGTGAGAAGCCCTATCAGTGCAACATTTGCGGAAAATGTTTCTCCTGCAACTCCAACCTCCA
CAGGCACCAGAGAACGCACACTGGGGAGAAGCCCTACAAGTGCCCTGAGTGTGGGGAGATCTTTGCTCACAGTTC
CAACCTCCTTCGGCACCAGAGAATTCACACTGGAGAGCGACCTTATAAGTGTCCCGAGTGTGGGAAAAGTTTCTC
TCGGAGTTCACACCTCGTCATTCACGAAAGAACTCATGAGAGAGAGAGACTTTACCCCTTCTCTGAGTGTGGGGA
AGCTGTGAGTGACAGCACCCCCTTTCTTACAAACCATGGAGCCCATAAGGCAGAGAAGAAGCTCTTTGAATGTTT
GACTTGTGGGAAAAGCTTCCGGCAGGGCATGCACCTCACCAGACATCAGAGAACACACACAGGAGAGAAACCGTA
TAAATGTACCCTTTGTGGGGAAAACTTCTCTCATAGATCCAATTTAATCAGGCACCAGAGAATCCACACAGGAGA
AAAACCCTATACCTGTCATGAGTGCGGAGACAGCTTCTCTCACAGCTCCAATCGGATTCGCCACCTGAGAACGCA
TACGGGAGAGAGACCCTATAAATGTTCTGAATGTGGAGAAAGCTTCTCTCGGAGTTCCCGTCTTATGAGTCATCA
GAGAACTCACACAGGT**TAG**TAACAGTGGGGTTTCTCTTTGCCCCAGGTGAGGTGGCATATTCAGAGGAGCCTGTT
GGCAAGAGCTGGTATTCCCTGCCCAGCCGACCAAATGACCTCTGCATTCTTCAGGTAATGGGGGCTCATTGTGAG
GGAGGTGCAGAGGCAGCAGAGGATTGGCATAAAACTGAAAAGGAGTTCTGTCTGCATGAGAAAGGATGGCAAGTC
TCTGAGGTGACCTCAGGGTGGAATTCTCTGTTAAGTCCACCCTGCCCCAGGGTGCTCCTACCCTCTTGGTCTTTT
TAAAGCCAAGGTGCGATTTGGGCACCTGACTGTCCAGTTTACCTTAACAAGTTTGGGAATCCATGTGATGTTTTT
GATACTTCTTCCTCATTTGGGACATTCAGTAGGAGCATTTGGGCTTCCGGGGCCCCTGAGACCAAAGAAGAGGGG
CCAAGTACCCTGGGAAATCAGCTGAAGGTCAACAAAAGACTGGTTGTGAGTTGCAGCTGTCCCGAAGGCCCCAGT
TGGGAAGCCATGGGCAGTCCAGATCAAGCCACCACGTGCCCTACGATGGCCTAACAGGAGTGCCCATTGGCAGAT
TACACATGTAAATATGACCTCAGACAAAAAGGAACCAGAGGCCCAAGGGCAATAATAAGGTGGAATTTGCAGGTC
AGCCCAGGAATTGGCAGAGGAAGTAGGTGTCTGATAACCCTTTGTGGAGAATGAGATTCCCCCCACCTGTGTGAG
AAAAATAAACAGCTCTGGAGTCTTGTTCCTGACTCCAGAGGAACGAGAGCATTCCAGGAAAGAGAGATTCCCTGG
AAAATTGAAAATGTGAATCCTAGGGGGAAATTGGGGATTGTGTCTTTCCCTGTTGAAAATGTTTGGATGGGAATA
AATATCTTCAGGAAA

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FIGURE 2260

GCGGCGCGAACGAATAGTCGCCGGCGACCTGTGAGGGCACTCGGAAGGGCGAGGGGAGGGCTCGACCGCTCGCGC
CTAGTTTTTCTATCTCTCCCGGAGCCTGAGTCTCTGAGCCGTCCCCAGCAAACGCTCAGGGGCTGCAGAGGCCCC
GAGAGCTTGGCTCTCTGGCAGATTTCCTCTAGTAAGAGGTGGCTCTGGAGGCCCCGCGAAACGAGTGTGGTGTGT
GGTTGCAAGGCATG**ATG**GCTGCAAAAGTGGTTCCTATGCCCCCAAAGCCAAAGCAGTCCTTTATACTGAGAGTTC
CGCCAGACTCCAAGCTGGGCCAAGACCTACTTCGAGATGCCACTAACGGGCCCAAGACCATCCACCAGCTAGTGC
TGGAGCACTTCCTCACCTTCTTGCCCAAGCCAAGCCTGGTCCAGCCCAGTCAGAAAGTCAAGGAGACCTTGGTTA
TTATGAAAGATGTGAGCTCAAGCCTTCAGAACAGAGTGCATCCTCGTCCCTTGGTGAAGCTTCTGCCCAAAGGAG
TCCAAAAGGAACAAGAGACAGTGTCTCTGTATTTGAAAGCTAACCCTGAGGAGCTGGTGGTCTTTGAGGATTTGA
ATGTATTTCACTGCCAGGAAGAATGTGTGAGCTTGGATCCTACTCAACAACTCACGTCAGAGAAGGAAGATGACA
GCAGTGTCGGGGAAATGATGTTACTGGCAGTCAATGGCAGTAATCCTGAAGGTGAAGATCCTGAGAGGGAACCTG
TAGAAAATGAAGATTATAGAGAAAAGTCTTCAGATGATGATGAAATGGATTCTTCCTTGGTCTCTCAGCAGCCTC
CCGATAACCAGGAAAAGGAACGACTAAATACATCCATTCCACAAAAAAGGAAAATGAGAAATCTGTTAGTTACCA
TTGAGAATGATACTCCTCTAGAGGAACTCTCAAAATATGTAGACATCAGTATTATTGCCCTTACTCGAAATCGGA
GGACAAGGAGATGGTACACTTGTCCACTGTGTGGGAAACAGTTTAATGAAAGTTCTTACCTCATTTCCCACCAGA
GGACCCACACTGGAGAAAAACCCTATGACTGTAATCACTGTGGGAAAAGCTTCAATCATAAAACAAACCTCAATA
AACATGAGCGAATTCATACAGGAGAGAAACCTTATTCCTGTTCTCAGTGTGGAAAAAACTTCCGTCAGAATTCTC
ATCGGAGTCGTCATGAAGGAATCCATATAAGGGAGAAGATATTTAAGTGTCCAGAATGTGGGAAAACCTTCCCAA
AGAATGAGGAGTTTGTGCTTCATCTGCAGAGTCATGAGGCTGAGAGACCATATGGTTGCAAAAAATGTGGGAGAA
GATTTGGTCGGCTGTCAAACTGTACCCGGCATGAGAAAACCCACTCAGCCTGTAAGACCCGAAAGCAGAAG**TAA**T
ACTGGGAACCCTTTCTGGGTCTGATGGTGCTGCCTCAACCTGAGAGCTTTCATAAGTAGTTCTGAATTCCCAAGC
TGCCTAAAAAGGTATAAATGTGTAAAAATCTCATTATTGCCAAAATTGGATAAATGCCCATCTTAGCTAAAACCT
CAAATTGCTAGAAAATTCACAGGGAAGAAAACATTTCAAGGGCTATACCTCAGCATCTAGGCTTTTTGGACTAAG
GAGCTTTCCTTTTTGAAGTTATATGATAATGTACAGGTCACAGATCCCCTTTCCCAACACTTTGAAGATGAATCT
GGAGTCTGCTTACTTGGAAGGCAAAGAGTGACTTGTGTCTATTGAAAGTATATCCGTTTTCCCCCCACATGGGGA
TTCATACTTGAGAAATAGTGCAAAGATGCTTATCTGGAACTGTGTTCTGGTGAAAGAACCAAATTACTGGCTTGT
TAGCCAACAGCTTCTGATAGCAATTCATATAACCCTCTAAGAATACCTGTTTAAGTCTTGAGTGTTGAAAGGAAT
TGTTTACTTTGGAATATAGGAAAACAGTTGAATGTCAGACTCTCATTTGTATGTGATCTAAATTTGCAATCAATT
TCAATAATATTTACAATTTGTGATAAAACTGACTTTTACAGATTCCTTTTCACAACATAATTTAGGTGTCTACTG
TTCTTATTGTATTTTGTTCTGCTGTTGATCTCTCCAGCAGCCGTCTCATGCTTCTCCCTTGCTAAAAGAAGTTTG
GATTACTCAGGCAGGGCCATCCAGCCCCACCACTAGAAAAGCTCTTCAGAATCTTGTCCCTCTGTTGAGCCCAGA
TCTCATGTGCTACGAAGGAAACCCCAAGACCCAGAGAGGAAGGGTCAACCTGGAGGCAGGAAAAAGTTGGCTTGG
ATCCATGTCTCATCAATAACCTTACCATATGCTTAGGTCCCCTCTATGCTGTCATCAGACCTTTGGCAATGGGGT
GGTCACTACCTCACAAGGCAAAGTGTTGTATGATTAGAAATTACGTCTCCAGTGGTTAGCTCACATTGCCTCTCA
AGAGACAGGTTTCCAGGTGTCTTCATTGTAGTGGGTATTAATTGTCTTCAGCCTCTTGATATCCATACCTTCCTG
TCCTCTGCCTAGAAGCAAGGCCAGCGGTGCCTTTACGGACTGATCGTGTGGTGCGATTTAGGGATTCTTCAGTTT
TGCTTGCTTTAGGTTTCCAAAAGTTATACATTGGTGTTTTGATTGGAATAAAGAAATCCTATAAGCTATTTGGGA
AAAATTATAGTGTATGTTTCCCATCCAGAAACATGCCTTTCTATTTATTAGAGTATTATATTCCTGTGAAAATTT
TTCTAATTTTCTTCACTTGTTTTACACAATTTTGTTATTGTAGTTTTTTCCATTATATTTTTATAGTTGATTATT
GCTTTTACATGGGAAAGTTATTTTTAATTATATATTTGTATAGTCATCTCACTGTTGTTAATTTTCAATAGTTTG
TTGGTTTAGTTCTGTTAACTTTTGGTAAAATGACACCATCTACA

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FIGURE 2261

GGCCTCTGGCCGCCTGGCTCCAACATCAAGCACCGGGCTCCGAGTGGCCGGGATCAGCGCCCCGAGGCAGAGGCC
GGAGGGCGCGCGCACTGCTAGGAAGTGCTGGTCCCCCGCGCCGCTCTGCCAGCTTGGTCCCCCGGCAGACGCCCC
CTGTACGATCGCCGCTCGCCCCGCGGGCGAGGCTGCGGTGGACAGCGCGGGGCTCCGGCTGGCTCGCCTTCCCGC
CTGCCGTGTCCTGCTGAGCGACCCTGGAGTACACATCCAGATGCCAGCCCAGCTACCACAGGGGATCCCTCTGGG
AGACTGAAAGTACAGGTTCTGGGGCCCAGGTTGAAGCCGACCAACCCTGAGCCTCAGGCCAGGGGA**ATG**GCAGCC
CCCTTGGAGGCCCAGGACCAGGCCCCTGGGGAGGGAGAAGGGCTTCTGATTGTGAAAGTGGAAGATTCCTCCTGG
GAACAGGAATCTGCCCAGCATGAGGATGGCAGGGATTCCGAAGCCTGCCGCCAGCGCTTCCGGCAATTCTGCTAC
GGGGATGTGCATGGGCCTCATGAGGCCTTCAGCCAGCTCTGGGAGCTCTGCTGCCGCTGGCTGCGGCCCGAGCTG
CGTACCAAGGAGCAGATCCTGGAGCTGCTGGTGCTGGAGCAGTTCCTGACAGTGCTGCCAGGGGAGATCCAGGGC
TGGGTGCGTGAGCAGCACCCGGGAAGCGGTGAGGAGGCTGTCGCCTTGGTGGAGGACCTACAGAAGCAGCCAGTG
AAAGCCTGGCGACAGGATGTGCCCTCGGAGGAGGCGGAACCCGAGGCTGCAGGCCGGGGATCCCAGGCCACGGGG
CCTCCCCCGACGGTGGGGGCACGGAGGCGGCCGTCTGTTCCCCAGGAGCAGCACAGCCATAGCGCCCAGCCTCCT
GCTCTTCTTAAAGAGGGTCGTCCCGGAGAGACGACGGACACCTGCTTTGTCTCTGGGGTCCATGGACCTGTGGCA
TTGGGAGACATCCCATTCTATTTCTCCCGGGAAGAATGGGGCACCCTGGACCCTGCTCAGCGGGATCTCTTCTGG
GACATAAAGCGGGAGAACTCCCGGAACACCACCCTGGGTTTTGGGCTCAAAGGCCAAAGTGAGAAGTCCCTGCTG
CAGGAGATGGTGCCGGTGGTGCCAGGCCAGACAGGCAGCGACGTGACTGTGTCCTGGAGCCCCGAGGAGGCTGAG
GCCTGGGAGAGCGAGAACCGGCCGAGGGCGGCCCTGGGCCCAGTGGTGGGCGCGCGACGGGGGCGGCCACCCACT
CGCCGGCGCCAGTTCCGGGACCTGGCAGCCGAGAAGCCGCACAGCTGCGGGCAGTGTGGAAAGCGCTTCCGCTGG
GGCTCGGACCTGGCGCGGCACCAGCGCACGCACACGGGCGAGAAGCCACACAAGTGCCCTGAGTGCGACAAGAGC
TTCCGCAGCTCCTCGGACCTGGTGCGCCACCAAGGCGTGCACACGGGCGAGAAGCCCTTCTCCTGTTCCGAGTGC
GGCAAGAGCTTCAGCCGCAGCGCCTACCTGGCCGACCACCAGCGCATACACACGGGCGAGAAGCCTTTCGGCTGC
AGCGACTGCGGCAAGAGCTTCTCGCTGCGCTCCTACCTGCTGGACCATCGGCGTGTGCACACCGGTGAGCGGCCC
TTCGGCTGCGGAGAGTGCGACAAGAGCTTCAAGCAGCGCGCGCACCTCATCGCGCATCAGAGCCTGCACGCCAAG
ATGGCCCAGCCCGTGGGG**TGA**GCAGCTGGCTTGGCCGGAAACCCGGGGGAGGCCCAGCCACGGCACATCCTGCTT
TGTTCACCACTGGGACTCTCCTTCCATCTGTGGCCACCTCCCGGGCTGTCCGAGGACCCCAGGTACCTCACACTC
GGAACTCGCCTGCCCTGCTTGGCTCTGAAGACCTGCCCAGCGCTCAAAGGGAACGGAAGCCTTCCCCTCCCGCCC
CCGATCTTGTCCTCTTTCCCCCTTCTGCGCCTAGCGTTCCTCTTCCCCTCTAGTTTCCTGGAGCCCCAACACATT
CCTGGCAGGGACAGCAGGGTGGCAAGGACTCAGGTCTAGGTCCCTTCCCAGAAGCCCCCGAGCCTCATTTGACTG
TGTGGCTCTTTGGCCCCCACCCTGTGGGGTGGGTCCATGGGTCAGGCCTCTGCCCTACCAACCTGTGCCTTTCAG
TGGGCGTGGAGGACTGGCCTTGGCCCCCCAGGGGGCTGCTGGACTTTGGGAGAGACAGCCCACACCTGTGGGACC
GCGGGTCTTAGTCACGGCGGCAGGGGCTTTCTGGCCCCCTCCCACTCCCGTTTCCAGGCCATGACCACTCTGCCC
TGTCCTGGCCATACGGACTCGGCCTGCCTTTGCCCTCGGCCTACTTGCCCTAGCATGAGGCTCTGAGAGCCACCT
GCCCACCAATCTGGTGAGGATAATGGTGGCTCCAGCGACAGGAGGCCAACCCTGGAGACCAAGAACAGGGCGCCT
GGCTGCCATCTTTTCCTCCAGAGGTGGGGCTGCACCAGACTCAGCACTAGCACTCCATCAGCACTAGCACCTCAC
TCCATCAGCACTAGCACCTCACTCCATCGGCCCCGGCACCCTGCTCCATCGGCACTGGCGCCCTGCTCCATCGGC
ACTAATGCTCCACTCGGCGCCCCACTCCATCGGCCCCGCTCCATCGGCACTAATGCCCCACTCGGCGCCCCACTC
CATCAGCACTAATGCTCCACTCCATTGGCACTAACGCCCCAACTCCAGCGGCACTAATGACCCGCTCCTTTGACA
TTGGTGCCCCACTCCATCAGCACTAACGCCCTGCTCCATCGGCACTGGTGTCCCACTCCATTGTCACTAACGTCC
GGCTCCATCGGCACTACCACCCCGCTCCATCATCACTATGTCCAGCTCCGTCGGCACTACCACCCTGCTCCATCA
TCACTACGTCCAGCTCCAACGGCACTGGTGCCCCATTCCATCGGCACTAACGCCCCGCTCCACCGGCACCAGTGC
CTCGCTCCATTGGCACCAACGCCCAGCTCCACCGGTACTGGCTCCCTGCTCCATCGGCACTAACGCCCTGCTTCA
TTGGCACTTTGCTGCTGCCTCCTGAGCACTGCCTTCCATGAACAGGGACAGACCAGAGGCCCTGCAAGGACTCCC
CCTCAGACCTCCAAAGGGCAACAGAAGAGTATTAATAAACGTGAAAACTT

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FIGURE 2262

CCCGTGCAGGCTGTGGAGACTCCCTTCCCGGGGGAGGGGGCCCCCACTGCCGCAGGTGCCCCCTCTGCCTCCACC
CCGGCTCCTGGCCAGAAGCTGGAGGGGGCTTGGCCAAAAAGAGGGAGAAACAACTCAGCTGTTCTTTCTAGCTCT
GAAATAGAAAATGTCTGCAGACGGCGGAGGCATCCAGGACACCCAGGACAAGGAGACACCCCCGGAGGTTCCAGA
TCGTGGACATCCTCATCAGGAAATGCCTTCTAAGCTGGGGGGAGGCGGTACCTTCAGGGGACACTCAGGAGTCACT
GCACATTAAG**ATG**GAGCCCGAAGAGCCACACTCCGAGGGGGCATCGCAGGAGGATGGGGCTCAAGGTGCCTGGGG
CTGGGCACCCCTAAGTCACGGCTCTAAGGAGAAAGCTCTCTTCCTGCCTGGCGGAGCCCTCCCCTCCCCCCGGAT
CCCCGTGCTTTCCCGAGAGGGGAGGACCAGAGACCGGCAGATGGCTGCAGCGCTCCTCACTGCCTGGTCCCAGAT
GCCAGTGACTTTCGAGGATGTGGCCTTGTACCTCTCCCGGGAGGAGTGGGGACGGCTGGACCACACGCAGCAGAA
CTTCTACAGGGATGTCCTGCAGAAGAAAAATGGGCTGTCACTGGGCTTTCCCTTCAGCAGGCCTTTCTGGGCCCC
TCAAGCGCACGGCAAGGGTGAGGCCTCGGGCTCCAGCCGGCAGGCAGGAGATGAGAAGGAGTGGAGAGGCGCGTG
CACAGGAGCCGTCGAGGTGGGGCAGAGGGTGCAGACCTCATCCGTGGCAGCCCTTGGGAATGTGAAGCCCTTCAG
AACCAGGGCAGGGAGAGTCCAGTGGGGCGTCCCGCAGTGCGCGCAGGAAGCAGCCTGCGGCCGGAGCTCAGGGCC
GGCCAAAGACTCCGGGCAGCCGGCTGAGCCAGATCGCACCCCGGATGCAGCTCCGCCAGACCCCAGTCCCACGGA
GCCCCAGGAGTACCGCGTCCCGGAGAAGCCCAACGAGGAGGAGAAGGGCGCCCCGGAGAGTGGCGAGGAGGGCCT
GGCCCCTGACAGTGAGGTGGGCAGGAAGAGCTACCGGTGCGAGCAGTGCGGCAAGGGCTTCAGCTGGCACTCGCA
CCTGGTGACGCACCGGCGCACGCACACGGGCGAGAAGCCCTACGCCTGCACTGACTGCGGGAAGCGCTTCGGCCG
CAGCTCGCACCTCATCCAGCACCAGATCATCCACACGGGCGAGAAGCCCTACACCTGCCCCGCCTGCCGGAAGAG
CTTCAGCCACCACTCCACGCTGATTCAGCACCAGCGCATCCACACCGGAGAGAAGCCCTACGTGTGCGACCGCTG
CGCCAAGCGCTTCACCCGCCGCTCGGACTTGGTCACCCACCAGGGCACCCACACGGGCGCCAAGCCGCACAAGTG
CCCCATCTGCGCCAAGTGCTTCACGCAGAGCTCGGCGCTAGTCACCCACCAGCGCACCCACACTGGGGTCAAGCC
CTATCCGTGCCCCGAGTGCGGCAAGTGCTTCAGCCAGCGTTCCAACCTCATCGCGCACAACCGCACACACACAGG
CGAGAAGCCCTACCACTGCCTCGACTGCGGCAAGAGCTTCAGCCACAGCTCGCACCTCACCGCGCACCAGCGCAC
CCACCGTGGCGTGCGGCCCTACGCCTGCCCGTTGTGTGGCAAGAGCTTCAGCCGGCGCTCCAACCTGCACCGGCA
CGAGAAGATCCACACCACCGGGCCCAAGGCCCTGGCCATGCTGATGCTGGGGGCGGCGGCGGCGGGGGCTCTGGC
CACACCCCCACCCGCTCCCACC**TAG**GAGGCCAGGAAAGGGGGAGCGGGGCGCCCAGGGCCACTGGAACAGCCCCA
CTGGAGTCAAGGCTCCGAGGGAGGAGAGAGGGGCTCGGGAAGGGAGCTGGGGCGGTGAGGGCATGGGGTGAGGCA
TGGCGATGGGGGAGGGCGAGGGCGAGAAAGGGCAGGCACTCTGCGAATTAAAGGCCTTGGACTTG

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FIGURE 2263

ATGAATGATATGGCCGTGATCAAAACACCAAACTTCAGTTTCTCAGAAAAAGGACTCAGAGCAACAAGAGAACCT
ACAGTCAACAAGGACATTCATCAGCGCACATGTGATTTGAGCAAGACCATTGAAGCCCCTGCTGAACGGCAGGCT
GGCAGAGCCAGGGAGCTCACTCCTCTACTTGAAAAAGAAAGAGATGGATTACGGTGCCGAGGCAACAGATCCCCT
GTCCCGGATGTTGAGGATCCCGCAACCGAGGAGCCTGGGGAGAGCTTTTGTGACAAGGTCATGAGATGGTTCCAG
GCCATGCTGCAGCGGCTGCAGACCTGGTGGCACGGGGTTCTGGCCTGGGTGAAGGAGAAGGTGGTGGCCCTGGTC
CATGCAGTGCAGGCCCTCTGGAAACAGTTCCAGAGTTTCTGCTGCTCTTTGTCAGAGCTCTTCATGTCCTCTTTC
CAGTCCTACGGAGCCACACGGGGGGCAAGGAGGAGC**TGA**

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FIGURE 2264

CCCCAGCCAGCTGTCCCGAGTCTGGACTTTCCCTCTGCCCCTCCCCACTCTCAGGCTGGTGGGGTGGGGAAAGCA
GCCCATTCCTGGGCTCAGAGACTCCCACCCCAGCTCAGAGGGAGCAGGGGCCCAGCCAGGGACGGACCCTCATTC
CTCCCAGGGACCCCAGACCTCTGTCTCTCTCGGGCCTTGGCTCCTTGAACTTTTGGCCGCC**ATG**TGCTTCCCGAA
GGTCCTCTCTGATGACATGAAGAAGCTGAAGGCCCGAATGGTAATGCTCCTCCCTACTTCTGCTCAGGGGTTGGG
GGCCTGGGTCTCAGCGTGTGACACTGAGGACACTGTGGGACACCTGGGACCCTGGAGGGACAAGGATCCGGCCCT
TTGGTGCCAACTCTGCCTCTCTTCACAGCACCAGGCCATAGAAAGATTTTATGATAAAATGCAAAATGCAGAATC
AGGACGTGGACAGGTGATGTCGAGCCTGGCAGAGCTGGAGGACGACTTCAAAGAGGGCTACCTGGAGACAGTGGC
GGCTTATTATGAGGAGCAGCACCCAGAGCTCACTCCTCTACTTGAAAAAGAAAGAGATGGATTACGGTGCCGAGG
CAACAGATCCCCTGTCCCGGATGTTGAGGATCCCGCAACCGAGGAGCCTGGGGAGAGCTTTTGTGACAAGGTCAT
GAGATGGTTCCAGGCCATGCTGCAGCGGCTGCAGACCTGGTGGCACGGGGTTCTGGCCTGGGTGAAGGAGAAGGT
GGTGGCCCTGGTCCATGCAGTGCAGGCCCTCTGGAAACAGTTCCAGAGTTTCTGCTGCTCTCTGTCAGAGCTCTT
CATGTCCTCTTTCCAGTCCTACGGAGCCCCACGGGGGGGACAAGGAGGAGCTGACACCCCAGAAGTGCTCTGAACC
CCAATCCTCAAAA**TGA**AGATACTGACACCACCTTTGCCCTCCCCGTCACCGCGCACCCACCCTGACCCCTCCCTC
AGCTGTCCTGTGCCCCGCCCTCTCCCGCACACTCAGTCCCCCTGCCTGGCGTTCCTGCCGCAGCTCTGACCTGGT
GCTGTCGCCCTGGCATCTTAATAAAACCTGCTTATACTTCCCCTGGCAGGGGAGATACCATG

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FIGURE 2265

GCGAGGTTCTGCGCGGGCGCGGAAGACGGGCGGCGCGTGGCGGAAGGGTTCGGGACGGTACGCACCAGCCACCTT
CGCGCCGAAGGCGGTAGGGCGCCACGGAGAGGAACCGCTCTAGGCACGTAAGGCCTCGTGAGGTTGCGTCGCGCG
CGGAGCACTCTGGGACTTGTAGTTCTGGAGATGGAGCGAGCTGTGCCGCTCGCGGTGCCTCTGGGTCAGAGGTGT
TCCAGGCCTTGCAGCGGCTCCATATGACCATCTTCTCCCAGAGCGTCTCACCATGTGGGAAGTTTCTGGCGGCTG
GCAACAATTACGGGCAGATTGCCATCTTCAGCTTGTCCTCTGCTTTGAGCTCAGAAGCCAAAGAGGAAAGTAAGA
AGCCGGTGGTGACTTTCCAAGCCCATGATGGGCCCGTCTATAGCATGGTTTCCACCGATCGACATCTGCTTAGTG
CTGGGGATGGGGAGGTGAAGGCCTGGCTTTGGGCGGAGATGCTCAAGAAGGGCTGTAAGGAGCTGTGGCGTCGTC
AGCCTCCATACAGGACCAGCCTGGAAGTGCCTGAGATCAACGCTTTGCTGCTGGTCCCCAAGGAGAATTCCCTCA
TCCTGGCTGGGGGAGACTGTCAGTTGCACACTATGGACCTTGAAACTGGGACTTTCACGAGGGTCCTCCGGGGCC
ACACAGACTACATCCACTGCCTGGCACTGCGGGAAAGGAGCCCAGAGGTGCTGTCAGGTGGCGAGGATGGAGCTG
TTCGACTTTGGGACCTGCGCACAGCCAAGGAGGTCCAGACGATCGAGGTCTATAAGCACGAGGAGTGCTCGAGGC
CCCACAATGGGCGCTGGATTGGATGTTTGGCAACTGATTCCGACTGGATGGTCTGTGGAGGGGGCCCAGCCCTCA
CCCTCTGGCACCTCCGATCCTCCACACCCACCACCATCTTCCCCATCCGGGCGCCACAGAAGCACGTCACCTTCT
ACCAGGACCTGATTCTGTCAGCTGGCCAGGGCCGCTGCGTCAACCAGTGGCAGCTGAGCGGGGAGCTGAAGGCCC
AGGTGCCTGGCTCCTCCCCAGGGCTGCTCAGCCTCAGCCTCAACCAGCAGCCTGCCGCGCCTGAGTGCAAGGTCC
TGACAGCTGCAGGCAACAGCTGCCGGGTGGATGTCTTCACCAACCTGGGTTACCGAGCCTTCTCCCTGTCCTTCT
GATCTCTGACGACACCCCCAGCCAGCTCAGGGTTTTAGAGTGTTTTTCATTTTCTTTTTTTTTTTTTTTACAAT
AAAGTTTCAGGCTTTTTT

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FIGURE 2266

AACCCA**ATG**ATCCTGCAGCAGCCCTTGCAGCGAGGCCCCCAGGGAGGGGCCCAGCGCCTCCCGCGGGCCGCCTTG
GGGGTGACTTGGGGCCTGGACGCCAGCTCCCCTCTCCGAGGAGCTGTGCCCATGAGCACCAAGCGGCGCCTGGAG
GAGGAGCAGGAGCCTCTGCGCAAGCAGTTTCTGTCTGAGGAGAACATGGCCACCCACTTCTCTCAACTCAGCCTG
CACAATGACCACCCCTACTGCAGCCCCCCCATGACCTTCTCCCCAGCCCTGCCCCCACTCAGGAGCCCTTGCTCT
GAGCTGCTTCTCTGGCGCTATCCTGGCAGCCTCATCCCTGAGGCCCTCCGTCTGCTGAGGCTGGGGGACACCCCC
AGTCCCCCCTACCCTGCAACCCCAGCTGGGGACATAATGGAGCTC**TGA**GTGCTGGTGGACAGTGCCCCTCCCACC
TTCCTTCTTCCCCACAACAGAAGAGACCAGCGACTCCCGCAAAGGGACAAGGTTCCTCCCTCTCCTGCAGAGTAG
GCATCTGGGCACCAAGACCTTCCCTCAACAGAGGACACTGAGCCCAACGGAGTTCTGGGATGGGAGGGGTGGGAG
CATGGGAAGGGAGGCATCCCACCCCCAAGAAGAACTGAATAAAGATTGCTGAGC

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FIGURE 2267

GCGGCGGGCGCAGACAGCGGCGGGCGCAGGACGTGCACT**ATG**GCTCGGGGCTCGCTGCGCCGGTTGCTGCGGCTC
CTCGTGCTGGGGCTCTGGCTGGCGTTGCTGCGCTCCGTGGCCGGGGAGCAAGCGCCAGGCACCGCCCCCTGCTCC
CGCGGCAGCTCCTGGAGCGCGGACCTGGACAAGTGCATGGACTGCGCGTCTTGCAGGGCGCGACCGCACAGCGAC
TTCTGCCTGGGCTGCGCTGCAGCACCTCCTGCCCCCTTCCGGCTGCTTTGGCCCATCCTTGGGGGCGCTCTGAGC
CTGACCTTCGTGCTGGGGCTGCTTTCTGGCTTTTTGGTCTGGAGACGATGCCGCAGGAGAGAGAAGTTCACCACC
CCCATAGAGGAGACCGGCGGAGAGGGCTGCCCAGCTGTGGCGCTGATCCAG**TGA**CAATGTGCCCCCTGCCAGCCG
GGGCTCGCCCACTCATCATTCATTCATCCATTCTAGAGCCAGTCTCTGCCTCCCAGACGCGGCGGGAGCCAAGCT
CCTCCAACCACAAGGGGGGTGGGGGGCGGTGAATCACCTCTGAGGCCTGGGCCCAGGGTTCAGGGGAACCTTCCA
AGGTGTCTGGTTGCCCTGCCTCTGGCTCCAGAACAGAAAGGGAGCCTCACGCTGGCTCACACAAAACAGCTGACA
CTGACTAAGGAACTGCAGCATTTGCACAGGGGAGGGGGGTGCCCTCCTTCCTAGAGGCCCTGGGGGCCAGGCTGA
CTTGGGGGGCAGACTTGACACTAGGCCCCACTCACTCAGATGTCCTGAAATTCCACCACGGGGGTCACCCTGGGG
GGTTAGGGACCTATTTTTAACACTAGGGGGCTGGCCCACTAGGAGGGCTGGCCCTAAGATACAGACCCCCCCAAC
TCCCCAAAGCGGGGAGGAGATATTTATTTTGGGGAGAGTTTGGAGGGGAGGGAGAATTTATTAATAAAAGAATCT
TTAACTTT

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FIGURE 2268

GGAATTTCCCTTATCTCCTTCGCAGTGCAGCTCCTTCAACCTCGCC**ATG**GCCTCTGCCGGAATGCAGATCCTGGG
AGTCGTCCTGACACTGCTGGGCTGGGTGAATGGCCTGGTCTCCTGTGCCCTGCCCATGTGGAAGGTGACCGCTTT
CATCGGCAACAGCATCGTGGTGGCCCAGGTGGTGTGGGAGGGCCTGTGGATGTCCTGCGTGGTGCAGAGCACCGG
CCAGATGCAGTGCAAGGTGTACGACTCACTGCTGGCGCTGCCACAGGACCTGCAGGCTGCACGTGCCCTCTGTGT
CATCGCCCTCCTTGTGGCCCTGTTCGGCTTGCTGGTCTACCTTGCTGGGGCCAAGTGTACCACCTGTGTGGAGGA
GAAGGATTCCAAGGCCCGCCTGGTGCTCACCTCTGGGATTGTCTTTGTCATCTCAGGGGTCCTGACGCTAATCCC
CGTGTGCTGGACGGCGCATGCCGTCATCCGGGACTTCTATAACCCCCTGGTGGCTGAGGCCCAAAAGCGGGAGCT
GGGGGCCTCCCTCTACTTGGGCTGGGCGGCCTCAGGCCTTTTGTTGCTGGGTGGGGGGTTGCTGTGCTGCACTTG
CCCCTCGGGGGGGTCCCAGGGCCCCAGCCATTACATGGCCCGCTACTCAACATCTGCCCCTGCCATCTCTCGGGG
GCCCTCTGAGTACCCTACCAAGAATTACGTC**TGA**CGTGGAGGGGAATGGGGGCTCCGCTGGCGCTAGAGCCATCC
AGAAGTGGCAGTGCCCAACAGCTTTGGGATGGGTTCGTACCTTTTGTTTCTGCCTCCTGCTATTTTTCTTTTGAC
TGAGGATATTTAAAATTCATTTGAAAACTGAGCCAAGGTGTTGACTCAGACTCTCACTTAGGCTCTGCTGTTTCT
CACCCTTGGATGATGGAGCCAAAGAGGGGATGCTTTGAGATTCTGGATCTTGACATGCCCATCTTAGAAGCCAGT
CAAGCTATGGAACTAATGCGGAGGCTGCTTGCTGTGCTGGCTTTGCAACAAGACAGACTGTCCCCAAGAGTTCCT
GCTGCTGCTGGGGGCTGGGCTTCCCTAGATGTCACTGGACAGCTGCCCCCCATCCTACTCAGGTCTCTGGAGCTC
CTCTCTTCACCCCTGGAAAAACAAATGATCTGTTAACAAAGGACTGCCCACCTCCGGAACTTCTGACCTCTGTTT
CCTCCGTCCTGATAAGACGTCCACCCCCCAGGGCCAGGTCCCAGCTATGTAGACCCCCGCCCCCACCTCCAACAC
TGCACCCTTCTGCCCTGCCCCCCTCGTCTCACCCCCTTTACACTCACATTTTTATCAAATAAAGCATGTTTTGTT
AGTGC

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FIGURE 2269

GGGCGGAGGCCCCTCGAGGTGACACCCACCACTCAGCCGAGCGGGACTACGAGTCTGCTTTGTGCTCCGCGAGGA
CCAGAAACACCTGCAAGAGGCACGGAGAGGAGGCGCCTTTCAAGAGGCGCCTTTCATGGAACTGAGGACTGGCCT
GGCTTGGGGACACCAACAAGCCTTCCCCCTCCTGCTGGACACAGAGACACCCACCCAGCACACCAGACACACCCT
CTGAGTCACCTAGGCCGCCTGGGGCTGAGAAGACCTAACCGAGGGGCCAG**ATG**GCTTCGACCGGCTTAGAACTGC
TGGGCATGACCCTGGCTGTGCTGGGCTGGCTGGGGACCCTGGTGTCCTGCGCCCTGCCCCTGTGGAAGGTGACCG
CCTTCATCGGCAACAGCATCGTGGTGGCCCAGGTGGTGTGGGAGGGCCTGTGGATGTCCTGCGTGGTGCAGAGCA
CGGGCCAGATGCAGTGCAAGGTGTACGACTCACTGCTGGCTCTGCCGCAGGACCTGCAGGCCGCACGTGCCCTCT
GTGTCATTGCCCTCCTGCTGGCCCTGCTTGGCCTCCTGGTGGCCATCACAGGTGCCCAGTGTACCACGTGTGTGG
AGGACGAAGGTGCCAAGGCCCGTATCGTGCTCACCGCGGGGGTCATCCTCCTCCTCGCCGGCATCCTGGTGCTCA
TCCCTGTGTGCTGGACGGCGCACGCCATCATCCAGGACTTCTACAACCCCCTGGTGGCTGAGGCCCTCAAGCGGG
AGCTGGGGGCCTCCCTCTACCTGGGCTGGGCGGCGGCTGCACTGCTTATGCTGGGCGGGGGGCTCCTCTGCTGCA
CGTGCCCCCCGCCCCAGGTCGAGCGGCCCCGCGGACCTCGGCTGGGCTACTCCATCCCCTCCCGCTCGGGTGCAT
CTGGACTGGACAAGAGGGACTACGTG**TGA**

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FIGURE 2270

CCGGGAAAGGTGGCCAGCAGATGTGTCGGGCCTGGTGAGAGGGTGAGGCGAGACGGCCCGATCGCCCAGGGCCCC
GGAAGCTGCGGAGGTCACCCCCGCCTGGCCTTAGCTCAGGGACACCCTGGATTCACGTGGGAGCCCCTGCTCCTG
CCTCCCCCGTCCCACCACTGAGGCTGTTGGGCCAGGCCAGTC**ATG**CTAGAACGGCCTCCTGCACTGGCCATGCCC
ATGCCCACGGAGGGCACCCCGCCACCTCTGAGTGGCACCCCCATCCCAGTCCCAGCCTACTTCCGCCACGCAGAA
CCTGGATTCTCCCTCAAGAGGCCCAGGGGGCTCAGCCGGAGCCTCCCACCTCCGCCCCCTGCCAAGGGCAGCATT
CCCATCAGCCGCCTCTTCCCTCCTCGGACCCCAGGCTGGCACCAGCTGCAGCCCCGGCGGGTGTCATTCCGGGGC
GAGGCCTCAGAGACTCTGCAGAGCCCTGGGTATGACCCAAGCCGGCCAGAGTCCTTCTTCCAGCAGAGCTTCCAG
AGGCTCAGCCGCCTGGGCCATGGCTCCTACGGAGAGGTCTTCAAGGTGCGCTCCAAGGAGGACGGCCGGCTCTAT
GCGGTAAAGCGTTCCATGTCACCATTCCGGGGCCCCAAGGACCGGGCCCGCAAGTTGGCCGAGGTGGGCAGCCAC
GAGAAGGTGGGGCAGCACCCATGCTGCGTGCGGCTGGAGCAGGCCTGGGAGGAGGGCGGCATCCTGTACCTGCAG
ACGGAGCTGTGCGGGCCCAGCCTGCAGCAACACTGTGAGGCCTGGGGTGCCAGCCTGCCTGAGGCCCAGGTCTGG
GGCTACCTGCGGGACACGCTGCTTGCCCTGGCCCATCTGCACAGCCAGGGCCTGGTGCACCTTGATGTCAAGCCT
GCCAACATCTTCCTGGGGCCCCGGGGCCGCTGCAAGCTGGGTGACTTCGGACTGCTGGTGGAGCTGGGTACAGCA
GGAGCTGGTGAGGTCCAGGAGGGAGACCCCCGCTACATGGCCCCCGAGCTGCTGCAGGGCTCCTATGGGACAGCA
GCGGATGTGTTCAGTCTGGGCCTCACCATCCTGGAAGTGGCATGCAACATGGAGCTGCCCCACGGTGGGGAGGGC
TGGCAGCAGCTGCGCCAGGGCTACCTGCCCCCTGAGTTCACTGCCGGTCTGTCTTCCGAGCTGCGTTCTGTCCTT
GTCATGATGCTGGAGCCAGACCCCAAGCTGCGGGCCACGGCCGAGGCCCTGCTGGCACTGCCTGTGTTGAGGCAG
CCGCGGGCCTGGGGTGTGCTGTGGTGCATGGCAGCGGAGGCCCTGAGCCGAGGGTGGGCCCTGTGGCAGGCCCTG
CTTGCCCTGCTCTGCTGGCTCTGGCATGGGCTGGCTCACCCTGCCAGCTGGCTACAGCCCCTGGGCCCGCCAGCC
ACCCCGCCTGGCTCACCACCCTGCAGTTTGCTCCTGGACAGCAGCCTCTCCAGCAACTGGGATGACGACAGCCTA
GGGCCTTCACTCTCCCCTGAGGCTGTCCTGGCCCGGACTGTGGGGAGCACCTCCACCCCCCGGAGCAGGTGCACA
CCCAGGGATGCCCTGGACCTAAGTGACATCAACTCAGAGCCTCCTCGGGGCTCCTTCCCCTCCTTTGAGCCTCGG
AACCTCCTCAGCCTGTTTGAGGACACCCTAGACCCAACC**TGA**GCCCCAGACTCTGCCTCTGCACTTTTAACCTTT
TATCCTGTGTCTCTCCCGTCGCCCTTGAAAGCTGGGGCCCCTCGGGAACTCCCATGGTCTTCTCTGCCTGGCCGT
GTCTAATAAAAAGTATTTGAACCTTGGGAGCACCCAAGCTTGCTCATGTGGC

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FIGURE 2271

GGCCACCGCCGCCGCCGCCGCCGCGAGCTGTCCCTGCGGCGCGTCTGCCTTGGCGGAGCCGACCGCAGTGCGCTC
AGGCGTCCGGTGCGTCCCCAGCCTCCGCCCCGGCGCGGGGGCGACGGACTCGCGCGTGCGCAGCGCCGGAGGGGC
GCGGGCTGGGACCCCCTAGCCAGCGCGTGCGCCGATCGAGCGCAGGGCGATGGGTGGGCGCCGGGCGCCGGGCGC
CAGGCAGTGATGGGCCTTCCCGCGCTGCGGCCCCACTGAGGAGGAGGCTCGGGGACAGCAGGAGCACGGGCTGCC
CGCGCGGTGCGGACC**ATG**GCGTTCCTGGCCGGGCCGCGCCTGCTGGACTGGGCCAGCTCGCCGCCGCACCTGCAG
TTCAATAAGTTCGTGCTGACCGGGTACCGGCCCGCCAGCAGCGGCTCGGGCTGCCTGCGCAGCCTCTTCTACCTG
CACAACGAACTGGGCAACATCTACACGCACGGGCTGGCCCTGCTGGGCTTCCTGGTGCTGGTGCCAATGACCATG
CCCTGGGGTCAGCTGGGCAAGGATGGCTGGCTGGGAGGCACACATTGCGTGGCCTGCCTTGCACCCCCTGCAGGC
TCCGTGCTCTATCACCTCTTTATGTGCCACCAAGGGGGCAGCGCTGTGTACGCCCGGCTCCTCGCCCTGGACATG
TGTGGGGTCTGCCTTGTCAACACCCTTGGGGCCCTGCCCATCATCCACTGCACCCTGGCCTGCAGGCCCTGGCTG
CGCCCGGCTGCCCTGGTGGGCTACACTGTGTTGTCGGGTGTGGCCGGCTGGCGTGCTCTCACCGCCCCCTCCACC
AGTGCTCGGCTCCGGGCATTTGGATGGCAGGCTGCTGCCCGCCTACTGGTATTTGGGGCCCGGGGAGTGGGTCTG
GGTTCAGGGGCTCCAGGCTCCCTGCCCTGCTACCTGCGCATGGACGCACTGGCGCTGCTTGGGGGACTGGTAAAT
GTAGCCCGTCTGCCCGAGCGCTGGGGACCTGGCCGCTTTGACTACTGGGGCAACTCCCACCAGATCATGCACCTG
CTGAGCGTGGGCTCCATCCTGCAGCTGCACGCCGGCGTCGTGCCCGACCTGCTCTGGGCTGCCCACCACGCCTGT
CCCCGGGAC**TGA**GCTGCCATGCCAGCCTGCCCACAGCAGCCTCCTAGAGTTAGCAACACCAGGTGTTCCTCCCAA
CTCGTCTGCAAGGGGCTGGCTCCTTGGATGCTTCCAGCTCATGAGATGTCTCAGCAGGAGCCCTGTTCACCCGTT
CTTCCCTGTGGACTGACCTCTTCCACCCACGCCGTGGCGCTCCAACTTCCTTCCCTGCCTTTTCCCTCCAAGCTC
CTATTTTACTGTGTCAGCTGGAAGGAAACCTTTCCCTCTTGGGACCTCTTTACCCTCTGTGACCTGTGGGGTTAG
ACCAGAGAGGGACTCTGGGGTCACGTCTTGCTCTGAGAGTTCAAGTCCTGCCAGGCCGCCAGCCCAGAGCCTCCT
CACCCTATCCTGTTCCTCCCACCAGGCCTGTGGCCAGTCTTCCTGATCTCCATCTTTCTGCCCTGCATACCAGCC
CTCCCAGCAGCCACAAGCTTGCCCGCCCTGGCTCCCTCTGCCCAGAGACTATGGAGTAAGGCATTCAGGACAAAA
GGACCAAGGGGGCGTGGACCCGTCTTGTACCAGCTGGCCACAGGCACAAGGGCTGCAGCTGCTTCTTCCAGGAAA
CTGACACAGGGAGCTCAGCGGCCTCAGATCCTGGGACCCCTGGGCCGTGCCTGCCCTCCACCTTGAGTGCCATAC
TCCCAACAGCTCCAGGTACCCACCGGGGGATGTGCCTGCTCAGGAAACCTCTTTGCTCCACACAGCATGGGGCTT
CAGCTGCTGGCCCAAGGCCAGGAGCGCTGGGTTCTGCAGCAGGGCTCAGCCTCAGGGGCGTTAAGACCCTGGATG
ACATCAATAAAGGGACAGGAAGGGCCATGTTGCCACATGAGCAAGCTTGGGTGCTCCCAAGGTTCAAATACTTTT
TATTAGACACGGCCAGGCAGAGAAGACCATGGGAGTTCCCGAGGGGCCCCAGCTTTCAAGGGCGACGGGAGAGAC
ACAGGATAAAAGGTTAAAAGTGCAGAGGCAGAGTCTGGGGCTCAGGTTGGGTCTAGGGTGTCCTCAAACAGGCTG
AGGAGGTTCCGAGGCTCAAAGGAGGGGAAGGAGCCCCGAGGAGGCTCTGAGTTGATGTCACTTAGGTCCAGGGCA
TCCCTGGGAGGAGAGAGTAGTGACACTCAGGATCCAAAAGCTAGCCCTGCCCACCCCAGCCCCTGGACCTGCTTA
CCTGGGTGTGCACCTGCTCCGGGGGGTGGAGGTGCTCCCCACAGTCCGGGCCAGGACAGCCTCAGGGGAGAGTGA
AGGCCTGCAGGAGGGCAGGCGAGACAAGGAGGGTGTCCAGGGCTAGGGAGTGCCGGATGAAACCAGCTCTGTCCC
TGTGCAGGCTCCAGGCTCCCGCCTGACAAACAGGCAGGGAGCCACAGTCAGGGACAATAAAAACTTGGTGCACTC
TGAAAGCAGCACTTGGACAGCCTTCAAAGTCCTTCCATCTGGCTGCACTCCAAGGCCCCCTCTGTCCTTTTCAGA
ACACATGGACTTGGAGGCAGATTTGAAATAAACTTTTAGTAAATGT

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FIGURE 2272

GTTCCTGAGGACGTGCTACGGGGGCAGCTTCCTGGTACACGAGTCGTTCCTCTACAAGCGGGAGAAGGCTGTCGG
GGACAAGGTGTATTGGACCTGCCGGGACCACGCGCTGCACGGCTGCCGGAGCCGGGCCATCACCCAGGGACAGCG
GGTGACTGTG**ATG**CGTGGGCACTGCCACCAGCCCGATATGGAGGGCCTGGAAGCCCGGCGGCAGCAGGAGAAGGC
CGTGGAGACGCTGCAGGCTGGGCAGGACGGCCCTGGGAGCCAAGTGGACACGCTGCTCCGAGGCGTGGATAGTTT
GCTCTACCGCAGGGGTCCGGGTCCCCTGACTCTCACCAGGCCTCGGCCCAGAAAGCGAGCAAAGGTCGAAGACCA
GGAGCTGCCAACCCAGCCCGAGGCCCCAGACGAGCACCAGGACATGGACGCAGACCCGGGAGGCCCTGAGTTCCT
GAAGACGCCCCTGGGGGGCAGCTTCCTGGTGTACGAGTCCTTCCTCTACCGGCGGGAGAAGGCGGCTGGGGAGAA
GGTGTATTGGACCTGCCGGGACCAGGCCCGCATGGGCTGCCGCAGCCGCGCCATCACCCAGGGCCGACGGGTGAC
TGTCATGCGTGGTCACTGCCACCCGCCCGACCTGGGAGGCCTGGAGGCCCTGAGGCAGCGGGAGAAACGCCCCAA
CACGGCGCAGCGGGGGAGCCCAGGCGCTGGCCTCTCTTTCCAGTGGCTCTTCCGGATCCTGCAGCTTTTGGGTCA
TGCTCCTGTGCTGCTGTGCCCCTCAGGGTCCTCCTGCCTCCCGAGCCTCCCTGCTCCACATGGCCCCTGCCCAGC
CCTCTCCATCCCTCTTGAAGGAGGCCCCGAGTTCCTGAAGACGCCCCTGGGGGGCAGCTTCCTGGTGTACGAGTC
CTTCCTCTACCGGCGGGAGAAGGCGGCCGGGGAGAAGGTGTATTGGACCTGCCGGGACCAGGCCCGCATGGGCTG
CCGCAGCCGCGCCATCACCCAGGGCCGGCGGGTCATGGTCATGCGCAGGCACTGCCACCCACCGGACCTGGGCGG
CCTGGAGGCCCTGCGGCAGCGGGAGCACTTCCCCAACCTGGCGCAGTGGGACAGCCCAGATCCTCTCCGGCCCCT
GGAGTTCCTGAGGACTTCCCTGGGGGGCAGGTTCCTGGTGCACGAGTCCTTCCTCTACAGGAAGGAGAAGGCGGC
TGGGGAGAAGGTGTACTGGATGTGCCGGGACCAGGCTCGGCTGGGCTGCCGCAGCCGCGCCATAACCCAGGGCCA
CCGCATCATGGTCATGCGCAGCCACTGCCATCAGCCTGACCTGGCAGGCCTGGAGGCCTTGAGGCAACGGGAGCG
GCTCCCCACCACGGCCCAGCAGGAGGACCCAGAAAAGATTCAAGTTCAGCTGTGCTTCAAGACGTGTTCTCCTGA
AAGCCAGCAGATTTATGGGGACATCAAAGACGTCAGACTGGATGGCGAGTCCCAG**TGA**GGCGATGTGGGCAGAGG
AGCTCCGAGCCGCCCACCCAAGGTGGCTTCACATCCACACAGGCACTTCCCATCCACCTAGGTTTGGCTTAGCAG
AAACTTCTTTTCATTCTTCCAAAGCATCGATGGTCTTCGCGTCTCCTCAGGAGGTCTCCCAGGAGGAATTCTTGG
ATGGTGTCCTCATGTCGGCGGAGAACAGTGCTCAGAGCTGGCGCTTGCAGACGCAGCTGTCGTGGGGCAGGGCGG
TGGCGCCTTCCTGACCTTTGGAAGACATGACAAAGCTGCCTGGACACGGACGCCCCTGCTGTACGGCCACAGCAC
CCCTGGGTTTGCAGAGCACGCAGCCTTCCTAGGGCTTTCCACCTGGCGAGGCCCCGCTCTGCTCAGCACGGTGCA
AAGTGAATGCTGCTGTCTTGGAGCCTGGGCACGTTTGGGGAAGTTCCTGCTTCAAACTGAGCTGCCCCGCATAGG
CCAGGTCAACCCACACCAATCTCTTCTGGACAGGTGCTGGGTAGGCCTTCCTGGTCTCTGGCCGCCTGCTGCCAG
GGTGTGGCCATCCCCAGCAACCGGAGCTGGCCAAACCAGAGGCCTCGCTCCGCACTCCACACTTTCCTTTCTGTG
CTCCTTCCAAGTTAAATTAAACCCCCTCTCCACGATTCCCACGGCAGGCGTCATTCCCGAGATGGGAGCCAGTCC
AGGGGTCAGCAGGAGCCAGCGCTGGGCACACGTGCCCTGGCTGAGGCCAGCGGCATCCTGGGTGGCCCAGGTCCA
TCCTGGGCAGCAAAGGCGTGTCCCCTTCTGTCAGACAGCTTCACAGAGTGTGGCTTCACCAGTCAGAGGGAGCAG
TCCGGAGAGGCAAGATGACCCCACCGGGACTGCAGAGCCTCCTCCTTACTAACAAGGACCTGTCCGCAGCCGCGA
GGTCCTTCACTCCCACCCTGTAATTGTGGGGGGAGTGCCAGCAACAGGCCTGTCCCCTGGCAAGTTGGCCACGGA
ACCCACCATGCACTGCAAGGCTGTGACAGCCTGGGCACCCCTGCTTCTCCTCTGCTTGTACGGTTCCCCCAATAA
ATCCTATTTTCCATC

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FIGURE 2273

CAGAAGACAGGGCACCCGCGGCCTTGCTGCGCATGCTCGCGCTGTGACCCCGGCTTGAGGTAACAGCGCGAGCTG
AGGCTGGGGCCCTTGGCGCGGAGGCTGAGGGACCCGCCGCGGCGCTGTCGCCGGAGAGGGAGGGCACCGCTGTCG
TCGGCCAGAAGCCAAGGAGTCCTCAGTGACGGTGGGATCCACAACATCTCCACATCGCTGTCCCCACCCAGCCAG
GGCAGCGCCAGCACTAGCTCAGACGCAAGGACGGAACCGCTGGACTCCAGGTTCCTTGCCTGGGAGTAGGAGAAA
TCCACCTGCTGGGGGCTGAGTGTGGCCTGAGGGACAGGCCCTGGGTCCCGGG**ATG**CCCCTGCCCGAGCCCAGCGA
GCAGGAGGGTGAGAGTGTGAAGGCCAGCCAGGAGCCATCCCCCAAGCCAGGCACAGAAGTCATCCCGGCAGCCCC
CAGGAAGCCCAGAAAGTTCTCCAAACTGGTCCTGCTCACAGCCTCCAAAGACAGCACCAAGGTGGCGGGGGCCAA
GCGCAAGGGTGTGCACTGTGTCATGTCCCTGGGGGTGCCCGGCCCCGCCACCCTTGCCAAGGCCCTCCTCCAGAC
CCACCCCGAGGCCCAGCGGGCCATTGAGGCAGCCCCTCAGGAGCCTGAGCAGAAACGGAGCAGGCAGGACCCAGG
CACAGACAGAACAGAAGACAGTGGATTAGCAGCGGGGCCTCCTGAGGCTGCTGGGGAGAACTTTGCCCCCTGCTC
TGTGGCGCCCGGCAAGTCCCTG**TAA**CCTTGACAACAGGCGCATCCTCCCAGGCCACCAACCCAGCCATAGGCTCT
TCTCTGTCCGCAGGGCTTCTGGGGCCAAATGGGTGAATCTTTGCTTTTAACATTGTGTGATTTCTTTTCTTTTTT
TTTTTTTTTTTAGATCAAGTATAAGTTACTTTTGTAAGCAGAAAAATACTTTCAAACAAGAATAAAAGAAGCTGT
TCGCTAGACCCCATAATGGGCAGGTTTTAAACA

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FIGURE 2274

CCCCCGCCCCACCAGCC**ATG**GTGGTTTCTGGAGCGCCCCCAGCCCTGGGTGGGGGCTGTCTCGGCACCTTCACCT
CCCTGCTGCTGCTGGCGTCGACAGCCATCCTCAATGCGGCCAGGATACCTGTTCCCCCAGCCTGTGGGAAGCCCC
AGCAGCTGAACCGGGTTGTGGGCGGCGAGGACAGCACTGACAGCGAGTGGCCCTGGATCGTGAGCATCCAGAAGA
ATGGGACCCACCACTGCGCAGGTTCTCTGCTCACCAGCCGCTGGGTGATCACTGCTGCCCACTGTTTCAAGGACA
ACCTGAACAAACCATACCTGTTCTCTGTGCTGCTGGGGGCCTGGCAGCTGGGGAACCCTGGCTCTCGGTCCCAGA
AGGTGGGTGTTGCCTGGGTGGAGCCCCACCCTGTGTATTCCTGGAAGGAAGGTGCCTGTGCAGACATTGCCCTGG
TGCGTCTCGAGCGCTCCATACAGTTCTCAGAGCGGGTCCTGCCCATCTGCCTACCTGATGCCTCTATCCACCTCC
CTCCAAACACCCACTGCTGGATCTCAGGCTGGGGGAGCATCCAAGATGGAGTTCCCTTGCCCCACCCTCAGACCC
TGCAGAAGCTGAAGGTTCCTATCATCGACTCGGAAGTCTGCAGCCATCTGTACTGGCGGGGAGCAGGACAGGGAC
CCATCACTGAGGACATGCTGTGTGCCGGCTACTTGGAGGGGGAGCGGGATGCTTGTCTGGGCGACTCCGGGGGCC
CCCTCATGTGCCAGGTGGACGGCGCCTGGCTGCTGGCCGGCATCATCAGCTGGGGCGAGGGCTGTGCCGAGCGCA
ACAGGCCCGGGGTCTACATCAGCCTCTCTGCGCACCGCTCCTGGGTGGAGAAGATCGTGCAAGGGGTGCAGCTCC
GCGGGCGCGCTCAGGGGGGTGGGGCCCTCAGGGCACCGAGCCAGGGCTCTGGGGCCGCCGCGCGCTCC**TAG**GGCG
CAGCGGGACGCGGGGCTCGGATCTGAAAGGCGGCCAGATCCACATCTGGATCTGGATCTGCGGCGGCCTCGGGCG
GTTTCCCCCGCCGTAAATAGGCTCATCTACCTCTACCTCTGGGGGCCCGGACGGCTGCTGCGGAAAGGAAACCCC
CTCCCCGACCCGCCCGACGGCCTCAGGCCCCGCCTCCAAGGCATCAGGCCCCGCCCAACGGCCTCATGTCCCCGC
CCCCACGACTTCCGGCCCCGCCCCGGGCCCCAGCGCTTTTGTGTATATAAATGTTAATGATTTTTATAGGTATTT
GTAACCCTGCCCACATATCTTATTTATTCCTCCAATTTCAATAAATTATTTATTCTC

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FIGURE 2275

CGCTTCTTCCTTCTGGATGGGGGCCCAGGGGGCCCAGGAGAGTATAAAGGCGATGTGGAGGGTGCCCGGCACAAC
CAGACGCCCAGTCACAGGCGAGAGCCCTGGGATGCACCGGCCAGAGGCC**ATG**CTGCTGCTGCTCACGCTTGCCCT
CCTGGGGGGCCCCACCTGGGCAGGGAAGATGTATGGCCCTGGAGGAGGCAAGTATTTCAGCACCACTGAAGACTA
CGACCATGAAATCACAGGGCTGCGGGTGTCTGTAGGTCTTCTCCTGGTGAAAAGTGTCCAGGTGAAACTTGGAGA
CTCCTGGGACGTGAAACTGGGAGCCTTAGGTGGGAATACCCAGGAAGTCACCCTGCAGCCAGGCGAATACATCAC
AAAAGTCTTTGTCGCCTTCCAAGCTTTCCTCCGGGGTATGGTCATGTACACCAGCAAGGACCGCTATTTCTATTT
TGGGAAGCTTGATGGCCAGATCTCCTCTGCCTACCCCAGCCAAGAGGGGCAGGTGCTGGTGGGCATCTATGGCCA
GTATCAACTCCTTGGCATCAAGAGCATTGGCTTTGAATGGAATTATCCACTAGAGGAGCCGACCACTGAGCCACC
AGTTAATCTCACATACTCAGCAAACTCACCCGTGGGTCGC**TAG**GGTGGGGTATGGGGCCATCCGAGCTGAGGCCA
TCTGGGTGGTGGTGGCTGATGGTACTGGAGTAACTGAGTCGGGACGCTGAATCTGAATCCACCAATAAATAAAGG
TTCTGCAGAATCAGTG

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FIGURE 2276

GCGGCTGCGCCGGCGCGTCGAGGGGAGAGGCAGCAGCCGCG**ATG**GACGTGTTCCTCATGATCCGGCGCCACAAGA
CCACCATCTTCACGGACGCCAAGGAGTCCAGCACGGTGTTCGAACTGAAGCGCATCGTCGAGGGCATCCTCAAGC
GGCCTCCTGACGAGCAGCGGCTGTACAAGGATGACCAACTCTTGGATGATGGCAAGACACTGGGCGAGTGTGGCT
TCACCAGTCAAACAGCACGGCCACAGGCCCCAGCCACAGTGGGGCTGGCCTTCCGGGCAGATGACACCTTTGAGG
CCCTGTGCATCGAGCCGTTTTCCAGCCCGCCAGAGCTGCCCGATGTGATGAAGCCCCAGGACTCGGGAAGCAGTG
CCAATGAACAAGCCGTGCAG**TGA**GACCCCCAAGAGGCCCATTTCCCCCAATAAAAGAGATTTGGGAGTCTGCCTG
GTTGCTGCCTCTTTTTCCCGCCCCTCCCTGGGATGGGTCCCACTCCCTGTGGGCTCCTTTTGGGGCTTGTGCTTG
GCAGTTCCTGTGCTGTCCTGTCTCCCAGATCCTGAGACCCTGGCTGAGAACTTGGCCCAGCCTGCTGCTTAAAGG
CACCATGGGGACCTGGGTTGCCCTCAGACCCAAGCCATTGTTAGCAGCTAGCCAGCCACACCAACCACGCCAGGG
GGAGGAAAGGGAAGGACTGGGAGAGACACAAAGACCAGAGCCAGCCTCAGGGACAAGAGATTCCAGTTTTAGGCC
TTTCTCCTTCTAAGTGCCCCCCACCCCCATAGCCTGCATGTCCACTCCCAGACGATGGCCAAGAGCAGAAACACA
AGCTGGAGCCAGTGTCCTGGTTTGACAGCATGTTCAACGAGGGAACCCCAAGACGGACCCACACAGGTCCACCCA
CGCTGGGGGCTGTAATCACGGAGGGAAGTGGCTGCCCCCTTAACACACCTTTAATAAACAGTCTACAGACCC

FIGURE 2277A

GCAGCGCGGCCCAGGCGGGGGTGCGAGTGGCGCAGTTGGAGCCCGTTGCGGCCCCTGAGGAAGCGAGGAGGCGTCG
GCGTCGGCTGAGGCGGGCGGACCGGCGAGGCGAGGCGGCGGCCCCAGGCCCGAGGGACTCGGGAGCTCGAGCAGC
GGCGGCGGCAAGACCTCTCCCCCTCGGAGGCGGCGGGCGGAGGCGGCGGGAGCGGTGGTGCCCCCCCCGGGCACG
GGGCC**ATG**TACAACGGGATCGGGCTGCCGACGCCCCGGGGCAGCGGCACCAACGGCTACGTCCAGCGCAACCTGT
CCCTGGTGCGGGGCCGCCGGGGTGAGCGGCCTGACTACAAGGGAGAGGAGGAACTGCGGCGCCTGGAGGCTGCCC
TGGTGAAGCGGCCTAATCCTGACATCCTGGACCACGAGCGCAAGCGGCGCGTCGAGCTGCGATGCCTCGAGCTGG
AGGAGATGATGGAAGAGCAGGGGTACGAGGAACAGCAAATTCAGGAAAAAGTGGCGACCTTTCGACTCATGTTGC
TGGAGAAGGATGTGAACCCTGGGGGCAAGGAGGAGACCCCAGGGCAGAGGCCAGCGGTCACGGAGACTCACCAGT
TGGCAGAATTAAATGAGAAGAAGAATGAAAGACTCCGTGCTGCCTTTGGCATCAGTGATTCTTACGTAGATGGCA
GCTCTTTTGATCCTCAGCGTCGTGCCCGAGAAGCTAAACAACCAGCTCCTGAGCCTCCCAAACCTTACAGCCTTG
TTCGGGAGTCTAGCAGTTCTCGCTCACCAACCCCAAAGCAGAAGAAGAAGAAAAAGAAGAAAGATAGAGGACGCA
GGTCAGAGAGCAGCTCTCCTCGACGGGAGAGAAAGAAAAGCTCAAAGAAGAAGAAGCACAGGTCAGAATCTGAGT
CCAAGAAACGTAAGCATAGGTCTCCCACTCCAAAGAGCAAACGTAAATCTAAGGACAAAAAGCGAAAGCGGTCTC
GAAGTACAACACCAGCCCCCAAGAGCCGCCGGGCCCACCGTTCAACTTCTGCTGACTCTGCTTCCTCCTCCGATA
CTTCCCGCAGTCGGTCTCGAAGTGCTGCAGCTAAAACTCATACAACTGCCTTGGCTGGGCGAAGTCCTTCCCCTG
CTTCAGGGCGACGCGGGGAGGGAGATGCGCCTTTCAGTGAACCAGGTACTACCAGCACACAACGGCCTAGTAGCC
CGGAGACTGCTACGAAACAGCCTAGCAGCCCTTATGAAGACAAAGATAAAGACAAGAAGGAGAAATCTGCAACTC
GACCTAGCCCCTCTCCGGAAAGGAGCAGCACAGGCCCAGAACCACCTGCTCCCACTCCGCTCCTTGCTGAGCGAC
ATGGCGGCTCCCCACAACCCCTTGCAACCACCCCCTTAAGCCAGGAGCCAGTGAACCCCCCATCTGAGGCCTCTC
CAACTCGGGACCGTTCACCACCTAAGTCTCCCGAGAAACTTCCCCAGTCTTCTTCCTCAGAGAGCAGCCCACCAT
CCCCTCAACCTACCAAAGTTTCTCGGCATGCCAGCTCTTCCCCAGAAAGTCCTAAACCTGCTCCAGCTCCAGGGT
CCCACCGAGAGATTTCTTCTTCTCCCACATCTAAGAATCGCTCACATGGCCGAGCAAAACGGGATAAATCACATT
CTCATACCCCCTCCCGTAGGATGGGGAGGTCCCGTAGCCCTGCCACCGCTAAGAGAGGGCGATCTCGGTCTCGAA
CCCCTACCAAGAGAGGTCATTCTCGATCCCGATCTCCCCAGTGGCGTAGGTCCAGGTCTGCACAGAGGTGGGGAA
GATCTAGAAGCCCCCAGCGACGTGGCCGCTCTAGGTCTCCTCAGCGACCAGGCTGGTCTAGGAGCAGAAATACCC
AGAGAAGAGGCAGGTCTAGGTCAGCAAGGCGAGGGAGGTCCCACTCTAGATCCCCAGCCACTAGGGGTAGATCTC
GTTCTAGAACACCAGCCCGCCGGGGCAGGTCCCGCTCTAGAACACCTGCCAGGCGGAGATCACGATCCAGAACTC
CCACCAGGCGTAGGTCTCGGTCTAGAACACCAGCCCGGAGGGGCAGGTCTCGGTCTAGAACACCTGCTAGGCGCA
GATCTAGGACCCGATCACCAGTACGACGCAGGTCTCGTAGTAGATCACCAGCCAGGAGAAGTGGCAGGTCACGCT
CTAGAACCCCAGCTAGACGTGGCCGCTCACGCTCCAGAACCCCAGCCAGACGTGGCCGCTCACGCTCTAGAACCC
CAGCTAGACGCAGTGGTCGCTCACGCTCCAGAACACCAGCCAGGAGAGGGAGGTCTCGGTCTAGGACACCAAGAC
GAGGAAGATCCCGCAGTAGAAGCTTAGTTAGACGTGGAAGATCTCACTCTAGAACACCTCAAAGAAGAGGCAGAT
CTGGCTCATCTTCAGAGCGGAAAAACAAATCCAGAACATCTCAAAGAAGAAGCAGGTCCAATTCAAGCCCAGAAA
TGAAGAAATCTCGCATTTCTTCAAGGCGGAGCAGGTCTCTCTCTTCACCACGGTCCAAAGCAAAATCTCGCTTGT
CTTTGAGGCGCAGCCTTTCAGGGTCTTCCCCATGCCCTAAACAAAAGTCACAGACACCACCCAGGCGCAGTCGCT
CTGGATCCTCCCAACCTAAAGCTAAATCTAGAACGCCACCCAGACGCAGTCGCTCCAGTTCTTCTCCGCCACCTA
AACAGAAATCTAAGACACCATCAAGACAAAGTCATTCCAGTTCATCTCCTCATCCTAAAGTGAAATCTGGAACAC
CACCGAGGCAAGGGTCCATAACAAGTCCCCAGGCCAATGAGCAATCTGTAACGCCACAGAGACGGAGCTGTTTTG
AATCATCACCTGACCCTGAGTTGAAATCTAGGACCCCTTCTAGACATAGCTGCTCAGGGTCCTCTCCTCCTAGAG
TGAAATCTAGCACACCTCCCAGACAGAGCCCATCTAGGTCATCATCTCCACAACCCAAAGTGAAGGCAATAATAT
CACCAAGACAAAGAAGCCATTCTGGCTCCTCTTCTCCAAGTCCTAGTAGGGTGACGTCGAGAACAACTCCACGGC
GAAGCAGATCAGTATCTCCCTGCTCCAATGTGGAATCCAGATTGTTGCCAAGATACAGTCATTCTGGGTCCTCCT
CACCAGATACCAAAGTGAAACCTGAAACACCGCCAAGACAAAGTCACTCAGGGTCTATTTCACCATACCCCAAAG
TAAAGGCCCAAACTCCACCGGGGCCAAGTCTTTCTGGATCAAAGTCACCATGTCCCCAAGAGAAGTCTAAAGACT
CACTAGTTCAAAGTTGCCCTGGATCCCTCTCTCTCTGTGCAGGAGTAAAATCTAGCACACCACCAGGCGAGAGCT
ATTTTGGTGTCTCATCTCTGCAACTGAAAGGACAATCTCAAACTTCACCAGACCACAGATCTGATACTTCAAGTC
CAGAAGTGAGACAGAGTCATTCAGAATCACCATCTCTGCAGAGCAAATCTCAAACATCACCTAAGGGAGGTCGGT
CCAGGTCTTCATCTCCAGTCACTGAGCTGGCATCCAGATCTCCAATAAGACAAGATAGAGGTGAGTTCTCAGCGA

FIGURE 2277B

GTCCTATGTTGAAATCTGGAATGTCTCCTGAGCAGAGCAGGTTCCAGTCTGACTCTTCTTCATATCCTACAGTGG
ACTCGAATTCTCTCTTGGGGCAGAGTAGATTGGAGACTGCTGAATCAAAAGAGAAAATGGCCTTACCCCCTCAGG
AGGATGCTACTGCATCACCTCCTAGACAGAAAGACAAATTTAGTCCCTTTCCAGTACAGGATAGGCCTGAGTCTT
CACTGGTATTCAAAGACACACTTAGAACCCCGCCAAGGGAAAGAAGTGGTGCTGGGTCATCTCCAGAAACAAAAG
AGCAAAATAGTGCATTGCCTACGTCAAGCCAAGATGAAGAGTTAATGGAGGTGGTAGAGAAGTCTGAAGAACCCG
CAGGCCAAATCCTGTCTCATTTGTCTTCAGAACTTAAAGAAATGTCCACAAGTAACTTTGAATCATCTCCTGAAG
TAGAAGAAAGGCCTGCTGTGTCTTTGACTCTTGATCAGAGCCAGTCACAGGCTTCTTTGGAAGCAGTAGAAGTCC
CTTCAATGGCCTCATCTTGGGGTGGGCCACATTTTTCTCCAGAACATAAAGAACTGTCTAACTCCCCACTCAGGG
AGAACAGCTTTGGATCACCTTTAGAATTTAGAAACTCAGGCCCACTTGGTACAGAAATGAATACTGGATTTTCTT
CTGAGGTTAAAGAAGATTTGAATGGACCGTTTCTTAATCAGCTGGAAACAGATCCATCTCTAGACATGAAAGAAC
AATCGACAAGATCCTCTGGACACAGCAGTTCTGAGTTATCCCCAGATGCAGTGGAAAAGGCAGGGATGTCTTCAA
ATCAGAGCATCTCTTCACCTGTGCTTGATGCTGTACCCAGAACACCCTCGAGAGAAAGAAGTAGTTCTGCATCTT
CTCCTGAAATGAAAGATGGTTTACCCAGAACTCCATCAAGGAGAAGCAGGTCTGGGTCTTCTCCAGGACTTAGAG
ATGGGTCTGGGACTCCCTCGAGGCACAGCCTGTCTGGGTCCTCTCCTGGAATGAAAGATATACCTAGAACGCCAT
CTAGAGGGAGAAGCGAATGTGATTCTTCCCCAGAACCGAAAGCTTTGCCTCAGACTCCTAGGCCGAGGAGTCGTT
CTCCATCATCCCCAGAGCTCAACAACAAGTGTCTTACCCCCCAGAGAGAAAGAAGCGGGTCAGAATCATCAGTTG
ATCAGAAAACTGTGGCTCGGACTCCCCTGGGGCAGAGAAGTCGTTCGGGATCCTCTCAAGAACTTGATGTGAAAC
CCAGTGCATCCCCTCAGGAAAGAAGTGAGTCAGACTCTTCTCCAGATTCTAAAGCCAAGACAAGAACCCCACTTC
GGCAGAGGAGTCGGTCTGGATCATCTCCAGAGGTTGACAGCAAATCTCGACTATCCCCTCGGCGCAGTAGGTCTG
GTTCCTCCCCTGAAGTGAAAGATAAGCCAAGAGCAGCACCCAGGGCACAGAGTGGTTCTGATTCCTCTCCTGAAC
CTAAAGCTCCAGCCCCTCGGGCCCTTCCCAGACGAAGCAGATCAGGTTCATCAAGCAAAGGCAGAGGCCCTTCTC
CTGAAGGAAGCAGCAGTACCGAGTCCTCTCCTGAACATCCGCCCAAATCCAGAACTGCTCGCAGAGGTTCCAGGT
CATCACCAGAGCCCAAGACCAAGTCTCGTACACCACCTCGACGTCGCAGCTCTCGATCATCTCCGGAGCTAACAA
GGAAGGCCAGACTGTCCCGTAGAAGCCGCTCTGCCTCATCCTCACCAGAAACTCGCTCTAGAACTCCCCCAAGGC
ACCGGAGAAGTCCCTCAGTGTCTTCCCCGGAGCCAGCCGAAAAATCGAGGTCTTCACGCCGACGGCGCTCAGCTT
CATCTCCACGCACTAAGACAACCTCAAGGAGAGGCCGCTCTCCTTCGCCAAAGCCTCGTGGACTCCAGAGGTCCC
GTTCCCGCTCAAGGAGAGAGAAAACAAGAACAACCCGACGTCGAGATAGGTCTGGATCTTCTCAGTCAACCTCTC
GGCGAAGACAGCGGAGCCGGTCAAGGTCGCGGGTTACTCGGCGGCGGAGGGGAGGCTCTGGTTATCACTCAAGGT
CACCTGCCCGGCAGGAAAGTTCCCGGACCTCCTCTCGACGCCGAAGAGGCCGCTCTCGGACACCCCCAACCAGTC
GGAAGCGTTCTCGCTCACGCACATCACCAGCCCCGTGGAAACGCTCTAGATCTCGAGCCTCTCCAGCCACTCACC
GGCGATCCAGGTCCAGAACCCCCCTGATAAGCCGACGTAGGTCCAGATCTCGAACTTCACCAGTCAGCCGGAGAC
GGTCAAGGTCCAGGACTTCAGTGACTCGACGAAGATCCCGGTCAAGAGCATCCCCAGTGAGCAGAAGGCGATCCA
GATCCAGAACGCCACCAGTAACCCGCCGTCGTTCAAGGTCTAGAACGCCAACAACACGCCGCCGCTCCCGTTCTA
GAACTCCACCAGTGACTCGCAGAAGGTCCAGATCCAGGACTCCACCAGTAACCAGGAGGCGATCTCGAAGCAGAA
CTTCGCCTATCACTCGCAGAAGATCAAGATCCAGAACATCTCCGGTCACCCGAAGGAGATCTCGATCTCGCACAT
CTCCAGTAACTCGAAGAAGGTCCCGCTCTCGAACCTCACCAGTGACACGCCGCCGCTCTAGGTCCCGGACACCTC
CAGCACAGGATCAGCCGAGGTCTCCTGTGCCTTCTGCTTTTTCAGACCAATCCCGTTGTTTGATTGCCCAGACCA
CCCCTGTAGCAGGGTCTCAGTCCCTTTCCTCTGGGGCAGTGGCAACGACCACGTCCTCTGCTGGTGATCACAATG
GCATGCTCTCTGTCCCTGCCCCTGGGGTGCCCCACTCTGATGTGGGGGAGCCACCTGCCTCTACTGGGGCCCAGC
AGCCTTCTGCATTAGCCGCCCTGCAGCCAGCAAAGGAGCGGCGGAGTTCCTCCTCGTCGTCGTCGTCCTCTAGCT
CCTCCTCCTCTTCATCATCGTCGTCGTCGTCCTCCTCCTCCTCTGGCTCCAGTTCTAGTGACTCAGAGGGCTCTA
GCCTTCCTGTGCAACCTGAGGTGGCACTGAAGAGGGTCCCCAGCCCCACCCCAGCCCCAAAGGAGGCTGTTCGAG
AGGGACGTCCTCCGGAGCCAACCCCAGCCAAACGGAAGAGGCGCTCTAGCAGTTCCAGTTCCAGCTCCTCCTCTT
CATCTTCCTCCTCCTCCTCCTCCTCTTCTTCCTCCTCCTCTTCCTCTTCTTCTTCCTCCTCATCTTCCT
CCTCCTCGTCGTCTTCCTCCCCTTCCCCTGCTAAGCCTGGCCCTCAGGCCTTGCCCAAACCTGCAAGCCCCAAGA
AGCCACCCCCTGGCGAGCGGAGGTCCCGCAGCCCCCGGAAGCCAATAGACTCCCTCAGGGACTCTCGGTCCCTCA
GCTACTCGCCTGTGGAGCGTCGCCGTCCCTCGCCCCAGCCCTCACCACGGGACCAGCAGAGCAGCAGCAGTGAGC
GGGGTTCCCGGAGAGGCCAGCGTGGGGACAGCCGCTCCCCCAGCCACAAGCGCAGGAGGGAGACACCTAGCCCTC

FIGURE 2277C

GGCCCATGAGACACCGCTCCTCCAGGTCTCCA**TAA**ATTGTCTTTGGGGGATTCCACCACACCCAATGCTCTGGAG
CCACAAGGAGTGTCCCTTCTTCCCCAGCAGAGCCGTGGGAGGGTCCTTGTCTGCTCTCCTTTGAACCTTGGCAGC
CCTTGGATGGAGGGCTCCCTTTCCCTCCCCTTTTTTTTTCTTTGTTCCTGTGAAATGTTAATCTCCGTGAGTTC
TTCCTGGTTCATGTGTTCTGGGGGGTTTGGGGTGGGAGGGAATGCAGATGGGAGTTGGGGGAGGGGAGGATACAG
TTCAGGATACCCCAGCCTGGAGTCAGGGCCAGGGAGGCATGGCCCCACTTGTATCCAGAAGTTCCCAGGGGTGAT
TGTGATGGTGGTTGGGACTGGAGGTTGTATAAGGTGTTCTTGGAAGGAAGGGGCAGGAGTTGGAATTAGTTGGTC
CCTACTGTCCCCCATGAGGTTGTGAACCCCTCCCCCCAACTTTTCATGTTTCTTAAAGGCATTTTGGTTTTTTAA
AATCTGTACAGCAAGAGCAACTTTTTCTGTCAAATAAAAATGAGAAATGCAGG

FIGURE 2278A

GCGCTCTCAGGCGGGCTCCGGCGGCAGCGACGCGAGCGCGGCG**ATG**GGGAGCGGCGGCGTGGTCCACTGTAGGTG
TGCCAAGTGTTTCTGTTATCCTACAAAGCGAAGAATAAGGAGGAGGCCCCGAAACCTGACCATCTTGAGTCTCCC
CGAAGATGTGCTCTTTCACATCCTGAAATGGCTTTCTGTAGAGGACATCCTGGCCGTCCGAGCTGTACACTCCCA
GCTGAAGGACCTGGTGGACAACCACGCCAGTGTGTGGGCATGTGCCAGCTTCCAGGAGCTGTGGCCGTCTCCAGG
GAACCTGAAGCTCTTTGAAAGGGCTGCTGAAAAGGGGAATTTCGAAGCTGCTGTGAAGCTGGGCATAGCCTACCT
CTACAATGAAGGCCTGTCTGTGTCTGATGAGGCCCGCGCAGAAGTGAATGGCCTGAAGGCCTCTCGCTTCTTCAG
TCTCGCTGAGCGGCTGAATGTGGGTGCCGCACCTTTCATCTGGCTCTTCATCCGCCCTCCGTGGTCGGTGAGCGG
AAGCTGCTGCAAGGCCGTGGTTCACGAGAGCCTCAGGGCAGAGTGCCAGCTGCAGAGGACTCACAAAGCATCCAT
ATTGCACTGCTTGGGCAGAGTGCTGAGTCTGTTCGAGGATGAGGAGAAGCAGCAGCAGGCCCATGACCTGTTTGA
GGAGGCTGCTCATCAGGGATGTCTGACCAGCTCCTACCTCCTCTGGGAAAGCGACAGGAGGACAGATGTGTCAGA
TCCTGGGCGATGCCTCCACAGCTTCCGAAAACTCAGGGACTACGCTGCCAAAGGCTGCTGGGAAGCGCAGCTGTC
TTTAGCCAAAGCCTGTGCAAATGCAAACCAGCTTGGACTGGAGGTGAGAGCTTCCAGTGAGATCGTCTGCCAGCT
ATTTCAGGCTTCCCAGGCTGTCAGTAAACAACAAGTCTTCTCCGTGCAGAAGGGACTCAATGACACAATGAGGTA
CATTCTGATCGACTGGCTGGTGGAAGTTGCCACCATGAAGGACTTCACAAGCCTGTGCCTGCACCTGACCGTGGA
GTGTGTGGACCGGTACCTGCGGAGGAGGCTGGTGCCGCGGTACAGGCTCCAGCTGCTGGGCATCGCCTGCATGGT
CATCTGCACCCGGTTTATCAGTAAAGAGATCCTGACCATCCGGGAGGCCGTATGGCTCACGGACAACACTTACAA
GTACGAGGACCTGGTGAGAATGATGGGCGAGATCGTCTCCGCCTTGGAAGGGAAGATTCGAGTCCCCACTGTGGT
GGATTACAAGGAGGTCCTGCTGACGCTAGTCCCTGTGGAGCTGAGAACCCAGCACCTGTGCAGCTTCCTCTGCGA
GCTCTCCCTGCTGCACACCAGCCTGTCCGCCTACGCCCCAGCCCGCCTGGCTGCCGCAGCCCTGCTCCTGGCCAG
ACTGACGCACGGGCAGACACAGCCCTGGACCACTCAGCTGTGGGACCTCACCGGATTCTCCTATGAAGACCTCAT
TCCCTGCGTCTTGAGCCTCCATAAGAAGTGCTTCCATGATGACGCCCCCAAGGACTACAGGCAAGTCTCTCTGAC
CGCCGTGAAGCAGCGGTTTGAGGACAAGCGCTATGGAGAAATCAGCCAGGAAGAGGTGCTGAGCTACAGCCAGTT
GTGTGCTGCATTAGGAGTGACACAAGACAGCCCCGACCCCCCGACTTTCCTCAGCACAGGGGAGATCCACGCCTT
CCTCAGCTCTCCCTCGGGGCGGAGAACCAAACGGAAGCGGGAGAACAGCCTCCAGGAAGACAGAGGCAGCTTCGT
TACCACCCCCACTGCGGAGCTGTCCAGCCAGGAGGAGACGCTGCTGGGCAGCTTCCTCGACTGGAGCCTGGACTG
CTGCTCTGGCTATGAAGGCGACCAGGAGAGTGAGGGCGAGAAGGAGGGCGACGTGACAGCTCCCAGCGGCATCCT
CGATGTCACCGTGGTCTACCTGAACCCAGAACAGCATTGCTGCCAGGAATCCAGTGATGAGGAGGCTTGTCCAGA
GGACAAGGGACCCCAGGACCCACAGGCACTGGCGCTGGACACCCAGATCCCTGCAACCCCTGGACCCAAACCCCT
GGTCCGCACCAGCCGGGAGCCAGGGAAGGACGTCACGACCTCAGGGTACTCCTCCGTCAGCACCGCAAGTCCCAC
AAGCTCCGTGGACGGTGGCTTGGGGGCCCTGCCCCAACCTACCTCAGTGCTGTCCCTGGACAGTGACTCGCACAC
ACAGCCCTGCCACCATCAGGCCAGGAAGTCATGTTTACAGTGTCGTCCCCCAAGTCCCCCGGAGAGCAGTGTTCC
CCAGCAACAGGTGAAGCGGATAAACCTATGCATACACAGTGAGGAGGAGGACATGAACCTGGGCCTTGTGAGGCT
G**TAA**GTGTGTCAGCACATTTGCCGCAGTGGATGTGTACTGAGGGGGCTGGAGGCGAAGGGTGGGAGCATAGCATA
GGAACGCTGCATAGACCATGGAGGCCTTTGCGCAGAGAGCAGAGAGGATGACTTGCGGCCACCAAGTTTCTGTCT
CCGCGGGAGTCCCGTGCAAGCCATCAGAATGTTGAAATGAGGGTGAAGAGCTCAGATCCCTCTCTTTGGAAAGTT
TAGCCTGGAAGCAGTTGGCCACACTGTGTGGAGGGCACCTCTCTGTCCCTTCCGTGTCTCACTGTCTCTGGAAGC
TTCAGCCCATGTGTGTCCTGGTGTTCCCAGCCCCACCAGAGCCCCGTGCCGGGAGCTGACAGCTTTCACGCTTAA
GGCACGTGTGACCTGGGTAGTCAGACACCACTTGAGCCCCTGCCCACATCTGCTGGTTTGGGGCTTCAGTGGGGA
GCTGACAGCTGTGAGCACACCACTGTCCCCTCATCCACCTCGGCCTGCATGGGGCACCCACTTCCTTCTGGGTGG
GGCTTCCATGGTAAGGGGGCCTGCGTCCCTGCACACTGCGAGGACTGCCTTGGCCACAGGCCCACTCCCTACGAC
ACGTGACTCGTTTTAGAGCTCTGTCCCAGAGGCGTTCGTATGTGACCCACAGATGGCGTCAATGTGAACACCTCT
CTTTGTGCTGAATTTCTGGGCCATTCTTTTCCTGTCTTATTTCTAAATTTCCTTCTTCCAAGATGAAAACAAAAG
AAAAACTTAAAACAGAAGGTATTAAAAAAACAAGAGATTCCCACCATTATTTAGGTTCACCTGCAAAACAAAAAT
CTTACTCCAGCCCCTCAATGCCATCCTGACACACTTTATGCAAAAAGAATTTTCCCAGATAGGCTAGCCAGAAAA
AACTTCAAGTCCTCTGTAACATCTGAGGTGACCAAGAGGCAGAAGAGCAGAGCAGTCGGGGGCCGTGTCCTGGCT
GATCCCAACTGCAGCTCTGCTGTGGGGGCCCGTGGGAGGGAGGCAGACCCCTGGGCTTTCCTGCTGGCCACGGAG
ACTCTGCTCCTGCATGGAAAGGGAGCCTGGGAGCCAGCAGCCCACGCCTGGGGAGCCTGCCTGGGGCCATGTGAC
CATGGCCTCTCCCTGGGAACGGGCTGACCACAACACACCCTGCTGCCATCCACTTCTGTTTACTCTGCAAATGTA

FIGURE 2278B

AGAAAGAACCACTTGGCCAGAAGTGTCCCCCAGATGCTTTTTTTTTTTTTTTTTTGGAGACAGTTTTGCTCTTGT
CTCCCCGGCTGGAGTGCAGTGGCATGATCTCAACTCTCAACTCACTGTAACCTCCGCCTCCCGGATACTCCTGCC
TCAGCCTCCTGGGTAGCTGGGATTACAAGCACCCAACCACGCCCAGCTAATTTTTGTATTTTCGGTAGAGACGGG
ATTTCACCATGTTGGCCAGGCTAGTCTCGAACTCATGACCTCAAGTGATCCGCCCACTTCGGTCTCCCAAAGTGC
TGGGATTACAGGCATGAGCCACGGCGCCTGGCCCCCAAATGCTCTTGAACCGGAAACCCAGGGATGGGAGATGCT
CACTGAGCTGCTGCTTTTATGTGTGCTGGTGCTATGTGTGTTCATGTCCGCGGCAGCTGTCTTTTTGCTACTATA
AGGGAATTCTGGCCACCCTGGGTGGGGTGTGGTCGGGGTGAGAACCCAAGCGTTGGAACTGTAGACCCGTCCTGT
CGACTGTGTGCCCCTGGGCATGTGTGAGCCTCAGTTTCCTCATCTGTAAGGGGGGCAATGATACCTACCTCACAG
GGGTGTTGTGAGGATTAAATGTGAGGAGGATAGTGGCA

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FIGURE 2279

ATGCTGCCGGCGGGCTGCTCGCGCCGGTGAGGCCTGCGCGGCAGGAGGGGGTGGGAGGATGCGGGCGGGCCGGTA
GCCAGGCGCGGGGCCCGAGGCCCGACGCTGGCCGAGGTGCTGAGCCGCCGGTGCGTCCCCCAGGCTGGTGGCCGA
GCTGCAGGGCGCCCTGGACGCCTGCGCACAGCGACAATTGCAATTGGAGCAGAGCCTGCGCGTTTGCCGTCGGCT
GCTGCATGCCTGGGAACCAACTGGGACCCGGGCTTTGAAGCCACCTCCAGGGCCAGAAACTAATGGAGAGGACCC
CCTTCCAGCATGCACACCCAGTCCACAAGACCTCAAAGAGTTGGAGTTTCTGACCCAGGCACTGGAGAAGGCTGT
ACGAGTTCGAAGAGGCATCACTAAGGCCGGAGAGAGAGACAAGGCCCCCAGCCTGAAATCTAGGTCCATTGTCAC
CTCTTCTGGCACGACAGCCTCCGCCCCACCGCATTCCCCAGGCCAAGCTGGTGGCCATGCTTCAGACACGAGACC
CACCAAGGGCCTCCGCCAGACCACGGTGCCTGCCAAGGGCCACCCTGAGCGCCGGCTGCTGTCAGTGGGGGATGG
GACCCGTGTTGGG**ATG**GGAGCCCGAACCCCCAGGCCTGGGGCGGGCCTCAGGGACCAGCAAATGGCCCCATCCGC
TGCTCCTCAGGCCCCAGAAGCCTTCACACTCAAGGAGAAGGGGCACCTGCTGCGGCTGCCTGCGGCATTCAGGAA
AGCAGCTTCCCAGAACTCGAGCCTGTGGGCCCAGCTCAGTTCCACACAGACCAGTGATTCCACGGATGCCGCCGC
TGCCAAAACCCAGTTCCTCCAGAACATGCAGACAGCTTCAGGCGGGCCCCAGCCCAGGCTCAGTGCTGTGGAGGT
GGAGGCGGAGGCGGGGCGCCTGCGGAAGGCCTGCTCGCTGCTGAGACTGCGCATGAGGGAGGAGCTCTCGGCAGC
CCCCATGGACTGGATGCAGGAGTACCGCTGCCTGCTCACGCTGGAGGGGCTGCAGGCCATGGTGGGCCAGTGTCT
GCACAGGCTGCAGGAGCTGCGTGCAGCGGTGGCGGAACAGCCACCAAGACCATGTCCTGTGGGGAGGCCCCCCGG
AGCCTCGCCGTCCTGTGGGGGTAGAGCGGAGCCTGCATGGAGCCCCCAGCTGCTTGTCTACTCCAGCACCCAGGA
GCTGCAGACCCTGGCGGCCCTCAAGCTGCGAGTGGCTGTGCTGGACCAGCAGATCCACTTGGAAAAGGTCCTGAT
GGCTGAACTCCTCCCCCTGGTAAGCGCTGCACAGCCGCAGGGGCCGCCCTGGCTGGCCCTGTGCCGGGCTGTGCA
CAGCCTGCTCTGCGAGGGAGGAGCACGTGTCCTTACCATCCTGCGGGATGAACCTGCAGTC**TGA**GCCTTTCCCAT
GCTGCCCTCGGCCTGTTCAGATGGGGATTGGGGGTGTCTTCCCTGGCACTGTGCTCGGGGACCCAGAGATGCCTG
TGCTTCCCTGGGAAACCTGGTGAACTGGACCAGGTGGCCTCACTGGCTCTTCTCAGGACAACTAAGCCTGCTGGT
CAGGGCTGGCTTTCAGCCTTCCTAAGGCTCCTGGACTCCAGAGGCCAGCGGGGAGCCTTTCCTGGCTCCCTCTGT
TTTCTCTCACTGTAGACCAAAGAGCCGCTTGTGTGATATTAAAGCCACTTTAGAAAGC

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FIGURE 2280

GCCCTGGGCGCTGCCTATGGCACAGCCAAGAGCGGTACCGGCATTGCGGCC**ATG**TCTGTCATGCGGCCGGAGCAG
ATCATGAAGTCCATCATCCCAGTGGTCATGGCTGGCATCATCGCCATCTACGGCCTGGTGGTGGCAGTCCTCATC
GCCAACTCCCTGAATGACGACATCAGCCTCTACAAGAGCTTCCTCCAGCTGGGCGCCGGCCTGAGCGTGGGCCTG
AGCGGCCTGGCAGCCGGCTTTGCCATCGGCATCGTGGGGGACGCTGGCGTGCGGGGCACCGCCCAGCAGCCCCGA
CTATTCGTGGGCATGATCCTGATTCTCATCTTCGCCGAGGTGCTCGGCCTCTACGGTCTCATCGTCGCCCTCATC
CTCTCCACAAAG**TAG**ACCCTCTCCGAGCCCACCAGCCACAGAATATTATGTAAAGACCACCCCTCCTCATTCCAG
AACGAACAGCCTGACACATACGCACGGGGCCGCCGCCCCCAGTAGTTGGTCTTGTACATGCGCAGTGTCCTAGTG
CCCATCGTCTGTTTCCCCGGCCTTGCCCCCGCCCGCCCCGTGCCGTGGACATCTGGGCCCACTCATCGCCCCTCC
AGGCCCCCGGCGCCCCACCCCCTAGAGTGCTCTGTGTATGCGGATGATTTAGAATTGTCATTTCTCTTTACTGGA
TGTTATTATAAAGATCTGGCCTGTTCCTGCGTCTGCGGAGCGGCCCTTGTCTCCCAGCTATCTATAACCTTAGCT
AGAGTGTCGCCTTGTGGGTTCCTGTTGCTGAGACTTCCTGGATGGAGCCGCCCTCACCGCCGGGCCCGTGGCCCT
GCGCGGAGCTGTGTCCAATAAAGTTCTTG

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FIGURE 2281

GCTCACAGCAGACCGCGGGGCTCAGCTGGCCTGCCCTGTGCTTGGGGTTTGTTTTTGAGCGTTGAAATGAGGTCC
TTAAACCTTAGTCCGTGCATTGAGAGCAAGGCAGCTGCCTTGAGCCTTACTTCCTTTTCCTCTTTGTCGCCTAGT
ATGACGCCGTGCCCATCCAGTCCAGCGTGGTGTTATGTTCCTGCCCATCCCCATCA**ATG**GTGAGGACCCAGACTG
AGTCCAGCACGCCCCCTGGCATTCCTGGTGGCAGCAGGCAGGGCCCCGCCATGGACGGCACTGCAGCCGAGCCTC
GGCCCGGCGCCGGCTCCCTGCAGCATGCCCAGCCTCCGCCGCAGCCTCGGAAGAAGCGGCCTGAGGACTTCAAGT
TTGGGAAAATCCTTGGGGAAGGCTCTTTTTCCACGGTTGTCCTGGCTCGAGAACTGGCAACCTCCAGAGAATATG
CGATTAAAATTCTGGAGAAGCGACATATCATAAAAGAGAACAAGGTCCCCTATGTAACCAGAGAGCGGGATGTCA
TGTCGCGCCTGGATCACCCCTTCTTTGTTAAGCTTTACTTCACATTTCAGGACGACGAGAAGCTGTATTTCGGCC
TTAGTTATGCCAAAAATGGAGAACTACTTAAATATATTCGCAAAATCGGTTCATTCGATGAGACCTGTACCCGAT
TTTACACGGCTGAGATTGTGTCTGCTTTAGAGTACTTGCACGGCAAGGGCATCATTCACAGGGACCTTAAACCGG
AAAACATTTTGTTAAATGAAGATATGCACATCCAGATCACAGATTTTGGAACAGCAAAAGTCTTATCCCCAGAGA
GCAAACAAGACCCTCAGACTAGCTGCCGTTGCGCTTCCCACTGTGCTGTGGACTCCAGACGCTCTCCTGAGGGCC
ACAGCTGCCTTGAGCTTGCCGCCATTCTAGCT**TAG**GCTGGATCACCCACCCCCGGCACAGAGAGGAGCTGCCTTC
AAGACGGATTTTCCTGCATGATGGAAAGTGGAGTTTGCACAATAAAAGAGAGAGTCCCCATTCTCCCATCACCAA
GAGCAGCTCTTCCCATCTTCACGTGGTTTATTTTGGTCTTTTCCAGATTGGCATTCATTTAGGATTGGCTATGAT
GCATGGGGCTGGGGAGAATTACTGCTTATTGTAAAAAATTCACTCGGTGCTAGTGACCTGATGCCCAGCATCCTC
AGTGGGTTTTCCCTGTAAAAATTCCAGTATGTGTCGCTAAAATACAAATCTTTTTAAAAGCGTAA

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FIGURE 2282

TAAAAGCCGGACTCTTCCGGTGAAGCGGAGGTGTGGTGGGGCTTGCTGGGATC**ATG**GCGGGGAATCACTGCGAGC
TCCTGCCGCTGGCCCGTGGCAGGCTCGGGGCGGGGTTGGGGTGGCTTCTTGTGCCTCCCTTAAAGCGCGGGGCTC
AGCGTCCTGGCCCAGCGCCCCAGCAGCAGGTCCAAGTGGGTCCGGCTCTACAGCGGCGGCACCTACTTCCTCACC
ACTGGGCAGACGCCGCTGTGTCAGGACCCGAAATCCTTCCTGTACCTCTTGAGCCAGGCCGACCCCGACCCGGAC
TCGGACAAGACGGAGTTTTGTTCTTGTTGCCCAAGCTGGAGTACAATGGCACAATCTTGGCTCACCACAACCTCT
GCCACCTGGGTTCAAGCGAGTCTCCTCCTTCAGTCTCC**TGA**GTAGCTGGGATTACAGGCATGCACCACCACACAC
AGCTAAGTTTTATATTTTTAGTAGAGATGGTTTCACCATGTTGGCCAGGCCAGTCTCAAACTCCTGACCTCGTGA
TCCGCCCACCTTGGCCTCCCAAAGTGCTGGGATTACAGATGTGAGCCACCACACCCAGCCAATTAGGGCTGTCTT
ACAAAAAAAAAAAACCACCACGAACCTTTGCGAGAATCGAGCGCAGCCTGTGCTGGTTGTGTAAGCCGTGGGACAC
ACGGGAAAGCCAGGAAGAAGAGGAAGAGCACCCCCACACCCCACCCGCGTGAAGAAGAGCAACCCCACTCCCCGC
CCGTGGGAAGAAGAGCACCCTCACGCCGGGCCCGCAGGAAGAAGAGCACCCCCACGCCCGGCCCGCAGCATCCCG
CTGGCTTCCTGGCCACCTCTCCTCACCCATCTTAGAGGCATGGCCGGGCTGGGGCATCTTTCCCTCCTTGGGCAG
GATGAAACAGGCGCCTATTTAATCGACAGAGACCCCACCTACTTTGGGCCTGTGCTGAACTACCTGAGACACGGC
AAGCTGGTGATTAACAAAGACCTCGCGGAGGAAGATGATACCACGAGTCAACCCAAAAGTTGCTGGGGAGAAGTT
GCTCTTTAATGAATTGCATCTCATGAATGTATCAGGCTGTGACCTTTCTGCACTCTCTAATGAGTTCATGAATTT
AGGCCAATTATGGCCACAAATGCTGCTGCTGTCACAGAGAGATGCCGGATAAAGAACACCCACCACCAGTCTCTG
AACAGGGAGGGGAGAATCAACTCTGAATGTGATGTAGTGGCCAGGAGAGAGGACCATGTTCAACAACGCCACACA
GATGCAAATGACTTGTTTCTTCAACAAACTGCAAGGGAAAAAATAAAAATGGGGGAAGCTACAGATTAAAATACA
TGTGTTTGGATAGGAGAGTATTTAATGGCAAAAGAAAAAGAAAAAATTTAAAAATGAAATTGTGCAAAACTTATT
TGAATCCTGTTCAAGTGAGCAACAAAACATTATGATGTACATGAGACAACTGGAAATATAACTCTGACTGGACAC
TTTGAGATATTAAGCAATTACCGTTCATTTTTACATATCAAACAGTATGGTATTGTGGTTACGCTTTTAAAAAGA
TTTGTATTTTAGCGACACATACTGGAATTTTTACAGGGAAAACCCACTGAGGATGCTGGGCATCAGGTCACTAGC
ACCGAGTGAATTTTTTACAATAAGCAGTAATTCTCCCCAGCCCCATGCATCATAGCCAATCCT

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FIGURE 2283

GTATGACGCCGTGCCCATCCAGTCCAGCGTGGTGTTATGTTCCTGCCCATCCCCATCA**ATG**GTGAGGACCCAGAC
TGAGTCCAGCACGCCCCCTGGCATTCCTGGTGGCAGCAGGCAGGGCCCCGCCATGGACGGCACTGCAGCCGAGCC
TCGGCCCGGCGCCGGCTCCCTGCAGCATGCCCAGCCTCCGCCGCAGCCTCGGAAGAAGCGGCCTGAGGACTTCAA
GTTTGGGAAAATTCTTGGGGAAGGCTCTTTTTCCACGGTTGTCCTGGCTCGAGAACTGGCAACCTCCAGAGAATA
TGCGATTAAAATTCTGGAGAAGCGACATATCATAAAAGAGAACAAGGTCCCCTATGTAACCAGAGAGCGGGATGT
CATGTCGCGCCTGGATCACCCCTTCTTTGTTAAGCTTTACTTCACATTTCAGGACGACGAGAAGCTGTATTTCGG
CCTTAGTTATGCCAAAAATGGAGAACTACTTAAATATATTCGCAAAATCGGTTCATTCGATGAGACCTGTACCCG
ATTTTACACGGCTGAGATTGTGTCTGCTTTAGAGTACTTGCACGGCAAGGGCATCATTCACAGGGACCTTAAACC
GGAAAACATTTTGTTAAATGAAGATATGCACATCCAGATCACAGATTTTGGAACAGCAAAAGTCTTATCCCCAGA
GAGCAAACAAGCCAGGGCCAACTCATTCGTGGGAACAGCGCAGTACGTTTCTCCAGAGCTGCTCACGGAGAAGTC
CGCCTGTAAGAGTTCAGACCTTTGGGCTCTTGGATGCATAATATACCAGCTTGTGGCAGGACTCCCACCATTCCG
AGCTGGAAACGAGTATCTTATATTTCAGAAGATCATTAAGTTGGAATATGACTTTCCAGAAAAATTCTTCCCTAA
GGCAAGAGACCTCGTGGAGAAACTTTTGGTTTTAGATGCCACAAAGCGGTTAGGCTGTGAGGAAATGGAAGGATA
CGGACCTCTTAAAGCACACCCGTTCTTCGAGTCCGTCACGTGGGAGAACCTGCACCAGCAGACGCCTCCGAAGCT
CACCGCTTACCTGCCGGCTATGTCGGAAGACGACGAGGACTGCTATGGCAATTATGACAATCTCCTGAGCCAGTT
TGGCTGCATGCAGGTGTCTTCGTCCTCCTCCTCACACTCCCTGTCAGCCTCCGACACGGGCCTGCCCCAGAGGTC
AGGCAGCAACATAGAGCAGTACATTCACGATCTGGACTCGAACTCCTTTGAACTGGACTTACAGTTTTCCGAAGA
TGAGAAGAGGTTGTTGTTGGAGAAGCAGGCTGGCGGAAACCCTTGGCACCAGTTTGTAGAAAATAATTTAATACT
AAAGATGGGCCCAGTGGATAAGCGGAAGGGTTTATTTGCAAGACGACGACAGCTGTTGCTCACAGAAGGACCACA
TTTATATTATGTGGATCCTGTCAACAAAGTTCTGAAAGGTGAAATTCCTTGGTCACAAGAACTTCGACCAGAGGC
CAAGAATTTTAAAACTTTCTTTGTCCACACGCCTAACAGGACGTATTATCTGATGGACCCCAGCGGGAACGCACA
CAAGTGGTGCAGGAAGATCCAGGAGGTTTGGAGGCAGCGATACCAGAGCCACCCGGACGCCGCTGTGCAG**TGA**CG
TGGCCTGCGGCCGGGCTGCCCTTCGCTGCCAGGACACCTGCCCCAGCGCGGCTTGGCCGCCATCCGGGACGCTTC
CAGACCACCTGCCAGCCATCACAAGGGGAACGCAGAGGCGGAAACCTTGCAGCATTTTTATTT

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FIGURE 2284A

GCAGCGCGGCCCAGGCGGGGTGCGAGTGGCGCAGTTGGAGCCCGTTGCGGCCCCTGAGGAAGCGAGGAGGCGTCG
GCGTCGGCTGAGGCGGGCGGACCGGCGAGGCGAGGCGGCGGCCCCAGGCCCGAGGGACCTCGGGAGCTCGAGCAG
CGGCGGCGGCAAGACCTCTCCCCCTCGGAGGCGGCGGGCGGAGGCGGCGGGAGCGGTGGTGCCCCCCCCGGGCAC
GGGGCC**ATG**TACAACGGGATCGGGCTGCCGACGCCCCGGGGCAGCGGCACCAACGGCTACGTCCAGCGCAACCTG
TCCCTGGTGCGGGGCCGCCGGGGTGAGCGGCCTGACTACAAGGGAGAGGAGGAACTGCGGCGCCTGGAGGCTGCC
CTGGTGAAGCGGCCTAATCCTGACATCCTGGACCACGAGCGCAAGCGGCGCGTCGAGCTGCGATGCCTCGAGCTG
GAGGAGATGATGGAAGAGCAGGGGTACGAGGAACAGCAAATTCAGGAAAAAGTGGCGACCTTTCGACTCATGTTG
CTGGAGAAGGATGTGAACCCTGGGGGCAAGGAGGAGACCCCAGGGCAGAGGCCAGCGGTCACGGAGACTCACCAG
TTGGCAGAATTAAATGAGAAGAAGAATGAAAGACTCCGTGCTGCCTTTGGCATCAGTGATTCTTACGTAGATGGC
AGCTCTTTTGATCCTCAGCGTCGTGCCCGAGAAGCTAAACAACCAGCTCCTGAGCCTCCCAAACCTTACAGCCTT
GTTCGGGAGTCTAGCAGTTCTCGCTCACCAACCCCAAAGCAGAAGAAGAAGAAAAAGAAGAAAGATAGAGGACGC
AGGTCAGAGAGCAGCTCTCCTCGACGGGAGAGAAAGAAAAGCTCAAAGAAGAAGAAGCACAGGTCAGAATCTGAG
TCCAAGAAACGTAAGCATAGGTCTCCCACTCCAAAGAGCAAACGTAAATCTAAGGACAAAAAGCGAAAGCGGTCT
CGAAGTACAACACCAGCCCCCAAGAGCCGCCGGGCCCACCGTTCAACTTCTGCTGACTCTGCTTCCTCCTCCGAT
ACTTCCCGCAGTCGGTCTCGAAGTGCTGCAGCTAAAACTCATACAACTGCCTTGGCTGGGCGAAGTCCTTCCCCT
GCTTCAGGGCGACGCGGGGAGGGAGATGCGCCTTTCAGTGAACCAGGTACTACCAGCACACAACGGCCTAGTAGC
CCGGAGACTGCTACGAAACAGCCTAGCAGCCCTTATGAAGACAAAGATAAAGACAAGAAGGAGAAATCTGCAACT
CGACCTAGCCCCTCTCCGGAAAGGAGCAGCACAGGCCCAGAACCACCTGCTCCCACTCCGCTCCTTGCTGAGCGA
CATGGCGGCTCCCCACAACCCCTTGCAACCACCCCCTTAAGCCAGGAGCCAGTGAACCCCCCATCTGAGGCCTCT
CCAACTCGGGACCGTTCACCACCTAAGTCTCCCGAGAAACTTCCCCAGTCTTCTTCCTCAGAGAGCAGCCCACCA
TCCCCTCAACCTACCAAAGTTTCTCGGCATGCCAGCTCTTCCCCAGAAAGTCCTAAACCTGCTCCAGCTCCAGGG
TCCCACCGAGAGATTTCTTCTTCTCCCACATCTAAGAATCGCTCACATGGCCGAGCAAAACGGGATAAATCACAT
TCTCATACCCCCTCCCGTAGGATGGGGAGGTCCCGTAGCCCTGCCACCGCTAAGAGAGGGCGATCTCGGTCTCGA
ACCCCTACCAAGAGAGGTCATTCTCGATCCCGATCTCCCCAGTGGCGTAGGTCCAGGTCTGCACAGAGGTGGGGA
AGATCTAGAAGCCCCCAGCGACGTGGCCGCTCTAGGTCTCCTCAGCGACCAGGCTGGTCTAGGAGCAGAAATACC
CAGAGAAGAGGCAGGTCTAGGTCAGCAAGGCGAGGGAGGTCCCACTCTAGATCCCCAGCCACTAGGGGTAGATCT
CGTTCTAGAACACCAGCCCGCCGGGGCAGGTCCCGCTCTAGAACACCTGCCAGGCGGAGATCACGATCCAGAACT
CCCACCAGGCGTAGGTCTCGGTCTAGAACACCAGCCCGGAGGGGCAGGTCTCGGTCTAGAACACCTGCTAGGCGC
AGATCTAGGACCCGATCACCAGTACGACGCAGGTCTCGTAGTAGATCACCAGCCAGGAGAAGTGGCAGGTCACGC
TCTAGAACCCCAGCTAGACGTGGCCGCTCACGCTCCAGAACCCCAGCCAGACGTGGCCGCTCACGCTCTAGAACC
CCAGCTAGACGCAGTGGTCGCTCACGCTCCAGAACACCAGCCAGGAGAGGGAGGTCTCGGTCTAGGACACCAAGA
CGAGGAAGATCCCGCAGTAGAAGCTTAGTTAGACGTGGAAGATCTCACTCTAGAACACCTCAAAGAAGAGGCAGA
TCTGGCTCATCTTCAGAGCGGAAAAACAAATCCAGAACATCTCAAAGAAGAAGCAGGTCCAATTCAAGCCCAGAA
ATGAAGAAATCTCGCATTTCTTCAAGGCGGAGCAGGTCTCTCTCTTCACCACGGTCCAAAGCAAAATCTCGCTTG
TCTTTGAGGCGCAGCCTTTCAGGGTCTTCCCCATGCCCTAAACAAAAGTCACAGACACCACCCAGGCGCAGTCGC
TCTGGATCCTCCCAACCTAAAGCTAAATCTAGAACGCCACCCAGACGCAGTCGCTCCAGTTCTTCTCCGCCACCT
AAACAGAAATCTAAGACACCATCAAGACAAAGTCATTCCAGTTCATCTCCTCATCCTAAAGTGAAATCTGGAACA
CCACCGAGGCAAGGGTCCATAACAAGTCCCCAGGCCAATGAGCAATCTGTAACGCCACAGAGACGGAGCTGTTTT
GAATCATCACCTGACCCTGAGTTGAAATCTAGGACCCCTTCTAGACATAGCTGCTCAGGGTCCTCTCCTCCTAGA
GTGAAATCTAGCACACCTCCCAGACAGAGCCCATCTAGGTCATCATCTCCACAACCCAAAGTGAAGGCAATAATA
TCACCAAGACAAAGAAGCCATTCTGGCTCCTCTTCTCCAAGTCCTAGTAGGGTGACGTCGAGAACAACTCCACGG
CGAAGCAGATCAGTATCTCCCTGCTCCAATGTGGAATCCAGATTGTTGCCAAGATACAGTCATTCTGGGTCCTCC
TCACCAGATACCAAAGTGAAACCTGAAACACCGCCAAGACAAAGTCACTCAGGGTCTATTTCACCATACCCCAAA
GTAAAGGCCCAAACTCCACCGGGGCCAAGTCTTTCTGGATCAAAGTCACCATGTCCCCAAGAGAAGTCTAAAGAC
TCACTAGTTCAAAGTTGCCCTGGATCCCTCTCTCTCTGTGCAGGAGTAAAATCTAGCACACCACCAGGCGAGAGC
TATTTTGGTGTCTCATCTCTGCAACTGAAAGGACAATCTCAAACTTCACCAGACCACAGATCTGATACTTCAAGT
CCAGAAGTGAGACAGAGTCATTCAGAATCACCATCTCTGCAGAGCAAATCTCAAACATCACCTAAGGGAGGTCGG
TCCAGGTCTTCATCTCCAGTCACTGAGCTGGCATCCAGATCTCCAATAAGACAAGATAGAGGTGAGTTCTCAGCG

FIGURE 2284B

AGTCCTATGTTGAAATCTGGAATGTCTCCTGAGCAGAGCAGGTTCCAGTCTGACTCTTCTTCATATCCTACAGTG
GACTCGAATTCTCTCTTGGGGCAGAGTAGATTGGAGACTGCTGAATCAAAAGAGAAAATGGCCTTACCCCCTCAG
GAGGATGCTACTGCATCACCTCCTAGACAGAAAGACAAATTTAGTCCCTTTCCAGTACAGGATAGGCCTGAGTCT
TCACTGGTATTCAAAGACACACTTAGAACCCCGCCAAGGGAAAGAAGTGGTGCTGGGTCATCTCCAGAAACAAAA
GAGCAAAATAGTGCATTGCCTACGTCAAGCCAAGATGAAGAGTTAATGGAGGTGGTAGAGAAGTCTGAAGAACCC
GCAGGCCAAATCCTGTCTCATTTGTCTTCAGAACTTAAAGAAATGTCCACAAGTAACTTTGAATCATCTCCTGAA
GTAGAAGAAAGGCCTGCTGTGTCTTTGACTCTTGATCAGAGCCAGTCACAGGCTTCTTTGGAAGCAGTAGAAGTC
CCTTCAATGGCCTCATCTTGGGGTGGGCCACATTTTTCTCCAGAACATAAAGAACTGTCTAACTCCCCACTCAGG
GAGAACAGCTTTGGATCACCTTTAGAATTTAGAAACTCAGGCCCACTTGGTACAGAAATGAATACTGGATTTTCT
TCTGAGGTTAAAGAAGATTTGAATGGACCGTTTCTTAATCAGCTGGAAACAGATCCATCTCTAGACATGAAAGAA
CAATCGACAAGATCCTCTGGACACAGCAGTTCTGAGTTATCCCCAGATGCAGTGGAAAAGGCAGGGATGTCTTCA
AATCAGAGCATCTCTTCACCTGTGCTTGATGCTGTACCCAGAACACCCTCGAGAGAAAGAAGTAGTTCTGCATCT
TCTCCTGAAATGAAAGATGGTTTACCCAGAACTCCATCAAGGAGAAGCAGGTCTGGGTCTTCTCCAGGACTTAGA
GATGGGTCTGGGACTCCCTCGAGGCACAGCCTGTCTGGGTCCTCTCCTGGAATGAAAGATATACCTAGAACGCCA
TCTAGAGGGAGAAGCGAATGTGATTCTTCCCCAGAACCGAAAGCTTTGCCTCAGACTCCTAGGCCGAGGAGTCGT
TCTCCATCATCCCCAGAGCTCAACAACAAGTGTCTTACCCCCCAGAGAGAAAGAAGCGGGTCAGAATCATCAGTT
GATCAGAAAACTGTGGCTCGGACTCCCCTGGGGCAGAGAAGTCGTTCGGGATCCTCTCAAGAACTTGATGTGAAA
CCCAGTGCATCCCCTCAGGAAAGAAGTGAGTCAGACTCTTCTCCAGATTCTAAAGCCAAGACAAGAACCCCACTT
CGGCAGAGGAGTCGGTCTGGATCATCTCCAGAGGTTGACAGCAAATCTCGACTATCCCCTCGGCGCAGTAGGTCT
GGTTCCTCCCCTGAAGTGAAAGATAAGCCAAGAGCAGCACCCAGGGCACAGAGTGGTTCTGATTCCTCTCCTGAA
CCTAAAGCTCCAGCCCCTCGGGCCCTTCCCAGACGAAGCAGATCAGGTTCATCAAGCAAAGGCAGAGGCCCTTCT
CCTGAAGGAAGCAGCAGTACCGAGTCCTCTCCTGAACATCCGCCCAAATCCAGAACTGCTCGCAGAGGTTCCAGG
TCATCACCAGAGCCCAAGACCAAGTCTCGTACACCACCTCGACGTCGCAGCTCTCGATCATCTCCGGAGCTAACA
AGGAAGGCCAGACTGTCCCGTAGAAGCCGCTCTGCCTCATCCTCACCAGAAACTCGCTCTAGAACTCCCCCAAGG
CACCGGAGAAGTCCCTCAGTGTCTTCCCCGGAGCCAGCCGAAAAATCGAGGTCTTCACGCCGACGGCGCTCAGCT
TCATCTCCACGCACTAAGACAACCTCAAGGAGAGGCCGCTCTCCTTCGCCAAAGCCTCGTGGACTCCAGAGGTCC
CGTTCCCGCTCAAGGAGAGAGAAAACAAGAACAACCCGACGTCGAGATAGGTCTGGATCTTCTCAGTCAACCTCT
CGGCGAAGACAGCGGAGCCGGTCAAGGTCGCGGGTTACTCGGCGGCGGAGGGGAGGCTCTGGTTATCACTCAAGG
TCACCTGCCCGGCAGGAAAGTTCCCGGACCTCCTCTCGACGCCGAAGAGGCCGCTCTCGGACACCCCCAACCAGT
CGGAAGCGTTCTCGCTCACGCACATCACCAGCCCCGTGGAAACGCTCTAGATCTCGAGCCTCTCCAGCCACTCAC
CGGCGATCCAGGTCCAGAACCCCCCTGATAAGCCGACGTAGGTCCAGATCTCGAACTTCACCAGTCAGCCGGAGA
CGGTCAAGGTCCAGGACTTCAGTGACTCGACGAAGATCCCGGTCAAGAGCATCCCCAGTGAGCAGAAGGCGATCC
AGATCCAGAACGCCACCAGTAACCCGCCGTCGTTCAAGGTCTAGAACGCCAACAACACGCCGCCGCTCCCGTTCT
AGAACTCCACCAGTGACTCGCAGAAGGTCCAGATCCAGGACTCCACCAGTAACCAGGAGGCGATCTCGAAGCAGA
ACTTCGCCTATCACTCGCAGAAGATCAAGATCCAGAACATCTCCGGTCACCCGAAGGAGATCTCGATCTCGCACA
TCTCCAGTAACTCGAAGAAGGTCCCGCTCTCGAACCTCACCAGTGACACGCCGCCGCTCTAGGTCCCGGACACCT
CCAGCACAGGATCAGCCGAGGTCTCCTGTGCCTTCTGCTTTTTCAGACCAATCCCGTTGTTTGATTGCCCAGACC
ACCCCTGTAGCAGGGTCTCAGTCCCTTTCCTCTGGGGCAGTGGCAACGACCACGTCCTCTGCTGGTGATCACAAT
GGCATGCTCTCTGTCCCTGCCCCTGGGGTGCCCCACTCTGATGTGGGGGAGCCACCTGCCTCTACTGGGGCCCAG
CAGCCTTCTGCATTAGCCGCCCTGCAGCCAGCAAAGGAGCGGCGGAGTTCCTCCTCGTCGTCGTCGTCCTCTAGC
TCCTCCTCTTCTTCATCATCGTCGTCGTCGTCCTCCTCCTCCTCTGGCTCCAGTTCTAGTGACTCAGAGGGCTCT
AGCCTTCCTGTGCAACCTGAGGTGGCACTGAAGAGGGTCCCCAGCCCCACCCCAGCCCCAAAGGAGGCTGTTCGA
GAGGGACGTCCTCCGGAGCCAACCCCAGCCAAACGGAAGAGGCGCTCTAGCAGTTCCAGTTCCAGCTCCTCCTCT
TCATCTTCCTCCTCCTCCTCCTCCTCTTCTTCCTCCTCCTCTTCCTCTTCTTCTTCTTCCTCCTCATCTTCC
TCCTCCTCGTCGTCTTCCTCCCCTTCCCCTGCTAAGCCTGGCCCTCAGGCCTTGCCCAAACCTGCAAGCCCCAAG
AAGCCACCCCCTGGCGAGCGGAGGTCCCGCAGCCCCCGGAAGCCAATAGACTCCCTCAGGGACTCTCGGTCCCTC
AGCTACTCGCCTGTGGAGCGTCGCCGTCCCTCGCCCCAGCCCTCACCACGGGACCAGCAGAGCAGCAGCAGTGAG
CGGGGTTCCCGGAGAGGCCAGCGTGGGGACAGCCGCTCCCCCAGCCACAAGCGCAGGAGGGAGACACCTAGCCCT

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FIGURE 2284C

CGGCCCATGAGACACCGCTCCTCCAGGTCTCCA**TAA**ATTGTCTTTGGGGGATTCCACCACACCCAATGCTCTGGA
GCCACAAGGAGTGTCCCTTCTTCCCCAGCAGAGCCGTGGGAGGGTCCTTGTCTGCTCTCCTTTGAACCTTGGCAG
CCCTTGGATGGAGGGCTCCCTTTCCCTCCCCTTTTTTTTTCTTTGTTCCTGTGAAATGTTAATCTCCGTGAGTT
CTTCCTGGTTCATGTGTTCTGGGGGGTTTGGGGTGGGAGGGAATGCAGATGGGAGTTGGGGGAGGGGAGGATACA
GTTCAGGATACCCCAGCCTGGAGTCAGGGCCAGGGAGGCATGGCCCCACTTGTATCCAGAAGTTCCCAGGGGTGA
TTGTGATGGTGGTTGGGACTGGAGGTTGTATAAGGTGTTCTTGGAAGGAAGGGGCAGGAGTTGGAATTAGTTGGT
CCCTACTGTCCCCCATGAGGTTGTGAACCCCTCCCCCCAACTTTTCATGTTTCTTAAAGGCATTTTGGTTTTTTA
AAATCTGTACAGCAAGAGCAACTTTTTCTGTCAAATAAAAATGAGAAATGCAGG

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FIGURE 2285

CCCCACAGGTGTGA**ATG**ACAGAGGTGGTGCCATCCAGCGCGCTCAGCGAGGTCAGCCTGCGCCTCCTCTGCCACG
ATGACATAGACACTGTGAAGCACCTGTGTGGCGACTGGTTCCCCATCGAGTACCCAGACTCATGGTATCGTGATA
TCACATCCAACAAGAAGTTCTTTTCCCTTGCTGCAACCTACAGAGGTGCCATTGTGGGAATGATAGTAGCTGAAA
TTAAGAACAGGACCAAAATACATAAAGAGGATGGAGATATTCTAGCATCCAACTTCTCTGTTGACACACAAGTCG
CGTACATCCTAAGTCTGGGCGTCGTGAAAGAGTTCAGGAAGCACGGCATAGGTTCCCTCTTACTTGAAAGTTTAA
AGGATCACATATCAACCACCGCCCAGGACCACTGCAAAGCCATTTACCTGCATGTCCTCACCACCAACAACACAG
CAATAAACTTCTATGAAAACAGAGACTTCAAGCAGCACCACTATCTCCCCTATTACTACTCCATTCGAGGGGTCC
TCAAAGATGGCTTCACCTATGTCCTCTACATCAACGGCGGCCACCCTCCCTGGACGATTTTGGACTACATCCAGC
ACCTGGGCTCTGCACTAGCCAGCCTGAGCCCCTGCTCCATTCCGCACAGAGTCTACCGCCAGGCCCACAGCCTGC
TCTGCAGCTTCCTGCCATGGTCGGGCATCTCTTCCAAGAGTGGCATCGAGTACAGCCGGACCATG**TGA**TGTCGGC
TGGGCAGCCGCCACCAGGCCCCACCCTTCGGCCGCCCGCAGAGCCCGCCTTCCTGTCCATCTGACCCCTTCTGTT
TTCTGCAAGGAGCTGCCAGCCATCTAACTGGGCTCGTCGGCCTGCCCCAGCTGCAGGCCCGGTGCTACACGGGCT
CGGGAACAGAACATCGTGGGCATGCGCAGAGCATGCCCATCCGTGGCAGGTACGCCACAGCAGACACAAAGGCTC
TTCAGCTCCCCTCCCTGCTTCTGGAAACCTCTGCCTGCTGCCCTGGCCCTGCCCCCCTGCGCATGCACCGTCCCC
AGGGCTGACCCAGTGTGGCTGCATTCACTGGGAGGGGCCTGCCCTCACTGGGCCTCTCCCACTCCGCTGCCTGTT
CTTGCAGCTCCTTCCTGGAAAGCTGGAGGGGACTTTCTCCTGCAAGGGAGGAACGCAAGTATTATGGACACACTT
GACCGTAAAGGCACAGGAGCCTCGGAACAAGGGGGCGCAATAAAGGGAATGGCCCGTCCCCTTCCAGAACCAGCC
CAAAGAAGCCTGGGGGGTGAGGAGTGGCCCCCACTCCTCCATGAGGGGCTGATGAGGGGTGGGCAGCCTGGGGGA
GGCTTTCCTCGCAAGCACAGAGCTCTGAGGCTCAGCCCCCTGGCACAGGCGGTCACGCATCAGGACGGTTCCTAC
TCCTCAGCACCTTCCGTGCAGTTACCAGTGCCCTGGGAGGTCACACTGCCCGTCGGACCTTGGCATGCTCCATTC
AGCTGACCTGCTGAGGACAGGCATCGCCGAGACTCCTTGGGTCCTCCCCGCCCTCCCTCATGCTGCCACAAGCTG
CTGCTCCAAGGCCTGGCCACATGCAGACAGGAGGAAGCTGAGCTCGACATTAGGCCTCAAGGCTGCCATCTGTCT
TGTAGGGCCTGGCCTTGTGGGCAGGGGGCAGTCCTGTGCCTTGTGGGCCCTCAGCCTCTGAGGGCAGAGATGCTG
TCAGTGCCGCAGGTGCATCACATACTTCTAGCATCCTCTCCACCCTGCATTCCAAATGCTGCTTGCTGCCTGCCC
TGCCCTCCGATGCAGGGGTGGGGTGGGGGGCGGAGTCCCGCCCAGCATAGCTGCAGTGTCACAAAGCCATGGCAG
AGGGTCCTAGCGGCGCCACCCTGCCCCAGCCTGAGGAGGAGGGAGAGGGAGGAACAACCCTGGGCAGACGGGGCC
TCAGGGACCTGTGTCCTTCCGCCTCCAGAGCTGCCCAGCCACGGGCTCTCAGGGTGCTGGGGCAGCCCCAGGTCC
CCTCTTGAACTCAGCTGGGGCCAGGGGCCCTCAGAATGAAGGCAGGCACCAGGCAGGAGCAGCATCCCCCTCCTT
GACGGTGCTGGCAGGAGGGCCGCGCCATGCTGACTGCTTGAACCTCTGCTGACCTGACAGTGCTGGCGGGAGGGC
CGCACCATGCTGACTGCCTGAATCTCTGCTGAGGCTGCCTGCCTGCCGGGCCCAGCTCAGCGCCCTCTCCACTGC
GAATCAGTGGCGATCATGTGATTTCTATTTCTGCCCCACAGGGTAAGGGACGAGTCTTCTGGAAGGCTCTGCCAT
GGACATTTGTCCTCGGGCTCAGAGGCCCCACCCTGCCCCACACCTGCCCCTGATCACTGCAGTGTCCAGCCCAGT
GTTGAACAGATTGTAGCGTTCTGTCTCATTACGAGCAAATAAATAGACTTTCATTGG

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FIGURE 2286

ATGGGAGCTGACGTCCGCCACAAGAAGGACCTAAAGGTTGTTTATGAGTCGCACCAACCGGCCACCTCTGTCCGT
TTCCCGGATGATCCGGAAGATGAAGCTTCCTGGCTGGGAAAACAAAACGGCCGTGGTTGTGTGTGCGCTGCCCGT
GACCAGCCGGCCCACAGCGGCATCCTCAGGGTGGGGGCCAAGATCCTGACTTTCGATCAGCTGGCCCTGGACTCC
CTCAAGGACGGCGGCCCCGTCCTACTCTCCGGTCTTCGCAAGGGCCGACAGGTGTACCGGCATTTCGGCAAGGCC
CTGGGAACCCCACACAGCCACACCAAACGCTATTTCCGCTCCAGGGACCAGAAGTTCGAGCGCGCCAGAGGCCTA
CGGGCCAGCCGAGGCTACAAAAACGAACCCTCTTAT**TAA**

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FIGURE 2287

CTTGGCTCGCTGCGCCTCTGCCTCCCAGGTTCAAGAGATTCTTCTGCCTCAGCCTCCTAAGTAGCTGGGATTACA
GGAA**ATG**AGAACAGAAGCCATTGCCAGACCTCTGGAAATAAACGAGACTGAAAAAGTGATGAGAATTGCAATAAA
AGAGATTTTGACACAGGTTCAGAAGACTAAAGACCTGCTCAATAATGTGGCCTCTGATGAAGCTAATTTAGAAGC
CAAAATCGAAAAGAGAAAATTAGAACTGGAAAGAAATCGGAAGCGACTAGAGACTCTGCAGAGTGTCAGGCCATG
TTTTATGGATGAGTATGAGAAGACTGAGGAAGAATTACAAAAGCAGTATGACACTTATCTGGAGAAATTTCAAAA
TCTGACTTATCTGGAACAACAGCTTGAAGACCATCATAGGATGGAGCAAGAAAGGTTTGAGGAAGCTAAAAACAC
TCTCTGCCTGATACAGAACAAGCTCAAGGAGGAAGAGAAGCGCCTGCTCAAGAGTGGAAGTAACGATGACTCGGA
CATAGACATCCAGGAGGACGATGAATCCGACAGTGAGTTGGAAGAAAGGCGGCTGCCCAAGCCACAGACAGCCAT
GGAGATGCTCATGCAAGGAAGACCTGGCAAACGCATTGTGGGCACGATGCAAGGTGGAGACTCCGATGACAATGA
GGACTCGGAGGAGAGTGAAATTGACATGGAAGATGATGATGACGAGGATGACGATTTGGAAGACGAGAGCATTTC
TCTCTCACCAACCAAGCCCAATCGAAGGGTCCGGAAATCTGAACCCCTGGATGAGAGTGACAATGACTTC**TGA**CC
CTTTTGCCAAGGGACCCTGGCAGATTAAAACCCTCAGACTTGTAGGTAAATGGGAACTTAGAAGGTTAGGAAGGT
AACCCCTGTTTTGTTTACTAAGCTGGCTGGACTCATGATCACTGAAGCAATACTTATTTCTGCTTTAGCCTCCTA
TGTTTGCATTCCATGAAGCTTAAATAAGAATTGAAGCAAATCCCTAAGATTTATTTTTTTCCACCTTATTTATCT
TCTAAAACTTGAGGAATGCATGTGTTCTTAGTGATTCACATCCACGGGACAAAAACTCAAGAAGAAATAAGAGCT
GACGCCACACAAGTCTTGGCTGCTTTTGTTACTATACATTTTCTCTGAGACTCCAGCAGAGTTGGGGCTGGAACT
TGGCACTGGGGACTCATGTTTGGAATCGTAGGGGAACATCTGGCTGTTAATCACTTGCACAGTTGAGAACATTTC
CTATACATCGGCTTTTAATTCTAGCTCTTATTTCATTTTGTAATCTTATTTTCTTTCGTCTGCATGTTCACAATA
CCAAGCATTAAATGTATTTTAATAACTAAACTTTTCTGAAAGAAGGTTAGCTAAAGTTAAATGAAAACTTGGTTT
CTTTGAAAATCAGGCAATAGAGACAGGCTCCAGATGAGGAATCCTCCATTTTCTGTCCGAAGCTGACATTCCTCT
GGCAGTCCAGTTCACCTTGGATTACAGCCACCTTCATGTTTCCACGGTTGGTACTAAATCTGGAAACTCTGGTGA
CCTGGGCTGCCCTCTCAGAAACTCCAGACTCCCATGGCAATGACAGCCGGGACACTTTTCTTCCCTCCAGCCAGG
GTTTCTCTAAAGGAGCTTTGTTTTGTCTAAAGTGTGGCAAGACATAGTGCACAACACAGGGACAAAGGCAGGTTT
CCTGCAGCTCGCTACCTAAGTGTTTCTGTAGGGGAAGGAGCCAATTAAGAAAAAGTGTTGGTACAGATTCATGTT
TCTGATTTAAAAAAACAACAACACAGGATTGAATTAAGTAGAGTAATAGCACTAGAAGAATTTTTCTGTTGTGAA
ATTAGAAGTGGAGTTGGTTTTTTTCTTTTTTCTTCTTCTTTTTTTTTAATATGAAAAGTACTTAGCTGGGAGTGG
TGGCAAGCGCCCTTGGGTCCAGCTACTCAGGAGGCCAAGGTGGGAGGATCACTTGAGCCCAGGAGTTTTAGACTA
GCCTGGACAACTAAGTGAGACTCCATCTCTACAAAAAATTAAAAAATTAGCCAGGTGTGGAGGGGCATGCCTGTG
GTCTCAGCTATTCAGGAGGCTGAGGCAGGAGAATCACTTGAGACCAGGAAGTTGAGGCTGCAATGAGCCGTGATC
ATGCCACTGCACTCCAGCCTGGGTGACAGAGTGAGACCCTGTCTTT

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FIGURE 2288A

GCTCTCCCTCGGGCTGCTGGTTGCTGACTTTGGCGCCATGGTCAATAACCCACACCTGAGTGATGTCCAGTTTCA
GACGGACAGCGGGGAGGTGCTTTACGCCCACAAGTTCGTGCTTTATGCCCGATGCCCGCTCCTCATCCAGTATGT
GAACAATGAAGGCTTCTCCGCTGTAGAGGACGGGGTTCTGACCCAGCGTGTCCTGCTGGGTGACGTGAGCACCGA
GGCCGCCCGCACGTTCCTGCACTATCTCTACACTGCGGACACTGGCCTTCCTCCTGGCCTTAGCTCTGAGCTGAG
CTCCCTGGCCCACAGGTTTGGCGTGAGTGAGCTCGTTCACCTGTGCGAACAGGTGCCTATTGCCACTGACTCAGA
GGGCAAACCATGGGAGGAGAAGGAAGCAGAGAATTGCGAAAGCAGGGCCGAGAATTTCCAGGAACTCTTGAGGTC
AATGTGGGCAGATGAAGAGGAGGAAGCGGAGACTTTGTTGAAATCCAAGGACCACGAAGAAGATCAAGAAAACGT
GAATGAAGCAGAAATGGAAGAAATTTATGAATTTGCAGCTACTCAGCGAAAGCTTCTCCAGGAAGAAAGGGCAGC
GGGTGCCGGCGAGGACGCTGACTGGCTGGAGGGTGGCAGTCCGGTTTCTGGGCAACTCCTAGCAGGTGTCCAGGT
GCAGAAACAGTGGGACAAGGTGGAGGAGATGGAGCCGTTGGAGCCAGGAAGAGATGAGGCCGCCACCACCTGGGA
GAAGATGGGACAGTGCGCTCTCCCGCCACCCCAGGGCCAGCACTCAGGGGCACGGGGAGCAGAGGCCCCTGAGCA
GGAGGCGCCAGAGGAGGCGCTTGGCCATTCCAGCTGCTCCAGCCCTTCCAGGGACTGCCAGGCAGAGAGAAAAGA
AGGCTCTCTTCCGCACTCAGATGATGCCGGGGATTACGAACAGCTCTTCTCATCAACTCAGGGAGAGATCTCAGA
GCCGTCCCAAATAACAAGTGAGCCCGAGGAACAAAGTGGCGCTGTCAGGGAAAGGGGGCTGGAGGTTTCTCATCG
CCTGGCTCCCTGGCAGGCATCTCCACCGCACCCGTGCCGCTTCCTATTGGGGCCTCCCCAGGGCGGGAGTCCCCG
CGGGTCTCATCACACAAGTGGGTCGTCCCTGTCAACACCCCGGTCCCGTGGCGGAACTTCCCAGGTGGGCTCCCC
AACCTTGCTGTCTCCAGCTGTGCCATCAAAGCAGAAAAGGGACAGGAGCATCCTCACGCTGTCTAAAGAGCCAGG
GCACCAGAAAGGCAAAGAGCGTCGGTCCGTGCTGGAGTGCAGAAATAAGGGGGTCCTGATGTTCCCAGAAAAATC
TCCGTCTATTGACCTAACCCAGTCAAATCCTGACCATTCGAGCTCCAGATCTCAGAAATCTTCATCCAAACTGAA
CGAAGAAGATGAGGTCATCCTCTTACTGGACTCGGATGAGGAGCTGGAGCTAGAACAAACCAAAATGAAGTCCAT
TTCTAGTGATCCTCTGGAAGAAAAGAAAGCTCTAGAAATTAGCCCTAGGTCCTGTGAGCTGTTTTCCATCATTGA
TGTTGATGCAGATCAGGAACCTTCCCAGAGCCCACCAAGAAGCGAAGCTGTGCTGCAGCAGGAGGATGAGGGGGC
GCTGCCGGAGAATCGGGGCTCTTTGGGCAGGAGAGGGGCTCCCTGGCTGTTCTGTGACCGTGAGAGCAGCCCCAG
CGAGGCCAGCACCACAGACACCTCGTGGCTGGTGCCCGCCACCCCGCTGGCCAGCAGAAGCCGTGACTGTTCTTC
CCAGACCCAAATCAGCAGCCTCAGGAGCGGGCTGGCCGTGCAGGCGGTGACTCAGCACACGCCCAGGGCCTCAGT
AGGAAACAGGGAAGGGAACGAAGTCGCACAGAAGTTTTCTGTCATCAGGCCCCAGACACCACCGCCCCAGACACC
GTCCTCATGCCTCACTCCCGTCTCTCCAGGAACTTCTGACGGCAGAAGGCAAGGCCACAGAAGCCCTTCCCGTCC
CCACCCCGGGGGCCACCCGCACTCCTCTCCGCTGGCTCCACATCCCATCTCAGGGGACCGCGCCCACTTCAGCAG
GCGGTTCCTGAAACACTCGCCGCCTGGGCCAAGCTTCCTGAACCAGACCCCAGCGGGTGAAGTGGTGGAAGTCGG
AGACAGTGACGATGAGCAGGAGGTGGCCTCCCATCAGGCCAACAGAAGCCCCCCACTGGACAGTGACCCCCCAAT
TCCAATTGACGACTGCTGCTGGCACATGGAGCCCCTCTCGCCAATTCCCATTGACCACTGGAACCTGGAGCGGAC
CGGCCCCCTGAGCACCAGCAGCCCCAGCCGCAGGATGAACGAGGCCGCCGACAGCCGTGACTGTCGCTCCCCGGG
ACTCCTGGACACCACCCCCATCCGAGGAAGCTGCACTACCCAGAGGAAATTGCAAGAGAAGTCCTCGGGCGCGGG
CTCCCTGGGGAATAGCAGGCCGAGCTTTCTGAATTCGGCTCTGTGGGACGTTTGGGACGGGGAAGAGCAGAGGCC
TCCAGAGACCCCTCCTCCGGCCCAGATGCCAAGCGCTGGTGGAGCTCAGAAGCCCGAAGGGTTAGAGACACCCAA
AGGTGCTAATCGGAAGAAGAACTTGCCCCCCAAAGTGCCCATAACGCCGATGCCACAGTATTCCATTATGGAGAC
GCCGGTGCTGAAGAAGGAACTGGATAGGTTTGGAGTCCGCCCTCTGCCTAAACGCCAGATGGTTCTGAAGCTGAA
GGAGATATTCCAGTACACTCACCAGACCCTGGACTCAGACTCCGAGGACGAGAGCCAGTCCTCACAGCCGCTGTT
GCAGGCGCCTCACTGCCAGACCCTCGCCTCCCAGACCTACAAGCCTTCAAGGGCAGGGGTCCATGCCCAGCAGGA
GGCCACCACAGGACCTGGGGCCCATAGGCCCAAGGGACCTGCTAAGACCAAGGGCCCCCGACATCAAAGGAAGCA
TCATGAAAGCATCACACCCCCAAGCAGGTCGCCCACCAAGGAGGCACCTCCAGGCCTCAATGATGACGCCCAGAT
CCCAGCCTCTCAAGAATCCGTGGCCACCTCTGTGGATGGCAGTGACAGCTCCTTGAGCTCACAGAGGTAACCGGA
TGGATGCGATGGGGTCAGTGGCCTCATGTATCCTCTGGCCCGTGGGCGTGAGGGTTGGCACGAGTGAGACCTAAT
GGCCAATCTTCAAAAACCCCCGTCACCTTCTGGGTTTGACCTGTGGGAAAACCAGGTGGGTTTAGGGGGCTGGTT
CCCTGACCCCAGCCCTGCGCAGGCCTCCTGGTTCCTGCCCCACATGCTAGACATTTCTGGCTGGGGCAGGATCCC
GCTGGCGTAGCCTGCAGGGATCTCTCAGGCCCGTCCTGCCTTGCTGGGGATCGTGCCACAGGCCAGGCTCCATGG
GACCCGTAGACACCTTCCTTCCTTTAAAGAGGCTCATGGTCTCAGGGGCTGGAGAGAAAGGGGTTGCACAACGTC
CTGGTCTGGCTCTTTTCAGTTCTTCCTCCTGTGAGTTTGGAGCGGCATTTGAGTCTGCAGGTGAAGAGGAGGGCG

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FIGURE 2288B

AGGGGGAGGTCAGTGCCTCGCAGGCAGCCGTGCAGGCGGCGGACACAGACGAGGCGCTGAGGTGCTACATCCGCT
CCAAGCCGGCCCTGTACCAGAAGGTGCTGCTGTACCAGCCCTTTGAGCTGCGGGAGCTGCAGGCAGAGCTGAGGC
AGAACGGCCTCCGTGTGTCCTCGCGCAGGCTGTTGGACTTCCTGGACACCCACTGTATCACCTTCACCACTGCCG
CCACCCGCAGGGAGAAGCTCCAGGGCAGGAGGCGGCAGCCTCGGGGCAAGAAGAAGGTGGAGCGGAACTGATGGG
GCCATCCCGACCCCACCCCAACCTGCCATCAGCAGCCCCCACCCCCGCCATTTGCAGGGAGGACCTGGGACACCC
AGCGTGGGTCAGGCCTCCACAGGCATTTCTGGGCCTGGGGACCACATCAGCTCTGCGCTGTGATGATGACCACAG
CCCAATCCAGGGCTTCCTCCTCTGGGCTCTGCTTTCTAGGGTGGCATTTGGAGCATGTCACCCACTGGATTTACA
GACTCCAGCCCCTTCCTCTGTCCGTGCTCACAGTGTGTCTCCCTTTTTGGTTTTCTTTTTTTTTTTCTTTTTGAG
ACAGTCGTGCTGTGTCACCTAGGCTGGAGTGCAGTGGCACAATCTCGGCTCACTGCAACCTCCGCCTCCCGGGTT
CAAGCAATTCTCCTGCCTCAGCCTCCCAGATAGCTGGGACTACAGGCACACGCTGCCACGCCCAGCTGATTTTTT
ATATTTTAGTAGAAACGGGGTTTCACCATGTTGCTCAGGCTGGTCACAAACTCCAGAGCTCAGGCAATCCGCCTG
CTGCGGCCTCCCAAAGTGCTGGGATCACAGGCGCCAGCCACTGCGCCCGGCCCAGTGTGTCTCCCTTAACCCAAG
AGGGCCCTCAGCTGTCCCAGGGGGCAGTGGGCCATCACCAGCTGGCCAGGGCATGGCCTATTCTGCCACATTTGC
CACCCTCTGAGCCCACCAGTCCTGGGCACAGCTGCCCTACATGTCTGTCCTGAGATGGACGTCAGGTCCAGCCTG
CCCCGGCAGCCCGGGCCCGTCCTCCTCAGCACTCAGGCCAACCCCAGCCACCGCCAGCCTGAGACCAGGTGTCCT
GAGGCTCCCTGCACTGCCACAGCCCAGATGCAGTTCTCCTGACCCAGCCGTGCTACCCGGACACTTGTCATTGTT
ACCAGCAGTCTCCAAACTGGACAGTGCACAAGGGCCCAGAACAACTCTGATGCCACCACAAAACAAACATGTTCA
CTAGCGGATTCCATTCTTTGGGTTAAAGCTGCCTCCAGCCTCAGGAGCAGTGTGGAGGAAGATGAGGGCCAGGAA
AGAAGGAAACCTTGGTTTCTCCATCCTTGTGAATGTCCTCGTCTGTTTCAAATACAGTGCAGTCAGTTTT

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FIGURE 2289

CGAC**ATG**GCGCGCGAGCTGCGGGCGCTGCTGCTGTGGGGCCGCCGCCTGCGGCCTTTGCTGCGGGCGCCGGCGCT
GGCGGCCGTGCCGGGAGGAAAACCAATTCTGTGTCCTCGGAGGACCACAGCCCAGTTGGGCCCCAGGCGAAACCC
AGCCTGGAGCTTGCAGGCAGGACGACTGTTCAGCACGCAGACCGCCGAGGACAAGGAGGAACCCCTGCACTCGAT
TATCAGCAGCACAGAGAGCGTGCAGGGTTCCACTTCCAAACATGAGTTCCAGGCCGAGACAAAGAAGCTTTTGGA
CATTGTTGCCCGGTCCCTGTACTCAGAAAAAGAGGTGTTTATACGGGAGCTGATCTCCAATGCCAGCGATGCCTT
GGAAAAACTGCGTCACAAACTGGTGTCTGACGGCCAAGCACTGCCAGAAATGGAGATTCACTTGCAGACCAATGC
CGAGAAAGGCACCATCACCATCCAGGATACTGGTATCGGGATGACACAGGAAGAGCTGGTGTCCAACCTGGGGAC
GATTGCCAGATCGGGGTCAAAGGCCTTCCTGGATGCTCTGCAGAACCAGGCTGAGGCCAGCAGCAAGATCATCGG
CCAGTTTGGAGTGGGTTTCTACTCAGCTTTCATGGTGGCTGACAGAGTGGAGGTCTATTCCCGCTCGGCAGCCCC
GGGGAGCCTGGGTTACCAGTGGCTTTCAGATGGTTCTGGAGTGTTTGAAATCGCCGAAGCTTCGGGAGTTAGAAC
CGGGACAAAAATCATCATCCACCTGAAATCCGACTGCAAGGAGTTTTCCAGCGAGGCCCGGGTGCGAGATGTGGT
AACGAAGTACAGCAACTTCGTCAGCTTCCCCTTGTACTTGAATGGAAGGCGGATGAACACCTTGCAGGCCATCTG
GATGATGGACCCCAAGGATGTCCGTGAGTGGCAACATGAGGAGTTCTACCGCTACGTCGCGCAGGCTCACGACAA
GCCCCGCTACACCCTGCACTATAAGACGGACGCACCGCTCAACATCCGCAGCATCTTCTACGTGCCCGACATGAA
ACCGTCCATGTTTGATGTGAGCCGGGAGCTGGGCTCCAGCGTTGCACTGTACAGCCGCAAAGTCCTCATCCAGAC
CAAGGCCACGGACATCCTGCCCAAGTGGCTGCGCTTCATCCGAGGTGTGGTGGACAGTGAGGACATTCCCCTGAA
CCTCAGCCGGGAGCTGCTGCAGGAGAGCGCACTCATCAGGAAACTCCGGGACGTTTTACAGCAGAGGCTGATCAA
ATTCTTCATTGACCAGAGTAAAAAAGATGCTGAGAAGTATGCAAAGTTTTTTGAAGATTACGGCCTGTTCATGCG
GGAGGGCATTGTGACCGCCACCGAGCAGGAGGTCAAGGAGGACATAGCAAAGCTGCTGCGCTACGAGTCCTCGGC
GCTGCCCTCCGGGCAGCTAACCAGCCTCTCAGAATACGCCAGCCGCATGCGGGCCGGCACCCGCAACATCTACTA
CCTGTGCGCCCCCAACCGTCACCTGGCAGAGCACTCACCCTACTATGAGGCCATGAAGAAGAAAGACACAGAGGT
TCTCTTCTGCTTTGAGCAGTTTGATGAGCTCACCCTGCTGCACCTTCGTGAGTTTGACAAGAAGAAGCTGATCTC
TGTGGAGACGGACATAGTCGTGGATCACTACAAGGAGGAGAAGTTTGAGGACAGGTCCCCAGCCGCCGAGTGCCT
ATCAGAGAAGGAGACGGAGGAGCTCATGGCCTGGATGAGAAATGTGCTGGGGTCGCGTGTCACCAACGTGAAGGT
GACCCTCCGACTGGACACCCACCCTGCCATGGTCACCGTGCTGGAGATGGGGGCTGCCCGCCACTTCCTGCGCAT
GCAGCAGCTGGCCAAGACCCAGGAGGAGCGCGCACAGCTCCTGCAGCCCACGCTGGAGATCAACCCCAGGCACGC
GCTCATCAAGAAGCTGAATCAGCTGCGCGCAAGCGAGCCTGGCCTGGCTCAGCTGCTGGTGGATCAGATATACGA
GAACGCCATGATTGCTGCTGGACTTGTTGACGACCCTAGGGCCATGGTGGGCCGCTTGAATGAGCTGCTTGTCAA
GGCCCTGGAGCGACAC**TGA**CAGCCAGGGGGCCAGAAGGACTGACACCACAGATGACAGCCCCACCTCCTTGAGCT
TTATTTACCTAAATTTAAAGGTATTTCTTAACCCG

FIGURE 2290A

TGAGGAATCAACAGCCGCCATCTTGTCGCGGACCCGACCGGGGCTTCGAGCGCGATCTACTCGGCCCCGCCGGTC
CCGGGCCCCACAACCGCCCGCGCTCGCTCCTCTCCCTCGCAGCCGGCAGGGCCCCCGACCCCCGTCCGGGCCCTC
GCCGGCCCGGCCGCCCGTGCCCGGGGCTGTTTTCGCGAGCAGGTGAAA**ATG**GCTGAGAACTTGCTGGACGGACCG
CCCAACCCCAAAAGAGCCAAACTCAGCTCGCCCGGTTTCTCGGCGAATGACAGCACAGATTTTGGATCATTGTTT
GACTTGGAAAATGATCTTCCTGATGAGCTGATACCCAATGGAGGAGAATTAGGCCTTTTAAACAGTGGGAACCTT
GTTCCAGATGCTGCTTCCAAACATAAACAACTGTCGGAGCTTCTACGAGGAGGCAGCGGCTCTAGTATCAACCCA
GGAATAGGAAATGTGAGCGCCAGCAGCCCCGTGCAGCAGGGCCTGGGTGGCCAGGCTCAAGGGCAGCCGAACAGT
GCTAACATGGCCAGCCTCAGTGCCATGGGCAAGAGCCCTCTGAGCCAGGGAGATTCTTCAGCCCCCAGCCTGCCT
AAACAGGCAGCCAGCACCTCTGGGCCCACCCCCGCTGCCTCCCAAGCACTGAATCCGCAAGCACAAAAGCAAGTG
GGGCTGGCGACTAGCAGCCCTGCCACGTCACAGACTGGACCTGGTATCTGCATGAATGCTAACTTTAACCAGACC
CACCCAGGCCTCCTCAATAGTAACTCTGGCCATAGCTTAATTAATCAGGCTTCACAAGGGCAGGCGCAAGTCATG
AATGGATCTCTTGGGGCTGCTGGCAGAGGAAGGGGAGCTGGAATGCCGTACCCTACTCCAGCCATGCAGGGCGCC
TCGAGCAGCGTGCTGGCTGAGACCCTAACGCAGGTTTCCCCGCAAATGACTGGTCACGCGGGACTGAACACCGCA
CAGGCAGGAGGCATGGCCAAGATGGGAATAACTGGGAACACAAGTCCATTTGGACAGCCCTTTAGTCAAGCTGGA
GGGCAGCCAATGGGAGCCACTGGAGTGAACCCCCAGTTAGCCAGCAAACAGAGCATGGTCAACAGTTTGCCCACC
TTCCCTACAGATATCAAGAATACTTCAGTCACCAACGTGCCAAATATGTCTCAGATGCAAACATCAGTGGGAATT
GTACCCACACAAGCAATTGCAACAGGCCCCACTGCAGATCCTGAAAAACGCAAACTGATACAGCAGCAGCTGGTT
CTACTGCTTCATGCTCATAAGTGTCAGAGACGAGAGCAAGCAAACGGAGAGGTTCGGGCCTGCTCGCTCCCGCAT
TGTCGAACCATGAAAAACGTTTTGAATCACATGACGCATTGTCAGGCTGGGAAAGCCTGCCAAGTTGCCCATTGT
GCATCTTCACGACAAATCATCTCTCATTGGAAGAACTGCACACGACATGACTGTCCTGTTTGCCTCCCTTTGAAA
AATGCCAGTGACAAGCGAAACCAACAAACCATCCTGGGGTCTCCAGCTAGTGGAATTCAAAACACAATTGGTTCT
GTTGGCACAGGGCAACAGAATGCCACTTCTTTAAGTAACCCAAATCCCATAGACCCCAGCTCCATGCAGCGAGCC
TATGCTGCTCTCGGACTCCCCTACATGAACCAGCCCCAGACGCAGCTGCAGCCTCAGGTTCCTGGCCAGCAACCA
GCACAGCCTCAAACCCACCAGCAGATGAGGACTCTCAACCCCCTGGGAAATAATCCAATGAACATTCCAGCAGGA
GGAATAACAACAGATCAGCAGCCCCCAAACTTGATTTCAGAATCAGCTCTTCCGACTTCCCTGGGGGCCACAAAC
CCACTGATGAACGATGGCTCCAACTCTGGTAACATTGGAACCCTCAGCACTATACCAACAGCAGCTCCTCCTTCT
AGCACCGGTGTAAGGAAAGGCTGGCACGAACATGTCACTCAGGACCTGCGGAGCCATCTAGTGCATAAACTCGTC
CAAGCCATCTTCCCAACACCTGATCCCGCAGCTCTAAAGGATCGCCGCATGGAAAACCTGGTAGCCTATGCTAAG
AAAGTGGAAGGGGACATGTACGAGTCTGCCAACAGCAGGGATGAATATTATCACTTATTAGCAGAGAAAATCTAC
AAGATACAAAAAGAACTAGAAGAAAAACGGAGGTCGCGTTTACATAAACAAGGCATCTTGGGGAACCAGCCAGCC
TTACCAGCCCCGGGGGCTCAGCCCCCTGTGATTCCACAGGCACAACCTGTGAGACCTCCAAATGGACCCCTGTCC
CTGCCAGTGAATCGCATGCAAGTTTCTCAAGGGATGAATTCATTTAACCCCATGTCCTTGGGGAACGTCCAGTTG
CCACAAGCACCCATGGGACCTCGTGCAGCCTCCCCAATGAACCACTCTGTCCAGATGAACAGCATGGGCTCAGTG
CCAGGGATGGCCATTTCTCCTTCCCGAATGCCTCAGCCTCCGAACATGATGGGTGCACACACCAACAACATGATG
GCCCAGGCGCCCGCTCAGAGCCAGTTTCTGCCACAGAACCAGTTCCCGTCATCCAGCGGGGCGATGAGTGTGGGC
ATGGGGCAGCCGCCAGCCCAAACAGGCGTGTCACAGGGACAGGTGCCTGGTGCTGCTCTTCCTAACCCTCTCAAC
ATGCTGGGGCCTCAGGCCAGCCAGCTACCTTGCCCTCCAGTGACACAGTCACCACTGCACCCAACACCGCCTCCT
GCTTCCACGGCTGCTGGCATGCCATCTCTCCAGCACACGACACCACCTGGGATGACTCCTCCCCAGCCAGCAGCT
CCCACTCAGCCATCAACTCCTGTGTCGTCTTCCGGGCAGACTCCCACCCCGACTCCTGGCTCAGTGCCCAGTGCT
ACCCAAACCCAGAGCACCCCTACAGTCCAGGCAGCAGCCCAGGCCCAGGTGACCCCGCAGCCTCAAACCCCAGTT
CAGCCCCCGTCTGTGGCTACCCCTCAGTCATCGCAGCAACAGCCGACGCCTGTGCACGCCCAGCCTCCTGGCACA
CCGCTTTCCCAGGCAGCAGCCAGCATTGATAACAGAGTCCCTACCCCCTCCTCGGTGGCCAGCGCAGAAACCAAT
TCCCAGCAGCCAGGACCTGACGTACCTGTGCTGGAAATGAAGACGGAGACCCAAGCAGAGGACACTGAGCCCGAT
CCTGGTGAATCCAAAGGGGAGCCCAGGTCTGAGATGATGGAGGAGGATTTGCAAGGAGCTTCCCAAGTTAAAGAA
GAAACAGACATAGCAGAGCAGAAATCAGAACCAATGGAAGTGGATGAAAAGAAACCTGAAGTGAAAGTAGAAGTT
AAAGAGGAAGAAGAGAGTAGCAGTAACGGCACAGCCTCTCAGTCAACATCTCCTTCGCAGCCGCGCAAAAAAATC
TTTAAACCAGAGGAGTTACGCCAGGCCCTCATGCCAACCCTAGAAGCACTGTATCGACAGGACCCAGAGTCATTA
CCTTTCCGGCAGCCTGTAGATCCCCAGCTCCTCGGAATTCCAGACTATTTTGACATCGTAAAGAATCCCATGGAC

FIGURE 2290B

CTCTCCACCATCAAGCGGAAGCTGGACACAGGGCAATACCAAGAGCCCTGGCAGTACGTGGACGACGTCTGGCTC
ATGTTCAACAATGCCTGGCTCTATAATCGCAAGACATCCCGAGTCTATAAGTTTTGCAGTAAGCTTGCAGAGGTC
TTTGAGCAGGAAATTGACCCTGTCATGCAGTCCCTTGGATATTGCTGTGGACGCAAGTATGAGTTTTCCCCACAG
ACTTTGTGCTGCTATGGGAAGCAGCTGTGTACCATTCCTCGCGATGCTGCCTACTACAGCTATCAGAATAGGTAT
CATTTCTGTGAGAAGTGTTTCACAGAGATCCAGGGCGAGAATGTGACCCTGGGTGACGACCCTTCACAGCCCCAG
ACGACAATTTCAAAGGATCAGTTTGAAAAGAAGAAAAATGATACCTTAGACCCCGAACCTTTCGTTGATTGCAAG
GAGTGTGGCCGGAAGATGCATCAGATTTGCGTTCTGCACTATGACATCATTTGGCCTTCAGGTTTTGTGTGCGAC
AACTGCTTGAAGAAAACTGGCAGACCTCGAAAAGAAAACAAATTCAGTGCTAAGAGGCTGCAGACCACAAGACTG
GGAAACCACTTGGAAGACCGAGTGAACAAATTTTTGCGGCGCCAGAATCACCCTGAAGCCGGGGAGGTTTTTGTC
CGAGTGGTGGCCAGCTCAGACAAGACGGTGGAGGTCAAGCCCGGGATGAAGTCACGGTTTGTGGATTCTGGGGAA
ATGTCTGAATCTTTCCCATATCGAACCAAAGCTCTGTTTGCTTTTGAGGAAATTGACGGCGTGGATGTCTGCTTT
TTTGGAATGCACGTCCAAGAATACGGCTCTGATTGCCCCCCTCCAAACACGAGGCGTGTGTACATTTCTTATCTG
GATAGTATTCATTTCTTCCGGCCACGTTGCCTCCGCACAGCCGTTTACCATGAGATCCTTATTGGATATTTAGAG
TATGTGAAGAAATTAGGGTATGTGACAGGGCACATCTGGGCCTGTCCTCCAAGTGAAGGAGATGATTACATCTTC
CATTGCCACCCACCTGATCAAAAAATACCCAAGCCAAAACGACTGCAGGAGTGGTACAAAAAGATGCTGGACAAG
GCGTTTGCAGAGCGGATCATCCATGACTACAAGGATATTTTCAAACAAGCAACTGAAGACAGGCTCACCAGTGCC
AAGGAACTGCCCTATTTTGAAGGTGATTTCTGGCCCAATGTGTTAGAAGAGAGCATTAAGGAACTAGAACAAGAA
GAAGAGGAGAGGAAAAAGGAAGAGAGCACTGCAGCCAGTGAAACCACTGAGGGCAGTCAGGGCGACAGCAAGAAT
GCCAAGAAGAAGAACAACAAGAAAACCAACAAGAACAAAAGCAGCATCAGCCGCGCCAACAAGAAGAAGCCCAGC
ATGCCCAACGTGTCCAATGACCTGTCCCAGAAGCTGTATGCCACCATGGAGAAGCACAAGGAGGTCTTCTTCGTG
ATCCACCTGCACGCTGGGCCTGTCATCAACACCCTGCCCCCCATCGTCGACCCCGACCCCCTGCTCAGCTGTGAC
CTCATGGATGGGCGCGACGCCTTCCTCACCCTCGCCAGAGACAAGCACTGGGAGTTCTCCTCCTTGCGCCGCTCC
AAGTGGTCCACGCTCTGCATGCTGGTGGAGCTGCACACCCAGGGCCAGGACCGCTTTGTCTACACCTGCAACGAG
TGCAAGCACCACGTGGAGACGCGCTGGCACTGCACTGTGTGCGAGGACTACGACCTCTGCATCAACTGCTATAAC
ACGAAGAGCCATGCCCATAAGATGGTGAAGTGGGGGCTGGGCCTGGATGACGAGGGCAGCAGCCAGGGCGAGCCA
CAGTCAAAGAGCCCCCAGGAGTCACGCCGGCTGAGCATCCAGCGCTGCATCCAGTCGCTGGTGCACGCGTGCCAG
TGCCGCAACGCCAACTGCTCGCTGCCATCCTGCCAGAAGATGAAGCGGGTGGTGCAGCACACCAAGGGCTGCAAA
CGCAAGACCAACGGGGGCTGCCCGGTGTGCAAGCAGCTCATCGCCCTCTGCTGCTACCACGCCAAGCACTGCCAA
GAAAACAAATGCCCCGTGCCCTTCTGCCTCAACATCAAACACAAGCTCCGCCAGCAGCAGATCCAGCACCGCCTG
CAGCAGGCCCAGCTCATGCGCCGGCGGATGGCCACCATGAACACCCGCAACGTGCCTCAGCAGAGTCTGCCTTCT
CCTACCTCAGCACCGCCCGGGACCCCCACACAGCAGCCCAGCACACCCCAGACGCCGCAGCCCCCTGCCCAGCCC
CAACCCTCACCCGTGAGCATGTCACCAGCTGGCTTCCCCAGCGTGGCCCGGACTCAGCCCCCCACCACGGTGTCC
ACAGGGAAGCCTACCAGCCAGGTGCCGGCCCCCCCACCCCCGGCCCAGCCCCCTCCTGCAGCGGTGGAAGCGGCT
CGGCAGATCGAGCGTGAGGCCCAGCAGCAGCAGCACCTGTACCGGGTGAACATCAACAACAGCATGCCCCCAGGA
CGCACGGGCATGGGGACCCCGGGGAGCCAGATGGCCCCCGTGAGCCTGAATGTGCCCCGACCCAACCAGGTGAGC
GGGCCCGTCATGCCCAGCATGCCTCCCGGGCAGTGGCAGCAGGCGCCCCTTCCCCAGCAGCAGCCCATGCCAGGC
TTGCCCAGGCCTGTGATATCCATGCAGGCCCAGGCGGCCGTGGCTGGGCCCCGGATGCCCAGCGTGCAGCCACCC
AGGAGCATCTCACCCAGCGCTCTGCAAGACCTGCTGCGGACCCTGAAGTCGCCCAGCTCCCCTCAGCAGCAACAG
CAGGTGCTGAACATTCTCAAATCAAACCCGCAGCTAATGGCAGCTTTCATCAAACAGCGCACAGCCAAGTACGTG
GCCAATCAGCCCGGCATGCAGCCCCAGCCTGGCCTCCAGTCCCAGCCCGGCATGCAACCCCAGCCTGGCATGCAC
CAGCAGCCCAGCCTGCAGAACCTGAATGCCATGCAGGCTGGCGTGCCGCGGCCCGGTGTGCCTCCACAGCAGCAG
GCGATGGGAGGCCTGAACCCCCAGGGCCAGGCCTTGAACATCATGAACCCAGGACACAACCCCAACATGGCGAGT
ATGAATCCACAGTACCGAGAAATGTTACGGAGGCAGCTGCTGCAGCAGCAGCAGCAACAGCAGCAGCAACAACAG
CAGCAACAGCAGCAGCAGCAAGGGAGTGCCGGCATGGCTGGGGGCATGGCGGGGCACGGCCAGTTCCAGCAGCCT
CAAGGACCCGGAGGCTACCCACCGGCCATGCAGCAGCAGCAGCGCATGCAGCAGCATCTCCCCCTCCAGGGCAGC
TCCATGGGCCAGATGGCGGCTCAGATGGGACAGCTTGGCCAGATGGGGCAGCCGGGGCTGGGGGCAGACAGCACC
CCCAACATCCAGCAAGCCCTGCAGCAGCGGATTCTGCAGCAACAGCAGATGAAGCAGCAGATTGGGTCCCCAGGC
CAGCCGAACCCCATGAGCCCCCAGCAACACATGCTCTCAGGACAGCCACAGGCCTCGCATCTCCCTGGCCAGCAG

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FIGURE 2290C

ATCGCCACGTCCCTTAGTAACCAGGTGCGGTCTCCAGCCCCTGTCCAGTCTCCACGGCCCCAGTCCCAGCCTCCA
CATTCCAGCCCGTCACCACGGATACAGCCCCAGCCTTCGCCACACCACGTCTCACCCCAGACTGGTTCCCCCCAC
CCCGGACTCGCAGTCACCATGGCCAGCTCCATAGATCAGGGACACTTGGGGAACCCCGAACAGAGTGCAATGCTC
CCCCAGCTGAACACCCCCAGCAGGAGTGCGCTGTCCAGCGAACTGTCCCTGGTCGGGGACACCACGGGGGACACG
CTAGAGAAGTTTGTGGAGGGCTTG**TAG**CATTGTGAGAGCATCACCTTTTCCCTTTCATGTTCTTGGACCTTTTGT
ACTGAAAATCCAGGCATCTAGGTTCTTTTTATTCCTAGATGGAACTGCGACTTCCGAGCCATGGAAGGGTGGATT
GATGTTTAAAGAAACAATACAAAGAATATATTTTTTTGTTAAAAACCAGTTGATTTAAATATCTGGTCTCTCTCT
TTGGTTTTTTTTTGGCGGGGGGGTGGGGGGGGTTCTTTTTTTTCCGTTTTGTTTTTGTTTGGGGGGAGGGGGGTT
TTGTTTGGATTCTTTTTGTCGTCATTGCTGGTGACTCATGCCTTTTTTTAACGGGAAAAACAAGTTCATTATATT
CATATTTTTTATTTGTATTTTCAAGACTTTAAACATTTATGTTTAAAAGTAAGAAGAAAAATAATATTCAGAACT
GATTCCTGAAATAATGCAAGCTTATAATGTATCCCGATAACTTTGTGATGTTTCGGGAAGATTTTTTTCTATAGT
GAACTCTGTGGGCGTCTCCCAGTATTACCCTGGATGATAGGAATTGACTCCGGCGTGCACACACGTACACACCCA
CACACATCTATCTATACATAATGGCTGAAGCCAAACTTGTCTTGCAGATGTAGAAATTGTTGCTTTGTTTCTCTG
ATAAAACTGGTTTTAGACAAAAAATAGGGATGATCACTCTTAGACCATGCTAATGTTACTAGAGAAGAAGCCTTC
TTTTCTTTCTTCTATGTGAAACTTGAAATGAGGAAAAGCAATTCTAGTGTAAATCATGCAAGCGCTCTAATTCCT
ATAAATACGAAACTCGAGAAGATTCAATCACTGTATAGAATGGTAAAATACCAACTCATTTCTTATATCATATTG
TTAAATAAACTGTGTGCAACAGACAAAAAGGGTGGTCCTTCTTGAATTCATGTACATGGTATTAACACTTAGTGT
TCGGGGTTTTTTGTTATGAAAATGCTGTTTTCAACATTGTATTTGGACTATGCATGTGTTTTTTCCCCATTGTAT
ATAAAGTACCGCTTAAAATTGATATAAATTACTGAGGTTTTTAACATGTATTCTGTTCTTTAAGATCCCTGTAAG
AATGTTTAAGGTTTTTATTTATTTATATATATTTTTTGAGTCTGTTCTTTGT

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FIGURE 2291A

CCCGGGACTCGACAAC**ATG**GCTTCCCCACCCCACCAGCAGCTGCTGCATCACCACAGCACCGAGGTGAGCTGCGA
CTCCAGCGGGGACAGCAACAGCGTGCGCGTCAAGATCAACCCCAAGCAGCTGTCCTCCAACAGCCACCCCAAGCA
CTGCAAATACAGCATCTCCTCTAGCTGCAGCAGCTCTGGGGACTCCGGGGGCGTCCCCCGGCGAGTGGGCGGCGG
AGGCCGGCTGCGCAGGCAGAAGAAGCTGCCCCAGCTGTTCGAGAGGGCCTCCAGCCGCTGGTGGGACCCCAAGTT
CGACTCGGTGAACCTGGAGGAGGCCTGCCTGGAGCGCTGCTTCCCGCAGACCCAGCGCCGGTTCCGGTATGCGCT
CTTCTACATCGGCTTCGCCTGCCTTCTGTGGAGCATCTATTTTGCGGTCCACATGAGATCCAGACTGATCGTCAT
GGTCGCCCCCGCGCTGTGCTTCCTCCTGGTGTGTGTGGGCTTCTTTCTGTTTACCTTCACCAAGCTGTACGCCCG
GCATTACGCGTGGACCTCGCTGGCTCTCACCCTGCTGGTGTTCGCCCTGACCCTGGCTGCGCAGTTCCAGGTCTT
GACGCCTGTCTCAGGACGCGGCGACAGCTCCAACCTTACGGCCACAGCCCGGCCCACAGATACTTGCTTATCTCA
AGTGGGGAGCTTCTCCATGTGCATCGAAGTGCTCTTTTTGCTCTATACCGTCATGCACTTACCTTTGTACCTGAG
TTTGTGTCTGGGGGTGGCCTACTCTGTCCTTTTCGAGACCTTTGGCTACCATTTCCGGGATGAAGCCTGCTTCCC
CTCGCCCGGAGCCGGGGCCCTGCACTGGGAGCTGCTGAGCAGGGGGCTGCTCCACGGCTGCATCCACGCCATCGG
GGTCCACCTGTTCGTCATGTCCCAGGTGAGGTCCAGGAGCACCTTCCTCAAGGTGGGGCAATCCATTATGCACGG
GAAGGACCTGGAAGTGGAAAAAGCCCTCAAAGAGAGGATGATTCATTCCGTGATGCCAAGAATCATAGCCGATGA
CTTAATGAAGCAGGGAGATGAGGAGAGTGAGAATTCTGTCAAGAGGCATGCCACCTCGAGCCCCAAGAACAGGAA
GAAAAAGTCTTCCATCCAAAAAGCTCCTATAGCCTTCCGCCCTTTTAAGATGCAGCAGATCGAAGAAGTCAGTAT
TTTATTTGCAGATATCGTGGGCTTCACCAAGATGAGTGCCAACAAGTCTGCCCACGCCCTGGTGGGTCTCCTGAA
CGATCTGTTCGGTCGCTTCGACCGCCTGTGTGAGGAGACCAAGTGTGAGAAAATCAGCACCCTGGGAGACTGTTA
CTACTGCGTGGCGGGCTGTCCCGAGCCCCGGGCCGACCATGCCTACTGCTGCATCGAGATGGGCCTGGGCATGAT
CAAGGCCATCGAGCAGTTCTGCCAGGAGAAGAAGGAGATGGTGAACATGAGAGTCGGGGTGCACACGGGCACCGT
CCTTTGCGGCATCCTGGGCATGAGGAGGTTTAAATTTGACGTGTGGTCCAACGATGTGAACCTGGCCAATCTCAT
GGAGCAGCTGGGAGTGGCCGGCAAAGTTCACATTTCTGAGGCCACCGCAAAATACTTAGATGACCGGTACGAAAT
GGAAGATGGGAAAGTTATTGAACGGCTGGGCCAGAGCGTGGTTGCTGACCAGTTGAAAGGTTTGAAGACATACCT
GATATCGGGTCAGAGAGCCAAGGAGTCTCGCTGCAGCTGTGCAGAGGCCTTGCTTTCTGGCTTTGAGGTCATTGA
CGGCTCACAGGTGTCCTCAGGCCCTAGGGGACAGGGGACAGCGTCATCAGGGAATGTCAGTGACTTGGCGCAGAC
TGTCAAAACCTTTGATAACCTTAAGACCTGCCCTTCGTGCGGAATCACATTTGCTCCCAAATCTGAAGCCGGCGC
CGAGGGAGGAGCACCTCAAAACGGCTGCCAAGACGAGCATAAAAACAGCACCAAGGCTTCTGGAGGACCTAATCC
CAAAACTCAGAACGGGCTCCTCAGCCCTCCCCAAGAGGAGAAGCTCACCAACAGTCAGACTTCTCTGTGTGAGAT
CTTGCAGGAGAAGGGAAGGTGGGCAGGGGTGAGCCTGGACCAGTCGGCTCTCCTTCCGCTGAGGTTCAAGAACAT
CCGGGAGAAAACGGACGCCCACTTTGTGGACGTTATCAAAGAAGACAGCCTGATGAAAGATTACTTTTTTAAGCC
GCCCATTAATCAGTTCAGCCTGAACTTCCTGGATCAGGAGCTGGAGCGATCCTACAGGACCAGCTATCAGGAAGA
GGTCATAAAGAACTCCCCCGTGAAGACGTTTGCTAGTCCCACCTTCAGCTCCCTCCTGGATGTGTTTCTGTCGAC
CACAGTGTTTCTGACGCTGTCCACCACCTGCTTCCTGAAGTACGAGGCGGCCACCGTGCCTCCCCCGCCCGCCGC
CCTGGCGGTCTTCAGTGCAGCCCTGCTGCTGGAGGTGCTGTCCCTCGCGGTGTCCATCAGGATGGTGTTCTTCCT
GGAGGACGTCATGGCCTGCACCAAGCGCCTGCTGGAGTGGATCGCCGGCTGGCTACCACGTCACTGCATCGGGGC
CATCCTGGTGTCGCTTCCCGCACTGGCCGTCTACTCCCATGTCACCTCCGAATATGAGACCAACATACACTTCCC
AGTGTTCACAGGCTCGGCCGCGCTGATTGCCGTCGTGCACTACTGTAACTTCTGCCAGCTCAGCTCCTGGATGAG
GTCCTCCCTCGCCACCGTCGTGGGGGCCGGGCCGCTGCTCCTGCTCTACGTCTCCCTGTGCCCAGACAGTTCTGT
ATTAACTTCGCCCCTTGACGCAGTACAGAATTTCAGTTCCGAGAGGAACCCGTGCAATAGTTCGGTGCCGCGTGA
CCTCCGGCGGCCCGCCAGCCTCATCGGCCAGGAGGTGGTTCTCGTCTTCTTTCTCCTGCTCTTGTTGGTCTGGTT
CCTGAATCGCGAATTTGAAGTCAGCTACCGCCTCCACTACCACGGAGACGTGGAAGCGGATCTTCACCGCACCAA
GATCCAGAGCATGCGGGACCAGGCAGACTGGCTGCTGAGGAACATCATCCCCTACCACGTGGCTGAGCAGCTGAA
GGTGTCCCAGACCTACTCCAAGAACCATGACAGCGGAGGGGTGATCTTCGCCAGCATCGTCAACTTCAGCGAGTT
CTACGAGGAGAACTACGAGGGCGGCAAGGAGTGCTACCGGGTCCTCAACGAGCTCATCGGGGACTTTGACGAGCT
CCTAAGCAAGCCGGACTACAGCAGCATCGAGAAGATCAAGACCATCGGAGCCACGTACATGGCGGCGTCAGGGCT
GAACACCGCGCAGGCCCAGGACGGCAGCCACCCGCAGGAGCACCTGCAGATCCTGTTCGAGTTCGCCAAGGAGAT
GATGCGCGTGGTGGACGACTTCAACAACAACATGCTGTGGTTCAACTTCAAGCTCCGCGTCGGCTTCAACCATGG
GCCCCTCACGGCCGGGGTCATCGGCACCACCAAGCTGCTGTACGACATCTGGGGAGACACCGTCAACATCGCCAG

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FIGURE 2291B

CAGGATGGACACCACCGGCGTGGAGTGCCGCATCCAGGTGAGCGAAGAGAGCTACCGCGTCTTGAGCAAGATGGG
CTATGACTTCGACTACAGAGGGACCGTGAATGTCAAGGGGAAAGGCCAGATGAAGACCTACCTGTACCCAAAGTG
CACGGATCACAGGGTCATCCCACAGCACCAGCTGTCCATCTCCCCAGACATCCGCGTCCAGGTGGATGGCAGCAT
CGGACGGTCTCCCACAGACGAGATTGCCAACCTGGTGCCTTCTGTCCAGTATGTGGACAAGACATCTCTGGGTTC
TGACAGCAGCACGCAGGCCAAGGATGCCCACCTGTCCCCCAAGAGACCGTGGAAGGAGCCCGTCAAAGCCGAAGA
AAGGGGTCGATTTGGCAAAGCCATAGAGAAAGACGACTGTGACGAAACAGGAATAGAAGAAGCCAACGAACTCAC
CAAGCTCAACGTTTCAAAGAGTGTG**TGA**GGCGGCGCCCACCCGCTGCCCGAGGTGCTCTGTTTGTCGAAACACAG
TAATATTTGTATTTGGCTGTTGTGCTTTCCAAGCGCCACAGTTGCCCTCCCCGGACGTGGTGTTATGTGGTCATT
TCAGCCCTAACTTCTGTGTGGATCACAGTTATTCAGGGTTCATTTTCATCCATTCTTCCCTTTCGCTCCCTTCCC
TGGAAACCCCGCTGCCTCTGGGTCATCCGTTCAGCACGTGGTGGAGAACAAGTGCCTTCAGGGCTGGCCTCGGCC
TCGAGTCTCGGGACAGAGGCCGCCAGTGGAGATCATGGCTTTGGGTATTATTTGACTTTTAGAACAAAAGCTGTG
GTTAAGATCTCATTTTTATTGCTTTTTCCCACGTCCCACGAGACACTATTTTCGGTTCTCTGGCTAATACCCTGT
TTTTGAGTTTATTTTGTTTCTGTCTATGTCACAGTGTTCCTCTACGACCCGACCTCTCTATGTAAGCACACATGC
GCACACACACTTGCATTCATGAATCTGATATAAAGTGCCAGTAATCCGCCAAGAGGGGGTGCGAAGGGGGCATGT
CACGACAGCTCCGCCACCCCCCATTGCCCACCCGCACTTTCCCGAGCACCGCGCCCCGTGGGCTGTGGGTGAGCC
GCGCTCCCTGCACTGAGCGGGTTTAGGGGCTCGCCCACATGCATGCAGGCCAAGACAGCAAATGCCAGCCGGGCA
CGACGCCCGTGTGCCCAGGCCTCGGGGGTCTCAGAGCCGCCTCTCACCCCCGACCCTCCACCCAGGGGTCTCCCC
ATCGGGAGTGGAGGTGTTGGTCCTGGAAGCTGACTCATCGGAGAGGGAAATACCAAATAAACATCCGAGGTTGC

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FIGURE 2292

AAACAGGCCATTGTTGCTGAGCGAGGATGAAGAAGATACCAAGAGAGTTGTCCGCAGTGCCAAGGACAAGAGGTT
TGAGGAGCTGACCAACCTTATCCGGACCATCCGTAATGCC**ATG**AAGATTCGTGATGTCACCAAGTGCCTGGAAGA
GTTTGAGCTCCTGGGAAAAGCATATGGGAAGGCCAAAAGCATTGTGGACAAAGAAGGTGTCCCCCGGTTCTATAT
CCGCATCCTGGCTGACCTAGAGGACTATCTTAATGAGCTTTGGGAAGATAAGGAAGGGAAGAAGAAGATGAACAA
GAACAATGCCAAGGCTCTGAGCACCTTGCGTCAGAAGATCCGAAAATACAACCGTGATTTCGAGTCCCATATCAC
AAGCTACAAGCAGAACCCCGAGCAGTCTGCGGATGAAGATGCTGAGAAAAATGAGGAGGATTCAGAAGGCTCTTC
AGATGAGGATGAGGATGAGGACGGAGTCAGTGCTGCAACTTTCTTGAAGAAGAAATCAGAAGCTCCTTCTGGGGA
GAGTCGCAAGTTCCTCAAAAAGATGGATGATGAAGATGAGGACTCAGAAGATTCCGAAGATGATGAAGACTGGGA
CACAGGTTCCACATCTTCCGATTCCGACTCAGAGGAGGAAGAAGGGAAACAAACCGCGCTGGCCTCAAGATTTCT
TAAAAAGGCACCCACCACAGATGAGGACAAGAAGGCAGCCGAGAAGAAACGGGAGGACAAAGCTAAGAAGAAGCA
CGACAGGAAATCCAAGCGCCTGGATGAGGAGGAGGAGGACAATGAAGGCGGGGAGTGGGAAAGGGTCCGGGGCGG
AGTGCCGTTGGTTAAGGAGAAGCCAAAAATGTTTGCCAAGGGAACTGAGATCACCCATGCTGTTGTTATCAAGAA
ACTGAATGAGATCCTACAGGCACGAGGCAAGAAGGGAACTGATCGTGCTGCCCAGATTGAGCTGCTGCAACTGCT
GGTTCAGATTGCAGCGGAAAACAACCTGGGAGAGGGCGTCATTGTCAAGATCAAGTTCAATATCATCGCCTCTCT
CTATGACTACAACCCCAACCTGGCAACCTACATGAAGCCAGAGATGTGGGGGAAGTGCCTGGACTGCATCAATGA
GCTGATGGATATCCTGTTTGCAAATCCCAACATTTTTGTTGGAGAGAATATTCTGGAAGAGAGTGAGAACCTGCA
CAACGCTGACCAGCCACTGCGTGTCCGTGGCTGCATCCTAACTCTGGTGGAACGAATGGATGAAGAATTTACCAA
AATAATGCAAAATACTGACCCTCACTCCCAAGAGTACGTGGAGCACTTGAAGGATGAGGCCCAGGTGTGTGCCAT
CATCGAGCGTGTGCAGCGCTACCTGGAGGAGAAGGGCACTACCGAGGAGGTCTGCCGCATCTACCTGCTGCGCAT
CCTGCACACCTACTACAAGTTTGATTACAAGGCCCATCAGCGACAGCTGACCCCGCCTGAGGGCTCCTCAAAGGT
GAGCAAGACCAGGCAGAAAATGAGGGCGAGGACTCGGCTGTGT**TGA**TGGAGAGACTGTGCAAGTACATCTACGCC
AAGGACCGCACAGACCGGATCCGCACATGTGCCATCCTCTGCCACATCTACCACCATGC

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FIGURE 2293

GTGTCTTTCCTGAAGACTATCTTCTGGTCTCGAAATGGACATGATGGATCC**ATG**GATGTACAGCAGAGAGCCTGG
AGGTCCAACCGCAGTAGACAGAAAGGGCTGAGGTCCATTTGTATGCACACAAAGAAAAGAGTTTCTTCCTTTCGA
GGAAATAAAATTGGCCTGAAAGACGTCATTACTCTACGGAGGCATGTGGAAACAAAAGTTAGAGCTAAAATCCGT
AAGAGGAAGGTGACAACGAAAATCAACCGTCATGACAAAATCAATGGAAAGAGGAAGACCGCCAGAAAACAGAAA
ATGTTTCAACGTGCGCAAGAGTTGCGGCGGCGGGCAGAGGACTACCACAAATGCAAAATCCCCCCTTCTGCAAGA
AAGCCTCTTTGCAACTGGGTCAGAATGGCGGCAGCGGAGCATCGTCATTCTTCAGGATTGCCCTACTGGCTCTAC
CTCACAGCTGAAACTTTAAAAAACAGGATGGGCCGCCAGCCACCTCCTCCAACTCAACAACATTCTATAACTGAT
AACTCCCTGAGCCTCAAGACACCTCCTGAGTGTCTGCTCACTCCCCTTCCACCCTCAGTGGATGATAATATCAAG
GAGTGTCCTCTTGCTCCTCTTCCACCCTCTCCTCTTCCACCCTCAGTGGATGATAATCTGAAGGAATGTCTCTTT
GTCCCGCTTCCACCCTCTCCTCTTCCACCCTCAGTGGATGATAATCTGAAGAAACTAACGAAGAATAAA**TAA**ATA
ATATAAAAATA

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FIGURE 2294

GGCCCTGCGGTGTGACTCGCGGGCTCAGCTGGTTGGTATTTTTTGGGCCTCGTGCTTCGTGGTGGGAGACCCAGG
TCGAGGTCCGGCCGTAGCACCTCCGCGCCGTCGCCATGTCGCGGTTTTTCACCACCGGTTCGGACAGCGAGTCCG
AGTCGTCCTTGTCCGGGGAGGAGCTCGTCACCAAACCTGTCGGAGGCAACTATGGCAAACAGCCATTGTTGCTGA
GCGAGGATGAAGAAGATACCAAGAGAGTTGTCCGCAGTGCCAAGGACAAGAGGTTTGAGGAGCTGACCAACCTTA
TCCGGACCATCCGTAATGCCATGAAGATTCGTGATGTCACCAAGTGCCTGGAAGAGTTTGAGCTCCTGGGAAAAG
CATATGGGAAGGCCAAAAGCATTGTGGACAAAGAAGGTGTCCCCCGGTTCTATATCCGCATCCTGGCTGACCTAG
AGGACTATCTTAATGAGCTTTGGGAAGATAAGGAAGGGAAGAAGAAGATGAACAAGAACAATGCCAAGGCTCTGA
GCACCTTGCGTCAGAAGATCCGAAAATACAACCGTGATTTCGAGTCCCATATCACAAGCTACAAGCAGAACCCCG
AGCAGTCTGCGGATGAAGATGCTGAGAAAAATGAGGAGGATTCAGAAGGCTCTTCAGATGAGGATGAGGATGAGG
ACGGAGTCAGTGCTGCAACTTTCTTGAAGAAGAAATCAGAAGCTCCTTCTGGGGAGAGTCGCAAGTTCCTCAAAA
AGATGGATGATGAAGATGAGGACTCAGAAGATTCCGAAGATGATGAAGACTGGGACACAGGTTCCACATCTTCCG
ATTCCGACTCAGAGGAGGAAGAAGGGAAACAAACCGCGCTGGCCTCAAGATTTCTTAAAAAGGCACCCACCACAG
ATGAGGACAAGAAGGCAGCCGAGAAGAAACGGGAGGACAAAGCTAAGAAGAAGCACGACAGGAAATCCAAGCGCC
TGGATGAGGAGGAGGAGGACAATGAAGGCGGGGAGTGGGAAAGGGTCCGGGGCGGAGTGCCGTTGGTTAAGGAGA
AGCCAAAAATGTTTGCCAAGGGAACTGAGATCACCCATGCTGTTGTTATCAAGAAACTGAATGAGATCCTACAGG
CACGAGGCAAGAAGGGAACTGATCGTGCTGCCCAGATTGAGCTGCTGCAACTGCTGGTTCAGATTGCAGCGGAAA
ACAACCTGGGAGAGGGCGTCATTGTCAAGATCAAGTTCAATATCATCGCCTCTCTCTATGACTACAACCCCAACC
TGGCAACCTACATGAAGCCAGAGATGTGGGGGAAGTGCCTGGACTGCATCAATGAGCTGATGGATATCCTGTTTG
CAAATCCCAACATTTTTGTTGGAGAGAATATTCTGGAAGAGAGTGAGAACCTGCACAACGCTGACCAGCCACTGC
GTGTCCGTGGCTGCATCCTAACTCTGGTGGAACGAATGGATGAAGAATTTACCAAAATAATGCAAAATACTGACC
CTCACTCCCAAGAGTACGTGGAGCACTTGAAGGATGAGGCCCAGGTGTGTGCCATCATCGAGCGTGTGCAGCGCT
ACCTGGAGGAGAAGGGCACTACCGAGGAGGTCTGCCGCATCTACCTGCTGCGCATCCTGCACACCTACTACAAGT
TTGATTACAAGGCCCATCAGCGACAGCTGACCCCGCCTGAGGGCTCCTCAAAGTCTGAGCAAGACCAGGCAGAAA
ATGAGGGCGAGGACTCGGCTGTGTTGATGGAGAGACTGTGCAAGTACATCTACGCCAAGGACCGCACAGACCGGA
TCCGCACATGTGCCATCCTCTGCCACATCTACCACCATGCTCTGCACTCGCGCTGGTACCAGGCCCGCGACCTCA
TGCTCATGAGCCACTTGCAGGACAACATTCAGCATGCAGACCCGCCAGTGCAGATCCTTTACAACCGCACCATGG
TGCAGCTGGGCATCTGTGCCTTCCGCCAAGGCCTGACCAAGGACGCACACAACGCCCTGCTGGACATCCAGTCGA
GTGGCCGAGCCAAGGAGCTTCTGGGCCAGGGCCTGCTGCTGCGCAGCCTGCAGGAGCGCAACCAGGAGCAGGAGA
AGGTGGAGCGGCGCCGTCAGGTCCCCTTCCACCTGCACATCAACCTGGAGCTGCTGGAGTGTGTCTACCTGGTGT
CTGCCATGCTCCTGGAGATCCCCTACATGGCCGCCCATGAGAGCGATGCCCGCCGACGCATGATCAGCAAGCAGT
TCCACCACCAGCTGCGCGTGGGCGAGCGACAGCCCCTGCTGGGTCCCCCTGAGTCCATGCGGGAACATGTGGTCG
CTGCCTCCAAGGCCATGAAGATGGGTGACTGGAAGACCTGTCACAGTTTTATCATCAATGAGAAGATGAATGGGA
AAGTGTGGGACCTTTTCCCCGAGGCTGACAAAGTCCGCACCATGCTGGTTAGGAAGATCCAGGAAGAGTCACTGA
GGACCTACCTCTTCACCTACAGCAGTGTCTATGACTCCATCAGCATGGAGACGCTGTCAGACATGTTTGAGCTGG
ATCTGCCCACTGTGCACTCCATCATCAGCAAAATGATCATTAATGAGGAGCTGATGGCCTCCCTGGACCAGCCAA
CACAGACAGTGGTGATGCACCGCACTGAGCCCACTGCCCAGCAGAACCTGGCTCTGCAGCTGGCCGAGAAGCTGG
GCAGCCTGGTGGAGAACAACGAACGGGTGTTTGACCACAAGCAGGGCACCTACGGGGGCTACTTCCGAGACCAGA
AGGACGGCTACCGCAAAAACGAGGGCTACATGCGCCGCGGTGGCTACCGCCAGCAGCAGTCTCAGACGGCCTACTGA
GCTCTCCACTCTGTTTCCCGCCTGGGCCATCCAACCTTGAAGTCCTAAACCACACCTCAGTCACTAAAGGTCT
GTTTAAAGTTGTTCTGGTTGATTGCTTGTTGCCACAAAGGTGTGTTGAGCCCATTCATTTGCTGATTATATTTCT
GAGCTGCTACCACATGACAGACACAAGGCTCAGATGAAGAGGTGAATTGAACACGTTCCTGACCTC

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FIGURE 2295

AGTCTCCCACACTCCTCGCAAGGACAGGTCCTCTCTGGAACCTTCACAAACCTGATTTCTGGTCCTCCCCAACCA
GCTCCCTGTCCCTGCTTCTGGGTGCTCCTTCCTTCCTGAGCTCCCAGGGTTCCTCAAGGTCACTTTTGGCGACAA
AACATAAAAAACAA**ATG**ATGGCAGGATGGCAGGAAGAACCTCATACCCAAGCAGAGTGCCAGGTTTTACAGCCTC
CGCTCAGCCATTCATATCCTAAGCAACAAAACATCAGCAGGATGCGGAAGGTCCCGATAGTAAACCATCTCCATC
ACATCCATGTAGCCATCCGTCCATCAACCTGTATCTCAGGAACAAATGTAGATACATTCATTTTAAGCATGCATG
GTACATTTACAAAAATTAACCTGACTTATTTTGTTCCAGCAAATCTCAATATATTTGAGAGCAATCAAATCACAC
AGCACGTTTCTGATCATATAACTGTGCTAGAAGTCAATGAT**TAA**AAGCTAATTCAAAATTATTATTTGCTTGGAA
ATTCAAAGTGCCCTTATAAGACATAAACATAAGAAAGAATCCAAAATGAAACAAGATTGCCTTTCAACTCAATGA
TAAGATCATAACATGGCAATAAAATGTCTCCCTCTGGCCTGGGAATTCCTCTTTGTGGCACAAGGTTGTGTGATC
TCAAATCACCCCTAACCCACCTAGACATTTTAACATCCGAAACCGAGTGATGATGTCCTTATCTATAATCATCTT
ACTGCCTGTGTGTGTGGACTTTAAATTCTGAACCCAAATGAGGGGGAGAAAACCAAGTTGACCTTCATGATTGAC
CTCTCAGGGATGTCCAAGGAATCTGTGCATTTCAAGAAACAAAGTTCATCAGCTTCTCTCCTAAGGTTACCATGC
CAGCAATGATTCCTTTTGAGTTTCTGACAGAAGATAGTGGTTTTCATCCAAATAAGTCAACTACTCTACCCCATC
CCTAAGCCACTTGTATGGAAAGAAAAAGAGGAAGAAGCCAGTACTGTGACTGCGTAAGCTTCCCCCAGCATCACC
CGCTATGAGATGTGTGGCAGCTGAGACCCGGGAACTGCTCAAGGGCACCAGGCCCCATCTGTCTGCACTCACTCA
CCTTCCTCAGG

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FIGURE 2296

GGCTGAGGTCCATTTGT**ATG**CACACAAAGAAAAGAGTTTCTTCCTTTCGAGGAAATAAAATTGGCCTGAAAGACG
TCATTACTCTACGGAGGCATGTGGAAACAAAAGTTAGAGCTAAAATCCGTAAGAGGAAGGTGACAACGAAAATCA
ACCGTCATGACAAAATCAATGGAAAGAGGAAGACCGCCAGAAAACAGAAAATGTTTCAACGTGCGCAAGAGTTGC
GGCGGCGGGCAGAGGACTACCACAAATGCAAAATCCCCCCTTCTGCAAGAAAGCCTCTTTGCAACTGGGTCAGAA
TGGTGGCAGCGGAGCATCGTCATTCTTCAGGATTGCCCTACTGGCCCTACCTCACAGCTGAAACTTTAAAAAACA
GGATGGGCCGCCAGCCACCTCCTCCAACTCAACAACATTCTATAACTGATAACTCCCTGAGCCTCAAGACACCTA
CTGAGTGTCTGCTCACTCCCCTTCCACCCTCAGTGGATGATAATATCAAGGAGTGTCCTCTTGCTCCTCTTCCAC
CCTCTCCTCTTCCACCCTCAGTGGATGATAATCTGAAGGAATGTCTCTTTGTCCCGCTTCCACCCTCTCCTCTTC
CACCCTCAGTGGATGATAATCTCAAGACTCCTCCCTTAGCTACTCAGGAGGCCGAGGTGGAAAAACCACCCAAAC
CCAAGAGGTGGAGGGTGGATGAGGTGGAACAATCACCGAAACCCAAGAGGCGGAGGGTGGATGAGGTGGAACAAT
CGCCCAAGCCCAAGAGGCAGAGGGAGGCCGAGGCACAACAATTACCCAAACCCAAGAGGCGGAGGTTGAGTAAGC
TGAGAACACGCCATTGCACTCAAGCCTGGGCAATAAGAATAAATCCG**TAG**GTCGAAAAAAAGAAAAAAATCAAAA
AACAAAACAAAACCCACGCTCCAAAAACAAACTAACGAAGAATAAATAAATAATAT

FIGURE 2297

GGAGCAAGGGAGCTTTCGGGCCACACTCCCAGACGCCTCCCTGAGCCCTGGAACCCGGACTCGTTGCTCCTGGCC
TTCCATACCCCCTGGCAGATCATCCTGCGGTCCCACCCCAGATCCCCTCCTCCTCGCCATCCCATTCTGCCCCCT
CCCCACCCTGGGTACAGAAAGGGACTGAAGTGTTGGGCAGAGAGGGGGCTTAAGGCCCCTGGGCACAGGCTGGGA
TCAGGGCAGTGAGCGAAGGGCAGCTGTGTCCTGCCCTCCCTTCTGGAGGCTGGAGGGGAGAGGCCAAGCCCTTGG
AAAATGTAGCAAATGTCTGGATGTCGCATAAGTGCGTGTATGTGCGGGACAGGCCCCGAGAAGCTAGTGACTCCT
GCACACCCCCATTGCACAAATGAAATCACAGCCCAGGAGGGAGGGTAGCTTGGCACTGGCTGAGAAATAGAGCTC
TCTCCCCGCCCCTCCCCCTAACCACAAGGGATTGTCCTGACAACTTGTGGGGATAGAAGGGCTCACAGGGCAGGG
GTCTCAGCTGCCCCCATCCTTAGGGCAGGGGAGTTAGTGTGGAGCCGAGAGCAGGTCCCAGCTCCCCCTGCCAGC
CGCACTGTCCCAGGCCCAGGGACCTCTGCCGGGTCCTCCCAGCCCTTGCCACACAGCCTAGACGTAGTAGCCTGG
GCTTCCAGCAGGTGGCGAGCTGGTTCGTGCTGGAAATTTCTCCTGGGTTTCTTGGGGTCAAACATGCCAACCTCC
AAGACCCCATCCTCACGTCTCCCACTTTTCTGGCGCTGGAGTGTGCAGGGCGTAGGACCTGCATGTGTGGGTGTG
AGAATGGGGGCGGTGGACACCAGGGGGCGAGTGTGTGACTAGGTGTGTGTGCAC**ATG**TGTAGGGTGCAGACGCAT
GGGTGCCATCCTTTGCGTTCAGTGACTGTGCGTCCAGACCCCTCACCAGCGGCCCCCCCACCACACCCTGGTCCT
CCCAGGCAGCTGTCCCAGGGCGCCCAGGCCTGCCTTGCACCACAGCCCTCAGGAAATCCGGCAAGGAGGCCCCTG
CAGGTTGGTTCAGGCCCCCAGGTAGCAAAACAGAGACAACAGCAGCCCCGCCTGACCCCCTGCCCCTCTCTGTGG
AGGCCCGGGACCCCCGCAATAAGCACCACATGGGTGAGGCTGTCCCTGTCAGGGTCCCCTGCCAGGGTCCCTCCT
GGGGTTCTGGGCCATTTGAGGGGCTCTTTGATGGGCCAGGCCGGCCAGAGTGAACTCCGAGCACTTTCTGGCTGG
TGCCCCAACCTCTCCACTCCCCACTCATTCCCACCT**TGA**AAAAGGGCTATAGGTCCCCTGCCCTGCCCGGGTCCA
GTTTACAAACAGTGTGGGGTGGCCCCAGGGCCTGGCCCCACTCTCCCTGCTGTGCCCACTCCTCTCCAGACTCCA
CCTCCCCAGTGGGTATGGGCCCTCCACATGCCAGGTAAGTAGCAAACCCCCACTCCCTCCAAGGACCAGGTCTCA
GAGAAGGCCCTGGTCACTGCCCCCGGCCCACCTGGAGCCCATCGGGGCTGCCTCTCCCAGCCGCGACTTCTCCTT
TTGCCTTAGGCCTCGCGACATCCTGATCTCTCCTGCAATAACTAGGAATCGAGATTCCACAGTAGACGTCCCTTG
CCGTGCTCGCTCTCTCTCTCGCGCGCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCCTCTCTTTCTCTC
TCTCCCTCTCTCTGTTAAGATCCTGTTCGGGAGTTTCCCCAGCCGTTGTAGTATCTAGTATGTTAGAGTTGGGAG
GGGACCATAGTTATGTAGCCCAGCCCCCTCATTCCCAGAGGCACCCAGAGGGCCAGCCTCCAGCCTGACCCCAGA
GCAGAACCGGAACACCAGGTTGGGGCCCTGGTGCTGCCACCTCCTCTGCTGGTCGGGCTGGGACCCTTTGCCCCT
TAGGAGAGGTGTTGGTCACAGATGTTTACCTCAGTTTATGTCACTGTCGAAGAAACAAAAAATAATAGCAAAAAA
TAACACTGTAGACATGAAGACTTAGAAGACAAAAAAAAAAAAATCACACAAAAAATCTCCCTTGTTGCGATTCTT
CTGTGAAGGTACAGTGTGTATGTGTGTATGTGTGTATGTGTGTGCGTGTCTCTGTCCCAGACCCTGTGTCCCCCA
CACTGCCCCCTGTCCTTCGGTGCTTCCCAGAGACCCCTCTGAGCTGGCCTGTGGGGCACGGGAAGCCCCCTGGAT
GGGAGGCGGGGCCACAGGTCGGCTAGAGGGTCTCCACCAGGCCCACTGAACAGAACCCCACGGCTGCCAGAATGT
TCCCTGAGCCCACACTGTGGCCAGTGGGACAGTCCTGGTGGCTGACATCAGCGTCCATGCTTGGCTCAGGGCCTG
GGGCGGGGTCCTGGGTAGAGTCCTAGCCCCAGAGCCCCAGCCCCTCATGTCTTGCCGCCCTTCCTCCATGTGTTT
GTAAATACTCTGGCATCCTTTGGCCCTGAGAAGGTTTTTAAATGTGTTATTTACTTCTCTAAACATGACGATTGC
TATAAAAATAAACAAAAGTTTAGAAAAATG

FIGURE 2298A

AGAGGAGCTTCTTAATAACTTTGCCCAGCAAATAGGAGCCTGGAGATTCTGCCTGTACTTTCTCTCCAGCACTAG
GAATGACTATGTA**ATG**ATGTACAGTTTAACAGTTTTTGAGAATCTGATCAATAAAATGTGGCTTGGGGTCCCATC
TCAGGATAAGATGGAAATCCGTAGCTGTCTGCCCAAACTCCTTTTGGCTCACCATAAAACCTTACCTTACTTTAT
CCGGAACAAGCTCTGCAAAGTTATTGTTGATATTGGACGTCAGGATTGGCCCATGTTCTACCACGACTTTTTTAC
TAACATTTTACAGTTGATCCAGTCCCCTGTGACAACCCCCCTTGGGCTGATCATGTTGAAGACAACTTCAGAAGA
GCTGGCTTGTCCCCGTGAGGACCTCAGTGTGGCTCGGAAGGAGGAGTTGCGGAAGCTGCTACTGGACCAGGTGCA
GACAGTGCTTGGGCTACTGACAGGTATCTTGGAGACTGTCTGGGACAAACACAGTGTTACTGCTGCCACTCCACC
ACCATCCCCGACCTCAGGAGAAAGTGGTGACTTACTGAGTAACCTGTTGCAGAGTCCCAGTTCAGCCAAACTGTT
GAATCAGCCAATTCCCATCCTTGATGTGGAGAGTGAGTATATCTGTTCCCTGGCTTTGGAGTGCCTGGCCCATCT
CTTCAGTTGGATTCCTCTGTCTGCCAGCATCACCCCATCCCTCCTTACCACCATCTTCCACTTTGCACGATTTGG
CTGTGACATCCGGGCCAGAAAGATGGCGTCAGTTAACGGCAGCAGCCAGAACTGTGTCTCGGGTCAGGAGCGCGG
CCGGCTGGGGGTCCTGGCCATGTCCTGCATCAATGAACTCATGTCCAAGAACTGTGTGCCTATGGAATTTGAGGA
GTATTTACTGCGTATGTTCCAGCAGACTTTCTACCTCCTGCAGAAAATCACCAAGGATAACAATGCCCACACAGT
GAAGAGCAGGCTAGAAGAGCTCGATGAGAGCTATATCGAGAAGTTTACTGACTTTCTTCGGCTCTTTGTGAGTGT
TCACCTAAGAAGAATCGAGTCTTACTCCCAGTTCCCTGTGGTGGAGTTTTTGACACTTTTGTTCAAGTACACATT
TCATCAGCCTACTCATGAAGGTTACTTCTCTTGTTTGGATATCTGGACGCTGTTTTTGGACTATCTGACAAGTAA
AATTAAAAGTCGTCTTGGAGACAAGGAAGCAGTTCTCAACAGGTACGAAGATGCCCTGGTGCTCCTGCTCACAGA
GGTGTTGAATCGAATCCAGTTCAGATACAACCAAGCCCAGCTGGAGGAGTTGGATGATGAGACTCTGGATGACGA
TCAGCAGACGGAGTGGCAGCGGTACTTACGGCAGAGCTTGGAGGTGGTGGCCAAAGTGATGGAGCTCCTGCCCAC
GCACGCCTTCTCCACACTGTTCCCTGTTCTTCAGGACAATTTAGAAGTTTATTTGGGATTACAACAGTTTATAGT
CACTTCAGGGTCAGGACACAGGTTGAACATCACGGCGGAGAACGACTGCCGGCGGCTGCACTGCTCCCTGAGAGA
CTTGAGCTCCCTGCTGCAGGCCGTGGGCCGCCTGGCCGAGTACTTTATCGGGGATGTGTTTGCTGCACGGTTCAA
TGATGCCCTCACAGTCGTGGAAAGGTTGGTCAAAGTCACTCTGTACGGATCTCAGATAAAATTGTACAACATTGA
AACTGCTGTGCCATCAGTATTGAAACCTGACCTCATTGATGTGCATGCTCAGTCCCTGGCTGCGCTGCAGGCTTA
CTCTCACTGGTTAGCACAGTATTGCAGTGAAGTTCACCGGCAGAACACGCAGCAGTTCGTGACACTCATCTCTAC
TACCATGGATGCAATCACACCTCTAATCAGCACCAAGGTCCAAGACAAGCTGCTGCTATCTGCGTGCCACTTACT
GGTCTCACTGGCCACCACCGTGCGGCCCGTCTTTCTGATCAGCATCCCTGCAGTGCAGAAAGTATTCAACAGAAT
CACTGATGCCTCTGCCCTGCGACTTGTCGATAAGGCCCAGGTGTTGGTGTGCCGAGCCCTCTCTAACATCTTGCT
GCTTCCGTGGCCAAACCTTCCAGAGAATGAGCAGCAGTGGCCCGTGCGCTCCATCAACCACGCCAGCCTCATCTC
TGCACTCTCCCGGGACTATCGCAACCTGAAGCCCAGTGCTGTTGCCCCACAGAGAAAGATGCCACTGGATGACAC
CAAACTGATTATCCACCAGACACTCAGCGTCTTAGAAGATATTGTGGAGAATATCTCGGGGGAGTCCACCAAGTC
TCGACAGATTTGCTACCAGTCGCTGCAGGAATCTGTTCAGGTCTCCCTGGCCCTCTTTCCAGCTTTTATCCATCA
GTCAGATGTGACTGATGAGATGCTGAGCTTCTTCCTCACTCTGTTTCGAGGCCTTAGAGTACAGATGGGTGTGCC
TTTCACTGAGCAAATCATACAGACTTTCCTCAACATGTTTACCAGAGAGCAGTTAGCCGAGAGCATCCTCCACGA
GGGCAGCACAGGCTGCCGGGTGGTGGAGAAGTTTCTGAAGATCCTGCAGGTGGTGGTCCAGGAGCCAGGCCAGGT
GTTCAAGCCCTTCCTCCCCAGCATCATCGCCCTGTGCATGGAGCAAGTGTATCCCATCATTGCCGAGCGTCCCTC
CCCTGATGTGAAGGCCGAGCTGTTTGAGCTCCTTTTCCGGACGCTCCATCACAACTGGAGGTACTTCTTCAAGTC
CACCGTGCTGGCCAGTGTCCAGAGGGGGATCGCTGAGGAGCAGATGGAGAATGAGCCCCAGTTCAGTGCCATCAT
GCAGGCTTTCGGACAGTCCTTTCTCCAGCCCGACATCCACCTTTTTAAACAAAATCTCTTCTACTTGGAGACTCT
CAACACCAAGCAGAAGCTGTACCACAAGAAGATCTTCCGGACTGCCATGCTGTTCCAGTTTGTGAACGTGCTGCT
CCAGGTCCTGGTCCACAAGTCCCATGATCTTCTGCAGGAGGAGATTGGCATCGCCATCTACAACATGGCCTCAGT
CGACTTTGATGGCTTCTTTGCCGCCTTCCTCCCAGAGTTCCTGACCAGCTGTGATGGTGTGGATGCCAACCAGAA
AAGTGTGCTGGGGCGGAATTTCAAGATGGATCGGGACCTGCCCTCATTCACCCAGAATGTGCACAGGCTGGTCAA
CGACCTGCGCTACTACAGACTCTGCAACGACAGCCTGCCCCCTGGCACTGTGAAGCTC**TAG**GCCTGCTACTGCCT
GGGGACACGGACTTCTGCTGCTGCCACCTGCGCCAGCCCTACCTTCCACCACAGATGTCTCCCAGATGGGCCTTG
GTCACACTCCTTGGCTTCTCCCACCGCAAGCAACGCTGCCTGCCTCTGCCGCTCCTCCACATCTTGCCGCTGCCC
AGCAGAGCTGGCTTCTGGGTCCACCTGAGCACTGGACGGTGCTCCCAGGGCGTTGGAGCAGGCGGAGGGGTGTGT
GGCCAGGTACTAGGAGGCACCAGGAAATCCCGCGGGGTGGCCCATGCAGACCAGGCGCACGTGGCTCATGGGGCA

FIGURE 2298B

GAATTGCCAAGGACAGCTCACGACAGTGCCACCTTCTCACCATTCCAGCCAAGGAGAGATGTGACGTTGGAACTG
CTCTGGCACTTCTGTCAAGCCTCCCCCGCCCCAATTGCCTTGAGATCTCTGCTCTTTGTCAGAGATTTGCAAAGA
CTCACGTTTTTGTTGTTTTCTCATCATTCCATTGTGATACTAAGAAACTAAGAAGCTTAATGAAAAGAAATAAAA
TGCCTATGTTGTTGTTCTAG

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FIGURE 2299

TCTCTCTCGGCGTTTCCGCTGTCAGGGCCTGCGGTGTGACTCGCGGGCTCAGCTGGTCCGGCCGTAGCACCTCCG
CGCCGTCGCC**ATG**TCGCGGTTTTTCACCACCGGTTCGGACAGCGAGTCCGAGTCGTCCTTGTCCGGGGAGGAGCT
CGTCACCAAACCTGTCGGAGGCAACTATGGCAAACAGCCATTGTTGCTGAGCGAGGATGAAGAAGATACCAAGAG
AGTTGTCCGCAGTGCCAAGGACAAGAGGTTTGAGGAGCTGACCAACCTTATCCGGACCATCCGTAATGCCATGAA
GATTCGTGATGTCACCAAGTGCCTGGAAGAGTTTGAGCTCCTGGGAAAAGCATATGGGAAGGCCAAAAGCATTGT
GGACAAAGAAGGTGTCCCCCGGTTCTATATCCGCATCCTGGCTGACCTAGAGGACTATCTTAATGAGCTTTGGGA
AGATAAGGAAGGGAAGAAGAAGATGAACAAGAACAATGCCAAGGCTCTGAGCACCTTGCGTCAGAAGATCCGAAA
ATACAACCGTGATTTCGAGTCCCATATCACAAGCTACAAGCAGAACCCCGAGCAGTCTGCGGATGAAGATGCTGA
GAAAAATGAGGAGGATTCAGAAGGCTCTTCAGATGAGGATGAGGATGAGGACGGAGTCAGTGCTGCAACTTTCTT
GAAGAAGAAATCAGAAGCTCCTTCTGGGGAGAGTCGCAAGTTCCTCAAAAAGATGGATGATGAAGATGAGGACTC
AGAAGATTCCGAAGATGATGAAGACTGGGACACAGGTTCCACATCTTCCGATTCCGACTCAGAGGAGGAAGAAGG
GAAACAAACCGCGCTGGCCTCAAGATTTCTTAAAAAGGCACCCACCACAGATGAGGACAAGAAGGCAGCCGAGAA
GAAACGGGAGGACAAAGCTAAGAAGAAGCACGACAGGAAATCCAAGCGCCTGGATGAGGAGGAGGAGGACAATGA
AGGCGGGGAGTGGGAAAGGGTCCGGGGCGGAGTGCCGTTGGTTAAGGAGAAGCCAAAAATGTTTGCCAAGGGAAC
TGAGATCACCCATGCTGTTGTTATCAAGAAACTGAATGAGATCCTACAGGCACGAGGCAAGAAGGGAACTGATCG
TGCTGCCCAGATTGAGCTGCTGCAACTGCTGGTTCAGATTGCAGCGGAAAACAACCTGGGAGAGGGCGTCATTGT
CAAGATCAAGTTCAATATCATCGCCTCTCTCTATGACTACAACCCCAACCTGGCAACCTACATGAAGCCAGAGAT
GTGGGGGAAGTGCCTGGACTGCATCAATGAGCTGATGGATATCCTGTTTGCAAATCCCAACATTTTTGTTGGAGA
GAATATTCTGGAAGAGAGTGAGAACCTGCACAACGCTGACCAGCCACTGCGTGTCCGTGGCTGCATCCTAACTCT
GGTGGAACGAATGGATGAAGAATTTACCAAAATAATGCAAAATACTGACCCTCACTCCCAAGAGTACGTGGAGCA
CTTGAAGGATGAGGCCCAGGTGTGTGCCATCATCGAGCGTGTGCAGCGCTACCTGGAGGAGAAGGGCACTACCGA
GGAGGTCTGCCGCATCTACCTGCTGCGCATCCTGCACACCTACTACAAGTTTGATTACAAGGCCCATCAGCGACA
GCTGACCCCGCCTGAGGGCTCCTCAAAGTCTGAGCAAGACCAGGCAGAAAATGAGGGCGAGGACTCGGCTGTGTT
GATGGAGAGACTGTGCAAGTACATCTACGCCAAGGACCGCACAGACCGGATCCGCACATGTGCCATCCTCTGCCA
CATCTACCACCATGCTCTGCACTCGCGCTGGTACCAGGCCCGCGACCTCATGCTCATGAGCCACTTGCAGGACAA
CATTCAGCATGCAGACCCGCCAGTGCAGATCCTTTACAACCGCACCATGGTGCAGCTGGGCATCTGTGCCTTCCG
CCAAGGCCTGACCAAGGACGCACACAACGCCCTGCTGGACATCCAGTCGAGTGGCCGAGCCAAGGAGCTTCTGGG
CCAGGGCCTGCTGCTGCGCAGCCTGCAGGAGCGCAACCAGGAGCAGGAGAAGGTGGAGCGGCGCCGTCAGGTCCC
CTTCCACCTGCACATCAACCTGGAGCTGCTGGAGTGTGTCTACCTGGTGTCTGCCATGCTCCTGGAGATCCCCTA
CATGGCCGCCCATGAGAGCGATGCCCGCCGACGCATGATCAGCAAGCAGTTCCACCACCAGCTGCGCGTGGGCGA
GCGACAGCCCCTGCTGGGTCCCCCTGAGTCCATGCGGGAACATGTGGTCGCTGCCTCCAAGGCCATGAAGATGGG
TGACTGGAAGACCTGTCACAGTTTTATCATCAATGAGAAGATGAATGGGAAAGTGTGGGACCTTTTCCCCGAGGC
TGACAAAGTCCGCACCATGCTGGTTAGGAAGATCCAGGAAGAGTCACTGAGGACCTACCTCTTCACCTACAGCAG
TGTCTATGACTCCATCAGCATGGAGACGCTGTCAGACATGTTTGAGCTGGATCTGCCCACTGTGCACTCCATCAT
CAGCAAAATGATCATTAATGAGGAGCTGATGGCCTCCCTGGACCAGCCAACACAGACAGTGGTGATGCACCGCAC
TGAGCCCACTGCCCAGCAGAACCTGGCTCTGCAGCTGGCCGAGAAGCTGGGCAGCCTGGTGGAGAACAACGAACG
GGTGTTTGACCACAAGCAGGGCACCTACGGGGGCTACTTCCGAGACCAGAAGGACGGCTACCGCAAAAACGAGGG
CTACATGCGCCGCGGTGGCTACCGCCAGCAGCAGTCTCAGACGGCCTAC**TGA**GCTCTCCACTCTGTTTCCCGCCT
GGGCCATCCAACCTTGAAGTCCTAAACCACACCTCAGTCACTAAAGGTCTGTTTAAAGTTGTTCTGGTTGATTGC
TTGTTGCCACAAAGGTGTGTTGAGCCCATTCATTTGCTGATTATATTTCTGAGCTGCTACCACATGACAGACACA
AGGCTCAGATGAAGAGGTGAATTGAAC

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FIGURE 2300

ATGCGTGTCCGTCTGTCTGTCTAGTGTCTGGGTTTGGCCCAAGACTGGGCTGTAGTTACATTA**ATG**CCCAGCCAG
CCACCCCTGCCACTCACCCTTCCTGGCCCAGGCCTTGCTGACTCTCTGAGCTGGGGAGGTGGGAGGCCAGGCGAG
CCTGACTCTGTTGATCTACCCGCGCCTGGCCAACTCTCTCACATTTTAAAACACTACTTTCTGCTACAAAAGTGG
CGTGTACAATGGGAAATGTCACAAATAAATACCCCAGGAAGACACTCAAAAGCCCCTGTGATGCCCCCCCAGCCC
TGGTCCTGGGGTGTCGGCCTTGGGTCTCCCTCCTGGTGCGGCATCCTTTAACCACTGCAGTTAACTGGGAGGAAA
CGATCCCCATGCATTGCTCTAAATCCCGCTGGATCTGGTTTTGGGGGTGCTGGGCTGCTGCCCAGGAGACTGGAA
GGGGAGGAAGGTGTGTGGCCCCTGAGGGCTTCCAAAGCACTCTGTGCTGTGAGGATCCCACCCCGTGCGCTCCCA
GAAAGTGGCCGGTGTTTTTCTGCTCCAGCAGGGAGCCCAGGTGAGGTTCTC**TAG**GTAGGTGGAAAGGTAGGTGGA
GCAGGCTTCAAGAGCAGAACCCAGCAGAGCGCCCCGGCTTCCTCCCATCGCCCTCCTACTCCCTCTCCTCCCCTC
TCCTCCCCTCCCCTCCCATCCTTTTGGAAGCAAGGAGGGGAGAGGCTTCCACCGAAGTTGGGCCCAGCTCAGGTG
TCCTGAGTGGTGGGAATCTGTGCAGGGCCCAGGCGCATTTCCTGCCCGGGAGCAGGAATGCTTTACAGATGTTGG
AGCTGCCTCAAGGCATGGCCAGGAGGGGCCGGAGAAGCAGAACCAGCTGCATAGGGGATGCTGGGCTGGTGCCTG
CACATGGAACAGTCATTGATTAAAATGTCACTTGTAAGGTGCCTAAATCTTCGGGTCCTCCTCCTTGGAGAGTCC
CAGGTAAGCTGCGTTCCCTGGGCTGATTCCAGGCTGGGCCAGGCGGGGCTGGGCTGCAGACCTCTGGGGACTGCC
TACCCAACCCCACACCACCAGGCTCCCTGCTCCTCCTGAAGGCCTTGGCCTTCAGTAAAATGCAAAAAGTTAAAT
GCTCTGGGTTTTCTCTGATAATAGAAGCAATGCCTGTCCATTGTAGAATGTTGGGAAAATAGAGAAGAGCAAGAG
CAACAACAGGCACGGAACTCCACCCCTGCCGGTCAGCCTGCCTGTGCGTGGGAGTTAAAACAAAACGCTTCTGCA
AACATTTGGTTTTTTTTGTTTTTCCAAAATTAAGCTCCGATTGTGCATATCACTTGATAATCGAAATTATTTTTT
GAAAAATAATTTTAATAGCTATGCAGTACTCCATCCTGTCAACATATGGAATGAAATGATGATTTCTAAATTCTT
ACTCTTGTCACCTGGGCTGCAGTTGGAGGCCTGGTGGGGGTCCGTGCGGCGACTGGCTGGGCCGTCCCTGTCCCT
CCTCCCAGATGACAGAGGTGCCTGGTGTTTGGCAAACTCACTTAGAAGGAGCAAGAAGCAACTGGGATGGCTCAG
AAGCCCATGGTGGAATAGTCTGTTGTAAACGAAGAGACAAGAGGAGGCCGAGGACTGGTTTCCCCTTCTCCTTCC
CGCTCCCAGCCCTCCCCTCTTTCCCATCGAGTCTCTGGTCTCTGCCTTCAGGCCCATGGATGGGCAAAGCATCTT
TCGAGAGCTTGCCTGCCAACCCTCAGAGTCACATACACGAAGGTCTCCTGGAGCTCAGAAGGTCAGGCACAAAGT
CACTCCTTGACCCTATTTATTGAAATATCCGTTTTTTTGAGCACTTTTCCCGTGTAGACTCAACAGGGTCTCCCT
CTGTTGCCCAGGCTGGAGTGCAGTGGTGCGATCATGGCTCACTGCAGACTTGAACTCCTGAGCTCAAGCAATCCT
GCTGCCTCAGTTCTCCGAGTAGCTGGGACCACATGTGTAAGTCACTAAGCCTGGCTAATT

FIGURE 2301

ATGACTGTTGCTGGTGTAATTACCATCTCCTGGGAAGAGCAGCTCGCTGGCTGCAAGGGGACCCTCCACCCTGCC
TATGGGGCACAGCAGCCCACAGCATTCCTTCCAGAAATGGAGCACTGGCAGGCCTGGGTCCCTGCAGCCCAGCCT
CCAAGAGGGCAACAGCGACTGATCCGGGACGAAGGCCTCTCTGTGCCTGCTCCCGTCATCTACCGCGTGCCCCTG
GTTCCGGCAGCCACAGGGTGGCCCCAGACACCCCGCCAGGGCCTCTCTGGCAGCTCTCCGTCCTCGATTCTGGAG
ACAGAGAAACGTGATGCTGGCTCCTGGTCTGCTCATAGCCCCCTCGTCCCCACCACAGGGTCGCCAGCCACCTCC
TCAGCCTACCGCGTGCCCCTCCTTCCCCTCTACTTCCGACCCTCCAACAACAGCAGACTCTTCCCCAAACACTCC
TTTGCCCAGACCCCGGGCTTCACACATGCTGCTCTTAGAAATGCATCCCAGCTCCCTGCGAGGAGCCAGCAAGGC
TGCTCGGTGCTTCTTCCCATGGATGGGAAGCTCTGCCGGGGACCAGGACCCGGACCTGGAGACCCTGAGGAGCGT
GTTGGTTCTGCTGAACTCCAGGGTGAGGAGGACCTGGTCTCCATTCTCAAAGACATGAAGAGGTTGACAAAGAAG
AGTCACAGCCCTCCAGGCCTCCTGGGGAGGAGGACAGATGCAGAGCCTGGATCTCGTGCGCAGCAGGGCCCCTCC
AATGCTGCGAACACAGATCTGGGGGTCCTCCTCGGGCGACAGTGGGGGCTCGGGAGAAGCTCAGATGCCACACAG
CTCTGGGATCTGAGCACGTGGGTCCTGGGCCAGATTGTTTCAACAAACATCAAGGACTTTTGGATTCTTTCTCGG
ATTCCAGGCCTAGACGTCTGCTCGATTGGAAAACTGCCCCCAGAGATGCCGTGGCTCAGAGCTCGTCCTGCTTTG
GGGTGGCCCCTGGAGTCTCCGCCCCTCAGCAACCCACATGGTGACAGGCACCCACATCCGCTGGCCTCAGGAACC
CTGGGGCCACCATCCCAGCGCTGTAAGGAGCTGGCAGTTTCCTCCCCACCCTTTCGGCCTACCTTGCAGGAACCA
AGACACCAGGCAGGCCCCTCCTTATGCCCCAGCCCCCTCTCCAGCCAGCTCATTCCAGCCTCCCCCACTGCTGCT
GGCTGCTGCTGGCCAGAAGGCTCTCCTTCCTCTTGCAATCCAATTCCTACTCTCCCTCAAGGACGCAGAGCCCCA
GCACCGGCAGTCACGAGGACGCAGGAAAGCGCACGCACTCACAGGCTCAGAGACGCGGACGCCAGACCCAGGCTT
GGACAGAGCAGCCCCGCAAACCCTGCCACGACCTGGGCTGTGTCCGTTCGGTGCTCCCGGCCCACGGGCTGCACA
ACTTGGCGGCCCCGAAACTGGCGTGGGGGAGGGGAGGGCTGTCCACCCGAGCAGGACGCGGCTGTCCACTCAGTC
GGAGGTGAGGAACGACCTCCCTATCCCGTTGCCGGGTCCAAGCGGGGCCCGAGAGCCGCCGGGGAGAGCCAAAGG
GAGGGGACCGATGGATTTCCCAGAGTGAAACTCGCACCCCCGTCCCGCGCCAGGCCCACCCGCAGGGTCCTCTCC
AGCACGTCCGCGGCCGCAGCAGCCAGCCCAGCACCCACCTTCGAAGTCCGAAATGATCCCATCCAGCTGCGCGTT
GACCGCGGGGTCCGACATGATGGCTGGGTTAAACGGCAGCGCACGCGGCTGGCAGGCAGGATCCCGGCCTGTGGG
CTCAAGAGCCGAGGGGCGCAGGGCGAACATGCGAGTCCCATGGCACCAGCGAGAGGCCACCAACTCCCACCCACC
GAGGGCACCCCTGCAGCTAACACCCCCACCACGACCACCGCCCCGGGGGCCACCGCTGCACCCTCCTGGGATAGT
GAGGAGGCCCCCCCACCCCGCTTTTCTAGGGCCTCAGGGCCTGGACACACAGTCCCAGAAGGGGCACTGGGCAGAG
AAGATGCACGCCGGCAGCAGAGAGGAAACTGAGCTGAAATTTGGCAAGAACAAAAGAACTATAAAGGCCTGTGCA
TCCAGCAAGGTGCATTCTTCCACGGTCACAAAAGAAGGCAAGACCGACTGCAGGCCTGGCCAAAGGGACCGCCTG
CGTCTTCAGTGCACAACAAGACCTACAGTGGGCTGG**TGA**

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FIGURE 2302

GCGCCTTCCTCTCCGCAGCCCCCCGGGATGCGGTAGCGGCCGCTGTGCGGAGGCCGCGAAGCAGCTGCAGCCGCC
GCCGCGCAGATCCACGCTGGCTCCGTGCGCC**ATG**GTCACCCACAGCAAGTTTCCCGCCGCCGGGATGAGCCGCCC
CCTGGACACCAGCCTGCGCCTCAAGACCTTCAGCTCCAAGAGCGAGTACCAGCTGGTGGTGAACGCAGTGCGCAA
GCTGCAGGAGAGCGGCTTCTACTGGAGCGCAGTGACCGGCGGCGAGGCGAACCTGCTGCTCAGTGCCGAGCCCGC
CGGCACCTTTCTGATCCGCGACAGCTCGGACCAGCGCCACTTCTTCACGCTCAGCGTCAAGACCCAGTCTGGGAC
CAAGAACCTGCGCATCCAGTGTGAGGGGGGCAGCTTCTCTCTGCAGAGCGATCCCCGGAGCACGCAGCCCGTGCC
CCGCTTCGACTGCGTGCTCAAGCTGGTGCACCACTACATGCCGCCCCCTGGAGCCCCCTCCTTCCCCTCGCCACC
TACTGAACCCTCCTCCGAGGTGCCCGAGCAGCCGTCTGCCCAGCCACTCCCTGGGAGTCCCCCCAGAAGAGCCTA
TTACATCTACTCCGGGGGCGAGAAGATCCCCCTGGTGTTGAGCCGGCCCCTCTCCTCCAACGTGGCCACTCTTCA
GCATCTCTGTCGGAAGACCGTCAACGGCCACCTGGACTCCTATGAGAAAGTCACCCAGCTGCCGGGGCCCATTCG
GGAGTTCCTGGACCAGTACGATGCCCCGCTT**TAA**GGGGTAAAGGGCGCAAAGGGCATGGGTCGGGAGAGGGGACG
CAGGCCCCTCTCCTCCGTGGCACAT

FIGURE 2303A

CAAGTGCCGTCGCCGCGCCCCTTCCCCCTCCCGCCTCCCCGGCCCCCTCCCCGGAACCGGCGGTCGAGCTACGGT
CGCGGAGCAGTGGAACCGNAGACTGCCCCGCGGAGCCGCCGGTATGAGCGCCCCTCGCCACCCCGTGTCCCAGGC
CCGGCCTTTCTGACAAGAGCTAGACTTCGGGCTCCTTGAGGATATTCAGTTTTGTATGTTTGAATATCCTCTCAC
CATGTTCAGCATAAAGTACCATTCTTAATGATTATCCTCAACAAGACAGGTGTGAGAGGGTTGCTGTTGTATTGC
AATC**ATG**GTGCAGAAATACCAGTCCCCAGTGAGGGTGTACAAATACCCCTTTGAATTAATTATGGCTGCCTATGA
AAGGAGGTTCCCTACATGTCCTTTGATTCCGATGTTCGTGGGCAGTGACACTGTGAATGAATTCAAGAGCGAAGA
TGGGGCTATTCATGTCATTGAAAGGCGCTGCAAGCTGGATGTAGATGCACCCAGACTGCTGAAGAAGATTGCAGG
AGTTGATTATGTTTATTTTGTCCAGAAAAACTCACTGAATTCTCGGGAACGTACTTTGCACATTGAGGCTTATAA
TGAAACGTTTTCCAATCGGGTCATCATTAATGAGCATTGCTGCTACACCGTTCACCCTGAAAATGAAGATTGGAC
CTGTTTTGAACAGTCTGCAAGTTTAGATATTAAATCTTTCTTTGGTTTTGAAAGTACAGTGGAAAAAATTGCAAT
GAAACAATATACCAGCAACATTAAAAAAGGAAAGGAAATCATCGAATACTACCTTCGCCAATTAGAAGAAGAAGG
CATAACCTTTGTGCCCCGTTGGAGTCCGCCTTCCATCACGACCTCTTCAGAGACATCTTCATCATCCTCCAAGAA
ACAAGCAGCGTCCATGGCCGTCGTCATCCCAGAAGCTGCCCTCAAGGAGGGGCTGAGTGGTGATGCCCTCAGCAG
CCCCAGCGCACCTGAGCCCGTGGTGGGCACCCCTGACGACAAACTAGATGCCGACTACATCAAGAGATACCTGGG
CGATTTGACTCCGCTGCAGGAGAGCTGCCTCATTAGACTTCGCCAGTGGCTCCAGGAGACCCACAAGGGCAAAAT
TCCAAAAGATGAGCATATTCTTCGGTTCCTCCGTGCACGGGATTTTAATATTGACAAAGCCAGAGAGATCATGTG
TCAGTCTTTGACGTGGAGAAAGCAGCATCAGGTAGACTACATTCTTGAAACCTGGACCCCTCCTCAGGTCCTTCA
GGATTACTACGCGGGAGGCTGGCATCATCACGACAAAGATGGGCGGCCCCTCTACGTGCTCAGGCTGGGGCAGAT
GGACACCAAAGGCTTGGTGAGAGCGCTCGGGGAGGAAGCCCTGCTGAGATACGTTCTCTCCATAAATGAAGAAGG
GCTAAGGCGATGCGAAGAGAATACAAAAGTCTTTGGTCGGCCTATCAGCTCATGGACCTGCCTGGTGGACTTGGA
AGGGCTGAACATGCGCCACTTGTGGAGACCTGGTGTGAAAGCGCTGCTGCGGATCATCGAGGTGGTGGAGGCCAA
CTACCCTGAGACACTGGGCCGCCTTCTCATCCTGCGGGCGCCCAGGGTATTTCCTGTGCTCTGGACGCTGGTTAG
TCCGTTCATTGATGACAACACCAGAAGGAAGTTCCTCATTTATGCAGGAAATGACTACCAGGGTCCTGGAGGCCT
GCTGGATTACATCGACAAAGAGATTATTCCAGATTTCCTGAGTGGGGAGTGCATGTGCGAAGTGCCAGAGGGTGG
ACTGGTCCCCAAATCTCTGTACCGGACTGCAGAGGAGCTGGAGAACGAAGACCTGAAGCTCTGGACTGAGACCAT
CTACCAGTCTGCAAGCGTCTTCAAAGGAGCCCCACATGAGATTCTCATTCAGATTGTGGATGCCTCGTCAGTCAT
CACTTGGGATTTCGACGTGTGCAAAGGGGACATTGTGTTTAACATCTATCACTCCAAGAGGTCGCCACAACCACC
CAAAAAGGACTCCCTGGGAGCCCACAGCATCACCTCTCCGGGTGGGAACAATGTGCAGCTCATAGACAAAGTCTG
GCAGCTGGGCCGCGACTACAGCATGGTGGAGTCGCCTCTGATCTGCAAAGAAGGAGAAAGCGTGCAGGGTTCCCA
TGTGACCAGGTGGCCGGGCTTCTACATCCTGCAGTGGAAATTCCACAGCATGCCTGCGTGCGCCGCCAGCAGCCT
TCCCCGGGTGGACGACGTGCTTGCGTCCCTGCAGGTCTCTTCGCACAAGTGTAAAGTGATGTACTACACCGAGGT
GATCGGCTCGGAGGATTTCAGAGGTTCCATGACGAGCCTGGAGTCCAGCCACAGCGGCTTCTCCCAGCTGAGTGC
CGCCACCACCTCCTCCAGCCAGTCCCACTCCAGCTCCATGATCTCCAGG**TAG**TGCCGCGCTGCCTGCACCTAGTG
TGCAGAGGGGACGGCCGCCCCTCCTCGGACAGCCAGCTGCACCCGCCCACCCAGCGGCGACATTGTACAGACTCC
TCTCACCTCTAGATAGCAAATAGCTCTCAGATGGTAAACGTAGTCGTTTGATCCCAAAACTACCTTGGCAGGTAG
TTTTAACTCTGATCCTAACTTAACTCAATAGCCATAGATTTTGTATACGTTGTGCACAAAATCCAACCAGAGCGC
AAGGGCTCTCTTGAAAGAAAAGTAGTTTCTGTACCAATTAAAGGATTGACGTGGTCTCAGATATTGATGCAAAAA
ATTTTTCCAACGAACTCCGCATTGTCCATTAGTGAATGAATTCCTGTGACATCCTCCAGAGATGGCCCCTCCTCA
CCTGGGACGGAAGCTGCCAGCTCGCTTCCCCCAAGCTGCCTCATGGCCCGCACGCCGCCTCACGGCCCCCATGCT
TCCCGCCAGTCAAGATGGTCTGTGGACTTAGGGCCAGCCCTTGAGGTCCTTATCCTCTGAGGATTCAGAGGTTGC
CTGCGGAGTACCTTGTCCCAGGGCCAGACACACCCACACCACCCACTGTCCTGCAGTGGGGCCGGGGGCTCAGGA
GGGGCTCTCAGGGACTCCTGGTGACTCCAGGAAAATGCTGCCATCGTTAAACATTACTTTCTCTTTCCTCCTTTT
CAAATCTTTTTGATACTTTTTAGAGCAGGATTTTTCTGTATGTGAACTTGGGTGGGGGGGTTCTTCCCGTTTCCT
TCCGTGCGTCGCCCCTCTCACCTGCAGTCAGCTCCCAGCCCAGTGTAGGCCATCTCCTCTGTGCCCTCTGGTGGC
TCATTGTCCTCAGAGCCCAGACAGTTCCAGCCACTAGGAGGCCGTCTTGGAACCAGCAAGTCGCATTTGCCACTT
GACACTGTCCATGGGGTTTTATTAGTAGCTAAGCAGCAGCTCTCGCATCCACTTCAGGGTGGCGTGTGGCATGTA
GGAGTCCTGCTTCTTTGTACATGGGAATTGTGGACTCATGCGTGTGTGTGTGTGCATGTGCTGTGTGTGTGCATG
TGTGCATGACGGTGGGGGTGCTGGGGGGACGGGGTGAGTGGAAACTTAGTTTGAGTAATGAAGGAATCTTCACAG

FIGURE 2303B

AAGCAAATCAGAATATGGGATTTGTTTGCCTTTTACATTTTGTTTAATTCCTGATTTTAAAGCCTGCTCTATCTG
GTACAGGCCCTTATTTTTTCAGCTTTTTATGGGAAAAGCAGGTTATTTGAGAATCTGTCCAGAAGTTGCATAGGG
GATGGCCTCCACGATAAGGACATGCAACACGTGTTTCTGTGTGCAGCAGAGGCCGTGTTTTTCATGCCAAACCCC
ACGCGGCTGTCAACTGTGTGCGTGGTAGGCATGGAGATCCTGGTTGTGCCGTCTCAGCTCCGCTCTGAAGGCACT
GTGTGGGTGCTGCGTGACTGGAGAGCTGTGTGGAGGCCATGTGTGCCCCGTGCAGGGATCAGGAGGGCGGGGGAG
GGACCGAGCAGCCCTCTTGCCCGGTCGGGTCAGCCCTAGTGGCTGCCTGCACACTGTAGACGTCCCAGGGCCTGT
GCTGTGATCACCTGCCTTTGGACCACATTTGTGTTTGCTCTTAGAGATCGAGCTCCTCAGTGGTACCTGAAGCCT
TTGCTTCCGGAAAGCGCGGTAGGGTTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGG
GCTAGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGT
AGGGTTAGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTA
GGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGTTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTA
GGTAGGGTTCGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGCTA
GTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGG
TTCGTAGGTAGGGTTCGTAGGTAGGGTTAGTAGGTAGGGTTCGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTA
GGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAG
GTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGTTAGTAGCGCGTCTGTGCTGCTTCCACCTG
GTGCTTCCTGTTCCCAAATCACAAGGGCCTGAAGGTGGTCCCTGCTTTCTCTTTCTCTTTCTCTGTGTCTCAGAT
GGCGATTTTGCTGACAGCTGCCAAGAAAATGCTTCACTCAACAGTCCTCATGTGCCCAGAGATGTTTATAGAACT
GTTTGAATTGCAGCCATCCCCTGCCCCCTCCCAGGCTGAAGATCTGTTCTTTTTAAGTTGATTCGGGAGTGGCAT
TCTTTTATACCCAAAGACTGTAGTGCATCTTGAAGAGCTCAAAGCACATGACCGCACAAATGCTTACAGGGTTTC
CTCCCGAGTAATCCAATCTCACTCCCCTTGTAAGGGAATTCTGGGGCAGCTATGGTTTGAGTATGCAGTTTGCAT
CGTGTTTCTACCTTTAGTACCTTGCCACTCTTTTAAAACGCTGCTGTCATTTCCCATTTCTTAGTACTAATGATT
CTTTGATTCTCCCTCTATTATGTCTTAATTCACTTTCCTTCCTAAATTTGTTATTTGCATATCAAATTCTGTAAA
TGTTTTGTAAACATATTACCTCACTTGGTAATACAATACTGATAGTCTTTAAAAGATTTTTTTATTGTTATCAAT
AATAAATGTGAACTATTTAAAG

FIGURE 2304

AGGTCACCATGGCTGTTATTGGCTCCCTTGCTGTCCCCAGCTGTTCCCCAGGTCACCTCCCCACCTTGCTGCCTG
TGTCCAGAAGGCGTGCACCGGTTCCAGTGGATCAGAAACCTGGTTCCAGAATTTGGAGTCTCCAGTTCTCACGTT
AGGGTGCTTTCTTCCCCGGCAGAGTTTTTCGAGCTC**ATG**AAGGGGCAGATAAGAGTAGCCAAGAGGCGGGTCGTG
ATGGCATCCCTCTACCTGGGGACAGGTCCTTTGGAACAGGAGCTGGTGGACTGCCTGGAAAGTACTCTAGAAAAG
TCACTCCAAGCAAAGTTTCCTTCAAATCTCAAGGTCTCCATTCTCTTAGACTTCACGCGGGGCTCACGAGGCCGG
AAGAACTCCCGCACAATGCTGCTCCCACTCCTGCGGAGGTTCCCAGAGCAGGTCCGAGTCTCCCTCTTTCACACG
CCGCACCTCCGTGGGCTGCTTCGGCTCCTCATCCCTGAGCGCTTCAACGAGACCATCGGCCTCCAGCACATTAAG
GTGTACCTCTTCGACAACAGCGTCATCTTGAGCGGTGCAAACCTGAGTGACTCCTACTTCACCAACCGCCAGGAC
CGCTACGTGTTCCTGCAGGACTGTGCGGAGATTGCCGACTTCTTCACGGAGCTGGTGGACGCGGTGGGGGATGTG
TCCCTGCAGCTGCAGGGGGACGACACGGTGCAGGTGGTGGATGGGATGGTGCATCCTTACAAAGGGGACCGGGCC
GAGTACTGCAAGGCAGCCAATAAGAGGGTCATGGATGTGATCAACTCAGCCAGGACCCGCCAGCAGATGCTGCAT
GCCCAGACCTTCCACAGCAACTCTCTTTTGACCCAGGAAGATGCAGCAGCTGCTGGGGATCGCAGACCAGCCCCT
GACACCTGGATTTATCCGCTGATTCAGATGAAGCCCTTCGAGATTCAAATCGATGAGATTGTCACTGAGACCCTG
TTGACTGAGGCGGAGCGCGGGGCAAAGGTCTACCTCACCACTGGCTATTTCAACCTGACCCAGGCCTACATGGAC
CTGGTCTTGGGCACTCGGGCTGAGTACCAGATCCTGCTGGCCTCACCAGAGGTGAATGGCTTCTTTGGGGCCAAG
GGGGTGGCCGGCGCCATCCCAGCGGCCTATGTGCACATCGAGCGACAGTTCTTCAGTGAGGTGTGCAGCCTGGGA
CAGCAGGAGCGGGTCCAGCTTCAGGAGTACTGGCGGAGGGGCTGGACGTTCCACGCCAAAGGCCTCTGGCTGTAC
CTGGCAGGGAGCAGCCTGCCCTGTCTCACGCTGATTGGCTCTCCTAATTTTGGGTACAGGTCAGTTCACCGGGAC
CTGGAGGCCCAGATTGCGATCGTGACGGAGAACCAGGCCCTGCAGCAGCAGCTTCACCAGGAGCAAGAGCAGCTC
TACCTGAGGTCAGGTGTGGTGTCCTCTGCCACCTTCGAGCAGCCGAGTCGCCAGGTGAAGCTGTGGGTGAAGATG
GTGACTCCACTGATCAAGAACTTCTTC**TGA**GGACAGACAGGAATGGCCTTGATGAAGATGACAGGCATGGCCGGG
GTCAGCTCTTTCAGCCGCGCTTCAGCGATGACTCCAGTCTGGGTGTCCCAGCGAGCCCCTGCAGGGACAGTATGG
CTGAGGGTCAGGTGTGCTGCCAGTAAGTGAGGGAGGGGCTGGCAGGAAGGGTGGGGTCCTCACACTCCCCGCCCT
CTGCAGAGCTGGGCTCTACCCCAAAAGGCTTCAGGCCAGCTGCCACGGCTGGAAGCAGAGGCCTTCGTAGGTGAT
GGCCTGCATGTTGTAACTACCCCGTCCCGCTGGGCTCAAGGAACAGCTCAGCTAAAGCCCTCGGGTTCCATCCGT
TTAAATCTGTGGCATTTTCAGAGCCTCATCTGTCAGCCTTAATGTCAGTGGCAGGAAGTCATAACTCCAGCTAAA
AATTACAGAGTAAAGTTCCCTGATTCTTAATGTGTAATGTCTGCCCTATGTGTACATACACAATATAATTATACA
TCTGTGCATAT

FIGURE 2305A

AAGGCGGCCAAGATC**ATG**ATGGGCAAGGTGGACACCTTCCTAGACTCCCTGAAGAAGTTCGACAAGGAGCACATC
CCTGAGGCCTGCCTGAAGGCCTTCAAGCCCTACCAAGGCAACCCGACGTTCGACCCCGAGTTCATCCGCTCCAAG
TCCACGGCCGCCGCCGGCCTGTGCTCCTGGTGCATCAACATCGTCCGCTTCTACGAGGTCTACTGCGACGTGGCG
CCCAAGAGGCAGGCACTGGAGGAGGCTAATGCAGAGCTGGCAGAGGCACAAGAGAAGCTGTCCCGGATCAAAAAC
AAGATTGCCGAACTTAACGCCAACCTGAGCAACCTAACCTCAGCGTTTGAAAAAGCAACAGCTGAGAAAATCAAG
TGTCAGCAAGAGGCCGATGCCACGAACAGGGTGATCTTACTGGCGAACAGGCTGGTCGGGGGATTAGCATCGGAA
AACATCCGCTGGGCTGAGTCTGTGGAGAACTTCAGGAGCCAGGGGGTCACGCTGTGTGGGGACGTCCTGCTCATC
TCTGCCTTCGTGTCCTACGTGGGCTACTTCACCAAGAAATACCGGAATGAGCTGATGGAGAAATTCTGGATCCCT
TACATACATAACTTAAAGGTCCCCATCCCGATCACGAATGGCCTGGATCCCTTGAGCCTGCTGACAGATGACGCG
GACGTGGCCACCTGGAACAACCAGGGCCTCCCCAGCGACCGCATGTCCACCGAGAATGCCACCATCCTGGGCAAC
ACCGAGCGGTGGCCGCTGATCGTGGACGCCCAGCTCCAAGGAATCAAGTGGATCAAAAACAAATACAGGAGTGAA
CTGAAAGCCATCCGCCTGGGACAGAAGAGCTACCTGGATGTCATCGAGCAGGCCATCTCGGAAGGGGACACCTTG
CTCATTGAGAACATCGGCGAAACCGTGGACCCCGTGCTGGACCCTCTACTGGGCAGGAACACGATTAAAAAGGGA
AAGTACATTAAGATCGGTGACAAGGAGGTGGAGTACCACCCCAAGTTCCGCCTGATCCTACACACCAAGTACTTC
AACCCACACTACAAGCCAGAGATGCAGGCTCAGTGCACCCTCATCAACTTCCTGGTCACCAGGGATGGACTCGAG
GACCAACTCTTGGCCGCTGTGGTGGCCAAAGAGCGCCCAGATCTGGAACAGCTGAAGGCAAACCTCACCAAGTCT
CAAAACGAATTTAAGATTGTTCTGAAAGAGCTGGAAGATTCGCTCCTGGCCCGTCTGTCGGCTGCGTCGGGGAAC
TTTCTGGGAGACACGGCCTTGGTGGAGAATCTGGAGACCACCAAGCACACAGCCAGCGAGATCGAGGAGAAGGTG
GTGGAGGCAAAAATCACAGAAGTTAAAATCAACGAAGCGAGAGAGAACTACCGCCCGGCTGCGGAGAGGGCATCT
CTGCTCTACTTCATACTGAACGATCTCAACAAAATCAACCCCGTCTACCAGTTCTCCCTCAAGGCCTTCAACGTG
GTGTTTGAGAAAGCCATCCAGAGGACCACCCCTGCCAACGAGGTGAAGCAGCGGGTGATCAACCTGACGGACGAG
ATCACCTACTCCGTCTACATGTACACGGCCCGGGGACTCTTCGAGAGGGACAAACTCATTTTCCTGGCACAAGTT
ACGTTTCAGGTCCTGTCCATGAAGAAGGAGCTGAACCCAGTGGAGCTGGATTTCCTCCTGCGGTTCCCTTTTAAG
GCCGGAGTGGTCTCACCAGTGGACTTCCTCCAGCATCAAGGCTGGGGCGGGATCAAGGCCCTCTCGGAGATGGAT
GAGTTCAAAAATCTGGACAGTGACATCGAAGGATCTGCCAAGCGCTGGAAAAAGCTGGTGGAGTCGGAAGCCCCC
GAGAAGGAGATCTTCCCCAAGGAGTGGAAGAACAAGACGGCCCTGCAGAAGCTGTGCATGGTGCGCTGCCTGCGG
CCAGATCGCATGACCTACGCTATCAAGAACTTCGTGGAGGAAAAGATGGGCAGCAAGTTCGTGGAAGGCCGGAGT
GTTGAGTTTTCTAAGTCCTACGAGGAGAGCAGCCCCTCCACGTCAATCTTCTTCATCCTCTCCCCGGGGGTTGAC
CCCTTGAAAGACGTGGAAGCCCTGGGAAAAAAACTAGGGTTTACCATAGACAATGGAAAACTCCATAATGTGTCC
CTGGGGCAGGGACAAGAGGTGGTGGCTGAGAACGCCCTGGACGTGGCTGCAGAGAAAGGACACTGGGTCATTCTG
CAGAATATCCACCTGGTGGCCCGGTGGCTGGGAACACTGGACAAGAAGCTGGAGCACTACAGCACGGGCAGCCAT
GAGGACTACCGGGTGTTCATCAGCGCGGAGCCTGCCCCCAGCCCCGAGACCCACATCATCCCCCAGGGCATTCTG
GAGAACGCCATCAAGATCACCAACGAGCCCCCCACGGGCATGCACGCCAACTTGCACAAGGCCCTGGACCTGTTC
ACCCAGGACACCCTGGAGATGTGCACCAAGGAGATGGAGTTCAAGTGCATGCTCTTCGCCCTGTGCTACTTCCAC
GCTGTGGTGGCAGAGAGGCGCAAGTTCGGCGCCCAGGGCTGGAACCGGTCGTACCCCTTCAACAACGGGGACCTC
ACCATCTCCATCAACGTGCTCTACAACTACCTGGAGGCCAACCCCAAGGTGCCCTGGGACGATCTCCGCTACCTT
TTTGGTGAAATCATGTATGGCGGCCACATCACAGATGACTGGGACCGTCGGCTGTGCAGGACCTACCTGGCTGAA
TACATCCGGACGGAGATGCTGGAGGGAGACGTCCTGCTGGCCCCCGGCTTTCAGATCCCCCCCAACCTGGACTAC
AAGGGTTACCACGAATACATCGATGAGAACCTGCCCCCTGAGAGTCCCTATCTGTATGGCCTGCACCCCAACGCA
GAGATTGGCTTTCTGACGGTCACCTCAGAGAAGCTGTTCCGCACTGTCCTGGAAATGCAGCCAAAAGAGACGGAC
TCGGGGGCAGGCACGGGAGTGTCCCGCGAGGAGAAGGTGAAGGCCGTGCTGGACGACATCCTGGAGAAGATTCCG
GAGACTTTCAACATGGCTGAGATCATGGCAAAGGCAGCGGAAAAGACCCCCTACGTGGTAGTCGCCTTTCAAGAA
TGTGAAAGAATGAACATCCTGACCAACGAAATGCGCCGTTCGCTCAAGGAGCTGAACCTGGGGCTGAAGGGAGAA
CTGACCATCACGACCGACGTGGAAGATCTGTCCACGGCTCTCTTCTATGACACCGTGCCTGATACGTGGGTGGCC
CGGGCCTACCCCTCCATGATGGGCCTGGCGGCCTGGTACGCAGACCTGCTGCTCCGCATCAGGGAACTCGAGGCC
TGGACGACAGACTTTGCCCTGCCCACCACCGTGTGGCTGGCCGGCTTCTTCAACCCCCAGTCGTTCCTCACGGCC
ATCATGCAGTCCATGGCCAGGAAGAACGAGTGGCCCCTGGACAAGATGTGTCTGTCTGTCGAGGTGACCAAGAAA
AACCGAGAGGACATGACCGCTCCTCCGCGAGAGGGCTCCTACGTGTACGGACTCTTCATGGAAGGGGCTCGCTGG

FIGURE 2305B

GACACCCAGACTGGAGTCATCGCTGAAGCGCGGCTGAAAGAGCTGACCCCGGCCATGCCTGTCATCTTCATCAAG
GCCATTCCTGTGGACCGCATGGAGACCAAGAACATCTATGAGTGTCCCGTGTACAAAACACGCATCCGCGGCCCC
ACCTATGTCTGGACCTTTAACTTGAAGACCAAAGAGAAGGCAGCGAAGTGGATCCTGGCAGCCGTGGCGCTGCTC
CTACAGGTT**TAG**CTCGCTCCTGCCTCACAGCCCACACTCCCTGGGGCTGGACCACAACTCAGCCCTTCACCTGTG
CACCTGTGACTTATTCTTTACAGGAACTGGTGGTGGTTTTTCGTTCTCTTAAATAATCAGGTGCTTTGTAACCAA
GCACATCGGAACCAGAGGGTGGAGGTTGGTGTGGAAGAGGTGGGGCAGATTAAAGCCAGTGGAGCCAC

FIGURE 2306A

ATGGCCTCCACCAAGAAGTTCTTTGATGATCTTGGTGATGAACTCTTATTTGCCAAGCCAAATATCTTCTGCCAC
TTTGCTCAAGGGATTGGCGATCCCAAATATGTTCCTGTAACCGACATGGCTCCTCTGAACAAGCTCCTCGTGGAC
GTCCTGGACAGCTACAATGAAGTTAATGCAGTCATGAATTTGGTGAGCAGGCTGGAGCTGATAGCAAGGGCACGG
GACCTGGACCGGGTCACCCTCTCCGGTTGCATTATCGACATCCGAGTGGCATTGTGTGGGGCTGCGTGGCACACA
GTGCACACCTCAGCATGTGCAGAGTCCGTGCTGGTGACAGAGGTGCTGTTTGAGGACGCCGTGGCTCACATCTGC
AGGATTAATCGCATCCTGGAGTCTCCCCGGGGGAATGCCCTGCTGGTGGGGGTGGGCGGCAGTGGCAAACAGAGC
CTCTCCCGCCTGGCAGCGTACATCAGCGGGCTTGACGTGTTTCAGATCACCCTCAAGAAGGGCTACGGGATCCCC
GACCTCAAGGAAAACGCAGAACTATTCAGGGCAGACACACTGAGCCTGCCCTGGAAGGATTATGTCATCTACATT
GACGACATGGTCTTAGATGAATTTGACCAGTTCATTCGCAAATCTCTGAGTTTCCTAATGGACAACATGGTTATA
GATGAGAGTATCGCTCCCCTGTTTGAGATCCGCATGGAGCTGGACGAGGATGGGCTGACCTTCAACCCGACCCTG
GAGGTGGGCTCAGATCGCGGCTTCCTGGCACTGATCGAGGGCCTGGTCAACGACATCTACAACGTAGCCAGGCTC
ATCCCTCGGCTGGCCAAGGACAGGATGAACTACAAGATGGACCTGGAAGATAACACAGACCTCATAGAGATGAGG
GAGGAGGTGTCCAGCCTGGTCATCAATGCCATGAAGGAGGCCGAGGAGTACCAGGATTCCTTTGAGAGGTACTCC
TACCTCTGGACGGACAACCTGCAGGAGTTTATGAAGAATTTCCTGATATATGGGTGTGCAGTCACTGCGGAGGAC
TTGGACACCTGGACAGATGACACCATCCCCAAGACACCGCCCACCCTGGCTCAGTTCCAGGAGCAGATCGACTCC
TACGAGAAGCTGTATGAGGAGGTGTCCAAGTGCGAGAACACCAAGGTGTTCCACGGCTGGCTGCAGTGCGACTGC
CGCCCCTTCAAGCAGGCCCTGCTCAGCACAATCCGGCGCTGGGGCTTCATGTTCAAGCGGCACCTGAGCAACCAC
GTCACCAACAGCCTGGCTGACCTGGAAGCCTTCATGAAAGTCGCCAGAATGGGCTTGACCAAGCCCCTCAAGGAG
GGGGACTATGATGGGCTTGTGGAGGTGATGGGGCACCTGATGAAAGTCAAGGAGAGGCAAGCAGCCACCGACAAC
ATGTTTGAGCCCCTGAAGCAAACCATCGAGCTGCTCAAGACCTACGGGGAGGAGATGCCAGAGGAGATCCACTTG
AAGCTGCAGGAGCTGCCGGAGCACTGGGCAAATACCAAGAAACTGGCCATTCAGGTGAAGCTGACCGTGGCACCA
CTCCAGGCCAACGAGGTCAGCATCCTGCGGCGGAAATGCCAGCAATTCGAGCTCAAGCAACATGAGTTCAGGGAG
AGGTTCAGGCGCGAGGCCCCGTTCTCCTTCAGCGACCCCAACCCCTACAAGTCCCTGAATAAGCAGCCAGGCTTC
ACTCGTGTTCCCACTCTGTTCCCACTGTCCAAGTTCATGGTCACGTCCAGTGCACAAATTCACACAGCCCTGGAC
CTGGCAGCCCACTCAAGCTCAGGCCCAAAAGGCCCTTGTGGGCAGGAGCATGTGGGGTGCTCAGGGCCCAGGGGG
GCCTCTTGGGGCCCAGTGGGGCCCTTGTCAGTTCCTCTTTGCTCCCAGTACGGTGCCCAGCAACAAAAGAGCATC
TCCGCCATGGAAGGCATCATGGAGGCGCTGTCCAAGTCCGGGGGCCTGTTCGAGGTCCCCGTCCCAGACTACAAG
CAGCTCAAGGCCTGCCACCGGGAGGTCCGCCTACTGAAGGAGCTCTGGGACATGGTTGTTGTGGTAAATACCAGC
ATCGAGGACTGGAAGACCACCAAGTGGAAAGATATCAACGTTGAGCAGATGGACATAGATTGTAAGAAGTTTGCC
AAGGACATGAGGTCTTTGGACAAGGAGATGAAAACCTGGGATGCCTTCGTGGGGCTCGACAACACCGTGAAAAAC
GTGATCACGTCCCTGCGTGCCGTGAGCGAGCTGCAGAACCCTGCCATTCGGGAACGCCACTGGCAGCAGCTCATG
CAGGCCACCCAGGTGAAATTTAAAATGTCAGAAGAGACGACCCTGGCAGATTTACTGCAGCTGAACCTCCACAGT
TACGAGGATGAGGTCCGCAACATCGTGGACAAGGCCGTGAAGGAGTCGGGCATGGAAAAGGTGCTGAAAGCCCTG
GACAGTACCTGGAGCATGATGGAATTCCAGCACGAGCCGCACCCGCGGACAGGCACCATGATGCTCAAGTCCAGC
GAGGTGCTGGTGGAGACGCTGGAGGACAACCAGGTGCAGCTGCAGAACCTGATGATGTCCAAGTACCTGGCCCAC
TTCCTGAAGGAGGTGACAAGCTGGCAGCAGAAGCTGTCCACGGCGGACTCCGTCATCTCCATCTGGTTTGAGGTC
CAGCGAACCTGGAGCCACCTGGAGAGCATCTTCATCGGCTCCGAAGACATCCGCACCCAGCTCCCGGGGGACTCC
CAGCGCTTTGACGACATCAACCAGGAATTCAAGGCCTTGATGGAAGATGCAGTGAAAACACCCAACGTGGTGGAA
GCCACCAGCAAACCCGGCCTCTACAATAAACTGGAGGCCCTGAAGAAGAGCTTGGCCATCTGTGAAAAGGCTTTG
GCAGAGTATTTAGAGACGAAAAGACTGGCTTTCCCCCGGTTCTATTTTGTCTCCTCGGCTGACCTCCTGGACATT
CTCTCCAATGGCAATGACCCCGTGGAGGTGAGCCGCCACCTGTCCAAACTCTTCGATAGCCTGTGTAAACTGAAG
TTCCGGCTCGATGCCAGTGACAAACCTCTCAAGGTGGGCCTGGGAATGTACAGCAAGGAGGACGAGTACATGGTT
TTTGATCAGGAATGCGACCTCTCGGGGCAGGTGGAAGTGTGGCTGAATCGAGTGCTGGACCGAATGTGCTCTACC
CTCCGGCACGAAATCCCAGAGGCCGTGGTGACCTACGAAGAGAAGCCGAGGGAGCAGTGGATCCTGGACTACCCA
GCCCAGATCTGGTGGACGACCGAGGTGGGCCTGGCATTTGCCAGGCTGGAGGAAGGCTATGAAAACGCTATCAAA
GATTATAACAAAAAGCAGCTGTGGGCACCCAGCCACAAGACCCCCCAGTGCATGTGGGCACCCGTGGTGTCTCAT
CGAAGGCACTCTCCCCCGCAGATTAGCCAGCTGAACGTACTCATCACGCTGCTCATTGGGAACCTCAACGCTGGC
GACAGGATGAAGATCATGACCATCTGCACCATCGATGTGCACGCACGGGACGTGGTGGAGAGTTCTCAGGCCTTC

FIGURE 2306B

ACCTGGCAGGCCCAGCTCCGGCATCGCTGGGACGAAGAGAAGCGACACTGCTTTGCCAACATCTGCGATGCCCAA
ATCCAGTATTCCTATGAGTATCTGGGCAACACGCCGCGGCTGGTCATCACCCCACTCACTGACAGGTGCTATATC
ACCCTGACCCAGTCCCTCCATCTCATCATGGGTGGAGCCCCCGCCGGCCCCGCTGGGACCGGCAAGACTGAGACG
ACCAAGGACCTGGGCAGAGCCCTGGGCACCATGGTCTACGTCTTCAACTGCTCCGAGCAGATGGACTACAAGTCC
TGTGGAAATATCTACAAGGGCCTGGCCCAGACGGGAGCCTGGGGCTGCTTTGACGAGTTTAATCGCATCTCAGTG
GAAGTCTTGTCTGTGATTGCCGTGCAGGTAAAATGTGTCCAGGATGCAATTCGGGCCAAGAAAAAAGCATTCAAT
TTCCTGGGAGAGATCATAGGCCTCATTCCCACCGTCGGTATCTTCATCACCATGAACCCTGGGTACGCCGGACGC
GCGGAGCTGCCTGAGAACCTAAAAGCCTTATTCAGGCCCTGTGCCATGGTCGTCCCCGACTTCGAACTGATATGT
GAGATCATGCTCATGGCCGAGGGCTTTCTGGAAGCCCGCCTTCTGGCCAGGAAGTTCATCACCCTGTACACCTTG
TGCAAGGAGCTGCTCTCGAAGCAGGATCATTACGACTGGGGCCTGAGAGCCATCAAGTCTGTGCTGGTGGTGGCC
GGCTCCCTGAAGAGGGGCGACCCCAGCCGGGCAGAGGACCAGGTGCTCATGCGGGCGCTGAGAGACTTCAACATC
CCCAAGATTGTGACAGACGACCTGCCCGTATTCATGGGACTGATCGGGGACCTCTTCCCGGCTCTGGACGTGCCT
CGGAAACGGGACCTGAATTTTGAAAAGATCATCAAGCAGAGCATCGTGGAGCTCAAGCTGCAGGCGGAGGACAGC
TTCGTGCTGAAGGTGGTGCAGCTGGAGGAGCTGCTGCAGGTCCGCCACTCCGTGTTCATCGTCGGGAATGCGGGC
AGCGGCAAATCTCAGGTCCTCAAATCCCTCAACAAGACCTATCAGAACCTGAAGAGGAAGCCGGTCGCCGTGGAC
CTGGACCCCAAGGCCGTCACCTGCGACGAGCTCTTTGGCATCATCAACCCAGTGACCAGGGAATGGAAAGATGGC
CTGTTCTCCACCATCATGCGAGACCTGGCCAACATCACCCATGACGGCCCCAAGTGGATCATCCTTGACGGAGAC
ATAGACCCCATGTGGATCGAGTCTCTCAACACAGTCATGGATGACAACAAGGTCCTCACCCTGGCCAGCAACGAG
CGGATCCCCCTGAACCGCACCATGAGGCTGGTGTTCGAAATCAGCCACCTGAGGACGGCCACCCCAGCCACCGTT
TCCAGAGCCGGCATCCTCTACATCAACCCAGCCGACCTGGGATGGAACCCGGTGGTGAGCAGCTGGATCGAGAGG
CGCAAGGTGCAGTCGGAGAAGGCCAACCTGATGATCCTCTTTGACAAGTACCTGCCCACGTGCCTGGACAAGTTG
CGCTTTGGGTTCAAGAAGATCACGCCAGTGCCGGAGATCACGGTGATCCAAACGATTCTGTACCTGCTGGAGTGC
CTGCTCACGGAGAAGACCGTGCCCCCCGACTCCCCCAGGGAGCTGTACGAGCTGTACTTCGTGTTCACCTGCTTC
TGGGCCTTCGGTGGCGCCATGTTCCAGGACCAGCTTGTGGATTATCGAGTGGAGTTCAGTAAATGGTGGATCAAC
GAATTCAAGACTATCAAGTTCCCCTCGCAGGGAACGATTTTTGACTACTACATTGATCCTGACACAAAAAAGTTC
CTGCCCTGGACAGATAAAGTGCCCTCCTTTGAGCTGGATCCCGATGTCCCACTGCAGGCCTCTTTGGTCCACACC
ACGGAAACCATCCGCATCCGCTACTTCATGGACCTGCTCATGGAGAAGTCCTGGCCGGTGATGCTGGTGGGGAAC
GCGGGGACGGGCAAGTCGGTGCTGATGGGGGACAAGCTGGAAAGCCTGAACACGGACAACTACCTGGTGCAGGCT
GTGCCCTTCAACTTCTACACGACCTCAGCCATGCTGCAGGGGGTGCTGGAGAAGCCGCTGGAGAAGAAATCGGGG
AGGAACTACGGGCCGCCAGGCACTAAGAAGCTCGTCTACTTCATCGACGACATGAACATGCCCGAGGTGGACAAG
TATGGGACGGTGGCCCCGCACACCCTCATCCGGCAGCACATGGACCACCGGCACTGGTATGACAGACATAAGCTG
ACGTTAAAAGATATCCATAATTGTCAGTACGTGGCCTGCATGAACCCCACTTCCGGATCCTTCACCATCGACTCC
AGGCTTCAGCGCCATTTCTGCGTGTTTGCTGTGAGCTTCCCCGGCCAGGAGGCCCTCACCACCATCTACAACACA
ATCCTGACGCAGCACCTGGCCTTCCGCTCGGTCTCCATGGCTATCCAGAGGATAAGCAGCCAGCTGGTGGCCGCG
GCCCTGGCTTTGCATCAGAAAATCACGGCAACATTTCTTCCCACGGCCATTAAGTTTCATTATGTCTTCAACCTC
AGGGACCTCTCCAATATTTTCCAGATCTGGCGGCCGCCGGGCTGGCGGGCGGGCAGGCGCGTCGCCTCGAGGCCG
CCCTCTGCCAGGAAGAGTCACTTCCCGGACACCGCGGGAGCCCTGGCGGAGCTATGCGAAGAATGTCCGCGCCGA
GTACGGGGGGGTGGCACCTCCCGGGCCCGCATCGCCGCGGCCGCAGCCGCCGCTGCGCCCTGCAGAGCTTGCGCC
TCGGGTGTCCCCCTTGCTGGTCTTGAGGGTTCTATGGGAAATAGAAGAGAACTGCATGAGAATGCTATTGGCCTT
GATATCTCCATGTCTGTGGATACACACACACTGGGCCCTGGCAACGGGAGGCAAGTTCTCTCTGAGTCCTCCCTA
CACCAGGGGCCTCTCTGGCCGGGCAGCCCAACCACAGGACAATCAGGCTTTGGGCCAGGAAGTTACAGCCTTCCA
TCAGCCCCGCCGGCCCCGACGGGCTTCCTCGCGGGCTGTGAGCCCATTGGGCCATTTGCATATGTCTCGTTGAAA
TTCCGGATCACGGCGTCACTGCCTCCTCCCCATGGCCCCCAGAGGGTGACCGGAGCATCACTAGGAGCCAAAGAA
TGGGGA**TGA**

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FIGURE 2307

AGTCGAACCACAACATTCGCCGGGCGGGCGGCGGCGGAGCGGGCGGCGGAGCGGCGGCAGCAGCGGTGAGCGCGA
GCCCCGGAGCCCCGGGCGGCCGGCCTCCCGCGCCCGCGCAGCCCCGCGTCTGCGTCCGGCCGGAGACGCCGGGCC
CCGCGCCGCGCCGCGCC**ATG**TCGGTGAACATGGACGAGCTGCGGCACCAGGTCATGATCAACCAGTTCGTGCTGG
CCGCGGGCTGCGCGGCCGACCAGGCGAAGCAGTTGCTGCAGGCGGCCCACTGGCAGTTCGAGACCGCGCTGAGCA
CGTTCTTCCAAGAAACCAACATTCCCAACAGCCACCACCACCACCAGATGATGTGCACTCCCAGCAACACCCCTG
CCACGCCGCCCAACTTCCCCGATGCGCTGGCCATGTTCTCCAAGCTCCGCGCCTCCGAGGGCCTGCAGAGCAGCA
ACAGCCCCATGACAGCCGCAGCCTGCTCCCCACCTGCAAACTTCAGCCCCTTCTGGGCCTCGTCCCCGCCCAGCC
ACCAGGCGCCCTGGATCCCGCCCTCCTCCCCCACCACCTTCCACCACCTCCACCGCCCACAGCCCACGTGGCCCC
CAGGAGCACAGCAGGGGGGCGCCCAGCAGAAAGCCATGGCGGCCATGGACGGCCAGAGA**TGA**GACTGGACGCCGC
CGGGCGCTGGGCTGGAGCTGGGGGCAGCCCAGGGTTGTGGGGACACAGGAGGGCCAGGGAGGGGGGAGCCGGGGA
GGGCAGGGGGTTTCCCGAAGATCGCACTGGAAGATTTTATAAAAGAATTTTTGTGGGTCGGGGGGACAGTAAACT
TCCTGGGCCACGTGGGTCCTTCAGGAGTTTTTCAGGCAAGTTTTTCCTCTGTTTTTAATATATAACTATAATATA
TATGAATAGATAAATATAACTAATGTGCGTGAGAATGGGCCTGGCACACCTGGGGTGCTCGGGGGTAGGGCTGCC
ATGCTGCAGAGCTGATGGAGTGATGTTGTGGGCACAAGGCATCTGTCAGCTGCCTCCTTTAACAGCCATGCCTTC
TGGAATCTGGAAGAGGACACCACTCCTGCAGTCACTGGGCAGCCACATAGCAGCTGCAGGTCCCAGGAGGGCCTG
AGGTCAAAGCTGTGGAAGGCCCTCTTGGTATCAGGGCTCTCTCCCCATGGCCTCTTCCCCACCTCTGATTGCTGG
TTGTGGCCCCATAGCTCATCACCCCTGTCTCCTGCTGAATGTGCAGGGCTGATGTGGCACTGAGGAGCTGACTTT
GGTCAAAGGCCAGGCTCTGCCCAGCAGGGGACTTGACTGCCCTGGGCGCCCTGCCCCTCCCGCTGCGTGTCCAGG
TCCAAAGTGGAGAGCCTGCCTTTGGGTTTAGTTCCCGAATCAGAATCCCATCTCACCAGGGCGAAATTTTAATTT
AAAAACTTAAAAAGAGACTTTTCT

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FIGURE 2308

CAGATGTAGTTTTTTCCGCACGTGCACGCCTTCCCTCCTCCCCGCCCTCAGGGTCCACGGCCACCATGGCATATT
AGGGGCAGCAGTGCCTGCGGCAGCATTGGCCTTTGCAGCGGCGGCAGCAGCACCAGGCTCTGCAGCGGCACCCCC
CAGCGGCTTAAGCCATGGCGCTTCCCACGGCATTCAGCAGCAGCATTGCTGTAACCGACAAAGACACCTTCGAAT
TAAGCACATTACTCGATTCCAGCAAAGCACCGCAACATGACCGAAATGAGCTTCCTGAGCAACGAGGTGTTGGTG
GGGGACTTGATGTCCCCCTTCGACCAGTCGGGTTTGGGGGCTGAAGAAAGCATAGGTCTCTTAGATGACTACGTG
GAGGTGGCCAAGCACTTCAAACCTCATGGGTTCTCCAGCGACAAGGCTAAGGCGGGCTCCTCCGAATGGCTGACT
GTGGATGGGTTGGTCAGTCCCTCCAACAACAGCAAGGAGGATGCCTTCTCTGGGACACATTGGATGTTGGAGAAA
ATGGATTTGAAGGAGTTCGACTTTGGTGCCCTGTTGGGTATAGATGACCTGGAAACCATGCCAGATGACCTTTTG
ACCACGTTGGATGACACTTGTAATCTCTTTGCCCCCCTAGTCCAGGAGACTAATAAGGTGCCCCCCCCAGATGGTG
AACCCAATTGGCCATCTCCCAGAAAGTTTAACAAAACCCGACCAGGTTGCCCCCTTCACCTTCTTGCAACTTCTT
CCCCTTTCCCCAGGGGTCCAGTCCTCCACTCCAGATCATTCCTTTAGTTTAGAGCTGGGCAGTGAAGTGGATATC
ACTGAAGAAGATAGGAAGCCGGACTCCACTGCTTACGTTGCCATGATCCCTCAGTGCATAAAGGAGGAAGACACC
CCTTCAGATAATGATAGTGGCATCTGTATGAGCCCAGAGTCCTATCTGGGGTCTCCTCAGCATAGCCCCTCTACC
AGGGGCTCTCCAAATAGGAGCCTCCCATCTCCAGGTGTTCTCTGTGGGTCTGCCCACCCCAAACCTTACGATCCT
CCTGGAGAGAAGATGGTAGCAGCAAAAGTAAAGGGTGAGAAACTGGATAAGAAGCTGAAAAAAATGGAGCAAAAC
AAGACAGCAGCCACTAGGTACCGCCAGAAGAAGAGGGCGGAGCAGGAGGCTCTCACTGGCGAGTGCAAAGAGCTG
GAAAAGAAGAACGAGGCTCTAAAAGAGAGGGCAGATTCCCTGGCCAAGGAGATCCAGTACCTGAAAGATTTGATA
GAAGAGGTCCGCAAGGCAAGGGGGAAGAAAAGGGTCCCCTAGTTGAGGGTAGGTCAGGAGTGTCAACGTGCTTGT
ACATAGAGTGTCTGCTGTAGCTGTGTGTTCCAATAAATTATTTTGTAGGG

FIGURE 2309A

AACTTTTATTAAAATAAAAACAAAAGTGCCAAATGCACAATGGTGTAGTGGTAGCACTATGAGATACCAGAAGTA
ACCTGAATGCCCAGCAACATGGGTCATGAAGCACTCTGTGATCATTCAGAATGAAGAGGTAGACCTATGCTTATG
ATCATTCAGAGAAGCCCACAATATATTGCTAATTTTTTTAAAGGTAAATTTTAAAATATTGATATGCTACTCTGC
AAATGCTGAGTCTCTGGTTTTCTAGATGTGCTGAGGAAGTGAAGAGCCCTGGAGAAGAGGCCAGTAAAGCTAAAG
TCCACTACAATGTTGAGTTCACCTTTGACACAGATGCTCGGGTAGCCATCACCATCTATTACCAGGCCACGGAAG
AGTTCCAGAATGGTATTGCCAGCTACATTCCCAAAGACAACAGCCTCCAGTCGGAGACTGTGCAGTACAAGCGAG
GAGTGTGTCAGCAGTTCTGCCTGCCCTCCCACACCGTGGATCCCTCCGAGTGGGCCGAAGAGGAGCTTGGCTTTG
ATTTAGACCGAGAAGTTTACCCTCTAGTGGTACATGCCGTGGTGGATGAAGGAGACGAGTATTTTGGCCATTGCC
ATGTACTGCTGGGTACTTTTGAGAAGCACACAGATGGAACTTTCTGTGTCAAGCCCCTCAAACAGAAACAAGTAG
TAGACGGGGTCAGCTACCTCCTTCAGGAGATCTATGGAATTGAAAACAAGTACAACACACAAGATTCTAAGGTGG
CTGAAGACGAAGTGAGTGATAACAGTGCCGAGTGTGTGGTGTGTCTCTCGGATGTCCGGGACACCTTGATTCTGC
CCTGTCGCCACCTCTGCCTCTGTAACACCTGTGCAGACACGCTGCGCTACCAGGCCAACAACTGCCCCATCTGCC
GACTGCCCTTCCGGGCACTGCTTCAGATCCGAGCCATGAGGAAAAAATTGGGCCCCTTGTCCCCAACCAGCTTTA
ACCCCATCATCTCATCCCAGACATCTGACTCTGAAGAGCATCCATCCTCAGAGAATATTCCACCAGGCTATGAAG
TAGTATCTCTTCTGGAGGCCCTCAACGGGCCCCTCACCCCGTCCCCAGCAGTTCCTCCACTTCACGTGCTTGGAG
ATGGCCACCTCTCAGGAATGCTCCCTTCATATGGCAGTGATGGCCACCTGCCCCCCGTCAGGACGATCTCGCCTC
TTGACCGCCTGTCTGACAGCAGCAGTCAGGGACTCAAACTCAAAAAGAGTCTCTCCAAATCCACTTCCCAAAACT
CTTCCGTGCTGCATGAAGAGGAAGATGAGCATTCCTGCAGCGAGTCGGAGACACAGCTCTCTCAGAGACCGTCGG
TTCAGCATCTCGGAGAGGAATGTGGTGTGACTCCAGAAAGTGAGAATCTCACCCTGTCGTCATCTGGAGCTATTG
ACCAGTCGTCTTGCACAGGGACGCCTCTGTCATCCACTATTTCCTCCCCAGAAGGCCCTGCCAGCAGCAGCTTGG
CCCAGTCTGTCATGTCCATGGCATCCTCCCAGATCAGCACTGACACCGTCTCCTCCATGTCTGGCTCCTACATCG
CCCCTGGCACTGAAGAGGAGGGAGAGGCTCTCTCTTCCCCCCAGCCTGCCAGCAGGGCCCCCTCAGAAGAAGGAG
AGGGGCTGCCAGCGGAGTCTCCAGACAGCAACTTTGCTGGCCTCCCAGCTGGAGAGCAGGATGCAGAGGGAAATG
ATGTTATAGAGGAAGAGGATGGATCACCCACGCAGGAAGGCCAGAGGACGTGCGCATTTCTAGGTATGGAGTGTG
ACAATAACAATGACTTTGACATCGCAAGCGTGAAAGCACTGGACAATAAGCTGTGCTCTGAGGTCTGCTTACCTG
GTGCCTGGCAGGCTGATGACAATGCCGTCAGTCGGAATGCCCAGCGCCGGCGCTTGTCATCCAGCAGCCTGGAGG
ACTCTGAGACGAGGCCCTGTGTGTGGGGCCCTTTGGCTGTCTGAGCCCCAGCCTCTGCACTTGGGCTCCCCTCCT
GCCCTGCATTCCATCCATCCTCACTCAGCTGCTGCCTACTGGGCATCCTCAGCAAGATGCTGGAGACTTTTTACC
CTCCTGTGACAGCTGTTACAACCTGTAACCACAATCCCTCACCTCTCAGAGGGAACTGGGAACCCTCCTTTCTCC
GTGTGACCTAAAGCCACTCAATGAACTGCAGCTCACGAGACCTTTTGCAGGGACTCTGGAATGTCCTCACGGTAT
ATTGATGTTCAGGTGGAGCTGGGGTCCATGGGCTAATTTCTTACACATCTTTTTTCTCCTTAGGGGGTAGAACAA
GAAGGCTTAGAGTTTGGCAGCTTTGTTACAAACATCCCTCTGGCATTTCCTGGTCTCTGGCACATCATAACCAAT
TGGAAACCTGCAGTTTGGGGTAGGGCTGGAGGATCGCTCCTGTGGAAAGGGAGAGCCATACTGCACGGACGTAGC
GTTTCCCTCTACAAGCACTAGGAGCACCTTTCTCAAGGACAAGAAATGGTAGCAACCAAAAGGTTGGTTGAAGGA
AACAATCCTTCCTTCTGGTGGCAGAGCCAGTCTTCTGGGCCTCACATGCCTGTGCGGTTAAGAAGGAGCTCTTGG
CCGGGCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCATGAGATCAGGAGAT
CGAGACCATCCTGGCTAACACGGCGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCTGGGCATGGTTGCAG
GCGCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCCTGAACCCGGGAGGCGGAGCTTGCAGTGA
GCCGAGATCGCGCCAATGCACTCCAGCCTGGGCGACAGAGAAAAAAAAAAAAAAAAGAAGGAGCCCTTGAATCTGA
GAATCCCCCAGTTAAGATGATTTCCCTTAAGGAGCATTTCTCCTGATCAGGTGCATTCAGGGAGGCCTGCAACTC
CATCCTAAGGTGACATTTCAAGAAACACATGTGTTGACCACCTCTGTGTGCCAAGCACTGGGTGAGGAGTGGTCG
TATATTACCATAATTCATCCTCACTCAATTGGGAGGTGGCATTCTTGTCCCTGTTGCCCCCATCTCTACCCCCTT
TTGTTAATGGTTGAGAGAAATGTGGACCAGTGATTCTCAGTTTGGTGCCCAGGTCCCCAAAGGAAGTGATGGAGA
GCCTTGAGCTAAGTTCAGGCAGCAGCATGTGGCCAGCAGCAGTGTGCTGGGAGCAGAGGTTGGAATCAGGGCTCA
GGGCCTTCACTTCAAGGGCCCTCCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGCTTGAACTCAGGAGGTGG
AGGTTGCGGTGAGCCAAGATCGTGCCACTGCACTCCAGCCTGGGCTACAAGATTGAAAAGATCGAAACTCTGTCT
CAAACAAAAAAAAAAAAAATTCAAGGCTGTTTCCAAGGCAGCCTCAAAAAGAGCCTGGTGCCCAGGGGGTCCTTCG
TTTCTGTGTGGCTGCAGAGGCCAGGAGTGCAGTGACTGTCTCACTGCCTAGTGGTTGTGGCTCACATCCTGCCCT

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FIGURE 2309B

GATGGAGAGGGGGGCCCGTCGTCCAACCCTCTCTGAAAAACTGCAGTAGACTTTACCATTTCAGGCCCCACCTAA
TGTTCTTTCCTTCCTTCCCCCTACATTCTTCCCGCCCCTTTCATAGTTAAGATGCATAAGCTGAGCAATAACCCC
ACTTCCTGATTTCCCTGAAATATGAGCCCAGAAGCAGCAGGTGACAGGGAGCTTCCCTTACCCTGGGGTGGTGGC
ACACAGACCACCTCCTGTCCTGTCCCCTGCAGGTAGTATTCACAGTGTGGTGTTACCTGGGAGGAGGGAGGAAGG
AGCTGAGATGAAGGAGATTCAGGTAAACAGTAGCCACAGTGGCCAGGACCCCCTTCCTGAGGATCCCTGTCCTTC
CTCGCAGCAGGTGCTTAGTCCTCTCCTAGGGAGAAGCACGGAAAGATTCCTCAAGGCCTCAGTCCCATGTCTAAG
GCATACCTAGGTTAGAAATGTCCTTTACTTGTTTCTCAGTTACTATTTCTCCTCTTCCTCCCTCCCCCTGCCTTC
TCTTGGCTGTCATTTAGCTCTCTGGCCCACAGAAATACTCCATCCAAGGAGCTGGTCCTCAGTCAGCCTGATGAG
GACAGGTCAGTGGCCAACCCTTTTGCCCCAGTCCTTCATCTGGAGACAGTCACATAGTCACGTCAACAGTTCACC
CAAAGAGAAGAGGTGGGGCCTGGCTTCTCCCACAGGGCACAGCCTAACTATGGAGACCCAGGGCTCCTTCCTGCT
GCACTAGGCCTGTGCTCTCCCTATTGCCTTCAGGTGGTGTGATCCCGGCTTCCTCACAGAGCCCTTTTTTCCTTC
TGCCCAGCTCCATCCCACCAGAGTTTCTACCCCCGCTGAGGCATCTCCTGGGCACAGACCACCACACTCTAAGCC
GGCTGGCCTGGGAGTTAGGGTCCTGCCCACCTCACCTGGGAGTTGGGGTCCTGCCCACCTGGAGTTTAGCACGCT
GGTCGCTCACTTTGCTTTGGTCTGCACACCTGGTGTGTGCATGTGTATACTGCTTGTGCCATCTGTGTACCCCTC
TCCCTGGAGTACACTTGTGGTCACACTACAGTGGGGACATCAAGAATGCAATATTTATGGATTGCTGCATGATTC
TTAAAAATGAATAAAACTGTTTACAAGGGAAGGAGAGCTAACTGC

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FIGURE 2310

TCCCCTCGGGGGTGGGGTAGTGCTCAGCTCCCACCGTGGTCCTCGCAGGCACCACATACTTATTCGGAGGAGGCG
CCCCCGGGGTCGCGAGATGGAAGCGCGCGTCCGGGAGGCCGTGTAACGGGAGCTGCGGGACTCAGCGGGCCAGAG
AGCGCGGCGGGCCACCCCCGGCTCAGCCCGTGGATGCTGACCGCCCCCTCGGAGAGTCCCCGCAGAC**ATG**GCGGA
GAGCTGGCTGCGCCTCTCGGGAGCCGGGCCGGCGGAGGAGGCCGGGCCGGAGGGCGGCCTGGAGGAGCCCGACGC
CCTGGATGACAGCCTGACCAGCCTGCAGTGGCTGCAGGAATTCTCCATTCTCAACGCCAAGGCCCCCGCCCTGCC
CCCGGGGGGCACCGACCCCCACGGCTACCACCAGGTGCCAGGTTCAGCGGCGCCCGGGTCCCCCCTGGCGGCCGA
CCCCGCCTGCCTGGGGCAGCCACACACGCCGGGCAAGCCCACGTCGTCGTGCACGTCGCGGAGCGCGCCCCCGGG
GCTGCAGGCCCCACCCCCCGACGACGTGGACTACGCCACCAATCCGCACGTGAAGCCTCCCTACTCGTATGCCAC
GCTCATCTGCATGGCCATGCAGGCCAGCAAGGCCACCAAGATCACCCTGTCGGCCATCTACAAGTGGATCACGGA
CAACTTCTGCTACTTCCGCCACGCAGATCCCACCTGGCAGAATTCAATCCGCCACAACCTGTCTCTGAACAAGTG
CTTCATCAAAGTGCCTCGGGAGAAGGACGAACCAGGCAAGGGGGGCTTCTGGCGCATTGACCCCCAGTACGCGGA
GCGGCTACTGAGCGGCGCTTTCAAGAAGCGGCGACTGCCCCCTGTCCACATCCACCCAGCCTTTGCCCGCCAGGC
CGCGCAGGAGCCCAGCGCTGTCCCCCGGGCCGGGCCGCTGACAGTGAATACCGAGGCCCAGCAGCTGCTGCGGGA
GTTCGAGGAGGCCACCGGGGAGGCGGGCTGGGGTGCAGGCGAGGGCAGGCTGGGGCATAAGCGCAAACAGCCGCT
GCCCAAGCGGGTGGCCAAGGTCCCGCGGCCCCCCAGCACCCTGCTGCCCACCCCGGAGGAGCAGGGTGAGCTGGA
ACCCCTCAAAGGCAACTTTGACTGGGAGGCCATCTTCGACGCCGGCACTCTGGGCGGGGAGCTGGGTGCACTGGA
GGCCCTGGAGCTGAGCCCGCCTCTGAGCCCCGCCTCACACGTGGACGTGGACCTCACCATCCACGGCCGCCACAT
CGACTGCCCTGCCACCTGGGGGCCTTCGGTGGAGCAGGCTGCCGACAGCCTGGACTTCGATGAGACCTTCCTGGC
CACATCCTTCCTGCAGCACCCCTGGGACGAGAGCGGCAGTGGCTGCCTGCCCCCGGAGCCCCTCTTTGAGGCTGG
GGATGCCACCCTGGCCTCCGACCTGCAGGACTGGGCCAGCGTGGGGGCCTTCTTG**TAA**GAGGCCAGGCCCTGCCC
CACCTCTGGACAGTGCCCAAGTCAGGGTCCAGAACTGCCCCCCAACACAGGTCCACAGACACCCCACCACCTAGG
CAGGGGCTGGGCCAGGGCTCCAAGGCTTGCCCCAGAGGCCACATGGCCACCAGCCCCAGCTGCCATCAGATTCAA
GCCCAGGAGGCTGAAAACGAGGGCCCAGGACCAGAATCGCTGCCTCCTCTCCCCAGCCCCACCTTGTACACACAG
TGTTTCATTGCTCCGCGTCTTCCCAGCCCCAGAAACCGGCTAAAGGACCCTGCACCATGAGAGCCGAGGCCTGGA
GGAGCCCGGGTCAGGCTGGGGAGGAACAGAACTGGGCCCTCCCAGAGCACCTCCGCTTCCCCCCTGCTTCCCCAG
GTCTCTATCCAGAGAGAGTCCCCAGGTACAACAAATGCTAATTAGATGACAGCAAATTAACCCCCTGGAGGCTTC
TCCTGGCAGAGCCTCCCTGGGGCCGGGGCAGGCTGTGGATGGGGCGGAGCAGGGCAGAAGATGGACTGGGGGAGG
GGGCAGAGAGAGGAGACCAAAATGAGGTGGTGGCACAGGGTGGGGCAAGGAGATCCTCTCTAAGGCCTCTGGGGT
CTTTGCCTGGCCCCATCCCTAGGGGGCGGGGAGGGGACGTAAATCCCTAATCTTTAAGCCCGACTTGAGGCTGAG
AGCAGCTGGAAGTTTGGGTTTGGTGGTTTGGGGGCCGGGGCAGCCAAGCTGTATGGGGCAGGACAGACAGACTAA
TGTAGTGAGTGTAGCTGTAGCTGAGGCTTAACTGGGAGGGATGCCGAGCTTGCTGGAACTACTGGGACCAAGAAG
CGGGGTACCCCACGCCCCTGCCTGCACTCCTCGGGGGCGTGGGGCGTGCCTTGCTCCACCCGGACTCCCTGGGCT
GCGTCCCACATCCACCCTCCTGCCCCGTGGGGCAATTTAACCTTTTTCATGAAAGTTATTTACAATGAAAAGTTT
TT

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FIGURE 2311

CGAGGATCCGCTCGGGAGCCTCCCCTGGCCAGGAGCAGGGGATTAGTCTGCCCCGCGACCGGCCCCAGCCACGAC
GCGGACATCGCCCCCTCTGTCTGGGCCGCTGTCACTCACGCGCCAAAGGGCCACGGAGAAAGAAGGGGCGGGCCG
GGGCGGGCCGGGCGAGCGGAGGCGGGGACTTGCGCCGTCCTGAGGCTGCCTCCTAGGGTCCGGCCGGCGCTGGAG
CTGCGGATTTAGATTGTCACTGCCACCTCGGTCGGTGCTTACTTCGCTGCCAGCTGGTCGTCGCC**ATG**AACCCGG
ACCTGCGCAGGGAGCGGGATTCCGCCAGCTTCAACCCGGAGCTGCTTACACACATCCTGGACGGCAGCCCCGAGA
AAACCCGGCGCCGCCGAGAGATCGAGAACATGATCCTGAACGACCCAGACTTCCAGCATGAGGACTTGAACTTCC
TCACTCGCAGCCAGCGTTATGAGGTGGCTGTCAGGAAAAGTGCCATCATGGTGAAGAAGATGAGGGAGTTTGGCA
TCGCTGACCCTGATGAAATTATGTGGTTTAAAAATTTTGTGCACCGAGGGCGGCCTGAGCCTCTGGATCTTCACT
TGGGCATGTTCCTGCCCACCTTGCTTCACCAGGCAACTGCGGAGCAGCAGGAGCGCTTCTTCATGCCCGCCTGGA
ACTTGGAGATCATTGGCACTTATGCCCAGACAGAGATGGGTCATGGAACTCACCTTCGAGGCTTGGAAACCACAG
CCACGTATGACCCTGAAACCCAGGAGTTCATTCTCAACAGTCCTACTGTGACCTCCATTAAATGGTGGCCTGGTG
GGCGTAAG**TGA**ATTTTTCAGCATTTATTGGATGTTTTGAAGTTGGAAAGACTTCAAATCATGCAATAGTTCTTGC
CCAGCTCATCACTAAGGGGAAATGCTATGGATTACATGCCTTTATCGTACCTATTCGTGAAATCGGGACCCATAA
GCCTTTGCCAGGAATTACCGTTGGTGACATCGGCCCCAAATTTGGTTATGATGAGATAGACAATGGCTACCTCAA
AATGGACAACCATCGTATTCCCAGAGAAAACATGCTGATGAAGTATGCCCAGGT

FIGURE 2312

GCG**ATG**ATTCCCCCACAGGAGGCATCCGCTCGACGGCGGGAGATTGAGGACAAGCTGAAGCAGGAGGAGGAGACT
CTGTCCTTCATCCGAGACAGCCTGGAGAAGAGCGACCAGCTCACTAAGAACATGGTGTCTATCTTATCATCCTTT
GAGAGCCGCCTTATGAAGCTGGAGAACTCCATCATCCCTGTGCACAAGCAGACGGAGAATCTGCAGCGGCTGCAG
GAGAATGTTGAGAAGACGCTGTCCTGCCTGGACCATGTCATCAGCTACTACCATGTGGCCAGTGACACTGAGAAG
ATCATCAGAGAGGGCCCCACAGGTAGGCTGGAAGAGTACCTGGGAAGCATGGCCAAGATTCAGAAGGCAGTGGAG
TATTTCCAGGACAACAGCCCAGACAGCCCGGAACTCAACAAAGTGAAACTGCTCTTTGAGCGCGGGAAGGAGGCC
CTGGAGTCCGAATTTCGCAGCCTGATGACGCGGCACAGTAAGGTCGTCTCGCCCGTGCTCATCTTGGATCTGATC
AGTGGTGACGATGATCTGGAGGCCCAGGAGGACGTGACCCTGGAGCACCTGCCCGAGAGCGTGCTCCAGGATGTC
ATTCGCATCTCCCGCTGGCTGGTGGAATATGGCCGCAACCAAGATTTCATGAACGTCTACTACCAGATACGCTCC
AGCCAGCTGGACCGCTCCATCAAAGGACTGAAGGAGCATTTCCATAAGAGCAGTTCTTCCTCTGGGGTTCCCTAC
TCCCCTGCTATCCCCAACAAGAGGAAAGACACACCTACCAAGAAGCCAGTCAAGCGGCCAGGGACGATCCGTAAG
GCTCAGAACCTTCTGAAACAGTATTCCCAGCATGGTCTAGATGGGAAAAAGGGGGGCTCTAACCTCATTCCTCTG
GAAGGGCTTCTTCCCTGTACCCCAAGGGGCGGCCTGCCTGGCCCCTGGATAAACGCTGCTTGTGTTTGTGCGGCC
GACATCTCGCCAGGTCACGAGCATGATTTCCGAGTTAAGCACCTGTCCGAGGCCTTGAACGACAAGCACGGGCCG
CTGGCCGGGAGAGATGACATGCTGGACGTGGAGACCGATGCCTACATCCACTGCGTCAGTGCCTTCGTCAAGCTG
GCGCAGAGCGAGTACCAGCTGCTGGCCGACATCATCCCCGAGCACCACCAGAAGAAGACCTTCGACTCCCTGATA
CAGGATGCCCTGGATGGGCTGATGCTTGAAGGGGAGAACATCGTGTCTGCTGCCCGGAAGGCCATTGTGCGACAC
GACTTCTCCACGGTGCTCACCGTCTTCCCCATCCTGCGACACCTCAAGCAGACCAAGCCTGAGTTTGACCAGGTG
CTCCAGGGCACGGCTGCCAGCACAAAGAACAAGCTGCCTGGCCTCATCACATCCATGGAGACCATCGGTGCCAAA
GCGCTGGAGGACTTCGCAGACAACATCAAGAATGACCCGGACAAGGAGTACAACATGCCGAAGGACGGCACCGTA
CACGAGCTCACCAGCAATGCCATCCTCTTCCTGCAGCAGCTTTTGGACTTCCAGGAGACGGCAGGCGCCATGCTG
GCCTCCCAAGAGACCAGCTCTTCGGCCACCAGCTACAGCTCTGAGTTCAGCAAGCGGCTGCTAAGCACCTATATC
TGTAAAGTGCTGGGCAACCTGCAGTTGAACTTGCTGAGCAAGTCCAAGGTGTACGAGGACCCAGCTCTGAGCGCC
ATCTTCCTGCACAACAACTACAATTACATCCTCAAGTCCCTGGAGAAGTCTGAACTGATCCAGCTGGTGGCAGTG
ACACAGAAGACTGCTGAGCGCTCCTACCGGGAGCACATTGAGCAGCAGATCCAGACCTACCAGCGCAGCTGGTTA
AAGGTGACTGATTACATCGCAGAGAAGAATCTACCTGTGTTCCAGCCGGGAGTCAAGCTCCGGGACAAGGAGCGG
CAGATTATCAAGGAGCGTTTTAAGGGCTTCAATGATGGCCTCGAAGAACTGTGCAAAATCCAGAAGGCCTGGGCT
ATTCCAGACACAGAGCAGAGGGACAGGATTCGCCAGGCCCAGAAGACCATTGTCAAGGAGACCTACGGGGCCTTT
CTACAGAAGTTTGGCAGCGTGCCCTTCACCAAGAACCCGGAGAAGTACATCAAGTACGGGGTGGAGCAGGTGGGC
GACATGATCGATCGCCTTTTCGACACCTCTGCC**TGA**GCCTGCTGCTAGCCCTGCCTGGTTCCACCAGACTGGCGT
GTCATTGGACAGATAAACCAGTGTTAGCTTGCCTCTGGGCTGGGTGAGCTTGAAGTCCTCTGGGACAGAGACCTG
TCTCCACGCCTCCGGGAGCTGTGTCCCTGAGCCCCCTAGTCCTGGCTCCTGCTTTTTCCCCACAGCCCGTGTTCC
CAGCCGAACCAGCACTCTCCCGGAAGCCTGGGGTCCCTCCACACCTTGGCTTTTATGACCCTGATGGCTTCTGAA
ACAGGAAAAGAGAGAAGGAAGACAGAGGCCTGTGCCCACTGCTGCTCCATGTGTACCAAGAGCAGCAGGGCAGAA
GGGCCCTCCCTCCAGCCTAGGTCAGAGGTGGGGACAGAGAACTCCCCTACAGCCCAGAGATGTGGCAGGGCTCAG
AGAAGCAGCCAGAGCTCCTGGAGGAAAGGCAGTCGGGACTGACCCCCTCTCTTAAAACACATTCCCGCCCGCCCA
CAGGCCTGAGGTCTGGGACCTTTCCCTCCCAGGAGTCCCCTAGGTGGCTGGGGGAGGCAGGCTCACTGGCCATTT
TCCCTAGAGTCCAGCACACTGCAGGAGGCGTTCGGAGGAGGAGTTCCGCCCCACCCTCTACAGCCTTCCTCAGGC
CCCTGTCTCTGGCCCCCAGCCTCAGTGCCTCTTGGCCCAGGGCCAGGCAGTCGTGGTTGCAGAAGGAGCAATTAG
GCTGCCTGCCTGTGGGCTGGGAGACAGGGACAATGGGGAAAAGTTAAGGAGCAAAATGGGGGTTGGAAGCAAAAA
ATAGGGCCCCACCTATTTAGGACGAGATTGAAGACTGACCCTTGAGGCACACTTGCACTGGAGATGGGTTTATTT
CACGCTCTGTGCTTGTGTGCTAGCGGAGGGAGAGCTCAGGGTGGCTTAATCCAGAGGCCCTGTCATGGCCCGCCC
CCAGCCATGGGAAAGCAAACTTCATCCTAAGGTGTGCAGCCCAGGCCCTGCCCCTTTACAGTCTAGGCCGCCTGC
CATGGGGTGCAGCCTCTCCAGGGGCTGCGTCAGACTTGCACGCTGCCCACATCCAGATTCCTGCAAAGACGAATT
GGGTGCACAGCACCCCAACCACATACACGAGGAAGAAGATGCGGTCAGCAGTCTCAGGCCAGCTTCTCTGTGACC
CCTTTACTCCTCTGGAGGGCTCTGTGGGGAGAGATACAGGGAAAGGAGCTGTTCTTCAAGGTCCCCTCAACATGA
GCGGAAGAGCGAA

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FIGURE 2313

CTTTGGCGCGTGAGTGACAGCGGCCCAGACAGAGGGGGCGATGTCCGCGTCGTGGCTGGGGCCGGTCGCGGGGCA
GACTAATCCCCTGCTCCTGGCCAGGGGAGGCTCCCGAGCGGATCCTCGGGAAAGGGGCTCCGAAGGTCAAGAAAC
TGCCCTGCTGGGCGTCCGGGGAGTGGGAAAATAAAGCACTTTTTGTATCCCGCCCCTCCCCCGTCACGTGACCAC
GCGAGGCGGAAAGAAGAAATCCGAGGACCGGCGACGCCTAGAACAGGAGCCC**ATG**ATGCTGCCCAAACCTGGGAC
CTATTACCTCCCCTGGGAGGTTAGTGCAGGCCAAGTTCCTGATGGGAGCACGCTGAGAACATTTGGCAGGTTGTG
CCTCTATGACATGATTCAGTCCAGAGTAACACTGATGGCTCAGCACGGATCCGATCAGCACCAGGTTCTTGTCTG
TACCAAGTTGGTGGAGCCCTTCCACGCCCAGGTGGGCTCCCTGTACATCGTCCTCGGGGAGCTCCAGCATCAGCA
GGACAGAGGCTCCGTGGTGAAGGCGCGCGTGCTGACCTGTGTGGAGGGGATGAACCTGCCCTTGTTGGAACAAGC
CATCCGGGAGCAGAGACTGTACAAGCAGGAGCGGGGCGGCAGCCAG**TAG**GAAACAGCAGCCTAGCAACACCCTCA
CCTGCTTCAGAGCCCGAACCCTCTGGAGCTGCAGGAGCCCGGGAGAGCACAGACGCCTCCCCAGCGACGGCCTTG
TCTGGAGCTCGAAAGCCGAGGGGCGGGTGATGAATCCAGCCCCTTCCCCTACTTTGGGATTGGCTCAGCAATGAG
AACCCAGAAAGCATGCCATAAATCCGACAGCCCCACCCCAGGAGACTGCAGGTGGCCGAGCTTGGGCGCCGGGGC
CGTGCTTGGTGTGGGGCCATGGAGGGTTCCAGAAGGTCCTGGTGAATAAAGGCCCAGGGGGCGTGCTCTTG

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FIGURE 2314

CCACATGGAAGCTGGAGGAGCAACGGGAGCGCTGGGCGTGGGGTGCAAATTGCCCGGTGCCTTCTGTTTCCCAGG
CAGCTCTGTGGCC**ATG**GATATGTTCCAGAAGGTAGAGAAGATCGGAGAGGGCACCTATGGGGTGGTGTACAAGGC
CAAGAACAGGGAGACAGGGCAGCTGGTGGCCCTGAAGAAGATCAGACTGGATTTGGAGATGGAGGGGGTCCCAAG
CACTGCCATCAGGGAGATCTCGCTGCTCAAGGAACTGAAGCACCCCAACATCGTCCGACTGCTGGACGTGGTGCA
CAACGAGAGGAAGCTCTATCTGGTGTTTGAGTTCCTCAGCCAGGACCTGAAGAAGTACATGGACTCCACCCCAGG
CTCAGAGCTCCCCCTGCACCTCATCAAGAGCTACCTCTTCCAGCTGCTGCAGGGGGTGAGTTTCTGCCACTCACA
TCGGGTCATCCACCGAGACCTGAAGCCCCAGAACCTGCTCATCAATGAGTTGGGTGCCATCAAGCTGGCTGACTT
CGGCCTGGCTCGCGCCTTCGGGGTGCCCCTGCGCACCTACACCCATGAGGTGGTGACACTGTGGTATCGCGCCCC
CGAGATTCTCTTGGGCAGCAAGTTCTATACCACAGCTGTGGATATCTGGAGCATTGGTTGCATCTTTGCAGAGAT
GGTGACTCGAAAAGCCCTGTTTCCTGGTGACTCTGAGATTGACCAGCTCTTTCGTATCTTTCGTATGCTGGGGAC
ACCCAGCGAAGACACATGGCCCGGGGTCACCCAGCTGCCTGACTATAAGGGCAGCTTCCCTAAGTGGACCAGGAA
GGGACTGGAAGAGATTGTGCCCAATCTGGAGCCAGAGGGCAGGGACCTGCTCATGCAACTCCTGCAGTATGACCC
CAGCCAGCGGATCACAGCCAAGACTGCCCTGGCCCACCCGTACTTCTCATCCCCTGAGCCCTCCCCAGCTGCCCG
CCAGTATGTGCTGCAGCGATTCCGCCAT**TGA**GAATGTCAAGGCCACACTCAGATCCTTTCTCGAGCAGCTGCTGC
CCCAGCTGCCTCCTACCCATTGCCAAGAGAGGATGCATCTGGGGAGAGCAAAGCACTAAGGAATTCAGCATCAGC
CTGCAGAGGGCTGAGTCTGGGTTAGTCCTGCCC

FIGURE 2315A

GCTGACCAGCCAGTGAGGACGCCCGCTGCCTCCCACCTGCCCTCCTGCCGTCTTTCGCCAGCCAAGCCCAGCCTG
AGCCAGCACTTGCCTTTACGACCATGTTCAAGGGGCTGAGCAAAGGCTCCCAGGGGAAGGGGTCCCCCAAGGGCT
CCCCCGCCAAGGGGTCCCCCAAAGGCTCCCCCAGCAGGCACAGCCGGGCTGCCACCCAGGAGCTGGCCCTTCTCA
TCTCCCGCATGCAAGCCAACGCCGACCAGGTGGAGCGGGACATCCTGGAGACGCAGAAGAGGCTGCAGCAGGACC
GGCTGAACAGTGAGCAGAGCCAGGCCCTGCAGCACCAGCAGGAGACGGGCCGCAGCCTGAAGGAGGCTGAGGTGC
TGCTCAAGGACCTCTTCCTGGACGTGGACAAGGCCCGGCGGCTCAAGCACCCGCAGGCTGAGGAGATTGAGAAGG
ACATCAAGCAGCTGCACGAGCGGGTGACCCAGGAGTGTGCGGAGTACCGTGCCCTGTACGAGAAGATGGTGCTGC
CCCCCGACGTGGGACCCAGGGTCGACTGGGCACGCGTGCTGGAGCAGAAACAGAAGCAGGTCTGCGCAGGCCAGT
ACGGGCCGGGCATGGCGGAGCTGGAGCAACAGATCGCCGAGCACAACATCCTGCAGAAGGAGATCGACGCCTATG
GGCAGCAGCTGCGGAGCCTCGTGGGGCCGGATGCAGCCACCATCCGGAGCCAATACCGAGACCTACTGAAGGCGG
CGTCGTGGCGCGGGCAGAGCCTGGGCAGCCTGTACACGCACCTCCAGGGCTGCACGCGGCAGCTGAGCGCCCTGG
CTGAGCAGCAGCGCCGCATCCTGCAGCAGGACTGGAGCGACCTCATGGCCGACCCTGCGGGCGTGCGGCGGGAGT
ACGAGCACTTCAAGCAGCACGAGCTGCTGAGCCAGGAGCAGAGCGTGAACCAGCTGGAGGACGACGGCGAGCGCA
TGGTGGAGCTGCGGCACCCCGCGGTGGGGCCCATCCAGGCCCACCAGGAGGCCCTGAAGATGGAGTGGCAGAACT
TCCTGAACCTGTGTATCTGCCAGGAGACCCAGCTGCAGCACGTGGAGGACTACCGCCGGTTCCAGGAAGAGGCCG
ACTCAGTCAGCCAGACCCTGGCGAAGCTCAACTCCAACTTGGATGCCAAGTACAGCCCTGCACCTGGGGGCCCCC
CTGGCGCCCCCACAGAGCTGCTGCAACAGCTGGAGGCAGAGGAAAAACGGCTGGCCGTCACCGAGAGGGCCACTG
GGGACCTGCAGCGGCGAAGCCGGGATGTGGCCCCTCTGCCACAGCGAAGAAACCCCCCTCAGCAGCCCCTGCACG
TGGACAGCATCTGCGACTGGGACTCAGNGNNAGTGCAGCTGCTGCAGGGTGAGCGGTATAAGCTGGTAGATAACA
CTGACCCGCACGCCTGGGTCGTGCAGGGCCCTGGCGGGGAGACCAAGCGTGCTCCCGCCGCCTGCTTCTGCATCC
CAGCACCAGACCCTGATGCTGTGGCCAGGGCCTCCCGGCTGGCCTCAGAGCTGCAGGCCCTGAAGCAGAAATTGG
CCACAGTCCAGAGCCGCCTGAAGGCCAGTGCTGTGGAGTCTCTTCGGCCCAGCCAGCAGGCTCCATCTGGCTCAG
ACCTGGCCAACCCACAGGCCCAGAAGCTCCTGACACAGATGACCCGGCTGGATGGAGACCTGGGACAGATAGAGA
GGCAGGTGCTGGCCTGGGCGCGGGCCCCGCTGAGCCGCCCCACACCCTTGGAGGACTTGGAGGGCCGCATCCACA
GCCATGAGGGCACAGCCCAGCGCCTGCAGAGCCTGGGAACGGAGAAGGAGACAGCCCAGAAGGAGTGCGAGGCGT
TTCTGTCCACGCGGCCCGTGGGCCCCGCTGCCCTGCAGCTGCCCGTAGCCCTCAACAGCGTGAAGAACAAGTTCA
GTGACGTGCAGGTTCTGTGCAGCCTCTACGGGGAGAAAGCCAAGGCTGCCCTGGATCTGGAGCGGCAGATCCAGG
ATGCGGACAGGGTCATCCGAGGCTTCGAGGCCACCCTGGTGCAGGAGGCCCCCATCCCTGCTGAACCGGGGGCTC
TGCAGGAGAGGGTCAGCGAGCTGCAGCGCCAGCGGAGGGAGCTGCTGGAACAGCAGACCTGCGTGCTGCGGCTAC
ACCGCGCGCTGAAGGCCTCGGAGCACGCATGCGCTGCCCTGCAGAACAACTTCCAGGAGTTCTGCCAAGACCTGC
CTCGCCAGCAGCGCCAGGTGCGAGCCCTCACCGACCGCTACCACGCCGTAGGGGACCAGCTGGACCTGCAGGGAG
AAGGTGGTGCAGGATGCCGCCCTCACCTACCAGCAGTTCAAGAACTGCAAGGATAACCTGAGCTCCTGGCTGGAG
CACCTGCCCCGCAGCCAGGTGCGGCCCAGCGACGGCCCCAGCCAGATCGCCTACAAGCTGCAGGCGCAGAAGAGG
CTGACGCAGGAGATCCAGAGCCGAGAGCGGGACAGGGCCACAGCATCCCACCTCTCCCAGGCCCTGCAGGCAGCG
CTCCAGGACTATGAGCTCCAGGCAGACACCTACCGCTGCTCTTTGGAGCCCACCCTGGCAGTGTCAGCCCCCAAG
AGACCCCGAGTGGCTCCCCTGCAAGAGAGCATCCAAGCCCAGGAGAAGAACCTTGCAAAGGCCTATACTGAGGTT
GCAGCAGCACAGCAGCAGCTGCTCCAGCAGCTGGAGTTTGCTAGAAAA**ATG**CTGGAGAAGAAGGAGCTCAGTGAG
GACATCCGAAGGACCCATGATGCAAAGCAGGGCTCCGAGAGCCCTGCCCAAGCAGGGAGAGAGTCAGAGGCCCTG
AAGGCCCAGCTGGAAGAGGAGAGGAAGCGGGTGGCCCGGGTGCAGCATGAGCTGGAGGCGCAGAGGAGCCAACTG
CTGCAGCTGAGGACCCAGCGGCCCTTGGAGAGGCTGGAGGAGAAGGAAGTGGTAGAGTTCTACCGGGACCCCCAG
CTGGAGGGCAGCCTGTCCAGGGTGAAGGCCCAGGTGGAGGAGGAGGGCAAGCGGCGGGCTGGCCTGCAGGCAGAC
CTGGAAGTGGCAGCCCAGAAGGTCGTGCAGCTGGAAAGCAAGAGGAAGACCATGCAGCCTCATCTGCTGACCAAG
GAGGTCACCCAGGTGGAGAGGGACCCCGGCCTGGACAGCCAGGCGGCCCAGCTCAGGATCCAGATCCAGCAGCTC
CGCGGGGAGGATGCCGTCATCTCGGCCCGGCTGGAAGGGCTGAAGAAGGAGCTACTGGCCCTTGAGAAGAGGGAG
GTGGACGTGAAGGAGAAGGTCGTGGTGAAAGAGGTAGTCAAGGTGGAGAAGAATCTGGAAATGGTCAAGGCAGCC
CAGGCTCTGAGGCTGCAGATGGAGGAGGATGCTGCGCGGAGGAAGCAGGCGGAGGAGGCTGTGGCCAAGCTACAG
GCTCGCATCGAAGACCTGGAGCGGGCTATCAGCTCGGTGGAGCCCAAGGTCATCGTGAAGGAGGTGAAGAAGGTG
GAGCAGGACCCAGGGCTCCTCCAGGAGTCCTCCAGGCTGAGGAGCCTCCTCGAGGAGGAGAGGACCAAGAACGCG

FIGURE 2315B

ACGCTGGCCAGGGAGCTGAGCGACCTGCACAGCAAGTACAGCGTGGTGGAGAAGCAGAGGCCCAAAGTGCAGCTC
CAGGAGCGCGTCCACGAGATCTTCCAGGTGGATCCGGAGACAGAGCAGGAGATCACTCGGCTCAAGGCCAAGCTG
CAGGAGATGGCGGGCAAGAGGAGCGGTGTGGAGAAGGAGGTGGAGAAGCTGCTGCCCGACCTGGAGGTCCTGCGG
GCCCAGAAGCCCACGGTGGAGTACAAGGAGGTGACCCAGGAGGTGGTGAGGCATGAGAGGAGCCCCGAGGTGCTG
CGTGAGATCGACCGCCTGAAGGCTCAGCTCAACGAGCTCGTCAACAGCCACGGGCGCTCCCAGGAGCAGCTCATC
CGCCTGCAGGGTGAGCGCGACGAGTGGAGGCGCGAGCGGGCCAAGGTGGAGACCAAGACGGTGAGCAAGGAGGTG
GTGCGCCACGAGAAGGACCCGGTGCTGGAGAAAGAAGCAGAGCGGCTCCGCCAGGAGGTGCGGGAGGCGGCCCAG
AAGAGGCGGGCCGCGGAGGACGCGGTGTACGAGCTGCAGAGCAAGCGCCTGCTGCTGGAGAGGAGGAAGCCCGAG
GAGAAGGTGGTGGTGCAGGAGGTGGTGGTCACCCAGAAGGACCCGAAGCTGCGCGAGGAGCACAGCCGGCTGAGC
GGGAGCCTGGATGAGGAGGTGGGCCGGCGGCGCCAGCTAGAGCTTGAGGTGCAGCAGCTGCGGGCCGGCGTGGAG
GAGCAGGAGGGCCTGCTCAGCTTCCAGGAGGACCGCAGCAAGAAGCTGGCCGTGGAGAGGGAGCTGCGGCAGCTG
ACCTTGAGGATCCAGGAGCTCGAGAAGCGGCCTCCCACGGTGCAGGAGAAGATCATCATGGAGGAAGTGGTCAAG
CTGGAGAAGGACCCGGACCTGGAGAAGTCCACGGAAGCCCTGCGGTGGGACCTGGACCAGGAGAAGACCCAGGTA
ACCGAGCTGAATCGGGAGTGCAAGAACCTGCAGGTCCAGATTGACGTCCTCCAGAAAGCCAAATCGCAGGAGAAG
ACCATCTACAAGGAAGTGATCCGGGTGCAGAAGGACCGCGTCCTGGAAGATGAGCGGGCCCGCGTGTGGGAGATG
CTCAACAGGGAGCGCACGGCCCGGCAGGCCCGGGAGGAGGAGGCACGGCGCCTGCGGGAGCGCATTGACCGGGCC
GAGACGCTGGGGAGAACCTGGTCCCGGGAGGAGTCCGAGCTGCAGAGGGCCCGGGACCAGGCCGACCAGGAGTGT
GGGCGGCTGCAGCAGGAGCTGCGGGCTCTGGAGAGGCAGAAGCAGCAGCAGACACTGCAGCTGCAGGAGGAGTCG
AAGCTGCTCAGCCAGAAGACGGAGAGCGAGCGACAGAAGGCGGCCCAGCGGGGCCAGGAGCTCTCGCGGCTGGAG
GCGGCCATCCTCCGCGAGAAGGACCAGATCTACGAGAAGGAGCGGACGCTCCGGGACCTCCACGCCAAGGTGAGC
CGGGAGGAGCTCAGCCAGGAGACCCAGACGCGAGAGACCAACCTTTCCACCAAGATCTCCATCCTGGAACCCGAG
ACGGGGAAGGACATGTCCCCATACGAGGCCTACAAGAGGGGCATCATCGACAGGGGCCAGTACTTGCAGCTGCAG
GAGCTCGAGTGTGACTGGGAGGAGGTCACCACCTCGGGGCCCTGTGGGGAGGAGTCTGTGCTCCTGGACCGCAAG
AGCGGGAAGCAGTACTCCATCGAGGCCGCCCTCCGCTGCCGGCGCATCTCTAAGGAGGAGTACCATCTGTACAAG
GACGGCCACCTGCCCATCTCCGAGTTTGCGCTGCTTGTAGCTGGGGAGACCAAGCCAAGCTCCTCACTCTCCATC
GGCTCTATCATCTCCAAGTCCCCGCTCGCCTCCCCGGCCCCCCAGAGCACCAGTTTCTTCTCTCCCAGCTTCTCT
CTCGGGCTCGGTGATGACAGCTTCCCTATCGCCGGGATCTATGACACAACCACAGACAACAAGTGCAGCATCAAG
ACGGCCGTGGCCAAGAACATGCTGGACCCCATCACTGGGCAGAAGCTACTGGAGGCCCAGGCGGCCACAGGGGGC
ATCGTGGACCTGCTCAGCCGTGAGCGCTACTCTGTGCACAAGGCGATGGAGAGGGGCCTGATCGAGAACACCTCC
ACACAGAGGCTGCTTAACGCCCAGAAGGCCTTCACCGGCATCGAGGACCCCGTCACCAAGAAGAGGCTCTCGGTG
GGCGAGGCCGTCCAGAAGGGCTGGATGCCCCGGGAGAGCGTGCTCCCACACCTGCAGGTGCAGCACCTGACCGGG
GGGCTCATCGACCCCAAGAGGACAGGCCGCATCCCCATCCAGCAGGCCCTCCTCTCCGGGATGATCAGTGAAGAG
CTGGCCCAGCTCCTGCAGGACGAGTCCAGCTACGAGAAGGATTTGACAGACCCCATCTCCAAGGAACGGCTGAGC
TACAAGGAGGCCATGGGCCGCTGCCGCAAAGACCCCCTGAGCGGCCTGCTGCTCCTGCCAGCGGCACTGGAGGGG
TACCGCTGCTACCGCTCCGCCTCCCCCACCGTCCCGCGCTCCCTTCGC**TGA**CACGGGCCAAGGAGCCAGTGGGGA
AGTGCGTGTGTTGGGCCAGGTAGGATACGTACACCTCTTGCCTCAGAGCAGCCTCATCCCAGGCAGTGGGTCTTC
CCTCTGTCCAACCACTGTTTTATTATTTTACTAACATGGTGATGGGCTCCCTCCCCTAACCTTGGTGCCTGATCC
ATCCCCAGACCAGGACAGCAGCCACTCAGTTCTTCCTCCACCTCCACCCAGTGATCCCAATAAACGAATTCTGTC
TCCCCGTG

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FIGURE 2316

ATGGCTGCTGAGAAGCAGGTCCCAGGCGGCGGCGGCGGCGGCGGCAGTGGCGGCGGCGGTGGCAGTGGCGGCGGC
GGTAGCGGCGGTGGACGTGGTGCCGGAGGGGAAGAAAATAAAGAAAACGAACGCCCTTCGGCCGGATCGAAGGCA
AACAAAGAATTTGGGGATAGCCTGAGTTTGGAGATTCTTCAGATTATTAAGGAATCCCAGCAGCAGCATGGTTTA
CGGCATGGAGATTTTCAGAGGTACAGGGGCTACTGTTCCCGTAGACAAAGACGTCTTCGAAAAACACTCAACTTC
AAGATGGGTAACAGACACAAATTCACAGGGAAGAAAGTGACTGAAGAGCTTCTGACCGATAATAGATACTTGCTT
CTGGTTCTGATGGATGCTGAAAGAGCCTGGAGCTACGCCATGCAGCTGAAACAGGAAGCCAACACTGAACCCCGA
AAACGGTTTCACTTGTTATCTCGCCTACGCAAAGCCGTGAAGCATGCAGAGGAATTGGAACGCTTGTGTGAGAGC
AATCGCGTGGATGCCAAGACCAAATTAGAGGCTCAGGCTTACACAGCTTACCTCTCAGGAATGCTACGTTTTGAA
CATCAAGAATGGAAAGCTGCCATTGAGGCTTTTAACAAATGCAAAACTATCTATGAGAAGCTAGCCAGTGCTTTC
ACAGAGGAGCAGGCTGTGCTGTATAACCAACGTGTGGAAGAGATTTCACCCAACATCCGCTATTGTGCATATAAT
ATTGGGGACCAGTCAGCCATCAATGAACTCATGCAGATGAGATTGAGGTCTGGGGGCACTGAGGGTCTCTTGGCT
GAAAAATTGGAGGCTTTGATCACTCAGACTCGAGCCAAACAGGCAGCTACCATGAGTGAAGTGGAGTGGAGAGGG
AGAACGGTTCCAGTGAAGATTGACAAAGTGCGCATTTTCTTATTAGGACTGGCTGATAACGAAGCAGCTATTGTC
CAGGCTGAAAGCGAAGAAACTAAGGAGCGCCTGTTTGAATCAATGCTCAGCGAGTGTCGGGACGCCATCCAGGTG
GTTCGGGAGGAGCTCAAGCCAGATCAGAAACAGAGAGATTATATCCTTGAAGGAGAGCCAGGGAAGGTGTCTAAT
CTTCAATACTTGCATAGCTACCTGACTTACATCAAGCTATCAACGGCAATCAAGCGTAATGAGAACATGGCCAAA
GGTCTGCAGAGGGCTCTGCTGCAGCAGCAGCCAGAGGATGACAGCAAGCGCTCACCCCGGCCCCAGGACCTGATC
CGACTCTATGACATCATCTTACAGAATCTGGTGGAATTGCTCCAGCTTCCTGGTTTAGAGGAAGACAAAGCCTTC
CAGAAAGAGATAGGCCTCAAGACTCTGGTGTTCAAAGCTTACAGGTGTTTTTTCATTGCTCAGTCCTATGTGCTG
GTGAAGAAGTGGAGCGAAGCCCTTGTCCTGTATGACAGAGTCCTGAAATATGCAAATGAAGTAAATTCTGATGCT
GGCGCCTTCAAGAACAGCCTAAAGGACCTGCCTGATGTGCAAGAGCTCATCACTCAAGTGCGGTCAGAGAAGTGC
TCCCTGCAGGCCGCAGCCATCCTTGATGCAAACGACGCTCATCAAACAGAGACCTCCTCCTCCCAAGTCAAGGAC
AATAAGCCTCTGGTTGAACGGTTTGAGACATTCTGCCTGGACCCTTCCCTTGTCACCAAGCAAGCCAACCTTGTG
CACTTCCCACCAGGCTTCCAGCCCATTCCCTGCAAGCCTTTGTTCTTTGACCTGGCCCTCAACCATGTGGCTTTC
CCACCCCTTGAGGACAAGTTGGAACAGAAGACCAAGAGTGGCCTCACTGGATACATCAAGGGCATCTTTGGATTC
AGGAGC**TAA**

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FIGURE 2317

GGGACGTCAGCGGACGGGGCGCTCGCGGGCCGGGGCTGT**ATG**GGGCTCCCGCGCGGGTCGTTCTTCTGGCTGCTG
CTCCTGCTCACGGCTGCCTGCTCGGGGCTCCTCTTTGCCCTGTACTTCTCGGCGGTGCAGCGGTACCCGGGGCCA
GCGGCCGGAGCCAGGGACACCACATCATTTGAAGCATTCTTTCAATCCAAGGCATCGAATTCTTGGACAGGAAAG
GGCCAGGCCTGCCGACACCTGCTTCACCTGGCCATTCAGCGGCACCCCCACTTCCGTGGCCTGTTCAATCTCTCC
ATTCCAGTGCTGCTGTGGGGGGACCTCTTCACCCCAGCGCTCTGGGACCGCCTGAGCCAACACAAAGCCCCGTAT
GGCTGGCGGGGGCTCTCTCACCAAGTCATCGCCTCCACCCTGAGCCTTCTGAACGGCTCAGAGAGTGCCAAGCTG
TTTGCCCCGCCCAGGGACACCCCTCCAAAGTGTATCCGGTGTGCCGTGGTGGGCAACGGAGGCATTCTGAATGGG
TCCCGCCAGGGTCCCAACATCGATGCCCATGACTATGTATTCAGACTCAATGGAGCTGTGATCAAAGGCTTCGAG
CGCGATGTGGGCACCAAGACTTCCTTCTATGGTTTCACTGTGAACACGATGAAGAACTCCCTCGTCTCCTACTGG
AATCTGGGCTTCACCTCCGTGCCACAAGGACAGGACCTGCAGTATATCTTCATCCCCTCAGACATCCGCGACTAT
GTGATGCTGAGATCGGCCATTCTGGGCGTGCCTGTCCCTGAGGGCCTAGATAAAGGGGACAGGCCGCACGCCTAT
TTTGGACCAGAAGCCTCTGCCAGTAAATTCAAGCTGCTACATCCGGACTTCATCAGCTACCTGACAGAAAGGTTC
TTGAAATCAAAGTTGATTAACACACATTTTGGAGACCTATATATGCCTAGTACCGGGGCTCTCATGCTGCTGACA
GCTTTGCATACCTGTGACCAGGTCAGTGCCTATGGATTCATCACAAGCAACTACTGGAAATTTTCCGACCACTAT
TTCGAACGAAAAATGAAGCCATTGATATTTTATGCAAACCACGATCTGTCCCTGGAAGCTGCCCTGTGGAGGGAC
CTGCACAAGGCCGGCATCCTTCAGCTGTACCAGCGC**TGA**CCCCAATGCACTGAGCCCTTTGCTTCTTCAAGAGTT
GCGGCCCTGATCCTCTCAAGTGGCCAAAAGCTTTTTTAACTTTTCAATCTTCACCTTCCCTTGCCAACAGAGGGC
ACTGGGGTGAATTCAAGATTTTCATCGAGGTCTGTTCAATATAGGACACCCCAGCTTGTCCTTGGCTCATCCAAG
AACTCTTCTGTATCTAAAACAATACATCTCAATCTTGGCCAAGGGAAAATGGACTGCTTTGCTGGATTGGCACTG
AGCAACTTTAGGAAATGTCGGTGGAGTGTTCAGCAAGATCAGACAGCAGTCCAGGTCAAAGGCAAACACACACGC
TCCAGCCCAAATCCTCCTGGTGGCACATCCTACCCCAGATGCTAAAGTGATTCAAGGACTCCAGGACACCTCTTA
AGAGCCTTTCTAAGAACATGATAGGCTTACTTCTGCTCCATAATAAAGTGGGAGAAAAAAGCCAGAATATAACTT
AAGACTAGATAACTGCGTACATGATGGACCATTTTTTTTTTTTGGCTGGGTAGAGAAATCATATAAAACGCAGG
CTGTTTAGCATGGAGATGACTCTCAGAACACTGGGAGGGTCTGGCACTTGATGGGGGTTAGTTGCTTGGCAGCCT
GCCTGCCACTGAGGGAAGTCCCATTAGAGATGTATCACCACCTTGTCACCAACAGGATGATGTCACCAGGTAATA
AACCTTCATCCTCA

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FIGURE 2318

AGACAAAGGGTGTGCACTTCCTGGCCAGGAAACCTGAGCGGTGAGACTCCCAGCTGCCTACATCAAGGCCCCAGG
ACATGCAGAACCTTCCTCTAGAACCCGACCCACCACC**ATG**AGGTCCTGCCTGTGGAGATGCAGGCACCTGAGCCA
AGGCGTCCAGTGGTCCTTGCTTCTGGCTGTCCTGGTCTTCTTTCTCTTCGCCTTGCCCTCTTTTATTAAGGAGCC
TCAAACAAAGCCTTCCAGGCATCAACGCACAGAGAACATTAAAGAAAGGTCTCTACAGTCCCTGGCAAAGCCTAA
GTCCCAGGCACCCACAAGGGCAAGGAGGACAACCATCTATGCAGAGCCAGTGCCAGAGAACAATGCCCTCAACAC
ACAAACCCAGCCCAAGGCCCACACCACCGGAGACAGAGGAAAGGAGGCCAACCAGGCACCGCCGGAGGAGCAGGA
CAAGGTGCCCCACACAGCACAGAGGGCAGCATGGAAGAGCCCAGAAAAAGAGAAAACCATGGTGAACACACTGTC
ACCCAGAGGGCAAGATGCAGGGATGGCCTCTGGCAGGACAGAGGCACAATCATGGAAGAGCCAGGACACAAAGAC
GACCCAAGGAAATGGGGGCCAGACCAGGAAGCTGACGGCCTCCAGGACGGTGTCAGAGAAGCACCAGGGCAAAGC
GGCAACCACAGCCAAGACGCTCATTCCCAAAAGTCAGCACAGAATGCTGGCTCCCACAGGAGCAGTGTCAACAAG
GACGAGACAGAAAGGAGTGACCACAGCAGTCATCCCACCTAAGGAGAAGAAACCTCAGGCCACCCCACCCCCTGC
CCCTTTCCAGAGCCCCACGACGCAGAGAAACCAAAGACTGAAGGCCGCCAACTTCAAATCTGAGCCTCGGTGGGA
TTTTGAGGAAAAATACAGCTTCGAAATAGGAGGCCTTCAGACGACTTGCCCTGACTCTGTGAAGATCAAAGCCTC
CAAGTCGCTGTGGCTCCAGAAACTCTTTCTGCCCAACCTCACTCTCTTCCTGGACTCCAGACACTTCAACCAGAG
TGAGTGGGACCGCCTGGAACACTTTGCACCACCCTTTGGCTTCATGGAGCTCAACTACTCCTTGGTGCAGAAGGT
CGTGACACGCTTCCCTCCAGTGCCCCAGCAGCAGCTGCTCCTGGCCAGCCTCCCCGCTGGGAGCCTCCGGTGCAT
CACCTGTGCCGTGGTGGGCAACGGGGGCATCCTGAACAACTCCCACATGGGCCAGGAGATAGACAGTCACGACTA
CGTGTTCCGATTGAGCGGAGCTCTCATTAAAGGCTACGAACAGGATGTGGGGACTCGGACATCCTTCTACGGCTT
TACCGCCTTCTCCCTGACCCAGTCACTCCTTATATTGGGCAATCGGGGTTTCAAGAACGTGCCTCTTGGGAAGGA
CGTCCGCTACTTGCACTTCCTGGAAGGCACCCGGGACTATGAGTGGCTGGAAGCACTGCTTATGAATCAGACGGT
GATGTCAAAAAACCTTTTCTGGTTCAGGCACAGACCCCAGGAAGCTTTTCGGGAAGCCCTGCACATGGACAGGTA
CCTGTTGCTGCACCCAGACTTTCTCCGATACATGAAGAACAGGTTTCTGAGGTCTAAGACCCTGGATGGTGCCCA
CTGGAGGATATACCGCCCCACCACTGGGGCCCTCCTGCTGCTCACTGCCCTTCAGCTCTGTGACCAGGTGAGTGC
TTATGGCTTCATCACTGAGGGCCATGAGCGCTTTTCTGATCACTACTATGATACATCATGGAAGCGGCTGATCTT
TTACATAAACCATGACTTCAAGCTGGAGAGAGAAGTCTGGAAGCGGCTACACGATGAAGGGATAATCCGGCTGTA
CCAGCGTCCTGGTCCCGGAACTGCCAAAGCCAAGAAC**TGA**CCGGGGCCAGGGCTGCCATGGTCTCCTTGCCTGCT
CCAAGGCACAGGATACAGTGGGAATCTTGAGACTCTTTGGCCATTTCCCATGGCTCAGACTAAGCTCCAAGCCCT
TCAGGAGTTCCAAGGGAACACTTGAACCATGGACAAGACTCTCTCAAGATGGCAAATGGCTAATTGAGGTTCTGA
AGTTCTTCAGTACATTGCTGTAGGTCCTGAGGCCAGGGATTTTTAATTAAATGGGGTGATGGGTGGCCAATACCA
CAATTCCTGCTGAAAAACACTCTTCCAGTCCAAAAGCTTCTTGATACAGAAAAAAGAGCCTGGATTTACAGAAAC
ATATAGATCTGGTTTGAATTCCAGATCGAGTTTACAGTTGTGAAATCTTGAAGGTATTACTTAACTTCACTACAG
ATTGTCTAGAAGACCTTTCTAGGAGTTATCTGATTCTAGAAGGGTCTATACTTGTCCTTGTCTTTAAGCTATTTG
ACAACTCTACGTGTTGTAGAAAACTGATAATAATACAAATGATTGTTGTCCATGGAAAGGCAAATAAATTTTCTA
CAGTG

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FIGURE 2319

ATGGAGGCGCCGGCCGAGCTACTGGCCGCGCTGCCTGCGCTGGCCACCGCGCTGGCCCTTCTGCTCGCCTGGCTA
CTGCCTGGAGAGCCCGCGGGGCTGGGGGAGCTCGGGGAGCCTGCGGGACCGGGGGAGCCCGAAGGGCCAGGGGAT
CCCGCGGCGGCGCCAGCGGAGGCGGAGGAGCAGGCGGTGGAGGCGAGGCAGGTACGCACCGGGGCCCTCGCGGCC
CCCTCCCCACCCCCGGGGCTCCGGCTGCCGCTGCCGTTCCCCGCCGAGCCAGGGAGCGGGGCCGCGGCCTCCAGC
CCAGGCTGCCCCCAGGAAGCGCAGAACCCGCGGCCCGCAGGAAATGCAGGTAAGCTGGGCCTGGATGGAGTGAAG
ATGCAGGATAAAGCCCTCCTGGAGCACCATGTGGTCCTTTTTGATGGCAGTGTGGTCCTTTTTGATGGCAGTGTG
GTCCTTTTTGATGGCAGTGTGGTCCTTTGTGATGGCAGTGTGGGCCTCTGTGACGGCAGCGTGGGCCTCTGTGAC
GGCAGCGTGGGCCTCTGTGATGGCAGAGTGGGCCTCTGTGATGGCAGCGTGGTCCTTTGTGATGGCAGCGTGGGC
CTCTGTGACGGCAGCGTGGGCCTCTGTGACGGCAGCGTGGGCCTCTGTGATGGCAGAGCTCTTCCAGCAACCAGC
ATGACCTTCCTAGCGCAGAGAGCACACCCCCCGGCCCCTGCTCACAGCCCTCCGCGTGCAATTCCAAACTTCCCA
CAGCCCCAGGAAATGATCCTGGTCGCACCCACCATGGCACAGCTGCCTGATGGTGGGGAGGACTCAGACCATGAG
ACCCTGGAGAGATTGCCTTTGGCTGGCCGCACCTTCACGGATTCATTCAACGCTGAGCTGAAGGCCAGGGCAGGC
GCTGCCACAGGGCGTGGGCAGGCTGGACCTTCGAGGGCCTCCTCTGTCTCCCCTACCTTCTGCCCCCCCACCACT
TCCCATCACCCAGTCTGTGCCAAGGGCACTGACCCTGTCCTTGTCTTGCAGGAAGAGGAGCAGGACTTGGATGGT
GAGAAGGGGCCATCATCGGAAGGGCCTGAGGAGGAGGACGGAGAAGGCTTCTCCTTCAAATACAGCCCCGGGAAG
CTGAGGGGAAACCAGTACAAGAAGATGATGACCAAAGAGGAGCTGGAGGAGGAGCAGAGAGTTCAGAAGGAACAG
CTGGCTGCCATCTTCAAGCTCATGAAAGACAACAAGGAGACGTTTGGCGAGATGTCCGACGGCGACGTGCAGGAG
CAGCTCCGGCTCTACGACATG**TAG**

FIGURE 2320A

GCGGCCGCTTGCCCAACCCGAGGCTCGGGAGGTGGCTGGGGAGTGAATTTTCTGGAAGGCGACTTTAAAGGCGCC
GGGACTGAGCGAAGGGCGTTTGGGTACTGCCGTCGCCGCCGCCCAGGCCGGGGAGGGGTGCGTTAGTGTCAGGAA
GCGGGCTGCGCCGAGGTCGTAGCGGAACCAGCTGGCGACCCCGCAGA**ATG**AACCACAAGAGCAAGAAGCGCATCC
GCGAGGCCAAGCGGAGTGCGCGGCCGGAGCTCAAGGACTCGCTGGATTGGACCCGGCACAACTACTACGAGAGCT
TCTCGCTGAGCCCGGCGGCCGTGGCGGATAACGTGGAAAGGGCAGATGCTTTACAGCTGTCTGTGGAAGAATTTG
TGGAGCGGTATGAAAGACCTTACAAGCCCGTGGTTTTGTTGAATGCGCAAGAGGGCTGGTCTGCGCAGGAGAAAT
GGACTCTGGAGCGCCTAAAAAGGAAATATCGGAACCAGAAGTTCAAGTGTGGTGAGGATAACGATGGCTACTCAG
TGAAGATGAAGATGAAATACTACATCGAGTACATGGAGAGCACTCGAGATGATAGTCCCCTTTACATCTTTGACA
GCAGCTATGGTGAACACCCTAAAAGAAGGAAACTTTTGGAAGACTACAAGGTGCCAAAGTTTTTCACTGATGACC
TTTTCCAGTATGCTGGGGAGAAGCGCAGGCCCCCTTACAGGTGGTTTGTGATGGGGCCACCACGCTCCGGAACTG
GGATTCACATCGACCCTCTGGGAACCAGTGCCTGGAATGCCTTAGTTCAGGGCCACAAGCGCTGGTGCCTGTTTC
CTACCAGCACTCCCAGGGAACTCATCAAAGTGACCCGAGACGAAGGAGGGAACCAGCAAGACGAAGCTATTACCT
GGTTTAATGTTATTTATCCCCGGACACAGCTTCCAACCTGGCCACCTGAATTCAAACCCCTGGAAATCTTACAAA
AACCAGGAGAGACTGTCTTTGTACCAGGAGGCTGGTGGCATGTTGTCCTCAATCTCGACACTACTATCGCCATCA
CCCAAAATTTTGCCAGCAGCACCAACTTCCCTGTGGTATGGCACAAGACGGTAAGAGGGAGACCAAAGTTATCAA
GGAAATGGTATAGGATTTTGAAGCAAGAGCACCCCGAGTTGGCAGTCCTCGCAGACTCGGTTGACCTTCAGGAGT
CCACAGGGATAGCTTCCGACAGCTCCAGCGACTCTTCCAGCTCCTCCAGCTCCAGTTCGTCAGACTCCGACTCAG
AGTGCGAGTCTGGATCCGAGGGCGATGGGACAGTGCACCGCAGGAAGAAGAGGAGGACGTGCAGCATGGTGGGAA
ACGGGGACACCACCTCCCAGGACGACTGTGTCAGCAAAGAGCGCAGCTCCTCCAGGATTAGGGACACTTGTGGAG
GCCGGGCTCACCCC**TGA**GCAGATAAAGAGACTCTCCCTGAGGTGCTTTCAGCGTAAGCTTTTGGCAGCCACCCAA
CTCAGTTCTCGCATCTTCTGCTCCTACCTTCTCCTCTGTCTTCTTTGAATTTGGATATTCCTTCCCTGGTCCAAG
CTCCTATCTTCGGTCAAATGCTGTTTTTACTGCTTCCTAAGGATAGATTATCAAGAAATTTAACAGCTCGGCCAG
CTCAGTGAAACACTGAAGCTAATGGGATGTTGGGTAAGAAGGTTCTGTGCTGTCTCATTGAAAACCGAGCCAGTC
AACCACAAGGCTGGCAGGGTGTGATCCTTGTAACGTCTTGTGTCTGTTACCTCACGGATGTCGGTAAGGAGTTTC
CACAGAGCCAGCTGTGTACCACAGAGACTGAGAGTGGTGAGTGGACTTTGTGAGCCAATTATGTGTCGGAAGGAC
TTGGAGTCTGCCCTTCTTCCTGTATGTCATCATCAGCCCACAAATGCATTCAGTGGCAGTGACCCAGCACCATCA
CCATCACCCACTGCTCAGTCTGTCTTAGGATTCCTTATCTTTTTCTCCATCATCATAGAGACTGAAATTTCAGGG
GTGTTTTTGTACAGTGTATTTTTTTGTGGGGGGGTGATACATTGGGGTTTTTTGTTTGCATAGAGTGGGAACGGT
GTGCAATGTGCTCTTACCACAGAACTTAAAGTATGAATAGGCTCCATTCTTCCGCACCATGGGATCCATAAGAAG
TGCTCACTTTGCGAGGTACTCTGAGATTAGCGTTCCCCATTTGTTTGACCTACAGACGTTAAGTGGGTGACTTGT
GTTACACACGGGGAGTAAATTCAGAGATGGCACCTGTAGTCTTTGCAGTCTGTTGATACTTCTAAATAACTAACT
GGATGACTTTTTGGGGATTGACCAGCAGATGCCATCTCTTGCCCTCTTGATTCACCTGCTTGCCTTAATTTGTCC
CTAAATTCAACTAAACTTCAATAAGAGGGGTTGTCAAGGCCATGGGGCGCACTTGGAAGCACTGCCTGGGCTGGA
GCGTTGGAGGCATTGGCAGGCAGGTGGGAAGGAGCTCTCACTGCAGTGTTCACAGGCAGGGAGGCTGTGTGTGGA
TGTGTTAGAATTGTGTGCTGTTGCCTCTCAAAATATCCACTAGAAACAGGTGTAACCAGGAAAATACAGGTCTCT
GCTCACTGTTATTAACAGACTGTCATTTCCTGACATTGGGTCATGTGGCTTTACTCTAGGAGGCTGGTTCTCTAT
TTTTGTCTTAGTTCAATTTTCTGCATCCTCAAATGCCAACCCCAGTATGTGGCTGGGTAGGTAGAACTGTGCTGC
CTGCCTGCCATGGGGGCTGCTCTCCCTCCTTACCCCCACGCCCACAGCCCCCTTGGTTCTGTGGTGGGCACAGGA
TGTGTTTGGGTGTGAGTAAAGTCAAACTCTGAATGTATAATCTCTTGGTAGTAATATCTGAGTGGTGTTGCTACT
CCTGCTTTTTAAAAAGACTTTTCTTGCCATCTATAAAAAGCTTTTTTCTTTTTCCCAGCATTGCTCCTGTGCTGC
CACGCTTGCCCTTTTTCCTTACCTTCCTTTCAGTTTTCTATCAACAACTCCTCTAAACTTCAGTTTAAAATAAAA
AACAGCCCAAAAAGGCTCTTTGCCACCAGGGGGCGTGGTAGGACACGTTGCCAGTGGTCTGGATAGGGGAGCAGA
AATTTTGAATTTTAAAAATTAGCCACCAAGGCCAGGTGCAGTGGCTCACACCTGTAATCCCAGCACTTTGGGAAG
CTGAGGCAGGGGGATTGCTTGAGTCCAGGAGTTCAAGACCAGTCTGGGCAACATAGTGAGATCCCATCTCTCAAA
AAAATAATAATCTAGAAAATAAAGATTAGCCACCCAGTTTTCTTTCTCCAGATGCTAAAGTTGATTCCTGTTTGA
TAACAGTATTCCAGAAATGAGGGGAATAACATATCTGATAGGCCCAAGTCAGCTCTGGATAGTACAGTGTCTGGA
TAGTACAGATTCTGTGCTCCTGGGACATGCTTTGTTTATTCCTGCCAGGCCAGGGATTCAGCAGCCCTATTCCCC
AACCCCCGTTACTGTCTCTGTGGGCTAGCCAGGCTGTCCGTTATGTAAGCACAACAGGGGCAAGGTGGGGAAACC

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FIGURE 2320B

GTGTGTGGAAAAGGAGTGGAGTGGTGGCGGGTGGCCAAGGTAGACTAGGAAGAGTGGGTACCCAGAGACCACTTG
TTCAGAAGTTAACTCCTCTTCCCATCTGGCGTGAGCTACTCCATTGAATGGTGCCAACAACAGTAAAGTGAAGGA
GATAATGTTAGATTATTTTCAGGGATGATTCTCCAAGATGACAGCAGATCTTAAAACCAAAGAGCTGGGTCCTGG
AAGAAGGGATCTTGGATTATTAACTTCTGATGGAAGGACCAGAGTGGGAGAGAGAAGAGTTGGGGACCTAGAACA
TCAGGAGGACCCTGGGTCTTTGGGGATGAGGCTTCACCATCAGCTGGAAGAATCCATGCTTCACACACATGCCTC
TGCCATTAGTGGTACTGGGATGTTTAGGGTGACATCCTTGAGGGGAGAGCCACTGAAAAGAGGGACATTCACATT
TTGCTGTATTCTTGCAGCTGTCCGTGTCTTAATAATTCAAGCGTTCAATAGGTGTTTGAGGGCCAGGCACTGCTC
TTGAGGTGCTGGAGATAACGGTGACAAGCCCAGGTCCCTGACAAGCTCCACAAGCTTAATGGACAGTGAATGTGC
GGCTGTTGCGGCTGTTCACAGGGCCGCTGGTGAGGGCAGGTAGAAGAAAGTGCAGACCTTCTTAAATGCAGGTGT
AACGGATCTACATGAAAGAGCATAATTAACACCAATGTATACTTAAGGTAGTAACAGCTTCTTCATAAAGTAGCA
AAACTAAGGATCTGTGGGAAGGTTGCTGGTGCAAATGCTTTATAAGCTTACTAGAGACTGAGCCTTGGATTTAGG
ACTTTAGACGAGTATAGGATGGAACAAAATTTTTGCAGTAAATGTAAAAAATGCTGTGTAGGAGGAAGGCGTATA
AGGATGCCCCAGCTGTAGGTTCTTTAGATTGTCTGTAGTATTTCCACGAGTAAGTTGTTTTTGATGTGTGTACTG
GTATTGCTGGTAGATTTGAAGTGGAGTCTGGCGGCTTCTTCCACACTCCCCTCCCACTAGCTTGTGTCAAGATGT
GACATCCTATGCAGCAAAACTAGGTGAGCTTGCACCCCCAGGCGGTGGCTCTCAACTTTGTCTCATTGTTCAGAA
ATTTCGGCCAGGCGCCGTAGCTCACCCCTGTAATCCCAGCACTTTGGGAGGCCATGGCAGGTGGATCACTTGAGG
TCAGGAGTTCAAGACCAGCCTGGCCAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCAGGTGT
GGTGGCACATGCCTGTAGTCCCAGCTACTTGGTCAACTCAGGCAGGAGAATCACTTGAACCCAGGAGGCAGAGGT
TGCAGTGAGCTGAGATCAAGCCACTCCAGCCTGGGTGACAGACCGAGACTCTGTCTTTAAAAAAAAAGAAATGTC
ATCTAAGCCCCAGTGAACCTCCTGGGAGGAGAGCTAGCCCTGGCCAGCTGTCTCCAAAGTGACTGGATGCTACAG
AAGAACTGGGACTGTCTTCTGCACACTCGTGCCTCCTGGAGTTGTCAGAACACTGAGCAGTCTCCTAGTTCTGCG
TCCGTCTAGCCATGGGGTCTGCCATGAAAGCCTGTGGATCTGCTATTGGGTTGGTATTTTAAACTTTCACTTGGG
TGAAACTTGTTCATCATTTTAAATAAAGCAACATGATTTGG

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FIGURE 2321

CAGCCGCCCGTTGCCAGTTCTGCGCGTGTGAGTCTCTTTCGCCTTGCTCCGGGCTTTCTTCGCTCGCAGCGCGGC
AGGGTTATCACCAGATCTGGGCTTTCCCCTTCTTGCCGTCAGGTGCTACGGCCACGTGGCCCGCGGCTTCCCGCT
CGCGCAGTCTGGCAGCCCGGAGCCTTCCGCGGTCCCCCGCCCGCCCGGGGCCCAACGACGCCCTACTGGGCGAGC
ACGATTTCCGAGGACAGGGGGTCCGGGCCCAGCGCTTTCGATTCTCGGAGGAGCCGGGTCCGGGGGCCGACGGGG
CTGTCCTGGAGGTCCACGTCCCGCAGGTGCGTGCAGCAGCACCCGCCAGGAGGCGCCTGAGGTCCTGCATCTCCA
GTATGGA**ATG**TATGTTTGGCCCTGTGCTGTGGTCCTGGCCCAGTACCTTTGGTTTCACAGAAGATCTCTGCCAGG
CAAGGCCATCTTAGAGATTGGAGCTGGAGTGAGCCTTCCAGGAATTTTGGCTGCCAAATGTGGTGCAGAAGTAAT
ACTGTCAGACAGCTCAGAACTGCCTCACTGTCTGGAAGTCTGTCGGCAAAGCTGCCAAATGAATAACCTGCCACA
TCTGCAGGTGGTAGGACTAACATGGGGTCATATATCTTGGGATCTTCTGGCTCTACCACCACAAGATATTATCCT
TGCATCTGATGTGTTCTTTGAACCAGAAGATTTTGAAGACATTTTGGCTACAATATATTTTTTGATGCACAAGAA
TCCCAAGGTCCAATTGTGGTCTACTTATCAAGTTAGGAGTGCTGACTGGTCACTTGAAGCTTTACTCTACAAATG
GGATATGAAATGTGTCCACATTCCTCTTGAGTCTTTTGATGCAGACAAAGAAGATATAGCAGAATCTACCCTTCC
AGGAAGACATACAGTTGAAATGCTGGTCATTTCCTTTGCAAAGGACAGTCTC**TGA**ATTATACCTACAACCTGTTC
TGGGACAGTATCAATACTGATGAGCAACCTGGCACACAAACTATGAGCAGACCACTTCAGCTTGAGAATGCAGTG
GGTCTGAAGATGGTCAAGTCTGTTTGCCTTAGATTTTGATGTCACCTAGACAACACTTAAACTCATATGAAACAA
AAATTAAAATACGTATTACAAGT

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FIGURE 2322

CGCTAGCCTGCGGAGCCCGTCCGTGCTGTTCTGCGGCAAGGCCTTTCCCAGTGTCCCCACGCGGAAGGCAACTGC
CTGAGAGGCGCGGCGTCGCACCGCCCAGAGCTGAGGAAGCCGGCGCCAGTTCGCGGGGCTCCGGGCCGCCACTCA
GAGCT**ATG**AGCTACGGCCGCCCCCCTCCCGATGTGGAGGGTATGACCTCCCTCAAGGTGGACAACCTGACCTACC
GCACCTCGCCCGACACGCTGAGGCGCGTCTTCGAGAAGTACGGGCGCGTCGGCGACGTGTACATCCCGCGGGATC
GCTACACCAAGGAGTCCCGCGGCTTCGCCTTCGTTCGCTTTCACGACAAGCGCGACGCTGAGGACGCTATGGATG
CCATGGACGGGGCCGTGCTGGACGGCCGCGAGCTGCGGGTGCAAATGGCGCGCTACGGCCGCCCCCCGGACTCAC
ACCACAGCCGCCGGGGACCGCCACCCCGCAGGTACGGGGGCGGTGGCTACGGACGCCGGAGCCGCAGCCCTAGGC
GGCGTCGCCGCAGCCGATCCCGGAGTCGGAGCCGTTCCAGGTCTCGCAGCCGATCTCGCTACAGCCGCTCGAAGT
CTCGGTCCCGCACTCGTTCTCGATCTCGGTCGACCTCCAAGTCCAGATCCGCACGAAGGTCCAAGTCCAAGTCCT
CGTCGGTCTCCAGATCTCGTTCGCGGTCCAGGTCCCGGTCTCGGTCCAGGAGTCCTCCCCCAGTGTCCAAGAGGG
AATCCAAATCCAGGTCGCGATCGAAGAGTCCCCCCAAGTCTCCTGAAGAGGAAGGAGCGGTGTCCTCT**TAA**GAAA
ATGATGTATCGGCAAGCAGTGTAAACGGAGGACTTGGGGAAAAAGGACCACATAGTCCATCGAAGAAGAGTCCTT
GGAACAAGCAACTGGCTATTGAAAAGGTTATTTTGTAACATTTGTCTAACTTTTTACTTGTTTAAGCTTTGCCTC
AGTTGGCAAACTTCATTTTATGTGCCATTTTGTTGCTGTTATTCAAATTTCTTGTAATTTAGTGAGGTGAACGAC
TTCAGATTTCATTATTGGATTTGGATATTTGAGGTAAAATTTCATTTTGTTATATAGTGCTGACTTTTTTTGTTT
GAAATTAAACAGATTGGTAACCTAATTTGTGGCCTCCTGACTTTTAAGGAAAACGTGTGCAGCCATTACACACAG
CCTAAAGCTGTCAAGAGATTGACTCGGCATTGCCTTCATTCCTTAAAATTAAAAACCTACAAAAGTTGGTGTAAA
TTTGTATATGTTATTTACCTTCAGATCTAAATGGTAATCTGAACCCAAATTTGTATAAAGACTTTTCAGGTGAAA
AGACTTGATTTTTTGAAAGGATTGTTTATCAAACACAATTCTAATCTCTTCTCTTATGTATTTTTGTGCACTAGG
CGCAGTTGTGTAGCAGTTGAGTAATGCTGGTTAGCTGTTAAGGTGGCGTGTTGCAGTGCAGAGTGCTTGGCTGTT
TCCTGTTTTCTCCCGATTGCTCCTGTGTAAAGATGCCTTGTCGTGCAGAAACAAATGGCTGTCCAGTTTATTAAA
ATGCCTGACAACTGCACTTCCAGTCACCCGGGCCTTGCATATAAATAACGGAGCATACAGTGAGCACATCTAGCT
GATGATAAATACACCTTTTTTTCCCTCTTCCCCCTAAAAATGGTAAATCTGATCATATCTACATGTATGAACTTA
ACATGGAAAATGTTAAGGAAGCAAATGGTTGTAACTTTGTAAGTACTTATAACATGGTGTATCTTTTTGCTTATG
AATATTCTGTATTATAACCATTGTTTCTGTAGTTTAATTAAAACATTTTCTTGGTGTTAGCTTT

FIGURE 2323

CTTGGACTTGGACCTTCGTGCGGATCTGGACTTGGAGGTCGACCGAGATCGAGAACGAGTGCGGGACCGAGACTT
CGAGCGGCTGTAGCGAGATCGGCTGCGAGACCTGGAACGGCTCCGACTCCGGGATCGGCTGCGGCGACGCCGCCT
AGGGCTGCGGGCGGGACGAGCAAGCACAGCGGGGTTAATTCCAGGCAGCGGGGCCGGCCCCGCCCGCGCGNCTNC
CCGCCCAGGCCGCCATTATCTCGCCGCCAGACGCCATTTCCCCAGTCGCGAGGCGGGGTCCTCCGCCCCGCGCCG
CCCACACCCCGGCCACTCCCGGGTCGCAGACGGCGGAAGCTCGCGGGGTGGCCGGAGGGTCGCGAGACGCGGCGT
GCACCCCCGCCCCNGNTNCCGGGCCCGCACCACGTGCTTCGCCGCGGACCTTTGTGAGGTCGCCCGGGCCTCCCG
CGCGCCCCGCCCCGCCTCCCGCGGTCCCCTCAGCCCCGTTTACCTGCGGCTCCGGCGTCCGTAGCCACCGCCCCC
GTACCTGCGGGGTGGCGGTCCCCGGCGGCTGTGGTGTGAGTCCGGGGGGCGGCCGTAGCGCGCCATTTGCACCCG
CAGCTCGCGGCCGTCCAGCACGGCCCCGTCCATGGCATCCATAGCGTCCTCAGCGTCGCGCTTGTCGTGAAAGCG
AACGAAGGCGAAGCCGCGGGACTCCTTGGTGTAGCGATCCCGCGGGATGTACACGTCGCCGACGCGCCCGTACTT
CTCGAAGACGCGCCTCAGCGTGTCGGGCGAGGTGCGGTAGGTCAGGTTGTCCACCTTGAGGGAGGTCATACCCTC
CACATCGGGAGGGGGGCGGCCGTAGCTCATAGCTCTGAGTGGCGGCCCGGAGCCCCGCGAACTGGCGCCGGCTTC
CTCAGCTCTGGGCGGTGCGACGCCGCGCCTCTCAGGCAGTTGCCTTCCGCGTGGGGACACTGGGAAAGGCCTTGC
CGCAGAACAGCACGGACGGGCTCCGCAGGCTAGCGCACCTGAGTAACAACTGGGCGGGCAGCCGGCCTCTGCGCC
CGTTTATATCGCTCCTCACAAAATGGCGCCCGCGCCACCCGGAA**ATG**AAACCTTCTGATTGGCCCACCGCGCCCC
GCTTCGTAACGACCCTGCCGCGCGCCCCGCCCCTACCCGAAGCGCCTGCGCACAGCCCGGCGGGCGGGCCAAAAA
GCGCGGAGTCACGGCTGGAGGGAGGGGGAGCGGAATTAGCGGGCAGTTGGAAAGCCCGCGAAACGCTTTTTCCGC
CTGGGAGGCCGGACGATCGCGATTGGGCAGGAGNGNAAGAGGAGGTGCTCCCCATCTGGGCCCCCACCTTTTTTT
CATGCCAATACTCCAAGTTCACGCCCCTTTTTTGCTCAGCCGTCAGCCCCGTCTCCGTC**TGA**AGAGTGCTTCTGC
CCTCATTTGCCTCTCCCTGTGACCCCGGCCCCCTCAGACTCCGCTGCGTCGTCTCTCGGCCCCGTCCAGCCGTTC
CTGACTGCTCTTCGCCGGAGTCCGCTTCCCAACCCCCTTTCGCCAGAGCCCGAGAGCTCCGTCGGCTCTGCGTCC
TGGCGGTGGGGACTCCCCGCCGAGCGCTTGCGCGTGCCAGGTCACCCGGGACTACGTTTCCCNANGCNGNGNGCC
GAGCGGCCGGCGCCGCGGCTGCGGTCAGGTGACCCGGTCGCCTGGCCGCAGTGAGTCAGGCTGGGAGGGCGGGGC
CGCGCCGGCTGCTGCGGCTGGCACTTGGCCCTTTAATCCCCTTCGTGGGCCCCTCAACCTGGAGCGGATAAATTC
TTGGCGCTTCTNCCGGGGGTTGTGCTCTTCCGTACTCGGATCGCTTCTTAGGAGTATCCTAACTGCCGGTGGGGA
GAACTTCGCCCTAAACCTGGGGTTCCGATCCAGGAACTGGAAGTTGACAGCTTGGCTGCCTGGCTCCTACATCTG
CCTTCTCCACTCACCATCTCATTTCTTTCTCCAGGATTGTCAGTGGCTTCGCCCCGAGGAGAGCTGACTGCCCTG
GGCTGCTGCCTCCGGCAGAGCTGAGCCAAAATGTCCCCGGAATCTAAAAAGCTTTTCAACATCATTATTTTAGGA
GTTGCCTTTATGTTTATGTTCACTGCCTTTCAAACTTGTGG

FIGURE 2324A

GGAATAAGCAATTCTGTGTGGGGACTGTCCCCAGGTAACCCTGCCACAGGAAATAGCAATTCTGGGTTCAGTCAG
GGGAATGGAGACACTGTGAACTCAGCATTAAGTGCTAAACAAAATGGATCCAGCAGTGCTGTGCAAAAGGAAGGA
AGTGGAGGAAATGCTTGGGATTCAGGACCTCCTGCTGGTCCTGGAATACTCGCCTGGGGAAGGGGCAGTGGCAAC
AATGGCGTTGGTAATATCCATTCAGGAGCTTGGGGCCACCCCAGCCGAAGCACCTCTAACGGTGTGAATGGGGAA
TGGGGAAAGCCCCCAAACCAGCATTCCAACAGTGACATCAATGGGAAAGGATCAACAGGGTGGGAGAGTCCTAGT
GTCACCAGCCAGAACCCTACCGTACAGCCTGGTGGTGAACACATGAACTCCTGGGCCAAAGCGGCATCTTCTGGA
ACTACAGCAAGTGAAGGAAGTAGTGATGGTTCTGGCAACCACAATGAAGGAAGCACTGGGAGGGAAGGAACGGGA
GAAGGCCGAAGGCGAGATAAAGGGATTATAGACCAAGGGCACATCCAGTTGCCAAGGAATGATCTTGACCCAAGA
GTTCTGTCTAATACTGGTTGGGGACAGACTCCTGTAAAGCAAAACACTGCCTGGGAATTTGAAGAATCCCCTAGG
TCTGAAAGGAAAAATGACAATGGGACAGAGGCCTGGGGTTGTGCAGCTACTCAGGCTTCAAACTCAGGGGGGAAG
AACGATGGGTCCATCATGAACAGTACAAATACCTCTTCAGTATCTGGGTGGGTCAACGCGCCACCTGCCGCTGTG
CCAGCAAACACAGGTTGGGGAGACAGCAACAACAAAGCGCCAAGTGGCCCGGGGGTTTGGGGGGACTCGATAAGC
TCTACTGCTGTTAGTACTGCTGCTGCTGCCAAGAGTGGCCATGCTTGGAGTGGGGCCGCAAATCAGGAGGACAAG
TCACCCACCTGGGGTGAGCCTCCAAAGCCCAAATCCCAACACTGGGGAGATGGACAAAGATCAAATCCAGCCTGG
AGTGCAGGAGGGGGAGATTGGGCAGATTCATCGTCTGTCCTTGGACACTTGGGGGATGGGAAAAAAAATGGATCT
GGATGGGATGCTGACAGTAATAGGTCAGGGTCTGGTTGGAATGACACCACGAGATCTGGGAACAGTGGCTGGGGC
AACAGCACAAATACAAAGGCCAATCCAGGTACAAACTGGGGGGAGACTTTAAAACCTGGCCCCCAACAGAACTGG
GCTAGCAAACCCCAAGACAACAATGTGAGTAACTGGGGAGGAGCTGCTTCTGTGAAACAGACAGGAACAGGGTGG
ATCGGGGGGCCGGTACCGGTCAAACAGAAGGACAGCAGTGAAGCAACTGGCTGGGAAGAACCCTCTCCACCGTCC
ATTCGCCGCAAAATGGAAATTGATGATGGTACCTCAGCTTGGGGGGACCCAAGCAACTATAACAATAAAACTGTA
AACATGTGGGATAGAAACAACCCGGTCATCCAGAGCAGTACCACGACCAATACCACCACCACCACCACCACTACC
ACGAGCAACACCACACACAGGGTCGAGACGCCGCCCCCGCACCAGGCCGGTACTCAGCTGAATCGATCACCGTTG
CTTGGTCCAGGTAGGAAAGTTTCATCAGGCTGGGGAGAAATGCCTA**ATG**TTCACTCAAAGACTGAAAACTCTTGG
GGAGAACCATCCNTCCCCTTCTACCCTGGTGGATAATGGCACAGCAGCATGGGGGAAGCCACCCAGCAGTGGCAG
CGGGTGGGGAGATCACCCTGCAGAGCCGCCGGTGGCATTTGGAAGAGCTGGCGCACCTGTTGCTGCCTCAGCCCT
GTGCAAACCAGCTTCAAAATCTATGCAAGAAGGCTGGGGCAGTGGTGGGGATGAAATGAACCTCAGTACCAGCCA
GTGGGAGGATGAAGAAGGGGACGTGTGGAATAATGCTGCTTCCCAAGAAAGCACCTCCTCCTGCAGCTCCTGGGG
GAACGCCCCCAAAAAAGGACTTCAAAAGGGCATGAAGACGTCTGGCAAGCAGGATGAGGCCTGGATCATGAGCCG
GCTGATCAAACAACTCACAGACATGGGCTTCCCGAGAGAGCCAGCTGAGGAGGCCTTGAAGAGTAACAATATGAA
TCTTGATCAGGCCATGAGCGCTCTGCTGGAAAAGAAGGTGGACGTGGACAAGCGTGGGCTGGGAGTGACCGACCA
TAATGGAATGGCCGCCAAGCCCCTCGGCTGCCGCCCGCCAATCTCCAAAGAGTCTTCCGTGGACCGCCCCACCTT
TCTTGACAAGGATGGCGGCCTCGTGGAAGAGCCCACGCCTTCACCGTTCTTGCCTTCCCCAAGCCTGAAGCTCCC
CCTTTCACACAGTGCACTCCCCAGTCAGGCCCTGGGTGGGATTGCCTCCGGGCTGGGCATGCAAAACTTGAATTC
TTCTAGACAGATACCGAGTGGCAATCTGGGTATGTTTGGCAATAGTGGAGCAGCACAAGCCAGGACCATGCAGCA
GCCGCCACAGCCACCAGTGCAGCCTCTTAACTCTTCCCAGCCCAGTCTCCGTGCTCAAGTGCCTCAGTTTCTATC
CCCTCAGGTTCAAGCACAGCTTTTGCAGTTTGCAGCAAAAAACATTGGTCTCAACCCTGCACTATTAACCTCGCC
AATTAATCCTCAACATATGACGATGTTGAACCAGCTCTATCAGCTGCAGCTGGCATACCAACGTTTACAAATCCA
GCAGCAGATGTTACAGGCCCAGCGTAATGTGTCCGGATCCATGAGACAACAGGAGCAGCAAGTTGCGCGCACAAT
CACTAATCTGCAGCAGCAGATCCAGCAGCACCAGCGCCAGCTGGCCCAGGCCCTGCTCGTGAAGCAGCCACCACC
GCCACCGCCCCCGCCGCACCTGTCTCTGCACCCCTCTGCAGGCAAATCGGCCATGGACAGCTTCCCCTCGCACCC
ACAGACTCCCGGCCTACCTGACCTGCAGACCAAAGAGCAGCAGTCTTCACCCAACACCTTTGCTCCTTACCCTCT
CGCTGGACTGAACCCAAACATGAATGTCAACAGCATGGACATGACCGGTGGCTTGTCGGTGAAGGACCCATCCCA
GTCCCAGTCACGCCTCCCCCAGTGGACGCACCCCAACTCCATGGATAACTTGCCCAGTGCCGCTTCCCCCCTGGA
GCAGAACCCTAGCAAGCATGGTGCTATCCCTGGAGGTCTAAGCATTGGGCCTCCAGGTAAGTCCTCCATTGATGA
CTCCTATGGCCGGTACGATTTAATCCAGAACAGTGAGTCACCAGCCAGTCCTCCCGTAGCTGTTCCCCATAGCTG
GTCACGTGCCAAATCTGACAGTGATAAAATCTCAAATGGCTCTAGCATCAACTGGCCCCCAGAATTCCATCCGGG
AGTTCCATGGAAAGGACTGCAGAATATTGACCCTGAGAATGACCCTGACGTCACTCCTGGCAGTGTCCCCACTGG
GCCTACCATCAACACCACCATCCAGGATGTCAACCGCTACCTCCTCAAGAGTGGAGGTAAACTGTCAGACATCAA

FIGURE 2324B

ATCGACGTGGTCCTCTGGCCCTACCTCCCACACGCAAGCCTCTCTGTCTCATGAACTATGGAAGGTGCCCAGAAA
CAGTACTGCACCCACGAGGCCACCTCCAGGGTTAACCAATCCCAAGCCCTCCTCCACCTGGGGTGCCAGCCCCCT
CGGCTGGACCAGCTCCTACTCCTCGGGTTCTGCCTGGAGCACCGACACCTCAGGAAGAACCAGCAGCTGGCTCGT
TCTTCGAAACCTCACTCCCCAGATTGATGGTTCTACACTGCGGACATTGTGTTTGCAACATGGGCCTCTTATCAC
ATTCCACCTGAATCTGACTCAAGGCAATGCTGTGGTCCGGTACAGCTCCAAGGAGGAGGCTGCCAAGGCCCAGAA
GTCTCTGCACATGTGCGTCCTGGGAAACACTACCATCCTGGCCGAGTTCGCTGGTGAAGAAGAAGTGAATCGCTT
CTTAGCCCAAGGCCAGGCGCTGCCACCCACTTCCAGCTGGCAGTCCAGCAGCGCGTCCAGCCAGCCGCGGCTCAG
CGCAGCGGGCAGCTCCCATGGCCTGGTACGCAGCGACGCTGGCCACTGGAACGCCCCGTGCCTGGGTGGCAAGGG
GAGCAGTGAGCTGCTGTGGGGCGGGGTGCCCCAGTACTCCAGCAGCCTGTGGGGCCCGCCCAGCGCCGACGACAG
CAGGGTGATAGGCAGCCCCACGCCGCTAACCACCCTGCTGCCTGGGGACCTGCTCAGCGGGGAGTCCCTGTAGGC
TCTGCCATCATCAGCACCAGGAGAGCCGACCCCTCCCGGGACCCCTCCCGGGTGGGCGGCNCCCACAGACCCGGT
NGGAACCCAGCAGCGGNNCCGCCCTTTTGAGTACCTCTGTCCAGGACTGAAGACGNAACCTTGGCCGCAGTCCTT
GCGAACTGTTCGCAAAACAGTGCGGGCNTGCGGTGGGNTCAGCGTCACATGCTAATGACAGGATGTTCCTCGTAG
CTTTTTATTTTGTGCGTCTTATGTTTGTATAGTGTGTTGTCATTTTGATTTTTTTTTTTTTTTTAAGTATAAAAG
CTGCTTAGAATAGTTCTATCATGAAGGGCACTTTTCAGATTGTGGGCTGGAAAGGGTTATTTTATCTGTGGGGGA
GGGAGGGAGACGTGAAGCCTATTTAAAATGAGCCTGTGACGATTATGCACATGACCAGAGGCGGCCGGTAATCAG
GGCAGAGTCTGGTGTGGACCGCCGGGCGCAGAGCGGCTCCGCGGCGGGAGCTGAGCGGAAGGCGCGGGCTGCGAT
CTGCTCTCTGTTCCCCTGGATCCGCCTATGCACATTACCCTTGTTTCATTACTTTTTCATGTCATTTTTTTATCC
CAAAAAATATTTTTTAAAAGTTAAAAAAAGACATATCAAACATGCAAATACTTGAATCCAGCAGGCCAATAGTGA
AATGTGAACACTTTCTAATTCTACACTTCCAGGTTGACATCAGTACACAGAAACAGGNNCTCTAGGAAAAATTTC
TAAGTTCATAGCCTACGTGTGTGTATGTGTGCGTGTTGAAACAGAAGTGTGTGTGTGTGTGCATGTGTGGCGCGT
GCTCCTGCACGGCGTGCAGTTTTCTGTGTTTGTGTGTTTGAAAGCGTGTGAGGATTTAACTGTGGGTTTTCCCTT
GTATTCAGTATACGCTTTTTTTTTGGCGCATTGGTCAAACGGTTGTTATTATTAGCTTCTAACTTTGCACTGAGT
GTCCTCGCCCTTCCTTTAGCTAATCCTATACATTACAGAGAATTCCTAGGACAGGGCTGGCGACAATTCATGTGT
AAATGTTTACTCAAGGACTCTGTGACTGCGTTTAAAAAGTACAGTGTATATCTCTGGAGAAATAACATGTATACC
TACCTTTAGCAGCTTTTTATTGTGGACTAATGCAAGAAAATTATTACCAGAGTATTGCACCATTTTTCCATTTGG
AATATAAAGTTAAAGAGAAAAAAAAAAAAAAACTGTTGTTGAACTGTGGCCATAGATACTTGTAAAGAATGGATGG
TTCCGTGGAAGGAACAGAAACAAGCACTTGGGCGTGGGTTGTGACTGCTTTTGGGGGAGCCTGGGGTTTGGGCTC
CCACCTGTTTACAGACCTTTTTTTCTCCTTCAGACTTTAAAATTTTAAAAATTTAAAAAGG

FIGURE 2325

CATCAGCGCCATCTTCTGGGCTACCAAGTACTCACAGGACAACAAGGAGGAGTCCCTGTTTCTGCTGCTCCAGTA
CCTGCCCCCTGGGGTCATCGCCCTGGTCAACTTCCTGGGTCCCCTGCTGTTCACATTTCTGGTCCAGCTGGAGAA
CTACCCTCCCAACACGGAGGTCAACCTCACTCTGATCTGTGCTGGGAGAACTCCGTGGGGGAGGAGCTGTACAAG
CTGAGTATCTTCAACTTCCTCCTCACCGTGGCCTTCGCCTTCCTGGTCACCCTGCCTCGGAGGCTGCTGGTGGAC
CGGTTCTCAGGCCGGTTCTGGGCCTGGCTGGAACGGGAGGAGTTCCTGGTCCCCAAGAATGTGCTGGACATCGTG
GCGGGGCAGACGGTCACCTGG**ATG**GGCCTCTTCTACTGCCCCCTGCTGCCCCTGCTGAATAGCGTCTTCCTCTTC
CTCACCTTCTACATCAAGAAGTACACCCTCCTGAAGAACTCCAGGGCATCTTCGCGGCCCTTCCGTGCCTCCAGC
TCCACCTTCTTCTTCCAGCTAGTGCTCCTCCTGGGCCTGCTTCTGGCTGCAGTGCCCCTGGGCTATGTGGTCAGC
AGCCCCACTTGGCCATCTCTCGCCAGCATCCACTCCTCCTGGGACTGCGGCCTCTTCACCAACTACTCAGCACCC
TGGCAAGTGGTCCCGGAGCTGGTGGCCCTTGGGCTCCCGCCCATTGGCCAGCGTGCCCTCCACTACCTGGGCTCC
CACGCCTTCAGCTTCCCCCTCCTCATCATGCTCAGCCTTGTCCTGACGGTGTGCGTCTCCCAGACCCAGGCCAAT
GCCAGGGCCATCCACAGGCTCCGGAAGCAGCTGGTGTGGGTTCAGGAGAAGTGGCACCTGGTGGAGGACCTGTCG
CGACTGCTGCCGGAGCCAGGCCCGAGCGACTCTCCGGGCCCCAAGTACCCTGCCTCCCAAGCTTCGCGCCCGCAG
TCCTTCTGCCCCGGATGCCCATGCCCTGGCTCCCCGGGCCACCAGGCCCCGCGGCCGGGCCCCTCCGTCGTGGAT
GCCGCGGGACTGCGTTCCCCTTGCCCTGGACAGCACGGTGCCCCGGCCTCCGCCCGCAGATTCCGCTTCCCCAGC
GGCGCGGAGCTG**TAA**CCCCTACCCCTGCCTCCCCGAAGCCTCCCTGGGGCCCCTTCAGGCCTCCTTACTCCATCT
TCCAGACCCCTGGCGACCACCGCCCCTCTCAGTGGCTCCAGGGCCTCCCTCAGAGGTCCCCAAAGATGGACACAC
AACCCCAGCGGCAGCAGGAAAAACATATGGGAATTTTCTTTCTATATTTTAATCTCATCCCTTTAAAATGTCTAT
TTTTTATTGTGTTTTTTATAATATACATAATCTATTAGTATAGTA

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FIGURE 2326

CCGCCAGATTTGAATCGCGGGACCCGTTGGCAGAGGTGGCGGCGGCGGC**ATG**GGTGCCCCGACGTTGCCCCCTGC
CTGGCAGCCCTTTCTCAAGGACCACCGCATCTCTACATTCAAGAACTGGCCCTTCTTGGAGGGCTGCGCCTGCAC
CCCGGAGCGGATGGCCGAGGCTGGCTTCATCCACTGCCCCACTGAGAACGAGCCAGACTTGGCCCAGTGTTTCTT
CTGCTTCAAGGAGCTGGAAGGCTGGGAGCCAGATGACGACCCCATAGAGGAACATAAAAAGCATTCGTCCGGTTG
CGCTTTCCTTTCTGTCAAGAAGCAGTTTGAAGAATTAACCCTTGGTGAATTTTTGAAACTGGACAGAGAAAGAGC
CAAGAACAAAATTGCAAAGGAAACCAACAATAAGAAGAAAGAATTTGAGGAAACTGCGGAGAAAGTGCGCCGTGC
CATCGAGCAGCTGGCTGCCATGGAT**TGA**GGCCTCTGGCCGGAGCTGCCTGGTCCCAGAGTGGCTGCACCACTTCC
AGGGTTTATTCCCTGGTGCCACCAGCCTTCCTGTGGGCCCCTTAGCAATGTCTTAGGAAAGGAGATCAACATTTT
CAAATTAGATGTTTCAACTGTGCTCTTGTTTTGTCTTGAAAGTGGCACCAGAGGTGCTTCTGCCTGTGCAGCGGG
TGCTGCTGGTAACAGTGGCTGCTTCTCTCTCTCTCTCTCTTTTTTGGGGGCTCATTTTTGCTGTTTTGATTCCCG
GGCTTACCAGGTGAGAAGTGAGGGAGGAAGAAGGCAGTGTCCCTTTTGCTAGAGCTGACAGCTTTGTTCGCGTGG
GCAGAGCCTTCCACAGTGAATGTGTCTGGACCTCATGTTGTTGAGGCTGTCACAGTCCTGAGTGTGGACTTGGCA
GGTGCCTGTTGAATCTGAGCTGCAGGTTCCTTATCTGTCACACCTGTGCCTCCTCAGAGGACAGTTTTTTTGTTG
TTGTGTTTTTTTGTTTTTTTTTTTTTTGGTAGATGCATGACTTGTGTGTGATGAGAGAATGGAGACAGAGTCCCTG
GCTCCTCTACTGTTTAACAACATGGCTTTCTTATTTTGTTTGAATTGTTAATTCACAGAATAGCACAAACTACAA
TTAAAACTAAGCACAAAGCCATTCTAAGTCATTGGGGAAACGGGGTGAACTTCAGGTGGATGAGGAGACAGAATA
GAGTGATAGGAAGCGTCTGGCAGATACTCCTTTTGCCACTGCTGTGTGATTAGACAGGCCCAGTGAGCCGCGGGG
CACATGCTGGCCGCTCCTCCCTCAGAAAAAGGCAGTGGCCTAAATCCTTTTTAAATGACTTGGCTCGATGCTGTG
GGGGACTGGCTGGGCTGCTGCAGGCCGTGTGTCTGTCAGCCCAACCTTCACATCTGTCACGTTCTCCACACGGGG
GAGAGACGCAGTCCGCCCAGGTCCCCGCTTTCTTTGGAGGCAGCAGCTCCCGCAGGGCTGAAGTCTGGCGTAAGA
TGATGGATTTGATTCGCCCTCCTCCCTGTCATAGAGCTGCAGGGTGGATTGTTACAGCTTCGCTGGAAACCTCTG
GAGGTCATCTCGGCTGTTCCTGAGAAATAAAAAGCCTGTCATTTC

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FIGURE 2327

GCGGCGGCGGCAGCGGCGGCGACGGCGAC**ATG**GAGAGCGGGGCCTACGGCGCGGCCAAGGCGGGCGGCTCCTTCG
ACCTGCGGCGCTTCCTGACGCAGCCGCAGGTGGTGGCGCGCCGTGTGCTTGGTCTTCGCCTTGATCGTGTTCT
CCTGCATCTATGGTGAGGGCTACAGCAATGCCCACGAGTCTAAGCAGATGTACTGCGTGTTCAACCGCAACGAGG
ATGCCTGCCGCTATGGCAGTGCCATCGGGGTGCTGGCCTTCCTGGCCTCGGCCTTCTTCTTGGTGGTCGACGCGT
ATTTCCCCCAGATCAGCAACGCCACTGACCGCAAGTACCTGGTCATTGGTGACCTGCTCTTCTCAGCTCTCTGGA
CCTTCCTGTNGGTTTGTTGGTTTCTGCTTCCTCACCAACCAGTGGGCAGTCACCAACCCGAAGGACGTGCTGGTG
GGGGCCGACTCTGTGAGGGCAGCCATCACCTTCAGCTTCTTTTCCATCTTCTCCTGGGTAGGATGGCCAGGGGCC
GGTTCTTGGGTCAAGGNGTGTGGAAGGGGGGGNANCCCCCANCCCACCTGTACCCTGCTGTGCTCCCCCTGCAGG
GTGTGCTGGCCTCCCTGGCCTACCAGCGCTACAAGGCTGGCGTGGACGACTTCATCCAGAATTACGTTGACCCCA
CTCCGGACCCCANACACTGCCTACGCCTCCTACCCAGGTGCATCTGTGGACAACTACCAACAGCCACCCTTCACC
CAGAACGCGGAGACCACCGAGGGCTACCAGCCGCCCCCTGTGTACTGAGCGGCGGT**TAG**CGTGGGAAGGGGGACA
GAGAGGGCCCTCCCNCTCTGCCCTGGACTTTCCCATGAGCCTCCTGGAACTGCC

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FIGURE 2328

CTTACTGCGGGACGGCCTTGGAGAGTACTCGGGTTCGTGAACTTCCCGGAGGCGCAATGAGCTGCATTAACCTGC
CCACTGTGCTGCCTGGCTCCCCCAGCAAGACCCGGGGGCAGATCCAGGTGATTCTCGGGCCGATGTTCTCAGGAA
AAAGCACAGAGTTGATGAGACGCGTCCGTCGCTTCCAGATTNGCTCAGTACAAGTGCCTGGTGATCAAGT**ATG**CC
AAAGACACTCGCTACAGCAGCAGNCTTCTGCACACATGACCGGAACACCATGGAGGCACTGCCCGCCTGCCTGCT
CCGAGACGTGGCCCAGGAGGCCCTGGGCGTGGCTGTCATAGGCATCGACGAGGGGCAGTTTTTCCCTGACATCGT
GGAGTTCTGCGAGGCCATGGCCAACGCCGGGAAGACCGTAATTGTGGCTGCACTGGATGGGACCTTCCAGAGGAA
GCCATTTGGGGCCATCCTGAACCTGGTGCCGCTGGCCGAGAGCGTGGTGAAGCTGACGGCGGTGTGCATGGAGTG
CTTCCGGGAAGCCGCCTATACCAAGAGGCTCGGCACAGAGAAGGAGGTCGAGGTGATTGGGGGAGCAGACAAGTA
CCACTCCGTGTGTCGGCTCTGCTACTTCAAGAAGGCCTCAGGCCAGCCTGCCGGGCCGGACAACAAAGAGAACTG
CCCAGTGCCAGGNAAAGCCAGGGGAAGCCGTGGCTGCCAGGAAGCTCTTTGCCCCACAGCAGATTCTGCAATGCA
GCCCTGCCAACTGAGGGACCTGCGAGGGCCGCCCGCTCCCTTCCTGCCACTGCCGCCTACTGGACGCTGCCCTGC
ATGCTGCCCAGCCACTCCAGGAGGAAGTCGGGAGGCGTNGGAGGGTGACCACACCTTGGCCTTNCTGGGAACTCT
CCTTTGTGTGGCTGCCCCACCTGCCGCATGCTCCCTCCTCTCCTACCCACTGGTCTGCTTAAAGCTTCCCTCTCA
GCTGCTGGGACGATCGCCCAGGCTGGAGCTGGCCCCGCTTGGTGGCCTGGGATCTGGCACACTCCCTCTCCTTGG
GGTGAGGGACAGAGCCCCACGCTGT**TGA**CATCAGCCTGCTTCTTCCCCTCTGCGGCTTTCACTGCTGAGTTTCTG
TTCTCCCTGGGAAGCCTGTGCCAGCACCTTTGAGCCTTGGCCCACACTGAGGCTTAGGCCTCTCTGCCTGGGATG
GGCTCCCACCCTCCCCTGAGGATGGCCTGGATTCACGCCCTCTTGTTTCCTTTTGGGCTCAAAGCCCTTCCTACC
TCTGGTGATGGTTTCCACAGGNAACAACAGCATCTTTCACCAAGATGGGTGGCACCAACCTTGCTGGGACTTGGA
TCCCAGGGGCTTATCTCTTCAAGTGTGGAGAGGGCAGGGTCCACGCCTCTGCTGTAGCTTATGAAATTAACTAAT
T

FIGURE 2329

GGCCGGGCGCCCTCGCCGCCCTCCGGCAGCCGCGCCGCTCCCTCCGCTGCACGCCCAGGCCTGAGCAGCGAGGCC
ACCGGGCCGCGCGCTCCCAGCTTCGCTCGGACGCGGCTTCGGCCCGCAGAGGGTTCGTGGCCCGGACGCGGCGAG
AGCTGGGCCCAGGACGGTGCGTCCGGCCTCGCCCGCGGCTGCTCGCACCAACAAGTTTGAACA**ATG**ATCACCGTC
AACCCCGATGGGAAGATAATGGTCAGAAGATGCCTGGTCACCCTGAGACCCTTTCGGCTTTTTGTCCTGGGCATC
GGCTTCTTCACTCTCTGCTTCCTGATGACGTCTCTGGGAGGCCAGTTCTCGGCCCGGCGCCTGGGGGACTCGCCA
TTCACCATCCGCACAGAAGTGATGGGGGGCCCCGAGTCCCGCGGCGTCCTGCGCAAGATGAGCGACCTGCTGGAG
CTGATGGTGAAGCGCATGGACGCACTGGCCAGGCTGGAGAACAGCAGTGAGCTGCACCGGGCCGGCGGCGACCTG
CACTTTCCCGCAGACAGGATGCCCCCTGGGGCCGGCCTCATGGAGCGGATCCAGGCTATTGCCCAGAACGTCTCC
GACATCGCTGTGAAGGTGGACCAGATCCTGCGCCACAGTCTGCTCCTGCACAGCAAGGTGTCAGAAGGCCGGCGG
GACCAGTGTGAGGCACCCAGTGACCCCAAGTTCCCTGACTGCTCAGGGAAGGTGGCAGTGGATGCGTGCCCGCTG
GACCTC**TGA**CCCCTGCTACGCCTTCTTTGGGGTGGACGGCACCGAGTGCTCCTTCCTCATCTACCTCAGTGAGGT
CGAGTGGTTCTGCCCCCCGCTGCCCTGGAGGAACCAGACGGCTGCCCAGAGGGCACCCAAGCCCCTCCCCAAAGT
CCAGGCAGTTTTCCGAAGCAACCTGTCCCACCTTCTGGACCTGATGGGCAGCGGGAAGGAGTCCCTGATCTTCAT
GAAGAAGCGGACCAAGAGGCTCACAGCCCAGTGGGCGCTGGCTGCCCAGCGCCTGGCACAGAAGCTGGGGGCCAC
CCAGAGGGACCAGAAGCAGATCCTGGTCCACATCGGCTTCCTGACGGAGGAGTCCGGGGACGTGTTCAGCCCTCG
GGTCCTGA

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FIGURE 2330

GGGGCTCCGAGCCGGGCTGAGGCGAGCGGGGGCGCGGGTGGCGCGGCGGGACGCGAGCGGCGAGCCGGAGCGCGG
AGCCCGGCTCCCGCACC**ATG**GAGGAGGACGACAGCTACGTTCCCAGTGACCTGACAGCAGAGGAGCGTCAAGAAC
TGGAGAACATCCGACGGAGAAAACAGGAGCTGCTGGCTGACATTCAGAGGCTGAAGGATGAGATAGCAGAAGTAG
CTAATGAAATTGAAAACCTGGGATCCACAGAGGAAAGGAAAAACATGCAGAGGAACAAACAGGTAGCCATGGGCA
GGAAAAAATTTAATATGGACCCTAAAAAGGGGATCCAGTTCTTAATAGAGAACGACCTCCTGAAGAACACTTGTG
AAGACATTGCCCAGTTCTTATATAAAGGCGAAGGGCTCAACAAGACAGCCATCGGCGACTACCTAGGGGAGAGAG
ATGAGTTTAATATCCAGGTTCTTCATGCATTTGTGGAGCTGCATGAGTTCACTGATCTTAATCTCGTCCAGGCAC
TACGGCAGTTCCTGTGGAGCTTCCGGCTACCCGGAGAGGCCCAGAAGATCGACCGGATGATGGAGGCGTTGCCAT
CATCATGT**TGA**ACACCAGTCTGCACAACCCCAATGTCAAAGATAAGCCCACTGTGGAGAGGTTCATTGCCATGAA
CCGAGGCATCAATGATGGGGGAGACCTG

FIGURE 2331A

CTTTCGGAGTTAGCGCAGCGCGAACGCTGGGTGCGGCGCCTTTAAGCGTCGCGGTGACACGTGTGTGAGGCGCCG
GAGGCCCGGATGGTGCGCGTGCTGGGCCGCGGGCCGAAGGAGTCGCCAGGGCTGCGTAGGCTTGTGGCGCGCCCG
CGGAGAGGCCGGGGCTCTGACGCCCGCTCTGCGGCTTCGGTGTTTGAACAGGCCACAGTCCAGGAGCGCTTACAT
TCAGGAGCTCCGCGTAGCACCTGCCCAACCAAACTCAGCCCTCCGTTAAGATCCTGGTTCCATGCCGCAGTAGGA
CAGCAGGCCCAAGTCTGCACATCCCAGTGATGCACC**ATG**CCAATAGTGGATAAGTTGAAGGAGGCCCTGAAACCC
GGCCGCAAGGACTCGGCTGATGATGGAGAACTGGGGAAGCTTCTTGCCTCCTCTGCCAAGAAGGTCCTTTTACAG
AAAATCGAGTTCGAGCCAGCCAGCAAGAGCTTCTCCTACCAGCTGGAGGCCTTAAAGAGCAAATATGTGTTGCTC
AACCCCAAAACAGAGGGAGCTAGTCGCCACAAGAGTGGAGATGACCCACCGGCCAGGAGACAGGGCAGTGAGCAC
ACGTATGAGAGCTGTGGTGACGGAGTCCCAGCCCCGCAGAAAGTGCTTTTCCCCACGGAGCGACTGTCTCTGAGG
TGGGAGCGGGTCTTCCGCGTGGGCGCAGGACTCCACAACCTTGGCAACACCTGCTTTCTCAATGCCACCATCCAG
TGCTTGACCTACACACCACCTCTAGCCAACTACCTGCTCTCCAAGGAGCATGCTCGCAGCTGCCACCAGGGAAGC
TTCTGCATGCTGTGTGTCATGCAGAACCACATTGTCCAGGCCTTCGCCAACAGCGGCAACGCCATCAAGCCCGTC
TCCTTCATCCGAGACCTGAAAAAGATCGCCCGACACTTCCGCTTTGGGAACCAGGAGGACGCGCATGAGTTCCTG
CGGTACACCATCGACGCCATGCAGAAAGCCTGCCTGAATGGCTGTGCCAAGTTGGATCGTCAAACGCAGGCTACT
ACCTTGGTCCATCAAATTTTTGGAGGGTATCTCAGATCACGCGTGAAGTGCTCCGTGTGCAAGAGCGTCTCGGAC
ACCTACGACCCCTACTTGGACGTCGCGCTGGAGATCCGGCAAGCTGCGAATATTGTGCGTGCTCTGGAACTTTTT
GTGAAAGCAGATGTCCTGAGTGGAGAGAATGCCTACATGTGTGCTAAATGCAAGAAGAAGGTTCCAGCCAGCAAG
CGCTTCACCATCCACAGAACATCCAACGTCTTAACCCTTTCCCTCAAGCGCTTTGCCAACTTCAGCGGGGGGAAG
ATCACCAAGGATGTAGGCTATCCGGAATTCCTCAACATACGTCCGTATATGTCCCAGAATAATGGTGATCCTGTC
ATGTATGGACTCTATGCTGTCCTGGTGCACTCGGGCTACAGCTGCCATGCCGGGCACTATTACTGCTACGTGAAG
GCAAGCAATGGACAGTGGTACCAGATGAATGATTCCTTGGTCCATTCCAGCAACGTCAAGGTGGTTCTGAACCAG
CAGGCCTACGTGCTGTTCTATCTGCGAATTCCAGGCTCTAAGAAAAGTCCCGAGGGCCTCATCTCCAGGACAGGC
TCCTCCTCCCTTCCCGGCCGCCCGAGTGTGATTCCAGATCACTCCAAGAAGAACATCGGCAATGGGATTATTTCC
TCCCCACTGACTGGAAAGCGACAAGACTCTGGGACGATGAAGAAGCCGCACACCACTGAAGAGATTGGTGTGCCC
ATATCCAGGAATGGCTCCACCCTGGGCCTGAAGTCCCAGAACGGCTGCATTCCTCCAAAGCTGCCCTCGGGGTCC
CCTTCCCCCAAACTCTCCCAGACACCCACACACATGCCAACCATCCTAGACGACCCTGGAAAGAAGGTGAAGAAG
CCAGCTCCTCCACAGCACTTTTCCCCCAGAACTGCTCAGGGGCTGCCTGGGACCAGCAACTCGAATAGCAGCAGA
TCTGGGAGCCAAAGGCAGGGCTCCTGGGACAGCAGGGATGTTGTCCTCTCTACCTCACCTAAGCTCCTGGCTACA
GCCACTGCCAACGGGCATGGGCTGAAGGGGAACGACGAGAGCGCTGGCCTCGACAGGAGGGGCTCCAGCAGCTCC
AGCCCAGAGCACTCGGCCAGCAGCGACTCCACCAAGGCCCCCCAGACCCCCAGGAGTGGAGCGGCCCATCTCTGC
GATTCTCAGGAAACGAACTGTTCCACCGCTGGCCACTCCAAAACGCCGCCAAGTGGAGCAGATTCTAAGACGGTG
AAGCTGAAGTCCCCTGTCCTGAGCAACACCACCACTGAGCCTGCAAGCACCATGTCTCCTCCACCAGCCAAAAAA
CTGGCCCTTTCTGCCAAGAAGGCCAGCACCCTGTGGAGGGCGACCGGCAATGACCTCCGTCCACCTCCCCCCTCA
CCATCCTCCGACCTCACCCACCCCATGAAAACCTCTCACCCCGTCGTTGCCTCCACTTGGCCCGTCCATAGAGCC
AGGGCTGTGTCACCTGCTCCCCAATCATCCAGCCGCCTGCAACCCCCCTTCAGCCCCCACCCCACATTGCTGTCC
AGTACCCCCAAGCCCCCAGGGACGTCAGAACCACGGAGCTGCTCCTCCATCTCGACGGCGCTGCCTCAGGTCAAC
GAGGACCTTGTGTCTCTTCCACACCAGTTGCCAGAGGCCAGTGAGCCCCCCCAGAGCCCCTCTGAGAAGAGGAAA
AAGACCTTTGTGGGAGAGCCGCAGAGGCTGGGCTCAGAGACGCGCCTCCCACAGCACATCAGGGAGGCCACTGCG
GCTCCCCACGGGAAGAGGAAGAGGAAGAAGAAGAAGCGCCCGGAGGACACAGCTGCCAGCGCCCTGCAGGAGGGG
CAGACACAGAGACAGCCTGGGAGCCCCATGTACAGGAGGGAGGGCCAGGCACAGCTGCCCGCTGTCAGACGGCAG
GAAGATGGCACACAGCCACAGGTGAATGGCCAGCAGGTGGGATGTGTTACGGACGGCCACCACGCGAGCAGCAGG
AAGCGGAGGAGGAAAGGAGCAGAAGGTCTTGGTGAAGAAGGCGGCCTGCACCAGGACCCACTTCGGCACAGCTGC
TCTCCCATGGGTGATGGTGATCCAGAGGCCATGGAAGAGTCTCCAAGGAAAAAGAAAAAGAAAAAAGAAAGCAG
GAGACACAGCGGGCAGTAGAAGAGGATGGGCATCTCAAATGCCCAAGGAGTGCCAAGCCCCAAGATGCTGTTGTC
CCCGAGTCCAGCAGCTGCGCACCATCCGCGAATGGCTGGTGTCCTGGGGACCGCATGGGGCTGAGCCAGGCCCCT
CCTGTGTCTTGGAATGGAGAGCGGGAGTCTGATGTGGTCCAGGAACTGCTCAAATACTCATCTGATAAAGCTTAC
GGGAGAAAAGTTCTGACCTGGGATGGCAAGATGTCGGCGGTCAGTCAGGATGCTATTGAAGACAGCAGACAGGCC
CGGACTGAGACCGTGGTTGATGACTGGGACGAAGAGTTTGACCGAGGGAAGGAAAAGAAAATTAAAAAATTTAAG

FIGURE 2331B

AGAGAGAAGAGGAGAAACTTCAACGCCTTCCAGAAACTTCAGACTCGACGGAACTTCTGGTCTGTGACTCACCCA
GCAAAGGCTGCCAGCCTCAGCTATCGCCGC**TGA**CTGTGCCCCTGTGGAAGGAGATGATCAAGCGGTGCTGATTCA
CGAGAGTGGAAGCCTCCAGAGCTTGGGGCTTTCTGGCTGCTCTTCATTGACCTGTGTGTTCCCAGCACACGAACA
GTGCCCCTAACGGAGATTTGTTCAGCGACTGAATATACACCTGTAAACGAGTAGCATGTATACATTGATTTTGAT
TACAAATGGTTCTGTATTATATACCACCGTTCTGACTGCTTTTTTCACTTATAGCTTGGAAATTGTCTTCTGTTG
GTAATACAGAAATCTGTTTCAGTC

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FIGURE 2332

AATCGAAAGTAGACTCTTTTCTGAAGCATTTCCTGGGATCAGCCTGACCACGCTCCATACTGGGAGAGGCTTCTG
GGTCAAAGGACCAGTCTGCAGAGGGATCCTGTGGCTGGAAGCGAGGAGGCTCCACACGGCCGTTGCAGCTACCGC
AGCCAGGATCTGGGCATCCAGGCACGGCC**ATG**ACCCCTCCGAGGCTCTTCTGGGTGTGGCTGCTGGTTGCAGGAA
CCCAAGGCGTGAACGATGGTGACATGCGGCTGGCCGATGGGGGCGCCACCAACCAGGGCCGCGTGGAGATCTTCT
ACAGAGGCCAGTGGGGCACTGTGTGTGACAACCTGTGGGACCTGACTGATGCCAGCGTCGTCTGCCGGGCCCTGG
GCTTCGAGAACGCCACCCAGGCTCTGGGCAGAGCTGCCTTCGGGCAAGGATCAGGCCCCATCATGCTGGACGAGG
TCCAGTGCACGGGAACCGAGGCCTCACTGGCCGACTGCAAGTCCCTGGGCTGGCTGAAGAGCAACTGCAGGCACG
AGAGAGACGCTGGTGTGGTCTGCACCAATGAAACCAGGAGCACCCACACCCTGGACCTCTCCAGGGAGCTCTCGG
AGGCCCTTGGCCAGATCTTTGACAGCCAGCGGGGCTGCGACCTGTCCATCAGCGTGAATGTGCAGGGCGAGGACG
CCCTGGGCTTCTGTGGCCACACGGTCATCCTGACTGCCAACCTGGAGGCCCAGGCCCTGTGGAAGGAGCCGGGCA
GCAATGTCACCATGAGTGTGGATGCTGAGTGTGTGCCCATGGTCAGGGACCTTCTCAGGTACTTCTACTCCCGAA
GGATTGACATCACCCTGTCGTCAGTCAAGTGCTTCCACAAGCTGGCCTCTGCCTATGGGGCCAGGCAGCTGCAGG
GCTACTGCGCAAGCCTCTTTGCCATCCTCCTCCCCCAGGACCCCTCGTTCCAGATGCCCCTGGACCTGTATGCCT
ATGCAGTGGCCACAGGGGACGCCCTGCTGGAGAAGCTCTGCCTACAGTTCCTGGCCTGGAACTTCGAGGCCTTGA
CGCAGGCCGAGGCCTGGCCCAGTGTCCCCACAGACCTGCTCCAACTGCTGCTGCCCAGGAGCGACCTGGCGGTGC
CCAGCGAGCTGGCCCTACTGAAGGCCGTGGACACCTGGAGCTGGGGGGAGCGTGCCTCCCATGAGGAGGTGGAGG
GCTTGGTGGAGAAGATCCGCTTCCCCATGATGCTCCCTGAGGAGCTCTTTGAGCTGCAGTTCAACCTGTCCCTGT
ACTGGAGCCACGAGGCCCTGTTCCAGAAGAAGACTCTGCAGGCCCTGGAATTCCACACTGTGCCCTTCCAGTTGC
TGGCCCGGTACAAAGGCCTGAACCTCACCGAGGATACCTACAAGCCCCGGATTTACACCTCGCCCACCTGGAGTG
CCTTTGTGACAGACAGTTCCTGGAGTGCACGGAAGTCACAACTGGTCTATCAGTCCAGACGGGGGCCTTTGGTCA
AATATTCTTCTGATTACTTCCAAGCCCCCTCTGACTACAGATACTACCCCTACCAGTCCTTCCAGACTCCACAAC
ACCCCAGCTTCCTCTTCCAGGACAAGAGGGTGTCCTGGTCCCTGGTCTACCTCCCCACCATCCAGAGCTGCTGGA
ACTACGGCTTCTCCTGCTCCTCGGACGAGCTCCCTGTCCTGGGCCTCACCAAGTCTGGCGGCTCAGATCGCACCA
TTGCCTACGAAAACAAAGCCCTGATGCTCTGCGAAGGGCTCTTCGTGGCAGACGTCACCGATTTCGAGGGCTGGA
AGGCTGCGATTCCCAGTGCCCTGGACACCAACAGCTCGAAGAGCACCTCCTCCTTCCCCTGCCCGGCAGGGCACT
TCAACGGCTTCCGCACGGTCATCCGCCCCTTCTACCTGACCAACTCCTCAGGTGTGGAC**TAG**ACGGCGTGGCCCA
AGGGTGGTGAGAACCGGAGAACCCCAGGACGCCCTCACTGCAGGCTCCCCTCCTCGGCTTCCTTCCTCTCTGCAA
TGACCTTCAACAACCGGCCACCAGATGTCGCCCTACTCACCTGAGCGCTCAGCTTCAAGAAATTACTGGAAGGCT
TCCACTAGGGTCCACCAGGAGTTCTCCCACCACCTCACCAGTTTCCAGGTGGTAAGCACCAGGACGCCCTCGAGG
TTGCTCTGGGATCCCCCCACAGCCCCTGGTCAGTCTGCCCTTGTCACTGGTCTGAGGTCATTAAAATTACATTGA
GGTTCCTA

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FIGURE 2333

GAAAAGCACATCTCCCAGGATCCTGAGAGAGCTTGAACCAGACCACTGTGGACACGGTGGCCACCCGTCACCACT
ACCCTTCCCAAGGGGAGACGAGGAGCAAGTAGGCTTGAGGGAAAAGCTGCACAGGACTCGTGTCTTGAAATGTCT
AAGACGCATGTCAGAAATGCAGGAGCCTAACCCAGAGGAAGTGGAGACTCCTTTACTGCACATCTGTCTGCTCCA
GGCCAGGCACTGTTCTAGGAGCCAGGATACAGAGGTGGAGACAGAAACAAACAAACCGATAACTGTATACAATAC
TCTAACGTCAGGAGGGACCACAGAGCACCAGCCTGCATGGAACTTCCTTCCTCACTCAGCTTCCCACGTTGCCAG
CTGGGACAGGGGAGATGGAGTAATTTTGCTGTGGAAAGACTTCACGTCTTGCCGAATGAAAGTCCCGCCTGTCTG
TCACGCTG**ATG**CCCGTGCAGCTGTCTGAGCACCCGGAATGGAATGAGTCTATGCACTCCCTCCGGATCAGTGTGG
GGGGCCTTCCTGTGCTGGCGTCCATGACCAAGGCCGCGGACCCCCGCTTCCGCCCCCGCTGGAAGGTGATCCTGA
CGTTCTTTGTGGGTGCTGCCATCCTCTGGCTGCTCTGCTCCCACCGCCCGGCCCCCGGCAGGCCCCCCACCCACA
ATGCACACAACTGGAGGCTCGGCCAGGCGCCCGCCAACTGGTACAATGACACCTACCCCCTGTCTCCCCCACAAA
GGACACCGGCTGGGATTCGGTATCGAATCGCAGTTATCGCAGACCTGGACACAGAGTCAAGGGCCCAAGAGGAAA
ACACCTGGTTCAGTTACCTGAAAAAGGGCTACCTGACCCTGTCAGACAGTGGGGACAAGGTGGCCGTGGAATGGG
ACAAAGACCATGGGGTCCTGGAGTCCCACCTGGCGGAGAAGGGGAGAGGCATGGAGCTATCCGACCTGATTGTTT
TCAATGGGAAACTCTACTCCGTGGATGACCGGACGGGGGTCGTCTACCAGATCGAAGGCAGCAAAGCCGTGCCCT
GGGTGATTCTGTCCGACGGCGACGGCACCGTGGAGAAAGGCTTCAAGGCCGAATGGCTGGCAGTGAAGGACGAGC
GTCTGTACGTGGGCGGCCTGGGCAAGGAGTGGACGACCACTACGGGTGATGTGGTGAACGAGAACCCGGAGTGGG
TGAAGGTGGTGGGCTACAAGGGCAGCGTGGACCACGAGAACTGGGTGTCCAACTACAACGCCCTGCGGGCTGCTG
CCGGCATCCAGCCGCCAGGCTACCTCATCCATGAGTCTGCCTGCTGGAGTGACACGCTGCAGCGCTGGTTCTTCC
TGCCGCGCCGCGCCAGCCAGGAGCGCTACAGCGAGAAGGACGACGAGCGCAAGGGCGCCAACCTGCTGCTGAGCG
CCTCCCCTGACTTCGGCGACATCGCTGTGAGCCACGTCGGGGCGGTGGTCCCCACTCACGGCTTCTCGTCCTTCA
AGTTCATCCCCAACACCGACGACCAGATCATTGTGGCCCTCAAATCCGAGGAGGACAGCGGCAGAGTCGCCTCCT
ACATCATGGCCTTCACGCTGGACGGGCGCTTCCTGTTGCCGGAGACCAAGATCGGAAGCGTGAAATACGAAGGCA
TCGAGTTCATT**TAA**CTCAAAACGGAAACACTGAGCAAGGCCATCAGGACTCAGCTTTTATAAAAACAAGAGGAGT
GCACTTTTGTTTTGTTTTGTTCTTTTTGGAACTGTGCCTGGGTTGGAGGTCTGGACAGGGAGCCCAGTCCCGGGC
CCCATAGTGGTGCGGGCACTGGACCCCCGGGCCCCACGGAGGCCGCGGTCTGAACTGCTTTCCATGCTGCCATCT
GGTGGTGATTTCGGTCACTTCAGGCATTGACTCAAGGCCTGCCTAACTGGCTGGGTCGTTTCTTCCATCCGACCT
CGTTTCTTTTCTTTCCTATGTTCTTTTGTTCAGTGAATATCCCTAGAGCTCCTACCATATGTCAGGCCCTATGCC
TCACCCTGAGAACGCAGTGAGCATGAGGTGGACCTGTTTGCTGGGAACCCCAGGTCACCCCCTTTTCTTCCTACT
CTGTGCCTGGAGCATCATGTCCACCCCTGCAGATCCTTGGAAAAGAAAATGTTTATGTTGCAGGGTATTGCATGG
TCACGAGTGAGGGCAGGCCCCTGGGGACACATCTGCCCACAGCTGCACAGGCCAGGGCGCAGGCACATCTGTTGG
TTCTCAGGCCTCAGATAAAACCATCTCCGCATCATATGGCCAGTGACCGCTTTCTCCCTTCAAGAAAATTCTGTG
GCTGTGCAGTACTTTGAAGTTTTAATTATTAACCTGCTTTAATTAAAGCAGTTTCCTTTCTTATAAAGTGGAATC
ACCAAATCTTATCACACAGAGCACAGTCCTGTAGTTACCCAGCCCGCTCCAGCAGTGCGGGAGATTGTAAGGAAG
CGGTGGCGGCTGGTGAAGCAAGTCTCACATGTCGGCGTTCTTGGCCAATGGATACAAAGATAAAGAAAATGTTGC
CTTTTTCTAGGAACTGTCAGAAATCCTCATGCCTTTCAAGACTTCTGTGAATGACTTGAATTTTTTATTCCCTGC
CTAGGGTCTGTGAACGAGGCCTGTCTCTTCCCTGGGGTTTCTTTCCATGGCCTTTATTTCTCCTCTTCCAGTGGG
AGTTTTGCAGGCTCTTCTCTGTGGAAACTTCACGAGCGTTGGCTGGGCCTCGGCTTCGCTGGAGTGTACTCCAGG
GTGAAGGCAGAGTGGGATTTGAGACCCAGGTTAGGCACGACCCAGGCTGAGAAGGGACGTTTCCATCATTCACAG
TGCCCTCCCCACAGCACTACCTCACCCCGACCCCCACCCTCACTCCTACCCCACCCCGCGATCGTCAGGGGTGCC
ACGGTGGGCCGGAGGGTGCCGGCTCTGGCTGTCCCTGTGCCGGTCCCTCACAAACCTCTCCCCCTTTGAAACTCA
AGCACAGCTGCGAGGAGGGCAGCGAGGAGGGACCCCTCTCTCATGGTTGTCTCTTTCCCCCGCTATGTCATAGGT
AGTGGAGGAAGCGAAGGAAGTGAACGCTGAATGTGACGCATTTCTGAAGAGCTCAGCTGTCACCGGGCATAGCCT
GGAAGCCCCAAGTCTGTTCTGACTTTGCCTGGCTGTCTCCTTGACCCGCCTCCTAGATCATTGTCCTTGATGTCC
AGGCTGGGTCATTTAAAATAGAGATGCAATCAGGAAGGTTGGGGGACTTGGGACTGTGGCTGAATTGAGACCTTG
CTGATGTATTCATGTCAGCACCTGAGTCACAGCCCAGGTGCCCGGAAGCAGCCTCTTCGCATAGGCAGTGATTTG
CGATTACTTTAAAGCTCACCTTTTTTCTTCCCCTCTCTGTTCGCTGCTGTCAGCATAATGATTGTGTTCCTTCCC
TATGGGATCCATCTGTTTTGTAAACAATAAAGCGTCTGAGGGAGTGT

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FIGURE 2334A

TGCTCCCTCCAAATCCAAGTCCAGCAGTTCCTCCTCTTCCTCCACGTCATCCTCCTCTTCCTCAGATGAAGAGGA
TGACAGTGACTTAGATGCTAAGAGGGGTCCCCGGGGCCGCGAGACCCACCCAGTGCCGCAGAAGAAGGCCCAGAT
CCTGGTGGCCAAACCCGAGCTGAAGGATCCCATCCGGAAGAAGCGGGGACGAAAGCCCCTGCCCCCAGAGCAAAA
GGCAACCCGAAGACCCGTGAGCCTGGCCAAGGTGCTGAAGACCGCCCGGAAGGATCTGGGGGCCCCGGCCAGCAA
GCTGCCCCCTCCACTCAGCGCCCCCGTTGCAGGCCTGGCAGCTCTGAAGGCCCACGCCAAGGAGGCCTGTGGCGG
CCCCAGTGCC**ATG**GCCACCCCAGAGAACCTGGCCAGCCTAATGAAGGGCATGGCCAGTAGCCCCGGCCGGGGTGG
CATCAGCTGGCAGAGCTCCATCGTGCACTACATGAACCGGATGACCCAGAGCCAGGCCCAGGCTGCCAGCAGGTT
GGCGCTGAAGGCCCAGGCCACCAACAAGTGCGGCCTCGGGCTGGACCTGAAGGTGAGGACGCAGAAAGGGGAGCT
GGGAATGAGCCCTCCAGGAAGCAAAATCCCGAAGGCCCCCAGCGGTGGGGCTGTGGAGCAGAAAGTGGGGAACAC
AGGGGGCCCCCCGCACACCCATGGTGCCAGCAGGGTGCCTGCTGGGTGCCCAGGCCCCCAGCCAGCACCCACCCA
GGAGCTGAGCCTCCAGGTCTTGGACTTGCAGAGTGTCAAGAATGGCATGCCCGGGGTGGGTCTCCTTGCCCGCCA
CGCCACCGCCACCAAGGGTGTCCCGGCCACCAACCCAGCCCCTGGGAAGGGCACTGGGAGTGGCCTCATTGGGGC
CAGCGGGGCCACCATGCCCACCGACACAAGCAAAAGTGAGAAGCTGGCTTCCAGAGCAGTGGCGCCACCCACCCC
TGCCAGCAAGAGGGACTGTGTCAAGGGCAGTGCTACCCCCAGTGGGCAGGAGAGCCGCACAGCCCCCGGAGAAGC
CCGCAAGGCGGCCACACTGCCAGAGATGAGCGCAGGTGAGGAGAGTAGCAGCTCGGACTCCGACCCCGACTCCGC
CTCGCCGCCCAGCACTGGACAGAACCCGTCAGTGTCCGTTCAGACCAGCCAGGACTGGAAGCCCACCCGCAGCCT
CATCGAGCACGTATTTGTCACCGACGTCACTGCCAACCTCATCACCGTCACAGTGAAGGAGTCTCCCACCAGCGT
GGGCTTCTTCAACCTGAGGCATTAC**TGA**AGCCCCGGCGCCACCAGCTGCGCGGTCTTACTCCCCTTCCCTGCCTA
TGGTGTCGCTTGGCTAAGTGACTCCCAGCCCAAGCCCCCTCAAGAGTCTGGGTCGGGGGAGGAGGAGTGGGTGGC
CTCCTTGATGGGCAGGCTTGGAAGGGACTTCTCCCGCACCCCACTCTGTCCCAGGACATAGGGCAGGGGGCCTCA
CTGCCTTGTTGGTCTCCACCTTGTTCCTACCTCTGCAGGCCTCTTTGCTCTCCCCTCTTGCCTCAGGAAACCCGG
TGGCACCTGTGGCTCCAGGTGACTGTCTTGAACAGAGCGGGCTTCTTCATGGCTGCGTTGTTGCTGAGTTTGAAC
TGCTCCTCCCTGGCCTGCGTGACTGAATCACAGCTTTGGTCCCTGTCTTGCAGGGGCTGAGGTGTCAGGAGGGGA
CTTCTGGCCCACCTTGCCTTCAGCCCTGGAGTGGGCAGAGAGTATTGTGGGGAGGCATGGCCAGTGGGACTAGTG
TTCCCTCCATCTGGCCACAGCTTTTGGGAGATGGGGTGGGCAGGGGTGGTCCTGGCTGGCATTGCCTGAGCCGGC
AGTGATGAAGTGGGGAGCTTGCCCTTGACAGGTGGGGGCTGGCTGGGGCCTTAATGTGAAAAGACAGTGGCAGGC
AGCTGGAGTAGAGCGAGCCCAGCAGCCCTAAAAGGCTGCCTTCATGGCCATCTAGCCCCAGTTCAGGGCAGCATC
CATAGCCCACAAGCCAGCGTGGGTGGGGCGGGGGTGGTCCCACAGCTGGGTTCCACCTGAAGAGCCTCCGTGCCT
CGGAGCAGGAGAGGCAGGCTATGGCTGCCACCCTCCCTCCTGCCTGTGTCCCAGTGAGAACTGACCTGAGTCCCC
TTCCAAACCCAGACCCACCTCCTGCCCCAGGCCCACTGAAGCATGTTCCATTTCTAAAAAGCCCAGAGTTCAGTG
TGTCCCAAGGAAAACCCAAAGTGGAGGTGCTCAGGTCCAGGGGAGTCCAGTGGGCAGGACCCTTGGCAGGCAAGC
CCCTCCCTTCACTCCCAGGACCTACCTTCTGCTAGTAAAGGACTGGCTTCATTCTAATTATGGCCCACAGACTGC
CCCGGAGACCTGGAGGACAGCAGTGCTGGCACTTGGGTGTCCATGGGCCCGTCTGCCGGCTCTGCCTGTGCTGCA
AGTGTTGGCCGTGGGTCCAGCCAACAACTCCCTACGTCCTGTGTGGGGCCCTGCCCAAGTGGATGAGGCATTCCT
TGAGGAGTATCATTTTCCCTGACAATCCCCATCACCTTTAGGGGTTCCCTGCTTGGCTCCTTTCCAGCTGAAAAA
CTAGACCTGTGCCATTGGGGAAGCTGGACAAAGTCTAGGGGGCCCGCCTGGTAGAGGGTCCCGGGAAGCTGGATC
TGTCAGCCTCGGCCCTGAGGCCCCTGTTAACTCAAGACTGTGAGCTGCCTCTAGGTGGTCACGTCTGGGAGCTAG
CTTGTATGGCTTCTGACCAGTATCAGGATTTCTGTTCTGAGAGCAGCGTGGGCAGCAAGGCAGGGCAGCCCAGAG
GTGGCAGCGGCAGGCAATCTGGTCACTAGGTCTTTGTGATGCCAAAAATAAAAGAGGGTGGGGTGGGTGCTTTCT
GTTCCTCTGATTGGATGGAGTCCGCCAGCAGGCATGGGGCTACATTCCAGTGCCTGACTATAGGGAGGCACTCCT
GATTCCATGGAGCAGCCCGGACTTTGAGAATGGGCTCTGGTTTGCGGGGGGCAGGCGTACCAGACTGCAAGACCC
CCCAGTACCTCACCGTGCCAAATAGGAAGAGGTGGCCTTGGTGTAGCCAAATGGATCTTTTTAACAGTGTGCCTT
TGGGGAGGGACCCATGTCCATGGCTTCGTTGAGGGCCATCCATATGCCAGCTGGGGGCCAGCCCACAGTGGCCAT
ATTGGCTGCAGCAGGAATGGTGCCCACCTCGGCGAATTGAAGGGCTAAGAGTCCCAGATAGCTAGGCCAGAGCTG
GAAGCAGACAGTAAGGGGAAGAGCTGCTCCCACAGAAGAGGGAGAGATTCCAGCTCACTGCGCAGCCTGGGAGGA
GGCGTGGATCCTGGCACGCTGAGCCTCAGGCACCAGCCTCCCTGTGCTCGACAGCAAAGTCTTGACTCCTTCCTG
CTGAGCACTGTGCTACCTTCACTGCTCCAAAGCCAGACTAACAGCTCTCCAAGCCCTTGGGGTGACTCGGCTTCC
AGGAGCTGTTGGAGAAATGAGGATGTCTGTCCCTGTCTGCCTGGGCAGGCCAGATTCCTCCCCAGCAGCCGGGTC

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FIGURE 2334B

TCTCCAGACCCTGATTCGGTGCCTTTCTGTTTACCAGCTACTTCAATCCCAAAGTTTGAATCTGCAGATACCTTA
CTCCCAGCCACTTTGCCTTCTTACTGTGTTGTGTGTTTTTCCTGGTGCTTCAAGAGCGTGTGCAGGGCAAGTGCC
GTCACTGGGAACTGCACCAGATGCTCAGACTTGGTTGTCTTATGTTTACCAATAAATAAAAGTAGACTTTTTCTA
TTTTTATTTGCTGCTATTTGTGTGTGTGTTTGTGTTTGTGTAGCTAGGTATCTGCACTTCTGACGATGCATTGTT
GCTTTTTTCCCGAAGTCCCGCAGGAACTGTGGCAATGGTGTGTGTGTGAAATGGTGTGTTAACCGCGTTTTGTTT
GCTCCTGTATTGAATAGGAAGCAGTGGCCAGTCTGTCTTCCTTAGAGATGTTAGCATATTTTTATATGTATATAT
TTTGTACCAAAAAAGAGTGTTCCTTGTTTTGGTTACACTCGAAATTCTGACCTAGCTGGAGAGGGCTCTGGGCCG
AGAGCTTTCACTAAGGGGAGACTTCAGGGGAGGATCAAGCTTTGAACCAAAGCCAATCACTGGCTTGATTTGTGT
TTTTTAATTAAAAAAAAAATCATTCATGTATGCCACTTCTAA

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FIGURE 2335

CTGACGTCAGCGGGAGAGTATTATGGTCTGTCGTGCGCTGGCTGCTGCTTTTCTGCTCCTGGAAGCGGCCAAGGG
GGGAAGCGGCGAGTCAAC**ATG**GAGCTTTCAGCGGTGGGGGAGCGGGTGTTCGCGGCCGAAGCCCTCCTGAAGCGG
CGCATACGGAAAGGACGCATGGAATACCTCGTGAAATGGAAGGGATGGTCGCAGAAGTACAGCACATGGGAACCG
GAGGAAAACATCCTGGATGCTCGCTTGCTCGCAGCCTTTGAGGAAAGGGAAAGAGAGATGGAGCTCTATGGCCCC
AAAAAGCGTGGACCCAAGCCCAAAACCTTCCTCCTCAAAGCGCAGGCCAAGGCAAAGGCCAAAACTTACGAGTTT
CGAAGTGACTCAGCCAGGGGCATCCGGATCCCCTACCCTGGCCGCTCGCCCCAGGACCTGGCCTCCACTTCCCGG
GCCCGGGAGGGCCTTCGAAACATGGGTTTGTCCCCGCCAGCGAGCAGCACCAGCACCAGCAGCACCTGCCGCGCA
GAGGCCCCTCGGGACCGGGACCGAGACCGGGATAGGGACCGGGAGCGGGATCGAGAAAGGGAGAGGGAGCGAGAG
AGGGAGCGGGAACGTGAGAGGGAACGAGAGCGGGGTACCAGCAGAGTGGATGACAAGCCCAGCTCACCGGGGGAC
AGCTCGAAGAAGCGAGGCCCCAAGCCCCGGAAGGAGCTCCCGGACCCCTCACAGAGGCCCTTAGGCGAACCCAGC
GCCGGCCTCGGAGAGTACCTCAAGGGCAGGAAGCTGGACGACACCCCTTCCGGGGCAGGAAAGTTTCCAGCCGGC
CACAGTGTGATCCAGCTGGCCCGAAGACAGGACTCGGACCTGGTGCAGTGTGGTGTGACCAGCCCTAGCTCAGCT
GAGGCCACGGGCAAACTGGCTGTGGACACCTTCCCGGCCAGGGTGATAAAGCACAGGGCTGCCTTCCTGGAGGCC
AAAGGCCAGGGTGCCCTAGATCCCAATGGCACCCGGGTCCGACATGGCTCAGGCCCCCCCAGCTCTGGGGGGGGC
CTGTACCGGGACATGGGGGCCCAGGGGGGAAGGCCCTCCCTCATCGCCAGGATCCCTGTGGCCAGAATCCTGGGG
GACCCGGAGGAAGAGTCCTGGAGCCCCTCCCTGACTAACCTGGAGAAGGTGGTGGTCACGGACGTGACCTCAAAC
TTTTTGACCGTCACCATTAAGGAAAGTAACACGGACCAAGGCTTTTTTAAAGAGAAAAGA**TGA**ATGCTGGGTGGG
TGTGTCCAGGAGGAGAGCAGGGGAGAGAGTGAGCGTGAGCTTGGCATAGTGATTTTTATTTCTGGGTGGGATGTG
GCCTTTTGGCTGGTCCCGTCCCTGATGTCACCCCCACCCCACCAGCCCCTTTCATCCCTCCTTCCTCCCCCTCAG
TTTTTGTTGGAAAGATTATCTCTAGAGTTATATTTTCTATTAGATGTAAATATGTTATTTAAGAAAAATATCTAA
ATATATATATTTCAACTCG

FIGURE 2336

ATGGGAAAGGGTGACTCCCTACAATGCTGGATGCTTACTGAGCAGCCAGGACCTGGGGGGACAATATTTGGGGGA
TGCAAAGAAATACCCGAAGCTGGCTCCAGACTCCTCTATGCAGCTGAAGTGGATCTGCACGGACTTCCATGCCAG
GCTGCTGGGGAGCTATGGTGGAGAGAGAGTGAGAAGTGCCCCACCGAGGACAGCTTCTTCACCCAAGCGAGACCA
GTGGGAGGGTCGGGCAGCCCCCACGCAGCACTGAGCTATGAGGTCAAAGATGAGGAGGCTGGTTCTCGTCTCCGT
GCATCATTCTGGCTGCGGCAGGCAGAGTTCCAGGAGGCTCAGGCCGTGAGCTCTTCTCTTCCCGTGGCCACACTT
CATCAGGGAGCAGGTTTCCACCTGGAGCGTGGAGACTCTGAAGCCAGTGGGAAGGAGGCTCTGGGCACAGGCAGC
GTTGCAGCCCCAGTGAGAGATCCTTCTGCAGGTTGGGCAGGACCCATGTTCCTTACCCGCATCCGAGGAATACCA
CAGTTGCCTGCAAAAGAAAGGTACCTGCCCCCAATTTTCCCTCCACTAGATAATCTCCTTGAACAATTTCATAAA
GAAGGATTCACACCGTGCCACGCGAGAAAGCCGTGTGTGTCAGCCAAGAGCCTGCGGCCTCTGGCCAAGAGCAAG
AAGAAAGGCACAGACATAGATGCCCAGACATGTGAAGGTGGGTTCTTGCAGATGCAGGAGGTCAAACAGGAGCTT
CGGAAGTGCATAGCAGGCAACGAGGACCACCCAGTGCTCACAATGGTTGCCTGTGTGCATGTACACACACGTGTG
CACAAAATTCAGAGGCGCTCAGGCGCTCCGAGGAGGGGGCCCCAGAAGTTGAGGACACAAGGAACATGGACCCCT
GACCAGGGCATGCGGGACCCCAGGGGCACACCGAACGCGGTCACCATAGGACCAAACAAGATGACCATAGGACCA
AGCAAGATGACGCAGGCCCCTGGCAAGCCTGAGGCCGGGGCAGCAGCCATGCTCTCTCCTCCTGTGGTGGGGAGG
AATGCCTGCCCCCCCGACCACCCCGTGCCCACAGACAAGAAGCAGGGACCTGGCTCTGATGACCTGCAGACCCTC
AGTTCCCGCCAATCCCGAAGCTCTCTACATCCTCAGTTCTCCAGGTATGGTGCTCGGAGCAGTAGCTGTGCCTCC
CCTTTAGCTGTGACTCCCCCAGAGAGACTCTTCCCCCTTGAGATTCTCCCCTACCCAGAACCTTTTCCTGCTGCT
GTTGATGCCAACAACACCTCTGCCAAAGCAGCCCCAGGTCCACGTGCTGTGCACACCACAGACTCCAGGTTACAT
CTTCATCCTGCTGGTGTTGGTGTGGTTGGCAAGCTTGCCTGTGTCACCACCAACACCAATGGGACACAGACGTCT
CTGCAGGGAGACACGGTCACTCAGACGCTCAGGGCCAGGAGGGTCCAGGAAAGCCTGGCCCAGTACCACATAGGT
GAAGTCAGGGGCTGGCTGGGGGTCTCCCCAGGGGCCAGCAGGGGCCGTGCCTACAATCGGACTAGGGTTTGTCCC
TCAGAGGCCTCCTGGTCTTCCCCACACCCCATACGAGGGGACTTGGAGCTCTTTTCAGGCCCAGCCCTCGCACGT
AGAGTCAATCACTCTTCTCTACAACAGTCAACTTCTCTCAAGGAAGACCTGAGGAAGCTGGTGCCCGACCCACCA
GGAGACATGGACCTCACAGGAGTTGCAATAGCTGCTGGCCGAAAACTTGCCCATCGACTTTTTGAATATAAGGAA
GATTCCAAATTAGATTATAACAACATCCCAACTGTGGTCTTCAGCCACCCCCCTATTGGGACAGTGGGACTCACG
GAAGACCCGCCCAATGTCACCCTGGACCTGCCCACTCTTACCTCAGACCCACCCACTCTCATCCTGGACCCGCCC
ACTCTCACCTCAGACCCGCCCACTCTCACCTCAGACCTGCCCACTCTCACCTCAGACCTGCCTGCTCTCAATCTG
GACCCGCCCACTCTCAACCTGGACCCACCCACTGTCACCCTGGACCCGCCTACTCTTACCTCAGACCCGCCTGCT
CTCAATCTGGACCCGCCCACTCTCAACCTGGACCCACCGTCACCCTGGACCCGCCCACTCTTACCTCAGACCCAC
CCACTCTCACCCTGGACCCGCCCACTCTCACCTCAGACCCGCCCACTCTCACCTCAGACCCACACCCTCACCCCA
ACCCTTGGTTCAGTTAACGTGCAAGGTGAGAGTGTGACTGTCATGGTCACCACGGACCTGCCCACATTCATGCTG
GATCCACCCATTCCAACCCTGAACATGCCCGTTCTCACCCCAGACCTGTCCACTGTCACCATCACCCTGGACCCA
CCCACATTCATGCTGGACCTGCCCACTCTCACCCCAGACCCACCCACACTCTCACCCCAACTGGCCCACTGTCAT
GGTCACCCTGGACCTGCCCACTTTCATGCTGGACCCACCTACTCCCACCCTGGACCCGTCCACATTCACATGGGG
CATCCTGCCTGCCTGGAGGGGACTGAGTCACTTAGGATGCACGGAAGCTGGGGTGCTGGTAGCTGTCTTGGTCTA
TTTCACAGGTTTGGGGGACCCAACTGCACCCCAGCAGAGGGCCTGGAACAGGTTCCCTCAGCCTCACAGACAGGC
GGCATCCAGTCCAGGGACTGTAGCCCTGACAAGGAGCCCCACCTGCCCAGGGCCCCCCAGCAGGCAGTGTCTCCC
GGACTTCCTCCCCCACCGCAGGCCCTGGGATGGGGCGTC**TGA**

FIGURE 2337A

GGAGAGAGTGGGGGGCGGCGGCACAGTGGGCCGGGGAGGAGAGAGCCGCAGAGGGAAACCGATTTTAAG**ATG**AAG
GTCGCCCCCGATAAGACATGCATGCAGTTCTCCATCCGCCGCCCCAAGCTGCCGTCCTCCGAGACGCACCCCGAG
GAGAGCATGTACAAGAGGCTCGGCGTCTCCGCCTGGCTCAACCACCTGAATGAGCTGGGCCAGGTGGAGGAGGAG
TACAAGCTGCGGAAGGCCATTTTCTTTGGCGGTATTGATGTGTCAATCCGCGGGGAGGTCTGGCCCTTCCTGCTG
CGCTATTACAGCCACGAGTCCACGTCGGAGGAGCGGGAGGCGCTGCGGCTGCAGAAGCGAAAGGAGTACTCTGAG
ATCCAGCAGAAAAGGCTCTCCATGACTCCCGAGGAGCACAGAGCGTTCTGGCGTAATGTGCAGTTCACTGTGGAC
AAAGACGTGGTCCGGACAGATCGGAACAACCAGTTCTTCCGGGGGGAAGACAATCCCAATGTGGAGAGCATGAGG
AGGATCCTGCTGAACTACGCCGTGTACAACCCTGCCGTCGGCTATTCCCAAGGGATGTCGGACCTGGTGGCGCCC
ATCTTGGCCGAGGTCCTGGATGAGTCAGACACCTTCTGGTGCTTTGTGGGTTTGATGCAGAACACGATCTTCGTC
AGCTCACCCCGGGACGAGGACATGGAGAAACAACTGCTGTACCTGCGCGAGCTGCTGCGGCTGACGCACGTGCGC
TTCTACCAGCACCTGGTCTCGCTGGGCGAGGACGGCCTGCAGATGCTCTTCTGCCACCGCTGGCTCCTTCTGTGC
TTCAAGCGGGAGTTCCCCGAGGCCGAAGCGCTGCGGATCTGGGAGGCCTGCTGGGCCCACTACCAGACGGACTAC
TTCCACCTTTTCATCTGCGTGGCCATCGTGGCCATCTACGGGGATGACGTCATCGAGCAGCAGCTGGCCACGGAC
CAGATGCTCCTGCACTTCGGAAACCTGGCCATGCACATGAACGGGGAGCTCGTTCTCCGGAAGGCGAGGAGTTTG
CTGTACCAGTTCCGCCTCCTGCCCCGGATCCCCTGCAGCCTGCACGATCTGTGTAAGCTGTGCGGGTCAGGCATG
TGGGACAGCGGCTCCATGCCCGCGGTGGAGTGCACCGGCCACCATCCCGGCTCGGAGAGCTGTCCCTACGGGGGC
ACGGTGGAGATGCCTTCCCCCAAGTCCCTGAGGGAAGGCAAGAAGGGCCCAAAGACGCCGCAGGACGGCTTCGGC
TTCCGCAGA**TAG**GTCGGGCCCCCGACCCCGGACAGGGGTTGAGGGGACCTCCTCAGAGGCCCTGGGCACGGGAGG
GGGTGGGGCTGGGCGTGAAGGGGACAGGGGACGGTAGAAACCTAAGGAAAATGCTTTTGGGCAACATGAGAGGAA
CCTTTTCATATTAATGACAAAATTAGAGTCTGGAAGTGACAGAAGTCAGATCTACAGCCACCCAGAGGAAAGTCA
GCTCCTGAAACGCTGCAGTGGAACGCGCAGCCACCGCACCTGAGACGCAGGCTGGCTGGGCTCTCCTGCTGGCTG
CCCTGGAGGATTTCAACATGTCCCAGGATTTGCTCCACCCTCGAGGGCAGCCAGACAGCGTCGCCAGGCAATGAG
GAAAGCAGAGACAGGAGAGGAAGGCCTCACTCACCCACTGCGTCGAGGGCTGCAGAACACAGCGGGGTCCTGTCC
AGGCCCAGGGACATCTTTGCAAGCCAGACACACTTCCTCTTGAGACCTCGTTCTCTCGGAGTGAGCCAAACACAC
TTCCCAAAACGTTCCCAGCCACAGCTGGGATGCCGATGGAAAGGCATCTGCCATAAAAGAAAAGCAAAAGATAAA
AAGCCCAACCGATGTGGGGATAGAGAGGCAGAAGAGCAGTCAGGCTTGAGGAGCTGGCGCTTGTAATGTTTATCC
GTTTAAACATTTCGTCCTCCTGGTACACGAAGGGAACTGTCTGCCCAGGAGCCTGAGCCTCAGGCTGTTGGAGAA
GCATCTGATGCCTTTTTCTTTGCTGGGGGTCTTCTACGTGAGGTTCCTTGGCGTTGTTTAAGGTCAACTCCACCA
AATACAGCAACCAGCTGGGGCTTGAATGGGTCGATGTGTGCGTGTGTCCCTGCGTGCATGCATGCATGCACACGT
GCGTGCGTGTTTGTGTTTGCAAGATCCTCTGACAATGATCTGCTTTGTCCCAGGGACGTGGTAGTGTATTAGCTG
ACCAACCAAGACAAGGACACCTGGAAATAGTTAGACTCTTCCACTTCCCTTCAGGACCTGTGAACTCAGATATGT
AAGTCAGCTTCTCAGGTGGTCGGACGTGAGAGCGACCACAGTGAAGGAGCCAGCACTCAGGGCTCTCTGCCTTCT
ATGTGGGAATGAGGTCTTCCCAACAGACTCTCCCTCTTCCAAAAGATTGTGTATCAGTTGCTCCTTCTGGGATTT
AGAGATGGACAGAAAAGGGTGTGCGATCTATGCTGTGAGAACTCCCAGCCAGCTTAGAAGTGTCGAGCCATTTGC
ACAGAAAGCCACTCCTTGAGCGAGGAGACCAAATCCCTCCTGAAATCCTCCATCGCGTCCTTCTGGGGAGAAAAA
CCCTTGATGTGCTGAGAACCATCATGGGGACCAGGATAGAAGGCTTCTTCCCACTCAAAGCTTTTCTCCCTGGAG
GGTGGGCACTGCTGGGCCATGCCACTTCAAAGCAGTGTTCCTCAGCAGGAAAGCGGAGGTCACCACTTACCGGCC
TCCTCCACCTTCTCGGCTTCTCTTTTCTCCATGAACCCAGGTCGTCCAGCAGGTACTTCCAAGTTCCCAGGTCTG
TCTGCCTAAGAGCCTTTTGAGGAGACCGTCCTGGAGCCCCATCAGTGCCCAGATCCTGGGGTACCGACCATTGCT
GTCTAGCAGTGGGGGATCCTGTGGTGGGAATGGGGTGGGCTTCTCATCCATGTTGCTTCTGGGAAGAGAGGGTTG
CCTTTCTGGGCTAGGGAGGTGGCTGGAGCTTCTGCCCTGACCCTCCGCTAGAAACCAGTTATATCCATTGCCACA
GCAATACTGTGTAACAAATCCGCCAACACTCGGTGGCCTGCAACAGTCAGCACTGATCTAGGGCAGGAGTCAGCA
GTCTGGGCAGGGTGATTCTTCTGGTCTAGGCTGTGCTTGTTTGTTTAGGGCCAGTGGGTTGTTAAGTCCCAGGGG
ATGCTCATGGTGCAGAGGTCGGACCTGGCCCTGCTCTGTGGTCTCTTGCATCCCTCCTGCAGGCCAGCCATGGCA
CAGCCAAAGGCACGGAGGGAGAGACAGCAAGTGCCTTTCCAAGCCTTGGTGGACACCACACCTGCAGCTCTCCCC
TTGGCCACAGCAAGTCACGTGGCTGGGCTCAGCATTAAGGGGTGGGGGACAGGCCTGCCACTTTATTGTCCGCTC
TGCACAGTCGGGTGGCAGTAGGCTGAGAATTTGGAGGGCTAAACAACTGGGACTCTGGAGAGTCTGTGTCCTAAT
AATGCCTGCTTTGGAGCACTGCTTCCCCACCCGCCTGCTCCAGGGGAATAGCGTCCCTGGTCCTAGCATTTCACT

FIGURE 2337B

AGATACCTCGTGCCTTTGAACCGCTGTGTTTGGGAGGGAGGAAGAGGATAGACAGGTCCAGGGCTCCCCTCACTT
GGGAAGGTCCTAGTAGAAGGCATTCCTTCTGAGTCTCCTGGCCCTACAGCTTCTCACCCCTGCTGCTCCCCAAGA
CCTGACCCGGACCAATCAGCTGCATCTCTGCACCAAGTGCCACCCCCACCGTGCACTGCTCGCACCTCACGCTCC
CCATGGGCTGGCCCGGACCCCAGTGAGGTCTGCACCTCTCGGACCAGCCAGGACCTCGGAAGCCATGACCTGGGT
GTTCAGGGCTTGGCGGAGGAGACGCTGCTCCGCCGGGGATGGAGAAGCCCCGCCCCTCCACAACTCCCTTAATCT
GGATGCAATTAGAGGAAACCAGCCAAAAACCCCGCGGCAGCTGTTGCCCCGGGATTATTCCCAGCCAGCGAGAGG
CATTAGGGCGATAATTCAGTCATTAGACTTCTAGCCTTCCCACCGCCAGAACGTGCAAATAGGGGATAATCAGCC
CTGCACGGCCATCCTCAGCAATGCTGCTTATTTAACCCATTTTTTAAAATGACACTTAATGTTATTGGCTGGCGT
ACGTGTGTGCGCATACTTAAAAGTTGACGCGTGGTGCAGCTCTGCTGCTAATGTCTGCTGACAGCGTCGCCCGAT
GTTGCTCAGGGCCTCTGGGAAGAGGGGACACCTTTGATGTGGGCGTGCTGGCACCCAAGAGGCAGCGTGGTCAGG
CTCGATGCTTGCCAGCCCTGGAAGGTCCCGCCAGGGTTGGGGGGTCGGGTGAGCACTCAGAGATCTGGGGAGGAA
GCGAGGAGCCTGGTGTCCTCACCAGGTGCAGAGGGGAAATGCGTACTGCTCCAGAAGGTTCTGACTCAAGTCTCG
GCCCTGAGGACTCAGAACTCACAAGTCATGGATCAAGTACAGAGGGAGGGAGGGCCCCAGCCCACCCCTGCGGGG
GAGGAGGAGGGTCTGAAGGTGGGAGGGCAGCTCCATGAGCAGCCACTGTTCCTGACCAGCCGAAGTGCCAGGCAG
GGGGAGGTTTCCATGTCCAGGAGGGAGAGGACCTCCACCCTCTGACCTTTCAGTTTTCCATAGCAGCCCAGTGTG
AAGCTCGGCGGGGGTGGGCAGGGCATCAGGACAAGATGAAGATGCTGGCTCTGGAATGAGGACTCCCCTTGGGCT
AAGGGGTAGTGGCTGGCAGAGGTTGCCCAGCTCTTTTGGAGGCCACAGGGAATAGAGGTGGGGTGGTGCTTCCGT
TCCTGTGAGGCCCGCCCCCCTGAGCCCCCTCGTCTGCTTCTTGTTTGGCAGAAATAGATGTGGGGCACAGCCCCT
AGATGATGGGAATCTGCCCAAGCTGTGCCCTCTGGGGAATGAAATCTTGCTCCTCGTGCAGCTTCCCCTTTCCCT
TGCGGGGTGGGGGCTGGGGGTGCCAAGGCTCCACCCTTGGAGGGGGTTGCTGGGGGTGCCAAGGCTCCACCCTTT
GCTCGCTGGGCAGAGGGAAGGAAGCACCTCCCTGTATGCTCTGCAGGGGCCCCTGCAGGCCACTTTGCCTCAGAG
GAAGGAGGAGAGGTCCCCTGGGAAAATGCGCACACACACACACACACACACACACACACACACACGCACATGC
ACACACGCACGCATGCACACACACACACACATATGTGCAGGGGTGCAGCCTAAGTCAGTGGAGCCAGGACTGGCT
GCGCAGCTGGGCCTGCCCCATTCTTGGAGTCCCCAGGGAATGAGCCTCAGGATCCACTTCGTCCCTTGTTTCTAA
GCCAGGCTGCACGGCCGTTCCTGGGTGTGAAAGCATTCTGTCCTGTCTCCAGTCAGAGGGAACCGCCCCCAAACT
AGAAAGCTAATTTCCCCCGAAGGTTCATGAAGCCAGAGGCATGCCCTTGGGGGTTGGTCGGGAGAAGGGTGAGAG
GCAGTGCTGTGGAAGGGGCCTGGCCCCTGCTGCCTGCGATTCTCCCCGGGTATGTGGCCTTCTGCCTCCTTCAGC
CTCAGTTTCCTCACCTGTAACATGAGAATAATGATGCCTGCCTGCCCAGGCCACCTCCTGGGAGTGCATTGGGGA
CTCTAAGTGTAAAACTGTCATGAGGATGGTTTATGAAGTCCCAGGGACCACACCTGCCACTCAGGGAAGAGACCG
CTGACCTCAGCCATCAGCCGTGTGCATCGTGAGGGGCAGCGAGCTCAGGACGGAGAGCTCTCCCTTGGTTCGGAG
TCAGCACACCTGCACTCCCACACGCCCACCCAGCTGTGTGTCCTCCGCCGAGGGCGAGCCTCTCTGTGACTCTTC
TGTAAAATGCACCCCATTCTGCCCACTCCTGCCACGAGACCCATCCTCTGCGATCCCGCCAGGCATGTGTGTGTG
AATGCATGTGCAAAGCTCTCCATCAGAAGGGTGGTGTGGGCCCTGCAGGTCCTACCCCTCGGCCTTGAAGCTCCC
TCGGGCTGCGGACTCTGCCTCCTGGGTCTGAGCATTAGAACCAGGAGAGGGGTGTCCCTGGGCAGAGCCAGGGGT
GCAAACAGCCTGCAGCCATCTGGCCTTTTAAGTATAGTGTGTCGCATTTCCGGGTAGGAAGGTAGCATTTCAAGT
TCAAAGAGAGGTCAAGTCATGCAACCATCTTTCCTCCAGCACTTTTGGGGTAAGGAGGACAGTTTTTGTTATGGT
TTAGGGGAAATTTTCATGAAATTTCCACCATTACCAATAGATTACTGATGTCCATGGCAAGTGATCTGTTCTTGG
TATTTTGTTTTGTTTTGTTTTGGTTTTTAAATGTAATCACCCATTGGTCAGGCCCAGGACTGGTCACCATGAGCT
CTGCTAGCCACGGCCCCAACGATGCTTCCGGCTCTCATGGATTCCACAGCAAATAAAACTGTACTGACAACAGAT
GCACGCTGTACAGTGCCTCTGGAAGGTGCGGTGGGACTTGCTGGGTCAAAGCACGGCAGGCTCTGTGCTGGGCAA
ACAGGGCCCCGCGGCAGCCCAAGGGCAGCCTGCAGACGCCAGTGTGCCCGGCTTCTCCCATGTTCTGAGATGGGG
GAGGGGAAGGTGTAAAAGAGAGCTGGATGGGGGCTGTGGGGACTGAGGGTCCTGGGAGGCTGGCCAGGGGCTCAG
CAAGCGCCCACTTTGGGAGGCCTTGCCCTCTGGGCTGTGGTTGGACAGCACTAGGCCTGCAGGCTGGGCTGCCAG
GAGGAAGAGCAGCTCCGGACCTCAGGCCCCCCCAGCAGGCGGCGATGGAGGGTGATGGGAGAATTGACGAGTGCT
CGCGGGGTCTCACTCGGGAAAGGGCCGGTTAACTCTGAGCAACTGGGAGCCTCGCTCCCACCCCAGTGCCTGGAA
ACACAAACAGTATTTTATTGAGCCTTGGCTGCCGGGGCTCTGGTTTCAGGAAAAGCCTCAGTCCTGCATTTGTGA
ATTTTTAAGGAGGCAAACAAGGTGAATTTGACCTTCCTAGGAGTGGGAGTTAGGGAAAATTCAGGCTGCCCTACC
AAGCCCTTGGAACCGTGCAGCAGGGGTCAGGGGAGGGATGGGCAAAGGCGGTTTGGCCCATGGAGCAGGTCTCCT

FIGURE 2337C

GGTCCTCCCGGAGCACGGGGGGCGGGGAGCTCCAGCTCTTCATCAAGCGCCCTTTGGGGTTTCCAACTGTTTTCT
GTTGTTCTCTGTGTGTCTTTTCCCCTTTTGCCTGGGGGCGGGGGCTGGAGGGGAACATACCTCTTATCTACATCA
CTCGGGTCTCATGTCTGAAGGGCCTGTCTCACCTGCCACCTACCTGGCCTTGGCCTCGACATCTGAGCGCCTCAT
CACCTCCTCTCCACATGCCCAGGGGTGCCCCTCCCAAGGCTGGCTGGGCAGGTCCCACGGACTAGGCCCCAGGAG
GAGCAGTGGGCTTCCCCCAGGAAAGAGCAGAGCCAGCACTGCCTGCCTAGGGAGGGCACCCACTACCAGGCATGG
CTGGTGGCTCCGTTTAAAGAAATCTTTGTCCATGTGGGAGTGGGAGGTGCTTCCCCATCCTGCCTGGAAGCCACG
TCCTGGCTCTTACCGTGGACTCTGCAACAGCCGTGGTGGCCACATGAAGATGGAGGAACCTGGTGGCTCAGGGGC
CCCTGATGTCACCGCCTCCAAGGCAACGGGACTGGGCAGGGCAGCTCCTCAGGAAGGATGATCCCACCTGCACGG
GTCAGCCCTGCAGGGGGACAAGGCCCACCACAACCCCACCTCAGGCCACCAACTGGACCTGTCCTGCCAAGAAGG
TCCCTTCCAATTTGTCCGGCAGCTGGTTCCCTGGATACAGCCCAGACGCAGCATCATCCTCATGTTCACCTCTGC
TGTGCCCTACTTCCCCCGTAAATGACAACTGTGTAGTCACCCACGCCGGGCAAGAGAACATAGGTGCCACCTGGC
GGGCCACACTTTTCAGGGGCCGTGCCTCGGGCAGGCCCGGCTCTCTGTTGTCCCGCAGCCCTCAGGGCTGGCGGT
GGCTGCTCAGTGCCTAGGGAGTGCCCTTGCCACACAGCTGGGCAGCGAGCATGACTCAGCGTTTACACTCAACCA
GCCGCACAGGCTCCAGAGGGGAAGTTCTCTGGGGTCCTTCTATGAGAGAGCATCCTGTCTGCAGCCCTGTTCTGG
CTCCTTCCACATCATTCATGCATTCATCCCACGAGGACTATGGTACCGTGGGCTCGCTCTAGGGAAGCAAGGCAG
GAGCGCACTGGGGCTACTTGGATTCCCGGGGCAGACACATATGTACCCTGCACACCCTCAAATGAGCAAAGCCAC
CCCACTGGCCCCTGGGTGAGGCCATGTGGACCCCCACACCTTTGGGGCCGGCTGGGCAAACCTTGAACCCCCAAT
TTCTGCGTGGCCTTTGGCTGCCCTCCTTCTCCAAGGCGTGACTCTTACTCCAGAGACTCAGGCGAGCACGTGTCC
CTTACCTTATTTTCTCTCAATCAAACTGAAACCCATTGTG

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FIGURE 2338

CAGGTGAGGCGGAACCAACCCTCCTGGCCATGGGAGGGGCCGTGGTGGACGAGGGCCCACAGGCGTCAAGGCCCT
GACGGCGGCTGGGCGTGAGGCGTGCTCTTCGGCTGTTTCGTCATCACTGGCTTCTCCTACGCCTTCCCCAAGGCC
GTCAGTGTCTTCTTCAAGGAGCTCATACAGGAGTTTGGGATCGGCTACAGCGACACAGCCTGGATCTCCTCCATC
CTGCTGGCC**ATG**CTCTACGGGACAGGTCCGCTCTGCAGTGTGTGCGTGAACCGCTTTGGCTGCCGGCCCGTCATG
CTTGTGGGGGGTCTCTTTGCGTCGCTGGGCATGGTGGCTGCGTCCTTTTGCCGGAGCATCATCCAGGTCTACCTC
ACCACTGGGGTCATCACGGGGTTGGGTTTGGCACTCAACTTCCAGCCCTCGCTCATCATGCTGAACCGCTACTTC
AGCAAGCGGCGCCCCATGGCCAACGGGCTGGCGGCAGCAGGTAGCCCTGTCTTCCTGTGTGCCCTGAGCCCGCTG
GGGCAGCTGCTGCAGGACCGCTACGGCTGGCGGGGCGGCTTCCTCATCCTGGGCGGCCTGCTGCTCAACTGCTGC
GTGTGTGCCGCACTCATGAGGCCCCTGGTGGTCACGGCCCAGCCGGCTCGGGGCAGCCGCGACCCTCCCGGCGCC
TGC**TAG**ACCTGAGCGTCTTCCGGGACCGCGGCTTTGTGCTTTACGCCGTGGCCGCCTCGGTCATGGTGCTGGGGC
TCTTCGTCCCGCCCGTGTTCGTGGTGATGACGCCAAGGACCTGGCGTGCCCGACACCAAGGCGCCTTCCTGCTCA
CCATCCTGGGCTTCATTGACATACTTACGCCCGCGCGGGCTTCGTGCGGGGCTTGGGAAGGTGCGGCCCTATCCG

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FIGURE 2339

ATTTTCCTGGGGCTCCGGGGCGCGGAGAAGCTGCATCCCAGAGGAGCGCGTCCAGGAGCGGACCCGGGAGTGTTT
CAAGAGCCAGTGACAAGGACCAGGGCCCAAGTCCCACCAGCC**ATG**CAGACCTGCCCCCTGGCATTCCCTGGCCAC
GTTTCCCAGGCCCTTGGGACCCTCCTGTTTTTGGCTGCCTCCTTGAGTGCTCAGAATGAAGGCTGGGACAGCCCC
ATCTGCACAGAGGGGGTAGTCTCTGTGTCTTGGGGCGAGAACACCGTCATGTCCTGCAACATCTCCAACGCCTTC
TCCCATGTCAACATCAAGCTGCGTGCCCACGGGCAGGAGAGCGCCATCTTCAATGAGGTGGCTCCAGGCTACTTC
TCCCGGGACGGCTGGCAGCTCCAGGTTCAGGGAGGCGTGGCACAGCTGGTGATCAAAGGCGCCCGGGACTCCCAT
GCTGGGCTGTACATGTGGCACCTCGTGGGACACCAGAGAAATAACAGACAAGTCACGCTGGAGGTTTCAGGTGCA
GAACCCCAGTCCGCCCCCGACACTGGGTTTGGCCTGTGCCAGCGGTGGTCACTGCTGTCTTCATCCTCTTGGTCG
CTCTGGTCATGTTCGCCTGGTACAGGTGCCGCTGTTCCAGCAACGCCGGGAGAAGAAGTTCTTCCTCCTAGAACC
CCAGATGAAGGTCGCAGCCCTCAGAGCGGGACGCAGCAGGGCCTGAGCAGACCTCCGCTGAACTGTGGACCCCAG
ACTCCGAGCCCACCCCAAGGCCGCTGGCACTGGTGTTCAAACCCTCACCACTTGGAGCCCTGGAGCTGCTGTCCC
CCCAACCCTTGTTTCCATATGCCGCAGACCCATAGCCGCCTGCAAGGCAGAGAGGACACAGGAGAGCCAGCCCTG
AGTGCCGACCTTGGGTGGCGGGGCATGGGTCTCTCGTCCCACCCGGAGCACCAGACACCGGCTTGCTTGGCAGGC
TGGGCTTCTGTGTCACCCACTCCTGGGTGCGTGCAGACCCTTCCCCTCCAACCCCCAGGTCTTCCAAGCTCTGCT
TCCTCAGTTTCCAAAATGGAACCAACTCACCTTCCGAGCAACCGAATTACCAGGAACGATGCCCCTCCCTCTGCC
CTCATCAAACCCACAGACCCGGACTCCCTTTCTGCCACCCCAGGCTGGTCCGGCCCCAGGTGTGGGTCCGCTCTC
TCCACTCCCAGGGCTCCGCGCCAAGTGAGGGGGCCCCTGCCGGAGCCTCAGACACACTCCAGTTCAGGGCTGTGG
GGGGCCTGGCCACATACCTGTCCCTTGGCTATGAGCAGGCTTTGGGGGCCCTTCCGCGGCAGCCCGGGGGCCGAG
GTAGGGTCGGGGGCT**TAG**AGGCTGGGATGGCTCCTGGCCCCACCGCCAGGGGGCAGCGCAGGCCGGGCTGGGAGG
CGGCGGCGGCGGCTCGGGCTGGGGGGTCAGGTGGACGCCGCCCTCCGGGGCTGGACGCGCATCCCTCAGTCCCTC
GGCCACCCGGGGGTCGCTCCCTCGTGCCCACCGCACCTGCCGAGCCTCTTTGGACCCAGATCTGTTCATGCTTTT
GTCTTCGTCACTGCGGCGGGGCCCTTTGATGTCTTCATCTGTATGGGGTGGAAAAATCACCGGGAATCCCCCTTC
AGTTCTTTGAAAAAGTTCCATGACTCGAATATCTGAAATGAAGAAAACAAACCGACTCACAAACCTCCAAGTAGC
TCCAAATGCAATTTTTAAAATGGAAAACAAAAATCTGAAAGAAACGTCTTTAGTGGCTTTAAGCCCCAAAACGTC
CCTAAGGCGTCCTCGAGATGAAGACGGGGGGGAGCCAGCCAGGTGGAGACCCGCGAGCGCGGCGGCGCCCGGTGA
CCGAGGCCTCGCACAGCCGGCCGCCCTGAGGGTCGGGCCGAGCCAGGGTCCAAGAGGGGCGCGTTTGTGTCTCGG
GTTAAAATAAGGTTCCGTCCGCGTGCTGGGTCAGA

FIGURE 2340

GCGCGATGGGGCGGCTCCTTTAGGCAGCTGAAAGGGGATTTAGGCCCGGAAGATCCGAGTCCATCCGCGGCGGGG
AGAGGGCAAGCGGGACCGGTAGGGCATGCAGCGGCGGCGCCGATCGGACATGTCCCATCCGCCCCGTATTGAGGC
GCTGGGAGCGCGGTGCGCGACAGGAAAGCGATGGTGAAAGCGGGGCCGTGAGGTGGGCGGCAGGAACGGCCGGAC
CCGCAGTAGCGCAGCAGCGGCGCCGCCTCCCAGAGTTCAGACCCAGGAAGCGGCCGGGAGGCAGGAGCGAATCGG
GCCGCCGCCGCCATGGAGCTGAGAGTCGGGAACAGGTACCGGCTGGGCCGGAAGCATCGGCAGCGGCTCCTTCGG
AGACATCTATCTCGGTACGGACATTGCTGCAGGAGAAGAGGTTGCCATCAAGCTTGAATGTGTCAAAACCAAACA
CCCTCAGCTCCACATTGAGAGCAAAATCTACAAG**ATG**ATGCAGGGAGGAGTGGGCATCCCCACCATCAGATGGTG
CGGGGCAGAGGGGGACTACAACGTCATGGTGATGGAGCTGCTGGGGCCAAGCCTGGAGGACCTCTTCAACTTCTG
CTCCAGGAAATTCAGCCTCAAAACCGTCCTGCTGCTTGCTGACCAAATGATCAGTCGCATCGAATACATTCATTC
AAAGAACTTCATCCACCGGGATGTGAAGCCAGACAACTTCCTCATGGGCCTGGGGAAGAAGGGCAACCTGGTGTA
CATCATCGACTTCGGGCTGGCCAAGAAGTACCGGGATGCACGCACCCACCAGCACATCCCCTATCGTGAGAACAA
GAACCTCACGGGGACGGCGCGGTACGCCTCCATCAACACGCACCTTGGAATTGAACAATCCCGAAGAGATGACTT
GGAGTCTCTGGGCTACGTGCTAATGTACTTCAACCTGGGCTCTCTCCCCTGGCAGGGGCTGAAGGCTGCCACCAA
GAGACAGAAATACGAAAGGATTAGCGAGAAGAAAATGTCCACCCCCATCGAAGTGTTGTGTAAAGGCTACCCTTC
CGAATTTGCCACATACCTGAATTTCTGCCGTTCCTTGCGTTTTGACGACAAGCCTGACTACTCGTACCTGCGGCA
GCTTTTCCGGAATCTGTTCCATCGCCAGGGCTTCTCCTATGACTACGTGTTCGACTGGAACATGCTCAAATTTGG
TGCCAGCCGGGCCGCCGATGACGCCGAGCGGGAGCGCAGGGACCGAGAGGAGCGGCTGAGACACTCGCGGAACCC
GGCTACCCGCGGCCTCCCTTCCACAGCCTCCAGGCCGTCTGCGGGGGACGCAGGGAATGTGGCTCCCCCCACACC
CCTCACCCCTACCTCACACACGGCTAACACCTCCCCCCGGCCCGTCTCCGGCATGGAGAGAGAGCGGAAAGTGAG
TATGCGGCTGCACCCGGGGCCCCCGTCAACATCTCCTCGTCCGACCTCACAGGCCGACAAGATACCTCTCGCATG
TCCACCTCACAGAATAGCATTCCTTTCGAACACCACGGCAAGTAGCTGCTCGTCTCCCATCGGAAGGCAGCACTG
GATTCCTGGTCGGGTGGCTTCCAGTGGTCTTCAGTCTGTCGTGCACCGA**TGA**GAACTCTCCTTATTGCTGTGAAG
GGCAGACAATGCATGGCTGATCTACTCTGTTACCAATGGCTTTACTAGTGACACGTCCCCCGGTCTAGGATCGAA
ATGTTAACACCGGGAGCTCTCCAGGCCACTCACCCAGCGACGCTCGTGGGGGAAACATACTAAACGGACAGACTC
CAAGAGCTGCCACCGCTGGGGCTGCACTGCGGCCCCCCACGTGAACTCGGTTGTAACGGGGCTGGGAAGAAAAGC
AGAGAGAGAATTGCAGAGAATCAGACTCCTTTTCCAGGGCCTCAGCTCCCTCCAGTGGTGGCCGCCCTGTACTCC
CTGACGATTCCACTGTAACTACCAATCTTCTACTTGGTTAAGACAGTTTTGTATCATTTTGCTAAAAATTATTGG
CTTAAATCTGTGTAAAGAAAATCTGTCTTTTTATTGTTTCTTGTCTGTTTTTGCAGTCTTACAAAAAAAATGTTG
ACTAAGGAATTC

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FIGURE 2341

ATGAG**ATG**GAACAGGCCTTGAGGACATGCAGCCCCTGCTCCCTCTCAGGGCAGGGAACCCCAGGAGGGCAGCTGC
AGGCCTGGGAAGCTCAGGCAGGAACTGGAACTTGGGTCTTGCCGTTTTCCGGTTGGGGCCGGGCCATCGGGCAGC
TCCTGGGCTTCAACAGCTCAAGCGACAGGGGGATCCCTGAGCACCACGGCCCTATGGCAGGGGGAAGGGACATGC
GCTCACCCCAGGCGGCTGGAGTGCGGCTGCCGGTGCCGCCCGAGAAGGCAGGGACTCTCCAGAACCGTCACACAG
AAAGCCCCGTACTCCAAAACGCTTACACAGTAACCAGCCTAGGATTGAGAAAGCATCCATGGGCTCAGGCAGACG
GCCAGCCAGCTGGTGGGGGGGTGAACAACTGTGTTCTGGGACGCCAGCCAGTTATGGCATCCGGGGAACTCTGGG
GAGGAGAAGGGAGAACCAAGGTGCACACCTTCGAAGCCCTAGAGTCCAAAGGGAACATCGTCCATCGTGATGGGG
TCCAGCCGAAGTGCCCACGAACACAGACTGCCCTGCGCATTGGGGTTGGGAGCACATGGCCACTGGCTACCGCCC
AAGTGCTGCGGAGTGAGAGGCGAGAAGGCATCCTGGGAACCTCAGGGCACAGCAGCATGGAGCCTGGGCAGCACC
AGCTCACGGAGGCCACCTGCCTTCTGGTGGGACTCGGCCCCACGCACGCTGCTTCACTTCTGACCAACAGACACG
CGCCCAACAGAAGGTCACAGCGCAGACTCTACTTTCTGGCCGTGAAGGTTCTGGGTCCGGTTGGGAGAGTCACCT
GCTCCTTGGCACCTCAGGGTGGGTCCTTCTGGCCTGCCGGCTTTTCTGAGCTAGTCTTGGCACGTGGCAAGGACA
GCCCCGCTCCTGGTTTTAAGCACAGGCATTCATACAGACGGAGTGCCAATCCGCACAGGAGCATTGAGTGC**TGA**

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FIGURE 2342

TCGTGAGCGGGGCTTGGGAAGGTGCGGCCCTACTCCGTCTACCTCTTCAGCTTCTCCATGTTCTTCAACGGCCTC
GCGGACCTGGCGGGTTCTACGGCGGGCGACTACGGCGGCTCGTGGTCTTCTGCATCTTCTTTGGCATCTCCTACG
GCATGGTGGGGGCCCTGCAGTTCGAGGTGCTCATGGCCATCGTGGGCACCCACAAGTTCTCCAGTGCCATTGCGC
TGGTGCTGCTGATGGAGGCGGTGGCAGACTCGTCGGGCCCCCTTCGGAAGGCAAACTCCTGGATGCGACCCACGT
CTACATGTACGTGTTCATCCTGGCGGGGGCCGAGGTGCTCACCTCCTCCCTGATTTTGCTGCTGGGCAACTTCTT
CTGCATTAGGAAGAAGCCCAAAGAGCCACAGCCTGAGGTGGCGGCCGCGGAGGAGGAGAAGCTCCACAAGCCTCC
TGCAGACTCGGGGGTGGACTTGCGGGAGGTGGAGCATTTCCTGAAGGCTGAGCCTGAGAAAAACGGGGAGGTGGT
TCACACCCCGGAAACAAGTGTCTGAGTGGCTGGGCGGGGCGGCAGGCACAGGGAGGAGGTACAGAAGCCGGCAAC
CTTGCTATTTATTTTACAAACTGGACTGGCTCAGGCAGGGCACGGCTGGGCTCCAC**ATG**ACCGGCCCAGCGAGAT
CGTCGCCCGATCAGTGTTTTGAGGGGGAAGGTGGCGGGGTGGGAACCGTGTCATTCCAGAGTGGATCTGCGGTGA
AGCCAAGCCGCAAGGTTACAAGGCATCCTCACCAGGGGCCCCGCCTGCTGCTCCCAGGTGGCCTGCAGCACATAT
GCTCAAGGACCTGGAAACCCATGCTTCGAGACAACGTGACTTTAATGGGAGGGTGGGTGGCCCGCAGACAGGCTG
GCAGGGCAGGTGCTGCGTGGGCCCTCTCCAGCCCGTCCTACCCTGGGCTCACATGGGGCCTGTGCCCACCCCTCT
TGAGTGTCTTGGGGACAGCTCTTTCCACCCCTGGAAGATGGAAA**TAA**ACCTGCGTGTGGGTGGAGTGTT

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FIGURE 2343

GAGAGCGCCTGCTCGCTGTGCCCCCGGGTTATGACGACCCCCAATAAAGGAAACAAGGCCTTGAAGCCCCAGGTG
AAGCGGGAGCCGGGTGAGAATGGCACCAGCTGACGGATGAGGAGCTGGTGACC**ATG**TCGGTGCGGGAGCTGAACC
AGCACCTGCGGGGCCTGTCCAAGGAGGAGATCGTCCAGCTGAAGCAGCGCCGGCGCACGCTCAAGAACCGCGGCT
ACGCTGCCAGCTGCCGCGTGAAGCGGGTGACGCAGAAGGAGGAGCTGGAGAAGCAGAAGGCGGAGCTGCAGCAGG
AGGTGGAGAAGCTGGCCTCAGAGAACGCCAGCATGAAGCTGGAGCTCGACGCGCTGCGCTCCAAGTACGAGGCGC
TGCAGACCTTCGCCCGGACGGTGGCCCGCAGCCCCGTGGCGCCACGCGACTCNTCT**TAG**CCGCCGGCCTGGGGCT
CCTCGTCCCAGGCAAGGTGGCCGCCACCAGCGTCATCACAATAGTAAAGTCCAAGACGGATGCCCGATCGTAGGG
ACGCGCGTCTGCCCAGGCGGGTCTTTGCGGGGCCACTAGGCACATGGCGAATTTGGCTGCACTGTCCCTCTGTTT
CCTTCT

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FIGURE 2344

GTGAGCCGACCAGAAGGCCGTCCTCTTTGATATCTTTTGCAATTGTACCGAAAGTGACTTACTCCTCTGCCCTTC
CTGCTTCCGTCTCTTGCCGGTGCCGTGGTGTCGTCCGTGCCTGGTGAGGTTTTGTGCAGCGGTAAAGTGCTGGTG
CTTCTGGTGACCTTTGACCTGTGGGTGTCACTTCTTGTGTCTGTTTTCCCGTGTTCGTTTTTTGGGTTTAGTTGT
GCTTTTGCTTCTGCTGGCTTGCTGGACCTGGGCTGGGGTGCCAAGTGGCGCCTGCTGCGTCAGAGCTCAAGGAAT
CTGTGCCCACCACCAGCTCCTGGTCCGTAGGAGGTGAGACATGGGGTTCTGTCATGCCCCCTCCACTGAGCCTTG
CTACATCTGTGTCTAGGGCTTGGGCTGATCTAGTGGCGGGGTAGGTGAAACTGGGGTCCCTTGGGGCGCCCCACG
CTGCTTCCACACCCACCACCTCTGGCCTTGGGTGGTGGCATTACAGGGATGAGGGAGTCACTGTGGGTGGCCACA
GGGCTATGGCCAAGCGTTCCCTGGCCGTCTTCCTCTGGCCTCAGCTTTGTTCCTATAGGCTGCCCGCGCCGTGGG
CTGCAGGTCTCGCCGCCCGCTTGATCCCTGAGGTGTTTCCATGCTGCGGGTGGTGCTTCCAGGCAGAGTGGGTGG
GGGCCCACCGGCGACGCCCTTTCTTCCTTGTCCCTGCCTCACTCTGAGAGCCTTGGGGGTCTCCACCAGTGCAGA
CAAGGGCTACAGTCTCCAGGGCCGGGTCTTGTCCCTCTTCTCCGCTGGTCCACGCTGGCAGCTCTTGGCTTCGGG
CCTGCCTTCTGCCTCCCTTTGGGATCTGTGTCTTCCAGGGATCAGCTGCTTGGCTTCTGCTGGAGGTGCCTCCCT
GTGGGGCGCAGCCTGCCTCCTGCTCTCAGTTCCTCGCCAGAGGCTGCTGCCCTTCCTGGCTGGGCTCAGGAGGCT
CCTTGTAGGCATATGATGGGGAGGGGGTGCCCCTACCCACCTCCAAGAGGCTACAGCCCTGTGTCTGGCCATGTG
AGCCCTGGCCTTTCACCGGGTTGCTGGTTTCTTTTCTGTGGGGCCCAGACTTCTGTAAAGCACACAGATGTGGGT
AAGATGAAAAACTGTGGCCCAACAGGGCTTAACCCTATGGATGGTGGGATTTTTATCCAATAGTTTGGCCTGGTG
TGCCCACAGGATGGGAACAGGGAGGCACCATCAACACTTGTCATGTTAATGAGCTTTTCTTTGCTCGAGGTGTTC
AGAGACAAGTCCTGTGTCTACCTGCGTCAGCCTGAAAATGGAAATATTGGCTGTTGACTCTTGTCATTTAGTGAC
TTCATCCCCCTCCCCTCAGTCTGATCTTGTCTAAGTAGAATCCAGGCGTTAGTTGGAATCATATCATAAGTATCC
ATGAAGAAAACGTCATGATCTGCCTCGGAGTGGGGAGAAACAGGCCCTCCTTGTCCTTGTGCAGCCCCCACTTTT
GTCCTGGCTGTGGGTGGCCATCCATTTTGAGCACCTCTGCCAGGCTGCAGACCTGGAGGCGAAGGGAGTGTGGAA
GAGGAGGGTGTAAGGGTCGACGCGTGCTGAATGGGAGGTGCAGGTCCTCGGTGCGTTGGCAGAAGAGGCTTCTGG
AGTTTCGAGGCCATACCTCCTTTCAAGAGCTTTGGATTTGGGGCGACTTCCCTGGGTCTAGGGGAGTGTTCCTGT
CCCCTGTCAGGTCAGCCCTGCGGAGCCACTCCACCCCTCTTCCCCTTCCCCTGGATTTCCTGACATAGATGGTGT
GTTCATGTGCAGGTGTGAGTGTGCTGTCCTTCTGATCTCTGTTGATCCCGCTTTCCTACTGAGAGGGTGGTGGAG
AGGGTGGTGGTCTCTTCTCACCTCAGTTTTTCTGACACAGCGAATCGAGGGCTTTGGCCAAGGCCAGGTCTCTCA
AACTTGTCCGCCAAGTAAACCATGATATATGTCTTCCCTTCCACCTTAACTTTGCCCCAACTCCTCTTTTATCCT
AAC**ATG**GACGCTCAGATTTCAGAGGAATACCCAGCAGGGACAGGTCAGCTCTCACCAGGAGAG**TGA**GGCCCCTGG
CTGCTGCTCGGGGTGGCACTGGTGTTGCTGGCTCAGCTCTTGGTGCATGTTTCAGATATGTGTGTACACTTCTGA
CTGGTGATCAGGGCCCGCCCACGGCCCTGAGCGGCTGCAGCCTGCTTTGGGACGATGGTCAGGTCCCATGTTGTC
CCTGCTGCCTCCCTCTGGAGTGGCCACTTGGCCAAAGCGCCCATCCACATCTGGAAAGTCGGAGCCGCAGCCTGC
TGCACCGTTTCCGCTCTGGGATCTTGTGAGTTACTTTTTTAGGCTGTGGTTTGGTGAAAGGAACCAACACATTAA
CGATTTTTCCCCCAGAAGCCACTGAATAATTCTTTTTGGTGTATTTTTGCCTTCCTGTTGGCTGTCTGGCCTTGG
AGCAGGTCGGGAGAGTAGAGTACATAATCAGTGCCACACAGAGGCAGGGCGTGTCTGAGAGACTAATGCCTGTCC
TGCCTCTGGCCTGTGTCCTGGGTGTGTACCATACCTGCTGGGCCAGTCCCACACATTTCCACCCTGCCCCTGGAG
CAGCAGCTTTGATACCATGGGTGTCCCTTGAGTCTGAGCTAGAGTGTGTCCCCGATAAACTGTGAGACCTCCCTG
TTCTTGGTGACCCCAGTTGGGCTTTGGCCCCTCCAGCAACCTTGTGTCCCAGCCCTGCCCTTCTTCCCACCCCCT
CAATCTGCTAGTCCCTGAAGCCTTTAACCAAACGGGAGTGGGCACAGAAAGCCTTCTCCTGGCAACAGGACAAGG
GCTGCCCGCGTGTCCAGCCCTGTTGCTCTCCTGGCGCTGAGAGGTGGGTCCAAGCAGAGTTGATCAGTCCCTGCC
TGCCCTGCCTAGGTCTAGCCAGGGGAGGTTGTGTGTGTGGGAGAAGACCCCGGGATCTGCTGGGGTGGGATGGAG
GTTATTAAAGATCTAAGTGAGGAGGGGCTGGGGTTTGGATGCGGGGTGAGGCCCGAGCGCTCAACCTTCGTGTAG
GGCGGGCAGGGGCCTGACCTCTTGCAGGGCAGTGGCCTTGGTGCCCTACCCCTGCCCTGCGCAGTATTTATTGCT
AAATTATTGTCCAGGAGGGGCAGCATGTGGCCTGGCCCCCCGGGTATTTATTGCTGTACATAGTGTATGTTTGTG
ATATATAAGGTTTTCTTTATTTTGTATATGATCAATAAACCTTTTAAAGAG

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FIGURE 2345

GCGGGCGGCGGCGCTCGGAGTCGCCGGGAGCTGCCAGGCTGCTCCGCGCGCCGCTGCGGGGCC**ATG**ATCCGGAAC
GGGCGCGGGGCTGCAGGCGGCGCAGAGCAGCCGGGCCCGGGGGGCAGGCGCGCCGTGAGGGTGTGGTGCGATGGC
TGCTATGACATGGTGCATTACGGCCACTCCAACCAGCTGCGCCAGGCACGGGCCATGGGTGACTACCTCATCGTA
GGCGTGCACACCGATGAGGAGATCGCCAAGCACAAGGGGCCCCCGGTGTTCACTCAGGAGGAGAGATACAAGATG
GTGCAGGCCATCAAATGGGTGGACGAGGTGGTGCCAGCGGCTCCCTACGTCACTACACTAGAGACCCTGGACAAA
TACAACTGTGACTTCTGTGTTCACGGCAATGACATCACCCTGACTGTAGATGGCCGGGACACCTATGAGGAAGTA
AAGCAGGCTGGGAGGTACAGAGAATGCAAGCGCACGCAAGGGGTGTCCACCACAGACCTCGTGGGCCGCATGCTG
CTGGTAACCAAAGCCCATCACAGCAGCCAGGAGATGTCCTCTGAGTACCGGGAGTATGCAGACAGTTTTGGCAAG
TGCCCTGGTGGGCGGAACCCCTGGACCGGGGTATCCCAGTTCCTGCAGACATCTCAGAAGATCATCCAGTTTGCT
TCTGGGAAGGAGCCCCAGCCAGGGGAGACAGTCATCTATGTGGCTGGTGCCTTCGACCTGTTCCACATCGGGCAT
GTGGACTTCCTGGAGAAGGTGCACAGGCTGGCAGAGAGGCCCTACATCATCGCGGGCTTACACTTTGACCAGGAG
GTCAATCACTACAAGGGGAAGAACTACCCCATCATGAATCTGCATGAACGGACTCTGAGCGTGCTGGCCTGCCGG
TACGTGTCAGAAGTGGTGATTGGAGCCCCGTACGCGGTCACAGCAGAGCTCCTAAGTCACTTCAAGGTGGACCTG
GTGTGTCACGGCAAGACAGAAATTATCCCTGACAGGGATGGCTCCGACCCATACCAGGAGCCCAAGAGAAGGGGC
ATCTTCCGTCAGATTGACAGTGGCAGCAACCATCACCAAAGACTCATCGTCAGCGGATTATCACAAACAGAGGCG
CTAAACGAGAAGAAGGAAGCCAAGGAGCTCGCCTTCCTGGAGGTGCCAGGCAGCAGGCGCACAGCCCTGGGGAGC
GCGATGGTACTTCTAACCTGGCAGAGCCCTGCCGGCCCTCCCCCTGCTCTGCTTCTGCGCCTTCTGCGTTTGGAC
ATAGGACTCTGCAGGGCCGCCCTCTCTAACTGGCCTGGCTCTGGAAGGGCTGGTGAGGACTCTGCCTCCTTGCCT
GCCTACAAGGTGCCTGGTTTGCAGCAGGCTCTCCGCTCTTTCCAGCAAAGCTGCTCAGAGAGGGTGTCCAGCACA
GTGGAGAGGCCGGAAGTGAGACGGGCAGACGGCACCTGCAGCCTGAAACGCACCGCTCCTGCGTGCGCCCCCACC
TGGTCCCCGGATGCCCCCACCACCTGGACAGAGGCCACACTGACTGCCCACCCAGCTGTGGCGGGAGGTGCAGAG
CAGAGGGCTTTAGGGAGCAGTGACTGCGGTCACCCCTTTAGTTCTCTGGGTGTAGACCACACCACCTCCCACTGG
GCACCCCCCAACACGGTGTCCTGCCACCCAGCGCCTGGCTCCAGGAAAACACGCTTGCCTTCCTTCCCGGCAGCT
TCGCCACTCTCCTTATGGACTCTGTTCTGTTTGTACATGGCTGACGGAAATCTCTTTGGTACAACCGAA**TAA**AGC
CTGGTGGCAGTGCTGCGCGGGGCTCCCAGCC

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FIGURE 2346

AGAAGCAGAGGAGCCAGGAACCTCTCTGAAGTGACACCTCACCCCTACACACCGTCCGTTCACCCCCGTCTCTTC
CTTCTGCTTTTCGGTTTTTGGAAAGGGATCCATCTCCAGGCAGCCCACCCTGGTGGGGCTTGTTTCCTGAAACCA
TGATGTACTTTTTCATACATGAGTCTGTCCAGAGTGCTTGCTACCGTGTTCGGAGTCTCGCTGCCTCCCTCCCGC
GGGAGGTTTCTCCTCTTTTTGAAAATTCCGTCTGTGGGATTTTTAGACATTTTTCGACATCAGGGTATTTGTTCC
ACCTTGGCCAGGCCTCCTCGGAGAAGCTTGTCCCCCGTGTGGGAGGGACGGAGCCGGACTGGACATGGTCACTCA
GTACCGCCTGCAGTGTCGCCATGACTGATCATGGCTCTTGCATTTTTGGGTAAATGGAGACTTCCGGATCCTGTC
AGGGTGTCCCCCATGCCTGGAAGAGGAGCTGGTGGCTGCCAGCCCTGGGGCCCGGCACAGGCCTGGGCCTTCCCC
TTCCCTCAAGCCAGGGCTCCTCCTCCTGTCGTGGGCTCATTGTGACCACTGGCCTCTCTACAGCACGGCCTGTGG
CCTGTTCAAGGCAGAACCACGACCCTTGACTCCCGGGTGGGGAGGTGGCCAAGGATGCTGGAGCTGAATCAGACG
CTGACAGTTCTTCAGGCATTTCTATTTCACAATCGAATTGAACACATTGGCCAAATAAAGTTGAAATTTTACCAC
CTCAAAAAAAAAAAAAAAAAATTAAAAAAAAAAAAAAAAAAAA

FIGURE 2347

CCCCTACACACCGTCCGTTCACCCCCGTCTCTTCCTTCTGCTTTTCGGTTTTTGGAAAGGGATCCATCTCCAGGC
AGCCCACCCTGGTGGGGCTTGTTTCCTGAAACCATGATGTACTTTTTCATAC**ATG**AGTCTGTCCAGAGTGCTTGC
TACCGTGTTCGGAGTCTCGCTGCCTCCCTCCCGCGGGAGGTTTCTCCTCTTTTTGAAAATTCCGTCTGTGGGATT
TTTAGACATTTTTCGACATCAGGGGTGTCCCCCATGCCTGGAAGAGGAGCTGGTGGCTGCCAGCCCTGGGGCCCG
GCACAGGCCTGGGCCTTCCCCTTCCCTCAAGCCAGGGCTCCTCCTCCTGTCGTGGGCTCATTGTGACCACTGGCC
TCTCTACAGCACGGCCTGTGGCCTGTTCAAGGCAGAACCACGACCCTTGACTCCCGGGTGGGGAGGTGGCCAAGG
ATGCTGGAGC**TGA**ATCAGACGCTGACAGTTCTTCAGGCATTTCTATTTCACAATCGAATTGAACACATTGGCCAA
ATAAAGTTGAAATTTT

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FIGURE 2348

GGAGTTTCGTCATGTTGGCCAGGCCCATTTGAGATCTTTGAAGATATCCTCAACGTGAGGCTCTGCTGCC**ATG**AA
GGTGAAGATTAAGTGCTGGAACGGCGTGGCCACTTGGCTCTGGGTGGCCAACGATGAGAACTGTGGCATCTGCAG
GATGGCATTTAACGGATGCTGCCCTGACTGCAAGGTGCCCGGCGACGACTGCCCGCTGGTGTGGGGCCAGTGCTC
CCACTGCTTCCACATGCATTGCATCCTCAAGTGGCTGCACGCACAGCAGGTGCAGCAGCACTGCCCCATGTGCCG
CCAGGAATGGAAGTTCAAGGAG**TGA**GGCCCGACCTGGCTCTCGCTGGAGGGGCATCCTGAGACTCCTTCCTCATG
CTGGCGCCGATGGCTGCTGGGACAGCGCCCCTGAGCTGCAACAAGGTGGAAACAAGGGCTGGAGCTGCGTTTGTT
TTGCCATCACTATGTTGACACTTTTATCCAATAAGTGAAAACTCATTAAACTACTCAAATCTT

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FIGURE 2349

GGGGCGGCCGACGACGTTCGTCATTTAGTGCGGGAGGGATCCTGAACCGCGCGGCCGAAACCTCCGGTGTCCCGA
CCCAGGCTAAGCTTGAGC**ATG**GCTGAGCAGGAGCCCACAGCCGAGCAGCTGGCCCAGATTGCAGCGGAGAACGAG
GAGGATGAGCACTCGGTCAACTACAAGCCCCCGGCCCAGAAGAGCATCCAGGAGATCCAGGAGCTGGACAAGGAC
GACGAGAGCCTGCGAAAGTACAAGGAGGCCCTGCTGGGCCGCGTGGCCGTTTCCGCAGACCCCAACGTCCCCAAC
GTCGTGGTGACTGGCCTGACCCTGGTGTGCAGCTCGGCCCCGGGCCCCCTGGAGCTGGACCTGACGGGCGACCTG
GAGAGCTTCAAGAAGCAGTCGTTTGTGCTGAAGGAGGGTGTGGAGTACCGGATAAAAATCTCTTTCCGGGTTAAC
CGAGAGATAGTGTCCGGCATGAAGTACATCCAGCATACGTACAGGAAAGGCGTCAAGATTGACAAGACTGACTAC
ATGGTAGGCAGCTATGGGCCCCGGGCCGAGGAGTACGAGTTCCTGACCCCCGTGGAGGAGGCACCCAAGGGTATG
CTGGCCCGGGGCAGCTACAGCATCAAGTCCCGCTTCACAGACGACGACAAGACCGACCACCTGTCCTGGGAGTGG
AATCTCACCATCAAGAAGGACTGGAAGGAC**TGA**GCCCAGCCAGAGGCGGGCAGGGCAGACTGACGGACGGACGAC
GGACAGGCGGATGTGTCCCCCCCAGCCCCTCCCCTCCCCATACCAAAGTGCTGACAGGCCCTCCGTGCCCCTCCC
ACCCTGGTCCGCCTCCCTGGCCTGGCTCAACCGAGTGCCTCCGACCCCCCTCCTCAGCCCTCCCCCACCCACAGG
CCCAGCCTCCTCGGTCTCCTGTCTCGTTGCTGCTTCTGCCTGTGCTGTGGGGGAGAGAGGCCGCAGCCAGGCCTC
TGCTGCCCTTTCTGTGCCCCCCAGGTTCTATCTCCCCGTCACACCCGAGGCCTGGCTTCAGGAGGGAGCGGAGCA
GCCATTCTCCAGGCCCCGTGGTTGCCCCTGGACGTGTGCGTCTGCTGCTCCGGGGTGGAGCTGGGGTGTGGGATG
CACGGCCTCGTGGGGGCCGGGCCGTCCTCCAGCCCCGCTGCTCCCTGGCCAGCCCCCTTGTCGCTGTCGGTCCCG
TCTAACCATGATGCCTTAACATGTGGAGTGTACCGTGGGGCCTCACTAGCCTCTAACTCCCTGTGTCTGCATGAG
CATGTGGCCTCCCCGTCCCTTCCCCGGTGGCGAACCCAGTGACCCAGGGACACGTGGGGTGTGCTGCTGCTGCTC
CCCAGCCCACCAGTGCCTGGCCAGCCTGCCCCCTTCCCTGGACAGGGCTGTGGAGATGGCTCCGGCGGCTTGGGG
AAAGCCAAATTGCCAAAACTCAAGTCACCTCAGTACAATCAGGAGGCTGGGTATTGTCCTGCCTCTGCCTTTTCT
GTCTCAGCGGGCAGTGCCCAGAGCCCACACCCCCCCAAGAGCCCTCGATGGACAGCCTCACTCACCCCACCTGGG
CCCAGCCAGGAGCCCCGCCTGGCCATCAGTATTTATTGCCTCCGTCCGTGCCGTCCCTGGGCCACTGGCCTGGCG
CCTGTTCCCCCAGGCTCTCAGTGCCACCACCCCCGGCAGGCCTTCCCTGACCCAGCCAGGAACAAACAAGGGACC
AAGTGCACACATTGCTGAGAGCCGTCTCCTGTGCCTCCCCCGCCCCATCCCCGGTCTTCGTGTTGTGTCTGCCAG
GCTCAGGCAGAGGCGCCTGTCCCTGCTTCTTTTCTGACCGGGAAATAAATGCCCCTGAAGG

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FIGURE 2350

CTCCGGACAGCATGAGCGTGGGCTTCATCGGCGCTGGCCAGCTGGCTTTTGCCCTGGCCAAGGCTTTCACAGCAG
CAGGCGTCTTGGCTGCCCACAAGATAATGGCTAGCTCCCCAGACATGGACCTGGCCACAGTTTCTGCTCTCAGGA
AGATGGGGGTGAAGTTGACACCCCACAACAAGGAGACGGTGCAGCACAGTGATGTGCTCTTCCTGGCTGTGAAGC
CACACATCATCCCCTTCATCCTGGATGAAATAGGCGCCGACATTGAGGACAGACACATTGTGGTGTCCTGCGCGG
CCGGCGTCACCATCAGCTCCATTGAGAAGAAGCTGTCAGCGTTTCGGCCAGCCCCCAGGGTCATCCGCTGCATGA
CCAACACTCCAGTCGTGGTGCGGGAGGGGGCCACCGTGTATGCCACAGGACGCACGCCCAGGTGGAGGACGGGAG
GCTC**ATG**GAGCAGCTGCTGAGCAGCGTGGGCTTCTGCACGGAGGTGGAAGAGGACCTGATTGATGCCGTCACGGG
GCTCAGTGGCAGCGGCCCCGCCTACGCATTCACAGCCCTGGATGCCCTGGCTGATGGGGGTGTGAAGATGGGACT
TCCAAGGCGCCTGGCAGTCCGCCTCGGGGCCCAGGCCCTCCTGGGGGCTGCCAAGATGCTGCTGCACTCAGAACA
GCACCCAGGCCAGCTCAAGGACAACGTCAGCTCTCCTGGTGGGGCCACCATCCATGCCTTGCATGTGCTGGAGAG
TGGGGGCTTCCGCTCCCTGCTCATCAACGCTGTGGAGGCCTCCTGCATCCGCACACGGGAGCTGCAGTCCATGGC
TGACCAGGAGCAGGTGTCACCAGCCGCCATCAAGAAGACCATCCTGGACAAGGTGAAGCTGGACTCCCCTGCAGG
GACCGCTCTGTCACCTTCTGGCCACACCAAGCTGCTCCCCCGCAGCCTGGCCCCAGCGGGCAAGGAT**TGA**CACGT
CCTGCCTGACCACCATCCTGCCACCACCTTCTCTTCTCTTGTCACTAGGGGGACTAGGGGGTCCCCAAAGTGGCC
CACTTTCTGTGGCTCTGATCAGCGCAGGGGCCAGCCAGGGACATAGCCAGGGAGGGGCCACATCACTTCCCACTG
GAAATCTCTGTGGTCTGCAAGTGCTTCCCAGCCCAGAACAGGGGTGGATTCCCCAACCTCAACCTCCTTTCTTCT
CTGCTCCCAAACCATGTCAGGACCACCTTCCTCTAGAGCTCGGGAGCCCGGAGGGTCTTCACCCACTCCTACTCC
AGTATCAGCTGGCACGGGCTCCTTCCTGAGAGCAAAGGTCAAGGACCCCCTCTGTGAAGGCTCAGCAGAGGTGGG
ATCCCACGCCCCCTCCCGGCCCCTCCCTGCCCTCCATTCAGGGAGAAACCTCTCCTTCCCGTGTGAGAAGGGCCA
GAGGGTCCAGGCATCCCAAGTCCAGCGTGAAGGGCCACAGCCCCTCTTGGCTGCCAAGCACGCAGATCCCATGGA
CATTTGGGGAAAGGGCTCCTTGGGCTGCTGGTGAACTTCTGTGGCCACCACCTCCTGCTCCTGACCTCCCTGGGA
GGGTGCTATCAGTTCTGTCCTGGCCCTTTCAGTTTTATAAGTTGGTTTCCAGCCCCCAGTGTCCTGACTTCTGTC
TGCCACATGAGGAGGGAGGCCCTGCCTGTGTGGGAGGGTGGTTACTGTGGGTGGAATAGTGGAGGCCTTCAACTG
ATTAGACAAGGCCCGCCCACATCTTGGAGGGCATCTGCCTTACTGATTAAAATGTCAATGTAATCT

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FIGURE 2351

CGGCCGGACAGCCCGTGGAGAGCTTCCCGCTGGACTTCACGGCCGTGGAGGGTAAC**ATG**GACAGCTTCATGGCGC
AAGTCAAGAGCCTGGCGCAGTCCCTGTACCCCTGCTCCGCGCAGCAGCTCAACGAGGACCTGCGCCTGCACCTCC
TACTCAACACCTCGGTGACCTGCAACGACGGCAGCCCCGCCGGCTACTACCTGAAGGAGTCCAGGGGCAGCCGGC
GGTGGCTCCTCTTCCTGGAAGCCGTCTGGTACTGCTTCAACCGCGAGAACTGCGACTCCAGATACGACACCATGC
GGCGCCTCATGAGCTCCCGGGACTGGCCGCGCACTCGCACAGGCACAGGGATCCTGTCCTCACAGCCGGAGGAGA
ACCCCTACTGGTGGAACGCAAACATGGTCTTCATCCCCTACTGCTCCAGTGATGTTTGGAGCGGGGCTTCATCCA
AGTCTGAGAAGAACGAGTACGCCTTCATGGGCGCCCTCATCATCCAGGAGGTGGTGCGGGAGCTTCTGGGCAGAG
GGCTGAGCGGGGCCAAGGTGCTGCTGCTGGCCGGGAGCAGCGCGGGGGGCACCGGGGTGCTCCTGAATGTGGACC
GTGTGGCTGAGCAGCTGGAGAAGCTGGGCTACCCAGCCATCCAGGTGCGAGGCCTGGCTGACTCCGGCTGGTTCC
TGGACAACAAGCAGTATCGCCACACAGACTGCGTCGACACGATCACGTGCGCGCCCACGGAGGCCATCCGCCGTG
GCATCAGGTACTGGAACGGGGTGGTCCCGGAGCGCTGCCGACGCCAGTTCCAGGAGGGCGAGGAGTGGAACTGCT
TCTTTGGCTACAAGGTCTACCCGACCCTGCGCTGCCCTGTGTTCGTGGTGCAGTGGCTGTTTGACGAGGCACAGC
TGACGGTGGACAACGTGCACCTGACGGGGCAGCCGGTGCAGGAGGGCCTGCGGCTGTACATCCAGAACCTCGGCC
GCGAGCTGCGCCACACACTCAAGGACGTGCCGGCCAGCTTTGCCCCCGCCTGCCTCTCCCATGAGATCATCATCC
GGAGCCACTGGACGGATGTCCAGTTGAAGGGGACGTCGCTGCCCCGAGCACTGCACTGCTGGGACAGGAGCCTCC
ATGACAGCCACAAGGCCAGCAAGACCCCCCTCAAGGGCTGCCCCGTCCACCTGGTGGACAGCTGCCCCTGGCCCC
ACTGCAACCCCTCATGCCCCACCGTCCGAGACCAGTTCACGGGGCAAGAGATGAACGTGGCCCAGTTCCTCATGC
ACATGGGCTTCGACATGCAGACGGTGGCCCAGCCGCAGGGACTGGAGCCCAGTGAGCTGCTGGGGATGCTGAGCA
ACGGAAGC**TAG**GCAGACTGTCTGGAGGAGGAGCCGGCACTGAGGGGCCCAGACACCCGCTGCACCAGTGCCACCT
CACCCCACACCAGCAGGCCCTCCCGTCTCTTCGGGACAGGGCACCAGCCGTCCCCCCTGTCTGGGTATGCTCACT
GCCCTCCTGCCCCGGCTTTCCCTGCCCCTCTCCCACAGCCCAGCCAGAGACAAGGGACCTGCTGTCATCCCCATC
TGTGGCCTGGGGGTCCTTCCTGACAACGAGGGGGTAGCCAGAAGAGAAGCACTGGATTCCTCAGTCCACCAGCTC
AGACAGCACCCACCGGCCCCACCCATCAAGCCCTTTTATATTATTTTATAAAGTGACTTTTTTATTACTTTAATT
TTTTAAAAAAAGGAAAATAAGAATATATGATGAATGATATTGTTTTGTAACTTTTTAAAAATGATTTTAAAGAGA
CA

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FIGURE 2352

GCGCCGTGGGGAAGACATGCTTGCTGATCAGCTACACGACCAACGCCTTCCCCGGAGAGTACATCCCCACCGTTT
TTGACAACTACTCTGCCAACGTG**ATG**GTGGACGGGAAACCAGTCAACTTGGGGCTGTGGGACACAGCGGGTCAGG
AGGACTACGATCGGCTGCGGCCACTCTCCTACCCCCAAACTGTACGTCTTTCTGATCTGCTTCTCTCTGGTGAGC
CCGGCCTCCTTCGAGAATGTTCGTGCCAAGTGGTACCCGGAGGTGCGGCACCACTGCCCCCACACGCCCATCCTC
CTGGTGGGCACCAAGCTGGACCTCCGCGACGACAAGGACACCAT**TGA**GCGGCTGCGGGACAAGAAGCTGGCACCC
ATCACCTACCCACAGGGCCTGGCCATGGCCCGGGAGATTGGCTCTGTGAAATACCTGGAGTGCTCAGCCCTGACC
CAGCGGGGCCTGAAGACAGTGTTTGACGAGGCGATCCGCGCGGTGCTCTGCCCGCCCCCAGTGAAGAAGCCGGGG
AAGAAGTGCACCGTCTTCTAGAGCCCTGGCCCACCCGAGCCTGAGGGCTGGC

FIGURE 2353

GAC**ATG**GAGCTGTTCCTCGCGGGCCGCCGGGTGCTGGTCACCGGGGCAGGCAAAGGTATAGGGCGCGGCACGGTC
CAGGCGCTGCACGCGACGGGCGCGCGGGTGGTGGCTGTGAGCCGGACTCAGGCGGATCTTGACAGCCTTGTCCGC
GAGTGCCCGGGGATAGAACCCGTGTGCGTGGACCTGGGTGACTGGGAGGCCACCGAGCGGGCGCTGGGCAGCGTG
GGCCCCGTGGACCTGCTGGTGAACAACGCCGCTGTCGCCCTGCTGCAGCCCTTCCTGGAGGTCACCAAGGAGGCC
TTTGACAGATCCTTTGAGGTGAACCTGCGTGCGGTCATCCAGGTGTCGCAGATTGTGGCCAGGGGCTTAATAGCC
CGGGGAGTCCCAGGGGCCATCGTGAATGTCTCCAGCCAGTGCTCCCAGCGGGCAGTAACTAACCATAGCGTCTAC
TGCTCCACCAAGGGTGCCCTGGACATGCTGACCAAGGTGATGGCCCTAGAGCTCGGGCCCCACAAGATCCGAGTG
AATGCAGTAAACCCCACAGTGGTGATGACGTCCATGGGCCAGGCCACCTGGAGTGACCCCCACAAGGCCAAGACT
ATGCTGAACCGAATCCCACTTGGCAAGTTTGCTGAGGTAGAGCACGTGGTGAACGCCATCCTCTTTCTGCTGAGT
GACCGAAGTGGCATGACCACGGGTTCCACTTTGCCGGTGGAAGGGGGCTTCTGGGCCTGC**TGA**GCTCCCTCCACA
CACCTCAAGCCCCATGCCGTGCTCATCCTACCCCCAATCCCTCCAATAAACCTGATTCTGCTGCCC

FIGURE 2354

TGCCCCCAGCCTGCGGCCTGACGACGTCTTCATCGCCGTCAAGACCACCCGGAAGAACCACGGGCCGCGCCTGCG
GCTGCTGCTGCGCACCTGGATCTCCCGGGCCCGCCAGCAGACGTTTATCTTCACCGACGGGGACGACCCTGAGCT
CGAGCTCCAGGGCGGCGACCGTGTCATCAACACCAACTGCTCGGCGGTGCGCACTCGTCAGGCCCTCTGCTGCAA
G**ATG**TCCGTGGAGTATGACAAGTTCATTGAGTCCGGGCGCAAGTGGTTTTGCCACGTGGATGATGACAATTATGT
GAACGCCAGGAGCCTCCTGCACCTGCTCTCCAGCTTCTCACCCAGCCAGGACGTCTACCTGGGGCGGCCCAGCCT
GGACCACCCCATTGAGGCCACCGAGAGGGTCCAGGGTGGCAGAACTGTGACCACGGTCAAGTTCTGGTTTGCTAC
TGGTGGGGCCGGGTTCTGCCTCAGCAGAGGCCTTGCCCTCAAGATGAGCCCATGGGCCAGCCTGGGCAGCTTCAT
GAGCACAGCTGAGCAGGTGCGGCTGCCGGATGACTGCACAGTTGGCTACATCGTGGAGGGGCTCCTGGGCGCCCG
CCTGCTGCACAGCCCCCTCTTCCACTCTCACCTGGAGAACCTGCAGAGGCTGCCGCCCGACACCCTGCTCCAGCA
GGTTACCTTGAGCCATGGGGGTCCTGAGAACCCACATAACGTGGTGAACGTGGCTGGAGGCTTCAGCCTGCATCA
AGACCCCACACGGTTTAAGTCTATCCATTGTCTTCTGTACCCAGACACGGACTGGTGTCCCAGGCAGAAACAGGG
CGCCCCGACCTCTCGG**TGA**CACCAACCACCCCGACCCAGGGCTGCCTGGCTCTGTCCCAGGCGCGGGGAACCAGA
GCCCCCTATGGGCTCAGTGGGCTCCCTCAGGTGCCACGGCCACACCAGTGAGATGCAGGCACCTGGCAGACCCTC
TGGCTAGCCTGCAGCCCCCCCTCTCCCAGCCCCTGGTGGGCTGCGGTGATGGGTGTTTTGGGAGAACGAAGACAG
CCAGGCTGATGGCCAGGGCCGCAGTGCCCCTCCCCCCGACCCAGCCCCAAGGTTGATCCCACGGGAACAGGCTTC
CACCCCAGCACTTGCGCACCTGGGAGGGAGCTGCCATCCGGGCTCCATTACCTGTTGCTGAAGGCGGGTGCTAGG
CTGGCTGGGTGTCAAGGAGCAGGCTCCAGGCCAAGGTCCTGGCCCAGCCACGGCCATTGCAAGGGCTCAGCCTGG
CAGGCTTTGTGGGGGACGCCGCCCTCTCTGCCGCAGGCTGGGTGCACGGCCGGGCACCACAGTGGGACTCAGGCC
CGGGAAGGTCATGTTCTCGACCAGAGCTTTGCTCCCAGTCCAGGCGCCTCATTCGGAGGCCTCTTGACTGGGACC
ACAGAGATGTTTTCTCCGCTCTGACTTGTGGCTCAGGACTACTTTCTGGGTCGTGCTCCTGCCCCACTGTGCCTG
GGCCCATAAACAACAGGAGCCTTTTGTTCCGCTGACCTGCCCATCCCAGCAGACCCACCTCCCCGCCTGGTGCCT
TCCATGGAGGGAAATGGGACAGGGGCCGTCATCTCCCCTCTGCCTCCTGCTTTGCTGTTGCCGAGCACGAGTAAA
GCTTTTGTTCTTACTTC

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FIGURE 2355

GGAAGTGGACGGCACGCCGCGGCGGGGTGGGTGCAAGATGCCGCTGCCGGTTCAGGTGTTTAACTTGCAGGGGGC
CGTGGAGCCCATGCAGATCGACGTGGACCCCCAGGAAGACCCGCAGAATGCACCTGACGTCAACTACGTGGTGGA
GAACCCCAGCCTGGATCTGGAACAGTACGCGGCCAGCTACAGCGGCCTGATGCGCATCGAACGGCTGCAGTTCAT
TGCTGATCACTGCCCCACGCTGCGGGTGGAGGCCCTGAAGATGGCCCTCTCCTTCGTGCAGAGAACCTTTAACGT
GGACATGTACGAGGAGATCCACCGCAAGCTCTCAGAGGCCACCAGGGAGCTGCAGAACGCACCCGACGCCATCCC
TGAGAGCGGCGTGGAGCCCCCAGCCCTGGACACGGCCTGGGTGGAGGCCACGCGGAAGAAGGCGCTGCTGAAGCT
GGAGAAGCTGGACACAGACCTGAAGAACTACAAGGGCAACTCCATCAAAGAGAGCATCCGGCGCGGCCACGACGA
CCTGGGCGACCACTACCTGGACTGTGGGGACCTCAGCAACGCCCTCAAGTGCTATTCCCGGGCCCGGGACTACTG
CACCAGCGCCAAACACGTCATCAACATGTGCCTCAATGTCATCAAGGTCAGCGTCTACTTGCAGAATTGGTCTCA
TGTGCTCAGCTACGTCAGCAAGGCTGAGTCCACCCCAGAGATTGCCGAGCAGCGAGGAGAGCGTGACAGCCAGAC
CCAGGCCATCCTCACCAAGCTCAAGTGTGCCGCAGGCTTGGCAGAGCTGGCCGCCAGGAAGTACAAGCAGGCTGC
CAAGTGCCTCCTGCTGGCTTCCTTTGATCACTGTGACTTCCCTGAGCTGCTGTCCCCCAGCAACGTGGCCATCTA
CGGTGGCCTGTGCGCCTTGGCTACCTTTGACCGGCAGGAGCTGCAGCGCAATGTCATCTCCAGCAGCTCCTTCAA
GTTGTTCTTGGAGCTGGAGCCACAGGTCCGAGACATCATCTTCAAATTCTACGAGTCCAAGTACGCCTCATGTCT
CAAGATGCTGGACGAGATGAAGGACAACCTGCTCCTGGACATGTATCTGGCCCCCCATGTCAGGACCCTGTACAC
CCAGATTCGCAACCGTGCCCTCATCCAGTATTTCAGCCCCTACGTGTCAGCCGACATGCATAGGATGGCGGCAGC
CTTCAATACCACGGTGGCCGCCCTGGAGGACGAGCTGACGCAGCTAATCCTGGAGGGGCTGATCAGTGCCCGTGT
GGACTCACACAGCAAGATCCTATACGCCCGGGACGTGGATCAGCGCAGCACCACCTTTGAGAAGTCTCTGTTGAT
GGGCAAGGAGTTCCAGCGCCGCGCCAAGGCCATGATGCTGCGGGCAGCTGTGCTCCGCAACCAGATCCATGTCAA
GTCCCCGCCCAGAGAAGGGAGCCAGGGGGAGCTGACTCCAGCCAACAGCCAGTCCCGGATGAGCACCAACATGTG
AGGGGTGAACCTTGGCCTCCAGGACATCTGCACCCCCTCCCCACCTCCACGGACCTCGGACCTCCAGGCGGCTCA
GTGCTGCCTGCGGCCCAGCTAAGGGGCCTGGCCACTGGGTGCCACCCAGCCTGTGTGCCCTCCCTGGGGCTGAGG
AGGCAGGCGGCTGCTAGTTGTGGCCCTTCCTGGAAGGAGAGGCCTGCAGGGCTCGACCCTGTGGGTTTCTGTCCC
CAGGGAGCAGACTGTGCGGCACCCAGGCCCAGTGGCACCATTTCCCAGACCCCTCCTGTTCCCGCCTCAGTCAGG
TGCAGACAAGTGGGCGGTGTCCATTAAAGAGCAGACTCAGCGTT

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FIGURE 2356

AGGACGTGGAGCGCTGCCTCCGGGACACGGGTGTGCAGGGCGTCATGAGCGCAGAGGGCAACCTGCACAACCCCG
CCCTGTTCGAGGGCCGGAGCCCTGCCGTGTGGGAGCTGGCCGAGGAGTATCTGGACATCGTGCGGGAGCACCCCT
GCCCCCTGTCCTACGTCCGGGCCCACCTCTTCAAGCTGTGGCACCACACGCTGCAGGTGCACCAGGAGCTGCGAG
AGGAGCTGGCCAAGGTGAAGACCCTGGAGGGCATCGCTGCTGTGAGCCAGGAGCTGAAGCTGCGGTGTCAGGAGG
AGATATCCAGGCAGGAGGGAGCGAAGCCCACCGGCGACTTGCCCTTCCACTGGATCTGCCAGCCCTACATCCGGC
CGGGGCCCAGGGAGGGGAGCAAGGAGAAGGCAGGTGCGCGCAGCAAGCGGGCCCTGGAGGAAGAGGAGGGTGGCA
CGGAGGTCCTGTCCAAGAACAAGCAAAAGAAGCAGCTGAGGAACCCCCACAAGACCTTCGACCCCTCTCTGAAGC
CAAAAT**ATG**CAAAGTGTGACCAGTGTGGAAACCCAAAGGGCAACAGATGTGTGTTCAGCCTGTGCCGCGGCTGCT
GCAAGAAGCGAGCCTCCAAAGAGACTGCAGACTGCCCAGGTCACGGATTGCTTTTTAAAACCAAATTGGAGAAGT
CTCTGGCCTGGAAAGAGGCCCAGCCTGAGCTGCAGGAGCCTCAGCCAGCAGCACCTGGAACACCAGGTGGCTTCT
CCGAAGTCATGGGCAGTGCCCTGGCCTGAAGGCCCACAACCCCCACCCCCAGGACTGCTGCTGGAGCCTGGACAC
GTCCTACTTAAGAAAATGCCTTTTACTCAGGGAATCTCCTGCTACTTAATGTGGAAAGACACGCCCATGTCCCCC
TTCGGCCCACTCTGGGGGCCTGGAAATGCTGCAGTGGGGAGCAGGCCCCAGGCTGGACCTGCCCTGTCCTCAGCA
CGCGTGTGCAAAAGTGAACAA**TAA**ATCATTTCAAAGATGCG

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FIGURE 2357A

ACGGCAGCGGCCCCGGCCTCCCTCTCCGCCGCGCTTCAGCCTCCCGCTCCGCCGCGCTCCAGCCTCGCTCTCCGC
CGCCCGCACCGCCGCCCGCGCCCTCACCAGAGCAGCCATGGAGGAGGTGGTGATTGCCGGCATGTCCGGGAAGCT
GCCAGAGTCGGAGAACTTGCAGGAGTTCTGGGACAACCTCATCGGCGGTGTGGACATGGTCACGGACG**ATG**ACCG
TCGCTGGAAGGCGGCTCTACGGCCTGCCCCGGCGGTCCGGCAAGCTGAAGGACCTGTCTAGGTTTGATGCCTCCT
TCTTCGGAGTCCACCCCAAGCAGGCACACACGATGGACCCTCAGCTGCGGCTGCTGCTGGAAGTCACCTATGAAG
CCATCGTGGACGGAGGCATCAACCCAGATTCACTCCGAGGAACACACACTGGCGTCTGGGTGGGCGTGAGCGGCT
CTGAGACCTCGGAGGCCCTGAGCCGAGACCCCGAGACACTCGTGGGCTACAGCATGGTGGGCTGCCAGCGAGCGA
TGATGGCCAACCGGCTCTCCTTCTTCTTCGACTTCAGAGGGCCCAGCATCGCACTGGACACAGCCTGCTCCTCCA
GCCTGATGGCCCTGCAGAACGCCTACCAGGCCATCCACAGCGGGCAGTGCCCTGCCGCCATCGTGGGGGGCATCA
ATGTCCTGCTGAAGCCCAACACCTCCGTGCAGTTCTTGAGGCTGGGGATGCTCAGCCCCGAGGGCACCTGCAAGG
CCTTCGACACAGCGGGGAATGGGTACTGCCGCTCGGAGGGTGTGGTGGCCGTCCTGCTGACCAAGAAGTCCCTGG
CCCGGCGGGTGTACGCCACCATCCTGAACGCCGGCACCAATACAGATGGCTTCAAGGAGCAAGGCGTGACCTTCC
CCTCAGGGGATATCCAGGAGCAGCTCATCCGCTCGTTGTACCAGTCGGCCGGAGTGGCCCCTGAGTCATTTGAAT
ACATCGAAGCCCACGGCACAGGCACCAAGGTGGGCGACCCCCAGGAGCTGAATGGCATCACCCGAGCCCTGTGCG
CCACCCGCCAGGAGCCGCTGCTCATCGGCTCCACCAAGTCCAACATGGGGCACCCGGAGCCAGCCTCGGGGCTGG
CAGCCCTGGCCAAGGTGCTGCTGTCCCTGGAGCACGGGCTCTGGGCCCCCAACCTGCACTTCCATAGCCCCAACC
CTGAGATCCCAGCGCTGTTGGATGGGCGGCTGCAGGTGGTGGACCAGCCCCTGCCCGTCCGTGGCGGCAACGTGG
GCATCAACTCCTTTGGCTTCGGGGGCTCCAACGTGCACATCATCCTGAGGCCCAACACGCAGCCGCCCCCCGCAC
CCGCCCCACATGCCACCCTGCCCCGTCTGCTGCGGGCCAGCGGACGCACCCCTGAGGCCGTGCAGAAGCTGCTGG
AGCAGGGCCTCCGGCACAGCCAGGACCTGGCTTTCCTGAGCATGCTGAACGACATCGCGGCTGTCCCCGCCACCG
CCATGCCCTTCCGTGGCTACGCTGTGCTGGGTGGTGAGCGCGGTGGCCCAGAGGTGCAGCAGGTGCCCGCTGGCG
AGCGCCCGCTCTGGTTCATCTGCTCTGGGATGGGCACACAGTGGCGCGGGATGGGGCTGAGCCTCATGCGCCTGG
ACCGCTTCCGAGATTCCATCCTACGCTCCGATGAGGCTGTGAAGCCATTCGGCCTGAAGGTGTCACAGCTGCTGC
TGAGCACAGACGAGAGCACCTTTGATGACATCGTCCATTCGTTTGTGAGCCTGACTGCCATCCAGATAGGCCTCA
TAGACCTGCTGAGCTGCATGGGGCTGAGGCCAGATGGCATCGTCGGCCACTCCCTGGGGGAGGTGGCCTGTGGCT
ACGCCGACGGCTGCCTGTCCCAGGAGGAGGCCGTCCTCGCTGCCTACTGGAGGGGACAGTGCATCAAAGAAGCCC
ATCTCCCGCCGGGCGCCATGGCAGCCGTGGGCTTGTCCTGGGAGGAGTGTAAACAGCGCTGCCCCCCGGGCGTGG
TGCCCGCCTGCCACAACTCCAAGGACACAGTCACCATCTCGGGACCTCAGGCCCCGGTGTTTGAGTTCGTGGAGC
AGCTGAGGAAGGAGGGTGTGTTTGCCAAGGAGGTGCGGACCGGCGGTATGGCCTTCCACTCCTACTTCATGGAGG
CCATCGCACCCCCACTGCTGCAGGAGCTCAAGAAGGTGATCCGGGAGCCGAAGCCACGTTCAGCCCGCTGGCTCA
GCACCTCTATCCCCGAGGCCCAGTGGCACAGCAGCCTGGCACGCACGTCCTCCGCCGAGTACAATGTCAACAACC
TGGTGAGCCCTGTGCTGTTCCAGGAGGCCCTGTGGCACGTGCCTGAGCACGCGGTGGTGCTGGAGATCGCGCCCC
ACGCCCTGCTGCAGGCTGTCCTGAAGCGTGGCCTGAAGCCGAGCTGCACCATCATCCCCCTGATGAAGAAGGATC
ACAGGGACAACCTGGAGTTCTTCCTGGCCGGCATCGGCAGGCTGCACCTCTCAGGCATCGACGCCAACCCCAATG
CCTTGTTCCCACCTGTGGAGTTCCCAGCTCCCCGAGGAACTCCCCTCATCTCCCCACTCATCAAGTGGGACCACA
GCCTGGCCTGGGACGTGCCGGCCGCCGAGGACTTCCCCAACGGTTCAGGTTCCCCCTCAGCCGCCATCTACAACA
TCGACACCAGCTCCGAGTCTCCTGACCACTACCTGGTGGACCACACCCTCGACGGTCGCGTCCTCTTCCCCGCCA
CTGGCTACCTGAGCATAGTGTGGAAGACGCTGGCCCGCGCCCTGGGCCTGGGCGTCGAGCAGCTGCCTGTGGTGT
TTGAGGATGTGGTGCTGCACCAGGCCACCATCCTGCCCAAGACTGGGACAGTGTCCCTGGAGGTACGGCTCCTGG
AGGCCTCCCGTGCCTTCGAGGTGTCAGAGAACGGCAACCTGGTAGTGAGTGGGAAGGTGTACCAGTGGGATGACC
CTGACCCCAGGCTCTTCGACCACCCGGAAAGCCCCACCCCCAACCCCACGGAGCCCCTCTTCCTGGCCCAGGCTG
AAGTTTACAAGGAGCTGCGTCTGCGTGGCTACGACTACGGCCCTCATTTCCAGGGCATCCTGGAGGCCAGCCTGG
AAGGTGACTCGGGGAGGCTGCTGTGGAAGGATAACTGGGTGAGCTTCATGGACACCATGCTGCAGATGTCCATCC
TGGGCTCGGCCAAGCACGGCCTGTACCTGCCCACCCGTGTCACCGCCATCCACATCGACCCTGCCACCCACAGGC
AGAAGCTGTACACACTGCAGGACAAGGCCCAAGTGGCTGACGTGGTGGTGAGCAGGTGGCTGAGGGTCACAGTGG
CCGGAGGCGTCCACATCTCCGGGCTCCACACTGAGTCGGCCCCGCGGCGGCAGCAGGAGCAGCAGGTGCCCATCC
TGGAGAAGTTTTGCTTCACTCCCCACACGGAGGAGGGGTGCCTGTCTGAGCGCGCTGCCCTGCAGGAGGAGCTGC
AACTGTGCAAGGGGCTGGTGCAGGCACTGCAGACCAAGGTGACCCAGCAGGGGCTGAAGATGGTGGTGCCCGGAC

FIGURE 2357B

TGGATGGGGCCCAGATCCCCCGGGACCCCTCACAGCAGGAACTGCCCCGGCTGTTGTCGGCTGCCTGCAGGCTTC
AGCTCAACGGGAACCTGCAGCTGGAGCTGGCGCAGGTGCTGGCCCAGGAGAGGCCCAAGCTGCCAGAGGACCCTC
TGCTCAGCGGCCTCCTGGACTCCCCGGCACTCAAGGCCTGCCTGGACACTGCCGTGGAGAACATGCCCAGCCTGA
AGATGAAGGTGGTGGAGGTGCTGGCTGGCCACGGTCACCTGTATTCCCGCATCCCAGGCCTGCTCAGCCCCCATC
CCCTGCTGCAGCTGAGCTACACGGCCACCGACCGCCACCCCCAGGCCCTGGAGGCTGCCCAGGCCGAGCTGCAGC
AGCACGACGTTGCCCAGGGCCAGTGGGATCCCGCAGACCCTGCCCCCAGCGCCCTGGGCAGCGCCGACCTCCTGG
TGTGCAACTGTGCTGTGGCTGCCCTCGGGGACCCGGCCTCAGCTCTCAGCAACATGGTGGCTGCCCTGAGAGAAG
GGGGCTTTCTGCTCCTGCACACACTGCTCCGGGGGCACCCCCTCGGGGACATCGTGGCCTTCCTCACCTCCACTG
AGCCGCAGTATGGCCAGGGCATCCTGAGCCAGGACGCGTGGGAGAGCCTCTTCTCCAGGGTGTCGCTGCGCCTGG
TGGGCCTGAAGAAGTCCTTCTACGGCTCCACGCTCTTCCTGTGCCGCCGGCCCACCCCGCAGGACAGCCCCATCT
TCCTGCCGGTGGACGATACCAGCTTCCGCTGGGTGGAGTCTCTGAAGGGCATCCTGGCTGACGAAGACTCTTCCC
GGCCTGTGTGGCTGAAGGCCATCAACTGTGCCACCTCGGGCGTGGTGGGCTTGGTGAACTGTCTCCGCCGAGAGC
CCGGCGGGAACCGCCTCCGGTGTGTGCTGCTCTCCAACCTCAGCAGCACCTCCCACGTCCCGGAGGTGGACCCGG
GCTCCGCAGAACTGCAGAAGGTGTTGCAGGGAGACCTGGTGATGAACGTCTACCGCGACGGGGCCTGGGGGGCTT
TCCGCCACTTCCTGCTGGAGGAGGACAAGCCTGAGGAGCCGACGGCACATGCCTTTGTGAGCACCCTCACCCGGG
GGGACCTGTCCTCCATCCGCTGGGTCTGCTCCTCGCTGCGCCATGCCCAGCCCACCTGCCCTGGCGCCCAGCTCT
GCACGGTCTACTACGCCTCCCTCAACTTCCGCGACATCATGCTGGCCACTGGCAAGCTGTCCCCTGATGCCATCC
CAGGGAAGTGGACCTCCCAGGACAGCCTGCTAGGTATGGAGTTCTCGGGCCGAGACGCCAGCGGCAAGCGTGTGA
TGGGACTGGTGCCTGCCAAGGGCCTGGCCACCTCTGTCCTGCTGTCACCGGACTTCCTCTGGGATGTGCCTTCCA
ACTGGACGCTGGAGGAGGCGGCCTCGGTGCCTGTCGTCTACAGCACGGCCTACTACGCGCTGGTGGTGCGTGGGC
GGGTGCGCCCCGGGGAGACGCTGCTCATCCACTCGGGCTCGGGCGGCGTGGGCCAGGCCGCCATCGCCATCGCCC
TCAGTCTGGGCTGCCGCGTCTTCACCACCGTGGGGTCGGCTGAGAAGCGGGCGTACCTCCAGGCCAGGTTCCCCC
AGCTCGACAGCACCAGCTTCGCCAACTCCCGGGACACATCCTTCGAGCAGCATGTGCTGTGGCACACGGGCGGGA
AGGGCGTTGACCTGGTCTTGAACTCCTTGGCGGAAGAGAAGCTGCAGGCCAGCGTGAGGTGCTTGGCTACGCACG
GTCGCTTCCTGGAAATTGGCAAATTCGACCTTTCTCAGAACCACCCGCTCGGCATGGCTATCTTCCTGAAGAACG
TGACATTCCACGGGGTCCTACTGGATGCGTTCTTCAACGAGAGCAGTGCTGACTGGCGGGAGGTGTGGGCGCTTG
TGCAGGCCGGCATCCGGGATGGGGTGGTACGGCCCCTCAAGTGCACGGTGTTCCATGGGGCCCAGGTGGAGGACG
CCTTCCGCTACATGGCCCAAGGGAAGCACATTGGCAAAGTCGTCGTGCAGGTGCTTGCGGAGGAGCCGGAGGCAG
TGCTGAAGGGGGCCAAACCCAAGCTGATGTCGGCCATCTCCAAGACCTTCTGCCCGGCCCACAAGAGCTACATCA
TCGCTGGTGGTCTGGGTGGCTTCGGCCTGGAGTTGGCGCAGTGGCTGATACAGCGTGGGGTGCAGAAGCTCGTGT
TGACTTCTCGCTCCGGGATCCGGACAGGCTACCAGGCCAAGCAGGTCCGCCGGTGGAGGCGCCAGGGCGTACAGG
TGCAGGTGTCCACCAGCAACATCAGCTCACTGGAGGGGGCCCGGGGCCTCATTGCCGAGGCGGCGCAGCTTGGGC
CCGTGGGCGGCGTCTTCAACCTGGCCGTGGTCTTGAGAGATGGCTTGCTGGAGAACCAGACCCCAGAGTTCTTCC
AGGACGTCTGCAAGCCCAAGTACAGCGGCACCCTGAACCTGGACAGGGTGACCCGAGAGGCGTGCCCTGAGCTGG
ACTACTTTGTGGTCTTCTCCTCTGTGAGCTGCGGGCGTGGCAATGCGGGACAGAGCAACTACGGCTTTGCCAATT
CCGCCATGGAGCGTATCTGTGAGAAACGCCGGCACGAAGGCCTCCCAGGCCTGGCCGTGCAGTGGGGCGCCATCG
GCGACGTGGGCATTTTGGTGGAGACGATGAGCACCAACGACACGATCGTCAGTGGCACGCTGCCCCAGCGCATGG
CGTCCTGCCTGGAGGTGCTGGACCTCTTCCTGAACCAGCCCCACATGGTCCTGAGCAGCTTTGTGCTGGCTGAGA
AGGCTGCGGCCTATAGGGACAGGGACAGCCAGCGGGACCTGGTGGAGGCCGTGGCACACATCCTGGGCATCCGCG
ACTTGGCTGCTGTCAACCTGGACAGCTCACTGGCGGACCTGGGCCTGGACTCGCTCATGAGCGTGGAGGTGCGCC
AGACGCTGGAGCGTGAGCTCAACCTGGTGCTGTCCGTGCGCGAGGTGCGGCAACTCACGCTCCGGAAACTGCAGG
AGCTGTCCTCAAAGGCGGATGAGGCCAGCGAGCTGGCATGCCCCACGCCCAAGGAGGATGGTCTGGCCCAGCAGC
AGACTCAGCTGAACCTGCGCTCCCTGCTGGTGAACCCGGAGGGCCCCACCCTGATGCGGCTCAACTCCGTGCAGA
GCTCGGAGCGGCCCCTGTTCCTGGTGCACCCAATCGAGGGCTCCACCACCGTGTTCCACAGCCTGGCCTCCCGGC
TCAGCATCCCCACCTATGGCCTGCAGTGCACCCGAGCTGCGCCCCTTGACAGCATCCACAGCCTGGCTGCCTACT
ACATCGACTGCATCAGGCAGGTGCAGCCCGAGGGCCCCTACCGCGTGGCCGGCTACTCCTACGGGGCCTGCGTGG
CCTTTGAAATGTGCTCCCAGCTGCAGGCCCAGCAGAGCCCAGCCCCCACCCACAACAGCCTCTTCCTGTTCGACG
GCTCGCCCACCTACGTACTGGCCTACACCCAGAGCTACCGGGCAAAGCTGACCCCAGGCTGTGAGGCTGAGGCTG

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FIGURE 2357C

AGACGGAGGCCATATGCTTCTTCGTGCAGCAGTTCACGGACATGGAGCACAACAGGGTGCTGGAGGCGCTGCTGC
CGCTGAAGGGCCTAGAGGAGCGTGTGGCAGCCGCCGTGGACCTGATCATCAAGAGCCACCAGGGCCTGGACCGCC
AGGAGCTGAGCTTTGCGGCCCGGTCCTTCTACTACAAGCTGCGTGCCGCTGAGCAGTACACACCCAAGGCCAAGT
ACCATGGCAACGTGATGCTACTGCGCGCCAAGACGGGTGGCGCCTACGGCGAGGACCTGGGCGCGGACTACAACC
TCTCCCAGGTATGCGACGGGAAAGTATCCGTCCACGTCATCGAGGGTGACCACCGCACGCTGCTGGAGGGCAGCG
GCCTGGAGTCCATCATCAGCATCATCCACAGCTCCCTGGCTGAGCCACGCGTGAGCGTGCGGGAGGGC**TAG**GCCC
GTGCCCCCGCCTGCCACCGGAGGTCACTCCACCATCCCCACCCCACCCCACCCCACCCCCGCCATGCAACGGGAT
TGAAGGGTCCTGCCGGTGGGACCCTGTCCGGCCCAGTGCCACTGCCCCCCGAGGCTGCTAGATGTAGGTGTTAGG
CATGTCCCACCCACCCGCCGCCTCCCACGGCACCTCGGGGACACCAGAGCTGCCGACTTGGAGACTCCTGGTCTG
TGAAGAGCCGGTGGTGCCCGTGCCCGCAGGAACTGGGCTGGGCCTCGTGCGCCCGTGGGGTCTGCGCTTGGTCTT
TCTGTGCTTGGATTTGCATATTTATTGCATTGCTGGTAGAGACCCCCAGGCCTGTCCACCCTGCCAAGACTCCTC
AGGCAGCGTGTGGGTCCCGCACTCTGCCCCCATTTCCCCGATGTCCCCTGCGGGCGCGGGCAGCCACCCAAGCCT
GCTGGCTGCGGCCCCCTCTCGGCCAGGCATTGGCTCAGCCCGCTGAGTGGGGGGTCGTGGGCCAGTCCCCGAGGA
GCTGGGCCCCTGCACAGGCACACAGGGCCCGGCCACACCCAGCGGCCCCCCGCACAGCCACCCGTGGGGTGCTGC
CCTTATGCCCGGCGCCGGGCACCAACTCCATGTTTGGTGTTTGTCTGTGTTTGTTTTTCAAGAAATGATTCAAAT
TGCTGCTTGGATTTTGAAATTTACTGTAACTGTCAGTGTACACGTCTGGACCCCGTTTCATTTTTACACCAATTT
GGTAAAAATGCTGCTCTCAGCCTCCCACAATTAAACCGCATGTGATCTCC

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FIGURE 2358

CAGGGAGTGCCTGCAGCACCCCGGCGGGGCCACCCCAGTCTGCGTGTACACGAGGGATGAGGTGACGGGTGAAGC
TGCCCTGCGGGGCACGACGCTGCAGTCGCTGGGCCTGACCGGGGGCAGCGCCACCATCAGGTTTGTC**ATG**AAGTG
CTACGACCCCGTGGGCAAGACCCCAGGAAGCCTGGGCTCGTCAGCGTCGGCTGGCCAGGCAGCCGCCAGCGCTCC
ACTTCCCTTGGAATCTGGGGAGCTCAGCCGCGGCGACTTGAGCCGTCCGGAGGACGCGGACACCTCAGGGCCCTG
CTGCGAGCACACTCAGGAGAAGCAGAGCACAAGGGCACCCGCAGCTGCCCCCTTTGTTCCTTTCTCGGGTGGGGG
ACAGAGACTGGGGGGCCCTCCTGGGCCCACGAGGCCTCTGACATCATCTTCAGCTAAGTTGCCGAAGTCCCTCTC
CAGCCCTGGAGGCCCCTCCAAGCCAAAGAAGTCCAAGTCGGGCCAGGATCCCCAGCAGGAGCAGGAGCAGGAGCG
GGAGCGGGATCCCCAGCAGGAGCAGGAGCGGGAGCGGCCCGTGGACCGGGAGCCCGTGGACCGGGAGCCGGTGGT
GTGCCACCCCGACCTGGAGGAGCGGCTGCAGGCCTGGCCAGCGGAGCTGCCTGATGAGTTCTTTGAGCTGACGGT
GGACGACGTGAGAAGACGCTTGGCCCAGCTCAAGAGTGAGCGGAAGCGCCTGGAAGAAGCCCCCTTGGTGACCAA
GGCCTTCAGGGAGGCGCAGATAAAGGAGAAGCTGGAGCGCTACCCAAAGGTGGCTCTGAGGGTCCTGTTCCCCGA
CCGCTACGTCCTACAGGGCTTCTTCCGCCCCAGCGAGACAGGTGGGGGACTTGCGAGACTTCGTGAGGAGCCACC
TGGGGAACCCCGAGCTGTCATTTTACCTGTTCATCACCCCTCCAAAAACAGTCCTGGACGACCACACGCAGACCC
TCTTTCAGGCGAACCTCTTCCCGGCCGCTCTGGTGCACTTGGGAGCCGAAGAGCCGGCAGGTGTCTACCTGGAGC
CTGGCCTGCTGGAGCATGCCATCTCCCCATCTGCGGCCGATGTGCTGGTGGCCAGGTACATGTCCAGGGCCGCCG
GGTCCCCTTCCCCATTGCCAGCCCC**TGA**CCCTGCACCTAAGTCTGAGCCAGCTGCTGAGGAGGGGGCGCTGGTCC
CCCCTGAGCCCATCCCAGGGACGGCCCAGCCCGTGAAGAGGAGCCTGGGCAAGGTGCCCAAGTGGCTGAAGCTGC
CGGCCAGCAAGAGGTGAGAGCTGCCAGCCTGAGGTGCCCACTCCGCCAGCCACAGGACCACCTCCTCTGCCAGCA
GGAATAAAGACTTGTGCATCCCTC

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FIGURE 2359

GGGCGCGCGTTGAGGCTGCGGTCATGGAGGGAGCAGGAGCTGGATCCGGCTTCCGGAAGGAGCTGGTGAGCAGGC
TGCTGCACCTGCACTTCAAGGATGACAAGACCAAAGGTGCGGGTGGGGGTGCGGGCGGGAGGTGGGTCCCCGTGT
CTGTCCTCAGGGACCCTTTCCTGCAACTCTGCAGGGCCAAGGCCTCGGGAGGGCGGGGGTATGTCTGGAGCACCC
AGCCAGAGCGGTGGGTGAGGGTCCCGCATAACCTCCCCCTGCCTTGCAGTGAGCGGGGACGCGCTGCAGCTC**ATG**

GTGGAGTTGCTGAAGGTCTTCGTTGTGGGTGAGCCCAGGGCCCACGCTCCCTCCGGGCACAGCATCCGGAATTTT
GCGTTTTTCCAGCGGGAAAACCAAGACGTGTTTTCCCGTTTCCCACAAGGGCCTAAACTTGGGTCTCCTGAGCCT
GTTTGTCAGGTGCTGTGGCCTGGTTCTGGGGGCTGCCCGTGGGTGTTGGGGGGGGCACCGGCCCAGGCTGAGGCC
CTCACTGGGCTCGGGTTTAAGATCCCCCCAGCATCCCCCACCTCTCGCGTTTCTCACCGCAGAAGCAGCAGTCCG
CGGCGTGCGGCAGGCCCAGGCAGAAGACGCGCTCCGTGTGGACGTGGACCAGCTGGAGAAGGTGCTTCCGCAGCT
GCTCCTGGACTTCTAGGGATCTCAGCCGTGGCTGAGGCCACCCCCAGAGGAGCCCCTGGTCCACAGAAGCAGGCC
TTGTGTTTCCAGCGGCCTCTGATAAGAGGCAGGGAAGGACCTGAAGGATTTGGAGTTGATTCAAACAAGATCTCT
GGGAGTCTCCAGCCTGTGCAGAAGGGGCAGGACTGCAGTGCACTGCGGGCCTTGGAGTGTCCAGTGGGGACACTG
GTGTGGGAAGGGGCAGCACCTGGGGAGTCCCTGCCTCTCCTCCCTGGGACAATAGTGTGCATGCCACCCGGGGTC
CTACAGGCAGGTGCTGGGAAAGGCCTGCCACCCGACATCAAAGCTGGCGTG**TGA**CCTTTCCAGCCATGCGATATT
CCCCTTGGAAGATGCTTCCCCAGGCTATAAATTTGTTCTCACAAAGCAACATCAATAAATCAAAACTGTCTCTCC
C

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FIGURE 2360

CCCCGCAGGCCGGGCATGGGTGGGGGCGCCGGGCCGTCACG**ATG**AGCGCCCTGGGCAGCCCGGTCCGGGCCTACG
ACTTTCTGCTCAAGTTCCTGCTGGTGGGCGACAGCGACGTGGGCAAGGGCGAGATCCTGGCGAGCCTGCAGGATG
GCGCGGCCGAGTCCCCGTACGGCCACCCGGCGGGCATCGACTACAAGACGACCACCATCCTGCTGGACGGGCGGC
GGGTGAAGCTGCAGCTCTGGGATACTTCAGGCCAGGGAAGATTTTGTACCATATTCCGCTCCTACTCCCGGGGCG
CACAGGGTGTGATCCTGGTCTATGACATTGCGAACCGCTGGTCTTTTGACGGCATTGATCGATGGATTAAGGAGA
TCGATGAGCATGCCCCCGGAGTCCCCAAGATCCTGGTGGGGAACCGCCTGCACCTGGCGTTCAAGCGGCAGGTGC
CCACGGAGCAGGCCCAGGCCTACGCCGAGCGCCTGGGCGTGACCTTCTTTGAGGTCAGCCCTCTGTGCAATTTCA
ACATCACAGAGTCGTTCACGGAGCTGGCCAGGATCGTGCTGCTGCGGCATGGGATGGACCGGCTCTGGCGGCCGA
GCAAGGTGCTGAGCTTGCAAGACCTCTGCTGCCGGGCGGTCGTGTCCTGCACGCCGGTGCACCTGGTGGACAAGC
TCCCGCTCCCCATTGCCTTAAGAAGCCACCTCAAGTCCTTCTCGATGGCCAACGGCCTGAATGCCAGGATGATGC
ACGGCGGTTCCTACTCCCTCACCACCAGCTCCACCCACAAAAGGAGCAGCCTCCGCAAAGTGAAGCTCGTCCGCC
CCCCCCAGAGCCCCCCCAAAAACTGCACCAGAAACAGCTGCAAAATTTCT**TAA**GGAAGGCACTGAAAGAAACACG
GCGGAATCTCTCCAGGAGAAGCTCGGCGTTACCCCCGGCAGCTGGTGGATGCATCTCAGATCCCGGTTCCTCTCG
GCGAATGCTGCTTGCGAATGTGTGCGACGCCTTCCGTGTGATGGAAACACACTACCCCGTCGGACTTCGAATTTC
TACGTGGATGTGCATGAAGCTCTTGTTTTCGATGTGTGTTTGTAAAGGGAAAATTAGTACTCTGCTCGACTCTTG
GTAACATGAAATTCTGAATGTTACTTTATCATGATTGCACTGCAACTTTTTCCTTAAAATAACTGCTTTTGTAAG
AACGGTGATATTGGAGTGATTAGTATAAATTCAATGGAATTTGAGAAGCAATGGCAGCGGGATAATTTAGAGTCA
CTGATATTACGAGAGGGGTCTTTTTGTAAACCTCCTTTTCAATGTCAAAGCGCCAATTTATAAAACGCTGCAGAT
GTAGAGGTTATGTGCAACTGATCTGTCCAGTTTGTGTATGAAATGGATTTGATAAAGTTTTTGCTAGTTATTTAC
TACATTTTGGGATTAATAAGTGATTTATATGCATATTTTTCTGTAAATCTACAGTTTTTTGTACAAGATATTCTA
CAAGTTATGAAGCTAAGGGAAGAAAATGCCAAAGATACCTCTAGTTATGTTGAACACAGCCAGCACAGTTTCGAC
ATGTCAAGGAAGAGCTGTTTCAGTAAAGAATGAAGTGAAAACACTTATTTAGGAAAATGTTTCTCAACAATAAAA
TGTATAGTTGTTTCTCTC

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FIGURE 2361

CTCGCCTCGCCTCGCCCCGCCCCGCCCCTCCCCGCCCTGCCTCGCCTCGTCTCGCCTCGCTTCGGTTAGATGCGC
TCGGCGCTCCATAGGCTCCCTGGTGGGGCGCGGGCGCGCGCACGGACGTCCAGCACGCACGCACGCACGTCCAGC
ACACACGCACATCCAGCACGCACGCACGTACGTCCGGCACTTCCGGCCGCGGCGGCCTCAGCGCCGGCCCGAAGG
GACCAGGCCGCCGTCCCCAGCGAGAGGCATGCAGCGCTGAGGAGCGGCGACCCAGCACGGCGGCGCCATGAACCT
CCTGCCGTGTAACCCTCACGGCAACGGGCTGCTCTACGCCGGCTTCAACCAGGACCACGGATGCTTTGCGTGTGG
GATGGAAAATGGATTCCGAGTCTATAACACTGATCCACTAAAAGAAAAAGAGAAACAAGAATTTCTAGAAGGAGG
AGTTGGCCATGTTGAA**ATG**TTATTTCGCTGCAACTATTTAGCTTTAGTTGGTGGTGGAAAAAAGCCGAAATACCC
TCCCAACAAAGTAATGATCTGGGATGACCTGAAGAAGAAGACTGTTATTGAAATAGAATTTTCTACAGAAGTCAA
GGCAGTCAAGCTGCGGCGAGATAGAATTGTGGTGGTTTTGGACTCCATGATTAAGGTGTTCACATTCACACACAA
TCCCCATCAGTTGCACGTCTTCGAAACCTGCTATAACCCCAAAGGCCTCTGTGTCCTTTGTCCCAATAGTAACAA
CTCCCTCCTGGCCTTTCCGGGCACGCACACGGGCCATGTGCAGCTTGTGGACCTGGCCAGCACGGAGAAGCCACC
CGTGGACATTCCTGCACACGAGGGTGTCCTGAGCTGCATTGCACTCAACCTGCAGGGAACAAGAATTGCAACTGC
ATCCGAGAAAGGGACGCTTATAAGAATATTTGATACTTCATCAGGGCATTTAATCCAGGAACTGCGAAGAGGATC
TCAAGCAGCCAATATTTACTGCATCAACTTCAATCAGGATGCGTCCCTCATCTGCGTATCCAGCGACCACGGCAC
AGTGCATATTTTTGCAGCTGAAGATCCAAAAAGGAATAAACAGTCCAGTTTGGCCTCAGCCAGTTTCCTTCCAAA
ATACTTCAGTTCCAAGTGGAGTTTCTCCAAGTTTCAGGTTCCCTCAGGCTCTCCGTGCATTTGTGCCTTTGGAAC
AGAGCCAAACGCCGTCATTGCAATTTGTGCAGACGGCAGCTACTACAAATTCCTGTTCAACCCCAAGGGGGAGTG
CATCCGAGATGTCTACGCGCAGTTTCTAGAGATGACCGATGACAAGCTG**TGA**CTCCAGCTGGGGGCGCCACAGCA
CCCACCACCTGCCGCCTTCAGACTCTCGGGGCTGGTGCCAGTGCCCCAGGGGCCTCCTGGGCCACGGGCTGGAGG
GGCTGCCCAGGGACCTTGGTCTCGAAGCCATACGTGGTTGTCTGCTTTCCTAAGGACTCCCATTTCCAGTATTAA
AGAGAGAATCATCATCAAGGCACCGTAGGTAACTCAGTGGCTGTGACCAGCTCGACTGGCGGCCACTGGCTGTTC
CCATGAGTTCAGCTGTGACGTTAGCTTCAGTGGCTCCGCCGCATCCTCACACTGACGGGGGCTCCATACGGACCT
GGGGACTGGGCTGAGAGGGTGGACGAGTTCAGGTTTGTTTTTGCAGCAGATTCCGTCGTTCTTACTGAGTCTGCA
GCGGGGGAGTGAACAAGTGTGCAGATGTAAGTTCTTACATGATAAGCAGATTGAATACAACACCAGCAGCTTGCC
TTAGAAAGGAGAAAGGAATTCCTTTTCCCGCCCGAACATGAAGAAAAACGACCTGACCCTGTAGAGAGAACACAG
TGTGAATGTTTCCCCTCGTGTGAGCCCAGCCTGTGGTCTTCTCCGTACCCGCAACGTGGTCATCTGTGCCCGTGA
CGTCACCTGTGCCCGTGCGTGGCGTCCCCGTCTCCGTTGGGGCCATTAGAATGAGGCAGACACCAGGCCACTCTA
GAAGCCGAGCCGTCACACCTCAGGCGTGTGCGGGGCGGGGACGGGGGGTCTCCTGGTTACATTTTGGATTAAACC
TGTTTCCCGGTTATGTGTAGGGAACAGCAGAGTGATGCACGAACTTTGAACATTCGTTATGGGGAAAACATCCTT
TAACTTCGGGGTCGTCTACCAGAGCAGGGTCTGGGAGGGTCCATGCAGTTCCCGCTGGTGTGGAGGGAAATGCCC
TGGTCTGGCCTCCGAGCCCCCAGGTCCACCGTCTCCCCTCCCCTCATTTGTAAGAATAGCTACACACTAACATTT
TGGGAAGGAGAGGCACATAACTTTTTTTAACATTTGGTAACTAGGTTATGGGCTCTACATTGTCAGCTACTTGGG
ATATATATTTAATTTTCTTAAATTCCCGTTAAACTCTATTTTATGGTTTTGATTTCAGATTGCAAACATGTAAAA
CCTGCATAGCAGCGAGTCCTCGGTTTTGCCGGTTTCTTTAGTTCTTTACTGTCACTGTCATGTAATCAGCTAATT
CTCTGTGGATGTTGCTGTAAAGTATGCATGTTCCTTTCATGTGTATTTAATCATGATGTTTAATTTTGCACACTT
ATTTGTAATGTTTCTTTTAAATAAAAGTGACTAATTTTGTTGT

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FIGURE 2362

AAAATTAATAAAAATATTTTATTGAATTTCAGGAACTTGGTACTTTTTTAAAACTTCAAATCTTTGCACACAAAT
CACCACTATACTTTCTAGAATAGTGGAAGTTAGGACTTCAAGATTGTCACTTATCTCCTTGTGTCACACAGCACA
GAAACCCCAAGTCCTCACACTGCCCCCACCCCCCTTCTGGCCATGACTACCAACTACTCTGTTATTCTAGCGGAG
GACAATGACGGAAGTGGGTAGACGACTGAAGGAGATCAGCTGTCCACCGCGTACTCTACTAAAGTGAGAGGAGGA
GCAACCGAGGATCATGCCGCACACACTCTGAGTGCACCACGTGACGTGGGTCATACGGGAGTTCCCTTTTGTTTT
CTCGTTTGGTTCAGGGCAAAGCTACTGAAATTGTTCCTAGTCCCTGAGGAGCTCAGAAGTTGGGCAAAGGTCACA
GCAGACTTCCTGAAAAGCAGACACTGAGGAACACAGTGGAGAGCGGGAGTTCACAGCGACGCAGCTGAGGACGAC
GCAGGACCTCTCCCAAAGGTGCTGCAGCTCCAGCACCAGGGGCCAGGGCTGCGGCGACAGCAGCTCAGCAACCCT
TGCTGTGCTCAAGTTCTTGGGGATTCAGAGCTAAGTTCAAAATTTAGAAACAGTGCCTTAAAGACGGGCAAGAAA
ACCCGGTGTGGGAGTCTGCTCATCTATGGTTTGTTACTGCTCTCGCTTCGATATTCTTAAATTCCTAGGTACCA**A**
TGAAAAAGCCAAGTGAACGTGGCAGAGTGAGGAGGAGACAGGAGCGTGTGCACCTTCCATCTGTGAGAGGCACAC
TTCAGTCTGGGTTCAAGATGCAGAATGGTGCCTACGGCAAAAAAAAAAAAAAAAAACACCCTCCTCCCTTCTTTAC
CATTTGAATGGACATTTTCCTTACCTGTGATCCCAACAGAAACAGATCCAGACCTATCATGTGAAGTCCACGTTC
CAGGATCAGAAGTAACCAGTTTATGGACTGAGCTTACACGGGAAAGTCTACCCCCGACTCCTTCTGGA**TAG**TAAC
ATACACAGCTGCATAAAAACGTCTCCAAGGGGACATACGATGCATTTGCTTGGTGTCCCAGCCAAGCTCCCCACC
GGCGACCTCACTGTTCCTTAGAGCTCAAGAGCTCGTCTCCTATCAATCAGAGAACCCCATCAGCTGTGACCAACA
GAGCTGGAGCCCTCTGTGGAGGGAGCTGACCCCACACACAGGACAGAGCAGAATCCTGATTATTTTACAAACTGC
AAACCTTCTGAGTAAGAAGACAAAAATATACATTCCAAGGTATCTGTAAAGTGCTTGGAAGATGCAGACAGCTGC
ACCGAGGGGCTCTGATCCATCCACACGCTGCGCTTTGCTGCGGTCACACACACGGTCTCAGTCACGTGATGGTTT
TGCTTTTATTTCTTAAACGGCTGAGTGATAATCCAGCTAGTGTGCAGTCATTTCATACCTTTCAATGGGCGTCAC
CGCAGTGACGCTGCCCCAGCCCCATGCTGAGGGCCGACACAATTCACGGAACAGATTCATCATATTTGGTCTTTA
TGTAAATAATAAATGTTTTAAAATTGCCTAAATAT

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FIGURE 2363

GTGCACATTCAGGTTCCCGAGCACAAACATCAAGATAACGTTCACTGCCCTGTCCAGCGAGAAGAGAGAGAAGCA
GGAGGCGTCTGAGTCTCCAGTGAAGGCCGTACAGCCACACATCTCGCCCCTGACCATCAACATTCCAGACACCATT
GGCCCACCTCATCAGCCCTCTGCCCTCCCCCACGGGAACCATCAGCGCTGCAAACTCCTGCCCCTCCAGCCCCCG
GGGAGCGGGGTCTTCAGGGTACAAGGTGGGCCGAGTGATGCCATCTGACCTCAATTTAATGGCTGACAACTCACA
GCCTGAAAATGAAAAGGAAGCTTCAGGTGGAGACAGCCCGAAGGATGATTCAAAGCCGCCTTACTCCTACGCGCA
GCTGATAGTTCAGGCGATTACGATGGCTCCCGACAAACAGCTCACCCTGAACGGGATTTATACACACATCACTAA
AAATTATCCCTACTACAGGACTGCGGACAAGGGCTGGCAGAATTCAATTCGCCACAATCTCTCTCTGAATCGTTA
TTTCATCAAAGTGCCGCGTTCCCAGGAAGAACCAGGCAAAGGCTCGTTCTGGAGGATAGACCCAGCCTCTGAAAG
CAAATTAATAGAACAGGCTTTTAGGAAACGACGGCCTAGGGGCGTGCCCTGCTTTAGAACCCCTCTGGGACCGCT
CTCTTCTAGGAGTGCCCCAGCCTCTCCCAATCACGCGGGAGTGCTGTCTGCTCACTCTAGTGGCGCCCAGACCCC
TGAGAGCCTGTCGAGGGAAGGTTCGCCGGCCCCCCTGGAGCCTGAGCCTGGCGCTGCACAGCCCAAACTCGCTGT
CATCCAGGAAGCCCGGTTTGCCCAGAGCGCCCCAGGGTCACCTCTGTCCAGTCAGCCAGTCTTAATCACCGTCCA
GCGGCAGCTACCACAGGCCATCAAGCCTGTCACCTACACTGTGGCCACCCCAGTGACCACCTCGACCTCCCAGCC
ACCCGTCGTGCAGACGGTTCACGTCGTCCACCAGATCCCAGCGGTGTCGGTCACCAGTGTGGCCGGACTGGCCCC
AGCGAACACGTACACTGTCTCTGGACAAGCTGTGGTCACCCCGGCAGCCGTGCTGGCCCCTCCTAAGGCAGAGGC
CCAGGAGAATGGAGACCACAGGGAAGTCAAAGTGAAAGTAGAGCCTATTCCCGCCATTGGCCACGCCACGCTCGG
CACTGCCAGCCGGATCATTCAGACGGCACAGACCACCCCGGTCCAGACGGTGACCATAGTACAACAGGCACCTCT
AGGTCAACACCAGCTACCAATAAAAACTGTAACACAAAACGGCACTCACGTGGCATCAGTCCCCACTGCGGTCCA
CGGCCAGGTGAACAATGGGCCCCTTGGCCTCAGAAGGCCCCCATGTGCCAGCTCAGACTGGAGTTGCCTCAGTTG
ACACAGCAGGCCCCATCCAGACAGACCAGCAGGTGCTTCTGGAGACAAGAGCAAAGCCTTTTCCGGCAGCCCGGA
ACCTGGGATGAGAAACGACAGGTGGAAGGTTGTCCAGAGACACCTACAGTGTGGATGCTGTTCCGAGTCAGCGTA
GGAGAAAGGCCACTGGAAACCAGAGTCACACTGCGCGTCTGTGCATCTCTGGCCTACCGCAGTGGCCCCGGCTGT
CTGCACATTTTTTGTAGACACATTAGAGTCGGTTGAGGCCACACCTGCGGCCACAGACTGCGACCGCGATTGCAG
GGAGGAGCATCTGAGGTGGTCACGGGGTTTGCCCAGCTCACACCAACTGCAGCCGCGGCGAGTCCTTTGCACATG
TTGGCAACACACGCATCCGCATCGGCCTCCCTGCCCACAAAGCGCCACAACGGTGACCAGCCGGAGCAGCCGGAG
CTGAAGCGGATCAAGACAGAAGACGGCGAGGGCATCGTCATTGCCCTGAGCGTGGACACGCCACCGGCAGCCGTA
AGGGAAAAGGGTGTCCAGAACTAGCGACCGGGAGAGCTTTTCTTTAACGATATCAACTCTGTGGTGCCAAAAGGA
GACGCGGCCTCCCGCCAGCACTCGGGGGTGCAGGGCCCTGTGGTTGGACTTCACCTCTCAGCACTGAAAACCCAA
AACCCAGCTGGCCTTAACACTCCTTAAAGACAGAAGTCACACTTGAACAAAACCCACACACAACAAAACCTGATT
TGGGAGACGGTGTCTCCACTGAGCACCTGCTGGGCTGAGCTTCTACCTACGAGTGAAACTCTGTCCTCCTGCGAG
GACCAGGCATCGCTGTGTGAGGACGGCACGGCCAGCGCCTGCTGTGAGTGGGTCTCCCAAGACTAGGCCTCAGGA
CGCGGGGGGAGCCATCCCCGCCGCCCTCACAGGACCCACCAGGCAGCGGAGACATGTGGAATTAGAGTATTTTGA
GGTGTCCTTTCTTTACAAAATAATGGGGTCTTGGGCATTTCACATCACTCCATTTCTACTGAGACTTTCAGAATC
ACACAGGCCCTTTCCGTGGATTTCATTTGGGGCAAAGAAACAACGTAGTTTTGTTTTTGTTTTCAGCCTATGGAA
TGATTTCCTTTTGTCTGTCTTGTTCAAGTTCAGACGAAGCTACTCTGGCATCTGCACATTTCCGTGTTACAGCAG
CTGCCTGATGAATTTTATCCACCTCCATTTCAGCATGTGGCTCGCGTGGACAGGTGGACGGACGCTGTGGCCGCA
TGGAACCTTGAGAACCCAGGGACGAGCCAGTGCCGGGAAGGAACTGCCGGGACTCACCGAGCTGCACTTAACTGT
TCTCTTTCTGGCTATTTTTTGTTGTTTGTTTCTTTGTGTTGACTTTGTCCCTGGCAAAATTTTCCACTCTGAGTA
AAACAAGTCTC

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FIGURE 2364

GACCCCTCCTCCTGTAGAGAGTGGTGCTGCCCTCTCGGGATGTACCTGCAGGTGGAGACCCGCACCAGCTCCCGC
CTCCATCTGAAGAGGGCTCCAGGCATCCGGTCCTGGTCCCTGCTGGTTGGAATCTTGTCGATTGGCCTGGCTGCT
GCCTACTACAGCGGAGATAGCCTGGGCTGGAAGCTCTTCTACGTCACAGGCTGCCTGTTTGTGGCTGTGCAGAAC
TTGGAGGACTGGGAGGAAGCCATCTTCGACAAGAGCACAGGGAAGGTTGTTTTGAAGACGTTCAGCCTCTACAAG
AAGCTGCTGACTCTTTTCAGAGCTGGCCACGACCAGGTGGTGGTCCTGCTCCATGATGTCCGTGATGTGAGCGTG
GAGGAGGAGAAGGTCCGGTACTTCGGGAAAGGCTACATGGTGGTGCTCCGGCTTGCGACGGGCTTCTCCCACCCC
CTCACGCAGAGTGCAGTCATGGGCCACCGCAGTGATGTGGAAGCATCGCCAAGCTCATCACCAGCTTCCTGGAGC
TGCACTGCCTTGAGAGCCCCACAGAGCTGTCTCAGAGCAGCGACAGTGAGGCCGGTGACCCTGCAAGCCAGAGCT
GACAGCCCCACTGTGCCTGAGCCCGTGCACCGCCCACAGGACCCATGGCACATTCCCGGTGTGCCTGAGCCCGTG
CACCGCCCACAGGACCCGTGGCACATTCCCGGTGTGCCTGAGCCCGTGCACCGCCCACAGGACCCGTGGCACATT
CCCGGTGTGCCTGAGCCCGTGCACCGCCCACAGGACCCGTGGCACATTCCCGGTGTGCCTGAGCCCGTGCACCGC
CCACAGGACCCGTGGCCTTGGCTTCAGTTGGTGCCTCCAGCCGAGTTGGCCTATTGCCTGCTCATGCTGCTGCTT
GCACACTGCATGAAACAGCAGGCCAGACCAGGACATCCAGACTTTCTCCATCGTGAGGCCTGGGCCTGCCTTTCT
GCAGCCGGAGGTCTCGCCAGCCCTGGACTCCTGCTTTGGGCCACAGCAAGACCTCGGGCGAGTGGAGAGGCGGGG
CCAGGCCGGGCCCTTGTGGGTGCTGATGCTGCATGTTGTCCCCGACACAGCGTCCTCTCCCTGGTGGACATCCCC
AGCGGTCAGGTGCTTCCCCAAGGGCAGTGAGGGGTGAACATCCAGGGCCTACCTGGCTGTGCACGCTGCAGCCAC
ACTGTGGAAGCTGCCCCTCCCCGAGGACCCGCCTCCCTTGCTGATGCCAGGATCTCAGCGCATAGACCACTCTGC
CCCAGCGGTCGTCACAGAAAGGTCTCTCTGTTCCTCACACTCAGCTTCAGCATAAGCTGTGAGGCCAGAAAAAAG
GTCAGCTCTTCTAGTATCGTGCAGTGCTTAAAAACCGGGAGCTCCAGCCGGGCGCAGTGGTTCATGCCAGTAATC
CCAGCACTTTCGGAGGCCGAGGTGGGAGGATTGCTTGAGGCCAGGAGTTCAAGACCAGCCTGGGCAACACAGCAA
GATCCTGTCTTTGTAAAAAAACTAACCAAACAGGAAAAACTGGGAGATTTTCTGCAGAAATTGAGTTCCAGCCTC
TCTCGAACCTGGGAAGACCTGGCAGGAGGGGGCTGGGCTCTCGGCTACAGACTTCTCCCCACCCCGTAGGAGCTG
AACGCCAACCATCCTGACCCGCCAGTGCTCTTGGTCTCCTGAGTGTACCCAGGTCCTCCCAGGTGCGGTGTGCAC
CGAGCGCGCCTGGCCTGATGCCCTGGCCTGTGAGCTGGGGACTCCTGGGCCCTGTGAGCCCCTAGGCGCAGGCCC
AGGAATGGCTGGGTAGGACAGGGAACACCTTTGCCCCACGTCTGGCTGTGACCTCGGTGAAAGCCGACAGGAGAG
AGATGGACCCTCCTCCTCAGTAGTGGCTGCCAGTCCCTCGTTGCAGGACAGGGTCATCATAACCATAAATAACCC
TTCACGTGTC

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FIGURE 2365

TGCCTGCAGGCCTCATGGGTTTGTTTCGGGTGCTCTAGAATATTCCATCGATTGTGTAAAACACAGTGGCAAACT
CTGCGTGAGCCCTGGACACCTGTGTGGGTCGGGCTGTGCCCAGCAGGAAGAGCCACTTGCTGTCCGGGTGTTGCT
GCTGGCAACACAGTCTTACTTCTGTTTTCTGATTTTTAAAATAAGGAACGTATTTCACGTGTTTAAAGAGAAGCA
GCAGGCCCATTTGCCGCCAGTCCCCTTGGCCGGCACACGCGGGGCTGGGCCTGGCCAGTGGCTCTCCATTGCCGC
CCGCCCACTGCCCCAGTACCTAGGCCTGCAGGTCCCAATGTAGCCCCCTCCCCTCCTCCAGAGGCCCCTCCAACC
GCCCCGCTCATTTGTGATTTCAGGAGGATTTG**ATG**AAGATGTTAAAGCGAAAGTGGAGAACCTTCTCGGGATTTC
CAGCCTGGAAAAAACGGACCCTGTTAGGGAGGGGGCCGGCTCCTTCCCTGGCAGCAACATCCTTGCCCTTGTCAC
ACAAGTCAGCCTCCATCTGCGCAGCTCTGTGGATGCGCTGCTGGAGGGCAACAGGTATGTCACTGGCTGGTTCAG
CCCCTACCACCGCCAGCGGAAGCTCATCCACCCGGTCATGGTTCAGCACATCCAGCCCGCAGCGCTCAGCCTCCT
GGCACAGTGGAGCACCCTCGTGCAGGAGCTGGAGGTGCCCTGCAGCTGGCTTTCTACCCGGATGCCGTGGAGGAG
TGGCTGGAGGAAAACGTGCACCCCAGCCTGCAGCGGCTGCAAGCTCTGCTGCAGGACCTCAGCGAGGTGTCTGCC
CCCCCGCTGCCACCCACCAGCCCTGGCAGGGACGTTGCTCAGGACCCCTGAGGGGAGAGCTCATGCCAGGGGGCT
CCTGCTGGAGGCTGGGGGGGCTCTGCACTGCCAAATGGCCTGGGCAATACGGGCCCACGTGGCGTCGTGCCCTCT
GGCCCAGCAGTGTCTTGCCCACACTCAGTTCC**TGA**GGGCCCTGGGCAGCCCCTGGGGGAGAGACTAGAAAACACA
GAAGGAAGCAGCACAGGGAGACCCGCTTTGTGATCTGCATGTGTGACACTGATTCTTTGGAAATAAAGAGTGGAA
GCTG

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FIGURE 2366

GCGTCGGGGGAGGACAACAAAGGGCCGCGGGCGGCGGGCAGTGGTGTCCCAGTCTCCCGGTGCTTCCCTGAGGCT
GAGGCGCCCGGCCTCCCGCCCGCCGCGCTCCAGATGAAGTGTGAGCACTGCACGCGCAAGGAATGTAGTAAGAAA
ACAAAAACTGATGACCAAGAGAATGTGTCAGCCGATGCACCGAGTCCAGCCCAGGAAAATGGAGAGAAGGGAGAA
TTCCACAAGTTGGCTGATGCCAAGATATTTTTGAGCGACTGCCTGGCATGTGACAGCTGTATGACTGCAGAGGAA
GGAGTCCAACTTTCCCAGCAAAATGCCAAGGACTTCTTCCGCGTTCTGAACCTTAACAAGAAATGTGATACCTCA
AAGCACAAAGTGCTGGTAGTGTCTGTGTGTCCTCAATCTTTGCCTTATTTTGCTGCTAAATTCAACCTCAGTGTA
ACTGATGCATCCAGAAGACTCTGTGGTTTCCTCAAAAGTCTTGGGGTGCACTATGTATTTGATACGACGATAGCT
GCGGATTTTAGTATCCTGGAGAGTCAAAAAGAATTCGTGCGTCTATCGCCAGCACAGTGAGGAGGAACGCACCCT
GCCCATGCTGACCTCTGCCTGTCCTGGCTGGGTCCGATACGCCGAGCGGGTGCTGGGTCGCCCCATCACTGCCCA
CCTCTGCACCGCCAAGTCCCCCCAGCAGGTCATGGGCTCTTTGGTGAAGGATTATTTCGCCAGACAGCAGAACCT
GTCTCCAGAGAAGATTTTCCACGTCATTGTGGCCCCTTGTTATGACAAGAAGCTGGAGGCTCTTCAGGAAAGCCT
TCCCCCTGCTTTGCATGGCTCCCGGGGCGCTGACTGCGTGTTAACATCAGAAATTAGCCAGGCGTGGTAGTGCAC
ACCTGTAATCACAGCTACTCAGGAGGCTGCGGCAAGAGAATCACTTGAACCCGGGAGGCAGAGGTTACAGCGAGA
CAAGATTGCACCACTGGACTCCAGCCTGGGCGGCGGAGGTGAAATTGCTCAAATA**ATG**GAGCAAGGTGACCTCTC
AGTGAGAGATGCTGCCGTCGACACTCTGTTTGGAGACTTGAAGGAGGACAAAGTGACGCGTCATGATGGAGCCAG
CTCAGACGGGCACCTGGCACACATCTTCAGACATGCGGCCAAGGAGCTGTTCAACGAGGATGTGGAGGAGGTCAC
TTACCGAGCCCTGAGAAACAAAGACTTCCAAGAGGTCACCCTTGAGAAGAACGGAGAGGTGGTGTTACGCTTTGC
TGCAGCCTATGGCTTTCGAAACATCCAGAACATGATCCTGAAGCTTAAGAAGGGCAAGTTCCCATTCCACTTTGT
GGAGGTCCTCGCCTGTGCTGGAGGATGCTTAAATGGCAGAGGCAAGCCCAGACTCCAGACGGACATGCGGATAAG
GCCCTGCTGCGGCAGATGGAAGGCATTTACGCTGACATCCCTGTGCGGCGTCCGGAGTCCAGTGCACACGTGCAG
GAGCTGTACCAGGAGTGGCTGGAGGGGATCAACTCCCCCAAGGCCCGAGAGGTGCTGCATACCACGTACCAGAGC
CAGGAGCGTGGCACACACAGCCTGGACATCAAGTGGTGAAGTCAGGCCAGGGCCTTCCAGCTGCTCTTGGGGCCA
GAGCCAAGAGCCTCTCAGTAGAGGGAGGGGCTGCCCTGAGTGGAGTATTAAAGACACT**TAA**GAAAACCGCTC

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FIGURE 2367

GCGGCCGCGGCGGGAAC**ATG**GAGGAGCTGCTGAGGCGCGAGCTGGGCTGCAGCTCTGTCAGGGCCACGGGCCACT
CGGGGGGCGGGTGCATCAGCCAGGGCCGGAGCTACGACACGGATCAAGGACGAGTGTTCGTGAAAGTGAACCCCA
AGGCGGAGGCCAGAAGAATGTTTGAAGGTGAGATGGCAAGTTTAACTGCCATCCTGAAAACAAACACGGTGAAAG
TGCCCAAGCCCATCAAGGTTCTGGATGCCCCAGGCGGCGGGAGCGTGCTGGTGATGGAGCACATGGACATGAGGC
ATCTGAGCAGTCATGCTGCAAAGCTTGGAGCCCAGCTGGCCGATTTACACCTTGATAACAAGAAGCTTGGAGAGA
TGCGCCTGAAGGAGGCGGGCACAGTGGGGAGAGGAGGTGGGCAGGAGGAACGGCCCTTTGTGGCCCGGTTTGGAT
TTGACGTGGTGACGTGCTGTGGATACCTCCCCCAGGTGAATGACTGGCAGGAGGACTGGGTCGTGTTCTATGCCC
GGCAGCGCATTCAGCCCCAGATGGACATGGTGGAGAAGGAGTCTGGGGACAGGGAGGCCCTCCAGCTTTGGTCTG
CTCTGCAGTTAAAGATCCCTGACCTGTTCCGTGACCTGGAGATCATCCCAGCCTTACTCCACGGGGACCTCTGGG
GTGGAAACGTAGCAGAGGATTCCTCTGGGCCGGTGATTTTTGACCCAGCTTCTTTCTACGGCCACTCGGAATATG
AGCTGGCAATAGCTGGCATGTTTGGGGGCTTTAGCAGCTCCTTTTACTCCGCCTACCACGGCAAAATCCCCAAGG
CCCCAGGATTCGAGAAGCGCCTTCAGTTGTATCAGCTCTTTCACTACTTGAACCACTGGAATCATTTTGGATCGG
GGTACAGAGGATCCTCCCTGAACATCATGAGGAATCTGGTCAAG**TGA**GCGGGCCTTACTCTGGAAGGAGGCCTCA
GAGGTTTCTCCACAGTCCTCTTCTGGGCAAATTCTTGTTTCTTCACATGCTGGACTAGCTTAAGACCAATGCAGT
AGCTTATTTCCAAGCCTTGCAAAGTATATAATATCTAAGAGGAAAGGTTTTGTCATCCCAGCGTTGTCCACTTTG
TGGGGCTTTGTAGGTAGACGGAGCCACACTACAGGCAGGGTATGAGCAGAGGGATGTATGGAGTGTGGGTGACTC
TGAGCCTCACTGCTGCTGCAAGGTGGGGAAACTGTAAGTGAACCCCTGTGGGTGCGGGGGAGGGTATCCGGTGCG
CAGGGAGGTGGCCAGCGCCCCCGGGCACTGCTGCTCATAGGTACCTTTCCACTGCCTCCTCCCTGCTCTCCTGTG
CAGGAATGTCTCTGAGCTGTTCACGTTGATGCTTCTTGGTTGGCAAGACTTGGGTGTAGACATGAAACCATCTTA
CTAAAAGCGTCTTAAAATGACCAATTCCAGAATCAAGCGTATTCCGTTTTCTTCCTGCATGATCCCTGGGCCCTC
CCGCAGGCTGAGCAAGTCTGTAAACTGATTCTGGGAGAAACCAAGCTGCTGGCCATAGGGTGTCCTTGGGTACAT
CCAGGAGTCTTCATTGCTTCTGTTATTACCCCGTCTCCTCTGCCATTTTCTACAGCTTGCTGAGTTGTCATTCCT
TTGCAACATTAAAATACATGCTGAACTC

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FIGURE 2368

CC**ATG**GAGCAGCTGCTGCGCGCCGAGCTGCGCACCGCGACCCTGCGGGCCTTCGGCGGCCCCGGCGCCGGCTGCA
TCAGCGAGGGCCGAGCCTACGACACGGACGCAGGCCCAGTGTTCGTCAAAGTCAACCGCAGGACGCAGGCCCGGC
AGATGTTTGAGGGGGAGGTGGCCAGCCTGGAGGCCCTCAGGAGCACGGGCCTGGTGCGGGTGCCGAGGCCCATGA
AGGTCATCGACCTGCCGGGAGGTGGGGCCGCCTTTGTGATGGAGCATTTGAAGATGAAGAGCTTGAGCAGTCAAG
CATCAAAACTTGGAGAGCAGATGGCAGATTTGCATCTTTACAACCAGAAGCTCAGGGAGAAGTTGAAGGAGGAGG
AGAACACAGTGGGCCGAAGAGGTGAGGGTGCTGAGCCTCAGTATGTGGACAAGTTCGGCTTCCACACGGTGACGT
GCTGCGGCTTCATCCCGCAGGTGAATGAGTGGCAGGATGACTGGCCGACCTTTTTCGCCCGGCACCGGCTCCAGG
CGCAGCTGGACCTCATTGAGAAGGACTATGCTGACCGAGAGGCACGAGAACTCTGGTCCCGGCTACAGGTGAAGA
TCCCGGATCTGTTTTGTGGCCTAGAGATTGTCCCCGCGTTGCTCCACGGGGATCTCTGGTCGGGAAACGTGGCTG
AGGACGACGTGGGGCCCATTATTTACGACCCGGCTTCCTTCTATGGCCATTCCGAGTTTGAACTGGCAATCGCCT
TGATGTTTGGGGGGTTCCCCAGATCCTTCTTCACCGCCTACCACCGGAAGATCCCCAAGGCTCCGGGCTTCGACC
AGCGGCTGCTGCTCTACCAGCTGTTTAACTACCTGAACCACTGGAACCACTTCGGGCGGGAGTACAGGAGCCCTT
CGTTGGGCACCATGCGAAGGCTGCTCAAG**TAG**CGGCCCCTGCCCTCCCTTCCCCTGTCCCCGTCCCCGT

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FIGURE 2369A

TAGCGGGCGCCTCCTTTTCATCCCTCATCCTTCATCCCTGGCTTTCGCGCTCTAGCGGAGTGGGATCTGCGAACA
CGTGAGGCGGGGGCGCGGTCCCCAGGCTGCCGAG**ATG**GCCCTGAGCGACGAACCGGCCGCGGGCGGCCCCGAGGA
GGAGGCGGAGGACGAGACACTGGCCTTTGGCGCGGCGCTGGAAGCGTTCGGCGAGAGCGCGGAGACCCGGGCGCT
GCTGGGCCGCCTGCGGGAGGTGCACGGCGGCGGCGCGGAGCGCGAGGTGGCCCTGGAGCGGTTCCGCGTAATAAT
GGACAAATACCAGGAGCAGCCTCATCTGTTGGACCCGCACCTTGAATGGATGATGAACTTGTTGTTGGACATAGT
GCAAGATCAGACATCTCCAGCTTCCCTTGTACATCTGGCTTTTAAATTTCTTTACATCATCACCAAGGTTCGAGG
CTATAAAACATTTCTTCGTTTATTTCCTCATGAAGTTGCCGATGTAGAGCCTGTTTTAGATTTGGTCACAATTCA
GAATCCCAAGGACCATGAAGCTTGGGAAACCCGCTACATGCTTTTGCTCTGGCTCTCCGTGACCTGCCTGATCCC
TTTTGATTTTTCTCGCCTTGACGGGAACCTCCTCACCCAGCCTGGGCAAGCACGAATGTCCATAATGGACCGTAT
TCTCCAAATAGCAGAGTCCTACTTGATTGTCAGTGACAAGGCCCGAGATGCAGCTGCTGTCCTTGTGTCCAGATT
TATCACACGTCCTGATGTCAAGCAAAGCAAGATGGCTGAGTTCCTGGACTGGAGCCTGTGCAATCTGGCCCGTTC
CTCCTTCCAGACCATGCAGGGGGTCATCACCATGGATGGGACGCTGCAGGCCCTGGCACAAATATTTAAACATGG
AAAACGTGAAGACTGTTTGCCCTATGCTGCCACTGTCCTCAGGTGCCTCGATGGCTGCAGACTCCCTGAGAGCAA
CCAGACCCTGCTGCGGAAGCTGGGGGTGAAGCTTGTGCAGCGACTGGGGCTGACATTCCTGAAGCCGAAGGTGGC
AGCATGGAGGTACCAGCGTGGCTGCCGATCTTTGGCTGCAAATCTGCAGCTCCTCACTCAGGGTCAGAGTGAGCA
GAAGCCACTCATCCTGACCGAAGATGACGACGAAGATGACGACGTCCCAGAGGGGGTGGAGCGTGTGATAGAGCA
GCTGCTGGTCGGGCTGAAGGACAAGGACACGGTCGTGCGGTGGTCTGCAGCCAAGGGCATCGGTAGGATGGCTGG
CAGGCTTCCCAGAGCCCTGGCGGATGATGTGGTCGGGTCTGTGCTGGACTGCTTCAGTTTCCAGGAGACTGACAA
GGCGTGGCATGGGGGATGTCTGGCGCTGGCAGAGCTGGGCAGGAGAGGCCTGTTGCTGCCGTCTCGACTCGTGGA
TGTTGTCGCCGTGATCCTGAAGGCGCTGACCTACGACGAGAAGCGGGGTGCCTGCAGCGTGGGCACCAACGTCAG
GGACGCCGCCTGCTACGTGTGCTGGGCCTTCGCGCGTGCCTATGAGCCTCAGGAGCTGAAGCCCTTTGTGACTGC
AATCTCGAGTGCACTGGTGATTGCTGCGGTGTTTGACCGAGACATAAACTGCAGAAGAGCAGCCTCTGCCGCCTT
CCAGGAGAATGTGGGGAGACAGGGCACTTTCCCTCATGGTATTGATATTTTGACCACAGCTGACTATTTTGCCGT
CGGTAACAGATCCAACTGTTTCCTGGTTATAAGTGTGTTTATTGCCGGCTTTCCTGAGTACACGCAGCCAATGAT
AGACCACCTGGTTACCATGAAGATCAGCCACTGGGATGGGGTCATCCGAGAGTTGGCTGCGAGGGCGCTGCACAA
CCTGGCCCAGCAGGCACCCGAGTTCAGCGCCACGCAAGTCTTCCCGAGGCTGCTGTCCATGACACTGAGTCCAGA
TCTTCACATGAGGCATGGGTCGATTCTCGCCTGCGCAGAAGTTGCTTACGCCTTGTACAAACTTGCAGCCCAAGA
GAACAGGCCCGTCACGGACCATCTGGACGAGCAGGCAGTGCAGGGCCTGAAGCAGATTCACCAGCAGCTCTATGA
TCGTCAGTTATACAGGGGTCTGGGAGGACAGCTCATGAGACAAGCAGTGTGTGTTTTAATAGAAAAGTTGTCACT
TTCCAAAATGCCCTTTAGAGGTGACACCGTAATTGATGGTTGGCAATGGCTGATAAATGACACTTTGAGACATCT
CCATCTCATCTCAAGTCACTCCCGCCAGCAGATGAAGGATGCAGCAGTCTCGGCCCTGGCTGCTCTATGCAGTGA
ATATTACATGAAGGAGCCGGGGGAGGCAGATCCCGCAATTCAGGAGGAGCTGATCACGCAGTACCTGGCTGAGCT
TCGGAACCCCGAGGAGATGACTCGCTGTGGCTTCTCGTTGGCCTTGGGCGCCCTTCCAGGCTTCCTTCTGAAAGG
CCGGCTCCAGCAGGTTCTCACAGGTTTAAGAGCAGTTACCCACACTTCCCCCGAGGACGTAAGTTTTGCTGAGTC
CAGGAGAGACGGCTTGAAGGCCATTGCGAGGATTTGCCAGACTGTTGGTGTGAAAGCAGGAGCCCCAGACGAAGC
TGTGTGCGGAGAGAATGTTTCCCAGATTTACTGTGCGCTGCTGGGCTGCATGGACGACTACACCACGGACAGCAG
AGGGGACGTGGGCACCTGGGTCCGCAAGGCCGCCATGACCAGTCTGATGGATCTGACACTTCTGCTGGCTCGGAG
CCAGCCTGAGCTGATCGAGGCCCATACCTGTGAGCGCATCATGTGCTGTGTGGCCCAGCAGGCCAGTGAGAAGAT
TGACCGTTTCCGTGCTCACGCCGCCAGCGTGTTCCTGACGCTCCTGCACTTTGACAGCCCTCCCATCCCCCACGT
GCCCCACCGAGGAGAACTGGAAAAGCTGTTTCCCAGGTCCGATGTGGCCTCCGTGAACTGGAGTGCACCTTCCCA
GGCCTTCCCACGCATCACCCAGCTCCTTGGGCTGCCCACCTACCGCTACCACGTCCTGCTGGGGCTAGTCGTGTC
CCTGGGCGGCTTGACGGAGTCGACGATCCGGCACTCCACCCAGAGCCTCTTTGAGTACATGAAGGGCATTCAGAG
CGACCCGCAGGCCCTGGGCAGCTTCAGCGGGACCCTTCTGCAGATCTTTGAGGACAACCTTCTGAATGAGAGGGT
GTCCGTGCCGCTGCTGAAGACGCTGGACCACGTGCTCACCCACGGCTGCTTCGACATCTTCACCACGGAGGAGGA
CCACCCCTTTGCTGTGAAGTTGCTTGCGCTCTGTAAGAAAGAAATCAAGAATTCAAAAGATATCCAGAAGCTCCT
GTCAGGCATCGCAGTGTTCTGCGGGATGGTGCAGTTCCCCGGCGACGTGAGGAGGCAGGCCCTCCTGCAGCTGTG
TCTGCTCCTCTGCCACCGTTTCCCGCTGATCCGGAAGACCACGGCCAGCCAGGTGTACGAGACATTGCTCACCTA
CAGTGACGTCGTGGGCGCGGATGTGCTGGACGAGGTGGTGACTGTGCTCAGTGACACTGCGTGGGACGCGGAGCT

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FIGURE 2369B

TGCAGTGGTGAGAGAGCAGCGCAACCGTCTGTGTGACCTTCTGGGCGTACCCAGGCCCCAGCTGGTGCCCCAGCC
TGGTGCCTGC**TGA**AGCCAGTCCTGGAGCCCATACCTCACCCCTGCCTGGTGAGGATGTCTTGTTCCTGAGGGAGG
CCGGTGTGGAAAGCCTCGCACAGTGGTGCCTCCAGCTGTTGAAGGGTAGCGCTGGCCCTTGGAGGCTGGCACTAG
CTGACAGCTTTTCCTCTCTGCACCTGCGCTCTGGTGACTTGGGGTGGACGCCTCTGCCTTCACTTGAACACAAAT
GTGCTTCCTATAAAATCATGTACCAAG

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FIGURE 2370

GAATTAAACAACCACC**ATG**TCGAGCAAAAAGGCAAAGACCAAGACCACCAAGAAGCGCCCTCAGCGTGCAACATC
CAATGTGTTTGCCATGTTTGACCAGTCACAGATTCAGGAGTTCAAAGAGGCCTTCAACATGATTGATCAGAACAG
AGATGGCTTCATCGACAAGGAAGATTTGCATGATATGCTTGCTTCTCTAGGGAAGAATCCCACTGATGCATACCT
TGATGCCATGATGAATGAGGCCCCAGGGCCCATCAATTTCACCATGTTCCTGACCATGTTTGGTGAGAAGTTAAA
TGGCACAGATCCTGAAGATGTCATCAGAAACGCCTTTGCTTGCTTTGATGAAGAAGCAACAGGCACCATTCAGGA
AGATTACCTAAGAGAGCTGCTGACAACCATGGGGGATCGGTTTACAGATGAGGAAGTGGATGAGCTGTACAGAGA
AGCACCTATTGACAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCCTGAAACATGGAGCCAAAGACAA
AGATGAC**TGA**AAGAACTTTAGCTAAAATCTTCCAGTTACATTGTCTTACTCTCTTTTACTTCTCAGACACTTCCC
CCACCCTCATAGAACCTGTTGCATGCAACTTAGTTTCACAGCTTTGCCTCTTCTTTTTGATGTATTTATTCCAGA
CCTTTCTGCCACTTAGCACTTGTATAATCAGACTGGAAATGGGGATGAGGGTGTAAATTGTATTGAAAAAGATCG
CGAATAAAAATCAACAAATGTGAAAGCCCAGAAAAATATATTCGTATTTCTGGTTTTGCTGGATTTTTACATTTT
TATATAATAAAAATGTTATTTTGAAATAAAGATTATGCTGACTCAAATGCAATGT

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FIGURE 2371

GAATTAAACAACCACC**ATG**TCGAGCAAAAAGGCAAAGACCAAGACCACCAAGAAGCGCCCTCAGCGTGCAACATC
CAATGTGTTTGCCATGTTTGACCAGTCACAGATTCAGGAGTTCAAAGAGGCCTTCAACATGATTGATCAGAACAG
AGATGGCTTCATCGACAAGGAAGATTTGCATGATATGCTTGCTTCTCTAGGGAAGAATCCCACTGATGCATACCT
TGATGCCATGATGAATGAGGCCCCAGGGCCCATCAATTTCACCATGTTCCTGACCATGTTTGGTGAGAAGTTAAA
TGGCACAGATCCTGAAGATGTCATCAGAAACGCCTTTGCTTGCTTTGATGAAGAAGCAACAGGCACCATTCAGGA
AGATTACCTAAGAGAGCTGCTGACAACCATGGGGGATCGGTTTACAGATGAGGAAGTGGATGAGCTGTACAGAGA
AGCACCTATTGACAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCCTGAAACATGGAGCCAAAGACAA
AGATGAC**TGA**AAGAACTT

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FIGURE 2372

GCGCCGAGCAGGAGCAGGGAACAAAGGAGCGGAGAGGGGAGGGGAGAGAGTTGGGCGAGGGAGAGCCCCCGGCCG
GCTGCCAGAAGATCCCGGCGGGAGGAAGCCCAAGTGTCACTTGAATTCCACCCAAGGAGCGGGCGCCTGGGATCA
GAGCGTCCTGTTTAGCAATAACGGCTGGAGCACGTCCTACAAGTTACGGGAGAGTCGGCTGTGAAGGAGACGTTC
GCTTATCCCCTGTGTCCCCGCTCCTGGCCCCTCCAGACCCCAGCCTTGCCTCGCGCTGGGAGGGGAGATCCAGA**A**
TGAAAGGCAAGAAAGGTATTGTTGCAGCATCTGGCAGTGAGACTGAGGATGAGGACAGCATGGACATTCCCTTGG
ACCTTTCTTCATCCGCTGGCTCAGGCAAGAGAAGGAGAAGGGGCAACCTACCCAAGGAGTCTGTGCAGATTCTTC
GGGATTGGCTGTATGAGCACCGTTACAATGCCTATCCTTCAGAGCAAGAAAAAGCGTTGCTGTCCCAGCAAACAC
ACCTGTCTACGCTACAGGTCTGTAACTGGTTCATCAACGCCCGCCGCAGGCTCCTCCCTGACATGCTGAGAAAGG
ATGGCAAAGATCCAAATCAGTTCACAATTTCCCGCCGTGGGGCCAAGATTTCTGAAACGAGCTCTGTGGAGTCCG
TGATGGGCATCAAAAACTTCATGCCAGCTCTAGAGGAGACCCCATTTCATTCCTGTACAGCTGGGCCAAACCCAA
CCCTAGGGAGGCCACTGTCTCCTAAGCCGTCATCCCCGGGATCAGTTTTGGCTCGTCCATCAGTGATCTGCCATA
CCACTGTGACTGCATTGAAAGATGTCCCTTTCTCTCTCTGCCAGTCGGTCGGTGTGGGACAAAACACAGATATAC
AGCAGATAGCGGCCAAAAACTTCACAGACACCTCTCTCATGTACCCAGAGGACACTTGTAAATCTGGACCAAGTA
CGAATACACAGAGTGGTCTTTTCAACACTCCTCCCCCTACTCCACCGGACCTCAACCAGGACTTCAGTGGATTTC
AGCTTCTAGTGGATGTTGCACTCAAACGGGCTGCAGAGATGGAGCTTCAGGCAAAACTTACAGCT**TAA**CCCATTT
TCAAGCAAAACAGTTCTCAGAAATGTCATGATTGCCGGGGTGAAGGCAAGAGATGAATTGCATTATTTTATATAT
TTTTTATTAATATTTGCACATGGGATTGCTAAAACAGCTTCCTGTTACTGAGATGTCTTCAATGGAATACAGTCA
TTCCAAGAACTATAAACTTAAAGCTACTGTAGAAACAAAGGGTTTTCTTTTTTAAATGTTTCTTGGTAGATTATT
CATAATGTGAGATGGTTCCCAATATCATGTGATTTTTTTTTTTCCTCCCCTTCCCTTTTTTTGTTATTTTTTCAG
ACTGTGCAATACTTAGAGAACCTATAGCATCTTCTCATTCCCATGTGGAACAGGATGCCCACATACTGTCTAATT
AATAAATTTTCCATTTTTTTTCAAACAAGT

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FIGURE 2373

GCGACGGGACGCGCTGGGACCGGCGTCGGGGGTCGCGGGGACC**ATG**CAGCGGAGGTGGGTCTTCGTGCTGCTCGA
CGTGCTGTGCTTACTGGTCGCCTCCCTGCCCTTCGCTATCCTGACGCTGGTGAACGCCCCGTACAAGCGAGGATT
TTACTGCGGGGATGACTCCATCCGGTACCCCTACCGTCCAGATACCATCACCCACGGGCTCATGGCTGGGGTCAC
CATCACGGCCACCGTCATCCTTGTCTCGGCCGGGGAAGCCTACCTGGTGTACACAGACCGGCTCTATTCTCGCTC
GGACTTCAACAACTACGTGGCTGCTGTATACAAGGTGCTGGGGACCTTCCTGTTTGGGGCTGCCGTGAGCCAGTC
TCTGACAGACCTGGCCAAGTACATGATTGGGCGTCTGAGGCCCAACTTCCTAGCCGTCTGCGACCCCGACTGGAG
CCGGGTCAACTGCTCGGTCTATGTGCAGCTGGAGAAGGTGTGCAGGGGAAACCCTGCTGATGTCACCGAGGCCAG
GTTGTCTTTCTACTCGGGACACTCTTCCTTTGGGATGTACTGCATGGTGTTCTTGGCGCTGTATGTGCAGGCACG
ACTCTGTTGGAAGTGGGCACGGCTGCTGCGACCCACAGTCCAGTTCTTCCTGGTGGCCTTTGCCCTCTACGTGGG
CTACACCCGCGTGTCTGATTACAAACACCACTGGAGCGATGTCCTTGTTGGCCTCCTGCAGGGGGCACTGGTGGC
TGCCCTCACTGTCTGCTACATCTCAGACTTCTTCAAAGCCCGACCCCCACAGCACTGTCTGAAGGAGGAGGAGCT
GGAACGGAAGCCCAGCCTGTCACTGACGTTGACCCTGGGCGAGGCTGACCACAACCACTATGGATACCCGCACTC
CTCCTCC**TGA**GGCCGGACCCCGCCCAGGCAGGGAGCTGCTGTGAGTCCAGCTGAGGCCCACCCAGGTGGTCCCTC
CAGCCCTGGTTAGGCACTGAGGGCTCTGGACGGGCTCCAGGAACCCTGGGCTGATGGGAGCAGTGAGCGGGCTCC
GCTGCCCCCTGCCCTGCACTGGACCAGGAGTCTGGAGATGCCTGGGTAGCCCTCAGCATTTGGAGGGGAACCTGT
TCCCGTCGGTCCCCAAATATCCCCTTCTTTTTATGGGGTTAAGGAAGGGACCGAGAGATCAGATAGTTGCTGTTT
TGTAAAATGTAATGTATATGTGGTTTTTAGTAAAATAGGGCACCTGTTTCAC

FIGURE 2374A

AGGCCTCCTCGCTGGGGAGGCAGAGTCCTCGCGTGGTCTCCTGCCTCGAGCACAGCCTGTGCCCAGGGGAGCCGG
GCTTGCAGACAACAGCAGTGGTGTCC**ATG**GGCTCTGGAGACCATCAGTTCAACCTCGCAGAGATCCTGTCACAGA
ACTACAGTGTTAGGGGGGAGTGCGAGGAGGCCTCGAGGTGCCCAGACAAGCCCAAGGAGGAGCTGGAGAAGGACT
TCATCTCCCAGAGCAACGACATGCCCTTTGATGAGCTGCTTGCGCTCTATGGCTACGAGGCGTCAGACCCCATTT
CAGACCGGGAGAGTGAGGGTGGTGACGTGGCCCCGAACCTCCCAGACATGACCCTGGACAAAGAACAAATAGCGA
AGGATTTGCTTTCAGGGGAAGAAGAGGAAGAGACGCAATCATCTGCTGACGACCTCACCCCGTCCGTGACCTCCC
ACGAGGCCTCCGACCTCTTCCCTAACCGGAGTGGATCTCGTTTCCTGGCTGATGAAGACAGAGAGCCTGGCTCTT
CTGCCTCCTCCGACACCGAGGAGGACTCTCTTCCTGCCAACAAATGTAAGAAGGAGATCATGGTGGGACCTCAGT
TCCAAGCTGACCTCAGCAACCTGCACTTGAACCGGCACTGTGAGAAGATCTACGAGAACGAAGACCAGCTGCTCT
GGGACCCCAGCGTCCTCCCTGAGAGGGAGGTGGAGGAGTTCCTGTACAGGGCGGTGAAGCGGCGTTGGCACGAGA
TGGCCGGGCCTCAGCTCCCAGAGGGAGAAGCCGTGAAAGACAGTGAGCAGGCGCTGTACGAGTTGGTGAAATGCA
ACTTCAATGTGGAGGAGGCCCTGCGAAGGCTGCGGTTCAACGTGAAGGTGATCCGAGATGGGCTCTGTGCTTGGA
GTGAAGAGGAGTGCAGGAACTTTGAGCACGGCTTCCGTGTGCATGGAAAGAACTTTCACCTGATCCAGGCCAACA
AGGTGCGCACACGGTCAGTGGGCGAGTGTGTCGAGTACTACTACCTGTGGAAGAAGTCGGAGCGCTACGACTACT
TCGCCCAGCAGACGCGGCTGGGCCGGAGGAAGTACGTCCCGTCCGGAACCACGGACGCAGACCAGGACCTGGATG
GCAGCGACCCCGATGGCCCCGGCCGTCCGCGCCCGGAGCAAGACACCCTGACTGGGATGCGCACAGATCCACTGA
GCGTGGATGGCACGGCCGGTGGTCTCGATGAGCCCGGAGTGGCCTCTGATGGACTCCCGTCCTCGGAGCCAGGGC
CGTGTTCCTTCCAGCAGCTGGATGAGTCCCCCGCTGTACCCCTGTCCCATCGGCCCCCAGCCCTGGCCGACCCAG
CCTCATACCAGCCAGCTGTCACTGCTCCGGAGCCAGACGCCAGCCCAAGGCTGGCCGTGGACTTCGCCCTGCCCA
AGGAGCTGCCCCTCATCTCCAGCCATGTGGACCTCAGCGGGGATCCGGAGGAGACTGTGGCCCCAGCACAGGTGG
CTTTGTCGGTCACCGAGTTTGGACTCATCGGCATTGGGGACGTGAACCCCTTCCTGGCCGCCCACCCCACGTGCC
CGGCCCCCGGGCTACACTCGGAGCCCCTGTCACACTGTAACGTGATGACCTGC**TGA**CTCCTGGCCGCGGGCGGCG
TATGCGGCCCAGACTGGACTTAGCGCTGCCGCTGGGCCCGCCTCTGTCAGTCTTCCTGACCCCTTCCCCACCCCC
CGGGCCTTGGGGTAGCACCTCCTTCTGCTTCAGAACACGTCAGGACTGGGGTGAGGTGGCTGGGCCGTGAGCCCT
TGCCCCTGTCCACACAGAATGGACCCACGGCCCCACCCAGCGCCGTCAGCGCCCGGCACTGCCACCCGGGTCCGG
GCCGCTGCCTGCACGTGGGATCCGTCGGGCAGCCGGGGACAGAAGAGACCCCGCCGTTGGGACGCAGGGCAGAGC
CGGCCACCTAGTCCCTTCCAGCCAGCAGAGGCGAGGGAAGGCGTCACTGCCCCGGCGGGGAGACGGGCAGGACGC
CCTGCCCCGCACCAGCAGCCTCCGCCGGGGCGCCCTCAGCTCCCTGCTTGGCTCTGTCTCTCCACACCCGGCAGG
GCCGCGGGCTGCCCCAGCCCTGGGGGTCGTGGGCAGCTGCTACTCAGTGCCAACCCCGTGGGGCACAGAGCCATA
TACCTCGCTGTCCGGCCCCCACCCCAGCCTCGCCTTCCCACCCCATCGTCTCCACTTCAGGAAAAGCCGCACTTT
ACACCCCCACCTGCCTCTTCCCCCTCCATCCCTGCTCCCCGATCCTGAGCGGTTGGGGTGGGGTCCCTCAGCAAC
CCCAGGCGTGGGTTTGAGGAGACAGGTGATTTACATCCCCTTTGCTGTCCTCCCCCGGTACCAAGGCAGGGAGCC
TCCGGAGGAGCCGGCCCTGCTGGCCACGCAGGGGCCAGACTCCAGCCTGTTTCCCCAGCCCTGCAGGTCTTCCTT
CTGTGGGAAGCTTCCTAGCAAGATGGCTTGGAGTCCTGGTCCCCCTCCTCCCTGGCCCTCTCGTTCGTTTCTGTT
TCTGTTTACACGTTGGAGTGGGGTCCTCCGTGGGCGGCGGCGCGCCCTGCCCCGGGTGTCGTCCGGCCTCTTGTG
CTCGAGCCCCTTTCCGAGTTGGACTCGACCATCCCTCACCCCACCAAGGACCACACTGTGAAGTGATAACTGCCT
TGAACCCCCCTTTGCTGTTTTATTTATTAAACTTGATTTGAAGCCCGGGGTGCCTTGTGGTGGATCGGGTGGGGG
CTGGGGCGGCAGGTGTCCTCGTCATCTCACTTGGGGGCCTGCATGTCTCTTGGAGGGTCCAGGATAAGTCGTGAG
CAACACGGGCGAGGGGGTGCACCGGGGGCATGACGTGGTGGGCTACGTATTGTTCACGTCAGTAAGGGAATTGTG
GCCACGATGACGGGATGTGAGGAGGGCCCACGTCTGGGTAGAGGTGGTCGGGGCAGCCTCCTAGAAGTGATATTT
AAGCTGAAACATGAAGGAGAATGGGCCTCCTTTGCTGAAAGTTTGCCGAGAGGCCTGGCAGGCGTGACAGCAGAT
GCAGAGGACAGAGGCCTGGGTCTCCAGGAGAAGCTGAGGGCACAGAGGGCAGAGGTTGGGCGGGGTGGGGACAGT
AGGTCATGAGGCCAAGTTTTGTTCTTGGTGTGGAAGCCACTTTAGGTCTGCATTGTTTTTTTGTTTTGTTTTGCT
TTTTTTTTTTAGACAGGGTCTCACACTGTCGCCAGGCTGGAGTGCAGTGGTGCGATCTCGGCTCACTGCAACCTC
CGCCTCCTGAGTTCACGCGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGCGCCCGCCACCTGGGA
TTACGGGCGCCCGCCACCATGCCCAGCTACTTTTTATATTTTTTGTAGAGATGGGGTTTCTCCTTATTGCCCAGG
ATGGTCTCTATCTCTTGACCTTGTGTTCTCCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGACATC
GCGCCCGGCTGAGGTCTGCATTGTTAATAGCGCCCTGCAGGGACGGTGCAGGCTGGTTGGGTTGCATATTGTCCA

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FIGURE 2374B

CATCAGTGAGGGAAATGTGGGCATGCATGGTGATGGGATATGGGGAGGGCCGGCCCCCAGCTGGGAGGTGACTGT
GGCTTGGCCTCAGGGACTATTGGTGAAGGACCAGGACCACTTGCATGATGGGTGTGGGAGAGTCAGGGGTCTTGC
TGGTGAGCCTGTGCCAGGAGCTGTGAGAACCAGGGCCAGCCACTCGGCAACCTGGGTGTTTGGGGATGGGCATAG
AGGAGTTTTCATTGGAGCGCCGCAGCCTGCTGACGTTTTCTTCAGATGTGCAAGGTCTTCTGTCTTCCAGCTTGC
CCTGCCTCCAGCAGGAAATCTTCAGTCCTCTCTTGGTTTTTTTCCTCCAACTGCTTTGAAGATTTTTCAGTACCA
CTGGTTTTGAGCAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGGGTGTGCTTTGGTGTATTG
AGGAGTCTGATGAGAATGTGCTTTGGTGTATTGAGGTGTCTGATGAGGATGTGCTTTGGTGTATTGAGTCTGATG
AGGATGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGAATGTGCTTT
GGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGACTGATGAGAATGTGCTTTGGTGTATTGAGG
TGTCTGATGAGGGTGTGCTTTGGTGTATTGAGGTGTCTGATGAGGATGTGCTTTGGTGTATTGAGGAGTCTGATG
AGGATGTGCTTTGGTGTATTGAGTCCGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGAATGTGCTTT
GGTGTATTGAGTCTGATGAGAATGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGT
CTGATGAGAATGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATG
TGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGAATGTGCTTTGGTGTA
TTGAGTCTGATGAGAATGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATG
AGAATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTTGGTGTATTGATGAGGATGTGCTTTGGTGTA
TTGAGGTGTCTGATGAGGATGTGCTTTGGTGTATTGAGTCTGATGAGAATGTGCTTTGGTGTATTGAGTCTGATG
AGAATGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGAATGTGCTTT
GGTGTATTGAGGTGTCTGATGAGGGTGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTTGGTGTATTG
AGTCTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGGATGTGCTTTGGTGTATTGAGTCTGATGAGG
ATGTGCTTTGGTGTATTGAGTCTGAAGAGGATGTGCTGTGGTGTATTGAGGTGTCTGATGAGGATGTACTTTGGT
GTATTGAGGTGTCTGATGAGGATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGT
CTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGAATGTGCTTTGGTGTATTGAGGAGTCTGATGAGG
ATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTT
GGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGT
CTGATGAGGATGTGCTTTGGTGTATTGAGGTGTCTGATGAGAATGTGCTTTGGTGTATTGAGGTGTCTGATGAGG
GTGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTGTGGTGTATTGAGGTGTCTGATGAGGATGTGCTTTGGT
GTACTGAGGTGTCTGATGAGGATGTACTTTGGTGTATTGAGGTGTCTGATGAGGATGTGCTTTGGTGTATTGAGG
AGTCTGATGAGGATGTGCTTTGGTGTATTGAGGAGTCTGATGAGGATGTGCTTTGGTGTATTGAGTCTGATGAGG
ATGTGCTTTGGTGTATTGAGTCTGATGAGGATGTGCTTTGGTGTATTGACGAGGATGTGCTTTGGTGTATTGAGG
TGTCTGATGAGGATGTGCTTTGGTGTAC

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FIGURE 2375

TGCCGGGAGAGTGAGGCCGCGGGGGCTGGGAAGGGACCGGTGT**ATG**GGGGACAGCAGGCGAAGGTCACTCGGGAA
CCAGCCCAGCTCTGAGGCTGCGGGCAGGTCGGAAAGGGAGCAGGACGGCGACCCCCGTGGCCTCCAGAGCTCTGT
GTACGAGAGCCGGCGGGTCACAGACCCCGAACGCCAGGACCTGGACAATGCAGAGCTGGGACCAGAAGACCCAGA
AGAGGAGCTTCCCCCCGAGGAGGTGGCCGGGGAGGAGTTCCCGGAGACCCTGGATCCCAAAGAGGCACTTTCTGA
GTTGGAGAGAGTCCTGGACAAGGACTTGGAAGAGGACATTCCTGAAATCAGCCGGCTGTCCATCAGCCAGAAGCT
CCCCAGCACCACCATGACCAAAGCAAGGAAGAGGAGGAGGCGGAGGAGGCTCATGGAGCTGGCAGAGCCCAAGAT
AAACTGGCAAGTCCTGAAAGACAGGAAGGGACGCTGTGGTAAGGGGTATGCCTGGATCTCCCCATGTAAGATGAG
CTTGCACTTCTGTCTCTGCTGGCCCTCTGTGTACTGGACCGAGCGGTTCCTTGAGGACACCACCCTCACCATCAC
AGTGCCCGCGGTGTCCCGCCGCGTGGAGGAACTGTCTCGGCCCAAGAGATTCTACCTGGAATATTACAACAACAA
CAGGACGACTCCTGTCTGGCCCATTCCTCGGTCCTCCCTGGAATACAGAGCGTCGAGTCGCCTGAAGGAACTGGC
CGCCCCGAAGATTCGTGATAACTTCTGGAGCATGCCCATGTCTGAGGTGTCCCAGGTATCCAGGGCAGCCCAAAT
GGCAGTCCCCAGCTCGCGGATCCTCCAGTTGTCAAAGCCGAAGGCCCCAGCCACCCTCTTGGAAGAGTGGGACCC
CGTGCCAAAACCCAAGCCACATGTGTCAGACCATAACCGCCTCCTTCACTTGGCCAGGCCCAAAGCTCAGTCGGA
CAAGTGCGTTCCTGACCGAGATCCTCGCTGGGAGGTGCTGGATGTCACCAAGAAGGTGGTGGCCAGCCCCCGGAT
CATCTCCCTGGCCAAGCCCAAAGTGCGCAAGGGCCTCAACGAGGGATACGACAGGCGTCCCCTCGCCTCTATGAG
CTTGCCACCCCCAAAAGCATCACCAGAAAAGTGTGATCAACCCAGGCCTGGCCTC**TAA**GACCTCCGCTCCCAGTA
AACACCCTCAGGCACCCTAA

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FIGURE 2376

CCCCGGGGAACCCGTTTCTCCCAGCTCTGGTCCCGGCAGGAGTAGCTGCTTGCCCCCTGCCTGCCCAGCACTCCT
GTCCCTGGCCTGCAGGACCCTTTGAGGATGCCCTGAAGTTGCATGAGTGCTCAGTGGCGGCAGGCGTGACAGCAG
CCCCTCTTCCCTTGGAGGACCAGTGGCCCAGCCCCCCTACCCGCCGGGCCCCTGTGGCCCCCACGGAGGAACAGC
TGCGTCAGGAGCCCTGGTACCACGGCCGGATGAGCCGCCGGGCGGCAGAGAGGATGCTTCGAGCTGACGGGGACT
TCCTTGTGCGAGACAGCGTCACCAACCCCGGGCAGTATGTCCTCACCGGCATGCACGCCGGGCAGCCCAAGCACC
TGCTGCTCGTGGACCCCGAGGGCGTGGTACGGACGAAGGACGTGCTGTTTGAGAGCATCAGCCACCTGATCGACC
ACCACCTGCAGAACGGGCAGCCCATCGTGGCCGCCGAGAGTGAGCTGCACCTGCGTGGCGTGGTCTCACGGGAGC
CCTGAGCCAGGTGACCGTTCTCAGCCCTGGCTCCTGCCTGTTCTCAGCCCCGGCTCCTGCCTGTCATGGCCTTGG
GGCTCTCAGCCCTCCTCCTGGATCCTGGTCAGGCCGAACCACCGCTGCCTCTCCTTCCTCCGC**ATG**AGCCTCTGG
CATGGTCCTTCCTCCAGCTGGCCCCGGGCTGGGCAGAGCCTCCTCCTGCCGGGGCCCCTGCCCACCCCCTCCTTT
GCCTGGAGTGAGGGTGTTCATACCAAAGACGGAACCATTTCGCCTTTAAAGAAAATATATCCAGAAGCAGCCGCT
GCCTCGGAGCCCTGGCCCTTGGGTCCCCCTCTCGCCTGGCTGGTTCGGTCTAACGCCCCGGAGAGTCAGGGCTCC
CAGGACCCTGGGGAGGAGGCGGATTCCGGGCCTGGCTGGGCTTCCTCTTCCCACCTGAGGACTGGGTGCACAGTT
GTCTTTGAGGGGGGACGCTTAAGGTGCTTTGGGGTTCTCAGGCCAGGATACATGCTGGCGCTGAAGTGCAGGCAG
CCT**TGA**GGTCACCTGGGATCTCGGGGTAGCCAGGCTGCTCCAAGACAGTGGATATCGAGGCAGTCGTGAGGCCCC
TACTCCACCTGGGAGCAGGGGAAGGACGTGGTTGCCTGGCCTGGGCTGCGCCCAGCAGCTTCCCCCCAGTCCTGC
CCTCCCAGCTGTCGACCCAGATGGGATGTTCGGATCGGTTTGTAATTAAACCTGGGAATGGCCACAAG

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FIGURE 2377

GTACCACCGCCGGCCGGTTTCACGGACAGCGGCCGCCAGTCGGTATCCCGGGCGGCGGGGGCGGCCGAGAGCGAG
GAGGACTTCCTGCGGCAGGTCGGCGTGACGGAA**ATG**CTACGTGCGGCCCTGCTGAAGGTGCTGGAGGCGCGGCCC
GAGGAGCCGATCGCCTTCCTGGCTCACTACTTCGAGAACATGGGCCTGCGCTCGCCTGTAAACGGCGGCGCCGGG
GAGCCCCCGGGCCAGCTCCTGCTGCAGCAGCAGCGCCTGGGCCGCGCGCTATGGCACCTTCGCCTGGCCCACCAC
TCCCAGAGGGCCGCCTTCAACAACAACGTGAGCGTGGCCTACGAGTGCCTGAGCGCCGGCGGGCGCAGGAAGAGG
CCGGGGCTGGACGGGCGCACCTACAGCGAGCTGCTCAGGCGCATCTGCCGGGACGGCCAAGCCCCCGAGGAGGTG
GTGGCGCCGCTGCTGCGCAAGGTGCAGTGCCGTGACCACGAGGCGGTGCCGCTGAGCGTCTTCCGCGCGGGCACA
CTCACCTGCTTCGTGCTGCTGGAGTTCGTGGCGCGCGCCGGCGCGCTCTTCCAGCTGCTGGAGGACTCGGCCGCC
GCCGTGGCCGACCGCCGCGTGGGCCAGGCCGTGCTGGACACCCTGGAGGGCGCGCTGCAGGCCAGCGACGCCGCC
GCGCCCGCGCGCTTCCTGGAGGCCGGCTCGCGCTTGGGGCCCGACAGCCTGGCGCTGGCGCTGGACCGCGCCGTC
GGGGGGCGGCGGCCCAGCGCGCCCATGACCCGCGAGGAGTTTCTGGAGAGGGCCGCCGCGCTCTTCATCGCGAAG
GTCAAGCCGGTGGGC**TGA**GGCCCGTGGGCCGCGCGGATCCGGGATCTGCGCTGGGGGGTCCCCGCGTGCGGGGCG
CGCGGAGCCTTCCCTTCGCCCTGGTGAGGCCCTGCCATAACCAGGCGCCCAGCCCTGCGGAGGAGGCCGGGGCTC
CCAGGAAGCGGACGCCCGGTCCCCACACAGCGCCGCGGCCGCCCCTCCACCCCCGCGGGAGCCCCTGCCCCACGC
TAATAAAATGTGTTGCGAGGCTGA

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FIGURE 2378

GGCAAGCGCCGGTGGGGCGGCGGCGCCAGAGCTGCTGGAGCGCTCGGGGTCCCCGGGCGGCGGCGGCGGCGCAGA
GGAGGAGGCAGGCGGCGGCCCCGGTGGCTCCCCCCCGGACGGTGCGCGGCCCGGCCCGTCTCGCGAACTCGCGGT
GGTCGCGCGGCCCCGCGCTGCTCCGACCCCGGGCCCCTCCGCCGCCGCC**ATG**GCTCGGCCGCTAGTGCCCAGCTC
GCAGAAGGCGCTGCTGCTGGAGCTCAAGGGGCTGCAGGAAGAGCCGGTCGAGGGATTCCGCGTGACACTGGTGGA
CGAGGGCGATCTATACAACTGGGAGGTGGCCATCTTCGGGCCCCCCAACACCTACTACGAGGGCGGCTACTTCAA
GGCGCGCCTCAAGTTCCCCATCGACTACCCATACTCTCCACCAGCCTTTCGGTTCCTGACCAAGATGTGGCACCC
TAACATCTACGAGACGGGGGACGTGTGTATCTCCATCCTCCACCCGCCGGTGGACGACCCCCAGAGCGGGGAGCT
GCCCTCAGAGAGGTGGAACCCCACGCAGAACGTCAGGACCATTCTCCTGAGTGTGATCTCCCTCCTGAACGAGCC
CAACACCTTCTCGCCCGCAAACGTGGACGCCTCCGTGATGTACAGGAAGTGGAAAGAGAGCAAGGGGAAGGATCG
GGAGTACACAGACATCATCCGGAAGCAGGTCCTGGGGACCAAGGTGGACGCGGAGCGTGACGGCGTGAAGGTGCC
CACCACGCTGGCCGAGTACTGCGTGAAGACCAAGGCGCCGGCGCCCGACGAGGGCTCAGACCTCTTCTACGACGA
CTACTACGAGGACGGCGAGGTGGAGGAGGAGGCCGACAGCTGCTTCGGGGACGATGAGGATGACTCTGGCACGGA
GGAGTCC**TGA**CACCACCAGAATAAACTTGCCGAGTTTACCTCACTAGGGCCGGACCCGTGGCTCCTTAGACGACA
GACTACCTCACGGAGGTTTTGTGCTGGTCCCCGTCTCCTCTGGTTGTTTCGTTTTGGCTTTTTCTCCCTCCCCAT
GTCTGTTCTGGGTTTTCACGTGCTTCAGAGAAGAGGGGCTGCCCCACCGCCACTCACGTCACTCGGGGCTCGGTG
GACGGGCCCAGGGTGGGAGCGGCCGGCCCACCTGTCCCCTCGGGAGGGGAGCTGAGCCCGACTTCTACCGGGGTC
CCCCAGCTTCCGGACTGGCCGCACCCCGGAGGAGCCACGGGGGCGCTGCTGGGAACGTGGGCGGGGGGCCGTTTC
CTGACACTACCAGCCTGGGAGGCCCAGGTGTAGCGGTCCGAGGGGCCCGGTCCTGCCTGTCAGCTCCAGGTCCTG
GAGCCACGTCCAGCACAGAGTGGACGGATTCACCGTGGCCGACTCTTTTCCCTGCTTTGGTTTGTTTGAAATCTA
AATAAAACTACTTTATGAG

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FIGURE 2379

GCCGCGGGCGGCGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATC**ATG**GCGGCTGCGCTGTTC
GTGCTGCTGGGATTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAA
GACCTTGGCTCCAAGATACTCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTG
AAGGGGGGCGTGGTGCTGAAGGAGGACGCGCTGCCCGGCCAGAAAACGGAGTTCAAGGTGGACTCCGACGACCAG
TGGGGAGAGTACTCCTGCGTCTTCCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCCAGA
GTGAAGGCTGTGAAGTCGTCAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTG
CCACCTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGC
AGGTTCTTCGTGAGTTCCTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGC
CAGTACCGGTGCAACGGCACCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTG
GCCGCCCTCTGGCCCTTCCTGGGCATCGTGGCTGAGGTGCTGGTGCTGGTCACCATCATCTTCATCTACGAGAAG
CGCCGGAAGCCCGAGGACGTCCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAG
AATGACAAAGGCAAGAACGTCCGCCAGAGGAACTCTTCC**TGA**GGCAGGTGGCCCGAGGACGCTCCCTGCTCCACG
TCTGCGCCGCCGCCGGAGTCCACTCCCAGTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCC
GTAGATTCCCATCATACACTTCCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTCAGGATTCTGTTCCTTAGGT
TTTTTTCCTTCTGAAGTGTTTCACGAGAGCCCGGGAGCTGCTGCCCTGCGGCCCCGTCTGTGGCTTTCAGCCTCT
GGGTCTGAGTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCTTGCCCTTTG
TGGAAAGTCACAGGTCACACGAGGGGCCCCGTGTCCTGCCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTT
TGTGCTTTTATGTTTAATTTTATGAGGGCCACGGGTCTGTGTTCGACTCAGCCTCAGGGACGACTCTGACCTCTT
GGCCACAGAGGACTCACTTGCCCACACCGAGGGCGACCCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTT
GTCTGTGCATCCGGGGGCAGCTCTGGAGGGGGTTTGCTGGGGAACTGGCGCCATCGCCGGGACTCCAGAACCGCA
GAAGCCTCCCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCC
ACCCACCGCCACAATAAAGATCGCCCCCACCTCCACCCTC

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FIGURE 2380

CGGGCGGCGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATC**ATG**GCGGCTGCGCTGTTCGTGC
TGCTGGGATTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAAGACC
TTGGCTCCAAGATACTCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTGAAGG
GGGGCGTGGTGCTGAAGGAGGACGCGCTGCCCGGCCAGAAAACGGAGTTCAAGGTGGACTCCGACGACCAGTGGG
GAGAGTACTCCTGCGTCTTCCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCCAGAGTGA
AGGCTGTGAAGTCGTCAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTGCCAC
CTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGCAGGT
TCTTCGTGAGTTCCTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGCCAGT
ACCGGTGCAACGGCACCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTGGCCG
CCCTCTGGCCCTTCCTGGGCATCGTGGCTGAGGTGCTGGTGCTGGTCACCATCATCTTCATCTACGAGAAGCGCC
GGAAGCCCGAGGACGTCCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAGAATG
ACAAAGGCAAGAACGTCCGCCAGAGGAACTCTTCC**TGA**GGTGGCCCGAGGACGCTCCCTGCTCCACGTCTGCGCC
GCCGCCGGAGTCCACTCCCAGTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCCGTAGATTC
CCATCATACACTTCCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTCAGGATTCTGTTCCTTAGGTTTTTTTCC
TTCTGAAGTGTTTCACGAGAGCCCGGGAGCTGCTGCCCTGCGGCCCCGTCTGTGGCTTTCAGCCTCTGGGTCTGA
GTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCTTGCCCTTTGTGGAAAGT
CACAGGTCACACGAGGGGCCCCGTGTCCTGCCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTTTGTGCTTT
TATGTTTAATTTTATGAGGGCCACGGGTCTGTGTTCGACTCAGCCTCAGGGACGACTCTGACCTCTTGGCCACAG
AGGACTCACTTGCCCACACCGAGGGCGACCCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTTGTCTGTGC
ATCCGGGGGCAGCTCTGGAGGGGGTTTGCTGGGGAACTGGCGCCATCGCCGGGACTCCAGAACCGCAGAAGCCTC
CCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCCACCCACCG
CCACAATAAAGATCGCCCCCACCTCCACCCTC

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FIGURE 2381A

AGGCGGCGCGGGCGCATGCGCAGGCGCGGGCCGGTGGGGTGGCCTGGAGCGGCGTGCGTA**ATG**TCGGCACTTTGC
TGGGGCCGCGGAGCGGCGGGGCTCAAACGAGCCCTACGGCCTTGCGGCCGCCCGGGACTCCCCGGCAAAGAAGGG
ACCGCCGGTGGCGTCTGCGGCCCCAGGAGGAGCTCGTCCGCCAGCCCCCAGGAGCAAGACCAAGACCGCAGGAAG
GACTGGGGCCACGTGGAGCTGCTGGAGGTGCTCCAGGCGCGGGTGCGGCAGCTGCAGGCTGAGAGCGTGTCGGAG
GTGGTGGTGAACAGGGTGGATGTGGCGCGGCTCCCAGAATGTGGCAGTGGAGATGGTAGCCTCCAGCCACCCAGG
AAGGTCCAGATGGGGGCCAAGGATGCCACCCCGGTGCCCTGTGGCCGCTGGGCAAAGATACTGGAGAAGGATAAG
CGGACCCAGCAGATGCGTATGCAGCGGTTGAAGGCGAAGCTGCAGATGCCATTCCAGAGCGGGGAGTTCAAGGCG
CTGACCAGGCGCCTGCAGGTGGAGCCCCGGCTCCTGAGCAAGCAGATGGCCGGGTGCCTGGAGGACTGCACGCGC
CAGGCCCCCGAGAGCCCCTGGGAGGAGCAGCTGGCCCGGCTGCTGCAGGAGGCCCCTGGGAAGCTGAGCCTCGAT
GTGGAGCAGGCCCCGTCGGGGCAGCACTCGCAGGCCCAGCTCTCAGGTCAGCAGCAGAGGCTCCTGGCCTTCTTC
AAGTGCTGCCTGCTCACTGACCAGCTGCCCCTCGCCCACCACCTGCTGGTCGTCCACCACGGCCAGCGGCAGAAG
CGGAAGCTGCTCACGCTGGACATGTACAACGCCGTGATGCTTGGCTGGGCGCGGCAGGGTGCCTTCAAGGAGCTG
GTATATGTGTTATTCATGGTGAAGGATGCCGGCTTGACTCCGGACCTGCTGTCCTATGCGGCTGCCCTCCAGTGC
ATGGGGAGGCAGGACCAGGACGCCGGGACCATCGAAAGGTGTCTGGAACAGATGAGCCAGGAGGGGCTGAAGCTG
CAGGCACTCTTCACCGCCGTTCTGCTGTCTGAGGAGGATCGGGCCACTGTTCTGAAGGCCGTGCACAAGGTGAAG
CCCACCTTCAGCCTCCCGCCGCAGCTGCCGCCCCCGGTCAACACCTCCAAGCTGCTCAGGGACGTGTATGCCAAG
GATGGGCGTGTGTCCTACCCGAAGCTGCACCTGCCCTTGAAGACCCTGCAGTGCCTCTTTGAGAAGCAGCTCCAC
ATGGAGCTGGCCAGCAGGGTGTGCGTGGTGTCCGTGGAGAAGCCCACGTTGCCAAGCAAGGAGGTCAAGCACGCG
CGGAAGACCCTGAAGACCCTGCGGGACCAATGGGAGAAAGCACTGTGCCGGGCGCTGCGGGAGACCAAGAACCGC
CTAGAGCGCGAGGTGTACGAGGGCCGGTTCTCACTTTACCCCTTCCTGTGCCTGCTGGACGAGCGCGAGGTGGTG
CGGATGCTCCTGCAGGTCCTGCAGGCGCTGCCCGCCCAAGGTGAGTCCTTCACCACCCTGGCCCGGGAGCTGAGT
GCGCGCACTTTCAGCCGGCACGTGGTGCAGAGGCAGCGGGTCAGTGGCCAGGTGCAGGCGCTGCAGAACCACTAC
AGGAAGTACCTCTGCTTGCTGGCCTCCGACGCCGAGGTGCCCGAGCCCTGCCTGCCGCGGCAGTACTGGGAGGAG
CTGGGGGCGCCCGAGGCCCTGCGGGAGCAGCCCTGGCCCCTGCCAGTGCAGATGGAGCTGGGCAAGCTGCTGGCG
GAGATGCTGGTGCAGGCTACGCAGATGCCATGCAGCCTGGACAAGCCGCATCGTTCCTCTCGGCTTGTCCCCGTG
CTCTACCACGTGTATTCCTTCCGCAACGTCCAGCAGATCGGCATCCTGAAGCCGCACCCGGCCTACGTGCAGCTG
CTGGAGAAGGCCGCGGAGCCCACGCTGACCTTCGAGGCGGTGGATGTACCCATGCTTTGCCCCCCGCTGCCCTGG
ACATCGCCGCACTCTGGTGCTTTCCTGCTCAGCCCCACCAAGCTGATGCGCACGGTGGAAGGCGCCACGCAGCAC
CAGGAGCTGCTGGAAACCTGCCCGCCCACCGCGCTGCATGGCGCACTGGACGCCCTCACCCAACTGGGCAACTGC
GCCTGGCGCGTCAACGGGCGCGTGCTGGACCTGGTGCTGCAGCTCTTCCAGGCCAAGGGCTGCCCCCAGCTAGGC
GTGCCGGCCCCGCCCTCCGAGGCGCCCCAGCCGCCCGAGGCCCACCTGCCGCACAGCGCCGCGCCCGCCCGCAAG
GCCGAGCTGCGCCGTGAGCTGGCGCACTGCCAGAAGGTGGCCCGGGAGATGCACAGCCTGCGGGCGGAGGCGCTG
TACCGCCTCTCGCTGGCGCAGCACCTGCGGGACCGCGTCTTCTGGCTGCCGCACAACATGGACTTCCGCGGCCGC
ACCTACCCCTGCCCGCCGCACTTCAACCACCTGGGCAGCGACGTGGCGCGGGCCCTGCTGGAGTTCGCCCAGGGC
CGCCCGCTCGGCCCGCACGGCCTGGATTGGCTCAAGATCCACCTGGTCAATCTCACGGGGTTGAAGAAGCGGGAG
CCGCTGCGGAAGCGCCTGGCCTTTGCGGAGGAGGTGATGGATGACATCCTGGACTCCGCGGACCAACCCTTGACG
GGCCGAAAGTGGTGGATGGGCGCGGAGGAACCCTGGCAGACGCTGGCCTGCTGTATGGAGGTGGCGAACGCTGTG
CGCGCCTCCGACCCTGCCGCCTATGTCTCCCACCTCCCCGTCCATCAGGACGGCTCTTGCAACGGCCTGCAGCAT
TATGCTGCTCTGGGCCGCGACAGCGTGGGCGCCGCCTCCGTCAACCTGGAGCCCTCGGATGTGCCGCAGGACGTG
TACAGCGGCGTGGCCGCGCAGGTGGAGGTGTTCCGTAGGCAGGACGCCCAGCGGGGCATGCGGGTGGCACAGGTG
CTGGAAGGTTTCATCACCCGCAAGGTGGTGAAGCAGACGGTGATGACGGTGGTGTACGGGGTCACGCGCTATGGC
GGGCGCCTGCAGATTGAGAAGCGCCTCCGGGAGCTGAGCGACTTTCCCCAGGAGTTCGTGTGGGAGGCCTCTCAC
TATCTCGTACGCCAGGTCTTCAAGAGTCTACAGGAGATGTTCTCGGGGACCCGGGCCATCCAGCACTGGCTGACC
GAGAGTGCCCGCCTCATCTCCCACATGGGCTCTGTGGTGGAGTGGGTCACACCCCTGGGCGTCCCCGTCATCCAG
CCCTATCGCCTGGACTCCAAGGTCAAGCAAATAGGAGGTGGAATTCAGAGCATCACCTACACCCACAACGGAGAC
ATCAGCCGAAAGCCCAACACACGTAAGCAGAAGAACGGCTTCCCGCCCAACTTCATCCACTCGCTGGACTCCTCC
CACATGATGCTCACCGCCCTGCACTGCTACAGGAAGGGCCTGACCTTCGTCTCTGTGCACGACTGTTACTGGACT
CACGCAGCTGATGTCTCCGTCATGAACCAGGTGTGCCGGGAGCAGTTTGTCCGCTTGCACAGCGAGCCCATCCTG

FIGURE 2381B

CAGGACCTGTCCAGATTCCTGGTCAAGCGGTTCTGCTCTGAGCCCCAGAAGATCTTGGAGGCCAGCCAGCTGAAG
GAGACACTGCAGGCGGTGCCCAAGCCAGGGGCCTTCGACCTGGAGCAGGTGAAGCGTTCCACCTACTTCTTCAGC
TGACACCCCGTGAGCCTTGTCAGTGTGTAAATAAAGCTCTTTTGCCACCCCC

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FIGURE 2382

AGCAAACGGCCGGCGGCGGGTGCCGCGCGGGGGGCGGGCGGCGCGGAGTAGGTGGCGGCGGCC**ATG**GCCGAGGCG
TCGCCGCATCCCGGACGGTACTTCTGCCACTGCTGCTCCGTGGAGATCGTCCCGCGCCTGCCGGATTATATCTGT
CCAAGATGCGAGTCTGGTTTTATCGAGGAGCTTCCGGAAGAGACCAGGAGCACAGAAAATGGTTCTGCCCCCTCC
ACAGCTCCCACAGACCAGAGCCGGCCACCGTTGGAGCACGTGGACCAGCACCTGTTCACGCTGCCGCAGGGCTAC
GGACAGTTTGCTTTCGGCATCTTCGATGACAGCTTCGAGATCCCCACGTTCCCTCCTGGGGCGCAGGCTGACGAC
GGCAGGGACCCTGAGAGCCGGCGGGAGAGAGACCATCCGTCCCGGCACCGGTACGGCGCCCGACAGCCCCGCGCC
CGCCTCACCACGCGGCGGGCCACCGGCCGGCACGAAGGCGTCCCCACGCTGGAAGGGATCATCCAGCAGCTCGTC
AACGGCATCATCACGCCCGCCACCATCCCCAGCCTGGGCCCCTGGGGAGTCCTGCACTCAAACCCTATGGACTAC
GCCTGGGGGGCCAACGGCCTGGATGCCATCATCACACAGCTCCTCAATCAGTTTGAAAACACAGGCCCCCCACCG
GCAGATAAAGAGAAAATCCAGGCCCTCCCCACCGTCCCCGTCACTGAGGAGCACGTAGGCTCCGGGCTCGAGTGC
CCTGTGTGCAAGGACGACTACGCGCTGGGTGAGCGTGTGCGGCAGCTGCCCTGCAACCACCTGTTCCACGACGGC
TGCATCGTGCCCTGGCTGGAGCAGCACGACAGCTGCCCCGTCTGCCGAAAAAGCCTCACGGGACAGAACACGGCC
ACGAACCCCCCTGGCCTCACTGGGGTGAGCTTCTCCTCCTCGTCGTCATCGTCCTCCTCCAGCTCGCCCAGCAAC
GAGAACGCCACAAGCAACTCG**TGA**GCCCACGTCGGCCGTCGGGAAAGCACGGGGCCTTTCCCACCCACCCTCAGC
CAGCGCCACACGGCACCCACAGACTGGGTGCCCCGGCGGCGCCACGCTTGGCTGGTCAGCGCTGCAGGTCCCGCC
TGTTCCAGGGCAGGACCCGGGCCCGGCCCACCGGCCCCCTGGCTTGGGAAGGCGTGGGCCACATGGTCCCCTCTG
GGGCGTCCCCAGCCTCCCCGTCCTCTGTCTAACCTCACCCTCTAAACGTTCAGCGGTGGAAAGATTTTTATAATT
TTAAATTATTACTGCTTTGAAATAAACGGACGTTTGAGCTCACGTGGCGGCCATGCATGGTTTGTGGCGGAAGAC
GGGGCCCAGCGGCTCCCCCAGCGCTGAAGCACGGGGTTCAGCGGCTCCCCCAGTGCTGCAGGTGCCGCCAGGACG
GGCCACGTGGGCCCCCAGCCTCCCCCTCGGCCGCCTCCACGACCCGGAGTAGGGGGGCTCGGGACCATGAGGATG
ACCAGCAAAATTCAAGAACAAAACTGCTCCAACAGACTTTTTTAAAGGAAAAAATATGTGTATCTTGAAAGCTAT
TTAAAATACACTACTTACAAAGAG

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FIGURE 2383

GTTCGCC**ATG**CGTCCCGGGGCGCCAGGGCCACTCTGGCCTCTGCCCTGGGGGGCCCTGGCTTGGGCCGTGGGCTT
CGTGAGCTCCATGGGCTCGGGGAACCCCGCGCCCGGTGGTGTTTGCTGGCTCCAGCAGGGCCAGGAGGCCACCTG
CAGCCTGGTGCTCCAGACTGATGTCACCCGGGCCGAGTGCTGTGCCTCCGGCAACATTGACACCGCCTGGTCCAA
CCTCACCCACCCGGGGAACAAGATCAACCTCCTCGGCTTCTTGGGCCTTGTCCACTGCCTTCCCTGCAAAGATTC
GTGCGACGGCGTGGAGTGCGGCCCGGGCAAGGCGTGCCGCATGCTGGGGGGCCGCCCGCGCTGCGAGTGCGCGCC
CGACTGCTCGGGGCTCCCGGCGCGGCTGCAGGTCTGCGGCTCAGACGGCGCCACCTACCGCGACGAGTGCGAGCT
GCGCGCCGCGCGCTGCCGCGGCCACCCGGACCTGAGCGTCATGTACCGGGGCCGCTGCCGCAAGTCCTGTGAGCA
CGTGGTGTGCCCGCGGCCACAGTCGTGCGTCGTGGACCAGACGGGCAGCGCCCACTGCGTGGTGTGTCGAGCGGC
GCCCTGCCCTGTGCCCTCCAGCCCCGGCCAGGAGCTTTGCGGCAACAACAACGTCACCTACATCTCCTCGTGCCA
CATGCGCCAGGCCACCTGCTTCCTGGGCCGCTCCATCGGCGTGCGCCACGCGGGCAGCTGCGCAGGCACCCCTGA
GGAGCCGCCAGGTGGTGAGTCTGCAGAAGAGGAAGAGAACTTCGTG**TGA**GCCTGCAGGACAGGCCTGGGCCTGGT
GCCCGAGGCCCCCCATCATCCCCTGTTATTTATTGCCACAGCAGAGTCTAATTTATATGCCACGGACACTCCTTA
GAGCCCGGATTCGGACCACTTGGGGATCCCAGAACCTCCCTGACGATATCCTGGAAGGACTGAGGAAGGGAGGCC
TGGGGGCCGGCTGGTGGGTGGGATAGACCTGCGTTCCGGACACTGAGCGCCTGATTTAGGGCCCTTCTCTAGGAT
GCCCCAGCCCCTACCCTAAGACCTATTGCCGGGGAGGATTCCACACTTCCGCTCCTTTGGGGATAAACCTATTAA
TTATTGCTACTATCAAGAGGGCTGGGCATTCTCTGCTGGTAATTCCTGAAGAGGCATGACTGCTTTTCTCAGCCC
CAAGCCTCTAGTCTGGGTGTGTACGGAGGGTCTAGCCTGGGTGTGTACGGAGGGTCTAGCCTGGGTGAGTACGGA
GGGTCTAGCCTGGGTGAGTACGGAGGGTCTAGCCTGGGTGAGTACGGAGGGTCTAGCCTGGGTGTGTATGGAGGA
TCTAGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGTGTATGGAGGGTCT
AGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGTGTATGGAGGGTCTAGCCTGGGTGAGTATGGAGGGTCTAGC
CTGGGTGTGTACGGAGGGTCTAGTCTGAGTGCGTGTGGGGACCTCAGAACACTGTGACCTTAGCCCAGCAAGCCA
GGCCCTTCATGAAGGCCAAGAAGGCTGCCACCATTCCCTGCCAGCCCAAGAACTCCAGCTTCCCCACTGCCTCTG
TGTGCCCCTTTGCGTCCTGTGAAGGCCATTGAGAAATGCCCAGTGTGCCCCCTGGGAAAGGGCACGGCCTGTGCT
CCTGACACGGGCTGTGCTTGGCCACAGAACCACCCAGCGTCTCCCCTGCTGCTGTCCACGTCAGTTCATGAGGCA
ACGTCGCGTGGTCTCAGACGTGGAGCAGCCAGCGGCAGCTCAGAGCAGGGCACTGTGTCCGGCGGAGCCAAGTCC
ACTCTGGGGGAGCTCTGGCGGGGACCACGGGCCACTGCTCACCCACTGGCCCCGAGGGGGGTGTAGACGCCAAGA
CTCACGCATGTGTGACATCCGGAGTCCTGGAGCCGGGTGTCCCAGTGGCACCACTAGGTGCCTGCTGCCTCCACA
GTGGGGTTCACACCCAGGGCTCCTTGGTCCCCCACAACCTGCCCCGGCCAGGCCTGCAGACCCAGACTCCAGCCA
GACCTGCCTCACCCACCAATGCAGCCGGGGCTGGCGACACCAGCCAGGTGCTGGTCTTGGGCCAGTTCTCCCACG
ACGGCTCACCCTCCCCTCCATCTGCGTTGATGCTCAGAATCGCCTACCTGTGCCTGCGTGTAAACCACAGCCTCA
GACCAGCTATGGGGAGAGGACAACACGGAGGATATCCAGCTTCCCCGGTCTGGGGTGAGGAATGTGGGGAGCTTG
GGCATCCTCCTCCAGCCTCCTCCAGCCCCCAGGCAGTGCCTTACCTGTGGTGCCCAGAAAAGTGCCCCTAGGTTG
GTGGGTCTACAGGAGCCTCAGCCAGGCAGCCCACCCCACCCTGGGGCCCTGCCTCACCAAGGAAATAAAGACTCA
A

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FIGURE 2384

CCCCCGCGCCGCGCAGCCCCGGCCGCCAGGCCTTAGCCCGCCCCGGCCCCCGCCAGGCCGCGTCCCCCTCCCCTC
CCCTCCCCCGCGCGCCACCCGCGCCCGCCCCCGCCCGGCACCGCGGACCCACCCGGACCTCGGCGGGGAG**ATG**GA
GGTCCTGGCGGCAGAGACCACGTCCCAGCAGGAGCGGCTGCAGGCCATCGCAGAGAAGCGGAAGCGGCAGGCGGA
GATCGAGAACAAGCGCCGGCAGCTGGAGGACGAGCGGAGGCAGCTGCAGCACCTGAAGTCCAAGGCACTGCGGGA
GCGCTGGCTGCTGGAGGGGACGCCGTCCTCGGCCTCAGAGGGGGATGAGGACCTGAGGAGGCAGATGCAGGACGA
CGAGCAGAAGACACGGCTGCTGGAGGACTCGGTGTCCAGGTTGGAGAAGGAAATTGAGGTGCTGGAGCGTGGAGA
CTCCGCCCCAGCCACTGCCAAGGAGAACGCGGCGGCCCCGAGCCCAGTCCGGGCCCCAGCCCCGAGTCCAGCCAA
GGAGGAGCGCAAGACAGAGGTGGTGATGAATTCACAGCAGACGCCGGTGGGCACGCCCAAAGACAAGCGAGTCTC
CAACACGCCCCTGAGGACGGTTGACGGCTCCCCCATGATGAAGGCAGCCATGTACTCGGTTGAGATCACTGTGGA
GAAGGACAAGGTGACAGGGGAGACCAGGGTGCTGTCCAGCACCACGCTGCTCCCTCGGCAGCCGCTCCCTCTGGG
CATCAAAGTCTACGAGGACGAGACCAAAGTGGTCCATGCTGTGGACGGCACCGCCGAGAACGGGATCCACCCCCT
GAGCTCCTCCGAGGTGGACGAACTCATCCACAAAGCGGACGAGGTCACGCTGAGCGAGGCAGGGTCCACGGCCGG
GGCGGCAGAGACCCGGGGGGCTGTGGAGGGGGCAGCCCGGACCACGCCCTCCCGGCGGGAGATCACCGGTGTGCA
GGCACAGCCAGGCGAGGCCACGTCCGGCCCGCCGGGGATCCAGCCCGGCCAGGAGCCCCCGGTCACAATGATCTT
CATGGGTTACCAGAACGTGGAGGATGAGGCCGAGACCAAGAAGGTGCTGGGCCTTCAAGATACCATCACGGCGGA
GCTGGTGGTCATCGAAGACGCGGCTGAGCCCAAGGAGCCTGCACCACCCAACGGCAGTGCTGCCGAGCCTCCCAC
GGAGGCCGCCTCCAGGGAAGAGAATCAGGCGGGGCCCGAGGCCACCACCAGCGACCCCCAGGACCTCGACATGAA
GAAGCACCGTTGTAAATGCTGCTCCATCATG**TGA**GCCGGCCCCCGAGACCCCGGCCCCCACCCCACACCACAGAC
ACCCACCAGCCCGGCCCCTCCCGGCGCCTGCCCACCCTCCACCCACAGCCTCACGGGTCCAGGACTTGGCGTGTT
GTTACATGTTCCTTCCGAGTTTTCTTTCGCTGGAAAGAGGGACAGGGGCCCCCACCCGTCACCACGCCCCAACAC
TCCCCCCGAACCAGAGCCGTGCACTTGTGCCTGGTAGGAGAGAGACAGGACAGACCCGCTTTTCCCGAGACAAGG
ACCCCCCATGTCACGGCAGCTTCACAGACGCGGCTCGCGCCCACCGGGGTCCTGGCGGGTGGGACCCGCAGCCTC
CACGCGGCCCAGGCCAGCCTGCCACCCTCTGGGCCTCCTACCTGTGCCTTTCTCTGAGGGGACACCCCGCCAGAG
AGGGCCCCGGGAGCCGGGGGTGGGTACTGAGGCCTGCTCAGGCCCTGGAAGTGAGGCTCTATGGGGTTCCCTGGC
CAAGGCGCTGGCCCCCCAATCTCAGGCAGTTGGGGTGAGGCCGTGCCTCTTTGGGGGCTAAAGGTCTTGGGTGGA
GGACAGGCCCCTCTGCTGTGCCCCTATGCCCTGTGTGGGCCCAACCAGTGGACAATGGAGTCTGGGGGAGGGGGA
ACCCCGGGGACATGCCCCCACCCGGGAGGGGCCGGTAACCCCTGGGCTATCTTCTAGACGGGGCGAACCAGGGGT
CATTGACCTGCCCCCTGCACAGGGCAGGGACCGAGTGAGCCACTCCTTGTCCCGAGCTCCCGCCCCCACTGGGCC
CTCCTTCCTCCTGGTGCTAATTTGGGGACCCCAGGGGCCGCCCCCGGCCTCTTCTCCATCCTGCTTGGACCAGGG
TCCTGGGTCTTCCCAACCATACCCCGAGATCAGGCCCCACCTGCCAGCTCTACTGGGCTTGGAGCACGTCCGGGC
AGTGGAGGGAGGGACACAGCCTGGGACAGGAAGCCTCTTGGGTTGGAGCAGGAGACCCTCATTTGCCACCCAGAC
CAATGTGAGCCTGCCCCCAGCCCCCTCTCATTGGAAGTGGCAAGGGGCTTCCCTCCTGGGGGCAGCTACACTCGT
CCCCAGAGGCACATTCGTGCACATTCTCACAGACACCGTCTCACACGTTGGCTTTGGACAACCAGGCCCCAACTT
GGTCCCTGCCCTAGGGACCTCCAGCCTGGTGCCCAGTGCTCAGGCCACCTCCTGGTCCAGTCACCACCTGCAGCC
TCGGCAGGGCAGGTACAGGGGCCACCTCAGATGGGAGCCTGGGTCCCTGCCTCCGCTCTGCCCCTGGGTGGCTGG
GAGGAGAGGCCCTCTCGGGGGTGACCTGGGCGTCAGCCGTGGAACCCCCTCCTCCTCCCTGGAGTCTGCCTGAGT
CCCTCGAGCCGCGAGCCTTCGCTGAAGTGCCCTTGCTATAACCCCCTCTGCTTCTGGTGTGTGACGAGGCCCCCG
ATGTTCTTGATTTTCCCAGAGAAGCAAATAAACAGCGTGAACAGCCCC

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FIGURE 2385

CCTCAGCCCGGCCCCAGATGCCCGTGCGGCCGACCCAGCTCCAGAAGTGAGGAAGGTGAACCGCATCCCACCTGA
TGCCTACCAGCCGTACCTGAGCCCCGGGACCCCCCAGCTAGAATTCTCAGCCTTCGGAGCATTCGGCAAGCCCAG
CAGTCTCTCCACAGCGGAGGCCAAGGCTGCGACTTCACCAAAGGCCACG**ATG**TCCCCGAGGCATCTCTCAGAATC
CTCTGGAAAACCCCTGAGCACAAAGCAAGAGGCATCGAAGCCCCCTCGGGGATGCCCGCAAGCCAACAGGGGTGT
CGTGCGGTGGGAGTACTTCCGCCTGCGTCCTCTGCGGTTCAGGGCCCCAGACGAGCCCCAGCAGGCCCAAGTCCC
CCATGTCTGGGGCTGGGAGGTGGCTGGGGCCCCTGCACTGAGGCTGCAGAAGTCCCAGTCATCTGATCTGCTGGA
AAGGGAGAGGGAGAGTGTCCTGCGCCGGGAGCAAGAGGTGGCAGAGGAGCGGAGAAATGCTCTCTTCCCAGAGGT
CTTCTCCCCAACGCCAGATGAGAACTCTGACCAGAACTCCAGGAGCTCCTCCCAGGCATCCGGCATCACGGGCAG
TTACTCGGTGTCTGAGTCTCCCTTCTTCAGCCCCATCCACCTACACTCAAACGTGGCGTGGACAGTGGAAGATCC
AGTGGACAGTGCTCCTCCCGGGCAGAGAAAGAAGGAGCAATGGTACGCTGGCATCAACCCCTCGGACGGTATCAA
CTCAGAGGTCCTGGAAGCCATACGGGTGACCCGTCACAAGAACGCCATGGCAGAGCGCTGGGAATCCCGCATCTA
CGCCAGTGAGGAGGATGAC**TGA**GCCTCGGGATGGGGCGCCCACCCCCTGCCCTGCCCTGACCCTCGTGGGAACTG
CCAAGACCATCGCCAAGCCCCCACCCTAGGAAATGGGTCCTAGGTCCAGGATCCAAGAACCACAGCTCATCTGCC
AACAATCCCACCATGGGCACATTTGGGACTGTTGGGTTTTTCGTTTCCGTTTCTATCTTCCTTTAGAAATGTTTC
TGCCTTTGGGGTCTAAAGCTTTTGGGGATGAAATGGGACCCCTGCTGATTCTTTCTGCTTCTAAGACTTTGCCAA
ATGCCCTGGGTCTAAGAAAGAAAGAGACCCGCTCCTCCACTTTCAGGTGTAATTTGCTTCCGCTAGTCTGAGGGC
AGAGGGACCGGTCAAAGAGGGTGGCACAGATCGCAGCACCTTGAGGGGCTGCGGGTCTGAGGGAGGAGACACTCA
GCTCCTCCCTCTGAGAAGTCCCAAGCTGAGAGGGGAGACCTGCCCCTTTCCAACCCTGGGAAACCATCCAGTCTG
AGGGAGGAGGCCAAACTCCCAGTGCTGGGGGTCCCTGTGCAGCCCTCAAACCCTTCACCTTGGTGCACCCAGCCA
CACCTGGTGGACACAAAGCTCTCACATCGATAGGATCCCATGAGGATGGTCCCCTTCACCTGGGAGAAAAGTGAC
CCAGTTTAGGAGCTGGAGGGGGGTCTTTGTCCCCCACCCCCAAACTGCCCTGAAATAAACCTGGAGTGAGCTGCC

FIGURE 2386

TTGTGAGTCTATAACTCGGAGCCGTTGGGTCGGTTCCTGCTATTCCGGCGCCTCCACTCCGTCCCCCGCGGGTCT
GCTCTGTGTGCC**ATG**GACGGCATTGTCCCAGATATAGCCGTTGGTACAAAGCGGGGATCTGACGAGCTTTTCTCT
ACTTGTGTCACTAACGGACCGTTTATCATGAGCAGCAACTCGGCTTCTGCAGCAAACGGAAATGACAGCAAGAAG
TTCAAAGGTGACAGCCGAAGTGCAGGCGTCCCCTCTAGAGTGATCCACATCCGGAAGCTCCCCATCGACGTCACG
GAGGGGGAAGTCATCTCCCTGGGGCTGCCCTTTGGGAAGGTCACCAACCTCCTGATGCTGAAGGGGAAAAACCAG
GCCTTCATCGAGATGAACACGGAGGAGGCTGCCAACACCATGGTGAACTACTACACCTCGGTGACCCCTGTGCTG
CGCGGCCAGCCCATCTACATCCAGTTCTCCAACCACAAGGAGCTGAAGACCGACAGCTCTCCCAACCAGGCGCGG
GCCCAGGCGGCCCTGCAGGCGGTGAACTCGGTCCAGTCGGGGAACCTGGCCTTGGCTGCCTCGGCGGCGGCCGTG
GACGCAGGGATGGCGATGGCCGGGCAGAGCCCCGTGCTCAGGATCATCGTGGAGAACCTCTTCTACCCTGTGACC
CTGGATGTGCTGCACCAGATTTTCTCCAAGTTCGGCACAGTGTTGAAGATCATCACCTTCACCAAGAACAACCAG
TTCCAGGCCCTGCTGCAGTATGCGGACCCCGTGAGCGCCCAGCACGCCAAGCTGTCGCTGGACGGGCAGAACATC
TACAACGCCTGCTGCACGCTGCGCATCGACTTTTCCAAGCTCACCAGCCTCAACGTCAAGTACAACAATGACAAG
AGCCGTGACTACACACGCCCAGACCTGCCTTCCGGGGACAGCCAGCCCTCGCTGGACCAGACCATGGCCGCGGCC
TTCGGTGCACCTGGTATAATCTCAGCCTCTCCGTATGCAGGAGCTGGTTTCCCTCCCACCTTTGCCATTCCTCAA
GCTGCAGGCCTTTCCGTTCCGAACGTCCACGGCGCCCTGGCCCCCCTGGCCATCCCCTCGGCGGCGGCGGCAGCT
GCGGCGGCAGGTCGGATCGCCATCCCGGGCCTGGCGGGGGCAGGAAATTCTGTATTGCTGGTCAGCAACCTCAAC
CCAGAGAGAGTCACACCCCAAAGCCTCTTTATTCTTTTCGGCGTCTACGGTGACGTGCAGCGCGTGAAGATCCTG
TTCAATAAGAAGGAGAACGCCCTAGTGCAGATGGCGGACGGCAACCAGGCCCAGCTGGCCATGAGCCACCTGAAC
GGGCACAAGCTGCACGGGAAGCCCATCCGCATCACGCTCTCGAAGCACCAGAACGTGCAGCTGCCCCGCGAGGGC
CAGGAGGACCAGGGCCTGACCAAGGACTACGGCAACTCACCCCTGCACCGCTTCAAGAAGCCGGGCTCCAAGAAC
TTCCAGAACATATTCCCGCCCTCGGCCACGCTGCACCTCTCCAACATCCCGCCCTCAGTCTCCGAGGAGGATCTC
AAGGTCCTGTTTTCCAGCAATGGGGGCGTCGTCAAAGGATTCAAGTTCTTCCAGAAGGACCGCAAGATGGCACTG
ATCCAGATGGGCTCCGTGGAGGAGGCGGTCCAGGCCCTCATTGACCTGCACAACCACGACCTCGGGGAGAACCAC
CACCTGCGGGTCTCCTTCTCCAAGTCCACCATC**TAG**GGGCACAGGCCCCCACGGCCGGGCCCCCTGGCGACAACT
TCCATCATTCCAGAGAAAAGCCACTTTAAAAACAGCTGAAGTGACCTTAGCAGACCAGAGATTTTATTTTTTTAA
AGAGAAATCAGTTTACCTGTTTTTAAAAAAATTAAATCTAGTTCACCTTGCTCACCCTGCGGTGACAGGGACAGC
TCAGGCTCTTGGTGACTGTGGCAGCGGGAGTTCCCGGCCCTCCACACCCGGGGCCAGACCCTCGGGGCCATGCCT
TGGTGGGGCCTGTGTCGGGCGTGGGGCCTGCAGGTGGGCGCCCCGACCACGACTTGGCTTCCTTGTGCCTTAAAA
AACCTGCCTTCCTGCAGCCACACACCCACCCGGGGTGTCCTGGGGACCCAAGGGGTGGGGGGGTCACACCAGAGA
GAGGCAGGGGGCCTGGCCGGCTCCTGCAGGATCATGCAGCTGGGGCGCGGCGGCCGCGGCTGCGACACCCCAACC
CCAGCCCTCTAATCAAGTCACGTGATTCTCCCTTCACCCCGCCCCCAGGGCCTTCCCTTCTGCCCCCAGGCGGGC
TCCCCGCTGCTCCAGCTGCGGAGCTGGTCGACATAATCTCTGTATTATATACTTTGCAGTTGCAGACGTCTGTGC
CTAGCAATATTTCCAGTTGACCAAATATTCTAATCTTTTTTCATTTATATGCAAAAGAAATAGTTTTAAGTAACT
TTTTATAGCAAGATGATACAATGGTATGAGTGTAATCTAAACTTCCTTGTGGTATTACCTTGTATGCTGTTACTT
TTATTTTATTCCTTGTAATTAAGTCACAGGCAGGACCCAGTTTCCAGAGAGCAGGCGGGGCCGCCCAGTGGGTCA
GGCACAGGGAGCCCCGGTCCTATCTTAGAGCCCCTGAGCTTCAGGGAAGGGGCGGGCGTGTCGCCGCCTCTGGCA
TCGCCTCCGGTTGCCTTACACCACGCCTTCACCTGCAGTCGCCTAGAAAACTTGCTCTCAAACTTCAGGGTTTTT
TCTTCCTTCAAATTTTGGACCAAAGTCTCATTTCTGTGTTTTGCCTGCCTCTGATGCTGGGACCCGGAAGGCGGG
CGCTCCTCCTGTCTTCTCTGTGCTCTTTCTACCGCCCCCGCGTCCTGTCCCGGGGGCTCTCCTAGGATCCCCTTT
CCGTAAAAGCGTGTAACAAGGGTGTAAATATTTATAATTTTTTATACCTGTTGTGAGACCCGAGGGGCGGCGGCG
CGGTTTTTTATGGTGACACAAATGTATATTTTGCTAACAGCAATTCCAGGCTCAGTATTGTGACCGCGGAGCCAC
AGGGGACCCCACGCACATTCCGTTGCCTTACCCGATGGCTTGTGACGCGGAGAGAACCGATTAAAACCGTTTGAG
AAACTCCTCCCTTGTCTAGCCCTGTGTTCGCTGTGGACGCTGTAGAGGCAGGTTGGCCAGTCTGTACCTGGACTT
CGAATAAATCTTCTGTATCCTCGCTCCGTTCCGCCTT

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FIGURE 2387

GCACGGAGGGGCAGAGACCCCGGAGCCCCAGCCCCACC**ATG**ACCCTCGGCCGCCGACTCGCGTGTCTTTTCCTCG
CCTGTGTCCTGCCGGCCTTGCTGCTGGGGGGCACCGCGCTGGCCTCGGAGATTGTGGGGGGCCGGCGAGCGCGGC
CCCACGCGTGGCCCTTCATGGTGTCCCTGCAGCTGCGCGGAGGCCACTTCTGCGGCGCCACCCTGATTGCGCCCA
ACTTCGTCATGTCGGCCGCGCACTGCGTGGCGAATGTAAACGTCCGCGCGGTGCGGGTGGTCCTGGGAGCCCATA
ACCTCTCGCGGCGGGAGCCCACCCGGCAGGTGTTCGCCGTGCAGCGCATCTTCGAAAACGGCTACGACCCCGTAA
ACTTGCTCAACGACATCGTGATTCTCCAGCTCAACGGGTCGGCCACCATCAACGCCAACGTGCAGGTGGCCCAGC
TGCCGGCTCAGGGACGCCGCCTGGGCAACGGGGTGCAGTGCCTGGCCATGGGCTGGGGCCTTCTGGGCAGGAACC
GTGGGATCGCCAGCGTCCTGCAGGAGCTCAACGTGACGGTGGTGACGTCCCTCTGCCGTCGCAGCAACGTCTGCA
CTCTCGTGAGGGGCCGGCAGGCCGGCGTCTGTTTCGGGGACTCCGGCAGCCCCTTGGTCTGCAACGGGCTAATCC
ACGGAATTGCCTCCTTCGTCCGGGGAGGCTGCGCCTCAGGGCTCTACCCCGATGCCTTTGCCCCGGTGGCACAGT
TTGTAAACTGGATCGACTCTATCATCCAACGCTCCGAGGACAACCCCTGTCCCCACCCCCGGGACCCGGACCCGG
CCAGCAGGACCCAC**TGA**GAAGGGCTGCCCGGGTCACCTCAGCTGCCCACACCCACACTCTCCAGCATCTGGCACA
ATAAACATTCTCTGTTTTGT

FIGURE 2388

ATGTGTGATTTGCGGCGGCCAGCGGCAGGTGGGATGATGGACTTGGCCTACGTCTGTGAGTGGGAGAAATGGTCC
AAGAGCACCCACTGCCCATCGGTGCCCCTGGCCTGCGCCTGGTCCTGCCGAAATCTCATCGCCTTCACCATGGAC
CTGCGCAGCGATGACCAGGACCTGACCCGCATGATCCACATCCTGGACACGGAGCACCCCTGGGACCTGCACTCG
ATCCCCTCAGAGCACCACGAGGCTATCACCTGCCTGGAGTGGGACCAGTCAGGCTCCCGGCTCCTGTCAGCAGAT
GCCGACGGGCAGATCAAGTGCTGGAGCATGGCGGACCACCTGGCTAATAGCTGGGAGAGCTCAGTGGGCAGCCTA
GTGGAGGGGGACCCCATTGTGGCCCTGTCCTGGCTGCACAATGGTGTGAAACTGGCCCTGCACGTGGAGAAGTCG
GGCGCCTCCAGCTTCGGGGAGAAGTTCTCCCGAGTCAAGTTCTCACCGTCGCTCACGCTGTTCGGCGGCAAGCCC
ATGGAGGGCTGGATCGCGGTGACGGTCAGCGGCCTGGTCACCGTGTCCCTGCTGAAGCCCAGCGGGCAGGTGCTG
ACGTCCACCGAGAGCCTGTGCCGGCTGCGCGGCCGCGTGGCCCTGGCGACATCGCCTTCACCGGCGGCGGCAACA
TCGTGGTGGCCACGGCGGACGGCAGCAGCGCGTCGCCCGTGCAGTTCTACAAGGTGTGCGTGAGCGTGGTGAGCG
AGAAGTGCCGTATCGACACGGAGATCCTGCCCTCCCTGTTC**ATG**CGCTGCACCACCGACCTCAACCGCAAGGACA
AGTTCCCCGCCATCACCCACCTCAAGTTCCTGGCCCGGGACATGTCGGAGCAGGTGCTTTTGTGCGCGTCCAGCC
AGACCAGCAGCATCGTGGAGTGCTGGTCCCTGCGCAAGGAGGGACTCCCCGTGAACAACATCTTCCAGCAGATCT
CCCCCGTGGTTGGCGACAAACAGCCCACAATTCTCAAATGGCGGATCCTATCGGCCACCAACGATCTGGACCGTG
TGTCGGCCGTGGCGCTGCCCAAGCTGCCCATCTCGCTCACCAACACCGACCTCAAGCTGAGCGTGCTCCGCCTCT
CACCTTCCATGGGCCACCCGCTGGAGGTGGGGCTGGCGCTGCGGCACCTGCTCTTCCTGCTGGAGTACTGCATGG
TGACCGGCTACGACTGGTGGGACATCCTGCTGCACGTGCAGCCCAGTATGGTACAGAGCCTGGTGGAGAAGCTGC
ACGAGGAGTACACGCGCCAGACCGCTGCCCTGCAGCAGGTCCTCTCCACCCGGATCCTGGCCATGAAGGCCTCGC
TCTGCAAGCTGTCGCCCTGCACGGTGACTCGCGTGTGCGACTACCACACCAAGCTCTTCCTCATCGCCATCAGCT
CCACCCTGAAGTCGCTGCTGCGCCCCCACTTTCTCAACACGCCTGACAAGAGCCCCGGCGACCGGCTGACCGAGA
TCTGCACCAAGATCACCGACGTCGACATTGACAAGGTCATGATCAACCTCAAGACGGAGGAATTTGTGCTGGACA
TGAACACACTGCAGGCGCTGCAGCAGCTCTTGCAGTGGGTGGGCGACTTCGTGCTGTACCTGCTGGCCAGCCTAC
CCAACCAGGGTTCCCTGCTGAGGCCGGGCCACAGCTTTCTGCGGGACGGCACCTCGCTGGGCATGCTTCGGGAAT
TGATGGTGGTCATCCGCATCTGGGGCCTTCTGAAGCCCAGCTGCCTGCCCGTGTATACGGCCACTTCGGATACCC
AGGACAGCATGTCCCTGCTCTTCCGCCTGCTCACCAAGCTCTGGATCTGCTGTCGCGATGAGGGCCCAGCGAGCG
AGCCGGACGAGGCGCTGGTGGATGAATGCTGCCTGCTGCCCAGCCAGCTGCTTATCCCCAGCCTGGACTGGCTGC
CAGCCAGCGACGGCCTGGTCAGCCGCCTGCAGCCCAAGCAGCCCCTTCGTCTGCAGTTTGGCCGGGCGCCCACGC
TGCCTGGCAGTGCTGCCACCCTGCAGCTCGACGGCCTCGCCAGGGCCCCAGGCCAGCCCAAGATCGACCACCTGC
GGAGGCTGCACCTTGGCGCTTGCCCCACGGAGGAATGCAAGGCCTGCACCAGGTGCGGCTGTGTCACCATGCTCA
AGTCGCCCAACAGAACCACGGCGGTGAAGCAGTGGGAGCAGCGCTGGATCAAGAACTGCCTGGCTGTTGAAGGCC
GTGGGCCGGACGCCTGCGTGACCAGCAGAGCTTCTGAGGAAGCCCCTGCCTTTGTCCAGCTGGGCCCGCAGTCCA
CACACCACTCTCCCAGGACCCCCAGATCCCTGGACCATCTGCATCCAAAGGACCGTCCG**TGA**

FIGURE 2389

GAAGGCCCTGCCGGGCGGCGGCGGCGGCGACAGCGTGCGAGCCATGGTCGCGCTGGAGAACCCCGAGTGCGGCCC
GGAGGCGGCGGAGGGCACCCCGGGCGGGCGGCGGCTGCTGCCCCTTCCCAGCTGCCTGCCTGCCCTAGCCAGCTC
CCAGGTGAAGAGACTCTCGGCTTCCAGGCGGAAACAGCACTTCATCAACCAGGCAGTGCGGAACTCAGACCTCGT
GCCCAAGGCCAAGGGGCGGAAGAGCCTCCAGCGCCTGGAGAACACCCAGTACCTCCTGACCCTGCTGGAGACAGA
CGGGGGCCTGCCTGGCCTGGAGGATGGGGACTTGGCACCCCCTGCATCACCAGGCATCTTTGCCGAGGCCTGCAA
CAACGCCACCTATGTGGAGGTCTGGAACGATTTCATGAACCGCTCCGGGGAGGAGCAGGAGCGGGTTCTTCGCTA
CCTGGAGGATGAGGGCAGGAGCAAGGCGCGGAGGAGGGGCCCTGGCCGTGGGGAGGACCGGAGGAGAGAGGACCC
CGCCTATACACCCCGCGAGTGCTTCCAGCGCATCAGCCGGCGTCTGCGAGCCGTCCTCAAGCGCAGCCGCATCCC
CATGGAAACGCTGGAGACCTGGGAGGAGCGGCTGCTTCGGTTCTTCTCCGTGTCCCCCCAGGCCGTGTACACAGC
AATGCTAGACAACAGCTTCGAGAGGCTTCTGCTGCACGCTGTCTGCCAGTACATGGACCTCATCTCAGCCAGTGC
TGACCTGGAGGGGAAGCGGCAGATGAAGGTCAGTAATCGGCACCTGGATTTCCTGCCGCCGGGGCTGCTCCTGTC
CGCCTACCTGGAGCAGCACAGCTGATGGCGGCCCCGCGGAGACCCCGCTGCCACCTCGCCCAGCCATCAAGCCCT
CCGATACCTTCGGCTAAAATATCTTTCATATTTTTAGAATTTGTCCTCGGAAACCTTTTTCGCTTGGGGTGGTCT
CTCTCACTCTGCCCCCTCCTCACGCAGCTCTTGGCAGTCAACAGACGCTGGCGGCTGGGGCTGCCCATGCCATCC
CAGCTCCAAGCTTCCCACTCCAGGACTTGTGTTTGGGTGGGGAGACCTGACCTGGGCATGTTCCTGTTTCTTCAT
CGTTGAGCTTTTCTGGCCCGGTCTGAAGCTCAAGTGAGGAGGGGGAGGCTGGGTTTTTATCACTTTTAATGAATT
TGGTGTGATTTGTTGTAGATTTTTAAATTTCCCTTTTGGAGAGAAAAACCAAAAAAACTCGCCCCACTGGTAAAA
CATGGGTCTTGGTCCCAGCCCCTGCTCAGCCCCTCCCAGTTTTTAGCTTGA**ATG**AGGGTGGGGTCTCTGGGACCC
TGCCCCTCATGCCAGAAGCATCTTGTGTTGTATATGTGTGCGCGCGTGTGCCCTGAGACCCAGGACAGAAGCCAC
GGTCCTAAGAGCCGGTTTTATCCTCGTCATTCTGCGTGTCCTCCCCCACGCCACCTGTGTCGGGGCTCAGGGTCT
CCTGCTTTATATGAGCCCCCTTCCTTTCCTCCCCTCCTTTATGCTGGGGGTCCAGGACTTCCAGCCAGAAGCCTC
TGCCCTTGCACTACCTTGTCTGTCACCCCATCCCGTGTCCCCTCGTCCCCCAGCCTGACTCCTGCC**TGA**TAGCTC
CTGTGTCCCCATGCTGGTCCTCCTGGCCCAGGCTGCAGGAGCCAGGCTGGGGGGCCTCCGCACCCCCTTGCTGCG
TGTGGGTAATTGTGTTTTGGGGGAAAGTGGGGAATTTAATAAATTTCTGGTGCTC

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FIGURE 2390

GGCAAG**ATG**GCGGCGCCCATGGAGGTGGCCGTGTGTACGGACTCGGCGGCCCCGATGTGGAGCTGCATCGTGTGG
GAACTTCACTCGGGCGCCAACCTGCTCACCTACCGCGGCGGCCAGGCGGGACCCCGCGGCCTGGCGCTGCTCAAT
GGCGAGTATCTGCTGGCGGCGCAGCTGGGCAAGAATTACATCAGCGCCTGGGAGCTCCAGCGGAAGGACCAGCTC
CAGCAGAAGATCATGTGCCCCGGGCCTGTCACCTGTCTGACTGCATCACCCAATGGTCTCTACGTCCTGGCAGGA
GTTGCAGAAAGCATCCACCTGTGGGAGGTCTCCACCGGGAACCTTCTGGTCATCCTGAGTCGACACTACCAGGAC
GTCTCCTGCCTTCAGTTCACAGGGGACAGCAGCCACTTCATCTCAGGGGGCAAGGACTGCCTGGTGCTGGTTTGG
AGCCTCTGCAGCGTGCTGCAGGCCGACCCCTCCAGGATTCCGGCGCCCAGGCACGTCTGGTCTCACCACGCGCTC
CCCATCACGGACCTGCACTGCGGCTTTGGGGGCCCCCTGGCCCGGGTGGCCACCTCCTCACTGGACCAGACGGTG
AAGCTATGGGAGGTCTCCTCGGGGGAGCTGCTGCTCTCCGTCCTCTTTGACGTGTCCATCATGGCAGTGACCATG
GACCTGGCTGAGCACCATATGTTCTGCGGGGGCAGTGAGGGCTCCATCTTCCAGGTCGACCTCTTCACCTGGCCC
GGACAGAGGGAGAGGAGCTTCCACCCAGAGCAGGACGCCGGGAAGGTCTTCAAAGGGCACAGGAACCAGGTGACT
TGCCTGTCAGTGTCCACTGACGGCAGCGTGCTGCTCTCAGGCTCCCACGACGAGACCGTGCGCCTCTGGGACGTG
CAGAGCAAGCAGTGCATCCGGACGGTGGCCCTCAAAGGCCCAGTCACCAATGCCGCCATCCTGCTGGCGCCCGTC
AGCATGCTGAGCTCAGACTTCAGGCCCAGCCTGCCGCTGCCCCACTTCAACAAGCACCTGCTGGGCGCCGAGCAC
GGGGACGAGCCGCGCCACGGGGGCCTCACTCTGCGCCTGGGCCTCCACCAGCAGGGCTCGGAGCCCAGCTACCTG
GACCGCACGGAGCAGCTGCAGGCCGTCCTGTGCAGCACCATGGAGAAGAGCGTGCTCGGCGGCCAGGACCAGCTG
CGCGTCCGTGTGACGGAGCTGGAGGACGAGGTGCGCAACCTGCGCAAGATCAATCGGGACCTGTTCGACTTCTCC
ACGCGCTTCATCACGCGGCCGGCCAAG**TGA**GGCCCGGAGACCCCGGCCCGAGGCGCCCAGGCCTGAGCCCCATGC
CTCCCAGCAACCAGGGCCCGCGGGTGTGGCCCCCACCAGCCCAGGCCTGGACTCTCCTCAGTTCTGTGTCGTGTT
CGGGTTTTTCCTCTGTGACTGGGCCGTCTTGGTGTCTCGTGGCACGCGTCACAGTGGTGCTAGTCTGTTTTTAAC
AAAAGAGGATGAAAAGCC

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FIGURE 2391

GCTCTTGCCCGGCGTGGCGACTCGCTAGCGTCAGCAGCGCCGCAGCCGGACGAGAAAGCGGAAGATGGCGGCGGC
GGCCGGGAGGCCGTGAGGAGAGCGGCGGCTGCGAGGGCGGCCGATGGCGGCCGGGAGGCGCCCTCGGACACTTGC
GGGTCGTTAGGGCGCGACGCTGGGAGGCATGTCGGAGCACGTGGAGCCCGCAGCTCCGGGGCCCGGGCCCAACGG
CGGCGGCGGCGGCCCGGCCCCCGCGCGCGGGCCTCGCACCCCCAATCTCAACCCCAACCCCCTCATCAACGTGCG
CGACCGGCTCTTCCACGCGCTGTTCTTCAAGATGGCTGTCACCTATTCGCGGCTCTTCCCGCCCGCCTTCCGCCG
TCTCTTCGAGTTCTTCGTGCTGCTCAAGGCCCTGTTTGTGCTCTTCGTCCTGGCCTACATCCACATCGTCTTCTC
CCGCTCGCCCATCAACTGCCTGGAGCATGTGCGTGACAAGTGGCCGCGTGAGGGCATCCTGCGTGTGGAAGTGCG
GCACAACTCGAGCCGCGCGCCCGTCTTCCTACAGTTCTGTGACAGCGGCGGCCGCGGGAGCTTCCCGGGCCTGGC
CGTGGAACCAGGCAGCAACCTGGACATGGAAGATGAGGAGGAGGAAGAGCTGACCATGGAGATGTTTGGGAACAG
CTCCATCAAGTTTGAGCTGGACATCGAGCCCAAGGTGTTCAAGCCGCCGAGTAGCACAGAGGCCCTGAATGACAG
CCAGGAGTTCCCCTTCCCCGAGACGCCCACCAAAGTGTGGCCGCAGGACGAGTACATCGTGGAGTACTCACTAGA
GTATGGCTTCCTTCGCCTGTCGCAGGCCACCCGCCAGCGCCTGAGCATCCCCGTCATGGTGGTCACCCTGGGTGA
GTCTGAGCTGCTGGGCTTGGGGAGCTCCATGGCGGGGCCTCCCCTCCTCCCTCGGGTCTCCTCCTGCTGGTGCGG
GACGGGGGGCTGTGCAGGAAGCACTGGGGTCTGCCCCGCCCCAGGCACGCTTCCCAGGGCTGGGGTCCTGG**ATG**G
GTTTCCTAAGAATGGGCAGGGCCAGGAAGCAGGCCAGGCCTCAGCAATGGAGCCAGCTGGGGCAGGGCCCAGGGG
GTGGCCTGGGCGGGGCTCCCGGCTCCCTGATTCACCCACCCGCAGACCCCACGCGGGACCAGTGCTTCGGGGACC
GCTTCAGCCGCCTGCTGCTGGATGAGTTCCTGGGCTACGATGACATCCTCATGTCCAGCGTGAAGGGCCTGGCCG
AGAACGAGGAGAACAAGGGCTTCCTGCGGAATGTGGTGTCGGGCGAGCACTACCGCTTTGTGAGCATGTGGATGG
CGCGGACGTCCTACCTGGCCGCCTTCGCCATCATGGTCATCTTCACGCTGAGCGTGTCCATGCTGCTGCGGTACT
CACACCACCAGATCTTCGTCTTCATCGTGGACCTGCTGCAGATGCTGGAGATGAACATGGCCATCGCCTTCCCCG
CAGCGCCCCTGCTGACCGTCATCCTGGCCCTCGTCGGGATGGAGGCCATCATGTCGGAGTTCTTCAACGACACCA
CCACCGCCTTCTACATCATCCTCATCGTGTGGCTCGCGGACCAGTATGACGCCATCTGCTGCCACACCAGCACCA
GCAAGCGGCATTGGCTGCGGTTCTTCTATCTCTACCACTTCGCCTTCTATGCCTATCACTACCGCTTCAATGGGC
AGTATAGCAGCCTGGCCCTGGTCACCTCCTGGCTCTTCATCCAGCATTCCATGATCTACTTCTTCCACCACTACG
AGCTGCCTGCCATCCTGCAGCAGGTCCGCATCCAGGAGATGCTGCTTCAGGCGCCGCCACTGGGCCCCGGGACCC
CCACGGCGCTGCCCGATGACATGAACAACAACTCGGGCGCCCCGGCTACAGCCCCTGACTCTGCCGGCCAGCCCC
CCGCCCTGGGCCCCGTCTCGCCTGGGGCCAGCGGGAGTCCCGGGCCTGTGGCAGCGGCGCCCAGCTCCCTGGTGG
CCGCGGCAGCCTCAGTGGCAGCAGCTGCCGGTGGTGACCTGGGTTGGATGGCAGAGACCGCTGCCATCATCACAG
ACGCCTCCTTCCTGTCCGGCCTGAGCGCCTCCCTCCTGGAGCGGCGTCCAGCCAGCCCGCTGGGCCCTGCTGGGG
GCCTCCCCCACGCCCCCCAGGACAGTGTCCCCCCGAGTGACTCCGCAGCTTCTGACACAACTCCCCTGGGGGCTG
CGGTAGGCGGGCCTAGCCCGGCCTCCATGGCCCCAACGGAGGCGCCCTCGGAGGTGGGGTCC**TGA**GCCGCACAGC
TGAGCCGCCTCTGACCCCTGCTGGCTGGGCCTGACCTTCCCGAGCCCGTGGGGGTGGGGGAGGCCAGCCACCTCC
TTCCTCTGGGACTGCCCAGCCTGTGTCGGGGGCTTTCAGGGTTTCGTGGGGTTTGCCCGGAAGGCGGCTTTCCTC
CCCCTGGTGTGAGGTCGCGCCCGAGGCTTGTACCCGCTAGTGAGGTGTTTGAGCTGGTCAGCAAGGAGAGGGGGT
GGGGTTCCGCGGAAGGTTCTGGAGGGGTCTTGGTAGGTCTGCAGTGAACCGTCCTGAGGATGGAGTGGGGTCCCA
TGGTGCAGGTCTCTGAGCAAGGCGGAGGTGTGGAGGAGAGGCCGGCTTGGGGTGGGGCCTCGCGCCCTAGTGCCG
GCCGGCCTCAGCCCGGCTCTGCCTGGTGCTCCCTGCAGTGCCTTCTCCATGGCCCCGCCCTCCCCGCGTGTGCGC
CAGGCTTGGGGTCCCCGGGAGAGCAGAGCTTGCGCCTCGGGCATAGGGACGTGGGGTGCAGGCGCCAACATCAGT
GGCAGCAGCCAGGGCCGTGGTCCAGTCCCACTCGGGGATGGAGTGGGCCGGCGGCCAAACCAGTCACTCGGGGAG
GAATGCGGAGGAGCGCTCATTCCATTCTATTTAATTGCAGTGTACAAAATTGTGTTTGTATATAGAATAAACTGT
CTGTTGACAGCGGC

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FIGURE 2392

ATGAGCTCCACGCAGTTCAACAAGGGCCCCTCGTACGGGCTGTCGGCCGAGGTCAAGAACCGGGCTCCCGCGAAT
CTTGGGGAGCACCCAGGTCTGAGATCTGGGGGACGAGTGACCCATTCCCCCCCCCAACATCTAGGGGTAGTTGGG
TCTGACTTCGTCCCCTCGCCATGGCCCCAGGACCCCCACGTGTCCTTACAGCTGACTTCTGCAGGGGAAACTGCC
TCTGCACGCTCTGAGGGCACCGGCCCTGCCAGCCCCAACAGCCACCTGCCCGGCGGCACTCCAGGGCCGGCAGAC
TGGAGGGAGAATTCCTGCTTCCCCGCTGGGCCATCTGCACCCTGCATTCATAGAGCCCCCCGTGCAGTGGGGTGG
GCACCCTGCCGCACCCTGCATACAGCCGGC**TAA**

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FIGURE 2393

ACCAGCTCCTGTCCAAATATGACCCCCAGAAGGAGGCAGAGCTCCGCACCTGGATCGAGGGACTCACCGGCCTCT
CCATCGGCCCCGACTTCCAGAAGGGCCTGAAGGATGGAACTATCTTATGCACACTC**ATG**AACAAGCTACAGCCGG
GCTCCGTCCCCAAGATCAACCGCTCCATGCAGAACTGGCACCAGCTAGAAAACCTGTCCAACTTCATCAAGGCCA
TGGTCAGCTACGGCATGAACCCTGTGGACCTGTTCGAGGCCAACGACCTGTTTGAGAGTGGGAACATGACGCAGG
TGCAGGTGTCTCTTCTCGCCCTGGCGGGGAAGGCCAAGACTAAGGGGCTGCAGAGCGGGGTGGACATTGGCGTCA
AGTACTCGGAGAAGCAGGAGCGGAATTTCGACGATGCCACCATGAAGGCTGGCCAGTGCGTCATCGGGCTGCAGA
TGGGCACCAACAAATGCGCCAGCCAGTCGGGCATGACTGCCTACGGCACGAGAAGGCATCTCTATGACCCCAAGA
ACCATATCCTGCCCCCCATGGACCACTCGACCATCAGCCTCCAGATGGGCACGAACAAGTGTGCCAGCCAGGTGG
GCATGACGGCTCCCGGGACCCGGCGGCACATCTATGATACCAAGCTGGGAACCGACAAGTGTGACAACTCCTCCA
TGTCCCTGCAGATGGGCTACACGCAGGGCGCCAACCAGAGCGGCCAGGTCTTCGGCCTGGGCCGGCAGATATATG
ACCCCAAGTACTGCCCGCAAGGCACAGTGGCCGATGGGGCTCCCTCGGGCACCGGCGACTGCCCGGACCCGGGGG
AGGTCCCTGAATATCCCCCTTACTACCAGGAGGAGGCCGGCTAC**TGA**GGCTCCCAGCACGCTCTCTCCCCACATC
GTCTGCCCATCTGGGTTTTTGGGTTTTTCTGTGTTTTCATCTTTTTTTTTTTTTTCTTAACCCGTTCAGTGCTGC
CAGTCAACCAAGGGTCTGTGAGTGTCAGCGTGGGATCAGGCAGCAGAGCTTTTTTCCCCTTTGCCTTGATCCTTC
GCAAGGCTGAGCCACTGGGCTGTGGGGGAAGGGGTCAAGGCCATATCCCAATACGTGTAGGGCGAGGGTCCCTGC
TGGCACATTCAGGCTGTGCTGGGAAGAAGAGACCTGGGCTTGGAAGGAACCGGTCCCCGACGGTTTCTGCTTGCC
TCGCCTCTTCCCCCTTTTGTCAGCTGAGCAGTTTGTGGTTTCTATGCCCGCAAGTTTCAGGAAGTATTCACAAAA
GAAAAATACATTTTTTCCCCCAGGGGTGGGGCAAGGACAGTGGAGAGAGTGCTAGGAAATGAGTCCCCTGGGAAA
GGGGACCGGGCCGTGATGTTAAATATCTCCGGCTCCCAAGTGACTGGATTTGCCTAGGACCTTCAGACCAACAGA
CTTCAGACCCTCAGACCTGCCCCGGGGCCAGGTGGAGAAAGTGAGGGCCGTACAAGGAAGTGAAATTCTGAGTTG
TTGGGGCTAAGCCTGACCCCCTCTCCATGCTCCCCGCCCCAACCCACTCTGGCCTCAGTAGATTTTTTTTTCAGT
TGTGGTTGTTGCCCAGGCTGGAGTGCAGTGGCGCCATCTTGGCTCACTGCACCTCCACCTTCCGGGCTCAAGCGA
TTCTCCAGCCTCAGCCTCCTGAGTAGCTAGGACTGCAGGTGCTCCACCACGCCCGGCTAATTTTTGTATTTTTAG
TAGAGATGGGGTTTCCCCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCTCAGGTGTGATCCGCCCGCCTCCGC
CTCCCCAAGCGCTGAGATTACAGGTGTGAGCCACCGTGCCCAGCCCCTCAGTAGGTTTTAAGGAGCCCCCAGCCC
TCCTCCCTTCTGGGCCCGACCAGCTTATACTGCTCCATCTTCCCCGGCCACATGCCCCGCCAAGTACTGCACAGG
GACCCCCCACCCAGGGGACCTGCTCCGTGAGATAATGTGAAATACGACTGTGGACCAAACGCAATAAAACCTCTG
TTTGTACGAAG

FIGURE 2394A

GTGGGATAAAGGAATGAGGTTCAGAAAGGGGCAGGGAGTTGCCCGCAGCCGCACCGCACGTCTTCAGCCCGACCG
TTGTCCTGACCTCTCTGTCCCGTCCCCTGCCCAGTCTCACC**ATG**GCCTTCTGGACACAGCTGATGCTGCTGCTCT
GGAAGAATTTCATGTATCGCCGGAGACAGCCGGTCCAGCTCCTGGTCGAATTGCTGTGGCCTCTCTTCCTCTTCT
TCATCCTGGTGGCTGTTCGCCACTCCCACCCGCCCCTGGAGCACCATGAATGCCACTTCCCAAACAAGCCACTGC
CATCGGCGGGCACCGTGCCCTGGCTCCAGGGTCTCATCTGTAATGTGAACAACACCTGCTTTCCGCAGCTGACAC
CGGGCGAGGAGCCCGGGCGCCTGAGCAACTTCAACGACTCCCTGGTCTCCCGGCTGCTAGCCGATGCCCGCACTG
TGCTGGGAGGGGCCAGTGCCCACAGGACGCTGGCTGGCCTAGGGAAGCTGATCGCCACGCTGAGGGCTGCACGCA
GCACGGCCCAGCCTCAACCAACCAAGCAGTCTCCACTGGAACCACCCATGCTGGATGTCGCGGAGCTGCTGACGT
CACTGCTGCGCACGGAATCCCTGGGGTTGGCACTGGGCCAAGCCCAGGAGCCCTTGCACAGCTTGTTGGAGGCCG
CTGAGGACCTGGCCCAGGAGCTCCTGGCGCTGCGCAGCCTGGTGGAGCTTCGGGCACTGCTGCAGAGACCCCGAG
GGACCAGCGGCCCCCTGGAGTTGCTGTCAGAGGCCCTCTGCAGTGTCAGGGGACCTAGCAGCACAGTGGGCCCCT
CCCTCAACTGGTACGAGGCTAGTGACCTGATGGAGCTGGTGGGGCAGGAGCCAGAATCCGCCCTGCCAGACAGCA
GCCTGAGCCCCGCCTGCTCGGAGCTGATTGGAGCCCTGGACAGCCACCCGCTGTCCCGCCTGCTCTGGAGACGCC
TGAAGCCTCTGATCCTCGGGAAGCTACTCTTTGCACCAGATACACCTTTTACCCGGAAGCTCATGGCCCAGGTGA
ACCGGACCTTCGAGGAGCTCACCCTGCTGAGGGATGTCCGGGAGGTGTGGGAGATGCTGGGACCCCGGATCTTCA
CCTTCATGAACGACAGTTCCAATGTGGCCATGCTGCAGCGGCTCCTGCAGATGCAGGATGAAGGAAGAAGGCAGC
CCAGACCTGGAGGCCGGGACCACATGGAGGCCCTGCGATCCTTTCTGGACCCTGGGAGCGGTGGCTACAGCTGGC
AGGACGCACACGCTGATGTGGGGCACCTGGTGGGCACGCTGGGCCGAGTGACGGAGTGCCTGTCCTTGGACAAGC
TGGAGGCGGCACCCTCAGAGGCAGCCCTGGTGTCGCGGGCCCTGCAACTGCTCGCGGAACATCGATTCTGGGCCG
GCGTCGTCTTCTTGGGACCTGAGGACTCTTCAGACCCCACAGAGCACCCAACCCCAGACCTGGGCCCCGGCCACG
TGCGCATCAAAATCCGCATGGACATTGACGTGGTCACGAGGACCAATAAGATCAGGGACAGGTTTTGGGACCCTG
GCCCAGCCGCGGACCCCCTGACCGACCTGCGCTACGTGTGGGGCGGCTTCGTGTACCTGCAAGACCTGGTGGAGC
GTGCAGCCGTCCGCGTGCTCAGCGGCGCCAACCCCCGGGCCGGCCTCTACCTGCAGCAGATGCCCTATCCGTGCT
ATGTGGACGACGTGTTCCTGCGTGTGCTGAGCCGGTCGCTGCCGCTCTTCCTGACGCTGGCCTGGATCTACTCCG
TGACACTGACAGTGAAGGCCGTGGTGCGGGAGAAGGAGACGCGGCTGCGGGACACCATGCGCGCCATGGGGCTCA
GCCGCGCGGTGCTCTGGCTAGGCTGGTTCCTCAGCTGCCTCGGGCCCTTCCTGCTCAGCGCCGCACTGCTGGTTC
TGGTGCTCAAGCTGGGAGACATCCTCCCCTACAGCCACCCGGGCGTGGTCTTCCTGTTCTTGGCAGCCTTCGCGG
TGGCCACGGTGACCCAGAGCTTCCTGCTCAGCGCCTTCTTCTCCCGCGCCAACCTGGCTGCGGCCTGCGGCGGCC
TGGCCTACTTCTCCCTCTACCTGCCCTACGTGCTGTGTGTGGCTTGGCGGGACCGGCTGCCCGCGGGTGGCCGCG
TGGCCGCGAGCCTGCTGTCGCCCGTGGCCTTCGGCTTCGGCTGCGAGAGCCTGGCTCTGCTGGAGGAGCAGGGCG
AGGGCGCGCAGTGGCACAACGTGGGCACCCGGCCTACGGCAGACGTCTTCAGCCTGGCCCAGGTCTCTGGCCTTC
TGCTGCTGGACGCGGCGCTCTACGGCCTCGCCACCTGGTACCTGGAAGCTGTGTGCCCAGGCCAGTACGGGATCC
CTGAACCATGGAATTTTCCTTTTCGGAGGAGCTACTGGTGCGGACCTCGGCCCCCCAAGAGTCCAGCCCCTTGCC
CCACCCCGCTGGACCCAAAGGTGCTGGTAGAAGAGGCACCGCCCGGCCTGAGTCCTGGCGTCTCCGTTCGCAGCC
TGGAGAAGCGCTTTCCTGGAAGCCCGCAGCCAGCCCTGCGGGGGCTCAGCCTGGACTTCTACCAGGGCCACATCA
CCGCCTTCCTGGGCCACAACGGGGCCGGCAAGACCACCACCCTGTCCATCTTGAGTGGCCTCTTCCCACCCAGTG
GTGGCTCTGCCTTCATCCTGGGCCACGACGTCCGCTCCAGCATGGCCGCCATCCGGCCCCACCTGGGCGTCTGTC
CTCAGTACAACGTGCTGTTTGACATGCTGACCGTGGACGAGCACGTCTGGTTCTATGGGCGGCTGAAGGGTCTGA
GTGCCGCTGTAGTGGGCCCCGAGCAGGACCGTCTGCTGCAGGATGTGGGGCTGGTCTCCAAGCAGAGTGTGCAGA
CTCGCCACCTCTCTGGTGGGATGCAACGGAAGCTGTCCGTGGCCATTGCCTTTGTGGGCGGCTCCCAAGTTGTTA
TCCTGGACGAGCCTACGGCTGGCGTGGATCCTGCTTCCCGCCGCGGTATTTGGGAGCTGCTGCTCAAATACCGAG
AAGGTCGCACGCTGATCCTCTCCACCCACCACCTGGATGAGGCAGAGCTGCTGGGAGACCGTGTGGCCGTGGTGG
CAGGTGGCCGCTTGTGCTGCTGTGGCTCCCCACTCTTCCTGCGCCGTCACCTGGGCTCCGGCTACTACCTGACGC
TGGTGAAGGCCCGCCTGCCCCTGACCACCAATGAGAAGGCTGACACTGACATGGAGGGCAGTGTGGACACCAGGC
AGGAAAAGAAGAATGGCAGCCAGGGCAGCAGAGTCGGCACTCCTCAGCTGCTGGCCCTGGTACAGCACTGGGTGC
CCGGGGCACGGCTGGTGGAGGAGCTGCCACACGAGCTGGTGCTGGTGCTGCCCTACACGGGTGCCCATGACGGCA
GCTTCGCCACACTCTTCCGAGAGCTAGACACGCGGCTGGCGGAGCTGAGGCTCACTGGCTACGGGATCTCCGACA
CCAGCCTCGAGGAGATCTTCCTGAAGGTGGTGGAGGAGTGTGCTGCGGACACAGATATGGAGGATGGCAGCTGCG

FIGURE 2394B

GGCAGCACCTATGCACAGGCATTGCTGGCCTAGACGTAACCCTACGGCTCAAGATGCCGCCACAGGAGACAGCGC
TGGAGAACGGGGAACCAGCTGGGTCAGCCCCAGAGACTGACCAGGGCTCTGGGCCAGACGCCGTGGGCCGGGTAC
AGGGCTGGGCACTGACCCGCCAGCAGCTCCAGGCCCTGCTTCTCAAGCGCTTTCTGCTTGCCCGCCGCAGCCGCC
GCGGCCTGTTCGCCCAGATCGTGCTGCCTGCCCTCTTTGTGGGCCTGGCCCTCGTGTTCAGCCTCATCGTGCCTC
CTTTCGGGCACTACCCGGCTCTGCGGCTCAGTCCCACCATGTACGGTGCTCAGGTGTCCTTCTTCAGTGAGGACG
CCCCAGGGGACCCTGGACGTGCCCGGCTGCTCGAGGCGCTGCTGCAGGAGGCAGGACTGGAGGAGCCCCCAGTGC
AGCATAGCTCCCACAGGTTCTCGGCACCAGAAGTTCCTGCTGAAGTGGCCAAGGTCTTGGCCAGTGGCAACTGGA
CCCCAGAGTCTCCATCCCCAGCCTGCCAGTGTAGCCGGCCCGGTGCCCGGCGCCTGCTGCCCGACTGCCCGGCTG
CAGCTGGTGGTCCCCCTCCGCCCCAGGCAGTGACCGGCTCTGGGGAAGTGGTTCAGAACCTGACAGGCCGGAACC
TGTCTGACTTCCTGGTCAAGACCTACCCGCGCCTGGTGCGCCAGGGCCTGAAGACTAAGAAGTGGGTGAATGAGG
TCAGATACGGAGGCTTCTCGCTGGGGGGCCGAGACCCAGGCCTGCCCTCGGGCCAAGAGTTGGGCCGCTCAGTGG
AGGAGTTGTGGGCGCTGCTGAGTCCCCTGCCTGGCGGGGCCCTCGACCGTGTCCTGAAAAACCTCACAGCCTGGG
CTCACAGCCTGGATGCTCAGGACAGTCTCAAGATCTGGTTCAACAACAAAGGCTGGCACTCCATGGTGGCCTTTG
TCAACCGAGCCAGCAACGCAATCCTCCGTGCTCACCTGCCCCCAGGCCCGGCCCGCCACGCCCACAGCATCACCA
CACTCAACCACCCCTTGAACCTCACCAAGGAGCAGCTGTCTGAGGGTGCACTGATGGCCTCCTCGGTGGACGTCC
TCGTCTCCATCTGTGTGGTCTTTGCCATGTCCTTTGTCCCGGCCAGCTTCACTCTTGTCCTCATTGAGGAGCGAG
TCACCCGAGCCAAGCACCTGCAGCTCATGGGGGGCCTGTCCCCCACCCTCTACTGGCTTGGCAACTTTCTCTGGG
ACATGTGTAACTACTTGGTGCCAGCATGCATCGTGGTGCTCATCTTTCTGGCCTTCCAGCAGAGGGCATATGTGG
CCCCTGCCAACCTGCCTGCTCTCCTGCTGTTGCTACTACTGTATGGCTGGTCGATCACACCGCTCATGTACCCAG
CCTCCTTCTTCTTCTCCGTGCCCAGCACAGCCTATGTGGTGCTCACCTGCATAAACCTCTTTATTGGCATCAATG
GAAGCATGGCCACCTTTGTGCTTGAGCTCTTCTCTGATCAGAAGCTGCAGGAGGTGAGCCGGATCTTGAAACAGG
TCTTCCTTATCTTCCCCCACTTCTGCTTGGGCCGGGGGCTCATTGACATGGTGCGGAACCAGGCCATGGCTGATG
CCTTTGAGCGCTTGGGAGACAGGCAGTTCCAGTCACCCCTGCGCTGGGAGGTGGTCGGCAAGAACCTCTTGGCCA
TGGTGATACAGGGGCCCCTCTTCCTTCTCTTCACACTACTGCTGCAGCACCGAAGCCAACTCCTGCCACAGCCCA
GGGTGAGGTCTCTGCCACTCCTGGGAGAGGAGGACGAGGATGTAGCCCGTGAACGGGAGCGGGTGGTCCAAGGAG
CCACCCAGGGGGATGTGTTGGTGCTGAGGAACTTGACCAAGGTATACCGTGGGCAGAGGATGCCAGCTGTTGACC
GCTTGTGCCTGGGGATTCCCCCTGGTGAGTGTTTTGGGCTGCTGGGTGTGAATGGAGCAGGGAAGACGTCCACGT
TTCGCATGGTGACGGGGGACACATTGGCCAGCAGGGGCGAGGCTGTGCTGGCAGGCCACAGCGTGGCCCGGGAAC
CCAGTGCTGCGCACCTCAGCATGGGATACTGCCCTCAATCCGATGCCATCTTTGAGCTGCTGACGGGCCGCGAGC
ACCTGGAGCTGCTTGCGCGCCTGCGCGGTGTCCCGGAGGCCCAGGTTGCCCAGACCGCTGGCTCGGGCCTGGCGC
GTCTGGGACTCTCATGGTACGCAGACCGGCCTGCAGGCACCTACAGCGGAGGGAACAAACGCAAGCTGGCGACGG
CCCTGGCGCTGGTTGGGGACCCAGCCGTGGTGTTTCTGGACGAGCCGACCACAGGCATGGACCCCAGCGCGCGGC
GCTTCCTTTGGAACAGCCTTTTGGCCGTGGTGCGGGAGGGCCGTTCAGTGATGCTCACCTCCCATAGCATGGAGG
AGTGTGAAGCGCTCTGCTCGCGCCTGGCCATCATGGTGAATGGGCGGTTCCGCTGCCTGGGCAGCCCGCAACATC
TCAAGGGCAGATTCGCGGCGGGTCACACACTGACCCTGCGGGTGCCCGCCGCAAGGTCCCAGCCGGCAGCGGCCT
TCGTGGCGGCCGAGTTCCCTGGGGCGGAGCTGCGCGAGGCACATGGAGGCCGCCTGCGCTTCCAGCTGCCGCCGG
GAGGGCGCTGCGCCCTGGCGCGCGTCTTTGGAGAGCTGGCGGTGCACGGCGCAGAGCACGGCGTGGAGGACTTTT
CCGTGAGCCAGACGATGCTGGAGGAGGTATTCTTGTACTTCTCCAAGGACCAGGGGAAGGACGAGGACACCGAAG
AGCAGAAGGAGGCAGGAGTGGGAGTGGACCCCGCGCCAGGCCTGCAGCACCCCAAACGCGTCAGCCAGTTCCTCG
ATGACCCTAGCACTGCCGAGACTGTGCTC**TGA**GCCTCCCTCCCCTGCGGGGCCGCGGGGAGGCCCTGGGAATGGC
AAGGGCAAGGTAGAGTGCCTAGGAGCCCTGGACTCAGGCTGGCAGAGGGGCTGGTGCCCTGGAGAAAATAAAGAG
AAGGCTGGAGAGAAGCCGTGGTGGTGAAA

FIGURE 2395A

CGCCTCCCCGAAGCCTTTTCCTGTTGGGGGGAGGGCCCGCCAGTGACGGCCGGGCCTGTCACGTGGGCCTGACAG
CTGGGGAGGGGGTGGCCGGCGACAATGTGGTCCCGAAGCGGCCAGCGCCGGGAGCTGCAGCGCTGAGACCCCCAG
CCCGCCCCCTCGGGCTCCCGGCCGGGGCCCCATC**ATG**TTCTCCAGGAAGAAACGAGAGCTCATGAAAACCCCTTC
CATCTCGAAAAAGAACCGCGCGGGAAGCCCCAGCCCGCAGCCCTCGGGGGAGCTGCCCAGGAAGGATGGGGCTGA
CGCGGTGTTCCCCGGACCAAGCCTGGAGCCGCCCGCTGGGTCCTCCGGCGTCAAGGCCACAGGGACCCTCAAGCG
GCCCACCAGCCTGAGCCGCCACGCCAGCGCGGCTGGCTTCCCCCTGTCGGGTGCTGCCTCCTGGACACTGGGCCG
GAGCCACCGGAGCCCACTGACAGCCGCCAGCCCGGGCGAGCTGCCCACCGAGGGTGCCGGCCCGGACGTCGTCGA
GGACATCTCCCATCTGCTGGCGGACGTGGCCCGCTTCGCTGAGGGCCTTGAGAAACTTAAGGAGTGTGTGTTGCG
TGACGACCTCCTTGAGGCCCGCCGCCCGCGGGCCCACGAGTGCCTGGGTGAGGCTCTGCGTGTCATGCATCAGAT
CATCTCCAAGTACCCGCTGCTGAACACCGTGGAGACGCTCACCGCAGCCGGCACCCTCATTGCCAAGGTCAAAGC
CTTCCATTATGAGAGCAACAATGATCTGGAGAAACAGGAGTTCGAGAAGGCCCTGGAGACGATTGCTGTGGCCTT
CAGTAGCACAGTGTCCGAGTTCCTCATGGGTGAAGTGGACAGCAGCACCCTCCTAGCAGTGCCTCCTGGGGACTC
GAGCCAGTCCATGGAAAGCCTGTATGGACCGGGCAGTGAGGGCACGCCTCCCAGCCTGGAAGACTGTGACGCCGG
CTGCCTGCCCGCCGAGGAGGTGGACGTGCTGCTACAGCGCTGTGAGGGGGGCGTGGATGCCGCACTGCTGTATGC
CAAGAACATGGCCAAGTACATGAAGGACCTCATCAGCTACCTGGAGAAGCGGACGACGCTGGAGATGGAGTTTGC
CAAGGGCCTGCAGAAGATCGCTCACAACTGCAGACAGAGCGTCATGCAGGAGCCCCACATGCCGCTCCTGTCCAT
CTACTCGCTGGCCCTGGAGCAGGACCTGGAGTTCGGCCACAGCATGGTGCAGGCGGTGGGCACCTTGCAGACCCA
GACCTTCATGCAGCCCCTGACCCTGCGGCGGCTTGAACACGAGAAGCGCAGGAAGGAGATCAAGGAGGCCTGGCA
CCGTGCCCAGAGGAAGCTGCAAGAGGCGGAGTCCAACCTGCGCAAGGCCAAGCAGGGTTACGTGCAGCGCTGCGA
GGACCACGACAAGGCTCGCTTCCTCGTGGCCAAGGCGGAGGAGGAGCAGGCTGGCAGCGCGCCGGGAGCAGGCAG
CACGGCCACCAAGACCCTGGACAAGCGGCGGCGGCTGGAGGAGGAGGCCAAGAACAAGGCGGAGGAAGCTATGGC
CACCTACCGCACCTGCGTGGCCGACGCGAAGACGCAGAAGCAGGAGCTGGAGGATACCAAGGTGACGGCGCTGCG
GCAGATCCAGGAGGTCATCCGGCAGAGCGACCAAACCATCAAGTCGGCCACGATCTCCTACTACCAGATGATGCA
TATGCAGACGGCGCCGCTGCCCGTGCACTTCCAGATGCTGTGTGAGAGCAGCAAGCTGTATGACCCAGGCCAGCA
GTACGCCTCCCACGTGCGCCAGCTGCAGCGGGACCAGGAGCCCGATGTGCACTACGACTTTGAGCCCCACGTCTC
CGCCAACGCCTGGTCCCCCGTCATGCGTGCCCGGAAGAGCAGCTTCAACGTGAGTGATGTGGCGCGGCCGGAGGC
TGCCGGGAGCCCCCCAGAAGAAGGCGGGTGCACTGAGGGCACACCTGCCAAGGACCACAGGGCCGGGCGAGGACA
CCAGGTTCACAAGTCATGGCCGCTCTCGATCTCAGACTCGGACAGTGGGCTGGACCCCGGCCCTGGCGCAGGGGA
CTTTAAGAAGTTCGAGCGGACGTCATCCAGTGGTACCATGTCGTCCACGGAGGAGCTGGTGGACCCAGACGGTGG
AGCCGGGGCTTCAGCCTTTGAGCAGGCTGACCTCAACGGCATGACCCCCGAGCTGCCGGTGGCCGTGCCCAGTGG
ACCGTTCCGCCACGAGGGGCTGTCCAAGGCGGCCCGTACTCACCGGCTCCGGAAGCTCCGCACGCCCGCCAAGTG
CCGCGAGTGCAACAGCTACGTCTACTTCCAGGGTGCTGAGTGTGAAGAGTGCTGCCTGGCCTGCCACAAGAAATG
TCTGGAGACGCTGGCCATACAGTGCGGGCACAAGAAGCTGCAAGGCCGCCTGCAGCTGTTCGGCCAGGACTTCAG
CCACGCGGCCCGCAGCGCCCCCGACGGCGTGCCCTTCATCGTCAAGAAGTGCGTCTGCGAGATCGAGCGGCGGGC
GCTGCGCACCAAGGGCATCTACCGGGTCAATGGGGTAAAGACACGCGTGGAGAAGCTGTGCCAGGCCTTCGAGAA
CGGCAAGGAGCTGGTCGAGCTGTCGCAGGCCTCGCCCCACGACATCAGCAACGTCCTCAAGCTCTACCTGCGTCA
GCTTCCCGAGCCGCTCATCTCCTTCCGCCTCTACCACGAGCTCGTAGGGCTGGCCAAGGACAGCCTGAAGGCAGA
GGCCGAGGCCAAGGCGGCGTCCCGGGGCCGGCAGGACGGCTCGGAGAGCGAGGCAGTGGCGGTGGCCCTGGCAGG
TCGGCTGCGGGAGCTCCTGCGGGACCTGCCGCCTGAGAACCGGGCCTCGCTGCAGTACCTGCTGCGTCACCTACG
CAGGATCGTGGAGGTGGAGCAGGACAACAAGATGACCCCCGGGAACCTGGGCATCGTGTTCGGGCCCACGCTGCT
TCGGCCACGGCCCACCGAGGCCACCGTGTCCCTCTCCTCCCTGGTGGATTATCCCCATCAGGCCCGCGTCATCGA
GACTCTCATCGTCCACTACGGCCTGGTCTTCGAGGAGGAGCCGGAGGAGACCCCCGGGGGCCAGGACGAGTCATC
CAACCAGCGAGCTGAGGTAGTCGTCCAGGTGCCGTACCTGGAGGCGGGCGAGGCGGTGGTCTACCCGCTGCAGGA
GGCGGCGGCGGACGGGTGCAGAGAATCCCGAGTTGTGTCCAACGATTCGGACTCGGACCTAGAGGAGGCCTCCGA
GCTGCTGTCCTCATCGGAGGCCAGTGCCCTGGGCCACCTCAGCTTCCTGGAGCAGCAGCAGAGCGAGGCCAGCCT
AGAGGTGGCTTCTGGCAGCCACAGCGGCAGTGAGGAGCAGCTGGAGGCCACAGCCCGGGAGGACGGGGACGGGGA
CGAGGACGGCCCGGCCCAGCAGCTCTCAGGATTCAACACCAACCAGTCCAACAACGTGCTGCAGGCCCCACTGCC
CCCCATGAGGCTCCGTGGCGGGCGGATGACACTGGGCTCCTGCAGGGAAAGGCAGCCGGAATTCGTG**TGA**GCTGG

FIGURE 2395B

GGTGGGGCTGGGACCACAGGTGGCTTCTCTCTTGCCTGCTCCTGTCCCTCCAGCACGTCCCCTGCACCACGGCAT
AGCTTAGGTGCGCCGTCCTGGGGTCGCTGCCGAGAGCGCCTGGACTTCGACGTCCCACCAGCGGGCGCCTCCTCC
CAGAGGCTTCCAGGAGCACGAGGGCCTTGCGGCACAGGACTGTGCCCTGTGCTGTCCCCTGCACCCCGGCTCAGC
TGAGCTGGGGAACACTGCTGTCGTGTGAAGTCACAGTGGCCTTGTTGGTGCCCACAGGGCTGTGTGGATGGAGGA
AGCTGTCCCTGCCCAGTGCATCCCCCAGGTCATCACGGGGACGCAGGAGGCAGGCCCTGCCCTGCCCTCTCCTCA
CAGGTCTGTTGCAGGGACTCCAGAAACCATTCTGGGAGCCGTGGATGGGGGCGGAGCTGGGGTTTGGTGCAGTTT
CCAGGGTGCAGTACAGCAGGGCCTGAATACTGGCCCTGGACTCCCTTTTCCAGAACACCAGGTGTGGCCACCTGG
GGCTCAGGTACACAGTGGGGTCTCTCGGAAGCCACCGTGTGGTTCTTTCACAGGCACGTTTATTTTGCTGAAATA
AAAAGTTTTTAATCGGG

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FIGURE 2396

GGCGGCGGCGGCGGAGGCTGCC**ATG**GACGACGAGGAGGAGACGTACCGGCTCTGGAAAATCCGCAAGACCATCAT
GCAGCTGTGCCACGACCGTGGCTATCTGGTGACCCAGGACGAGCTTGACCAGACCCTGGAGGAGTTCAAAGCCCA
ATCTGGGGACAAGCCGAGTGAGGGGCGGCCGCGGCGCACGGACCTCACCGTGCTGGTGGCCCACAACGATGACCC
CACCGACCAGATGTTTGTGTTCTTTCCAGAGGAGCCCAAGGTGGGCATCAAGACCATCAAGGTGTACTGCCAGCG
CATGCAGGAGGAGAACATCACACGGGCTCTCATCGTGGTGCAGCAGGGCATGACACCCTCCGCCAAGCAGTCCCT
GGTCGACATGGCCCCCAAGTACATCCTGGAGCAGTTTCTGCAGCAGGAGCTGCTCATCAACATCACGGAGCACGA
GCTAGTCCCTGAGCACGTCGTCATGACCAAGGAGGAGGTGACAGAGCTGCTGGCCCGATATAAGCTCCGAGAGAA
CCAGCTGCCCAGGATCCAGGCGGGGGACCCTGTGGCGCGCTACTTTGGGATAAAGCGTGGGCAGGTGGTGAAGAT
CATCCGGCCCAGTGAGACGGCTGGCAGGTACATCACCTACCGGCTGGTGCAG**TAG**CTACCGCCTGACAGCCCCTA
GAGGCGGACACACAGCGACCCCCATCCCTGCAGGACAAACGCCCCTGCCCTGCCAGAATCCGGCCCCCACAGCTC
TCACGGCTGCTGCTCCTCTGGACTCCCCAAGGCAGGTGGCCTCCACCCACGTTCTCCCGTCCTGGGGGTGAGGCTT
CCTGTGGCCCAGCCCGCCCCATTCACCTGTGGATTTGTGCGAGATGCAGCCTCAGAAGGAACAAGGCCCCCAGAG
GGAGGTCACCTGGGGGCAGCTGGTGCCGGGTCTTCACCCAGACCACGCTGGGTCCCCTCTGTTGGGGGTTTGGGG
TCCGGGTCTCCCACCAGCCACTGCTTCCTCCTGGGCCCTCGGCCTTCCACCCCTCGTCTTCCCTCCCTCGGGGGC
CCTGATGCGTGGCGGCCCCCGCCCGGCCTCGGCTCTTTACTCCATTCACAGCCATGCACGCGCTCAAGCCACCAG
GGTGCGAGATGCCAGCTCTGGAGTTCTCGGTTGTTGTAGGAGGTTGGGTGTTTTCAAATGGTAAAGATGTTTTGA
GCAAATAAATTTGCTTGATACAG

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FIGURE 2397

GGAGGCGCGGAAAGCCGACGCGCGTCCATTGGTCGGCTGGACGAGGGGAGGAGCCGCTGGCTCCCAGCCCCGCCG
CG**ATG**AGCCTCGGCCGCCTTTGCCGCCTACTGAAGCCGGCGCTGCTCTGTGGGGCTCTGGCCGCGCCTGGCCTGG
CCGGGACCATGTGCGCGTCCCGGGACGACTGGCGCTGTGCGCGCTCCATGCACGAGTTTTCCGCCAAGGACATCG
ACGGGCACATGGTTAACCTGGACAAGTACCGGGGCTTCGTGTGCATCGTCACCAACGTGGCCTCCCAGTGAGGCA
AGACCGAAGTAAACTACACTCAGCTCGTCGACCTGCACGCCCGATACGCTGAGTGTGGTTTGCGGATCCTGGCCT
TCCCGTGTAACCAGTTCGGGAAGCAGGAGCCAGGGAGTAACGAAGAGATCAAAGAGTTCGCCGCGGGCTACAACG
TCAAATTCGATATGTTCAGCAAGATCTGCGTGAACGGGGACGACGCCCACCCGCTGTGGAAGTGGATGAAGATCC
AACCCAAGGGCAAGGGCATCCTGGGAAATGCCATCAAGTGGAACTTCACCAAGTTCCTCATCGACAAGAACGGCT
GCGTGGTGAAGCGCTACGGACCCATGGAGGAGCCCCTGGTGATAGAGAAGGACCTGCCCCACTATTTC**TAG**CTCC
ACAAGTGTGTGGCCCCGCCCGAGCCCCTGCCCACGCCCTTGGAGCCTTCCACCGGCACTCATGACGGCCTGCCTG
CAAACCTGCTGGTGGGGCAGACCCGAAAATCCAGCGTGCACCCCGCCGGAGGAAGGTCCCATGGCCTGCTGGGCT
TGGCTCGGCGCCCCCACCCCTGGCTACCTTGTGGGAATAAACAGACAAATTAG

FIGURE 2398A

GCCCGAAACCCGGAAGTGAGCGGCGGCAGCTGCGAGGCTCGGAGAAACAGGCGCCGCGGGCTCCGCGCCCGGCCG
GACCCGGGCCCGAGATCATGATGCTGCCGCCACCGCCGCCACCACGGAGCGAGAAGCCCAGATAGACGCCCCGGC
GGCCCCGGGTCCTGGAGTCCCGCCGCCTGCTGCCCGGCCGAGGACCCCACCCCGCCTGCCGCCCG**ATG**CTTGCAG
TGGGGCCCGCCATGGACAGGGATTACCCGCAGCATGAACCCCCGCCGGCGGGCAGCCTCCTGTACAGCCCGCCGC
CCCTGCAGAGCGCCATGCTGCACTGCCCCTACTGGAACACCTTCTCGCTGCCGCCATACCCTGCCTTCTCCAGCG
ACAGCCGCCCGTTCATGAGCTCCGCCTCCTTCCTCGGCAGCCAGCCCTGCCCAGACACCAGCTATGCCCCCGTGG
CCACCGCCTCCAGCTTGCCACCAAAGACCTGCGACTTTGCTCAGGACTCCTCCTATTTTGAGGACTTCTCCAACA
TCTCCATCTTCTCCTCGTCCGTGGACTCCCTGTCGGACATCGTGGACACGCCCGACTTCCTGCCGGCTGACAGCC
TCAACCAGGTGTCCACCATCTGGGACGATAACCCTGCCCCCTCCACCCACGATAAGCTGTTCCAGCTCAGCAGGC
CGTTTGCAGGCTTCGAGGACTTTCTGCCCTCCCACAGCACCCCGCTTCTCGTCAGCTACCAGGAGCAGAGTGTGC
AGAGCCAGCCAGAGGAGGAGGACGAGGCTGAGGAGGAGGAGGCGGAGGAGCTGGGGCACACAGAGACCTACGCCG
ACTACGTGCCGTCCAAGTCCAAGATCGGGAAGCAGCACCCAGACCGCGTGGTGGAGACCAGCACACTGTCCAGCG
TCCCACCCCCAGACATCACCTACACCCTGGCCCTGCCCTCGGACAGCGGGGCCCTGTCTGCCCTGCAGCTAGAGG
CCATCACCTACGCCTGCCAGCAACACGAGGTCCTGCTCCCCAGCGGGCAGCGCGCGGGCTTTCTCATCGGCGATG
GGGCCGGCGTGGGCAAAGGCCGGACGGTGGCCGGAGTCATCCTGGAGAACCACCTGCGCGGCCGGAAGAAAGCAT
TGTGGTTCAGCGTCTCCAACGACCTCAAGTACGATGCGGAGCGCGACCTGCGGGACATCGAAGCCACGGGCATCG
CGGTGCACGCGCTCAGCAAGATCAAGTACGGTGACACCACTACCTCAGAGGGCGTCCTCTTCGCCACCTACTCCG
CCCTGATTGGGGAGAGCCAGGCCGGCGGCCAGCACCGCACTCGCCTCCGGCAGATCCTGGACTGGTGTGGGGAGG
CCTTCGAGGGCGTCATCGTGTTCGACGAGTGTCACAAAGCCAAGAATGCCGGCTCCACCAAGATGGGCAAGGCTG
TGCTAGACCTGCAGAACAAGCTGCCCCTGGCCCGCGTGGTCTACGCCAGCGCCACAGGTGCCTCTGAGCCTCGGA
ACATGATCTACATGAGCCGCTTGGGTATCTGGGGCGAGGGCACACCCTTCCGGAACTTTGAGGAGTTCCTGCACG
CCATCGAGAAGAGGGGCGTTGGCGCCATGGAGATCGTGGCCATGGACATGAAGGTCAGCGGCATGTACATCGCAC
GCCAGCTCAGCTTCTCCGGCGTCACCTTCCGCATCGAGGAGATCCCGCTGGCCCCAGCCTTCGAGTGCGTCTACA
ACCGCGCGGCCCTGCTGTGGGCCGAGGCCCTGAACGTGTTCCAGCAGGCGGCCGACTGGATCGGCCTGGAGTCGC
GCAAGTCCCTGTGGGGCCAGTTCTGGTCGGCACACCAGCGCTTCTTCAAGTATCTGTGCATCGCAGCCAAGGTGC
GCCGGCTGGTGGAGCTGGCCCGAGAGGAGCTGGCGCGAGACAAGTGCGTGGTCATCGGGCTGCAGTCCACGGGCG
AGGCGCGCACGCGGGAGGTGCTGGGGGAGAACGATGGGCACCTCAACTGCTTCGTCTCGGCCGCTGAAGGCGTGT
TCCTGTCGCTAATTCAGAAGCACTTTCCGTCCACCAAGAGAAAGCGGGACAGAGGAGCGGGCAGCAAGCGGAAAC
GGCGACCTCGGGGACGCGGGGCCAAAGCCCCCCGGCTGGCGTGCGAGACAGCGGGCGTCATCCGCATCAGTGACG
ACAGCAGCACGGAGTCGGACCCTGGCCTGGACAGCGACTTCAACTCCTCCCCCGAGTCCCTGGTGGATGACGACG
TTGTCATCGTTGATGCAGTCGGGCTCCCCAGTGACGACCGGGGACCCCTGTGCCTCCTGCAGAGAGACCCGCATG
GCCCCGGGGTCCTGGAGCGGGTGGAGCGGCTGAAGCAGGATCTGCTGGACAAAGTGCGGCGGCTGGGCCGGGAAC
TGCCAGTCAACACCCTGGACGAGCTCATCGACCAGCTGGGCGGCCCCCAGCGGGTGGCGGAGATGACCGGCAGGA
AAGGCCGCGTGGTGTCCAGGCCCGACGGGACGGTGGCCTTCGAGTCGCGGGCAGAGCAGGGTCTGTCCATCGACC
ACGTGAACCTCAGGGAGAAGCAGCGCTTCATGAGCGGCGAGAAGCTCGTGGCCATCATCTCGGAGGCCTCCAGCT
CGGGTGTCTCCCTCCAAGCCGACCGCCGTGTCCAGAACCAGCGGCGCCGCGTGCACATGACCTTGGAGCTGCCGT
GGAGCGCCGACCGCGCCATCCAGCAGTTCGGCCGCACCCACCGGTCCAACCAGGTCTCCGCGCCAGAGTATGTCT
TCCTCATCTCGGAGCTGGCCGGGGAGCGCCGGTTCGCCTCCATCGTGGCCAAGCGCCTGGAGAGTCTGGGGGCCC
TGACCCACGGAGACCGCCGCGCCACGGAGTCCCGTGACCTCAGCAAGTACAACTTTGAGAACAAGTATGGCACCC
GGGCCCTGCACTGTGTCCTCACCACCATCCTGAGCCAGACTGAGAACAAAGTGCCTGTGCCCCAGGGATACCCTG
GAGGGGTCCCCACCTTCTTCCGGGACATGAAGCAGGGCCTGCTGTCTGTGGGCATTGGTGGCCGGGAGTCCCGGA
ATGGCTGCCTGGACGTGGAGAAGGACTGTTCCATCACCAAGTTCCTGAACCGCATCCTGGGGCTGGAGGTGCACA
AGCAGAACGCCCTGTTCCAGTACTTCTCAGACACCTTCGACCACCTCATCGAGATGGACAAGCGGGAGGGCAAAT
ACGACATGGGCATCCTGGACCTTGCTCCCGGTATCGAGGAGATCTACGAGGAGAGCCAGCAGGTGTTCCTGGCTC
CCGGGCACCCGCAGGACGGGCAGGTGGTCTTCTACAAGATCAGCGTGGACCGCGGCCTGAAGTGGGAGGACGCCT
TTGCCAAGTCGCTGGCGCTGACGGGCCCCTATGACGGCTTCTACCTCTCCTACAAGGTCCGCGGTAACAAGCCCA
GCTGCCTGCTGGCGGAGCAGAACCGCGGCCAGTTCTTCACGGTGTACAAGCCCAACATCGGCCGGCAGAGCCAGC
TGGAGGCCCTGGACAGCCTCCGCCGCAAGTTCCACCGGGTCACCGCGGAGGAGGCCAAGGAGCCCTGGGAGAGTG

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FIGURE 2398B

GCTACGCTTTGTCGCTGACGCACTGCAGCCACAGCGCCTGGAACCGGCACTGCCGGCTGGCGCAGGAGGGTAAGG
ACTGCCTGCAGGGGCTGCGGCTGCGGCACCACTACATGCTGTGCGGCGCGCTGCTGCGCGTGTGGGGCCGCATCG
CCGCCGTCATGGCCGACGTCAGCAGCAGCAGCTACCTGCAGATCGTGCGGCTGAAGACCAAGGACAGGAAGAAGC
AAGTGGGCATCAAGATCCCCGAGGGCTGCGTGCGCCGGGTGCTGCAGGAGCTGCGGCTGATGGATGCGGACGTGA
AGCGCAGGCAGGCGCCCGCCCTGGGCTGCCCCGCCCCGCCCGCCCCGCGCCCGCTGGCGCTGCCTTGCGGCCCCG
GAGAGGTGCTGGACCTCACCTACAGCCCCCCGGCCGAGGCCTTCCCGCCGCCCCCGCACTTCTCTTTCCCGGCGC
CGCTGTCCCTGGACGCCGGCCCCGGCGTCGTGCCGCTGGGCACCCCCGACGCCCAGGCCGACCCTGCGGCCCTCG
CGCACCAGGGCTGCGACATCAACTTCAAGGAGGTGCTGGAGGACATGCTGCGCTCGCTGCACGCGGGGCCGCCCT
CCGAGGGCGCGCTGGGGGAGGGCGCGGGGGCGGGGGGCGCGGCGGGCGGTGGTCCCGAGCGGCAGAGCGTGATCC
AGTTCAGCCCACCCTTCCCCGGCGCCCAGGCTCCTCTC**TGA**CACGCCTTTAGGCGAAACATGCCCCAAGACACAG
GGACCGTTTCTCCCCTAGGAGCAGCGGTGGGGAGCAGGGCCAAGGTCCCCTGACCACTGCTCAGAGGAGCCCTAG
GCCCTGGCCGCAGTGCCTTCAGCGCCCGACCCGGGCCCCCACCTGGTCAGCCCTGGCGGGGCCCACTCAGGACAG
CTGGGGGCCGGGGCGTGGCAGGGCCCTCTCTGTGCCTCTCCTCCCAAGTAGGAAGGGGCTCCGGGTGGCTGCTCT
GGGACTGGGCACCCACAAGGGCTCAGTGGGCCCAAACCCTTGAAATCCGTGAAACCGGGTGGTCCCAAGAGCTAG
AAACTCAGGAAACCCCAGGTGCTCAGGGCCCCGCGTCTCGGGGGCTCCGTGGGGCAGACCCCTGCTAATATATGC
AATTCTCCCTCCCCCAGCCCTTCCCTGACCCCTAAGTTATTGCCCGCTCACCTCTCCCAGGCCCCAGGCCGCGGA
GCTGGCAGGGTGGCGCCTGCGGTTTCTATGTATTTATAGCAAGTTCTGATGTACATATGTAAAGGACTTTTTTAA
AT

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FIGURE 2399

CCCAGGGTCCCCGAGGACGAAGTTGACCCTGACCGGGCCGTCTCCCAGTTCTGAGGCCCGGGTCCCACTGGAACT
CGCGTCTGAGCCGCCGTCCCGGACCCCCGGTGCCCGCCGGTCCGCAGACCCTGCACCGGGCTTGGACTCGCAGCC
GGGACTGACGTGTAGAACAATCGTTTCTGTTGGAAGAAGGGTTTTTCCCTTCCTTTTGGGGTTTTTGTTGCCTTT
TTTTTTTCTTTTTTCTTTGTAAAATTTTGGAGAAGGGAAGTCGGAACACAAGGAAGGACCGCTCACCCGCGGACT
CAGGGCTGGCGGCGGGACTCCAGGACCCTGGGTCCAGC**ATG**GAGGTGGTGGACCCGCAGCAGCTGGGCATGTTCA
CGGAGGGCGAGCTGATGTCGGTGGGTATGGACACGTTCATCCACCGCATCGACTCCACCGAGGTCATCTACCAGC
CGCGCCGCAAGCGGGCCAAGCTCATCGGCAAGTACCTGATGGGGGACCTGCTGGGGGAAGGCTCTTACGGCAAGG
TGAAGGAGGTGCTGGACTCGGAGACGCTGTGCAGGAGGGCCGTCAAGATCCTCAAGAAGAAGAAGTTGCGAAGGA
TCCCCAACGGGGAGGCCAACGTGAAGAAGGAAATTCAACTACTGAGGAGGTTACGGCACAAAAATGTCATCCAGC
TGGTGGATGTGTTATACAACGAAGAGAAGCAGAAAATATATATGGTGATGGAGTACTGCGTGTGTGGCATGCAGG
AAATGCTGGACAGCGTGCCGGAGAAGCGTTTCCCAGTGTGCCAGGCCCACGGGTACTTCTGTCAGCTGATTGACG
GCCTGGAGTACCTGCATAGCCAGGGCATTGTGCACAAGGACATCAAGCCGGGGAACCTGCTGCTCACCACCGGTG
GCACCCTCAAAATCTCCGACCTGGGCGTGGCCGAGGCACTGCACCCGTTCGCGGCGGACGACACCTGCCGGACCA
GCCAGGGCTCCCCGGCTTTCCAGCCGCCCGAGATTGCCAACGGCCTGGACACCTTCTCCGGCTTCAAGGTGGACA
TCTGGTCGGCTGGGGTCACCCTCTACAACATCACCACGGGTCTGTACCCCTTCGAAGGGGACAACATCTACAAGT
TGTTTGAGAACATCGGGAAGGGGAGCTACGCCATCCCGGGCGACTGTGGCCCCCCGCTCTCTGACCTGCTGAAAG
GGATGCTTGAGTACGAACCGGCCAAGAGGTTCTCCATCCGGCAGATCCGGCAGCACAGCTGGTTCCGGAAGAAAC
ATCCTCCGGCTGAAGCACCAGTGCCCATCCCACCGAGCCCAGACACCAAGGACCGGTGGCGCAGCATGACTGTGG
TGCCGTACTTGGAGGACCTGCACGGCGCGGACGAGGACGAGGACCTCTTCGACATCGAGGATGACATCATCTACA
CTCAGGACTTCACGGTGCCCGGACAGGTCCCAGAAGAGGAGGCCAGTCACAATGGACAGCGCCGGGGCCTCCCCA
AGGCCGTGTGTATGAACGGCACAGAGGCGGCGCAGCTGAGCACCAAATCCAGGGCGGAGGGCCGGGCCCCCAACC
CTGCCCGCAAGGCCTGCTCCGCCAGCAGCAAGATCCGCCGGCTGTCGGCCTGCAAGCAGCAG**TGA**GGCTGGCCGC
CTGCAGCCCGTGTCCAGGAGCCCCGCCAGGTGCCCGCGCCAGGCCCTCAGTCTTCCTGCCGGTTCCGCCCGCCCT
CCCGGAGAGGTGGCCGCCATGCTTCTGTGCCGACCACGCCCCAGGACCTCCGGAGCGCCCTGCAGGGCCGGGCAG
GGGGACAGCAGGGACCGGGCGCAGCCCTCCCCCCTCGGCCGCCCGGCAGTGCACGCGGCTTGTTGACTTCGCAGC
CCCGGGCGGAGCCTTCCCGGGCGGGCGTGGGAGGAGGGAGGCGGCCTCCATGCACTTTATGTGGAGACTACTGGC
CCCGCCCGTGGCCTCGTGCTCCGCAGGGCGCCCAGCGCCGTCCGGCGGCCCCGCCGCAGACCAGCTGGCGGGTGT
GGAGACCAGGCTCCTGACCCCGCCATGCATGCAGCGCCACCTGGAAGCCGCGCGGCCGCTTTGGTTTTTTGTTTG
GTTGGTTCCATTTTCTTTTTTTCTTTTTTTTTTTAAGAAAAAATAAAAGGTGGATTTG

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FIGURE 2400

GTCCTCCTCGCCCTCCAGGCCGCCCGCGCCGCGCCGGAGTCCGCTGTCCGCCAGCTACCCGCTTCCTGCCGCCCG
CCGCTGCC**ATG**CTGCCCGCCGCGCTGCTCCGCCGCCCGGGACTTGGCCGCCTCGTCCGCCACGCCCGTGCCTATG
CCGAGGCCGCCGCCGCCCCGGCTGCCGCCTCTGGCCCCAACCAGATGTCCTTCACCTTCGCCTCTCCCACGCAGG
TGTTCTTCAACGGTGCCAACGTCCGGCAGGTGGACGTGCCCACGCTGACCGGAGCCTTCGGCATCCTGGCGGCCC
ACGTGCCCACGCTGCAGGTCCTGCGGCCGGGGCTGGTCGTGGTGCATGCAGAGGACGGCACCACCTCCAAATACT
TTGTGAGCAGCGGTTCCATCGCAGTGAACGCCGACTCTTCGGTGCAGTTGTTGGCCGAAGAGGCCGTGACGCTGG
ACATGTTGGACCTGGGGGCAGCCAAGGCAAACTTGGAGAAGGCCCAGGCGGAGCTGGTGGGGACAGCTGACGAGG
CCACGCGGGCAGAGATCCAGATCCGAATCGAGGCCAACGAGGCCCTGGTGAAGGCCCTGGAG**TAG**GCGGTGCGTA
CCCGGTGTCCCGAGGCCCGGCCAGGGGCTGGGCAGGGATGCCAGGTGGGCCCAGCCAGCTCCTGGGGTCCCGGCC
ACCTGGGGAAGCCGCGCCTGCCAAGGAGGCCACCAGAGGGCAGTGCAGGCTTCTGCCTGGGCCCCAGGCCCTGCC
TGTGTTGAAAGCTCTGGGGACTGGGCCAGGGAAGCTCCTCCTCAGCTTTGAGCTGTGGCTGCCACCCATGGGGCT
CTCCTTCCGCCTCTCAAGATCCCCCCAGCCTGACGGGCCGCTTACCATCCCCTCTGCCCTGCAGAGCCAGCCGCC
AAGGTTGACCTCAGCTTCGGAGCCACCTCTGGATGAACTGCCCCCAGCCCCCGCCCCATTAAAGACCCGGAAGCC
TG

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FIGURE 2401

CAGCAGCGGGCGGCCGCGGCGTGACATCGGCACCATCCTGCAGATCCTGAACGACCTCCTGAGCGCCACCCGGCA
CTACCAGGGCATGCCCCCTTCGCTGGCCCAGCTCCGCTGCCACGCCCAGTGCTCCCCGGCCTCACCGGCCCCCGA
CCTGGCCCCCAGAACTACCTCCTGCGAGAAGCTCACGGCTGCCCCCTCAGCCTCCCTGCTGCAGGGCCAGAGCCA
GATCCGCATGTGCAAGCCCCCGGGGGACCGGCTTCGGCAGACAGAAAACCGCGCCACGCGCTGCAAGGTGGAACG
GCTGCAGCTGCTTCTGCAGCAGAAACGGCTCCGTAGAAAGGCCCGGCGGGACGCGCGGGGTCCGTACCACTGGTC
ACCCAGCCGCAAGGCCGGCCGCAGCGACAGCAGTAGCAGCGGGGGCGGCGGCAGCCCCAGCGAGGCCTCCGGCTT
GGGCCTCGACTTCGAGGACTCCGTGTGGAAGCCAGAAGTCAACCCTGACATCAAGTCAGAGTTCGTGGTGGCTTA
GGATCTTCGGATCGGCCACCCTCGCCCCTCGCACCCCAGCCCAGGGCGGCGGGGACTCCGAGAGCCCCGGAGAGA
ACGTGGCCCAGCCCTGGAGGGCAGGCGGCCACTCCCCCAGCCAGAAGTCTTTTTTTCTTTTCTTCTTTTTTATTA
TTTTTTTCTTTTTTTAAAAAGTTCTGACCGTGGTTTCCTGGACTCTTC**ATG**GGCTTTGCTTCCTACCTCCTTCAC
CCTTCACTCCTGCCCTCCTCTTCCTCCTCCTCCTCCTCCTCCGTCTGTCTCCTTTCACCTCTGCGCCAGGTCGGT
CCTCCCTGCCAACCTTCCCCAGCTCCAATATGTAGCAGTCTCTCTGGATGGCGGAGAGTGAAGGAGACGGAGAAA
CGCGCCCCATCCCTTCCGCCGCCTCCTTTCCCCCCCCGACCCTATTCAGGTTTTAAGTCAAAAATGTCGATATGTC
ATTATGCACTTTACAGATGAGGGGAGGGGCCGCAGTGCGCAGAACCCACCCCACCCCCCAGTGCAGACTTCGGGG
TCTCCACCCCAGGCCAGCAGCGCCCACTGGGCTACAGCAAGCCAACAGGTCACAGAAGCCAACGAGGGGACTGTT
TCTCTTCCACTCCTATCCTCTTTTCTTGATCTTTTTTTTGCATTTTCCTTCATTTCTTTAACAAGGAGAGCAAAG
CTGTTT**TAG**CAGAGGCTGGGGCTGAGGTCCCCATGGGGTTTGGGTGCAGGGGCATGGCACCCTTTCCTGTCGGGA
AGGGAGAGGGGAACTACCCCCCCAGCCTGCCCTCCGCCCCGCCCCAGCCGGCGGACTGTGCTGTTTCCTCCGCCC
CCACTCCCGTGTTTTCTGACCTCCTGCCTGAGTTTGGGGTATTTATAGACTATTAATTTTCTGACTGAGCCAATA
GTGGTTGGGGAACTCTTGAAAAAGGGGAGAGAATGGCTGGGTGCTGGGGAGTTCCCCCCTCCGAGCCCTCCTTCC
CGGCCCAACCTGAGGGATGTGGATTTGGGACTGTCTGGGGGCCCCTCCTGCAGCGAGGATGGGAGGGGGTGCTGA
GCTGTGAATCCCCTGGGCAGGGGGCGACAACTCCGTGTAGCATTAACCCCCGTGGCGGGGTCCGCTGCTGGTCTA
ATTTGGACCCCCTGCCTCTCAGTGCCCCTGCCCTAGGGGTGTCTGTCTCCAGAGGGGAGGGACAAATCCCCTACT
GGGGCCATTTCAATGGGGTAGTTTTTGGATTTTTTTCCCCACTCACTTTTTATTTTTTAATGATAATGGAGATGT
CTGGACCCTTCCTCACCCCACCTGTCGGTCTTGTCCTGGCTCTGCCTGTCCCCCACCGTTGTTCTCGTAGGTGAA
CCCCAGGTCCTCAACTCCCCCCCTTTATGTGTTGAAAGTTAATGGTTTCAGATGTGAACATCACGTGTTATAACT
GTAGCGCTGTAAATTTTTTTGTGGGAGGGTGGGCAGGGAGGGGTCCCAGAGGGTAGAGCTCAAGGATTTTGGGTT
TTGTTTTGTTTTCATTTTTCCAAAAAAAAAAGAAAAAAAAATAGAAAAAAAAGGAGTAAAAGGGGCGGGTTTGTT
TTTTGAAGAACTGTCTTGGATACCTATTTAAATGTGTGTTCTGTTTTGTTTTTTAACGATTTTTAAATAACGTCT
GTGCCTCCACTGGTTGAGGGTGGAACCTCCAGGCAGGAACCGGCTCGCCACCCTCTGCCCGGTAAGGGCTGCCCA
AGAAAGCATTACCCGCCCTCGGGGGGTCGGGCTGTGGGGGTCCCGGCACCTGGCGTGAGTTTCATGTATGAAAAC
ATAAAATTGAAAAAAAAAAAAAAAACCTACACGAGCACCGTGATTTCAAGTAATAAACAGAAAATGAAACAC

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FIGURE 2402

GAGGCTCGGGTCGTTGTGGTGCGCTGTCTTCCCGCTTGCGTCAGGGACCTGCCCGACTCAGTGGCCGCC**ATG**GCA
TCAGATGAAGGCAAACTTTTTGTTGGAGGGCTGAGTTTTGACACCAATGAGCAGTCGCTGGAGCAGGTCTTCTCA
AAGTACGGACAGATCTCTGAAGTGGTGGTTGTGAAAGACAGGGAGACCCAGAGATCTCGGGGATTTGGGTTTGTC
ACCTTTGAGAACATTGACGACGCTAAGGATGCCATGATGGCCATGAATGGGAAGTCTGTAGATGGACGGCAGATC
CGAGTAGACCAGGCAGGCAAGTCGTCAGACAACCGATCCCGTGGGTACCGTGGTGGCTCTGCCGGGGGCCGGGGC
TTCTTCCGTGGGGGCCGAGGACGGGGCCGTGGGTTCTCTAGAGGAGGAGGGGACCGAGGCTATGGGGGGAACCGG
TTCGAGTCCAGGAGTGGGGGCTACGGAGGCTCCAGAGACTACTATAGCAGCCGGAGTCAGAGTGGTGGCTACAGT
GACCGGAGCTCGGGCGGGTCCTACAGAGACAGTTATGACAGTTACGCTACACACAACGAG**TAA**AAACCCTTCCTG
CTCAAGATCGTCCTTCCAATGGCTGTGTGTTTAAAGATTGTGGGAGCTTCGCTGAACGTTAATGTGTAGTAAATG
CACCTCCTTGTATTCCCACTTTCGTAGTCATTTCGGTTCTGATCTTGTCAAACCCAGCCTGACCGCTTCTGACGC
CGGGATGGCCTCGTTACTAGACTTTTCTTTTTAAGGAAGTGCTGTTTTTTTTTGAGGGTTTTCAAAACATTTTGA
AAAGCATTTACTTTTTTGACCACGAGCCATGAGTTTTCAAAAAAATCGGGGGTTGTGTGGGTTTTTGGTTTTTGT
TTTAGTTTTTGGTTGCGTTGCCTTTTTTTTTTTTAGTGGGGTTGGCCCCATGAAGTGGGTGCCCCACTCACTTCTC
TGAGATCGAACGGACTGTGAATCCGCTCTTTGTCGGAAGCTGAGCAAGCTGTGGCTTTTTTCCAACTCCGTGTGA
CGTTTCTGAGTGTAGTGTGGTAGGACCCCGGCGGGTGTGGCAGCAACTGCCCTGGAGCCCCAGCCCCTGCGTCCA
TCTGTGCTGTGCGCCCCACAGTAGACGTGCAGACGTCCCTGAGAGGTTCTTGAAGATGTTTATTTATATTGTCCT
TTTTTACTGGAAGACGTACGCATACTCCATCGATGTTGTATTTGCAGTGGCTGAGGAATTCTTGTACGCAGTTTT
CTTTGGCTTTACGAAGCCGATTAAAAGACCGTGTGAAATG

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FIGURE 2403

ATGGGGTCGGGAACACAGCCGCTCCCCTCTGCTCTGCACCCCACTCGTGGGGGAACACAGCCGCTCCCCTCTGCT
CTGCACCCCACTCGTGGGGGAACACAGCCGCTCCCCTCTGCTCTGCACCCCACTCGTGGGGGAACACAGCCGCTC
CCCTCTGCTCTGCACCCCACTCGTGGGGGAACACAGCTGCAGCCCACCGCGGACCCCCCTGGTGCTCCAGCGCCC
TTCGGAATCACAGTCCCGCCGTGTCTTAGAAACTGCTTTGGCCGATGCAAACAGCCCCCTACCCGTCCCCCTCGC
CTCACACGGTCCCTCTCCGAGGCCGAGAAGACCTTCTGTTCCTGTAAATACAGCCAGCAAGTGCAAACTGTGATT
TTATTTTCCACGTATTCC**TGA**

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FIGURE 2404A

GCGGTGGCGGAGGCGGACACATTGGCGTGAGACCTGGGAGTACGTTGTGCCAAATCATTGCCACTTGCCACATGA
GTGTAA**ATG**ATGGCGGATGCCAAGTATGTCCTCTGCCGATGGGAAAAGCGATTATGGCCTGCGAAGGTTTTGGCC
CGAACCGCGACTTCAACAAAAAATAAGAGAAGAAAGGAATATTTTCTAGCTGTGCAAATCCTCTCTCTAGAGGAA
AAAATTAAGGTGAAAAGCACTGAAGTTGAGATCCTAGAGAAGTCTCAAATTGAAGCCATTGCTTCCTCGTTAGCC
TCACAGAATGAGGTTCCTGCGGCACCCCTGGAAGAACTGGCCTACAGACGGTCGCTTCGCGTGGCTCTGGACGTT
CTGAGCGAGGGCTCGATTTGGAGTCAAGAAAGCTCTGCAGGGACAGGTAGAGCTGACCGGTCTCTGCGAGGGAAG
CCCATGGAGCATGTCTCCTCGCCCTGTGATTCGAACTCCTCATCTCTTCCCCGCGGAGACGTGTTGGGCAGTTCC
AGACCTCACAGGAGGAGGCCATGTGTGCAACAAAGCCTGTCAAGTTCGTTCACTTGTGAAAAGGACCCCGAGTGC
AAAGTGGACCACAAGAAGGGGCTCAGGAAAAGTGAAAACCCAAGAGGCCCGTTGGTCCTCCCAGCTGGAGGTGGT
GCCCAAGATGAGAGTGGGTCCAGAATCCACCACAAAAATTGGACTCTTGCAAGTAAGAGGGGAGGAAACTCAGCG
CAGAAGGCTAGCTTGTGCCTGAATGGATCTTCCCTTTCAGAGGACGACACGGAGAGAGACATGGGGAGCAAAGGA
GGCAGCTGGGCAGCCCCGTCCTTGCCCTCCGGGGTCAGGGAGGACGATCCCTGTGCCAACGCTGAGGGACACGAC
CCCGGTCTGCCGTTGGGCAGCCTCACTGCGCCCCCAGCCCCTGAGCCCTCGGCCTGCTCAGAGCCTGGAGAATGC
CCTGCGAAAAAGAGGCCGCGCCTGGATGGCAGCCAAAGGCCGCCTGCCGTGCAGCTGGAGCCCATGGCAGCAGGG
GCCGCACCATCCCCCGGGCCGGGGCCAGGGCCCAGAGAGTCTGTGACCCCGCGCAGCACCGCCAGGCTGGGCCCG
CCTCCCTCCCACGCCTCTGCGGATGCAACCAGATGTCTTCCTTGCCCGGATTCCCAGAAGCTGGAGAAAGAGTGC
CAGTCTTCCGAAGAGTCCATGGGGTCTAATTCCATGCGTTCTATCCTGGAGGAAGACGAGGAAGACGAGGAGCCA
CCAAGAGTCCTTTTATACCACGAACCACGTTCGTTTGAAGTAGGAATGCTAGTCTGGCATAAACATAAAAAATAC
CCCTTCTGGCCAGCAGTGGTCAAAAGCGTCAGGCAGAGAGATAAGAAAGCAAGTGTGCTATACATCGAAGGACAC
ATGAACCCGAAAATGAAAGGTTTCACAGTGTCTCTTAAAAGTTTAAAGCACTTTGATTGTAAAGAGAAACAGACG
CTTCTGAATCAAGCCAGGGAGGACTTCAACCAGGACATCGGCTGGTGTGTCTCCCTCATCACCGACTACAGGGTC
CGGTTAGGCTGCGGGTCTTTTGCTGGCTCTTTCCTGGAATATTACGCGGCTGATATAAGCTATCCTGTCCGAAAA
TCCATCCAGCAGGACGTCTTGGGGACCAAGCTTCCTCAACTGAGCAAGGGGAGCCCCGAGGAGCCCGTGGTGGGG
TGCCCCCTGGGGCAGAGGCAGCCCTGCCGGAAAATGCTCCCCGACCGCTCGCGGGCCGCCCGGGACCGGGCCAAC
CAGAAGCTGGTGGAGTACATTGTGAAGGCCAAGGGCGCGGAGAGCCACCTGCGGGCCATCCTAAAGAGCAGGAAG
CCATCTCGCTGGCTGCAGACCTTCCTGAGCTCCAGCCAGTACGTGACCTGTGTGGAGACCTACCTGGAGGATGAG
GGGCAGCTGGACCTGGTGGTGAAGTACCTGCAGGGCGTCTACCAGGAGGTGGGGGCCAAGGTGCTCCAGCGCACC
AACGGCGACCGGATCCGGTTCATTCTGGACGTGCTTCTGCCCGAGGCCATCATCTGTGCGATCTCTGCGGTGGAC
GAGGTGGACTACAAGACGGCTGAGGAGAAGTACATCAAGGGGCCTTCGCTGAGCTACCGGGAAAAAGAAATATTT
GACAACCAGCTCCTTGAAGAGCGGAACCGGCGCCGTCGG**TGA**GGGAGCAGCCGGCTGTGCTGTCAGCGGGGCCTG
GCGGTGGAAGCGCCTCCAGTGTGCATGAGCGTGTCTGAAGATGGGGGGCTCAGGGGGCACGTTTGCGTTTGGACC
TGTCTGTGCGTTCTCCTGCGTGGCAGTCCTGATTTCCATGCTTCTGGAGAATCCATTTCGTTAACACTGAAAGCC
AGTTCTCTTTTCCTGGCAGTTTTTTTCATTTTATTTTTGGCATTTTTTACAAGATACCGTTCGGGAAAGGCTTTT
GAAAGGACGGAAGCGTATTCACTGTGCGCCAGTACTCCTGGCTGTGCTGTGGTTTCTCCCGACGTGCACATCGAT
CTCGTATGTGTGGCATCTGATATTAAACGGGAGGTTTTAAGAAGCGTCTGCCGTGATCATGGAGCTTCGGAAGCG
GGAATGGTTCTTCCGGGTTTGCTGTTTTGTCTGTTTCCCCCTTGTGTGGTTTCCGCCTGCGACAGTTCCAGAATT
TGCTCTCCCACTCAGTGTGCTCTGCAGCTGTGAGGAAACAGCCTTCGTTAGAGGCGGGAGCAGAGACGAGCCGCT
GCTCTGTGTCGTGTTTGCTGTGGCCGCAGGGAGAGGAGCAGGACACGCACCTTTCCAGGGGCCTCTGTGTCCCGC
ACTGTGTGTGAGTGGACCGCAGCGCGCAGCCACATGCCCTGGCTGCCATGGGCCAGACCGCCTCCACCTCCCCCG
CCCGCCTGGCCTGTCCTGAGTGCATTTCCCTGCACTGTGTCGTCACTGCACAGCCAGTCACCGCGGTCTCAGTCA
TCGGCGCGGATGGCTATGCTGGGGTCCCAGGGTGGCCGCAGCAGTCAGGGTCACTGTGGGAGCCCTGGGGTGGAG
TGACAAACCGCATTGTCCTGTGCCCGCCATGGCAGAAGCGCAGCCTTTGTATGGAGGCCCAACCGCGCTCCCGTC
TGGAGAAGCGGCTTCCGGGGTGTGGCTGCCGGGTCGGCTCTGGTCCACAGCACGGTGCCGGGGCTGCAGGTTGTT
GAGGGCTGTGACTCCGTGGGGCTCAGCCAGGCTCCAGCAGGGTCAGACGTGCTGTTAAGAGCAAAGCCACAGACG
ATGACTTGTCCATTCTCAGTGGATGCTCCAGGCTGTGCCTACACAGCAGTGCTGGTGACATGTCCAGGGTTCCAG
GGCCCGGTGGCCTGGGAGCTGCTTTCTCCCCACTGGCTGGGCTGCATCTGGCCCTGGCTGGAGGCCTTGCTTTGA
GGGGCTGTGACCCTCTTCCCCCAGGCCCTCCCCAGCCGACGACAGCCACCGGAGAGGAGATCGGAACACGATTGT
CTCAGATGCAGGGCGCTGTGCGGGACGAAGCCGCAAGGACTCTCGTATCGGGCCCTTGGGACTCGGGAGGTGCCA

FIGURE 2404B

GAGGCGGCGGCTGCTCTGGACCTCGGTGTTCACTGACCTTTGTTTCACTTGCCTCTGCTCGACTCCGAGAGCAGG
AAACCCGGCCGTGGCCTGGCAGCTCCGCCTCCCATGCCCGCACGCTGGGGTCTGTCTTGTCTGGAGCAGTGGGGC
ACACCCCGGAGGAGGCGGGGGTCAGGGCTGTCGGCCTTGGCCCCCTGCTGGTCGCTGTTTCGGGGACTCGGGGCG
GCCAGTACCACCGCCTGAGGCGGGGCTCAGCAGCGTTGCATGTACGGGCCTCGTACTGCCTCATGGAAAATCCTC
CGGAGCCGCCCTCCATTGTGGGTTCCTGAGAGTAGGACACATTGCCATGGTTTTGTGGGAATCACGCGCCCCTGA
TGGAACTTTTCTGCTGTTGTGAAGTACTTTTATCCATTTGCTTCTCTGCTGACCTTGCCAAGTTGTTCGAGGTGG
AATTAAACACCTCCCAGACC

FIGURE 2405

CTGCGCGCTGCGGTCCACTCACACACAGTGCGGGACACAGAGGCCCCTGGAAAGAGCACACTGAGTGGGAGAGCA
AATTCTGGAACTGTCGCAGGCGGAAACCACACAAGGGGGAAACAGACAAAACAGCAAACCCGGAAGAACCATTCC
CGCTTCCGAAGCTCCATGATCACGGCAGACGCTTCTTAAAACCTCCCGTTTAATATCAGATGCCACACATACGAG
ATCGATGTGCACGTCGGGAGAAACCACAGCACAGCCAGGAGTACTGGCGCACAGTGAATACGCTTCCGTCCTTTC
AAAAGCCTTTCCCGAACGGTATCTTGTAAAAAATGCCAAAAATAAAATGAAAAAAACTGCCAGGAAAAGAGAACT
GGCTTTCAGTGTTAACGAAATGGATTCTCCAGAAGCATGGAAATCAGGACTGCCACGCAGGAGAACGCACAGACA
GGTCCAAACGCAAACGTGCCCCCTGAGCCCCCCATCTTCAGACACGCTCATGCACACTGGAGGCGCTTCCACCGC
CAGGCCCCGCTGACAGCACAGCCGGCTGCTCCCTCACTGGCTTGTTATTTTGAGCATGTCCCCGGCGTGATGAAA
TCACGGCCTGTGTGCTCAGCCCAAGTAACTTCTCCATCAGCACCAGCACCATTCTCACAGGTCACGGGAGGCTTT
CATGGCAACTGGAAGCTGTGATGAACTCCTAACGGGTTTTGATGTCGGCAACCCAGACTCAAAAAAAAAAATCAG
GATGAAAGATTTCCACAGATGGGCGTGGAGCGGTGAAGAGGCTTCTGAGACGGAGGGAGAGGACAAACCAGCAGG
CTGGGTCCAGGTGTCCTGGCTCCGACCTTACCCCCTCCCCGGACCTCACTTATTCTTACGGCAAGCATGACGGGG
GAACC**ATG**AAGATCCAGCAGGAAAACACCCAGTTTCTGTATCCAAAGGCCTTTCCTGTTTTGGTAAGCCAGCTGG
GCCAACACTCCCTAAACAAGGCCAAATTCCACCTTTGTGCAGCTCTGCGGGGGTGGCCTGCCAATGCCACCGAGG
CCCCACACCTCCTCCCTGGCCTCTCCAGGGGCCCCTCCTGCCCTGCCCAGGGAGGACATGGGGCTGGTGAGGGAG
TTCAGTGTCTTCACCAGGAGTCTCCTGTGACTGTGGGCCCGGGAGACGTCGGTGGCTGCGCAAGCCACCCTGGCC
GGAGACCCTGTCCT**TGA**CTCTAGTTGAGTCTTCAGCCTGTCACTGCCCCGTGGGCCCCGCCTGGCTCCCAGCAAG
GCCTGGCCGCATGCCCAGAGACAGGATTAGGCGCTCTGGGGGCCAAACATCCAAGGGCAGCTAAGCACACGGATG
TGAGAGAAACATCTTGATCACAGCATTCTTCTGGCTGCTGGAAAGCACCGGGCCGTGCTGCTGCTTAATCTTGCT
GTATTTCTCACACAGCCATGGGGCTGTGGAAAGAGGGGAGGAAAGTGCAAAAAGCAAACATCAGCCCCTGCAAAA
AGAGATTAAGAACAGACACGGCCCAGGCACGTGCCCGTGGCCCCGTGCTGCCCACAGCGACCAGCTGGGAGACCC
GGGCACAGCCTTCCTGGGGGGCAGGAGTGACCCACAGGGTGAGTTCAGCGTATGTGATCAGCTCACCACCCAGCA
CCTGGGCCACCTCATGAGGGAGAGGGGCTGCGGCAGCCTGGAGTCAAACTGCCTGTGGGTGTGGAAATAGAAACT
GCAAGGCAGAGACGCAAGTGGCTGGAGATAGCGCCGGGAGCGGCCTACCGGTAGCTCAGCGAAGGCCCCTTGATG
TACTTCTCCTCAGCCGTCTTGTAGTCCACCTCGTCCACCGCAGAGATCGCACAGATGATGGCCTGTGAGAGGGCA
CGGGGCTCAATAGCAGCAGGCACTGCCCAACTGGCCCCAAGTGGCCTGCGGTTAAGAAGGCCGCAGGGAGCCTGG
GTCACCAGGTTCCAGCCTCCAGACATGGTCTAGCTCATGGTTCAGAAGGTGCAAACCTAGTCCATGAATCCCTGC
TTGTAATGATGTTTCTTAATTAAATCAGTACTATCTTTCGGACTAGACACAATAGCTCAGATCACTAAAAGCAGA
GAAGAAAAGGCAAGACCCAAACCCACAAGAGCATTTCTCAAAAATTTTAAGTTTTTTTTTTGGTGGCGGTTTTTT
CTGGTACAGAGTCTCGCCCTGTCGCCCAGGCTGGAGCGCAATGGCATAATCTCAGCTCACTGCAACCTCTGCCTC
CCGGGTTCAGGTGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTATAGGTACGCGCCACCACGCCCAGCTA
ATTTTTGTATTTTTAGTAGAAACGGGGTTTCACCATGTTGGCCAGGCTGGTCTCAAGCTCCTGGCCTCATGATCC
ACCTGCCTCGGCCTCCCAAAGTGCTGGAATTACCGATGCGAGCCACCACACCCGGCCTTAAGTTTATTGTTATAA
AAAAAAAAGAGTATCCTGAATACACAATACATACCTGACATTAAGAAATCATCCCTATTTTTTACTTTTGTGATT
ATGGTAAACACATTTTTAACAGAGTCCATTCGGTTCAGAGCAGAGTCTCTCCCACTCGGCCCTGTGGACGTCGGG
GCCAGACTGTTCTCTGAGGTGGGGCTGTCCTAGGCGCTGCAGGGTGCTGAGCAGCGTCCCTGCCCCAACCC

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FIGURE 2406

CCAAG**ATG**GCGGTGCTGTCAGCTCCTGGCCTGCGCGGCTTCCGGATCCTTGGTCTGCGCTCCAGCGTGGGCCCGG
CTGTGCAGGCACGAGGTGTCCATCAGAGCGTGGCCACCGATGGCCCAAGCAGCACCCAGCCTGCCCTGCCAAAGG
CCAGAGCCGTGGCTCCCAAACCCAGCAGCCGGGGCGAGTATGTGGTGGCCAAGCTGGATGACCTCGTCAACTGGG
CCCGCCGGAGTTCTCTGTGGCCCATGACCTTCGGCCTGGCCTGCTGCGCCGTGGAGATGATGCACATGGCAGCAC
CCCGCTACGACATGGACCGCTTTGGCGTGGTCTTCCGCGCCAGCCCGCGCCAGTCCGACGTCATGATCGTGGCCG
GCACACTCACCAACAAGATGGCCCCAGCGCTTCGCAAGGTCTACGACCAGATGCCGGAGCCGCGCTACGTGGTCT
CCATGGGGAGCTGCGCCAACGGAGGAGGCTACTACCACTATTCCTACTCGGTGGTGAGGGGCTGCGACCGCATCG
TGCCCGTGGACATCTACATCCCAGGCTGCCCACCTACGGCCGAGGCCCTGCTCTACGGCATCCTGCAGCTGCAGA
GGAAGATCAAGCGGGAGCGGAGGCTGCAGATCTGGTACCGCAGG**TAG**CGCCGCCGCCGCCGCCGCCGGAGCCTGT
CGCCGTCCTGTCCCCAGCCTGCTTGTGTCCCGTGAGGTTGTCAATAAACCTGCCCTCGGGCTGCCGCC

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FIGURE 2407

CCCCGGCCCACAAGCCCCTGCAGGGAGCGGGCCCGGGCGGCGCGCGATCGAGGTCGGGTCGCCGTCCAGCCTGCA
GC**ATG**AGCGCCCCCAGCGCGACCCCCATCTTCGCGCCCGGCGAGAACTGCAGCCCCGCGTGGGGGGCGGCGCCCG
CGGCCTACGACGCAGCGGACACGCACCTGCGCATCCTGGGCAAGCCGGTGATGGAGCGCTGGGAGACCCCCTATA
TGCACGCGCTGGCCGCCGCCGCCTCCTCCAAAGGGGGCCGGGTCCTGGAGGTGGGCTTTGGCATGGCCATCGCAG
CGTCAAAGGTGCAGGAGGCGCCCATTGATGAGCATTGGATCATCGAGTGCAATGACGGCGTCTTCCAGCGGCTCC
GGGACTGGGCCCCACGGCAGACACACAAGGTCATCCCCTTGAAAGGCCTGTGGGAGGATGTGGCACCCACCCTGC
CTGACGGTCACTTTGATGGGATCCTGTACGACACGTACCCACTCTCGGAGGAGACCTGGCACACACACCAGTTCA
ACTTCATCAAGAACCACGCCTTTCGCCTGCTGAAGCCGGGGGGGCGTCCTCACCTACTGCAACCTCACCTCCTGGG
GGGAGCTGATGAAGTCCAAGTACTCAGACATCACCATCATGTTTGAGGAGACGCAGGTGCCCGCGCTGCTGGAGG
CCGGCTTCCGGAGGGAGAACATCCGTACGGAGGTGATGGCGCTGGTCCCACCGGCCGACTGCCGCTACTACGCCT
TCCCACAGATGATCACGCCCCTGGTGACCAAAGGC**TGA**GCCCCCACCCCGGCCCGGCCACACCCATGCCCTCCTC
CGTGCCTTCCTGGCCGGGAGTCCAGGGTGTCGCACCAGCCCTGGGCTGATCCCAGCTGTGTGTCACCAGAAGCTT
TCCCGGCTTCTCTGTGAGGGGTCCCACCAGCCCAGGGCTGATCCCAGCTGTGTGTCACCAGCAGCTTTCCCAGCT
TCTCTGTGAGGGTCACTGCTGCCCACTGCAGGGTCCCTGAGGTGAAGTAAACGCCGGCGCTGGGCTTGGCCAGTC
GGCAGTGA

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FIGURE 2408

GGAAGCTCTTCGTGGGCGGTCTTGACTGGAGCACGACCCAAGAGACTCTGCGCAGCTACTTTTCCCAATATGGAG
AAGTCGTAGATTGTGTTATC**ATG**AAAGATAAAACCACCAACCAGTCTCGAGGCTTTGGGTTTGTCAAATTTAAAG
ACCCAAACTGTGTGGGGACGGTGCTGGCCAGCAGACCGCACACGCTAGATGGCCGAAACATCGACCCCAAGCCAT
GCACACCCCGGGGGATGCAGCCGGAGAGAACACGGCCGAAGGAAGGATGGCAGAAAGGACCCAGGAGCGATAACA
GTAAATCAAATAAGATATTTGTCGGTGGAATTCCTCACAATTGTGGTGAGACAGAGCTCAGGGAATACTTCAAGA
AGTTCGGAGTGGTCACGGAGGTAGTCATGATCTATGACGCCGAGAAGCAGAGGCCCCGAGGTTTTGGATTTATTA
CTTTCGAGGACGAACAATCAGTGGACCAGGCTGTCAACATGCATTTTCACGACATCATGGGCAAAAAAGTGGAAG
TTAAACGAGCTGAGCCTCGGGACAGCAAGAGCCAAGCGCCGGGACAGCCAGGTGCCAGCCAGTGGGGGAGCCGGG
TTGTGCCCAACGCTGCCAATGGCTGGGCAGGCCAGCCCCCGCCCACGTGGCAGCAAGGATATGGCCCGCAAGGAA
TGTGGGTGCCGGCAGGACAGGCGATTGGTGGCTATGGACCGCCCCCTGCAGGAAGAGGAGCCCCCCCGCCACCCC
CACCGTTCACCTCCTACATCGTGTCCACCCCTCCTGGAGGCTTTCCCCCTCCCCAGGGCTTCCCTCAGGGCTACG
GTGCCCCGCCACAGTTCAGTTTTGGCTACGGGCCTCCACCTCCACCGCCAGATCAGTTTGCCCCTCCGGGGGTTC
CTCCTCCACCAGCCACTCCCGGGGCAGCACCTCTGGCTTTCCCACCGCCTCCGTCTCAGGCTGCCCCGGACATGA
GCAAGCCCCCGACAGCTCAGCCAGACTTCCCCTATGGTCAGTATGGCCTGGGTTCCTATTCTCCAGCCCCGCCGG
GCTGCGGCCCACACTTTGTTTACAGTCTTATGGTCAGGCTGAGCAGTGATGTGGCC**TAG**CAGGTTACGGGCAGGA
CTTGAGTGGCTTCGGACAGGGCTTCTCAGACCCCAGCCAGCAGCCTCCTTCCTACGGGGGTCCCTCCGTGCCAGG
GTCGGGGGGCCCCCCCCGCCGGCGGCAGCGGCTTTGGACGAGGGCAGAACCACAACGTGCAAGGGTTCCACCCCTA
CCGACGCTAGCCCGCGGCGCCGCGACGTCTGCACGGCCCAGACCCAGGATTCCAAACTTGTGAACTCGTGACAAT
CACAAACTTGGCGGCAAAGTGGCGACTCAACCTTGGGGGGGGGGGCGGGGGGAGGGCGCGAGGCTTTTGGAGCGG
CTGTGGGTGTCGTCTGGACTGAGGTTTTTAAATATTTCTTTCTCTAACCCATCAGCACAATAAAAAAAAGTCACT
GGTTCAACAACAGGGTTTAAAAAAAATGTCTTCAGCTTTAATTCAAAACTTCAGGTTTCTTTTTCTTCCTTTTTT
TTGGAAATTATTTTCCTGAGCCTTTTGTTTTACGGTATATTGTAAACTTTTATGTTAAAGAAAAAATATACATTT
ACAAATTGTGAGATTTTTAAGAGAAATTTTCTACGATGTATACTGGCTTATTTTTTAATTTAAAACGGGGTTTCC
GTCGGCACTGGTGGAGGGGGTGCGCTGTTAGTCCCCTCGCTCCTGGCTTTGGGGGTTGGGACTTGGTGGTCCAGA
AACTCTGGGAGCTTCTAGAAGAAATCTACTGAGTGTATTTCTGTTTTTTGTTTAATTCCTTGCTTTTGTCGACTG
ACCTGCTTGGTAGTGTCTGAGGTGAACTGTGGGGGTTGCGCACAGCCAGCCGCGTGGATCCCACGCAGCGCTGAA
CCGAACCGAGTAGGAAGCCTTTCTCCCCAGGCACGTGGCTTCAGGGCGTTTCCCATTGACCAGTTTGACCCTGGT
TTGAATAAAGAGAAGTGCGTTTGGATTAG

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FIGURE 2409

CTGCGCAGGCGCGGACCAAAGCGATCTCTTCTGAGGATCCGGCAAG**ATG**GCAGAAGTAGAGCAGAAGAAGAAGCG
GACCTTCCGCAAGTTCACCTACCGCGGCGTGGACCTCGACCAGCTGCTGGACATGTCCTACGAGCAGCTGATGCA
GCTGTACAGTGCGCGCCAGCGGCGGCGGCTGAACCGGGGCCTGCGGCGGAAGCAGCACTCCCTGCTGAAGCGCCT
GCGCAAGGCCAAGAAGGAGGCGCCGCCCATGGAGAAGCCGGAAGTGGTGAAGACGCACCTGCGGGACATGATCAT
CCTACCCGAGATGGTGGGCAGCATGGTGGGCGTCTACAACGGCAAGACCTTCAACCAGGTGGAGATCAAGCCCGA
GATGATCGGCCACTACCTGGGCGAGTTCTCCATCACCTACAAGCCCGTAAAGCATGGCCGGCCCGGCATCGGGGC
CACCCACTCCTCCCGCTTCATCCCTCTCAAG**TAA**TGGCTCAGCTAATAAAGGCGCACATGACTCC

FIGURE 2410A

GGGTTTGGGGAGCAGGAGGCAGACATGTGTTGCTTTGCACGTCATCTGGTCCTTCCACCTGGCTGGGCATGGGAT
GGTGACCTCAGCTGGAACATGGGGCTCGAGCCAGACCCCAGGGTCTCCCTGCGTGTAGCCCCCAACCCCAAGCCT
GATCCCCACTGGAGACCTGAACAGCCTTGGACATCATCGGATCAGGGTGGGAGGTGCCAGCCTCTGCCACCTGAC
TTCCAGTCCCTGTGCCCCTCCCACCCTGCCCTTGGGCACTCCTGCCCTGCAGGTTCCTCAGAGGGGCAACCCAAA
GCCAGAGAGGGGCGGGTCTTGTCGGGCCTCCAGCCTGGACTTCCCAGCCCCTCTGGGGCAGCATCTGGGTGCCAG
ACCTCGGTTCCTAGGGCCTCGTTTCTCCCTCTGGGAACAGCCAAATGGTGGTCCCTGAGACTCAGGACAGACCAA
GAAGGAGCCGGATGACATGGCAAGCCACACACTGCGTCCCCTGAGCAGGACGGGACAGCCCGACTCCATCCTCCC
ACCTGCGACTGAGCCCCCACCCCTACTCCTGTCCCAGCCGTGCCCCTGGTGACATTTGGGTGGGAGGGGAGGGGA
TGAGGGGGCACCTGGGGGTCAGAGAACAAATGACGGGTGAATACATGTGTGTGGCCAGGTGGAGGAGGGAGGGGA
GGAGCAGGTGGGCTGGACAGGGCCGGTGTGAGGAAGGGGCTCAGGCTGGCAGGGGGAGGTGGCAGAGGGATGGGC
TGCCATTGGTGCGTCTGAGACAAAGGCGGAGGGAGGAGGCGAGCGCTGATGGGAAAGGAACAAAGAGGGAAGGGG
GGCGTGAAGGGGGGCTCCGGCGGGAGGGCCGAGCCGAGGGAGGAGGCGCCGGCCAGCTGGACAGAGGGAGGAGGC
CAGGCCAGAGCCAGAAGACGGCCAGAGGCACAAAGAAGCCAGCGCGCTGGCAGAGTCAAGGGATGGGGCAGGGGC
TGCCGGGGCCAGCAGGGACCAGCTGAAGGCTGCGCAGGGGGTGCGGGCCACACAGGTAGCCACCCTGAGCTCAGC
CACCGATGGAGGGTCGTGGGGCTGCTGCGGTGATGGCGGTGGGCTTGGGTCCATCTGTCCTGCCGTTTCTGCACA
GCTTAGGTGTCACCCACTGGCCTTCGTGGTGTTTTCATTGTCCATCGGCAGGGACAGCTGGTGGTCTGTCCGCCC
CGCGTGTCTGGCTGTCAGCCTCTGGGCAGGCTTGCTTTTATGGGGGAGGGTCCTGTCTGTCTGTCTGTCGCCCTC
TCTGGCTGTGAGCCTGGGGGTGCTGGGCTGGCCAGTCGGCTTGCTGGGTTAGGCTGTCCCAGCTGTCTGTGTGTT
TGTCCGGCTGTCAGGATGTGTCCTGGGGGCTGGGAAGGAGAGGCCGACCCATCGTCTGTCGGTCGACTGGTCAGT
TGGACGTTCAGCTGTCTGTACGTCTGTCTGCTGGCCCCTCTGTCTCCCCTTGGGGCCACCTCTCACTCCACCTGC
CCCTCTGCGCCCCGGATTGCCTGGCCACCACCACGTGGGCCTGTACTTGTCCACACCAGTGACTCCTGCCTGAGA
CCCCCCCCAACCCAGGATCAGGCAGGACGGCTGGGGCTTAGGTCAGGGGCCGTCTGTCCGGAAGGCATCACCGCG
CCCTCCCCAGACCATCAGCTGAACCCTCTGACCCTGTGATCCCAGACGCTGCAGGAGCTGAAG**ATG**GCGAGCTCC
GTGGCGCCCTACGAGCAGCTGGTGAGGCAGGTGGAGGCCTTGAAGGCTGAGAACAGCCACCTGAGGCAGGAGCTA
AGGGACAACTCCAGCCACCTGTCCAAGCTGGAGACAGAGACGTCGGGCATGAAGGAGGTCCTGAAGCACCTACAG
GGAAAACTGGAGCAGGAGGCCCGAGTGCTGGTGTCCTCGGGGCAGACGGAGGTGCTGGAGCAGCTGAAGGCCCTA
CAGATGGACATCACCAGCCTGTACAACCTCAAGTTCCAGCCGCCCACCCTGGGCCCGGAGCCTGCCGCCCGGACC
CCCGAGGGCAGCCCAGTACACGGCTCCGGGCCCTCCAAGGACAGCTTTGGGGAGCTGAGCCGGGCCACCATCCGG
CTGCTGGAGGAACTGGACCGGGAACGGTGTTTCCTGCTGAATGAGATTGAGAAGGAGGAGAAGGAGAAGCTCTGG
TACTACTCTCAGCTGCAGGGCCTGTCCAAGCGCCTGGACGAGCTGCCGCACGTGGAGACGCAGTTCTCGATGCAG
ATGGACCTGATCCGGCAGCAGCTTGAGTTCGAGGCCCAGCACATCCGCTCGCTGATGGAGGAGCGCTTCGGCACC
TCGGACGAGATGGTGCAGCGGGCACAGATCCGCGCCTCGCGCCTGGAGCAGATTGACAAGGAGCTGCTGGAGGCG
CAGGACCGAGTGCAGCAGACGGAGCCCCAGGCCTTGCTGGCGGTGAAGTCGGTGCCGGTGGACGAGGACCCCGAG
ACAGAGGTCCCCACACACCCTGAGGATGGCACCCCTCAGCCGGGCAACAGCAAGGTGGAGGTGGTCTTCTGGCTG
TTGTCCATGTTGGCGACGCGCGACCAGGAGGATACAGCGCGCACGCTGCTGGCCATGTCCAGCTCGCCCGAGAGC
TGCGTGGCCATGCGCCGCTCGGGCTGTCTGCCTCTGCTGCTGCAAATCCTCCACGGCACCGAGGCCGCGGCCGGG
GGTCGCGCCGGGGCCCCAGGGGCACCGGGCGCCAAGGACGCACGCATGCGCGCCAACGCGGCGCTGCACAACATC
GTCTTCTCGCAGCCGGACCAGGGCCTGGCGCGCAAGGAGATGCGCGTCCTGCACGTGCTGGAGCAGATCCGGGCC
TACTGCGAGACCTGCTGGGACTGGCTGCAGGCCCGAGACGGCGGGCCCGAGGGAGGTGGCGCCGGCAGCGCCCCG
ATCCCCATCGAGCCGCAGATCTGCCAGGCCACCTGTGCTGTTATGAAGCTGTCCTTTGATGAGGAGTACCGCCGT
GCCATGAACGAGCTAGGTGGGCTGCAGGCCGTGGCAGAGCTGCTGCAGGTTGACTATGAGATGCACAAGATGACC
CGGGACCCGCTGAACCTGGCGCTGCGCCGCTACGCGGGCATGACCCTCACCAACCTCACCTTTGGGGACGTTGCC
AACAAGGCCACCCTGTGTGCGCGCCGCGGCTGCATGGAGGCCATCGTGGCCCAGCTGGCCTCCGACAGTGAGGAG
CTCCACCAGGTGGTGTCCAGCATCCTTCGGAACTTGTCCTGGAGGGCCGACATCAACAGCAAGAAGGTGCTGAGG
GAGGCGGGCAGCGTGACTGCCCTGGTGCAGTGTGTCCTGCGGGCCACCAAGGAGTCCACCCTGAAGAGCGTGCTG
AGCGCCCTGTGGAATCTGTCTGCACACAGCACAGAGAACAAGGCGGCCATCTGCCAGGTGGATGGCGCCCTGGGC
TTCCTGGTGAGCACCCTGACCTACAAGTGTCAGAGCAACTCGCTGGCCATCATCGAGAGCGGCGGCGGCATCCTC
CGCAATGTGTCCAGCCTCGTCGCCACCCGTGAGGACTACAGGCAGGTGCTCCGGGATCACAACTGTCTGCAGACG

FIGURE 2410B

CTGCTGCAGCATCTGACTTCGCACAGCCTGACCATCGTGAGCAACGCGTGCGGCACGCTCTGGAACCTGTCGGCC
CGCAGCGCCCGTGACCAGGAGCTGCTGTGGGACCTGGGCGCCGTGGGCATGCTGCGTAATCTGGTGCACTCCAAG
CACAAGATGATCGCCATGGGCAGCGCCGCCGCCCTGCGCAACCTGCTGGCCCATCGGCCCGCCAAGCACCAGGCG
GCCGCCACCGCCGTGTCCCCAGGCAGCTGCGTGCCCAGCCTGTACGTGCGCAAGCAGCGGGCGCTGGAGGCCGAG
CTGGACGCACGGCACCTCGCGCAGGCGCTGGAGCACCTGGAGAAGCAGGGCCCGCCGGCAGCCGAGGCCGCCACT
AAGAAGCCGCTGCCGCCCCTGCGACACCTGGACGGCCTGGCCCAAGACTATGCTTCCGATTCGGGCTGCTTTGAC
GACGACGATGCACCGTCATCCCTGGCTGCGGCCGCGGCCACCGGGGAGCCAGCCAGCCCTGCCGCGCTGTCCCTC
TTCCTGGGCAGCCCCTTCCTGCAGGGGCAGGCGCTGGCTCGCACCCCGCCCACCCGCCGAGGCGGCAAGGAGGCA
GAGAAGGACACCAGTGGGGAGGCAGCCGTGGCGGCCAAGGCCAAGGCCAAGCTGGCGCTTGCAGTGGCGCGCATC
GACCAGCTGGTGGAGGACATCTCCGCCCTGCACACCTCGTCCGACGATAGCTTCAGCCTCAGCTCTGGAGACCCG
GGACAGGAGGCGCCACGGGAGGGCCGCGCCCAGTCCTGCTCGCCATGCCGCGGCCCGGAGGGCGGGCGGCGAGAG
GCAGGAAGCCGGGCGCACCCGCTGCTGCGGCTCAAGGCGGCCCACGCCAGCCTCTCCAACGACAGCCTCAACAGC
GGCAGTGCCAGCGACGGGTACTGCCCACGCGAACATATGCTGCCCTGCCCGCTGGCCGCACTGGCTTCGCGCCGC
GAGGACCCCAGGTGTGGGCAGCCTCGGCCCAGCCGGCTTGACCTTGACCTGCCCGGCTGCCAGGCCGAGCCCCCG
GCCCGCGAGGCCACCTCCGCCGACGCCCGCGTGCGCACCATCAAGCTGTCGCCTACCTATCAGCACGTGCCACTG
CTTGAGGGTGCCTCAAGGGCGGGTGCAGAGCCCCTCGCGGGGCCTGGAATCTCTCCAGGGGCCCGGAAGCAGGCC
TGGCTGCCGGCAGACCACCTGAGCAAGGTTCCCGAGAAGCTGGCGGCTGCCCCGCTGTCTGTGGCCAGCAAGGCA
CTGCAGAAACTGGCGGCGCAAGAGGGGCCACTCTCGCTGTCCCGATGCAGCTCCCTTTCCTCGCTGTCCTCGGCC
GGCCGCCCAGGCCCCAGCGAGGGTGGTGACCTGGATGACAGTGACTCCTCCCTGGAGGGGCTGGAGGAGGCCGGC
CCCAGCGAGGCTGAGCTGGACAGCACGTGGCGGGCGCCCGGGGCCACCTCGCTGCCCGTAGCCATTCCGGCTCCC
CGGCGTAACCGAGGCCGGGGCCTGGGGGTGGAAGACGCCACGCCGTCCAGCTCGTCGGAGAACTACGTGCAGGAG
ACACCGCTTGTGCTGAGCCGCTGCAGCTCTGTGAGCTCGCTGGGCAGCTTCGAGAGCCCGTCCATCGCCAGCTCC
ATCCCCAGTGAACCTTGCAGCGGGCAGGGCAGCGGCACCATCAGCCCTAGCGAGCTGCCCGACAGCCCCGGACAG
ACCATGCCTCCCAGCCGGAGCAAGACGCCACCGCTGGCGCCCGCGCCACAGGGTCCCCCCGAGGCCACCCAGTTC
AGCCTGCAGTGGGAGAGCTACGTGAAGCGCTTCCTGGACATCGCCGACTGCCGGGAGCGCTGCCGGCTGCCATCT
GAGCTGGACGCAGGCAGCGTGCGCTTTACCGTGGAGAAGCCAGACGAGAACTTCTCGTGCGCCTCCAGCCTCAGC
GCGCTGGCCTTGCACGAGCACTACGTGCAGCAGGACGTGGAGCTGCGGCTGCTGCCCTCGGCCTGCCCCGAGCGC
GGCGGGGGCGCCGGGGGCGCCGGCCTCCACTTTGCAGGGCACCGGCGGCGGGAGGAGGGGCCGGCGCCCACGGGT
TCTCGCCCTCGCGGCGCCGCGGACCAGGAGCTGGAACTGCTGCGGGAGTGCCTGGGAGCCGCCGTGCCTGCCCGG
CTGCGCAAGGTGGCCTCCGCGCTGGTGCCAGGTCGCCGCGCACTCCCCGTGCCCGTCTACATGTTGGTGCCCGCC
CCGGCCCCGGCCCAGGAGGACGACTCCTGCACTGACTCCGCGGAGGGCACGCCGGTCAACTTCTCTAGCGCCGCC
TCGCTCAGCGACGAGACGCTGCAGGGACCCCCCAGGGACCAGCCCGGGGGACCAGCGGGCAGGCAAAGACCCACC
GGCCGCCCCACCTCTGCCAGACAGGCCATGGGGCACCGGCACAAGGCGGGAGGCGCCGGCCGCAGCGCGGAGCAG
TCTCGGGGCGCGGGCAAGAACAGAGCAGGGCTGGAGCTGCCCCTGGGCCGGCCCCCGAGCGCCCCCGCAGACAAG
GACGGCTCAAAGCCCGGCCGGACCCGCGGGGACGGGGCGCTCCAGTCGCTGTGCCTCACGACGCCCACTGAGGAG
GCCGTGTACTGCTTCTACGGCAACGACTCGGACGAGGAGCCCCCGGCGGCCGCGCCCACGCCAACCCACCGGCGC
ACATCGGCCATCCCTCGCGCTTTTACGCGGGAGCGTCCGCAGGGCCGGAAGGAGGCCCCTGCCCCGTCCAAGGCT
GCACCAGCTGCCCCGCCGCCCGCCCGGACCCAGCCCAGCCTCATTGCTGACGAGACCCCGCCCTGCTACTCCCTG
AGCTCCTCCGCCAGCTCCCTCAGCGAGCCCGAGCCCTCGGAGCCGCCGGCCGTCCATCCACGAGGCCGGGAGCCC
GCGGTCACCAAGGACCCGGGCCCAGGAGGCGGACGCGACAGCTCGCCCAGCCCGCGGGCCGCGGAGGAGCTTCTG
CAGCGGTGCATCAGCTCGGCCCTGCCCAGGCGCCGGCCCCCCGTGTCTGGCCTGCGGCGCCGCAAGCCCCGAGCC
ACCCGGCTGGATGAGCGGCCCGCAGAGGGGTCCCGGGAACGCGGCGAGGAGGCAGCGGGCTCGGACCGGGCCTCC
GACCTGGATAGCGTGGAGTGGCGCGCCATCCAGGAGGGCGCCAATTCAATTGTCACGTGGCTGCACCAGGCAGCA
GCTGCCACGCGGGAGGCCTCGTCCGAGTCCGACTCCATCCTGTCCTTCGTATCCGGGCTGTCAGTGGGATCCACC
CTACAGCCCCCCAAGCACAGGAAGGGACGACAGGCGGAGGGAGAAATGGGCAGTGCCCGGCGGCCAGAGAAAAGG
GGCGCAGCCTCAGTCAAGACCAGCGGGAGCCCCCGTTCCCCTGCAGGCCCCGAGAAGCCACGTGGCACACAGAAG
ACCACGCCCGGGGTGCCAGCTGTGCTCCGGGGACGAACAGTGATCTACGTCCCCAGCCCGGCACCCCGTGCCCAG
CCCAAAGGGACCCCCGGCCCCCGCGCCACACCGCGGAAGGTGGCGCCCCCTTGCCTGGCACAGCCCGCGGCTCCA

FIGURE 2410C

GCCAAAGTCCCGAGCCCCGGGCAGCAGCGGTCGCGGAGCCTACACCGGCCTGCCAAGACCTCGGAGCTGGCGACG
CTGAGCCAGCCCCCCAGAAGCGCCACACCGCCCGCCCGCCTCGCCAAGACCCCCTCCTCCAGCTCCTCCCAGACC
TCGCCCGCCTCCCAGCCCCTGCCCAGAAAGCGCCCCCCGGTCACCCAGGCTGCTGGGGCCCTGCCCGGCCCCGGA
GCCTCCCCGGTGCCCAAAACGCCGGCGCGCACCCTTCTGGCGAAGCAGCACAAGACGCAGAGATCGCCCGTGCGG
ATCCCGTTCATGCAGAGGCCGGCCCGGCGTGGGCCGCCACCGCTGGCTCGGGCAGTCCCGGAGCCGGGCCCCAGG
GGCCGGGCGGGGACCGAGGCGGGCCCGGGGGCGCGCGGGGGCCGCCTGGGCCTGGTGCGTGTGGCCTCAGCCCTC
TCCAGCGGCAGCGAGTCCTCCGACCGCTCGGGCTTCCGGCGACAGCTAACCTTCATCAAGGAGTCGCCGGGCTTG
CGGCGCCGCCGCTCCGAGCTGTCCTCGGCCGAGTCCGCGGCCTCTGCCCCCCAGGGCGCCTCGCCCCGCCGCGGC
CGGCCCGCGCTGCCCGCCGTCTTCCTCTGCTCCTCGCGCTGCGAAGAGCTCCGAGCGGCACCCCGGCAGGGCCCG
GCCCCGGCCCGGCAGCGGCCCCCCGCGGCCCGACCCAGCCCTGGCGAGCGCCCTGCCCGGCGCACCACCTCCGAG
AGCCCGTCCCGCCTGCCTGTGCGCGCGCCCGCCGCCCGGCCGGAGACTGTCAAGCGCTACGCGTCGCTGCCGCAC
ATCAGCGTGGCCCGCAGGCCCGACGGCGCCGTCCCCGCGGCCCCTGCCTCAGCCGACGCCGCGCGCCGCAGCAGC
GACGGGGAGCCCCGGCCGCTCCCCAGGGTGGCCGCGCCGGGCACGACCTGGCGGCGCATCCGAGATGAGGACGTG
CCCCACATCCTGCGCAGCACGCTTCCCGCCACGGCCCTGCCACTGCGGGGCTCCACGCCCGAGGACGCCCCGGCC
GGGCCCCCGCCGCGCAAGACCAGCGACGCCGTGGTCCAGACCGAGGAGGTCGCCGCCCCCAAGACCAACTCCAGC
ACGTCCCCGAGCCTGGAGACCAGGGAGCCCCCCGGGGCCCCCGCCGGCGGCCAGCTCTCCCTCCTCGGCAGCGAC
GTGGACGGTCCCAGCCTCGCCAAGGCTCCCATCTCCGCACCCTTCGTGCACGAGGGCCTGGGGGTCGCCGTGGGG
GGCTTCCCCGCCAGCCGGCACGGCTCCCCCAGCCGCTCGGCCCGAGTACCCCCCTTCAACTATGTGCCCAGCCCC
ATGGTGGTCGCAGCCACCACCGACTCGGCCGCGGAGAAAGCCCCGGCCACTGCCTCCGCCACCCTCCTGGAA**TAG**

TGGCCTAGGCCGGCCTTCTGGAACGTTCTCTCCCGGCCCTGCGGCGCGGTCTGGCTGCCCCATGGGCCTGCGCTG
TAGACGTCCCCCATAGGTCGCCCCAGGGCCTCTGCCCACCCGAGCCCCACCACTCTCAGAACCCCCGCCCAGCGC
ACGGCGACCTCGCGCCTCACCGGAAGACCTTGCCTCTGTGCCGCGGAGGTCCAGGAGGAAACGGGGCGGCCGCTA
GGCCTCAAGTCCCGACCGTGGAGCGCTGGCAAGGGCGTCCTGGCCCAGCCCTGAGCGCGCGGCCCTTCCCCTGTC
GGAAGCCGTTGCTTGACCCCGGGCGAGGGAGGCGGTAGCCTCCGGGTCCGGGTCTGGGTCTGGGTCCGCTGCTTC
GCAGGGACAGCGCTGGGGAGGTGACGGCGCCCGCCGCAGGTGGGGCGAGGCTGGGGGAGGGCGGCGCCGCGGCGG
GCCTGCCAGCTGGGGGCCTTTGCGGCGCGCAGGGGCGAAGCCTGTAATCACTGCAGCCGCCGGTAATTCGCTAAT
GAGGGCTTTGCAGGGATTGTTTTCATTCTCAGCCCCAGCTGTGGGAGTGCGGGTGGGGGTGTGGCCGAGCCCCGG
CAGGAAGCCCCGCCCAGACGGTGTTCAGGGAACCCGGAGCCCAAGCGCTCCGGCGGAGCCCAAAAGGGTGGGGGT
GGGAGGGGCAGAGGCCAACGGATCCCCCTGCCTGTCGCACCCCTTGGCGGGAGACGGGAAGGCAGCGGGCTGCGT
ACGATGGGACCCTGGTGCAGACGCCGGGCCGGCTGACATTTGGACCCCATCCCAGAGGAGATGCTGGCTACCAGC
TGGGGCGACCCCAAGGGTCGCTGGAGTCAGTATCGGCCCGGCGCAGCCGCGGCGGGCGAGGCCAATGGAAAGGAG
ACTGAGGGGAGTCCCGGCAGTGAGCCCGAGGCCCTGGGACCTGGAGCCCGCGCTGGCCTCTCCCCAGCGGAGCCT
GCACGTTACGGAGACCATCACATGTGGGCGTGGTCAGTGCCCAGGACCGCACCGCTGCTCATCTTGTCCCTTTTC
AATTCCCTTCTGGTTCATGATGCATAAAGCGCTAGGCCCTAGAACTCCAGAAACAGCACAGCTGGGGCGGGGACC
CAGCCTTGCCCTCCACCCGAGGCTCTGGGACAAGGCGGGAGGTTCGGGGGCCTTCCGGCAGGTGAACGCAGGGCT
GGAGAGTATTTGGTGCCAGATGAGGTGAAAGCTTATAGAAGGGCCTGAGGGGCTCGGCTGCCTCATCCCCTGGCG
GGGGAGGCTGGGAGCTGGGCCTCCTGCGTGGGGTGGGACTCGCAGGGGCCGGGTCTCCGTGACTGGGGCAACGCC
TCGTCCTGCAGAGGGAGCCGACGACCTCTTTTCTGCAGAAAAGCTCCAGCAGGCGCTGCCTTCACCCACGGATCT
GCCCAGGCTGAAGGCACACGCTCAATGCCCCACGTGCCTTCTCCAGGAGGAACGAAGCAGGGTTTGAGGGTTGGG
TGGATGGAGCTCAGAAGGAAACCCCAGCCCCACCACGGATGACACCATCCCTCCCGTCCCATCCCCAGCATGGGC
AAGGCCAGCCTTTCTGGCAGAAGGAGCTGTCCTCAACTCAGGGCCGCTGTGAGCAAAGCTGACCCCAGCCCCCAC
CCCCAGTTAACACTGCTGCTTCTCTGAATGCATGTCACGCTGCACCCCATGCTCCGGGCCCACACCCTGCAGGAC
AAGGAGCTCCAGACAGGACGTCCATAAGTCACCGAGGTGTGCCACCCAGCAGGTGCTGGAGGTGCCCAATGCTCC
CTCCTAGGACCTCGCAGCCAGGCAAGGCTGTCAGGTTGTTTTGGGGGAAGAGGGGGTCATGGATGGCTGAGCAGA
GAGCGGGGAAAATGCAGGCTGAGTGGGGCGACCTCCTGCCTGCCAGGAGCCCCCTTTCAGGACACAGCGGGGGTC
TCACACTTGCTGTCCCCATCCATGGCCCGAGGGGGAACCTGGTGGTCTCTTCTGAGCTTTTGGACTTGGGGATGC
CAAACACGTGCTCACCCTCACACTCGCCCCGGCCCGCTGCGCCCCTAATTGCCAAAGGGTAGGGAAATGGCGAAG
CCAGCCACCAGGTCGCTGGTGACAGGGCCAGGGTTATGCAGGAAGGTGGTGCGGCATTGCCTTCCACATATGTAA

FIGURE 2410D

GTCTCTGGGCGGCGCCCTCCCAGCTCCCTGCCTCTGTTTCCCCATGTGGGCCGTGGGGAACTCCCAGAGCTACCT
CTTGGGGGAGCGTGGTGGCAGCGATGATGGGGAGACGCCTGGAAGCTCACAGAACTTGGGTCTGGCTGGCTCCTG
CCCGTGACGCCTTGCCCAGCAGCAAGGTGCGCAACATGGCTGCCAGCCCCGCCTCCCACCCCCACCCCGAGTCCT
GAGCTCACTTTCGCCTTCTCCATCCCCTGCCGTGGGGGCCACAGCCACACCTCACCGCCCAGTCCAGCTGTCTCC
AGAAGGGGACAGGCAGTCCGCGGTCTCTGGACAATCAACTCAAGGTACGCCCACTGCAAGGCCTCCCTCCCACCG
CGGCCCCTGCCTGGCCACCTGGCCTCTCTGCACCAGGGTGACAAGGGGTCCTCGTCTGCCCCCCAATGCTCCAGG
GCCAGTCCTAAGGAGCTGAGGGTCTGAGGACGCAGGGAGGGTGGAGGTGTCCTGAGGCTGATGGACAGTGACCGC
CACTGGCCCCCAACATGACCACACGTGGGTGCTGAACTCGGGGCGCCGTGCCCACCGGCATGGTCCTCCCGAGCT
CCGACAGCATTACCTCACCCGGCCCCATCTGTTGCCCCGGTCCAGCCCTGATGGCGCGCGCCTGGTCTGTCTGAT
TCCCCTAGCCGCCACCCCACGTTTCTGTACCGGGTCTCTGCAGTGTTAAACGGACGTGTAAATAGTGGTAAATAG
TGAAAGCCTGTCCTTCCCTAAATGTAAAGCCATCTGTCCGGCGTAAGGACGACACCGTCAGCTGTCCGACTCGCA
CACATTTAATAAACTGAGCTCTTGC

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FIGURE 2411

AGCATGCAGTTCGGTCACCTGAGGGTGCTGGGGCCGTGGTTTGAGCTTCATGGGCTCAGGTCCATGGCCGTTGAG
TGTGGCGAAACTGAGGCACGCTGTGCGGGGGACGGGGGGCGCTCACAGAAGGTAGGGGGCCTCCTGTGCCTTCAT
CCAGGCACTGCCCGGCCTTTCCCACCCTGTTGCTAAAGCAGGTGATGACAGAGGTGATTTGATCAGCCCAGACCC
GTGCGGCACGTGGAGCCTTCGTCCGTGGGAGACCACACTGCCGAGGGGCAGGCCAGAGCCGAGGGGCCCCTGACG
CTTCTCTGAGTGACCCTGAAGTCGGTGCTGCTTCAGCCCTGCTGCACTGGGCTTGCATACGTGGGGGAGCAGGGA
GCCATACGTAGTTTCTGCTGAATGTGGGAGTCACCAGGACGTCA**ATG**CCCACCTCTCACCTTCGCCACCCCTGCC
TCCCTAAGTGTGTGCTCCAGGAGGTTGCACGGCCCCTGGAGAGGTTTTCGGTGGCGGGCTTGTTGCGTCTCTGGC
TTCCAGAGACAGCAGGAATGAGAGCCAGGCCAGCTCAGTGGAGTCCATCCCGGTGGGTGCCACGGCTTTTGCAGG
AATGGAAGCCCCGCCCCCAGGAGGGCCACTGCTGGCGAGGCTTGAGCTCTTTCTGTGACCCGATCCCCCTGGTCA
CACGCTTTGCTAAGGCGGGTAGCCTAGAGCTGGAAGCCCCTCCTGCCACCCAGCCACTGTGCCTCTCCCAGCTGA
TGGACGAGGAAGCCTCCATTACT**TGA**TTTTTGTTTTTATTTATTTTTGAGACAGGGTCTCATTCTGTCACCCAGG
CTGGAGTACCGTGGCACGATCATAGCTTATTGCAGCCTCGGCCTCCCAGTCTCAAGCGATCCTCCTGCCTCTGCC
TCCAGAGAAGTAGGGACCACAGATGCGTGCTACCACGCCCAGCTAATTTTTGTATTTGTATTTTTTGGTAGAGAT
GGGGGTGTCACTATGTTGTCCAGGCTGGTCTCTAACTCTTGGGCTCAAGTGTTCCTCCCGCCTCGGCCTCCCAAA
GTGCTGGATTACAGGCGTGAGCCACCACACCTGGCTGCATCCGTCATGTTAAGAAGACCCCGGCTGGCAAGCTCA
CTCGGGGACTGCAGGGAACCCTGCCCTTTGGGGGCAGTAGTGAGGGGTGCCCAGGAGGATGGGGTGGTCAGCAGG
CAGTGATGCTGCTGTGTCCTGTCTCAGACCCCCCAGTTCCCTTCAGGATGATGGAGGATGCGGAGGCCCCGGGAG
AGCAGCTCTACCAGCAAAGCCGGGCCTACGTGGCTGCCAACCAGCGGCTGCAGCAGGCGGGCAACGTGCTGAGGC
AGAGGTGTGAGCTCCTGCAGCGAGCCGGCGAGGACCTGGAGCGGGAGGTGGCCCAGATGAAGCAGGCAGCATTAC
CGGCAGCCGAGGCTGCCTCCTCAGGCTGACCTCTCGGGGCCTGCAGGCTTGGGCAGCGCACAAGGTGGCCTGCAC
CCAGGCTTTCCCTGGGGGTCCGTCGGCCCCAGACTGGCATTCACGGGGTCCCAGCCCACGTGGGTGTTGACACAG
GCGCCCCTCCTGATGCTGGGGCTGCGGTTCATCCGTCGTCTCATTCATGCCGAGTTGGTGGGACCCACCCAGCTG
GCTCCGTCCTGCGTGACCTGAGGGCCCCACTGGGGTTCTGGAAGAGGATAGGGACATTATTGCTGTACTGTGATT
CTGTCGTCAGCTCACAGTGGCCGTGCTCTGCAGTGGGGCCCCTGGGAGCAGGTGCCACCTCCTTCCTCTCCCGGG
GCAGGCACTCGCCTGTCCACTTCTGAGTCCAGGTGTTGGGATCGAGGTGTTAACTGTGATTCCATCCAGCGAGTG
CCCACCCAATGTCAGAGCAGCCCGAGGGCCAGCCTGAGCCCCTGACCCCACTTCCTTCTGGGCCCCGGGCTCCTC
CCACAAGCCACGTTGATCTTCACAACGACCCTGGGCCGCTGGGGTCACCCAAGAGAAGCAGCCCTGAGACCCAGC
CAGGCTGGGCCTAGCTCCACGGCACGGGTGTCTCCCAGCCACTGCCCTTGCTGGAGGACCGCTGTGAGTCACTGG
CCAGGAGCCCAGGGTGTCCTGAGTCTCATAGCCACCCTGCCAGCTGCAGCAGGTCCTGGGCCTGCTTCCCTGCGG
GTTCTGGCCCTGGGGGAGGGGGCGTTAGTGCGGCGGAGGGTCTTGCCAAAGGCTTTTCATCCTAAATAGCAACTT
GAGTGGAAACCTGGGCAAGGCGGCCCAGAGGCTGGGCCCTGCACATAAAGCTTTCGTGTGTGTC

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FIGURE 2412

CGCGGGGAAACTGAGGCAGAGAG**ATG**GGCTCCAAGGCAAAGAAGCGCGTGCTGCTGCCCACCCGCCCAGCGCCCC
CCACGGTGGAGCAGATCCTGGAGGATGTGCGGGGTGCGCCGGCAGAGGATCCAGTGTTCACCATCCTGGCCCCGG
AAGGTAGGGGGAGCCCGGTCCCGGGGAAAAGCGGACCTGAGACCCCGGCAGCAAGGGGACGGGAGAGAAGCACAC
CCCTAACTCCTGACCCCACGCCCTGGGAACCCCCGCAACATGGGCACGGTCCGTATCCTCTCCGAGTCTCCCTCT
ACTCCTCCGTAGAGTGGGACCGATTTTCAGAGGGTTCTTCTGACAGGGGTGGAGGCCGGGCGCTGTGGTTCAGGC
CTGTAAGCCCAGCACTTTCGGAGGATGAGGCGGGAGGATCGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGCCAA
CATGG**TGA**AACCCCGTCTCTGCTAAAAATGAAAAAACAAAAC

FIGURE 2413

GGGGTCTGGGCAGCGGCGGCCGTGGCGGAGGGCTATGCGGCGGGGGAGACGGGGCAGGCCCCTCCTCCTTTGTCC
GCCCTGCCCTCCCATTGGTCCTAGCGGGGGGCCGGGGGCGGACACCGGCGCGGGGCCGGAGCATCGCGGCTCAGG
CTGCGGGAAAGCGGTGCGCGTGCAGCGGGGTGGGTGCCCTGGTCCGCGGGCGAGCTCGAGCAGCCAACCCCGGGC
GCGTCGGGGCC**ATG**GACGGCCTGAGGCAGCGCGTGGAGCACTTCCTGGAGCAAAGGAACCTGGTCACCGAAGTGC
TGGGGGCGCTGGAGGCCAAGACCGGGGTGGAGAAGCGGTATCTGGCTGCAGGAGCCGTCACTCTGCTAAGCCTGT
ATCTGCTGTTCGGCTACGGAGCGTCTCTGCTGTGCAATCTCATCGGATTTGTGTACCCCGCATATGCCTCAATCA
AAGCTATCGAGAGCCCAAGCAAGGACGACGACACTGTGTGGCTCACCTACTGGGTGGTGTACGCCCTGTTTGGGC
TGGCCGAGTTCTTCAGCGATCTACTCCTGTCCTGGTTCCCTTTCTACTACGTGGGCAAGTGCGCCTTCCTGTTGT
TCTGCATGGCTCCCAGGCCCTGGAACGGGGCTCTCATGCTGTATCAGCGCGTCGTGCGTCCGCTGTTCCTAAGGC
ACCACGGGGCCGTAGACAGAATCATGAACGACCTCAGCGGGCGAGCCCTGGACGCGGCGGCCGGAATAACCAGGA
ACGTCAAGCCAAGCCAGACCCCGCAGCCGAAGGACAAG**TGA**AGCAGCCCCCTGAGCCTCACAAGGACCTCCTGGC
TGGTGAGGAGGGGGCCGCGCCAGGCTCCCAGGCCTCCACAGAGTCTTCAGCGCATCCCCCAACAGCAGCCCCTGC
CAGTCCCTCGGGTCCAGGCAAGGCCCTGGGGGTCTCCTTAAATGCCACCTCGGGCAAGTCCCAGTCCCAGTCCTC
GGCCACCCCCAGCTCTGGATCCCAGGGCCAGCTGCCCTCTGGCTCTGGCTGTGGCTCCCGCCTGTCCGGCAGGGC
CCAGGGCCAGCGTCGGGCACAGGGCAGCTCCCACTGGTCTCGGCAACACACCCAGCCGCCTGGTACTTCCTCCAG
CCCCTCCCAGTCAGCCCTCCCGTCCTCGGGGCCCCTGCAGCCACCCAACGTCACCTCCAGCCCGGTCTCACCCAT
GGTCCAGTCTCCCAGCAGCAGCAACATCCCCACGCAGCCCCCCAGCAAGTCCTCTGGCAAGCCGGAGGACGCAGC
CCCCAAGACCAGCGGACAGCGCCAGAAGGAATCGTCGAAACAGCCTGCCAGCAGCGCCTCAGTGCCCGAGCTGGT
CCCCTGCCATTCCGGGACCTCTCTGGAGTACACTTCGGAGTCCACCACCGAGATCACCTGCAGCTGGCCACACCA
CAGGCCCCCGTGCCTGCAGCACTACTGGTGCCTGAAACACCTGGCCTGCTAGGAGGCTCCAATAAAGCTAACCCG
GACCAG

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FIGURE 2414

GGCTCAGGACCCCCGTGGCGAGGATGCACCTCCCAGCCCTCGGCCCAGCCACACGGACCACAGGGCTCCCGAGTC
TCAGCAACACCAGCTAAGGGGCATCATGCCTCTCCTGCCACACCCAGGGCCCGTGCCTTGCTGTCCCTGCAGCCC
CCAGACCCAGGCAGACAGGGACAGCCCTTCTGACCACCGCACACACTCGCCACCGCAAAGATCCCCGGGGATGCC
CCTCGCCTGTGTGTGTCCCTCATGGCTGTCACAGCAAATCTCCAGGAGCCCGGAGGTGCCCATGGAAAACACCCC
CAGCTTCCGGAACGTTCTTTCGGACAGGGCCATACCGGAGCAAGACTCAGCTTTCTGGTAGCGGGTGGCTGGGCA
CTGCCTGTGAGATTCTGTCACACTCGCTCCAGATTCAAGGGGTCCAAAAAGTGTAAACAAGTCAAGTGCCCATCC
AGGG**ATG**AACGAACACAGCCCGGCCCGGCCACACCATGGAGCAGGACTCGGCCATGAACAGGAACCAGGCTCTGA
CACCGGCCACGGCGCAGATGCCCCTGGAGGAGTCCACCCTCAGCAAGAGACACACAGACACCGACACGGCGTGCA
ATCCCATTTGTGTGAATGTCCAGGACAGGCCGATTCAGAGACAGGAAGGGGACACGTGGGTGCCAGTGACTGGGG
ATTATGGGGACTGGGGGAAATGGCTAAAGGGCACCCACAAAAGTTAATGATAATGTTCCACAGTTTTTTTTTGA
GATGGAGTCTCACTCTTGTCACCCAGGCTGGAGTGCAATGGTG**TGA**TCTCTGCTCACTGCAAGCTCTGCCTCCTG
GGTTCACGCCATTCTCCCTCCTCAGCCTCCCAAGTAGCTGAGATTACAGGCATATGCCACCACCCCCAGTAGAGA
CGGGGTTTCACCATGTTAGCCAGGCTGGTCACGAACTCCTGACCTCAAGTGATCCCCCACCTCGGCCTCCCAAAG
TGCTGGGATTACAGGCATGAGCCACCGTGCCTCACCAGAATTGTGTACTTTTTTTTCTTCTTCTTCTTCGGCATG
GAGTTTCGCTCTTGTTGCCCAGGCTGGAGTGCAATGGTGCAAACTTGGCTCACCGCAACCTCCTCCTCCCGGGTT
CAATAGATTCTCCAGCCTCAGCCTGCTGAGTAGCTGAGATTACGGGCGCCCGCCACCACACCCAGCTAATCTTTG
TACTTTTAGTAGAGACAGGGTTTCACCATGTTGGCCACGGGCAAAAGAATTTTGTTGAGGGCAAATAATATGAGA
CCACAAAACTGCCTTCCCTGCTCAGTTTTAATTTTCACAGTTTTAATTTTTAGCCTTCTCTGGTTACCAAAATAA
CCACGCTCACGGCCGTTCATTTGAAGATATTTCCAGTTAACGTGTGTGAAGTGGGTTTTTTGAGATGTAATTTAC
AAGCAATAAAATGCTCCTGTCTCTGC

FIGURE 2415

GCGGGCCGAGGAGCCGGGCGCAATGGAGCGGAAGAGGTGGGAGTGCCCGGCGCTCCCGCAGGGCTGGGAGAGGGA
AGAAGTGCCCAGAAGGTCGGGGCTGTCGGCCGGCCACAGGGATGTCTTTTACTATAGCCCGAGCGGGAAGAAGTT
CCGCAGCAAGCCGCAGCTGGCGCGCTACCTGGGCGGCTCCATGGACCTGAGCACCTTCGACTTCCGCACGGGCAA
GATGCTGATGAGCAAGATGAACAAGAGCCGCCAGCGCGTGCGCTACGACTCCTCCAACCAGGTCAAGGGCAAGCC
CGACCTGAACACGGCGCTGCCCGTGCGCCAGACGGCGTCCATCTTCAAGCAGCCGGTGACCAAGATTACCAACCA
CCCCAGCAACAAGGTCAAGAGCGACCCGCAGAAGGCGGTGGACCAGCCGCGCCAGCTCTTCTGGGAGAAGAAGCT
GAGCGGCCTGAACGCCTTCGACATTGCTGAGGAGCTGGTCAAGACCATGGACCTCCCCAAGGGCCTGCAGGGGGT
GGGACCTGGCTGCACGGATGAGACGCTGCTGTCGGCCATCGCCAGCGCCCTGCACACTAGCACCATGCCCATCAC
GGGACAGCTCTCGGCCGCCGTGGAGAAGAACCCCGGCGTATGGCTCAACACCACGCAGCCCCTGTGCAAAGCCTT
CATGGTGACCGACGAGGACATCAGGAAGCAGGAAGAGCTGGTGCAGCAGGTGCGGAAGCGGCTGGAGGAGGCGCT
GATGGCCGACATGCTGGCGCACGTGGAGGAGCTGGCCCGTGACGGGGAGGCGCCGCTGGACAAGGCCTGCGCTGA
GGACGACGACGAGGAAGACGAGGAGGAGGAGGAGGAGGAGCCCGACCCGGACCCGGAGATGGAGCACGTCTAGGG
CAGGTGCTGCGGGGCCACGGGGGCTCCCTGGAGTCGGGTCCTGGCAGTGGGGACTGCCTGGTGAACACAGATGTG
CTTGGGATGACGGGTGCCTCCCAAGAGCTTCCCATCTCCCTAGAAGAGCCCAAGCGTCCCCGTCCCGTGGAGTCG
CTAAAGCCAGCCCTCCCTGTCCTTTCCAGAGGCCCTGCCGAGAGCCCGTGCTGCCTGCTGGAGCCGCCTGCAGAC
GCGGTCCTCGGCCCCACGTGAACCAGGCTCGGCGGCGAAGCCCAGCCTTGGAGACACCCAGGAGGAAGGCCGTGC
TCCTGGCTCCCTCCTCGGCCCGTCCCCACTTCCCGGGGCCTCGGGGCACACAGCTGGGGCTGCCCCCACCCGAAA
GACCCTCCACGCTCGTCCTCTACAGAGTCCGGCTTCGGGAAGTGCCGGGTGCTCCTGGGCCCTGCCTGGCTCCCT
ACGACCTTTGGGCTCGAGGCCAGCTCCTCCCCATGCCCGCTGTCCCAGCTCCTTGAGACTGGAGAGCAGCCAGCA
GGTGCCCGGCAGCTCGGCGCCACGGCTTGCTGACAGCTGGGAGGGTTTCTCGGTCTGGAGGCGTAGTTTTGAAAC
TCACATCACCCACTGTGCAGCGTGAGGACGGGACTCTGGTCTGCTGTGGGGGGCATGCAGGACGGCGCCACTCTC
TGCCCTGCCATGCGGCTGGTGGTGCCACAGAGCCTCACCGTGCCTGAGTGGCATGCCCAGGAGGCCGCTCTCCTT
CAGTAAATGTAACACAGTCGAGGCACGTCATCGGGCAGCCTTCCCTGTGTGCCAACGCCAGCCTTCGCTTCTGAA
AACCAAACTCCAGCCGCTGCCAGTCGGGACTTGGTCGCCCGGCGCTGCCAGAATGCTCCACTGCCAGCCGGCCCC
CCTGCCTCGGTTTCCCTTCTGTTTAGTGGCGACACAGGCACCCAGCTTTGGGGTGGTGCTGACGCTCCCAGGGGT
GCCAGGAGCCACTGGGACAGGGTGAGGCTCCCAGACGCTCCTCGAGGTGCCCAGCTCTCCAGGGAGCTTCTGGCC
CAAGGCCGTCTGAGGGATCTGCTCCTTAACCCCCCAGTGCCTTGGCGAGGGCAGGTTCCAAGCCACAGACGCCTG
CCCCGAGTGGACTCTGCGGCCAGTCCCTGGTGCCCTCCTGGCCCTGCTGCCCAGTGAGGGCTCCTACGGGTGGGT
TCATTGGCCTGGGCCCAGCGAGCCCCCACCTGCATTGACCTTAGGCCCATAGAGAGGGCCTGTCCCGGTGCTGCC
CCAGCCAGGATCTGGTCGCTGCCCCAGGGGGACTGATGGGCAGAGTCGCCCCTGTGGCTGGACTGTGACCATCCC
TGATGGGGCCTGACCGCGGGAGCTGAGGAAGCGCCGCTCCACCGTCTGCCCTCCAAGGACCCGCATGGAGGCAGT
GGGCTGGCAGCTTCCTGCTGCTCCCTGTCAGAGTCAAAGCACAAATCCTCAGGACGGGCTCAAGGGCCAGGGCAG
CCGAGGGAAGCTCCAGGTGGGGACCACGTCTTCCTGAGGTTGGTGCCCACTGGCTGGGACCCTTTGCAGTGGGGT
GGCCTCCCCTCTGTCTGCCTGGTGGAGGGAGCCGTGGGCGTGGGGACGTGACTGAATAAAGCCACCATGGGTGGA
TGTGCTTGG

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FIGURE 2416

AGTGTAGCCGGGTCAGCTGGACAGGGTCATCCTGAGGGTGCGACTCCGCCGCG**ATG**GTGACCCGGTTCCTGGGCC
CACGCTACCGGGAGCTGGTCAAGAACTGGGTCCCGACGGCCTACACATGGGGCGCTGTGGGCGCCGTGGGGCTGG
TGTGGGCCACCGATTGGCGGCTGATCCTGGACTGGGTACCTTACATCAATGGCAAGTTTAAGAAGGATAAT**TAA**T
TACACAAACCCTTCACAGACTGCTCTGGTGCCTGGTGGTGCTAGCTCCTCCCACCTCAGCACCTGCTGCATCTGG
AGCAGCCCAAGCCTCAGGATGGACAAGAGGAAACCCACAGCTCAGCTTCAGGCTTCTTATGTTTCTGAAAACAGC
TTGGATATTTTAATGCACGTTGCATTAAACCTCACTGAAACCTGCTCCGTGCCCGGATGTTGATCATGCTGGTGG
CTTGGTTACTGTGACTGTAGCTGGAGTGGCACAGGTGACCCAGGCGTCCTTTCAGCTCCAGAATGTTGCAAGTCT
AGGAGAGTGTTCCAATGGCTGACAGAAACTGCCTATTTGAAATGGCTCATAAGTAGTATCTGCAGTGTGTTCATC
CGTTGCTGCCTTAACAAGTCACCCACACGTAGTGGCTTAAAGCAACGAACATTCACTCTCTCACAGTCTGTGTCA
GTCGGGGATTTGGGAGTGATGTATCTGGGTGGTTGTGGCCCAGAGTCTCTCATGAGGTTGCAGTTAAGACATCAG
CCAAGGCCACTTCGTCTGAGGAAGGCTCAACTGGGGCTGGAGCCACTTCCAAGCCAGTGCCCTCACGTGGCTGTC
GGTGACAGCCACAGTTCCTTCCCATGGGGGCCCCTACACGAAGCTGCTTGAGCATCCTCACGGCATGGCCTCTGC
CTTCCCCAGAGCAGGTGAACCAAGGGAGAGGAAGGAGCAAGCCACAGTGCTTCTATGAGCCACCCTGAGAAGTCT
CACGTGATCACTTCCGCCACAGCCTGTTTATCAAAAGCAAGCCCCCCAGGCCCAGCCCACGTGCAGAGGGAGGAG
AATGAGGTTCTGTGTTTTGAAGGGAAGAATATCAGAATTGGTAGACATTTCAAACTGTCACATTAGGGATACAAA
AATGAACAGGCTGGGAGTGGTGGCTCAGCCTACAATCCCAACACTTTGGGAGGCTGAGGAAGGGGCATCACTTGA
ACCAGGAGTTCAGTACTAACCTGGGCAACAAAGAGGCCCCTGTCTCTGATAAAAAGAAAAAAAATGAAAAAATAA
AAATGAACAGGTATAAAAAG

FIGURE 2417A

GCCTGAGGTGCCCGCCCTGGCCCCAGGAGA**ATG**AACCAGCCGCAGAGGATGGCGCCTGTGGGCACAGACAAGGAG
CTCAGTGACCTCCTGGACTTCAGCATGATGTTCCCGCTGCCTGTCACCAACGGGAAGGGCCGGCCCGCCTCCCTG
GCCGGGGCGCAGTTCGGAGGTTCAGGTCTTGAGGACCGGCCCAGCTCAGGCTCCTGGGGCAGCGGCGACCAGAGC
AGCTCCTCCTTTGACCCCAGCCGGACCTTCAGCGAGGGCACCCACTTCACTGAGTCGCACAGCAGCCTCTCTTCA
TCCACATTCCTGGGACCGGGACTCGGAGGCAAGAGCGGTGAGCGGGGCGCCTATGCCTCCTTCGGGAGAGACGCA
GGCGTGGGCGGCCTGACTCAGGCTGGCTTCCTGTCAGGCGAGCTGGCCCTCAACAGCCCCGGGCCCCTGTCCCCT
TCGGGCATGAAGGGGACCTCCCAGTACTACCCCTCCTACTCCGGCAGCTCCCGGCGGAGAGCGGCAGACGGCAGC
CTAGACACGCAGCCCAAGAAGGTCCGGAAGGTCCCGCCGGGTCTTCCATCCTCGGTGTACCCACCCAGCTCAGGT
GAGGACTACGGCAGGGATGCCACCGCCTACCCGTCCGCCAAGACCCCCAGCAGCACCTATCCCGCCCCCTTCTAC
GTGGCAGATGGCAGCCTGCACCCCTCAGCCGAGCTCTGGAGTCCCCCGGGCCAGGCGGGCTTCGGGCCCATGCTG
GGTGGGGGCTCATCCCCGCTGCCCCTCCCGCCCGGTAGCGGCCCGGTGGGCAGCAGTGGAAGCAGCAGCACGTTT
GGTGGCCTGCACCAGCACGAGCGTATGGGCTACCAGCTGCATGGAGCAGAGGTGAACGGTGGGCTCCCATCTGCA
TCCTCCTTCTCCTCAGCCCCCGGAGCCACGTACGGCGGCGTCTCCAGCCACACGCCGCCTGTCAGCGGGGCCGAC
AGCCTCCTGGGCTCCCGAGGGACCACAGCTGGCAGCTCCGGGGATGCCCTCGGCAAAGCACTGGCCTCGATCTAC
TCCCCGGATCACTCAAGCAATAACTTCTCGTCCAGCCCTTCTACCCCCGTGGGCTCCCCCCAGGGCCTGGCAGGA
ACGTCACAGTGGCCTCGAGCAGGAGCCCCCGGTGCCTTATCGCCCAGCTACGACGGGGGTCTCCACGGCCTGCAG
AGTAAGATAGAAGACCACCTGGACGAGGCCATCCACGTGCTCCGCAGCCACGCCGTGGGCACAGCCGGCGACATG
CACACGCTGCTGCCTGGCCACGGGGCGCTGGCCTCAGGTTTCACCGGCCCCATGTCACTGGGCGGGCGGCACGCA
GGCCTGGTTGGAGGCAGCCACCCCGAGGACGGCCTCGCAGGCAGCACCAGCCTCATGCACAACCACGCGGCCCTC
CCCAGCCAGCCAGGCACCCTCCCTGACCTGTCTCGGCCTCCCGACTCCTACAGTGGGCTAGGGCGAGCAGGTGCC
ACGGCGGCCGCCAGCGAGATCAAGCGGGAGGAGAAGGAGGACGAGGAGAACACGTCAGCGGCTGACCACTCGGAG
GAGGAGAAGAAGGAGCTGAAGGCCCCCCGGGCCCGGACCAGCCCAGACGAGGACGAGGACGACCTTCTCCCCCCA
GAGCAGAAGGCCGAGCGGGAGAAGGAGCGCCGGGTGGCCAATAACGCCCGGGAGCGGCTGCGGGTCCGTGACATC
AACGAGGCCTTTAAGGAGCTGGGGCGCATGTGCCAACTGCACCTCAACAGCGAGAAGCCCCAGACCAAACTGCTC
ATCCTGCACCAGGCTGTCTCGGTCATCCTGAACTTGGAGCAGCAAGTGCGAGAGCGGAACCTGAATCCCAAAGCA
GCCTGTTTGAAACGGCGAGAAGAGGAAAAGGTGTCAGGTGTGGTTGGAGACCCCCAGATGGTGCTTTCAGCTCCC
CACCCAGGCCTGAGCGAAGCCCACAACCCCGCCGGGCACATG**TGA**AAGGTATGCCTCCGTGGGACGAGCCACCCG
CTTTCAGCCCTGTGCTCTGGCCCCAGAACGGCCACTCGAGACCCCGGGCTTCATCCACATCCACACCTCACACAC
CTGTTGTCAGCATCGAGCCAACACCAACCTGACAAGGTTCGGAGTGATGGGGGCGGCCAAGGTGACACTGGGTCC
AGGAGCTCCCTGGGGCCCTGGCCTACCACTCACTGGCCTCGCTCCCCCTGTCCCCGAATCTCAGCCACCGTGTCA
CTCTGTGACCTGTCCCATGGATCCTGAAACTGCATCTTGGCCCTGTTGCCTGGGCTGACAGGAGCATTTTTTTTT
TTTCCAGTAAACAAAACCTGAAAGCAAGCAACAAAACATACACTTTGTCAGAGAAGAAAAAAATGCCTTAACTAT
AAAAAGCGGAGAAATGGAAACATATCACTCAAGGGGGATGCTGTGGAAACCTGGCTTATTCTTCTAAAGCCACCA
GCAAATTGTGCCTAAGCGAAATATTTTTTTTAAGGAAAATAAAAACATTAGTTACAAGATTTTTTTTTTCTTAAT
GTAGATGAAAATTAGCAAGGATGCTGCCTTTGGTCTCTGGTTTTTTTAAGCTTTTTTTGCATATGTTTTGTAAGC
AACAAATTTTTTTGTATAAAAGTCCCGTGTCTCTCGCTATTTCTGCTGCTGTTCCTAGACTGAGCATTGCATTTC
TTGATCAACCAGATGATTAAACGTTGTATTAAAAAGACCCCGTGTAAACCTGAGCCCCCCCGTCCCCCCCCCCCC
CCGGAAGCCACTGCACACAGACAGAACGGGGACAGGCGGCGGGTCTTTTGTTTTTTTGATGTTGGGGGTTCTCTT
GGTTTTGTCATGTGGAAAGTGATGCGTGGGCGTTCCCTGATGAAGGCACCTTGGGGCTTCCCTGCCGCATCCTCT
CCCCTCAGGAAGGGGACTGACCTGGGCTTGGGGGAAGGGACGTCAGCAAGGTGGCTCTGACCCTCCCAGGTGACT
CTGCCAAGCAGCTGTGGCCCCCAGGGCTACCCTACACAACGCCCTCCCCAGGCCCCCCTAAGCTGCTCTCCCTTG
GAACCTGCACAGCTCTCTGAAATGGGGCATTTTGTTGGGACCAGTGACCCCTGGCATGGGGACCACACCCTGGAG
CCCGGTGCTGGGGACCTCCTGGACACCCTGTCCTTCACTCCTTTGCCCCAGGGACCCAGGCTCATGCTCTGAACT
CTGGCTGAGAGGATGCTGCTCAGGAGCCAGCACAGGACACCCCCCACCCCACCCCACCATGTCCCCATTACACCA
GAGGGCCATCGTGACGTAGACAGGATGCCAGGGGCCTGGCCAGCCTCCCCCAATGCTGGGGAGCATCCCTGGGCC
TGGGGCCACACCTGCTGCCCTCCCTCTGTGTGGTCCAAGGGCAAGAGTGGCTGGAGCCGGGGGACTGTGCTGGTC
TGAGCCCCACGAAGGCCTTGGGCTGTGCGTCCGACCCTGCTGCAGAACCAGCAGGGTGTCCCCTCGGGCCCATCT
GTGTCCCATGTCCCAGCACCCAGGCCTCTCTCCAGGTCTCCTTTTCTGGTCTTTTGCCATGAGGGTAACCAGCTC

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FIGURE 2417B

TTCCCAGCTGGCTGGGGACTGTCTTGGGTTTAAAACTGCAAGTCTCCTACCCTGGGATCCCATCCAGTTCCACAC
GAACTAGGGCAGTGGTCACTGTGGCACCCAGGTGTGGGCCTGGCTAGCTGGGGGCCTTCATGTGCCCTTCATGCC
CCTCCCTGCATTGAGGCCTTGTGGACCCCTGGGCTGGCTGTGTTCATCCCCGCTGCAGGTCGGGCGTCTCCCCCC
GTGCCACTCCTGAGACTCCCACCGTTACCCCCAGGAGATCCTGGACTGCCTGACTCCCCTCCCCAGACTGGCTTG
GGAGCCTGGGCCCCATGGTAGATGCAAGGGAAACCTCAAGGCCAGCTCAATGCCTGGTATCTGCCCCCAGTCCAG
GCCAGGCGGAGGGGAGGGGCTGTCCGGCTGCCTCTCCCTTCTCGGTGGCTTCCCCTACGCCCTGGGAGTTTGATC
TCTTAAGGGAACTTGCCTCTCCCTCTTGTTTTGCTCCTGGCCCTGCCCCTAGGTCTGGGTGGGCAGTGGCCCCAT
AGCCTCTGGAACTGTGCGTTCTGCATAGAATTCAAACGAGATTCACCCAGCGCGAGGAGGAAGAAACAGCAGTTC
CTGGGAACCACAATTATGGGGGGTGGGGGGTGTGATCTGAGTGCCTCAAGATGGTTTTCAAAAAAATTTTTTTAA
AGAAAATAATTGTATACGTGTCAACACAGCTGGCTGGATGATTGGGACTTTAAAACGACCCTCTTTCAGGTGGAT
TCAGAGACCTGTCCTGTATATAACAGCACTGTAGCAATAAACGTGACATTTTATAACG

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FIGURE 2418

ATGTCGGCGGCCGTGGCGTGCGTGGATTACTTCGCCGCCGACGTGCTCATGGCCATCTCTTCGGGCGCCGTGGTG
CACCGCGGGCGGCCCGGCCCCGAGGGCGCGGGCCCCGCCGCCGGCCTGG**ATG**TGCGCGCGGCGCGCCGCGAGGCC
GCCTCACCCCGGGACCCCGGGGCCACCCCCGCCGCCCCCCGCCGCTTCTGGCCCGGGCCCCGGCGCCGCCGCGGC
GCCCCACCTGCTGGCCGCCAGCATCCTGGCCGACCTGCGCGGCGGACCCGGAGCCGCCCCGGGGGGCGCCTCGCC
CGCCTCCTCCTCCTCAGCCGCCTCGTCCCCGTCCTCGGGCCGCGCCCCCGGCGCCGCGCCCTCCGCCGCCGCCAA
GAGCCACCGCTGTCCCTTCCCGGACTGCGCCAAAGCCTACTACAAGTCCTCGCACCTAAAGTCGCACCTGCGGAC
GCACACAGGGGAACGCCCTTTTGCTTGTGACTGGCAGGGCTGCGACAAGAAGTTCGCCCGCTCCGACGAGCTGGC
CCGCCACCACCGGACGCACACGGGCGAGAAGCGCTTCTCCTGCCCTCTGTGCTCCAAGCGCTTCACCCGCAGTGA
CCACCTGGCCAAGCACGCCCGCCGCCACCCCGGCTTCCACCCGGACCTGCTCCGGCGCCCTGGTGCCCGCAGTAC
CTCCCCCAGCGACTCGCTGCCCTGCAGCCTGGCCGGGAGCCCTGCGCCCAGCCCCGCGCCCAGCCCAGCCCCCGC
AGGCCTG**TAG**GGCCCTCGTGCAGCCCACCCTGACCGCCAGGATGCTTCTGCCATCCAGGGGTGTAGTGAGGACCC
ACGGGGAGCCTGGGCCCCTTCCAGCCGTGGGCAAACCCTGAAGACACCCCTGCCCCCCTCCAGAGAGTGAGGAGG
GGGCCTGAGACTGGACCTGGGTCTGCCTGACCTCAGAGTGTCCAGGGGCTTGGAGAGACCTGCGCCCACCCCTCC
ACTCTCCCAGGAGTCGCTGATCACTGGGACCTGGTTCCAGCCGTTTGCAGGGGAGGCGGCTCCGAGAGGCGTGTG
CTTTCCGTGGGTGGCGCCCCTCCCCCGCCCTGCCTGGCCTCATCCTTGTATTTAATTAATTAAACAAGCCCCTTT
TTAAACCCT

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FIGURE 2419

GGCTGCTGTCTGGGGCGGTAGCTGGGGGGGCGCTCTCCCCCCTGCCCGCGACTCGGAGCACCCCCACCCCTCCCC
TGCCGGGCCAGGCCGGGCGGCGTTGTTGGCGGGGGCCCCGGTGGAGGCCCGGCCTGGGCGGCGCCCGCC**ATG**AAT
GGGCTGTCGCTGAGTGAGCTCTGCTGCCTCTTCTGCTGCCCGCCCTGCCCCGGCCGCATCGCTGCCAAGCTCGCC
TTCCTGCCGCCGGAGGCCACCTACTCCCTGGTGCCTGAGCCCGAGCCGGGGCCTGGTGGGGCCGGGGCCGCCCCC
TTGGGGACCCTGAGAGCCTCCTCGGGCGCACCCGGGCGCTGGAAGCTGCACCTGACGGAGCGTGCCGACTTCCAG
TACAGCCAGCGCGAGCTGGACACCATCGAGGTCTTCCCCACCAAGAGCGCCCGCGGCAACCGCGTCTCCTGCATG
TATGTTCGCTGCGTGCCTGGTGCCAGGTACACGGTCCTCTTCTCGCACGGCAATGCCGTGGACCTGGGCCAGATG
AGCAGCTTCTACATTGGCCTGGGCTCCCGCCTCCACTGCAACATCTTCTCCTACGACTACTCCGGCTACGGTGCC
AGCTCGGGCAGGCCTTCCGAGAGGAACCTCTATGCCGACATCGACGCCGCCTGGCAGGCCCTGCGCACCAGGTAC
GGCATCAGCCCGGACAGCATCATCCTGTACGGGCAGAGCATCGGCACGGTGCCCACCGTGGACCTGGCCTCGCGC
TACGAGTGTGCCGCGGTGGTGCTGCACTCGCCGCTCACCTCGGGCATGCGCGTCGCCTTCCCCGACACCAAGAAG
ACCTACTGCTTCGACGCCTTCCCTAAG**TGA**GCGGCCCGGGCGGGGACGGGGGCGGGGCGGGGCCCGGGCCGGGCG
CGAAGTCTCACCGGCTCCACGACCCTCCCGCAGCATCGAGAAGGTGTCCAAGATCACGTCTCCCGTGCTCATCAT
CCACGGCACGGAGGACGAGGTGATCGACTTCTCGCACGGGCTGGCGCTCTACGAGCGCTGCCCCAAGGCGGTGGA
GCCGCTGTGGGTGGAGGGCGCCGGGCACAACGACATCGAGCTCTACAGCCAGTACCTGGAGCGCCTGCGTCGCTT
CATCTCCCAGGAGCTGCCCAGCCAGCGCGCCTAGCGGCGGCCCCAACCGGCCGGACCTCAGCAATAAGGCGGCCC
CCGGACCTCACCCCGCGCCGGCCCCCACCCAGGGGCTGCATGTGGACCCCCCGGGCGGCCCAGGGGACCCCGCCC
CGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACGCACTCCTTTCCTTTTGGAAGCAAGAAGAAAATA
CGTGAAAACGGAAATTAAAGATTTAAAATTTT

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FIGURE 2420

AGACTTGGCGAAGCGCTGCGCTCGCGCCCGGATCCCTCAGGCGGCTGCAGGCTTCAGCCTGCGCTGGTTGGTGAA
ACAGAG**ATG**TCAGAAAAGGAGAACAACTTCCCGCCACTGCCCAAGTTCATCCCTGTGAAGCCCTGCTTCTACCAG
AACTTCTCCGACGAGATCCCAGTGGAGCACCAGGTCCTGGTGAAGAGGATCTACCGGCTGTGGATGTTTTACTGC
GCCACCCTCGGCGTCAACCTCATTGCCTGCCTGGCCTGGTGGATCGGCGGAGGCTCGGGGACCAACTTCGGCCTG
GCCTTCGTGTGGCTGCTCCTGTTCACGCCTTGCGGCTACGTGTGCTGGTTCCGGCCTGTCTACAAGGCCTTCCGA
GCCGACAGCTCCTTTAATTTCATGGCGTTTTTCTTCATCTTCGGAGCCCAGTTTGTCCTGACCGTCATCCAGGCG
ATTGGCTTCTCCGGCTGGGGCGCGTGCGGCTGGCTGTCGGCAATTGGATTCTTCCAGTACAGCCCGGGCGCTGCC
GTGGTCATGCTGCTTCCAGCCATCATGTTCTCCGTGTCGGCTGCCATGATGGCCATCGCGATCATGAAGGTGCAC
AGGATCTACCGAGGGGCTGGCGGAAGCTTCCAGAAGGCACAGACGGAGTGGAACACGGGCACTTGGCGGAACCCA
CCGTCGAGGGAGGCCCAGTACAACAACTTCTCAGGCAACAGCCTGCCCGAGTACCCCACTGTGCCCAGCTACCCG
GGCAGTGGCCAGTGGCCT**TAG**AGGGAGCCTGCCCTGCCCCCACCGCCCACCACCTCCTCCCCTTCATTCCTGCTG
CTACCCCTGGTCCCGAGGGCTGGGAGTACCTGGGGCCCCATCCCCCCAGCTGGGATGGTGGAAGCCGGTGGTGGC
CACGGACCGCCCCCCTCCTGCCAGGGCCACAGAACCCGTGTTCATCTCATCCGAGAGCGGAGTTCCTCACAAGCA
CTCCCCAGCAGCCCTTGGCCTCTGCCGTCCACAGGACGCCCTCTTGCTCCCGGAAACGTGTGGTCACCCGCCGTC
CACTGCACGGCTGGTACGGCCTTGTCTTCAGGTCTCGAGGCCTGACTCCGGGGGACAGGTGGCAGCAGGTCGGCC
GCCCTCCCGTCCTCCCAGAGCTGCTGGCGCTGAGGTCAGAGCGGGTCTGATGGGGAGCTCCGTCTCACCGGCCAC
CCGCCGTCACCATGGCAGATGCCCTTGGCCGGAACTAATAAGAGGCGTCGGGGCCAGCTTCCGGTCCCCTGCAGT
GATAGAGGGCTTGGTGCCTAGCTGAGTCCTCGCTGTCCCCGCCATCCCCTGATCTGTGCGGCTCCAGCCTCGCCC
CCTCCCCACGTGCACCATACCTGGGGAGTTCCTGGTCCAGGGTATCCTGGGGCCACCCTCCCTGCCTCCAAAACA
GGGATCCCTGGCAGGCTGTCTTTCCACGCCCCTGAGTTCAGAGTCGGGGACCCAGGCCAGGTCGGGAGCACAGCC
GCTCCCCAAACCCAGCAAACCGGCAGAGAGCCGGTTTCCCAGCAGCCGGAGCCCTGCAGGAGAGGCCTTTGTGTT
TTGTTTTGTTTTGTTTTTTCTCTTTTGAGACAAGAGTTTCACTCTGTCGCCCAGGCTGGAGTGCAGTGGTGTGAT
CTCGGCTCACTGCAACCTCTGCCTCCCGTGTTCAAGCAGTTCTCCTGCCTCAGCCTCCCAAATAGCTGGGATTAC
AGTTGCCTGCCACCACGCCCAGCTAATTTTTATATTTTTAGTACAGATGGGGTTTCACCATGTTGGCCAGGCTGG
TCTCGAACTCCTGACCTCAAGTGATCCACCCGCCTTGGCCTCCCAAAGTGCTGGGATAATAGGTGTCAGCCACCG
CGCCCAGCCTGGAGTGGCCTTTTATGAGAGGGGACCCGTCAAATCTGTGCCTTATGGAGGGGTCCGGCAGCGGCC
ACAATTGTCTTGTCCCCTCACCCCCCAACTCCCCCTGGAACACCTCTCCCAGGCAAGACATTTTCACAGCACCAT
TCACAACGGTTGGGCCAAAAAGAAACTTTTCCTTCATCATTTCCTGCACTCGCTGACCACAACTTTGGACACCCC
AGGCTGCCACCCCTCCCCACCCGTTCACCCCCAGGATGCTGTTGCTGTAGGACGCCTGCTGCCCTGGAGCCCTCC
CCAGGATGTGAGCCAGTCCCCTCGCTGGTACGGAATGCCGCTGGGTGCCCGGAGGCGGCCATGGTGTCTCGATGG
ACGGCAGCCAGGATGGAGCACCCATGGGTCTCACGGCCATGCTTCAGGGTCTTCAGGTCCTGCCCCCGGCCAGTC
TGCCAAGAGGCACCCCCTTCCCCAGCCTCTCGCCTGCACTGATGCAGACAAAATCTCACCTGGCAGGCCCAACCC
CCCCCCACCCCTCCCCCGCCGTGTGTGGCCCCTCGCCGCATCGTTGGGGTTTTGTTATGTGAAAATATCCTGGAA
ATAAATACATGTTTCTGCACTTAG

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FIGURE 2421

CGCTCGCGCCCGGATCCCTCAGGGGTTAGCAGGACATGAGGGAGTGTAGCTCTGATGCGGTGACCTGGGCCGGAG
CCCTCGGACTAGCCTCAGCTTTGGTGGCAGCACGCCCTGCCTTGTGGAGCCACGGCCTCCCGGGACGGACTCCCC
GGCTCTCCCCCAGCCGCCCGCAGCCGCCGGATGATCCTCTGCTCCCGTCTCTGTCTCCCACAGTCGGCCTCGCTG
AGG**ATG**GAGCCCGCCCCGGGCCTCGTGGAGCAGCCCAAGTGCTTGGAGGCCGGGAGCCCGGAGCCTGAGCCGGCG
CCGTGGCAGGCCCTCCCTGTCCTGTCCGAGAAGCAGTCAGGGGACGTGGAGCTGGTGCTGGCCTACGCCGCGCCC
GTCCTGGACAAGCGCCAGACCTCACGCCTCCTGAAGGAGGTGTCGGCCCTGCACCCGCTCCCCGCCCAGCCTCAC
CTCAAGCGGGTGCGGCCCAGCCGCGATGCCGGCAGCCCCCACGCCCTGGAGATGCTGCTTTGCCTGGCTGGGCCG
GCCTCGGGCCCGCGCTCGCTGGCTGAGCTCCTGCCACGGCCGGCTGTGGACCCCCGCGGCCTGGGGCAACCCTTC
CTGGTGCCCGTGCCCGCCCGGCCGCCTCTGACCAGGGGCCAGTTCGAGGAGGCCCGGGCCCACTGGCCCACGTCC
TTCCACGAGGACAAGCAGGTGACCAGCGCCCTGGCTGGGCGGCTCTTCTCCACGCAGGAGCGCGCCGCCATGCAG
AGCCACATGGAGCGGGCGGTGTGGGCGGCCCGGCGGGCAGCAGCGCGGGGCTTGCGGGCCGTGGGGGCCGTGGTA
GTGGACCCGGCCTCGGACCGCGTGCTGGCCACCGGCCACGACTGCAGCTGCGCGGACAACCCCCTCCTGCACGCC
GTCATGGTGTGCGTGGACCTCGTGGCGCGCGGCCAGGGCCGCGGCACCTACGACTTCAGACCCTTCCCCGCCTGC
TCCTTCGCCCCGGCCGCTGCCCCCCAGGCCGTCCGCGCAGGCGCCGTGCGTAAACTGGACGCAGACGAGGACGGC
CTCCCCTACCTGTGCACTGGCTACGACCTGTACGTGACCCGCGAGCCCTGCGCCATGTGCGCCATGGCCCTGGTG
CACGCACGCATCCTGCGCGTCTTCTACGGTGCGCCCTCGCCCGACGGCGCCCTGGGCACCCGCTTCCGCATCCAC
GCACGGCCCGACCTCAACCACCGCTTCCAGGTGTTCCGCGGGGTGCTGGAGGAGCAGTGCCGCTGGCTGGACCCC
GACACG**TAG**GCGCCGCCCTCCTGCCTCCGGACCCTTCCCGCTCCCGGCCGTGGGGCGCCCCTCCTGGACTTCCGG
GCCTCGATTTCTTCCGCACAAGCCTGACCGTGGATTTCAGGGACACATACCGCCTCCAGCGGGGAGCACGGGTGC
TGCCTTCCGTGCGGATCGAGCTTTCCTGGACTCGGTCATTGGGGCCACCCCGTGCCAGCGGTGCCCTTCTGCGGC
CGCCCTTGCTGCGTTTGTGTCCCCTCTGTCTCGCGGGCCGGGAAACTGCTCTGATGGGAAAATAAACAGCCCAAA
ACC

FIGURE 2422

CAGCAGAATGTCTCCTGCCCCCGAGAGCGACCCCGAGGCCACTGAGAAGAGCAGCGCGGCCTGGCCGGCCCGAAC
GCCTGCGTCTCAGTAGCTGGGAGCCACGGGCCCACGCCCGCCCACCGGCCGCAGTGATGTTCTAGCCACAGAGGA
GCCAAGACCTCAGGTTTCCAGAGACTTGGGATTTGCACGGCAGCAGAGTCACCGTGGAGAGGCCAGGGTATCACA
AACTT**ATG**GATTTTGACAAGAAAGGAGGGAAAGGGGAGACGGAGGAGGGCCGGAGAATGTCCAAGGCCGGCGGGG
GCCGGAGCAGCCACGGCATCCGGAGCTCGGGGACCAGCTCGGGGGTCCTGATGGTGGGCCCCAACTTCCGCGTCG
GCAAGAAGATCGGCTGCGGCAACTTCGGGGAGCTCCGCCTAGGAAAGAATCTCTATACAAATGAATACGTGGCTA
TCAAATTGGAGCCGATCAAGTCCCGGGCCCCGCAGCTGCACCTGGAGTACCGGTTCTACAAGCAGCTCAGCGCCA
CAGAGGGCGTCCCTCAGGTCTACTACTTCGGTCCGTGCGGGAAGTACAACGCCATGGTGCTGGAGCTGCTGGGGC
CCAGCCTGGAGGACCTGTTCGACCTGTGCGACCGGACCTTCACGCTCAAGACGGTGCTGATGATCGCCATCCAGC
TGATCACGCGCATGGAGTATGTGCACACCAAGAGCCTAATCTACCGGGACGTGAAGCCCGAGAACTTCCTGGTGG
GCCGCCCGGGGACCAAGCGGCAGCATGCCATCCACATCATCGACTTCGGGCTGGCCAAGGAGTACATCGACCCCG
AGACCAAGAAGCACATCCCGTACCGCGAGCACAAGAGCCTGACGGGCACGGCGCGCTACATGAGCATCAACACGC
ACCTGGGCAAGGAGCAGAGCCGCCGCGACGACCTGGAGGCGCTGGGCCACATGTTCATGTACTTCCTGCGCGGCA
GCCTCCCCTGGCAGGGGCTCAAGGCCGACACGCTCAAGGAGCGGTACCAGAAGATCGGGGACACCAAACGCGCCA
CGCCCATCGAGGTGCTCTGCGAGAACTTCCCAGAGGAGATGGCCACGTACCTGCGCTATGTGCGGCGCCTGGACT
TCTTCGAGAAGCCCGACTATGACTACCTGCGGAAGCTCTTCACCGACCTCTTCGACCGCAGTGGCTTCGTGTTCG
ACTATGAGTACGACTGGGCCGGGAAGCCCCTGCCGACCCCCATCGGCACCGTCCACACCGACCTGCCCTCCCAGC
CTCAGCTCCGGGACAAAACCCAGCCGCACAGCAAAAACCAGGCGTTGAACTCCACCAACGGGGAGCTGAATGCGG
ACGACCCCACGGCCGGCCACTCCAACGCCCCGATCACAGCGCCTGCAGAGGTGGAGGTGGCCGATGAAACCAAAT
GCTGCTGTTTCTTCAAGAGGAGAAAGAGAAAATCGCTGCAGCGACACAAG**TGA**CCCTGGGCGCGTGCAGCCCCCT
GAATCTTCTCCGTGCAGCCCCTTGGGGCGCGACCTTGTGCGAGGCCCTCGGGGCCCACCCACAGCGGCCCAGGGC
CAGACCCTGGCTGGAAGCCAGAACGCAGACTGCAGGGGCCGCGCCTGGCTCAGGCGGCCCCACCCCCGGGACGTG
GGGTCACTTCCTTCATGTAAGACTTTGGCCGAAATTTCTACACCTGTGTCTAGTCCTCCCCTCCAAGAGCATTAA
CTATTTAAAACAAGGAAAAGAGGAAAAAAAAAACAGAGGCCCGCCCTACCCCACTCCTGCCCCTCCGTTTCTTTG
CTGAAGTGAGTAGTGTGATCCTGGAGGCCCCCCGGCCTGGCCCCGCCCCGCCAGCCGCCCCCGTTAGCGTCATAA
AGTCCAGCTTGTCTCCCTCGATCCAAAGGCCGTTTTCTCGAGGGGAGGGCAGGCCCGGCCTGGAGGGGTGCTGTG
GAGCTGTCTTGCCCAGGCCCTCCTGGGAGGGGGACAGGCATTGTTGCCAGGGGTGAGGCCGTGCCCCAGGCCTCC
CCGAAACCAAAGGGGAAGGCAGGGGTGGGGCCGTGGCTGAAGCCGGCTCCCCAACCAAAATGCTGCACCAAAGCT
CGGGCGCCGCGGGCACGGCTGCTGCAGTCTCTTCCCAGCCTGGCCCTGGCAAGGGGCGGGTGGGCGCTGCCAGGC
GGGTGCTTCTCGACGCACTTGCTCCCGGAGGCTGCGCCCCGGCGCCTGGAACCCGAGGTGGGAGGACCGGTTGGT
GTCACCCTGCTCGGCCCTCAGCCCTGCCGCGTGGGGCGCGTGGGCACGGAGCTTCCTGCCTCTCTGCTCCGACAC
CCGGCAAGCAGCCGGAGACAAAACGCCTTAAAGCCCCCGGCCCAGCCCTGCAGGTATATTGCAGGGGCCTGGGGG
CGGCCCTGGACTGGCGGGCGGTTCCCCAGTGGGGTGCCCTGGAGGCTGCCGGGCAGAGTGGAGCAGCTTGGGGCC
GTGCCCAGGGCGGTGGCTGTGAGTCTAGTTTTTGCTTTACCAAGTGTACAGAAATGGCATTTACGTTTCTCTGAT
GCTCCCTTGAAGCCATAGAATTTAGGGGCTTTTTTAAAAAAATAAAAGAAAAATGAAACC

FIGURE 2423

ATGGCGGCGGGTGGGAGCGGCGGGCGTGCGTCGTGCCCGCCGGGGGTCGGGGTCGGCCCGGGCACGGGGGGCAGT
CCCGGGCCCAGCGCCAACGCCGCCGCCACCCCGGCCCCCGGCAACGCGGCCGCCGCCGCCGCCGCCGCCGCC
GCCGCCGCCGCCCCTGGGCCGACGCCGCCCGCCCCGCCGGGCCCCGGGACAGACGCGCAGGCCGCGGGCGCGGAG
CGGGCGGAGGAGGCGGCGGGCCCGGGGGCGGCGGCGCTGCAGCGCGAGGCCGCGTACAACTGGCAGGCCAGCAAG
CCCACCGTGCAGGAGCGCTTCGCCTTCCTCTTCAACAACGAGGTGCTGTGCGACGTGCACTTCCTGGTGGGCAAG
GGGCTCAGCTCGCAGCGCATCCCCGCGCACAGGTTCGTGCTGGCCGTGGGCAGCGCCGTCTTTGATGCCATGTTC
AACGGGGGAATGGCCACAACATCCACGGAGATTGAGCTGCCCGACGTGGAACCCGCTGCCTTCCTCGCACTGCTC
AAGTTTCTCTACTCGGACGAGGTGCAGATTGGCCCGGAGACGGTGATGACCACGCTATACACCGCCAAGAAGTAC
GCGGTGCCAGCGCTCGAGGCCCATTGCGTGGAGTTCCTGAAGAAGAACCTGCGAGCCGACAACGCCTTCATGCTG
CTCACGCAGGCGCGACTCTTCGATGAACCGCAGCTGGCCAGCCTGTGCCTGGAGAACATCGACAAAAACACTGCA
GACGCCATCACCGCGGAGGGCTTCACCGACATTGACCTGGACACGCTGGTGGCTGTCCTGGAGCGCGACACACTG
GGCATCCGTGAGGTGCGGCTGTTCAATGCCGTTGTCCGCTGGTCCGAGGCCGAGTGTCAGCGGCAGCAGCTGCAG
GTGACGCCAGAGAACAGGCGGAAGGTTCTGGGCAAGGCCCTGGGCCTCATTCGCTTCCCGCTCATGACCATCGAG
GAGTTCGCTGCAGGTCCCGCACAGTCGGGCATCCTGGTGGACCGCGAGGTGGTCAGCCTCTTCCTGCACTTCACC
GTCAACCCCAAGCCACGAGTGGAGTTCATTGACCGGCCCCGCTGCTGCCTGCGTGGGAAGGAGTGCAGCATCAAC
CGCTTCCAGCAGGTGGAGAGTCGCTGGGGCTACAGCGGGACCAGTGACCGCATCAGGTTCTCAGTCAACAAGCGC
ATCTTCGTGGTGGGATTTGGGCTGTATGGATCCATCCACGGGCCCACCGACTACCAAGTGAACATCCAGATTATT
CACACCGATAGCAACACCGTCTTGGGCCAGAACGACACGGGCTTCAGCTGCGACGGCTCAGCCAGCACCTTCCGC
GTCATGTTCAAGGAGCCGGTGGAGGTGCTGCCCAACGTCAACTACACGGCCTGTGCCACGCTCAAGGGCCCAGAC
TCCCACTACGGCACCAAAGGCCTGCGCAAGGTGACACACGAGTCGCCCACCACGGGCGCCAAGACCTGCTTCACC
TTTTGCTACGCGGCCGGGAACAACAATGGCACATCCGTGGAGGACGGCCAGATCCCCGAGGTCATCTTCTACACC
TAGGCTGCCCGACACCGACACCGCCCTCCCTCCGTGGGGATAGCCGCAGCCCCAGGCCATCATCTGCTGCTGGGG
CCCCCCCACCACGCGGTGCCAGGCCCAGTGTCCCCCAGGCCGTCTGTCCACTCCATGCCACCTTTCTCAGCATCA
GGACGGGGTTGCCCTGTGTTCACCACGAGTGTGGCTGCTGGATCAGGGCAGCCGGGGAGGTGGCCAGGCCAGTGG
CCAGGCCCTGTGGAGACAATCCCTCAGGACTAGGGACAGGGCTGTGCCGGCCTGGGCCAGGGCCCACGGACCCGC
AGCTCAGGGCGCCTGCCCACGTCGTCTGCCGGCGGTGCGCCGCGGGCGTCCCTCGCGTCTCTTCACTGCACATTG
CAATGCATTTGCGATTCCCATTTCTCTGCTAGGAGCCAGCCTGGGTGGCGCTGCTCCCAGAGCCGTGGGTCCCAG
ACCTTGCGTTCCTTTTGTTCCTGTCCGTTTATCAGGACACGGGCCCCACCTGTCACGTGCCCGAGGCCACCCAAG
CCCAGCCTGCGGGGCGTTCCCACTGCCTGGATGCCGGCTTGAGTTCTGCGCACGCAGGATTCAGTGTGGGGACGG
CCCCTGCCGGATAGGCCTAGCCCTGGCCCAGGTGGTGAGCGGTTTGCAGTGTCCGTTCTCATCCACCTGATGGGC
CCAGATAAAGGCCCCCGCTGTCCAGCCTCCCTGGACGGCCCTCGCGGTCCCTGCAGCCCAAGATGGGACTCAGAC
CCTGTGCCCCAGAGCTCCCCTGCCGCAGAATGGGGCCCCAGCCGGCCCCGACCGGGTCCAGGAGCACTGCTCGCC
TGTACATACTGTTGCCCTAGCCCACCTGGTGCCGTGGGAGCCACCCCCAGGTGCTGGGGGCACAGCCCCTCCCCA
CTCCGGCCACGCCCCCACCCACCCCGCGTGTTTCTGCCCTGTGACTCCTGGAACCTGCGTCCTCCCCAAAGCCAT
GGGAGGGGTGTCCTCCTCAGACCATGCCCCCAGATGATTTTTTTAAATAAAGAAACAAATGCACCTGC

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FIGURE 2424

GCTGGCGGGGCCCGGACAGAAG**ATG**GTGCAGAAGAAACCAGCCGAACTTCAGGGTTTCCACCGTTCGTTCAAGGG
GCAGAACCCCTTCGAGCTGGCCTTCTCCCTAGACCAGCCCGACCACGGAGACTCTGACTTTGGCCTGCAGTGCTC
AGCCCGCCCTGACATGCCCGCCAGCCAGCCCATTGACATCCCGGACGCCAAGAAGAGGGGCAAGAAGAAGAAGCG
CGGCCGGGCCACCGACAGCTTCTCGGGCAGGTTTGAAGACGTCTACCAGCTGCAGGAAGATGTGCTGGGGGAGGG
CGCTCATGCCCGAGTGCAGACCTGCATCAACCTGATCACCAGCCAGGAGTACGCCGTCAAGATCATTGAGAAGCA
GCCAGGCCACATTCGGAGCAGGGTTTTCAGGGAGGTGGAGATGCTGTACCAGTGCCAGGGACACAGGAACGTCCT
AGAGCTGATTGAGTTCTTCGAGGAGGAGGACCGCTTCTACCTGGTGTTTGAGAAGATGCGGGGAGGCTCCATCCT
GAGCCACATCCACAAGCGCCGGCACTTCAACGAGCTGGAGGCCAGCGTGGTGGTGCAGGACGTGGCCAGCGCCTT
GGACTTTCTGCATAACAAAGGCATCGCCCACAGGGACCTAAAGCCGGAAAACATCCTCTGTGAGCACCCCAACCA
GGTCTCCCCCGTGAAGATCTGTGACTTCGACCTGGGCAGCGGCATCAAACTCAACGGGGACTGCTCCCCTATCTC
CACCCCGGAGCTGCTCACTCCGTGCGGCTCGGCGGAGTACATGGCCCCGGAGGTAGTGGAGGCCTTCAGCGAGGA
GGCTAGCATCTACGACAAGCGCTGCGACCTGTGGAGCCTGGGCGTCATCTTGTATATCCTACTCAGCGGCTACCC
GCCCTTCGTGGGCCGCTGTGGCAGCGACTGCGGCTGGGACCGCGGCGAGGCCTGCCCTGCCTGCCAGAACATGCT
GTTTGAGAGCATCCAGGAGGGCAAGTACGAGTTCCCCGACAAGGACTGGGCCCACATCTCCTGCGCTGCCAAAGA
CCTCATCTCCAAGCTGCTGGTCCGTGACGCCAAGCAGAGGCTGAGTGCCGCCCAAGTCCTGCAGCACCCCTGGGT
TCAGGGGTGCGCCCCGGAGAACACCTTGCCCACTCCCATGGTCCTGCAGAGGTGGGACAGTCACTTCCTCCTCCC
TCCCCACCCCTGTCGCATCCACGTGCGACCTGGAGGACTGGTCAGAACCGTTACTGTGAATGAG**TGA**AGATCCTG
GAGGACCCTGGGCCCCAGGCCAGCTCCCATCGCTGGGGGACGGTGAACGGCCATGTGTTAATGTTACGATGTTTT
TAAAAGACAAAAAAAAAAAAAAAAACCTCAAAAGTTTTTTTAAAGTGGGGGAAAAACATCCAAGCACTTTAATTCC
AATGTACCAGGTGAACTGACGGAGCTCAGAAGTTTTCCTTTACACCAACTGTCAATGCCGGAATTTTGTATTCTG
TTTTGTAAAGATTTAATAAAAGTCAAAAAACTTGC

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FIGURE 2425

GGAATTCTGAGAGCTGATTCCTGCCTTGTCTTCTCCACTGTTCCTGGAGGAATCCGAGAAGAGCAGAGCGGAGGG
AGCCCCAGACACGGTCCGCGGGAGAGCTGTGGGGCTTGGTGAGTGTTTCGTGGCCTCTCGGGTTGGTCAGCACCC
CCAGCCAGCTGGCCCAGGACCCCTCTACAGAAGTCCAGGAGAGCAGGCGTCACCAAG**ATG**TCCAACCCCTTCCTG
AAGCAAGTCTTCAACAAGGACAAGACATTCCGCCCCAAGCGCAAGTTTGAGCCAGGCACCCAGCGCTTCGAGCTG
CACAAGAAGGCGCAGGCGTCGCTGAACGCCGGGCTGGACCTGCGGCTGGCCGTGCAGTTGCCCCCGGGCGAGGAC
CTGAACGACTGGGTGGCTGTTCACGTGGTGGACTTCTTTAACCGCGTCAACCTCATCTACGGCACCATCAGCGAC
GGCTGCACGGAGCAGTCCTGCCCCGTCATGTCGGGGGGCCCCAAGTATGAGTACCGCTGGCAGGATGAGCATAAG
TTCCGGAAGCCCACGGCACTCTCCGCGCCCAGGTACATGGACCTGCTGATGGACTGGATCGAGGCGCAGATCAAC
AACGAGGACCTCTTCCCCACCAACGTTGGCACTCCGTTTCCCAAGAACTTCCTGCAGACGGTGCGGAAGATCCTG
TCGCGGCTGTTCCGCGTGTTCGTGCACGTCTACATCCACCACTTTGACCGCATCGCGCAGATGGGCTCCGAGGCC
CACGTGAACACCTGCTACAAGCACTTCTACTATTTCGTCAAGGAGTTCGGCCTCATCGACACCAAGGAGCTGGAG
CCACTGAAAGAAATGACCGCCCGGATGTGCCAC**TGA**GAGCCCCGCGGGTCTCCCGGTGCCCGAACCGCCGCTGGG
GCCTCGGAGACTTGGAGGAGGACGCTCTGGAACCATCATCCCGCTTCTCTCCGGCCTGAGCATCTCAGGGAGACC
AGGGGCCGAGCCGCTGAGCAGGTGTTGGTCCTCAGGAGCTCCAACCCCGGACGGCAGATGCCTTCCTCAGTCTCG
AGCCTCAGTCTCCCGTCTGGGACTAAAACGTGAACTCTGTAATTCTATGTGTTACTAGCAACCGGAAAAGCCCAC
TGTGTTTTTAAACCACTTCCACTTTCCAGGAGGCTGGATGGCTTCCAGGGTCACTCCTTGCCCTGGGTGGCTCCC
AGGCTCCTGGAACTTCTGCCTCCACCTCGCTGGGGAGCCCCCAGGGCTGCTGTGGCCCACAGCCCTGCCTGGGCCT
GTCTCTCAAGGGCACCCAGCTTGCTCGGCCTCCTACATGTCTCCCGTTGGGGAGGCAAGAGGCTGAGGGGCTTCC
GAGCCCCTGAGAGCGGACATCTCCTCCCGCAGGCCTTTACTCCGCACTCCCCACTGGCAGCCGCTGGTGTCTCTT
CACACAGAGGCACAACCTGGACCCAGGCAGCCTCTTTCCTCCCTCCCCAATCTCTTCCATTTTTCTACAGATTTT
TTTTTTTTTGGTCATACTAGAGACAGGGGTCTCGCTGAACTCCTGGCCTCCAGTGATCCTCCATCCTCGGCCTCC
CAAAGTGCTGGAATCACAGGGGTGAGCCACCGCACCCAGCCCTCTCTCTTCCTCAATGCACTCTGCTTCTTCCGT
TCTTCCGAAACATTCAGCTGACTGTATCCAGGGCTTCCTGGACTCCTGGGACCCCACGTCCTGCACCCCGGCTTC
TGACTCATTTCCTAAGGGCCCCTTTGTGTATCATAAAGGGTTTGATTTTTATAGTCACATTTACAACCATCTTGA
GATTTTTATTTTTTTTGAACGGAGTCTCCCACTGTCGCCCAGACTGGAGTCCAGTGGCACAATCTCGGCTCACTG
CATCCTCCACCTCCTGGGTTCAAGTGATTCTCCTGCTTCAGCCTCCCAAGTAGCTGGGATTACAGGTGTGCGCCA
CCACGCCCAGGAAATTATTGTAGTTTTAGTAGAGACAAGATTTCACCATGTTGGCCAGGCTGGTCTCAAACTCCT
GACTTCAGGTGATCCGCCTACCTTGGCCTCCAAAAGTGCTGGGATTACAGGCATGAGCTACTGCACCCGGCCTAA
CCAGGCTGGAGTGCAGTGGTGGGATCTCGGCTCACTGCAAGCTCCGCCTCCCAGATTCACGCCATTCTCCTGCCT
CAGCCTCCCCAGCAGCTGGGACTACAGGCACCCACCGTCACACCCGGCTAATTTTTTTGTATTTTAGTAGAGACA
GGGTTTCACCGTGTTAGCCAGGATGGTCTTGATCTCCTGACCTTGTGATCCACCAGCCTCAGCCTCCCAAAGTGC
TGGGATTACAGGCGTGAGCCACTGTGCCCGGCCAAGAATTTTTTTATCGATAACATAGTGAGCTCTCTGCCTCTT
CGGAACGATGTCCACTTTGCTTATGATCAACCCAAGCAGGACTCTTCTCTCCCTGGACGCCTCTCCCCTGGTCTG
GAATCTTCCAGTTCTGCCAGAATTGGCCTTTCCCAGATGCTGCAAACTTCCAGTTGAACCCCTTTTTCTGTGTGG
CCCCTGGGGCTGCGAGACCAAAATCCATGAGTTCTGTGTACCCTAGACCTTTGGAAGGTGAGAGCAGGGCCCTGA
GAAAAGGCAGCCACCTCCTCTCCCTGGCTGAACCCCTGCCACCCTACTCCTCACCAGAATTGTCAGTGGCCTTTC
ACCACAGTGGTCCTTCCTGCCTGAGCCCTGCACTGTCCCAGACCACACAGAAGTCTGGTCACCTCTGGGCGCCTG
GGATGGTCACCGAAGAGAAGCACGCTGTCCCCGTCTCTCCTGGCTTCTGCCAGAAAATCGAACAAGTGCAATTAA
CACACTGTTACTGCCGAAGCCTGAAACTCCCAGGACTTGTCCTTGATCCTTCCAGAAACCACCAGGTCCGGCACT
TGGAGCCCCCCGGAGAGGGACCTCCCAGCCGAGCCCTCAAAGAACTCCATGAAATCAGGAACTGCTTGATGAAAT
GTATCTCCTTGTACCTGGAAGATGAAGCCCAAACACCCACACCTCTGTCTCCCCCAGGGCTCGGGATGTCTCCAG
CAGCCCGGCCACGCAGCTTCCCAGGTGGGCTCGGGGAGGTGGGAGCAGGGACCATCTCTGTCCCCTCCACCCTCA
CTCCATCCACCTCGGAGACCACCCTCCCCCAGCCAGATACGGAATAAAACTACAGACGCAGACGTCGG

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FIGURE 2426A

GGGGCCCGGAGCGGGATCGCGGCACCTGCCGAGCGGGTCGCCGCCTCTGCCGCGGTCCTTGGACCCCGCCGCCGC
CCTGGCCTGGGAGCTTGCCCCGCCGCAGCGGCCGGCAGCGCGGCGCTCCGCGGGCGGCAGGCACGGGCCCCGGGC
CCCCTCACGGCGCCCAGCCGCGGGCCTCCCGAGGCAAAAGCCCGTGGGCCGCCGCG**ATG**GCCCTCAAGATGGTGA
AGGGCAGCATCGACCGCATGTTCGACAAGAATCTGCAGGACTTGGTCCGCGGCATCCGTAACCACAAGGAGGACG
AGGCAAAATACATATCTCAGTGCATTGATGAGATCAAGCAGGAGCTGAAGCAGGACAACATAGCGGTGAAGGCGA
ACGCGGTCTGCAAGCTGACGTATTTACAGATGTTGGGATACGACATCAGCTGGGCCGCCTTCAACATCATAGAAG
TGATGAGTGCCTCCAAGTTCACCTTCAAGCGAATTGGCTACCTCGCTGCTTCCCAGAGCTTTCACGAAGGCACCG
ACGTCATCATGCTGACCACCAATCAGATCCGTAAGGACTTGAGCAGCCCCAGCCAGTACGACACAGGTGTTGCAC
TGACGGGTCTGTCCTGCTTCGTCACCCCAGACCTTGCCAGAGACCTGGCAAATGACATCATGACACTGATGTCAC
ACACCAAGCCCTACATCAGGAAGAAGGCTGTGCTGATCGAGCCCCTCACCAATCTCATCCACAGCACGTCTGCCA
TGTCTCTCCTCTATGAATGTGTGAACACCGTGATTGCAGTGCTCATCTCGCTGTCCTCCGGCATGCCCAACCACA
GCGCCAGCATCCAGCTTTGTGTTCAGAAATTAAGGATATTGATCGAGGACTCCGATCAGAACTTGAAGTACCTGG
GGCTGCTGGCAATGTCCAAGATCCTGAAGACCCACCCCAAGTCCGTGCAGTCCCACAAGGACCTCATCCTGCAGT
GCCTGGACGACAAGGACGAGTCCATCCGGCTGCGGGCCCTGGACCTGCTCTATGGGATGGTGTCCAAGAAGAACC
TGATGGAGATCGTGAAGAAGCTGATGACCCACGTAGACAAGGCAGAGGGTACCACCTACCGTGACGAGCTGCTCA
CCAAGATCATTGACATCTGCAGCCAGTCCAACTACCAGTACATCACCAACTTCGAGTGGTACATCAGCATCCTGG
TGGAGCTGACCCGGCTGGAGGGCACACGGCACGGCCACCTCATCGCCGCCCAAATGCTGGACGTGGCCATCCGCG
TGAAGGCCATCCGCAAGTTCGCCGTGTCCCAGATGTCTGCGCTGCTTGACAGTGCACACCTGCTGGCCAGCAGCA
CCCAGCGGAACGGGATCTGTGAGGTGCTGTACGCTGCCGCCTGGATCTGCGGGGAGTTCTCAGAGCATCTGCAGG
AACCACACCACACTTTGGAGGCCATGCTGCGGCCCAGAGTCACCACGCTGCCAGGCCACATCCAGGCCGTGTATG
TGCAGAACGTGGTCAAGCTCTACGCCTCCATCCTGCAGCAGAAGGAGCAGGCCGGGGAGGCAGAGGGCGCTCAGG
CCGTCACCCAGCTCATGGTGGACCGGCTGCCCCAGTTTGTGCAGAGCGCAGACCTGGAGGTGCAGGAGCGGGCGT
CCTGCATCCTGCAGCTGGTCAAGCACATCCAGAAGCTTCAGGCCAAGGACGTGCCTGTGGCAGAGGAGGTCAGCG
CTCTCTTTGCTGGGGAGCTGAACCCAGTGGCCCCCAAGGCCCAGAAGAAGGTTCCAGTCCCCGAAGGCCTGGACC
TGGACGCCTGGATCAATGAGCCACTCTCGGACAGCGAGTCAGAGGACGAGAGGCCCAGGGCCGTCTTCCACGAGG
AGGAGCAGCGGCGTCCCAAGCACCGGCCGTCGGAGGCGGACGAGGAAGAGCTGGCTCGGCGCCGAGAGGCCCGGA
AGCAGGAGCAGGCCAACAACCCCTTCTACATCAAGAGCTCGCCATCGCCACAGAAGCGGTACCAGGACACCCCGG
GCGTGGAGCACATTCCCGTGGTGCAGATTGACCTCTCCGTCCCCTTGAAGGTTCCAGGGCTGCCTATGTCAGATC
AGTATGTGAAGCTGGAGGAGGAGCGGCGGCACCGGCAGAAGCTGGAGAAGGACAAGAGGAGGAAAAAGAGGAAGG
AGAAGGAGAAGAAGGGCAAGCGCCGCCACAGCTCGCTGCCCACGGAGAGCGACGAGGACATCGCCCCTGCCCAGC
AGGTGGACATCGTCACAGAGGAGATGCCTGAGAATGCTCTGCCCAGCGACGAGGATGACAAAGACCCCAACGACC
CCTACAGGGCTCTGGATATTGACCTGGATAAGCCCTTAGCCGACAGCGAGAAACTGCCTATTCAGAAACACAGAA
ACACCGAGACCTCAAAATCCCCTGAGAAGGACGTTCCCATGGTAGAAAAGAAGAGCAAGAAACCCAAGAAGAAAG
AGAAAAAACACAAAGAGAAAGAGAGAGACAAGGAGAAGAAGAAGGAGAAGGAGAAGAAGGCTGAGGACCTGGACT
TCTGGCTGTCTACCACCCCACCGCCTGCCCCCGCCCCCGCCCCCGCCCCCGTTCCATCCACGGACGAGTGTGAGG
ACGCCAAGACGGAGGCGCAGGGCGAGGAGGACGATGCCGAGGGGCAAGACCAGGACAAGAAATCTCCCAAGCCTA
AGAAGAAGAAGCACAGGAAGGAGAAGGAGGAGCGGACCAAAGGCAAGAAGAAGTCCAAGAAGCAGCCTCCAGGCA
GCGAGGAGGCAGCGGGGGAGCCGGTGCAGAATGGCGCGCCAGAGGAGGAGCAGCTCCCGCCTGAGTCCAGCTACT
CCCTCCTCGCTGAAAATTCCTATGTTAAAATGACCTGTGACATCCGGGGCAGTCTGCAGGAGGACAGCCAGGTCA
CTGTGGCCATCGTGCTGGAGAACAGGAGCAGCAGCATCCTCAAGGGCATGGAGCTCAGCGTGCTGGACTCACTCA
ATGCCAGGATGGCCCGGCCGCAGGGCTCCTCCGTCCACGATGGCGTCCCCGTGCCTTTCCAGCTGCCCCCAGGCG
TCTCCAACGAAGCCCAGTATGTGTTCACCATCCAGAGCATCGTCATGGCGCAGAAGCTCAAGGGGACCCTGTCCT
TCATTGCCAAGAATGACGAGGGTGCGACCCACGAGAAGCTGGACTTCAGGCTGCACTTCAGCTGCAGCTCCTACT
TGATCACCACTCCCTGCTACAGTGACGCCTTTGCTAAGTTGCTGGAGTCTGGGGACTTGAGCATGAGCTCAATCA
AAGTCGATGGCATTCGGATGTCCTTCCAGAATCTTCTGGCGAAGATCTGTTTTCACCACCATTTTTCCGTTGTGG
AGCGAGTGGACTCCTGCGCCTCCATGTACAGCCGCTCCATCCAGGGCCACCATGTCTGCCTCCTGGTGAAAAAGG
GTGAGAACTCTGTCTCAGTCGACGGGAAGTGCAGTGACTCCACGCTACTGAGCAACTTGTTAGAAGAGATGAAGG
CGACGCTGGCCAAGTGT**TGA**GAGCTGCCTGCGAGCCCCGCACCACCCCGCGGAGCACGTACCCAGGGACCGCAGC

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FIGURE 2426B

CCTGACGTGTCTCGCCTCTCCTCAGTCGTGTGTACTGTACCCAAGCCTGAGTGTTAATTTAACTCTATGTTGTCC
GCCGTGTAGACATCCGAGGTCATTTGTTGCGTTGAATTATCTGACCATCCTTTTTTACTGTGACTCTTCCCATTC
TCTTTGGCAAGAAGTCCCCTTCTCGCCCCCAAACCAGCAAGGGACTCCCCCACCTGGGTCTGTGCCCTGCCCCGC
GCTGGGGGCCGAGTCCTTGAATGTGGCTTCAGGGGCTCCTGTCCTGGGCCAGGGCCTGATGGGCACCACGTGAGG
GGCACTTGGTGGACAGGGCGGGGCTGACGTGGCCTCCTCTGGGGTCGCCTGCTTTTGACCCAAAGGTCCTGACGG
TTGCGTCCGGGGGAGGGGAAGGAAGGGCCGCTGTCGCCAAGGTTTTCTCTCCCAGAACCCACAGTGGGAAAGCGG
TCTTGCCAGGCGTTGTCCATTGTCAGTGTGCTCGTGGGCTGGTGACTGGGTCTTGGGATCCCAGGCCACGCGCCA
GCCAGGCTGTGGGCAGGGCGGGGCCAGGGACGCCAAAGAGAGGTTGCAGTCAGAACCGTGGACGGGGTGGGTTGA
GGCCTCTCTGCCACCCGTCTTCCTGGTCAGCAGAAGTGCATCTCGGCTTGGGTTTGGGGTGGTCCGCATCCCCTG
CTTGCCACTATGCGCACCAAGGTTTCCCCACATCCTTCCCAGCACCCTTAGGAAGGCCCAGGCAGGGCCTGGAAG
CAGCGGACCTGGGCTGTTCTGTGTTGAAGGAGTGTGCCCAGTGCCCTTGGGCAGGACCTGTGAGAGCCACCTCAC
AGGCAGAGCCCCCACCAGGCAGGGCAAGGAGACTCCGCTCACTCCCCACGGCCAGCGTGGGCACAGGACTGACCC
TTCTTCAGAGATAATGACATTTTATCTTCTCCTTTTGATGAAAACTGTCACTTTAGCATGTAATCCATTACAGAA
TCCCATGCAGTGATTCCAGGATTTGAAATTGTATGATGTGTTACATAAGAATTTATTTGCTATCGACATTCCCGT
ATAAAGAGAGAGACATATCACGCTGCTGTCATGATTTTGTGTCAAGATGATCCAATAAAGTTGTAAAACAGG

FIGURE 2427A

GCGGCCGTCCACTGGACTCCTGCGCCATATCCTGCAGCAGGTCTACAACCACTCGGTGACCGACCCCGAGAAGCT
CAACAACTACGAGCCCTTCTCCCCCGAGGTGTACGGGGAGACCTCCTTCGACCTGGTGGCCCAGATGATTGATGA
GATCAAGATGACCGACGACGACCTGTTTGTGGACTTGGGGAGCGGTGTGGGCCAGGTCGTGCTCCAGGTTGCTGC
TGCCACCAACTGCAAACATCACTATGGCGTCGAGAAAGCAGACATCCCGGCCAAGTATGCGGAGACCATGGACCG
CGAGTTCAGGAAGTGGATGAAATGGTATGGAAAAAAGCATGCAGAATACACATTGGAGAGAGGCGATTTCCTCTC
AGAAGAGTGGAGGGAGCGAATCGCCAACACGAGTGTTATATTTGTGAATAATTTTGCCTTTGGTCCTGAGGTGGA
TCACCAGCTGAAGGAGCGGTTTGCAAACATGAAGGAAGGTGGCAGAATCGTGTCCTCGAAACCCTTTGCACCTCT
GAACTTCAGAATAAACAGTAGAAACTTGAGTGACATCGGCACCATCATGCGCGTGGTGGAGCTCTCGCCCCTGAA
GGGCTCGGTGTCGTGGACGGGGAAGCCAGTCTCCTACTACCTGCACACTATCGACCGCACCATACTTGAAAACTA
TTTTTCTAGTCTGAAAAACCCAAAACTCAGGGAGGAACAGGAGGCAGCCCGGCGCCGCCAGCAGCGCGAGAGCAA
GAGCAACGCGGCCACGCCCACTAAGGGCCCAGAGGGCAAGGTGGCCGGCCCCGCCGACGCCCCCATGGACTCTGG
TGCTGAGGAAGAGAAGGCGGGAGCAGCCACCGTGAAGAAGCCGTCTCCCTCCAAAGCCCGCAAGAAGAAGCTAAA
CAAGAAGGGGAGGAAGATGGCTGGCCGCAAGCGCGGGCGCCCCAAGAAGATGAACACTGCGAACCCCGAGCGGAA
GCCCAAGAAGAACCAAACTGCACTGGATGCCCTGCACGCTCAGACCGTGTCTCAGACGGCGGCCTCCTCACCCCA
GGATGCCTACAGATCCCCTCACAGCCCGTTCTACCAGCTACCTCCGAGCGTGCAGCGGCACTCCCCCAACCCGCT
GCTGGTGGCGCCCACCCCGCCCGCGCTGCAGAAGCTTCTAGAGTCCTTCAAGATCCAGTACCTGCAGTTCCTGGC
ATACACAAAGACCCCCCAGTACAAGGCCAGCCTGCAGGAGCTGCTGGGCCAGGAGAAGGAGAAGAACGCCCAGCT
CCTGGGTGCGGCTCAGCAGCTCCTCAGCCACTGCCAGGCCCAGAAGGAGGAGATCAGGAGGCTGTTTCAGCAAAA
ATTGGATGAGCTGGGTGTGAAGGCGCTGACCTACAACGACCTGATTCAAGCGCAGAAGGAGATCTCCGCCCATAA
CCAGCAGCTGCGGGAGCAGTCGGAGCAGCTGGAGCAGGACAACCGCGCGCTCCGCGGCCAGAGCTTGCAGCTGCT
CAAGGCTCGCTGCGAGGAGCTGCAGCTGGACTGGGCCACGCTGTCGCTGGAGAAGCTGTTGAAGGAGAAGCAGGC
CCTGAAGAGCCAGATCTCGGAGAAGCAGAGGCACTGCCTGGAGCTGCAGATCAGCATTGTGGAGCTAGAGAAGAG
CCAGCGGCAGCAGGAGCTCCTGCAGCTCAAGTCCTGTGTGCCGCCTGACGACGCCCTGTCCCTGCACCTGCGTGG
GAAGGGCGCCCTGGGCCGCGAGCTGGAGCCTGACGCCAGCCGGCTGCACCTGGAGCTGGACTGCACCAAGTTCTC
GCTGCCTCACTTGAGCAGCATGAGCCCGGAGCTCTCCATGAACGGCCAGGCTGCTGGCTATGAGCTCTGCGGTGT
GCTGAGCCGGCCTTCGTCGAAGCAGAACACGCCCCAGTACCTGGCCTCACCCCTGGACCAGGAGGTGGTGCCCTG
TACCCCTAGCCACGTCGGCCGGCCGCGCCTGGAGAAGCTGTCTGGCCTAGCCGCACCCGACTACACTAGGCTGTC
CCCGGCCAAGATTGTGCTGAGGCGGCACCTGAGCCAGGACCACACGGTGCCCGGCAGGCCGGCTGCCAGTGAGCT
GCATTCGAGAGCTGAGCACACCAAGGAGAACGGCCTTCCCTACCAGAGCCCCAGCGTGCCTGGCAGCATGAAGCT
GAGCCCTCAGGACCCGCGGCCCCTGTCCCCTGGGGCCTTGCAGCTTGCTGGAGAGAAGAGCAGTGAGAAGGGCCT
GAGAGAGCGCGCCTACGGCAGCAGCGGGGAGCTCATCACCAGCCTGCCCATCAGCATCCCGCTCAGCACCGTGCA
GCCCAACAAGCTCCCGGTCAGCATTCCCCTGGCCAGCGTGGTGCTGCCCAGCCGCGCCGAGAGGGCGAGGAGCAC
CCCCAGTCCCGTGCTGCAGCCCCGTGACCCCTCGTCCACACTTGAAAAGCAGATTGGTGCTAATGCCCACGGTGC
TGGGAGCAGAAGCCTTGCCCTGGCCCCCGCAGGCTTCTCCTACGCTGGCTCGGTGGCCATCAGCGGGGCCTTGGC
GGGCAGCCCGGCCTCTCTCACACCTGGAGCCGAGCCGGCCACCTTGGATGAGTCCTCCAGCTCTGGGAGCCTTTT
TGCCACCGTGGGGTCCCGCAGCTCCACGCCACAGCACCCCCTGCTGCTGGCACAGCCCCGGAACTCGCTTCCTGC
CTCTCCCGCCCACCAGCTCTCCTCCAGTCCCCGGCTTGGTGGGGCCGCCCAGGGCCCGTTGCCCGAGGCCAGCAA
GGGAGACCTGCCCTCCGATTCCGGCTTCTCAGATCCTGAGAGTGAAGCCAAGAGGAGGATTGTGTTCACCATCAC
CACTGGTGCGGGCAGTGCCAAGCAGTCGCCCTCCAGCAAGCACAGCCCCCTGACCGCCAGCGCCCGTGGGGACTG
TGTGCCGAGCCACGGGCAGGACAGTCGCAGGCGCGGCCGGCGGAAGCGAGCATCTGCGGGGACGCCCAGCTTGAG
CGCAGGCGTGTCCCCCAAGCGCCGAGCCCTGCCGTCCGTCGCTGGCCTTTTCACACAGCCTTCGGGGTCTCCCCT
CAACCTCAACTCCATGGTCAGTAACATCAACCAGCCCCTGGAGATTACAGCCATCTCGTCCCCGGAGACCTCCCT
GAAGAGCTCCCCTGTGCCCTACCAGGACCACGACCAGCCCCCCGTGCTCAAGAAGGAGCGGCCTCTGAGCCAGAC
CAATGGGGCACACTACTCCCCACTCACCTCAGACGAGGAGCCAGGCTCTGAGGACGAGCCCAGCAGTGCTCGAAT
TGAGAGAAAAATTGCAACAATCTCCTTAGAAAGCAAATCTCCCCCGAAAACCTTGGAAAATGGTGGTGGCTTGGC
GGGAAGGAAGCCCGCGCCCGCCGGCGAGCCAGTCAATAGCAGCAAGTGGAAGTCCACCTTCTCGCCCATCTCCGA
CATCGGCCTGGCCAAGTCGGCGGACAGCCCGCTGCAGGCCAGCTCCGCCCTCAGCCAGAACTCCCTGTTCACGTT
CCGGCCCGCCCTGGAGGAGCCCTCTGCCGATGCCAAGCTGGCCGCTCACCCCAGGAAAGGCTTTCCCGGCTCCCT

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FIGURE 2427B

GTCGGGGGCTGACGGACTCAGCCCGGGCACCAACCCTGCCAACGGCTGCACCTTCGGCGGGGGCCTGGCCGCGGA
CCTGAGTTTACACAGCTTCAGTGATGGTGCTTCTCTTCCCCACAAGGGCCCCGAGGCGGCCGGCCTGAGCTCCCC
GCTGAGCTTCCCCTCGCAGCGCGGCAAGGAGGGCTCGGACGCCAACCCTTTCCTGAGCAAGAGGCAGCTGGACGG
CCTGGCTGGGCTGAAGGGCGAGGGCAGCCGCGGCAAGGAGGCAGGGGAGGGCGGCCTACCGCTGTGCGGGCCCAC
GGACAAGACCCCACTGCTGAGCGGCAAGGCCGCCAAGGCCCGGGACCGCGAGGTCGACCTCAAGAATGGCCACAA
CCTCTTCATCTCTGCGGCGGCCGTGCCTCCCGGAAGCCTCCTCAGCGGCCCCGGCCTGGCCCCGGCGGCGTCCTC
CGCAGGCGGCGCGGCGTCCTCCGCCCAGACGCACCGGTCCTTCCTGGGCCCCTTCCCGCCGGGACCGCAGTTCGC
GCTCGGCCCCATGTCCCTGCAGGCCAACCTCGGCTCCGTGGCCGGCTCCTCCGTGCTGCAGTCGCTGTTCAGCTC
TGTGCCGGCCGCCGCAGGCCTGGTGCACGTGTCGTCCGCTGCCACCAGACTGACCAACTCGCACGCCATGGGCAG
CTTTTCCGGGGTGGCAGGCGGCACAGTTGGAGGTAAC**TAG**GATTTCTACCTCAACCGCGAGACCTATGCAAGGAC
GGTGTGGACCAACTCGCGCCCGCGGCATGGTGCCCGCCGGCCTGCCGGGCTCCCACCCCTGGACGGCAGAGGCAA
GGACGGACGGGAGCTCCACTGTGAATCGGCGGCACGCGCCGCAGGAGGCTGGGACTGGTCCAGTTTGTACTGTCG
ATAGTTTTAGATAAAGTATTTATCATTTTTTAAAAAGTATAAACAATTCTGACTTATTTTATTCCATCTAAGTGG
TAAAAGGCAACTTATTGAGAAATATAAATATCTATATATGAGAGCTCTATATAAAGACACGTGTCTGCAGGGCGG
GCCCGCCAGCGGATTCGCCACAGCCTGCCCCGGTGCTATCTCGTCCCCAGGCCCGCGCCTGCCTCCACCCGCTTG
GTGCTGACTAGACGCTGACAACGCCGAACCCCGTTCTCGGAAACGCCGCCCGGCCGGCTCCCCCGACGCGCTGCT
CCCGTACCAAAGGCAGGCCCGTCGCCACCACATTCCTCGGAGGCCTCCCCGCGGCCTGAGCCCCTTCCTGAGCGC
CCTGGCGCCTGCCCTGAGCTCTTCACCTTTACCCCGGCACTGTGAACCCCCAGACTGTTCACCCTCCGGGGCGTG
GGTTGCGCCCTTGCATGTGAAGGGGCCTGCGCGGTGACGCAGCTGGCCATGTGCTGCGCGATGGTGCTGTGAGGA
CGGCGCGGGCACGTTGAACAAGTGCATTTACTTTTGTATTTCTCGGCTGTCCATGGCTCGCAGCATGCCCTGCGA
TGCGGGGCAGGCCTGTCGTGGGTCCCTTGGTGTTTCTGTACAGGAGAGAGTCACACTAATGAGTGGCAGTATTTT
ATAGAGATGTGATGAGAATTTATAAATTTCATAGATTTGACAGCTTTTATTTTTAGATGGTATAATGCACAGTGA
AGAGGAAAGAAAAGCGAGGGGAAAAAACCTTATTTATTCAAACAGTGCACAAAATGGCCCCAGCGTCAGCCCCGA
CCCTAGACCCCTCAGTTGCAGCTCCCAGCAGCCCAGACAGAGCTGCCGGCGCCCCTGCCTGCCCCACATCCCTTC
CTGTCAGGGCCACGCCTGGCACCCATCCCTTGGAGCCTGTGCTGGTTCTCCCAGCTGCTGTGGGTGTGCTGGGGC
CAGGGTGCACTGCTGAAACCTGGCCTCTCTGGCCCTAGGCCCCAGGGTGACGTCGGCCCCCCACTCTGCAGCCTT
GGCGGGTGCCTGGGACTGGGTGTGGAAGGAGAGGAGCTGAGGCCGGGGTGTAGCAGGCAGGCAGGGCCACTCCAG
TGCTTCTGGAGCCCTGAGCAGTCAGGGCCTGGGTTGTCTGAGCAGTGGTGGCTCTGTGCCCTCCCTGGAGGATGG
GATCTGGGA

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FIGURE 2428

GACATTTTTGGCGCCGGCCCCAGCCTGAGCGGGGACGGCGGCCGGGAGGGCGCGGCCCGGGTTCCCGTTCCCCGC
GGAGCC**ATG**CGGTACAACGAGAAGGAGCTGCAGGCTCTGTCCCGGCAGCCGGCCGAGATGGCGGCCGAGCTGGGC
ATGAGGGGCCCCAAGAAGGGCAGCGTGCTGAAGCGGCGGCTGGTGAAGCTGGTGGTGAATTTCCTCTTCTACTTT
CGGACAGACGAGGCCGAGCCCGTCGGAGCCCTGCTGCTGGAGCGCTGCAGAGTCGTCCGGGAAGAGCCCGGCACC
TTCTCCATCAGCTTCATTGAGGACCCTGAGAGGAAGTATCACTTTGAGTGCAGCAGCGAGGAGCAGTGTCAGGAG
TGGATGGAGGCTCTGCGTCGGGCCAGCTACGAGTTCATGCGGAGAAGCCTCATCTTCTACAGGAACGAAATCCGG
AAGGTGACGGGCAAGGACCCCCTGGAACAGTTCGGCATATCCGAGGAGGCCAGGTTCCAGCTGAGTGGCTTGCAG
GCG**TGA**GCGCAGGGCACGGTGGTCAGCGTGCAGCGGGACGGGACTGGCCCTGCCCAGCCATGAATCGCTTGGCCA
TGCCTGGATCTGTTTTGTTTTGGTTTTTGGTTTTTGGGTCAGGGTTTCACTGTGTTGCCCAGGCTAGAGTGCAGT
GGTGCCACAGCTCACTGTGACCTTGACCTTCTGGACTCAAGTGATCCTCCTGCCTCAGCTTCCCAAGTAGCGGGG
ATCACAGGCATGAGCCGCCACACCCGGCCATCACACCTGGATTTTCAGTGGGAGGTTTTTGGTTTGGAGACATCC
AAAGCCTGAAGCCAGGTGGGTGTGGGCAGGGGCTGCATTTTATGAAACTGCCCAGCAAGCTGCGCTCCCTGGGGC
CCCAGGATCCACCTAACTGGCCTGGCACCTGGTGCCACGTGCTGCTGCCGCCAGGATATGCGCCTTCCCACAGGT
GCCCTGCCTGAGTTGTGTGCATCCAGGGGCCTGGTGAGCCCCCAGGCTGGTGGCATGGCCCCCCTGCCCCGTGCT
GAATGAATGTACAGAGCCAGACAAAGCTGTGAATGGCCTAGGGGCTGAGTCCCACACCAGCTGTGAATTCTCCTG
CAGACAGGAGGGCCCTGGCTGTGCACCTGGGGAAGTGGTTGCCCTGGGGCCAGGGTGCTTGTTCTGTTCAAATAA
AGGTACCTCTTTTCC

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FIGURE 2429

ATGGACTTCCAGCATCGCCCCGGGGGCAAGACCGGGAGCGGGGGCGTGGCCTCCTCCTCCGAGAGCAACCGTGAC
CGCAGGGAGCGCCTCCGGCAGCTGGCCCTGGAGACCATCGACATCAACAAGGACCCGTACTTCATGAAGAACCAC
CTGGGCTCCTATGAATGCAAACTCTGCCTGACACTTCACAACAATGAGGGGAGCTACCTGGCACATACGCAGGGG
AAGAAGCACCAGACCAACCTGGCCCGGCGAGCAGCCAAGGAGGCCAAGGAGGCCCCTGCCCAGCCCGCGCCTGAG
AAGGTCAAGGTGGAGGTGAAGAAGTTTGTGAAGATCGGCCGCCCCGGGCTACAAAGTGACCAAGCAGAGAGACTCG
GAGATGGGCCAGCAGAGCCTCCTCTTCCAGATTGACTACCCTGAGATCGCCGAGGGCATCATGCCACGTCACCGC
TTCATGTCTGCGTACGAGCAGAGGATCGAGCCTCCGGACCGGCGCTGGCAGTACCTGCTCATGGCCGCCGAGCCC
TACGAGACCATTGCCTTCAAGGTGCCGAGCAGAGAGATCGACAAGGCGGAGGGCAAGTTCTGGACACACTGGAAC
CGGGAGACCAAGCAGTTCTTCCTCCAGTTCCACTTTAAGATGGAGAAGCCCCCGGCTCCACCCAGCCTCCCTGCT
GGCCCCCCTGGGGTGAAGCGGCCTCCACCCCCGCTGATGAACGGTCTGCCCCCTCGGCCACCGCTGCCTGAGTCT
TTGCCACCGCCCCCGCCAGGAGGCCTGCCTCTGCCACCCATGCCCCCCACAGGGCCTGCGCCCTCAGGGCCCCCG
GGACCACCCCAGCTACCCCCGCCAGCTCCAGGGGTCCACCCCCCGGCCCCAGTGGTGCATCCCCCTGCATCTGGG
GTCCATCCCCCAGCTCCTGGCGTCCACCCCCCAGCTCCTGGCGTCCATCCCCCAGCCCCTGGGGTCCACCCACCA
ACCTCTGGGGTCCACCCCCCAGCTCCTGGAGTCCACCCTCCAGCCCCCGGGGGTTCACCCACCAGCCCCCGGAGTC
CACCCACCAGCCCCTGGGGGTTCACCCACCAGCCCCAGGGGTCCATCCTCCCCCATCAGCGGGGGTTCACCCCCAG
GCCCCGGGGGTGCACCCAGCAGCCCCCGCCGTTCACCCTCAGGCCCCAGGGGTGCACCCACCAGCCCCAGGGATG
CACCCTCAGGCCCCGGGGGGTCCACCCCCAACCTCCCGGGGGTCCATCCGTCGGCTCCTGGGGGTCCACCCTCAGCCT
CCGGGAGTTCACCCCTCAAATCCTGGGGGTGCACCCCCCAACTCCCATGCCCCCAATGCTGAGGCCCCCACTTCCC
TCCGAAGGCCCAGGGAACATACCTCCCCCTCCCCCAACCAAC**TGA**

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FIGURE 2430

TGCGAACGGCGAGCAGCGGCGGCGGCGCGGAGAGACGCAGCGGAGGTTTTCCTGGTTTCGGACCCCAGCGGCCGG
ATGGTGAAATCCTCCCTGCAGCGGATCCTCAATAGCCACTGCTTCGCCAGAGAGAAGGAAGGGGATAAACCCAGC
GCCACCATCCACGCCAGCCGCACCATGCCGCTCCTAAGCCTGCACAGCCGCGGCGGCAGCAGCAGTGAGAGTTCC
AGGGTCTCCCTCCACTGCTGTAGTAACCCGGGTCCGGGGCCTCGGTGGTGCTCC**TGA**TGCCCCTCACCCACCCCT
GAAGATCCCAGGTGGGCGAGGGAATAGTCAGAGGGATCACAATCTTTCAGCTAACTTATTCTACTCCGATGATCG
GCTGAATGTAACAGAGGAACTAACGTCCAACGACAAGACGAGGATTCTCAACGTCCAGTCCAGGCTCACAGACGC
CAAACGCATTAACTGGCGAACAGTGCTGAGTGGCGGCAGCCTCTACATCGAGATCCCGGGCGGCGCGCTGCCCGA
GGGGAGCAAGGACAGCTTTGCAGTTCTCCTGGAGTTCGCTGAGGAGCAGCTGCGAGCCGACCATGTCTTCATTTG
CTTCCACAAGAACCGCGAGGACAGAGCCGCCTTGCTCCGAACCTTCAGCTTTTTGGGCTTTGAGATTGTGAGACC
GGGGCATCCCCTTGTCCCCAAGAGACCCGACGCTTGCTTCATGGCCTACACGTTCGAGAGAGAGTCTTCGGGAGA
GGAGGAGGAGTAGGGCCGCCTCGGGGCTGGGCATCCGGCCCCTGGGGCCACCCCTTGTCAGCCGGGTGGGTAGGA
ACCGTAGACTCGCTCATCTCGCCTGGGTTTGTCCGCATGTTGTAATCGTGCAAATAAACGCTCACTCCGAATTAG
CGGTGTATTTCTTGAAGTTTAATATTGTGTTTGTGATACTGAAGTATTTGCTTTAATTCTAAATAAAAATTTATA
TTTTACTTTTT

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FIGURE 2431

CGCGACAAG**ATG**GCGGATAAGGAGAAGAAGAAAAAGGAGAGCATCTTGGACTTGTCCAAGTACATCGACAAGACG
ATCCGGGTAAAGTTCCAGGGAGGCCGCGAAGCCAGTGGAATCCTGAAGGGCTTCGACCCACTCCTCAACCTTGTG
CTGGACGGCACCATTGAGTACATGCGAGACCCTGACGACCAGTACAAGCTCACGGAGGACACCCGGCAGCTGGGC
CTCGTGGTGTGCCGGGGCACGTCCGTGGTGCTAATCTGCCCGCAGGACGGCATGGAGGCCATCCCCAACCCCTTC
ATCCAGCAGCAGGACGCC**TAG**CCTGGCCGGGGGCGCGGGGGGTGCAGGGCAGGCCCGAGCAGCTCGGTTTCCCGC
GGACTTGGCTGCTGCTCCCACCGCAGTACCGCCTCCTGGAACGGAAGCATTTTCCTTTTTGTATAGGTTGAATTT
TTGTTTTCTTAATAAAATTGCAAACCTC

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FIGURE 2432

GCCGTTGGTTGCGGCGGGCACCGGCCGAC**ATG**GCGGCAGCGGTGGCGGCTGCGCTGGCGCGGCTTTTGGCGGCCT
TTCTGCTCCTCGCGGCCCAGGTGGCCTGTGAGTACGGCATGGTGCACGTGGTCTCCCAGGCCGGGGGCCCCGAAG
GCAAAGACTACTGCATCCTCTACAACCCGCAGTGGGCCCATCTTCCGCACGACCTCAGCAAGGCATCTTTCCTGC
AGCTGCGCAACTGGACGGCCTCCCTGCTCTGCTCCGCAGCCGACCTCCCCGCCCGTGGCTTCAGCAACCAGATCC
CGCTGGTGGCGCGGGGGAACTGCACCTTCTATGAGAAAGTGAGGCTGGCCCAGGGCAGCGGAGCACGCGGGCTGC
TCATCGTCAGCAGGGAGAGGCTGGTCCCCCCGGGGGGTAATAAGACGCAGTATGATGAGATTGGCATTCCCGTGG
CCCTGCTCAGCTACAAAGACATGCTGGACATCTTCACGCGTTTCGGCCGCACGGTGAGGGCGGCGCTGTATGCGC
CTAAGGAGCCGGTGCTGGACTACAACATGGTCATCATCTTCATCATGGCTGTGGGCACCGTCGCCATCGGCGGCT
ACTGGGCCGGGAGTCGGGACGTGAAGAAAAGGTACATGAAGCACAAGCGCGACGATGGGCCCGAGAAGCAGGAGG
ACGAGGCGGTGGACGTGACGCCGGTGATGACCTGCGTGTTTGTGGTGATGTGCTGCTCCATGCTGGTGCTGCTCT
ACTATTTCTACGATCTCCTCGTGTACGTGGTCATCGGGATCTTCTGCCTGGCCTCCGCCACCGGCCTCTACAGCT
GCCTGGCGCCCTGTGTGCGGCGGCTGCCTTCGGCAAGTGCAGGATCCCCAACAACAGCCTGCCCTACTTCCACAA
GCGCCCGCAGGCCCGTATGCTGCTCCTGGCGCTCTTCTGCGTGGCCGTCAGCGTGGTGTGGGGCGTCTTCCGCAA
CGAGGACCAGTGGGCCTGGGTCCTCCAGGATGCCCTGGGCATCGCCTTCTGCCTCTACATGC**TGA**AGACCATCCG
TCTGCCCACCTTCAAGGCCTGCACGCTGCTGCTGCTGGTGCTGTTCCTCTACGACATCTTCTTCGTGTTCATCAC
GCCCTTCCTGACCAAGAGTGGGAGCAGCATCATGGTGGAGGTGGCCACTGGGCCCTCGGACTCAGCCACCCGTGA
GAAGCTGCCCATGGTCCTGAAGGTGCCCAGGCTGAACTCCTCACCTCTGGCCCTGTGTGACCGGCCCTTCTCCCT
CCTGGGTTTCGGAGACATTTTGGTGCCAGGGCTGCTGGTGGCCTACTGCCACAGGTTTGACATCCAGGTACAGTC
CTCCAGGGTATACTTCGTGGCCTGCACCATCGCCTATGGCGTTGGCCTCCTTGTGACATTCGTGGCACTGGCCCT
GATGCAGCGTGGCCAGCCCGCTCTCCTCTACCTGGTGCCCTGCACGCTGGTGACGAGCTGCGCTGTGGCGCTCTG
GCGCCGGGAGCTGGGCGTGTTCTGGACGGGCAGCGGCTTTGCGAAAGTCCTACCTCCATCTCCGTGGGCCCCAGC
ACCAGCCGACGGCCCGCAGCCTCCCAAAGACTCTGCCACGCCACTCTCCCCGCAGCCGCCCAGCGAAGAACCAGC
CACATCCCCCTGGCCTGCTGAGCAGTCCCCAAAATCACGCACGTCCGAGGAGATGGGGGCTGGAGCCCCCATGCG
GGAGCCTGGGAGCCCAGCTGAATCCGAGGGCCGGGACCAGGCCCAGCCGTCCCCGGTAACCCAGCCTGGCGCCTC
GGCCTAGGGGAGGGGTGAGACGCTCGCTGCCGTGCCCGCCACACCAAGATGTTGGGGCTGCCTGGCGCCCACTGG
AGACAGACAGACAGACGCCTGTCCCCCGGGACCGAGGCCTGTGCCGTCCCCACCCGCCCCAACATGGTGCTCATC
CTTGCCGAGACCCCTGCGGTCTGTGCCCGCGCCCAGCCCAGCTGCCCCGGCTGCACGCCTGCTGCTCCCAGCTCG
CCCGGCTGCCACAAGCTCTCTGCGGGTCCATCCTCCCCACCGGGGTCCGTCCTCGCAGGCCCTGCCCGGCCTCTC
TGCAGACCCTCAAGCGTCGTCTGCATGAGTGAGCAGGCGTGGGTGGACTCTGGCCGCGGCCACACTTGGTGCTCA
CCAGCTGCTTCGGCCTTCAGGTGACCTCCCTCCCCACGGCATCCTGCTCTCCGGGTGGAAGAGCAGCTTTCTGTC
TCCCAGAAGGCATCGCTTTTCCCTCTTGAGCAGATCGGAGCCCCTGGGAGGTTTGGAAGCTGCCTCCAAGCCTAG
GACACGGACCAGTGGCCGGGGCGGCCTCTGGCCCCTGACGCTGGCTGAGACAGGCCCGTGGGGCGGGGTTTTGGG
GCGTGAACAAGGCTGGCAGTAAGTGGACAAGCTGCTCCCCTGGCTAAGGCCCTGCCCTGCCCTCAGCCAGAGGTG
CCTGGCCATGCCTGCACACTCCTCCCCATTTTAATAAATGGTCGCAACTTCTAGAAGTCCTGCTGGTGCCACCTG
GTGGGGTGGACGTCTCTCAGACTGCCCTTCTGACAAGCAGGGGTGGGCGCCAGGCAGGCTGGGTCAGGCCCTCAG
GGGTCCCTGGAGCCCTGGGAGGGAGGGACTGGGTCGTGGGAGGTCCTGGTAGCTCCCGGCACCCAACCTCGCTTC
CCGTGTGGGCCCCGTGTTGCTTTTCTGCTGAGAGGGGCTTGGGCCTCGGTTCTCCCTGTGGCAGCGGCATTGGTG
CCTGGGTTCTTAACCCTCTGGACCCAGCAGCTAGGAGCTTCTGGAACCCACGAGGACATCTGCCACTGGCATGGT
CTACTCACTGATGGGGTCCTCCTGACTCCAGGGCAGAGACGTCCGTGCGGGAACTGACCGAGGCGTGGCCCCAGG
CCCCGGCATCCTCCCCTCGCTGCACGTGGTCACTTCCGAAGCAGCGCTCCCTGTGGCCGCAGAGACAGAGCCCGC
ACCCTGGCTGTCTGTGGTGCCTGGGCCCCAGCTCCCGCCCGCCACCCGCCCTGTTGAGTGCGGCCTCCAGACTCG
AGTCCAGAATCTGTTTCTGTCAAGTCAGTCGTCCCCAGCTGCACACGGGGACTGCTGAGCGCTGCGCTCTCACGG
GTCTGTTCCGGACAGAGGGTGGCAGGGGTGAGCCCTGATCCCTTACAAAAAATACCAGCTTCCCAGGGAGTAATG
GCGCCTTCACTGAAGCCATTTTGTACATGGGGACGGGGTGGGGACGTCTCTTTTTTGGTGTTGGACGTTTGACCA
GTGGGGAGGGGTTCAGAGGCGGCGGTCCTGTCCTTGGCTCCGTCTGTCCGTGTGGCCTTGCTGCCATTCCGTCTG
ATCATTAAACACAGCTTTTGATAC

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FIGURE 2433

ACCCCCAAGGAAAAAGGTCACTGGCTAGTGTAGCTAGTGTAAACAGGACCCAGGCGATGCATGGGACCCTGCCCT
TTTTTTTCTAGTGAGCCTCCGACGCTGTTGCACAAGCTGACTCTTCGTCACGTGATGCGACCGGGCTCCGCCCCG
GCGGCAACACGCTGTATAGACGCGCCGGGTGCCTCGTGCGCATGCGCGGCAGGCCCTTCGGGACGAGCTGGAGGC
AGAGCGTGAGTACAAAGTGATCGGCCTCGGCCGCACGTAGTAGCCCCCCTACTCCCCGGCCAAGTCAGGGCCTCC
CTCTTCCCGCGGAGTCGCAACCACGGGTAGCTCGTGTAGGTAACGGCAGGTCCAGGCCTCCGCATGAGCGGAGGG
CCCCCCGCGCGACCTTGAATGGCCCGGGCGCGCGCGGTCGTGTGGGAGTTGTAGTCCTCCGTCCCCGTCCGCGCG
GACTCCGTTTCCCGTGGTGCCCCGGGCGGCCCGCTTCCGGCGCAGTTAGTTACGAGTCGGCGCACGCGGCCTCGG
TCCGGTTGACTTTGCGGAGCC**ATG**GAGGGCGGCTTCGGCTCCGATTTCGGGGGCTCCGGCAGCGGGAAGCTGGAC
CCAGGGCTCATAATGGAGCAGGTGAAAGTGCAGATCGCCGTGGCCAACGCGCAGGAGCTGCTGCAGAGGATGACG
GACAAGTGTTTCCGGAAGTGTATAGGGAAACCTGGGGGCTCCCTGGACAACTCCGAGCAGAAGTGCATCGCCATG
TGCATGGACCGCTACATGGACGCCTGGAACACCGTGTCTCGCGCCTACAACTCGCGGCTGCAGCGGGAACGAGCC
AACATG**TGA**CCGGCGAGCGCGGGCCACCCCACCCTGTTCATTTCCATAAACGTGCTTTGAGAGGCGGGGTCCGCA
TGTACGTACTGCCTGCCCGGGGCTTAGGAGGGTGGCACCGGTGCTGGGACACACGGGACTGTGTCCTCGCCACCC
CCCGCCCTGCCCCCTGCCAGCCAGTGCAGCTTGGATCTCGGGGGTGTGGGGCCCTGTGCCTTCCTGAAGTGCTGG
CAGCCCAGTGGCACCTCCTTCAGGCCTTTGGGGTATTCCCCTAGTGTGCCCAAGTCAGCCTCATATTCTGGGCGG
ACAGCTTGTCTGGACTTCGGAGTTGGGGGTGGTCAGACACCACAGGAGCTGTCACCTCCTGCGGATGGGCAAATA
AATTGGTGGAGGACGGAGAGAAACCTCTTTATTTCCCTCCTGAGGGGTCTCTGGGAAGAGGTGACGCGTGTCCCT
GGAACCCCAGCTCGGAGGGTCTCAGCCTCCCCTGGGTTGGGAGAAGTCCATCTTTCCCCTTAGTGCCACCGGGCT
GCTGAGTCACGAGGAATGTGTTGCTGCTGCCACCCCTGCCCCAAAGGCTAAGGGGGACAGCCTTCCCCTTGTCAG
GGCTTGCTTTGACCCTGCTTCGTTCCACCCCGGGTCCTGGTGGAGCACCAGGCAGGTGGTCCTCGCTGTGACACT
GAGGTGCTGAGCCAGTGAGCTAGGGTGGAGGGGCTGTGTTTATTGGAACAAAGGGTGGTACCAAAATGCATCCCC
ATGACCCACAGCCCCCCCACACCCGTCCTTGGGTAGGGTACGGTGGGGTGGGGTGTTGGGTGGCCTGCTGCTCCT
GTTGCTTTCACGTAGAGTCTCGGCCTGGGCAGTCACGTGGTGGTCACTCCTGGATGTGCTGTCCTATCCAGCCTC
TCACAGCTGCCACCCGGGTATAGACACCTGGGAAGTGGGGCCGGCCACAGCCATAGCCCCAGCTAGTGACCCCAG
TTAGCACCCACCGTCCAGAGGGCTCCCTGCAGGCCAGGGGTCCCCCAGCGTCACCCTGTTGGGGAGAGAAGAAAG
GGGGTTCAGAGGCCGGTACCTCCCCTACAGCAGCCCTTGGGTCATTGGCCCCTCTAGGAGTGACCCTAGTGACTT
CCCCTGGGAGCCGCATTTTCACTATCTGGAAAATGGGCTCAATGCAAAGGTGGCAGACATTTATGGACACCCGCC
ACGTGGTCCCGGAGTGGAACGGTGCCTCCCACTGCAGCCTCTGCCTGCTCTGCCGCCGAGGCCCGGGGATGGGAT
GCGGTGGGTTGCCCAATAAACGGCTGTGGAGTGGAAATTCCTCCAGAGCCAAAAAGGC

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FIGURE 2434

TTTTAATGGATATTTATTTTTTTACATTGGTCAGTACACAGGTCAGGAGCTCACGCCAGGGCCTTGAGGACAGGC
TGACCCTCCTCCCCGGGGTGGCGTGGGGCTGGGGCACCCTCCGACGGCAGAGCCTCCTTCAGAAAGTGCAGCTCA
AGTCTTAAAGACACCAAAACTGAGCCATGGGCACGCGCCGTCTCCGGGCC**ATG**GCGTTCACTGCAGGGCGGGGGC
GGCACCGCTCCCCTGTGACTGCATCCCGCCTCCCTGGGGACCTGCCTGTGGCAGGAAGGAATGGGGGGCCCCAGC
CCCAGGCCGGGAAGGAGCCAGCGGCCGACAAAGCAGAAACACCCGCTGCTCCACGTAGCCCCTGCTCGCTGTCCT
TGCTCTCAGAAGTCCCGGTCCCATGTAGA**TAG**AGGGGGGCGCATCTTACCAAAGCATTTCCTCCTGGAGGCTACG
CCGCTGTGCTCCCAGTCAGGCGGCTGGTAGGGAGCTTTGCCTGCCCCGGGGATACCCTCTGCCAGCCGCTGGAAG
TGGGAATGCTGGCGACAGACTGTGTCCTCTTTCCCACCTTCATAGCAGGAATCACCCGGACCCGACTGGCTGGGC
TTCGTGCTAGCGAGGGTTCTGGGGGTGGGTCTTGGTGATCTTGTCCTATGGGGAGTCTGCAGTGGTCTCAGCCAC
ATCCTATGTATTTTGGCTCTGGAGGAGCAAAGCTGTATCCTGGAGTTGGTCTGTGATTTGCCGACAGCCTTGCAG
GCTGGGCTCAGGGACAAAGTCCCCCCCAAAACCCGCAGGTCCTCATGTCCAGACGCTGCCCAGTCCTGTCCTGAA
AACAGCACGCCCCAGGCCCACAGAACCCCCCACCCTACATTTGCCTTGGGTGGAGCTGGGGGTGGTCCTAGGACT
GCGGGTGCCCTTAGCTGAAGGGGGTGGGGAGAAGCGTGGACTGGGCAGCCTGTGGGTAATTGGAGGTTCATTGAG
AATTGAGTCTTTGGAAACACTAAGAAAATCAAATTTTTAAAAGTTATTTATGGCCTGGGAAACAATTTGCATTTG
TCCCCAAATACGCTTAGCTGTGTGCCGCTTAGAACGATGCGAAACCATCCCTCTGTGTAAGCCCGTGCCGTGTGA
CTCGAAGCCTAGCGCCCTCCCTGCGAAGCATCAGACGCCACCCAGCCCTGGGGGGGAGGCCCACGCCTGCTGGACC
AACGCGGGTTCTGGGGTGCACAGCGCCAGGTTAACGCTGAAGCCTGCCCCGCTGAGCCCAGGAGCCGGGAGGCCT
GCGGGCTGACCCAGAATCCGATCATGCACCTGTCCTCATGCCAGCGGCTTTGGCTGGGGTTGGTCTGAAGCCTGC
ACGCGGCAGTTCTTTGTTAAAGATCTGAGGGACTCCTCAGTCCTGGGGCGTCGCCGCCTGCAGCCTCTTCCAAGC
CCTGCGTCCAGCGAGCGTCACAGCACAACCTGCAAAAACGGAGCTGGGCTGCAGCTGGGGCTGGCATGGACTTTC
ATTTCAGAGATTCGGTTTTTAAGAAGATGCATGCCTAATGTGTTCTTTTTTTTTTCCAATGATTTGTAATATACA
TTTTATGACTGGAAACTTTTTTGTACAACACTCCAATAAACATTTTGATTTT

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FIGURE 2435

AGCTCTGACCAGAACGACAAGGCGGCCAGTGCGGCTCGCGAGGAGCTGAAGGAGGCCCGC**ATG**CGCCTGGAGTCC
CTCAGCTACCAGCTCTCCGCCTCACTTCGCTGCCACTTCGCCGCTGCCCCGGAGACTTTTCAATCCCACCCCACT
CCTCATCTCACCATTTGGTCAAATTGGAAGCCCAGGGCCAGGACCCGGAGGTTTAGAAGATGCTTGGGCTTGGAG
GGAGGAGGGCCGGCGAGGCTAGCGAGGGGACAGGAGACGGCCCTGCTGCGGACGGAGCGCGGAAACTGCGTAGGA
ATTCAGTGGTGGTGGGTTTTTTTAAGGCTTTCTACAAAACCAAATTCAGAATCCAGGCGTCGACCTGGTGGGGCC
CGGGGCCAAGCCTGCATTCTGGCTGCCCAGCTTCGGACAGCGGGAACTCCTCAGGCAGCCACGCAGCGGGTGTGG
GCCAGCATGGGGATGGCGTGGCCCCCAGGGCGGGTTTTCACTCCGCTGCCTGGGCTTCCAGATTCCCGTTCTGGC
AGCGCACCGGCCGGGTTTCTCGGACCGTTGACTTTATTTGGGGGAGTTTTCCCGCAGTTCAGTTCC**TGA**CTGTGC
AAGGCCAACAGGGCAGGGGAGGGGAAGACCTGGGGAAGGAAGAATGAGGACAGTCCCGTCGTAAGACCTGTCACA
ACAATA

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FIGURE 2436

CGTCGGACTACCGTTGGTTTCCGCAACTTCCTGGATTATCCTCGCCAAGGACTTTGCAATATATTTTTCCGCCTT
TTCTGGAAGGATTTCGCTGCTTCCCGAAGGTCTTGGACGAGCGCTCTAGCTCTGTGGGAAGGTTTTGGGCTCTCT
GGCTCGGATTTTGCAATTTCTCCCTGGGGACTGCCGTGGAGCCGCATCCACTGTGGATTATAATTGCAACATGAC
GCTGGAAGAGCTCGTGGCGTGCGACAACGCGGCGCAGAAGATGCAGACGGTGACCGCCGCGGTGGAGGAGCTTTT
GGTGGCCGCTCAGCGCCAGGATCGCCTCACAGTGGGGGTGTACGAGTCGGCCAAGTTGATGAATGTGGACCCAGA
CAGCGTGGTCCTCTGCCTCTTGGCCATTGACGAGGAGGAGGAGGATGACATCGCCCTGCAAATCCACTTCACGCT
CATCCAGTCCTTCTGCTGTGACAACGACATCAACATCGTGCGGGTGTCGGGCATGCAGCGCCTGGCGCAGCTCCT
GGGAGAGCCGGCCGAGACCCAGGGCACCACCGAGGCCCGAGACCTGCATTGTCTCCTGGTCACGAACCCTCACAC
GGACGCCTGGAAGAGCCACGGCTTGGTGGAGGTGGCCAGCTACTGCGAAGAAAGCCGGGGCAACAACCAGTGGGT
CCCCTACATCTCTCTTCAGGAACGCTGAGGCCCTTCCCAGCAGCAGAATCTGTTGAGTTGCTGCCACAAACAAAA
AATACAATAAATATTTGAACCCCCTCCCCCCCAGCACAACCCCCCCAAAACAACCCAACCCACGAGGACCATCGG
GGGCAGAGTCGTTGGAGACTGAAGAGGAAGAGGAGGAGGAGAAGGGGAGTGAGCGGCCGCCCCCAGGGCGGAGAT
CCAGGAGCTGGCGGCCGCCGATCCGATGGAGAAGGGGGGACCCAGGCCAGCAGGAGACAGGACCCCCGAAGCTGA
GGCCTTGGGATGGAGCAGAAGCCGGAGTGGCGGGGCACGCTGCCGCCTTCCCCATCACGGAGGGTCCAGACTGTC
CACTCGGGGGTGGAGTGAGACTGACTGCAAGCCCCACCCTCCTTGAGACTGGAGCTGGCGTCTGCATACGAGAGA
CTTGGTTGAACTTGGTTGGTCCTTGTCTGCACCCTCGACAAGACCACACTTTGGGACTTGGGAGCTGGGGCTGAA
GTTGCTCTGTACCCATGAACTCCCAGTTTGCGAATTATAGAGACAATCTATTTTGTTACTTGCACTTGTTATTCG
AACCACTGAGAGCGAGATGGGAAGCATAGATATCTATATTTTTATTTCTACTATGAGGGCCTTGTAATAAATTTC
TAAAGCCTC

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FIGURE 2437

GGGCAGGGGCGTGGGCGGGGCGTGGACCAGCCGCGCCGAGCGGGGCCTCTCCGGGCCGCGTCTGTGGGGTCGAGA
CTGCGCGGCCGTTGGGCGTGCAGCGGCGCCAGTCGGCGGACGAGGGGCCCCCGGGAGTTGCTGGACTGAGACATG
AGCCTCCAACTGTGTGGTTGGGCTCGGTAGCACATCGTGGGACTTGGGTGTGCGCCCACAGATGGTTTGGCCCTG
CAGTGACCAGAGCAGCCCAAGCCGCCACC**ATG**GTGAAATTGCTAGTGGCCAAAATCCTGTGCATGGTGGGCGTGT
TCTTCTTCATGCTGCTCGGCTCCCTGCTCCCCGTGAAGATCATCGAGACAGATTTTGAGAAGGCCCATCGCTCGA
AAAAGATCCTCTCTCTCTGCAACACCTTTGGAGGAGGGGTGTTTCTGGCCACGTGCTTCAACGCTCTGCTGCCCG
CTGTGAGGGAAAAGCTCCAGAAGGTCCTGAGCCTCGGCCACATCAGCACCGACTACCCGCTGGCCGAAACCATCC
TCCTGCTGGGCTTCTTCATGACCGTCTTCCTGGAGCAGCTGATCCTGACCTTCCGCAAGGAGAAGCCGTCCTTCA
TCGACCTGGAGACCTTCAACGCCGGATCGGACGTGGGCAGCGACTCGGAGTATGAGAGCCCCTTCATGGGGGGCG
CGCGGGGCCACGCGCTGTACGTGGAGCCCCACGGCCACGGCCCCAGCCTGAGCGTGCAGGGCCTCTCGCGCGCCA
GCCCCGTGCGCCTGCTCAGCCTGGCCTTCGCGCTGTCGGCCCACTCGGTCTTTGAGGGCCTGGCCCTGGGCCTGC
AGGAGGAGGGGGAGAAAGTGGTGAGCCTGTTCGTGGGGGTGGCCGTCCACGAGACACTGGTGGCCGTGGCCCTGG
GCATCAGCATGGCCCGGAGTGCCATGCCCCTGCGGGACGCGGCCAAGCTGGCGGTCACCGTAAGCGCCATGATCC
CCCTGGGCATCGGCCTGGGCCTGGGCATTGAGAGCGCCCAGGGCGTGCCGGGCAGCGTGGCGTCCGTGCTGCTGC
AGGGCCTGGCGGGCGGCACCTTCCTCTTCATCACCTTCCTGGAGATCCTGGCCAAGGAGCTGGAGGAGAAGAGTG
ACCGTCTGCTCAAGGTCCTCTTCCTGGTGCTGGGCTACACCGTCCTGGCCGGGATGGTCTTCCTCAAGTGG**TGA**G
CGGCCTCGCCATTGTCCCTGCCGCCGGAGCCCGCCGGGAGCCCCGGGCCGGACACAGGCCGCGTCCCCCGGCCGC
GCGTCCCCCAAGAGCGAGCACTGTGGCCCTGGGCCACCACCTGTGCACAAGGGGCCTCCCGGGACCAGGCTGTGC
CCCCGATCCTACACCCTGAGCCTCAGAGCACTGCTACTTTTTAAAATACTTCTTTCTCTTAAAAGTCTTTACC

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FIGURE 2438

GGCGTCGCGCCCTGGGGCCGGGGCCGGGCGGCACCGCGGTGCGCAAGCGCAACCGTCGGTGGGTCGGGGATCGGT
CGCCTGAGAGGTATCACCTCTTCTGGGCTCAAG**ATG**GACAACAAGAAGCGCCTGGCCTACGCCATCATCCAGTTC
CTGCATGACCAGCTCCGGCACGGGGGCCTCTCGTCCGATGCTCAGGAGAGCTTGGAAGTCGCCATCCAGTGCCTG
GAGACTGCGTTTGGGGTGACGGTAGAAGACAGTGACCTTGCGCTCCCTCAGACTCTGCCGGAGATATTTGAAGCG
GCTGCCACGGGCAAGGAGATGCCGCAGGACCTGAGGAGCCCCGCGCGAACCCCGCCTTCCGAGGAGGACTCAGCA
GAGGCAGAGCGCCTCAAAACCGAAGGAAACGAGCAGATGAAAGTGGAAAACTTTGAAGCTGCCGTGCATTTCTAC
GGAAAAGCCATCGAGCTCAACCCAGCCAACGCCGTCTATTTCTGCAACAGAGCCGCAGCCTACAGCAAACTCGGC
AACTACGCAGGCGCGGTGCAGGACTGTGAGCGGGCCATCTGCATTGACCCGGCCTACAGCAAGGCCTACGGCAGG
ATGGGCCTGGCGCTCTCCAGCCTCAACAAGCACGTGGAGGCCGTGGCTTACTACAAGAAGGCTCTGGAGCTGGAC
CCCGACAACGAGACATACAAGTCCAACCTCAAGATAGCGGAGCTGAAGCTGCGGGAGGCCCCCAGCCCCACGGGA
GGCGTGGGCAGCTTCGACATCGCCGGCCTGCTGAACAACCCTGGCTTCATGAGCATGGCTTCGAACCTAATGAAC
AATCCCCAGATTCAGCAGCTCATGTCCGGCATGATTTCGGGTGGCAACAACCCCTTGGGAACTCCCGGCACCAGC
CCCTCGCAGAACGACCTGGCCAGCCTCATCCAGGCGGGCCAGCAGTTTGCCCAGCAGATGCAGCAGCAGAACCCA
GAGTTGATAGAGCAGCTCAGGAGCCAGATCCGGAGTCGGACGCCCAGCGCCAGCAACGACGACCAGCAGGAG**TGA**

CGCTGCCTGCTCCCGGTGTGACCGCGTCCTTCCCTGGCCGACCCGAAGGAAGCCTTCTGGTTGTCTGCCACTTCC
TCCTGTTGGACTGCCTGAGAGAGGGGAAGAGAGAGACCTCGGACCTGCATGTCAAGATGGATTTTCCCCTTTTAT
CTCTGCCCTCCTCCACTCCCTTTTTGTAACTCCCTTACAGCCCCCAGACCCTTCTTGAAACGAGAGCCAGCAAGC
TGAGCACAGACCAGCAGCGACCTCCCTTCCAGCCCCCAGAAAGCTCGGTCACTTGAGTGTTTTCTAGAATCCTGG
GGTGCTCCCGGGCCGCTCTCAGAGAAGTGGCAGGTTTCACGTTCAGCCGTGTGGCGGATCGTGTGGCTTCCAAAG
CCTTTTACAGCCCCCGCCCCCCATCCCGTGGTCTGTCTGCAGGAACTCTCCCGTCTGTGAGAAGCCTCTTTCCGA
GTCGACCTCCCGGCCACCCCGGCCCTGTGCCTGCTCGGAAGAGCTCACTGCCAGCTGCGGCCTGGGCACCGCGGG
CCATGTGTGTTTGCATGAGGAACTCTTTAGTGGCAGACACCTAAGAGACGGCTGCGGTCACCCCACGCCTCCGCG
GCTCAGGAGCCGTCCTGGGTGCATAGGACCAGTTTCTGTGACTTTTCTCCAGTTGGGCATGTTGACAGACATGTT
TCCCCTCCTCCCACCCTCATTTTCTGGTCCTCGCGACTGAGAGCCAGGGGCGACATCATGACCTTCTGTCCCGGC
CGCCTTAGCCCCGGGCACAGGGAAGGCAGCTGGGCCGTTTCTGTCTGTGTCCCATCCTGCTGTCCTTCTGTCCTG
GATGTTTCATGGGCCCGGGGCCCCCCAGGGAAGCTTACCCCTCCTGTGCTGGGTGGAGGCCACGGGACACCTCAG
GTGCCACCCACCTTGGCCCTAAAACAGCCACCAGGAAAGCAGCCGGAGAGCCGGACAGCAGGCAGCCTGTCTGGG
TTCCTGAGGCCTGGGGGTGGCAGACGAGCCCACGGCGCCGTGGTCCCAGCAGCAGGGTTGTCAGTCGGAGCATCC
TGGGGCTCCCTGGCTCCTGGCCGTCTGTGAGGTAGGCGCAGTACCGTGTATCGTAGGTAGCAGTAGGAACGGGGG
CCGCCGCGGCCCTGCAGCCGCTCATGGCGGTGAGGTGTGTGCCAAGCCCACCCGGGGTGCAGGGCGTGACGTGTG
GGGAATAAATAGGCGTTGTGACCTCT

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FIGURE 2439

GTGGCGGCGGTTGGGCCGAGGCAGGCGGCCTCAGTGGCCGAGGTGGCTGGACGCGTAGCAGGTGGAAGGAGGGAG
GGAGCCGCAGGCGCAGACCCACCCGCC**ATG**AAGCCCCCCGCAGCCTGTGCAGGAGACATGGCGGACGCAGCATCT
CCGTGCTCTGTGGTAAACGACCTGCGGTGGGACCTGAGTGCCCAGCAGATAGAGGAGCGCACCAGGGAGCTCATC
GAGCAGACCAAGCGCGTGTATGACCAGGTTGGCACCCAGGAGTTTGAGGACGTGTCCTACGAGAGCACGCTCAAG
GCGCTGGCCGATGTGGAGGTCACCTACACAGTTCAGAGGAATATCCTTGACTTCCCCCAGCATGTTTCCCCCTCC
AAGGACATCCGGACAGCCAGCACAGAGGCCGACAAGAAGCTCTCTGAGTTCGACGTGGAGATGAGCATGAGGGAG
GACGTGTACCAGAGGATCGTGTGGCTCCAGGAGAAAGTTCAGAAGGACTCACTGAGGCCCGAGGCTGCGCGGTAC
CTGGAGCGGCTAATCAAGCTGGGCCGGAGAAATGGGCTTCACCTCCCCAGAGAGACTCAGGAAAACATCAAACGC
ATCAAGAAGAAGCTGAGCCTTCTGTGCATCGACTTCAACAAGAACCTGAACGAGGACACGACCTTCCTGCCCTTC
ACGCTCCAGGAGCTAGGAGGGCTCCCCGAGGACTTTCTGAACTCCCTGGAGAAGATGGAGGACGGCAAGTTGAAG
GTCACCCTCAAGTACCCCCATTACTTCCCCCTCCTGAAGAAATGCCACGTGCCTGAGACCAGGAGGAAAGTGGAG
GAGGCCTTCAACTGCCGGTGCAAGGAGGAGAACTGCGCTATCCTCAAGGAGCTGGTGACGCTGCGGGCCCAGAAG
TCCCGCCTGCTGGGGTTCCACACGCACGCCGACTATGTCCTGGAGATGAACATGGCCAAGACCAGCCAGACCGTG
GCCACCTTCCTAGATGAGCTGGCGCAGAAGCTGAAGCCCCTGGGGGAGCAGGAGCGTGCGGTGATTCTGGAGCTG
AAGCGTGCGGAGTGCGAGCGCCGGGGCCTGCCCTTCGACGGCCGCATCCGTGCCTGGGACATGCGCTACTACATG
AACCAGGTGGAGGAGACGCGCTACTGCGTGGACCAGAACCTGCTCAAGGAGTACTTCCCCGTGCAGGTGGTCACG
CACGGGCTGCTGGGCATCTACCAGGAGCTCCTGGGGCTGGCCTTCCACCACGAGGAGGGCGCCAGTGCCTGGCAT
GAGGACGTGCGGCTCTACACCGCGAGGGACGCGGCCTCGGGGGAGGTGGTCGGCAAGTTCTACCTGGACCTGTAC
CCGCGGGAAGGAAAGTACGGGCACGCGGCCTGCTTTGGCCTGCAGCCCGGCTGCCTGCGGCAGGATGGGAGCCGC
CAGATCGCCATCGCGGCCATGGTGGCCAACTTCACCAAGCCCACAGCCGACGCGCCCTCGCTGCTGCAGCATGAC
GAGGTGGAGACCTACTTCCATGAGTTTGGCCACGTGATGCACCAGCTCTGCTCCCAGGCGGAGTTCGCCATGTTC
AGCGGGACCCACGTGGAGCGGGACTTTGTGGAGGCGCCGTCGCAGATGCTGGAGAACTGGGTGTGGGAGCAGGAG
CCGCTGCTGCGGATGTCGCGGCACTACCGCACAGGCAGCGCCGTGCCCCGGGAGCTCCTGGAGAAGCTCATTGAG
TCCCGGCAGGCCAACACAGGCCTCTTCAACCTGCGCCAGATCGTCCTCGCCAAGGTGGACCAGGCCCTGCACACG
CAGACGGACGCAGACCCCGCCGAGGAGTATGCGCGGCTCTGCCAGGAGATCCTCGGGGTCCCGGCCACGCCAGGA
ACCAACATGCCTGCAACCTTCGGCCATCTGGCAGGTGGCTACGACGCCCAGTACTACGGGTACCTGTGGAGCGAG
GTGTATTCCATGGACATGTTCCACACGCGCTTCAAGCAGGAGGGTGTCCTGAACAGCAAGGTTGGCATGGATTAC
AGAAGCTGCATCCTGAGACCCGGCGGTTCCGAGGATGCCAGCGCCATGCTGAGGCGCTTCCTGGGCCGTGACCCC
AAGCAGGACGCCTTCCTCCTGAGCAAGGGGCTGCAGGTCGGGGGCTGCGAGCCCGAGCCGCAGGTCTGC**TGA**GGC
CTGGCACTGCGACTGCCCAGTCTGGCCTGCGCTCCCGCCGCCCTGGTGCCTTAGCCCCCGGCACAGGATGGGGCA
GGCTCTGGCACAGTGCCTGGGACTGGCAGGGTGGCTGAGCGGCTGTCTTGCCTCTTGTCATTGTCTGTCCCCACC
CGGTCGTGGCCCACCCGGCTAGAGACGGCGTCCTCAAGGCATCTGGAGGGCTTTCGTGGCTGCCAGGGCCTGGTC
TTTGTTGCACTAACACGTCTCCTCTCTGGGAAACGTCCCTTGTCAGGAGACGGCTCTTCTTTGAAATGAGGTCAT
TAAAAGGAAAC

FIGURE 2440

AGTTTCCTCTTGGCCTGAACTTGGCTGACCTCCGCAGCTTCCGCCCGACTCTGGCTAAAGTCTTGGAGGCTACTG
CCTTGAAG**ATG**ACCTCTAGGGACCAGCCCAGACCCAAGGGCCCCCCGAAAAGCACTTCGCCTTGTCCTGGGATCT
CGAACTCTGAGAGCTCTCCGACGCTGAATTATCAGGGCATTCTAAATCGGCTCAAGCAGTTCCCCAGGTTTTCTC
CTCATTTTGCTGCGGAGTTGGAGAGCATTTACTACTCGCTGCACAAGATCCAGCAGGATGTGGCAGAACATCACA
AGCAGATAGGAAACGTCTTACAGATTGTGGAGAGCTGCAGCCAACTCCAGGGTTTCCAGTCTGAGGAGGTCTCAC
CTGCTGAACCAGCCAGCCCTGGGACGCCCCAGCAGGTGAAGGACAAGACCCTGCAGGAGTCGAGCTTTGAGGACA
TCATGGCCACCAGGTCCTCCGACTGGCTCCGGCGGCCTTTGGGGGAGGACAATCAGCCGGAGACCCAGCTGTTCT
GGGACAAGGAGCCTTGGTTTTGGCACGACACTCTGACCGAGCAACTCTGGCGGATTTTTGCCGGCGTCCACGATG
AGAAGGCAAAGCCCAGAGACAGACAGCAGGCACCAGGCCTGGGGCAGGAAAGCAAGGCACCAGGATCCTGTGACC
CAGGAACAGACCCATGTCCTGAAGATGCCTCCACCCCCAGGCCACCTGAGGCCTCCTCCAGTCCCCCTGAGGGTT
CCCAAGACAGGAACACAAGTTGGGGTGTGGTCCAGGAGCCTCCTGGAAGAGCCTCTCGGTTTCTACAGTCCATAT
CCTGGGACCCTGAGGACTTTGAAGATGCATGGAAGAGGCCAGATGCCTTGCCCGGGCAGTCAAAGAGACTCGCCG
TCCCGTGCAAACTGGAAAAGATGCGGATCTTGGCACACGGGGAGCTCGTGCTCGCCACGGCCATCAGCAGCTTCA
CGCGGCACGTGTTCACCTGTGGCAGAAGAGGCATCAAGGTGTGGAGCCTGACTGGACAGGTGGCTGAGGACAGGT
TCCCTGAGAGCCACCTGCCTATACAGACCCCTGGGGCCTTCCTGCGCACCTGCCTGCTGTCCTCAAACAGCAGGA
GCCTGCTCACCGGTGGCTACAACCTGGCCAGCGTGAGCGTGTGGGACCTGGCGGCGCCCTCCCTGCATGTGAAGG
AGCAGTTGCCCTGTGCAGGTCTCAACTGCCAGGCCCTGGATGCCAACCTGGATGCCAACCTGGCCTTCGCCAGCT
TCACCAGTGGTGTGGTCAGGATCTGGGACCTGCGGGATCAGAGTGTGGTCAGGGACCTCAAGGGTTATCCTGATG
GAGTCAAGAGTATCGTGGTCAAGGGCTACAACATCTGGACTGGGGGTCCGGATGCCTGTCTGCGGTGCTGGGACC
AGAGGACCATCATGAAACCTCTGGAGTACCAATTCAAGTCTCAGATAATGAGCCTGTCCCACAGCCCCCAGGAGG
ACTGGGTGCTGCTGGGCATGGCCAATGGCCAGCAGTGGCTGCAAAGCACCAGCGGGAGCCAGCGGCACATGGTGG
GGCAAAAAGACAGCGTCATCCTGAGCGTCAAGTTCTCCCCCTTTGGCCAGTGGTGGGCAAGCGTTGGAATGGACG
ACTTCCTTGGCGTCTACAGCATGCCGGCGGGGACAAAAGTGTTCGAGGTGCCTGAGATGTCTCCAGTCACGTGCT
GTGACGTCTCTTCCAACAACCGCCTCGTTGTCACAGGCTCCGGGGAGCACGCCTCCGTGTACCAGATCACCTAC**T**
GAGGGGCCTCGCTGCTGTCATCCCACTCCGGCTCCTCTTTTCATCCCCCCCCTTCCCCCCCCCCAACAAGGGGGA
CATGGTGGAGGGAAGCGGGAAGGCTCTTCTGTGGCATCGCACGATCTAGTCTGTGGTGTAGACTGGTCGCCATCA
CGTGTAATAAAGCACCCGGGAAAGGC

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FIGURE 2441

CTGGGGGGCTTTTCGGATCGGCAGGATGTACCCCCAGGGAAGGCACCCGACCCCGCTCCAGTCCGGCCAGCCCTT
CAAGTTCTCGATCTTGGAGATCTGCGACCGCATCAAAGAAGAATTCCAGTTTCTTCAGGCTCAATACCACAGCCT
CAAGCTAGAATGTGAGAAGCTGGCCAGCGAGAAGACGGAAATGCAGCGACATTATGTCATGTATTATGAGATGTC
GTACGGGCTCAACATTGAAATGCATAAGCAGGCGGAGATTGTGAAGCGTCTGAGCGGTATCTGCGCTCAGATTAT
CCCCTTCCTGACCCAGGAGCATCAGCAGCAGGTGCTCCAGGCCGTAGAACGCGCCAAGCAGGTCACCGTGGGGGA
GCTGAACAGCCTCATCGGGCAGCAGCTCCAGCCGCTGTCCCACCACGCACCCCCTGTGCCCCTCACCCCCCGCCC
AGCCGGGCTGGTGGGCGGCAGTGCTACGGGGCTGCTTGCTCTGTCTGGAGCCCTGGCTGCCCAGGCTCAGCTGGC
GGCGGCTGTCAAGGAGGACCGTGCGGGCGTGGAGGCCGAGGGGTCCAGAGTGGAGAGAGCCCCGAGCAGGAGTGC
ATCTCCCTCGCCCCCTGAGAGTCTCGTGGAGGAGGAGCGACCGAGTGGCCCTGGTGGTGGCGGGAAGCAGAGAGC
AGATGAGAAGGAGCCATCAGGACCTTATGAAAGCGACGAAGACAAGAGTGATTACAATCTGGTGGTGGACGAGGA
CCAACCCTCAGAGCCCCCCAGCCCGGCTACCACCCCCTGCGGAAAGGTACCCATCTGCATTCCTGCCCGTCGGGA
CCTGGTGGACAGTCCAGCCTCCTTGGCCTCTAGCCTTGGCTCACCGCTGCCTAGAGCCAAGGAGCTCATCCTGAA
TGACCTTCCCGCCAGCACTCCTGCCTCCAAATCCTGTGACTCCTCCCCGCCCCAGGACGCTTCCACCCCCGGGCC
CAGCTCGGCCAGTCACCTCTGCCAGCTTGCTGCCAAGCCAGCACCTTCCACGGACAGCGTCGCCCTGAGGAGCCC
CCTGACTCTGTCCAGTCCCTTCACCACGTCCTTCAGCCTGGGCTCCCACAGCACTCTCAACGGAGACCTCTCCGT
GCCCAGCTCCTACGTCAGCCTCCACCTGTCCCCCCAGGTCAGCAGCTCTGTGGTGTACGGACGCTCCCCCGTGAT
GGCATTTGAGTCTCATCCCCATCTCCGAGGGTCATCCGTCTCTTCCTCCCTACCCAGCATCCCTGGGGGAAAGCC
GGCCTACTCCTTCCACGTGTCTGCGGACGGGCAGATGCAGCCGGTTCCCTTCCCCTCGGATGCACTGGTAGGCGC
GGGCATCCCGCGGCACGCCCGGCAGCTGCACACGCTGGCCCATGGCGAGGTGGTCTGCGCGGTCACCATCAGCGG
CTCCACACAGCATGTGTACACGGGCGGCAAGGGCTGTGTGAAGGTGTGGGACGTGGGCCAGCCTGGGGCCAAGAC
GCCCGTGGCCCAGCTCGACTGCCTGAACCGAGACAACTACATTCGTTCCTGCAAGTTGCTGCCGGATGGCCGGAG
TCTGATCGTGGGCGGTGAGGCCAGCACCTTGTCCATTTGGGACCTGGCGGCGCCCACCCCCCGTATCAAGGCCGA
GCTGACTTCCTCAGCCCCAGCCTGCTACGCCCTGGCCGTCAGCCCCGACGCCAAGGTTTGCTTCTCCTGCTGCAG
CGATGGCAACATTGTGGTCTGGGACCTGCAGAATCAGACTATGGTCAGGCAGTTCCAGGGCCACACGGACGGCGC
CAGCTGCATTGATATTTCCGATTACGGCACTCGGCTCTGGACAGGGGGCCTGGACAACACGGTGCGCTGCTGGGA
CCTGCGGGAGGGCCGCCAGCTGCAGCAGCATGACTTCAGCTCCCAGATTTTCTCCCTGGGCCACTGCCCTAACCA
GGACTGGCTGGCGGTCGGAATGGAGAGTAGCAACGTGGAGATCCTGCACGTCCGCAAGCCGGAGAAATACCAGCT
GCACCTCCACGAGAGCTGCGTGCTGTCCCTGAAGTTTGCCTCCTGCGGACGGTGGTTTGTGAGCACCGGGAAGGA
CAACCTGCTCAACGCCTGGAGGACGCCGTACGGGGCCAGCATTTTCCAGTCCAAGGAGTCGTCCTCAGTCCTGAG
TTGTGACATCTCCAGAAATAACAAATACATCGTGACAGGCTCGGGGGACAAGAAGGCCACCGTGTATGAGGTGGT
CTACTGAGACATGACCCCCC

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FIGURE 2442

GCAAGGTCACGTCCTGTCCCCACCTTTCGCCCCTCACCCTAGCTCCCCCAACGCCAAAGACAAGGTTAAGAAAGT
GATATCGCGAAATAGTTTTTTAAAGCATTTTATTGCATTTTATGACTTGGAGTTTATGTGAAACCTCAACGGTAT
TAGCCGAACAGCCTGCCGCACCTTCCGGGAGTTCCAGAGTGGGCCTACAACTCCCACAGGGCTCCGCGAGCGCCG
GACGGACGGACTACAATTCCCGACAGGCAGCGCGGCTGGCGGGGCGGTTCGCCGCGGTGCCCACAGGACCTCAGG
GCGAGTGCGGGCTGCCCCGCGCGGCGCCCGCAGGACCCCGGCGGCTACCCATGCCGAGGTGAGTCCGCGGGAGCC
GCCGCCGCCGCCGTCCCGTCCCAGCTGCCGCCCCGCGCGGCCCCGCCGCCGGCCAGGATGCTGGAGGAAGCGGGC
GAGGTGCTGGAGAAC**ATG**CTGAAGGCGTCTTGTCTGCCGCTCGGCTTCATCGTCTTCCTGCCCGCTGTGCTGCTG
CTGGTGGCGCCGCCGCTGCCTGCCGCCGACGCCGCGCACGAGTTCACCGTGTACCGCATGCAGCAGTACGACCTG
CAGGGCCAGCCCTACGGCACACGGAATGCAGTGCTGAACACGGAGGCGCGCACGATGGCGGCGGAGGTGCTGAGC
CGCCGCTGCGTGCTCATGCGGCTACTGGACTTCTCCTACGAGCAGTACCAGAAGGCCCTGCGGCAGTCGGCGGGC
GCCGTGGTCATCATCCTGCCCAGGGCCATGGCCGCCGTGCCCCAGGACGTCGTCCGGCAATTCATGGAGATCGAG
CCGGAGATGCTGGCCATGGAGACCGCCGTCCCCGTGTACTTTGCCGTGGAGGACGAGGCCCTGCTGTCTATCTAC
AAGCAGACCCAGGCTGCCTCCGCCTCCCAGGGCTCCGCCTCTGCTGCTGAAGTACTGCTGCGCACGGCCACTGCC
AACGGCTTCCAGATGGTCACCAGCGGGGTACAGAGCAAGGCCGTGAGTGACTGGCTGATTGCCAGCGTGGAGGGG
CGGCTGACGGGGCTGGGCGGAGAGGACCTTCCCACCATCGTCATCGTGGCCCACTACGACGCCTTTGGAGTGGCC
CCCTGGCTGTCGCTGGGCGCGGACTCCAACGGGAGCGGCGTCTCTGTGCTGCTGGAGCTGGCACGCCTCTTCTCC
CGGCTCTACACCTACAAGCGCACGCACGCCGCCTACAACCTCCTGTTCTTTGCGTCTGGAGGAGGCAAGTTTAAC
TACCAGGGAACCAAGCGCTGGCTGGAAGACAACCTGGACCACACAGACTCCAGCCTGCTTCAGGACAATGTGGCC
TTCGTGCTGTGCCTGGACACCGTGGGCCGGGGCAGCAGCCTGCACCTGCACGTGTCCAAGCCGCCTCGGGAGGGC
ACCCTGCAGCACGCCTTCCTGCGGGAGCTGGAGACGGTGGCCGCGCACCAGTTCCCTGAGGTACGGTTCTCCATG
GTGCACAAGCGGATCAACCTGGCGGAGGACGTGCTGGCCTGGGAGCACGAGCGCTTCGCCATCCGCCGACTGCCC
GCCTTCACGCTGTCCCACCTGGAGAGCCACCGTGACGGCCAGCGCAGCAGCATCATGGACGTGCGGTCCCGGGTG
GATTCTAAGACCCTGACCCGTAACACGAGGATCATTGCAGAGGCCCTGACTCGAGTCATCTACAACCTGACAGAG
AAGGGGACACCCCCAGACATGCCGGTGTTCACAGAGCAGATGCAGATCCAGCAGGAGCAGCTGGACTCGGTGATG
GACTGGCTCACCAACCAGCCGCGGGCCGCGCAGCTGGTGGACAAGGACAGCACCTTCCTCAGCACGCTGGAGCAC
CACCTGAGCCGCTACCTGAAGGACGTGAAGCAGCACCACGTCAAGGCTGACAAGCGGGACCCAGAGTTTGTCTTC
TACGACCAGCTGAAGCAAGTGATGAATGCGTACAGAGTCAAGCCGGCCGTCTTTGACCTGCTCCTGGCTGTTGGC
ATTGCTGCCTACCTCGGCATGGCCTACGTGGCTGTCCAGCACTTCAGCCTCCTCTACAAGACCGTCCAGAGGCTG
CTCGTGAAGGCCAAGACACAG**TGA**CACAGCCACCCCCACAGCCGGAGCCCCCGCCGCTCCACAGTCCCTGGGGCC
GAGCACGAGTCGTCATGATGGATGCACTGACTGACCGTCTGGGGCTCAGGCTGGTGTGGGATGCAGCCGGCCGAT
GAGAAAATAAAGCCATATTGAATGATC

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FIGURE 2443

TGTTCCCAGCACTCAAGCCTTGCCACCGCCGAGCCGGGCTTCCTGGGTGTTTCAGGCAAGGAAGTCTAGGTCCCT
GGGGGGTGACCCCCAAGGAAAAGGCAGCCTCCCTGCGCACCCGGTTGCCCGGAGCCCTCTCCAGGGCCGGCTGGG
CTGGGGGTTGCCCTGGCCAGCAGGGGCCCGGGGGCGATGCCACCCGGTGCCGACTGAGGCCACCGCACC**ATG**GCC
CGCTCGCTGACCTGGCGCTGCTGCCCCTGGTGCCTGACGGAGGATGAGAAGGCCGCCGCCCGGGTGGACCAGGAG
ATCAACAGGATCCTCTTGGAGCAGAAGAAGCAGGACCGCGGGGAGCTGAAGCTGCTGCTTTTGGGCCCAGGCGAG
AGCGGGAAGAGCACCTTCATCAAGCAGATGCGGATCATCCACGGCGCCGGCTACTCGGAGGAGGAGCGCAAGGGC
TTCCGGCCCCTGGTCTACCAGAACATCTTCGTGTCCATGCGGGCCATGATCGAGGCCATGGAGCGGCTGCAGATT
CCATTCAGCAGGCCCGAGAGCAAGCACCACGCTAGCCTGGTCATGAGCCAGGACCCCTATAAAGTGACCACGTTT
GAGAAGCGCTACGCTGCGGCCATGCAGTGGCTGTGGAGGGATGCCGGCATCCGGGCCTACTATGAGCGTCGGCGG
GAATTCCACCTGCTCGATTCAGCCGTGTACTACCTGTCCCACCTGGAGCGCATCACCGAGGAGGGCTACGTCCCC
ACAGCTCAGGACGTGCTCCGCAGCCGCATGCCCACCACTGGCATCAACGAGTACTGCTTCTCCGTGCAGAAAACC
AACCTGCGGATCGTGGACGTCGGGGGCCAGAAGTCAGAGCGTAAGAAATGGATCCATTGTTTCGAGAACGTGATC
GCCCTCATCTACCTGGCCTCACTGAGTGAATACGACCAGTGCCTGGAGGAGAACAACCAGGAGAACCGCATGAAG
GAGAGCCTCGCATTGTTTGGGACTATCCTGGAACTACCCTGGTTCAAAAGCACATCCGTCATCCTCTTTCTCAAC
AAAACCGACATCCTGGAGGAGAAAATCCCCACCTCCCACCTGGCTACCTATTTCCCCAGTTTCCAGGGCCCTAAG
CAGGATGCTGAGGCAGCCAAGAGGTTCATCCTGGACATGTACACGAGGATGTACACCGGGTGCGTGGACGGCCCC
GAGGGCAGCAAGAAGGGCGCACGATCCCGACGCCTCTTCAGCCACTACACATGTGCCACAGACACACAGAACATC
CGCAAGGTCTTCAAGGACGTGCGGGACTCGGTGCTCGCCCGCTACCTGGACGAGATCAACCTGCTG**TGA**CCCAGG
CCCCACCTGGGGCAGGCGGCACCGGCGGGCGGGTGGGAGGTGGGAGTGGCTGCAGGGACCCCTAGTGTCCCTGGT
CTATCTCTCCAGCCTCGGCCCACACGCAAGGGAGTCGGGGGACGGACGGCCCGCTGCTGGCCGCTCTCTTCTCTG
CCTCTCACCAGGACAGCCGCCCCCCAGGGTACTCCTGCCCTTGCTTGACTCAGTTTCCCTCCTTTGAAAGGGAAG
GAGCAAAACGGCCATTTGGGATGCCAGGGTGGATGAAAAGGTGAAGAAATCAGGGGATTGAGGACTTGGGTGGGT
GGGCATCTCTCAGGAGCCCCATCTCCGGGCGTGTCACCTCCTGGGCAGGGTTCTGGGACCCTCTGTGGGTGACGC
ACACCCTGGGATGGGGCTAGTAGAGCCTTCAGGCGCCTTCGGGCGTGGACTCTGGCGCACTCTAGTGGACAGGAG
AAGGAACGCCTTCCAGGAACCTGTGGACTAGGGGTGCAGGGACTTCCCTTTGCAAGGGGTAACAGACCGCTGGAA
AACACTGTCACTTTCAGAGCTCGGTGGCTCACAGCGTGTCCTGCCCCGGTTTGCGGACGAGAGAAATCGCGGCCC
ACAAGCATCCCCCCATCCCTTGCAGGCTGGGGGCTGGGCATGCTGCATCTTAACCTTTTGTATTTATTCCCTCAC
CTTCTGCAGGGCTCCGTGCGGGCTGAAATTAAAGATTTCTTAG

FIGURE 2444

AGCCGATGTCAGTCTGGTGTGGCAGGAGGGGCTTGGGTGGGAGCCGTCCTGGGATTGCAGATTGGGCCTTGGGGC
GCCAGGTGGCTGAGTCCTGGCGCTGTGTCCTTTCAGGATGGTGGATGTGGGGGGCCAGCGGTCGGAGCGGAGGAA
GTGGATCCACTGCTTTGAGAACGTGACATCCATCATGTTTCTCGTCGCCCTCAGCGAATACGACCAAGTCCTGGT
GGAGTCGGACAACGAGAACCGGATGGAGGAGAGCAAAGCCCTGTTCCGGACCATCATCACCTACCCCTGGTTCCA
GAACTCCTCCGTCATCCTCTTCCTCAACAAGAAGGACCTGCTGGAGGACAAGATCCTGTACTCGCACCTGGTGGA
CTACTTCCCCGAGTTCGATGGTCCCCAGCGGGACGCCCAGGCGGCGCGGGAGTTCATCCTGAAGATGTTCGTGGA
CCTGAACCCCGACAGCGACAAGATCATCTACTCACACTTCACGTGTGCCACCGACACGGAGAACATCCGCTTCGT
GTTCGCGGCCGTGAAGGACACCATCCTGCAGCTCAACCTCAAGGAGTACAACCTGGTCTGAGCGCCCAGGCCCAG
GGAGACGGGATGGAGACACGGGGCAGGACCTTCCTTCCACGGAGCCTGCGGCTGCCGGGCGGGTGGCGCTGCCGA
GTCCGGGCCGGGGCCTCTGCCCGCGGGAGGAGATTTTTTTTTTTCATATTTTTAACAAATGGTTTTTATTTCACA
GTTATCAGGGGATGTACATCTCTCCCTCCGTACACTTCGCGCACCTTCTCACCTTTTGTCAACGGCAAAGGCAGC
CTTTTTCTGGCCTTGACTTATGGCTCGCTTTTTTCTAAAAAAAAAAAAAAAAAGAAAGAAAGAAAAAAAGCAACGA
AACATAAAACACACAAGCGCCCCGTGCCCCCAGTGACTCTGGGCCTCACAGAGCCCCCGCCAGCCAGCATGGGGC
CCCGCCCTGCAGCCAGTCACGCGCCCCCACACCGCAGCCCCCTGTGGCTGTCCTTCCAACCCCACGTGCTTTTTC
TTTCTCCTGCCCGCTTCTTTTCTTCATCACAAAAGGCGTGGAGACTCGGAGACGGACGTTTTTCCCCTTTTTTAA
GTTATTGACGCCCAGCGCGCCTCGCCTCTTCACCCATCAACGCTGTGCTTTGCCCACTGGACTCCTGAAGAGGGG
GTGGGGGGCTCCCTCGGTCGCCCACCCTGGGAAGTGCCTAACCTTTTATTTTATTTTATTTTTTTGAGGAAAAAG
AACGCCTGACTCACAGGTTGAAGAAACACCCTGGGCCCTCTCTCATGGCCGGGTTCCCCGTCCCTCTGCAGAGGC
TGGGAAGGGTCCCCGGGCTGGAGCCACGGGGGCTTCTCTGGGCTGTGCCTCCGGGGCCAACACTGGCTGCTTGGG
GCTGCCCGGGGACTCCAGAGGGCTGCACGGCCACCCTGCCCTGGCTAGAGCGCACCCCACCGGAGCCCACGTGGG
CTGGGCGGCTGGAGGGATGGTCCCCCGGTGACACTGGGAGAAAGGCCACTTGGATGGGGGCGTTTCTGTTTTGTT
CCGCTTTGTGATGTCACCAATTTGGAAACAGCGAGGGTGGGTGGGGACTTTTACAGAATATTCTCAGGTGTGTAC
CCGAGAGGCAGAGAGAGGGACGTGGCCGGCAGCTCTGTGCGTGGCCTTGTCCCAAGCACTTGCGCCCGCCCCCGA
GCGCCGCCCCCGGGGAGCGGGAAGCCAGCACTCGCACTTTGGCCAGGGGCGCGTGGAAGGTGGTGGCAGGCACCG
GCCTGGGCAGCTTCCAGGCCTGGCTGGCCACGACCACGGCCCGAGGGGGAGCCCGCCAGGCCACGCCGCACTGAG
CCACAGCCCCGGGGGCCGCCTCCCGGGGCCCCTTGAGGCACTGAGGCACCGAGACTGGTTCTCCCCGAGAGACTC
GGAAGGTGGGGAACGAGGGGACTGTGTTTGGGGAGGTGGCTTTTTCGTCTGCTGTTGACTGAACACTACAGCGCC
CTGTGGTTCCGGGCTTCGCACAGCTGTCCCAGGG**ATG**GATCGCCTGTGCTGCCTTCGCCCGCCGCCACACCGGGA
CCCTGCACGGCTGCTTCTGGCCTCGACAGATGACAAAAGAAACAGCCCCAAAATACGACCACTCCAACCAGCAGT
TCCCGCCTGCCTGCCCGCCACTGTCAGGCCTGCCCTGGCCTCCTCGTCCGCAGGGCTGTCTGCTGGCTTCTGGGG
GCAGAAGAGCGGGGAGCCCCGTGGAAGGGTCAGGGGAGACCAGGTCAGGGCAGCTACATTTCTGGTGATCAGCCC
CATGGGGAGACGGGGCTGGCGGGATACCCCCCCCCCGGCTTCCCCACACCACTTCTGTCTCACCCGGAAGCGTCC
TTTTTTTGTGCCAGGTGTCTACCTAAGAGGGTTGGTGCCAGAAGCCCCCCATGGCGAGTGCTGGGGCCCGGCGGT
GCCCTGGGGGAGCAGATGGGGCCACCCCTGGCAGGGCCGCTACAACCTTTTCCAGCAGCGGAGCCCTCTGGGGGG
CCTGTGCTTGTGGCATCTC**TGA**GGGCCTAGATTGCACAAGGTGACCTGGCCGTGGCCTGAGGGTGGAGTCGCCCA
GCACGCAGGCCGGGGCGCTGCGGGGCTAAGTATTAGGCCTTCCCAGGGAGGGGGCGTGCCAAGCATCCCAGAGCC
GGGCTGGGACCGCCAAAACGTCGTGGCCTGGATCCTCTGGGTCTGAGTGCCTGATCCCCTGCCCCCCAAAAAAGC
AGAGGTAGGTGTTGCAGGCCCAGGGCAGGGGTGCCTGCCCCAGGAGAGTCCCAGGCAGTGGTTCTCGTGCCAGTG
GCACCCAGGGGCAAGGACAGCCAACCCCCACCCTTGCCACGTGTGGGGCCACGTGGGCATGTGGGGTGTGTGTTT
TTACCTTGGTGAATCTCACCTGCCAACGATTTCTCGTGAGTGCCGACCACCTTCTCCGACCATGTTACGCCCGGG
CGGCAGCAGCCCCCGGCCACTGCAAACCCATGCCCTGGGTCCCCCGGCTCCCCCAGGGAGGCATCCCCGTGCCAA
TGTCCCCCAGTGGTGGCAGCAGATCCTGTGGCCGGCCTGGCGGACGGGACCCAGTGATACTTGTATATTACACAG
TCCTGATTTCAGACAATTTCAACCTTAATCTATTTAAAAAAGAATATTCTATAC

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FIGURE 2445

GGCCGCCCGGCGCCCCCAGCAGCCCGAGCCGGGGCGCACAGCCGGGGCGCAGCCCGCGCCCCCCGCCGCGATTGA
C**ATG**ATGTTTCCACAAAGCAGGCATTCGGGCTCCTCGCACCTACCCCAGCAACTCAAATTCACCACCTCGGACTC
CTGCGACCGCATCAAAGACGAATTTCAGCTACTGCAAGCTCAGTACCACAGCCTCAAGCTCGAATGTGACAAGTT
GGCCAGTGAGAAGTCAGAGATGCAGCGTCACTATGTGATGTACTACGAGATGTCCTACGGCTTGAACATCGAGAT
GCACAAACAGGCTGAGATCGTCAAAAGGCTGAACGGGATTTGTGCCCAGGTCCTGCCCTACCTCTCCCAAGAGCA
CCAGCAGCAGGTCTTGGGAGCCATTGAGAGGGCCAAGCAGGTCACCGCTCCCGAGCTGAACTCTATCATCCGACA
GCAGCTCCAAGCCCACCAGCTGTCCCAGCTGCAGGCCCTGGCCCTGCCCTTGACCCCACTACCCGTGGGGCTGCA
GCCGCCTTCGCTGCCGGCGGTCAGCGCAGGCACCGGCCTCCTCTCGCTGTCCGCGCTGGGTTCCCAGGCCCACCT
CTCCAAGGAAGACAAGAACGGGCACGATGGTGACACCCACCAGGAGGATGATGGCGAGAAGTCGGAT**TAG**CAGGG
GGCCGGGACAGGGAGGTTGGGAGGGGGGACAGAGGGGAGACAGAGGCACGGAGAGAAAGGAATGTTTAGCACAAG
ACACAGCGGAGCTCGGGATTGGCTAAACTCCCATAGTATTTATGGTGGCCGCCGGCGGGGGCCCCAGCCCAGCTT
GCAGGCCACCTCTAGCTTTCTTCCTACCCCATTCCCGGCTTCCCTCCTCCTCCCCTGCAGCCTGGTTAGGTGGAT
ACCTGCCCTGACATGTGAGGCAAGCTAAGGCCTGGAGGGTCAGATGGGAGACCAGGTCCCAAGGGAGCAAGACCT
CGCGAAGCGCAGCAGCCCCGGCCCTTCCCCCGTTTTGAACATGTGTAACCGACAGTCTGCCTGGGCCACAGCCCT
CTCACCCTGGTACTGCATGCACGCAATGCTAGCTGCCCCTTTCCCGTCCTGGGCACCCCGAGTCTCCCCCGACCC
CGGGTCCCAGGTATGCTCCCACCTCCACCTGCCCCACTCACCACCTCTGCTAGTTCCAGACACCTCCACGCCCAC
CTGGTCCTCTCCCATCGCCCACAAAAGGGGGGGCACGAGGGACGAGCTTAGCTGAGCTGGGAGGAGCAGGGTGAG
GGTGGGCGACCCAGGATTCCCCCTCCCCTTCCCAAATAAAGATGAGGGTACT

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FIGURE 2446

AATGACTCAGTAAGTTCAGCGCGCCCGCTCCGGCCGGCCCTGCGCCTCCCGCCGCGCCCGGGATGTATTCGTCCC
CGCTCTGCCTCACCCAGGATGAGTTCCACCCGTTCATCGAGGCCCTGCTGCCTCACGTCCGCGCCTTCGCCTACA
CCTGGTTCAACCTGCAGGCGCGGAAGCGCAAGTACTTCAAGAAGCACGAGAAGCGGATGTCGAAGGACGAGGAGC
GTGCGGTCAAGGACGAGCTGCTGGGCGAGAAGCCCGAGGTCAAGCAGAAGTGGGCGTCGCGGCTGCTGGCCAAGC
TGCGCAAGGACATCCGGCCCGAGTGCCGCGAGGACTTCGTGCTGAGCATCACCGGCAAGAAGGCGCCGGGCTGCG
TGCTCTCCAACCCCGACCAGAAGGGCAAGATGCGGCGCATCGACTGTCTCCGGCAGGCGGACAAGGTGTGGCGGC
TGGACCTGGTCATGGTCATCCTGTTCAAGGGCATCCCGCTGGAGAGCACCGACGGCGAGCGCCTGGTCAAGGCTG
CGCAGTGCGGTCACCCGGTCCTGTGCGTGCAGCCGCACCACATTGGCGTGGCCGTCAAGGAGCTGGACCTCTACC
TGGCCTACTTCGTGCGTGAGCGAGATGCAGAGCAAAGCGGCAGTCCCCGGACAGGGATGGGCTCTGACCAGGAGG
ACAGCAAGCCCATCACGCTGGACACGACCGACTTCCAGGAGAGCTTTGTCACCTCCGGCGTGTTCAGCGTCACTG
AGCTCATCCAAGTGTCCCGGACACCCGTGGTGACTGGAACAGGACCCAACTTCTCCCTGGGGGAGCTGCAGGGGC
ACCTGGCATACGACCTGAACCCAGCCAGCACTGGCCTCAGAAGAACGCTGCCCAGCACCTCCTCCAGTGGGAGCA
AGCGGCACAAATCGGGCTCGATGGAGGAAGACGTGGACACGAGCCCTGGCGGCGATTACTACACTTCGCCCAGCT
CGCCCACGAGTAGCAGCCGCAACTGGACGGAGGACATGGAAGGAGGCATCTCGTCCCCGGTGAAGAAGACAGAGA
TGGACAAGTCACCATTCAACAGCCCGTCCCCCCAGGACTCTCCCCGCCTCTCCAGCTTCACCCAGCACCACCGGC
CCGTCATCGCCGTGCACAGCGGGATCGCCCGGAGCCCACACCCGTCCTCCGCTCTGCATTTCCCTACGACGTCCA
TCCTACCCCAGACGGCCTCCACCTACTTCCCCCACACGGCCATCCGCTACCCACCTCATCTCAACCCCCAGGACC
CGCTCAAAGATCTTGTCTCGCTGGCCTGCGACCCAGCCAGCCAGCAACCTGGACCGTCCTGGTATCTGGGATAGC
AAAGGTCTTCTTCCCTCGCCCCTTCTCCATCGTCCCAGGAATCCCAGGGGGCAGCACAGCCGGCCCCCGGCCCAC
GTTTTCGGTGGAAAATTAGAGTGAACAAGAACACCCCTGCCGACTCCCAGCCCGGCCAAAAAGACAAAACACATA
GACGCACACACTCAGGAGGAAAAGAAAAAACAAAGGCAGAAGAAGAAGAAGAAGAAATAAAAACCCACCCAAGCA
AGAAGACAAAAGGTAAAGACGCAACGTTTCCAACTCTCGGGACGCCAAGGCCGCAGGACTGGAGGGCCAGGCCCC
GCCACCCCCACGGGAGACCCGGGACAGGGCGTCTTCCTAAGTTATTCATCTCCTCTCCGCCTGCTGCTCGGGAAG
GACAGACGCCGGCCGCCCGCCCGCGCCCCGGAGGCCCTGGCTCTGTCCGGAGACCAGGTGAGCACAGCCTGGAGC
CTGTGCCCAGGGCCGACAGGCGCGACACCCAGCAAGGCCACCTCTCCCCGGGCCCCCGCGCCTCTGCCGGACACG
GACCGGCCCCTCAGCCCCCACCGAGGACGCAGCCACTGGGGGGAAAGGGAGACACAGCGGACCCCGGCCGGGCAG
CGGAGACCGCAGAGGCGGGCAGGGTGGGGCAGGCGAGTGGTGTCGCGGGGGTGCGTGGCGCTTGCGAGCCCTGGC
CAGGGGAGGAAGTGAGGCCCAGGCACCTGCTGCCCCTCGAGGGGGCCCTGCCTGCCGCGGGGCCTCCCCACAAGC
CCCTCCCAAAGCGCCGGCCGACTCGCTGTCTCGCTGGGGACTCTTTCAGCCCTCGCGCCCGCCCGTTTGGGAGGA
GAAGTCTCTATGCAATTGGCCCCGGCCCCTCCACCCCCCACCCCCGGCATAGGAGGCCCCCCCACCTCGCCCGGC
TCACACCCCCCACTTCCTCTTTAAA

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FIGURE 2447

GGTGGTGGCAGAGGCGCCTGCGGTTACTGGCCGGGCCGACGGGTCCTGAGTCTCCAGAGCTCGGTGAGGCGTCCC
GGAGGCGGCGATCACGGTTCTTACATCCCCGCGTCCCCAGGTTTAGCCTGAGCAGGGTTGTGGAAGGCCGGGACC
CATTGACAGCACG**ATG**GTGACGGAGCAGGAGGTGGATGCCATCGGGCAGACGCTGGTGGACCCCAAGCAGCCCCT
GCAGGCCCGCTTCCGGGCGCTGTTCACGCTGCGTGGGCTCGGCGGCCCAGGCGCCATTGCATGGATCAGCCAGGC
CTTCGATGACGATTCCGCCCTGCTCAAGCACGAGCTGGCCTACTGCCTGGGCCAGATGCAGGATGCCCGCGCCAT
CCCCATGCTGGTGGACGTGCTGCAAGACACCCGTCAGGAGCCCATGGTGCGCCATGAGGCAGGGGAGGCCCTGGG
GGCCATCGGGGACCCGGAAGTTCTGGAGATCCTGAAGCAGTATTCCTCGGACCCCGTCATCGAGGTGGCCGAGAC
CTGCCAGCTGGCCGTGCGCAGGCTGGAGTGGCTGCAGCAGCACGGCGGGGAGCCGGCGGCGGGACCCTACCTCTC
CGTGGACCCTGCCCCGCCGGCTGAGGAGCGTGACGTGGGGCGCCTGCGGGAGGCGCTGCTGGATGAGTCCCGGCC
GCTCTTCGAGCGATACCGCGCCATGTTCGCCCTGCGCAACGCGGGAGGCGAGGAGGCCGCCCTGGCGCTGGCCGA
GGGTCTGCACTGTGGGAGCGCCCTCTTCCGCCACGAGGTCGGCTACGTCCTGGGACAGCTGCAGCACGAGGCGGC
GGTGCCCCAGCTGGCGGCCGCCCTGGCCCGATGCACCGAGAACCCCATGGTGCGGCACGAGTGCGCGGAGGCCCT
GGGCGCCATTGCCCGGCCCGCCTGCCTGGCCGCGCTGCAGGCTCACGCGGACGACCCAGAGCGCGTGGTGCGTGA
GAGCTGCGAGGTGGCTCTGGACATGTATGAGCACGAGACCGGGCGGGCCTTCCAGTACGCGGACGGCCTGGAGCA
GCTGCGCGGGGCCCCCTCC**TAG**GGCCCCACCCTCACCCGGAGCTCCCGGAGGACTCTTGAGGGCCGCTCCTCCCC
CGCAGAGCTTTGGCGTCTAAACCGGGTGTGTGTAAATCGGTGTCATCGCTTGTGTCTTGCTGGGCGCATGGTTGC
TGTCCCCCTCCTCCGTCTGGGACCGAGGAGCTGCCGTTGTGCTGTGACTCCCTGAGTCCCCTGACTGCTCCTCGG
GGCCTGGCGCAGGGCTGTAGCGTGGAAGTTTCCAGGCTTGGGGTGGGACTCTGCGGGAGGCTCTGGGATGCCCGG
CTCAGGACAGGGGAGGATTGCGAGGGAAGCCAGGGGAGGATCGCGAGGGAAGCCAGGGGAGGATCGCGAGGGAAG
CCAGGGGAGGATCGCGAGGGAAGCCAGGGGAGGATCGCGAGGGAAGCCAAGGGAGGATCGCGAGGGGAGCCAGGG
GAGGATCGCGAGGGAAGCCAGGGGCAGAGCTGGGGCTCTGGGAAGAGGCTGACGTTATGGTGGCTTCAGCTTCAC
TAGGAATGGGACACAGGGTCTGGGGGCCTCTGACTCCCCCACCCCGAGGCCTGGGTAGGGACAGGGTGGTGGTCC
CTGAGTGGGTCAGGTAGGGCACAGGGGCCAGGGAGGGACAAGCAGACCTCAGAGCGCTGCCCAGATGGAATATTA
AATTATTTTTGCCAA

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FIGURE 2448

ATGGACCAGGACTATGAGCGGCGCCTGCTTCGCCAGATCGTCATCCAGAATGAGAACACGATGCCACGCGTCACA
GAGATGCGGCGGACCCTGACGCCTGCCAGCTCCCCAGTGTCCTCGCCCAGCAAGCACGGAGACCGCTTCATCCCC
TCCAGAGCCGGAGCCAACTGGAGCGTGAACTTCCACAGGATTAACGAGAATGAGAAGTCTCCCAGTCAGAACCGG
AAAGCCAAGGACGCCACCTCAGACAACGGCAAAGACGGCCTGGCCTACTCTGCCCTGCTCAAGAATGAGCTGCTG
GGTGCCGGCATCGAGAAGGTGCAGGACCCGCAGACTGAGGACCGCAGGCTGCAGCCCTCCACGCCTGAGAAGAAG
GGTCTGTTCACGTATTCCCTTAGCACCAAGCGCTCCAGCCCCGATGACGGCAACGATGTGTCTCCCTACTCCCTG
TCTCCCGTCAGCAACAAGAGCCAGAAGCTGCTCCGGTCCCCCCGGAAACCCACCCGCAAGATCTCCAAGATCCCC
TTCAAGGTGCTGGACGCGCCCGAGCTGCAGGACGACTTCTACCTCAATCTGGTGGACTGGTCGTCCCTCAATGTG
CTCAGCGTGGGGCTAGGCACCTGCGTGTACCTGTGGAGTGCCTGTACCAGCCAGGTGACGCGGCTCTGTGACCTC
TCAGTGGAAGGGGACTCAGTGACCTCCGTGGGCTGGTCTGAGCGGGGGAACCTGGTGGCGGTGGGCACACACAAG
GGCTTCGTGCAGATCTGGGACGCAGCCGCAGGGAAGAAGCTGTCCATGTTGGAGGGCCACACGGCACGCGTCGGG
GCGCTGGCCTGGAATGCTGAGCAGCTGTCGTCCGGGAGCCGCGACCGCATGATCCTGCAGAGGGACATCCGCACC
CCGCCACTGCAGTCGGAGCGGCGGCTGCAGGGCCACCGGCAGGAGGTGTGCGGGCTCAAGTGGTCCACAGACCAC
CAGCTCCTCGCCTCGGGGGGCAACGACAACAAGCTGCTGGTCTGGAATCACTCGAGCCTGAGCCCCGTGCAGCAG
TACACGGAGCACCTGGCGGCCGTGAAGGCCATCGCCTGGTCCCCACATCAGCACGGGCTGCTGGCCTCGGGGGGC
GGCACAGCTGACCGCTGTATCCGCTTCTGGAACACGCTGACAGGACAACCACTGCAGTGTATCGACACGGGCTCC
CAAGTGTGCAATCTGGCCTGGTCCAAGCACGCCAACGAGCTGGTGAGCACGCACGGCTACTCACAGAACCAGATC
CTTGTCTGGAAGTACCCCTCCCTGACCCAGGTGGCCAAGCTGACCGGGCACTCCTACCGCGTGCTGTACCTGGCA
ATGTCCCCTGATGGGGAGGCCATCGTCACTGGTGCTGGAGACGAGACCCTGAGGTTCTGGAACGTCTTTAGCAAA
ACCCGTTCGACAAAGGTAAAGTGGGAGTCTGTGTCTGTGCTCAACCTCTTCACCAGGATCCGG**TAA**

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FIGURE 2449

CTGGGCTCAAGTGATCCTCCTGTCTTAGCCTTCCAAAGTGCTGGGATTACAGGTGTGGGCCACCATGCCCAGCCA
CCATCTTGGTTTAATTTCTTTCCTTGGAAATGGAGCAAAGGGCTTTCACTCTTCTTTTTCATGGCTGCATAGTAT
TCCATAATTGTTTAAACAATTGATAATAGACACTGTATCGGGGTGACTGGTATACCCCCAAAATCACATCTGCCC
AGAGCCTCAGGACATGGCCTTGTTTGGAA**ATG**GTTTTAGCAGATGCAGCTAAGATGAGGTCACCCCGTGTTAGGA
TGGCCCCGAATCCAGTGCCTGGCACCCTTATAAGGAGAGGGAAACTTGGACGCAGACAGGAAGGCCGGGTGAAGA
CAGAAGCAGAGACCGGGGGCCAAGGAGTGCCTGGGGTTGCCCAGAGCCACCACGGGCTGCAAGAGGTGTGGGACA
GACTCTCTCAGCCACAGAAGGGCCCAGCCCCGCACAGGCCTGGATTTCAGAGGGCGAACATTTCTGTGGCCGAAG
CTCCCAGTGCGTTTGCAGTCCTTGGAGACGGCCGCAGACACATTTGTTCTTGGCCTGTCTCCAGGTCTGTAGACC
CCACAGTGAGCGGCCACTGGCCGGAGGGGAACAGGAAGAGCTGGAGGGGACGTCACACACATGAGCCTTTTAGGA
ATAACGAG**TGA**CACGTGCAAGACCCCAAACCAAACACCATGTAACCTGACACCCAGGGAGGGAGGGAGGGAGGGG
CTGGGAGGGGCTCACCTGTAGGGAGGGGCTCACCTGTACAGCGGTGCTGGGAAGCTGGCCTCGAGGGTCCCCGAG
GGGATACAGGGCCGTGCAGCCTCTTGCCTGAGGGTTTGCATGTCTGCCTGGATCCCCCGGGCTCCTGCCAGAAGG
CCTCTGAGGCCACCGTTGACAGCATAAAGGCCACCCAGTGTCTCGGCAACCACGCTGACCACTCCCTCCTCCCAG
CTGCGGGGTGAGGTGGCCTCGAGGGAAGGGCTGGAGAGTCGTTCTGAGTATTTAACAACTGGGGGTGACACAGTG
TGGGTGGGCAAGGCCAGGGCCACTGCCAGGTGGGGTCCGTGGCCCTGAGCCCCCAGCTCTATGCACCCCCCACCT
GGGGTCTGGCTTCTCCATCTCCACACCCCCTTGAGGGGCTTCTGTCTCCCCCTGCCCCTTCGATCGCAGGAGGCA
GTGCCTGGCCGGGGTCGCAGGCACCTGTCACCCCAGCTCCTCACTCCTCACCCACTCACATCCAGTCCGTTTGTA
AAATACACCCAGGATGAGACCTGCACGCAGTGGCTCACAGCAGCACGATTTGTGACAGCCCGAGGCGGAGAACAC
CGAACACCCAGTGAAGGTGAGGGGATCAGCACGGCGCCGCCACCGTGCTGGAACGAGACTCAGCCACAAGGAGGT
GCGAAGCTCTGACCCAGGCCACAGTGCGGATGCACCTTGAGGATGTCACGCTCAGTGAGAGACACCAGACACAGA
AGGGTACGCTGTGATCCCACTTCTATGAAATGTCCAGGACAGACCAATCCACAGAATCAGGGAGAGGATTCGTGG
GTGCCGGGACTGGGGAGGGGGACCTGGGGGTGACTAGGTGACATAATGGGGACAGGGCTGCCTTCTGGGTGATGA
GAATGTTCTGGAATCAGATGGGATGGCTGCACGGCGTGGTGAAGGTACTGAACGCCACCTCACTGTAAGACGGTA
GATTTTGTATTTTACCACAATAAACAAAACAAAACAAAACC

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FIGURE 2450

TTTCCCGAGATCACCAAG**ATG**CTGGGCGCCGAGTGGAGCAAGCTGCAGCCAACGGAAAAGCAGCGGTACCTGGAT
GAGGCCGAGAGAGAGAAGCAGCAGTACATGAAGGAGCTGCGGGCGTACCAGCAGTCTGAAGCCTATAAGATGTGC
ACGGAGAAGATCCAGGAGAAGAAGATCAAGAAAGAAGACTCGAGCTCTGGGCTCATGAACACTCTCCTGAATGGA
CACAAGGGTGGGGACTGCGATGGCTTCTCCACCTTCGATGTTCCCATCTTCACTGAAGAGTTCTTGGACCAAAAC
AAAGCGCGTGAGGCGGAGCTTCGGCGCTTGCGGAAGATGAATGTGGCCTTCGAGGAGCAGAACGCGGTACTGCAG
AGGCACACGCAGAGCATGAGCAGCGCGCGCGAGCGTCTGGAGCAGGAGCTGGCGCTGGAGGAGCGGAGGACGCTG
GCGCTGCAGCAGCAGCTCCAGGCCGTGCGCCAGGCGCTCACCGCCAGCTTCGCCTCACTGCCGGTGCCGGGCACG
GGCGAAACGCCCACGCTGGGCACTCTGGACTTCTACATGGCCCGGCTTCACGGAGCCATCGAGCGCGACCCCGCC
CAGCACGAGAAGCTCATCGTCCGCATCAAGGAAATCCTGGCCCAGGTCGCCAGCGAGCACCTG**TGA**GGAGTGGGC
GGGCCCACGATGCAGAGGAGAAGCTGTGGGCGCGGCCCTGCCACACCCCACCCCGTGGACGAGAGGCTGGGGGTC
CACCCTTTGGGGCCTGGTCCCATCCTGCACCTTGGGGGCTCCAGCCCCCCTAAAATTAAATTTCTGCAGCATCCC
TTTAGCTTTCAATCTCCCCAGCCCCCTGAACCCGGAAAAAGCACTCGCTGCGCGATACACCCAGAAGAACCTCAC
AGCCGAGGGTGCCCCTCCTCGGAGGACAGCCACGCGCTACACTGGCTCTCCGGGCCACCCCCAGGACACAGGGCA
GACGAAACCCACCCCCAGCACACGGCAGGACCCCCCAAATTACTCACTACGGGGGGCTGTGCCATAGGCCACACA
GGAAGCTGCCTTGTGGGGACTTACCTGGGGTGTCCCCCGCATGCCTGTACCCCAGATGGGTGGGGGCCGGCTTTG
CCCATCCTGCTCTCCTCCAGCCGAGGGACCCTGGTGGGGGTGGCTCCTTCTCACTGCTGGATCCGGACTTTTTAA
ATAAAAACAAGTAAAATTTGTGTTTTAA

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FIGURE 2451

AGCGCCACCAGGACGTGCTGCGGCAGAAGCTGTACAAACTGAAGCAGGAGCAGGGCGTGGAGAGCGAGCCGCTGT
TCCCCATCCTCAAGCAGGAGCCCCAGTCCCCCAGCCGCAGCCTGGAGCCTGAGGACGCGGCGCCCACCCCGCCCG
GGCCCTCCTCGGAGGGCGGCCCCGCGGAGGCCGAGGTGGACGGCGCGACCCCGACAGAGGGCGACGGCGACGGGG
ACGGTGAGGGCGAGGGCGAGGGCGAGGCGGTGCTC**ATG**GAGGAGGACCTGATCCAGCAGAGCCTGGACGACTACG
ACGCCGGCAGGTACAGCCCGCGGCTGCTCACGGCGCACGAGCTGCCACTGGACGCGCACGTGCTGGAACCGGATG
AGGACCTGCAGCGCCTGCAGCTCTCGCGCCAGCAGCTCCAGGTCACGGGAGACGCCAGCGAGAGCGCCGAGGACA
TCTTCTTCCGGCGGGCCAAGGAGGGCATGGGCCAGGACGAGGCGCAGTTCAGCGTGGAGATGCCACTCACCGGCA
AGGCCTACCTGTGGGCCGACAAGTACCGGCCACGCAAGCCGCGCTTCTTCAACCGCGTGCACACGGGCTTCGAGT
GGAACAAGTACAACCAGACGCACTACGACTTTGACAACCCACCGCCCAAGATCGTGCAGGGATACAAGTTCAACA
TCTTCTACCCCGACCTCATCGACAAGCGCTCCACGCCCGAGTACTTCCTGGAGGCCTGCGCCGACAACAAGGATT
TCGCCATCCTGCGCTTCCACGCGGGGCCGCCCTACGAGGACATCGCTTTCAAGATCGTCAACCGCGAGTGGGAAT
ACTCGCACCGCCACGGCTTCCGCTGCCAGTTTGCCAACGGCATCTTCCAGCTGTGGTTTCACTTCAAGCGCTACC
GCTATCGGCGG**TGA**CGGCCCTGGGGAACGGCAGGCAGGTGTCCTCGGGGGCACAGTAAAGGGGCTTCGGTGAAGC
TGGTGGTCACTCCGGGGCCGCTGTCTGGGCTGCAGGGCCGCGGGTTCACGTCCCACCTCAGGCCGCATCTTTCTT
TCGCCAGGCCTCAGTTTCCTCCTATATAAAAGGGGGGTCACCATTGAGCCTGCCATGGTGAGCTGAGGAGACACT
GGGACAGGCTGGCCTAGGGTCCTGATGCAACGGAGGGGGCGCTAGGGGCATCTTTCGAGCACGAGGGTGGCCAGC
AGCCGCCAGCTGACCTCACCGTCCAGGCGGACACTCTCCACCGCCCCTCAGCCAGGCTGGGTGGGGCCCACAGGG
CCTGCCCCAAGTGGCGGCCACACAGGGTGTTGTGGAGATGGGCCAGAGGGGCCTGGGCTTGGCGGTGCCAGGCTC
GTGAGAAGCAGGAAACTCAAGGCCAGCCCTGCCACATCACGGGGCACCCACTGGGCGTGAGGCAGAGCCCGCGGC
TGTGGGGCAGCTCCAGCCCTGCCCACAGGCCACCCTCGCCCGCACAGGCAGCACTGAGGCCGGGACCCTGCTGGC
GCCCGATCCGCCACTGCAGAAGAGACCCTCTGTGGACACCCACACTCTGCAGGGACTGGCCCCCAACTCACCCCG
TGCTGGCTGGTGGGGTCCATTTCCCCGCAGCGGGTATGGAGGATGCGTCGAGGTCCCTGTCTCTGTCAAGGTCGT
GGGAACCAAAAGTCACTGAGCCGTCCTCCCCCCACCTCTGAGCACAGGGCCTGGAGGGCAGGGGCTCCCCGAAGG
CTGGGGGTTGGAGAAGGGTGAGGGGCTTCCCCCAGGGATCCCCCCACCTGGCCTGCTCACGGGGCCTTGGAGCAT
GAGACCAGTGACCCCGAGTTTTGCCCATATCAGGACAGTGGCTCCTTCTCACTCCCCTTTCTCAGGCCAGGAGGG
CCGAGGGCCACACGGGTGCCACAGCCCAGGTCGGAGTGGCCCAGCCGGCAGGCTTGTTCTTCAGCATCCGACGGG
AACATCTCCAACAGAAGCAAAACGGAAAGTGCCTCCCGGACCCCCAGAGGGCCACCCAACCTCACCAGTCACCAG
CCCCAGACCACCCACAGCCCCTCCCAGACACCCCGCCTCATCTGGAAATAGTTCCGTTTGTTTCTCTAAAAAGAC
TTGTAGGTGGGAAAAAAAATCTTTTGTTCTCATGGAATTGGCCTATTGGCAAGATCGCATGTTTTTTTAATAAAC
GTTGTATTTTAGAATAA

FIGURE 2452A

GCGGCGGTCGCAGCTCGGGTCCCCCTCGGGCGCCCCCGCCGCCGTCCGCGCGCGGCC**ATG**GAGCTGGAGGTACCG
GACGAGGCGGAGAGCGCTGAGGCGGGGGCCGTGCCCTCGGAGGCGGCGTGGGCGGCAGAGAGCGGGGCGGCGGCA
GGTTTGGCTCAGAAGAAGGCGGCCCCAACAGAGGTTCTGTCCATGACGGCACAGCCGGGCCCTGGCCATGGGAAG
AAGTTGGGCCATCGAGGTGTGGACGCATCCGGCGAAACCACCTACAAGAAGACCACCTCCTCCACCCTGAAGGGT
GCCATCCAGCTGGGCATCGGCTACACCGTGGGCCACCTGAGCTCCAAGCCCGAACGCGACGTGCTCATGCAGGAC
TTCTACGTGGTGGAGAGCATCTTCTTCCCCAGCGAAGGCAGCAACCTCACCCCCGCCCACCACTTCCAGGACTTC
CGCTTCAAGACCTATGCACCTGTCGCCTTCCGCTACTTCCGGGAGCTCTTTGGGATCCGGCCAGATGATTACTTG
TACTCCCTGTGCAATGAGCCGCTGATCGAGCTGTCCAACCCGGGCGCCAGTGGCTCCCTCTTCTACGTCACCAGC
GACGACGAGTTCATCATCAAGACCGTCATGCACAAGGAGGCCGAGTTCCTGCAGAAGCTGCTCCCTGGCTACTAC
ATGAACCTCAACCAGAACCCGCGGACGCTGCTGCCCAAGTTCTATGGGCTGTACTGCGTGCAGTCGGGGGGCAAG
AACATCCGCGTCGTGGTCATGAACAACATCCTGCCCCGCGTGGTCAAGATGCACCTCAAGTTCGACCTCAAGGGC
TCCACCTACAAGCGGCGCGCCAGCAAGAAGGAGAAGGAGAAGAGCTTCCCCACCTACAAGGACCTGGACTTCATG
CAGGACATGCCCGAGGGGCTCCTGCTGGACGCCGACACCTTCAGCGCCCTGGTCAAGACGCTGCAGCGGGACTGC
CTGGTCCTGGAAAGTTTCAAGATCATGGACTACAGCCTGCTGCTGGGCGTGCACAACATCGACCAGCACGAGCGC
GAGCGGCAGGCGCAGGGCGCCCAGAGCACCTCAGATGAGAAGCGGCCTGTGGGCCAGAAGGCGCTCTACTCCACG
GCCATGGAGTCCATCCAGGGTGGCGCCGCGCGCGGGGAGGCCATCGAATCGGATGACACGATGGGCGGGATCCCC
GCTGTGAACGGCCGCGGGGAGCGGCTGCTGCTGCACATTGGCATCATCGACATCCTGCAGTCCTACAGGTTCATC
AAGAAACTGGAGCACACCTGGAAGGCCCTCGTCCACGATGGGGACACGGTGTCCGTCCACCGCCCCAGCTTCTAT
GCCGAGCGCTTTTTCAAGTTCATGAGCAACACGGTCTTTCGGAAGAACTCCTCCCTGAAGTCCTCGCCCTCCAAG
AAGGGGCGCGGCGGAGCCTTGCTAGCTGTGAAACCGCTGGGGCCCACCGCTGCCTTCTCGGCCAGCCAGATCCCT
AGCGAGCGGGAGGAGGCCCAGTACGACCTGCGGGGGGCCCGCAGCTACCCCACGCTGGAGGACGAAGGCCGGCCC
GACCTCCTGCCCTGCACGCCACCTTCTTTCGAAGAAGCCACTACAGCCTCCATTGCCACGACTCTGTCATCCACA
TCCCTCTCCATTCCTGAGCGGTCCCCCTCGGAGACGTCGGAGCAGCCGCGGTACAGGCGGCGCACACAGTCGTCT
GGACAGGATGGCAGGCCGCAGGAGGAGCCACCCGCGGAAGAGGATCTGCAGCAGATTACAGTGCAGGTGGAGCCT
GCGTGCAGCGTGGAGATTGTGGTCCCCAAAGAGGAGGACGCAGGGGTGGAGGCTTCCCCGGCCGGTGCCTCTGCT
GCTGTTGAAGTAGAAACTGCCAGCCAGGCCTCAGACGAGGAGGGCGCACCTGCCAGCCAGGCCTCGGACGAGGAG
GACGCGCCCGCCACCGACATCTACTTTCCCACCGATGAGAGGAGCTGGGTGTACTCCCCGCTCCACTATAGCGCC
CAGGCCCCCCCGGCCTCCGACGGCGAGAGCGACACA**TAA**TTTCTATGCAGCCCCCGACCCAGAGCCGAGCTCCAC
TTCTGCTCCGGCTGCCCCCGAAGGCGCTGCCCACCCCGCTGAGGCCCAGAGCTCGGGAGATGCCCGCCTCGCCGC
CCCACCGGACCTCGTCCTCCCCCTGCACGGATGCCGACGGCCGGGCCCCTCCCCGACAAGCCTCCCAGGGCCCCG
GCACCCCGGTCGGCAGCCTGCCCCTGTGAGACCCACCCTCCCGAGCGGCCAATCGCATTTGAGTCCTTATTTGGC
ACAGAGACGGAAGCACGTGTGTGCCGTTTTAGGAAAAGAACAAAAAAGACACAAACAAACCAACCAGAGGGAGAA
GAGCCCCTGCCCACTGCACTCTTTGGTTCTCTGCTGTGCCTGCCTGTGTCCTGAGGAAGAAGCCAGGCTGTTCGC
GGTGGCCTCTGGGGACCTGAGCCCCGGGGGCCCCATCGGCCTGCAGAGGGGACGGCTGGGGTCCCGAGCAACTCT
GCCTCCATCCACGTGGGAAGCGGACCCTCCTGCCCTCAGCTTGGGTTTGGGGGCCTCAGTGCAGGACATCTGGCC
TGAACATCGACTGTGGGGACAGCCCTCGCCCTGCCAAGCACTGCGGCCACTCAGCAGCTATGTTCCCGCCGCAGT
GGGGCCCTGACGCCCACCTCCCAGGTGCCCCTCGAGCAAAAACCTCTGGCGCCTCCAATCCAGACCCACCACAGC
TGGAGGGCCAGGCCTCCTCTTCCCCAGGCTGCCACCCACGCTGGCGGAGCTCAGGGCTGGGGACTTGTCCTTCTC
TTCCAACGTAGGCCACTCAGCAACTGGCATGGAGGGCCCAGGCAACGGAGACGTTTTCTCCATGGCAGGACAGAG
CGGGAGGCCGGGCCTTGGGCCACAGGAGACCAGCTCAGGGCGGAAGGTCAGGCTCCCCGCCCCCTCCACGTGGAG
ACATGGCCTAGGGGGCCAGGCCCGGCTCCACAGGAGTCTCCTTCAGGACTGGTGTGGATGTCCGCCGCCTCTTTC
TTGTTTAAGTGATGTGATGTCTCCGAGGAGGGGAGAGAAGACTTTGTTTCCGACTCATCACCCTCCAAGAGGGCA
GCGCTCCCAGTGGTGGGACTCAGCCCAGACTGCCCTGGGGCAGCTTCCTGGGCCCGCTGCGCTCAGAGGGTGCTG
GTTGGAGGCCAGAGCTCGGCAGAGTCACCCACCCTGCCCTTCCCCAGGACCCCTGAGAGGGGCTTATTGGTGATG
GCTGTGGGAATCCCCCACTTCCAAGATGTGCCCAGGATGTGAGGAGCTGGAGTGGAAGCTGCACCTTTGGGAAGA
ATTCCTCTCCAGACCTGGCAGAGCCTGGTGTGGGGTCTGAGACGGCCGGAGAACCTCCCAGGCAGGGCTCTGTGT
TTTGTCTGTTACAACCTCCGTATGACGCCACGCCACCCGCTGTTCACGTCCCGTCGGCCTCCTGCACAGCCCACA
CGCTGCGCCCGGAAGGCCCCTGCTGTGGAGAAGCCGGACCCATCCCCGAGGTCCCCAGCGAGGACACACACTCCA

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FIGURE 2452B

CGAGAGCAGCCCCTCCACTCTGCCCAGGAGAGGGGCCGACCCTCCTCGGGAACCGGCCAGCCGCGTGGCTCCCAG
CATCCATCAGGACAAGCCCACGTGGGGTCCTCCCTGCGTGCTCAGAGGGTCTGTCCAGCCCTGGGAAGCGACCTT
GGCCTCAGTTCACAGCCTGGTGCTCATCTGCTGGCACCGGGCATCCACCCATCAGCCCCCGCCCTGTCCCTCCGA
AGGACACCCAGCAGGCACCCCCCGGGGAGGCAGGGGCAGAGGTCAGAAGGGGTGTCTGGGACCTGGATGGCCAGC
AGGGACAGGGGCATTGTCATCTCAAAGGCCCAACCCCCAGAGGCCACACCAGTCCTCCCAGGGAGTCCTCGAGTC
GCCCTGCCCAGAGCCCTGGCACCAGAGACGCCAAGAGCCTGTGGGGTGACTCGGAGCAGCAGGTGTGGCCCCGGG
CGGGCGGCACCGCGTCCAGGGCAGCCTCCCTCCGCTGAGTGACACGGGACACCAGTGCCCGGCCGACGCGCCTTT
GCAGGAGAAATGTGCAAACCTCTGTGGATACCATTTCATTTCCATTCTTGTGTTGTCTCCAAGGCCCTTTTGGAG
ATATACTTGGTGTTGGTTGTGTTTTTTGGTTCCTTTTCAGAGAACTGTAAACCGAGGCTGACGTGCTCCACTGAC
TGTGCCGAGGGGCGGGGGCAGGAGGACGGCAAGACCTATTTATAATATTTAGCGAACTCGGTCTCCCTCAGATCC
CCCGCGAGGGAGGCTGCTGGACCCACCCCGCTGTCCCCCATGATAGAAGTCTGTAAATACCTTGGTGACCAATGC
CCACTTCCCCTCCTGGGTCACCTCTGATGGCTGCTGTCCACTGAGAACGTGGGCAGTGTCCAAATTCCTGTACTG
TAAAGACTAAAAGGCGTTTGCTCTGAGACTGACAAGGCGGAAACTTCCATGTGTCTCCTGCCAGGCTCTGTCCCC
CTACGCCATCCCGACACGTCCCCGTTCCCCCGAAACCTGGCTCAGTGCAATACTCCCATTGCCATGGGGTCCTTC
ACCATGGTACTGTCTCCACAGCCCTCAGTCCCCACCCCAGGAGAGGCGCCTGCCACCTCCTCCTCATCTCCGGTG
GTTCAATCGCTCCGCCTGTCCCCAACCCAGTCCCATTTTTATGGCCAAACTGATTCTGAAACAAAATGAAACTGC
AAACCTCGTGTGTCTTAACTCCCCCCAGGGATGCCACTCCATTCCTCCGCCCCGTGGTCTGGTGCGTGACAATCC
AAAGCGCCGAGACGAGGGTGCTGTGTCCCTCAAACCCAGAGTGGTGGGCGCCTCTGAAACCATACAGCCACTCCT
GGCCCCAAACACTGGTTTGCATCCCAGGTTCCTCGCCCACCTACCCCCGCCACACCCCGTCTTTTTAGAGATCTC
TCTAATAAATCGGGTAATAAGC

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FIGURE 2453

ATGAACCTGTGTGGCCTCATGCCCATCTTCCCCGCTCCCCTCGACCAGGTGGCTGACATGGAGGAGCTGACCATC
TGGGAACAGCACACGGCCACACTGTCCAAGGACCCCCGCCGGGGCTTTGGCATTGCGATCTCTGGAGGCCGAGAC
CGGCCCGGTGGATCCATGGTTGTATCTGACGTGGTACCTGGAGGGCCGGCGGAGGGCAGGCTACAGACAGGCGAC
CACATCGTCATGGTGAACGGGGTTTCCATGGAGAATGCCACCTCCGCGTTTGCCATTCAGATACTCAAGACCTGC
ACCAAGATGGCCAACATCACAGTGAAACGTCCCCGGAGGATCCACCTGCCCGCCACCAAAGCCAGCCCCTCCAGC
CCAGGGCGCCAGGACTCGGATGAAGACGATGGGCCCCAGCGGGTGGAGGAGGTGGACCAGGGCCGGGGCTATGAC
GGCGACTCATCCAGTGGCTCCGGCCGCTCCTGGGACGAGCGCTCCCGCCGGCCGAGGCCTGGTCGCCGGGGCCGG
GCCGGCAGCCATGGGCGTAGGAGCCCAGGTGGTGGCTCTGAGGCCAACGGGCTGGCCCTGGTGTCCGGCTTTAAG
CGGCTGCCACGGCAGGACGTGCAGATGAAGCCTGTGAAGTCAGTGCTGGTGAAGAGGAGAGACAGCGAAGAGTTT
GGCGTCAAGCTGGGCAGTCAGATCTTCATCAAGCACATTACAGATTCGGGCCTGGCTGCCCGGCACCGTGGGCTG
CAGGAAGGAGATCTCATTCTACAGATCAACGGGGTGTCTAGCCAGAACCTGTCACTGAACGACACCCGGCGACTG
ATTGAGAAGTCAGAAGGGAAGCTAAGCCTGCTGGTGCTGAGAGATCGTGGGCAGTTCCTGGTGAACATTCCGCCT
GCTGTCAGTGACAGCGACAGCTCGCCATTGGAGGAAGGCGTGACCATGGCTGATGAGATGTCCTCTCCCCCTGCA
GACATCTCGGACCTCGCCTCGGAGCTATCGCAGGCACCACCATCCCACATCCCACCACCACCCCGGCATGCTCAG
CGGAGCCCCGAGGCCAGCCAGACCGACTCTCCCGTGGAGAGTCCCCGGCTTCGGCGGGAAAGTTCAGTAGATTCC
AGAACCATCTCGGAACCAGATGAGCAACGGTCAGAGTTGCCCAGGGAAAGCAGCTATGACATCTACAGAGTGCCC
AGCAGTCAGAGCATGGAGGATCGTGGGTACAGCCCCGACACGCGTGTGGTCCGCTTCCTCAAGGGCAAGAGCATC
GGGCTGCGGCTGGCAGGGGGCAATGACGTGGGCATCTTCGTGTCCGGGGTGCAGGCGGGCAGCCCGGCCGACGGG
CAGGGCATCCAGGAGGGAGATCAGATTCTGCAGGTGAATGACGTGCCATTCCAGAACCTGACACGGGAGGAGGCA
GTGCAGTTCCTGCTGGGGCTGCCACCAGGCGAGGAGATGGAGCTGGTGACGCAGAGGAAGCAGGACATTTTCTGG
AAAATGGTGCAGTCCCGCGTGGGTGACTCCTTCTACATCCGCACTCACTTTGAGCTGGAGCCCAGTCCACCGTCT
GGCCTGGGCTTCACCCGTGGCGACGTCTTCCACGTGCTGGACACGCTGCACCCCGGCCCCGGGCAGAGCCACGCA
CGAGGAGGCCACTGGCTGGCGGTGCGCATGGGTCGTGACCTGCGGGAGCAAGAGCGGGGCATCATTCCCAACCAG
AGCAGGGCGGAGCAGCTGGCCAGCCTGGAAGCTGCCCAGAGGGCCGTGGGAGTCGGGCCCGGCTCCTCCGCGGGC
TCCAATGCTCGGGCCGAGTTCTGGCGGCTGCGGGGTCTTCGTCGAGGAGCCAAGAAGACCACTCAGCGGAGCCGT
GAGGACCTCTCAGCTCTGACCCGACAGGGCCGCTACCCGCCCTACGAACGAGTGGTGTTGCGAGAAGCCAGTTTC
AAGCGCCCGGTAGTGATCCTGGGACCCGTGGCCGACATTGCTATGCAGAAGTTGACTGCTGAGATGCCTGACCAG
TTTGAAATCGCAGAGACTGTGTCCAGGACCGACAGCCCCTCCAAGATCATCAAACTAGACACCGTGCGGGTGATT
GCAGAAAAAGACAAGCATGCGCTCCTGGATGTGACCCCCTCCGCCATCGAGCGCCTCAACTATGTGCAGTACTAC
CCCATTGTGGTCTTCTTCATCCCCGAGAGCCGGCCGGCCCTCAAGGCACTGCGCCAGTGGCTGGCGCCTGCCTCC
CGCCGCAGCACCCGTCGCCTCTACGCACAAGCCCAGAAGCTGCGAAAACACAGCAGCCACCTCTTCACAGCCACC
ATCCCTCTGAATGGCACGAGTGACACCTGGTACCAGGAGCTCAAGGCCATCATTCGAGAGCAGCAGACGCGGCCC
ATCTGGACGGCGGAAGATCAGCTGGATGGCTCCTTGGAGGACAACCTAGACCTCCCTCACCACGGCCTGGCCGAC
AGCTCCGCTGACCTCAGCTGCGACAGCCGCGTTAACAGCGACTACGAGACGGACGGCGAGGGCGGCGCGTACACG
GATGGCGAGGGCTACACAGACGGCGAGGGGGGGCCCTACACGGATGTGGATGATGAGCCCCCGGCTCCAGCCCTG
GCCCGGTCCTCGGAGCCCGTGCAGGCAGATGAGTCCCAGAGCCCGAGGGATCGTGGGAGAATCTCGGCTCATCAG
GGGGCCCAGGTGGACAGCCGCCACCCCCAGGGACAGTGGCGACAGGACAGCATGCGAACCTATGAACGGGAAGCC
CTGAAGAAAAAGTTTATGCGAGTACATGATGCGGAGTCCTCCGATGAAGACGGCTATGACTGGGGTCCGGCCACT
GACCTG**TGA**

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FIGURE 2454

GGAGCGGGCGCCGGGACCGGGAATCCCCGAGCTGCGCCTTCTGGGGACGCGGCCCGGGCTACGTCGGGGCCGTCC
GTGGGGAGCGGGGTCCTGGAGGCTGCGCGGGGCTGAGGCGGCCTCGATTTGGGAACTGCCTGAAGATGCCGGCCT
AAGCCTGGAGTCCAGGC**ATG**GACTTCCCCACAATTTCCCGATCCCCTTCGGGGCCTCCAGCCATGGACTTGGAGG
GGCCCAGGGACATTCTTGTGCCTTCGGAGGACCTCACCCCTGACAGCCAGTGGGACCCTATGCCAGGAGGCCCCG
GCAGCCTCAGTCGGATGGAACTTGATGAGTCAAGCCTTCAGGAGCTGGTGCAGCAGTTTGAAGCTCTGCCAGGCG
ATCTGGTGGGCCCATCCCCAGGTGGAGCCCCCTGTCCCCTACACATTGCCACAGGCCATGGCCTGGCCTCCCAGG
AGATTGCTGATGCCCACGGGCTCCTGTCTGCCGAAGCTGGCCGGGATGACCTGCTGGGCCTCTTGCACTGCGAGG
AATGCCCGCCTTCCCAGACTGGTCCTGAAGAGCCTCTAGAGCCTGCCCCCCGACTGTTGCAGCCCCCTGAGGACC
CAGATGAGGATTCTGACTCCCCAGAATGGGTGGAGGGGGCCTCTGCTGAGCAGGAGGGCAGCAGGAGCTCAAGCA
GTTCCCCGGAACCCTGGCTGGAGACGGTGCCTCTAGTCACACCTGAAGAGCCACCCGCTGGTGCCCAGAGCCCCG
AGACCCTGGCTTCCTACCCTGCCCCCCAGGAGGTGCCTGGTCCCTGTGACCATGAAGACCTCCTGGACGGTGTCA
TATTTGGGGCCAGGTACCTGGGGTCCACCCAGCTGGTGTCGGAACGGAACCCGCCCACCAGCACGCGCATGGCCC
AGGCCCGGGAGGCCATGGACCGCGTCAAGGCCCCCGATGGGGAGACCCAGCCCATGACGGAGGTGGACCTGTTCG
TCTCCACCAAGAGGATCAAGGTCTTGACAGCGGACTCCCAGGAGGCCATGATGGACCACGCCCTGCATACCATCT
CCTACACAGCCGACATCGGCTGCGTGCTGGTGCTGATGGCGCGGCGGCGGCTGGCACGGAGGCCGGCACCCCAGG
ACCACGGCCGCCGCCTCTACAAGATGCTCTGCCACGTATTCTACGCGGAGGACGCCCAGCTCATCGCCCAGGCCA
TTGGCCAGGCCTTCGCCGCCGCCTACAGCCAGTTCCTACGGGAAAGCGGTATTGACCCCAGCCAGGTGGGCGTGC
ACCCGAGCCCAGGCGCCTGCCACCTCCATAATGGGGACCTGGACCACTTCTCCAACAGTGACAACTGCCGGGAGG
TGCACCTCGAGAAGCGGCGAGGGGAGGGCCTGGGCGTGGCCCTGGTGGAGTCGGGCTGGGGCTCCCTGCTGCCCA
CAGCCGTCATCGCCAACCTGCTGCACGGGGGGCCTGCTGAGCGCTCGGGGGCCCTCAGCATCGGGGACCGCCTGA
CCGCCATCAACGGGACCAGCCTGGTGGGGCTGCCCCTGGCTGCGTGCCAGGCCGCTGTCCGCGAGACGAAGTCGC
AGACGTCGGTGACACTCAGCATCGTCCACTGCCCTCCCGTCACCACCGCCATCATCCACCGGCCCCACGCCCGCG
AGCAGCTGGGCTTCTGCGTGGAGGACGGCATCATCTGCAGCCTCCTCCGTGGTGGCATCGCCGAGCGTGGGGGCA
TCCGCGTCGGCCACCGCATCATTGAGATCAATGGGCAGAGTGTGGTGGCCACGCCACACGCCCGCATCATCGAGC
TGCTCACCGAGGCCTATGGCGAGGTGCATATCAAGACGATGCCAGCTGCCACATATCGCCTCCTTACAGGCCAGG
AGCAGCCCGTGTACCTG**TGA**CCACCTCATCCCTTGCCTGCCACTGTGCCTTCGCCTCCATGGCCCCGGAGCCCCA
TCCTGGGCCTGCCCTGGCTGGCCAGGACCCCAGCGGTTCTTGGTCCTGTATGATTTCCTAATATAAAAACAGTAA

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FIGURE 2455

GCACTTGCAAGCTGCCCGCAATACGTC**ATG**GCGACCAAACGCCTTTTCGGGGCTACCCGGACGTGGGCCGGCTGG
GGGGCCTGGGAGCTCCTAAACCCCGCCACTTCCGGAAGACTCCTGGCCCGGGATTATGCCAAGAAACCAGTTATG
AAGGGGGCCAAATCGGGAAAAGGTGCAGTGACCAGCGAGGCCCTCAAGGACCCCGACGTATGCACAGATCCTGTC
CAGCTCACCACATATGCCATGGGCGTCAACATCTACAAGGAAGGGCAGGATGTACCCCTGAAACCGGATGCTGAG
TACCCTGAATGGCTGTTCGAGATGAACTTGGGTCCCCCAAAGACCCTGGAGGAGCTGGACCCCGAGAGCCGGGAG
TACTGGCGGCGGCTGCGGAAACAGAACATCTGGCGCCACAACCGGCTGAGCAAGAACAAGAGGTTG**TAG**CATGGA
GGGCCCGGCATCGCTGACCCCCACGCCGAGGGCTTGCCGTTTTCCCGGAGGACGTGGACTTTTGTGAGACAAGAG
GCGGCTCCCCAGCCTGGGTTTCCATGTGACCCCACAGTGGGGCTGGACCAGGGCCCTGGAGGCCAATAAAGAGCT
TTCTGGGTAGACCCTATTTCCCCTTGGTATTGTCTGGTGTCGGCCTGGCGGGAAGTGGGTCCCTCAGACCCCAGG
GATCCCAGCCTCCACCCCAGCCAGTGGTGGGCCGTCTGCAGGTCCCCTGTGCCTCCGGCCCTTGGTGGGCTTCTC
TCCCCAACTCCTGGAATTCCTGACACTGCTCACGAGGCCCCGGCCCCAAATCTCAAGTTGCTGGGTGAGGGGGTT
GTCCTAGCTAAGCCACTCTTGGTTGCAAGGGACTCAAACCTAACTATCTCAAGCCATCAGAGTCAGAAAAGAGGC
TTTATGAGCTTCAAGAA

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FIGURE 2456

GGCCGGCGGCGGCGGCGGCGCGCGGAGGAGACCGCAGTGCGGCCGGCGCTAGGACCCGCGGGGGCCTCCCAGGCC
GCGGCGCCTCCCGCTTTCCCCCACTCCCCGACCCTTCTTCGCCCCCAAAATGAGGAAACGGAGCAACTCGCTCCA
AGTTGTGCAGCCGGGACCGCCTCGGGGTGTGCAGCCGGCTCGCGGAGGCCCTCCTGGGGGCGGGCGCGGGGCGCG
GCTCGGGGGCGCCCCCTGAGCAGAAAACAGGAAGAACCAGGCTCGGTCCAGTGGCACCCAGCTCCCTACCTCCTG
TGCCAGCCGACTGGCCTGTGGCAGGCCATTCCCAGCGTCCCCGACTGTGACCACTTGCTCAGTGTGCCTCTCACC
TGCCTCAGTTTCCCTCTGGGGGCG**ATG**GCGGGGCGAGGCTCTCTGGTTTCCTGGCGGGCATTTCACGGCTGTGAT
TCTGCTGAGGAACTTCCCCGGGTGAGCCCCCGCTTCCTCCGAGCCTGGCACCCCCCTCCCGTCTCAGCCAGGATG
CCAACGAGGCGCTGGGCCCCGGGCACCCAGTGTATCACCAAATGCGAGCACACCCGCCCCAAGCCAGGGGAGCTG
GCCTTCCGCAAGGGCGACGTGGTCACCATCCTGGAGGCCTGCGAGAACAAGAGCTGGTACCGCGTCAAGCACCAC
ACCAGTGGACAGGAGGGGCTGCTGGCAGCTGGGGCGCTGCGGGAGCGGGAGGCCCTCTCCGCAGACCCCAAGCTC
AGCCTCATGCCGTGGTTCCACGGGAAGATCTCGGGCCAGGAGGCTGTCCAGCAGCTGCAGCCTCCCGAGGATGGG
CTGTTCCTGGTGCGGGAGTCCGCGCGCCACCCCGGCGACTACGTCCTGTGCGTGAGCTTTGGCCGCGACGTCATC
CACTACCGCGTGCTGCACCGCGACGGCCACCTCACAATCGATGAGGCCGTGTTCTTCTGCAACCTCATGGACATG
GTGGAGCATTACAGCAAGGACAAGGGCGCTATCTGCACCAAGCTGGTGAGACCAAAGCGGAAACACGGGACCAAG
TCGGCCGAGGAGGAGCTGGCCAGGGCGGGCTGGTTACTGAACCTGCAGCATTTGACATTGGGAGCACAGATCGGA
GAGGGAGAGTTTGGAGCTGTCCTGCAGGGTGAGTACCTGGGGCAAAAGGTGGCCGTGAAGAATATCAAGTGTGAT
GTGACAGCCCAGGCCTTCCTGGACGAGACGGCCGTCATGACGAAGATGCAACACGAGAACCTGGTGCGTCTCCTG
GGCGTGATCCTGCACCAGGGGCTGTACATTGTCATGGAGCACGTGAGCAAGGGCAACCTGGTGAACTTTCTGCGG
ACCCGGGGTCGAGCCCTCGTGAACACCGCTCAGCTCCTGCAGTTTTCTCTGCACGTGGCCGAGGGCATGGAGTAC
CTGGAGAGCAAGAAGCTTGTGCACCGCGACCTGGCCGCCCGCAACATCCTGGTCTCAGAGGACCTGGTGGCCAAG
GTCAGCGACTTTGGCCTGGCCAAAGCCGAGCGGAAGGGGCTAGACTCAAGCCGGCTGCCCGTCAAGTGGACGGCG
CCCGAGGCTCTCAAACACGGGAAGTTCACCAGCAAGTCGGATGTCTGGAGTTTTGGGGTGCTGCTCTGGGAGGTC
TTCTCATATGGACGGGCTCCGTACCCTAAAATGTCACTGAAAGAGGTGTCGGAGGCCGTGGAGAAGGGGTACCGC
ATGGAACCCCCCGAGGGCTGTCCAGGCCCCGTGCACGTCCTCATGAGCAGCTGCTGGGAGGCAGAGCCCGCCCGC
CGGCCACCCTTCCGCAAACTGGCCGAGAAGCTGGCCCGGGAGCTACGCAGTGCAGGTGCCCCAGCCTCCGTCTCA
GGGCAGGACGCCGACGGCTCCACCTCGCCCCGAAGCCAGGAGCCC**TGA**CCCCACCCGGTGGGGCCCTTGGCCCCA
GAGGACCGAGAGAGTGGAGAGTGCGGCGTGGGGGCACTGACCAGGCCCAAGGAGGGTCCAGGCGGGCAAGTCATC
CTCCTGGTGCCCACAGCAGGGGCTGGCCCACGTAGGGGGCTCTGGGCGGCCCGTGGACACCCCAGACCTGCGAAG
GATGATCGCCCGATAAAGACGGATTCTAAGG

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FIGURE 2457A

GGAAGCCGAGCCTCTGCCAGCCCTGAGCTGGGAAGAAGCAGCTACCTCGGAGGCAGGGCGCGCAGGCGGGCGGCG
ATGAGAGGGGGCGCAGCCGCAGCCCCGCGCTGGGGAGCCCACCGCTAACCCTGCACCCCACCCACCCCTGCACAA
AAGAGCTGGCGGGCGCTGGCCACGTCGCCCTGGGTGACCTTCCTCGGATGCAGAATCCGCCCCTGCGAGCATCCT
CTTCCTCCTAGGCTCTGAAGGCCCGGGGAGCGTGAGCGATGCCCAGCTGCACCCGGGCAGGGCTCGCCTTTGTTT
GCCAGTAAGGAGGAGAGGCTGTCTCAGCTGCAGAGGGGTCATCCCTGCTTCAAGCCAGTGCCTCTTCCCAGCTCC
C**ATG**GGGACCACCGAAGCCACGCTCCGGATGGAAAACGTGGACGTGAAGGAGGAATGGCAGGACGAAGATCTTCC
CAGGCCACTCCCAGAAGAGACGGGGGTGGAACTGCTTGGCAGCCCGGTGGAAGACACATCCTCTCCTCCCAACAC
GCTAAATTTCAACGGAGCGCATCGTAAGAGGAAGACGCTGGTGGCCCCAGAGATCAACATTTCTCTGGATCAGAG
TGAGGGGTCCCTGCTGTCCGATGACTTCTTGGATACCCCTGATGACCTGGATATTAACGTGGATGACATCGAGAC
CCCCGATGAGACCGACTCGCTGGAGTTCCTGGGGAATGGCAACGAACTGGAGTGGGAAGACGACACCCCCGTGGC
CACCGCCAAGAACATGCCCGGGGACAGCGCGGATCTATTTGGGGACGGCACGACGGAGGACGGCAGCGCCGCCAA
CGGGCGCCTGTGGCGGACAGTGATCATCGGGGAGCAAGAGCACCGTATAGACCTGCACATGATCCGGCCTTACAT
GAAAGTGGTCACCCACGGAGGGTACTACGGCGAAGGCCTCAACGCCATCATCGTCTTCGCAGCCTGCTTCCTTCC
AGACAGCAGCCTCCCCGACTACCACTACATCATGGAGAACCTCTTCCTGTACGTCATCAGCAGCTTAGAGCTCCT
GGTGGCTGAGGACTACATGATCGTGTACCTGAACGGTGCCACGCCCCGGCGGAGGATGCCTGGAATCGGCTGGCT
GAAGAAGTGCTACCAGATGATCGACCGGAGGTTGCGGAAAAACCTGAAGTCCTTGATCATCGTCCACCCCTCGTG
GTTCATTCGGACTGTGCTGGCCATCTCTCGCCCTTTCATCAGCGTCAAGTTCATCAACAAGATCCAGTACGTGCA
CAGCTTGGAAGACCTGGAGCAACTCATCCCTATGGAACACGTCCAGATCCCAGACTGCGTCCTGCAATACGAAGA
GGAAAGACTGAAGGCCAGGAGGGAGAGCGCGAGGCCCCAGCCGGAGTTTGTGCTGCCCAGGTCTGAAGAGAAGCC
AGAGGTGGCACCAGTGGAAAACAGGTCTGCTCTGGTCTCAGAAGATCAGGAAACAAGCATGTCC**TGA**GGCGACGT
GAGCATAACAAAGGACATGGAAGAAGATTCCAGATGCCAGAAAACCTCTGTCAGACGCCCACTGGCCCCAGATCT
CATCCTGCCTCATCCTGAGTCCCAATCTTCCAAGGGTGCCAGCCCCTCCGTTCATCTCTGAAACCCAGCATCCTT
TTCAGCTGCTTGAAAACATTGTATTTTTTTTTTTTAACGATGCAGTATTTGTGCGTTCCAGAAAAGGGCCCAGCT
CTGAGCCCCTCACCCTTCCACACTCACGAACTCTCAGCCGAGGAAGGCAAGAAGCGCAGGGGGTGGCCCGCGTGG
CGTCGGTGGCCTCCGCTCCTGCTCGCAGCCTCTGTGGTCAGAGCTGGATACAAGATTCAAGACCCTTCTCTTGCT
TGTCACCCGCTCCAGGTTGGAGCCACAGACACCCACCGCCACCCCGGCTGGGTCTGCGTCCTTTCCTGTGCCTTT
CCCTCCAGAATGCGGCCTCAGACCTAGAAGCTCAACCCCCCTATGAGGGCCACGTCCTGGGGTAGCTCCTGACCT
CCGACCTTATGTCCAAATTTCACACCCATGGTTTTTCATTTGACCCGCCCCCTTCTCGCTCATAATGACACCCAG
CTCCTTTGAGAGGATCAGAGCCCATTGCACAAGAAGAGCCGCTGCCAACCATCCTTGTCCTCCGATTGCAAAATG
ACACCCCAGTAATCTAGAACATTCTCAAGCCCCTTTAACTCAGATGTCAAGCCACCGGGCAAACCCCGTCAATAC
CTCCCACCAAGGAATGAGATATGTGGACCTCACTGCTCCCCCAACCCAGCGTCAGGCTGGGACACGCCAACGCTG
TTCCGGGTTGGAACAGCAGAGGCTCAGAAACTGGCTCTGAAATAGGCAGACCTAGCAAGAGGAAGATACAGGGTA
TCGGGCGTTTGAGTGTTTCAGAAGTCATTCGGGAAGATAAATCCAGTGCGCTGGCCGCAGCCACCTGCATTCAAA
GCTTGGACCAGCGGGTTCTTGTTCGGGAGGCAAATTTCCCTAGGAAAAAGAAGACAGACTTTTCTAATGTGGTCC
AAATGCGGATCACTGGTCAGATGGACTCTAGAAGCACTGAGCTCCCTGTCTCTGGAAGTATTTAAGAAAAGGCTG
GGCCAGGCACGATGGCTCACGCCTGTAATCCCAGACTTTGGGAGGCCGAGGCAGGCGGATCACCTGAGGTGAGGA
GTTTGAGAACAGCCTGGCCAACATGGTGAAACCTCATCTCTACTAAAAATACAAAAATTAGCCAGGCGTGGTGGC
AGGTGCCTGTAATCCCAGCTACTTGGGAGGCTGAGGCATGAGAATCACTTAAACCTGAGAGGCAGAGGTTACAGT
GAGCCAAGATCGTGCCACTGCATTCCAGCCTGGGCGACAGAGCAAGACTCTGTCTCAAAAAAAAATAAAAAATAAT
CAGGGCACAGTGGCTCATGCCTGTAATCCCAGCACTCTGGGAGGCTGAGGTGGGTGGATCACCTGAGGTCAGGAG
TTCAAGACCAGCCTGGTGAACATGGCGAAACCCCGTCTCTAATAAAAATACAAAAATTAGCCGGGCATGGTGGTG
CATGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAACTGCTTGAACCCAGGAGGCAGAGGTTGCAGTG
ATCCAAGATCATGCCACTGCACTCCAGCCTGGGCAACAAGAGCAAAACTCCGTCTCAAAATAAAAAGAAAAGAAA
AGAATGGACAGTGTTTGCAGAGAGTTGCTCACGAGTTTCCCTCTAATCCTAAATGTCTTCATGTCTATCAGTCTG
AGCAGACGGTGAGTAGGGCGGGCACATTCTCCAGGCCCTTCTTCCTAGCTCTGTGGTTGACCTCTCAGCAAGTGC
TATCCAGGCTGGGCCAACCAGACCCACAATTAACTGAGCCTCAGTGAAAGCGTCCAGTGCATCTTGACCTGAGAC
AGCAAGGAATTGCATTTGGGGTTATTCCAACGATGATGGCAGGGAACTGGTGGTATTTAGTGCTGAGGGGCAGTG
ATACAGAAAGATTTGCCCTGTGGGACAGGGTCCTGCGCGAGTCCCATCCCCAAAAGCCAGCAGCTCCTGCCATGA

FIGURE 2457B

GGAAGACGGGGTTTCTGAGCAGGCTTATGCCTGCAGGTTCCTGTGGAGCCACCGGCTGTGACGGGACACCTCTGG
GTCTCAGCATTGCCCTGGGGAGGCTGGGACATTTAGGGACATGGTAGGGTTTTAACATTTGTTTCCCAAATGTCA
AATCCCGGGCACAGGGGCAAGACCCTGTCCCGAATTCCCACCCCAGTGAATGGTGTCGCTGCCAAAGCCAACACA
AGATGACAAAAGTGGCTGGGTACGGTGGCTCACGCCTATAATCCCAGCACTTTGGGAGACCGAGACAGGTGGATC
ACCTGAGGTCAGGAGTTCGAGACCAGGCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAATACAAAAATTAG
CTGGGTGTGGTGGCGCGCACCTGTAGTCCCAGCTACTCAGGAGGCTGAGGTAGAAGAATAGCTGGAACCCAGGAG
GCAGAGATTGCAGTCAGCCGAGATTGCACCACTGCACTCCAGCCTGGGAGACAGAGCAAGACTGACTCAAAAGAA
AAAAAATGACAGAAGCCTGATTATCAGACTGCCCGGAGGAGACAGGCTCCAGCAGATAGATGCCAGCCAGGCCCA
GCTGCCACGATTTGTCCCAGGTGACCAAAGGCACGCAGCTCCAGCATGAATCGTTCTAACCCAACAGTGACAAGA
ACTGCTGGGCCTTAACCGTCATGGAAGACTGGGGCCGCTTCCAAGTCACAGACAGGAGACGGGGACAGGAAAGAA
CTCATTCCACCCAATCGGACACCTAATAATTGAGTGTCTACAGCAGCAATCAAGTGACAAGTGAGGCCCTACCTG
ACCCAGAAGGTGCCTGCCGGCTAAACATTCTGCCCCCACCAGAAACTCCAGGGGGTCCGCCCGTTATGCCGTGGC
CCACCCACGCCCCTTTGGATCACCAGCAGTCACAGACAACAGGCAGGCGAAACTGAAGACCCCAACTCAGCCCCA
GCGGACCCTCCAGAGCAAAAGAGGCCCCCGGCGAGGCCACCTGTCGGCAGGCATGCCGAGGTCAAACAGCCGGGG
CCACCGTTCCCAGCTGGGCCACGACCTGCACCGTCCACAGATGGGCTTTGAGATGGATTTGTATCAGGGTGGGGG
GTGTGGTTTGGCCAAAATGCAATGGACCCCGACCCCTCCTCGTAAAAGGATGTTGGGTTTCCCTCTGGTGACACA
TGGGATGCGTCATAAACCCTCCCCCAAAGTCCTGGTCAGCAGCCCATCCTTCCAACGATGAGTTTTGCGGTTTTT
CAGAACAGAAATGATCACTACGATTGACGACGGTCGTGATGTTAAGACGTCGTCTCCATGAGCTTTGGGGGGACT
TTTATGTGGAATAAAGAAACTATCACTG

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FIGURE 2458

GTTGCCATTAGGGGACTCCTGAGGTCCTATCTCCAGGCTGCGGTGACTGCACTTTCCCTGGAGTGGAAGCTGCTG
GAAGGCGGACCGGCCGCC**ATG**TCCACGTTCAGGCAGGAGGACGTGGAGGACCATTATGAGATGGGGGAGGAGCTG
GGCAGCGGCCAGTTTGCGATCGTGCGGAAGTGCCGGCAGAAGGGCACGGGCAAGGAGTACGCAGCCAAGTTCATC
AAGAAGCGCCGCCTGTCATCCAGCCGGCGTGGGGTGAGCCGGGAGGAGATCGAGCGGGAGGTGAACATCCTGCGG
GAGATCCGGCACCCCAACATCATCACCCTGCACGACATCTTCGAGAACAAGACGGACGTGGTCCTCATCCTGGAG
CTGGTCTCTGGCGGGGAGCTCTTTGACTTCCTGGCGGAGAAGGAGTCGCTGACGGAGGACGAGGCCACCCAGTTC
CTCAAGCAGATCCTGGACGGCGTTCACTACCTGCACTCTAAGCGCATCGCACACTTTGACCTGAAGCCGGAAAAC
ATCATGCTGCTGGACAAGAACGTGCCCAACCCACGAATCAAGCTCATCGACTTCGGCATCGCGCACAAGATCGAG
GCGGGGAACGAGTTCAAGAACATCTTCGGCACCCCGGAGTTTGTGGCCCCAGAGATTGTGAACTATGAGCCGCTG
GGCCTGGAGGCGGACATGTGGAGCATCGGTGTCATCACCTATATCCTCCTGAGCGGTGCATCCCCGTTCCTGGGC
GAGACCAAGCAGGAGACGCTCACCAACATCTCAGCCGTGAACTACGACTTCGACGAGGAGTACTTCAGCAACACC
AGCGAGCTGGCCAAGGACTTCATTCGCCGGCTGCTCGTCAAAGATCCCAAGCGGAGAATGACCATTGCCCAGAGC
CTGGAACATTCCTGGATTAAGGCGATCCGGCGGCGGAACGTGCGTGGTGAGGACAGCGGCCGCAAGCCCGAGCGG
CGGCGCCTGAAGACCACGCGTCTGAAGGAGTACACCATCAAGTCGCACTCCAGCTTGCCGCCCAACAACAGCTAC
GCCGACTTCGAGCGCTTCTCCAAGGTGCTGGAGGAGGCGGCGGCGCCGAGGAGGGCCTGCGCGAGCTGCAGCGCA
GCCGGCGGCTCTGCCACGAGGACGTGGAGGCGCTGGCCGCCATCTACGAGGAGAAGGAGGCCTGGTACCGCGAGG
AGAGCGACAGCCTGGGCCAGGACCTGCGGAGGCTACGGCAGGAGCTGCTCAAGACCGAGGCGCTCAAGCGGCAGG
CGCAGGAGGAGGCCAAGGGCGCGCTGCTGGGGACCAGCGGCCTCAAGCGCCGCTTCAGCCGCCTGGAGAACCGCT
ACGAGGCGCTGGCCAAGCAAG**TAG**CCTCCGAGATGCGCTTCGTGCAGGACCTCGTGCGCGCCCTGGAGCAGGAGA
AGCTGCAGGGCGTGGAGTGCGGGCTGCGCTAGGCGCAGTGGGGTGGGCCAGGCCCCAGGACAGCCGGAGCTCGGC
CTGCGGTGGGGGCGCTTCCTGTGGACGCTGCGCCTCCCATCGCCCGGGTGCCTGTCCTTGCCCAGCGCCACCAGG
CTGGAGGCGGAGTGGGAGGAGCTGGAGCCAGGCCCGTAAGTTCGCAGGCAGGGGTGGGTGTGGGACGGGGCTGCT
TCTCTACACAGCCTCCACGCTGGCCTTCACCTTCACCCCTGCATCGTCGGTGACCCTGGGACCCTCCAGGCAGCG
TGGCCTGTGGCACCGTGAGGGTTGGGACCCACCGAGGCGCAGAGGCGGCCCGAATGCAGCCCTGGTTCAGGCCCG
GAGGAGGGTTTGCGGGTAGTTGCACGGACAATTCGGCGGGGTGCTGCCTGTTGCTGCCATTAGCCCAGGAGGAGG
TCGTGGGACGGGGAGGGTGGGATGGACGGCGGACAGGCAGTCCCCACGCTGCTGGGTGGCGCCGGGCTTGGTGGG
GTCTTCCACTGTGTGCCCTTCTCGCCGAGGCCGGTCCCCCGGGTGTGGGGTGCCCTGCTGCGGACTCCTCCGCGA
GCCCCATCGTCGCGCCTGTGGACGCCTAGGCAAGAGCGGCCCTCTGCAGCCAAGAGAAATAAAATACTGGCTTCC
AGAT

FIGURE 2459

ACGGTAGACCAGATCCGCGCCATC**ATG**GACAAGAAGGCCAACATCCGCAACATGTCTGTCATCGCCCACGTGGAC
CATGGCAAGTCCACGCTGACAGACTCCCTGGTGTGCAAGGCGGGCATCATCGCCTCGGCCCGGGCCGGGGAGACA
CGCTTCACTGATACCCGGAAGGACGAGCAGGAGCGTTGCATCACCATCAAGTCAACTGCCATCTCCCTCTTCTAC
GAGCTCTCGGAGAATGACTTGAACTTCATCAAGCAGAGCAAGGACGGTGCCGGCTTCCTCATCAACCTCATTGAC
TCCCCCGGGCATGTCGACTTCTCCTCGGAGGTGACTGCTGCCCTCCGAGTCACCGATGGCGCATTGGTGGTGGTG
GACTGCGTGTCAGGCGTGTGCGTGCAGACGGAGACAGTGCTGCGGCAGGCCATTGCCGAGCGCATCAAGCCTGTG
CTGATGATGAACAAGATGGACCGCGCCCTGCTGGAGCTGCAGCTGGAGCCCGAGGAGCTCTACCAGACTTTCCAG
CGCATCGTGGAGAACGTGAACGTCATCATCTCCACCTACGGCGAGGGCGAGAGCGGCCCCATGGGCAACATCATG
ATCGATCCTGTCCTCGGTACCGTGGGCTTTGGGTCTGGCCTCCACGGGTGGGCCTTCACCCTGAAGCAGTTTGCC
GAGATGTATGTGGCCAAGTTCGCCGCCAAGGGGGAGGGCCAGTTGGGGCCTGCCGAGCGGGCCAAGAAAGTAGAG
GACATGATGAAGAAGCTGTGGGGTGACAGGTACTTTGACCCAGCCAACGGCAAGTTCAGCAAGTCAGCCACCAGC
CCCGAAGGGAAGAAGCTGCCACGCACCTTCTGCCAGCTGATCCTGGACCCCATCTTCAAGGTGTTTGATGCGATC
ATGAATTTCAAGAAAGAGGAGACAGCAAAACTGATAGAGAAACTGGACATCAAACTGGACAGCGAGGACAAGGAC
AAAGAAGGCAAACCCCTGCTGAAGGCTGTGATGCGCCGCTGGCTGCCTGCCGGAGACGCCTTGTTGCAGATGATC
ACCATCCACCTGCCCTCCCCTGTGACGGCCCAGAAGTACCGCTGCGAGCTCCTGTACGAGGGGCCCCCGGACGAC
GAGGCTGCCATGGGCATTAAAAGCTGTGACCCCAAAGGCCCTCTTATGATGTATATTTCCAAAATGGTGCCAACC
TCCGACAAAGGTCGGTTCTACGCCTTTGGACGAGTCTTCTCGGGGCTGGTCTCCACTGGCCTGAAGGTCAGGATC
ATGGGGCCCAACTATACCCCTGGGAAGAAGGAGGACCTCTACCTGAAGCCAATCCAGAGAACAATCTTGATGATG
GGCCGCTACGTGGAGCCCATCGAGGATGTGCCTTGTGGGAACATTGTGGGCCTCGTGGGCGTGGACCAGTTCCTG
GTGAAGACGGGCACCATCACCACCTTCGAGCACGCGCACAACATGCGGGTGATGAAGTTCAGCGTCAGCCCTGTT
GTCAGAGTGGCCGTGGAGGCCAAGAACCCGGCTGACCTGCCCAAGCTGGTGGAGGGGCTGAAGCGGCTGGCCAAG
TCCGACCCCATGGTGCAGTGCATCATCGAGGAGTCGGGAGAGCATATCATCGCGGGCGCCGGCGAGCTGCACCTG
GAGATCTGCCTGAAGGACCTGGAGGAGGACCACGCCTGCATCCCCATCAAGAAATCTGACCCGGTCGTCTCGTAC
CGCGAGACGGTCAGTGAAGAGTCGAACGTGCTCTGCCTCTCCAAGTCCCCCAACAAGCACAACCGGCTGTACATG
AAGGCGCGGCCCTTCCCCGACGGCCTGGCCGAGGACATCGATAAAGGCGAGGTGTCCGCCCGTCAGGAGCTCAAG
CAGCGGGCGCGCTACCTGGCCGAGAAGTACGAGTGGGACGTGGCTGAGGCCCGCAAGATCTGGTGCTTTGGGCCC
GACGGCACCGGCCCCAACATCCTCACCGACATCACCAAGGGTGTGCAGTACCTCAACGAGATCAAGGACAGTGTG
GTGGCCGGCTTCCAGTGGGCCACCAAGGAGGGCGCACTGTGTGAGGAGAACATGCGGGGTGTGCGCTTCGACGTC
CACGACGTCACCCTGCACGCCGACGCCATCCACCGCGGAGGGGGCCAGATCATCCCCACAGCACGGCGCTGCCTC
TATGCCAGTGTGCTGACCGCCCAGCCACGCCTCATGGAGCCCATCTACCTTGTGGAGATCCAGTGTCCAGAGCAG
GTGGTCGGTGGCATCTACGGGGTTTTGAACAGGAAGCGGGGCCACGTGTTCGAGGAGTCCCAGGTGGCCGGCACC
CCCATGTTTGTGGTCAAGGCCTATCTGCCCGTCAACGAGTCCTTTGGCTTCACCGCTGACCTGAGGTCCAACACG
GGCGGCCAGGCGTTCCCCCAGTGTGTGTTTGACCACTGGCAGATCCTGCCCGGAGACCCCTTCGACAACAGCAGC
CGCCCCAGCCAGGTGGTGGCGGAGACCCGCAAGCGCAAGGGCCTGAAAGAAGGCATCCCTGCCCTGGACAACTTC
CTGGACAAATTG**TAG**GCGGCCCTTCCTGCAGCGCCTGCCGCCCCGGGGACTCGCAGCACCCACAGCACCACGTCC
TCGAATTCTCAGACGACACCTGGAGACTGTCCCGACACAGCGACGCTCCCCTGAGAGGTTTCTGGGGCCCGCTGC
GTGCCATCACTCAACCATAACACTTGATGCCGTTTCTTTCAATATTTATTTCCAGAGTCCGGAGGCAGCAGACAC
GCCCTCTTAGTAGGGACTTAATGGGCCGGTCGGGGAGGGGGAGGCGGGATGGGACACCCAACACTTTTTCCATTT
CTTCAGAGGGAAACTCAGATGTCCAAACTAATTTTAACAAACGCATTAAGAGGTTTATTTGGGTACATGGCCCGC
AGTGGCTTTTGCCCCAGAAAGGGGAAAGGAACACGCGGGTAGATGATTTCTAGCAGGCAGGAAGTCCTGTGCGGT
GTCACCATGAGCACCTCCAGCTGTACTAGTGCCATTGGAATAATAAATTTGATAAGGTG

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FIGURE 2460

ATGGCCGGCGGCGTGGACGGCCCCATCGGGATCCCGTTCCCCGACCACAGCAGCGACATCCTGAGTGGGCTGAAC
GAGCAGCGGACGCAGGGCCTGCTGTGCGACGTGGTGATCCTGGTGGAGGGCCGCGAGTTCCCCACGCACCGCTCG
GTGCTGGCCGCCTGCAGCCAGTACTTCAAGAAGCTGTTCACGTCGGGCGCCGTGGTGGACCAGCAGAACGTGTAC
GAGATCGACTTCGTCAGCGCCGAGGCGCTCACCGCGCTCATGGACTTCGCCTACACGGCCACGCTCACCGTCAGC
ACAGCCAACGTGGGTGACATCCTCAGCGCCGCCCGCCTGCTGGAGATCCCCGCCGTGAGCCACGTGTGCGCCGAC
CTCCTGGACCGGCAGATCCTGGCGGCCGACGCGGGCGCCGACGCCGGGCAGCTGGACCTTGTAGATCAAATTGAT
CAGCGCAACCTCCTCCGCGCCAAGGAGTACCTCGAGTTCTTCCAGAGCAACCCCATGAACAGCCTGCCCCCCGCG
GCCGCCGCCGCCGCTGCCAGCTTCCCGTGGTCCGCCTTTGGGGCGTCCGATGATGACCTGGATGCCACCAAGGAG
GCCGTGGCCGCCGCTGTGGCCGCCGTGGCCGCGGGCGACTGCAACGGCTTAGACTTCTATGGGCCGGGCCCCCCG
GCCGAGCGGCCCCCGACGGGGGACGGGGACGAGGGCGACAGCAACCCGGGTCTGTGGCCAGAGCGGGATGAGGAC
GCCCCCACCGGGGGTCTCTTTCCGCCGCCGGTGGCCCCGCCGGCCGCCACGCAGAACGGCCACTACGGCCGCGGC
GGAGAGGAGGAGGCCGCCTCGCTGTCGGAGGCGGCCCCCGAGCCGGGCGACTCTCCGGGCTTCCTGTCGGGAGCG
GCCGAGGGCGAGGACGGGGACGGGCCCGACGTGGACGGGCTGGCGGCCAGCACGCTGCTGCAGCAGATGATGTCA
TCGGTGGGCCGGGCGGGGGCCGCGGCGGGGGACAGCGACGAGGAGTCGCGGGCCGACGACAAGGGCGTCATGGAC
TACTACCTGAAGTACTTCAGCGGCGCCCACGACGGCGACGTCTACCCGGCCTGGTCGCAGAAGGTGGAGAAGAAG
ATCCGAGCCAAGGCCTTCCAGAAGTGCCCCATCTGCGAGAAGGTCATCCAGGGCGCCGGCAAGCTGCCGCGACAC
ATCCGCACCCACACGGGCGAGAAGCCCTACGAGTGCAACATCTGCAAGGTCCGCTTCACCAGGCAGGACAAGCTG
AAGGTGCACATGCGGAAGCACACGGGCGAGAAGCCGTACCTGTGCCAGCAGTGCGGCGCCGCCTTTGCCCACAAC
TACGACCTGAAGAACCACATGCGCGTGCACACGGGCCTGCGCCCCTACCAGTGCGACAGCTGCTGCAAGACCTTC
GTCCGCTCCGACCACCTGCACAGACACCTCAAGAAAGACGGCTGCAACGGCGTCCCCTCGCGCCGCGGCCGCAAG
CCCCGCGTCCGGGGCGGGGCGCCCGACCCCAGCCCGGGGGCCACCGCGACCCCCGGCGCCCCCGCCCAGCCCAGC
TCCCCCGACGCCCGGCGCAACGGCCAGGAGAAGCACTTTAAGGACGAGGACGAGGACGAGGACGTGGCCAGCCCC
GACGGCTTGGGCCGGTTGAATGTAGCGGGCGCCGGTGGAGGAGGTGACAGCGGAGGTGGCCCCGGGGCCGCCACC
GACGGTAACTTCACAGCCGGACTCGCC**TAA**

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FIGURE 2461

CCCCTGCCTCTCGGACTCGGGCTGCGGCGTCAGCCTTCTTCGGGCCTCGGCAGCGGTAGCGGCTCGCTCGCCTCA
GCCCCAGCGCCCCTCGGCTACCCTCGGCCCAGGCCCGCAGCGCCGCCCGCCCTCGGCCGCCCCGACGCCGGCCTG
GGCCGCGGCCGCAGCCCCGGGCTCGCGTAGGCGCCGACCGCTCCCGGCCCGCCCCCTATGGGCCCCGGCTAGAGG
CGCCGCCGCCGCCGGCCCGCGGAGCCCCG**ATG**CTGGCCCGGAGGAAGCCGGTGCTGCCGGCGCTCACCATCAACC
CTACCATCGCCGAGGGCCCATCCCCTACCAGCGAGGGCGCCTCCGAGGCAAACCTGGTGGACCTGCAGAAGAAGC
TGGAGGAGCTGGAACTTGACGAGCAGCAGAAGAAGCGGCTGGAAGCCTTTCTCACCCAGAAAGCCAAGGTCGGCG
AACTCAAAGACGATGACTTCGAAAGGATCTCAGAGCTGGGCGCGGGCAACGGCGGGGGTGGTCACCAAAGTCCAGC
ACAGACCCTCGGGCCTCATCATGGCCAGGAAGCTGATCCACCTTGAGATCAAGCCGGCCATCCGGAACCAGATCA
TCCGCGAGCTGCAGGTCCTGCACGAATGCAACTCGCCGTACATCGTGGGCTTCTACGGGGCCTTCTACAGTGACG
GGGAGATCAGCATTTGCATGGAACACATGGACGGCGGCTCCCTGGACCAGGTGCTGAAAGAGGCCAAGAGGATTC
CCGAGGAGATCCTGGGGAAAGTCAGCATCGCGGTTCTCCGGGGCTTGGCGTACCTCCGAGAGAAGCACCAGATCA
TGCACCGAGATGTGAAGCCCTCCAACATCCTCGTGAACTCTAGAGGGGAGATCAAGCTGTGTGACTTCGGGGTGA
GCGGCCAGCTCATCGACTCCATGGCCAACTCCTTCGTGGGCACGCGCTCCTACATGGCTCCGGAGCGGTTGCAGG
GCACACATTACTCGGTGCAGTCGGACATCTGGAGCATGGGCCTGTCCCTGGTGGAGCTGGCCGTCGGAAGGTACC
CCATCCCCCCGCCCGACGCCAAAGAGCTGGAGGCCATCTTTGGCCGGCCCGTGGTCGACGGGGAAGAAGGAGAGC
CTCACAGCATCTCGCCTCGGCCGAGGCCCCCCGGGCGCCCCGTCAGCGGTCACGGGATGGATAGCCGGCCTGCCA
TGGCCATCTTTGAACTCCTGGACTATATTGTGAACGAGCCACCTCCTAAGCTGCCCAACGGTGTGTTCACCCCCG
ACTTCCAGGAGTTTGTCAATAAATGCCTCATCAAGAACCCAGCGGAGCGGGCGGACCTGAAGATGCTCACAAACC
ACACCTTCATCAAGCGGTCCGAGGTGGAAGAAGTGGATTTTGCCGGCTGGTTGTGTAAAACCTGCGGTGAACCAG
CCCGGCACACCCACGCGCACCGCCGTGTGACAGTGGCCGGGCTCCCTCGGTCCCGCTGG**TGA**CCTGCCCACCGTC
CCTGTCCATGCCCCGCCCTTCCAGCTGAGGACCGTGGCGCCTCCACCCACCCTCCTGCCTCACCCTGCGGAGAGC
ACCGTGGCGGGGCGACAGCGCATGCAGGAACGGGGGTCTCCTCTCCTGCCGTCCTGGCCGGGGTGCCTCTGGGGA
CGGGCGACGCTGCTGTGTGTGGTCTCAGAGGCTCTGCTTCCTTAGGTTACAAAACAAAACAGGGAGAGAAAAAGC

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FIGURE 2462

GCTTCCGGCGGAAGCGGCCTCAACAAGGGAAACTTTATTGTTCCCGTGGGGCAGTCGAGGATGTCGGTGAATTAC
GCGGCGGGGCTGTCGCCGTACGCGGACAAGGGCAAGTGCGGCCTCCCGGAGATCTTCGACCCCCCGGAGGAGCTG
GAGCGGAAGGTGTGGGAACTGGCGAGGCTGGTCTGGCAGTCTTCCAGTGTGGTGTTCCACACGGGTGCCGGCATC
AGCACTGCCTCTGGCATCCCCGACTTCAGGGGTCCCCACGGAGTCTGGACCATGGAGGAGCGAGGTCTGGCCCCC
AAGTTCGACACCACCTTTGAGAGCGCGCGGCCCACGCAGACCCACATGGCGCTGGTGCAGCTGGAGCGCGTGGGC
CTCCTCCGCTTCCTGGTCAGCCAGAACGTGGACGGGCTCCATGTGCGCTCAGGCTTCCCCAGGGACAAACTGGCA
GAGCTCCACGGGAACATGTTTGTGGAAGAATGTGCCAAGTGTAAGACGCAGTACGTCCGAGACACAGTCGTGGGC
ACCATGGGCCTGAAGGCCACGGGCCGGCTCTGCACCGTGGCTAAGGCAAGGGGGCTGCGAGCCTGCAGGGGAGAG
CTGAGGGACACCATCCTAGACTGGGAGGACTCCCTGCCCGACCGGGACCTGGCACTCGCCGATGAGGCCAGCAGG
AACGCCGACCTGTCCATCACGCTGGGTACATCGCTGCAGATCCGGCCCAGCGGGAACCTGCCGCTGGCTACCAAG
CGCCGGGGAGGCCGCCTGGTCATCGTCAACCTGCAGCCCACCAAGCACGACCGCCATGCTGACCTCCGCATCCAT
GGCTACGTTGACGAGGTCATGACCCGGCTCATGAAGCACCTGGGGCTGGAGATCCCCGCCTGGGACGGCCCCCGT
GTGCTGGAGAGGGCGCTGCCACCCCTGCCCCGCCCGCCCACCCCCAAGCTGGAGCCCAAGGAGGAATCTCCCACC
CGGATCAACGGCTCTATCCCCGCCGGCCCCAAGCAGGAGCCCTGCGCCCAGCACAACGGCTCAGAGCCCGCCAGC
CCCAAACGGGAGCGGCCCACCAGCCCTGCCCCCCACAGACCCCCCAAAAGGGTGAAGGCCAAGGCGGTCCCCAGC
TGACCAGGGTGCTTGGGGAGGGTGGGGCTTTTTGTAGAAACTGTGGATTCTTTTTCTCTCGTGGTCTCACTTTGT
TACTTGTTTCTGTCCCCGGGAGCCTCAGGGCTCTGAGAGCTGTGCTCCAGGCCAGGGGTTACACCTGCCCTCCGT
GGTCCCTCCCTGGGCTCCAGGGGCCTCTGGTGCGGTTCCGGGAAGAAGCCACACCCCAGAGGTGACAGCTGAGCC
CCTGCCACACCCCAGCCTCTGACTTGCTGTGTTGTCCAGAGGTGAGGCTGGGCCCTCCCTGGTCTCCAGCTTAAA
CAGGAGTGAACTCCCTCTGTCCCCAGGGCCTCCCTTCTGGGCCCCCTACAGCCCACCCTACCCCTCCTCCATGGG
CCCTGCAGGAGGGGAGACCCACCTTGAAGTGGGGGATCAGTAGAGGCTTGCACTGCCTTTGGGGCTGGAGGGAGA
CGTGGGTCCACCAGGCTTCTGGAAAAGTCCTCAATGCAATAAAAACAATTTCTTTCTTGCA

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FIGURE 2463

GATAATTACCCAGCCTAACCATTTCTCAGGTGCTTGCGAGGTGATCAGAAGGCAAAG**ATG**TCGGAGCGAAAAGTA
TTAAACAAATACTACCCGCCGGACTTTGACCCATCAAAGATCCCCAAACTCAAGCTCCCCAAAGACCGGCAGTAC
GTGGTGCGGCTGATGGCCCCCTTCAACATGAGGTGTAAGACGTGCGGAGAATACATCTACAAGGGGAAGAAATTC
AATGCTCGGAAGGAGACGGTGCAGAACGAGGTCTACCTGGGCCTGCCCATCTTCCGCTTTTACATCAAGTGCACG
CGCTGCCTGGCAGAGATCACCTTCAAGACAGACCCTGAAAACACAGACTACACCATGGAGCATGGAGCCACGCGG
AATTTCCAGGCTGAGAAGCTCCTGGAGGAGGAGGAGAAGAGGGTGCAGAAGGAGCGGGAGGACGAGGAGCTGAAC
AACCCCATGAAGGTGCTGGAGAACCGGACCAAGGACTCCAAGCTGGAGATGGAGGTGCTGGAGAACCTCCAGGAG
CTGAAAGACCTGAACCAGCGGCAGGCGCACGTGGACTTCGAGGCTATGCTGAGGCAGCACCGCCTGTCGGAGGAG
GAGCGGCGGAGGCAGCAGCAGGAGGAGGACGAGCAGGAGACCGCGGCCCTGTTGGAGGAAGCCAGAAAGCGAAGA
CTGCTGGAGGACTCCGACTCAGAGGATGAGGCTGCTCCCTCGCCCCTGCAGCCAGCCCTTCGGCCCAACCCCACC
GCCATCCTGGATGAGGCCCCAAAGCCCAAGAGGAAGGTGGAGGTCTGGGAGCAGAGCGTTGGCAGCCTGGGCAGC
CGGCCCCCGCTGTCGAGGCTGGTCGTGGTGAAGAAGGCAAAGGCCGACCCGGACTGCAGCAACGGGCAGCCTCAG
GCGGCCCCCACCCCAGGAGCCCCGCAGAACAGGAAGGAGGCCAACCCTACACCCCTGACGCCTGGCGCGTCCTCC
CTGAGCCAACTGGGTGCATACCTGGACAGTGACGACAGCAACGGCAGCAAC**TGA**GCCCTCCCAGGACCCCCTCAC
GGGGTCAAAGTCACACGTCCAGCTTCAGCCACATTGAGGCCAGCATTGCTGGTGGTCAGGGCAGGAGGCCTTGGC
GTGACTGGAGGCCGGACAGACAAGCGCCAGCGTGCTCCAACACATAGGGCCACCAGGGGCCTCAGCCCCAGGAGG
TCCCTTCTCTGTGCCCTCACCAGCCTCTCAACACCTCGGGGACCCCTGCTGCTCCTGCCCCCACCTGTCACTGTG
CTTAGGGCTGCAACATCCCTGGAGCAGCTTCCAACACTACTTCAGGGTGGCAGTGTTTGGGGCACTGGGCGAGCC
TGCCGGCCTCTAGATGGCCTCATCTCTTCCTTCCACAAACTGTCTAGAACCAATAAAAGGAAACCTGCC

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FIGURE 2464

ACCCAGCGTGCGCGGGGCCCGCGGGCCGGGCCGGGGTGACCTGGGCTGCAGCC**ATG**GAAGAACAGAGGGAGGCCC
TGAGGAAGATCATCAAAACACTGGCTGTGAAGAATGAAGAAATTCAGAGCTTTATCTACTCCCTGAAACAGATGC
TGCTGAACGTGGAGGCGAACTCGGCGAAGGTGCAGGAGGACCTCGAAGCAGAGTTCCAGTCCCTCTTCTCCCTCC
TGGAGGAGCTGAAAGAAGGCATGCTTATGAAGATAAAACAGGACCGTGCCAGCCGTACCTACGAGCTGCAGAACC
AGCTGGCTGCCTGCACGCGGGCCCTGGAGAGCTCCGAGGAGCTTCTGGAGACAGCCAACCAGACTCTGCAGGCCA
TGGACAGCGAGGACTTTCCTCAGGCTGCCAAGCAAATCAAAGATGGAGTGACCATGGCCCCTGCCTTCCGGCTAT
CATTGAAAGCGAAGGTCAGTGACAACATGAGTCACCTCATGGTGGACTTCGCGCAAGAGCGGCAGATGCTACAGG
CACTCAAGTTCCTGCCTGTGCCCAGCGCACCCGTGATCGACCTGGCTGAGTCCCTGGTGGCAGATAACTGTGTGA
CCCTGGTGTGGCGCATGCCGGATGAGGACAGCAAGATTGACCACTACGTGCTGGAGTACCGGCGGACCAACTTCG
AGGGCCCGCCCCGCCTCAAGGAGGACCAGCCCTGGATGGTCATCGAGGGCATCCGGCAGACAGAGTACACCCTGA
CAGGTCTCAAGTTTGACATGAAATACATGAACTTCCGTGTGAAGGCCTGTAACAAGGCAGTTGCAGGAGAGTTCT
CTGAGCCGGTGACTCTGGAGACACCAGCGTTCATGTTCCGCCTGGATGCGTCCACATCCCACCAGAACCTGCGGG
TGGATGATCTCTCCGTGGAGTGGGACGCTATGGGCGGGAAGGTGCAGGATATCAAGGCTCGCGAGAAAGATGGCA
AGGGGCGGACGGCGTCTCCCATCAACTCCCCAGCCAGAGGTACTCCATCTCCCAAGAGGATGCCCTCAGGTCGTG
GGGGACGGGACCGCTTCACCGCTGAGTCCTACACAGTTCTGGGGGGACACGCTGATCGACGGCGGGGAGCATTACT
GGGAGGTGCGCTACGAGCCGGACAGCAAGGCGTTCGGCGTGGGCGTGGCCTACCGCAGCCTGGGCCGCTTCGAGC
AACTGGGCAAGACGGCCGCCTCCTGGTGCCTGCACGTCAACAATTGGCTGCAGGTCAGCTTCACGGCCAAGCACG
CCAACAAGGTCAAGGTGCTGGACGCCCCCGTGCCCGACTGCCTGGGTGTGCACTGTGACTTCCACCAAGGCCTCC
TGTCCTTCTACAATGCCCGCACCAAACAAGTGCTGCACACTTTCAAGACCAGGTTCACACAGCCGCTGCTGCCTG
CTTTCACGGTATGGTGTGGCAGCTTCCAGGTGACGACAGGCCTGCAGGTCCCCAGTGCTGTGCGCTGCCTGCAAA
AGCGAGGCAGTGCTACCAGCAGCTCCAACACCAGCCTCACC**TAG**GCCCCCAGGCACCCACCCAGCTGGGGTGTTT
TTGGGGGAGTCGCCGCCAAGCCCAGGCTGCTGGAGCCAGGCACCCTCCTCTGTCACTTGCTGCTTGGAGCCTTAA
CTCCAGATGGGGGGGTCACCAAGAGGGAGTGGGCACCCTGGCGGGCCCTCTCCCCACCTCACCTCTTAATAAAGG
TCAGACACTGGCCAGGC

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FIGURE 2465

CTCAGCTTCCCGGCCCAGCTGGGGCACCCACTGGAAGGAGAGGCCAGGCGGAAGACCCTGGCTCCGTCATGGCCT
CTGCCCTGAGGCCACCCCGTGTCCCCAAGCCTAAGGGTGTCCTGCCTTCACACTACTATGAGAGCTTTCTAGAGA
AGAAGGGGCCCTGTGACCGGGATTACAAGAAGTTCTGGGCAGGCCTGCAGGGTCTCACCATTTATTTCTACAATA
GCAATCGGGACTTCCAGCACGTGGAGAAGCTCAACTTGGGAGCATTTGAGAAACTCACAGATGAGATTCCCTGGG
GAAGCTCACGTGACCCTGGCACCCACTTCAGCCTGATTCTCCGGGATCAGGAGATCAAGTTCAAGCTCCGTGTCC
CGACCGACTTGACCTGCTTCCTGGGCACCTATAC**ATG**ATGACGCACGTGGTCCGGCATTACAAGGTGAAGCGGGA
GGGCCCCAAGTACGTGATCGATGTGGAACAGCCGTTCTCTTGCACCTCCCTGGACGCCGTGGTCAACTATTTCGT
GTCGCATACCAAAAAGGCGCTGGTGCCATTCCTGTTAGACGAGGACTACGAGAAGGTGCTAGGCTACGTGGAAGC
CGATAAGGAGAATGGCGAGAATGTGTGGGTGGCGCCCTCCGCTCCGGGCCCAGGTCCTGCACCCTGCACAGGTGG
CCCCAAGCCGCTGTCACCTGCGTCTAGCCAGGACAAGCTGCCCCCACTGCCCCCACTACCGAACCAGGAAGAGAA
CTACGTGACCCCCATTGGAGATGGCCCAGCTGTTGACTATGAGAACCAAGATGTGGCTTCCTCTAGTTGGCCAGT
CATCCTGAAGCCAAAGAAGTTGCCAAAGCCTCCTGCCAAGCTTCCAAAGCCACCCGTTGGACCCAAGCCAGTAGA
GAAGGGGTTTCACCATGTTGCCCAGGCTGGTCTCGAACTCCTGACCTCAAGTGATCCACCCACCTCAGCCTCCCA
AAGTGCTGGGATTACCGGCGTGAGCCACCACACCTGGCCTCATCTGTCTTCTCTTCCAGAGCCCAAAGTCTTTAA
TGGTGGCTTGGGCAGGAAGCTGCCAGTCAGTTCAGCCCAGCCTCTCTTCCCCACAGCCGGGCTGGCAGACATGAC
GGCAGAGCTACAGAAGAAGCTGGAGAAGAGGCGGGCACTGGAGCAC**TGA**TTCGGACACACCAGGGACCAGCGGGC
TAGTCCCAGGGCATGGCCCAGCGGCCAGATTCTTTTTCCCAGGATTAAAACTCTGACCCCAGG

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FIGURE 2466

AAGCCGGAGTCTAGAGCTCCGGGCGCGGGGAGGCGCGGCC**ATG**GCAGCTCCGGAGCCGCTGTCCCCGGCGGGCGG
TGCGGGCGAGGAGGCGCCGGAGGAGGACGAGGACGAAGCGGAGGCCGAGGACCCTGAGCGGCCGAATGCGGGAGC
GGGCGGTGGACGCAGTGGCGGCGGCGGCAGTAGCGTCAGCGGAGGAGGCGGCGGCGGCGGGGCCGGGGCGGGGGG
CTGCGGCGGGCCCGGGGGCGCGCTCACCAGGCGCGCGGTCACACTGCGGGTGCTCCTCAAAGACGCGCTGCTGGA
GCCTGGCGCCGGGGTGCTGTCCATCTACTACCTGGGGAAGAAGTTCCTGGGCGACCTGCAGCCAGACGGAAGGAT
CATGTGGCAGGAGACCGGGCAGACCTTCAACTCACCCAGCGCCTGGGCCACCCACTGCAAGAAGCTGGTGAACCC
TGCCAAGAAGTCGGGCTGTGGCTGGGCCTCTGTCAAGTACAAAGGCCAGAAACTGGACAAGTACAAGGCCACCTG
GCTCCGGCTGCACCAGCTGCACACGCCTGCCACGGCTGCTGATGAGAGCCCAGCCAGTGAAGGGGAGGAGGAGGA
GTTGCTGATGGAAGAGGAGGAGGAGGACGTTCTGGCAGGGGTCTCAGCAGAGGACAAGAGTCGGAGACCACTGGG
GAAGAGCCCTTCAGAGCCTGCCCACCCGGAGGCCACAACCCCAGGGAAGCGGGTGGACAGCAAGATCCGGGTTCC
GGTCCGCTACTGCATGCTGGGCAGCCGCGACTTGGCCAGGAACCCCCACACCCTGGTGGAAGTAACATCCTTTGC
AGCCATCAACAAGTTCCAGCCGTTCAACGTGGCTGTTTCTAGCAACGTGCTGTTCCTGCTGGACTTCCACAGTCA
CCTGACACGGAGTGAGGTCGTGGGTTACCTGGGGGGCCGCTGGGACGTCAACAGCCAGATGCTGACGGTGCTCAG
AGCCTTCCCTTGTCGGAGCCGGCTCGGGGACGCAGAGACTGCAGCTGCCATCGAAGAGGAGATCTACCAGAGCCT
GTTCCTGCGGGGCCTGTCCCTGGTGGGCTGGTACCACAGCCACCCACACAGCCCGGCGCTGCCATCTCTGCAGGA
CATCGACGCACAGATGGACTACCAGCTGCGGCTGCAGGGCTCCAGCAATGGCTTCCAGCCCTGCCTCGCCCTGCT
CTGCTCCCCTTACTATTCTGGCAACCCAGGCCCCGAGTCCAAGATCTCACCTTTCTGGGTGATGCCTCCTCCCGA
GCAAAGGCCCAGTGACTATGGCATCCCCATGGATGTGGAGATGGCCTACGTCCAGGACAGCTTCCTGACCAATGA
CATCCTTCACGAGATGATGCTGCTGGTGGAGTTCTACAAGGGTTCCCCTGACCTCGTGAGGCTCCAGGAACCCTG
GAGCCAGGAGCACACCTACCTCGACAAGCTTAAGATCTCCTTGGCCAGCAGGACGCCCAAGGACCAGAGCCTGTG
TCACGTCCTGGAACAGGTGTGCGGCGTCCTCAAGCAGGGGAGC**TGA**GCCTTCCAGGGCAGGGTGGGCTCCAGTTG
TCTTGAGGGTCCGGATGGGCTCAGGTAATAAAGAAACGGAAGCAGCAGCC

FIGURE 2467

GTGCGGTTGCCATGTAATATCCTGGCCGCGCGGGCGCGCGAGCGGCTGAGGCGGCGCCGGGGCGGGCGCGGAGCT
GGCAAGCGGGTGGCGGAGGCGGCGCCGACGGGGACTGCTGAGGCGCGCAGAGGGTCGGCGGCGCCCGGGAGCCTG
TCGCTGGCGCGGTCCGGGCGGGAGGCTCGGCGGCGGGCGGCAGC**ATG**TCGGTGGCGGGGCTGAAGAAGCAGTTCT
ACAAGGCGAGCCAGCTGGTCAGTGAGAAGGTCGGAGGGGCCGAGGGGACCAAGCTGGATGATGACTTCAAAGAGA
TGGAGAAGAAGGTGGATGTCACCAGCAAGGCGGTGACAGAAGTGCTGGCCAGGACCATCGAGTACCTGCAGCCCA
ACCCAGCCTCGCGGGCTAAGCTGACCATGCTCAACACGGTGTCCAAGATCCGGGGCCAGGTGAAGAACCCCGGCT
ACCCGCAGTCGGAGGGGCTTCTGGGCGAGTGCATGATCCGCCACGGGAAGGAGCTGGGCGGCGAGTCCAACTTTG
GTGACGCATTGCTGGATGCCGGCGAGTCCATGAAGCGCCTGGCAGAGGTGAAGGACTCCCTGGACATCGAGGTCA
AGCAGAACTTCATTGACCCCCTCCAGAACCTGTGCGAGAAAGACCTGAAGGAGATCCAGCACCACCTGAAGAAAC
TGGAGGGCCGCCGCCTGGACTTTGACTACAAGAAGAAGCGGCAGGGCAAGATCCCCGATGAGGAGCTACGCCAGG
CGCTGGAGAAGTTCGAGGAGTCCAAGGAGGTGGCAGAAACCAGCATGCACAACCTCCTGGAGACTGACATCGAGC
AGGTGAGTCAGCTCTCGGCCCTGGTGGATGCACAGCTGGACTACCACCGGCAGGCCGTGCAGATCCTGGACGAGC
TGGCGGAGAAGCTCAAGCGCAGGATGCGGGAAGCTTCCTCACGCCCTAAGCGGGAGTATAAGCCCAAGCCCCGGG
AGCCCTTTGACCTTGGAGAGCCTGAGCAGTCCAACGGGGGCTTCCCCTGCACCACAGCCCCCAAGATCGCAGCTT
CATCGTCTTTCCGATCTTCCGACAAGCCCATCCGGACCCCTAGCCGGAGCATGCCGCCCCTGGACCAGCCGAGCT
GCAAGGCGCTGTACGACTTCGAGCCCGAGAACGACGGGGAGCTGGGCTTCCATGAGGGCGACGTCATCACGCTGA
CCAACCAGATCGATGAGAACTGGTACGAGGGCATGCTGGACGGCCAGTCGGGCTTCTTCCCGCTCAGCTACGTGG
AGGTGCTTGTGCCCCTGCCGCAG**TGA**CTCACCCGTGTCCCCGCCCCGCCCCTCCGTCCACACTGGCCGGCACCCC
CTGCTGGGTCTCCTGCATTCCACGGAGCCCCTGCTGCCAGGGCGGTGTCTGAGCCTGCCGGCGCCACCTGGGCCC
CGGCCCTTGAGGTACTCCCTGAGCAGGACCCCACACTTGGGTGGGGGGGCTTATCTGGGTGGGTGGGGATGCCTG
TTTACACTAGCGCTGACTCCCAACGGTGACGGCTCCCTTCCCCACTCCATGGCGCCAGCCTCCTCCCCCGCTCCC
CAACTTCTCGCCCAGCTGGCCGAGGCGGGGCAACACTAAGGTGCTCTTAGAAACACTAATGTTCCTCTGGGGCAG
CCCCCACCTCCGTCCTGACCCGACGGGGGCCCGGCCCACTGCCTACCCTCGAGTCCCGCAGCCTTAACAGGATGG
GATCGAGGGTCCCCATGGGGTGGCTCAGAGATAGGACCCTGGTTTTAAATCCCTCCCAGCCTGGTGCTGGTGATG
GGCCCTGGCCCTACTCCAGGGCCAATGCACCCCCGCCTCACACACGCACTCCTTCTCCTCAAGGCCAGGGCAGAG
GGCCTCACCGCCTCCCGGGCCTGCTGTCAGCTTGCAGCCCGGGGACAGAGGCCAGCTGGGATCTGCCTGAGGACA
GAGAACATGGTCTCCTGCAGGGCCCTGCCTCCCAAGCCCCGCCCTCAGAAAGCCAAGTACCTTTTCAGCTTTTTA
ACTGCCCCCATCCCAACCCAGGGAGGCCTGTGTCACTCTGGCACAAGCTGCCACCACCAGCCACCCACACCCACC
CCAGCACACCTCACACGGGACCACAGCCGCGCTGCCGAGGGCCAAGCACAAAGGTTCCAGTGAGCGCATGTCCCA
GCCCCTGGTGGCCAGGCTCCCCTTGCTGAGCCGCTGCCACTTCACCCTGTGGGAAGTGGCCCCAGCCATCTCCTC
TAGACCAAGGCAGGCAGCCCCGACATCTGCTTCCTCTATCGCCCAATGCAAAATCGATGAAATGGGGAGTTCTCT
GGGCCAGGCCACATTCACATTCCCCTCCCCCTGTGGTCCAGTGAAGCCTCCGGACCCCAGGCTCTGCTCTGCCCT
GCCCTGCACCCCCCTCGTCAGAAGTACATGAGGGGCGCAGAGATGAGCACACAGCTTTGGGCACGGTCCAGGGCA
AACTGAAATGTACGCCTGAATTTTGTAAACAGAAGTATTAAATGTCTCTTTCTAC

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FIGURE 2468

GGAGTGCGGGGCGCCCGGCGCCAGGGGAGCCGCCACAGCC**ATG**GATTGCAAAGATAGACCAGCTTTTCCAGTTAA
GAAGTTAATACAAGCCCGTCTGCCGTTTAAGCGCCTGAATCTTGTCCCAAAGGGGAAAGCCGATGACATGTCAGA
CGATCAGGGTACTTCTGTGCAAAGTAAAAGCCCCGATTTAGAGGCCTCTTTGGACACCTTGGAAAACAACTGTCA
TGTGGGTTCTGACATAGACTTTAGACCGAAACTTGTCAACGGGAAGGGTCCCTTAGATAACTTTTTAAGAAATAG
AATCGAAACCAGTATTGGCCAGAGCACAGTCATCATTGATTTGACAGAGGACTCGAATGAGCAGCCAGACAGTCT
TGTGGACCACAATAAACTAAATTCTGAAGCCTCTCCCTCCAGGGAGGCAATAAATGGCCAGCGAGAAGACACTGG
GGATCAGCAGGGGTTGTTGAAGGCCATTCAGAACGACAAGTTGGCATTTCCTGGAGAGACCCTTTCAGACATTCC
TTGCAAAACAGAGGAGGAGGGTGTTGGCTGTGGAGGTGCAGGGAGGAGAGGCGACTCCCAGGAATGTTCGCCACG
GAGCTGCCCGGAGCTGACGAGTGGCCCGAGAATGTGCCCCAGAAAGGAGCAGGACAGTTGGAGTGAAGCTGGGGG
CATCCTGTTCAAAGGGAAGGTGCCTATGGTGGTCTTGCAGGACATCTTGGCTGTGAGACCACCGCAAATCAAGTC
CCTTCCAGCCACACCCCAAGGCAAGAACATGACCCCTGAGAGTGAGGTGCTGGAATCTTTCCCCGAAGAAGACTC
TGTACTCAGCCATTCGTCCCTGAGCTCTCCCTCTTCCACCAGCTCGCCCGAGGGGCCGCCTGCTCCCCCAAAGCA
GCACAGCAGTACCAGTCCCTTCCCCACCTCCACGCCCCTCCGCAGAATAACTAAGAAATTCGTCAAAGGCTCTAC
AGAGAAGAACAAGCTCAGACTGCAAAGAGATCAGGAGCGTCTGGGCAAGCAGCTCAAGTTACGTGCAGAAAGGGA
AGAAAAGGAGAAGCTGAAAGAGGAGGCCAAGCGGGCCAAGGAGGAGGCCAAGAAGAAGAAGGAGGAAGAGAAGGA
GCTTAAGGAAAAGGAGAGGCGGGAGAAGCGGGAGAAGGATGAGAAGGAGAAGGCGGAGAAGCAGCGGCTCAAGGA
GGAGCGGCGCAAGGAGAGACAGGAAGCCCTGGAGGCTAAACTTGAGGAAAAAAGGAAAAAGGAAGAAGAGAAACG
GTTAAGAGAAGAAGAGAAGCGCATTAAAGCAGAGAAGGCCGAAATCACGAGGTTCTTCCAGAAACCAAAGACTCC
ACAGGCCCCCAAGACCCTGGCCGGCTCCTGTGGGAAGTTTGCCCCCTTTGAAATTAAAGAGCACATGGTCCTGGC
CCCTCGGCGTCGGACCGCTTTCCATCCAGACCTCTGCAGTCAGCTGGACCAGCTCCTCCAGCAGCAGAGCGGCGA
GTTCTCCTTCTTGAAAGACCTCAAAGGCCGGCAGCCCCTGAGGTCCGGACCCACGCACGTTTCCACCCGGAATGC
AGATATTTTTAACAGTGATGTCGTCATCGTGGAGCGTGGGAAGGGCGACGGTGTTCCCGAGAGGAGGAAGTTTGG
CAGGATGAAGCTCCTGCAGTTCTGTGAGAACCACCGGCCTGCCTACTGGGGTACCTGGAATAAGAAGACGGCACT
CATCCGCGCGCGAGACCCCTGGGCCCAGGACACGAAGCTCCTGGACTATGAGGTGGACAGTGATGAGGAGTGGGA
AGAAGAGGAGCCTGGGGAGTCCCTGTCCCACAGTGAGGGGGATGATGATGACGACATGGGAGAGGATGAAGATGA
GGACGATGGTTTCTTTGTGCCCCATGGGTACCTGTCTGAGGACGAAGGTGTGACAGAGGAGTGTGCCGACCCTGA
GAACCATAAGGTCCGCCAGAAACTGAAGGCCAAGGAGTGGGACGAGTTCCTGGCTAAGGGGAAGCGCTTTCGCGT
CCTGCAACCTGTGAAGATCGGCTGCGTGTGGGCGGCTGACAGAGACTGCGCAGGCGATGACCTGAAGGTACTGCA
GCAGTTCGCAGCCTGCTTCCTGGAGACCCTGCCGGCCCAGGAGGAGCAGACGCCCAAGGCCTCCAAGCGGGAGAG
GAGAGACGAGCAGATCCTGGCCCAGCTGCTGCCGCTCCTGCACGGCAATGTGAACGGGAGCAAGGTCATCATCCG
GGAGTTCCAGGAGCACTGCCGCCGGGGACTGCTCAGCAACCACACCGGCAGCCCGCGGAGCCCCTCCACCACCTA
CCTGCACACCCCCACCCCCAGCGAGGATGCCGCCATCCCCTCTAAGTCCCGGCTCAAGCGGCTCATTTCCGAGAA
CTCAGTGTATGAGAAGCGGCCTGACTTCAGGATGTGCTGGTACGTGCACCCGCAGGTGCTACAGAGCTTCCAGCA
GGAGCACCTGCCCGTGCCGTGCCAGTGGAGCTATGTGACATCGGTGCCCTCGGCCCCCAAAGAGGACAGTGGCAG
CGTCCCCTCCACGGGGCCCAGCCAGGGCACTCCCATCTCGCTGAAGAGGAAGTCAGCGGGCAGCATGTGCATCAC
CCAATTCATGAAGAAGCGCAGGCACGACGGCCAGATTGGTGCTGAAGACATGGACGGCTTCCAGGCAGACACGGA
GGAGGAGGAAGAGGAGGAGGGCGACTGTATGATCGTGGATGTCCCGGATGCTGCGGAGGTCCAAGCCCCGTGTGG
AGCCGCTTCCGGAGCTGGGGGTGGTGTGGGGGTGGACACCGGCAAGGCCACCCTGACCTCGAGCCCACTGGGTGC
ATCC**TGA**GAGCAGGGGTGACGTATGTAGAATGCTTAGGGTGTCCTCCCCACAGAGCAGATACTTGAACCGACTCA
ATTCCTGTGTAAAGAGCACTTTGTCCTGCTTCACGGACCTCCCCAAAGTGTGCAGAGTTCTATATAGGATGCTGG
ATTAGTTCCTTTGATATTTGTAAAAATTCCCCCAAGAGCCGCATATGAATCTGCCCTTTAATAAAGCATTATTGA
GATTGCTGGCCTATTGGGGAAGCCTGCGGGCACAGGA

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FIGURE 2469

TTTTCTTCCGGTGGCTGGTCTCCGGCGGCCCCGTCCCCGACTGGGCCCCGTGCCCCCCCCGCCCCCGCGGCCCCCC
GCCGCCGGGCCAGCCGCCACC**ATG**AAGAAATTCTTTCAGGAGTTCAAGGCCGACATCAAGTTCAAGAGCGCGGGA
CCCGGTCAGAAGCTCAAAGAGTCCGTGGGGGAAAAGGCCCACAAAGAGAAGCCCAACCAGCCAGCCCCCAGGCCG
CCCCGCCAGGGACCCACCAATGAGGCACAGATGGCAGCCGCTGCCGCCCTAGCCCGGCTGGAGCAGAAGCAGTCC
CGGGCCTGGGGCCCCACATCGCAGGACACCATCCGAAACCAGGTGAGAAAGGAACTTCAAGCCGAAGCCACCGTC
AGCGGGAGCCCCGAGGCCCCAGGGACCAACGTGGTATCTGAGCCCAGAGAGGAAGGCTCTGCCCACCTGGCTGTG
CCTGGCGTGTACTTCACCTGTCCGCTCACTGGGGCCACCCTGAGGAAGGACCAGCGGGACGCCTGCATCAAGGAG
GCCATTCTCTTGCACTTCTCCACCGACCCAGTGGCCGCCTCCATCATGAAGATCTACACGTTCAACAAAGACCAG
GACCGGGTGAAGCTGGGTGTGGACACCATTGCCAAGTACCTGGACAACATCCACCTGCACCCCGAGGAGGAGAAG
TACCGGAAGATCAAGCTGCAGAACAAGGTGTTTCAGGAGCGCATTAACTGCCTGGAAGGGACCCACGAGTTTTTT
GAGGCCATTGGGTTCCAGAAGGTGTTGCTTCCCGCCCAGGATCAGGAGGACCCCGAGGAGTTCTACGTGCTGAGC
GAGACCACCTTGGCCCAGCCCCAGAGCCTGGAGAGGCACAAGGAACAGCTGCTGGCTGCGGAGCCCGTGCGCGCC
AAGCTGGACAGGCAGCGCCGCGTCTTCCAGCCCTCGCCCCTGGCCTCGCAGTTCGAACTGCCTGGGGACTTCTTC
AACCTCACAGCAGAGGAGATCAAGCGGGAGCAGAGGCTCAGGTCCGAGGCGGTGGAGCGGCTGAGCGTGCTGCGG
ACCAAGGCCATGCGGGAGAAGGAGGAGCAGCGGGGGCTGCGCAAGTACAACTACACGCTGCTGCGCGTGCGCCTC
CCCGATGGCTGCCTCCTGCAGGGCACTTTCTACGCTCGGGAGCGGCTGGGGGCGGTGTACGGGTTCGTCCGGGAG
GCCCTGCAGAGCGACTGGCTGCCTTTTGAGCTGCTGGCCTCGGGAGGGCAGAAGCTGTCCGAGGACGAGAACCTG
GCCTTGAACGAGTGCGGGCTGGTGCCCTCTGCCCTCCTGACCTTCTCGTGGGACATGGCTGTGCTGGAGGACATC
AAGGCCGCGGGGGCCGAGCCGGACTCCATCCTGAAACCCGAGCTCCTGTCAGCCATCGAGAAGCTCTTG**TGA**AAT
AAAAGCAGGGTTGGCCTCAGCCCTGTGGGTCTGTCTCATGCTCTCCCTGTTCCTCTCCCCGCCACCCCAGGGCCT
CCAAGCCACCTCTGGAAATACTTGGCTCTGCCCCATGGGCACGGGAGGGGCGCCAGCCGTGGAGCTGTGGAATTG
GGCCCCGTGGCAGAGCCCCCATCCCTTGGGGGCTGTGGGGATGCGCCCAAGCCCCCGAGGGAGAGGCCTGGGGAC
ACCAAC

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FIGURE 2470

CGCCGCTGCAGCCGCTTTCCGCGGCCTGGGCCTCTCGCCGTCAGC**ATG**CCACACGCCTTCAAGCCCGGGGACTTG
GTGTTCGCTAAGATGAAGGGCTACCCTCACTGGCCTGCCAGGATCGACGACATCGCGGATGGCGCCGTGAAGCCC
CCACCCAACAAGTACCCCATCTTTTTCTTTGGCACACACGAAACAGCCTTCCTGGGACCCAAGGACCTGTTCCCC
TACGACAAATGTAAAGACAAGTACGGGAAGCCCAACAAGAGGAAAGGCTTCAATGAAGGGCTGTGGGAGATCCAG
AACAACCCCCACGCCAGCTACAGCGCCCCTCCGCCAGTGAGCTCCTCCGACAGCGAGGCCCCCGAGGCCAACCCC
GCCGACGGCAGTGACGCTGACGAGGACGATGAGGACCGGGGGGTCATGGCCGTCACAGCGGTAACCGCCACAGCT
GCCAGCGACAGGATGGAGAGCGACTCAGACTCAGACAAGAGTAGCGACAACAGTGGCCTGAAGAGGAAGACGCCT
GCGCTAAAGATGTCGGTCTCGAAACGAGCCCGAAAGGCCTCCAGCGACCTGGATCAGGCCAGCGTGTCCCCATCC
GAAGAGGAGAACTCGGAAAGCTCATCTGAGTCGGAGAAGACCAGCGACCAGGACTTCACACCTGAGAAGAAAGCA
GCGGTCCGGGCGCCACGGAGGGGCCCTCTGGGGGGACGGAAAAAAAAGAAGGCGCCATCAGCCTCCGACTCCGAC
TCCAAGGCCGATTCGGACGGGGCCAAGCCTGAGCCGGTGGCCATGGCGCGGTCGGCGTCCTCCTCCTCCTCTTCC
TCCTCCTCCTCCGACTCCGATGTGTCTGTGAAGAAGCCTCCGAGGGGCAGGAAGCCAGCGGAGAAGCCTCTCCCG
AAGCCGCGAGGGCGGAAACCGAAGCCTGAACGGCCTCCGTCCAGCTCCAGCAGTGACAGTGACAGCGACGAGGTG
GACCGCATCAGTGAGTGGAAGCGGCGGGACGAGGCGCGGAGGCGCGAGCTGGAGGCCCGGCGGCGGCGAGAGCAG
GAGGAGGAGCTGCGGCGCCTGCGGGAGCAGGAGAAGGAGGAGAAGGAGCGGAGGCGCGAGCGGGCCGACCGCGGG
GAGGCTGAGCGGGGCAGCGGCGGCAGCAGCGGGGACGAGCTCAGGGAGGACGATGAGCCCGTCAAGAAGCGGGGA
CGCAAGGGCCGGGGCCGGGGTCCCCCGTCCTCCTCTGACTCCGAGCCCGAGGCCGAGCTGGAGAGAGAGGCCAAG
AAATCAGCGAAGAAGCCGCAGTCCTCAAGCACAGAGCCCGCCAGGAAACCTGGCCAGAAGGAGAAGAGAGTGCGG
CCCGAGGAGAAGCAACAAGCCAAGCCCGTGAAGGTGGAGCGGACCCGGAAGCGGTCCGAGGGCTTCTCGATGGAC
AGGAAGGTAGAGAAGAAGAAAGAGCCCTCCGTGGAGGAGAAGCTGCAGAAGCTGCACAGTGAGATCAAGTTTGCC
CTAAAGGTCGACAGCCCGGACGTGAAGAGGTGCCTGAATGCCCTAGAGGAGCTGGGAACCCTGCAGGTGACCTCT
CAGATCCTCCAGAAGAACACAGACGTGGTGGCCACCTTGAAGAAGATTCGCCGTTACAAAGCGAACAAGGACGTA
ATGGAGAAGGCAGCAGAAGTCTATACCCGGCTCAAGTCGCGGGTCCTCGGCCCAAAGATCGAGGCGGTGCAGAAA
GTGAACAAGGCTGGGATGGAGAAGGAGAAGGCCGAGGAGAAGCTGGCCGGGGAGGAGCTGGCCGGGGAGGAGCTG
GCCGGGGAGGAGGCCCCCCAGGAGAAGGCGGAGGACAAGCCCAGCACCGATCTCTCAGCCCCAGTGAATGGCGAG
GCCACATCACAGAAGGGGGAGAGCGCAGAGGACAAGGAGCACGAGGAGGGTCGGGACTCGGAGGAGGGGCCAAGG
TGTGGCTCCTCTGAAGACCTGCACGACAGCGTACGGGAGGGTCCCGACCTGGACAGGCCTGGGAGCGACCGGCAG
GAGCGCGAGAGGGCACGGGGGGACTCGGAGGCCCTGGACGAGGAGAGC**TGA**GCCGCGGGCAGCCAGGCCCAGCCC
CCGCCCGAGCTCAGGCTGCCCCTCTCCTTCCCCGGCTCGCAGGAGAGCAGAGCAGAGAACTGTGGGGAACGCTGT
GCTGTTTGTATTTGTTCCCTTGGGTTTTTTTTTCCTGCCTAATTTCTGTGATTTCCAACCAACATGAAATGACTA
TAAATGGTTTTTTAATG

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FIGURE 2471

GGTGACCCTGTTTGCAGCACG**ATG**TCTGAAGAAGAGGCGGCTCAGATCCCCAGATCCAGTGTGTGGGAGCAGGAC
CAGCAGAACGTGGTGCAGCGTGTGGTGGCTCTGCCCCTGGTCAGGGCCACGTGCACCGCGGTCTGCGATGTTTAC
AGTGCAGCCAAGGACAGGCACCCGCTGCTGGGCTCCGCCTGCCGCCTGGCTGAGAACTGCGTGTGCGGCCTGACC
ACCCGTGCCCTGGACCACGCCCAGCCGCTGCTCGAGCACCTGCAGCCCCAGCGCGCCACAGGTGTCTGCCCCAGC
GTCTTTGGTGTAAGCGGCTTCTTGGTGGGCCTGGACAAGCTGGAAGAGAAGCTTCCCTTTCTCCAGCAACCTTCG
GAGACGGTGGTGACCTCAGCCAAGGACGTGGTGGCCAGCAGTGTCACGGGTGTGGTGGACCTGGCCCGGAGGGGC
CGGCGCTGGAGCGTGGAGCTGAAGCGCTCCGTGAGCCATGCTGTGGATGTTGTACTGGAAAAATCAGAGGAGCTG
GTGGATCACTTCCTGCCCATGACGGAGGAAGAGCTCGCGGCACTGGCGGCTGAGGCTGAAGGCCCTGAAGTGGGT
TCGGTGGAGGATCAGAGGAGACAGCAGGGCTACTTTGTGCGCCTCGGCTCCCTGTCAGCACGGATCCGCCACCTG
GCCTACGAGCACTCTGTGGGGAAACTGAGGCAGAGCAAACACCGTGCCCAGGACACCCTGGCCCAGCTGCAGGAG
ACGCTGGAGCTGGTGAGAGCCCGCTGCCCGCCCCTGCTCCGGGATGCAGGCCAATCAGTATGGATTGAGCACCAG
CTGAATACCGGATCCCGTGCTAGCCTAAAGCAGGAGGCGGAGCTGGCTCTTCCCTCCCCGCAGCAGCCACCAGAG
GGCACCTGTGAGCCCCTGAGTCAGATAGACCACATGCAGTGTGGGGTGACCCCCACCGCCCCGGCCTGCCCTGGG
AAGGTGCACGAGCTGTGGGGGGAATGGGGCCAGCGCCCTCCGGAGAGCCGCCGCCGGAGCCAGGCAGAGCTGGAG
ACGCTGGTGCTGTCCCGCAGCCTGACCCAGGAGCTGCAGGGCACGGTAGAGGCTCTGGAGTCCAGCGTGCGGGGC
CTGCCCGCCGGCGCCCAGGAGAAGGTGGCTGAGGTGCGGCGCAGTGTGGATGCCCTGCAGACCGCCTTCGCTGAT
GCCCGCTGCTTCAGGGACGTGCCAGCGGCCGCGCTGGCCGAGGGCCGGGGTCGCGTGGCCCACGCGCACGCCTGC
GTGGACGAGCTGCTGGAGCTGGTGGTGCAGGCCGTGCCGCTGCCCTGGCTGGTGGGACCCTTCGCGCCCATCCTT
GTGGAGCGACCCGAGCCCCTGCCCGACCTGGCGGACCTGGTGGACGAGGTCATCGGGGGCCCTGACCCCCGCTGG
GCGCACCTGGACTGGCCGGCCCAGCAGAGAGCCTGGGAGGCAGAGCACAGGGACGGGAGTGGGAATGGGGATGGG
GACAGGATGGGTGTTGCCGGGGACATCTGCGAGCAGGAACCCGAGACCCCCAGCTGCCCGGTCAAGCACACCCTG
ATGCCCGAGCTGGACTTC**TGA**

FIGURE 2472

AGAAGCAAAAGAGCAGAGCTACC**ATG**TCCTCTTGGAGCAGACAGCGACCAAAAAGCCCAGGGGGCATTCAACCCC
ATGTTTCTAGAACTCTGTTCCTGCTGCTGCTGTTGGCAGCCTCAGCCTGGGGGGTCACCCTGAGCCCCAAAGACT
GCCAGGTGTTCCGCTCAGACCATGGCAGCTCCATCTCCTGTCAACCACCTGCCGAAATCCCCGGCTACCTGCCAG
CCGACACCGTGCACCTGGCCGTGGAATTCTTCAACCTGACCCACCTGCCAGCCAACCTCCTCCAGGGCGCCTCTA
AGCTCCAAGAATTGCACCTCTCCAGCAATGGGCTGGAAAGCCTCTCGCCCGAATTCCTGCGGCCAGTGCCGCAGC
TGAGGGTGCTGGATCTAACCCGAAACGCCCTGACCGGGCTGCCCCCGGGCCTCTTCCAGGCCTCAGCCACCCTGG
ACACCCTGGTATTGAAAGAAAACCAGCTGGAGGTCCTGGAGGTCTCGTGGCTACACGGCCTGAAAGCTCTGGGGC
ATCTGGACCTGTCTGGGAACCGCCTCCGGAAACTGCCCCCCGGGCTGCTGGCCAACTTCACCCTCCTGCGCACCC
TTGACCTTGGGGAGAACCAGTTGGAGACCTTGCCACCTGACCTCCTGAGGGGTCCGCTGCAATTAGAACGGCTAC
ATCTAGAAGGCAACAAATTGCAAGTACTGGGAAAAGATCTCCTCTTGCCGCAGCCGGACCTGCGCTACCTCTTCC
TGAACGGCAACAAGCTGGCCAGGGTGGCAGCCGGTGCCTTCCAGGGCCTGCGGCAGCTGGACATGCTGGACCTCT
CCAATAACTCACTGGCCAGCGTGCCCGAGGGGCTCTGGGCATCCCTAGGGCAGCCAAACTGGGACATGCGGGATG
GCTTCGACATCTCCGGCAACCCCTGGATCTGTGACCAGAACCTGAGCGACCTCTATCGTTGGCTTCAGGCCCAAA
AAGACAAGATGTTTTCCCAGAATGACACGCGCTGTGCTGGGCCTGAAGCCGTGAAGGGCCAGACGCTCCTGGCAG
TGGCCAAGTCCCAG**TGA**GACCAGGGGCTTGGGTTGAGGGTGGGGGGTCTGGTAGAACACTGCAACCCGCTTAACA
AATAATCCTGCCTTTGGCCGGGTGCGGGGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCCAGGTGGGCGGA
TCACGAGGTCAGGAGATCGAGACCATCTTGGCTAACATGGTGAAACCCTGTCTCTACTAAAAATATAAAAAATTA
GCCAGGCGTGGTGGTGGGCACCTGTAGTCCCAGCAACTCGGGAGGCTGAGGCAGGAGAATGGCGTGAACTTGGGA
GGCGGAGCTTGCGGTGAGCCAAGATCGTGCCACTGCACTCTAGCCTGGGCGACAGAGCAAGACTGTCTCAAAAAA
ATTAAAATTAAAATTAAAAACAAATAATCCTGCCTTTTACAGGTGAAACTCGGGGCTGTCCATAGCGGCTGGGAC
CCCGTTTCATCCATCCATGCTTCCTAGAACACACGATGGGCTTTCCTTACCCATGCCCAAGGTGTGCCCTCCGTC
TGGAATGCCGTTCCCTGTTTCCCAGATCTCTTGAACTCTGGGTTCTCCCAGCCCCTTGTCCTTCCTTCCAGCTGA
GCCCTGGCCACACTGGGGCTGCCTTTCTCTGACTCTGTCTTCCCCAAGTCAGGGGGCTCTCTGAGTGCAGGGTCT
GATGCTGAGTCCCACTTAGCTTGGGGTCAGAACCAAGGGGTTTAATAAATAACCCTTGAAAACTGGATCGGATGA
ATTGGCTTTCATTGTGTTCCTAGCATCTTCTCAAATCAACTTCCCAGGACTCCAGGGTGAAGGAGGAAAAGAGGC
ATGGCCCAGGCCCTGGGGTGTGGGATATGGTCTCCCTAGGGGATGACAGTTGGGATCAATGGCCTGTGACTTCTC
CTCTCCCTTCCCCCATCCTGGGACCTAACTGGAAATAAAACCTTGACTGTTGCCCGGGTGTCATTTTACCAGTGG
ATTTCTGCCAGGGCTTGTGTCCTAGGAGAAGGTTTAAGTTAAACCAGATTGCCCAGGTCTCCAAACGATTTGTCA
TGCTGACCTGAGATCATCGAAGGGGGCACCTGCCCCCGGGCAAGGTTGCAGGGGCAGGATGGGGCTGAAGGGATG
AGCAGGGTCCCGGGCCCACCTGCTGATACAGCATTGGCCATGTGGGGGCTGCAATCGGATTTGGAAGACCCTGGG
GCTTGGGGGCATGTCCAGTTTTCCCAGCTCCCTAAAAAATGACCATGCAGCCTGGCGCCGTGGCTCATGCCTGTA
ATCCAAACACTTTGGGAGGCTGAGGCAGGCAGATCACCGGAGGTCAGGAGTTCGAGACCAGACTGGCCAACATGG
CAAAACCCTGTCTCTACTAAAAATACAAAAATTAGCCAGGCACAGTGGCACGTGCCTGTAATACCAGCTACTTGG
GAGGGTCAGGCAGGAGAATCACTTGAACCTGGGAGGCGGAGGTTGCAGTGAGCCAAGATCACGCCACTGCACTCC
AGGCTGGGCGACAGAGTGAAACTGTGTCTCAAAAATAAAAATAAAAAT

FIGURE 2473

CCCCGGCCCCGGCTCCGGCGCTGCTCCCACCGCCGCGGCAACGGCCCCGGCCCACGGAGGCGGCTGGACGGACCC
CCGACGGTTGGACGTACGGACTCTGCTTCGAGAGTAGGCCATGGACACCTTCAGCACCAAGAGCCTGGCTCTGCA
GGCGCAGAAGAAGCTCCTGAGTAAGATGGCGTCCAAGGCAGTGGTGGCCGTGCTGGTGGATGACACCAGCAGTGA
GGTGCTGGATGAGCTGTACCGCGCCACCAGGGAGTTCACGCGCAGCCGCAAGGAGGCCCAGAAGATGCTCAAGAA
CCTGGTCAAGGTGGCCCTGAAGCTGGGACTGCTGCTGCGTGGGGACCAGCTGGGCGGTGAGGAGCTGGCGCTGCT
GCGGCGCTTCCGCCACCGGGCGCGCTGCCTGGCCATGACGGCCGTCAGCTTCCACCAGGTGGACTTCACCTTCGA
CCGGCGCGTGCTGGCCGCCGGGCTGCTCGAGTGCCGCGACCTGCTGCACCAGGCCGTGGGTCCCCACCTGACCGC
CAAGTCCCACGGCCGCATCAACCACGTGTTCGGCCACCTAGCCGACTGCGACTTCCTGGCTGCGCTCTACGGCCC
CGCCGAGCCCTACCGCTCCCACCTGCGCAGGATCTGCGAGGGCCTGGGCCGGATGCTGGACGAGGGCAGCCTCTG
AACCCCGGCGCCGCCCAACCGCGCCCCTCGCGCCTTTTGGGGCTCTCCTGCTGGGCGCGGGTGGGGTTTGTGGGT
TTTTTTCCACCTCTTTTCTCCCAATCGGACTCCGGCCAAACTCCCCTAGACAGATGGGTGACCTGTCTCCTTTGA
GAGGATGCTGAGGCATCTGTAGCAGCTGTTTCAAACACCAATGTCACCTCTCCTCCTGGCCCCCGCCCAATGGGG
AGAGGAATTTGGGGCCCTACTCTGGGGACCACCTTTCACCCGTTTGTACTTTCTGGGCCACGCCGACCCCTGGGT
CGCTTGATGTAAAAGCCAAAAGCTGCTGCCTCCCACTTGGATCATGTCGCCTGGGATTTTCATCCCTCGCACAAG
GACTACGGGTTCACACGGTGAACTGGGGGAAGGGAAGTGTTAGGGGGCAAGTCGCGGCACCCCCCCTTCCATAAA
CTCACGTCCTAACCCCCAGGACCTCAGAAGATGATCTGATTTGGAAATAGGATCATTACAGATGGAATTAGTTCA
GATGATCTCATCTTGGAGTAGGGTGGGCCCCAATTCAAGGACTGGGGTCCTTAAAAAAAGGGGGCCTGGGGCAGG
GCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGAGAGGCTGAGGCGGGCGGATCACGAGGTCAGGAGATCGAG
ACCATCCTGGCTAACACGGTGAAACCCCATCTCTACTGAAAATACAAAAAATTAGCTGGGCATGGTGGCACATGC
CTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGATAATCACTTGAACCAGGAGGAGGAGGTTGCAGTGAGCCGA
GATTGTGCCACTGCACTCCAGCCTGGGTGACAGAGCAAGACTCTGTCTCAAAAAAAGAAGCGGGGGAGTGGGGGA
TTGAGGCCACGTGCAGTGGCTCACTACTCTAATTCCAGCACTTTGGGAGGCCGAGGCAGGAAGATTGCTTGAACT
CAGAAGTTCAAGACCAGTCTGGGCAACATGGTGAGACCCTCGTCTCTACAAAAAAAAAATTATCGTGGTGGGCCG
GGCGTGGTGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACAAGGTCAAGAGATCGA
GACCATCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCGGGCATGGTGTTGCGTGC
CTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTGGGAGGCGCAGGTTGCAGGGAGGCG
GAGGTTGCAGTGAGCCGAGATTGCACCACTGCACTTCAGCCTGGTGACAGAGCGAGACTCGTCTCAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAGTGACTGTGGTGGTGCACACGTATAATCCCAGCTACTTGAGAGATGACGAGGGAAGA
TCACTTGAGCCCAGGAGTTAAGAGGCTGCAGTGACCGATGATCATGCCACTGCACTCCAGCTTGGGTGAGAGTGG
GACTCTGTCTT

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FIGURE 2474

GTCTACCCGCCCCTGCCCTGAGGACCCTAGTCCAAC**ATG**GCGGCGCCCAGCGGAGGGTGGAACGGCGTCGGCGCG
AGCTTGTGGGCCGCGCTGCTCCTAGGGGCCGTGGCGCTGAGGCCGGCGGAGGCGGTGTCCGAGCCCACGACGGTG
GCGTTTGACGTGCGGCCCGGCGGCGTCGTGCATTCCTTCTCCCATAACGTGGGCCCGGGGGACAAATATACGTGT
ATGTTCACTTACGCCTCTCAAGGAGGGACCAATGAGCAATGGCAGATGAGTCTGGGGACCAGCGAAGACCACCAG
CACTTCACCTGCACCATCTGGAGGCCCCAGGGGAAGTCCTATCTGTACTTCACACAGTTCAAGGCAGAGGTGCGG
GGCGCTGAGATTGAGTACGCCATGGCCTACTCTAAAGCCGCATTTGAAAGGGAAAGTGATGTCCCTCTGAAAACT
GAGGAATTTGAAGTGACCAAAACAGCAGTGGCTCACAGGCCCGGGGCATTCAAAGCTGAGCTGTCCAAGCTGGTG
ATTGTGGCCAAGGCATCGCGCACTGAGCTG**TGA**CCAGCAGCCCTGTTGCGGGTGGCACCTTCTCATCTCCGGTGA
AGCTGAAGGGGCCCTCCTGGCTCCCAACAGCTTCTCAGTTCCCACTTCCTGCTGAGCTCTTCTGGACTCAGGATC
GCAGATCCGGGGCACAAAGAGGGTGGGGAACATGGGGGCTATGCTGGGGAAAGCAGCCATGCTCCCCCCGACCTC
CAGCCGAGCATCCTTCATGAGCCTGCAGAACTGCTTTCCTATGTTTACCCAGGGGACCTCCTTTCAGATGAACTG
GGAAGAGATGAAATGTTTTTTCATATTTAAATAAATAAGAACATTAAAAAGC

FIGURE 2475

CTCTTTCCCTTCAGTGTGCCACTGAAGATCCTGGTGTCGCC**ATG**GGCCGCCGCCCCGCCCGTTGTTACCGGTATT
GTAAGAACAAGCCGTACCCAAAGTCTCGCTTCTGCCGAGGTGTCCCTGATGCCAAGATTCGCATTTTTGACCTGG
GGCGGAAAAAGGCAAAAGTGGATGAGTTTCCGCTCTGTGGCCACATGGTGTCAGATGAATATGAGCAGCTGTCCT
CTGAAGCCCTGGAGGCTGCCCGAATTTGTGCCAATAAGTACATGGTAAAAAGTTGTGGCAAAGATGGCTTCCATA
TCCGGGTGCGGCTCCACCCCTTCCACGTCATCCGCATCAACAAGATGTCGTCCTGTGCTGGGGCTGACAGGCTCC
AAACAGGAATGCGAGGTGCCTTTGGAAAGCCCCAGGGCACTGTGGCCAGGGTTCACATTGGCCAAGTTATCATGT
CCATCCGCACCAAGCTGCAGAACAAGGAGCGTGTGATTGAGGCCCTGCGCAGGGCCAAGTTCAAGTTTCCTGGCC
GCCAGAAGATCCACATCTCAAAGAAGTGGGGCTTCACCAAGTTCAATGCTGATGAATTTGAAGACATGGTGGCTG
CTCTGGACAAGTGGTGGGCCCTGCACTCA**TGA**GGGCTTCCAATGTGCTGCCCCCCTCTTAATACTCACCAATAAA
TTCTACTT

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FIGURE 2476

GGTTGGAACTATTGAAGCCCGCTTTCAGGTTCTTTTCCCCATTTTCCCTTTGAAAGGAAGACTTCTGGCTTCTCC
TAAATCTCCGTTCTCTGGGTAAGGGGAGTCCAAGCCTCTGTCATGAGGAACGGAAATGCGAGGGCCTCGGGTGTT
ACTCTAAAATCCGCCCTCAGCTTGCACGCCGGAAGCTGCGATTCCTGCAGCGGAAGAGGCGTGATCTGGCCTTCG
ACTCGCT**ATG**TCCACTAACAATATGTCGGACCCACGGAGGCCGAACAAAGTGCTGAGGTACAAGCCCCCGCCGAG
CGAATGTAACCCGGCCTTGGACGACCCGACGCCGGACTACATGAACCTGCTGGGCATGATCTTCAGCATGTGCGG
CCTCATGCTTAAGCTGAAGTGGTGTGCTTGGGTCGCTGTCTACTGCTCCTTCATCAGCTTTGCCAACTCTCGGAG
CTCGGAGGACACGAAGCAAATGATGAGTAGCTTCATGCTGTCCATCTCTGCCGTGGTGATGTCCTATCTGCAGAA
TCCTCAGCCCATGACGCCCCCATGG**TGA**TACCAGCCTAGAAGGGTCACATTTTGGACCCTGTCTATCCACTAGGC
CTGGGCTTTGGCTGCTAAACCTGCTGCCTTCAGCTGCCATCCTGGACTTCCCTGAATGAGGCCGTCTCGGTGCCC
CCAGCTGGATAGAGGGAACCTGGCCCTTTCCTAGGGAACACCCTAGGCTTACCCCTCCTGCCTCCCTTCCCCTGC
CTGCTGCTGGGGGAGATGCTGTCCATGTTTCTAGGGGTATTCATTTGCTTTCTCGTTGAAACCTGTTGTTAATAA
AGTTTTTCACTCTG

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FIGURE 2477

GCAAGGAAGGAGTCCTGGGAGC**ATG**GCTTTCCCTGAGCCAAAGCCGCGGCCTCCAGAGCTGCCGCAGAAACGGTT
GAAGACGCTGGACTGCGGGCAGGGGGCAGTGCGAGCCGTACGATTTAATGTGGATGGCAATTACTGCCTGACGTG
CGGCAGTGACAAGACGCTGAAGCTGTGGAACCCGCTTCGGGGGACGCTGCTGCGGACGTACAGCGGCCACGGCTA
CGAGGTGCTGGATGCGGCCGGCTCCTTTGACAACAGTAGTCTCTGCTCCGGCGGCGGGGACAAGGCGGTGGTTCT
GTGGGATGTGGCATCAGGGCAGGTCGTGCGCAAATTCCGGGGCCACGCAGGGAAGGTGAACACGGTGCAGTTTAA
TGAAGAGGCCACAGTTATCCTGTCCGGCTCTATTGATTCCAGTATCCGCTGTTGGGATTGCCGCTCACGGAGGCC
TGAGCCAGTGCAGACGCTGGATGAGGCCAGAGATGGCGTGTCCAGTGTGAAGGTGTCAGACCACGAGATCCTGGC
AGGCTCCGTGGATGGCCGCGTGAGACGCTATGACCTAAGGATGGGGCAGCTCTTCTCAGACTACGTGGGCAGCCC
CATCACCTGCACCTGCTTCAGCCGGGATGGGCAGTGCACCCTGGTGTCCAGCCTGGACTCCACATTGCGGCTCCT
GGACAAAGACACAGGGGAGCTGCTGGGCGAGTACAAGGGCCATAAGAACCAGGAATACAAGCTGGACTGCTGCCT
GAGCGAGCGTGACACACATGTGGTCAGCTGTTCTGAGGACGGGAAGGTGTTCTTCTGGGACCTGGTGGAGGGTGC
GCTGGCTCTGGCCCTGCCTGTGGGTTCCGGTGTGGTGCAGTCGCTGGCCTACCACCCAACAGAGCCCTGCCTGCT
GACCGCCATGGGAGGCAGCGTCCAGTGCTGGCGAGAGGAGGCCTATGAGGCAGAGGATGGAGCAGGC**TGA**AGCCA
GGGGACCCACCAACAGGACCAAGGACCGAGACACAGACATGGAAGGACTTCAGATACCATCTTATTCTAGAGACG
TAGCTGACCAAAAAGTAGGGGAGGGGCTGGGTCTGCAAATTAATAAATAGAAGAGGGGGTAAGACCTTCCTGGGA
CCGC

FIGURE 2478

CTCTTGCGGAGACGCGCGCGTCGGGGTTTAACGCGTTTCTGGGCCGCCGTAAGCCCGGCCTAGGGGCAGCTTTGA
CTCGAGAGCCGGCTATAGGCGC**ATG**GAAGGTTCCCTGGAACGGGAGGCGCCAGCGGGGGCGCTGGCCGCCGTGCT
AAAGCACAGCTCGACGTTGCCGCCCGAAAGCACCCAGGTCCGGGGCTACGACTTCAACCGCGGTGTGAATTACCG
CGCACTGCTGGAGGCCTTCGGCACCACCGGCTTCCAAGCAACCAACTTCGGGCGCGCTGTACAGCAAGTCAATGC
CATGATCGAGAAGAAGCTGGAACCACTGTCACAGGATGAAGACCAGCACGCGGACCTGACCCAGAGCCGCCGCCC
ACTTACCAGCTGCACCATTTTCCTGGGATATACATCCAACCTCATCAGTTCAGGCATCCGTGAGACCATTCGCTA
CCTTGTGCAGCACAACATGGTGGACGTATTGGTGACCACAGCTGGCGGCGTGGAGGAAGACCTCATCAAGTGCCT
GGCGCCCACATACTTGGGCGAGTTTAGCCTCAGGGGGAAGGAGCTCCGGGAGAACGGGATCAATAGGATCGGAAA
CCTGCTGGTGCCCAATGAGAATTACTGCAAGTTTGAGGACTGGCTGATGCCCATTCTGGACCAGATGGTGATGGA
GCAGAACACAGAGGGTGTAAAGTGGACGCCTTCTAAGATGATCGCCCGGCTGGGCAAGGAGATCAACAACCCAGA
GTCCGTGTATTACTGGGCCCAGAAGAACCACATCCCTGTGTTTAGTCCCGCACTTACAGACGGCTCGCTGGGCGA
CATGATCTTCTTCCATTCCTACAAGAACCCGGGCCTGGTCCTGGACATCGTTGAGGACCTGAGGCTCATCAACAC
ACAGGCCATCTTTGCCAAGTGCACTGGGATGATCATTCTGGGCGGGGGCGTGGTCAAGCACCACATTGCCAATGC
CAACCTCATGCGGAACGGGGCCGACTACGCTGTTTACATCAACACAGCCCAGGAGTTTGATGGCTCTGACTCAGG
TGCCCGACCAGACGAGGCTGTCTCCTGGGGCAAGATCCGGGTGGATGCACAGCCCGTCAAGGTCTATGCTGACGC
CTCCCTGGTCTTCCCCCTGCTTGTGGCTGAAACCTTTGCCCAGAAGATGGATGCCTTCATGCATGAGAAGAACGA
GGAC**TGA**GCGGCTGCGGTCCCAGGAAGGTCTTACCCCCTCTTCTATTTATTAATTTGCAGACCCAGCCCCTCCCC
TACTTTTTGGTCAGCTACGTCTCTAGAATAAGATGGTATCTGAAGTCCTT

FIGURE 2479

GACAAGACGCGAGGCCGGCAGCGCCCACCCGGTCGCAATGGAGCTTCCCCTAGGGCGGTGCGATGATTCCCGCAC
CTGGGACGATGACTCGGACCCAGAGTCAGAGACAGACCCAGACGCGCAGGCCAAGGCCTACGTGGCCCGCGTTCT
CAGTCCGCCAAAATCCGGGCTGGCGTTCTCGCGCCCCTCGCAGCTATCCACACCCGCCGCGTCCCCGAGCGCTTC
GGAGCCTCGGGCCGCGTCCAGGGTTTCGGCCGTAAGTGAGCCGGGCCTTCTGAGCCTTCCCCCGGAGCTGCTGCT
CGAGATCTGCTCCTACCTGGACGCCCGCCTCGTGCTCCACGTCCTGTCGCGGGTGTGCCACGCGCTCCGCGACCT
CGTGTCTGACCATGTCACCTGGAGGCTACGCGCGCTACGCCGCGTACGCGCGCCCTACCCAGTGGTGGAAGAGAA
GAACTTTGACTGGCCGGCAGCCTGCATTGCGCTGGAGCAGCACCTGTCCCGCTGGGCAGAGGATGGGCGCTGGGT
CGAATACTTCTGCCTGGCCGAAGGCCACGTGGCTTCCGTTGACTCAGTGCTGCTGCTCCAGGGTGGGTCACTCTG
TCTGTCGGGCTCCCGAGATCGCAACGTCAACTTGTGGGACCTGCGGCAGCTGGGGACGGAGTCCAACCAGGTTCT
GATCAAGACCTTAGGCACTAAGCGAAATAGTACCCATGAGGGCTGGGTGTGGTCACTGGCAGCGCAGGACCACCG
CGTGTGCTCCGGCTCCTGGGACAGCACAGTGAAGCTCTGGGACATGGCAGCGGATGGGCAGCAGTTCGGCGAGAT
AAAGGCCAGCTCAGCCGTGCTGTGCCTCTCCTACCTGCCTGACATCCTGGTGACTGGCACCTATGACAAGAAGGT
GACCATCTACGACCCCAGAGCCGGCCCAGCCCTGTTGAAGCACCAGCAACTACACTCCAGACCCGTGCTGACCCT
GCTGGCGG**ATG**ACCGGCACATCATCTCAGGCAGCGAGGACCACACCCTGGTGGTGGTGGACCGCCGAGCCAACAG
CGTCCTGCAGCGTCTGCAGCTGGACTCCTACCTGCTCTGCATGTCCTACCAGGAACCCCAGCTCTGGGCTGGTGA
CAACCAGGGCCTGCTGCACGTCTTCGCCAACCGCAACGGCTGCTTCCAGCTTATCCGGTCCTTTGATGTGGGCCA
CAGCTTTCCCATCACTGGGATCCAGTACTCCGTGGGAGCCTTGTACACCACATCCACTGACAAGACCATCCGGGT
GCACGTGCCCACAGACCCACCAAGGACCATTTGCACCCGAAGGCATGACAATGGGCTCAATAGGGTCTGTGCTGA
GGGCAACCTGGTGGTGGCCGGCTCTGGAGACCTGTCGC**TAG**AGGTCTGGAGGCTGCAGGCCTGAGCAGGTGGGCG
TGGATGTGGATACTGCCTGCCGGAGGCTGGGCTTCCTCCTCTGTTCTTGGGGGACCATCCCCAATGTTGGTGCTG
CCTCCGCCCCGTGGGCCTAGGGCACAAGGAGTCCCAGCCACATTCGGGTGAGCGTCCTGGCCTGGGCCCTATGCC
CGGGGGAAGGGTGAAATTGGGGTTCAGGCCCACCCAGGGGGCCGCTTCCCACTCTTGGGCCCTGGTTTTGTTATG
ATTTGGATGCCCCGCTCTCAGTTGAGAGCGAAGGAGAAATAAACCTGACATGTTGGTGCTTGG

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FIGURE 2480

CTCTCTTTGGCTCCCTCCTTCCGCGCGAGTCTCTGGAGAAGCCGCAGCGCGAGTTGCCGCCGCTGCTGCCCGGGG
CCGGCTTGCCTTGCGCC**ATG**GACTGGCAGCCAGACGAGCAGGGCCTGCAGCAGGTCCTGCAGCTGCTCAAAGACT
CACAGTCGCCCAACACAGCCACTCAGCGCATCGTGCAGGATAAACTCAAACAACTCAATCAGTTTCCTGACTTCA
ACAACTACCTGATTTTCGTCCTGACCAGACTCAAGTCAGAAGATGAGCCAACGCGCTCTCTCAGTGGCCTCATCC
TCAAGAACAACGTGAAGGCACACTATCAGAGCTTCCCACCCCCTGTGGCAGACTTCATCAAACAGGAGTGTCTCA
ACAACATTGGCGATGCCTCCTCGCTCATCCGAGCCACCATTGGCATTCTCATCACCACCATCGCTTCCAAGGGTG
AGCTGCAGATGTGGCCCGAGCTGCTGCCCCAGCTCTGCAACCTGCTTAACTCGGAGGATTACAACACTTGTGAGG
GAGCCTTTGGAGCCCTGCAGAAGATCTGTGAAGACTCATCAGAGCTTCTGGACAGTGACGCCCTCAACAGGCCCC
TCAACATCATGATCCCCAAGTTCCTGCAGTTCTTCAAGCACTGCAGTCCCAAGATCCGGTCCCACGCCATCGCCT
GCGTGAACCAGTTCATCATGGACCGGGCCCAGGCGCTGATGGACAATATTGACACCTTCATCGAGCACCTATTTG
CCCTGGCTGTGGATGATGACCCCGAGGTGCGGAAGAATGTGTGCCGTGCCCTGGTGATGCTTCTGGAAGTGCGGA
TTGACAGGCTCATCCCCCACATGCACAGCATCATCCAGTACATGCTGCAGAGGACCCAGGACCATGATGAGAACG
TTGCCCTTGAGGCCTGTGAGTTCTGGCTGACGCTGGCCGAGCAGCCCATCTGCAAGGAAGTCCTGGCCTCCCATC
TGGTCCAGTTGATCCCCATCTTGGTGAATGGGATGAAGTACTCGGAAATTGACATCATCCTGCTCAAGGGGGATG
TGGAGGAGGATGAGGCTGTCCCCGACAGTGAGCAGGACATCAAGCCACGCTTCCACAAGTCACGCACGGTCACAC
TGCCCCACGAGGCTGAGCGGCCTGATGGCTCCGAGGACGCGGAGGATGACGATGATGATGATGCTCTGTCCGACT
GGAATTTGAGGAAGTGCTCAGCGGCTGCACTGGACGTCCTCGCCAATGTCTTCCGGGAGGAACTGCTGCCCCACC
TACTCCCACTACTCAAAGGCCTCCTCTTCCACCCCGAGTGGGTGGTCAAGGAGTCGGGCATCCTGGTGCTGGGCG
CCATTGCTGAGGGCTGCATGCAGGGCATGGTGCCCTACCTGCCTGAGCTGATCCCGCACCTGATCCAGTGCCTGT
CGGATAAGAAGGCCTTGGTCCGCTCCATCGCCTGCTGGACGCTGAGCCGCTATGCCCACTGGGTGGTCAGCCAGC
CACCCGACATGCACCTCAAGCCCCTGATGACAGAGCTGCTCAAACGCATCCTGGATGGCAACAAGAGGGTACAGG
AGGCGGCCTGCAGTGCTTTTGCCACCCTGGAGGAAGAGGCCTGCACGGAGCTGGTGCCCTACCTCAGCTACATCC
TGGACACCCTTGTCTTTGCCTTTGGGAAATACCAGCACAAGAACCTGCTCATCCTCTATGACGCCATTGGCACCC
TGGCCGACTCTGTAGGCCACCACCTCAACCAGCCGGAATACATCCAGAAGCTGATGCCCCCACTGATCCAGAAGT
GGAATGAGCTCAAGGACGAAGACAAGGACCTCTTCCCCCTGCTGGAGTGTCTGTCATCGGTGGCCACCGCCCTGC
AGAGTGGCTTCCTGCCTTACTGTGAGCCCGTCTACCAGCGCTGTGTCACCCTGGTGCAGAAGACACTGGCTCAGG
CCATGATGTACACCCAGCACCCTGAGCAGTATGAGGCTCCCGACAAGGACTTCATGATCGTAGCACTGGATCTGC
TCAGCGGCCTGGCCGAGGGCCTGGGTGGTCACGTGGAGCAGCTGGTGGCCCGCAGCAACATCATGACATTGCTGT
TCCAGTGCATGCAGGACTCGATGCCTGAGGTCCGGCAGAGCTCCTTTGCCCTCCTGGGAGACCTCACCAAAGCCT
GCTTCATCCATGTCAAGCCCTGTATCGCCGAGTTCATGCCCATTCTGGGCACCAACCTGAACCCAGAGTTCATCT
CCGTCTGCAACAACGCCACCTGGGCCATTGGTGAAATCTGCATGCAGATGGGGGCAGAGATGCAGCCTTATGTGC
AGATGGTCCTCAACAACCTGGTGGAAATCATTAACCGACCCAACACACCCAAGACACTGCTGGAAAACACAGGTC
GCCTGACGAGTCCCTCTGCCATTCCAGCCATCACCATCGGCCGCTTGGGCTACGTGTGCCCCCAGGAGGTGGCAC
CCATGCTGCAGCAGTTCATCCGGCCTTGGTGCACGTCCCTCAGGAACATCAGGGACAACGAGGAGAAGGACTCAG
CCTTCCGCGGCATCTGCATGATGATCGGTGTCAACCCGGGGGGCGTTGTGCAGGACTTTATTTTCTTCTGCGATG
CTGTAGCCTCCTGGGTGAGCCCGAAGGATGACCTTCGGGACATGTTTTATAAGATTCTCCACGGCTTCAAAGACC
AAGTTGGGGAAGATAACTGGCAGCAGTTCTCTGAGCAATTCCCGCCGCTGCTCAAGGAGAGGCTGGCGGCTTTCT
ATGGGGTC**TAG**GTGATCATGGAGACTGCCAGGTTTCTGTCTGCGTCGTCGTCGGAGGGATTACTGGGGAGTGCGC
TGCATCCGGAAGTCGCTGTGCCCTGGTTGAGGGGGGTTAGGGAGGAG

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FIGURE 2481

GCCAAGCGCGGGGCCGGAGCGGCCTTCCCGGAGTCCTTTGCGCGGCACCTGGCGACAAA**ATG**GCTGCCCGAGGGA
GACGGGCGGAGCCTCAGGGCCGGGAGGCTCCGGGCCCCGCGGGCGGTGGCGGTGGCGGGAGCCGTTGGGCTGAGT
CGGGATCGGGGACGTCGCCCGAGAGCGGGGACGAGGAGGTGTCGGGCGCGGGTTCGAGCCCGGTGTCGGGCGGCG
TGAACTTGTTCGCCAACGACGGCAGCTTCCTGGAGCTGTTCAAGCGGAAGATGGAGGAGGAGCAGCGGCAGCGGC
AGGAGGAGCCGCCCCCGGGTCCGCAGCGACCCGACCAGTCGGCCGCCGCCGCTGGCCCCGGGGATCCGAAGAGGA
AGGGCGGTCCGGGCTCCACACTTAGCTTCGTGGGCAAACGCAGAGGCGGGAACAAACTAGCCCTCAAGACGGGAA
TAGTAGCCAAGAAGCAGAAGACGGAGGATGAGGTATTAACAAGTAAAGGTGACGCGTGGGCCAAGTACATGGCAG
AAGTGAAAAAGTACAAAGCTCACCAGTGCGGTGACGATGATAAAACTCGGCCCCTGGTGAAA**TGA**CGCCCCTCCC
CCACCTGCCCATGGCCTGGGACTCTCTGCGATGTACATAACTATTTAATGCAGCGGCAGCGGCGACAGCCTTCCC
TGAGAGGACTTAAAAGCAGAAGGAAACCGAGATGCTTCCCGCAGCCGTGGACGATTCTCCAGGACTCTTTTTTTA
CCTTGAGCACTTGCCTCGTGAGACTTCATAGAACAGTGGTTTACTGTCCCCCCCTTCTCACCTCCTCATTCTCTC
TGGCTCTTTCTGTCTTCCTCTTCTCACCCTCCTCCCTCCCCTTAGCCATCACTTCTGGGAAGTAAAGAACTTGAC
TTAGTGCCGG

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FIGURE 2482

GCTGGATCACGTGAGCCAGTTCCAAA**ATG**GCGGCAGGGGTGGCCGGGTGGGGGGTTGAGGCAGAGGAGTTCGAAG
ATGCTCCTGATGTGGAGCCGCTGGAGCCTACACTTAGCAACATCATCGAGCAGCGCAGCCTGAAGTGGATCTTCG
TCGGGGGCAAGGGTGGTGTGGGCAAGACCACCTGCAGCTGCAGCCTGGCAGTCCAGCTCTCCAAGGGGCGTGAGA
GTGTTCTGATCATCTCCACAGACCCAGCACACAACATCTCAGATGCTTTTGACCAGAAGTTCTCAAAGGTGCCTA
CCAAGGTCAAAGGCTATGACAACCTCTTTGCTATGGAGATTGACCCCAGCCTGGGCGTGGCGGAGCTGCCTGACG
AGTTCTTCGAGGAGGACAACATGCTGAGCATGGGCAAGAAGATGATGCAGGAGGCCATGAGCGCATTTCCCGGCA
TCGATGAGGCCATGAGCTATGCCGAGGTCATGAGGCTGGTGAAGGGCATGAACTTCTCGGTGGTGGTATTTGACA
CGGCACCCACGGGCCACACCCTGAGGCTGCTCAACTTCCCCACCATCGTGGAGCGGGGCCTGGGCCGGCTTATGC
AGATCAAGAACCAGATCAGCCCTTTCATCTCACAGATGTGCAACATGCTGGGCCTGGGGGACATGAACGCAGACC
AGCTGGCCTCCAAGCTGGAGGAGACGCTGCCCGTCATCCGCTCAGTCAGCGAACAGTTCAAGGACCCTGAGCAGA
CAACTTTCATCTGCGTATGCATTGCTGAGTTCCTGTCCCTGTATGAGACAGAGAGGCTGATCCAGGAGCTGGCCA
AGTGCAAGATTGACACACACAATATAATTGTCAACCAGCTCGTCTTCCCCGACCCCGAGAAGCCCTGCAAGATGT
GTGAGGCCCGTCACAAGATCCAGGCCAAGTATCTGGACCAGATGGAGGACCTGTATGAAGACTTCCACATCGTGA
AGCTGCCGCTGTTACCCCATGAGGTGCGGGGGGCAGACAAGGTCAACACCTTCTCGGCCCTCCTCCTGGAGCCCT
ACAAGCCCCCCAGTGCCCAG**TAG**CACAGCTGCCAGCCCCAACCGCTGCCATTTCACACTCACCCTCCACCCTCCC
CACCCCCTCGGGGCAGAGTTTGCACAAAGTCCCCCCCCATAATACAGGGGGAGCCACTTGGGCAGGAGGCAGGGAG
GGGTCCATTCCCCCTGGTGGGGCTGGTGGGGAGCTGTAGTTGCCCCCTACCTCTCCCACCTCTTGCTCTTCAATA
AAATGATCTTAAACTGC

FIGURE 2483

GGGAGGTCGGGGCTGCGGGCGCTCGCTGGTGGCGGACCCGGAGGCTGCTGCGGCGCCGGGGCTCCGTGGCCTGGA
TTGAATCCGATCGGGAGCC**ATG**AGCGTGGACAAAGCTGAGCTATGCGGGTCTCTGCTCACCTGGTTACAGACGTT
CCACGTTCCGTCTCCCTGTGCCAGCCCTCAGGACCTGAGCAGCGGCCTTGCCGTAGCCTATGTGCTGAACCAGAT
AGACCCCTCCTGGTTCAACGAGGCATGGCTCCAGGGCATCTCGGAAGATCCAGGTCCCAACTGGAAGCTGAAGGT
CAGCAATCTGAAGATGGTCTTACGGAGCCTAGTAGAGTACTCCCAGGATGTCCTGGCGCATCCTGTGTCAGAAGA
GCATCTCCCAGATGTGAGCCTCATTGGAGAGTTCTCAGACCCGGCAGAGCTCGGCAAGCTGCTTCAGCTGGTGCT
GGGCTGTGCCATCAGTTGCGAGAAAAAGCAGGACCACATCCAGAGAATCATGACGCTGGAAGAATCGGTTCAGCA
TGTGGTGATGGAAGCCATCCAAGAGCTCATGACCAAAGACACTCCTGACTCCCTGTCACCAGAGACGTATGGCAA
CTTTGACAGCCAGTCCCGCAGGTACTATTTCCTAAGTGAGGAGGCTGAGGAGGGGGACGAATTACAGCAGCGCTG
TCTGGATCTGGAGCGGCAGCTGATGCTCCTGTCAGAGGAGAAGCAGAGCCTGGCGCAAGAGAATGCAGGGCTGCG
GGAGCGGATGGGCCGGCCTGAAGGCGAGGGTACCCCAGGTCTCACTGCCAAGAAGCTGCTGCTGCTGCAATCCCA
GCTGGAGCAGTTGCAGGAGGAGAACTTCAGGCTGGAGAGTGGCAGGGAGGATGAGCGCCTGCGCTGTGCCGAGCT
GGAGAGGGAGGTTGCGGAGCTGCAGCACCGGAACCAGGCGCTGACTAGCCTGGCCCAGGAGGCACAGGCCCTGAA
GGATGAGATGGATGAACTACGGCAGTCTTCGGAGCGTGCTGGGCAGCTGGAGGCCACGCTGACCAGTTGCCGGCG
CCGCTTGGGCGAGCTGAGGGAGCTGCGGCGGCAGGTGCGGCAGCTGGAGGAACGCAACGCCGGCCACGCCGAGCG
CACGCGACAACTGGAGGATGAGCTACGCCGAGCGGGCTCCCTGCGCGCCCAGCTGGAGGCGCAGCGGCGGCAGGT
GCAGGAACTGCAGGGCCAGCGGCAGGAGGAGGCCATGAAGGCCGAGAAATGGCTATTTGAATGCCGCAACCTGGA
GGAAAAGTATGAGTCGGTGACAAAGGAGAAGGAGCGGCTGTTGGCGGAGCGGGACTCCTTGCGGGAGGCCAATGA
GGAGCTGCGCTGCGCCCAGCTGCAGCCGCGGGGGTTGACCCAGGCCGATCCCTCACTGGATCCCACCTCCACACC
CGTGGATAACTTAGCCGCAGAGATCCTGCCTGCGGAGCTCAGGGAGACGCTCCTGCGGCTTCAGCTGGAGAACAA
GCGGCTGTGCAGGCAGGAGGCGGCCGACCGGGAGCGGCAGGAGGAGCTGCAGCGCCACCTGGAGGATGCCAACCG
CGCGCGCCACGGGTTGGAGACGCAGCACCGGCTGAACCAGCAGCAGCTATCCGAGCTGCGGGCCCAGGTGGAGGA
CCTGCAGAAAGCCCTGCAGGAGCAGGGGGGCAAGACTGAAGATTCCATTTTGCTGAAAAGGAAGCTGGAGGAACA
TTTGCAGAAGCTTCATGAGGCAGATCTGGAGTTGCAGAGGAAGCGGGAGTACATTGAGGAGCTGGAGCCACCCAC
TGACAGCAGCACAGCCCGGCGGATCGAGGAGCTGCAGCATAACTTGCAGAAGAAGGACGCGGACTTGCGGGCCAT
GGAGGAGCGATACCGCCGCTACGTGGACAAGGCCCGCATGGTCATGCAGACCATGGAACCCAAGCAGCGGCCAGC
TGCGGGGGCACCTCCAGAACTCCATTCCCTGAGGACACAGCTCCGAGAACGGGATGTCCGCATCCGACACCTGGA
GATGGACTTTGAGAAAAGCCGAAGTCAGCGGGAGCAGGAAGAAAAGCTGCTCATCAGTGCCTGGTATAATATGGG
CATGGCCTTGCAGCAGCGAGCTGGGGAGGAGCGGGCGCCTGCCCATGCCCAGTCATTCCTGGCACAGCAGCGGCT
GGCAACCAATTCTCGCCGTGGACCCTTGGGACGCCTGGCATCTCTGAACCTTCGCCCCACTGACAAGCAC**TGA**CA
GACCTCACAATCAAGCCAGCCTGGGCTCCACCCACCCTGGCTTCCTCCAGCTCACATGGCGCCCAGCACTGGGCT
TCAGCCAGGTGCTCGAGAGCTTTGAGGCCATGATCTCTGCTCTTCCCTCTCCCAGATTGGTGGGGAGGGAGGGCG
GGAGGTAGATATAGGCCTGTTCTTTTTAGCAATGTGATTCTTGTTGTTGATTCTCTCTCTGGAGTTCATGTGCTG
CCTCAGGAGACTCTGATTTTATATTTGAGAAAAATAAAGGCGTTCAATCTGC

FIGURE 2484

CCAGCAGGGAGCTGGGAGCTGGGGGAAACGACGCCAGGAAAGCTATCGCGCCAGAGAGGGCGACGGGGGCTCGGG
AAGCCTGACAGGGCTTTTGCGCACAGCTGCCGGCTGGCTGCTACCCGCCCGCGCCAGCCCCCGAGAACGCGCGAC
CAGGCACCCAGTCCGGTCACCGCAGCGGAGAGCTCGCCGCTCGCTGCAGCGAGGCCCGGAGCGGCCCCGCAGGGA
CCCTCCCCAGACCGCCTGGGCCGCCCGG**ATG**TGCACTAAAATGGAACAGCCCTTCTACCACGACGACTCATACAC
AGCTACGGGATACGGCCGGGCCCCTGGTGGCCTCTCTCTACACGACTACAAACTCCTGAAACCGAGCCTGGCGGT
CAACCTGGCCGACCCCTACCGGAGTCTCAAAGCGCCTGGGGCTCGCGGACCCGGCCCAGAGGGCGGCGGTGGCGG
CAGCTACTTTTCTGGTCAGGGCTCGGACACCGGCGCGTCTCTCAAGCTCGCCTCTTCGGAGCTGGAACGCCTGAT
TGTCCCCAACAGCAACGGCGTGATCACGACGACGCCTACACCCCCGGGACAGTACTTTTACCCCCGCGGGGGTGG
CAGCGGTGGAGGTGCAGGGGGCGCAGGGGGCGGCGTCACCGAGGAGCAGGAGGGCTTCGCCGACGGCTTTGTCAA
AGCCCTGGACGATCTGCACAAGATGAACCACGTGACACCCCCCAACGTGTCCCTGGGCGCTACCGGGGGGCCCCC
GGCTGGGCCCGGGGGCGTCTACGCCGGCCCGGAGCCACCTCCCGTTTACACCAACCTCAGCAGCTACTCCCCAGC
CTCTGCGTCCTCGGGAGGCGCCGGGGCTGCCGTCGGGACCGGGAGCTCGTACCCGACGACCACCATCAGCTACCT
CCCACACGCGCCGCCCTTCGCCGGTGGCCACCCGGCGCAGCTGGGCTTGGGCCGCGGCGCCTCCACCTTCAAGGA
GGAACCGCAGACCGTGCCGGAGGCGCGCAGCCGGGACGCCACGCCGCCGGTGTCCCCCATCAACATGGAAGACCA
AGAGCGCATCAAAGTGGAGCGCAAGCGGCTGCGGAACCGGCTGGCGGCCACCAAGTGCCGGAAGCGGAAGCTGGA
GCGCATCGCGCGCCTGGAGGACAAGGTGAAGACGCTCAAGGCCGAGAACGCGGGGCTGTCGAGTACCGCCGGCCT
CCTCCGGGAGCAGGTGGCCCAGCTCAAACAGAAGGTCATGACCCACGTCAGCAACGGCTGTCAGCTGCTGCTTGG
GGTCAAGGGACACGCCTTC**TGA**ACGTCCCCTGCCCCTTTACGGACACCCCCTCGCTTGGACGGCTGGGCACACGC
CTCCCACTGGGGTCCAGGGAGCAGGCGGTGGGCACCCACCCTGGGACCTAGGGGCGCCGCAAACCACACTGGACT
CCGGCCCTCCTACCCTGCGCCCAGTCCTTCCACCTCGACGTTTACAAGCCCCCCCTTCCACTTTTTTTTGTATGT
TTTTTTTCTGCTGGAAACAGACTCGATTCATATTGAATATAATATATTTGTGTATTTAACAGGGAGGGGAAGAGG
GGGCGATCGCGGCGGAGCTGGCCCCGCCGCCTGGTACTCAAGCCCGCGGGGACATTGGGAAGGGGACCCCCGCCC
CCTGCCCTCCCCTCTCTGCACCGTACTGTGGAAAAGAAACACGCACTTAGTCTCTAAAGAGTTTATTTTAAGACG
TGTTTGTGTTTGTGTGTGTTTGTTCTTTTTATTGAATCTATTTAAGTAAAAAAAAAATTGGTTCTTTATTAA

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FIGURE 2485

CGCGGCCCAGGGCTCACTTGGCGCTGAGAACGCGGGTCCACGCGTGTGATCGTCCGTGCGTCTAGCCTTTGCCCA
CGCAGCTTTCAGTC**ATG**GCCTCCGGTAACGCGCGCATCGGAAAGCCAGCCCCTGACTTCAAGGCCACAGCGGTGG
TTGATGGCGCCTTCAAAGAGGTGAAGCTGTCGGACTACAAAGGGAAGTACGTGGTCCTCTTTTTCTACCCTCTGG
ACTTCACTTTTGTGTGCCCCACCGAGATCATCGCGTTCAGCAACCGTGCAGAGGACTTCCGCAAGCTGGGCTGTG
AAGTGCTGGGCGTCTCGGTGGACTCTCAGTTCACCCACCTGGCTTGGATCAACACCCCCCGGAAAGAGGGAGGCT
TGGGCCCCCTGAACATCCCCCTGCTTGCTGACGTGACCAGACGCTTGTCTGAGGATTACGGCGTGCTGAAAACAG
ATGAGGGCATTGCCTACAGGGGCCTCTTTATCATCGATGGCAAGGGTGTCCTTCGCCAGATCACTGTTAATGATT
TGCCTGTGGGACGCTCCGTGGATGAGGCTCTGCGGCTGGTCCAGGCCTTCCAGTACACAGACGAGCATGGGGAAG
TTTGTCCCGCTGGCTGGAAGCCTGGCAGTGACACGATTAAGCCCAACGTGGATGACAGCAAGGAATATTTCTCCA
AACACAAT**TAG**GCTGGCTAACGGATAGTGAGCTTGTGCCCCTGCCTAGGTGCCTGTGCTGGGTGTCCACCTGTGC
CCCCACCTGGGTGCCCTATGCTGACCCAGGAAAGGCCAGACCTGCCCCTCCAAACTCCACAGTATGGGACCCTGG
AGGGCTAGGCCAAGGCCTTCTCATGCCTCCACCTAGAAGCTGAATAGTGACGCCCTCCCCCAAGCCCACCCAGCC
GCACACAGGCCTAGAGGTAACCAATAAAGTATTAGGG

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FIGURE 2486

CGCTCCTGCAGTATTAGTTCTTGCAGCTGGTGGTGGCGGCTGAGGCGGC**ATG**GATCTCAGCGAGCTGGAGAGAGA
CAATACAGGCCGCTGTCGCCTGAGTTCGCCTGTGCCCGCGGTGTGCCGCAAGGAGCCTTGCGTCCTGGGCGTCGA
TGAGGCGGGCAGGGGCCCCGTGCTGGGCCCCATGGTCTACGCCATCTGTTATTGTCCCCTGCCTCGCCTGGCAGA
TCTGGAGGCGCTGAAAGTGGCAGACTCAAAGACCCTATTGGAGAGCGAGCGGGAAAGGCTGTTTGCGAAAATGGA
GGACACGGACTTTGTCGGCTGGGCGCTGGATGTGCTGTCTCCAAACCTCATCTCTACCAGCATGCTTGGGCGGGT
CAAATACAACCTGAACTCCCTGTCACATGATACAGCCACTGGGCTTATACAGTATGCATTGGACCAGGGCGTGAA
CGTCACCCAGGTATTCGTGGACACCGTAGGGATGCCAGAGACATACCAGGCGCGGCTGCAGCAAAGTTTTCCCGG
GATTGAGGTGACGGTCAAGGCCAAAGCAGATGCCCTCTACCCGGTGGTTAGTGCTGCCAGCATCTGTGCCAAGGT
GGCCCGGGACCAGGCCGTGAAGAAATGGCAGTTCGTGGAGAAACTGCAGGACTTGGATACTGATTATGGCTCAGG
CTACCCCAATGATCCCAAGACAAAAGCGTGGTTGAAGGAGCACGTGGAGCCTGTGTTCGGCTTCCCCCAGTTTGT
CCGGTTCAGCTGGCGCACGGCCCAGACCATCCTGGAGAAAGAGGCGGAAGATGTTATATGGGAGGACTCAGCATC
CGAGAATCAGGAGGGACTCAGGAAGATCACATCCTACTTCCTCAATGAAGGGTCCCAAGCCCGTCCCCGTTCTTC
CCACCGATATTTCCTGGAACGCGGCCTGGAGTCAGCAACCAGCCTC**TAG**CAGCTGCCTCTACGCGCTCTACCTGC
TTCCCCAACCCAGACATTAAAATTGTTTAAGGAG

FIGURE 2487

GTGAAAGGCGCCAGGTGCCAGTCCTGGCCTCTGATGTAACCCAGCGCCCCGCAGTCCCGACACAGATTCCTGGAT
CTCAGCCCCATAGCAGCT**ATG**ATCCCGCTGCTGCTGGCAGCGCTGCTGTGCGTCCCCGCCGGGGCCCTGACCTGC
TACGGGGACTCCGGGCAGCCTGTAGACTGGTTCGTGGTCTACAAGCTGCCAGCTCTTAGAGGGTCCGGGGAGGCG
GCGCAGAGAGGGCTGCAGTACAAGTATCTGGACGAGAGCTCCGGAGGCTGGCGGGACGGCAGGGCACTCATCAAC
AGCCCGGAGGGGGCCGTGGGCCGAAGCCTGCAGCCGCTGTACCGGAGCAACACCAGCCAGCTCGCCTTCCTGCTC
TACAATGACCAACCGCCTCAACCCAGCAAGGCTCAGGACTCTTCCATGCGTGGGCACACGAAGGGTGTCCTGCTC
CTTGACCACGATGGGGGCTTCTGGCTGGTCCACAGTGTACCTAACTTCCCTCCACCGGCCTCCTCTGCTGCATAC
AGCTGGCCTCATAGCGCCTGTACCTACGGGCAGACCCTGCTCTGTGTGTCTTTTCCCTTCGCTCAGTTCTCGAAG
ATGGGCAAGCAGCTGACCTACACCTACCCCTGGGTCTATAACTACCAGCTGGAAGGGATCTTTGCCCAGGAATTC
CCCGACTTGGAGAATGTGGTCAAGGGCCACCACGTTAGCCAAGAACCCTGGAACAGCAGCATCACACTCACATCC
CAGGCCGGGGCTGTTTTCCAGAGCTTTGCCAAGTTCAGCAAATTTGGAGATGACCTGTACTCCGGCTGGTTGGCA
GCAGCCCTTGGTACCAACCTGCAGGTCCAGTTCTGGCACAAAACTGTAGGCATCCTGCCCTCTAACTGCTCGGAT
ATCTGGCAGGTTCTGAATGTGAACCAGATAGCTTTCCCTGGACCAGCCGGCCCAAGCTTCAACAGCACAGAGGAC
CACTCCAAATGGTGCGTGTCCCCAAAAGGGCCCTGGACCTGCGTGGGTGACATGAATCGGAACCAGGGAGAGGAG
CAACGGGGTGGGGGCACACTGTGTGCCCAGCTGCCAGCCCTCTGGAAAGCCTTCCAGCCGCTGGTGAAGAACTAC
CAGCCCTGTAATGGCATGGCCAGGAAGCCCAGCAGAGCTTATAAGATC**TAA**CCCTTATGGCCAGGTGCAGTGGCT
CACGTATGTAATCCCAGCACTTTGGGAAGCCAAGGAGGGAGGATCACTTGAACTCAGGAATTCGAGACCAGCCTG
GGCTACATAGTGAGACCACATCTCTACTAGAACTTAAAAAAAGTTAGCCAGGCACGGTGATAAATGCCTGTAGTC
CCAGCCACTGAAGCCAGAGGATCGATTGAACCAGGGAGATCATGGTCACAGTGAACTATGATTACGCCAACCTGG
GTCACATAGCAAGACTCTGTTTCAAAAAAAAAGGGGGGGCGGGGGACGGGTGGGTGCAGTGGCTCACATCTGTAA
CCCCAGCACTTTGGGAGGCTGAGATGGGCAGATCACTTGAGGTCAGGAGTTCGAGACCAGCCTGGCCAACATGGT
GAAACCCCATATCCATTAAAAATATTTAAAAATTAGCCAGACATGGTGGCACGCGTCTGTGGTCCTAGCTCCTCG
GGAGGCTGAGGCAGGAGAATCGCTTGAACTCGGGAGGCAGAGGTTGTCATGAGCTGAGCTAACACCACGGCACTT
CAGCCTGGGTGACAGAATGAGACTCTGTGTCAAAAAAATAAAAAATAAAAAATCTAAGGGCTCAGGAACCAGTTT
GGACTTGATTTTGAATCCCAGTTCATCCCCTTCCTAGCTGTATGACCTTGATTGTGTGCCTTAACCGCTCTGTGA
CACAGTCTACCTGTCTGCAAAATGGGAAACATAATACCTGCCATCAGGATTGTTGAGGAGTAAATAAATGGAAAT
TGGTG

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FIGURE 2488

GGTCGCCGTCGTTGCTCCGCTCGCTCTGAGAGAGC**ATG**GCCCTGAGAGGCGTCTCCGTGCGGCTGCTGAGCCGCG
GACCCGGCCTGCACGTCCTTCGCACGTGGGTCTCGTCGGCGGCGCAGACCGAGAAAGGCGGGAGAACACAGAGCC
AACTGGCTAAGTCCTCGCGTCCCGAGTTTGACTGGCAGGACCCGCTGGTGCTGGAGGAGCAGCTGACCACAGATG
AGATCCTCATCAGGGACACCTTCCGCACCTACTGCCAGGAGAGACTCATGCCTCGCATCCTGTTGGCCAATCGCA
ACGAAGTTTTTCATCGGGAGATCATTTCGGAGATGGGGGAGTTGGGTGTGCTGGGCCCCACCATCAAAGGATATG
GCTGTGCTGGGGTTTCGTCTGTGGCCTATGGGCTCCTGGCCCGAGAGCTGGAGCGGGTGGACAGTGGCTACAGGT
CGGCGATGAGTGTCCAGTCCTCCCTCGTCATGCACCCTATCTATGCCTATGGCAGCGAGGAACAGCGGCAGAAGT
ACCTGCCCCAGCTGGCCAAGGGGGAGCTCCTGGGCTGCTTCGGGCTCACAGAGCCCAACAGCGGAAGTGACCCCA
GCAGCATGGAGACCAGAGCCCACTACAACTCATCCAACAAGAGCTACACCCTCAATGGGACCAAGACCTGGATCA
CGAACTCGCCTATGGCCGATCTGTTTGTAGTGTGGGCTCGGTGTGAAGATGGCTGCATTCGGGGCTTCCTGCTGG
AGAAGGGGATGCGGGGTCTCTCGGCCCCCAGGATCCAGGGCAAGTTCTCGCTGCGGGCCTCAGCCACAGGCATGA
TCATCATGGACGGTGTGGAGGTGCCAGAGGAGAATGTGCTCCCTGGTGCATCCAGCCTGGGGGGTCCCTTCGGCT
GCCTGAACAACGCCCGGTACGGCATCGCGTGGGGCGTGCTTGGAGCTTCGGAGTTCTGCTTGCACACAGCCCGGC
AGTACGCCCTCGACAGGATGCAGTTTGGTGTCCCACTGGCCAGGAACCAGCTGATTCAGAAGAAGCTGGCAGACA
TGCTCACTGAGATTACCCTGGGCCTTCACGCCTGCCTGCAGCTCGGCCGCTTGAAGGACCAGGACAAGGCTGCCC
CCGAGATGGTTTCTCTGCTGAAGAGGAATAACTGTGGGAAAGCCCTGGACATCGCCCGCCAGGCCCGAGACATGC
TGGGGGGGAATGGGATTTCTGACGAGTATCACGTGATCCGGCACGCCATGAACCTGGAGGCCGTGAACACCTACG
AAGGTACACATGACATTCACGCCCTGATCCTTGGGAGAGCTATCACGGGAATCCAGGCGTTCACGGCCAGCAAG**T**
GAGCCGCTCCATCAGGGGCCCGAAACTCTCAAGCCCCTTTCTGGAGAGATGCCTGGCTGGACCGTAGGAGCGCTG
TGCTCTGAGCTTAGAAAGGGAGGTGGCGGATGGAGTGGGAAGTGAGAGACACTGATTTTTAAATATCAAAATTTC
CCTTCTGAAGTCGTTCAGATGTGTTCCTTAAAAAGAAGATGGAATTCTCTGTAGAGCGTCTCAATCCACTTTTAA
CCATGGATGAGAGCAGACTCCATTTACCCTGAAATAGCAGCTTCTCTTGAGAGGAGAGTGACATGGAAGCAACTC
CGTCTGCTGCAGCTGACCCCCTCACACTGAGTTCACAGTGCGCCCTCCCTCCCTCCCATCTGGGGGTAGTGCCTT
ATGCTGGGTGTTGGAGCAGAGTGAGGGAGAGGAAAATAAAGACCTGCACATCTG

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FIGURE 2489

CTGGAAGGAGTC**ATG**GCGGATGGTCAGGTGGCGGAACTGCTGCTCCGGCGGCTGGAGGCGTCTGATGGCGGCCTG
GACAGCGCCGAGTTGGCGGCTGAGCTGGGCATGGAGCACCAGGCGGTGGTGGGCGCCGTGAAGAGCCTTCAGGCG
CTGGGCGAGGTCATCGAGGCTGAACTTCGGTCCACCAAGCACTGGGAGCTTACTGCGGAGGGCGAGGAGATTGCC
CGGGAGGGCAGCCATGAGGCCCGTGTGTTTCGAAGCATTCCCCCAGAGGGCCTGGCCCAGAGCGAGCTTATGCGA
CTGCCCAGTGGCAAAGTGGGCTTCAGCAAGGCCATGTCCAACAAGTGGATTCGGGTGGACAAGAGTGCGGCTGAC
GGGCCCCGGGTGTTCCGAGTGGTGGACAGCATGGAGGATGAGGTGCAGCGGCGGCTCCAGCTGGTCCGGGGGGGA
CAGGCTGAGAAGCTGGGGGAGAAGGAGAGGAGCGAGCTGAGGAAGAGGAAGCTGTTGGCTGAAGTGACTCTGAAG
ACCTACTGGGTGAGCAAAGGCAGTGCCTTTAGTACCAGCATCTCCAAGCAAGAGACAGAGCTGAGCCCAGAGATG
ATCTCCAGTGGCTCTTGGCGGGACCGGCCCTTCAAGCCCTACAACTTCTTGGCCCACGGTGTCCTCCCCGACAGC
GGCCACCTTCACCCGCTGCTCAAGGTCCGCTCCCAGTTCCGACAGATCTTCCTGGAGATGGGGTTCACCGAGATG
CCGACTGATAACTTCATTGAGAGCTCCTTCTGGAACTTTGACGCCCTCTTCCAGCCCCAGCAGCACCCAGCCCGT
GACCAGCACGACACCTTCTTCCTTCGAGATCCAGCGGAGGCCCTGCAGCTCCCAATGGACTATGTCCAGCGGGTC
AAGCGGACCCACTCTCAGGGCGGCTACGGCTCACAGGGGTACAAGTATAACTGGAAGCTGGACGAGGCCCGGAAA
AACCTACTGCGAACCCACACCACATCAGCCAGCGCCCGTGCGCTCTACCGCCTTGCCCAGAAGAAGCCCTTCACT
CCGGTCAAGTACTTCTCCATCGACCGCGTATTCCGGAATGAGACCCTGGACGCCACGCACCTGGCTGAGTTCCAC
CAGATCGAGGGCGTGGTGGCGGATCATGGTCTCACCTTGGGCCACCTCATGGGCGTTCTGCGGGAGTTCTTCACC
AAGCTGGGTATCACGCAACTCCGCTTCAAGCCAGCCTACAACCCATACACAGAGCCCAGCATGGAGGTGTTCAGC
TACCACCAAGGCCTGAAGAAGTGGGTGGAGGTCGGAAACTCGGGGGTCTTCCGTCCAGAGATGCTGCTGCCCATG
GGGCTTCCCGAGAACGTGTCGGTCATTGCCTGGGGCCTCTCCCTGGAGCGCCCAACGATGATCAAATATGGCATC
AACAATATCCGGGAGCTGGTGGGCCACAAGGTGAACCTGCAGATGGTGTATGACAGTCCCCTGTGCCGCCTGGAT
GCCGAGCCGAGGCCCCCTCCCACACAGGAGGCTGCG**TGA**CATGGGCCACTCTAGGACAGGTCATCCTCCCCGAGT
CCCTGCTGCTGCGCTCCTTTGCATCCCTGGCCAGTGACCTTGTATTTATGAGGCCTCTGTGAGGCCAGCCCCCAC
CTTCCTCTTTCCCACCTGTCCCAGGACCAGAATCCCAGGGACAGAGGACTGGGTAGCAGGTTCCTTCTGTTGTCC
TGTGTGGTGTGTCTACTGTGAGGGTGGGCCCTGAGGAGACCTGTGGGCCACCTATTGTCTAATAAAGTGGGCAGT
TGCCCCCA

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FIGURE 2490

GTCCGTACTGCAGAGCCGCTGCCGGAGGGTCGTTTTAAAGGGCCCGCGCGTTGCCGCCCCCTCGGCCCGCCATGC
TGCTATCCGTGCCGCTGCTGCTCGGCCTCCTCGGCCTGGCCGTCGCCGAGCCTGCCGTCTACTTCAAGGAGCAGT
TTCTGGACGGAGACGGGTGGACTTCCCGCTGGATCGAATCCAAACACAAGTCAGATTTTGGCAAATTCGTTCTCA
GTTCCGGCAAGTTCTACGGTGACGAGGAGAAAGATAAAGGTTTGCAGACAAGCCAGGATGCACGCTTTTATGCTC
TGTCGGCCAGTTTCGAGCCTTTCAGCAACAAAGGCCAGACGCTGGTGGTGCAGTTCACGGTGAAACATGAGCAGA
ACATCGACTGTGGGGGCGGCTATGTGAAGCTGTTTCCTAATAGTTTGGACCAGACAGACATGCACGGAGACTCAG
AATACAACATCATGTTTGGTCCCGACATCTGTGGCCCTGGCACCAAGAAGGTTCATGTCATCTTCAACTACAAGG
GCAAGAACGTGCTGATCAACAAGGACATCCGTTGCAAGGATGATGAGTTTACACACCTGTACACACTGATTGTGC
GGCCAGACAACACCTATGAGGTGAAGATTGACAACAGCCAGGTGGAGTCCGGCTCCTTGGAAGACGATTGGGACT
TCCTGCCACCCAAGAAGATAAAGGATCCTGATGCTTCAAAACCGGAAGACTGGGATGAGCGGGCCAAGATCGATG
ATCCCACAGACTCCAAGCCTGAGGACTGGGACAAGCCCGAGCATATCCCTGACCCTGATGCTAAGAAGCCCGAGG
ACTGGGATGAAGAGATGGACGGAGAGTGGGAACCCCCAGTGATTCAGAACCCTGAGTACAAGGGTGAGTGGAAGC
CCCGGCAGATCGACAACCCAGATTACAAGGGCACTTGGATCCACCCAGAAATTGACAACCCCGAGTATTCTCCCG
ATCCCAGTATCTATGCCTATGATAACTTTGGCGTGCTGGGCCTGGACCTCTGGCAGGTCAAGTCTGGCACCATCT
TTGACAACTTCCTCATCACCAACGATGAGGCATACGCTGAGGAGTTTGGCAACGAGACGTGGGGCGTAACAAAGG
CAGCAGAGAAACAAATGAAGGACAAACAGGACGAGGAGCAGAGGCTTAAGGAGGAGGAAGAAGACAAGAAACGCA
AAGAGGAGGAGGAGGCAGAGGACAAGGAGGATGATGAGGACAAAGATGAGGATGAGGAGGATGAGGAGGACAAGG
AGGAAGATGAGGAGGAAGATGTCCCCGGCCAGGCCAAGGACGAGCTGTAGAGAGGCCTGCCTCCAGGGCTGGACT
GAGGCCTGAGCGCTCCTGCCGCAGAGCTTGCCGCGCCAAATAATGTCTCTGTGAGACTCGAGAACTTTCATTTTT
TTCCAGGCTGGTTCGGATTTGGGGTGGATTTTGGTTTTGTTCCCCTCCTCCACTCTCCCCCACCCCCTCCCCGCC
CTTTTTTTTTTTTTTTTTAAACTGGTATTTTATCTTTGATTCTCCTTCAGCCCTCACCCCTGGTTCTCATCTTTC
TTGATCAACATCTTTTCTTGCCTCTGTCCCCTTCTCTCATCTCTTAGCTCCCCTCCAACCTGGGGGGCAGTGGTG
TGGAGAAGCCACAGGCCTGAGATTTCATCTGCTCTCCTTCCTGGAGCCCAGAGGAGGGCAGCAGAAGGGGGTGGT
GTCTCCAACCCCCCAGCACTGAGGAAGAACGGGGCTCTTCTCATTTCACCCCTCCCTTTCTCCCCTGCCCCCAGG
ACTGGGCCACTTCTGGGTGGGGCAGTGGGTCCCAGATTGGCTCACACTGAGAATGTAAGAACTACAAACAAAATT
TCTATTAAATTAAATTTTGTGTCTC

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FIGURE 2491

GCGCGGCGCGGCGCGCCTGGGCGCTAAGATGGCGGCGGCGTGAGTTGCATGTTGTGTGAGGATCCCGGGGCCGCC
GCGTCGCTCGGGCCCCGCC**ATG**GCCGTCACCATCACGCTCAAAACGCTGCAGCAGCAGACCTTCAAGATCCGCAT
GGAGCCTGACGAGACGGTGAAGGTGCTAAAGGAGAAGATAGAAGCTGAGAAGGGTCGTGATGCCTTCCCCGTGGC
TGGACAGAAACTCATCTATGCCGGCAAGATCTTGAGTGACGATGTCCCTATCAGGGACTATCGCATCGATGAGAA
GAACTTTGTGGTCGTCATGGTGACCAAGACCAAAGCCGGCCAGGGTACCTCAGCACCCCCAGAGGCCTCACCCAC
AGCTGCCCCAGAGTCCTCTACATCCTTCCCGCCTGCCCCCACCTCAGGCATGTCCCATCCCCCACCTGCCGCCAG
AGAGGACAAGAGCCCATCAGAGGAATCCGCCCCCACGACGTCCCCAGAGTCTGTGTCAGGCTCTGTTCCCTCTTC
AGGTAGCAGCGGGCGAGAGGAAGACGCGGCCTCCACGCTAGTGACGGGCTCTGAGTATGAGACGATGCTGACGGA
GATCATGTCCATGGGCTATGAGCGAGAGCGGGTCGTGGCCGCCCTGAGAGCCAGCTACAACAACCCCCACCGAGC
CGTGGAGTATCTGCTCACGGTGAGGTGGGGCTTCCGCCTCCCGGGGAGGCCT**TGA**GGGAGTACCCGGGCGTCACT
GCCCTGATGGGCGGTTGGGAAGGCAAAACCTGCCCTGAAAAGCCTTTGGGTAGTGATTCTAGCCACTAAAGGCTT
CCCACAGGAGGCTGGATGTGAGTGATGGGTGGGCCTCTGGAGGGCAGGGCCGAGGCCTCATCTGTGTCCTGCCAG
GGCATGGAGGAGGGTGGCAGCAGGAGGTCTGTGCATTAGAACTAAACAGGACCCCTGACAGGGAATTCCTGGGAG
CCCCGAGCCGGAACACGGTTCTGTCCAGGAGAGCCAGGTATCGGAGCAGCCGGCCACGGAAGCAGCAGGAGAGAA
CCCCCTGGAGTTCCTGCGGGACCAGCCCCAGTTCCAGAACATGCGGCAGGTGATTCAGCAGAACCCTGCGCTGCT
GCCCGCCCTGCTCCAGCAGCTGGGCCAGGAGAACCCTCAGCTTTTACAGCAAATCAGCCGGCACCAGGAGCAGTT
CATCCAGATGCTGAACGAGCCCCCTGGGGAGCTGGCGGACATCTCAGATGTGGAGGGGGAGGTGGGCGCCATAGG
AGAGGAGGCCCCGCAGATGAACTACATCCAGGTGACGCCGCAGGAGAAAGAAGCTATAGAGAGGTTGAAGGCCCT
GGGCTTCCCAGAGAGCCTGGTCATCCAGGCCTATTTCGCGTGTGAAAAAAATGAGAACTTGGCTGCCAACTTCCT
CCTGAGTCAGAACTTTGATGACGAGTGATGCCAGGAAGCCAGGCCACCGAAGCCCCCACCCTACCCTTATTCCAT
GAAAGTTTTATAAAAGAAAAAATATATATATATTCATGTTTATTTAAGAAATGGAAAAAAAAATCAAAAATCTTA
AAAAAACAAGCAAACAGTCCAGCTTCCTGTCCTCCTAAAGTGGCCCCTGTTCCCATCTCCCGGGCCAGACAGCTG
TCCCCCCGTCCTCCTCCCCAGCCCAGCCTGCTCAGAGAAGCTGGCAGGACTGGGAGGCGACAGATGGGCCCCTCT
TGGCCTCTGTCCCAGCTCTCTGCAGCCAGACGGAAAGGCGGCTGCTTGCCTCTCCATCCTCCGAAAAACCCCTGA
GGACCCCCCCCCATCCTCTTCTAGGATGAGGGGAAGCTGGAGCCCCAACTTTGATCCTCCATTGGAGTGGCCCAA
ATCTTTCCATCTAGGGCAAGTCCTGAAAGGCCCAAGGCCCCCTCCCCAGTCTAGCCTTGGCCTCCAGCCTGGAGA
AGGGCTAACATCAGCTCATTGTCAAGGCCACCCCCACCCCAGAACAGAACCGTGTCTCTGATAAAGGTTTTGAAG
TGAATAAAGTTTTAAAAACT

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FIGURE 2492

ATGGCGGCGTCCGTGCGACAGGCACGCAGCCTACTAGGTGTGGCGGCGACCCTGGCCCCGGGTTCCCGTGGCTAC
CGGGCGCGGCCGCCCCCGCGCCGCAGGCCGGGACCCCGGTGGCCAGACCCCGAGGACCTCCTGACCCCGCGGTGG
CAGCTGGGACCGCGCTACGCGGCTAAGCAGTTCGCGCGTTACGGCGCCGCCTCCGGGGTGGTCCCCGGTTCGTTA
TGGCCGTCGCCGGAGCAGCTGCGGGAGCTGGAGGCCGAAGAACGCGAATGGTACCCGAGCCTGGCGACCATGCAG
GAGTCGCTGCGGGTGAAGCAGCTGGCCGAAGAGCAGAAGCGTCGGGAGAGGGAGCAGCACATCGCAGAGTGCATG
GCCAAGATGCCACAGATGATTGTGAACTGGCAGCAGCAGCAGCGGGAGAACTGGGAGAAGGCCCAGGCTGACAAG
GAGAGGAGGGCCCGACTGCAGGCTGAGGCCCAGGAGCTCCTGGGCTACCAGGTGGACCCAAGGAGTGCCCGCTTC
CAGGAGCTGCTCCAGGACCTAGAGAAGAAGGAGCGCAAGCGCCTCAAGGAGGAAAAACAGAAACGGAAGAAGGAG
GCGCGAGCTGCTGCATTGGCTGCAGCTGTGGCTCAAGACCCAGCAGCCTCTGGGGCACCCAGCTCC**TGA**

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FIGURE 2493

TCGATAACAAAGCTGAAATCACATATTTAGGATTTAGGTCTGATTAAAAAATGTTGGGGTGGATGTTCCAACTGG
ATCAGGAGAAAAGAAAATGAAAACAGCCTGGGGAGAGGGAAGCCTGATCTGTTTCCTCACTCGCTTGCTCGTGGA
TGTCATTTTCTGTCTTCTTGGGGGCGGCCAAAAATCGACCGGTGTCGGGGACCAGAGGCGGCCCCGCACGCCCCC
GCGTGTGCGTCCACGGGCGTCTGTGCAGACGGACACTGTGCCGGGGCGAGCTGACAGGAGTTCACGGCTGCGATA
GAAC**ATG**GAGATGTCATGGGCGCGACAGAGCCTGGCGGGGATACCAGCAGCGTGTGATGAGTTCCACCCGTTCAT
CGAGGCACTGCTGCCTCACGTCCGCGCTTTCTCCTACACCTGGTTCAACCTGCAGGCGCGGAAGCGCAAGTACTT
CAAGAAGCATGAAAAGCGGATGTCGAAGGACGAGGAGCGGGCGGTGAAGGACGAGCTGCTGGGCGAGAAGCCCGA
GATCAAGCAGAAGTGGGCATCCCGGCTGCTGGCCAAGCTGCGCAAGGACATCCGGCCCGAGTTCCGCGAGGACTT
CGTGCTGACCATCACGGGCAAGAAGCCCCCCTGCTGCGTGCTCTCCAACCCCGACCAGAAGGGCAAGATCCGGCG
GATTGACTGCCTGCGCCAGGCTGACAAGGTGTGGCGGCTGGACCTGGTCATGGTGATTTTGTTTAAGGGGATCCC
CCTGGAAAGTACTGATGGGGAGCGGCTCTACAAGTCGCCTCAGTGCTCGAACCCCGGCCTGTGCGTCCAGCCACA
TCACATTGGAGTCACAATCAAAGAACTGGATCTTTATCTGGCTTACTTTGTCCACACTCCGGAATCCGGACAATC
AGATAGTTCAAACCAGCAAGGAGATGCGGACATCAAACCACTGCCCAACGGGCACTTAAGTTTCCAGGACTGTTT
TGTGACTTCCGGGGTCTGGAATGTGACGGAGCTGGTGAGAGTATCACAGACTCCTGTTGCAACAGCATCAGGGCC
CAACTTCTCCCTGGCGGACCTGGAGAGTCCCAGCTACTACAACATCAACCAGGTGACCCTGGGGCGGCGGTCCAT
CACCTCCCCTCCTTCCACCAGCACCACCAAGCGCCCCAAGTCCATCGATGACAGTGAGATGGAGAGCCCTGTTGA
TGACGTGTTCTATCCCGGGACAGGCCGTTCCCCAGCAGCTGGCAGCAGCCAGTCCAGCGGGTGGCCCAACGATGT
GGATGCAGGCCCGGCTTCTCTAAAGAAGTCAGGAAAGCTGGACTTCTGCAGTGCCCTCTCCTCTCAGGGCAGCTC
CCCGCGCATGGCTTTCACCCACCACCCGCTGCCTGTGCTTGCTGGAGTCAGACCAGGGAGCCCCCGGGCCACAGC
ATCAGCCCTGCACTTCCCCTCCACGTCCATCATCCAGCAGTCGAGCCCGTATTTCACGCACCCGACCATCCGCTA
CCACCACCACCACGGGCAGGACTCACTGAAGGAGTTTGTGCAGTTTGTGTGCTCGGATGGCTCGGGCCAGGCCAC
CGGACAGCCCAACGGTAGCGGCCAGGGCAAAGTCCCGGGGTCATTTTTGCTACCGCCGCCGCCTCCAGTGGCCAG
ACCTGTGCCCCTTCCTATGCCTGATTCCAAATCCACCAGCACTGCCCCAGACGGCGCCGCCTTGACTCCTCCATC
ACCTTCATTCGCAACGACAGGCGCCTCCTCTGCCAACCGGTTTGTCAGCATCGGACCCCGGGACGGCAACTTTCT
GAACATCCCACAGCAGTCTCAGTCCTGGTTCCTC**TGA**TAAGATCGACAAAAGAAAC

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FIGURE 2494

CCACCCCACCCTTGGGCTAAAAGCCCCCAGGCGGGCAGGGGGTGACCCCTGGAGCTAGTTGCGTGTCCCAGAATG
GAGGGTGTTCTGACACCCCACCCTGAGCCGCAAGAGCAGTCCTGGGGCCCTGGACCCCTCTGTACAGTCCGTAGG
AAAAAGTCGGA**ATG**CTCTCGACGGCCTCGTCCCAGCCTGGGACAGGCCCCCTTTCCCCTCTCTCTGCAGGCCAGG
AGGGCCTCCTTCCTGCCACGAGGGAGGGGAGTCGGGCCCCAGGTCGCCCCCGCCCCCAGCCCTGCATGCAGGTGC
CCTCGCTCCGCCCCATCAGTTCCTGCCCCTGCCCCTCATGCAGACTGCCCTGCTGGGGCCGGGCCGGAGGGTGGA
GCAGAAAGGGGACCCCGGAGCCGAGCGAGGAGGACCAGGCAGCCGCCGCTGCCGCGCTAAGCCACCACCTGCGCT
TAGGTAGGCGTCCTGCTCGCCGACTTTCAGTTCCTTGGGAGGGTGTTGGGTGTCGTCCTTTTCAAAAGTGTTTTG
GAGCTTTCTGTGCCCCCCGACTTTCCCCCGCCTCCCCGCCCCCGTCACTGCGCTTCTGTTATACCATCTTTGCC**T**
GACTCTCTCCGGCTTCTCCATTGAATGGCTAATGTGTATGTGAAATAAAGAAATAAAGAAAAAC

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FIGURE 2495

CTAATTCGGGAAACGTGCACCTTGACTAATTCGGTTTTCTGTGGCTACGAGAGCAGGCTTGGCGGGCGGAGGCGC
CAGCGGATGTCTC**ATG**CAAGGATCGTCTCTGTGGCTAAGCCTCACTTTCCGCTCCGCCCGGGTGCTCTCTAGAGC
CCGGTTTTTCGAGTGGCAGTCTCCAGGGCTGCCGAATACAGCAGCGATGGAGAACGGCACCGGGCCCTACGGAGA
AGAACGTCCACGTGAAGTCCAGGAGACGACAGTCACCGAGGGGGCTGCCAAAATCGCCTTTCCCAGTGCCAACGA
GGTCTTTTATAACCCGGTGCAGGAATTCAATCGGGACCTGACATGTGCTGTGATCACCGAGTTTGCTCGCATTCA
GCTTGGGGCCAAAGGAATCCAGATCAAGGTTCCAGGAGAGAAGGACACGCAAAAAGTGGTCGTGGACTTGTCAGA
GCAAGAGGAGGAAAAGGTTGAACTGAAAGAGAGTGAAAACCTGGCCTCAGGAGACCAACCTCGCACAGCGGCCGT
GGGGGAGATCTGTGAGGAAGGCCTGCATGTGCTGGAAGGCCTGGCAGCTTCAGGCCTACGTTCCATTCGATTTGC
CCTAGAGGTGCCTGGGCTCAGATCTGTGGTTGCAAACGATGCCTCCACCCGGGCTGTGGATCTCATACGCCGGAA
TGTCCAGCTCAATGACGTGGCCCACCTGGTACAGCCGAGCCAAGCAGATGCCCGGATGCTGATGTACCAGCACCA
GAGGGTGTCGGAGAGGTTTGACGTCATCGATCTGGACCCCTATGGCAGCCCAGCCACCTTCCTGGATGCAGCTGT
GCAGGCTGTGAGTGAAGGAGGGTTGCTGTGTGTGACCTGCACAGACATGGCGGTGTTGGCGGGGAACAGCGGGGA
GACGTGCTACAGCAAGTACGGGGCCATGGCCCTCAAGAGCCGGGCCTGCCACGAGATGGCCCTGAGAATCGTCCT
GCACAGCCTGGACCTCCGCGCCAACTGCTACCAGCGCTTCGTGGTGCCGCTGCTCAGCATCAGCGCTGACTTCTA
CGTGCGTGTTTTTGTCCGTGTCTTCACCGGCCAGGCCAAGGTCAAGGCCTCAGCCAGCAAGCAGGCGCTGGTGTT
CCAGTGTGTGGGCTGCGGGGCCTTCCACCTTCAGCGTCTCGGCAAAGCGTCAGGAGTCCCCAGCGGCCGGGCCAA
GTTCTCTGCAGCCTGTGGTCCCCCTGTGACCCCCGAGTGTGAACACTGTGGGCAACGACACCAGCTTGGTGGCCC
CATGTGGGCAGAGCCCATCCATGACCTGGATTTTGTGGGCCGTGTCCTGGAGGCTGTGAGCGCTAACCCCGGCCG
CTTCCACACCTCGGAGCGGATCCGAGGGGTCCTGAGCGTCATCACTGAGGAGCTCCCGGACGTGCCTCTGTACTA
CACCCTGGACCAGCTGAGCAGCACCATCCACTGCAACACACCAAGCCTCCTGCAGTTGCGGTCGGCCCTCCTCCA
CGCTGACTTCCGGGTCTCACTCTCCCACGCCTGTAAGAACGCTGTGAAGACGGATGCCCCTGCCTCTGCCCTCTG
GGACATCATGCGTTGCTGGGAGAAGGAATGTCCGGTGAAACGGGAGCGACTATCAGAGACTAGCCCAGCGTTCCG
CATTCTCAGTGTGGAGCCCAGGCTGCAGGCCAACTTCACCATCCGGGAAGATGCCAACCCCAGCTCCCGACAGCG
AGGACTCAAGCGCTTCCAGGCTAACCCGGAGGCCAACTGGGGTCCCCGGCCTCGTGCCCGGCCAGGGGGCAAGGC
GGCCGACGAAGCTATGGAGGAGAGACGCAGGCTGCTTCAGAACAAGCGGAAGGAGCCGCCGGAAGATGTGGCCCA
GCGGGCTGCCCGGCTCAAGACATTTCCTTGCAAGAGGTTTAAGGAGGGCACCTGTCAACGCGGGGACCAGTGCTG
CTACTCCCACAGCCCCCCGACACCCAGGGTTTCTGCTGATGCTGCCCCTGACTGTCCAGAGACCTCCAACCAGAC
CCCCCCTGGACCTGGGGCTGCCGCTGGGCCAGGCATAGAC**TGA**ACCAATAAAGAGATGTCACGTCACCTTC

FIGURE 2496

ATGTCTCTCGAAGACCCCTTTTTTGTAGTCCGAGGCGAGGTGCAGAAGGCGGTGAACACGGCCCGCGGGCTGTAC
CAGCGCTGGTGCGAGCTCCTGCAGGAAAGCGCGGCGGTCGGACGCGAGGAGCTGGACTGGACGACCAATGAGCTG
CGGAATGGCCTGCGCAGCATCGAGTGGGACCTCGAGGACCTGGAAGAGACCATCGATATAGTGGAAGCCAACCCA
GGCAAGTTCAAGCTCCCAGCCGGGGACCTGCAGGAGAGAAAGGTGTTCGTGGAGCGGATGCGAGAGGCAGTCCAG
GAAATGAAGGACCATATGGTCAGCCCAACAGCCGTAGCATTTTTGGAGAGGAATAACAGAGAGATACTCGCAGGC
AAGCCAGCTGCCCAGAAGTCACCCAGCGACCTGCTGGATGCCAGCGCAGTCTCGGCCACATCTCGCTACATCGAG
GAGCAGCAGGCCACACAGCAGCTGATCATGGATGAACAGGATCAACAGCTGGAGATGGTGTCTGGGAGCATCCAG
GTTCTGAAGCACATGTCCGGCCGCGTTGGAGAAGAGCTGGACGAGCAGGGCATCATGCTGGATGCCTTCGCCCAA
GAGATGGACCACACCCAGTCCCGCATGGACGGGGTCCTCAGGAAGTTGGCCAAAGTATCCCACATGACGAGTGAC
CGCCGACAGTGGTGTGCCATCGCCGTGCTAGTGGGGGTGCTTCTCCTCGTTCTCATCTTACTATTCTCTCTC**TGA**

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FIGURE 2497

GGTTTGTGTAGAGAGGCGTGAGCGAGCCCGTTGTCCGGAGTGCACCTGCTGCCTGTTCTGTCCCTCCCGGGAGCC
CCCGCCGCTGTCGCCGTCGAGTCGCC**ATG**GAAGTGCAGAAAGAGGCACAGCGCATCATGACCCTGTCGGTGTGGA
AGATGTATCACTCCCGCATGCAGCGCGGTGGCCTGCGGCTGCACCGGAGTCTGCAGCTGTCGCTGGTCATGCGCA
GCGCCCGGGAGCTCTACCTCTCGGCCAAGGTGGAGGCCCTCGAGCCCGAGGTGTCGTTGCCGGCCGCCCTCCCCT
CTGACCCTCGCCTGCACCCGCCCCGAGAAGCCGAGTCCACGGCCGAGACAGCGACCCCCGACGGTGAGCACCCGT
TTCCGGAGCCAATGGACACGCAGGAGGCGCCGACAGCCGAGGAGACCTCCGCCTGCTGTGCCCCGCGCCCCGCCA
AAGTCAGCCGCAAACGACGCAGCAGCAGCCTGAGCGACGGCGGGGACGCTGGACTGGTCCCGAGCAAGAAAGCCC
GTCTGGAAGAAAAGGAAGAAGAGGAGGGAGCGTCATCCGAAGTCGCCGATCGCCTGCAGCCCCCTCCGGCGCAAG
CGGAGGGCGCCTTTCCCAACCTGGCCCGCGTCCTGCAGAGGCGCTTCTCCGGCCTCCTGAACTGCAGCCCCGCGG
CCCCTCCGACGGCGCCGCCCGCGTGCGAGGCAAAGCCCGCTTGCCGCCCGGCGGACAGCATGCTCAACGTGCTCG
TGCGGGCCGTGGTGGCCTTC**TGA**GGACCCCGAGCGGCGCTGCCGGAGCCCAGAGCGCGCGTCGAACCGTCGGCCC
GAGGGCGCAGACCTGAGGCGAGGCCACCCCCCTCCATCCTGGGGGGAAGCGCCCGCGAAAACCGTGGAGAGAAGCC
GCCGCCCGGGCTGCTGAGAGGCCCGGAGAGGGACTCTGTCCCCGGGGAGCCATCGCCTTCAGTGTGCAGGGACGG
CACCGAGGAGTCTGAGCCGGGGGCGCGGGCGCCTTCCGCAGAGACCTGCGCCCACAGGTGCTGTCTTAGTGGACT
GGGACGTGAACCTTTCGCTCTCCTTCTGGACTGGGAGAAGGGAGGCTTGGGTGTTGTGTTTTTTGTTTTGTTTGT
TTGTTTGTTTTTAAAGATCTCCTCAGGGTCGGACTTCATTTTGTACTGTGGGCTGTGCTGGCCCTTTCAAGGTTT
TTCAAGAGTTGGTTTTGCGTTTCCAACCTCGGAGAATTCCAGGCACTCCCCTTCCCCCTCCGCTGACATACTTGT
ATAAGCGGTCATCGTTGCGTCATGGGGCAGGCGTGGGGAGCTTCCTGTCGCCTTGCGTGGGTGTGGGGCCTGGGA
GGAGGTCCTGGGGCGTGCACCCGCCCTGGGCAGTGGGGAGGAGAGTGGCCTGAGTTACTTCACCCCCGCGTGCTG
CTGGTTAATGTCCCGCGTCTCTGCACCTTCGGGTGGGAGCGGGGACTGATCTACTTTCACATTCTCAAGTTTTTC
TCATCTGCATTAGAGGTGCCCAGTAGGTTCCCAGGTTCCAGCGTGCCCCTCCCTCAGACACACGGACACAATCAG
CCGAGAAGTTCCTGGTCTGAATCACGAGAATGTGGAGGGGTGGGGGGTGTCAGTGGAAAGGCATAAGGCTGAGCT
GAGACCAGTTGCTGGTGAAACTGGGCCAATCTGGGGAGGGGAACATCCTTGCCAGGGAGTTTCTGAGGGTCTGCT
TTGTTTACCTTTCGTGCGGTGGATTCTTTTTAACTCCGTCTACCTGGCGTTTTGTTAGAAATGTCAGATAGGAAA
ATAAAAACCATTTGAGT

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FIGURE 2498

CGCGCAACTTGCGGCCAAACTTTCCCCCCGGCCTCCCGCGCTCGGATGGCGGCCCGCTGAGTTGGCCGCAGCCCC
CGGGCGAGCGGCGGCCAGGCCAGAGGACGCCCCCTGCGCGGCTCGGGCCGGGCCATGGCCCGCGCGCCCCCGCCG
GGGCCCCAGGGCGGCGGGACGCGAGTCCTCTGGGCCCCCGGCCCGCGCCTCTAGCGTGCCCCTCCCGGCCCCGGG
CCCGGCCCCGCGCACGCGTGGGAAAGTTGGCCTGGAACCGGCCCGACCAGTTCCGCCCGGGCGCGAGGACCGGCC
GCAGGAAGTTGCTGCAAAACTTTTTTGGGGGGTGCAGCCCGTGCCCCCCGCGCGCCGGGGCCGAATGCGCGCCGC
GTAGGGTCCCCCGGGCCGAGAGGGGTGCCCGGAGGGAAGAGCGCGGTGGGGGCGCCCCGGCCCCGCTGCCCTGGG
GCT**ATG**GCCATGGTGACCGGCGGCTGGGGCGGCCCCGGCGGCGACACGAACGGCGTGGACAAGGCGGGCGGCTAC
CCGCGCGCGGCCGAGGACGACTCGGCCTCGCCCCCCGGTGCCGCCAGCGACGCCGAGCCGGGCGACGAGGAGCGG
CCGGGGCTGCAGGTGGACTGCGTGGTGTGCGGGGACAAGTCGAGCGGCAAGCATTACGGTGTCTTCACCTGCGAG
GGCTGCAAGAGCTTTTTCAAGCGAAGCATCCGCCGCAACCTCAGCTACACCTGCCGGTCCAACCGTGACTGCCAG
ATCGACCAGCACCACCGGAACCAGTGCCAGTACTGCCGTCTCAAGAAGTGCTTCCGGGTGGGCATGAGGAAGGAG
GCGGTGCAGCGCGGCCGCATCCCGCACTCGCTGCCTGGTGCCGTGGCCGCCTCCTCGGGCAGCCCCCCGGGCTCG
GCGCTGGCGGCAGTGGCGAGCGGCGGAGACCTCTTCCCGGGGCAGCCGGTGTCCGAACTGATCGCGCAGCTGCTG
CGCGCTGAGCCCTACCCTGCGGCGGCCGGACGCTTCGGCGCAGGGGGCGGCGCGGCGGGCGCGGTGCTGGGCATC
GACAACGTGTGCGAGCTGGCGGCGCGGCTGCTCTTCAGCACCGTGGAGTGGGCGCGCCACGCGCCCTTCTTCCCC
GAGCTGCCGGTGGCCGACCAGGTGGCGCTGCTGCGCCTGAGCTGGAGCGAGCTCTTCGTGCTGAACGCGGCGCAG
GCGGCGCTGCCCCTGCACACGGCGCCGCTACTGGCCGCCGCCGGCCTCCACGCCGCGCCTATGGCCGCCGAGCGC
GCCGTGGCTTTCATGGACCAGGTGCGCGCCTTCCAGGAGCAGGTGGACAAGCTGGGCCGCCTGCAGGTCGACTCG
GCCGAGTATGGCTGCCTCAAGGCCATCGCGCTCTTCACGCCCGACGCCTGTGGCCTCTCAGACCCGGCCCACGTT
GAGAGCCTGCAGGAGAAGGCGCAGGTGGCCCTCACCGAGTATGTGCGGGCGCAGTACCCGTCCCAGCCCCAGCGC
TTCGGGCGCCTGCTGCTGCGGCTCCCCGCCCTGCGCGCGGTCCCTGCCTCCCTCATCTCCCAGCTGTTCTTCATG
CGCCTGGTGGGGAAGACGCCCATTGAGACACTGATCAGAGACATGCTGCTGTCGGGGAGTACCTTCAACTGGCCC
TACGGCTCGGGCCAG**TGA**CCATGACGGGGCCACGTGTGCTGTGGCCAGGCCTGCAGACAGACCTCAAGGGACAGG
GAATGCTGAGGCCTCGAGGGGCCTCCCGGGGCCCAGGACTCTGGCTTCTCTCCTCAGACTTCTATTTTTTAAAGA
CTGTGAAATGTTTGTCTTTTCTGTTTTTTAAATGATCATGAAACCAAAAAGAGACTGATCATCCAGGCCTCAGCC
TCATCCTCCCCAGGACCCCTGTCCAGGATGGAGGGTCCAATCCTAGGACAGCCTTGTTCCTCAGCACCCCTAGCA
TGAACTTGTGGGATGGTGGGGTTGGCTTCCCTGGCATGATGGACAAAGGCCTGGCGTCGGCCAGAGGGGCTGCTC
CAGTGGGCAGGGGTAGCTAGCGTGTGCCAGGCAGATCCTCTGGACACGTAACCTATGTCAGACACTACATGATGA
CTCAAGGCCAATAATAAAGACATTTCCTACCTG

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FIGURE 2499

GGGGCTGCGCCGTACAACTTCCGGCTGTAAAGATGGCGGCTTCCTAGTGAGTCGGCGGCTGATTTAGAAGGAGGT
TCAGGCTACGGTGAGCCGAAGCCACACAGGAGCC**ATG**GAAGTGGCAGAGCCCAGCAGCCCCACTGAAGAGGAGGA
GGAGGAAGAGGAGCACTCGGCAGAGCCTCGGCCCCGCACTCGCTCCAATCCTGAAGGGGCTGAGGACCGGGCAGT
AGGGGCACAGGCCAGCGTGGGCAGCCGCAGCGAGGGTGAGGGTGAGGCCGCCAGTGCTGATGATGGGAGCCTCAA
CACTTCAGGAGCCGGCCCTAAGTCCTGGCAGGTGCCCCCGCCAGCCCCTGAGGTCCAAATTCGGACACCAAGGGT
CAACTGTCCAGAGAAAGTGATTATCTGCCTGGACCTGTCAGAGGAAATGTCACTGCCAAAGCTGGAGTCGTTCAA
CGGCTCCAAAACCAACGCCCTCAATGTCTCCCAGAAGATGATTGAGATGTTCGTGCGGACAAAACACAAGATCGA
CAAAAGCCACGAGTTTGCACTGGTGGTGGTGAACGATGACACGGCCTGGCTGTCTGGCCTGACCTCCGACCCCCG
CGAGCTCTGTAGCTGCCTCTATGATCTGGAGACGGCCTCCTGTTCCACCTTCAATCTGGAAGGACTTTTCAGCCT
CATCCAGCAGAAAACTGAGCTTCCGGTCACAGAGAACGTGCAGACGATTCCCCCGCCATATGTGGTCCGCACCAT
CCTTGTCTACAGCCGTCCACCTTGCCAGCCCCAGTTCTCCTTGACGGAGCCCATGAAGAAAATGTTCCAGTGCCC
ATATTTCTTCTTTGACGTTGTTTACATCCACAATGGCACTGAGGAGAAGGAGGAGGAGATGAGTTGGAAGGATAT
GTTTGCCTTCATGGGCAGCCTGGATACCAAGGGTACCAGCTACAAGTATGAGGTGGCACTGGCTGGGCCAGCCCT
GGAGTTGCACAACTGCATGGCGAAACTGTTGGCCCACCCCCTGCAGCGGCCTTGCCAGAGCCATGCTTCCTACAG
CCTGCTGGAGGAGGAGGATGAAGCCATTGAGGTTGAGGCCACTGTC**TGA**ACCATCCCTGTACATCTGCACCTTCT
TGTGCAAGGAAGTCCTTGGCCTAAAGCCTTGGTTCTCAAACTGGGTTCCTTGGGACCTCCGGGGTGGGGGGGTTC
CAGGAGGCACGTAGGGTACCTTGCAGGGTCCTAGGAGGGAAACCCAGGATTCCAGGAGGGATCCCAGGAACTGTG
GGCACCCATTTTCTGTGTCTCCCAGCCCATTTCCACTCCTAGTTTGTCATGGATAATTTTTGTTCTTCCCTGTGT
GATTTTTGCCATCAAAATAAAAATTTGAGACTCGTTAA

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FIGURE 2500

ATGTGGACCCCCGTGCGGCGCGGGGCAGCCTGGCTGGGAACCCTGCTCGGCCCTGGAGAGGGGCCCCCCGAGCCG
AGGGGAGGAGCGGCGCATGCCCACAAGCCCCCCGCGGGAAGTAGGAAATCGACCGACCAGGCGGTGCGCTTCGGA
CCCAGCCAGGGCATGTGCTCGGAGGCCCGCCTGGCTCGCAGGGCAGTAGAGGAGCTGCTGCGCTGCGGCGCGGAC
CCTAATTTGGTGCTAGAGGACGGCGCAGCGGCTGTGCACTTGGCGGCCGGAGCCCGGCACCCGCGCGGCCTGCGT
TGCCTCGGGGCCCTACTGCGCCAAGGCGGGGACCCCAACGCTCGATCTGTCGAGGCACTGACGCCGCTGCATGTG
GCCGCCGCGTGGGGCTGCCGCCGCGGCCTGGAGCTGCTGCTGAGCCAAGGAGCGGACCCGGCGCTGCGCGACCAG
GACGGACTCCGGCCGCTGGACCTGGCCCTGCAGCAGGGACACCTGGAGTGCGCGCGAGTCCTGCAGGATCTCGAC
ACGCGGACCAGGACCCGGACCCGGATCGGGGCAGAGACTCAGGAGCCCGAGCCTGCACCTGGCACCCCAGGCCTC
TCTGGACCTACCGATGAGACGCTGGACTCCATAGCACTCCAAAAGCAGCCATGCAGAGGTGACAACAGGGACATT
GGCTTGGAGGCTGACCCAGGACCCCCCAGCCTCCCTGTTCCCCTTGAAACTGTGGACAAACATGGGAGCTCGGCG
TCCCCTCCAGGGCACTGGGATTACAGCTCAGACGCCTCTTTCGTCACAGCGGTTGAGGTCTCTGGAGCTGAGGAC
CCAGCCTCGGACACTCCCCCCTGGGCTGGGTCATTGCCACCGACCAGGCAGGGACTTCTGCATGTTGTCCATGCC
AACCAGAGGGTACCTAGGTCTCAGGGCACGGAGGCAGAACTGAATGCCCGTCTGCAGGCCCTGACTCTGACCCCA
CCAAATGCTGCTGGCTTCCAGTCCTCCCCTTCCTCCATGCCTCTCCTGGACAGGAGTCCAGCTCATAGCCCCCCA
CGGACACCAACCCCTGGAGCTTCTGACTGCCACTGCCTGTGGGAGCACCAGACATCCATTGATAGTGACATGGCC
ACGCTCTGGCTGACAGAGGATGAGGCAAGCTCTACAGGTGGCAGGGAACCTGTCGGCCCTTGCCGGCACCTGCCA
GTCTCCACTGTGTCTGACTTGGAGTTGCTGAAGGGACTCCGAGCACTTGGTGAGAATCCTCACCCCATCACACCC
TTCACCAGGCAGTTGTACCACCAGCAGCTGGAAGAAGCCCAGATTGCTCCTGGCCCAGAGTTTTCAGGGCACAGC
CTAGAACTGGCTGCAGCCCTGCGGACGGGCTGTATTCCAGATGTCCAGGCAGATGAAGACGCGCTGGCCCAGCAG
TTTGAGCAGCCAGATCCTGCCAGGAGGTGGCGGGAGGGGGTCGTGAAGTCTAGCTTCACCTATCTGCTGCTGGAC
CCCAGGGAGACTCAGGACCTGCCAGCCCGAGCCTTCTCACTGACCCCAGCTGAGCGCCTTCAGACTTTCATCCGT
GCCATCTTCTACGTGGGCAAAGGGACGAGGGCCCGGCCATATGTCCACCTCTGGGAGGCCCTTGGTCACCATGGG
CGGTCAAGAAAACAGCCCCACCAGGCCTGCCCCAAGGTGCGTCAGATCTTGGACATCTGGGCCAGTGGTTGCGGT
GTTGTGTCCCTACATTGCTTCCAGCACGTGGTCGCTGTGGAGGCTTATACACGGGAGGCGTGTATTGTGGAAGCC
CTAGGGATCCAGACGCTCACCAACCAGAAGCAAGGGCACTGCTATGGAGTGGTGGCAGGCTGGCCACCTGCTCGT
CGCCGGCGCTTGGGGGTGCACCTGCTGCACCGTGCCCTCCTTGTCTTCCTGGCTGAAGGCGAGCGACAGCTTCAT
CCCCAGGACATCCAGGCCCGGGGC**TGA**

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FIGURE 2501

AAAGGGCCGGCTGTTTCGGCGGCCGCGGGATGCCCCTGCGCTGACCGCCAGGGGCAGGTGCCCGCCCGCGTAGAC
GCACCCGGCCTGACCCCGCGCCACCATGTAAACGGCGCCAGCAGGCGGACGCTGGCTTCTCCGCCTGGGACCCCT
CCGCCCCGACCCGGGCCCCGCGGCCCTCGATGAGGACACACC**ATG**CTGACCGGGGTGACCGACGGTATCTTCTGT
TGCCTGCTGGGCACGCCCCCCAACGCCGTGGGGCCACTGGAGAGCGTCGAGTCCAGCGATGGCTACACCTTTGTA
GAGGTCAAGCCCGGCCGCGTGCTGCGGGTGAAGCATGCAGGACCCGCCCCAGCCGCTGCCCCACCTCCACCATCA
TCCGCATCCTCGGATGCAGCCCAGGGGGACCTCTCCGGCTTGGTCCGCTGTCAGCGCCGGATCACCGTGTACCGC
AATGGGCGGTTGCTGGTGGAAAACCTGGGCCGAGCCCCTCGAGCCGACCTCCTACACGGGCAGAATGGCTCTGGG
GAGCCGCCGGCCGCCCTGGAGGTGGAGCTGGCAGATCCGGCGGGCAGCGATGGCCGCTTGGCCCCCGGCAGCGCA
GGCAGCGGCAGCGGCAGTGGCAGTGGTGGGCGGCGGCGGCGAGCCAGGCGCCCCAAGAGGACCATCCATATTGAC
TGTGAGAAGCGCATCACTAGCTGCAAAGGCGCCCAGGCCGACGTGGTGCTCTTTTTCATCCATGGTGTCGGCGGT
TCCCTGGCCATCTGGAAGGAGCAGCTGGACTTCTTTGTGCGCCTAGGCTATGAGGTGGTGGCTCCTGACCTGGCC
GGCCACGGGGCCAGCTCTGCGCCCCAGGTGGCCGCAGCCTACACCTTCTATGCGCTGGCTGAGGACATGCGAGCA
ATCTTCAAGCGCTATGCCAAGAAGCGAAATGTGCTCATTGGCCATTCCTACGGTGTCTCTTTCTGCACATTCCTG
GCACATGAGTACCCAGACCTAGTGCACAAGGTGATCATGATCAATGGCGGGGGCCCTACGGCGCTGGAGCCCAGC
TTCTGCTCAATCTTCAACATGCCCACCTGCGTCCTGCACTGCTTGTCGCCCTGCCTGGCCTGGAGCTTCCTCAAG
GCCGGCTTCGCCCGCCAAGGAGCCAAGGAGAAGCAGCTGTTAAAGGAGGGCAACGCTTTCAACGTGTCATCCTTC
GTACTCCGGGCCATGATGAGCGGCCAGTACTGGCCCGAGGGCGACGAGGTCTACCACGCCGAGCTCACCGTGCCC
GTCCTGCTTGTCCACGGCATGCACGATAAGTTTGTGCCGGTGGAGGAAGACCAGCGCATGGCCGAGATCCTGCTC
CTGGCATTCCTGAAGCTCATCGACGAGGGCAGCCACATGGTGATGCTGGAATGCCCTGAGACGGTCAACACGCTG
CTCCACGAATTCCTGCTCTGGGAGCCCGAGCCCTCGCCCAAGGCTCTACCGGAGCCACTGCCGGCGCCTCCAGAA
GACAAGAAG**TAG**CCGCTGGGCCGGCGGGGCATCGCTTGGTGAGCACAGCCGCAGCAGGAGGAGGCCCGAGCCTGC
GCCAGGTCTGCAGCGCAGACCACCTGGGCGGGCCGTTCGCTCCGGTGGGCGGGGCCAGGTCAGGGAGACGCCCCC
AGGCTGCCTGGGCGGGGCGTGGCATCCGAGGGAGCCCAGCGGACATTCCGCTCTCCGCTTCCGTCCCGCGGGGCC
CATCGGCGTTTTGGGGCCGCAGCCGGGACCCTCACGGAAGATGACCTTGTACAGAAGCTCTCCCTCACCTTCCCC
CCAACGCCACGGCCAAGGCAGGCCCCCCACCCCGCTGTCTTCCGTGTCAGCCGTGCTTGATCCTGGGACCCACGA
GCCCCACAGGGACCCTCGAGGCCCCATCCCGTTATCCGAGACCCTTCCTACCCCCCATTCCTCGGCGCTGGGAGC
TATTTTTGCCCAAGGGGGGGGGATGGGGGGGCTGGCGCCACCGAACCTGCACATCTCAACTTGTAACTCAATAAA
CAGAAGTGACAATCGG

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FIGURE 2502

GCGGCTCTGGGCTCCGGAATCGCCCGCAGCCGGTACTGCGGGACCCACTGCGGAT**ATG**GCTGTCTTGGCTGGATC
CCTGTTGGGCCCCACGAGTAGGTCGGCAGCGTTGCTGGGTGGCAGGTGGCTCCAGCCCCGGGCCTGGCTGGGGTT
CCCAGACGCCTGGGGCCTCCCCACCCCGCAGCAGGCCCGGGGCAAGGCTCGCGGGAATGAGTATCAGCCGAGCAA
CATCAAACGCAAGAACAAGCACGGCTGGGTCCGGCGCCTGAGCACGCCGGCCGGCGTGCAGGTCATCCTTCGCCG
AATGCTCAAGGGCCGCAAGTCGCTGAGCCAT**TGA**GGATCGCGACGCAGTCGGCGGGACCCTCATGGAAGCATCGC
CCTCGCCTCGGACCTTGCCTGGCGCTATTTTTGCAGGGAGCTGGGGAGCAGGAACGCCTCGGACCTGAGTGCTCT
CCATATTGTGGGGTTGAAGTCTGGATGGGAGCTTGCCAAGTCCCTTTTTAGGCTTTTTAATTAGGAAGCATTTCG
AACCTGCGCAACAGACCAAAGAACAGTACAAAGAACATCCGTGTACCCAGTACCCTGACTACCGACTACCTACAA
CCCGTCCCTGCCCCATCCTGAGTTCTTTTGAAGCTGATCTCAGGCATCGGATTATTTCTTCTGTAAATATTTCAG
AATGTATCTCTCCAAGATGAGAGCTCATTAAAAGACAATTACAAAGCTTATCACATCCAAAAGAATTATCAATAA
TTTTGAAATATTATTAAACGTGTAATAAATGTTCAAAGTTCCACTTGC

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FIGURE 2503

GGGAGGTGGTGGCGCCATCAGTGTGGGCTGTGCCGTGGCTGGAAGTTACTGTGAGGCGGCGGCTAAGAAGGCGGC
TCTGGTGGCGGCGGTGGAGGCTGAGGCGGCGGCCGAGGCGGCGACGGAGGAAACAGAAG**ATG**GCAGATTTTTTGA
AAGGACTGCCTGTCTACAACAAAAGCAATTTTAGTCGATTTCACGCGGACTCCGTGTGCAAAGCCTCGAACCGAC
GGCCCTCAGTCTACCTGCCTACCCGCGAGTACCCGTCTGAACAGATCATCGTGACAGAAAAGACAAACATCCTCC
TGCGCTACCTGCATCAGCAATGGGACAAAAAGAACGCTGCCAAGAAGAGAGACCAGGAGCAAGTGGAGCTGGAAG
GCGAGAGCTCCGCACCTCCCCGCAAGGTGGCGCGGACCGACAGCCCAGACATGCACGAGGACACT**TAA**GACTCTC
AACTCCACAGGCGCCTCCTGCCAGGTCTGCTCCTCGGTCGCCCACCCGCCTGCCCGCCATGTGTAAGCACCCCGC
CCGCCCGCCTCCCTGCCGGCCCATCCACACCCTGCGTCCACACCACTTCCAACCTCATAGGAGCCGATGTATTTA
TTTTCCTTGAGTTTTTATTTATGCTGTAACCTGTATCAAGCGTTGGTTAAAGGGGACATCAGACCCAGTAGTGTG
ATGTTGGTAGATGCTTTTTAAAAAAAACAACATTGTCCCCCCGACCCCCGCCTTCCATCGGGCCAGTTCCCCGAT
TCCTGCCCCCAGTTCTCCAGAGAACCAGAGTGTGTCTGTGAGAGTCTCTAGCGGGGGCTTTACTGTGGCCGGGCG
ACAGGGGCGGGCCCGGGGTGGCCTGACCTACCAGGACAGCCGAGTGGCCTTCTCCCCCCCAACACCGGTCCAGGC
CATTGAGACTCGGTCTTGTCCCACGCTTCGCCCGGAACTTTCCCATGCCCAGGCCTCACTCAGCGTGCACGCACG
TTGGGGAGAAGTCGGCCCTTGGGATCTTTCTCTTGAGTCATTTTATTTTTATCATGGACTAGTGCGTGCTCCGTG
TCCACCCCAATAAAAGGGTCTTTCCTA

FIGURE 2504A

GTGAAAACCAGCCTCTAGATGACATCTGTGATTACTTTGGTGTGAAAATTGCC**ATG**TACTTCGCCTGGCTGGGCT
TCTACACGTCGGCTATGGTATACCCAGCTGTCTTCGGGTCTGTCCTGTACACATTCACAGAGGCTGATCAGACAA
GCCGGGATGTTTCCTGCGTGGTCTTTGCCCTCTTCAACGTGATCTGGTCGACGCTGTTCCTAGAGGAATGGAAGC
GGAGAGGGGCTGAGCTGGCATATAAGTGGGGGACGCTGGACTCACCTGGGGAAGCCGTGGAGGAGCCACGCCCCC
AGTTCAGGGGCGTGCGACGTATCAGCCCCATCACGCGGGCCGAGGAGTTCTACTACCCGCCCTGGAAGCGGCTGC
TCTTCCAGCTGCTTGTGAGCCTCCCCCTGTGCCTGGCGTGCCTCGTCTGTGTCTTCTTGCTCATGCTTGGCTGCT
TCCAGCTGCAGGAGCTGGTGCTGAGCGTGAAGGGGTTGCCCCGTCTCGCCCGATTCCTGCCTAAGGTCATGCTGG
CCCTGCTTGTCAGTGTGAGTGCCGAGGGCTACAAGAAGCTAGCCATCTGGCTCAATGACATGGAAAATTACCGGC
TGGAGAGCGCCTATGAGAAGCACCTCATCATCAAAGTTGTCCTGTTCCAGTTTGTCAACTCGTACCTGAGCCTCT
TCTACATCGGTTTCTACCTCAAGGACATGGAGCGCTTGAAAGAGCTCCTGCTCGTCCTGTCCCTGTCCCAGAGCC
TCGAGCGGCAGCTGCAGGCGGTGCTGGTCCCGCTCGCGGCCCTGCGGTTCCGCCTGCTCCTCCTCTCCCTCCGGG
GCCTCCTGCTCGCGGCCCGGGCCAAAATGCTGGCCACGCTGCTGATCACCCGCCAGTTCCTCCAGAACGTGCGCG
AGGTCCTGCAGCCGCACCTGTACCGGCGCCTGGGCCGCGGCGAGCTGGGCCTGCGGGCCGTCTGGGAGCTGGCCC
GAGCCCTGCTTGGCCTCCTGAGCCTCCGGCGCCCTGCGCCCCGCCGCCTCGAACCCCAGGCGGATGAGGGCGGGG
GCGGCGGCAGCGGGGGCGGGGGCCGCAGGTGCCTCAGCGGGGGCTGCGGGGCGCCGGAGGAGGAGGAGGAGGCGG
CGCTGGTGGAGCGGCGGCGGGCGGGGGAAGGCGGGGAGGAGGGGGACGGGCCTCCAGGGGGCAAGGAGGAGGACG
AGGACGACGAGGAGGAGGAGGACGAGGAGGAAGAGGAGGACGAGGAGGAGGGCGAGGAAGGGGGCCTCCTGGACT
GCGGGCTCCGGCTGAAGAAGGTCAGCTTCGCTGAGCGCGGCGCGGGGCGGCGTCGGCCCGGCCCAAGCCCGGAGG
CCCTCCTGGAGGAAGGGAGCCCCACTATGGTGGAGAAGGGGCTGGAGCCGGGAGTGTTCACCCTGGCCGAGGAGG
ACGACGAGGCGGAGGGGGCTCCCGGCAGCCCTGAACGGGAGCCCCCGGCCATCTTGTTCCGCCGGGCCGGGGGCG
AGGGCCGAGACCAGGGGCCCGACGGGGGCCCGGACCCGGAACCCGGCTCCAACAGCGATTCGACCCGTAGGCAGA
GACGGCAGAACCGGTCGTCTTGGATTGACCCGCCGGAGGAGGAACACTCGCCCCAGCTCACCCAGGCAGAGCTGG
AGAGCTGTATGAAGAAGTACGAGGACACGTTCCAGGACTACCAGGAGATGTTCGTGCAGTTCGGCTACGTTGTGC
TCTTCTCGTCCGCCTTCCCCCTGGCGGCGCTGTGCGCCCTGGTCAACAACCTCATTGAGATCCGCAGCGACGCCT
TCAAGCTGTGCACCGGGCTGCAGCGGCCCTTCGGCCAGCGCGTGGAAAGCATCGGCCAGTGGCAGAAGGTGATGG
AGGCCATGGGTGTCCTAGCGATTGTGGTCAACTGCTACTTAATCGGCCAGTGCGGGCAGCTGCAGCGCCTCTTCC
CCTGGCTGAGCCCGGAGGCAGCCATCGTGTCGGTGGTAGTGCTCGAGCACTTCGCTCTGCTCCTCAAGTACCTCA
TCCACGTGGCCATCCCCGATATCCCGGGCTGGGTGGCCGAGGAAATGGCCAAGCTGGAGTACCAGCGCCGCGAGG
CCTTTAAGAGACACGAGCGCCAGGCCCAGCATCGCTACCAGCAGCAGCAGCGCAGGCGGCGGGAGGAGGAGGAGC
GACAGCGCCATGCAGAGCACCATGCCCGGCGGGAGCATGATTCTGGTGGCCGAGAGGAGGCGAGGGCCGAGGGCT
CTGGGCTGGACCCTGCCACCTCCTCCGAGAAGGCCTCTGCCAAGGCCAAGGGCAGCACTGCGGGTGGCCACGGGC
CTGAACGGCCCAAGCGCCCAGGGTCCCTGCTGGCACCCAACAACGTCATGAAGTTGAAGCAGATCATCCCACTGC
AGGGCAAATTCCTCTCGTCAGGGGCCACATCCTCACTGGCTGCTGCAGGGGCCGGAGCCACCACCCGGCCTCCCC
CTGCCCAGTCACCCACAGGCAGCGACACCCGCCTGCCTGCCTTCCTCAGCTTCAAGTTCCTCAAGTCACCCGAGA
CCCGGCGGGACTCTGAGCGCAGCCACTCACCGCCCAAAGCCTTCCATGCTGGCAAGCTCTTCCCCTTTGGTGGCA
CCCGGGCTGAGCCTGGGTCCAACGGGGCGGGCGGGCAGGCCCGGCCAGATGGGACCCCCAGCAGTGGCAGCAGCC
GGGTTCAGAGGAGTGGGCCGGTGGACGAGGCCCTGGCTGAGGAGCTGGAAGCCCCCCGGCCCGAAGAGGAAGGCT
CAGGTCACAAGCTT**TAA**CTCGGGGGTGGGGACGCCGGGCCGGCTTTGGGGATAGGGTAGGGTGGCCAGGCCTGGG
GAGAGGGGCTGAAGGGGACAGGGGAAGCCCGGTCTTAGGTCCTGGTGGGGACCTGGGTCAGTGGTACGTGGAGCC
TCTCAGTTAAAGCCTGCTTAGTATCTCCAGGGCCTTTGTTAGCCTGGAGCCCCGTGCCTGACCCTCCCCAGGGAG
GGATGCCAAAGCCCCTTGTCCCAGGACTGCACCCAGGGACCCCCACCATGCTCCGGTGCCAGGAGAGATGAGGGA
GGCCTGTTTCCCAACCAGCCCACCCTTCTCCTGCTCCAGCTCACTCTTGGGGGGGACTTGACCCCCCAGGCCTCT
ATGCAAATCCACACCCTGCAGCCCAGCTGTTCAGGAAGGCCTTCCTCGAGGTGGGGCTGGGGCTGCCCACCCAGG
GAGCTCCCACATGTGCTGAGCAGAGGTGCAGGCCTCACCCCTACCCTCCCACCCCCACCACCTCCCCTGCCCCAA
TCCCAGCCTGGGCTCCAGCAACCCCATTCCCAGGGAGCCCAACAGGTGGCAGCTGCAGCACAAGGGCCATAGGTC
AGAAGCCAGAGGGACTTCCTCAAACTGTCCTCCCCCTGTGACCGGCAGGGCCGTGCCCAGAGGCAGGGTATGCAC
CGGAAGCCGCCCAGGGGGCCGCCCCACCTCAGTCTCTGATCAGAAGCAATAAGGCCTTTATGTGCCTGGATGCCC
GGGAGGGAGCGCGGGCAGGGTTGCCAGCCCGGCGGGGTCCGGCGGGGGCGGCATCCCCCCGGAACGGCCCCTCTC

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FIGURE 2504B

GCCTCCGCAGGGACAGCGCTGGCCCCCGTGGGCGCCCCTGCCCTCCGCACCCGCCGCAGCCGGAGCCCCGCGCCG
CCGCCGCCAATGCCGCTGCCCCGGCCCCCGACACCGCCCGCAGGCTGCTGGCAGTGGGACGGGCCCTGGGGCTGC
GGGGGCGAGGGTGCCGCCCCCCGCCAGGCCCTGGCCGCTGCCGAGTGCCCACCCTGTGCCATGGCCGGGCCCCCA
CCCGCCCCCCAGCCCCTGCCGGGAGACGCCAGCTTTTACAGCCTCCCGCCCCCACCGCTACCGCCCACCTCGGAT
CCCCTCGAGACCCCAGCGCCCTCCCCTAGCCCCAGCCCCAGCCCCCAGGCCGTGTGCTGGCCCAGCGGCTGGCAT
TAGCTCTACCCGCCCTGCCTTCTCTTCTCATATGCAATATCAGTCATTCACAGGGGCGGCCGGTCTCCAAAATGC
AAAATGCGCTTCAGCCCCCGAGGGCCCCCAGTATTGGTCGGTGCCCCCCATCTGCCGTTTTCCTTTCCAAACGAA
AGGAAACCCACAAATCCAACAGAAAACACACACACACACACACACACACACACACACAGAACAGGCGATTATTTA
TTTGTTTTTAATTTATTTTGTCATATTTTTGTAAAACGGCAGAAATGCAATAAAAACTATATTTCAACAGTG

FIGURE 2505

GCCCAGACTTGAAGCCACACAGGCAGGTCGGGCAGGCGGGTCGCAGGTTGTAAATCC**ATG**TGGCGGGGGCTTTGG
ACCCTGGCGGCCCAAGCGGCACGTGGGCCTCGCAGATTGTGCACGCGCCGGAGCAGCGGCGCACCAGCCCCCGGC
TCCGGCGCCACCATCTTCGCGCTAAGCTCTGGCCAAGGCCGCTGCGGCATCGCAGTGATCCGGACCAGCGGCCCC
GCCAGCGGCCACGCCCTCCGAATTCTCACAGCACCCCGAGACCTGCCCCTTGCTCGCCACGCCAGCCTGCGCCTG
CTCAGCGATCCCCGCTCCGGGGAGCCTCTGGACCGCGCACTGGTGCTCTGGTTCCCAGGTCCCCAGAGTTTCACC
GGTGAGGACTGCGTGGAGTTCCACGTGCATGGAGGCCCGGCAGTGGTGAGCGGCGTCCTGCAGGCCTTGGGCAGC
GTGCCAGGGCTTCGACCGGCGGAGGCAGGCGAGTTCACCAGACGGGCGTTCGCCAATGGGAAGCTGAACCTGACC
GAAGTGGAGGGGCTGGCGGACCTTATCCACGCGGAAACAGAGGCGCAGCGGCGGCAGGCCCTCAGGCAGCTGGAC
GGAGAGCTGGGCCACCTCTGCCGTGGCTGGGCCGAGACCCTCACCAAAGCTCTGGCCCACGTGGAGGCCTATATC
GATTTCGGCGAGGATGACAACCTGGAGGAGGGGGTCCTGGAGCAAGGTGGGTCTACCTGGTGGTGGGGGAGGAAG
ACACCTCATATCAGCCCTCAAAGGCTCCCCTCACTGTCTCTCTCTGCCTGCCTTCTCTCACCCACAGCCGACATC
GAAGTACGGGCACTGCAGGTGGCCCTGGGTGCACATCTACGAGATGCCAGGCGCGGGCAGAGGCTCCGCTCAGGG
GTGCACGTAGTGGTCACTGGACCCCCCAATGCGGGCAAGAGCAGCCTAGTGAACCTGCTCAGTCGGAAGCCTGTG
TCCATCGTGTCCCCGGAGCCAGGGACCACCCGTGACGTGCTGGAGACCCCAGTCGACCTGGCCGGATTTCCTGTG
CTGCTGAGCGACACGGCTGGGTTGCGGGAGGGCGTGGGGCCCGTGGAGCAGGAGGGCGTGCGGCGCGCCCGGGAG
AGGCTAGAGCAGGCTGACCTCATTCTGGCCATGCTGGATGCTTCTGACCTGGCCTCTCCCTCCAGTTGCAACTTC
CTGGCCACCGTCGTAGCCTCTGTGGGAGCCCAGAGCCCCAGTGACAGCAGCCAGCGCCTCCTCCTGGTGCTGAAC
AAGTCGGACCTGCTGTCCCCGGAGGGCCCAGGTCCCGGTCCTGACCTGCCCCCGCACCTGCTGCTGTCCTGTCTG
ACGGGAGAGGGGCTGGACGGCCTCCTGGAGGCGCTGAGGAAGGAGCTAGCTGCAGTGTGTGGGGACCCGTCCACA
GATCCCCCGCTGCTGACCCGAGCAAGGCACCAGCACCACCTCCAGGGTTGCCTGGATGCCCTCGGCCACTACAAG
CAGTCAAAAGACCTGGCCCTGGCGGCAGAGGCGCTGCGGGTGGCCCGGGGTCACCTGACCCGGCTCACAGGTGGA
GGGGGTACCGAGGAGATCCTGGACATCATCTTCCAGGACTTCTGTGTGGGCAAG**TGA**CGGGATCCAGGGAAGTCG
CACCCAAGCTGCGTGGAGACCCAGGAGCCTCGGGGGATCTGGAAACAGTTTAGGCCAATTGGGATTCTCATTCGC
CTGGGAAAGAACTTGATTCTCAAATAGTGAAGCAACACAGCTGAGAGGTAGTGAGATCCCTGCAGGGACTCCCTG
GAGATTCAGGCCCTGGAATGGGGCTGAATGGAGGTCCCGTTCGACCCTTGATGCTGGGGCATCCGGGTTGGGATG
GAGATAGGAGGATCTCAGTATATTTGTTTCGTAGTTTTTTATTTATTTTGCAAATACCAAAGGAATGTAAAAAAA
ACTCAGGTGATCTAGAAGTGTTTATTTTCTTCCCTTCCCTTCCCTTCCCTTTCCTTTTCCCTTTCCCTTTCCCCT
TCCCCTTCCCCTTCCCCTTCCCCTACCCTTCCCTCCTCTGTCTATTGCCCAGGCTGGAGTGCAGTGGTGCGACCT
TGGCTCACTGCAACCTCCATCTCCGGGGCTCAAGCGCTTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAG
GCATGTGCCAGCATGCCCGGCTAATTTTTTTCTTTTTTTGAGACAGAGTCTCGCTCTGTCACCCAGGCTGGAGTT
CAGTGGTGCGACCTCGGCTTACTGCAACCTCCACCTCCCGGGTTCAAGTGATTCTCCTGCCTCAGCCTCTTGAGT
AGCTGGGACTACAGGCGCACACCACCACGCCAGGCTAATTTTTGTATTTTTAGTAGAGACAAGGTTTCACCATGT
TGACCAGGCTGGTCTTGAACTCCTTGACCTCAGGTAATCTGCCTACCTTGGCCTCCCAAAGTGCTGGGATCACAG
GCGTGAGCTATCACACCTGGCCCCAGAAGTGTTTCAACATGGAAATTTTCCTTAGCCCTTCTGTGGTTGTCATGG
CTTAATGTGTGTCTTTCCAGAACTTTGAATGTTTGCATACTTGTGGATGTACCTTTCAAATATGTTTGTCTTGTG
TATCATATATAAATGGTATTGTGTT

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FIGURE 2506

GGTGAGCAGGGACGGTGCACCGGACGGCGGGATCGAGCAA**ATG**GGTCTGGCCATGGAGCACGGAGGGTCCTACGC
TCGGGCGGGGGGCAGCTCTCGGGGCTGCTGGTATTACCTGCGCTACTTCTTCCTCTTCGTCTCCCTCATCCAATT
CCTCATCATCCTGGGGCTCGTGCTCTTCATGGTCTATGGCAACGTGCACGTGAGCACAGAGTCCAACCTGCAGGC
CACCGAGCGCCGAGCCGAGGGCCTATACAGTCAGCTCCTAGGGCTCACGGCCTCCCAGTCCAACTTGACCAAGGA
GCTCAACTTCACCACCCGCGCCAAGGATGCCATCATGCAGATGTGGCTGAATGCTCGCCGCGACCTGGACCGCAT
CAATGCCAGCTTCCGCCAGTGCCAGGGTGACCGGGTCATCTACACGAACAATCAGAGGTACATGGCTGCCATCAT
CTTGAGTGAGAAGCAATGCAGAGATCAATTCAAGGACATGAACAAGAGCTGCGATGCCTTGCTCTTCATGCTGAA
TCAGAAGGTGAAGACGCTGGAGGTGGAGATAGCCAAGGAGAAGACCATTTGCACTAAGGATAAGGAAAGCGTGCT
GCTGAACAAACGCGTGGCGGAGGAACAGCTGGTTGAATGCGTGAAAACCCGGGAGCTGCAGCACCAAGAGCGCCA
GCTGGCCAAGGAGCAACTGCAAAAGGTGCAAGCCCTCTGCCTGCCCCTGGACAAGGACAAGTTTGAGATGGACCT
TCGTAACCTGTGGAGGGACTCCATTATCCCACGCAGCCTGGACAACCTGGGTTACAACCTCTACCATCCCCTGGG
CTCGGAATTGGCCTCCATCCGCAGAGCCTGCGACCACATGCCCAGCCTCATGAGCTCCAAGGTGGAGGAGCTGGC
CCGGAGCCTCCGGGCGGATATCGAACGCGTGGCCCGCGAGAACTCAGACCTCCAACGCCAGAAGCTGGAAGCCCA
GCAGGGCCTGCGGGCCAGTCAGGAGGCGAAACAGAAGGTGGAGAAGGAGGCTCAGGCCCGGGAGGCCAAGCTCCA
AGCTGAATGCTCCCGGCAGACCCAGCTAGCGCTGGAGGAGAAGGCGGTGCTGCGGAAGGAACGAGACAACCTGGC
CAAGGAGCTGGAAGAGAAGAAGAGGGAGGCGGAGCAGCTCAGGATGGAGCTGGCCATCAGAAACTCAGCCCTGGA
CACCTGCATCAAGACCAAGTCGCAGCCGATGATGCCAGTGTCAAGGCCCATGGGCCCTGTCCCCAACCCCCAGCC
CATCGACCCAGCTAGCCTGGAGGAGTTCAAGAGGAAGATCCTGGAGTCCCAGAGGCCCCCTGCAGGCATCCCTGT
AGCCCCATCCAGTGGC**TGA**GGAGGCTCCAGGCCTGAGGACCAAGGGATGGCCCGACTCGGCGGTTTGCGGAGGAT
GCAGGGATATGCTCACAGCGCCCGACACAACCCCCTCCCGCCGCCCCCAACCACCCAGGGCCACCATCAGACAAC
TCCCTGCATGCAAACCCCTAGTACCCTCTCACACCCGCACCCGCGCCTCACGATCCCTCACCCAGAGCACACGGC
CGCGGAGATGACGTCACGCAAGCAACGGCGCTGACGTCACATATCACCGTGGTGATGGCGTCACGTGGCCATGTA
GACGTCACGAAGAGATATAGCGATGGCGTCGTGCAGATGCAGCACGTCGCACACAGACATGGGGAACTTGGCATG
ACGTCACACCGAGATGCAGCAACGACGTCACGGGCCATGTCGACGTCACACATATTAATGTCACACAGACGCGGC
GATGGCATCACACAGACGGTGATGATGTCACACACAGACACAGTGACAACACACACCATGACAACGACACCTATA
GATATGGCACCAACATCACATGCACGCATGCCCTTTCACACACACTTTCTACCCAATTCTCACCTAGTGTCACGT
TCCCCCGACCCTGGCACACGGGCCAAGGTACCCACAGGATCCCATCCCCTCCCGCACAGCCCTGGGCCCCAGCAC
CTCCCCTCCTCCAGCCTCCTGGCCTCCCAGCCACTTCCTCACCCCCAGTGCCTGGACCCGGAGGTGAGAACAGGA
AGCCATTCACCTCCGCTCCTTGAGCGTGAGTGTTTCCAGGACCCCCTCGGGGCCCTGAGCCGGGGGTGAGGGTCA
CCTGTTGTCGGGAGGGGAGCCACTCCTTCTCCCCCAACTCCCAGCCCTGCCTGTGGCCCGTTGAAATGTTGGTGG
CACTTAATAAATATTAGTAAATCCTT

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FIGURE 2507

ATGGCATCTACTTCGTATGACTATTGCAGAGTGCCCATGGAAGACGGGGATAAGCGCTGTAAGCTTCTGCTGGGG
ATAGGAATTCTGGTGCTCCTGATCATCGTGATTCTGGGGGTGCCCTTGATTATCTTCACCATCAAGGCCAACAGC
GAGGCCTGCCGGGACGGCCTTCGGGCAGTGATGGAGTGTCGCAATGTCACCCATCTCCTGCAACAAGAGCTGACC
GAGGCCCAGAAGGGCTTTCAGGATGTGGAGGCCCAGGCCGCCACCTGCAACCACACTGTGATGGCCCTAATGGCT
TCCCTGGATGCAGAGAAGGCCCAAGGACAAAAGAAAGTGGAGGAGCTTGAGGGAGAGATCACTACATTAAACCAT
AAGCTTCAGGACGCGTCTGCAGAGGTGGAGCGACTGAGAAGAGAAAACCAGGTCTTAAGCGTGAGAATCGCGGAC
AAGAAGTACTACCCCAGCTCCCAGGACTCCAGCTCCGCTGCGGCGCCCCAGCTGCTGATTGTGCTGCTGGGCCTC
AGCGCTCTGCTGCAG**TGA**GATCCCAGGAAGCTGGCACATCTTGGAAGGTCCGTCCTGCTCGGCTTTTCGCTTGAA
CATTCCCTTGATCTCATCAGTTCTGAGCGGGTCATGGGGCAACACGGTTAGCGGGGAGAGCACGGGGTAGCCGGA
GAAGGGCCTCTGGAGCAGGTCTGGAGGGGCCATGGGGAAGTCCTGGGTGTGGGGACACAGTCGGGTTGACCCAGG
GCTGTCTCCCTCCAGAGCCTCCCTCCGGACAATGAGTCCCCCCTCTTGTCTCCCACCCTGAGATTGGGCATGGGG
TGCGGTGTGGGGGGCATGTGCTGCCTGTTGTTATGGGTTTTTTTTGCGGGGGGGGTTGCTTTTTTCTGGGGTCTT
TGAGCTCCAAAAAATAAACACTTCCTTTGAGGGAGAGC

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FIGURE 2508

TTCCGGCGGAAGTTGCTGGGCGCGGAAAGCCGGCAAGACCTTTTTTTCCGCCATCATCGCTCACGCGCGCAACCC
TGGCGACGCGTGGTGGCGAGGCTCCGCCTCCCCACGCCATTGGCCAGCAGCTCCTCGGGCACGCGTATACTGCGC
TTCCGGGCAATCTCCGCCCCCCCCCCCCGCATGGCCTTCTGGGAGTTGTAGTTCGGTCGCGAGCGCTGCCGTCGG
GAGGCGCTCCGAGGTTCGAGGCTGTGCCCCGCGACCCCGCCTTCGGCGCTCGGCTCGCAGG**ATG**GATCCCGTACC
CGGGACAGACTCGGCGCCGCTGGCTGGCCTGGCCTGGTCGTCGGCCTCTGCACCCCCGCCGCGGGGGTTCAGCGC
GATCTCCTGCACCGTCGAGGGGGCACCCGCCAGCTTTGGCAAGAGCTTCGCGCAGAAATCTGGCTACTTCCTGTG
CCTTAGTTCTCTGGGCAGCCTAGAGAACCCGCAGGAGAACGTGGTGGCCGATATCCAGATCGTGGTGGACAAGAG
CCCCCTGCCGCTGGGCTTCTCCCCCGTCTGCGACCCCATGGATTCCAAGGCCTCTGTGTCCAAGAAGAAACGCAT
GTGTGTGAAGCTGTTGCCCCTGGGAGCCACGGACACGGCTGTGTTTGATGTCCGGCTGAGTGGGAAGACCAAGAC
AGTGCCTGGATACCTTCGAATAGGGGACATGGGCGGCTTTGCCATCTGGTGCAAGAAGGCCAAGGCCCCGAGGCC
AGTGCCCAAGCCCCGAGGTCTCAGCCGGGACATGCAGGGCCTCTCTCTGGATGCAGCCAGCCAGCCAAGTAAGGG
CGGCCTCCTGGAGCGGACAGCGTCAAGGCTGGGCTCTCGGGCATCCACTCTGCGGAGGAATGACTCCATCTACGA
GGCCTCCAGCCTCTATGGCATCTCAGCCATGGATGGGGTTCCCTTCACACTCCACCCACGATTTGAGGGCAAGAG
CTGCAGCCCCCTGGCCTTCTCTGCTTTTGGGGACCTGACCATCAAGTCTCTGGCGGACATTGAGGAGGAGTATAA
CTACGGCTTCGTGGTGGAGAAGACCGCGGCTGCCCGCCTGCCCCCCAGCGTCTCA**TAG**TCCCTCACCCTTCCGCG
GAAAGAGCCCCCTTACTCCACCTCCCCGCCAGCCTGGGGCCACCCCCCCTCACTGCATCCTGGGGCCACCCCCAC
TCACTGCATCCTGGGAACCTTCGCCCTGCAAGGCGTTTGCTATCTTCAGCCACTGGGCGGAGCTGCAGCCCTGGA
GGAGGGGGCGGGTCGAGGCTGCGTGGTGATGGGGTCTCCGCCCCCACGCCCTGCCGGGCAGGGCTGGAGCTGGAC
AGAAGCCAGTGCCTTTAAGTCATTTGTGTCAAAACCCTCTGGGGTCCGGAGGCTGTGCGGGTGTCCTCCTGGCAA
TAAACACTACCCGGTTCTCGCC

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FIGURE 2509

GCCGGAGTTCGTGGGGCTGTGGCTGGGCCTGGCCAAGGCGGGC**ATG**GAGGCCGCGCTGCTCAACGTGAACCTGCG
GCGCGAGCCCCTGGCCTTCTGCCTGGGCACCTCGGGCGCTAAGGCCCTGATCTTTGGAGGAGAAATGGTGGCGGC
GGTGGCCGAAGTGAGCGGGCATCTGGGGAAAAGTTTGATCAAGTTCTGCTCTGGAGACTTGGGGCCCGAGGGCAT
CTTGCCGGACACCCACCTCCTGGACCCGCTGCTGAAGGAGGCCTCTACTGCCCCCTTGGCACAGATCCCCAGCAA
GGGCATGGACGATCGTCTTTTCTACATCTACACGTCGGGGACCACCGGGCTGCCCAAGGCTGCCATTGTCGTGCA
CAGCAGGTACTACCGCATGGCAGCCTTCGGCCACCACGCCTACCGCATGCAGGCGGCTGACGTGCTCTATGACTG
CCTGCCCCTGTACCACTCGGCAGGAAACATCATCGGCGTGGGGCAGTGTCTCATCTATGGGCTGACAGTCGTCCT
CCGCAAGAAATTCTCGGCCAGCCGCTTCTGGGACGACTGCATCAAGTACAACTGTACCTGGCACGGCCCATCCTG
GACTGAGAAACTGGAACCTCAGAGGAACCCGTGCCTCTCTGCTGCCTTGGTGCCCCTGTGTCTGCCTCCTCTCCC
TGCTTTTCAGCCTCTGTCTCCTTCCATCCCTGTCCCTGTCTGGCCT**TAA**CTCTTCCCTCTTTTTCTTTTCTTTCT
TTCTTTCTTTTTTTTTTAAGATAGAGTCTCACTCTGCTGCCCGGGCTAGAGTGCAGTGGTGGGATCTCGGCTCAC
TGCAACCTCTGCCTCCTGGGGTTCAAGTGATCCTCCCACCTCAGCCTCCTGAGTAGCTGGGATTACAGGCACCCG
CCACCACGTCCAGCTAATTTTTATATTTTTAGTAGAGACGGGGTTTCACCATGTTGGTCAGGTTGGTCTTGAACT
CCTGACCTCAGGTGATCCGCTGGCCTCGGCCTCCCAGAGTGCTGGGATTATAGGCGTGAGCCTCTGGCCCGGCCT
TTCCTTTTTCCTCTCCTCTCCTGCCGAGAGTGGAACACGCGTGTCCTGGGAGCTGCATCTTGTGTAGGGTCCAGC
TGCTTTTGGGGACTGCAGGAATCATCTCCCCTGGGCCCTGGACTCGGACTGGGGCCTCCCCACCTCCCTCTCGGC
TGTGCCTTACGGAGCCCCGATCCAGGCCTCCTGTGGCTGTTGGGTTCCAGATGCTGCAGCTCCATGTGACTTCCA
AGCAGGCCCTCCGCCCTCCCTGCTGAATGGAGGAGCCGGGGGTCCCCCAGGCCAACTGGAAAATCTCCCAGGCTA
GGCCAATTGCCTTTTGCACTTCCCCGTTCCTGTCACATTTCCCCAGCCCCACCTTCCCCTCCTGATGCCCTGAAA
GCTTCCGGAATTGACTGTGACCACTTGGATGTCACCACTGTCAGCCCCTGCCTTGATGTCCCCATTTAGCCATCT
CCATGGAGCTCCTGCTGGAGGGCCCTGAACCCTGCACTGCGTGGCTGCCCAGCCAGCTGCCTCCTGTCCTGGGAG
GAGGCCTCCTGGGTGTCCTCATCTGGTGTGTCTACTGGAGGGTCCCACAGGAGAGGCAGCAGAGGGGTCAGGGGA
GGTCTCCTGCCGGGGGTTGGCCTCTCAAGCCTCAGGGGTTCTAGCCTGTTGAATATACCCCACCTGGTGGTGGCC
CCTCCGATGTCCCCACTGATGGCTCTGACACCGTGTTGGTGGCGATGTCCCAGACAATCCCACCAGGACGGCCCA
GACATCCCTACTGGCTTCGCTGGTGGCTCATCTCGAACATCCACGCCAGCCTTTCTGGGGCCGGCCACCCAGGCC
GCCTGTCCGTCTGTCCTCCCTCCAGCAGCACCCCCTGGCCCCTGGAGTGGTGGGGCCATGGCAAGAGACACCGTG
GCGTCTCATGTGAACTTTCCTGGGCACTGTGGTTTTATTTCCTAATTGATTTAAGAAATAAACCTGAAGACCGTC

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FIGURE 2510

CCGCCGCCGCCCTCGCC**ATG**GCCGCGCCGGCCCCGGGCCTCATCTCGGTGTTCTCGAGTTCCCAGGAGCTGGGTG
CGGCGCTAGCGCAGCTGGTGGCCCAGCGCGCAGCATGCTGCCTGGCAGGGGCCCGCGCCCGTTTCGCGCTCGGCC
TGTCGGGCGGGAGCCTCGTCTCGATGCTAGCCCGCGAGCTACCCGCCGCCGTCGCCCCTGCCGGGCCAGCTAGCT
TAGCGCGCTGGACGCTGGGCTTCTGCGACGAGCGCCTCGTGCCCTTCGATCACGCCGAGAGCACGTACGGCCTCT
ACCGGACGCATCTTCTCTCCAGACTGCCGATCCCAGAAAGCCAGGTGATCACCATTAACCCCGAGCTGCCTGTGG
AGGAGGCGGCTGAGGACTACGCCAAGAAGCTGAGACAGGCATTCCAAGGGGACTCCATCCCGGTTTTCGACCTGC
TGATCCTGGGGGTGGGCCCCGATGGTCACACCTGCTCACTCTTCCCAGACCACCCCCTCCTACAGGAGCGGGAGA
AGATTGTGGCTCCCATCAGTGACTCCCCGAAGCCACCGCCACAGCGTGTGACCCTCACACTACCTGTCCTGAATG
CAGCACGAACTGTCATCTTTGTGGCAACTGGAGAAGGCAAGGCAGCTGTTCTGAAGCGCATTTTGGAGGACCAGG
AGGAAAACCCGCTGCCCGCCGCCCTGGTCCAGCCCCACACCGGGAAACTGTGCTGGTTCTTGGACGAGGCGGCCG
CCCGCCTCCTGACCGTGCCCTTCGAGAAGCATTCCACTTTG**TAG**CTGGCCAGAGGGACGCCGCAGCTGGGACCAG
GCACGCGGCCCATGGGGCTGGGCCCCTGCTGGCCGCCACTCTCCGGGCTCTCCTTTCAAAAAGCCACGTCGTGCT
GCTGCTGGAAGCCAACAGCCTCCGGCCAGCAGCCCTACCCGGGGCTCAACACACAGGCTGTGGCTCTGGACATCC
GGATATTAAAAGGAGCGTTGCTGG

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FIGURE 2511

CCCCTTTAAGGCGCGGCCAGAGTCCTCCCGCAGAAAAACGACTTAAAGGAGACGCGTGGCGCG**ATG**GCGGCGGCC
CCACGCGCGGGCCGGCGGCGCGGGCAGCCGCTCCTGGCGCTGCTGCTTCTGCTGCTGGCGCCACTGCCGCCGGGG
GCCCCGCCGGGCGCCGACGCCTACTTCCCCGAGGAGCGCTGGAGCCCGGAGTCGCCCCTGCAGGCGCCGCGCGTG
CTCATCGCGCTGTTGGCGCGAAACGCGGCCCACGCGTTGCCCACCACGCTGGGCGCACTCGAGCGGCTGCGGCAC
CCGCGGGAGCGCACGGCGCTATGGGTGGCTACGGACCACAACATGGATAACACGTCAACTGTGCTGCGGGAGTGG
CTGGTGGCCGTGAAGAGTTTGTACCATTCCGTGGAGTGGCGGCCAGCAGAGGAGCCCAGGTCCTACCCGGACGAG
GAAGGCCCGAAACACTGGTCTGACTCACGCTACGAGCATGTCATGAAGTTGCGCCAGGCAGCCCTGAAATCAGCT
CGAGACATGTGGGCTGATTACATCCTGTTTGTAGATGCGGACAACCTGATCCTCAACCCTGACACACTGAGCCTG
CTCATCGCTGAGAACAAGACGGTGGTCGCCCCCATGCTGGATTCCCGGGCTGCGTACTCCAACTTCTGGTGTGGA
ATGACTTCCCAGGGCTACTACAAGCGCACACCTGCCTACATCCCTATCCGCAAGCGAGACCGCCGGGGCTGCTTT
GCAGTTCCCATGGTGCACTCGACCTTCCTGATCGACCTGCGGAAGGCGGCGTCCAGGAACCTGGCCTTCTACCCA
CCTCACCCTGACTACACCTGGTCCTTTGACGACATCATCGTCTTTGCCTTCTCCTGCAAGCAGGCAGAGGTTCAG
ATGTATGTGTGCAACAAGGAGGAGTACGGATTCTTGCCAGTGCCATTGCGCGCCCACAGCACCCTCCAGGATGAG
GCCGAGAGCTTCATGCATGTGCAGCTGGAGGTCATGGTGAAGCACCCGCCCGCAGAGCCCTCCCGCTTCATCTCG
GCTCCCACCAAGACACCGGACAAGATGGGCTTCGACGAGGTCTTCATGATCAACCTGAGGCGGCGGCAGGACCGG
CGGGAGCGCATGCTGCGGGCGCTGCAGGCACAGGAGATCGAGTGCCGGCTGGTGGAGGCCGTGGACGGCAAAGCC
ATGAACACCAGCCAGGTGGAGGCGCTGGGGATCCAGATGCTGCCTGGCTACCGGGACCCCTACCACGGCCGGCCC
CTCACCAAGGGTGAGCTGGGCTGCTTCCTGAGCCACTACAACATCTGGAAGGAGGTGGTGGACCGGGGGCTGCAG
AAATCGCTTGTGTTTGAGGATGACCTGCGTTTTGAGATCTTCTTCAAGAGACGTCTGATGAACCTCATGCGGGAT
GTGGAGCGGGAGGGCCTGGACTGGGACCTCATCTATGTGGGCCGGAAGCGGATGCAGGTGGAGCACCCCGAGAAG
GCTGTGCCTCGCGTGAGGAACCTGGTGGAGGCCGACTATTCCTACTGGACAGTGCTGCCCGGGATGAACTCTGAG
GGG**TAG**CAGCCAGAAAGCCAAAGCAGCCATCGGTGGCCCAGGCTCCACGTGCTTACTGAGGACATCAGGTCCACC
TCTGGACCCCTTGGCAGGCCACAGAGGGCTCTCGTGTGGGGTGGTGTCCAGCCA

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FIGURE 2512A

AGACCATCAGTAATGTGCTCCTCCAGTATGCAGACATCATCTCCAAGGACTTTGCCTCCTACTGCTCCAAGGAGA
AGGAGAAAGTGCCCTGCATTCTC**ATG**AATAACACTCAACAGCTACGAGTTCAGCTGGAGAAGATGTTCGAAGCCA
TGGGAGGAAAGGAGCTGGATGCTGAAGCCAGTGACATCCTGAAGGAGCTTCAGGTGAAACTCAATAACGTCTTGG
ATGAGCTCAGCCGGGTGTTTGCTACCAGCTTCCAGCCGCACATTGAAGAGTGTGTCAAACAGATGGGTGACATCC
TTAGCCAGGTTAAGGGCACAGGCAATGTGCCAGCCAGTGCCTGCAGCAGCGTGGCCCAGGACGCGGACAATGTGT
TGCAGCCCATCATGGACCTGCTGGACAGCAACCTGACCCTCTTTGCCAAAATCTGTGAGAAGACTGTGCTGAAGC
GAGTGCTGAAGGAGCTGTGGAAGCTGGTTATGAACACCATGGAGAAAACCATCGTCCTGCCGCCCCTCACTGACC
AGACGGTGAGAGGGAACCTCTTGAGAAAACATGGCAAGGGATTAGAAAAGGGCAGGGTGAAATTGCCAAGCCACT
CAGACGGAACCCAGATGATCTTCAATGCAGCCAAGGAGCTGGGTCAGCTGTCCAAACTCAAGGATCACATGGTAC
GAGAAGAAGCCAAGAGCTTGACCCCAAAGCAGTGCGCGGTTGTTGAGTTGGCCCTGGACACCATCAAGCAATATT
TCCACGCGGGTGGCGTGGGCCTCAAGAAGACCTTCCTGGAGAAGAGCCCGGACCTGCAATCCTTGCGCTATGCCC
TGTCGCTCTACACGCAGGCCACCGACCTGCTAATCAAGACCTTTGTACAGACGCAATCGGCCCAGGGCTTGGGTG
TAGAAGACCCTGTGGGTGAAGTCTCTGTCCATGTTGAGCTGTTCACTCATCCAGGAACTGGGGAACACAAGGTCA
CAGTGAAAGTGGTGGCTGCCAATGACCTCAAGTGGCAGACTTCTGGCATCTTCCGGCCGTTCATCGAGGTCAACA
TCATTGGGCCCCAGCTCAGCGACAAGAAACGCAAGTTTGCGACCAAATCCAAGAACAATAGCTGGGCTCCCAAGT
ACAATGAGAGCTTCCAGTTCACGCTGAGCGCCGACGCGGGTCCCGAGTGCTATGAGCTGCAGGTGTGCGTCAAGG
ACTACTGCTTCGCGCGCGAGGACCGCACGGTGGGGCTGGCCGTGCTGCAGCTGCGTGAGCTGGCCCAGCGCGGGA
GCGCCGCCTGCTGGCTGCCGCTCGGCCGCCGCATCCACATGGACGACACGGGCCTCACGGTGCTGCGAATCCTCT
CGCAGCGCAGCAACGACGAGGTGGCCAAGGAGTTCGTGAAGCTCAAGTCGGACACGCGCTCCGCCGAGGAGGGCG
GTGCCGCGCCTGCGCCT**TAG**CGCGGGCGGTCGGCCGAGCGGCACTGCGCCTGCGCGGAGGGCGCTGGGCGGGGAG
GGACGGGGCTTGCGCCTTGGTGGGACCTCCCCAGGGGCGGGGCTCGGGGGGCTCCACGCCAAGGGTGGGCTGCGC
CTACGCCCTTGACTCAGCTTTCCCTTTTGGGGAATTAGGAATGGAGGATGCCCCGCCCTCTCGGGAGGCCACGCC
CAAGGGCGCGACGAAGGAAGGAGCCACATCCCCAACTTGAGGCCACGCCCCCAGCACCTAGGGGGCATTTTGAGC
TGGGATGGGGGAAACCTCGTCCCTATGGAGGAGGCCACATCCCGGGGCTCTGGTACCGGGAGGCACCACCTCATG
TCCCCTGGAAAAGCCATAAGATGGGACCCAGACCCCTGGGACCCCAGACCAATTGCCAAGTATGGAAATCTCAGC
TCCCTCGAGGGGGGGCCCTGGGCAAGGGGTAGGGCTCTCTGGAGCGCCCCTCTAGGTGGCCTGGGGACTGGAGGG
ACCAGGATGCTGGTTGGAGGGCCCCGGAATACCGGAGTCCCTTTAGATATTTGTGCAAAAAATAAATGGGGGGAG
GGGGGAGGATGGGATTTCAAAAGCACATGCGCCCTTGGGCGCCCAAACCCTGGGGGCCGAGGGGACGGCTCTGGT
TCCCCACGCTGCCCCTACTTCCCTTTGGGAGTTTGCCTCTCCCTCTCCCCCAACAAACCCAGTCCTCATATCATA
GAGTTCAACACACCCATTTGACAGATGGCAAAACTGAGGCTTAAAGAGCTGCTTGAGACTTGGCCAAGGTTCCAG
GTGCCATACCCTCTGTGCCCCTCCCTTAGGCCTGTGTGCCCCATGGAAGGGTGGGCTGAGATCGGGATGACCTGA
CACAGCTCCCTATTGCTGCTAATTCCCCCTCGGCCTCCTCCAAGGGGTGGGAATTCCAGGCCAAGACCCCTACTT
CGCCTTTCCTTCTCCGGCTGCCAAGCAGGACCTTTGCCCTCAGCCCTTTCTCCTGGGATCTCCATGGGGGATGCC
ATGAGGGCCTCCCACCACAAAAGAGAATTTGGGATCCCCTGGTCCCAGGTTTCTCCATCCCTTCTTCCTTTTCCA
GAATTTTCCAAATAGGAAAGAACAGAAGGAGACCAGAAACTCTAGGGGGGAGAAAGAGAATGAGAGAAAGAGAAT
GAGAGAGAGAGAAACACAAACACAGTGACACAGTGAGAGCTTAGTCTCCAAGAGCCTATTCATTGATTCAAACAC
CCAAGCCACAGGATACCTCAGATGGCCCTCTTGCCAGCTGGAAGCTCTTTCTCCAATGAGCAAAGTTACAGTGAC
CTGGCTGGAGTTACCTGGTGCACATAGGACCTTAGGGGAAAGTTCAGCGTGGACTACACTTGCTCTGGGATCTGC
TTTTCCACATGTGTGTATGGCACGCCTTTTTCTGCTGGATTGGGAAGGACAAGATTTTGCTGTGCTAGGGAGAAA
TGAAAACGGGGTGAGCTGAGTAGCTGGGTTTCTGGAGGATAGAACATCAGATGGGGAGGCTTTCCGAGGTGAAGA
ATGAGAGGGAACCACTTACTAGAGAGAAAAGAGCTCCAGGCCTGGGGAACAGCACGTGCGAAGGCCAGGAGAGAA
GAACTGTTGAAACAACGAGAAGGGTGGCACGGCTGGAGCTGAGCCAGCAAGGGGGATCGTGAGGAGCCTTGGGGT
TGGGGAGATCTGCAGAAGCATCAGACCAGGCAGGGCCTCGTACGCAGTCCTGAGGAGTTTTACTTTTATTCTAAG
ACAGTTGGGGAGCTCCAGGAGCTGTTTTAAGTTGGGGAGAGACTGGATTCCAGCCTGCAAAAGCTGTTTTGTGAA
GACTAAAACCAGTGAGGAGAGGTGGAGGTGCTTTGGGGACACTGAAATGGATTCTTGGAAAGATTCTGAAGGCTG
TGTTGAAAAGACACCTATAGCTGTGGGGACATGACTATAATCCCAGCATTTGGGGAGACCGAGGCTGGCAGATCA
CTTAAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGCGAAACCCCATCTCTGCTAAAAATACAAAAATTAGC
TGGGTGCAGTGGTGCATGCCTGTAGTCCCAGCTACTCAGGAGACTGAGGCGGGAGAATTGTTTGAACCCTGGAGG

FIGURE 2512B

CAGAGGTTGTAGTGAGTCGTGATCACACAACTGCACTCCAGCCTGGGCAACAGAACAATACTCCATTCCCTCCCC
TCTACCCCACC

FIGURE 2513

AAG**ATG**GCGGCGGTGGCTGGATCTGGGGCTGCCGCGGCTCCGAGCTCACTGCTCCTCGTGGTGGGCAGCGAGTTC
GGGAGCCCGGGGCTCCTCACCTACGTCCTGGAGGAGCTCGAAAGAGGCATCCGGTCTTGGGATGTCGATCCTGGC
GTCTGCAACCTTGATGAACAGCTCAAGGTCTTTGTGTCCCGACACTCTGCCACCTTCTCCAGCATTGTGAAAGGC
CAGCGGAGCCTGCACCACCGTGGAGACAACCTGGAGACCCTGGTCCTCCTGAACCCATCAGACAAGTCCCTGTAT
GATGAGCTCCGGAACCTTCTGTTGGACCCTGCCTCTCACAAGCTACTGGTGTTGGCTGGGCCCTGCCTGGAGGAG
ACGGGGGAGCTGCTGCTACAGACAGGGGGCTTCTCGCCTCACCACTTCCTCCAGGTCCTGAAGGACAGAGAGATC
CGGGACATCCTGGCCACCACGCCCCCACCTGTGCAGCCGCCCATACTCACCATCACCTGCCCCACCTTCGGTGAC
TGGGCTCAGCTGGCACCCGCTGTGCCTGGCCTTCAGGGGGCGCTCCGGCTCCAGCTGCGGCTGAACCCCCCGGCG
CAGCTGCCCAACTCTGAGGGCCTGTGCGAATTCCTGGAGTACGTGGCTGAGTCTCTGGAGCCACCGTCCCCCTTC
GAGCTGCTGGAGCCCCCGACCTCCGGGGGCTTCCTCAGGCTGGGCCGGCCCTGCTGCTACATCTTCCCTGGAGGC
CTCGGGGATGCCGCCTTCTTCGCCGTCAATGGCTTCACTGTGCTGGTCAACGGTGGCTCAAACCCCAAGTCCAGT
TTCTGGAAGCTGGTGCGGCACCTGGACCGCGTGGATGCCGTGCTGGTGACCCACCCTGGCGCCGACAGCCTCCCC
GGCCTCAACAGCCTGCTGCGGCGCAAACTGGCGGAGCGCTCCGAGGTGGCTGCTGGTGGGGGCTCCTGGGACGAC
AGGCTGCGCAGGCTCATCTCCCCCAACCTGGGGGTCGTGTTCTTCAACGCCTGCGAGGCCGCGTCGCGGCTGGCG
CGCGGCGAGGATGAGGCGGAGCTGGCGCTGAGCCTCCTGGCGCAGCTGGGCATCACGCCTCTGCCACTCAGCCGC
GGCCCCGTGCCAGCCAAACCCACCGTGCTCTTCGAGAAGATGGGCGTGGGCCGGCTGGACATGTATGTGCTGCAC
CCGCCCTCCGCCGGCGCCGAGCGCACGCTGGCCTCTGTGTGCGCCCTGCTGGTGTGGCACCCCGCCGGCCCCGGC
GAGAAGGTGGTGCGCGTGCTGTTCCCCGGTTGCACCCCGCCCGCCTGCCTCCTGGACGGCCTGGTCCGCCTGCAG
CACTTGAGGTTCCTGCGAGAGCCCGTGGTGACGCCCCAGGACCTGGAGGGGCCGGGGCGAGCCGAGAGCAAAGAG
AGCGTGGGCTCCCGGGACAGCTCGAAGAGAGAGGGCCTCCTGGCCACCCACCCTAGACCTGGCCAGGAGCGCCCT
GGGGTGGCCCGCAAGGAGCCAGCACGGGCTGAGGCCCCACGCAAGACTGAGAAAGAAGCCAAGACCCCCCGGGAG
TTGAAGAAAGACCCCAAACCGAGTGTCTCCCGGACCCAGCCGCGGGAGGTGCGCCGGGCAGCCTCTTCTGTGCCC
AACCTCAAGAAGACGAATGCCCAGGCGGCACCCAAGCCCCGCAAAGCGCCCAGCACGTCCCACTCTGGCTTCCCG
CCGGTGGCAAATGGACCCCGCAGCCCGCCCAGCCTCCGATGTGGAGAAGCCAGCCCCCCCAGTGCAGCCTGCGGC
TCTCCGGCCTCCCAGCTGGTGGCCACGCCCAGCCTGGAGCTGGGGCCGATCCCAGCCGGGGAGGAGAAGGCACTG
GAGCTGCCTTTGGCCGCCAGCTCAATCCCAAGGCCACGCACACCCTCCCCTGAGTCCCACCGGAGCCCCGCAGAG
GGCAGCGAGCGGCTGTCGCTGAGCCCACTGCGGGGCGGGGAGGCCGGGCCAGACGCCTCACCCACAGTGACCACA
CCCACGGTGACCACGCCCTCACTACCCGCAGAGGTGGGCTCCCCGCACTCGACCGAGGTGGACGAGTCCCTGTCG
GTGTCCTTTGAGCAGGTGCTGCCGCCATCCGCCCCCACCAGTGAGGCTGGGCTGAGCCTCCCGCTGCGTGGCCCC
CGGGCGCGGCGCTCGGCTTCCCCACACGATGTGGACCTGTGCCTGGTGTCACCCTGTGAATTTGAGCATCGCAAG
GCGGTGCCAATGGCACCGGCACCTGCGTCCCCCGGCAGCTCGAATGACAGCAGTGCCCGGTCACAGGAACGGGCA
GGTGGGCTGGGGGCCGAGGAGACGCCACCCACATCGGTCAGCGAGTCCCTGCCCACCCTGTCTGACTCGGATCCC
GTGCCCCTGGCCCCCGGTGCGGCAGACTCAGACGAAGACACAGAGGGCTTTGGAGTCCCTCGCCACGACCCTTTG
CCTGACCCCCTCAAGGTCCCCCCACCACTGCCTGACCCATCCAGCATCTGCATGGTGGACCCCGAGATGCTGCCC
CCCAAGACAGCACGGCAAACGGAGAACGTCAGCCGCACCCGGAAGCCCCTGGCCCGCCCCAACTCACGCGCTGCC
GCCCCCAAAGCCACTCCAGTGGCTGCTGCCAAAACCAAGGGGCTTGCTGGTGGGGACCGTGCCAGCCGACCACTC
AGTGCCCGGAGTGAGCCCAGTGAGAAGGGAGGCCGGGCACCCCTGTCCAGAAAGTCCTCAACCCCCAAGACTGCC
ACTCGAGGCCCGTCGGGGTCAGCCAGCAGCCGGCCCGGGGTGTCAGCCACCCCACCCAAGTCCCCGGTCTACCTG
GACCTGGCCTACCTGCCCAGCGGGAGCAGCGCCCACCTGGTGGATGAGGAGTTCTTCCAGCGCGTGCGCGCGCTC
TGCTACGTCATCAGTGGCCAGGACCAGCGCAAGGAGGAAGGCATGCGGGCCGTCCTGGACGCGCTACTGGCCAGC
AAGCAGCATTGGGACCGTGACCTGCAGGTGACCCTGATCCCCACTTTCGACTCGGTGGCCATGCATACGTGGTAC
GCAGAGACGCACGCCCGGCACCAGGCGCTGGGCATCACGGTGTTGGGCAGCAACAGCATGGTGTCCATGCAGGAT
GACGCCTTCCCGGCCTGCAAGGTGGAGTTC**TAG**CCCCATCGCCGACACGCCCCCCACTCAGCCCAGCCCGCCTGT
CCCTAGATTCAGCCACATCAGAAATAAACTGTGACTACACTTG

FIGURE 2514

CGCGCCGCAGCCGCGGAGGGAGGGGCGGGGCGGGCTCCGGTGTCAGCGACCAAGCCGCAGGTGGCGGCGAGCGCG
GGGCTCGGCCCGAGCTCAGGAGATGGGGAAACTGAGGCACGGAGCTGGACAGTGACTCAGACACCAGACAGGCAC
TGGACGGGGCCTGCAGGGGTCTCCACAGAGACCATCAGG**ATG**TCGTATTTTGGGGAGCATTTTTGGGGCGAGAAA
AATCATGGCTTTGAGGTCCTGTACCACAGCGTGAAGCAGGGGCCCATCTCCACCAAGGAGCTGGCGGACTTCATC
CGGGAGAGGGCCACCATCGAGGAGACCTACTCGAAGGCGATGGCGAAACTCTCCAAGCTGGCCAGCAACGGGACC
CCCATGGGGACCTTCGCCCCGCTCTGGGAGGTCTTCCGCGTCTCCTCGGACAAGCTGGCGCTGTGCCACCTGGAA
CTGACACGGAAGTTACAGGATCTCATCAAGGACGTTCTCCGCTACGGCGAGGAACAGCTCAAGACCCACAAGAAG
TGCAAGGAGGAAGTGGTGAGCACCTTGGATGCTGTGCAGGTACTCTCGGGCGTCAGCCAGCTCCTGCCCAAGTCC
CGCGAGAACTACCTGAACCGTTGCATGGACCAGGAGCGGCTGCGGAGGGAGAGTACCAGCCAGAAGGAGATGGAC
AAGGCGGAGACTAAAACCAAGAAGGCGGCAGAGAGCCTGCGGCGCTCAGTGGAAAAATACAACTCAGCCCGAGCT
GACTTTGAGCAGAAGATGCTGGACTCAGCCCTGCGCTTCCAAGCCATGGAGGAGACACACCTGAGGCACATGAAG
GCACTGCTGGGCTCATATGCTCACTCGGTGGAGGACACGCACGTGCAGATTGGGCAGGTGCATGAGGAATTTAAG
CAGAACATCGAGAACGTCAGCGTGGAGATGCTACTCAGGAAGTTTGCAGAGAGTAAGGGCACAGGCCGGGAGAAG
CCTGGACCTCTGGACTTCGAGGCATACAGTGCGGCTGCCCTGCAGGAAGCGATGAAACGTTTGCGGGGAGCCAAG
GCCTTTCGCCTTCCAGGACTAAGCCGGCGGGAGCGGGAGCCAGAGCCACCTGCAGCTGTAGATTTCCTGGAGCCC
GATTCAGGGACATGTCCAGAGGTGGATGAAGAAGGTTTCACTGTCCGGCCTGATGTGACCCAGAACAGCACGGCC
GAGCCCTCCCGTTTCTCGTCCAGCGACTCCGACTTCGACGATGAAGAGCCCCGCAAGTTCTATGTGCACATCAAG
CCTGCCCCGGCCCGGGCTCCAGCCTGCAGCCCCGAGGCAGCAGCGGCACAGCTCAGGGCCACCGCGGGCAGCCTC
ATCCTTCCTCCTGGCCCAGGGGGCACCATGAAACGCCATTCTTCACGGGACGCTGCTGGGAAACCCCAGAGACCT
CGGTCTGCCCCCAGAACCAGCAGCTGTGCAGAGAGATTGCAGTCAGAGGAGCAGGTGTCCAAGAACCTCTTTGGG
CCGCCCCTGGAGTCAGCCTTTGACCACGAAGATTTTACAGGCTCTAGCAGCCTGGGCTTCACCTCCAGCCCCTCC
CCTTTCTCCTCCTCGTCGCCCGAAAACGTGGAGGATTCCGGCCTGGACTCTCCGTCCCACGCGGCACCTGGCCCC
TCCCCAGATTCCTGGGTCCCCCGCCCAGGCACCCCGCAGAGCCCGCCCAGCTGTAGGGCGCCACCCCCAGAGGCC
AGGGGTATCCGGGCACCGCCTCTGCCAGACTCGCCGCAGCCCCTCGCCTCGTCTCCAGGCCCCTGGGGGCTGGAG
GCCTTGGCCGGAGGAGACCTGATGCCTGCACCTGCTGACCCCACAGCCAGGGAGGGCCTGGCAGCCCCACCCAGG
AGACTTCGCTCTAGGAAGGTGTCCTGCCCTCTCACACGTAGCAATGGGGACCTGTCTCGTTCCCTGAGCCCCTCC
CCACTGGGCTCTTCAGCCGCCAGCACTGCCTTGGAACGGCCCAGCTTCTTATCCCAGACAGGACACGGAGTCTCC
CGGGGTCCGAGCCCTGTGGTCCTGGGCTCCCAGGATGCCCTGCCCATAGCCACAGCCTTCACAGAGTATGTCCAC
GCCTACTTCCGTGGCCACAGCCCCAGCTGCCTGGCTCGAGTAACTGGGGAGCTGACCATGACCTTCCCTGCTGGC
ATCGTGCGTGTGTTCAGCGGGACCCCACCACCACCTGTCCTCAGCTTCCGGCTTGTACACACAACCGCTATTGAG
CACTTCCAGCCCAACGCCGATCTGCTGTTCAGTGACCCCTCCCAGAGTGACCCTGAGACCAAAGACTTCTGGCTC
AACATGGCAGCTCTGACCGAAGCCCTGCAGCGCCAGGCAGAGCAGAACCCCACTGCCTCCTACTACAACGTGGTG
CTGCTGCGATACCAGTTCTCCCGCCCGGGTCCCCAGTCTGTGCCTCTGCAGCTCAGTGCCCACTGGCAGTGTGGA
GCCACCCTCACCCAGGTCTCAGTGGAGTACGGCTACCGGCCCGGTGCCACGGCTGTGCCCACACCACTCACGAAC
GTCCAGATCCTGCTGCCTGTGGGGGAGCCTGTGACCAACGTCCGCTTGCAGCCGGCTGCCACCTGGAACCTGGAG
GAGAAGCGGCTCACTTGGAGGCTTCCAGATGTGTCCGAGGCAGGCGGTTCTGGCCGCCTCTCTGCCAGCTGGGAG
CCGCTCTCAGGGCCCAGCACACCCAGCCCCGTGGCTGCACAGTTCACCAGCGAGGGGACCACTCTGTCGGGCGTG
GACTTGGAACTGGTGGGCAGCGGTTACCGCATGTCGCTGGTGAAGAGGAGGTTTGCCACAGGGATGTACCTGGTG
AGCTGC**TGA**ACCCGCAAATGCTGCTGCCCCAGCTCTACACTGCGCCCTGGTGCTGGCTGACCACCCCCTGCCCTC
CTGCCGGACCCTGGGGCCTCCCACCCCAGCCTCCCTGAGGCCCATACTCCACGGAGAGGAGCCCCATGCCCAGCC
TGGCTGAGCCCGAGATTCGCTCCTCCCCCTCATGCCAACCCCACACAGGTCCCGGCCTTTTAATGTTCTTTGAAT
AAACACTTTATTTTCTAATAAAATAAAAAAGGAAACCT

FIGURE 2515A

GTGGGACTTTCCTCTCGCTGCCTCCCGGCTCTGCCCGCCCTTCGAAAGTCCAGGGTCCCTGCCCGCTAGAGGCAA
GTTGCACTC**ATG**GCACCTCCAAGTGAAGAGACGCCCCTGATCCCTCAGCGTTCATGCAGCCTCTTGTCCACGGAG
GCTGGTGCCCTGCATGTGCTGCTGCCCGCTCGGGGCCCCGGGCCCCCCCAGCGCCTATCTTTCTCCTTTGGGGAC
CACTTGGCTGAGGACCTGTGCGTGCAGGCTGCCAAGGCCAGCGGCATCCTGCCTGTGTACCACTCCCTCTTTGCT
CTGGCCACGGAGGACCTGTCCTGCTGGTTCCCCCCGAGCCACATCTTCTCCGTGGAGGATGCCAGCACCCAAGTC
CTGCTGTACAGGATTCGCTTTTACTTCCCCAATTGGTTTGGGCTGGAGAAGTGCCACCGCTTCGGGCTACGCAAG
GATTTGGCCAGTGCTATCCTTGACCTGCCAGTCCTGGAGCACCTCTTTGCCCAGCACCGCAGTGACCTGGTGAGT
GGGCGCCTCCCCGTGGGCCTCAGTCTCAAGGAGCAGGGTGAGTGTCTCAGCCTGGCCGTGTTGGACCTGGCCCGG
ATGGCGCGAGAGCAGGCCCAGCGGCCGGGAGAGCTGCTGAAGACTGTCAGCTACAAGGCCTGCCTACCCCCAAGC
CTGCGCGACCTGATCCAGGGCCTGAGCTTCGTGACGCGGAGGCGTATTCGGAGGACGGTGCGCAGAGCCCTGCGC
CGCGTGGCCGCCTGCCAGGCAGACCGGCACTCGCTCATGGCCAAGTACATCATGGACCTGGAGCGGCTGGATCCA
GCCGGGGCCGCCGAGACCTTCCACGTGGGCCTCCCTGGGGCCCTTGGTGGCCACGACGGGCTGGGGCTGCTCCGC
GTGGCTGGTGACGGCGGCATCGCCTGGACCCAGGGAGAACAGGAGGTCCTCCAGCCCTTCTGCGACTTTCCAGAA
ATCGTAGACATTAGCATCAAGCAGGCCCCGCGCGTTGGCCCGGCCGGAGAGCACCGCCTGGTCACTGTTACCAGG
ACAGACAACCAGATTTTAGAGGCCGAGTTCCCAGGGCTGCCCGAGGCTCTGTCGTTCGTGGCGCTCGTGGACGGC
TACTTCCGGCTGACCACGGACTCCCAGCACTTCTTCTGCAAGGAGGTGGCACCGCCGAGGCTGCTGGAGGAAGTG
GCCGAGCAGTGCCACGGCCCCATCACTCTGGACTTTGCCATCAACAAGCTCAAGACTGGGGGCTCACGTCCTGGC
TCCTATGTTCTCCGCCGCAGCCCCCAGGACTTTGACAGCTTCCTCCTCACTGTCTGTGTCCAGAACCCCCTTGGT
CCTGATTATAAGGGCTGCCTCATCCGGCGCAGCCCCACAGGAACCTTCCTTCTGGTTGGCCTCAGCCGACCCCAC
AGCAGTCTTCGAGAGCTCCTGGCAACCTGCTGGGATGGGGGGCTGCACGTAGATGGGGTGGCAGTGACCCTCACT
TCCTGCTGTATCCCCAGACCCAAAGAAAAGTCCAACCTGATCGTGGTCCAGAGAGGTCACAGCCCACCCACATCA
TCCTTGGTTCAGCCCCAATCCCAATACCAGCTGAGTCAGATGACATTTCACAAGATCCCTGCTGACAGCCTGGAG
TGGCATGAGAACCTGGGCCATGGGTCCTTCACCAAGATTTACCGGGGCTGTCGCCATGAGGTGGTGGATGGGGAG
GCCCGAAAGACAGAGGTGCTGCTGAAGGTCATGGATGCCAAGCACAAGAACTGCATGGAGTCATTCCTGGAAGCA
GCGAGCTTGATGAGCCAAGTGTCGTACCGGCATCTCGTGCTGCTCCACGGCGTGTGCATGGCTGGAGACAGCACC
ATGGTGCAGGAATTTGTACACCTGGGGGCCATAGACATGTATCTGCGAAAACGTGGCCACCTGGTGCCAGCCAGC
TGGAAGCTGCAGGTGGTCAAACAGCTGGCCTACGCCCTCAACTATCTGGAGGACAAAGGCCTGCCCCATGGCAAT
GTCTCTGCCCGGAAGGTGCTCCTGGCTCGGGAGGGGGCTGATGGGAGCCCGCCCTTCATCAAGCTGAGTGACCCT
GGGGTCAGCCCCGCTGTGTTAAGCCTGGAGATGCTCACCGACAGGATCCCCTGGGTGGCCCCCGAGTGTCTCCGG
GAGGCGCAGACACTTAGCTTGGAAGCTGACAAGTGGGGCTTCGGCGCCACGGTCTGGGAAGTGTTTAGTGGCGTC
ACCATGCCCATCAGTGCCCTGGATCCTGCTAAGAAACTCCAATTTTATGAGGACCGGCAGCAGCTGCCGGCCCCC
AAGTGGACAGAGCTGGCCCTGCTGATTCAACAGTGCATGGCCTATGAGCCGGTCCAGAGGCCCTCCTTCCGAGCC
GTCATTCGTGACCTCAATAGCCTCATCTCTTCAGACTATGAGCTCCTCTCAGACCCCACACCTGGTGCCCTGGCA
CCTCGTGATGGGCTGTGGAATGGTGCCCAGCTCTATGCCTGCCAAGACCCCACGATCTTCGAGGAGAGACACCTC
AAGTACATCTCACAGCTGGGCAAGGGCAACTTTGGCAGCGTGGAGCTGTGCCGCTATGACCCGCTAGGCGACAAT
ACAGGTGCCCTGGTGGCCGTGAAACAGCTGCAGCACAGCGGGCCAGACCAGCAGAGGGACTTTCAGCGGGAGATT
CAGATCCTCAAAGCACTGCACAGTGATTTCATTGTCAAGTATCGTGGTGTCAGCTATGGCCCGGGCCGCCAGAGC
CTGCGGCTGGTCATGGAGTACCTGCCCAGCGGCTGCTTGCGCGACTTCCTGCAGCGGCACCGCGCGCGCCTCGAT
GCCAGCCGCCTCCTTCTCTATTCCTCGCAGATCTGCAAGGGCATGGAGTACCTGGGCTCCCGCCGCTGCGTGCAC
CGCGACCTGGCCGCCCGAAACATCCTCGTGGAGAGCGAGGCACACGTCAAGATCGCTGACTTCGGCCTAGCTAAG
CTGCTGCCGCTTGACAAAGACTACTACGTGGTCCGCGAGCCAGGCCAGAGCCCCATTTTCTGGTATGCCCCCGAA
TCCCTCTCGGACAACATCTTCTCTCGCCAGTCAGACGTCTGGAGCTTCGGGGTCGTCCTGTACGAGCTCTTCACC
TACTGCGACAAAAGCTGCAGCCCCTCGGCCGAGTTCCTGCGGATGATGGGATGTGAGCGGGATGTCCCCGCCCTC
TGCCGCCTCTTGGAACTGCTGGAGGAGGGCCAGAGGCTGCCGGCGCCTCCTGCCTGCCCTGCTGAGGTTCACGAG
CTCATGAAGCTGTGCTGGGCCCCTAGCCCACAGGACCGGCCATCATTCAGCGCCCTGGGCCCCCAGCTGGACATG
CTGTGGAGCGGAAGCCGGGGGTGTGAGACTCATGCCTTCACTGCTCACCCAGAGGGCAAACACCACTCCCTGTCC
TTTTCA**TAG**CTCCTGCCCGCAGACCTCTGGATTAGGTCTCTGTTGACTGGCTGTGTGACCTTAGGCCCGGAGCTG
CCCCTCTCTGGGCCTCAGAGGCCTTATGAGGGTCCTCTACTTCAGGAACACCCCCATGACATTGCATTTGGGGGG

FIGURE 2515B

GCTCCCGTGGCCTGTAGAATAGCCTGTGGCCTTTGCAATTTGTTAAGGTTCAAGACAGATGGGCATATGTGTCAG
TGGGGCTCTCTGAGTCCTGGCCCAAAGAAGCAAGGAACCAAATTTAAGACTCTCGCATCTTCCCAACCCCTTAAG
CCCTGGCCCCCTGAGTTTCCTTTTCTGTCTCTCTCTTTTTATTTTTTTTATTTTTATTTTTATTTTTGAGACAGA
GCCTCGCTCTGTTACCCAGGGTGGAGTGCAGTGGTGCGATCTCGGCTCAGTGCAACCTCTGCTTCCCAGGTTCAA
GCGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGTGTGCACCACCACACCCGGCTAATTTTTTTTA
TTTTTAATAGAGATGAGGTTTCACCATGATGGCCAGGCTGATCTCGAACTCCTAACCTCAAGTGATCCTCCCACC
TCAGCCTCCCAAAGTGTTGGAATAATAGGCATGAGCCACTGCACCCAGGCTTTTTTTTTTTTAAATTTATTATTA
TTATTTTTAAGAGACAGGATCTTGCTACGTTGCCCAGGCTGGTCTTGAACTCCTGGGCTACAGTGATCCTCCTGC
CTTATCCTCCTAAATAGCTGGGACTACAGCACCTAGTTTTGAGTTTCCTGTCTTATTTCCAATGGGGACATTCAT
GTAGCTTTTT

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FIGURE 2516

CTTTTGCGGGTGGCGGCGAACGCGGAGAGCACGCC**ATG**AAGGCCTCGGGCACGCTACGAGAGTACAAGGTAGTGG
GTCGCTGCCTGCCCACCCCCAAATGCCACACGCCGCCCCTCTACCGCATGCGAATCTTTGCGCCTAATCATGTCG
TCGCCAAGTCCCGCTTCTGGTACTTTGTATCTCAGTTAAAGAAGATGAAGAAGTCTTCAGGGGAGATTGTCTACT
GTGGGCAGGTGTTTGAGAAGTCCCCCCTGCGGGTGAAGAACTTCGGGATCTGGCTGCGCTATGACTCCCGGAGCG
GCACCCACAACATGTACCGGGAATACCGGGACCTGACCACCGCAGGCGCTGTCACCCAGTGCTACCGAGACATGG
GTGCCCGGCACCGCGCCCGAGCCCACTCCATTCAGATCATGAAGGTGGAGGAGATCGCGGCCAGCAAGTGCCGCC
GGCCGGCTGTCAAGCAGTTCCACGACTCCAAGATCAAGTTCCCGCTGCCCCACCGGGTCCTGCGCCGTCAGCACA
AGCCACGCTTCACCACCAAGAGGCCCAACACCTTCTTC**TAG**GTGCAGGGCCCTCGTCCGGGTGTGCCCCAAATAA
ACTCAGGAACGCCCCGGT

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FIGURE 2517

CGGCGCTGGGGTAAGAAGCCTGCTGAGGG**ATG**CCCAAGAAGTTCCAGGGTGAGAACACCAAGTCGGCAGCGGCCC
GGGCACGTAGGGCAGAGGCCAAGGCGGCCGCTGATGCCAAGAAGCAGAAGGAGCTGGAGGATGCCTACTGGAAGG
ACGACGACAAACACGTCATGAGGAAGGAGCAGCGCAAGGAGGAGAAGGAGAAGCGGCGCCTCGACCAGCTGGAAC
GTAAGAAGGAGACGCAGCGCCTACTGGAGGAGGAGGACTCCAAGCTCAAGGGCGGCAAGGCGCCGCGGGTGGCCA
CGTCCAGCAAGGTCACCCGGGCCCAGATCGAGGACACGCTGCGCCGAGACCATCAGCTCAGGGAGGCCCCGGACA
CAGCCGAGAAAGCCAAGAGCCATCTGGAGGTGCCGCTGGAGGAGAACGTGAACCGCCGCGTGCTGGAGGAGGGCA
GCGTGGAGGCGCGCACCATCGAGGACGCCATTGCAGTGCTCAGCGTGGCGGAGGAGGCGGCCGACCGGCACCCAG
AAAGACGCATGCGGGCAGCCTTCACAGCCTTTGAGGAAGCCCAGCTGCCGCGGCTCAAACAAGAGAACCCCAACA
TGCGGCTGTCGCAGCTGAAACAGCTGCTCAAGAAGGAGTGGCTCCGCTCTCCTGACAACCCCATGAACCAGCGGG
CCGTGCCCTTCAATGCCCCCAAG**TGA**GCCCAGAACTTGGGGAGCCAGTTCACCCACGGGTGGTCCAGGTCACGAC
TCTGCACGCCCTTAGGCCAGGTCAGCTGCGAGGGTCACAGAGCGTTCCGGGGGCCAAGGCGCCGGGCCCCGGGGC
CATGCTCTTATCACCAGCCACCCGTCCTCCCGCCAGAGGGTCCCTGCCCCGAGTGACACCCCATCCCCTCCCATC
CCCCGGCGCGTGTGTGTAGAGCCTCAGGGCTGAGTGCCCAATAAAGGTGGCGGCAAGGCT

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FIGURE 2518

GGGATTTTCTGCTCCGGTTGGTGAGCGCGCCTGCGCGTTGACGGCGATTTTGCGTTCTGAGGCTGCAGCGTCGGC
ATCTTGAGCTGCCGGTTCGCGAGTTCGAGGCCAGGTTCCGCCTGTCGTGGGTTCGCACCCCGGACGCG**ATG**CTAT
TCGACAAGGTGAAAGCGTTCTCGGTGCAGTTGGACGGCGCGACCGCGGGCGTCGAGCCCGTGTTTAGCGGCGGCC
AGGCCGTGGCGGGCCGGGTGCTGCTGGAGCTGTCAAGCGCCGCGCGTGTGGGTGCCCTGAGGCTGCGCGCGCGGG
GCCGCGCCCACGTGCACTGGACCGAGTCGCGCAGCGCGGGCTCGAGCACGGCTTACACGCAGAGCTACAGTGAAC
GCGTGGAGGTCGTGAGCCACCGCGCCACGCTCCTGGCGCCAGATACCGGGGAGACCACGACGCTGCCTCCTGGGC
GCCATGAGTTCCTGTTCAGCTTCCAGCTGCCCCCGACCCTGGTGACATCCTTCGAGGGCAAACACGGTAGTGTCC
GCTACTGTATCAAGGCCACCCTGCACCGGCCCTGGGTCCCAGCACGCCGGGCAAGGAAGGTGTTCACTGTCATCG
AGCCTGTGGACATCAACACGCCAGCCCTGCTGGCACCTCAAGCGGGGGCTCGGGAAAAGGTTGCCCGATCCTGGT
ACTGTAACCGTGGCCTAGTCTCCCTTTCGGCCAAGATCGACCGCAAGGGCTACACCCCAGGAGAGGTCATCCCTG
TCTTTGCCGAGATCGACAACGGCTCCACACGTCCTGTGCTGCCTCGGGCAGCCGTGGTGCAGACACAGACGTTCA
TGGCCCGAGGCGCCCGAAAGCAGAAACGGGCAGTGGTGGCCAGCCTCGCGGGCGAGCCGGTGGGCCCCGGGCAGC
GGGCGCTGTGGCAGGGCCGGGCACTGCGGATCCCCCCAGTGGGTCCTTCCATCCTGCACTGCCGCGTTCTACACG
TGGACTACGCACTCAAGGTCTGTGTGGATATCCCAGGAACGTCCAAGCTGCTGCTGGAGCTGCCACTGGTGATCG
GCACCATTCCCTTGCACCCTTTTGGCAGCCGTTCCTCCAGCGTGGGCAGCCACGCCAGCTTCCTGCTGGACTGGA
GGCTGGGGGCCTTGCCGGAGCGGCCTGAGGCTCCTCCTGAGTACTCGGAGGTGGTAGCCGACACTGAGGAGGCAG
CCTTGGGGCAGAGCCCCTTCCCGCTTCCGCAGGACCCCGACATGAGCCTTGAAGGCCCGTTCTTCGCCTACATCC
AAGAGTTCCGCTACCGCCCGCCACCCCTGTACTCTGAGGAGGATCCAAACCCACTCTTGGGGGACATGAGGCCGC
GCTGCATGACTTGC**TGA**ACGGCACAGGGACCCCTCGAGGAACAAGGTTGCACACCAGCTTTCAGCCACCATGACT
GTGGGGAGTGGCTGGACCAAGGGCTGACCTCCCCGACTGCATCAAAGTTGGGGAACCAAGTCTCAGAGTGAGGCG
GGGGCCTTTCGGATATCACATGGGACAGAGGAAGAGCCCGGCTGGAATCTGACTTACCTGGACCGCTGTCCTTGT
GAGGCATTGAATGCCCAGTGCAGTATCCGAGAGACTGTTTAATAACCTGTCTTCCCAGCCAATTGGTGGTGCTGG
AATCCCCTAGGAGCCTTCAGTCTGGGAGAAACAGAGCCAGACATAGACAGTTCCAGCATCACAGAACCAGAAGAA
GAGACCTGCAACTGTGAGAGTCCAGACAGGAAGCAGAGAAGGCGTCCTTGCGGAAAGGGCATTTTAGCTGAGGCT
TTGGAGTACGAATAGGAGCTCAGCAGGCAGACGAATGAGGAATAAAGGTCAGAGAAGGTCAGAGCTGAGTGACGT
TTGGAATCCACCCCGTTTATTGTAGAACTGGGGGTTCAGAGGGCAGGTGCCTCAGAGTTGAGGCCACACAGTGAG
GTCTGGTGGGTGAAAGGACCCAGGAACGAGGCGTTCAGGAAAGCAGGTTGTCAGAGCTATGTGGAGTCTGTGGGT
GGCAGGGGCAGCCGCTCCAGCCTTTGAAGACTTTGAAAGCCAGAGATTCCTGGCGCAGGCTTGGACTTCCTGGGA
GCTCCTCCAAGTACCCAGGGGCATCAGAGCTGCCTGGGTGTTACATGGCCCAGGGAACCCAGGTTCAGGGTAGGA
CAGGCAAGACCAGATACCCAATGTGCAAAGTGAAAACACTGGGCTCCCTGTTAAACGATGAAGAATTCAAGACAG
TGACAGCATTACGTCACCCCTGGGGACAGAGGTCAGCCTAAGGTGACACACGGGGACTACTGTGCTTCCGGAGGC
TCCCTGTGTCCTGGAGGAGAAAAGCATTAGAGGGGGCAGCTGGACAAGCTCCCAACTGCAGAGTCCCAGCCCTGG
CTGGGGCAGGGCCCCGGCCTGGGACTCAGCATTTCTGATATGCCTTAAGAATTCATTCTGTTTTGTACAATTATT
TTTTAAAAGTAAACGTGTGGAGAAAG

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FIGURE 2519

CCTGAAGGCTGTGGGACCCATGATCCTGGTTAGATTCTCCTTCTGCTTGTCCCTGGCTGTGCTGCCTCAGGCACA
TTACTTAACCTTTCTGGGCCTCTGCCACCTCATCTGTAAAATGGGCATGATGGTGAAGCCAGGTTGCCAGATAAA
ATATAGGCTACTCAGCTAAATGTGAAGTTCAGATCAATATTGAATTTGGTTTTACTGTAAGTATATCCCATGCAA
CATTTGGGATATACTTATACTAAAAAAAAATTATTCATTGATGCTATGGTTTGAATGGTCCCCCAAAGTTCATAT
GTTTGAAACTTAATCCTCAAAGCAGTCCTTTCAACCTTGTCAACCTGTCGGCGCGGCCTCTGGTGCAGTGGCGGC
GGCTCCTGTTCCTGCCGCAGCTCTCTCCCCTTCTTACCTCCCCACCAGATCCCGGAGATCGCCCGCCATGGCTTT
ACTTACTGCGGCCGCCCGGCTCTTGGGAACCAAGAATGCATCTTGTCTTGTTCTTGCAGCCCAGCATGCCAGTGC
TTCCTCCATGAATTTGAAAGACATATTGGCTGACCTCATACCTAAGGAGCAGGCCAGAATTAAGACCTTCAGGCA
GCAACATGGCAAGAAGGTGGTGGGCCAAATCACTGTGGACATGATGTATGGTGGCATGAGAGGCATGAAGGGATT
GGTCTATGAAACATCAGTTCTTGATCCTGATGAGGGCATCCGTTTCTGAGGCTTTAGTATCCCTGAATGCCAGAA
ACTGCTACCCAAGGCTAAGGGTGGGGAAGAACCCCTGCCTGAGGGCTTATTTTGGCTGCTGGTAACTGGATGTAT
CCCAACAGAGGAACAGGTATCTTGGCTCTCAAAAGAGTGGGCAAAGAGGGCAGCTCTGCCTTCCC**ATG**TGGTCAC
CATGCTGGACAACTTTCCCACCAATCTACACCCCATGTCTCAGCTCAGTGCAGCTGTTACAGCCCTCAACAGTGA
AAGTAACTTTGCCCAAGCATATGCACGGGGTATCAGCCGAACCCAAGTACTGGGAGTTGATTTATGAAGACTCTG
TGGATCTAATCACAAAGCTACCTTGTGTCGCAGCAAAGATCTACCGAAATCTCTATGGAGAAGGCAGTGGTATTG
GGGCCATTGACTCTAACCTGGACTGGTCTCACAGTTTCACCAACATGTTAGGCTATACTGATCATCAGTTCCCTG
AGCTCATGCACCTGTACCTCACTATCCACAGTGACCATGAGGGCGGCAATGTAAGTGCCCATACCAGCCACTTGG
TGGGCAGTGGCCTTTCAGACCCTTACCTGTCCTTTGCAGCAGCCATGAACGGGCTGGCAGGGCCTCTCCATGGAC
TGGCAAATCAGGAAGTGCTTGTCTGGCTAACACAGCTGCAGAAGGAAGTTGGCAAAGATGTGTCAGATGAGAAGT
TA**TGA**GACTACATCTGGAACACACTCAACTCAGGACGGGCTGTTCCAGGCTATGGCCATGCAGTACTAAGGAAGA
CTGATCCACGATATACCTGTCAGCGAGAGTTTGCTCTGAAACACCTGCCTAATGACCCCATGTTTAAGTTGGTTG
CTCAGCTATGCAAGATTGTGCCCAATGTCCTCTTAGAGCAGGGTAAGGCCAAGAATCCTTGGCCCAATGTAGATG
CTCACAGTGGGGTGCTGCTCCAGTATTATGGCATGATGGAGATGAATTACTACACAGTCCTGTTTGGGGTGTCAC
GAGCATTGGGTGTACTGGCACAGCTCATCTGGAGCCGAGCCTTAGGCTTCCCTCTAGAAAGGCCCAAGTCCATGA
GCACAGAGGGTCTGATGAAGTTTGTGGACTCTAAGTCAGGGTAAAACTGGAGACTGGGGGAAAGTGACTACCAGA
AAGTGAGGAAGCCTAAATAAAAAGTATACTTTTGTTTCAGGGGGCCTTTAAAGACTTAAGATTAAATTATATCTG
AGGCACTGATAATATGTTTGAGGTTAAAATATAAATTAAGACTTTAAAAGATGAAAAATGGTCCCTTCTTCCCTA
ATCAGCTCCTTTCCCCTGCCTGGTATGAGTTGCCCATCACAGGCATGGTCCTGGAGGATGACCAGGACTAATGCA
TGTGGTATGAGTAGGTTTGGCCCCCTCACTATCTCTAGAGTGAGAATCTGGCTCCTGTTTCCATGGCTCAAAGCC
GGTTGCAGAGAATCTGCAGTCACTTCGGAGCTTTAGCTTCTTCTCTGCCAAGCCCTCAATAAGCCAGCAAACCAG
GACTCTGCCCCTTCTGTTTCCATAGGAATCATGTTGGATAGTCAGCTGTACCAAGCCCCTTGGCCTTCCCATGCA
CACAAACACCTCCTAGCAAGACCTGTTGGTTAGCTGGACATGCTTTGGCAATTTTTTTATACTGCCAAGTGACCA
TAAAGGCATGGCATTTGTTGTGACTGGCACCCAATGTTTGATTTTTTTTTTAAACTATCCAATTAAAATTAAGGT
CTGGGAGTGTTCTGTTTCCCATTACTTTAATACTCACCCCCCTCCCAGACTTTCTACACCTGTTTCACCTCAGGC
TGAGGATGTTCTGGACCTCCCCCTCTTAGTCCCTACTAGAGACCTCTCAACAGATCTGTGGGCCCAGTCATTGGG
TTTTATCAGTGCTTAATGTGAACTAAGTTTTTTACTTCCAACAGAATACAAGCCACTACCTTCTGACCTCCCCAC
CCCCCACCAACCCCCAGCTTTTAATATGCTGTGGGGCATAGAACAGGGACTCCGGAATGACCAGCATGATATTTT
CAGAGTCTTGTCCCTGGGGTATTAGCACCTCTTTTTGAACAGAGAATTGATTCAAGATTGGACATGGTCTCCTCT
GATTATCAGGTACTGGGGCTGAGGGCATTAAAAATAGTAAGCCTCCTTCCTCGTCCCCTGCCTCAAGAAATTGCC
TCCTTATTTATCAACATCTTTTTCCTCCCTTTCCCTGAGAGCTCACAGTACAATGTTTGTTTCAGAAGCCCCATT
TGCACAGGTTTTCAGCAACTCAGAATGCTCTACTTCTTTTTCTTTGAGAAAGGATTGAGATACGCTCCTGCTGTG
CCCCCATCTTTCCTCCAAACTCCTGCCTGTGTTTGTGTGGATACCCAGTCCCAGAACCACACTGTTGAGTTGGAC
ACACTGTAAACCCCTGGCTAACTGTCAAGTCATGATGCAGACTTCAGGTTGTTCTGTATAAAATGCAAAATAAAT
GTTTTAATTAAC

FIGURE 2520A

GGACGAGTCGAGCCTCCTGCGGCGCCGCGGGCTCCAGAAGGAGCTGAGCCTGCCACGCCGAGGACGTGGCTGCCG
CAGCGGGAACCGCAAGAGCTTGGTGGTAGGAACGCCCTCCCCGACCCTCTCCCGGCCCCTGTCGCCATTGTCGGT
CCCAACGGCAGGCAGCAGCCCCTTGGATAGTCCTCGGAATTTCTCGGCTGCCTCTGCCCTAAATTTCCCCTTTGC
CCGGAGGGCAGACGGCAGAAGATGGTCCCTCGCGTCTCTCCCATCTTCCGGCTATGGAACCAACACACCCAGCTC
CACCCTCTCGTCAAGCTCATCCTCCCGGGAACGTCTCCACCAGCTTCCCTTCCAGCCGACGCCGGACGAGCTGCA
CTTCCTGTCCAAGCACTTCCGCAGCTCAGAGAATGTGCTTGATGAGGAAGGCGGCCGGTCACCCCGCCTCCGACC
CCGCTCTCGCAGTCTCAGCCCGGGCCGTGCAACGGGGACCTTCGACAATGAGATTGTC**ATG**ATGAATCACGTGTA
CCGGGAGAGGTTCCCCAAGGCCACAGCACAGATGGAGGGCCGTCTGCAGGAGTTCCTGACGGCCTACGCGCCCGG
CGCCCGGCTGGCGCTGGCTGATGGCGTCTTGGGCTTCATCCACCACCAGATCGTCGAGCTGGCCCGAGACTGCTT
GGCCAAGTCTGGCGAGAACCTCGTCACCTCCCGCTACTTCCTAGAGATGCAGGAGAAGCTGGAGCGGCTTCTGCA
GGATGCCCATGAGCGTTCGGACAGTGAGGAGGTCAGCTTCATCGTCCAGCTTGTCCGGAAACTGCTGATCATCAT
CTCACGGCCAGCTCGGCTGCTGGAGTGTCTGGAGTTTGACCCTGAGGAATTTTACCACCTGCTGGAGGCGGCTGA
GGGCCATGCGCGGGAGGGCCAAGGCATTAAGACTGACCTTCCACAGTACATCATTGGGCAGCTGGGCCTGGCCAA
GGACCCCCTGGAGGAGATGGTGCCACTGAGTCACCTCGAAGAAGAACAGCCCCCAGCACCTGAGTCCCCAGAGAG
CCGCGCCCTGGTCGGCCAGTCACGGAGGAAGCCATGCGAAAGCGACTTTGAGACCATCAAACTCATTAGCAACGG
AGCCTATGGGGCCGTCTACCTGGTGCGGCACCGTGACACACGGCAGCGCTTTGCCATCAAGAAGATCAACAAACA
GAACTTGATCCTGCGTAACCAGATCCAGCAGGTCTTTGTGGAGCGTGACATTCTCACCTTTGCCGAGAACCCCTT
TGTGGTCAGCATGTTCTGCTCCTTTGAGACCCGGCGCCACCTATGTATGGTCATGGAATACGTGGAAGGCGGCGA
CTGCGCCACGCTCCTGAAGAACATGGGCCCGCTGCCCGTGGACATGGCCCGCCTGTACTTCGCCGAGACGGTGTT
GGCGCTGGAGTACCTGCATAACTATGGCATCGTGCACCGTGACCTCAAACCAGACAATCTGCTCATCACCTCGCT
TGGCCACATCAAGCTCACGGACTTCGGCCTGTCCAAGATCGGCCTCATGAGCATGGCCACCAACCTCTATGAGGG
CCACATCGAGAAGGACGCCCGAGAGTTCATCGACAAGCAGGTGTGTGGGACGCCGGAGTACATAGCCCCCGAGGT
GATCTTCCGCCAGGGCTATGGGAAGCCAGTGGACTGGTGGGCCATGGGCGTCGTCCTCTATGAGTTTCTGGTGGG
CTGCGTGCCTTTCTTTGGAGATACCCCCGAGGAACTCTTCGGTCAGGTGGTCAGCGATGAGATCATGTGGCCAGA
GGGAGATGAGGCCCTTCCAGCAGACGCCCAGGACCTCATCACCAGGTTGCTCCGGCAGAGCCCGCTGGACCGTCT
GGGCACTGGTGGCACCCACGAAGTGAAGCAGCACCCCTTTTTCCTGGCCCTGGACTGGGCAGGGCTTCTCCGACA
CAAAGCCGAGTTCGTGCCCCAGCTCGAAGCTGAGGATGATACCAGCTACTTTGACACACGTTCGGAACGTTACCG
CCATCTGGGCTCCGAGGACGACGAGACCAATGATGAAGAATCGTCCACAGAGATCCCCCAGTTCTCCTCCTGCTC
CCACCGGTTCAGCAAGGTCTACAGCAGCTCTGAGTTCCTGGCCGTCCAGCCCACTCCTACCTTCGCTGAAAGGAG
CTTCAGTGAAGACCGGGAGGAGGGGTGGGAGCGCAGCGAAGTGGACTATGGCCGCCGGCTGAGTGCTGACATCCG
GCTGAGGTCCTGGACATCCTCTGGATCCTCCTGTCAGTCATCTTCGTCCCAGCCCGAGCGGGGTCCCAGCCCATC
TCTCCTGAATACCATCAGCCTGGACACAATGCCCAAGTTTGCCTTCTCATCAGAGGATGAGGGGGTAGGCCCAGG
CCCTGCAGGCCCCAAGAGGCCCGTCTTCATTCTAGGGGAGCCTGACCCCCCACCAGCGGCCACCCCAGTGATGCC
CAAGCCCTCGAGCCTTTCTGCCGACACAGCTGCTCTCAGCCACGCCCGCCTACGGAGCAATAGCATCGGCGCCCG
ACACTCCACACCAAGGCCTCTGGATGCCGGCCGGGGCCGCCGCCTTGGGGGCCCAAGAGACCCAGCCCCTGAGAA
GTCCAGAGCCTCCTCCAGCGGTGGCAGTGGTGGCGGCAGTGGGGGCCGCGTGCCCAAGTCAGCCTCTGTCTCTGC
CCTGTCCCTCATCATCACGGCAGATGATGGCAGCGGCGGCCCCCTCATGAGCCCCCTTTCCCCGCGCTCTCTGTC
CTCGAACCCGTCGTCCCGTGACTCTTCGCCGAGCCGAGACCCGTCCCCCGTGTGTGGCAGCCTGCGGCCCCCCAT
CGTTATCCACAGCTCTGGCAAGAAGTACGGCTTCAGCCTGCGGGCGATCCGCGTCTACATGGGTGATAGCGACGT
CTACACTGTGCACCACGTCGTCTGGAGTGTGGAGGACGGAAGCCCCGCCCAGGAGGCGGGCCTGCGGGCTGGGGA
CCTCATCACCCACATCAACGGGGAGTCAGTGCTGGGGCTGGTGCACATGGACGTCGTGGAGCTGCTGCTGAAGAG
CGGCAACAAGATATCCCTGCGGACCACAGCCCTGGAGAACACCTCCATCAAGGTGGGCCCCGCCCGGAAGAATGT
GGCCAAGGGCCGCATGGCACGCAGGAGCAAGAGGAGCCGTCGGCGGGAGACCCAGGATCGGCGGAAGTCACTTTT
CAAGAAGATCTCCAAGCAGACCTCCGTGCTGCACACCAGCCGCAGCTTCTCCTCCGGACTCCACCACTCACTGTC
ATCCAGTGAGAGCCTCCCCGGCTCGCCCACCCACAGCCTCTCCCCCAGCCCCACCACTCCCTGCCGAAGCCCAGC
CCCTGATGTCCCAGCAGATACCACTGCATCCCCACCCAGCGCATCCCCGAGCTCCAGCAGCCCCGCCTCCCCAGC
TGCTGCTGGCCACACCCGCCCCAGCTCCCTGCACGGCCTGGCTGCCAAGCTTGGGCCACCCCGCCCCAAGACTGG
CCGCCGCAAGTCCACCAGCAGCATCCCGCCCTCCCCGCTGGCCTGCCCGCCCATCTCCGCGCCCCCACCCCGCTC

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FIGURE 2520B

GCCCTCGCCCCTGCCCGGGCACCCGCCCGCACCTGCCCGATCCCCGCGGCTGCGCCGGGGCCAGTCAGCTGACAA
GCTGGGCACAGGGGAGCGGCTGGATGGGGAGGCGGGGCGGCGCACTCGTGGGCCAGAGGCCGAGCTCGTGGTCAT
GCGGCGGCTGCACCTGTCCGAGCGCCGAGACTCCTTCAAGAAGCAGGAGGCCGTGCAGGAGGTTAGCTTCGATGA
GCCGCAGGAGGAGGCCACTGGGCTGCCCACCTCAGTGCCACAGATCGCCGTGGAGGGCGAGGAAGCCGTGCCAGT
AGCTCTCGGGCCCACCGGAAGAGACTGATCCCCTGCCAGGTCTCTCCCTGGCATCAAAGTTACGCGTTTTCTTGT
GCAATGTTTTTTCCGTAAAGTCATGCCTGGATGGGGACTGAGCCACCAGCCTGACACCCAGAAGGCGAGAAGCCA
TCTCGGTCCTTGCTGGAAGGTGGAGACATCGCTTGTGTTCTGGTGTCAATCGGGGCTGGATGGGGCAAGAATGGG
GGACAAGGGTGGCTTTGTAAATAGCAGCAAATCCCTGCAACTAATTTATTACTTTTTTTTTCTTTTTTTTTTTTT
TTTTTTGAGACAGAGTCTCACTCTGTTGCCCGGGCTGGAGTGCAGCGGCGTGATCTCAGCTCACTGCAACCTCCG
CCTCCCAAGTTCAAGCGATTGTCCTGCCTCAGCTTCCCAAGTGGCTGGGATTACAGGCGCCCACCACTATGCCCA
GCTAATTTTTTGTATTTTTAGTACAGACGGGGTTTCACCATGTTGGTCAGGCTGGTCTCGAACTCCTGACCTCAT
GATTTGCCTGCCTTTGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACTGGGCCCAGCCTAATTTATTACTT
TTTATAAGCGATAGCCGTACTGAGCCGCCCCCTGAAGGCGGCTGCCAGGTCTTGCCCCAGGCACCTGGGACTCTG
TTTGCAGGCCCTGCCCTCTGGGCTGAGAAGGATGCACTTTGGACAAGTCATCTGTGTTTGTGTTTTCCAGTTTTT
CTGTACTTTTTAAGTGTTTTGTGTTACCTGGTCTCATTCCCCTCCCCACACCTACCCATTTGAGGGGATGGAGTT
GAAGTCACCTGGTCACCTGTACCGGCCCAGTTCGGCTACAACCTGGAGTGTCCGTAAACAATTCCTCTCACCCAC
AAAACAATGTAATCCCAGCGATGGACTGGATTCTGAAGGCCACTTCCCACCATCATAGCTGCCATGCCCAGGCAG
TGCCTGCTCTATATATAGAGTCTGCCTCCAATCCTGCTGGCTTCAGCCTGGAGAAGGGATATGGGAGCTGGAGCT
TTGATGGATGAATAGGTGTTCACCGGATCTGGGCAGAGGGGTCATCCGCTCCCCAGGTGGGCACTGATAAAGGAA
GGTACAGGCCTCACCTGGAACTGCCAAGGCAGCCTCCAGAAATGCTCGGCTGTCTCGGGGCACGCTCCAGTATGC
CAGTCCTGCGGGATTACGTCCAGCTACTTCCAGAAACACTCAGTGTCCCCTCCCCTCAGGCTCTGCCTTGGCCTG
GCCTTGTCCAGTCTACCCTGGACAAGATGCCGTGTGTTTGAGGCCCAGCAGAGTAAGCCCTTGGCCGTGATGTGT
CTGAAACACCTGTTAGGGGTTCCCTCCATATGTCAGAGCCTCTCTGGGATGAAGTTCAAGCCAGAAAACCCAGTC
GAGGCTCAAGTTTGAATTTCAGCTTCACTGTGTGGCTCTGGGAAAATGGCTTTCCCACTCTGTGCCTCAGTTTCC
TTGTGTTTACAAGACTAATCCCATTGACTGTTTATTAAGCACCTACTGTGTGCCAAGCGCTTTTACGTGGCTTCT
CCCTCAGCCAGCCTTGAGAAGGCTGGAGGTGGTGTCATCACCTCCATTTTACAGACAAAGCAGCTGAGACCCCAG
CGAGGGGCGGAGACCTGTCCCACGATCACCCAGCAGGAGTCGTGGCAGAACGGAGCATCAGCCAGACCCTGTTGT
GGGCGTTGTCATCAAGGGAGCTTGAATGGAGGGTCTGGTGTCAGATACAGCCGACTCCAGCCCCAGCTCATCCCC
CATGATGCTGTGTGACCCACTGGGCACTCTGGTGAGGGAGCTTTCCAGACATCAACAGCCCACTCTGCTTCCCTT
TCTGAGTCCCCTGTCCAGCACTGCCTAGTGTTGGAGGGTAGACCAAGGCTGTGCATGATTCACCCCCTCCTTCCA
TCCTGGAGCTGGCAGTGAATAAAAGCCCGTATTTAC

FIGURE 2521A

TGGGCACTGAGCACATTCGGTTATTTCCAGAAACGCTCCGCGGTCTTGGGGATCAGCCTCAGTTGTGCCAGTGCG
GCCGTAGAGAGTGTTCGGCCATTTCCGAAAGCGCTCGGGCGTCTCTAAGCCCAGCCGAGCCCAGTCTCGGATCCC
TCGCCGACCCGATTGCACTCGGCTACCTCTGGAAACGCTCGGCTGTCTCGGGGGCACCCTCTAGTCCACCAGTCC
CGCGGGATTACGTTCGGCTACTTCCGGAAACACTCGGGTGCCCCCTTACCTCAGGCTCCGCCTCGGCCTCGGTTC
ATCCGCCCGGCTCGAATGCGCTCGGGCATTTCCGCCGGGGGCGGGCCAGGCCGCTCGGAACCGTGGCGGCGGCGG
AGGCGGGGATCCCGCGGCTGCGGCGACGGTGGCCGCGGTGGAGCCACGGGGCGGGCTTGGCTTGGTGTGACGGCG
GCTGCGGCGGCGGTGGCGGCCGCGACCAGGTCGGCGTCCTCAGCTGGCCGAGCATGGTGGCAGCCTGCACCCTTG
GCTCCCTTGTCTGGTGCAGCCAGCAGAGCCGCCAGCCTTGGGCGCCCATGGCCCTCCGTGTGAGGGCGTGAGCGG
CCTGCCCCAGCCTCACCTGCTGATGGAGGACTCAATGGCCCAGTGACCTGACACCACACCACCAACTCCCTCCCA
CCAGCTGACGAATGGTGGACCCAGTGACGAGTGGCCCTTGTAAGGGTCATGGAATAATTTGAAGCGAGGCATGAG
CGGCCCCTGTGGTCGCCTGTGACTGCTGGAGATAGAGGTCCCAGCACCCCAAGCCAACCCAGCGGACCCTCCCAG
CCCTGCTTCAACCAATGGGGCCAGTGGGGCTCCAAGCAGCCACCTAACCATCCAGACCCCACCCCACTCACGCGG
CC**ATG**GCGGGCCCTGAGGGCTTCCAGTACCGCGCTCTGTACCCGTTCCGCCGGGAGCGGCCGGAGGACCTGGAGC
TGCTGCCCGGCGACGTGCTGGTAGTGAGCCGGGCGGCCTTGCAGGCGCTGGGCGTGGCCGAGGGTGGCGAGCGCT
GCCCACAGAGCGTGGGCTGGATGCCCGGCCTCAACGAGCGCACACGGCAGCGAGGTGACTTCCCTGGCACCTATG
TGGAGTTCCTGGGGCCCGTGGCCCTGGCCCGGCCCGGCCCTCGCCCACGGGGCCCCCGCCCACTGCCCGCCAGGC
CCCGTGATGGGGCCCCTGAGCCAGGCCTCACACTCCCCGACTTGCCCGAGCAGTTCTCCCCACCTGATGTGGCTC
CCCCTCTTCTGGTGAAGCTTGTGGAGGCCATTGAAAGGACAGGGCTGGACAGCGAATCTCACTACCGCCCGGAGC
TGCCCGCACCGCGTACAGACTGGTCCCTGAGCGACGTGGATCAGTGGGACACGGCAGCCCTGGCTGACGGCATTA
AGAGCTTCCTGCTGGCACTGCCCGCGCCGCTCGTGACCCCCGAGGCCTCGGCCGAGGCGCGCCGGGCCCTGCGGG
AGGCCGCGGGGCCCGTGGGGCCGGCGCTGGAGCCACCGACGCTGCCGCTGCACCGCGCGCTCACGCTGCGCTTCC
TGCTCCAGCACCTGGGCCGCGTGGCCAGCCGCGCCCCGGCCCTGGGTCCCGCGGTCCGGGCCCTGGGCGCCACCT
TTGGGCCGCTGCTGCTGCGCGCGCCGCCGCCGTCCTCGCCGCCGCCAGGGGGCGCTCCCGACGGGAGTGAGC
CCAGCCCTGACTTCCCGGCGCTGCTGGTGGAGAAGCTGCTTCAGGAACACTTGGAAGAGCAGGAGGTTGCGCCCC
CAGCGCTGCCGCCTAAACCCCCCAAGGCAAAGCCGGCCTCCACAGTCCTGGCCAATGGAGGGAGCCCACCCTCCC
TGCAGGATGCTGAGTGGTACTGGGGGGACATTTCAAGGGAGGAGGTGAACGAGAAACTCCGGGACACTCCCGATG
GCACCTTCCTAGTCCGAGATGCTTCTAGCAAGATCCAGGGCGAGTACACGCTGACCCTCAGGAAAGGCGGGAACA
ATAAGCTGATCAAGGTCTTCCACCGAGATGGGCACTATGGCTTCTCAGAGCCACTCACCTTCTGCTCCGTTGTGG
ACCTCATCAATCACTACCGCCACGAGTCTCTGGCCCAGTACAATGCCAAGCTGGACACACGGCTCCTCTACCCTG
TGTCCAAATACCAGCAGGACCAGATTGTCAAGGAGGACAGCGTGGAGGCAGTGGGCGCCCAGCTTAAGGTCTATC
ACCAGCAGTACCAGGACAAGAGCCGCGAGTATGACCAGCTTTATGAAGAGTACACACGGACCTCCCAGGAGCTGC
AGATGAAGCGTACTGCAATTGAGGCCTTCAATGAGACTATCAAGATCTTTGAAGAGCAGGGCCAGACTCAAGAGA
AATGCAGCAAGGAATACCTGGAGCGCTTCCGGCGTGAGGGCAACGAGAAAGAGATGCAAAGGATCCTGCTGAACT
CCGAGCGGCTCAAGTCCCGCATTGCCGAGATCCATGAGAGCCGCACGAAGCTGGAGCAGCAGCTGCGGGCCCAGG
CCTCGGACAACAGAGAGATCGACAAGCGCATGAACAGCCTCAAGCCGGACCTCATGCAGCTGCGCAAGATCCGAG
ACCAGTACCTCGTGTGGCTCACCCAGAAAGGCGCCCGGCAGAAGAAAATCAACGAGTGGCTGGGGATTAAAAATG
AGACTGAGGACCAGTACGCACTCATGGAGGACGAGGACGATCTCCCGCACCACGAGGAACGCACTTGGTACGTGG
GCAAGATCAACCGCACGCAGGCAGAGGAGATGCTGAGTGGCAAGCGGGATGGCACCTTCCTCATCCGCGAGAGCA
GCCAGCGGGGCTGCTACGCCTGCTCCGTGGTAGTGGACGGCGACACCAAGCACTGCGTCATCTACCGCACGGCCA
CCGGCTTCGGCTTCGCGGAGCCCTACAACCTGTACGGGTCGCTGAAGGAGCTGGTGCTGCACTACCAGCACGCCT
CGCTGGTGCAGCACAACGACGCGCTCACCGTCACCCTGGCGCACCCAGTGCGCGCCCCGGGCCCCGGCCCGCCGC
CTGCCGCCCGC**TGA**GCACCGAGGACCCGCCCCAAGCAGAGCCGCCCCTGGGCCCGTCTGCGCCGGAGGCTGCGGC
GGCGGGAGCCACGGACCAGACCAGCCACATCCAGGGGTCCTCATTTCTCCGGCTCTGGCTCTTGTTTGGGGTTCT
CTCACCCTCTTTCTCTTTCCTTCCCTCCCCCATTCTCCAGATCTCCCTCTGTCTCCTTTTCTCTGTCTTTCTTGG
CCCCTGTCTCTCTCCATGTTGGGGGTCCTAACTCCCCCACCCCATATCTACGTGTCCTCCGGGGCATTGCCCTCTC
CATGGCTCTGGTCACCCTGACCCTCTGCCCTGCCCACCGCAGGTCCCCCGGGGTCCCGGAAGCCCCTTCTGGCTG
CACCTGCCATGTTTACAGAGGGCCCCTGGGCTGCGCGGCCCCAGCCTGGGCACCCTGATTTTTAAGCCATAGACC
TGGGGTCAGGGCAGGAAGGAACTTCACTCTGCTGCTTCCGAGAACCTCGGCCGTGACATTCGGGGCCGGGCGGGA

FIGURE 2521B

CCCGCCCCACAGACTCCAACTTCCCCTCCAAACCCCGAAGTGAAACCCGCCACCGGGTTACCCCCACAAGGGGGC
CGCTGCGAGAAGTTCACCCACCCCCGAAAAAATAATTAAACTCGCAGGCCAGGCACGGTGGCTCATGCCTGTAAT
CCCAGCACTTTGGGAGGCCAAGACGGGCGGATCTTTTGAGGTCGGGAGTTGGAGGCCAGCCTGGCCAAAATGGCA
AAACCCCGCATCTACTAAAATACAAAAATTAGCCGGGCGTGGTGGCGGCCGCCTGTAATCCCAGCTACTTGGGAG
GCTGAGGCGTGAGAATCTCTTGAACCCAGGAGATGGAGGTTGCAGTGAGCAGAGATCGTGCCACTGCACTCCAGC
CTGGGTAACAGAGGGAGACTCCTCCGTCTCAAAAAAATAAATAAATAAACTTGTGAGCTGGCCCCAACCCCTCCT
AGGAATCACAGCTCCCCGTACTGGTGCCGCCGCAGTGGCCAAGTTGCGACACTGCCCACGGCCCCTCCCTCTGAT
GCAGATTCAGGGCTTCTCTTCGATCATGTTGGGTTTTGATTCTGTTTTTCCTTGACTGCAAAACCCTCTTTCCTC
TCCTCTTTTGGGACAAGAGCCCTGGTTTTCTACGCTGCCCTTGGCCACCACACTGCCTGCCCCACGAGCTGGGAG
GCAGGTTTTGTACGGTACGTTGTTATTGATATGATATAAAACATCAAACGTC

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FIGURE 2522

GGACCGCCGCCTGGTTAAAGGCGCTTATTTCCCAGGCAGCCGCTGCAGTCGCCACACCTTTGCCCCTGCTGCG**AT**
GACCCTGTCGCCACTTCTGCTGTTCCTGCCACCGCTGCTGCTGCTGCTGGACGTCCCCACGGCGGCGGTGCAGGC
GTCCCCTCTGCAAGCGTTAGACTTCTTTGGGAATGGGCCACCAGTTAACTACAAGACAGGCAATCTATACCTGCG
GGGGCCCCTGAAGAAGTCCAATGCACCGCTTGTCAATGTGACCCTCTACTATGAAGCACTGTGCGGTGGCTGCCG
AGCCTTCCTGATCCGGGAGCTCTTCCCAACATGGCTGTTGGTCATGGAGATCCTCAATGTCACGCTGGTGCCCTA
CGGAAACGCACAGGAACAAAATGTCAGTGGCAGGTGGGAGTTCAAGTGCCAGCATGGAGAAGAGGAGTGCAAATT
CAACAAGGTGGAGGCCTGCGTGTTGGATGAACTTGACATGGAGCTAGCCTTCCTGACCATTGTCTGCATGGAAGA
GTTTGAGGACATGGAGAGAAGTCTGCCACTATGCCTGCAGCTCTACGCCCCAGGGCTGTCGCCAGACACTATCAT
GGAGTGTGCAATGGGGGACCGCGGCATGCAGCTCATGCACGCCAACGCCCAGCGGACAGATGCTCTCCAGCCACC
ACACGAGTATGTGCCCTGGGTCACCGTCAATGGGAAACCCTTGGAAGATCAGACCCAGCTCCTTACCCTTGTCTG
CCAGTTGTACCAGGGCAAGAAGCCGGATGTCTGCCCTTCCTCAACCAGCTCCCTCAGGAGTGTTTGCTTCAAG**TG**
ATGGCCGGTGAGCTGCGGAGAGCTCATGGAAGGCGAGTGGGAACCCGGCTGCCTGCCTTTTTTTCTGATCCAGAC
CCTCGGCACCTGCTACTTACCAACTGGAAAATTTTATGCATCCCATGAAGCCCAGATACACAAAATTCCACCCCA
TGATCAAGAATCCTGCTCCACTAAGAATGGTGCTAAAGTAAAACTAGTTTAAT

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FIGURE 2523

CGAAAGCAGAGCGGCGCGCCGGTTCCTTGGTTCCTGAGGGCG**ATG**GCGCGGGGTGGCTGGCGCCGGCTACGCCGC
CTGTTATCCGCGGGGCAGCTTCTATTCCAGGGCCGCGCGCTGCTCGTCACTAACACGCTGGGCTGCGGCGCGCTC
ATGGCGGCCGGTGATGGCGTGCGCCAGTCCTGGGAGATCCGCGCCCGGCCCGGCCAGGTTTTCGACCCACGGCGC
TCCGCGAGCATGTTTGCGGTGGGCTGCAGCATGGGTCCCTTCCTGCACTACTGGTACTTGTCGCTGGACCGCCTA
TTCCCTGCGTCTGGCCTCCGAGGCTTCCCAAATGTCCTCAAGAAGGTCCTCGTGGATCAGCTGGTAGCCTCTCCA
TTGCTGGGCGTCTGGGAATTCTACAAGGCAGACTGGTGCGTGTGGCCTGCTGCGCAGTTCGTGAACTTCCTCTTC
GTGCCCCCCCCAATTTCGAGTCACCTACATCAACGGCCTGACGCTGGGCTGGGACACGTACCTGTCCTACTTGAAG
TACCGGAGCCCAGTTCCTCTGACACCCCCAGGCTGTGTGGCCCTGGACACCCGAGCAGAC**TGA**ACTGTCTGCTTC
CTGGACCAGATGCAAGACTGTCTCCTGGCGGACCACCCCCTCTGACAGAAGGGGAATGGGCTCCTGCAGCAAGCT
CGGGTCTTGAGCCACGTCCCAGCACCACTTCAGCTCCGGAGCATTGGGCTGAGCCGCCCTTTCCAAGCTCACTTC
TGGGACTGAGTTTCCTCAACCGGAACACACCCATGAAGATGGATGATCATCCCCTAGCCCTTCTCAGCAGGAACC
TCATGCGACCTGTGACCAAGATGTCCCATCCTCAGCACAGGGCCCACTCTGCCAACCAGTCTCAAGCACCAGCCC
CTCAACACTGCCATCCACCTGGCTCTGGGCCAAGCCACCAATCCAGAGCTCCCTCAGGTCCTGGGACTAAGGCGG
GGACATGACTGATCCCCTCAGAGCAGGCTCAGGCCTGGAGTCGGCCCCCAAAAGTTTCACATAGGGCCAGGCAGC
CTCTGTGTTTCTTTCCCTGGTCCTGAACTGTGGAAATGCCATTAAACTCTCTCTATAATGTAACTGAAACTGCTG
GCTGGGCGCAGTGGCTCCCACCTGTAATCTCAGCCCTTCCCGAGGCTGAGGTGGAAGGATTGCTCGAGGCCAGGT
GTTCGAGACCAGCCTGGGCAACATAGCAAGACCCTGTCTCTATTTATATTGAAAAATAAAAATAACAAAAG

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FIGURE 2524

GTCGCCGTTGCATCGGTGCAGGGCAAG**ATG**GCATCCGCCACAGACTCGCGCTATGGGCAGAAGGAGTCCTCGGAT
CAGAACTTCGACTACATGTTCAAGATTCTCATCATCGGCAACAGCAGCGTGGGCAAGACGTCCTTCCTCTTCCGC
TATGCTGACGACTCGTTCACGCCTGCCTTCGTCAGCACCGTGGGCATCGACTTCAAGGTCAAGACCATCTATCGC
AACGACAAGAGGATCAAGCTGCAGATCTGGGACACAGCAGGGCAAGAGCGGTACCGGACCATCACCACCGCATAC
TACCGGGGCGCTATGGGCTTCATCCTCATGTATGACATCACCAACGAGGAATCCTTCAATGCAGTGCAGGACTGG
TCCACCCAGATCAAGACCTACTCATGGGACAATGCCCAGGTGCTGCTGGTAGGAAACAAGTGTGACATGGAGGAT
GAGCGGGTGGTGTCATCAGAACGTGGCCGGCAGCTAGCTGACCACCTTGGGTTCGAGTTCTTTGAGGCAAGCGCC
AAGGACAACATTAACGTCAAGCAGACCTTTGAGCGCCTGGTGGATGTCATCTGCGAGAAGATGTCCGAGTCGTTG
GACACGGCGGACCCTGCGGTCACAGGCGCCAAGCAGGGCCCACAGCTCAGTGACCAGCAGGTGCCACCGCACCAG
GACTGCGCCTGC**TGA**GAGCCATCCCACTCCCTTTCCCCTCTTCCCTGTCTTCCCCACCTTCCCCCAACTACCCGG
GCCTGACCCGGCCCC

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FIGURE 2525A

GTGCGAGGGACACCGTCTCGGCCCCGGGGGTCTCCTGAGACCCTGTCTCCCTGCCCTCCATTTAGCAGCGATCAG
TGGACAATTTCTGTCTTCTCCACTCCAAGTCCTTGTCTTGGTTCTTTTCCATGCAGCGCTATAGGGGACGGCAGA
CGGTTTTCGGGGCTGGTGTGTTGGGGGGGGTCTCTTCAGCCCCTAGCTTCAACACCCCCTCACCACGTTCTTCTC
CCCTGTTCTACCCTTCAGCACCATCTGGGCATCGACAGCTCCTCGGTGTCGGCCCCACCTTGAGCCCCAGTTCCA
CCTTCTACCGCTTCAGCACCTCCGGCGCGGACAGCTCCTCGCTGTCGCCTCCACTCCCGGCCCTGGGCCGGACCC
GGGAGCAGACGCTCCTCGGCGCCCGCTCACGGGGACGAGTCCTGCTCCCTGCTATCCCAGACCCCTTTCTCTGGC
GC**ATG**GAGAACCTGGGGGTCGGCGAAGGGGCAGAGGCTTGCAGCAGGTTGAGTCGCTCTCGCGGCCGCCACAGCA
TGACCAGAGCCCCGAAGCACCTGTGGCGGCAACCCCGGCGCCCCATCCGCATCCAACAGCGCTTCTATTCGGATC
CGGACAAGTCCGCGGGCTGCCGCGAGAGGGACCTGAGCCCGCGGCCGGAGCTCAGGAAGTCGCGGCTCTCCTGGC
CCGTTTCCTCCTGCAGGCGCTTTGACCTGGAAAATGGGCTCTCGTGTGGGAGGAGGGCCCTGGACCCTCAGTCCA
GCCCTGGCCTGGGCCGGATTATGCAGGCTCCAGTCCCGCACAGCCAGCGGCGCGAGTCCTTCCTGTACCGCTCAG
ATAGCGACTATGAACTCTCGCCCAAGGCCATGTCTCGGAACTCCTCTGTGGCCAGCGACCTACATGGAGAGGACA
TGATTGTGACGCCCTTTGCCCAGGTCCTGGCCAGTCTGCGGACCGTTCGGAGCAACGTGGCGGCCCTTGCCCGCC
AGCAATGCCTAGGAGCAGCCAAGCAGGGACCCGTCGGAAACCCTTCATCCAGCAATCAGCTCCCTCCTGCAGAGG
ACACGGGGCAGAAGCTGGCATTGGAGACGCTAGACGAGCTGGACTGGTGCCTGGATCAGTTGGAGACGCTGCAGA
CCCGGCACTCGGTGGGGGAGATGGCCTCCAACAAGTTCAAGCGGATCCTGAACCGGGAGTTGACCCACCTGTCCG
AAACCAGCCGCTCCGGGAACCAGGTGTCCGAGTACATCTCCCGGACCTTCCTGGACCAGCAGACCGAGGTGGAGC
TGCCCAAGGTGACCGCTGAGGAGGCCCCACAGCCCATGTCCCGGATCAGTGGCCTACATGGGCTCTGCCACAGTG
CCAGCCTCTCCTCAGCCACTGTCCCACGCTTTGGGGTCCAGACTGACCAGGAGGAGCAACTGGCCAAGGAGCTAG
AAGACACCAACAAGTGGGGACTTGATGTGTTCAAGGTGGCGGAGCTAAGTGGGAACCGGCCCCTCACAGCTATCA
TATTCAGCATTTTTCAGGAGCGGGACCTGCTGAAGACATTCCAGATCCCAGCAGACACACTGGCCACCTACCTGC
TGATGCTGGAAGGTCACTACCACGCCAATGTGGCCTACCACAACAGCCTACATGCCGCCGACGTGGCCCAGTCCA
CGCATGTGCTGCTGGCTACGCCCGCCCTCGAGGCTGTGTTCACAGACTTGGAAATCCTGGCTGCCCTCTTTGCAA
GCGCCATCCACGACGTGGACCATCCTGGGGTCTCCAACCAGTTTCTGATTAACACCAACTCAGAGCTGGCGCTTA
TGTACAACGACGCCTCGGTGCTGGAGAACCATCACCTGGCTGTGGGCTTCAAGCTGCTGCAGGCAGAGAACTGCG
ATATCTTCCAGAACCTCAGCGCCAAGCAGCGACTGAGTCTGCGCAGGATGGTCATTGACATGGTGCTGGCCACAG
ACATGTCCAAACACATGAACCTCCTGGCCGACCTCAAGACCATGGTGGAGACCAAGAAGGTGACAAGCCTCGGTG
TCCTCCTCCTGGACAACTATTCCGACCGAATCCAGGTCTTGCAGAACCTGGTGCACTGTGCTGATCTGAGCAACC
CCACCAAGCCGCTGCCCCTGTACCGCCAGTGGACGGACCGCATCATGGCCGAGTTCTTCCAGCAGGGAGACCGCG
AGCGTGAGTCGGGCCTGGACATCAGTCCCATGTGTGACAAGCATACGGCCTCAGTGGAGAAGTCCCAGGTGGGTT
TCATTGACTACATTGCTCACCCACTGTGGGAGACTTGGGCTGACCTGGTCCACCCAGATGCACAGGACCTGCTGG
ACACGCTGGAGGACAATCGAGAGTGGTACCAGAGCAAGATCCCCCGAAGTCCCTCAGACCTCACCAACCCCGAGC
GGGACGGGCCTGACAGATTCCAGTTTGAACTGACTCTGGAGGAGGCAGAGGAAGAGGATGAGGAGGAAGAAGAGG
AGGGGGAAGAGACAGCTTTAGCCAAAGAGGCCTTGGAGTTGCCTGACACTGAACTCCTGTCCCCTGAAGCCGGCC
CAGACCCTGGGGACTTACCCCTCGACAACCAGAGGACT**TAG**GCCAGCCCTGCGTGAACTGCAGGGGCAATGGAT
GGTAAAGCCCTTTGGCTCTTGGCAGGCAGACTTTCCAGGAAGAGGCTCCATGTGGCTCCTGCTTCACTTTCCCAC
CCATTTAGGGAGACAATCAAGCTCTTAGTTATAGGTGGCTCCCAGGGTCTAATTGGAGGCACCTGGCTGGGGTCC
ACTCTGACCCTAGACTTGCCTAAAAGAGCTCTCTAAGGGGCAGCCTCTTACGATGCCCTGGTGTCTTTCTCCTGG
GCTTCTATCCCTGTGAGGAGAGGTGCTGTCTGCTGGAGCCTCTAGTCCACCCTCTCCAGTGGTCACTCTTGAGTC
ACATCTGTCACTTAATTATTTCCTTCTTTATCAAATATTTATTGCTCATCTACTTCGTGCCAGCTTTCTGCCTCT
GTAGTAGCCCTGCACAAAGGGTGGGGAGTCAGGAGACCATCCCAAAGGCATCTCCCTGTCTTCCTCTACCAAGCG
GCTCTCTGCAAGAGCATGGAAATGTGAGTGGGGAAAATTTTCAGCACCAAAGCTTCACTCATACCCAGTTTTGTT
TCTGAAACTACGGTAGGGGGCAGGAAGAGGAGCAGAAAAGAAGGGCTGGGCAAGGCATAGTGGCTTATGCCTGTA
ATCCCGGTACTTTGGGAGGCTGAGGTGGGAGGACTGCTTAAGCTCAGGAGTTTGAGACCAGCCTGGGCAACATAG
CAAGACCCCCACCATCTCTGAAAAAAAAAATTAGCCAGGCATGGTGGTGTGCACCTGAGAATCCCAGCTACTCAG
AAGGTTGAGACAAAGGGGATCGCTTGAGCCCAGGAGTTGGAGGCTGAAGAGAGCTATGACTGCATCACTGCACTC
CAGCCTGGGCAACACAGCAAGATCCTGTCTAAAAATAAAAAGAAAAGAGAAGGAAAGGAAAGAGACGGGGCTCTG
AGGCCGAGCACAGTGGCCCATGCCTATAATCCCAGCACTTTGGGAGGCTGAGGCAGGTGGATCACCTGAGGTTAG

FIGURE 2525B

GAGTTCGAGACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAATACAAAAATTGGCTGGGCATGGTG
GCGGGTGCCTGTAATCCCAGCTACTGGGGAGGCTGAGGCAGGAGAATCACTTGAATTCAGGAGGTGGAGGTTGCA
GTGAGCCGACATCATGCCACTGCACTCCAGCCTGGGCGACAGAGCAAGACACTGTCTCAAAAAAG

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FIGURE 2526

ATGGCGTGCCCCCAGCTGCCGCCACTTCTGCTTTTGGTGCTGGTGGTGCTGCTGAAAGCTGGTGTGAATTACAAT
ACTCCCTTTACAGGCCACGCTGGTCCGCCAACCCTCCGAGGAAGGCTGGGTTTTCCCCCAGAAACAAACGGAGCA
GCTGTGAGGACAGATGAGGCACCGCTGCTCCCAAGCCCTGGGGCTGTGGGTCCTGCAACTCCAGGCCTGGGGGGC
TACATAGAGATCTGGGGAGGGTGGCATGTGGACCCAGCCCCCTCTCAGGGCCAGTGTTGTGTGTTATTTCCGCAT
TTCTGCTGCCTAGGCACCCACAGTTCAGGGGAACCCCCCAAATCCTACTCCAGCACCATGAGTTTGGAGACAGAC
TCCATAACCCACCTCAGCCCCTCAAGTTCAGGGGCAACCCCTACCATCCAGCCGAGCCCCAGCTCCACAGATTCA
AGGATGATACCCTCCTCCCCACAACCAGAGACAATCACGCACCCTAGTTCTGGCTCCCCCAGTGCAGAGCTCACC
CCCTCTTCCCATTCCACCCTCCCCAGTTCCGAATCCCTGACCCCGCACTGGAGCCCCACTTCCCACAGCCCCGGA
ACGGAGCCCTTGACCTCCACTGACCAGACCTTGGAGCCCCCTGGCCCAGGTGACACTGGGCCCCGTGAGTTACAC
AGGAACCCGAGTGTGGTGGTGGTCGTGTGTTTGCTGGTGTCTCTTTTGCTCATCGGGTCTGTGGTCATGGCTGTG
AGATTCTGTCACCGGAATGAGTCCAAGTTTGAGAACCTGGACGAGGTGTCCATGGGATCCGTGAATGACAGATTG
TCCTTTGCCCACCACCTCCAGGAG**TGA**

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FIGURE 2527A

GCACAGCCATCTGTGGTGACTAGGAGGTCCCCAAGCCGAGGACACCCATCAAGGACCTTTAGAGTGGCCTCAGAC
CAAGGTCACCAATCA**ATG**GCTAACTGGGGGTCCCAAAACCTAGCCCAGCCATCTATGGACAGTGGGGAGCCCTCA
AGCCTAGCCCAGCCATCTCAAGCCCCTGGGGTAACCTCAAATCTGGCCCAGCCATCTCAAGCCTTTGGGGTGTCT
CCAAGTCCAGACTACCCATCTCAGTCTGTTGGGGAGTACCCAATGCTGGCTCAGCCATTTCAGCCCACTGAGGTG
TCCCCAAGTCCAACCTACCCATCTCAGGCCATTAGGGAGTACCCAACCCTGGCCCACCCATATCAGCTCACTGAG
GTGTCCCCAAGTGCAGCCTACTCATATCAGCCCACTGAGGTGTCCCCAAACCCAGGCTACCTATCTATGGCCATT
GAGATGTCCCCAAGCCCAGAATACCCATCTGTGGCCACTGAGGTGTCCCCAAGCCCAACCTACCCATATCAGCCC
ACTGAGATATCCCCAAGCTCAGGCTACCTATCTGTGGCCACTGAGGTGTCCCCAAGCCCAGGCTACCCATCTCAG
CTCACTGAGGTGTCCCCAAGCTCAGGCTACCTATCTGTGGCCACTGAAGTGTCCCCAAGCCCAGACTACTCATCT
CAGCCTACTGAGATGTCCCCAAGCTCAGGCTACCTATCTATGGCCACTGAGGTGTCCCCAAGCCCAGGCTACCCA
TTTCAGCCCACTGAGGTGTCCCCAAGCCCAGACTATCCATGTGTGGCCACTGGGGAGTCCCCTAGCCTTGCCCAG
CCATCTCAGCCCACTGAGGTGTCCCCAAGCTCAGCCTACCCATCTGTGGTCACTGGGGAGTCTCCAAGCCTGGCC
CAGTCATATCAGCGCACTGAGGTGTTCCCAAGCCCAGCCTACCCATTTATGGCCACTGAGGTGTCCCCAAGCCCA
GGCGACCCATCTGTGGTCACTGGGGAGTCCCCAAGCCCAGCCTACCCATCTCAGCCCACTGAGATGTCCCCAAGC
CCAGCCTACCCATCTCAGCCCACTGGGGAGTCTCCAAGCCTGACCCAGCCATCTCTGACCATCAGAGTGTCCCCA
AGCCTAGCCATGTCATCTCAGACTATTGGAGTGTCCCCAAGCCTAGCCATGCCATCTCAGACCATTGGAGTGTCC
CCAAGCCTAGCCATGCCATTTCACACCATTGGAGTGTCCCCAACCCTAGCTCACCCATCTATGGCCATTCGGGAG
TCTCCAAGCCTGGCCCAGCCTCCTCAGTCCACTGGGGAATCCCCAAGCTTGACCTGGCCATCTCAGGCCACTGGG
GTGTCCCCAAGTGTAGCCCACCAATCTGTGGCCAGTAGGGTTTCCTCAAGCCTAGCCCAGCCATCTCAAGCCAGT
GGGATGTCCCCTAGACAAGATTACCCACCAGTGGCCTCCAGGGTGTCCCCAAACCAAGCTCACGCATCTATAACC
AGCAGGATGTCCCCTAGCAGAGCTCATGCATCTATGACCTGTATGGTGTCCCCAAGCCAGGTTCATCGATCTATG
CCCAGTGAGGTGTCCCCAAGCCTTGCCCAGCTATCTCAGGCCACCACTGCAGTGCCCTTAAGACCAGCTCATCAA
CCTATGGCCTGTGGTGTATCCCCAAGCCTAGCCCAGCCGTCTCAAGCCACAGGGATGTCTTCAAGGCTAGCCCAC
CAACCTATGACCTGTGTGGTGTCCTTAAGCCCAGCCCAGCCATCTCAAGCCATTGGTGTGTCCCCAAGCCTAGCC
CACCCATCAGGACCCCATGGGTTGTCTCCAAGTCTAGCTCACCCATATGTGGCCAGTGGGGCGGGCTCCAGCCTA
GCCCACCCATCTCAGACCACTGCAGTATCCCCAAGGCAAGCCCAACCATCTGTGGCCTCCAGTCCAGGCAAGACA
AATTCATCCTGTACCCTAGCCTCCAGCCTAGCCGAGCCAGCTATAGCCCCCAGCCTATTCCCACCATCTGTGGCC
CACACGGAAGCCCTAAGCCTGGCTCAGTCACCCCCGGACACTAGGTTGGCCCCAAGCCGATCCCAGCCATCTGTG
GTCAGTGGTACATGTCATGGCCTCAATGAGCCATGCTGGGGCTCTAGGCTGGATTCAAATCTGCAGTGTTCAAGG
GTGGACTCAGTAGCCCCGTGTCTGTGTCACCCATCAGCGTTTGTTTCAGTTAGCCTGGGTGGACCATATCCCTCT
GTGGCTGGAAATATGGACCAGGGTCTGAACCAGCCATCCCTGGGTACTGGGGTGAACCTATGTGAAGAACCTCTG
ATGGTTAGTGAGATGGTATCCAGCCCCCCGGACTTCAAGTTCAACGACGTGTCCCTTGGGTTCCATCATCCACCC
AGGGTTGGTGGGAGGCATGTGTGTCCACCCTCTGTGGTTAGTGTTTCAACACCAAATCTCTCTCATGCTGATGAG
GAGGCCTGTTGTGTAGGCCAG**TGA**ATCACGCCTCTGTTCAGGGGTGTGGCTGTAAGCCATCCCCAGGAGCCTTTG
GCTGATGCTATGTTCCCCAGTGGGTCTCAGGGGACCACATCTCCTGGCCTAGCTGGGAATCTCCCCTGGAGAACC
ATAGCAACTGGCATGGGCCAAAGTCAATGTCAGGTGGCCAATGGCATGGCTTCCCTTGCATCCCAGGTCTTAGAG
GCAGGTGGCCCTTTGACACATCCCTCTGGAACCACAGGGATGGCCCCCAGCCCCTCTCTGGCTTCAGTGCCCAAC
AGACTGGCCGTGACTCAGTCTAATCTTTCCCTGAACAGCATGGACCCCAGCAGCTCCCAGATCAGTGTGGTTATT
CCAAAAAACATAGACTGCTGGCACCCTTCTGAGGCATCCATGGTCCCACCCAGTTACCAGCAGAGAGATGTGATT
CCGCAGGACTCTCTGAAGAGCAGGGCTGGTCGTGGTGCGGCAGGAGGTTTTGTAGCCAGTAGAATGAGCACGGGC
GCAGTCCCAGGCACTCTGCCTGGTGGCATAACCTCCAGCCTTCCCCCGGGCTCCACCATCCGAGGCATGGGTCAC
AGCCTTCCCGCAGGCTCTGTGTCCAGTTGGGTGGCTCCCAGTCTGATGGCAGACAGAAAGAAGCCAAGTCTATCT
GTAAGACCCTCCGCTAGCTTAGCTGCTCCAAACTTGCTCCCAGGTTCAGTAGTGAGTCGGGTGAGCCCAGTTGTC
CCCCTGGTTCTGTGCCAATGATGGGGGCCTCTAGTGTGGCTCAGAGCTGCTCCAAGGGGCCCATGGTGATTGACA
TCACTGCCCCTCCTTACCTCAAAGCCTGGCTGGGGAGAGGTCTTTAGCCCCCTTGCAGATGCCCCACACCACCAG
TCTGGCTCCAGGTCACTCCTCAGCCCCGGCAGCTAGTGGCACAGTGAGGAGTCTACACCGAGTGCCCACGGTTCT
ATCAAGAGCCTTACAATTGAGCCAAGATGCTAGGATAATGCCATCTGGGGTCACAGGGGACCAAGCCAAGCTAGG
AGAATTGGATGAGGCTGTGTTCCAAGTGTCAGGATCAAGTGGATCCAATGACCTATTCAGCAAAGCCAGGGTCAC

FIGURE 2527B

TGGTGCAACCCAGTGGATGTACTCCAGTCCTCTGGGAGCTGATGGGGGCCATGATCATAGGTCCCTGTCTGAGAA
AGGGTCTCTTCCCCAAGGGAGGTGGCTCCCAGCCATGCTAGTGGCATGGTCCCTGTCCCTTTCCAGGCCCCGGGT
TTAGCCACTAAGTCCCCCTCAGTTTATCAACAGGGGTCTGTCACTCACGTCATACCCCCAAATCACTCTCAGGGT
ACAGTGGCTTCTAATGTAGTCTCAGGATCACCCCAGCTGGCCCGTGGCAGTACTGAGGCTTTCAGATTGCTTTCA
GTGTCTGTGGGCAGGATGGGGAATCCTAGTCTTCTTCAGAGGTCAGGGACCACCAGCATGGTCTCACATGTGCCA
CTATATCCGTCCTCGGCTAGAAGGGCATTGTCCAGTCCCTTCCAGACAGAAGCTGTCCCCAATCCACTCCAGAAA
ACAGTGTCTGGAAACATGGCTCCGAGCAGCCGCTGGGACGCCATGGGCCCTAAAAATTCCTACAGATCCGTGCAT
GGTAGGATTGTTCCAGAACTGCTAGAAAGTTCTGTGGCCAGGGTTAGGCCCTTACAGTATGTGCAAAGACAACCA
TCCCAGGCCTCAGCCCGAAGTGGTGCAAACCCCACCCACAGGCCCTCTGCAGAGGTAAGGCCCGTCATCCGCACT
GGGGAGATGACACACTCCTCGGTCATTCCTCCGCTGGCCCCGGGAGTTCGGAGGGTGTCTCTAGGCTATGAGTCT
TCCCCAAGTGGTTCCCTGCCACCCCTTTTTAACCAGGAGTCACCGTGGAGACGGCAGGACTCCTATAGCCCCCAG
AATCCTGCCGTTAGTCACAAGGCATCCCTGAACTCCACTATACTCCAGGGCCCCGCGGACGCTGGTGTGGTTGGT
GGCCAATCGTGGAACCGCGCATGGGAGCCAGCCAGGGGTGCTGCGTCCTGGGACACCTGGCGCAACAAGGCGGTG
GTGCCTCCCAGGCGGTCCGGGGAGCCAATGGTGTCCATGCAGGCTGCAGAGGAGATCCGCATCCTCGCAGTGATC
ACTATCCAGGCGGGCGTCCGTGGCTACCTGGCGCGTCGCAGGATCCGGCTGTGGCACCGGGGGGCCATGGTCATC
CAAGCTACTTGGCGCGGCTACCGTGTGCGGCGGAACCTGGCACACCTCTGCAGAGCCACCACGACCATCCAGTCT
GCCTGGCGCGGCTACAGCACCCGCCGGGACCAAGCCCGGCACTGGCAGATGCTCCACCCCGTCACGTGGGTGGAG
CTGGGCAGCCGGGCCGGGGTCATGTCTGACCGAAGCTGGTTCCAGGATGGCAGAGCCAGGACAGTATCTGACCAT
CGCTGCTTCCAGTCCTGCCAGGCACACGCTTGCAGCGTCTGCCACTCCCTGAGCTCCAGGATCGGGAGCCCGCCC
AGCGTGGTGATGCTAGTGGGCTCCAGCCCTCGCACCTGTCATACCTGTGGACGCACACAGCCCACCCGTGTGGTG
CAGGGCATGGGCCAGGGCACTGAGGGCCCCGGGGCAGTGTCTTGGGCCTCCGCCTACCAGCTGGCTGCCCTGAGT
CCCAGGCAGCCGCATCGCCAGGACAAAGCGGCCACAGCCATCCAGTCCGCCTGGAGGGGCTTTAAGATCCGCCAG
CAGATGAGGCAGCAGCAAATGGCAGCGAAGATAGTTCAAGCCACCTGGCGAGGCCACCATACCCGGAGCTGTCTG
AAGAACACAGAGGCGCTCTTGGGACCAGCAGACCCCTCGGCCAGCTCACGGCACATGCATTGGCCTGGCATCTAG
GACCCTGGCTCCCTGCAGTGGGGACTTCGTGGGAGGCACTCATGGCTCTCTGGGTCTAATGAATAAAGTCCTCCA
CAGCCT

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FIGURE 2528

CCGAGGCTATAAGAGGGCGCACAAGTGGCGCGGCGCAGGAGCCGCCGCCAGTGGAGGGCCGGGCGCTGCGGCCGC
GGCCGGGGCGGGCGCAGGGCCGAGCGGACGGGGGGGCGCGGGCCCCCCGGGAGGCCGCGGCCACTCCCCCCCGGG
CCGGCGCGGCGGGGGAGGCGGAGG**ATG**GAAACACCCTTCTACGGCGATGAGGCGCTGAGCGGCCTGGGCGGCGGC
GCCAGTGGCAGCGGCGGCAGCTTCGCGTCCCCGGGCCGCTTGTTCCCCGGGGCGCCCCCGACGGCCGCGGCCGGC
AGCATGATGAAGAAGGACGCGCTGACGCTGAGCCTGAGTGAGCAGGTGGCGGCAGCGCTCAAGCCTGCGGCCGCG
CCGCCTCCTACCCCCCTGCGCGCCGACGGCGCCCCCAGCGCGGCACCCCCCGACGGCCTGCTCGCCTCTCCCGAC
CTGGGGCTGCTGAAGCTGGCCTCCCCCGAGCTCGAGCGCCTCATCATCCAGTCCAACGGGCTGGTCACCACCACG
CCGACGAGCTCACAGTTCCTCTACCCCAAGGTGGCGGCCAGCGAGGAGCAGGAGTTCGCCGAGGGCTTCGTCAAG
GCCCTGGAGGATTTACACAAGCAGAACCAGCTCGGCGCGGGCGCGGCCGCTGCCGCCGCCGCCGCCGCCGCCGGG
GGGCCCTCGGGCACGGCCACGGGCTCCGCGCCCCCCGGCGAGCTGGCCCCGGCGGCGGCCGCGCCCGAAGCGCCT
GTCTACGCGAACCTGAGCAGCTACGCGGGCGGCGCCGGGGGCGCGGGGGGCGCCGCGACGGTCGCCTTCGCTGCC
GAACCTGTGCCCTTCCCGCCGCCGCCACCCCCAGGCGCGTTGGGGCCGCCGCGCCTGGCTGCGCTCAAGGACGAG
CCACAGACGGTGCCCGACGTGCCGAGCTTCGGCGAGAGCCCGCCGTTGTCGCCCATCGACATGGACACGCAGGAG
CGCATCAAGGCGGAGCGCAAGCGGCTGCGCAACCGCATCGCCGCCTCCAAGTGCCGCAAGCGCAAGCTGGAGCGC
ATCTCGCGCCTGGAAGAGAAAGTGAAGACCCTCAAGAGTCAGAACACGGAGCTGGCGTCCACGGCGAGCCTGCTG
CGCGAGCAGGTGGCGCAGCTCAAGCAGAAAGTCCTCAGCCACGTCAACAGCGGCTGCCAGCTGCTGCCCCAGCAC
CAGGTGCCCGCGTAC**TGA**GTCCGCGCGCGGGGCGCATGCGCGGCCACCCTCCCCAAGGGGCGGGCTCGCGGGGGG
GTGTCGTGGGCGCCCCGGACTTGGAGAGGGTGCGGCCCTGGGGACCCCCCCTCCCCGAGTGTGCCCAGGAACTCA
GAGAGGGCGCGGCCCCCGGGGATTCCCCCCCCCCGAGGGTGCCCAGGACTCGACAAGCTGGACCCCCTGCTCCCG
GGGGGGCGAGCGCATGACCCCCCCGCCCTCGCGCTGCCTCTTTCCCCCGCGCGGCCGCCCCGTGTTGCACAAACC
CGCGCGTCTCGGCTGCCCCTTTGTACACCGCGCCGCGGAAGGGGGCTCCGAGGGGGCGCAGCCTCAAACCCTGCC
TTTCCTTTACTTTTACTTTTTTTTTTTTTCTTTGGAAGAGAGAAGAACAGAGTGTTCGATTCTGCCCTATTTAT
GTTTCTACTCGGGAACAAACGTTGGTTGTGTGTGTGTGTTTTCTTGTGTTGGTTTTTTAAAGAAATGGGAAGA
AGAAAAAAAAATTCTCCGCCCCTTTCCTCGATCTCGCTCCCCCCTTCGGTTCTTTCGACCGGTCCCCCCTCCCTT
TTTTGTTCTGTTTTGTTTTGTTTTGCTACGAGTCCACATTCCTGTTTGTAATCCTTGGTTCGCCCGGTTTTCTGT
TTTCAGTAAAGTCTCGTTACGCCA

FIGURE 2529

ATGTGCCCAGAAGGATGTCAGTACACGGGGAGGGGCCACACGCTGAGGACCCCGCAGCTAGGCGAGGCAGGAGGC
CTCCACCAGCCTCCAGGCCTCTGCCCGCGCCGTTCCCTCCGCCTGGAATGCGCCTCCCGCCCCAACCCAACCCTG
TGTTTACTGCGACTTCCCTCCCTTCGGCCTGGCCCTGACCCCTCCGGGGCAGGGCGTGTCCGTGTCTGGCTGCTA
GCACCACCCTGCCCTCAGTCTGTCAGCGGGGAAATGGCTCAGTACCTGGAAAAGCCACGAGTATGTGGTCGGATG
CAGGCAAAACCCACACATCATGACACTGCCCTGAGAAGTGGGATAACGTCCCTCACCACTCGTGGAGCTGCTGCT
GAGATAAAGGTGAAAATGCAGAGTCCCGGACCAAGCCCTAGTGTTGCCCCAACCTCATCTGCAACTTTCATTGCC
TTGGGGACTTTCAGGATTAAGCGATTCCTGGACAAGAAACAAAAGCAAAATCGTCCCATTCCCCAGTGGATTTGG
ATGAAAACTGGAAATAAAATCAGGTACAACTCCAAAAGGACACTGGAGAAGAACCAAGCTGGGTCTATAAGGAAT
TGCACA**TGA**

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FIGURE 2530

CAGCGGCGGCGGCGGAAGTGGCCGGCGAGCCCGGTCCCCGCCGGCACC**ATG**CTTCCCTTGTCACTGCTGAAGACG
GCTCAGAATCACCCCATGTTGGTGGAGCTGAAAAATGGGGAGACGTACAATGGACACCTGGTGAGCTGCGACAAC
TGGATGAACATTAACCTGCGAGAAGTCATCTGCACGTCCAGGGACGGGGACAAGTTCTGGCGGATGCCCGAGTGC
TACATCCGCGGCAGCACCATCAAGTACCTGCGCATCCCCGACGAGATCATCGACATGGTCAAGGAGGAGGTGGTG
GCCAAGGGCCGCGGCCGCGGAGGCCTGCAGCAGCAGAAGCAGCAGAAAGGCCGCGGCATGGGCGGCGCTGGCCGA
GGTGTGTTTGGTGGCCGGGGCCGAGGTGGGATCCCGGGCACAGGCAGAGGCCAGCCAGAGAAGAAGCCTGGCAGA
CAGGCGGGCAAACAG**TGA**GCGCCCACCCAGACCGGCTGCTGCGCCCCCTCCTGCCAGGGTGGCGATTCCGCTCCA
CAGTCTCGGACGGATCTGCTCAGAAAGGAAGAGGCAGGCGCCAGGGGGAACCCCCTTCGTGTTTTGTGACCCTCC
CTTTTAGGTGAAGCCCCTTTTTCTTGCTAAAACCGGCAATTCTCCGGTTAGAAATGTTACTTGGTGTTTTTTGGT
TTTGTGAAACGGCCGTCCCAAAACTGGCTGGATTCCTAGAAGAGTCTGTGTTGAAGGCATCTTTCAAGCCCTCGC
TCTGGTTCTCAGGGCAGCATTTTCCAGGCGGGTTTGTTTTGCATTTCTTGGAGCCTCTCCGAGCAGCAACCAGAC
GGGAGATTTTTATTTTAAGCTGTTCATGCTGGGACTGACAGCCTGCAGGGTTTCCTTGGGCGCGGCCCCAAAATT
GCCTTCAAAACAAACCCGGGACGGTTGAAAGCCTTCGAACCGTGCAGGGGATGCCTCGGGCCCTGGCCCTTCGCT
TCCTCTCTTGTGTTATGGAAATAAAAACAAATAAAACTACA

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FIGURE 2531

GCTTTGTTTTTATAATCCGGATTAAATTTCCCTTCCCTGGGCACAAGTGCCTCATGAGGGCCCGGGGCTGCTGGT
TGGGAGGGAAAGCATCCCCGTTTTTGCAGTGAGGAGGCCGGCCGAGGGCTGGGGTTCCACTTAGACCCTTGGCAG
A**ATG**GCTGTTGAGGGGCAGGCGCTGCCCAGTGCCCACGTCTGGAAAGCTAATTCCCGGGTGGACGCTGAACATAC
CTGC**TGA**GAGACTCTGTCCCCTGGTTTCCAGGACAGTTGTCACAAGCTGAGTGGGGGGGGACTCCCAGGACTTGA
GGGACCCAGTCCCACCCCAAACTGCTCCCCCTCCCCCAAATTCCCTTTCTCCTCCTGCTCTTTCTCCCCGCTGTG
CCTCCCCCAGTTACCCACAGAAGTGCCTGCCTCTCCAGCGCTCACAGAACACACAAAAAGGGACAGGAATTGGTC
ACTGGGTAGTGGCCGTGGCTCCTGACGATCCAGACCAGCGTCTGGCCCAAGCCATTCAGAGGTGGGGTCTGGGGC
CTGGGGGTTTTGTGTCGTGACACTTTGTCTCAAGGAGATTCCACATAGGGATTTGAATTAGGCTTTCTGCTTGCC
AAGGCCTGTGGCATCTGAGCCTGGCTGAGGGCCGGGCAAGCCTCCCCTGAGCCTTTGGAAGCCGAGTTCACTCTC
TGCCTGCCCAGGGGAGCACCGGCTTGGTTCTGGGGGCTCCTCTAACATCTCAGGTTTTTATCTTGTCTTAAATTT
CTTTCTAGGAAAAAACCCTTCCCTGCCAAAGGTGACTGTGTTTTCTGCCGCCGAAGGAGGGCCCGGTCCCTCCAG
GCTCAGTGTGGCTTCTCCCTGACCCCCGCCCTAGAACTTTTGCCAGTGCCTTTTCTGAAACTCCTGTGTCCCGGG
CCCCCCAGGCGGAGAAGGATATGCCGGATTCTGCCTGGGGCTGGGCTCTAGGAGACCCCAAATTTGACACCACAG
AAAGCAAATAAAACACTTGAAATACGC

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FIGURE 2532

GCAACCTGCACAGCCATGCCCGGGCAAGAACTCAGGACGGTGAATGGCTCTCAGATGCTCCTGGTGTTGCTGGTG
CTCTCGTGGCTGCCGCATGGGGGCGCCCTGTCTCTGGCCGAGGCGAGCCGCGCAAGTTTCCCGGGACCCTCAGAG
TTGCACTCCGAAGACTCCAGATTCCGAGAGTTGCGGAAACGCTACGAGGACCTGCTAACCAGGCTGCGGGCCAAC
CAGAGCTGGGAAGATTCGAACACCGACCTCGTCCCGGCCCCTGCAGTCCGGATACTCACGCCAGAAGTGCGGCTG
GGATCCGGCGGCCACCTGCACCTGCGTATCTCTCGGGCCGCCCTTCCCGAGGGGCTCCCCGAGGCCTCCCGCCTT
CACCGGGCTCTGTTCCGGCTGTCCCCGACGGCGTCAAGGTCGTGGGACGTGACACGACCGCTGCGGCGTCAGCTC
AGCCTTGCAAGACCCCAGGCGCCCGCGCTGCACCTGCGACTGTCGCCGCCGCCGTCGCAGTCGGACCAACTGCTG
GCAGAATCTTCGTCCGCACGGCCCCAGCTGGAGTTGCACTTGCGGCCGCAAGCCGCCAGGGGGCGCCGCAGAGCG
CGTGCGCGCAACGGGGACCACTGTCCGCTCGGGCCCGGGCGTTGCTGCCGTCTGCACACGGTCCGCGCGTCGCTG
GAAGACCTGGGCTGGGCCGATTGGGTGCTGTCGCCACGGGAGGTGCAAGTGACCATGTGCATCGGCGCGTGCCCG
AGCCAGTTCCGGGCGGCAAACATGCACGCGCAGATCAAGACGAGCCTGCACCGCCTGAAGCCCGACACGGTGCCA
GCGCCCTGCTGCGTGCCCGCCAGCTACAATCCCATGGTGCTCATTCAAAAGACCGACACCGGGGTGTCGCTCCAG
ACCTATGATGACTTGTTAGCCAAAGACTGCCACTGCATATTGAGCAGTCCTGGTCCTTCCACTGTGCACCTGCGCG
GAGGACGCGACCTCAGTTGTCCTGCCCTGTGGAATGGGCTCAAGGTTCCTGAGACACCCGATTCCTGCCCAAACA
GCTGTATTTATATAAGTCTGTTATTTATTATTAATTTATTGGGGTGACCTTCTTGGGGACTCGGGGGCTGGTCTG
ATGGAACTGTGTATTTATTTAAAACTCTGGTGATAAAAATAAAGCTGTCTGAACTGTT

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FIGURE 2533

GAGGAAAAAAAGCCACCCTGCGGCCGGGGCCGGAGCTGGAGCCGCCGCTGCCGCCGCCGCCGCGGCCGTCTGGAG
CTCCCCCGCGCGGACGATGCCTGCCGTGCCCGCCTGGGGCTCGGGGCGGTGAGGCCCGGGGCGCGGGGTAGCTAT
GGCGACGGCAAGCGCGGCCCGCGGCGCCGCCTGACAGGTGTGGGCCCCGGCGGCGGCGGCGTGGAGCAGC**ATG**TA
CGCCAAGGGGGGCAAGGGTTCGGCCGTGCCCTCCGACAGCCAGGCCCGCGAGAAGTTGGCGCTGTACGTTTATGA
GTACCTGCTGCACATCGGTGCCCAGAAGTCAGCCCAGACCTTCCTGTCTGAGATCCGATGGGAGAAGAACATCAC
GCTGGGGGAGCCCCCTGGGTTCCTGCACTCCTGGTGGTGCGTCTTCTGGGACCTGTACTGCGCGGCGCCTGACAG
AAGAGAGGCCTGCGAGCACTCCGGCGAGGCCAAGGCCTTCCAGGACTATAGTGCTGCAGCCGCCCCCAGCCCCGT
TATGGGGAGTATGGCCCCAGGTGACACAATGGCCGCAGGCTCCATGGCGGCTGGCTTCTTCCAGGGCCCCCCCGG
CTCCCAGCCGTCCCCCCACAACCCCAACGCCCCCATGATGGGGCCTCACGGTCAGCCCTTCATGTCACCGCGCTT
CCCAGGGGGCCCCCGGCCCACCCTGCGGATGCCGAGTCAGCCTCCCGCAGGCCTCCCTGGCTCCCAGCCCCTCCT
CCCTGGCGCCATGGAGCCCTCCCCACGAGCCCAGGGGCATCCGAGCATGGGCGGCCCAATGCAGAGGGTGACGCC
TCCTCGTGGCATGGCCAGCGTGGGGCCCCAGAGCTATGGAGGTGGCATGCGACCCCCACCCAACTCCCTCGCCGG
CCCAGGCCTGCCTGCCATGAACATGGGCCCAGGAGTTCGTGGCCCGTGGGCCAGCCCCAGTGGAAACTCGATCCC
CTACTCCTCCTCATCCCCCGGCAGCTACACCGGACCCCCAGGAGGAGGTGGGCCCCCTGGAACACCCATCATGCC
TAGCCCTGGAGATTCCACCAACTCCAGCGAAAACATGTACACTATCATGAACCCCATCGGGCAGGGCGCCGGCAG
GGCTAATTTCCCGCTCGGCCCTGGCCCGGAGGGCCCCATGGCCGCCATGAGCGCGATGGAGCCTCACCACGTGAA
CGGATCCCTGGGCTCGGGCGACATGGACGGGTTGCCGAAGAGTTCCCCCGGCGCCGTGGCCGGCCTGAGCAACGC
CCCGGGCACCCCGCGGGACGACGGCGAGATGGCGGCCGCCGGGACCTTCCTGCACCCGTTCCCGAGCGAAAGCTA
CTCGCCAGGGATGACCATGAGCGTG**TGA**TGGGGCGGCAGCCCCGGGCCTCTCTGCGGGCCTAGGCTTCTGCCCAG
CGCCCCTGCTCAGGGCGAGGGGCTGAGGTCACACCTCGGGCACCTGGACTCCTGGCCAATCAAGGCTTGCCCAGC
TGGGAGGCCCCACACGAAAGACTCTTACCATTTTATTAAAAACGCAAGGACCTCAGAGACGTTCTTTTCTGTATG
GACCCTTCCTGCCATTTGTATTTTGTCCCAGAGAGAAAGGCTCTTTGGGGGGCCCCTCTCCCCAGGACGTCAGGG
GGTGGGGCCCATAAATAAATGGAAGCTGGTTTTGGTTTTTGGT

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FIGURE 2534

GACTTTGTCCCCCGAGATGGATGGGGGCGGACATGGGGAGCCAGGGGATGGGACTGCCTGGTAGGTGCTGCTGCC
CACGAAGGGGGAGTAGGTGGCAGTGTGGCTCCGAGGAGATTCTGGCTTTGGAGTTCTGGTCCTCTGCCTGTTTCC
CCTGCAGTGTCTCTGACCCAGACCCCCTACCTACCCCCCCGGAGGCCCAGCTTCCCTGCCCAGCTCCACCCCCTG
GCTTGTGGCTGGGCTCATGTGTAGCCTCATTGTCCTCTTGTAAAGGGGGGATAGGCAGCCATGAGCCCCTGGGGG
CTGCGGAGCGAGCGAGGTGAACCTATACGCGCCGCGCTCGTGGACGCCTGGCCACTTCCGCCAGGCGGGGACCCG
ATGGCCACGGTGGCTCTGGGTTGTCGGGCCTCGAACCGGGTCTCCAGACGTTGGGCCCCTCCCTCCCAGCGCGGG
AGAGGCGGGGAAGGGGGCGGGGCGGGGGAGGGGCCGCAGCGCTTTTCTCCGGAGGTCGCGCGCCCGAGAGCCCGC
GCTGTCCGCCGCCGCTGCCTGAGTCGACTCTGCGCCGCCCGCCGCG**ATG**GAGGCCGCCGCCCAGTTCTTCGTCGA
GAGCCCGGACGTGGTCTACGGCCCCGAGGCCATCGAGGCGCAATACGAGTACCGGACGACGCGCGTCAGCCGCGA
GGGTGGCGTTCTCAAGGTGCACCCCACGTCCACGCGCTTCACCTTCCGGACCGCCCGGCAGGTGCCCCGGCTCGG
GGTCATGCTTGTCGGCTGGGGCGGGAACAACGGCTCCACACTCACCGCCGCGGTGCTGGCCAATCGACTGCGTTT
GTCCTGGCCCACGCGCAGCGGCCGCAAGGAGGCCAACTACTACGGCTCGCTGACTCAGGCGGGCACCGTGAGCCT
GGGCCTGGACGCCGAGGGCCAGGAGGTGTTCGTACCCTTCAGCGCGGTGCTGCCCATGGTGGCGCCCAACGACCT
CGTGTTCGATGGCTGGGACATCTCGTCGCTGAACCTGGCCGAGGCGATGCGGCGCGCGAAGGTGCTGGACTGGGG
GCTGCAGGAGCAACTGTGGCCGCACATGGAGGCCCTGCGGCCCCGGCCTTCTGTTTACATCCCCGAATTCATCGC
GGCCAACCAGAGCGCGCGCGCGGACAACCTCATCCCAGGCTCGCGTGCGCAGCAGCTGGAGCAGATCCGCAGGGA
CATCCGAGACTTCCGGTCTAGCGCGGGGCTGGACAAAGTCATAGTGCTGTGGACGGCGAACACGGAGCGCTTCTG
TGAGGTGATTCCAGGCCTCAACGACACAGCCGAGAACCTGCTGCGCACCATTGAGCTCGGTCTGGAGGTGTCGCC
CTCCACGCTCTTCGCCGTGGCCAGCATCCTGGAGGGCTGTGCCTTCCTCAATGGGTCTCCGCAGAACACCCTGGT
GCCCGGAGCTCTTGAGCTCGCGTGGCAGCACCGGGTTTTTGTGGGCGGAGATGACTTCAAGTCAGGCCAGACCAA
AGTCAAGTCCGTGCTTGTGGACTTCCTCATTGGCTCCGGCCTCAAGACCATGTCCATCGTGAGTTACAACCACCT
GGGCAACAACGATGGGGAGAACCTATCGGCGCCATTGCAGTTCCGCTCTAAGGAGGTGTCCAAGAGCAACGTGGT
GGACGACATGGTGCAGAGCAACCCAGTGCTCTATACGCCCGGCGAAGAGCCTGACCACTGCGTGGTCATCAAGTA
TGTGCCGTACGTGGGTGACAGCAAGCGCGCGCTGGATGAGTATACCTCGGAGCTGATGCTGGGCGGAACCAACAC
ACTGGTGCTGCACAACACGTGTGAGGACTCGCTGCTGGCCGCACCCATCATGCTGGACCTAGCGCTGCTGACCGA
GCTGTGCCAGCGCGTGAGCTTCTGCACTGACATGGACCCCGAGCCGCAGACCTTCCACCCCGTGCTGTCCCTGCT
CAGCTTCCTCTTCAAGGCGCCACTAGTGCCGCCCGGCAGCCCGGTGGTCAATGCGCTTTTCCGCCAGCGCAGCTG
CATCGAGAACATCCTCAGGGCCTGCGTGGGGCTCCCGCCACAGAACCACATGCTCCTGGAACACAAAATGGAGCG
CCCAGGGCCCAGCCTCAAGCGAGTTGGACCCGTGGCTGCCACCTACCCTATGTTGAACAAGAAAGGACCGGTACC
CGCTGCCACCAATGGCTGCACCGGTGATGCCAATGGGCATCTGCAAGAGGAGCCCCCAATGCCCACCACC**TGA**GG
CCCCGGTCACACAGTTTCTCGGCTCTTCCTCCCCGCTGCCCCCCACGACCCTACCTTGAAGGCCCCCACAAATAA
AGGCGCTGCCACTCAGCCCTCCTTCCACCTGGGGTTCTTGGGGCCTGTGACCTGA

FIGURE 2535

GATGGTCGCAAG**ATG**GCGGCGCTGAAGGAGGATAGGAGCTACGGGCTGTCGTGCGGGCGGGTTAGCGACGGCAGC
AAGGTGTCGGTGTTCCACGTGAAGCTCACCGACAGTGCCCTGAGGGCCTTCGAGAGCTACCGCGCCAGACAGGAT
TCTGTTTCACTGAGGCCATCTATCCGATTTCAAGGAAGCCAAGGGCACATCTCCATCCCCCAGCCTGACTGCCCC
GCAGAGGCGCGGACGTTCTCCTTCTACCTCTCCAACATCGGCCGCGACAACCCCCAGGGCAGCTTCGACTGCATC
CAGCAGTATGTCTCCAGTCATGGGGAAGTTCACCTGGACTGCCTGGGCAGCATACAGGACAAGATCACGGTGTGT
GCCACCGACGACTCCTACCAGAAGGCGCGGCAGAGCATGGCCCAGGCGGAGGAGGAGACGCGGAGCCGAAGTGCC
ATTGTCATCAAGGCTGGAGGCCGCTACCTGGGCAAGAAGGTTCAGTTTCGGAAACCAGCCCCAGGTGCAACAGAC
GCGGTGCCCTCCCGGAAGCGGGCAACCCCCATCAACTTGGCGAGTGCCATCAGGAAGAGTGGTGCCAGTGCCGTG
AGTGGGGGCAGCGGGGTGTCCCAGAGGCCCTTCCGTGACCGAGTGCTGCACCTCCTGGCACTACGGCCCTACCGC
AAGGCTGAGCTGCTGCTGCGACTGCAGAAGGACGGCCTGACGCAGGCGGACAAGGACGCGCTGGATGGCCTCCTC
CAGCAGGTGGCCAACATGAGTGCTAAGGACGGCACGTGTACACTGCAGGACTGCATGTACAAGGATGTGCAGAAG
GACTGGCCTGGCTACTCGGAGGGGGACCAGCAGCTGCTGAAGCGGGTGCTCGTCCGGAAGCTGTGCCAGCCACAG
AGCACTGGCAGCCTCCTTGGAGACCCTGCTGCCTCCAGCCCCCCAGGCGAGCGTGGGCGCTCGGCCTCGCCCCCA
CAGAAGCGGCTGCAGCCTCCTGATTTCATCGACCCCCTAGCCAACAAGAAACCCCGGATATCGCACTTCACTCAG
AGAGCTCAGCCTGCCGTCAACGGGAAGCTGGGCGTGCCCAATGGCCGTGAGGCCTTGCTGCCCACCCCGGGCCCA
CCAGCCAGCACGGACACCCTCAGCTCCAGCACTCACCTGCCCCCGCGGCTGGAGCCCCCGAGGGCCCACGACCCC
CTGGCCGATGTCAGCAATGACCTGGGCCACAGCGGCCGAGACTGTGAGCACGGAGAGGCGGCTGCCCCAGCCCCC
ACTGTGCGCCTCGGCCTGCCCCTGCTGACGGACTGTGCCCAGCCCAGCAGGCCACACGGCAGCCCCTCGCGCAGC
AAGCCCAAGAAGAAGTCCAAGAAGCACAAAGACAAGGAGAGGGCGGCTGAGGACAAGCCCCGGGCCCAGCTTCCA
GACTGTGCACCTGCCACCCATGCCACCCCCGGAGCCCCAGCAGACACCCCAGGTTTAAACGGAACCTGCAGCGTT
TCCAGTGTTCCCACGTCCACGTCGGAGACGCCTGACTACTTGCTGAAGTACGCAGCCATCTCCTCTTCGGAGCAG
CGCCAGAGCTACAAGAACGACTTCAATGCCGAGTACAGCGAGTACCGCGACCTGCACGCCCGCATTGAGCGCATC
ACGCGGCGGTTCACCCAGCTCGACGCCCAGCTCCGGCAGCTCTCCCAGGGCTCCGAGGAGTATGAGACTACTCGA
GGGCAGATTTTGCAGGAATATCGAAAAATCAAAAAGACCAACACCAACTACAGCCAGGAGAAGCACCGCTGCGAG
TACCTGCACAGCAAGCTGGCCCACATCAAGAGGCTCATCGCCGAGTACGACCAGCGGCAGCTGCAGGCTTGGCCC
TAGCCGCCCTCCCCGATGGCGGGGATCTGGGAGGGTCGGGGGAGCAAAAGGCGGTGAGAGAGGATTTATTTAAAA
AAATAAACCCGAGGAAGATGCTCATCTGAGCCAGCACCGCCGGCTTTCAGGGCAGCCCCTGCAGACGTCTGGCCC
TGGCGGGTGGCTGCAAGCCCACCTCGGCCCTCCCTGCGCTTCCTGAGCAGTCCCTGCTTATGATGGGCTCCCCAG
GAAGCCCACTGCCTCCTCCCTGGCTGCAGCCTCCGGGGTTCAGCCTCCTGTCTCGCCAGAAGACTCCTAGGCCCT
TGGGGTGGCGCGCCTGCCTTTTCTAGTTTTATACAAAGACAGCCACTTTTAGCTACTGCTAATGAGACTTGAGTC
TATTTTTGTACAAAAGAGAAGCAAAATCTTTTTTCTAAACCTGTGCCTCCCTCTCCTCGGACACCCAGGGTCTAG
CCGCTGCCCTGGGTCCTGCCTGCAGTATTACAGAGGTCGTCGAAAGGTGCAGCTGCGTTCTGAGGGCGTGGGGAA
TGGGCAGGTGGCCTCTGCTGGTCTCTGGCTCTACGTTTAGGCACCCCTTTCCCCAGCCTCTCCTCCTTGGGCAGG
GTCTCTGCTCCAGCAAGCAAACAGGGTGGCCCAGGTGGCTATTTTGAGAACTCCAGCTGGTGCCCCCAGACAGCT
GCTCAGAGCCAAGGGGGCAGAGGGCTTTCAGCGCCCCCAGGCCTGCCCTGCTATTTCAGGCCCTCAGCTGTCGGG
GGCCACTGTGTTTCTGTGCTCCAAGTTGAGACTCGGCCGCAGCGGCGTCAGACTTTTCTTTGCGATGTCCTCGGT
TTCCCATTTGTTGCTGCTGCTGCTCATTCCACACTGTTGAGACCTTGTGGTCTCGATGCTGCTGGCCTCCCTCCG
TCCCTCTGTCCACTTGTGGGTCCTGGGGTC

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FIGURE 2536

GGGTGAGGAGGAAGAGGAGGAGGAAGAGGAGGAAGAGGATGACCTGAGTGAGCTGCCACCGCTGGAGGACATGGG
ACAACCCCCGGCGGAGGAGGCTGAGCAGCCTGGGGCCCTGGCCCGAGAGTTCCTTGCTGCCATGGAGCCCGAGCC
CGCCCCAGCCCCGGCCCCAGAAGAGTGGCTGGACATTCTGGGGAACGGGCTGTTGAGGAAGAAGACGCTGGTCCC
AGGGCCGCCAGGTTCGAGCCGCCCGGTCAAGGGCCAGGTGGTCACCGTACATCTGCAGACGTCGCTGGAGAATGG
CACACGGGTGCAGGAGGAGCCGGAGCTGGTGTTCACTCTGGGTGACTGTGACGTCATCCAGGCCCTGGATCTCAG
TGTCCCACTCATGGACGTGGGGGAGACGGCCATGGTCACTGCTGACTCCAAGTACTGCTACGGCCCCCAAGGCAG
CAGGAGCCCATACATCCCCCCGCACGCGGCCCTGTGCCTGGAGGTGACCCTGAAGACGGCTGTGGACGGGCCTGA
CCTGGAGATGCTCACGGGGCAGGAGCGCGTGGCCCTGGCCAACCGGAAGCGGGAGTGCGGCAACGCCCACTACCA
GCGGGCGGACTTCGTCCTGGCCGCCAACTCCTACGACCTCGCCATCAAGGCTATCACCTCCAGCGCCAAAGTGGA
CATGACGTTCGAGGAGGAGGCACAGCTCCTGCAGTTGAAGGTGAAGTGTCTGAACAACCTGGCGGCCTCGCAGCT
GAAGCTCGACCACTACCGCGCAGCCCTGCGCTCCTGCAGCCTTGTGCTGGAGCACCAGCCAGACAACATCAAGGC
TCTCTTCCGCAAGGGCAAGGTGCTGGCCCAGCAGGGGGAGTACAGTGAGGCCATCCCCATCCTGAGGGCAGCCCT
GAAGCTGGAACCTTCCAACAAGACGATCCACGCAGAGCTCTCAAAGCTGGTGAAGAAGCATGCGGCGCAGCGGAG
CACGGAGACCGCCTTGTACCGGAAAATGCTGGGCAACCCCAGCCGGCTGCCTGCTAAGTGCCCTGGCAAGGGTGC
CTGGTCCATCCCATGGAAGTGGCTGTTTGGGGCGACTGCTGTTGCCTTGGGGGGTGTGGCACTCTCTGTGGTCAT
CGCTGCCAGGAACTGACCACCTAGGTGGCTGCCACCCCCTCTGCACACCATGGACCCTGCCCTGCGCTCCCCAAC
TCCCCCAGGCTCCCTGTCCACTGCCCTCCCTGGTCTGGCCCCCTCCTCCGGGTTAGGGGAGCAAGGATTGGGGGT
CGTGCAGCCCAGCCAGCAGGAGGGACTGAGGCCCTCTAGGAGGAAAGCCCAGAGGGAGGGGGCCCTCATTCCTTC
AGACCCAGTTTTCCCCCACCCTCCTTACCCCGCTGGGCTAGGTCTCCGCCAGGGCTGGCCTCAGTTTCTCCTCAA
CAGGCCTGGGGGCAGCCCTTCCCCTGCCTAGTCCCCGCCTGAGTGCCAGCCCCCCACCCCGCCTGCCGCCCCCTG
TCCAGGTTCCCTCCCCGCCACAGTGAAATAAAGCATCCCACCCTGC

FIGURE 2537

ACGCACGCAAGCGGCTCCAGGGTACGTCCCCGCCACGCGCGCTCGCAGGATCGGTGCGTGGTGACGTTTCGCCGG
CGCGGGCGCCATCCCGGAAGCGCGAGCAAGGCCGCCAGATGTGCAGGCAGCGGAGGAGGAGAAAGAG**ATG**GACCT
CCCGGACTCGGCCTCGAGGGTCTTCTGCGGCCGCATCCTGAGCATGGTGAACACAGATGATGTCAACGCCATCAT
CCTGGCCCAGAAGAACATGCTGGACCGCTTTGAGAAGACCAATGAGATGCTGCTCAACTTCAACAACCTGTCCAG
TGCCCGCCTGCAGCAGATGAGCGAACGCTTCCTGCACCACACGAGGACCCTAGTAGAGATGAAACGGGACCTGGA
CAGCATCTTCCGCCGTATCAGGACGCTGAAAGGGAAACTGGCCAGGCAGCACCCAGAGGCCTTCAGCCATATCCC
AGAGGCATCCTTCCTGGAGGAAGAGGATGAAGACCCCATCCCACCCAGCACCACGACCACCATTGCCACCTCAGA
ACAGAGCACGGGCTCATGTGACACCAGCCCCGACACCGTCTCGCCCTCCCTGAGCCCCGGCTTCGAGGACCTGTC
CCATGTCCAGCCTGGCTCCCCAGCCATCAACGGCCGCAGCCAGACAGATGACGAGGAGATGACGGGCGAA**TAG**CC
CTGCTGCCCGGTGCCTTGAGGGGGTCTCAGGGCAGCAGCATACAAGGTGGCAGCGGGTAACCCTGCCTTGTTCTG
TCATCCAGGGCTCCTTTGCTGCCCCGTTCTGTCACCCAGGGCTCCTAGGGGGACAAGGCTCTCTCCCGAGGGGTG
TGGAATTCCTGGGGGGGTCTTTAATTCTGGCTCCTTCCTTCCTCAGAACATCTCTATTCTGCAAGACCCCTCTGC
CATGCCAGGGCACGCCCATTCCAGCTGGAGTCGTGGGGCTGGGCACAGGGGAATTTTTCCAGAGCTGAGCCTGAC
GTCTGCTCTGAAGAATGCTTAGAAGGTTCCCAGACACCAGAGCCAGATGTCCCCCACCACCGGTCAGGACCTCCT
TGAGGTGCACAAGCACGGTCTCCTCTGAGTTCACCCCAGCCCACCCCCGCACCCACTAATTCTGCTTTTCCTGCC
CCTTGCTCCGTAAAAGTATCAAATACTTTCTCCTTGGTATCTCAAGGAGGTTTCTGAGATAGGTAGAAGTCTTGA
GACGGAGGCTGGCCATCCATTCAGCCCTGAGCGTGCTGAGTTCTGTGTTTCTCTGAATAGAGGTGTGGAACCTGA
GGGGCCAGCAGGCCTCTCTGAAGGCCTCCATGGAGCAAACGGAGCCACCTCGGGAAAGAGTTTAATGGAATATTT
TTGTACCCGATGTTTACAGATGCTGTTGGGAAGTTATCAATAAAAAGACACCATTACTAAAAAGGG

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FIGURE 2538

TTCTTTTTCTTCAGCGAGGCGGCCGAGCTGACGCAAAC**ATG**CAGATCTTTGTGAAGACCCTCACTGGCAAAACCA
TCACCCTTGAGGTCGAGCCCAGTGACACCATTGAGAATGTCAAAGCCAAAATTCAAGACAAGGAGGGTATCCCAC
CTGACCAGCAGCGTCTGATATTTGCCGGCAAACAGCTGGAGGATGGCCGCACTCTCTCAGACTACAACATCCAGA
AAGAGTCCACCCTGCACCTGGTGTTGCGCCTGCGAGGTGGCATTATTGAGCCTTCTCTCCGCCAGCTTGCCCAGA
AATACAACTGCGACAAGATGATCTGCCGCAAGTGCTATGCTCGCCTTCACCCTCGTGCTGTCAACTGCCGCAAGA
AGAAGTGTGGTCACACCAACAACCTGCGTCCCAAGAAGAAGGTCAAA**TAA**GGTGGTTCTTTCCTTGAAGGGCAGC
CTCCTGCCCAGGCCCCGTGGCCCTGGAGCCTCAATAAAGTGTCCCTTTCATTGACTGGAGCAGCA

FIGURE 2539

AGTC**ATG**ATCACCGAGACCGCGGCGGAGCCTACGGTCCCTGCAGTGCCTGCTGCTGAGGAGGCCACCGAAGCTCG
GGGACGCGAGGAGCCGGCGTGGCCCTGGAAAGACGCCCCGATCCGGACGCTGGTGCAGCGCATCCACCAGCTGCA
GGCTGAGCGCGCGCAGGGCTTCCGCCGACTGGAGGAGTGGTTGGCGCCGGTGCAGGGCCTGAGAGCCTGGGGGCG
CGGCCTCAGGGTCCCCACATGCCGCAGAGGCCACCGCCAGTACCTGCGCAGCGGCCCTGACTACGACTTCGCGCG
CTACCGGAGCACAGTGCACGGGGTGACCCAGGCCTTCGCCGCCGCCTCGCGGGAGGTGCTGGCGGTGGAAGCAGA
GCTGGGCGGGCCTCGCAGGCAGCCGCTGCTCGCCGGCCACGTGCGCAGCCTGCAGGAGCTGGAGCAGACGCGGCT
GGGCACGGTGGCCCTGCTGCAGTTGATGGAGACGCCAGAGCTGGCGGGGCAGGAGGACGCTGTACGGATGCAGCA
GCTGAAAATGAAGGTAATTAAAACCATGGAGGCGATCAGCGAGGTTCTCCAGGACCTTAGGTTTGATGCGGAATC
TGCCGAG**TGA**TGGCGGCTCCCCAGGGATGCGCCGAGGGAGATGGGAAACGGGGCGGATGGCGCCCAGCCCAGCCC
TAACTGCCAGCTGGCTGGGGTTGCGCCCCACTGCGCTGCTGACCTTCCTGCAGTTCCAGACACCTCCCACAATAA
AGAGCTCCTCCTCTGT

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FIGURE 2540A

AGCGGCTGGCGGCTTCGAGGGGAGCTGAGGCGCGGAGGGGCTCGGCGGCAGCGGCGGCGGCTCGGCACTGTTACC
TCTCGGTCCGGCTGGCGCCGGGGCGCGCGGTTTGGTCCTTTCCGGGCGCGCGGGGGCGACAGCGGCAGCGACCCG
AGGCCTGCGGCCTAGGCCTCAGCGCGGCGGCGGGCTCGAGTGCAGCGCGGAACCGGCCCGAGGGCCCTACCCGGA
GGCACC**ATG**AGCGTGGAGGCGTACGGGCCCAGCTCGCAGACTCTCACTTTCCTGGACACGGAGGAGGCCGAGCTG
CTTGGCGCCGACACACAGGGCTCCGAGTTCGAGTTCACCGACTTTACTCTTCCTAGCCAGACGCAGACGCCCCCC
GGCGGCCCCGGCGGCCCGGGCGGTGGCGGCGCGGGAGGCCCGGGCGGCGCGGGCGCGGGCGCTGCGGCGGGACAG
CTCGACGCGCAGGTTGGGCCCGAAGGCATCCTGCAGAACGGGGCTGTGGACGACAGTGTAGCCAAGACCAGCCAG
TTGTTGGCTGAGTTGAACTTCGAGGAAGATGAAGAAGACACCTATTACACGAAGGACCTCCCCATACACGCCTGC
AGTTACTGTGGAATACACGATCCTGCCTGCGTGGTTTACTGTAATACCAGCAAGAAGTGGTTCTGCAACGGACGT
GGAAATACTTCTGGCAGCCACATTGTAAATCACCTTGTGAGGGCAAAATGCAAAGAGGTGACCCTGCACAAGGAC
GGGCCCCTGGGGGAGACAGTCCTGGAGTGCTACAACTGCGGCTGTCGCAACGTCTTCCTCCTCGGCTTCATCCCG
GCCAAAGCTGACTCAGTGGTGGTGCTGCTGTGCAGGCAGCCCTGTGCCAGCCAGAGCAGCCTCAAGGACATCAAC
TGGGACAGCTCGCAGTGGCAGCCGCTGATCCAGGACCGCTGCTTCCTGTCCTGGCTGGTCAAGATCCCCTCCGAG
CAGGAGCAGCTGCGGGCACGCCAGATCACGGCACAGCAGATCAACAAGCTGGAGGAGCTGTGGAAGGAAAACCCT
TCTGCCACGCTGGAGGACCTGGAGAAGCCGGGGGTGGACGAGGAGCCGCAGCATGTCCTCCTGCGGTACGAGGAC
GCCTACCAGTACCAGAACATATTCGGGCCCCTGGTCAAGCTGGAGGCCGACTACGACAAGAAGCTGAAGGAGTCC
CAGACTCAAGATAACATCACTGTCAGGTGGGACCTGGGCCTTAACAAGAAGAGAATCGCCTACTTCACTTTGCCC
AAGACTGACTCTGGTAATGAGGATTTAGTCATAATTTGGTTAAGAGACATGCGGCTCATGCAGGGGGATGAGATA
TGCCTGCGGTACAAAGGGGACCTTGCGCCCCTGTGGAAAGGGATCGGCCACGTCATCAAGGTCCCTGATAATTAT
GGCGATGAGATCGCCATTGAGCTGCGGAGCAGCGTGGGTGCACCTGTGGAGGTGACTCACAACTTCCAGGTGGAT
TTTGTGTGGAAGTCGACCTCCTTTGACAGGATGCAGAGCGCATTGAAAACGTTTGCCGTGGATGAGACCTCGGTG
TCTGGCTACATCTACCACAAGCTGTTGGGCCACGAGGTGGAGGACGTAATCATCAAGTGCCAGCTGCCCAAGCGC
TTCACGGCGCAGGGCCTCCCCGACCTCAACCACTCCCAGGTTTATGCCGTGAAGACTGTGCTGCAAAGACCACTG
AGCCTGATCCAGGGCCCGCCAGGCACGGGGAAGACGGTGACGTCGGCCACCATCGTCTACCACCTGGCCCGGCAA
GGCAACGGGCCGGTGCTGGTGTGTGCTCCGAGCAACATCGCCGTGGACCAGCTAACGGAGAAGATCCACCAGACG
GGGCTAAAGGTCGTGCGCCTCTGCGCCAAGAGCCGTGAGGCCATCGACTCCCCGGTGTCTTTTCTGGCCCTGCAC
AACCAGATCAGGAACATGGACAGCATGCCTGAGCTGCAGAAGCTGCAGCAGCTGAAAGACGAGACTGGGGAGCTG
TCGTCTGCCGACGAGAAGCGGTACCGGGCCTTGAAGCGCACCGCAGAGAGAGAGCTGCTGATGAACGCAGATGTC
ATCTGCTGCACATGTGTGGGCGCCGGTGACCCGAGGCTGGCCAAGATGCAGTTCCGCTCCATTTTAATCGACGAA
AGCACCCAGGCCACCGAGCCGGAGTGCATGGTTCCCGTGGTCCTCGGGGCCAAGCAGCTGATCCTTGTAGGCGAC
CACTGCCAGCTGGGCCCAGTGGTGATGTGCAAGAAGGCGGCCAAGGCCGGGCTGTCACAGTCGCTCTTCGAGCGC
CTGGTGGTGCTGGGCATCCGGCCCATCCGCCTGCAGGTCCAGTACCGGATGCACCCTGCACTCAGCGCCTTCCCA
TCCAACATCTTCTACGAGGGCTCCCTCCAGAATGGTGTCACTGCAGCGGATCGTGTGAAGAAGGGATTTGACTTC
CAGTGGCCCCAACCCGATAAACCGATGTTCTTCTACGTGACCCAGGGCCAAGAGGAGATTGCCAGCTCGGGCACC
TCCTACCTGAACAGGACCGAGGCTGCGAACGTGGAGAAGATCACCACGAAGTTGCTGAAGGCAGGCGCCAAGCCG
GACCAGATTGGCATCATCACGCCCTACGAGGGCCAGCGCTCCTACCTGGTGCAGTACATGCAGTTCAGCGGCTCC
CTGCACACCAAGCTCTACCAGGAGGTGGAGATCGCCAGTGTGGACGCCTTTCAGGGACGCGAGAAGGACTTCATC
ATCCTGTCCTGTGTGCGGGCCAACGAGCACCAAGGCATTGGCTTTTTAAATGACCCCAGGCGTCTGAACGTGGCC
CTGACCAGAGCAAGGTATGGCGTCATCATTGTGGGCAACCCGAAGGCACTATCAAAGCAGCCGCTCTGGAACCAC
CTGCTGAACTACTATAAGGAGCAGAAGGTGCTGGTGGAGGGGCCGCTCAACAACCTGCGTGAGAGCCTCATGCAG
TTCAGCAAGCCACGGAAGCTGGTCAACACTATCAACCCGGGAGCCCGCTTCATGACCACAGCCATGTATGATGCC
CGGGAGGCCATCATCCCAGGCTCCGTCTATGATCGGAGCAGCCAGGGCCGGCCTTCCAGCATGTACTTCCAGACC
CATGACCAGATTGGCATGATCAGTGCCGGCCCTAGCCACGTGGCTGCCATGAACATTCCCATCCCCTTCAACCTG
GTCATGCCACCCATGCCACCGCCTGGCTATTTTGGACAAGCCAACGGGCCTGCTGCAGGGCGAGGCACCCCGAAA
GGCAAGACTGGTCGTGGGGGACGCCAGAAGAACCGCTTTGGGCTTCCTGGACCCAGCCAGACTAACCTCCCCAAC
AGCCAAGCCAGCCAGGATGTGGCGTCACAGCCCTTCTCTCAGGGCGCCCTGACGCAGGGCTACATCTCCATGAGC
CAGCCTTCCCAGATGAGCCAGCCCGGCCTCTCCCAGCCGGAGCTGTCCCAGGACAGTTACCTTGGTGACGAGTTT
AAATCACAAATCGACGTGGCGCTCTCACAGGACTCCACGTACCAGGGAGAGCGGGCTTACCAGCATGGCGGGGTG

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FIGURE 2540B

ACGGGGCTGTCCCAGTATTAAAAGGTGGCGGCGGAAGAGCTAAGCAACGTGGCTTAGTCCATCAGCATCTTATTC
TGGGTAATAAAAAATAAAAATAAACGGATACCTGTTTTCCACTGCTAAAACTGAAGCACCACTGTGTGAGCAACA
GGAAGGGAGAGCGCACGAGGGAGAGGAGCCGAGGCCGAGCGCCCCCTGCTGGCCCGCGGCGGCGAGGAGCAGAGG
GAGCGGAGGAGGGGCCGGCCCGCGGGAGCCGCGGCCACCAGGAGGCCCCGCTCCGTCCCATCGGGGCTGCGGCCA
GGGCGGAGGGAGGAAGACCCTCATCTCAGAGTAGCCCTTTCCTCTGTTCTTTTATTTCTTTTTCTCTTTGATTGA
AAGGGGACTACGTCTTAGCAGGAAAAAAAACTTCGCATTTCTGTGCCCGAGCAGGCTCCTTGCAAAGACAGCAGC
GTGCGGGGCAGAGCCCCGGGAGGGCGCGTCTGTCCACGCCTACCGGACGCGCCGAGGTCGCGCTGCCTGTGTTCT
CCGAGGGCCTTCATTTAAAGAAAATAAGGGTGTTTTGGGTTTTTCTCTTTGTTTTTTTCAAGATTCTTTTAAAGG
AGTACTGAAGAATACTTTCCTAAGTTTGTCTGTAAAATCTTAGCGGTGGACCTGGGAGATTTGAGAAGCTTCCAG
AAACAGTTTAAACAAGCCAGCGCTACTGGAGAAGAGGAGCAACACCTGTGCCGCGGCCGGAGGAGTTTTGTTGTT
GGTTTTAGCTTCCAGTGGCTTCTTTCTGCGGGGCATCAGGCTGCTGGGGTAGCCGCCCGCCGAGCCTGGAAGCTG
CTCGTTCTCCGCTGGACTCAGAAGCCAAGCTGCTTCCCGCCTAGACTCGGCGCAGGGCCCCGCACCGGTGAGGAA
GGTGCTTTTGGCCCCATTGCGAGGGGCCTTGGCCAGGACTGGCCCTGTGGCCAGGAGGCGAGAAGGTGGCTGTTC
CCGGATTGACGGCTTTTTCCCGGGGGCCTTTGGAAGATTTGGTGGAAGGACAAGAGGGCCTGTCCCTGTCCCCGT
CCCCAGGAGGTACCGACAGTCCCTGTGCTGGTTAGACACGGAGCGCTGCACACCGAAAGCCCAAATTGGGAGCTC
TGCCTGCCGGCAACTTTGCTGATGGGGTGATTGCTGCTTCTGGGGGGTAAGGAAACAAGTTACAGAAATTACCGC
GTTCTGTGTGAAGGGACTGAGGGTGTGGTGTCATTGGCAGAGGGTCATTTTAGGAGAGCTGCCCCAGCCCCTCGA
ACGCCTGGCTTGGGGTGTCATTCTGCCTGGCGGCCAGGCCTCCAGCTTCCCCTGCCCCGGGCCTGGGGCTGTCAC
TGGCCCTGATCCGAACACCTCCAGATTCCGGCTTCTACATGGGACAGACGGGGACGCACAGGCCACCTTCCTTCT
GGCAGGGACTCTTATTTATTCCCATTGCTCTAGGGCTTTCGGTTTCCCCTTCTTCCGGTAGGCCGCGTAGAGGCA
TGCACCGGGTAGGTTTCCGCGGTGACCCCGCGGCGGCCTGAGGGACGCTCCCTGCCCCATCCCGGCTGTTGGGCT
GGGCCGCTTTGCCTCTGCTTCGCCCTGTGCTGTGTTCTCCAGCTTTGTAGCAGCAGCCTTGACAAACCCAGGCGC
ACTGTACCAAGGCAATGTAACTTTTGATTTTCGGTCAATTTAAGTTCTTTTGTCACCAAATATTAATAAACAGTT
TTGACTTC

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FIGURE 2541

GGAAGAGGAGCTGGTGAGAAGACAGCGAA**ATG**GCGCCTCCGGCCCCCGGCCCGGCCTCCGGCGGCTCCGGGGAGG
TAGACGAGCTGTTCGACGTAAAGAACGCCTTCTACATCGGCAGCTACCAGCAGTGCATAAACGAGGCGCAGCGGG
TGAAGCTATCAAGCCCAGAGAGAGACGTGGAGAGGGACGTCTTCCTGTATAGAGCGTACCTGGCGCAGAGGAAGT
TCGGTGTGGTCCTGGATGAGATCAAGCCCTCCTCGGCCCCTGAGCTCCAGGCCGTGCGCATGTTTGCTGACTACC
TCGCCCACGAGAGTCGGAGGGACAGCATCGTGGCCGAGCTGGACCGAGAGATGAGCAGGAGCGTGGACGTGACCA
ACACCACCTTCCTGCTCATGGCCGCCTCCATCTATCTCCACGACCAGAACCCGGATGCCGCCCTGCGTGCGCTGC
ACCAGGGGGACAGCCTGGAGTGCACAGCCATGACAGTGCAGATCCTGCTGAAGCTGGACCGCCTGGACCTCGCCC
GGAAGGAGCTGAAGAGAATGCAGGACCTGGACGAGGATGCCACCCTCACCCAGCTCGCCACTGCCTGGGTCAGCC
TGGCCACGGGTGGTGAGAAGCTGCAGGATGCCTACTACATCTTCCAGGAGATGGCTGACAAGTGCTCGCCCACCC
TGCTGCTGCTCAATGGGCAGGCGGCCTGCCACATGGCCCAGGGCCGCTGGGAGGCCGCTGAGGGCCTGCTGCAGG
AGGCGCTAGACAAGGATAGTGGCTACCCAGAGACGCTGGTCAACCTCATCGTCCTGTCCCAGCACCTGGGCAAGC
CCCCTGAGGTGACAAACCGATACCTGTCCCAGCTGAAGGATGCCCACAGGTCCCATCCCTTCATCAAGGAGTACC
AGGCCAAGGAGAACGACTTTGACAGGCTGGTGCTACAGTACGCTCCCAGCGCC**TGA**GGCTGGCCCAGAGCTGTCA
GGACCATGAAGCCAGGACAGAGGCCAGGAGCCAGCCCTGCAGCCCTCCCCACCCGGCATCCACCTGCATCCCCTC
TGGGGGCAGGAGCCCACCCCCAGCACCCCCATCTGTTAATAAATATCTCAACTCC

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FIGURE 2542

ACAAGCGGCCACAAGG**ATG**GCAGGCTTCGCGGAGCTCGGGCTGTCATCGTGGCTCGTGGAACAATGTCGGCAGCT
GGGTTTGAAGCAGCCCACGCCCGTGCAGCTCGGCTGCATCCCCGCCATCCTGGAGGGTCGAGACTGCTTGGGCTG
TGCTAAGACAGGCAGTGGGAAGACAGCAGCGTTTGTCCTTCCCATCTTGCAGAAGCTGTCTGAGGATCCCTATGG
CATCTTCTGCCTCGTCCTGACACCCACCAGGGAGCTGGCCTACCAGATCGCAGAGCAGTTCCGGGTCCTGGGGAA
GCCTCTAGGGCTGAAAGACTGCATCATCGTCGGTGGCATGGACATGGTGGCCCAGGCGCTGGAGCTCTCTCGGAA
ACCACACGTGGTCATCGCCACGCCGGGGCGCCTGGCAGATCACCTGCGCAGCTCCAACACTTTTAGTATAAAGAA
GATCCGCTTCCTGGTGATGGATGAGGCAGACCGGCTGCTGGAACAGGGCTGCACTGACTTCACCGTGGACCTGGA
GGCCATCCTGGCGGCTGTGCCGGCCCGCAGGCAGACACTGCTGTTCAGCGCCACGCTGACCGACACACTCCGGGA
GCTGCAGGGTCTGGCCACCAACCAGCCCTTCTTCTGGGAAGCACAGGCCCCGGTGAGCACCGTGGAGCAGCTGGA
CCAGCGCTACCTGCTGGTGCCTGAGAAGGTCAAGGACGCCTACCTGGTCCACCTGATCCAGCGCTTCCAGGATGA
GCACGAGGACTGGTCCATTATCATCTTCACCAACACGTGCAAGACCTGCCAGATTCTGTGCATGATGCTGCGCAA
ATTCAGCTTCCCCACCGTGGCTCTGCACTCCATGATGAAGCAGAAAGAACGCTTTGCCGCCCTAGCCAAGTTCAA
GTCCAGCATCTACCGGATCCTGATCGCAACAGACGTGGCCTCCCGGGGCCTGGACATCCCTACGGTACAGGTGGT
CATCAACCACAACACCCCCGGGCTCCCCAAGATCTACATCCACCGAGTCGGCCGGACGGCCCGTGCAGGGCGGCA
GGGTCAGGCCATCACGCTGGTGACACAGTACGACATCCACCTGGTGCACGCCATCGAGGAGCAGATCAAGAAGAA
GCTGGAGGAGTTCTCCGTGGAAGAGGCCGAGGTGCTACAGATCCTCACACAGGTCAACGTGGTGCGAAGAGAGTG
TGAGATCAAACTGGAGGCGGCCCACTTTGACGAAAAGAAGGAGATCAACAAACGGAAGCAGCTGATCCTGGAGGG
GAAGGACCCTGACCTGGAGGCCAAGCGCAAGGCTGAGCTGGCCAAGATCAAGCAGAAGAACCGGCGCTTCAAGGA
GAAGGTGGAGGAGACGCTGAAGCGACAGAAGGCTGGCAGGGCTGGCCACAAGGGGCGTCCACCCAGGACACCGTC
TGGGTCCCACTCAGGCCCAGTCCCCTCCCAGGGCCTGGTC**TGA**GCCCCACACGGCCATCTGCCCAGTCCTTGACT
CGTCCATGGAGCTGAGGGTCGGAGGAACCTTCCTTGGGGGCAGCAGCCCTTCCCGGGGGCCTACCCAGTGCCCCA
CAGCAGAACCCGTGGGCGCTCGTGTTGTGCGGGCCCTGCTCCTCTGCCCCGAAACCACTGGCTGGTCCCTTCCCT
GAGCCCTGGCCAAGATTCAGGCTGCAGGGGAAGAAAGAACATGACCGGGAGGTTGTGACCCCAACCCAAGGTCAC
CCCCCAGGGGTGCCGCATACAGGAGGTGCTTAATAAACGGGTCTTTTGACTTCCTC

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FIGURE 2543

GGCGCATGACTAGTTGGGGCCAAACCAGTGCTCCTGCCACCTCTCTGGCTGCCCCCTAGAGCCTGCCCATCCCAG
CCTGACCA**ATG**TCCACAGCCAGGGAGCAGCCAATCTTCAGCACACGGGCGCACGTGTTCCAAATTGACCCAGCCA
CCAAGCGAAACTGGATCCCAGCGGGCAAGCACGCACTCACTGTCTCCTATTTCTACGATGCCACCCGCAATGTGT
ACCGCATCATCAGCATCGGAGGCGCCAAGGCCATCATCAACAGCACTGTCACTCCCAACATGACCTTCACCAAAA
CTTCCCAGAAGTTCGGGCAGTGGGCCGACAGTCGCGCCAACACAGTCTACGGCCTGGGCTTTGCCTCTGAACAGC
ATCTGACACAGTTTGCCGAGAAGTTCCAGGAAGTGAAGGAAGCAGCCAGGCTGGCCAGGGAGAAATCTCAGGATG
GCGGGGAGCTCACCAGTCCAGCCCTGGGGCTCGCCTCCCACCAGGTGCCCCCGAGCCCTCTCGTCAGTGCCAACG
GCCCCGGCGAGGAAAAACTGTTCCGCAGCCAGAGCGCTGATGCCCCCGGCCCCACAGAGCGCGAGCGGCTAAAGA
AGATGTTGTCTGAGGGCTCCGTGGGCGAGGTACAGTGGGAGGCCGAGTTTTTCGCACTGCAGGACAGCAACAACA
AGCTGGCAGGCGCCCTGCGAGAGGCCAACGCCGCCGCAGCCCAGTGGAGGCAGCAGCTGGAGGCTCAGCGTGCAG
AGGCCGAGCGGCTGCGGCAGCGGGTGGCTGAGCTGGAGGCTCAGGCAGCTTCAGAGGTGACCCCCACCGGTGAGA
AGGAGGGGCTGGGCCAGGGCCAGTCGCTGGAACAGCTGGAAGCTCTGGTGCAAACCAAGGACCAGGAGATTCAGA
CCCTGAAGAGTCAGACTGGGGGGCCCCGCGAGGCCCTGGAGGCTGCCGAGCGTGAGGAGACTCAGCAGAAGGTGC
AGACCCGCAATGCGGAGTTGGAGCACCAGCTGCGGGCGATGGAGCGCAGCCTGGAGGAGGCACGGGCAGAGCGGG
AGCGGGCGCGGGCTGAGGTGGGCCGGGCAGCGCAGCTGCTGGACGTCAGCCTGTTTGAGCTGAGTGAGCTGCGTG
AGGGCCTGGCCCGCCTGGCTGAGGCTGCGCCC**TGA**GCCGGGGCTGGTTTTCTATGAACGATTCCGGCCTGGGATG
CGGGCCAGGCTGCAGGCGGCATAGTTGGGCCCATTCGTCCTGGAAAGGGACTGGGGGGTCCCAACTTAGCCCTGG
GTGGGCCGGGCCGGGCTGGGCTGGGGTGGGCCCCAGTCGGCTCTGGTTGTTGGCAGCTTTGGGGCTGTTTTTGAG
CTTCTCATTGTGTAGAATTTCTAGATCCCCCGATTACATTTCTAAGCGTG

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FIGURE 2544

GGCCGGCACGGTGACTCACGCCTATAATTCCAGCACTTTGGGAGGCCGAGGCAGGTGGATCACGAGGTCAAGAGA
TCGAGACCATCCTGGCCAACATGGTGAAACCCTGTCTCTACTAAAAATGCAAAAAATTAGCTGGGCGTGGTGGCG
GGCGCTTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATCACTTGAACCCGGGAGGCGGAGGTTGCAGTG
AGCCGAGATTGTGCCACCGCACTCCAGCCTGGCAACAGAGCGAGACTCTGTCTCAAAAAAAAAAAAGGAAATCCT
GGCTTTCTTTAAGCCACAGACTTCCTAGGCTGTGGTCCCAGCTCCTTGTCTGCCTGGTCCCTGTCACCTTGCAGT
GCCACCACCCCCAGGGGCTCTGCTTGCTTCCAGTGGCTTCTGTAGCTTTGGCAACTGGCAGATCTTT**ATG**GCAGT
AGAGGTGCCAGCATGGAGGATGGAGTTTGGGTTTATAACCCAACCCTCGAACGAACCAGCCTGTGGGGGCCTGGA
GTGGAGCTGGTTTTGGGGAGTCACAGGTGCGGGGGGTTCATCTTCTCCTTTCTCCTTCTCCTTTCCTGACCCCTC
CGACAGCTTCCATGTTGGCCATGGGTCAGGTGAATGGATGGAGCTCCAAGCGGGGCTCAGCCCATTGACCCGAGC
GAGGCGCACACACCTGCAGCGTGGATCAAGCGCACTCTCTCCAGCATCGCCC**TGA**CCATTCCATGTGCTTTGTCC
TAGCATGTTCATTCTTGACTTTCTCCACTTCATTTTATTAAAAAGTTAAATGCTTTAGGAATCTGTGGCGTGTGG
CCACTGACCGCCCCCCACCTCCTGCCGCTCCTCCAAGTTTGAGCTGAGATGGTTCTGTGAGTCCTTGGCAGGGGT
CAAAGGGCACATCTCCTTGAACCTAGAAAGCCCCCTACACTCTCAGAGGACACCTCTCCTGTGGATTCAGCGCTG
GGGCAGTGAAGGTGTCGGGAGCCAGCAGAGCATGGTGCGTGCTGCCAGCTGCCGGCCAGCCGGGATAGAGGAGAT
GCCACTGGCCCTCCGTGCCCCCAGCCCCTCCCTCTTAACCGAGGCTGTCCTTGCTCTCTGCAGAGGCCGCTCTGC
AGGATCCTCGTGTCGCGCGTGATGTGTGGTGGCACAGCCGTGTCAAAGTCACAGTGTCTTTTCTGTCGTTCTAGT
TCCAGGGTCACCCCCGAGAGGACAACAGGCATCTGGAAGTGCTCTCTCGCCACTCTGGGTGCTTTACTGTCTCTG
GCTTGTTTCCATCACTGGAAATCACTTAGAGAATTGTAGTGTTTTTGGTCCTTGATAAAGCCTAGAAGACATTTG
TGATGTTACAAAATGGAAGTTTTCTTTTGTTTCTGTTTTTTAAGATCTAAGAAGTTGTGAATGTTGTTAATCATT
TAGCCGTTGCAATAAATGTAGAGGAAATGC

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FIGURE 2545A

GGTTCATTTGCATGTCCCCGCCTCGCGCGGCGGCGGCGGCGGGTGAGGAGCCTGAGGCGGCGGCGGGGGTGGCTC
CGCGCGCGGTGGTCTCGGGGGCAAAATAAC**ATG**GCAGCCAGACGAATTACACAGGAGACTTTTGATGCTGTATTA
CAAGAAAAAGCCAAACGATATCACATGGATGCCAGTGGTGAGGCTGTAAGCGAAACTCTTCAGTTTAAAGCTCAA
GATCTCTTAAGGGCAGTCCCAAGATCCAGAGCAGAGATGTATGATGACGTCCACAGCGATGGCAGATACTCCCTC
AGTGGATCTGTAGCTCACTCTAGAGATGCCGGAAGAGAAGGCCTGAGAAGTGACGTATTTCCAGGGCCTTCCTTC
AGATCAAGCAACCCTTCCATCAGTGATGACAGCTACTTTCGCAAAGAATGTGGCCGGGATCTGGAATTTTCTCAC
TCTGATTCTCGGGACCAGGTCATTGGCCACCGGAAATTGGGGCATTTCCGTTCTCAGGACTGGAAATTTGCGCTC
CGTGGTTCTTGGGAACAAGACTTTGGCCATCCAGTTTCTCAAGAGTCCTCTTGGTCACAGGAGTATAGTTTTGGT
CCCTCTGCAGTTTTGGGGGACTTTGGATCTTCCAGGCTGATTGAGAAAGAGTGTTTGGAGAAGGAGAGTCGGGAT
TATGACGTGGACCATCCTGGGGAGGCTGACTCTGTGCTTAGGGGCGGCAGTCAAGTCCAGGCCAGAGGTCGAGCT
CTAAACATCGTTGACCAGGAAGGTTCCCTCCTAGGAAAGGGGGGAGACTCAGGGCCTGCTCACAGCTAAGGGGGGT
GTTGGGAAACTTGTCACATTGAGAAATGTGAGCACAAAAAAAATACCCACCGTGAATCGTATTACTCCCAAAACT
CAGGGCACTAACCAAATCCAGAAAAACACTCCAAGTCCTGATGTGACCCTGGGGACAAACCCAGGGACAGAAGAT
ATCCAGTTCCCCATTCAGAAGATCCCTCTGGGGCTGGATCTGAAGAATCTTCGGCTCCCCAGAAGAAAGATGAGC
TTTGACATCATAGATAAGTCTGATGTTTTTTCAAGATTTGGGATAGAAATAATCAAATGGGCAGGATTCCACACC
ATAAAAGATGATATTAAATTTTCCCAACTTTTCCAGACTCTCTTTGAACTTGAAACAGAAACCTGTGCTAAAATG
CTTGCCTCATTCAAATGTTCCTTAAAACCAGAGCACAGAGATTTTTGCTTTTTTACTATCAAATTTTTAAAGCAC
TCTGCTTTGAAAACACCCAGAGTTGATAATGAGTTTTTAAACATGCTTTTAGACAAAGGTGCTGTGAAGACCAAA
AATTGCTTTTTTTGAAATCATAAAGCCTTTTGACAAGTACATAATGAGACTTCAAGACCGGCTTCTGAAGAGTGTC
ACACCTTTGCTTATGGCCTGCAATGCCTACGAGCTAAGTGTCAAGATGAAGACCCTCAGTAACCCCCTGGACTTG
GCTCTTGCCCTAGAAACCACCAACTCTCTCTGCCGGAAGTCTTTGGCCCTTTTGGGACAGACATTTTCCTTGGCC
TCTTCTTTCCGGCAGGAGAAAATCTTAGAAGCTGTCGGCCTGCAAGATATAGCTCCCTCACCTGCTGCGTTTCCA
AACTTCGAAGACTCCACTTTGTTTGGGCGAGAGTACATAGACCACCTGAAGGCCTGGCTAGTCAGCAGCGGATGT
CCCCTCCAGGTTAAGAAAGCCGAACCAGAGCCGATGCGAGAGGAGGAGAAAATGATTCCTCCTACGAAACCTGAA
ATTCAGGCCAAGGCTCCAAGTAGTCTGAGTGATGCTGTCCCCCAGCGAGCAGATCACAGGGTAGTGGGCACCATC
GACCAGCTTGTGAAACGTGTCATCGAAGGCAGCCTGTCTCCCAAAGAGAGAACTCTTCTCAAAGAGGACCCTGCT
TACTGGTTTTTGTCTGATGAAAATAGTCTGGAGTATAAATATTACAAGCTGAAGTTGGCAGAAATGCAGCGGATG
AGCGAGAACTTGCGAGGAGCCGACCAGAAGCCGACCTCAGCAGACTGTGCAGTGAGGGCCATGCTGTACTCCCGG
GCTGTCCGCAACCTCAAGAAGAAACTCCTTCCGTGGCAGCGGCGGGGGCTCCTCCGTGCTCAAGGGCTCCGGGGC
TGGAAGGCGAGGAGAGCGACCACCGGGACCCAGACCCTCCTATCCTCAGGCACCAGGCTGAAACACCACGGCCGG
CAGGCTCCAGGCCTCTCACAGGCAAAACCATCCCTGCCAGACAGAAATGATGCTGCCAAGGACTGCCCGCCAGAC
CCAGTTGGACCTTCTCCTCAGGACCCCAGCTTAGAAGCCTCAGGCCCATCCCCCAAGCCAGCAGGAGTGGACATC
TCTGAAGCACCTCAGACCTCTTCTCCCTGCCCATCTGCTGACATTGACATGAAGACAATGGAGACTGCAGAGAAA
CTGGCTAGATTTGTTGCTCAGGTGGGACCAGAGATCGAACAATTCAGCATAGAAAACAGCACCGATAACCCTGAC
CTGTGGTTTCTACATGACCAAAATAGTTCTGCTTTCAAATTCTATCGAAAGAAAGTGTTTGAACTATGTCCATCA
ATTTGTTTCACGTCATCTCCGCACAACCTTCACACTGGTGGTGGTGACACCACGGGTTCTCAGGAGAGCCCCGTG
GACCTCATGGAAGGGGAAGCAGAGTTTGAAGACGAGCCCCCTCCGCGGGAGGCTGAGCTGGAGAGCCCAGAGGTG
ATGCCTGAGGAGGAGGACGAGGACGATGAGGATGGGGGAGAGGAGGCCCCCGCTCCTGGAGGGGCGGGCAAGTCT
GAGGGCAGCACCCCTGCCGACGGCCTTCCCGGCGAGGCTGCCGAGGACGACCTGGCTGGAGCACCTGCCTTGTCA
CAGGCCTCCTCAGGTACCTGCTTCCCTCGGAAGAGGATCAGCAGCAAGTCATTGAAGGTTGGCATGATTCCAGCT
CCCAAGAGAGTGTGTCTCATCCAGGAGCCAAAAGTCCATGAACCAGTTCGAATTGCCTATGACAGGCCTCGGGGT
CGTCCCATGTCCAAAAAGAAGAAACCCAAGGACTTGGACTTCGCCCAGCAGAAGCTGACCGATAAGAACCTGGGC
TTCCAGATGCTGCAGAAGATGGGCTGGAAGGAGGGCCATGGCCTGGGCTCCCTCGGAAAGGGCATCAGGGAGCCG
GTCAGCGTGGGAACCCCCTCGGAAGGGGAAGGGTTGGGTGCTGACGGGCAGGAGCACAAAGAAGACACATTCGAT
GTGTTCCGACAGAGGATGATGCAGATGTACAGACACAAGCGGGCCAACAAA**TAG**ATCAAAACCACTGATGTGAAA
GATAAGCCTTGAAGCAGCAATTGCCCTTAAAACATCATCCCTGCCCTGGATCGGCCTGGAGCCAGTGCCCAAGTA
CGGTTTGGTGTGTACATGAAAACAAACGTCTCTGCAGTCTCTGGGGGCGGAGGTTTCGCTGGCTTTTCTTTCTCTC
AAAGAAAAAAACATGCACCATTTTCAATGTGCTTTTGCCTCTCCTCTCTGTTCACATGCTTTTAGCAGCAAGTCC

FIGURE 2545B

CCTCCAAATCTGTCTTGGTTCCCCTTCAGAAGGTGGCGCTGCCCCCGAAAGGCACCTCAGCCTGTGAGTGCTGAG
GAACCAGCTCCTCTGGCTGATTTTCCAGTTGGACTGGCCATTGCTCTCCAGAAGTGCTCTGTTAGCAAACGTGAT
GTGGAAACGATCACAGATGGTGTTTTCTCGTTGTTCGCCAGAATTTATACGGGGGAGACAAATTCCCGGTAATTA
CCAAGTCTGCACTCGGGTACCAAAGCTCTGAAGCTCTCTGAACAGTTGCCATACTTGAGTTGATGAATGTGTTAT
TCATGGTGTCTCATCTCATCAATGCATCTTGAGAGACTTAATGAAATTTTAGCAACAGTATAGAATAGCTCTATC
GGGTGGGGAGTAATCATTAAACAGATGAAATCGGCCCCAGATTTAC

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FIGURE 2546

GCAAAACATTTCCCTGCTGGGGGCGGCGACCACCGTGAGCGTCCCGGAAGGGGCGGCAAAGACGCCTCCGTCGCG
CACGAGGTGGCCTCGTTGGCTTTACCTTGGTTCGCGGTCGTCCTTGGTTATCGTGAGCGTCCGCGAGTCTCTGGG
AGGCCAAGCCTAGGGGCGCCACAGCGCCTGCGCGCGTACGGCGGCCGGAAGGGGCTAGAGGCGGCTCCCTGGGTG
ACAACCGCGCGCCCCACCTTTCCCCACGTGGCCGCGAAGACCGGCTCAGGAGCATCTATCGGCTGCACGCCAACA
TCAACACAGGCGAAG**ATG**GTCTCCAAGCGCATTGCCCAGGAGACCTTTGATGCAGCTGTGCGCGAGAACATCGAG
GAGTTTGCGATGGGGCCAGAGGAGGCAGTGAAAGAGGCCGTGGAGCAGTTTGAATCGCAAGGGGTTGATCTGAGC
AACATTGTAAAGACGGCACCTAAAGTCTCTGCAGACGGATCCCAGGAGCCCACACATGACATCCTGCAGATGCTC
AGTGACCTCCAGGAGTCTGTGGCCAGCTCTCGCCCCCAGGAGGTGTCAGCATACCTCACCCGCTTCTGCGACCAG
TGCAAACAGGACAAGGCCTGCCGCTTCCTCGCGGCCCAGAAGGGGGCCTACCCCATCATCTTCACTGCCTGGAAG
CTGGCCACTGCAGGTGACCAGGGCCTTCTGCTCCAGTCCCTCAATGCCCTGTCGGTGCTGACTGATGGACAGCCA
GACCTCCTGGATGCCCAGGGCCTGCAGCTCCTAGTGGCCACGCTGACCCAGAATGCTGATGAGGCTGACCTGACC
TGCTCTGGGATCCGCTGTGTGCGTCACGCTTGCCTGAAACATGAACAGAATCGGCAAGACCTGGTGAAAGCTGGC
GTGCTGCCTCTGCTGACTGGTGCCATCACCCATCATGGCCACCACACTGACGTGGTCAGGGAAGCCTGCTGGGCC
CTGCGTGTCATGACCTTCGATGACGACATCCGTGTGCCCTTTGGCCATGCCCACAACCATGCCAAGATGATTGTG
CAGGAGAACAAAGGCTTGAAGGTGCTCATCGAAGCCACCAAAGCGTTCCTGGATAACCCTGGCATCCTGAGCGAG
CTCTGTGGAACCCTGTCCCGCCTGGCCATTCGCAACGAGTTCTGCCAGGAGGTCGTCGACCTCGGGGGCCTGAGC
ATTCTGGTGTCCCTGCTAGCCGACTGCAATGACCACCAGATGAGGGACCAGAGCGGCGTTCAGGAGCTCGTGAAG
CAAGTGCTGAGCACCCTGCGAGCCATCGCAGGCAACGACGACGTGAAAGATGCTATTGTCCGTGCTGGTGGGACG
GAGTCCATCGTGGCTGCTATGACCCAGCATCTGACCAGCCCCCAGGTGTGTGAGCAGAGCTGCGCGGCCCTGTGC
TTCCTGGCCCTGCGTAAGCCCGACAACAGCCGCATCATCGTGGAGGGTGGCGGGGCTGTGGCAGCACTGCAGGCC
ATGAAGGCACACCCGCAGAAGGCCGGCGTGCAGAAACAGGCTTGCATGCTGATCCGAAACCTGGTGGCCCACGGC
CAGGCCTTCTCGAAGCCCATCCTGGACCTGGGGGCTGAGGCACTCATCATGCAGGCCCGATCTGCCCACCGTGAC
TGTGAGGACGTGGCCAAGGCCGCCCTGCGGGACCTGGGTTGTCATGTCGAGCTCCGAGAGCTGTGGACAGGCCAG
AGGGGCAACCTGGCGCCA**TGA**CCCCAGGCCCAGTCTGGGCCGTGACTCTGGGTGAGTCGTGTGACTCAGGAATGG
GGGTAGATCCATGTCCTCCACTGTCCCCCATTAGTTCTGTCCCCTTCACAATGAGAAGTGTTTTCTGGCAGGCCC
TAGGTAAAGGGTCGGGGGAGGGGGGAGCCTTGTAGGGAGGCCTCTACACAGAAGAAAGCAGCCCCCATGTCCCAG
CCACTTCTGGGTCCCAGCCAGCAGCACGGATGTTACTGTCCTGCTCCTTCCCCCAGCCCCACGCCCTACCAGAGG
GGGCAAAGGGCACGTCCCATCACTCACTGCCCTGTCTGAAATGTGGCAGCCACTGTGGGCCAGGCTCAGGGCAGG
GCAGGCGATTCCAGTGGGGTTGGGCCCCCTGGCGCCTGCTGCTTACTGCAGTTTCATGCAGGCCTCTGCTCCTTG
TCTTTCTTACCTGTAAAATGGGTCTCAGATGCTCCGCCCTGCTTGGCCCCAGCTTGTCTGTCTCTGGGTCCTGGG
CCAGCCAGGATACCTGATAATAAAAGATCATTGGGTG

FIGURE 2547

GGCCGGTGGGTGAGTGCACCGCGTTCTCGCACGCGTC**ATG**GCGGTCCTCGGAGTACAGCTGGTGGTGACCCTGCT
CACTGCCACCCTCATGCACAGGCTGGCGCCACACTGCTCCTTCGCGCGCTGGCTGCTCTGTAACGGCAGTTTGTT
CCGATACAAGCACCCGTCTGAGGAGGAGCTTCGGGCCCTGGCGGGGAAGCCGAGGCCCAGAGGCAGGAAAGAGCG
GTGGGCCAATGGCCTTAGTGAGGAGAAGCCACTGTCTGTGCCCCGAGATGCCCCGTTCCAGCTGGAGACCTGCCC
CCTCACGACCGTGGATGCCCTGGTCCTGCGCTTCTTCCTGGAGTACCAGTGGTTTGTGGACTTTGCTGTGTACTC
GGGCGGCGTGTACCTCTTCACAGAGGCCTACTACTACATGCTGGGACCAGCCAAGGAGACTAACATTGCTGTGTT
CTGGTGCCTGCTCACGGTGACCTTCTCCATCAAGATGTTCCTGACAGTGACACGGCTGTACTTCAGCGCCGAGGA
GGGGGGTGAGCGCTCTGTCTGCCTCACCTTTGCCTTCCTCTTCCTGCTGCTGGCCATGCTGGTGCAAGTGGTGCG
GGAGGAGACCCTCGAGCTGGGCCTGGAGCCTGGTCTGGCCAGCATGACCCAGAACTTAGAGCCACTTCTGAAGAA
GCAGGGCTGGGACTGGGCGCTTCCTGTGGCCAAGCTGGCTATCCGCGTGGGACTGGCAGTGGTGGGCTCTGTGCT
GGGTGCCTTCCTCACCTTCCCAGGCCTGCGGCTGGCCCAGACCCACCGGGACGCACTGACCATGTCGGAGGACAG
ACCCATGCTGCAGTTCCTCCTGCACACCAGCTTCCTGTCTCCCCTGTTCATCCTGTGGCTCTGGACAAAGCCCAT
TGCACGGGACTTCCTGCACCAGCCGCCGTTTGGGGAGACGCGTTTCTCCCTGCTGTCCGATTCTGCCTTCGACTC
TGGGCGCCTCTGGTTGCTGGTGGTGCTGTGCCTGCTGCGGCTGGCGGTGACCCGGCCCCACCTGCAGGCCTACCT
GTGCCTGGCCAAGGCCCGGGTGGAGCAGCTGCGAAGGGAGGCTGGCCGCATCGAAGCCCGTGAAATCCAGCAGAG
GGTGGTCCGAGTCTACTGCTATGTGACCGTGGTGAGCTTGCAGTACCTGACGCCGCTCATCCTCACCCTCAACTG
CACACTTCTGCTCAAGACGCTGGGAGGCTATTCCTGGGGCCTGGGCCCAGCTCCTCTACTATCCCCCGACCCATC
CTCAGCCAGCGCTGCCCCCATCGGCTCTGGGGAGGACGAAGTCCAGCAGACTGCAGCGCGGATTGCCGGGGCTCT
GGGTGGCCTGCTTACTCCCCTCTTCCTCCGTGGCGTCCTGGCCTACCTCATCTGGTGGACGGCTGCCTGCCAGCT
GCTCGCCAGCCTTTTCGGCCTCTACTTCCACCAGCACTTGGCAGGCTCC**TAG**CTGCCTGCAGACCCTCCTGGGGC
CCTGAGGTCTGTTCCTGGGGCAGCGGGACACTAGCCTGCCCCCTCTGTTTGCGCCCCCGTGTCCCCAGCTGCAAG
GTGGGGCCGGACTCCCCGGCGTTCCCTTCACCACAGTGCCTGACCCGCGGCCCCCCTTGGACGCCGAGTTTCTGC
CTCAGAACTGTCTCTCCTGGGCCCAGCAGCATGAGGGTCCCGAGGCCATTGTCTCCGAAGCGTATGTGCCAGGTT
TGAGTGGCAAGGGTGATGCTGGCTGCTCTTCTGAACAAATAAAGGAGCATGCCGATTTTT

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FIGURE 2548

GGTCGCTATGGAGGAGCCGGAGATGCAGCTCAAGGGGAAGAAAGTCACGGACAAGTTCACTGAGAGCGTCTACGT
CCTGGCCAACGAGCCATCCGTGGCCCTGTACCGGCTGCAGGAGCATGTGCGTCGCTCCCTCCCCGAGCTGGCCCA
GCACAAGGCAGACATGCAGCGTTGGGAGGAGCAGAGCCAGGGAGCCATCTACACTGTGGAGTACGCCTGCAGCGC
CGTGAAGAACCTGGTGGACAGCAGCGTCTACTTCCGCAGCGTGGAGGGTCTGCTCAAACAGGCCATCAGCATCCG
GGACCATATGAATGCCAGTGCCCAGGGCCACAGCCCGGAGGAACCACCCCCGCCCTCCTCAGCCTGATCCTGGAA
GAGACTCGGGGCCCCCCAGCCTCCGCCAACCCAGACAAAGATCATTCCACTCAGCCTGGGACG**ATG**GGGAGGAAA
AAAATCCAGATCTCCCGCATCCTGGACCAAAGGAATCGGCAGGTGACGTTCACCAAGCGGAAGTTCGGGCTGATG
AAGAAGGCCTATGAGCTGAGCGTGCTCTGTGACTGTGAGATAGCCCTCATCATCTTCAACAGCGCCAACCGCCTC
TTCCAGTATGCCAGCACGGACATGGACCGTGTGCTGCTGAAGTACACAGAGTACAGCGAGCCCCACGAGAGCCGC
ACCAACACTGACATCCTCGAGACGCTGAAGCGGAGGGGCATTGGCCTCGATGGGCCAGAGCTGGAGCCGGATGAA
GGGCCTGAGGAGCCAGGAGAGAAGTTTCGGAGGCTGGCAGGCGAAGGGGGTGATCCGGCCTTGCCCCGACCCCGG
CTGTATCCTGCAGCTCCTGCTATGCCCAGCCCAGATGTGGTATACGGGGCCTTACCGCCACCAGGCTGTGACCCC
AGTGGGCTTGGGGAAGCACTGCCCGCCCAGAGCCGCCCATCTCCCTTCCGACCAGCAGCCCCCAAAGCCGGGCCC
CCAGGCCTGGTGCACCCTCTCTTCTCACCAAGCCACCTCACCAGCAAGACACCACCCCCACTGTACCTGCCGACG
GAAGGGCGGAGGTCAGACCTGCCTGGTGGCCTGGCTGGGCCCCGAGGGGGACTAAACACCTCCAGAAGCCTCTAC
AGTGGCCTGCAGAACCCCTGCTCCACTGCAACTCCCGGACCCCCACTGGGGAGCTTCCCCTTCCTCCCCGGAGGC
CCCCCAGTGGGGGCCGAAGCCTGGGCGAGGAGGGTCCCCCAACCCGCGGCGCCTCCCCGCCGACCCCCCCAGTCA
GCATCAAGTCTGAGCGCCTCTCTCCGGCCCCCGGGGGCCCCGGCGACTTTCCTAAGACCTTCCCCTATCCCTTGC
TCCTCGCCCGGTCCCTGGCAGAGCCTCTGCGGCCTGGGCCCGCCCTGCGCCGGCTGCCCTTGGCCGACGGCTGGC
CCCGGTAGGAGATCACCCGGTGGCACCAGCCCAGAGCGCTCGCCAGGTACGGCGAGGGCACGTGGGGACCCCACC
TCCCTCCAGGCCTCTTCAGAGAAGACCCAACAG**TGA**CGCCCCCCTCCGCGGTGGGGGCTTGGAGGTGGGCGGCTG
GACTCAATCCACCCTGGGGGGCTCCTTTCCTTCTTCCTATTTGTGTGTATATCCACAAATAAAACGCGCGTGGCG
TCCGTGGACC

FIGURE 2549

CTCAGCTGCACCTGCATAGTCAGGGGGTCCCTTGGCCAGGACTGTTGGCAGCAGGGGTCAGATTTTCCTCATGGC
CTCTCCAGCAGGCCAGCCCGGGTTTCTCCTGGTGGCTGGGAGCCAGGAGAGCGGCTCCC**ATG**CAGAGTGCTGGTT
TCACATTTGTGGGTGGCCCATCCGTTGAGGCCAGTCACGTGGCCAGGCCCAGGACCAGATGGGAGAGGACCGCAC
AAGTGCAGCGTGAGCTGTGGGAGGTGTGGCTGACCACGCTTAGAGAGTGTGGTGCCAGGAAAGATCTGATGTGTC
ACCATTCTATATCTGTGATGGGCAGACGCAGGCAGGTCAAAGGGGCCCTGGGGACTTACCGAGCCCCTGCCTATT
GGCCAGGCACTGTGATTGTCCTCGGTGCCATGTGCCATGGAAGCCCTCTCAGAGGTCGAGGGGAGGCAGGTGGAG
ACAGAGCCTCTGTAGGCCTTTCAAGCTGTAGCCCCAGAGCCCAGAGGCAGCCGAATTCATGTGTGCAGTCAGAGA
GCACT**TAG**TGGGCACTGTAGTCAATCAGTGAGCGCTTACTGGACACCACAGGCAGCAAGCATTTACTGAGTACCT
CTGGCAGTTGATGCATACTTCCTGAGTACCTGTTCATAGCAGGCTTAGCTCTGGATGTGGGGTGGTGAGGAATCC
CACAGGCTGAGGGGTGGCCTGGGAGCTTTCCAGGGGGCCTGAAGCAGGAGGGGCTGCCTGAGTGGGTCAGCAGCC
CAGCCCAGTGCCCTACGCAGCCCTGCCCACACCCCCAACCCAGCCTCTGTCTCCCCAGTCCCATCCCCCACACCC
TGGTCCCTCCTACTTTGTGCCTCGAGGACACTGCCCCGCTGCCCTCCTCACTTCCCAGCGTCTGCTGTCCCCTCC
GCTGCTGCTGCCCGGCAGGATTGCTCTGTGTCTCATCCACGTTTGTCCCTGCAGAGTTCCTCGCCTCTCCCTGGA
ACCGCCAGCCTCATGCCGCATCTCAGAGGCTTTTTTTTTCTCTCTTTTTTTTTTTTTTGAGATGGAGTCTCACTC
TGTCACCCAGGCTAGAGTGCGGTGGTGCGATCTCGGTTCAGTGTAACCTCTGCCTGTCAGGTTCAAGCGATTATC
CCGCTTCAGCCTCCCGAGTAGGTGGGACTACAGGTGCCTGCCACCTCGCCCGGCTAATTTTTGTATTTTTAGTAG
AGATGGAATTTCAGCATGTTGGTCAGTCAGGTCTCGAACTCCCGACCTCAGGTGATCTGCCCGCCTCGGCCTCCC
AAAGTCCTGGGATTATAGGCATGAGCCACTGCGCCCGGCCTCAGAGGCTTTCATTCCCACTTTTCCCCCAAAACT
GCGCCTCTTTGGGGTCATCAGTGACCTTCGCAGGGTCAAGTCATCCCCCTCTCCTGTCCCAGGACCTTAAGCACT
GCCCTGTTTTACAGAAGAGGAAACTGAGGCCCCGAGAGGTAAGGCAGCCAGCTCAGGGTCATCGCCCACGCCCAG
AAATGCCAGGATTCCCACCCGGACCTCTGACCACCAAGCTCCACCTTAGTCTGGCCCGGGGTCATCCCTCAGGTG
CTGCCTCATGCCTTGGGTCTGTCTCTCAGACCACCCTGGCCCTTGCCCCTGCTCCCCAGCCTGACTGAAGCTGGG
CCAGGCAGAGACTGAAGACTGAACGAGTGTGGCCAGCATTCCTCCTGCACCTGCCCGGAGCCTCCAGGCCCAGCC
GTCCATGTTCCCAGAAGTCCAGAAGTGGCTTTGCTGCTCCTGGACTCTCACTGGCCCCCCATCGACCCTTGGACC
AATAACTGCCATCAAAATAATCCTGATTATGCACCTATCAAGTCCCTGGCCCTGGGCTAAAGTCTTCACAGGGGT
CATCTCATTTCATCCTCAGCCCCAAAAGGCAGGTCTCACCCCCAAATACATATGGACAAAAAGAGGCTCTGCCGG
GTGTGATGGCGGGCACCTGTAATCCCAGCTACTCAGGAGGTTGAGGCATGAGAATCGCTTGAACCCAGGAGGCAG
AGGTTCCAGTGAGCCAAGATGGCGCCACTGCACTCCAGCCTGCGCGACAGAGCGAGACTTCGCACCCGCCGCCCC
CCAACC

FIGURE 2550

ACGCAGGGAAGGAGGCACACCCGGGGGTGGCGCAGTGAGGAGGGGGCGCGACGGCCAGGAGGCTGGTGGAGCGAC
ACCCAGGCAGGAGAGGGGGAAGAACTCTCTCCCTTTCTGAACCCCCTTTTCCTTGAGAGACGAGTTGGGGGAGTC
CTCCACGCATTACCCACTCGGGCCGCAAAAACTCCCTTCTTTAGCCCTCTGCCCCCGCCCTTGCTTATAAGCCTT
TGAGACCGCAGAAGGGACCTTGTTGTGGAACGGGACGGCCAAGAGGAAGCCAGATCGCTGAGGGTCCGGTCTCCA
GTTTGCCTCCTGCTATATCCATTGGAAGAGAAAAGTTTGTGACTTGGGCCCCCAAGTTTTGAGAGAACTGGGCTT
TCGGCGCGGGGGGGACAGAGGAGGCTCGTGGGGAGCTTTCCCC**ATG**GAGCTTACCCAGCCTGCAGAAGACCTCATC
CAGACCCAGCAGACCCCTGCCTCAGAACTTGGGGACCCTGAAGACCCCGGAGAGGAGGCTGCAGATGGCTCAGAC
ACTGTGGTCCTCAGTCTCTTTCCCTGCACCCCTGAGCCTGTGAATCCTGAACCGGATGCCAGTGTTTCCTCTCCA
CAGGCAGGCAGCTCCCTGAAGCACTCCACCACTCTCACCAACCGGCAGCGAGGGAACGAGGTGTCAGCTCTGCCG
GCCACCCTAGACTCCCTGTCCATCCACCAGCTCGCAGCACAGGGGGAGCTGGACCAGCTGAAGGAGCATTTGCGG
AAAGGTGACAACCTCGTCAACAAGCCAGACGAGCGCGGCTTCACCCCCCTCATCTGGGCCTCCGCCTTTGGAGAG
ATTGAGACCGTTCGCTTCCTGCTGGAGTGGGGTGCCGACCCCCACATCCTGGCAAAAGAGCGAGAGAGCGCCCTG
TCGCTGGCCAGCACAGGCGGCTACACAGACATTGTGGGGCTGCTGCTGGAGCGTGACGTGGACATCAACATCTAT
GATTGGAATGGAGGGACGCCACTGCTGTACGCTGTGCGCGGGAACCACGTGAAATGCGTTGAGGCCTTGCTGGCC
CGAGGCGCTGACCTCACCACCGAAGCCGACTCTGGCTACACCCCGATGGACCTTGCCGTGGCCCTGGGATACCGG
AAAGTGCAACAGGTGATCGAGAACCACATCCTCAAGCTCTTCCAGAGCAACCTGGTGCCCGCTGACCCTGAG**TGA**

AGGCCGCCTGCCGGGGACTCAGACACTCAGGGAACAAAATGGTCAGCCAGAGCTGGGGAAACCCAGAACTGACTT
CAAAGGCAGCTTCTGGACAGGTGGTGGGAGGGGACCCTTCCCAAGAGGAACCAATAAACCTTCTGTGCAG

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FIGURE 2551

CACGCGGTTCCGGGTCCCAAGATTTGGCTCCAAGAGCTATTCGCAGAGAAACAGCCTCGCACAAAAAGCCACCGC
CCCCGAAACCCGCGGGAAATCTGTTTCCTGTGAAAGGCCTGGCCTCCGGGCATTGGCGGTTTCCCTGATCCTCTC
TCCCAAATTTTCCGGCAGGGGATTGATCGAGGCGACATTTAGGACTGGGGTGGGCGAGGGAGTGGCGGTTCTCGT
CCCAAGTTACAGGTGAGGACGTTCAGGCCAAGGCGTAGCCAAGATCGCGCCGCCCTGTAGCTTGAGGAGGCGCCG
GGATTCGAACCAAGGCTGTGCCCAATCCTAAGCCCTGCGAGGTCTTGTGGAACCGAC**ATG**ACCCACTCTTTGGTT
TGTCCAGAGACAGTGAGCAGGGTGAGTTCAGTGCTGAATCGCAACACTCGGCAGTTTGGAAAAAAACATCTTTTC
GACCAGGATGAGGAGACATGTTGGAACTCAGACCAGGGCCCCTCCCAGTGGGTGACGCTGGAGTTTCCCCAGCTC
ATCCGTGTCTCCCAGCTGCAGATCCAGTTTCAGGGTGGCTTCTCCAGTCGCCGGGGCTGCCTGGAAGGTTCACAG
GGCACTCAGGCTCTCCACAAGATTGTAGATTTCTACCCTGAGGACAACAACTCGCTTCAGACTTTCCCCATACCA
GCTGCTGAAGTGGACCGGCTGAAGGTGACGTTTGAGGATGCCACTGACTTTTTTGGCCGTGTGGTCATCTACCAC
CTGCGGGTGCTTGGGGAGAAGGTG**TGA**GACCTCTAGGGGCTGTCTCCTCCAGGAAGCCCTCCGGGAAGCACAGCA
AAGTCCCTCATTCTGCACAGAAGGTTTATTGGTTCCTCTTGGGAAGGGTCCCCTCCCACCACCTGTCCAGAAGCT
GCCTTTGAAGTCAGTTCTGGGTTTCCCCAGCTCTGGCTGACCATTTTGTTCCCTGAGTGTCTGAGTCCCCGGCAG
GCGGCCTTCACTCAGGGTCAGCGGGCACCAGGTTGCTCTGGAAGAGCTTGAGGATGTGGTTCTCGATCACCTGTT
GCACTGAGATGGGGCAGGGAAAAGGTGGGCTGTGAGCTTGAATCGGGAGTGGGGTGGAGGCACAGGCCAACCTGC
GCTCTCCCCTTAGGGGACAAACAGGGACCCTTGCAGAGACCTGCATTACAGAGCAAAGCTGGGAGAACCGAGGAC
TCACCCCAGGAACCTCAACTTCCCCTAAGTTTGTAAAAATGCACTTTTGTAGCTTTTCAGAATTAATATAAAAAT
ATTTCCTACC

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FIGURE 2552

GTCTCAAG**ATG**GACAACCGGGATGTTGCAGGAAAGGCTAACCGGTGGTTTGGGGTTGCTCCCCCTAAATCTGGAA
AAATGAACATGAACATCCTTCACCAGGAAGAGCTCATCGCTCAGAAGAAACGGGAAATTGAAGCCAAAATGGAAC
AGAAAGCCAAGCAGAATCAGGTGGCCAGCCCTCAGCCCCCACATCCTGGCGAAATCACAAATGCACACAACTCTT
CCTGCATTTCCAACAAGTTTGCCAACGATGGTAGCTTCTTGCAGCAGTTTCTGAAGTTGCAGAAGGCACAGACCA
GCACAGACGCCCCGACCAGTGCGCCCAGCGCCCCTCCCAGCACACCCACCCCCAGCGCTGGGAAGAGGTCCCTGC
TCATCAGCAGGCGGACAGGCCTGGGGCTGGCCAGCCTGCCGGGCCCTGTGAAGAGCTACTCCCACGCCAAGCAGC
TGCCCGTGGCGCACCGCCCGAGTGTCTTCCAGTCCCCTGACGAGGACGAGGAGGAGGACTATGAGCAGTGGCTGG
AGATCAAAGTTTCACCCCCAGAGGGAGCCGAGACTCGGAAAGTGATAGAGAAATTGGCCCGCTTTGTGGCAGAAG
GAGGCCCCGAGTTAGAAAAAGTAGCTATGGAGGACTACAAGGATAACCCAGCATTTGCATTTTTGCACGATAAGA
ATAGCAGGGAATTCCTCTACTACAGGAAGAAGGTGGCTGAGATAAGAAAGGAAGCACAGAAGTCGCAGGCAGCCT
CTCAGAAAGTTTCACCCCCAGAGGACGAAGAGGTCAAGAACCTTGCAGAAAAGTTGGCCAGGTTCATAGCGGACG
GGGGTCCCGAGGTGGAAACCATTGCCCTCCAGAACAACCGTGAGAACCAGGCATTCAGCTTTCTGTATGAGCCCA
ATAGCCAAGGGTACAAGTACTACCGACAGAAGCTGGAGGAGTTCCGGAAAGCCAAGGCCAGCTCCACAGGCAGCT
TCACAGCACCTGATCCCGGCCTGAAGCGCAAGTCCCCTCCTGAGGCCCTGTCAGGGTCCTTACCCCCAGCCACCA
CCTGCCCCGCCTCGTCCACGCCTGCGCCCACTATCATCCCTGCTCCAGCTGCCCCCGGGAAGCCAGCCTCCGCAG
CCACCGTGAAGAGGAAGCGGAAGAGCCGGTGGGGGCCTGAAGAGGATAAGGTAGAGCTCCCACCTGCTGAACTGG
TGCAGAGGGACGTGGATGCCTCTCCCTCGCCTCTGTCAGTTCAGGACCTCAAGGGGCTCGGCTATGAGAAGGGGA
AGCCTGTGGGTCTAGTGGGCGTCACAGAGCTTTCAGACGCCCAGAAGAAGCAGCTGAAGGAGCAGCAGGAGATGC
AGCAGATGTACGACATGATCATGCAGCACAAGCGGGCCATGCAGGACATGCAGCTGCTGTGGGAGAAGGCAGTCC
AACAGCACCAGCACGGCTATGACAGTGATGAGGAGGTGGACAGCGAGCTGGGCACCTGGGAGCACCAGCTGCGGC
GCATGGAGATGGATAAGACCAGGGAATGGGCCGAGCAGCTGACAAAGATGGGCCGGGGCAAGCACTTCATCGGAG
ACTTCCTGCCTCCAGACGAGCTGGAAAAGTTTATGGAGACCTTCAAGGCCCTGAAGGAGGGCCGTGAGCCTGACT
ACTCAGAGTACAAGGAGTTCAAGCTGACTGTGGAGAACATCGGCTACCAGATGCTGATGAAGATGGGCTGGAAGG
AGGGCGAGGGGCTGGGCTCAGAGGGCCAGGGCATCAAGAACCCAGTGAACAAGGGCACCACCACAGTGGACGGCG
CTGGCTTCGGCATTGACCGGCCGGCGGAGCTCTCCAAGGAGGACGACGAGTATGAGGCGTTCCGCAAGAGGATGA
TGCTGGCCTACCGCTTCCGGCCCAACCCCCTGAACAATCCCAGACGGCCTTACTAC**TGA**GTGTTCTGGAAATACA
TACTTTCTGAATGACCAACCGTCCCTGGACTGTGGAATGTTCCGGCCTGCATTTCTGCCCACCCCTTCCGTTGTC
ACGAGTGCCGTGCCGTGTAATAAAGTCCCAGTGCTCATCCACC

FIGURE 2553A

GCGGCTTGTTGTTGTGGAGGCCAAA**ATG**GCGGCTCAGGCGGCGGCAGCGGCCCAGGCGGCGGCGGCCCAGGCTGC
GCAGGCCGAGGCGGCCGACTCGTGGTACCTGGCGCTTCTGGGCTTCGCTGAGCACTTCCGCACTTCCAGCCCGCC
CAAAATCCGCCTGTGCGTGCACTGCCTGCAGGCCGTGTTCCCCTTCAAGCCGCCGCAGCGCATCGAGGCCCGTAC
ACACCTGCAGCTGGGCTCCGTTCTCTATCACCACACCAAGAACAGCGAGCAGGCGCGCAGCCACCTGGAGAAGGC
GTGGTTGATATCACAGCAAATCCCGCAGTTCGAAGATGTTAAATTTGAAGCAGCAAGTCTGTTGTCTGAATTGTA
CTGTCAAGAGAATTCCGTTGATGCAGCAAAGCCGCTGCTGCGGAAGGCGATCCAGATCTCACAGCAGACCCCATA
TTGGCACTGCCGCCTGCTCTTCCAGCTCGCTCAACTGCACACGCTTGAGAAGGACCTGGTGTCGGCCTGTGACCT
CCTGGGTGTAGGGGCCGAGTACGCCCGGGTGGTGGGATCTGAATACACACGGGCGCTGTTCCTCCTCAGCAAGGG
GATGCTGCTGCTGATGGAGCGAAAGCTGCAGGAGGTGCACCCGCTGCTGACCCTCTGCGGGCAGATCGTGGAGAA
CTGGCAGGGGAACCCCATCCAGAAGGAGTCGCTGCGTGTCTTCTTCCTGGTGCTCCAGGTCACCCACTATCTGGA
TGCCGGGCAGGTGAAGAGCGTGAAGCCGTGTCTGAAGCAGCTGCAGCAGTGCATCCAGACCATCTCCACACTGCA
CGATGATGAGATCCTGCCCAGCAACCCCGCTGACCTCTTCCACTGGCTGCCCAAGGAGCACATGTGTGTGCTTGT
CTACCTGGTGACTGTGATGCACTCCATGCAGGCCGGCTACCTGGAGAAGGCGCAGAAGTACACGGACAAGGCCCT
CATGCAGCTGGAGAAGCTCAAGATGCTGGACTGCAGCCCCATCCTGTCATCCTTCCAAGTGATCCTGCTGGAGCA
CATCATCATGTGCCGCCTTGTCACGGGTCACAAGGCCACGGCGCTGCAGGAGATCTCCCAGGTCTGCCAGCTGTG
CCAGCAGTCCCCCCGGCTCTTCTCCAACCATGCAGCACAGCTGCACACATTGCTGGGCCTGTACTGTGTCTCTGT
CAACTGCATGGACAACGCGGAAGCCCAGTTCACCACGGCCCTGCGGCTCACCAACCACCAGGAGCTGTGGGCCTT
CATCGTCACCAACCTGGCGAGTGTGTATATACGGGAAGGAAATAGACACCAAGAGGTACTCTACAGTCTGCTGGA
GAGGATCAACCCGGACCACAGCTTCCCTGTCAGCTCGCACTGCCTCCGAGCAGCCGCCTTCTATGTGCGTGGGCT
CTTCTCCTTCTTCCAGGGACGCTACAACGAGGCCAAGCGATTTCTGCGGGAAACTCTGAAGATGTCCAATGCTGA
GGACCTGAACCGGCTCACAGCCTGCTCCCTCGTGCTTCTGGGCCACATCTTCTATGTGCTGGGAAACCACAGGGA
GAGTAACAACATGGTGGTGCCTGCCATGCAGCTCGCCAGCAAGATCCCGGACATGTCGGTACAGCTGTGGTCGTC
AGCACTGCTGAGAGACCTGAATAAAGCCTGTGGGAACGCCATGGATGCCCATGAAGCCGCCCAGATGCACCAGAA
CTTCTCGCAGCAGCTGCTCCAGGACCACATTGAGGCCTGCAGCCTCCCCGAACACAACCTCATCACGTGGACAGA
CGGTCCACCCCCCGTGCAGTTCCAAGCTCAGAATGGACCCAACACCAGCCTGGCCAGCCTCCTG**TGA**GGCCTTGA
TGGGGCCATCCAGCTCCGCAGGGCCTGCGCGTCTCCGGCTTCCACCCAGACGGCACTCAAGCCTGCCCCCGAGGC
GTGCTTCCTTCCTGATTGTCTCTAGAGCTTCCAAGTCCTGGGAATGTGCGGGGCCAGTCCCTGCCCTCCCAGGAG
GGGTGGTAGCCGTTCCCACCTCGCAGCAGGACCCCCAGTGCAGAGGCTCACAGGTGGCACACAGGCGCTGTCTCT
CCAGAGCCATCCTTCAGAGTGGACCTCAGTGCCAGTCCTGCCTCAGCATCTGGGTCACGTCGGCCAGGAGTAGGG
TGCAGGCCTCCAGCAGGTCCTAATCCTGTGTGCCAGGGCAGGCAGTGCCCCAGGGGCACCACGCCTGACTCTCCA
TCACCCAGGCCTTGATGCCGAGCGGGAGTAGAGTGTTTCCTCTGCTCAAGGCAATTTCCAGAGCCCGGATGCCAG
TTTCTGGCCTGAATTTGGAGGGAAGAAGTAATGGCGCTAGTGTGGGACGAAGCACAGATCCCAGCACTTTTCCCA
GCTTTCTCTCCAGCATCAGTCCCTGCAGCAGCTGGGGCCTCTGGTCAGGAACCCTCAGGGACCCAGGAACTCAGC
TTCCAAACATCTGCACCTTGACCGGACTCGCCATCCCGCCGTGGGGGTGCAGGTGATTGTAAACACGGGTGTGCA
TGTGGATGCACACGGGTGTGCGGTGAAGATCTGTGGAGATGGAGCTGGGAGCTGAGGCTCCTGTTGCACCAGCCA
CCTTCCCCCATCTTGTGGCTGCTGAGGGGCAGGAAGCGGGGGAGTGGGCTCGTCTCCTAAATTTAAGATCACCTC
CTCAGCTAGCTTAGAGTGCGTGGCACGGGCCCCCCGCCCCCGAGATCTGGAGCCCAGGGACTTTCTTCCTGGCAG
ATCTGTGGCCTTCCCTGCTCAGCCTCTTGGTCCCCCCACTCCCTCCACCGCCTCACCTTCCCTGCTGGGTCTCTG
GGGCACAGTGTGAAACCCGCACCCTAGCCAGGCCCCAGGGAGCCTCCGCTGGGCCCAGACAGCAGCGTTTGGTTT
TATCCACTTTTCTTGGATAATCAGGAGGTGCCCCAGTGGTCACAGTGTGGCATTCCGAGTTGGGGCGGGTGGTCG
GGTCAAGATAGCAGCAGCAGGTGTCAGGGCTCAAGACACCACCCCCTCCAGCTTCTGGGGCCCAGGAGCCTCTCC
CTGCTACAGGGGGTGGGGGTCCTGCTCAGCAGGGTAGGTGGTGGTTTTAGGTCTTGTCACCCTCACTCAGTGGAA
CTGCCTCTGGGAGCTTTGGCGTCTGTGACTAAAGGGACGCTGGATTGCTCAGGTCAGCTGCTTGGGGCTCCCAGG
CTGGGTGTGCCTTAGCCACAGGCAGGGCTGTCAATAACCCCCTTCCTCACTGGCCACCACCTGACATCAGCACCA
GTGACAGGCTGGTCAGAGGGCGGGGCTGGTGAGGGTTTGTCCTAAGAGGACCACCGCCATCTCTGGGTCTCCAGG
GGGAGAGCCTGGCCCTGTCCTTTGCTACCCAGGGCTGCCCCCAGGCCCATGAAGCCAATAGGAGAGCGTGTGGCA
CTGGCCCACAAACTGTCCCTGTCCTGTCTTCCTCCCGAGCCATGGCCTCTGCTAGCTCCACCTTGAAGGAGCCCC
CCACATCCTCCCCTACATCCCAGAGATGCCACCACTTGTGTCTCCACAATGTGCTCCTGCCCACCCGGGTTCCGC

FIGURE 2553B

ACTGTCCGACCCCTGCACACCACTCATGTCACCACGGCGTGCATCATGTTCATCCCCATCTATTTATTTAAGCCT
TTCTTTGCTTGTAGGGCATTTTGTATGTAGAGCAGTTGAAAACAGAACCTCAGAACTTAACATCTGTCCTGATGT
TAAAGTGCTTTTCATGACCACCCTGTTATCTATGTATATGTAAAGTTAAGGATGAGATCTTAAGTTTACAATTAA
AAACTCAGTACTCAATATTTAATATTCTACTCGAGCTTTATGGAAGCCAAATCATGTGCATGTGTGTGTGTGCGT
GTGTGCAAGCTTTGAACCTCCTTCCACAGCCGCATCTTCTCATGACACAAAGCTTTTGATAAGTACTTTCCTGTG
GGTCGCTCAGCGCCTCATAGCATCTCATTCAATTGCAAGAATAGAGGCCAGACACGGTGGCGCATGCCTGTAGTC
CCAGCTAACTGGGAGGCTGAGGCAGGAGGATCACTTGAGCCCAGGAGATTGAGGCTGCAGTGAGCATGATCGCGA
CACTGCACTCCAGCCTGGGTGACGGTGAGACTTTGTCTC

FIGURE 2554

GGAGATTGTTGCCAGGGCTCTGGTGAGTTCAGA**ATG**ACCGAAGAAGCATGCCGAACACGGAGTCAGAAACGAGCG
CTTGAACGGGACCCAACAGAGGACGATGTGGAGAGCAAGAAAATAAAAATGGAGAGAGGATTGTTGGCTTCAGAT
TTAAACACTGACGGAGACATGAGGGTGACACCTGAGCCGGGAGCAGGTCCAACCCAAGGATTGCTGAGGGCAACA
GAGGCCACGGCCATGGCCATGGGCAGAGGCGAAGGGCTGGTGGGCGATGGGCCCGTGGACATGCGCACCTCACAC
AGTGACATGAAGTCCGAGAGGAGACCCCCCTCACCTGACGTGATTGTGCTCTCCGACAACGAGCAGCCCTCGAGC
CCGAGAGTGAATGGGCTGACCACGGTGGCCTTGAAGGAGACTAGCACCGAGGCCCTCATGAAAAGCAGTCCTGAA
GAACGAGAAAGGATGATCAAGCAGCTGAAGGAAGAATTGAGGTTAGAAGAAGCAAAACTCGTGTTGTTGAAAAAG
TTGCGGCAGAGTCAAATACAAAAGGAAGCCACCGCCCAGAAGCCCACAGGTTCTGTTGGGAGCACCGTGACCACC
CCTCCCCCGCTTGTTCGGGGCACTCAGAACATTCCTGCTGGCAAGCCATCACTCCAGACCTCTTCAGCTCGGATG
CCCGGCAGTGTCATACCCCCGCCCCTGGTCCGAGGTGGGCAGCAGGCGTCCTCGAAGCTGGGGCCACAGGCGAGC
TCACAGGTCGTCATGCCCCCACTCGTCAGGGGGGCTCAGCAAATCCACAGCATTAGGCAACATTCCAGCACAGGG
CCACCGCCCCTCCTCCTGGCCCCCCGGGCGTCGGTGCCCAGTGTGCAGATTCAGGGACAGAGGATCATCCAGCAG
GGCCTCATCCGCGTCGCCAATGTTCCCAACACCAGCCTGCTCGTCAACATCCCACAGCCCACCCCAGCATCACTG
AAGGGGACAACAGCCACCTCCGCTCAGGCCAACTCCACCCCCACTAGTGTGGCCTCTGTGGTCACCTCTGCCGAG
TCTCCAGCAAGCCGACAGGCGGCCGCCAAGCTGGCGCTGCGCAAACAGCTGGAGAAGACGCTACTCGAGATCCCC
CCACCCAAGCCCCCAGCCCCAGAGATGAACTTCCTGCCCAGCGCCGCCAACAACGAGTTCATCTACCTGGTCGGC
CTGGAGGAGGTGGTGCAGAACCTACTGGAGACACAAGCAGGCAGGATGTCGGCCGCCACTGTGCTGTCCCGGGAG
CCCTACATGTGTGCACAGTGCAAGACGGACTTCACGTGCCGCTGGCGGGAGGAGAAGAGCGGCGCCATCATGTGT
GAGAACTGCATGACAACCAACCAGAAGAAGGCGCTCAAGGTGGAGCACACCAGCCGGCTGAAGGCCGCCTTTGTG
AAGGCGCTGCAGCAGGAACAGGAGATTGAGCAGCGGCTCCTGCAGCAGGGCACGGCCCCTGCACAGGCCAAGGCC
GAGCCCACCGCTGCCCCACACCCCGTGCTGAAGCAGGTCATAAAACCCCGGCGTAAGTTGGCGTTCCGCTCAGGA
GAGGCCCGCGACTGGAGTAACGGGGCTGTGCTACAGGCCTCCAGCCAGCTGTCCCGGGGTTCGGCCACGACGCCC
CGAGGTGTCCTGCACACGTTCAGTCCGTCACCCAAACTGCAGAACTCAGCCTCGGCCACAGCCCTGGTCAGCAGG
ACCGGCAGACATTCTGAGAGAACCGTGAGCGCCGGCAAGGGCAGCGCCACCTCCAACTGGAAGAAGACGCCCCTC
AGCACAGGCGGGACCCTTGCGTTTGTCAGCCCAAGCCTGGCGGTGCACAAGAGCTCCTCGGCCGTGGACCGCCAG
CGAGAGTACCTCCTGGACATGATCCCACCCCGCTCCATCCCCCAGTCAGCCACGTGGAAA**TAG**TGCGAGCCAGGC
CCCGTGGAAGACGGGCTCCCTCCTCCCCCACCTGGCCCCTGGTCTAGAAGGACCCACTGCACCACCCTCCGCTGG
CTCGGGAAGACACCGTGCCCGCCCCAAGAGCAAGCACCGGCCATGCTGCAGAGGCAAGACCTCAATTCTTGGCTG
CAAAGTTTCATCAGGGCTAGGGGGCTGGTGCCGCCTCATAGGCAGACGAGGATCATCGCTGGGGGACCTTTCCCG
TGGGCTTTCTTCCTTTCTCTCTTTGCCTTTAGTTTGCCCGACACCAGCAGAAAAGTGGACCTTGGGGGCTGGTTC
TGCTCCTGGCCCCCTTGTTCAGCCCCTGCCGGCACACGGGCGGCTCACCCTGGACACTGTGATGCGCATGGGCAA
GGCCAGCGCCCGGGGCTTCTGAACCGAGCGGGGTGTTTCATTTTTTTGCTTTTCCCTGTCTTAGGCTCCCAGTCT
TTGACTGCCTTCCCATGGCGATCTATAAGTTGAAAGATTTTTTTTTTTTTTAATCACCTCATGATGATGGAGTTA
AAAGTAAACCGTGCAGACCCTGGGGTCCCTGTTGTACGCTGCATCATCCCGCTGGCCCTGTGCCCTGGAGGGTGG
GCGGCTCATGGTGCCACAGCCCCTGGCAGGGACGGCCGGCCCGCCCCCGTGACTGACTGACAGATGCAGGGATGG
CCGAGGCAGCCCTCGCTCCAGCTGAACGCCTCCATTGCTGCTTGTTCTGGAGACCCCCGCCCCCGCACCTTCCAG
ACTTAGCAGAAGAACAAACTGAAGAACAGACCCAGCCAGAGAAGCAGGGATTCCAGAAGCTGCCCATTAAGGGAG
AAGGAGAGGATCCGGTCGGCAGCAGCCCTGAGCAGAAAGCTGGAGGGGGGACTGTCGCGGGGTTTTTCTGTTGTG
GTTTATTTTATTAAATTTTTTCCTTTTTTCTATTCATTTCGATGGACGCAATCTTAAGCCACCCTGGCCTTGCTC
CTGGGAGGTGAGCGTGCACAGGTGTGTGCAGGTCAGGAGGTGCCGTCCAGGTGTGCGGCGAGCCGCTGCGCACAG
ATGTCAGGATTTCCGTTTGGGTCTAGTTTAGAACCTGTCCTTAAACCTAGGGGTTGCTGTCAGGATTTGCTTTCA
GACTTTTTTTTTTTTTGTAATTCCCTTTAGAGTCTACAAAAATGTTTTTAAAAGGATCAGGTCTGCTTTTAGTTT
CATTTTTGTTTCTTTCCCGTCCCACTCTTTAAAAACTGGTTCCGTGAGGAAAGGCAGAAGCCGTTCCGTGTCTCT
TGCAGGCTGGGCCGGCTTCATGCCAGTGCGAGGGCGTCCCGTGCCCACGTACATACGTATGTCTCCATGAGTTCT
GGGCTCCACTGGTTCCAATTGAGCTCCAGCCCTGGTTTTCCTACCCATGCAGTTAGGGACTTTAATTTAATTTTT
TTTTTGTAGGGCCACCGCCTTCAAACACAACTGCTACAACATTCTAATAAAGGCTCATTTAACCCCC

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FIGURE 2555

TGCGAGT**ATG**GCGGCGTCAAAGGTGAAGCAGGACATGCCTCCGCCGGGGGGCTATGGGCCCATCGACTACAAACG
GAACTTGCCGCGTCGAGGACTGTCGGGCTACAGCATGCTGGCCATAGGGATTGGAACCCTGATCTACGGGCACTG
GAGCATAATGAAGTGGAACCGTGAGCGCAGGCGCCTACAAATCGAGGACTTCGAGGCTCGCATCGCGCTGTTGCC
ACTGTTACAGGCAGAAACCGACCGGAGGACCTTGCAGATGCTTCGGGAGAACCTGGAGGAGGAGGCCATCATCAT
GAAGGACGTGCCCGACTGGAAGGTGGGGGAGTCTGTGTTCCACACAACCCGCTGGGTGCCCCCCTTGATCGGGGA
GCTGTACGGGCTGCGCACCACAGAGGAGGCTCTCCATGCCAGCCACGGCTTCATGTGGTACACG**TAG**GCCCTGTG
CCCTCCGGCCACCTGGATCCCTGCCCCTCCCCACTGGGACGGAATAAATGCTCTGCAGACCTGG

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FIGURE 2556

CTGAAGTCGGTGTCTGCTGTGTTCATGGCAGGATTCGGTTAGGAGGAACAGCACAGCATGCTGGGCTCTGGATTT
AAAGCTGAGCACTTAAGAGTGAATTTGAGATTAGTCATAAATCGCCTTGAACTATTGGAGGAAAAAAAAAAAAAA
CAGAACTGGCCCAGAAAGCAAGGAAGGAGATTGCTGACTATCTGGCTGCTGGGAAAGATGAACGAGCTCGGATCC
GTGTGGAGCACATTATCCGGGAAGACTACTTCGTGGAGGCCATGGAGATCCTGGAGCTGTACTGTGATCTGCTGC
TGGCTCGGTTTGGCCTTATCCAGTCTATGAAGGAACTAGATTCTGGTCTGGCTGAATCTGTGTCTACATTGATCT
GGGCTGCTCCTCGACTCCAGTCAGAAGTGGCTGAGTTGAAAATAGTTGCTGATCAGCTCTGTGCCAAGTATAGCA
AGTAATATGGCAAGCTATGTAGGACCAACCAGATTGGAACTGTGAATGACAGGCTA**ATG**CACAATCTGAGTGTGG
AAGCCCCATCCAAAATCCTGGTGGAGAGATACCTGATTGAAATTGCGAAGAATTACAATGTACCCTATGAACCTG
ACTCTGTGGTCATGGCAGAAGCTCCTTCTGGGGTAGAGACAGATCTTATTGATGTTGGATTCACAGATGATGTGA
AGAAAGGAGGCCCTGGAAGAGGAGGGGGTGGTGGGTTCACAGCACCAGTTGGTGGACCTGATGGAATGGTGCCAA
TGCCCATGCCTATGCCCATGCTATCTGCAAATACTCCTTTCTCATATCCACTGCCAAAGGGACCATCAGATTTCA
ATGGACTGCCAATGGGGACTTACCAGGCCTTTCCCAATATTTATCCATCTCAGATACCAGCAACTCCCCCATCAT
ATGAATCTGTAGATGACATTAATGCTGATAAGAATATCTCTTCTGCACAGATTGTTGGTCCTGGACCCAAGCCAG
AAGCCTCTGCAAAGCTTCCTTCC**TGA**CCTGCGGATAACTATGACAACTTTGTCCTACCAGAGTTGCCATCTGTGC
CAGACACACTACCAACTGCATTTGCTGGTGCCAGCACCTCAGCATCTGAAGACATTGACTTTGATGATCTTTCCC
AGAGGTTTGAAGAGCTGAAAAAGAAAATATAGGTCTCTTAAACCAGGCAACTTTCATATTCTGGGAGTTGAGACT
GAGCAATTTCTCCTTGTAACAAAGAATCTCCATGAAATTCCTTTTCATCTGTTAACCGTCACTGAGCACAACACT
CCTCCTCTGGGCTCTCTGCCTGCTCCTCCAGATTCTGCTGCTTTCCAGTTCTCTGTTGATCCTGAGACTAACAAC
CGGAGACTGAGGCTGGAGCAACTGGCTCCTGGCAGCTGTGCTTGTCCCTTTTCTGTCAGAGTGATCCCAGGTTTC
CTCCTGGCCCGTCCCATGGTCCCTCCACAGGAGCATAAGAGGATGGGAAAGCACTATGGGGAGACCACCAAAGAT
GGCTGGACAGTGGGAGAGAGCACGTCGTGAAGCATCCCAGCCTCGTGTTGAGGTTCCAGACTTAGAAACAAACCC
CTCTGTACAGGGGGATTGTGGTGAGTGAGAATCAAGGCCACGGTGTGTGTTTTCGCACTCGAATGCAAGTGGGAG
AGAGAAAATGACTCAGGACGCCATTGTAACGGTTCCTGGAAGCTGGGCCCTCTCATTGGCATATACACTACTCCT
CGCCGCAGGGCACTGTCCCACCGGGATCCAGTTGCAAAGTTTGTCTCGACAGTTTAAGGCCTCGCTTAGTTGTAC
TGGATTCTCAGGGAGTCCTCTGTGGCCTTTTGCTCTGAGTGCTGTTTCCCTTGTACCAGAGGGCAGCACCATGGA
AATTCTGTTTTTCCTGTAGCATATTGTGTTGGATTGCCTTACTGGCAGAGAAAGGACAAATTGCCATTGAAGTCT
AGGGTGGGCTTCCAGCTGCCTTAATAGAAGTACTCAAGTCTTTTGGGTAGTGAGCTGGAAAGCCTACAGGAAAAA
AGGGGTACCTGTTTTCATTTGAAAACTTTGATTCATGGAAACTTTAAAACTAATCTCAGATAAATTTTTGGTGCA
AATGTGGCTGTAGTTGTCCACTGCTTTCCTGGATGGATGGGACTCTTATGTCATAACTTCTATACTCCTTTGGCC
CATAGCTAAGGTCATCCTTCCCCACAGGGGTGGCTTTGGGATTGGATTATACAGCTTTTGCTTCTGTGTAGTATA
CCTGTACATACCTGTTTCAGGAAGCCTTTCTTTAATGTTTTCAGTTGGTTTGTATTCTGTAGCTCAGTAGCTGCT
AATAAAGTTAAAGATCCTG

FIGURE 2557

CCCCTCTAGCCTAGGCGAGGACTTCTACCGCGAGGCCATCGAGCACTGCCGCAGTTACAACGCGCGCCTGTGCGC
CGAGCGCAGCCTGCGACTGCCCTTCCTCGACTCGCAGACCGGCGTGGCCCAGAACAACTGCTACATCTGGATGGA
GAAGACCCACCGCGGGCCGGGTTTGGCCCCGGGACAGATTTACACGTACCCCGCCCGCTGTTGGAGGAAGAAACG
GAGACTCAACATCCTGGAGGACCCCAGACTCAGGCCCTGCGAGTACAAGATCGACTGTGAAGCACCCCTGAAGAA
GGAGGGTGGCCTCCCGGAAGGGCCGGTCCTCGAGGCTCTACTGTGTGCAGAGACGGGGGAGAAGAAGATTGAGCT
GAAGGAGGAGGAGACCATTATGGACTGTCAGAAACAGCAGTTGCTGGAGTTTCCGCATGACCTCGAGGTGGAAGA
CTTGGAGGATGACATTCCCAGGAGGAAGAACAGGGCCAAAGGAAAGGCATATGGCATCGGGGGTCTCCGGAAACG
CCAGGACACCGCTTCCCTGGAGGACCGAGACAAGCCGTATGTCTGTGATAAGTTTTACAAAGAATTGGCCTGGGT
CCCTGAGGCACAAAGGAAACACACAGCCAAGAAGGCGCCCGACGGCACTGTCATCCCCAACGGCTACTGTGACTT
CTGCCTGGGGGGCTCCAAGAAGACGGGGTGTCCCGAGGACCTCATCTCCTGTGCGGACTGTGGGCGATCAGGACA
CCCCTCGTGTTTACAATTCACGGTGAACATGACGGCAGCCGTGCGGACCTACCGCTGGCAGTGCATCGAGTGCAA
ATCCTGCAGCCTGTGCGGAACCTCCGAGAACGACGGTGCCAGCTGGGCGGGTCTCACCCCCCAGGACCAGCTGCT
GTTTTGTGATGACTGCGATCGGGGTTACCACATGTACTGCCTGAGTCCCCCCATGGCGGAGCCCCCGGAAGGGAG
CTGGAGCTGTCACCTCTGTCTCCGGCACCTGAAGGAAAAGGCTTCTGCTTACATCACCCTCACCTAGGCCGGCTC
GGCTCGCCGCGACTCTGGGGTGGTGCTCGCCTACCTGCCTCTCCGAGCTCCTCAATTCTCCCCCACCCTGAACAT
CCCGCAGGGGGAGGGGGAGAGGGGGAAGCCGAGAGGGGGCTGGGCCACCCCCTCCCCTCTGTGCAAGTGGAATGT
CTGCCCTGTGGGTGGGTGGGCCCGGCCAGGGCCTCTCCCTCCCTCCCTCCCTCTCTGTCCCTTGGCAAATGGACA
CCAGGGGCTTCTCCCCTCAAAGCCATACCCCGCCTCTGGGCGGGCATGGGGGGTGGTGGGTGCCAGCCAGGGGCA
TGGACAGAGCCTTTTTCTAAAGAAAAAGACAAAAAGTT

FIGURE 2558

GTTGGGAGGTGTAGCGCGGCTCTGAACGCGCTGAGGGCCGTTGAGTGTCGCAGGCGGCGAGGGCGCGAGTGAGGA
GCAGACCCAGGCATCGCGCGCCGAGAAGGCCGGGCGTCCCCACACTGAAGGTCCGGAAAGGCGACTTCCGGGGGC
TTTGGCACCTGGCGGACCCTCCCGGAGCGTCGGCACCTGAACGCGAGGCGCTCCATTGCGCGTGCGCGTTGAGGG
GCTTCCCGCACCTGATCGCGAGACCCCAACGGCTGGTGGCGTCGCCTGCGCGTCTCGGCTGAGCTGGCC**ATG**GCG
CAGCTGTGCGGGCTGAGGCGGAGCCGGGCGTTTCTCGCCCTGCTGGGATCGCTGCTCCTCTCTGGGGTCCTGGCG
GCCGACCGAGAACGCAGCATCCACGACTTCTGCCTGGTGTCGAAGGTGGTGGGCAGATGCCGGGCCTCCATGCCT
AGGTGGTGGTACAATGTCACTGACGGATCCTGCCAGCTGTTTGTGTATGGGGGCTGTGACGGAAACAGCAATAAT
TACCTGACCAAGGAGGAGTGCCTCAAGAAATGTGCCACTGTCACAGAGAATGCCACGGGTGACCTGGCCACCAGC
AGGAATGCAGCGGATTCCTCTGTCCCAAGTGCTCCCAGAAGGCAGGATTCTGAAGACCACTCCAGCGATATGTTC
AACTATGAAGAATACTGCACCGCCAACGCAGTCACTGGGCCTTGCCGTGCATCCTTCCCACGCTGGTACTTTGAC
GTGGAGAGGAACTCCTGCAATAACTTCATCTATGGAGGCTGCCGGGGCAATAAGAACAGCTACCGCTCTGAGGAG
GCCTGCATGCTCCGCTGCTTCCGCCAGCAGGAGAATCCTCCCCTGCCCCTTGGCTCAAAGGTGGTGGTTCTGGCG
GGGCTGTTCGTGATGGTGTTGATCCTCTTCCTGGGAGCCTCCATGGTCTACCTGATCCGGGTGGCACGGAGGAAC
CAGGAGCGTGCCCTGCGCACCGTCTGGAGCTCCGGAGATGACAAGGAGCAGCTGGTGAAGAACACATATGTCCTG
TGACCGCCCTGTCGCCAAGAGGACTGGGGAAGGGAGGGGAGACTATGTGTGAGCTTTTTTTAAATAGAGGGATTG
ACTCGGATTTGAGTGATCATTAGGGCTGAGGTCTGTTTCTCTGGGAGGTAGGACGGCTGCTTCCTGGTCTGGCAG
GGATGGGTTTGCTTTGGAAATCCTCTAGGAGGCTCCTCCTCGCATGGCCTGCAGTCTGGCAGCAGCCCCGAGTTG
TTTCCTCGCTGATCGATTTCTTTCCTCCAGGTAGAGTTTTCTTTGCTTATGTTGAATTCCATTGCCTCTTTTCTC
ATCACAGAAGTGATGTTGGAATCGTTTCTTTTGTTTGTCTGATTTATGGTTTTTTTAAGTATAAACAAAAGTTTT
TTATTAGCATTCTGAAAGAAGGAAAGTAAAATGTACAAGTTTAATAAAAAGGGGCCTTCCCCTTTAGAATAAATT
TCAGCATGTGCTTTC

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FIGURE 2559

ATTCCTCCAACGGGCAGGTCTCAGCGCTCCTCCCCCTGCTCCGCTCCTCTGCAGGGCCCAGGCGCCCTTGGCCTT
AGGACCCAACTTCTCTTACCGCC**ATG**GAGTTCGACCTGGGAGCAGCCCTGGAGCCCACCTCCCAGAAGCCCGGTG
TGGGGGCGGGCCACGGGGGAGATCCCAAGCTCAGTCCCCACAAAGTTCAGGGCCGGTCGGAGGCAGGGGCAGGTC
CGGGTCCAAAGCAAGGACACCACAGCTCTTCCGACTCCAGCAGCAGCTCCAGCGATTCGGACACGGATGTGAAGT
CCCACGCTGCTGGCTCCAAGCAGCACGAGAGCATCCCGGGCAAGGCCAAGAAGCCCAAAGTGAAGAAGAAGGAGA
AGGGCAAGAAGGAGAAGGGCAAGAAGAAGGAGGCTCCCCAC**TGA**AGGGCCCTGGACAGGGCTCATTAAACCTTCC
TCTCTGCCTTC

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FIGURE 2560

TGCCAGTCCATCTGACATCAAAGCCAGTGTCTCTAATGGTGACACCACCCTCCTCTGCAGCAGGAGGCAGAGCTG
TGGGATGA**ATG**AGGTTCGCCAGGTCTCCCTTACCTATCCTGGGTCCCCAGCTCCTTCTCACTCTCTTCCCTTGCA
GCCTCGAAGCGGAGGATCCCTGTGTCCCAGCCGGGCATGGCGACCCCCACCAGCTTTTCGATGACACAAGTTCAG
CCCAGAGCCGGGGCTATGGGGCCCAGCGGGCACCTGGTGGCCTGAGTTATCCTGCAGCCTCTCCCACGCCCCATG
CAGCCTTCCTGGCTGACCCGGTGTCCAACATGGCCATGGCCTATGGGAGCAGCCTGGCCGCGCAGGGCAAGGAGC
TGGTGGATAAGAACATCGACCGCTTCATCCCCATCACCAAGCTCAAGTATTACTTTGCTGTGGACACCATGTATG
TGGGCAGAAAGCTGGGCCTGCTGTTCTTCCCCTACCTACACCAGGACTGGGAAGTGCAGTACCAACAGGACACCC
CGGTGGCCCCCCGCTTTGACGTCAATGCCCCGGACCTCTACATTCCAGCAATGGCTTTCATCACCTACGTTTTGG
TGGCTGGTCTTGCGCTGGGGACCCAGGATAGGTTCTCCCCAGACCTCCTGGGGCTGCAAGCGAGCTCAGCCCTGG
CCTGGCTGACCCTGGAGGTGCTGGCCATCCTGCTCAGCCTCTATCTGGTCACTGTCAACACCGACCTCACCACCA
TCGACCTGGTGGCCTTCTTGGGCTACAAATATGTCGGGATGATTGGCGGGGTCCTCATGGGCCTGCTCTTCGGGA
AGATTGGCTACTACCTGGTGCTGGGCTGGTGCTGCGTAGCCATCTTTGTGTTCATGATCCGGACGCTGCGGCTGA
AGATCTTGGCAGACGCAGCAGCTGAGGGGGTCCCGGTGCGTGGGGCCCGGAACCAGCTGCGCATGTACCTGACCA
TGGCGGTGGCGGCGGCGCAGCCTATGCTCATGTACTGGCTCACCTTCCACCTGGTGCGG**TGA**GCGCGCCCGCTGA
ACCTCCCGCTGCTGCTGCTGCTGCTGGGGGCCACTGTGGCCGCCGAACTCATCTCCTGCCTGCAGGCCCCAAGGT
CCACCCTGTCTGGCCACAGGCACCGCCTCCATCCCATGTCCCGCCCAGCCCCGCCCCCAACCCAAGGTGCTGAGA
GATCTCCAGCTGCACAGGCCACCGCCCCAGGGCGTGGCCGCTGTTACAGAAACAATAAACCCTGATGGGCATGG

FIGURE 2561

TGCCGCGCCTGTAGCACTCCCGGAACTGGAACTAGGTGCCAGACGGTCCGGAGGCGGGGGCCACGTCAGCGGGGC
CACCCAGGGCTCGCGGGGTCCCGGTGGGTGCC**ATG**CGGAGGGGCGCGCTTCTGGCGGGCGCCTTGGCCGCGTACG
CCGCGTACCTGGTGCTGGGCGCGCTGTTGGTGGCGCGGCTGGAGGGGCCGCACGAAGCCAGGCTCCGAGCCGAGC
TGGAGACGCTGCGGGCGCAGCTGCTTCAGCGCAGCCCGTGTGTGGCTGCCCCCGCCCTGGACGCCTTCGTGGAGC
GAGTGCTGGCGGCCGGACGGCTGGGGCGGGTCGTGCTTGCTAACGCTTCGGGGTCCGCCAACGCCTCGGACCCCG
CCTGGGACTTCGCCTCTGCTCTCTTCTTCGCCAGCACGCTGATCACCACCGTGGGCTATGGGTACACAACGCCAC
TGACTGATGCGGGCAAGGCCTTCTCCATCGCCTTTGCGCTCCTGGGCGTGCCGACCACCATGCTGCTGCTGACCG
CCTCAGCCCAGCGCCTGTCACTGCTGCTGACTCACGTGCCCCTGTCTTGGCTGAGCATGCGTTGGGGCTGGGACC
CCCGGCGGGCGGCCTGCTGGCACTTGGTGGCCCTGTTGGGGGTCGTAGTGACCGTCTGCTTTCTGGTGCCGGCTG
TGATCTTTGCCCACCTCGAGGAGGCCTGGAGCTTCTTGGATGCCTTCTACTTCTGCTTTATCTCTCTGTCCACCA
TCGGCCTGGGCGACTACGTGCCCGGGGAGGCCCCTGGCCAGCCCTACCGGGCCCTCTACAAGGTGCTGGTCACAG
TCTACCTCTTCCTGGGCCTGGTGGCCATGGTGCTGGTGCTGCAGACCTTCCGCCACGTGTCCGACCTCCACGGCC
TCACGGAGCTCATCCTGCTGCCCCCTCCGTGCCCTGCCAGTTTCAATGCGGATGAGGACGATCGGGTGGACATCC
TGGGCCCCCAGCCGGAGTCGCACCAGCAACTCTCTGCCAGCTCCCACACCGACTACGCTTCCATCCCCAGG**TAG**C
TGGGGCAGCCTCTGCCAGGCTTGGGTGTGCCTGGCCTGGGACTGAGGGGTCCAGGCGACCAGAGCTGGCTGTACA
GGAATGTCCACGAGCACAGCAGGTGATCTTGAGGCCTTGCCGTCCACCGTCTCTCCTTTGTTTCCCAGCATCTGG
CTGGGATGTGAAGGGCAGCACTCCCTGTCCCCATGTCCCGGGCTCCACTGGGCACCAACATAACCTTGTTCTCTG
TCCTTTCTCTCATCCTCTTTACACTGTGTCTCTCTGGCTCTCTGGCATTCTCGCTGCCTCTGTCTTTCCCTCTTG
CTGTCTCTGTTTCTCATTCTCTTTCATGTTCCGTCTGTGTCTCTCAATTAACCACTCGTCAACTGCTGATTCTAC
TGGGCTGTGGGCTCAGACCTCATTTCAGGCACCAGATTGGTCGCTACACCCTGGACAAGTGACTGCCCGTCTCTG
AGCCTTGATTTCCTCAGCTGCCAAATGGGAAGAATAGAAGAATTTGCCCCTAAACCCCTCCTGTGTGCTGGCCCT
GTGCTAGACAGTGCTGGAGACATAGTTGGGGGTGGAGAACTGCCCTTATGGAGCTTGCAGTCCAGTGAGGTGGAC
AGACCTGTCCCCAGACAGTGATGGCCCAAAATGGTCAGGACTTTAATGGAGGAGGTGAGGTGTTGAAAGCACAGG
CAGAGTGGTCAGGGCTGAAGTCGGAGAAGCATAGGGACTAGGCCCAATCCAGCCTGGAAAGTCAGGGAGGACTTC
CTAGAGGAAGGGACATCGAACTAAGACCTGAACTATGAGAAATAGGCAGGAAGAAGTTGTACCTGACTCATTTTT
CTCAGGTGTCTCCAGGGAGCAGGACCCATGGAGGGACCCCTGGTGTAGGCCTGGGCGATAGACTCTTCCTCAGCA
GCCTGGCAGGCAGGAAACAGACATAGGACCCCAGCCCAGATCTGAATGGCATGGGAGGTGCTGCCCTTAACCATG
ACACCATTGTAAGAGCTGTCCACATTTGTATGTTGTGCCCTGGAATCAGCCTGGTTGAGCTCAAATCCCAACTTA
GCCACGTCTGGCCTGTGTCCTTGGGCAGTCACACTACCTCTCTGATTTTGTTTCCTTATCTGTAAAATGGTGATC
ATCATAATACAACTTCAAAAGGATTTCAGGCTGAGTGTGGTGGCTCACGCCTATACACCCAGCACTTTGGAAGGC
TGAGGAAGGAGGATCGCTTGAGGCCAGGAGTTTGAGACTAGCCTAGGCAACACAGTGAGGCCTTATCTCAACAAC
AACCACAAAATCTAAAAATTAGCTGGGTGTGGTGGTGCATGCCTGTGATCCTGGCTACTTCAGAGGCTGAGGTGG
AAGGATCACTTGAGGCCAGGAGTTTGAGGCTGCAGTGAGTTATGATGGCACTGCTGCACTCCAGCCTGCGGGACA
GAGTGAGACCCTGTCTGAAAGAAAGAGAGAAAGAAAGAAAGAAAGAGAGAGAAAGAAAGAAAGAAAGAAAGGGAA
AGATGGAAGGAAGGAAGGAAAAAGAAAGAGAAAGAGAGAGAGAGAGAAAGAAAAAGAAAGAAAAGTAAGAAAGAA
AAAAGAAAAAGAAAGAAAAGTAAGAAAG

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FIGURE 2562

CGGGGCGGCAGGCTTCTCGAGCTCCGGGCCCGCGGCAACCTCGGGCGCTGTTCTGCAGGCCGCGACCGGC**ATG**TA
CGAGCAACTCAAGGGCGAGTGGAACCGTAAAAGCCCCAATCTTAGCAAGTGCGGGGAAGAGCTGGGTCGACTCAA
GCTAGTTCTTCTGGAGCTCAACTTCTTGCCAACCACAGGGACCAAGCTGACCAAACAGCAGCTAATTCTGGCCCG
TGACATACTGGAGATCGGGGCCCAATGGAGCATCCTACGCAAGGACATCCCCTCCTTCGAGCGCTACATGGCCCA
GCTCAAATGCTACTACTTTGATTACAAGGAGCAGCTCCCCGAGTCAGCCTATATGCACCAGCTCTTGGGCCTCAA
CCTCCTCTTCCTGCTGTCCCAGAACCGGGTGGCTGAGTTCCACACGGAGTTGGAGCGGCTGCCTGCCAAGGACAT
ACAGACCAATGTCTACATCAAGCACCCAGTGTCCCTGGAGCAATACCTGATGGAGGGCAGCTACAACAAAGTGTT
CCTGGCCAAGGGTAACATCCCCGCCGAGAGCTACACCTTCTTCATTGACATCCTGCTCGACACTATCAGGGATGA
GATCGCTGGGTGCATCGAGAAGGCCTACGAGAAAATCCTTTTCACTGAGGCCACCCGGATCCTCTTCTTCAACAC
ACCCAAAAAGATGACAGACTACGCCAAGAAGCGAGGGTGGGTCCTGGGCCCCAACAACTACTACAGTTTTGCCAG
CCAGCAGCAGAAGCCGGAAGACACCACCATTCCCTCCACAGAACTGGCCAAACAGGTCATCGAGTATGCCCGGCA
GCTGGAGATGATCGTC**TGA**GCCCCCCGGGCACTGGGTGGGGCAGGGCACGAGTTATTTAAAACAGTTACACTGCA
GGGTTTCGCCCAATAAAGGTGGACTGAC

FIGURE 2563

ATCCCCGTGTGGGGGAGGGGGGCCTTCGGTCTCTCCCCAGCCTCTTCCTTCCCCCTGGCCTGAGGGTGGGTGGGG
AGGGGCAGTTCCTCTTTCCTTCCCAAGCACCGAGGAGGCCCCAGCTCCCTAGGGGCTGAGAAGCTGGAGTCCTGG
GCAAGGGGAGGAGCTGAGCCCTACTCTTGCAAGACCCCCGGCCTCCTCACCCCACGCGGGAAGC**ATG**AACAGAAA
AGACAGTAAGAGGAAGTCCCACCAGGAATGCACCGGAAAAATAGGAGGGCGAGGCCGGCCCCGCCAAGTGCGCCG
CCACAAGACATGCCCCAGCCCTCGGGAAATCAGCAAGGTCATGGCTTCCATGAACCTGGGCCTGCTGAGTGAGGG
CGGCTGCAGCGAAGATGAGCTGCTGGAGAAATGCATCCAGTCCTTCGATTCAGCTGGCAGCCTGTGCCACGAGGA
CCACATGCTCAACATGGTGCTGGCCATGCACAGCTGGGTGCTGCCGTCCGCCGACCTGGCTGCCCGCCTGCTGAC
CTCATACCAGAAGGCCACAGGGGACACCCAGGAGCTGAGACGGCTGCAGATCTGTCACCTGGTCAGGTACTGGCT
GATGCGACACCCTGAGGTGATGCACCAGGATCCCCAGCTAGAAGAAGTCATAGGTCGTTTCTGGGCCACCGTGGC
CCGGGAGGGCAACTCAGCCCAGAGAAGACTGGGAGACTCTTCTGACCTCCCAGGCCTGGGCAAAAAGCGCAAAGT
GTCCTTGCTTTTCGACCACTTGGAGACGGGGGAGCTGGCTCAGCACCTCACCTACCTGGAGTTCCGGTCCTTCCA
GGCTATCACGCCCCAGGACCTGCGGAGCTACGTTTTGCAGGGCTCAGTACGAGGCTGCCCGGCCCTGGAGGGCTC
CGTAGGTCTCAGCAACAGCGTGTCCCGCTGGGTGCAGGTGATGGTGCTGAGCCGTCCCGGGCCCCTACAGCGTGC
ACAGGTGCTGGACAAGTTCATTCACGTGGCACAGAGGCTCCACCAGCTGCAGAATTTCAACACGCTGATGGCAGT
CACAGGGGGCCTGTGTCACAGTGCCATCTCCAGACTCAAGGACTCCCATGCCCACCTGAGCCCTGACAGCACCAA
GGCCCTCCTGGAGCTCACTGAGCTCCTTGCCTCCCACAACAACTACGCCCGCTACCGCCGCACCTGGGCTGGCTG
CGCGGGTTTCCGGCTGCCTGTACTGGGCGTGCACCTCAAGGACCTGGTGTCCCTGCATGAGGCACAGCCCGACAG
GTTGCCTGACGGCCGCCTGCACCTACCCAAGCTGAACAACCTCTACCTGCGGCTGCAGGAGCTGGTGGCCCTCCA
AGGGCAGCATCCACCCTGCAGCGCCAATGAGGATCTGCTGCACCTGCTCACGCTCTCCCTGGACCTCTTCTACAC
GGAAGACGAGATCTATGAGCTTTCTTATGCCCGGGAGCCGCGTTGTCCCAAGAGCCTGCCACCCTCCCCCTTCAA
TGCACCTCTGGTGGTGGAGTGGGCCCCTGGTGTGACACCCAAGCCGGACAGGGTCACACTGGGTCGGCATGTGGA
GCAGCTGGTGGAGTCTGTGTTCAAGAATTATGACCCTGAAGGCCGAGGAACAATCTCTCAGGAGGACTTTGAGCG
ACTCTCGGGCAATTTTCCCTTCGCCTGCCATGGGCTTCACCCACCCCCACGCCAGGGGAGAGGATCCTTCAGCAG
AGAGGAGCTGACAGGGTACCTGCTCCGGGCCAGCGCCATCTGCTCCAAGTTGGGCCTGGCCTTCCTGCACACCTT
CCATGAGGTCACCTTCCGAAAGCCTACCTTCTGCGACAGCTGCAGTGGCTTCCTCTGGGGTGTCACCAAGCAAGG
CTACCGCTGTCGGGAGTGCGGGCTGTGTTGCCACAAACACTGCAGAGACCAGGTGAAGGTAGAATGTAAGAAGAG
GCCAGGGGCCAAGGGCGATGCAGGACCCCCCGGAGCTCCTGTCCCATCCACACCAGCTCCCCATGCCAGCTGTGG
CTCCGAGGAAAATCACTCCTACACGCTATCCCTGGAGCCTGAGACTGGGTGCCAGCTTCGCCATGCCTGGACCCA
GACTGAATCCCCACACCCTTCCTGGGAAACAGATACGGTCCCCTGCCCGGTGATGGACCCACCATCAACTGCATC
CTCCAAGCTGGATTCC**TAG**ACATCTCTTGGTCTCCTCTCTTCCTCACTCCCTTCCCCCAGTCAGTCCTGAGTCCT
GCCGTCAGACTCTGGCAGGGCTCCCAGAGGAGCATCAACTCCAGGAGAACAGGGATTTCTATCAATGTCATTCAC
TGCTGCATCCCCAGTGCCTAGAACAGGGCTGGCAGGTGGTAGGCGCCTGACAGATGCTTGTCTGATGCCTGAATG
TCTCCTTACCCATGCCCACGGCACAGGATAGATGTGCTATAGGGCAAAGAACTTTGAGGGTCGAGCAGCAGGGGC
CCATTCAGTCCCAGGGAGCAGAGACCCCCCCAACCCCTTCACAAACCCCAACACCCCTGACTTGGCCCCCACAGA
GAGAGGTCCTACAGCTGTCATAAATTAAATTTATTCTCTGGA

FIGURE 2564A

TCTACCTCGCGGGTGCCTCTGGTGTCTCCAGAGGTCTCCGACCCCAGCCCGCCCCCAGCCCTCCCGCCCAGCCCG
CAGCCCCCTCCCTCTGTTCCCCGACCTCAGACCCTGGGCTTCCGACCTCGACATC**ATG**GGTGACGCAGAAGGCGA
AGACGAGGTCCAGTTCCTGCGGACGGACGATGAGGTGGTCCTGCAGTGCAGCGCTACCGTGCTCAAGGAGCAGCT
CAAGCTCTGCCTGGCCGCCGAGGGCTTCGGCAACCGCCTGTGCTTCCTGGAGCCCACTAGCAACGCGCAGAATGT
GCCCCCCGATCTGGCCATCTGTTGCTTCGTCCTGGAGCAGTCCCTGTCTGTGCGAGCCCTGCAGGAGATGCTGGC
TAACACGGTGGAGGCTGGCGTGGAGTCATCCCAGGGCGGGGGACACAGGACGCTCCTGTATGGCCATGCCATCCT
GCTCCGGCATGCACACAGCCGCATGTATCTGAGCTGCCTCACCACCTCCCGCTCCATGACTGACAAGCTGGCCTT
CGATGTGGGACTGCAGGAGGACGCAACAGGAGAGGCTTGCTGGTGGACCATGCACCCAGCCTCCAAGCAGAGGTC
TGAAGGAGAAAAGGTCCGCGTTGGGGATGACATCATCCTTGTCAGTGTCTCCTCCGAGCGCTACCTGCACCTGTC
GACCGCCAGTGGGGAGCTCCAGGTTGACGCTTCCTTCATGCAGACACTATGGAACATGAACCCCATCTGCTCCCG
CTGCGAAGAGGGCTTCGTGACGGGAGGTCACGTCCTCCGCCTCTTTCATGGACATATGGATGAGTGTCTGACCAT
TTCCCCTGCTGACAGTGATGACCAGCGCAGACTTGTCTACTATGAGGGGGGAGCTGTGTGCACTCATGCCCGCTC
CCTCTGGAGGCTGGAGCCACTGAGAATCAGCTGGAGTGGGAGCCACCTGCGCTGGGGCCAGCCACTCCGAGTCCG
GCATGTCACTACCGGGCAGTACCTAGCGCTCACCGAGGACCAGGGCCTGGTGGTGGTTGACGCCAGCAAGGCTCA
CACCAAGGCTACCTCCTTCTGCTTCCGCATCTCCAAGGAGAAGCTGGATGTGGCCCCCAAGCGGGATGTGGAGGG
CATGGGCCCCCCTGAGATCAAGTACGGGGAGTCACTGTGCTTCGTGCAGCATGTGGCCTCAGGACTGTGGCTCAC
CTATGCTGCTCCAGACCCCAAGGCCCTGCGGCTCGGCGTGCTCAAGAAGAAGGCCATGCTGCACCAGGAGGGCCA
CATGGACGACGCACTGTCGCTGACCCGCTGCCAGCAGGAGGAGTCCCAGGCCGCCCGCATGATCCACAGCACCAA
TGGCCTATACAACCAGTTCATCAAGAGCCTGGACAGCTTCAGCGGGAAGCCACGGGGCTCGGGGCCACCCGCTGG
CACGGCGCTGCCCATCGAGGGCGTTATCCTGAGCCTGCAGGACCTCATCATCTACTTCGAGCCTCCCTCCGAGGA
CTTGCAGCACGAGGAGAAGCAGAGCAAGCTGCGAAGCCTGCGCAACCGCCAGAGCCTCTTCCAGGAGGAGGGGAT
GCTCTCCATGGTCCTGAATTGCATAGACCGCCTAAATGTCTACACCACTGCTGCCCACTTTGCTGAGTTTGCAGG
GGAGGAGGCAGCCGAGTCCTGGAAAGAGATTGTGAATCTTCTCTATGAACTCCTAGCTTCTCTAATCCGTGGCAA
TCGTAGCAACTGTGCCCTCTTCTCCACAAACTTGGACTGGCTGGTCAGCAAGCTGGATCGGCTGGAGGCCTCGTC
TGGCATCCTGGAGGTCCTGTACTGTGTCCTCATTGAGAGTCCAGAGGTTCTGAACATCATCCAGGAGAATCACAT
CAAGTCCATCATCTCCCTCCTGGACAAGCATGGGAGGAACCACAAGGTCCTGGACGTGCTATGCTCCCTGTGTGT
GTGTAATGGTGTGGCTGTACGCTCCAACCAAGATCTTATTACTGAGAACTTGCTGCCTGGCCGTGAGCTTCTGCT
GCAGACAAACCTCATCAACTATGTCACCAGCATCCGCCCCAACATCTTTGTGGGCCGAGCGGAAGGCACCACGCA
GTACAGCAAATGGTACTTTGAGGTGATGGTGGACGAGGTGACTCCATTTCTGACAGCTCAGGCCACCCACTTGCG
GGTGGGCTGGGCCCTCACCGAGGGCTACACCCCCTACCCTGGGGCCGGCGAGGGCTGGGGCGGCAACGGGGTCGG
CGATGACCTCTATTCCTACGGCTTTGATGGACTGCATCTCTGGACAGGACACGTGGCACGCCCAGTGACTTCCCC
AGGGCAGCACCTCCTGGCCCCTGAAGACGTGATCAGCTGCTGCCTGGACCTCAGCGTGCCGTCCATCTCCTTCCG
CATCAACGGCTGCCCCGTGCAGGGTGTCTTTGAGTCCTTCAACCTGGACGGGCTCTTCTTCCCTGTTGTCAGCTT
CTCGGCTGGTGTCAAGGTGCGGTTCCTCCTTGGTGGCCGCCATGGTGAATTCAAGTTCCTGCCCCCACCTGGCTA
TGCTCCATGCCATGAGGCTGTGCTCCCTCGAGAGCGACTCCATCTTGAACCCATCAAGGAGTATCGACGGGAGGG
GCCCCGGGGGCCTCACCTGGTGGGCCCCAGTCGCTGCCTCTCACACACCGACTTCGTGCCCTGCCCTGTGGACAC
TGTCCAGATTGTCCTGCCGCCCCATCTGGAGCGCATTCGGGAGAAGCTGGCGGAGAACATCCACGAGCTCTGGGC
GCTAACCCGCATCGAGCAGGGCTGGACCTACGGCCCGGTTCGGGATGACAACAAGAGGCTGCACCCGTGTCTTGT
GGACTTCCACAGCCTTCCAGAGCCTGAGAGGAACTACAACCTGCAGATGTCTGGGGAGACGCTCAAGACTCTGCT
GGCTCTGGGCTGCCACGTGGGCATGGCGGATGAGAAGGCGGAGGACAACCTGAAGAAGACAAAACTCCCCAAGAC
GTATATGATGAGCAATGGGTACAAGCCGGCTCCGCTGGACCTGAGCCACGTGCGGCTGACGCCGGCGCAGACGAC
ACTGGTGGACCGTCTGGCAGAAAATGGGCACAACGTGTGGGCCCGAGACCGCGTGGGCCAGGGCTGGAGCTACAG
CGCAGTGCAGGACATCCCAGCGCGCCGAAACCCTCGGCTGGTGCCCTACCGCCTGCTGGATGAAGCCACCAAGCG
CAGCAACCGGGACAGCCTCTGCCAGGCCGTGCGCACCCTCCTGGGCTACGGCTACAACATCGAGCCTCCTGACCA
GGAGCCCAGTCAGGTGGAGAACCAGTCTCGTTGTGACCGGGTGCGCATCTTCCGGGCAGAGAAATCCTATACAGT
GCAGAGCGGCCGCTGGTACTTCGAGTTTGAAGCAGTCACCACAGGCGAGATGCGCGTGGGCTGGGCGAGGCCCGA
GCTGAGGCCTGATGTAGAGCTGGGAGCTGACGAGCTGGCCTATGTCTTCAATGGGCACCGCGGCCAGCGCTGGCA
CTTGGGCAGTGAACCATTTGGGCGCCCCTGGCAGCCGGGCGATGTCGTTGGCTGTATGATCGACCTCACAGAGAA

FIGURE 2564B

CACCATTATCTTCACCCTCAATGGCGAGGTCCTCATGTCTGACTCAGGCTCCGAAACAGCCTTCCGGGAGATTGA
GATTGGGGACGGCTTCCTGCCCGTCTGCAGCTTGGGACCTGGCCAGGTGGGTCATCTGAACCTGGGCCAGGACGT
GAGCTCTCTGAGGTTCTTTGCCATCTGTGGCCTCCAGGAAGGCTTCGAGCCATTTGCCATCAACATGCAGCGCCC
AGTCACCACCTGGTTCAGCAAAGGCCTGCCCCAGTTTGAGCCAGTGCCCCTTGAACACCCTCACTATGAGGTATC
CCGAGTGGACGGCACTGTGGACACGCCCCCCTGCCTGCGCCTGACCCACCGCACCTGGGGCTCCCAGAACAGCCT
GGTGGAGATGCTTTTCCTGCGGCTGAGCCTCCCAGTCCAGTTCCACCAGCACTTCCGCTGCACTGCAGGGGCCAC
CCCGCTGGCACCTCCTGGCCTGCAGCCCCCCGCCGAGGACGAGGCCCGGGCGGCGGAACCCGACCCTGACTACGA
AAACCTGCGCCGCTCAGCTGGGGGCTGGAGCGAGGCAGAGAACGGCAAAGAAGGGACTGCGAAGGAGGGCGCCCC
CGGGGGCACCCCGCAGGCGGGGGGAGAGGCGCAGCCCGCCAGGGCGGAGAATGAGAAGGATGCCACCACCGAGAA
GAACAAGAAGAGAGGCTTCTTATTCAAGGCCAAGAAGGTCGCCATGATGACCCAGCCACCGGCCACCCCCACGCT
GCCCCGACTCCCTCACGACGTGGTGCCTGCAGACAACCGCGATGACCCCGAGATCATCCTCAACACCACCACGTA
CTATTACTCCGTGAGGGTCTTTGCTGGACAGGAGCCCAGCTGCGTGTGGGCGGGCTGGGTCACCCCTGACTACCA
TCAGCACGACATGAGCTTCGACCTCAGCAAGGTCCGGGTCGTGACGGTGACCATGGGGGATGAACAAGGCAACGT
CCACAGCAGCCTCAAGTGTAGCAACTGCTACATGGTGTGGGGCGGAGACTTTGTGAGTCCCGGGCAGCAGGGCCG
GATCAGCCACACGGACCTTGTCATTGGGTGCCTGGTGGACTTGGCCACTGGCTTAATGACCTTTACAGCCAATGG
CAAAGAGAGCAACACCTTTTTCCAGGTGGAACCCAACACTAAGCTATTTCCTGCCGTCTTCGTCCTGCCCACCCA
CCAGAACGTCATCCAGTTTGAGCTGGGGAAGCAGAAGAACATCATGCCGTTGTCAGCCGCCATGTTCCAAAGCGA
GCGCAAGAACCCGGCCCCGCAGTGCCCACCGCGGCTGGAGATGCAGATGCTGATGCCAGTGTCCTGGAGCCGCAT
GCCCAACCACTTCCTGCAGGTGGAGACGAGGCGTGCCGGCGAGCGGCTGGGCTGGGCCGTGCAGTGCCAGGAGCC
GCTGACCATGATGGCGCTGCACATCCCCGAGGAGAACCGGTGCATGGACATCCTGGAGCTGTCGGAGCGCCTGGA
CCTGCAGCGCTTCCACTCGCACACCCTGCGCCTCTACCGCGCTGTGTGCGCCCTGGGCAACAATCGCGTGGCGCA
CGCTCTGTGCAGCCACGTAGACCAAGCTCAGCTGCTGCACGCCCTGGAGGACGCGCACCTGCCAGGCCCACTGCG
CGCAGGCTACTATGACCTCCTCATCAGCATCCACCTCGAAAGTGCCTGCCGCAGCCGCCGCTCCATGCTCTCTGA
ATACATCGTGCCCCTCACGCCTGAGACCCGCGCCATCACGCTCTTCCCTCCTGGAAGGAGCACAGAAAATGGTCA
CCCCCGGCATGGCCTGCCGGGAGTTGGAGTCACCACTTCGCTGAGGCCCCCGCATCATTTCTCGCCCCCCTGTTT
CGTGGCCGCTCTGCCAGCTGCTGGGGCAGCAGAGGCCCCGGCCCGCCTCAGCCCTGCCATCCCGCTGGAGGCCCT
GCGGGACAAGGCACTGAGGATGCTGGGGGAGGCGGTGCGCGACGGTGGGCAGCACGCTCGCGACCCCGTCGGGGG
CTCCGTGGAGTTCCAGTTTGTGCCTGTGCTCAAGCTCGTGTCCACCCTGCTGGTGATGGGCATCTTTGGCGATGA
GGATGTGAAACAGATCTTGAAGATGATTGAGCCTGAGGTCTTCACTGAGGAAGAAGAGGAGGAGGACGAGGAGGA
AGAGGGTGAAGAGGAAGATGAGGAGGAGAAGGAGGAGGATGAGGAGGAAACAGCACAGGAAAAGGAAGATGAGGA
AAAAGAGGAAGAGGAGGCAGCAGAAGGGGAGAAAGAAGAAGGCTTGGAGGAAGGGCTGCTCCAGATGAAGTTGCC
AGAGTCTGTGAAGTTACAGATGTGCCACCTGCTGGAGTATTTCTGTGACCAAGAGCTGCAGCACCGTGTGGAGTC
CCTGGCAGCCTTTGCGGAGCGCTATGTGGACAAGCTCCAGGCCAACCAGCGGAGCCGCTATGGCCTCCTCATAAA
AGCCTTCAGCATGACCGCAGCAGAGACTGCAAGACGTACCCGCGAGTTCCGCTCCCCACCCCAGGAACAGATCAA
TATGCTATTGCAATTCAAAGATGGTACAGATGAGGAAGACTGTCCTCTCCCTGAAGAGATTCGACAGGATTTGCT
TGACTTTCATCAAGACCTGCTGGCACACTGTGGAATTCAGCTAGATGGAGAGGAGGAGGAACCAGAGGAAGAGAC
CACCCTGGGCAGCCGCCTCATGAGCCTGTTGGAGAAAGTGCGGCTGGTGAAGAAGAAGGAAGAGAAACCTGAGGA
GGAGCGGTCAGCAGAGGAGAGCAAACCCCGGTCCCTGCAGGAGCTGGTGTCCCACATGGTGGTGCGCTGGGCCCA
AGAGGACTTCGTGCAGAGCCCCGAGCTGGTGCGGGCCATGTTCAGCCTCCTGCACCGGCAGTACGACGGGCTGGG
TGAGCTGCTGCGTGCCCTGCCGCGGGCGTACACCATCTCACCGTCCTCCGTGGAAGACACCATGAGCCTGCTCGA
GTGCCTCGGCCAGATCCGCTCGCTGCTCATCGTGCAGATGGGCCCCCAGGAGGAGAACCTCATGATCCAGAGCAT
CGGGAACATCATGAACAACAAAGTCTTCTACCAACACCCGAACCTGATGAGGGCGCTGGGCATGCACGAGACGGT
CATGGAGGTCATGGTCAACGTCCTCGGGGGCGGCGAGTCCAAGGAGATCCGCTTCCCCAAGATGGTGACAAGCTG
CTGCCGCTTCCTCTGCTATTTCTGCCGAATCAGCCGGCAGAACCAGCGCTCCATGTTTGACCACCTGAGCTACCT
GCTGGAGAACAGTGGCATCGGCCTGGGCATGCAGGGCTCCACGCCCCTGGACGTGGCTGCTGCCTCCGTCATTGA
CAACAATGAGCTGGCCTTGGCATTGCAGGAGCAGGACCTGGAAAAGGTTGTGTCCTACCTGGCAGGCTGTGGCCT
CCAGAGCTGCCCCATGCTTGTGGCCAAAGGGTACCCAGACATTGGCTGGAACCCCTGTGGTGGAGAGCGCTACCT
GGACTTCCTGCGCTTTGCTGTCTTCGTCAACGGCGAGAGCGTGGAGGAGAACGCCAATGTGGTGGTGCGGCTGCT

FIGURE 2564C

CATCCGGAAGCCTGAGTGCTTCGGACCCGCCCTGCGGGGTGAGGGTGGCTCAGGGCTGCTGGCTGCCATCGAAGA
GGCCATCCGCATCTCCGAGGACCCTGCGAGGGATGGCCCAGGCATCCGCAGGGACCGGCGGCGCGAGCACTTTGG
TGAGGAACCGCCTGAAGAAAACCGGGTGCACCTGGGACACGCCATCATGTCCTTCTATGCCGCCTTGATCGACCT
GCTCGGACGCTGTGCACCAGAGATGCATCTAATCCAAGCCGGCAAGGGTGAGGCCCTGCGGATCCGCGCCATCCT
CCGCTCCCTTGTGCCCTTGGAGGACCTTGTGGGCATCATCAGCCTCCCACTGCAGATTCCCACCCTGGGCAAAGA
TGGGGCTCTGGTGCAGCCAAAGATGTCAGCATCCTTCGTGCCGGACCACAAGGCGTCCATGGTGCTCTTCCTGGA
CCGTGTGTATGGCATCGAGAACCAGGACTTCTTGCTGCACGTGCTGGACGTGGGGTTCCTGCCCGACATGAGGGC
AGCCGCCTCGCTGGACACGGCCACTTTCAGCACCACCGAGATGGCGCTGGCGCTGAACCGCTACCTGTGCCTGGC
CGTGCTGCCGCTCATCACCAAGTGTGCGCCGCTCTTTGCGGGCACAGAACACCGCGCCATCATGGTGGACTCTAT
GCTGCATACCGTGTACCGCCTGTCTCGGGGTCGTTCGCTCACCAAGGCGCAGCGTGACGTCATCGAGGACTGCCT
CATGTCGCTCTGCAGGTACATCCGCCCGTCGATGCTGCAGCACCTGTTGCGCCGCCTGGTGTTCGACGTGCCCAT
CCTCAACGAGTTCGCCAAGATGCCACTCAAGCTCCTCACCAACCACTATGAGCGCTGTTGGAAGTACTACTGCCT
ACCCACGGGCTGGGCCAACTTCGGGGTCACCTCAGAGGAGGAGCTGCACCTCACACGGAAACTCTTCTGGGGCAT
CTTTGACTCTCTGGCCCATAAGAAATACGACCCGGAGCTGTACCGCATGGCCATGCCTTGTCTGTGCGCCATTGC
CGGGGCTCTGCCCCCCGACTATGTGGATGCCTCATACTCATCTAAGGCAGAGAAAAAGGCCACAGTGGATGCTGA
AGGCAACTTTGATCCCCGGCCTGTGGAGACCCTCAATGTGATCATCCCGGAGAAGCTGGACTCCTTCATTAACAA
GTTTGCGGAGTACACACACGAGAAGTGGGCCTTCGACAAGATCCAGAACAACTGGTCCTATGGAGAGAACATAGA
CGAGGAGCTGAAGACCCACCCCATGCTGAGGCCCTACAAGACCTTTTCAGAGAAGGACAAAGAGATTTACCGCTG
GCCCATCAAGGAGTCCCTGAAGGCCATGATTGCCTGGGAATGGACGATAGAGAAGGCCAGGGAGGGTGAGGAGGA
GAAGACGGAAAAGAAAAAAACGCGGAAGATATCACAAAGTGCCCAGACCTATGATCCTCGAGAAGGCTACAACCC
TCAGCCCCCCGACCTTAGTGCTGTTACCCTGTCCCGGGAGCTGCAGGCCATGGCAGAACAACTGGCAGAAAATTA
CCACAACACGTGGGGACGGAAGAAGAAGCAGGAGCTGGAAGCCAAAGGCGGTGGGACCCACCCCCTGCTGGTCCC
CTACGACACGCTCACGGCCAAGGAGAAGGCACGAGATCGAGAGAAGGCCCAGGAGCTACTGAAATTCCTGCAGAT
GAATGGCTACGCGGTTACAAGAGGCCTTAAGGACATGGAACTGGACTCGTCTTCCATTGAAAAGCGGTTTGCCTT
TGGCTTCCTGCAGCAGCTGCTGCGCTGGATGGACATTTCTCAGGAGTTCATTGCCCACCTGGAGGCTGTGGTCAG
CAGTGGGCGAGTGGAAAAGTCCCCACATGAACAGGAGATTAAATTCTTTGCCAAGATCCTGCTCCCTTTGATCAA
CCAGTACTTCACCAACCACTGCCTCTATTTCTTGTCCACTCCGGCTAAAGTGCTGGGCAGCGGTGGCCACGCCTC
TAACAAGGAGAAGGAAATGATCACCAGCCTCTTCTGCAAACTTGCTGCTCTCGTCCGCCACCGAGTCTCTCTCTT
TGGGACAGACGCCCCAGCTGTGGTCAACTGTCTTCACATCCTGGCCCGCTCCCTGGATGCCAGGACAGTGATGAA
GTCAGGCCCTGAGATCGTGAAGGCTGGCCTCCGCTCCTTCTTCGAGAGTGCCTCGGAGGACATCGAGAAGATGGT
GGAGAACCTGCGGCTGGGCAAGGTGTCGCAGGCGCGCACCCAGGTGAAAGGCGTGGGCCAGAACCTCACCTACAC
CACTGTGGCACTGCTGCCGGTCCTCACCACCCTCTTCCAGCACATCGCCCAGCACCAGTTCGGAGATGACGTCAT
CCTGGACGACGTCCAGGTCTCTTGCTACCGAACGCTGTGCAGTATCTACTCCCTGGGAACCACCAAGAACACTTA
TGTGGAAAAGCTTCGGCCAGCCCTCGGGGAGTGCCTGGCCCGTCTGGCAGCAGCCATGCCGGTGGCGTTCCTGGA
GCCGCAGCTGAACGAGTACAACGCCTGCTCCGTGTACACCACCAAGTCTCCGCGGGAGCGGGCCATCCTGGGGCT
CCCCAACAGTGTGGAGGAGATGTGTCCCGACATCCCGGTGCTGGAGCGGCTCATGGCAGACATTGGGGGGCTGGC
CGAGTCAGGTGCCCGCTACACAGAGATGCCGCATGTCATCGAGATCACGCTGCCCATGCTATGCAGCTACCTGCC
CCGATGGTGGGAGCGCGGGCCCGAGGCACCCCCTTCCGCCCTGCCCGCCGGCGCCCCCCCACCCTGCACAGCTGT
CACCTCTGACCACCTCAACTCCCTGCTGGGGAATATCCTGAGAATCATCGTCAACAACCTGGGCATTGACGAGGC
CTCCTGGATGAAGCGGCTGGCTGTGTTCGCACAGCCCATTGTGAGCCGTGCACGGCCGGAGCTCCTGCAGTCCCA
CTTCATCCCAACTATCGGGCGGCTGCGCAAGAGGGCAGGGAAGGTGGTGTCCGAGGAGGAGCAGCTGCGCCTGGA
GGCCAAGGCGGAGGCCCAGGAGGGCGAGCTGCTGGTGCGGGACGAGTTCTCTGTGCTCTGCCGGGACCTCTACGC
CCTGTATCCGCTGCTCATCCGCTACGTGGACAACAACAGGGCGCAGTGGCTGACGGAGCCGAATCCCAGCGCGGA
GGAGCTGTTCAGGATGGTGGGCGAGATCTTCATCTACTGGTCCAAGTCCCACAACTTCAAGCGCGAGGAGCAGAA
CTTTGTGGTCCAGAATGAGATCAACAACATGTCCTTCCTGACTGCTGACAACAAAAGCAAAATGGCTAAGGCGGG
AGATATACAGTCCGGTGGCTCGGACCAGGAACGCACCAAGAAGAAGCGCCGGGGGGACCGGTACTCTGTGCAGAC
GTCACTGATCGTGGCCACACTGAAGAAGATGCTGCCCATCGGCCTGAATATGTGTGCGCCCACCGACCAAGACCT
CATCACGCTGGCCAAGACCCGTTACGCCCTGAAAGACACAGATGAGGAGGTCCGGGAATTTCTGCACAACAACCT

FIGURE 2564D

TCACCTTCAGGGAAAGGTCGAAGGCTCCCCGTCTCTGCGCTGGCAGATGGCTCTGTACCGGGGCGTCCCGGGTCG
CGAGGAGGACGCCGATGACCCCGAGAAAATCGTGCGCAGAGTCCAGGAAGTGTCAGCCGTGCTCTACTACCTGGA
CCAGACCGAGCACCCTTACAAGTCTAAGAAGGCCGTGTGGCACAAGCTTTTGTCCAAACAGCGCCGGCGGGCAGT
CGTGGCCTGTTTCCGTATGACGCCCCTGTACAACCTGCCCACGCACCGGGCATGTAACATGTTCCTGGAGAGCTA
CAAGGCTGCATGGATCCTGACTGAAGACCACAGTTTTGAGGACCGCATGATAGATGACCTTTCAAAAGCTGGGGA
GCAGGAGGAGGAGGAGGAAGAGGTGGAAGAGAAGAAGCCAGACCCCCTGCACCAGTTGGTCCTGCACTTCAGCCG
CACTGCCCTGACGGAAAAGAGCAAACTGGATGAGGATTACCTGTACATGGCCTATGCTGATATCATGGCAAAGAG
CTGCCACCTGGAGGAGGGAGGGGAGAACGGTGAAGCTGAAGAGGAGGTTGAGGTCTCCTTTGAGGAGAAACAGAT
GGAGAAGCAGAGGCTCTTGTACCAGCAAGCACGGCTGCACACCCGGGGGGCGGCCGAGATGGTGCTGCAGATGAT
CAGTGCCTGCAAAGGAGAGACAGGTGCCATGGTGTCCTCCACCCTGAAGCTGGGCATCTCCATCCTCAATGGAGG
CAATGCTGAGGTCCAGCAGAAAATGCTGGATTATCTTAAGGACAAGAAGGAAGTTGGCTTCTTCCAGAGTATCCA
GGCACTGATGCAAACATGCAGCGTCCTGGATCTCAATGCCTTTGAGAGACAGAACAAGGCCGAGGGGCTGGGCAT
GGTGAATGAGGATGGCACTGTCATCAATCGCCAGAACGGAGAGAAGGTCATGGCGGATGATGAATTCACACAAGA
CCTGTTCCGATTCCTACAATTGCTCTGTGAGGGGCACAATAATGATTTCCAGAACTACCTACGGACACAGACAGG
GAACACGACCACTATTAACATCATCATTTGCACTGTGGACTACCTCCTGCGGCTGCAGGAATCCATCAGCGACTT
CTACTGGTACTACTCGGGCAAGGATGTCATTGAAGAGCAGGGCAAGAGGAACTTCTCCAAAGCCATGTCGGTGGC
TAAGCAGGTGTTCAACAGCCTCACTGAGTACATCCAGGGTCCCTGCACCGGGAACCAGCAGAGCCTGGCGCACAG
TCGCCTATGGGACGCAGTGGTGGGATTCCTGCACGTGTTCGCCCACATGATGATGAAGCTCGCTCAGGACTCAAG
CCAGATCGAGCTGCTGAAGGAGCTGCTGGATCTGCAGAAGGACATGGTGGTGATGTTGCTGTCGCTACTAGAAGG
GAACGTGGTGAACGGCATGATCGCCCGGCAGATGGTGGACATGCTCGTGGAATCCTCATCCAATGTGGAGATGAT
CCTCAAGTTCTTCGACATGTTCCTGAAACTCAAGGACATTGTGGGCTCTGAAGCCTTCCAGGACTACGTAACGGA
TCCCCGTGGCCTCATCTCCAAGAAGGACTTCCAGAAGGCCATGGACAGCCAGAAGCAGTTCAGCGGTCCAGAAAT
CCAGTTCCTGCTTTCGTGCTCCGAAGCGGATGAGAACGAAATGATCAACTGCGAAGAGTTCGCCAACCGCTTCCA
GGAGCCAGCACGCGACATCGGCTTCAACGTGGCGGTGCTGCTGACCAACCTGTCGGAGCATGTGCCGCATGACCC
TCGCCTGCACAACTTCCTGGAGCTGGCCGAGAGCATCCTTGAGTACTTCCGCCCCTACCTGGGCCGCATCGAGAT
CATGGGCGCGTCACGCCGCATCGAGCGCATCTACTTCGAGATCTCAGAGACCAACCGCGCCCAGTGGGAGATGCC
CCAGGTGAAGGAGTCCAAGCGCCAGTTCATCTTCGACGTGGTGAACGAGGGCGGCGAGGCTGAGAAGATGGAGCT
CTTCGTGAGTTTCTGCGAGGACACCATCTTCGAGATGCAGATCGCCGCGCAGATCTCGGAGCCCGAGGGCGAGCC
GGAGACCGACGAGGACGAGGGCGCGGGCGCGGCGGAGGCGGGCGCGGAAGGCGCGGAGGAGGGCGCGGCGGGGCT
CGAGGGCACGGCGGCCACGGCGGCGGCGGGGGCGACGGCGCGGGTTGTGGCGGCCGCAGGCCGGGCCCTGCGAGG
CCTCAGCTACCGCAGCCTGCGGCGGCGCGTGCGGCGGCTGCGGCGGCTTACGGCCCGCGAGGCGGCCACCGCAGT
GGCGGCGCTGCTCTGGGCAGCAGTGACGCGCGCTGGGGCCGCTGGCGCGGGGGCGGCGGCGGGCGCGCTGGGCCT
GCTCTGGGGCTCGCTGTTCGGCGGCGGCCTGGTGGAGGGCGCCAAGAAGGTGACGGTGACCGAGCTCCTGGCAGG
CATGCCCGACCCCACCAGCGACGAGGTGCACGGCGAGCAGCCGGCCGGGCCGGGCGGAGACGCAGACGGCGAGGG
TGCCAGCGAGGGCGCTGGAGACGCCGCGGAGGGCGCTGGAGACGAGGAGGAGGCGGTGCACGAGGCCGGGCCGGG
CGGTGCCGACGGGGCGGTGGCCGTGACCGATGGGGGCCCCTTCCGGCCCGAAGGGGCTGGCGGTCTCGGGGACAT
GGGGGACACGACGCCTGCGGAACCGCCCACACCCGAGGGCTCTCCCATCCTCAAGAGGAAATTGGGGGTGGATGG
AGTGGAGGAGGAGCTCCCGCCAGAGCCAGAGCCCGAGCCGGAACCAGAGCTGGAGCCGGAGAAAGCCGATGCCGA
GAATGGGGAGAAGGAAGAAGTTCCCGAGCCCACACCAGAGCCCCCCAAGAAGCAAGCACCTCCCTCACCCCCTCC
AAAGAAGGAGGAAGCTGGAGGCGAATTCTGGGGAGAACTGGAGGTGCAGAGGGTGAAGTTCCTGAACTACCTGTC
CCGGAACTTTTACACCCTGCGGTTCCTTGCCCTCTTCTTGGCATTTGCCATCAACTTCATCTTGCTGTTTTATAA
GGTCTCAGACTCTCCACCAGGGGAGGACGACATGGAAGGCTCAGCTGCTGGGGATGTGTCAGGTGCAGGCTCTGG
TGGCAGCTCTGGCTGGGGCTTGGGGGCCGGAGAGGAGGCAGAGGGCGATGAGGATGAGAACATGGTGTACTACTT
CCTGGAGGAAAGCACAGGCTACATGGAACCCGCCCTGCGGTGTCTGAGCCTCCTGCATACACTGGTGGCCTTTCT
CTGCATCATTGGCTATAATTGTCTCAAGGTGCCCCTGGTAATCTTTAAGCGGGAGAAGGAGCTGGCCCGGAAGCT
GGAGTTTGATGGCCTGTACATCACGGAGCAGCCTGAGGACGATGACGTGAAGGGGCAGTGGGACCGACTGGTGCT
CAACACGCCGTCTTTCCCTAGCAACTACTGGGACAAGTTTGTCAAGCGCAAGGTCCTGGACAAACATGGGGACAT
CTACGGGCGGGAGCGGATTGCTGAGCTACTGGGCATGGACCTGGCCACACTAGAGATCACAGCCCACAATGAGCG

FIGURE 2564E

CAAGCCCAACCCGCCGCCAGGGCTGCTGACCTGGCTCATGTCCATCGATGTCAAGTACCAGATCTGGAAGTTCGG
GGTCATCTTCACAGACAACTCCTTCCTGTACCTGGGCTGGTATATGGTGATGTCCCTCTTGGGACACTACAACAA
CTTCTTCTTTGCTGCCCATCTCCTGGACATCGCCATGGGGGTCAAGACGCTGCGCACCATCCTGTCCTCTGTCAC
CCACAATGGGAAACAGCTGGTGATGACCGTGGGCCTTCTGGCGGTGGTCGTCTACCTGTACACCGTGGTGGCCTT
CAACTTCTTCCGCAAGTTCTACAACAAGAGCGAGGATGAGGATGAACCTGACATGAAGTGTGATGACATGATGAC
GTGTTACCTGTTTCACATGTACGTGGGTGTCCGGGCTGGCGGAGGCATTGGGGACGAGATCGAGGACCCCGCGGG
TGACGAATACGAGCTCTACAGGGTGGTCTTCGACATCACCTTCTTCTTCTTCGTCATCGTCATCCTGTTGGCCAT
CATCCAGGGTCTGATCATCGACGCTTTTGGTGAGCTCCGAGACCAACAAGAGCAAGTGAAGGAGGATATGGAGAC
CAAGTGCTTCATCTGTGGAATCGGCAGTGACTACTTTGATACGACACCGCATGGCTTCGAGACTCACACGCTGGA
GGAGCACAACCTGGCCAATTACATGTTTTTCCTGATGTATTTGATAAACAAGGATGAGACAGAACACACGGGTCA
GGAGTCTTATGTCTGGAAGATGTACCAAGAGAGATGTTGGGATTTCTTCCCAGCTGGTGATTGTTTCCGTAAGCA
GTATGAGGACCAGCTTAGC**TGA**CACACCCCCAGCTGGCCCTCCACCCCCACCTCAAGTGCCTTATTCTCACAGCA
AGCCCCTTAGTCCCCAAGCCCCTCCCCCTAAGGCAGCTGGGGGAGAGGTGACCTAGTAC

FIGURE 2565

GGAAAGCGTGGCGGCTGCTGCTAGAGCCTTTCCCTTTACCGCACCCAAGGAGCTGGAGCGACAACAACGACGTCG
TTTCCGTTTCCACCACCTCTTCCTGTTCCCGTCCTTGAGGACGCCGTGCCGGGTCAGTGTTAGCCTCCAGCCCTG
GTTGTGGAAGGCGACAGAAGTC**ATG**GCGATGTTTGAGCAGATGAGAGCCAACGTGGGCAAGTTGCTCAAGGGTAT
CGACAGGTACAATCCTGAGAACCTGGCCACCCTGGAGCGCTATGTAGAGACGCAGGCCAAGGAAAATGCCTATGA
TCTGGAAGCCAACCTGGCTGTCCTGAAGCTGTACCAGTTCAACCCAGCCTTCTTTCAGACCACGGTCACCGCCCA
GATCCTGCTGAAGGCCCTCACCAACTTGCCGCACACAGACTTCACCCTGTGCAAGTGCATGATCGACCAGGCACA
TCAAGAAGAACGGCCAATCCGACAGATTTTGTACCTCGGGGACCTGCTGGAGACCTGCCATTTCCAGGCCTTCTG
GCAAGCCCTGGATGAAAACATGGACCTCTTGGAAGGTATAACTGGCTTTGAAGACTCTGTCCGAAAGTTTATCTG
CCATGTTGTGGGTATCACTTACCAGCACATTGACCGCTGGCTGCTGGCCGAGATGCTCGGGGATCTGTCGGACAG
CCAGCTAAAGGTGTGGATGAGCAAATACGGCTGGAGTGCCGACGAGTCGGGGCAGATCTTCATCTGTAGCCAAGA
AGAGAGCATTAAACCCAAGAACATTGTGGAGAAGATTGACTTTGACAGTGTGTCCAGCATCATGGCCTCCTCCCA
G**TAA**CTTCAGGTGTTTAATAAAGATGTGTTGACTCAG

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FIGURE 2566

AGAGGGGCGGGAGCTGAGGCGGGAGCGGACAGGCTGGTGGGCGAGCGAGAGGCGGCGGA**ATG**GTGGACTACCACG
CGGCGAACCAGTCGTACCAGTACGGCCCCAGCAGCGCGGGCAATGGCGCTGGCGGCGGGGGCAGCATGGGCGACT
ACATGGCCCAGGAGGACGACTGGGACCGGGACCTGCTGCTGGACCCGGCCTGGGAGAAGCAGCAGCGCAAGACCT
TCACGGCATGGTGCAACTCCCACCTGCGGAAGGCAGGCACACAGATCGAGAACATTGATGAGGACTTCCGAGACG
GGCTCAAGCTCATGCTGCTCCTGGAGGTCATATCAGGGGAGCGGTTACCTAAGCCGGAGCGGGGGAAGATGAGAG
TGCACAAAATCAACAATGTGAACAAAGCGCTGGACTTTATTGCCAGCAAAGGCGTCAAGCTGGTCTCCATCGGGG
CAGAAGAGATTGTGGACGGCAACGCAAAGATGACCCTGGGAATGATCTGGACCATCATCCTTAGGTTCGCCATCC
AGGACATCTCCGTGGAAGAGACCTCGGCCAAGGAAGGGCTCCTTCTCTGGTGCCAGAGAAAGACAGCCCCGTATA
AGAACGTCAATGTGCAGAACTTCCACATCAGCTGGAAGGATGGTCTTGCCTTCAATGCCCTGATCCACCGGCACA
GACCAGAGCTGATTGAGTATGACAAGCTGAGGAAGGACGACCCTGTCACCAACCTGAACAATGCCTTCGAAGTGG
CTGAGAAATACCTCGACATCCCCAAGATGCTGGATGCAGAGGACATCGTGAACACGGCCCGGCCCGACGAGAAGG
CCATAATGACCTATGTGTCCAGCTTCTACCATGCCTTTTCAGGAGCGCAGAAGGCTGAAACTGCCGCCAACCGGA
TCTGTAAGGTGCTGGCTGTCAACCAAGAGAACGAGCACCTGATGGAGGACTACGAGAAGCTGGCCAGCGACCTCC
TGGAGTGGATCCGGCGCACCATCCCCTGGCTGGAGGACCGTGTGCCCCAAAAGACTATCCAGGAGATGCAGCAGA
AGCTGGAGGACTTCCGCGACTACCGGCGTGTGCACAAGCCGCCCAAGGTGCAGGAGAAGTGCCAGCTGGAGATCA
ACTTCAACACGCTGCAGACCAAGCTGCGCCTCAGCAACCGGCCCGCCTTCATGCCCTCCGAGGGCAAGATGGTCT
CGGACATCAACAATGGCTGGCAGCACTTGGAGCAGGCTGAGAAGGGCTACGAGGAGTGGCTGCTGAATGAGATCC
GCAGGCTGGAGCGGCTCGACCACCTGGCAGAGAAGTTCCGGCAGAAGGCCTCCATCCACGAGGCCTGGACTGACG
GGAAGGAAGCCATGCTGAAGCACCGGGACTACGAGACGGCCACACTATCGGACATCAAAGCCCTCATTCGCAAGC
ACGAGGCCTTCGAGAGCGACCTGGCTGCGCACCAGGACCGCGTGGAGCAGATCGCCGCCATTGCCCAGGAGCTCA
ACGAGCTGGATTACTACGACTCCCACAATGTCAACACCCGGTGCCAGAAGATCTGTGACCAGTGGGACGCCCTCG
GCTCTCTGACACATAGTCGCAGGGAAGCCCTGGAGAAAACAGAGAAGCAGCTGGAGGCCATCGACCAGCTGCACC
TGGAATACGCCAAGCGCGCGGCCCCCTTCAACAACTGGATGGAGAGCGCCATGGAGGACCTCCAGGACATGTTCA
TCGTCCATACCATCGAGGAGATTGAGGGCCTGATCTCAGCCCATGACCAGTTCAAGTCCACCCTGCCGGACGCCG
ATAGGGAGCGCGAGGCCATCCTGGCCATCCACAAGGAGGCCCAGAGGATCGCTGAGAGCAACCACATCAAGCTGT
CGGGCAGCAACCCCTACACCACCGTCACCCCGCAAATCATCAACTCCAAGTGGGAGAAGGTGCAGCAGCTGGTGC
CAAAACGGGACCATGCCCTCCTGGAGGAGCAGAGCAAGCAGCAGTCCAACGAGCACCTGCGCCGCCAGTTCGCCA
GCCAGGCCAATGTTGTGGGGCCCTGGATCCAGACCAAGATGGAGGAGATCGGGCGCATCTCCATTGAGATGAACG
GGACCCTGGAGGACCAGCTGAGCCACCTGAAGCAGTATGAACGCAGCATCGTGGACTACAAGCCCAACCTGGACC
TGCTGGAGCAGCAGCACCAGCTCATCCAGGAGGCCCTCATCTTCGACAACAAGCACACCAACTATACCATGGAGC
ACATCCGCGTGGGCTGGGAGCAGCTGCTCACCACCATTGCCCGCACCATCAACGAGGTGGAGAACCAGATCCTCA
CCCGCGACGCCAAGGGCATCAGCCAGGAGCAGATGCAGGAGTTCCGGGCGTCCTTCAACCACTTCGACAAGGATC
ATGGCGGGGCGCTGGGGCCCGAGGAGTTCAAGGCCTGCCTCATCAGCCTGGGCTACGACGTGGAGAACGACCGGC
AGGGTGAGGCCGAGTTCAACCGCATCATGAGCCTGGTCGACCCCAACCATAGCGGCCTTGTGACCTTCCAAGCCT
TCATCGACTTCATGTCGCGGGAGACCACCGACACGGACACGGCTGACCAGGTCATCGCTTCCTTCAAGGTCTTAG
CAGGGGACAAGAACTTCATCACAGCTGAGGAGCTGCGGAGAGAGCTGCCCCCCGACCAGGCCGAGTACTGCATCG
CCCGCATGGCGCCATACCAGGGCCCTGACGCCGTGCCCGGTGCCCTCGACTACAAGTCCTTCTCCACGGCCTTGT
ATGGCGAGAGCGACCTG**TGA**GGCCCCAGAGACCTGACCCAACACCCCCGACGGCCTCCAGGAGGGGCCTGGGCAG
CCCCACAGTCCCATTCCTCCACTCTGTATCTATGCAAAGCACTCTCTGCAGTCCTCCGGGGTGGGTGGGTGGGCA

FIGURE 2567

GCCCCGCGAGGATGAGCCCAGGGCTCCACGGTCCCTACCTAGACCCCACGCGATTCCTCACCTGAGACCCCGTCC
CACACAGCCCCAGCTGGGGCAAACAGCCCCCTCCCCACTTCCCATCTGTAATTTGCAGGGAGATCGACGACGTGA
TCAGCGCAGACCTGCAGTCTCTCCAGGTGGGGACTGTTCCTGGAGGGGCGGC**ATG**GGGCGGGGATCTTGGCCAGC
GCTAAACTTCCGCCATGCGGCAGGGCCCCTACCTGCCCCTGGAGCTGGGGTTGGAGCAGCTGTTTCAGGAGCTGG
CTGGAGAGCCAGGGCCCATACCTCCACCCCCAGAGAGATCGGGCTCAGGACCTGTGAGCAGCTGCTGCAGTGTTT
CGGGCATGGGCAAAGCCTGGCCTTACACCACTTCCAGCAGCTCTGGGGCTACCTCCTGGAGTGGCAGGCCATATT
TAACAAGTTCGATGAGGACACCTCTGGAACCATGAACTCCTACGAGCTGAGGCTGGCACTGAATGCAGCAGGCTT
CCACCTGAACAACCAGCTGACCCAGACCCTCACCAGCCGCTACCGGGATAGCCGTCTGCGTGTGGACTTCGAGCG
GTTCGTGTCCTGTGTGGCCCACCTCACCTGCATCTTCTGCCACTGCAGCCAGCACCTGGATGGGGGTGAGGGGGT
CATCTGCCTGACCCACAGACAGTGGATGGAGGTGGCCACCTTCTCC**TAG**GATCTCCGGATGGGCGCACCTGCTGC
TCAGGGCAGGGTTGCTGAGCAAGACCACCTCCCTAGGCCTTGCCTGGCATGGGTGCCACTCTCTCTGGCATCCAC
CTGTCTGGGGCTAGTCTCTGGCCCTCACTGCTCACGGCCGGGTGACCACTCTGGCCTGCGTACTCCTCACTCAGA
AACAAGAACAGCGACAGCCCTTCTCGAGCAGATGACACGAGCTAGTCCACGTTGACAGCTTAAGACAGTGCTAGC
TCTGCCCTGGCTCTCCTAGAAGGTGGAGGACAGACACAGGAGAAATAAAAAAAGATGATGCTGCAGGAATCCTTC
TTAAAAATATTACATGTTTTATTATCCTGTCCCCAGAGGGTGGTTTATCCAGAAACCAAGAAAAAAAATCAATCA
GAATAAACTCAAAAAAAAAAGGTAGGGGGAGCAAAACCATCAACCACCAGGCAGCCAGGCCATCAGCCCACCTCC
ACCTCTGGAGGGTCCCCAGAGACCCACGCCCGACGCAGACCCGGAGGAGCATCAGCAAGGGGCCCGGGCAGAGAA
TCGGCTATGTCTTCATTATGAGAGCAGGAGAGACGGCAGAGATATGTTGCTAGGTGAATATATATTTATATAATA
AATCCGTAAGTTAATAAAGTAAATAGTAATTCTCTGAAA

FIGURE 2568

ATGGCTCTGTACCTCTCCTGTGCTGGGAGCCATCTGGTGACCATGATGCCCTGCCCTGGCCCACGCCACTCAGAG
TCTGGATGGAGCAGTATTTCCCCCAAAGGACTCTGGAGCCATTGGAGGAAATGGGAGAAACAGAACTACCTGTCC
CGGAACTTTTATCCACTGCGGTTCCTTGCCCTCTTCTATGCATTTGCCATCAACTTCATCTTGCTATTTTATAAG
GTCTCAGACTCTCCACCAGGGGAGGACGACATGGAAGGCTCAGCTGCTGGGGATGTGTCAGGTGCAGGCTCTGGT
GGCAGCTCTGGCTGGGGCTTGGGGGCCGGAGAGGAGGCAGAGGGCGATGAGGATGAGAACATGGTGTACTACTTC
CTGGAGGAAAGCACAGGCTACATGGAACCCGCCCTGCGGTGTCTGAGCCTCCTGCATACACTGGTGGCCTTTCTC
TGCATCATTGGCTATAATTGTCTCAAGGTGCCCCTGGTAATCTTTAAGCGGGAGAAGGAGCTGGCCCGGAAGCTG
GAGTTTGATGGCCTGTACATCACGGAGCAGCCTGAGGACGATGACGTGAAGGGGCAGTGGGACCGACTGGTGCTC
AACACGCCG**TAA**

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FIGURE 2569

ATCTCCCACTCCTGCAGCTCTTCTCACAGGACCAGCCACTAGCGCAGCCTCGAGCG**ATG**GCCTATGTCCCCGCAC
CGGGCTACCAGCCCACCTACAACCCGACGCTGCCTTACTACCAGCCCATCCCGGGCGGGCTCAACGTGGGAATGT
CTGTTTACATCCAAGGAGTGGCCAGCGAGCACATGAAGCGGTTCTTCGTGAACTTTGTGGTTGGGCAGGATCCGG
GCTCAGACGTCGCCTTCCACTTCAATCCGCGGTTTGACGGCTGGGACAAGGTGGTCTTCAACACGTTGCAGGGCG
GGAAGTGGGGCAGCGAGGAGAGGAAGAGGAGCATGCCCTTCAAAAAGGGTGCCGCCTTTGAGCTGGTCTTCATAG
TCCTGGCTGAGCACTACAAGGTGGTGGTAAATGGAAATCCCTTCTATGAGTACGGGCACCGGCTTCCCCTACAGA
TGGTCACCCACCTGCAAGTGGATGGGGATCTGCAACTTCAATCAATCAACTTCATCGGAGGCCAGCCCCTCCGGC
CCCAGGGACCCCCGATGATGCCACCTTACCCTGGTCCCGGACATTGCCATCAACAGCTGAACAGCCTGCCCACCA
TGGAAGGACCCCCAACCTTCAACCCGCCTGTGCCATATTTCGGGAGGCTGCAAGGAGGGCTCACAGCTCGAAGAA
CCATCATCATCAAGGGCTATGTGCCTCCCACAGGCAAGAGCTTTGCTATCAACTTCAAGGTGGGCTCCTCAGGGG
ACATAGCTCTGCACATTAATCCCCGCATGGGCAACGGTACCGTGGTCCGGAACAGCCTTCTGAATGGCTCGTGGG
GATCCGAGGAGAAGAAGATCACCCACAACCCATTTGGTCCCGGACAGTTCTTTGATCTGTCCATTCGCTGTGGCT
TGGATCGCTTCAAGGTTTACGCCAATGGCCAGCACCTCTTTGACTTTGCCCATCGCCTCTCGGCCTTCCAGAGGG
TGGACACATTGGAAATCCAGGGTGATGTCACCTTGTCCTATGTCCAGATC**TAA**TCTATTCCTGGGGCCATAACTC
ATGGGAAAACAGAATTATCCCCTAGGACTCCTTTCTAAGCCCCTAATAAAATGTCTGAGGGTGTCTC

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FIGURE 2570

GAACGCAGTAGACGAAGGCGGCGGCG**ATG**GCGGCGGGGATAGTGGCTTCTCGCAGACTCCGCGACCTACTGACCC
GGCGACTGACAGGCTCCAACTACCCGGGACTCAGTATTAGCCTTCGCCTCACTGGCTCCTCTGCACAAGAGGAGG
CTTCCGGAGTAGCCCTCGGTGAAGCCCCAGACCACAGCTATGAGTCCCTTCGTGTGACGTCTGCGCAGAAACATG
TTCTGCATGTCCAGCTCAACCGGCCCAACAAGAGGAATGCCATGAACAAGGTCTTCTGGAGAGAGATGGTAGAGT
GCTTCAACAAGATTTCGAGAGACGCTGACTGTCGGGCGGTGGTGATCTCTGGTGCAGGAAAAATGTTCACTGCAG
GTATTGACCTGATGGACATGGCTTCGGACATCCTGCAGCCCAAAGGAGATGATGTGGCCCGGATCAGCTGGTACC
TCCGTGACATCATCACTCGATACCAGGAGACCTTCAACGTCATCGAGAGGTGCCCCAAGCCCGTGATTGCTGCCG
TCCATGGGGGCTGCATTGGCGGAGGTGTGGACCTTGTCACCGCCTGTGACATCCGGTACTGTGCCCAGGATGCTT
TCTTCCAGGTGAAGGAGGTGGACGTGGGTTTGGCTGCCGATGTAGGAACACTGCAGCGCCTGCCCAAGGTCATCG
GGAACCAGAGCCTGGTCAACGAGCTGGCCTTCACCGCCCGCAAGATGATGGCTGACGAGGCCCTGGGCAGTGGGC
TGGTCAGCCGGGTGTTCCCAGACAAAGAGGTCATGCTGGATGCTGCCTTAGCGCTGGCGGCCGAGATTTCCAGCA
AGAGCCCCGTGGCGGTGCAGAGCACCAAGGTCAACCTGCTGTATTCCCGCGACCATTCGGTGGCCGAGAGCCTCA
ACTACGTGGCGTCCTGGAACATGAGCATGCTGCAGACCCAAGACCTCGTGAAGTCGGTCCAGGCCACGACTGAGA
ACAAGGAACTGAAAACCGTCACCTTCTCCAAGCTC**TGA**GAGCCCTCGCGTCCCAGGCCCCAGCCAGGGGGCCGGC
CTTGTCCCGCCTCATCCACAGAAAGGGAGGATGGGCGATGACAGTTGTTTCTATGCCTTCTGACCCAGTTTCCCA
GTTTATAACTTTATGACAATGAGTTTCTCAAGCCCAAGGCCTTATCTTCACCCCACAAACAATAAAGCAAA

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FIGURE 2571

GGACGAGCAGCGGAGGCGGTCGGGAGCG**ATG**GTGAAGATGGCGGCGGCGGGCGGCGGAGGCGGCGGTGGCCGCTA
CTACGGCGGCGGCAGTGAGGGCGGCCGGGCCCCTAAGCGGCTCAAGACTGACAACGCCGGCGACCAGCACGGAGG
CGGCGGCGGTGGCGGTGGAGGAGCCGGGGCGGCGGGCGGCGGCGGCGGTGGGGAGAACTACGATGACCCGCACAA
AACCCCTGCCTCCCCAGTTGTCCACATCAGGGGCCTGATTGACGGTGTGGTGGAAGCAGACCTTGTGGAGGCCTT
GCAGGAGTTTGGACCCATCAGCTATGTGGTGGTAATGCCTAAAAAGAGACAAGCACTGGTGGAGTTTGAAGATGT
GTTGGGGGCTTGCAACGCAGTGAACTACGCAGCCGACAACCAAATATACATTGCTGGTCACCCAGCTTTTGTCAA
CTACTCTACCAGCCAGAAGATCTCCCGCCCTGGGGACTCGGATGACTCCCGGAGCGTGAACAGTGTGCTTCTCTT
TACCATCCTGAACCCCATTTATTCGATCACCACGGATGTTCTTTACACTATCTGTAATCCTTGTGGCCCTGTCCA
GAGAATTGTCATTTTCAGGAAGAATGGAGTTCAGGCGATGGTGGAATTTGACTCAGTTCAAAGTGCCCAGCGGGC
CAAGGCCTCTCTCAATGGGGCTGATATCTATTCTGGCTGTTGCACTCTGAAGATCGAATACGCAAAGCCTACACG
CTTGAATGTGTTCAAGAATGATCAGGATACTTGGGACTACACAAACCCCAATCTCAGTGGACAAGGTGACCCTGG
CAGCAACCCCAACAAACGCCAGAGGCAGCCCCCTCTCCTGGGAGATCACCCCGCAGAATATGGAGGGCCCCACGG
TGGGTACCACAGCCATTACCATGATGAGGGCTACGGGCCCCCCCCACCTCACTACGAAGGGAGAAGGATGGGTCC
ACCAGTGGGGGGTCACCGTCGGGGCCCAAGTCGCTACGGCCCCCAGTATGGGCACCCCCCACCCCCTCCCCCACC
ACCCGAGTATGGCCCTCACGCCGACAGCCCTGTGCTCATGGTCTATGGCTTGGATCAATCTAAGATGAACTGTGA
CCGAGTCTTCAATGTCTTCTGCTTATATGGCAATGTGGAGAAGGTGAAATTCATGAAAAGCAAGCCGGGGGCCGC
CATGGTGGAGATGGCTGATGGCTACGCTGTAGACCGGGCCATTACCCACCTCAACAACAACTTCATGTTTGGGCA
GAAGCTGAATGTCTGTGTCTCCAAGCAGCCAGCCATCATGCCTGGTCAGTCATACGGGTTGGAAGACGGGTCTTG
CAGTTACAAAGACTTCAGTGAATCCCGGAACAATCGGTTCTCCACCCCAGAGCAGGCAGCCAAGAACCGCATCCA
GCACCCCAGCAACGTGCTGCACTTCTTCAACGCCCCGCTGGAGGTGACCGAGGAGAACTTCTTTGAGATCTGCGA
TGAGCTGGGAGTGAAGCGGCCATCTTCTGTGAAAGTATTCTCAGGCAAAAGTGAGCGCAGCTCCTCTGGACTGCT
GGAGTGGGAATCCAAGAGCGATGCCCTGGAGACTCTGGGCTTCCTGAACCATTACCAGATGAAAAACCCAAATGG
TCCATACCCTTACACTCTGAAGTTGTGTTTCTCCACTGCTCAGCACGCCTCC**TAA**TTAGGTGCCTAGGAAGAGTC
CCATCTGAGCAGGAAGACATTTCTCTTTCCTTTATGCCATTTTTTGTTTTTGTTATTTGCAAAAGATCTTGTATT
CCTTTTTTTTTTTTTTTTTTTTTTTTTTTAAATGCTAGGTTTGTAGAGGCTTACTTAACCTTAATGGAAACGCTGG
AAATCTGCAGGGGGAGGGAGAGGGGAACTGTTATCTCCCAAGATTAACCTTCACTTTTAAAAAATTATTGTACAT
GTGATTTTTTTTTTTCCTGTTCATACATTTGTGCTGCCCATGTACTCTTGGCACATTTCAATAAAATTGTTTGGA
AAATAAACACAGC

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FIGURE 2572

GTGTTGTACGAAAGCGCGTCTGCGGCCGCAATGTCTGCTGAGAGTTGTAGTTCTGTGCCCTATCACGGCCACTCC
CATTTCTGGTGCCGTCACGGGACAGAGCAGTCGGTGACAGGACAGAGCAGTCGGTGACGGGACACAGTGGTTGGT
GACGGGACAGAGCGGTCGGTGACAGCCTCAAGGGCTTCAGCACCGCGCCC**ATG**GCAGAGCCAGACCCCTCTCACC
CTCTGGAGACCCAGGCAGGGAAGGTGCAGGAGGCTCAGGACTCAGATTCAGACTCTGAGGGAGGAGCCGCTGGTG
GAGAAGCAGACATGGACTTCCTGCGGAACTTATTCTCCCAGACGCTCAGCCTGGGCAGCCAGAAGGAGCGTCTGC
TGGACGAGCTGACCTTGGAAGGGGTGGCCCCGGTACATGCAGAGCGAACGCTGTCGCAGAGTCATCTGTTTGGTGG
GAGCTGGAATCTCCACATCCGCAGGCATCCCCGACTTTCGCTCTCCATCCACCGGCCTCTATGACAACCTAGAGA
AGTACCATCTTCCCTACCCAGAGGCCATCTTTGAGATCAGCTATTTCAAGAAACATCCGGAACCCTTCTTCGCCC
TCGCCAAGGAACTCTATCCTGGGCAGTTCAAGCCAACCATCTGTCACTACTTCATGCGCCTGCTGAAGGACAAGG
GGCTACTCCTGCGCTGCTACACGCAGAACATAGATACCCTGGAGCGAATAGCCGGGCTGGAACAGGAGGACTTGG
TGGAGGCGCACGGCACCTTCTACACATCACACTGCGTCAGCGCCAGCTGCCGGCACGAATACCCGCTAAGCTGGA
TGAAAGAGAAGATCTTCTCTGAGGTGACGCCCAAGTGTGAAGACTGTCAGAGCCTGGTGAAGCCTGATATCGTCT
TTTTTGGTGAGAGCCTCCCAGCGCGTTTCTTCTCCTGTATGCAGTCAGACTTCCTGAAGGTGGACCTCCTCCTGG
TCATGGGTACCTCCTTGCAGGTGCAGCCCTTTGCCTCCCTCATCAGCAAGGCACCCCTCTCCACCCCTCGCCTGC
TCATCAACAAGGAGAAAGCTGGCCAGTCGGACCCTTTCCTGGGGATGATTATGGGCCTCGGAGGAGGCATGGACT
TTGACTCCAAGAAGGCCTACAGGGACGTGGCCTGGCTGGGTGAATGCGACCAGGGCTGCCTGGCCCTTGCTGAGC
TCCTTGGATGGAAGAAGGAGCTGGAGGACCTTGTCCGGAGGGAGCACGCCAGCATAGATGCCCAGTCGGGGGCGG
GGGTCCCCAACCCCAGCACTTCAGCTTCCCCCAAGAAGTCCCCGCCACCTGCCAAGGACGAGGCCAGGACAACAG
AGAGGGAGAAACCCCAG**TGA**CAGCTGCATCTCCCAGGCGGGATGCCGAGCTCCTCAGGGACAGCTGAGCCCCAAC
CGGGCCTGGCCCCCTCTTAACCAGCAGTTCTTGTCTGGGGAGCTCAGAACATCCCCCAATCTCTTACAGCTCCCT
CCCCAAAACTGGGGTCCCAGCAACCCTGGCCCCCAACCCCAGCAAATCTCTAACACCTCCTAGAGGCCAAGGCTT
AAACAGGCATCTCTACCAGCCCCACTGTCTCTAACCACTCCTGGGCTAAGGAGTAACCTCCCTCATCTCTAACTG
CCCCCACGGGGCCAGGGCTACCCCAGAACTTTTAACTCTTCCAGGACAGGGAGCTTCGGGCCCCCACTCTGTCTC
CTGCCCCCGGGGGCCTGTGGCTAAGTAAACCATACCTAACCTACCCCAGTGTGGGTGTGGGCCTCTGAATATAAC
CCACACCCAGCGTAGGGGGAGTCTGAGCCGGGAGGGCTCCCGAGTCTCTGCCTTCAGCTCCCAAAGTGGGTGGTG
GGCCCCCTTCACGTGGGACCCACTTCCCATGCTGGATGGGCAGAAGACATTGCTTATTGGAGACAAATTAAAAAC
AAAAACAACTAAC

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FIGURE 2573

ATGGCTGGGGTCGCGTGCTTGGGAAAAGCTGCCGACGCAGATGAATGGTGCGACAGCGGCCTGGGCTCCCTGGGT
CCGGACGCAGCGGCCCCCGGAGGACCTGGGTTGGGCGCGGAGTTGGGCCCGGGGCTGTCGTGGGCTCCCCTCGTC
TTCGGCTACGTCACTGAGGATGGGGACACGGCACTGCACTTGGCTGTGATTCATCAGCATGAACCCTTCCTGGAT
TTTCTTCTAGGCTTCTCGGCCGGCACTGAGTACATGGACCTGCAGAATGACCTAGGCCAGACAGCCCTGCACCTG
GCAGCCATCCTGGGGGAGACATCCACGGTGGAGAAGCTGTACGCAGCAGGCGCCGGGCTGTGTGTGGCGGAGCGT
AGGGGCCACACGGCGCTGCACCTGGCCTGCCGTGTGGGGGCACACGCCTGTGCCCGTGCCCTGCTTCAGCCCCGC
CCCCGGCGCCCCAGGGAAGCCCCCGACACCTACCTCGCTCAGGGCCCTGACCGTACTCCCGACACCAACCATACC
CCTGTCGCCTTGTACCCCGATTCCGACTTGGAGAAGGAAGAAGAGGAGAGTGAGGAGGACTGGAAGCTGCAGCTG
GAGGCTGAAAACTACGAGGGCCACACCCCACTCCACGTGGCCGTTATCCACAAAGATGTGGAGATGGTCCGGCTG
CTCCGAGATGCTGGAGCTGACCTTGACAAACCGGAGCCCACGTGCGGCCGGAGCCCCCTTCATTTGGCAGTGGAG
GCCCAGGCAGCCGATGTGCTGGAGCTTCTCCTGAGGGCAGGCGCGAACCCTGCTGCCCGCATGTACGGTGGCCGC
ACCCCACTCGGCAGTGCCATGCTCCGGCCCAACCCCATCCTCGCCCGCCTCCTCCGTGCACACGGAGCCCCTGAG
CCCGAGGGCGAGGACGAGAAATCCGGCCCCTGCAGCAGCAGTAGCGACAGCGACAGCGGAGACGAGGGCGTGAGT
CAGGAGGAGAGACAGGGCAGCCCAGCTGGGGGGTCAGGA**TAG**

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FIGURE 2574

TGAAGAGGCGGGACACAGACGACGATTGGGCGACGAAGGACTCTATCGCGGTCAACTTTCCTCAGGATCTGATTG
GCTCGTCACGGTCAGGTTCGCTGCCTTGCAATTGGTCTAAACGCGGAGTGGGCGGGACGAAGTGCCGCCTTGTTC
CCGGTCCAAG**ATG**GCTGCGTCCATGGCGCGGCGCTTGTGGCCTTTGCTGACTCGTCGGGGGTTCCGGCCCCGGGG
AGGCTGCATCTCCAACGATAGTCCAAGGAGAAGTTTCACTACAGAGAAACGAAACCGGAACCTCCTGTACGAGTA
TGCGCGCGAGGGCTACAGCGCACTCCCTCAGCTGGACATAGAGCGGTTCTGCGCATGCCCAGAAGAGGCCGCACA
CGCCCTGGAGCTCCGCAAGGGGGAGCTGCGCTCGGCGGACCTGCCCGCGATCATCTCGACATGGCAGGAGCTGAG
GCAGCTGCAGGAGCAGATCCGGAGCCTGGAGGAAGAGAAGGCAGCTGTGACTGAGGCAGTGCGGGCCCTGCTGGC
AAACCAGGACAGTGGTGAAGTGCAGCAGGACCCCAAGTACCAGGGTCTGCGGGCACGTGGCCGGGAGATCCGGAA
GGAGCTTGTTCACCTGTACCCCAGGGAGGCCCAGCTTGAGGAGCAGTTCTACCTGCAGGCGCTGAAGCTGCCCAA
CCAGACCCACCCAGACGTGCCCGTCGGGGATGAGAGCCAGGCTCGAGTGCTCCACATGGTCGGAGACAAGCCAGT
TTTCTCCTTCCAACCTCGGGGCCACCTGGAAATTGGCGAGAAACTCGACATCATCCGTCAGAAGCGCCTGTCCCA
CGTGTCTGGCCACCGGTCCTATTACCTGCGCGGGGCTGGAGCCCTCCTGCAGCACGGCCTGGTCAACTTCACATT
CAACAAGCTTCTCCGCCGGGGCTTCACCCCCATGACGGTGCCAGACCTTCTCCGCGGAGCAGTGTTTGAAGGCTG
TGGGATGACACCAAATGCCAACCCATCCCAAATTTACAACATCGACCCTGCCCGCTTCAAAGATCTCAACCTGGC
TGGAACAGCGGAGGTGGGGCTTGCAGGCTACTTCATGGACCACACCGTGGCCTTCAGGGACCTGCCAGTCAGGAT
GGTTTGCTCCAGCACCTGCTACCGGGCAGAGACAAACACGGGACAGGAACCCCGGGGGCTGTATCGAGTACACCA
CTTCACCAAGGTGGAGATGTTTGGGGTGACAGGCCCTGGGCTGGAGCAGAGCTCACAGCTGCTGGAGGAGTTCCT
GTCCCTTCAGATGGAGATCTTGACAGAGCTGGGCTTGCACTTCCGGGTCCTGGATATGCCCACCCAAGAACTGGG
CCTCCCCGCCTACCGCAAGTTTGACATTGAGGCCTGGATGCCAGGCCGAGGCCGCTTTGGAGAGGTCACCAGTGC
TTCCAACTGCACAGACTTCCAGAGCCGCCGCCTCCACATCATGTTCCAGACCGAGGCTGGGGAGCTGCAGTTTGC
CCACACGGTGAACGCCACCGCCTGTGCTGTCCCCCGCCTTCTCATCGCGCTCCTGGAGAGTAACCAGCAGAAGGA
CGGCTCAGTGCTCGTGCCCCCTGCCCTCCAGTCCTACCTCGGCACTGATCGGATCACAGCCCCTACCCACGTGCC
TCTCCAGTACATCGGCCCCAACCAGCCCCGGAAGCCTGGGCTGCCTGGCCAGCCTGCTGTAAGC**TAA**GAACCCAC
CCACAGCAGCCCTCGGGGGTGTCACTGCTTCCTGGAGTTCAGGAGACCCCGGACACCTGGGACCTGTGTTGCTGA
GCCCGTCCTGACATCTGTGTTCTTCCTGTCAGCTCCACGCCCGGGCCCCTGGACCACGGGGTCCACCTCTCCTCT
GTCCTTGCTGCCTCAGAGTCAGTCACTGACCCTGTTATCATTGAGGGTCCCAGTGGGAAGCAGGACGTCTGGGCT
TTACGGTTCTAGGGACAGGAGAAGCAGAGGAAGAGGCTTCCATCCCTCCTTCCTTCTTTCCTCCTACAGTGCTGA
GCAAAAAGTCCCCAATAAATGGTCAGGAC

FIGURE 2575

AGCTGGATTCAGCGTGTCCGCGACCTCACCTTTAGGTCCTGTGAGGTCGGTGGAATCCTGGGGTCCTCCAAATCT
ACCAGGCCATCTCCCCAGTTTCCCAGTTCTTCCTGCGTGCGGGCGAGAGTGGTTGGGCCCTCGGGAACCCACTCA
GAGCGAGGCTAAATTTACGGAGGGACTTTCTGTTAGCAGCATGAGGGCCTGTGGTTAGACCTATAGAGGTATTTC
CTTTGATTTAAGCCAGAAAGTCCTGAGAGCGGATCGGGGAGCATTTGCGGATCGGTCACTTTTTCCTCCTTTCTG
AGTCTCTTATCCCCTACCACAGGGACGGCCCAGGTGGCAGG**ATG**TCCTGGTCTGGCCTTCTCCATGGCCTCAACA
CGTCCCTAACTTGTGGCCCAGCTCTGGTTCCCCGGCTCTGGGCTACCTGCTCCATGGCTACCCTGAACCAGATGC
ACCGCCTGGGGCCCCCCAAGCGGCCGCCTCGGAAGCTGGGCCCCACGGAAGGCCGGCCGCAGCTGAAGGGTGTGG
TCCTGTGCACGTTTACCCGCAAGCCGAAGAAGCCCAACTCAGCCAATCGCAAGTGCTGTCGAGTGCGGCTCAGCA
CTGGCCGCGAGGCCGTCTGCTTCATCCCTGGGGAGGGCCACACCCTGCAGGAGCACCAGATTGTCCTTGTGGAGG
GCGGCCGCACCCAGGACCTGCCAGGCGTCAAGCTCACCGTTGTGCGTGGCAAGTACGACTGTGGCCACGTGCAGA
AGAAG**TGA**CGGCTGGGGGCACAGTGGGCTGGGCGCCCCTGCAGAACATGAACCTTCCGCTCCTGGCTGCCACAGG
GTCCTCCGATGCTGGCCTTTGCGCCTCTAGAGGCAGCCACTCATGGATTCAAGTCCTGGCTCCGCCTCTTCCATC
AGGACCACTATTAAGCCATAGGAGTCCTGGGGGGTGCAAAGGGTGCCCCTCTGTCAACACCCTTGGCTCCTGTGTT
TAGAGGGGTGGCCTGAAGGACCTTTTCTGCTGGGACAAGACACTGTACTGCCCTCTGCTGGGAAGGGGTTTTAAT
AAACAGACCCTGGCGCTTGTGATGT

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FIGURE 2576A

GGGGATTCAACATGGCGGCGGGAGTGTCCGCGGTGGTGGCGGTGCAAGAGAGCTGAGGGAGGCGCGAGGGCGCGG
AGTTCCAGGTCGAGCAGTTAGGCCGCGAGCGACTGCGGCGCCGAGCCGATGAGTAACCCGAAGCCCCTAGAGGAG
TGGTCACCTGCCTGAGGGCACTTCTGTCCCACCAGCATCAGACCAGGCCGCACCGAGTCCCCGGCACC**ATG**TTTG
GGAAGAGGAAGAAGCGGGTGGAGATCTCCGCGCCGTCCAACTTCGAGCACCGCGTGCACACGGGCTTCGACCAGC
ACGAGCAGAAGTTCACGGGGCTGCCCCGCCAGTGGCAGAGCCTGATCGAGGAGTCGGCTCGCCGGCCCAAGCCCC
TCGTCGACCCCGCCTGCATCACCTCCATCCAGCCCGGGGCCCCCAAGACCATCGTGCGGGGCAGCAAAGGTGCCA
AAGATGGGGCCCTCACGCTGCTGCTGGACGAGTTTGAGAACATGTCGGTGACACGCTCCAACTCCCTGCGGAGAG
ACAGCCCGCCGCCGCCCGCCCGTGCCCGCCAGGAAAATGGGATGCCAGAGGAGCCGGCCACCACGGCCAGAGGGG
GCCCAGGGAAGGCAGGCAGCCGAGGCCGGTTCGCCGGTCACAGCGAGGCGGGTGGCGGCAGTGGTGACAGGCGAC
GGGCGGGGCCAGAGAAGAGGCCCAAGTCTTCCAGGGAGGGCTCAGGGGGTCCCCAGGAGTCCTCCCGGGACAAAC
GCCCCCTCTCCGGGCCTGATGTCGGCACCCCCCAGCCTGCTGGTCTGGCCAGTGGGGCGAAACTGGCAGCTGGCC
GGCCCTTTAACACCTACCCGAGGGCTGACACGGACCACCCATCCCGGGGTGCCCAGGGGGAGCCTCATGACGTGG
CCCCTAACGGGCCATCAGCGGGGGGCCTGGCCATCCCCCAGTCCTCCTCCTCCTCCTCCCGGCCTCCCACCCGAG
CCCGAGGTGCCCCCAGCCCTGGAGTGCTGGGACCCCACGCCTCAGAGCCCCAGCTGGCCCCTCCAGCCTGCACCC
CCGCCGCCCCTGCTGTTCCTGGGCCCCCTGGCCCCCGCTCACCACAGCGGGAGCCACAGCGAGTATCCCATGAGC
AGTTCCGGGCTGCCCTGCAGCTGGTGGTGGACCCAGGCGACCCCCGCTCCTACCTGGACAACTTCATCAAGATTG
GCGAGGGCTCCACGGGCATCGTGTGCATCGCCACCGTGCGCAGCTCGGGCAAGCTGGTGGCCGTCAAGAAGATGG
ACCTGCGCAAGCAGCAGAGGCGCGAGCTGCTCTTCAACGAGGTGGTAATCATGAGGGACTACCAGCACGAGAATG
TGGTGGAGATGTACAACAGCTACCTGGTGGGGGACGAGCTCTGGGTGGTCATGGAGTTCCTGGAAGGAGGCGCCC
TCACCGACATGGTCACCCACACCAGGATGAACGAGGAGCAGATCGCGGCCGTGTGCCTTGCAGTGCTGCAGGCCC
TGTCGGTGCTCCACGCCCAGGGCGTCATCCACCGGGACATCAAGAGCGACTCGATCCTGCTGACCCATGATGGCA
GGGTGAAGCTGTCAGACTTTGGGTTCTGCGCCCAGGTGAGCAAGGAAGTGCCCCGAAGGAAGTCGCTGGTCGGCA
CGCCCTACTGGATGGCCCCAGAGCTCATCTCCCGCCTTCCCTACGGGCCAGAGGTAGACATCTGGTCGCTGGGGA
TAATGGTGATTGAGATGGTGGACGGAGAGCCCCCCTACTTCAACGAGCCACCCCTCAAAGCCATGAAGATGATTC
GGGACAACCTGCCACCCCGACTGAAGAACCTGCACAAGGTGTCGCCATCCCTGAAGGGCTTCCTGGACCGCCTGC
TGGTGCGAGACCCTGCCCAGCGGGCCACGGCAGCCGAGCTGCTGAAGCACCCATTCCTGGCCAAGGCAGGGCCGC
CTGCCAGCATCGTGCCCCTCATGCGCCAGAACCGCACCAGA**TGA**GGCCCAGCGCCCTTCCCCTCAACCAAAGAGC
CCCCCGGGTCACCCCCGCCCCACTGAGGCCAGTAGGGGGCCAGGCCTCCCACTCCTCCCAGCCCGGGAGATGCTC
CGCGTGGCACCACCCTCCTTGCTGGGGGTAGATGAGACCCTACTACTGAACTCCAGTTTTGATCTCGTGACTTTT
AGAAAAACACAGGGACTCGTGGGAGCAAGCGAGGCTCCCAGGACCCCCACCCTCTGGGACAGGCCCTCCCCCATG
TTCTTCTGTCTCCAGGAAGGGCAGCGGCCCTCCCATCACTGGAAGTCTGCAGTGGGGGTCGCTGGGGGTGGAGAG
AACACTAAGAGGTGAACATGTATGAGTGTGTGCACGCGTGTGAGTGTGCATGTGTGTGTGTGCAAAGGTCCAGCC
ACCCCGTCCTCCAGCCTGCAAGGGGTGTCTGGCGCCTTGCCTGACACCCAGCCCCCTCTCCCCCTGAGCCATTGT
GGGGGTCGATCATGAATGTCCGAAGAGTGGCCTTTTCCCGTAGCCCTGCGCCCCCTTTCTGTGGCTGGATGGGGA
GACAGGTCAGGGCCCCCACCCTCTCCAGCCCCTGCAGCAAATGACTACTGCACCTGGACAGCCTCCTCTTTTCT
AGAAGTCTATTTATATTGTCATTTTATAACACTCTAGCCCCTGCCCTTATTGGGGGACAGATGGTCCCTGTCCTG
CGGGGTGGCCCTGGCAGAACCACTGCCTGAAGAACCAGGTTCCTGCCCGGTCAGCGCAGCCCCAGCCCGCCCACC
CCTGCCTCGAGTTAGTTTTACAATTAAAACATTGTCTTGTTTTGTGTCTGTGTGCGATGTGTGGGGGGCAGGGGG
CCCTGCCCGGCTGTCTTGGGTGGGAATTTGCAGGGAGAGGGTCTGGATCTGGGAGCAAACCACGATTCCAGCCAA
GGCAGGGCAAGGGTGGGGTGGGGAGTGGGGAGTTCAGGTCATAGCAGCCAGTAAGCTCCCCCAGCCTGCCACTCC
CCAGAATGGGGCAGGATTGTCCCCACCCCTGGAAGCAGCCAGTTTGCCACAGTCCATGTGCAGACTGATCCCAGT
TTGCCAAATCTGCAATTTCCTGGAACCTTTTAAAGGCTGTCTTGAGCGCGTTTGGTGAGTAGGAGCTAACCCAAG
TTAGTAAATTGAAGGCCATTTGGCAAATTGGTCAGTGGGCAGATGGGCTTTTGGGGATTGACTGAGGCTGACTGG
CCTGGAGCTGCTGGCTTCGGAGAGACACCCTGTGAAGTGTGTCCTTCCACGCAGGAGCCCAGAGCCGAGCCCACG
CTGGGGGGAATCTGACTGGCATGGAGGTGGCCATGCCACCATCGCTGCTGCAGCTGCATCCTGGCACTTTGCGCC
TCAGGCCCTGTTGGGCTCCACTTTCTGCATCCTCCCCAGCCCCCAGGGAGGCAGTGGAGTGGGGAGAGAGCCAGG
AGTGAGCCTCCGTCCCCAAAGCCAGCCAGGCGTCATCAGCACCAGAGACCTCAGCCTGGTCCTCTCGGGAAGTGA
GTGGCCAGGGCAGAGATTCCAGGTTAGTCCACGCCTCCCACCCTTCACAGGTCCTGACCCCAAGAATCAGAGCAC

FIGURE 2576B

TGTGTGTGTGGCAGGGCCTATGCCAAGTGCAAACACAGCCTAGATGGATCATCACAGAGTGAAACCCAGCGGTGC
AAGCAGCTGTGCTCTCTGCGATGTATTGGAGGCTTAGGTGAGGTGGATGCCTTTCTGGAAAAAAAAAAAATGCTA
ACATTGGCAAAAGAAGAAATAGAAAACAAGACCAAAATAACTGTCTCCTCACTGCACACACACTCCAGAATAAAT
AAAAGGTTTCAGGCTTGAATGCACTTTCAAATGAGATTTTTTTTTTTTTTTGAGACGGAGTATCGCTCTGTCGC
CCAGGCTGGAGTGCAGTGGCACGATCTTGGCTCACTGCAACTTCTGCCTCCTGGGTTCAAGCGATTCTCCTGCCT
CAGCCTCCCAAGTAGCTGGGATTACAGGCGCTTGCCACCACGCCAGGCTAATTTTTTGTATTTTGAGTAGAGACT
GGATTTCGCCATCTTGGCCAGACTGGTCTTGAACTCCTGACCTCGTGATCCACCCACCTCAGCCTCCCAAAGTGC
TGGGATTACAGGCATGAGCCACCATGCCTGGCCTCAAATGAGGTTTACCAGACTTTGAAGGAGCAGGTAATTCCT
TCTACCTTGTGAACAAGTTGTTCCAGAAAGATAGCAGCTCAGGAGGCCTCTGTGACCATGGTTCCAGACCCAGAT
AAGGACGGCAAAGAACAGAGCATCTCAGAAACGCAAGGCTCACAGCCAGGGTGCCCGGCGACCCCACGGGCACTG
AGAACAGCTAGCTCTAGGAGCTCCACTCTCCTGCTGAAGAAACCACGGGCTCAGAGACGGGGAGCTCCCTCGCCC
AGCCACATCTGTGACCCCACGGTAACTCTGCTGGTTTTGGTGCCTTCAGTCACTCACTGCAGGTTTGTTTTGTTT
TGTTTTGTTTTGAGTTTTTTTGTTTTTTGTTTTTTGTTTTTAGAGACAAGATGTTGCTATGTTGCCTAGGCTGGT
TTCGAACTCCTGGCCTCAAGGGATCCTCCCTCCTTGGCCCCGCAAAGTGCTGGGATTACAGGCGTGAGCCACCGT
GCCCAGCCCGCTCACTGCAGTTTGAAGGCATGGCTTTGGGTGGCGTGGGGTGAAAGCTGCCCGAGGCCCCGTTCC
TCCCCACGTGGCTGCCTCCTGCCAGAGCCAGTCAGGAAAACAGACCCCAACTAGAGTTGTTTCAAATGGCAGGGA
TTTGGTACCGGTGGTTGGATCATGACAAAGCTCTGAGAAGGCTGGAGGAGCCACAGAGTGCCAAGTGCCCAGCAA
TCATTAGAGGAAGGAGGCTGCTGCCACCTGTGTGGCTAGAGGAACAGAGGGGCCAATGGCATTCCCCAAACCCCA
CTCTCGCCTCTGTCTGGCCAGAGCAGAATGGCTTCTTCCAGCTTCCCACCCTGGACTCCCACCCAGGAGCCTCCT
CCTGGCAGACCCTTCCTGACCCCACCGGCCCGGGGGGGTCTACAGATCCATGTTTCAGGCGTCCGCCTGGAGCGGA
ACAGGGGAGTGCTTAGGACAAGGGTGGTGCCAGAGGATCCACTCTGCCCACATTTAGTTGACCAGCTGAGGCACT
CCACGGGAATGAATGACTCTCGACAGGTGCCGGAGGTGAGGAGGGGCCCGGAGGCCCAGGAGGGGCACAGGGATG
GATTCGTCCGCCTGGGGGCTGGAGGTGTGTTTACAGAGCCCCAAAATAAACAATGCAACCAGGTCAGACCAGCGG
TTCTCACAGTGTGGTTCCCAGACCAGCAGCATCACTGGGAGCTTACTGGACACGCAAATAAATCCCTGTGTGCCA
CCCCAGCTGCATCAGATGCTGGTGGGGCCCAGTGATCTGTATTTAACACACCCTCCGGGGGATGCCGGTGCCCAC
TCACGTTTGAGAACCCCTGCGATCCACGACTGCCCTCCCGTGTAAAAGGCCCACCTCTGTGGGACTCCAAGTCAT
CAGCACCCTAGGGTCCTTCCGTCTTTTTCCTTCCTCCTGGGACACCTGCCTCTCCCATGTCGTATTAGAGAATTC
CTTATGCTCCCAAGTGGGCACGGGGAGAGGAAGGCACTCCTCTTTAAGGACCGACCCAGAGGTTTTGCCATTGCT
TCACTGGCCAGAGCTTAGTCACGCAGCCTCACCCAGAGGCAAGGGAGGTTGGAAAATGTAGTGTTTGTGTGTGTC
TAACACAAATTCTATTACCATGCAGTCAGGATTCTCCACTCTTGCTCTTTCATTAGATTTGCTGGGCTTCACCCT
GGACTTTCTGATTTAGTGACAGAACAGAGAACCCAGAGGCAGACCCAGATGTGTACAAGGGCTTCATATACAATC
AGGAGATTTAATAATCATGCTAGGGGCCGGGTGCAGTGGCTCACGCCTGTAATCCCAAGCACTTTGGGGAGCCGA
GGCAGGCAGATCACTTGAGGTCAGGAGTTTGAGACCAGCCTGGGCAACAAAGTGAGACCCTGTCTCTACTAAAAA
TAACAAAAATTAGCCGGGCGTGGTGGTGGGCGCCTGTAATCCCAGCTCCTCGGGTGGCTGAGGCATGAGAATCAC
TTGAACCCAGGAGGCAGAGGTTTCAGTGAGCTGAGATCACATCACTGCACTCCAGCCTGGGTGACAGAGTGAGAT
TCTGTC

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FIGURE 2577

ATGTCCACCCCAGGGGAGTGGGTGGCTAAACAGAAGGGGTGCACCCCCAAAATTCCTGTCCAGACAGCAGCCCCG
GAGGCCCCCGAGCTCCCCGAGCCGGCGCAGCCGTCCGAGGCTCACGCCCGGCAGCTGCTGCTGGAGGAGTGGGGG
CCGCTGAGCGGGGGCCTGGAGCTGCCCCAGCGCCTCACCTGGAAGCTGCTCCTGTTGCGGCGGCCGCTCTACCGC
AACCTGCTGCGCTCGCCCAACCCCGAAGGCATCAACATTTATGAGCCAGCACCCCCTACTGGTCCCACCCAGCGA
CCCCTGGAAACTCTGGGCAATTTCCGTGGCTGGTACATTAGAACTGAAAAGCTCCAGCAGAACCAAAGCTGGACA
GTGAAGCAGCAGTGTGTGGACCTTCTGGCCGAGGGCCTGTGGGAGGAGCTGCTGGATGACGAACAACCAGCCATT
ACGGTCATGGACTGGTTCGAGGACAGCCGGCTGGATGCGTGCGTCTATGAGCTGCATGTCTGGCTGCTGGCGGCC
GACCGCCGCACGGTCATTGCTCAGCACCACGTGGCCCCCCGAACTTCTGGGAGAGGACCCCCTGGCCGCTGGGTC
CAGGTGTCCCACGTATTCCGCCATTATGGTCCCGGTGTGCGCTTTATCCACTTCCTGCACAAGGCCAAGAACCGC
ATGGAGCCTGGTGGGCTGCGGCGGACACGGGTGACCGACTCCTCCGTGTCTGTGCAGCTCCGGGAG**TGA**

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FIGURE 2578

GTTGGATGAAACCTTCCTCCTACTGCACAGCCCGCCCCCCTACAGCCCCGGTCCCCACGCCTAGAAGACAGCGGA
ACTAAGAAAAGAAGAGGCCTGTGGACAGAACAATC**ATG**TCTGACTCCCTGGTGGTGTGCGAGGTAGACCCAGAGC
TAACAGAAAAGCTGAGGAAATTCCGCTTCCGAAAAGAGACAGACAATGCAGCCATCATAATGAAGGTGGACAAAG
ACCGGCAGATGGTGGTGCTGGAGGAAGAATTTCAGAACATTTCCCCAGAGGAGCTCAAAATGGAGTTGCCGGAGA
GACAGCCCAGGTTCGTGGTTTACAGCTACAAGTACGTGCATGACGATGGCCGAGTGTCCTACCCTTTGTGTTTCA
TCTTCTCCAGCCCTGTGGGCTGCAAGCCGGAACAACAGATGATGTATGCAGGGAGTAAAAACAGGCTGGTGCAGA
CAGCAGAGCTCACAAAGGTGTTCGAAATCCGCACCACTGATGACCTCACTGAGGCCTGGCTCCAAGAAAAGTTGT
CTTTCTTTCGT**TGA**TCTCTGGGCTGGGGACTGAATTCCTGATGTCTGAGTCCTCAAGGTGACTGGGGACTTGGAA
CCCCTAGGACCTGAACAACCAAGACTTTAAATAAATTTTAAAATGCAAAAACTCGG

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FIGURE 2579

GGCGGCGGTGGTCGGTGCGGGAGGAGGGAGGGGAGCTTGCGGGCCCGAGAGGGGGCGACGGCGGCGGCGGTGGCC
TGAGGAGGCCCGAGCGGCGGCGGTGGCGGCGAAGGCCGAGGCGTCTAGGTGTTTTTGGAAGAGCTGAGGCCAGAG
CCGGGACCATGTGACGGCGCTGGCCCTCGCCACCGCCGTCCCCCGACCCTGGCCCCAGGCCCGGCACC**ATG**ATGT
TCCGAGACCAGGTGGGCATCCTCGCTGGCTGGTTCAAAGGCTGGAATGAGTGTGAGCAGACAGTGGCCCTCCTGT
CACTTCTGAAACGGGTCACCCGTACCCAGGCCCGCTTCCTGCAGCTCTGCCTGGAGCACTCACTGGCGGACTGCA
ATGACATCCACCTGCTGGAGTCGGAGGCCAACAGTGCTGCCATCGTCAGCCAGTGGCAGCAGGAGTCCAAAGAGA
AGGTGGTGTCCCTCCTGCTGTCCCACCTTCCCCTGCTTCAGCCAGGCAACACAGAGGCCAAGTCGGAGTACATGA
GGCTACTGCAGAAAGTGCTGGCCTACTCAATCGAGAGCAATGCTTTCATCGAGGAGAGTCGCCAGCTGCTTTCCT
ATGCCCTCATCCACCCAGCCACCACACTGGAGGACCGCAACGCACTGGCCCTCTGGCTGAGCCACCTGGAAGAGC
GGTTGGCTAGTGGCTTCCGCTCCCGGCCAGAGCCCTCCTACCATTCACGTCAAGGCTCAGATGAGTGGGGGGGCC
CTGCAGAGCTAGGCCCTGGGGAGGCAGGGCCAGGCTGGCAGGACAAGCCACCCCGGGAAAATGGACACGTGCCCT
TCCACCCATCCAGCTCAGTGCCGCCAGCCATCAACAGTATTGGGAGCAATGCAAACACAGGTCTCCCCTGCCAAA
TCCACCCTAGCCCACTGAAGCGCTCCATGTCACTCATCCCTACAAGCCCCCAGGTCCCTGGTGAGTGGCCGAGTC
CAGAGGAGCTTGGGGCCCGGGCTGCTTTTACCACGCCCGATCACGCACCTCTCTCGCCCCAGAGCAGCGTGGCCT
CCTCTGGCAGTGAGCAGACAGAGGAGCAGGGCTCCAGCCGGAACACCTTCCAGGAGGATGGCAGTGGCATGAAAG
ATGTGCCCTCATGGCTCAAGAGCCTCCGTTTGCACAAGTATGCAGCCCTCTTCTCACAGAATCAGCTT**TGA**GTAA
CTGTACAGTTTTTCTCGCTGTTGGAGAAGACTTATTTGTTGGAGTTTCACTTGTTTAATGGTCTGGGCTTATTTT
GGAAAAAAAAAAAACAAACAAAAAAAACGAATTCTGACCTT

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FIGURE 2580

AGTTGGTGGAACCGGAGCTTCGAGTCCGTCCCCGGTGCTGCCTGCGCGTTCACCTGAGTCTCGCTGGAGCTCTTC
TCGCCCGCCCACCTCATCTCAACCCACTTTCCGCGGGGAGCGGCGCCAAGCTGGGCCTTCCTCGGATCAGGCGTC
CCCTGAAGTCGGCACGCCCCTCTGCGTCCCCCTTCGGTCCCGCTAGGACCCCGTCCGGGCTGCCGTCGCCTCGTC
GCT**ATG**GCGCCCACCATCCAGACCCAGGCCCAGCGGGAGGATGGCCACAGGCCCAATTCCCACCGGACTCTGCCT
GAGAGGTCTGGAGTGGTCTGCCGAGTCAAGTACTGCAATAGCCTCCCTGATATCCCCTTCGACCCCAAGTTCATC
ACCTACCCCTTCGACCAGAACAGGTTCGTCCAGTACAAAGCCACTTCCTTGGAGAAACAGCACAAACATGACCTC
CTGACTGAGCCAGACCTGGGGGTCACCATCGATCTCATCAATCCTGACACCTACCGCATCGACCCCAATGTTCTT
CTAGATCCAGCTGATGAGAAACTTTTGGAAGAGGAGATTCAGGCCCCCACCAGCTCCAAGAGATCCCAGCAGCAC
GCGAAGGTGGTGCCATGGATGCGAAAGACAGAGTACATCTCCACTGAGTTCAACCGTTATGGCATCTCCAATGAG
AAGCCTGAGGTCAAGATTGGGGTTTCTGTGAAGCAGCAGTTTACCGAGGAAGAAATATACAAAGACAGGGATAGC
CAGATCACAGCCATTGAGAAGACTTTTGAGGATGCCCAGAAATCAATCTCACAGCATTACAGCAAACCCCGAGTC
ACACCGGTGGAGGTCATGCCTGTCTTCCCAGACTTTAAGATGTGGATCAATCCATGTGCTCAGGTGATCTTTGAC
TCAGACCCAGCCCCCAAGGACACGAGTGGTGCAGCTGCGTTGGAGATGATGTCTCAGGCCATGATTAGGGGCATG
ATGGATGAGGAAGGGAACCAGTTTGTGGCCTATTTCCTGCCTGTAGAAGAGACGTTGAAGAAACGAAAGCGGGAC
CAGGAGGAGGAGATGGACTATGCACCAGATGATGTGTATGACTACAAAATTGCTCGGGAGTACAACTGGAACGTG
AAGAACAAAGCTAGCAAGGGCTATGAGGAAAACTACTTCTTCATCTTCCGAGAGGGTGACGGGGTTTACTACAAT
GAGTTGGAAACCAGGGTCCGCCTTAGTAAGCGCCGGGCCAAGGCTGGGGTTCAGTCAGGCACCAACGCCCTGCTT
GTGGTCAAACATCGGGACATGAATGAGAAGGAACTGGAAGCTCAGGAGGCACGGAAGGCCCAGCTAGAAAACCAC
GAACCGGAGGAGGAAGAGGAAGAGGAGATGGAGACAGAAGAGAAAGAAGCTGGGGGCTCAGATGAGGAGCAGGAG
AAGGGCAGCAGCAGTGAGAAGGAGGGCAGTGAAGATGAGCACTCGGGCAGCGAGAGTGAACGGGAGGAAGGTGAC
AGGGACGAGGCCAGTGACAAGAGTGGCAGTGGTGAGGACGAGAGCAGCGAGGATGAGGCCCGGGCTGCCCGTGAC
AAAGAGGAGATCTTTGGCAGTGATGCTGATTCTGAGGACGATGCCGACTCTGATGATGAGGACAGAGGACAGGCC
CAAGGTGGCAGTGACAATGATTCAGACAGCGGCAGCAATGGGGGTGGCCAGCGGAGCCGGAGCCACAGCCGCAGC
GCCAGTCCCTTCCCCAGTGGCAGCGAGCACTCGGCCCAGGAGGATGGCAGTGAAGCTGCAGCTTCTGATTCCAGT
GAAGCTGATAGTGACAGTGAC**TGA**GTCCCAGGGCATTCAGGGCTGGTTCAGACACCATTATTGTGAGCAGCAAAG
CACTTTTCTAGTGGTCTGTTTGTGAGCCTTTCACTTGTTTGTTCCCCACCCCCAAACCTTTGCTGTTAATAAAGT
CAACTTCTCTTTA

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FIGURE 2581

GGGGTTTACTACAATGAGTTGGAAACCAGGGTCCGCCTTAGTAAGCGCCGGGCCAAGGCTGGGGTTCAGTCAGGC
ACCAACGCCCTGCTTGTGGTCAAACATCGGGAC**ATG**AATGAGAAGGAACTGGAAGCTCAGGAGGCACGGAAGGCC
CAGCTAGAAAACCACGAACCGGAGGAGGAAGAGGAAGAGGAGATGGAGACAGAAGAGAAAGAAGCTGGGGGCTCA
GATGAGGAGCAGGAGAAGGGCAGCAGCAGTGAGAAGGAGGGCAGTGAAGATGAGCACTCGGGCAGCGAGAGTGAA
CGGGAGGAAGGTGACAGGGACGAGGCCAGTGACAAGAGTGGCAGTGGTGAGGACGAGAGCAGCGAGGATGAGGCC
CGGGCTGCCCGTGACAAAGAGGAGATCTTTGGCAGTGATGCTGATTCTGAGGACGATGCCGACTCTGATGATGAG
GACAGAGGACAGGCCCAAGGTGGCAGTGACAATGATTCAGACAGCGGCAGCAATGGGGGTGGCCAGCGGAGCCGG
AGCCACAGCCGCAGCGCCAGTCCCTTCCCCAGTGGCAGCGAGCACTCGGCCCAGGAGGATGGCAGTGAAGCTGCA
GCTTCTGATTCCAGTGAAGCTGATAGTGACAGTGAC**TGA**GTCCCAGGGCATTCAGGGCTGGTTCAGACACCATTA
TTGTGAGCAGCAAAGCACTTTTCTAGTGGTCTGTTTGTGAGCCTTTCACTTGTTTGTTCCCCACCCCCAAACCTT
TGCTGTTAATAAAGTCAACTTCTCTTT

FIGURE 2582

AGGCCCAGCGGGAGGATGGCCACAGGTCTGGAGTGGTCTGCCGAGTCAAGTACTGCAATAGCCTCCCTGATATCC
CCTTCGACCCCAAGTTCATCACCTACCCCTTCGACCAGAACAGGTTCGTCCAGTACAAAGCCACTTCCTTGGAGA
AACAGCACAAACATGACCTCCTGACTGAGCCAGACCTGGGGGTCACCATCGATCTCATCAATCCTGACACCTACC
GCATCGACCCCAATGTTCTTCTAGATCCAGCTGATGAGAAACTTTTGGAAGAGGAGATTCAGGCCCCCACCAGCT
CCAAGAGATCCCAGCAGCACGCGAAGGTGGTGCCATGG**ATG**CGAAAGACAGAGTACATCTCCACTGAGTTCAACC
GTTATGGCATCTCCAATGAGAAGCCTGAGGTCAAGATTGGGGTTTCTGTGAAGCAGCAGTTTACCGAGGAAGAAA
TATACAAAGACAGGGATAGCCAGATCACAGCCATTGAGAAGACTTTTGAGGATGCCCAGAAATCAATCTCACAGC
ATTACAGCAAACCCCGAGTCACACCGGTGGAGGTCATGCCTGTCTTCCCAGACTTTAAGATGTGGATCAATCCAT
GTGCTCAGGTGATCTTTGACTCAGACCCAGCCCCCAAGGACACGAGTGGTGCAGCTGCGTTGGAGATGATGTCTC
AGGCCATGATTAGGGGCATGATGGATGAGGAAGGGAACCAGTTTGTGGCCTATTTCCTGCCTGTAGAAGAGACGT
TGAAGAAACGAAAGCGGGACCAGGAGGAGGAGATGGACTATGCACCAGATGATGTGTATGACTACAAAATTGCTC
GGGAGTACAACTGGAACGTGAAGAACAAAGCTAGCAAGGGCTATGAGGAAAAC**TAA**TACTTCATCTTC

FIGURE 2583

GTCGTAACGCACTTCCGGCGGTCTACGCGAGGAAGATGGCTGCATCCCAGCAGCAAGCTTCAGCGGCTTCCTCAG
CTGCTGGTGTATCGGGTCCTAGTTCGGCTGGCGGCCCGGGTCCCCAGCAGCAGCCGCAACCGCCAGCACAACTGG
TGGGCCCTGCCCAGAGCGGCCTCCTGCAGCAACAGCAACAGGACTTCGATCCTGTGCAGCGTTATAAGATGCTCA
TCCCGCAGCTGAAGGAGAGTCTACAGACCTTGATGAAGGTTGCGGCCCAAAACTTGATTCAGAACACTAACATCG
ACAATGGACAAAAGAGCAGTGATGGACCCATACAGCGCTTTGACAAGTGCCTGGAAGAGTTCTATGCACTCTGTG
ACCAGCTGGAGCTGTGCCTGCGCCTGGCGCATGAGTGCCTGTCACAGAGTTGTGACAGTGCCAAGCACTCTCCAA
CGTTGGTGCCCACAGCCACCAAGCCCGACGCAGTGCAGCCTGACAGCCTCCCCTACCCACAGTACCTGGCGGTCA
TCAAAGCCCAGATTTCCTGTGCCAAGGACATTCACACCGCCCTGCTGGACTGTGCCAACAAGGTCACGGGCAAGA
CACCCGCACCACCTGCTGGCCCTGGGGGCACTCTGTGAAGTGGGGGACAGGGAGTGGGGCAGGCAGTGGTTGGTG
GGTGGTGTGCAAAGGGAATGAAGAGCGTCCTGGGCCTAAACACAGCAGCCTCCTCTCTTCCTGCCTGAGCACCGC
AGCGGGAGCCAGCAGGGGGCAGCAGAGGCCAACAGGGAGCTCGCAGGCCGGGCCCCTGCGTCCCTGCCCCTTCTT
CCTGCTCCCCCTCCTAGCCTAGGGTAGACTTTGAACTGTGTGTGTTGATGACTTCTCTGTTCCACAGGCCCTCCC
CCATTCTTGCCTGGGTGTGGAGCCCTGGCTGTCCCCTCTCCCTCAGTCCTTCCTGACTGTCTCCAGCTGGGAGGT
GGTCTCTGTGTGCCACTCCTCTGTGTCTCTATTACAGTTGTGTCTCTCTCATCCTGTCTCTTTTTCCCTTGTTTC
TCTGTTCCTGTTAATGTGTTTCTCCCCATGGTCCTATTTCTCTCACTCTGACCTCTCTCTCTTAGTCCCCTTTAG
CTGTCTTCTATCCCCAGCTCCTAACTGGGACTCTGTGTCTATGCAGGGGGCCAGCACCCCTGGGTTATCTGGGGC
TAAGGGAAGGGACTTCATTTCCAGGGGCCACAGCCAAGCCCAGAGTCCCCCAGCGGCTCGCATGTCAGCCCAGAC
CCCAGGGTCCTTGGCCTAGGAGAGGAGCAGTGGAGGGGCCCAGGCTCTGAGCTCCACAGGTCTGAGCTGGGAGCA
ACTCAGGCCCCCACCCAAGCCTGCGTCAGCGGAACTTGAGTGAGGGGCGTTGTGCAATTTGTGGCAAGGCTGGCC
CAGCTGGATGCCTGGGTCCCAGTATTTTTAGCCCCAAAGGAGAAGTGAAAAGGCCCCAGCCGGGGTGAATCATCA
GTCCTGGGGAAGAACCCAGGCGCCTGAGCCCCAGCTCCGGGAAGCAGGCACTGGGGAGGGGGCTTCAAGGAGGGA
GTGCCCCCTCAGACTCCCTGCTTCCCTGGAAGCTTCAGGAAGCTCAGCCTCAGCCTTCAGGCCTGAGCAAGTGCA
GGGCGGAGCTACCAGCCCAGGCTCAGATGTTGGGGTGTGAAAGCCTCAAGTGACTCAGCCTGGTTGGAGAACTGC
CCCACCCAGTATCTTCTGTGCCATGGTTCCCACATTCGCACTCCATGGCCTCCTGTCCTGGACCCCACGTCTGCA
AGGAAACCCTAGGACCATGGATACCTCTGTGATTCACGCTGAGCCCAAGTCCCCACACTGGAAAACTGGGAAATG
GCCAGCTGTGTGTCCCAGGAAATTCCTCCCCTTATTCTTCCTTGAAGTGCCCGAGCATGTAGGGCAAGAAGGAAG
GCTGAAGCGCTGTCCCTAGGAGGAATTTCTCCTTCAGGGAAGCCTCAGTTTTGCCCATTTATCTAATTGAATCAG
TTTTTTACCCAATCCCCCGATTTTGTAGGATAATCTCCCTTATCTAAAGTCAACTGATTATGGACTTTAATCACA
TCTACAAAACACTTCCATGGCGACAGCTAGATGAGTGTTTGAATAACTGGGACTGTAGCCCGTCCAAGTTGACAC
ATAAAACTGACCATCGGGCCGGGGGCGGTGGCTCACGCCTGTAATCCCAACACTTTGGGAGCCCGAGGCGGGCGG
ATCACAAGGTCAGGAGTTCGAGACCAGCCTGGCCAACACGGTGAAACCCCGACTCTACTAAAAATACAAAAAATT
AGCTGGGTGTGGTGGCACACACCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGTTTGAACCTGGG
AGGCAGAGGTTGCAGTGAGCCAAGATCACACTATTGCACTCCAGCCTGGGCGACAGGGCAAGACTCTGTCTCAAA
AAAAATAAAAAACTGACCATCTAGTCCTTGTCATCTGGGCACCCTCACACATCTCCTTAACCACACTTAATCTCC
AAATAAGTACGATAACATAGTCATAGTCCCACCCAACATGATGCAGTTATCTTGCATACAACTGAAGACAACTAA
CCCTTTCCCCAACAGAGCCCACCAGCAGTGGTGGAGATGTCGGTCCATGAGCGCACACACAAGACTGAGGGACTG
TCGGCCCTCCCAGGTGGTGTCAACACAACATCACACACAGGTGGGGGGGCCTGATAGCCCAGCACCCATGATACA
GGGCCTACCAATGCTTAAAACCACACCCAGGGAGCCCACAGAGGCACTCAGTGGGTGGTGGGGTGATGGATACAC
ATCTATCAGGCACAGGGCGGAGGTGGGCACCACTGAGTTGCACTCAGCAAACACATTGGGTATCTTGTGCCCAAG
GCCTGTATTTGTGGAGCTGATGTTCTAGTGAGAGACAGTAAATGTGACAAAAGTAAAATATATCAGATGGTGAGA
AAACAGAAAAATGAGATCAGAAGTGGAGATGTTGGGGCCAGGCACAGTGGCCCAGGCCTGTAATCCCATCACTTT
GGGAGGTGCAGGCAGGCAGATGGCTTGAGCCCAGGAATTCAAGACCAGTCCGAGCAACATAGCAAAAGCCCTTAT
CTGCAAAAAATTCAAAAATTAGCCAGGTGTGGTGGTGCGTGCCCAGGTTCCCAGGTACTCGGAGGCTGAGAGGTG
GGAGGATGCCTTGAGCTTGAGAGGTTGAAGCTGCAGTGAGCTGTGATCGCACCACTGCACTCCAGCTTGGTTCAT
GGAGACCCTGTTTTTTTAAAAAAAGAAGTGGAGGTGTTTACACCAGCAAAATACTCATTTTTTAAGTGTAATTAA
GTTGAAGATCAAAAAATGGAAATGTATAATTAAATCATACTTAGCAAATCTAACACATGAAATGTAACATCTGCA
TATGGAGAATCGTGTTACTTTATTGAAAAACATTAAAAGTTTGAGAACTT

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FIGURE 2584

AGCCTGACTTCAGCGCTCCCACTCTCGGCCGACACCCCTCATGGCCAACCGTTACACC**ATG**GATCTGACTGCCAT
CTACGAGAGCCTCCTGTCGCTGAGCCCTGACGTGCCCGTGCCATCCGACCATGGAGGGACTGAGTCCAGCCCAGG
CTGGGGCTCCTCGGGACCCTGGAGCCTGAGCCCCTCCGACTCCAGCCCGTCTGGGGTCACCTCCCGCCTGCCTGG
CCGCTCCACCAGCCTAGTGGAGGGCCGCAGCTGTGGCTGGGTGCCCCCACCCCCTGGCTTCGCACCGCTGGCTCC
CCGCCTGGGCCCTGAGCTGTCACCCTCACCCACTTCGCCCACTGCAACCTCCACCACCCCCTCGCGCTACAAGAC
TGAGCTATGTCGGACCTTCTCAGAGAGTGGGCGCTGCCGCTACGGGGCCAAGTGCCAGTTTGCCCATGGCCTGGG
CGAGCTGCGCCAGGCCAATCGCCACCCCAAATACAAGACGGAACTCTGTCACAAGTTCTACCTCCAGGGCCGCTG
CCCCTACGGCTCTCGCTGCCACTTCATCCACAACCCTAGCGAAGACCTGGCGGCCCCGGGCCACCCTCCTGTGCT
TCGCCAGAGCATCAGCTTCTCCGGCCTGCCCTCTGGCCGCCGGACCTCACCACCACCACCAGGCCTGGCCGGCCC
TTCCCTGTCCTCCAGCTCCTTCTCGCCCTCCAGCTCCCCACCACCACCTGGGGACCTTCCACTGTCACCCTCTGC
CTTCTCTGCTGCCCCTGGCACCCCCCTGGCTCGAAGAGACCCCACCCCAGTCTGTTGCCCCTCCTGCCGAAGGGC
CACTCCTATCAGCGTCTGGGGGCCCTTGGGTGGCCTGGTTCGGACCCCCTCTGTACAGTCCCTGGGATCCGACCC
TGATGAATATGCCAGCAGCGGCAGCAGCCTGGGGGGCTCTGACTCTCCCGTCTTCGAGGCGGGAGTTTTTGCACC
ACCCCAGCCCGTGGCAGCCCCCCGGCGACTCCCCATCTTCAATCGCATCTCTGTTTCTGAG**TGA**CAAAGTGACTG
CCCGGTCAGATCAGCTGGATCTCAGCGGGGAGCCACGTCTCTTGCACTGTGGTCTCTGCATGGACCCCAGGGCTG
TGGGGACTTGGGGGACAGTAATCAAGTAATCCCCTTTTCCAGAATGCATTAACCCACTCCCCTGACCTCACGCTG
GGGCAGGTCCCCAAGTGTGCAAGCTCAGTATTCATGATGGTGGGGGATGGAGTGTCTTCCGAGGTTCTTGGGGGA
AAAAAAATTGTAGCATATTTAAGGGAGGCAATGAACCCTCTCCCCCACCTCTTCCCTGCCCAAATCTGTCTCCTA
GAATCTTATGTGCTGTGAATAATAGGCCTTCACTGCCCCTCCAGTTTTTATAGACCTGAGGTTCCAGTGTCTCCT
GGTAACTGGAACCTCTCCTGAGGGGGAATCCTGGTGCTCAAATTACCCTCCAAAAGCAAGTAGCCAAAGCCGTTG
CCAAACCCCACCCATAAATCAATGGGCCCTTTATTTATGACGACTTTATTTATTCTAATATGATTTTATAGTATT
TATATATATTGGGTCGTCTGCTTCCCTTGTATTTTTCTTCCTTTTTTTTGTAATATTGAAAACGACGATATAATTA
TTATAAGTAGACTATAATATATTTAGTAATATATATTATTACCTTAAAAGTCTATTTTTGTGTTTTGGGCATTTT
TAAATAAACAATCTGAGTGT

FIGURE 2585

GAATTAGGGGAACTCAGAAATCCATCCCCCACCCCACGGCCCTACCTAGAAGACTTAGGAATGTGGGTCCCCAGC
GCCGCCATCTGAGACTCCAGAGTCGAGGCTCCTAGCATCCCCTACGTAGAACACTGAGAAATTCCGACTGCGGGA
CCCCAGTCTCCGAGAGACCCCAGATTCTATTCCTGGAGCCTGAGAGCCCGAAGTTCACGCCCCTGAGTCTGGGCT
CCGCACCTCCCTGGGGACCGCGTCGGGGTCGCGCAGGAGCCGGGCTGCCTCGAGCCGGGGCTGGAGGCTCCCCGG
GAGGACTCTGCTGGGCCGCTCAGCC**ATG**CCTGAGGGAGCCCAAGGACTGAGCCTCTCCAAACCTAGCCCAAGCCT
CGGGTGTGGCCGAAGAGGTGAAGTGTGTGACTGTGGCACCGTGTGTGAGACTCGGACAGCTCCTGCAGCCCCCAC
CATGGCCTCCCCCCGAGGTTCTGGGAGCTCCACATCCCTGAGCACAGTGGGCTCTGAGGGGGATCCAGCCCCTGG
GCCCACTCCAGCCTGCTCAGCCTCCAGGCCAGAGCCCCTTCCAGGGCCTCCCATCCGCCTACATCTCTCTCCGGT
GGGGATCCCAGGTTCAGCCAGACCCTCAAGGCTGGAGCGTGTGGCCCGGGAGATCGTGGAGACAGAACGGGCCTA
TGTCAGGGACCTCCGCAGCATCGTGGAGGACTACCTGGGCCCTCTGCTGGACGGCGGGGTCCTGGGGCTGAGCGT
GGAGCAGGTGGGCACGCTGTTTGCCAACATTGAGGACATCTACGAGTTCAGCAGCGAGCTCCTGGAGGACTTGGA
GAACAGCAGCAGCGCCGGGGGTATTGCCGAGTGCTTCGTGCAGAGGAGCGAGGATTTTGACATCTACACATTGTA
CTGCATGAACTACCCGAGCTCCCTGGCCCTGCTCCGGGAGCTGTCGTTGTCTCCGCCAGCAGCCCTGTGGCTGCA
GGAGCGCCAGGCCCAGCTTCGCCACTCGCTGCCCCTGCAGAGCTTCCTGCTGAAACCTGTCCAGCGCATTCTCAA
GTACCATCTGCTGCTGCAGGAACTAGGGAAGCACTGGGCGGAGGGCCCAGGCACTGGGGGTCGCGAGATGGTGGA
GGAAGCTATTGTGTCCATGACAGCGGTTGCCTGGTACATCAACGACATGAAGCGCAAGCAGGAGCATGCAGCGCG
CCTCCAGGAAGTGCAGCGGCGGCTGGGTGGCTGGACCGGACCAGAGCTCAGTGCTTTTGGGGAACTGGTGTTGGA
GGGCGCGTTCCGAGGAGGCGGAGGGGGTGGCCCCCGGCTACGAGGGGGTGAGCGGCTGCTCTTCCTGTTCTCTCG
GATGCTGCTGGTGGCCAAGCGCAGGGGGCTGGAGTACACCTACAAAGGCCACATCTTCTGCTGCAACCTGAGCGT
GAGCGAGAGTCCCCGAGACCCTCTAGGGTTCAAGGTGTCTGATCTGACCATTCCCAAGCACAGACACCTGCTCCA
GGCCAAGAACCAAGAAGAGAAGAGGCTGTGGATTCACTGTCTCCAGCGCCTCTTCTTTGAGAACCACCCTGCCTC
CATCCCTGCCAAGGCAAAGCAAGTTCTCCTTGAAAACAGCCTGCATTGTGCCCCCAAAAGTAAGCCTGTCCTAGA
GCCCCTGACACCCCCACTTGGGTCTCCTCGACCTCGAGATGCTAGAAGTTTTACCCCTGGGCGAAGGAACACAGC
TCCATCTCCTGGGCCCTCTGTGATTCGCCGAGGCCGCAGGCAGTCTGAGCCGGTGAAGGACCCTTATGTCATGTT
CCCACAGAACGCTAAGCCTGGATTCAAGCACGCTGGCAGCGAAGGGGAACTCTACCCTCCAGAATCTCAGCCACC
AGTTTCAGGCTCTGCACCCCCTGAGGACCTGGAGGATGCTGGACCCCCAACACTGGACCCCTCTGGGACCTCAAT
CACTGAAGAAATCCTGGAACTGCTGAATCAGCGAGGCCTTCGAGATCCAGGGGAATCTATGGGCCTTCACAGGGC
CCAGGGGGCTCCTGATGCCCCCTTCCACATG**TGA**GCCAGGACATGAGGCTTCCCTGAAGCAAGGATTTCAGCCAG
ATGCCATAGACCCTCAGAACTTGACCTGGAAGTCCAGACACTGAACGCAGGCCTCAAAACTGCTGCGGCCTTCCA
ACTCCTGGTATCTGCATCGGCGAATGGCCCTTCTTGCCTTGATCCACAGGGATGGGGAAGGGAGGAATGTCATTA
ATGTTTTGTTAATACTGATTCTTTCATGC

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FIGURE 2586

GGTGGCCCCTAGCTTTCCTTTTCCGGTTGCGGCGCCGCGCGGTGAGGTTGTCTAGTCCACGCTCGGAGCC**ATG**CC
GTCCAAGGGCCCGCTGCAGTCTGTGCAGGTCTTCGGACGCAAGAAGACAGCGACAGCTGTGGCGCACTGCAAACG
CGGCAATGGTCTCATCAAGGTGAACGGGCGGCCCCTGGAGATGATTGAGCCGCGCACGCTACAGTACAAGCTGCT
GGAGCCAGTTCTGCTTCTCGGCAAGGAGCGATTTGCTGGTGTAGACATCCGTGTCCGTGTAAAGGGTGGTGGTCA
CGTGGCCCAGATTTATGCTATCCGTCAGTCCATCTCCAAAGCCCTGGTGGCCTATTACCAGAAATATGTGGATGA
GGCTTCCAAGAAGGAGATCAAAGACATCCTCATCCAGTATGACCGGACCCTGCTGGTAGCTGACCCTCGTCGCTG
CGAGTCCAAAAAGTTTGGAGGCCCTGGTGCCCGCGCTCGCTACCAGAAATCCTACCGA**TAA**GCCCATCGTGACTC
AAAACTCACTTGTATAATAAACAGTTTTTGAGGGATTTTAAAGTTTCAAAAAAAAAAAAAAAAAAAAA

FIGURE 2587A

AGAGAACAGATTCGGAAACTGGGGAGGTCTAGCATGTGGCGTAGGAGGGGGTCCTCACTCCGCTTCGCGATTGCC
AAAACGAGCCTGCCGGAAGCGCCCTAAGGGGTTTTCTTCTCCCAGGGAACCAGCGGGGAAACTGAGGCTCGGGGT
GGAGCGCAGGATTGTGGGACGCGCCAAGGCTGCTGTCTTTCCCAGCAGCAGCGGAAG**ATG**TCGGACAGCGAGGAC
AGCAACTTTTCCGAGGAGGAGGACAGCGAGCGCAGCAGTGACGGCGAGGAGGCCGAGGTAGACGAAGAGCGGCGG
AGTGCAGCGGGCAGTGAGAAAGAAGAAGAGCCTGAGGACGAAGAGGAGGAGGAAGAGGAGGAGGAATACGATGAG
GAAGAGGAGGAAGAAGATGATGACCGACCCCCCAAGAAACCCCGCCATGGAGGCTTCATTCTGGACGAGGCTGAT
GTTGACGATGAGTATGAGGACGAGGACCAGTGGGAGGATGGAGCAGAGGACATTCTAGAGAAAGAAGAGATTGAA
GCCTCCAATATCGATAATGTTGTCCTGGATGAAGATCGTTCTGGGGCTCGCCGCCTGCAAAACCTCTGGAGGGAC
CAGCGAGAAGAAGAACTGGGCGAGTATTACATGAAGAAATACGCCAAGTCATCTGTGGGAGAGACGGTGTATGGA
GGATCTGATGAGCTCTCAGACGACATCACCCAGCAGCAGCTGCTCCCAGGAGTCAAGGATCCCAATCTGTGGACT
GTCAAATGTAAGATTGGGGAGGAACGGGCCACGGCCATTTCCTTGATGCGCAAGTTCATTGCCTACCAGTTCACA
GACACGCCCCTGCAGATCAAGTCAGTAGTGGCACCAGAGCATGTGAAGGGCTACATCTACGTGGAGGCCTACAAG
CAGACCCACGTGAAGCAGGCCATTGAGGGGGTGGGCAACCTGCGGCTTGGCTACTGGAACCAGCAGATGGTGCCC
ATCAAGGAGATGACAGACGTGCTCAAAGTGGTGAAGGAGGTGGCCAACCTGAAACCAAAGTCCTGGGTCCGCCTC
AAGCGGGGCATCTACAAGGATGACATTGCTCAGGTGGACTACGTGGAGCCCAGCCAGAACACCATCTCCCTGAAG
ATGATCCCACGCATCGACTACGATCGCATCAAGGCCCGCATGAGCTTGAAAGACTGGTTTGCCAAAAGGAAGAAG
TTTAAGCGGCCTCCACAGAGGCTGTTTGATGCTGAGAAGATCAGGTCCCTGGGGGGGTGATGTTGCCTCTGATGGT
GACTTCCTCATCTTTGAGGGGAACCGTTACAGCCGGAAGGGCTTTCTGTTCAAGAGCTTCGCCATGTCTGCTGTG
ATCACGGAGGGTGTGAAGCCAACACTCTCTGAGCTGGAAAAGTTTGAGGACCAGCCAGAGGGCATTGACCTGGAG
GTGGTGACTGAGAGCACAGGGAAGGAGCGGGAGCACAACTTCCAACCTGGGGACAACGTGGAGGTCTGTGAGGGT
GAGCTCATCAACCTGCAGGGCAAGATCCTCAGCGTGGATGGCAACAAGATCACCATCATGCCCAAGCATGAGGAC
CTCAAGGACATGTTGGAGTTCCCAGCCCAGGAACTTAGAAAATACTTCAAGATGGGGGACCACGTGAAGGTGATT
GCTGGCCGATTCGAGGGCGACACAGGCCTCATTGTGCGGGTGGAGGAGAATTTCGTTATCCTGTTCTCTGACCTC
ACCATGCATGAGCTGAAGGTGCTCCCCCGGGACCTGCAGCTCTGCTCAGAGACAGCATCAGGTGTGGATGTTGGG
GGCCAGCATGAATGGGGCGAGCTGGTGCAGCTGGATCCCCAGACTGTGGGTGTCATCGTGCGACTAGAACGGGAG
ACCTTCCAGGTGCTGAACATGTACGGGAAGGTGGTGACTGTCAGACATCAGGCTGTGACCCGGAAGAAGGACAAC
CGCTTTGCTGTGGCCTTGGACTCAGAGCAGAACAACATCCATGTGAAAGACATCGTTAAGGTCATTGATGGCCCC
CACTCAGGCCGAGAAGGGGAGATTCGCCATCTCTTCCGAAGCTTCGCCTTCCTACATTGCAAGAAACTGGTGGAG
AACGGGGGCATGTTTGTCTGCAAGACCCGCCACCTGGTGCTGGCTGGGGGCTCAAAGCCCCGTGATGTGACCAAC
TTCACCGTGGGTGGCTTTGCGCCTATGAGTCCCCGGATCAGCAGCCCCATGCACCCCAGTGCTGGAGGTCAGCGT
GGCGGCTTTGGTAGCCCAGGTGGCGGCAGTGGTGGCATGAGCAGGGGCCGGGGCCGGAGGGACAACGAACTCATC
GGCCAGACCGTGCGCATCTCCCAGGGGCCCTACAAAGGCTACATCGGTGTGGTGAAAGATGCCACAGAGTCCACG
GCCCGTGTGGAGCTGCACTCCACCTGCCAGACCATCTCTGTGGACCGTCAGCGGCTCACCACGGTGGGCTCACGG
CGCCCGGGCGGCATGACCTCGACCTATGGGAGGACGCCCATGTATGGCTCCCAGACGCCCATGTATGGCTCTGGC
TCCCGAACACCCATGTACGGCTCACAGACACCCCTCCAGGATGGTAGCCGCACCCCACACTACGGCTCACAGACG
CCCCTGCATGATGGCAGCCGCACTCCTGCCCAGAGTGGGGCCTGGGACCCCAACAACCCCAACACGCCGTCACGG
GCTGAGGAAGAATATGAGTATGCTTTCGATGATGAGCCCACCCCGTCCCCGCAGGCCTATGGGGGAACCCCCAAT
CCCCAAACACCTGGCTACCCAGACCCCTCGTCCCCACAGGTCAACCCACAATACAACCCGCAGACGCCAGGGACG
CCGGCCATGTACAACACAGACCAGTTCTCTCCCTATGCTGCCCCCTCCCCACAAGGTTCCTACCAGCCCAGCCCC
AGCCCCCAGAGCTACCACCAGGTGGCGCCAAGCCCAGCAGGCTACCAGAATACCCACTCCCCAGCCAGCTACCAC
CCTACACCGTCGCCCATGGCCTATCAGGCTAGCCCCAGCCCGAGCCCCGTTGGCTACAGTCCTATGACACCTGGA
GCTCCCTCCCCTGGTGGCTACAACCCACACACGCCAGGCTCAGGCATCGAGCAGAACTCCAGCGACTGGGTAACC
ACTGACATTCAGGTGAAGGTGCGGGACACCTACCTGGATACACAGGTGGTGGGACAGACAGGTGTCATCCGCAGT
GTCACGGGGGGCATGTGCTCTGTGTACCTGAAGGACAGTGAGAAGGTTGTCAGCATTTCCAGTGAGCACCTGGAG
CCTATCACCCCCACCAAGAACAACAAGGTGAAAGTGATCCTGGGCGAGGATCGGGAAGCCACGGGCGTCCTACTG
AGCATTGATGGTGAGGATGGCATTGTCCGTATGGACCTTGATGAGCAGCTCAAGATCCTCAACCTCCGCTTCCTG
GGGAAGCTCCTGGAAGCC**TGA**AGCAGGCAGGGCCGGTGGACTTCGTCGGATGAAGAGTGATCCTCCTTCCTTCCC
TGGCCCTTGGCTGTGACACAAGATCCTCCTGCAGGGCTAGGCGGATTGTTCTGGATTTCCTTTTGTTTTTCCTTT

FIGURE 2587B

TAGTTTTCCATCTTTTCCCTCCCTGGTGCTCATTGGAATCTGAGTAGAGTCTGGGGGGAGGGTCCCCACCTTCCTG
TACCTCCTCCCCACAGCTTGCTTTTGTTGTACCGTCTTTCAATAAAAAGAAGCTGTTTGGTCT

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FIGURE 2588

CTCAGAGGCTGGAGGGATCCTCCGTATGCTGAACGCTGGTCCCCTGGGCCCCCTTTATTTCTTTCTCTATACTTT
GTTTCTGTGTCTTTTTCTCTTCCAAAGTCTCTCGTTCCACCTAACGAGAAACACCCACAGGTGTGGAGGGGCAAC
CCATCCCTTCAGACAATTGGGAGGTGAGGGCCGATTGCCTTACACGGTGAGACAAGCGGCCTGACTCGTGACTAT
TTTTTTGGACAAATCAGGCAGCCACTGACTCCCTTCATT**ATG**GCCTCAGCTTTATCTCTGGGCAATAAGTGTGAT
CCCTTCCTTCGCTGCGTCCTTTGCAGGGGCGGTGGCGCTCTGCAAGGCCCAAGGGGGCGTGGTCCAGATGACTTT
GAATCCCAGTTGTCGCCCCCAGGGTCAGCCAGGAGACTAGTCAGAAGCAAACGCGCCTGCGGCAATCCGCCCGAT
GCCTTTGGTCTCTCTCGGGCTTCCGTCCACCCGCCCCTCCCCCGCGTTTCCATTGGCTGTAGCTCCGGCCCGGGG
CGGGCGAAGAGGGAGCGAGTGGGCGGGGCCGCGTGGCGTCAGCGCAAGATGGCGGCCTCGGCAGCGGTGTTCTCG
CGCTTGCGAAGCGGGCTCCGGCTCGGCTCGCGGGGACTGTGCACGAGGTTGGCGACGCCGCCCCGCCGGGCCCCA
GATCAGGCCGCAGAGATCGGGAGCCGCGGGAGCACTAAGGCGCAAGGGCCACAGCAGCAGCCGGGCTCAGAGGGT
CCCAGCTATGCCAAAAAAGTTGCGCTCTGGCTTGCTGGGCTGCTTGGAGCTGGTGGGACTGTGAGCGTCGTCTAT
ATCTTTGGAAACAACCCGGTGGACGAAAATGGTGCCAAGATTCCTGATGAGTTCGACAATGATCCAATTCTGGTA
CAGCAGTTGCGCCGGACATACAAATATTTCAAAGATTATAGACAGATGATCATCGAGCCCACCAGCCCTTGCCTT
CTCCCAGACCCTCTGCAGGAACCGTACTACCAGCCACCCTACACGCTCGTTTTGGAGCTCACCGGCGTCCTCTTG
CATCCTGAGTGGTCGCTGGCCACTGGCTGGAGGTTTAAGAAGCGCCCAGGCATCGAGACCTTGTTCCAGCAGCTT
GCCCCTTTATATGAAATTGTCATCTTTACGTCAGAGACTGGCATGACTGCGTTTCCACTCATTGATAGTGTGGAC
CCCCATGGCTTCATCTCCTACCGCCTATTCCGGGACGCCACAAGATACATGGATGGACACCATGTAAAGGATATT
TCATGTCTGAATCGGGACCCAGCTCGAGTAGTAGTTGTGGACTGCAAGAAGGAAGCCTTCCGCCTGCAGCCCTAT
AACGGCGTTGCCCTGCGGCCCTGGGACGGCAACTCTGATGACCGGGTCTTGTTGGATCTGTCTGCCTTCCTCAAG
ACCATTGCACTGAATGGTGTGGAGGACGTGCGAACCGTGCTGGAGCACTATGCCCTGGAGGATGACCCGCTGGCG
GCTTTCAAACAGCGGCAAAGCCGGCTAGAGCAGGAGGAGCAGCAGCGCCTGGCCGAGCTCTCCAAGTCCAACAAG
CAGAACCTCTTCCTTGGCTCCCTCACCAGCCGCTTGTGGCCTCGCTCCAAACAGCCC**TGA**ACTCTGGGCCTCCTC
AAACTCAGTGCCTGGGTCCAGGGCCCCAGTGCTTCCAGACCAAGACTTGGGCCACCACTTGTCCAATAAAGTACA
TCCCAGACGCCACACCTGCTGTGTCCCGAGAGTCTCCAGATGGGGGCATCAGGGTGAGGTCCGGGACTCTTGGGT
CATCGTCCCACAGTGGCTGATCGGCTGCCAAGCACAGTGGGGGTGCTTTGTTGGATCAGAGCAGATTTTTCACCC
TGGTCTCGGAATCTAAAAACCCTCGCTGTGTCTTCCTGTGTGTTGCGTGATCTGTGAAAAATACATCTCCCTCTG
ACCACAGACTCCTCATCTGTGGAGAAGGGAAGAGAGGATGGCACTTGGCTTTAAAGACAGGTAGCTGCCAGGCTA
CTGTGGAGAGAATGTGTTATGGGCCTAGTGGGCCTCTGGTGGACCAGAGATTACCCCTCTCAACAGGCCAGCTGC
TGGTTGGCTCCAGCCAGTGTGGCCCTGGGGTAAAGGGGGCCTGGAGTTGCTTGACACGCCAGTTGTTCAAA

FIGURE 2589

GAAGGCC**ATG**GTCTCCCCACGGATGTCCGGGCTCCTCTCCCAGACTGTGATCCTAGCGCTCATTTTCCTCCCCCA
GACACGGCCCGCTGGCGTCTTCGAGCTGCAGATCCACTCTTTCGGGCCGGGTCCAGGCCCTGGGGCCCCGCGGTC
CCCCTGCAGCGCCCGGCTCCCCTGCCGCCTCTTCTTCAGAGTCTGCCTGAAGCCTGGGCTCTCAGAGGAGGCCGC
CGAGTCCCCGTGCGCCCTGGGCGCGGCGCTGAGTGCGCGCGGACCGGTCTACACCGAGCAGCCCGGAGCGCCCGC
GCCTGATCTCCCACTGCCCGACGGCCTCTTGCAGGTGCCCTTCCGGGACGCCTGGCCTGGCACCTTCTCTTTCAT
CATCGAAACCTGGAGAGAGGAGTTAGGAGACCAGATTGGAGGGCCCGCCTGGAGCCTGCTGGCGCGCGTGGCTGG
CAGGCGGCGCTTGGCAGCCGGAGGCCCGTGGGCCCGGGACATTCAGCGCGCAGGCGCCTGGGAGCTGCGCTTCTC
GTACCGCGCGCGCTGCGAGCCGCCTGCCGTCGGGACCGCGTGCACGCGCCTCTGCCGTCCGCGCAGCGCCCCCTC
GCGGTGCGGTCCGGGACTGCGCCCCTGCGCACCGCTCGAGGACGAATGTGAGGCGCCGCTGGTGTGCCGAGCAGG
CTGCAGCCCTGAGCATGGCTTCTGTGAACAGCCCGGTGAATGCCGATGCCTAGAGGGCTGGACTGGACCCCTCTG
CACGGTCCCTGTCTCCACCAGCAGCTGCCTCAGCCCCAGGGGCCCGTCCTCTGCTACCACCGGATGCCTTGTCCC
TGGGCCTGGGCCCTGTGACGGGAACCCGTGTGCCAATGGAGGCAGCTGTAGTGAGACACCCAGGTCCTTTGAATG
CACCTGCCCGCGTGGGTTCTACGGGCTGCGGTGTGAGGTGAGCGGGGTGACATGTGCAGATGGACCCTGCTTCAA
CGGCGGCTTGTGTGTCGGGGGTGCAGACCCTGACTCTGCCTACATCTGCCACTGCCCACCCGGTTTCCAAGGCTC
CAACTGTGAGAAGAGGGTGGACCGGTGCAGCCTGCAGCCATGCCGCAATGGCGGACTCTGCCTGGACCTGGGCCA
CGCCCTGCGCTGCCGCTGCCGCGCCGGCTTCGCGGGTCCTCGCTGCGAGCACGACCTGGACGACTGCGCGGGCCG
CGCCTGCGCTAACGGCGGCACGTGTGTGGAGGGCGGCGGCGCGCACCGCTGCTCCTGCGCGCTGGGCTTCGGCGG
CCGCGACTGCCGCGAGCGCGCGGACCCGTGCGCCGCGCGCCCCTGTGCTCACGGCGGCCGCTGCTACGCCCACTT
CTCCGGCCTCGTCTGCGCTTGCGCTCCCGGCTACATGGGAGCGCGGTGTGAGTTCCCAGTGCACCCCGACGGCGC
AAGCGCCTTGCCCGCGGCCCCGCCGGGCCTCAGGCCCGGGGACCCTCAGCGCTACCTTTTGCCTCCGGCTCTGGG
ACTGCTCGTGGCCGCGGGCGTGGCCGGCGCTGCGCTCTTGCTGGTCCACGTGCGCCGCCGTGGCCACTCCCAGGA
TGCTGGGTCTCGCTTGCTGGCTGGGACCCCGGAGCCGTCAGTCCACGCACTCCCGGATGCACTCAACAACCTAAG
GACGCAGGAGGGTTCCGGGGATGGTCCGAGCTCGTCCGTAGATTGGAATCGCCCTGAAGATGTAGACCCTCAAGG
GATTTATGTCATATCTGCTCCTTCCATCTACGCTCGGGAGGTAGCGACGCCCCTTTTCCCCCCGCTACACACTGG
GCGCGCTGGGCAGAGGCAGCACCTGCTTTTTCCCTACCCTTCCTCGATTCTGTCCGTGAAA**TGA**ATTGGGTAGAG
TCTCTGGAAGGTTTTAAGCCCATTTTCAGTTCTAACTTACTTTCATCCTATTTTGCATCCCTCTTATCGTTTTGA
GCTACCTGCCATCTTCTCTTT

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FIGURE 2590

GGGATGGGGGCGGAGTCCAGGGCGTGGGGGGGCCGGTTTGTTGTGGTCGCCATTTTGCTGGTTGCATTACTGGGT
AATCGGGGCCCTGGCTTGCCGCGTCCGCCGGATACCCTCAGCCAGTGGGCAGGTCTGAGCTCGGGCTCCCCGAGC
AGTTTGAGTCCCCTTGCCCGCTCCTTCAGGTCTCAGCGGCGGTGGCAGCCGAGGTGCAGGATGCAAGAAGGCGCC
CCCCGGCCGGGCTCCCGCTCCAGGCCTCGCTCCCCTGCGGCCCTCTGAGCCCACC**ATG**GCCGTCCCACCGGGCCA
TGGTCCCTTCTCTGGCTTCCCAGGGCCCCAGGAGCACACGCAGGTATTGCCTGATGTGCGGCTACTGCCTCGGAG
GCTGCCCCTGGCCTTCCGGGATGCAACCTCAGCCCCGCTGCGTAAGCTCTCTGTGGACCTCATCAAGACCTACAA
GCACATCAATGAGGTATACTATGCGAAGAAGAAGCGGCGGGCCCAGCAGGCGCCACCCCAGGATTCGAGCAACAA
GAAGGAGAAGAAGGTCCTGAACCATGGTTATGATGACGACAACCATGACTACATCGTGCGCAGTGGCGAGCGCTG
GCTGGAGCGCTACGAAATTGACTCGCTCATTGGCAAAGGCTCCTTTGGCCAGGTGGTGAAAGCCTATGATCATCA
GACCCAGGAGCTTGTGGCCATCAAGATCATCAAGAACAAAAAGGCTTTCCTGAACCAGGCCCAGATTGAGCTGCG
GCTGCTGGAGCTGATGAACCAGCATGACACGGAGATGAAGTACTATATAGTACACCTGAAGCGGCACTTCATGTT
CCGGAACCACCTGTGCCTGGTATTTGAGCTGCTGTCCTACAACCTGTACGACCTCCTGCGCAACACCCACTTCCG
CGGCGTCTCGCTGAACCTGACCCGGAAGCTGGCGCAGCAGCTCTGCACGGCACTGCTCTTTCTGGCCACGCCTGA
GCTCAGCATCATTCACTGCGACCTCAAGCCCGAAAACATCTTGCTGTGCAACCCCAAGCGCAGCGCCATCAAGAT
TGTGGACTTCGGCAGCTCCTGCCAGCTTGGCCAGAGGATCTACCAGTATATCCAGAGCCGCTTCTACCGCTCACC
TGAGGTGCTCCTGGGCACACCCTACGACCTGGCCATTGACATGTGGTCCCTGGGCTGCATCCTTGTGGAGATGCA
CACCGGAGAGCCCCTCTTCAGTGGCTCCAATGAGGTCGACCAGATGAACCGCATTGTGGAGGTGCTGGGCATCCC
ACCGGCCGCCATGCTGGACCAGGCGCCCAAGGCTCGCAAGTACTTTGAACGGCTGCCTGGGGGTGGCTGGACCCT
ACGAAGGACGAAAGAACTCAGGAAGGATTACCAGGGCCCCGGGACACGGCGGCTGCAGGAGGTGCTGGGCGTGCA
GACGGGCGGGCCCGGGGGCCGGCGGGCGGGGGAGCCGGGCCACAGCCCCGCCGACTACCTCCGCTTCCAGGACCT
GGTGCTGCGCATGCTGGAGTATGAGCCCGCCGCCCGCATCAGCCCCCTGGGGGCTCTGCAGCACGGCTTCTTCCG
CCGCACGGCCGACGAGGCCACCAACACGGGCCCGGCAGGCAGCAGTGCCTCCACCTCGCCCGCGCCCCTCGACAC
CTGCCCCTCTTCCAGCACCGCCAGCTCCATCTCCAGTTCTGGAGGCTCCAGTGGCTCCTCCAGTGACAACCGGAC
CTACCGCTACAGCAACCGATATTGTGGGGGCCCTGGGCCCCCTATCACAGACTGTGAGATGAACAGCCCCCAGGT
CCCACCCTCCCAGCCGCTGCGGCCCTGGGCAGGGGGTGATGTGCCCCACAAGACACATCAAGCCCCTGCCTCTGC
CTCGTCACTGCCTGGGACCGGGGCCCAGTTACCCCCCCAGCCCCGATACCTTGGTCGTCCCCCATCACCAACCTC
ACCACCACCCCCGGAGCTGATGGATGTGAGCCTGGTGGGCGGCCCTGCTGACTGCTCCCCACCTCACCCAGCGCC
TGCCCCCCAGCACCCGGCTGCCTCAGCCCTCCGGACTCGGATGACTGGAGGTCGTCCACCCCTCCCGCCTCCTGA
TGACCCTGCCACTCTGGGGCCTCACCTGGGCCTCCGTGGTGTACCCCAGAGCACAGCAGCCAGCTCG**TGA**CCCTG
CCCCCTCCCTGGGGCCCCTCCTGAAGCCATACCCTCCCCCATCTGGGGGCCCTGGGCTCCCATCCTCATCTCTCT
CCTTGACTGGAATTGCTGCTACCCAGCTGGGGTGGGTGAGGCCTGCACTGATTGGGGCCTGGGGCAGGGGGGTCA
AGGAGAGGGTTTTGGCCGCTCCCTCCCCACTAAGGACTGGACCCTTGGGCCCCTCTCCCCCTTTTTTTCTATTTA
TTGTACCAAAGACAGTGGTGGTCCGGTGGAGGGAAGACCCCCCCTCACCCCAGGACCCTAGGAGGGGGTGGGGGC
AGGTAGGGGGAGATGGCCTTGCTCCTCCTCGCTGTACCCCCAGTAAAGAGCTTTCTCACA

FIGURE 2591

CGGACTCCGGAGCCGCACAAACCAGGGCTCGCC**ATG**AAGCCAGGATTCAGTCCCCGTGGGGGTGGCTTTGGCGGC
CGAGGGGGCTTTGGTGACCGTGGTGGTCGTGGAGGCCGAGGGGGCTTTGGCGGGGGCCGAGGTCGAGGCGGAGGC
TTTAGAGGTCGTGGACGAGGAGGAGGTGGAGGCGGCGGCGGCGGTGGAGGAGGAGGAAGAGGTGGTGGAGGCTTC
CATTCTGGTGGCAACCGGGGTCGTGGTCGGGGAGGAAAAAGAGGAAACCAGTCGGGGAAGAATGTGATGGTGGAG
CCGCATCGGCATGAGGGTGTCTTCATTTGTCGAGGAAAGGAAGATGCACTGGTCACCAAGAACCTGGTCCCTGGG
GAATCAGTTTATGGAGAGAAGAGAGTCTCGATTTCGGAAGGAGATGACAAAATTGAGTACCGAGCCTGGAACCCC
TTCCGCTCCAAGCTAGCAGCAGCAATCCTGGGTGGTGTGGACCAGATCCACATCAAACCGGGGGCTAAGGTTCTC
TACCTCGGGGCTGCCTCGGGCACCACGGTCTCCCATGTCTCTGACATCGTTGGTCCGGATGGTCTAGTCTATGCA
GTCGAGTTCTCCCACCGCTCTGGCCGTGACCTCATTAACTTGGCCAAGAAGAGGACCAACATCATTCCTGTGATC
GAGGATGCTCGACACCCACACAAATACCGCATGCTCATCGCAATGGTGGATGTGATCTTTGCTGATGTGGCCCAG
CCAGACCAGACCCGGATTGTGGCCCTGAATGCCCACACCTTCCTGCGTAATGGAGGACACTTTGTGATTTCCATT
AAGGCCAACTGCATTGACTCCACAGCCTCAGCCGAGGCCGTGTTTGCCTCCGAAGTGAAAAAGATGCAACAGGAG
AACATGAAGCCGCAGGAGCAGTTGACCCTTGAGCCATATGAAAGAGACCATGCCGTGGTCGTGGGAGTGTACAGG
CCACCCCCCAAGGTGAAGAAC**TGA**AGTTCAGCGCTGTCAGGATTGCGAGAGATGTGTGTTGATACTGTTGCACGT
GTGTTTTTCTATTAAAAGACTCATCCGTC

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FIGURE 2592

CAACGGGGGCATCCACTACATCACCCTTGATGGCCGTGTCTACGACCTGCATGGCTCCTGCTCCTATGTCTTGGC
CCAAGTCTGCCACCCAAAGCCTGGGGACGAGGACTTTTCCATCGTGCTTGAGAAGAATGCAGCTGGAGATCTCCA
ACGCCTCCTGGTTACTGTGGCTGGCCAGGTTGTGAGCCTAGCTCAGGGGCAGCAGGTCACCGTGGACGGCGAGGC
TGTGGCCCTGCCTGTGGCTGTGGGCCGCGTGCGGGTGACCGCCGAGGGCCGAAAC**ATG**GTTCTGCAGACGACCAA
GGGGCTGCGGCTTCTCTTTGATGGCGATGCCCACCTCCTCATGTCCATCCCCAGCCCCTTCCGTGGACGGCTCTG
TGGCCTCTGTGGGAACTTCAATGGCAACTGGAGTGACGACTTTGTCCTGCCCAATGGCTCAGCAGCGTCCAGTGT
GGAGACCTTCGGGGCTGCATGGCGGGCGCCCGGCTCCTCCAAGGGCTGTGGCGAGGGCTGCGGGCCCCAAGGCTG
CCCAGTGTGCTTGGCAGAGGAGACTGCACCCTATGAGAGCAACGAGGCCTGCGGGCAGCTCCGGAACCCCCAGGG
CCCCTTCGCGACCTGCCAGGCGGTGCTGAGTCCCTCTGAGTACTTCCGCCAATGCGTATACGACCTGTGCGCGCA
AAAGGGTGACAAAGCCTTCCTGTGCCGCAGCCTGGCAGCCTACACGGCGGCCTGTCAGGCAGCTGGCGTGGCCGT
GAAGCCCTGGAGGACAGACAGCTTCTGCCCGCTCCATTGCCCCGCCCACAGCCACTACTCCATCTGCACTCGCAC
CTGCCAGGGATCCTGTGCGGCTCTCTCCGGCCTCACGGGCTGCACCACCCGCTGTTTTGAGGGCTGTGAGTGCGA
CGACCGCTTCCTGCTTTCCCAGGGTGTCTGCATCCCTGTCCAAGATTGTGGCTGCACCCATAATGGCCGATACTT
GCCGGTAAACTCCTCCCTGCTGACCTCAGACTGCAGCGAGCGCTGTTCCTGTTCCTCAAGCTCTGGCCTGACATG
CCAGGCAGCTGGCTGCCCACCAGGCCGTGTATGTGAGGTCAAGGCTGAAGCCCGGAACTGCTGGGCCACCCGTGG
TCTCTGTGTCCTGTCTGTGGGTGCCAACCTCACCACCTTTGATGGGGCCCGTGGTGCCACCACCTCTCCTGGTGT
CTATGAGCTCTCTTCCCGCTGCCCAGGACTACAGAATACCATCCCCTGGTACCGTGTAGTTGCCGAAGTCCAGAT
CTGCCATGGCAAAACGGAGGCTGTGGGCCAGGTCCACATCTTCTTCCAGGATGGGATGGTGACGTTGACTCCAAA
CAAGGGTGTGTGGGTGAATGGTCTCCGAGTGGATCTCCCAGCTGAGAAGTTAGCATCTGTGTCCGTGAGTCGTAC
ACCTGATGGCTCCCTGCTAGTCCGCCAGAAGGCAGGGGTCCAGGTGTGGCTTGGAGCCAATGGGAAGGTGGCTGT
GATTGTCAGCAATGACCATGCTGGGAAACTGTGTGGGGCCTGTGGAAACTTTGACGGGGACCAGACCAATGATTG
GCATGACTCCCAGGAGAAGCCAGCGATGGAGAAATGGAGAGCGCAGGACTTCTCCCCATGTTATGGC**TGA**TCAGT
CATCCACCAGGAACGAAGATTTCCTGAAGAAGACCTGGTCCCTCTGGAGGTTGCAGTGGCTGAAGGATGCATCAT
GTGCTCCTACCCTGCTCTACCGCTTTTCTGGGTCACAGAGGCCAAATGTGAGAGCATTGAATAAATATCTTAAGC
T

FIGURE 2593A

CTGCAGCCATGGGTGCCCTATGGAGCTGGTGGATACTCTGGGCTGGAGCAACCCTCCTGTGGGGATTGACCCAGG
AGGCTTCAGTGGACCTCAAGAACACTGGCAGAGAGGAATTCCTCACAGCCTTCCTGCAGAACTATCAGCTGGCCT
ACAGCAAGGCCTACCCCCGCCTCCTTATCTCCAGTCTGTCAGAGAGCCCCGCTTCAGTCTCCATCCTCAGCCAGG
CAGACAACACCTCAAAGAAGGTCACAGTGAGGCCCGGGGAGTCGGTCATGGTCAACATCAGTGCCAAGGCTGAGA
TGATAGGCAGCAAGATCTTCCAGCATGCGGTGGTGATCCATTCTGACTATGCCATCTCTGTGCAGGCACTAAATG
CCAAGCCTGACACAGCGGAGCTGACACTGCTGCGGCCCATCCAGGCCCTAGGCACCGAGTATTTTGTGCTCACAC
CCCCCGGCACCTCAGCCAGGAATGTCAAGGAGTTTGCCGTGGTGGCCGGTGCCGCAGGTGCCTCGGTCAGTGTCA
CGCTGAAGGGGTCAGTGACATTCAATGGCAAGTTCTATCCAGCAGGCGATGTCCTAAGAGTGACTCTACAGCCCT
ACAATGTGGCCCAGCTACAGAGCTCAGTGGATCTCTCGGGGTCAAAGGTCACAGCTAGTAGCCCCGTGGCTGTCC
TCTCTGGCCACAGCTGTGCGCAGAAACATACGACCTGCAACCATGTGGTTGAGCAGCTGCTACCCACGTCTGCCT
GGGGCACCCACTATGTAGTACCCACGCTGGCCTCCCAATCTCGCTATGATTTGGCCTTCGTTGTGGCCAGCCAGG
CCACAAAGCTGACCTACAACCATGGGGGTATCACTGGCTCCCGTGGGCTCCAGGCAGGTGATGTGGTAGAGTTTG
AGGTCCGGCCATCCTGGCCACTCTACCTGTCTGCAAATGTGGGCATCCAGGTCCTGTTGTTTGGCACAGGTGCCA
TAAGGAATGAAGTGACTTATGACCCCTACCTGGTCCTGATCCCAGATGTGGCGGCCTACTGCCCAGCCTATGTGG
TCAAGAGTGTACCAGGCTGTGAGGGCGTGGCCCTGGTAGTGGCACAGACGAAGGCTATCAGCGGGCTGACCATAG
ATGGGCATGCAGTGGGGGCCAAGCTCACCTGGGAGGCTGTGCCAGGCAGTGAGTTCTCGTATGCTGAAGTGGAGC
TCGGCACAGCTGACATGATCCACACGGCCGAGGCCACCACCAACTTGGGACTGCTCACCTTCGGGCTGGCCAAGG
CTATAGGCTACGCAACAGCTGCTGATTGCGGCCGGACTGTACTGTCCCCAGTGGAGCCCTCCTGCGAAGGCATGC
AGTGCGCAGCCGGGCAGCGCTGCCAGGTGGTAGGCGGGAAGGCCGGGTGTGTGGCGGAGTCCACCGCTGTCTGCC
GCGCCCAGGGCGACCCCCATTACACCACCTTCGACGGCCGTCGCTACGACATGATGGGCACCTGTTCGTACACGA
TGGTGGAGCTGTGCAGCGAGGACGACACCCTGCCCGCCTTCAGCGTGGAGGCCAAGAACGAGCACCGGGGCAGCC
GCCGCGTCTCCTACGTGGGCCTCGTCACTGTGCGCGCCTACAGCCACTCTGTGTCGCTGACCCGCGGTGAAGTTG
GCTTCGTCCTGGTTGACAACCAGCGCTCGCGCCTGCCAGTCTCCCTGAGTGAGGGTCGCCTGCGTGTGTACCAGA
GCGGACCACGGGCCGTGGTGGAGCTGGTCTTTGGGCTGGTGGTCACTTATGACTGGGACTGCCAGCTGGCACTCA
GCCTGCCTGCACGCTTCCAAGACCAGGTGTGCGGGCTGTGTGGCAACTATAATGGTGACCCAGCAGACGACTTCC
TCACGCCTGACGGGGCTCTGGCTCCTGACGCTGTGGAGTTCGCAAGTAGCTGGAAGCTGGATGATGGGGACTACC
TGTGTGAGGATGGCTGCCAGAACAACTGTCCCGCCTGCACCCCAGGCCAGGCCCAACACTATGAGGGCGACCGAC
TCTGTGGCATGCTGACCAAGCTCG**ATG**GCCCCTTCGCTGTCTGCCATGACACCCTGGACCCCAGGCCCTTCCTGG
AGCAGTGTGTATATGACCTGTGTGTGGTCGGTGGGGAGCGGCTCAGCCTGTGCCGTGGCCTCAGCGCCTATGCCC
AGGCCTGTCTGGAGCTTGGCATCTCGGTTGGGGACTGGAGATCACCAGCCAACTGCCCCCTGTCCTGCCCTGCCA
ACAGCCGCTATGAGCTCTGCGGCCCTGCTTGCCCGACCTCCTGCAACGGGGCTGCGGCGCCGTCCAACTGCTCCG
GGCGCCCCTGCGTGGAGGGCTGCGTGTGCCTCCCAGGCTTCGTGGCCAGCGGCGGCGCCTGCGTGCCGGCCTCGT
CGTGTGGCTGCACCTTCCAGGGTCTCCAGCTCGCTCCGGGCCAGGAAGTGTGGGCGGACGAGTTGTGCCAAAGGC
GCTGCACCTGCAACGGCGCCACCCATCAGGTCACCTGCCGCGACAAGCAGAGCTGCCCGGCGGGTGAGCGCTGCA
GCGTCCAGAACGGCCTCCTGGGCTGCTACCCCGATCGCTTCGGGACCTGCCAGGGGTCCGGGGACCCACACTATG
TGAGCTTCGACGGCCGGCGCTTCGACTTCATGGGCACCTGCACGTACCTGCTGGTCGGCTCATGCGGCCAGAACG
CAGCGCTGCCTGCCTTCCGGGTGCTGGTGGAAAACGAGCATCGGGGCAGCCAGACTGTGAGCTACACGCGCGCCG
TGCGGGTGGAGGCCCGCGGGGTGAAGGTGGCCGTGCGCCGGGAGTACCCCGGGCAAGTGCTGGTGGATGACGTCC
TTCAGTATCTGCCCTTCCAAGCAGCAGATGGGCAGGTGCAGGTGTTCCGACAGGGCAGGGATGCCGTCGTGCGCA
CGGACTTTGGCCTGACTGTCACTTATGACTGGAATGCACGAGTGACTGCCAAGGTGCCCAGCAGCTATGCTGAGG
CCCTGTGTGGACTCTGTGGGAACTTCAACGGGGACCCAGCTGATGACCTGGCTCTGCGGGGTGGGGGTCAAGCTG
CCAATGCACTGGCCTTTGGGAACAGCTGGCAAGAAGAGACGAGGCCCGGCTGTGGAGCAACTGAACCGGGTGACT
GTCCCAAGCTGGACTCCCTGGTGGCCCAGCAGCTGCAGAGCAAGAATGAGTGTGGAATCCTTGCCGACCCCAAGG
GGCCCTTCCGGGAGTGCCATAGCAAGCTGGACCCCCAGGGTGCCGTGCGCGACTGTGTCTATGACCGCTGCCTGC
TGCCAGGCCAGTCTGGGCCACTGTGTGACGCACTGGCCACCTATGCTGCTGCATGCCAGGCTGCTGGAGCCACAG
TGCACCCCTGGAGGAGTGAAGAACTTTGCCCACTGAGCTGCCCACCCCACAGCCACTATGAGGCGTGTTCCTACG
GCTGCCCGCTGTCCTGTGGAGACCTCCCAGTGCCCGGGGGCTGTGGCTCAGAATGCCATGAGGGCTGCGTGTGCG
ATGAGGGCTTTGCGCTCAGTGGTGAGTCCTGCCTGCCCCTGGCCTCCTGTGGCTGCGTACACCAGGGCACCTACC

FIGURE 2593B

ACCCACCAGGCCAGACCTTCTACCCTGGCCCCGGATGTGATTCCCTTTGCCACTGCCAGGAGGGCGGCCTGGTGT
CCTGTGAGTCCTCCAGCTGCGGACCGCACGAGGCCTGCCAGCCATCCGGTGGCAGCTTGGGCTGTGTGGCCGTGG
GCTCTAGCACCTGCCAGGCGTCAGGAGACCCCCACTACACCACCTTCGATGGCCGCCGCTTCGACTTCATGGGCA
CCTGCGTGTATGTGCTGGCTCAGACCTGCGGCACCCGGCCTGGCCTGCATCGGTTTGCCGTCCTGCAGGAGAACG
TGGCCTGGGGTAATGGGCGAGTCAGTGTGACCAGGGTGATCACGGTCCAGGTGGCAAACTTCACCCTGCGGCTGG
AGCAGAGACAGTGGAAGGTCACGGTGAACGGTGTGGACATGAAGCTGCCCGTGGTGCTGGCCAACGGCCAGATCC
GTGCCTCCCAGCATGGTTCAGATGTTGTGATTGAGACCGACTTCGGCCTGCGTGTGGCCTACGACCTTGTGTACT
ATGTGCGGGTCACCGTCCCCGGAAACTACTACCAGCAGATGTGTGGCCTGTGTGGGAACTACAACGGCGACCCCA
AGGATGACTTCCAGAAGCCCAATGGCTCACAGGCAGGCAACGCCAATGAGTTCGGCAACTCCTGGGAGGAGGTGG
TGCCCGACTCTCCCTGCCTGCCGCCCACCCCTTGCCCGCCGGGGAGCGAGGACTGTATCCCCAGCCACAAGTGTC
CTCCCGAGCTGGAGAAGAAGTATCAGAAGGAGGAGTTCTGTGGGCTCCTCTCCAGCCCCACAGGGCCACTGTCCT
CCTGCCACAAGCTGGTGGATCCCCAGGGTCCCTTGAAAGATTGCATCTTTGATCTCTGCCTGGGTGGTGGGAACC
TGAGCATTCTCTGCAGCAACATCCATGCCTACGTGAGTGCTTGCCAGGCGGCTGGAGGCCACGTGGAGCCCTGGA
GGACTGAAACTTTCTGTCCCATGGAGTGCCCTCCGAACAGTCACTACGAGCTCTGTGCGGACACCTGCTCCCTGG
GCTGCTCAGCTCTCAGTGCCCCTCCACAGTGCCAGGATGGGTGTGCTGAGGGCTGCCAGTGTGACTCCGGCTTCC
TCTACAATGGCCAAGCCTGCGTGCCCATCCAGCAATGCGGCTGCTACCACAATGGTGTCTACTATGAGCCGGAGC
AGACAGTCCTCATTGACAACTGTCGGCAGCAGTGCACGTGCCATGCGGGTAAAGGCATGGTGTGCCAGGAACACA
GCTGCAAGCCGGGGCAGGTGTGCCAGCCCTCCGGAGGCATCCTGAGCTGCGTCACCAAAGACCCGTGCCACGGCG
TGACATGCCGGCCACAGGAGACATGCAAGGAGCAGGGTGGCCAGGGCGTGTGCCTGCCCAACTATGAGGCCACGT
GCTGGCTGTGGGGCGACCCACACTACCACTCCTTCGATGGCCGGAAGTTTGACTTCCAGGGCACCTGTAACTATG
TGCTGGCAACAACTGGCTGCCCGGGGGTCAGCACCCAGGGCCTGACACCCTTCACCGTCACCACCAAGAACCAGA
ACCGGGGCAACCCTGCTGTGTCCTACGTGAGAGTCGTCACCGTGGCTGCCCTCGGCACCAACATCTCCATCCACA
AGGACGAGATCGGCAAAGTCCGGGTGAACGGTGTGCTCACAGCCTTGCCTGTCTCTGTGGCCGACGGGCGGATTT
CAGTGACCCAGGGTGCATCGAAGGCACTGCTGGTGGCTGACTTTGGACTGCAAGTCAGCTATGACTGGAACTGGC
GGGTAGACGTGACGCTGCCCAGCAGCTATCATGGCGCAGTGTGCGGGCTCTGCGGTAACATGGACCGCAACCCCA
ACAATGACCAGGTCTTCCCTAATGGCACACTGGCTCCCTCCATACCCATCTGGGGCGGCAGCTGGCGAGCCCCAG
GCTGGGACCCACTGTGTTGGGACGAATGTCGGGGGTCCTGCCCAACGTGCCCTGAGGACCGGTTGGAGCAGTACG
AGGGCCCTGGCTTCTGCGGACCCCTGGCCCCCGGCACAGGGGGCCCTTTCACCACCTGCCATGCTCATGTGCCAC
CTGAGAGCTTCTTCAAGGGCTGTGTTCTGGACGTCTGCATGGGTGGTGGGGACCGTGACATTCTTTGCAAGGCTC
TGGCTTCCTATGTGGCCGCCTGCCAGGCTGCTGGGGTTGTCATCGAAGACTGGCGGGCACAGGTTGGCTGTGAGA
TCACCTGCCCAGAAAACAGCCACTATGAGGTCTGTGGCTCACCCTGCCCGGCCAGCTGTCCGTCCCCTGCACCCC
TTACGACGCCAGCCGTATGTGAGGGCCCCTGTGTGGAGGGCTGCCAGTGCGACGCGGGTTTCGTGTTAAGTGCTG
ACCGCTGTGTTCCCCTCAACAACGGCTGCGGCTGCTGGGCCAATGGCACCTACCACGAGGCGGGCAGTGAGTTTT
GGGCTGATGGCACCTGCTCCCAGTGGTGTCGCTGCGGGCCTGGGGGTGGCTCGCTGGTCTGCACACCTGCCAGCT
GTGGGCTGGGTGAAGTGTGTGGCCTCCTGCCATCCGGCCAGCACGGCTGCCAGCCCGTCAGCACAGCTGAGTGCC
AGGCGTGGGGTGACCCCCATTACGTCACTCTGGATGGGCACCGATTCAATTTCCAAGGCACCTGCGAGTACCTGC
TGAGTGCACCCTGCCACGGACCACCCTTGGGGGCTGAGAACTTCACTGTCACTGTAGCCAATGAGCACCGGGGCA
GCCAGGCTGTCAGCTACACCCGCAGTGTCACCCTGCAAATCTACAACCACAGCCTGACACTGAGTGCCCGCTGGC
CCCGGAAGCTACAGGTGGACGGCGTGTTCGTCACTCTGCCCTTCCAGCTGGACTCGCTCCTGCACGCACACCTGA
GCGGCGCCGACGTGGTGGTGACCACAACCTCAGGGCTCTCGCTGGCTTTCGACGGGGACAGCTTCGTGCGCCTGC
GCGTGCCGGCGGCGTACGCGGGCTCTCTCTGTGGCTTATGCGGGAACTACAACCAGGACCCCGCAGACGACCTGA
AGGCGGTGGGCGGGAAGCCCGCCGGATGGCAGGTGGGCGGCGCCCAGGGCTGCGGGGAATGTGTGTCCAAGCCAT
GCCCGTCGCCGTGCACCCCAGAGCAGCAAGAGTCCTTCGGCGGCCCGGACGCCTGCGGCGTGATCTCCGCCACCG
ACGGCCCGCTGGCGCCCTGCCACGGCCTTGTGCCGCCCGCGCAGTACTTCCAGGGCTGCTTGCTGGACGCCTGCC
AAGTTCAGGGCCATCCTGGAGGCCTCTGTCCTGCAGTGGCCACCTACGTGGCAGCCTGTCAGGCCGCTGGGGCCC
AGCTCCGCGAGTGGAGGCGGCCGGACTTCTGTCCCTTCCAGTGCCCTGCCCACAGCCACTACGAGCTCTGCGGTG
ACTCCTGTCCTGGGAGCTGCCCGAGCCTGTCGGCACCCGAGGGCTGTGAGTCGGCCTGCCGTGAAGGCTGTGTCT
GCGATGCTGGCTTCGTGCTCAGTGGTGACACGTGTGTACCTGTGGGCCAGTGTGGCTGCCTCCACGATGACCGCT

FIGURE 2593C

ACTACCCACTGGGCCAGACCTTCTACCCTGGCCCTGGGTGTGATTCCCTTTGCCGCTGCCGGGAGGGCGGTGAGG
TGTCCTGTGAGCCCTCCAGCTGCGGCCCGCATGAGACCTGCCGGCCATCCGGTGGCAGCTTGGGCTGCGTGGCCG
TGGGCTCTACCACCTGCCAGGCGTCGGGAGATCCCCACTACACCACCTTCGATGGCCGCCGCTTCGACTTCATGG
GCACCTGCGTGTATGTGCTGGCTCAGACCTGCGGCACCCGGCCTGGCCTACATCGGTTTGCCGTCCTGCAGGAGA
ACGTGGCCTGGGGTAATGGGCGAGTCAGTGTGACCAGGGTGATCACGGTCCAGGTGGCAAACTTCACCCTGCGGC
TGGAGCAGAGACAGTGGAAGGTCACGGTGAACGGTGTGGACATGAAGCTGCCCGTGGTGCTGGCCAACGGCCAGA
TCCGTGCCTCCCAGCATGGTTCAGATGTTGTGATTGAGACCGACTTCGGCCTGCGTGTGGCCTACGACCTTGTGT
ACTATGTGCGGGTCACCGTCCCTGGAAACTACTACCAGCTGATGTGTGGCCTGTGTGGGAACTACAACGGCGACC
CCAAGGATGACTTCCAGAAGCCCAATGGCTCGCAGGCAGGCAACGCCAATGAGTTCGGCAACTCCTGGGAGGAGG
TGGTGCCCGACTCTCCCTGCCTGCCGCCGCCCACCTGCCCGCCGGGGAGCGAGGGCTGTATCCCCAGCGAGGAGT
GTCCTCCCGAGCTGGAGAAGAAGTATCAGAAGGAGGAGTTCTGTGGGCTCCTCTCCAGCCCCACAGGGCCACTGT
CCTCTTGCCACAAGCTGGTGGATCCCCAGGGTCCCTTGAAAGATTGCATCTTTGATCTCTGCCTGGGTGGTGGGA
ACCTGAGCATTCTCTGCAGCAACATCCATGCCTACGTGAGTGCTTGCCAGGCAGCTGGAGGCCAGGTGGAGCCCT
GGAGGAATGAAACTTTCTGTCCCATGGAATGCCCTCAGAACAGTCACTACGAGCTCTGTGCGGACACCTGCTCCC
TGGGCTGCTCGGCTCTCAGTGCCCCTCTGCAGTGCCCAGATGGGTGTGCTGAGGGCTGCCAGTGTGACTCCGGCT
TCCTCTACAACGGCCAAGCCTGCGTGCCCATCCAGCAATGTGGCTGCTACCACAATGGTGCCTACTATGAGCCGG
AGCAGACAGTCCTCATTGACAACTGTCGGCAGCAGTGCACGTGCCATGTGGGTAAAGTCGTGGTGTGCCAGGAAC
ACAGCTGCAAGCCGGGGCAGGTGTGCCAGCCCTCCGGAGGCATCCTGAGCTGCGTCAACAAAG

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FIGURE 2594

GTCAACTTAGTGTACAATGCTGTCAGATGAACCTTACCCTTGTAAGGCTTGTAACTTGGTTCCTCCCTTTCTTAA
GCCCTTATTGGCTATCTTTCTTCTTTTAATATTTAAAGTTTTTAATCTTTAAATTTTTAATTTTTAAACCATGCT
TGTTTAACCTGCTGGTAAAATTCACGTCTTTCAGACTGTAATGCTTTCATGCCAAGTAAATGGTCTTGCCAGGCT
TCCAGCCTGTTTCAGAGACCACTAGCCCAGAGCCGTATCAGCCCCTTCAGCAAGCCATAAGAAATTTCTACTCCT
CCTGGAAATAGATGTAGAGACTATGTCCATGCTTAGCAGGAAGTAGTTCCAGAAGAGACCTTTGCTCCTTAAGAA
TAAGGAGAATGAGGACTGCGAAGGAGAACGCAGCAAGCCCAGGCGGCGGTGGAAAGGCTGGAGGACACACCTAAA
C**ATG**TGGAATCCCAATGCCGGGCAGCCAGGGCCAAATCCATATCCCCCCAATATTGGGTGCCCTGGAGGTTCCAA
TCCTGCCCACCCACCACCTATTAATCCACCCTTTCCCCCAGGCCCCTGTCCTCCTCCCCCAGGAGCTCCCCATGG
CAATCCAGCTTTCCCCCCAGGTGGGCCCCCTCATCCTGTGCCACAGCCAGGGTATCCAGGATGCCAACCGTTGGG
TCCCTACCCTCCTCCATACCCACCGCCTGCCCCTGGAATCCCTCCTGTGAATCCCTTGGCTCCTGGCATGGTTGG
ACCAGCAGTGATAGTGGACAAGAAGATGCAGAAGAAAATGAAGAAAGCTCATAAAAAGATGCACAAGCACCAAAA
GCACCACAAGTACCACAAGCATGACAAGCATTCCTCCTCTTCCTCCTCCTCTTCCAGCAGTGATTCTGAC**TGA**AT
ACAGGCCCTGGACCCTTCCCTCAAGTCCCACCAGTTCTGCTCTCCCATCAAGCTTCAGATGCCACGTTGTACTGG
GGGAATGTAGCCCTTGTGCTCCCCACCCCCTACCTCCACCTGAGCCTCACCCTGCTGTTGAGCCCTGAGTGGCTA
GGGGAAATAGGAAGAGGATTGCCATGGCCTGGCCATCTTGTTGCTGCTTGGAGAGATCATATAGCTAATGAATTA
GGCAGGGGAGCTATTTTTTGAAGATGATGAACTAAATGTTGAAGACAAGTTTGAGATCTGTAAAATGTGATTTTT
TACTTCCACTTATAATACTTGTGATTGGGGAGGTTTGTGGAAATTCAATTATGATGAAAAACCTCTATCTTTTTT
GTAATGTTGGCATACTTGGGGGATTTAGTGGCAAATACATTCCCCAGCAGGCCTTTTGTTGGTTGCACTAACTGC
AAGGTTGCTGGGAAGTAGAGTCCATTTGGTTGATGAGCTTTGACTGCGGTTTTGGAACCTTACCTCTCCTCCTTA
GCCCAATATGCTGTCTCGGGTCCTATTCAAATAAAGTTATTTCTCCTGGTCT

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FIGURE 2595

GGCTTGGTCACT**ATG**GAGGAGATAGGCATCTTGGTGGAGAAGGCTCAGGATGAGATCCCAGCACTGTCCGTGTCC
CGGCCCCAGACCGGCCTGTCCTTCCTGGGCCCTGAGCCTGAGGACCTGGAGGACCTGTACAGCCGCTACAAGAAG
CTGCAGCAAGAGCTGGAGTTCCTGGAGGTGCAGGAGGAATACATCAAAGATGAGCAAAAGAACCTGAAAAAGGAA
TTTCTCCATGCCCAGGAGGAGGTGAAGCGAATCCAAAGCATCCCGCTGGTCATCGGACAATTTCTGGAGGCTGTG
GATCAGAATACAGCCATCGTGGGCTCTACCACAGGCTCCAACTATTATGTGCGCATCCTGAGCACCATCGATCGG
GAGCTGCTCAAGCCCAACGCCTCAGTGGCCCTCCACAAGCACAGCAATGCACTGGTGGACGTGCTGCCCCCCGAA
GCCGACAGCAGCATCATGATGCTCACCTCAGACCAGAAGCCAGATGTGATGTACGCGGACATCGGAGGCATGGAC
ATCCAGAAGCAGGAGGTGCGGGAGGCCGTGGAGCTCCCGCTCACGCATTTCGAGCTCTACAAGCAGATCGGCATC
GATCCCCCCCGAGGCGTCCTCATGTATGGCCCACCTGGCTGTGGGAAGACCATGTTGGCAAAGGCGGTGGCACAT
CACACAACAGCTGCATTCATCCGGGTCGTGGGCTCGGAGTTTGTACAGAAGTATCTGGGTGAGGGCCCCCGCATG
GTCCGGGATGTGTTCCGCCTGGCCAAGGAGAATGCACCTGCCATCATCTTCATAGACGAGATTGATGCCATCGCC
ACCAAGAGATTCGATGCTCAGACAGGGGCCGACAGGGAGGTTCAGAGGATCCTGCTGGAGCTGCTGAATCAGATG
GATGGATTTGATCAGAATGTCAATGTCAAGGTAATCATGGCCACAAACAGAGCAGACACCCTGGATCCGGCCCTG
CTACGGCCAGGACGGCTGGACCGTAAAATTGAATTTCCACTTCCTGACCGCCGCCAGAAGAGATTGATTTTCTCC
ACTATCACTAGCAAGATGAACCTCTCTGAGGAGGTTGACTTGGAAGACTATGTGGCCCGGCCAGATAAGATTTCA
GGAGCTGATATTAACTCCATCTGTCAGGAGAGTGGAATGTTGGCTGTCCGTGAAAACCGCTACATTGTCCTGGCC
AAGGACTTCGAGAAAGCATACAAGACTGTCATCAAGAAGGACGAGCAGGAGCATGAGTTTTACAAG**TGA**CCCTTC
CCTTCCCTCCACCACACCACTCAGGGGCTGGGGCTTCTCTCGCACCCCCAGCACCTCTGTCCCAAAACCTCATTC
CCTTTTTTCTTTACCCAGGATTGGTTTCTTCAATAAATAGATAAGATCGAATCC

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FIGURE 2596

GTTTTTTTTCTTGCTCCTGCGGAGGGCGCCCCAGCCATGGCCCTCAGGAGCTCCCTAGACCCCGCAGGGACTGCC
CTCCATCCCGGCCGCCGGGGCCCGCCCTCTGCATCCCGCGGGCAGCCTGTGTGAAGCGGCCTCCCGCAGCCCCCG
GCCCCTCCCCC**ATG**GAGGAGGAGGAGGGGGCGGTGGCCAAGGAGTGGGGCACGACCCCCGCGGGGCCCGTCTGGA
CCGCGGTGTTCGACTACGAGGCGGCGGGCGACGAGGAGCTGACCCTGCGGAGGGGCGATCGCGTCCAGGTGCTTT
CCCAAGACTGTGCGGTGTCCGGCGACGAGGGCTGGTGGACCGGGCAGCTCCCCAGCGGCCGCGTGGGCGTCTTCC
CCAGCAACTACGTGGCCCCCGGCGCCCCCGCTGCACCCGCGGGCCTCCAGCTGCCCCAGGAGATCCCCTTCCACG
AGCTGCAGCTAGAGGAGATCATCGGTGTGGGGGGCTTTGGCAAGGTCTATCGGGCCCTGTGGCGTGGCGAGGAGG
TGGCAGTCAAGGCCGCCCGGCTGGACCCTGAGAAGGACCCGGCAGTGACAGCGGAGCAGGTGTGCCAGGAAGCCC
GGCTCTTTGGAGCCCTGCAGCACCCCAACATAATTGCCCTTAGGGGCGCCTGCCTCAACCCCCCACACCTCTGCC
TAGTGATGGAGTATGCCCGGGGTGGTGCACTGAGCAGGGTGCTGGCAGGTCGCCGGGTGCCACCTCACGTGCTGG
TCAACTGGGCTGTGCAGGTGGCCCGGGGCATGAACTACCTACACAATGATGCCCCTGTGCCCATCATCCACCGGG
ACCTCAAGTCCATCAACATCCTGATCCTGGAGGCCATCGAGAACCACAACCTCGCAGACACGGTGCTCAAGATCA
CGGACTTCGGCCTCGCCCGCGAGTGGCACAAGACCACCAAGATGAGCGCTGCGGGGACCTACGCCTGGATGGCGC
CGGAGGTTATCCGTCTCTCCCTCTTCTCCAAAAGCAGTGATGTCTGGAGCTTCGGGGTGCTGCTGTGGGAGCTGC
TGACGGGGGAGGTCCCCTACCGTGAGATCGACGCCTTGGCCGTGGCGTATGGCGTGGCTATGAATAAGCTGACGC
TGCCCATTCCCTCCACGTGCCCCGAGCCCTTTGCCCGCCTCCTGGAGGAATGCTGGGACCCAGACCCCCACGGGC
GGCCAGATTTCGGTAGCATCTTGAAGCGGCTTGAAGTCATCGAACAGTCAGCCCTGTTCCAGATGCCACTGGAGT
CCTTCCACTCGCTGCAGGAAGACTGGAAGCTGGAGATTCAGCACATGTTTGATGACCTTCGGACCAAGGAGAAGG
AGCTTCGGAGCCGTGAGGAGGAGCTGCTGCGGGCGGCACAGGAGCAGCGCTTCCAGGAGGAGCAGCTGCGGCGGC
GGGAGCAGGAGCTGGCAGAACGTGAGATGGACATCGTGGAACGGGAGCTGCACCTGCTCATGTGCCAGCTGAGCC
AGGAGAAGCCCCGGGTCCGCAAGCGCAAGGGCAACTTCAAGCGCAGCCGCCTGCTCAAGCTGCGGGAAGGCGGCA
GCCACATCAGCCTGCCCTCTGGCTTTGAGCATAAGATCACAGTCCAGGCCTCTCCAACTCTGGATAAGCGGAAAG
GATCCGATGGGGCCAGCCCCCCTGCAAGCCCCAGCATCATCCCCCGGCTGAGGGCCATTCGCCTGACTCCCGTGG
ACTGTGGTGGCAGCAGCAGTGGCAGCAGCAGTGGAGGAAGTGGGACATGGAGCCGCGGTGGGCCCCCAAAGAAGG
AAGAACTGGTCGGGGGCAAGAAGAAGGGACGAACGTGGGGGCCCAGCTCCACCCTGCAGAAGGAGCGGGTGGGAG
GAGAGGAGAGGCTGAAGGGGCTGGGGGAAGGAAGCAAACAGTGGTCATCAAGTGCCCCCAACCTGGGCAAGTCCC
CCAAACACACACCCAGTCGCCGCTGGCTTCGCCAGCCTCAA**TGA**GATGGAGGAGTTCGCGGAGGCAGAGGATGGA
GGCAGCAGCGTGCCCCCTTCCCCCTACTCGACCCCGTCCTACCTCTCAGTGCCACTGCCTGCCGAGCCCTCCCCG
GGGGCGCGGGCGCCGTGGGAGCCGACGCCGTCCGCGCCCCCCGCTCGGTGGGGACACGGCGCCCGGCGGCGCTGC
GACCTGGCGCTGCTAGGCTGCGCCACGCTGCTGGGGGCTGTGGGCCTGGGCGCCGACGTGGCCGAGGCGCGCGCG
GCCGACGGTGAGGAGCAGCGGCGCTGGCTCGACGGCCTCTTCTTTCCCCGCGCCGGCCGCTTCCCGCGGGGCCTC
AGCCCACCCGCGCGTCCCCACGGCCGCCGCGAAGACGTGGGCCCCGGCCTGGGCCTGGCGCCCTCGGCCACCCTC
GTGTCGCTGTCGTCCGTGTCCGACTGCAACTCCACGCGTTCACTGCTGCGCTCTGACAGTGACGAGGCCGCACCG
GCCGCGCCCTCCCCACCACCCTCCCCGCCCGCGCCCACACCCACGCCCTCGCCCAGCACCAACCCCCTGGTGGAC
CTGGAGCTGGAGAGCTTCAAGAAGGACCCCCGCCAGTCGCTCACGCCCACCCACGTCACGGCTGCATGCGCTGTG
AGCCGCGGGCACCGGCGGACGCCATCGGATGGGGCGCTGGGGCAGCGGGGGCCGCCCGAGCCCGCGGGCCATGGC
CCTGGCCCTCGTGACCTTCTGGACTTCCCCCGCCTGCCCGACCCCCAGGCCCTGTTCCCAGCCCGCCGCCGGCCC
CCTGAGTTCCCAGGCCGCCCCACCACCCTGACCTTTGCCCCGAGACCTCGGCCGGCTGCCAGTCGCCCCCGCTTG
GACCCCTGGAAACTGGTCTCCTTCGGCCGGACACTCACCATCTCGCCTCCCAGCAGGCCAGACACTCCGGAGAGC
CCTGGGCCCCCCAGCGTGCAGCCCACACTGCTGGACATGGACATGGAGGGGCAGAACCAAGACAGCACAGTGCCC
CTGTGCGGGGCCCACGGCTCCCACTAAGGCCTGCCCACCACCGCCCGCCTGGGCAGCCATGAATGTAGCGCCCCA
GGCCCTGCCCCAGCCCGCCATGCCACAAGGTGGGGGAGGCCCTGGGCAGGATGTTCACTCTATTTATT

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FIGURE 2597

ACTGTGCCCTGTCCACGGTGCCTCCTGCATGTCCTGCTGCCCTGAGCTGTCCCGAGCTAGGTGACAGCGTACCAC
GCTGCCACC**ATG**AATGAGGTGTCTGTCATCAAAGAAGGCTGGCTCCACAAGCGTGGTGAATACATCAAGACCTGG
AGGCCACGGTACTTCCTGCTGAAGAGCGACGGCTCCTTCATTGGGTACAAGGAGAGGCCCGAGGCCCCTGATCAG
ACTCTACCCCCCTTAAACAACTTCTCCGTAGCAGAATGCCAGCTGATGAAGACCGAGAGGCCGCGACCCAACACC
TTTGTCATACGCTGCCTGCAGTGGACCACAGTCATCGAGAGGACCTTCCACGTGGATTCTCCAGACGAGAGGGAG
GAGTGGATGCGGGCCATCCAGATGGTCGCCAACAGCCTCAAGCAGCGGGCCCCAGGCGAGGACCCCATGGACTAC
AAGTGTGGCTCCCCCAGTGACTCCTCCACGACTGAGGAGATGGAAGTGGCGGTCAGCAAGGCACGGGCTAAAGTG
ACCATGAATGACTTCGACTATCTCAAACTCCTTGGCAAGGGAACCTTTGGCAAAGTCATCCTGGTGCGGGAGAAG
GCCACTGGCCGCTACTACGCCATGAAGATCCTGCGGAAGGAAGTCATCATTGCCAAGGATGAAGTCGCTCACACA
GTCACCGAGAGCCGGGTCCTCCAGAACACCAGGCACCCGTTCCTCACTGCGCTGAAGTATGCCTTCCAGACCCAC
GACCGCCTGTGCTTTGTGATGGAGTATGCCAACGGGGGTGAGCTGTTCTTCCACCTGTCCCGGGAGCGTGTCTTC
ACAGAGGAGCGGGCCCGGTTTTATGGTGCAGAGATTGTCTCGGCTCTTGAGTACTTGCACTCGCGGGACGTGGTA
TACCGCGACATCAAGCTGGAAAACCTCATGCTGGACAAAGATGGCCACATCAAGATCACTGACTTTGGCCTCTGC
AAAGAGGGCATCAGTGACGGGGCCACCATGAAAACCTTCTGTGGGACCCCGGAGTACCTGGCGCCTGAGGTGCTG
GAGGACAATGACTATGGCCGGGCCGTGGACTGGTGGGGGCTGGGTGTGGTCATGTACGAGATGATGTGCGGCCGC
CTGCCCTTCTACAACCAGGACCACGAGCGCCTCTTCGAGCTCATCCTCATGGAAGAGATCCGCTTCCCGCGCACG
CTCAGCCCCGAGGCCAAGTCCCTGCTTGCTGGGCTGCTTAAGAAGGACCCCAAGCAGAGGCTTGGTGGGGGGCCC
AGCGATGCCAAGGAGGTCATGGAGCACAGGTTCTTCCTCAGCATCAACTGGCAGGACGTGGTCCAGAAGAAGCTC
CTGCCACCCTTCAAACCTCAGGTCACGTCCGAGGTCGACACAAGGTACTTCGATGATGAATTTACCGCCCAGTCC
ATCACAATCACACCCCCTGACCGCTATGACAGCCTGGGCTTACTGGAGCTGGACCAGCGGACCCACTTCCCCCAG
TTCTCCTACTCGGCCAGCATCCGCGAG**TGA**GCAGTCTGCCCACGCAGAGGACGCACGCTCGCTGCCATCACCGCT
GGGTGGTTTTTTCCCCCT

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FIGURE 2598

GTTGGCGCCGCCGGGAGGGAGGGCGGGCGGCGCGAGTGGGCGCGGGCCCGGTGGGCCAGGCTCCAGGGAGCAGTG
TCAGGGCCAGGGAGACG**ATG**GTCTCCGTGACTATGGCCACTTCCGAGTGGATCCAGTTCTTTAAGGAAGCCGGCA
TTCCTCCAGGACCTGCCGTCAATTATGCCGTGATGTTTGTGGATAATAGGATTCAGAAGAGCATGCTGCTGGATC
TCAATAAGGAGATAATGAATGAGCTGGGCGTGACCGTGGTGGGTGACATCATCGCCATTCTCAAGCATGCCAAAG
TGGTGCACCGTCAGGACATGTGCAAAGCTGCCACTGAGTCAGTACCCTGCAGCCCTAGCCCCCTTGCAGGCGAAA
TTCGCCGTGGCACCAGTGCTGCCTCCCGAATGATCACCAACAGCCTGAACCATGACTCTCCACCCAGCACACCCC
CCAGGCGCCCGGACACCAGCACCTCCAAGATCTCGGTCACTGTGTCCAACAAGATGGCAGCAAAGAGTGCCAAGG
CCACTGCAGCCCTGGCCCGCCGGGAGGAGGAGAGCCTGGCTGTTCCTGCCAAGCGGCGCCGGGTCACTGCTGAGA
TGGAGGGGAAGTACGTCATCAACATGCCCAAAGGCACCACACCCCGCACCCGCAAGATCCTGGAGCAGCAGCAGG
CTGCAAAAGGTCTCCATAGGACGTCTGTGTTTGACCGCCTCGGCGCCGAGACCAAGGCAGACACCACGACAGGGA
GTAAACCCACAGGAGTCTTCAGCCGCCTGGGGGCCACCCCAGAAACGGACGAGGATCTGGCTTGGGACAGCGACA
ATGACAGCAGCAGCTCTGTCTTGCAGTATGCCGGGGTCCTGAAGAAGCTAGGACGGGGCCCAGCCAAGGCCAGTC
CCCAGCCAGCACTGACTGTCAAAGCCAAGGCCACAAGCTCAGCGACAACGGCTGCTGCCCCGACACTGCGGCGCC
TGGCGCTTTCCTCACGGTCTGGGCTTGAGAGGAAGCCGGAGTCCTTGTCTAAAGTCAGCATCATCAAGAGACTGG
GCGCAGCTGCCCTTGTGCCCGAGGCCCAGGACAGCCAGGTCACCAGCACCAAGAGTAAGTCCTCAGCCGAGGTCA
AGGTCACCATTAAGAGGACTCTGGTGGGGCCCCGGGGGGAGCAGCTCCAGCGAGGGCCTTGGTGCCCAGATGGACC
ACGCGGGCACTGTGAGCGTGTTCAAAAGACTGGGCCGCAGGACCTTC**TAG**CCCACCTGTGGGCGGGGTGCAGGCA
GCAGAGCCTGCGGGCATCTGCCCTGGCCGCCCCAGGCTCCTGGCTTCATCACGCCTCCCACCAGCTCCTGGATGA
CACAGCTTGTCTCCCTCGGGCTCTAGAGCTAGGCCCGAGCATTCGGGGGATCACCCCATTTCTCCTAGCCTGGGA
TGGTCGTCGCAGCTGGCCTGGCCTGCTCCAGGACTCCCCTTCTCTCATGTCCTCTGTGCTTTCTTCTCTGGCTGT
GGCCTTGGCAGAACCCACTTTTCTACCTCTCCCAAGTGCCAGGGGGCTTCTTCCTCTCCTACATTCCCCTTCTTC
CCCTGAGCAGGGTCTGCTGCCTCAGACCCCAGCTCATCAGCCTCCCTGTCCCCCTCAACTAAGTGGGTGTCACCT
GGTGGGCCTCCCTTCCC

FIGURE 2599

CTCTTTATAATTTAGTTTCCATAGAAGTTATATGTGCATTTAAAAAAATTCAATGCTGGAGCGACCGTGTCTGGG
GAGCCGAGCCCCGCTTCTCGCTGCGGTGAGCCCGGACTGGGGCACGCACTGCGCAGACTCCCCGCTGCAGTGGGC
GGAGCTCCCACAGGCCCCGCCCCCTCCTCCCACCCTCGTTCAGCCTGTCCAGACAGAAGCTGGGGCCCAGCGGAG
GTAGCAGCAGACGCCTGAGAGCGAGGCCGAGGCCCCTCAGGGTTTGGAGACCCTGACACACCCACCTTCTCACCT
GGGCTCTGCGTATCCCCCAGCCTTGAGGGAAGATGAAGCCTAAACTGATGTACCAGGAGCTGAAGGTGCCTGCAG
AGGAGCCCGCCAATGAGCTGCCCATGAATGAGATTGAGGCGTGGAAGGCTGCGGAAAAGAAAGCCCGCTGGGTCC
TGCTGGTCCTCATTCTGGCGGTTGTGGGCTTCGGAGCCCTG**ATG**ACTCAGCTGTTTCTATGGGAATACGGCGACT
TGCATCTCTTTGGGCCCAACCAGCGCCCAGCCCCCTGCTATGACCCTTGCGAAGCAGTGCTGGTGGAAAGCATTC
CTGAGGGCCTGGACTTCCCCAATGCCTCCACGGGGAACCCTTCCACCAGCCAGGCCTGGCTGGGCCTGCTCGCCG
GTGCGCACAGCAGCCTGGACATCGCCTCCTTCTACTGGACCCTCACCAACAATGACACCCACACGCAGGAGCCCT
CTGCCCAGCAGGGTGAGGAGGTCCTCCGGCAGCTGCAGACCCTGGCACCAAAGGGCGTGAACGTCCGCATCGCTG
TGAGCAAGCCCAGCGGGCCCCAGCCACAGGCGGACCTGCAGGCTCTGCTGCAGAGCGGTGCCCAGGTCCGCATGG
TGGACATGCAGAAGCTGACCCATGGCGTCCTGCATACCAAGTTCTGGGTGGTGGACCAGACCCACTTCTACCTGG
GCAGTGCCAACATGGACTGGCGTTCACTGACCCAGGTCAAGGAGCTGGGCGTGGTCATGTACAACTGCAGCTGCC
TGGCTCGAGACCTGACCAAGATCTTTGAGGCCTACTGGTTCCTGGGCCAGGCAGGCAGCTCCATCCCATCAACTT
GGCCCCGGTTCTATGACACCCGCTACAACCAAGAGACACCAATGGAGATCTGCCTCAATGGAACCCCTGCTCTGG
CCTACCTGGCGAGTGCGCCCCCACCCCTGTGTCCAAGTGGCCGCACTCCAGACCTGAAGGCTCTACTCAACGTGG
TGGACAATGCCCGGAGTTTCATCTACGTCGCTGTCATGAACTACCTGCCCACTCTGGAGTTCTCCCACCCTCACA
GGTTCTGGCCTGCCATTGACGATGGGCTGCGGCGGGCCACCTACGAGCGTGGCGTCAAGGTGCGCCTGCTCATCA
GCTGCTGGGGACACTCGGAGCCATCCATGCGGGCCTTCCTGCTCTCTCTGGCTGCCCTGCGTGACAACCATACCC
ACTCTGACATCCAGGTGAAACTCTTTGTGGTCCCCGCGGATGAGGCCCAGGCTCGAATCCCATATGCCCGTGTCA
ACCACAACAAGTACATGGTGACTGAACGCGCCACCTACATCGGAACCTCCAACTGGTCTGGCAACTACTTCACGG
AGACGGCGGGCACCTCGCTGCTGGTGACGCAGAATGGGAGGGGCGGCCTGCGGAGCCAGCTGGAGGCCATTTTCC
TGAGGGACTGGGACTCCCCTTACAGCCATGACCTTGACACCTCAGCTGACAGCGTGGGCAACGCCTGCCGCCTGC
TC**TGA**GGCCCGATCCAGTGGGCAGGCCAAGGCCTGCTGGGCCCCCGCGGACCCAGGTGCTCTGGGTCACGGTCCC
TGTCCCCGCGCCCCCGCTTCTGTCTGCCCCATTGTGGCTCCTCAGGCTCTCTCCCCTGCTCTCCCACCTCTACCT
CCACCCCCACCGGCCTGACGCTGTGGCCCCGGGACCCAGCAGAGCTGGGGGAGGGATCAGCCCCCAAAGAAATGG
GGGTGCATGCTGGGCCTGGCCCCCTGGCCCACCCCCACTTTCCAGGGCAAAAAGGGCCCAGGGTTATAATAAGTA
AATAACTTGTCTGT

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FIGURE 2600

AGAACTGCGTCTCGCGACCCAGGCGCGGGTTTCCAGAGGACAGCCAACAAGCGATGCTGCCGCCGCCGTTTCCTG
ATTGGTTGTGGGTGGCTACCTCTTCGTTCTGATTGGCCGCTAGTGAGCAAG**ATG**CTGAGCAAGGGTCTGAAGCGG
AAACGGGAGGAGGAGGAGGAGAAGGAACCTCTGGCAGTCGACTCCTGGTGGCTAGATCCTGGCCACACAGCGGTG
GCACAGGCACCCCCGGCCGTGGCCTCTAGCTCCCTCTTTGACCTCTCAGTGCTCAAGCTCCACCACAGCCTGCAG
CAGAGTGAGCCGGACCTGCGGCACCTGGTGCTGGTCGTGAACACTCTGCGGCGCATCCAGGCGTCCATGGCACCC
GCGGCTGCCCTGCCACCTGTGCCTAGCCCACCTGCAGCCCCCAGTGTGGCTGACAACTTACTGGCAAGCTCGGAC
GCTGCCCTTTCAGCCTCCATGGCCAGCCTCCTGGAGGACCTCAGCCACATTGAGGGCCTGAGTCAGGCTCCCCAA
CCCTTGGCAGACGAGGGGCCACCAGGCCGTAGCATCGGGGGAGCAGCGCCCAGCCTGGGTGCCTTGGACCTGCTG
GGCCCAGCCACTGGCTGTCTACTGGACGATGGGCTTGAGGGCCTGTTTGAGGATATTGACACCTCTATGTATGAC
AATGAACTTTGGGCACCAGCCTCTGAGGGCCTCAAACCAGGCCCTGAGGATGGGCCGGGCAAGGAGGAAGCTCCG
GAGCTGGACGAGGCCGAATTGGACTACCTCATGGATGTGCTGGTGGGCACACAGGCACTGGAGCGACCGCCGGGG
CCAGGGCGC**TGA**GCCCTCGTGCTGGAATGGTTGTCTGGTATCTGAACTGAGCCTGCTGGCTGGACCAACTGTCCT
CGAAAAGACACAGCTGGCTTCCCTAGTACAGAGAACAGGGCTTGGGCCACTTTGGAGAGACAGAATCTAGTCCTG
GGCAACTTCACATCCGTCCTCCTGTCTCAGGGCTGGCAGGGGGAGCCTGGAATTACCCCCTAGTGATGGAATGAC
AGGGTCTGGTGGGGACTGAATTCCCTGGCCCTGGGGTCATAGCTTGGGCTGTTCCTTCTCTGATACGGGAAGAGA
CCCCAATCAGATTTTTCAAATTAAAGCCAGTCCTGGG

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FIGURE 2601

AGGAAACTGAGGCCCTGAGAATTGACTCATTCAGATCACTTCCCATGATCACGCAGCTGAGCAGTTTCCAATACA
GAATTCAGATTTGGGGTTCCCTACTTCCAATCCAGGTCTCTGTGCTCCACACTTGTCTTTCGTGCTCCATGTTTG
AAGAAATTAATATTGTGGAAGAACAGTTTTAAGGCTTAGAGGAACTTGAGTTAGGATCCGTACTTGGCAGATGAG
GAAATTGATTCTCATGGATGTAAATTCACTGTTTGAGGCCACAACAGGGCATC**ATG**GTGGGAGGCTTGAAGAGGA
AACACTCTGATTTGGAAGAGGAGGAGGAGAGGTGGGAGTGGAGTCCAGCAGGCCTTCAGAGCTACCAGCAAGCCC
TGCTCCGCATCTCCCTAGACAAAGTCCAGCGCAGCCTGGGCCCCCGAGCACCCAGCCTCCGCAGGCATGTCCTCA
TCCATAACACCCTCCAACAGCTGCAGGCTGCACTTCGCCTGGCTCCCGCCCCTGCCCTGCCCCCCGAGCCCCTCT
TCCTGGGCGAGGAGGATTTCTCCCTGTCAGCCACCATTGGCTCTATCCTCAGGGAGCTGGACACCTCCATGGATG
GGACTGAGCCCCCTCAGAATCCAGTGACTCCCCTTGGCCTCCAGAATGAAGTGCCACCCCAGCCTGATCCAGTCT
TCTTAGAAGCTCTGAGCTCCCGGTACTTGGGGGACTCTGGCCTGGATGACTTCTTTCTGGACATTGACACATCTG
CGGTAGAAAAGGAGCCTGCACGGGCCCCACCAGAGCCTCCTCACAACCTCTTCTGTGCCCCAGGTTCTTGGGAGT
GGAATGAACTGGATCACATCATGGAAATCATTCTGGGGTCC**TAA**AACTGTGATAGAGGGGATCGATCCTTCCTCA
TGTCATCTTCGGTGGCCTGGATCCCTGAATGCAACTCTGGGTGTGTGTTTTTGTGGGGGCTCGAAGCAGTGACTA
TGGCCTCCTTTGTTCCCATTTCAGGGTTCCACAAACTGTCTTGCATGTGTGTGTGTGTCTGGTTACCCCGACCTT
CTGTGAAGGTGGGTCTTCCTGAATTAATTTATCTATTCCAAATGCCTTAACGAGACTCTGTTTCTGGGAGTCTGA
TTTTCCACTTACACATTTCTTCCACCTTTCCTGCTAGTTCCCACTCCCCTGTGACCACTGGGGCCTCAGGGAAGA
TAAAGAAAGCTGGGCCTGTCGAAGGATGACAGGGATGTGCTGCCAGGTTGCTATAGAAACCCAGGCTCTGCCTCT
TGCACCTTGAGGGGGTGGGAGGGGCTGGTGTCCTCCCTCCAGGCTGAACCCCACTTCCTCGGCAGGACCCCAGTC
TCAGCAGCCTCCTGATTTCATAACCAGGCCGGACCACGTGCAATAGGGTGGAAACCAAACTGCTCCATGCCGGGT
TATTTAAAAGAAAGGCAGAGTTTGTGGTGGCTTTTTTTTTTTTTTTTGGATTGTTTGTAATTTTTTTAAATAAAA
GTATTTTGGAAGGAG

FIGURE 2602

GGGCAGAGAGCACCGCCCAGCAGCCAGTGGGTTCCCGCGCGTGCCGAGACTCTGAGGCCTTGCACCCCCACGATC
CCGTACG**ATG**GCCGTCAAGAAGATCGCGATCTTCGGCGCCACTGGCCAGACCGGGCTCACCACCCTGGCGCAGGC
GGTGCAAGCAGGTTACGAAGTGACAGTGCTGGTGCGGGACTCCTCCAGGCTGCCATCAGAGGGGCCCCGGCCGGC
CCACGTGGTAGTGGGAGATGTTCTGCAGGCAGCCGATGTGGACAAGACCGTGGCTGGGCAGGACGCTGTCATCGT
GCTGCTGGGCACCCGCAATGACCTCAGTCCCACGACAGTGATGTCCGAGGGCGCCCGGAACATTGTGGCAGCCAT
GAAGGCTCATGGTGTGGACAAGGTCGTGGCCTGCACCTCGGCTTTCCTGCTCTGGGACCCTACCAAGGTGCCCCC
ACGACTGCAGGCTGTGACTGATGACCACATCCGGATGCACAAGGTGCTGCGGGAATCAGGCCTGAAGTACGTGGC
TGTGATGCCGCCACACATAGGAGACCAGCCACTAACTGGGGCGTACACAGTGACCCTGGATGGACGAGGGCCCTC
AAGGGTCATCTCCAAACATGACCTGGGCCATTTCATGCTGCGCTGCCTCACCACCGATGAGTACGACGGACACAG
CACCTACCCCTCCCACCAGTACCAG**TAG**CACTCTGTCCCCATCTGGGAGGGTGGCATTCTGGGACATGAGGAGCA
AAGGAAGGGGGCAATAAATGTTGAGCCAAGAGCTTCAAATTACTCTAG

FIGURE 2603

GCACACCCGGAAGTGGGTGCGGGCCAGCCGGCTCGCCCGGGGGCCATGGCAGCAGCGGCTACTGCAGCCGAGGGG
GTCCCCAGTCGGGGGCCTCCCGGGGAAGTCATTCATCTGAATGTGGGAGGCAAGAGATTCAGTACCTCTCGCCAG
ACTCTCACCTGGATCCCAGACTCCTTCTTCTCCAGTCTTCTGAGCGGACGCATCTCGACGCTGAAAG**ATG**AGACC
GGAGCAATCTTCATCGATCAGGGACCATTACAGTCTTCGCCCACCCGTCACTCTACGTCTTGCGCATCACAAAGA
GTTGGATCCCAGGGGTGTCCACGGTTCCAGCCTCCTCCATGAAGCCCAGTTCTATGGGCTCACTCCTCTGGTTCG
TCGCCTGCAGCTTCGAGAGGAGTTGGATCGATCTTCTTGTGGAAACGTCCTCTTCAATGGTTACCTGCCGCCACC
AGTGTTCCCAGTGAAGCGGCGGAACCGGCACAGCCTAGTGGGGCCTCAGCAGCTAGGAGGACGGCCAGCCCCTGT
CCGACGGAGCAACACGATGCCCCCCAACCTTGGCAATGCAGGGCTGCTGGGCCGAATGCTGGATGAGAAAACCCC
TCCCTCACCCTCAGGACAACCTGAGGAGCCGGGGATGGTGCGCCTGGTGTGTGGACACCATAATTGGATCGCTGT
GGCCTATACCCAGTTTCTAGTCTGCTACAGGTTGAAGGAAGCCTCTGGCTGGCAGCTGGTGTTTTCCAGCCCCCG
CCTGGACTGGCCCATCGAACGACTGGCGCTCACAGCCCGGGTGCATGGTGGGGCTTTGGGTGAACATGACAAGAT
GGTGGCAGCAGCCACCGGCAGCGAGATCCTGCTATGGGCTCTGCAGGCGGAAGGCGGTGGCTCCGAGATAGGGGT
CTTTCATCTGGGGGTGCCTGTGGAGGCCTTGTTCTTCGTCGGGAACCAGCTCATTGCTACAAGCCACACAGGGCG
CATCGGGGTGTGGAATGCCGTCACCAAGCACTGGCAGGTCCAGGAGGTGCAGCCCATCACCAGTTATGACGCGGC
AGGCTCCTTCCTCCTCCTGGGCTGCAACAACGGCTCCATTTACTACGTGGATGTGCAGAAGTTCCCCTTGCGCAT
GAAAGACAACGACCTCCTTGTCAGCGAGCTCTATCGGGACCCAGCGGAGGATGGGGTCACCGCCCTCAGTGTCTA
CCTCACCCCCAAGACCAGTGACAGTGGGAACTGGATCGAGATCGCCTATGGCACCAGCTCAGGGGGCGTGCGGGT
CATCGTGCAGCACCCGGAGACTGTGGGCTCGGGGCCTCAGCTCTTCCAGACCTTCACTGTGCACCGCAGCCCTGT
CACCAAGATCATGCTGTCGGAGAAGCACCTCATCTCAGTCTGTGCCGACAACAACCACGTGCGGACATGGTCTGT
GACTCGCTTCCGCGGCATGATTTCCACCCAGCCCGGCTCCACCCCACTCGCTTCCTTTAAGATCCTGGCTCTGGA
GTCGGCAGATGGGCATGGCGGCTGCAGTGCTGGCAATGACATTGGCCCCTACGGTGAGCGGGACGACCAGCAAGT
GTTCATCCAGAAGGTGGTGCCCAGTGCCAGCCAGCTCTTCGTGCGTCTCTCATCTACTGGGCAGCGGGTGTGCTC
CGTGCGCTCCGTGGACGGCTCACCCACGACAGCCTTCACAGTGCTGGAGTGCGAGGGCTCCCGGCGGCTCGGCTC
TCGGCCCCGGCGCTACCTGCTCACTGGCCAGGCCAACGGCAGCTTGGCCATGTGGGACCTAACCACCGCCATGGA
CGGCCTCGGCCAGGCCCCTGCAGGTGGCCTGACGGAGCAAGAGCTGATGGAACAGCTGGAACACTGTGAGCTGGC
CCCGCCGGCTCCTTCAGCTCCCTCATGGGGCTGTCTCCCCAGCCCCTCACCCCGCATCTCCCTCACCAGCCTCCA
CTCAGCCTCCAGCAACACCTCCTTGTCTGGCCACCGTGGGAGCCCAAGCCCCCCGCAGGCTGAGGCCCGGCGCCG
TGGTGGGGGCAGCTTTGTGGAACGCTGCCAGGAACTGGTGCGGAGTGGGCCAGACCTCCGACGGCCACCCACACC
AGCCCCGTGGCCCTCCAGCGGTCTCGGCACTCCCCTCACACCTCCCAAGATGAAGCTCAATGAAACTTCCTTT**TG**
AACAACGCAGCTGCCATGATGCCTTGGGATGCCCTGGTCCTGGGGGACTCAGGTGCCTCCCTGATTCCTGTGGGA
ACCCCGGGTTCAGGGCCAGGGCCTCCTTGGAATAAATGGTTATTGTTACTAGGTCCCCACCTTCCCTCTTTTCTG
GAAGCCAAAGTCACCCTCCCCAATAAAGTCCTCACTGCC

FIGURE 2604A

CGTTGCTGTTTGTCGCTGCTGCCCGGGCCAGACGTCTAGGAGGAGCCGCTGCATCCGAGTCCCTGGCTGTCTCCG
AAGCCTTCTGCAGGGTCCGAAGCTGCCAGCCCAAAAAGTGTGCAGGCCCCCAGCGGTGCCTGAACCCAGTGCCTG
CAGTGCCCAGTCCCAGCCCCAGCGTGAGGAAGAGACAGGTGTCCCTCAACTGGCAGCCACTGACGCTCCAGGAGG
CCAGAGCTCTACTGAAGCGGCGGCGGCCCCGGGGGCCAGGGGGCCGGGGACTACTGAGAAGGAGGCCCCCACAGC
GTGCCCCCGCTGGCAAGGCCCCGGTCCTGTGTCCCTTGATCTGTCACAATGGCGGTGTGTGCGTGAAGCCTGACC
GCTGCCTCTGTCCCCCGGACTTCGCTGGCAAGTTCTGCCAGTTGCACTCCTCGGGCGCCCGGCCCCCGGCCCCGG
CTGTACCAGGCCTCACCCGCTCCGTGTACACT**ATG**CCACTGGCCAACCACCGCGACGACGAGCACGGCGTGGCAT
CTATGGTGAGCGTCCACGTGGAGCACCCGCAGGAGGCGTCGGTGGTGGTGCACCAGGTGGAGCGTGTGTCTGGCC
CTTGGGAGGAGGCGGACGCTGAGGCGGTGGCGCGGGCGGAAGCGGCGGCGCGGGCGGAGGCGGCAGCGCCCTACA
CGGTGTTGGCACAGAGCGCGCCGCGGGAGGACGGCTACTCAGATGCCTCGGGCTTCGGTTACTGCTTTCGGGAGC
TGCGCGGAGGCGAATGCGCGTCCCCGCTGCCCGGGCTCCGGACGCAGGAGGTCTGCTGCCGAGGGGCCGGCTTGG
CCTGGGGCGTTCACGACTGTCAGCTGTGCTCCGAGCGCCTGGGGAACTCCGAAAGAGTGAGCGCCCCAGATGGAC
CTTGTCCAACCGGCTTTGAAAGAGTTAATGGGTCCTGCGAAGATGTGGATGAGTGCGCGACTGGCGGGCGCTGCC
AGCACGGCGAGTGTGCAAACACGCGCGGCGGGTACACGTGTGTGTGCCCCGACGGCTTTCTGCTCGACTCGTCCC
GCAGCAGCTGCATCTCCCAACACGTGATCTCAGAGGCCAAAGGGCCCTGCTTCCGCGTGCTCCGCGACGGCGGCT
GTTCGCTGCCCATTCTGCGGAACATCACTAAACAGATCTGCTGCTGCAGCCGCGTAGGCAAGGCCTGGGGCCGGG
GCTGCCAGCTCTGCCCACCCTTCGGCTCAGAGGGTTTCCGGGAGATCTGCCCGGCTGGTCCTGGTTACCACTACT
CGGCCTCCGACCTCCGCTACAACACCAGACCCCTGGGCCAGGAGCCACCCCGAGTGTCACTCAGCCAGCCTCGTA
CCCTGCCAGCCACCTCTCGGCCATCTGCAGGCTTTCTGCCCACCCATCGCCTGGAGCCCCGGCCTGAACCCCGGC
CCGATCCCCGGCCCGGCCCTGAGCTTCCCTTGCCCAGCATCCCTGCCTGGACTGGTCCTGAGATTCCTGAATCAG
GTCCCTCCTCCGGCATGTGTCAGCGCAACCCCCAGGTCTGCGGCCCAGGACGCTGCATTTCCCGGCCCAGCGGCT
ACACCTGCGCTTGCGACTCTGGCTTCCGGCTCAGCCCCCAGGGCACCCGATGCATTGATGTGGACGAATGTCGCC
GCGTGCCCCCGCCCTGTGCTCCCGGGCGCTGCGAGAACTCACCAGGCAGCTTCCGCTGCGTGTGCGGCCCGGGCT
TCCGAGCCGGCCCACGGGCTGCGGAATGCCTGGATGTGGACGAGTGCCACCGCGTGCCGCCGCCGTGTGACCTCG
GGCGCTGCGAGAACACGCCAGGCAGCTTCCTGTGCGTGTGCCCCGCCGGGTACCAGGCTGCACCGCACGGAGCCA
GCTGCCAGGATGTGGATGAATGCACCCAGAGCCCAGGCCTGTGTGGCCGAGGGGCCTGCAAGAACCTGCCTGGCT
CTTTCCGCTGTGTTTGCCCGGCTGGCTTCCGGGGCTCGGCGTGTGAAGAGGATGTGGATGAGTGTGCCCAGGAGC
CGCCGCCCTGTGGGCCCGGCCGCTGTGACAACACGGCAGGCTCCTTTCACTGTGCCTGCCCTGCTGGCTTCCGCT
CCCGAGGGCCCGGGGCCCCCTGCCAAGATGTGGATGAGTGTGCCCGAAGCCCCCCACCCTGCACCTACGGCCGGT
GTGAGAACACAGAAGGCAGCTTCCAGTGTGTCTGCCCCATGGGCTTCCAACCCAACACTGCTGGCTCCGAGTGCG
AGGATGTGGATGAGTGTGAGAACCACCTCGCATGCCCTGGGCAGGAGTGTGTGAACTCGCCCGGCTCCTTCCAGT
GCAGGACCTGTCCTTCTGGCCACCACCTGCACCGTGGCAGATGCACTGATGTGGACGAATGCAGTTCGGGTGCCC
CTCCCTGTGGTCCCCACGGCCACTGCACTAACACCGAAGGCTCCTTCCGCTGCAGCTGCGCGCCAGGCTACCGGG
CGCCGTCGGGTCGGCCCGGGCCCTGCGCAGACGTGAACGAGTGCCTGGAGGGCGATTTCTGCTTCCCTCACGGCG
AGTGCCTCAACACTGACGGCTCCTTTGCCTGTACTTGTGCCCCTGGCTACCGACCCGGACCCCGCGGAGCCTCTT
GCCTCGACGTTGACGAGTGCAGCGAGGAGGACCTTTGCCAGAGCGGCATCTGTACCAACACCGACGGCTCCTTCG
AGTGCATCTGTCCTCCGGGACACCGCGCTGGCCCGGACCTCGCCTCCTGCCTCGACGTGGACGAATGTCGCGAGC
GAGGCCCAGCCCTGTGCGGGTCGCAGCGCTGTGAGAACTCTCCCGGCTCCTACCGCTGTGTCCGGGACTGCGATC
CTGGGTACCACGCGGGCCCCGAGGGCACCTGTGACGATGTGGATGAGTGCCAAGAATATGGTCCCGAGATTTGTG
GAGCCCAGCGTTGTGAGAACACCCCTGGCTCCTACCGCTGCACACCAGCCTGTGACCCTGGCTATCAGCCCACGC
CAGGGGGCGGATGCCAGGATGTGAACGAGTGTGAAACACTACAGGGTGTATGTGGAGCTGCCCTGTGTGAAAATG
TCGAAGGCTCCTTCCTCTGTGTCTGCCCCAACAGCCCGGAAGAGTTTGACCCCATGACTGGACGCTGTGTTCCCC
CACGAACTTCTGCTGGCACGTTCCCAGGCTCGCAGCCCCAGGCACCTGCTAGCCCCGTTCTGCCCGCCAGGCCAC
CTCCGCCACCCCTGCCCCGCCGACCCAGCACACCTAGGCAGGGCCCTGTGGGGAGTGGGCGCCGGGAGTGCTACT
TTGACACAGCGGCCCCGGATGCATGTGACAACATCCTGGCTCGGAATGTGACATGGCAGGAGTGCTGCTGTACTG
TGGGTGAGGGCTGGGGCAGCGGCTGCCGCATCCAGCAGTGCCCGGGCACCGAGACAGCTGAGTACCAGTCATTGT
GCCCTCACGGCCGGGGCTACCTGGCGCCCAGTGGAGACCTGAGCCTCCGGAGAGACGTGGACGAATGTCAGCTCT
TCCGAGACCAGGTGTGCAAGAGTGGCGTGTGTGTGAACACGGCCCCGGGCTACTCATGCTATTGCAGCAACGGCT

FIGURE 2604B

ACTACTACCACACACAGCGGCTGGAGTGCATCGACAATGACGAGTGCGCCGATGAGGAACCGGCCTGTGAGGGCG
GCCGCTGTGTCAACACTGTGGGCTCTTATCACTGTACCTGCGAGCCCCCACTGGTGCTGGATGGCTCGCAGCGCC
GCTGCGTCTCCAACGAGAGCCAGAGCCTCGATGACAATCTGGGAGTGTGCTGGCAGGAAGTGGGGGCTGACCTCG
TGTGCAGCCACCCTCGGCTGGACCGTCAGGCCACCTACACAGAGTGCTGCTGCCTGTATGGAGAGGCCTGGGGCA
TGGACTGCGCCCTCTGCCCTGCGCAGGACTCAGATGACTTCGAGGCCCTGTGCAATGTGCTACGCCCCCCCGCAT
ATAGCCCCCCGCGACCAGGTGGCTTTGGACTCCCCTACGAGTACGGCCCAGACTTAGGTCCACCTTACCAGGGCC
TCCCATATGGGCCTGAGTTGTACCCACCACCTGCGCTACCCTACGACCCCTACCCACCGCCACCTGGGCCCTTCG
CCCGCCGGGAGGCTCCTTATGGGGCACCCCGCTTCGACATGCCAGACTTTGAGGACGATGGTGGCCCCTATGGCG
AATCTGAGGCTCCTGCGCCACCTGGCCCGGGCACCCGCTGGCCCTATCGGTCCCGGGACACCCGCCGCTCCTTCC
CAGAGCCCGAGGAGCCTCCTGAAGGTGGAAGCTATGCTGGTTCCCTGGCTGAGCCCTACGAGGAGCTGGAGGCGG
AGGAGTGCGGGATCCTGGACGGCTGCACCAACGGCCGCTGCGTGCGCGTCCCCGAAGGCTTCACCTGCCGTTGCT
TCGACGGCTACCGCCTGGACATGACCCGCATGGCCTGCGTTGACATCAACGAGTGTGATGAGGCCGAGGCTGCCT
CCCCGCTGTGCGTCAACGCGCGTTGCCTCAACACGGATGGCTCCTTCCGCTGCATCTGCCGCCCGGGATTCGCAC
CCACGCACCAGCCGCACCACTGTGCGCCCGCACGGCCCCGGGCC**TGA**GCCCTGGCACCCGCTGGCCGCCCACCCG
CGCCCGCCACTCGGGGCCCCTGCCGCGCATCCTGCAGCCCGCTTATGCGTATGTGCACGGGGCCGCCCGCCTGGA
CCTGGAGAAGGGACCTACGGACGCCTGGAAGCTGCGACGCCCTGCACTGCTCCCGCCTCCACCAGCGCCTCCCAC
TGATGTCGTGGTCCCGGGCCTGGCCCAGGGGCCCCTTTACATGCCCTCTCCCTTTTATAAAATTTTCCATTAAAA
ACCACCTATTTTCT

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FIGURE 2605

ACATTGTGACGCCCAGGTTGCAACAGG**ATG**GAATTCAGGGACGGACCCAGCCTGGCTAAGGGAACCATTTCACTG
CCGGACTTAGGCTGGCAATGCCCCCTTCCCCAACCCCAGACACAGGGGTTGGCCACAATCCCACTGAATGCCCTT
GGTTCACACTCCATTTCCCAGTTTCTGTTGACCCCCACCTTCCAGTGTTGGACAGGATGGAGGGGGGACACTTGC
TTAGGAGGCGGGGAGGGAGGAGGAGGAGAAGATGCGCAGTTACCTCATGTCGGTGCCCGCTGGGGAGGGGTCCGG
GAAGAAGGGGAAGGGGTGCCTGGCGGGTACTTTTCTATCTTTTATTTCCAGATTTTTTTTGTATCTAAACTTGAA
GATTTGTATTATACAAGGACAGCCAATAAAGGAAGAATA**TAA**TGGTG

FIGURE 2606

GCTCGCGCGCGTGCATCCCGCACCATCCCCCGGCCCCGGGCCCTGGCCGGCGTCAGACCGAGCTGCCGCCGCCAC
CACCGCAGCAGCAGCAGTCGGGGAGCCAGGCCCAGCCAGGGCCGCGGGAGGCGGGGGCGCCCGGGCCCTGG**ATG**T
CCCGCAGCGCGGCGGCCAGCGGCGGACCCCGGAGGCCTGAGCGGCACCTGCCCCCAGCCCCCTGTGGGGCCCCGG
GGCCCCCAGAAACCTGCAGGACGGAGCCAGACGGGGCGGGCACCATGAACAAGTTACGGCAGAGCCTGCGGCGGA
GGAAGCCAGCCTACGTGCCCGAGGCGTCGCGCCCGCACCAGTGGCAGGCAGACGAGGACGCGGTGCGGAAGGGCA
CGTGCAGCTTCCCGGTCAGGTACCTGGGTCACGTGGAGGTAGAGGAGTCCCGGGGAATGCACGTGTGTGAAGATG
CGGTGAAGAAGCTGAAGGCGATGGGCCGAAAGTCCGTGAAGTCTGTCCTGTGGGTGTCAGCCGATGGGCTCCGAG
TGGTGGACGACAAAACCAAGGATCTTCTGGTCGACCAGACCATCGAAAAGGTCTCCTTTTGTGCTCCTGACCGCA
ACCTGGACAAGGCTTTCTCCTATATCTGTCGTGACGGGACTACCCGCCGCTGGATCTGCCACTGTTTTCTGGCAC
TGAAGGACTCCGGCGAGAGGCTGAGCCACGCTGTGGGCTGTGCTTTTGCCGCCTGCCTGGAGCGAAAACAGCGAC
GGGAGAAGGAATGTGGGGTCACGGCCGCCTTCGATGCCAGCCGCACCAGCTTCGCCCGCGAGGGCTCCTTCCGCC
TGTCTGGGGGTGGGCGGCCTGCTGAGCGAGAGGCCCCGGACAAGAAGAAAGCAGAGGCAGCAGCTGCCCCCACTG
TGGCTCCTGGCCCTGCCCAGCCTGGGCACGTGTCCCCGACACCAGCCACCACATCCCCTGGTGAGAAGGGTGAGG
CAGGCACCCCTGTGGCTGCAGGCACCACTGCGGCCGCCATCCCCCGGCGCCATGCACCCCTGGAGCAGCTGGTTC
GCCAGGGCTCCTTCCGTGGGTTCCCAGCACTCAGCCAGAAGAACTCGCCTTTCAAACGGCAGCTGAGCCTACGGC
TGAATGAGCTGCCATCCACGCTGCAGCGCCGCACTGACTTCCAGGTGAAGGGCACAGTGCCTGAGATGGAGCCTC
CTGGTGCCGGCGACAGTGACAGCATCAACGCTCTGTGCACACAGATCAGTTCATCTTTTGCCAGTGCTGGAGCGC
CAGCACCAGGGCCACCACCTGCCACAACAGGGACTTCTGCCTGGGGTGAGCCCTCCGTGCCCCCTGCAGCTGCCT
TCCAGCCTGGGCACAAGCGGACACCTTCAGAGGCTGAGCGATGGCTGGAGGAGGTGTCACAGGTGGCCAAGGCCC
AGCAGCAGCAGCAGCAGCAACAGCAACAGCAGCAGCAGCAGCAGCAACAGCAGCAAGCAGCCTCAGTGGCCC
CAGTGCCCACCATGCCTCCTGCCCTGCAGCCTTTCCCCGCCCCCGTGGGGCCCTTTGACGCTGCACCTGCCCAAG
TGGCCGTGTTCCTGCCACCCCCACACATGCAGCCCCCTTTTGTGCCCGCCTACCCGGGCTTGGGCTACCCACCGA
TGCCCCGGGTGCCCGTGGTGGGCATCACACCCTCACAGATGGTGGCAAACGCCTTCTGCTCAGCCGCCCAGCTCC
AGCCTCAGCCTGCCACTCTGCTTGGGAAAGCTGGGGCCTTCCCGCCCCCTGCCATACCCAGTGCCCCTGGGAGCC
AGGCCCGCCCTCGCCCCAATGGGGCCCCCTGGCCCCCTGAGCCAGCGCCTGCCCCAGCTCCAGAGTTGGACCCCT
TTGAGGCCCAGTGGGCGGCATTAGAAGGCAAAGCCACTGTAGAGAAACCCTCCAACCCCTTTTCTGGCGACCTGC
AAAAGACATTCGAGATTGAACTG**TAG**

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FIGURE 2607

TCTGAGCATCCGAAGCGCGGCCAGGTATGCATCTAGGGCACCGGGGTCCTGGTGGCGCGCCAGTGGGCCCCCTCC
CTCCACCCCTGTGACTAAACCACCCTCCCTACACGGTTGAATGACAAGTTCAACCTTCCCTAAAACCCCCGGTGA
CGAGTCCAGCCGCGCGCCCATTCTTCACGCAGGGGCGGGACGGACTTTCAAAGACTTGGAGTTCCCACGGGTGTG
GGTTCGAGACCTTCCTCTGCCAGTTCCCAGCTCCGCTACCCTGAGCAAATGACTTACGCTCCATTGGATTTTCCG
CA**ATG**TGGCTGAAGGTGGGGGGCCTACTTCGGGGGACCGGTGGACAGCTGGGCCAGACTGTTGGTTGGCCTTGTG
GGGCCCTGGGGCCTGGGCCCCACCGCTGGGGACCATGTGGAGGTTCTTGGGCCCAAAAGTTTTACCAGGATGGGC
CTGGGAGAGGCCTGGGTGAGGAGGACATTCGCAGGGCACGGGAGGCCCGTCCCAGGAAGACACCCCGGCCCCAGC
TGAGTGACCGCTCTCGAGAACGCAAGGTGCCTGCCTCCCGCATCAGCCGCTTGGCCAACTTTGGGGGACTGGCTG
TGGGCTTGGGGCTAGGAGTACTGGCCGAGATGGCTAAGAAGTCCATGCCAGGAGGTCGTCTGCAGTCAGAGGGTG
GTTCTGGGCTGGACTCCAGCCCCTTCCTGTCGGAGGCCAATGCCGAGCGGATTGTGCAGACCTTATGTACAGTTC
GAGGGGCCGCCCTCAAGGTTGGCCAGATGCTCAGCATCCAGGGTACAGCA**TGA**CCCTCGACTCCTGACCCCTGAC
CTCCCTTCTACCCCAGCCCTACCCACCAACAGGCCCCAACTTCAGATACTCACACGGGGTCCCTCCTCACCTCTT
CGCTTACTTCCCCCCTGGTTCCACTGTCTCCCAAGACAACAGCTTCATCAGCCCTCAGCTGCAGCACATCTTTGA
GCGGGTCCGCCAGAGCGCCGACTTCATGCCCCGCTGGCAGATGCTGGTGAGTGCCCAGTGGGGGAGGGCGGTGAG
GGAGGCAGGCTCCATCTCCTCTGACCTGCCTGACCTTCCTGGCTTCACTGCCCCACTCCCTGCCTCTGAGCCTCA
CTTTCCCCATCTGTAAAATGGGAATCACCAGAGTACACACCTCCTAGCATTGCTGTGGTGATTAAAACAGGGAAC
AGCAGCCTGACCTCTCTGTGCTTCAGTTCCCTTCCCTGGGAAATGGCGATAGTGACAGCCACACCCACATCATAG
GGTCACATAAATCAGTTTACACTGAGCACTGAGAACGGCCCCTGATTCACTGTGAGCAACATGCAGGTGTTAGCT
GTGATTATTACTGTTTTTTTAATTAAAGGAGATCGTGTCTGTAATAGGTTGGCACGGCGCCTGGCACCAAGTAAG
TGCCCAGGACATGAGCTGTTCTAATAACTGGGTAAGGCATGGAATCCAGGATTCCGCCACCCACCTGCTCTCCCA
TCCCTGTTCTGCTTATTCGCCATGCGGCCCCAGGCAGGTACTGCCTCTCTCTGGGCCACTCTGAATAGGACCTGG
CCCACAGGAAGCCCATTGTAAATTTTAGCTCTTCTTGATCACAGTAACTGTGAGTTAATAATAACATATAAGAGC
ATAATAAAGGATGGTTGGCCACGTGTAATGGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGCGGTGGGAGG
ATCATTTGAGCTCAGGACTTCCAGACCACCCTGGGCAACATAGTGAGACCTTGTCTCTACTAAACATAATAACAG
TAATAATTAGCTGGGCACAGTGGCACATATCTGTAGTCCCAGCTATTCAGGAGGCAGGAGGATGGCTTGAGCTCG
GGAGGTTGATGCTGCAGTGAGCCGTGAGAGTGCCACTACACTCCAGCCTGGGCTACAGAACAAGACCCTGTCTC

FIGURE 2608

ATGAGGCGCTGCCCGTGCCGTGGGAGCCTGAACGAGGCGGAGGCCGGGGCGCTGCCCGCGGCGGCCCGCATGGGA
CTGGAGGCGCCGCGAGGAGGGCGGCGGCGGCAGCCGGGACAGCAGCGACCTGGGCCCGGCGCAGGGGCCCCGGCG
GGGCGGCCGGAGGGGGGCGGGCCCTGGGCCCGGACAGAGGGGTCCAGCCTCCACAGCGAGCCTGAGAGGGCCGGC
CTCGGGCCTGCGCCGGGGACAGAGAGTCCGCAGGCAGAATTCTGGACAGACGGACAGACTGAGCCCGCGGCAGCT
GGCCTTGGAGTAGAGACCGAGAGGCCCAAGCAAAAGACGGAGCCAGACAGGTCCAGCCTCCGGACGCATCTAGAA
TGGAGCTGGTCAGAGCTGGAGACGACTTGTCTTTGGACGGAGACCGGGACAGATGGCCTTTGGACTGATCCGCAC
AGGTCCGACCTCCAGTTTCAGCCCGAGGAGGCCAGCCCCTGGACACAGCCAGGGGTTCATGGGCCCTGGACAGAG
CTGGAAACGCATGGGTCACAGACTCAGCCAGAGAGGGTCAAGTCCTGGGCTGATAACCTCTGGACCCACCAGAAC
AGTTCCAGCCTCCAGACTCACCCAGAAGGAGCCTGTCCCTCAAAAGAGCCAAGTGCTGATGGCTCCTGGAAAGAA
TTGTATACTGATGGCTCCAGGACACAACAGGATATTGAAGGTCCCTGGACAGAGCCATATACTGATGGCTCCCAG
AAAAAACAGGATACTGAAGCAGCCAGGAAACAGCCTGGCACTGGTGGTTTCCAAATACAACAGGATACTGATGGC
TCCTGGACACAACCTAGCACTGACGGTTCCCAGACAGCACCTGGGACAGACTGCCTCTTGGGAGAGCCTGAGGAT
GGCCCATTAGAGGAACCAGAGCCTGGAGAATTGCTGACTCACCTGTACTCTCACCTGAAGTGTAGCCCCCTGTGC
CCTGTGCCCCGCCTCATCATTACCCCTGAGACCCCTGAGCCTGAGGCCCAGCCAGTGGGACCCCCCTCCCGGGTT
GAGGGGGGCAGCGGCGGCTTCTCCTCTGCCTCTTCTTTCGACGAGTCTGAGGATGACGTGGTGGCCGGGGGCGGA
GGTGCCAGCGATCCCGAGGACAGGTCTGGGAGCAAACCCTGGAAGAAGCTGAAGACAGTTCTGAAGTATTCACCC
TTTGTGGTCTCCTTCCGAAAACACTACCCTTGGGTCCAGCTTTCTGGACATGCTGGGAACTTCCAGGCAGGAGAG
GATGGTCGGATTCTGAAACGTTTCTGTCAGTGTGAGCAGCGCAGCCTGGAGCAGCTGATGAAAGACCCGCTGCGA
CCTTTCGTGCCTGCCTACTATGGCATGGTGCTGCAGGATGGCCAGACCTTCAACCAGATGGAAGACCTCCTGGCT
GACTTTGAGGGCCCCTCCATTATGGACTGCAAGATGGGCAGCAGGACCTATCTGGAAGAGGAGCTAGTGAAGGCA
CGGGAACGTCCCCGTCCCCGGAAGGACATGTATGAGAAGATGGTGGCTGTGGACCCTGGGGCCCCTACCCCTGAG
GAGCATGCCCAGGGTGCAGTCACCAAGCCCCGCTACATGCAGTGGAGGGAAACCATGAGCTCCACCTCTACCCTG
GGCTTCCGGATCGAGGGCATCAAGAAGGCAGATGGGACCTGTAACACCAACTTCAAGAAGACGCAGGCACTGGAG
CAGGTGACAAAAGTGCTGGAGGACTTCGTGGATGGAGACCACGTCATCCTGCAAAAGTACGTGGCATGCCTAGAA
GAACTTCGTGAAGCTCTGGAGATCTCCCCCTTCTTCAAGACCCACGAGGTGGTAGGCAGCTCCCTCCTCTTCGTG
CACGACCACACCGGCCTGGCCAAGGTCTGGATGATAGACTTCGGCAAGACGGTGGCCTTGCCCGACCACCAGACG
CTCAGCCACAGGCTGCCCTGGGCTGAGGGCAACCGTGAGGACGGCTACCTCTGGGGCCTGGACAACATGATCTGC
CTCCTGCAGGGGCTGGCACAGAGC**TGA**

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FIGURE 2609

CCTGACTTCCTTTTCGGAGGAAGATCCTTGAGCAGCCGACGTTGGGACAAAGGATTTGGAGAAACCCAGGGCTAA
AGTCACGTTTTTCCTCCTTTAAGACTTACCTCAACACTTCACTCC**ATG**GCAGTTCCCGAGACCCGCCCTAACCAC
ACTATTTATATCAACAACCTCAATGAGAAGATCAAGAAGGATGAGCTAAAAAAGTCCCTGTACGCCATCTTCTCC
CAGTTTGGCCAGATCCTGGATATCCTGGTATCACGGAGCCTGAAGATGAGGGGCCAGGCCTTTGTCATCTTCAAG
GAGGTCAGCAGCGCCACCAACGCCCTGCGCTCCATGCAGGGTTTCCCTTTCTATGACAAACCTATGCGTATCCAG
TATGCCAAGACCGACTCAGATATCATTGCCAAGATGAAAGGCACCTTCGTGGAGCGGGACCGCAAGCGGGAGAAG
AGGAAGCCCAAGAGCCAGGAGACCCCGGCCACCAAGAAGGCTGTGCAAGGCGGGGGAGCCACCCCCGTGGTGGGG
GCTGTCCAGGGGCCTGTCCCGGGCATGCCGCCGATGACTCAGGCGCCCCGCATTATGCACCACATGCCGGGCCAG
CCGCCCTACATGCCGCCCCCTGGTATGATCCCCCCGCCAGGCCTTGCACCTGGCCAGATCCCACCAGGGGCCATG
CCCCCGCAGCAGCTTATGCCAGGACAGATGCCCCCTGCCCAGCCTCTTTCTGAGAATCCACCGAATCACATCTTG
TTCCTCACCAACCTGCCAGAGGAGACCAACGAGCTCATGCTGTCCATGCTTTTCAATCAGTTCCCTGGCTTCAAG
GAGGTCCGTCTGGTACCCGGGCGGCATGACATCGCCTTCGTGGAGTTTGACAATGAGGTACAGGCAGGGGCAGCT
CGCGATGCCCTGCAGGGCTTTAAGATCACGCAGAACAACGCCATGAAGATCTCCTTTGCCAAGAAG**TAG**CACCTT
TTCCCCCCATGCCTGCCCCTTCCCCTGTTCTGGGGCCACCCCTTTCCCCCTTGGCTCAGCCCCCTGAAGGTAAGT
CCCCCCTTGGGGGCCTTCTTGGAGCCGTGTGTGAGTGAGTGGTCGCCACACAGCATTGTACCCAGAGTCTGTCCC
CAGACATTGCACCTGGCGCTGTTAGGCCGGAATTAAAGTGGCTTTTTGAGGTTTGGTTTTTCAC

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FIGURE 2610

AGTAGGAAGGAGCCGGGGCTGTAGCCGGAGTGGAGCGGCTGCCAGCCGAGGAGCAGGCGCGGCCGCGGCGCCATA
TTGCGGCCCTCAGCGGCCGCGACCGAGTC**ATG**GCTGAGACCTACGACTTCCTCTTCAAATTCCTGGTGATTGGCA
GTGCAGGAACTGGCAAATCATGTCTCCTTCATCAGTTCATTGAGAATAAGTTCAAACAGGACTCCAACCACACAA
TCGGCGTGGAGTTTGGATCCCGGGTGGTCAACGTGGGTGGGAAGACTGTGAAGCTACAGATTTGGGACACGGCTG
GCCAGGAGCGGTTTCGGTCAGTGACGCGGAGTTATTACCGAGGGGCGGCTGGAGCCCTGCTGGTGTACGACATCA
CCAGCCGGGAGACATACAACTCACTGGCTGCCTGGCTGACGGATGCCCGCACCCTGGCCAGCCCCAACATCGTGG
TCATCCTCTGTGGCAACAAGAAGGACCTGGACCCTGAGCGGGAGGTCACTTTCCTGGAGGCCTCCCGCTTTGCCC
AGGAGAATGAGCTGATGTTCCTGGAGACCAGCGCTCTCACAGGCGAGAACGTGGAGGAGGCGTTCCTCAAGTGTG
CCCGCACTATCCTCAACAAGATTGACTCAGGCGAGCTAGACCCGGAGAGGATGGGCTCTGGCATTCAGTACGGGG
ATGCGTCCCTCCGCCAGCTTCGGCAGCCTCGGAGTGCCCAGGCCGTGGCCCCTCAGCCGTGTGGCTGC**TGA**GCTC
TGTGGAGCCAGCTCACCTGTTCTCCAGGACCAGCCCTGCTGGGGCCCAGGCCCAGGCTCTGAGAGGCCGTGTCCT
AACCTGCCCTGGCCCCGGAGAAGCTACGTTGCCACCTGTCCCCCTTCCCTGGCCTGGTGGGGCCTGGCTTTGGGG
CAAGACTGAGCCACGGGGGAAGGGGGAATCCCGTACCTGCTGCTGCTTCCTCTGTCTTGGCTAACGTCTGTCCCC
CTGAACCCCTAACCATACCCCAAGAGCTCCCAAAGCCTGAGACCAGGGTCATTTGTCCCCAACTCCCCATCTGGC
CCTGCTGTTGCTAGTACCTGTTATTTATTACCTGGAGGCCTGTCCAGCACCCACCCTACCCCCATAAAGCATTGT
TTACA

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FIGURE 2611A

GTGTGAGTCCCATGTGCTTGGTGGGAGGCGCTGTGTGAGAATGTACAGGGCAGGAGGAAACATAGCAGGGCTGGG
GTGCAGAGGAGGCCCAGAGCAGTGCACTCCAGTCTGCAGGTACTGCACTGGGCACTGGGGAGACCAACCTGGCCC
CAGGGGCTTCCCTGTGGCTGCCTTCCAGGGCAGTACTAGGTAAACAGGTGCCTGTGCTGATGCCATGTTGCTAGG
AGTGGAACGGACAATCAGCCGGAGTACTCAAGGTGACCCTTGGTCTCTGAATCCTGAATAACAAAGAGGGTCAGA
AGGAAGAGTGTCCCAGGCCAGTGCTGAGGCCTTGTGGTGGCGATGAGCTCAGCCTGTTGAGGCATGGAGCAGAGT
GATGGGAGAGGCACATGAGGTTGGGGGCCTTTGAGGCTGTGGTTGGGAATTTGTATTTTCTCAGGATGGAGTGAA
GACCTGGAGAGGAGGGGCTCTGGCTGCTGTGTGGGGATGAATTGTGGGAAGAGGGTGCAGCACTGGACCCCTTCC
CTGCCACCCATCCACGTGCATCATCAGTGTAATCTCTGATTGGATTCCTAATTGGGGAGGTCTTGCCCATCTCTA
GTCAGTAACTCACTGTTTCTAAGCCTCCTGGACCATGGCCCAATTCTTCTCCCAGTGAGGTGGTTGCTCAGAGTG
CCGACCCTTCCATAGGGAGTGAGCAGTGCAAAGAAGGTGCCCCCTCCTGAACCTTGAAGTGTAGCCATTAGGGTT
TTCCCTGGGGGGCCTTCTCACTAATTGTACTCTGGTGCTGCCAGAGAGAAGGTTGTCAGCTTCCCACTGCTAGGT
GGCAGTAGATGGTGGCAGCCCTCTCTTTCCAGGGCAAGGTCTGGTGGATGAGGTGCACATGGTTAATGCAGAGCA
GCTTAACATCCACCACAGAGGGTGAGCCCTGGGATAATGTGTTGGGAGGCGTCCTGGGGAGGGTGAGGATTGAAG
CAGCCCAGTCTGCTGTGGCGTGCGTGCTTGGCAAGCATCCTGTTGTGGCAGTGGCCACTGATGTTTGATCGTGAA
TGTTTATCTTGGGACTGTCTTGCTGGGCCGGGCCCATAGGTGTAGCTGAGCATTCGTGGGGAATGGACGCCAGCA
GAGTTGTACCAGGGCAGAGAGGTCAGGGCAGAGAGGTCAAGACAGATGGTCCGGGCTGGGGAGAAGTTGAAGGGT
CCTTGTGCCAGTCCTCCCCTTTTTGTGTGCTACCTCATCTTGCCACTGCAGTGACTTTGGGCAGAGGGTGGGACA
GGGACCTTTTAAAATTTTTAAATGGCATTTCAGCCTGTGCTCCAGTTCTCCATGTGGCAGGCACTGTGCTGGCTG
TCTTCCCAGACACTTGTTATCTTGTTCACTTGTTCCACAACAACCTGTGAAATAGCTGTGAGCTCCATTGGATCC
ATGGATGAGGAACCTGAGACCAGGAAGTCACCTGCCTGATGCCACAGCTCATGTGGCAGCACTGAGACTTGAACC
AGGGAATTGTGTCTGCAGAAGTGGCTGGGCCATTTCCTTTACCTCTCAGCCACCTTTCTGCCAGCTCCCTGATGA
CAAACATCCCGGGGCCCTGGCCACAGCATTGTAGGGCTGGGTCAGGGGAGTGGCAACTGTCAGGCAGAGGAAAGA
ACCCTGTAGACAGAGAAACCAAGCCCTGCAATGAGTCCTGTTAGATCTCCAGGAGTTGGGGCTCCAGAACCTCCC
AAGTTATGTTCTCAGAGAGATTAATTGCTACCGCTGTAAACAGCAGTGTTTATTACCCCTGCTGTACACATCAGG
CAGTTGAGGCCCATTCAGGTGTTGGAACTGGCTAGGGTTACCCAGCAAATTATCCTTGGAGTTGGAATTAGGTCT
TTCTATTCAGACTGTAGCTTTTGGCTCCTGTTCGGAGGTCTATGGGACAGATAATTTAGTGGGGATTCTTTGTAG
TCCAGGGCAGCAGTTCTTAACATTGCTGCATGGTAGAATTACCTGGGAAGCTTTACCAATTTCAGGCCCTTCCTT
AGGCCAGGTACTTCAGAACCTCAGAGCTCCCCAGGGGGCTCCACTCCACAGCCAAGGGTAAGAATTCCTGGTCTA
GGGCTGTGAGGCCACCTCCTTGCACACCTGAAAATGTTTAAATTGGTATTATTCTACTGAAATGGCTGAGGTGGG
GTTTGGGGTATCTTGAAACAAATCAAACTCTGTTACTAATTGAGCCCTAGCTGGGTGCCAGGCCCCAGGTATGTG
TGTTGGGAGGGAGTGGGCTCTTGAGGCCCAGGAGCTGAGGTTTCTGATAGACTTGGGGATGGGATTTTGGCTGAA
AAAGAAAGTCTTTTGGGGCAGGAGCTTGGAACCCTTGACCCAAGGAGTCATGGGGAAGATGGGGCAAGGAGGGGT
GGGAAAATAGGTAATTCATGGCTGCTTCTCTAAG**ATG**TGCCTGCCTAGCCCCAGTAAACCTACCTCCCTCCATCC
CTGCCAGGCCATGGTGGCGTGTTACCCAGGCAACGGGCTCGGGTACGTAAGGCACGTTGACAATCCCCACGGCGA
TGGGCGCTGCATCACCTGTATCTATTACCTGAATCAGAACTGGGACGTTAAGGTAGGGGTGAGGGTGAGGGTGAG
GGTGGCGCTGGGGCTAGGGCTGGGGCGGGGGTGGCGTGCGTCCACTCCATTTTCCACTCTCAGCCCAGATTCTGG
CATTCTCCTGTTTCTCTTCTCAACACACAGCGGGCAGTGCGATCTGCCGGCTCTTCCTGGGAAATGGCACCTCCT
CCTCTCTAGCGGACTGTGTGGTGGGAACTCCCCTCTTTCCGGGAATGGTGCTGTCTGCCCAGCCCCACCCGGCCT
TGTAATGAACACTTTCCCCCTTTTCCTGTCTTTAGTAGCTTCCTGCCCATCTCCATGG**TGA**TGCAGTCTCTGGGT
TGTCATTCACTTTGAGAGCCCGAGGGGTGGGAGGGAGTGATGCAGGCAGACGCTGCGCCTCCTAGTGGGCTCCCG
GGGCACCGTGGGAGGCAGCGGCTCCTGGCCGTACCAGCTAGCCTCATCCTTTGGCCTGCCCCCAGGTGCATGGCG
GCCTGCTGCAGATCTTCCCTGAGGGCCGGCCCGTGGTAGCCAACATCGAGCCACTCTTTGACCGGTTGCTCATTT
TCTGGTCTGACCGGCGGAACCCCCACGAGGTGAAGCCAGCCTATGCCACCAGGTACGCCATCACTGTCTGGTATT
TTGATGCCAAGGAGCGGGCAGCAGCCAAAGACAAGTATCAGCTAGCATCAGGACAGAAAGGTGTCCAAGTACCTG
TATCACAGCCGCCTACGCCCACCTAGTGGCCAGTCCCAGAGCCGCATGGCAGACAGCTTAAATGACTTCAGGAGA
GCCCTGGGCCTGTGCTGGCTGCTCCTTCCCTGCCACCGCTGCTGCTTCTGACTTTGCCTCTGTCCTGCCTGGTGT
GGAGGGCTCTGTCTGTTGCTGAGGACCAAGGAGGAGAAGAGACCTTTGCTGCCCCATCATGGGGGCTGGGGTTGT
CACCTGGACAGGGGGCAGCCGTGGAGGCCACCGTTACCAACTGAAGCTGGGGGCCTGGGTCCTACCCTGTCTGGT

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FIGURE 2611B

CATGACCCCATTAGGTATGGAGAGCTGGGAGGAGGCATTGTCACTTCCCACCAGGATGCAGGACTTGGGGTTGAG
GTGAGTCATGGCCTCTTGCTGGCAATGGGGTGGGAGGAGTACCCCCAAGTCCTCTCACTCCTCCAGCCTGGAATG
TGAAGTGACTCCCCAACCCCTTTGGCCATGGCAGGCACCTTTTGGACTGGGCTGCCACTGCTTGGGCAGAGTAAA
AGGTGCCAGGAGGAGCATGGGTGTGGAAGTCCTGTCAGCCAAGAAATAAAAGTTTACCTCAGAGCTGCA

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FIGURE 2612

ACTACCACC**ATG**CTGGCCTCAGGGATGCTTCTGGTGGCCTTGCTGGTCTGCCTGACTGTAATGGTCTTGATGTCT
GTTTGGCAGCAGAGGAAGAGCAAGGGGAAGCTGCCTCCGGGACCCACCCCATTGCCCTTCATTGGAAACTACCTG
CAGCTGAACACAGAGCAGATGTACAACTCCCTCATGAAGATCAGTGAGCGCTATGGCCCCGTGTTCACCATTCAC
TTGGGGCCCCGGCGGGTCGTGGTGCTGTGTGGACATGATGCCGTCAGGGAGGCTCTGGTGGACCAGGCTGAGGAG
TTCAGCGGGCGAGGCGAGCAAGCCACCTTCGACTGGGTCTTCAAAGGCTATGGCGTGGTATTCAGCAACGGGGAG
CGCGCCAAGCAGCTCCGGCGCTTCTCCATCGCCACCCTGCGGGACTTCGGGGTGGGCAAGCGAGGCATCGAGGAG
CGCATCCAGGAGGAGGCGGGCTTCCTCATCGACGCCCTCCGGGGCACTGGCGGCGCCAATATCGATCCCACCTTC
TTCCTGAGCCGCACAGTCTCCAATGTCATCAGCTCCATTGTCTTTGGGGACCGCTTTGACTATAAGGACAAAGAG
TTCCTGTCACTGTTGCGCATGATGCTAGGAATCTTCCAGTTCACGTCAACCTCCACGGGGCAGCTCTATGAGATG
TTCTCTTCGGTGATGAAACACCTGCCAGGACCACAGCAACAGGCCTTTCAGTTGCTGCAAGGGCTGGAGGACTTC
ATAGCCAAGAAGGTGGAGCACAACCAGCGCACGCTGGATCCCAATTCCCCACGGGACTTCATTGACTCCTTTCTC
ATCCGCATGCAGGAGGAGGAGAAGAACCCCAACACGGAGTTCTACTTGAAAAACCTGGTGATGACCACGTTGAAC
CTCTTCATTGGGGGCACCGAGACCGTCAGCACCACCCTGCGCTATGGCTTCTTGCTGCTCATGAAGCACCCAGAG
GTGGAGGCCAAGGTCCATGAGGAGATTGACAGAGTGATCGGCAAGAACCGGCAGCCCAAGTTTGAGGACCGGGCC
AAGATGCCCTACATGGAGGCAGTGATCCACGAGATCCAAAGATTTGGAGACGTGATCCCCATGAGTTTGGCCCGC
AGAGTCAAAAAGGACACCAAGTTTCGGGATTTCTTCCTCCCTAAGGGCACCGAAGTGTTCCCTATGCTGGGCTCT
GTGCTGAGAGACCCCAGTTTCTTCTCCAACCCCCAGGACTTCAATCCCCAGCACTTCCTGAATGAGAAGGGGCAG
TTTAAGAAGAGTGATGCTTTTGTGCCCTTTTCCATCGGAAAGCGGAACTGTTTCGGAGAAGGCCTGGCCAGAATG
GAGCTCTTTCTCTTCTTCACCACCGTCATGCAGAACTTCCGCCTCAAGTCCTCCCAGTCACCTAAGGACATTGAC
GTGTCCCCCAAACACGTGGGCTTTGCCACGATCCCACGAAACTACACCATGAGCTTCCTGCCCCGC**TGA**GCGAGG
GCTGTGCCGGTGCAGGTCTGGTGGGCGGGGCCAGGGAAAGGGCAGGGCCAAGACCGGGCTTGGGAGAGGGGCGCA
GCTAAGACTGGGGGCAGGATGGCGGAAAGGAAGGGGCGTGGTGGCTAGAGGGAAGAGAAGAAACAGAAGCGGCTC
AGTTCACCTTGATAAGGTGCTTCCGAGCTGGGATGAGAGGAAGGAAACCCTTACATTATGCTATGAAGAGTAGTA
ATAATAGCAGCTCTTATTTCCTGAGC

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FIGURE 2613

CCCTGGGTCTTCCTAGCCCCGAGACTTTCAAGTCCATATGCCTGGAGTCCCCCCTCCTGAGACCCTTAACCCTGC
ATCCTCCGCAACAGAAGACCTCCAGATGCACAGCCACACTTCCATCTCACCCTAATAAAACCCAGACCTTTGGAT
TCCTCTCCCTTGGAATGCCCAAATCCACAACTTTGGGGTGCATTCTCACTCTCAGACCCCAAATCCAAAGCCCAA
GTGCTCCCCTATGCAAATATTCCAAACTCTTCAGTTCTACAGTTTATCGGTTGCCCCCTCCTAAATCCACAGCCC
TGCGGCACCCCTCCTGAAGTACCACAGATTTAGTCTGGAGGCCCCCTCTCTGTTCAGCTGCCCTGGGGTCCCCTT
ATCCTCCCTTGCTGGCTGTGTCCCAAGCTAGGTGGCATTCATGGTGGGGCGTGTAGTTGGGAGGTGAAATAAGGT
GATTATGTAATTAGCCAAAGTCCATCCCTCTTTTTCAGGCAGTATAAAGGCAAACCACCCCACCCATCACCATCT
GTCATCTCACTACCACC**ATG**CTGGCCTCAGGGCTGCTTCTGGTGGCCTTGCTGGCCTGCCTGACTGTGATGGTCT
TGATGTCTGTCTGGCAGCAGAGGAAGAGCAGGGGGAAGCTGCCTCCGGGACCCACCCCACTGCCCTTCATTGGAA
ACTACCTCCAGCTGAACACAGAGCACATATGTGACTCCATCATGAAGTTCAGTGAGTGCTATGGCCCCGTGTTCA
CCATTCACTTGGGGCCCCGGCGGGTCGTGGTGCTGTGTGGACATGATGCCGTCAGGGAGGCTCTGGTGGACCAGG
CTGAGGAGTTCAGCGGGCGAGGCGAGCAAGCCACCTTCGACTGGGTCTTCAAAGGCTATGGCGTGGCGTTCAGCA
ACGGGGAGCGCGCCAAGCAGCTCCTGCGCTTTGCCATCGCCACCCTGAGGGACTTCGGGGTGGGCAAGCGAGGCA
TCGAGGAGCGCATCCAGGAGGAGTCGGGCTTCCTCATCGAGGCCATCCGGAGCACGCACGGCGCCAATATCGATC
CCACCTTCTTCCTGAGCCGCACAGTCTCCAATGTCATCAGCTCCATTGTCTTTGGGGACCGCTTTGACTATGAGG
ACAAAGAGTTCCTGTCACTGCTGAGCATGATGCTAGGAATCTTCCAGTTCACGTCAACCTCCACGGGGCAGCTCT
ATGAGATGTTCTCTTCGGTGATGAAACACCTGCCAGGACCACAGCAACAGGCCTTTAAGTTGCTGCAAGGGCTGG
AGGACTTCATAGCCAAGAAGGTGGAGCACAACCAGCGCACGCTGGATCCCAATTCCCCACAGGACTTCATCGACT
CCTTTCTCATCCACATGCAGGAGGAGGAGAAGAACCCCAACACGGAGTTCTACTTGAAGAACCTGATGATGAGCA
CGTTGAACCTCTTCATTGCAGGCACCGAGACGGTCAGCACCACCCTGCGCTATGGCTTCTTGCTGCTCATGAAGC
ACCCAGAGGTGGAGGCCAAGGTCCATGAGGAGATTGACAGAGTGATCGGCAAGAACCGGCAGCCCAAGTTTGAGG
ACCGGACCAAGATGCCCTACATGGAGGCAGTGATCCACGAGATCCAAAGATTTGGAGACGTGATCCCCATGAGTT
TGGCCCGCAGGGTTAAAAAGGACACCAAGTTTCGGGATTTTTTCCTCCCTAAGGGCACCGAAGTGTTCCCTATGC
TGGGCTCCGTGCTGAGAGACCCCAGCTTCTTCTCCAACCCTCAGGACTTCAATCCCCAGCATTTCCTGGATGACA
AGGGGCAGTTTAAGAAGAGTGATGCTTTTGTGCCCTTTTCCATCGGAAAGCGGAACTGTTTCGGAGAAGGCCTGG
CCAGAATGGAGCTCTTTCTCTTCTTCACCACCGTCATGCAGAACTTCCGCCTCAAGTCCTCCCAGTCACCTAAGG
ACATTGACGTGTCCCCCAAACACGTGGTCTTTGCCACGATCCCACGAAACTACACCATGAGCTTCCTGCCCCGC**T**
GAGCGAGGGCTGTGCCGGTGCAGGTCTGGTGGGCGGGGCCAGGGAAAGGCGGGGTCAGGGCGGGGTTCGCGGAAG
AGGCGGGTATAAGAATGGGGGGAAGATGCGGGAAAGGAAGGGGCGTGGTGGCTAGAGGGAAGAGAAGAAACAGAA
GCGGCTCAGTTCACCTTGATAAGGTGCTTCCGAGCTGGGATGAGAGGAAGGGAAACCTTACATTATGCTATGAAG
AGTAGTAATAATAGCAGCTCTTATTTCCTGA

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FIGURE 2614

CAGGACC**ATG**GAACTCAGCGTCCTCCTCTTCCTTGCACTCCTCACAGGACTCTTGCTACTCCTGGTTCAGCGCCA
CCCTAACACCCATGACCGCCTCCCACCAGGGCCCCGCCCTCTGCCCCTTTTGGGAAACCTTCTGCAGATGGATAG
AAGAGGCCTACTCAAATCCTTTCTGAGGTTCCGAGAGAAATATGGGGACGTCTTCACGGTACACCTGGGACCGAG
GCCCGTGGTCATGCTGTGTGGAGTAGAGGCCATACGGGAGGCCCTTGTGGACAAGGCTGAGGCCTTCTCTGGCCG
GGGAAAAATCGCCATGGTCGACCCATTCTTCCGGGGATATGGTGTGATCTTTGCCAATGGAAACCGCTGGAAGGT
GCTTCGGCGATTCTCTGTGACCACTATGAGGGACTTCGGGATGGGAAAGCGGAGTGTGGAGGAGCGGATTCAGGA
GGAGGCTCAGTGTCTGATAGAGGAGCTTCGGAAATCCAAGGGGGCCCTCATGGACCCCACCTTCCTCTTCCAGTC
CATTACCGCCAACATCATCTGCTCCATCGTCTTTGGAAAACGATTCCACTACCAAGATCAAGAGTTCCTGAAGAT
GCTGAACTTGTTCTACCAGACTTTTTCACTCATCAGCTCTGTATTCGGCCAGCTGTTTGAGCTCTTCTCTGGCTT
CTTGAAATACTTTCCTGGGGCACACAGGCAAGTTTACAAAAACCTGCAGGAAATCAATGCTTACATTGGCCACAG
TGTGGAGAAGCACCGTGAAACCCTGGACCCCAGCGCCCCCAAGGACCTCATCGACACCTACCTGCTCCACATGGA
AAAAGAGAAATCCAACGCACACAGTGAATTCAGCCACCAGAACCTCAACCTCAACACGCTCTCGCTCTTCTTTGC
TGGCACTGAGACCACCAGCACCACTCTCCGCTACGGCTTCCTGCTCATGCTCAAATACCCTCATGTTGCAGAGAG
AGTCTACAGGGAGATTGAACAGGTGATTGGCCCACATCGCCCTCCAGAGCTTCATGACCGAGCCAAAATGCCATA
CACAGAGGCAGTCATCTATGAGATTCAGAGATTTTCCGACCTTCTCCCCATGGGTGTGCCCCACATTGTCACCCA
ACACACCAGCTTCCGAGGGTACATCATCCCCAAGGACACAGAAGTATTTCTCATCCTGAGCACTGCTCTCCATGA
CCCACACTACTTTGAAAAACCAGACGCCTTCAATCCTGACCACTTTCTGGATGCCAATGGGGCACTGAAAAAGAC
TGAAGCTTTTATCCCCTTCTCCTTAGGGAAGCGGATTTGTCTTGGTGAAGGCATCGCCCGTGCGGAATTGTTCCT
CTTCTTCACCACCATCCTCCAGAACTTCTCCATGGCCAGCCCCGTGGCCCCAGAAGACATCGATCTGACACCCCA
GGAGTGTGGTGTGGGCAAAATACCCCCAACATACCAGATCCGCTTCCTGCCCCGC**TGA**AGGGGCTGAGGGAAGGG
GGTCAAAGGATTCCAGGGTCATTCAGTGTCCCCGCCTCTGTAGACAATGGCTCTGACTCCCCGCAACTTCCTGCC
TCTGAGAGACCTGCTACAAGCCAGCTTCCTTCCCCTCCATGGCACCAGTTGTCTGAGGTCACATTGCAAGTGAGT
GCAGGAGTGAGATTATCGAAAATTATAATATACAAAATCATATATATATATATGTTCTTGTTTTTTGAGACAGAG
TCTCACACTGTTGCCCAGGCTGGAGTGCAGTGGCGTGATCTCGGCTCACTGCAACCTCCACCCCCGGGGATCAAG
CAACTCTCCTGCCTCAGCCTCCCTAGTAGCTGGGATTACAGGCATGCACTACCACGCTTGGCTAATTTTTGTATT
TTTAGTAGAGATGGGGTTTCACTGTGTAGGCCAGGCTGGTCTCGAACTCCTGAACTCAAGTGATTCACCCACCTT
AGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGTCACCGTGCCCAGCCATGTATATATATAATTTTAAAAATTAA
GCTGAAATTCACATAACATAAAATTAGCTGTTTTAAAGTGTAAAATTTAGTGGCGTGTGGTTCATTCACAAAGCT
GTACAACCACCACCATCTAGTTCCAAACATTTTCTTTTTTTCTGAGATGGAGTCTCACTCTGTCACCCAGGTTCG
AGTTCAGTGGTGCCATCTCTGTCCACTGCAACCTCCACATCCTGGGTTCAAGTGATTCTCCTGCCTCAGCCTCTG
GAGGAGCTGGTATCACAGGCGTCCCCCACCACGCCTGGCTAAATTTTGTATTTTTAGGTGGTCTTGAACTCCTGA
TGTCAGGTGATTCTCCTAGCTCCAAATGTTTTCATTATCTCTCCCCCAACAAAACCCATACCTATCAAGCTGTCA
CTCCCCATACCCCATTCTCTTTTTCATCTCGGCCCCTGTCAATCTGGTTTTTGTCACTATGGACTTACCAATTCT
GAATATTTCCCATAAACAGAATCATACAATATTTGATTTTTTTTTTTTTTTTTGAAACTAAGCCTTGCTCTGTCTC
CCAGGCTGGAGTGCTATGGTGCAATTTTTGTTCACTGCAACCTCTGCCTTCCAAGATCAAGAGATTCTCCAGTCT
CAGCTCCCAAGTAGCTGGGATTACAGGCATGTACTACCATGCCTGGCTAATTTTCTTGTAGTTTTAGTAGGGACA
TGTTGGCCAGGCTGGTGGTGAGCTCCTGGCCTCAGGTGATCCACCCACCTCAGTGTTCCAAAGTGCTGATATTAC
AGGCATAATATGTGATCTTTTGTGTCTGGTTGCTTTCATGTTGAATGCTATTTTTGAGGTTCATGCCTGTTGTAG
ACCACAGTCACACACTGCTGTAGTCTTCCCCAGTCCTCATTCCCAGCTGCCTCTTCCTACTGCTTCCGTCTATCA
AAAAGCCCCCTTGGCCCAGGTTCCCTGAGCTGTGGGATTCTGCACTGGTGCTTTGGATTCCCTGATATGTTCCTT
CAAATCTGCTGAGAATTAAATAAACATCTCTAAAGCCTGACCTCCCCACGTC

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FIGURE 2672

CCGAGGGTCAGGCTGCAGAAGCCCAGAATCCCACCCCAGTCCCCAAGTACAGAGGTCGCTGTCAAGATGGAGTTT
CCAACCCAGTAAATCCAAGGGCCAGACCGTGACCTCATAAAGC**ATG**ATCTCCTTCTGTCCAGACTGTGGCAAAAG
TATCCAAGCGGCATTCAAATTCTGCCCCTACTGTGGAAATTCTTTGCCTGTAGAGGAGCATGTAGGGTCCCAGAC
CTTTGTCAATCCACATGTGTCATCCTTCCAAGGCTCAAAGAGAGGGCTGAACTCCAGTTTTGAAACCTCTCCTAA
GAAAGTGAAATGGTCCAGCACCGTCACCTCTCCCCGATTATCCCTCTTCTCAGATGGTGACAGTTCTGAGTCTGA
AGATACTCTGAGTTCCTCTGAGAGATCCAAAGGCTCCGGGAGCAGACCCCCAACCCCCAAAAGCAGCCCTCAGAA
GACCAGGAAGAGCCCTCAGGTGACCAGGGGTAGCCCTCAGAAGACCAGCTGTAGCCCTCAGAAGACCAGGCAGAG
CCCTCAGACGCTGAAGCGGAGCCGAGTGACCACCTCACTTGAAGCTTTGCCCACAGGGACAGTGCTGACAGACAA
GAGTGGGCGACAGTGGAAGCTGAAGTCCTTCCAGACCAGGGACAACCAGGGCATTCTCTATGAAGCTGCACCCAC
CTCCACCCTCACCTGTGACTCAGGACCACAGAAGCAAAAGTTCTCACTCAAACTGGATGCCAAGGATGGGCGCTT
GTTCAATGAGCAGAACTTCTTCCAGCGGGCCGCCAAGCCTCTGCAAGTCAACAAGTGGAAGAAGCTGTACTCGAC
CCCACTGCTGGCCATCCCTACCTGCATGGGTTTCGGTGTTCACCAGGACAAATACAGGTTCTTGGTGTTACCCAG
CCTGGGGAGGAGCCTTCAGTCGGCCCTGGATGTCAGCCCAAAGCATGTGCTGTCAGAGAGGTCTGTGCTGCAGGT
GGCCTGCCGGCTGCTGGATGCCCTGGAGTTCCTCCATGAGAATGAGTATGTTCATGGAAATGTGACAGCTGAAAA
TATCTTTGTGGATCCAGAGGACCAGAGTCAGGTGACTTTGGCAGGCTATGGCTTCGCCTTCCGCTATTGCCCAAG
TGGCAAACACGTGGCCTACGTGGAAGGCAGCAGGAGCCCTCACGAGGGGGACCTTGAGTTCATTAGCATGGACCT
GCACAAGGGATGCGGGCCCTCCCGCCGCAGCGACCTCCAGAGCCTGGGCTACTGCATGCTGAAGTGGCTCTACGG
GTTTCTGCCATGGACAAATTGCCTTCCCAACACTGAGGACATCATGAAGCAAAAACAGAAGTTTGTTGATAAGCC
GGGGCCCTTCGTGGGACCCTGCGGTCACTGGATCAGGCCCTCAGAGACCCTGCAGAAGTACCTGAAGGTGGTGAT
GGCCCTCACGTATGAGGAGAAGCCGCCCTACGCCATGCTGAGGAACAACCTAGAAGCTTTGCTGCAGGATCTGCG
TGTGTCTCCATATGACCCCATTGGCCTCCCGATGGTGCCC**TAG**GTGGAATCCAGAACTTTCCATTTGCAGTGTGC
AACAGAAAAAAAAAAAATGAAGTAATGTGACTCAAGGCCTGCTGTTTAATCACAGATAAGCTTCTAGAACAAGCCC
TGGAATGTGCATTCCTGCCACTGGTTTCAGGATACTCATCAGTCCTGATTAGCCTCCCGGAGGGCCCCAGTTTCC
CTCCCGTGAATGTGAAGTTCCCCATCTTGGTGGCCTGCCCTTCAGCCAGTGTCCTAGCAAAGCTGGATGGGGTTG
GGCCGGCCCACAGGGGGGACCCCTCCTACCCTTGACACCTCTGTGCTTTGGTAATAAATTGTTTTACCAGAG

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FIGURE 2673

CACTCTGCCTAGGACGCACCTAATTGCCCAGCCACAGGCTGTGACAGTAC**ATG**GGAACTGTCCACCAGGAAGTTC
CTCAGAGGCTCAGTGCTCGGGGCTGTTATTGGGGAGTAGTCATGTGGCCCCCTCTGTCTGACATGTATCCGCATC
CCAGGTTCCCCAGAGGAAAGCAGGTGTTGCACAGAAACCACAGTGATTGCACAAGCAGTTTAGGCTCAGCGAGCC
CCACTCACTTAGGGGATTCTGGGAGCCCTCCCGGAATCCAGGGTCCCAGACCTTGCCAGGAGAGCCGTCTCAGGC
CTGCTGCATTAGCCCTTCCTGCATGGCTGGATAGTGACAGAGAGAAAGAGGAAGAAGAAGCTTATTTAAAACTAG
GAAGCAGCAAGTCG**TGA**GAGCCAAGAGTGCGCTTGACCTTGTTGGAACCAGGGCACCAGAGCCGCTTCTCATTGC
TGGGAAGTTTGGGGATGATGACCCTGACCTTCCGCGTGGTTATAACCTCACTCCCTTGTTTGTTCCCCCACAGCT
GCACCCACCTCCACCCTCACCTGTGACTCAGGACCACAGAAGCAAAAGTTCTCACTCAAACTGGTAAGTGACCCT
GCAGGTGGGGGGCAGCTTGGAGGGGAGGGACTTTCACAAACACATCCTTGACTTCTGAGCCCGTCTGTCAGCTGG
GAGAGCTCGGCCGGGGGCCAGGGTCCCCACCTGCAAGGAGTATTAAGACCGTGGGCGGGGCAGGCGCCCAGTTCT
CCATCATCCCAGGGTGTTGGAAACCCACAGTTGGATCCACCCAAGTCTGGCTCTGATGCTTCCCTGCTGTGTGAC
CTGGGCAAGCCCATCCCCCTCAGAGCTCAGTTTCCTCATCTGTGAAATGGAGCCACTAATACCCACAGGGTGTGG
CCCATCTGCCCCCTACCACCGGCCTCGCAGCGTGCTCGTATCGAGCACCTACTGTGTATCACCGTGCTGGGTGTG
GGGTCCAAAAGAGAACCCAGCAGATGGGGTCCCTGTGCTGAGGATTCAGTGAAATCACACATCGGGTGCCGAGCA
TGAGTCTCAGCAGACAGGACATGTGCACTCGAGGTTGGGGCTAAAAGGAAACAAATAGAGAAAGGGAGAGTGGCC
ACGAGGGTGAATCACGCCTTCCACACAGAGGAGGTGCCTAACAGAAGGGCATCGTGGTGGTTCATAGCCCCGCCA
TCATCCCTGGGTGCTGGGATTACAGGTGACTCTTATTTTCTTTTTGTTTATCAGAATTGTCTCACACCCCAGAAA
ACCAGGGACAGCTGGGTCAGTTGCCCTCCCTCCGCCCTAGGTGGAGGCCATGAGAGTGGGTCAGAGCGTGGGCTG
TGGAGCCGGGCTCACTAGTGGTGGGTAGCACCTGCTTTGAGAGCCTGGCATTGCCTGAGCCGGGCTGTGTTTCAT
AAGCACTGCTTCATTGAATCCTCCCAGTAGGGCAGCTACCGTGTCCCATTTAACACTTCTCTGCATGGTTCAGGT
GTGTCTGGCACAGTAGGCACCCCATCAACCTGAGCTGTTCCTGTTATTACTACTGTAATTATGCTCATCATCCTA
GAAATACAGCCTTGCTCTCTGTTCGTGCATCTGACCTCATCAACATTTCCTGAGGCTCAAAACTTGGTGATGATG
AGTTGGCCCCAGGCCCAGCCCTGGAGAGGCTCCCAGTCTGGCGGGAGCCATGTCATGTCCCAGTCCCATCGGGAA
GAGGGGTGGGCTGGGAGGGGAGCACAGGGCACTGGGCCAACCAGAAGACATTCACCCTCCCCATCCACTGGGAAG
GCAGCTCTGTTCTGAAGCATTCGAAAGGTCAGGGGCTGAATGCCCAGTGGTGTTCATCCATCCATTTATTCATTT
ATTCACCAAGCCTTTCCTGCAACCTCCTGTGAACTGAGTGCTGGGGACATCTGCAGAGATGGGTCAGACCCAATT
CCTGCCCTGAAGGAGCTGCCCCCTTGGGGGAGTGGGGCAGGCATGAATACCCCACATGAGATTGCTCAGGGCCTG
CATGGCTGTGCCCACGTCGCTCGCGTCAGTCACTATGGGCTTCGCCAGCATCGTGGGGAGGACTCCAGGACGC

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FIGURE 2674

TCATTCCCTGTCCTCGGATCACAGTCTCTTCTCACTACAGTGTCGCCGCCTCTGCCTGCGTAGCCCCGGCCATGG
CTCTGTAGCCTCGACCCCTTTGTGCCCCCGGCCCGTCTCCGCGCTCACCACGCCTGCGCTCTCCGCTCCCACCTT
CTTTCTTCAGCCGAGGCCGCCGCCGCCTCTCCTTGCTGCAGCCATGGAGTCTTCCACTTTCGCCTTGGTGCCTGT
CTTCGCCCACCTGAGCATCCTCCAGAGCCTCGTGCCAGCTGCTGGTGCAGCCTCTCCTGTTGCCATCAGTGCCCA
GCACCTGTGCTACAGCC**ATG**TCACTCCTGGCGACCCTGGGGCTGGAGCTGGACAGGGCCCTGCTCCCAGCTAGTG
GGCTGGGATGGCTCGTAGACTATGGGAAACTCCCCCCGGCCCCTGCCCCCCTGGCTCCCTATGAGGTCCTTGGGG
GAGCCCTGGAGGGCGGGCTTCCAGTGGGGGGAGAGCCCCTGGCAGGTGATGGCTTCTCTGACTGGATGACTGAGC
GAGTTGATTTCACAGCTCTCCTCCCTCTGGAGCCTCCCTTACCCCCCGGCACCCTCCCCCAACCTTCCCCAACCC
CACCTGACCTGGAAGCTATGGCCTCCCTCCTCAAGAAGGAGCTGGAACAGATGGAAGACTTCTTCCTAGATGCCC
CGCCCCTCCCACCACCCTCCCCGCCGCCACTACCACCACCACCACTACCACCAGCCCCCTCCCTCCCCCTGTCCC
TCCCCTCCTTTGACCTCCCCCAGCCCCCTGTCTTGGATACTCTGGACTTGCTGGCCATCTACTGCCGCAACGAGG
CCGGGCAGGAGGAAGTGGGGATGCCGCCTCTGCCCCCGCCACAGCAGCCCCCTCCTCCTTCTCCACCTCAACCTT
CTCGCCTGGCCCCCTACCCACATCCTGCCACCACCCGAGGGGACCGCAAGCAAAAGAAGAGAGACCAGAACAAGT
CGGCGGCTCTGAGGTACCGCCAGCGGAAGCGGGCAGAGGGTGAGGCCCTGGAGGGCGAGTGCCAGGGGCTGGAGG
CACGGAATCGCGAGCTGAAGGAACGGGCAGAGTCCGTGGAGCGCGAGATCCAGTACGTCAAGGACCTGCTCATCG
AGGTTTACAAGGCCCGGAGCCAGAGGACCCGTAGCTGC**TAG**AAGGGCAGGGGTGTGGCTTCTGGGGGCTGGTCTT
CAGCTCTGGCGCCTTCATCCCCCTGCCTCTACCTTCATTCCAAACCCCTCTCGGCCGGGTGCAGTGGCTTATGCT
TGTAATCCCAGCACTTTGGGAGGCCAAGGCAGGAGGATCGTTTGAGGCCAGGAGGTCAATACCAGCCTGGGCAAC
ATAGTAAGACCCTGTCTCTATTAAAAAAAAAAAAATCAACCCTTCTTCCCCACCAAACCACCCAACTCCTCTCTAC
TCTTATCCTTTTATCCTCTGTCTCTGCTTATCACCTCTCTTGCGTATTTCTGGATCTCCTTCCCTCCTTTCTCGT
CCAAATCATGAAATGTTTGGCCTTAGTCAATGTCTATGCCCGTCACATAACAGCCGAGGCACCGAGGCCCACAGG
GAAGCAGCTGGGAGCTTGGAAACCTGGTCTCTTGAATTTCAAACCTGGTTTCTTACAGGTGGTTGTCTGGGGTGG
GTGGAGTGGCGACAGGATAGAGCTGAAGGACTATGCAAATGAGGAAGTAAGTCAGGGCGGGCTTTGAGAAGGGGA
CCCATATCCTACAGGCAAAAAGCAGGCTAGGTGACCTTGGGACACTACGCTAAGGGAGGGAGGCTAAAGGCGGCC
AGGTTTGCAGTGCGGGAAGATGAGCAGGCCAGTGGGAGGAGGGGCAGGGCAGGGCTGTAGTTGGTGACTGGGTGT
TCATTTTAGCTCTAAGAAAAAAAAATCAGTGTTTCGTGAAGGTGTTGGAGAGGGGCTGTGTCTGGGTGAGGGATGG
CGGGGTACTGATTTTTTTGGGAGGTTATGAGCAAAAATAAAACGAAACATTTCCTCTG

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FIGURE 2675

GCGACCGTGATTCCCCGCTCGCGACTCCCCACCCCCCAGGGCTCCCTAAAGAGGGCCACGAGCTGCGAAAGGGCG
GGAAAGGCAGTTGGAGAAGAGGTAAGCGGTTACTCACTCCATGGCTGCAGCAAGGAGAGGCGGCGGCGGCCTCGG
CTGAAGAAAGAAGGTGGGAGCGGAGAGCGCAGGCGTGAAACCCACCTTGTCCCATCCACATCAGGACATCCCAGC
TGGAGTTCAACCTTCATCCCTTCTGTGGCAGTTAGGAGACTGAATCAAGGTCCAGAGAAGGTGGAGGAATCCTGA
TACTGAGCGGAAGAAAATACACAGATGTGCTTCCTTCCCAGTCCTGACAAATGGCCTTTCCTTAAGTTCCTCATT
AATTCATATGAAGACAACACATTTGGTGACTAAATTTGGAATCAGAGGCTTTTAAAGCCTCCCAGCTGCTCTGAC
CCCAATATCAGGAACTTGGCATCTCTGATCTAACAAGGGCACCACTAACAAGGACAAAGCCACCATCATTCACCT
TGATTCCGCACATGCCCAACGATGACTTCTGTCCTGGGCTAACCATCAAGGCCATGGGTGCTGAGAGAGCCCCCC
AGAGGCAGCCATGCACCCTGCACCTCCTCGTCCTCGTCCCCATCCTCCTCAGCCTGGTGGCCTCCCAGGACTGGA
AGGCTGAACGCAGCCAAGACCCCTTCGAGAAATGCATGCAGGATCCTGACTATGAGCAGCTGCTCAAGGTGGTGA
CCTGGGGGCTCAATCGGACCCTGAAGCCCCAGAGGGTGATTGTGGTTGGCGCTGGTGTGGCCGGGCTGGTGGCCG
CCAAGGTGCTCAGCGATGCTGGACACAAGGTCACCATCCTGGAGGCAGATAACAGGATCGGGGGCCGCATCTTCA
CCTACCGGGACCAGAACACGGGCTGGATTGGGGAGCTGGGAGCCATGCGCATGCCCAGCTCTCACAGGATCCTCC
ACAAGCTCTGCCAGGGCCTGGGGCTCAACCTGACCAAGTTCACCCAGTACGACAAGAACACGTGGACGGAGGTGC
ACGAAGTGAAGCTGCGCAACTATGTGGTGGAGAAGGTGCCCGAGAAGCTGGGCTACGCCTTGCGTCCCCAGGAAA
AGGGCCACTCGCCCGAAGACATCTACCAGATGGCTCTCAACCAGGCCCTCAAAGACCTCAAGGCACTGGGCTGCA
GAAAGGCGATGAAGAAGTTTGAAAGGCACACGCTCTTGGAATATCTTCTCGGGGAGGGGAACCTGAGCCGGCCGG
CCGTGCAGCTTCTGGGAGACGTGATGTCCGAGGATGGCTTCTTCTATCTCAGCTTCGCCGAGGCCCTCCGCGCAN
CAGCTGCCTCAGCGACAGACTCCAGTACAGCCGCATCGTGGGTGGCTGGGACCTG**ATG**CCGCGCGCGCTGCTGAG
CTCGCTGTCCGGGCTTGTGCTGTTGAACGCGCCCGTGGTGGCGATGACCCAGGGACCGCACGATGTGCACGTGCA
GATCGAGACCTCTCCCCCGGCGCGGAATCTGAAGGTGCTGAAGGCCGACGTGGTGCTGCTGACGGCGAGCGGACC
GGCGGTGAAGCGCATCACCTTCTCGCCGCCGCTGCCCCGCCACATGCAGGAGGCGCTGCGGAGGCTGCACTACGT
GCCGGCCACCAAGGTGTTCCTAAGCTTCCGCAGGCCCTTCTGGCGCGAGGAGCACATTGAAGGCGGCCACTCAAA
CACCGATCGCCCGTCGCGCATGATTTTCTACCCGCCGCCGCGCGAGGGCGCGCTGCTGCTGGCCTCGTACACGTG
GTCGGACGCGGCGGCAGCGTTCGCCGGCTTGAGCCGGGAAGAGGCGTTGCGCTTGGCGCTCGACGACGTGGCGGC
ATTGCACGGGCCTGTCGTGCGCCAGCTCTGGGACGGCACCGGCGTCGTCAAGCGTTGGGCGGAGGACCAGCACAG
CCAGGGTGGCTTTGTGGTACAGCCGCCGGCGCTCTGGCAAACCGAAAAGGATGACTGGACGGTCCCTTATGGCCG
CATCTACTTTGCCGGCGAGCACACCGCCTACCCGCACGGCTGGGTGGAGACGGCGGTCAAGTCGGCGCTGCGCGC
CGCCATCAAGATCAACAGCCGGAAGGGGCCTGCATCGGACACGGCCAGCCCCGAGGGGCACGCATCTGACATGGA
GGGGCAGGGGCATGTGCATGGGGTGGCCAGCAGCCCCTCGCATGACCTGGCAAAGGAAGAAGGCAGCCACCCTCC
AGTCCAAGGCCAGTTATCTCTCCAAAACACGACCCACACGAGGACCTCGCAT**TAA**AGTATTTTCGGAAA

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FIGURE 2676

GAAGAGGTAAGCGGTTACTCACTCCATGGCTGCAGCAAGGAGAGGCGGCGGCGGCCTCGGCTGAAGAAAGAAGAA
ATCTTCCCAAGGCTGCAGACACCGACGGATTTGCTTTGGGAGCCAGAGTAGCTGCCGCCACCAGAGTCCGGAGCC
ATGAGCGGGTTTAATTTTGGAGGCACTGGGGCCCCTACAGGCGGGTTCACGTTTGGCACTGCAAAGACGGCAACA
ACCACACCTGCTACAGGGTTTTCTTTCTCCACCTCTGGCACTGGAGGGTTTAATTTTGGGGCTCCCTTCCAACCA
GCCACAAGTACCCCTTCCACCGGCCTGTTCTCACTTGCCACCCAGACTCCGGCCACACAGACGACAGGCTTCACT
TTTGGAACAGCGACTCTTGCTTCGGGGGGAACTGGATTTTCTTTGGGGATCGGTGCTTCAAAGCTCAACTTGAGC
AACACAGCTGCCACCCCAGCCATGGCAAACCCCAGCGGCTTTGGGCTGGGCAGCAGCAACCTCACTAATGCCATA
TCGAGCACCGTCACCTCCAGCCAGGGCACAGCACCCACCGGCTTTGTGTTTGGCCCCTCCACCACCTCTGTGGCT
CCAGCTACCACATCTGGAGGCTTCTCATTCACTGGTGGAAGCACGGCCCAACCCTCCGGTTTCAACATTGGCTCA
GCAGGGAATTCAGCCCAGCCCACGGCACCTGCCACGTTGCCCTTCACTCCGGCCACGCCAGCAGCCACCACAGCA
GGTGCCACACAGCCAGCTGCTCCCACACCCACAGCCACCATCACCAGCACTGGGCCCAGCCTCTTTGCGTCAATA
GCAACTGCTCCAACCTCATCTGCCACCACTGGACTCTCCCTCTGTACCCCTGTGACCACAGCGGGCGCCCCCACT
GCTGGGACACAGGGCTTCAGCTTAAAGGCACCTGGAGCAGCTTCCGGCACCTCCACAACAACATCCACCGCTGCC
ACCGCCACCGCCACCACCACCAGCAGCAGCAGCACCACCGGCTTTGCCTTGAATTTAAAACCACTGGCGCCAGCC
GGGATCCCCAGCAATACAGCAGCTGCCGTGACCGCTCCACCTGGCCCTGGCGCAGCTGCAGGGGCGGCTGCCAGC
TCCGCCATGACCTACGCGCAGCTGGAGAGCCTGATCAACAAATGGAGCCTGGAGCTAGAGGACCAGGAGCGGCAC
TTCCTCCAGCAGGCCACCCAGGTCAACGCCTGGGACCGCACGCTGATCGAGAATGGAGAAAAGATCACCAGCCTG
CACCGCGAGGTGGAGAAGGTGAAGCTGGACCAGAAGAGGCTGGACCAGGAGCTCGACTTCATCCTGTCCCAGCAG
AAGGAGCTGGAAGACCTGCTGAGCCCACTGGAGGAGTTGGTCAAGGAGCAGAGCGGGACCATCTACCTGCAGCAC
GCGGATGAGGAGCGTGAGAAAACCTACAAGCTGGCTGAGAACATCGATGCACAGCTCAAGCGCATGGCCCAGGAT
CTCAAGGACATCATCGAGCACCTGAACACGTCCGGGGCCCCCGCCGACACCAGTGACCCACTGCAGCAGATCTGC
AAGATCCTCAATGCGCACATGGACTCACTGCAGTGGATCGACCAGAACTCGGCCCTGCTGCAGAGGAAGGTGGAG
GAGGTGACCAAGGTGTGCGAGGGCCGGCGCAAGGAGCAGGAGCGCAGCTTCCGGATCACCTTTGAC**TGA**GCGACA
GCAGCCCTGGGGCCCGCAGGTCCCTAGGGAGTTCATGAGGGGAATGCGCCCTGTTGTCTGTAGTTTGGGGTTGTG
GCAAGATACTTGTTTGTTTGTTTCTTTCTTTCACA

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FIGURE 2677

GTGGAATAACCCCCTTCTGAAAAATGGTTTCACCCGCTCCGTCTCTAGAACGGGTCGGGCCGCTACCACTGTCCG
GCCCGGAGGGGAACTGTTTTCTCCGGAAGTGACAACACGCTGACTAGGAAAAGGAGGAGGCGGGGCAGTGGGGCC
TTCGGCGGCGACT**ATG**GAAGGAGCCGGCTACAGGGTGGTGTTTGAGAAGGGCGGAGTGTACCTGCACACCAGCGC
TAAGAAGTATCAGGACCGAGACTCTCTCATCGCTGGTGTCATCCGTGTCGTGGAAAAGGACAATGACGTCCTCCT
GCACTGGGCTCCTGTAGAGGAGGCTGGAGATTCCACCCAAATCCTCTTCTCCAAGAAGGACTCCAGTGGGGGTGA
CTCATGTGCTTCTGAGGAGGAACCAACCTTTGACCCCGGCTATGAACCTGACTGGGCTGTCATCAGCACTGTGCG
GCCACAGCCCTGCCACTCAGAGCCCACGAGAGGTGCAGAGCCCAGCTGCCCCCAGGGCTCCTGGGCCTTCTCAGT
GAGTCTGGGGGAGCTAAAGTCCATCCGCCGCTCCAAGCCAGGCCTCAGCTGGGCCTACCTGGTTCTGGTGACCCA
GGCTGGAGGTTCCCTGCCCGCACTGCACTTCCACCGCGGGGGCACCCGCGCCCTGCTCCGCGTCCTCAGCCGCTA
CCTGCTGTTGGCCAGCTCCCCGCAGGACTCCCGCCTCTACCTTGTCTTCCCCCACGACTCCTCTGCTCTCTCCAA
CTCCTTCCACCACCTGCAGCTCTTTGACCAGGACAGCTCCAATGTGGTGTCACGCTTCCTCCAGATCCCTACTCC
ACCAACTTCAGCAGCTTCTCCCGAG**TGA**CCAACTTCTTCCGGGGTGCCCTGCAGCCACAGCCTGAGGGAGCCGCC
TCCGACCTTCCCCCGCCACCCGACGATGAGCCCGAGCCTGGATTCGAGGTCATTTCCTGTGTGGAGCTGGGGCCT
CGGCCAACCGTGGAGCGGGGCCCTCCAGTTACAGAGGAGGAGTGGGCACGCCACGTGGGCCCTGAAGGTCGCCTG
CAGCAGGTCCCTGAGCTGAAGAACCGGATCTTCTCGGGGGGTCTGAGCCCCAGCCTGCGGCGCGAGGCCTGGAAG
TTCCTCCTAGGGTACCTCAGCTGGGAAGGCACAGCTGAGGAGCACAAGGCCCACATACGCAAGAAAACGGATGAG
TATTTCCGCATGAAGCTGCAGTGGAAATCTGTGAGCCCTGAGCAGGAGCGGAGAAACTCACTTCTGCATGGATAC
CGCAGCCTCATCG

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FIGURE 2678

CCGGTCAGCTAAGGCCATGTTAATACGGGGCTGTCCCATCTCTCTGCGGGGCGCGACAGCTGGAAGAGCCGAACG
GATAAGAGAAGAGGAGAGCGCGGATGGCGTCGGGGCGCCCCGAGGAGCTATGCTGCCCATGGTCGAGGAGCCCTG
GCGGAGGCAGCGCGCCGTTGCCTCCACGACATCGCACTGGCCCACAGGGCTGCCACTGCTGCTCGGCCTCCTGCG
CCCCCACCAGCACCACAGCCACCCAGTCCCACACCCAGCCCACCCCGGCCTACCCTGGCCAGAGAGGACAACGAG
GAGGACGAGGATGAGCCCACAGAGACAGAGACCTCCGGGGAGCAGCTGGGCATTAGTGATAATGGAGGGCTCTTT
GTG**ATG**GATGAGGACGCCACCCTCCAGGACCTTCCCCCCTTCTGTGAGTCAGACCCCGAGAGTACAGATGATGGC
AGCCTGAGCGAGGAGACCCCCGCCGGCCCCCCCACCTGCTCAGTGCCCCCAGCCTCAGCCCTACCCACACAGCAG
TACGCCAAGTCCCTGCCTGTGTCTGTGCCCGTCTGGGGCTTCAAGGAGAAGAGGACAGAGGCGCGGTCATCAGAT
GAGGAGAATGGGCCGCCCTCTTCGCCCGACCTGGACCGCATCGCGGCGAGCATGCGCGCGCTGGTGCTGCGAGAG
GCCGAGGACACCCAGGTCTTCGGGGACCTGCCACGGCCGCGGCTTAACACCAGCGACTTCCAGAAGCTGAAGCGG
AAATAT**TGA**AGTCCAGGGAGGGAGCGCCCCGGGCCGCGTCCGCCCCGTCCCACACTACGCCCCCGCCCCACTCCC
GGGGCCTGCTAATCTGAGGCCGATCCGGGACCGGCCTCCTTGCGTCTCCCATTCCCAAGATTGTCCCGCCTCTGC
CAATCCCCGCCGTCCTTCCAGCCCACGACCTGCCGCGCCGAGGAGCGGCATCTGTCCCGTTTCCCGATTGGGTCT
GTCGTCTCTCTCCGCCTAGCGACAGATTCCTTCTATTAAGGGATTGGCTCGCTGAGTTCTAAGCTCTAAATGGGT
CAACTCCTTTGTTTTCCGCCTAGCGACAAGGGATTTGCTCGCACGGCATTGGCTCCATCCCCTAGTCGCTGGACA
GCTCTTTTTTTGATTGGCTCAAATCCTGTAAAGGGCTTGACCAGTCTCTACATAGTCACCGTCCGCTTTTCCTGA
GTTCTCCCTCCCAATTGGCTCCAGCTTCCTGGGGGCGTGGCCAAGCCCTCCTCTTCCCAGAATTGGCCCGGGGCC
TTCAATTTACGTTCTTTACACTACGGGGACTGGGGTCGTCTTTGCCCACGTCCCGACAACTTGTTCCCTGACCCC
CTCAGGGATGGCCCCAAACTGTCCCTGCCTCTGGCACCCCCTTTCATTGGTTCCATCCATCCCCACAACAGCCTG
CCAATCGAAGCCCGTCCCTGCATCCAGGATGGTACCAGCTCCCGCCCCTCGCCCCCCACCTCCACAGGTGCCTTA
AAGGGCCCTCGTCCACCCAAGGTGGGGGGCAGGGGCCCTCACTCTCCGGCCCTGGTGTGGGGGAGAGAGTGAGGG
GTTGGGGGGATCGGCAGTTGGGAGGGGCGCTCTGAGATTAAAGAGTTTTACCTCTGAGAT

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FIGURE 2679

GCCGGGTTGCAGGCGGGGCACCTCGGGCAGGACCTCCCTGGTCGGAAGTGGCCGTGAGCCCAAGCCGCGGTCCCG
GGCCGGCACCCAGGATGGGCGAGGTGGAGGCCCCGGGCCGCTTGTGGCTCGAGAGCCCCCTGGGGGAGCGCCCCC
CATCTTCCTGCCCTCGGACGGGCAAGCCCTGGTCCTGGGCAGGGGACCCCTGACCCAGGTTACGGACCGGAAGTG
CTCCAGAACTCAAGCCTGAAGCAGGCCACACTCCCCAGAAATGAGGGACCCAATCACACAAGG**ATG**CAAATCCTG
ACTCCACCCCTCCAATCCTCAGTGGAGCTGGTCGCAGATCCTGAGACCCGGACAGTGGCAGTGAAACAGCTGGGA
GTTAACCCCTCAACTACCGGGACCCAGGAGTTGAAGCCGGGGTTGGAGGGCTCTCTGGGGGTGGGGGACACACTG
TATTTGGTCAATGGCCTCCACCCACTGACCCTGCGCTGGGAAGAGACCCGCACACCAGAATCCCAGCCAGATACT
CCGCCTGGCACCCCTCTGGTGTCCCAAGATGAGAAGAGAGATGCTGAGCTGCCGAAGAAGCGTATGCGGAAGTCA
AACCCCGGCTGGGAGAACTTGGAGAAGTTGCTAGTGTTCACCGCAGCTGGGGTGAAACCCCAGGGCAAGGTGGCT
GGCTTTGATCTGGACGGGACGCTCATCACCACACGCTCTGGGAAGGTCTTTCCCACTGGCCCCAGTGACTGGAGG
ATCTTGTACCCAGAGATTCCCCGTAAGCTCCGAGAGCTGGAAGCCGAGGGCTACAAGCTGGTGATCTTCACCAAC
CAGATGAGCATCGGGCGCGGGAAGCTGCCAGCCGAGGAGTTCAAGGCCAAGGTGGAGGCTGTGGTGGAGAAGCTG
GGGGTCCCCTTCCAGGTGCTGGTGGCCACGCACGCAGGCTTGTACCGGAAGCCGGTGACGGGCATGTGGGACCAT
CTGCAGGAGCAGGCCAACGACGGCACGCCCATATCCATCGGGGACAGCATCTTTGTGGGAGACGCAGCCGGACGC
CCGGCCAACTGGGCCCCGGGGCGGAAGAAGAAAGACTTCTCCTGCGCCGATCGCCTGTTTGCCCTCAACCTTGGC
CTGCCCTTCGCCACGCCTGAGGAGTTCTTTCTCAAGTGGCCAGCAGCCGGCTTCGAGCTCCCAGCCTTTGATCCG
AGGACTGTCTCCCGCTCAGGGCCTCTCTGCCTCCCCGAGTCCAGGGCCCTCCTGAGCGCCAGCCCGGAGGTGGTT
GTCGCAGTGGGATTCCCTGGGGCCGGGAAGTCCACCTTTCTCAAGAAGCACCTCGTGTCGGCCGGATATGTCCAC
GTGAACAGGGACACGCTAGGCTCCTGGCAGCGCTGTGTGACCACGTGTGAGACAGCCCTGAAGCAAGGGAAACGG
GTCGCCATCGACAACACAAACCCAGACGCCGCGAGCCGCGCCAGGTACGTCCAGTGTGCCCGAGCCGCGGGCGTC
CCCTGCCGCTGCTTCCTCTTCACCGCCACTCTGGAGCAGGCGCGCCACAACAACCGGTTTCGAGAGATGACGGAC
TCCTCTCATATCCCCGTGTCAGACATGGTCATGTATGGCTACAGGAAGCAGTTCGAGGCCCCAACGCTGGCTGAA
GGCTTCTCTGCCATCCTGGAGATCCCGTTCCGGCTATGGGTGGAGCCGAGGCTGGGGCGGCTGTACTGCCAGTTC
TCCGAGGGC**TGA**GCCCCGCCCAGCTCCCCTCCACAATAAACGCTGTTTCTCCTTG

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FIGURE 2680

ATGGTCCGTCCGCGCCGTGCCCCGTACCGCTCCGGCGCCGGGGGCCCCCTCGGGGGTCGCGGCCGCCCTCCGCGG
CCCCTCGTGGTGCGCGCCGTCCGCTCGCGCTCCTGGCCTGCCAGCCCCCGAGGCCCGCAGCCTCCGCGGATCCGG
GCCCGCTCGGCCCCTCCCATGGAAGGTGCTCGGGTCTTCGGGGCACTGGGTCCCATCGGTCCCTCCTCACCTGGG
CTCACCCTCGGGGGGTCTGGCCGTGAGCGAGCACCGGCTCAGCAACAAGCTGCTGGCTTGGAGCGGCAAGCGCAGA
CCCTACTCTGACTCCACTGCAAAGCTGAAGCGGACCCTGCCCTGCCAAGCCTACGTGAACCAAGGCGAGAACCTG
GAGACCGACCAGTGGCCGCAGAAGCTGATCATGCAGCTGATCCCTCAGCAGCTGCTGACCACCCTGGGCCCCCTG
TTCCGGAACTCCCAGTTGGCACAGTTCCACTTCACCAACAGAGACTGCGACTCGCTCAAGGGGCTCTGCCGCATC
ATGGGCAACGGCTTCGCGGGCTGCATGCTGTTCCCCCACATCTCCCCCTGTGAGGTGCGCGTGCTCATGCTCCTG
TACTCGTCCAAGAAGAAGATCTTCATGGGCCTCATCCCCTACGACCAGAGCGGCTTCGTCAGTGCCATCCGGCAG
GTCATCACCACCCGCAAGCAGGCAGTGGGACCTGGTGGTGTCAACTCAGGCCCAGTCCAGATCGTCAACAACAAG
TTTCTGGCATGGAGTGGTGTCATGGAGTGGCAGGAGCCCAGGCCTGAGCCCAACAGTCGGTCCAAGAGGTGGCTG
CCATCCCACGTCTACGTGAACCAGGGGGAGATCCTGAGGACCGAGCAGTGGCCAAGGAAGCTGTACATGCAGCTC
ATCCCGCAGCAGCTGCTGACCACCCTAGTGCCGCTGTTCCGGAACTCGCGCCTGGTCCAGTTCCACTTCACCAAG
GACCTGGAGACACTGAAGAGCCTGTGCCGGATCATGGACAATGGCTTCGCCGGCTGCGTGCACTTTTCCTACAAA
GCATCGTGTGAGATCCGCGTGCTTATGCTCCTGTACTCTTCAGAGAAGAAAATCTTCATTGGCCTCATCCCCCAT
GACCAGGGCAACTTTGTCAACGGCATCCGGCGTGTCATTGCCAACCAGCAGCAGGTCCTGCAGCGGAACCTGGAG
CAGGAGCAACAGCAACGAGGGATGGGGGGG**TAG**TGGTTACCCCGGGCTGGGCCCCTCCAGGAGTCACAGATGAGG
CCCCCGCAGAGACTGGTGACACGCTTCTGAGCAGGGGCCCCTGGGGACTTCAACTGCCCAGCAACATGGAGGATG
GTGTCCTGAGGCCTCCAAGGACGGTCCCCACCCCTCTACGTTTCCCCAATAAAGCCTTTTAAAAACC

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FIGURE 2681

ACAAGCTCCCGGGAAACCAGGAGTGACAAGGGCGCCTGTCCCTGAGGAGTGGAGAGCGCGGAGTTGGTGCTGAGT
CAGCCCTGATGTGGCAGAGGAGGAGCAGGCCCCCGCAGAACCAGGGCTCTTCAGTGTCTCCAGGTCCTTGGTGAA
GTGGAACTGGACCAGGCGCGAGTTCCGGAACAGCGGCACTAGGGTGGTCTGCGGGGAAGCGAGGGGACCCCCAGC
TCTGGCTTCTCCCACCACGGCCTCCCGGCTCCCAGCCCGCTGAGTCCCCCGGGCCCAGGACCAAACTGAGACTCC
CCTGTCCTCCCTACCTCAGGAAACGTCATCTCCACCGCTCAACCAGCCCAACCCTGGAGTGCTGTGGAAGCCGCT
CTCAGATCCCTTGGCAGCCCCCCAGGTGCAGGTCGTGGCTGCCCCTGCCCCGCTCAGTCCCTGCACAGCCACCAG
CTGGCTGCCTGGGACCCCTTGAAGCCAAGCCTGAGGAGCTACCCACCACACCTGCTTCAGCACCCTCAGCTCCGC
TCCCTCACAGCCAGCTCAGGCCACCTGGGGAGGCGCTCTTGCCCCCAGCCCCGCCCTCTGGAAGAGCTACTGCGT
GCAGGCTCCAGCACCCGGCCCCAGCCCCTCACCAGCAGCTGCTGCGGGATGAGCTGCATGTACAGCTTCCTTGGC
CACTGCTCGGTCCTCCTGTGGGGCACAAAGGGACGAGGGTCAGGAAGCCCCAGCTCCCCTGGATGCTGCCTCCAC
CCCCCAGCCCAGCACTCACAGGATCTCCCCCTGGTTCACGTAGACGTGGGATGGCAGCCACCTCTTGGACCGACT
GTTGGGCTCAGGCCTGGGCTTTTGGGGGAGAGGCAAAGAGGAGCCCTCAGGGCTGGAGACCCCCAATGCCAGTGT
CCCCTCCCAGCCACAGTCCGTGAGGATCTGGGGGTCCCAAGTCCCTGGGCTGCCGAGTGCTCACCTCCTGCCACT
CCATGACACCACTCCATGCCAGAAACTTGTTGTTGACGATCTGGACTGGGCCTGAGTTGACACCACCAGGTCCCA
CTGCCTGTTGGAAGGGAACGGGGTGGGAAGAGGGGCCCAGGCTCCTGGGAAACCTGTCTGTCTGTCCTGGGGCCT
GCCATCCCTCCCTCCGAGCCTTGGCCTGTTAGCCCCAGCTGGGTCCATTCTCTAGTCCCAGGGGAACAGGCCCTG
CCCCTCATCTGCTCACAGCCCCCC**ATG**GCTCCCCAGTGGCCTGAGACAGGTCCCGGCCCTCACCTGGTGCACAGG
ACCTGCAGAGTCTGCCTCAACTGGCAAGGCATGACCAGGACACGTGGTTACCAGGCAGGGCCTTCCAGCCGCAGG
ACGATCCCAACCCCTGCCCAGCTCCCCGCTCCGCTGGCTTCCCTGCCGCCGCGCCAAGACCCACCCTCCAGCCCT
GCAGAGCCGCCCAGTGGCCGCTTTTCCATGGAGCCCTGGTGGGAACCCGCCCGGCATCCTCCGGGCTCCCCTGCA
GCTCCTTGCTCCAGCCATCGCATCACACTCCGCCCACACCAAGTCTGGCTGCCCAACCAGGGCAGTGGGGTC**TAA**

TCCCCCTCTGTCCCCAGAGGGGCTGTGCTTGGCTGGCACACCTGCTTGCGGGTGGTGATGACCTGCCGGATGGCA
CTGACGAAGCCGCTCTGGTCGTAGGGGATGAGGCCCATGAAGATCTTCTTCTTGGACGAGTACAGGAGCATGAGC
ACGCGCACCTCACAGGGGGAGATGTGGGGGAACAGCATGCAGCCCGCCTGCGGGGGCCGCGGGTCAGGACCCTGT
GGTCACTGCCCGGGGCCACTGTGCCCCCACCACCCTGGACCGCCCCACCTGTAGGGGATGAAGGGAGATCATCGG
TGGACAGAGGCCCCCACAGTCAAGGCCATGGCCATAGGTGAGGGGCCTCTGAGAGCCCGTGCAGCGCCCATCGGC
ATCCCCCGACCCTGCCATGGCTGAGGTCAGAGTGGCACCCGGCACCCAGGCTGCGGTGAGAATGCCAAGAAGGCA
CTACCTCCCACCCACATCACCCCCTGCCGCCAGCCCTCCTGACTGCCTGATGGGGTGACTTGGCCTGGGGGTTAA
GAGCACAGGCAGCGCCCCACCGTTCTGCTGCCTCCTAGCTGTGTGACCTAACACCAGCCACCTCCTGCTTCTGGG
CCTCCATCATCTGTAAAACCGGGTAATAGTGCACACAGTTGGTGCCACATAAAGGCTCAACAGATAAA

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FIGURE 2682

GGCTGCGGCTGCAGTGGTGGTGGCGGGTACCGCACGGGGT**ATG**GTCCCCGGGTCCGAGGGCCCGGCCCGCGCCGG
GAGCGTGGTGGCCGACGTGGTGTTTGTGATTGAGGGTACGGCCAACCTGGGACCCTACTTCGAGGGGCTCCGCAA
GCACTACCTGCTCCCGGCCATCGAGTATTTTAATGGTGGTCCTCCTGCTGAGACGGACTTCGGGGGAGACTATGG
GGGGACCCAGTACAGCCTCGTGGTGTTCAACACAGTGGACTGCGCTCCCGAGTCCTACGTACAATGTCACGCTCC
CACCAGCAGCGCCTATGAGTTTGTCACCTGGCTCGATGGCATTAAGTTCATGGGCGGGGGTGGTGAGAGCTGCAG
CCTCATCGCGGAAGGACTCAGCACAGCCTTGCAGCTGTTTGATGACTTCAAGAAGATGCGCGAGCAGATTGGCCA
GACGCACCGGGTCTGCCTCCTCATCTGCAACTCACCCCCATACTTGTTGCCTGCTGTTGAGAGCACCACGTACTC
TGGATGCACAACTGAGAATCTTGTGCAGCAGATTGGGGAGCGGGGGATCCACTTCTCCATTGTGTCTCCCCGGAA
GCTGCCTGCGCTTCGGCTTCTGTTTGAGAAGGCAGCCCCCCCGGCCTTGCTGGAGCCGCTGCAGCCTCCGACAGA
TGTGAGCCAGGACCCGAGGCACATGGTGCTGGTTCGGGGACTCGTGCTGCCTGTTGGGGGTGGCTCAGCCCCAGG
CCCCCTCCAGTCAAAGCAGCCAGTCCCCCTGCCTCCCGCCGCACCCTCAGGTGCCACTCTCTCAGCAGCCCCCCA
GCAGCCTCTGCCCCCCGTCCCCCCCGCAGTACCAGGTTCCCGGGAACCTGAGTGCAGCTCAGGTGGCCGCGCAGAA
TGCAGTGGAGGCTGCCAAGAACCAGAAGGCTGGGCTGGGCCCTCGCTTCTCGCCCATCACCCCTCTCCAACAAGC
TGCTCCCGGAGTGGGTCCCCCCTTCAGCCAGGCCCCAGCTCCCCAACTACCCCCAGGACCCCCTGGCGCCCCCAA
GCCACCACCTGCTTCCCAGCCCAGTCTGGTCTCCACTGTGGCCCCTGGCTCCGGCCTGGCTCCCACGGCACAGCC
CGGGGCACCGTCCATGGCAGGCACTGTGGCCCCAGGAGGGGTGAGCGGCCCTTCCCCAGCCCAGCTGGGAGCCCC
AGCCCTCGGTGGGCAGCAGTCAGTCTCCAATAAGCTTCTGGCCTGGAGCGGGGTCCTGGAGTGGCAAGAGAAACC
CAAACCTGCCTCAGTGGATGCCAACACCAAGCTGACGCGGTCACTGCCCTGCCAGGTCTACGTGAATCATGGCGA
GAACCTGAAGACGGAGCAGTGGCCCCAGAAGCTGATCATGCAGCTCATCCCCCAGCAGCTGCTGACCACCCTGGG
CCCTTTGTTCCGGAACTCAAGGATGGTCCAGTTCCATTTCACCAACAAGGACCTGGAGTCTCTCAAAGGCCTCTA
CCGCATCATGGGCAACGGCTTCGCGGGCTGCGTGCACTTCCCCCACACGGCGCCCTGTGAGGTGCGCGTGCTCAT
GCTCCTGTACTCGTCCAAGAAGAAGATCTTCATGGGCCTCATCCCCTACGACCAGAGCGGCTTCGTCAACGGCAT
CCGGCAGGTCATCACCAACCACAAGCAGGTCCAGCAGCAGAAGCTGGAGCAGCAGCAGCGAGGAATGGGGGGACA
GCAGGCACCCCCAGGGCTGGGGCCCATTCTGGAGGACCAAGCCAGGCCCTCACAGAATCTGCTCCAGCTCCGCCC
ACCGCAGCCCCAGCCTCAGGGTACCGTAGGGGCCTCTGGGGCCACGGGGCAGCCCCAGCCCCAAGGTACTGCCCA
GCCCCCGCCAGGTGCCCCTCAAGGCCCTCCTGGAGCAGCTTCTGGCCCACCCCCTCCTGGACCCATCCTTCGGCC
CCAGAACCCTGGGGCCAACCCTCAGCTGCGAAGCCTCCTCCTCAACCCACCACCGCCGCAGACTGGGGTGCCCCC
ACCCCAGGCCTCCCTCCACCACCTGCCCAGTCCTGGCCCGCACAACTTCCCCCTCGGGCTCCACTGCCAGGTAAG
GGGACCCGGGGGAGGGCAGAGGTCTGGACTGAGTGTCCCAGCAGCTCCTGGGCTAGAGCACCAAGACCGAGTGCT
CCTGGGAAGTAAAGACATAGGATCCAAGAATGAGGGTTCCCCCAGCCGGGCCTGCAGCCCAGCGTCATGGAGGAC
GACATCCTCATGGATCTCATCTGAATCCCCAACACCCAATAAAGTTCCTTTT**TAA**CAC

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FIGURE 2683

AGGGTTTGAGGGTCTGTTTGAGTTGGGTGAAGAAGGCGGGAAGTTAATCCTCTTCCAATCAGCTCCCCATCTCGC
CCTCTGGCGGCTCCGGACCACAGGCCGAGTTACTCTGATTACCGCCATGCTCCAAGACCCGCACTGACAGTCCCC
ACGTGAGGGACCGCGGTGGGAGTCCTAA**ATG**GGGGAGGAGGGGACGGGCGGCACTGTGCATCTGCTGTGCCTCGC
GGCCTCCAGCGGGGTCCCCCTATTCTGCAGGAGCAGTCGCGGCGGCGCCCCCGCCCGTCAGCAGCTCCCGTTCTC
TGTCATCGGTTCCCTCAATGGAGTCCACATGTTTGGGCAGAATCTGGAGGTGCAGCTGAGCTCTGCGAGGACCGA
GAACACGACTGTGGTGTGGAAAAGCTTCCATGACAGCATCACCCTCATTGTTCTGTCATCTGAGGTGGGCATCTC
TGAGCTGAGGCTGGAGAGACTACTCCAAATGGTGTTTGGAGCCATGGTCCTTCTTGTGGGACTTGAAGAACTGAC
CAATATCCGCAACGTGGAGAGACTGAAGAAGGACTTGAGGGCCAGTTATTGCCTCATCGACAGCTTCCTGGGGGA
CTCGGAGCTCATCGGGGACCTGACCCAGTGTGTGGACTGCGTGATTCCTCCAGAGGGGTCCCTCTTGCAGGAAGC
CCTCTCCGGGTTCGCTGAGGCCGCGGGCACGACCTTCGTCAGTCTGGTGGTGTCCGGCCGGGTGGTGGCAGCAAC
AGAGGGTTGGTGGCGGCTGGGGACGCCCGAGGCCGTGCTGCTCCCCTGGCTGGTGGGGTCCCTGCCGCCGCAGAC
CGCTCGCGACTACCCGGTGTACCTGCCGCACGGGAGCCCCACGGTCCCACACCGGCTCCTGACCCTGACTCTGCT
GCCGAGCCTGGAGCTGTGTCTACTCTGCGGGCCGAGCCCACCCCTCAGCCAGTTGTATCCACAGCTTCTGGAGCG
CTGGTGGCAGCCACTGCTGGACCCGTTGCGGGCCTGTCTGCCGTTGGGACCCCGGGCGCTGCCCAGTGGCTTCCC
CCTTCACACAGACATCCTCGGGCTGCTGCTCCTCCACCTGGAACTGAAGCGCTGCCTCTTCACCGTGGAGCCCTT
GGGGGATAAAGAGCCTTCACCAGAACAGCGCCGGCGCCTCCTCCGAAACTTCTATACCCTGGTCACCTCCACGCA
CTTCCCACCAGAGCCAGGGCCACCAGAGAAGACAGAAGATGAGGTCTACCAGGCCCAGCTGCCCAGAGCTTGCTA
CCTGGTGTTGGGGACTGAGGAACCAGGCACAGGAGTGCGTCTGGTGGCCTTGCAGCTGGGGCTTCGGCGGCTGCT
GCTGCTGCTGTCTCCCCAGAGTCCCACCCATGGGCTGCGAAGCCTGGCCACCCACACTCTGCATGCCCTCACCCC
ACTTCTT**TGA**CTACCTAGCAGTGGGTGATGGACACAGACATGGGGCTGTTAGCGTCTCTCTGTTTATTCGCTCAC
AATAATACACAGCCCCTGGATGGGGAGGGGGTAGGAGGGGCTACAACAGGGTGGGGTGGGAGGGGAGGAGACATC
CACTTCCCTGGCCCCTCTCCCCTCTGTGCTTGGGGGGGAAAGGGAGGGAGGGGGACTCCCCCTAACCCCCCAGAA
TGTAAACAGCAGCAGATGAACAAAAATAAAAATACAAAAGGCCGGAGGAAAGTCCCAGGCATCCCCC

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FIGURE 2684

CGCCCGGTCCCCGCTTGCCAGCCCCCGCTGCTCTGTGCCCTGTCCGGCCAGGCCTGGAGCCGACACCACCGCCAT
C**ATG**CCGGCCGTGTCCAAGGGCGATGGGATGCGGGGGCTCGCGGTGTTCATCTCCGACATCCGGAACTGTAAGAG
CAAAGAGGCGGAAATTAAGAGAATCAACAAGGAACTGGCCAACATCCGCTCCAAGTTCAAAGGAGACAAAGCCTT
GGATGGCTACAGTAAGAAAAAATATGTGTGTAAACTGCTTTTCATCTTCCTGCTTGGCCATGACATTGACTTTGG
GCACATGGAGGCTGTGAATCTGTTGAGTTCCAATAAATACACAGAGAAGCAAATAGGTTACCTGTTCATTTCTGT
GCTGGTGAACTCGAACTCGGAGCTGATCCGCCTCATCAACAACGCCATCAAGAATGACCTGGCCAGCCGCAACCC
CACCTTCATGTGCCTGGCCCTGCACTGCATCGCCAACGTGGGCAGCCGGGAGATGGGCGAGGCCTTTGCCGCTGA
CATCCCCCGCATCCTGGTGGCCGGGGACAGCATGGACAGTGTCAAGCAGAGTGCGGCCCTGTGCCTCCTTCGACT
GTACAAGGCCTCGCCTGACCTGGTGCCCATGGGCGAGTGGACGGCGCGTGTGGTACACCTGCTCAATGACCAGCA
CATGGGTGTGGTCACGGCCGCCGTCAGCCTCATCACCTGTCTCTGCAAGAAGAACCCAGATGACTTCAAGACGTG
CGTCTCTCTGGCTGTGTCGCGCCTGAGCCGGATCGTCTCCTCTGCCTCCACCGACCTCCAGGACTACACCTACTA
CTTCGTCCCAGCACCCTGGCTCTCGGTGAAGCTCCTGCGGCTGCTGCAGTGCTACCCGCCTCCAGAGGATGCGGC
TGTGAAGGGGCGGCTGGTGGAATGTCTGGAGACTGTGCTCAACAAGGCCCAGGAGCCCCCCAAATCCAAGAAGGT
GCAGCATTCCAACGCCAAGAACGCCATCCTCTTCGAGACCATCAGCCTCATCATCCACTATGACAGTGAGCCCAA
CCTCCTGGTTCGGGCCTGCAACCAGCTGGGCCAGTTCCTGCAGCACCGGGAGACCAACCTGCGCTACCTGGCCCT
GGAGAGCATGTGCACGCTGGCCAGCTCCGAGTTCTCCCATGAAGCCGTCAAGACGCACATTGACACCGTCATCAA
TGCCCTCAAGACGGAGCGGGACGTCAGCGTGCGGCAGCGGGCGGCTGACCTCCTCTACGCCATGTGTGACCGGAG
CAATGCCAAGCAGATCGTGTCGGAGATGCTGCGGTACCTGGAGACGGCAGACTACGCCATCCGCGAGGAGATCGT
CCTGAAGGTGGCCATCCTGGCCGAGAAGTACGCCGTGGACTACAGCTGGTACGTGGACACCATCCTCAACCTCAT
CCGCATTGCGGGCGACTACGTGAGTGAGGAGGTGTGGTACCGTGTGCTACAGATCGTCACCAACCGTGATGACGT
CCAGGGCTATGCCGCCAAGACCGTCTTTGAGGCGCTCCAGGCCCCTGCCTGTCACGAGAACATGGTGAAGGTTGG
CGGCTACATCCTTGGGGAGTTTGGGAACCTGATTGCTGGGGACCCCCGCTCCAGCCCCCCAGTGCAGTTCTCCCT
GCTCCACTCCAAGTTCCATCTGTGCAGCGTGGCCACGCGGGCGCTGCTGCTGTCCACCTACATCAAGTTCATCAA
CCTCTTCCCCGAGACCAAGGCCACCATCCAGGGCGTCCTGCGGGCCGGCTCCCAGCTGCGCAATGCTGACGTGGA
GCTGCAGCAGCGAGCCGTGGAGTACCTCACCCTCAGCTCAGTGGCCAGCACCGACGTCCTGGCCACGGTGCTGGA
GGAGATGCCGCCCTTCCCCGAGCGCGAGTCGTCCATCCTGGCCAAGCTGAAACGCAAGAAGGGGCCAGGGGCCGG
CAGCGCCCTGGACGATGGCCGGAGGGACCCCAGCAGCAACGACATCAACGGGGGCATGGAGCCCACCCCCAGCAC
TGTGTCGACGCCCTCGCCCTCCGCCGACCTCCTGGGGCTGCGGGCAGCCCCTCCCCCGGCAGCACCCCCGGCTTC
TGCAGGAGCAGGGAACCTTCTGGTGGACGTCTTCGATGGCCCGGCCGCCCAGCCCAGCCTGGGGCCCACCCCCGA
GGAGGCCTTCCTCAGCGAGCTGGAGCCGCCTGCCCCCGAGAGCCCCATGGCTTTGCTGGCTGACCCAGCTCCAGC
TGCTGACCCAGGTCCTGAGGACATCGGCCCTCCCATTCCGGAAGCCGATGAGTTGCTGAATAAGTTTGTGTGTAA
GAACAACGGGGTCCTGTTCGAGAACCAGCTGCTGCAGATCGGAGTCAAGTCAGAGTTCCGACAGAACCTGGGCCG
CATGTATCTCTTCTATGGCAACAAGACCTCGGTGCAGTTCCAGAATTTCTCACCCACTGTGGTTCACCCGGGAGA
CCTCCAGACTCAGCTGGCTGTGCAGACCAAGCGCGTGGCGGCGCAGGTGGACGGCGGCGCGCAGGTGCAGCAGGT
GCTCAATATCGAGTGCCTGCGGGACTTCCTGACGCCCCCGCTGCTGTCCGTGCGCTTCCGGTACGGTGGCGCCCC
CCAGGCCCTCACCCTGAAGCTCCCAGTGACCATCAACAAGTTCTTCCAGCCCACCGAGATGGCGGCCCAGGATTT
CTTCCAGCGCTGGAAGCAGCTGAGCCTCCCTCAACAGGAGGCGCAGAAAATCTTCAAAGCCAACCACCCCATGGA
CGCAGAAGTTACTAAGGCCAAGCTTCTGGGGTTTGGCTCTGCTCTCCTGGACAATGTGGACCCCAACCCTGAGAA
CTTCGTGGGGGCGGGGATCATCCAGACTAAAGCCCTGCAGGTGGGCTGTCTGCTTCGGCTGGAGCCCAATGCCCA
GGCCCAGATGTACCGGCTGACCCTGCGCACCAGCAAGGAGCCCGTCTCCCGTCACCTGTGTGAGCTGCTGGCACA
GCAGTTC**TGA**GCCCTGGACTCTGCCCCGGGGGATGTGGCCGGCACTGGGCAGCCCCTTGGACTGAGGCAGTTTTG
GTGGATGGGGGACCTCCACTGGTGACAGAGAAGACACCAGGGTTTGGGGGATGCCTGGGACTTTCCTCCGGCCTT
TTGTATTTTTATTTTTGTTCATCTGCTGCTGTTTACATTCTGGGGGGTTAGGGGGAGTCCCCCTCCCTCCCTTTC
CCCCCCAAGCACAGAGGGGAGAGGGGCCAGGGAAGTGGATGTCTCCTCCCCTCCCACCCCACCCTGTTGTAGCCC
CTCCTACCCCCTCCCCATCCAGGGGCTGTGTATTATTGTGAGCGAATAAACAGAGAGACGCT

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FIGURE 2685

AGGCGCAGACGGGGAAGCGGAGCCAAC**ATG**CCAGTGGCCCGGAGCTGGGTTTGTCACAAAACTTATGTGACCCCG
CGGAGACCCTTCGAGAAATCTCGTCTCGACCAAGAGCTGAAGCTGATCGGCAACGTCCTGCTGCGGCGGCTGCTC
CGCATTGGGGTGCTGGATGAGGGCAAGACGAAGCTGGATTACATCCTGGGCCTGAAGATAGAGGATTTCTTAGAG
AGACGCCTACAGACCCAGGTCTTCAAGCTGGGCTTGGCCAAGTCCATCCACCACGCTGGCGTACTGATCCGCCAG
CGCCGTGTCAGGGTCCGCAATCAGGTGGCGAACATCCCGTCCTTCATTGTCCGCCTGGATTCCCAGAAGCGCATC
GACTTGTCTCTGCGCTCTCCCTATGGGGTGGCCGCCCCGGCCGCG**TGA**AGAGGAAGAACGCCAAGAAGGGCCAGG
GTGAGGGTGGGGCTGGAGACGACGAGGAGGAGGATTAAGTCCACCTGTCCCTCCTGGGCTGCTGGATTGTCTCGT
TTTCCTGCCAAATAAACAGGATCAGCACTTTAC

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FIGURE 2686

GGCAGCCGAGGCCGCGAACTGCATC**ATG**GAGAATTTTGTAGCCACCTTGGCTAATGGGATGAGCCTCCAGCCGCC
TCTTGAAGAAGTGTCCTGTGGCCAGGCGGAAAGCAGTGAGAAGCCCAACGCTGAGGACATGACATCCAAAGATTA
CTACTTTGACTCCTACGCACACTTTGGCATCCACGAGGAGATGCTGAAGGACGAGGTGCGCACCCTCACTTACCG
CAACTCCATGTTTCATAACCGGCACCTCTTCAAGGACAAGGTGGTGCTGGACGTCGGCTCGGGCACCGGCATCCT
CTGCATGTTTGCTGCCAAGGCCGGGGCCCGCAAGGTCATCGGGATCGAGTGTTCCAGTATCTCTGATTATGCGGT
GAAGATCGTCAAAGCCAACAAGTTAGACCACGTGGTGACCATCATCAAGGGGAAGGTGGAGGAGGTGGAGCTCCC
AGTGGAGAAGGTGGACATCATCATCAGCGAGTGGATGGGCTACTGCCTCTTCTACGAGTCCATGCTCAACACCGT
GCTCTATGCCCGGGACAAGTGGGCGCCCGATGGCCTCATCTTCCCAGACCGGGCCACGCTGTATGTGACGGCCAT
CGAGGACCGGCAGTACAAAGACTACAAGATCCACTGGTGGGAGAACGTGTATGGCTTCGACATGTCTTGCATCAA
AGATGTGGCCATTAAGGAGCCCCTAGTGGATGTCGTGGACCCCAAACAGCTGGTCACCAACGCCTGCCTCATAAA
GGAGGTGGACATCTATACCGTCAAGGTGGAAGACCTGACCTTCACCTCCCCGTTCTGCCTGCAAGTGAAGCGGAA
TGACTACGTGCACGCCCTGGTGGCCTACTTCAACATCGAGTTCACACGCTGCCACAAGAGGACCGGCTTCTCCAC
CAGCCCCGAGTCCCCGTACACGCACTGGAAGCAGACGGTGTTCTACATGGAGGACTACCTGACCGTGAAGACGGG
CGAGGAGATCTTCGGCACCATCGGCATGCGGCCCAACGCCAAGAACAACCGGGACCTGGACTTCACCATCGACCT
GGACTTCAAGGGCCAGCTGTGCGAGCTGTCCTGCTCCACCGACTACCGGATGCGC**TGA**GGCCCGGCTCTCCCGCC
CTGCACGAGCCCAGGGGCTGAGCGTTCCTAGGCGGTTTCGGGGCTCCCCCTTCCTCTCCCTCCCTCCCGCAGAAG
GGGGTTTTAGGGGCCTGGGCTGGGGGGATGGGGAGGGCACATCGTGACTGTGTTTTTCATAACTTATGTTTTTAT
ATGGTTGCATTTACGCCAATAAATCCTCAGCTGGG

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FIGURE 2687

AAGTAAGTATCCCCACTTTCAGGGTAGCATCCTCTTTCCCTAGTTATTTCAGTGCAGAATCGATTCACGTGTAAG
CCTCTACCTCCTGCACTTACCCCAATGTAGACCCCCTTCCACAGTCCCCCTACAGAAGATCTCCCAAAACATTTC
CAACACAGAACTTCCATTCAATTCCCCTCCGACTGCCCGCCTCCCTCCTCCAGGACAGAGCACGCCCCAGGTTTC
GAGACTGAACTACCCCCATCTACGGAGTCCACCCCTCCCTCTCTAGAACCCCCTCAGTGTAGACGCCTCCTCTTT
TCCTCTTTCCTCCCTACTTTTTCTAGTTTTTCTGCAGCCGACCTCCAGCGTCGGCCACTGTAGCTCCTTCCTTGC
TCCACTTTCCCCAGAGTACACAGCCTGCCTTTCCACTCTCCGTGCAGACCCATCCTCTTTCCCGCTCCTCGCTCT
CGGACGCCACCAACGCTCTCCCGGGCTCTTCCGCGTTACCTACGATGGAAGGTCGGGGCGTGCGGGCAGCTGGAA
CCCACCCCTGTCTTGGAGCTCCGGGTAGCTCTCAAACTCGAGGCTGCGCACCCCCTTTCCCGTCAGCTGAGCTCT
AGAGCGCTGGGGCTTTCTTTTTGATCGACTTCTTGAAATAAAACCAACTTTATCATTCTTTGGGTAACAGACCCA
AAAGCCG**ATG**GGACGGCCCGCTGGGCTGTTCCCGCCCCTATGCCCTTTTTTGGGTTTCCGGCCAGAGGCATGCTG
GGAGCGTCACATGCAAATTGAGCGTGCACCCAGCGTTCCGCCCTTTCTACGCTGGGCCGGTTATCGACCCGGCCC
AGTGCGCAGGCGCGGGAAAGTTGAACTAATAAAGTTTGTACGAGTTCAGTGGAGGAGACCGCAAGTTGAGTGGAG
GAGGCGGCGGTGGGGCCCCGGACCAGGTGCCTCCATGGCAGGCTCTGAAGAGCTGGGGCTCCGGGAAGACACGCT
GAGGGTCCTAGCTGCCTTCCTTAGGCGTGGTGAGGCTGCCGGGTCTCCTGTTCCAACTCCACCTAGAAGCCCTGC
CCAAGAAGAGCCAACAGACTTCCTGAGCCGCCTTCGAAGATGTCTTCCCTGCTCCCTGGGGCGAGGAGCAGCCCC
CTCTGAGTCCCCTCGGCCTTGCTCTCTGCCCATCCGCCCCTGCTATGGTTTAGAGCCTGGCCCAGCTACTCCAGA
CTTCTATGCTTTGGTGGCCCAGCGGCTGGAACAGCTGGTCCAAGAGCAGCTGAAATCTCCGCCCAGCCCAGAATT
ACAGGGTCCCCCATCGACAGAGAAGGAAGCCATACTGCGGAGGCTGGTGGCCCTGCTGGAGGAGGAGGCAGAAGT
CATTAACCAGAAGCTGGCCTCGGACCCCGCCCTGCGCAGCAAGCTGGTCCGCCTGTCCTCCGACTCTTTCGCCCG
CCTGGTGGAGCTGTTCTGTAGCCGGGATGACAGCTCTCGCCCAAGCCGAGCATGCCCCGGGCCCCCGCCTCCTTC
CCCGGAGCCCCTGGCCCGCCTGGCCCTAGCCATGGAGCTGAGCCGGCGCGTGGCCGGGCTGGGGGGCACCCTGGC
CGGACTCAGCGTGGAGCACGTGCACAGCTTCACGCCCTGGATCCAGGCCCACGGGGGCTGGGAGGGCATCCTGGC
TGTTTCACCCGTGGACTTGAACTTGCCATTGGAC**TGA**

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FIGURE 2688

GGTTCCAGCTGCCCGCACGCCCCGACCTTCCATCGTAGGCCGGACC**ATG**GGAACCCCAAAGCCACGGATCCTGCC
CTGGCTGGTGTCGCAGCTGGACCTGGGGCAACTGGAGGGCGTGGCCTGGGTGAACAAGAGCCGCACGCGCTTCCG
CATCCCTTGGAAGCACGGCCTACGGCAGGATGCACAGCAGGAGGATTTCGGAATCTTCCAGGCCTGGGCCGAGGC
CACTGGTGCATATGTTCCCGGGAGGGATAAGCCAGACCTGCCAACCTGGAAGAGGAATTTCCGCTCTGCCCTCAA
CCGCAAAGAAGGGTTGCGTTTAGCAGAGGACCGGAGCAAGGACCCTCACGACCCACATAAAATCTACGAGTTTGT
GAACTCAGGAGTTGGGGACTTTTCCCAGCCAGACACCTCTCCGGACACCAATGGTGGAGGCAGTACTTCTGATAC
CCAGGAAGACATTCTGGATGAGTTACTGGGTAACATGGTGTTGGCCCCACTCCCAGATCCGGGACCCCCAAGCCT
GGCTGTAGCCCCTGAGCCCTGCCCTCAGCCCCTGCGGAGCCCCAGCTTGGACAATCCCACTCCCTTCCCAAACCT
GGGGCCCTCTGAGAACCCACTGAAGCGGCTGTTGGTGCCGGGGGAAGAGTGGGAGTTCGAGGTGACAGCCTTCTA
CCGGGGCCGCCAAGTCTTCCAGCAGACCATCTCCTGCCCGGAGGGCCTGCGGCTGGTGGGGTCCGAAGTGGGAGA
CAGGACGCTGCCTGGATGGCCAGTCACACTGCCAGACCCTGGCATGTCCCTGACAGACAGGGGAGTGATGAGCTA
CGTGAGGCATGTGCTGAGCTGCCTGGGTGGGGGACTGGCTCTCTGGCGGGCCGGGCAGTGGCTCTGGGCCCAGCG
GCTGGGGCACTGCCACACATACTGGGCAGTGAGCGAGGAGCTGCTCCCCAACAGCGGGCATGGGCCTGATGGCGA
GGTCCCCAAGGACAAGGAAGGAGGCGTGTTTGACCTGGGGCCCTTCATTGTAGATCTGATTACCTTCACGGAAGG
AAGCGGACGCTCACCACGCTATGCCCTCTGGTTCTGTGTGGGGGAGTCATGGCCCCAGGACCAGCCGTGGACCAA
GAGGCTCGTGATGGTCAAGGTTGTGCCCACGTGCCTCAGGGCCTTGGTAGAAATGGCCCGGGTAGGGGGTGCCTC
CTCCCTGGAGAATACTGTGGACCTGCACATTTCCAACAGCCACCCACTCTCCCTCACCTCCGACCAGTACAAGGC
CTACCTGCAGGACTTGGTGGAGGGCATGGATTTCCAGGGCCCTGGGGAGAGC**TGA**GCCCTCGCTCCTCATGGTGT
GCCTCCAACCCCCCTGTTCCCCACCACCTCAACCAATAAACTGGTTCCTGCTATGA

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FIGURE 2689A

CTGGGGTGTCTGTGCTGGGTCCAGCGCCCACCCAAGCACAGGGTGGAGTGGGAGGAGGTGGAGGAGAGGAGGGGT
GCCAGAGGGGATGCTGAGGGAGATAGTGTGGGGCCCTTGAGGTCTTC**ATG**TCTATCCTCTACTTCCATCCTTTCT
CCCGGGACCTCCACTCCAAACTCTCCCCCCTGGACCCCCAGGTGACCATGGAGGAAGAAGATGAGTCTCGAGGGA
AGACAGAGGAGTCGGGGGAGGATCGGGGCGATGGTCCGCCAGACAGAGACCCCACGCTTTCTCCTTCTGCCTTTA
TCCTGCGAGCCATCCAGCAGGCTGTGGGAAGCTCCCTGCAGGGGGACCTGCCCAATGATAAAGATGGCTCTCGGT
GTCATGGCCTTCGATGGCGGCGCTGCCGGAGTCCACGGTCAGAGCCCCGTTCCCAGGAATCAGGGGGCACTGACA
CGGCTACTGTGTTGGACATGGCCACGGACAGCTTCCTCGCAGGGCTGGTGAGTGTCCTGGATCCCCCGGATACCT
GGGTTCCCAGCCGCCTGGACCTGCGGCCTGGCGAAAGTGAGGACATGCTGGAGCTGGTGGCTGAGGTCCGAATCG
GGGACAGAGATCCCATCCCTCTGCCTGTGCCCAGCCTGCTGCCCCGTCTCAGGGCCTGGAGGACGGGCAAAACGG
TTTCTCCACAGTCGAACTCCTCTAGGCCCACCTGTGCCCGTCACCTCACCTTGGGCACGGGAGACGGGGGCCCTG
CCCCACCCCCTGCCCCCTCCTCTGCATCCTCCTCCCCTTCCCCTTCTCCCTCATCTTCCTCCCCTTCCCCTCCCC
CACCCCCACCGCCCCCTGCACCCCCAGCCCCACCTGCCCCCCGATTCGATATCTATGACCCCTTCCACCCCACCG
ACGAGGCCTACTCTCCACCGCCTGCTCCGGAGCAAAAGTACGACCCTTTTGAGCCCACCGGCTCCAACCCCAGCT
CATCAGCGGGGACCCCCTCACCTGAGGAGGAAGAGGAGGAGGAAGAGGAAGAAGAAGAGGAAGAGGAAGACGAGG
AGGAGGAGGAAGGCCTGTCCCAGAGCATCAGCCGCATCTCGGAGACCCTGGCGGGCATCTACGATGACAACAGCC
TGAGCCAGGACTTCCCAGGTGACGAGAGCCCCCGCCCGGACGCGCAGCCCACACAGCCGACTCCCGCCCCTGGAA
CGCCGCCCCAGGTGGACTCCACCCGGGCTGATGGAGCCATGCGCCGGCGGGTCTTCGTGGTGGGGACCGAGGCAG
AGGCTTGTCGGGAAGGCAAGGTCTCGGTGGAGGTGGTGACCGCTGGTGGAGCCGCCCTCCCGCCGCCCCTGCTGC
CGCCCGGCGACTCGGAGATCGAGGAAGGGGAGATCGTCCAGCCGGAGGAGGAGCCCAGGCTGGCGCTGTCCCTCT
TCCGCCCCGGCGGCCGGGCCGCCCGGCCTACACCGGCCGCCTCGGCCACCCCCACGGCCCAGCCCCTTCCTCAGC
CTCCCGCTCCGCGGGCCCCCGAGGGGGACGACTTCTTGTCCCTGCATGCGGAGTCGGACGGCGAGGGCGCCCTGC
AGGTGGACCTAGGGGAGCCGGCTCCCGCGCCGCCCGCCGCCGACTCGCGCTGGGGCGGCCTGGACCTGCGCCGCA
AGATCCTGACCCAACGGCGGGAGCGCTACCGCCAGCGCTCGCCCTCCCCGGCGCCCGCGCCCGCCCCGGCCGCCG
CTGCTGGTCCGCCCACGCGCAAGAAGTCCAGGCGGGAACGCAAGCGCAGCGGCGAGGCCAAGGAGGCCGCCTCGT
CCTCGTCGGGCACCCAGCCAGCGCCGCCCGCCCCGGCCTCGCCCTGGGACTCCAAGAAGCACCGCTCGCGGGACC
GCAAGCCCGGCTCCCACGCCTCGTCGTCCGCCCGCCGCCGCTCCCGCTCCCGCTCCCGCTCCCGCTCCACCCGCC
GCCGCTCGCGCAGCACCGACCGCCGCCGCGGGGGCAGCCGCAGGTCGCGGTCCCGGGAGAAGCGGCGACGGCGGC
GGCGCTCCGCCTCCCCGCCCCCGGCCACTTCCTCATCGTCGTCCTCGAGGCGCGAGCGGCACCGCGGGAAACACC
GGGACGGTGGCGGCAGCAAGAAGAAGAAGAAGCGGTCGCGGTCCCGGGGTGAGAAGCGGTCTGGGGATGGCAGCG
AGAAGGCCCCGGCGCCCGCCCCGCCGCCCTCTGGCTCCACCTCGTGTGGTGACCGCGACAGCCGCCGCCGGGGGG
CCGTGCCACCCTCCATCCAGGACCTCACGGACCACGACCTCTTCGCCATCAAGCGGACCATCACGGTGGGCCGGC
TTGACAAGTCCGACCCCCGAGGACCCTCTCCTGCTCCGGCCTCCTCACCTAAGCGGGAGGTCCTGTACGACTCCG
AGGGACTGAGCGGCGAGGAGCGGGGCGGCAAGAGCAGCCAGAAGGATCGGCGCCGCTCGGGGGCCGCCTCCTCCT
CCTCCTCTTCCCGGGAGAAGGGGTCTCGTCGGAAGGCGCTGGACGGGGGTGACCGGGATCGGGACAGGGACAGAG
ATAGGGACAGGGACAGGTCATCCAAGAAGGCCCGGCCCCCCAAGGAGTCGGCGCCTTCCTCAGGGCCCCCGCCAA
AGCCACCAGTCAGCAGCGGCTCAGGCTCTTCATCCTCGTCGTCCTCCTGTTCTTCCCGGAAGGTGAAGCTGCAGT
CCAAGGTGGCGGTGCTGATCCGCGAGGGTGTCAGCAGCACCACCCCGGCCAAGGATGCCGCGTCAGCCGGCCTGG
GCTCCATTGGCGTCAAATTCAGCCGTGACCGCGAGAGTCGCTCCCCCTTCCTCAAACCTGACGAGCGGGCCCCCA
CTGAGATGGCCAAAGCAGCTCCGGGCAGCACCAAGCCCAAAAAGACCAAGGTCAAGGCCAAGGCAGGGGCCAAGA
AAACCAAGGGGACCAAGGGAAAGACCAAGCCATCCAAGACCAGGAAAAAGGTCCGCAGTGGAGGTGGCAGCGGGG
GCAGTGGTGGCCAGGTGTCGCTGAAGAAGTCCAAGGCGGATAGCTGCAGCCAGGCGGCAGGCACCAAGGGGGCGG
AGGAGACTTCCTGGTCCGGGGAGGAGCGGGCAGCCAAGGTTCCTAGCACCCCGCCCCCCAAGGCAGCCCCACCAC
CCCCTGCCCTCACTCCGGACTCGCAGACCGTGGACAGCAGCTGCAAGACACCTGAGGTCTCCTTCCTGCCCGAGG
AGGCCACTGAGGAGGCTGGGGTCCGAGGTGGGGCGGAGGAGGAGGAGGAGGAAGAAGAAGAGGAGGAGGAAGAGG
AAGAGGAGGAGGAGCAGCAGCCTGCTACCACCACGGCCACCAGCACTGCTGCAGCCGCCCCAAGCACTGCCCCCA
GCGCGGGGTCCACAGCCGGTGACTCGGGGGCGGAGGACGGGCCAGCTTCCCGTGTCTCCCAGCTGCCCACGTTGC
CCCCGCCCATGCCCTGGAATCTGCCAGCTGGTGTGGACTGCACCACCAGCGGCGTCCTGGCCTTGACTGCACTTC
TCTTCAAGATGGAAGAAGCCAACCTGGCGAGCCGAGCGAAGGCCCAGGAGCTGATCCAGGCCACCAACCAGATCC

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FIGURE 2689B

TCAGCCACAGAAAGCCACCCTCAAGTCTGGGGATGACCCCAGCTCCTGTGCCCACCTCTTTGGGTCTGCCCCCTG
GCCCCTCCAGCTACCTGCTTCCTGGCAGCCTCCCTCTGGGGGGCTGCGGTTCGACCCCCCCCACCCCCACCGGGC
TGGCTGCCACGTCTGACAAGAGAGAGGGCAGCAGCAGCTCTGAGGGCCGTGGGGACACAGATAAGTATCTGAAGA
AGCTGCACACGCAGGAGCGGGCGGTGGAGGAGGTGAAGCTGGCCATCAAGCCATACTATCAGAAGAAGGACATCA
CCAAGGAGGAGTACAAGGACATCCTGAGGAAGGCCGTCCACAAGATCTGCCACAGCAAAAGTGGGGAAATCAACC
CAGTGAAGGTGAGCAACCTGGTGCGGGCCTACGTCCAGCGCTACCGCTACTTCCGCAAGCACGGTCGCAAGCCAG
GGGACCCCCCAGGGCCCCCACGGCCGCCCAAGGAGCCAGGGCCCCCAGACAAGGGTGGCCCGGGCCTGCCCCTGC
CCCCTCTC**TGA**GAGCCCTGGCCAGCTCTTCGCCCCTCACCTCTTTGAAACTCTGGACGTATTTATGGCTCCACCT
CCCCACCTCCCTCCCCCGTCAGTGGGATGACTGGGGGAGGGTTGCTGCAGGGAAGAGGAGAGCCCCCTGCCCTGC
CCTGCCCCGTGTCCACCTCCCTTGCCCCCAAGCCTGTCCCCAGTGCCCCTCCCTTCTGTTTGTGCCCCTCTCCCC
AATTTCATTAAAGATTTCATGAAACATT

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FIGURE 2690

GGCTCCCCCGCAGGCGGTAGCGAAGGCAGCAGCAGCGGTGGCGAC**ATG**AGCAGCGGGGCGGCGTCCGGGACAGGG
CGGGGGCGGCCCCGGGGCGGGGGACCTGGGCCCGGGGACCCCCCGCCCAGCGAGACACACAAGCTGGTGGTCGTG
GGCGGCGGCGGCGTGGGCAAGAGCGCGCTGACCATCCAGTTCATCCAGTCCTACTTCGTGTCTGACTACGACCCC
ACTATTGAGGACTCCTACACGAAGATCTGCAGTGTGGATGGCATCCCAGCCCGGCTGGACATCCTGGACACCGCG
GGCCAGGAAGAGTTCGGGGCCATGAGAGAGCAGTACATGCGTGCTGGCCACGGCTTCCTGCTGGTGTTCGCCATT
AACGACCGGCAGAGTTTCAACGAGGTGGGCAAGCTCTTCACGCAGATTCTGCGGGTCAAGGACCGCGACGACTTC
CCCGTTGTGTTGGTCGGGAACAAGGCAGATCTGGAGTCACAGCGCCAGGTCCCCCGATCAGAAGCCTCTGCCTTC
GGCGCCTCCCACCACGTGGCCTACTTTGAGGCCTCGGCCAAACTGCGTCTCAACGTGGACGAGGCTTTTGAGCAG
CTGGTGCGGGCTGTCCGGAAATACCAGGAACAAGAGCTCCCACCGAGCCCTCCCAGTGCCCCCAGGAAGAAGGGC
GGGGGCTGCCCCTGCGTCCTCCTG**TAG**CCCAGGCAAGAGAGAAGCAACCACCACAAGCTCTCGGGACTAGCTGCC
TTCGCACCTTGCTGTGTGACCTGAGGCCCTCACTGAGCCTCAATTTCCTCATCTGGGTCTCCCAGGACACATCAC
ATACCCACCCTTACTTCCTGGCCTCTTCTGGGCTACTGCCACTGTGTGCCTTCTGCCAACGCCTCCTGTCCCCAC
CTAAGCCTGGTGGGGGTGAGGGGCTCCGGGTCACTGCTGTATATAACTCCCCTCCCCCAGAAAAATAAATGTCAC
TGCCAACGTC

FIGURE 2691A

GTGGTT**ATG**GAGCAGCTGCCGGGGGTGCCACCAGGCCCCCCCCACCCCGTTCGACCGCCACCCCCGCCTCCACCA
CCCATGCCCCTGCAGCTCGAGGCCCACCTCCGCAGCCATGGCCTGGAGCCCGCGGCCCCCAGCCCCCGCCTGCGA
CCCGAGGAGAGCCTGGATCCGCCAGGCGCCATGCAGGAATTGCTCGGGGCTCTGGAGCCGCTGCCCCCGGCGCCT
GGGGATACTGGCGTAGGCCCACCAAACTCGGAGGGCAAGGATCCCGCAGGCGCCTACCGCAGCCCCAGCCCGCAA
GGCACCAAGGCGCCGCGTTTCGTGCCGCTCACCTCCATCTGCTTCCCTGACTCCTTGCTCCAAGACGAGGAGCGC
AGCTTCTTCCCCACCATGGAGGAGATGTTCGGTGGAGGGGCCGCGGACGACTACGGCAAGGCCGGGCCACCTGAG
GACGAGGGGGACCCCAAGGCTGGCGCTGGGCCACCCCCCGGCCCCCCTGCTTATGATCCCTATGGGCCCTACTGT
CCTGGCCGGGCGTCGGGAGCCGGGCCCGAGACACCGGGCCTGGGCCTGGACCCCAACAAACCGCCTGAACTGCCC
TCCACGGTCAACGCCGAGCCGCTGGGCCTGATCCAGAGTGGCCCCCACCAGGCGGCGCCACCACCCCCGCCTCCG
CCACCGCCGCCTCCCGCGCCGGCCTCCGAACCCAAGGGTGGCCTCACCTCGCCCATCTTCTGCTCTACCAAGCCA
AAGAAGCTGCTCAAGACATCCTCCTTCCACCTGCTGCGGCGCCGCGACCCACCCTTCCAGACCCCCAAGAAGCTG
TACGCCCAGGAGTACGAGTTCGAGGCGGACGAGGACAAGGCCGATGTTCCCGCCGACATCCGCCTCAACCCCCGG
CGCTTGCCTGACCTGGTCTCCAGCTGCCGCTCCCGTCCGGCCCTCTCGCCACTGGGGGACATCGACTTCTGCCCA
CCCAACCCAGGACCCGATGGCCCCCGGCGCCGTGGCCGCAAGCCCACGAAGGCGAAACGTGATGGGCCACCCCGG
CCACGGGGGAGGCCCCGGATCCGCCCCCTGGAGGTCCCGACCACTGCGGGGCCCGCCTCGGCCTCCACGCCCACC
GATGGCGCCAAGAAACCCCGGGGCCGGGGCCGAGGCCGGGGTCGAAAGGCTGAGGAGGCAGGGGGCACCCGGTTG
GAGCCCCTGAAGCCACTTAAGATCAAGCTGTCTGTGCCCAAGGCTGGCGAGGGTCTGGGAACCTCATCGGGTGAT
GCCATATCAGGCACTGACCACAACAGCCTGGACTCGAGCCTGACTCGGGAGAAGATCGAGGCCAAGATTAAGGAG
GTGGAGGAGAAGCAGCCGGAGATGAAGTCGGGTTTCATGGCCTCCTTCTTGGACTTCCTCAAGTCAGGCAAGCGC
CACCCACCACTCTACCAGGCGGGCCTGACGCCTCCGCTCAGCCCTCCCAAGAGTGTGCCACCCTCTGTGCCAGCC
CGAGGCCTGCAGCCCCAGCCCCCTGCCACCCCTGCTGTGCCACATCCCCCACCTTCCGGAGCCTTTGGGCTTGGG
GGCGCCCTGGAGGCTGCAGAGAGTGAGGGTCTGGGGCTTGGCTGCCCTTCACCCTGCAAGCGGCTTGATGAGGAG
CTGAAGCGGAACCTCGAGACGCTGCCCTCCTTCTCCTCGGATGAGGAAGACTCTGTCGCCAAGAACCGAGACCTG
CAGGAGAGCATCTCCTCCGCCATCTCTGCCCTCGATGACCCACCCCTTGCTGGGCCAAAAGACACTTCCACCCCA
GATGGGCCGCCCTTGGCCCCCGCGGCTGCAGTTCCAGGGCCACCCCCTCTTCCGGGGCTCCCCAGTGCCAACAGC
AATGGCACTCCCGAGCCCCCGCTGCTGGAGGAGAAACCCCCACCCACTCCACCTCCTGCCCCGACTCCTCAGCCT
CAGCCTCCGCCACCCCCTCCGCCGCCACAGCCAGCCCTGCCCTCGCCACCCCCGCTGGTGGCCCCCACGCCCAGC
TCACCACCGCCACCGCCGCTGCCGCCGCCACCTCCACCAGCCATGCCCTCGCCTCCACCACCACCCCCACCAGCC
GCTGCCCCACTGGCTGCTCCTCCTGAGGAGCCCGCCGCCCCGTCTCCCGAAGACCCCGAGCTGCCGGACACCCGG
CCCCTGCATCTGGCCAAAAAGCAGGAGACGGCGGCAGTGTGTGGGGAGACGGACGAGGAGGCCGGCGAGAGTGGC
GGAGAGGGCATCTTCCGGGAACGGGACGAGTTCGTCATCCGTGCTGAGGACATCCCTTCCCTCAAGCTGGCGTTG
CAGACGGGGCGTGAACCCCCACCCATCTGGCGAGTCCAGAAGGCCCTTCTGCAGAAATTCACTCCGGAGATCAAG
GACGGCCAGAGGCAGTTTTGTGCCACCAGTAATTATTTGGGGTATTTTGGGGATGCAAAAAATCGGTACCAGCGC
CTCTATGTAAAGTTCCTGGAAAATGTCAATAAGAAGGACTACGTGAGGGTCTGTGCTCGGAAACCCTGGCATCGG
CCCCCAGTGCCAGTCAGACGCTCTGGGCAGGCCAAGAACCCCGTATCTGCTGGGGGTAGCTCTGCACCTCCCCCT
AAGGCCCCAGCACCACCTCCCAAGCCTGAGACCCCTGAAAAGACGACATCTGAGAAGCCCCCAGAGCAGACTCCT
GAGACGGCCATGCCTGAGCCCCCTGCCCCCGAGAAGCCCTCCCTCCTGCGGCCTGTTGAGAAGGAAAAGGAGAAG
GAGAAGGTGACACGTGGAGAGCGGCCATTGCGGGGTGAGCGGGCCACCAGCGGACGGCAGACACGGCCAGAGCGG
AGTCTCGCCACGGGACAACCTGCCACATCCCGGCTGCCCAAAGCCCGGCCTACCAAGGTGAAGGCTGAACCGCCC
CCTAAGAAGAGGAAGAAATGGCTGAAGGAGGCAGGCGGCAACGCTACAGCAGGCGGGGGCCCACCAGGCAGCTCC
TCGGACTCGGAGTCCTCCCCTGGAGCCCCCAGCGAGGACGAGCGGGCAGTACCTGGGCGTCTGCTCAAAACCAGG
GCGATGCGGGAGATGTACCGGAGCTACGTGGAGATGTTGGTGAGCACAGCACTTGACCCAGACATGATCCAGGCC
CTGGAGGACACGCATGACGAGCTGTACCTGCCCCCCATGCGGAAGATAGACGGCCTGCTGAATGAGCACAAGAAG
AAAGTCCTGAAGCGGCTGTCGCTAAGCCCAGCCCTGCAGGATGCTCTGCACACGTTCCCACAGCTGCAAGTGGAG
CAGAGTGGGGAGGGCTCTCCGGAAGAGGGGGCTGTGCGGCTGCGGCCTGCTGGGGAACCCTACAACCGCAAGACG
CTCAGCAAGCTCAAGAGGAGCGTGGTCAGAGCCCAGGAGTTCAAGGTTGAGCTGGAAAAGTCGGGATACTATACA
CTCTACCATTCGCTCCACCACTATAAATACCACACCTTCCTGCGCTGCCGGGACCAGACCCTGGCCATCGAGGGC
GGCGCCGAGGACCTGGGCCAGGAGGAGGTGGTCCAGCAGTGCATGCGGAACCAGCCGTGGCTGGAACAGCTCTTT

FIGURE 2691B

GACTCCTTCAGTGACCTGCTGGCCCAAGCACAGGCCCACAGCCGCTGCGGG**TGA**CCCCGCCCCAGCTTGTGAGGG
GGGCGCCTCCTCCATGAACCGAGAATTGGGACAGAACCGTGTCCTCAGGAGCTAACACCTGGGCTCCATCGCCGG
GGAAAGGGGGTCATGGGTCAGGGTGTGTCTGTGCTGCCCCCTCCAGGGCAGGGTTCAAAGTCCGACTCCCCCCCT
CTCCCAAGCCCCCTCCACTCCCTCCCCATTCCTCCCACTGTTCGGTGTACAGAGAAATTATTTATATATATGTAT
AAATGTCTATTTAGTAACGGTTTCCCTCTCCCCTTGCCCCGACCCCCCCTCCACAGCCACAGCCCCCGCCCCCTC
CACCTTGTACATAATGTATAGGAAAAGTCTATGTATGGCTGGGGGGGGTGGGGTGGCTTCAGAGAGCTGGGGGAC
CCCTTCCCCCCAAGTCCCCCCTGCAGGCCAAGATCTTTGCTAAAGGCCATTCCCTCCGCAGGGCATTTGGCGTCG
GGTGGGAGGGGAAAACGCATCTTGTTAATTATTTTTAATCTTATTTATTGTACATACCTGGGGCAGGGGCTTGGG
GAGGTGGAGGGGGGAGAAGGGTCCCCTCTCTCTGCCCCTCCCACTCCTTTTCTACGGCGATTTGTCTGTGTCTGG
CCCCCACCCACTGCCCATCCCCCATTGTTGTCTGGATGTGGTTCTATTTTTTATCGGTCTCCTTTCCCCTCCTCC
CCGTTCTCGCCCCCGCCCCACCCCCTGCTCCCACTACCCTTTGTCTCTTGCTCTTTCTTGGGCTTCTGTACAACT
CAACTTGTATACACTGTGTACACACAACCAGCCAAACGAAAACCCAACGGCAAACACTTT

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FIGURE 2692

GAAGCGACCGAGGGACTGGGAGTCGTTAGTGAGAGTTTCACTCTTGTTGCCTAGGCTGGAGTGCAATGGTGCGAT
CTTGGCTCATCACGACCTTCGCCTCCCAGGTTCAAGTGATTGTCCCATTTCAGCCTCCCGAGTAGCTGGGATTAC
AGG**ATG**ACGCGGCATGGCAAGAACTGCACCGCAGGGGCCGTCTACACCTACCACGAGAAGAAGAAGGACACAGCG
GCCTCGGGCTATGGGACCCAGAACATTCGACTGAGCCGGGATGCCGTGAAGGACTTCGACTGCTGTTGTCTCTCC
CTGCAGCCTTGCCACGATCCTGTTGTCACCCCAGATGGCTACCTGTATGAGCGTGAGGCCATCCTGGAGTACATT
CTGCACCAGAAGAAGGAGATTGCCCGGCAGATGAAGGCCTACGAGAAGCAGCGGGGCACCCGGCGCGAGGAGCAG
AAGGAGCTTCAGCGGGCGGCCTCGCAGGACCATGTGCGGGGCTTCCTGGAGAAGGAGTCGGCTATCGTGAGCCGG
CCCCTCAACCCTTTCACAGCCAAGGCCCTCTCGGGCACCAGCCCAGATGATGTCCAACCTGGGCCCAGTGTGGGT
CCTCCAAGTAAGGACAAGGACAAAGTGCTGCCCAGCTTCTGGATCCCGTCGCTGACGCCCGAAGCCAAGGCCACC
AAGCTGGAGAAGCCGTCCCGCACGGTGACCTGCCCCATGTCAGGGAAGCCCCTGCGCATGTCGGACCTGACGCCC
GTGCACTTCACACCGCTAGACAGCTCCGTGGACCGCGTGGGGCTCATCACCCGCAGCGAGCGCTACGTGTGTGCC
GTGACCCGCGACAGCCTGAGCAACGCCACCCCCTGCGCTGTGCTGCGGCCCTCTGGGGCTGTGGTCACCCTCGAA
TGCGTGGAGAAGCTGATTCGGAAGGACATGGTGGACCCTGTGACTGGAGACAAACTCACAGACCGCGACATCATC
GTGCTGCAGCGGGGCGGTACCGGCTTCGCGGGCTCCGGAGTGAAGCTGCAAGCGGAGAAATCACGGCCGGTGATG
CAGGCC**TGA**GTGTGTGCGGGAGACCAAATAAACCGGCTTGGGTGCGC

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FIGURE 2693

AGCGGAGCGAAGCTGGATAACAGGGGACCG**ATG**ATGTGGCGACCATCAGTTCTGCTGCTTCTGTTGCTACTGAGG
CACGGGGCCCAGGGGAAGCCATCCCCAGACGCAGGCCCTCATGGCCAGGGGAGGGTGCACCAGGCGGCCCCCCTG
AGCGACGCTCCCCATGATGACGCCCACGGGAACTTCCAGTACGACCATGAGGCTTTCCTGGGACGGGAAGTGGCC
AAGGAATTCGACCAACTCACCCCAGAGGAAAGCCAGGCCCGTCTGGGGCGGATCGTGGACCGCATGGACCGCGCG
GGGGACGGCGACGGCTGGGTGTCGCTGGCCGAGCTTCGCGCGTGGATCGCGCACACGCAGCAGCGGCACATACGG
GACTCGGTGAGCGCGGCCTGGGACACGTACGACACGGACCGCGACGGGCGTGTGGGTTGGGAGGAGCTGCGCAAC
GCCACCTATGGCCACTACGCGCCCGGTGAAGAATTTCATGACGTGGAGGATGCAGAGACCTACAAAAAGATGCTG
GCTCGGGACGAGCGGCGTTTCCGGGTGGCCGACCAGGATGGGGACTCGATGGCCACTCGAGAGGAGCTGACAGCC
TTCCTGCACCCCGAGGAGTTCCCTCACATGCGGGACATCGTGATTGCTGAAACCCTGGAGGACCTGGACAGAAAC
AAAGATGGCTATGTCCAGGTGGAGGAGTACATCGCGGATCTGTACTCAGCCGAGCCTGGGGAGGAGGAGCCGGCG
TGGGTGCAGACGGAGAGGCAGCAGTTCCGGGACTTCCGGGATCTGAACAAGGATGGGCACCTGGATGGGAGTGAG
GTGGGCCACTGGGTGCTGCCCCCTGCCCAGGACCAGCCCCTGGTGGAAGCCAACCACCTGCTGCACGAGAGCGAC
ACGGACAAGGATGGGCGGCTGAGCAAAGCGGAAATCCTGGGTAATTGGAACATGTTTGTGGGCAGTCAGGCCACC
AACTATGGCGAGGACCTGACCCGGCACCACGATGAGCTG**TGA**GCACCGCGCACCTGCCACAGCCTCAGAGGCCCG
CACAATGACCGGAGGAGGGGCCGCTGTGGTCTGGCCCCCTCCCTGTCCAGGCCCCGCAGGAGGCAGATGCAGTCC
CAGGCATCCTCCTGCCCCTGGGCTCTCAGGGACCCCCTGGGTCGGCTTCTGTCCCTGTCACACCCCCAACCCCAG
GGAGGGGCTGTCATAGTCCCAGAGGATAAGCAATACCTATTTCTGACTGAGTCTCCCAGCCCAGACCCAGGGACC
CTTGGCCCCAAGCTCAGCTCTAAGAACCGCCCCAACCCCTCCAGCTCCAAATCTGAGCCTCCACCACATAGACTG
AAACTCCCCTGGCCCCAGCCCTCTCCTGCCTGGCCTGGCCTGGGACACCTCCTCTCTGCCAGGAGGCAATAAAAG
CCAGCGCCGGG

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FIGURE 2694

GAAGGATATTAAAGAGCACCTGCAGGAATTTTTTAAGGGGATGCCGGGGGAAGGGCTTGAAGGAGGAACTAAGGA
GGCTTCCAGAAGATTTTGATTAACAGCGAGCGCTAGGGAAGGCCACGGGGATACAGAGGGGTAGGAGGAGGATCC
AGAGACCTCCAAGTTGTGGACTCCGGAGGCATCGAGTTCCTTTCCCAGTTTTGTCAAGAATTCCCTGAGCGGCAG
ACACCCTCAAAGTAAAAAACGGGAACCACAGAGAAGGAAAAAGAAGAACCACAAGCGTTTTGAGAAACAAACAGG
CTGGGCCTAGGGCCTGGGGTGTGCCCTGCAACTGGGGGGTGGGGCTGGATGTTCTTGGAGTCAGGGAGCAGCAGC
CTCCCACAGGATGTGAGAGAGGAACTGGGGTCTCCAGTCACGGGAGCCAGGAGCCGGCCAGGGCCGCAGGCAGGA
AGCGGAGCGAGGCTGAAGGGAACTTCGTCCTCTCAGC**ATG**GGGGTCCCGCGGCCTCAGCCCTGGGCGCTGGGGCT
CCTGCTCTTTCTCCTTCCTGGGAGCCTGGGCGCAGAAAGCCACCTCTCCCTCCTGTACCACCTTACCGCGGTGTC
CTCGCCTGCCCCGGGGACTCCTGCCTTCTGGGTGTCCGGCTGGCTGGGCCCGCAGCAGTACCTGAGCTACAATAG
CCTGCGGGGCGAGGCGGAGCCCTGTGGAGCTTGGGTCTGGGAAAACCAGGTGTCCTGGTATTGGGAGAAAGAGAC
CACAGATCTGAGGATCAAGGAGAAGCTCTTTCTGGAAGCTTTCAAAGCTTTGGGGGGAAAAGGTCCCTACACTCT
GCAGGGCCTGCTGGGCTGTGAACTGGGCCCTGACAACACCTCGGTGCCCACCGCCAAGTTCGCCCTGAACGGCGA
GGAGTTCATGAATTTCGACCTCAAGCAGGGCACCTGGGGTGGGGACTGGCCCGAGGCCCTGGCTATCAGTCAGCG
GTGGCAGCAGCAGGACAAGGCGGCCAACAAGGAGCTCACCTTCCTGCTATTCTCCTGCCCGCACCGCCTGCGGGA
GCACCTGGAGAGGGGCCGCGGAAACCTGGAGTGGAAGGAGCCCCCCTCCATGCGCCTGAAGGCCCGACCCAGCAG
CCCTGGCTTTTCCGTGCTTACCTGCAGCGCCTTCTCCTTCTACCCTCCGGAGCTGCAACTTCGGTTCCTGCGGAA
TGGGCTGGCCGCTGGCACCGGCCAGGGTGACTTCGGCCCCAACAGTGACGGATCCTTCCACGCCTCGTCGTCACT
AACAGTCAAAAGTGGCGATGAGCACCACTACTGCTGCATTGTGCAGCACGCGGGGCTGGCGCAGCCCCTCAGGGT
GGAGCTGGAATCTCCAGCCAAGTCCTCCGTGCTCGTGGTGGGAATCGTCATCGGTGTCTTGCTACTCACGGCAGC
GGCTGTAGGAGGAGCTCTGTTGTGGAGAAGGATGAGGAGTGGGCTGCCAGCCCCTTGGATCTCCCTTCGTGGAGA
CGACACCGGGGTCCTCCTGCCCACCCCAGGGGAGGCCCAGGATGCTGATTTGAAGGATGTAAATGTGATTCCAGC
CACCGCC**TGA**CCATCCGCCATTCCGACTGCTAAAAGCGAATGTAGTCAGGCCCCTTTCATGCTGTGAGACCTCCT
GGAACACTGGCATCTCTGAGCCTCCAGAAGGGGTTCTGGGCCTAGTTGTCCTCCCTCTGGAGCCCCGTCCTGTGG
TCTGCCTCAGTTTCCCCTCCTAATACATATGGCTGTTTTCCACCTCGATAATATAACACGAGTTTGGGCCC

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FIGURE 2695

TTTCTTTTTTTCAGGCGGCCGGGAAG**ATG**GCGGACATTCAGACTGAGCGTGCCTACCAAAAGCAGCCGACCATCT
TTCAAAACAAGAAGAGGGTCCTGCTGGGAGAAACTGGCAAGGAGAAGCTCCCGCGGTACTACAAGAACATCGGTC
TGGGCTTCAAGACACCCAAGGAGGCTATTGAGGGCACCTACATTGACAAGAAATGCCCCTTCACTGGTAATGTGT
CCATTCGAGGGCGGATCCTCTCTGGCGTGGTGACCAAGATGAAGATGCAGAGGACCATTGTCATCCGCCGAGACT
ATCTGCACTACATCCGCAAGTACAACCGCTTCGAGAAGCGCCACAAGAACATGTCTGTACACCTGTCCCCCTGCT
TCAGGGACGTCCAGATCGGTGACATCGTCACAGTGGGCGAGTGCCGGCCTCTGAGCAAGACAGTGCGCTTCAACG
TGCTCAAGGTCACCAAGGCTGCCGGCACCAAGAAGCAGTTCCAGAAGTTC**TGA**GGCTGGACATCGGCCCGCTCCC
CACAATGAAATAAAGTTATTTTCTCATTCCCAGGCCAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 2696

CTTTTCCAAGCGGCTGCCGAAG**ATG**GCGGAGGTGCAGGTCCTGGTGCTTGATGGTCGAGGCCATCTCCTGGGCCG
CCTGGCGGCCATCGTGGCTAAACAGGTACTGCTGGGCCGGAAGGTGGTGGTCGTACGCTGTGAAGGCATCAACAT
TTCTGGCAATTTCTACAGAAACAAGTTGAAGTACCTGGCTTTCCTCCGCAAGCGGATGAACACCAACCCTTCCCG
AGGCCCCTACCACTTCCGGGCCCCCAGCCGCATCTTCTGGCGGACCGTGCGAGGTATGCTGCCCCACAAAACCAA
GCGAGGCCAGGCCGCTCTGGACCGTCTCAAGGTGTTTGACGGCATCCCACCGCCCTACGACAAGAAAAAGCGGAT
GGTGGTTCCTGCTGCCCTCAAGGTCGTGCGTCTGAAGCCTACAAGAAAGTTTGCCTATCTGGGGCGCCTGGCTCA
CGAGGTTGGCTGGAAGTACCAGGCAGTGACAGCCACCCTGGAGGAGAAGAGGAAAGAGAAAGCCAAGATCCACTA
CCGGAAGAAGAAACAGCTCATGAGGCTACGGAAACAGGCCGAGAAGAACGTGGAGAAGAAAATTGACAAATACAC
AGAGGTCCTCAAGACCCACGGACTCCTGGTC**TGA**GCCCAATAAAGACTGTTAATTCCTCATGCGTTGCCTGCCCT
TCCTCCATTGTTGCCCTGGAATGTACGGGACCCAGGGGCAGCAGCAGTCCAGGTGCCACAGGCAGCCCTGGGACA
TAGGAAGCTGGGAGCAAGGAAAGGGTCTTAGTCACTGCCTCCCGAAGTTGCTTGAAAGCACTCGGAGAATTGTGC
AGGTGTCATTTATCTATGACCAATAGGAAGAGCAACCAGTTACTATGAGTGAAAGGGAGCCAGAAGACTGATTGG
AGGGCCCTATCTTGTGAGTGGGGCATCTGTTGGACTTTCCACCTGGTCATATACTCTGCAGCTGTTAGAATGTGC
AAGCACTTGGGGACAGCATGAGCTTGCTGTTGTACACAGGGTATTTCTAGAAGCAGAAATAGACTGGGAAGATGC
ACAACCAAGGGGTTACAGGCATCGCCCATGCTCCTCACCTGTATTTTGTAATCAGAAATAAATTGCTTTTAAAG

FIGURE 2697

CGCAGTCTTCGCGGAAAGCGTTCGGGGTAGGCGATGGCTGCGACGCGTGCAGGGCCCCGCGCCCGCGAGATCTTC
ACCTCGCTGGAGTACGGACCGGTGCCGGAGAGCCACGCATGCGCACTGGCCTGGCTGGACACCCAGGACCGGTGC
TTGGGCCACTATGTGAATGGGAAGTGGTTAAAGCCTGAACACAGAAATTCAGTGCCTTGCCAGGATCCCATCACA
GGCTGGCCGAGGTGATCCAGAAGCACCAGCGGCTGCTGTGGACCCTGGAATCCCTGGTGACTGGGCGGGCTGTTC
GAGAGGTTCGAGACGGGGACGTCCAGCTGGCCCAGCAGCTGCTCCACTACCATGCAATCCAGGCATCCACCCAGG
AGGAGGCACTGGCAGGCTGGGAGCCC**ATG**GGAGTAATTGGCCTCATCCTGCCACCCACATTCTCCTTCCTTGAGA
TGATGTGGAGGATTTGCCCTGCCCTGGCTGTGGGCTGCACCGTGGTGGCCCTCGTGCCCCCGGCCTCCCCGGCGC
CCCTCCTCCTGGCCCAGCTGGCGGGGGAGCTGGGCCCCTTCCCGGGAATCCTGAATGTCCTCAGTGGCCCTGCGT
CCCTGGTGCCCATCCTGGCCTCCCAGCCTGGAATCCGGAAGGTGGCCTTCTGCGGAGCCCCGGAGGAAGGGCGTG
CCCTTCGACGGAGCCTGGCGGGAGAGTGTGCGGAGCTGGGCCTGGCGCTGGGGACGGAGTCGCTGCTGCTGCTGA
CGGACACGGCGGACGTAGACTCGGCCGTGGAGGGTGTCGTGGACGCCGCCTGGTCCGACCGCGGCCCGGGTGGCC
TCAGGCTCCTCATCCAGGAGTCTGTGTGGGATGAAGCCATGAGACGGCTGCAGGAGCGGATGGGGCGGCTTCGGA
GTGGCCGAGGGCTGGATGGGGCCGTGGACATGGGGGCCCGGGGGGCTGCCGCATGTGACCTGGTCCAGCGCTTTG
TGCGTGAGGCCCAGAGCCAGGGTGCACAGGTGTTCCAGGCTGGTGATGTGCCTTCGGAACGCCCATTCTATCCCC
CAACCTTGGTCTCCAACCTGCCCCCAGCCTCCCCATGTGCCCAGGTGGAGGTGCCGTGGCCTGTGGTCGTGGCCT
CCCCCTTCCGCACAGCCAAGGAGGCACTGTTGGTGGCCAACGGGACGCCCCGCGGGGGCAGCGCCAGTGTGTGGA
GCGAGAGGCTGGGGCAGGCGCTGGAGCTGGGCTATGGGCTCCAGGTGGGCACTGTCTGGATCAACGCCCACGGCC
TCAGAGACCCTTCGGTGCCCACAGGCGGCTGCAAGGAGAGTGGGTGTTCCTGGCACGGGGGCCCAGACGGGCTGT
ATGAGTATCTGCGGCCCTCAGGGACCCCTGCCCGGCTGTCCTGCCTCTCCAAGAACCTGAACTATGACACCTTTG
GCCTCGCTGTTCCCTCAACCCTGCCGGCTGGGCCTGAAATAGGGCCCAGCCCAGCACCCCCCTATGGGCTCTTCG
TTGGGGGCCGTTTCCAGGCTCCTGGGGCCCGAAGCTCCAGGCCCATCCGGGATTCGTCTGGCAACCTCCATGGCT
ACGTGGCTGAGGGTGGAGCCAAGGACATCCGAGGTGCTGTGGAGGCCGCTCACCAGGCTTTCCCTGGCTGGGCGG
GCCAGTCCCCAGGAGCCCGGGCAGCCCTGCTGTGGGCCCTGGCGGCTGCACTGGAGCGCCGGAAGTCTACCCTGG
CCTCGAGGCTGGAGAGGCAGGGAGCGGAGCTCAAGGCTGCGGAGGCGGAGGTGGAGCTGAGCGCAAGACGACTTC
GGGCGTGGGGGGCCCGGGTGCAGGCCCAAGGCCACACCCTGCAGGTAGCCGGGCTGAGAGGCCCTGTGCTGCGCC
TGCGGGAGCCGCTGGGTGTGCTGGCTGTGGTGTGTCCGGACGAGTGGCCCCTGCTTGCCTTCGTGTCCCTGCTGG
CTCCCGCCCTGGCCTACGGCAACACTGTGGTCATGGTGCCCAGTGCGGCCTGTCCTCTGCTGGCCCTGGAGGTCT
GCCAGGACATGGCCACCGTGTTCCCAGCAGGCCTGGCCAACGTGGTGACAGGAGACCGGGACCATCTGACCCGCT
GCCTGGCCTTGCACCAAGACGTCCAGGCCATGTGGTATTTCGGATCAGCCCAGGGTTCCCAGTTTGTCGAGTGGG
CCTCGGCAGGAAACCTCAAACCGGTGTGGGCGAGCAGGGGCTGCCCGCGGGCCTGGGACCAGGAGGCCGAGGGGG
CAGGCCCAGAGCTGGGGCTGCGAGTGGCGCGGACCAAGGCCCTGTGGCTGCCTATGGGGGAC**TGA**TGCCTGAGCG
CCACCTACTGCATTTTGGACACCTCACACCAAGGGGAGATGCACCCCACAGACACCTGGGACTTTCCCCTTCTGG
TTCCTGTGTCTCCCAATAAACTCTCTGACCAACCCTAGCTGTGCTTCTGCGAGAAGAAAGGGTGTAGCAACTTCT
GGCAGATATGAGGCTTTTTTCTTTTTTTTTTTTTTTTTTGAGACAACGTCTGGCTCTGTCACCCAGGCTGGAGCG
CAGTGGCACAATCTCGGCCCACTGCAGCCTCGACCTCTGGGGCTCAAGGGATCCTCATGCCTCAGCCTCATATGT
AGCTGGGGCCACAGACATGCACCACCACACCTGGCTCGAGGCCATTTTAGTTCTGAGGTTGAGCAGCTCAGGAGC
CGGCTCCAGCACGGTGCTGTGTTTGTGAAACAGAGAAAGGGGACCCCCGAGGACCCCAGACAGGGCCTTAGGACT
CTCATATCTTCTTGTCTTCTCCATCTGGTGGCTCTTGCTCTCTGGTTTTCTCTACCTTTTCATGGCCCCAGAATC
CATATGCAGTAAAGGAACTCTCTGGAATAAAATTAAAGTCCTCCT

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FIGURE 2698

ACAGTTCGGCACGTAGGACGGAGGGTAGTGCGTCTAGAGACACATATTCCCCACGGATTTGACGATGGTGTTCGG
TCTTGAATGGAAATGTAGTCTTAGGCCAGTCTTAGGTTTTTGAACAGGATAGTAGGTATCCGGAGTCGATTGAGG
GCCAGAGCAGGCACTGGGGTTCGGATCCTGGGCAAAGTTTCCCACGTTGAGGGTCTCGAGGACGCCTAGATCTCT
TTCCCAGGGCC**ATG**GCGAACCCGAAGCTGCTGGGAATGGGGCTAAGCGAGGCGGAGGCGATCGGTGCTGATTCGG
CGCGATTTGAGGAGCTGCTGCTGCAGGCCTCGAAGGAGCTCCAGCAAGCCCAGACAACCAGACCAGAATCGACAC
AAATCCAGCCTCAGCCTGGTTTCTGCATAAAGACCAACTCCTCGGAAGGGAAGGTTTTCATCAACATCTGCCACT
CCCCCTCTATCCCTCCTCCCGCCGACGTGACCGAGGAGGAGCTGCTTCAGATGCTAGAGGAGGACCAAGCTGGGT
TTCGCATCCCCATGAGTCTGGGAGAGCCTCATGCAGAACTGGATGCAAAAGGCCAGGGATGTACCGCCTACGACG
TAGCTGTCAACAGCGACTTCTACCGGAGGATGCAGAACAGCGATTTCTTGCGGGAGCTCGTGATCACCATCGCCA
GGGAGGGCCTTGAGGACAAATACAACTTGCAGCTGAATCCGGAATGGCGCATGATGAAGAACCGGCCATTCATGG
GCTCCATCTCGCAGCAGAACATCCGCTCGGAGCAGCGTCCTCGGATCCAGGAGCTGGGGGACCTGTACACGCCCG
CCCCCGGGAGAGCTGAGTCAGGGCCTGAAAAGCCTCACCTGAACCTGTGGCTGGAAGCCCCCGACCTCCTCTTGG
CCGAAGTTGACCTCCCCAAACTGGATGGAGCCCTGGGGCTGTCGCTGGAGATCGGGGAGAACCGCCTGGTGATGG
GGGGCCCCCAGCAGCTGTATCATCTAGACGCTTATATCCCGCTGCAGATCAACTCTCATGAGAGCAAGGCAGCCT
TCCACCGGAAGAGAAAGCAATTAATGGTGGCCATGCCGCTTCTGCCGGTGCCTTCT**TGA**TCAGGGTGTCTCCTTG
TGCTTCTGAGATGTGGAGAAGAGGCTGCTGGCTTCCCTAAAAGTTGAAATAAAAGATTTTTGCCTTT

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FIGURE 2699

CCGGCGGCAGGAGCCGCCACC**ATG**GAGTTCCGCCAGGAGGAGTTTCGGAAGCTAGCGGGTCGTGCTCTCGGGAAG
CTGCACCGCCTTCTGGAGAAGCGGCAGGAAGGCGCGGAGACGCTGGAGCTGAGTGCGGATGGGCGCCCGGTGACC
ACGCAGACCCGGGACCCGCCGGTGGTGGACTGCACCTGCTTCGGCCTCCCTCGCCGCTACATTATCGCCATCATG
AGTGGTCTGGGCTTCTGCATCAGCTTTGGCATCCGCTGCAACCTGGGCGTGGCCATCGTCTCCATGGTCAATAAC
AGCACGACCCACCGCGGGGGCCACGTGGTGGTGCAGAAAGCCCAGTTCAGCTGGGATCCAGAGACTGTCGGCCTC
ATACACGGCTCCTTTTTCTGGGGCTACATTGTCACTCAGATTCCAGGAGGATTTATCTGTCAAAAATTTGCAGCC
AACAGAGTTTTCGGCTTTGCTATTGTGGCAACATCCACTCTAAACATGCTGATCCCCTCAGCTGCCCGCGTCCAC
TATGGCTGTGTCATCTTCGTGAGGATCCTGCAGGGGTTGGTAGAGGGGGTCACATACCCCGCCTGCCATGGGATC
TGGAGCAAATGGGCCCCACCCTTAGAACGGAGTCGCCTGGCGACGACAGCCTTTTGTGGTTCCTATGCTGGGGCG
GTGGTCGCGATGCCCCTCGCCGGGGTCCTTGTGCAGTACTCAGGATGGAGCTCTGTTTTCTACGTCTACGGCAGC
TTCGGGATCTTCTGGTACCTGTTCTGGCTGCTCGTCTCCTACGAGTCCCCCGCGCTGCACCCCAGCATCTCGGAG
GAGGAGCGCAAGTACATCGAGGACGCCATCGGAGAGAGCGCGAAACTCATGAACCCCCTCACGAAGTTTAGCACT
CCCTGGCGGCGCTTCTTCACGTCTATGCCAGTCTATGCCATCATCGTGGCCAACTTCTGCCGCAGCTGGACGTTC
TACCTGCTGCTCATCTCCCAGCCCGCCTACTTCGAAGAAGTGTTCGGCTTCGAGATCAGCAAGGTAGGCCTGGTG
TCCGCGCTGCCCCACCTGGTCATGACCATCATCGTGCCCATCGGCGGCCAGATCGCGGACTTCCTGCGGAGCCGC
CGCATCATGTCCACCACCAACGTGCGCAAGTTGATGAACTGCGGAGGCTTCGGCATGGAAGCCACGCTGCTGTTG
GTGGTCGGCTACTCGCACTCCAAGGGCGTGGCCATCTCCTTCCTGGTCCTAGCCGTGGGCTTCAGCGGCTTCGCC
ATCTCTGGGTTCAACGTGAACCACCTGGACATAGCCCCGCGCTACGCCAGCATCCTCATGGGCATCTCCAACGGC
GTGGGCACACTGTCGGGCATGGTGTGCCCCATCATCGTGGGGGCCATGACTAAGCACAAGACTCGGGAGGAGTGG
CAGTACGTGTTCCTAATTGCCTCCCTGGTGCACTATGGAGGTGTCATCTTCTACGGGGTCTTTGCTTCTGGAGAG
AAGCAGCCGTGGGCAGAGCCTGAGGAGATGAGCGAGGAGAAGTGTGGCTTCGTTGGCCATGACCAGCTGGCTGGC
AGTGACGACAGCGAAATGGAGGATGAGGCTGAGCCCCCGGGGGCACCCCCTGCACCCCCGCCCTCCTATGGGGCC
ACACACAGCACATTTCAGCCCCCCAGGCCCCCACCCCCTGTCCGGGACTAC**TGA**CCATGTGCCTCCCACTGAATG
GCAGTTTCCAGGACCTCCATTCCACTCATCTCTGGCCTGAGTGACAGTGTCAAGGAACCCTGCTCCTCTCTGTCC
TGCCTCAGGCCTAAGAAGCACTCTCCCTTGTTCCCAGTGCTGTCAAATCCTCTTTCCTTCCCAATTGCCTCTCAG
GGGTAGTGAAGCTGCAGACTGACAGTTTCAAGGATACCCAAATTCCCCTAAAGGTTCCCTCTCCACCCGTTCTGC
CTCAGTGGTTTCAAATCTCTCCTTTCAGGGCTTTATTTGAATGGACAGTTCGACCTCTTACTCTCTCTTGTGGTT
TTGAGGCACCCACACCCCCCGCTTTCCTTTATCTCCAGGGACTCTCAGGCTAACCTTTGAGATCACTCAGCTCCC
ATCTCCTTTCAGAAAAATTCAAGGTCCTCCTCTAGAAGTTTCAAATCTCTCCCAACTCTGTTCTGCATCTTCCAG
ATTGGTTTAACCAATTACTCGTCCCCGCCATTCCAGGGATTGATTCTCACCAGCGTTTCTGATGGAAAATGGCGG
TTTCAAGTCCCCGATTCCGTGCCCACTTCACATCTCCCCTACCAGCAGATTCTGCGAAAGCACCAAATTTCTCAA
GACCCTCTTCTCCCTAGCTTAGCATAATGTCTGGGGAAACA

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FIGURE 2642

CAGTATCCCTCCTGACAAAACTAACAAAAATCCTGTTAGCCAAATAATCAGCCACATTCATATTTACCGTCAAAG
TTTTTATCCTCATTTTACAGCAGTGGAGAGCGATTGCCCCGGGTCCCACGTTAGGAAGAGAGAGAACTGGGATTT
GCACCCAGGCAATCTGGGGACAGAGCTGTGATCACAACTCCATGAGTCAGGGCCGAGCCAGCCCCTTCACCACCA
GCCGGCCGCGCCCCGGGAAGGGAAGTTTGTGGCGGAGGAGGTTCGTACGGGAGGAGGGGGAGGCGCCCACGCATC
TGGGGCTGACTCGCTCTTTCGCAAAACGTCTGGGAGGAGTCCCTGGGGCCACAAAACTGCCTCCTTCCTGAGGCC
AGAAGGAGAGAAGACGTGCAGGGACCCCGCGCACAGGAGCTGCCCTCGCGAC**ATG**GGTCACCCGCCGCTGCTGCC
GCTGCTGCTGCTGCTCCACACCTGCGTCCCAGCCTCTTGGGGCCTGCGGTGCATGCAGTGTAAGACCAACGGGGA
TTGCCGTGTGGAAGAGTGCGCCCTGGGACAGGACCTCTGCAGGACCACGATCGTGCGCTTGTGGGAAGAAGGAGA
AGAGCTGGAGCTGGTGGAGAAAAGCTGTACCCACTCAGAGAAGACCAACAGGACCCTGAGCTATCGGACTGGCTT
GAAGATCACCAGCCTTACCGAGGTTGTGTGTGGGTTAGACTTGTGCAACCAGGGCAACTCTGGCCGGGCTGTCAC
CTATTCCCGAAGCCGTTACCTCGAATGCATTTCCTGTGGCTCATCAGACATGAGCTGTGAGAGGGGCCGGCACCA
GAGCCTGCAGTGCCGCAGCCCTGAAGAACAGTGCCTGGATGTGGTGACCCACTGGATCCAGGAAGGTGAAGAAGG
GCGTCCAAAGGATGACCGCCACCTCCGTGGCTGTGGCTACCTTCCCGGCTGCCCGGGCTCCAATGGTTTCCACAA
CAACGACACCTTCCACTTCCTGAAATGCTGCAACACCACCAAATGCAACGAGGGCCCAATCCTGGAGCTTGAAAA
TCTGCCGCAGAATGGCCGCCAGTGTTACAGCTGCAAGGGGAACAGCACCCATGGATGCTCCTCTGAAGAGACTTT
CCTCATTGACTGCCGAGGCCCCATGAATCAATGTCTGGTAGCCACCGGCACTCACGAACCGAAAAACCAAAGCTA
TATGGTAAGAGGCTGTGCAACCGCCTCAATGTGCCAACATGCCCACCTGGGTGACGCCTTCAGCATGAACCACAT
TGATGTCTCCTGCTGTACTAAAAGTGGCTGTAACCACCCAGACCTGGATGTCCAGTACCGCAGTGGGGCTGCTCC
TCAGCCTGGCCCTGCCCATCTCAGCCTCACCATCACCCTGCTAATGACTGCCAGACTGTGGGGAGGCACTCTCCT
CTGGACC**TAA**ACCTGAAATCCCCCTCTCTGCCCTGGCTGGATCCGGGGGACCCCTTTGCCCTTCCCTCGGCTCCC
AGCCCTACAGACTTGCTGTGTGACCTCAGGCCAGTGTGCCGACCTCTCTGGGCCTCAGTTTTCCCAGCTATGAAA
ACAGCTATCTCACAAAGTTGTGTGAAGCAGAAGAGAAAAGCTGGAGGAAGGCCGTGGGCCAATGGGAGAGCTCTT
GTTATTATTAATATTGTTGCCGCTGTTGTGTTGTTGTTATTAATTAATATTCATATTATTTATTTTATACTTACA
TAAAGATTTTGTACCAGTGG

FIGURE 2701

CCCACTTTTCCCAAACAAAGCTCCCGGCAACTTTCTCCCTCGCAGCGCCCCGCCCGCCCGCGGCTCCCCAGCCCC
AGGCCGGGAGGCCCAG**ATG**GGGGAACCCCGGGCTGGGGCCGCCCTGGACGATGGCAGCGGCTGGACGGGCAGTGA
GGAAGGCAGTGAGGAGGGTACCGGCGGCAGTGAGGGGGCTGGGGGTGACGGGGGCCCGGATGCAGAGGGGGTGTG
GAGCCCAGACATTGAGCAGAGCTTCCAGGAGGCCCTGGCCATCTATCCACCCTGCGGCCGCCGGAAAATAATTTT
GTCTGATGAAGGCAAGATGTATGGTCGGAATGAACTGATCGCCCGCTACATCAAGCTGAGAACGGGGAAGACCCG
AACTCGAAAACAGGTTTCTAGTCACATCCAGGTTTTGGCCCGAAGGAAATCAAGGGAAATCCAGTCCAAGTTGAA
GGACCAGGTTTCCAAGGACAAGGCTTTCCAGACAATGGCAACCATGTCCTCTGCCCAGCTCATCTCCGCGCCTTC
TCTGCAGGCCAAACTGGGTCCCACTGGTCCTCAGGCCTCTGAGCTTTTCCAGTTTTGGTCTGGAGGATCTGGGCC
CCCCTGGAATGTTCCAGATGTGAAGCCATTCTCACAGACACCGTTCACCTTGTCACTGACTCCCCCATCTACTGA
CCTCCCAGGGTACGAGCCCCCCCAAGCCCTCTCACCCCTGCCCCCACCTACCCCATCGCCCCCAGCCTGGCAGGC
TCGGGGCCTGGGCACCGCCCGGTTGCAGCTGGTAGAGTTCTCAGCCTTCGTGGAACCGCCAGATGCAGTTGATTC
TTACCAGAGGCACCTGTTCGTGCACATCAGCCAGCACTGCCCCAGCCCCGGAGCGCCGCCGCTCGAGAGTGTGGA
CGTCCGGCAGATCTACGACAAATTCCCTGAGAAAAAGGGTGGCCTCCGAGAGCTATATGATCGTGGCCCCCCCCA
TGCCTTCTTCCTGGTCAAGTTCTGGGCGGACCTGAACTGGGGCCCAAGTGGTGAGGAGGCAGGGGCCGGTGGCAG
CATCAGCAGTGGTGGCTTCTACGGAGTGAGCAGCCAGTATGAGAGCCTGGAACACATGACCCTCACCTGTTCCTC
CAAGGTCTGCTCTTTTGGCAAGCAGGTGGTGGAGAAGGTGGAGACGGAACGGGCCCAGCTGGAGGACGGCAGATT
TGTGTACCGCCTGCTGCGCTCGCCCATGTGCGAGTACCTGGTGAATTTCTTGCACAAGTTGCGGCAGCTGCCTGA
GCGATACATGATGAACAGCGTCCTGGAAAACTTCACCATCCTCCAGGTGGTGACAAACAGAGACACCCAGGAACT
GCTGCTCTGCACCGCCTATGTCTTCGAGGTCTCCACCAGCGAGCGTGGGGCCCAGCATCACATTTACCGCCTGGT
CAGGGAC**TGA**AGGGGGACCCCAAAACTGGCTCACCCCCCAGAACACCCTCCTCCCAGGGAGGGTCCTCCAGCTCA
CCTCATGCTTCTTATTTGGGGAGAGGGCTGTGATGTAAAGGGGTTGACCTCAGAGGCCTAAGCAACTGGGGCCAT
CCCCCCCATTAGAGGGGCCCCCAAAACTTGGTTGGAGAGCTGAACAGGCTGGGACTGAGGAAAGGATAAACCCCG
ATATTGGGACCTCACAGTGGGTGTCTGAAAGGACAGATCACTCCGGAGTATCAGGGATTGTGGGGACAGGAGTGA
GACAACCCCCCAGGTACAGCACTGGCTTTTCTTTTCAGCCCCTGACAGGCCACCCCCACTCCTCTGCATGTCTTG
GAGAGCGCTAGTTACACATTGGCTTGTCCCCTTTACTTTTTCCCAGCCACCCCTCCCCCTGAAATTTCTGCCCCT
CTCTACCACCCTCACTCCATGACCTGTGAGATCACAAAGTGAAGATGAACCCTTTCTGTGCAGGAGCAGAGCCAG
GTGGGCCCTGGACATTTTTTTTTTTTTTAATATAACGAGATATTTATAAGTGGGTGCTAGGGTCTTGACTTTATC
TCCGCTGCACAAGCAGTGTGTTGAACTTTCTAATCTCATCCCTCTCCTAAGTGAGCCCTGAGCTAGACGGTTTCC
TTCCTCCCCTCTCAAAGTTTGTTTGTTTGTGTTCTGACAGAGGATAAAGCTATTTTACC

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FIGURE 2702

GTCTCCCCCACTGTCAGCACCTCTTCTGTGTGGTGAGTGGACCGCTTACCCCACTAGGTGAAG**ATG**TCAGCCCAG
GAGAGCTGCCTCAGCCTCATCAAGTACTTCCTCTTCGTTTTCAACCTCTTCTTCTTCGTCCTCGGCAGCCTGATC
TTCTGCTTCGGCATCTGGATCCTCATTGACAAGACCAGCTTCGTGTCCTTTGTGGGCTTGGCCTTCGTGCCTCTG
CAGATCTGGTCCAAAGTCCTGGCCATCTCAGGAATCTTCACCATGGGCATCGCCCTCCTGGGTTGTGTGGGGGCC
CTCAAGGAGCTCCGCTGCCTCCTGGGCCTGTATTTTGGGATGCTGCTGCTCCTGTTTGCCACACAGATCACCCTG
GGAATCCTCATCTCCACTCAGCGGGCCCAGCTGGAGCGAAGCTTGCGGGACGTCGTAGAGAAAACCATCCAAAAG
TACGGCACCAACCCCGAGGAGACCGCGGCCGAGGAGAGCTGGGACTATGTGCAGTTCCAGCTGCGCTGCTGCGGC
TGGCACTACCCGCAGGACTGGTTCCAAGTCCTCATCCTGAGAGGTAACGGGTCGGAGGCGCACCGCGTGCCCTGC
TCCTGCTACAACTTGTCGGCGACCAACGACTCCACAATCCTAGATAAGGTGATCTTGCCCCAGCTCAGCAGGCTT
GGACACCTGGCGCGGTCCAGACACAGTGCAGACATCTGCGCTGTCCCTGCAGAGAGCCACATCTACCGCGAGGGC
TGCGCGCAGGGCCTCCAGAAGTGGCTGCACAACAACCTTATTTCCATAGTGGGCATTTGCCTGGGCGTCGGCCTA
CTCGAGCTCGGGTTCATGACGCTCTCGATATTCCTGTGCAGAAACCTGGACCACGTCTACAACCGGCTCGCTCGA
TACCGT**TAG**GCCCCGCCCTCCCCAAAGTCCCGCCCCGCCCCCGTCACGTGCGCTGGGCACTTCCCTGCTGCCTGT
AAATATTTGTTTAATCCCCAGTTCGCCTGGAGCCCTCCGCCTTCACATTCCCCTGGGGACCCACGTGGCTGCGTG
CCCCTGCTGCTGTCACCTCTCCCACGGGACCTGGGGCTTTCGTCCACAGCTTCCTGTCCCCATCTGTCGGCCTAC

FIGURE 2703A

GAGGGAGCGCCGGGGCCCTGGGCTGCAGGAGGTTGCGGCGGCCGCGGCAGCATGGTGGTGCCGGAGAAGGAGCAG
AGCTGGATCCCCAAGATCTTCAAGAAGAAGACCTGCACGACGTTCATAGTTGACTCCACAGATCCGGGGAGCCTG
GATTGTCACTGGGGGTCTGCACACGGGCATCGGCCGGCATGTTGGTGTGGCTGTACGGGACCATCAG**ATG**GCCAG
CACTGGGGGCACCAAGGTGGTGGCCATGGGTGTGGCCCCCTGGGGTGTGGTCCGGAATAGAGACACCCTCATCAA
CCCCAAGGGCTCGTTCCCTGCGAGGTACCGGTGGCGCGGTGACCCGGAGGACGGGGTCCAGTTTCCCCTGGACTA
CAACTACTCGGCCTTCTTCCTGGTGGACGACGGCACACACGGCTGCCTGGGGGGCGAGAACCGCTTCCGCTTGCG
CCTGGAGTCCTACATCTCACAGCAGAAGACGGGCGTGGGAGGGACTGGAATTGACATCCCTGTCCTGCTCCTCCT
GATTGATGGTGATGAGAAGATGTTGACGCGAATAGAGAACGCCACCCAGGCTCAGCTCCCATGTCTCCTCGTGGC
TGGCTCAGGGGGAGCTGCGGACTGCCTGGCGGAGACCCTGGAAGACACTCTGGCCCCAGGGAGTGGGGGAGCCAG
GCAAGGCGAAGCCCGAGATCGAATCAGGCGTTTCTTTCCCAAAGGGGACCTTGAGGTCCTGCAGGCCCAGGTGGA
GAGGATTATGACCCGGAAGGAGCTCCTGACAGTCTATTCTTCTGAGGATGGGTCTGAGGAATTCGAGACCATAGT
TTTGAAGGCCCTTGTGAAGGCCTGTGGGAGCTCGGAGGCCTCAGCCTACCTGGATGAGCTGCGTTTGGCTGTGGC
TTGGAACCGCGTGGACATTGCCCAGAGTGAACTCTTTCGGGGGGACATCCAATGGCGGTCCTTCCATCTCGAAGC
TTCCCTCATGGACGCCCTGCTGAATGACCGGCCTGAGTTCGTGCGCTTGCTCATTTCCCACGGCCTCAGCCTGGG
CCACTTCCTGACCCCGATGCGCCTGGCCCAACTCTACAGCGCGGCGCCCTCCAACTCGCTCATCCGCAACCTTTT
GGACCAGGCGTCCCACAGCGCAGGCACCAAAGCCCCAGCCCTAAAAGGGGGAGCTGCGGAGCTCCGGCCCCCTGA
CGTGGGGCATGTGCTGAGGATGCTGCTGGGGAAGATGTGCGCGCCGAGGTACCCCTCCGGGGGCGCCTGGGACCC
TCACCCAGGCCAGGGCTTCGGGGAGAGCATGTATCTGCTCTCGGACAAGGCCACCTCGCCGCTCTCGCTGGATGC
TGGCCTCGGGCAGGCCCCCTGGAGCGACCTGCTTCTTTGGGCACTGTTGCTGAACAGGGCACAGATGGCCATGTA
CTTCTGGGAGATGGGTTCCAATGCAGTTTCCTCAGCTCTTGGGGCCTGTTTGCTGCTCCGGGTGATGGCACGCCT
GGAGCCTGACGCTGAGGAGGCAGCACGGAGGAAAGACCTGGCGTTCAAGTTTGAGGGGATGGGCGTTGACCTCTT
TGGCGAGTGCTATCGCAGCAGTGAGGTGAGGGCTGCCCGCCTCCTCCTCCGTCGCTGCCCGCTCTGGGGGGATGC
CACTTGCCTCCAGCTGGCCATGCAAGCTGACGCCCGTGCCTTCTTTGCCCAGGATGGGGTACAGTCTCTGCTGAC
ACAGAAGTGGTGGGGAGATATGGCCAGCACTACACCCATCTGGGCCCTGGTTCTCGCCTTCTTTTGCCCTCCACT
CATCTACACCCGCCTCATCACCTTCAGGAAATCAGAAGAGGAGCCCACACGGGAGGAGCTAGAGTTTGACATGGA
TAGTGTCATTAATGGGGAAGGGCCTGTCGGGACGGCGGACCCAGCCGAGAAGACGCCGCTGGGGGTCCCGCGCCA
GTCGGGCCGTCCGGGTTGCTGCGGGGGCCGCTGCGGGGGGCGCCGGTGCCTACGCCGCTGGTTCCACTTCTGGGG
CGCGCCGGTGACCATCTTCATGGGCAACGTGGTCAGCTACCTGCTGTTCCTGCTGCTTTTCTCGCGGGTGCTGCT
CGTGGATTTCCAGCCGGCGCCGCCCGGCTCCCTGGAGCTGCTGCTCTATTTCTGGGCTTTCACGCTGCTGTGCGA
GGAACTGCGCCAGGGCCTGAGCGGAGGCGGGGGCAGCCTCGCCAGCGGGGGCCCCGGGCCTGGCCATGCCTCACT
GAGCCAGCGCCTGCGCCTCTACCTCGCCGACAGCTGGAACCAGTGCGACCTAGTGGCTCTCACCTGCTTCCTCCT
GGGCGTGGGCTGCCGGCTGACCCCGGGTTTGTACCACCTGGGCCGCACTGTCCTCTGCATCGACTTCATGGTTTT
CACGGTGCGGCTGCTTCACATCTTCACGGTCAACAAACAGCTGGGGCCCAAGATCGTCATCGTGAGCAAGATGAT
GAAGGACGTGTTCTTCTTCCTCTTCTTCCTCGGCGTGTGGCTGGTAGCCTATGGCGTGGCCACGGAGGGGCTCCT
GAGGCCACGGGACAGTGACTTCCCAAGTATCCTGCGCCGCGTCTTCTACCGTCCCTACCTGCAGATCTTCGGGCA
GATTCCCCAGGAGGACATGGACGTGGCCCTCATGGAGCACAGCAACTGCTCGTCGGAGCCCGGCTTCTGGGCACA
CCCTCCTGGGGCCCAGGCGGGCACCTGCGTCTCCCAGTATGCCAACTGGCTGGTGGTGCTGCTCCTCGTCATCTT
CCTGCTCGTGGCCAACATCCTGCTGGTCAACTTGCTCATTGCCATGTTCAGTTACACATTCGGCAAAGTACAGGG
CAACAGCGATCTCTACTGGAAGGCGCAGCGTTACCGCCTCATCCGGGAATTCCACTCTCGGCCCGCGCTGGCCCC
GCCCTTTATCGTCATCTCCCACTTGCGCCTCCTGCTCAGGCAATTGTGCAGGCGACCCCGGAGCCCCCAGCCGTC
CTCCCCGGCCCTCGAGCATTTCCGGGTTTACCTTTCTAAGGAAGCCGAGCGGAAGCTGCTAACGTGGGAATCGGT
GCATAAGGAGAACTTTCTGCTGGCACGCGCTAGGGACAAGCGGGAGAGCGACTCCGAGCGTCTGAAGCGCACGTC
CCAGAAGGTGGACTTGGCACTGAAACAGCTGGGACACATCCGCGAGTACGAACAGCGCCTGAAAGTGCTGGAGCG
GGAGGTCCAGCAGTGTAGCCGCGTCCTGGGGTGGGTGGCCGAGGCCCTGAGCCGCTCTGCCTTGCTGCCCCCAGG
TGGGCCGCCACCCCCTGACCTGCCTGGGTCCAAAGAC**TGA**GCCCTGCTGGCGGACTTCAAGGAGAAGCCCCCACA
GGGGATTTTGCTCCTAGAGTAAGGCTCATCTGGGCCTCGGCCCCCGCACCTGGTGGCCTTGTCCTTGAGGTGAGC
CCCATGTCCATCTGGGCCACTGTCAGGACCACCTTTGGGAGTGTCATCCTTACAAACCACAGCATGCCCGGCTCC
TCCCAGAACCAGTCCCAGCCTGGGAGGATCAAGGCCTGGATCCCGGGCCGTTATCCATCTGGAGGCTGCAGGGTC

FIGURE 2703B

CTTGGGGTAACAGGGACCACAGACCCCTCACCACTCACAGATTCCTCACACTGGGGAAATAAAGCCATTTCAGAG
G

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FIGURE 2704A

GTGGGATTTGGGGGGCGCTGGTGGGCACCCCTGGATCTGGCGGCTGCGGCCTCGCGGGGGGAGGCTGATCGGTGA
CAGGGGCAGGGGGCTATTTTGGGGGTAGAAGGCAGTGAGAGCGTGAGGGGGAGGGGGGTCCCCAGCGCCCAAGCC
GGAGCCAGAGACGCGGAGCCCGCGCGAGCGTCGGAGACAGGGCTCCAGGGCTCCGAAGCGACAGAGCCGGGCCCC
GGCCGCTGCCAGGGGCCCCGCCCGGCCCCCCCACTCCACCCCACGTCCCTCCTGCAGCCCAGCTCCGCCCGCAGC
CGCCGCGGACCAGGCAGGCCCGCACCGCCGCC**ATG**ATGTGCGAGGTGATGCCCACCATCAGCGAGGATGGCCGGC
GGGGCTCGGCGCTGGGCCCGGACGAGGCGGGCGGGGAGCTGGAGCGCCTCATGGTCACGATGCTCACGGAGCGCG
AGCGCCTGCTGGAGACGCTGCGCGAGGCACAGGACGGGTTGGCTACAGCGCAGCTGCGGCTGCGCGAGCTCGGCC
ACGAGAAGGACTCGCTGCAGCGCCAGCTCAGCATCGCGCTGCCCCAGGAGTTTGCAGCTCTGACGAAGGAGCTGA
ACTTATGTCGGGAGCAGCTGCTGGAGAGGGAGGAAGAGATTGCAGAGCTGAAGGCGGAACGGAACAACACGCGGC
TGCTCCTGGAACACCTGGAGTGCCTGGTGTCCAGGCACGAGAGGTCACTGCGCATGACCGTGGTGAAGCGCCAGG
CCCAGTCCCCGGGTGGGGTCTCCTCGGAGGTAGAAGTGCTCAAAGCTCTAAAGTCTCTCTTCGAGCACCACAAGG
CCCTGGATGAGAAGGTCCGGGAGCGGCTGCGGATGGCGCTGGAGCGCGTGGCAGTGCTCGAGGAGGAGCTGGAAC
TGAGCAATCAGGAGACTCTGAACCTTCGAGAACAGCTGTCTAGGCGGCGGTCAGGGCTGGAAGAGCCGGGCAAGG
ATGGGGATGGGCAGACTCTTGCCAATGGCCTGGGTCCTGGCGGGGATTCCAACCGGCGCACAGCAGAGCTGGAGG
AGGCCCTGGAGCGGCAGCGCGCCGAGGTGTGCCAGCTGCGGGAGCGCCTGGCGGTGCTGTGCCGTCAGATGAGCC
AGCTGGAGGAGGAGTTGGGCACCGCGCACCGTGAGCTGGGCAAGGCAGAGGAAGCCAACTCCAAGCTGCAGCGCG
ACCTCAAGGAGGCGCTGGCGCAGCGGGAAGATATGGAGGAGCGGATTACAACACTGGAGAAGCGCTACCTGAGCG
CCCAGCGGGAGGCCACGTCTCTGCACGACGCCAACGACAAACTGGAGAACGAGTTAGCTAGCAAGGAGTCGTTGT
ATCGGCAGAGTGAAGAGAAGAGCCGTCAGCTGGCCGAGTGGTTGGACGACGCCAAGCAGAAGCTGCAGCAGACGC
TGCAGAAAGCGGAGACCTTGCCCGAGATAGAGGCGCAGCTGGCGCAGCGCGTGGCGGCGCTCAACAAGGCCGAGG
AACGTCATGGGAATTTTGAGGAGCGGCTTCGGCAGCTGGAGGCCCAGCTGGAAGAGAAGAATCAAGAGCTGCAGC
GGGCCCGGCAGCGGGAGAAGATGAACGATGACCACAATAAGCGGCTGTCCGAGACGGTGGACAAGCTGCTGAGCG
AGTCCAACGAGCGCTTACAGCTTCACCTCAAGGAGCGCATGGGGGCGCTGGAGGAGAAGAACTCCCTGAGCGAGG
AGATAGCCAACATGAAGAAGCTTCAGGATGAGTTGCTGCTAAACAAGGAGCAGCTCTTGGCCGAAATGGAGCGGA
TGCAGATGGAGATCGACCAGCTGCGGGGGAGGCCACCATCCTCCTACTCCAGGTCTCTCCCTGGCAGTGCCCTGG
AGCTCCGTTACTCTCAGGCACCCACTTTACCTTCTGGTGCCCACCTGGATCCCTATGTGGCTGGCAGTGGTCGGG
CAGGCAAGAGGGGCCGCTGGTCAGGGGTCAAGGAGGAGCCCTCCAAGGATTGGGAGCGGTCTGCCCCTGCGGGCT
CCATACCACCCCCATTCCCTGGGGAACTGGACGGCTCCGATGAGGAGGAGGCAGAGGGGATGTTTGGGGCCGAGC
TGCTGTCCCCCAGTGGGCAGGCTGACGTGCAGACGCTGGCCATCATGCTTCAGGAGCAGCTGGAGGCCATCAACA
AGGAGATCAAGCTGATCCAAGAGGAGAAGGAGACAACAGAACAGAGGGCAGAGGAGCTGGAGAGTCGGGTGTCCA
GCTCTGGCTTGGACTCGTTGGGCCGCTACCGCAGCAGCTGCTCCCTGCCCCCCTCCCTCACCACCTCTACCCTTG
CCAGCCCCTCCCCTCCCAGCTCTGGCCACTCAACACCCCGCCTGGCACCCCCTAGCCCTGCCCGTGAGGGCACCG
ACAAGGCTAATCATGTCCCTAAGGAGGAAGCTGGAGCTCCACGAGGGGAGGGGCCGGCCATCCCAGGAGACACCC
CACCACCCACTCCCCGCTCTGCCCGTCTTGAGAGAATGACCCAGGCCTTGGCACTGCAGGCGGGGTCCCTGGAAG
ATGGGGGACCCCCACGGGGAAGTGAGGGCACCCCAGATTCTCTGCACAAAGCCCCCAAGAAGAAGAGCATCAAGT
CATCCATAGGCCGTCTCTTTGGCAAGAAAGAGAAGGGACGAATGGGACCCCCAGGCCGGGACAGCTCTTCTCTGG
CTGGAACACCCTCAGATGAGACACTGGCCACTGACCCTCTGGGGCTAGCCAAGCTGACAGGCCCAGGAGACAAGG
ACCGAAGGAACAAGAGGAAGCATGAACTCCTGGAGGAGGCCTGCCGCCAGGGCCTACCTTTTGCTGCCTGGGACG
GGCCCACCGTGGTGTCCTGGCTGGAGCTGTGGGTGGGCATGCCTGCCTGGTATGTGGCCGCCTGCCGGGCCAATG
TCAAGAGCGGTGCCATCATGGCCAACCTGTCAGACACGGAGATCCAGCGCGAGATCGGCATCAGCAACCCGCTGC
ACCGACTCAAGCTACGCCTCGCCATCCAGGAGATGGTCTCGCTCACCTCGCCCTCAGCCCCCGCCTCCTCCCGCA
CTTCCACAGGAAACGTGTGGATGACACACGAGGAGATGGAGTCCCTTACGGCCACGACCAAGCCCGAGACCAAGG
AGATCAGCTGGGAGCAGATCCTGGCATATGGCGACATGAACCACGAGTGGGTGGGGAACGACTGGCTGCCCAGCC
TGGGGCTGCCCCAATACCGCAGCTACTTCATGGAGTCGCTGGTGGACGCTCGAATGTTAGATCACCTTAACAAGA
AGGAGCTCCGGGGCCAACTCAAGATGGTGGACAGCTTTCACAGGGTGAGTCTACATTATGGGATTATGTGCCTGA
AACGGCTCAACTATGACCGGAAGGACCTGGAGCGGAGGCGGGAAGAAAGTCAGACCCAGATCCGAGACGTGATGG
TGTGGTCCAATGAGCGGGTCATGGGTTGGGTGTCCGGGCTGGGCCTGAAGGAATTTGCCACGAACCTCACGGAGA
GCGGGGTACACGGGGCACTGCTCGCCCTGGACGAGACCTTCGACTACTCCGACCTGGCCTTGCTCCTGCAGATCC

FIGURE 2704B

CCACGCAGAATGCACAGGCCCGGCAGCTTCTGGAGAAGGAATTCAGCAACCTTATCTCCTTAGGCACAGACAGGC
GGCTGGACGAGGACAGCGCCAAGTCTTTCAGCCGCTCCCCATCCTGGCGGAAGATGTTCCGGGAGAAGGACCTCC
GAGGCGTAACTCCCGACTCAGCTGAGATGTTGCCCCCCAACTTTCGTTCGGCTGCAGCGGGAGCCCTGGGCTCTC
CGGGGCTCCCTCTCCGCAAGCTGCAGCCAGAAGGCCAGACTTCTGGGAGTTCCCGGGCAGACGGCGTTTCGGTCC
GGACCTATTCCTGC**TAG**TGCAGGCCTCCAGGTGACCTCACTCGGACGGAAGAATCTTCCCGAGGCTGGGCTGTTC
CCTCTCCTGCCCGGACTGTGGCCTCGCCGGGGAGAGCGGGCGGGGGAGCTCGCGCCGAGGACTGGACCATCTGTA
CAGACCAGCGGGAGTGCGCGCGCCCGCCTCGCACAGGGCCGGGGCCTGGACCAAACCACATGAACTGGACTGAGA
GGGGGAAGAAGCGGGGAGGAAGAAATCCCGCCCCAAACGTCCGCTTTCCTTTTCTCTACTTTGTAATTTATTGAT
CAGTTTCTGTTGGGAGACGGGTGTCCTTTACCCGCGGGAAGGGGGCGGGGCTTCCCTCCCGGGCCGCATGCGGGG
AGAGGCTGCTCCCTCCCCTTTTTCCTGCCCAGTCGCGGGGCCCAAGTCTTCCTTCTTCGTCCGAAAGGAGGGGAG
GGGGGACTCGCTGCTACAAGCCTCGCCCCCTGTGCCACTCAGCTCCGCCCCGCCGCGTCCGGTCGCCGGTCCCCC
GGGTCATCTGCGGGCGGGTTCCCCTCTCCCTCCCCCGTGTCTCGTGTCCCCGGGGCCTCACCGCCCCCCGTGCTG
TGGCCGTGTCCGTGCCCCGGGGGTAGGGGGCGCAGAATGGCGCTTCCCCTTCTCCTCTGGCTCCGGGGTTTGCAT
GGGAGAATCCTCTTTCCACGATGCCGCTGGGCGACGTGGCGTGGGGGCAGGGGGACGGTGGGGGAGCCCTCGCCC
CCGACTCTCGGTCGGCCTCCCCGCCCCAGGCGTCACTCAGTGATCACGGGTAAAGAGAACTGTTTC

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FIGURE 2705

GATGTCACCTGGAGCGAGTAGCGCGCGGCGTGGAACGCGAGTCGCGACCCCGGCTCCCGGCAGTGGCGCGCACTA
GCCCTCGCGCCGCACGGGACACGAGGGCTGGGCGGGCAGCGGG**ATG**AGGCTAAAGGTTGGATTTCAAGGCGGGGG
CTGCTTCCGGAAAGACGCGCTGTGTTTGGAAGGTGGAGTGAGCGCCCGGTGGGCGAGGGCACCTCATTCTGCACC
CCTGCGCCCGCCTCGGGAACTGCACGCGGCACCCCCACCCGCGACTCCCACGCAGACAGTAGTGCGGCCTGCAGG
GTTCCCCCGGCGGACGAGGCTAATGGTTCGCTCCGCCCCGCCCACACAGAGGCCGCCCACTGGCTCCGGCTGCGT
TTCAGGACTCTGGAGGAAGGGACTTGGCCTTCGCCCTCAGACGCTCTTAAGGGTAGGCAGCGTTGTCCTCAGTTC
TGCCCCAGCACTCAGACCCAGACTGGGTCCCTGCCTCCGCCCTCCGCCCTCGGAC**TAG**TCTCTTGGAAGCCGGCC
TGTCTCCGCCTTCAGACCTAGGGAGAGGTCTTAACCTCTGTTCTCAGACTCTGGAAAAGGCTTCTCAACGGCTTG
GCCTGACCTCAGCTCCTCGCATTCCCTCCACATCTCAAGACACCAACCCAGGGATGCAGGACAGACACACAGACA
CTCAGTGAGGGTCAAATATCTTTAAATAAAGTGCCAGGAACAATAAATACTGTACAGGAAGAGAGTGC

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FIGURE 2706

C**ATG**GCTGCGCTGGTGGAGCCGCTGGGGCTGGAGCGGGACGTGTCCCGGGCGGTTGAGCTCCTCGAGCGGCTCCA
GCGCAGCGGGGAGCTGCCGCCGCAGAAGCTGCAGGCCCTCCAGCGAGTTCTGCAGAGCCGCTTCTGCTCCGCTAT
CCGAGAGGTGTATGAGCAGCTTTATGACACGCTGGACATCACCGGCAGCGCCGAGATCCGAGCCCATGCCACAGC
CAAGGCCACAGTGGCTGCCTTCACAGCCAGCGAGGGCCACGCACATCCCAGGGTAGTGGAGCTACCCAAGACGGA
TGAGGGCCTAGGCTTCAACATCATGGGTGGCAAAGAGCAAAACTCGCCCATCTACATCTCCCGGGTCATCCCAGG
GGGTGTGGCTGACCGCCATGGAGGCCTCAAGCGTGGGGATCAACTGTTGTCGGTGAACGGTGTGAGCGTTGAGGG
TGAGCAGCATGAGAAGGCGGTGGAGCTGCTGAAGGCGGCCCAGGGCTCGGTGAAGCTGGTTGTCCGTTACACACC
GCGAGTGCTGGAGGAGATGGAGGCCCGGTTCGAGAAGATGCGCTCTGCCCGCCGGCGCCAACAGCATCAGAGCTA
CTCGTCCTTGGAGTCTCGAGGT**TGA**AACCACAGATCTGGACGTTCACGTGCACTCTCTTCCTGTACAGTATTTAT
TGTTCCTGGCACTTTATTTAAAGATATTTGACCCTC

FIGURE 2707

AAGTACCTATTGGATCACCAGCTGTGTGCCGGGCTTCTAGTTGAGCAACACAGAGGCAGCCTCTGCCCTCTGAGC
CTCCTGCATTCGGTCTCCTCATTGTCATTTGCTGTCTCAGGCAAGGTCAGTTTGGCTGCAAGTATCAGAAATAAA
CTTGAGCTTCCTGAAACATAAAGGGCCCTGTTGATGTAGAATCATGGGCATCCTTTGGAGTTCGGAGGTATGTGA
TGTCCGTGGACCTGAGAACCTGGTAGCTGACGCTGTTAAGAGCTGGGGCAACCAGGCCAGGCGTGGTGGCTCGCC
TGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCATGAGGTCAGGAGTTCGAGACCAGCCTGGCCAAGAT
GTTGAAACCGCATCTCTACTAAAAATACAAAAATTAACTGGGCGTGGTGGCGGGTGCCTGTAATCCCATCTACTC
GGGAGGCTGAGGCAGAGAATTGCTTAAACCTGGGAGGCAGAGGTTGCAGTGAGCCAAGATAGAGTCACTGCATTC
CATCCAGCCTGGGTGCCAGAGCAAGACTCTGTCTCAAAAAAAAAAACAAAAAACAAAAAAACTGGGGCGACCCAC
CTGTGATGTGTGACAGCCCACAGCTTGCTTCTGCCTCGTTTGCCTCCATGCAGCTAGGTCGGTCCCATGCCTCTT
TGCACTGGCCCAGCGCAGCAGGCCACAGGCCCCAGCTTTACACTCAGTCCTGGATGAGTCTCTTGTTTCGGGGTG
GGCACATTTGATTGACTCAGTGTTGGGCCTGGGGTCCTGTTGCTCAGGCATGCTTATTGAGGACTGAATCCTGCA
AAGCTGAGTGACAGTTGTCAGAGAAGATGATGGTCCCTGGGCAGACACCCAGGCAGTAGTAGCCACTTGGGGCTC
CTGTCCTGCCTCCCAGCCCTGTGTCCTGGCTCTGGACTCGCCTGTGCTAGGGAGACCACGCTCTCAGCTGCTGAG
CCTCGGAGCTTACCAGGCATGTTCTTACCTTACTCTGGTCTCTCTGGGGTGGAGTGGGTTCTTATAGCTCTGCTG
TTTCCTGTTGGGGCGGGAAAATGCTAGAATCTCAGTCTTTCCAGAATCTCAGAATCTTCTAGTTCAATTGCCATT
CAAACTTTTTGTTGGTGTTAGCCAATAACATCTTGACTCGGTGCACCCGCAGAAATACTGTAACCTAAAGTTTGA
GGAAACAGTTTTTTCTATGTAGTAAGTATATAGTTGTATTCTGCTGTTTTGTTTCTTAAGATGTTGGTTGCAACC
CATCAGATTGATGATGGGACTCATTTCTGGGTCATGACCTGAATATAGGAAAGGCTAGTCTAGCTGCCCTGTGCC
TGTGACATGGCAGGTGCCTGGTCCGCTGCCTGCTTCTATAAGAATGTCTCCCTGCAGCCTCTTTTCTATACAGAA
CTCAGCCCTGCCTCACGGAAGCTTTTCCAGGCAGTGCGAGATAGAGGAGCGCTTGAGAAGGCAGGTTTTGCAGCA
GACGGCAGTGACAGCCCAGTTCTGCACCTTCTTTGCTGAGTCACTGTGGGCCAGTGACTTGATCTGAGATTGTTT
CCCCATCAGAACCATGAGGTTATCATCTGTGCCTTGGGGCTGTTCATCTATCTATTCACTTGACACACACACATC
CACCTTTCTATACCAGCTGCAGCGCCACCTGCTGGTACCGTGAGCAAGAGCTGGGCATGCCCACGGTTCCGGTGC
CCTGCAGTCTGGTGGGAGAGGCAGGTAGGGGTCGACTCAGGTAGCAAACCTGAAACTCCAGGGGAAGGAAGCGTT
TCTGCAACTGTGAGTACATAGGACTGTGAGGAGAGACTTCCCGAGAAAGGATGTTCGGGCTAGCGTTAAGGGTGA
GCGTGAGTTCACCAGAGAAGGAAGGGGAGACCAGTCCAGGGCAAGGAGAATGCACAGACACTGGCAGGAAGGTGA
GCGTGGGGACACTGGGAAAGGCCTGGGACACGCAGCCAAGAGCCGCGGCTCAGACGCTAGCAGGGCCCGCTCTTG
CTGCCTCTACCACCAGTTGACGAGGAGTTTGGACCTTAGGCTGGGGGACGCCAGCAAAGGCTTCTAAGCAGATCA
CATTTTTGGGTGGAAAGATCATTGGCTTCGGGTTTCTGTGAGGGCGAGGATGATTGGAAGGGAGGGTTTTGAGGA
GGCTGTGAAGTGCGCTATGGTTAAGATGATGCGCTTTGGGGCCAGACATGGGTTCCAGTAACGGCTGTTGCCTAG
CGAACGCTTTGTGTGAGTTAATTAGAGAAGACGTGGCTGTCTTGTGATGGGAGTGCGCGGGATGAACTGCACGGG
GGGACCCGGCCCTGTGAACACTAAGCCAGGGGCTGCCTTCCTGCCCTTTGCTCTTGGAGTCGGCTCATTTCTGCT
CCTCCGGGCCCTGTCCCTGCCCAGATTCACCCTCTGTCCGTCTGCCCTGCCCCAGGAGGAGGCCTCGGTGGTACC
AGAAGAGGAGGGGCTGATGTGAACATCCGGCATTCAGGCCGCGATGACACCTCCCGCTACGATGAGAGGCCCGGC
CCCTCCCCGCTTCCGCACAGGGACCGGGACCGGGACCGTGAGCGGGAGCGCAGAGAGCGGAGCCGGGAGCGAGAC
AAGGAGCGAGAACGGCGACGCTCCCGCTCCCGGGACCGGCGGAGGCGCTCACGGAGTCGCGACAAGGAGGAGCGG
AGGCGCTCCAGGGAGCGGAGCAAGGACAAGGACCGGGACCGGAAGCGGCGAAGCAGCCGGAGTCGGGAGCGGGCC
CGGCGGGAGCGGGAGCGCAAGGAGGAGCTGCGTGGCGGCGGTGGCGAC**ATG**GCGGAGCCCTCCGAGGCGGGTGAC
GCGCCCCCTGATGATGGGCCTCCAGGGGAGCTCGGGCCTGACGGCCCTGACGGTCCAGAGGAAAAGGGCCGGGAT
CGTGACCGGGAGCGACGGCGGAGCCACCGGAGCGAGCGCGAGCGGCGCCGGGACCGGGATCGTGACCGTGACCGT
GACCGCGAGCACAAACGGGGGGAGCGGGGCAGTGAGCGGGGCAGGGATGAGGCCCGAGGTGGGGGCGGTGGCCAG
GACAACGGGCTGGAGGGTCTGGGCAACGACAGCCGAGACATGTACATGGAGTCTGAGGGCGGCGACGGCTACCTG
GCTCCGGAGAATGGGTATTTGATGGAGGCTGCGCCGGAG**TGA**AGAGGTCGTCCTCTCCATCTGCTGTGTTTGGAC
GCGTTCCTGCCCAGCCCCTTGCTGTCATCCCCTCCCCCAACCTTGGCCACTTGAGTTTGTCCTCCAAGGGTAGGT
GTCTCATTTGTTCTGGCCCCTTGGATTTAAAAATAAAATTAATTTCCTGTT

FIGURE 2708

GCCGCGGGAGCCGAAGAGGGCGCCCCAGGTGGTTGCCCCCTCCCTCTCCTGAGATGTCAGGAAGGAGGGGGCCAC
CTGTGTCCTCCACAGGGGCCCCCCGAAGCCTGGGGACTCCCAGCCCCAGAGCTCCGAGGCGGAGGAGGTGCTGAC
AGGTGCTCCGAGAG**ATG**CTCCCTCTCCCCTCATGCTCCCTCCCCATCCTCCTCCTTTTCCTCCTCCCCAGTGTGC
CAATTGAGTCCCAACCCCCACCCTCAACATTGCCCCCTTTTCTGGCCCCTGAGTGGGACCTTCTCTCCCCCCGAG
TAGTCCTGTCTAGGGGTGCCCCTGCTGGGCCCCCTCTGCTCTTCCTGCTGGAGGCTGGGGCCTTTCGGGAGTCAG
CAGGTGCCCCGGCCAACCGCAGCCGGCGTGGGGTGAGCGAAACTGCACCAGCGAGTCGTCGGGGTGAGCTGGCTG
TGTGCGATGCAGTCAGTGGCTGGGTGACAGACCGCCGGACCGCTGTGGACTTGCGTGGGCGCGAGGTGGAGGTGT
TGGGCGAGGTGCCTGCAGCTGGCGGCAGTCCCCTCCGCCAGTACTTCTTTGAAACCCGCTGCAAGGCTGATAACG
CTGAGGAAGGTGGCCCGGGGGCAGGTGGAGGGGGCTGCCGGGGAGTGGACAGGAGGCACTGGGTATCTGAGTGCA
AGGCCAAGCAGTCCTATGTGCGGGCATTGACCGCTGATGCCCAGGGCCGTGTGGGCTGGCGATGGATTCGAATTG
ACACTGCCTGCGTCTGCACACTCCTCAGCCGGACTGGCCGGGCC**TGA**GACCCATGCCCAGGAAAATAACAGAGCT
GGATGCTGAGAGACCTCAGGGATGGCCCAGCTGATCTAAGGACCCCAGTTTGGGAACTCATCAAATAATCACAAA
ATCACAATTCTCTGATTTTGAGCTCAATCTCTGCAGGATGGGTGAAACCACATGGGGTTTTGGAGGTTGAATAGG
AGTTCTCCTGGAGCAACTTGAGGGTAATAATGATGATGATATAATAA

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FIGURE 2709

GTTGGTGAGCATC**ATG**GCAACCGTTACAGCCACAACCAAAGTCCCGGAGATCCGTGATGTAACAAGGATTGAGCG
AATCGGTGCCCACTCCCACATCCGGGGACTGGGGCTGGACGATGCCTTGGAGCCTCGGCAGGCTTCGCAAGGCAT
GGTGGGTCAGCTGGCGGCACGGCGGGCGGCTGGCGTGGTGCTGGAGATGATCCGGGAAGGGAAGATTGCCGGTCG
GGCAGTCCTTATTGCTGGCCAGCCGGGCACGGGGAAGACGGCCATCGCCATGGGCATGGCGCAGGCCCTGGGCCC
TGACACGCCATTCACAGCCATCGCCGGCAGTGAAATCTTCTCCCTGGAGATGAGCAAGACCGAGGCGCTGACGCA
GGCCTTCCGGCGGTCCATCGGCGTTCGCATCAAGGAGGAGACGGAGATCATCGAAGGGGAGGTGGTGGAGATCCA
GATTGATCGACCAGCAACAGGGACGGGCTCCAAGGTGGGCAAACTGACCCTCAAGACCACAGAGATGGAGACCAT
CTACGACCTGGGCACCAAGATGATTGAGTCCCTGACCAAGGACAAGGTCCAGGCCGGGGACGTGATCACCATCGA
CAAGGCGACGGGCAAGATCTCCAAGCTGGGCCGCTCCTTCACACGCGCCCGCGACTACGACGCTATGGGCTCCCA
GACCAAGTTCGTGCAGTGCCCAGATGGGGAGCTCCAGAAACGCAAGGAGGTGGTGCACACCGTGTCCCTGCACGA
GATCGACGTCATCAACTCTCGCACCCAGGGCTTCCTGGCGCTCTTCTCAGGTGACACAGGGGAGATCAAGTCAGA
AGTCCGTGAGCAGATCAATGCCAAGGTGGCTGAGTGGCGCGAGGAGGGCAAGGCGGAGATCATCCCTGGAGTGCT
GTTCATCGACGAGGTCCACATGCTGGACATCGAGAGCTTCTCCTTCCTCAACCGGGCCCTGGAGAGTGACATGGC
GCCTGTCCTGATCATGGCCACCAACCGTGGCATCACGCGAATCCGGGGCACCAGCTACCAGAGCCCTCACGGCAT
CCCCATAGACCTGCTGGACCGGCTGCTTATCGTCTCCACCACCCCCTACAGCGAGAAAGACACGAAGCAGATCCT
CCGCATCCGGTGCGAGGAAGAAGATGTGGAGATGAGTGAGGACGCCTACACGGTGCTGACCCGCATCGGGCTGGA
GACGTCACTGCGCTACGCCATCCAGCTCATCACAGCTGCCAGCTTGGTGTGCCGGAAACGCAAGGGTACAGAAGT
GCAGGTGGATGACATCAAGCGGGTCTACTCACTCTTCCTGGACGAGTCCCGCTCCACGCAGTACATGAAGGAGTA
CCAGGACGCCTTCCTCTTCAACGAACTCAAAGGCGAGACCATGGACACCTCC**TGA**GTTGGATGTCATCCCCCGAC
CCCACCCTGTTTTCCACCAGAGTTCTGACACTGTGACTCTGTATAAAATGGTTGGGAAGCTGC

FIGURE 2710

CGCTTCGGGGCAGGGGTGCGGTCTTGCAATAGGAAGCCGAGCGTCTTGCAAGCTTCCCGTCGGGCACCAGCTACT
CGGCCCCGCACCCTACCTGGTGCATTCCCTAGACACCTCCGGGGTCCCTACCTGGAGATCCCCGGAGCCCCCCTT
CCTGCGCCAGCC**ATG**CCTTTAAACCGCACTTTGTCCATGTCCTCACTGCCAGGACTGGAGGACTGGGAGGATGAA
TTCGACCTGGAGAACGCAGTGCTCTTCGAAGTGGCCTGGGAGGTGGCTAACAAGGTGGGTGGCATCTACACGGTG
CTGCAGACGAAGGCGAAGGTGACAGGGGACGAATGGGGCGACAACTACTTCCTGGTGGGGCCGTACACGGAGCAG
GGCGTGAGGACCCAGGTGGAACTGCTGGAGGCCCCCACCCCGGCCCTGAAGAGGACACTGGATTCCATGAACAGC
AAGGGCTGCAAGGTGTATTTCGGGCGCTGGCTGATCGAGGGAGGCCCTCTGGTGGTGCTCCTGGACGTGGGTGCC
TCAGCTTGGGCCCTGGAGCGCTGGAAGGGAGAGCTCTGGGATACCTGCAACATCGGAGTGCCGTGGTACGACCGC
GAGGCCAACGACGCTGTCCTCTTTGGCTTTCTGACCACCTGGTTCCTGGGTGAGTTCCTGGCACAGAGTGAGGAG
AAGCCACATGTGGTTGCTCACTTCCATGAGTGGTTGGCAGGCGTTGGACTCTGCCTGTGTCGTGCCCGGCGACTG
CCTGTAGCAACCATCTTCACCACCCATGCCACGCTGCTGGGGCGCTACCTGTGTGCCGGTGCCGTGGACTTCTAC
AACAACCTGGAGAACTTCAACGTGGACAAGGAAGCAGGGGAGAGGCAGATCTACCACCGATACTGCATGGAAAGG
GCGGCAGCCCACTGCGCTCACGTCTTCACTACTGTGTCCCAGATCACCGCCATCGAGGCACAGCACTTGCTCAAG
AGGAAACCAGATATTGTGACCCCCAATGGGCTGAATGTGAAGAAGTTTTCTGCCATGCATGAGTTCCAGAACCTC
CATGCTCAGAGCAAGGCTCGAATCCAGGAGTTTGTGCGGGGCCATTTTTATGGGCATCTGGACTTCAACTTGGAC
AAGACCTTTATACTTCTTTATCGCCGGCCGCTATGAGTTCTCCAACAAGGGTGCTGACGTCTTCCTGGAGGCATTG
GCTCGGCTCAACTATCTGCTCAGAGTGAACGGCAGCGAGCAGACAGTGGTTGCCTTCTTCATCATGCCAGCGCGG
ACCAACAATTTCAACGTGGAAACCCTCAAAGGCCAAGCTGTGCGCAAACAGCTTTGGGACACGGCCAACACGGTG
AAGGAAAAGTTCGGGAGGAAGCTTTATGAATCCTTACTGGTTGGGAGCCTTCCCGACATGAACAAGATGCTGGAT
AAGGAAGACTTCACTATGATGAAGAGAGCCATCTTTGCAACGCAGCGGCAGTCTTTCCCCCCTGTGTGCACCCAC
AATATGCTGGATGACTCCTCAGACCCCATCCTGACCACCATCCGCCGAATCGGCCTCTTCAATAGCAGTGCCGAC
AGGGTGAAGGTGATTTTCCACCCGGAGTTCCTCTCCTCCACAAGCCCCCTGCTCCCTGTGGACTATGAGGAGTTT
GTCCGTGGCTGTCACCTTGGAGTCTTCCCCTCCTACTATGAGCCTTGGGGCTACACACCGGCTGAGTGCACGGTT
ATGGGAATCCCCAGTATCTCCACCAATCTCTCCGGCTTCGGCTGCTTCATGGAGGAACACATCGCAGACCCCTCA
GCTTACGGTATCTACATTCTTGACCGGCGGTTCCGCAGCCTGGATGATTCCTGCTCGCAGCTCACCTCCTTCCTC
TACAGTTTCTGTCAGCAGAGCCGGCGGCAGCGTATCATCCAGCGGAACCGCACGGAGCGCCTCTCCGACCTTCTG
GACTGGAAATACCTAGGCCGGTACTATATGTCTGCGCGCCACATGGCGCTGTCCAAGGCCTTTCCAGAGCACTTC
ACCTACGAGCCCAACGAGGCGGATGCAGGCCCAGGGGTACCGCTACCCACGGCCAGCCTCGGTGCCACCGTCGCC
CTCGCTGTCACGACACTCCAGCCCGCACCAGAG**TGA**GGACGAGGAGGATCCCCGGAACGGGCCGCTGGAGGAAGA
CGGCGAGCGCTACGATGAGGACGAGGAGGCCGCCAAGGACCGGCGCAACATCCGTGCACCAGAGTGGCCGCGCCG
AGCGTCCTGCACCTCCTCCACCAGCGGCAGCAAGCGCAACTCTGTGGACACGGCCACCTCCAGCTCACTCAGCAC
CCCGAGCGAGCCCCTCAGCCCCACCAGCTCCCTGGGCGAGGAGCGTAACTAAGTCCGCCCCACCACACTCCCCGC
CTGTCCTGCCTCTCTGCTCCAGAGAGAGGATGCAGAGGGGTGCTGCTCCTAAACCCCCGCTCCAGATCTGCACTG
GGTGTGGCCCCGCAGTGCCCCCACCCAGTCCGCCAAACACTCCACCCCCTCCAGCTCCAGTTTCCAAGTTCCTGC
ACTCCAGAATCCACAAAGCCGTGCCTTTCTCTGGCTCCAGAATATGCATAATCAGCGCCCTGGAGTCCCCTGGGC
CTGGACCGCTTCCCAGAGGCCAGGAATCTGCCATTACTCTGCGGTGGTGCCAGAGGTTTTAGGAAACCTGGCATG
GTGCTTTCAGGTCTGGGGCTTTTAGAGCCCCCCGTGTGGCTTACAAATTCTACAGCATACAGAGCAGGCCACGCT
CAGGCCCGGCATGCGGGCCACCAAGTTCTGGAAACCACGTGGTGTCCCTGCGAATGGGGCGATCAAGTCCAGAGC
CGGGGCACTTTCAGAGTTTGAAGGTAACTGAGAGCAGATGGTCCTCCATTTCAACTCCAGAAGTGGGGCTCTGGG
AGGGATGTTCTAGCCCTCCCTGGCATGTCAGAGCCAGGCTCTGCCTGGAGGATCCCTCCATCCGGCTCCTGTCAT
CCCCTACACTTTGGCCAAGCAAGAGGTGGTAGAACCACTTGGCTGCTCATTCCTTCTGGAGGACACACAGTCTCA
GTCCAGATGCCTTCCTGTCTTTCTGGCCCTTTCTGGACCAGATCCTACTCTTCCTTTCTAAATCTGAGATCTCCC
TCCAGGGAATCCGCCTGCAGAGGACAGAGCTGGCTGTCTTCCCCCACCCCTAACCTGGCTTATTCCCAACTGCTC
TGCCCACTGTGAAACCACTAGGTTCTAGGTCCTGGCTTCTAGATCTGGAACCTTACCACGTTACTGCATACTGAT
CCCTTTCCCATGATCCAGAACTGAGGTCACTGGGTTCTAGAACCCCCACATTTACCTCGAGGCTCTTCCATCCCC
AAACTGTGCCCTGCCTTCAGCTTTGGTGAAAGGGAGGGCCCCTCATGTGTGCTGTGCTGTGTCTGCACCGCTTGG
TTTGCAGTTGAGAGGGGAGGGCAGGAGGGGTGTGATTGGAGTGTGTCCGGAGATGAGATGAAAAAAATACATCTA
TATTTAAG

FIGURE 2711

ACCATAAAAGAAGCCGCCCTAGCCACGTCCCCTCGCAGTTCGGCGGTCCCGCGGGTCTGTCTCTTGCTTCAACAG
TGTTTGGACGGAACAGATCCGGGGACTCTCTTCCAGCCTCCGACCGCCCTCCGATTTCCTCTCCGCTTGCAACCT
CCGGGACCATCTTCTCGGCCATCTCCTGCTTCTGGGACCTGCCAGCACCGTTTTTGTGGTTAGCTCCTTCTTGCC
AACCAACC**ATG**AGCTCCCAGATTCGTCAGAATTATTCCACCGACGTGGAGGCAGCCGTCAACAGCCTGGTCAATT
TGTACCTGCAGGCCTCCTACACCTACCTCTCTCTGGGCTTCTATTTCGACCGCGATGATGTGGCTCTGGAAGGCG
TGAGCCACTTCTTCCGCGAATTGGCCGAGGAGAAGCGCGAGGGCTACGAGCGTCTCCTGAAGATGCAAAACCAGC
GTGGCGGCCGCGCTCTCTTCCAGGACATCAAGAAGCCAGCTGAAGATGAGTGGGGTAAAACCCCAGACGCCATGA
AAGCTGCCATGGCCCTGGAGAAAAAGCTGAACCAGGCCCTTTTGGATCTTCATGCCCTGGGTTCTGCCCGCACGG
ACCCCCATCTCTGTGACTTCCTGGAGACTCACTTCCTAGATGAGGAAGTGAAGCTTATCAAGAAGATGGGTGACC
ACCTGACCAACCTCCACAGGCTGGGTGGCCCGGAGGCTGGGCTGGGCGAGTATCTCTTCGAAAGGCTCACTCTCA
AGCACGAC**TAA**GAGCCTTCTGAGCCCAGCGACTTCTGAAGGGCCCCTTGCAAAGTAATAGGGCTTCTGCCTAAGC
CTCTCCCTCCAGCCAATAGGCAGCTTTCTTAACTATCCTAACAAGCCTTGGACCAAATGGAAATAAAGCTTTTTG
ATGC

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FIGURE 2712

ATGGACGGGTCCGGGGAGCAGCCCAGAGGCGGGGGGCCCACCAGCTCTGAGCAGATCATGAAGACAGGGGCCCTT
TTGCTTCAGGGTTTCATCCAGGATCGAGCAGGGCGAATGGGGGGGGAGGCACCCGAGCTGGCCCTGGACCCGGTG
CCTCAGGATGCGTCCACCAAGAAGCTGAGCGAGTGTCTCAAGCGCATCGGGGACGAACTGGACAGTAACATGGAG
CTGCAGAGGATGATTGCCGCCGTGGACACAGACTCCCCCCGAGAGGTCTTTTTCCGAGTGGCAGCTGACATGTTT
TCTGACGGCAACTTCAACTGGGGCCGGGTTGTCGCCCTTTTCTACTTTGCCAGCAAACTGGTGCTCAAGGCCCTG
TGCACCAAGGTGCCGGAACTGATCAGAACCATCATGGGCTGGACATTGGACTTCCTCCGGGAGCGGCTGTTGGGC
TGGATCCAAGACCAGGGTGGTTGGGTGAGACTCCTCAAGCCTCCTCACCCCCACCACCGCGCCCTCACCACCGCC
CCTGCCCCACCGTCCCTGCCCCCCGCCACTCCTCTGGGACCCTGGGCCTTCTGGAGCAGGTCACAGTGGTGCCCT
CTCCCCATCTTCAGATCATCAGATGTGGTCTATAATGCGTTTTCCTTACGTGTC**TGA**

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FIGURE 2713

ATAAGTGGGCGTGGTCTAGGGGGGAAGTCACCAAGAACGCACCGGAGGTCCTTGCCCGCCCTGGAAAACGCCCTC
TGCGGTGAAGGAGAGACCACACTGCC**ATG**CCTCCCTCTGGGCCCCGAGGAACCCTCCTTCTGTTGCCGCTGCTGC
TGCTGCTCCTGCTTCGCGCCGTGCTGGCTGTCCCCCTGGAGCGAGGGGCGCCCAACAAGGAGGAGACCCCTGCGA
CTGAGAGTCCCGACACAGGCCTGTACTACCACCGGTACCTCCAGGAGGTCATCGATGTACTGGAGACGGATGGGC
ATTTCCGAGAGAAGCTGCAGGCTGCCAATGCGGAGGACATCAAGAGCGGGAAGCTGAGCCGAGAGCTGGACTTTG
TCAGCCACCACGTCCGCACCAAGCTGGATGAGCTCAAGCGACAGGAGGTGTCACGGCTGCGGATGCTGCTCAAGG
CCAAGATGGACGCCGAGCAGGATCCCAATGTACAGGTGGATCATCTGAATCTCCTGAAACAGTTTGAACACCTGG
ACCCTCAGAACCAGCATACATTCGAGGCCCGCGACCTGGAGCTGCTGATCCAGACGGCCACCCGGGACCTTGCCC
AGTACGACGCAGCCCATCATGAAGAGTTCAAGCGCTACGAGATGCTTAAGGAACACGAGAGACGGCGTTATCTGG
AGTCACTGGGAGAGGAGCAGAGAAAGGAGGCGGAGAGGAAGCTGGAAGAGCAACAGCGCCGGCACCGCGAGCACC
CTAAAGTCAACGTGCCTGGCAGCCAAGCCCAGTTGAAGGAGGTGTGGGAGGAGCTGGATGGACTGGACCCCAACA
GGTTTAACCCCAAGACCTTCTTCATACTGCATGATATCAACAGTGATGGTGTCCTGGATGAGCAGGAGCTGGAGG
CACTCTTCACCAAGGAGCTGGAGAAAGTGTACGACCCAAAGAATGAGGAGGACGACATGCGGGAGATGGAGGAGG
AGCGACTGCGCATGCGGGAGCATGTGATGAAGAATGTGGACACCAACCAGGACCGCCTCGTGACCCTGGAGGAGT
TCCTCGCATCCACTCAGAGGAAGGAGTTTGGGGACACCGGGGAGGGCTGGGAGACAGTGGAGATGCACCCTGCCT
ACACCGAGGAAGAGCTGAGGCGCTTTGAAGAGGAGCTGGCTGCCCGGGAGGCAGAGCTGAATGCCAAGGCCCAGC
GCCTCAGCCAGGAGACAGAGGCTCTAGGGCGGTCCCAGGGCCGCCTGGAGGCCCAGAAGAGAGAGCTGCAGCAGG
CTGTGCTGCACATGGAGCAGCGGAAGCAGCAGCAGCAGCAGCAAGGCCACAAGGCCCCGGCTGCCCACCCTG
AGGGGCAGCTCAAGTTCCACCCAGACACAGACGATGTACCTGTCCCAGCTCCAGCCGGTGACCAGAAGGAGGTGG
ACACTTCAGAAAAGAAACTTCTCGAGCGGCTCCCTGAGGTTGAGGTGCCCCAGCATCTG**TGA**TCCTCCGGGACCC
CAGCCCTCAGGATTCCTGATGCTCCAAGGCGACTGATGGGCGCTGGATGAAGTGGCACAGTCAGCTTCCCTGGGG
GCTGGTGTCATGTTGGGCTCCTGGGGCGGGGGCACGGCCTGGCATTTCACGCATTGCTGCCACCCCAGGTCCACC
TGTCTCCACTTTCACAGCCTCCAAGTCTGTGGCTCTTCCCTTCTGTCCTCCGAGGGGCTTGCCTTCTCTCGTGTC
CAGTGAGGTGCTCAGTGATCGGCTTAACTTAGAGAAGCCCGCCCCCTCCCCTTCTCCGTCTGTCCCAAGAGGGTC
TGCTCTGAGCCTGCGTTCCTAGGTGGCTCGGCCTCAGCTGCCTGGGTTGTGGCCGCCCTAGCATCCTGTATGCCC
ACAGCTACTGGAATCCCCGCTGCTGCTCCGGGCCAAGCTTCTGGTTGATTAATGAGGGCATGGGGTGGTCCCTCA
AGACCTTCCCCTACCTTTTGTGGAACCAGTGATGCCTCAAAGACAGTGTCCCCTCCACAGCTGGGTGCCAGGGGC
AGGGGATCCTCAGTATAGCCGGTGAACCCTGATACCAGGAGCCTGGGCCTCCCTGAACCCCTGGCTTCCAGCCAT
CTCATCGCCAGCCTCCTCCTGGACCTCTTGGCCCCCAGCCCCTTCCCCACACAGCCCCAGAAGGGTCCCAGAGCT
GACCCCACTCCAGGACCTAGGCCCAGCCCCTCAGCCTCATCTGGAGCCCCTGAAGACCAGTCCCACCCACCTTTC
TGGCCTCATCTGACACTGCTCCGCATCCTGCTGTGTGTCCTGTTCCATGTTCCGGTTCCATCCAAATACACTTTC
TGGAAC

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FIGURE 2714

CCCAGTTGTTGATCTTATGCAAGACGCTGCACGACCCCGCGCCCGCTTGTCGCCACGGCACTTGAGGCAGCCGGA
GATACTCTGAGTTACTCGGAGCCCGACGCCTGAGGGTGAGATGAACGCGCTGGCCTCCCTAACCGTCCGGACCTG
TGATCGCTTCTGGCAGACCGAACCGGCGCTCCTGCCCCCGGGGTGACGCGCAGCTCCCAGCCGCCCAGACAC**ATG**

GCCCCAGGCCAAGCACCCCATCAGGCTACCCCGTGGAGGGATGCCCACCCTTTCTTCCTCCTGTCCCCAGTGATG
GGCCTCCTCAGCCGCGCCTGGAGCCGCCTGAGGGGCCTGGGACCTCTAGAGCCCTGGCTGGTGGAAGCAGTAAAA
GGAGCAGCTCTGGTAGAAGCTGGCCTGGAGGGAGAAGCTAGGACTCCTCTGGCAATCCCCCATACCCCTTGGGGC
AGACGCCCTGAAGAGGAGGCTGAAGACAGTGGAGGCCCTGGAGAGGACAGAGAAACACTGGGGCTGAAAACCAGC
AGTTCCCTTCCTGAAGCCTGGGGACTTTTGGATGATGATGATGGCATGTATGGTGAGCGAGAGGCAACCAGTGTC
CCTAGAGGGCAGGGAAGTCAATTTGCAGATGGCCAGCGTGCTCCCCTGTCTCCCAGCCTTCTGATAAGGACACTG
CAAGGTTCTGATAAGAACCCAGGGGAGGAGAAAGCCGAGGAAGAGGGAGTTGCTGAAGAGGAGGGAGTTAACAAG
TTCTCTTATCCACCATCACACCGGGAGTGTTGTCCAGCCGTGGAGGAGGAGGACGATGAAGAAGCTGTAAAGAAA
GAAGCTCACAGAACCTCTACTTCTGCCTTGTCTCCAGGATCCAAGCCCAGCACTTGGGTGTCTTGCCCAGGGGAG
GAAGAGAATCAAGCCACGGAGGATAAAAGAACAGAAAGAAGTAAAGGAGCCAGGAAGACCTCCGTGTCCCCCCGA
TCTTCAGGCTCCGACCCCAGGTCCTGGGAGTATCGTTCAGGAGAGGCGTCCGAGGAGAAGGAGGAAAAGGCACAC
AAAGAAACTGGGAAAGGAGAAGCTGCCCCAGGGCCGCAATCCTCAGCCCCAGCCCAGAGGCCCCAGCTCAAGTCC
TGGTGGTGCCAACCCAGTGATGAAGAGGAGGGTGAGGTCAAGGCTTTGGGGGCAGCTGAGAAGGATGGAGAAGCT
GAGTGTCCTCCCTGCATCCCCCCACCAAGTGCCTTCCTGAAGGCCTGGGTGTATTGGCCAGGAGAGGACACAGAG
GAAGAGGAAGATGAGGAAGAAGATGAGGACAGTGACTCTGGATCAGATGAGGAAGAGGGAGAAGCTGAGGCTTCC
TCTTCCACTCCTGCTACAGGTGTCTTCTTGAAGTCCTGGGTCTATCAGCCAGGAGAGGACACAGAGGAGGAGGAA
GATGAGGACAGTGATACAGGATCAGCCGAGGATGAAAGAGAAGCTGAGACTTCTGCTTCCACACCCCCTGCAAGT
GCTTTCTTGAAGGCCTGGGTGTATCGGCCAGGAGAGGACACGGAGGAGGAGGAAGATGAGGATGTGGATAGTGAG
GATAAGGAAGATGATTCAGAAGCAGCCTTGGGAGAAGCTGAGTCAGACCCACATCCCTCCCACCCGGACCAGAGG
GCCCACTTCAGGGGCTGGGGATATCGACCTGGAAAAGAGACAGAGGAAGAGGAAGCTGCTGAGGACTGGGGAGAA
GCTGAGCCCTGCCCCTTCCGAGTGGCCATCTATGTACCTGGAGAGAAGCCACCGCCTCCCTGGGCTCCTCCTAGG
CTGCCCCTCCGACTGCAAAGGCGGCTCAAGCGCCCAGAAACCCCTACTCATGATCCGGACCCTGAGACTCCCCTA
AAGGCCAGAAAGGTGCGCTTCTCCGAGAAGGTCACTGTCCATTTCCTGGCTGTCTGGGCAGGGCCGGCCCAGGCC
GCCCGCCAGGGCCCCTGGGAGCAGCTTGCTCGGGATCGCAGCCGCTTCGCACGCCGCATCACCCAGGCCCAGGAG
GAGCTGAGCCCCTGCCTCACCCCTGCTGCCCGGGCCAGAGCCTGGGCACGCCTCAGGAACCCACCTTTAGCCCCC
ATCCCTGCCCTCACCCAGACCTTGCCTTCCTCCTCTGTCCCTTCGTCCCCAGTCCAGACCACGCCCTTGAGCCAA
GCTGTGGCCACACCTTCCCGCTCGTCTGCTGCTGCAGCGGCTGCCCTGGACCTCAGTGGGAGGCGTGGC**TGA**GAC
CAACTGGTTTGCCTATAATTTATTAACTATTTATTTTTTCTAAGTGTGGGTTTATATAAGGAATAAAGCCTTTTG
ATTTGT

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FIGURE 2715

AAACTGGGAGAGGGAGGAAGGGAGAAAGTGAGAAGGGAAATCGGAAAGAGAAAAGGGAGGAAACGGCAGAGCCAG
AGAGAAAGAGGAAGAGACTGAGTGTGAAGGAGAGAGGACACAGGGGATGACTGAGAGACAGAGAGAGAGAGAGAG
AGAGAATGAGACAGAGACTTAAGGAAGAGACCCTGTGAGTCTGACAATAAAAGATTTGGACAGAAACAGAAAGAT
TGGAGAGAGAGAGAGAGGGAGAGAATGAGTGAGAGAGAGACTGGAAGAGACAGAGATCAGAGGGAGACACAGAAA
GTGAGAGTGGGGAGAGAGGTAGTGTAAAAGGAAGAGAGAGAGAGAGAGACCGTAAGAGACAGGAGACAAAGAGAC
AAAAAGTGTGAGTGAGCAGGTGAGGAGAGAGATTGAGAACTATGAGAGACAGCAGCTAAGAGACAAAGGAGGCGG
GAGACTGCCTAGGTGCCGCAGCACCCACACCGTCCTCTTGCCCCCCCGTCACTGGGACCCCAGAGCTGGCCCTTG
ATGGAGGGGAGCCGACCTCGCAGCAGCCTGAGCCTGGCCAGCAGCGCCTCCACCATCTCCTCGCTCAGCAGCCTG
AGCCCCAAGAAGCCCACCCGGGCAGTAAACAAGATCCACGCCTTTGGGAAGAGAGGCAATGCGCTCAGGAGGGAT
CCCAACCTTCCCGTGCACATCCGAGGCTGGCTTCATAAGCAGGACAGCTCGGGGCTCCGTCTCTGGAAACGCCGC
TGGTTCGTCCTCTCCGGCCATTGCCTCTTTTATTACAAGGACAGCCGCGAGGAGAGTGTCCTAGGCAGCGTCCTG
CTCCCCAGCTACAATATTAGACCAGATGGGCCGGGAGCCCCCCGAGGGCGGCGCTTCACCTTCACCGCAGAGCAC
CCGGGCATGAGGACCTACGTTTTGGCCGCTGACACCTTAGAAGACCTGCGGGGCTGGCTACGGGCGCTGGGCCGG
GCCTCCCGTGCGGAGGGGGACGACTATGGGCAACCCAGGTCACCTGCACGACCCCAGCCCGGGGAGGGCCCCGGC
GGCCCCGGTGGTCCCCCGGAGGTGAGCAGAGGGGAAGAGGGGCGCATCTCAGAATCACCGGAAGTGACTCGACTC
TCCAGAGGTCGTGGTAGACCCAGGCTGCTCACTCCCAGCCCCACAACCGACCTCCACTCTGGACTCCAGATGCGG
AGGGCGAGGAGCCCCGACCTGTTCACCCCCCTCTCTCGCCCTCCCTCGCCTCTGAGCCTCCCCCGTCCCCGTTCT
GCCCCTGCGCGGCGACCCCCTGCCCCCTCAGGAGACACAGCACCCCCTGCCCGACCTCACACCCCGTTGAGTCGC
ATTGATGTCCGACCTCCTCTGGATTGGGGCCCCCAACGCCAGACCCTCTCCCGACCCCCTACTCCCCGCCGAGGA
CCTCCCTCTGAGGCTGGGGGAGGAAAGCCCCCCAGGAGTCCCCAGCACTGGAGTCAGGAGCCCAGAACACAGGCA
CACTCTGGCTCCCCCACTTATCTCCAGCTCCCCCCGCGGCCCCCTGGGACCCGGGCCTCCATGGTTTTATTGCCG
GGTCCTCCCCTGGAGTCAACTTTCCACCAAAGCTTGGAGACAGATACGCTGCTGACCAAGTTGTGCGGGCAGGAC
CGGCTTCTGCGGAGGCTGCAGGAGGAGATAGACCAGAAGCAGGAGGAGAAGGAGCAACTAGAAGCAGCTCTGGAG
TTGACCCGGCAACAGCTGGGCCAAGCCACCAGGGAGGCTGGGGCTCCCGGGAGGGCCTGGGGTCGCCAGCGCCTC
TTGCAGGACCGGCTGGTCAGTGTGAGGGCCACCCTCTGTCACTTGACTCAGGAGCGAGAGAGGGTTTGGGACACG
TACAGTGGCCTGGAGCAGGAGCTGGGCACCTTAAGAGAGACGCTGGAGTACCTGCTGCACCTTGGTTCTCCCCAG
GACAGAGTGTCTGCTCAGCAGCAGCTGTGGATGGTGGAAGACACGCTGGCAGGTCTGGGTGGCCCCCAGAAACCG
CCCCCACACACTGAGCCTGACTCCCCATCTCCCGTGCTCCAGGGCGAGGAGTCCTCAGAGAGGGAGAGCCTGCCA
GAGTCCTTGGAACTGAGCTCCCCTAGGTCCCCCGAGACTGACTGGGGGCGGCCTCCTGGAGGCGACAAAGACCTC
GCCAGCCCTCACTTAGGTCTTGGGTCTCCGAGGGTCTCCCGGGCTTCCAGCCCTGAGGGTCGCCACCTCCCTTCC
CCACAGCTAGGAACCAAGGCCCCGGTGGCCCGGCCCCGGATGAGTGCCCAGGAGCAGCTGGAGCGGATGCGCAGA
AACCAGGAATGTGGACGGCCCTTCCCTCGCCCGACCTCCCCCCGGCTTCTCACCCTGGGAAGGACACTGTCCCCA
GCCAGACGCCAGCCTGACGTGGAGCAAAGGCCTGTCGTAGGACACTCGGGAGCCCAGAAATGGCTCAGAAGCTCT
GGGTCCTGGAGTAGTCCAAGGAACACCACCCCTTACTTGCCGACTTCCGAAGGTCACCGGGAGCGGGTTCTCAGC
CTCTCCCAAGCCCTGGCTACTGAGGCGTCGCAGTGGCACAGAATGATGACAGGTGGAAATTTGGACTCCCAGGGA
GACCCTCTTCCCGGTGTGCCGCTGCCTCCTTCGGACCCCACGCGCCAGGAGACCCCTCCCCCCAGATCTCCCCCG
GTGGCTAATTCGGGTTCCACGGGGTTCTCTCGCCGAGGGAGTGGGCGTGGAGGAGGTCCCACCCCCTGGGGGCCC
GCGTGGGATGCCGGGATCGCCCCTCCGGTCCTGCCACAAGACGAGGGGGCATGGCCTCTGCGAGTCACTCTGCTA
CAATCCAGCTTC**TAA**TCCGCCCAAAAGCGGCAGCCAATCGGAGCGCGAGGACGTGGTCTGGAGGTACCGCCGGAG
ATCTGGGACCACTCAGGGCATCAGGGGGCGTGGTCTGGTCCCCATTGCGGGCCCGGGAGGGGAATGGTTTCTATG
GCCAAAGTTTGGTTTTCTCAACACTGTCTAAATTTGGATTAAAACTTTGAACTTTT

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FIGURE 2716

ATGGCCGCAGCCGCTCTGGGGCAGATCTGGGCACGAAAGCTTCTCTCTGTCCCTTGGCTTCTGTGTGGTCCCAGA
AGATATGCCTCCTCCAGTTTCAAGGCTGCAGACCTGCAGCTGGAAATGACACAGAAGCCTCATAAGAAGCCTGGC
CCCGGCGAGCCCCTGGTGTTTGGGAAGACATTTACCGACCACATGCTGATGGTGGAATGGAATGACAAGGGCTGG
GGCCAGCCCCGAATCCAGCCCTTCCAGAACCTCACGCTGCACCCAGCCTCCTCCAGCCTCCACTACTCCCTGCAG
CTGTTTGAGGGCATGAAGGCGTTCAAAGGCAAAGACCAGCAGGTGCGCCTCTTCCGCCCCTGGCTCAACATGGAC
CGGATGCTGCGCTCAGCCATGCGCCTGTGCCTGCCGAGTTTCGACAAGCTGGAGTTGCTGGAGTGCATCCGCCGG
CTCATCGAAGTGGACAAGGACTGGGTCCCCGATGCCGCCGGCACCAGCCTCTATGTGCGGCCTGTGCTCATTGGG
AACGAGCCCTCGCTGGGTGTCAGCCAGCCCACGCGCGCGCTCCTGTTCGTCATTCTCTGCCCAGTGGGTGCCTAC
TTCCCTGGAGGCTCCGTGACCCCGGTCTCCCTCCTGGCCGACCCAGCCTTCATCCGGGCCTGGGTGGGCGGGGTC
GGCAACTACAAGTTAGGTGGGAATTATGGGCCCACCGTGTTAGTGCAACAGGAGGCACTCAAGCGGGGCTGTGAA
CAGGTCCTCTGGCTGTATGGGCCCGACCACCAGCTCACCGAGGTGGGAACCATGAACATCTTTGTCTACTGGACC
CACGAAGATGGGGTGCTGGAGCTGGTGACGCCCCCGCTGAATGGTGTTATCCTGCCTGGAGTGGTCAGACAGAGT
CTACTGGACATGGCTCAGACCTGGGGTGAGTTCCGGGTGGTGGAGCGCACGATCACCATGAAGCAGTTGCTGCGG
GCCCTGGAGGAGGGCCGCGTGCGGGAAGTCTTTGGCTCGGGCACCGCTTGCCAGGTCTGCCCAGTGCACCGAATC
CTGTACAAAGACAGGAACCTCCACATTCCCACCATGGAAAATGGGCCTGAGCTGATCCTCCGCTTCCAGAAGGAG
CTGAAGGAGATCCAGTACGGAATCAGAGCCCACGAGTGGATGTTCCCGGTG**TGA**AGCTGCAGGCTGTGCTCCAGA
TCCACCGACCCGTAGCATCTCGTCACGCCAGCACTCGCCTCCCTACCAATGACTCACCTGAAGTGCAATACGAAA
TAAAAGGCCAGCGGGCGGCGTCTGGGTCTCTGGCGCCCCCATGTGGTTGCGACACTCCCAAAGCCGTAAGGGCCG
ACCCAGGCATCTTGGCCCCCAGCCCCTCGTCGCGGGTTCAGGTCCGCCCATTACTCCTTGTCGTGCGGTCAAGGA
TACACCTTGGCCCCGATTCCGGATCTCTCCGTTCTCAGGCCAGACCCCTGGTGCTGCCGTTGATTTTTTTTTCTC
TGTCTTTGCTGCAATTTTGAAATAAAATGCCAAAGAACACA

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FIGURE 2717

AGCCGCCGGCTCGGGAGACCTGCCGCCCCTCGGGCCCGCCACGCTGCTGGCGCTGTGCGTGCAGCATTCCGCCCG
TGAGCTGGAGCTGGGCCACCTGCCACGACTGCTGGGCCGCCTGGCCCGGCTCATCAAGGAGGCCGTCTGGGAAAA
GATTAAGGAAATTGGAGACCGTCAGCCAGAAAACCACCCTGAGGGGGTCCCCGAGGTGCCCCTGACTCCTGAAGC
TGTGTCTGTGGAGCTGCGGCCACTC**ATG**CTGTGGATGGCCAACACCACGGAGCTGCTTAGCTTTGTGCAGGAGAA
GGTGCTGGAAATGGAGAAGGAGGCTGACCAAGAGGACCCACAGCTCTGCAATGACTTGGAATTATGTGATGAGGC
CATGGCCCTCCTGGATGAGGTCATCATGTGTACCTTCCAGCAGTCTGTCTACTACCTCACCAAGACTCTCTATTC
AACGCTGCCTGCTCTCCTGGATAGTAACCCTTTCACAGCTGGTGCAGAGCTGCCGGGGCCTGGCGCGGAGCTGGG
GGCCATGCCTCCAGGATTGAGACCTACCCTGGGCGTGTTCCAGGCAGCCTTGGAGCTGACCAGCCAGTGCGAGCT
GCACCCTGACCTCGTGTCTCAGACTTTTGGCTACTTGTTCTTCTTCTCCAACGCATCCCTTCTCAACTCGCTGAT
GGAACGAGGTCAAGGCCGGCCTTTCTATCAATGGTCCCGAGCTGTTCAAATCCGAACCAACCTGGACCTCGTCTT
GGACTGGCTACAGGGAGCTGGGCTGGGCGACATTGCCACTGAGTTCTTCCGGAAACTCTCCATGGCTGTGAACCT
GCTCTGTGTGCCCCGCACTTCCCTGCTCAAGGCTTCATGGAGCAGCCTAAGAACCGACCACCCCACCTTGACCCC
CGCCCAGCTGCACCATCTGCTCAGCCACTATCAGCTGGGCCCTGGCCGCGGGCCGCCAGCCGCGTGGGACCCTCC
CCCTGCAGAGCGGGAGGCTGTGGACACAGGGGACATCTTCGAAAGCTTCTCCTCGCACCCGCCCCTCATCCTCCC
CCTGGGGAGCTCGCGCCTGCGCCTCACTGGTCCAGTGACGGACGATGCCTTGCACCGTGAACTCCGTAGGCTCCG
CCGCCTCCTCTGGGATCTTGAGCAGCAGGAGCTGCCAGCCAATTATCGCCATGGGCCTCCCGTGGCCACGTCTCC
T**TGA**GAACCAATACCAAACGAGCGCGCGAACCTTGAAATGTCACGGGCTTCTACGGACAGGAGCCCGCCTGAGCG
CAAAGCTTTCTGGGAGTTGTAGTTCTTATCCCGCGTGGAATGTTGGGAGATTGAGTTTTCGGGAAGTAGCGGATG
GGACGGTGGGAGCATGGGCTTAGGATGTGAATGCCAGGGAGCAATAAAGGTATCCGTGGTATCGGC

FIGURE 2718

ATGTCCTCTCTCCTCCCCACAGCCGTCAAGGGATTCTGGGCCACCCGCCCTTCCTTCTCCACCTTCTACTTCGTC
TTTGCCATTTTTGTGGTGTCCACCATCTTTCACTGCCACCAGCACCTGGCTCTGGTGCCTGCGCCCTGGGCATAC
TCAGCCCGTGTGGTCCTGGCCCCCAGACACCTGCCCCGGGAGGACCTGTTCACTATCAACTCCAAGGGCCGCCTG
GGGAACCAGATGGGCGAGTACGCCACACTGTACGCCCTGGCCAAGATGAACGGGCGGCCCGCCTTCATCCCGGCC
CAGATGCACAGCACCCTGGCCCCCATCTTCAGAATCACCCTGCCGGTGCTGCACAGCGCCACGGCCAGCAGGATC
CCCTGGCAGAACTACCACCTGAACGACTGGATGGAGGAGGAATACCGCCACATCCCGGGGGAGTACGTCCGCTTC
ACCGGCTACCCCTGCTCCTGGACCTTCTACCACCACCTCCGCCAGGAGATCCTCCAGGAGTTCACCCTGCACGAC
CACGTGCGGGAGGAGGCCCAGAAGTTCCTGCGGGGCCTGCAGGTGAACGGGAGCCGGCCGGGCACCTTTGTAGGG
GTCCATGTTCGCCGAGGGGACTATGTCCATGTCATGCCAAAAGTGTGGAAGGGGGTGGTGGCCGACCGGCGATAC
CTACAGCAGGCCCTGGACTGGTTCCGAGCTCGCTACAGCTCCCTCATCTTCGTGGTCACCAGTAATGGCATGGCC
TGGTGTCGGGAGAACATTGACACCTCCCACGGTGATGTGGTGTTTGCTGGCGATGGCATTGAGGGCTCACCTGCC
AAAGATTTTGCTCTACTCACACAGTGTAACCACACCATCATGACCATTGGGACGTTCGGGATCTGGGCCGCATAC
CTCACGGGCGGAGACACCATCTACCTGGCCAATTACACCCTCCCCGACTCCCCTTTCCTCAAAATCTTTAAGCCA
GAGGCAGCCTTCCTGCCGGAGTGGACAGGGATTGCCGCAGACCTGTCCCCCTTACTCAAGCAC**TAA**

FIGURE 2719

ATCCCACTCCACCCCTGCCCACTGGCTCAGCCCCGCCTTGTGGTGGCCGCCATCGCGATCGGGCAGGGGCTGACC
TTTGGGAGACAATCGCTGTTGGAAACTTTGCTCAGCCCCTGCCTCTGGCTGCGTGACCCCAAGCCAGCCCCTCCT
CCTCCTCTCTGGAACCTTTTGTCAGCTGTGGGTTCACCGAGCCTTAAGCCGTCAAGGGATTCTGGGCCACCCGCC
CTTCCTTCTCCACCTTCTACTTCGTCTTTGCCATTTTTGTGGTGTCCACCATCTTTCACTGCCACCAGCACCTGG
CTCTGGTGCCTGCGCCCTGGGCATACTCAGCCCGTGTGGTCCTGGCCCCCAGACACCTGCCCCGGGAGGACCTGT
TCACTATCAACTCCAAGGGCCGCCTGGGGAACCAG**ATG**GGCGAGTACGCCACGCTGTACGCCCTGGCCAAGATGA
ACGGGCGGCCCGCCTTCATCCCGGCCCAGATGCACAGCACCCTGGCCCCCATCTTCAGAATCACCCTGCCGGTGC
TGCACAGCGCCACGGCCAGCAGGATCCCCTGGCAGAACTACCACCTGAACGACTGGATGGAGGAGGAGTACCGCC
ACATCCCGGGGCGCTGTGTCCGCCTCACGGGCTACCCCTGCTCCTGGACCTTCTACCACCACCTCCGCCAGGAGA
TCCTCCAGGAGTTCACCCTGCACGACCACGTGCGCGAGGAGGCCCAGAAGTTCCTGCGGGGCCTGCAGGCCAAGT
GGGCAGGGCAGGCGACCTTCGTGGGGGTCCACGTGCGCCGGGGGGACTATGTCCGTGTCATGCCGCGCGTATGGA
AGGGGGTGCTGGCCGACCGGCTACCTGCAGCGGGCCCTGGACTGGTTCCGGGCCTGCTGCCGCCTCCCGGTCTTT
GTGGTCACCAGCGA**TGA**CATGGCCTGGTGCCGGGAGAGCATCAACAGCTCCCTTGGGGACGTGGTGTTCGCTGGC
AATGGCCTCCAGGGCTCACCTGCCAAGGACTTCGCACTGCTCACACAGTGCAACCACACCATCATCACCGTGGGC
ACCTTCGGGGTCTGGGCCGCGTACCTCGCGGGCGGGGGACACTGTCTACCTGGCCAACTTCACCCTGCCCAACTCC
CCTTTCAACGTGGTCTTTAGGCCGTAAGCGGCCTTCCTGCCAGAGTGGGTGGGCCTTGCGGCTGACCTTGGACAG
GCTGGACAGAACGGCCTCTAGCCAGCCCTGCATGTGCCTGGTCCTCATCCTGTGACCCGAGGGGCAGTGAGTGGG
GCGTGCGGGGCATGGACTCACGGTCCCTCATGCAGTTTGGATCCAGGCTTATCTACTTCATAGCTGAGTGAGTTT
GGACAACTGACTCAACCTCTGTGCCTTAGTATGTCAACCACAAAATGCACAAACCACAGAACTAAACACCAGTAG
CAGCTGGTGGGAGCTGAGCAAATTCGCTTAGAGCCAGTGCCTTGTGACCGTGTGGGAGGTGTCGGCTGCTCACAT
GTATGCAGCACGTCAGGAACACTGGCATTGCTTTCCAATGGAAACGCAGTTTTGCCCTCTCCTTCCTGGCAGCAC
TGGTAGCACAGAGCCCAGATATTTTGCACTCACGTCCCAGGACGAAGCCATCCCTGCCCTGAAGGATAGGGGAAC
TCGATTTTCTGGGCAACTAGGAATTTTGGCTTTGGAGTTAGTGGGCCTTATCACAAAAGAATGTGAGGGAAGGGC
CGGGTGCGGTGGCACGCCTGTAATCCCAGCCCTTTGGGAAGCCAAGGCTGGTGGATCACTTGAGGTCAGGAGTTC
GAGACCAGCCTGGCCAACATGGCGAAACCCAGTCTCTACTAAAAATACAAAAAGCCAGGCACGGTGGTGCGTGCC
CCTAATCCCAGCTACTCCGGAGGCTGAAGCAGGAGGATAGCTTGAATTGGGAAGCAGAGGTTGCAGTAAACCGAG
ATCATACCACTGCACTCCAGCCTGGGCCACAGAGCGAGACTCCATCGCAA

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FIGURE 2720

CCATCTTTAGGACCGCGGCCCCTTTAAGCGGCGCCCCTTTTCCCCCCATCACCCCCCTCGCCATCAGGCAGCACG
AGCAGAGCCATGTGCTTCCCCCTCCCGCCTGCCTCATTGGCCCAAACTGGGTCACGGTCCCGCCCCCCAGTACCG
CCTCCCATTGGGCAAATGTAGGTCAGTGTCCCGCCTCCCACCGAAAGGCAAGGCAACTTCACGCGCTGAGCCCCT
CACGCGCCCTCCTGGGCCCTGGCGGACCCAGAGGCCCCATTGGCTGTGCGTCTCAAGGTGTCGGAGACGATTGGT
CCGTGTTTGCAGCCGGAGGGAGGCACGCGGCTGGGTTGCATGCCCATAGAGGCTGGCGGGGCTGGACGCGCCGGG
CGGGGACCCGGAGGAGGGGCGCGCGCTGTGGCGTCGGGTGTTTTGGTTTGGATTTTTTTTCCGCGAAAGAAGTT
TGCTTTGGCCACGCCTCAAGGCGGCCGCCTCCTCCTGCCCCCTCCTCCGCCCCTCCGCGCACACCTCTCGGTGCA
GATTGCAAAGCGCCTTCCGTTGCGAGAGCTGCAGATTTTGCAAGAGCCAGGCTCGCCCACCTTGTAGAAGGAGCG
CCTTGAGTCCCCTCTCACCCTCGGTTGCAAAGAGCCGACCGCTTGATCTGGACACCCCCTCGCCCAGATTGCATG
ATCTCCCGGGACCCTCTTGAGTTGCACGTTTCTGCACCGAGGACCTCAAATCCCCGTCGCTCCTAGGATTTGCAG
CGTTCTGGATACTGGAGGGTTGCAGGCTACACTCGCCCGCCCCTGGGCAGACACTCGTCCAAACCACTGGAGTGT
GCTGGTGACTGGCAGGCCAGCCCTTCGCCTCTCCATGAACCCGTGAGCCTGGGGGCAGGTGCCAGGCG**ATG**GCGC
GGCCTGTGAGCGACAGGACCCCGGCCCCTCTGCTGCTGGGCGGCCCGGCCGGGACACCCCCTGGCGGGGGAGCGC
TGCTTGGGTTGCGGAGCCTTCTGCAGGGGACCAGCAAGCCCAAAGAGCCGGCCAGCTGTCTCCTGAAGGAAAAGG
AGCGCAAGGCGGCCCTGCCTGCAGCCACAACCCCTGGGCCAGGCCTGGAGACTGCGGGCCCGGCGGATGCCCCGG
CTGGGGCAGTGGTGGGCGGAGGGTCCCCGCGGGGGCGCCCGGGGCCGGTGCCCGCCCCGGGTCTGTTGGCGCCAC
TGCTGTGGGAGCGCACGCTGCCGTTCGGCGATGTGGAGTACGTAGACCTGGACGCCTTCCTGCTGGAGCACGGGC
TCCCGCCCAGCCCGCCGCCCCCCGGTGGCCCGTCGCCGGAGCCGTCGCCCGCGCGGACGCCCGCACCCTCCCCAG
GGCCGGGTTCGTGCGGCTCGGCTTCCCCCCGCTCCTCTCCTGGGCACGCCCCCGCCCGGGCTGCCCTCGGGACCG
CCAGCGGCCACCGCGCAGGCCTGACCTCTCGGGACACACCCAGCCCTGTGGACCCAGACACCGTGGAGGTGTTGA
TGACCTTTGAACCCGACCCAGCTGATCTTGCCCTATCAAGCATTCCTGGCCACGAGACCTTTGACCCTCGAAGAC
ATCGCTTCTCAGAAGAGGAACTTAAGCCCCAGCCAATCATGAAGAAGGCAAGAAAAATCCAGGTGCCGGAGGAGC
AGAAGGATGAGAAATACTGGAGCCGGCGGTACAAGAACAACGAGGCAGCCAAGCGGTCCCGTGACGCCCGGCGGC
TCAAGGAGAACCAGATATCGGTGCGGGCGGCCTTCCTGGAGAAGGAGAACGCCCTGCTGCGGCAGGAAGTTGTGG
CCGTGCGCCAGGAGCTGTCCCACTACCGCGCCGTGCTGTCCCGATACCAGGCCCAGCACGGGGCCCTG**TGA**GGCT
GCCCCACATCCCCACCTGGCGGAGCTCTCCTCCGCCTTGCTGAGACTTACGCCCTGTTCCCTTCCTGCCCTGTGG
CCCACGGGCCGGCCAGCTGGGTGCCCCAGGGACGTGATAATGCAGATAAATACATTTATATTTTTAAGAAAAAGC
GAGCCTCCCCCCTCCCTTGCGGGGGCGGGGAGGGTTCTCTGTGTGTGTCCCCGGCACGTCAGGGACCCTATCCTC
CCACCGCCTCCGTTAACACGATCCTGAATAAATCTTGAGAACCCCAGAGCCAGCTGTTGTGGAAGAAGAGGGCAG
CTCCCTGGCATACTGGCTGCAGCCCGTGGGCAGCTCCGGGCTGTCGTCCATAGAGGGCAGGCGCTGCTGGAAGTG
CTGGAGTCTGAGTCCTCCCGCGGGCTGTCGGATGGAGGAAGGGCAGAAGGTCTGAGAGGAATGAAGCGACTGCCT
TTATTGCATAGACCTTTTCAATTGCTTTTTAGATTGGGGACGGAGGACGCGCATGAGACGAACAGGGGATATGAA
TTTCCCCGCCCCCACCCGCGGGGAGAGGAACATTAGTGCAAATCCTAGCGCCGGCCCCGGGGAACCTGCCCCTCC
TGGGCTGATTGGCCAGCTAAATGGAGGCACCGGAGTGGATGGGGCGAGGCTGCGGGCCCTGACCGGCCGACTCAC
TGAGGCCTACCCCAGCCAGTACATTCCAGGTCCTGTCATTGGGCGACGCGTAAAATAGACTCCGCCCTCAGCCAT
CCTGGCCGGGTAGGAGCAGGTGGCAAGCGTCAGGACTGAGCCCTGCCCCGTAA

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FIGURE 2664

CCGGGTGGGCTCCAGGCGGCCGGTCCCCGGCCTCCCCCC**ATG**GCCACCGCCCCCTCTTATCCCGCCGGGCTCCCT
GGCTCTCCCGGGCCGGGGTCTCCTCCGCCCCCCGGCGGCCTAGAGCTGCAGTCGCCGCCACCGCTACTGCCCCAG
ATCCCGGCCCCGGGTTCCGGGGTCTCCTTTCACATCCAGATCGGGCTGACCCGCGAGTTCGTGCTGTTGCCCGCC
GCCTCCGAGCTGGCTCATGTGAAGCAGCTGGCCTGTTCCATCGTGGACCAGAAGTTCCCTGAGTGTGGCTTCTAC
GGCCTTTACGACAAGATCCTGCTTTTCAAACATGACCCCACGTCGGCCAACCTCCTGCAGCTGGTGCGCTCGTCC
GGAGACATCCAGGAGGGCGACCTGGTGGAGGTGGTGCTGTCGGCCTCGGCCACCTTCGAGGACTTCCAGATCCGC
CCGCACGCCCTCACGGTGCACTCCTATCGGGCGCCTGCCTTCTGTGATCACTGCGGGGAGATGCTCTTCGGCCTA
GTGCGCCAGGGCCTCAAGTGCGATGGCTGCGGGCTGAACTACCACAAGCGCTGTGCCTTCAGCATCCCCAACAAC
TGTAGTGGGGCCCGCAAACGGCGCCTGTCATCCACGTCTCTGGCCAGTGGCCACTCGGTGCGCCTCGGCACCTCC
GAGTCCCTGCCCTGCACGGCTGAAGAGCTGAGCCGTAGCACCACCGAACTCCTGCCTCGCCGTCCCCCGTCATCC
TCTTCCTCCTCTTCTGCCTCATCGTATACGGGCCGCCCCATTGAGCTGGACAAGATGCTGCTCTCCAAGGTCAAG
GTGCCGCACACCTTCCTCATCCACAGCTATACACGGCCCACCGTTTGCCAGGCTTGCAAGAAACTCCTCAAGGGC
CTCTTCCGGCAGGGCCTGCAATGCAAAGACTGCAAGTTTAACTGTCACAAACGCTGCGCCACCCGCGTCCCTAAT
GACTGCCTGGGGGAGGCCCTTATCAATGGAGATGTGCCGATGGAGGAGGCCACCGATTTCAGCGAGGCTGACAAG
AGCGCCCTCATGGATGAGTCAGAGGACTCCGGTGTCATCCCTGGCTCCCACTCAGAGAATGCGCTCCACGCCAGT
GAGGAGGAGGAAGGCGAGGGAGGCAAGGCCCAGAGCTCCCTGGGGTACATCCCCCTAATGAGGGTGGTGCAATCG
GTGCGACACACGACGCGGAAATCCAGCACCACGCTGCGGGAGGGTTGGGTGGTTCATTACAGCAACAAGGACACG
CTGAGAAAGCGGCACTATTGGCGCCTGGACTGCAAGTGTATCACGCTCTTCCAGAACAACACGACCAACAGATAC
TATAAGGAAATTCCGCTGTCAGAAATCCTCACGGTGGAGTCCGCCCAGAACTTCAGCCTTGTGCCGCCGGGCACC
AACCCACACTGCTTTGAGATCGTCACTGCCAATGCCACCTACTTCGTGGGCGAGATGCCTGGCGGGACTCCGGGT
GGGCCAAGTGGGCAGGGGGCTGAGGCCGCCCGGGGCTGGGAGACAGCCATCCGCCAGGCCCTGATGCCCGTCATC
CTTCAGGACGCACCCAGCGCCCCAGGCCACGCGCCCCACAGACAAGCTTCTCTGAGCATCTCTGTGTCCAACAGT
CAGATCCAAGAGAATGTGGACATTGCCACTGTCTACCAGATCTTCCCTGACGAAGTGCTGGGCTCAGGGCAGTTT
GGAGTGGTCTATGGAGGAAAACACCGGAAGACAGGCCGGGACGTGGCAGTTAAGGTCATTGACAAACTGCGCTTC
CCTACCAAGCAGGAGAGCCAGCTCCGGAATGAAGTGGCCATTCTGCAGAGCCTGCGGCATCCCGGGATCGTGAAC
CTGGAGTGCATGTTCGAGACGCCTGAGAAAGTGTTTGTGGTGATGGAGAAGCTGCATGGGGACATGTTGGAGATG
ATCCTGTCCAGTGAGAAGGGCCGGCTGCCTGAGCGCCTCACCAAGTTCCTCATCACCCAGATCCTGGTGGCTTTG
AGACACCTTCACTTCAAGAACATTGTCCACTGTGACTTGAAACCAGAAAACGTGTTGCTGGCATCAGCAGACCCA
TTTCCTCAGGTGAAGCTGTGTGACTTTGGCTTTGCTCGCATCATCGGCGAGAAGTCGTTCCGCCGCTCAGTGGTG
GGCACGCCGGCCTACCTGGCACCCGAGGTGCTGCTCAACCAGGGCTACAACCGCTCGCTGGACATGTGGTCAGTG
GGCGTGATCATGTACGTCAGCCTCAGCGGCACCTTCCCTTTCAACGAGGATGAGGACATCAATGACCAGATCCAG
AACGCCGCCTTCATGTACCCGGCCAGCCCCTGGAGCCACATCTCAGCTGGAGCCATTGACCTCATCAACAACCTG
CTGCAGGTGAAGATGCGCAAACGCTACAGCGTGGACAAATCTCTCAGCCACCCCTGGTTACAGGAGTACCAGACG
TGGCTGGACCTCCGAGAGCTGGAGGGGAAGATGGGAGAGCGATACATCACGCATGAGAGTGACGACGTGCGCTGG
GAGCAGTTTGCAGCAGAGCATCCGCTGCCTGGGTCTGGGCTGCCCACGGACAGGGATCTCGGTGGGGCCTGTCCA
CCACAGGACCACGACATGCAGGGGCTGGCGGAGCGCATCAGTGTTCTC**TGA**GGTCCTGTGCCCTCGTCCAGCTGC
TGCCCTCCACAGCGGTTCTTCACAGGATCCCAGCAATGAACTGTTCTAGGGAAAGTGGCTTCCTGCCCAAACTGG
ATGGGACACGTGGGGAGTGGGGTGGGGGGAGCTATTTCCAAGGCCCCTCCCTGTTTCCCCAGCAATTAAAACGGA
CTCATCTCTGGCCCCATGGCCTTGATCTCAGCACACGGCACTCTCGAATCATTACTCTGTTGTACCAACATGGAG
TTCATCTGGAAGGAGGACTGCCTGAAAAGAGGAAGGATGG

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FIGURE 2722

CTTTCCGGACCTGGCCGAGCAGGAGGCGCCATC**ATG**GGAGTGGACATCCGCCATAACAAGGACCGAAAGGTTCGG
CGCAAGGAGCCCAAGAGCCAGGATATCTACCTGAGGCTGTTGGTCAAGTTATACAGGTTTCTGGCCAGAAGAACC
AACTCCACATTCAACCAGGTTGTGTTGAAGAGGTTGTTTATGAGTCGCACCAACCGGCCGCCTCTGTCCCTTTCC
CGGATGATCCGGAAGATGAAGCTTCCTGGCCGGGAAAACAAGACGGCCGTGGTTGTGGGGACCATAACTGATGAT
GTGCGGGTTCAGGAGGTACCCAAACTGAAGGTATGTGCACTGCGCGTGACCAGCCGGGCCCGCAGCCGCATCCTC
AGGGCAGGGGGCAAGATCCTCACTTTCGACCAGCTGGCCCTGGACTCCCCTAAGGGCTGTGGCACTGTCCTGCTC
TCCGGTCCTCGCAAGGGCCGAGAGGTGTACCGGCATTTCGGCAAGGCCCCAGGAACCCCGCACAGCCACACCAAA
CCCTACGTCCGCTCCAAGGGCCGGAAGTTCGAGCGTGCCAGAGGCCGACGGGCCAGCCGAGGCTACAAAAAC**TAA**
CCCTGGATCCTACTCTCTTATTAAAAAGATTTTTGCTGAC

FIGURE 2723

TGTCAGAACAGTGTGGCAGGGGCTGCTGCAGGGAGCCATTTGGACATCTGCAGGGCCCCGCCGGAGGCCTCGGAT
GGCCACGTAGGGTCTGCCTATCAGGAGAACCCCCAGATGATCACAGTCCCCAGAGACAGCCAGACCCCCGGGGAC
CCAGCCTCTCACAGTCAGTCCTCCCACCCGAGTGACCCCG**ATG**GCGGCCTCCCAGCTGGCGGCGCTGGAAGGAGT
GGACTCCGGTCCCAGGGTGCCCGGGGCCAGCCCCGGCTTTCTATATTCCGAGGGCCAGCGGCTGGCACTGGAGGC
TCTGTTGAGCAAGGGCGCGGAGGCGTTCCAGACCTGCGTGCAGCGCGAGGAGCTGTGGCCCTTCCTCAGTGCGGA
TGAGGTTCAGGGCTTGGCAGCGGCAGCTGAAGACTGGACAGTGGCCAAGCAGGAGCCCAGCGGGATGGCAGAGGG
AGCCACCACCACCGATGTGGACGCGGGCAGCCTGAGCTACTGGCCTGGGCAGTCGGAGCAGCCGGCGCCCGTCCT
GCGGCTGGGCTGGCCAGTGGACTCTGCGTGGAAAGGCATCACCCGGGCGCAGCTGTACACCCAGCCTCCTGGAGA
GGGTCAGCCGCCCCTCAAGGAGCTGGTGCGGCTGGAGATCCAGGCTGCCCACAAGCTGGTGGCCGTGGTCATGGA
CGTCTTCACTGACCCAGACCTGCTTTTGGACTTGGTGGATGCTGCCACGCGCCGCTGGGTACCTGTCTACCTGCT
CCTGGACCGCCAGCAGCTGCCTGCCTTCCTGGAACTGGCCCAGCAGCTGGGGGTGAACCCCTGGAACACGGAGAA
CGTGGATGTCCGTGTCGTGCGGGGCTGCAGCTTCCAGAGCCGCTGGCGACGGCAGGTGAGCGGCACCGTGCGGGA
GAAGTTTGTGCTGCTGGACGGCGAGAGGGTCATCTCAGGATCCTACAGCTTCACGTGGAGTGACGCACGCCTGCA
CCGAGGCCTGGTGACCCTGCTGACTGGTGAAATTGTTGACGCCTTCAGCCTTGAGTTCCGGACGCTGTACGCGGC
CTCCTGCCCGCTCCCACCTGCGCCCCCCCCAGAAACCCTCGGTCATAGGTGGCCTGCAGCGGGGCCGCAGCCCGCA
CCGCGTGTCCCGCCGCCGCTCCGTGGCCCCCGCGTCGCCTCCGCCGCCTGACGGCCCGCTGGCCCACCGCCTGGC
CGCCTGCCGCGTCTCCCCTGCTACCCCGGGGCCGGCACTCAGTGACATTCTAAGGAGTGTGCAGCGCGCCCGGAC
CCCCAGCGGCCCCCCGGCCCGGCCCAGCCGCTCCATGTGGGACCTAAGCCGCCTGTCCCAGCTGTCTGGCTCCAG
TGATGGGGACAACGAGCTCAAGAAATCCTGGGGCTCCAAGGACACTCCAGCCAAGGCTCTGATGAGGCAGCGGGG
CACTGGAGGAGGCCCCTGGGGGGAAGTGGACTCCCGACCTCCGTGGGGCGGTGCCCTGCCCCTGCCCCCCGCCCA
CCGCCTCCGCTATCTGTCCCCAGCCCGAAGGCGGTTCGGTGGGGATGCTACATTCAAACTTCAAGAGCCCAGAGG
CGTCAGGCCGTCAGACTGGGCCCCCCGGGCAGGACTTGGGGGGCAACCC**TGA**ACAGGAGCCCAAGCCAAATCTGC
TGGCCCACCCAAGGAGCAGTGCCGGACAACTGTCGGCTCAGAGCCCTCTGCCTCAATGCCCTGCCTTGGACAAGG
CTTCTGGCCTCGGCGTCTGTCAAGCAGAAGGGATGTTTGTCACTTGTTCTGCAACTTGGGCCGGGAGTGGTGGCT
CATGCCTGTAATCCCTGCACTTTGGGAGGCTAAGGTGGGAGGGTTGCTTAAGGCCAGGAGTTGGAGACCAGCCTG
GGCAACATAGTGAGACCCCATCTCTACAATTAAAAAAACAAATTAGTTGGG

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FIGURE 2667

CATCCGCTTGAACACCAAAGAAGACAAAAATGGTGTCCCCGACTTAGTGGCCCTGCTGGCTGTGAGAGACACCCC
GGACGAGGAGCCGGTGGACAGCGACACTTCGGAGAGCGACTCGCAGGAAAGTGGGGACCAAGAAACAGAGGAGTT
GGATAATCCTGAGTTCGTGGCCATTGTGGCCTATACCGACCCGTCGGACCCCTGGGCCCGGGAGGAG**ATG**TTGAA
AATCGCTTCTGTTATCGAGTCGCTGGGCTGGAGCGACGAGAAAGACAAGCGAGACCCCCTCCGACAGGTCTTGTC
CGTCATGTCCAAGGACACTAACGGGACCCGCGTGAAGGTGGAAGAGGCGGGCCGCGAGGTGGACGCCGTGGTCCT
GCGCAAGGCCGGGGATGACGGGGACCTCCGGGAGTGCATTTCCACCTTGGCGCAGCCGGATCTCCCTCCCCAGGC
GAAGAAGGCTGGGCGTGGCCTCTTCGGGGGCTGGAGCGAGCACCGTGAGGACGAAGGGGGTCTTCTGGAGCTGGT
GGCGCTCCTGGCTGCCCAGGACATGGCGGAGGTGATGAAGGAGGAAAAAGAAAACGCCTGGGAAGGCGGGAAGTA
CAAATACCCCAAAGGCAAACTGGGGGAGGTATTGGCGCTCCTGGCCGCCCGGGAGAACATGGGGTCCAACGAGGG
GTCGGAGGAGGCTTCGGACGAACAGTCCGAGGAGGAGTCGGAGGACACCGAGAGCGAGGCGTCGGAGCCGGAGGA
CAGGGCATCCAGGAAGCCCCGGGCCAAGAGGGCGCGCACGGCCCCCAGGGGCCTGACTCCGGCCGGCGCGCCTCC
CACCGCTTCCGGGGCCCGCAAAACCCGCGCGGGCGGCCGAGGCCGAGGCCGGGGCGTCACTCCCGAGAAGAAAGC
CGGGAGCCGGGGCTCGGCCCAGGACGACGCCGCAGGAAGCAGGAAGAAGAAGGGGAGCGCGGGCGCCGGGGCCCA
TGCCAGGGCAGGCGAGGCCAAGGGCCAGGCGCCCACTGGATCCAAGGCCGCGCGCGGGAAGAAGGCCCGTCGGGG
CCGGAGGCTGCCCCCTAAATGCCGC**TAG**TGGCCCCCCAAGAAGCCGCCCAGGCTGCGAGCAGGCCCCGCAGGGCA
CCCGCCCGCCTGTGGCCCCCGCCCTCCCCTCCCCTCTTCCTGTCCTCCGCAGACGCAATCTCCTCGCTTCACAGC
GCGCCCGGGCCGCGTTTTGCCAGCGTCACGTTCCCCTCTCGGGCCCTCGCAGGCCGGGGGCGCCAGCGATCCCGA
CGGAGGAAGCCCGGATGGGAGGAGGAAAGAGAAGTGGGCGCCCGAGGCAGCAGCGCAGGGCCGAGATGGGGACGC
GCCAAGTGGACCAGGATTGGGGGCCCGGGTTGCCCCCGGAGGGGGTGTGTGTGTGGACGCCGGGCACCTGCAGAG
GCGAGCAGGGCTCTTCGTGGCGCTCTCGGGGCCTGCGCCTGGCAGGTGCTGTAGGCCGCTGTCGCCCCTACCCCA
GTCTGACTGGGCCCTGGGTCTGTGGTGGAGGCTCAGTCACCAGCCGCGCAGCGCGTGTCAGGGCGCAACTCTCAG
CCAGGGGAGGCCCCAGCTCCCAGCCAGGGGAAGAGATGATTCCAGAAAGGAAAGTCTGAGAGATAGAAGGCGGTT
GGGAAGGGGAGGAGGAGGAAAGGGGAGAGGAACGGTGGGAGAAGGGAAAGAGGAGGAGGAGGGGGAGGGGGGAGC
AGAGGGAAGACACATGCCAGCCCTGCCTACTGGGGCGCCCCTGATAACAAAGGAACCAGCCCCAGGCCAAGGCCA
CCTGCCCCTGACCACAAGTTGAATTTGTCACTCAGACTGCAGTGTTTCCCAACATTCTAATTATTTGCAGAGGTG
TTCAATTTGGGGTAATTCACTTAAAATCCAGTTTTGGTTCTTCTGGGCTGAGTGGGCCCTGGCCCCTCCCATAGG
CTGTGGCTCCCCTGGGTGCCCCCTCTCCAGTGGAGCTGACCCACCGCTCAGCGCTGGCCTTGCAGCCCTTACTAA
AAGACTTGAAAGTCCCTGGGTTCACCCCCTGAGTGAATTAAAGGCCAGAGGGGCCCCGAAGGGCACTGTGAGGGA
CAGAGGCTCACCTGGGCAGTGCAGAAGCCGGCCGCGTGTCCCTCCTTACAGGGGATGAAATGACCTGGGGAGGAA
ACCCCAGCCCTGCCCTGGAGGTTCCAGAGTAGGCGGGCCGGTGCTGTGAGGCTTCACAACCTGCTGTCCCAAGCA
CGCTTGAGTTGTATGTGAGTCTGTGCCGTGCCGTGCCGTATGCTTCAGCTCCTGCAACCCCGGCTGAGCTCGATT
TTTACCTAAATATCAGTCTCCACGGGACCCCACCTTCATTCATGCCTTCTTGTCCCTGGGGCAATGTGTGTGCTT
CCTCGTCCCAATTTCCATTCCCTGGCAGTGAGGAGCCCATCGTGCCAGGGGGCCCTGCCCCACTTGTCCCTGGGA
AGGAATAGGAGGGTTTGGGTGTGACCTCACAGTCCAGACCAGACTGTCCCAGTCCTATGTCAGGGACACCCAGAT
GTAGAAGCTGACTGAGACCTGCTGCAGGGCGTGGGTGCTCCCCTCTGCTTGGAGGCTGTCCCTGGACAGTGACCC
ACCCACTGAGGACCAGGCTGGGTGTACCTTGAGCTGGGCACAGCAGCCTGTGGTGTTGCCTGTGGGTGGGGAGGG
CCCCAGGTGTGCTTCTCCCGTAGCAGTCCTAGGCTTCTCTCCCTGTGCCCTGTGTCACCTGGATCCTCCAGTAAA
GTGAAATTCAGCACTGT

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FIGURE 2725

GCAGAGGTGGCTGTACCGCGTGGCTCCGCCTCCGCGCGACACTTTTCCGGGGCTTCTCATTGGAGAGCAAGCCTG
TCAAGTGCTTTCTGTTGTTTCGGAGGCGGGGCCTGCTGCCCTGCCTGCACTCCGATTGGCCCCGCGGGCCGTCTA
CCTCTGGCCGGACATACCTACACCGGCTTTTTGTACGACTGTTGGCCCTGGAGAACGATCCTTTGGTGGCGAGGG
CGGGGAGGACGAAAGCGCCCACTGTGGATTGGACAGTGTCAAAAAGAGGGGCGGTCCCTACTGAAGGGGCGGTTG
GGCGACGAAGGGAAGAGTCTTTTCAGCGCTGAGGACTGGCGCTGAGGAGGCGGCGGTGGCTCCCGGGGCGTTTGA
GCGGGCTCACCCGAGCCCGCGGGCCAACGCGGATCCAGGCCCGACTGGCGGGACCGCCCCGGATTCCCCGCGGGC
CTTCCTAGCCGCC**ATG**GAGGACGGCGTCTATGAACCCCCAGACCTGACTCCGGAGGAGCGGATGGAGCTGGAGAA
CATCCGGCGGCGGAAGCAGGAGCTGCTGGTGGAGATTCAGCGCCTGCGGGAGGAGCTCAGTGAAGCCATGAGCGA
GGTGGAGGGGCTGGAGGCCAATGAGGGCAGTAAGACCTTGCAACGGAACCGGAAGATGGCAATGGGCAGGAAGAA
GTTCAACATGGACCCCAAGAAGGGGATCCAGTTCTTGGTGGAGAATGAACTGCTGCAGAACACACCCGAGGAGAT
CGCCCGCTTCCTGTACAAGGGCGAGGGGCTGAACAAGACAGCCATCGGGGACTACCTGGGGGAGAGGGAAGAACT
GAACCTGGCAGTGCTCCATGCTTTTGTGGATCTGCATGAGTTCACCGACCTCAATCTGGTGCAGGCCCTCAGGCA
GTTTCTATGGAGCTTTCGCCTACCCGGAGAGGCCCAGAAAATTGACCGGATGATGGAGGCCTTCGCCCAGCGATA
CTGCCTGTGCAACCCTGGGGTTTTCCAGTCCACAGACACGTGCTATGTGCTGTCCTTCGCCGTCATCATGCTCAA
CACCAGTCTCCACAATCCCAATGTCCGGGACAAGCCGGGCCTGGAGCGCTTTGTGGCCATGAACCGGGGCATCAA
CGAGGGCGGGGACCTGCCTGAGGAGCTGCTCAGGAACCTGTACGACAGCATCCGAAATGAGCCCTTCAAGATTCC
TGAGGATGACGGGAATGACCTGACCCACACCTTCTTCAACCCGGACCGGGAGGGCTGGCTCCTGAAGCTGGGAGG
GGGCCGGGTGAAGACGTGGAAGCGGCGCTGGTTTATCCTCACAGACAACTGCCTCTACTACTTTGAGTACACCAC
GGACAAGGAGCCCCGAGGAATCATCCCCCTGGAGAATCTGAGCATCCGAGAGGTGGACGACCCCCGGAAACCGAA
CTGCTTTGAACTTTACATCCCCAACAACAAGGGGCAGCTCATCAAAGCCTGCAAAACTGAGGCGGACGGCCGAGT
GGTGGAGGGAAACCACATGGTGTACCGGATCTCGGCCCCCACGCAGGAGGAGAAGGACGAGTGGATCAAGTCCAT
CCAGGCGGCTGTGAGTGTGGACCCCTTCTATGAGATGCTGGCAGCGAGAAAGAAGCGGATTTCAGTCAAGAAGAA
GCAGGAGCAGCCC**TGA**CCCCCTGCCCCCAACTCCATTATTTATTACGGAGCTGCCCCGCCTGGGTGGCCGGACCC
CTGGGCCTTGGGGCTGTGGATCCTGGTTCCCTGTTTGGAAAATTCACCACCTCTAGCTCCTCACTGTTCTTTGTA
ATTAACACGCTGTTGGTAATCTTATTAATTATTTAACCACTTGG

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FIGURE 2726

GAGGGTTCGAAG**ATG**GCGGCGCGCAAGGGTCGGCGGCGCACGTGTGAAACCGGGGAACCCATGGAAGCCGAGTCC
GGCGACACAAGTTCCGAGGGCCCGGCCCAGGTCTACCTGCCCGGCCGGGGGCCGCCGCTACGCGAAGGGGAGGAG
CTGGTCATGGACGAGGAGGCCTATGTGCTCTACCACCGAGCGCAGACTGGCGCCCCCTGTCTCAGCTTTGACATA
GTCCGGGATCACCTGGGAGACAACCGGACAGAGCTTCCTCTTACACTTTACTTGTGTGCTGGGACCCAGGCTGAG
AGCGCCCAGAGCAACAGACTGATGATGCTTCGGATGCACAATCTGCATGGGACAAAGCCCCCACCCTCAGAGGGC
AGTGATGAAGAAGAAGAGGAGGAAGATGAAGAGGATGAAGAAGAGCGGAAACCTCAGCTGGAGCTGGCCATGGTG
CCCCACTATGGTGGCATCAACCGAGTTCGGGTGTCATGGCTGGGTGAAGAGCCTGTGGCTGGGGTGTGGTCAGAG
AAGGGCCAGGTGGAGGTGTTTGCGCTGCGGCGGCTTCTGCAGGTGGTGGAGGAGCCCCAGGCCCTGGCAGCCTTC
CTCCGGGATGAGCAGGCCCAAATGAAGCCCATCTTCTCCTTCGCTGGACACATGGGCGAGGGCTTTGCCCTTGAC
TGGTCCCCCCGGGTGACCGGTCGCCTGCTGACCGGTGACTGTCAAAAGAACATCCACCTCTGGACACCTACGGAC
GGCGGCTCCTGGCACGTGGACCAGCGGCCATTCGTGGGCCACACACGCTCTGTGGAGGACCTGCAGTGGTCACCG
ACTGAGAACACGGTGTTTGCCTCCTGCTCAGCTGACGCCTCCATCCGCATCTGGGACATCCGGGCAGCCCCCAGC
AAGGCCTGCATGCTCACCACAGCCACCGCCCATGATGGGGACGTCAATGTCATCAGCTGGAGCCGCCGGGAGCCC
TTCCTGCTCAGTGGCGGGGATGATGGGGCCCTCAAGATCTGGGACCTTCGGCAGTTCAAGTCTGGTTCCCCAGTG
GCCACCTTCAAGCAGCACGTGGCCCCCGTGACCTCCGTCGAGTGGCACCCCCAGGACAGCGGGGTCTTTGCAGCC
TCGGGTGCAGACCACCAGATCACACAGTGGGACCTGGCAGTGGAGCGGGACCCTGAGGCGGGCGACGTGGAGGCC
GACCCCGGACTGGCCGACCTCCCGCAGCAGCTGCTGTTCGTGCACCAGGGCGAGACCGAGCTGAAGGAGCTGCAC
TGGCACCCGCAGTGCCCAGGGCTCCTGGTCAGCACGGCGCTGTCAGGCTTCACCATCTTCCGCACCATCAGCGTC
TGAGGCGTCCCACTGGCTCTGATCTTGCTTCCTGCTTGGAAACTGAAGTCGAATTGGGCTCCCCTGGAAGGGGTT
CATTCAGGTCTGTTGACTGAGACTGGCCGGCCTGTGGGCTGCCGTGATGGATTCTGTTTGACGTATTGTTCTCTA
GAAGGCCTGGCTCTGATCCAGTGACCCCTCTCACCAAAGAACTCGGTTTAACCAGGGCTCTGTAAGACCACTCCC
ACCCAGAGACTTGTGTGGCCTGGTGTGGCCTGTGTGTCGGATTCCTTCCTGTCAGCTGTGACCCATTTGACCTGT
GTCCCCAGAACCCAGTTTTTTGTTTGTTTGTTTGAGACGGAGTCTTGGTCTGTCGCCCAGGCTGGAGTGCAGTAG
CACGATCTTGGCTCACTGCAACCTCCGCCTCCTGGGTTAAAGTGATTCTCTCAGCTCAGTCTCCCAGGTAGCTGG
GATTACAGGCATGTGCCACCACACCCCGTTAATTTTTGTATTTTTAGTAGAGACGGGGTTTCACCATGTTGGCCA
GGCTGGTCTCAAATTCTTGATCTCAAGTGATCTGTCCGCCCCGGCCTCCCAGAGTGCTGGGTTGGGATTACAGGC
GTGAGCCACCGCGTCCGGCTCAGGACCCAGTTTTGGCTGCTGGTTCCCAGCAGGGGACTCGGGGGATATACAGTG
GCTGCACCAAATTGGAGGTGTGGGTTCCTCCAACACAATTTGCTTCTGCCCGTTGTCTTCCTGCCAGCTGGGTTT
GGCCAGGATTTCTCCGTGTGGGGGCTACATGCGACCCTCTCCCCTCCTCCCTGACTTTAGAGGCTGGTGCTGTGT
CGGGAGGAAGGTCAGGGCTCCTGAGCAGCAATAAAGGACCAGGAAGAGGCCTGAGGTGTA

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FIGURE 2727

GTCCCCTCCCCGGAGCGGAGCGCACCTAGGGTCCCTCTTCCGTCCCCCCAGCCCAGCTACCCGTTCAGACCAGCA
GCCTCGGGGGGCACCCCCCCCGCCAGCCTGCCTCCCTCCCGCTCAGCCCTGCCAGGGTTCCCCAGCC**ATG**AATCTC
TTCCGATTCCTGGGAGACCTCTCCCACCTCCTCGCCATCATCTTGCTACTGCTCAAAATCTGGAAGTCCCGCTCG
TGCGCCGGAATTTCAGGGAAGAGCCAGGTCCTGTTTGCTGTGGTGTTCACTGCCCGATATCTGGACCTCTTCACC
AACTACATCTCACTCTACAACACGTGTATGAAGGTGGTCTACATAGCCTGCTCCTTCACCACGGTCTGGTTGATT
TATAGCAAGTTCAAAGCTACTTACGATGGGAACCATGACACGTTCAGAGTGGAGTTCCTGGTCGTTCCCACAGCC
ATTCTGGCGTTCCTGGTCAATCATGACTTCACCCCTCTGGAGATCCTCTGGACCTTCTCCATCTACCTGGAGTCA
GTGGCCATCTTGCCGCAGCTGTTCATGGTGAGCAAGACCGGCGAGGCGGAGACCATCACCAGCCACTACTTGTTT
GCGCTAGGCGTTTACCGCACGCTCTATCTCTTCAACTGGATCTGGCGCTACCATTTCGAGGGCTTCTTCGACCTC
ATCGCCATTGTGGCAGGCCTGGTCCAGACAGTCCTCTACTGCGATTTCTTCTACCTCTATATCACCAAAGTCCTA
AAGGGGAAGAAGTTGAGTTTGCCGGCA**TAG**CCCCGGTCCTCTCCATCTCTCTCCTCGGCAGCAGCGGGAGGCAGA
GGAAGGCGGCAGAAGATGAAGAGCTTTCCCATCCAGGGGTGACTTTTTTAAGAACCCACCTCTTGTGCTCCCCAT
CCCGCCTCCTGCCGGGTTTCAGGGGGACAGTGGAGGATCCAGGTCTTGGGGAGCTCAGGACTTGGGCTGTTTGTA
GTTTTTTGCCTTTTAGACAAGAAAAAAAAAATCTTTCCACTCTTTAGTTTTTGATTCTGATGACTCGTTTTTCTTC
TACTCTGTGGCCCCAATTTTTATAAAGTG

FIGURE 2671A

GGGAAATAGAGTCCTGGCGCTGCCGCGGAGGATCCTGGGTGCAGCCGCTCAGAGAAGCTTCTCGCGCACAGGAAG
TCGCTGCGAGGAGGCGCGTGTGCGGGGAGTTGAATCTCCCGCTCCCTTGAGGCTGGGGTTGCGTCTGTTGACGCG
GCCGACTACAATCCCGAGCCCTGCCAGCCGGGAACACGGAGGGGAAGGAGGAGGAGCTTAAAAGAGGCTACTGAA
CCCCAGTTGGCC**ATG**GCTGAGGAATTTGTGACCCTCAAGGATGTCGGCATGGACTTCACCTTGGGAGACTGGGAG
CAGCTCGGGCTGGAACAGGGGGACACGTTCTGGGACACAGCGTTGGACAATTGCCAGGACCTCTTCCTGCTGGAC
CCCCCAAGACCCAACCTGACCTCCCACCCAGATGGCAGTGAAGATCTGGAGCCTCTGGCAGGAGGAAGCCCAGAA
GCAACAAGCCCTGATGTGACTGAGACCAAGAACTCTCCTCTGATGGAGGATTTCTTCGAAGAAGGATTCTCCCAG
GAGATTATAGAGATGTTATCCAAGGATGGCTTCTGGAACTCCAATTTCGGAGAAGCCTGTATAGAGGACACCTGG
TTAGATAGTTTGCTAGGCGATCCAGAAAGTCTTCTGAGGTCTGATATTGCCACCAACGGGGAAAGTCCCACGGAA
TGCAAGAGTCATGAATTAAAGAGAGGACTCAGTCCTGTGTCCACCGTTTCCACGGGAGAAGATTCCATGGTGCAT
AATGTTTCTGAAAAGACCCTCACACCAGCTAAGTCTAAGGAATATAGGGGTGAGTTTTTCTCCTACTCCGACCAC
AGCCAGCAGGATTCTGTTCAGGAAGGGGAGAAACCATATCAATGTAGTGAATGTGGGAAAAGCTTCAGTGGGAGT
TACCGTCTTACCCAGCACTGGATCACTCATACTAGGGAGAAACCCACTGTCCATCAAGAGTGTGAGCAAGGTTTT
GACCGGAATGCTTCCCTTTCTGTGTATCCGAAAACTCACACGGGCTACAAATTCTATGTGTGTAATGAATATGGG
ACAACTTTTAGTCAGAGTACATACCTGTGGCATCAGAAAACTCACACTGGAGAAAAACCATGTAAGAGTCAAGAT
AGTGACCACCCACCCAGTCATGACACACAGCCTGGTGAGCATCAGAAAACTCACACAGATAGTAAGTCCTACAAC
TGTAACGAATGCGGCAAGGCTTTTACCCGGATCTTCCACCTTACTCGGCACCAGAAGATCCACACTCGGAAACGC
TATGAGTGTTCCAAGTGCCAGGCGACCTTCAACTTGAGAAAACACCTCATCCAACATCAGAAAACTCACGCTGCA
AAAACTACCTCTGAGTGTCAGGAGTGTGGGAAGATTTTTAGGCACAGTTCGCTGCTCATTGAACACCAGGCTCTT
CATGCTGGAGAGGAGCCTTATAAGTGTAACGAACGTGGGAAATCCTTCAGGCATAACTCTACCCTAAAGATCCAT
CAGAGGGTTCACAGTGGAGAGAAGCCTTACAAATGCAGTGAGTGTGGGAAGGCCTTCCACCGGCACACTCACCTT
AATGAACATCGGCGAATTCATACAGGCTACAGACCCCACAAATGTCAGGAATGCGTCAGGAGTTTCAGCCGGCCC
TCACATCTGATGCGACATCAGGCCATTCACACCGCAGAAAAGCCCTATAGCTGTGCTGAATGCAAGGAGACTTTC
AGCGATAACAATCGCCTTGTGCAACACCAGAAAATGCACACTGTCAAAACCCCATATGAATGTCAGGAGTGCGGA
GAACGCTTCATTTGCGGCTCAACCCTGAAGTGCCACGAGAGTGTTCACGCCAGAGAAAAACAAGGATTTTTTGTG
AGTGGGAAGATCTTGGATCAGAACCCAGAACAGAAAGAGAAGTGCTTTAAGTGTAACAAATGTGAGAAAACCTTT
AGCTGCAGCAAATACCTAACTCAGCACGAGAGGATTCACACCAGGGGAGTGAAGCCCTTTGAATGTGACCAGTGT
GGGAAAGCCTTTGGCCAAAGTACTCGGCTCATTCACCATCAAAGAATCCACTCTAGAGTGAGGCTGTATAAATGG
GGTGAGCAAGGGAAAGCCATCAGCAGTGCCTCCCTTATCAAACTTCAGTCCTTCCACACAAAGGAGCACCCTTTT
AAATGTAACGAATGCGGAAAGACCTTCAGCCACAGTGCACACCTCTCAAAACATCAGTTAATTCACGCTGGAGAG
AATCCCTTTAAATGTAGTAAGTGTGACAGAGTCTTCACCCAGAGAAACTACCTTGTTCAGCATGAGCGAACTCAT
GCCAGAAAGAAGCCGTTGGTGTGTAACGAATGCGGGAAAACGTTCCGTCAGAGCTCATGCCTTTCTAAGCATCAG
AGAATTCACTCAGGTGAGAAGCCCTATGTATGTGATTACTGCGGGAAGGCCTTCGGCCTGAGTGCTGAGCTTGTC
CGCCACCAGAGAATTCACACTGGAGAAAAGCCTTATGTTTGTCAGGAATGCGGGAAAGCCTTCACCCAGAGCTCA
TGCCTTTCTATTCACCGGAGAGTTCACACTGGGGAGAAGCCCTACAGATGTGGTGAATGTGGGAAAGCCTTTGCC
CAGAAAGCAAATCTAACACAGCACCAGAGAATTCACACAGGGGAGAAGCCTTACTCCTGTAATGTGTGTGGCAAA
GCTTTTGTCCTCAGTGCCCATCTCAACCAGCACCTGAGAGTTCACACCCAGGAGACACTTTATCAGTGTCAACGT
TGCCAGAAAGCCTTTCGGTGCCACTCGAGCCTCAGCCGCCATCAGCGTGTACACAACAAGCAGCAATACTGCCTG
TAGCCATTGGGTGGCAGCAGAGTCCCAGAATATGAGACCGTTACTCGGATGTTGAAAGTTGGAAACTATCCCATT
GCAAGTTTCTCTCCAAATAAATGCATCTAAAGATTGATTAGAAAGTTTGTGCGCATGTTTTTCATTATAACAATG
AAAACACAAAAGTGGAGAAGCTGTACAACGTCAGGATTCAGAGGTAGGCTCTGGAGCCAGTCTACCTTGAGTTAA
ATCCCACCTCTGCCATCTACTACCTAAGTGACCTTGGGAAGGTCAGAAAAATCTCTCAGGGCCTCGGTGTCCTTA
TCTGTAAAATGGGCATCACCTACCTCAGAGGGCTTTTCTGAGGATTAAATAAATAAATGTGAAGCACTTAGAACT
GATGGCCAGCACATGAGGGCTCACCAAGTGTAAGCCACAAATACACATCAGCTATAGCACAAATATACTTGTGTT
ACAAGAAAGGAATTAGTAATCTGTGTTTACTGTAGTTAATGTTCTTACAATGTATCGCTTTTAATTTAAGTTTTC
CTTTTTTACAGTTTTTCTCCAGCACTTTACTCTTCTTAAGTGCCTGGCCTTTTTTGTCCCTTTATCTCTCCTGGT
TTTTTTCTTAAGCCCCAGAAAGCCAAAAAGAACATGTAAACTCTTCACCTCAACTAGCTACAACCTTCCACTCCT
AACCTCCCAAGCTTCTCACTTAAAGAGGACTCCCTATCCCACAAACACATGCTCCCTCTTCCTATGACCTTCCTC

FIGURE 2729

GAAGGAGGCCCAGACAGTGAGGGCAGGAGGGAGAGAAGAGACGCAGAAGGAGAGCGAGCGAGAGAGAAAGGGTTC
TGGATTGGAGGGGAGAGCAAGGGAGGGAGGAAGGCGGTGAGAGAGGCGGGGGCCTCGGGAGGGTGAAAGGAGGGA
GGAGAAGGGCGGGGCACGGAGGCCCGAGCGAGGGACAAGACTCCGACTCCAGCTCTGACTTTTTTCGCGGCTCTC
GGCTTCCACTGCAGCC**ATG**TCACTCCTCTTGCTGGTGGTCTCAGCCCTTCACATCCTCATTCTTATACTGCTTTT
CGTGGCCACTTTGGACAAGTCCTGGTGGACTCTCCCTGGGAAAGAGTCCCTGAATCTCTGGTACGACTGCACGTG
GAACAACGACACCAAAACATGGGCCTGCAGTAATGTCAGCGAGAATGGCTGGCTGAAGGCGGTGCAGGTCCTCAT
GGTGCTCTCCCTCATTCTCTGCTGTCTCTCCTTCATCCTGTTCATGTTCCAGCTCTACACCATGCGACGAGGAGG
TCTCTTCTATGCCACCGGCCTCTGCCAGCTTTGCACCAGCGTGGCGGTGTTTACTGGCGCCTTGATCTATGCCAT
TCACGCCGAGGAGATCCTGGAGAAGCACCCGCGAGGGGGCAGCTTCGGATACTGCTTCGCCCTGGCCTGGGTGGC
CTTCCCCCTCGCCCTGGTCAGCGGCATCATCTACATCCACCTACGGAAGCGGGAG**TGA**GCGCCCCGCCTCGCTCG
GCTGCCCCCGCCCCTTCCCGGCCCCCCTCGCCGCGCGTCCTCCAAAAAATAAAACCTTAACCGCGG

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FIGURE 2730

GTGAGAGGTGGGAGGGCTGGAGAGGTGTGGGAGAGGCCTGAGAGAGGTCCCCCTCCAACCCCTCTTGGAGGAATG
AGGCCAGCGTGGTTCTAGGGTCACCCCCTTTCAATTCCCAGTCCCTCGCAGTTCATTGTCCACCCTCTCTGGGCC
CTGGCCCGCCTGCTGTCTGAAGGGTCTTATATGTCCATCCCTACAGGAGCCCCACCCTGTTTGGCCAGGATGCCT
TTGGGACGCTTGGCAGGGAGCGCCCGCTCCGAGGAGGGAAGCGAGGCATTTCTGGAGGGAATGGTGGATTGGGAG
CTGAGTAGGCTGCAGCGACAATGCAAAGTGATGGAAGGGGAGAGGCGGGCCTACAGCAAGGAAGTCCACCAGCGC
ATCAACAAGCAACTTGAGGAGATCCGGCGCTTGGAGGAGGTACGGGGCGATCTCCAGGTGCAGATCAGCGCAGCC
CAGAACCAGGTCAAGCGGCTTCGGGACAGTCAGCGGCTGGAGAACATGGACCGCCTGCTGAAGGGCCGGGCCCAG
GTGCAGGCGGAGATCGAGGAGCTGCAGGAGCAGACCAGGGCCCTGGACAAGCAGCCAGGAGTGGGAGACGCGGAT
CTTTACCCACAGTAAGAATGTCAGGTCCCCGGGATTCATCCTGGATCAGAAGGTCAAGATCAGGCGAAGGATCAG
GATCCTAGAAAACCAGTTGGACAGGGTCACCTGTCACTTTGACAACCAGCTGGTACGGAATGCGGCCCTGCGGGA
GGAGCTGGATCTGCTGCGGATCGACAGGAACCGCTATCTGAACGTGGACCGCAAGCTGAAGAAGGAGATCCACCA
CCTGCATCACCTGGTCAGCACCCTTATCCTCTCCTCCACCTCTGCCTACGCCGTCAGGGAGGAGGCGAAGGCCAA
GATGGGCTTGCTGCGGGAGCGCGCGGAGAAAGAGGAGGCCCAGAGCGAG**ATG**GAGGCGCAGGTCCTGCAGCGGCA
GATCTTGCACCTGGAGCAGCTGCACCACTTCCTCAAGCTCAAGAACAACGACCGGCAGCCGGATCCCGATGTCCT
GGAGAAGCGTGAAAAGCAGGCCGGGGAGGTGGCCGAGGGCGTCTGGAAGACCTCCCAGGAGAGGCTGGTGCTTTG
CTACGAGGACGCCCTGAATAAACTGTCCCAGCTGATGGGGGAGAGTGACCCTGACCTGTTGGTGCAGAAGTATCT
GGAGATCGAGGAGCGCAACTTTGCTGAGTTCAACTTCATCAACGAGCAGAACTTGGAGCTGGAGCATGTGCAGGA
AGAGATCAAGGAGATGCAGGAGGCTTTGGTGAGCGCACGTGCCAGCAAGGATGACCAGCATTTGCTGCAGGAGCA
GCAGCAGAAGGTGTTGCAGCAGCGCATGGACAAGGTGCACTCGGAGGCTGAGCGCCTTGAGGCCCGCTTCCAGGA
TGTGCGGGGACAGCTGGAGAAGCTCAAGGCTGATATCCAGCTCCTCTTCACCAAGGCCCATTGCGACAGCAGCAT
GATCGATGACCTCCTTGGGGTCAAGACCAGCATGGGAGACCGGGACATGGGCCTCTTCCTGAGCCTCATTGAGAA
GCGGCTGGTGGAGCTCCTGACAGTGCAGGCCTTCCTACATGCCCAGAGCTTCACCTCCCTGGCCGACGCTGCCCT
CCTAGTGCTGGGCCAGAGCCTGGAGGACCTTCCGAAGAAGATGGCCCCACTTCAGCCCCCTGACACTCTAGAAGA
CCCCCCGGGTTTTGAGGCCAGCGATGACTACCCCATGAGCAGGGAGGAGCTGCTGAGCCAAGTGGAGAAGCTGGT
GGAGCTCCAGGAGCAGGCGGAGGCGCAGCGCCAGAAGGACCTGGCCGCCGCCGCCGCGAAGCTGGACGGCACCCT
GAGCGTGGACCTGGCCAGCACCCAGAGGGCCGGCTCCAGTACCGTCCTGGTGCCCACCAGGCACCCCCATGCCAT
CCCCGGGTCCATTTTGAGCCACAAGACTAGCAGAGACCGTGGCTCTCTTGGCCACGTCACTTTTGGCGGCCTCAG
CTCCAGCACTGGGCATTTGCCCAGCCACATCACGCACGGTGACCCCAACACTGGCCACGTGACCTTCGGCTCCAC
CAGTGCCTCGAGTGGGGGCCACGTGACCTTCAGACCCGTCAGCGCCAGCAGCTACCTGGGCTCCACTGGATACGT
GGGGTCCAGCAGGGGCGGAGAAAACACAGAGGGTGGTGTGGAGAGCGGAGGCACAGCGTCTGATTCGAGCGGAGG
CCTCGGGTCCAGCAGAGACCACGTCTCCAGCACCGGCCCTGCCTCCAGCACTGGCCCGGGCTCCTCCACCAGCAA
AGACTCCCGGGGC**TAA**CACGAGGGGCACGCAGCCCCCACCCTGCCCTGGCTCTCTGTGGGGTCTTTTTTTGTGTC
TCTACTTCCCCTGTTTGCCTTGTGGGTCTCTGTCTTTTTCTCCCAGTGGCAGGCCTCTGTCTTTTTGCCCCTTCA
ACTGTTTTCATCTGCCCTTCATCACCGCCTCACCTGTGTCTCCCGGTTCCTTTCTCTCTGCTCCTGACACTGCTT
TTCCCTCTGACTCCTGATCTCCTGTTCTCTGGGCTTCCTGGTCAGTGTCTGTCCGTCTTGTCTCCATATCTGCCC
CTTCCCTGTCTGCTGAGCCCTGGCCCCCTGTGGATCCCCCACCTCCTGTTTCCGGCTCTCTCTCCTCATCTCCAT
CTCCCAGGCTCTCCACGCATCCTGTGTCCCTGTCTCTGTAGCTCCTTACTCCCCAAGAGCCCCCCAGTGCTGACA
GGTGTGGGAAAAGTCAGGGCGAAGACGCCAGGTTCAGCATGGGAAAATGGGACTGTGGAAATAAAGTATATGTGT
GG

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FIGURE 2731A

GTTCTCAACTTCTTTTGAAATAATGTTCATAGAGAAGGAGGGCTGTCTGAGATTCGAGGGAAACAAGCTCTCAGG
ACTTCCGGTCGCCATGATGGCTGTGGGCGGTAAACGCGGTTAGTGCAAGCATCTGGGCCATCTTCAATGGTAAAA
AAGATACAGTAAAGACATAAATACCACATTTGACAAATGGAAAAAAAGGAGTGTCCAGAAAAGAGTAGCAGCAGT
GAGGAAGAGCTGCCGAGACGGGTATACAGGGAGCTACCCTGTGTTTCTGAGACCCTTTGTGACATCTCACATTTT
TTCCAAGAAG**ATG**ATGAGACAGAGGCAGAGCCATTATTGTTCCGTGCTGTTCCTGAGTGTCAACTATCTGGGGGG
GACATTCCCAGGAGACATTTGCTCAGAAGAGAATCAAATAGTTTCCTCTTATGCTTCTAAAGTCTGTTTTGAGAT
CGAAGAAGATTATAAAAATCGTCAGTTTCTGGGGCCTGAAGGAAATGTGGATGTTGAGTTGATTGATAAGAGCAC
AAACAGATACAGCGTTTGGTTCCCCACTGCTGGCTGGTATCTGTGGTCAGCCACAGGCCTCGGCTTCCTGGTAAG
GGATGAGGTCACAGTGACGATTGCGTTTGGTTCCTGGAGTCAGCACCTGGCCCTGGACCTGCAGCACCATGAACA
GTGGCTGGTGGGCGGCCCCTTGTTTGATGTCACTGCAGAGCCAGAGGAGGCTGTCGCCGAAATCCACCTCCCCCA
CTTCATCTCCCTCCAAGGTGAGGTGGACGTCTCCTGGTTTCTCGTTGCCCATTTTAAGAATGAAGGGATGGTCCT
GGAGCATCCAGCCCGGGTGGAGCCTTTCTATGCTGTCCTGGAAAGCCCCAGCTTCTCTCTGATGGGCATCCTGCT
GCGGATCGCCAGTGGGACTCGCCTCTCCATCCCCATCACTTCCAACACATTGATCTATTATCACCCCCACCCCGA
AGATATTAAGTTCCACTTGTACCTTGTCCCCAGCGACGCCTTGCTAACAAAGGCGATAGATGATGAGGAAGATCG
CTTCCATGGTGTGCGCCTGCAGACTTCGCCCCCAATGGAACCCCTGAACTTTGGTTCCAGTTATATTGTGTCTAA
TTCTGCTAACCTGAAAGTAATGCCCAAGGAGTTGAAATTGTCCTACAGGAGCCCTGGAGAAATTCAGCACTTCTC
AAAATTCTATGCTGGGCAGATGAAGGAACCCATTCAACTTGAGATTACTGAAAAAAGACATGGGACTTTGGTGTG
GGATACTGAGGTGAAGCCAGTGGATCTCCAGCTTGTAGCTGCATCAGCCCCTCCTCCTTTCTCAGGTGCAGCCTT
TGTGAAGGAGAACCACCGGCAACTCCAAGCCAGGATGGGGGACCTGAAAGGGGTGCTCGATGATCTCCAAGACAA
TGAGGTTCTTACTGAGAATGAGAAGGAGCTGGTGGAGCAGGAAAAGACACGGCAGAGCAAGAATGAGGCCTTGCT
GAGCATGGTGGAGAAGAAAGGGGACCTGGCCCTGGACGTGCTCTTCAGAAGCATTAGTGAAAGGGACCCTTACCT
CGTGTCCTATCTTAGACAGCAGAATTTG**TAA**AATGAGTCAGTTAGGTAGTCTGGAAGAGAGAATCCAGCGTTCTC
ATTGGAAATGGATAAACAGAAATGTGATCATTGATTTCAGTGTTCAAGACAGAAGAAGACTGGGTAACATCTATC
ACACAGGCTTTCAGGACAGACTTGTAACCTGGCATGTACCTATTGACTGTATCCTCATGCATTTTCCTCAAGAAT
GTCTGAAGAAGGTAGTAATATTCCTTTTAAATTTTTTCCAACCATTGCTTGATATATCACTATTTTATCCATTGA
CATGATTCTTGAAGACCCAGGATAAAGGACATCCGGATAGGTGTGTTTATGAAGGATGGGGCCTGGAAAGGCAAC
TTTTCCTGATTAATGTGAAAAATAATTCCTATGGACACTCCGTTTGAAGTATCACCTTCTCATAACTAAAAGCAG
AAAAGCTAACAAAAGCTTCTCAGCTGAGGACACTCAAGGCATACATGATGACAGTCTTTTTTTTTTTTGTATGTT
AGGACTTTAACACTTTATCTATGGCTACTGTTATTAGAACAATGTAAATGTATTTGCTGAAAGAGAGCACAAAAA
TGGGAGAAAATGCAAACATGAGCAGAAAATATTTTCCCACTGGTGTGTAGCCTGCTACAAGGAGTTGTTGGGTTA
AATGTTCATGGTCAACTCCAAGGAATACTGAGATGAAATGTGGTAAATCAACTCCACAGAACCACCAAAAAGAAA
ATGAGGGTAATTCAGCTTATTCTGAGACAGACATTCCTGGCAATGTACCATACAAAAAATAAGCCAACTCTGACA
TTTGGATTCTACCATAGACTCTGTCATTTTGTAGCCATTTCAGCTGTCTTTTGATTAATGTTTTCGTGGCACACA
TATTTCCATCCTTTTATGTTTAATCTGTTTAAAACAAGTTCCTAGTAGACACCATCTGGTTGAGTCAGTTTTTTT
TATGGTGTATTTTGAACCCATTCTGATAGTCTCTTTTAACTGGAAGATTTCAATTACTTACGTTAATGTAATTAT
TAATATGTTAGGATTTATCCTCAGTCAGCCAGTTTGTTATGTCTTTTCTATTCTACTGTTATCACATTTGTACCA
CTTAAAGTGGAATCTAGGCACTTTATCACCATTTAGATCCTATTACCTTTTCTCATCTAGGATATAGTTATCTTC
TACATAATCTTTCTGTATCTTAAAACCCATCAATAAATTATTATATATTTTCTACTTTTAATCACTCAGAAGATT
TAAAAAACTCATGAGAAGAGTAATCTGTTATGTTTTTCCAGATATTTACCATTTCTGTTGCTCTTCCTTCATTAT
TTTCCAAATTTCGTTCTGCAAATTTCCACTTCCTCTGATAGACGTTTTTTAGTTCTTTTAGAGTGGTTCTGATAG
GTACAGATTCTCTTATTTTTTGCTTCCTCTGAGGACATCTTTTTCTCACCTTCATTCTCAGTGATGTTTTTTGCT
TGTAGTATTTTTAGTTGACATTGTTTTCTGTTCAGCAGTTTCCTTTTAGCTTCCGTATTTCCTGATGAGAAATCT
GCAGTCATTCAAATTGTTGTTTCCCTGTATGTAGTGTGTCATTTTTCTGTCAGATTTCAAGGTATTTATCTTTAG
TTTTTAGCCATTTCATTATGTTGGGGATGAGTTTCCTTGTTTTATTCCCTTTGGAATTTGCTCCAATTCATAAAT
TTGCAGTTTTATGTCTTTTACCAAACTTAGAGGTTTTCAGCCTAATTTCTAAAAATACTTTTTATTAGCCTGATT
TTCATCTTTATAGGAAATAGTTTAAGTGATGACAAGTTCCAATAGCTTATATGCCCAGAAGGCCTTCAAAATAAG
AATTTTGAAAGAATACAGAAAACAAACTTTTATATCCTTCTCATGTCTTCTACTGTAAAATTCATATGCTTTGCT
ACTCTAAACCTAGTTTGAAATCAACAGTCTTGAGAATAGATGAAAATTTTGATGAATAGTGGAATTCTTTTAAAT

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FIGURE 2731B

GGAAACCTCTTACATGTGATTTTCCTTGCCATCTAGAAATAAACCATAGTATTTATGTTGAATCAATCAATATTA
TATTTTGTTTTTTTCCTCCTCTTCTGAGACTCTTATTGTGGAAATGTTAGACTTTTATGTTTTCCTAAATGTCCC
TGATATTCTACTTATTTAGAACATCTTTTCATTTTTTCCATTATTCTGATTGGGTAATTTTAATTTGTCTATTTT
CAAATTTGCTGGAGTGTTCACCTGTTGTTATCTGTGTCGTCCCACTGAGTGCATTCACCACCTTTTAAATTTTGG
TCACTGTATGTATCAGTTCTAAAATTTCCATTTTGTTCTCTATATTTTAAATTTCTTGCCTTATATTCTATTTTC
CTGCAAATGTGTCAGCATTTGCTTGTTTGAGCTTTTTTTTTTTCAAGACAGGGTCTCAACTCTGTTACCCAGGCT
GGAGTGCAGTGGTGCGATCTCAGCTCACTGCAACCTCTGCCTCCTGGTTCAAGCGATTATTGTGCCTCAGCCTCC
AGAGTAGCTGGGATTACAGGCATGCACCACCACAGCCCAGCTAATTTTTTGTATTTTTAGTAGAGACAGAGTTTT
GCTATGTTGGCCAGGCTGGTTTTGAACTCCTGGCCTCAAGTGATCCACCCACCTCAGCCTCCCAAAGTGCTGGGA
TTACAGGCCACTACACCTGGCACATTTGAGTATTTTTTTTTTTTTTTTTTTTTTTTGAGATGGAGTCTCGCTCT
GTCATCTAGGCTGGAGTGCAGTGGTGTGATCTCAGCTCACTGCAGCCTCTGTCTCCCGGGCTCAAGCGATTCTCT
TGCCTCAGCCTCCTGAGTAGCTAGGACTACAGGTGCATGCCAACACGCCCGGCTAATTTTTTTTTAAAAATATTT
TTAGTAGAGACAGGGTTTCACCATTTTGGCCAGGATGGTCTTGATCTCCTGACCTCATGATCCACCCGCCTCGGC
CTTCCAAAGTGCTGGGATTACAGGCATGAGCCACCGTGCCTGGCCTCATTTGAGTATTTTTATAATGTCTCTTTT
AAAGTCTTTGTCAGATAATTTCACTGTACATGTTATTCAGTGTTTGGTGTCCACTGAGTTGTCATTTGCCAGACA
AGTGGAGATTTTTGCAGCTCATCCTTGTATTCTCAGTAGTTCCGATATGTACCCTCGAAATGTGAATGTTATCTT
ATGAGACTCTGTTTTATTTGTATCCAACAGAAGATGTTTATTATTTATTTGGCTTTCTGTGAACTGAGGTCTTAA
TATCAGCTCATTTTAAAAGTCTTTGCAGTGGTATTCGGATCTATCCTGTGTGTGCCTATGAGATTGGGTGCAGTG
TATCCTGTTAGCTCCATTCTCAGGGCGTTTGAATGTGAATTAGGACCAGCGCAATGAATGCTCAAGTTGGGGTTG
GGCGTTAGAATTCATAAAAGTCTTTATATGCTCAG

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FIGURE 2732

GACGTCTGCGCGCGAATGCCGTGGCGCGAACTTGGGACTGCAGAGGCGCGCCTGGCGGATCTGAGTGTGTTGCCC
GGGCAGCGGCGCGCGGGACCAACGCAAGGAGCAGCTGACAGACGAAGAAAAGTGCTGGACAGGAAGGGAGAATTC
TGACGCCAAC**ATG**CAGCGAAGTATCATGTCATTTTTCCACCCCAAGAAAGAGGGTAAAGCAAAGAAGCCTGAGAA
GGAGGCATCCAATAGCAGCAGAGAGACGGAGCCCCCTCCAAAGGCGGCACTGAAGGAGTGGAATGGAGTGGTGTC
CGAGAGTGACTCTCCGGTGAAGAGGCCAGGGAGGAAGGCGGCCCGGGTCCTGGGCAGCGAAGGGGAAGAGGAGGA
TGAAGCCCTTAGCCCTGCTAAAGGCCAGAAGCCTGCCCTGGACTGCTCACAGGTCTCCCCGCCCCGTCCTGCCAC
ATCTCCTGAGAACAATGCTTCCCTCTCTGACACCTCTCCCATGGACAGTTCCCCATCAGGGATTCCGAAGCGTCG
CACAGCTCGGAAGCAGCTCCCGAAACGGACCATTCAGGAAGTCCTGGAAGAGCAGAGTGAGGACGAGGACAGAGA
AGCCAAGAGGAAGAAGGAGGAGGAAGAAGAGGAGACCCCGAAAGAAAGCCTCACAGAGGCTGAAGTGGCCACAGA
GAAGGAAGGAGAAGACGGGGACCAGCCCACCACGCCTCCCAAGCCCCTAAAGACCTCCAAAGCAGAGACCCCGAC
GGAAAGCGTTTCAGAGCCTGAGGTGGCCACGAAGCAGGAACTGCAGGAGGAGGAAGAGCAGACCAAGCCTCCCCG
CAGAGCTCCCAAGACGCTCAGCAGCTTCTTCACCCCCCGGAAGCCAGCAGTCAAAAAAGAAGTGAAGGAAGAGGA
GCCAGGGGCTCCAGGAAAGGAGGGAGCTGCTGAGGGACCCCTGGATCCATCTGGTTACAATCCTGCCAAGAACAA
CTATCATCCCGTGGAAGATGCCTGCTGGAAACCGGGCCAGAAGGTTCCTTACCTGGCTGTGGCCCGGACGTTTGA
GAAGATCGAGGAGGTGTCTGCTCGGCTCCGGATGGTGGAGACGCTGAGCAACTTGCTGCGCTCCGTGGTGGCCCT
GTCGCCTCCAGACCTCCTCCCTGTCCTCTACCTCAGCCTCAACCACCTTGGGCCACCCCAGCAGGGCCTGGAGCT
TGGCGTGGGTGATGGTGTCCTTCTCAAGGCAGTGGCCCAGGCCACAGGTCGGCAGCTGGAGTCCGTCCGGGCTGA
GGCAGCCGAGAAAGGCGACGTGGGGCTGGTGGCCGAGAACAGCCGCAGCACCCAGAGGCTCATGCTGCCACCACC
TCCGCTCACTGCCTCCGGGGTCTTCAGCAAGTTCCGCGACATCGCCAGGCTCACTGGCAGTGCTTCCACAGCCAA
GAAGATAGACATCATCAAAGGCCTCTTTGTGGCCTGCCGCCACTCAGAAGCCCGGTTCATCGCTAGGTCCCTGAG
CGGACGGCTGCGCCTTGGGCTGGCAGAGCAGTCGGTGCTGGCTGCCCTCTCCCAGGCAGTGAGCCTCACGCCCCC
GGGCCAAGAATTCCCACCAGCCATGGTGGATGCTGGGAAGGGCAAGACAGCAGAGGCCAGAAAGACGTGGCTGGA
GGAGCAAGGCATGATCCTGAAGCAGACGTTCTGCGAGGTTCCCGACCTGGACCGAATTATCCCCGTGCTGCTGGA
GCACGGCCTGGAACGTCTCCCGGAGCACTGCAAGCTGAGCCCAGGGATTCCCCTGAAACCAATGTTGGCCCATCC
CACCCGGGGCATCAGCGAGGTCCTGAAACGCTTTGAGGAGGCAGCTTTCACCTGCGAATACAAATATGACGGGCA
GAGGGCACAGATCCACGCCCTGGAAGGCGGGGAGGTGAAGATCTTCAGCAGGAATCAGGAAGACAACACTGGGAA
GTACCCGGACATCATCAGCCGCATCCCCAAGATTAAACTCCCATCGGTCACATCCTTCATCCTGGACACCGAAGC
CGTGGCTTGGGACCGGGAAAAGAAGCAGATCCAGCCATTCCAAGTGCTCACCACCCGCAAACGCAAGGAGGTGGA
TGCGTCTGAGATCCAGGTGCAGGTGTGTTTGTACGCCTTCGACCTCATCTACCTCAATGGAGAGTCCCTGGTACG
TGAGCCCCTTTCCCGGCGCCGGCAGCTGCTCCGGGAGAACTTTGTGGAGACAGAGGGCGAGTTTGTCTTCGCCAC
CTCCCTGGACACCAAGGACATCGAGCAGATCGCCGAGTTCCTGGAGCAGTCAGTGAAAGACTCCTGCGAGGGGCT
GATGGTGAAGACCCTGGATGTTGATGCCACCTACGAGATCGCCAAGAGATCGCACAACTGGCTCAAGCTGAAGAA
GGACTACCTTGATGGCGTGGGTGACACCCTGGACCTGGTGGTGATCGGCGCCTACCTGGGCCGGGGGAAGCGGGC
CGGCCGGTACGGGGGCTTCCTGCTGGCCTCCTACGACGAGGACAGTGAGGAGCTGCAGGCCATATGCAAGCTTGG
AACTGGCTTCAGTGACGAGGAGCTGGAGGAGCATCACCAGAGCCTCAAGGCCCTGGTGCTGCCCAGCCCACGCCC
TTACGTGCGGATAGATGGCGCTGTGATTCCCGACCACTGGCTGGACCCCAGCGCTGTGTGGGAGGTGAAGTGCGC
TGACCTCTCCCTCTCTCCCATCTACCCTGCTGCGCGGGGCCTGGTGGATAGTGACAAGGGCATCTCCCTTCGCTT
CCCTCGGTTTATTCGAGTCCGTGAAGACAAGCAGCCGGAGCAGGCCACCACCAGTGCTCAGGTGGCCTGTTTGTA
CCGGAAGCAAAGTCAGATTCAGAACCAACAAGGCGAGGACTCAGGCTCTGACCCTGAAGATACCTAC**TAA**GCCCT
CGCCCTCCTAGGGCCTGGGTACAGGGCATGAGTTGGACGGACCCCAGGGTTATTATTGCCTTTGCTTTTTAGCAA
ATCTGCTGTGGCAGGCTGTGGATTTTGAGAGTCAGGGGAGGGGTGTGTGTGTGAGGGGGTGGCTTACTCCGGAGT
CTGGGATTCATCCCGTCATTTCTTTCAATAAATAATTATCGGATAGCT

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FIGURE 2733

GTTGATGGTGACAGCAGCAGTGACCGTAGCAGCCTAGAGGTGGCCGAATGCTTACTCTAATGGGCTGGCCCATCC
CTGAGTGTCTAGAGTTCCCAGCCCGCTTAAGGAAGGAAGGAAAACACAGGCAGCTCTAAGTGTACGACGAGGGAG
GTCTCATCGGCGGTGAGGAAGCCCAGGCGGGTCCCCTTCCCAGCTGAAAGGGGTTCGGAATTTCACTCTGTCGCC
AGGCTGGAATGCAGTAGGGCAATCTCGGCTCACTGCAACCTCCACCTCCCGAGTTCAAGTGATGCTCCTGCTTCG
GCCTCCTGAGTAGCTGGGACTACAGGGACTATGTCACCGGTGGGGCTTGCCCCAGCAAGGCCACCATCCCTGGGA
AGACGGTCATCGTGACGGGTGCCAACACAGGCATCGGGAAGCAGACCGCCTTGGAACTGGCCAGGAGAGGAGGCA
ACATCATCCTGGCCTGCCGAGAC**ATG**GAGAAGTGTGAGGCGGCAGCAAAGGACATCCGCGGGGAGACCCTCAATC
ACCATGTCAACGCCCGGCACCTGGACTTGGCTTCCCTCAAGTCTATCCGAGAGTTTGCAGCAAAGATCATTGAAG
AGGAGGAGCGAGTGGACATTCTAATCAACAACGCGGGTGTGATGCGGTGCCCCCACTGGACCACCGAGGACGGCT
TCGAGATGCAGTTTGGCGTTAACCACCTGGGTCACTTTCTCTTGACAAACTTGCTGCTGGACAAGCTGAAAGCCT
CAGCCCCTTCGCGGATCATCAACCTCTCGTCCCTGGCCCATGTTGCTGGGCACATAGACTTTGACGACTTGAACT
GGCAGACGAGGAAGTATAACACCAAAGCCGCCTACTGCCAGAGCAAGCTCGCCATCGTCCTCTTCACCAAGGAGC
TGAGCCGGCGGCTGCAAGGCTCTGGTGTGACTGTCAACGCCCTGCACCCCGGCGTGGCCAGGACAGAGCTGGGCA
GACACACGGGCATCCATGGCTCCACCTTCTCCAGCACCACACTCGGGCCCATCTTCTGGCTGCTGGTCAAGAGCC
CCGAGCTGGCCGCCCAGCCCAGCACATACCTGGCCGTGGCGGAGGAACTGGCGGATGTTTCCGGAAAGTACTTCG
ATGGACTCAAACAGAAGGCCCCGGCCCCCGAGGCTGAGGATGAGGAGGTGGCCCGGAGGCTTTGGGCTGAAAGTG
CCCGCCTGGTGGGCTTAGAGGCTCCCTCTGTGAGGGAGCAGCCCCTCCCCAGA**TAA**CCTCTGGAGCAGATTTGAA
AGCCAGGATGGCGCCTCCAGACCGAGGACAGCTGTCCGCCATGCCCGCAGCTTCCTGGCACTACCTGAGCCGGGA
GACCCAGGACTGGCGGCCGCCATGCCCGCAGTAGGTTCTAGGGGGCGGTGCTGGCCGCAGTGGACTGGCCTGCAG
GTGAGCACTGCCCTGGGCTCTGGCTGGTTCCGTCTGCTCTGCTGCCAGCAGGGGAGAGGGGCCATCTGATGCTTC
CCCTGGGAATCTAAACTGGGAATGGCCGAGGAGGAAGGGGCTCCGTGCACTTGCAGGCCACGTCAGGAGAGCCAG
CGGTGCCTGTCGGGGAGGGTTCCAAGGTGCTCCGTGAAGAGCATGGGCAAGTTGTCTGACACTTGGTGGATTCTT
GGGTCCCTGTGGGACCTTGTGCATGCATGGTCCTCTCTGAGCCTTGGTTTCTTCAGCAGTGAGATGCTCAGAATA
ACTGCTGTCTCCCATGATGGTGTGGTACAGCGAGCTGTTGTCTGGCTATGGCATGGCTGTGCCGGGGGTGTTTGC
TGAGGGCTTCCTGTGCCAGAGCCCAGCCAGAGAGCAGGTGCAGGTGTCATCCTGAGTTCAGGCTCTGCACGGCAT
GGAGTGGGAACCCCACCAGCTGCTGCTACAGGACCTGGGATTGCCTGGGACTCCCACCTTCCTATCAATTCTCAT
GGTAGTCCAAACTGCAGACTCTCAAACTTGCTCATTT

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FIGURE 2734

GATCTCTTCCAA**ATG**TCCCCGCTCTCCCCAGGCTCTCCCCTCCCGCCACTTGCCAGGGCTGACCTCACCGCCATC
TTAACCGGGTGTCCACCTCTCTCTGCCTGCCTGGTGCTGGCCCCGCGTCCCCATCGCCGCGCCCGTCTGCTCCCC
TCAGAGGGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGACGTGCTGCAGAAGATCAAG
TACGCCTTCAGCCTGCTGGCCCGGCTGCGCGGCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTT
TTCGGGCCTCTGCAGATGATTGTGAACACGTCGGGGGGGCCGGAGTTCGCGAGCAGTGTGCGGCGGCCGCATCTG
ACATCGGATGCCGTGGCGCTGCTGCGGGACAACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGAC
TCGTGGACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACCCGAGTTCTTCAGCGGCTGG
GAGCCGCCGGTCACTGACCCGCAGAGCCGCGCCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGG
CGCCGGCAGGTGACCCAAGCGACACAGCAGGGCCGAGGCTGGGAAGTCCGGGGGCGCGGCCGGTCCGCCTGGCCC
CGCCTGACCCGACTGTCTTACTTCCTACAGCAAAGCGCCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAG
CCAGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGTGTAATTATGACTTCCAGGCCCGC
AACAGCAGTGAGCTGTCGGTCAAGCAGCGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTT
CGGGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCTACCCCGGACCCCGGCTGCACCAC
AGCCAAAGCCCTGCCCGCAGCCTGAACAGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCT
CTGGCTCGGCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCTCAACGGCTTGGACCCCAGCGAGAAGGA
GAAATTCTCCCAGATGCTCATCGTCAACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG
CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGGACGCCTCCGAGGTCCGCGCCTGGCT
GCAGGCCAAGGGCTT**TAG**CTCCGGGACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA
GAGGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACAGCCAGGTCACCGTGCAGCGCTCGCT
GCTGGAGGACAAAGAGAAAGTGTCAGAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT
GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGAGGCCCCGTGGGAGAACGGACTCCTC
AGACTCTCCCCAATAGCGGAAGTCGATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC
GGTGGACAGACTTAACGATCCTTGCTGCAGATCCTCCGGAGAGGATCTGGACTGGCTGGGAGTGGGGAGGGCGTG
GAGACAGTCTACGGAAAGCGCTAGCAGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC
AGCCTATAAACAGCCTCCGTGCTTAGC

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FIGURE 2735

GCGGGCGGGCGGTGCGATGTCCGGAGAGGATGGCCCGGCGGCTGGCCCGGGGGGCGGCGGCGGCGGCTGCCCGGG
AGCGGCGACGGGAGCAGCTGCGGCAGTGGGGGGCGCGGGCGGGCGCCGAGCCTGGCCCCGGAGAGCGCCGCGCCC
GCACCGTCCGCTTCGAGCGCGCCGCCGAGTTCCTGGCGGCCTGTGCGGGCGGCGACCTGGACGAGGCGCGTCTGA
TGCTGCGCGCCGCCGACCCTGGCCCCGGCGCCGAGCTCGACCTCCGCCGCGCCGCCGCCCGCCCGCGCCGTGCTG
GACTCCACCAACGCCGACGGTATCAGCGCCCTGCACCAGGCCTGCATTGATGAGAACCTGGAGGTGGTGCGCTTC
TTGGTGGAGCAGGGCGCCACTGTGAACCAGGCAGACAACGAGGGCTGGACGCCACTGCACGTGGCCGCCTCCTGT
GGCTACCTAGATATCGCCAGGTACCTCCTGAGCCACGGGGCCAACATCGCCGCCGTCAACAGTGACGGGGACCTG
CCCCTGGACCTGGCCGAGTCGGACGCC**ATG**GAGGGGCTGCTGAAGGCGGAGATCGCCCGCCGAGGTGTGGATGTG
GAGGCAGCCAAGCGGGCAGAAGAGGAATTGCTCCTTCATGACACGAGGTGCTGGCTGAATGGGGGCGCCATGCCA
GAGGCCCGGCACCCCCGCACAGGCGCCTCTGCCCTGCACGTGGCTGCTGCCAAGGGCTACATTGAGGTGATGAGG
TTGCTCCTTCAGGCTGGCTACGACCCAGAGCTCCGGGACGGGGACGGCTGGACTCCCCTGCACGCAGCGGCACAC
TGGGGCGTGGAGGATGCCTGCCGCCTGCTGGCCGAGCATGGCGGGGGCATGGACTCACTGACCCATGCGGGGCAG
CGTCCCTGTGACCTGGCCGATGAGGAAGTACTGAGCCTGTTGGAGGAACTGGCCCGGAAACAGGAGGACCTTCGG
AACCAAAAAGAAGCTTCCCAGAGCCGGGGCCAGGAGCCCCAAGCGCCCTCTAGCAGCAAACACAGAAGGAGCTCT
GTGTGTCGTCTGAGCAGTCGCGAGAAGATTTCCCTCCAGGACTTGTCCAAGGAGCGCCGGCCTGGTGGGGCTGGG
GGGCCCCCATCCAGGACGAGGATGAGGGGGAAGAAGGTCCCACCGAACCACCCCCTGCAGAACCCAGAACCCTCA
ATGGCGTCTCCTCCCCGCCGCACCCCAGCCCTAAGAGTCCCGTGCAGCTTGAAGAGGCCCCCTTCTCCAGGCGCT
TTGGCCTCC**TGA**AGACAGGGAGTTCTGGTGCCCTGGGTCCCCCTGAAAGGCGGACAGCGGAGGGAGCCCCTGGGG
CTGGGCTGCAGCGCTCGGCTTCCTCCTCCTGGCTGGAAGGGACCTCCACTCAGGCCAAGGAGCTCCGTCTTGCCA
GAATTACCCCGACCCCCTCCCCGAAGCTGCCGGAGCCCTCTGTCCTGTCTGAGGTCACCAAGCCTCCTCCTTGCT
TGGAGAACTCCTCGCCTCCCTCCAGGATTCCGGAGCCTGAATCCCCAGCGAAGCCAAACGTCCCCACAGCCTCCA
CGGCGCCCCCAGCGGACTCCCGGGACCGACGGAGGTCCTACCAGATGCCTGTGCGGGATGAGGAGTCGGAATCCC
AGAGAAAAGCTCGCTCCCGTCTCATGCGCCAGTCTCGGAGGTCCACACAGGGTGTGACTCTTACAGACCTGAAGG
AGGCAGAGAAGGCTGCAGGGAAGGCCCCAGAGTCAGAGAAGCCGGCGCAGAGCCTGGACCCTTCCCGAAGGCCCC
GCGTCCCTGGAGTGGAGAACTCTGACAGCCCTGCCCAGAGAGCAGAGGCGCCCGACGGGCAGGGTCCGGGACCGC
AGGCGGCCAGGGAGCACCGCAAGGTCGTGAAAGGAGTGGAGGGGGCCTGCGGAGGGGGAGGAGGCGGAGCCGCTG
ACCGCAGCCAGGAGTCCAGCACCCTGGAGGGCGGCCCCTCGGCCGCAGGCAGCGGTGGCAGCGGGACCTCAACCC
AGAACCTGAGCCAGAATCGGAAGAGCCAGACGGAGGCTTTAGGACGCTGTATGCAGAGCTGCGCAGGGAGAACGA
GCGGCTTCGCGAGGCCCTGACCGAGACCACGCTGCGGCTGGCGCAGCTCAAGGTGGAGCTGGAGCGGGCCACGCA
GAGGCAAGAACGCTTCGCTGAGAGGCCAGCCCTCCTGGAACTGGAGAGATTCGAGCGCAGGGCCCTGGAACGCAA
GGCCGCAGAGCTGGAGGAGGAGCTGAAGGCCCTGTCTGACCTCCGCGCTGACAACCAGCGCCTCAAGGATGAGAA
TGCAGCGTTGATCCGCGTCATCAGCAAACTCTCCAAGTGACCCGGAGGGACTTTCCCGCACCCGTATTTATACAG
CTGCTTCTGCCACACGCACCCCTTCCCCCGTGTGAACACGAGTGACAGGGCTCCGGGGGAAGTCTCAGAGAAGCC
ATAGCCCCCCTGGGACCTCCGGACTGGGAGGGGAGCAGAGTCCCCAGGAGCCGAGGGGGCCACCCGAGGCCAGGA
TGGAGGTGGGAGGCCGAGCCAAGCAGGGGGACGTTGCCAGAGGGGACCAGGGCCAGAGACGGGACCAGGAAGGAA
CTGAGGACCAAGAAGTGCAAGGATCAGTAGCCAGGACCAGAGTGGCCGCCTGGAGGTCCCCATCTCACGTGTGAT
GCCACCCCGTCACCCCTCCCCTCCTGAGCAGGGATCCAAGAATGTGCCAAGAGTCCCGCCAGCCTCAGCCAGGTG
GGCCTGTATATAGGGTCCATGTGCAATAGGGAGGGACGTCTTCTATTTTTTGCTGCCCCCTCCCCGCCCACTGTC
TGGGGCAGGGGGAGAAGGTATTTTCGAGATAAAGCACAGGCACCACAAATAAAAGTCGTGAAGTTGCCACTC

FIGURE 2736A

GTTCTCAGTGGCCACCCTGCGCTACCCTCTCCCAGAACCTGAGCTGCTCTGACGCGGCTGTCTGGTGCGTTTCAC
TGATCCTGGTGCTGCAGCTTCCTTACACTTCCCAAGAGGAGAAGCAGTTTGGAAAAACAAAATCAGAATAAGTTG
GTCCTGAGTTCTAACTTTGGCTCTTCACCTTTCTAGTCCCCAATTTATATTGTTCCTCCGTGCGTCAGTTTTACC
TGTGAGATAAGGCCAGTAGCCAGCCCCGTCCTGGCAGGGCTGTGGTGAGGAGGGGGGTGTCCGTGTGGAAAACTC
CCTTTGTGAGAATGGTGCGTCCTAGGTGTTCACCAGGTCGTGGCCGCCTCTACTCCCTTTCTCTTTCTCCATCCT
TCTTTCCTTAAAGAGTCCCCAGTGCTATCTGGGACATATTCCTCCGCCCAGAGCAGGGTCCCGCTTCCCTAAGGC
CCTGCTCTGGGCTTCTGGGTTTGAGTCCTTGGCAAGCCCAGGAGAGGCGCTCAGGCTTCCCTGTCCCCCTTCCTC
GTCCACCATCTCATGCCCCTGGCTCTCCTGCCCCTTCCCTACAGGGGTTCCTGGCTCTGCTCTTCAGACTGAGCC
CCGTTCCCCTGCATCCCCGTTCCCCTGCATCCCCCTTCCCCTGCATCCCCCAGAGGCCCCAGGCCACCTACTTGG
CCTGGACCCCACGAGAGGCCACCCCAGCCCTGTCTACCAGGCTGCCTTTTGGGTGGATTCTCCTCCAACTGTGGG
GTGACTGCTTGGCAAACTCACTCTTCGGGGTATCCCAGGAGGCCTGGAGCATTGGGGTGGGCTGGGGTTCAGAGA
GGAGGGATTCCCTTCTCAGGTTACGTGGCCAAGAAGCAGGGGAGCTGGGTTTGGGTCAGGTCTGGGTGTGGGGTG
ACCAGCTTATGCTGTTTGCCCAGGACAGCCTAGTTTTAGCGCTGAAACCCTCAGTCCTAGGAAAACAGGGATGGT
TGGTCACTGTCTCTGGGTGACTCTTGATTCCCGGCCAGTTTCTCCACCTGGGGCTGTGTTTCTCGTCCTGCATCC
TTCTCCAGGCAGGTCCCCAAGCATCGCCCCCCTGCTGTGGCTGTTCCCAAGTTCTTAGGGTACCCCACGTGGGTT
TATCAACCACTTGGTGAGGCTGGTACCCTGCCCCCATTCCTGCACCCCAATTGCCTTAGTGGCTAGGGGGTTGGG
GGCTAGAGTAGGAGGGGCTGGAGCCAGGATTCTTAGGGCTGAACAGAGAAGAGCTGGGGGCCTGGGCTCCTGGGT
TTGAGAGAGGAGGGGCTGGGGCCTGGACTCCTGGGTCCGAGGGAGGAGGGGCTGGGGCCTGGACTCCTGGGTCTG
AGGGTGGAGGGACTGGGGGCCTGGACTCCTGGGTCCGAGGGAGGAGGGGCTGGGGCCTGGACTCGTGGGTCTGAG
GGAGGAGGGGCTGGGGGCCTGGACTTCTGGGTCTTAGGGAGGCGGGGCTGGGCCTGGACCCCTGGGTCTGAATGG
GGAGAGGCTGGGGGCCTGGACTCCTTCATCTGAGGGCGGAAGGGCTGGGGCCTGGCCTCCTGGGTTGAATGGGGA
GGGGTTGGGCCTGGACTCTGGAGTCCCTGGTGCCCAGGCCTCAGGCATCTTTCACAGGGATGCCTGTACTGGGCA
GGTCCTTGAAAGGGAAAGGCCCATTGCTCTCCTTGCCCCCCTCCCCTATCGCCATGACAACTGGGTGGAAATAAA
CGAGCCGAGTTCATCCCGTTCCCAGGGCACGTGCGGCCCCTTCACAGCCCGAGTTTCCATGACCTCATGCTCTTG
GCCCTCGTAGCTCCCTCCCGCCTCCTCCAGATGGGCAGCTTTGGAGAGGTGAGGGACTTGGGGGGTAATTTATCC
CGTGGATCTAGGAGTTTAGCTTCACTCCTTCCTCAGCTCCAGTTCAGGTCCCGGAGCCCACCCAGTGTCCACAAG
GCCTGGGGCAAGTCCCTCCTCCGACCCCCTGGACTTCGGCTTTTGTCCCCCCAAGTTTTGGACCCCTAAGGGAAG
AATGAGAAACGGTGGCCCGTGTCAGCCCCTGGCTGCAGGGCCCCGTGCAGAGGGGGCCTCAGTGAACTGGAGTGT
GACAGCCTGGGGCCCAGGCACACAGGTGTGCAGCTGTCTCACCCCTCTGGGAGTCCCGCCCAGGCCCCTGAGTCT
GTCCCAGCACAGGGTGGCCTTCCTCCACCCTGCATAGCCCTGGGCCCACGGCTTCGTTCCTGCAGAGTATCTGCT
GGGGTGGTTTCCGAGCTTGACCCTTGGAAGGACCTGGCTGGGTTTAAGGCAGGAGGGGCTGGGGGCCAGGACTCC
TGGCTCTGAAGGAGGAGGGGCTGGAACCTCTTCCCTAGTCTGAGCACTGGAAGCGCCACCTGTGGGTGGTGACGG
GGGTTTTGCCGTGTCTAACAGGTACCATGTGGGGTTCCCGCACCCAGATGAGAAGCCCCCTCCCTTCCCCGTTCA
CTTCCTGTTTGCAGATAGCCAGGAGTCCTTTCGTGGTTTCCACTGAGCACTGAAGGCCTGGCCGGCCTGACCACT
GGGCAACCAGGCGTATCTTAAACAGCCAGTGGCCAGAGGCTGTTGGGTCATTTTCCCCACTGTCCTAGCACCGTG
TCCCTGGATCTGTTTTCGTGGCTCCCTCTGGAGTCCCGACTTGCTGGGACACCGTGGCTGGGGTAGGTGCGGCTG
ACGGCTGTTTCCCACCCCCAGGCCTGCATTGATGAGAACCTGGAGGTGGTGCGCTTCTTGGTGGAGCAGGGCGCC
ACTGTGAACCAGGCAGACAACGAGGGCTGGACGCCACTGCACGTGGCCGCCTCCTGTGGCTACCTAGATATCGCC
AGGTGAGGCAAGGGAGGGCCGGGCAGGACCTGGTCGGGGTGGGGGCCTGGACCCTCAGCCCTGACCAGCCCCCAC
CCCCAGGTACCTCCTGAGCCACGGGGCCAACATCGCCGCCGTCAACAGTGACGGGGACCTGCCCCTGGACCTGGC
CGAGTCGGACGCC**ATG**GAGGGGCTGCTGAAGGCGGAGATCGCCCGCCGAGGTGGGCTCTGGTGTGCTGTGTGTGG
GGTGGGGGACACCTCCTCACCCGTGGTCTCCAGGCTGAGAGCTTTAGAGGCGGCCTGGGCACCGAGGCTGACCCT
GCTTCCTAGGATTGTCTTTCTTTGTGCCTCAGTTTCCTCACCTGTGAAATGGGGGTGTAGGGGCCTGCCTCCAGG
ATTGCTTGGAGCCCAGCACACGCACAGGATGAGAACTCAAACCCCTACCAACTGGGACTGTCAATCCCCC**TGA**GT
AACTGAGGGGATTGGAATGCCGGGGCGGGGTGGGTGGGTGGAGGGACTCACCCAGGAGTGCGTTAGGTAGGATTG
CTGGAACCCTGCCGCAGGTCTTTCTGGGAGGGGATGCGTTTACTTGGGGGGGAGTAGGGGCATGCAGGGGTTGCC
AGGGACTGGTCTCCCTGTCCTCTGAGACTCATCGTACCCCAGGAGCCTTCATATGGGGTCCAGGAGCCCCTGAAA
CTGTGTCTGGCCAGGTTCATTTTTCTAGGGAAGGGGTGTTGCTTCTAGCAGGTGTGTGATGGCCACACAGGATCC

FIGURE 2736B

CTGGGTCCCCAGCATGTCTTCTAAAGTCCTGGGCTTGCCTCCCAGCTCTGCCTGTGACTGGTGACTCCAGGCACG
TCCCTGAAGCTTGCTTCCCTGATTTCCTAAAACAGGACCACTGGTGCCGCTTCATGGGGTGGTTGTCAGGGTCTG
GCTGGGTTGGAGTGGAAGGGTGTGAGCATGGTTCCCGGCAGACTCCAGGGGACCGTGTGGAAGGAAAGGGAGACT
GACGAGGAAATGAGATACCGGCAGCCTCCGAGACTTCTGACGCGGCTGTCCTGACGGGGCCGCTGGCCAGGCTGA
AAGGATAGGATTCCGCGTGGGTTCAGGGGTCCACGAGAGCCATGCGGGAGGACTAGCTAGTGGGACACGTGACGG
CGGAGATCTGAGGTTCGGGAGCCCCTCTTTGGTTGAAATGGGGAGTGGGTCAAATCAGCCCTGGACCTGGATTCT
GTCTCCTTCCTCCTCCAACTTTTTATTTTGGGAAAGCTTCAGATTTACAGAAAAGTTGAAGCAATAGCATGTGAC
TACCCATATGACTTTC

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FIGURE 2737

AAGATTCACAGCATCTCAGACACAGCCTAGGCCGCACCAGG**ATG**TCGGACACCGAGGAGCAGGAATATGAGGAGG
AGCAGCCGGAAGAGGAGGCTGCGGAGGAGGAGGAGGAAGAAGAGGAACGCCCCAAACCAAGCCGCCCCGTGGTGC
CTCCTTTGATCCCGCCAAAGATCCCAGAAGGGGAGCGCGTTGACTTCGATGACATCCACCGCAAGCGCATGGAGA
AAGACCTGCTGGAGCTGCAGACACTCATCGATGTACATTTCGAGCAGCGGAAGAAGGAGGAAGAGGAGCTGGTTG
CCTTGAAGGAGCGCATTGAGCGGCGCCGGTCAGAGAGAGCCGAGCAACAGCGCTTCAGAACTGAGAAGGAACGCG
AACGTCAGGCTAAGCTGGCGGAGGAGAAGATGAGGAAGGAAGAGGAAGAGGCCAAGAAGCGGGCAGAGGATGATG
CCAAGAAAAAGAAGGTGCTGTCCAACATGGGGGCCCATTTTGGCGGCTACCTGGTCAAGGCAGAACAGAAGCGTG
GTAAGCGGCAGACGGGGCGGGAGATGAAGGTGCGCATCCTCTCCGAGCGTAAGAAGCCTCTGGACATTGACTACA
TGGGGGAGGAACAGCTCCGGGAGAAAGCCCAGGAGCTGTCGGACTGGATCCACCAGCTGGAGTCTGAGAAGTTCG
ACCTGATGGCGAAGCTGAAACAGCAGAAATATGAGATCAACGTGCTGTACAACCGCATCAGCCACGCCCAGAAGT
TCCGTAAGGGGGCAGGGAAGGGCCGCGTTGGAGGCCGCTGGAAG**TGA**GGATGCCGCCCCGGACAGTGGCACCTGG
GAAGCCTGGGAGTGTTTGTCCCATCGGTAGCTTGAAATAAACGCTCCCCTCAGACA

FIGURE 2738A

CTAGGCCTGGGACTCCTGGGTCCCCGGCAGTGTCTGGAGGC**ATG**GCTGGGGCTGGCGGGGGCCTCGGGGTCTGGG
GGAACCTGGTGCTGCTGGGCCTGTGCAGCTGGACAGGGGCCAGGGCGCCTGCCCCCAACCCAGGGAGGAACCTGA
CAGTGGAGACTCAGACCACCAGCTCCATCTCCCTGAGCTGGGAGGTCCCCGATGGCCTAGACTCACAGAACTCCA
ACTACTGGGTTCAGTGTACTGGAGACGGCGGCACAACAGAGACTCGAAACACAACAGCCACCAACGTCACCGTGG
ATGGCCTTGGACCCGGGTCATTGTATACGTGTTCTGTGTGGGTGGAGAAAGACGGAGTAAATAGCTCTGTGGGGA
CTGTCACTACTGCCACAGCTCCCAACCCAGTGAGGAACCTGAGAGTGGAGGCTCAGACCAACAGCTCCATCGCCC
TGACCTGGGAGGTCCCCGACGGCCCAGACCCACAGAACTCCACCTACGGGGTTGAGTACACTGGAGATGGTGGCA
GAGCAGGGACTCGAAGCACAGCACACACTAACATCACCGTGGATGGACTTGAACCCGGGTGTTTGTATGCGTTTT
CCATGTGGGTGGGAAAGAATGGAATCAACAGCTCCCGGGAGACTCGAAATGCCACCACAGCTCACAACCCAGTGA
GGAACCTGAGAGTGGAGGCTCAGACCACCAGCTCCATCTCCCTGAGCTGGGAGGTCCCCGATGGCACAGACCCAC
AGAACTCGACCTACTGCGTTCAGTGCACTGGAGATGGTGGCAGAACAGAGACTCGAAACACAACAGACACCAGAG
TCACCGTGGATGGCCTTGGACCCGGGTCATTGTATACGTGTTCTGTGTGGGTGGAGAAAGACGGAGTAAATAGCT
CTGTGGAGATTGTCACTAGTGCCACAGCTCCCAACCCAGTGAGAAACCTGACAGTGGAGGCTCAGACCAACAGCT
CCATCGCCCTGACCTGGGAGGTCCCCGATGGCCCAGACCCACAGAACTCCACCTACGGGGTTGAGTACACTGGAG
ATGGTGGCAGAGCAGGGACTCGAAGCACAGCACACACCAACATCACCGTGGATAGACTTGAACCCGGGTGTTTGT
ATGTGTTTTCCGTGTGGGTGGGGAAGAATGGAATCAACAGCTCCCGGGAGACTCGAAATGCCACCACAGCCCCCA
ACCCAGTGAGAAACCTCCATATGGAGACTCAGACCAACAGCTCCATCGCCCTATGCTGGGAAGTCCCCGATGGCC
CATACCCTCAGGACTACACCTACTGGGTAGAGTACACTGGAGACGGTGGTGGCACAGAGACCCGAAACACAACAA
ATACCAGTGTGACAGCTGAGAGACTTGAGCCCGGAACCTTGTACACATTCTCTGTATGGGCAGAAAAAAATGGAG
CACGTGGCTCCAGGCAGAATGTCAGCATCTCCACAGTCCCCAACGCAGTGACAAGCCTCAGCAAGCAGGACTGGA
CCAACAGCACCATTGCTTTGCGCTGGACAGCTCCCCAGGGCCCAGGCCAGTCTTCCTACAGCTACTGGGTCTCAT
GGGTCAGGGAAGGCATGACTGACCCCAGGACCCAAAGCACCTCAGGTACTGACATCACCCTAAAGGAACTGGAAG
CTGGCAGCCTGTACCACCTCACCGTCTGGGCCGAGAGGAATGAGGTCAGAGGCTATAACAGCACCCTCACTGCAG
CCACTGCTCCCAATGAGGTCACAGATCTCCAGAATGAAACTCAGACTAAGAACTCAGTCATGCTGTGGTGGAAGG
CCCCTGGAGACCCCCACTCTCAGTTGTACGTATACTGGGTCCAGTGGGCCAGCAAGGGACATCCCCGGAGGGGGC
AAGATCCCCAAGCGAATTGGGTCAACCAGACCAGCAGGACCAATGAGACGTGGTACAAAGTGGAGGCCCTGGAAC
CCGGGACGTTGTACAATTTCACCGTGTGGGCAGAGAGGAATGACGTAGCCAGTTCCACGCAGAGCCTCTGTGCGT
CCACATACCCAGACACAGTCACCATCACTTCCTGTGTCAGCACCTCAGCGGGCTATGGAGTCAACTTGATCTGGT
CCTGCCCCCAGGGAGGCTACGAGGCCTTTGAGTTGGAGGTGGGAGGACAGCGGGGCTCCCAGGACAGATCTTCAT
GTGGGGAGGCTGTGTCTGTGTTGGGTCTCGGGCCGGCTCGGTCCTACCCAGCCACCATCACGACCATCTGGGACG
GAATGAAGGTCGTGTCTCACTCTGTGGTCTGCCACACCGAGAGTGCAGGGGTCATTGCCGGAGCCTTTGTGGGCA
TCCTCCTGTTTCTCATCCTCGTGGGCCTGCTGATTTTCTTCCTGAAGAGGAGGAATAAGAAGAAGCAGCAGAAAC
CAGAACTCAGGGATCTGGTCTTTAGCTCCCCAGGGGACATCCCAGCTGAAGACTTCGCTGACCACGTCAGGAAGA
ATGAGAGGGACAGCAACTGTGGTTTTGCAGACAAGTACCAGCAACTCTCCCTGGTGGGCCACAGCCAGTCTCAGA
TGGTGGCTTCGGCTTCAGAGAACAACGCCAAGAACCGCTACAGAAATGTGCTGCCCTATGACTGGTCCCGGGTGC
CCCTGAAGCCCATCCATGAGGAGCCAGGCTCTGACTACATCAATGCCAGCTTCATGCCCGGTCTCTGGAGCCCCC
AGGAGTTCATTGCAACCCAGGGTCCCCTGCCACAGACAGTGGGTGACTTCTGGCGCCTGGTGTGGGAACAGCAGA
GCCACACCCTGGTCATGCTGACCAACTGCATGGAGGCCGGCCGGGTGAAGTGTGAGCATTACTGGCCTCTGGACT
CGCAGCCCTGCACCCATGGGCACCTGCGGGTAACCCTGGTAGGTGAGGAAGTGATGGAGAACTGGACGGTGCGGG
AACTGCTGCTCCTCCAGGTGGAGGAGCAGAAGACACTGTCTGTGCGCCAATTCCACTACCAGGCCTGGCCGGATC
ACGGCGTTCCCTCCTCCCCAGACACCTTGCTGGCTTTCTGGAGGATGCTTCGGCAGTGGCTGGATCAGACCATGG
AGGGAGGCCCACCCATTGTGCACTGCAGTGCTGGCGTGGGTCGCACAGGAACCCTCATTGCCCTGGACGTCCTGC
TCCGGCAGCTGCAGTCCGAGGGTCTCCTTGGGCCCTTCAGCTTTGTAAGGAAGATGAGAGAGAGTCGGCCGTTGA
TGGTGCAGACTGAGGCTCAGTACGTATTCCTGCATCAGTGCATCCTGCGGTTCCTCCAACAGTCAGCCCAGGCCC
CAGCCGAGAAGGAAGTCCCGTATGAGGATGTCGAAAACCTCATCTACGAGAACGTGGCCGCCATCCAGGCCCACA
AGTTGGAGGTC**TAA**GTGACGAGGGGGCTGGGTCGGCAGCCCAGGCATCCTCAAGCTCTGGACACCCACTTGAGCC
CAGATTCCTGGAAGAGCAGAGGGCTGGGCTCCCAGACTCCTGGGTGCTGTGGGAGGAGGGGGCTGGTATCCCAAA
CTCTGGTTTCCCCAGGAGAGAGTGGTCTGGTGGGCTTCAGATGAGTCCTATGGGAGCTGGGGATCTGGATTCCTG

FIGURE 2738B

GTTCCCTGAAGGAGGAGAGGGATGATAGCTTGGATTCCCTAGGTCTTTCCAGGATGCAGAAAGAAACAGGCTGGG
GCCTGGATTCTGAGGCAGGAAGGAATTTGGGTCTGGAGTTCTGGCTACTTGAGGACCAAAGGCAGGAAGGATCCT
GCCTTGATTTTACTTCAGAAACCAAATCAGTCTTCTATAATCTGGGGTCGGAGGGAGTCCCTGTGCCCAAGGTCT
CTCTGCACCCCACCATCCACATGTATTTTTCCTTCTATCCCATAATTTATTAAATCACTGTTCTCCCCAG

FIGURE 2739A

CGCCCAGCTAATTTTTGTATTTTTGGTAGAGACAGGGTTTCGCCATGTTGCCCAGGCTGGTCTTGAACTTCTGAC
CTCAAGTGATATGCCTGCCTCAGCCTCCCAAGGGGTACCTCCCCACAGTCCTGGAGCAGACTGTGGCCCCTCAGG
GCCTTGAGTGGCACGCTGGTGGGGCAGCTCTTGTCTTGGAGCCGTCAGGCACCGTGTGAAAGTTTGGAGGAGGGA
GGCAGGAGGTGAGGTTGGAAGTTGAGCAAGGTTCCAGGAGTCAGCCGGAGCTGGGGCAGCATACGGGGTTGCAAG
TGAAGCCGCTGAGAGGCAAAAGGGATGAGTGTTAGCTGCTGGGGGATTGGGAAGCGCAGGAGCTTCAGGACCAGC
TTGTCTTGGGGGTGGTAAGGAGCCTAGGATGGGATGGTTGGGTGTTAGCAGGGTGGAGGAGGCCTGGTGTGGGCC
CTTGTTTCTGCGTCACCCTGTCCTCTGCCCTTTCCCCTTCCTGGACAGGGGTCTCTGCAGTTCCCAGAAACCCAG
TGCCCGGTGCAGAGAAGAGGGTGGAGCCTTGCCGCCCCCTGCCCCCGGCCTCCGACCCGAGCCCCCACCCGCCTG
TGCTTGCCTCCCAGGTACCCCAGTGTGGCCTGCGAGATTCTGACCTCAGATGTGCCCCAGATCAATGATGCCCTG
GGTGCTGATGAGTCCCTTCTGAACCGGCTCTACGGCTTCCTGCAGAGCACCGGCAGCCTCAACCCACTGCTGGCC
AGCTTCTTCAGCAAGGTC**ATG**GGCATCCTCATCAACCGCAAGACAGACCAGCTCGTGTCCTTTCTTCGGAAGAAG
GATGACTTCGTGGACCTGCTGCTGCAGCACATTGGCACCTCGGCCATCATGGACCTCCTGCTGCGCCTGCTCACC
TGTGTGGAGCGGCCTCAGCTGAGGCAGGATGTTGTCAATTGGCTCAACGAGGAGAAGATCGTCCAGCGGCTGATT
GAGCAGATCCACCCGTCGAAGGATGAGAATCAACATTCCAACGCATCCCAGTCCCTGTGTGACATCATCCGCCTG
AGCCGGGAGCAGATGATCCAAGTCCAGGACAGCCCAGAGCCTGACCAACTGCTGGCCACCCTGGAGAAGCAGGAG
ACGATTGAGCAGCTCTTAAGCAACATGTTCGAGGGGGAGCAGAGCCAGTCTGTCATCGTCAGTGGGATCCAGGTG
CTGCTGACCCTGCTGGAGCCCAGGAGGCCGAGGTCCGAGTCCGTGACCGTGAACAGCTTCTTCAGCAGTGTGGAT
GGGCAGCTGGAGCTCCTGGCCCAGGGGGCCCTGGAAAGCACTGTGTCCAGTGTGGGCGCCTTGCACGCCCTACGC
CCGCGGCTCAGCTGCTTCCACCAGCTCCTGCTGGAGCCTCCCAAGCTGGAGCCGCTACAGATGACATGGGGCATG
CTGGCTCCGCCTCTGGGCAACACGCGGCTGCACGTGGTCAAGCTCCTGGCCAGTGCCCTGAGCGCCAATGATGCA
GCCCTGACGCACGAGCTCCTGGCACTGGACGTGCCCAACACCATGCTGGACCTCTTCTTCCATTATGTCTTCAAC
AACTTCTTGCATGCCCAAGTAGAGGGATGCGTGAGCACCATGCTGAGCTTGGGGCCACCTCCTGACAGCAGCCCT
GAGACGCCCATCCAAAACCCTGTTGTGAAACATCTGCTGCAGCAGTGCCGCCTGGTGGAGCGGATCCTGACGTCC
TGGGAGGAGAACGACCGTGTACAGTGTGCGGGAGGCCCTCGGAAAGGCTACATGGGTCACCTGACAAGAGTGGCC
GGTGCCCTGGTGCAGAACACGGAGAAGGGGCCCAATGCAGAGCAGCTGCGGCAGCTGCTGAAGGAGCTGCCCAGC
GAGCAGCAGGAGCAGTGGGAAGCCTTCGTATCGGGGCCCCTGGCGGAGACCAACAAGAAGAACATGGTGGACCTG
GTGAACACCCACCACCTACACTCCTCCAGTGACGATGAGGACGACCGGCTCAAGGAGTTCAACTTCCCTGAGGAG
GCTGTGCTGCAGCAGGCCTTCATGGACTTCCAGATGCAGCGCATGACCTCTGCCTTCATTGACCACTTCGGCTTC
AATGATGAGGAGTTTGGGGAGCAGGAGGAGAGTGTGAACGCACCTTTTGACAAGACAGCCAACATCACCTTCTCC
CTCAATGCTGACGATGAGAACCCCAACGCCAACCTACTTGAGATATGCTACAAGGACCGCATCCAGCAGTTTGAT
GATGATGAGGAAGAGGAGGACGAGGAAGAGGCCCAGGGCTCAGGGGAGTCTGATGGAGAAGATGGCGCCTGGCAG
GGCAGCCAGCTGGCCAGGGGGGCCCGTCTGGGCCAGCCACCTGGTGTCCGGAGTGGAGGCAGCACAGACAGTGAG
GACGAAGAAGAGGAGGACGAGGAGGAGGAGGAAGACGAGGAGGGCATTGGCTGTGCAGCCCGTGGAGGGGCCACC
CCTCTGTCCTACCCCAGCCCTGGCCCTCAGCCTCCAGGCCCCAGCTGGACAGCCACCTTTGACCCAGTGCCTACA
GATGCCCCGACCAGCCCCCGAGTCTCCGGGGAGGAAGAGCTGCACACTGGGCCTCCAGCCCCACAGGGGCCCCTC
AGTGTGCCCCAGGGCCTCCCCACTCAGAGCCTGGCCAGCCCTCCTGCCCGTGACGCCCTGCAGCTCAGGTCTCAG
GACCCCACACCCCCCTCAGCACCTCAGGAAGCCACAGAAGGCAGCAAAGTCACGGAGCCCTCAGCCCCTTGCCAG
GCCTTGGTTAGCATCGGGGACCTTCAGGCCACCTTCCACGGGATCCGTTCTGCCCCCAGCTCCTCGGACAGTGCA
ACCAGAGACCCCTCTACCTCTGTCCCAGCCTCCGGGGCCCACCAGCCCCCCCAGACCACAGAAGGGGAGAAGAGC
CCAGAGCCCTTGGGGCTTCCCCAAAGCCAGAGTGCCCAGGCCCTCACGCCTCCTCCGATACCCAATGGCTCTGCC
CCGGAAGGGCCTGCATCCCCAGGCTCCCAA**TAG**CTGCCTGGTGCGGCAGCGGCGGCCAAATCTTCCGTCCTCCCG
TGGATCTCCCGGGGTGGGGGCAGGGCGGGTCCCACGATGGCCCCCATTGCCCTCATCACCCTGACACCCCCACAT
TCTCTCCTCTGGACCCCCAGGAGGCTGGTGCCAGGGAGACAGGCCCAACCCACCCCCATTTGCACTGAGAAGAGA
AGTTTTGGAGCGTTGCCTCCTAGAATAAAGATACAGAGAGTCAAATAGAGAGAATGGAGAGAGAGAAACATATAT
TATATATTATATAGAGAGAGGGAGGAGAGCGAGAGAGAGTGAGGACACCGAACTGGGCTGGCGGCTCCAAAGCAC
AGCCTTCCCTGTTCCGTCCCAGCGGGAGCTGGTGTTAGGGGTCCCAAGGTTGCCACCCACGTGCCCAGCTGTCCC
ACGCTGCAGCGCAGACGGCCACGCCCACACCCGGCCTTTTAGCTCAGGTCCACCATGGGGGACGGCCCAGCGTGG
GTGGGGGTGCCAGAGGGTCCCGAGTGGGGGCCGTGCCTTTGCCCAGACCCTGCACTTTCAACCAGGCCAGTCCGG

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FIGURE 2739B

CTCTGGGGAGCAGGGGCCTCCCCGGCAACAGCCCCAGGGGCCTTGAGGGTCTGAGGTCCCAGCCCTGTTGCCAAG
TGACCTTGTCCCCAGCTCCCTCCTCCCAGGCTGGTGTGAGTGTGCGTGCGTTTGTGCCGAGCTTCTATTTCATAT
TGCAAATATAAATAAAGGAAGGCAGTTTACG

FIGURE 2740

GCGGCGCCCAGCAGAGTCAGGTGCGGACGACTTTGTCTGTAGGAGCAGCGGCGGCTTGAGGACCCGGGGAGACCC
TCAAGAATCGACCCATCAGGACGCCAGAGCTGCTTCAGCGGTGACCACCTTCTCCCTCTAACACATTCTTCCCTT
CTTCACAAACGGCCC**ATG**TCAGACGAAGGCTCAAGGGGGAGCCGCCTGCCCCTGGCGCTGCCCCCGGCCTCCCAG
GGTTGCTCTTCAGGGGGCGGCGGCGGCGGCGGCGGCTCCTCGGCTGGGGGCTCGGGCAATTCCCGGCCCCCA
CGCAACCTCCAAGGCTTGCTGCAGATGGCCATCACCGCGGGCTCTGAAGAGCCAGACCCTCCTCCAGAACCGATG
AGTGAGGAGAGGCGTCAGTGGCTGCAGGAGGCCATGTCGGCTGCCTTCCGAGGCCAGCGGGAGGAGGTGGAGCAG
ATGAAGAGCTGCCTCCGAGTGCTGTCACAGCCCATGCCCCCCACTGCTGGGGAGGCCGAGCAGGCGGCCGACCAG
CAAGAGCGAGAGGGGGCCCTGGAGCTGCTGGCCGACCTGTGTGAGAACATGGACAATGCCGCAGACTTCTGCCAG
CTGTCTGGCATGCACCTGCTGGTGGGCCGGTACCTGGAGGCGGGGGCTGCGGGACTGCGGTGGCGGGCGGCACAG
CTCATCGGCACGTGCAGTCAGAACGTGGCAGCCATCCAGGAGCAGGTGCTGGGCCTGGGTGCCCTGCGTAAGCTG
CTGCGGCTGCTGGACCGCGACGCCTGCGACACGGTGCGCGTCAAGGCCCTCTTCGCCATCTCCTGTCTGGTCCGA
GAGCAGGAGGCTGGGCTGCTGCAGTTCCTCCGCCTGGACGGCTTCTCTGTGTTGATGAGGGCCATGCAGCAGCAG
GTGCAGAAGCTCAAGGTCAAATCAGCATTCCTGCTGCAGAACCTGCTGGTGGGCCACCCTGAACACAAAGGGACC
CTGTGCTCCATGGGGATGGTCCAGCAGCTGGTGGCCCTGGTGCGGACAGAGCACAGCCCCTTCCACGAGCACGTG
CTTGGAGCCCTGTGCAGCCTGGTGACAGACTTTCCGCAGGGTGTGCGCGAGTGTCGGGAGCCGGAACTGGGCCTG
GAGGAGCTCCTCCGCCACCGCTGTCAGCTGCTGCAGCAGCATGAGGAGTACCAGGAGGAGCTGGAGTTCTGTGAA
AAGCTGCTACAGACCTGTTTCTCCAGCCCAGCGGACGACAGCATGGATCGG**TGA**AACCAGGTGGCTTCTTGCCCC
CTTCTCCGTGGGAACCCCAGGCCTCTTGCCTCCCTCCCCACCTACAAGGCCCTCTCCCAAGGGATCGCAGGGCCT
AGGTGCCTGGACCCAGGGTGTGCCAGCCCGTCTCTGTGCAGTCCCTGGAAGGGGCGCTGAGAAAGGCACCAGCTC
CTTGGACCCCACCTCCCATGCTCTCACTCTCATCCCCGTTCTCTTGTCCACACAGCTCTTCCAATAAAGGTGTTT
CTCTTCCTCCTTCTC

FIGURE 2741

GCTCACGCCTGTAATCCCAGCACTTTGGGAAGCTGAGGTGGGCAAATCACAAGGTCAGGAGTTTGAGACCAGCCT
GACCAACATGGTGAAACCCCATCTCTACTAAAAATACAAAAATTAGCCAGGC**ATG**GTGGCGGAAGGGTTAACTTT
GGGGAAGGGCCCGGAGTCCCCGGATGGTGATGTCAGCGTGCCGGAGAGAAAGGACGAGGTGGCGGGGGGAGGCGG
AGAGGAGGAGGAGGCGGAGGAGAGAGGGCGCCACGCCCAATATGTGGGCCCCTATCGGCTGGAGAAGACGCTGGG
CAAAGGACAGACAGGGCTGGTTAAACTCGGGGTCCACTGCATCACGGGTCAGAAGGTCGCCATCAAGATCGTGAA
CCGGGAGAAGCTGTCGGAGTCGGTGCTGATGAAGGTGGAGCGGGAGATCGCCATCCTGAAGCTCATCGAACACCC
ACATGTCCTCAAGCTCCACGACGTCTACGAGAACAAGAAATATTTGTACCTGGTTCTGGAGCACGTCTCGGGGGG
TGAGCTATTCGACTACCTGGTAAAGAAGGGGAGACTGACGCCCAAGGAGGCCCGAAAGTTCTTCCGCCAGATTGT
GTCTGCGCTGGACTTCTGCCACAGCTACTCCATCTGCCACAGAGACCTAAAGCCCGAGAACCTGCTTTTGGATGA
GAAAAACAACATCCGCATTGCAGACTTCGGCATGGCGTCCCTGCAGGTGGGGGACAGCCTCCTGGAGACCAGCTG
CGGGTCCCCCCATTATGCGTGTCCAGAGGTGATTAAGGGGGAAAAATATGATGGCCGCCGGGCAGACATGTGGAG
CTGTGGAGTCATCCTCTTCGCCCTGCTCGTGGGGGCTCTGCCCTTTGATGACGACAACCTCCGCCAGCTGCTGGA
GAAGGTGAAACGGGGCGTCTTCCACATGCCCCACTTCATTCCTCCAGATTGCCAGAGCCTCCTGAGGGGAATGAT
CGAAGTGGAGCCCGAAAAAAGGCTCAGTCTGGAGCAAATTCAGAAACATCCTTGGTACCTAGGCGGGAAACACGA
GCCAGACCCGTGCCTGGAGCCAGCCCCTGGCCGCCGGGTAGCCATGCGGAGCCTGCCATCCAACGGAGAGCTGGA
CCCCGACGTCCTAGAGAGCATGGCATCACTGGGCTGCTTCAGGGACCGCGAGAGGCTGCATCGCGAGCTGCGCAG
TGAGGAGGAGAACCAAGAAAAGATGATATATTATCTGCTTTTGGATCGGAAGGAGCGGTATCCCAGCTGTGAGGA
CCAGGACCTGCCTCCCCGGAATGATGTTGACCCCCCCCGGAAGCGTGTGGATTCTCCCATGCTGAGCCGTCACGG
GAAGCGGCGACCAGAGCGGAAGTCCATGGAAGTCCTGAGCATCACCGATGCCGGGGGTGGTGGCTCCCCTGTACC
CACCCGACGGGCCTTGGAGATGGCCCAGCACAGCCAGAGATCCCGTAGCGTCAGTGGAGCCTCCACGGGTCTGTC
CTCCAGCCCTCTAAGCAGCCCAAGGAGTCCGGTCTTTTCCTTTTCACCGGAGCCGGGGGCTGGAGATGAGGCTCG
AGGCGGGGGCTCCCCGACTTCCAAAACGCAGACGCTGCCTTCTCGGGGCCCCAGGGGTGGGGGCGCCGGGGAGCA
GCCCCCGCCCCCCAGTGCCCGCTCCACACCCCTGCCCGGCCCCCCAGGCTCCCCGCGCTCCTCTGGCGGGACCCC
CTTGCACTCGCCTCTGCACACGCCCCGGGCCAGTCCCACCGGGACCCCGGGGACAACACCACCCCCCAGCCCCGG
CGGTGGCGTCGGGGGAGCCGCCTGGAGGAGTCGTCTCAACTCCATCCGCAACAGCTTCCTGGGCTCCCCTCGCTT
TCACCGGCGCAAGATGCAGGTCCCTACCGCTGAGGAGATGTCCAGCTTGACGCCAGAGTCCTCCCCGGAGCTGGC
AAAACGCTCCTGGTTCGGGAACTTCATCTCCTTGGACAAAGAAGAACAAATATTCCTCGTGCTAAAGGACAAACC
TCTCAGCAGCATCAAAGCAGACATCGTCCATGCCTTTCTGTCGATCCCCAGCCTGAGTCACAGTGTGCTGTCACA
GACCAGCTTCAGGGCCGAGTACAAGGCCAGTGGCGGCCCCTCCGTCTTCCAAAAGCCCGTCCGCTTCCAGGTGGA
CATCAGCTCCTCTGAGGGTCCAGAGCCCTCCCCGCGACGGGACGGCAGCGGAGGTGGTGGCATCTACTCCGTCAC
CTTCACTCTCATCTCGGGTCCCAGCCGTCGGTTCAAGCGAGTGGTGGAGACCATCCAGGCACAGCTCCTGAGCAC
TCATGACCAGCCCTCCGTGCAGGCCCTGGCAGACGAGAAGAACGGGGCCCAGACCCGGCCTGCTGGTGCCCCACC
CCGAAGCCTGCAGCCCCCACCCGGCCGCCCAGACCCAGAGCTGAGCAGCTCTCCCCGCCGAGGCCCCCCCAAGGA
CAAGAAGCTCCTGGCCACCAACGGGACCCCTCTGCCC**TGA**CCCCACGGGGCCGGGGAGGGAGGGGACCCCCCTCC
ACCCCCCTTCCGTGCCCCCCAACTGTGAATCTGTAAATAAGGCCCAAGGAACATGTCGGGAGGGGGGTGGACACA
AAAACCGGCCTTGCCCTGCAGGGATGGGGCTCCACAGGCCGTGCCCAACTGGGGGTGGTTCTAGGGGAACAGGGG
GCGGGGGAGCTGTTTCTATTTTATTTATTGATTAATTTATTATTTTATTTATTGATCAATCTCTCTGCGGGGTGG
GGTGGGGGAGGGACGGGAGCTGGTTGGGGTGGCTTAGCAGATCCGGACAGGGCCCTCTGTCCCTGTGTCGTCCCC
AACCCCCTCTTCCCGGGCCCCTCCTCCCCTGGTCCTCCCCCCACGACCTTCTGTACGGATTTGCTCTCCGGAAGG
AATTCTGGTTTCGCGTGATCCTGCCTGCGTCCGTGTCTCTGATTCCGCCGGCGGC

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FIGURE 2742

GCCGAAGGAGGCTGTGGGAGGTGTTGGCGGCGGCGGCGCGGGCGCCTGAGGAGGAGGAGGAGAAGCGGGATGAGA
TCGTGGGGCTCACCAGCGTCCCCCATGGCTTCTGAGTAGCGTGGGAGTGGAGTCAGCACCAAGCCAGGCTCCCCG
CGCCTGCCTTGCCCTCACCTGCTCCTGCTCTCTGCCAGAGGCAGCATGGTCCGCAGGGCACCATGGGGCCCGACA
GAGTGACAGCACGAGAACTGTGCGAGAACGACGACCTGGCCACCAGCCTCGTCCTGGACCCCTACCTCGGTTTCC
GCACCCATAAGATGAACGTCAGGTCTATCGCTACCTCCGTGCCTTCCTGCCGGAAAGTGGCTTTACCATCCTGCC
CTGCACGCGCTACTCC**ATG**GAGACCAACGGGGCCAAGATCGTGTCCACTCGTGCTTGGAAAAAGAATGAGAAGCT
GGAGCTGCTGGTGGGCTGCATTGCAGAGCTGCGGGAGGCAGATGAGGGGCTGCTGAGGGCCGGTGAGAATGACTT
CAGCATCATGTACTCAACCCGCAAGCGGAGTGCTCAGCTGTGGCTGGGCCCAGCCGCCTTCATCAACCATGACTG
CAAACCCAACTGCAAGTTTGTGCCTGCAGATGGGAACGCAGCCTGCGTGAAGGTGCTCCGGGACATTGAGCCTGG
GGACGAGGTGACATGCTTCTACGGCGAGGGCTTCTTCGGCGAGAAGAATGAGCACTGTGAATGCCACACCTGTGA
GAGGAAAGGTGAAGGAGCTTTCCGAACCAGGCCTAGGGAGCCCGCGTTGCCACCACGGCCCCTGGACAAGTACCA
GCTGCGTGAGACCAAGCGGCGGCTGCAGCAAGGCCTGGACAGTGGCAGCCGACAGGGCCTGCTGGGCCCTCGGGC
CTGCGTGCACCCATCCCCGCTGCGCCGGGACCCATTCTGCGCCGCCTGCCAGCCCCTGCGCCTGCCAGCCTGCAG
CGCCCGCCCAGACACCTCACCCCTCTGGCTCCAGTGGCTGCCTCAGCCCCAGCCCCGAGTGCGGCCCCGGAAGCG
CCGACGCCCCCGGCCCCGGAGGGCCCCAGTGCTCTCCACCCACCACGCTGCCCGCGTCTCCCTGCACCGATGGGG
AGGCTGTGGCCCCCACTGCCGCCTGCGAGGAGAGGCCCTGGTGGCCCTGGGCCAGCCCCCCCACGCCCGCTGGGC
CCCTCAGCAGGACTGGCACTGGGCCCGGCGCTATGGGCTGCCTTACGTGGTGCGTGTGGACCTTCGTCGCCTGGC
CCCAGCCCCACCAGCTACCCCAGCCCCTGCTGGGACCCCAGGCCCCATCCTGATCCCGAAGCAGGCCCTCGCCTT
CGCCCCCTTCTCCCCACCCAAGCGCCTACGGCTGGTGGTCAGCCACGGCTCCATCGACCTGGATGTCGGCGGTGA
AGAGCTG**TGA**CAGGCCGGACGGGGAGGCCCAGCAGGGAGAGAGGGTCTCTCTCCTAGCTGCTACCCAGGACCTCC
AGAAGGAGCCCTTGGACCTCTGGGAGGGAGCTGACCCTTGACTCCAGCATAGCTCTGACCCTGGAATGGGGTTGG
TTTGGACACCCCCAGGGATCTGAGCCCTGACCCTTTGTGACTGCTGACCCCTGAGCCACCCCCACTCCCACAGGG
AGCCCCGGCCATTTGCTGCCCTCCCCACCCCTGCCCCAGCCTCAGGACTGCAGGAGCCATCCGCCCCCCTCAGCC
CCTTCCTCCCCAGGGAGCAAAGCCATAAGGGGCAGGGGCCACCCCACGGCATCTCCCCAGAAGTACAGGCCTCAG
GAGGAGGTGGAACTGATGTAGGGGGTGGCACTCCCCAGAGACTGCCCTCACGAGGGGACTGGGTTCGCTCTCAGC
TCTGCAGCTGTCTGCGGTGGGGGGAAGGTTGGGGGGTGTCTGGAGGCATGTTCCCCTCACCACCCCCCGTGGGTC
TCAGGGAGGCCGGGTGTGACCTCATCTTTCTCATGGTGCTATCCTGGTGCTATTGGGGTGGGGAGCTCCCTCCCC
TCCCCCACACCAGAAAGGGGTATGTTGGGGGCTTGGAAGCACTTGAACTTTTTATTTTATTAAAACCTTGTTATA
AGCAGC

FIGURE 2743

GAAGGGTTAAAGGCCCCCGGCTCCCTGCCCCCTGCCCTGGGGAACCCCTGGCCCTGTGGGGAC**ATG**AACTGTGTT
TGCCGCCTGGTCCTGGTCGTGCTGAGCCTGTGGCCAGATACAGCTGTCGCCCCTGGGCCACCACCTGGCCCCCCT
CGAGTTTCCCCAGACCCTCGGGCCGAGCTGGACAGCACCGTGCTCCTGACCCGCTCTCTCCTGGCGGACACGCGG
CAGCTGGCTGCACAGCTGAGGGACAAATTCCCAGCTGACGGGGACCACAACCTGGATTCCCTGCCCACCCTGGCC
ATGAGTGCGGGGGCACTGGGAGCTCTACAGCTCCCAGGTGTGCTGACAAGGCTGCGAGCGGACCTACTGTCCTAC
CTGCGGCACGTGCAGTGGCTGCGCCGGGCAGGTGGCTCTTCCCTGAAGACCCTGGAGCCCGAGCTGGGCACCCTG
CAGGCCCGACTGGACCGGCTGCTGCGCCGGCTGCAGCTCCTGATGTCCCGCCTGGCCCTGCCCCAGCCACCCCCG
GACCCGCCGGCGCCCCCGCTGGCGCCCCCCTCCTCAGCCTGGGGGGGCATCAGGGCCGCCCACGCCATCCTGGGG
GGGCTGCACCTGACACTTGACTGGGCCGTGAGGGGACTGCTGCTGCTGAAGACTCGGCTG**TGA**CCCGGGGCCCAA
AGCCACCACCGTCCTTCCAAAGCCAGATCTTATTTATTTATTTATTTCAGTACTGGGGGCGAAACAGCCAGGTGA
TCCCCCCGCCATTATCTCCCCCTAGTTAGAGACAGTCCTTCCGTGAGGCCTGGGGGGCATCTGTGCCTTATTTAT
ACTTATTTATTTCAGGAGCAGGGGTGGGAGGCAGGTGGACTCCTGGGTCCCCGAGGAGGAGGGGACTGGGGTCCC
GGATTCTTGGGTCTCCAAGAAGTCTGTCCACAGACTTCTGCCCTGGCTCTTCCCCATCTAGGCCTGGGCAGGAAC
ATATATTATTTATTTAAGCAATTACTTTTCATGTTGGGGTGGGGACGGAGGGGAAAGGGAAGCCTGGGTTTTTGT
ACAAAAATGTGAGAAACCTTTGTGAGACAGAGAACAGGGAATTAAATGTGTCATACATATCCACTTGAGGGCGAT
TTGTCTGAGAGCTGGGGCTGGATGCTTGGGTAACTGGGGCAGGGCAGGTGGAGGGGAGACCTCCATTCAGGTGGA
GGTCCCGAGTGGGCGGGGCAGCGACTGGGAGATGGGTCGGTCACCCAGACAGCTCTGTGGAGGCAGGGTCTGAGC
CTTGCCTGGGGCCCCGCACTGCATAGGGCCTTTTGTTTGTTTTTTGAGATGGAGTCTCGCTCTGTTGCCTAGGCT
GGAGTGCAGTGAGGCAATCTGAGGTCACTGCAACCTCCACCTCCCGGGTTCAAGCAATTCTCCTGCCTCAGCCTC
CCGATTAGCTGGGATCACAGGTGTGCACCACCATGCCCAGCTAATTATTTATTTCTTTTGTATTTTTAGTAGAGA
CAGGGTTTCACCATGTTGGCCAGGCTGGTTTCGAACTCCTGACCTCAGGTGATCCTCCTGCCTCGGCCTCCCAAA
GTGCTGGGATTACAGGTGTGAGCCACCACACCTGACCCATAGGTCTTCAATAAATATTTAATGGAAGGTTCCACA
AGTCACCCTGTGATCAACAGTACCCGTATGGGACAAAGCTGCAAGGTCAAGATGGTTCATTATGGCTGTGTTCAC
CATAGCAAACTGGAAACAATCTAGATATCCAACAGTGAGGGTTAAGCAACATGGTGCATCTGTGGATAGAACGCC
ACCCAGCCGCCCGGAGCAGGGACTGTCATTCAGGGAGGCTAAGGAGAGAGGCTTGCTTGGGATATAGAAAGATAT
CCTGACATTGGCCAGGCATGGTGGCTCACGCCTGTAATCCTGGCACTTTGGGAGGACGAAGCGAGTGGATCACTG
AAGTCCAAGAGTTCGAGACCGGCCTGCGAGACATGGCAAAACCCTGTCTCAAAAAAGAAAGAATGATGTCCTGAC
ATGAAACAGCAGGCTACAAAACCACTGCATGCTGTGATCCCAATTTTGTGTTTTTCTTTCTATATATGGATTAAA
ACAAAAATCCTAAAGGGAAATACGCCAAAATGTTGACAATGACTGTCTCCAGGTCAAAGGAGAGAGGTGGGATTG
TGGGTGACTTTTAATGTGTATGATTGTCTGTATTTTACAGAATTTCTGCCATGACTGTGTATTTTGCATGACACA
TTTTAAAAATAATAAACACTATTTTTAGAAT

FIGURE 2744

CTCTTTCCGTCTCAGGTCGCCGCTGCGAAGGGAGCCGCCGCC**ATG**TCTGCGCATCTGCAATGGATGGTCGTGCGG
AACTGCTCCAGTTTCCTGATCAAGAGGAATAAGCAGACCTACAGCACTGAGCCCAATAACTTGAAGGCCCGCAAT
TCCTTCCGCTACAACGGACTGATTCACCGCAAGACTGTGGGCGTGGAGCCGGCAGCCGACGGCAAAGGTGTCGTG
GTGGTCATTAAGCGGAGATCCGGCCAGCGGAAGCCTGCCACCTCCTATGTGCGGACCACCATCAACAAGAATGCT
CGCGCCACGCTCAGCAGCATCAGACACATGATCCGCAAGAACAAGTACCGCCCCGACCTGCGCATGGCAGCCATC
CGCAGGGCCAGCGCCATCCTGCGCAGCCAGAAGCCTGTGATGGTGAAGAGGAAGCGGACCCGCCCCACCAAGAGC
TCC**TGA**GCCCCCTGCCCCCAGAGCAATAAAGTCAGCTGGCTTTCTCA

FIGURE 2745

GGCGGACCGAAGAACGCAGGAAGGGGGCCGGGGGGACCCGCCCCCGGCCGGCCGCAGCC**ATG**AACTCCAACGTGG
AGAACCTACCCCCGCACATCATCCGCCTGGTGTACAAGGAGGTGACGACACTGACCGCAGACCCACCCGATGGCA
TCAAGGTCTTTCCCAACGAGGAGGACCTCACCGACCTCCAGGTCACCATCGAGGGCCCTGAGGGGACCCCATATG
CTGGAGGTCTGTTCCGCATGAAACTCCTGCTGGGGAAGGACTTCCCTGCCTCCCCACCCAAGGGCTACTTCCTGA
CCAAGATCTTCCACCCGAACGTGGGCGCCAATGGCGAGATCTGCGTCAACGTGCTCAAGAGGGACTGGACGGCTG
AGCTGGGCATCCGACACGTACTGCTGACCATCAAGTGCCTGCTGATCCACCCTAACCCCGAGTCTGCACTCAACG
AGGAGGCGGGCCGCCTGCTCTTGGAGAACTACGAGGAGTATGCGGCTCGGGCCCGTCTGCTCACAGAGATCCACG
GGGGCGCCGGCGGGCCCAGCGGCAGGGCCGAAGCCGGTCGGGCCCTGGCCAGTGGCACTGAAGCTTCCTCCACCG
ACCCTGGGGCCCCAGGGGGCCCGGGAGGGGCTGAGGGTCCCATGGCCAAGAAGCATGCTGGCGAGCGCGATAAGA
AGCTGGCGGCCAAGAAAAAGACGGACAAGAAGCGGGCGCTGCGGCGGCTG**TAG**TGGGCTCTCTTCCTCCTTCCAC
CGTGACCCCAACCTCTCCTGTCCCCTCCCTCCAACTCTGTCTCTAAGTTATTTAAATTATGGCTGGGGTCGGGGA
GGGTACAGGGGGCACTGGGACCTGGATTTGTTTTTCTAAATAAAGTTGGAAAAGCA

FIGURE 2746

AATTCTTTCATTTCAGAGTTGAGCAAACTGTGTCTCAAGGAGGTGTGCGCTGCAGGTAGCTGATGTGGCCAGGAT
TTGAACCCACATTTTATATTCTTTGCCATTAGATTCCATTTTTCTTATCTCTTATTTCTCAGCGCCAGGTCTCTT
TTTGTTTCTGGGCCTCTTTCTTCCTTGGCCTCCTGCCTCCCTGTCTTCCCATGTTCTTGTATCTGCTGCTGCCTG
TGTTTTTCTCATTGTGTCTCTGCCTAGCTCCCTCTGCCCAGGTTTCTATGTGTCTCTTTCTGTCAGAACTGTCTT
CTATTTCTTCTCAGTCCCCTTCTCTGCATTTGTTACATCATCTCTTCATCTTAATGTATTAGGCTGGGGCTGTTT
TGGGACTCCAGAGAGTTACTTTTTAACTAGCTACATCTGTCTTCAGGTGCCTGGCTTTCTGGCCTGAGGTGGAAG
CAGAGGCCAGCCTCTCTCCGTCATCCCTATCTCCCCTGGGCTTACATCATGGCGGGGCTTTGAAAATCTCCCTCT
GTGGCTTCTTGGAGCCGCATAG**ATG**GGTGATCAGAGCTGGCTCTGGAACCAGGCTGCTCCAGGAGTAAGGAGCCC
AGTCTTTGCATGCAGTGTTGAAAAAGGTAATGTCCCTCTTGTGCTGAGCGAGCACCTGGCACACAGCAGGGACCC
AGGCAGTGGGGCTGTTAGGTTCCTTATCTCTCCTGAGCCTTGGGCTTCCGCTATCCTTGGGACGTCTGGTCTTCT
GGCTTCCCCGGTTCTTCCTGCCGCCCTGGATGCGGTGACCTGCCAGCACCTGCCGCAGCCTTCGTCCGGGAGTCG
CCCCATCTCTCCACGCATCGGGGCCCTGTGCCCCTTGCTGCTGCAGCCGGGCACCATGTCGACCTCGTCCTTGAG
GCGCCAGATGAAGAACATCGTCCACAACTACTCAGAGGCGGAGATCAAGGTTCGAGAGGCCACGAGCAATGACCC
CTGGGGCCCATCCAGCTCCCTCATGTCAGAGATTGCCGACCTCACCTACAACGTTGTCGCCTTCTCGGAGATCAT
GAGCATGATCTGGAAGCGGCTCAATGACCATGGCAAGAACTGGCGTCACGTTTACAAGGCCATGACGCTGATGGA
GTACCTCATCAAGACCGGCTCGGAGCGCGTGTCGCAGCAGTGCAAGGAGAACATGTACGCCGTGCAGACGCTGAA
GGACTTCCAGTACGTGGACCGCGACGGCAAGGACCAGGGCGTGAACGTGCGTGAGAAAGCTAAGCAGCTGGTGGC
CCTGCTGCGCGACGAGGACCGGCTGCGGGAAGAGCGGGCGCACGCGCTCAAGACCAAGGAAAAGCTGGCACAGAC
CGCCACGGCCTCATCAGCAGCTGTGGGCTCAGGCCCCCCTCCCGAGGCGGAGCAGGCGTGGCCGCAGAGCAGCGG
GGAGGAGGAGCTGCAGCTCCAGCTGGCCCTGGCCATGAGCAAGGAGGAGGCCGACCAGCCCCCGTCCTGCGGCCC
CGAGGACGACGCCCAGCTCCAGCTGGCCCTTAGTTTGAGCCGAGAAGAGCATGATAAGGAGGAGCGGATCCGTCG
CGGGGATGACCTGCGGCTGCAGATGGCAATCGAGGAGAGCAAGAGGGAGACTGGGGGCAAGGAGGAGTCGTCCCT
CATGGACCTTGCTGACGTCTTCACGGCCCCAGCTCCTGCCCCGACCACAGACCCCTGGGGGGGCCCAGCACCCAT
GGCTGCTGCCGTCCCCACGGCTGCCCCCACCTCGGACCCCTGGGGCGGCCCCCCTGTCCCTCCAGCTGCTGATCC
CTGGGGAGGTCCAGCCCCCACGCCGGCCTCTGGGGACCCCTGGAGGCCTGCTGCCCCTGCAGGACCCTCAGTTGA
CCCTTGGGGTGGGACCCCAGCCCCTGCAGCTGGGGAGGGGCCCACGCCTGATCCATGGGGAAGTTCCGATGGTGG
GGTCCCGGTCAGTGGGCCCTCAGCCTCCGATCCCTGGACACCGGCCCCGGCCTTCTCAGATCCCTGGGGAGGGTC
ACCTGCCAAGCCCAGCACCAATGGCACAACAGCAGCCGGGGGATTCGACACGGAGCCCGACGAGTTCTCTGACTT
TGACCGACTCCGCACGGCACTGCCGACCTCCGGGAGCAGCGCAGGAGAGCTGGAGCTGCTGGCAGGAGAGGTGCC
GGCCCGAAGCCCTGGGGCGTTTGACATGAGTGGGGTCAGGGGATCTCTGGCTGAGGCTGTGGGCAGCCCCCCACC
TGCAGCCACACCAACTCCCACGCCCCCCACCCGGAAGACGCCGGAGTCATTCCTGGGGCCCAATGCAGCCCTCGT
CGACCTGGACTCGCTGGTGAGCCGGCCGGGCCCCACGCCGCCTGGAGCCAAGGCCTCCAACCCCTTCCTGCCAGG
CGGAGGCCCAGCCACTGGCCCTTCCGTCACCAACCCCTTCCAGCCCGCGCCTCCCGCGACGCTCACCCTGAACCA
GCTCCGTCTCAGTCCTGTGCCTCCCGTCCCTGGAGCGCCACCCACGTACATCTCTCCCCTTGGCGGGGGCCCTGG
CCTGCCCCCCATGATGCCCCCGGGCCCCCCGGCCCCCAACACTAATCCCTTCCTCCTA**TAA**TCCAGGGCGGAAGG
GGGCCTGGCTCCATCCGGCTGCCCCATTCCGGCTCCCTGGGAGATCAGTGTTGTGAGTGCATGTGAAATGG

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FIGURE 2747

GAGGCGAAAGCTGCACAGGGCCCTACGCGGCCGCCTCAGC**ATG**TCGGACTTCGACGAGTTCGAGCGGCAGCTCAA
CGAGAATAAACAAGAGCGGGACAAGGAGAACCGGCATCGGAAGCGCAGCCACAGCCGCTCTCGGAGCCGGGACCG
CAAACGCCGGAGCCGGAGCCGCGACCGGCGCAACCGGGACCAGCGGAGCGCCTCCCGGGACAGGCGACGACGCAG
CAAACCTTTGACCAGAGGCGCTAAAGAGGAGCACGGTGGACTGATTCGTTCCCCCCGCCACGAGAAGAAGAAGAA
GGTCCGTAAATACTGGGACGTGCCACCCCCAGGCTTTGAGCACATCACCCCAATGCAGTACAAGGCCATGCAAGC
TGCGGGTCAGATTCCAGCCACTGCTCTTCTCCCCACCATGACCCCTGACGGTCTGGCTGTGACCCCAACGCCGGT
GCCCGTGGTCGGGAGCCAGATGACCAGACAAGCCCGGCGCCTCTACGTGGGCAACATCCCCTTTGGCATCACTGA
GGAGGCCATGATGGATTTCTTCAACGCCCAGATGCGCCTGGGGGGGCTGACCCAGGCCCCTGGCAACCCAGTGTT
GGCTGTGCAGATTAACCAGGACAAGAATTTTGCCTTTTTGGAGTTCCGCTCAGTGGACGAGACTACCCAGGCTAT
GGCCTTTGATGGCATCATCTTCCAGGGCCAGTCACTAAAGATCCGCAGGCCTCACGACTACCAGCCGCTTCCTGG
CATGTCAGAGAACCCCTCCGTCTATGTGCCTGGGGTTGTGTCCACTGTGGTCCCCGACTCTGCCCACAAGCTGTT
CATCGGGGGCTTACCCAACTACCTGAACGATGACCAGGTCAAAGAGCTGCTGACATCCTTTGGGCCCCTCAAGGC
CTTCAACCTGGTCAAGGACAGTGCCACGGGGCTCTCCAAGGGCTACGCCTTCTGTGAGTACGTGGACATCAACGT
CACGGATCAGGCCATTGCGGGGCTGAACGGCATGCAGCTGGGGGATAAGAAGCTGCTGGTCCAGAGGGCGAGTGT
GGGAGCCAAGAATGCCACGCTGGTGAGCCCCCCGAGCACCATCAATCAGACGCCTGTGACCCTGCAAGTGCCGGG
CTTGATGAGCTCCCAGGTGCAGATGGGCGGCCACCCGACTGAGGTCCTGTGCCTCATGAACATGGTGCTGCCTGA
GGAGCTGCTGGACGACGAGGAGTATGAGGAGATCGTGGAGGACGTGCGGGACGAGTGCAGCAAGTACGGGCTTGT
CAAGTCCATCGAGATCCCCCGGCCTGTGGACGGCGTCGAGGTGCCCGGCTGCGGAAAGATCTTTGTGGAGTTCAC
CTCTGTGTTTGACTGCCAGAAAGCCATGCAGGGCCTGACGGGCCGCAAGTTCGCCAACAGAGTGGTTGTCACAAA
ATACTGTGACCCCGACTCTTATCACCGCCGGGACTTCTGG**TAG**AGGCGGCTGGGGGAGGGTGGGGGCAGGGCTGG
CTGGGGGCTTCTCCCCACTCCCGCCCCCCCCTTATCCCCCTCTGAAGACGATGGGCAGAGGAGTGACAGCCGCAG
ACACACGACAGCCGGCAGCAACTGGAATGGCAGCAATTAAGGGTGGGGGGCGGGGGTTGGGGGGTTGGGGGGTTA
GGGCAGGGAGGGGACTGGGGAAGTGCGCACACAGCCCACACAGACAACACGCAC

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FIGURE 2748

GGGCGGCGGGAGGGGCTGGACCGCGTGGAGGGCCTCAGCCAGCCCTCCGG**ATG**CTGGTGCTGCCATCCCCCTGCC
CTCAGCCTCTGGCATTTTCCTCCGTTGAGACCATGGAGGGCCCTCCCCGTCGGACTTGCCGCTCCCCAGAACCTG
GACCTTCCTCCTCCATCGGATCTCCCCAGGCTTCATCTCCTCCAAGGCCCAACCACTACCTGCTTATTGACACTC
AGGGTGTCCCCTACACAGTGCTGGTGGACGAGGAGTCACAGAGGGAGCCAGGGGCCAGTGGGGCTCCAGGCCAGA
AAAAGTGCTACAGCTGCCCCGTGTGCTCAAGGGTCTTCGAGTACATGTCCTACCTTCAGCGACACAGCATCACCC
ACTCGGAGGTAAAGCCCTTCGAGTGTGACATCTGTGGGAAGGCATTCAAGCGCGCCAGCCACTTGGCACGGCACC
ATTCCATTCACCTGGCGGGTGGTGGGCGGCCCCACGGCTGCCCGCTCTGCCCTCGCCGCTTCCGGGATGCGGGTG
AGCTGGCCCAGCACAGCCGGGTGCACTCTGGGGAACGCCCGTTTCAGTGTCCACACTGCCCTCGCCGCTTTATGG
AGCAGAACACACTGCAGAAACACACGCGGTGGAAGCATCCA**TGA**GCCGGGCTGCCGGGTGCCCCAGGTACCACAG
GACTTTGCAGGGAGCCTGGACTCCTGTCCAGA

FIGURE 2749

GCGCCGGCCCCGTTGCCCCCGCGCGCGCGCACACTCGCGAGCCCCGGCGAC**ATG**CAAATGAGCTGGCTCCAGTGC
CCAGACCCAAGCCCCCCACTGCTCAATGGACACCCCCAGCCCAGACCCGTTGCCTTCGCCTTTGCCCGGGGAGGA
AGAGAAACCTCTGGCCTTATCTCCTCCTGTTCCCCGGGGCCGCCGAGGCCGTCGTCCTGGGGGAGCCACCTCCTC
AAATCGGACACTCAAGGCCTCCCTCCCTCGCAAGCGGGGCCGCCCCCCCCAAGTCAGGGCAGGAGCCCCCACTGGT
GCAGGTGCAGGGGGTGACAGCCCCAGTAGGCAGCAGTGGCGGGAGCGACCTCCTCCTGATCGA**TGA**TCAGGGTGT
GCCCTATACGGTCTCTGAAGGTTCAGCGGCTGGGCCTGAGGGCTCTGGCCCCAGGAAGGCCCCACACTTCTGCCC
GGTGTGCCTGCGGGCCTTCCCCTACCTCTCCGACCTGGAGCGCCACAGCATCTCGCACTCAGAGCTGAAGCCGCA
CCAGTGCAAGGTTTGCGGCAAGACCTTCAAGCGCTCCAGCCACCTGCGGCGGCACTGCAACATCCATGCCGGCCT
GCGGCCCTTCCGCTGCCCGCTGTGCCCCCGCCGCTTCCGCGAGGCGGGCGAGCTGGCGCACCACCACCGCGTGCA
CTCGGGGGAGCGCCCGTACCAGTGCCCCATCTGCCGGCTGCGCTTTACAGAGGCCAACACGCTCCGGCGCCATGC
GAAGCGCAAGCACCCGGAGGCCATGGGGGTACCCCTGTGTGCACCAGATCCAGGGTCTGAACCGCCGTGGGACGA
GGAGGGCATCCCGGC

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FIGURE 2750

GTGGAAGTGACGCTGCCCCCGCTGCCCAAAATGTCGGCGCCCAGAGGGAGGTAGAGAGCCCCCACATACCACTGT
ATTCCCCGCCACC**ATG**GATGACGTCCCCGCCCCAACCCCTGCACCAGCACCGCCCGCCGCTGCCGCCCCCAGGGT
CCCGTTTCACTGCAGTGAATGTGGCAAGAGCTTCCGCTACCGCTCAGACCTGCGGCGCCACTTTGCCCGGCACAC
AGCGCTCAAGCCCCACGCATGTCCGCGCTGCGGCAAGGGTTTCAAGCACAGCTTCAACCTAGCCAACCACCTGCG
CTCGCACACCGGGGAGCGGCCCTACCGCTGCTCTGCCTGCCCCAAGGGGTTCCGCGACTCCACCGGCCTGCTGCA
CCACCAGGTCGTCCACACTGGTGAGAAACCCTACTGCTGCCTGGTCTGCGAGCTCCGCTTCTCCTCACGCTCCAG
CCTGGGCCGCCACCTCAAGCGCCAGCACCGTGGGGTTCTCCCCTCTCCCCTGCAGCCCGGCCCTGGCCTGCCCGC
CTTGAGTGCGCCCTGCTCCGTCTGCTGCAATGTGGGGCCCTGCTCGGTGTGCGGGGGCTCAGGGGCCGGCGGCGG
AGAGGGCCCCGAGGGGGCAGGCGCGGGTCTGGGCAGCTGGGGGCTGGCAGAGGCGGCAGCTGCGGCCGCGGCCTC
CTTGCCCCCATTTGCGTGCGGCGCCTGCGCGCGGCGCTTCGACCACGGCCGCGAGCTGGCGGCCCACTGGGCGGC
GCACACCGACGTGAAGCCCTTCAAGTGCCCGCGCTGCGAGCGCGACTTCAACGCGCCCGCGCTGCTGGAGCGGCA
CAAGCTGACGCACGACCTGCAGGGCCCGGGCGCGCCCCCAGCGCAGGCCTGGGCCGCGGGGCCAGGCGCAGGGCC
CGAGACGGCGGGCGAAGGCACCGCTGCGGAGGCGGGCGACGCTCCTCTGGCTTCGGACCGCAGGCTGCTCCTGGG
CCCCGCGGGGGGCGGCGTGCCCAAGCTCGGGGGGCTGCTCCCCGAGGGCGGTGGGGAGGCGCCTGCACCTGCGGC
GGCCGCCGAGCCCTCGGAAGACACCCTGTACCAGTGCGACTGCGGGACCTTCTTTGCGTCGGCCGCGGCCCTGGC
CAGTCACCTGGAGGCCCACTCGGGCCCGGCCACCTACGGCTGCGGCCACTGCGGGGCTCTGTACGCGGCGCTGGC
CGCCTTGGAGGAGCACCGGCGGGTCAGCCACGGTGAGGGCGGCGGGGAGGAGGCGGCGACCGCCGCCCGGGAAAG
GGAACCGGCGTCCGGGGAACCCCCGTCTGGCTCCGGCCGCGGCAAGAAGATCTTCGGCTGCTCCGAGTGCGAGAA
GCTGTTCCGCTCACCGCGAGACCTGGAGCGGCACGTGCTGGTGCACACTGGCGAGAAGCCGTTCCCGTGCCTGGA
GTGCGGCAAGTTCTTCCGCCACGAGTGCTACCTCAAGCGCCACCGGCTGCTGCACGGCACCGAGCGGCCCTTCCC
TTGCCACATCTGCGGCAAGGGCTTCATCACGCTCAGCAACCTCTCCAGGCACCTGAAGCTGCACCGGGGCATGGA
C**TGA**CTGCCAGGCTGCGTGCGCCCTGCCCTCCACCCAGCCTCCTGGACTCGGCCTGGACCAGGGGACCTCGGGAC
TGCGCGTGAGGCCCCGGCCCTCCAAATCCAAATCCAGACGCAGGCCCTGAAATGAGGGGACCCTGACTGGAGAGG
TGGGGGCCACCAAAAACCCACAAAGGCCCCGGAGCTGGGGGACCACAAACAAACAGGGTCCTTAGCTGGGGCAGG
GGAGCCCAAATCTAGGGAGAGACTCCTGAGCCTGAGGTCCCTGGAATGAGTGTGGGTAGCCGTAAGTCCCCAAGA
CATGGGGACTTTGCAGTGAGCAATGGGTCTCCACAAGTACCTCTCATCTTGAGAGCCCTAATACTAAAAGATGGG
CACCCACCCCCACCAAGGGAAGACTGCCCCATTCCCTGAGAGCCATCATTCCTAACGACCTTGATCTGGAGAATG
TGGAGGGAGCATGTCCCTGAATTTTCCTAGATCCCTCCAAATGCCACCCACCAGAGTCACTGGTGACCCCAGAAA
ATGGATATAGCCGAAATCTGCCTTTCCCCTTTTTCATTCCCTGTGCTGAAAGAGGGACCAGGGTAGATGCCCCCT
GCCCTCGAATCCCCCCTCCCCGACTGTGGAATGGATCGACCCTAACGATCTTCCCCGCCCCAAACACTAGAATAG
ACTGGCCTGAAATCCCCTTGCCCAGTAGAATGGACTGATCTATGTGCACACACCCCCATCACATGGAATGGGCTG
GTCTAGGCTGTGGCCTGCCACCTTCCTTAGAGTGAATAGGGCGGACACTCCTCTCTTTTCCTGTAGCGTGTGGAC
CGGTCCACGCAATTCTTTATCCTGTGAACTCATCTGAGTGGGAGGTGGTGGACACTGGGGTTTCCTTCCCTCTCT
CCGTAGCATCCGTTGGTCTTTCTCTCCATCTCTGTTGGTTTGTCTGTCTCTGTCTTCCTCCCAATCCCTAGGGGA
AGGGGGCATTTGGCTAGGGGGTGCCCCTGTGAGCCTCGACCTTGCCCCCTCGTCCCTCTCCCCAGTGTTTCCAGG
ACCCCCAATAAACCTTGTCCTGTC

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FIGURE 2751

CCTTGTCGAAGGACCAAAGGCGACCGGTGCAGGTGCACGACGCCAGCTCCCTTCTGGGGGGCCGGGGCCTGGGGG
TTGCC**ATG**GCCCCCAGCCACCTGTCAGTGCGGGAGATGAGGGAAGATGAGAAGCCCCTGGTGCTGGAGATGCTGA
AGGCCGGCGTGAAGGACACGGAAAACCGCGTGGCCCTCCATGCCTTGACACGGCCGCCGGCCCTGCTCCTCCTGG
CGGCGGCCAGCAGCGGCCTGCGCTTTGTCCTGGCTTCCTTCGCCCTGGCCCTCCTCCTGCCGGTGTTCCTGGCTG
TGGCCGCCGTGAAGCTGGGCCTGCGGGCCCGATGGGGCTCGCTGCCTCCGCCGGGTGGCCTGGGGGGCCCCTGGG
TGGCCGTGCGGGGCTCCGGTGACGTGTGTGGGGTCCTGGCTCTGGCCCCTGGCACAAATGCAGGGGACGGGGCCC
GGGTCACCCGCCTGTCTGTCTCTCGCTGGCACCGCCGCCGGGGCGTGGGCAGGAGGCTGCTGGCCTTCGCGGAGG
CCCGGGCTCGGGCCTGGGCTGGGGGCATGGGGGAGCCCCGGGCCCGGCTCGTGGTCCCCGTGGCTGTGGCCGCCT
GGGGGGTGGGAGGGATGCTGGAGGGCTGTGGCTACCAGGCCGAGGGGGGCTGGGGCTGCCTGGGCTACACGCTGG
TGAGGGAATTCAGCAAAGACCTG**TGA**AGCTACAGACTGACAGCCAGGGCAGGGGAGGAGGGAGGGGCGCCAGCAC
CTGATGATCGCCTACTGTCTGCGGGTTCTTTTACCTGCTCTCCCTCAGTGAGTCCTCAACCACCCTGGGCCCAGA
AACAGAGGCCTGCCGAGGGGAGGAGCCTGGCCTCTGTCCACCCGTCAGCAGTGTGAAGTCTGTTGTGTTTGAGCT
TCTCAGAGTGGAATGACTCCTTTTCCTTCCTGGCCCTCGGGGGCCTCTCGAGGTCAGCCTCTCCAACCCCTACCT
CAGCTCCTGTCTGCACTGAGAAACCTCCCCGGGTGATGTCTGCAAAGTCTGTGCTGTCCGTGCCCCAGGCTGGGA
GAGCTATCTGGGGAGGGGGAGAGGAGGCCGAGCAGAATACACCCCAGAGTTAGGGTTTGCGACTCCGCCTCCCTG
GGACCTGGATTGGGTCAGATGCCTGTCCTTGGAGGGGACAAGGTTGACTGCTTAGGAGGCGCGACGCACAGGGCT
GCCAGGCCTGGCCCCTCTCTGGGAAGGTTGAGAGCTGAGACGGGCAGCCCTGTCCCTTCCTCCAGATCCGTCTGG
TTTTTTACACCGTTTGTTAATAAAGCCTGAAACCGC

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FIGURE 2752

ACCAGCGCGTGCACACGGGCGAGCGGCCCTTCCGCTGCCCGCTCTGCCCCAAGACCTTCACCCACTCCTCCAACC
TGCTGCTGCGCGGGCCCCGCCAGCCACCCAAGATGTCCACGTCCTGCCCCACCTCCAGGCCACGCTCTCCCTCGA
GGTGGCGGGGGGCACGGCCCAGGCCCCGAGCTTGGGGCCAGCAGCGCCCAACTCTCAGACGTTCCTCCTGGTGCA
AACTGCCCAGGGCCTCCAGCTGATCCCCAGCAGCGTGCAGCCCCCTACACCTCCGCCCCCTCCCGCACCTCCCAA
GCTCATCCTGCTGCCCTCCTCCAGTGCTGGGGCTGGGGGCGGCCGTGCAAGGCAGGGCCCGCGGGCAGTGGGGAA
AGCGGGCCAGGGGGCGGGAGTGGTCTGGCTGCCAGGCCCTGGGGGTCTAGGGGTGCAGGGAGCGGCCAGCGCTGG
GGCCAGCGGGACAGGGCAGAGCCTCATCGTTCTGCAGAATGTGGGGGGTGGGGAGGCAGGGCCACAGGAAATGAG
TGGGGTGCAGCTCCAGCCCCTCCGACCAGCCCCAGAAGTAACCACGGTCCAGCTCCAGCCAGCGCAGGAGGTGAC
CACAGTCCAGCTCCAGCCAGCACAGGAAGTAACCACGGTCCAGCTCCAGCCAGCACAGGAGGTGACCACGGTCCA
GCTCCAGCCCGTGGCCGGCCAGCTCTCCAATTCCAGTGGGGGAGCTGTGGCTACTGAGGCACCCAACCTGCTGGT
TGTTCAGAGCGGGGCAGCTGAGGAGTTGCTCACTGGCCCGGGCCCCGGGGAGGCGGGGGATGGCGAGGCCAGCAC
TGGTGTGGTCCAGGATGTCCTCTTTGAGACACTCCAGACGGACGAGGGCTTGCAGAGCGTGCTGGTGCTGAGCGG
GGCCGATGGCGAACAGACTCGACTCTGCGTACAGGAGGTAGAAACACTTCCTCCTGGGCTGACGGAGCCGCCTGC
CACCGGCCCACCCGGACAGAAACTCCTCATCATCCGCAGCGCCCCAGCCACTGAGCTGCTGGACAGCAGCAACAC
TGGAGGAGGCACCGCCACGCTGCAGCTCCTGGCCCCACCGCCGTCAGGCCCAGCCTCGGGCCCCGCGGGGCTCCC
CGGGGCTCCAGCCTCCCAGATGGTGCAAGTGGTCCCCGCAGGAGCTGGGCCTGGTGTTATGACCCCTCAGGGCCT
GCCCTCCATCCAGATTGTCCAGACTCTACCCGCAGTCCAGCTGGTGCACACGTTTTGAGGAGAGGCAGTGATTCC
CCTCCCGCCCCGCACAGAGACCCCGACTCACTGCCAGCCGGGGCGGGGCAGGGTGCCGCAGGCTGGGCTTGCTAA
TAAAGACCCGAGTCTCCCCGCC

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FIGURE 2753

CCTAACGAAACGGTAACCAGCCCTGGGAAGCCCGCAAGAGGCCTCAGCGGTGGCCGTCCGAGAGCCGAGAGGTGA
GGGTGCCCCCGCCTCACCTGCAGAGGGGCCGTTCCGGGCTCGAACCCGGCACCTTCCGGAAA**ATG**GCGGCTGCCA
GGCCCAGCCTGGGCCGAGTCCTCCCAGGATCCTCTGTCCTGTTCCTGTGTGACATGCAGGAGAAGTTCCGCCACA
ACATCGCCTACTTCCCACAGATCGTCTCAGTGGCTGCCCGCATGCTCAAGGTGGCCCGGCTGCTTGAGGTGCCAG
TCATGCTGACGGAGCAGTACCCACAAGGCCTGGGCCCCACGGTGCCCGAGCTGGGGACTGAGGGCCTTCGGCCGC
TGGCCAAGACCTGCTTCAGCATGGTGCCTGCCCTGCAGCAGGAGCTGGACAGTCGGCCCCAGCTGCGCTCTGTGC
TGCTCTGTGGCATTGAGGCACAGGCCTGCATCTTGGACCCCCGTTCTTATCCGGGGTTGGCCCTGACCTCTCTCT
ACCCACAGAACACGACCCTGGACCTCCTAGACCGGGGGCTGCAGGTCCATGTGGTGGTGGACGCCTGCTCCTCAC
GCAGCCAGGTGGACCGGCTGGTGGCTCTGGCCCGCATGAGACAGAGTGGTGCCTTCCTCTCCACCAGCGAAGGGC
TCATTCTGCAGCTTGTGGGCGATGCCGTCCACCCCCAGTTCAAGGAGATCCAGAAACTCATCAAGGAGCCCGCCC
CAGACAGCGGACTGCTGGGCCTCTTCCAAGGCCAGAACTCCCTCCTCCAC**TGA**ACTCCAACCCTGCCTTGAGGGA
AGACCACCCTCCTGTCACCCGGACCTCAGTGGAAGCCCGTTCCCCCCATCCCTGGATCCCAAGAGTGGTGCGATC
CACCAGGAGTGCCGCCCCCTTGTGGGGGGGGGCAGGGTGCTGCCTTCCCATTGGACAGCTGCTCCCGGAAATGCA
AATGAGACTCCTGGAAACTGGGTGGGAATTGGCTGAGCCAAGATGGAGGCGGGGCTCGGCCCCGGGCCACTTCAC
GGGGCGGGAAGGGGAGGGGAAGAAGAGTCTCAGACTGTGGGACACGGACTCGCAGAATAAACATATATGTGGC

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FIGURE 2754

CTTCGCGGCCGAGATGGACCCTGGGCTCGGCGTCCTCCGGAAAACTGCACTGTGAGGCGGGGCGATGGGGAAGGG
CCGAAGCCCCGCCAGCCCAGCTAAAGCAGACGGCTCGCACTGCGACCCGAAGCGCGAGTCATGGCTGGGGCCTTA
GTGGCAACAAGTGCTGAGATCAGCGGGCTCAGTAGCAGGAACACAAGCACCCCCTTGCGGTGTCTGGAGGAAGCG
GCGCGGACAGTCTCCCGCTCCACCGTGTCGGGCCTGAAGAGGCCGCTGAACGCTCGCGATTACTGAGGCATCTGG
TAGGATCGCAAGGCCATCAACCTACAGGTGAAGCTCGAGGCGCTGTGGCGCTTTGAAGCCGGAGAGAAGCTCAGT
AGAATCGGGAAGGCGCTGGGGCTGTCCAACTCCACCTTGGCCACCATTCGTGACAACAAGGAAAAGATCTGGGCG
AGTTCCCAGGAGGCCACACTGCAGGCGGCCACCAAGTTGACGCGTGGCCGCAGCCTGGTGATGGAGAACATGGAG
CAGCTGCTGAGCATGCGGATGGAGGACCAGAGCCAGCGCAACATGCCCCTCAGTGTGGTGCTCATTCGGGAGAAA
GCCCACAGCCCGTTCGAGAACCGCAAGCAGGAGCAGGGCGAGGGCGCCTAGCCCGAGAGCTTCGGGGCCGGTCGA
GGGTGATTCGCTGGCTTTAAGGCGCGCCACAGCTTGAGCAGCATCGGGGCCAGCGGCCCAAGAACGCAGCGTGCA
AGAATCCAGCGTTAATGCGCAGGGTGATCCCGGAGGGCGGCTACACACTCTGGCTGGTGTTCACCATGAATAAGC
TCTGGCTGGTGTTCACCATGAATAAGCCCAGGTTCCTCTGTAAGCGCCTGCCGAGAGGACGTTCATTTTCCTGTG
GAAG**ATG**AGTCGGCCCCTGGGTCAAAGCCGCCGGAGACCTCCTGACCCTATTGCTCGGTGGCAACGCAGCCGGCG
ACTTCAAGCTGAAGGCCCTGCTGGGGTACCCCTCGGAGAACCCGTGTTTCCTCAAGGGCTCCTTCAAGCCCAACC
TGCCCTTGGTGTGGTGCTCGCACAAGAAAGCCTGGGTACAGCCTGGGTGACAGAGCGAGACTCCGTCTCAAAAAA
AAAAAAAAAAGCCTGGGTAACCATGAGCCTCTTCCAGGAGTGGTTCCTGCACTTCTGCTCTACAGTGGAGGGCGC
TGCACCCAGTACGACCTTCCCTACAAGGGGCTGCCCATCCTGGACAGCACTCCCGGCCACCCTGGGTGTTGAGAC
AGAGTCTGGCTCTGTCGCGCAGGCTGGAGTGCGGTGGCGCGATCTCGGCTCACTGCAACCTCCGCCTCCCGGGTT
CACGCCATTCTCCTGCCTCAGCCTCCCAGGTAGCTGGGACTACAGGCGCCCGCCACCACGCCCGGCTAATTTTTT
TGTATTTTTAGTAGAGACGGGGTTTCACCGTGTTAGCCAGAATGGTCTCGGTCTCCTGACCCCA**TGA**TCCACCCG
CCTTGGCGTCCCAAAGTGCTGGGATTACAGGCGTGAGCCATGGTGCCTGGCCCTTTAATTCCCCCAATATTTTTT
TATCTGCATTAATTTATTATTTCAAGTGAACTTCCATCTCAAATACATGGTTCTCAGACGCTTC

FIGURE 2755

CAATACATAGGAACACTTGGGTCCCTGCAGTCAGGGTGTGGAAATGGCAGATGAGTTCAGCCCTAAGGTGCATTT
TTCTTACTAGGAGGAGATGGAGTGTATTTTATGGGATATAAGCATTAGCTACATTTCCTGTCCTGTTCACATCCT
TTGCCCATGTGTCTATGAGGTTATTGATCTTTCTTACTGATTTATTGTAGCTCTTTACTTAGGAGGTTAATTAGC
CTTTTGCCTGTGGAGAGTTTTTTGGTTTGCCATTTGTCCTTTTTTAATTTTTTTTGTTTTTTGGCCATTTGTCTT
TTGACTCTGATGTGGTTTTTGCTGATTTCCTTTGATGTATTCTAGTTTATCTGACTTTTCTTTGGCGACTTATGG
ACTTTCTCTCACCACTAAAAGCCCTCACTGCTCTCTCAGTCTTCTTGATTTAACCTCCTCCAGGCTTCCGCCTTC
TCCAGGCCCTGATTCTCAGTTGGAGTTGCTGGTGCCTCCTCCTTCACCCAGCGTCTGACGCTGGAGTGCTCACAG
TGTGGCTGGGACCCACTTCTCTCCTCTGTAGATACCCACCCCTGTGTTGATCACTTGCAGGCCCGGGTTCTGTGT
GCCATGTGTATGCCCTAGAGCCCTTGCTCACGTTTCCCCACAGCCTTCATGAAGTCTGTGTTCCTCAGATGCCCC
ACAGACATCACAAGCAAGGCACATCCAAACCCCAGACCACTATCCAGGAGCCTGCACCCTCTTTCTGTTGGCTCC
ACCTCCAGCCTCCGAGACCCACCCACTTCCCTGCATTTGCTGAGACCATCATTTTCCACCTAGACAATGCCCCCA
CGCTTGCCCTACAGCCCTTCCAAAAACGATTTTTTCCAACCTAAATCAGACCTAGAAAGCTTTTTCACATAGCCC
AGTCTTCCTCCTTGTGCTGGGTTCTGTCTCATTATCACCTCATCAGGGAAGTCTGTACAGATAGAATCCCTACCC
CTGCATTTGTCGCCTCCGTCTGCCTCTTTGGTCAGTTTCAGGTCCCTGTAGTTCACACTGTGTCCCCAGGGATGA
AGTGGGTCCCGGCACGGTGGGCATTCTGTCATGA**ATG**AATGGTCCCCTTGTGTATGCAGGGTTCGCGCTGCAGCT
AGGCAGCATCTCCGCAGGTCCAGGTAGTGTAAGCCCTCACCTCCACGTCCCCTGGGACCTCGGCATGGCTGGCCT
TTCTGGCCAGATCCAATCACCCTCCCGCGAAGGTGGCTTTGCGCATGCGCTTCTGCTCCCCAGCGATCTGAGGAG
TGAACAGGACCCCACGGACGAGGATCCCTGCCGGGGTGTGGGCCCTGCTCTGATCACCACCCGCTGGCGCTCCCC
CAGGGGCCGGAGCCGGGGCCGCCCCAGCACTGGGGGCGGGGTGGTTAGGGGCGGCCGTTGCGATGTATGTGGCAA
GGTGTTCAGCCAACGCAGCAACCTGCTGAGGCACCAGAAGATCCACACGGGTGAGCGACCATTCGTGTGCAGCGA
GTGCGGCCGCAGCTTCAGCCGCAGCTCGCACCTGCTGCGCCACCAGCTTACGCACACCGAGGAGCGGCCGTTCGT
GTGCGGCGACTGTGGCCAGGGCTTCGTGCGCAGCGCGCGCCTGGAAGAGCATCGGAGAGTGCACACGGGCGAACA
GCCTTTCCGTTGCGCTGAGTGCGGCCAGAGCTTCCGGCAGCGCTCCAATCTGCTGCAGCACCAGCGCATCCACGG
CGATCCCCCGGGCCCTGGCGCTAAGCCCCCGGCCCCTCCTGGTGCGCCCGAGCCTCCCGGCCCCTTTCCGTGCAG
CGAGTGCCGCGAGAGCTTCGCGCGGCGCGCCGTGCTGCTGGAGCACCAGGCGGTACACACGGGCGACAAGTCCTT
TGGCTGCGTCGAGTGCGGCGAGCGCTTCGGCCGCCGCTCAGTGCTGCTGCAGCACCGGCGCGTGCACAGTGGCGA
GCGGCCCTTCGCCTGTGCCGAGTGCGGCCAGAGCTTCCGGCAGCGCTCCAACCTGACGCAGCACCGGCGCATCCA
CACCGGGGAGCGGCCCTTCGCCTGCGCCGAGTGTGGCAAGGCCTTCCGCCAGCGGCCTACGCTCACGCAGCATCT
CCGCGTACACACGGGCGAGAAACCCTTTGCCTGCCCCGAGTGTGGCCAGCGCTTCAGCCAGCGCCTCAAGCTCAC
GCGTCATCAGAGGACACACACCGGCGAAAAGCCCTACCACTGCGGTGAGTGCGGCCTGGGCTTCACGCAGGTCTC
GCGGCTCACCGAGCACCAGCGCATCCACACGGGCGAACGGCCCTTCGCCTGCCCCGAGTGCGGCCAGAGCTTTCG
GCAGCACGCCAACCTCACCCAGCACCGGCGCATCCACACGGGTGAACGGCCCTACGCATGCCCTGAGTGTGGCAA
GGCCTTCCGCCAGCGGCCCACGCTCACGCAGCATCTGCGCACCCACCGACGAGAGAAGCCCTTCGCCTGCCAGGA
CTGTGGCCGCCGCTTCCACCAGAGCACCAAGCTCATTCAGCACCAGCGCGTCCACAGCGCCGAG**TAG**CTCCAGCC
GGGACGCACTGTGTCCGCCATGGTCAGAACACCTACCTCCCCTGGTTATTGTGAGGCTGGCGATTACATAAGTAT
AAGCAGGTCCGCCCAGGGCTTGGCTACTGTAGGTGTCCAATAAACAGTAGATGGAAAC

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FIGURE 2756

AGG**ATG**ATCAAGCTGTTCTCGCTGAAGCAGCAGAAGAAGGAGGAGGAGTCGGCGGGCGGCACCAAGGGCAGCAGC
AAGAAGGCGTCGGCGGCGCAGCTGCGGATCCAGAAGGACATAAACGAGCTGAACCTGCCCAAGACGTGTGATATC
AGCTTCTCAGATCCAGACGACCTCCTCAACTTCAAGCTGGTCATCTGTCCTGATGAGGGCTTCTACAAGAGTGGG
AAGTTTGTGTTCAGTTTTAAGGTGGGCCAGGGTTACCCGCATGATCCCCCCAAGGTGAAGTGTGAGACAATGGTC
TATCACCCCAACATTGACCTCGAGGGCAACGTCTGCCTCAACATCCTCAGAGAGGACTGGAAGCCAGTCCTTACG
ATAAACTCCATAATTTATGGCCTGCAGTATCTCTTCTTGGAGCCCAACCCCGAGGACCCACTGAACAAGGAGGCC
GCAGAGGTCCTGCAGAACAACCGGCGGCTGTTTGAGCAGAACGTGCAGCGCTCCATGCGGGGTGGCTACATCGGC
TCCACCTACTTTGAGCGCTGCCTGAAA**TAG**GGTTGGCGCATACCCACCCCCGCCACGGCCACAAGCCCTGGCATC
CCCTGCAAATATTTATTGGGGGCCATGGGTAGGGGTTTGGGGGGCGGCCGGTGGGGGAATCCCCTGCCTTGGCCT
TGCCTCCCCTTCCTGCCACGTGCCCCTAGTTATTTTTTTTTTGGGGAATGTTACTGC

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FIGURE 2757

CGGCGGCGGCGACAGGACCGAGGGGCCTTAGTTGGTGGGCAAGTCGGGGATCCCAGAAAGAGAAGCGTGACCCGG
AAGCGGAAACGGGTGTCCGTCCCAGCTCCGGCCTGCCAGTGAGCTTCTACCATC**ATG**GACCTATTGTTCGGGCGC
CGGAAGACGCCAGAGGAGCTACTGCGGCAGAACCAGAGGGCCCTGAACCGTGCCATGCGGGAGCTGGACCGCGAG
CGACAGAAACTAGAGACCCAGGAGAAGAAAATCATTGCAGACATTAAGAAGATGGCCAAGCAAGGCCAGATGGAT
GCTGTTCGCATCATGGCAAAAGACTTGGTGCGCACCCGGCGCTATGTGCGCAAGTTTGTATTGATGCGGGCCAAC
ATCCAGGCTGTGTCCCTCAAGATCCAGACACTCAAGTCCAACAACTCGATGGCACAAGCCATGAAGGGTGTCACC
AAGGCCATGGGCACCATGAACAGACAGCTGAAGTTGCCCCAGATCCAGAAGATCATGATGGAGTTTGAGCGGCAG
GCAGAGATCATGGATATGAAGGAGGAGATGATGAATGATGCCATTGATGATGCCATGGGTGATGAGGAAGATGAA
GAGGAGAGTGATGCTGTGGTGTCCCAGGTTCTGGATGAGCTGGGACTTAGCCTAACAGATGAGCTGTCGAACCTC
CCCTCAACTGGGGGCTCGCTTAGTGTGGCTGCTGGTGGGAAAAAAGCAGAGGCCGCAGCCTCAGCCCTAGCTGAT
GCTGATGCAGACCTGGAGGAACGGCTTAAGAACCTGCGGAGGGAC**TGA**GTGCCCCTGCCACTCCGAGATAACCAG
TGGATGCCCAGGATCTTTTACCACAACCCCTCTGTAATAAAAGAGATTTGACACT

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FIGURE 2758

GGCGCGCGGGCGAGCGGTTGTGCTTGTGCTTGTGGCGCGTGGTGCGGGTTTCGGCGGCGGCTGAGGAAGAAGCGC
GGGCGGCGCCTTCGGGAGGCGAGCAGGCAGCAGTTGGCCGTGCCGTAGCAGCGTCCCGCGCGCGGCGGGCAGCGG
CCCAGGAGGCGCGTGGCGGCGCTCGGCCTCGCGGCGGCGGCGGCGGCAGCGGCCCAGCAGTTGGCGGCGAGCGCG
TCTGCGCCTGCGCGGCGGGCCCCGCGCCCCTCCTCCCCCCCTGGGCGCCCCCGGCGGCGTGTGA**ATG**GCGGCCTC
CGCGGCGGCAGCCTCGGCAGCAGCGGCCTCGGCCGCCTCTGGCAGCCCGGGCCCGGGCGAGGGCTCCGCTGGCGG
CGAAAAGCGCTCCACCGCCCCTTCGGCCGCAGCCTCGGCCTCTGCCTCAGCCGCGGCGTCGTCGCCCGCGGGGGG
CGGCGCCGAGGCGCTGGAGCTGCTGGAGCACTGCGGCGTGTGCAGAGAGCGCCTGCGACCCGAGAGGGAGCCCCG
CCTGCTGCCCTGTTTGCACTCGGCCTGTAGTGCCTGCTTAGGGCCCGCGGCCCCCGCCGCCGCCAACAGCTCGGG
GGACGGCGGGGCGGCGGGCGACGGCACCGTGGTGGACTGTCCCGTGTGCAAGCAACAGTGCTTCTCCAAAGACAT
CGTGGAGAATTATTTCATGCGTGATAGTGGCAGCAAGGCTGCCACCGACGCCCAGGATGCGAACCAGTGCTGCAC
TAGCTGTGAGGATAATGCCCCAGCCACCAGCTACTGTGTGGAGTGCTCGGAGCCTCTGTGTGAGACCTGTGTAGA
GGCGCACCAGCGGGTGAAGTACACCAAGGACCATACTGTGCGCTCTACTGGGCCAGCCAAGTCTCGGGATGGTGA
ACGTACTGTCTATTGCAACGTACACAAGCATGAACCCCTTGTGCTGTTTTGTGAGAGCTGTGATACTCTCACCTG
CCGAGACTGCCAGCTCAATGCCCACAAGGACCACCAGTACCAGTTCTTAGAGGATGCAGTGAGGAACCAGCGCAA
GCTCCTGGCCTCACTGGTGAAGCGCCTTGGGGACAAACATGCAACATTGCAGAAGAGCACCAAGGAGGTTCGCAG
CTCAATCCGCCAGGTGTCTGACGTACAGAAGCGTGTGCAAGTGGATGTCAAGATGGCCATCCTGCAGATCATGAA
GGAGCTGAATAAGCGGGGCCGTGTGCTGGTCAATGATGCCCAGAAGGTGACTGAGGGGCAGCAGGAGCGCCTGGA
GCGGCAGCACTGGACCATGACCAAGATCCAGAAGCACCAGGAGCACATTCTGCGCTTTGCCTCTTGGGCTCTGGA
GAGTGACAACAACACAGCCCTTTTGCTTTCTAAGAAGTTGATCTACTTCCAGCTGCACCGGGCCCTCAAGATGAT
TGTGGATCCCGTGGAGCCACATGGCGAGATGAAGTTTCAGTGGGACCTCAATGCCTGGACCAAGAGTGCCGAGGC
CTTTGGCAAGATTGTGGCAGAGCGTCCTGGCACTAACTCAACAGGCCCTGCACCCATGGCCCCTCCAAGAGCCCC
AGGGCCCCTGAGCAAGCAGGGCTCTGGCAGCAGCCAGCCCATGGAGGTGCAGGAAGGCTATGGCTTTGGGTCAGG
AGATGATCCCTACTCAAGTGCAGAGCCCCATGTGTCAGGTGTGAAACGGTCCCGCTCAGGTGAGGGCGAGGTGAG
CGGCCTTATGCGCAAGGTGCCACGAGTGAGCCTTGAACGCCTGGACCTGGACCTCACAGCTGACAGCCAGCCACC
CGTCTTCAAGGTCTTCCCAGGCAGTACCACTGAGGACTACAACCTTATTGTTATTGAACGTGGCGCTGCCGCTGC
AGCTACCGGCCAGCCAGGGACTGCGCCTGCAGGAACCCCTGGTGCCCCACCCCTGGCTGGCATGGCCATTGTCAA
GGAGGAGGAGACGGAGGCTGCCATTGGAGCCCCTCCTACTGCCACTGAGGGCCCTGAGACCAAACCTGTGCTTAT
GGCTCTTGCGGAGGGTCCTGGTGCTGAGGGTCCCCGCCTGGCCTCACCTAGTGGCAGCACCAGCTCAGGGCTGGA
GGTGGTGGCTCCTGAGGGTACCTCAGCCCCAGGTGGTGGCCCGGGAACCCTGGATGACAGTGCCACCATTTGCCG
TGTCTGCCAGAAGCCAGGCGATCTGGTTATGTGCAACCAGTGTGAGTTTTGTTTCCACCTGGACTGTCACCTGCC
GGCCCTGCAGGATGTACCAGGGGAGGAGTGGAGCTGCTCACTCTGCCATGTGCTCCCTGACCTGAAGGAGGAGGA
TGGCAGCCTCAGCCTGGATGGTGCAGACAGCACTGGCGTGGTGGCCAAGCTCTCACCAGCCAACCAGCGGAAATG
TGAGCGTGTACTGCTGGCCCTATTCTGTCACGAACCCTGCCGCCCCCTGCATCAGCTGGCTACCGACTCCACCTT
CTCCCTGGACCAGCCCGGTGGCACCCTGGATCTGACCCTGATCCGTGCCCGCCTCCAGGAGAAGTTGTCACCTCC
CTACAGCTCCCCACAGGAGTTTGCCCAGGATGTGGGCCGCATGTTCAAGCAATTCAACAAGTTAACTGAGGACAA
GGCAGACGTGCAGTCCATCATCGGCCTGCAGCGCTTCTTCGAGACGCGCATGAACGAGGCCTTCGGTGACACCAA
GTTCTCTGCTGTGCTGGTGGAGCCCCCGCCGATGAGCCTGCCTGGTGCTGGCCTGAGTTCCCAGGAGCTGTCTGG
TGGCCCTGGTGATGGCCCC**TGA**GGCTGGAGCCCCCATGGCCAGCCCAGCCTGGCTCTGTTCTCTGTCCTGTCACC
CCATCCCCACTCCCCTGGTGGCCTGACTCCCACTCCCTGGTGGCCCCATCCCCCAGTTCCTCACGATATGGTTTT
TACTTCTGTGGATTTAATAAAAACTTCACCAGTT

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FIGURE 2759

GTGAGGGGGCTTGGGGGGCCTCGCCTGAGAGAGTGAGGACAGGCTGCGGGAGGAGCTGCAGGACTGAGGTACAGA
GGCCAGGGGCCCAGGGCAGGACCCAGCCTGGACTTGACTCCCTGGGATCCCAGGAAGGGCACACCCTTTCCTCAC
CACCCGAGTGAGCGCTGCCCCCTCACAGAGACCTCTTTGCCCCCTGGGCCAGGCAGAGCAGGCGCTGCGGTCCGG
GAGGCCCC**ATG**GAGGTGGCGGTGCCCGTGAAGCAGGAGGCCGAGGGCCTGGCGCTGGACTCCCCGTGGCACCGCT
TCCGCCGCTTCCACCTGGGCGACGCGCCGGGCCCGCGGGAGGCGCTGGGGCTGCTCCGCGCCCTGTGCCGGGACT
GGCTGCGGCCCGAGGTGCACACCAAGGAGCAGATGTTGGAGCTGCTGGTGCTGGAACAGTTCCTGAGCGCGCTGC
CCGCCGACACGCAGGCCTGGGTGTGCAGCCGGCAGCCGCAGAGCGGGGAGGAGGCGGTGGCCCTGCTGGAGGAGC
TCTGGGGGCCAGCAGCCTCCCCCGATGGGTCGTCAGCAACGAGGGTGCCTCAGGATGTGACGCAGGGCCCTGGGG
CCACAGGTGGAAAGGAGGACAGTGGGATGATTCCCTTAGGCACCGCCCCTGGGGCTGAGGGGCCGGCGCCTGGGG
ACTCCCAGGCTGTGCGCCCCTACAAGCAGGAGCCCAGCAGCCCCCCGCTGGCGCCTGGCCTGCCCGCCTTCCTAG
CGGCCCCGGGCACCACGTCCTGCCCCGAGTGCGGCAAAACGTCCCTGAAACCAGCTCACCTGCTGCGCCACCGGC
AGAGCCACTCGGGCGAGAAGCCGCACGCCTGCCCTGAGTGCGGGAAGGCCTTTCGGCGCAAGGAGCACCTGCGGC
GCCACCGCGACACGCACCCCGGCAGCCCCGGCAGCCCCGGGCCCGCGCTGCGCCCTCTGCCCGCCCGTGAGAAGC
CCCACGCGTGCTGCGAGTGTGGCAAGACCTTCTACTGGCGCGAGCACCTGGTGCGCCACCGCAAGACGCACTCGG
GAGCGCGGCCCTTTGCCTGCTGGGAGTGTGGCAAGGGCTTCGGGCGCCGCGAGCACGTGCTGCGCCACCAGCGCA
TCCACGGCCGGGCAGCGGCCAGCGCGCAGGGGGCGGTAGCTCCGGGCCCGGATGGTGGAGGCCCCTTCCCGCCCT
GGCCCTTGGGT**TAG**CCGCCTCCCGGCCAGCGCCATCTCCCGCCCTTGGTGCTGCCCCCGGGCGGTACCTGCTCTC
TCCCAGCGCCACTTGGCCTCTTCCTCTCCTCCTTCCCTCCCATCGTCCTCCTCCACCTGCGCCTCCCTTGTCTGA
ACTTCCCAACGCCTTCCTATTCCTTTCCAACTCCTTTTCCCCCAAATTTCACTTTCCTTCTCAGGTCTCACCTCA
GCCCCCCCCTTCTCCCTGATTTCTCGGCCTCTCTCTCTGTGTGAAGGGGCCTCTCCCTAATGTCTCCTCCTTCCC
CCCTCTTCTCTCTCCTGCGGCCCAGCCTCCCTCTCCCTCCTCCATTCCTCTCTCCCTGCCCTTTTCCTGCCTGAA
GAGCAGAGGTGAGGACCTGGGACCCCTGAGGGGCAGGCCAGGAGGAGCTCGGGCGCAGGCCAGGCCCCCTTGGTG
AAGCAGAGGCTGAAGGAAAGGGGTCTGGGTCTTGTCCCTAGGAATTCTCCTCCCTCAGGAGATTGGGGGTTGGGG
GAGGCAGCGGGTGATGGCTCTGAAGCTGAACCCAGGGCCTGGCTGTGGTCTTCTTGGTCTTGCTGCCCCCTGTGA
CCCAAAGGCATGGGATGGACAGAGATGCCTGCCCCCGTGAAGCTGGTTGGGGAGGGCAGTTCACCAGCATCCATA
GAGTAATAAAGTCACTGTGTGTAGACCCGGA

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FIGURE 2760

CTCCAGGGCTAGTGAGCTGGACCGGAAGTAGGTTTCTACCCGACCGCATTTTACGTGGTGCTGCATTTCCGGTAG
CGGCGGCGGGAAATCGGCTGTGGGAGAGAGGCTAGGCCTCTGAGGAGGCGAATCCGGCGGGTATCAGAGCCATCA
GAACCGCCACC**ATG**ACGGTGGGCAAGAGCAGCAAGATGCTGCAGCATATTGATTACAGGATGAGGTGCATCCTGC
AGGACGGCCGGATCTTCATTGGCACCTTCAAGGCTTTTGACAAGCACATGAATTTGATCCTCTGTGACTGTGATG
AGTTCAGAAAGATCAAGCCAAAGAACTCCAAACAAGCAGAAAGGGAAGAGAAGCGAGTCCTCGGTCTGGTGCTGC
TGCGAGGGGAGAATCTGGTCTCAATGACAGTAGAGGGACCTCCTCCCAAAGATACTGGTATTGCTCGAGTTCCAC
TTGCTGGAGCTGCCGGGGGCCCAGGGATCGGCAGGGCTGCTGGCAGAGGAATCCCAGCTGGGGTTCCCATGCCCC
AGGCTCCTGCAGGACTTGCTGGGCCAGTCCGTGGGGTTGGCGGGCCATCCCAACAGGTGATGACCCCACAAGGAA
GAGGTACTGTTGCAGCCGCTGCAGCTGCTGCCACAGCCAGTATTGCCGGGGCTCCAACCCAGTACCCACCTGGCC
GTGGGGGTCCTCCCCCACCTATGGGCCGAGGAGCACCCCCTCCAGGCATGATGGGCCCACCTCCTGGTATGAGAC
CTCCTATGGGTCCCCCAATGGGGATCCCCCCTGGAAGAGGGACTCCAATGGGCATGCCCCCTCCGGGAATGCGGC
CTCCTCCCCCTGGGATGCGAGGCCTTCTT**TGA**CCCTTGGCCACAGAGTATGGAAGTAGCTCCGCAGAGGCGTGGG
CTCGATTCCTCAGGGCCACGTTACCACAGACCTGTTTGTTTCTTATGCTGTTGTTCGTGGAGTCTCATGGGATTG
TCTGGTTTCCCTTACAGGGCCCCCTCCCCCGGGAATGCGCCCACCAAGGCCCTAGACTCATCTTGGCCCTCCTCA
GCTCCCTGCCTGTTTCCCGTAAGGCTGTACATAGTCCTTTTATCTCCTTGTGGCCTATGAAACTGGTTTATAATA
AACTCTTAAG

FIGURE 2761

GCATATCCAGGCTCTCCAGGGTCACCAGCTGTGCTCCACACACAGGGAAGATTGATGGTGGCTTGCTATACATTA
ATTTACTGGTTGTTTGTAGGTACCAGTTACATTCAGGGATGTGACTGTGATCTTCACAGAAGCAGAATGGAAGAG
ACTGAGTCCAGAGCAGAGGAATCTATACAAAGAAGTGATGCTGGAGAATTACAGGAATCTTCTCTCATTGGCAGA
ACCAAAGCCAGAAATCTACACTTGTTCCTCCTGCCTTCTGGCCTTCTCCTGTCAGCAGTTCCTCAGTCAACATGT
ACTTCAGATCTTCCTGGGCTTATGTGCAGAAAATCACTTCCATCCAGGGAATTCTAGCCCAGGGCATTGGAAACA
GCAGGGGCAGCAGTATTCCCATGTAAGCTGTTGGTTTGAAAATGCAGAAGGTCAGGAGAGAGGAGGTGGCTCCAA
ACCCTGGTCTGCAAGGACAGAGGAGAGAGAAACCTCAAGGGCATTCCCCAGCCCACTCCAAAGACAGTCAGCAAG
TCCTAGAAAAGGCAAC**ATG**GTGGTAGAAACAGAGCCCAGCTCAGCCCAAAGACCAAACCCTGTGCAGCTAGACAA
AGGCTTGAAGGAATTAGAAACCTTGAGATTTGGAGCAATCAACTGTAGAGAGTATGAACCGGACCATAACCTGGA
ATCAAACTTTATTACAAACCCGAGGACCCTCTTAGGGAAGAAGCCCTACATTTGCAGTGATTGTGGGCGAAGCTT
TAAAGATAGATCAACCCTCATCAGACACCATCGTATACACTCGATGGAGAAGCCTTATGTGTGCAGTGAGTGCGG
GCGAGGTTTTAGCCAGAAGTCCAACCTCAGCAGACACCAGAGAACACATTCAGAAGAGAAGCCTTATTTGTGCAG
GGAGTGTGGGCAAAGCTTTAGAAGTAAGTCCATCCTCAATAGACATCAGTGGACTCACTCAGAGGAGAAGCCCTA
TGTTTGCAGCGAGTGTGGGCGAGGCTTTAGCGAGAAGTCATCCTTCATCAGACACCAGAGGACACACTCCGGTGA
GAAACCCTATGTGTGCCTGGAGTGTGGACGAAGCTTTTGTGATAAGTCAACCCTCAGAAAACACCAGAGGATACA
CTCAGGGGAGAAGCCTTATGTTTGCAGGGAGTGTGGGCGAGGCTTTAGCCAGAACTCAGATCTCATCAAACACCA
GAGGACACACTTGGATGAGAAGCCTTATGTTTGCAGGGAGTGTGGGCGAGGCTTTTGTGACAAGTCAACCCTCAT
CATACACGAGCGGACGCACTCTGGAGAGAAGCCTTATGTGTGTGGTGAGTGTGGCCGAGGCTTTAGTCGGAAATC
ACTCCTCCTTGTCCACCAGAGGACACACTCAGGGGAGAAGCATTATGTCTGCAGGGAGTGTAGGCGAGGTTTTAG
CCAGAAGTCAAATCTCATCAGACACCAGAGGACGCACTCAAATGAGAAGCCTTATATTTGCAGGGAATGTGGGCG
AGGCTTTTGTGACAAGTCAACCCTCATTGTACATGAGAGGACACACTCAGGAGAGAAGCCTTACGTGTGCAGTGA
GTGTGGCCGAGGCTTTAGCCGGAAATCACTCCTCCTTGTCCACCAGAGGACACACTCAGGGGAGAAGCATTATGT
TTGTAGGGAGTGTGGGCGAGGCTTTAGTCATAAGTCAAATCTCATCAGACACCAGAGGACACAC**TGA**CGGGAGAA
ACCTGTGTATGCAGGGGTCATGAACAAGACCTGAGTGACCAGTCAAGCCTCATGTTACCCCAGAGAGACACATGG
GGAGTAGACCCTGTGTACACAGATTGTGAGTGAAGTTCCAGAGATGTGTCAGCCCTTATCAGGCATGGGAGGGAC
ACGTTCAGGAGAGGAGCCTTATGAGTATAGAGTACGGGCAACTGTAGCCATCAGTCAGCCTTGAGCATGCACAAA
AGGACACACTTAGGAGAGAAGTTTATGTGTAGGGACTGTGGGAAGGCTTTAGCAATAATCAACATTTACCAGACA
TCCAATGACAGCCTCAGGGGAAAGCACCCTTGTCTGGGGAGTGTTGGGGAGCATCAGTAAAAGAATGGACACTCA
GGCACAGAGTGGCCCTCAGGAAGGAGGTCTTTGTTTGTAGGATGTATGGGCAAAGCTTTTGTGATCACACACCAC
AGGGAGAATCTGCATGTGGGGACACTGTGGAGCTCTGCCCAGATGACCTTTTCAGGGGTAACACCCCAGCTGCTT
GAGAGAACAGTGTTGCTGCTGGCAGAGATGCATTCCAGAGATGCACTCCGCTCTGGAACTCACTCTCAGCCACAG
GGAGCTGCATGCACCACAGGGGCAATGCACCTTTGCAGGGGTACCTTCTGGCCCCAACCCTTGACTCAACGGGGA
CAACTCCAGAAGGTCATTCCAGATCCAGAGATCCCCATCGAACTGAAGGATCACTGGGTTGCAGACACATTGCAG
GTCAGCTTCTTCCTCTGCCCAGTCCTGCCCTCACTCCCCAGTGAATCCTCAATTTTCTGTCTCGTTGTCTGTCCA
GATAATTGATTCTAAGACATGTTAGGTATATAAGGAGTGTAGATAAGGCTTCAGCCATGAGTCACCCCGCAGTAA
GCCCCAGAGTATATTGAATAGAAATTCTGCATGTGTGGGGAGAATGGACAAGGACTTAGGAAAAAGTCCTCATCA
AAGAACAGCTTTTTTGGGACAAGCTTTACATGGGTGGGGAGGGAAAATGTGAAACACATTAGCAATAAGTTAAAC
CTCATCTTGTACTAAAGGAGGACACACTCAGGGAGAAGACCTCTGTGGGCAGGGCTTGTGGGTGGAGCTTCATCC
CGATGTCACTCCTCAACTGACTTAGGAGGACAGTCTTGCTACCCCAAGTCACTACCTCACTCACCTCTGAGGGAT
TTTCAGGAAATGTCTTGACTCCCCCATGTACTCTGTATGTGAGCGAAGATGGCAGTAACTGTTAAATAAGCATTC
TTTTCTACTTCTTGGAATCAGATGAAATAAAAAAGCAGGCTTTATTTAAGTAATC

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FIGURE 2762

GATGAGGGTCTGCGGGGCCGCCAAAGGAGCCCACGGATCTCACCCACCTGCGGCTGCAGCAGACTGATCTCCTCC
ACTTCCTTCAGCGCCAGCAGCGCGTAGCCGACCGCGTGCTCAAACAGCACGTGCAACAGCACCTGGAACGGGAGC
CGGGGCGCGAGCGTCAACGCAACCTCAGCGTCTGCCGGAACCCGTTCCCAGGGCAGGCGCAGGCGCAGGCGCAGG
CCCAGGCCCAGGCCCAGGCCCTGTCTGCGGCCCGAACGCAGGCCGAAACCCCCACCGTCGCGTCGCCCGCGCCCC
GCAACCACTCCTCACCATGGCGCCAGCTCCCGGGTTCGGCTCGCAATGCGGCTAGCGCGCTCCGGCGCGCGGAAC
CAGGCTCCAGAGGCCACGCCCCCGCCCCCCCGACCAATCGGAGGCCGGGGACGACACCATCTCCGGCCTTTGGAG
GGGCCGCCCAGGGTGGTATCGCCCGGAGCGCGGGCTGGGTGGTGCCGAGCGCGGGCGAGCGGGCCTTTTCCGGCC
TCTGCAGCTGCGCGGGCGGGCGTGGTTGCCGGGGACGCGCGGCCCCCGGTCGGGCACTGCAGGCGGCGAAACGAC
TTGGGAAGGCCCTTTCGGGGTAATAGTCCGGTTCCTGATGTTCTTGTCAT**ATG**AGTTACGGGCAGCAGAGCTGGG
TGAAGTCGGGGCGGGAGGTCCGCGTGGGGCGCGGCGTCCATCCCAGACAGAGACCGCTGCCTAGCCGGCTTCCCG
CTTCGTCCGTGGCCTCGGGCCCCAGACCCTGCGCCCCACGTCCCCGGGACCCAGGCGTTCCCGTCCCCTACTCGG
GGACGAGCCTCCCCGGCGCCGGGTGGGCGGTGCATCCTTTCCTCCCACCCGTAACGGGAGCGGTGCCTGGCGCGC
TCTGGCGCAGACCCTGCTGGGAATGTAGCTCGCGCAGTTTTCTTCGTACTATTAATTTATTTCTTTTTTTTGTTT
TTGGTTTTTTTTTTTTAAATGACTGTAGCAGGCAG**TAA**CGTGCGAAAGAAAGACGCTCCAGCGTCTTCCTAGGCC
AGTTTCTTGTTGCTGTGCTGCACGGGACCCAGCTCCTTTTGCTGGGCCACGTGTTGCTCCTCCGCTTGGGCGGCC
CTGAATTCTGGGCGCTGGTGATCGCTGAGTGAATCGCAGCTGCTTCCCTGTCCTTGAGGGCGTCTTTTGGGCACT
CAGGCGACTCTTTAGAAATGAGTTTTGCTTTAATAATTAATATTAACGTTATAAATCCAAAACCTAGTTATACTT
AAGTAGCGTATCCCCTGGTATGTTTTAAAGAGTCATTCGAAGGGGATTTTTAAAAATAATGTATAGCTATAAACT
GCATTTATACATTTAATTGTTATTTTGTTAAGCGATTGAGTTACTTGACAAAATCCAAGTACATAGTTCACTCAC
AAATCTAATATGTCAAACCTAAATGTGGTTGGTAAATCTTACTCTCATAATTTCAATATGGTTTACAGATGTGGT
TGAATTCTGTTACACATGTCTACTTACGAGTCAGAATCGTTATTCCATTTAATATTTTAAAATGGAATTGCCAAG
TTAATCCATACATTAGCATGTTAAATTATTTTAACCGTCGTGAATACATCAAAATAGACGATTCCAAAATGTAAT
GGAAAATACTAATGCTAATACTTCAATTTACTTCATTATTTCTGCCCTTAATCCTGAATCTTCCTGGAGTTACAG
GTGCTTATCCACTAAACCAGGGGTTTTCAAGCAAGAAGTCAGAATGCATTAATGGACAGCATTTAAAAAAATAGG
ATTGGGTGGGCTATAATCCAGCACTTTAGGAGGCCGAGGCAGGCGGATCACTTAAGATCAGGAGTTCGAGACCAG
CCTGGCCAACATGGTGAAACCCCGTCTCTACCAAAAAATAAAAAAATTAGCTGGACGTGGTGGAGCATGTCTGTA
ATCCCAGCTACTCGGGAGGCTGAGGAAGGAGAATCGCTTGAACCCGGGAGGCAGAGGCTGCACTCTAGCCTGGGC
AACAGAGCAAGGCTCTGTC

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FIGURE 2763

CGAACCCGGGAGCTGGCGCC**ATG**GTGCTGTTGCACGTGCTGTTTGAGCACGCGGTCGGCTACGCGCTGCTGGCGC
TGAAGGAAGTGGAGGAGATCAGTCTGCTGCAGCCGCAGGTGGAGGAGTCTGTGCTCAACCTGGGCAAATTCCACA
GCATCGTTCGTCTGGTGGCCTTTTGTCCCTTTGCCTCATCCCAGGTTGCCTTGGAAAATGCCAACGCCGTGTCTG
AAGGGGTTGTTCATGAGGACCTCCGCCTGCTCTTGGAGACCCACCTGCCGTCCAAAAAGAAGAAAGTACTCTTGG
GAGTTGGGGATCCCAAGATTGGTGCCGCAATACAGGAGGAGTTAGGGTACAACTGCCAGACTGGAGGAGTCATAG
CTGAGATCCTGCGAGGAGTTCGTCTGCACTTCCACAATCTGGTGAAGGGTCTGACCGATCTGTCAGCTTGTAAAG
CACAGCTGGGGCTGGGACACAGCTATTCCCGTGCCAAAGTTAAGTTTAATGTGAACCGGGTGGACAATATGATCA
TCCAGTCCATTAGCCTCCTGGACCAGCTGGATAAGGACATCAATACCTTCTCTATGCGTGTCAGGGAGTGGTACG
GGTATCACTTTCCGGAGCTGGTGAAGATCATCAACGACAATGCCACATACTGCCGTCTTGCCCAGTTTATTGGAA
ACCGAAGGGAACTGAATGAGGACAAGCTGGAGAAGCTGGAGGAGCTGACAATGGATGGGGCCAAGGCTAAGGCTA
TTCTGGATGCCTCACGGTCCTCCATGGGCATGGACATATCTGCCATTGACTTGATAAACATCGAGAGCTTCTCCA
GTCGTGTGGTGTCTTTATCTGAATACCGCCAGAGCCTACACACTTACCTGCGCTCCAAGATGAGCCAAGTAGCCC
CCAGCCTGTCAGCCCTAATTGGGGAAGCGGTAGGTGCACGTCTCATCGCACATGCTGGCAGCCTCACCAACCTGG
CCAAGTATCCAGCATCCACAGTGCAGATCCTTGGGGCTGAAAAGGCCCTGTTCAGAGCCCTGAAGACAAGGGGTA
ACACTCCAAAATATGGACTCATTTTCCACTCCACCTTCATTGGCCGAGCAGCTGCCAAGAACAAAGGCCGCATCT
CCCGATACCTGGCAAACAAATGCAGTATTGCCTCACGAATCGATTGCTTCTCTGAGGTGCCCACGAGTGTATTCG
GGGAGAAGCTTCGAGAACAAGTTGAAGAGCGACTGTCCTTCTATGAGACTGGAGAGATACCACGAAAGAATCTGG
ATGTCATGAAGGAAGCAATGGTTCAGGCAGAGGAAGCGGCTGCTGAGATTACTAGGAAGCTGGAGAAACAGGAGA
AGAAACGCTTAAAGAAGGAAAAGAAACGGCTGGCTGCACTTGCCCTCGCGTCTTCAGAAAACAGCAGTAGTACTC
CAGAGGAGTGTGAGGAGATGAGTGAAAAACCCAAAAAGAAGAAAAAGCAAAAGCCCCAGGAGGTTCCTCAGGAGA
ATGGAATGGAAGACCCATCTATCTCTTTCTCCAAACCCAAGAAAAAGAAATCTTTTTCCAAGGAGGAGTTGATGA
GTAGCGATCTTGAAGAGACCGCTGGCAGCACCAGTATTCCCAAGAGGAAGAAGTCTACACCCAAGGAGGAAACAG
TTAATGACCCTGAGGAGGCAGGCCACAGAAGTGGCTCCAAGAAAAAGAGGAAATTCTCCAAAGAGGAGCCGGTCA
GCAGTGGGCCTGAAGAGGCGGTTGGCAAGAGCAGCTCCAAGAAGAAGAAAAAGTTCCATAAAGCATCCCAGGAAG
AT**TAG**AATGCAAATGGACATTCTCTGGGAGGTGGGGCATACCATAGCCCAAGGTGACATTTCCCACCCTGTGCCG
TGTTCCCCAATAAAAACAAATTCACAAG

FIGURE 2764

CATGGCGGCATTGAGCGGAGTCCGCTGGCTGACCCGAGCGCTGGTCTCCGCCGGGAACCCTGGGGCATGGAGAGG
TCTGAGTACCTCGGCCGCGGCGCACGCTGCATCGCGGAGCCAGGCCGAGGACGTGAGGGTGGAGGGCTCCTTTCC
CGTGACCATGCTTCCGGGAGACGGTGTGGGGCCTGAGCTGATGCACGCCGTCAAGGAGGTGTTCAAGGCTGCCGC
TGTCCCAGTGGAGTTCCAGGAGCACCACCTGAGTGAGGTGCAGAATATGGCATCTGAGGAGAAGCTGGAGCAGGT
GCTGAGTTCCATGAAGGAGAACAAAGTGGCCATCATTGGAAAGATTCATACCCCGATGGAGTATAAGGGGGAGCT
AGCCTCCTATGATATGCGGCTGAGGCGTAAGTTGGACTTATTTGCCAACGTAGTCCATGTGAAGTCACTTCCTGG
GTATATGACTCGGCACAACAATCTAGACCTGGTGATCATTCGAGAGCAGACAGAAGGGGAGTACAGCTCTCTGGA
ACATGAGGTGAGGCCCCAGAAACTGGGGGAGGGCAAGG**ATG**AAGATGGGAGAGAGGTGGAGCTCCTTGTTTCCCT
TCCCAGTGTCACCTAGCTGCTGCTTTCTTCTTACCCAGAGTGCAAGGGGTGTGATTGAGTGTTTGAAGATTGTCA
CACGAGCCAAGTCTCAGCGGATTGCAAAGTTCGCCTTTGACTATGCCACCAAGAAGGGGCGGGGCAAGGTCACTG
CTGTCCACAAGGCCAACATCATGAAACTTGGGGATGGGTTGTTCCTGCAGTGCTGTGAGGAAGTTGCTGAACTGT
ACCCCAAAATCAAATTTGAGACAATGATCATAGACAACTGCTGCATGCAGCTGGTGCAGAATCCTTACCAGTTTG
ATGTGCTTGTGATGCCCAATCTCTATGGGAACATTATTGACAATCTGGCTGCTGGCCTGGTTGGGGGAGCTGGTG
TGGTCCCTGGTGAGAGCTATAGTGCAGAATACGCAGTCTTTGAGACGGGTGCCCGGCACCCATTTGCCCAGGCAG
TGGGCAGGAATATAGCCAATCCCACGGCCATGCTGCTGTCGGCTTCCAACATGCTGCGGCATCTTAATCTTGAGT
ATCACTCCAGCATGATCGCAGATGCGGTGAAGAAGGTGATCAAAGTTGGCAAGGTGCGGACTCGAGACATGGGCG
GCTACAGCACCACAACCGACTTCATCAAGTCTGTCATCGGTCACCTGCAGACTAAAGGGAGC**TAG**AGCCCTTTAT
TTCTTCCAACCTTGCAAGGACCACACTCCCCATACCCTTCAGTGCAGTGTACCAGGGAAGAGACCTTGTGCCTCT
AAGCAGTGGACCATGGTCACCTTGCTGGGTAGAGCCTAGGTTGTCCTTGGGCCGGCTTCCTTAGGGGACAGACTG
TTGGGTGGTGATGGGGATTGTTAGGATGGAGCCCAGGCCACATGGATGATGATGATTCTCCCCCACAGGTTCGAA
CCTCTGACATGGGTGGCTATGCTACTTGCCATGACTTCACTGAGGCTGTCATTGCTGCCTTGCCCCACCCATAGG
CCCTGTCCATACCCATGTAAGGTGTTCAATAAAGAACATGAACC

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FIGURE 2765

GATCCCGCCCCCCTCGGAGCGCCCCTGTGGTCTGACTTCAGCAGCACTTTCCGGCAGGAGACTGGGCACTCGCTG
TCACCCGCGAGCTGCCTCCCTCAGCGAGATCTGAGCATCTTTCCGGAGGCTAACAGACCTGGGCTTCGGGGTGAC
CACTGTGCTTGCCTCAGTTTCCTTTTCTGGAGCAGGGGAAGGCCCGGCTCCCTGCCCAAAGGCGGCTGTGCGCTA
AGTGGCAGACGCTCGGGGAGAGCCGGCGCGGGGCGGACCCCAGCGCCAGTAGTGACAGGGGCGAACGCCGCCGGG
AGACTCCAGCCGGCGGGCGAGCAGGCCTGTCGTTGCTGGTGGCGGC**ATG**GTCTTCTGTCTGTCGAGCGAGGAGCC
GCGCCGCCCGCTGCGAAGCGACATGGTCCACTTCCAGGCCTCGGAAGTCCAGCAGCTGCTACACAACAAGTTCGT
GGTCATCTTGGGGGACTCCATTCAGAGGGCTGTGTACAAGGACCTGGTGCTCTTGCTCCAGAAAGACTCACTGCT
CACAGCTGCCCAGCTGAAAGCCAAGTACCTTGAGGATGTTCTGGAAGAGCTGACATATGGACCTGCCCCGGACCT
GGTGATCATCAACTCCTGCCTCTGGGATCTCTCCAGATATGGTCGCTGCTCAATGGAGAGCTACCGGGAGAACCT
GGAGCGGGTGTTTGTGCGCATGGACCAAGTATTGCCAGACTCCTGCCTGCTGGTGTGGAACATGGCGATGCCCCT
CGGGGAACGTATCACTGGGGGTTTCCTCCTGCCAGAGCTCCAGCCCCTGGCAGGCTCCCTGCGGCGGGATGTGGT
TGAAGGGAACTTCTACAGTGCTACGCTGGCCGGGGACCACTGCTTTGATGTCCTAGACCTCCACTTTCACTTCCG
GCATGCAGTACAGCACCGTCATCGGGATGGTGTCCACTGGGACCAGCATGCACACCGCCACCTCTCACACCTGCT
TCTGACCCATGTGGCTGACGCCTGGGGCGTGGAGCTGCCCAAGCGTGGCTATCCCCCTGACCCGTGGATTGAGGA
CTGGGCAGAGATGAATCATCCATTCCAGGGAAGCCATAGGCAGACCCCAGACTTCGGGGAGCACCTGGCCTTGCT
CCCACCCCCACCTTCTTCTTTGCCTCCTCCCATGCCTTTTCCCTACCCGCTTCCTCAGCCCTCGCCACCTCCCCT
CTTCCCACCCCTGCCCCAGGATACCCCTTTTTTCCCAGGCCAGCCCTTCCCACCCCATGAATTCTTCAACTATAA
TCCAGTGGAGGACTTCTCGATGCCACCCCACTTAGGATGTGGCCCTGGAGTGAACTTTGTGCCTGGCCCTCTGCC
ACCTCCAATCCCTGGCCCTAATCCCCATGGTCAGCACTGGGGCCCAGTGGTCCACCGGGGGATGCCACGCTATGT
TCCTAACAGCCCCTACCATGTGCGGAGAATGGGGGGGCCCTGCAGGCAGCGGCTCAGACACTCAGAGAGACTGAT
CCACACATACAAACTGGACAGACGGCCTCCTGCCCATTCGGGGACATGGCCTGGG**TAG**ACTGGATCTTGGGCTGG
GACTGGATGTGCCAATGGCCCTTCAGGGCCTGCCTGGCACCTCAGGTACTGGGCTAGGGTGTCTGCTATGCCTGG
TATTGTTCTTGTCCATTGCTGTCACCAATAAAGGCATGGAAGAACAGAGTGACAAA

FIGURE 2766A

GGAGTATGAGCCACGCTCAGGGGAGCAGGTACCCCTTCTCCTAAAGATGAAGAGGAGCAAACTGGCACTAAGCAA
GGCCATCGAGAGCGGGGACACTGACCTGGTGTTCACGGTGTTGCTGCACCTGAAGAACGAGCTGAACCGAGGAGA
TTTTTTCATGACCCTTCGGAATCAGCCCATGGCCCTCAGTTTGTACCGACAGTTCTGTAAGCATCAGGAGCTAGA
GACGCTGAAGGACCTTTACAATCAGGATGACAATCACCAGGAATTGGGCAGCTTCCACATCCGAGCCAGCTATGC
TGCAGAAGAGCGTATTGAGGGGCGAGTAGCAGCTCTGCAGACAGCCGCCGATGCCTTCTACAAGGCCAAGAATGA
GTTTGCAGCCAAGGCTACAGAGGATCAAATGCGGCTCCTACGGCTGCAGCGGCGCCTAGAAGACGAGCTGGGGGG
CCAGTTCCTAGACCTGTCTCTACATGACACAGTTACCACCCTCATTCTTGGCGGTCACAACAAGCGTGCAGAGCA
GCTGGCACGTGACTTCCGCATCCCTGACAAGAGGTGACACAACTAAAAAAAAACAAAGGTATTTATGGAATTCCA
CTGAGTGGTAATGGATGATGCAGTTCAAATAACTAAGGACACATGTTCAAAGAGCATAATTAACTTTTAAAAGA
AGCTAATAAGC**ATG**GATTCCTGGTTCATTCTTGTTCTGCTCGGCAGTGGTCTGATATGTGTCAGTGCCAACAATG
CTACCACAGTTGCACCTTCTGTAGGAATTACAAGATTAATTAACTCATCAACGGCAGAACCAGTTAAAGAAGAGG
CCAAAACTTCAAATCCAACTTCTTCACTAACTTCTCTTTCTGTGGCACCAACATTCAGCCCAAATATAACTCTGG
GACCCACCTATTTAACCACTGTCAATTCTTCAGACTCTGACAATGGGACCACAAGAACAGCAAGCACCAATTCTA
TAGGCATTACAATTTCACCAAATGGAACGTGGCTTCCAGATAACCAGTTCACGGATGCCAGAACAGAACCCTGGG
AGGGGAATTCCAGCACCGCAGCAACCACTCCAGAAACTTTCCCTCCTTCAGGTAATTCTGACTCGAAGGACAGAA
GAGATGAGACACCAATTATTGCGGTGATGGTGGCCCTGTCCTCTCTGCTAGTGATCGTGTTTATTATCATAGTTT
TGTACATGTTAAGGTTTAAGAAATACAAGCAAGCTGGGAGCCATTCCAATTCTTTCCGCTTATCCAACGGCCGCA
CTGAGGATGTGGAGCCCCAGAGTGTGCCACTTCTGGCCAGATCCCCAAGCACCAACAGGAAATACCCACCCCTGC
CCGTGGACAAGCTGGAAGAGGAAATTAACCGGAGAATGGCAGACGACAATAAGCTCTTCAGGGAGGAATTCAACG
CTCTCCCTGCATGTCCTATCCAGGCCACCTGTGAGGCTGCTTCCAAGGAGGAAAACAAGGAAAAAAATCGATATG
TAAACATCTTGCCTTATGACCACTCTAGAGTCCACCTGACACCGGTTGAAGGGGTTCCAGATTCTGATTACATCA
ATGCTTCATTCATCAACGGCTACCAAGAAAAGAACAAATTCATTGCTGCACAAGGACCAAAAGAAGAAACGGTGA
ATGATTTCTGGCGGATGATCTGGGAACAAAACACAGCCACCATCGTCATGGTTACCAACCTGAAGGAGAGAAAGG
AGTGCAAGTGCGCCCAGTACTGGCCAGACCAAGGCTGCTGGACCTATGGGAATATTCGGGTGTCTGTAGAGGATG
TGACTGTCCTGGTGGACTACACAGTACGGAAGTTCTGCATCCAGCAGGTGGGCGACATGACCAACAGAAAGCCAC
AGCGCCTCATCACTCAGTTCCACTTTACCAGCTGGCCAGACTTTGGGGTGCCTTTTACCCCGATCGGCATGCTCA
AGTTCCTCAAGAAGGTGAAGGCCTGTAACCCTCAGTATGCAGGGGCCATCGTGGTCCACTGCAGTGCAGGTGTAG
GGCGTACAGGTACCTTTGTCGTCATTGATGCCATGCTGGACATGATGCATACAGAACGGAAGGTGGACGTGTATG
GCTTTGTGAGCCGGATCCGGGCACAGCGCTGCCAGATGGTGCAAACCGATATGCAGTATGTCTTCATATACCAAG
CCCTTCTGGAGCATTATCTCTATGGAGATACAGAACTGGAAGTGACCTCTCTAGAAACCCACCTGCAGAAAATTT
ACAACAAAATCCCAGGGACCAGCAACAATGGATTAGAGGAGGAGTTTAAGAAGTTAACATCAATCAAAATCCAGA
ATGACAAGATGCGGACTGGAAACCTTCCAGCCAACATGAAGAAGAACCGTGTTTTACAGATCATTCCATATGAAT
TCAACAGAGTGATCATTCCAGTTAAGCGGGGCGAAGAGAATACAGACTATGTGAACGCATCCTTTATTGATGGCT
ACCGGCAGAAGGACTCCTATATCGCCAGCCAGGGCCCTCTTCTCCACACAATTGAGGACTTCTGGCGAATGATCT
GGGAGTGGAAATCCTGCTCTATCGTGATGCTAACAGAACTGGAGGAGAGAGGCCAGGAGAAGTGTGCCCAGTACT
GGCCATCTGATGGACTGGTGTCCTATGGAGATATTACAGTGGAACTGAAGAAGGAGGAGGAATGTGAGAGCTACA
CCGTCCGAGACCTCCTGGTCACCAACACCAGGGAGAATAAGAGCCGGCAGATCCGGCAGTTCCACTTCCATGGCT
GGCCTGAAGTGGGCATCCCCAGTGACGGAAAGGGCATGATCAGCATCATCGCCGCCGTGCAGAAGCAGCAGCAGC
AGTCAGGGAACCACCCCATCACCGTGCACTGCAGCGCCGGGGCAGGAAGGACGGGGACCTTCTGTGCCCTGAGCA
CCGTCCTGGAGCGTGTGAAAGCAGAGGGGATTTTGGATGTCTTCCAGACTGTCAAGAGCCTGCGGCTACAGAGGC
CACACATGGTCCAGACACTGGAACAGTATGAGTTCTGCTACAAGGTGGTGCAGGAGTATATTGATGCATTCTCAG
ATTATGCCAACTTCAAG**TAA**GCGGCAACAAGGGTCCGTGGACCAGGAGGATTGCCTTTAATATTTTGTAATATTC
TGTTTTGTTAATATACCCCAAATTGTGTATATATCTTATAACTGTTTTAGAAATTGGTACATAGGCTTCTATTAC
CTATTAGGTGGAAATTTTATATGTAAATGTGTTAGCACTGATAGTCCTTTTTCCAATGTTTTATTGGGGAATTAA
ATAGTGTGATGTTTGGATTGATATCGTGAAATCCTCAGCCGAGAAATTGGGCTGGATTGTGCTTTGGTTAATACA
TCTTTCCCTAAAGAAGATAAACACAAAATCCATTCCAGGTAGCTCGGCACCAACTAAGAAAAAAAGCACAAAGTT
CTCAGAGCTCTCGAGGAAAGTGGTTGTCCCCGTACCACCATGCACTGTAAATATCCCTCCCCTCTCTCCCTGGTC
CCCTCCCCCATCCCCACCACTGATATCATGGGGAGTAATAGGACCAGAGCGGTATCTCTGGCACCACACTAGGGA

FIGURE 2766B

CTATCAGGTAATAAAAGCTTTGACTCCCTG

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FIGURE 2767

GAGACTCGGCC**ATG**CTACGCGCGCTGAGCCGCCTGGGCGCGGGGACCCCGTGCAGGCCCCGGGCCCCTCTGGTGC
TGCCAGCGCGCGGCCGCAAGACCCGCCACGACCCGCTGGCCAAATCCAAGATCGAGCGAGTGAACATGCCGCCCG
CGGTGGACCCTGCGGAGTTCTTCGTGCTGATGGAGCGTTACCAGCACTACCGCCAGACCGTGCGCGCCCTCAGGA
TGGAGTTCGTGTCCGAGGTGCAGAGGAAGGTGCACGAGGCCCGAGCCGGGGTTCTGGCGGAGCGCAAGGCCCTGA
AGGACGCCGCCGAGCACCGCGAGCTGATGGCCTGGAACCAGGCGGAGAACCGGCGGCTGCACGAGCTGCGGATAG
CGAGGCTGCGGCAGGAGGAGCGGGAGCAGGAGCAGCGGCAGGCGTTGGAGCAGGCCCGCAAGGCCGAAGAGGTGC
AGGCCTGGGCGCAGCGCAAGGAGCGGGAAGTGCTGCAGCTGCAGGAAGAGGTGAAAAACTTCATCACCCGAGAGA
ACCTGGAGGCACGGGTGGAAGCAGCATTGGACTCCCGGAAGAACTACAACTGGGCCATCACCAGAGAGGGGCTGG
TGGTCAGGCCACAACGCAGGGACTCC**TAG**GGGCCCAGTAAGGACAGTGCCCGCCAGGGACCATGTATGTATCATG
GCGGAAGAGTTGGCCCTGACCTGGAATAAAGCAGTTGGTGTTGCTTATGAGGAAGGTTCAGCCTTATCCAGCACA
GCCTTCACGTTTTGCCCTCTGCTGTCACCACTTGGTCAGAAACTTCCAAACGCAGTGCCCTGTTCTGCCGGTGTG
TACAGCCTCAGCGCACCAGGAGACCCTAGAGTGGTTTCCATCTCACAGAGAATCAGACAGGGCCACAGCCCCCTC
AGGCAGCCAGGTCATCTGAGTATCATTAAGAGTAGTGATGGGAAGATTACAGTCTGAGGGCCAAACGTGCCTGCT
TCCTGTTTTTGTAAATAAAGTTTTGTTGGAACAC

FIGURE 2768

GCTGTGAGGCTCGGAGTCGCCGGAGGAGCCAGTATCTGTGTCGCCGCCGCCCGCGGCGTCCCCGGTTTGGTGTTG
CGGCGCCCACCTTCGGGAGGATCAGTATCTGGCACCAATTCTGACCCAGTCATTTGTGATCCCTGGCTCTTGTGA
TATGCTGAAGATTTCCAGGCAGTTTTTGTGGAACACCTCCCCGTCCAGCTCTAATCAAGCACCATATAAACAAGA
AATTGCCTGGTCAAATCTGTGAGGACTGTATTCTGACTGCCAAAGAGATCAATACTGACACCAGA**ATG**GCAGCTA
CTCTCAAGTCATTAAAACTTGTAAGATACCGAGCATTTTGCAGTCCTTCTGCCTTTGGTGCAGTCCGAAGTGTGT
CATACTGGAATGTGAGCAGCACACAGCATGGGGGGACAGGACCCTCCAGAACACATTAGCCTCTGCCATTCTGCCA
AAAAAGTTAAGAACATATGTAGCACCTTCTCTTCTCGGAGAATCCTGACAACCAGCAGTGCCCACCCAGGTTTGG
AATTCAGCAAGACTTCTTCCTCTAAGGCCAGTACATTGCAGCTGGGCTCACCCAGGGCCACAGGAGTTGATGAAG
AGGACGTAGAAGTGTTTGATTCCTTTGAAAACATGCGAGTTTTCCTACAGCTAAGACCAGAATACCGTGTTCACA
GCTATAATGCATCTGAGACTTCTCAGCTCCTGTCTGTTTCAGAAGGTGAACTAATTTTGCACAAAGTCAGAGTTA
ATCAAAATAATCTCCAGGCTCAAGTCATTGTTGATTATTTGTGTAAGCTGAGCTCTTTGCCTGCAGAGCAGCATC
CTGTCTTGCTGGGCAGTACCAGCTTTGCTCTGCTCTGCCAGCTGAGTGTGAAGAAGATACAGCTCTTTGATACCC
AAGATCTGATCAATGTTTTGAAAGCTTTTGTCATTTTAGGAATCCCTCACTCCCATTCAATGCTAGATGTGTATG
AGACCAAGTGTTGCCATCAGGTATGGGAGATGAATATGGATCAGCTCCTTTTGGTGGCTGATCTCTGGAGGTACT
TAGGCCGCAAAGTACCTAGGTTTTTAAACATTTTTTCTAGTTATCTTAATTTGCACTGGAAGGATCTATCCTTGT
CTCAGCTAGTTCACTTAATTTATGTTATAGGTGAAAATCGTCAGGTATCCCAGGACCTAATGCAAAAATTGGAAT
CATTGATCCTTAAATATATAGATTTGATCAATTTGGAGGAGGTTGGTACCATCTGTTTGGGGTTCTTTAAATCAA
GTACTAATCTCTCTGAATTTGTCATGCGGAAAATTGGAGACTTGGCTTGTGCTAACATTCAGCATCTGAGTAGTC
GCTCCTTAGTGAATATTGTTAAAATGTTCCGTTTCACTCACGTGGATCACATCAATTTCATGAAGCAGATTGGAG
AGATAGCTCCTCAGCGAATTCCTTCCCTGGGAGTTCAAGGTGTCATGCACCTGACTCTTTACTGCTCGGCCTTAC
GCTTCCTGAATGAAGGAGTAATGAATGCAGTGGCTGCGTCTTTGCCTCCTAGAGTGGCACACTGTCGAAGTAAAG
ATGTTGCCAAGATTCTGTGGTCATTTGGAACTCTGAATTATAAGCCACCCAATGCAGAAGAATTTTACTCCAGCC
TGATAAGTGAGATTCACAGAAAGATGCCTGAATTCAACCAGTACCCAGAACACCTGCCCACCTGCCTGCTGGGCC
TGGCATTTTTGGAGTACTTTCCAGTAGAGTTAATTGATTTCGCTCTCAGTCCAGGGTTTGTCAGGTTAGCTCAGG
AGAGAACTAAGTTTGACCTCCTTAAGGAACTATATACCCTCGATGGTACAGTTGGCATTGAGTGTCCAGATTACA
GAGGCAATCGTCTTAGTACTCACCTTCAGCAAGAGGGGTCTGAATTGCTGTGGTATTTAGCAGAGAAGGATATGA
ATTCAAAGCCTGAATTCTTAGAAACTGTCTTTTTACTGGAGACCATGCTGGGGGGGCCCCAGTACGTCAAGCACC
ATATGATTTTGCCTCATACCCGATCTTCTGACTTAGAGGTCCAGCTTGATGTTAACCTGAAGCCATTACCATTTA
ATAGAGAAGCCACGCCGGCTGAAAATGTAGCCAAATTAAGGCTTGAGCATGTGGGAGTCAGCCTTACAGATGATT
TGATGAATAAGTTACTAAAAGGGAAAGCAAGAGGACATTTCCAGGGCAAAACTGAGTCAGAGCCTGGGCAGCAGC
CCATGGAGTTGGAGAATAAGGCAGCTGTACCTCTGGGGGGCTTCCTTTGCAATGTAGCAGATAAATCAGGGGCCA
TGGAGATGGCTGGCCTGTGCCCCGCAGCCTGCATGCAGACCCCAAGAATGAAGCTGGCTGTTCAGTTCACAAACA
GGAACCAGTATTGCTATGGCTCCAGGGATCTCCTTGGACTGCACAATATGAAGAGGCGGCAGCTGGCTCGGCTTG
GCTACCGTGTGGTAGAGTTATCCTACTGGGAATGGCTCCCACTACTGAAACGAACTCGCTTAGAAAAGTTGGCGT
TTCTTCATGAGAAAGTATTCACCTCTGCTCTC**TGA**AGGGCATTTAGGGGCATTTCTATGGCAAAGCTATAGGTGT
ATACTGTACCAGGTGTTGCAAAATGATTATAAAAGCCAGAATGTAAGTTTGGCGATAAAATAGTGTGTTGAGGAG
ACTTAATTGTATCCAAGGCAGGTTAGAGCTAGTGTATGTTACTGTGAATTGTAATGTAGTTGGATTGTACAAATT
ACTGCAAATGTATACATGTTACTCTTAGTAAATAATAAACATCTTAATATGTCCTACGGTC

FIGURE 2769A

CGCTTGTGGGCCGGCCTTGGGGGAGGGGGACGCGCACCCACAGAAGGACTCAGAGGGCTTCACGGTAAGCTGAGC
AGGGTCAAGGTCCACAGGGAGCGGGAGAGGGTAGTAATCCGGGAAGTCTTCCTGGTGGCAGTGAATTCTTTGCGG
GGTTCGGCAGGCGCAGGATCCTTGGGGCCGCGCACCCTGCAGCGGCCCCTCCCCTCCCCTCCCCCCTCCCACCTG
TGGGAAACGCAGGCCCTGAGAGAGGCTCCGTCAGTGCCAGCAGCTGGCGCCACTGCGTCCCCTGCCCCGGCCTCA
GCCAGCCCTGGGACCTCTGCGGAGGACTGATCCCGGGAAGGGGGCCCTGTCTTCCCAGGGCCCCGGTGCGGCCGA
GCTGGGAAGACCTTGGGGAGGGCAGGCCTGCCACCTACTGCAGCCGCGGCCCCCGTCCATCCGGGAGGGACAGGC
TGTGCCCTTGGCGGCGCCCACCCGCGACCCAGATGTGCGTCGCCTACCCACCCTCCCCCAGACCCCCGTTTCCTC
AGGCGCTCGCCGCCTCGGGGCGCCTGGCACGCGGCAGCCCCGCAAGGTAGGTCCTTCATTCCTCCCATTTCGCAG
AGGAGAAAACTGCAGTCCGGGATGGCTCAGTCGGCCCCTCCAAAGTCGCGCAGCTGGTTCGGGCCGAGCCCCGAC
TGCGAGAGTGAGGCACATGGCCCCTGCAGACCGGGCCTCGGAGGGTCCCAGGCTTGAGGACCCGTCGGCCCCTCA
ACCCCTTGGAAAGGCAAGGAGAGAAGCCTGCGCTGGTAGTGAGCTTCCACTTCTGCCCTGACTGCAACACTTAGG
TTAGGGGGCTGGGAAGGACCCCCACCCTCAATTTTTGGATAGGGGTGTATTTCTCTCCCTCCCCTAATTTCTGAG
GTTGGTTCCCTGTTGGATTCAGGTACTGCTCTCCCCTTCCAACCCCATTTCCCCAGCCCATGAGGTTGGGATATT
AGGGTCCCAGACCCAAGATAAAGAACCCCAAAATTCTGGGGTTGCAGCAAAGAGTTGAGAGGGTCACTGAGCCTG
GGAAGCTCATGGCGGAGGTGGGGCTAAGGCAGAAGTTTAGGAATGGAACGCTGAGCTGAGCTGAGCTGAGCTGAG
CTGAGCAACGCTGGGGGCTATGTGCATGGAGCCCTGGGGGTTGGGCTTTATCAGGTGGGCAACAGGCAGCCCCCA
TTCCCAAGTTCTCTCTTTTATCCCAGCCTTATTCCTTCACCTTGGATGCCTGGGAACTTTTTGTACCCATTGTAG
GGAAGGGGACACTGAGGGGCAGAGCGGTGCCGGGTTGACTTGGCTGGGGTGGTGGGAATAGGAGTAGGGTCTTAC
CTATCTCTGCCTTCCCACCTGTGCCCACAGTGCCCCCCTGGCTTAGTC**ATG**GCGAAGCTGGAGACGCTGCCTGTG
CGCGCTGACCCAGGGCGGGATCCTCTCCTGGCCTTTGCCCCACGGCCCTCCGAGCTTGGACCCCCGGACCCCCGC
CTGGCCATGGGCAGCGTGGGCAGTGGGGTGGCCCATGCCCAGGAGTTTGCCATGAAGAGCGTGGGTACCCGCACA
GGGGGTGGGGGCAGCCAGGGCAGTTTCCCTGGCCCCCGAGGCAGTGGCAGTGGGGCCAGCAGGGAGAGGCCGGGC
CGCTACCCCTCAGAGGACAAGGGTCTCGCCAACTCCCTCTACCTCAATGGTGAGCTGCGGGGCAGTGACCACACC
GATGTCTGTGGCAACGTGGTTGGCAGCAGCGGAGGCAGCAGCAGCAGTGGTGGCAGTGACAAAGCCCCACCGCAG
TATCGTGAGCCCAGCCACCCACCCAAGCTCCTGGCCACCTCTGGCAAGCTAGACCAGTGCTCAGAACCACTAGTT
CGGCCGTCGGCCTTCAAGCCTGTCGTACCCAAGAATTTCCACTCCATGCAGAATTTGTGCCCCCCGCAGACCAAT
GGGACTCCTGAGGGACGGCAGGGCCCTGGTGGCCTCAAAGGCGGACTGGACAAGTCTCGGACCATGACTCCAGCG
GGTGGGAGTGGGAGTGGCCTCTCAGACTCAGGCCGGAACTCCCTCACAAGCCTGCCCACCTACAGCTCCAGCTAC
AGCCAGCACCTGGCACCCCTCAGTGCCTCCACCAGCCACATTAACCGCATTGGCACTGCCAGCTATGGTAGTGGT
AGTGGCGGCAGCAGCGGTGGGGGGTCGGGCTACCAGGACCTGGGGACCTCCGATAGTGGACGGGCCTCCAGCAAG
AGTGGGTCGTCGTCATCTATGGGGCGGCCAGGCCACCTGGGCTCTGGGGAGGGCGGAGGTGGAGGCCTGCCTTTC
GCGGCCTGCTCACCGCCCTCCCCCAGTGCACTCATCCAGGAGCTGGAGGAGCGGCTGTGGGAGAAGGAGCAGGAG
GTGGCAGCTCTGCGGCGCAGCCTGGAGCAGAGCGAGGCGGCTGTGGCCCAGGTACTGGAGGAGCGGCAGAAGGCG
TGGGAGCGGGAGCTGGCCGAGCTGCGGCAGGGCTGCAGCGGGAAGCTACAGCAGGTGGCCCGACGTGCCCAGCGC
GCCCAGCAGGGCCTACAGCTGCAGGTGTTGCGGCTGCAGCAGGACAAGAAGCAGCTGCAGGAGGAGGCGGCCCGG
CTGATGCGGCAGCGGGAAGAGCTGGAGGACAAGGTGGCCGCCTGCCAGAAGGAGCAGGCCGACTTCCTGCCCCGG
ATAGAGGAAACTAAGTGGGAGGTGTGCCAGAAGGCTGGCGAGATCTCCCTCCTGAAGCAGCAGCTGAAGGACTCG
CAGGCGGATGTGTCGCAGAAGTTGAGTGAGATCGTGGGACTGCGCTCGCAGCTGCGGGAGGGCCGGGCTTCGCTG
CGGGAGAAGGAGGAGCAGCTGCTCAGCCTGCGGGACTCCTTCAGCAGCAAGCAGGCCAGCCTGGAGCTGGGCGAA
GGCGAGCTGCCTGCCGCCTGCCTCAAGCCGGCGCTGACCCCCGTGGACCCGGCCGAGCCACAGGATGCTCTGGCC
ACCTGCGAGAGCGACGAGGCTAAGATGCGCCGTCAGGCCGGGGTGGCCGCTGCCGCCTCCTTGGTTTCCGTGGAC
GGGGAGGCGGAGGCTGGCGGGGAGAGCGGGACGCGGGCCCTGCGGCGGGAGGTGGGGCGGCTGCAGGCCGAGCTG
GCGGCTGAGCGGCGGGCCCGGGAGCGCCAGGGTGCCAGCTTCGCCGAGGAGCGCCGCGTGTGGCTGGAGGAGAAG
GAGAAGGTGATCGAGTACCAGAAGCAGCTGCAGCTGAGCTACGTGGAGATGTACCAGCGCAACCAGCAGCTGGAG
CGCAGGCTGCGGGAGCGCGGGGCCGCAGGGGGTGCAAGCACGCCCACTCCCCAGCATGGCGAGGAGAAGAAGGCC
TGGACCCCCTCCCGCCTCGAGCGCATTGAGTCCACAGAAATC**TGA**TCGACCTGGGCACTCGGCATTTTGACACAT
GTCCTGTCAAAAGGCCAGAGTCCCCAGTGTCCCCTCCCCTCCATCTCTCTTCCCCATAGACCCCATAACCCCAGA
CCAAAGAGGTTCTCTAAGCAGCTGTGACCAGGTTCCTCCCTCCCCACCTGCCCTCCTAGCTCCAGCACTGCCCCC

FIGURE 2769B

GTGGCAGCCCACTTGGACCCCCCTAAAAGGAGGGAATAGGAGGAGGGCAGGGTGAGTGGGGGCAATCCTAGGTGG
TGGGGGAGTCATGCTCCCTTTCTCGGCACCCCCTTGTTGGAGATGGAGGCAGCAGACGTGCAGTGCCATAAGGTG
CCCCAGTCCTTCTGGAGGCCTGGGCTGCTACTGTTGGCCACCCTGTGTCTAGTGATGCTCTCTGTGCTCACCTCC
TAGGCCATGGAGCCTGAGGGGGCCTGCACCAGGTTTGCTGAAACTGACAGAGCCTGGGCTCCAGACCTCTCTCCC
TCCTACAGTGCTCTCCCTCCCTGGGCAGATTGGCAGGACAAGTGGGAGCAGATGGCCTGCCTTTGGCTGAGAGGG
CTACCTGCCCAGCCCCTCCCCCAACAAGATCTCTTGGACTCAGGCCTCAGAGCCTGGCCTGGTTGTGAGTGTGTG
TCCCTGTGTGTGTGTTGCGGGAGGGGAGGACTGGGGCTGGAAGTCCAGCACCCAGGGAAGATCTGTCCTCCTGTT
CTTGGGAAGCGTTGCCTGACGGCTTCTCGGCTCTACCCTCACCCTTCTGGCCAGGATCCCGCAGGGCAACAGCCC
CATCTGCTTGGCTGACCCCACACCCAGGACCACTGTCCGGCTCTAACACAGCTATTAAGTGCTACCTGCCTCTCA
GGCACTCTCCTCGCCCAGTTTCTGAGGTCAGACGAGTGTCTGCGATGTCTTCCCGCACTCTATTCCCCCAGCCTC
TTTCTGCTTTCATGCTCAGCACATCATCTTCCTAGGCAGTCTCTTCCCCAAAGTCTCACCTTTTCTTCCAATAGA
AAATTCCGCTTGACCTTTGGTGCACTGCCCACTTCCCAGCTCCACTGGCCCAAGTCTGAGCCGGAGGCCCTTGTT
TTGGGGGCGGGGGGAGAGTTGGATGTGATTGCCCTTGAAGAACAAGGCTGACCTGAGAGGTTCCTGGCGCCCTGA
GGTGGCTCAGCACCTGCCCAGGGTAGGCCTGGCATGAGGGGTTAGGTCAGCCAATGTCAGCTGCTTCTCTTGGGG
CCCTCTCAGAGTCTATCTCCCCAAGACAGGAAGGGAAAAGCAAATTTCTAATTCACCAGCAATAAAAATTGGAGG
AGGCTTGGCCCTCAGCCCTTATATCTCTCTCTTTTTCACTCTCTTCCTCCCACCCCCAAGACTGAGTTTTGGGGG
GCAAGGTGGAGAGAGCTGGCAACTACTGTGAGCAAGTCCCCTAGCCCCTGACCAGCCTCCTCCCATGACTGGTGA
CTGTTTAATGAGCTGTGCATCCCCCACAAAAACATGAGTGCCCCTCTGTGTGGCCTCTAACCCTCTGCACAGCCC
TTCTGGGTGGTCCTCACCAGGTCTCTGAGCTGGGTGGGAGGCCATCCTGGCGACCACTGCCCATTCCATTCACCC
CTCACTGTACCTGCCCTAGAACCTGGGCCTAGGCCACAGGGGCAGGGAGAAGAGAAGGCATTAGTAAGAAAAAAA
TAGAAAAAAATATGAACAGACTCAGCTTTGGGACGTCCAACCACAAAAGAAATTATATATAAATATATATAAATA
TATATCTCTACCATATGTGATGGAAAGACTTTTTGTTTTCCTTTCCCAAAGAAATAAAACGGAAAAAGCC

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FIGURE 2770

GTTCTGCACTGAGGCCCTCGTC**ATG**GTGGCGCCTGTGTGGTACTTGGTAGCGGCGGCTCTGCTAGTCGGCTTTAT
CCTCTTCCTGACTCGCAGCCGGGGCCGGGCGGCATCAGCCGGCCAAGAGCCACTGCACAATGAGGAGCTGGCAGG
AGCAGGCCGGGTGGCCCAGCCTGGGCCCCTGGAGCCTGAGGAGCCGAGAGCTGGAGGCAGGCCTCGGCGCCGGAG
GGACCTGGGCAGCCGCCTACAGGCCCAGCGTCGAGCCCAGCGGGTGGCCTGGGCAGAAGCAGATGAGAACGAGGA
GGAAGCTGTCATCCTAGCCCAGGAGGAGGAAGGTGTCGAGAAGCCAGCGGAAACTCACCTGTCGGGGAAAATTGG
AGCTAAGAAACTGCGGAAGCTGGAGGAGAAACAAGCGCGAAAGGCCCAGCGTGAGGCAGAGGAGGCTGAACGTGA
GGAGCGGAAACGACTCGAGTCCCAGCGCGAAGCTGAGTGGAAGAAGGAGGAGGAGCGGCTTCGCCTGGAGGAGGA
GCAGAAGGAGGAGGAGGAGAGGAAGGCCCGCGAGGAGCAGGCCCAGCGGGAGCATGAGGAGTACCTGAAACTGAA
GGAGGCCTTTGTGGTGGAGGAGGAAGGCGTAGGAGAGACCATGACTGAGGAACAGTCCCAGAGCTTCCTGACAGA
GTTCATCAACTACATCAAGCAGTCCAAGGTTGTGCTCTTGGAAGACCTGGCTTCCCAGGTGGGCCTACGCACTCA
GGACACCATAAATCGCATCCAGGACCTGCTGGCTGAGGGGACTATAACAGGTGTGATTGACGACCGGGGCAAGTT
CATCTACATAACCCCAGAGGAACTGGCCGCCGTGGCCAACTTCATCCGACAGCGGGGCCGGGTGTCCATCGCCGA
GCTTGCCCAAGCCAGCAACTCCCTCATCGCCTGGGGCCGGGAGTCCCCTGCCCAAGCCCCAGCC**TGA**CCCCAGTC
CTTCCCTCTTGGACTCAGAGTTGGTGTGGCCTACCTGGCTATACATCTTCATCCCTCCCCACCATCCTGGGGAAG
TGATGGTGTGGCCAGGCAGTTATAGATTAAAGGCCTGTGAGTACTGCTGAGCTTGGTGTGGCTTGGTGTGGCAGA
AGGCCTGGCCTAGGATCCTAGATAAGCAGGTGAAATTTAGGCTTCAGAATATATCCGAGAGGTGGGGAGGGTCCC
TTGGAAGCTGGTGAAGTCCTGTTCTTATTATGAATCCATTCATTCAAGAAAATA

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FIGURE 2771

CCTGGCCGGAAACTGAGCCGTTCACTTCCGCCACCAGCCGGAAGTTTTCTGTCACTGGACGCCAAGGAGTTTTCG
GTGGCTCAGCTGGGTAACCGGGGATCACC**ATG**GCGGCCTCATTGGTGGGGAAGAAGATCGTGTTTGTAACGGGGA
ACGCCAAGAAGCTGGAGGAGGTCGTTCAGATTCTAGGAGATAAGTTTCCATGCACTTTGGTGGCACAGAAAATTG
ACCTGCCGGAGTACCAGGGGGAGCCGGATGAGATTTCCATACAGAAATGTCAGGAGGCAGTTCGCCAGGTACAGG
GGCCCGTGCTGGTTGAGGACACTTGTCTGTGCTTCAATGCCCTTGGAGGGCTCCCCGGCCCCTACATAAAGTGGT
TTCTGGAGAAGTTAAAGCCTGAAGGTCTCCACCAGCTCCTGGCCGGGTTCGAGGACAAGTCAGCCTATGCGCTCT
GCACGTTTGCACTCAGCACCGGGGACCCAAGCCAGCCCGTGCGCCTGTTCAGGGGCCGGACCTCGGGCCGGATCG
TGGCACCCAGAGGCTGCCAGGACTTTGGCTGGGACCCCTGCTTTCAGCCTGATGGATATGAGCAGACGTACGCAG
AGATGCCTAAGGCGGAGAAGAACGCTGTCTCCCATCGCTTCCGGGCCCTGCTGGAGCTGCAGGAGTACTTTGGCA
GTTTGGCAGCT**TGA**CTTCTGCAGCTGGAGGAGGCCCCTCAGGCCGGGGATCTGGGGAGGGCTAGCCCAAAACCTC
CCGCATCGGGCAGGCACCCCCTGAAGTACTTCCTTCAGGGTTTCCCCTTTGTGAGGGTGTCGAGTAGCCTCACCG
GCCTGTCTGGAGGAGCAGCTGGCTCTGCTCTGAGAAACTCTGGCAAGTGGACGCCATTCTCTTGCCCTTAGGATT
CACTGCTCTCTCCTACAGCCGCCAGGCCTGGGGTCCTGAAAGGACCTTGGGTGGTAAAGCTGTACTTGGTGGGAG
TGAGGGCGTGGGGAGGAACCATGCAAATCGCCTTCCATGGTTTTTAAATGCAGTAAATAACATTTCTGGATGAGA
CTTGTTTCCAAAATAAACCAGCTATATCTGTTTTG

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FIGURE 2772

GCAAGATGGCAGCCACCACAGGCTCAGTAGTAAAAGTCCCTTGCAATTTCCAACTGTTGGAAGAACTCGAAGAAA
GCCAGAAAGGAGTAGGAGATGACACAGTTAGCTGGGGTCTAGAAGATTACGAAGACATGACACTTACAAGATGGA
CAGGGATGATAATTGGGCCTCCAGGAACAATTTATGAAAACCGAATATACAGCCTTAAAATAGAATATGGACCTA
AATACTCAGAAGCACCCCCCTTTGTAATATTTGTAACAAAAAATTAAT**ATG**AATGGAGTTAATAGTTCTAATGGA
GTGGTGGACCCAAGAGCCATACCAGTGCTAGCAAAATGGCAGAATTCATATAGCATCAAAGTTGTCCTGCAAGAG
TTTCGGCGCCTAATGATGTCTAAAGAAAATATGAAACTCCCTCTGAGATTGGCCTTTGGTGAGGAATTCAGAGCT
TTCCCCATATCTTCTCTCCCCCACCTTTATCGAGGGGTGCTGCTTTTTATTCCCTCCTCAAGATCCTTTTTGCAC
CATCACCACCCAACACCTTCCATGAGACTTCCTTGCTTTGGCCAGAAGACATCAGGTAAGGTTGGAAAGAGTCTT
TGACCTCCCTTGTTTAATTTTGTAACCATACTTATTCACTCTCCACC

FIGURE 2773A

ATGGTGGCTGCAGCGGCGGCAACTGAGGCAAGGCTGAGGAGGAGGACGGCGGCGACGGCAGCGCTCGCGGGCAGG
AGCGGCGGGCCGCACTGGGACTGGGACGTGACCAGGGCTGGGAGGCCGGGGCTGGGGGCCGGGCTGCGCCTCCCG
CGGCTGCTGTCTCCACCGCTGCGGCCACGGCTGCTGCTGCTGCTGTTGTTGCTCTCGCCGCCGCTGCTGCTGCTG
CTGCTGCCCTGTGAGGCCGAGGCCGCGGCGGCGGCGGCGGCGGTGTCGGGCTCAGCCGCAGCCGAGGCCAAGGAA
TGTGACCGGCCCTGTGTCAACGGCGGTCGCTGCAACCCTGGCACCGGCCAGTGCGTCTGCCCCGCCGGCTGGGTG
GGCGAGCAATGCCAGCACTGCGGGGGCCGCTTCAGACTAACTGGATCTTCTGGGTTTGTGACAGATGGACCTGGA
AATTATAAATACAAAACGAAGTGCACGTGGCTCATTGAAGGACAGCCAAATAGAATAATGAGACTTCGTTTCAAT
CATTTTGCTACAGAGTGTAGTTGGGACCATTTATATGTTTATGATGGGGACTCAATTTATGCACCGCTAGTTGCT
GCATTTAGTGGCCTCATTGTTCCTGAGAGAGATGGCAATGAGACTGTCCCTGAGGTTGTTGCCACATCAGGTTAT
GCCTTGCTGCATTTTTTTAGTGATGCTGCTTATAATTTGACTGGATTTAATATTACTTACAGTTTTGATATGTGT
CCAAATAACTGCTCAGGCCGAGGAGAGTGTAAGATCAGTAATAGCAGCGATACTGTTGAATGTGAATGTTCTGAA
AACTGGAAAGGTGAAGCATGTGACATTCCTCACTGTACAGACAACTGTGGTTTTCCTCATCGAGGCATCTGCAAT
TCAAGTGATGTCAGAGGATGCTCCTGCTTCTCAGACTGGCAGGGTCCTGGATGTTCAGTTCCTGTACCAGCTAAC
CAGTCATTTTGGACTCGAGAGGAATATTCTAACTTAAAGCTCCCCAGAGCATCTCATAAAGCTGTGGTCAATGGA
AACATTATGTGGGTTGTTGGAGGATATATGTTCAACCACTCAGATTATAACATGGTTCTAGCGTATGACCTTGCT
TCTAGGGAGTGGCTTCCACTAAACCGTTCTGTGAACAATGTGGTTGTTAGATATGGTCATTCTTTGGCATTATAC
AAGGATAAAATTTACATGTATGGAGGAAAAATTGATTCAACTGGGAATGTGACCAATGAGTTGAGAGTTTTTCAC
ATTCATAATGAGTCATGGGTGTTGTTGACCCCTAAGGCAAAGGAGCAGTATGCAGTGGTTGGGCACTCTGCACAC
ATTGTTACACTGAAGAATGGCCGAGTGGTCATGCTGGTCATCTTTGGTCACTGCCCTCTCTATGGATATATAAGC
AATGTGCAGGAATATGATTTGGATAAGAACACATGGAGTATATTACACACCCAGGGTGCCCTTGTGCAAGGGGGT
TACGGCCATAGCAGTGTTTACGACCATAGGACCAGGGCCCTATACGTTCATGGTGGCTACAAGGCTTTCAGTGCC
AATAAGTACCGGCTTGCAGATGATCTCTACCGATATGATGTGGATACCCAGATGTGGACCATTCTTAAGGACAGC
CGATTTTTCCGTTACTTGCACACAGCTGTGATAGTGAGTGGAACCATGCTGGTGTTTGGAGGAAACACACACAAT
GACACATCTATGAGCCATGGCGCCAAATGCTTCTCTTCAGATTTCATGGCCTATGACATTGCCTGTGACCGCTGG
TCAGTGCTTCCCAGACCTGATCTCCACCATGATGTCAACAGATTTGGCCATTCAGCAGTCTTACACAACAGCACC
ATGTATGTGTTCGGTGGTTTCAATAGTCTCCTCCTCAGCGACATCCTGGTATTCACCTCGGAACAGTGTGATGCG
CATCGGAGTGAAGCCGCTTGTTTAGCAGCAGGACCTGGTATTCGGTGTGTGTGGAACACAGGGTCGTCTCAGTGT
ATCTCGTGGGCGCTGGCAACTGATGAACAAGAAGAAAAGTTAAAATCAGAATGTTTTTCCAAAAGAACTCTTGAC
CATGACAGATGTGACCAGCACACAGATTGTTACAGCTGCACAGCCAACACCAATGACTGCCACTGGTGCAATGAC
CATTGTGTCCCCAGGAACCACAGCTGCTCAGAAGGCCAGATCTCCATTTTTAGGTATGAGAATTGCCCCAAGGAT
AACCCCATGTACTACTGTAACAAGAAGACCAGCTGCAGGAGCTGTGCCCTGGACCAGAACTGCCAGTGGGAGCCC
CGGAATCAGGAGTGCATTGCCCTGCCCGAAAATATCTGTGGCATTGGCTGGCATTTGGTTGGAAACTCATGTTTG
AAAATTACTACTGCCAAGGAGAATTATGACAATGCTAAATTGTTCTGTAGGAACCACAATGCCCTTTTGGCTTCT
CTTACAACCCAGAAGAAGGTAGAATTTGTCCTTAAGCAGCTGCGAATAATGCAGTCATCTCAGAGCATGTCCAAG
CTCACCTTAACCCCATGGGTCGGCCTTCGGAAGATCAATGTGTCCTACTGGTGCTGGGAAGATATGTCCCCATTT
ACAAATAGTTTACTACAGTGGATGCCGTCTGAGCCCAGTGATGCTGGATTCTGTGGAATTTTATCAGAACCCAGT
ACTCGGGGACTGAAGGCTGCAACCTGCATCAACCCACTCAATGGTAGTGTCTGTGAAAGGCCTGCAAACCACAGT
GCTAAGCAGTGCCGGACACCATGTGCCTTGAGGACAGCATGTGGAGATTGCACCAGCGGCAGCTCTGAGTGCATG
TGGTGCAGCAACATGAAGCAGTGTGTGGACTCCAATGCCTACGTGGCCTCCTTCCCTTTTGGCCAGTGTATGGAA
TGGTATACGATGAGCACCTGCCCCCCTGAAAATTGTTCAGGCTACTGTACCTGTAGTCATTGCTTGGAGCAACCA
GGCTGTGGCTGGTGTACTGATCCCAGCAATACTGGCAAAGGGAAATGCATAGAGGGTTCCTATAAAGGACCAGTG
AAGATGCCTTCGCAAGCCCCTACAGGAAATTTCTATCCACAGCCCCTGCTCAATTCCAGCATGTGTCTAGAGGAC
AGCAGATACAACTGGTCTTTCATTCACTGTCCAGCTTGCCAATGCAACGGCCACAGTAAATGCATCAATCAGAGC
ATCTGTGAGAAGTGTGAGAACCTGACCACAGGCAAGCACTGCGAGACCTGCATATCTGGCTTCTACGGTGATCCC
ACCAATGGAGGGAAATGTCAGCCATGCAAGTGCAATGGGCACGCGTCTCTGTGCAACACCAACACGGGCAAGTGC
TTCTGCACCACCAAGGGCGTCAAGGGGGACGAGTGCCAGCTATGTGAGGTAGAAAATCGATACCAAGGAAACCCT
CTCAGAGGAACATGTTATTATACTCTTCTTATTGACTATCAGTTCACCTTTAGTCTATCCCAGGAAGATGATCGC
TATTACACAGCTATCAATTTTGTGGCTACTCCTGACGAACAAAACAGGGATTTGGACATGTTCATCAATGCCTCC

FIGURE 2773B

AAGAATTTCAACCTCAACATCACCTGGGCTGCCAGTTTCTCAGCTGGAACCCAGGCTGGAGAAGAGATGCCTGTT
GTTTCAAAAACCAACATTAAGGAGTACAAAGATAGTTTCTCTAATGAGAAGTTTGATTTTCGCAACCACCCAAAT
ATCACTTTCTTTGTTTATGTCAGTAATTTCACCTGGCCCATCAAAATTCAGATTGCCTTCTCTCAGCACAGCAAT
TTTATGGACCTGGTACAGTTCTTCGTGACTTTCTTCAGTTGTTTCCTCTCTTTGCTCCTGGTGGCTGCTGTGGTT
TGGAAGATCAAACAAAGTTGTTGGGCCTCCAGACGTAGAGAGCAACTTCTTCGAGAGATGCAACAGATGGCCAGC
CGTCCCTTTGCCTCTGTAAATGTCGCCTTGGAAACAGATGAGGAGCCTCCTGATCTTATTGGGGGGAGTATAAAG
ACTGTTCCCAAACCCATTGCACTGGAGCCGTGTTTTGGCAACAAAGCCGCTGTCCTCTCTGTGTTTGTGAGGCTC
CCTCGAGGCCTGGGTGGCATCCCTCCTCCTGGGCAGTCAGGTCTTGCTGTGGCCAGCGCCCTGGTGGACATTTCT
CAGCAGATGCCGATAGTGTACAAGGAGAAGTCAGGAGCCGTGAGAAACCGGAAGCAGCAGCCCCCTGCACAGCCT
GGGACCTGCATC**TGA**TGCTGGGGCCAGGGACTCTCCCACGCACGAGCTAGTGAGTGGCACACCAGAGCCATCTGC
AGGGAAGGGCGTGGCGGGGAAATGGCTGTGCGGTGCGGGACGGAAGACTGGAAACCCTCAAAGCATCTGACTCAC
CTGCATGATCACAAGCTTTCTTTGACGGTTTCTCCCATCCGTGTTCCAGCATCTAACCTTTTACTTTTGCATAGG
AAATACTTGATTTAATTACAGGTCCAGGGATGAGCTGATGGTTGCTGGAGGAGGCCAGTGTAGAGCCAGTGAGAG
AACTAGGAATGACACTCAGGTTCACTGTGGAAAACTGTTCTTGGGACTGTCTCAACTGTGCAAAAAACAAAAGAT
GGAGTGTTTACAAGTAGACATTCGTCATCAGTTGTTCTTGAACATGGTCTTTTAAAAACTAGTCAGATGAATTGT
TTTCATCTGAAGCCTGCTATCTTTTTTAAAAGATGTGCTATTTATTCTTGCACGATTTAGGCAATTATCTCTCTT
CCAGGGAGTACCTTTTTTTCTAGTTGAGAATTAATAATGGTCCATCTCTTTTGATCATATCAAGCTAGGATAGAA
GGGGGGCTATTTTAAATGTCAAGGTCAGCAGTGTTACTTTGAATGTAAACTGGTATAATAGGTAGTTTTCTATAG
TAACTTGATTAATTTAGTCTTAATCCATTTGAAACTCTCTCTTCCTTTCTCTCTGCCTGTCCCTCTCCTTCTCCA
TCTCACCCTCCCTCTCTCACACATACACACACAAACACATACACACAACACTAAGTGCCTAGACTTTAAATAGAT
CTAGCAATTGGAAAGTTAGTAAGCCTAAGTTTTTACATAATTGCATTCCTACATTCTTGTAAAATTTAAATAGCT
ACCATTGGCAATCTGCTTTTTTTTCTAAAATCTGATTTGCAGCCAGGAAAGAATTTTCTCACCCAAGGAACATTTG
ATCTAGCAGCAGGGATGAGAGGAAAGCAGAAATGAATGAACTGTGAAAGCTCCTGTTTTTATTATCAAAAAGGAC
ACTGTCAAGAAGGCGCCCCCTGCCCCCACCCCCGTGTCACCCTAGGCCTGATAAGCGATCAGAGGAAAGGACTCA
TTCATGTCACGCTTCCTTGAGCAGAAAAGAGCACTGAGAGCACTTGGGACCCCTGGATCAGAGAGCATCTGTGTG
TCCTGCAGCCTCCTCTGAACTTGTGGTTCATTCTCAGGCTGGGGTGGACTCAGATGCCAGGAAAGGGACAGCCTC
CCATTGTCAGGCAGAAGCTGCCCAAAGCCTGGAGAAGGACTTGTTTGCCCTCTTTCCCCCAGGAGGGGCTCGACC
CACCCACCCTCCCTCTCAGACCAAGGTGGTGGCTGTGAGGAGGGCAGCAAATGCTGACAAGGATGAAAAGCACAT
GGAAAAAAATGGATGAGGAGGGAAAACTCTGCCAAATGGAAAATGACCAAATTTAAGAGGGTGGGACAGTCCCCT
GCTCCTCTCCCAGAGGGCACTGCTTGGAAATTGTGTTTTCCCCATTTATGGTGCTCTGTATTCTGGCATTATGCA
GCAGCCTCCCAGAAGCTCTCTTCTGCTTCAAAACCTGGGATCTCTGGCATTACCCTATTGGGATGGACCGCTGGA
CAGCAATGCTCGAGTTTGTGAATTTGGAGAGATACTCAAAAGAGCTAAAACTGCAGCATTTTACCTTTAAATGCA
GTGCCTAGAGAGAGAGTATTGTCTCTTCCCCAACACTAACCCCACTCCCATGAAGAATTGCCTGGAAAGATGTTT
TCAAGGAATTTGAACCATAAAACACTATCTGATGCACAGAACACCTCTACTTTGAGACTCACCTCTCATAAAGCT
TCTTTTTCACATTACTGTTAAAGACCAGACGTTCTAGAAAAGACCCCTCCTCTCATGAGCTCCCCCATCCCTGCT
ACAGAACACAGCACCCATGGCGCCTGCAGTGGACTGGCCCCTTAATTCCCACAGGCCCCCCCAGCAAGGCCAAAG
GGAGGCCCCTGGGTATTGTCCTCCTACAAGGAAGATCCTCTTTGTTTGTTCAAAGGACCAGTTTTCCTAGGCCAA
AGAAGTCTCTTCCCCATGTTAGTCCTATGCCTTGAAATATCATGCACCATGACCCACAGCCATCTGGTTATGTCT
TATTTTTTTCCTAAAAGATAATGTTTATTTTTAAAAAGGAAGGAAGGAGCAAGTGAAGTTTCATTCTGCTCCAGC
GGTGGGGAAGCCGCTGAATCCACCTGCTTCTCCTTTGCAACCGACAGCAAACAGCTTTCTCCGGCCTCAGGGCAG
AAAAAGGGAATGGCAGGGAGTAAGAGGCGCTGGGCTCGGAGCCTGTTTCCAAGAAGGAATTGGTTGTCATCTGGC
AGTGTTGCGCGTCACAAGAGAGCCTGTATATAAATTAAAATAGTCAAGACAACACTGACCTTGCACTTGTACATA
ACTATACAGTAGTGTCCAGAATGTTCAGACATTCGGAGTGTACATAAAACAGAAAAAATCTTCATGTATTTTTAT
TAAATATAACAATGTCTGAGTTTCACCTAAGATGTTTTTGTGCCATATGCTGGATATCCAGGTTCTCGCCAGGCC
CCGATACATGAATAACAAACCCAAGAAACGCATCCCCATTGTGTGATGTGTTCAGATGCATCTGGCACCAATTAG
GTATTTCTTAAAACAGGACTCATCTGTCAGAGTGCACATGAAAAATCAGGCAGGGAATCGAAACGACAGTGCTGG
AGGAGACTCAGGAAGCAGAGGCGTCCCTGCCGCTGCCCTTGGCCCTGCAAGCACATCATGACCCTTTCTGGCAGC
CTCTTGGTGCTCTGGGTAGTGAGGGATGACCAGTCTTGTCCTGAGAAATGTTTCTCTTAGTCTTTAAGTTCAAAG

FIGURE 2773C

ACTAACCTGTAGCAATCAGACTTTCCAAAAGGGGGTTCTCCATTTTTTGTAGTTTTGTCTAAATTTTTAATGACC
ATTTCCTGGAATCAGTTTATTATACTGAAAACTGGGGGTGGGAGTAGGGAGCTAGTTTGTTGATAAATAGTTCCC
ATTTCCCCATGGAGAATTTGACATACCCTGGACTCCTGTGTGCCTCCTGCCATCCCTGCACACAGCCTGGGGAGA
AGCCTGTGCCTCCCCGTGTGGAGAGAAGGCAACCCCAGATCCCCTGAGCTAACCCGGAGGAAAGGCAGTCCTGGA
CAGAAGACTGTCAGCAGAAGGAAAGTACTGGACTACCCGTGGGTAAGTCCTGCCATTCAAGACTGGAGACACCTG
GGAAATAAAAAAGAGCAGGGCACTGCTGGTGGGAAGAGGCATTTTACCTTCCAGTGCAAATCCTGCTCCTTTGATT
TAATGGGGTGTACTGGGGCCAGGGGCTGATTCACTTCCTTGGGAGATGGTGGTGTTTTCATGAACATCTTTGATC
CTTCCATTTCATTTATTCATCCATCCATTCAACAAGTATTTGCTAAACACTAACTTAAGCTAATGCTAGGGTAGT
GACTGAGATGTAAAAATAGATTTTAGAATTAAAACAAAATCCAAGTCCTCACACCCCTGTCATCCCAGGAGATCT
TTCCTTGTGGTGGTTTCTGTGAGAATTGGCCATCCTGAGGACACAGCCAGGACGGCAGAGGCCTCCTGGCCTCAG
GGCATGCCCTGCCTACCTTCTGAAATGTTTACCCCATTGACCAAACTTGGCTCCAGCCATTGCGGTGGTTTCTAG
ATAGCCAGGCCCACCAAGAGATATTGCCCCTTGATGAGAGTCAAACACCCTGCCTACAAGGAGATGTTTTGAAAT
GGAGAGGAAAATTGGCACCTCATCTTTTAAAGGCAGTAATGGAATTGATTTTCAGTAACTGAATTTGTGCACAAA
ACATTCTAAACACTAGTGAAGCCTGTTTCGTTGAACTAATTCTGGCTCTGGAAATGTTTTTGTTTTATAGTTATT
TACGATTTCGTTTGTTTGGATTCAAGCTTAGTTTGTTAATATGTATAATTTAGCATCTATTACACTCATGTAAAT
ATGGAGTAAGTATTGTAAACTATTTCATCGCGGGGATTGTGGGTGTTATACATACATTTAGGACTGCAATTTTTT
GGTATTTTTTGTATTGTAAAATAACAGCTAATTTAAGCAGGAACAAGAGAACTAAGGGAGGTCTGTGCATTTTAA
ACACAAATGTGAAGAACTTGTATATAAACAAAAGTAAATACTATAATACAAACTTCCTTCTGAAATAAAAGTAGA
TCTGGT

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FIGURE 2774

CTAAAGGAAG**ATG**GAGACAATACTGGAGCAGCAGCGGCGCTATCATGAGGAGAAGGAAAGGCTCATGGACGTCAT
GGCCAAAGAGATGCTCACTAAGAAGTCCACGCTCAATTCTGATCACCGCACTCAGGCCATGCAAGATATCTGTGT
GCCAATGTCAGTGAAATTTGAGGAGCTCCTGAAGGCTCAGAGAATCCAAGTGAAGAGGCACAAAACTTGGTGGAG
TTCACAGATGAAGAGGGATATGGTCGTTACCTCGATCTCCGTGACTGTTACCTCAAGTACATTAACG**TGA**AGGCA
TCTGAGAAGCTGGATTATATCACATACCTGTCCATCTCTGACCAATTATTTGACATTCCTAAAGAAAGGAAGAAT
GCAGAGTATAAGAGATACCTAGAGATGCTGCTTGAGTAACTTCAGGATTACACAGATAGAGTAAAGCCTCTCCAA
GATCAGAATGAACTTTTTGGGAAGATTCAGGCTGAGTTTGAGAAGAAATGGGAGAATGTGACCTTCCTGGATGGG
CGAAAGAGACAAGCAGCGCTCTGACCCATGCTGGAGCCCATCTTGACCTCTCCGCCTTCTCCTCCTGGGAGGAGT
TGGCCTCTCTGGGTTTGGACAGATTGAAATCTGCTCTCTTAGCTTTAGGCTTGAAATGTGGCGGACCGTAGAAGA
GCAAGCCCAGAGACTATTCAGTACCAAAGGAAAGTCCCTGGAGTCACTTGATAACTCTTTGTTTGCCAAAAATCC
CAAATCAAAGGGCACCAAGCGAGACATTGAGAGAACAAAGACATTGCTTTTCTAGAAGCCCAGATCTATGAATA

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FIGURE 2775

AACGAGCTGCGGGCCCGGGATCGCGGCGGCTGGACGGGGCTGGAGCTGTCGGGAGGGCGGAGCTACAGGGCCTGC
AAGG**ATG**TTGGCTGTCCCGGAGATGGGCCTGCAGGGGCTGTACATCGGCTCCAGCCCGGAGCGGTCCCCAGTGCC
TAGCCCACCCGGCTCCCCGAGGACCCAGGAAAGCTGCGGCATTGCCCCCCTCACACCCTCGCAGTCTCCAAAACC
CGAGGTCCGAGCCCCCCAGCAGGCCTCCTTCTCTGTGGTGGTGGCCATTGACTTCGGCACCACGTCTAGTGGCTA
TGCTTTCAGCTTTGCCAGTGACCCTGAGGCCATCCACATGATGAGGAAATGGGAGGGCGGAGACCCGGGCGTGGC
CCACCAGAAGACCCCGACCTGCCTGCTGCTGACTCCGGAGGGCGCCTTCCACAGCTTTGGCTACACCGCCCGCGA
TTACTACCATGACCTGGACCCCGAAGAGGCGCGGGACTGGCTCTACTTCGAGAAGTTCAAGATGAAGATCCACAG
CGCCACGGATCTCACCTTGAAGACCCAGCTAGAGGCAGTAAATGGAAAGACGATGCCCGCCCTGGAGGTGTTCGC
CCATGCCCTGCGCTTCTTCAGGGAGCACGCCCTTCAGGAGCTGAGGGAGCAGAGCCCATCGCTGCCAGAGAAGGA
CACTGTGCGCTGGGTGTTGACGGTGCCTGCCATCTGGAAACAGCCAGCCAAGCAGTTCATGCGGGAGGCTGCCTA
CCTGGCTGGACTAGTGTCCCGAGAGAATGCAGAGCAGCTACTCATCGCCCTGGAGCCCGAGGCCGCCTCGGTATA
CTGCCGCAAGCTGCGCCTGCACCAGCTCCTGGACCTGAGTGGCCGGGCCCCAGGTGGTGGGCGCCTGGGTGAGCG
CCGCTCCATCGACTCCAGCTTCCGTCAGGCTCGGGAGCAGCTGCGAAGGTCCCGCCACAGCCGCACGTTCCTGGT
GGAGTCAGGCGTAGGAGAGCTGTGGGCAGAGATGCAAGCAGGAGACCGCTACGTGGTGGCCGACTGCGGCGGAGG
CACCGTGGACCTGACGGTGCACCAGCTGGAGCAGCCCCATGGCACCCTCAAGGAGCTCTACAAGGCATCTGGGGG
CCCTTATGGCGCGGTGGGCGTGGACCTGGCCTTCGAGCAGCTGCTGTGCCGCATCTTCGGCGAGGACTTCATCGC
CACCTTCAAAAGGCAACGGCCGGCAGCCTGGGTAGATCTGACCATCGCCTTCGAGGCTCGCAAGCGCACTGCTGG
CCCACACCGTGCAGGGGCGCTCAACATCTCGCTGCCCTTCTCCTTCATTGACTTCTACCGCAAGCAGCGGGGCCA
CAACGTGGAGACCGCTCTGCGCAGGAGCAGCGTGAACTTCGTGAAGTGGTCCTCACAGGGGATGCTCCGAATGTC
TTGTGAAGCCATGAACGAGCTCTTTCAGCCCACCGTCAGCGGGATCATCCAGCACATAGAGGCCCTGCTGGCACG
GCCGGAGGTGCAGGGTGTGAAGCTGCTGTTCCTAGTGGGCGGCTTCGCCGAGTCAGCGGTGCTGCAGCACGCGGT
GCAGGCGGCGCTGGGCGCCCGCGGTCTGCGTGTCGTGGTCCCGCACGACGTGGGCCTCACCATCCTCAAAGGCGC
GGTGCTGTTCGGCCAGGCGCCGGGCGTGGTGCGGGTCCGCCGCTCGCCGCTCACCTATGGCGTGGGCGTGCTCAA
CCGCTTTGTGCCTGGGCGCCACCCGCCCGAAAAGCTGCTGGTTCGCGACGGCCGCCGCTGGTGCACCGACGTCTT
CGAGCGCTTCGTGGCCGCCGAGCAGTCGGTGGCCCTGGGCGAGGAGGTGCGGCGCAGCTACTGCCCGGCGCGTCC
CGGCCAGCGGCGCGTACTCATCAACCTGTACTGCTGCGCGGCAGAGGATGCGCGCTTCATCACCGACCCCGGCGT
GCGCAAATGCGGCGCGCTCAGCCTCGAGCTTGAGCCCGCCGACTGCGGCCAGGACACCGCCGGCGCGCCTCCCGG
CCGCCGCGAGATCCGCGCCGCCATGCAGTTTGGCGACACCGAAATTAAGGTCACCGCCGTCGACGTCAGCACCAA
TCGCTCCGTGCGCGCGTCCATCGACTTTCTTTCCAAC**TGA**GGGCGCGCCGGCGCGGTGCCAGCGCCGTCTGCCCG
GCCCCGCCCTCTTTCGGTTCAGGGGCCTGCGGAGCGGGTTGGGGCGGGGGAAACGATAGTTCTGCAGTCTGCGCC
TTTCCACGCCCTCCAGCCCCGGGGGAGATAAGGTCATGGGAGAGTGGGTGGGGACACACCCAGAGACTGGCTTTG
GGATTGGGCACTGGTCCGCTGACTGCCAGGCTGAAGGGACCCGCCAAGGACTGAACGGGTAAGAGAAGAGGTTTG
CAAGACAGAGCGCGCAGCCCGGCAAGGGGCATGTGACCCCGAAGGAAGAACGCAACAGAAGAGTCCTGGTCTGAA
CTTGGCCGAGTAGGGGTGGGGGTGGGATGGCAGGAGGAGCCGCAGGAGGAAGGAGGTTGTGCAGGGTCTGGACCT
GCAGGGCTGAAGTTCACTCATCGACCGACTCAGCCCCAACCGGGAGCCAGGCAGAAAAACCCTGTGCCGTAGGAA
AGTGACTGGAAGTGGACTCCAGAGGGACAGGTGTGGTGGCACAGTCCTGGTGTGGTGCTGACCACCCAAATATGA
CTGTGAATTGTGGAAAGGGCAGTAGATCTCTAATGTGGAGGTGGGAACATTATTGTGGTGGAGGCAATTATGAGG
GTAGCATTTCTTTCGAGACAAAACACCCGTCTGGGAAGGCCCCAAGGTCAGCTTATGAAGGACCCCACTTGCACC
CCACCCCAGCCATGGAAGAGCAGCTGGAGGGTGGATGGGGAGGCCAGAGGGAGCAATGAGGGGTGGTCCCAGCTC
TGCTATTGACTCGGTATGCCTTTAGGACATTCTCTTACCGCTCATGGGCCTCAGTTTCCTAAAGTGTGAAATGTC
AGGCACTTCCCTCTAACTGGCATGCAACAGCCCCACCTGCCTGAGAGCCCTGAGGTGACAATAAAACATTTATGC
TCAAGGGG

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FIGURE 2776

GTGCTCGGCGTTGAGCTCCTGCAGCCGCCGCCGCTGCAGTGGTCGTCCCTGCCCTCCCCGGCCCCGGGGTGCACC
CCGCAAGGCTCCCGCTGGTGTCCCTGGAGCATGGGAGGCTGCTGAGCGTGAGTGGCGGTGTCTGGCAGGAGCTGC
GTGGCAGGGAGGGCGTCC**ATG**GCTGCAGCCAACAAGGGCAACAAGCCCAGAGTCCGGAGTATCCGCTTTGCGGCA
GGCCACGATGCAGAAGGATCCCACAGCCACGTCCACTTTGATGAGAAGCTGCATGACTCGGTGGTCATGGTCACC
CAGGAGAGTGACAGCAGCTTTCTGGTCAAGGTTGGCTTCCTGAAGATCCTGCACAGGTATGAGATTACCTTCACT
CTGCCCCCAGTGCACAGGCTGAGCAAGGATGTCCGCGAGGCACCTGTCCCCAGCCTGCACCTCAAGCTCCTCAGC
GTGGTGCCCGTCCCTGAAGGTTATAGTGTCAAGTGTGAGTACTCGGCGCACAAAGAGGGCGTCCTCAAAGAGGAG
ATACTGCTAGCCTGCGAAGGTGGCACTGGCACCTGTGTGCGCGTGACGGTGCAGGCCCGCGTCATGGACCGGCAC
CACGGCACGCCCATGCTGCTGGATGGTGTCAAGTGTGTGGGCGCCGAGCTGGAATACGACTCAGAGCACAGCGAC
TGGCACGGCTTTGAC**TGA**GGCCCGAGGCCCCGCCTGCCCCGGGCCCCTCAGCCTTAAACCCCGCCTTGTCCCCCC
GACATGCTGCGTGATGGTGTGGCTTCCTCGCCCCTCTCTGGGGTGGGTGTGGGGGTGGAGTGGCCTTGCCCACGC
CTCTCACCTCTGCCTTCATTTGTGCTGCCACCCTGCCCCTCCCTCGTCCTCCTCTCCCACTTCCTCCTCTCTGTG
TGCCTCAGTCTCCTGCCGGAAGAAATGGGTTGAGCCCGAAAGGAGGCTGTCTGAGGAAGGGAGAGGGAGGGCCTG
GGGTGGGTCCCCCACTCCCCACCCCAAGCCACAGGGACTCCCACCAGGGTCTGGGAGAGGACGGAGCTGGCTCTG
TGGCGTCGTGGCCCCATTACTGCTGCCTTGCTTCAGCCACCTCTCCTGCCCCTCCCTAGTCCCCACTGCTGTCCA
CCATGAGTAGGAGGGAGGTGCAGTCCCCAGCCCCCACCCCTCAGGTCTGTGTTACTTGGTTTTTAAGCGACTGGT
TGGGATAGAACCCTAAAGAAATAAACTTCCAGTGGAT

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FIGURE 2777

CGACAGCTGACGTTCCGGGAGAAGTCACGGATCATCCAGGAGGTGGAGGAGAATCCGGACCTGCGCAAGGGCGAG
ATCGCGCGGCGCTTCAACATCCCGCCGTCCACGCTGAGCACGATCCTGAAGAACAAGCGCGCCATCCTGGCGTCG
GAGCGCAAGTACGGGGTGGCCTCCACCTGCCGCAAGACCAACAAGCTGTCTCCCTACGACAAGCTCGAGGGCTTG
CTCATCGCCTGGTTCCAGCAGATCCGCGCCGCCGGCCTGCCGGTCAAGGGCATCATCCTCAAGGAGAAGGCGCTG
CGCATAGCCGAGGAGCTGGGC**ATG**GACGACTTCACCGCCTCCAACGGCTGGCTGGACCGCTTCCGCCGGCGCCAC
GGCGTGGTGTCCTGCAGCGGCGTGGCCCGCGCCCGCGCGCGAAACGCTGCCCCCCGCACCCCGGCGGCGCCTGCC
AGTCCGGCCGCGGTGCCCTCGGAGGGCAGTGGCGGGAGCACTACTGGTTGGCGCGCTCGGGAGGAGCAGCCGCCG
TCGGTGGCCGAGGGCTACGCCTCGCAGGACGTGTTCAGCGCCACCGAGACCAGTCTATGGTACGACTTCCTGCCC
GACCAGGCCGCGGGGCTGTGCGGAGGCGACGGACGGCCGCGTCAAGCCACCCAGCGCCTGAGCGTCCTGCTATGC
GCCAATGCCGACGGCAGCGAGAAGCTGCCCCCGCTGGTGGCCGGCAAGTCGGCCAAGCCCCGCGCAGGCCAAGCC
GGCCTGCCCTGCGACTACACCGCCAACTCCAAGGGTGGTGTCACCACCCAGGCCCTGGCCAAGTACTTGAAGGCC
TTGGACACCCGAATGGCTGCAGAGTCTCGCCGGGTCCTGCTGTTGGCCGGCCGCTTGGCTGCCCAGTCCTTGGAC
ACCTCGGGCCTGCGGCATGTGCAGCTGGCCTTCTTCCCTCCCGGCACCGTGCATCCGCTGGAGAGGGGAGTGGTC
CAGCAGGTGAAGGGCCACTACCGCCAGGCCATGCTGCTCAAGGCCATGGCCGCGCTAGAGGGCCAGGATCCCTCA
GGCCTGCAGCTGGGTCTCACGGAGGCCCTGCACTTTGTGGCTGCCGCCTGGCAGGCAGTGGAGCCTTCGGACATA
GCCGCCTGCTTTCGTGAGGCTGGCTTTGGGGGTGGCCCTAATGCCACCATCACCACTTCCCTCAAGAGTGAGGGA
GAGGAAGAGGAGGAGGAGGAGGAAGAAGAGGAGGAGGAAGAGGGTGAAGGAGAGGAAGAGGAGGAGGAAGGGGAG
GAGGAGGAGGAGGAAGGGGGGGAAGGAGAGGAATTGGGGGAGGAAGAGGAGGTGGAGGAGGAGGGTGATGTTGAT
AGTGATGAAGAAGAGGAGGAAGATGAGGAGAGCTCCTCGGAGGGCTTGGAGGCTGAGGACTGGGCCCAGGGAGTA
GTGGAGGCCGGTGGCAGCTTCGGGGCTTATGGTGCCCAGGAGGAAGCCCAGTGCCCTACTCTGCATTTCCTGGAA
GGTGGGGAGGACTCTGATTCAGACAGTGAGGAAGAGGACGATGAGGAAGAGGATGATGAAGATGAAGACGACGAT
GATGATGAGGAGGATGGTGATGAGGTGCCTGTACCCAGCTTTGGGGAGGCCATGGCTTACTTTGCCATGGTCAAG
AGGTACCTGACCTCCTTCCCCATTGATGACCGCGTGCAGAGCCACATCCTCCACTTGGAACACGATCTGGTTCAT
GTGACCAGGAAGAACCACGCCAGGCAGGCGGGAGTTCGAGGTCTTGGACATCAAAGC**TGA**GTCACTGGACCTAGC
TGTGCCCCCAACCTAGATTGGCAGCACCACCCCAGGGCAGAGGACTCTCTGGGCACCCGCTGTGCATGGAGCCAG
AGTGCAGAGCCCCAGATCCTTTAGTAATGCTTCCCCTGGTCCTGCAACAGGCCCGGTCACCTCGGCCGGGCCCGG
GGCTGAGGTCAGCCTCACTGCCTGCTTATTGCCTCTTTCTCAGAATCCTCTTTCCTCCCCATTTGGCCCTGGGCT
CAGGGGACCAGGTGGGGCGGGTGGGGAGCTGTCCGGTGCTACCACACCGTGCCCTCAGTGGACTAACCACAGCAG
CAGCCAGGGATGGGCCCTGGAGGTTCCCGGCCGGAGAGTGCCTCTCCCCTCTGCCATCCACGTCAGGTCTTTGGT
GGGGGGACCCCAAAGCCATTCTGGGAAGGGCTCCAGAAGAAGGTCCAGCCTAGGCCCCCTGCAAGGCTGGCAGCC
CCCACCCCCACCCCCCAGGCCGCCTTGAGAAGCACAGTTTAACTCACTGCGGGCTCCTGAGCCTGCTTCTGCCTG
CTTTCCACCTCCCCAGTCCCTTTCTCTGGCCCTGTCCATGTGACTTTGGCCCTTGGTTTTCTTTCCAGATTGGAG
GTTTCCAAGAGGCCCCCCACCGTGGAAGTAACCAAGGGCGCTTCCTTGTGGGCAGCTGCAGGCCCCATGCCTCTC
CTCCCTCTCTGGCAGGGCCCCATCCTGGGCAGAGGGGCCTGGGGCTGGGCCCAGAGTCCAGCCGTCCAGCTGCTC
CTTTCCCAGTTTGATTTCAATAAATCTGTCCACTCCCCTTTTGTGGGGGTGAACGTTTTAACAGCC

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FIGURE 2778

AGAGGCTTCCCTGGCTGGTGCCTGAGCCCGGCGTCCCTCGCCCCCCGCCCTCCCCGCATCCCTCTCCTCCCTCGC
GCCTGGCCCTGTGGCTCTTCCTCCCTCCCTCCTTCCCCCCCCCCCCCACCCCTCGCCCGCTGCCTCCCTCGGCCCA
GCCAGCTGTGCCGGCGTTTGTTGGCTGCCCTGCGCCCGGCCCTCCAGCCAGCCTTCTGCCGGCCCCGCCGCG**ATG**

GAGGTGCCCCAGCCGGAGCCCGCGCCAGGCTCGGCTCTCAGTCCAGCAGGCGTGTGCGGTGGCGCCCAGCGTCCG
GGCCACCTCCCGGGCCTCCTGCTGGGATCTCATGGCCTCCTGGGGTCCCCGGTGCGGGCGGCCGCTTCCTCGCCG
GTCACCACCCTCACCCAGACCATGCACGACCTCGCCGGGCTCGGCAGCCGCAGCCGCCTGACGCACCTATCCCTG
TCTCGACGGGCATCCGAATCCTCCCTGTCGTCTGAATCCTCCGAATCTTCTGATGCAGGTCTCTGCATGGATTCC
CCCAGCCCTATGGACCCCCACATGGCGGAGCAGACGTTTGAACAGGCCATCCAGGCAGCCAGCCGGATCATTCGA
AACGAGCAGTTTGCCATCAGACGCTTCCAGTCTATGCCGGTGAGGCTGCTGGGCCACAGCCCCGTGCTTCGGAAC
ATCACCAACTCCCAGGCGCCCGACGGCCGGAGGAAGAGCGAGGCGGGCAGTGGAGCTGCCAGCAGCTCTGGGGAA
GACAAGGAGAATGTGCGCTTCTGGAAGGCCGGGGTGGGAGCTCTCCGGGAAGAGGAGGGGGCATGCTGGGGTGGT
TCCCTGGCATGTGAGGACCCTCCTCTCCCATCTTGGCTGCAGGATGGATTTGTCTTCAAGATGCCATGGAAGCCC
ACACATCCCAGCTCCACCCATGCTCTGGCAGAGTGGGCCAGCCGCAGGGAAGCCTTTGCCCAGAGACCCAGCTCG
GCCCCCGACCTGATGTGTCTCAGTCCTGACCGGAAGATGGAAGTGGAGGAGCTCAGCCCCCTGGCCCTAGGTCGC
TTCTCTCTGACCCCTGCAGAGGGGGATACTGAGGAAGATGATGGATTTGTGGACATCCTAGAGAGTGACTTAAAG
GATGATGATGCAGTTCCCCCAGGCATGGAGAGTCTCATTAGTGCCCCACTGGTCAAGACCTTGGAAAAGGAAGAG
GAAAAGGACCTCGTCATGTACAGCAAGTGCCAGCGGCTCTTCCGCTCTCCGTCCATGCCCTGCAGCGTGATCCGG
CCCATCCTCAAGAGGCTGGAGCGGCCCCAGGACAGGGACACGCCCGTGCAGAATAAGCGGAGGCGGAGCGTGACC
CCTCCTGAGGAGCAGCAGGAGGCTGAGGAACCTAAAGCCCGCGTCCTCCGCTCAAAATCACTGTGTCACGATGAG
ATCGAGAACCTCCTGGACAGTGACCACCGAGAGCTGATTGGAGATTACTCTAAGGCCTTCCTCCTACAGACAGTA
GACGGAAAGCACCAAGACCTCAAGTACATCTCACCAGAAACGATGGTGGCCCTATTGACGGGCAAGTTCAGCAAC
ATCGTGGATAAGTTTGTGATTGTAGACTGCAGATACCCCTATGAATATGAAGGCGGGCACATCAAGACTGCGGTG
AACTTGCCCCTGGAACGCGACGCCGAGAGCTTCCTACTGAAGAGCCCCATCGCGCCCTGTAGCCTGGACAAGAGA
GTCATCCTCATTTTCCACTGTGAATTCTCATCTGAGCGTGGGCCCCGCATGTGCCGTTTCATCAGGGAACGAGAC
CGTGCTGTCAACGACTACCCCAGCCTCTACTACCCTGAGATGTATATCCTGAAAGGCGGCTACAAGGAGTTCTTC
CCTCAGCACCCGAACTTCTGTGAACCCCAGGACTACCGGCCCATGAACCACGAGGCCTTCAAGGATGAGCTAAAG
ACCTTCCGCCTCAAGACTCGCAGCTGGGCTGGGGAGCGGAGCCGGCGGGAGCTCTGTAGCCGGCTGCAGGACCAG
TGAGGGGCCTGCGCCAGTCCTGCTACCTCCCTTGCCTTTCGAGGCCTGAAGCCAGCTGCCCTATGGGCCTGCCGG
GCTGAGGGCCTGCTGGAGGCCTCAGGTGCTGTCCATGGGAAAGATGGTGTGGGTGTCCTGCCTGTCTGCCCCAGC
CCAGATTCCCCTGTGTCATCCCATCATTTTCCATATCCTGGTGCCCCCCACCCCTGGAAGAGCCCAGTCTGTTGA
GTTAGTTAAGTTGGGTTAATACCAGCTTAAAGGCAGTATTTTGTGTCCTCCAGGAGCTTCTTGTTTCCTTGTTAG
GGTTAACCCTTCATCTTCCTGTGTCCTGAAACGCTCCTTTGTGTGTGTGTCAGCTGAGGCTGGGGGAGAGCCGTG
GTCCCTGAGGATGGGTCAGAGCTAAACTCCTTCCTGGCCTGAGAGTCAGCTCTCTGCCCTGTGTACTTCCCGGGC
CAGGGCTGCCCCTAATCTCTGTAGGAACCGTGGTATGTCTGCCATGTTGCCCCTTTCTCTTTTCCCCTTTCCTGT
CCCACCATACGAGCACCTCCAGCCTGAACAGAAGCTCTTACTCTTTCCTATTTCAGTGTTACCTGTGTGCTTGGT
CTGTTTGACTTTACGCCCATCTCAGGACACTTCCGTAGACTGTTTAGGTTCCCCTGTCAAATATCAGTTACCCAC
TCGGTCCCAGTTTTGTTGCCCCAGAAAGGGATGTTATTATCCTTGGGGGCTCCCAGGGCAAGGGTTAAGGCCTGA
ATCATGAGCCTGCTGGAAGCCCAGCCCCTACTGCTGTGAACCCTGGGGCCTGACTGCTCAGAACTTGCTGCTGTC
TTGTTGCGGATGGATGGAAGGTTGGATGGATGGGTGGATGGCCGTGGATGGCCGTGGATGCGCAGTGCCTTGCAT
ACCCAAACCAGGTGGGAGCGTTTTGTTGAGCATGACAGCCTGCAGCAGGAATATATGTGTGCCTATTTGTGTGGA
CAAAAATATTTACACTTAGGGTTTGGAGCTATTCAAGAGGAAATGTCACAGAAGCAGCTAAACCAAGGACTGAGC
ACCCTCTGGATTCTGAATCTCAAGATGGGGGCAGGGCTGTGCTTGAAGGCCCTGCTGAGTCATCTGTTAGGGCCT
TGGTTCAATAAAGCACTGAGCAAGTTGAG

FIGURE 2779

GTATGAACGCAGCGGCGGACCTGTGAGGGGATCCGACTTGCCGGCAGAACTTACGCTGCGGGACCCCGGGCACTG
TTGCTGCTGCGGGAGACTGTGGGCTGTTTAGTGCC**ATG**CACCCTTTACAGTGTGTCCTCCAAGTGCAGAGGTCTC
TGGGGTGGGGACCATTGGCCTCTGTGTCTTGGCTGTCGCTGAGGATGTGCAGGGCACACAGCAGTCTCTCTAGTA
CCATGTGTCCCAGTCCAGAGAGGCAGGAGGATGGAGCTCGGAAGGATTTCAGCTCCAGGCTGGCTGCTGGACCGA
CTTTTCAACATTTTTTAAAAAGTGCCTCAGCTCCTCAGGAGAAGCTGTCTTCAGAAGTGGAAGACCCACCTCCCT
ATCTCATGATGGATGAACTTCTTGGAAGGCAGAGAAAAGTCTACCTCGAGACCTATGGCTGCCAGATGAATGTGA
ATGACACAGAGATAGCCTGGTCCATCTTACAGAAGAGTGGCTACCTGCGGACCAGTAACCTCCAAGAGGCAGATG
TGATTCTCCTTGTCACATGCTCTATCAGGGAGAAGGCTGAGCAGACCATCTGGAACCGTTTACATCAGCTTAAAG
CCTTGAAGACAAGGCGGCCCCGCTCCCGGGTTCCTCTGAGGATTGGAATTCTAGGCTGCATGGCTGAGAGGTTGA
AGGAGGAGATTCTCAACAGAGAGAAAATGGTAGATATTTTGGCTGGTCCTGATGCCTACCGGGACCTTCCCCGGC
TGCTGGCTGTTGCTGAGTCGGGCCAGCAAGCTGCCAACGTGCTGCTCTCTCTGGACGAGACCTATGCTGATGTCA
TGCCAGTCCAGACAAGCGCCAGTGCCACGTCTGCCTTTGTGTCAATCATGCGAGGCTGTGACAACATGTGTAGCT
ACTGCATTGTTCCTTTCACCCGGGGCAGGGAGAGGAGTCGGCCTATTGCCTCCATTCTAGAGGAAGTGAAGAAGC
TTTCTGAGCAGGGGCTGAAAGAAGTGACACTTCTTGGTCAGAATGTTAATAGTTTTCGGGACAATTCGGAGGTCC
AGTTCAACAGTGCAGTGCCTACCAATCTCAGTCGTGGCTTTACCACCAACTATAAAACCAAGCAAGGAGGACTTC
GTTTTGCTCATCTTCTGGATCAGGTCTCCAGAGTAGATCCTGAAATGAGGATCCGTTTTACCTCTCCCCACCCCA
AGGATTTTCCTGATGAGGTTCTGCAGCTGATTCATGAGAGAGATAACATCTGTAAACAGATCCACCTGCCAGCCC
AGAGTGGAAGCAGCCGTGTGTTGGAGGCCATGCGGAGGGGATATTCAAGAGAAGCTTATGTGGAGTTAGTTCACC
ATATTAGAGAATCTATTCCAGGTGTGAGCCTCAGCAGCGATTTCATTGCTGGCTTTTGTGGTGAGACGGAGGAAG
ATCACGTCCAGACAGTCTCTTTGCTCCGGGAAGTTCAGTACAACATGGGCTTCCTCTTTGCCTACAGCATGAGAC
AGAAGACACGGGCATATCATAGGCTGAAGGATGATGTCCCGGAAGAGGTAAAATTAAGGCGTTTGGAGGAACTCA
TCACTATCTTCCGAGAAGAAGCAACAAAAGCCAATCAGACCTCTGTGGGCTGTACCCAGTTGGTGCTAGTGGAAG
GGCTCAGTAAACGCTCTGCCACTGACCTGTGTGGCAGGAATGATGGAAACCTTAAGGTGATCTTCCCTGATGCAG
AGATGGAGGATGTCAATAACCCTGGGCTCAGGGTCAGAGCCCAGCCTGGGGACTATGTGCTGGTGAAGATCACCT
CAGCCAGTTCTCAGACACTTAGGGGACATGTTCTCTGCAGGACCACTCTGAGGGACTCTTCTGCATATTGC**TGA**C
CTGAGAGGATGGCCTCAGAGCTGACTTGGGCAATCCTCCCCAACAGGAAGGGGAGACATTGCCTGCCACTGAGGA
AACAGGTCATGAAGGTGGAGATAAGCTGCAAGGGGCGAAGCAACTTTATGTCAGTGGAAAACGTGTCTCTTTAAA
GCTGCTATGTGAACAGCTTTTACAGTCATTAAATTTACCTAAACTAAGGTT

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FIGURE 2780

CCCTTCTGACCCACCCCGCTAGGTAGTCCCACACGGCGGCCCTCGGCTCCCGGGCCCCGCCCCGGCCTCCTGCAT
TTGCCCGAGGCCCCCTCCCCAGCACTGGCCACACCCCAGGGTAGCCCCGCCCCCAGAGCTCCTCCCCCAGCGGCC
GGGGTAGGGTGGCGGCTGGCCCAGCCGGGCCCCCGCTGCCCTCTGCCCTGGGCGCTTGGTCGGAGCGGGCTGGGC
AAAGCGGGACAGGGCGAGCGCGGCGGCCCGGGGGCTCGGAGGCGAAG**ATG**GCGTCCGGCAGGCGCGCCCCGCGCA
CCGGGCTGCTGGAGCTGCGCGCCGGGGCGGGCTCGGGGGCCGGCGGCGAGCGATGGCAGCGGGTGCTGCTGAGTC
TGGCGGAGGACGTGCTGACCGTGAGCCCCGCCGACGGCGACCCTGGTCCCGAGCCCGGCGCTCCGCGGGAGCAGG
AGCCCGCGCAGCTCAACGGCGCCGCGGAGCCGGGCGCCGGGCCCCCGCAGCTGCCAGAGGCGCTACTGCTCCAGC
GGCGCCGCGTGACGGTGCGCAAGGCCGACGCCGGTGGGCTGGGCATCAGCATCAAAGGCGGCCGGGAGAACAAGA
TGCCTATTCTCATTTCCAAGATCTTCAAGGGATTGGCAGCTGACCAGACAGAGGCCCTTTTTGTGGGGGATGCCA
TCCTGTCTGTGAATGGGGAAGACTTGTCCTCTGCTACCCATGATGAGGCGGTGCAGGTCCTCAAGAAGACAGGCA
AGGAGGTGGTGCTGGAGGTCAAGTATATGAAGGACGTCTCACCGTATTTCAAGAACTCTACTGGTGGGACCTCGG
TCGGCTGGGACTCACCTCCTGCCTCACCCCTTCAGCGGCAGCCTTCCTCCCCTGGCCCCACACCCCGGAACTTCA
GCGAGGCCAAACACATGTCCTTGAAGATGGCATATGTCTCGAAGAGGTGCACCCCCAATGACCCGGAGCCCAGGT
ATCTGGAGATCTGCTCGGCAGATGGTCAAGACACCCTCTTCCTGAGGGCCAAGGATGAGGCTAGTGCGAGGTCGT
GGGCGACTGCCATCCAAGCCCAGGTCAATACTCTGACGCCGCGGGTCAAGGATGAGCTGCAGGCACTGTTGGCAG
CCACCAGCACAGCTGGGAGCCAGGACATCAAGCAGATTGGCTGGCTAACTGAGCAGCTGCCCAGTGGGGGCACAG
CCCCCACCCTGGCCCTGCTAACTGAAAAGGAACTGCTCCTCTACTTGTCTCTCCCCGAGACCCGCGAGGCCCTGA
GCCGGCCAGCCCGTACTGCCCCACTCATCGCCACCAGACTGGTGCACTCAGGCCCCTCCAAGGGCTCAGTGCCCT
ACGATGCAGAGCTCTCTTTTGCCCTGCGCACGGGCACGCGTCACGGTGTGGACACTCACCTGTTCAGCGTGGAGT
CACCGCAGGAGCTGGCTGCCTGGACCCGCCAGCTTGTGGATGGCTGTCACCGGGCCGCCGAGGGTGTGCAGGAGG
TGTCTACAGCCTGCACGTGGAATGGGCGTCCCTGCAGCCTGTCTGTGCACATCGACAAGGGCTTCACACTGTGGG
CGGCTGAGCCAGGTGCAGCCCGAGCTGTGCTCCTGCGACAGCCCTTCGAGAAGCTGCAGATGTCTTCAGATGACG
GTGCCAGTCTCCTTTTCCTGGATTTTGGAGGTGCTGAAGGCGAGATCCAGCTGGACCTGCACTCGTGTCCCAAAA
CCATAGTCTTCATCATCCACTCCTTCCTGTCGGCCAAAGTCACCCGCCTCGGGCTGTTGGCC**TAG**AAGTCGCCGG
ATGCACTAGCCCTGAAGAGGGGTGTCCATGACATGGCCTGAGCTGGGCCTCCACCGACTGCCTGCTCACCCCTGG
GCTGAGGGAAGGGAGAGGAGAGGAACAAGGGCCTCCGAAACCCCAACCCTGAGGGAGACTGGATTGGTCTTGGGG
CCCAGGACCCAGACGCAGGACAGAGTGGACTCTGCCTGTGATGGGGTGGCCTTCCTGCTGCCCCCCTCCACCAGT
GCCTTTTGCAGAGAGATATTTTGTGTACACAGAAGCCATTCCGAGTCTGGGACCTGCCCCTGTGCGGATCCTGAC
CCCAGCCAACAGCTGAGCTGCCGGGCCTCCTCGAGGCCCCTAAGCCACCCCCAGAGGTCCCATCTGAAGCTGGAG
TACCCTGGGGGTCAGCAGCAAGAGAAAGAAGAGGAGATTTTCTGTTTGTTTTTCCCCTCAGCCCTGCCACCGTGGG
GAGTCTGGTTTTTCTCTTCATCCTGTCTCTCTCCTCCTTACTCTTGGATAAATAAACAGCCTGTGAGCACACAGG
CAGCCCGGCCCAGTG

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FIGURE 2781A

GGAAGGGTAGTGGAGAGAGAGGAAGCAGGAGGGAGGGAGAAAAAGAGAGAGACTGACTGTATCTGGGGATTCTGG
CAAGGTGAAGAGCTGGTCTGTTTGGCAGGACCTTCCCATCTGGGATCCATCTGTGTTTCCCTGGAATGGGACAGG
CAGCTCTAGTCAGTGAGAAATCGCAGATGTGAGAGAGCTGACACATGTCCAGCTAATGAAAGGAGGAGGAAGGCT
GGTCTCCGATTGAGCTTTGAAGATTAGGAGGAGAAAAAGAGGAGCTTTGGAATATCTATTTCAAATAAATTTGGT
GTATTTAAGAATCTGGATTGTTTATAATTTGGGCATTTGGGTTGGTCCTGAGAAAAGGGTGCCAGCG**ATG**CCTGG
ATCGCCTGTGGAAGTGAAGATACAGTCCAGATCCTCACCTCCCACCATGCCACCCCTCCCACCAATAAATCCTGG
AGGACCGAGGCCAGTGTCCTTCACTCCTACTGCATTAAGCAATGGCATCAACCATTCTCCTCCTACCCTGAATGG
TGCCCCATCACCGCCACAGAGATTCAGCAATGGTCCTGCCTCCTCCACATCATCTGCACTCACAAATCAGCAATT
GCCAGCCACTTGTGGTGCTCGACAACTCAGCAAGTTGAAACGCTTTCTTACCACTCTGCAACAGTTTGGCAATGA
CATCTCCCCTGAGATTGGGGAGAAGGTGCGGACTCTTGTTCTTGCACTGGTGAACTCAACAGTGACAATTGAGGA
ATTCCACTGTAAGCTCCAAGAAGCCACAAACTTTCCCCTTCGTCCTTTTGTGATTCCATTTCTCAAGGCCAACCT
GCCCCTGCTGCAGCGGGAACTGCTGCACTGCGCTCGGGCGGCCAAGCAGACCCCATCCCAGTACCTGGCTCAGCA
CGAACACCTTCTGCTCAACACAAGCATTGCATCGCCTGCTGACTCGTCAGAGTTGCTCATGGAGGTGCACGGAAA
TGGGAAGAGGCCCAGTCCAGAGAGGAGAGAAGAGAATAGTTTTGATAGAGACACAATTGCTCCTGAGCCTCCTGC
CAAGAGAGTATGTACCATCAGCCCTGCTCCTCGGCACAGTCCTGCTCTCACTGTGCCCCTCATGAATCCCGGGGG
CCAATTCCATCCTACCCCTCCACCTCTTCAGCATTACACCTTAGAGGATATTGCAACTTCTCACCTGTATCGGGA
ACCCAACAAGATGCTAGAGCATCGAGAAGTTCGTGATAGACACCACAGTCTTGGTCTAAATGGAGGCTATCAAGA
TGAGTTGGTAGATCATCGTTTGACAGAAAGGGAATGGGCTGATGAATGGAAACATCTTGACCATGCGCTGAATTG
CATTATGGAAATGGTAGAGAAAACAAGGCGCTCTATGGCAGTTCTGCGGCGCTGTCAGGAATCAGATCGTGAAGA
ACTCAACTACTGGAAAAGACGGTACAATGAAAACACAGAGCTGAGGAAAACGGGGACCGAGTTGGTCTCCAGGCA
GCACAGCCCTGGGAGTGCAGATTCTCTCAGCAATGATTCTCAGAGAGAGTTCAACAGCAGGCCAGGTACAGGATA
CGTACCTGTGGAGTTTTGGAAAAAAACAGAAGAAGCTGTGAATAAGGTGAAAATTCAGGCCATGTCAGAAGTACA
GAAGGCCGTCGCTGAGGCAGAGCAGAAAGCCTTTGAAGTGATTGCAACAGAGAGAGCACGAATGGAGCAAACCAT
AGCGGATGTCAAGCGGCAGGCCGCAGAGGATGCTTTCCTCGTCATCAATGAGCAAGAGGAGTCCACGGAGAACTG
CTGGAACTGTGGCCGCAAAGCCAGCGAGACATGCAGTGGCTGCAATATCGCGCGATACTGTGGCTCTTTCTGCCA
GCACAAGGACTGGGAGCGGCACCACCGCCTCTGTGGTCAGAACCTGCATGGCCAGAGCCCCCACGGCCAGGGCCG
GCCGCTGCTTCCTGTAGGCAGGGGCTCCTCTGCCAGGTCCGCCGACTGCAGCGTGCCCAGCCCAGCCCTCGACAA
GACCTCGGCAACCACATCGCGTTCCTCAACACCTGCTTCTGTGACAGCTATCGACACCAACGGACTC**TGA**GCCCC
GGACTCTGCTTACCCTGATGGCTGCTCAGCACCACAGAGTGCTTGGGCTGAGGGACTGACTGTTGGAACCCGTGC
ATGTAGCTGCCGGGTCATCAGCAAGAAATGAATTGGAGGCAGGAAGAGTCCAAGCCTGAATAATAACACCCCACA
GCCTCTCTGTGCACTTGCTGTCTGCGGAGCCAGTGTGCCATTCTCTGCACATGGGCAGCCAGCCTGAGCTGCCTC
CTCCATGGCTTTCCTGGTTTGTTCCTCTCTCCACTGAAGCTGACTTAGCCGGCCCCTTTTCAGTGTAGACCACCA
GCTCCCCTCCCCATCTCCTTGAGTCAGCAGACTGTCCAATGTGCTCAGCCAGGCTGGAGGCGGCAGGCGGCAGGC
AGCAGGCTGTGGAGGAGGCCCCTCGGTCAGGGAGCGGCCTGCCTCACCCCTGAATAGCTCCTTCGGCCCCATCTC
CATCCTCAGCAGATGACACTGATTGGCCTCACGGGGACTTGGGTAAGCAACAGGCGGCATTCAGGACTCTTCTCA
ACCCTGCTGTTCAGACTTGATAAGATCTCAGAGTCCACAGGAAAGAAGTCACTGTTGCAATAAAAGCACCCGTAG
TAGCAAAAACATAAAACAAATAAAACTTCCCCCACATCACAGATGATTTTGGACAAGATTTTCCAACCTTGCTGG
CTACTTTAGTTTGGGACCTGTTTTTTTTCTCATTTGATTTTGCTTGTGCAGAAAATAGTTTCCAGCACATGGATT
GATCTGAGAGAGAATGAGGCTCAGTTGTGGATAGTCTGTTTTCTCTGAGCATGTTGGCCAACTAGTATCGTCAAA
TTATTGAGTGGATCATCTCTTGGAAATGCAGAACTTCTGCCACCACTTGGCTATTTGCACAGTCATCTTGTTCTG
TGTCCTTTTATCTCTCAGACCACACACATCTGGAACGCTGTGGGCATCTTCTGCCCATGGGCTCCATTTGGCACC
TGCTGAGCCACAGTTGTCCTGCTGGATGTGCTGTGCAGGTTGGTAGGACTTGCCCCCACTGTCAAGGCCTGGTCT
CATCTGAAAAGCCCTCCTGGACCTCAAAGAATTCTTCAGACCTCATAGTTACAGGTCATTATATCTACTATGTTG
ATTTATCATCAGGCACACAACTTCTGTTTCCTTCTCTTGTGTTATCTGATAGCGTCCCTCCTTGAGCTCATCAGA
AAGGTTTTATGAAATGTGAACCATTTTGGGAAAAGCTGATCAATTTTTCTTCCTAGCTTCCCATTTTCAAATGGG
ACATCACTCATATCCCTTTCAGAATGTTAGGAACTGCCTCCCACATTCTTCCCTGTCTTTTTGGGTTTTGTTTTT
TGTTGTTGTGGTGGTTTTTTAACACAAACCTGGGCAACAGAGCAAAACTCTGTCTCAAAAAAAAAAAAAAAAAGG
CAAAATTAAAGAATTTCAAGTCCCTAATTTACTCTAACCAAGCATTTTCAGTCTTACAAAGAAATCTAGTGCACG

FIGURE 2781B

ACACCTTTAAAATGCCTAGATTTCCATTGCCTAAAGTAAGGTGTGACCAGTGAAACAACAGCAGAGAATCATGTT
CCTTTGCTGTGGAACACATAAGCCCCACAGTTTTCCAGTCAGCCTAATACATGGGTATCCCCCGACCCCATCTGC
CTCCTTAAGCCACAGTCCTTGGTGGGGAACTCTAAGGGGGACGGAGTCAGTACCCCGGACAGGGCCACATTTGCA
TGAGACATGGCTGTCTCACAGGTCACAGAGCCATTACAACAGCTTACTAGTTTTTCATGGATTTGTTGGATTAAC
ACCTTAAGCAGGTTTTTTATTGTTATTTTGTTTGTTTGTTTGTTTTGAGACGGGAGTTTCTCTCTTGTCTCCCAG
GCTGGAGTGCAATCGCGCAATCTCGGCTCACGGTAACCTCTGCCTCCCAGGTTCAAGCGAGTCTCCTGCCTCAGC
CTTCTGAGTAGCTGGGATTACAGGCATGCGCCACCACGCCCAACTAATTTTGTATTTTTAGTAGAGACGGGGTTT
CTCCTTGTTGGTCAGGCTGGTCTCAAACCCCGGACCTCAGGTGATCCCCCCACCTTGGCCTCCCAAAGTGCCAGG
ATTACAGGCATGAGCCACTGTGTCCGGTCTTGAGCAGGTTTTTAAAATCTCCAGTGGCCATAAAACTAGCCAGGG
TAGCTCATGCTTTTACTGGTTGGAATAAGGAGCCAAAACCAACAAAATAATATTTATTAGGGCTCGATGCCCATT
TCTGTGGCTAAGGCTTAGGTTTGGTGTGCAGAGCCTGGCCTGCTCTTGTGGGCTGTGGTTGCTGTGACAGTTTCG
TTTTCTGAATCTTTGTAATGCTCTTCCACCCTGCTCGTGCTGCCCAGAGGCTGATCTGCAAACCTGGGCAGTATT
CCACACTGAAGCTCAGTTTGCAAACCTTCTGCTGTGTTAATTCTGGTCAGTTTCACACAGAAGTCACGAGGGCCT
CTGCCCAGGACCTTCTATTCACATTTCAAGAATCCCTTTCTGAAATTCTCCAACTCTCTGGTCAGGAGGAGGAGC
ACCATTGGGGCGGGGTAGGCAGCTAGAGGCGCAGGAGCGAATCCAGGTTCCTTGCGTGGTTCCCAGCCTCTGCTG
ACAGCACCTCAGCTACCAGGTGGGGAGTGGAAATTCAGCCTGCTTAGAGGACTGACCTCTACAGTTCATATTTGC
AGTGACATAAAAGGCAAAGAGGAGCTGGCATGGTGGTACAGAAGGTATCAGTCAAGCGCAGGCTCTTCAGAAACC
TAGAAACTAAAAAAGAGATGCAACATGTGACTGGCCATCAGCCAGACATGTCTAGGGTGAGACCAGTGCTCAGCAC
CACCCGCCAAGGAACACTGATGAGTTGTGGGACATTATGGTCGGCCAAGTGAGGAATGATTGCAGGGACCAGAGA
AGACCAAAGATGCCAGATGTCCCCAGAGTTTCTTGAGGGCTGGGTTTCACGTCTTTGCTTGTCCTTTTTGTCCCC
ACTTGCCTGCACCGTGCCTGACTCATCCAGTGGGGAAGGTGACTCAAGAAGTTGTTTAAGCCTAGGCCTAGGCAG
TCCACTTCGGGAGGTGGGGGCACTCCACACTGGGGGGCCCTGCAGCTCCAGGGCTGGTGCTCTAGCAGATCCGCT
CAGGCACGGTTGGGTGACCGTGGGGTCACCGATTGCGTAGATTATTTCTAGGGCAGTGCTGGGTTAGAAATGTCT
GTCTGGAAACAGGACACATCTTGCCACCACAAGTCCACACCTGGCCTTGGCTGCTGCCCGCTCTCTGCAGCGTGG
ATTTCCTTTGCCCATTTGGGCCAGAAGGTCACCAGGAGTTCATCACTGCTTAGTGTCAACTTGACATCTTCAGCT
TCCAGACAGAAAACCCATGCTTTACTTTGTACAGCCCTGTCCCAGAGTTAGTAAGCCTCGGCTTGTCACCTGCTT
GCAAAGGGTATAGACATCATTCTGGGTAGTTCTAGAGGATATCGCAACAAGTGCGTTTGAAGGTTCAGCACAGCT
GGAATTGTACGGTAGTGAGCTCTTCAAAATGAAAACAGAATGACCGGATGGCCATCTGTCCTGGAAACTGTAGAA
TTGAATAAATCACTGAAAATAGAACACTTCTTGGAGGCTTTCTTCAGAACTGAACTAGAAACAAGGTTTCCAGGC
TCCCAGGTCAGTAGACCAAACCAACTTCCTTAGATTTTTTTTTTTAAGCTGTTTGCAGAAAACTGGGTGGTAGCG
TGTCTGAACCAAACGGAAGAATAGCCAGCGGAGCATGGACTGTTCCAGCACGGGCCAGATGGCCAGCTGTCGAGA
GCAGCCCTGCCCAGATTGCGGTGGGGGCTGTGCCAGCGGCTCCGCAGGGCCCTTCCAACTCTGGAGTGTCTGTAG
TTCTTGTGAAACCAAAACGTTGACTACCTGCCTCTTTCCTCGGGCATCGACGTGCTCATTTCCAAAGATGATGGT
GCAGGTGACCTTTTCCATCGTGAGCTAAGAGAAGGTTAGGAGGCCTGAGGGGCGGGCCTTGTGTCCCCTCCTCCC
CCTCCACAGCCCCTGAGGTGGAGCTTCCCTCACAGACCCCATCTGGTCGAGCCTACGGCTGCCCAGTGTACACTC
AGTGATGCTTATACCAAATAGGGCATGTGCGCTGGTGTCTGTTGGGGACAGCCCCATCCCTACCTTGGAGTCGGC
AGAGAAGCAGCAATAAGCATTAGGCGAATGATTGAAAGGGCTGCTGCGCCAAGAGGCCTTCAGTCCCCTTAACGT
GGCTTTCCAACTTCCTGACGAGGCTACAAAGGCTCCGCTCACAAAAGAAAGCCAATAATGTAAATAAATAGAAAA
CGAAGCCTCCACGCGTGGTTTTTAAAGGGGGATGATGAATGTGACACCACCCACAGAATGCATTAGAATCTGGTT
TTTCTGTGCTTTGTCATTTTACTCTGATAGGAATTTTTGTTACCTAACTCTGTGCATAACTTATTTAATGTACTG
TATAAATGAACCAAAACTGTTAAATATGTATTTAGTTTGTTCTACTTAAAGTAGTCAATAAAAAGGCTATATTCC
T

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FIGURE 2782

GGCGCCGGCGCCAAGGGGCGGCCTCTAGCCACACCGAGTCCGCCGCGGCGTCCAGGGTCGGCAGCAACCGCAGCC
GAGCCCGAGCGGGTGGCGGCGCC**ATG**GCGTGCGCGGGGCTGCTCACCGTGTGCCTGCTCCGGCCGCCCGCGCCCC
AGCCCCAGCCCCAGACCCCGCGGCACCCCCAGCTCGCGCCCGACCCGGGGCCCGCCGGACACACGCTCTTCCAGG
ACGTTTTCCGCAGAGCAGACAAGAATGATGATGGGAAGCTCTCATTTGAGGAATTCCAGAATTACTTTGCCGATG
GGGTTCTCAGCCTGGGGGAGCTGCAGGAACTGTTCAGCGGCATTGATGGGCATCTCACCGACAATTTAGAAACAG
AAAAACTGTGTGACTACTTCTCAGAGCACCTGGGTGTCTACCGGCCGGTGCTGGCTGCATTGGAATCGCTGAACC
GTGCAGTGCTCGCTGCCATGGATGCCACCAAGCTGGAGTACGAGAGGGCCTCCAAAGTGGACCAGTTTGTGACGC
GCTTCCTGCTGCGGGAGACGGTGAGCCAGCTGCAAGCCCTTCAGAGCTCGCTGGAGGGGGCGTCAGATACCCTGG
AGGCCCAGGCCCATGGCTGGCGGTCAGATGCAGAGAGCGTGGAGGCGCAGAGCAGGCTCTGCGGCAGCCGGCGGG
CAGGACGCCGAGCCCTGAGGAGTGTCAGCCGGTCATCCACCTGGTCCCCCGGCTCTTCTGACACAGGGCGCAGCT
CAGAGGCCGAGATGCAGTGGCGGCTCCAGGTGAACCGCCTCCAGGAGCTCATCGACCAGCTCGAGTGCAAGGCCC
CCCGGCTGGAACCCCTGCGTGAAGAGGACCTGGCCAAGGGGCCTGACTTGCACATCCTCATGGCCCAGAGGCAGG
TCCAGGTGGCAGAGGAAGGCCTGCAGGACTTCCACCGAGCCCTGCGCTGCTATGTGGACTTCACAGGGGCCCAGA
GCCATTGTCTGCAG**TGA**GTCCGCCCAGAAGATGCTGGACGGTGCCTCCTTCACCCTGTATGAGTTCTGGCAGGAT
GAGGCCTCCTGGAGAAGGCACCAGCAGTCGCCTGGCAGCAAGGCCTTCCAGCGCATCCTCATCGACCACCTGCGG
GCCCCGGACACCCTCACCACTGTGTTCTTCCCAGCCTCCTGGTGGATAATGAATAACAACTGAGCCAGACCTGCA
CACGCCGAGGGCCCCGGGACCCTGCCTGCCTCCCTCTGGAGCCTTCTGGACTGGCCAGCCCAGCGCAAAGACCAG
GACTTGTCTCCTCCTGGACTTGGGCCTGGTGGAAGGGCTCTCAGCCCAGGGATCAGGGACTGGGCTGCTTGCTTT
CTATTTATTATTGATTTATTTATCCCTGTATTTTATTGTTTGTCACTTCAGCCTCCAAGCTACTTTGGCTTCTGC
CTGGCTCAGGAGACCTGGATTCTGGTCCCTGCTGTCCCTGCCTGGCTGAGCGACCCAGGGCAGGTCCCGTCCCTG
TCTGGGTGGGCCTCAGGCCATCTGGCCGCCTAGCGAGGGTCCTGCTTTCTTCCTGCTGTCTTGGGACCAGGCTTC
TGCTCCTCCTCAGCCAGCGGCAGAAGCAGGGCTGATGCTCAGGGACCCCCCAACCCTCAAACCTTGCCTCCGAGG
CTGGGCCTGAGCTGGGTGCCCCGTCGCCCTCCCAGGCCACTAGGCTCTGACTCTTCCAGCACCCATGGATGTGCC
AGAGGCCTCTGGGTTGGTTTGCATGTCATTTGCATATCGTTTGCATGCCCTCATCCCACCCATTCTCAGGGCAGT
ATGGGAAGCCCCAAGGTGACCTGGCCAAGTAGCAATAATTTGGGTCCAGGGTCACCTATTGCCCCCAGAGGCCTC
TGAACCCCAGGCTGGGACCCCAGCACAGAGGCAATAAAGGCAGTGGTCCCTTCC

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FIGURE 2783

CCCTGCTGGGGCATCCCCGGCCTGTGATGCTCCCCGTCTCCCCAGAACCGCTGTTGTCCCGGATGGGCAGCCTGC
GGGCTCCCGTGGACGAGGACCGCCTGTCCCCGCTGGTGGCGGCCGACTCGCTCCTGGAGC**ATG**TGCGGGAGGACT
TCTCCGGCCTCCTCCCTGAGGAGTTCATCAGCCTTTCCCCACCCCACGAGGCCCTCGACTACCACTTCGGCCTCG
AGGAGGGCGAGGGCATCAGAGACCTCTTCGACTGTGACTTTGGGGACCTCACCCCCCTGGATTTCTGACAGGGCT
TGGAGGGACCAGGGTTTCCAGAGATGCTCACCTTGTCTCTGCAGCCCTGGAGCCCCCTGTCCCTGGCCGTCCTCC
CAGCCTGTTTGGAAACATTTAATTTATACCCCTCTCCTCTGTCTCCAGAAGCTTCTAGCTCTGGGGTCTGGCTAC
CGC**TAG**GAGGCTGAGCAAGCCAGGAAGGGAAGGAGTCTGTGTGGTGTGTATGTGCATGCAGCCTACACCCACACG
TGTGTACCGGGGGTGAATGTGTGTGAGCATGTGTGTGTGCATGTACCGGGGAATGAAGGTGAACATACACCTCTG
TGTGTGCACTGCAGACACGCCCCAGTGTGTCCACATGTGTGTGCATGAGTCCATGTGTGCGCGTGGGGGGGCTCT
AACTGCACTTTCGGCCCTTTTGCTCTGGGGGTCCCACAAGGCCCAGGGCAGTGCCTGCTCCCAGAATCTGGTGCT
CTGACCAGGCCAGGTGGGGAGGCTTTGGCTGGCTGGGCGTGTAGGACGGTGAGAGCACTTCTGTCTTAAAGGTTT
TTTCTGATTGAAGCTTTAATGGAGCGTTATTTATTTATCGAGGCCTCTTTGGTGAGCCTGGGGAATCAGCAAAGG
GGAGGAGGGGTGTGGGGTTGATACCCCAACTCCCTCTACCCTTGAGCAAGGGCAGGGGTCCCTGAGCTGTTCTTC
TGCCCCATACTGAAGGAACTGAGGCCTGGGTGATTTATTTATTGGGAAAGTGAGGGAGGGAGACAGACTGACTGA
CAGCCATGGGTGGTCAGATGGTGGGGTGGGCCCTCTCCAGGGGGCCAGTTCAGGGCCCCAGCTGCCCCCCAGGAT
GGATATGAGATGGGAGAGGTGAGTGGGGGACCTTCACTGATGTGGGCAGGAGGGGTGGTGAAGGCCTCCCCCAGC
CCAGACCCTGTGGTCCCTCCTGCAGTGTCTGAAGCGCCTGCCTCCCCACTGCTCTGCCCCACCCTCCAATCTGCA
CTTTGATTTGCTTCCTAACAGCTCTGTTCCCTCCTGCTTTGGTTTTAATAAATATTTTGATGACGTTTGGGCCGG
GTTTTGGGACTCTGTTGGGAACATTTCGGGGCGGGAGAGGCCAAGGTTGCTGGGGAAATGCCCATTCTCCACTTC
CCTTCTCCCTGTCCGTGCCCGATTTGATTTGAGCCTCATAACTCGAAGAAAGGTCAGCTTCCTCGCTGTTTTGGT
CCTAACTCAAAAGCAGATCCAGTAAAGGTTTTTGTTGT

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FIGURE 2784

GTGCGCTTACAGTTCCTAACCCCGACCCTGCGCGCAGCCCGCACT**ATG**GCAGCCCCGCCGCAGCTAAGGGCTCTG
CTCGTAGTCGTCAACGCACTGCTGCGCAAGCGCCGCTACCACGCTGCGTTGGCCGTGCTTAAGGGCTTCCGGAAC
GGGGCTGTCTATGGAGCCAAAATCCGGGCCCCTCACGCGCTGGTCATGACCTTTCTCTTCCGGAATGGCAGCCTC
CAGGAGAAGCTGTGGGCCATACTGCAGGCCACATATATCCACTCCTGGAACCTGGCACGGTTTGTGTTCACCTAC
AAGGGTCTCCGTGCCCTGCAGTCCTACATACAAGGCAAGACCTACCCAGCACACGCATTCCTGGCGGCCTTCCTC
GGGGGTATCCTGGTGTTTGGAGAAAACAATAACATCAACAGCCAGATCAACATGTACCTGTTGTCACGCGTCCTG
TTTGCCCTGAGCCGCCTGGCTGTAGAGAAGGGCTACATCCCTGAACCCAGGTGGGACCCGTTCCCGCTGCTCACT
GCGGTGGTGTGGGGGCTGGTGCTGTGGCTCTTTGAGTATCACCGATCCACCCTGCAGCCCTCGCTGCAGTCCTCC
ATGACCTACCTCTATGAGGACAGCAATGTATGGCACGACATCTCAGACTTCCTCGTCTATAACAAGAGCCGTCCC
TCCAAT**TAA**TGCAGCCCTGAGGTGTCTGGCTGTGGCTCAAGATTTGGCCCCATGCAGACCCTCCCAAAGGATACT
GCCTTCTCAAGATCATAGGCCTCAGACTCCAACTGGTGTTATCCCAGGGTTCCGTTTGCTGAAGTAAAAACACTG
ATTTTAAAATCCCAGTGGGTACCTTTGTATGGTGGCACAAGTGGCCGAATCAGGCTGAGGAATCTACGGCTTGGT
TCCAGCTGTGCAGCTGACTTCTGTGAGACTGGGGCCAGCCACACTACTCTCTAGGCCTCAGGGGTCAAGGAGCTC
AGAGGAGGGCCCTGAGGTCTCTTTCCGGTGGGTATGTTCATTCTTCAACTGTTCTTATGTCACAGAGGGCTCCTT
GCTGGTGGGCAGTGGGTTGTAAATACTTTTTAAAAAACACTAAGTTCCTTATCTCAGATGCTGTTCTACTGGAGA
AGTTCTAGATTCCCACTGTCCAATAGAAACACGTGAGCCATATATGTAATTAAAATGTTTCTAGTAGCTGCATTA
CAAAAAAGAAGCCTGGGCACTGTGGCTCACTCCTGTAATCTCAGAACTTTGGGAGGCTGAGGCAGGTGGATCACT
TGAGCTCAGGAGCTTGAGACCAGCCTGGGCAACATGGTGAAACCCAGTTTCTAC

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FIGURE 2785

GA**ATG**GACAATCAGACCGTTCTGGCTGTCCAGTCATTATTGGATGGCCAAGGAGCAGTCCCTGATCCGACAGGCC
AGAGTGTCAATGCGCCCCCTGCTATCCAGCCATTGGATGACGAGGATGTATTTCTCTGCGGGAAGTGTAAGAAGC
AATTCAACTCGCTGCCAGCGTTTATGACCCACAAGCGGGAACAGTGCCAGGGGAATGCCCCCGCCCTGGCCACAG
TCTCACTGGCCACCAACAGCATCTACCCACCTTCGGCAGCACCCACAGCGGTCCAGCAGGCCCCAACTCCTGCCA
ATCGCCAGATCTCCACATACATCACAGTGCCCCCGTCCCCACTGATCCAGACCCTGGTGCAGGGGAACATCTTGG
TGAGCGATGATGTGCTCATGTCTGCCATGTCAGCCTTCACATCCCTGGACCAGCCCATGCCCCAGGGCCCCCCAC
CTGTGCAGGTGCCAAACCAGTGTGTGGAGCCTCCAGTATATCCCACCCCCACAGTGTACAGCCCTGGCAAACAGG
GATTCAAACCCAAAGGACCAAACCCCGCCGCCCCCATGACCAGCGCCACCGGGGGCACGGTGGCCACCTTTGACT
CTCCAGCAACGCTGAAGACCCGACGAGCTAAAGGTGCCAGGGGACTCCCGGAAGCTGCAGGGAAGCCAAAGGCTC
AGAAACTCAAGTGCTCATACTGTGACAAGTCATTCACCAAAAACTTTGACCTGCAGCAGCACATCCGAAGGTACA
CATGCGTGGAGGGCACTGACAAGCTTGTCTTCCACAGCCACACCGGTGAGAAGCCCTTCCAGTGCATTGCATGTG
GCCGTGCCTTTGCCCAGAAGTCTAATGTTAAGAAACACATGCAGACCCACAAGGTGTGGCCTCCAGGACACAGTG
GTGGCACCGTGTCTCGAAACTCTGTGACCGTACAGGTCATGGCCCTGAACCCCAGCAGGCAGGAGGACGAGGAAA
GCACAGGGTTGGGCCAGCCCCTGCCGGGTGCGCCACAGCCCCAGGCCTTGTCCACAGCTGGTGAGGAAGAGGGGG
ACAAGCCGGAGTCCAAGCAGGTGGTCCTCATCGACAGCTCCTACCTGTGCCAATTCTGCCCCAGCAAATTCAGCA
CCTACTTCCAGCTCAAGTCTCACATGACCCAGCATAAGAATGAGCAGGTGTACAAGTGTGTGGTCAAAAGCTGTG
CCCAGACGTTCCCAAAGCTCGACACATTTCTGGAGCACATCAAGAGCCACCAGGAGGAGCTGAGCTACCGCTGCC
ACCTCTGCGGCAAGGACTTCCCCTCGCTGTACGACCTGGGCGTGCACCAGTACTCCCACAGCCTCCTGCCACAGC
ACAGCCCCAAGAAGGACAATGCCGTCTACAAGTGTGTCAAATGTGTCAACAAATACTCCACCCCTGAGGCCCTGG
AGCACCACCTGCAGACCGCCACTCACAACTTCCCCTGCCCACACTGCCAGAAGGTGTTTCCTTGTGAACGCTACC
TGCGGCGTCATCTGCCCACCCACGGCAGCGGGGGCAGGTTCAAGTGCCAAGTGTGCAAGAAGTTCTTCCGGCGGG
AGCATTATCTCAAACTGCATGCTCACATCCACTCGGGTGAGAAGCCCTACAAATGCTCAGTGTGCGAGTCTGCGT
TCAACCGCAAGGACAAACTGAAGAGACACATGTTGATCCACGAGCCCTTCAAGAAATACAAATGCCCTTTCTCGA
CGCACACAGGCTGCAGTAAGGAGTTCAACCGGCCGGACAAGCTGAAGGCCCACATCCTCTCCCACTCTGGCATGA
AGCTCCACAAATGCGCCCTGTGCAGCAAGTCCTTCAGCCGCCGTGCCCACCTCGCCGAGCATCAGCGCGCCCACA
CGGGCAACTACAAGTTCCGCTGTGCTGGCTGCGCCAAGGGCTTTTCCCGCCACAAATACCTCAAAGATCACCGCT
GTCGTCTCGGCCCCCAAAAGGACAAGGACCTGCAAACCCGGCGGCCCCCCCAGAGGAGGGCAGCCCCCCGCAGTT
GCGGCAGTGGTGGGCGCAAGGTGCTGACCCCCTTGCCTGACCCGCTGGGGCTGGAGGAGCTGAAGGACACAGGGG
CTGGGCTGGTGCCCGAGGCTGTCCCCGGCAAGCCGCCCTTCGCAGAGCCGGACGCGGTGCTGTCCATCGTTGTGG
GTGGTGCGGTGGGCGCGGAAACTGAGCTGGTGGTACCTGGACACGCTGAGGGGCTGGGCTCCAACCTGGCTCTGG
CGGAGCTGCAGGCTGGGGCCGAGGGCCCATGTGCCATGCTCGCTGTGCCCGTCTACATCCAGGCCTCCGAG**TGA**

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FIGURE 2786

CAGCTGCGGGGCGGAGGCGGAGGCGGAGGAGAGGCCTGCGGCGGCAGGGAGCGGCGGGACTGGGAGCGGGCGCCG
GAGCCGACCCGAGCCGAGCCGAGCCGAGCCGAGCCGGAGCGGGCGGCGAAGGCCGGCGCGGCGAGCAGCAACC**AT**
GTCGGTGTTCGGGAAGCTGTTCGGGGCTGGAGGGGGTAAGGCCGGCAAGGGCGGCCCGACCCCCCAGGAGGCCAT
CCAGCGGCTGCGGGACACGGAAGAGATGTTAAGCAAGAAACAGGAGTTCCTGGAGAAGAAAATCGAGCAGGAGCT
GACGGCCGCCAAGAAGCACGGCACCAAAAACAAGCGCGCGGCCCTCCAGGCACTGAAGCGTAAGAAGAGGTATGA
GAAGCAGCTGGCGCAGATCGACGGCACATTATCAACCATCGAGTTCCAGCGGGAGGCCCTGGAGAATGCCAACAC
CAACACCGAGGTGCTCAAGAACATGGGCTATGCCGCCAAGGCCATGAAGGCGGCCCATGACAACATGGACATCGA
TAAAGTTGATGAGTTAATGCAGGACATTGCTGACCAGCAAGAACTTGCAGAGGAGATTTCAACAGCAATTTCGAA
ACCTGTAGGGTTTGGAGAAGAGTTTGACGAGGATGAGCTCATGGCGGAATTAGAAGAACTAGAACAGGAGGAACT
AGACAAGAATTTGCTGGAAATCAGTGGACCCGAAACAGTCCCTCTACCAAATGTTCCCTCTATAGCCCTACCATC
AAAACCCGCCAAGAAGAAAGAAGAGGAGGACGACGACATGAAGGAATTGGAGAACTGGGCTGGATCCATG**TAA**TG
GGGTCCAGCGCTGGCTGGGCCCAGACAGACTGTGGTGGCCTGCGCAGCGAGCAGGCGTGTGCGTGTGTGGGGCAG
GCAGGATGTGGTGCAGGCAGGTTCCATCGCTTTCGACTCTCACTCCAAAGCAGTAGGGCCGCGTTGCTGCTCACT
CTCTGCATAGCATGGTCTGCACCTGGGAGATGGGCGGGGGGAGGGGGGCGGGCGGGGTGGGAAGTGCCTGCTGTT
TATAATGTTGAATTTCTGTAAAATAAACTGTATTTGCAAATCCAACATTGAGCTTCTGGACTACGCTGACTCCAC
TGCTGAATCCTCAATGGAAAGGGTCGACTGGTTGCAGTTGAAATGACCTGAAATGTAGCCTCTGTCCTTGTAAGT
CAGTTGACTTGCCGCACATCTCTTTGTGTACTTGTACGGTACTGGCAGAAAAGTCATTTTTCAAAAGCCATAGGC
TTTTCCTTGCCCTTAGCTGTAATAATGCATCTGATTTTGATTTCCTCCAGAGCTGTGTTTCTGTCCATCACCTGT
GTATTGGCCCTGTGTTTACCACTCTGGCCCACTCCTCACCCCCTTGCTCCCCTGGTCTTCTGGAGTTTGTGACAT
TGATTTGAAATGGATGGTGTTCTCTTGAGAGCAAGTGAGATTGTTAGAATTAAGTTCCAACTATACAGTTTTCTA
ACATAGCTATAAGGTCCTTGTTGCTGTTTGTGATAACTGATAGATAACTCATTGGAAACGTGCATACATTTATAT
TCAGATGAAATTATGGTTTGCACTGTCTATTAAATATCTCGATTAATTTTC

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FIGURE 2787

CGCGCGAGCGGCGCCAGCTCGGGGCAGCGGAACCCAGAGAAGCTGAGGGGGCGGTAGCGGCGGCGACGGCGACGA
CGACGACTCCCGCGCGTGTGCCCAGCCTCTTCCCGCCGCAGCCGCCCTTTTCCTCCCTCCCTTACGTCCCCGAGT
GCGGCAGTACCGCCTCCTTCCCAGCCGCGCGGCTTCCTCCAGACCTCTCGGCGCGGGTGAGCCCTATTCCCAGAG
GCAGGTGGTGCTGACCCTGTAACCCAAAGGAGGAAACAGCTGGCTAAGCTCATCATTGTTACTGGTGGGCACC**AT**
GTCCTTGAAGCTTCAGGCAAGCAATGTAACCAACAAGAATGACCCCAAGTCCATCAACTCTCGAGTCTTCATTGG
AAACCTCAACACAGCTCTGGTGAAGAAATCAGATGTGGAGACCATCTTCTCTAAGTATGGCCGTGTGGCCGGCTG
TTCTGTGCACAAGGGCTATGCCTTTGTTCAGTACTCCAATGAGCGCCATGCCCGGGCAGCTGTGCTGGGAGAGAA
TGGGCGGGTGCTGGCCGGGCAGACCCTGGACATCAACATGGCTGGAGAGCCTAAGCCTGACAGACCCAAGGGGCT
AAAGAGAGCAGCATCTGCCATATACAGTGGCTACATCTTTGACTATGATTACTACCGGGACGACTTCTACGACAG
GCTCTTCGACTACCGGGGCCGTCTGTCGCCCGTGCCAGTGCCCAGGGCGGTCCCTGTGAAGCGACCCCGGGTCAC
AGTCCCTTTGGTCCGGCGTGTCAAAACTAACGTACCTGTCAAGCTCTTTGCCCGCTCCACAGCTGTCACCACCAG
CTCAGCCAAGATCAAGTTAAAGAGCAGTGAGCTGCAGGCCATCAAGACGGAGCTGACACAGATCAAGTCCAATAT
CGATGCCCTGCTGAGCCGCTTGGAGCAGATCGCTGCGGAGCAAAAGGCCAATCCAGATGGCAAGAAGAAGGGTGA
TGGAGGTGGCGCCGGCGGCGGCGGCGGTGGTGGTGGCAGCGGTGGCGGTGGCAGTGGTGGTGGCGGTGGCGGTGG
CAGCAGCCGGCCACCAGCCCCCCAAGAGAACACAACTTCTGAGGCAGGCCTGCCCCAGGGGGAAGCACGGACCCG
AGACGACGGCGATGAGGAAGGGCTCCTGACACACAGCGAGGAAGAGCTGGAACACAGCCAGGACACAGACGCGGA
TGATGGGGCCTTGCAG**TAA**GCAGCCTGACAGGAGCAATGGCCACCAGCAGGTGAAGGGCATCGCTGCCCCAGGCC
TCAAGCCGGGCACCCAACCCTGGATGCCACCCCCCAGCGGGTACCAGAGGAAAGCTGGCAGCAGGCGCCTCCTCC
CCCAACGCATCCCAGCCAGTGCCATGTCCTCTGCAGGTGGAGTTACTGGCCTACTCCTTCCCCATGAGCCCTCCC
TGTCTGCACTGCCCAGGCCAGAGGGTAGAGCACAGGGGTTTCCCCATACTACCTCCCCTCCCCAGGACACTCCCA
GGCTTGGGTTTTTTCTATAGGTTTGGCGGGGGGCCACAGGGAGGGGACCCTGACAATAAAGAGATTGGATCCC

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FIGURE 2788

GGTGGTGGGAGAGGTATCGGCAGGGGCAGCGCTGCCGCCGGGGCCTGGGGCTGACCCGTCTGACTTCCCGTCCGT
GCCGAGCCCACTCGAGCCGCAGCC**ATG**TCTGGGGACGAGATGATTTTTGATCCTACTATGAGCAAGAAGAAAAAG
AAGAAGAAGAAGCCTTTTATGTTAGATGAGGAAGGGGATACCCAAACAGAGGAAACCCAGCCTTCAGAAACAAAA
GAAGTGGAGCCAGAGCCAACTGAGGACAAGGATTTGGAAGCTGATGAAGAGGACACTAGGAAAAAAGATGCTTCT
GATGATCTAGATGACTTGAACTTCTTTAATCAAAAGAAAAAGAAGAAAAAAACTAAAAAGATATTTGATATTGAT
GAAGCTGAAGAAGGTGTAAAGGATCTTAAGATTGAAAGTGATGTTCAAGAACCAACTGAACCAGAGGATGACCTT
GACATTATGCTTGGCAATAAAAAGAAGAAAAAGAAGAATGTTAAGTTCCCAGATGAGGATGAAATACTAGAGAAA
GATGAAGCTCTAGAAGATGAAGACAACAAAAAAGATGATGGTATCTCATTCAGTAATCAGACAGGCCCTGCTTGG
GCAGGCTCAGAAAGAGACTACACATACGAGGAGCTGCTGAATCGAGTGTTCAACATCATGAGGGAAAAGAATCCA
GATATGGTTGCTGGGGAGAAAAGGAAATTTGTCATGAAACCTCCACAAGTCGTCCGAGTAGGAACCAAGAAAACT
TCTTTTGTCAACTTTACAGATATCTGTAAACTATTACATCGTCAGCCCAAACATCTCCTTGCATTTTTGTTGGCT
GAATTGGGTACAAGTGGTTCTATAGATGGTAATAACCAACTTGTAATCAAAGGAAGATTCCAACAGAAACAGATA
GAAAATGTCTTGAGAAGATATATCAAGGAATATGTCACTTGTCACACATGCCGATCACCGGACACAATCCTGCAG
AAGGACACACGACTCTATTTCCTACAGTGCGAAACTTGTCATTCTAGATGTTCTGTTGCCAGTATCAAAACCGGC
TTCCAGGCTGTCACGGGCAAGCGAGCACAGCTCCGTGCCAAAGCTAAC**TAA**TTTGCTAATCACTGATTTTGCAAA
GCTTGTTGTGGAGATGTGGCTGGACAGGTTTGCCATCAGAGTGGATATACCGTTGTATTAAAAACAAGATAAAAA
AGCTGCCAAGATTTTTGGCGAGTGGTTGGTCTGAAGTCCTTGCAAGACGCTGATGCTCAAGCTGTTGACATACTC
ATTGCCTACTTTAACACCTGTCAGAGAAACGTGATATGGGGTAAGGAGGTGCTTTTTTAAAATCGTTCATAGACT
TCTGTAAAATGCAAGATAAATTAAAGTTATTATAACAGTGATTCTTTCA

FIGURE 2789

AGATGTTTATAAATTCTTCTGTGGGATCAGAGGGCAAGCCTATTATAACCAGAAAACTCCAAGTATAGCAGCAAG
GATGGATAAACAGGCTCTATTAGGGCTAAATCCAAATGCTGATTCAGACTTTAGACTAAGGGCCCTGGCCTATTT
TGAGCAGTTAAAGATTTCCCCAGATGCCTGGCAGGTGTGTGCAGAAGCTCTAGCCCAGAGGACATATAGTGATGA
TCATGTAAAGTTTTTCTGCTTTCAAGTACTGGAACATCAAGTTAAATACAAATATTCAGAACTAACCACTGTTCA
ACAACAACTAATTAGGGAGACGCTCATATCATGGCTGCAAGCTCAGATGCTGAATCCCCAACCAGAGAAGACCTT
TATACCAAATAAAGCCGCCCAAGTCCTCGCCTTGCTTTTTGTTGCAGAATATCTCACTAAGTGGCCCAAGTTTTT
TTTTTGACATTCTCTCAGTAGTGGACCTAAATCCAAGGGGAGTAGATCTGTACCTGCGAATCCTC**ATG**GCTATCA
ACTCAGAGTTGGTGGATCGTGATGTGGTGCATACATCAGAGGAGGCTCACAGGAATACTCTCATAAAAGATACCA
TGAGGGAACAGTGCATTCCAAATCTGGTGGAATCATGGTACCAAATATCACAAAATTATCAGTATACTAATTCTG
AAGTGATGTGTCAGTGCCTTGAAGTAGTTGGGGCTTATGTCTCTTGGATTGACTTATCCCTTTTAGCCAATGATA
GGTTTATAAATATGCTGCTAGGTCATATGTCAATAGAAGTTCTACGGGAAGAAGCATGTGACTGTTTATTTGAAG
TTGTAAATAAAGGAATGGACCCTGTTGATAAAATGAAACTAGTAGAATCTTTGTGTCAAGTATTACAGTCTGCTG
GCTTTTTCAGCATTGACCAGGAAGAAGATGTTGACTTCTTTTCAGCATTGACCAGGAAGAAGATGTTGGCCAGAT
TTTCTAAGCCGGTAAACGGAATGGGACAGTCATGGATAGTTAGTTGGAGTAAATTAACTAAGAATGGGAATATTA
AGAATGCTCAAGAGGCACTACAAGCTATTGAAACAAAAGTGGCACTGATGTTGCAGCTACTAATTCATGAGGATG
ATGATATTTCTTCTAATATTGGATTTTGTTATGATTATCTTCATATTTTGAAACAGCTTACAGTGCTCTCGGATC
AGCAAAAAGCTAATGTGGAGGCAATCATGTTGGCCGTTATGAAAAAATTGACTTATGATGAAGAATATAACTTTG
AAAATGAGGGTCAAGATAAAGCCATGTTTGTAGAATATAGAAAACAACTGAAGTTAGTGTTGGACAGGCTTGCTC
AAGTTTCACGAGAGTTACTACTGGCCTCTGTTCGCAGAGTTTTTAGTTCTACACTGCAGAATTGGCAGACTACAC
GGTTCATGGAAGTTGAAGTAGCAATAAGATTGCTGTATATGTTGGCAGAAGCTCTTCCAGTATCTATCTCATGGT
GCTCACTTCTCAGG**TGA**TGTTTCAAAAGCTAGTGCTTTGCAGGGTATGATGCGAACTCTGGTAACATCAGGAGTC
AGTTCCTATCAGCATACATCTGTGACGTTGGAGTTCTTCGAAACTGTTGTTAGATATGAAAAGTTTTTCACAGTT
GAACCTCAGCACGTTCCATGTGTACTAATGGCTTTCTTAGATCACAGAGGTCTGCGTCATTCCAGTGCAAAAGTT
CAGAGCAAGATGGCTTACCTGTTTTCTAGATTTGTCAAATCTCTCAATAAGCAAATGAATCCTTTCATTGAGGAT
ATTTTGAATAGAATACAAGATTTATTAAAGCTTTCTCCACCTGAGAATGGCCACCAGTCCTTCCTGAGCAGCGAT
GATCAAATTTTATTTATGAGACAGTTGGAGTGATGATTGTTAATAATGAATACCCGGCAGAAAGGAAAGAAGCCT
TAATGAGGAATCTGTTGACTCCACTAATGGAGAAGTTTAAAATTCTGTTAGAAAATTTGATGCTGGCACAAGATG
AAGAAAGGCAAGCCTCTCTAGCAGACTGTCTCAACCATGCTGTTGGATTTGCAAGTCGAACTAGTAAAGCTTTCA
GCAACAAGCAGACTGTGAAACAGTGTGGCTGTTCCGAAGTTTATCTGGACTGTTTACAGACATTCTTGCTGGCCC
TCAGTTGTCCCTTACAAAAGGGTATTCTCAGAAGTGGAGTCTGTACTTTCCTTCATCGAATGATTATTTGCCTGG
AGGAAGAAGTTTTTCCGTTCATCCCATCTGCTTCAGAACATATACTCAAAGATTGTGAAGCAAAAGACCTCCAGG
AGTTCATTCCTCTTATCAACCAGATTACGGCCAAATTCAAGGTACAAGTATCCCCGTTTTTACAACAGATGTTCA
TGCCCCTGCTTCATGCAATTTTTGAAGTGCTACTCTGGCCCGCAGAAGAAAATGACCAGTCTGCTGCTTTAGAGA

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FIGURE 2790

CTGAGGCCCAGCCCCCTTCGCCCGTTTCCATCACGAGTGCCGCCAGC**ATG**TCTGACAAACTGCCCTACAAAGTCG
CCGACATCGGCCTGGCTGCCTGGGGACGCAAGGCCCTGGACATTGCTGAGAACGAGATGCCGGGCCTGATGCGTA
TGCGGGAGCGGTACTCGGCCTCCAAGCCACTGAAGGGCGCCCGCATCGCTGGCTGCCTGCACATGACCGTGGAGA
CGGCCGTCCTCATTGAGACCCTCGTCACCCTGGGTGCTGAGGTGCAGTGGTCCAGCTGCAACATCTTCTCCACCC
AGGACCATGCGGCGGCTGCCATTGCCAAGGCTGGCATTCCGGTGTATGCCTGGAAGGGCGAAACGGACGAGGAGT
ACCTGTGGTGCATTGAGCAGACCCTGTACTTCAAGGACGGGCCCCTCAACATGATTCTGGACGACGGGGGCGACC
TCACCAACCTCATCCACACCAAGTACCCGCAGCTTCTGCCAGGCATCCGAGGCATCTCTGAGGAGACCACGACTG
GGGTCCACAACCTCTACAAGATGATGGCCAATGGGATCCTCAAGGTGCCTGCCATCAATGTCAATGACTCCGTCA
CCAAGAGCAAGTTTGACAACCTCTATGGCTGCCGGGAGTCCCTCATAGATGGCATCAAGCGGGCCACAGATGTGA
TGATTGCCGGCAAGGTAGCGGTGGTAGCAGGCTATGGTGATGTGGGCAAGGGCTGTGCCCAGGCCCTGCGGGGTT
TCGGAGCCCGCGTCATCATCACCGAGATTGACCCCATCAACGCACTGCAGGCTGCCATGGAGGGCTATGAGGTGA
CCACCATGGATGAGGCCTGTCAGGAGGGCAACATCTTTGTCACCACCACAGGCTGTATTGACATCATCCTTGGCC
GG**TAG**GTGCCAGATGGGGGGTCCCGGGGAGTGAGGGAGGAGGGCAGAGTTGGGACAGCTTTCTGTCCCTGACAAT
CTCCCACGGTCTTGGGCTGCCTGACAGGCACTTTGAGCAGATGAAGGATGATGCCATTGTGTGTAACATTGGACA
CTTTGACGTGGAGATCGATGTCAAGTGGCTCAACGAGAACGCCGTGGAGAAGGTGAACATCAAGCCGCAGGTGGA
CCGGTATCGGTTGAAGAATGGGCGCCGCATCATCCTGCTGGCCGAGGGTCGGCTGGTCAACCTGGGTTGTGCCAT
GGGCCACCCCAGCTTCGTGATGAGTAACTCCTTCACCAACCAGGTGATGGCGCAGATCGAGCTGTGGACCCATCC
AGACAAGTACCCCGTTGGGGTTCATTTCCTGCCCAAGAAGCTGGATGAGGCAGTGGCTGAAGCCCACCTGGGCAA
GCTGAATGTGAAGTTGACCAAGCTAACTGAGAAGCAAGCCCAGTACCTGGGCATGTCCTGTGATGGCCCCTTCAA
GCCGGATCACTACCGCTACTGAGAGCCAGGTCTGCGTTTCACCCTCCAGCTGCTGTCCTTGCCCAGGCCCCACCT
CTCCTCCCTAAGAGCTAATGGCACCAACTTTGTGATTGGTTTGTCAGTGTCCCCCATCGACTCTCTGGGGCTGAT
CACTTAGTTTTTGGCCTCTGCTGCAGCCGTCATACTGTTCCAAATGTGGCAGCGGGAACAGAGTACCCTCTTCAA
GCCCCGGTCATGATGGAGGTCCCAGCCACAGGGAACCATGAGCTCAGTGGTCTTGGAACAGCTCACTAAGTCAGT
CCTTCCTTAGCCTGGAAGTCAGTAGTGGAGTCACAAAGCCCATGTGTTTTGCCATCTAGGCCTTCACCTGGTCTG
TGGACTTATACCTGTGTGCTTGGTTTACAGGTCCAGTGGTTCTTCAGCCCATGACAGATGAGAAGGGGCTATATT
GAAGGGCAAAGAGGAACTGTTGTTTGAATTTTCCTGAGAGCCTGGCTTAGTGCTGGGCCTTCTCTTAAACCTCAT
TACAATGAGGTTAGTACTTTTAGTCCCTGTTTTACAGGGGTTAGAATAGACTGTTAAGGGGCAACTGAGAAAGAA
CAGAGAAGTGACAGCTAGGGGTTGAGAGGGGCCAGAAAAACATGAATGCAGGCAGATTTCGTGAAATCTGCCACC
ACTTTATAACCAGATGGTTCCTTTCACAACCCTGGGTCAAAAAGAGAATAATTTGGCCTATAATGTTAAAAGAAA
GCAGGAAGGTGGGTAAATAAAAATCTTGGTGCCTGG

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FIGURE 2791

AGTAGCTGTGGTCGGGGCTCGGGACCGGCTGCCATCTTAGTCTAGGGACTGAGGAGTCGCCGCCGCCCCGAGTCC
CGGTACCATGCATTTCACGGTGGCCTTGTGGAGACAACGCCTTAACCCAAGGAAGTGACTCAAACTGTGAGAACT
TCAGGTTTTCCAACCTATTGGTGGT**ATG**TCTGACAGTGGATCACAACTTGGTTCAATGGGTAGCCTCACCATGAA
ATCACAGCTTCAGATCACTGTCATCTCAGCAAAACTTAAGGAAAATAAGAAGAATTGGTTTGGACCAAGTCCTTA
CGTAGAGGTCACAGTAGATGGACAGTCAAAGAAGACAGAAAAATGCAACAACACAAACAGTCCCAAGTGGAAGCA
ACCCCTTACAGTTATCGTTACCCCTGTGAGTAAATTACATTTTCGTGTGTGGAGTCACCAGACACTGAAATCTGA
TGTTTTGTTGGGAACTGCTGCATTAGATATTTATGAAACATTAAAGTCAAACAATATGAAACTTGAAGAAGTAGT
TGTGACTTTGCAGCTTGGAGGTGACAAAGAGCCAACAGAGACAATAGGAGACTTGTCAATTTGTCTTGATGGGCT
ACAGTTAGAGTCTGAAGTTGTTACCAATGGTGAAACTACATGTTCAGAAAGTGCTTCTCAGAATGATGATGGCTC
CAGATCCAAGGATGAAACAAGAGTGAGCACAAATGGATCAGATGACCCTGAAGATGCAGGAGCTGGTGAAAATAG
GAGAGTCAGTGGGAATAATTCTCCATCACTCTCAAATGGTGGTTTTAAACCTTCTAGACCTCCAAGACCTTCACG
ACCACCACCACCCACCCCACGTAGACCAGCATCTGTCAATGGTTCACCATCTGCCACTTCTGAAAGTGATGGGTC
TAGTACAGGCTCTCTGCCGCCGACAAATACAAATACAAATACATCTGAAGGAGCAACATCTGGATTAATAATTCC
TCTTACTATATCTGGAGGCTCAGGCCCTAGGCCATTAAATCCTGTAACTCAAGCTCCCTTGCCACCTGGTTGGGA
GCAGAGAGTGGACCAGCACGGGCGAGTTTACTATGTAGATCATGTTGAGAAAAGAACAACATGGGATAGACCAGA
ACCTCTACCTCCTGGCTGGGAACGGCGGGTTGACAACATGGGACGTATTTATTATGTTGACCATTTCACAAGAAC
AACAACGTGGCAGAGGCCAACACTGGAATCCGTCCGGAACTATGAACAATGGCAGCTACAGCGTAGTCAGCTTCA
AGGAGCAATGCAGCAGTTTAACCAGAGATTCATTTATGGGAATCAAGATTTATTTGCTACATCACAAAGTAAAGA
ATTTGATCCTCTTGGTCCATTGCCACCTGGATGGGAGAAGAGAACAGACAGCAATGGCAGAGTATATTTCGTCAA
CCACAACACACGAATTACACAATGGGAAGACCCCAGAAGTCAAGGTCAATTAAATGAAAAGCCCTTACCTGAAGG
TTGGGAAATGAGATTCACAGTGGATGGAATTCCATATTTTGTGGACCACAATAGAAGAACTACCACCTATATAGA
TCCCCGCACAGGAAAATCTGCCCTAGACAATGGACCTCAGATAGCCTATGTTCGGGACTTCAAAGCAAAGGTTCA
GTATTTCCGGTTCTGGTGTCAGCAACTGGCCATGCCACAGCACATAAAGATTACAGTGACAAGAAAAACATTGTT
TGAGGATTCCTTTCAACAGATAATGAGCTTCAGTCCCCAAGATCTGCGAAGACGTTTGTGGGTGATTTTTCCAGG
AGAAGAAGGTTTAGATTATGGAGGTGTAGCAAGG**TAG**TGATAATATGAATACTCAGAACTTAGTTCCTTTCCTCC
AAAGAGAATGGTTCTTTCTTTTGTCACATGAAGTGTTGAACCCAATGTATTGCCTGTTTGAATATGCAGGGAAGG
ATAACTACTGCTTGCAGATAAACCCCGCTTCTTACATCAATCCAGATCACCTGAAATATTTTCGTTTTATTGGCA
GATTTATTGCCATGGCTCTGTTCCATGGGAAATTCATAGACACGGGTTTTTCTTTACCATTCTATAAGCGTATCT
TGAACAAACCAGTTGGACTCAAGGATTTAGAATCTATTGATCCAGAATTTTACAATTCTCTCATCTGGGTTAAGG
AAAACAATATTGAGGAATGTGATTTGGAAATGTACTTCTCCGTTGACAAAGAAATTCTAGGTGAAATTAAGAGTC
ATGATCTGAAACCTAATGGTGGCAATATTCTTGTAACAGAAGAAAATAAAGAGGAATACATCAGAATGGTAGCTG
AGTGGAGGTTGTCTCGAGGTGTTGAAGAACAGACACAAGCTTTCTTTGAAGGCTTTAATGAAATTCTTCCCCAGC
AATATTTGCAATACTTTGATGCAAAGGAATTAGAGGTCCTTTTATGTGGAATGCAAGAGATTGATTTGAATGACT
GGCAAAGACATGCCATCTACCGTCATTATGCAAGGACCAGCAAACAAATCATGTGGTTTTGGCAGTTTGTTAAAG
AAATTGATAATGAGAAGAGAATGAGACTTCTGCAGTTTGTTACTGGAACCTGCCGATTGCCAGTAGGAGGATTTG
CTGATCTCATGGGGAGCAATGGACCACAGAAATTCTGCATTGAAAAAGTTGGGAAAGAAAATTGGCTACCCAGAA
GTCATACCTGTTTTAATCGCCTGGACCTGCCACCATACAAGAGCTATGAGCAACTGAAGGAAAAGCTGTTGTTTG
CCATAGAAGAAACAGAAGGATTTGGACAAGAGTAACTTCTGAGAACTTGCACCATGAATGGGCAAGAACTTATTT
GCAATGTTTGTCCTTCTCTGCCTGTTGCACATCTTGTAAAATTGGACAATGGCTCTTTAGAGAGTTATCTGAGTG
TAAGTAAATTAATGTTCTCATTTAGATTTATCTCCCAGTGATTTCTACTCAGCGTTTCCAGAAATCAGGTCTGCA
AATGACTAGTCAGAACCTTGCTTAACATGAGATTTTAACACAACAATGAAATTTGCCTTGTCTTATTCCACTAGT
TTATTCCTTTAACAACAATATTTTATGTGTGTCAAAAGTCTCACTTGGGAGTAGTGTTTTTTTCTTTTAGACATT
CTGCAGACATGCAGGGAAGTCCTTTGGTAACTGCAATATACAAGATTTTCCTATTAAGCCTCTTGGTAAGAGGCA
TTTGTTAAAAGTGCAAGCTTACTCCTGCTTCTGGGGATGTGAGCAAAATTCGGGCTTGTGTTCTCCCTCTCATTT
TAGTCTGACTTGACTATTGTTTTTCCTTTCTGGCGCATGAATCCATACATCATTCCTGGAAGTGAGGCAAGACTC
TTGCATCTCTACAAAGTAGTTTTGTCAATTTGAAT

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FIGURE 2792

GGACTCGCTAAGTGTTCGCTACGCGGGGCTACCGGATCGGTCGGAA**ATG**GCAGAGGTGGAGGAGACACTGAAGCG
ACTGCAGAGCCAGAAGGGAGTGCAGGGAATCATCGTCGTGAACACAGAAGGCATTCCCATCAAGAGCACCATGGA
CAACCCCACCACCACCCAGTATGCCAGCCTCATGCACAGCTTCATCCTGAAGGCACGGAGCACCGTGCGTGACAT
CGACCCCCAGAACGATCTCACCTTCCTTCGAATTCGCTCCAAGAAAAATGAAATTATGGTTGCACCAGATAAAGA
CTATTTCCTGATTGTGATTCAGAATCCAACCGAA**TAA**GCCACTCTCTTGGCTCCCTGTGTCATTCCTTAATTTAA
TGCCCCCCAAGAATGTTAATGTCAATCATGTCAGTGGACTAGCACATGGCAGTCGCTTGGAACCCACTCACACCA
ATCCAGTGACCGTGTGTGGGCTGGCGGCTCTTCTCCCCCACCAACGGAACCCCTGTGTGCACCAACCTTCCCCAG
AGCTCCGGAGCGCCCTCTCCTCACTTCCAGGTTTTGGAGCAAGAGCTTGCAGGAAGCCCGCACCCAGCTTCCTTC
TGACCTTCAGTTCACTTTGTCGCCCTTGGAGAAAGCTGTTTTTCTTTAACTAAAAATAACCAAAATGCT

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FIGURE 2793

GAGTTACCTCCCGCAGCCGCAGCCGCCGTGCTCAGCGCGAGCCCCGGAGCCCTTGAGCGCGAGGCGCGGAGCCCC
CGGAGCCCCCAAACCGCAGACACATCCCCGCGCCCCAGAGCCCCGGCCTGCGCGCCCAGCCGGGCCCGCGCG**ATG**

CCCTCAGACCGGCCTTTCAAGCAGCGGCGGAGCTTCGCCGACCGCTGTAAGGAGGTACAGCAGATCCGCGACCAG
CACCCCAGCAAAATCCCGGTGATCATCGAGCGCTACAAGGGTGAGAAGCAGCTGCCCGTCCTGGACAAGACCAAG
TTTTTGGTCCCGGACCATGTCAACATGAGCGAGTTGGTCAAGATCATCCGGCGCCGCCTGCAGCTGAACCCCACG
CAGGCCTTCTTCCTGCTGGTGAACCAGCACAGCATGGTGAGTGTGTCCACGCCCATCGCGGACATCTACGAGCAG
GAGAAAGACGAGGACGGCTTCCTCTATATGGTCTACGCCTCCCAGGAAACCTTCGGCTTC**TGA**GCCAGCAGTAGG
GGGGCTCGGCCTGGGAGTCGGGCGGCCCCGGTCAGGCCCTGCCCAGAGAGCTCCTGGTTCCTGAACTGAGCTGCC
TCTACCGTGGTGGGCTGGGCAGGCATGTGCCCCCCTAGTCAGAGGGCACCAACCCACCTACTCTGCCCCTGGGTG
GATCCTGGGCCGGTCGTGTTAGGGTTGTCCCTCTGGGTGCTGGCTGGTGGGATGGGGGAGGGTGGGGAGCAGCTC
CCAGCACCCCTGCTGTGTGGTTCATCTTTTTTTTAGGCCCCTGCCTGTCTGCCCATCTGCCCCTCACCCACCCGA
GGCTCTGCCCACCGCCTGGACCTGCCCACCCCTGAAAGACTGGCCCCTGGCTCCCCGCCCCTCGGTCTCCACGTG
GTGTATGGATCTGTGGTCATTGTCCCTCTGCAGAATAAAGATTGCTCAGGCCTGCCTGGC

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FIGURE 2794

GATGGACGAGAGCTGGTTTGTTACCCCTCCCGCCTGTTTTACGGCAGAGGGGCCTGGACTCGGTCCCGCCCGCCT
CCAGAGCAGTCCCCTGGAGGACCTCCTCATCGAGCACCCCAGCATGTCCGTTTACGTCACCGGCAGCACCATAGT
GCTAGAGCCCGGGTCCCCTTCCCCGCTCCCGGACGCGGCCCTGCCTGACGGCGACCTCAGCGAAGGGGAATTGAC
GCCCGCCCGCCGCGAGCCGCGGGCCGCGCGCCACGCCGCTCCTCTCCCAGCGCGGGCGGCGCTGCTGGAGAAGGC
GGGCCAGGTGCGGCGGCTGCAGCGGGCCCGGCAGCGGGCAGAGCGCCACGCGCTGAGCGCCAAGGCGGTGCAGCG
GCAGAACCGAGCCCGCGAGAGCCGTCCGCGCCGGTCCAAGAACCAGAGCAGCTTCATCTACCAGCCGTGCCAGCG
CCAGTTCAACTACTGAGCGTCCACCGGCCGCGCCACGAACCCCTTGCCGATCCCGATCCCTGTCGGGCTCCTCCG
ACTCCTCGGGCTGGACACCGAAACCTCCCTTCTTAAAG

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FIGURE 2795

CCCTCACTCCTGGTCCCCATACCCAGCATCTAATCATCC**ATG**CCCCCTACTCCTGGCCCCTCCATCCTTTCTTCT
CTGGTCCCCATCCCTGTCTCTCCCTTTCACCCTTGCCCTCCAGTCCTCTACCTCTGGCCTGCCCCTATTTCTGAA
AGCTTCTTCCAGTCCCTGATCTGGCTCATTCCCCACCTTCAACTCCCACCTTACATGTCTCACACTATCCCATGG
TTGGCATTACACTCACTCCTGTTCCCTTATTCTTCATTCCCAGTAATTCCCTACCAAATGGTGGGGACCCTGAGC
CCAGCTCTGACCAGG**TAG**AGCCTGTGCAGCCTGGGCTGCTGTCATTGCCCTCCAGTAAGGGCTCAGGGTTTTGCT
TTTAGTCTCCCCTTCCTTCTGCCTTGGGGGCGGTACTCTGTGGAGCTGCTTAGGCCTGGAAAGGTACAGTATGTA
GAAGAGGACTGTGAGACGTGAGTTAGAGGGAGAAGATGGAGGGAATCTAGGGAACGAGGCAGCCTATTGGAGATG
CGGACAGGACAGACACGTTGAGAAGCTGCAGGGAGCAGGGCACCAAGGGAGTGTGCACTGTGCTTGCTCAGAGAG
GCCAAACCCTGCTCCCAGGCTGAAGCCTGGAGTCTGCCCCCACTTCCCTTTTCTATAATCCACCCTTCTGCAGGC
CCTGAAATCTGAAGGGCTTAGTTAGTACCTTGCCACTCTACCCCCAACACGTCACCCGAGTAGAAGCTGGGCAAG
GCCCTACCATCCTGGCCGTCTGTTCACAAGCCCAAGGTGCTAGAACTAGCTTAGGAGACATGCAGGCCACAGGGC
TTCTAGGCAGGGAAAGGGCACACACCCTAGGTCAGCGTGCAGAGCAGTGATGCTGGAGGACACACCATGGGGTGA
AGCCATCCCAAGGCTGACAGCTCAGTCTTCACCTTGCCTCTGGCCTTGTATTTCACACCCTGCTCAGTATGGCTA
GCCAGCAGTCCTGAGTAGGAGTCCAGGACTCCCACTGTCTCAATCTGCAAATTGTTCCTATCCAGGTTCAGGGCC
TTCAGGGGGCCTCTTTTCATTTTCTCCCACAGGCCTCTCTTTCTTTCTAGGTTGCTGGGGAGAAATGGGTACCCT
ATGATCCCCCTCCCCTTCTCCTCCAGTAAATACCTGGAAGAGGGAACCTGAATCCCTGGGGGAGACAGAAGGGGC
AGGGGCCACCAGCCTCCCCTTCTTGTGGTGAGACTGAATTTTGGGCTCAGACACCAGCAACAGCCTCTTGGGATG
CCCTGAGTTGCTTCCCATTTCCTCTTTCTAGCCGTCCTTTTCTAGTGTGTGCTCACTCTTCCTAGGAACTTTTAA
GACTTCTTGGTACCTATGAACATAGGTCCTCCCCTCACCCCAACTCTAGGTTTCCAGGCCTCACAGCCAAGCTGA
AGCTTGGAGAAAACTCTGCATTCCCATGAGGGCAAAGGCAGCTGCCCTCCCTGACCCTATAGCCCCAGGCCTCAT
GGGGGGTATGTGGGGAAGGGATGGGGTATCCCCATGGATGCTGGGATGAGGACAGAGGAAGACCTGATGGGGTCT
CCTATTCCAGGGAATAAGCCAAATTAACACTAAAAACGGATCAAAGCTCCCACGCCAGTCCACTAGGGCCCCAGT
AGTTGACAGCCTTGCTCCTCTCCCAAGTTCTCCTTCAGAACCTAGTTGCTTTTATTCTTCCAGCTACCACTTGGG
CACTTCACAGCCAGCCTAGGGTCTTCGGCACCTCCAAGAGCTGAATCTCCCTCCAACCCTTCTTGCCTACTCCTC
ACTGCCAGCTGGGACCTAGGCTCAGTCCTGTGTGGTGCCCATGATCCTTCTGGTGGGGGAAGAGTTTAAGTTATA
GGGCATTTGGCTCAAATTTTAAAAGGCCTTTTGTTTACCTATATTTCTGGAGGCTCCTGTATTCTAGAACCCAAT
CTCTCACCTGCTTGGTTGCAAGGCTCATATTTTTTTGTACCTTTCCTATAGATTCTGTAGCATTTGAGTGTGGCA
ATATTTTAATTGTGTATAGATTTCTAAGAACCAACACTACTCAGTCTCCTGCTAGTCTGACTCCTGAAGCATCAG
CCCTTGTCATACTGTATTGACTGTGTACGTGCCTTTCACCTTGAGCATGCTTCAGGATTTTTTTTTAAACCACAG
AACTTGAATACATGAGGGAACCAGAGTTCAAAGTCCTATGCAACCTTAGGAGGGGGTTAGAGAGTCTGTTTTGAT
TGATGTTTTCTGAGGCCCTAGAGGAGTTTGTATCAATTTGTGAGTATTAATGTCAGTACTACCAGCACTTTGCCA
AAACTGTCAGAGGGACCCGTTTCTAGAGTGAGTCCCAGTTACATCAAACAGTGACTTCCAGTTATTCCCCAGTAA
GTCTGAGTGGTTCCTTCAAGCTGGGTGTCTTTCCAGCCTTTGCCAGTCTAGCCCCAGCAGGGCACCGTGTATGAA
TGCAGTTTGGTGCTGTTTTAGAGTATGCCTGCTCCCCAGCCCCCTGCCTGGAACCCTCTGAGCAACTTGCTCTGA
CCTATAATGTCTTAGGTGCAACACGGACCCCACCAGAGCTCTTGGATACCCCCCTAGATCCATGTGGCTTTATGT
GAGGGGACTGAATGCAGACACACCATAGCCCCCTTCTACTACTTTCCCTCTCGCCCTGCCACCTAGTTCCACATG
GAACCAACAAGTTGAGTGCATCCCTGTTGGGTGTTTTGTGTTGAGACTGGCTGAAATGAGGAGACTTTGACCATG
TGACGTGTCAACAGACTCAAGGAGACAACCACCTCAACTGGGTCATGTGGCATGCCTGTGTATGTGTGTAACAGA
ATTCTGATTGTTAGACTGTAATGCTATTCCTCTATGGGAGAAAAAAATTAATATAAAGAAAAACAAATAAAAATA
TATTTAAAGC

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FIGURE 2796A

CTCCAGCCCAGGCAACAGAGCGTGACTCCGTCTCAAAAAAAAAAAAAAAAAGTGAAAGGAAAATGAGGGGAGAATT
CTCATTGATAATAAGGGCGAAAAGGTTTTTTTGGCAGAGTAATAGAGTTTTGGAAACCATTGCAAAGCTGTCAAG
TGTGGTGTAGTTTTTGGTTAAGGAAATCAGAGGTGTCAGCAGACATAAAAGACAGGGGAAAACATGGGAAGTGTC
CTACCTATAGTGTAGAAAAAGCACAACTATCTATGTCAGAGGTCGACAGACTGTGGTCCATAGGTCAAATCTGGC
CCACGATCTGTTTTTGTAAATAACGTTTTATTGGAACATAGCCACACTCATTTATTTATATATTGTCCATATCTT
CTTTTGTGGTACCAATAGCAGAGTTGAGTAGTCGTGACAGAGATGTGTTGTGTCAGCTCACAAAGCTGGAAATAC
TCTTTACAAAAACATTTGCCAACCCCTGATCTATGTGTTTGAGTGTTGGATGTTCAACCTCTAATTTGCCATCCA
ATGTCTATATGATGATAGAGAATGAATAAACGTCTTGGCTCTGCCCTTTGGGCTGGATTACCCATGCTCTGTGTA
CCTGCAGCATAACACAGACCCCTGAATATTTATATCAGTCAGTGATGGCAAGGTCTATTGTTCTGGAGTGTACTG
TGTGGTAACTGTGGTAGTGCCAGCTTTACACGGATTAGATAATGCTCGGGCTTGTTTTGCCATTTTTTTTATTGG
GTTGTCTTTTACAAAAGATTTATTTATATATTCTGATTATTAATCCTTTGTTGTTGGTAGATATTACAGATGTCA
TTTCCCAGTTTCTTGCTTATTTTAATTTTTTTTTTTTTTTTTTGAGATGAAGTCTTGCTCTGTCGCCCAGGCTG
GAGTGCAGTCGTGCCATCTCAGCTCATTGTAACCTCCGTCTCCCAGGTTCAAGTGATTCTCTTGCCTCAGCCTCC
CAAGTAGCTGGGACTACAGGCATGTGCCACCACACCTGGCTGATTTTTGTGTTTTTAGTAGGGATGGGGTTTCAT
CATGTTGGCCAGGCTGGTCTCAAACTCCTGACCTCAAGTGATCCACCCGTCTTGGCCTCCTAAAGTGCTGGGATT
ACAGGTGTGAGCCACTGCGCCTGGCCTGTTGCTTATTTTAAAACATCTGTTTTAAGGTGTCATTTGTTAAAAAGT
TCTGAATTTTAGTATCAACTTTATCAATCTTTTCCTTTAAGATTTGCAGTTATTCTTTGTTTTGAGGCAGGGTCT
CGCTCTGTCACCGAGGCTGGAGTGCAGTGGTGCGATCTCGGCTCACTGCAGCCTCAACCTCCTGGGCTCAAGCAA
CCCTCCCACCTCCCATGCCAGTTGAGACCACAGGCATGCGCCACCATGCCCTGCTACTTTTTGCATTTTTTGTAG
AGGCGGGGTTTCGCCATGTTGCCCAGGCTAGTCTGGAACTCCTGAGCTCAAGCAGTCCACAAAGTGCTGGGATTA
CAGGTGTGAGCTACTGTGCCCAGCCTGCAATTATTCTTTATATTCTGGAATACCTACTGTTGTTTTCAATGGTTA
GATCTTTAATGTATCTGGAATGGATTCTTATGTGTAGTGTAAGGTCGGGTCCAGTTTCATTTTTTTTCCCTATGT
ATAACCAGTGATCCCAGCATCATTTATTGAATGGGGCTTGCTTTCAAATTGTGAGCTCTTTTTGGTGGAGTCTGT
CTCAGGTCCTTATTAAGCACTGCTGCTTGCTGATTGTGTGACCTTGGACAAATAAAACCTCATTGCGCCTCAGTC
TTTAAGGATAATAGTAATCTCATAGGGTTTTGTGAGGATTAAATGAGTCAATATACATAACGTGTAAAACAGTGC
TTGGCACCTAGAACATGCTCAATAAATATTAGCTGTACTTTAGCACTACTGTTCATTTCTGATTCCTCAGCACCT
GGTACAGAGCAGGGGCTCATTTTGCTCAATTAAATTGCCAAATTAATTTGGTTTTCAGGTCAATCAGAATGGTGA
GAGTTGGGCTGAGTGTTGCAGGAGATGCTTCCAAGGAGCTACTTAGTTTTAGGGGCTGCCTTAGATTATCTGCTA
GGATAGAACTCTTCTCACGCCATCACTTTTGCAGAGAACTTCTGTAGCAGAGGTTGCAAACTGGCAACCTGTGGT
TGGATTTGACCTGTATAAGTATTTTGTTTGGTTTACACAATATTTTTAATGTCTTAAAAATGTACACAGACCTCT
GAGTTTCTGACTTAACCTTGAAAAATTGGAAGATCTGTCAACAGCAAGCCCATATTCATTTATAGCGGTAACCAG
CTGAAACTTTTAGGTCCTGGGAGGAATGGAGAGGGGTCCCACTGACTAACTTTTCTGAGAGTGGTCAGAGAGTTC
TTAAGCAGAATTTTGATTTGGCTGCTGGGCTGCTACCTTGAAATCCAAGCCCTAAAAATGCCAGCTTCTTTGGAC
TTAGAAGATGACCTGGATAAATGATAAAAATTAAGAAAGAGATTTTGAAGTTTTCTTATTGTCCTCTTGGCATAT
GCTTCTGGAATAATATTCACC**ATG**GTTTTGGATGACCTTCCAAACTTAGAAGACATCTATACTTCCTTGTGTTCA
TCAACAATGGAAGACTCAGAGATGGATTTTGACTCTGGACTAGAAGATGATGACACAAAAAGTGATAGTATTTTG
GAGGATTCCACAATTTTTGTGGCCTTCAAAGGAAATATAGATGATAAAGACTTCAAATGGAAATTAGATGCAATA
TTGAAAAACGTGCCCAATTTGTTACACATGGAGTCCAGCAAGCTAAAAGTACAGAAGGTGGAGCCCTGGAACAGC
GTGCGTGTGACATTCAACATCCCCCGGGAAGCAGCGGAGCGGCTACGGATCCTTGCTCAGAGCAACAACCAGCAG
CTTCGGGATTTAGGGATTCTCTCCGTTCAGATTGAAGGGGAAGGTGCTATTAACCTGGCTTTGGCTCAGAACCGA
AGCCAAGATGTGAGAATGAATGGACCCATGGGAGCTGGAAATTCAGTTAGGATGGAGGCGGGATTTCCTATGGCA
AGTGGTCCAGGAATAATAAGGATGAACAACCCTGCCACTGTTATGATACCCCCGGGTGGAAATGTGTCATCTTCC
ATGATGGCACCAGGCCCCAATCCAGAGCTGCAGCCCAGGACTCCTCGCCCTGCTTCTCAGTCAGATGCAATGGAT
CCACTCCTCTCTGGGCTCCATATACAGCAGCAAAGTCATCCCTCAGGATCTTTAGCTCCCCCACATCACCCAATG
CAGCCTGTCTCTGTGAACAGACAAATGAACCCAGCTAATTTTCCCCAGCTGCAGCAGCAGCAGCAACAACAACAA
CAGCAGCAGCAGCAGCAGCAGCAGCAACAACAGCAACAGCAGCAACAACAGTTGCAGGCAAGACCCCCACAGCAA
CATCAGCAGCAACAGCCACAGGGAATTCGACCCCAGTTTACTGCCCCAACTCAGGTGCCTGTTCCTCCAGGCTGG
AACCAGCTGCCTTCTGGAGCCCTTCAACCTCCTCCAGCCCAGGGTTCTCTGGGCACAATGACTGCAAACCAAGGG

FIGURE 2796B

TGGAAGAAGGCTCCCTTGCCCGGCCCAATGCAACAGCAACTCCAGGCAAGACCATCCTTAGCCACGGTACAGACG
CCTTCCCACCCTCCCCCTCCATATCCCTTTGGCAGCCAGCAAGCCTCACAAGCCCACACAAACTTTCCTCAGATG
AGCAACCCAGGCCAGTTCACAGCTCCTCAGATGAAGAGTTTGCAGGGAGGGCCCTCTAGGGTCCCAACTCCCTTG
CAGCAGCCCCACCTCACCAACAAGTCTCCTGCCTCCTCACCCTCCTCCTTCCAGCAGGGATCCCCTGCATCCTCC
CCAACGGTTAACCAAACTCAGCAGCAGATGGGACCAAGGCCACCTCAAAATAACCCACTTCCCCAGGGATTTCAG
CAGCCTGTCAGCTCTCCGGGTCGGAATCCTATGGTTCAACAGGGAAATGTGCCACCTAACTTCATGGTGATGCAG
CAGCAACCACCAAACCAGGGGCCACAGAGTTTACATCCAGGCCTAGGAGGAATGCCTAAACGCCTCCCACCTGGC
TTCTCAGCAGGACAGGCCAATCCGAACTTTATGCAAGGTCAGGTGCCTTCGACCACAGCAACCACCCCTGGGAAT
TCAGGAGCCCCTCAGCTGCAAGCAAATCAAAATGTCCAGCATGCAGGTGGTCAAGGAGCTGGTCCTCCTCAAAAC
CAGATGCAGGTGTCCCACGGGCCGCCAAATATGATGCAGCCCAGCCTCATGGGAATTCATGGCAACATGAACAAT
CAGCAGGCTGGTACTTCTGGGGTTCCTCAAGTGAACCTCAGCAACATGCAAGGCCAGCCCCAGCAGGGCCCACCA
TCTCAGCTGATGGGCATGCACCAGCAAATCGTGCCCTCCCAGGGCCAGATGGTCCAGCAACAAGGAACCTTGAAC
CCTCAGAACCCTATGATCCTTTCAAGGGCCCAGCTTATGCCACAGGGCCAGATGATGGTGAACCCCCCGAGCCAA
AATCTTGGGCCCTCGCCCCAAAGGATGACCCCACCCAAGCAGATGCTTTCCCAGCAGGGCCCACAAATGATGGCG
CCACATAACCAGATGATGGGGCCTCAGGGGCAGGTTTTGCTCCAACAGAACCCAATGATAGAGCAGATTATGACC
AATCAAATGCAGGGGAATAAGCAGCAGTTTAACACTCAGAACCAGTCCAATGTCATGCCGGGACCAGCCCAGATA
ATGAGGGGACCAACTCCAAACATGCAAGGAAATATGGTGCAGTTTACGGGACAGATGTCAGGACAGATGCTGCCC
CAGCAAGGGCCTGTGAACAACAGTCCATCTCAGGTTATGGGCATTCAGGGACAGGTCCTGCGGCCACCAGGGCCC
AGCCCACACATGGCCCAGCAGCATGGTGATCCTGCTACTACAGCAAATAACGATGTCAGTTTATCTCAGATGATG
CCTGATGTTAGCATTCAACAAACCAACATGGTCCCCCCTCATGTGCAGGCCATGCAGGGAAACAGTGCCTCGGGA
AACCACTTCTCAGGCCATGGGATGTCTTTCAATGCACCTTTCAGTGGAGCTCCCAATGGAAATCAGATGTCCTGT
GGTCAAAATCCAGGCTTCCCAGTCAATAAGGATGTCACGCTAACGAGCCCATTGTTGGTCAACTTATTGCAGAGT
GACATATCTGCAGGCCATTTTGGGGTAAACAATAAGCAAAATAATACCAACGCAAATAAACCGAAGAAGAAGAAA
CCCCCTCGGAAGAAGAAAAATAGTCAGCAAGATCTAAACACCCCAGATACTCGCCCAGCTGGTCTGGAAGAGGCT
GATCAGCCACCGTTGCCTGGAGAACAAGGAATTAACTTGGATAACTCAGGCCCTAAACTGCCAGAATTTTCAAAC
CGGCCACCAGGTTATCCTTCTCAACCAGTTGAACAGAGGCCACTTCAGCAGATGCCTCCTCAACTCATGCAGCAT
GTGGCACCCCCACCACAGCCACCACAGCAGCAGCCACAGCCACAACTGCCTCAGCAGCAGCAGCCACCACCTCCC
AGTCAGCCACAGTCTCAGCAGCAGCAGCAGCAGCAGCAACAAATGATGATGATGCTCATGATGCAGCAGGATCCC
AAATCAGTTAGGCTTCCAGTCTCTCAAAATGTCCATCCTCCAAGGGGCCCCCTGAACCCCGACTCCCAGAGAATG
CCCATGCAACAGAGTGGCAGTGTGCCTGTCATGGTCAGTCTGCAAGGACCTGCCTCCGTGCCACCATCACCTGAT
AAACAAAGAATGCCAATGCCTGTGAATACTCCCTTGGGAAGCAATTCAAGGAAAATGGTCTATCAGGAGAGCCCG
CAGAATCCTTCCAGCTCGCCACTGGCGGAGATGGCCTCACTCCCTGAAGCAAGTGGCAGTGAAGCACCATCTGTC
CCAGGAGGCCCAAACAACATGCCTTCACATGTAGTACTTCCCCAGAATCAGTTAATGATGACAGGGCCAAAACCT
GGACCATCGCCCCTTTCAGCAACTCAAGGTGCAACTCCCCAGCAACCCCCTGTAAATTCCCTGCCCAGCTCTCAC
GGCCACCACTTCCCAAATGTGGCTGCGCCAACCCAGACATCTAGGCCCAAAACACCAAACAGAGCCAGCCCCAGA
CCCTATTATCCTCAGACACCCAACAACCGCCCTCCCAGCACAGAACCTTCAGAAATCAGTCTGTCACCAGAAAGA
CTCAATGCCTCCATAGCAGGACTCTTCCCTCCACAGATTAATATTCCTTTACCTCCTAGGCCAAATTTAAACAGG
GGCTTTGATCAACAAGGCCTAAATCCAACAACTTTGAAGGCCATCGGGCAAGCACCTTCAAATCTTACCATGAAT
CCTTCCAATTTTGCTACCCCACAAACTCACAAATTAGATTCTGTGGTAGTGAATTCTGGAAAGCAGTCTAATTCT
GGAGCAACAAAACGGGCAAGTCCAAGCAACAGTCGCAGGTCTAGTCCTGGGTCCAGTAGGAAAACCACTCCAAGC
CCTGGGAGGCAAAATTCAAAAGCCCCTAAACTTACTCTGGCCTCTCAGACAAATGCAGCCCTATTGCAGAATGTG
GAGTTGCCGAGAAATGTATTGGTCAGTCCCACTCCTCTGGCCAATCCCCCTGTACCTGGGAGCTTTCCTAACAAC
AGTGGGCTGAATCCTCAGAATTCTACTGTGTCTGTGGCTGCAGTTGGGGGTGTTGTTGAGGATAACAAGGAGAGC
TTGAATGTGCCTCAGGACAGTGATTGCCAGAATTCCCAGAGTAGGAAGGAACAGGTAAACATTGAACTAAAAGCA
GTCCCTGCCCAAGAAGTTAAAATGGTTGTCCCTGAAGATCAGTCCAAAAAGGATGGGCAGCCTTCGGATCCTAAC
AAACTTCCCAGTGTCGAAGAGAACAAAAATTTGGTGTCTCCTGCTATGAGGGAAGCACCAACATCGTTAAGTCAA
CTTCTTGACAACTCTGGAGCTCCCAATGTGACAATTAAACCCCCTGGGCTTACAGATCTGGAAGTAACACCTCCA
GTAGTTTCTGGGGAGGACCTCAAAAAAGCATCTGTCATTCCCACACTGCAGGATCTGTCTTCTTCTAAAGAACCT

FIGURE 2796C

TCTAATTCCCTAAACTTACCTCACAGTAATGAGCTGTGTTCATCCCTTGTGCATCCCGAATTGAGTGAGGTCAGT
TCTAACGTTGCACCAAGCATCCCTCCAGTAATGTCAAGACCTGTTAGCTCTTCCTCCATTTCCACTCCCTTGCCC
CCAAATCAAATAACTGTATTTGTCACTTCCAATCCCATCACAACTTCAGCTAACACATCAGCAGCTTTGCCAACT
CACTTGCAGTCTGCATTGATGTCAACAGTTGTCACAATGCCCAATGCGGGTAGCAAGGTTATGGTTTCTGAGGGA
CAGTCAGCTGCTCAGTCTAATGCCCGGCCTCAGTTCATTACACCTGTCTTTATCAATTCATCCTCAATAATTCAG
GTTATGAAAGGATCACAGCCAAGCACAATTCCTGCAGCCCCACTGACAACCAACTCTGGCCTGATGCCTCCCTCT
GTTGCAGTTGTTGGCCCTTTACACATACCTCAGAACATAAAATTTTCTTCTGCTCCTGTACCGCCTAATGCCCTC
TCCAGTAGTCCTGCTCCAAACATCCAGACAGGTCGACCTTTGGTCCTTAGCTCACGAGCCACCCCTGTTCAGCTT
CCTTCCCCTCCTTGTACGTCTTCTCCAGTTGTCCCTTCTCATCCCCCTGTGCAGCAAGTGAAAGAATTGAATCCA
GATGAGGCTAGCCCTCAGGTGAACACCTCAGCAGATCAGAACACTCTTCCCTCTTCACAGTCAACCACAATGGTT
TCTCCCCTTTTGACCAATAGTCCAGGGTCCTCTGGCAACCGGCGAAGCCCAGTCTCGTCTAGTAAGGGCAAAGGA
AAAGTGGACAAAATTGGCCAAATTTTGTTGACCAAGGCATGTAAGAAAGTTACAGGCTCTCTTGAGAAAGGGGAA
GAACAATATGGTGCAGATGGAGAGACTGAAGGCCAAGGGCTAGACACCACAGCTCCGGGGCTCATGGGAACAGAG
CAGTTATCCACAGAGCTGGACAGTAAAACCCCAACGCCCCCAGCACCCACTCTGCTAAAAATGACCTCTAGCCCT
GTGGGCCCGGGCACTGCCTCAGCAGGACCCAGCTTACCTGGCGGTGCTCTCCCCACCAGTGTACGCTCGATAGTA
ACCACTCTGGTACCCTCCGAGCTCATCTCCGCCGTACCGACCACAAAAAGCAATCATGGTGGCATAGCATCTGAG
TCACTTGCGGGTGGCCTAGTGGAGGAGAAGGTGGGATCCCATCCAGAACTTCTACCCAGCATAGCCCCGTCGCAG
AATTTAGTCTCAAAGGAAACTTCAACCACAGCACTGCAGGCCTCTGTTGCCAGACCAGAGCTGGAGGTAAATGCT
GCCATAGTCTCTGGACAAAGCAGTGAGCCCAAAGAGATAGTTGAAAAGTCCAAAATCCCAGGCCGAAGAAACTCC
CGAACTGAAGAGCCAACTGTGGCCTCTGAAAGTGTGGAAAATGGACATCGTAAACGATCTTCTCGACCTGCTTCA
GCCTCCAGCTCTACTAAAGACATAACCAGTGCGGTGCAATCCAAGCGAAGAAAATCCAAG**TAA**ACAAGCAGGACT
GCGACTTGATACTTGGAAATGTGTGTGACTTTTACAAAGAGCAATTTTGAGCTGTGACTTTTTTAAATCAATTTC
TGTACAGTTAGTAATTTTAATAATGTGGCCCTTTTCCTAGTCCCTGCAACCTGTTTCATAAAGTGCAATGGGGAA
AGCAGGACTGTTGAGCCCTTTTGGTGTTGCGAGTTGAAGTTCAAGGTTTCTAAAATGTTGTCTTGTATTGAAAGG
AGCTAATGCCATTATAAATGTTACTAGTTTTCACATTTCCTAAGCAGCCTAGAGTACAGGGTGAGCATTTTTAGA
TCTCCTAATGATGTATTGTGCCGTGGAAGTACTGTGTGTGAATAGCAGTAGTGGGGGCAAAAGCAATCTTCTCAT
TTGGAAATGTTGTAAATAATTTTATTATATAGTGTTTTGGATGTATTTGTTGTAGAAATGGACCAGTGAATAAAG
AGAATCTAAGGATTTGTACAATGTGAAATAACGTGTTAAATAAATGTCATTGTCATAGAACATAAAGTTATGTTA
TTGGTAAGGG

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FIGURE 2797

ATGGCGGCGGAGAACGAGGCCAGCCAGGAGAGCGCCCTGGGCGCCTACTCGCCAGTGGACTACATGAGCATCACC
AGCTTCCCGCGGCTGCCCGAGGACGAGCCGGCGCCCGCGGCCCCGCTGAGGGGCCGCAAGGACGAGGACGCCTTT
CTGGGAGACCCCGACACCGACCCGGACTCCTTCCTGAAGTCTGCACGGCTGCAGCGGCTGCCATCGTCGTCGTCG
GAGATGGGCAGCCAAGACGGGTCGCCGCTACGCGAGACGCGCAAAGACCCGTTCTCCGCCGCAGCGGCCGAGTGC
TCCTGCCGCCAGGATGGGCTCACGGTCATCGTCACGGCCTGTCTCACCTTCGCTACCGGTGTCACCGTGGCGCTG
GTCATGCAGATCTACTTCGGGGACCCCCAGATCTTCCAGCAGGGTGCCGTGGTGACCGATGCTGCCCGCTGCACT
TCACTGGGCATCGAGGTGCTCAGTAAACAGGGATCTTCTGTGGACGCAGCGGTGGCAGCAGCCTTGTGTTTGGGT
ATCGTGGCTCCACACAGTTCTGGCCTGGGCGGTGGGGGCGTGATGCTGGTACATGACATCCGACGAAATGAGAGC
CACCTAATTGATTTCCGGGAGTCCGCACCAGGGGCCCTCAGGGAAGAGACCCTGCAAAGATCCTGGGAGACCAAG
GTGGGGACCCTGCCTGGGCTCTTGGTGGGGGTTCCCGGAATGGTGAAGGGGCTACATGAAGCTCACCAGCTCTAT
GGCAGGCTGCCATGGTCCCAAGTCCTGGCCTTTGCAGCAGCTGTGGCCCAAGATGGCTTCAACGTGACTCATGAT
CTAGCCCGTGCCCTGGCTGAACAGCTGCCACCCAACATGTCCGAGCGCTTCCGGGAGACGTTCCTGCCATCGGGC
CGCCCGCCACTACCTGGCTCGTTGCTGCATCGGCCCGACCTGGCTGAGGTGCTGGATGTACTTGGCACCTCCGGC
CCGGCTGCCTTCTACGCAGGTGGCAACCTCACACTGGAGATGGTGGCCGAGGCTCAGCACGCAGGGGGTGTCATA
ACCGAAGAGGACTTCAGCAATTACAGCGCCCTTGTGGAGAAGCCTGTGTGTGGCGTGTACAGAGGCCACCTGGTT
CTTAGTCCCCCACCTCCGCACACGGGCCCTGCCCTCATCAGTGCTCTCAACATCCTGGAGGGCTTCAATCTCACC
AGCCTGGTATCCCGAGAACAGGCTCTTCACTGGGTGGCAGAGACCCTGAAGATTGCATTAGCCCTGGCCAGCAGA
CTGGGAGATCCCGTCTATGATTCTACCATCACTGAGAGCATGGATGACATGCTCAGCAAGGTGGAGGCCGCCTAC
CTCCGGGGCCATATCAATGACTCCCAGGCAGCCCCTGCCCCACTCCTGCCTGTCTATGAACTAGACGGAGCTCCC
ACGGCTGCCCAGGTGCTGATCATGGGACCTGATGACTTCATTGTGGCCATGGTTAGCTCCCTGAACCAGCCCTTT
GGCAGCGGCCTTATCACCCCCTCGGGGATCCTGCTCAACAGCCAGATGCTGGACTTCTCCTGGCCCAACCGGACA
GCTAACCACTCTGCACCCAGCCTGGAGAATTCAGTGCAGCCAGGGAAGCGGCCACTCTCTTTCCTGCTGCCCACA
GTGGTCCGACCCGCGGAGGGGCTCTGTGGAACCTACCTCGCTCTGGGGGCCAATGGAGCTGCGCGGGGCCTCAGC
GGCCTGACACAGGTTCTGCTGAATGTCCTGACCTTGAACCGGAACCTGAGTGACAGCCTGGCCCGCGGCCGCCTA
CACCCGGACCTGCAGTCCAACCTCCTGCAGGTGGACAGTGAGTTCACAGAGGAAGAGATTGAGTTCCTGGAAGCC
AGGGGTCACCACGTGGAGAAAGTAGATGTCTTATCCTGGGTCCATGGCAGCCGAAGGACCAACAACTTCATCATC
GCTGTTAAGGACCCTCGGAGCCCAGATGCAGCTGGAGCCACCATCCTG**TAG**

FIGURE 2798

ATGGGGCTTCCTGAGGAGCGGGTCCGGAGCGGCAGCGGGAGCCGGGGCCAGGAGGAAGCTGGAGCCGGAGGCCGG
GCGCGGAGTTGGTCTCCGCCGCCCGAGGTCAGCCGCTCCGCGCACGTCCCCTCGCTGCAGCGCTACCGCGAGCTG
CACCGGCGCTCCGTGGAGGAGCCGCGGGAATTCTGGGGAGACATTGCCAAGGAATTTTACTGGAAGACTCCATGC
CCTGGCCCATTCCTTCGGTACAACTTTGATGTGACTAAAGGGAAAATCTTCATTGAGTGGATGAAAGGAGCAACT
ACCAACATCTGCTACAATGTACTGGATCGAAATGTCCATGAGAAAAAGCTTGGAGATAAAGTTGCTTTTTACTGG
GAGGGCAATGAGCCAGGGGAGACCACTCAGATCACATACCATCAGCTTCTGGTCCAAGTGTGTCAGTTCAGCAAT
GTTCTCCGAAAACAGGGCATTCAGAAGGGGGACCGAGTGGCCATCTACATGCCTATGATCCCAGAGCTTGTGGTG
GCCATGCTGGCATGTGCCCGCATTGGGGCTTTGCACTCCATTGTGTTTGCAGGCTTCTCTTCAGAGTCTCTATGT
GAACGGATCTTGGATTCCAGCTGCAGTCTTCTCATCACTACAGATGCCTTCTACAGGGGGGAAAAGCTTGTGAAC
CTGAAGGAGCTGGCTGACGAGGCCCTGCAGAAGTGTCAGGAGAAGGGTTTCCCAGTAAGATGCTGCATTGTGGTC
AAGCACCTGGGGCGGGCAGAGCTCGGCATGGGTGACTCCACCAGCCAGTCCCCCCCAATTAAGAGGTCATGCCCA
G**ATG**TGCAGATCTCATGGAACCAAGGGATTGACTTGTGGTGGCATGAGCTCATGCAAGAGGCAGGGGATGAGTGT
GAGCCCGAGTGGTGTGATGCCGAGGACCCACTCTTCATCCTGTACACCAGTGGCTCCACAGGCAAACCCAAGGGG
TGTGGTTCACACAGTTGGGGGCTACATGCTCTATGTAGCCACAACCTTCAAGTATGTGTTTGACTTCCATGCAGA
GGATGTGTTCTGGTGCACGGCAGACATTGGTTGGATCACTGGTCATTCCTACGTCACCTATGGGCCACTGGCCAA
TGGTGCCACCAGTGTTTTGTTTGAGGGGATTCCCACATATCCGGACGTGAACCGCCTGTGGAGCATTGTGGACAA
ATACAAGGTGACCAAGTTCTACACAGCACCCACAGCCATCCGTCTGCTCATGAAGTTTGGAGATGAGCCTGTCAC
CAAGCATAGCCGGGCATCCTTGCAGGTGTTAGGCACAGTGGGTGAACCCATCAACCCTGAGGCCTGGCTATGGTA
CCACCGGGTGGTAGGTGCCCAGCGCTGCCCCATCGTGGACACCTTCTGGCAAACAGAGACAGGTGGCCACATGTT
GACTCCCCTTCCTGGTGCCACACCCATGAAACCCGGTTCTGCTACTTTCCCATTCTTTGGTGTAGCTCCTGCAAT
CCTGAATGAGTCCGGGGAAGAGTTGGAAGGTGAAGCTGAAGGTTATCTGGTGTTCAAGCAGCCCTGGCCAGGGAT
CATGCGCACAGTCTATGGGAACCACGAACGCTTTGAGACAACCTACTTTAAGAAGTTTCCTGGATACTATGTTAC
AGGAGATGGCTGCCAGCGGGACCAGGATGGCTATTACTGGATCACTGGCAGGATTGATGACATGCTCAATGTATC
TGGACACCTGCTGAGTACAGCAGAGGTGGAGTCAGCACTTGTGGAACATGAGGCTGTTGCAGAGGCAGCTGTGGT
GGGCCACCCTCATCCTGTGAAGGGTGAATGCCTCTACTGCTTTGTCACCTTGTGTGATGGCCACACCTTCAGCCC
CAAGCTCACCGAGGAGCTCAAGAAGCAGATTAGAGAAAAGATTGGCCCCATTGCCACACCAGACTACATCCAGAA
TGCACCTGGCTTGCCTAAAACCCGCTCAGGGAAAATCATGAGGCGAGTGCTTCGGAAGATTGCTCAGAATGACCA
TGACCTCGGGGACATGTCTACTGTGGCTGACCCATCTGTCATCAGTCACCTCTTCAGCCACCGCTGCCTGACCAT
CCAG**TGA**

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FIGURE 2799

GGGAGAACCGTTCGCGGAGGAAAGGCGAACTAGTGTTGGG**ATG**GCCACCAACTGGGGGAGCCTCTTGCAGGATAA
ACAGCAGCTAGAGGAGCTGGCACGGCAGGCCGTGGACCGGGCCCTGGCTGAGGGAGTATTGCTGAGGACCTCACA
GGAGCCCACTTCCTCGGAGGTGGTGAGCTATGCCCCATTCACGCTCTTCCCCTCACTGGTCCCCAGTGCCCTGCT
GGAGCAAGCCTATGCTGTGCAGATGGACTTCAACCTGCTAGTGGATGCTGTCAGCCAGAACGCTGCCTTCCTGGA
GCAAACTCTTTCCAGCACCATCAAACAGGATGACTTTACCGCTCGTCTCTTTGACATCCACAAGCAAGTCCTAAA
AGAGGGCATTGCCCAGACTGTGTTCCTGGGCCTGAATCGCTCAGACTACATGTTCCAGCGCAGCGCAGATGGCTC
CCCAGCCCTGAAACAGATCGAAATCAACACCATCTCTGCCAGCTTTGGGGGCCTGGCCTCCCGGACCCCAGCTGT
GCACCGACATGTTCTCAGTGTCCTGAGTAAGACCAAAGAAGCTGGCAAGATCCTCTCTAATAATCCCAGCAAGGG
ACTGGCCCTGGGAATTGCCAAAGCCTGGGAGCTCTACGGCTCACCCAATGCTCTGGTGCTACTGATTGCTCAAGA
GAAGGAAAGAAACATATTTGACCAGCGTGCCATAGAGAATGAGCTACTGGCCAGGAACATCCATGTGATCCGACG
AACATTTGAAGATATCTCTGAAAAGGGGTCTCTGGACCAAGACCGAAGGCTGTTTGTGGATGGCCAGGAAATTGC
TGTGGTTTACTTCCGGGATGGCTACATGCCTCGTCAGTACAGTCTACAGAATTGGGAAGCACGTCTACTGCTGGA
GAGGTCACATGCTGCCAAGTGCCCAGACATTGCCACCCAGCTGGCTGGGACTAAGAAGGTGCAGCAGGAGCTAAG
CAGGCCGGGCATGCTGGAGATGTTGCTCCCTGGCCAGCCTGAGGCTGTGGCCCGCCTCCGCGCCACCTTTGCTGG
CCTCTACTCACTGGATGTGGGTGAAGAAGGGGACCAGGCCATCGCCGAGGCCCTTGCTGCCCCTAGCCGGTTTGT
GCTAAAGCCCCAGAGAGAGGGTGGAGGTAACAACCTATATGGGGAGGAAATGGTACAGGCCCTGAAACAGCTGAA
GGACAGTGAGGAGAGGGCCTCCTACATCCTCATGGAGAAGATCGAACCTGAGCCTTTTGAGAATTGCCTGCTACG
GCCTGGCAGCCCTGCCCGAGTGGTCCAGTGCATTTCAGAGCTGGGCATCTTTGGGGTCTATGTCAGGCAGGAAAA
GACACTCGTGATGAACAAGCACGTGGGGCATCTACTTCGAACCAAAGCCATCGAGCATGCAGATGGTGGTGTGGC
AGCGGGAGTGGCAGTCCTGGACAACCCATACCCTGTG**TGA**GGGCACAACCAGGCCACGGGACCTTCTATCCTCTG
TATTTGTCATTCCTCTCCTAGCCCTCCTGAGGGGTATCCTCCTAAAGACCTCCAAAGTTTTTATGGAAGGGTAAA
TACTGGTACCTTCCCCCAGCTTTCCATCTGAGGACCAGAAAAGTTGTGTCTCCCTTAGATGAGATCTAGACGCCC
CCAAATCCTTGAGATGTGGGTATAGCTCAGGGTAAGCTGCTCTGAGGTAAAGGTCCATGAACCCTGCCCCACTCC
TGTCAGCCCCTCATCAGCCTTTTCAGCAGGTTCCAGTGCCTGACTTGGGATAGGACTGAGTGGTAGGAGGAGGGG
GAGTGGAGGGGCATAGCCTTTCCCTAATTCTGCCTTAAATAAAACTGCATTGCTG

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FIGURE 2800A

AGTTCATCCGCATTCACTTTGGTCCCTCTGGGAAGCTGGCATCCGCGGATATTGACAGCTATCTCCTGGAGAAGT
CGCGGGTGATCTTCCAGTTGCCTGGTGAGCGCAGCTACCATGTCTACTACCAGATCCTCTCAGGGAGGAAGCCAG
AGCTGCAGGAC**ATG**CTGCTTCTGTCTATGAACCCCTATGACTACCACTTCTGCAGCCAGGGCGTCATCACCGTGG
ACAACATGAATGATGGGGAGGAGCTCATCGCCACCGACCATGCCATGGACATCCTAGGCTTCAGCGTGGATGAGA
AATGTGCCTGCTATAAGATCGTGGGCGCCCTCCTGCACTTTGGCAACATGAAGTTCAAGCAGAAGCAGCGGGAGG
AGCAGGCGGAGGCCGATGGCACTGAGAGTGCTGACAAGGCTGCCTACCTGATGGGGGTCAGCAGTGGGGACCTCC
TCAAAGGCCTTTTGCACCCCCGGGTGCGTGTAGGGAACGAGTACGTGACCAAGGGCCAGAGTGTGGAGCAGGTGG
TGTTTGCTGTGGGGGCTCTGGCCAAGGCCACCTATGACCGGCTGTTCAGGTGGCTGGTGTCTCGGATCAACCAGA
CCCTGGACACAAAGCTGCCCCGGCAGTTCTTCATCGGGGTTCTGGACATCGCTGGGTTTGAGATCTTTGAGTTCA
ACAGCTTCGAACAGCTGTGCATCAACTTCACCAATGAGAAATTGCAGCAGTTCTTCAACCAGCACATGTTTGTGC
TGGAGCAGGAGGAGTACAAGCGGGAGGGCATCGACTGGGTCTTCATCGACTTCGGCCTTGACCTGCAGCCTTGCA
TCGACCTCATCGAGAAGCCACTGGGCATCCTGTCCATCCTGGAGGAGGAATGCATGTTCCCCAAGGCCTCAGACG
CCAGCTTCCGGGCCAAGCTCTACGACAACCACGCGGGGAAGTCACCCAATTTCCAGCAGCCTCGGCCTGACAAGA
AGCGCAAGTACCAGGCCCACTTCGAGGTGGTCCACTACGCAGGCGTGGTGCCTTACAGCATTGTGGGCTGGCTGG
AGAAAAACAAGGATCCCCTGAATGAGACCGTGGTCCCCATCTTCCAGAAGTCACAGAATAGGCTCCTGGCGACTC
TCTATGAGAATTATGCGGGCTCCTGCTCCACTGAGCCCCCCAAGTCTGGGGTGAAAGAGAAGCGTAAGAAGGCAG
CATCGTTCCAGACGGTGTCCCAGCTGCACAAGGAGAACCTCAACAAGCTGATGACCAACCTGCGGGCCACACAGC
CCCACTTCGTCCGCTGCATTGTCCCCAACGAGAACAAAACCCCAGGGGTCATGGATGCCTTCTTGGTGCTACACC
AGCTGCGCTGCAATGGGGTCCTGGAGGGGATCCGGATCTGCCGCCAAGGGTTCCCCAACAGGTTGCTCTACACCG
ACTTCCGGCAGCGGTACCGTATCCTGAACCCCAGTGCCATCCCGGATGACACCTTCATGGACAGCAGGAAGGCCA
CAGAGAAACTGCTGGGCTCGCTGGACTTGGATCACACCCAGTACCAGTTTGGCCACACCAAGGTGTTCTTCAAGG
CTGGGCTTCTAGGCGTCCTGGAAGAGCTCCGTGACCAGCGCCTGGCCAAGGTGCTGACGCTGCTGCAGGCGCGGA
GCCGTGGCCGCCTCATGCGCCTTGAGTACCAGCGCCTGCTGGGAGGCAGGGATGCGCTGTTCACCATCCAGTGGA
ACATCCGTGCCTTCAATGCCGTCAAGAACTGGTCATGGATGAAGCTCTTTTTCAAGATGAAGCCGCTGCTGCGCT
CGGCGCAGGCTGAGGAGGAGCTGGCGGCCCTGCGGGCAGAGCTGCGGGGGTTGCGAGGGGCGCTGGCTGCGGCCG
AGGCCAAGCGCCAGGAACTGGAGGAGACGCACGTCAGCATCACCCAGGAGAAGAATGACCTGGCCCTGCAGCTGC
AGGCTGAGCAGGACAACCTGGCAGATGCCGAGGAGCGCTGCCACTTGCTGATCAAGTCCAAGGTGCAGCTGGAGG
GGAAGGTGAAGGAGCTGAGTGAGCGGCTGGAGGATGAGGAGGAGGTGAACGCTGACCTGGCCGCCCGCCGGCGCA
AGCTGGAGGACGAGTGCACGGAGCTCAAGAAGGACATTGATGACCTGAAGCTGACACTGGCCAAAGCTGAGAAGG
AGAAGCAAGCCACTGAGAACAAGGTGAAGAACCTGACGGAAGAGATGGCTGCGCTGGACGAGTCAGTGGCCCGGC
TGACCAAGGAGAAGAAGGCGTTGCAGGAGGCCCACCAACAGGCCCTGGGTGACCTGCAGGCCGAGGAGGACCGTG
TGAGCGCGCTGACCAAGGCCAAGCTCCGGCTGGAGCAACAGGTGGAGGACCTGGAATGCTCCCTGGAGCAGGAGA
AGAAGCTGCGCATGGACACGGAGCGGGCCAAGCGCAAGCTGGAGGGTGACCTGAAGCTGACGCAGGAGTCGGTGG
CTGATGCTGCTCAAGACAAGCAGCAGCTGGAGGAGAAGCTCAAGAAGAAGGACTCCGAGCTGAGCCAGCTGAGCC
TGCGGGTGGAAGACGAGCAGCTCTTGGGGGCCCAGATGCAGAAGAAGATCAAGGAGCTGCAGGCTCGGGCGGAGG
AGCTGGAAGAGGAGCTGGAGGCAGAGCGGGCAGCCCGGGCCCGCGTGGAGAAGCAGCGTGCAGAGGCGGCGCGGG
AGCTGGAGGAGCTGAGCGAGCGGCTGGAGGAGGCAGGCGGCGCATCCGCGGGGCAGCGCGAGGGCTGCCGCAAGC
GGGAGGCGGAGCTGGGGAGGCTGCGGCGGGAGCTGGAGGAGGCGGCGCTGCGGCACGAGGCCACAGTGGCGGCAC
TGCGGCGCAAGCAGGCGGAGGGCGCGGCGGAGCTGGGGGAGCAGGTGGACAGCCTGCAGCGGGTGCGGCAGAAGC
TGGAGAAGGAGAAGAGTGAGCTGCGCATGGAGGTGGACGACCTGGCTGCCAACGTGGAGACTCTGACCCGCGCCA
AGGCCAGTGCAGAGAAGCTGTGCCGGACCTATGAGGATCAGCTAAGCGAGGCCAAGATCAAGGTGGAGGAGCTGC
AGCGGCAGCTGGCGGACGCAAGCACGCAGCGTGGGCGACTACAGACGGAAAGCGGGGAGCTGAGTCGCCTGCTAG
AGGAGAAGGAGTGTCTGATCAGTCAGCTGAGCCGTGGAAAGGCCCTGGCCGCCCAAAGCCTGGAAGAGTTGCGGC
GCCAGCTAGAGGAGGAAAGCAAGGCCAAGAGTGCCCTGGCCCACGCCGTGCAGGCTCTGCGGCACGACTGTGACC
TCCTGCGGGAGCAACACGAGGAGGAGGCTGAGGCCCAGGCTGAGCTGCAGCGGCTGCTGTCCAAGGCCAATGCCG
AGGTGGCCCAGTGGAGGAGCAAGTACGAAGCAGATGCCATCCAGAGGACCGAGGAGCTGGAGGAGGCCAAAAAAA
AGCTGGCACTGCGGCTGCAGGAGGCAGAGGAGGGCGTGGAGGCTGCCAACGCCAAGTGCTCATCGTTGGAGAAGG
CCAAGCTGCGGCTACAGACAGAGTCAGAGGATGTAACCCTGGAGCTGGAGCGGGCGACCTCAGCAGCTGCTGCGC

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FIGURE 2800B

TGGACAAGAAGCAGCGGCACTTGGAACGGGCACTGGAGGAACGGCGGCGGCAGGAGGAGGAGATGCAGCGGGAGC
TGGAGGCGGCACAGAGGGAGTCCCGTGGCCTGGGCACCGAGCTCTTCCGGCTGCGGCACGGCCACGAGGAGGCAC
TTGAAGCCCTGGAGACGCTCAAGCGGGAGAACAAGAACCTGCAGAGGAGATCAGCGACCTCACAGACCAGG**TGA**G
TCTCAGTGGGAAGAGCATCCAGGAACTGGAGAAAACCAAGAAGGCGCTGGAAGGCGAGAAGAGTGAGATCCAGGC
TGCACTGGAGGAGGCAGAGGGGGCCCTGGAGCTGGAGGAGACCAAGACGCTGCGGATCCAGCTGGAGCTCTCCCA
GGTCAAAGCAGAAGTGGACCGGAAGCTGGCAGAGAAAGACGAGGAGTGCGCTAACCTGAGGCGCAACCACCAGCG
AGCTGTGGAGTCCCTGCAGGCCTCCCTGGATGCAGAGACACGGGCCCGCAATGAGGCGCTGCGGCTCAAGAAGAA
GATGGAGGGTGACCTCAACGACCTGGAGCTGCAGCTGGGCCATGCCACCCGTCAGGCCACAGAGGCCCAGGCTGC
CACGCGGCTGATGCAGGCACAGCTCAAGGAGGAGCAGGCAGGGCGGGACGAGGAGCAGCGGCTGGCAGCTGAGCT
CCACGAGCAGGCGCAGGCTCTGGAGCGCCGGGCCTCGCTGCTGGCTGCGGAGCTGGAGGAGCTGCGGGCTGCCCT
GGAGCAGGGCGAGCGCAGCCGGCGACTGGCAGAGCAGGAGCTTTTGGAGGCCACCGAGCGCCTCAACCTTCTGCA
TTCGCAGAACACAGGCCTCCTAAACCAGAAGAAGAAGCTGGAGGCGGACTTGGCCCAGCTGAGCGGGGAGGTGGA
GGAGGCTGCACAGGAGAGGCGGGAGGCTGAGGAGAAGGCCAAAAAGGCCATCACTGATGCGGCCATGATGGCCGA
GGAGCTGAAGAAGGAGCAGGACACAAGTGCACACCTGGAACGGATGAAGAAGACGCTGGAGCAGACGGTGCGCGA
GCTCCAGGCCCGCCTTGAGGAGGCAGAACAGGCCGCCCTCCGTGGCGGGAAGAAGCAGGTGCAGAAGCTGGAGGC
CAAGGTACGGGAGCTGGAGGCTGAGCTTGATGCAGAGCAGAAGAAGCACGCCGAGGCCCTTAAGGGCGTGCGCAA
GCATGAGCGCCGTGTCAAGGAGCTCGCATACCAGGCCGAGGAGGACAGGAAGAACCTGGCTCGCATGCAGGACCT
GGTGGACAAGCTGCAGAGCAAGGTCAAGAGCTACAAGCGCCAGTTTGAGGAGGCGGAGCAGCAGGCCAACACCAA
CCTGGCCAAGTATCGCAAGGCCCAGCACGAGCTGGATGATGCGGAGGAGCGGGCAGACATGGCGGAAACCCAGGC
CAACAAGCTGCGGGCACGGACCCGGGACGCCCTGGGCCCCAAGCACAAGGAGTGACGGCCTGACCCCCTGGGCTC
TAAAGAGGAATGTCTGCTGTTGCACATCTGGCTGAGGCCACCTGCCCCGATCCTGCCATCTCTGCATCGCCCCCT
GCTGCCTTCAGCCTTCCCTGGGCCCTGAATAAACACCACAGCCAGTTTCCTTCTCATTCTTTTCTTTGGGGTTCA
GGAGGAAAAACACAGTCCTAGGGACAAAAGCCAGGTCCACAGCAGTCATTTTTAAAATAAAGTTATTTAATAGTC
TCC

FIGURE 2801

GACATGGCGGCGGCGCCGGTAGCGGCTGGGTCTGGAGCCGGCCGAGGGAGACGGTCGGCAGCCACAGTGGCGGCT
TGGGGCGGATGGGGCGGCCGGCCGCGGCCTGGTAACATTCTGCTGCAGCTGCGGCAGGGCCAGCTGACCGGCCGG
GGCCTGGTCCGGGCGGTGCAGTTCACTGAGACTTTTTTGACGGAGAGGGACAAACAATCCAAGTGGAGTGGAATT
CCTCAGCTGCTCCTCAAGCTGCACACCACCAGCCACCTCCACAGTGACTTTGTTGAGTGTCAAAACATCCTCAAG
GAAATTTCTCCTCTTCTCTCCATGGAGGCTATGGCATTTGTTACTGAAGAGAGGAAACTTACCCAAGAAACCACT
TATCCAAATACTTACATTTTTGACTTGTTTGGAGGTGTTGATCTTCTTGTAGAAATTCTTATGAGGCCTACGATC
TCTATCCGGGGACAGAAACTGAAAAGTAATGATGAAATGTCCAAGGACTGCTTGAGTATCCTGTATAATACCTGT
GTCTGTACAGAGGGAGTTACAAAGCGTTTGGCAGAAAAGAATGACTTTGTGATCTTCCTGTTTACATTGATGACA
AGTAAGAAGACATTCTTACAAACAGCAACCCTCATTGAAGATATTTTGGGTGTTAAAAAGGAAATGATCCGACTA
GATGAAGTCCCCAATCTGAGTTCCTTAGTATCCAATTTCGATCAGCAGCAGCTCGCTAATTTCTGCCGGATTCTG
GCTGTCACCATTTCAGAGATGGATACAGGGAATGATGACAAGCACACGCTTCTTGCCAAAAATGCTCAACAGAAG
AAGAGCTTGAGTTTGGGGCCTTCTGCAGCTGAAATCAATCAAGCGGCCCTTCTCAGCATTCCTGGCTTTGTTGAG
CGGCTTTGCAAACTGGCGACTCGAAAGGTGTCAGAGTCAACGGGCACAGCCAGCTTCCTTCAGGAGTTGGAAGAG
TGGTACACATGGCTAGACAATGCTTTGGTGCTAGATGCCCTGATGCGAGTGGCCAATGAGGAGTCAGAGCACAAT
CAAGCCTCCATTGTGTTCCCTCCTCCAGGGGCTTCTGAGGAGAATGGCCTGCCTCACACGTCAGCCAGAACCCAG
CTGCCCCAGTCAATGAAGATTATGCATGAGATCATGTACAAACTGGAAGTGCTCTATGTCCTCTGCGTGCTGCTG
ATGGGGCGTCAGCGAAACCAGGTTCACAGAATGATTGCAGAGTTCAAGCTGATCCCTGGACTTAATAATTTGTTT
GACAAACTGATTTGGAGGAAGCATTCAGCATCTGCCCTTGTCCTCCATGGTCACAACCAGAACTGTGACTGTAGC
CCGGACATCACCTTGAAGATACAGTTTTTGAGGCTTCTTCAGAGCTTCAGTGACCACCACGAGAACAAGTACTTG
TTACTCAACAACCAGGAGCTGAATGAACTCAGTGCCATCTCTCTCAAGGCCAACATCCCTGAGGTGGAAGCTGTC
CTCAACACCGACAGGAGTTTGGTGTGTGATGGGAAGAGGGGCTTATTAACTCGTCTGCTGCAGGTCATGAAGAAG
GAGCCAGCAGAGTCGTCTTTCAGGTTTTGGCAAGCTCGGGCTGTGGAGAGTTTCCTCCGAGGGACCACCTCCTAT
GCAGACCAGATGTTCCTGCTGAAGCGAGGCCTCTTGGAGCACATCCTTTACTGCATTGTGGACAGCGAGTGTAAG
TCAAGGGATGTGCTCCAGAGTTACTTTGACCTCCTGGGGGAGCTGATGAAGTTCAACGTTGATGCATTCAAGAGA
TTCAATAAATATATCAACACCGATGCAAAGTTCCAGGTATTCCTGAAGCAGATCAACAGCTCCCTGGTGGACTCC
AACATGCTGGTGCGCTGTGTCACTCTGTCCCTGGACCGATTTGAAAACCAGGTGGATATGAAAGTTGCCGAGGTA
CTGTCTGAATGCCGCCTGCTCGCCTACATATCCCAGGTGCCCACGCAGATGTCCTTCCTCTTCCGCCTCATCAAC
ATCATCCACGTGCAGACGCTGACCCAGGAGAACGTCAGCTGCCTCAACACCAGCCTGGTGATCCTGATGCTGGCC
CGACGGAAAGAGCGGCTGCCCCTGTACCTGCGGCTGCTGCAGCGGATGGAGCACAGCAAGAAGTACCCCGGCTTC
CTGCTCAACAACTTCCACAACCTGCTGCGCTTCTGGCAGCAGCACTACCTGCACAAGGACAAGGACAGCACCTGC
CTAGAGAACAGCTCCTGCATCAGCTTCTCATACTGGAAGGAGACAGTGTCCATCCTGTTGAACCCGGACCGGCAG
TCACCCTCTGCTCTCGTTAGCTACATTGAGGAGCCCTACATGGACATAGACAGGGACTTCACTGAGGAGTGACCT
TGGGCCAGGCCTCGGGAGGCTGCTGGGCCAGTGTGGGTGAGCGTGGGTACGATGCCACACGCCCTGCCCTGTTCC
CGTTCCTCCCTGCTGCTCTCTGCCTGCCCCAGGTCTTTGGGTACAGGCTTGGTGGGAGGGAAGTCCTAGAAGCCC
TTGGTCCCCCTGGGTCTGAGGGCCCTAGGTCATGGAGAGCCTCAGTCCCCATAATGAGGACAGGGTACCATGCCC
ACCTTTCCTTCAGAACCCTGGGGCCCAGGGCCACCCAGAGGTAAGAGGACATTTAGCATTAGCTCTGTGTGAGCT
CCTGCCGGTTTCTTGGCTGTCAGTCAGTCCCAGAGTGGGGAGGAAGATATGGGTGACCCCCACCCCCCATCTGTG
AGCCAAGCCTCCCTTGTCCCTGGCCTTTGGACCCAGGCAAAGGCTTCTGAGCCCTGGGCAGGGGTGGTGGGTACC
AGAGAATGCTGCCTTCCCCCAAGCCTGCCCCTCTGCCTCATTTTCCTGTAGCTCCTCTGGTTCTGTTTGCTCATT
GGCCGCTGTGTTCATCCAAGGGGGTTCTCCCAGAAGTGAGGGGCCTTTCCCTCCATCCCTTGGGGCACGGGGCAG
CTGTGCCTGCCCTGCCTCTGCCTGAGGCAGCCGCTCCTGCCTGAGCCTGGACATGGGGCCCTTCCTTGTGTTGCC
AATTTATTAACAGCAAATAAACCAATTAAATGGAGACTATTAAATAACTTTATTTT

FIGURE 2802

GGAAGAACCCGCAGCAGCTCCCAGGATGAACTGGTTGCAGTGGCTGCTGCTGCTGCGGGGGCGCTGAGAGGACAC
GAGCTCT**ATG**CCTTTCCGGCTGCTCATCCCGCTCGGCCTCCTGTGCGCGCTGCTGCCTCAGCACCATGGTGCGCC
AGGTCCCGACGGCTCCGCGCCAGATCCCGCCCACTACAGGGAGCGAGTCAAGGCCATGTTCTACCACGCCTACGA
CAGCTACCTGGAGAATGCCTTTCCCTTCGATGAGCTGCGACCTCTCACCTGTGACGGGCACGACACCTGGGGCAG
TTTTTCTCTGACTCTAATTGATGCACTGGACACCTTGCTGATTTTGGGGAATGTCTCAGAATTCCAAAGAGTGGT
TGAAGTGCTCCAGGACAGCGTGGACTTTGATATTGATGTGAACGCCTCTGTGTTTGAAACAAACATTCGAGTGGT
AGGAGGACTCCTGTCTGCTCATCTGCTCTCCAAGAAGGCTGGGGTGGAAGTAGAGGCTGGATGGCCCTGTTCCGG
GCCTCTCCTGAGAATGGCTGAGGAGGCGGCCCGAAAACTCCTCCCAGCCTTTCAGACCCCCACTGGCATGCCATA
TGGAACAGTGAACTTACTTCATGGCGTGAACCCAGGAGAGACCCCTGTCACCTGTACGGCAGGGATTGGGACCTT
CATTGTTGAATTTGCCACCCTGAGCAGCCTCACTGGTGACCCGGTGTTCGAAGATGTGGCCAGAGTGGCTTTGAT
GCGCCTCTGGGAGAGCCGGTCAGATATCGGGCTGGTCGGCAACCACATTGATGTGCTCACTGGCAAGTGGGTGGC
CCAGGACGCAGGCATCGGGGCTGGCGTGGACTCCTACTTTGAGTACTTGGTGAAAGGAGCCATCCTGCTTCAGGA
TAAGAAGCTCATGGCCATGTTCCTAGAGTATAACAAAGCCATCCGGAACTACACCCGCTTCGATGACTGGTACCT
GTGGGTTCAGATGTACAAGGGGACTGTGTCCATGCCAGTCTTCCAGTCCTTGGAGGCCTACTGGCCTGGTCTTCA
GAGCCTCATTGGAGACATTGACAATGCCATGAGGACCTTCCTCAACTACTACACTGTATGGAAGCAGTTTGGGGG
GCTCCCGGAATTCTACAACATTCCTCAGGGATACACAGTGGAGAAGCGAGAGGGCTACCCACTTCGGCCAGAACT
TATTGAAAGCGCAATGTACCTCTACCGTGCCACGGGGGATCCCACCCTCCTAGAACTCGGAAGAGATGCTGTGGA
ATCCATTGAAAAAATCAGCAAGGTGGAGTGCGGATTTGCAACAATCAAAGATCTGCGAGACCACAAGCTGGACAA
CCGCATGGAGTCGTTCTTCCTGGCCGAGACTGTGAAATACCTCTACCTCCTGTTTGACCCAACCAACTTCATCCA
CAACAATGGGTCCACCTTCGACGCGGTGATCACCCCCTATGGGGAGTGCATCCTGGGGGCTGGGGGGTACATCTT
CAACACAGAAGCTCACCCCATCGACCCTGCCGCCCTGCACTGCTGCCAGAGGCTGAAGGAAGAGCAGTGGGAGGT
GGAGGACTTGATGAGGGAATTCTACTCTCTCAAACGGAGCAGGTCGAAATTTCAGAAAAACACTGTTAGTTCGGG
GCCATGGGAACCTCCAGCAAGGCCAGGAACACTCTTCTCACCAGAAAACCATGACCAGGCAAGGGAGAGGAAGCC
TGCCAAACAGAAGGTCCCACTTCTCAGCTGCCCCAGTCAGCCCTTCACCTCCAAGTTGGCATTACTGGGACAGGT
TTTCCTAGACTCCTCA**TAA**CCACTGGATAATTTTTTTATTTTTATTTTTTTGAGGCTAAACTATAATAAATTGCT
TTTGGCTATC

FIGURE 2803

CAGGTCCGGAGCCTCAACTTCAGG**ATG**TTGACAACATTGCTGCCGATACTGCTGCTGTCTGGCTGGGCCTTTTGT
AGCCAAGACGCCTCAGATGGCCTCCAAAGACTTCATATGCTCCAGATCTCCTACTTCCGCGACCCCTATCACGTG
TGGTACCAGGGCAACGCGTCGCTGGGGGGACACCTAACGCACGTGCTGGAAGGCCCAGACACCAACACCACGATC
ATTCAGCTGCAGCCCTTGCAGGAGCCCGAGAGCTGGGCGCGCACGCAGAGTGGCCTGCAGTCCTACCTGCTCCAG
TTCCACGGCCTCGTGCGCCTGGTGCACCAGGAGCGGACCTTGGCCTTTCCTCTGACCATCCGCTGCTTCCTGGGC
TGTGAGCTGCCTCCCGAGGGCTCTAGAGCCCATGTCTTCTTCGAAGTGGCTGTGAATGGGAGCTCCTTTGTGAGT
TTCCGGCCGGAGAGAGCCTTGTGGCAGGCAGACACCCAGGTCACCTCCGGAGTGGTCACCTTCACCCTGCAGCAG
CTCAATGCCTACAACCGCACTCGGTATGAACTGCGGGAATTCCTGGAGGACACCTGTGTGCAGTATGTGCAGAAA
CATATTTCCGCGGAAAACACGAAAGGGAGCCAAACAAGCCGCTCCTACACTTCGCTGGTCCTGGGCGTCCTGGTG
GGCAGTTTCATCATTGCTGGTGTGGCTGTAGGCATCTTCCTGTGCACAGGTGGACGGCGATGT**TAA**TTACTCTCC
AGCCCCCTCAGAAGGGGCTGGATTGATGGAGGCTGGCAAGGGAAAGTTTCAGCTCACTGTGAAGCCAGACTCCCC
AACTGAAACACCAGAAGGTTTGGAGTGACAGCTCCTTTCTTCTCCCACATCTGCCCACTGAAGATTTGAGGGAGG
GGAGATGGAGAGGAGAGGTGGACAAAGTACTTGGTTTGCTAAGAACCTAAGAACGTGTATGCTTTGCTGAATTAG
TCTGATAAGTGAATGTTTATCTATCTTTGTGGAAAACAGATAATGGAGTTGGGGCAGGAAGCCTATGGCCCATCC
TCCAAAGACAGACAGAATCACCTGAGGCGTTCAAAAGATATAACCAAATAAACAAGTCATCCACAATCAAAATAC
AACATTCAATACTTCCAGGTGTGTCAGACTTGGGATGGGACGCTGATATAATAGGGTAGAAAGAAGTAACACGAA
GAAGTGGTGGAAATGTAAAATCCAAGTCATATGGCAGTGATCAATTATTAATCAATTAATAATATTAATAAATTT
CTTATATTT

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FIGURE 2804

TCACTGAGGAGCCCTAGACAAGGCCA**ATG**GGTTCATCAATGCCCACTGGCTCTCTGCCAAAGCCAAAAAGGTGTC
AGGCAGTCTCCAGCGTGCTGGCCGGGTCTCGGATGCCACCCCTGCTCACTGAGCCTGCATGGGCCTTGCCCCCGA
CCCTGTGGTCTCTGGGATTGGGGTCGGCTTACCCTGTAGCACAGACAGGGACTCCTGCTGCCCTGGGAGCTGTCT
CAAGCAAAATCTCTTGTCCCAGAGGTGCCCATGTGGGTCCGCTGTGTCCCCTGTCATCATCCTTGTTTTTTCTCA
TTTTGGCCAAGGGCAGGCTCCCTGGGACAGGCAGGGAACAACTGCGGAGATAT**TAG**TGATTCATAGGTTTGTACA
GTGTTTTATACTTTGCAAAGCACTTTATTAGCTCACACCTGTCCACTCACATGAAACTCGTGTTAGGCCCTGGGA
GGCCGACGGTAACTCTCACCGTGCCCTCAGATGAAGCACAGAGAGGTTGTTACTTGCCCGGGCCATCCAGTGGGC
TGGCTGGGTCTTGTGTCCCCATCTGTGGACCCCTCTAGGGTCTGAGATGAGATGAGAAGTGTCTCCTGTATCCAC
CTCTTCCTGGCCTCCCTTCCCCCACTTCCTGGTCCCTGTCCACTCCTCAGGTTGGTGCTCTCACTTCTTGAAAGC
TCTAGGCACCCCCGCCTCCCGCCAGGCTCCCCATTGGCTCCTGGCAGGCCAGCTGAGAATGAACAGGAGATGGAG
GCAGGCTGGGGTGTAGACTGCGAAGGCGGCCCTGCCGGGACTTCTTTCCAGTCCCCGGCGACCTCTTCGAATTCT
CTGCTATCTCTGGGGAGCCTCGGGTGGGAGGGGGTGTAAGAGACGCAGGGACGTGGGGAGAGGAGACAAGGCAGG
CAAGAACCACAGGGGACGGCGGACAGACGGGCGACATCCTGCGGAGGACGCCGTCAGTACCAGGAAGTGCAGGCG
ATGAGGAAGCGCACGTCGTCCAGCGGCCCCCACGGGCTGGGCTCGGGCTGGGGCTGGGGCTGGGGCTGGGGCTGG
GGCTGGGGCGGATGCCGGGGCTGTTCCGGGCCCTCCGGCGCCGCAGGCTGGGGCTGGGGCTGGGGCTGGGTTTGC
GCAGGCTCCGGGGCGCCGCGGCCG

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FIGURE 2805

GGTGGTGGCGTCACGGCGCCAGCTCCTCCCGACGCCGAGACCATGGGGGCTCAGCTAAGCGGCGGCCGCGGCGCC
CCGGAGCCTGCGCAAACCCAGCCCCAGCCCCAGCCCCAGCCTGCGGCGCCGGAGGGCCCGGAACAGCCCCGGCAT
CCGCCCCAGCCCCAGCCCCAGCCCCAGCCCCAGCCCCAGCCCGAGCCCAGCCCGTGGGGGCCGCTGGACGACGTG
CGCTTCCTCATCGCCTGCACTTCCTGGTACTGACGGCGTCCTCCGCAGG**ATG**TCGCCCGTCTGTCCGCCGTCCCC
TGTGGTTCTTGCCTGCCTTGTCTCCTCTCCCCACGTCCCTGCGTCTCTTACACCCCCTCCCACCCGAGGCTCCCC
AGAGATAGCAGAGAATTCGAAGAGGTCGCCGGGGACTGGAAAGAAGTCCCGGCAGGGCCGCCTTCGCAGTCTACA
CCCCAGCCTGCTTCCCAGCCTACACCCAGACCCAGCTCAGACCTTCGTGACCACCCCATCCCTTTCTCCGGCTGG
CTGGGTCGGGGGCATCCCTCTCTGTCGCTGGCTTCCAGAGGCAGGACAGGCCTCCTGGTCATGTCCCAGGTCATG
GAGAAGCCCGTGCCACAGTGACCCTCCCCATACTCCTGGGGGGGCTGCTCTCCATCCTGGATCG**TAA**GGAGGCAT
CATCAGGCTGTGTTCCTGGAACCCCAATAACCCTGGGCCCCCAGGGCCAGCCTGTTGTAGAGGGAGGCTATCTGA
CCGCCGGTCTGGCAGAGGAGATGGGTGGGCAGCTCCCAGACACCCCAAAGGACCCGGTTCTCTTCCCAGAGCGTC
CTAAGGTTACTCTTGGAACCTGATCTTTGTTCCCTCATCCCAGGGAAATGACACACTCTGTATTTCTGTTTTATT
TAGAAATGATTTAAAAAACATTATACAAAGGCTGATCAGTTTAAAATGTGACTGACACTGAAATGCTGTGATGTC
CCCCAGGCTGAGGGGAAGCTAGGCTCTGGGGCCCCCAGTGCTTTGCCCCTCTGTCTGCCCTGTCCTGGGGTGATG
GACAAACAGATGACCACAGGCAGGAGAATCTGAGATTGGAAGCCTCTAGGCTGAGCCCTCTGGGCCTGGCCCCAC
ATCCCTCACCTCTGCAGCCTGGGCTGCCTGCCTCCATCTCCTGTTCATTCTCAGCTGGCCTGCCAGGAGCCAATG
GGGAGCCTGGCGGGAGGCGGGGGTGCCTAGAGCTTTCAAGAAGTGAGAGCACCAACCTGAGGAGTGGACAGGGAC
CAGGAAGTGGGGGAAGGGAGGCCAGGAAGAGGTGGATACAGGAGACACTTCTCATCTCATCTCAGACCCTAGAGG
GGTCCACAGATGGGGACACAAGACCCAGCCAGCCCACTGGATGGCCCGGGCAAGTAACAACCTCTCTGTGCTTCA
TCTGAGGGCACGGTGAGAGTTACCGTCGGCCTCCCAGGGCCTAACACGAGTTTCATGTGAGTGGACAGGTGTGAG
CTAATAAAGTGCTTTGCAAAGTAT

FIGURE 2806

ACGGAAACCTTTTTAGGGAGTCCAAGGTACAGTCGCCGCGTGCGGAGCTTGTTACTGGTTACTTGGCCTC**ATG**GC
GGTCCGAGCTTCGTTCGAGAACAACTGTGAGATCGGCTGCTTTGCCAAGCTCACCAACACCTACTGTCTGGTAGC
GATCGGAGGCTCAGAGAACTTCTACAGTGTGTTCGAGGGCGAGCTCTCCGATACCATCCCCGTGGTGCACGCGTC
TATCGCCGGCTGCCGCATCATCGGGCGCATGTGTGTGGGGAACAGGCACGGTCTCCTGGTACCCAACAATACCAC
CGACCAGGAGCTGCAACACATTCGCAACAGCCTCCCAGACACAGTGCAGATTAGGCGGGTGGAGGAGCGGCTCTC
AGCCTTGGGCAATGTCACCACCTGCAATGACTACGTGGCCTTGGTCCACCCAGACTTGGACAGGGAGACAGAAGA
AATTCTGGCAGATGTGCTCAAGGTGGAAGTCTTCAGACAGACAGTGGCCGACCAGGTGCTAGTAGGAAGCTACTG
TGTCTTCAGCAATCAGGGAGGGCTGGTGCATCCCAAGACTTCAATTGAAGACCAGGATGAGCTGTCCTCTCTTCT
TCAAGTCCCCCTTGTGGCGGGGACTGTGAACCGAGGCAGTGAGGTGATTGCTGCTGGGATGGTGGTGAATGACTG
GTGTGCCTTCTGTGGCCTGGACACAACCAGCACAGAGCTGTCAGTGGTGGAGAGTGTCTTCAAGCTGAATGAAGC
CCAGCCTAGCACCATTGCCACCAGCATGCGGGATTCCCTCATTGACAGCCTCACC**TGA**GTCACCTTCCAAGTTGT
TCCATGGGCTCCTGGCTCTGGACTGTGGCCAACCTTCTCCACATTCCGCCCAATCTGTACCGGATGCTGGCAGGG
AGGTGGCAGAGAGCTCACTGGGACTGAGGGGCTGGGCACCCAACCCTTTTCCACCTGTGCTTATCGCCTGGATCT
ATCATTACTGCAAAAACCTGCTCTGTTGTGCTGGCTGGCAGGCCCTGTGGCTGCTGGCTGAGGGTTCTGCTGTCC
TGTGCCACCCCATTAAAGTGCAGTTCCCTCCGG

FIGURE 2807

AGGAACCAGACTAGCATTTCTCAGTGGGTTCCAGTATGCAGCCGATTGATACCTGTGTCTCCTACCCAAGGACAG
GGGGACAGGGCTCTGTCTCGCACTTCCCAGTGGCCCCAG**ATG**AGCCAGTCCCGAGCATGTGGTGGATCAGAACAG
ATTCCTGGAATAGACATACAGCTGAATAGGAAGTATCACACCACACGTAAGCTTTCTACTACCAAAGATTCCCCA
CAGCCTGTTGAGGAGAAGGTTGGTGCTTTCACAAAGATAATAGAAGCCATGGGATTCACGGGACCTTTGAAATAC
AGTAAATGGAAGATTAAGATTGCGGCCCTGCGCATGTATACTAGCTGTGTGGAGAAAACTGACTTCGAGGAATTC
TTTCTAAGGTGTCAGATGCCTGATACATTCAATTCATGGTTTCTTATAACCCTACTCCACGTCTGGATGTGTCTA
GTCCGAATGAAGCAGGAAGGCCGGAGTGGGAAGTACATGTGTCGTATCATAGTTCATTTTATGTGGGAGGATGTT
CAGCAGCGCGGCAGAGTCATGGGGGTTAATCCCTATATCCTGAAGAAGAACATGATCCTCATGACAAATCATTTC
TATGCAGCGATCTTGGGATATGATGAGGGGATCCTTTCAGATGATCATGGGCTGGCCGCTGCCCTCTGGAGAACC
TTCTTCAACCGGAAATGTGAAGACCCTCGACATCTTGAATTGCTGGTAGAGTATGTGAGGAAACAGATACAGTAC
CTGGACTCCATGAACGGGGAGGATCTGCTTCTGACAGGGGAGGTGAGCTGGCGCCCTCTAGTGGAGAAGAATCCT
CAGAGCATCCTGAAGCCCCATTCTCCGACTTACAACGACGAGGGACTT**TGA**TGGGCTGGGCCCTCCGCACGGCCC
GCCAGCTGGCTTCGAGGAACCTCCAGGAGAGAAGTGCCTGTTGGTCCAGGACCCTGCAGAAAGTGGCCTGAACTG
ACCTCTGAACAGCATCTGTCAAATACCTGGCCCCATTTGTGTTGAGTTTCCTCTTAGTGTGCCCAGGAGTCTGAT
CTGCTGGGGTACAGGGCTGGGAGAACCCCTAGCTCTCCCGGGGTGTCCTCTCCCTTAGGGGAAGCCCCGAGTGAG
AGTCCCCCAGCACACACTCCCCAACCCCCTCCAGCAACTACATGTGACTGATAGCTTTTCCCAAAGGCCAAGGAA
GGGATGGTGTAGGTTCAAAAGGGAAACCCCCCAGGGCCTGCTGTGGCCTAGGAGCAGATTGTAATGCTGCCGAGT
CCGGTCGGTGACCACGCGTTGTCCCTCGGCTTTCAGCCATGGGGTTGAGTTGGCCATTAAAAGAAACAGAGACTT
CTCTCTGCCATGGCCCTTCTTTATTCCAGGGACTTAGAAACTTGCCTGAGATGGTGGACGCAGTAATGAGGGCAC
CGCGCAGCTCAGTTAGAGACGGAGAAAGGGAAGAGGCTGGGATGGTCTCTGCTGCTCTTGCCTCTAGTTCATGGA
GATGTGTCTCTGTTCAGGCCAAGATACAGCCAGCCAGGCCTGTCGTCTGGGACCCAGGAGGCCTCTGATGACCAA
GGGCTTTCACATCCTAAGTCATTTGGAAGGAGGCCTTGAGAACAAAGTCACCTTTGTCACTCCCAGTGAACTGAA
TGAGGAACATGCTGTCTCCTGTCTTGGCCTCCCCTTTCATGAGATACTGGGGAGAAGAGAACATTCCTCCTGGCT
TAGTTGTAGCAGACCCAGACCTGTGCCCAGCTTTGGTCCCCCTTCCCAACTTCTGAAGCACGTGCTGCAGAGCCA
CCTTGGTCTGAGCACCTGAGGACCAGCCCCTCCTCCCTCAGTGCGGGTCATCTCTTGGGGGATTTTCTTAAAGTG
AAGAAAGGGGGTGGGGAACCATATTGCCCCTCCCTCCCCCATCAAACTTCCTTCATTTAACTTGCTATAAAATGA
GTCATATAAAGAAACTCTATATGGGTGAGGTATATCCCACTTCTGTGAAAACATTACAAATCAAACCGCTTCTCT
CAGTTTATTTAAGATGCTTTTGTTGCGAGCGGAGCTCTAGAGTGAAGCCTCCTGTGTGTGTGTGAGATAATAACA
CCTTGTAACTCATTACAGCTGGGCACTATTTACATAAACCAGAGCTGAGCCAGGCAGGAATTTGCTGATTAATTT
ATTTTTAATGGAGTGAAGTATACCATGCACCAAAATAAACTTTACTGTGTGTACCTAACTGCTCCTGG

FIGURE 2808

CTCCTTCAAGCCCTCAGTCAGTTGTGCAGGAGAAAGGGGGCGGTTGGCTTTCTCCTTTCAAGAACGAGTTATTTT
CAGCTGCTGACTGGAGACGGTGCACGTCTGGATACGAGAGCATTTCCACTATGGGACTGGATACAAACACACACC
CGGCAGACTTCAAGAGTCTCAGACTGAGGAGAAAGCCTTTCCTTCTGCTGCTACTGCTGCTGCCGCTGCTTTTGA
AAGTCCACTCCTTTCATGGTTTTTCCTGCCAAACCAGAGGCACCTTTGCTGCTGCCGCTGTTCTCTTTGGTGTCA
TTCAGCGGCTGGCCAGAGG**ATG**AGACTCCCCAAACTCCTCACTTTCTTGCTTTGGTACCTGGCTTGGCTGGACCT
GGAATTCATCTGCACTGTGTTGGGTGCCCCTGACTTGGGCCAGAGACCCCAGGGGACCAGGCCAGGATTGGCCAA
AGCAGAGGCCAAGGAGAGGCCCCCCCTGGCCCGGAACGTCTTCAGGCCAGGGGGTCACAGCTATGGTGGGGGGGC
CACCAATGCCAATGCCAGGGCAAAGGGAGGCACCGGGCAGACAGGAGGCCTGACACAGCCCAAGAAGGATGAACC
CAAAAAGCTGCCCCCCAGACCGGGCGGCCCTGAACCCAAGCCAGGACACCCTCCCCAAACAAGGCAGGCTACAGC
CCGGACTGTGACCCCAAAAGGACAGCTTCCCGGAGGCAAGGCACCCCCAAAAGCAGGATCTGTCCCCAGCTCCTT
CCTGCTGAAGAAGGCCAGGGAGCCCGGGCCCCCACGAGAGCCCAAGGAGCCGTTTCGCCCACCCCCCATCACACC
CCACGAGTACATGCTCTCGCTGTACAGGACGCTGTCCGATGCTGACAGAAAGGGAGGCAACAGCAGCGTGAAGTT
GGAGGCTGGCCTGGCCAACACCATCACCAGCTTTATTGACAAAGGGCAAGATGACCGAGGTCCCGTGGTCAGGAA
GCAGAGGTACGTGTTTGACATTAGTGCCCTGGAGAAGGATGGGCTGCTGGGGGCCGAGCTGCGGATCTTGCGGAA
GAAGCCCTCGGACACGGCCAAGCCAGCGGCCCCCGGAGGCGGGCGGGCTGCCCAGCTGAAGCTGTCCAGCTGCCC
CAGCGGCCGGCAGCCGGCCTCCTTGCTGGATGTGCGCTCCGTGCCAGGCCTGGACGGATCTGGCTGGGAGGTGTT
CGACATCTGGAAGCTCTTCCGAAACTTTAAGAACTCGGCCCAGCTGTGCCTGGAGCTGGAGGCCTGGGAACGGGG
CAGGGCCGTGGACCTCCGTGGCCTGGGCTTCGACCGCGCCGCCCGGCAGGTCCACGAGAAGGCCCTGTTCCTGGT
GTTTGGCCGCACCAAGAAACGGGACCTGTTCTTTAATGAGATTAAGGCCCGCTCTGGCCAGGACGATAAGACCGT
GTATGAGTACCTGTTCAGCCAGCGGCGAAAACGGCGGGCCCCACTGGCCACTCGCCAGGGCAAGCGACCCAGCAA
GAACCTTAAGGCTCGCTGCAGTCGGAAGGCACTGCATGTCAACTTCAAGGACATGGGCTGGGACGACTGGATCAT
CGCACCCCTTGAGTACGAGGCTTTCCACTGCGAGGGGCTGTGCGAGTTCCCATTGCGCTCCCACCTGGAGCCCAC
GAATCATGCAGTCATCCAGACCCTGATGAACTCCATGGACCCCGAGTCCACACCACCCACCTGCTGTGTGCCCAC
GCGGCTGAGTCCCATCAGCATCCTCTTCATTGACTCTGCCAACAACGTGGTGTATAAGCAGTATGAGGACATGGT
CGTGGAGTCGTGTGGCTGCAGG**TAG**CAGCACTGGCCCTCTGTCTTCCTGGGTGGCACATCCCAAGAGCCCCTTCC
TGCACTCCTGGAATCACAGAGGGGTCAGGAAGCTGTGGCAGGAGCATCTACACAGCTTGGGTGAAAGGGGATTCC
AATAAGCTTGCTCGCTCTCTGAGTGTGACTTGGGCTAAAGGCCCCCTTTTATCCACAAGTTCCCCTGGCTGAGGA
TTGCTGCCCGTCTGCTGATGTGACCAGTGGCAGGCACAGGTCCAGGGAGACAGACTCTGAATGGGACTGAGTCCC
AGGAAACAGTGCTTTCCGATGAGACTCAGCCCACCATTTCTCCTCACCTGGGCCTTCTCAGCCTCTGGACTCTCC
TAAGCACCTCTCAGGAGAGCCACAGGTGCCACTGCCTCCTCAAATCACATTTGTGCCTGGTGACTTCCTGTCCCT
GGGACAGTTGAGAAGCTGACTGGGCAAGAGTGGGAGAGAAGAGGAGAGGGCTTGGATAGAGTTGAGGAGTGTGAG
GCTGTTAGACTGTTAGATTTAAATGTATATTGATGAGATAAAAAGCAAAACTGTGCCT

FIGURE 2809A

CGTTCGGGCAGCGGCCTCTTGTTACCCGGGGCCCGCTTGCCTCAGCTTCTTGCTGCCGCCAGCACGCTAAGCTCC
AGTCGGCGCCGAAGGAGAGCTTCCCGACCCTCGTGTCCAGTAGCCGCAATCCCAGGCTGGGAGGGTGAGGCGCCG
CGCTCTGCCGCCCCCCCGCCCCTCGCTCCCTGTGTCCTGGCGGATTTGCACGTAATCTATCCGAAAGCCCAGTCC
CACCCGCCACCCGACTCTGGAGCTCCCATTCTTCAGGACCCTGCTGAAGTATCGCTTCTCAGCCGCCTTCTCCAG
GCGCAGCTGCATTCGCTTCTCGGTTTTTGCACTCGCTGTGCACCGAGTTACTTTCCCGGCCCCTCGTTGACACCG
TTCACAGGTGGCTGTTGGTCTTTAGTAAGGGTGCTGTCTTCCCTGTCTGATCCTTAGCAAAAGTAGGAAGGTAGA
GTTGTTGGCAGAAATCCTGGGATAAGAGAATAGTTTCCTGGAAGATCTGTGCCTCCAACCAGCAGAGAGGGATTG
AGCTTCATTGAACTCAACAGAGCCAACATTTCATAGCACCATGTTCAAGAGGAGGTTGAAGTGGCATGGCAATGG
TTAGAGACCCTGCTGGGCGTGAACACCCTCTGGCTACCTAGGGACCTGTGGGCCTACCACCTGGTGCCCTC**ATG**G
AGACAAGAAGCCCTGGGTTGAACAACATGAAGCCCCAGTCACTGCAGCTGGTACTGGAAGAGCAGGTGCTGGCAC
TACAGCAGCAGATGGCAGAGAATCAGGCAGCCTCCTGGCGGAAGCTGAAGAACTCCCAGGAGGCCCAGCAGAGAC
AAGCAACCCTTGTGAGGAAGCTGCAGGCCAAGGTGCTGCAGTACCGAAGCTGGTGCCAAGAGCTGGAGAAGCGGC
TAGAAGCCACTGGAGGACCAATCCCCCAGAGGTGGGAAAATGTGGAGGAGCCAAACCTGGATGAGCTGCTGGTCC
GATTGGAGGAGGAGCAACAGAGGTGTGAGAGTCTAGCAGAGGTGAACACCCAGCTTCGACTGCACATGGAAAAAG
CTGACGTGGTGAATAAAGCCCTTAGGGAAGATGTGGAAAAACTGACAGTGGACTGGAGCCGGGCCCGGGATGAGC
TAATGAGGAAGGAGAGCCAGTGGCAGATGGAGCAGGAGTTCTTCAAGGGCTACCTGAAAGGGGAGCACGGTCGCC
TTCTCAGTCTATGGCGGGAGGTTGTGACATTCCGACGCCACTTCCTGGAAATGAAGTCAGCTACTGACAGAGATC
TGATGGAGCTAAAAGCTGAGCATGTGAGGCTTTCAGGGTCTCTGTTGACCTGTTGTCTGCGCTTGACTGTGGGAG
CACAGTCTCGGGAACCCAACGGATCTGGAAGAATGGATGGGCGGGAGCCGGCCCAGCTGCTGCTGCTACTAGCCA
AGACCCAGGAGCTGGAGAAGGAAGCCCATGAAAGGAGCCAGGAGTTAATACAGCTGAAGAGTCAAGGGGATCTGG
AGAAGGCTGAACTTCAGGACCGGGTGACCGAGCTCTCTGCTCTGTTGACCCAGTCTCAGAAGCAAAATGAAGATT
ATGAAAAGATGATAAAGGCTCTGAGAGAGACAGTGGAGATCCTGGAGACAAATCACACAGAATTAATGGAACATG
AAGCATCTCTTAGTAGGAATGCGCAAGAGGAGAAGTTGTCTTTACAGCAGGTGATCAAGGATATAACCCAGGTCA
TGGTGGAAGAAGGGGACAATATAGCCCAAGGCTCTGGTCATGAGAACTCTTTGGAATTGGACTCTAGTATCTTCT
CCCAGTTTGATTACCAGGATGCAGACAAGGCTCTTACTCTGGTGCGTTCAGTGCTGACTCGGAGACGCCAGGCTG
TGCAGGACCTAAGGCAGCAGCTTGCAGGCTGTCAAGAGGCTGTGAACTTGTTGCAACAGCAGCATGATCAGTGGG
AGGAAGAGGGCAAAGCCTTGAGACAGCGGCTGCAGAAGCTCACTGGGGAGCGGGACACTCTGGCAGGGCAGACTG
TGGACCTCCAGGGAGAGGTGGACTCTCTCAGCAAGGAGCGAGAGCTGCTGCAGAAGGCCAGGGAAGAGCTGCGGC
AGCAGCTGGAGGTGCTAGAGCAGGAGGCATGGCGCCTGCGAAGGGTAAATGTGGAGCTTCAGCTGCAGGGGGACT
CTGCCCAGGGCCAGAAGGAGGAACAGCAGGAGGAGCTGCACCTGGCTGTCCGGGAGAGGGAGCGTCTTCAGGAGA
TGCTGATGGGCCTGGAAGCCAAACAGTCAGAATCACTCAGTGAACTGATCACTCTTCGGGAAGCCCTGGAGTCAA
GTCACCTGGAAGGGGAGTTACTGAGGCAAGAGCAAACGGAAGTGACCGCAGCGCTGGCTAGGGCAGAGCAGTCAA
TTGCAGAGCTGTCGAGTTCTGAAAACACCCTGAAGACAGAAGTAGCTGATCTTCGGGCTGCAGCTGTCAAGCTCA
GTGCCTTAAATGAGGCTTTGGCGTTAGATAAAGTTGGGCTGAACCAGCAGCTTCTCCAGTTAGAGGAGGAGAACC
AGTCTGTGTGCAGCAGAATGGAGGCCGCAGAGCAGGCGAGAAATGCTTTGCAGGTCGACCTGGCGGAGGCAGAGA
AGAGGAGGGAAGCCCTGTGGGAAAAGAACACTCACCTGGAGGCTCAGCTGCAGAAAGCTGAGGAGGCTGGGGCTG
AGCTGCAGGCAGATCTCAGGGACATCCAAGAAGAGAAGGAAGAAATTCAAAAGAAACTAAGTGAGTCACGTCACC
AGCAGGAGGCAGCCACGACTCAGCTGGAGCAGCTACATCAGGAGGCAAAGCGACAGGAAGAAGTGCTTGCCAGGG
CAGTCCAGGAGAAGGAGGCCCTAGTACGAGAGAAAGCGGCTCTAGAGGTGCGGCTGCAGGCCGTGGAGCGTGACC
GGCAGGACCTCGCTGAACAACTACAGGGGCTCAGCTCAGCCAAGGAGCTACTGGAGAGCAGTCTGTTTGAAGCCC
AACAACAAAATTCTGTGATAGAGGTCACCAAGGGGCAGCTGGAGGTCCAGATTCAAACTGTCACTCAAGCCAAGG
AAGTAATCCAAGGGGAAGTGAGGTGCCTGAAGCTGGAACTGGACACTGAACGGAGTCAGGCAGAGCAGGAGCGGG
ATGCTGCAGCCAGACAGCTGGCCCAGGCTGAGCAAGAAGGGAAGACTGCCTTGGAGCAGCAGAAGGCAGCCCATG
AGAAAGAGGTGAACCAGCTCCGGGAGAAATGGGAGAAGGAGCGCTCCTGGCACCAGCAGGAGCTGGCAAAGGCTC
TGGAGAGCTTAGAAAGGGAAAAAATGGAGCTGGAAATGAGGCTAAAGGAGCAGCAGACAGAAATGGAGGCCATCC
AGGCCCAGAGGGAAGAAGAACGGACCCAGGCAGAGAGTGCCCTATGCCAGATGCAGCTGGAAACAGAGAAGGAGA
GAGTATCCCTCCTGGAGACACTGCTGCAGACGCAGAAGGAGCTAGCAGATGCCAGCCAACAACTGGAACGACTGA
GGCAGGACATGAAAGTCCAGAAATTAAAGGAGCAGGAGACCACTGGGATACTACAGACCCAGCTCCAGGAGGCTC

FIGURE 2809B

AACGGGAGCTGAAGGAGGCAGCCCGGCAGCACAGAGATGACCTTGCTGCCCTCCAAGAAGAGAGCAGCTCCCTGC
TGCAGGATAAGATGGACCTGCAGAAGCAGGTGGAGGACTTGAAGTCTCAGCTGGTGGCCCAGGATGACTCCCAGA
GGCTGGTGGAGCAGGAGGTTCAGGAGAAGCTGAGAGAGACCCAGGAGTATAACCGAATTCAGAAGGAGCTGGAGA
GAGAGAAAGCCAGCCTGACTCTGTCACTGATGGAAAAGGAACAGAGACTCCTTGTTTTACAAGAAGCTGACTCTA
TTCGACAACAAGAGCTGAGTGCCCTGCGCCAGGACATGCAGGAGGCCCAGGGAGAACAGAAAGAGCTCAGTGCTC
AGATGGAATTACTAAGGCAAGAGGTGAAGGAAAAGGAGGCTGACTTTCTGGCCCAGGAAGCACAGCTGCTGGAGG
AGCTGGAGGCGTCTCATATCACGGAGCAGCAGCTGCGAGCCTCCTTGTGGGCCCAGGAAGCCAAGGCAGCCCAAC
TACAGCTGCGACTGCGCAGCACAGAGAGCCAGCTAGAAGCGCTGGCCGCAGAGCAGCAGCCCGGGAACCAGGCCC
AGGCCCAGGCCCAGCTGGCCAGCCTCTACTCTGCCCTGCAGCAGGCCCTGGGGTCTGTTTGTGAGAGCAGGCCTG
AGCTGAGTGGTGGGGGAGACTCTGCTCCTTCCGTCTGGGGCCTTGAGCCAGACCAGAATGGAGCTAGGAGCCTCT
TTAAGAGAGGGCCCCTGCTGACTGCTCTCTCCGCTGAGGCAGTAGCATCTGCCCTCCACAAGCTTCATCAAGACC
TGTGGAAGACTCAACAGACCCGGGATGTTCTGAGGGATCAGGTCCAGAAACTGGAAGAGCGTCTAACTGATACTG
AGGCTGAGAAGAGCCAGGTCCACACAGAGTTGCAGGATCTGCAGAGACAGCTCTCCCAGAATCAGGAAGAGAAAT
CCAAGTGGGAAGGAAAGCAGAACTCCCTAGAATCTGAGCTGATGGAACTACATGAAACTATGGCATCCTTACAGA
GTCGCCTGCGGAGAGCAGAGCTACAGCGAATGGAAGCCCAGGGTGAGCGAGAGTTACTTCAGGCAGCCAAGGAGA
ACCTGACAGCCCAGGTGGAACACCTGCAAGCAGCTGTCGTAGAAGCCAGGGCTCAGGCAAGTGCTGCTGGCATCC
TGGAAGAAGACCTGAGAACGGCTCGCTCAGCACTGAAGCTGAAAAATGAGGAAGTAGAGAGTGAGCGTGAGAGAG
CCCAGGCTCTGCAAGAGCAGGGCGAACTGAAGGTGGCCCAAGGGAAGGCTCTGCAAGAGAATTTGGCCCTCCTGA
CCCAGACCCTAGCTGAAAGAGAAGAGGAGGTGGAGACTCTGCGGGGACAAATCCAGGAACTGGAGAAGCAACGGG
AAATGCAGAAGGCTGCTTTGGAATTGCTGTCTCTGGACCTGAAGAAGAGGAACCAAGAGGTAGATCTGCAGCAAG
AACAGATTCAGGAGCTAGAGAAGTGTAGGTCTGTTTTAGAGCATCTGCCCATGGCCGTCCAGGAGCGAGAGCAGA
AGCTGACTGTGCAGAGGGAGCAGATCAGAGAGCTCGAGAAGGATCGGGAGACTCAGAGGAACGTCTTGGAGCATC
AGCTTCTAGAACTTGAGAAGAAAGACCAAATGATTGAGTCCCAGAGAGGACAGGTTCAGGACCTGAAAAAGCAGT
TGGTTACTCTGGAATGCCTGGCCCTGGAACTGGAGGAAAACCATCACAAGATGGAGTGCCAGCAAAAACTGATCA
AGGAGCTGGAGGGCCAGAGGGAAACCCAGAGAGTGGCTTTGACCCACCTTACGCTGGACCTAGAAGAAAGGAGCC
AGGAGCTGCAGGCACAAAGCAGCCAGATCCATGACCTGGAGAGCCACAGCACCGTTCTGGCAAGAGAGCTGCAGG
AGAGGGACCAGGAGGTGAAGTCTCAGCGAGAACAGATCGAGGAGCTGCAGAGGCAGAAAGAGCATCTGACTCAGG
ATCTCGAGAGGAGAGACCAGGAGCTGATGCTGCAGAAGGAGAGGATTCAGGTTCTCGAGGATCAGAGGACCCGGC
AGACCAAGATCCTGGAGGAGGACCTGGAACAGATCAAGCTGTCCTTGAGAGAGCGAGGCCGGGAGCTGACCACTC
AGAGGCAGCTGATGCAGGAACGGGCAGAGGAAGGGAAGGGCCCAAGTAAAGCACAGCGCGGGAGCCTAGAGCACA
TGAAGCTGATCCTGCGTGATAAGGAGAAGGAGGTGGAATGTCAGCAGGAGCATATCCATGAACTCCAGGAGCTCA
AAGACCAGCTGGAGCAGCAGCTCCAGGGCCTGCACAGGAAGGTAGGTGAGACCAGCCTCCTCCTGTCCCAGCGAG
AGCAGGAAATAGTGGTCCTGCAGCAGCAACTGCAGGAAGCCAGGGAACAAGGGGAGCTGAAGGAGCAGTCACTTC
AGAGTCAACTGGATGAGGCCCAGAGAGCCCTAGCCCAGAGGGACCAGGAACTGGAGGCTCTGCAGCAAGAACAGC
AGCAGGCCCAGGGACAGGAGGAGAGGGTGAAGGAAAAGGCAGACGCCCTCCAGGGAGCTCTGGAGCAAGCCCATA
TGACACTGAAGGAGCGTCATGGAGAGCTTCAGGACCACAAGGAACAGGCACGAAGGCTGGAGGAAGAGCTGGCAG
TGGAGGGACGGCGGGTCCAGGCCCTGGAGGAGGTGCTGGGAGACCTAAGGGCTGAGTCTCGGGAACAGGAGAAAG
CTCTGTTGGCCCTCCAGCAGCAGTGTGCTGAGCAGGCACAGGAGCATGAGGTGGAGACCAGGGCCCTGCAGGACA
GCTGGCTGCAGGCCCAGGCAGTGCTCAAGGAACGGGACCAGGAGCTGGAAGCTCTGCGGGCAGAAAGTCAGTCCT
CCCGGCATCAGGAGGAGGCTGCCCGGGCCCGGGCTGAGGCTCTGCAGGAGGCCCTTGGCAAGGCTCATGCTGCCC
TGCAGGGGAAAGAGCAGCATCTCCTCGAGCAGGCAGAATTGAGCCGCAGTCTGGAGGCCAGCACTGCAACCCTGC
AAGCCTCCCTGGATGCCTGCCAGGCACACAGTCGGCAGCTGGAGGAGGCTCTGAGGATACAAGAAGGTGAGATCC
AGGACCAGGATCTCCGATACCAGGAGGATGTGCAGCAGCTGCAGCAGGCACTTGCCCAGAGGGATGAAGAGCTGA
GACATCAGCAGGAACGGGAGCAGCTGCTGGAGAAGTCTCTGGCCCAGAGGGTCCAAGAGAATATGATCCAAGAGA
AGCAGAATCTGGGGCAAGAGAGAGAAGAGGAGGAGATAAGGGGCCTTCATCAGAGTGTAAGGGAGCTACAGCTGA
CTCTAGCCCAAAAGGAACAGGAGATTCTGGAGCTGAGGGAGACCCAGCAAAGGAACAACCTGGAAGCCTTACCCC
ACAGCCACAAAACCTCCCCAATGGAGGAACAATCTCTAAAACTTGATTCTTTAGAGCCCAGGCTGCAGCGGGAGC
TGGAGCGGCTACAGGCAGCCCTGAGACAGACAGAAGCCAGGGAGATTGAGTGGAGGGAGAAGGCCCAGGACTTGG

FIGURE 2809C

CACTCTCCCTAGCGCAGACCAAGGCCAGTGTCAGCAGTCTGCAGGAGGTAGCCATGTTCCTACAAGCCTCTGTCC
TGGAGCGGGACTCAGAACAGCAAAGGCTGCAGGATGAACTGGAGCTCACCAGACGGGCTCTGGAGAAGGAGCGGC
TACACAGCCCAGGTGCAACCAGCACAGCAGAACTGGGGTCCAGAGGGGAGCAGGGTGTGCAGCTGGGAGAGGTCT
CAGGAGTGGAGGCTGAGCCTAGTCCTGATGGAATGGAGAAGCAGTCATGGAGACAAAGGCTTGAACACCTGCAGC
AAGCAGTGGCCCGGCTGGAGATTGACAGGAGCAGGCTGCAGCGCCACAATGTCCAGCTGCGGAGTACCTTGGAGC
AGGTGGAGCGAGAACGGAGGAAGCTGAAGAGGGAGGCCATGCGTGCGGCCCAGGCAGGGTCCCTAGAGATCAGCA
AGGCCACGGCTTCTTCACCCACACAGCAGGATGGGAGAGGACAGAAGAACTCAGATGCCAAGTGTGTGGCTGAAC
TGCAGAAAGAGGTGGTCCTGCTGCAAGCTCAGCTGACTTTGGAGCGGAAGCAGAAGCAGGACTACATCACCCGCT
CAGCACAGACCAGCCGTGAGCTAGCAGGCCTGCACCACAGCCTCTCACACTCACTTCTTGCCGTGGCCCAGGCCC
CTGAGGCCACTGTCCTGGAGGCAGAGACCCGCAGGCTGGATGAGTCCCTGACTCAAAGTCTGACATCCCCAGGGC
CAGTCCTGCTACACCCCAGCCCCAGCACTACCCAAGCCGCCTCCAGG**TAG**CAGCCACAGCCAGGAGCACACAGAC
AGAAGACTGTGTCATGGGTCATGGCCCCTCCGCACACCTACAGGTTTGCCAAAGGAAAAGCCTGGCTCTGTTAGG
CACCCAGGAGCCCCAGGTCGGCGGGTGTTCCCAGGAAGAGGAAGTAAATCTGCAACCCTGGGGAGGACCCCAACT
CACCTGGGAATGAGGCAAATTGCATTTGCTTGCTCCCTATGGAATCACCCAGAGGGGTGCCTTGCCCTGGCTGAG
GGACATGTACTGCCTCTCATCTAGAATTTATTTTCCTAGCACTTCACCACCTCCTTCATCTTCTCCTTCAACAAT
AAACCCTGAGATCTTTGCATTC

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FIGURE 2810

CTGGCGTCCCCTTTCCGGCCGGTCCCC**ATG**GAGGCGCTGGGGAAGCTGAAGCAGTTCGATGCCTACCCCAAGACT
TTGGAGGACTTCCGGGTCAAGACCTGCGGGGGCGCCACCGTGACCATTGTCAGTGGCCTTCTCATGCTGCTACTG
TTCCTGTCCGAGCTGCAGTATTACCTCACCACGGAGGTGCATCCTGAGCTCTACGTGGACAAGTCGCGGGGAGAT
AAACTGAAGATCAACATCGATGTACTTTTTCCGCACATGCCTTGTGCCTATCTGAGTATTGATGCCATGGATGTG
GCCGGAGAACAGCAGCTGGATGTGGAACACAACCTGTTCAAGCAACGACTAGATAAAGATGGCATCCCCGTGAGC
TCAGAGGCTGAGCGGCATGAGCTTGGGAAAGTCGAGGTGACGGTGTTTGACCCTGACTCCCTGGACCCTGATCGC
TGTGAGAGCTGCTATGGTGCTGAGGCAGAAGATATCAAGTGCTGTAACACCTGTGAAGATGTGCGGGAGGCATAT
CGCCGTAGAGGCTGGGCCTTCAAGAACCCAGATACTATTGAGCAGTGCCGGCGAGAGGGCTTCAGCCAGAAGATG
CAGGAGCAGAAGAATGAAGGCTGCCAGGTGTATGGCTTCTTGGAAGTCAATAAGGTGGCCGGAAACTTCCACTTT
GCCCCTGGGAAGAGCTTCCAGCAGTCCCATGTGCACGTCCATGACTTGCAGAGCTTTGGCCTTGACAACATCAAC
ATGACCCACTACATCCAGCACCTGTCATTTGGGGAGGACTATCCAGGCATTGTGAACCCCCTGGACCACACCAAT
GTCACTGCGCCCCAAGCCTCCATGATGTTCCAGTACTTTGTGAAGGTGGTGCCCACTGTGTACATGAAGGTGGAC
GGAGAGGTACTGAGGACAAATCAGTTCTCTGTGACCAGACATGAGAAGGTTGCCAATGGGCTGTTGGGCGACCAA
GGCCTTCCCGGAGTCTTCGTCCTCTATGAGCTCTCGCCCATGATGGTGAAGCTGACGGAGAAGCACAGGTCCTTC
ACCCACTTCCTGACAGGTGTGTGCGCCATCATTGGGGGCATGTTCACAGTGGCTGGACTCATCGATTCGCTCATC
TACCACTCAGCACGAGCCATCCAGAAGAAAATTGATCTAGGGAAGACAACG**TAG**TCACCCTCGGTGCTTCCTCTG
TCTCCTCTTTCTCCCTGGCCTGTGGTTGTCCCCCAGCCTCTGCCACCCTCCACCTCCTCGGTCAGCCCCAGCCCC
AGGTTGATAAATCTATTGATTGATTGTGATAGT

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FIGURE 2811

AGAAGAAAGCTGGTAGGGGCTGGGAGAGGGTACCACAGGGGAGTATGATCTACTTGGGGGCCAGAGAAGGTTCCC
TGAGGAAATAGTACCTGAACTTAGACTTGAAGGATAACAGATGTTAACTGGGAGGAGAGAATGTTCCAGGCAGAG
GAAAAGGCATATGCAAAAGTCCAGCGCCTTGAAGGAGCACAGCTGGGGTGCCTGGAGTGAGATGGAGCTGGAAAG
ATCCAGGTGGAGCTTGACCTGAAGTACCAGCCCCCAGAGGGCGCTACTGGAGCCTGGTCAGAGGAGGACTTTGGG
GCACCCATCCAGGACAGCTTCGAGTTAATCATCCCCAATGTGGGCTTCCAGGAACTGGAGCCTGGGGAGGCCCAG
CTGGAGCGGCGGGCAGTGGCTCTAGGCCGCAGGCTAGCTCGAAGTCTAGGCCAGCAGGACGATGAAGAGAATGAG
CTGGAGCTTGAGCTGGAGCAGGACCTGGATGATGAGCCTGACGTGGAACTTTCTGGTGTT**ATG**TTCAGCCCCCTC
AAGAGCCGCGCCAGGGCCCTGGCCCATGGGGATCCCTTCCAGGTGTCCAGAGCTCAAGACTTCCAGGTGGGAGTC
ACTGTGCTGGAAGCCCAGAAACTGGTGGGAGTCAACATTAACCCCTATGTGGCCGTGCAAGTGGGGGGGCAGCGC
CGTGTGACCGCCACACAGCGTGGGACCAGTTGCCCCTTCTACAATGAGTACTTCTTGTTCGAATTTCATGACACG
CGGCTTCGTCTCCAAGACTTGCTGCTGGAGATCACGGTGAGTGGGGTAGGGGTGACCAGTGTCCTTCAGAGAAGG
GGGGATGAGAAAGCTGCAGGACTAACACCACCTTCCCCCAAGGCTTTCCATTCGCAGACCCTCCCCTTTATGGCC
ACCCGGATAGGCACCTTCAGGATGGACCTGGGCATCATCTTGGACCAGCCAGGTATGGAATCGTCCCCTTAT**TGA**

GACTCTGCACGGACAAGGGCCCTAGAGATTGACCCTGCAGTGACTCCGCATGGACCCCTATACACTCACTTCGGA
GAGGGCCATCTCTGGCGGAGGCTGAACTCTTGGCACTTCCGCCCCTCCCTGCTGAGCCAGAGAAGCCCTGGCCAT
TGTCCGTCACTCCGATAGCCTCACGGCCACCCTGTGCGTCCCGCCGGTCGCCCCTTACCCCTGGCTCGCCCCTTC
GCCCTTAGATGGCCAGTTCTACCAAAGATGGGTTCCGCTGCATGATCCCCGAGACACCCGCGCCGGGACCAAGGG
TTTCATTAAGGTCACCTTGTCCGTGAGGGCGCGCGGGGACCTGCCCCCTCCAATGCTACCCCCGGCCCCAGGGCA
CTGTTCGGACATCGAGAAGTGAGCCGGGGTGAGGTGGGGAGGAGGACATGGATCCGGGGGTGGCCGTGGGGCGCG
GATAAGGGGAGGGGCCGAGATCCCAGTTTCTCCCCCCCCGCTCGGTGCCCCCTCCCCTAGGAACCTGCTCCTGCC
GCGCGGGGTGCCCGCCGAGAGGCCATGGGCGCGGCTCCGCGTGCGCCTGTACCGCGCCGAGGGGCTTCCCGCGCT
GCGCCTGGGGCTGCTGGGCAGCCTGGTCCGCGCCCTGCACGACCAGCGCGTCCTGGTGGAGCCCTATGTGCGGGT
GTCTTTCCTGGGGCAGGAGGGCGAGACGTCGGTGAGCGCCGAGGCGGCGGCGCCCGAATGGAACGAGCAGCTGAG
CTTCGTGGAGCTCTTCCCGCCGCTGACGCGCAGCCTCCGCCTGCAGCTGCGGGACGACGCGCCCCTGGTCGACGC
GGCACTCGCTACGCACGTGCCGGACCTGAGGCGGATCTCCCATCCGGGCCGCGCGGCGGGGGTTTAACCCTACCTT
CGGCCCGGCCTGGGTGCCCCTCTATGGCTCGCCCCCCGGCGCGGGGCTCCGGGATAGTCTTCAAGGTCTCAACGA
AGGCGTTGGCCAAGGCATTTGGTTCCGCGGCCGCCTTCTGCTGGCTGTGTCCATGCAGGTGTTGGAAGGGAGAGC
TGAACCTGAGCCTCCCCAGGCCCAGCAGGGGTCCACGTTGTCCCGGCTCACCCG

FIGURE 2812

CAAATATTCCATTCAGCATTACAAAGATGGATGTTCTTCAGTTCCTAGAAGGAATCCCAGTGGATGAAAATGCTG
TACATGTTCTTGTTGATAACAATGGGCAAGGTCTAGGACAGGCATTGGTTCAGTTTAAAAATGAAGATGATGCAC
ATGGCCCACTGCGTGACCTTGGTTCAGCTGTCCATTTCCTGTGACCATCTCATTGACAAGGACATCGGCTCCAAG
TCTGACCCACTCTGCGTCCTTTTACAGGATGTGGGAGGGGGCAGCTGGGCTGAGCTTGGCCGGACTGAACGGGTG
CGGAACTGCTCAAGCCCTGAGTTCTCCAAGACTCTACAGCTTGAGTACCGCTTTGAGACAGTCCAGAAGCTACGC
TTTGGAATCTATGACATAGACAACAAGACGCCAGAGCTGAGGGATGATGACTTCCTAGGGGGTGCTGAGTGTTCC
CTAGGACAGATTGTGTCCAGCCAGGTACTGACTCTCCCCTTGATGCTGAAGCCTGGAAAACCTGCTGGGCGGGGG
ACCATCACGGTCTCAGCTCAGGAATTAAAGGACAATCGTGTAGTAACCATGGAGGTAGAGGCCAGAAACCTAGAT
AAGAAGGACTTCCTGGGAAAATCAGATCCATTTCTGGAGTTCTTCCGCCAGGGTGATGGGAAATGGCACCTGGTG
TACAGATCTGAGGTCATCAAGAACAACCTGAACCCTACATGGAAGCGTTTCTCAGTCCCCGTTCAGCATTTCTGT
GGTGGGAACCCCAGCACACCCATCCAGGTGCAATGCTCCGATTATGACAGTGACGGGTCACATGATCTCATCGGT
ACCTTCCACACCAGCTTGGCCCAGCTGCAGGCAGTCCCGGCTGAGTTTGAATGCATCCACCCTGAGAAGCAGCAG
AAAAAGAAAAGCTACAAGAACTCTGGAACTATCCGTGTCAAGATTTGTCGGGTAGAAACAGAGTACTCCTTTCTG
GACTATGTGATGGGAGGCTGTCAGATCAACTTCACTGTGGGCGTGGACTTCACTGGCTCCAATGGAGACCCCTCC
TCACCTGACTCCCTACACTACCTGAGTCCAACAGGGGTCAATGAGTACCTGATGGCACTGTGGAGTGTGGGCAGC
GTGGTTCAGGACTATGACTCAGACAAGCTGTTCCCTGCATTTGGATTTGGGGCCCAGGTTCCCCCTGACTGGCAG
GTCTCGCATGAATTTGCCTTGAATTTCAACCCCAGTAACCCCTACTGTGCAGGCATCCAGGGCATTGTGGATGCC
TACCGCCAAGCCCTGCCCCAAGTTCGCCTCTATGGCCCTACCAACTTTGCACCCATCATCAACCATGTGGCCAGG
TTTGCAGCCCAGGCTGCACATCAGGGGACTGCCTCGCAATACTTCATGCTGTTGCTGCTGACTGATGGTGCTGTG
ACGGATGTGGAAGCCACACGTGAGGCTGTGGTGCGTGCCTCGAACCTGCCCATGTCAGTGATCATTGTGGGTGTG
GGTGGTGCTGACTTTGAGGCCATGGAGCAGCTGGACGCTGATGGTGGACCCCTGCATACACGTTCTGGGCAGGCT
GCTGCCCGCGACATTGTGCAGTTTGTACCCTACCGCCGGTTCCAGAATGCCCCTCGGGAGGCATTGGCACAGACC
GTGCTCGCAGAAGTGCCCACACAACTGGTCTCATACTTCAGGGCCCAGGGTTGGGCCCCGCTCAAGCCACTTCCA
CCCTCAGCCAAGGATCCTGCACAGGCCCCCCAGGCC**TAG**GTTCCCTTGGAGGCTGTGGCAAGTCCTCAATCCTGT
GTCCCAGAGGTCCCTCTGGGCCACAACCCAACCCTTCTCACTCTCCTCAGTGCTAGCACTTTGTATTTTTTGATA
CTTTTATACTTGTTTCTGCTTTTGCTGCTCTTGATCCCACCTTTGCTCCTGACAACCCTCATTCAATAAAGACCA
GTGAAGACC

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FIGURE 2813A

GCTTCCTTTGGGAGCCCAACGTTTAGCTCAACTGTTCCAAGCACAGCCTCTCCAATGAACACAGTCCCGCCGCCA
CCAATTCCTCCAATTCCAGCGATGCCATCTCTGTGCCACCC**ATG**ACCCCACTGCCACCCATGTCGGGCATGCCGC
CCTTGAATCCGCCACCTGTGGCACCTCTACCTGCTGGAATGAATGGCTCTGGAGCACCTATGAATTTGAACAATA
ATCTGAATCCTATGTTTCTTGGTCCGTTGAATCCTGTTAACCCTATCCAGATGAACTCTCAGAGCAGTGTGAAGC
CACTCCCCATCAACCCTGATGATCTGTATGTCAGTGTGCATGGAATGCCCTTTTCTGCAATGGAAAATGATGTCA
GAGATTTTTTTCATGGGCTCCGTGTTGATGCAGTGCATTTGTTGAAAGATCATGTAGGTCGAAATAATGGGAATG
GATTGGTTAAGTTTCTCTCCCCTCAAGATACATTTGAAGCTTTGAAACGAAACAGAATGCTGATGATTCAACGCT
ATGTGGAAGTTAGCCCTGCCACAGAAAGACAGTGGGTAGCTGCTGGAGGCCATATCACTTTTAAGCAAAATATGG
GACCTTCTGGACAAACTCATCCCCCTCCTCAGACACTTCCCAGGTCAAAATCGCCCAGTGGGCAGAAAAGATCAA
GGTCAAGATCACCACATGAGGCTGGTTTTTGTGTTTACTTGAAAGGGCTACCATTTGAAGCAGAAAACAAACATG
TCATTGATTTTTTTAAAAAGCTGGATATTGTGGAAGATAGTATTTATATAGCTTATGGACCCAATGGGAAAGCAA
CTGGCGAAGGCTTTGTAGAGTTCAGAAATGAGGCTGACTATAAGGCTGCTCTGTGTCGTCATAAACAGTACATGG
GCAATCGCTTTATTCAAGTTCATCCAATTACTAAGAAAGGTATGCTAGAAAAGATAGATATGATTCGAAAAAGAC
TGCAGAACTTCAGCTATGACCAGAGGGAAATGATACTAAATCCAGAGGGGGATGTCAACTCTGCCAAAGTCTGTG
CCCACATAACAAATATTCCATTCAGCATTACAAAGATGGATGTTCTTCAGTTCCTAGAAGGAATCCCAGTGGATG
AAAATGCTGTACATGTTCTTGTTGATAACAATGGGCAAGGTCTAGGACAGGCATTGGTTCAGTTTAAAAATGAAG
ATGATGCACGTAAGTCTGAACGCTTACACCGTAAAAAACTTAATGGGAGAGAAGCTTTTGTTCATGTAGTTACCC
TAGAAGATATGAGAGAGATTGAGAAAAATCCCCCTGCCCAAGGAAAAAAGGGATTAAAGATGCCTGTGCCAGGTA
ATCCTGCAGTTCCAGGAATGCCCAATGCGGGACTGCCCGGTGTGGGACTGCCCAGTGCAGGACTTCCCGGTGCAG
GCCTGCCCAGCACAGGACTGCCTGGTTCAGCAATAACCAGTGCAGGACTGCCTGGTGCGGGAATGCCCAGTGCAG
GAATACCTAGTGCAGGAGGTGAAGAGCATGCCTTCCTGACTGTAGGATCAAAGGAAGCCAATAATGGGCCTCCAT
TTAACTTTCCTGGTAATTTTGGTGGATCAAATGCCTTTGGGCCACCAATCCCTCCTCCAGGATTAGGAGGCGGGG
CCTTTGGTGATGCTAGGCCTGGTATGCCTTCAGTTGGAAACAGTGGTTTGCCTGGTCTAGGACTGGATGTTCCGG
GTTTTGGAGGTGGACCAAACAATTTAAGTGGGCCATCGGGATTTGGAGGGGGCCCTCAGAATTTTGGAAATGGCC
CTGGTAGCTTAGGCGGTCCCCCGGGGTTTGGAAGTGGCCCTCCTGGTCTTGGAAGTGCCCCTGGGCATTTGGGTG
GGCCACCAGCTTTTGGGCCTGGCCCCGGCCCCGGCCCCGGCCCTGGCCCAATCCATATTGGTGGTCCCCCTGGCT
TTGCATCTAGTTCTGGAAAACCAGGACCGACAGTAATTAAAGTGCAAAACATGCCCTTTACTGTGTCTATTGATG
AGATTTTAGATTTCTTTTATGGCTATCAAGTAATCCCAGGCTCAGTGTGTTTAAAATACAATGAAAAAGGTATGC
CCACAGGTGAAGCCATGGTGGCCTTTGAGTCTCGGGATGAAGCCACAGCTGCTGTCATTGACTTAAATGACAGGC
CTATAGGTTCAAGAAAAGTAAAACTTGTATTAGGG**TAG**CCATTCACATCATTTTTTATAGGGTAGATCTTCATAT
TGCTGTGATTAATGCATCCAGATTGTTTTCCTAGTATTTCCAGGTTAGAACCTGTGGATTGTTTCAATTGCATAT
AGCTTGGTTTCCATAACATAGAGCATTGGTTGACTGTTTACAGAAGACTCACTCACCAGGATAAACATTGCTGTA
TGTTACAGTAAAGCTATCTGGAGAGAACACATAAATGATTTTGGCATACCATTAGAGAAACCATTTGTAAAACTC
AAATGACCACATAAAGCTTATCAAGGAGTCTAGATTGGTTTTGTTTTATACCATATGGGATGAAGAAAATAGAAA
TGTCAGTAGAACTCATTGAGGGTGCTCTTGCCAGCTGCTGAAAATAGAAGTTGGCTACTCTCAGAATTTGGTTTA
AAGCTGGACAGATTTGCTTTGTTATAGGGTAAAGCTTTGTCTAAAGTCCTCATTTTCTTTTAAAATTGAATAAAA
TTTCTGTATACAGATTCATTGTATGTACCTTTATTGCTTCTTAAGGGTCCTTGCTGTATAGACAGTCCTGCTTCA
GAAGTTGCTGCTTTGTTTGTCTAATTGACTCATTTGTAAATGAGCAGAACTGTTTTGTTGGTTTTTTTCCCTAAA
TATAAAAGTCCACACTTCGTTTGTGCTATAACCTCAAACTTTGATTTCTAATGTCACACTTAAAACTGTGTGGAA
TAAGACTTTTGCCATAAAAATAAACTATGGAGTCCTTTATCTACCAGAGCCTTTTTGGTTTGACCGCCACGATTT
AGGTTAGTCAGTTTAAAAATTGTTCATGTTGTTTGGATGGTATCGAAAACCAGAAACCACTTTTAATAATGTGTT
TAAGATACTTGATTTGAAGTCCTTTTCATATGGACTAATTGTAGTATCAATTTCCTCCTGTCCCGATTATGTGAA
ATTTTGGCCTTTAAACAAAGAGGGGCCCATTCATAAGAAAGTGTTATATCTAGGTTTTTAAAACTGAAGTTGAAA
TTATCTTTGTTAGCAGTAGTAGTATAGAATAAAAGATCCGTATGCTGGTTCGTAGATTGATACGTGTTAGTCCTG
TTATTTGGAGGCTTTTTGGCATAGTTGTTCGATCAGGAGCCTGTTTACTAAAAGTCTTCATACAGAGTACAAGTG
CAGCCGCCAGAGGAGAAAATTGAGATTCTTGACCCTTTCATACTCTTTTCTTTGGTATTCAGGACACTAAGGCAG
GAGGACCACATGAGTTCTGGTTGGTAAGTGTCCTTGTCATGAAAACACTTGCCTTACAAGGCTCTAATTATGATT
TCCCTAGTCAGTGCTCTGAAGATGTGTCACATTATATTATAAACAATACGGAAGGGGAGATAGGTGAGATGATAT

FIGURE 2813B

GAAAAACAAATTTTCTCACTGTCATAAAAGGCTCTAATTATGGTTACTTTCCTTGTGATGAAAAACTTGGCCTTA
CAGGGCTCTAGTTATGGTTACTTTCCCTAGTCAATGCTCTGAAAATGTGTCACATTATAAACAATACAGAAGGAG
AGATAGATGAGAGATCATGAAAACCAAATTTTATCTTTTACATGGCCCCTTTGTCTTCGTTTGAAACATCCCCAA
CATTTCCTACAAATCAGCGTAGTTACAAAGGGGTCAGTCTTTTAAAATAAGTATTTCCTATTAAACTATATATAT
ATACAGTGCCTTTTTGGTGTTGTGAGTCAGTGGAACACTGAAATACAGCGGTTGTGTAATTTAAGAGTGGCAACA
GTTTCATTTGATAAGATTTGAAAAGGCTTTTTATCACTACAATCTTAGAGGATTGACAGTACAGGATTTTTGTTT
AAGAGAAGGATTGTTTAGACTCAAGAGGTGACTATGTTGTGGGTCTTTTGATAATTCATGAATACAGATTTGCTT
TGACCGATCACTAGATACTGCCTCCTCAATTTCAAAAGCAATATAACGTTTGTATATGCTGTTTAATTTAAGTTA
ATGTTAAGTAATCATTTCTCATTCCAAAGACAATGCAAAAAACTTCAGCACTGCTTGAGAGTTGTATTTCAGCCA
CAGATATTTTCTCCATTGGAAAGCTATTTTCATTTTAGAAAAATGGGTTGTTTGAAGATGAAAGTCTTTTATCTT
TTTTCACAATTTATTTTGGTTATATGTTCGTACATTCTTATTAAATATTTCATACACTTTATTGCAACTACTTTG
TTATTTCTACATCTTAGATAAATGCTGAAAAGGAAAACGATTTCATTGTTCATCTAATTAAATAAATTAAAAGAG
CGGTTTGTGTAGAAATTGGAGAGAACTATGTTTTATATGAATCACAACAGTGCTCGTTGTGGACTGTAATTAAAT
GCTTTGCCCTCTGGAACTTG

FIGURE 2814

GAGCCTGGGGCCCAGGACTGCAGCGGCTTCGGAAGGTGGGCTCTGCCAGCGGGACC**ATG**CTGCTCCGAGCCGCTT
GGAGGCGGGCGGCAGTGGCGGTGACAGCGGCTCCAGGGCCGAAGCCCGCGGCGCCCACTCGGGGGCTGCGCCTGC
GCGTTGGAGACCGTGCTCCTCAGTCTGCGGTTCCCGCAGATACAGCCGCTGCCCCGGAGGTGGGGCCAGTGCTGC
GACCTCTCTATATGGATGTGCAAGCTACAACTCCTCTGGACCCCCGGGTGCTTGATGCCATGCTCCCTTACCTAA
TCAACTACTATGGGAACCCACACTCCCGGACACATGCTTATGGCTGGGAGAGTGAGGCAGCCATGGAACGTGCTC
GTCAGCAAGTAGCATCTCTGATTGGAGCTGATCCTCGTGAGATCATTTTTACTAGTGGTGCTACTGAATCCAACA
ACATAGCAATTAAGGGGGTGGCCCGATTCTACAGGTCACGGAAAAAGCACTTGATCACCACCCAGACAGAACACA
AATGTGTCTTGGACTCCTGCCGTTCACTGGAAGCTGAGGGCTTTCAGGTCACCTACCTCCCAGTGCAGAAGAGTG
GGATCATTGACCTAAAGGAACTAGAGGCTGCTATCCAGCCAGATACTAGCCTGGTGTCAGTCATGACTGTGAACA
ATGAGATTGGAGTGAAGCAGCCTATTGCAGAAATAGGGCGGATTTGCAGTTCCAGAAAGGTATATTTCCATACTG
ATGCAGCCCAGGCTGTTGGAAAAATCCCACTTGATGTCAATGACATGAAAATTGATCTCATGAGCATTAGTGGTC
ACAAAATCTACGGTCCCAAAGGGGTTGGTGCCATCTACATCCGTCGCCGGCCCCGTGTGCGTGTGGAGGCCCTGC
AGAGTGGAGGGGGGCAGGAGCGGGGTATGCGGTCTGGGACAGTGCCCACACCCTTAGTGGTGGGGCTGGGGGCTG
CGTGTGAGGTGGCACAGCAAGAGATGGAGTATGACCACAAGCGAATCTCAAAGTTGTCAGAGCGGCTGATACAGA
ATATAATGAAGAGCCTTCCAGATGTGGTGATGAATGGGGACCCTAAGCACCATTATCCCGGCTGTATCAACCTCT
CCTTTGCATATGTGGAAGGGGAAAGTCTGCTGATGGCACTGAAGGACGTTGCCTTATCCTCAGGGAGTGCCTGCA
CCTCTGCATCCCTGGAGCCCTCTTATGTGCTTAGAGCAATTGGCACTGATGAGGATTTAGCGCACTCTTCTATCA
GGTTTGGAATTGGCCGCTTCACTACAGAGGAGGAAGTGGACTACACAGTGGAGAAATGCATTCAGCATGTGAAGC
GTCTTCGAGAAATGAGCCCTCTCTGGGAGATGGTTCAGGATGGCATTGACCTCAAGAGCATCAAGTGGACCCAAC
AC**TAG**AAGAATAGGGCCCTGACTTTGTGCTGGTCTGGCCCCTCCTGCCTCACCAACCCGTGCACAACCAGACACC
TTGTTACACCTAGTGGATGCTCTAGATTGGTATAGACCAGTTGACTTCAGCATCAGTCCACCTCTATGACAGAAA
CACAAGAAAACTGTCTTTCCCTAGCTTCAGTTCCTTGGGTGTGGAGCACTCCCCATTTCTTCTCGGGTCTTAAAG
TGTGTGGACATTTTCATCCCGAAGCCATAGAGACATTTGCTGTCATATTGCTGCTGGGCACATCTGTGCTCTTGG
TGAGGAGAGCAAGAGGAACCAGAAGAAGTCTCTTTGGTCAGGGACCATGATGCTCTACATGGACATTTGAGTCTT
CGTCTTCTGCTGCTGCTCGGCTGGACCAGCTTCTTTAACAGCAAGCATAATCCACTTCAATGTAATATTTTCTGT
AGCTCCAAAGGCTATCTCTTCATATTGACTGCAGACAGACTGAATGGACAGTTTCTTAGAGGGCTTGTCTCCTTT
CTACCCTTGTCCTCTTTCCTTTCCTTTGACCTAATGGAGCTAGAAATATGTCTGTGACTCCACCAGTTATTCTAA
TAATTTGTTTTCTTGAAAATTGTTAATTTCAAGACTGGAGAAATAAACTCACCTTCTATTTACTCTGTGACTTTA
TGAGAGGTTGAGGGAAAAGTGGAAGCTGTACTTGGGAATTGTGGAGAAGACCGCCACTCCATCTGATTTGCATAA
ATGACTCAGTGGGCTTTTGTATCTCTTCATTTAAGAATTATTTGAATGCCTGCCAGGAGCCAGATTTGTTCTGGG
TATTAGGAATACACTGGTTAACAGGACCAAAAAAGACCCTGCCCTCACTGAGTTTTAAATTTTAGTGGAGAGATG
GAAAATAATTAAACAAATAAACAATGTTATAGATTGTG

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FIGURE 2815

GACGCGGGGCCGGAACGCGAAGAGGGTGGTGGAGTCGGGCTACCCACTGATTTTCCTTCCCTTACTTCCCCTGAG
CCCTTGGGCCCACTTCCCAGCCTACCGCTTCCGTCCCCGCCCGACTCTTGGGCCAGCGCCTGGGCCCACACTTTC
CTATCCCCCGCAG**ATG**CCGGTGGCCGTGGGTCCCTACGGACAGTCCCAGCCAAGCTGCTTCGACCGTGTCAAAAT
GGGCTTCGTGATGGGTTGCGCCGTGGGCATGGCGGCCGGGGCGCTCTTCGGCACCTTTTCCTGTCTCAGGATCGG
AATGCGGGGTCGAGAGCTGATGGGCGGCATTGGGAAAACCATGATGCAGAGTGGCGGCACCTTTGGCACATTCAT
GGCCATTGGGATGGGCATCCGATGC**TAA**CCATGGTTGCCAACTACATCTGTCCCTTCCCATCAATCCCAGCCCAT
GTACTAATAAAAGAAAGTCTTTGAGT

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FIGURE 2816

CGGGCTGGGCGGTTCCGCGGCCTGGGCCTAGGGGCTTAACAGTAGCAACAGAAGCGGCGGCGGCGGCAGCAGCAG
CAGCAGCAGCAGCAATCTCTTCCCGAACACGAGCACCACAGGCGCCCGAAGGCCGGAACAGGCGTTTAGAGAAAA
TGGCAGACGATATTGATATTGAAGCAATGCTTGAGGCTCCTTACAAGAAGGATGAGAACAAGTTGAGCAGTGCCA
ACGGCCATGAAGAACGTAGCAAAAAGAGGAAAAAAAGCAAGAGCAGAAGTCGTAGTCATGAACGAAAGAGAAGCA
AAAGTAAGGAACGGAAGCGAAGTAGAGACAGAGAAAGGAAAAAGAGCAAAAGCCGTGAAAGAAAGCGAAGTAGAA
GCAAAGAGAGGCGACGGAGCCGCTCAAGAAGTCGAGATCGAAGATTTAGAGGCCGCTACAGAAGTCCTTACTCCG
GACCAAAATTTAACAGTGCCATCCGAGGAAAGATTGGGTTGCCTCATAGCATCAAATTAAGCAGACGACGTTCCC
GAAGCAAAAGTCCATTCAGAAAAGACAAGAGCCCTGTGAGAGAACCTATTGATAATTTAACTCCTGAGGAAAGAG
ATGCAAGGACAGTCTTCTGTATGCAGCTGGCGGCAAGAATTCGACCAAGGGATTTGGAAGAGTTTTTCTCTACAG
TAGGAAAGGTTCGAGATGTGAGGATGATTTCTGACAGAAATTCAAGACGTTCCAAAGGAATTGCTTATGTGGAGT
TCGTCGATGTTAGCTCAGTGCCTCTAGCAATAGGATTAACTGGCCAACGAGTTTTAGGCGTGCCAATCATAGTAC
AGGCATCACAGGCAGAAAAAAACAGAGCTGCAGCAATGGCAAACAATTTACAAAAGGGAAGTGCTGGACCTATGA
GGCTTTATGTGGGCTCATTACACTTCAACATAACTGAAGATATGCTTCGTGGGATCTTTGAGCCTTTTGGAAGAA
TTGAAAGTATCCAGCTGATGATGGACAGTGAAACTGGTCGATCCAAGGGATATGGATTTATTACATTTTCTGACT
CAGAATGTGCCAAAAAGGCTTTGGAACAACTTAATGGATTTGAACTAGCAGGAAGACCAATGAAAGTTGGTCATG
TTACTGAACGTACTGATGCTTCGAGTGCTAGTTCATTTTTGGACAGTGATGAACTGGAAAGGACTGGAATTGATT
TGGGAACAACTGGTCGTCTTCAGTTAATGGCAAGACTTGCAGAGGGTACAGGTTTGCAGATTCCGCCAGCAGCAC
AGCAAGCTCTACAGATGAGTGGCTCTTTGGCATTTGGTGCTGTGGCAGATTTGCAAACAAGACTTTCCCAGCAGA
CTGAAGCTTCAGCTTTAGCTGCAGCTGCCTCTGTTCAGCCACTTGCAACACAATGTTTCCAACTCTCTAACATGT
TTAACCCTCAAACAGAAGAAGAAGTTGGATGGGATACCGAGATTAAGGATGATGTGATTGAAGAATGTAATAAAC
ATGGAGGAGTTATTCATATTTATGTTGACAAAAATTCAGCTCAGGGCAATGTGTATGTGAAGTGCCCATCAATTG
CTGCAGCTATTGCTGCTGTCAATGCATTGCATGGCAGGTGGTTTGCTGGTAAAATGATAACAGCAGCATATGTAC
CTCTTCCAACTTACCACAACCTGTTTCCTGATTCTATGACAGCAACACAGCTACTGGTTCCAAGTAGACGATGAA
GGAAGATATAGTCCCTTATGTATATAGCTTTTTTTCTTTCTTGAGAATTCATCTTGAGTTATCTTTTATTTAGAT
AAAAATAAAGAGGCAAGGATCTACTGTCATTTGTATGCAATTTCCTGTTACCTTGAAAAAATAAAAATGTTAACA
GGAATGCAGTGTGCTCATTCTCCCTAAATAGTAAATCCCACTGTATACAAAACTGTTCTCTTGTTCTGCCTTTTA
AAATGTTCATGTAGAAAATTAATGAACTATAGGAATAGCTCTAGGAGAACAAATGTGCTTTCTGTAAAAAGGCAG
ACCAGGGATGTAATGTTTTTAATGTTTCAGAAGCCTAACTTTTTACACAGTGGTTACATTTCACATTTCACTAAT
GTTGATATTTGGCTGATGGTTGAGCAGTTTCTGAAATACACATTTAGTGTATGGAAATACAAGACAGCTAAAGGG
CTGTTTGGTTAGCATCTCATCTTGCATTCTGATCAATTGGCAAGAAAGGGAGATTTCAAAATTATATTTCTTGAT
GGTATCTTTTCAATTAATGTATCTGTAAAAGTTTCTTTGTAAATACTATGTGTTCTGGTGTGTCTTAAAATTCCA
AACAAAATGATCCCTGCATTTCCTGAAGATGTTTAAACGTGAGAGTCTGGTAGGCAAAGCAGTCTGAGAAAGAAA
TAGGAAATGCAGAAATAGGTTTTGTCTGGTTGCATATAATCTTTGCTCTTTTTAAGCTCTGTGAGCTCTGAAATA
TATTTTTGGGTTACTTCAGTGTGTTTGACAAGACAGCTTGATATTTCTATCAAACAAATGACTTTCATATTGCAA
CAATCTTTGTAAGAACCACTCAAATAAAAGTCTCTTAAAAAGGCC

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FIGURE 2817

ATGAAAAGAGTCAAGAGATTCCTTGAGAAGAGAGAACCAAAACTCAATGAAAATATTAAAAATGCAATGCTGATT
AAAGGGGGAAATGCAAACGCAACAGTGACACAAGTACTTAAAGATGTGTGTGCACTGAAAAAACCATACGGTGTA
CTGTATAAAAAGAAAAATGTTACAAGACCTTTTGAGGATCAGACATCACTGGAATTACTTTCAAAGAAGTCAGAT
TGTTCTTTATTCATGTTTGGCTCCTATAATAAGAAGCGGCCAAATAATCTAGTAATAGGTCATATGTATGACTAC
CATGTGCTGGATATGATTGAATTAGGTATTGAGAATTTTGTCTCTCTAAAAGACATTAAGAACAGTAAATGTCCT
GAGGGAACAAAACCCATGCTAATATTTGCTGGTGATGATTTCAATGTAACAGAAGATTACAGAAGACTAAAAAGT
CTTCTTACTGATTTCTTCAGAGGCCCCACAGTATCAAATATCTGCCTGGCTGGATTAGAATATGTTCTGCACTTC
ACTGCACTGAATGGGAAGATTTACTTTCGAAGATATAAGTTGCTGTTGAAGAAATCTGGTTGCAGAACACCACGG
ATTGAATTGGAAGAGATAGGACCCTCATTGAATCTGGTTCTGAGGAGGACACACCTGGCATCCGATGACCTTTAT
ACATTATCTATGAAAATGCCAAAAGCTCTCAAGCCAAAGAAGAAGAAAAATATCTCCAATGATACTTTTGGTACA
ACTTATGGAAGGATTCATATG**TAG**

FIGURE 2818A

GAGAAATAGGGAGATGCAGGAAGTGGGGGCCCATGGGGCCCCCAAGAAGCGGACTCTCCAAGGGGTACCCCCACC
CCGCTACCTTCCCCACGGACGGGCCCCTCCTGGAGCCCATACCCTCCTGTGAGGCCATTCCAGTGTCTTCTAGAA
AGACTCGCTTGCCAGGAGTGCGTTCTTTGTTGAAAAATGCCCTGAAGCGAAAAGATGCAGGTTTATATGGAACCC
CCACCCCCTCCCCCACTCTCCCACTCTGTTCGTTCTGAATGTCTTCACGAGCGTGCATCAGGGCGCCTGGCTCCC
CCACCTCAGCCAGTGAGTCAGACACGGGTTTCGCAGCCATGTTTCCTGGCTCCGAGGACACGGGTGGCAGGCCCG
TTGCAGCCCAGAGCCACTGGTCCCTACAGGGCGCCGCCACACCAGCAGGAAGGAGGATGGCTGTGTCCGGAGCCT
GGCGGGGAGGCGGCCTCCCCAGTATGTGAGTGCAGGGATCTGCCAGAACCACCTGGCCCTCTGTAGGGCGTTTAA
CTGGAAATACCCTCACTGCCAAGTGGAGACTGGGGCGTGTGCCACATTGCCAGCCACCAGGAAAGCTTTTCTTTT
TCTTTTTTTTTTTTTTTTAAACACCAAGAGCACGTATAGCATGGGGGAAAGAACCTAAATGTCTCTCTGTCCTGT
GAGCTGGTGAAAAACCCAGCATGAGAACGCAGTGTCAGGTGTGGGACTCCTTCTGCCCCTGCAGTGGGTGTTACG
GGCGGTGTGCCCTGGCGAGCAAGCTTTGATTCTTGGTTCTTTGAGCTCGTTTCAGAGGCTGAGTCCCCACATCAG
CTTTAGTTCTTGGACTTCCCTGTATTAAGCAAGAATTAGGAGAATGGCTGTCCCTGCAGGCGCCTCCCGTAAATC
CTGAGCTCTCTGGCGCAATCTGAAACTTCTCTTCTGTTTTCTTTGGCTGTATCAGCCGAACCAGGAGAGGCCTGG
GCTGCGACTAAGGAGAAAGAAATCGGGGGTTTCTGAGAGCAGATGGTGCCTTTGTGGGTGCAGGGCTTTTGTGGA
AATTGTCAGCCTCTACGGGCAGAGTCCGGCATCCCCTCCCCAGACTGCCTGCTGTCAAACCACGGAGCAGCTGGA
GCCTGCCCTGTCCACGGCCCGTTTCCACCCGGGCATGTTCGTCTCTCCTGACTTCGGCAGAGGCCCCTGGTGGCC
TTCAGTTTCAGTTTCTCATCCAGGAAGGTAACCTTGGGCATTGGCAGTGGGTTTCCCTATGGCTTGGATCCAGAT
TAGAATTGATCTTTGTTTTCACTTTCCATAGTTAATAACATGCAAAATAATGAGAAGAATTTATTTTAAGGTGAC
AGCTATACTGGTCCAACATCGCCTGCTTATTGTCAGGGTACAGAAGTTTAATACTTTCTTAATCCAGTTTTTCAA
ACTTCTCCCTGTAGACCGTAAGGATGAATTCCACAATAGGATCCTTTTTAAAATCGATTTTAAATTGTTGCCTAG
TCCTGCCAAGGTTATTATGTGCATCTGTTATTTTTCCAATACATGTAAACAGTTGCAGCATGATGCTTTGTTTAA
TGTCCTGTTCTTAAGCTCGTTAGAGCCAGTTTTGAAACGTTTGGTCTTACCGTGAACGGAGGCTGGCTTGGCTTA
GCCACGCTGATGAGTAAGTGAGGGATGTCTCCATCTTGAGATCACCAGGCAAGAGAGTTGCCTGCACCAGGTAAG
AGGCCAAAGCCCCTGGGGTAACAGTCCCCACCGCTACCCGAGGTAAAACAATAAAAGCTATGTGGTTGAGCTCAG
GCCTCTCGTGCCTGGTGTCAGAGAAGGCAGAGCCCACAGTAGGTGCACGGTGCAAGGCCCTGGGAGGGCACTGGC
CAGGGAAGGTGGTATAGATGGCCCTCAGATTGCGGGGCCCCGAGCAGCTCCCCACTCTGCCCGTCCACCTTCCCT
GGCTCCAGCCTCATTCTCTCTTTAGTTTAACTATGCAAAGAGAGGAGGTTGAGAGTGTTCTGGCAGCTGGAGCTC
TTTTCCTTGTCCTTCCTGCCCTCCGATGGGGCCACCTGTGTCGGGGCAGCAGTGTCCATGTTTATGGAGATCAGA
GGTGTCCCCACTGTGTGGCTGGACTGTACTCTGCTGCCCGGGTAGCCAGGAGTCTCTCCCTCTCTCCCCTGCCGC
CTGCCTGGTCTCATGGGCCTCCTTCACACACCCCTCCCTGTGGATCGCCTGCCTGGGCCCAGAGCAGGGGAACTG
GAGTTTGTGAGTGAGCAGAGCAGGTTATGTGCAGACAGGGAAACGAGAACTTTGGACCTGGCTTTCTGAGTCCAG
GTGAGAGCTGTGTGGCCCCCCGATGCCACTCTGCCCGCCGGAGGGATGTGCCTGCTGAGCCTTTTCCTTCCACGC
CGCCTCTCACTGCCAGGCCAGCGGCTTCCGCTGAGACTCGCTGGAGAGGCGGCTCCCGTGTCCGTCCACCGAGCA
CTCAGATGGATGCTGATCACCAGGGCCGAGGGGGCTCCCAGAAGGACCCCAGGCCCTGGGGAGGGTGGCTGTGGG
AGGCCAAGTCCACTGCCCGGAAGTCTTGTCAGCCCTAAGCCAGGGAAGCCTGGAGCGTGGCCTGGCGGGTCTGGG
TGGACACCGTCCCCACTCCGGACTCCCAGCACAGGGGAGGATACCTGAGCCTGTATGGCCCTGTAGCCCTGGGCA
GAGCTGGGCCTGTCGTGTGTTCCTGCCTGGCAGGTGCAGGTGCTGGCCATCTGCAGGTGGAAGGAGGTGGGAATC
TTGGATTTTTTGTTTTTTTTTGTTTTTTTTTTTTTGAGGTGAAGTCTCGCTCTGACACCCAGGCTGGCGTGCAGT
GGTGTGATCTCGGCTCACTGCAAACTCCGCTTCCTGGGTTCAAGTGGTTCTCCTGCCCCAGCCTCCCAAGTAGCT
GGGATTACAGGCATGCGCCACCACGCTCAGCTGATTTTTGTATTTTTAGTAGAGATGGGGTTTCACCATGTTGGC
CAAGCTGGTCTCAAACTCCTGACCTCAAGTGATCTGCCCGCCTCGGCCTCCCAGAGTGCTGGGATTACAGGCATG
AGCCAGTGCACCCGGCGGAATCTTGGAATTTTTATAGACAGCACCTCAGTTTCTGACTCCAGCCGCACACCTCCT
GCCTCTGCCAGCAGGGGTTGCCGCCAGACCAGAGCCAGGGCCAGGTCCCTGCGTCCATCCCCCCCGGTAGGATGG
ACGTGAGCCATCCTTCTAGGGGACTTTTTTCAGTGTGCGACTCGTCTCTGTTAGGTGGTAGGAGCCAGTTTGTGT
GGCCTGTGCCACGCTCCACAGTGCGTGGCTGGGCTCTGTGTGTGGCCTGTGTCCCCTGTCCCTGCAGGACCCAGC
AGGCATCGTGGCGTGACAGCTGTGTCCAAGCCACTGCCCGGGCATCCCATCACCCACCAGGGTGCACGGTCTCTC
CTGCTGGGGGCTTTCTGTCGCATGTGTGTCTCCTGTCGACTCTGCAGTTTGTTCTCAGAGCAGAATGTTTCCTGT
TCTCAGTGCACAAAGACACTGGTTTTCAATCGGCGTCTAAAACCACGTTCCTGCCTTTCATTGCAACACGGTGTG

FIGURE 2818B

TTCATTTGTTTAAAACAGTTTAATGAGTAAGTTTAGATGACTGGTCAATATCTTAAAAATGTATATTAGTAAGAA
GTTCTTCCTGGAATTTTTCTTTCGATTCTGGCAGAATAAACAGGTGTTTTTAGTTTTCCCACTGTCTGAGCCAAG
CAGGACCCTGTCCCAGAGCAAGAG**ATG**TCCCCTTCCATCTCTGACCCTTGCCTGGGACAAGCTTTGATGGGGGGC
CCCAGCTTCAAGGCTGTGGTGGGAACAGCACCCCCAAATGCCAGCCTCTCCTTTCTTCCCATCCACCAGTATACT
GCGGGGCCATTTCTGGTCTTTGTCCAACAGGAAACCCATTTCTGGTGGGATATGCCTTCCAGTGCCACAGGGCCA
CTCACCCCATGCATCTCTGTCCTGCCCGTCAGTGCTGGGACGGACAGCAAGGGCAAGCCCAGTGTCTGGCGGATA
GGTGGGTGGGAACAGAGAGGGGAGAATGCCGTCCTAAGCTTCTGCTTGGGGATCCCCCACACGACCTGGGTACTG
CCTGGGAAACCTGTCCTAAGTAAAACTATGGACCTCGCCTCGCCCACCGGCCTGCGAAGCCAGCATCTCCGTGAA
GGTGGATGGAAGCGCCTTTGTCCTCATTTTGAGCTGCAAGCTGGGTCAGCGGCTCTGAAGCCCTCGAGTGACTTT
CTAACCCAAGACCCAGCCCCTGGCAGGAGGAGGGTGGGTGCAGGGCTGGTGGGACAAAAAGAGGCCTCAGCAGGC
CTGGAAGACCCTTCCAGTACATCCCACAGCGTGTCGAGCAGCTGGGAGAACCTGTGTCAAGCTCGAGCCGTCATA
GGTCCCCATGAGGTGTCTGAAGCCCCTTCTTGG**TGA**TGGGAGGCAGAGGTGCTGACGTTCTGGAGCATGGACGTG
AGTCCTCAGCTGGCTCCGCGTGGGCCCTTGGAGGGTGCCAGGTGTGTGGTGACCTTCTGGATGCCTTTAACTTCA
TGGCTGCGTCATTCCTGATTTAGAACTTTAACCGGAGCTTCATCTAGTGATTGCAAAACTGGACCAATGGGAGGA
CGGCGGCGCAGCCCGCTCCCTCCGTGGAATGGAGCTCAGCTCTTCGGAGGCATCAAAGCACCTGTCGCCTCCGTG
GTCCCCCTGCTGAGGGAGTGCGGCCTCTGCAAGGTTCGGGGGTGGCTTCGTTTGCCTGGAGTGGCCGGCCCTGCT
TGTGCCATGTGGATGTTTGTGAGCCTCGGTCCTACAGCACTGTGTAGGCTGCATCTGTTTCGTGCTGGTCCTGTT
GACTTGTATGATATCCACAAATAAATATTTTCATGGC

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FIGURE 2819

CCCGCGCGTCACGTGACCCCAGCGCCTACTTGGGCTGAGGAGCCGCCGCGTCCCCTCGCCGAGTCCCCTCGCCAG
ATTCCCTCCGTCGCCGCCAAG**ATG**ATGTGCGGGGCGCCCTCCGCCACGCAGCCGGCCACCGCCGAGACCCAGCAC
ATCGCCGACCAGGTGAGGTCCCAGCTTGAAGAGAAAGAAAACAAGAAGTTCCCTGTGTTTAAGGCCGTGTCATTC
AAGAGCCAGGTGGTCGCGGGGACAAACTACTTCATCAAGGTGCACGTCGGCGACGAGGACTTCGTACACCTGCGA
GTGTTCCAATCTCTCCCTCATGAAAACAAGCCCTTGACCTTATCTAACTACCAGACCAACAAAGCCAAGCATGAT
GAGCTGACCTATTTC**TGA**TCCTGACTTTGGACAAGGCCCTTCAGCCAGAAGACTGACAAAGTCATCCTCCGTCTA
CCAGAGCGTGCACTTGTGATCCTAAAATAAGCTTCATCTCCGGGCTGTGCCCCTTGGGGTGGAAGGGGCAGGATT
CTGCAGCTGCTTTTGCATTTCTCTTCCTAAATTTCATTGTGTTGATTTCTTTCCTTCCCAATAGGTGATCTTAAT
TACTTTCAGAATATTTTCAAAATAGATATATTTTTAAAATCCTTAC

FIGURE 2820

GCGTGCTCAGTGTGCTGGGTACCAGGCGACTCCGGGACAGGGGGTCTCGGCCGTCGGCGTC**ATG**GTTTCGCGCGT
GCAGCTCCCGCCTGAGATCCAGCTGGCTCAGCGCCTGGCGGGGAATGAGCAGGTGACCCGGGACCGGGCGGTGAG
GAAGCTCCGGAAATACATCGTCGCCAGGACTCAGCGGGCCGCAGGTGGTTTTACGCACGACGAGCTGCTGAAGGT
GTGGAAAGGACTGTTTTATTGCATGTGGATGCAGGACAAGCCACTCCTCCAGGAAGAATTAGGAAGGACTATTTC
CCAGCTCGTTCATGCTTTTCAGACCACGGAGGCGCAGCACCTGTTCCTTCAGGCCTTCTGGCAGACCATGAATCG
CGAGTGGACGGGCATTGACAGGCTGCGCCTGGATAAATTCTACATGCTCATGCGGATGGTCCTGAACGAGTCCTT
GAAGGTTCTGAAGATGCAAGGCTGGGAAGAAAGACAGATCGAGGAGCTGCTAGAGCTGCTGATGACTGAGATCCT
GCACCCCAGCAGCCAGGCCCCCAACGGTGTGAAGAGCCACTTCATCGAGATCTTCCTGGAGGAGCTGACCAAAGT
GGGCGCCGAGGAGCTTACGGCAGACCAGAACCTGAAGTTCATCGACCCCTTCTGCAGAATTGCTGCCCGGACCAA
GGATTCCTTGGTTTTGAACAACATCACTCGAGGCATCTTTGAGACGATTGTGGAGCAGGCCCCGCTTGCCATTGA
AGACCTCCTGAATGAACTGGACACACAGGATGAGGAGGTGGCGTCGGACAGTGATGAGTCCTCTGAGGGTGGTGA
GCGTGGAGACGCGCTGTCCCAGAAGAGGTCTGAGAAGCCGCCCGCAGGCTCCATCTGCAGGGCTGAACCTGAGGC
TGGTGAGGAGCAGGCAGGTGACGACAGGGACAGTGGCGGCCCCGTTCTCCAGTTTGACTACGAGGCAGTTGCTAA
CAGACTGTTTGAAATGGCCAGCCGCCAGAGCACCCCTTCTCAGAACAGAAAGCGTCTCTACAAAGTGATCCGGAA
GCTGCAGGACCTGGCAGGAGGCATTTTCCCTGAAGATGAGATCCCAGAGAAGGCCTGCAGGCGCCTGCTTGAAGG
GAGGCGGCAGAAGAAGACGAAGAAGCAGAAGCGTCTGCTCAGGTTGCAGCAGGAGAGAGGGAAAGGTGAGAAGGA
GCCCCCGAGCCCGGGCATGGAGAGGAAGAGGAGCAGGAGGAGGGGGTGTAGGGGCCGACCCCGAGGCGCGGGCAGA
GGCTGGTGAGCAGCCAGGCACAGCTGAGCGGGCCCTGCTCCGAGATCAGCCCAGGGGCCGTGGCCAGAGAGGGGC
TCGCCAGAGAAGGAGGACACCTCGGCCCCTGACCAGTGCCCGAGCAAAGGCGGCCAATGTCCAGGAGCCGGAGAA
GAAGAAGAAACGCAGGGAG**TGA**TGTGGCCGGGCCAAGGACAGGCAGGGAGGGAGGCCAGGCCTCGCTTGCACCGC
GGGACGAGGCTGACCGGGCTGTTCTGTAGACTCAGGACCGTGGCTCCAGAACTCCTGTGCCAGGCGGGAGGGAAG
GGCGGCACTGGAGAGATGGGCCCATCATTAGGGGCCAGCATCCCAGGAACTGGACCTTTCCCCAGAGCCTCCGCC
TGTGGCTGTGATGACCTTGGGCCAGAAGGTCAAACTCCGAAGACTGAAACTCTGCCTGCAGCAGGACTGGCCGCC
CCTGCTGTGGGGGGTTCAGAAAATAAAATGCCGCGCAGCCCTTGCCAGGGGAAGTGTCGCTTCAGGTGTGTCCTA
CGGACGTGTGGGAGGTGGCAGGCGCCAGCCTCCGAGCAGTGTGGTGGTTTATATTCATGTTTGTGGAAAAATCTT
GCAAGACATTTCTCCTTTCACAGAACTGCCCAGGTGTTAACAGGGCTGTCTGGACGGGGCTCTTTTGCTTCCCCC
TCAATCTGGGGTCTAGAGTTGTGCAAGGAATTCAGCTCCAGTAAGGCCTGGATTGCCCGGGGTGAGCGTGTGTGT
GGTGGGAAGACCTGGCTTCCGCGAGAGCCTTGTTCCTGGAGGCAGGAGCGCCCCGCCATCCTGGGTACCCGCGGG
TCCGCAGGCTGCGCACCTCTTTCCCTCAGCCAGGTCACCCTCAGCGTCCTCCCTGCCCCTCTCCCCTTCACACCT
GCTGGAGCCTGTGAGGGAGGTGGCGGGTCCCCACTGTGGCGACGGAGAGCTGACAGTAGCCCAGGGCTTTCCACC
TGCATGGAACAAGGGCCTGTCTGCCGCCAGCGCTGTGGCCACAGCCTGCATAGGTGACAAGGGGCCGCTGCGTTG
GGTTTTGCCCGCATCTTCTGTTCCATGGGTGCCCAGCCAGCCAGGCCGTGTGGGATCCAGCGAGAGGCCAGGGCT
TGGAGTGGGCCTGGGACCAGGAAGGACCTCTAGGCTGTGGCTGGCCTTGTGCAGACCCTGGACTGCATCCGGTTC
CCCAAAGCCCTGCTGCATTCGAGTGTCCCCCAACCCCGGGCAGGTGGCACCTGGTGACACCTCCTTCAGTCCCAC
TCAGCTGGGCGGCCGGGGCAGGCTTAGGGCACAGTTAGGGGCCAAGGAGAGGGAAGGCCAGGGCCCCTGTTCTAG
GGGTTAGGGTTCTTTCCCCAAAGGAACTTAAAAAGACAAGCGTGGCCAGGCACAGTGGCTCACACCTGTAATCCC
AGCACTTTGGGAGGCCGAGGTGGCCAGATCACCTGAGGTCAGGAGTTTGAGACCAGACTGACCAACATGGAGAAA
CCCCATCTCTACTAAAATACAAAATTAGCCAGGCGTGGTGGCACATGCCTGTAATCCCAGCTACTCGGGAGGCTG
AGGCAGGAGAATTGCTTGAACCTGGGAGGCAGAGGTTGTGGTGAGCTAAGATCACGCCATTGCACTCCAGCCTGG
GCAACGAGAGGGAAACTCTGTTTC

FIGURE 2821

TCTATGAAACCAACATACATGGCGTTTGCATCACAGTTGGAGTCAGATGTGAGCCCGGAGGGCAGGTGTCTGGCT
TGTCCAGCCGGAAGCCCTGAGGGCAGCTGTTCCCACTGGCTCTGCTGACCTTGTGCCTTGGACGGCTGTCCTCAG
CGAGGGGCCGTGCACCCGCTCCTGAGCAGCGCC**ATG**GGCCTGCTGGCCTTCCTGAAGACCCAGTTCGTGCTGCAC
CTGCTGGTCGGCTTTGTCTTCGTGGTGAGTGGTCTGGTCATCAACTTCGTCCAGCTGTGCACGCTGGCGCTCTGG
CCGGTCAGCAAGCAGCTCTACCGCCGCCTCAACTGCCGCCTCGCCTACTCACTCTGGAGCCAACTGGTCATGCTG
CTGGAGTGGTGGTCCTGCACGGAGTGTACACTGTTCACGGACCAGGCCACGGTAGAGCGCTTTGGGAAGGAGCAC
GCAGTCATCATCCTCAACCACAACTTCGAGATCGACTTCCTCTGTGGGTGGACCATGTGTGAGCGCTTCGGAGTG
CTGGGGAGCTCCAAGGTCCTCGCTAAGAAGGAGCTGCTCTACGTGCCCCTCATCGGCTGGACGTGGTACTTTCTG
GAGATTGTGTTCTGCAAGCGGAAGTGGGAGGAGGACCGGGACACCGTGGTCGAAGGGCTGAGGCGCCTGTCGGAC
TACCCCGAGTACATGTGGTTTCTCCTGTACTGCGAGGGGACGCGCTTCACGGAGACCAAGCACCGCGTTAGCATG
GAGGTGGCGGCTGCTAAGGGGCTTCCTGTCCTCAAGTACCACCTGCTGCCGCGGACCAAGGGCTTCACCACCGCA
GTCAAGTGCCTCCGGGGGACAGTCGCAGCTGTCTATGATGTAACCCTGAACTTCAGAGGAAACAAGAACCCGTCC
CTGCTGGGGATCCTCTACGGGAAGAAGTACGAGGCGGACATGTGCGTGAGGAGATTTCCTCTGGAAGACATCCCG
CTGGATGAAAAGGAAGCAGCTCAGTGGCTTCATAAACTGTACCAGGAGAAGGACGCGCTCCAGGAGATATATAAT
CAGAAGGGCATGTTTCCAGGGGAGCAGTTTAAGCCTGCCCGGAGGCCGTGGACCCTCCTGAACTTCCTGTCCTGG
GCCACCATTCTCCTGTCTCCCCTCTTCAGTTTTGTCTTGGGCGTCTTTGCCAGCGGATCACCTCTCCTGATCCTG
ACTTTCTTGGGGTTTGTGGGAGCAGCTTCCTTTGGAGTTCGCAGACTGATAGGAGTAACTGAGATAGAAAAAGGC
TCCAGCTACGGAAACCAAGAGTTTAAGAAAAAGGAA**TAA**TTAATGGCTGTGACTGAACACACGCGGCCCTGACGG
TGGTATCCAGTTAACTCAAAACCAACACACAGAGTGCAGGAAAAGACAATTAGAAACTATTTTTCTTATTAACTG
GTGACTAATATTAACAAAACTTGAGCCAAGAGTAAAGAATTCAGAAGGCCTGTCAGGTGAAGTCTTCAGCCTCCC
ACAGCGCAGGGTCCCAGCATCTCCACGCGCGCCCGTGGGAGGTGGGTCCGGCCGGAGAGGCCTCCCGCGGACGCC
GTCTCTCCAGAACTCCGCTTCCAAGAGGGAGCCTTTGGCTGCTTTCTCTCCTTAAACTTAGATCAAATTTT

FIGURE 2822

GTTATGTCCAAATTCAGGCTGAGTGCTCAGGCTGAAGCAACTCTGTAGCCCACAGTCCGTGCTGGCCACTGTCGG
GGTGAGGCACATTCTAGGCCTGGCATCGCTGATGCCCTCTGCACCCAGTCCTTGAGCCAGGCCGAGGACAGGAAG
GGCATTGCTGGCCTGTAGCTCCTGTTACCCACCCAGAGCCAGGCGCCACACTGGAGGCTCCCAGGCGGGAGGGCC
CAGGCCCACCCACGGGCGTCTGGCCGGTCAAGCTCCCAGCCTGGGCCGTGGTCTCCTGGGGACGCCGCTGGCCTC
CCAGCTTAGGCCCAGGTGCCAGGTGTC**ATG**GGGTCTCCTGCCCATCTTCCCAAGGATGCCATTGCTGTCTTCATC
GTCTTCCCCCGTGTGAGACACTGGTTGTCTGGTACTCGGCGACAGTGTACCAGACGCGCACCCTATGTGAGGTGC
TTTAAGGTCCCTGTCCTCAGGAAGCGCAGTCTGGTGGAAGAGATGAGCGCTGAACAAATCACTAAA**TAA**CACAAA
ACAACAATGTAAGCAGCACTTTCTTGTGTAAAAAAAAAAAAAAAAGCACGTCCTGTCGATGAATTTTGAGTCTCTC
TGCCTTGCCTGTCCCGACTCCCTTTCGCGCACCGTGGCATGAGAATCTTTCCTCACGCTGTTCGTTGCGGTATTG
CTGAGCATTGATGTTGATTTGAAGGAAAAGCCGTGGTTGGACCCAGCTGTGTGTTTCACTCACGTGCAATTGAGT
AGCTGTTGCCAGGCTGTCCATGCCTGTTGTGACTACCGGTTGGGGTCAGATTTGGGGTGAAGAATGAGTAAGTTT
CTGCATGCTTTGTCTCTACCTGAGACACTTCTACAACAAGCCAAGTATAATCTCTCCAGCCCTGCAGATTTTCAC
CTGACTTGTTCAGCCCCATGCGTAGACTCCCGCTGCAGGCCTCTGGCCTGTGGCTCACTGCATGCAGCCCCTGGC
GTGCAATACTAGTGCTCCACGGCGCGATGTGCTTCTAGCCCTTGCACTGCACCTAGGCTCAGGGTTCAAACGGCC
AGCCCGAAAAGCCTGCCTGCCTTCTTTCTGGAAACAGCACGTCCCCGGCCGTGTGCCTGCCCCTTTCTCTACTGA
GCTAGTCCCCAAACCAAAGGCAAGCCCCCTCGGGCCTCGGGGGATGGGGCCGGCCACACCCCTGACTCCGCCCTG
GCTCTGCCCCATACCCCTGCCGTGGGGCCGACCTGGGGGATGCAGACATCCGGCTCCGTATTCCTGCCTATCGGG
GCCAGGATGCAAAAACAATTTTTGCGTAAAAGATGTCACACTGATCTGCTGGAGTGGGGTGGACACATGAATTCA
GTTTTATCATGAACACTCGCCACTGGCTGCTTGTTAATTCAGGGATAATGGTGGCATTCTTACAAACTGCTCGGG
AAATAGAATGACGGGAACACTTTTAGGGAGCCCAGGAAGTTACCAGGGACATTGGTGTCGCCGGCCCAGGCAACA
GCAGCGTACGCTTTTCAAAGATCATTGAGTTGTCTTAGAATTTGAAGCTGTGTAATGACAATGTCACCTGGAGTT
CGTCTCCATTTCTTAACTTTTTGTTGCACAAGTATTTGGACAGAAGTCGAACTGTGAATGAGATACTGAAATGCA
CTAAATTGTATTACATTAAACTGGAGTTACTTGATACAATG

FIGURE 2823A

GCGGCGCAACCGGCTCCGGAGCTGCCTGGCGCGGCCGGGCGGGCGGCGCCGCTCAGGCTCGGGCTCCGGCTGGGC
CCGGCGCGGCCTCGGGGCTGCCCATGGGGCGCGGGGGGCCGGGCCGGTGACGCCGGACGCCC**ATG**GACGCCTCTG
AGGAGCCGCTGCCGCCGGTGATCTACACCATGGAGAACAAGCCCATCGTCACCTGTGCTGGAGATCAGAATTTAT
TTACCTCTGTTTATCCAACGCTCTCTCAGCAGCTTCCAAGAGAACCAATGGAATGGAGAAGGTCCTATGGCCGGG
CTCCGAAGATGATTCACCTAGAGTCTAACTTTGTTCAATTCAAAGAGGAGCTGCTGCCCAAAGAAGGAAACAAAG
CTCTGCTCACGTTTCCCTTCCTCCATATTTACTGGACAGAGTGCTGTGATACCGAAGTGTATAAAGCTACAGTAA
AAGATGACCTCACCAAGTGGCAGAATGTTCTGAAGGCTCATAGCTCTGTGGACTGGTTAATAGTGATAGTTGAAA
ATGATGCCAAGAAAAAAAACAAAACCAACATCCTTCCCCGAACCTCTATTGTGGACAAAATAAGAAATGATTTTT
GTAATAAACAGAGTGACAGGTGTGTTGTGCTCTCCGACCCCTTGAAGGACTCTTCTCGAACTCAGGAATCCTGGA
ATGCCTTCCTGACCAAACTCAGGACATTGCTTCTTATGTCTTTTACCAAAAACCTAGGCAAGTTTGAGGATGACA
TGAGAACCTTGAGGGAGAAGAGGACTGAGCCAGGCTGGAGCTTTTGTGAATATTTCATGGTTCAGGAGGAGCTTG
CCTTTGTTTTCGAGATGCTGCAGCAGTTCGAGGACGCCCTGGTGCAGTACGACGAACTGGACGCCCTCTTCTCTC
AGTATGTGGTCAACTTCGGGGCCGGGGATGGTGCCAACTGGCTGACTTTTTTCTGCCAGCCAGTGAAGAGCTGGA
ACGGATTGATCCTCCGAAAACCCATAGATATGGAGAAGCGGGAATCGATCCAGAGGCGAGAAGCCACCCTGTTAG
ATCTGCGCAGTTACCTGTTCTCTCGCCAGTGCACCTTGCTGCTCTTCCTGCAGAGGCCGTGGGAGGTGGCCCAGC
GCGCCCTAGAGCTGCTGCACAACTGCGTGCAGGAACTGAAGCTCTTAGAAGTCTCTGTCCCACCTGGTGCTCTGG
ACTGCTGGGTGTTTCTGAGCTGTCTGGAGGTGTTGCAGAGGATAGAAGGCTGCTGTGACCGGGCACAGATCGACT
CAAACATTGCCCACACTGTGGGGCTATGGAGCTATGCCACAGAAAAGTTAAAGTCCTTGGGCTATCTATGTGGAC
TTGTGTCAGAGAAAGGACCTAACTCAGAAGATCTCAACAGGACAGTTGACCTTTTGGCAGGTTTGGGAGCTGAGC
GACCAGAAACAGCCAACACAGCTCAGAGTCCTTATAAGAAACTGAAAGAAGCATTATCGTCAGTGGAAGCTTTTG
AAAAACACTACTTAGATTTGTCCCATGCCACCATTGAAATGTATACAAGCATTGGGAGGATTCGATCTGCTAAGT
TTGTTGGAAAAGATCTGGCAGAGTTTTACATGAGGAAAAAGGCTCCACAAAAGGCAGAAATCTATCTTCAAGGAG
CACTGAAAAACTACCTGGCTGAGGGCTGGGCACTCCCCATCACACACACAAGGAAGCAGCTGGCCGAATGTCAAA
AGCACCTTGGACAAATTGAAAACTACCTGCAGACCAGCAGCCTCTTAGCCAGTGACCACCACCTCACTGAAGAGG
AGCGCAAGCACTTCTGCCAGGAGATACTTGACTTTGCCAGCCAGCCGTCAGACAGCCCAGGTCATAAGATAGTGC
TACCCATGCATTCCTTTGCACAACTGCGAGATCTCCATTTTGATCCCTCCAATGCCGTGGTCCACGTGGGCGGCG
TTTTGTGCGTTGAGATAACCATGTACAGCCAGATGCCTGTGCCTGTTCACGTGGAGCAGATTGTGGTCAATGTCC
ACTTCAGCATTGAGAAAAACAGCTACCGGAAGACTGCGGAGTGGCTTACCAAGCACAAGACGTCCAATGGGATCA
TTAACTTTCCACCCGAGACCGCACCTTTCCCTGTATCCCAAAACAGTTTGCCCGCGCTGGAGTTGTATGAAATGT
TTGAGAGAAGCCCATCTGATAACTCCTTGAACACGACTGGGATTATCTGCAGAAACGTCCACATGCTCCTGAGAA
GGCAGGAGAGCAGCTCCTCTCTAGAGATGCCCTCAGGGGTGGCTCTGGAGGAGGGTGCCCACGTGCTGAGGTGCA
GCCACGTGACCCTGGAACCAGGGGCCAACCAGATAACATTCAGGACTCAGGCCAAGGAACCTGGAACGTATACAC
TCAGGCAGCTGTGCGCCTCGGTGGGCTCCGTGTGGTTCGTCCTCCCTCACATCTACCCCATTGTGCAGTACGACG
TGTACTCACAGGAGCCCCAGCTGCACGTGGAGCCGCTGGCTGATAGCCTTCTGGCAGGCATTCCTCAGAGAGTCA
AGTTCACTGTCACTACCGGCCATTATACGATAAAGAATGGAGACAGCCTGCAGCTTAGCAATGCCGAAGCCATGC
TCATCCTGTGCCAGGCGGAGAGCAGGGCTGTGGTCTACTCCAACACGAGAGAACAGTCTTCTGAGGCCGCGCTCC
GGATTCAGTCCTCCGACAAGGTCACGAGCATCAGTCTGCCTGTTGCGCCTGCGTACCACGTGATCGAATTTGAAC
TGGAAGTTCTCTCTTTACCTTCAGCCCCAGCACTCGGAGGGGAGAGTGACATGCTGGGGATGGCAGAGCCCCACA
GGAAGCATAAGGACAAACAGAGAACTGGCCGCTGCATGGTTACCACAGACCACAAAGTGTCGATTGACTGCCCGT
GGTCCATCTACTCCACAGTCATCGCACTGACCTTCAGCGTACCCTTCAGGACCACACACAGCCTCCTGTCCTCAG
GAACACGGAAATATGTTCAAGTTTGTGTCCAGAATTTGTCAGAACTTGACTTTCAGCTGTCAGATAGTTATCTTG
TAGATACCGGTGATAGTACCGACCTGCAACTAGTACCACTGAACACGCAGTCCCAGCAGCCCATCTACAGCAAGC
AGTCGGTGTTCTTCGTCTGGGAACTCAAGTGGACAGAAGAGCCTCCCCCTTCTCTGCATTGCCGGTTCTCTGTTG
GATTTTCCCCAGCTTCTGAGGAACAGCTGTCTATCTCCTTAAAGCCGTATACTTATGAATTTAAAGTGGAAAATT
TTTTTACATTATACAACGTGAAGGCTGAGATCTTTCCCCCTTCGGGAATGGAGTATTGCAGAACAGGCTCCCTCT
GCTCCCTGGAGGTTTTGATCACGAGGCTCTCAGACCTCTTGGAGGTGGATAAAGATGAAGCACTGACTGAATCTG
ATGAGCATTTTTCGACAAAGCTTATGTATGAAGTTGTCGACAACAGTAGCAACTGGGCAGTGTGTGGGAAAAGCT
GCGGTGTCATCTCCATGCCAGTGGCTGCTCGGGCCACTCACAGGGTCCACATGGAAGTGATGCCGCTCTTCGCCG

FIGURE 2823B

GGTATCTCCCCCTGCCCGACGTCAGGCTGTTCAAGTACCTCCCCCATCATTCTGCACACTCCTCCCAACTGGACG
CTGACAGCTGGATAGAAAACGACAGCCTGTCAGTAGACAAGCACGGGGACGACCAGCCGGACAGCAGCAGCCTCA
AGAGCAGGGGCAGCGTGCATTCGGCCTGCAGCAGCGAGCACAAAGGCCTACCCATGCCCCGGCTGCAGGCACTGC
CGGCCGGCCAGGTCTTCAACTCCAGCTCGGGCACACAAGTCCTGGTCATCCCCAGCCAAGATGACCACGTCCTGG
AAGTCAGTGTAACA**TGA**CAACGCCAGGGTGAACACACGCCACTTCCCAGCTAGGAGTGCACTTTATGGGACTGTG
ACTGGACTCTTCCGTTCTGGCTCCAGCCAGACCTTCAGTGGTCCTGCCTGGCCGTGGGGACATCAGAGAGTGTCA
TCACGCAGCTGGCCAGCTGAGTTCTGTTGTTGTTTTCATGCCGCCTGTGATCTCAGATTCCTGCTTTTCTCACCC
CGTCCCCATGCTGGTGTCCGACGCCGCTTACTCAGAGCCCTGGCCTCCCTCCCCCTACCTCACACGCTGCTCATG
AAAGTTTCCACCCACGCTGTCTCCACGGAACAGCCTCCGTCTGCTGGCTCTTCGTGGAAGGCCATTTGTCTTTCA
GGTAGACACTCAGCAGCCCTCACGGTCTTAGTGACGTGTGTGCCTTTCTGGTCACACAGCTGCCCAGTTTCCTGA
TCGGGGTGGATTTGTGTCCCCTAAGGGGTAAAACAGCCGTTTACCGCAGATCCTCTCATTGTGCTTTTCTAGAAT
AACACCCTTCTAGGGGAGGCGGGTGGGGGAGGGAGGGATCATAACCCCTTCTGTGCCTTGGGATGCCGGAGCTGG
GGGACCTGGAGGCCCATCAGCCGGAGCCACGTGAAAGGTACTGAAGAAAGCTGAGACCCGGCTGTGAGGAGCGCC
TCAGCGGTGAGGTGGTTTAGGGATAAATGTTTCTGGAACCCTGTGGTCCCCCATAATGTTGATAGAATATCATAT
GCACTGGGAGTTAAATATATTTAATTTAATGATCATTATATATGTGGGGGTTAATATGTTGTTTTTCTGTCCCTT
TAAAGTCTTTACATGTAATTGTAGCTGTATAATCGTTATTTTTCTTTTGCATCTTAAGTCTTAGAAATTAAGATA
TTCCATCGTGAGGATGAGAGAGGTCCTCAGTGTGTTTTTGGTCTGGTTGTAGGGAAGGACTCAAGTCCTGGAATG
TCCTCCACTGGTCTACTGAGTTGCAGTCACACTGTTCCAATGGATTATTTGCTTTCGGTTGTAAATTTAATTGTA
CATATGGTTGATTTATTATTTTTAAAAATACAGACTAACTGATGTAATGTTTATGTATAAGTTGCACCAAAAATC
AAGGACAAAAATAAGTGTGTTTGTTTTTACAGGTGTGAAAGTCACAGCTTGTAAATAAGTGTTGTATGTATTAAA
CCTTTTCCAGTTCTCCAAAGCGATGT

FIGURE 2824

GCGGCACACGTGCGACGGCCGTG**ATG**AAGTTCGCTTACCGGTTTTCAAATTTGCTGGGTACGGTGTACCGGCGTG
GGAACCTAAATTTTACCTGCAATGGAAATTCAGTTATCAGTCCCGTGGGCAATAGAGTCACTGTATTTGACCTTA
AAAACAACAAATCTGACACGCTGCCCCTGGCCACTCGGTACAACGTCAAGTGCGTGGGGCTGTCCCCGGATGGCC
GCCTCGCTATCATCGTCGATGAAGGGGGCGATGCGCTGCTGGTCAGCCTGGTCTGCAGGTCTGTGCTGCACCACT
TCCACTTCAAGGGCTCTGTGCACAGTGTGTCCTTCTCCCCTGATGGCAGGAAGTTTGTTGTCACAAAGGGTAACA
TTGCCCAGATGTATCATGCCCCTGGGAAGAAGCGGGAGTTCAACGCCTTCGTTCTGGACAAGACCTATTTTGGGC
CCTACGATGAGACCACCTGCATCGACTGGACGGATGACTCCAGGTGCTTTGTGGTTGGGAGCAAAGACATGTCCA
CCTGGGTGTTCGGAGCCGAGCGCTGGGACAACCTCATCTACTATGCACTGGGGGGACATAAGGATGCCATCGTGG
CCTGCTTCTTTGAATCCAACAGCCTGGACCTGTACTCACTCAGCCAGGACGGAGTGCTGTGCATGTGGCAGTGTG
ACACGCCCCCCGAGGGCTTGCGGCTGAAGCCCCCTGCGGGCTGGAAAGCAGACCTGTTGCAGCGGGAGGAGGAAG
AGGAGGAGGAGGAGGACCAGGAGGGCGACAGAGAGACCACCATCCGGGGAAAAGCCACTCCGGCCGAGGAGGAGA
AGACAGGAAAAGTGAAGTACTCACGGCTGGCCAAGTACTTCTTCAATAAAGAAGGGGATTTTAACAACCTGACAG
CTGCAGCATTTCATAAGAAGTCTCACCTCTTGGTCACTGGCTTTGCTTCTGGAATCTTCCATCTTCATGAGCTGC
CAGAGTTTAACCTCATCCACTCCCTGAGCATTTCAGATCAGAGCATCGCCTCAGTGGCCATCAATAGCTCGGGGG
ACTGGATTGCTTTTGGCTGTTCAGGCCTGGGCCAGCTGCTGGTGTGGGAGTGGCAGAGTGAGTCCTACGTGCTCA
AGCAGCAGGGCCACTTCAACAGCATGGTGGCCCTGGCCTACTCGCCCGACGGACAGTACATCGTGACTGGCGGGG
ACGACGGCAAGGTCAAGGTGTGGAACACCCTCAGCGGCTTCTGCTTCGTCACTTTTACGGAGCACTCCAGCGGGG
TGACCGGTGTGACCTTTACTGCCACCGGCTACGTTGTGGTGACCTCATCCATGGACGGGACCGTGCGAGCCTTTG
ACCTTCACAGGTACCGAAACTTCCGCACCTTCACCTCTCCACGCCCCACCCAGTTCTCCTGTGTGGCGGTGGATG
CGAGCGGTGAGATCGTCTCTGCAGGGGCGCAGGACTCCTTTGAGATTTTCGTGTGGTCCATGCAGACAGGCAGGC
TCCTTGATGTTTTGTCTGGACACGAAGGGCCCATCAGTGGTCTGTGTTTTAACCCAATGAAGTCCGTCCTGGCCA
GTGCCTCCTGGGACAAGACAGTGCGCCTATGGGACATGTTTGACAGCTGGAGGACCAAGGAGACGCTGGCCCTGA
CCTCTGATGCTCTGGCTGTGACTTTTCGCCCTGATGGTGCGGAGCTGGCTGTGGCCACACTGAACTCACAGATCA
CCTTCTGGGACCCTGAGAACGCGGTGCAGACGGGCTCCATTGAGGGCAGGCATGACCTCAAGACTGGCAGGAAGG
AGCTGGACAAGATTACAGCCAAGCACGCGGCCAAGGGGAAGGCCTTCACCGCCCTGTGCTACTCTGCAGACGGCC
ACAGCATCCTGGCGGGAGGCATGTCCAAGTTCGTGTGCATCTACCACGTCCGTGAGCAGATTCTCATGAAGAGGT
TCGAGATCTCTTGCAACCTGTCTTTGGACGCCATGGAGGAATTTTTGAACCGAAGAAAAATGACAGAGTTTGGCA
ACCTGGCACTAATTGATCAGGATGCTGGGCAGGAGGATGGAGTCGCGATACCACTGCCAGGCGTCAGGAAAGGTG
ACATGAGTTCTCGGCACTTCAAACCTGAGATCAGGGTGACCTCACTCCGCTTCTCTCCCACTGGGCGCTGCTGGG
CGGCCACCACCACGGAGGGACTCCTCATCTACTCCCTGGACACCCGCGTGCTCTTTGACCCGTTTGAGCTGGACA
CCAGCGTCACCCCCGGGAGGGTGCGCGAGGCACTGCGCCAGCAGGACTTCACCAGGGCCATCCTCATGGCCCTCC
GGCTCAACGAGAGCAAACTGGTGCAGGAGGCCCTGGAGGCGGTGCCCAGGGGCGAGATTGAAGTGGTCACCTCCT
CCCTTCCTGAACTGTATGTGGAGAAAGTGCTGGAGTTTTTAGCTTCCTCCTTTGAAGTGTCTCGCCACCTGGAAT
TCTACCTCCTCTGGACTCACAAACTGCTCATGTTGCACGGACAGAAGCTGAAGTCCAGAGCCGGGACGCTGCTGC
CTGTCATTCAGTTCCTCCAGAAGAGCATCCAGCGGCACCTGGACGACCTGTCGAAACTCTGTAGCTGGAACCACT
ATAACATGCAGTACGCACTAGCAGTTTCCAAGCAGCGGGGCACAAAACGCTCCCTAGACCCGCTGGGAAGTGAGG
AGGAGGCAGAAGCATCTGAAGATGACAGCCTGCATCTGCTTGGAGGAGGAGGCAGAGACTCAGAAGAAGAGATGC
TGGCC**TAG**AGCCAGCCGGTTGCAGCGTTGGATTGTGCCGGCTAAGACCTGCCAGGGAGATGGGACCCTTGTGCCA
CCTGGGCCAGCAAAGAGGAGGGGTCCAGAGAACAGCTGAAATACTGTCACTAGTGGTAGTGACTTGCTTTTCCTG
TGCACACATGTAGCCCATCAGGACAGCGAGCCGACGGGTCACGCCAGGGGCCGGCACGCACTGGCACCTGGCCCC
AGGAGCGGGGCCGTGTGAACGGTGATGAATGTTGAAAATGCGTCTCAGAGAGGTATTCACATGAACTTTGTATGA
GACTTATTTATATCTTTAACATAAAGGTTTGATAAAGAACTTAGGGATTAAAAAAAAGATGGAGTTTTCTAACGT
GAGGATGAAGTCTACACTTCAGATTAAAAAGGGTTATGTTGTA

FIGURE 2825

TCCCGACGAGCAACGCGTTTGTAGAGGGGTGGGTGCGCACGCTCTGTCCCTGCGTGACCTTCCGACCCCGCTGTC
CTCACCGCA**ATG**GCGGCTGTGAGGGTCCTGGTGGCCTCGAGGCTCGCTGCGGCATCTGCATTCACGTCCCTGTCC
CCCGGCGGTCGGACGCCTTCCCAGCGCGCAGCCCTTCACCTCTCCGTGCCGCGCCCCGCGGCCAGGGTCGCGCTG
GTGCTGTCTGGATGCGGAGTCTACGATGGGACCGAGATCCACGAGGCCTCGGCGATCCTGGTGCACCTGAGCCGT
GGAGGGGCTGAAGTCCAGATCTTTGCTCCTGACGTCCCTCAGATGCACGTGATTGACCACACCAAGGGGCAGCCG
TCCGAAGGCGAGAGCAGGAATGTTTTGACCGAGTCTGCGAGGATCGCCCGTGGCAAAATCACAGACCTGGCCAAC
CTCAGTGCAGCCAACCATGATGCTGCCATCTTTCCAGGAGGCTTTGGAGCGGCTAAAAACCTGAGCACGTTTGCC
GTGGACGGGAAAGATTGCAAGGTGAATAAAGAAGTGGAGCGTGTCCTGAAGGAGTTCCACCAGGCCGGGAAGCCC
ATCGGCTTGTGCTGCATTGCACCTGTCCTCGCGGCCAAGGTGCTCAGAGGCGTCGAGGTGACTGTGGGCCACGAG
CAGGAGGAAGGTGGCAAGTGGCCTTATGCCGGGACCGCAGAGGCCATCAAGGCCCTGGGTGCCAAGCACTGCGTG
AAGGAAGTGGTCGAAGCTCACGTGGACCAGAAAAACAAGGTGGTCACGACCCCAGCCTTCATGTGCGAGACGGCA
CTCCACTACATCCATGATGGGATCGGAGCCATGGTGAGGAAGGTGCTGGAACTCACTGGAAAG**TGA**CGCGCATGG
ACGGGGCCCAGCTAGGCGCCAGGACTTGGCCTCACCCTCTGGCTGAGGAGCTGTCGGCTGCTTTCCATCCAGCTG
GGAGTCTGGCAGGCCCTTTTTTTTTTTTCTTTGCCGAAACCTGCAGGCGTTCTCTCTCTAAGGAGGATGTGCTGC
AGTGCATGGGGGATGTTTCTTCCTGGGTGTGGCTGGGCTGCTCTCACATACAGAGGCCGAGGGGCCAATTCGTTC
TCTGCCACAGGGACTTGCCTCACTGTGTCCCAAAAACAAATCGCAGCCAGCTTTTCCAGAAATAGAAAATTCTGC
CGTCTGAGGTTTTATACTTCAGGTTAGTTAGTTTTTGGAAGGAAGAACATTTTTAGGTTTGCAAGCCTCCTGATC
AGGAAACCAGAAATACCACATTTATGGACCATGAAAGGTTGGTTCTTGACTCTGAAGGGACTTTTGAGTTAATCA
GCGTAAGGGGATTTCTAAAGCAGGCAATCCCTGTAGCCGCAGAGAATAAACGCCTTCCCAAAATGGCAACTTCCC
ACAGCCACATTTCAGACCTGCTGAGACTGCTGAGTGAGGAATGGCAGTGAGGTTTCTTCAATTAGTCTCAGTTCT
CTTAATTTTCAGGAAGAAAGGGAAATTGCAGCCCCTCAGCCCCCAGGATTGACCTCTGGGGAGTGATGGTAGCGT
TGGTGCCAGGCCGTGGGTTCAGGTGTGGCAGAAGCTTGCAGATGCGTCCGAAGGGAAATAAAGTGTGTTGGCGTT
AG

FIGURE 2826

GCGACGCGGCGCAGGCGGCGGGAGTGCGAGCTGGGCCCGTGTTTCGGCCGCCGCCATGGCCGCGGTGGACCTGGA
GAAGCTGCGGGCGTCGGGCGCGGGCAAGGCCATCGGCGTCCTGACCAGCGGCGGCGACGCGCAAGGTCCCCTGAC
AAGCCCACCAGGCCCCCTGCTGAGATGGCTGTGACCCTGGGCTGACCCGCCCAGTGGCACATTGACTCCGCCTGG
AGCTGGGGAGACCAGAGAGGCCCTGTGGTTGGACGGTGGCCTGGGTGCGCTGCTCCTGCCCTCTCCTTGCCCTGC
CTCAGCTGCTGCCTGCCAGAGGCGTGGCACCTCACCTCACACCTGCTCCCTGCTGCTGAGCCCCACGCCAAGCTG
GAGAGCGG**ATG**AGAAGCATGTGTAACCAGGGTAGAGGTCGAGAGTCCTCTCGTGGGGGTCTCCATGTTCAAGGGA
GCTGCCGAGGCTTGAGCAGGAGCCCCCAGCAGGAAACTGGCTTTGCCAAGGCCCCCGCTGGGACAGACTGTTTCT
TTCACTGCAGTCCTGGGAGCCGAGGGCAAGGGGACAGGAAAGAGGAAGTGACCTCAGAGCCTGGTGGCACCAGCA
TCATGTCCAGGCTGGGGGGCATGAACGCTGCTGTCCGGGCTGTGACGCGCATGGGCATTTATGTGGGTGCCAAAG
TCTTCCTCATCTACGAGGGCTATGAGGGCCTCGTGGAGGGAGGTGAGAACATCAAGCAGGCCAACTGGCTGAGCG
TCTCCAACATCATCCAGCTGGGCGGCACTATCATTGGCAGCGCTCGCTGCAAGGCCTTTACCACCAGGGAGGGGC
GCCGGGCAGCGGCCTACAACCTGGTCCAGCACGGCATCACCAACCTGTGCGTCATCGGCGGGGATGGCAGCCTTA
CAGGTGCCAACATCTTCCGCAGCGAGTGGGGCAGCCTGCTGGAGGAGCTGGTGGCGGAAGGTAAGATCTCAGAGA
CTACAGCCCGGACCTACTCGCACCTGAACATCGCGGGCCTAGTGGGCTCCATCGATAACGACTTCTGCGGCACCG
ACATGACCATCGGCACGGACTCGGCCCTCCACCGCATCATGGAGGTCATCGATGCCATCACCACCACTGCCCAGA
GCCACCAGAGGACCTTCGTGCTGGAAGTGATGGGCCGGCACTGCGGGTACCTGGCGCTGGTATCTGCACTGGCCT
CAGGGGCCGACTGGCTGTTCATCCCCGAGGCTCCACCCGAGGACGGCTGGGAGAACTTCATGTGTGAGAGGCTGG
GTGAGACTCGGAGCCGTGGGTCCCGACTGAACATCATCATCATCGCTGAGGGTGCCATTGACCGCAACGGGAAGC
CCATCTCGTCCAGCTACGTGAAGGACCTGGTGGTTCAGAGGCTGGGCTTCGACACCCGTGTAACTGTGCTGGGCC
ACGTGCAGCGGGGAGGGACGCCCTCTGCCTTCGACCGGATCCTGAGCAGCAAGATGGGCATGGAGGCGGTGATGG
CGCTGCTGGAAGCCACGCCTGACACGCCGGCCTGCGTGGTCACCCTCTCGGGGAACCAGTCAGTGCGGCTGCCCC
TCATGGAGTGCGTGCAGATGACCAAGGAAGTGCAGAAAGCCATGGATGACAAGAGGTTTGACGAGGCCACCCAGC
TCCGTGGTGGGAGCTTCGAGAACAACTGGAACATTTACAAGCTCCTCGCCCACCAGAAGCCCCCCAAGGAGAAGT
CTAACTTCTCCCTGGCCATCCTGAATGTGGGGGCCCCGGCGGCTGGCATGAATGCGGCCGTGCGCTCGGCGGTGC
GGACCGGCATCTCCCATGGACACACAGTATACGTGGTGCACGATGGCTTCGAAGGCCTAGCCAAGGGTCAGGTGC
AAGAAGTAGGCTGGCACGACGTGGCCGGCTGGTTGGGGCGTGGTGGCTCCATGCTGGGGACCAAGAGGACCCTGC
CCAAGGGCCAGCTGGAGTCCATTGTGGAGAACATCCGCATCTATGGTATTCACGCCCTGCTGGTGGTCGGTGGGT
TTGAGGCCTATGAAGGGGTGCTGCAGCTGGTGGAGGCTCGCGGGCGCTACGAGGAGCTCTGCATCGTCATGTGTG
TCATCCCAGCCACCATCAGCAACAACGTCCCTGGCACCGACTTCAGCCTGGGCTCCGACACTGCTGTAAATGCCG
CCATGGAGAGCTGTGACCGCATCAAACAGTCTGCCTCGGGGACCAAGCGCCGTGTGTTCATCGTGGAGACCATGG
GGGGTTACTGTGGCTACCTGGCCACCGTGACTGGCATTGCTGTGGGGGCCGACGCCGCCTACGTCTTCGAGGACC
CTTTCAACATCCACGACTTAAAGGTCAACGTGGAGCACATGACGGAGAAGATGAAGACAGACATTCAGAGGGGCC
TGGTGCTGCGGAACGAGAAGTGCCATGACTACTACACCACGGAGTTCCTGTACAACCTGTACTCATCAGAGGGCA
AGGGCGTCTTCGACTGCAGGACCAATGTCCTGGGCCACCTGCAGCAGGGTGGCGCTCCAACCCCCTTTGACCGGA
ACTATGGGACCAAGCTGGGGGTGAAGGCCATGCTGTGGTTGTCGGAGAAGCTGCGCGAGGTTTACCGCAAGGGAC
GGGTGTTCGCCAATGCCCCAGACTCGGCCTGCGTGATCGGCCTGAAGAAGAAGGCGGTGGCCTTCAGCCCCGTCA
CTGAGCTCAAGAAAGACACTGATTTCGAGCACCGCATGCCACGGGAGCAGTGGTGGCTGAGCCTGCGGCTCATGC
TGAAGATGCTGGCACAATACCGCATCAGTATGGCCGCCTACGTGTCAGGGGAGCTGGAGCACGTGACCCGCCGCA
CCCTGAGCATGGACAAGGGCTTC**TGA**GGCCAGCCATGCCCACGCCCCTCCCCAGCCCCCACCCATGCCAGCGCAG
CGCCAGGGCTCAGATGGGGCCTGGGCTGTTGTGTCTGGAGCCTGCAGGCAGGTGGGGGCTGCGTCCCTGCTCAGC
CCATCCCCTGCCTCTATCCCTGGCCACCTGCCAGGCCTCCCTCGGGCTGGTGTCTTGAGACCAGCCTGCCAGGCC
CTCCAGCAGGAGGACAGAGTGCCCTGGGGCATCCACCTTCCTGCCCAGGGGACGTGGCGCTGTCGGTGTTTGGAG
GCTGCTGCCCCCTGGCTTTGGCGCCCCATGGGCCCTCAGCGTCTCCCCATGCTGGGCTCACTACATGGGCCAGCC
CTTGCTCTACCTGGCCGGTAGGCTGCTGGCGCCTAGGTTGTGTTGAGAGGGGGATGCCCCTGGCCCTGCCTCACT
GTGACCTGCTCCTGCCCACGTGCAGCACCTGTCACCTTTTCTAGAAATAAAATCACCCTGACTGTGGGGTGCATC
GGTCTCCGG

FIGURE 2827

CCGCGCAGTCGTCACCCGCCCGGGATCAGGAGGCCGGGGGCGCCCGCCGGTCGGGCCTGGGCGGCCGCC**ATG**AAG
CTGACGCGGAAGATGGTTCTGACCCGGGCCAAGGCCTCGGAGCTGCACAGCGTGCGCAAGCTCAACTGCTGGGGC
AGCCGCCTCACAGATATCTCCATTTGCCAGGAGATGCCCAGCCTGGAGGTGATCACGCTCAGTGTCAACAGCATC
TCCACCCTGGAGCCTGTGAGCCGGTGCCAGCGCCTGAGTGAGCTGTACCTGCGGAGGAACCGCATCCCCAGCCTG
GCTGAGCTCTTCTACCTGAAGGGGCTGCCGCGTCTGCGGGTGCTGTGGCTGGCCGAGAACCCGTGCTGCGGCACC
AGCCCCCACCGCTACCGCATGACCGTGCTGCGCACCCTGCCGCGCCTACAGAAGCTGGACAACCAGGCTGTGACG
GAGGAGGAGCTGTCCCGTGCACTGAGTGAGGGAGAGGAGATCACTGCGGCCCCAGAGAGAGAGGGCACAGGCCAC
GGCGGCCCCAAGCTATGCTGCACACTGAGCTCCCTCAGCTCCGCTGCTGAGACTGGCCGGGACCCGCTGGACAGC
GAGGAGGAGGCAACCAGCGGCGCCCAGGATGAACGTGGCCTGAAGCCGCCTTCCCGGGGCCAGTTTCCTTCCCTC
TCAGCCAGGGATGCCTCGAGCAGCCACAGGGGCAGGAACGTCCTGACTGCCATCCTGCTGCTGCTGCGGGAGCTG
GATGCAGAGGGGCTGGAGGCCGTGCAGCAGACTGTGGGCAGCCGGCTGCAGGCCCTGCGTGGGGAAGAGGTGCAG
GAGCACGCCGAG**TGA**CCGCAGGACCTGAACGCCGCTCCAGCCTCCACGGGGACCCCAGCGTCTTCCCCAGCCCCC
GGGAGCTGGAGGGTGGCTGCCATGGCCGCAGCCCCGGCCCCACACAAAAGCCTCCCCGGTTTGCCACATCGGCCG
AGGGCAGGAGTGGGTGTTAGGTACTGGCTAACCGGGGCGGTGGAGATGCCTGTCTACACCAGTCCTGTCCCCAGG
ACTCCCCTTCTGTGGTCTGGAGGTTCTAGGCTGGCCTGGGCTCTTAAAGGGAGGATTTTGCAGGCTGTCCTCCCT
AATAAAAGATTTTCCCAAGGTTGATCTGGAGGTGACGTTTCCCAAGGCATGGTTGTGACAGTCTTCCTGAAAGCA
AGGGCCGTTTCTCCACAGAATGAGGAGGTCTTCACGGATGGCTTTGCCGATTCCAGCCCTTGGTCCTTGGATAGA
TTTCTGTTGGGCAAGGGAGACTTCGAGAATGCTGGCACCCATAGCGACATCTGCCCTGAGCTGCTCAGCAGGCAG
GCAGCAGCCTCCCGCACCCATGGGAGAGAGTTTTGTTTTCTTGGCCGGGCTGGGCAGGTGCGCCTTCCTTTCTCT
CTCCTGTGAAGAACTGCAGGAGGGCCCTCAGCTGTGAGGTTGTGGATGAACAGGCCTGTTCGCCCTGGGGTCCGG
GCCTGGCACAGGAAGCAGCTAGACTAGGGGAGTCCTTGGAGCATCTGAGAGGGGTTTTCTTTCCTCTGGGAAGAG
TCGCAAGTCTTATGAGGATGCCACAATCTGGGCAGTGACCCGTGGCCCTGGGGACCTTCCTAGTGCCCCCCAAAA
CCAAGGAAGCATTCACGTGAGATGGGGAGTCAGCCTTCCAGCTGGTGTGTAGGAAAGCCAGGTCCCTGGGCCCTT
GTCCCATGTGGGGTTGAGATCCAGATCTCCATGAGATATTCCCATCCTCCGCCGAGCGGTGATGCGTGACCGTGT
GTGCAGGCCGCTGTTCTCCCAAGCTCGGGGCCATGCCGTGCCACCGTCACCAGAGCCAGCTGCAGCACTGGGGCA
GCCACTGTCGCCGGACTTGGGGAAGCCCAGGGTGAAGACAGTCACTCATCCGTGCAAGCTCTCCAGAAGGGATGC
AAGCTCTCCAGAAGGGGTGTGATCTCTGAGCAGTGGGGAGTGGAGTCACCACTCGGGACATAGAGGGTGGACAGT
TCAGGCCTGTGTCTGCCTCCTTGGGACTGTGGAGTGGGTGCCCTCAGTAAAGCGCTTTGTTGGAATGGT

FIGURE 2828

AGGAACCAGGAAGGCAGACGCGGCTGCTGTAGCTCAGACCTGCGCCCCCTGGACATCCTGGCGGAAGTGGTCCCT
TCTGATGGCGCCACAAGCGGGATCAGGATAGTTCAGGTTCACGGTGCACGGGGACTCCAGCTCTCAGTAGCCGCC
CCCCGCACC**ATG**AGCTTCCCAGCATCCAGGATTTTCTCCCAGTGTGACCTCTTCCCTGAAGAATTTTCCATCGTC
GTAACTTTGAGAGTTCCCAATCTTCCACCCAAGAGGAACGAGTACCTGCTGACGGTGGTGGCAGAGGAGAGCGAC
CTGCTGCTGCTCGGCCTGCGGTTGTCACCTGCCCAGCTGCACTTCCTGTTCCTTCGCGAGGACACGGCCGGCGCC
TGGCAGACCCGAGTGTCCTTCCGCAGCCCGGCCCTGGTGGATGGCCGCTGGCACACACTGGTCCTGGCTGTGTCC
GCAGGCGTCTTCTCCCTCACCACGGACTGCGGCCTCCCGGTGGACATAATGGCCGATGTGCCCTTCCCAGCCACC
CTGTCAGTGAAAGGAGCTCGATTCTTCGTCGGCAGCCGGAGGAGAGCCAAAGGCCTGTTCATGGGACTGGTGAGG
CAACTGGTCCTGCTGCCGGGCTCAGACGCCACCCCAAGGCTGTGTCCCAGCAGGAACGCCCCGCTGGCGGTGCTG
TCCATCCCACGGGTCCTGCAGGCTCTCACGGGGAAGCCAGAAGATAACGAGGTGCTAAAATATCCCTATGAAACC
AACATTCGAGTGACGCTGGGACCCCAGCCACCGTGTACCGAGGTGGAAGACGCCCAGTTCTGGTTTGATGCCAGC
CGGAAGGGCCTGTATCTGTGTGTTGGCAACGAGTGGGTCTCCGTGTTAGCAGCCAAAGAAAGACTGGACTACGTG
GAGGAGCATCAGAACTTGTCCACCAACTCAGAGACCCTGGGCATTGAGGTGTTCCGCATCCCTCAGGTGGGGCTC
TTTGTGGCCACAGCCAATCGCAAAGCCACATCCGCCGTCTACAAGTGGACCGAAGAGAAGTTCGTCTCATATCAG
AACATCCCCACGCACCAAGCACAGGCCTGGAGGCATTTCACCATCGGGAAAAAGATCTTCCTGGCAGTGGCTAAT
TTTGAACCAGATGAGAAGGGTCAGGAGTTCTCTGTCATTTACAAATGGAGCCACAGAAAGCTGAAGTTTACCCCA
TATCAGAGCATTGCCACACACAGCGCCCGAGACTGGGAGGCCTTCGAGGTGGATGGGGAGCACTTCCTGGCGGTG
GCCAACCACCGGGAAGGCGACAACCACAACATCGACAGTGTCATCTACAAGTGGAACCCGGCAACCCGGCTCTTC
GAGGCCAACCAGACCATCGCCACCTCCGGCGCCTACGACTGGGAGTTCTTCAGTGTGGGGCCCTACTCGTTCCTG
GTGGTGGCCAACACCTTCAACGGCACCTCCACCAAGGTGCACTCGCACCTCTACATCCGACTCCTGGGCTCCTTC
CAGCTCTTCCAGTCCTTCCCGACGTTCGGTGCTGCAGACTGGGAGGTCTTCCAGATCGGGGAGAGGATCTTCCTC
GCTGTGGCAAACAGTCACAGCTACGATGTGGAGATGCAAGTCCAGAATGATTCCTATGTCATCAACTCCGTCATC
TACGAGCTGAACGTGACCGCGCAGGCCTTTGTCAAGTTCCAGGACATTCTCACCTGCAGTGGAGGCAGGAGGGGG
CTTCATGCCCGTCGTGCGGAGGGA**TAG**CCGAGGCCCCAGAGGGACAGGTGCGAGGTGCAGGCTTCGAGTGCCCGC
TGCCTGCCAGTGCCAGCTGCCACCAGACATGATTACTTCCTTCCCCCGATGTTGCATCCTCCCCGACAACAAACA
CCAGGACACGGAGACTGGCCTGTTGAGACAGATGTGAGATCCAGGGAACATGGAGGGTGGGTCTGTATGTACGAG
AAAGTGATGGTTCCAGACCGACACGCTCCGTGGAGCCACAGGAGGTTGCGTGGGCACCACATTTTGGACAGTGGG
CACTGAGAATCCACAACCATCCTGACCAGTGTGGGGCGTCCTCTGGGGTGGAATTCCGGTCTGTGAATAAACCTG
CAATCGAATCCGT

FIGURE 2829

CGCGCGGCTGAGGCGAGGTCGCTCGGCGCAGCTGTTGCGGGGCC**ATG**GCGGGGACCGCGCTCAAGAGGCTGATGG
CCGAGTACAAACAATTAACACTGAATCCTCCGGAAGGAATTGTAGCAGGCCCCATGAATGAAGAGAACTTTTTTG
AATGGGAGGCATTGATCATGGGCCCAGAAGACACCTGCTTTGAGTTTGGTGTTTTTCCTGCCATCCTGAGTTTCC
CACTTGATTACCCGTTAAGTCCCCCAAAGATGAGATTTACCTGTGAGATGTTTCATCCCAACATCTACCCTGATG
GGAGAGTCTGCATTTCCATCCTCCACGCGCCAGGCGATGACCCCATGGGCTACGAGAGCAGCGCGGAGCGGTGGA
GTCCTGTGCAGAGTGTGGAGAAGATCCTGCTGTCGGTGGTGAGCATGCTGGCAGAGCCCAATGACGAAAGTGGAG
CTAACGTGGATGCGTCCAAAATGTGGCGCGATGACCGGGAGCAGTTCTATAAGATTGCCAAGCAGATCGTCCAGA
AGTCTCTGGGACTG**TGA**GACCTGGCCTCGCACAGGCGCGCACACACCGCCAAGCAGCTCAGCATTCTCCCCCGGC
ACACTTAGTGACAGTGATGCTCTGTGCTGGTACCAAACAAGGCAGACTTGCAAGAACCATGGCATCTTTTTTTTT
TTTCAAACCTTTCCTACTTCAAACAGGCTTCTCTTCTGAAATGATGACTTAATGTCGAATATTGACAGCTTACTG
CAGTTTTACAGTATTCCTCACAAAGGGCTTCAGGTAGATTATCAGAGCTGTCAGCACTACCTCTCCCCGCTGAAA
CCAGCAGTTCATGGCTTCCTGTGGATTCCCTCCCTCCCTGGAGTGTTGAGGGGGTTGTACCTGCCAGACTTCCAG
GGGACGATGGAATACCCAGAACGCTCCTTCTGAAGAAATGGGGCCCTGTAGCTGCAGCACAGGGGAAGGGCCCGG
CACCCTTTCTGGGTCCTTCCTGGTTCCCTGTGGGCCCCATGAGGAGTCCATTACTTCCTTTCTTCCTTCATATTT
TACAGGCAGATGCTTTTCTTATAATCTAATTACATCTTTTCATTTGTTATATATTACAAACCATCACACTTAGAA
ATACTTCCAGGAAATGCTTTTTTGAAGTGTGAATTAATAAGAAATGGGGTAAATAGAAAAGAAATTTATTGCTGA
TTGGCCAGGTGCGGTGGTTCGTGCCTGTAATCCCAGCTCTTTGGGAGGCCAAGGCAGGTAGATCACAAGGTCAGG
AAATTGAGACCATCCTGGCTAATACAGTGAAACCCCATGTCTGCTAAAATTACAAAAAATTAGCTGGGCGTGGTG
GTGCACGCCTGTAGTCTCAGCTACTCAGGAGGCTGAGGCAGGAGAATCGCTTGAACCCGGGAGGCAGAGGTAGCA
GTGAGCTGAAGTCCCGCCACTGCACTCCAGCCTGGGCAACAGAGCGAGACTCAGTCTCAAAAAGAAAAAAGAAAT
TTATTGCTGATCACAAGGACAGACAGTTTTTTCCCGACCATACTCATCAAAGATTTACGTTTGTATATTAGTAAC
TAGTGCATTACTAGAGCAGGTGCAGGTGAGGTCTTTAAAGTTTCAATGAAAGTTTCTTCTGGATCTACAGAAAAA
ATTTTTTTTTTTCAATCTAAAAACTGGAAATTCTAGGGTTTTTGTACATTTTGGATGCACTGGGAATTTATTAGC
ACAAAATCATTCTTTGCAACTCAAAATTCAGAAGGGACTCTACCATATCTTAGCTCAGAGCACAGAGGAGTGCCT
TATCCCCACACTTGACTGGGCTGTGGAGGTGGGCATGTGGGCCCCTGGGCCCAGGCTGGGGACAGAGCCCTTGTT
TTGTGACTTAGGATTTTGATGTGGTTCCCATGTTCTCTAACAGGGCCAGCTGAGCAGCACAGGCCAGGAGGCCAC
AGTGTAAGCAATAACAGATCTGCCACATGCAGAAGCAAATATCAGGCCTGTCGCACACGGGCGGCATTTAAATAG
GAATTTCTATTTTTGAAATAAGGGATGGTCTATGAGGCATACAGTAGATTTGATGTGATCCTTTTCTCCCTCCCT
TCCATAATGGATCGTGGTCTGTGTGACTGAACCCACACAGAGTGTCATGGGTGACAGTTTCTGGTTGAAGTAGCT
CCACGCCTGGCTTCTGTGGACAGCAGATTCTTTTCCTTCTCACAAGGGGCTCATTTAAAATTTGGAGGCTGGGTG
CTGTGGCTCACGCCTGCAATCCCAGCACTTTGGGAGACTGAGGCGGGCGGATCATGAGGTCAGGAGATCGCGACC
ATCCTGGCTAACAGTGAAACCCTGTCTCCACTAAAAATACAAAAAATTAGCCGGGCGTGGTGGCGGGCGCCTGTA
GTCCCAGCTACTCTGAAGACTGAGGCAGGAGAATGGCGTGAACCCAGGAGGCGGAGCTTGCAGTGAGCTGAGATC
ACGCCACTGCACTCCAGCCTGGGCAACAGAGTGAGACTCTGTCTCAAAAAAAAAAAAAAAAAAAATGGAACGCAG
GGCAAGAACTCGTATTTGGAAGGAGATGGGGGAAAGGAGCGGTATTATACCTATGTTGTATTTGCAGGCAAATGA
GATGGAGCCCTCTCTGTAAAGAAGAGTCATTTGTGCAAGTAGACGGGGTCTGTGGGTGCAGGCCCTGGAGGGGCA
CACAATTGCCTGGAGGCTTCTGTGAGATCGGGAGAGGGAGGAGAGGCAGTCTCTTGACAAAATAAAGTATTTTTA
TTCATTTGTATTTATTAAATGAAAAAACAATCCCATGGTGTCCCTGTTGTGTGGTGGAACCTAATGACTGTTGAA
ATAAAGTTCTGTGTTTTCCCTGCCCTGC

FIGURE 2830

AGCCACGTGACCCCCGTGCCGGCCAACGGGTGCGCCGGGATTTGGGGGATAAAGCGCGGCCCCGCGCACAGTTGC
GGCGGGAGAGCGGCGGGGCCGAGAGCGTGACTCGCCCGCTCCGCGCTGCTTCCCCCGCGCCGCCTCCCCGCGCCG
CTCGCGCAGCC**ATG**TCCGAGGAGAAGCCCAAGGAGGGTGTGAAGACAGAGAATGACCACATCAACCTGAAGGTGG
CCGGGCAGGACGGCTCCGTGGTGCAGTTCAAGATCAAGAGGCACACGCCGCTGAGCAAGCTGATGAAGGCCTACT
GCGAGAGGCAGGGCTTGTCAATGAGGCAGATCAGATTCAGGTTCGACGGGCAGCCAATCAATGAAACTGACACTC
CAGCACAGCTGGAGATGGAGGACGAGGACACCATCGACGTGTTCCAGCAGCAGACGGGAGGTGTGCCGGAGAGCA
GCCTGGCAGGGCACAGTTTC**TAG**AGGGCCCGTCCCCAGCCCGGGCCGTCCATCCTCGCATTGCTGTTGAATGGTG
AGCACGTGACCATGCCGACCACAAAGGTGTCTGCGGAAACTCGAGGACATTCACCACGATGATTTTCCTCTCTTT
GATGTACTTCAAGTGCAACTCAAAACTATATCTGCAGGGATGAATCTGTAACTTAAATTGGGCCAATCAGAATTG
TTATCTTTGTTCAGGTAAAATGAGTTGCAAGATATTGTGGGTACTTTTGTGTGCTCATTTGTGTTTTCCCCCCCT
CCTACAACATTTTTTTAACCCCAAAATTATAGCCTGAATGTTCGCTTTTAGTCTGGCCAGGGATCTGACTCCTGA
GTTGGTTGCCTCTCCCCTGCTCACTCCAGTCACATAGAGAATTGGTGTTTCCCGCAGTGGGGATGCAGCTGTTGG
ACAGGTATTGGGGGCAAGGTTGGTAGGGAGGACAGACTGTCACTTGCTGTTACAGGCACAGGTGATTAAAATGCT
AAATATTGCAAATTTAAGCTTTGTCAGTATATGGAAAAGTTGAAGGGAAAATACTGGAATGCTTCTTCAAAGGTT
AAAAAATAACCGAGTCTTTTGGTAATTTGACCCCACGTGCTCTCTGGCCCTCAAGCATGTAACCTCGGGGTCTGA
GGCCCAGGACCCACCCCCCTGCCACCCCTCCCACCCCACTCCCTGCTCAGTACCTGGCGTTGGTACACAGGCAAG
GATTGGCACAACCAAAATTGGCCTTTTTCTCCCTCTTAATATTGAAGAAATTCCCACATTTCTCATTTGGTAATG
GTGTTGTGGCCTCAGATTTCTTCTAGTATTTGCTTCTGATGAATGATTATGGTCTATACATAAAAAAGTAAGACT
AAGTATTGCTGAATTTGCAGTTATGTTGTCGTGTATAAGAGCTACTTCCAAGTGTGGTTACAAATGAACCCATGG
AATGATGACTTCATGTTCTTCTCGTGGGTTTGTGCCGTGCTGCTTTCCAAATAGGTATTGAATTTATGCATTAGT
CTGGTGATTTCAGTTCTGTGAAATATTTTGGGATCTATACCAATTAAACATTTTCATAGTTCTGCCTATTGTCCT
TCCCTGAGGCTCCATTGCTGCTTGGTGGCCATTCTCTGCCTTTTTACAGTCACCTGAACAATGACCCATCATCTC
TTGCTTGCTTGAAATCTTGCTGAAATGTTCTCATTTCCTGTTTGCTGTATGGGCTCGGGTGGGATGTTTGTTGGC
TCTGTTGTGTTTATTCACCAATTTGTACATTATTTGTTGTCCTTTACTACTGTAAACAGTAAATATAGTTTGGT

FIGURE 2831

CTGAACCTCAGCCGCGCCGGGAGGCGAGCCCGTTGGCGAGGGGCGGGGCAGATGGCGAGGGAGCGGGGCGAGCTG
CTTTTTGAGGCTGCGCACTCGCATGGCCCCACCTCGCAGGTCCACTTCCGGCGCCGCGGCTGTTCCGGGCGGAGA
CCGCTTGTGCTGGAGTCGGAGTTGTAACGCTCCACTGACTGATAGAGCGACCGGCCGACC**ATG**GCGCCCGGAGTG
GCCCGCGGGCCGACGCCGTACTGGAGGTTGCGCCTCGGTGGCGCCGCGCTGCTCCTGCTGCTCATCCCGGTGGCC
GCCGCGCAGGAGCCTCCCGGAGCTGCTTGTTCTCAGAACACAAACAAAACCTGTGAAGAGTGCCTGAAGAACGTC
TCCTGTCTTTGGTGCAACACTAACAAGGCTTGTCTGGACTACCCAGTTACAAGCGTCTTGCCACCGGCTTCCCTT
TGTAAATTGAGCTCTGCACGCTGGGGAGTTTGTTGGGTGAACTTTGAGGCGCTGATCATCACCATGTCGGTAGTC
GGGGGAACCCTCCTCCTGGGCATTGCCATCTGCTGCTGCTGCTGCAGGAGGAAGAGGAGCCGGAAGCCGGAC
AGGAGTGAGGAGAAGGCCATGCGTGAGCGGGAGGAGAGGCGGATACGGCAGGAGGAACGGAGAGCAGAGATGAAG
ACAAGACATGATGAAATCAGAAAAAAATATGGCCTGTTTAAAGAAGAAAACCCGTATGCTAGATTTGAAAACAAC
TAAAGCGCTCCAGCACATCAGTCCCGACGCTTCCTGTGAGGTGCACGCTCCGCAGCCCAGCCCAGCCGGGAGACC
ACGTGGCCATTGCGGTCTCCTGACCTTGGCCAGTGAACCTGCCAGCCTTCCAGGACAGGCGGCCGGAGAGCTGCC
CCTGAAGGACAGTCCTCTCGTCTTGCAGACTGGTGACCTTCTATTCCCTGTTCATCTCTGTTTCTAGATTTAGTC
ACTTGAAATAAGAAATCTTTGGGGTTTGGGCTTTTTTATACTCTTCTCAGTTTGTGAAACGCTAACTGCACACGA
AGCCGCCTGACGGCACCCAGCGCTGTGGCTGTCATTCTCCCAGGGCAGAACCCTGCGTTTCTCTCTGTCCACTAA
CAAGCTTCACACGCAACACAGGGAAGTCGGTTTGACTTTTGTCATGAGGAGAACTGACCAGCCCTCATCATTCCC
CATAAAACCACGGACAGCGTCTGTGTGCGCATCTTGAGTCTTCACACCTGTTGACTCACACGGCTTTTGCTGATG
ACACGGGGCTCCAGTACACAGTCTGATAAGGACTTAACGTCCTAACCTCAATTGTATTAAATAGCATTGGGGAAT
AGCTAAACCTTTTTAAAAAAATTTATTGGATTTTCCTCCCTGCTTAAAAGATTTCACCAGAAAACCTTCATATAA
AAATTCAGGCCCTTTTTGGACAATTTTTAAAATTTGTATCTTTACTAGAACATGAGAATCTTTTTCCCTTGGAAG
CTTGAATTATAAATGTGGTGTTTGGCCTGCCTCAGCAGCACCAGTTGACTGCTCGTGTGCCAGCGGTGTGGGGAG
GACGGGGCAGGACGCTGCAGCTCTCTCCAGCCCTGTTGGCATCCTCAGTGCCTGCAGGCCTCTCGCTGCCTGTTG
GGCTGTCTGGGGGGTGGCCATTTAGGGATCGTGGGGACGGGGTCCACCCCAAGAAGAAAGAAAGGCCCGTCCACA
GGCCCGGCTCTGGGCCACGTGCCCCGGAAGCAGGTGTGTCCAGAGTCAGCTGAGGGCTCTCCCCACACCACCCAG
CAGGCGCTGGTGCTCCTTCTGCCTCATGGGACCAGTCCAGCTTCCAGCCGCTCTGGCTCGAGGGTGGTCTGACCA
CTTCCTTCTGAGTGGGCTTCTCTGGGAGCTCTCCAGTGGCACTGCTGGACCTGCCCACGTTTCTGTAAAATCAGG
ATACGTGGCTTTAGTAAGCAGACCAAGCGCTTCGTGGCAGGGAAAGCAGCGTGCGGGGAAGTCACTGAAAAGTGC
TGCCTAAGGAAGTTTGGAAATAGTCCCTGTTCCAGATTGCCTTGAATTTTAAAACATTTTGCTTTGGGAAAGTAG
GTCAGCAGCACCTAAGATCAAGGATGCGTTCCATTTTCACACTTCACAGTCATGAAAACTGAGAAGACTGTCTTC
AGCGTGAACTAAAGTTCACAGGCAGATCACTGATCCAGAACACTTCAAGAACTCGTCAAACAGCTCGATAAGCCT
TTTTGACTGTGTACATCTGTACCGGGAATAACATTCCTAGGCTGAAATTTCCACAAAGAATAGAACCTGTACCCA
GTTCTTCAGGCTGATTTCCCTGACCTCTTGGGCATTTGTATTTGTAGTAAAGTATTGCAGAGATTCCTAAGTATT
TTATAGCAGCCATCAAAATTGGACTTTGTATTGTTTATTCATAAAAGACACTTGGTAATAGACTTCAGTGAACTC
TGTATGAATGCAGTAGTGTGTGTGCAAAATCCGCTTCCTGAGCGTAGGGTGCTGAGCTGGCGCTAGGGCTCGGTT
GTGAAATACAGCGTAGTCAGCCCTTGCGCTCAGTGTAGAAACCCACGTCTGTAAGGTCGGTCTTCGTCCATCTGC
TTTTTTCTGAAATACACTAAGAGCAGCCACAAAACTGTAACCTCAAGGAAACCATAAAGCTTGGAGTGCCTTAAT
TTTTAACCAGTTTCCAATAAAACGGTTTACTACCTG

FIGURE 2832

TGTCAGGACTTTACGACCCGCGCCTCCAGCTGAGGTTTCTAGACGTGACCCAGGGCAGACTGGTAGCAAAGCCCC
CACGCCCAGCCAGGAGCACCGCCGAGGACTCCAGCACACCGAGGGAC**ATG**CTGGGCCTGCGCCCCCCACTGCTCG
CCCTGGTGGGGCTGCTCTCCCTCGGGTGCGTCCTCTCTCAGGAGTGCACGAAGTTCAAGGTCAGCAGCTGCCGGG
AATGCATCGAGTCGGGGCCCGGCTGCACCTGGTGCCAGAAGCTGAACTTCACAGGGCCGGGGGATCCTGACTCCA
TTCGCTGCGACACCCGGCCACAGCTGCTCATGAGGGGCTGTGCGGCTGACGACATCATGGACCCCACAAGCCTCG
CTGAAACCCAGGAAGACCACAATGGGGGCCAGAAGCAGCTGTCCCCACAAAAAGTGACGCTTTACCTGCGACCAG
GCCAGGCAGCAGCGTTCAACGTGACCTTCCGGCGGGCCAAGGGCTACCCCATCGACCTGTACTATCTGATGGACC
TCTCCTACTCCATGCTTGATGACCTCAGGAATGTCAAGAAGCTAGGTGGCGACCTGCTCCGGGCCCTCAACGAGA
TCACCGAGTCCGGCCGCATTGGCTTCGGGTCCTTCGTGGACAAGACCGTGCTGCCGTTCGTGAACACGCACCCTG
ATAAGCTGCGAAACCCATGCCCCAACAAGGAGAAAGAGTGCCAGCCCCCGTTTGCCTTCAGGCACGTGCTGAAGC
TGACCAACAACTCCAACCAGTTTCAGACCGAGGTCGGGAAGCAGCTGATTTCCGGAAACCTGGATGCACCCGAGG
GTGGGCTGGACGCCATGATGCAGGTCGCCGCCTGCCCGGAGGAAATCGGCTGGCGCAACGTCACGCGGCTGCTGG
TGTTTGCCACTGATGACGGCTTCCATTTCGCGGGCGACGGGAAGCTGGGCGCCATCCTGACCCCCAACGACGGCC
GCTGTCACCTGGAGGACAACTTGTACAAGAGGAGCAACGAATTCGACTACCCATCGGTGGGCCAGCTGGCGCACA
AGCTGGCTGAAAACAACATCCAGCCCATCTTCGCGGTGACCAGTAGGATGGTGAAGACCTACGAGAAACTCACCG
AGATCATCCCCAAGTCAGCCGTGGGGGAGCTGTCTGAGGACTCCAGCAATGTGGTCCAACTCATTAAGAATGCTT
ACAATAAACTCTCCTCCAGGGTCTTCCTGGATCACAACGCCCTCCCCGACACCCTGAAAGTCACCTACGACTCCT
TCTGCAGCAATGGAGTGACGCACAGGAACCAGCCCAGAGGTGACTGTGATGGCGTGCAGATCAATGTCCCGATCA
CCTTCCAGGTGAAGGTCACGGCCACAGAGTGCATCCAGGAGCAGTCGTTTGTCATCCGGGCGCTGGGCTTCACGG
ACATAGTGACCGTGCAGGTTCTTCCCCAGTGTGAGTGCCGGTGCCGGGACCAGAGCAGAGACCGCAGCCTCTGCC
ATGGCAAGGGCTTCTTGGAGTGCGGCATCTGCAGGTGTGACACTGGCTACATTGGGAAAAACTGTGAGTGCCAGA
CACAGGGCCGGAGCAGCCAGGAGCTGGAAGGAAGCTGCCGGAAGGACAACAACTCCATCATCTGCTCAGGGCTGG
GGGACTGTGTCTGCGGGCAGTGCCTGTGCCACACCAGCGACGTCCCCGGCAAGCTGATATACGGGCAGTACTGCG
AGTGTGACACCATCAACTGTGAGCGCTACAACGGCCAGGTCTGCGGCGGCCCGGGGAGGGGGCTCTGCTTCTGCG
GGAAGTGCCGCTGCCACCCGGGCTTTGAGGGCTCAGCGTGCCAGTGCGAGAGGACCACTGAGGGCTGCCTGAACC
CGCGGCGTGTTGAGTGTAGTGGTCGTGGCCGGTGCCGCTGCAACGTATGCGAGTGCCATTCAGGCTACCAGCTGC
CTCTGTGCCAGGAGTGCCCCGGCTGCCCCTCACCCTGTGGCAAGTACATCTCCTGCGCCGAGTGCCTGAAGTTCG
AAAAGGGCCCCTTTGGGAAGAACTGCAGCGCGGCGTGTCCGGGCCTGCAGCTGTCGAACAACCCCGTGAAGGGCA
GGACCTGCAAGGAGAGGGACTCAGAGGGCTGCTGGGTGGCCTACACGCTGGAGCAGCAGGACGGGATGGACCGCT
ACCTCATCTATGTGGATGAGAGCCGAGAGTGTGTGGCAGGCCCCAACATCGCCGCCATCGTCGGGGGCACCGTGG
CAGGCATCGTGCTGATCGGCATTCTCCTGCTGGTCATCTGGAAGGCTCTGATCCACCTGAGCGACCTCCGGGAGT
ACAGGCGCTTTGAGAAGGAGAAGCTCAAGTCCCAGTGGAACAATGATAATCCCCTTTTCAAGAGCGCCACCACGA
CGGTCATGAACCCCAAGTTTGCTGAGAGT**TAG**GAGCACTTGGTGAAGACAAGGCCGTCAGGACCCACCATGTCTG
CCCCATCACGCGGCCGAGACATGGCTTGCCACAGCTCTTGAGGATGTCACCAATTAACCAGAAATCCAGTTATTT
TCCGCCCTCAAAATGACAGCCATGGCCGGCCGGGTGCTTCTGGGGGCTCGTCGGGGGGACAGCTCCACTCTGACT
GGCACAGTCTTTGCATGGAGACTTGAGGAGGGAGGGCTTGAGGTTGGTGAGGTTAGGTGCGTGTTTCCTGTGCAA
GTCAGGACATCAGTCTGATTAAAGGTGGTGCCAATTTATTTACATTTAAACTTGTCAGGGTATAAAATGACATCC
CATTAATTATATTGTTAATCAATCACGTGTATAGAAAAAAAATAAAACTTCAATACAGGCTGTCCATGG

FIGURE 2833

CTCCTCCTTGGAGGAAGTGGTGGGTTGCACCACCGTGGCCCTTCACCCCTGCCCCTCTCCGCTCTACAGCAGCTC
TGATGTCAGAGAGCGGCCCCTTGAGACAGACCTGCGTGCTCTGAGGCTGCCCGACCCTGAGCTCCAGAACAGACC
ATCGAGTTCAGGAGACAAGCATGTCAGCCATGACACAAGGCAG**ATG**AGAGGGACCCCCAGCGTCCACACGTGGAG
GCAGCGGGGGCAGCCGACGTCCCTGAACCAAAGCCAAAGTCTACAGGTCACTGGGGCAGAGGCCGCCCGAAACCA
GCTGTCCCCTCCCGGCCTAGGCGCGCCAGGTCCCCGCCCAGCCGGGGCGATCCTTTGGTCGGACAGTGAGGTTGG
GAGCCCACCGCACCCAAGTGCCGCCGCATCCACCCGGCGCAGGCGACCCCCGACGGGCAGCCGCTCACCTTCTCC
TGGCCCCGGGCTTCAGGAAAACTGCCTGGAGGTGGCCGGGGTCTCCCTAGCGGAGGCTGGGCGGCGGGCTTCGCG
CCTGCCTCAGTCTCCCAATCCGTGGCCCGGGGGATGGAGCCCGCTGCGCGCAGAGGCTGCGGCAGGTCCCAGCCA
GGTGCCCTGGAACGTGGCTCCTCCTTCCCTGAGGCGCTCCCCTGGGCACGAGGATGGGTCTCGAAGCAGGAGGAA
GCCGCCTTCCCTCACCCGCTGTCCGGAGCTGCTCAGCCGGTGCGCGGAGCCTCCCCCGCCGCGGACACCACGATC
CGACCCCCACCCTGACCCCGACCCAGACCCCCACCGCCCGACCCCGGCCGTATTCCGTTGCGTTTGCTCCCTGCC
AGCTCCGGGGCCACCACTGAGCACGCGCTGTGAG**TAG**

FIGURE 2834

AATGGGCGGCAAAGCGCCGCAGGCACAGAGCCTCCTTTCATCTCTGCAGCAGGCTGAGTTTAAAAAGCAGATTTT
CTACACAATGTCGTACGCGAGTCTCAGCAGAGCTCAGGCCACGACCTCCAGCTGCCTGCAAGCCTGCATCTTCCT
CTGGGAGGCTTCCCCCCTCACCCTGCATCAGGGCCCGGGCTTGAGGGGTG**ATG**GAGGCAGGTTCCCCTGCAGCCG
GCGGTTCTGGGAGCAGGTGCCCGAGGCGGAGGCCATGGCCTCTGAGCAGGTGGCAGCTTCGCCCCCACCAGAGCC
TGCAGCCCTCACAGCATCCCACATTGCCCCAGCCTCTGCCTGGGCCAATGGCTCCTGGTGTCATTAAAGACTCTG
TTTTTACCTCCTCTGGGCCTCGGGAGACCAGCCTGGCACCAGAGGAGGGGCTGGCAGAGCCCCAGGCTCCAGTCC
ACACCCACCGGCCCCAGGTCTGGCCATGGGCTGGGCCCTGGTGTGCAGACAGCAGTGGCCACTGCTCCAGGGCCT
TTGCACCAGCCTGCTGCAGGTCCAGGCGGTCATGGGGAGTGGAGCCGCAGCGGCCTCTTGTTTTCCTTCCCCTCT
TGGGAGACGGCTGCTCCTCCTGGCTGTTTCCAGAAAGTGTGTTTGTTATTTGGCTCCTGGAAACACCATCTGATG
AAACAGGCTCTGTTGGGCTGGCCTGCCAGGCGGAGGCTGTGGGCGCCCAGGAGTCTCACCACGAAGCAGGTGGCA
GAGGCCCGATAGCCCCACCCTGCAGGCCGGGACCTGGCACC**TAA**ACGGGGAGATGGAAGAACATGGAAAATTCCC
TAAGAGCAAATTGATGCTCAGCTTCCGCGGGCACCAACTTGCTGCGGAATCCTGCTTTGCAGATCATCGTTCCTC
GAGCATTCGGACGCCTCGGGCCCCAGAAGTTCAAGAACAAGAAAGCTCTGTTTCATGCAGACACGCTCACGCATG
CACACATGCTCACACATGCACTTATACGTGCACACACACACACACAACACACACACGCACACTCACACAACCA
TGGCCATGTAGCCCCAGTCTCAGCATCATGTCCTCTATTTAGAAATATTGGCTAAACACCTAATAAATAACTAAA
CAGAAATG

FIGURE 2835A

GCGGCGGCGGCGGCGGCGGCGGCAGCGGCGGCCAAGCGGCCAGGTTGGCGGCCGGGGCTCCGGGCCGCGCGAGGC
CACGGCCACGCCGCGCCGCTGCGCACAACCAACGAGGCAGAGCGCCGCCCGGCGCGAGACTGCGGCCGAAGCGTG
GGGCGCGCGTGCGGAGGACCAGGCGCGGCGCGGCTGCGGCTGAGAGTGGAGCCTTTCAGGCTGGCATGGAGAGCT
TAAGGGGCAACTGAAGGAGACACACTGGCCAAGCGCGGAGTTCTGCTTACTTCAGTCCTGCTGAGATACTCTCTC
AGTCCGCTCGCACCGAAGGAAGCTGCCTTGGGATCAGAGCAGACATAAAGCTAGAAAAATTTCAAGACAGAAACA
GTCTCCGCCAGTCAAGAAACCCTCAAAAGTATTTTGCC**ATG**GATATAGAAGATGAAGAAAACATGAGTTCCAGCA
GCACTGATGTGAAGGAAAACCGCAATCTGGACAACGTGTCCCCCAAGGATGGCAGCACACCTGGGCCTGGCGAGG
GCTCTCAGCTCTCCAATGGGGGTGGTGGTGGCCCCGGCAGAAAGCGGCCCCTGGAGGAGGGCAGCAATGGCCACT
CCAAGTACCGCCTGAAGAAAAGGAGGAAAACACCAGGGCCCGTCCTCCCCAAGAACGCCCTGATGCAGCTGAATG
AGATCAAGCCTGGTTTGCAGTACACACTCCTGTCCCAGACTGGGCCCGTGCACGCGCCTTTGTTTGTCATGTCTG
TGGAGGTGAATGGCCAGGTTTTTGAGGGCTCTGGTCCCACAAAGAAAAAGGCAAAACTCCATGCTGCTGAGAAGG
CCTTGAGGTCTTTCGTTCAGTTTCCTAATGCCTCTGAGGCCCACCTGGCCATGGGGAGGACCCTGTCTGTCAACA
CGGACTTCACATCTGACCAGGCCGACTTCCCTGACACGCTCTTCAATGGTTTTGAAACTCCTGACAAGGCGGAGC
CTCCCTTTTACGTGGGCTCCAATGGGGATGACTCCTTCAGTTCCAGCGGGGACCTCAGCTTGTCTGCTTCCCCGG
TGCCTGCCAGCCTAGCCCAGCCTCCTCTCCCTGTCTTACCACCATTCCCACCCCCGAGTGGGAAGAATCCCGTGA
TGATCTTGAACGAACTGCGCCCAGGACTCAAGTATGACTTCCTCTCCGAGAGCGGGGAGAGCCATGCCAAGAGCT
TCGTCATGTCTGTGGTCGTGGATGGTCAGTTCTTTGAAGGCTCGGGGAGAAACAAGAAGCTTGCCAAGGCCCGGG
CTGCGCAGTCTGCCCTGGCCGCCATTTTTAACTTGCACTTGGATCAGACGCCATCTCGCCAGCCTATTCCCAGTG
AGGGTCTTCAGCTGCATTTACCGCAGGTTTTAGCTGACGCTGTCTCACGCCTGGTCCTGGGTAAGTTTGGTGACC
TGACCGACAACTTCTCCTCCCCTCACGCTCGCAGAAAAGTGCTGGCTGGAGTCGTCATGACAACAGGCACAGATG
TTAAAGATGCCAAGGTGATAAGTGTTTCTACAGGAACAAAATGTATTAATGGTGAATACATGAGTGATCGTGGCC
TTGCATTAAATGACTGCCATGCAGAAATAATATCTCGGAGATCCTTGCTCAGATTTCTTTATACACAACTTGAGC
TTTACTTAAATAACAAAGATGATCAAAAAAGATCCATCTTTCAGAAATCAGAGCGAGGGGGGTTTAGGCTGAAGG
AGAATGTCCAGTTTCATCTGTACATCAGCACCTCTCCCTGTGGAGATGCCAGAATCTTCTCACCACATGAGCCAA
TCCTGGAAGAACCAGCAGATAGACACCCAAATCGTAAAGCAAGAGGACAGCTACGGACCAAAATAGAGTCTGGTG
AGGGGACGATTCCAGTGCGCTCCAATGCGAGCATCCAAACGTGGGACGGGGTGCTGCAAGGGGAGCGGCTGCTCA
CCATGTCCTGCAGTGACAAGATTGCACGCTGGAACGTGGTGGGCATCCAGGGATCCCTGCTCAGCATTTTCGTGG
AGCCCATTTACTTCTCGAGCATCATCCTGGGCAGCCTTTACCACGGGGACCACCTTTCCAGGGCCATGTACCAGC
GGATCTCCAACATAGAGGACCTGCCACCTCTCTACACCCTCAACAAGCCTTTGCTCAGTGGCATCAGCAATGCAG
AAGCACGGCAGCCAGGGAAGGCCCCCAACTTCAGTGTCAACTGGACGGTAGGCGACTCCGCTATTGAGGTCATCA
ACGCCACGACTGGGAAGGATGAGCTGGGCCGCGCGTCCCGCCTGTGTAAGCACGCGTTGTACTGTCGCTGGATGC
GTGTGCACGGCAAGGTTCCCTCCCACTTACTACGCTCCAAGATTACCAAGCCCAACGTGTACCATGAGTCCAAGC
TGGCGGCAAAGGAGTACCAGGCCGCCAAGGCGCGTCTGTTCACAGCCTTCATCAAGGCGGGGCTGGGGGCCTGGG
TGGAGAAGCCCACCGAGCAGGACCAGTTCTCACTCACGCCC**TGA**CCCGGGCAGACATGATGGGGGGTGCAGGGGG
CTGTGGGCATCCAGCGTCATCCTCCAGAACCTCACATCTGAACTGGGGGCAGGTGCATACCTTGGGGAGGGAGTA
GGGGGACACGGGGGACCACCAGGTGTCCACGGTTGTCCCCAGCATCTCACATCAGACCTGGGGCAGGTGCGCAGT
GTGGGGAGGGGATGGGGTGCGTCAGGGCCCAGCATCGCCGCCTGGCATCTCTCTGCCGCAGCATTTCCCCTTCTG
AACCGTCCAGTGACTGCTTTCAATCTCGGTTTACGTTTAGAAATTGAGTTCTACTGAGTAGGGCTTCCTTAAGTT
TAGGAAAATAGAAATTACTTTGTGTGAAATTCTTGAATAAATAATTTATTCAGAGCTAGGAATGTGGTTTATAAA
ATAGGAAGTAATTGTGTCAGGTCACTTTTATGCCACATTATTTTAATTGCAAAAAAGCATCTATATATGGAGGAG
GGTGGGAAAATAGAGGTAGGAAATAGTAGCCTAAAGGAAATCGCCACACGTCTGTCTAAACTTAGGTCTCTTTTC
TCCGTAGGTACCTCCCTGGGTAGTTCCACACACTAGGTTGTAACAGTCTCTCCCTGAGGAGCAGACTCCCAGCAT
GGTGTAGCGTGGCCCTGTCATGCACATGGGGTCCCGCAGCAGTGACTGTGTGTCCTGCAGAGGCGTGACCCAGGC
CCCTGTAGCCCTCAGCCTCCTCTAGAAGCTTCTGTACTCCTTGTAGGATCAGATCATGGAAAACTTTTCTCAGTT
TACTTCTAAGTAATCACAGATAATACATGGCCAGTAATCCCAGGCTGGCCATTCATTCAGGTTTTTTAAAGGATA
TTTAACTTTTATGGACTAGAAGGAATCACGAGGGCTACTGCACAATACATGGCCTAAGTTCCCTCTGTTCCTTCC
TCTGAATCGAATGGATGTGGGTGACCGCCCGAAGGCCTTCACAGGATGGAAGTAGAATGATTTCAGTAGATACTC
ATTCTTGGAAAATGCCATAGTTTTAAATTATTGTTTCCAGCTTTATCAAAGACATGTTTGAAAAATAAAAAGCAT

FIGURE 2835B

CCAAGTGAGAGCTGGTGAGACCACGTGCTGCTGGCGTAGTGTAGGCCAGACATTGACAGTCCTGACGGGAGCTCA
GGGCTGCCCAGCGCCCAGCGTGCACGGGACGGCCCCACGACAGAGGGAGTCAGCCCGGGAGGTCAGGAGCGCGGC
GGGCGAGGGCCCTGTGTGGACCACCTCCACCAAGC

FIGURE 2836A

AGCTCCAGCCGCACTGCCCCG**ATG**GCTCCCTACCCCTGTGGCTGCCACATCCTGCTGCTGCTCTTCTGCTGCCTG
GCGGCTGCCCGGGCCAACCTGCTGAACCTGAACTGGCTTTGGTTCAATAATGAGGACACCAGCCATGCAGCTACC
ACGATCCCTGAGCCCCAGGGGCCCCTGCCTGTGCAGCCCACAGCAGATACCACCACACACGTGACCCCCCGGAAT
GGTTCCACAGAGCCAGCGACAGCCCCTGGCAGCCCTGAGCCACCCTCAGAGCTGCTGGAAGATGGCCAGGACACC
CCCACTTCTGCCGAGAGCCCGGACGCGCCAGAGGAGAACATTGCCGGTGTCGGAGCCGAGATCCTGAACGTGGCC
AAAGGCATCCGGAGCTTCGTCCAGCTGTGGAATGACACTGTCCCCACTGAGAGCTTGGCCAGGGCGGAAACCCTG
GTCCTGGAGACTCCTGTGGGCCCCCTTGCCCTCGCTGGGCCTTCCAGCACCCCCCAGGAGAATGGGACCACTCTC
TGGCCCAGCCGTGGCATTCCTAGCTCTCCGGGCGCCCACACAACCGAGGCTGGCACCTTGCCTGCACCCACCCCA
TCGCCTCCCTCCCTGGGCAGGCCCTGGGCACCACTCACGGGGCCCTCAGTGCCACCACCATCTTCAGAGCGCATC
AGCGAGGAGGTGGGGCTGCTGCAGCTCCTTGGGGACCCCCCGCCCCAGCAGGTCACCCAGACGGATGACCCCGAC
GTCGGGCTGGCCTACGTCTTTGGGCCAGATGCCAACAGTGGCCAAGTGGCCCGGTACCACTTCCCCAGCCTCTTC
TTCCGTGACTTCTCACTGCTGTTCCACATCCGGCCAGCCACAGAGGGCCCAGGGGTGCTGTTCGCCATCACGGAC
TCGGCGCAGGCCATGGTCTTGCTGGGCGTGAAGCTCTCTGGGGTGCAGGACGGGCACCAGGACATCTCCCTGCTC
TACACAGAACCAGGTGCAGGCCAGACCCACACAGCCGCCAGCTTCCGGCTCCCCGCCTTCGTCGGCCAGTGGACA
CACTTAGCCCTCAGTGTGGCAGGTGGCTTTGTGGCCCTCTACGTGGACTGTGAGGAGTTCCAGAGAATGCCGCTT
GCTCGGTCCTCACGGGGCCTGGAGCTGGAGCCTGGCGCCGGGCTCTTCGTGGCTCAGGCGGGGGGAGCGGACCCT
GACAAGTTCCAGGGGGTGATCGCTGAGCTGAAGGTGCGCAGGGACCCCCAGGTGAGCCCCATGCACTGCCTGGAC
GAGGAAGGCGATGACTCAGATGGGGCATCCGGAGACTCTGGCAGCGGGCTCGGGGACGCCCGGGAGCTTCTCAGG
GAGGAGACGGGCGCGGCCCTAAAACCCAGGCTCCCCGCGCCACCCCCCGTCACCACGCCACCCTTGGCTGGAGGC
AGCAGCACGGAAGATTCCAGAAGTGAAGAAGTCGAGGAGCAGACCACGGTGGCTTCGTTAGGAGCTCAGACACTT
CCTGGCTCAGATTCTGTCTCCACGTGGGACGGGAGTGTCCGGACCCCTGGGGGCCGCGTGAAAGAGGGCGGCCTG
AAGGGGCAGAAAGGGGAGCCAGGTGTTCCGGCAGGGCCTCCGGGGAGGGACGGCACCCCTGGAAGGGACGGCGAG
CCGGGCGACCCCGGTGAAGACGGAAAGCCGGGCGACACCGGGCCACAAGGCTTCCCCGGGACTCCAGGGGACGTA
GGTCCCAAGGGCGACAAGGGAGACCCTGGGGTTGGAGAGAGAGGGCCCCCAGGACCCCAAGGGCCTCCAGGGCCC
CCAGGACCCTCCTTCAGACACGACAAGCTGACCTTCATTGACATGGAGGGATCTGGCTTCGGGGGCGATCTGGAG
GCCCTGCGGGGTCCTCGAGGCTTCCCTGGACCTCCCGGACCCCCCGGTGTCCCAGGCCTGCCCGGCGAGCCAGGC
CGCTTTGGGGTGAACAGCTCCGACGTCCCAGGACCCGCCGGCCTTCCTGGTGTGCCTGGGCGCGAGGGTCCCCCC
GGGTTTCCTGGCCTCCCGGGACCCCCAGGCCCTCCGGGAAGAGAGGGGCCCCCAGGAAGGACTGGGCAGAAAGGC
AGCCTGGGTGAAGCAGGCGCCCCAGGACATAAGGGGAGCAAGGGAGCCCCCGGTCCTGCTGGTGCTCGTGGGGAG
AGCGGCCTGGCAGGAGCCCCCGGACCTGCTGGACCACCAGGCCCCCCTGGGCCCCCTGGGCCCCCAGGACCAGGA
CTCCCCGCTGGATTTGATGACATGGAAGGCTCCGGGGGGCCCTTCTGGTCAACAGCCCGAAGCGCTGATGGGCCA
CAGGGACCTCCCGGCCTGCCGGGACTTAAGGGGGATCCTGGCGTGCCTGGGCTGCCGGGGGCGAAGGGAGAAGTT
GGAGCAGATGGAGTCCCCGGGTTCCCCGGCCTCCCTGGCAGAGAGGGCATTGCTGGGCCCCAGGGGCCAAAGGGA
GACAGAGGCAGCCGGGGAGAAAAGGGAGATCCAGGGAAGGACGGAGTCGGGCAGCCGGGCCTCCCTGGCCCCCCC
GGACCCCCGGGACCTGTGGTCTACGTGTCGGAGCAGGACGGATCCGTCCTGAGCGTGCCGGGACCTGAGGGCCGG
CCGGGTTTCGCAGGCTTTCCCGGACCTGCAGGACCCAAGGGCAACCTGGGCTCTAAGGGCGAACGAGGCTCCCCG
GGACCCAAGGGTGAGAAGGGTGAACCGGGCAGCATCTTCAGCCCCGACGGCGGTGCCCTGGGCCCTGCCCAGAAA
GGAGCCAAGGTGAGGGCCGGGCTTCCGAGGACCCCCGGGTCCATACGGACGGCCGGGGTACAAGGGAGAGATTGG
CTTTCCTGGACGGCCGGGTCGCCCCGGGATGAACGGATTGAAAGGAGAGAAAGGGGAGCCGGGAGATGCCAGCCT
TGGATTTGGCATGAGGGGAATGCCCGGCCCCCCAGGACCTCCAGGGCCCCCAGGCCCTCCAGGGACTCCTGTTTA
CGACAGCAATGTGTTTGC**TGA**GTCCAGCCGCCCCGGGCCTCCAGGATTGCCAGGGAATCAGGGCCCTCCAGGACC
CAAGGGCGCCAAAGGAGAAGTGGGCCCCCCCGGACCACCAGGGCAGTTTCCGTTTGACTTTCTTCAGTTGGAGGC
TGAAATGAAGGGGGAGAAGGGAGACCGAGGTGATGCAGGACAGAAAGGCGAAAGGGGGGAGCCCGGGGGCGGCGG
TTTCTTCGGCTCCAGCCTGCCCGGCCCCCCCGGCCCCCCAGGCCCCCCAGGCCCACGTGGCTACCCTGGGATTCC
AGGTCCCAAGGGAGAGAGCATCCGGGGCCAGCCCGGCCCACCTGGACCTCAGGGACCCCCCGGCATCGGCTACGA
GGGGCGCCAGGGCCCTCCCGGCCCCCCAGGCCCCCCAGGGCCCCCTTCATTTCCTGGCCCTCACAGGCAGACTAT
CAGCGTTCCCGGCCCTCCGGGCCCCCCTGGGCCCCCTGGGCCCCCTGGAACCATGGGCGCCTCCTCAGGGGTGAG
GCTCTGGGCTACACGCCAGGCCATGCTGGGCCAGGTGCACGAGGTTCCCGAGGGCTGGCTCATCTTCGTGGCCGA

FIGURE 2836B

GCAGGAGGAGCTCTACGTCCGCGTGCAGAACGGGTTCCGGAAGGTCCAGCTGGAGGCCCGGACACCACTCCCACG
AGGGACGGACAATGAAGTGGCCGCCTTGCAGCCCCCCGTGGTGCAGCTGCACGACAGCAACCCCTACCCGCGGCG
GGAGCACCCCCACCCCACCGCGCGGCCCTGGCGGGCAGATGACATCCTGGCCAGCCCCCCTCGCCTGCCCGAGCC
CCAGCCCTACCCCGGAGCCCCGCACCACAGCTCCTACGTGCACCTGCGGCCGGCGCGACCCACAAGCCCACCCGC
CCACAGCCACCGCGACTTCCAGCCGGTGCTCCACCTGGTTGCGCTCAACAGCCCCCTGTCAGGCGGCATGCGGGG
CATCCGCGGGGCCGACTTCCAGTGCTTCCAGCAGGCGCGGGCCGTGGGGCTGGCGGGCACCTTCCGCGCCTTCCT
GTCCTCGCGCCTGCAGGACCTGTACAGCATCGTGCGCCGTGCCGACCGCGCAGCCGTGCCCATCGTCAACCTCAA
GGACGAGCTGCTGTTTCCCAGCTGGGAGGCTCTGTTCTCAGGCTCTGAGGGTCCGCTGAAGCCCGGGGCACGCAT
CTTCTCCTTTGACGGCAAGGACGTCCTGAGGCACCCCACCTGGCCCCAGAAGAGCGTGTGGCATGGCTCGGACCC
CAACGGGCGCAGGCTGACCGAGAGCTACTGTGAGACGTGGCGGACGGAGGCTCCCTCGGCCACGGGCCAGGCCTC
CTCGCTGCTGGGGGGCAGGCTCCTGGGGCAGAGTGCCGCGAGCTGCCATCACGCCTACATCGTGCTCTGCATTGA
GAACAGCTTCATGACTGCCTCCAAGTAGCCACCGCCTGGATGCGGATGGCCGGAGAGGACCGGCGGCTCGGAGGA
AGCCCCCACCGTGGGCAGGGAGCGGCCGGCCAGCCCCTGGCCCCAGGACCTGGCTGCCATACTTTCCTGTATAGT
TCACGTTTCATGTAATCCTCAAGAAATAAAAGGAAGCCAAAGAGTGTATTTTTTTAAAAGTTTAAAACAGAAGCC
TGATGCTGACATTCACCTGCCCCAACTCTCCCCTGACCTGTGAGCCCAGCTGGGTCAGGCAGGGTGCAGTATCAT
GCCCTGTGCAACCTCTTGGCCTGATCAGACCACGGCTCGATTTCTCCAGGATTTCCTGCTTTGGGAAGCCGTGCT
CGCCCCAGCAGGTGCTGACTTCATCTCCCACCTAGCAGCACCGTTCTGTGCACAAAACCCAGACCTGTTAGCAGA
CAGGCCCCGTGAGGCAATGGGAGCTGAGGCCACACTCAGCACAAGGCCATCTGGGCTCCTCCAGGGTGTGTGCTC
GCCCTGCGGTAGATGGGAGGGAGGCTCAGGTCCCTGGGGCTAGGGGGAGCCCCTTCTGCTCAGCTCTGGGCCATT
CTCCACAGCAACCCCAGGCTGAAGCAGGTTCCCAAGCTCAGAGGCGCACTGTGACCCCCAGCTCCGGCCTGTCCT
CCAACACCAAGCACAGCAGCCTGGGGCTGGCCTCCCAAATGAGCCATGAGATGATACATCCAAAGCAGACAGCTC
CACCCTGGCCGAGTCCAAGCTGGGAGATTCAAGGGACCCATGAGTTGGGGTCTGGCAGCCTCCCATCCAGGGCCC
CCATCTCATGCCCCTGGCTGGGACGTGGCTCAGCCAGCACTTGTCCAGCTGAGCGCCAGGATGGAACACGGCCAC
ATCAAAGAGGCTGAGGCTGGCACAGGACATGCGGTAGCCAGCACACAGGGCAGTGAGGGAGGGCTGTCATCTGTG
CACTGCCCATGGACAGGCTGGCTCCAGATGCAGGGCAGTCATTGGCTGTCTCCTAGGAAACCCATATCCTTACCC
TCCTTGGGACTGAAGGGGAACCCCGGGGTGCCCACAGGCCGCCCTGCGGGTGAACAAAGCAGCCACGAGGTGCAA
CAAGGTCCTCTGTCAGTCACAGCCACCCCTGAGATCCGGCAACATCAACCCGAGTCATTCGTTCTGTGGAGGGAC
AAGTGGACTCAGGGCAGCGCCAGGCTGACCACAGCACAGCCAACACGCACCTGCCTCAGGACTGCGACGAAACCG
GTGGGGCTGGTTCTGTAATTGTGTGTGATGTGAAGCCAATTCAGACAGGCAAATAAAAGTGACCTTTTACACTG

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FIGURE 2837

GGCTCAGTCCCGACGTGGAACTCAGCAGCGGAGGCTGGACGCTTGCATGGCGCTTGAGAGATTCCATCGTGCCTG
GCTCACATAAGCGCTTCCTGGAAGTGAAGTCGTGCTGTCCTGAACGCGGGCCAGGCAGCTGCGGCCTGGGGGTTT
TGGAGTGATCACGA**ATG**AGCAAGGCGTTTGGGCTCCTGAGGCAAATCTGTCAGTCCATCCTGGCTGAGTCCTCGC
AGTCCCCGGCAGATCTTGAAGAAAAGAAGGAAGAAGACAGCAACATGAAGAGAGAGCAGCCCAGAGAGCGTCCCA
GGGCCTGGGACTACCCTCATGGCCTGGTTGGTTTACACAACATTGGACAGACCTGCTGCCTTAACTCCTTGATTC
AGGTGTTCGTAATGAATGTGGACTTCACCAGGATATTGAAGAGGATCACGGTGCCCAGGGGAGCTGACGAGCAGA
GGAGAAGCGTCCCTTTCCAGATGCTTCTGCTGCTGGAGAAGATGCAGGACAGCCGGCAGAAAGCAGTGCGGCCCC
TGGAGCTGGCCTACTGCCTGCAGAAGTGCAACGTGCCCTTGTTTGTCCAACATGATGCTGCCCAACTGTACCTCA
AACTCTGGAACCTGATTAAGGACCAGATCACTGATGTGCACTTGGTGGAGAGACTGCAGGCCCTGTATACGATCC
GGGTGAAGGACTCCTTGATTTGCGTTGACTGTGCCATGGAGAGTAGCAGAAACAGCAGCATGCTCACCCTCCCAC
TTTCTCTTTTTGATGTGGACTCAAAGCCCCTGAAGACACTGGAGGACGCCCTGCACTGCTTCTTCCAGCCCAGGG
AGTTATCAAGCAAAAGCAAGTGCTTCTGTGAGAACTGTGGGAAGAAGACCCGTGGGAAACAGGTCTTGAAGCTGA
CCCATTTGCCCCAGACCCTGACAATCCACCTCATGCGATTCTCCATCAGGAATTCACAGACGAGAAAGATCTGCC
ACTCCCTGTACTTCCCCCAGAGCTTGGATTTCAGCCAGATCCTTCCAATGAAGCGAGAGTCTTGTGATGCTGAGG
AGCAGTCTGGAGGGCAGTATGAGCTTTTTGCTGTGATTGCGCACGTGGGAATGGCAGACTCCGGTCATTACTGTG
TCTACATCCGGAATGCTGTGGATGGAAAATGGTTCTGCTTCAATGACTCCAATATTTGCTTGGTGTCCTGGGAAG
ACATCCAGTGTACCTACGGAAATCCTAACTACCACTGGCAGGAAACTGCATATCTTCTGGTTTACATGAAGATGG
AGTGC**TAA**TGGAAATGCCCAAAACCTTCAGAGATTGACACGCTGTCATTTTCCATTTCCGTTCCTGGATCTACGG
AGTCTTCTAAGAGATTTTGCAATGAGGAGAAGCATTGTTTTCAAACTATATAACTGAGCCTTATTTATAATTAGG
GATATTATCAAAATATGTAACCATGAGGCCCCTCAGGTCCTGATCAGTCAGAATGGATGCTTTCACCAGCAGACC
CGGCCATGTGGCTGCTCGGTCCTGGGTGCTCGCTGCTGTGCAAGACATTAGCCCTTTAGTTATGAGCCTGTGGGA
ACTTCAGGGGTTCCCAGTGGGGAGAGCAGTGGCAGTGGGAGGCATCTGGGGGCCAAAGGTCAGTGGCAGGGGGTA
TTTCAGTATTATACAACTGCTGTGACCAGACTTGTATACTGGCTGAATATCAGTGCTGTTTGTAATTTTTCACTT
TGAGAACCAACATTAATTCCATATGAATCAAGTGTTTTGTAACTGCTATTCATTTATTCAGCAAATATTTATTGA
TCATCTCTTCTCCATAAGATAGTGTGATAAACACAGTCATGAATAAAGTTATTTTCCAC

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FIGURE 2838

GTCAGACTGGTC**ATG**CAAGGTCCTGGGCCTGCCCTTGGGTCCTGGGGAGCCACGGAAGGTTGTGGGTGCCAGAGG
GTTGCGGTCAGAGTCACAGTCAAGGGCCTTCTGAGACCTGTGCCCCCTCCCCACCTCCTCAGGCCAGCTCTGGGG
TCTCAGCAGGTGGTCCGCAACATGACCTCTGAGTTCTTCGCTGCCCAGCTCCGGTCCCAGATCTCTGACCACACC
ACTCACCCGATCTCCTACTACAAGCCCGAGTTCTACACGCCGGATGACGGGGGCACTGCTCACCTGTCTGTCGTC
GCAGAGGACGGCAGTGCTGTGTCCGCCACCAGCACCATCAACCTCTACTTTGGCTCCAAGGTCTGCTCCCCGGTC
AGTGGGATCCTGTTCAATAATGAATGGACGACTTCAGCTCTCCCAGCATCACCAATGAGTTTGGGGCACCCCCCT
CACCTGCCAATTTCATCCAGCCAGGGAAGCAGCCGCTCTTGTCCATGTGCCCGACGATCATGGTGGGCCAGGACG
GCCAGGTCCGGATGGTGGTGGGAGCTGCTGGGGGCACGCAGATCACCACAGACACTGCACTGGCCATCATCTACA
ACCTCTGGTTCGGCTATGACG**TGA**AGAGGGCCGTGGAGGAGCCCCGGCTGCACAACAAGCTTCTGCCCAACGTCA
CGACAGTGGAGAGAAACATTGACCAGGCAGTGACTGCAGCCCTGGAGACCCGGCACCATCACACCCAGATCGCGT
CCACCTTCATCGCTGTGGTGCAAGCCATCGTCCGCACGGCTGGTGGCTGGGCAGCTGCCTCGGACTCCAGGAAAG
GCGGGGAACCTGCTGGCTACTGAGTGCTCCAGGCAGACAAGGCTGACAAGCAATCCAGGGACAAGATACTCACCA
GGATGAGGAAGAGGACTTTGGGGGACGGGCTTCCCCTGTGAGCAGCAGAGCAGCATAATAAATGAGGCCACTGTG
CCAGGCTCCAGGTGGCCTCCCTGGCCTGTCTCCCC

FIGURE 2839

TTCGTGGCCAACACCCCAGGCAAGGCTTGGGGCCCCCGTCTGCTGCTGGACGGTAAGTCCTGGCCCCGTGGCAGT
GAATCTGTGGGGCGCTCTGATTGTGGGCACTATGGAAGCTAAACCCCATGCTCCAGGTGGGGTGGAGGGTCTTCA
GAGGACTCCTGGACAGTGCCAGGCTCTAGGCTGGGGTGGGGGACACAGGAGAAACCAGGCCAGGCCCATCCCTGC
TGGAGCTTCTCCCTAAGCAGTGGAGGCTCAGCCACTGTGAGGAGGTAGGCCAGGCCCTGCAGAAAGAGGGGTGTG
GAAATCTGGGGGCTCCCAGGAAGGGCCGCTGCTGGAGATGGGGTTCTTACCAGGATGGGCTCTGAAGATAAGCAG
GGAGGATTTGGGAGGGCAGAGATGAGGCCCAGAGCTTCTGGCAGAGGGCATGGCCTGCGCAAAGGTCTGGGGGCC
GGACAGCCTGCACGTATTCTGGGAAGCGGGAAGGAGACACAGGCCTTGTGTTTCTGAGGCCTGACTTTAGACTGT
GCCCTGTTGGGGAGGGGCCAGGGCATGTCTGAGGCTGGGCCTGACCCTGCTCCTTACCCCGTGGGTGCAGCAGAG
CCATGAAGAAGAAGTTAGTGGTGCTGGGCCTGCTGGCCGTGGTCCTGGTGCTGGTCATTGTCGGCCTCTGTCTCT
GGCTGCCCTCGGCCTCCAAGGAACCTGACAACCATGTGTACACCAGGGCTGCCGTGGCCGCGGATGCCAAGCAGT
GCTTGGAGATTGGGAGGAGGGCTGTCGGTGGCGGTGCCTGGGGAGATCCGAGGCTATGAGCTGGCACACCAGCGG
CATGGGCGGCTGCCCTGGGCTCGCCTCTTCCAGCCCAGCATCCAGCTGGCCCGCCAGGGCTTCCCCGTGGGCAAG
GGCTTGGCGGCAGTCCTGGAAAACAAGCGGACCGTCATCGAGCAGCAGCCTGTCTTGTGGTATGTCTGTGGGTGC
GGCCCCCTGACACAGGCAGGGCAGGCACAGCCCAAGGACCTTGCAGGCCGTAGCAGCAGTGGAGCGGCCCTCTGC
CTTCAGGACCCTGTGCTGATAATGGGATGAGGAGATACAGACCCTTCCCACCACGTGTGGGGACACATTCTGAGC
GTGGGGTCCCAGTGGCCACTGTGGCTGGCCACGTGTCCTGAGTGGCAAGGGACACTAGGAGGCTCCCGGAAGGGA
CACTAGGAGGACGAGCGCTGAGTGACAGGGCCACCCACCTGTGACAGGCGCTGCCCCTGTTCTGCTCCGTTCTCC
TGTGTGGGCAGGTGTGGGGGGTGGTCTAGCTGAGTCCACCCCACCTGCTGCCTCAC**ATG**AGCCCCCTCTGCCCCA
GTGAGGTGTTCTGCCGGGATAGAAAGGTGCTTCGGGAGGGGGAGAGACTGACCCTGCCGCGGCTGGCTGACACCT
ACGAGATGCTGGCCATCGAGGGTGCCCAGGCCTTCTACAACGGCAGCCTCATGGCCCAGATTGTGAAGGACATCC
AGGCGGCTGGTGAGTGGGTAACCTCAAGGACCTGGGTGAGGAACTCTGCAGTGGAAACCCTGAGCTGTAGCCCAG
AGCCATGGGGTCCTCCTGTCTTGCCTGAGCCTGCAGGAAGTTCCTGGTGGAGGAGGGTCAGTGACTGGCCATGTG
GGTCCACAGCTCCTGCTTATATCAAAACCAAGAGAGGCCACACAGTCCAGGAGAGCAAGTCCCTGTTGGGG**TAA**A
TGCAGGTGTAGGCAAGAGCCAGGGCTAGGGAAGCACTAGAATACAGCCTGAAGATCCAGGAGGACTTCTTGGAGG
AGGTGGCGGCTGGGCTGCAGATAACTTCGTTAGGCAGAGAGAGGAAGGGATTCCTAGCAGAGGAACAGCTGGGCT
AAGGCCCAGTAGAGGGCGCTTTGATTCACCAAGAGGGTTACAAGGGATGAGGGTCGCCTTGAGAGAGGCATGGGG
AAGGGGATTTGTGGGGCAGGGGCCTGGAGCTTGGCTGTGGCTTTCTTCAGGTAATTTTTGTCACTGTTTCATGGA
GGAGGGTGATTAGCGTGTCGACCTTTACCACTGAGGCTGGAAATTGGCATGCCAATACCCTGTCTGGAGCTGACT
CCAGGAGAATTAAGAGCCTCCCTCCCTCCCTCTATCCATTCATCGTGAGGAGAAGAGGCCAAGCAGCAGGGACAC
CGGCAGGAATTCTCCAGTTAGAAAAGGCCCTCTGAGCCAGGTGCGGTGGCTCACGTCTGTAATCCCAGCACTTTG
GGAGGCCGAGGCGGGTGGATCACCTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCTGTCTC
TACTAAAAATGCAAAATTAGTCAGGCATGGTGGGTTGTGCCTGTAATCCCAGCTACTTGGGAGGCTGTGGCAGGA
GAATCGCTAGAACCTGTGGGGCTGAGGTTGCAGTGAGCCGAGATTGCACCACTGCACTCCACAGAGTGAGACTCC
ATCTC

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FIGURE 2840

CGGGAAGATGGCGGGCCGGGCGACTTGAGATCCGCGGGTCTCCCTGCTCCTTTTCCGTCTGCGTCGGGAGCTCCC
GGGCACGTGAGGCCGTGCCGCGTTTACTGGCGGGAGGGACGGCCTAGCCGGGCGACGCCTCGGAGGAGGCCGCGG
ACCCCTTAGGTGCTGGGCCCTTGGAAATCGGCGCGTGGGGGGCGGTGCTCGAGCTGAGCGCGAGAGGGCGGGAGA
GCTCGTGGGGTGCGAGAGGAGCAGGACGCCCGGCCGGGCAGCATGAGTCAGCAGCGGCCGGCGAGGAGATTACCC
AGTCTCCTCCTGCACCCGACGGAGGAGACCCCATCAACGTGGAGGGCCTGCTGCCATCAAAAATAAGGATTAATT
TAGAAGATAATGTACAATATGTGTCCATGAGAAATCTGCTCCCGGGGGTATTCTTGACTTAAACAAGGTTGCAAC
GAAACTGGGAGTCCGAAAGCGGAGAGTGTATGACATCACCGATGTCTTAGATGGAATCGACCTCGTTGAAAAGAA
ATCCAAGAACCATATTAGATGGATAGGATCTGATCTTAGCAATTTTGGAGCAGTTCCCCAACAAAAGAAGCTACA
GGAGGAACTTTCTGACTTATCAGCAATGGAAGATGCTTTGGATGAGTTAATTAAGGATTGTGCTCAGCAGCTGTT
TGAGTTAACAGATGACAAAGAAAATGAAAGACTAGCATATGTGACCTATCAAGACATTCATAGCATTCAGGCCTT
CCATGAACAGATCGTCATTGCAGTTAAAGCTCCAGCAGAAACCAGATTGGATGTTCCAGCTCCCAGAGAAGACTC
TATCACAGTGCACATAAGGAGCACCAACGGACCTATCGATGTCTATTTGTGAGAAGTGGAGCAGGGTCAGACCAG
TAACAAAAGGTCTGAAGGTGTCAGGACCTCTTCATCTGAGAGCACTCATCCAGAAGGCCCTGAGGAAGAAGAAAA
TCCTCAGCAAAGTGAAGAATTGCTTGAAGTAAGCAACTGATGGCATTTGAGAATTTATGTATCACTGAGTTTTTT
GGGAATATCTTCGTGGAGAATTACGCATCAAATTTGATTCTCAGAGCAATAAATTATCCATGAAGTGCTCTCGTT
CTCAGTAGCGGCATCATGGCCAGTAGTGTCTTTGAGGAGTTCACCACTTAGATTACTGAGTAATTGTGGTTTCCA
CATTTGAAAACAACTCCTTTTATAATTATTCACTGCTTTTTGTCAGTGAAATAGACATCTTGCCTCCTGAAGTAG
CTTCATCACAGAGTGTCATGAAGACAGACAGTCAGGCTGAAAAGGACAGTTCTTTGTGGACTCTACCCTTCCCTT
CAAGGAGTATGTCATATGTCACAAAAGAAATTGCCTTACACTGGTTCATGTTTGCAGTTACTGTTGTACATTGCA
TAGATGTACACACGAATTTAAATGTGATGTCTTTGTATATATCTGTATAATGTTGAGATTACTTACGAAATATGT
CTGAGTGACACTTTTCACTCTTGTACAGCCAAAATAATGTATATATGGAAAATGACAGACAAATTCTCTAATCTC
TTTGGTATCTATAACTTATTAGAATCCTCTGGATGAGGGTTAGAAGAGACTTTTTCCAAACTTCTACATGTAGAA
GTATCATAAATGTGCTACACATTTATGTTTGTGGATTTAATTAAAGTATTTTAATATGGTTTTCAGTGCTAAAAT
TGGAGTCAGATACTTCTTGGTTTTAAGCTGTCTACCTAATTGCTGTCTCCCAGCAGATCGGTGGCATGCCCAGTG
GCTTTGGGGGCAAGGATAGAAATGCCATCAGGAAATAGCTGAATTCATTGTGAAAC**ATG**AATTCAGTCATGGTGA
TAATTGGAAACTCCTTTCAGGTTTTTGCAAGTAGATTTTGTAATGTTTGTGTATGCAGCCTTGCTGTTGAGTCAG
TCCAAGGGGTTTTACTTAGGACAAGTTGTACCTTGCCCTCTCTCCAGCTCTGCTCCCACATTTTCACATACCTAG
CTATTTCTACCTCATTGGGTAAGTCATTTACCACTCTGTGCCTCAGTTTACTCTGTAGTTTACCATTAGACTGTG
AGCTCCTTGAGGGACTTTGTCATAATCACTGTTACATCCCAGTGCCTCACACTATGCCTGGCCCT**TAA**GAAGTGC
TCAATAAATGTCTGAACAAAAAAAAAAAAAAAAAA

FIGURE 2841A

GGACACTTGACATCCGTGGTGTCAAGACAACTCTAAGAAGGTTTTCCGTGATCCTGCAAGCCCTGCCTTCCTTCC
TGGGATCCTGCCTTCAATTTGATTGCACAGGTACCACAGCAAGCCAGTGCTGCGTGCTCCGAGTTCCAGGGCATC
CTCCAGCTCAGCCACTGCACTGAGAAC**ATG**GACTCTCTGTGGGGCCCAGGAGCCGGGAGTCACCCCTTTGGGGTC
CACAACACCCGGCTGTCCCCAGACTTGTGTCCAGGGAAGATAGTGTTGAGGGCCCTCAAGGAGAGCGGGGCAGGG
ATGCCTGAGCAGGACAAGGACCCTAGAGTCCAAGAGAATCCTGGTGATCAGAGAAGGGTCCCCGAGGTCACCGGG
GATGCACCGTCTGCATTTCGGCCCCTGCGGGACAATAGAGGCCTCTCTCCCTTTGTGCCCGGGCCCGGGCCTCTG
CAGACAGACCTCCATGCCCAGAGGTCAGAAATCAGATATAACCAGACATCCCAGACCTCCTGGACGAGCTCCTGC
ACCAACCGAAATGCCATCTCCAGCTCCTACAGCTCCACGGGAGGCTTGCCGGGGCTAAAGCGGAGGAGGGGGCCA
GCCTCATCCCACTGCCAGCTGACCCTCAGTTCCTCAAAGACAGTGAGTGAGGACAGGCCTCAGGCTGTCTCTTCA
GGTCACACCCAGTGTGAAAAGGCAGCAGATATAGCACCAGGGCAGACACTCGCCCTCAGGAATGACTCCTCCACA
TCCGAGGCCTCTAGGCCCAGTACACACAAGTTTCCCCTGCTGCCACGCAGGCGAGGGGAGCCTTTGATGCTGCCA
CCTCCCTTAGAGCTGGGGTACCGGGTCACTGTTGAAGACCTGGACCAGGAGAAGGAGGCGGCATTCCAGCGCATC
AACAGTGCACTGCAGGTTGAGGACAAGGCCATCTCGGACTGCAGACCCTCACGGCCTTCCCACACTTTGTCCTCA
CTTGCAACAGGGACTTCTGGTCTGCCTGCCATTTCTAAAGCACCCAGTATGGATGCACAGCAGGAGACACACAAG
TCCCAAGACTGCCTGGGCCTACTGGCCCCCTTAGCATCTGCTGCAGGGGTCCCCTCTACAGCTCCCATGTCTGGG
AAGAAGCACAGACCACCAGGCCCCCTGTTCTCCTCCTCAGATCCCCTTCCTGCCACCTCTTCCCATTCCCAGGAC
TCAGCCCAGGTCACCTCGCTGATTCCTGCCCCCTTCCCAGCTGCAAGCATGGATGTGGGCATGAGAAGAACAAGG
TGTGGCACTTCTGCTCCTGCAGCTGCCGCAGCAGCCCCTCCCCCCTCCACATTGAACCCCACGTTGGGGTCACTA
CTGGAGTGGATGGAGGCCCTTCACATTTCTGGGCCTCAGCCACAGCTGCAGCAGGTGCCCAGAGGTCAGAACCAG
AGATCCCAGACCTCCCGGACCAGCTCGTGCCCCAAACGAAATGCCATCTCGAGCCCCTACCGCTCTACGGGAGGC
CTCCCGGAACGAAAGCGGAGAAGGGGGCCAGCCTCATCCCACTGCCAGCTGACCCTCAGTTCC**TGA**AACACAGAC
CCAGGGTGCGTGCCCATCTCCAGCCCAGGGCAGCTCCCCTGTAAGCTGGGTGAGCTACTGAAGCCAAGGCGGGAG
GCAGCTGACAACACCCACAGCCCATGCGGAGGTGGTGGAAAGGCTGGACTCAGCAGCAACACCAAATCCCGGACC
AGGCAAAAACCACCCAAGACTGAGGGGCTCGTGCCAGAGCGGTGGCCACAGGGCTGAATGGTTGCTGAGACAGAG
ATGGAAGCCAGGACAAGGGAGCCCACCGGGCCCAGATAGAGACTTCAGAACCCACTCCTGAGAACAGCGGAGCCA
GGCGCTTAGAGGAAGACCAAATGCTGCCAGGACACGGATTGCCCAGGGATTACATTCCAGCATCTTATTAGATGG
CCTGATTAGCCAGAGGTTTCCAGGCCGTCTGTCCGCCTCCAGGAGATGGACTGGGACCTTTAGACATCGGTGGAG
AACAGGATGCTCTGTCCCTTGCTGTCCAGGGCAGGGATGGCCTCCAGCCGCAAGAAGTACAGCAGCACCTCGACC
TGCCCTCGCGGAGTGGGGAAGAGGAGAGTGGCTCAGAGGGGGGCTCACAGCTGCTGGTGGGAGGTCTTTGGGGCC
CAAGCTCCCAAGTCCACCTCAGGTGCTAGAAACCCCTGCTGGTGTCATGAACCCCTTACAGTGGGACGGGGGTGG
GGTGGGGTCCTGACAAGGCATGACTTGTTGGGTGGGGGGTGGTTATTTATTTTAGAGATGCACAGGGCCTTGCTC
TGTCCCCCAGGCTGGAGTACAGTGGCTCCATCATGGATCACTGCAGCCTCTAACTCCTGGGCTCAAGCAATCCTC
CTGTGTCAGCCTCCCAGATACCTAGGATTACAGATGTGTGCCCCAATGCCTGCCTAATTTTTCTTTGTATTTTTT
CTGGAGATGGGGTTTGCTACATTGCCCAGACTGGTCTCAAACACCTGGGTTCAGTTGTCCTGCCTCGGCCTCCCA
AAGTGCTGGGATTACAGGCATGAGCCACCACACTCGAACACTTGGGGTGGTTTTAAGCCCCCAGCAAGGTGCACC
AGCAGGACCAGGAGGTGGCCTGGGCACCCCCTATCACTCCCATCCATGCAAACCTAGGCAAGTCCCTGTCTCTGA
ATCTCAGCCACCACCACATACAATGCAAGTGGGAAGATGGGCAGGACTGGGGGTGGGGCAGGCAGAGGCCACCTC
TGTCAGGCTGGGGTTGCATGGGCTGGAGGCTGTCTTCCCATACCTGGGACATGACCTCCAAGGACCAGCTGTCAG
TCATGGTGATGGGCTGGCTGGGGTTGGCAGGGAGCTTGCTCTCCTTCTCGGAGGGCCGGAGCAGCGTGGGGCCAA
ACACCGTGCCAAGGTTGTGCAGGGACATCTTATTGACTGCCTCCTTCTCTGCCATCCTGTAGAGGACCGAAGCAG
AGGGTGCTGTTTCAACGCCACCACCAGGAGAGAGGCAGAGGGGCTGTGCCGTGCTAGAGTCCTCAGGGAGGGAGT
GACCTCGACCCTGGCTGTGCTGCAAGCTGACTCCAGCCTTGGGGGTCAGCAGCACCCGGCAAACAGCAGCAGGAGG
AGCCGCTAGAGCAGCTGCTCATGGGCAGAGCTGCCCTCGGGCAACTCCTGCCACCACCCCCTCCCCAGGGAGCCC
AAGGCAGGGGAGGCTCAGCATGGAATGAAACAGGGGAGTGAGGGACACAAGGAGGTGGGAAGTGGGAGGGTCCCA
GCCCCACCAAGTACGCAGAGAACCCCTCGTTGTCCTGGACACCACAGGGGCACCTGCAGGCTGGGAGACCAGGTC
CTCTGTGCATGGGCCCGGGAGGCAGACCTGCCCTAAGGGTGATGCACAGGCTACAGGTGCTGCACGCTCCAGCGC
CCACTCTAGACATCAGCCTCCAGGTTGACTAAGGGTCAGGTCATGTTTGAAACCATGCTTGGCTGGACCAGGACC
CATGGCAAGAGCACCTGGGCACCAGTGTTTAGCCCTGGTCTGCAGGAAGGAGGACAGCAGACTTTAGGACCCCAC

FIGURE 2841B

AGCACGGCAGTGCTGACCATTTCACCCACTTGGCCTCCTTGAGAAATATGGATGGGGACCCCTCTGGGGATGGGC
AAGGCCTTCCAGGATAGGCTCAGTTTTGGTCCCCTGCTTTTTGAGGTTGGGTTAAAATTCCGACCATGGCAGAGG
AAGCACAGCTCAGGTTCCCACACCTCACTTTTCACAGCCTCTGAGGGCAGCAGTGCACGTGGAGGAGACGTCTCC
CATGAGGCCAAGGCCTCCAGTGCTCACCGATGCCCTCTGCGAAGTTGGGGTAGAACTCGTCAGTGAAGAGGGGCT
CGGGCAGCTCACGGAAATACAGCTTCAGCGTGCCTGCGATGGCGTTCACGTCCATCTCGCTCATCATCACCGACA
CGTCCTTGTTATCTGGAAAGAGCACGGAAATGCAGCGGCCTCCTTGAAGATCCTGATAAATGAAGAAAAGACACA
GAGAAGGATGTGACATGCCTGGGCCGTGGAGCACTCTGAGATCTCATCGCGGACACCACTGCCCACACCTCCATC
CCGTCCTGCGCAGGCCGACACTCACTGACGTTGAAGGCTGCCTTCAGTGCCTGGATGTCTGCGGCCACCCCAGAC
ATGCGGTAGATGCCCACCTCCTCCATGCCTCGGCGCTCGATCTCCTCCACGCACTGGCGCACGATGTAGGGCACC
TTGGACCTCTCTCTCCTGCGGGAGGAGGGAATGTTCTCAGTGTCCTAACAGCCCTGCTTGGGCCATAACACAGGA
GACCTGCTCCCTATGTGCACACCCGGAGGTGGGGTGAGGACGGTGATGAAGGTACCCAGGTCTGGGGCTGCACAC
AGAGCCTTCTGCATGCCTGTCCTCCCTCTGCAAGCTCTGTCCTCATTGCATGTGCTTTCTCAGGAACCTTTCAAG
CGGCCAGAACCCCTGCAAATCACACATGACCTTTGTGGGAAGGTCAGGAGGCCTGTCTAAGTCAAGTCAGCACGG
GAAGGGCATCTGACAGATTCCAGGCCTGGGGTGAGCAGCCTGTGCCCCCGGCTGGGAGGTCAGACCCGGTGTTGG
TCCTGCCACCCACGTGCTGTGTGAGAGGAGAATCCGTGACCCCTGCCCTGGGCCTTAACACACATCCGACGAATG
AATGAAGGGTTGCCTCAGCACCGGTGCTCCAAGTCCTGCGATGCTAAGTGCTTTTCTCCTCTGAGTCTTAGCAAT
GGACAATTCCAATACCTCCACACAGGACACTAGAGTAAGAATCCTTCACAGTTAGAACGCAGTGCTGTGCGGAGG
CCTTAACTTGAGTTCTGTTTTGCACCTGGATTTACCAGCACATCAAAGCTGCTTCGCAAGCCCCCTCATCAGCAG
GGCTCATGTGGGGGAGCTGCTGATGGAGTCCTCGCTGCTCATGCCCACAGCCCTCCCAGAGTGCTATGCGAGTGG
CTGCCGTGCAGTTGGGGGTGGGGCGTGGTGTTTAGACACAGATAGGAGTCCAGGGTATGACTGATGGAGGCCCCG
GCCCACGTGACCAGCAAGGTCAGAGGCCCAGCCAGATTCCATCCTGAGGAAGCAAATGAATTCTCAGAGGAAGTG
GTCTGTGTCTGCATGAACTGCTCTCAAACCAACAAATAGGCTTCTCTTGGCAACTGACTCGTGACAAAGGGTTCA
AGATTGTTTGAAAAAAAAAAAGGGGGGGGGGGACAGGGAGGCAGTAGGTCCTGGAAAAGTAAATTCTTTATTTT
ACAATAAGAAAGTGATTACATATTTTATTTTTTTTTACAATGGTGGAAAATTAGAAGTGATTGTGAAAATGATGT
CTACCCGCCTTGCTGATGAGTAGGATGTGATTTGGCTCTTTAGGAAACTGAATTTGCAGAACTTAAGAATATTGA
TTTATAAAGGGCATGGCCATTGACCCAGTCCATCTTATGCAAATCTGGATGCCATAAATAATATTTAAAAATGAA
AGTATTGGGGTGGAGGTTGCAGTGAGCGGAGATCGCCCCACTACACTCCAGCCTGGTCAACAGAGTGAGACTCTG
TCTCAAAACAAAAAAAAAAAAAAAAAAAAGAAGAAGTCATTCCCAACATTGCTCATCAAATTATGACCATAAATTT
CCAGGATCAGACTAACGGCTAAAGAGACTGATGCATCAACACCAGGCAGAGAATAAAGCAGATTTTTTTTGTTTT
GTTTTGGAGAGCCTCTAGGAACTTGAAAAATACATATGCCACACTCTTAAGACCCGGTGGTTCTTAATCAGGGAT
GTTCATTAAAATGCTGGAAAACTCTAAAGATTTCCAGGTCCCATCCAAGGAGATTTTGCTTCTGATTGACTGGCT
AGTGGCCTGGCCATTGGTATTTTGAAAAATCCCTCCAAGTGATTCTTTTACATCCCAGCTAGAAAACCCTAAATT
AAAGGTGAAAAACCAGACACCAAGTGGCATTTAAATAAATGTCAACTTTAACTCC

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FIGURE 2842

GGGACTGTCATAAAAGGGGCGGGACGCGCCGCGGTCGGGATGACGTGAGCTGGGGGCGCTCGTCGCTGCAGCCGG
CGGCTAGCGGGCGTCCGCGCC**ATG**GAGCGCTACGCCGGCGCCTTGGAGGAGGTGGCGGACGGTGCCCGGCAGCAG
GAGCGACACTACCAGCTGCTGTCGGCGTTACAGAGCCTGGTGAAGGAGTTGCCCAGCTCATTCCAGCAGCGCTTG
TCCTACACCACGCTGAGCGACCTGGCCCTGGCGCTTCTCGACGGCACCGTGTTCGAAATCGTGCAGGGGCTACTG
GAGATCCAGCACCTCACCGAAAAGAGCCTGTACAACCAGCGCCTGCGCCTACAGAACGAGCATCGAGTGCTCAGG
CAGGCGCTGCGGCAGAAGCACCAGGAAGCCCAGCAGGCCTGCCGGCCCCATAACCTGCCTGTGCTTCAGGCGGCT
CAGCAGCGAGAACTAGAGGCGGTGGAGCACCGGATCCGTGAGGAGCAGCGGGCGATGGACCAGAAGATCGTCCTG
GAGCTGGACCGGAAGGTGGCTGACCAGCAGAGCACACTGGAGAAGGCGGGGGTGGCTGGCTTCTACGTGACCACC
AACCCACAGGAGCTGATGCTGCAGATGAACCTGCTGGAACTCATCCGGAAGCTGCAGCAGAGGGGCTGCTGGGCA
GGGAAGGCAGCCCTGGGGCTAGGAGGTCCCTGGCAGTTGCCTGCTGCCCAGTGTGACCAGAAAGGCAGCCCTGTC
CCACCA**TAG**CCACAGGCAGCAGAAGTCTGGGCAGAGTTCATCTTCTTGACCTTTGGCCACTGCCTTCCCAGCTGC
CCGCAGGGGGTTCCCCCTGCTGAGGAGAGACCAGGTGGACCCCAGCTGCCTGTCACCCTTCATCTGGGACTTGCT
GTCAAACCCTAGGATAGTCTCATAAAGGGGAGGCTGGGCCAGCCTGCTGCTGTCTGCTTCAGGGCCAGGCAGAGA
GTGAGGCTGGGGGTTCTCACACCTTACTCCACCGGGCACATCCCAACCTGCACTGGGGCCCACTCGAGCGCTTGT
TCTGGTCTCAGCCGCTCCCTTGGCAGCTGCAGCCCCCATGCAGAAGAGGCTCCCAGGCCCAAGCTCTGTGTGACC
CAGAGAAATAAAGATGCCTCAGTG

FIGURE 2843A

GGGGCGGGGCGGCGCGGCGCGGAGCCGAGCAGGACGGCCGCCATCTTGCGCGCAGCTGGAGTCGGTGCCTGAGGT
TGCAGCCGAGAGTGTGCGCCAGCCCGCGGCCCAGCCGAAGCTCTTTCCCGCCGCCTCTCCGCGCCTCGCCCAGGT
TCAGCTCCGCCTGACCCTCCGCTTGGCACGGTCCCCTGACCCTCAGTCCGGCCTGGTCCGGCCTTCCAGCCGCCC
CGGGGACGATGAACGGAGGATAA**ATG**GTGCCCAAGGCAGACAGCGGCGCCTTCCTGCTGCTCTTCCTGCTCGTGC
TCACTGTCACCGAGCCGCTGCGGCCAGAGCTGCGGTGCAACCCTGGGCAGTTTGCGTGTCGCAGCGGCACCATCC
AGTGCATCCCCCTCCCCTGGCAGTGTGACGGCTGGGCGACTTGCGAGGATGAGAGCGACGAAGCCAACTGTCCAG
AAGTGACCGGGGAGGTGCGTCCTCATCATGGGAAGGAGGCTGTGGATCCGCGGCAGGGGCGGGCCAGAGGAGGCG
ACCCTTCGCACTTCCACGCGGTGAACGTGGCGCAGCCCGTTCGCTTCAGCAGTTTCCTAGGGAAGTGCCCGACAG
GGTGGCACCACTACGAAGGCACGGCCAGCTGCTACCGGGTCTACCTGAGCGGGGAGAACTACTGGGATGCCGCGC
AGACCTGCCAGCGCCTGAATGGCTCTCTCGCCACCTTCTCCACTGACCAGGAGCTGCGCTTTGTCCTGGCCCAGG
AATGGGACCAGCCCGAGCGGAGCTTTGGTTGGAAGGACCAGCGCAAGTTGTGGGTTGGCTATCAGTATGTTATCA
CTGGCCGGAACCGCTCCTTGGAAGGTCGCTGGGAGGTGGCATTCAAAGGCTCTTCAGAGGTGTTCCTGCCCCCAG
ACCCCATCTTTGCCTCGGCCATGTCTGAGAACGACAACGTGTTCTGTGCCCAGCTTCAGTGCTTCCATTTCCCCA
CCCTGCGGCACCACGACCTCCACAGCTGGCACGCCGAGAGCTGCTACGAGAAGTCTTCATTTCTGTGTAAAAGAA
GTCAAACATGTGTTGACATCAAGGACAACGTGGTGGATGAAGGGTTCTACTTCACCCCTAAGGGGGACGACCCAT
GCCTGAGCTGCACCTGCCATGGAGGGGAGCCTGAGATGTGTGTGGCTGCTCTCTGTGAGAGGCCCCAGGGCTGCC
AACAGTACCGCAAGGACCCCAAAGAGTGCTGCAAGTTCATGTGTCTGGACCCAGATGGCAACAGTCTGTTTGACT
CCATGGCCAGCGGGATGCGCCTGGTCGTCAGCTGCATCTCCTCCTTCCTCATCCTGTCACTGCTGCTCTTCATGG
TCCACCGGCTGCGCCAGCGGCGCCGGGAGCGCATCGAGTCCCTGATTGGAGCAAACTTGCACCACTTCAACCTCG
GCCGCAGGATCCCTGGCTTTGATTACGGCCCAGACGGGTTTGGCACGGGCCTCACGCCGCTGCATCTTTCTGACG
ACGGAGAGGGTGGGACTTTCCATTTCCACGACCCTCCACCTCCCTACACGGCATACAAGTACCCGGACATCGGCC
AGCCCGACGACCCTCCGCCGCCCTACGAGGCCTCCATCCACCCGGACAGTGTGTTCTATGACCCTGCAGACGATG
ATGCTTTTGAGCCTGTGGAGGTCAGCCTGCCAGCCCCTGGGGATGGTGGGAGTGAAGGTGCATTACTCCGGCGCC
TGGAGCAGCCTCTGCCCACTGCGGGGGCCTCTCTGGCAGACCTGGAAGACTCTGCCGACAGCAGCAGCGCCCTGC
TCGTGCCCCCTGACCCTGCCCAGAGCGGGAGCACCCCAGCTGCAGAGGCACTGCCAGGGGGTGGCCGCCACAGCC
GCAGCTCCCTCAATACTGTGGTG**TAG**ACGGCCTGGCCTGTACCCCAACGGTCTGGGAGCACCTGTCTGTTGTAGA
AAACACCGGTCCCTGGGGAGACTTGAAAGGCCCCTGTCCCAGCCTGGACGCCACGCACTGCCGCACGTCACTGGC
GGGCTCGCGTGTGTACATAGAGACCACAGCCCGCCTTCTGCCAAAAGAAGTGATGGCCTGCACCGAGCTTCCTTG
AGGGCTTCAGAAACATGCATAGCTTTGGATCACTGTCTTCTCCTTTATAAATGGCAGAAGAGTGACAAAATTCAT
TCAGACCGCACATGTTAGAGGCAGGGAATGAAGAAGGTACTGTGGGCCATGGCCACACCTGATGCGTTTTTGGTG
GGCTTACTTGGTGCAGTGTGCTGTCCAGAGAGACCTGCTGACCCAGTCTGGGACAGGCACAGTGGGAGCTGCCAC
AGTGCCCCTTGCTGGCCGCCCTCAGGAGGGGGCCTCTGGACCGTCAGTGTGGCGTAGGCAGTGGGTCTGCTTCAG
GGAGGCAGCCTCTTGACTTTGTCACAACGGTTGCACTGAAGATGGCCCCCACAAGCCCAGTTGTGAATATCAAGG
TGACCCTGCCCCTGGCTGGGAGCTCCCCTGGGGCTCTGGAACCTGAAGCCCTGAGAAGGAGAGCTTGGAAGGAGG
TTGAGCTCTTCACTGTGTCTTTCCATCTGGGCTCTGCAGCCCAGCTCTGTGGCAGGAGGCCTGACCCCACCCCAT
CAGTCCCTCTCCCAGCATTGCTGTGCATGGCTCCCTCAGGAAGAAGCTCTGGAGTGGGGCCGAGGCCCCAGATGC
TCTGCTGGGGTCTGGGGACTGAGCTGCCTCCTGTCTCTCCACTCTGGAGCCCTGGGCTCTTGCCTCCTGTTGAAT
TGCCCCTGGGCCTGCCCCCGGCCCCATTTGTGCCATAAAGGGTTGCTTCATTGCAGGAGGGGTGGCTGAAACCAC
CATCCTGGGCTGCATCTATCTCCTTAAAGTCCACTCCTTACATCACCGCCACTACTGCAGCTCAGTGCCCAGCGG
CCGCATGCACACCTCCCGGCCCCTCCTCAGCAGCGCAGGGGCTGGGGGCCCTTCCTGGCACCCTTTTGCCTGACG
GACCCTGTTGCCTGCTCCTGGGCAGTGGTTTTGTTGCCTGACACAGGGCCTTTAACATTTCTGAGGTTTGGAGAT
TAAGCGGGTTCTGTGCGATTTTTAGCACATCCATATCTTTTCTACGTTGAATGTCTGGATCTTTCCTTTGTATGT
TTGTGTCTCTGTGTGTGTATGTGGCCAAGCGTCTGCAGGTGAGGGTGGCACATGGAACTTCACGGGTCACTGGGG
GCCCACTCTTCCAGGGTCATCGATGCATCCTGGGCTGTGCTGAGGCAGTGCTGTCTCGCTCAGTCTTTCCAGACC
AGCGGGGCAGCACCTGGGAGGCCTGTCTGAAGCATGCAGTTCTGTGGTGCTGCTCGGGGATGGACTCCATGCACA
GTCCACTTCTTGACACATTCTCACACTGTGGCTGGAGACCCATTTTTTCCATCCCATGTGGAATGAGAATCTTGA
GTTGCCCACAGACAGACTTGACCTTTGTGCCAGAACTGTCCAGAGCTGTGAGTTTTGTTACTGAATTGCCTGTCC
CTGAGCTTGGCCTGCTGGAGCATGATGCTGGAGGCTGTGTGCGGGCAGGCTTGTGCTCCCCTTGGAGAAGGGCTG

FIGURE 2843B

CTACTTAACAAGGAAGTCCTGGCCACAGGAGTCCCCTACTGGCTGCAGAGGACGAAGCAGGAAGCATGCCGTGGA
TCCCACATGCACTGGGGCAGGGCAGCCAGGTTCCAGAGCAGCAGGCATGTGCATTATGGGTGCCAGGTGGCCAGT
GAGGGCCCGAGGACCACGCAGCAGAGTCCCCCACGGGCCTGAGCCTGAGAGCTCAGAGGATTCCTGCCAGGCCTC
AGAACTGTGTGTGCGGGACAGGGTGGCTGGCACGAGATGTGTGGGACTGGGACGCTTCCTTTGGGGACCAGAGGA
ACATTAGGGGCCGGTCAGACACGTAGGGGGCAGTGAGGAAACGGGGTAAAGTGGACCATGCAGGCTGCAGAGGGT
GGGCCTTGGGCTGGCCGGGGTTGCTGGGTGGCCCCTTCCCCATGGGCCTCCACAAGCACTCAGGCCACTGGCACG
TTGGGCCAGGCAGAAGGTCCACATGGCAGGGCTGCCTGGAACACCGCTGCCACTGTGGCTCCAGGAGGCCCTTGG
GAGCATGAGGAGAGCTGGACTCGCTCATCTGTTCTTGCACCACCATCCAGAATGCCCCCTTTGCAAGGCCTGCTG
CAGTCCCCAGTCTGACCAGCAAGTCCCGGGGTCACCCTTGCTGAACCTTGTGCTCCAGGGGTCCTCCTCCTCTAG
GACCAGCTTGCCACGGTTTCTCAGAGCCCAGGTGCCCTCTGACCTGCCATGCGGAGGTGGGATTTGATACTGTAC
ATTGTCTTGATGCCTGTTTTTTTATGTTTTCATTAAGGGTTTTTAGTTTTTGGTTGGGTTGACACTAACTTTTCT
TAAGATGCTGTGAGAATCATTTCATCCAAATGCCAAATAAACTTGTGTTCCGG

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FIGURE 2844

GGGATAGCG**ATG**GAGACGCCGGGCGCATCAGCGTCGTCCTTGTTGCTTCCCGCCGCGTCCAGGCCCCCGAGGAAG
CGCGAGGCGGGAGAGGCTGGGGCTGCGACGAGCAAGCAGCGGGTCCTGGACGAGGAAGAGTATATCGAGGGCCTC
CAGACGGTCATCCAAAGGGATTTCTTTCCTGATGTGGAGAAGCTCCAGGCACAGAAGGAGTACCTGGAAGCCGAG
GAGAATGGAGACTTGGAACGGATGCGCCAGATTGCCATCAAGTTTGGCTCTGCCTTGGGCAAGATGTCCCGGGAG
CCCCCGCCACCCTATGTGACTCCAGCCACATTTGAAACCCCTGAGGTGCATGCAGGCACTGGAGTGGTGGGCAAC
AAGCCCAGGCCCCGCGGCCGAGGCCTGGAGGATGGAGAGGCTGGAGAGGAGGAGGAGAAGGAGCCGCTGCCCAGC
CTAGATGTCTTCCTGAGCCGCTACACGAGTGAGGACAATGCCTCCTTCCAGGAGATCATGGAGGTGGCCAAGGAG
AGAAGCCGGGCACGCCACGCTTGGCTCTACCAGGCTGAGGAAGAGTTTGAGAAGAGGCAGAAAGATAATCTCGAA
CTCCCGTCAGCAGAGCACCAGGCCATCGAGAGCAGCCAGGCCAGTGTGGAGACCTGGAAGTACAAGGCCAAGAAT
TCCCTCATGTACTATCCAGAGGGTGTCCCTGACGAGGAGCAGCTGTTTAAGAAGCCCCGGCAGGTGGTACATAAG
AACACGCGCTTCCTTAGGGACCCCTTCAGCCAAGCCCTGAGCAGGTGCCAGCTCCAGCAGGCAGCCGCCCTCAAT
GCCCAGCACAAACAGGGCAAGGTGGGCCCCGATGGCAAGGAGCTGATCCCCCAGGAGTCCCCTCGAGTGGGTGGA
TTTGGATTTGTTGCCACTCCTTCCCCTGCCCCTGGTGTGAACGAGTCCCCGATGATGACCTGGGGGGGAGGTTGAG
AACACACCCTTGAGAGTTGAAGGGTCGGAAACGCCCTACGTGGACAGGACACCCGGCCCAGCTTTTAAGATCCTG
GAGCCAGGCCGCAGGGAGCGGCTGGGTCTGAAGATGGCCAACGAGGCCGCTGCCAAGAACCGGGCCAAGAAGCAG
GAAGCCTTGCGGAGAGTGACGGAGAATCTGGCCAGCCTCACCCCCAAAGGCCTGAGCCCAGCCATGTCGCCAGCC
CTACAGCGCCTTGTGAGCAGGACGGCCAGCAAGTACACAGACCGGGCCCTGCGGGCCAGCTACACACCATCCCCA
GCACGCTCCACCCACCTCAAGACCCCGGCCAGTGGGCTGCAGACCCCCACAAGCACACCGGCGCCTGGCTCTGCC
ACACGCACCCCTCTCACACAGGACCCGGCCTCCATCACGGACAACCTGCTGCAGCTCCCTGCCCGGCGCAAAGCT
TCGGACTTCTTT**TAG**AGCCAGGCCTGGGCTGGGCTCATAGACGCTTCACAGAGCCTGCAGGGCAGCTGTACACCC
AGCAGAGGACTCCAGCCTTCTCGGGGCCCAGGCCTGGGCCAGAAGCTGTTGACCATACCAGGAGTCACTGGAGAA
AGGGGCTGTGCTGGGGCCAGACTGGCACAAGGCACTCGTGCCCACACCACACCCCAGGGCCTTGCCAAGCTGTTT
GCTGTTTAATTGGCCCCTTGAACTGTCATTAAAGAACACCTAGGTAC

FIGURE 2845

GGGGCCTGGCTCGGACCACGCGGGGCGGGACCTGGAGCTGACGCGGCCGCCCCGCCCCTGGGACCATAACCGGCC
GCCGCCGCCACCGCGGACCGAGCGCGGAGTTCTGGAGTCTCGGACCCGAAGCCGCCACAGGGCGCCCCGCCTCCC
GCCCGCC**ATG**CCCGCGCCCCGCGCCCCGCGCGCTCTGGCGGCCGCCGCGCCCGCGTCCGGGAAGGCCAAGCTGAC
GCACCCGGGGAAGGCGATCCTGGCAGGCGGCCTGGCGGGTGGCATCGAGATCTGCATCACCTTCCCCACCGAGTA
CGTGAAGACGCAGCTGCAGCTGGACGAGCGCTCGCACCCGCCGCGGTACCGGGGCATCGGGGACTGCGTGCGGCA
GACGGTTCGCAGCCATGGCGTCCTGGGCCTGTACCGCGGCCTTAGCTCCCTGCTCTACGGTTCCATCCCCAAGGC
GGCCGTCAGGTTTGGAATGTTCGAGTTCCTCAGCAACCACATGCGGGATGCCCAGGGACGGCTGGACAGCACGCG
TGGGCTGCTGTGCGGCCTGGGCGCTGGCGTGGCCGAGGCCGTGGTGGTCGTGTGCCCCATGGAGACCATCAAGGT
GAAGTTCATCCACGACCAGACCTCCCCAAACCCCAAGTACAGAGGATTCTTCCACGGGGTTAGGGAGATTGTGCG
GGAACAAGGGCTGAAGGGGACGTACCAGGGCCTCACAGCCACTGTCCTGAAGCAGGGCTCGAACCAGGCCATCCG
CTTCTTCGTCATGACCTCCCTGCGCAACTGGTACCGAGGGGACAACCCCAACAAGCCCATGAACCCTCTGATCAC
TGGGGTCTTCGGAGCTATTGCAGGCGCAGCCAGTGTCTTTGGAAACACTCCTCTGGATGTGATTAAGACCCGGAT
GCAGGGCCTGGAGGCGCACAAATACCGGAACACGTGGGACTGCGGCTTGCAGATCCTGAAGAAGGAGGGGCTCAA
GGCG**TGA**GTGGGGGAGGGGCAGGGCTATTGTCCCCACCTCAAACCTTTCCCGGCCTACCTGGCCTGCCCACTCTG
TCCCCTTCAGGCCTCTGTGCCTCTCACTTCAGTATCTGGGGATTGCCCTGTGCAGGGACACTGTGCTGACCTGCC
TTCCTCTCCCCGCCCCTCCTCCCACCCAGATTCTACAAGGGCACTGTCCCCCGCCTGGGCCGGGTCTGCCTGGAT
GTGGCCATAGTGTTTGTCATCTATGATGAAGTGGTGAAGCTGCTCAACAAAGTGTGGAAGACGGACTAAGCCTAG
AGAGGCCGCAAGGGGACCGCCCCAGGCACCGCCAGAGTGTCCTGCTACCTTTGTCTCACGATTCCAGTGCAGTAG
TGCCAAAAGGCCCCTTCCCACGTCCCTCGAGCTCTGTAGCCTGGTCTGTGCATTGTGGCTGTCAAATCCATGTGT
CCCCCCTGTGGTCTGTGTGTGACACCACCACTGTGTCCCAGTGTCTGGCCCAGCCATGGCTGGATGTGCATCTGG
CCTATGACCCTGTGCCTGTGTTTCATGTTCTGTGTCACGTGACCCTGTGCCCCGCCTCCCGGGGTGCCCGTGTGG
CCTGGGTCCTCGGCCCTGTAGCCCTGGCCCGGTCCCAGTCCGGTGCCTTCCACCCTGCCCTGGCCTACCACAGCT
GCCTCCGGGCCTCGGCCTGGCTTCACCGCATTCCAGGGGCTGCAGCCCCCTGCTTCTCCCGCCATTGGCCTTAAC
TGGCCCTCGGGCCCTCTCTCCGCCCCGGACAGGGTGGCACCCACCACTCTCAGGACCACCCTGCCAAGGCAGAAT
AAACCGGATCCTGTTGC

FIGURE 2846A

ATTCCTGCCGCTGCCGCCGCCGCCGCCGAGGTCCCGCACCAGCC**ATG**GCGCAGATCCTCCCTGTTCGCTTTCAGG
AGCACTTCCAGCTCCAAAACCTTGGAATTAATCCAGCTAACATTGGATTCAGCACACTGACCATGGAATCTGACA
AGTTCATATGTATCCGAGAGAAAGTTGGTGAGCAGGCACAGGTCACGATCATTGACATGAGTGACCCAATGGCTC
CGATCCGACGGCCTATCTCTGCAGAGAGTGCCATCATGAATCCAGCCTCTAAGGTGATAGCTCTGAAAGCTGGGA
AGACACTTCAGATCTTTAATATTGAGATGAAGAGTAAAATGAAGGCTCATACTATGGCAGAAGAAGTGATTTTCT
GGAAATGGGTTTCTGTGAACACTGTTGCCTTGGTGACCGAGACCGCGGTCTACCACTGGAGCATGGAAGGTGACT
CCCAGCCCATGAAGATGTTTGATAGACATACCAGTCTGGTGGGCTGCCAGGTGATTCACTACCGGACTGATGAGT
ACCAGAAGTGGCTGCTGCTCGTAGGCATCTCGGCTCAGCAAAACCGTGTGGTTGGAGCAATGCAGCTCTACTCTG
TGGATAGGAAGGTTTCACAACCCATAGAAGGCCATGCTGCGGCTTTTGCAGAGTTCAAGATGGAGGGGAATGCCA
AGCCTGCCACCCTTTTCTGCTTTGCTGTACGTAATCCCACAGGAGGCAAGTTGCACATCATTGAAGTTGGACAGC
CTGCAGCGGGAAACCAACCTTTTGTAAAGAAAGCAGTAGATGTGTTTTTTCCTCCAGAGGCACAGAATGATTTTC
CAGTGGCTATGCAGATTGGAGCTAAACATGGTGTTATTTACTTGATCACAAAGTATGGCTATCTTCATCTGTACG
ACCTAGAGTCTGGCGTGTGCATCTGCATGAACCGTATTAGTGCTGACACAATATTTGTCACTGCTCCACACAAAC
CAACCTCTGGAATTATTGGTGTCAACAAAAAGGGACAGGTACTGTCAGTTTGTGTTGAGGAAGATAACATTGTGA
ATTATGCAACCAACGTGCTTCAGAATCCAGACCTTGGTCTGCGTTTGGCCGTTCGTAGTAACCTGGCTGGGGCAG
AGAAGTTGTTTGTGAGAAAATTCAATACCCTCTTTGCACAGGGCAGCTATGCTGAAGCCGCCAAAGTTGCAGCGT
CTGCACCAAAGGGAATCCTGCGTACCAGAGAGACGGTCCAGAAATTCCAGAGTATACCCGCTCAGTCTGGCCAGG
CTTCTCCATTGCTGCAGTACTTCGGAATCCTGCTCGACCAGGGTCAGCTCAATAAACTTGAATCCTTAGAACTTT
GCCATCTGGTTCTTCAGCAGGGGCGTAAGCAACTCCTAGAGAAGTGGCTGAAAGAAGATAAGCTGGAGTGCTCAG
AGGAGCTCGGAGACTTGGTCAAAACCACTGACCCCATGCTCGCTCTGAGTGTGTACCTTCGGGCAAATGTGCCAA
GCAAAGTGATCCAGTGTTTTGCAGAAACAGGCCAATTCCAGAAAATTGTGCTCTATGCCAAAAAGGTTGGGTACA
CCCCAGACTGGATCTTTCTGCTGAGGGGTGTAATGAAGATCAGTCCGGAACAGGGCCTGCAGTTTTCTCGAATGC
TAGTGCAGGACGAGGAGCCGCTGGCCAACATTAGCCAGATTGTGGACATTTTCATGGAAAACAGTTTAATTCAGC
AGTGTACTTCCTTCTTATTGGATGCCTTGAAGAATAATCGCCCAGCTGAGGGACTCCTGCAGACATGGCTGTTGG
AGATGAACCTTGTTCATGCACCCCAGGTTGCAGATGCCATCCTTGGAAATAAAATGTTTACTCATTACGACCGGG
CCCACATTGCCCAGCTCTGTGAGAAGGCAGGCCTCCTGCAGCAAGCACTGGAGCACTACACCGACCTCTATGACA
TCAAGAGGGCTGTGGTCCACACTCACCTCCTCAATCCCGAGTGGCTTGTCAATTTCTTTGGCTCCTTATCGGTGG
AGGATTCTGTGGAGTGTCTGCATGCCATGCTGTCTGCTAACATCAGACAGAACCTTCAGCTGTGTGTGCAGGTGG
CCTCTAAGTACCACGAGCAGCTGGGCACGCAGGCCCTGGTGGAGCTCTTTGAATCCTTCAAGAGTTACAAAGGCC
TCTTCTACTTCCTGGGCTCAATCGTGAACTTCAGCCAAGACCCAGATGTGCATCTGAAATACATTCAGGCTGCCT
GTAAGACAGGGCAGATCAAGGAGGTGGAGAGGATATGCCGAGAGAGCAGCTGCTACAACCCAGAGCGTGTGAAGA
ACTTCCTGAAGGAGGCCAAGCTCACAGACCAGCTTCCCCTCATCATCGTGTGTGATCGTTTTGGCTTTGTCCATG
ACCTTGTCCTATATTTATACCGCAACAACCTGCAGAGGTACATTGAGATCTACGTGCAGAAGGTCAACCCTAGCC
GGACCCCAGCTGTGATTGGAGGGCTGCTTGATGTGGATTGTTCTGAGGAAGTGATTAAACACTTAATCATGGCAG
TGAGAGGACAGTTCTCTACTGATGAGTTGGTGGCTGAAGTAGAAAAAAGAAATAGGCTCAAGCTGCTGCTTCCCT
GGCTGGAGTCCCAGATTCAGGAAGGCTGTGAGGAGCCTGCCACTCACAATGCACTGGCTAAAATCTACATCGACA
GCAACAACAGCCCCGAGTGCTTCCTGAGAGAGAATGCCTACTATGACAGCAGCGTGGTGGGCCGCTACTGTGAGA
AGCGAGACCCCCATCTGGCCTGTGTTGCCTATGAGCGGGGGCAGTGTGACCTTGAGCTCATCAAGGTGTGCAATG
AGAATTCTCTGTTCAAAAGCGAGGCCCGCTACCTGGTATGCAGAAAGGATCCGGAGCTCTGGGCTCACGTCCTTG
AGGAGACCAACCCATCCAGGAGACAGCTAATTGACCAGGTGGTACAGACAGCATTGTCAGAAACACGGGATCCTG
AAGAGATTTCGGTCACTGTCAAAGCCTTTATGACAGCCGACCTGCCTAATGAACTGATTGAACTGCTGGAGAAGA
TAGTTCTGGATAACTCTGTCTTCAGCGAGCACAGGAATCTACAGAATCTGTTGATCCTGACTGCCATCAAGGCAG
ACCGCACACGGGTCATGGAGTACATCAGCCGCCTGGACAACTATGACGCACTGGACATCGCGAGCATCGCTGTCA
GCAGCGCACTGTATGAGGAGGCCTTCACCGTTTTCCACAAGTTTGATATGAATGCCTCAGCAATCCAGGTCCTGA
TCGAGCACATTGGAAACCTGGACCGGGCATATGAGTTTGCGGAGAGATGCAATGAGCCTGCTGTGTGGAGTCAGC
TGGCCCAAGCCCAGCTCCAGAAAGATTTGGTGAAGGAAGCCATCAACTCCTATATCAGAGGGGACGACCCTTCCT
CTTACCTGGAAGTTGTTCAGTCAGCCAGCAGGAGCAACAACTGGGAGGATCTAGTTAAATTTCTGCAGATGGCCA
GGAAAAAGGGCCGTGAGTCCTATATAGAGACTGAACTTATTTTTGCCTTGGCTAAAACCAGCCGTGTTTCTGAGC

FIGURE 2846B

TAGAAGATTTTATTAATGGACCCAACAATGCCCACATCCAGCAGTTGGAGACCGCTGTTACGAGGAGGGAATGTA
CGAGGCTGCCAAGCTGCTCTATAGCAATGTTTCTAACTTTGCCCGCCTGGCTTCCACCTTGGTTCACCTCGGTGA
GTATCAGGCAGCAGTGGACAACAGCCGCAAGGCCAGCAGCACCCGGACGTGGAAGGAGGTGTGCTTTGCCTGCAT
GGATGGACAAGAGTTCCGCTTCGCACAGCTGTGTGGTCTTCACATCGTCATTCATGCAGATGAGCTGGAGGAGC**T**
GATGTGCTATTACCAGGATCGTGGCTACTTTGAGGAGCTGATCTTGCTGTTGGAAGCGGCCCTGGGCCTGGAGCG
GGCCCACATGGGCATGTTCACTGAGCTGGCCATCCTCTACTCCAAATTCAAGCCACAGAAGATGCTGGAGCATCT
GGAGCTTTTCTGGTCCCGTGTCAACATCCCAAAGGTGCTGAGGGCTGCAGAGCAGGCACACCTGTGGGCTGAGCT
GGTGTTCCTCTATGACAAGTACGAGGAGTATGACAATGCTGTGCTCACCATGATGAGCCACCCCACTGAGGCCTG
GAAGGAGGGTCAGTTCAAGGACATCATTACCAAGGTTGCCAACGTCGAGCTCTGTTACAGAGCCCTGCAGTTCTA
TTTGGATTACAAACCACTGCTCATCAATGACCTGCTGCTGGTGCTTTCACCCCGGCTGGACCACACCTGGACAGT
CAGTTTCTTTTCAAAGGCAGGTCAGCTGCCCCTGGTGAAGCCTTACCTGCGGTCAGTCCAGAGCCACAACAACAA
GAGTGTGAATGAGGCACTCAACCACCTGCTGACAGAGGAGGAGGACTATCAGGATGCCATGCAGCATGCTGCAGA
GTCGCGGGATGCTGAGCTGGCCCAGAAGTTGCTGCAGTGGTTCCTGGAGGAAGGCAAGAGGGAGTGCTTCGCAGC
TTGTCTCTTCACCTGCTATGACCTGCTTCGCCCAGACATGGTGCTTGAGCTGGCCTGGAGGCACAACCTCGTGGA
CTTGGCCATGCCCTACTTCATCCAGGTGATGAGGGAGTACCTGAGCAAGGTGGACAAACTGGATGCCTTGGAGAG
TCTGCGCAAGCAAGAGGAGCATGTGACAGAGCCTGCCCCTCTCGTGTTTGATTTTGATGGGCATGAATGAGACCC
AGCTGATTGCACTAATCTGCAGGCCCTGCCGTGGGCCCAGCCCCTGCCAGCTTCCCCTATGGATATGCCTCTGCT
CCCAACTTCGCCAGCCTCCAATGTACAACTTCCGCGTGTAGTGGGCGTTGTCACCACCCACCCTACCTGCAGAGT
TACTAACTTCTCCAAGGAGCATGTCACTCCAGCAGCACAGGGGACGCAATGGGAGGCAGGGACACCTGGACAATA
TTTATTTTTGCTGAAACCCAATGACGGCAACCTCTGAGCCATCCCAGAGCCTGGGGAGGCCAGGGTAGAGGCTGA
CGGCGCAAGACCAGCTTTAGCCGACAACAGAGACTGGACTGTGGGCCCTCCTGCTGGAGCCAGGCCTTCCTCCTG
GGCGCCTCCGACTGGCTGGAGCTGCCCCCTCCAGGCCAGTTTGAAGACTACATGAACACGTCTTGTTTGGAGGTA
CCGGACCTCATAAAAGGACTCTCAGCCTCTTGGCAATCATAAATATTAAAGTCGGTTTATCCAGGC

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FIGURE 2847

TAGCC**ATG**ACGGCCTCCGTGCTGCGAAGTATCTCGCTAGCCCTGCGCCCGACTAGCGGGCTTCTGGGAACTTGGC
AGACGCAGCTTAGAGAGACTCACCAGCGAGCGTCATTGTTGTCTTTCTGGGAACTCATTCCCATGAGATCAGAAC
CTCTTCGAAAAAAGAAGAAGGTAGATCCTAAAAAAGACCAAGAAGCAAAGGAGCGCTTGAAAAGGAAGATCCGAA
AACTGGAAAAGGCTACTCAAGAGCTAATTCCTATTGAAGATTTTATTACCCCTCTAAAGTTCTTGGATAAAGCAA
GAGAGCGGCCTCAGGTGGAGCTCACCTTTGAGGAGACTGAGAGGAGAGCTCTGCTTCTGAAGAAGTGGTCCTTGT
ACAAGCAGCAAGAGCGTAAGATGGAGAGGGACACCATCAGGGCTATGCTAGAAGCCCAGCAGGAAGCTCTGGAGG
AACTGCAACTGGAATCCCCGAAGCTCCATGCTGAGGCCATCAAGCGGGATCCTAACCTGTTCCCCTTTGAGAAGG
AAGGGCCACATTACACACCACCGATCCCTAACTACCAACCCCCTGAAGGCAGGTACAATGACATCACCAAGGTGT
ACACACAAGTGGAGTTTAAGAGA**TAG**ACTTGCAGGCTGCTATCCTTAACATGCTGCCCCTGAGAGTAGGAATGAC
CAGGGTTCAAGTCTGCTTTCCACAGAATCAGGCATGCTGTTAATAAATACTGGTTTAATCAAAAAAAAAAAAACT

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FIGURE 2848

CTGGGGCGTACCGGCTTGGCGCGGCGGCAGCGGCAGCGGCGGCTGGGAGAGCGGTCGGCGGGGTTTCTTCGTTGC
ATTGCCTGAGAGGAGCGGAGTCTGCCAGGTGGTGTCCATC**ATG**TTCTCTTTCAACATGTTCGACCACCCTATTCC
CAGGGTCTTCCAAAACCGCTTCTCCACACAGTACCGCTGCTTCTCTGTGTCCATGCTAGCAGGGCCTAATGACAG
GTCAGATGTGGAGAAAGGAGGGAAGATAATTATGCCACCCTCGGCCCTGGACCAACTCAGCCGACTTAACATTAC
CTATCCCATGCTGTTCAAACTGACCAATAAGAATTCGGACCGCATGACGCATTGTGGCGTGCTGGAGTTTGTGGC
TGATGAGGGCATCTGCTACCTCCCACACTGGATGATGCAGAACTTACTCTTGGAAGAAGGCGGCCTGGTCCAGGT
GGAGAGCGTCAACCTTCAAGTGGCCACCTACTCCAAATTCCAACCTCAGAGCCCTGACTTCCTGGACATCACCAA
CCCCAAAGCCGTATTAGAAAACGCACTTAGGAACTTTGCCTGTCTGACCACCGGGGATGTGATTGCCATCAACTA
TAATGAAAAGATCTACGAACTGCGTGTGATGGAGACCAAACCCGACAAGGCAGTGTCCATCATTGAGTGTGACAT
GAACGTGGACTTTGATGCTCCCCTGGGCTACAAAGAACCCGAAAGACAAGTCCAGCATGAGGAGTCGACAGAAGG
TGAAGCCGACCACAGTGGCTATGCTGGAGAGCTGGGCTTCCGCGCTTTCTCTGGATCTGGCAATAGACTGGATGG
AAAGAAGAAAGGGGTAGAGCCCAGCCCCTCCCCAATCAAGCCTGGAGATATTAAAAGAGGAATTCCCAATTATGA
ATTTAAACTTGGTAAGATAACTTTCATCAGAAATTCACGTCCCCTTGTCAAAAAGGTTGAAGAGGATGAAGCTGG
AGGCAGATTCGTCGCTTTCTCTGGAGAAGGACAGTCATTGCGTAAAAAGGGAAGAAAGCCC**TAA**GTGAGGACTGT
TGGCTGATTGGAAAATAATAAAAGAATCATTTGCAACATCTTGGCTTTTAGTTACTGGCACTGACAGGGACGAGC
CTCATCAGAGAATACTCTGTTACTTAAGATTTATTTAGAGTTACCTAAGAATTATTAAGTTTGACTTGGAAGTGG
AGCAGCAGGACTTTGTAGTTGTATGCTTGATTTGGGGAAAGACAAAGAGCTGTCCCTGAGGGCCTGTAGATAGCT
GCCTCCTCACCTCTTCACGCTTTCAGCTTGAGGGGAGCTCCCACTGCCTCAGCAGGAGCAATTCTGCATCCCTAA
TTCTGTCAAAACCTATGAAGGTGACTAAATTGTCTAACATGAAGTGTTCTTTCTTTTTCTTCATTTATCCTTTCT
TTTCCTACATCAATTGCATAGGTGTCAGTCTTTGGCCTAAAAAAAGGCTTTAAATAGACATGTGTTCTATAAGTA
GTGGCTGTCCCACTACTGTGGCTGCAATTTAAGTATTTGACAAAGAATGTTTCTATTTTTATTTTACATATTTTT
TTCAAAAACACCACTCAGAAGAACCTGATCTGAATGAGTTTGCACTTTTATTCTCATTTCATATGGACATAACTG
GCTCCTTAGTGAACCTGTTCATAGTGAAACAACTCCATGGAGAAGCAAACATGTGAATGTTAGAATGAACAAATG
CTAAAGAGATGTTCCTCTCCTTCTTCCCTACTCCCCAACTCCCAATTTTAATTTATTAAATCATCCAAGCTTCT

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FIGURE 2849

GCCGCCGGGCTCTTGGTACCTCAGCGCGAGCGCCAGGCGTCCGGCCGCCGTGGCT**ATG**TTCGTGTCCGATTTCCG
CAAAGAGTTCTACGAGGTGGTCCAGAGCCAGAGGGTCCTTCTCTTCGTGGCCTCGGACGTGGATGCTCTGTGTGC
GTGCAAGATCCTTCAGGCCTTGTTCCAGTGTGACCACGTGCAATATACGCTGGTTCCAGTTTCTGGGTGGCAAGA
ACTTGAAACTGCATTTCTTGAGCATAAAGAACAGTTTCATTATTTTATTCTCATAAACTGTGGAGCTAATGTAGA
CCTATTGGATATTCTTCAACCTGATGAAGACACTATATTCTTTGTGTGTGACACCCATAGGCCAGTCAATGTCGT
CAATGTATACAACGATACCCAGATCAAATTACTCATTAAACAAGATGATGACCTTGAAGTTCCCGCCTATGAAGA
CATCTTCAGGGATGAAGAGGAGGATGAAGAGCATTCAGGAAATGACAGTGATGGGTCAGAGCCTTCTGAGAAGCG
CACACGGTTAGAAGAGGAGATAGTGGAGCAAACCATGCGGAGGAGGCAGCGGCGAGAGTGGGAGGCCCGGAGAAG
AGACATCCTCTTTGACTACGAGCAGTATGAATATCATGGGACATCGTCAGCCATGGTGATGTTTGAGCTGGCTTG
GATGCTGTCCAAGGACCTGAATGACATGCTGTGGTGGGCCATCGTTGGACTAACAGACCAGTGGGTGCAAGACAA
GATCACTCAAATGAAATACGTGACTGATGTTGGTGTCCTGCAGCGCCACGTTTCCCGCCACAACCACCGGAACGA
GGATGAGGAGAACACACTCTCCGTGGACTGCACACGGATCTCCTTTGAGTATGACCTCCGCCTGGTGCTCTACCA
GCACTGGTCCCTCCATGACAGCCTGTGCAACACCAGCTATACCGCAGCCAGGTTCAAGCTGTGGTCTGTGCATGG
ACAGAAGCGGCTCCAGGAGTTCCTTGCAGACATGGGTCTTCCCCTGAAGCAGGTGAAGCAGAAGTTCCAGGCCAT
GGACATCTCCTTGAAGGAGAATTTGCGGGAAATGATTGAAGAGTCTGCAAATAAATTTGGGATGAAGGACATGCG
CGTGCAGACTTTCAGCATTCATTTTGGGTTCAAGCACAAGTTTCTGGCCAGCGACGTGGTCTTTGCCACCATGTC
TTTGATGGAGAGCCCCGAGAAGGATGGCTCAGGGACAGATCACTTCATCCAGGCTCTGGACAGCCTCTCCAGGAG
TAACCTGGACAAGCTGTACCATGGCCTGGAACTCGCCAAGAAGCAGCTGCGAGCCACCCAGCAGACCATTGCCAG
CTGCCTTTGCACCAACCTCGTCATCTCCCAGGGGCCTTTCCTGTACTGCTCTCTCATGGAGGGCACTCCAGATGT
CATGCTGTTCTCTAGGCCGGCATCCCTAAGCCTGCTCAGCAAACACCTGCTCAAGTCCTTTGTGTGTTCGACAAA
GAACCGGCGCTGCAAACTGCTGCCCCTGGTGATGGCTGCCCCCCTGAGCATGGAGCATGGCACAGTGACCGTGGT
GGGCATCCCCCCAGAGACCGACAGCTCGGACAGGAAGAACTTTTTTGGGAGGGCGTTTGAGAAGGCAGCGGAAAG
CACCAGCTCCCGGATGCTGCACAACCATTTTGACCTCTCAGTAATTGAGCTGAAAGCTGAGGATCGGAGCAAGTT
TCTGGACGCACTTATTTCCCTCCTGTCC**TAG**GAATTTGATTCTTCCAGAATGACCTTCTTATTTATGTAACTGGC
TTTCATTTAGATTGTAAGTTATGGACATGATTTGAGATGTAGAAGCCATTTTTTATTAAATAAAATGCTTATTTT
AGGCTCCGTCCCC

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FIGURE 2850

GAGGTGCGACAGACCCGCGGGGCAAACGGACTGGGGCCAAGAGCCGGGAGCGCGGGCGCAAAGGCACCAGGGCCC
GCCCAGGGCGCCGCGCAGCACGGCCTTGGGGGTTCTGCGGGCCTTCGGGTGCGCGTCTCGCCTCTAGCC**ATG**GGG
TCCGCAGCGTTGGAGATCCTGGGCCTGGTGCTGTGCCTGGTGGGCTGGGGGGGTCTGATCCTGGCGTGCGGGCTG
CCCATGTGGCAGGTGACCGCCTTCCTGGACCACAACATCGTGACGGCGCAGACCACCTGGAAGGGGCTGTGGATG
TCGTGCGTGGTGCAGAGCACCGGGCACATGCAGTGCAAAGTGTACGACTCGGTGCTGGCTCTGAGCACCGAGGTG
CAGGCGGCGCGGGCGCTCACCGTGAGCGCCGTGCTGCTGGCGTTCGTTGCGCTCTTCGTGACCCTGGCGGGCGCG
CAGTGCACCACCTGCGTGGCCCCGGGCCCGGCCAAGGCGCGTGTGGCCCTCACGGGAGGCGTGCTCTACCTGTTT
TGCGGGCTGCTGGCGCTCGTGCCACTCTGCTGGTTCGCCAACATTGTCGTCCGCGAGTTTTACGACCCGTCTGTG
CCCGTGTCGCAGAAGTACGAGCTGGGCGCAGCGCTGTACATCGGCTGGGCGGCCACCGCGCTGCTCATGGTAGGC
GGCTGCCTCTTGTGCTGCGGCGCCTGGGTCTGCACCGGCCGTCCCGACCTCAGCTTCCCCGTGAAGTACTCAGCG
CCGCGGCGGCCCACGGCCACCGGCGACTACGACAAGAAGAACTACGTC**TGA**GGGCGCTGGGCACGGCCGGGCCCC
TCCTGCCAGCCACGCCTGCGAGGCGTTGGATAAGCCTGGGGAGCCCCGCATGGACCGCGGCTTCCGCCGGGTAGC
GCGGCGCGCAGGCTCCTCGGAACGTCCGGCTCTGCGCCCCGACGCGGCTCCTGGATCCGCTCCTGCCTGCGCCCG
CAGCTGACCTTCTCCTGCCACTAGCCCGGCCCTGCCCTTAACAGACGGAATGAAGTTTCCTTTTCTGTGCGCGGC
GCTGTTTCCATAGGCAGAGCGGGTGTCAGACTGAGGATTTCGCTTCCCCTCCAAGACGCTGGGGGTCTTGGCTGC
TGCCTTACTTCCCAGAGGCTCCTGCTGACTTCGGAGGGGCGGATGCAGAGCCCAGGGCCCCCACCGGAAGATGTG
TACAGCTGGTCTTTACTCCATCGGCAGGGCCCGAGCCCAGGGACCAGTGACTTGGCCTGGACCTCCCGGTCTCAC
TCCAGCATCTCCCCAGGCAAGGCTTGTGGGCACCGGAGCTTGAGAGAGGGCGGGAGTGGGAAGGCTAAGAATCTG
CTTAGTAAATGGTTTGAACTCTC

FIGURE 2851

CACCCCGCAGCCCGGCCTCGGCCTCCGCCGCTTGTCGTCGCGCCCCGCCCGCGAGCCCGCCCCGCACGTCCCCCG
CCGGCGGCCACC**ATG**AGCACAGGCCTGCGGTACAAGAGCAAGCTGGCGACCCCAGAGGACAAGCAGGACATTGAC
AAGCAGTACGTGGGCTTCGCCACACTGCCCAACCAGGTGCACCGCAAGTCGGTGAAGAAAGGCTTTGACTTCACA
CTCATGGTGGCTGGTGAGTCAGGCCTGGGGAAGTCCACACTGGTCCACAGCCTCTTCCTGACAGACTTGTACAAG
GACCGGAAGCTGCTCAGTGCTGAGGAGCGCATCAGCCAGACGGTAGAGATTCTAAAACACACGGTGGACATTGAG
GAGAAGGGAGTCAAGCTGAAGCTCACCATCGTGGACACGCCGGGATTCGGGGACGCTGTCAACAACACCGAGTGC
TGGAAGCCCATCACCGACTATGTGGACCAGCAGTTTGAGCAGTACTTCCGTGATGAGAGCGGCCTCAACCGAAAG
AACATCCAAGACAACCGAGTGCACTGCTGCCTATACTTCATCTCCCCCTTCGGGCATGGGCTGCGGCCAGTGGAT
GTGGGTTTCATGAAGGCATTGCATGAGAAGGTCAACATCGTGCCTCTCATCGCCAAAGCTGACTGTCTTGTCCCC
AGTGAGATCCGGAAGCTGAAGGAGCGGATCCGGGAGGAGATTGACAAGTTTGGGATCCATGTATACCAGTTCCCT
GAGTGTGACTCGGACGAGGATGAGGACTTCAAGCAGCAGGACCGGGAACTGAAGGAGAGCGCGCCCTTCGCCGTT
ATAGGCAGCAACACGGTGGTGGAGGCCAAGGGGCAGCGGGTCCGGGGCCGACTGTACCCCTGGGGGATCGTGGAG
GTGGAGAACCAGGCGCATTGCGACTTCGTGAAGCTGCGCAACATGCTCATCCGCACGCATATGCACGACCTCAAG
GACGTGACGTGCGACGTGCACTACGAGAACTACCGCGCGCACTGCATCCAGCAGATGACCAGCAAACTGACCCAG
GACAGCCGCATGGAGAGCCCCATCCCGATCCTGCCGCTGCCCACCCCGGACGCCGAGACTGAGAAGCTTATCAGG
ATGAAGGATGAGGAACTGAGGCGCATGCAGGAGATGCTGCAGAGGATGAAGCAGCAGATGCAGGACCAG**TGA**CGC
TCGCCGCGGACACACCGTCCGTCTCCGGGACGCCCTCGCACCCCTGGACACCAGACCGGACTGTTCCCGACCCGG
AGACGCGGGGCCACAGCCCCCAGCTGACCCTAATTTATTCTCAGCACCACCCCCTCCCAGGTCATTGTGTCTGTT
TCCGAGGGGCCTGGACCGTAGCCCCCGCCCAGCTGGCCCTCTCTGACCTTGGGGGATCAGGAGCGAAGTTGGGCG
GGACTTCAGAGATCCGCCTCCCTTGCCCTTCCCCCGCCCCCGGACGGTCACAGCACCCAAACCGCAGGCCCTGCT
CTGGCAGGCAGGCAAAGCTAGGCAGAAGAGGATTCCCAGGATCCTGGGTCTGTTCCCTGCCCCAGTGCTGCAGAA
CGGACTTGGGAGCCCTCCTTTGCCTGCTCCCGCGGGTCACCCAGCGAGTGCTGAGACCCCATTTTCTGTCGAGGC
GGGCCGAGTCTTCCCTTATCCCCAGACGCCTAGCGGGCAGGGTTGGGCTGAATCAAATGGGAGCCCTCCAGACAT
AAGGAGGCCAGAGGCTGCAAGGAGCGGGGTCGTGACCGCTTACACCCCTTCTCCACAGCCCGGCCCGACCTGGAG
GGCCCCCGGGGCACTGGGCGGTGAGCCACCTCCTGGCAACTCTCGGTGCCGTCCCCTGCCCTCGCTCGAGGCCTC
TTCTCCCCAGCACCGCTGTGGTGTGCCGGGATCCTGAGCCTAGGCCTCCCGATGTTCCCACCCGCATGATCCCTT
CCCGCCACACGATGCTCCGTTTTCTTCCGTTGTGAATGCCGCGTCCTGTCCTGGTGACAGGAGAACAATGTTGGT
GAACGTC

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FIGURE 2852

CCGGCAGGGGGAGCGAGGAGGAAGGGAACCGCGGCCGGGCCAGCGGAGGCGGCGGAGCGCACCGCCCACCAGGGC
TCAGGGTCCTCCGACCGGGTGAAGCTTCGCTGGCTGCCAGGATCCCCGGCAGGG**ATG**CACTTCAGCACCGTCACC
AGGGACATGGAAGCCTTCACGGCCAGCAGCCTGAGCAGCCTGGGGGCCGCGGGGGGCTTCCCGGGCGCCGCGTCG
CCCGGCGCCGACCCGTACGGCCCGCGCGAGCCCCCGCCGCCGCCGCCGCGCTACGACCCGTGCGCCGCCGCCGCC
CCCGGCGCCCCGGGCCCGCCGCCGCCGCCGCACGCCTACCCGTTTGCGCCGGCCGCCGGGGCCGCCACCAGCGCC
GCCGCCGAGCCCGAGGGCCCCGGGGCCAGCTGCGCGGCCGCAGCCAAGGCGCCGGTGAAGAAGAACGCGAAGGTG
GCCGGTGTGAGCGTGCAGCTAGAGATGAAGGCGCTGTGGGACGAGTTCAACCAGCTGGGCACCGAGATGATCGTC
ACCAAGGCCGGCAGGCGGATGTTTCCCACCTTCCAAGTGAAGCTCTTCGGCATGGATCCCATGGCCGACTATATG
CTGCTCATGGACTTCGTGCCGGTGGACGATAAGCGCTACCGGTACGCCTTCCACAGCTCCTCCTGGCTGGTGGCG
GGGAAGGCCGACCCTGCCACGCCAGGCCGCGTGCACTACCACCCGGACTCGCCTGCCAAGGGCGCGCAGTGGATG
AAGCAAATCGTGTCCTTCGACAAGCTCAAGCTGACCAACAACCTACTGGACGACAACGGCCACATTATTCTGAAT
TCCATGCACAGATACCAGCCCCGCTTCCACGTGGTCTATGTGGACCCACGCAAAGATAGCGAGAAATATGCCGAG
GAGAACTTCAAAACCTTTGTGTTCGAGGAGACACGATTCACCGCGGTCACTGCCTACCAGAACCATCGGATCACG
CAGCTCAAGATTGCCAGCAATCCCTTCGCGAAAGGCTTCCGGGACTGTGACCCTGAGGACTGGCCCCGGAACCAC
CGGCCCGGCGCACTGCCGCTCATGAGCGCCTTCGCGCGCTCGCGGAACCCCGTGGCTTCCCCGACGCAGCCCAGC
GGCACGGAGAAAGACGCGGCTGAGGCCCGGCGAGAATTCCAGCGCGACGCGGGCGGGCCAGCAGTGCTCGGGGAC
CCGGCGCATCCTCCGCAGCTGCTGGCCCGGGTGCTAAGCCCCTCGCTGCCCGGGGCCGGCGGCGCCGGCGGCTTA
GTCCCGCTGCCCGGCGCGCCCGGAGGCCGGCCCAGTCCCCCGAACCCCGAGCTGCGCCTGGAGGCGCCCGGCGCA
TCGGAGCCGCTGCACCACCACCCCTACAAATATCCGGCCGCCGCCTACGACCACTATCTCGGGGCCAAGAGCCGG
CCGGCGCCCTACCCGCTGCCCGGCCTGCGTGGCCACGGCTACCACCCGCACGCGCATCCGCACCACCACCACCAC
CCCGTGAGTCCAGCCGCCGCGGCCGCCGCCGCCGCTGCCGCAGCTGCCGCGGCCGCCAACATGTACTCGTCGGCC
GGAGCCGCGCCGCCCGGCTCCTACGACTATTGCCCCAGA**TAA**CACGGGCCCTGTCGCGCTCCCGCCCCGGTCCTG
CACAGCCCCGAAGTTCGCCGGGCCCGGCCACCCTGCCCCAAGGGCAAGCAAGGAATACGTTCCCCCAGCCCCAGG
GGCCACCGCGGCTCTCCCCTTCCCCAGCCTCGAAGCCATGGGGGCCCCCTCGCCACCCCCAGCCCCTTGGGCTAT
CGAAGTATCCGGTTCCCCAGTCCCTGGAGCCACCGCGGGTCCTTCCCCGGCCCCGAGGGCCAAGGGGGTCCCCGC
CCGCCAGTGCCAAAGCGCCCGGTCGGAGGCGGAAGGAAGTGATATTTATTGTTCTCCCCGAGACCGCGTCGCCCG
CGGCCCGGCCGGCAGTTGCAGTGTAGACAGCCCGAGAGCCCCGCCTGCAGGCGGTGTAGATACATGTAGATACTG
TAGATACTGTAGATACCGCCCCGGCGCCGACTTGATAAACGGTTTCGCCTCTTTTGG

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FIGURE 2853

CATGCGCCGGGTCGTACACGGCGGCCGCGCGCACGCTGGGGGCGTGGCTGCGCGATGTAATCGGTCTCTGGACGC
TGCGCGGCGCTCCTAGGAGCAGGCGTTCCCGACTCCGGCAAGAGGGTGGCGCCTGGACTCTCGCCCTCAGAGGGA
GGCCCGTCCCACGGTCTGTGGCTACGGATCCCAGGACCCTCTTCGCGGGCGATTCGCGTAGCCTCAGGTAACTGC
ATCCTGCCCAGC**ATG**ACGGCCCCCTGCCCGCCGCCACCTCCAGACCCCCAGTTTGTCCTCCGAGGCACCCAGTCA
CCGGTGCATGCGCTGCACTTCTGCGAAGGAGCCCAGGCTCAGGGGCGCCCGCTCCTCTTCTCAGGGTCTCAGAGT
GGCCTGGTACACATCTGGAGCCTGCAGACGCGGAGAGCGGTTACCACCCTGGATGGCCACGGCGGCCAGTGTGTG
ACCTGGCTGCAGACGCTGCCCCAGGGGCGCCAGCTCCTCAGTCAGGGCCGGGACCTGAAGCTGTGCCTGTGGGAC
CTCGCGGAGGGCAGGAGCGCTGTCGTGGACTCCGTGTGCTTGGAGAGTGTGGGCTTCTGCCGGAGCAGCATCCTG
GCCGGGGGCCAGCCACGCTGGACGCTTGCCGTGCCAGGGAGGGGCAGCGACGAGGTTCAGATTCTGGAGATGCCC
TCCAAGACGTCAGTGTGCGCCCTGAAGCCGAAGGCAGATGCCAAGCTGGGCATGCCCATGTGCCTGCGGCTGTGG
CAGGCCGACTGCAGCTCCCGCCCACTCCTTCTGGCCGGCTATGAGGATGGATCGGTGGTCCTGTGGGACGTCTCT
GAGCAGAAGGTGTGCAGCCGCATCGCCTGCCATGAGGAGCCCGTCATGGACCTTGACTTTGACTCCCAGAAGGCC
AGGGGCATCTCAGGCTCCGCGGGGAAGGCGCTGGCTGTCTGGAGCCTGGACTGGCAGCAGGCCCTGCAGGTGCGT
GGGACTCATGAACTCACCAATCCCGGGATCGCCGAGGTCACGATCCGGCCAGATCGCAAGATCCTGGCCACCGCA
GGCTGGGACCACCGCATCCGCGTGTTCCACTGGCGGACGATGCAGCCACTGGCCGTGCTGGCCTTCCACAGCGCC
GCTGTCCAGTGCGTGGCCTTCACCGCCGATGGCTTGCTGGCCGCGGGCTCCAAGGATCAGCGGATCAGCCTCTGG
TCACTCTACCCACGCGCA**TGA**CTCACCCACTCCCTTCCCGGGAGACGAGGAGGGCGGGCAGGGAGGTGGGCATCA
GGCCCCAGCCTTGGCCTGAAACCTCAAGGGCCTCTGAGGACCAGCAAGTCATGGCCCAAGGACCATGGAGTCCCC
GCTGTCTTCATGAGGTTGGTATTTCCTTTTGTGGAGTGCCTCATCACAGGACGGTGACTCTGGGGGCCAGCCAGA
GCCCTGGCCGTCCGAGGCCTGCAGGAGACGTTGGCTTGGGCCTGCTGTGTTGCCAGCTGAGGGTATTTTATAATA
AATTTCCATTGCC

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FIGURE 2854

CCCAAG**ATG**CCAAAAGGAAAGAAGGCCAAGGGAAAGAAGGTGGCTCTGGCCCCTGCTGTCATGAAGAAGCAGGAG
GCTAAGAAAGTGGTGAATCCCCTGTTTGAGAAAAGGCCTAAGAATTTTGGCATCGGACAGGACATCCAGCCCAAA
AGAGACCTCACCCACTTTGTGAAATGGCCCCGCTATATCAGGCTGCTGGCAAACGGGACGTCCCCACCAAGAGAC
CACCTGTCCTTCGAGCAGGAGTTAACATCGTCACCACCTTGGTGGAGAACAAGAAAGCTCAGCTGGTGG**TGA**TTG
CAGACGACGTGGATCCCATCGAGCTGGTTGTCTTCTTGCCTGCCTTGTGTCGTAAAATGGGGGTCCCTTACTGCA
TTATCAAGGGGAAGGCAAGACTGGGACGTCTAGTCCACAGGAAGACCTGCACCACTGTCACCTTCACATAGGTGA
ACTCGGAAGACAAAGGCACTTTGGCTAAGCTGATGGAAGCTATCAGGACCAATTACAATGACAGATACGATGAGA
TCCGCCGTCACTGGGGCGGCAACATCCTGGGTCCTAAGTCTGTGGCTCGTATCGCCAAGCTCGAAAAGGCAAAGG
CTAAAGAACTTGCCACTAAACTGGGTTAAATGTACACTGTTGAGTTTTCTGTACATTAAAATAATTAAAATAATA
CAAATTTTCCTTC

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FIGURE 2855

CTGCCGTGTGTCTGAGGGCCAGTCATGCAGCATCCACCTAGGCAGGCTTGAGAGTCCTTGGGAGAGTCCAGGTGA
CCTGGTTTTTAATTAAAACGCGTCCTGTTTATTGTGGTTGGGCTCTGCCCAGAAAGGAAGGTAGGGCCTTGAAGT
GGTG**ATG**TCCAGGTTTCCTGCACAGGTAGGGTGGAGGCAACGATGGACTCTGGCATGGCCTTCCAGACAGGCAGT
GCACACAGCTCCTTTCAGAGTGGCTTTGTTGCCAGCTGCTGCAGCACCTGCTTTCAGACAGATGATGACCAAGCT
GCTTTCCTGCTGGGGGAAGGAGGCATTCCCCCTGGGTTGTTTTTCTCTTCTGGCCCCCACACACTGGCAGACCCG
AAGGCAGGGTGCTCAGGAGCTGCAGAGCCTGGCAGGGTTTGCTGGACATGCTCAGGGACGGGCCATGGTGCTGGC
TCTGCTTTCTAATCATGGTGTCAGTCCTTCACTTCCCTTGGAAATACCCAGAGATTTTATTTCC**TGA**AGATAGGA
CATGATGGGTGCTGTGAGATGGTATTTAAAGTACCTGTCTGCAAGGAAAACTTTAAAATAGGAAGTACTAAGGAT
AAGGTCCTATGGGATATTGGAATATTTTATAAAGCCACAATAGTTAAAGCACTTAGATGTGGACAGATGAGCAGA
GAATAGAGGACTTTGAAACGGGCCAAATAAATATGGAAATTTAGTACAGGCTAGAGGTGTTTCCAATTAACGAGT
AAAATGGATTATTCAGTAAAAGCAGTTGGCCCTCTGGAAAATAGTAAAGCCATGTATGTGCCTCACTCTTTATGC
CAGTACATATTCCAGATTAAAGATTTCAATGTTACAATTATGAAAGTACTAGAGGAAAATATGGGTGAATTTTTT
TTTTTTTTTTTTTTTGCCTATGATTCCAGGATTTTAAAAGTTTTAGATGCCCAGAGTTGTGGAGGTATGGAGAAG
TGGACCTTCTCATACTGTTGGTGGGAATACACAATAATATAATTTGACCACGTAACAATTCTAGGCACATGCATG
CTGTGACTACTTGCTAGGTGCATGAAGGCTCTTGCCAGGGGTGGTCATGGTTCGGTACCACTACATGGGGGTTTA
GAGCAGGGACTGGAGGTTGGCCTTGCCTCCTCCCCTCCCCGCATGAGCTGAGGGTCCTTACCTGACCTTTTTGAG
CTGTGACCAGAGTTTTTCCTCATGGGGTGGTTAGAAGGGTTGAATGAGAATGATGCCCATGCAGTGCCTTGGCTG
GGGTCTGGGCCCTCTAACACCCACCTCATGGGTGTCACTGTTTTTTGAACAGCAGAACTGGAAAAGCCCAAAGAT
CCAGCAATAAAGGAGCAAGGCAAATAAAGCTGTTACCCTGCAGGATCAGTCAGCATGAGCCAGATTGTGCTGCAG
TAACAAAGATCTCCAACAGCGCAGCGGCTACAGTTGGCACTGCTTATTTCTTGCTTGCACCTGTGGGCCACCGTG
GCTGGGGCCTGTCAGACCTGTGCTGACGACAGCCTACCTGGACATATTTCTCCATGCTCACTGAGGCAGGGGAAA
GGCCACAGCAGGCCACAAGTAATGTGTGTCACCCCACTTCCATTTCTGTGGCCAAAGGAAGCCACAGAGCCACAC
CTGAGTTCCATAGGACGGCAGCAGCTGATCATCCTATGGGCTGGGGTGCTCAGTATGGAGAAGTACAAGCAGCCA
CCCAGCGTGGGGCTGGTTGGTGCTGCTGAGGATGGGAGGATGGGAGGGGCCTGCATCCATCCCAGGGCAACATAC
CTGTTTGTCTGCTGGGGCTGCCTGACAAAGGACCGCAGGCTAGGGGACTTAAACAACAGACATTTCCTCATGATT
CTGGAGCTAGAAGCCTGAGATCAAGGTGTGGGCAGGGTTGGTTTCTCCTGAGGCCTCGCTCCTTGGCCTGCAGAT
AGCCATCTTCTTGCCGTGTCCCTGTCTGTGTCTGTGTCCTAATCTCTCATAAGCTCACTAGTCTATTGGATCAGG
GCCCACCCTCATGACCTCATTTAACCCTGAATTACCTCTTTAAAGACCCTGTCTTCAAATGTAAGTACTAGGGGT
TAGGACTTGAACATAAAAATATTGAAGGGACATAGTTCTGCCCACAGCGGTGCCCGCGATAGGCTTCTCTGGTTT
TGTCTTTGCTGTTCCTGGCAGCGCTATATTGGGCAGGCTTCTGTGGTCTCCACATGCCTGTGTGCAGAGTCCCCC
AGGCCCTGGGTTCTGGGGCCCATACTGAGGAGTGGGGATGGCCAAGCCTTGGCTGTTGAGTAGGCAGTGCCCAGT
TGTGCTGTATGGGATGCTGTTTCTCACTTAAGAAATCTTTCCCTACCTGGGGGGTACAAAGGCATTATCCTGTAT
TCCCAGGTTGTAACTTTCTGCCTTTGACATTCAACCTTGAGTCCACCTGTAAGTGTAACTGCGGCAGAAGGGAGG
GGTCTGCTGTCATCCTTGATAGCCTGTGATGAGCAGAGCCCCTCTGCCGACCGCGATGCACATGTAATATGAGCA
AGAAATAAATTTTTGATGTGCGAAGCCACTG

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FIGURE 2856

GTCTGTGGCTACGGATCCCAGGACCCTCTTCGCGGGCGATTCGCGTAGCCTCAGATTGCCTCGGATGATGGCCTG
CGACTGACAGTCTCTCAGCTCTTCTCAGCTCTCCTGAGGCTGCAGCTGTCAGCTCCCTGATCCTCAGCACTTGCC
TGGACCAGTGCGGGTCTGCCACGCCCTGTTCAGCCATCCCTGTCCTGTTGTGTCGTGCAAGCCACATCTGTCCAC
ACCCCCACCACCCACCAGTGCTGGCTCTCCTCTCTTCTCCCCTGTGCTCCCAGCATGCCTCGTGGCCGGTGCCGT
CAGCAGGGCCCTCGCATTCCCATCTGGGCAGCCGCCAATTATGCCAACGCACATCCATGGCAGCAGATGGACAAG
GCGTCTCCTGGGGTGGCATACACCCCCCTTGTGGATCCCTGGATTGAGCGGCCCTGCTGTGGGGACACCGTGTGT
GTGCGAACGACC**ATG**GAGCAGAAGAGCACAGCTAGTGGCACTTGTGGCGGTAAACCTGCAGAAAGGGGTCCCCTA
GCTGGGCACATGCCCAGCTCCCGACCCCACAGGGTGGACTTCTGCTGGGTACCAGGCTCAGACCCAGGCACCTTT
GATGGCTCCCCGTGGCTACTGGACCGCTTCTTGGCCCAGCTGGGCGATTACATGTCCTTCCACTTTGAGCACTAT
CAGGACAACATCAGCCGTGTCTGCGAGATCCTCAGGCGCCTAACAGGCCGAGCCCAGGCCTGGGCAGCCCCCTAC
CTTGATGGGGACCTGCCCCTGCCTGACGATTACGAGCTCTTCTGCCAGGATCTCAAGGAAGTTGTTCAAGACCCG
AACAGTTTTGCTGAGTACCATGCTGTGGTTACCTGTCCCCTGCCCCTGGCCTCCAGCCAGCTGCCAGTGGCCCCT
CAGCTGCCTGTGGTGAGGCAATACTTAGCTAGGTTCTTAGAGGGCCTGGCACTCGACATGGGTACTGCCCCCAGG
TCTTTACCAGCCGCCATGGCCACCCCTGCTGTGTCTGGGTCCAACTCTGTATCTAGAAGTGCTCTGTTCGAGCAG
CAGCTGACCAAGGAGAGCACCCCTGGGCCCAAGGAGCCCCCAGTCCTGCCCAGTTCTACATGTAGCTCCAAGCCT
GGTCCTGTGGAACCAGCCTCTTCCCAGCCAGAGGAGGCAGCCCCCACACCTGTCCCTAGACTGTCGGAGTCAGCT
AATCCTCCTGCCCAGAGACCAGACCCAGCTCATCCAGGAGGTCCAAAACCCCAGAAAACAGAGGAGGAGGTTTTG
GAGACAGAGGGAGACCAGGAGGTGTCCTTAGGTACCCCACAGGAGGTGGTGGAGGCCCCGGAGACCCCAGGAGAG
CCACCACTTTCTCCTGGGTTC**TGA**ACACAGCCCAGGTGGGAACAATGCTGCCCCTCATGATGAAGTGGCCTGTGT
GGCTTGAGCGCCCCATAGTCCCCAGTCAGAGCAGAGTGGTGTCCCCAGATGACTTCAGACCCCATAGCTGGGCAA
GATGCGCTTGTTTTGGACTCTGCGCTGAGCAGAACCAGCTCCCCCAACTCCAGCAGAGCTTGACCTCCGCCCTGT
GCCCTTTCCCTGCTGCTGGCTCTCTGCTGCATCCCTGCCCGTCTTCTGGGAGTGCCGTCTCACCCAGGCCTGCTC
CCACGAGGGGGTCGTTTTGTAGATCAACTCTCAGCAGATAGTTGCATCATCTTTGTCACCTCCACCCCCATAAAA
CACCCCCCTTGGTGTCTTCCACACTGGCTGGGACTGAACTGGGTCTGCCACGTCTGCCCTGTTGGGACCTCGTTC
CTGTATGGGGTTTCTGTGTCTGTCCCCCTAGCCCCACCCTCTCTGCTCCCTGTGACTTCTGTCCCAGCTGGAATG
TGAGGAAGGCTGCCTGGAGGAAGTGGCCACTTTGATTCTGGGGGATGAGTGGGATAGCATCTTGGCAAAGAATGA
TGTTTCCTGTGGGATTACCAGCAGTTCTGGGCAGCTGGAAGGTTTGGATGCAGGAAGGTGGGATGCAAGCCCCTT
GCCAGGCTCAGCTGCAGGCATTCGCCCTTTGTGTGTTAACACTGTAGCTCTAATCGTGCCTGGTGTTCTGAAGCA
GGCTCCTCTTCCCTGCTGCTGTGCTGCCATCCCCTGCTCACTCCGCACTCGCATGCATTGCGGATTCAGCACTTA
AGCCCTAGTGTGTAAATGACTTGGATCTCCCTCCTGGCAGACTGTGACCCTCAGCACAGGGGCTCTGTCTTAGTC
AGCTCTGTGGCCTGGTACACAATTGGTGCTCATTAAACACGTGTTGGATTACTGGC

FIGURE 2857

ATTCCCCACACCCTATCCCAGTGTTCCACCCTAGGTCTGAAGGCCCCCGCCCCGAATCCGGCCGCATTCGGCCCC
GGTCTAGCCAGCGCTCTCACCTCTCCCGCGACGGCCCGCCCGGGACTGGACCCGCCCCGGTCCGGCGCAGGCAGC
GCGGCGGGCAGCCCTAGCTGCCCCAGAAGCCCCACGACG**ATG**GCGGCAATGGCGGTGGCGCTGCGGGGATTAGGA
GGGCGCTTCCGGTGGCGGACGCAGGCCGTGGCGGGCGGGGTGCGGGGCGCGGCGCGGGGCGCAGCAGCAGGTCAG
CGGGACTATGATCTCCTGGTGGTCGGCGGGGGATCTGGTGGCCTGGCTTGTGCCAAGGAGGCCGCCCAGCTGGGA
AGGAAGGTGGCCGTGGTGGACTACGTGGAACCTTCTCCCCAAGGCACCCGGTGGGGCCTCGGCGGCACCTGCGTC
AACGTGGGCTGCATCCCCAAGAAGCTGATGCACCAGGCGGCACTGCTGGGAGGCCTGATCCAAGATGCCCCCAAC
TATGGCTGGGAGGTGGCCCAGCCCGTGCCGCATGACTGGAGGAAGATGGCAGAAGCTGTTCAAAATCACGTGAAA
TCCTTGAACTGGGGCCACCGTGTCCAGCTTCAGGACAGAAAAGTCAAGTACTTTAACATCAAAGCCAGCTTTGTT
GACGAGCACACGGTTTGCGGCGTTGCCAAAGGTGGGAAAGAGATTCTGCTGTCAGCCGATCACATCATCATTGCT
ACTGGAGGGCGGCCGAGATACCCCACGCACATCGAAGGTGCCTTGGAATATGGAATCACAAGTGATGACATCTTC
TGGCTGAAGGAATCCCCTGGAAAAACGTTGGTGGTCGGGGCCAGCTATGTGGCCCTGGAGTGTGCTGGCTTCCTC
ACCGGGATTGGGCTGGACACCACCATCATGATGCGCAGCATCCCCCTCCGCGGCTTCGACCAGCAAATGTCCTCC
ATGGTCATAGAGCACATGGCATCTCATGGCACCCGGTTCCTGAGGGGCTGTGCCCCCTCGCGGGTCAGGAGGCTC
CCTGATGGCCAGCTGCAGGTCACCTGGGAGGACAGCACCACCGGCAAGGAGGACACGGGCACCTTTGACACCGTC
CTGTGGGCCATAGGTCGAGTCCCAGACACCAGAAGTCTGAATTTGGAGAAGGCTGGGGTAGATACTAGCCCCGAC
ACTCAGAAGATCCTGGTGGACTCCCGGGAAGCCACCTCTGTGCCCCACATCTACGCCATTGGTGACGTGGTGGAG
GGGCGGCCTGAGCTGACACCCATAGCGATCATGGCCGGGAGGCTCCTGGTGCAGCGGCTCTTCGGCGGGTCCTCA
GATCTGATGGACTACGACAATGTTCCCACGACCGTCTTCACCCCGCTGGAGTATGGCTGTGTGGGGCTGTCCGAG
GAGGAGGCAGTGGCTCGCCACGGGCAGGAGCATGTTGAGGTCTATCACGCCCATTATAAACCACTGGAGTTCACG
GTGGCTGGACGAGATGCATCCCAGTGTTATGTAAAGATGGTGTGCCTGAGGGAGCCCCCACAGCTGGTGCTGGGC
CTGCATTTCCTTGGCCCCAACGCAGGCGAAGTTACTCAAGGATTTGCTCTGGGGATCAAGTGTGGGGCTTCCTAT
GCGCAGGTGATGCGGACCGTGGGTATCCATCCCACATGCTCTGAGGAGGTAGTCAAGCTGCGCATCTCCAAGCGC
TCAGGCCTGGACCCCACGGTGACAGGCTGC**TGA**GGGTAAGCGCCATCCCTGCAGGCCAGGGCACACGGTGCGCCC
GCCGCCAGCTCCTCGGAGGCCAGACCCAGGATGGCTGCAGGCCAGGTTTGGGGGGCCTCAACCCTCTCCTGGAGC
GCCTGTGAGATGGTCAGCGTGGAGCGCAAGTGCTGGACAGGTGGCCCGTGTGCCCCACAGGGATGGCTCAGGGGA
CTGTCCACCTCACCCCTGCACCTCTCAGCCTCTGCCGCCGGGCACCCCCCCCCAGGCTCCTGGTGCCAGATGATG
ACGACCTGGGTGGAAACCTACCCTGTGGGCACCCATGTCCGAGCCCCCTGGCATTTCTGCAATGCAAATAAAGAG
GGTACTTTTTCTGA

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FIGURE 2858

CACCGCCATTGCCGCCATCGTCGTGGGGCTTCTGGGGCAGCTAGGGCTGCCCGCCGCGCTGCCTGCGCCGGACCG
GGGCGGGTCCAGTCCCGGGCGGGCCGTCGCGGGAGAGAAATAACATCTGCTTTGCTGCCGAGCTCAGAGGAGACC
CCAGACCCCTCCCGCAGCCAGAGGGCTGGAGCCTGCTCAGAGGTGCTTTGAAG**ATG**CCGGAGGCCCCGCCTCTGC
TGTTGGCAGCTGTGTTGCTGGGCCTGGTGCTGCTGGTGGTGCTGCTGCTGCTTCTGAGGCACTGGGGCTGGGGCC
TGTGCCTTATCGGCTGGAACGAGTTCATCCTGCAGCCCATCCACAACCTGCTCATGGGTGACACCAAGGAGCAGC
GCATCCTGAACCATGTGCTGCAGCATGCGGAGCCCGGGAACGCACAGAGCGTGCTGGAGGCCATTGACACCTACT
GCGAGCAGAAGGAGTGGGCCATGAACGTGGGCGACAAGAAAGGCAAGATCGTGGACGCCGTGATTCAGGAGCACC
AGCCCTCCGTGCTGCTGGAGCTGGGGGCCTACTGTGGCTACTCAGCTGTGCGCATGGCCCGCCTGCTGTCACCAG
GGGCGAGGCTCATCACCATCGAGATCAACCCCGACTGTGCCGCCATCACCCAGCGGATGGTGGATTTCGCTGGCA
TGAAGGACAAGGTCACCCTTGTGGTTGGAGCGTCCCAGGACATCATCCCCCAGCTGAAGAAGAAGTATGATGTGG
ACACACTGGACATGGTCTTCCTCGACCACTGGAAGGACCGGTACCTGCCGGACACGCTTCTTTTGGAGGAATGTG
GCCTGCTGCGGAAGGGGACAGTGCTACTGGCTGACAACGTGATCTGCCCAGGTGCGCCAGACTTCCTAGCACACG
TGCGCGGGAGCAGCTGCTTTGAGTGCACACACTACCAATCGTTCCTGGAATACAGGGAGGTGGTGGACGGCCTGG
AGAAGGCCATCTACAAGGGCCCAGGCAGCGAAGCAGGGCCC**TGA**CTGCCCCCCCCGGCCCCCCTCTCGGGCTCTC
TCACCCAGCCTGGTACTGAAGGTGCCAGACGTGCTCCTGCTGACCTTCTGCGGCTCCGGGCTGTGTCCTAAATGC
AAAGCACACCTCGGCCGAGGCCTGCGCCCTGACATGCTAACCTCTCTGAACTGCAACACTGGATTGTTCTTTTTT
AAGACTCAATCATGACTTCTTTACTAACACTGGCTAGCTATATTATCTTATATACTAATATCATGTTTTAAAAAT
ATAAAATAGAAATTAA

FIGURE 2859

ATTTTTGTAAGAAAATTTAAAAATTAAAGCAGCAAAGGAACTTTTTGCTTTCTGCCACTCAGGTCTGGCACAAGT
GGCTGGCTTCTCCCTTGTGTCGGGCCTCTGCGCGTCTGGGGCAGGGCCCTGGGTGGAGGTGGTCCCAGGTGCCCA
TCTGCTGTGTCCTGCAGAGGCTCTGTTTCTGGTCCCTGGGTGGCCCCAAACTTGTCCACTTGGGCTCACTGGTCT
GTCTATCCATAGGAGTGGGCTGGCTGGGGGCTAGCCAGGCCTTGAGCCCAGGAGTAGAATCTTGGCTAGGGGCTG
GTCTCGGTGCAGGTGAACTCAGCTAGCACAGGGTTGATTCCTGTCCTGGGCCTGGGAACTGGGCCCTTGGAGCCT
CTGAGGTGGCTAGCAGTCTGACCCCTTGGAGGAGATGGGGACAGCTCTAGGTGTAGGTGGACAGAAACCAGCACT
GCATCCTCACTCATGGGCCAGGGAGGCAACTACAGGGATGCGGGAGCTGGTCTGAGCCATTGCCTCTTCTGTAAG
CAAGGCCCAGTGGGGAGTAGGGAAGGAGATGCTTCCACTCTGTGCCACATGGGGCCCAGAGGGGCTGGTGCTGCT
GCGGGGTCCACCTGTCCCCAGCGCCTGCTTGGTCAGAAAGGTGTGAATGCTGGCTGACTCCTCTTCGTTTCCCAG
GCTGGCAGTCGTCCCCATGGGGCTAACAGGTGCCCCTGGCCTAGCTGCAGGAGGGCTGACCTCTGCACCACTGTG
GCTGGGAGGCCAGTGGGCCAGGCGTGCCACCCAGAACCCAGCCAGCTAGGGGCCCCGCCCTTAGCGTTAGCGTCC
GTCAAGGGGAGCTTTGAATGTTTGGTGCCCAAGTCAAGGGCAGCAGGGGAATGGCAGTTGAGAAGGATGTACTAA
GTCGAGTTATATCTAAATATTTAGATTCTTAATTTCTATTTTATATTTTTAAAACATGATATTAGTATATAAGAT
AATATAGCTAGCCAGTGTTAGTAAAGAAGTCATGATTGAGTCTTAAAAAAGAACAATCCAGTGTTGCAGTTCAGA
GAGGTTAGCATGTCAGGGCGCAGGCCTCGGCCGAGGTGTGCTTTGCATTTAGGACACAGCCCGGAGCCGCAGAAG
GTCAGCAGGAGCACGTCTGGCACCTTCAGTACCAGGCTGGGTGAGAGAGCCCGAGAGGGGGGCCGGGGGGGGCAG
TCAGGGCCCTGCTTCGCTGCCTGGGCCCTTGTAGATGGCCTTCTCCAGGCCGTCCACCACCTCCCTGTATTCCAG
GAACGATTGGTAGTGTGTGCACTCAAAGCAGCTGCTCCCGCGCACGTGTGCTAGGAAGTCTGGCGCACCTGGGCA
GATCACGTTGTCAGCCAGTAGCACTGTCCCCTTCCGCAGCAGGCCACATTCCTGCAAACAGACCGGGGGGTGGGG
GAGGTGAGGGTCAGAGGTGCCCAGAGAACCTGCCCCAAACCAGGATGGGTGCTCCTCACTAGGCCACGGCACCAC
GCCTGTGCCTAGCCCCTGGGGCCAGGTTTCCACTTTCTGCCCAGCGTGACTCCTGCAGGAAAGGACTGTACAAGA
CTTGGGTGCCACCTTCAGAACATGGGCCCCGTGAGGACAGGGACCTTTCTCTCATCAACTCCTGTATCCATCTCA
GGAGTATCCATCCCTTAGAACAGCATGTGGCACACAGTAGGTGCTCAATAAATGCTAGCTGGGTGAGTGGAAACA
ATGGGGCCCTCAACACCCAGTGCCAGGAACTCAGGCCTATGAGGGAGAGGCACCCAAGGAGAGGGGTTGCTGGTA
TGGTCCCTGGAGACAATATTGGCCTGACCAGGGTGACCCTGCAGGGCTGAGGTGGGGCAGACCTCCCATCAACAA
GCCTGCCCCTTGGGGTCAGTTCTGGACATCCCCAAGCTCCTGCATTTGCAGACCCCCCATCTTCACCAGTGCCTG
GGCCCTGGGAGGACACAGAGTTCCTCTGCCTGGGTTCTGTGCAGAAGGAAGGAGTTGTTACTGGACACGCAGCCA
TAGGGCATGGCCCGTGGGGTCCACTATCGGGAGAAACCTCATAGGATGCTTGCCTATCTATGCTATCAGAAAAGG
GTTTGCTTACATCACATAAACAAGAAACCTTGAGAGGAAGTGTTTGCCTATGGGGAGGAAGGACCTACCAGGGCA
AGGGACACCCCAGTCACCTTGTCTTGGAAATTTGACTTAGTCACCAAACAAAAGTTAACAAGCAATCTCAAACAT
CTAAAGTATAATAAAATCAATTTGCAGGCAGGTGCCTTGAAACACTGGTATCCGACCCCACATGCCTCTGGGATG
GGCCTGGAGAGTCCCACAGGGCTTGCAGCTGTCCTGGTGGTGGGTGGCGGTCGTTTCCAGCCTGTATGCTGCAGA
GAAAGCAGGGGGCTTTCATGTGACAGTATGGACACCACACGGCTGCAAGGTCAGTGAGGTCAGGGGACAGCCCCA
AGGTCCGGAGTTGAGCAGGAAGTACCACCATGAATCATGATGTGTTTTCATTTAGAAAAAAAAAAAAAATGTCCTA
GCAATGTCAGCTGAAAAGACGTAGAACAAAGCGCCACCCGGGAGGAGGACAATGGCCTAGGCCTTGAGCAGGGCG
GCTGCCTTCCAGTCTGGGCCAGGGAATGCATGAGTGAGGGGCCTGGGCTCCTGGACTTCTCGGGTTGCGCCAGGG
GACTCAGGAGCCCAATCTGGTCATCAGGGATACAGAAGACGTCAGCGGACTGAAAGACACCAGACCACTGCACCT
GCACGAGTTAAACAGGAAAGAAGGAGGGAAGGGCAGAAAGGAGC**ATG**GGTCACCTTTGGAGGCTGCCAGGGGCCC
ACTCCTTTACGAAACTGGTCAAGAGGGGAAAGAAGGCAGCACCTGTCCTGCCTGTCGCCCGACACTGCAAGCCTC
CTACCAGCTACTCAGACCACCTGGAGAACTGGCTAAACATGCATCAGCGTCTGAGCAGGACTGAAAATCTAATGC
CATGGAGAAGCGACAGTGTCAGAGGAGCAGGTGACACTATGCTGAGGTGGTTTTCATCTGGCCCACCCTCCTTAG
ACTCTCCTCCCTTCAAGAGTTGGAGCCTCACAGAGGTTGCAGGGAGCCAAGATCGCGCCACTGCACTCCAGCCTG
GGCAACAGAGCGAGAGACTGTCTCGAGAAACAACAACAAAAAGTTGGAGCCTCAGACCAAGCACACACCTGTACT
CCCAGCACTTTGGGAGGTTGAGGCAAGAGGATCGCTTGAGGCCAGGAGTT**TGA**GACCAGTCTGGGCAACATAGGG
AGACCCCATTTCTACAAAAAATTTTTAAATTAGC

FIGURE 2860

ACCTCGCGACCTGTGTCAGCAGAGCCGCCCTGCACCACCATGTGCATCATCTTCTTTAAGTTTGATCCTCGCCCT
GTTTCCAAAAACGCGTACAGGTAACCCCCTCGCTCTGCATCTGCTGCGCCCTGCAGGGTCCTGGGTGCCCAGCCA
GTTCTC**ATG**CCACCCAAGCTGCTGTGTGCAGGAAGGTGTGTGGGCCAGGACGGGGCTGCACAGGCCTGGCACTGC
CCTCCAGGACAGGGTCACTCAGTGTGGGATGCTGTCAGAATGCCTCTCGGGGCGGGGACTCCAGTCAATGTACAA
AGACGTGAAGACTCAGCCACAGAAGGCAGCCACAGGCTCATCTTGGCAGCCAACAGGGATGAATTCTACAGCCGA
CCCTCCAAGTTAGCTGACTTCTGGGGGAACAACAACGAGATCCTCAGTGGGCTGGACATGGAGGAAGGCAAGGAA
GGAGGCACATGGCTGGGCATCAGCACACGTGGCAAGCTGGCAGCACTCACCAACTACCTGCAGCCGCAGCTGGAC
TGGCAGGCCCGAGGGCGAGGTGAACTTGTCACCCACTTTCTGACCACTGACGTGGACAGCTTGTCCTACCTGAAG
AAGGTCTCTATGGAGGGCCATCTGTACAATGGCTTCAACCTCATAGCAGCCGACCTGAGCACAGCAAAGGGAGAC
GTCATTTGCTACTATGGGAACCGAGGGGAGCCTGATCCTATCGTTTTGACGCCAGGCACCTACGGGCTGAGCAAC
GCGCTGCTGGAGACTCCCTGGAGGAAGCTGTGCTTTGGGAAGCAGCTCTTCCTGGAGGCTGTGGAACGGAGCCAG
GCGCTGCCCAAGGATGTGCTCATCGCCAGCCTCCTGGATGTGCTCAACAATGAAGAGGCGCAGCTGCCAGACCCG
GCCATCGAGGACCAGGGTGGGGAGTACGTGCAGCCCATGCTGAGCAAGTACGCGGCTGTGTGCGTGCGCTGCCCT
GGCTACGGCACCAGAACCAACACTATCATCCTGGTAGATGCGGACGGCCACGTGACCTTCACTGAGCGTAGCATG
ATGGACAAGGACCTCTCCCACTGGGAGACCAGAACCTATGAGTTCACACTGCAGAGC**TAA**CCCCACCTCTGGGCC
TGGCCAGTGGGCTCCTGGGGGGCCCTGCCTTGAGGGGCACTGTGGACAGGAAACCTTCCTTTGCCATACTGCATT
GCACTGCCCGTGGCTTGGCCAGCATCCCCCGGATCAGGGCCCTGTGGTTTGCGTGTTACCCATCTGTGTCCCCAT
GCCCAGTTCAGGGTCTGCCTTTATGCCAGTGAGGAGCAGCAGAGTCTGATACTAGGTCTAGGACCGGCCGAGGTA
TACCATGAACATGTGGATACACCTGAGCCCACTCTTGCACATGTACACAGGCACTCACATGGCACACACATACAC
TCCTGCGTGTGCACAAGCACACACATGCAAGCCATATACATGGACACCGACACAGGCACATGTACGTGCACAGGT
GTGCTACACATGTGCACACATGCACAGTTGCACAGACACACACACACAGGTGCACACACACGATGCCGAACAAGG
CAGAAGGGCGACTCTCACCTCTCATGTGCTTCTGGCCAGTAGGTCTTTGTTCTGGTCCAACGACAGGAGTAGGCT
TGTATTTAAAAGCGGCCCCTCCTCTCCTGTGGCCACAGAACACAGGCGTGCTTGGACTCTTGACAAGCAGACCTG
CTCCTGCAGAGGAGACAGCCACATTTGGAATTGGGCACCGAGAAGACCTGAGAAAAACCCACTCTCTCTTTTTTT
TTTTTTTGAGACGGAGTCTTGCTCTGTCACCCAGGCTGGAGTGCAGTGGCACGATCTCGGCTCACTGCAACCTCC
GCCTCCCAAGTTCAAGCAATTCTCCTGCCCCAGCCTCCTGATTAGCTGGGATTACAGGCGTGTGCCACCATGCCC
AGCTAATTTTTGTGTTTTTAGTAGAGACGGGGTTTCACCATGTTGGTCAGGCTGGTCTTGAACTCCTGACGTGGT
GATCCACCTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCACGCCTGGCCGAAAAACCCACTC
TCATAACAGAAGTGCAGACTCATTGCTAGATTCAGTGCCCTTGAGTGTGCCAGAGGTCCTCTGTGTTTGAGACAA
TCCTGTGTGTGCCAGGAGGCTCCGTGTGCACCAGGGGCTCTCAGAATCCCGCTTACCCAGCTGGAGACCATGCCT
CTGGCAGCCCCATCTCAGCCAGCCCTGCTCTCTCCCTCTTCCCTCCAGGTGAGGCAAACTTCATAGGAATCTGTA
CCTGAATGTGAGCTCCTGATAATAAAACTCTGAGGCTTTGGTGAGCGC

FIGURE 2861

GTTGCCAGAAGCCAGGATCATAGAGACGCTCGGCCTCCGCCGCACGCGCTGGCGGACTAAGAGTGGCTGGCGAAG
CGAGCGGCCGGCGCGGGCCCCTGGCGGGCGGGCGGTACAGCCCCAAGCCTGAGACCCGGACCTGAGCATCGCAGG
TTCGAGTCCCGCCCCGCCTGGGGCGAAGCCGGGGGTGGCGGCGACCTCGCGGCGTTGCACCGGCTCTGTGAGCAC
CTCCCCTCTGAGCACTTCCCTTGTGACAGGCCACTTCCCTTGTGACAGGCCCAGGACGAGGTGGCCAGGCGGCCC
CCATGGCGTCCCTGGTCTAGGCGGAGAACCGCCTGGGCGATGAGTGAGAACCTCGACAACGAGGGCCCGAAGCCC
ATGGAGAGCTGTGGCCAGGAGAGCAGCAGTGCCCTGAGCTGCCCTACCGTCTCGGTGCCCCCTGCAGCCCCGGCA
GCCCTGGAGGAGGTGGAGAAAGAGGGCGCTGGGGCGGCTACAGGGCCGGGGCCTCAGCCCGGGCTCTACAGCTAC
ATCAGGGATGACTTGTTTACCTCTGAGATCTTTAAACTGGAGCTGCAGAACGTGCCTCGCCACGCCAGCTTCAGC
GACGTCCGGCGCTTCCTGGGCCGCTTTGGTCTGCAGCCCCACAAAACCAAACTCTTTGGGCAACCACCCTGCGCC
TTTGTGACATTCCGCAGCGCTGCAGAGAGGGACAAGGCCCTGCGCGTTTTGCATGGTGCCCTCTGGAAAGGCCGC
CCACTCAGTGTGCGCCTGGCCCGGCCCAAGGCCGACCCC**ATG**GCCAGGAGGAGGCGACAGGAGGGTGAGAGTGAG
CCACCAGTAACACGAGTGGCCGACGTGGTGACCCCTCTATGGACAGTGCCCTATGCTGAGCAGCTTGAGCGGAAG
CAGCTGGAGTGCGAGCAGGTGCTGCAGAAACTTGCCAAGGAAATCGGGAGCACCAACCGTGCCTTGCTGCCCTGG
CTGCTCGAGCAGAGGCACAAGCACAACAAGGCCTGCTGCCCGCTGGAGGGGGTCAGGCCATCACCCCAGCAGACT
GAGTATCGTAATAAGTGTGAGTTTCTGGTTGGCGTCGGGGTGGATGGGGAGGATAACACCGTGGGCTGTCGGCTC
GGCAAGTACAAGGGCGGGACGTGTGCTGTGGCAGCCCCGTTTGACACCGTGCACATCCCCGAAGCCACCAAGCAG
GTGGTGAAGGCCTTCCAGGAGTTCATCCGGTCCACTCCATACTCGGCATACGACCCAGAGACGTACACAGGCCAC
TGGAAGCAGCTGACTGTGCGCACCAGCCGCCGCCACCAGGCCATGGCCATTGCCTACTTCCACCCCCAGAAGCTG
AGCCCTGAGGAGCTGGCAGAGCTGAAGACCTCCCTAGCGCAGCACTTCACAGCAGGGCCAGGCAGGGCCAGTGGA
GTGACCTGCCTCTACTTCGTGGAGGAGGGACAGCGAAAGACTCCTAGCCAGGAGGGCCTGCCCCTGGAGCATGTG
GCTGGGGACCGGTGCATCCACGAGGACCTGCTAGGGCTGACCTTCCGGATCTCTCCACACGCCTTCTTCCAGGTG
AACACACCCGCAGCCGAGGTGCTCTACACAGTCATCCAGGACTGGGCCCAATTGGATGCGGGGAGCATGGTGCTG
GACGTGTGCTGTGGCACCGGCACCATTGGCCTGGCCCTGGCCCGGAAGGTAAAGAGGGTCATTGGGGTCGAGCTA
TGCCCAGAGGCTGTGGAGGACGCCCGGGTGAACGCCCAGGACAATGAGTTGAGTAATGTGGAGTTCCACTGCGGG
AGGGCCGAGGACCTGGTGCCCACCCTGGTGAGCAGACTGGCCTCCCAGCACCTCGTGGCCATCCTGGACCCACCC
CGTGCTGGCTTGCATTCCAAGGTGATCCTGGCCATCCGGAGAGCTAAGAACCTCAGGCGGCTGCTGTACGTCTCA
TGCAACCCCCGGGCAGCCATGGGCAACTTTGTGGACCTCTGCAGAGCCCCATCTAACCGGGTGAAGGGCATTCCC
TTCCGGCCGGTCAAGGCTGTGGCAGTGGACCTGTTCCCGCAGACCCCGCACTGTGAGATGCTCATCCTGTTTGAG
AGGGTGGAGCACCCCAATGGCACAGGGGTCTTGGGGCCCCACAGCCCTCCAGCTCAACCCACACCAGGACCCCCA
GATAACACCCTACAAGAAACTGGGACCTTCCCCTCATCC**TAG**GCCCAGGACCCATTATGGGGACAGGAGCTGAAG
GGCTCCCAGGGCCCCAGGGGCGGGGAAGGCATGGCTTGCTGGCCAGGATATTCAGAGGTAGGCAGCCAAAGGGCA
CAGAACCCTGTGCCCCACCAGGATTGGCCTGCTGCTAGGGGCCAGGGGCCCTGACCAGGAAGACAGGTGGGTTCC
TGTAGCCTGTTGCCCATCCCCAGGGCCTTTGTGGACTAGCCAAGGCTGTGAGGGCCAGAATAAACAACTGCTCAA
C

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FIGURE 2862

CGAGGTTCGGGTCGTGGGGCGGAGGGAAGAGCGGGCGGGCGGGAGGCGCCGGCGCCAGACGCGGAGGGAAGGAGC
TACGAGTAGCCGCCGAGAGGCCGCGGAGCCAGCGACGACCGACCCAGCCGAGCCGCCGCCGCCGCGCCCCCA
TGGCGGCCGCCAAGGACACTCATGAGGACCATGATACTTCCACTGAGAATACAGACGAGTCCAACCATGACCCTC
AGTTTGAGCCAATAGTTTCTCTTCCTGAGCAAGAAATTAAAACACTGGAAGAAGATGAAGAGGAACTTTTTAAAA
TGCGGGCAAAACTGTTCCGATTTGCCTCTGAGAACGATCTCCCAGAATGGAAGGAGCGAGGCACTGGTGACGTCA
AGCTCCTGAAGCACAAGGAGAAAGGGGCCATCCGCCTCCTCATGCGGAGGGACAAGACCCTGAAGATCTGTGCCA
ACCACTACATCACGCCGATGATGGAGCTGAAGCCCAACGCAGGTAGCGACCGTGCCTGGGTCTGGAACACCCACG
CTGACTTCGCCGACGAGTGCCCCAAGCCAGAGCTGCTGGCCATCCGCTTCCTGAATGCTGAGAATGCACAGAAAT
TCAAAACAAAGTTTGAAGAATGCAGGAAAGAGATCGAAGAGAGAGAAAAGAAAGCAGGATCAGGCAAAAATGATC
ATGCCGAAAAAGTGGCGGAAAAGCTAGAAGCTCTCTCGGTGAAGGAGGAGACCAAGGAGGATGCTGAGGAGAAGC
AATAATCGTCTTATTTTATTTTCTTTTCCTCTCTTTCCTTTCCTTTTTTTAAAAAATTTTACCCTGCCCCTCTT
TTTCGGTTTGTTTTTATTCTTTCATTTTTACAAGGGACGTTATATAAAGAACTGAACTC

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FIGURE 2863

GCGGCGGCGCGGCGCCCAGG**ATG**CCCCGCAGCCCCGGGACGCGCCTCAAACCCGCCAAGTACATCCCGGTGGCCA
CGGCCGCCGCGCTGCTGGTCGGCTCCAGCACCCTCTTCTTCGTGTTCACGTGCCCGTGGTTGACACGAGCTGTGT
CCCCAGCTGTTCCCGTCTACAATGGCATCATCTTCCTCTTTGTCCTGGCCAACTTCAGCATGGCCACTTTCATGG
ACCCTGGTGTTTTCCCCCGAGCGGATGAGGATGAGGACAAGGAGGACGACTTCCGGGCTCCGCTGTACAAGAACG
TGGATGTGCGAGGTATCCAGGTCCGCATGAAGTGGTGTGCCACGTGCCACTTCTACCGCCCGCCGCGCTGCTCCC
ACTGCAGCGTCTGTGACAACTGTGTAGAGGTGACTGGGAAGTTCCGCGGGGGGTGTGAACCCTTTCACCCGAGGCT
GCTGTGGGAATGTGGAGCACGTGCTGTGTAGCCCCCTGGCGCCCCGGTACGTGGTGGAGCCACCCCGGCTGCCGC
TCGCGGTGAGTTTGAAGCCGCCTTTCCTTAGGCCTGAACTCCTGGACCGAGCTGCACCGCTCAAGGTCAAGCTTA
GTGACAACGGGCTGAAGGCTGGCCTGGGCCGTAGCAAGTCCAAGGGCAGCCTGGACCGGCTGGATGAGAAGCCAC
TGGACTTGGGGCCACCACTGCCCCCCAAGATAGAGGCTGGCACGTTCAGCAGTGACCTGCAGACCCCGCGCCCAG
GCAGTGCTGAGAGTGCCCTGTCGGTGCAGAGGACCAGCCCCCCGACACCTGCCATGTACAAGTTTAGGCCGGCTT
TCCCCACGGGTCCCAAGGTGCCCTTCTGTGGACCAGGCGAGCAGGTTCCAGGCCCTGATTCCCTGACCCTGGGGG
ACGACAGCATCCGTAGCCTGGACTTTGTGTCCGAGCCGAGCCTGGACCTCCCTGACTATGGGCCAGGGGGCCTGC
ATGCAGCCTACCCGCCATCCCCACCGCTCAGCGCCTCTGATGCCTTCTCGGGCGCTTTGCGCTCCCTGAGCCTCA
AGGCCTCGAGCCGGCGGGGCGGGGATCATGTGGCCCTGCAGCCCCTGCGCTCTGAGGGGGGGCCCCCCCACGCCCC
ACCGTAGCATTTTTGCCCCCCATGCACTGCCCAACCGCAACGGCAGCCTGTCCTATGACAGCCTGCTCAATCCTG
GCTCGCCTGGTGGCCACGCCTGCCCTGCCCACCCAGCAGTTGGCGTGGCCGGATACCACTCACCCTACCTGCATC
CTGGGGCAACGGGCGACCCGCCACGGCCCCTACCCCGCAGCTTCAGCCCCGTGCTGGGCCCCCGCCCCCGGGAGC
CCTCGCCTGTGCGCTACGACAACCTGTCCAGGACCATCATGGCATCCATCCAGGAGCGCAAGGACAGGGAGGAGC
GTGAGCGCCTGCTGCGCTCCCAGGCCGACTCACTCTTCGGCGACTCAGGCGTCTATGACGCTCCCAGCTCCTACA
GCCTGCAGCAGGCCAGTGTGCTGTCCGAGGGCCCCCGAGGTCCCGCGCTGCGCTATGGCTCCAGAGACGACCTTG
TGGCTGGGCCCGGCTTCGGTGGCGCCCGCAACCCTGCCCTGCAGACGTCACTGTCCTCGCTGTCCAGCTCCGTGA
GCCGTGCACCGCGGACGTCGTCCTCCTCCCTGCAGGCTGATCAGGCCAGCAGCAACGCCCCGGGGCCCCGGCCCA
GCAGTGGCTCACACAGGTCACCTGCACGCCAGGGCCTGCCCTCCCCGCCCGGCACTCCCCACTCACCATCCTACG
CGGGCCCCAAAGCTGTCGCCTTCATCCACACGGACCTCCCAGAGCCACCGCCCTCGCTGACCGTGCAGAGGGACC
ACCCTCAGCTGAAGACTCCCCCAAGTAAGCTTAATGGGCAGTCCCCGGGCCTGGCCCGGCTGGGACCTGCCACCG
GCCCCCCAGGGCCCTCTGCCAGCCCTACACGGCACACGCTGGTTAAGAAGGTGTCCGGCGTGGGTGGGACCACCT
ACGAGATCTCGGTG**TGA**GGACTGACTGCCACACATCCGCCATGGTGCCACGGGGACCAGGACCCCACAGCGCACC
CCCCCTCCCCACCAACTTCTCTGCCCCAGGGACCCGAGGCCACCCCAGCCTGGTGTGGACCCATCGGCGGGAGAG
AGTGCCACGCCTCCACAGCTTGCCCCAAGCGCTCTGCCTGCCCGTCCACTCATCTGCCCATGGGGAAGTCGGCTC
ACTGGGACAAGGGCCACTGGGCTGGTCTGTGTCTGGGCCTGTCCCATGGCTGGGGCAGTGAGGGGGCCCAGTCAG
CCTCTTTGGGGCACCCTCTCTCAGCCAGGCTTGGCCCACTGCCATCACCCAGCACCCCAGATCACCGCCAGGCCA
GCCCCCAATGGTCCCCTTACGGACAGGTCCCAGAGATGGACAGAGGCACCCAGGGCCCCCACCGTCCTTCTGACA
CAGCCTGTGGGCTCCCGGACCGAGTGTCCCCCGCCAGGCTACTCCTAACTAACGCGTTGCCTTTCACGGACCCCG
CTGGAAGCTTGTAGCTTGGCAAGGCTGATGCTTCTGCCCTGGCCTGCTCTGGGTGGTGGTGGATAGGTGGACAGA
CGGCCAGCCAGCCAGCTGTGGCCGGGGGCCCGGCTCCATGTGTCCCGTGTCTGTGTGCTGTGCTGCCGCGCCGTG
TCTGATGTGTCAGTGCTCCGGCCGCCGCTGTCCCTTTCATCAAAGCCTTAACCTTTGCTTTATGCTCTTGTGGGA
GGCGACGGGGGGGCAGGCGGGAGCAGGCACGGGGGTGATGCTGCCACAGGGGGCTGGTGACACCCAGAGCCCCCT
CCCCAGCCCTCAGGCCCTCCCTGCCAAACTGGAGAACCCCACCCCAAGGCATGCCACGTCCGCAGCCCCGGCCTG
GCTGCGGTGCTCGCGCCGTGGGAAAGCACACTGGGGAGGGGTCAGTGCTTCCCTTGGTGTCAGGGACCTGAGAGT
AAGCACATGACAGCGTCTGCTTGCGTTGTGTCTGTTTTATGTTTTTATATCTACATCTATATATCTATAATTTTA
TTAAAAAAAAGAAAAAG

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FIGURE 2864

GTGTGGAGGAGGGAGCAGGCTGCCTGGGTGGTTGTGGGACGCGACTCCTCCTAAGCCCTGGACACACTTGCCCTC
CACCCCCGCCCTCGGGCATCCAGGCGCCCGTTTTTGAGATAGACGTGCCCAGAGGGACCCCAGCCCCATTGCAGT
GTTTCCTAGGCCCTGTGGGTGGAACCCCCACTGGGACCCCCCGGGGACTCCTGCAATGCGGGCTCTGTGTTCACT
GGAGTCCTGAGGAGGTACCTGCAGTCACCAGTGTCCATTCCAGGAGGCCTTCAAGGAGCCGGCTGCTGGCATGGG
TGCTGTGGCTGCAGGCCTGGCAGGTGGCAGCCCCATGCCCAGGTGCCTGCGTATGCTACAATGAGCCCAAGGTGA
CGACAAGCTGCCCCCAGCAGGGCCTGCAGGCTGTGCCCGTGGGCATCCCTGCTGCCAGCCAGCGCATCTTCCTGC
ACGGCAACCGCATCTCGCATGTGCCAGCTGCCAGCTTCCGTGCCTGCCGCAACCTCACCATCCTGTGGCTGCACT
CGAATGTGCTGGCCCGAATTGATGCGGCTGCCTTCACTGGCCTGGCCCTCCTGGAGCAGCTGGACCTCAGCGATA
ATGCACAGCTCCGGTCTGTGGACCCTGCCACATTCCACGGCCTGGGCCGCCTACACACGCTGCACCTGGACCGCT
GCGGCCTGCAGGAGCTGGGCCCGGGGCTGTTCCGCGGCCTGGCTGCCCTGCAGTACCTCTACCTGCAGGACAACG
CGCTGCAGGCACTGCCTGATGACACCTTCCGCGACCTGGGCAACCTCACACACCTCTTCCTGCACGGCAACCGCA
TCTCCAGCGTGCCCGAGCGCGCCTTCCGTGGGCTGCACAGCCTCGACCGTCTCCTACTGCACCAGAACCGCGTGG
CCCATGTGCACCCGCATGCCTTCCGTGACCTTGGCCGCCTC**ATG**ACACTCTATCTGTTTGCCAACAATCTATCAG
CGCTGCCCACTGAGGCCCTGGCCCCCCTGCGTGCCCTGCAGTACCTGAGGCTCAACGACAACCCCTGGGTGTGTG
ACTGCCGGGCACGCCCACTCTGGGCCTGGCTGCAGAAGTTCCGCGGCTCCTCCTCCGAGGTGCCCTGCAGCCTCC
CGCAACGCCTGGCTGGCCGTGACCTCAAACGCCTAGCTGCCAATGACCTGCAGGGCTGCGCTGTGGCCACCGGCC
CTTACCATCCCATCTGGACCGGCAGGGCCACCGATGAGGAGCCGCTGGGGCTTCCCAAGTGCTGCCAGCCAGATG
CCGCTGACAAGGCCTCAGTACTGGAGCCTGGAAGACCAGCTTCGGCAGGCAATGCGCTGAAGGGACGCGTGCCGC
CCGGTGACAGCCCGCCGGGCAACGGCTCTGGCCCACGGCACATCAATGACTCACCCTTTGGGACTCTGCCTGGCT
CTGCTGAGCCCCCGCTCACTGCAGTGCGGCCCGAGGGCTCCGAGCCACCAGGGTTCCCCACCTCGGGCCCTCGCC
GGAGGCCAGGCTGTTCACGCAAGAACCGCACCCGCAGCCACTGCCGTCTGGGCCAGGCAGGCAGCGGGGGTGGCG
GGACTGGTGACTCAGAAGGCTCAGGTGCCCTACCCAGCCTCACCTGCAGCCTCACCCCCCTGGGCCTGGCGCTGG
TGCTGTGGACAGTGCTTGGGCCCTGC**TGA**CCCCCAGCGGACACAAGAGCGTGCTCAGCAGCCAGGTGTGTGTACA
TACGGGGTCTCTCTCCACGCCGCCAAGCCAGCCGGGCGGCCGACCCGTGGGGCAGGCCAGGCCAGGTCCTCCCTG
ATGGACGCCTGCCGCCCGCCACCCCCATCTCCACCCCATCATGTTTACAGGGTTCGGCGGCAGCGTTTGTTCCAG
AACGCCGCCTCCCACCCAGATCGCGGTATATAGAGATATGCATTTTATTTTACTTGTGTAAAAATATCGGACGAC
GTGGAATAAAGAGCTCTTTTCTT

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FIGURE 2865

GGGACAATCGTAAAAGGGGCGGGACGCGCCGCGCTCGGGATGTCGTGAAGCTGGGGGAGCTCGTCGCCGCCGCCG
GCGGCTAGCGGGCGTCCGCGCC**ATG**GAGCGCTACGCGGCCGCCTTGGAGGAGGTGGCGGACGGTGCCCGGCAGCA
GGAGCGACACTACCAGTTGCTGTCGGCGCTACAGAGCCTGGTGAAGGAGTTGCCCAGCTCTTTCCAGCAGCGCCT
GTCCTACACCACGCTCAGCGACCTGGCCCTGGCGCTTCTCGACGGCACCGTGTTCGAAATCGTGCAGGGGCTACT
GGAGATCCAGCACCTCACCGAAAAGAGCCTGTACAACCAGCGCCTGCGCCTACAGAACGAGCACCGAGTGCTCAG
GCAGGCGCTGCGGCAGAAGCACCAGGAAGCCCAGCAGGCCTGCCGGCCCCACAACCTGCCTGTGGTTCAGGCGGC
TCAGCAGCGAGAACTAGAGGCCGTGGAACACCGGATCCGTGAGGAGCAGCGGGCGATGGACCAGAAGATCATCCT
GGAGCTGGACCGGAAGGTGGCTGACCAGCAGAGCACACTGGAGAAGGCGGGGGTGGCTGGCTTCTACGTGACCAC
CAACCCACAGGAGCTGATGCTGCAGATGAACCTGCTGGAACTCATCCGAAAGCTGCAGCAGAGGGGCTGCCGGGC
AGGGAATGCAGCCCTGGGACTGGGAGGTCCCTGGCAGTCGCCTGCTGCCCAGTGTGACCAGAAAGGCAGCCCTGT
CCCACCA**TAG**CCACAGGCAGCAGAAGTCTGGGCAGAGTTCATCTTCTTGACCTTTGGCCACTGCCTTCCCAGCTG
CCCGCAGGGGGTTCCCCCTGCTGAGGAGAGACCAGGTGGACCCCAGCTGCCTGTCACCCTTCATCTGGGACTTGC
TGTCAAACCCTAGGATAGTCTCATAAAGGGGAGGCTGGGCCAGCCTGCTGCTGTCTGCTTCAGGACCAGGCAGAG
AGTGAGGCTGGGGGTTCTCACACCTTACTCCACCGGGCACATCCCAACCTGCACTGGGGCCCACCCGAGCGCTTG
TTCTGGTCTCAGCCGCTCCCTTGGCAGCTGCAGCCCCCATGCAGAAGAGGCTCCCAGGCCCAAGCTCTGTGTGAC
CCAGAGAAATAAAGATGCCTCAGTGTGGCCC

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FIGURE 2866

CCCTTATAGGCCTGGTTGGTTTACACAACATTGGACAGACCTGCTGCCTTAACTCCTTGATTCAGGTGTTTGTA**A**
TGAATGTGGACTTCGCCAGGATATTGAAGAGGATCACGGTGCCCAGGGGAGCTGACGAGCAGAGGAGAAGCGTCC
CTTTCCAGATGCTTCTGCTGCTGGAGAAGATGCAGGACAGCCGGCAGAAAGCAGTGTGGCCCCTGGAGCTGGCCT
ACTGCCTGCAGAAGTACAACGTGCCCCTGTTTGTCCAACATGATGCTGCCCAACTGTACCTCAAACTCTGGAACC
TGATTAAGGACCAGATCGCTGATGTGCACTTGGTGGAGAGACTGCAGGCCCTGTATATGATCCGGATGAAGGACT
CCTTGATTTGCCTTGACTGTGCCATGGAGAGTAGCAGAAACAGCAGCATGCTCACCCTCCGACTTTCTTTTTTTG
ATGTGGACTCAAAGCCCCTGAAGACACTGGAGGACGCCCTGCACTGCTTCTTCCAGCCCAGGGAGTTATCAAGCA
AAAGCAAATGCTTCTGTGAGAACTGTGGGAAGAAGACCCGTGGGAAACAGGTCTTGAAGCTGACCCATTTGCCCC
AGACCCTGACAATCCACCTCATGCGATTCTCCATCAGGAATTCACAGACGAGAAAGATCTGCCACTCCCTGTACT
TCCCCCAGAGCTTGGATTTCAGCCAGATCCTTCCAATGAAGCGAGAGTCTTGTGATGCTGAGGAGCAGTCTGGAG
GGCAGTATGAGCTTTTTGCTGTGATTGCGCACGTGGGAATGGCAGACTCCGGTCATTACTGTGTCTACATCCGGA
ATGCTGTGGATGGAAAATGGTTCTGCTTCAATGACTCCAATATTTGCTTGGTGTCCTGGGAAGACATCCAGTGTA
CCTACGGAAATCCTAACTACCACTGG**TAA**GAAAC

FIGURE 2867A

CCTTTTGTGGGAGTCCGGTCTGTCCACTTGCCGGTCCCTCAGACCGTCGGCGGTCTCTGTCCGCTTCGGGACCTG
TCCGCTGGTCGCTCCGCGTCCGATGGCTCCTGGCCGCGGAACCTTAGGCCTGGCCCTGGTCTCCGAGCGCGGGTT
CGCCGGGAGGAGCGTGTGGCGGGGGTGTGCCGGGGCGTGAGTGCGCCGAGCATGGGGCTGAGCCTGGTGTGGGGA
GTGGGTATCTGCGGAGCCGGCCTGAACCCCACCTCAGCCGGGCGCGGGGAGGGGGCTCCGTGCGTGTGATCGTGC
AGCTGTGAGCGCGTGGCCGCCCCGCGGGGCTCCGCTGCAGGCCCCTCAGCCCCAGGAGCAGTACTCGCTCTTCAG
GGCCTGCCCTGGATCCTGGAGGCTACACAGCTGCCCACTCCTCCTGGGGAGGCTGCCGTGGAGGCCATGGAGATC
CCTGCCCCGGAGCCCGAGAAGACAGGTACAGCTTCACTCTTGTAGTCAGTATGTCTGTGGATTTGCACTTGAGGA
TATTGACACTCAGAGAGATCAGGCCAGTTTCCCAGAAGCATCCAGCATCTTTTTTTTTTTTTTTAAATGGAATCT
CACTCTGTCACCCAGGCGGGAGTGGTGCAATGGCTTGATCTCCGCTCACTGCAACCTCTGCTTCCCGGGTTCAAA
CTATTCTCCCGCCTCAACCTCCCAAGTAGTTGGGATTGCAGGCGCGCGCCACCACGCCCGGCTAATGTTTGTATT
TTTAGTAGAGACGGGGTTTTGCCATGTTTCCCAGGCTGGTCTTAAGCTCAAGCGATCCGCCCGCCTCGGCCTCCC
AAAGTGCTGGGATTACAGGCGTGAGCCATCGCTCCTGGCCTCCTGCTTCTTTCTTCCCCGCGCCCAATCATTTGT
TCCCACTCAGACGTGCTTGATTGGGGGTAGCAGCTCTTTTCGTCATGAATTGGAGTGTCTGAGACACAGGCAGAT
TATTCCTCGATGCTGTTTCTGTTGGTGCTAGCTACTGGGGCTCGTTCCCCACCTGGCCTTGCTGGCAGGTTCTGC
CTCCTCTCTGATTCTCACTTGTGCCACGACAGGTGGGCTTTAAGCTCAGCCGTGAGCCTGGTAGCCGTGACCTTG
ACTCATTTCTCCTTCGCCAGCTCTTTCCTCTCAGGATCCTGCTCTTTCCCTGAAAGAGAATCTCGAGGATATATC
GGGTTGGGGTCTTCCCGAAGCCAGGTCCAAGGAATCGGTGAGTTTCAAGGATGTGGCTGTGGACTTCACCCAGGA
GGAGTGGGGTCAACTAGACTCCCCTCAGAGGGCCTTGTACCGGGATGTG**ATG**TTGGAGAACTACCAGAACCTTCT
TGCCCTAGGACCTCCACTGCACAAGCCAGATGTGATCTCTCATCTGGAACGAGGCGAGGAGCCATGGAGCATGCA
GAGGGAAGTCCCCAGAGGGCCCTGTCCAGAATGGGAGCTGAAGGCGGTGCCCTCTCAACAGCAGGGCATTTGCAA
AGAAGAACCGGCCCAGGAGCCCATCATGGAGCGGCCCCTCGGCGGGGCGCAGGCGTGGGGGCGCCAGGCAGGTGC
TCTGCAGAGGAGTCAGGCTGCGCCCTGGGCGCCCGCACCTGCCATGGTCTGGGACGTCCCTGTAGAGGAATTCCC
CCTCAGGTGTCCCCTCTTCGCCCAGCAACGCGTTCCCGAGGGGGGACCCTTGCTGGACACACGCAAGAACGTCCA
GGCCACTGAGGGCAGAACCAAGGCCCCCGCGAGACTGTGTGCAGGGGAAAACGCCTCCACGCCAAGTGAGCCAGA
AAAGTTCCCCCAGGTGCGCCGGCAGCGCGGGGCGGGCGCCGGGGAGGGCGAGTTCGTGTGCGGCGAGTGCGGGAA
GGCGTTCCGCCAGAGCTCCTCCCTCACGCTGCACCGGCGCTGGCACAGCCGGGAGAAGGCTTACAAGTGCGATGA
ATGCGGCAAGGCCTTCACCTGGAGCACCAACCTTCTGGAGCACCGGCGCATCCACACCGGCGAGAAGCCCTTCTT
CTGCGGCGAGTGCGGGAAGGCCTTCAGCTGCCACTCGTCCCTCAACGTGCACCAGCGCATCCACACGGGCGAGCG
GCCCTACAAGTGCAGCGCCTGCGAGAAGGCCTTCAGCTGCAGCTCGCTGCTCAGCATGCACCTGCGGGTGCACAC
CGGCGAGAAGCCCTACCGGTGCGGCGAGTGCGGCAAGGCCTTCAACCAGCGTACACACCTCACACGCCACCACCG
CATCCACACGGGCGAGAAGCCCTACCAGTGCGGCTCCTGCGGCAAGGCCTTCACCTGCCACTCATCCCTCACCGT
GCATGAGAAGATCCACAGCGGGGACAAGCCGTTCAAGTGCAGCGACTGCGAGAAGGCCTTCAACAGCCGCTCGCG
CCTCACCCTCCACCAGAGGACGCACACGGGCGAGAAGCCCTTCAAGTGCGCCGACTGCGGGAAGGGCTTCAGCTG
CCACGCGTACCTGCTCGTGCACCGGCGCATCCACAGCGGCGAGAAGCCCTTCAAGTGCAACGAGTGCGGCAAAGC
CTTCAGCTCCCACGCCTACCTCATCGTGCACCGGCGCATCCACACAGGCGAGAAGCCCTTCGACTGCAGCCAGTG
TTGGAAGGCCTTCAGCTGCCACTCGTCCCTCATCGTGCACCAGCGCATCCACACCGGTGAGAAGCCCTACAAGTG
CAGCGAGTGCGGCAGAGCCTTCAGCCAGAACCACTGTCTCATTAAACATCAGAAAATCCACTCCGGGGAGAAGTC
GTTTAAGTGTGAGAAATGTGGGGAGATGTTCAACTGGAGCTCGCACCTCACTGAGCACCAGAGGCTGCACAGCGA
GGGGAAGCCCTTGGCCATCCAGTTCAACAAACACCTGCTCAGCACATACTACGTGCCTGGCAGCCTGCTGGGTGC
AGGGGATGCTGGACTGAGGGACGTGGATCCCATCGACGCGCTGGATGTGGCAAAGCTCTTGTGCGTGGTTCCCCC
CAGAGCTGGCAGGAATTTCTCCCTGGGGAGCAAACCTCGAAAC**TAA**CATGATGTGCTTTGGTGTCAGTAGCTGCT
TTCTGAGCTACTCAACAAGGAAAGCACCCTGGTCCTCCCTGGCTCCTAGATCCAGACCACCTTCCTCCAGGTGTG
GGAGCCTTGCCTTATCACCCCCATCAGGTCTGCATGCCAGGGTGCCTCCTCTAGTTAAAGTCAGTCACCTCCCCA
GAAGGGCCACACTCCAGGAGGAGTGTTGAGAGTCATTTGAGGTAGTCTTGCCACCTGTTTTCCTTGATGGGCCTG
GAAGTTGTTGACAAGGGGAAAGATCTTTCTTGCCAATAAAAAGAAGGGATATCGTTGGGTGCCATGGCTCACACC
TGTAATCTTAACACTGTGGGAGGCCAAGGCAAGGGGATCACTTGAGCCCAGGAGTCTAGGACCAGCCTGGACAAC
ATGGTGAGACCTCGTCTCTACAAAAAATGCAAAAATTAGCCAGATGTGGCGGCATGTCCCTGTGGTCCCAGCTAC
TCAGGAGGCTGAGGTGGGAGGATCATTTGAGCCTAGGAGGTCAAGGCTGCAGTGAGCCATGATTCACAGCACTGC

FIGURE 2867B

ACTGCAGCCTGGGTGACAAAGCAAGACCCTGTGTGAAATTAAAAGGAGGTATATCAACTGTTGTATCCTCGGACG
GGCTCCTGACACGGCTTTAATCAGGAGTTTCCTCCATAAACTATTATTTTCAGAATAATAATAAAACAAGAATTA
TGACTAGC

FIGURE 2868

CCCGCCTCCCGCCTCCCGCCTCCCTCCAGCTGCGAGTGCGGCCTCGGCTGGCGGCGGCACCAGGCCACAGTTGTA
AGGGATCTTGTGGCTGTCAGG**ATG**GCAGAGGAGCAGGAGTTCACCCAGCTCTGCAAGTTGCCTGCACAGCCCTCA
CACCCACACTGCGTGAACAACACCTACCGCAGCGCACAGCACTCCCAGGCTCTGCTCCGAGGGCTGCTGGCTCTC
CGGGACAGCGGAATCCTCTTCGATGTTGTGCTGGTGGTGGAGGGCAGACACATCGAGGCCCATCGCATCCTGCTG
GCTGCGTCCTGCGATTACTTCAGAGGAATGTTTGCTGGGGGATTGAAGGAGATGGAACAGGAAGAGGTCCTGATC
CACGGTGTGTCCTACAATGCTATGTGCCAAATCCTACATTTCATATACACCTCCGAGCTGGAGCTCAGCCTGAGC
AATGTACAAGAGACACTGGTGGCTGCCTGCCAGCTTCAGATCCCAGAAATTATCCATTTCTGCTGTGATTTCCTC
ATGTCCTGGGTGGACGAAGAGAACATTCTCGATGTCTACCGGCTGGCAGAGCTGTTTGACTTGAGCCGCCTGACT
GAGCAACTGGACACCTATATCCTCAAAAACTTTGTGGCCTTCTCTCGGACTGACAAGTACCGCCAGCTTCCATTG
GAGAAGGTCTACTCCCTCCTCAGCAGCAATCGCCTGGAGGTCTCCTGCGAGACCGAGGTATATGAGGGGGCCCTT
CTCTACCATTATAGCCTGGAGCAGGTGCAGGCTGACCAGATCTCGCTGCACGAGCCCCCAAAGCTCCTTGAGACA
GTGCGGTTTCCGCTGATGGAAGCTGAGGTCCTGCAGCGGCTGCATGACAAGCTGGACCCCAGCCCTTTGAGGGAC
ACAGTGGCCAGCGCCCTCATGTACCACCGGAACGAGAGCCTACAGCCCAGCCTGCAGAGCCCGCAAACGGAGCTG
CGGTCGGACTTCCAGTGCGTTGTGGGCTTCGGGGGCATTCACTCCACGCCGTCCACTGTCCTCAGCGACCAGGCC
AAGTATCTAAACCCCTTACTGGGAGAGTGGAAGCACTTCACTGCCTCCCTGGCCCCCCGCATGTCCAACCAGGGC
ATCGCGGTGCTCAACAACTTCGTATACTTGATTGGAGGGGACAACAATGTCCAAGGATTTCGAGCAGAGTCCCGA
TGCTGGAGGTATGACCCACGGCACAACCGCTGGTTCCAGATCCAGTCCCTGCAGCAGGAGCACGCCGACCTGTCC
GTGTGTGTTGTAGGCAGGTACATCTACGCTGTGGCGGGCCGTGACTACCACAATGACCTGAATGCTGTGGAGCGC
TACGACCCTGCCACCAACTCCTGGGCATACGTGGCCCCACTCAAGAGGGAGGTGTATGCCCACGCAGGCGCGACG
CTGGAGGGGAAGATGTATATCACCTGCGGCCGCAGAGGGGAGGATTACCTGAAAGAGACACACTGCTACGATCCA
GGCAGCAACACTTGGCACACACTGGCTGATGGGCCTGTGCGGCGCGCCTGGCACGGCATGGCAACCCTCCTCAAC
AAGCTGTATGTGATCGGGGGCAGCTGGGGTTGGAGGATGAGAGCTCCTGAGGGGCAGAGGAGCAGAGATGCATCA
GCTCGCCTGGGACTGGCTCTG**TGA**TAAAAAGACCCCTCCCGCTGGGTTTTCAGACCCCATGTTGTTGGTCAATGA
AATAAAGCATCTTACAG

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FIGURE 2869

AGCCTTTCATCCACTATGGTTTACAATGCAGGGATCTGGTTGATGAAGCAAAGAAGTTTCATCTGAGGCCTGAAC
TTCAGAGTCAGATGCAGGGACCCAGGACAAGGGCTCGCCTAGGAGCCAATGAAGTGCTTTTGGTGGCTGGGGGCT
TCGGAAGCCAGCAGTCTCCCATCGATGCAGTAGAGAAATATGACCCCAAGACTCAGGAGTGGAGCTTTTTGCCAA
GCATCACTTGTAAGAGATGTTATGTGGCCTCAGTGTCCCTACATGACCAGATCTACGTCATTGGTGGCTGTGATG
GTCGTTCCAGCCTTAGTTCAGTGGAATGTCTAGACTACACAGCAGATGAGGATGGGGTCTGGTATTCTGTGGCCC
CTATGAATGTCTGATGAGGTCTTGCTGGAGCCACCACCCTGGGAGATTTGATCTATGTCTCTGGAGGCTTTGATG
GAAGCAGGCGTCACACCAGT**ATG**GAGCGGTATGATCCAAACATTGACCAGAGGAGCATGCTGGGAGATATGCAGA
CAGCCCGGGAAGGTGCCGGACTCGTAGTGGCCAGTGGAGTGATCCACTGTCTAGGAGGATATGACGGCTTGAATA
TCTTAAATTCAGTTGAGAAATATGACCCTCATACAGGACACTGGACTAATGTTACACCAATGGCCACCAAGCGTT
CTGGATATGAAGGTAAGTCCCTGCTAAGTAGCATTGAATGTTACAACCCTATCATCAACAGCTGGGAAGTCGTGA
CATCCATGGGAACCCAGCGCTGTGATGCTGGTGTGTGTGTTCTCCACAAGAAG**TGA**CCATTGTTGGAGCACCATC
CAGAGCTAGTGACCAGTCCAGTGGACAGTTAGTGGGAGAATCAAGAATCCTTTCTAGAATGTCTGTTTCTCACTA
TGTGCACAGGGTGATTACAGGCACCAGTGCAGTGATGATTGTACTTATTTGACACATACTCCCCCTCGTCCTGGT
TGTTGTTCCTGAGAAGGGTGGGTAACAGATACTCCAGGGAAAAGAATGCACATTGAATGGATGTGAGAGACCACA
TTACCTCTCCCACTACTTTGGGGAGCACTTTCCTGTCATTTCTAACTTACCACGTGCTTGGTGTACTATATGTAT
GTTGTGCCTCATATGTTGCAAAGAACTAAGGTGAGTATAGCCTACTAGATGTGAGCAATATCCAGCCTAGATGAT
TGGAAAGATACCAATTTAAGTAAACTTGGTAAAATCCAAGTCTTTTTTTTTTCCAGGAACAAATACATTTTCTAA
TCTACAGGTAGCTAGGGGCAACACAGTTCCATTCTAAAGGGAAACAAAAGGGAGAGCCCCACAAAACTTTGGGGG
CAAGGGAGAGATACTCATCTGACACTTCTTTTGGAGGTCAGGGTTTGTATATCAGAATTGAAGTTAGAATCAGTG
AATTAAACTGAATTTGATGGAATGTGAGTGAACCTAGAACAGCACTGAAGTATTACATAACCTGGAAGACTGAGA
AGGGTATATTCTTTGAATGATCTTTTTATTTCCCCAAGGTCTTTCACACTGGAGACAGCATAAAAGAGTGAACCA
ATGTTGGGATGAGAGAAGATGACATAAATGTGGGAGTTCAGTATAACTGGGGATAAACTAGAAGTACCTGTGATT
TTACAGTCATCTTATTGCCTGCCAGGGGTCATCTAGCCATGGCAGTGTTAACCTTGAATGGGGGTGAAAGCCTTT
CTTTGTTGAATCAAATACTACTACACTATTACACTTCCACACTATTTATTTGGGGATGGACTGGGAGTGACAGTA
GCCTAGTAGTTCAGCTACCTGATTACTGCCCCATTCTTTTAGAAGCACACTTCTGCCAAGGAGTGGTTTGTACTG
CTGTGATTGGTACATTTAGTCTTTTTTCTGCTATAAGTTTTCCTTACCTGTCCTTTAGTGTAGATTTTATTCATT
ACAGGACAGAATAATCAAGGACAACCAAAATCCTTTTGTTAGTTTCAGTACCTCAGCTATCAACATTTCTGAGCT
ATCATTCAATGTTCCTCTGTGTCATGGAGTGAAATTCTTGTTTTATGGGTATTGGGAGTGTGGGAATGTGATAAC
CTAAACAACCTTTGCTCTGAAATTCCATTTTTCCCTCTTTCCCTGAAGTGTACTGACCTGTACTACAGAGTTAAT
TTCTTTTGTATTTTTTTAAGAAAATATTAAAAATCAATGGTCTC

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FIGURE 2870

TTGGGCCTGGCTCTGTGACTGAGGCGGCGGCGGTGGCGGCCAAGCGGGATACGGGCGGCGGGAGCTGGGGAACAG
GC**ATG**GACGTTTCCGGGCAAGAGACCGACTGGCGGAGCACCGCCTTCCGGCAGAAGCTGGTCAGTCAAATCGAGG
ATGCCATGAGGAAAGCTGGTGTGGCACACAGTAAATCCAGCAAGGATATGGAGAGCCATGTTTTCCTGAAGGCCA
AGACCCGGGACGAATACCTTTCTCTCGTGGCCAGGCTCATTATCCATTTTCGAGACATTCATAACAAGAAATCTC
AAGCTTCCGTCAGTGATCCTATGAATGCACTCCAGAGCCTGACTGGCGGACCTGCTGCGGGAGCCGCTGGAATTG
GCATGCCTCCTCGGGGCCCGGGACAGTCTCTGGGCGGGATGGGTAGCCTTGGTGCCATGGGACAGCCAATGTCTC
TCTCAGGGCAGCCGCCTCCTGGGACCTCGGGGATGGCCCCTCACAGCATGGCTGTCGTGTCTACGGCAACTCCAC
AGACCCAGCTGCAGCTCCAGCAGGTGGCGCTGCAGCAGCAGCAGCAACAGCAGCAGTTCCAGCAGCAGCAGCAGG
CGGCGCTACAGCAGCAGCAGCAGCAGCAGCAACAGCAGCAGTTCCAGGCTCAGCAGAGTGCCATGCAGCAGCAGT
TCCAAGCAGTAGTGCAGCAGCAGCAGCAGCTCCAGCAGCAGCAGCAGCAGCAGCAGCATCTAATTAAATTGCATC
ATCAAAATCAGCAACAGATACAGCAGCAGCAACAGCAGCTGCAGCGAATAGCACAGCTGCAGCTCCAACAACAGC
AACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGGCTTTGCAGGCCCAGCCACCAATTCAGCAGCCAC
CGATGCAGCAGCCACAGCCTCCGCCCTCCCAGGCTCTGCCCCAGCAGCTGCAGCAGATGCATCACACACAGCACC
ACCAGCCGCCACCACAGCCCCAGCAGCCTCCAGTTGCTCAGAACCAACCATCACAACTCCCGCCACAGTCGCAGA
CCCAGCCTTTGGTGTCACAGGCGCAAGCTCTCCCTGGACAAATGTTGTATACCCAACCACCACTGAAATTTGTCC
GAGCTCCGATGGTGGTGCAGCAGCCCCCAGTGCAGCCCCAGGTGCAGCAGCAGCAGACAGCAGTACAGACAGCTC
AGGCTGCCCAGATGGTGGCTCCCGGAGTCCAGATGATCACGGAAGCCTTGGCCCAAGGTGGGATGCACATAAGAG
CCCGGTTCCCGCCTACCACCGCTGTGTCCGCCATCCCGTCAAGCTCCATCCCTTTGGGCAGACAGCCCATGGCAC
AGGTCAGCCAGAGCAGCCTCCCCATGCTGTCCTCGCCGTCACCGGGCCAGCAGGTGCAGACCCCGCAGTCGATGC
CCCCTCCCCCCCAGCCGTCCCCGCAGCCCGGCCAGCCCAGCTCACAGCCCAACTCCAACGTCAGCTCTGGCCCTG
CCCCATCTCCCAGTAGCTTCCTGCCCAGCCCCTCACCGCAGCCCTCCCAGAGCCCAGTGACGGCGCGGACCCCAC
AGAACTTCAGTGTCCCCTCACCTGGACCTTTAAACACACCTGTGAACCCCAGCTCTGTCATGAGCCCAGCTGGCT
CCAGCCAGGCTGAGGAGCAGCAGTACCTGGACAAGCTGAAGCAGCTGTCGAAGTACATCGAGCCCCTGCGCCGCA
TGATCAACAAGATCGACAAGAACGAAGACAGAAAAAAGGACCTGAGTAAGATGAAGAGCCTTCTGGACATTCTGA
CAGACCCCTCGAAGCGGTGTCCCCTGAAGACCTTGCAAAAGTGTGAGATCGCCCTGGAGAAACTCAAGAATGACA
TGGCGGTGCCCACTCCCCCACCGCCCCCGGTGCCACCGACCAAACAGCAGTACCTATGCCAGCCGCTCCTGGATG
CCGTCCTGGCCAACATCCGCTCACCTGTCTTCAACCATTCCCTGTACCGCACATTCGTTCCAGCCATGACCGCCA
TTCACGGCCCACCCATCACGGCCCCAGTGGTGTGCACCCGGAAGCGCAGGCTTGAGGATGATGAGCGGCAGAGCA
TCCCCAGTGTGCTCCAGGGTGAGGTGGCCAGGCTGGACCCCAAGTTCCTGGTAAACCTGGACCCTTCTCACTGCA
GCAACAATGGCACTGTCCACCTGATCTGCAAGCTGGATGACAAGGACCTCCCAAGTGTGCCACCACTGGAGCTCA
GTGTGCCCGCTGACTATCCTGCCCAAAGCCCGCTGTGGATAGACCGGCAGTGGCAGTACGACGCCAACCCCTTCC
TCCAGTCGGTGCACCGCTGCATGACCTCCAGGCTGCTGCAGCTCCCGGACAAGCACTCGGTCACCGCCTTGCTCA
ACACCTGGGCCCAGAGCGTCCACCAGGCCTGCCTCTCAGCCGCC**TAG**CCAAGACTGCAGGGATGGCCCGCAGCCT
CATCGGGGCCAAGGACACACGCCTCCTGTCAGACACTTCTAGGTGTTGGCTTCCTTAGAGAGCCTGGGGTTAGGT
TAGCTTTCCTGCTTTTATCTTCTGCCTTGGGGACCTGCCAAACGAAATCCCACACCTGTACAGAACTGGGATAGG
CGCAGTGGAGCGGGTTGCTTGGGGGGCGTTGGCCGACTTCTTAGAGAAGGCCCTCCATGTGACTTCCTCCCAGGA
GCCAGATGCGATCCTCAGGCTGCTCTCACCGTGGCCTGTCCACGGTCCAGGTCCATCTCAGCAGCGTGAGGGTGC
ACTCAGGGTGTTGTTAGAGCGTCTCGTGTGTGCTAGACGCACCCCTACTCGTTCCTATAGAACACAGAGGACATA
GGAAACCCTTAAAACACACATGGGATTCTCTGGTCACAGTTTTGGGTTCAGGCTATGCTGCTTTGGGCAGGTGGA
GCACCCCCCGAGGAAGCCTGCAAGTCCAGGGCACAGGCTGCCTTTTGGAGGGAGGGCTGGCCCATAGGTGCTGCT
GGCTCCCCGCCACCAGCTGGGCCTCAGCCCTCACGGCATTCCTGCTGAGCACCGTGGGGCACCCAGGGAGCAGGG
GCGTCAGGGATCCTGCTGCCGGCACCCCTGTGCCGCTGGCATGAGGGCCGTGTCCCCACTGTGAAGGATGAAGAG
CAAGGCCCTCAGGACCCGTGTCCTCAGAGCACCACACACTGAGCACCCAGAGACAGCGGGCCTGGCAGCGGGCCG
GGCCATGCAGGGAGCGCCTCCCTATGTTGCCTGCCACTCTGGGCACCGGCCAGCACCCTCTGGTGAGAAGAGGTC
CCCCCTTTTTATGTGCACTACCCCACCATCTGTGATTATAATAAATTTATTATTCCTGTG

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FIGURE 2871

ATTGAAAGAACTAACCTGCAGAAAAGGCTGCTGCCCTTCAAACTGTGTACTGTTGTCTAAGCTAGTTCAGAAGAA
TACACGAGCTTCCTTCACATACTCCAATCTGTTGGTTTGACTTCTGAAGAACCAGCAGAGTTGGAAAGGCCTCGA
GATCTCTGTCCTGGTGCTGGCCTGGGGCTCCCCTAGGTCTCGCCTGAAAGTGTCCCATTCACCACCAGTCTTCTA
CA**ATG**TTATCCGGAATGGAACGAAGTACTACACCCACAAGTCCTGAAGGTACTGACCAAAACAGGAGGGAGAGAC
GGGACCGGGGCTGCTGTGACTGGAGGCTGATGGGGCTCCACCGTGCCCCATCCTCTCATCCCACAGTCTTCCTTC
ACATCTGCTCTGCCCACCACAGCCCTGCTCTGGAGTTCTCTGCTCTGCCACTTCTGCCATCCCCACCTAGGCAGA
CAGGTTTCATCCAGCCTCCAGGACGGCCCACCCACTTGCTCCTGCAGCAGGCTGCTCTTCCCAGGTGCACAGCCC
AGAGAATTAAGTGCATATATTTACCAGAAGACATGACCAAAGCCATTCCTGGGGTTGCCTTCATG**TAG**CCAACAT
CTGGAACTAACACCAAAGTTCATTAGGCACAAAATAAAAGAGTTATCTGGAA

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FIGURE 2872

CTCCCGCCTCCACTGCAACATCATCTACGACTACTCCGGCTACGGTGCCAGCGCGGGCAGGCCTTCCGAGTGGAA
CCTCT**ATG**CCGACATCGACGCCGCCTGGCAGGCCCTGCGCACCAGGTACGGCATCAGCCCGGACAGCATCATCCT
GTACGGGCAGAGCATCGGCACGGTGCCCACCGTGGACCTGGCCTCGCGCTACGAGTGTGCCGCGGTGGTGCTGCA
CTCGCCGCTCACCTCGGGCATGCGCGTCGCCTTCCCCGACACCAAGACCTACTGCTTCGACGCCTTCCCTAACAT
CGAGAAGGTGTCCAAGATCACGTCGCCCGTGCTCATCATCCACGGCATGGAGGACGAGG**TGA**TCGACTTCTCACA
CGGGCTGGCGCTCTACGAGCGCTGCCCCAAGGCGGTGGAGCCGCTGTGGGTGGAGGGCGCCGGGCACAACGACAT
CGAGCTCTACAGCCAGTACCTGGAGCGCCTGCGTCGCTTCATCTCCCAGGAGCTGCCCAGCCAGCGCGCCTAGCG
GCGGGCCCCAACCGGCCGGACCTCAGCAATAAGGCGGCCCCCGGACCTCACCCCGCGCCGGCCCCCCAGGGGCTG
CATGTGGACCCCCGGGCGGCCTAGGGGACCCTGCCCCGACCCAGGGGCTGTGGACGATGTACACAGTCAACAGAG
CTACGCACTCCTTTCCTTTTGGAAGCAAAAAGAAAATATGTGAAAACAGAAATTAAAGATTTAAAATTTAA

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FIGURE 2873

TGGTTTCTAAATCTTATTCAGTGAGCACGTGTTCCTTTTTTTAATTAGAGAAAACTTGACAGTAGCCCCTTTTTG
TGTTTCACAGAGGAGCTAACATTCCTTCTGTACCTGTAGTTC**ATG**CGGGAGATGGCAGGGGCCTGGCACATGACG
GTGGAGCAGAAATTTGGCCTGTTTTCTGCTGAGATAAAGGAAGCAGACCCCCTGGCTGCCTCGGAAGCAAGTCAA
CCCAAACCCTGTCCCCCCGAAGTGACCCCCCACTACATCTGGATCGACTTCCTGGTGCAGCGGTTTGAGATCGCC
AAGTACTGCAGCTCTGACCAAGTGGAGATCTTCTCCAGCCTGCTGCAGCGCTCCATGTCCCTGAACATCGGCGGG
GCCAAGGGGAGCATGAACCGGCACGTGGCGGCCATCGGGCCCCGCTTCAAGCTGCTGACCCTGGGGCTGTCCCTC
CTGCATGCCGATGTGGTTCCAAATGCAACCATCCGCAATGTGCTTCGCGAGAAGATCTACTCCACTGCCTTTGAC
TACTTCAGCTGTCCCCCAAAGTTCCCTACTCAAGGAGAGAAGCGGCTGCGTGAAGACATAAGCATCATGATTAAA
TTTTGGACCGCCATGTTCTCAGATAAGAAGTACCTGACCGCCAGCCAGCTTGTTCCCCCAGATAATCAGGACACC
CGGAGCAACCTGGACATAACTGTCGGCTCTCGGCAACAAGCCACCCAAGGCTGGATCAACACATACCCCCTGTCC
AGCGGCATGTCCACCATCTCCAAGAAATCAGGCATGTCTAAGAAAACCAACCGGGGCTCCCAGCTGCACAAATAC
TACATGAAGCGCAGGACGCTGCTGCTGTCCCTGCTGGCCACTGAGATCGAGCGTCTCATCACATGGTACAACCCG
CTGTCAGCCCCGGAACTGGAACTAGACCAGGCCGGAGAGAACAGCGTGGCCAACTGGAGATCTAAGTACATCAGC
CTGAGTGAGAAGCAGTGGAAGGACAACGTGAACCTCGCCTGGAGCATCTCTCCCTACCTAGCCGTGCAGCTGCCT
GCCAGGTTTAAGAACACAGAAGCCATTGGGAACGAAGTGACCCGTCTCGTTCGGTTGGACCCGGGAGCCGTTAGT
GATGTGCCTGAAGCAATCAAGTTCCTGGTCACCTGGCACACCATCGACGCCGATGCTCCAGAGCTCAGCCATGTG
CTGTGCTGGGCGCCCACGGACCCACCCACAGGCCTCTCCTACTTCTCCAGCATGTACCCGCCGCACCCTCTCACG
GCGCAGTACGGGGTGAAAGTCCTGCGGTCCTTCCCTCCGGACGCCATCCTCTTCTACATCCCCCAGATTGTGCAG
GCCCTCAGGTACGACAAGATGGGCTATGTGCGGGAGTATATTCTGTGGGCAGCGTCTAAATCCCAGCTTCTGGCA
CACCAGTTCATCTGGAACATGAAGACTAACATTTATCTAGATGAAGAGGGCCACCAGAAAGACCCTGACATCGGC
GACCTCCTGGATCAGTTGGTAGAGGAGATCACAGGCTCCTTGTCCGGCCCAGCGAAGGACTTTTACCAGCGGGAG
TTTGATTTCTTTAACAAGATCACCAACGTGTCGGCTATCATCAAGCCCTACCCTAAAGGCGACGAGAGAAAGAAG
GCTTGTCTGTCGGCCCTGTCTGAAGTGAAGGTGCAGCCGGGCTGCTACCTGCCCAGCAACCCTGAGGCCATTGTG
CTGGACATCGACTACAAGTCTGGGACCCCGATGCAGAGTGCTGCAAAAGCCCCATATCTGGCCAAGTTCAAGGTG
AAGCGATGTGGAGTTAGTGAACTTGAAAAAGAAGGTCTGCGGTGCCGCTCAGACTCCGAGGATGAGTGCAGCACG
CAGGAGGCCGACGGCCAGAAGATCTCCTGGCAGGCAGCCATCTTCAAGGTGGGAGACGACTGCCGGCAGGACATG
CTGGCCCTGCAGATCATCGACCTCTTCAAGAACATCTTCCAGCTGGTCGGCCTGGACCTCTTTGTTTTTCCCTAC
CGCGTGGTGGCCACTGCCCCTGGGTGCGGGGTGATCGAGTGCATCCCCGACTGCACCTCCCGGGACCAGCTGGGC
CGCCAGACAGACTTCGGCATGTACGACTACTTCACACGCCAGTACGGGGATGAGTCCACTCTGGCCTTCCAGCAG
GCCCGCTACAACTTCATCCGAAGCATGGCCGCCTACAGCCTCCTGCTGTTCCTGCTGCAGATCAAGGACAGACAC
AACGGCAACATTATGCTGGACAAGAAGGGTCATATCATCCACATCGACTTTGGCTTCATGTTTGAAAGCTCGCCG
GGCGGCAATCTCGGCTGGGAACCCGACATCAAGCTGACGGATGAGATGGTGATGATCATGGGGGGCAAGATGGAG
GCCACACCCTTCAAGTGGTTCATGGAGATGTGTGTCCGAGGCTACCTGGCTGTGCGGCCCTACATGGACGCGGTC
GTCTCCCTGGTCACTCTCATGTTGGACACGGGCCTGCCCTGTTTTCGCGGCCAGACAATCAAGCTCTTGAAGCAC
AGGTTTAGCCCCAACATGACTGAGCGCGAGGCTGCAAATTTCATCATGAAGGTCATCCAGAGCTGCTTCCTCAGC
AACAGGAGCCGGACCTACGACATGATCCAGTACTATCAGAATGACATCCCCTAC**TGA**GGAGGGGACCTTCGAGGG
CCTCTGCCCCATGTGCCCTCAAAGCTGTCCCACAATCATGGAGCCCTGCGACCTCCCTGCCCTGCCGCCACATGC
AGTGGAGGAGAGGCCTGTGGCCCAAAGAACCTGGTAGCGCCTCCTGGGGCAGCACGTGGGTGGCGCAGCCTTGGT
AACGCCATGGACTGCAGCGACAATCAATGGATGGTGCTGTCTATGCACAGGTGTGAGTCCTCTGTTTGCACTGGA
CATATTCCCTACCTGTCTTATTTCATAGGTACATGAAGTATTGTGTATAAAAAAAGAGATAAGATTTAACCAACA
TCAACAAAATAAAAACCCAAAATAGT

FIGURE 2874

AGCTTTAGCTCCGCCAAA**ATG**AAACACTCATTAAACGCACTTCTCATTTTCCTCATCATAACATCTGCGTGGGGT
GGGAGCAAAGGCCCGCTGGATCAGCTAGAGAAAGGAGGGGAAACTGCTCAGTCTGCAGATCCCCAGTGGGAGCAG
TTAAATAACAAAAACCTGAGCATGCCTCTTCTCCCTGCCGACTTCCCCAAGGAAAACACCGTCACCAACGACTGG
ATTCCAGAGGGGGAGGAGGACGACGACTATCTGGACCTGGAGAAGATATTCAGTGAAGACGACGACTACATCGAC
ATCGTCGACAGTCTGTCAGTTTCCCCGACAGACTCTGATGTGAGTGCTGGGAACATCCTCCAGCTTTTTCATGGC
AAGAGCCGGATCCAGCGTCTTAACATCCTCAACGCCAAGTTCGCTTTCAACCTCTACCGAGTGCTGAAAGACCAG
GTCAACACTTTCGATAACATCTTCATAGCACCCGTTGGCATTTCTACTGCGATGGGTATGATTTCCTTAGGTCTG
AAGGGAGAGACCCATGAACAAGTGCACTCGATTTTGCATTTTAAAGACTTTGTTAATGCCAGCAGCAAGTATGAA
ATCACGACCATTCATAATCTCTTCCGTAAGCTGACTCATCGCCTCTTCAGGAGGAATTTTGGGTACACACTGCGG
TCAGTCAATGACCTTTATATCCAGAAGCAGTTTCCAATCCTGCTTGACTTCAAAACTAAAGTAAGAGAGTATTAC
TTTGCTGAGGCCCAGATAGCTGACTTCTCAGACCCTGCCTTCATATCAAAAACCAACAACCACATCATGAAGCTC
ACCAAGGGCCTCATAAAAGATGCTCTGGAGAATATAGACCCTGCTACCCAGATGATGATTCTCAACTGCATCTAC
TTCAAAGGATCCTGGGTGAATAAATTCCCAGTGGAAATGACACACAACCACAACTTCCGGCTGAATGAGAGAGAG
GTAGTTAAGGTTTCCATGATGCAGACCAAGGGGAACTTCCTCGCAGCAAATGACCAGGAGCTGGACTGCGACATC
CTCCAGCTGGAATACGTGGGGGGCATCAGCATGCTAATTGTGGTCCCACACAAGATGTCTGGGATGAAGACCCTC
GAAGCGCAACTGACACCCCGGGTGGTGGAGAGATGGCAAAAAAGCATGACAAACAGAACTCGAGAAGTGCTTCTG
CCGAAATTCAAGCTGGAGAAGAACTACAATCTAGTGGAGTCCCTGAAGTTGATGGGGATCAGGATGCTGTTTGAC
AAAAATGGCAACATGGCAGGCATCTCAGACCAAAGGATCGCCATCGACCTGTTCAAGCACCAAGGCACGATCACA
GTGAACGAGGAAGGCACCCAAGCCACCACTGTGACCACGGTGGGGTTCATGCCGCTGTCCACCCAAGTCCGCTTC
ACTGTCGACCGCCCCTTTCTTTTCCTCATCTACGAGCACCGCACCAGCTGCCTGCTCTTCATGGGAAGAGTGGCC
AACCCCAGCAGGTCC**TAG**AGGTGGAGGTCTAGGTGTCTGAAGTGCCTTGGGGGCACCCTCATTTTGTTTCCATTC
CAACAACGAGAACAGAGATGTTTTGGCATCATTTACGTAGTTTACGCTACCAATCTGAATTCGAGGCCCATATGA
GAGGAGCTTAGAAACGACCAAGAAGAGAGGCTTGTTGGAATCAATTCTGCACAATAGCCCATGCTGTAAGCTCAT
AGÁAGTCACTGTAACTGTAGTGTGTCTGCTGTTACCTAGAGGGTCTCACCTCCCCACTCTTCACAGCAAACCTGA
GCAGCGCGTCCTAAGCACCTCCCGCTCCGGTGACCCCATCCTTGCACACCTGACTCTGTCACTCAAGCCTTTCTC
CACCAGGCCCCTCATCTGAATAACAAGCACAGAAATGAGTGGTGTGACTAATTCCTTACCTCTCCCAAGGAGGGT
ACACAACTAGCACCATTCTTGATGTCCAGGGAAGAAGCCACCTCAAGACATATGAGGGGTGCCCTGGGCTAATGT
TAGGGCTTAATTTTCTCAAAGCCTGACCTTTCAAATCCATGATGAATGCCATCAGTCCCTCCTGCTGTTGCCTCC
CTGTGACCTGGAGGACAGTGTGTGCCATGTCTCCCATACTAGAGATAAATAAATGTAGCCACATTTACTGTG

FIGURE 2875

GGAGTTCGCGCGACGACCGCGGGGTCGGCGGGCGGGGGCGAGGCCCTGGACGGCGGCGGCAGTGGGGCTCCTCCTT
CTGTTTCCCAGACCGAGAGCCGCGCCGGCACC**ATG**TCAGCTTACCCTAAAAGCTACAATCCGTTCGACGACGACG
GGGAGGACGAAGGCGCCCGGCCGGCCCCTTGGAGGGACGCCCGAGACCTCCCCGACGGGCCCGACGCGCCCGCGG
ACAGGCAGCAGTACTTGCGGCAGGAGGTCCTCCGCAGGGCTGAGGCCACGGCCGCCAGCACCAGCAGGTCCCTGG
CCCTCATGTACGAGTCCGAGAAGGTTGGGGTCGCCTCTTCCGAGGAGCTCGCCCGTCAGCGAGGAGTCCTGGAGC
GCACAGAGAAGATGGTGGACAAGATGGACCAAGATTTGAAGATCAGCCAGAAACACATCAATAGCATTAAGAGCG
TGTTTGGGGGGCTGGTCAATTACTTCAAATCCAAACCAGTAGAGACCCCACCTGAACAGAATGGCACCCTCACCT
CCCAGCCCAACAACAGATTGAAAGAAGCTATAAGTACAAGTAAAGAACAGGAAGCAAAGTACCAGGCCAGCCACC
CAAACCTTAGAAAGCTGGATGATACAGACCCTGTCCCCAGAGGGGCTGGTTCTGCCATGAGTACTGATGCTTACC
CAAAGAACCCACACCTTCGAGCCTATCACCAGAAGATCGACAGCAACCTAGATGAGCTGTCCATGGGACTGGGTC
GTCTGAAGGACATAGCCCTGGGGATGCAGACAGAAATTGAGGAGCAAGATGACATTCTTGACCGGCTGACAACCA
AAGTGGACAAGTTAGATGTCAACATAAAAAGCACAGAAAGAAAAGTTCGACAACTC**TGA**AGACAGACGGATTTCC
ACTCTATTGTGATGAAAAGATTTGAAAGATCTTTTTTTGAACTTCCAAGAAATTTCATTTACTATTTTAGTATGT
AAATTAATGTGTGTTTGCAAATGTTATAATAGAGTAGGTCTTAAGACATTTTTGCTGTTATAAGGAAGTGTTTGT
CCCACATTTTCCTAGGGTTAACACCTCACCAAGTTCTTCCAGCAAAATGCTTATTAGAGTTTTTGTCTGAGCACA
GTAGCCTGGCCCTGCATATCTTGGGCGTTTGATTACCATGCTGGAATAAGAAGAGTTGCATTTCTCATTTTAATG
AGCATATGGAAAGATGGGAACAGAATTTCAGTCTTGCAGCCATGAGCCTCTATTTCTCATTCCTAAGCCTTACCA
TGAGTCAGAGTGTTAAGGGGGCCTGTGAGCCAGTCGTTTGGTGGAGGAGGGTCCTTCCCACACCTTTGTTTAGGA
GTCATCATTCACACACACACACACACACACACACACACACACACACACACACACTCTGAGCACATTATCTGTGATTCTT
TCATCCTCCCAGAAAGGATCAGTGTTAGAATGGGAAATAGAGTGTGCCATCTTGCTCTTTTGTTGGCAGATGTCC
CCGCTTCCCTCCAGCCCCCCATCCTTGGCATGTATATTAGTAGGAGGGCTTCACACCAGCACTGCTCACTGCGAC
TCCTGGAAATGTGTGGGGAATTGGGTGAGCCCCTCTTCCCCACGTGCTCCCATCTGTAACTCTCCATCTGTGATT
TGCAACAGGTCTTCCACTGGCTCGAGGCTGCGAGGCTGACCGACAGGGGCGCCCAATAGAGTTTGTGGGAATGGA
GTATTGCACAGATGCAGCTGCACAATGGTCTTCCTCCACCCCTCTGGGAATCACCATTAGGCAGGCCTCAGTAGG
GCAAAATGTTTATTTGGTACCGGGGGTCTCCTGACCTGTCTAGCATTCCCACCCACTCTTCTGCACTTCTTGCAA
GGTAACTTGAATCATCACTTATTTCTCTGCCACCTGGTTTTAGGACTGGCACTCTATAAATGACGCTGACTTTGT
ATAGAAGGATTTTGCTAAGGGGGCAAAAAGCCCAGATACCATTTTAACTGGCCCAGCTCATTTTCTCCTTTCATT
TTACAAAAGAAATCATGCAGAAGCATCAATTAAAACTGATTTATTTATGTTGGTACATCCAACAAAATAGTTGGA
GCCACAAGGCCCTTGTCTTTTTAAAAAAACAAAATATTTTGAAGATGGTGAAAGTGACTGATTTTAATAATGAGA
TAGGTCACTTAAAATAACAGTGCCTTTGACCTTAAAACATGGCACTGGCCCATGTGACCTTTGCCATTTCCCAGT
ACTTCCCTTTACAGTCTGCAGCCTATAAACAGTGGTGTCTCAAAGCAAAGGAAACCTCCACAAGTGCTGCAACAG
TGCATTAGTTTTTATGTAGCAATTTGTTTATAAAAATTCCCATCCCATAATGCATGACCTTCCTAAAAATACCCA
CAGCCTCCATAGGCAAGGTGAGCTTTCTGTGCTACCCACTGGTTAGATTCCAGCCACCTCAGGGATTCTGATCCA
TGTCATTAACGACCATCCCAGGGTGTGAGGGCCTGATTAAAGCTTATCGAACTAGACATTTGTTTATTAGATGAG
CTCGGCATTATTATTTTCTCAATAACTGGTAGAAGGGAAATTTTAAACATAACACTCAACCCAAACAAAACTACT
TCGTGAGGCTTTCAGCAAAAAGGCTGCTTAAAAGCATGAACCCGGGATGCAGAGCAGCTTTTGTGCACGGTTCCA
CTTACTGTAATTGTTTCTGGTTCTTTCCTCTAACACCTTCCATGTATGTCAACTTTTTATCACCGTCAGGCATAG
ACTCGTGGAGATTAGTCATTATAGCTCAGACCTAAGCTAATTATTTAAAATAAATACATGTAAAGGCCACTGCCA
CATTCTCAGCAGA

FIGURE 2876

CGGAGGGGGAGGTGGCTGCCGCTTCTCCCGCGTCCGCCATTTTGTTGCTGTGGCTATTGGGAACAAGCTGGGCAA
AAGCACCCCGGAGGCGCGACGCTCCTTCGAGTTCGGTGCCTCGTGTGACGGCGGGGGTCGGTGAAGACCCGTCGA
GCTGCGGCGCCGGCGCGTTCCAGGCCGGGAGTCACTGGAGGCACCCCTGGGACGCCGAGCAGCCCGAGAACCCCG
GGGTGGCCTCCGCTGCGGCTCGGGTTTGCCTGCCCCGACCCCCCGGCTCTGCCGTGCATTCCCGGGCGGCTCTCT
CCGTGTGGCGGCCCCGGAGCAGGCGGGCGGCGTCGGAGGATGCTGCGGGCCCGGAGCCGAGAGGAAAGTGCTGGC
CCAGCCCTCTGAGCGCTCCTCGAGGTGTGCGAGAGGCCCTTCCTCGGCCCCAAAGCCGTCTGCCGGGCTAAGGCG
TGCAGAGCAGGCGAGGACAGCCGCCGCCCCTACCGCCGCAGAGTCCCCGGTCCAACACC**ATG**TCCTCCGCCAGGT
TCGACTCCTCGGACCGCTCCGCCTGGTATATGGGGCCGGTGTCTCGCCAGGAGGCGCAGACCCGGCTCCAGGGCC
AGCGCCACGGTATGTTCCTCGTCCGCGATTCTTCCACCTGCCCTGGGGACTATGTGCTGTCGGTGTCCGAGAACT
CGCGGGTCTCCCACTACATCATCAACTCGCTGCCCAACCGCCGTTTTAAGATCGGGGACCAGGAATTTGACCATT
TGCCGGCCCTGCTGGAGTTTTACAAGATCCACTACCTGGACACCACCACCCTCATCGAGCCTGCGCCCAGGTATC
CAAGCCCACCAATGGGATCTGTCTCAGCACCCAACCTGCCTACAGCAGAAGATAACCTGGAATATGTACGGACTC
TGTATGATTTTCCTGGGAATGATGCCGAAGACCTGCCCTTTAAAAAGGGTGAGATCCTAGTGATAATAGAGAAGC
CTGAAGAACAGTGGTGGAGTGCCCGGAACAAGGATGGCCGGGTTGGGATGATTCCTGTCCCTTATGTCGAAAAGC
TTGTGAGATCCTCACCACACGGAAAGCATGGAAATAGGAATTCCAACAGTTATGGGATCCCAGAACCTGCTCATG
CATACGCTCAACCTCAGACCACAACTCCTCTACCTGCAGTTTCCGGTTCTCCTGGGGCAGCAATCACCCCTTTGC
CATCCACACAGAATGGACCTGTCTTTGCGAAAGCAATCCAGAAAAGAGTACCCTGTGCTTATGACAAGACTGCCT
TGGCATTAGAGGTTGGTGACATCGTGAAAGTCACAAGGATGAATATAAATGGCCAGTGGGAAGGCGAAGTGAACG
GGCGCAAAGGGCTTTTCCCCTTTACGCACGTCAAAATCTTTGACCCTCAAAACCCAGATGAAAACGAG**TGA**TTGC
TGTTGCCCTGTTTCCTGCTGCTTTGTTGTTCTGCCTGTCCTAGTCTCCTTTGAAGTGGGAAAGCATTTTCTCTCA
TAGGCAAGTCACACTGCATTGCCGAAGTCCAGCTTTCTGCAGACTGGCAGTCGCACACACATTTGGAATGCACAC
AGCGGCTGCCTCCTGATGTTTGTATCATAGTCGTATTGTCAAAGAGTAGCCGATTTTAGAGTTCTTTTGGATCAT
AAACTGGAAATACTGATGGAAGCACACAAGTGGAGAGAAGTTGACATGGAAAGGGTCTTCCTTCTCATTGCTGCC
CGTTTGTACATGGGACTGATTCTGTTGTGTTCACCAGAGAAAGCTTGAGGCCATGGCGAGATACTGCATGTTTGC
TGTTCCACAAAGCAGTGGCTTAGCTGCCATCTTGCTTTTCTTTGGACAACAGGAAGTGAACCTTAAGGAAGAGAG
AATTC

FIGURE 2877

AACAGGTTAAGTAGCAGGTTGGGTTTTTATGATAGTGCAAGGAATGACTCATGCCTCTGAGCTTCTAAACTGAAG
CTGCTGTAACTAAAGGAATCTGAAAAGAACAACCCTGAAGCAGAGGCCTTTATTGTCTTGGTTGCCAGTAGTACC
TTGTTTTGCCATGTAGCAGACAACACACAAAATAATGCAGTTGTGGTGTGCCATGCTATGTGCACAGCCCCTTGG
ATTACTTTGTTTTAAAAAGCATCAGAGTTGGGGGTACTTTAGGGAAACCTTTGCTTACCTTGTTTTGCCAGTGAT
AAGAGCAGTGGGTTGGAGGGCACTTGGCCAGTTTTCTGTTCAGCTTTTCAGTGAATGTACCCCTTTAAGGTTCAG
ACTTAAACTTCCTTAAAAAGTGGCGTTGTTCATAGAATCGTTGGACTCATTAATGAATCGTTCAACTCCACTCAC
TGAAGCCCAGACCTCCGTGCCCAGGCCCAATCTCGTCAGGCTGCCAGAGAAAGTTGGTGCTGCTCATACTGGTCT
CACAGTCTAAGTAAGTGTCTGTGATGCTCCCAAGCAAAGGAAATGCAAGCTCTGGAAATTCGTTAATGTATTTGA
TGTCTTAGTGTTTTAGTGACTAGGGAGACCATTAACTAGTTTATCATTAACCACTTATCAGTGTATTGATGTTAA
AGCATTTCCCTGTTAGCTAAAAGAGGCCTGTTCATACAAGCCAACTGGTATATACGTGTGGTTCATCCATCATCT
GCTGCACATAGCAGACTAGAATTCTGGGAACCCTGTGCAATTCAGTCTGCTCTCCCTTGTGGACCCTGGTAAAGA
AAAGCCTCAGCTCATAGTGAACACAGCAGACCTAGAAATGTAGCAGCAGCCTACTGAGTAGCTTTCATTTACTGA
TCATCTGCTGTGACTGTGGCCCTGTCTGGAGGTTCCTAGGTTTTGAGATTTAGAGCAATGCATTCTGGAGACAGA
ACCAGCAGAACAGCCATTTTTCAATTTTTCTTTAAATCAGTATTCCATCAGGCAGATAACTGCTGTATTCATGAA
TCTTGAGAGTGTTCCTGAGACAGAATTAATGGTCATTTGGGAAAACTATCGCCATGGCTTCCCATCTGTGGTTTT
CCTCTAAAAGCCTTGGAGATTAGCCCTTCCTTGCCAGTGAGAACGGTGACCGCCTCCTGCTCTGCACGGTCTGCG
GCAGTTGCCGCTTCTGGTTAGGTGTGTCAGGTTGGCTTATTTTGGGTTCAGGCCTGGCGTAGCACCCACAAGTGG
CAGACATATCACAAGAGTCCCCAGACTCTGCCTAGAAACAGTGTTTGCCCTTTGGCCAGTGACGTGGTTCATCCC
GGCCC**ATG**TTGAGCCATGAGTGGAGTTTCCAACAGAGGGAGGAATGTGTGCCTTGTTCAAGGAGGGCACGACCCT
TAGGCCTTTTTCAACCAGATTTAGCTGAAGGGCTTGACACCTTTGAATTACAGCAGTTGACTCAGAGTGCAAGAA
GTCTGGCCATTTTGGAAAGCAAGGTTTCCTTTCAGCCCTGTCTACTGACCAATACCCCGACTCACCTTGTGTGGC
GCACTTCAGAATCAGATATACCTAGAGTATACCTGTGGTTTGGTTTTATAATTAATCAGCTCGTTACTTCAGCCC
ATGAAAATGGCATCCAGGGCTGCCAGGAGATTCAGAGCTCAAAACAAGGCGAGCTTGAGTTCTGCACTCCAGATA
TGTGCCAAAAC**TAG**TAAAACTTAACGGACTTACAACCTTGTCAGTTTTTTTAATGAGGCAGGGATACTCTGTTTT
TCACACTAAACATATGAATGCAGCACTGCTGCCTCAGCTCAGCTTCGTGCCTGGGTTCCCCACTGGTCTGGGAAG
ACTGTTGTGCTCCATAGAGCAGTGCACATCTGACCCAGAGGGTGGGTGTTCATAACTGCTACTTGCTCTGCTCTA
CCATGTTTAAAGAAATATTTGGATGTTAAATTAACTCACTATGGTTTTTCACCTGGGAAGGAAACAAATTACGTA
CTAGAGGGCATTGACTGGTTAAAAACTTGTGTATCCCGGGAAGGACCTGCGGTACAGGAGTCAGCCATGTCTGTG
CTGTGTGGAACCACCTGATGACATGGTTAACGAGGAAGACGATGTGTTGACCGGCTGCCGTTTGAGGACTTTGGT
CACCCAGACTAGACACCTTCTGTGCTCATGTTTGGAAAGCTGAAAGGGAAGGACAGCTGTGCCCTCCTGGGAGCT
CATGTGTCCCTGGCGCTGTGCTAGCTTTCCTTTACAGCTGTTTACAGACAAGGCAGGCCTGAGGCAGATGGCCAC
TGCTCTTGTGATGTTTGCTCAGAGGAATATGAACATTTTATTTTTGAAAAGGGATGATGTGGTTTTTTGCCAGGT
GTTTATAATTAATCCTTTAATATTATGGTTATTAACCTCTTAAACATGAATGAATTCTTGATTGTTTTAACACAG
TACCTAAGACTAATGCTTTCTGTGGACACCACTGAGCTCTGCCTCAACTCCACCCTCTGCGACCGGAGGACTATG
CCCCTAGTAACTGCTGTCGGTGTGGACGCTGTGCTGGTTCTGTTTTCTAAAGGAGCAGAAGGACAGGTCTCTGAG
ACAGGATCGTTGTCCCTACAGGAGGAACAGTGGCCTTGCTTCTTAGACGGTCTTCACTGTGTGTTTTAAAACAAC
AACAACAACAACAACAACATAAAACTCTTTTGACCTGTAACTTAAAGATCATAAACTTCAGGCAATAATATT
TTCTGTGTAAGCTTTTAAAATTATTTTTGGGGATCATAGCTTGTTTTATTTTGTGCTATAAAATTAACAGTATTA
AATGACTTATATTCTTAGAATA

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FIGURE 2878A

CGCGGGTCTTCGGGCTGCGTGGGCCTGGGAGGCGCCGGGAAGAGCAGTCGCGACGGGGCTAGGGACGACACACTG
CATTCACTGGAAGGGACAACGCAGCGCCAGTACATAGCCTGAAACGCTCCCCAGAAGGTCCCACGCTCGCCGCGC
GGTCGACAACCGCATCCTGCGCTCGCCCGCGGTGTCTCGGCAAGCGCTAGGCTTGTCGGGAAGAGCTGGAGGGCG
CAAGTGCGGCGCTGGCCGGACGTGCCGCACCGTCAGCGCAGGGCTCGCCGGGAAATGTGGTTTCTCCAGCCGGCC
CGGGGCGGTGGCCGCAAGTTGGGCTTACAGCGCGGCCGATCCGGCGTGGACCCGGGATGGCTGGACCGGGCAGCA
CGGGGGGGCAGATCGGGGCTGCGGCCCTGGCAGGCGGCGCGCGGTCCAAGGTAGCCCCGAGCGTGGACTTCGACC
ATAGCTGCTCGGACAGTGTCGAGTACCTGACGCTCAACTTCGGGCCCTTCGAAACAGTGCATCGCTGGCGGCGCC
TCCCGCCCTGCGACGAGTTCGTGGGTGCCCGGCGCAGCAAGCACACAGTGGTGGCCTATAAAGATGCCATTTATG
TATTTGGTGGAGACAATGGGAAGACCATGCTCAATGACCTCCTGCGGTTCGATGTGAAAGACTGCTCCTGGTGCA
GGGCCTTTACCACTGGGACCCCACCGGCCCCCCGTTACCACCACTCGGCCGTCGTCTATGGGAGCAGCATGTTTG
TCTTTGGGGGTTACACTGGGGACATTTATTCCAATTCTAACTTGAAGAATAAAAACGACCTCTTTGAATACAAGT
TTGCAACTGGCCAGTGGACGGAGTGGAAAATTGAAGGACGGTTGCCAGTCGCTAGGTCAGCCCATGGGGCCACGG
TGTACAGTGACAAGCTGTGGATCTTTGCTGGCTATGACGGCAACGCCAGGTTGAATGACATGTGGACAATTGGCC
TCCAGGACCGAGAGCTCACCTGCTGGGAGGAGGTGGCCCAGAGTGGCGAGATCCCCCCATCTTGCTGCAACTTCC
CCGTGGCTGTGTGCCGGGACAAGATGTTTGTATTCTCTGGGCAAAGCGGAGCCAAAATAACCAACAACCTCTTCC
AGTTTGAATTCAAGGACAAGACGTGGACACGCATCCCAACTGAACACCTGCTCCGGGGCTCCCCACCACCCCCGC
AGCGGCGCTACGGGCATACC**ATG**GTGGCCTTTGACCGCCACCTCTATGTGTTTGGGGGTGCGGCCGACAACACGC
TGCCCAACGAGCTGCACTGCTATGACGTGGACTTCCAGACCTGGGAGGTCGTCCAGCCCAGCTCCGACAGCGAGG
TTGGTGGGGCTGAAGTGCCCGAGCGAGCCTGTGCTTCCGAGGAGGTGCCCACCCTGACCTATGAGGAGCGGGTTG
GCTTCAAGAAGTCCCGAGATGTGTTTGGCCTGGACTTTGGCACCACCTCAGCCAAGCAGCCCACCCAGCCTGCCT
CGGAGCTGCCCAGTGGGAGGCTCTTCCACGCGGCTGCTGTCATCTCGGACGCCATGTACATCTTCGGGGGCACGG
TGGACAACAACATCCGCAGCGGGGAGATGTACAGGTTCCAGTTCTCCTGTTACCCTAAATGCACGCTGCACGAGG
ACTACGGGCGGCTGTGGGAGAGCCGCCAGTTCTGCGACGTGGAGTTCGTGCTGGGTGAGAAGGAGGAGTGCGTGC
AGGGCCACGTAGCCATTGTCACAGCGCGGAGCCGCTGGCTTCGCAGGAAGATCACGCAGGCGCGGGAGAGGCTGG
CCCAGAAGCTGGAGCAGGAGGCCGCCCCAGTTCCCAGGGAGGCCCCCGGCGTGGCTGCTGGTGGGGCCCGGCCGC
CCCTGCTGCACGTGGCCATCCGGGAGGCCGAGGCCCGGCCCTTCGAGGTGCTCATGCAGTTCCTCTACACCGACA
AGATCAAATACCCACGGAAAGGCCATGTGGAGGATGTGCTGCTCATCATGGATGTGTACAAACTGGCACTGAGCT
TCCAGTTGTGCCGCCTGGAGCAGCTGTGCCGCCAGTACATCGAGGCCTCCGTGGACCTGCAGAACGTGCTGGTTG
TGTGCGAGAGTGCCGCCCGGCTGCAGCTGAGCCAACTCAAGGAGCACTGCCTGAACTTCGTGGTAAAGGAGTCCC
ACTTCAACCAGGTGATCATGATGAAGGAGTTCGAGCGCCTCTCCTCTCCACTGATAGTGGAGATTGTGCGGCGGA
AGCAGCAGCCGCCCCCTCGCACTCCCTTGGACCAGCCAGTGGACATTGGCACATCTCTGATCCAGGACATGAAGG
CATACCTGGAGGGAGCGGGCGCGGAATTCTGTGACATCACTCTGTTGCTTGACGGGCACCCACGGCCAGCCCACA
AGGCTATCCTGGCCGCCCGCTCCAGCTACTTTGAAGCCATGTTCCGGTCCTTCATGCCCGAAGATGGGCAGGTGA
ACATCTCCATCGGGGAGATGGTGCCCAGCAGGCAGGCCTTCGAGTCCATGCTGCGCTACATCTACTACGGCGAGG
TCAACATGCCGCCCGAGGACTCGCTCTACTTGTTTGCGGCCCCCTACTACTACGGCTTCTACAACAACCGGCTGC
AGGCGTACTGCAAGCAGAACCTGGAGATGAACGTGACGGTGCAGAACGTGCTGCAGATCCTGGAGGCAGCTGACA
AAACGCAGGCACTGGACATGAAGCGGCACTGCCTGCACATCATTGTGCACCAGTTCACCAAGGTCTCCAAGTTGC
CCACCCTGCGGTCGCTGAGCCAGCAGCTGCTGCTGGACATCATAGACTCCCTGGCCTCCCACATCTCAGACAAGC
AGTGCGCAGAGCTGGGCGCCGACATC**TGA**GGCCCTGTGGCGCCTGCCCATTGTGAAGAATCGCCGTGCCTGCCTG
CCCTGCCTACTGAGAAGACTACCGGCTATGCGCATGCCTATGGCAGTGGGTGCACCTGCCAGGCCAAGGGTCAGG
GTGCCCAGAGCCTCCAAAGAGAGCTGAGGGGATGTGGGGCCCCAAACTCATTAATTCACTGAAGACACAGGTCCC
ACAGGGAGCGGATGATGAAGCAGACCCCCTCCTGTCATCACCCTCTCCTGGTGTAGTGTGGATGCGAGGCCACGG
CTCAGTGATGGGCTCACCACCCAGAAGTGGGGAGAGACTTTGGGCCTCCCACCCAGTGGGGCTTGGCCTGGCTTC
TGTGGCCTGGGCGTGTTGTGGACTCAGGCACTGGGGCCTGTCACCAAGGCTCCTCCAACATGCGGGAGGAGGCTT
AGCAGACTTGCGCTGCACCAGCGAATCTGCCTGGGCTGCTCCTGTCCCACCCACCCTCACTGAGATCCATGTAAG
GGGCTCCTCTTCCCACCTGGAACTTGTGAGTGGGGACCCATGATGTACGGGTCTCACCTGACTTGAGGTGAATTT
TGGAGTGAAGGGCCCTGAGGTCAGCTCCCAGGTCGGTCGTGCTGGGCCAGGCCTGGTTTTCACAGGGGCTGAAGG
ATCCCAGTCCACCTGTGTGCATGTCAGGGCTCGGCCGGGAAGAAGCCAGCAAAGTCCCCCGTGTCCCTTGCTGAG

FIGURE 2878B

TATTCTGTCACAGACAAGCCTCCATTAAAGCCACAGCAGTGCTACCCACCACACACACCTTGCTGGCCCGGCCAC
CACTGCTGGCTTCAGCCCCTTGAGCAGCCCATGGCTTAGCAGACCCCCAGATGTAGGTCAGTGGCCTTACCTGTC
TCTATCCATGCTGTCAACTCCTGCCTCCACCTGGGGTCACCCAGTCACATTGGGAAGGGCTGTGAAGGCCTCCAG
GCTGGCCCCTTCCAGGGGAATCCTGGAGGCCTGGGGTGGGCTCCTGCCCCTTCTGCCCTGCCTTGCCCCTGCACT
ATGCTCTTGGCTCCTGTGGAAGGAGGGCTGCCCTCTTGCCCTAGTGAGGGCCCCATGTGGATCCACTCTAGTGCT
GGGAGCCAGCGCTCCCTTACTGGGAACAGGATTCCAGGACCCCTTTCTTGTTGTGGCTGCCATGAAGCCACAGCT
CCTTGGGGAAGTGACCTGCTCTCCTTTGGGTGTATGCAGGTGTGTGGGGGGCCCTGAGTGGCAAGTTGCTTAGCT
AACAGGAGATCCATAGGCAGCCTGCAGGCTAGGAAGTGGCCTAGTGCAAGATGAGCTGGGAACAAGGGAGGAGAG
AGCAGGAGCTGGGGCAGAGGCTGAGCCGGGAGGCCCTTGAGGTGAGGACACAGCAGGCCCAGGACCATGGCTGGG
GAGGATATGTCAGCACCTGGAAGTGGAGTGCAGGCTGCAGCGCCCAGCCATGTGGGCCAGGTGCATTCACTCAGA
GTGGGGCCACACACCCATCTACCCAGTTTCCACAAGATGTGGCTCCTGCCACACCCACAGGGCAGCCTCCTCCAA
ATCCCTCCTGGAGGGGCCTACCCAGAAGCCTCCTTGAACCAGTCTGCAACCCTGCTCTATGCTGACCCTTGTCAC
TGAACCCTGATCTAGACTTATATGAATAAATGAAATTACATGCCAAGGGCCCTAAAAAGCAAATTTTACAAAATT
GTGTGGCAGTTTCTGGG

FIGURE 2879

CGTGAGTGCCGCTGACAGAAGTCAAGAGAATCGGCTGGGACGGGGTTGGGGCGACAACGGGCCGGGGGGGACCCG
ACAGGCCAGAGCCCCTTGGGGAGGAGCGGCGGCTGGAGGCGCGAGGCTCCTCCGGATGCCCGGAGAGCCGCTTGC
GACTTAACTCCCGCCTCTTTCCCAG**ATG**CCGCGTCACTGCTCCGCCGCCGGCTGCTGCACACGGGACACGCGCGA
GACGCGCAACCGCGGCATCTCCTTCCACAGACTTCCCAAGAAGGACAACCCGAGGCGAGGCTTGTGGCTGGCCAA
CTGCCAGCGGCTGGACCCCAGCGGCCAGGGCCTGTGGGACCCGGCATCCGAGTACATCTACTTCTGCTCCAAACA
CTTTGAGGAGGACTGCTTTGAGCTGGTGGGAATCAGTGGATATCACAGGCTAAAGGAGGGGGCAGTCCCCACCAT
ATTTGAGTCTTTCTCCAAGTTGCGCCGGACAACCAAGACCAAAGGACACAGTTACCCACCTGGCCCCGCTGAAGT
CAGCCGGCTCAGACGATGCAGGAAGCGCTGCTCCGAGGGCCGAGGGCCCACAACTCCATTTTCTCCACCTCCACC
TGCTGATGTCACCTGCTTTCCTGTGGAAGAGGCCTCAGCACCTGCCACTTTGCCGGCCTCCCCAGCTGGGAGGCT
GGAGCCTGGCCTTAGCAGCCCCTTTTCAGACCTACTGGGCCCCTTGGGTGCCCAGGCAGATGAAGCAGGCTGCAG
CGCCCAGCCTTCACCAGAGCGGCAGCCCTCCCCTCTCGAACCACGGCCAGTCTCCCCCTCAGCGTATATGCTGCG
CCTGCCCCCACCCGCCGGAGCCTACATCCAGAATGAACACAGCTACCAGGTGGGCAGCGCCTTACTCTGGAAGCG
GCGAGCCGAGGCAGCCCTTGATGCCCTTGACAAGGCCCAGCGCCAGCTGCAGGCCTGCAAGCGGCGGGAGCAGCG
GCTGCGGTTGAGACTGACCAAGCTGCAGCAGGAGCGGGCACGGGAGAAGCGGGCACAGGCAGATGCCCGCCAGAC
TCTGAAGGAGCATGTGCAGGACTTTGCCATGCAGCTGAGCAGCAGCATGGCC**TGA**GGGGCTGCTGGACTGACCGA
GGGGCTGCCCAGCAAGACTGCAGCCTCTTCCTCCCTCAGATCCCACCAGACCCACCAGGTGCCATAATAAAGCGG
ATTCTAGACGGAG

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FIGURE 2880

GGGTCGCGCTCTAAGTGAGGCGCCAAGCGGTCTCCGCCTCAGGGTCTGAGGCTGCGAAAGGGGCGTAACGATGAG
CGGTTCCTGCCAGAGGTCTGGGGAGGATAAAAAGCAGGAGGAAGAGGCGACGGCGGCCTGTGGACGTCTTGCAGG
GGTCCCCGAAGCCAAGCAGGGTCCCAAGGCCGATTCAGACTCCGACCTAGAGACGGAAGGTGCTCGGGGCAGGGG
CCAGGCCCGTCTCCTCCCCTTGGGGGCTTCTCCCGCAGGGGTTGTGGGAGGTGGGCTGGCGCCGCCGAGGAGGCA
GGAGACCTCTGTCCAGCAGGGCACGTAGCCCTCTGCGGGGCGTCTCCAGCCCCCTGCCCTCTCCTCGGCGCTCCT
GGCGGCATCAGGAACTTTACCATGAGAAGGCGCTTCTAGAAGGAGGTTAAAATGGAAAATCCCGCCAGACAGTGC
ACCAAAGGCTGTCCCGCCCTGAAATGCAATCAGAGCTGGGTTTTCCCAATCCACAGGCACCCATGGACTTGGAGA
ACTGGTCGGGGACACCCTGTACCTGAGGTCTTGCTGGATCCATAGCATTGTGCCCATCTTCTGCTTTCTGTGCCA
AGGGAGTGCCCCAGAGCTGAACCTGCTGCACGGTGGCCTGGGGCCCCAGATGTGGACCTGTTGGAGAACCAGCTG
GGAGTGGCAGGAGCCCAGGCCCTCTGTGCCGCCCTCACAGTGAACCAGGCC**ATG**CGGAAGATGCAGCTGTCAGGG
AATGGCCTGGAGGAGCAGGCGGCCCAGCACCTTGCCGAACTCCTGCTGGCCCACACAGACCTGAAGTCCCTGGAC
CTGAGCTACAACCAGCTGAATGACCAAGCAGATCTGTGCATGGGACTGCAGGGCTTCCTCATCTTCCACAGCTTT
GGGGGCGGCACTGGCTCTGGGTTCGTGTCTCTGCTCATGAAGCGGCTCTCGGTGGACTACGGGAAGAAGTCCAAG
CTGGAGTTTGCCATTTGCCCAGCCCCCCAGGTCTCCATGGCCATGACGGAGCCCTACAACTCCATCCTGACCACC
TACACGACCCTGGAACATTCTGACTGTGCCTTCATAGTCGACAGCAAAGCCACCTATGACATGTCAGCACAACCT
GGACATCGAGTGTCCCATGTACACCAACCTCAGTCGTCTGGGCAGATCGTGTCCTCCATCACGGCCTCCCTG**TGA**

TTCGATGGGGCCCTGAATGTGTACTTGACAGAATTCCAAACCAACTTGGTGCCATACCCCCACATCCACCTCCCC
CTGGCCACCTACGCCCTGGTCATCTCAGCCAAGAAGGCCTACCATGAGCAGCTGTCCGTGGCCAAGATCGCCAGT
GCCCGCTTCGAGCCAGCCAATCAGATGGTCAAGTGTGACCCTCACCATGGCAAGTACATGGCCTGCTGCATGTTG
TACAGAGGGGATGTGGTCCTGAAAGATGTCAGTGCGGCTGTCGCCACCATCAAGAGCAAGCACACCAACCAGTTT
GTGGACTGGTGTCCGATTGGATTTAAGGTAGGACTGGGTGATGTGGAGTCCTTGTGCCATCAGGAAGCAGGAGAC
CTGCAGAATAATGCTGCCCCTGAAGGCCCGCATCCTTTATGGAGACAACCCCTTTTCACGTCAGCTAGGTTGCAA
GGATAATAATTTTAGTAATTTATTTCCTACCGCCTTATACTTTACCAAATACTTTATGTTCCCTCATACCTTAAC
CACTACCCTTTAAAGTTCATGGGGCAATATTACCAGTATCTTACACTTTAGAAAACAGAGGCTGAGGCTGGGCAC
GGTGGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGCAGGCAGATCACGAGGTCAGGAGATTGAGACCA
TCCTGGCTAACACGGTGAAACCCCGGCTCTACTAAAAAATACAAAAAATTAGCCGGGTGTGGTGGCAGACACCTG
TGGTCCCAGCTATTCGGGAGGCTGAGGCAGGAGGATGGCGTGAACCCGGGAGGCAGAGCTTGCAGTGAGTCGAGA
TTGCACCACTGCACTCCAGCCTGGGCAACAGAGCGAGACTACATCTCAAAAAAAAAAAAAAGAAAGAAAAAG

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FIGURE 2881

CTGCCATGCTGACTCATGTGCCCGCAGCTAGCAGGAGCTGGCAGC**ATG**GGCTCCCCAGGGGCTACGACAGGCTGG
GGGCTTCTGGATTATAAGACGGAGAAGTATGTGATGACCAGGAACTGGCGGGTGGGCGCCCTGCAGAGGCTGCTG
CAGTTTGGGATCGTGGTCTATGTGGTAGGGTGGGCTCTCCTCGCCAAAAAAGGCTACCAGGAGCGGGACCTGGAA
CCCCAGTTTTCCATCATCACCAAACTCAAAGGGGTTTCCGTCACTCAGATCAAGGAGCTTGGAAACCGGCTGTGG
GATGTGGCCGACTTCGTGAAGCCACCTCAGGGAGAGAACGTGTTCTTCTTGGTGACCAACTTCCTTGTGACGCCA
GCCCAAGTTCAGGGCAGATGCCCAGAGCACCCGTCCGTCCCACTGGCTAACTGCTGGGTCGACGAGGACTGCCCC
GAAGGGGAGGGAGGCACACACAGCCACGGTGTAAAAACAGGCCAGTGTGTGGTGTTCAATGGGACCCACAGGACC
TGTGAGATCTGGAGTTGGTGCCCCGTGGAGAGTGGCGTTGTGCCCTCGAGGCCCCTGCTGGCCCAGGCCCAGAAC
TTCACACTGTTCATCAAAAACACAGTCACCTTCAGCAAGTTCAACTTCTCTAAGTCCAATGCCTTGGAGACCTGG
GACCCCACCTATTTTAAGCACTGCCGCTATGAACCACAATTCAGCCCCTACTGTCCCGTGTTCCGCATTGGGGAC
CTCGTGGCCAAGGCTGGAGGGACCTTCGAGGACCTGGCGTTGCTGGGTGGCTCTGTAGGCATCAGAGTTCACTGG
GATTGTGACCTGGACACCGGGGACTCTGGCTGCTGGCCTCACTACTCCTTCCAGCTGCAGGAGAAGAGCTACAAC
TTCAGGACAGCCACTCACTGGTGGGAGCAACCGGGTGTGGAGGCCCGCACCCTGCTCAAGCTCTATGGAATCCGC
TTCGACATCCTCGTCACCGGGCAGGCAGGGAAGTTCGGGCTCATCCCCACGGCCGTCACACTGGGCACCGGGGCA
GCTTGGCTGGGCGTGGTCACCTTTTTCTGTGACCTGCTACTGCTGTATGTGGATAGAGAAGCCCATTTCTACTGG
AGGACAAAGTATGAGGAGGCCAAGGCCCCGAAAGCAACCGCCAACTCTGTGTGGAGGGAGCTGGCCCTTGCATCC
CAAGCCCGACTGGCCGAGTGCCTCAGACGGAGCTCAGCACCTGCACCCACGGCCACTGCTGCTGGGAGTCAGACA
CAGACACCAGGATGGCCCTGTCCAAGTTCTGACACCCACTTGCCAACCCATTCCGGGAGCCTG**TAG**CCGTTCCCT
GCTGGTTGAGAGTTGGGGGCTGGGAAGGGCGGGGCCCTGCCTGGGGATCTCAAGGATGAGGCCCCAGCATGGAGG
ATTGGGGGTAGAATTCCACCCTTGAACCCCAGCAGACAGTCCCTCCCCTGACTCCCACCTTGGTAGGGTGCTGCC
TCAGGGAGCCATAGAAGTCGGCTGTGTTTTGAGACGGCGACAGAACCTGACCCGTGGAGACTGGGAGAGCCCAGC
AGGCACCTGTATTGCAGGGCTCCGACTGCATGTGGCAGGGGCTCCTGCTGCGTCTGGGCCTGGAGGTCTCTCTCC
CAGTGCTCTGTCCCCAGTGTTCCTAGCAGAGGTATGCTTACCAGCTGTCAGCACAGACCCTCCTGCTGCCTGGGT
CCTGGCCCTCCTCCCCCATCTGCACCCCCATCATAGGTAGAGACCCCACCCTCCCATCGGTCCTACATGGGGCTG
TGCAGCTGGAGCCAAAAAGGCAAGGTAGAAAGAGGAGTGATGGGGGAGGGGGATTGTTTCAGCTTCTCTGGTGCT
GTGATGCCCCAGGAGAGTCCTAATCTAGGGAATGGGGTGGAGTAGGCAGATAATCCACCTCCCTATCCCCCAGGC
AAGGGCGGAGCATGTGTCTTGGGCCCACACCTGCTTAGTTTATGAGGACCGGCTGCTTTCCAGTGGTAGCCCTTT
TGCCATGGAGGTCTGGGAGAGAGAGCAGAGGGCGGCAGGGCTAAGTTGGTGATCATTGGGTTCTTCAGGACCTTC
TATATCCCTCCTCGGTAACCCCCCAGCCCAACCCCTTGGAATCTTTCCTCCAGGCTTCCTGAGAGCCCTGGGGGT
GGGAGGCTGTGGGAGGCTGTACATCTGAAATTCACTTCAGTCCAAGTCATACCTAGGAAGCTGTCTGGGCAGCTG
CTCGAGGGAGGCCCTGGCTCTGATCCCAGGCTGGATGGAGTGGCTGGAAGGAATGGTTCCAAACAACACCACCGA
GATCTCCCTCAGGCTGGCCAGGTTTTGCAGCTGGAATTCTCCTCTTGGTCCCAGGGCGGGGCAGGGAATTCTAAG
TGTCCACCCCAGGGAGGCAAGGGGCTGCTTTCCACTGTGGGTACCTGGTGATCAGGGCAAGCTGTGGAGGGCCAG
GGGTGGGGCTGAGACTGGGCTGACATCTAGAATCACCTGCCACCTGGAGCCTCAGTAAAATGCCTGGGGTCCCTG
CTGCCTCTCAATCTCCAGAGCCATGTCCATGGGGAGGTGGGCTCTGAAGGGCGAAGGTGGGAGAGCAGGGCCCCT
GAGGCCTGGGTATCCAAGGAGGGGCACGTGCACCTGATTCTCCTTGGGGCCCAGAGGAAGCTGATGTCATGGCTG
GACAAAGTCACGGAGTAAAGCCAGCAAAGCCACCCTCTTCCTGTGTAGTCCTTACAGGCATGACTGGAAAGTTGG
GGGGCATCTATGGTAGACATGGCACAGCCATGAAGAGACCAGTGGGGTGGTGCAGGGTGGACTTGGGGACCCTAC
CCCTGAAGACTGAGGCCCTGCAGCTACCAGGTGGGCTAGAAGGTAACTGGAACAGGCCTGGGCACTTGTGCACCC
ATGTAGGAGCATGAGGGCCACACTCTTTTCACCTCAAAGCCCTTGAAGAGTGGGCAAAGACAGCAAGAGAGCTGC
AGCCTGGGCCCGAGCTCAGAAACAGCTGTCGCCTCAGTCTGCGCACAGGCATGCACCCCAGGGTAGTGCCTGCAG
GGATGCATGTGTCCCCGTGGGGGTGCCTGTGCCAGGCAGGCCTCAGGTGCATGCCATGCTCAGAACCCTGCTGCC
CTTTCTAGGCAGCCTCCTTGGGGCCCAAGCTCTGCTCCCTGGATCTGCCACCTAGCAGACGTGGGGAGCCTGACC
CCATGCCTGTCATGGAACCCTCCTTGCCTGGTGTGTGTGGCTCCCCTCTTCACTGGGCACCTGGATCCAGGCCCA
CCTGTGTCCCTGACTCAGGGTGGTCCCAGGACTGGCACCTACTCTTTAGAGAGCCCCAGCATCTTTGATGTGGAT
TGGAGACAATTGCCTGGTTCCCTGGGGCAGGTGAAGACTTGGTGCCACAAAGAATGCCACAGTGGATACGCCAGC
AGGCCACATGGCTGGCCAAGCAATTATTATTATGGATCCCTTGGGCTGTGGGCCTTCCCATCCACCCCACCACAA
CTGCCCAGGTAGCTGGAGCTGATCATAAA

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FIGURE 2882

GCGGAGGCAGCGGCTGCGGCAGCAGCAGGTTCCAGTAGCTGGCTCGGTGCTCTTCTCGGCCACCTGCC**ATG**GCCC
GGGGGCTGCCCACCATTGCTAGCCTGGCACGCTTATGCCAGAAGCTGAACCGCCTGAAGCCGCTGGAGGACTCCA
CCATGGAGACGTCACTGCGGCGCTGCCTGTCCACGCTGGACCTGACTCTTCTGGGCGTGGGTGGCATGGTGGGCT
CGGGTCTCTACGTGCTCACAGGTGCCGTGGCCAAGGAGGTGGCTGGCCCTGCTGTGCTCTTGTCCTTCGGTGTGG
CCGCTGTGGCCTCCCTGCTGGCAGCCCTATGCTATGCAGAATTTGGGGCACGTGTGCCACGCACGGGCTCTGCCT
ACCTGTTCACCTACGTATCCATGGGCGAGCTGTGGGCCTTCCTCATCGGCTGGAATGTTCTCCTCGAATACATCA
TCGGTGGCGCCGCCGTGGCCCGTGCCTGGAGTGGCTACCTGGACTCTATGTTCAGCCACAGCATCCGCAACTTCA
CTGAGACCCACGTGGGTTCTTGGCAGGTGCCCCTCCTGGGCCACTACCCGGACTTCCTGGCTGCTGGCATCATCC
TCCTGGCCTCTGCCTTTGTCTCCTGTGGAGCCCGCGTGTCCTCCTGGCTCAATCACACCTTCTCGGCCATCAGCC
TGCTTGTCATTCTCTTCATTGTCATCCTGGGCTTCATCCTGGCCCAGCCTCACAACTGGAGCGCTGACGAAGGCG
GCTTTGCACCCTTCGGCTTCTCCGGCGTCATGGCCGGCACTGCCTCCTGCTTCTATGCTTTCGTGGGCTTCGACG
TCATTGCCGCCTCCAGTGAGGAGGCCCAGAACCCACGGCGGTCTGTGCCTCTGGCCATCGCCATCTCGCTTGCCA
TTGCAGCTGGTGCCTACATCCTTGTCTCCACCGTGCTAACCCTCATGGTGCCCTGGCACAGCCTGGACCCCGACT
CAGCGCTTGCAGATGCCTTCTACCAGCGGGGCTACAGGTGGGCTGGCTTCATCGTGGCAGCTGGCTCCATCTGCG
CCATGAACACCGTCCTGCTCAGCCTCCTCTTCTCCCTGCCACGCATTGTCTATGCCATGGCCGCCGATGGGCTCT
TCTTCCAGGTGTTTGCCCATGTGCACCCCCGGACACAGGTGCCTGTGGCGGGCACCCTGGCGTTCGGGCTCCTCA
CGGCCTTCCTGGCACTGCTGCTGGACCTGGAGTCGCTGGTTCAGTTCCTGTCCCTTGGCACACTCCTGGCCTACA
CATTCGTGGCCACCAGTATCATTGTGCTGCGCTTCCAGAAGTCTTCCCCGCCCAGCTCCCCAGGCCCAGCCAGCC
CTGGCCCCCTGACCAAGCAGCAGAGCTCCTTCTCAGACCACCTACAGCTGGTGGGCACTGTACACGCCTCCGTCC
CTGAGCCAGGGGAGCTGAAGCCAGCCCTGAGGCCCTACCTGGGCTTCTTGGATGGGTACAGCCCTGGAGCAGTGG
TGACTTGGGCGCTTGGCGTTATGTTGGCCTCAGCCATCACCATAGGCTGCGTGCTTGTCTTTGGGAACTCGACCC
TGCACCTCCCACACTGGGGTTACATCCTGCTGCTCCTGCTCACCAGTGTCATGTTTCTGCTCAGCCTCCTTGTCC
TGGGGGCTCACCAGCAACAGTATCGGGAAGACTTATTTCAGATCCCCATGGTTCCCCTGATTCCAGCCCTGAGCA
TCGTCCTCAACATCTGCCTCATGCTGAAACTTAGCTATCTGACCTGGGTGCGCTTCTCCATCTGGCTGCTGATGG
GACTTGCAGTGTATTTCGGCTATGGCATCCGGCATAGCAAGGAGAACCAGCGGGAGCTGCCAGGGCTGAACTCCA
CACACTACGTGGTATTCCCCAGGGGCAGCCTGGAGGAGACAGTGCAGGCTATGCAGCCCCCCAGCCAGGCACCAG
CACAGGACCCTGGCCATATGGAG**TAG**CTGATCAGCCCACACTTGCCCCGCCCTCCCACACCTGCTTGGGAGGCCA
GAGAGGCCAGACAAGCCGAGAGCCCCTTCTGTTGTGGGCAGCCTGGGTTTGCAGGCCTGCACAGGCTGGGGAGTC
CTCAGGACCTTAGGACCTTCATCCAGGGGCTGGGCTTCGGGTCTTCAGGAGTGGGCCTTGGCTGGTGCTGGTGCC
ATGGACTCTGCCCAGAGCCTTCTTGTTTATGATCAGCTCCAGCTACCTGGGCAGTTGTGGTGGGGTGGATGGGAA
GGCCCACAGCCCAAGGGATCCATAATAATAATTGCTTGGCCAGCCATGTGGCCTGCTGGCGTA

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FIGURE 2883

ATGACCAGGAACTGGTGGGGGGGCGCCCTGCAGAGGCTGCTGCAGTTTGGGATCGTCGTCTATGTGGTAGGGTGG
GCGCTCCTCGCCAAAAAAGGCTACCAGGAGCGGGACCTGGAACCCCAGATTTCCATCACAACCAAACTCAAAGGG
GTTTCCGTGACTCAGATCAAGGAGCTTGGAAACCGGCTGTGGGATGTGGCCGACTTCGTGAAGCCACCTCAGGGA
GAGAACGTGTTCTTCTTGGTGACCAACTTCCTTGTGACGCCAGCCCAAGATCAGGGCAGATGCCCAGAGAGTACG
ATAGTCCAG**TAG**

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FIGURE 2884

GGCCAACAACGTGTTGGAGGAACTCAACATGAGAGACAGTCTCCTGCTGGCCTTGAACTCTTGGGCTGAAGCAGT
CTTCCTGCCTCAGCCTCCCAAAGTGCTGGAATTACAGTCATGGGGAGTTCATCGTTGTTACATAGAGACCTGTGA
TTCCTATAGCACAGGCGGATGGCTGCGAATTGCACACGGTGTATAAAGCATCTCCGGCAGAGCCTGGTGCATGTA
ACAACCGCATCTCTGCGATGGGAGCCCTGAGCCTGGGCCTGGGCCTCCGGGTCAACCAGACGCTGAGGATTCTTG
TACCTCACCAGAGCATTCTGTCTGACTATCTGATGGAGACACCTTCTGAGCCGAAACAGTGTGGCCATAGTGGCT
GTGTCCTCAGAG**ATG**AGGAGCCCCTCCTTCCCTTTCACATTGCTCTCTGGCCTTCCCGGACCTGGCTTCTCGCAG
CTTTGTGTGCGTGTTTCTCAGGTGTCCAGGAATCCCATGCGAAGTGAAGGCTGCTTTGGTCTCCTCAAGTCTGTC
CAGGACAATCCAGCCTCTGCCCTGGAACTGCTGGATTTCTCAGATATCCAGGTGAACGCAGAGTTTGATGGCCTT
GCTAGCTCAGTGAGGGGAATTCTTCCAGAACTCTGCATAAAGACTGGCGCTTGCAGAGTGGAGTATAAAAAGGAG
TTGCTGCCAGTCTTCAGATCAGCCCTGCCAGCGTCTGTCCCTAAG**TGA**CCTTGGAGTGTGGCTTCCTCATCTCCA
ATCAGCTGCTTTGACCTCCAGGGTATATACTTGAAAGAAATGAAGACATATGTCCCCACAAGAACTCGTGCATGA
ATATCCATAGCAACATTATTTATAATATTCTAAGAGTGAAAATGCCCACCAGTGGATAAATGCAATGTGGTATAT
CCATACAGTGGAATATTATTTGGCAATAAAAAGGAATTTGAGGTGATACCAA

FIGURE 2885A

GGACACTTGACATCAGTGGTGTCAAGACAACTCTAAGAAGGTTTTCCGTGATCCTGCAAGCCCTGCCTTCCTTCC
TGGGATCCTGCCTTCAATTTGATTGCACAGGTACCACAGCAAGCCAGTGCTGTGTGCTCCGAGTTCCAGGGCGTC
CTCCAGCTCAGCCACTGCACTGAGAAC**ATG**GACTCTCTGTGGGGCCCAGGAGCCGGGAGTCACCCCTTTGGGGTC
CACAACACCCGGCTGTCCCCAGACTTGTGTCCAGGGAAGATAGTGTTGAGGGCCCTCAAGGAGAGCGGGGCAGGG
ATGCCTGAGCAGGACAAGGACCCTAGAGTCCAAGAGAATCCTGGTGATCAGAGAAGGGTCCCCGAGGTCACCGGG
GATGCACCGTCTGCATTTCGGCCCCTGCGGGACAATGGAGGCCTCTCTCCCTTTGTGCCCGGGCCCGGGCCTCTG
CAGACAGACCTCCATGCCCAGAGGTCAGAAATCAGATATAACCAGACATCCCAGACCTCCTGGACGAGCTCCTGC
ACCAACCGAAATGCCATCTCCAGCTCCTACAGCTCCACGGGAGGCTTGCCGGGGCTAAAGCGGAGGAGGGGGCCA
GCCTCATCCCACTGCCAGCTGACCCTCAGTTCCTCAAAGACAGTGAGTGAGGACAGGCCTCAGGCTGTCTCTTCA
GGTCACACCCAGTGTGAAAAGGCAGCAGATATAGCACCAGGGCAGACACTCGCCCTCAGGAATGACTCCTCCACA
TCCGAGGCCTCTAGGCCCAGTACACACAAGTTTCCCCTGCTGCCACGCAGGCGAGGGGAGCCTTTGATGCTGCCA
CCTCCCTTAGAGCTGGGGTACCGGGTCACTGTTGAAGACCTTGACCGGGAGAAGGAGGCGGCATTCCAGCGCATC
AACAGTGCACTGCAAGTTGAGGACAAGGCCATCTCGGACTGCAGACCCTCACGGCCTTCCCACACTTTGTCCTCA
CTTGCAACAGGGGCTTCTGGTCTGCCTCCCGTTTCTAAAGCACCCAGTATGGATGCACAGCAGGAGACACACAAG
TCCCAAGACTGCCTGGGCCTACTGGCCCCCTTAGCATCTGCTGCAGGGGTCCCCTCTACAGCTCCCATGTCTGGG
AAGAAGCACAGACCACCAGGCCCCCTGTTCTCCTCCTCAGATCCCCTTCCTGCCACCTCTTCCCATTCCCAGGAC
TCAGCCCAGGTCACCTCGCTGATTCCTGCCCCCTTCCCAGCTGCAAGCATGGATGCGGGCATGAGAAGAACAAGG
TGTGGCACTTCTGCTCCTGCAGCTGCCGCAGCAGCCCCTCCCCCCTCCACATTGAACCCCACGTTGGGGTCACTA
CTGGAGTGGATGGAGGCCCTTCACATTTCTGGGCCTCAGCCACAGCTGCAGCAGGTGCCCAGAGGTCAGAACCAG
AGATCCCAGACCTCCCGGACCAGCTCGTGCCCCAAACGAAATGCCATCTCGAGCCCCTACCGCTCTACGGGAGGC
CTCCCGGAACGAAAGCGGAGAAGGGGGCCAGCCTCATCCCACTGCCAGCTGACCCTCAGTTCC**TGA**AACACAGAC
CCAGGGTGCATGCCCATCTCCAGCCCAGGGCAGCTCCCCTGTAAGCTGGGTGAGCTACTGAAGCCAAGGCGGGAG
GCAGCTGACAACACCCACAGCCCATGCGGAGGTGGTGGAAAGGCTGGACTCAGCAGCAACACCAAATCCTGGACC
AGGCAGAAACCACCCAAGACTGAGGGGCTCGTGCCAGAGCGGTGGCCACAGGGCTGAATGGTTGCTGAGACAGAG
ATGGAAGCCAGGACAAGGGAGCCCACCGGGCCCAGATAGAGACTTCAGAACCCACTCCTGAGAACAGCGGAGCCA
GGCGCTTAGAGGAAGACCAAATGCTGCCAGGACACGGATTGTCCAGGGATTACATTCCAGCATCTTATTAGATGG
CCTGATTAGCCAGAGGTTTCCAGGCCGTCTGTCCGCCTCCAGGAGATGGACTGGGACCTTTAGACATCGGTGGAG
AACAGGATGCTCTGTCCCTTGCTGTCCAGGGCAGGGATGGCCTCCAGCCGCAAGAAGTACAGCAGCACCTCGACC
TGCCCTCGCGGAGTGGGGAAGAGGAGAGTGGCTCGGAAGGGGGCGCACAGCTGCTGGTGGGAGGTCTTTGGGGCC
CAAGATCCCAAGTCCACCTCAGGTGCTAGAAACCCCTGCTGGTGTCATGAACCCCTTACAGTGAGACGGGGGTGG
GGTGGGGTCCTGACAAGGCATGACTTGTTGGGTGGGGGGTGGTTATTTATTTTAGAGATGCACAGGGCCTTGCTC
TGTCCCCCAGGCTGGAGTACAGTGGCTCCATCATGGATCACTGCAGCCTCTAACTCCTGGGCTCAAGCAATCCTC
CTGTGTCAGCCTCCCAGATACCTAGGATTACAGATATGTGCCCCAATGCCTGCCTAATTTTTCTTTGTATTTTTT
CTGGAGATGGGGTTTGCTACATTGCCCAGACTGGTCTCAAACACCTGGGTTCAGTTGTCCTGCCTCGGCCTCCCA
AAGTGCTGGGATTACAGGCATGAGCCACCACACTCGAACACTTGGGGTGGTTTTAAGCCCCCAGCAAGGTGCACC
AGCAGGACCAGGAGGTGGCCTAGGCACCCCCTATCACTCCCATCCATGCAAACCTAGGCAAGTCCCTGTCTCTGA
ATCTCAGCCACCACCACATACAATGCAAGTCGGAAGATGGGCAGGACTGGGGGTGGGGCAGGCAGAGGCCACCTC
TGTCAGGCTGGGGTTGCATGGGCTGGAGGCTGTCTTCCCATACCTGGGACATGACCTCCAAGGACCAGCTGTCAG
TCATGGTGATGGGCTGGCTGGGGTTGGCAGGGAGCTTGCTCTCCTTCTCGGAGGGCCGGAGCAGCGTGGGGCCAA
ACACCGTGCCAAGGTTGTGCAGGGACATCTTATTGACTGCCTCCTTCTCTGCCATCCTGTAGAGGACCGAAGCAG
AGGGTGCTGTTTCAACGCCACCACCAGGAGAGAGGCAGAGGGGCTGTGCCGTGCTAGAGTCCTCAGGGAGGGAGT
GACCTCGACCCTGGCTGTGCTGCAAGCTGACTCCAGCCTTGGGGTCAGCAGCACCCGGCAAACAGCAGCAGGAGG
AGCCGCTAGAGCAGCTGCTCATGGGCAGAGCTGCCCTCGGGCAACTCCTGCCACCACCCCCTCCCCAGGGAGCCC
AAGGCAGGGGAGGCTCAGCATGGAATGAAACAGGGGAGTGAGGGACACAAGGAGGTGGGAAGTGGGAGGGTCCCA
GCCCCACCAAGTACGCAGAGACCCCCTCGACATCCTGGACACCACAGGGGCACCTGCAGGCTGGGAGACCAGGTC
CTCTGTGCATGGGCCCGGGAGGCAGACCTGCCCTAAGGGTGATGCACAGGCTACAGGTGCTGCACGCTCCAGCGC
CCACTCTAGACATCAGCCTCCAGGTTGACTAAGGGTCAGGTCATGTTTGAAACCATGCTTGGCTGGACCAGGACC
CATGGCAAGAGCACCTGGGCACCAGTGTTTAGCCCTGGTCTGCAGGAAGGAGGACAGCAGACTTTAGGACCCCAC

FIGURE 2885B

AGCACGGCAGTGCTGACCATTTCACCCACTTGGCCTCCTTGAGAAATATGGATGGGGAGCCCTCTGGGGATGGGC
AAGGCCTTCCAGGATAGGCTCAGTTTTGGTCCCCTGCTTTTTGAGGTTGGGTTAAAATTCCGACCATGGCAGAGG
AAGCACAGCTCGGGTTCCCACACCTCACTTTTCACAGCCTCTGAGGGCAGCAGTGCACGTGGAGGAGACGTCTCC
CATGAGGCCAAGGCCTCCAGTGCTCACCGATGCCCTCTGCGAAGTTGGGGTAGAACTCGTCAGTGAAGAGGGGCT
CGGGCAGCTCACGGAAGTACAGCTTCAGCATGCCTGCGATGGCGTTCACGTCCATCTCGCTCATCATCACTGACA
CGTCCTTGTTATCTGGAAAGAGCACGGAAATGCAGCGGCCTCCTTGAAGATCCTGATAAATGAAGAAAAGACACA
GAGAAGGATGTGACATGCCTGGGCCATGGAGCACTCTGAGATCTCATCGTGGACACCACTGCCCACACCTCCATC
CCGTCCTGCGCAGGCCGACACTCACTGACGTTGAAGCCTGCCTTCAGTGCCTGGATGTCTGCGGCCACCCCAGAC
ATGCGGTAGATGCCCACCTCCTCCATGCCTCGGCGCTCGATCTCCTCCACGCACTGACGCACGATGTAGGGCACC
TTGGACCTCTCTCTCCTGCGGGAGGAGGGAATGTTCTCAGTGTCCTAACAGCCCTGCTTGGGCCATAACACAGGA
GACCTGCTCCCTATCTGCGCACCCGGAGGTGGGGTGAGGACGGTGACGAAGGTACCCAGGTCTGGGGCTGCACAC
AGAGCCTTCTGCATGCCTGTCCTCCCTCTGCAAGCTCTGTCCTCATTGCATGTACTTTCTCAGGAACCTTTCAAG
CGGCCAGAACCCCTGCGAATCACACATGACCTTTGTGGGAAGGTCAGGAGGCCTGTCTAAGTCAAGTCAGCACGG
GAAGGGCATCTGACAGATTCCAGGCCTGGGGTTAGCAGCCTGTGCCCCCGGCTGGGAGGTCAGACCCGGTGTTGG
TCCTGCCACCCACGTGCTGTGTGAGAGGAGAATCCCTGACCCCTGCCCTGGGCCTTAACACACATCCGACGAATG
AATGAAGGGTTGCCTCAGCACCGGTGCTCCAAGTCCTGCGATGCTAAGTGCTTTTCTCCTCTGAGTCTTAGCAAT
GGACAATTCCAATACCTCCACACAGGACACTAGAGTAAGAATCCTTCACAGTTAGAACGCAGTGCTGTGCGGAGG
CCTTAACTTGAGTTCTGTTTTGCACCTGGATTTACCAGCACATCAAAGCTGCTTCGCAAGCCCCCTCATCAGCAG
GGCTTATGTGGGGGAGCTGCTGATGGAGTCCTCGCTGCTCATGCCCACAGCCCTCCCAGAGTGCTATGCGAGTGG
CTGCCGTGCAGTTGGGGGTGGGGCGTGGTGTTTAGACACAGATAGGAGTCCAGGGTATGACTGATGGAGGCCCCG
GCCCACGTGACCAGCAAGGTCAGAGGCCCAGCCAGATTCCATCCTGGGGAAGCAAATGAATTCTCAGAGGAAGTG
GTCTGTGTCTGTATGAACTGCTCTCAAACCAACAAATAGGCTTCTCTTGGCAACTGACTCGTGACAAAGGGTTCA
AGATTGTTTGAAAAAAAAAAAAAAGGGGGGGAACAGGGAGGCAGTAGGTCCTGGAAAAGTAAATTCTTTATTTTA
CAATAAGAAAGTGATTACATATTTTATTTTTTTTACAATGGTGGAAAATTAGAAGTGATTGTGAAAATGATGTCT
ACCCGCCTTGCTGATGAGTAGGATGTGATTTGGCTCTTTAGGAAACTGAATTTGCAGAACTTAAGAATATTGATT
TATAAAGGGCATGGCCATTGACCCAGTCCATCTTATGCAAATCTGGATGCCATAAATAATATTTAAAAATGAAAG
TATTGGGGTGGAGGTTGCAGTGAGCGGAGATCGCCCCACTACACTCCAGCCTGGTCAACAGAGTGAGACTCTGTC
TCAAAACAAAAAAAAAAAAAAAAAAAAGGAAGAAGTCATTCCCAACATTGCTCATCAAATTATGACCATAAATTTC
CAGGATCAGACTAACGGCTAAAGAGACTGATGCATCAACACCAGGCAGAGAATAAAGCAGATTTTTTTTGTTTTG
TTTTGGAGAGCCTCTAGGAACTTGAAAAATACATATGCCACACTCTTAAGACCCGGTGGTTCTTAATCAGGGATG
TTCATTAAAATGCTGGAAAACTGTAAAGACTTCCAGGTCCCATCCAAGGAGATTTTGCTTCTGATTGACTGGCTA
GTGGCCTGGCCATTGGTATTTTGAAAAATCCCTCCAAGTGATTCTTTTACATCCCAGCTAGAAAACCCTAAATTA
AAGGTGAAAAACCAGACACCAAGTGGCATTTAAATAAATGTCAACTTTAACTCC

FIGURE 2886

CGGGAAGATGGCGGGCCGGGCGACTTGAGATCCGCGGGTCTCCCTGCTCCTTTTCCGTCTGCGTCGGGAGCTCCC
GGGCACGTGAGGCCGTGCCGCGTTTACTGGCGGGAGGGACGGCCTAGCCGGGCGACGCCTCGGAGGAGGCCGCGG
ACCCCTTAGGTGCTGGGCCCTTGGAAATCGGCGCGTGGGGGGCGGTGCTCGAGCTGAGCGCGAGAGGGCGGGAGA
GCTCGTGGGGTGCGAGGGGAGCAGGACGCCCGGCCGGGCAGCATGAGTCAGCAGCGGCCGGCGAGGAGATTACCC
AGTCTCCTCCTGCACCCGACGGAGGAGACCCCATCAACGTGGAGGGCCTGCTGCCATCAAAAATAAGGATTAATT
TAGAAGATAATGTACAATATGTGTCCATGAGAAATCTGCTCCCGGGGGTATTCTTGACTTAAACAAGGTTGCAAC
GAAACTGGGAGTCCGAAAGCGGAGAGTGTATGACATCACCGATGTCTTAGATGGAATCGACCTCGTTGAAAAGAA
ATCCAAGAACCATATTAGATGGATAGGATCTGATCTTAGCAATTTTGGAGCAGTTCCCCAACAAAAGAAGCTACA
GGAGGAACTTGCTGACTTACCAGCAATGGAAGATGCTTTGGATGAGTTAATTAAGGATTGTGCTCAGCAGCTGTT
TGAGTTAACAGATGACAAAGAAAATGAAAGACTAGCATATGTGACCTATCAAGACATTCATAGCATTCAGGCCTT
CCATGAACAGATCGTCATTGCAGTTAAAGCTCCAGCAGAAACCAGATTGGATGTTCCAGCTCCCAGAGAAGACTC
TATCACAGTGCACATAAGGAGCACCAACGGACCTATCGATGTCTATTTGTGAGAAGTGGAGCAGGGTCAGACCAG
TAACAAAAGGTCTGAAGGTGTCAGGACCTCTTCATCTGAGAGCACTCATCCAGAAGGCCCTGAGGAAGAAGAAAA
TCCTCAGCAAAGTGAAGAATTGCTTGAAGTAAGCAACTGATGGCATTTGAGAATTTATGTATCACTGAGTTTTTT
GGGAATATCTTCCTGGAGAATTACGCATCAAATTTGATTCTCAGAGCAATAAATTATCCATGAAGTGCTCTCGTT
CTCAGTAGCGGCATCATGGCCAGTAGTGTCTTTGAGGAGTTCACCACTTAGATTACTGAGTAATTGTGGTTTCCA
CATTTGAAAACAACTCCTTTTATAATTATTCACTGCTTTTTGTCAGTGAAATAGACATCTTGCCTCCTGAAGTAG
CTTCATCACAGAGTGTCATGAAGACAGACAGTCAGGCTGAAAAGGACAGTTCTTTGTGGACTCTACCCTTCCCTT
CAAGGAGTATGTCATATGTCACAAAAGAAATTGCCTTACACTGGTTCATGTTTGCAGTTACTGTTGTACATTGCA
TAGATGTACACACGAATTTAAATGTGATGTCTTTGTATATATCTGTATAATGTTGAGATTACTTACGAAATATGT
CTGAGTGACACTTTTCACTCTCGTACAGCCAAAATAATGTATATATGGAAAGTGACAGACAAATTCTCTAATCTC
TTTGGTATCTATAACTTATTAGAATCCTCTGGATGAGGGTTAGAAGAGACTTTTTCCAAACTTCTACATGTAGAA
GTATCATAAATGTGCTACACATTTATGTTTGTGGATTTAATTAAAGTATTTTAATATGGTTTTCAGTGCTAAAAT
TGGAGTCAGATACTTCTTGGTTTTAAGCTGTCTACCTAATTGCTGTCTCCCAGCAGATCGGTGGCATGCCCAGTG
GCTTTGGGGGCAAGGATAGAAATGTCATCAGGAAATAGCTGAATTCATTGTGAAAC**ATG**AATTCAGTCATGGTGA
TAATTGGAAACTCCTTTCAGGTTTTTGCAAGTAGATTTTGTAATGTTTGTGTATGCAGCCTTGCTGTTGAGTCAG
TCCAAGGGGTTTTACTTAGGACAAGTTGTACCTTGCCCTCTCTCCAGCTCTGCTCCCACATTTTCACATACCTAG
CTATTTCTACCTCATTGGGTAAGTCATTTACCACTCTGTGCCTCAGTTTACTCTGTAGTTTACCATTAGACTGTG
AGCTCCTTGAGGGACTTTGTCATAATCACTGTTACATCCCAGTGCCTCACACCATGCCTGGCCCT**TAA**GAAGTGC
TCAATAAATGTCTGAACAAAAAAAAAAACAAAAAAAA

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FIGURE 2887

GGTCCGG**ATG**GTGGTGGGAGCTGCTGGGGGCACGCAGATCACCACAGACACTGCACTGGTATGTGTCACCCCTTT
TCTCCCTGGCCCTGCCCACTCTGCACAGCCCCCAAGCCACCCTGATCACACTCCCATGCCCCAGGCCATCATCTA
CAACCTCTGGTTCGGCTATGACGTGAAGAGGGCCGTGGAGGAGCCCCGGCTGCACAACAAGCTTCTGCCCAACGT
CACGACAGTGGAGAGAAACATTGACCAGGCAGTGACTGCAGCCCTGGAGACCCGGCACCATCACACCCAGATCGC
GTCCACCTTCATCGCTGTGGTGCAAGCCATCGTCCGCACGGCTGGTGGCTGGGCAGCTGCCTCGGACTCCAGGAA
AGGCGGGGAACCTGCTGGCTAC**TGA**TTGCTCCAGGCAGACAAGGCTGACAAGCAATCCAGGGACAAGATACTCAC
CAGGATGAGGAAGAGGACTTTGGGGGACGGGCTTCCCCTGTGAGCAGCAGAGCAGCATAATAAATGAGGCCACTG
TGCCAGGCTCCAGGTGGCCTCCCTGGCCTGTC

FIGURE 2888

TTCGTGGCCAACACCCCAGGCAAGGCTTGGGGCCCCCGTCTGCTGCTGGACGGTAAGTCCTGGCCCCGTGGCAGT
GAATCTGTGGGGCGCTCTGATTGTGGGCACTATGGAAGCTAAACCCCATGCTCCAGGTGGGGTGGAGGGTCTTCA
GAGGACTCCTGGACAGTGCCAGGCTCTAGGCTGGGGTGGGGGACGCAGGAGAAACCAGGCCAGGCCCATCCCTGC
TGGAGCTTCTCCCTAAGCAGTGGAGGCTCAGCCACTGTGAGGAGGTAGGCCAGGCCCTGCAGAAAGAGGGGTGTG
GAAATCTGGGGGCTCCCAGGAAGGGCCGCTGCTGGAGATGGGGTTCTTACCAGGATGGGCTCTGAAGATAAGCAG
GGAGGATTTGGGAGGGCAGAGATGAGGCCCAGAGCTTCTGGCAGAGGGCATGGCCTGCGCAAAGGTCTGGGGGCC
GGACAGCCTGCACGTATTCTGGGAAGCGGGAAGGAGACTCCGGCCTTGTGTTTCTGAGGCCCGACTTTAGACTGT
GCCCTGTTGGGGAGGGGCCAGGGCATGTCTGAGGCTGGGCCTGACCCTGCTCCTTACCCCGTGGGTGCAGCAGAG
CCATGAAGAAGAAGTTAGTGGTGCTGGGCCTGCTGGCCGTGGTCCTGGTGCTGGTCATTGTCGGCCTCTGTCTCT
GGCTGCCCTCGGCCTCCAAGGAACCTGACAACCATGTGTACACCAGGGCTGCCATGGCCGCGGATGCCAAGCAGT
GCTTGGAGATTGGGAGGAGGGCTGTCGGTGGCGGTGCCTGGGGAGATCCGAGGCTATGAGCTGGCACACCAGCGG
CATGGGCGGCTGCCCTGGGCTCGCCTCTTCCAGCCCAGCATCCAGCTGGCCCGCCAGGGCTTCCCTGTGGGCAAG
GGCTTGGCGGCAGTCCTGGAAAACAAGCGGACTGTCATCGAGCAGCAGCCTGTCTTGTGGTATGTCTGTGGGTGC
GGCCCCCTGACACAGGCAGGGCAGGCACAGCCCAAGGACCTTGCAGGCCGTAGCAGCAGTGGAGCGGCCCTCTGC
CTTCAGGACCCTGTGCTGATAATGGGATGAGGAGATACAGACCCTTCCCACCACGTGTGGGGACACATTCTGAGC
ATGGGGTCCCAGTGGCCACTGTGGCTGGCCACGTGTCCTGAGTGGCAAGGGACACTAGGAGGCTCCCGGAAGGGA
CACTAGGAGGATGAGCGCTGAGTGACAGGGCCACCCACCTGTGACAGGTGCTGCCCCTGCTTTGTGCTGGTCTCC
TGTGTGGGCAGGTGTGGGGGGTGGTCTAGCTGAGTCCACCCCACCTGCTGCCTCAC**ATG**AGCCCCCTCTGCCCCG
GTGAGGTGTTCTGCCGGGATAGAAAGGTGCTTCGGGAGGGGGAGAGACTGACCCTGCCGCGGCTGGCTGACACCT
ATGAGATGCTGGCCATCGAGGGTGCCCAGGCCTTCTACAACGGCAGCCTCATGGCCCAGATTGTGAAGGACATCC
AGGCGGCTGGTGAGTGGGTAACCTCAAGGACCTGGGTGAGGAACTCTGCAGTGGAAACCCTGAGCTGTAGCCCAG
AGCCATGGGGTCCTCCTGTCTTGCCTGAGCCTGCAGGAAGTTCCTGGTGGAGGAGGGTCAGTGACTGGCCATGTG
GGTCCACAGCTCCTGCTTATATCAAAACCAAGAGAGGCCACACAGTCCAGGAGAGCAAGTCCCTGTTGGGG**TAA**A
TGCAGGTGTAGGCAAGAGCCAGGGCTAGGGAAGCACTAGAATACAGCCTGAAGATCCAGGAGGACTTCTTGGAGG
AGGTGGCGGCTGGGCTGCAGATAACTTCGTTAGGCAGAGAGAGGAAGGGATTCCTAGCAGAGGAACAGCTGGGCT
AAGGCCCAGTAGAGGGCGCTTTGATTCACCAAGAGGGTTACAAGGGATGAGGGTCGCCTTGAGAGAGGCATGGGG
AAGGGGATTTGTGGGGCAGGGGCCTGGAGCTTGGCTGTGGCTTTCTTCAGGTAATTTTTGTCACTGTTTCATGGA
GGAGGGTGATTAGCGTGTCGACCTTTACCACTGAGGCTGGAAATTGGCATGCCAATACCCTGTCTGGAGCTGACT
CCAGGAGAATTAAGAGCCTCCCTCCCTCCCTCTATCCATTCATCGTGAGGAGAAGAGGCCAAGCAGCAGGGACAC
CGGCAGGAATTCTCCAGTTAGAAAAGGCCCTCTGAGCCAGGTGCGGTGGCTCACGTCTGTAATCCCAGCACTTTG
GGAGGCCGAGGCGGGTGGATCACCTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCTGTCTC
TACTAAAAATGCAAAATTAGTCAGGCATGGTGGGTTGTGCCTGTAATCCCAGCTACTTGGGAGGCTGTGGCAGGA
GAATCGCTAGAACCTGTGGGGCTGAGGTTGCAGTGAGCCGAGATTGCACCACTGCACTCCACAGAGTGAGACTCC
ATCTC

FIGURE 2889

CGGGAAGATGGCGGGCCGGGCGACTTGAGATCCGCGGGTCTCCCTGCTCCTTTTCCGTCTGCGTCGGGAGCTCCC
GGGCACGTGAGGCCGTGCCGCGTTTACTGGCGGGAGGGACGGCCTAGCCGGGCGACGCCTCGGAGGAGGCCGCGG
ACCCCTTAGGTGCTGGGCCCTTGGAAATCGGCGCGTGGGGGGCGGTGCTCGAGCTGAGCGCGAGAGGGCGGGAGA
GCTCGTGGGGTGCGAGGGGAGCAGGACGCCCGGCCGGGCAGCATGAGTCAGCAGCGGCCGGCGAGGAGATTACCC
AGTCTCCTCCTGCACCCGACGGAGGAGACCCCATCAACGTGGAGGGCCTGCTGCCATCAAAAATAAGGATTAATT
TAGAAGATAATGTACAATATGTGTCCATGAGAAATCTGCTCCCGGGGGTATTCTTGACTTAAACAAGGTTGCAAC
GAAACTGGGAGTCCGAAAGCGGAGAGTGTATGACATCACCGATGTCTTAGATGGAATCGACCTCGTTGAAAAGAA
ATCCAAGAACCATATTAGATGGATAGGATCTGATCTTAGCAATTTTGGAGCAGTTCCCCAACAAAAGAAGCTACA
GGAGGAACTTTCTGACTTACCAGCAATGGAAGATGCTTTGGATGAGTTAATTAAGGATTGTGCTCAGCAGCTGTT
TGAGTTAACAGATGACAAAGAAAATGAAAGACTAGCATATGTGACCTATCAAGACATTCATAGCATTCAGGCCTT
CCATGAACAGATCGTCATTGCAGTTAAAGCTCCAGCAGAAACCAGATTGGATGTTCCAGCTCCCAGAGAAGACTC
TATCACAGTGCACATAAGGAGCACCAACGGACCTATCGATGTCTATTTGTGAGAAGTGGAGCAGGGTCAGACCAG
TAACAAAAGGTCTGAAGGTGTCAGGACCTCTTCATCTGAGAGCACTCATCCAGAAGGCCCTGAGGAAGAAGAAAA
TCCTCAGCAAAGTGAAGAATTGCTTGAAGTAAGCAACTGATGGCATTTGAGAATTTATGTATCACTGAGTTTTTT
GGGAATATCTTCCTGGAGAATTACGCATCAAATTTGATTCTCAGAGCAATAAATTATCCATGAAGTGCTCTCGTT
CTCAGTAGCGGCATCATGGCCAGTAGTGTCTTTGAGGAGTTCACCACTTAGATTACTGAGTAATTGTGGTTTCCA
CATTTGAAAACAACTCCTTTTATAATTATTCACTGCTTTTTGTCAGTGAAATAGACATCTTGCCTCCTGAAGTAG
CTTCATCACAGAGTGTCATGAAGACAGACAGTCAGGCTGAAAAGGACAGTTCTTTGTGGACTCTACCCTTCCCTT
CAAGGAGTATGTCATATGTCACAAAAGAAATTGCCTTACACTGGTTCATGTTTGCAGTTACTGTTGTACATTGCA
TAGATGTACACACGAATTTAAATGTGATGTCTTTGTATATATCTGTATAATGTTGAGATTACTTACGAAATATGT
CTGAGTGACACTTTTCACTCTCGTACAGCCAAAATAATGTATATATGGAAAGTGACAGACAAATTCTCTAATCTC
TTTGGTATCTATAACTTATTAGAATCCTCTGGATGAGGGTTAGAAGAGACTTTTTCCAAACTTCTACATGTAGAA
GTATCATAAATGTGCTACACATTTATGTTTGTGGATTTAATTAAAGTATTTTAATATGGTTTTCAGTGCTAAAAT
TGGAGTCAGATACTTCTTGGTTTTAAGCTGTCTACCTAATTGCTGTCTCCCAGCAGATCGGTGGCATGCCCAGTG
GCTTTGGGGGCAAGGATAGAAATGTCATCAGGAAATAGCTGAATTCATTGTGAAAC**ATG**AATTCAGTCATGGTGA
TAATTGGAAACTCCTTTCAGGTTTTTGCAAGTAGATTTTGTAATGTTTGTGTATGCAGCCTTGCTGTTGAGTCAG
TCCAAGGGGTTTTACTTAGGACAAGTTGTACCTTGCCCTCTCTCCAGCTCTGCTCCCACATTTTCACATACCTAG
CTATTTCTACCTCATTGGGTAAGTCATTTACCACTCTGTGCCTCAGTTTACTCTGTAGTTTACCATTAGACTGTG
AGCTCCCTGAGGGACTTTGTCATAATCACTGTTACATCCCAGTGCCTCACACCATGCCTGGCCCT**TAA**GAAGTGC
TCAATAAATGTCTGAACAAAAAAAAAAAAAAAAAA

FIGURE 2890

GGGCTGAATGGTCGCTGAGACAGAGATGGAAGCCAGGACAAGGGAGCCCACCGGGCCCAGATAGAGACTTCAGAA
CCCACTCCTGAGAACAGCGGAGCCAGGCGCTTAGAGGAAGACCAAATGCTGCCAGGACACGGATTGTCCAGGGAT
TACATTCCAGCATCTTATTAGAGGACCGAAGCAGAGGGTGCTGTTTCAACGCCACCACCAGGAGAGAGGCAGAGG
GGCTGTGCCGTGCTAGAGTCCTCAGGGAGGGAGTGACCTCGACCCTGGCTGTGCTGCAAGCTGACTCCAGCCTTG
GGGTCAGCAGCACCCGGCGAACAGCAGCAGGAGGAGCCGCTAGAGCAGCTGCTCATGGGCAGAGCTGCCCTCGGG
CAACTCCTGCCACCACCCCCTCCCCAGGGAGCCCAAGGCAGGGGAGGCTCAGCATGGAATGAAACAGGGGAGTGA
GGGACACAAGGAGGTGGGAAGTGGGAGGGTCCCAGCCCCACCAAGTACGCAGAGACCCCCTCGACATCCTGGACA
CCACAGGGGCACCTGCAGGCTGGGAGACCAGGTCCTCTGTGCATGGGCCCGGGAGGCAGACCTGCCCTAAGGGTG
ATGCACAGGCTACAGGTGCTGCACGCTCCAGCGCCCACTCTAGACATCAGCCTCCAGGTTGACTAAGGGTCAGGT
CATGTTTGAAACCATGCTTGGCTGGACCAGGACCCATGGCAAGAGCACCTGGGCACCAGTGTTTAGCCCTGGTCT
GCAGGAAGGAGGACAGCAGACTTTAGGACCCCACAGCACGGCAGTGCTGACCATTTCACCCACTTGGCCTCCTTG
AGAAATATGGATGGGGAGCCCTCTGGGGATGGGCAAGGCCTTCCAGGATAGGCTCAGTTTTGGTCCCCTGCTTTT
TGAGGTTGGGTTAAAATTCCGACCATGGCAGAGGAAGCACAGCTCGGGTTCCCACACCTCACTTTTCACAGCCTC
TGAGGGCAGCAGTGCACGTGGAGGAGACGTCTCCCATGAGGCCAAGGCCTCCAGTGCTCACCGATGCCCTCTGCG
AAGTTGGGGTAGAACTCGTCAGTGAAGAGGGGCTCGGGCAGCTCACGGAAGTACAGCTTCAGCATGCCTGCGATG
GCGTTCACGTCCATCTCGCTCATCATCACTGACACGTCCTTGTTATCTGGAAAGAGCACGGAAATGCAGCGGCCT
CCTTGAAGATCCTGATAA**ATG**AAGAAAAGACACAGAGAAGGATGTGACATGCCTGGGCCATGGAGCACTCTGAGA
TCTCATCGGGGACACCACTGCCCACACCTCCATCCCGTCCTGCGCAGGCCGACACTCACTGACGTTGAAGCCTGC
CTTCAGTGCCTGGATGTCTGCGGCCACCCCAGACATGCGGTAGATGCCCACCTCCTCCATGCCTCGGCGCTCGAT
CTCCTCCATGCACTGGCGCACGATGTAGGGCACCTTGGACCTCTCTCTCCTGCGGGAGGAGGGAATGTTCTCAGT
GTCCTAACAGCCCTGCTTGGGCCA**TAA**CACAGGAGACCTGCTCCCTATCTGCGCACCCGGAGGTGGGGTGAGGAC
GGTGACGAAGGTACCCAGGTCTGGGGCTGCACACAGAGCCTTCTGCATGCCTGTCCTCCCTCTGCAAGCTCTGTC
CTCATTGCATGTACTTTCTCAGGAACCTTTCAAGCGGCCAGAACCCCTGCGAATCACACATGACCTTTGCGGGAA
GGTCAGGAGGCCTGTCTAAGTCAAGTCAGCACGGGAAGGGCATCTGACAGATTCCAGGCCTGGGGTTAGCAGCCT
GTGCCCCCGGCTGGGAGGTCAGACCCGGTGTTGGTCCTGCCACCCACGTGCTGTGTGAGAGGAGAAACCCTGACC
CCTGCCCTGGGCCTTAACACACATCCGACGAATGAATGAAGGGTTGCCTCAGCACCGGTGCTCCAAGTCCTGCGA
TGCTAAGTGCTTTTCTCCTCTGAGTCTTAGCAATGGACAATTCCAATACCTCCACACAGGACACTAGAGTAAGAA
TCCTTCACAGTTAGAACGCAGTGCTGTGCGGAGGCCTTAACTTGAGTTCTGTTTTGCACCTGGATTTACCAGCAC
ATCAAAGCTGCTTCGCAAGCCCCCTCATCAGCAGGGCTTATGTGGGGGAGCTGCTGATGGAGTCCTCGCTGCTCA
TGCCCACAGCCCTCCCAGAGTGCTATGCGAGTGGCTGCCGTGCAGTTGGGGGTGGGGCGTGTGTTTAGACACAGA
TAGGAGTCCAGGGTATGACTGATGGAGGCCCCGGCCCACGTGACCAGCAAGGTCAGAGGCCCAGCCAGATTCCAT
CCTGGGGAAGCAAATGAATTCTCAGAGGAAGTGGTCTGTGTCTGCATGAACTGCTCTCAAACCAACAAATAGGCT
TCTCTTGGCAACTGACTCGTGACAAAGGGTTCAAGATTGTTTGAAAAAAAAAAAAAGGGGGGGGGGAACAGGGAGG
CAGTAGGTCCTGGAAAAGTAAATTCTTTATTTTACAATAAGAAAGTGATTACATATTTTATTTTTTTTACAATGG
TGGAAAATTAGAAGTGATTGTGAAAATGATGTCTACCCGCCTTGCTGATGAGTAGGATGTGATTTGGCTCTTTAG
GAAACTGAATTTGCAGAACTTAAGAATATTGATTTATAAAGGGCATGGCCATTGACCCAGTCCATCTTATGCAAA
TCTGGATGCCATAAATAATATTTAAAAATGAAAGTATTGGGGTGGAGGTTGCAGTGAGCGGAGATCGCCCCACTA
CACTCCAGCCTGGTCAACAGAGTGAGACTCTGTCTCA

FIGURE 2891

GAACCCAGGAGGCAGAGGTTGCAGTGAGCCAAGATCGTGCCACTGCACTCCAGCCTGGCGACAGAGCGAGACTCC
ATTTAAAAAAAAAAACACCAGGGCATCTGTAAGCCACTTTGGGAGTCAAAAGAATGTAGAGCTGGGCTGGACTCC
TTAGAAGAAAGTTAAGTTCTGAGTGTGGGAGGAAGTGCCTGCACCCCCACATCCAGACAGCCCGTCACTCCTGCT
GCCGAAGACTGACTTGCTGATTCGGGCTCTGCCTCCATAGTGGGGGCACAGAGCCAGGGAGAGTGCCCACAGGCC
CAGGGATCCTGGGTGTGGGACCAGGGAGAATGCCCACAGGCCCCAGGGCCTTTTTGAGCCCAGGGCGCTCTCTGC
ACAGGCCCGCTACAACTTCATCCGAAGCATGGCCGCCTACAGCCTCCTGCTGTTCCTGCTGCAGATCAAGGACAG
ACACAACGGCAACATTATGCTGGACAAGAAGGGCCATATCATCCACATCGGTCAGCCAGCCACAGCGCCACCCTC
CTCTCCCTTCACCCCGGCACCCAGGGGTGGATAGGGATCCCCACCCCACAGAGAGGAGAATGCCCAGGACCACCC
TGCCAGGAGTGTCAGGGTCCAGCTCTGAGGTCCGAACTGTCGGCCACCAAGCTGTTCTGCTGTAGAGGGTGCCTG
GCCCCGGCCCCAGGGAGCTGGGGCGAGAGCCGCCATTGCTCTGAGTCAGAAGCTGGAGCTGGGCGGAGTGGGGCT
GGTCCAGGTTCAGTGCCCCAGCTTGGCTCCTTCCTCCACTTCCTCCCTTCTCTTTCTCTGCCTGCTGCCCCACCA
CCCACCCCATCACTGTCTCCAAGAAAACACAACCTGCCTTTTGGGGGTGGAGGGGGTGCTCCTGTTGAAGAGTCC
TTTTCCACTCCTCAAAACAGACCACTCGTCCTTGCCCGCCCTGGCTCCTACCCAGTCACAGGCAGCTCTTTGGGG
TTTTGCAGACTTTGGCTTCATGTTTGAAAGCTCGCCGGGCGGCAATCTCGGCTGGGAACCCGACATCAAGCTGAC
GGATGAGATGGTGATGATCATGGGGGGCAAGATGGAGGCCACACCCTTCAAGTGGTTCATGGAGATGTGTGTCCA
GGCTACCTGGCTGTGCGGTGAGCCTGGGTGAGGGCCAGGGTGGAGGCGGAGGGGGTGTGTGGAACGTTCTGAGAT
CCCCTTTAGGATGAAGGGAATCGGGTTCCAGAGAGTGAGGTAGGTGCTAGCAGCCACCTGCTGACCTACACCTGT
CCTTTGGTCACCTCTGTCTGCCCACCTGTGCCAATAAATTCTTGCTCTGGGCATCTAATTCCAACCACCTTCCCC
ACAATCCTGCCCACGCCTTCAGCC**ATG**GGCTCTCCCTTTCTGGGCATCCCATCCACCTTGTCACCAAAGCCTGAG
CACCTGCCACCCCACAGGCTACGTGCCAAAGATGGGCTTTGTCCCAGTTTCATATACAGGTCACTTGGCCAAGGC
CACAGTCCAACCTGGGTTCATCCCCACTGCCCCGCAGAGAAAGGCAGGTCAGCGTGTCTGCATCCCACCCAGGTG
CAGAAGCCATGGCCGGCAGCCTTATGTGGGGGACAGGGCAGGACACTCAGCCTGTCCAGAGTGCGTATGGGCAGC
CCTTGCCTGGGCAGTACGGGTGACCGAGTGCAGCAGATCGAAAGTTGCCTCGGGGATGTGCAAGATGTGGCAGGC
GAGGTGGGTGGCAGGAGCCCACACCTGAGGCTGTTGGCATCAGCCAGTCCACAGGACTACAGGCAGGGCCACCAC
CTAGGCTGGCCTCAGCCCACCGCTCCCTCCTGTCTCTCCCCAGGCCCTACATGGATGTGGTCGTCTCCCTGGTCA
CTATCATGTTGGACACGGGCCTGCCCTGTTTTCGCGGCCAGACAATCAAGCTCT**TGA**AGTTTAGCCCCAACATGA
CTGAGCGCGAGGCTGCAAATTTCATCATGAAGGTCATCCAGAGCTGCTTCCTCAGCAACAGGAGCCGGACCTACA
ACATGATCCAGTACTATCAGAATGACATCCCCTACTGAGGAGGGGACCTTCGAGGGCCTCTGCCCCATGTGCCCT
TGAAGCTGCCCCACAATCATGGAGCCCTGCGACCTACCCGCCCTGCCGCCACATGCAGTGGAGGAGAGGCCTGTG
GCCCGAAGAGCCTGGTAGCGCCTCCTGGGGCAGCACGTGGGTGGCGCAGGCTTAGTAACGCCGTGGACTGCAGCG
ACAATCAGTGGATGGTGCTGTCTATGCACAGGTGTGAGTCCTCTGTTTGCACTGGACATATTCCCTACCTGTTTT
ATTTCATAGGTACATGAAGTATTGTGTATAAAAAAAGAGATAAGATTTAACCAACATCAACAAAATAAAAACCCA
AAATAGTG

FIGURE 2892

GAGCTTGAAGAAATCCGCAAATGTGGGATGAAAAACTTCCGTAACATCCAGGTTGATGAAGCTAATTTATTGACT
TGGCAAGGGCTTATTGTTCCTGACAACCCTCCATATGATAAGGGAGCCTTCAGAATCGAAATCAACTTTCCAGCA
GAGTACCCATTCAAACCACCGAAGATCACATTTAAAACAAAGATCTATCACCCAAACATCGACGAAAAGGGGCAG
GTCTGTCTGCCAGTAATTAGTGCCGAAAACTGGAAGCCAGCAACCAAAACCGACCAAGTAATCCAGTCCCTCATA
GCACTGGTGAATGACCCCCAGCCTGAGCACCCGCTTCGGGCTGACCTAGCTGAAGAATACTCTAAGGACCGTAAA
AAATTCTGTAAGAATGCTGAAGAGTTTACAAAGAAATATGGGGAAAAGCGACCTGTGGACTAAAATCTGCCACGA
TTGGTTCCAGCAAGTGTGAGCAGAGACCCCGTGCAGTGCATTCAGACACCCCGCAAAGCAGGACTCTGTGGAAAT
TGACACGTGCCACCGCCTGGCGTTCGCTTGTGGCAGTTACTAACTTTCTACAGTTTTCTTAATCAAAAGTGGTCT
AGGTAACCTGTAAAGAAAGGATTAAAAATTTAAGATGTTCTAGTTCTGCTCTCTTTGTTTTAAAAATCACTGCTT
CAATCTACTTCAAAAGAATGGTGTTTCTTTTCTTGTCCAATTTTATCCAAAATCTTCAAGTTACATTTAACCCAT
AAGGTTTAAAAAAAAGGAAAAAAAACGGTTGTGGTTCCCTTTCTTCCCTACCCTTGCCACTCCCACTTTCTGGCA
CCGAGTTTATTTTTCACTTACTTACTTCCCCAGACCCCGGGCTCGCCTCCACAAAGGAGAAAAGACTGCCCTGGC
GGTCCTGGTGGCTTTTCTTAGCATGTGTGGCACTGTTGCCCAGTGTGGGAGTTGGTTTAAATTCTCCTGACTCCA
GTTTATAACATCCTTTTAAAAAATTTAAAAACAAACAGCCACACCCCTCCTCCAGTCCTTCTCCTCAGTTCTTGT
GTGAAACTCCAGCTGATGTTACCACAGTAACATCAGTTAATTGGGCAAGCCCTGATGTCAGTGTGTGTAACTGAC
CTCTGGCCTGGCCTGCACAGAGAAGCCCTATAATCACAGGTCTGTGGTGGCCCCGAAATGGGGGGCCTGCTAGTC
AGGAGGATGCTGTGCACACTGTGTGTGATGAATCTCGCCAGAAAGGCTCCTGAGGTCCCAGGTTGGCACTTCTCC
CTGCAGCCATTGTAGAAGATCTGCTGGTCCTTGCAGGCAAAGCTACAGCCAGAATGTCCGTTTGAAACTCCTAGC
TCATCTGTCACCGAGCTTCATCCGAATGTGCCACGGAGCTTGCTCTCCACTTCCTCCGTGCAGTGGCCCTGCCAC
AGCCCTCCCTCGGCACACTTTGACCCTTTGTAGGATTGGAATTAGCAGGACTCGGCTATTTAAAGCACCAGTCTG
GGGTCGCCTGGGCCCCTGCTGACCCCCTCCTCCAGAGCAGCCAGCCCAGCCCGGGAACAAGACGGACTTCCTCTC
CCTTCGGACTCACAGCCTTTGCAGAGTCAAGCTCCACTTGAAGCTCACTCAGTAATATCCTTTCAATGTGTTTTA
TATTGTTTTGACTGCCTTTTTTTGTAGAAATAAAAATTGACCTTAGAATTTATCGTCAGATAAACTTGTAAAGAT
TTGAATATTAATGTCTTTTCAAGGCAAATGGGATTGTCCCCGCACTAGTAGAGAATCCATGTCGCTCTGACACCC
CAAGGAAGCCGACGATCCAAATGCCGTGTGTCACCAACCCCGCTTCTGCCACTGGCGGCTTCCCTTCTTGGCTCT
TGGGGGGGACTAGATCCTGTGGAGAAGATGACTTAAACTTTGCTTTTTGTTTTAATTTTAATTCTATAACTTGAG
ATCTTTCCGGGGCCTACAGGCGTGTAAGACAGCTTGGTCTGGTCTGTGCAGAAGTGGGGAGTGATGGGCAGGTTC
GGCAGCCTAACATTGTTCAGGCGCATGGCCCCTGCGGTGTGTACACGAACTCGGCTTCTTTTGTCCTAGGTACGC
CAAGGGCAGGTTTCTGGAGACTCCCTTGTGCCCGGGATGGCAAGGGCACCGGGCTGGCGTTTCCACATCTGTCTT
CATTAGCAGAAAAGTGATGATGGATTTTATTTCACTCACACTCCAGTTTGTAATAAA**ATG**CCAAATTCTGTCAGC
TATCCAAACAAGCCACCATTTGTTCTTGTTGCTTCTCTGGATCCAGAAATGTTGCCATTCTTGGAAACTGTCCCA
TTGCTTCGTATTTCTGCCAACGTAGCTCTGCCTGCCTGTCAACCCCTCACTGCACTCTGCTCATCACGGGAGGAT
ACCTGTGTGCCGGCAGCCCCTCAGGGACTCTCAGCCCTGGCACTGGCACCCCAGGGTTGGCCCCGTCAGCAGAGG
CTTGGCTTTCGAGCCAGTGGGTGTCTCTCCTTTGGGCCTGGGCGGCTTGCTCCTGCCAGCCATGCCTTCAGGGTA
GGCTCTGAGCAAGCTGGCGAACAGCCCTGGCTGCTCCAAAACCAAAAAGCTGGGTCCTCTGGAGGAGGGGCGAGC
TGTGGAGCAGCCACCCACTGCTGCCCCAAGCTCACTCAGGAATTCACACCCGCCTGGTTTCTTGAAGTGTGCTGG
GTCCTTCCCTCTGCTCCCTACTCCCCACCACGGCAGAGAATAGGCTTTCTAAGATGCTGCGATCCCGTTCTGCTG
CCCGTAATAAAAATGCTCTCAGACACTG

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FIGURE 2893

GGGCTGTCCGGCCCACTCCCCTGGGAGCGCGAGCGGTGGACCCAGGCGGCC**ATG**TCCCGCCCTCGCATGCGCCTG
GTGGTCACCGCGGACGACTTTGGTTACTGCCCGCGACGCGATGAGGGTATCGTGGAGGCCTTTCTGGCCGGGGCT
GTGACCAGCGTGTCCCTGCTGGTCAACGGTGCGGCCACGGAGAGCGCGGCGGAGCTGGCCCGCAGGCACAGCATC
CCCACGGGCCTCCACGCCAACCTGTCCGAGGGCCGCCCCGTGGGTCCGGCCCGCCGTGGCGCCTCATCGCTGCTC
GGCCCGGAAGGCTTCTTCCTTGGCAAGATGGGATTCCGGGAGGCGGTGGCGGCCGGAGACGTGGATTTGCCTCAG
GTGCGGAGCCGCAGCTACAGGAGGATGCTCGCGAGGACCCCCAGAGCTCCGCCCGGAGGGTACTGTGAGGCCGTT
AGGAGCTGGCGGTGGATGACTTCCGCATTCAAACACTGGAGCCATCACACGGAAGCACGAGGAGGGTATCCTCGG
CAGCTACTCCCGGTCGCTCAAGGTGTCTCTCGCTCGCCCTCTAGGTGCGGGAGGAGCTCGAGGCCCAAC**TAA**GCT
GCTTCCGGGAGCTGCTGGGCAGGGCCCCCACGCACGCGGACGGGCACCAGCACGTGCACGTGCTCCCAGGTGGAC
AGACGCCTTCGTGGGCCTGAGCACTTGCGGCCGGCACATGTCCGCTCACCGCGTGTCCGGGGCCCTGGCGCGGGT
CCTGGAAGGTACCCTAGCGGGCCACACCCTGACAGCCGAGCTGATGGCGCACCCCGGCTACCCCAGTGTGCCTCC
CACCGGCGGCTGCGGTGAAGGCCCCGACGCTTTCTCTTGCTCTTGGGAGCGGCTGCATGAGCTGCGCGTCCTCAC
CGCGCCCACGCTGCGGGCCCAGCTTGCCCAGGATGGCGTGCAGCTTTGCGCCCTCGACGACCTGGACTCCAAGAG
GCCAGGGGAGGAGGTCCCCTGTGAGCCCACTCTGGAACCCTTCCTGGAACCCTCCCTACTCTGACCCCCTACAGA
CAACCAAGCACTAATCCCCTTAGTACCAAGAAAGGGGAGCCAGGATTTAGTCCTGGCCCAGCCCAGAGCTGGGAC
CTGGAGCACGATCTGTTGACTTCCCTGGGTAGGACACTGCCACCTCTGGGCTCAGGTCCTCATGCCTCCAAATGG
CATCTAGAGTTTGAGCAGCCTTCTTGGCTGCAGGCAGGCCTAGCCTGTGGCAGCGGGCTAGGGCCCGCAGAGCAT
TTGGTGCCCCTCCATGTTGCAATGCAAACACCTTCACCACTGGGGCAGTGGGGAGAGATGGCTATATTAATAAAA
TAACGTGTGTCTTTC

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FIGURE 2894

GCTGGAGCCGGGCCGGGGCG**ATG**TGGAGCGCGGGCCGCGGCGGGGCTGCCTGGCCGGTGCTGTTGGGGCTGCTGC
TGGCGCTGTTAGTGCCGGGCGGTGGTGCCGCCAAGACCGGTGCGGAGCTCGTGACCTGCGGGTCGGTGCTGAAGC
TGCTCAATACGCACCACCGCGTGCGGCTGCACTCGCACGACATCAAATACGGATCCGGCAGCGGCCAGCAATCGG
TGACCGGCGTAGAGGCGTCGGACGACGCCAATAGCTACTGGCGGATCCGCGGCGGCTCGGAGGGCGGGTGCCCGC
GCGGGTCCCCGGTGCGCTGCGGGCAGGCGGTGAGGCTCACGCATGTGCTTACGGGCAAGAACCTGCACACGCACC
ACTTCCCGTCGCCGCTGTCCAACAACCAGGAGGTGAGTGCCTTTGGGGAAGACGGCGAGGGCGACGACCTGGACC
TATGGACAGTGCGCTGCTCTGGACAGCACTGGGAGCGTGAGGCTGCTGTGCGCTTCCAGCATGTGGGCACCTCTG
TGTTCCTGTCAGTCACGGGTGAGCAGTATGGAAGCCCCATCCGTGGGCAGCATGAGGTCCACGGCATGCCCAGTG
CCAACACGCACAATACGTGGAAGGCCATGGAAGGCATCTTCATCAAGCCTAGTGTGGAGCCCTCTGCAGGTCACG
ATGAACTC**TGA**GTGTGTGGATGGATGGGTGGATGGAGGGTGGCAGGTGGGGCGTCTGCAGGGCCACTCTTGGCAG
AGACTTTGGGTTTGTAGGGGTCCTCAAGTGCCTTTGTGATTAAAGAATGTTGGTCTATGA

FIGURE 2895

GAACTCGGCTGCGGCTCCATGGTCTGAGTTGTCAGCCGTTGTTTTTTCGTGCTCGCTAGTCGCCGCCGCCGCTCC
GCC**ATG**GGGAAGCGACAGCACCAAAAGGACAAAATGTACATTACCTGTGCTGAATACACTCACTTTTATGGTGGC
AAGAAGCCAGATCTCCCACAAACAAATTTTCGTCGTTTACCTTTTGACCACTGCAGTCTCTCTCTGCAGCCCTTT
GTCTACCCAGTCTGCACTCCCGATGGCATCGTCTTTGACTTACTGAACATTGTTCCATGGCTTAAGAAGTACGGG
ACCAACCCCAGCAATGGAGAGAAGCTGGACGGGAGGTCCCTGATCAAGCTGAACTTTTCCAAGAACAGTGAGGGG
AAGTACCACTGCCCAGTGCTGTTTACCGTGTTCACCAACAACACCCACATCGTGGCTGTGAGGACGACCGGCAAC
GTCTACGCCTATGAGGCAGTGGAACAGCTAAATATCAAGGCCAAGAACTTCCGGGACCTGCTGACCGACGAGCCC
TTCTCCCGGCAGGACATCATCACCCTCCAGGACCCCACCAATTTGGACAAGTTCAATGTCTCTAACTTCTATCAT
GTGAAGAATAACATGAAAATAATAGACCCAGATGAAGAGAAGGCCAAACAGGACCCGTCTTATTATCTGAAAAAT
ACAAATGCCGAGACCCGAGAGACCCTGCAGGAGCTCTACAAGGAGTTCAAAGGGGACGAGATTCTGGCAGCCACC
ATGAAGGCCCCGGAGAAGAAGAAAGTGGACAAGCTGAACGCTGCCCACTATTCCACAGGGAAGGTCAGCGCTTCC
TTCACCTCCACCGCGATGGTCCCGGAGACCACACATGAAGCAGCTGCCATCGACGAGGATGTGCTGCGCTACCAG
TTTGTGAAGAAGAAGGGCTACGTGCGGCTGCACACCAACAAGGGCGACCTCAACCTGGAGCTGCACTGCGACCTG
ACACCAAAAACCTGCGAAAACTTCATCAGGCTTTGCAAGAAGCATTATTACGATGGCACCATCTTCCACAGATCC
ATCCGGAACTTTGTGATCCAAGGGGGCGACCCCACAGGCACAGGCACGGGTGGGGAGTCATACTGGGGGAAGCCC
TTCAAAGACGAGTTCCGGCCCAACCTCTCGCACACGGGCCGCGGCATCCTCAGCATGGCCAACTCCGGGCCCAAC
AGCAACAGGTCTCAATTCTTCATCACGTTTCGCTCCTGTGCCTACCTGGACAAGAAGCATACCATCTTTGGACGG
GTTGTTGGGGGCTTTGACGTACTGACAGCCATGGAGAATGTGGAGAGTGACCCCAAAACTGACCGCCCTAAGGAG
GAGATCCGCATTGATGCCACTACAGTGTTCGTGGACCCCTATGAGGAGGCCGATGCCCAGATTGCGCAGGAGCGG
AAGACACAGCTCAAGGTAGCCCCGGAGACCAAAGTGAAGAGCAGCCAGCCCCAGGCAGGGAGCCAGGGCCCCCAG
ACCTTCCGCCAGGGCGTGGGCAAGTACATCAACCCAGCAGCCACGAAGCGAGCAGCAGAGGAAGAGCCCTCAACC
AGTGCCACTGTCCCCATGTCCAAGAAGAAGCCCAGTCGGGGTTTTGGGGACTTCAGCTCCTGG**TAG**CAGCAGGTT
GGCCGCTGTGGACCTTGGTGGGGTTGCAGGGCTGGGGGCCCATGTCCACATCTCCATTTCCAGCCTTTCTAGCCT
GCCCTCTGCTGCCAGCCAATAAATTGCTTGCCTGCTGCCTGCATCCCCTTTCCTGGCCCCTGGGAGCCCACAGCC
TTCCCATCCCTTAACCTGTTGCCAAGGGCCTTGGCCCTGTTTCCAGGACCTGGCCCAGCCAGAGCCCACTGCTGG
GACCTTCAAGCACAAGGCCTGCCCTACACCCAGGCTGGTGCCTCAGGCCTCCCCTCTAGTAGGCAGGCCAGGTTA
GTGAGGAAGGACTGTGTCTCCAGATTGTGGTTTCCTCTTTAAGACAGGGTCTTGCTCTGTTGCCCAGGCTCCAGT
GCAGTGGTGTGATCATGGCTCACTGCAGCCTCGACCTCCTGGGCTCAAGCAATCCTCCTGCCTCAGCCTCGCAAG
TAGCTGGGACTACAGCCGTGCACCACTACATCCAGCTGTATATGTCTGGTTTTCTTACCCCTACTTCTGTCATCT
TCTCAGGGACAGCCTATTTATACAACCAGTGTGGTCCCCTGACCAACGCCATTACCTGGGACAAGTTTTCAGACC
CCAGACTTACTGAGCCTAAGCCTCTGCAGGGTGGGCTTCTCGGTCTGTTTTGACAAAACTTCAGGGGCTTCTGAA
GGCTGGTGTTGGACGGCAGCATTGAGTTTCCTGCCGTGCCCTGCCTGAGCTCTCAGGGCCCTGCTCACCTGCTCT
GGCTGTGAACCACCTGGGCTTCATCTCAAGCCTGCCTGGCGTCTCTGTGCCCCTGTGAGAATCTTGAGGGGACCC
ACACTGGGTTGAGGCCAGTGTCTCCTGCTGTGAGAACAAGTGGATGTCCCTCTCCCCGCCCTCCTGCTGAAGTGG
CCTTGCTGCTCTCAGGCCCGGCCA

FIGURE 2896

TAAATTTGCAGAACTTCAAATTGGCTATTCCTCTTGCAAATGAACCCTTAAAGTACAGTGTTATTTAAGAATCTT
CCAGAGGCAGTCAACAGACTTATACACTAAGGGCATTTTTGGTTTTTAGCTTGTTCAAAAACAGAGGCCAGCACA
GATGACATTTTAGATACACTCTAAATTGAGAATGGTGTCTAGTGGAACATGTTTATTTAAGCCAGTAGATTCCTT
ATCTAGAAAGCAGGTGAGCTAGCCCTTAGAGAAGGCTGTCCCGGGGCCCGCAGAGGTGCCCTTACTGAGGTGACA
GCCTCACAGGGTCTGGTACCAGGGGTTGTGCCCTCAGCAGTGACAGCAGCTTAGGTGTCAGGCAGTTGCTGAGTG
GCTGGTCCATGTCTATAGAGTAACACACTGGACCGAGGAAAAGTCAGATTTCATTTTCTACCCTGGATGTACTTG
AAGAAAAAGAATTATTTTTGCATATGAAAGAGGCCAGAACCCACAGGAAAAACTTCAAAACTTGACATTTGCCAG
AATGTTTAAAATTTGTTCAGAAAAGGTTAAAGCAACAAGTTTAGCCTTTGTGCATGAAGACGCCTGGCCTGCTAG
ACGCGTTGCCCGTCCCTGCGTGGTGCTGTCCCATGTCACTTGAACTGATAGAGGGGCCTGTGCAATCTCCTAAGG
CCTGTGTTTCTGCCATATATTTTATTATAAATTACAATCCACTCATCCACCTGCCCTCCACCAGGAGTGGGCACC
CCATAAGGGTTTAGGCCACTTTGCAGAGGATGGAGGTCAAAAACCACTCCCAGATAAGTTTGGTTTTCAACATTT
AGTAACTTGTCTCAGGGCAGAGGGCAGGCAGGGGGACCGAGGGGCAGCAGATAGGAGAGCACTGAGCCCGGATAG
TTCTCAGCCTGGCAAGTGGCTCTGAAGCTGCCTTCAGACAAGGCTAGTCTAGGGGCAAGAGTGCGAGCTGGCTGA
CAATAAGAACGTGGCCACCTGCCCAGCTTCACACCTCCCCCGACTTCAGCCCTTCCTAAACCCAGACCTGCGGTC
CAGGCAGGCACTGGGCTGTGCCCACTCGAGCTCACTGCCCACACACAGCATGCCTTTGGGTGCCATCTCTTTGCC
CAAGCCTGGAAGCCTTGGCAGGTGGGAAATGCCGCTGCCCTGGTGGGC**ATG**GCACTGAGATGCATCCACTCAGCA
GGAGTGACAGAGGCAGAAGTTCCTTTAAAGCACATCTTCCACTTAGGAAAGGAAGGAAATCTTTGTACTGTCTTG
GAAGCCTCCACATCCGGCTATGGCCCTGCAAGCTGCTTTATCCCTGCGCTAGTCTCCCCCGAGGGTTTAGGCTGG
CCCAGCACATCCTGTCCTCCTGAGCTCGCGTGCAGCCACCCAGAGCGCAGGGGTCACTGCACGCTGCAGGGCTCT
TGCTGCCATGGTCTCAAGCCTGAAGAGGCTCCGCCCACAAGCTGGCCCATGAAGTTAGCAATGCCTGTGGCTTCA
GTCAATTGTCTTGAGACTGTGAAGAGGCTGAAAGACACCTTCCCGGGTGGAAGAAGGAGTTCACTGAAAACTTAT
CTTAAACTGACCCTTCCCTTTGAG**TGA**GTCTTCATTCCTCTCCCATGTGGGAACCCAGCCTCCGATGCCCCGGGG
ACTAGGGGAAACAGTTGGAGGTTCGTGCCGTCCCCAGCCTGCCACGGGTGCGAGGACAGCCAAGTCCTGAGTGAC
TCAAGATGCTTCACTTACATGGAAGAAACTTCTAAAACTCTACCGAGTGGTTTTTGTATATACTAAAGTTCTATT
TAGAGCTTTTCTGTTTTGGGCAAGTTCGCTGCTCCTTCTATTTGGGCACTTTGGTTTTTGTACTGTCTTTTGTGA
CGGCATTGATTGAACATTTTTTACTAGTAGTCTTATGACTTTTGTATTTTTTTTTTTTTTTGTAATTTATACCAA
CAACACTTTTATCACTTTTTTTTTGTTGGGCTTCTGCAAAATACAAGCTCATTTTTAAACCAAATGAACAGACCA
TGAGCTGGCTTCAGGGGAAGTGCTATTCACAGGACCATATCCACCACCCTCTTAAATTCCTAAACAATATCATCT
AGGACTTCTATTTAAGTTATTTAAAATAAATCTTCCTTGAGAGCCTTGGGAGGTGATGTCAGGGTTATAAATGGC
ACAGTGCATTTGCTGTAGGAATGTGGTTTGGCATTGTTTTATACACACAGTATTTTTTATACCTTAATGCTTATT
CTTGATGGCATCTGTCAGATATTAGAATTGAAAATAAGAATCTTCCCAAAATCCTTTAATTTACCTGATGCCCTC
ATCAGGTCGTTAAAAATTCAAATGGTTTTAATAGCTAAAAAACTACAAATTAAGCTCTAAAACAAACAAACTACA
GAAATGTAAACCTTCATTTGCCAAAGGTCCTTGGTGGCCTGTCCCCTGCCCTGGGAGCAGATGGCCCTGAAGCCC
TTCCCTCACTGTGCAGGCCACCGGGTGAGGCTGGACGGTCACCCATGGTGGCTTCACTGCAAGGAGCAGGACTGC
CGAGCTCAAGCACGGGGCCTTCAGCTTCCCCTGTCCTCTGGCCACACCGCCAGCCCTTGGTCCTTATCTGTGTGA
GGTTTACAAATAAAGCTTCTGATGTCAAATGTT

FIGURE 2897A

CTGTTTTCTCTTTATTTGCTTATATGTTAATATGGTTTTTAAATTGGTAACTTTTATATAGTATGGTAACAGTAT
GTTAATACACACATACATACGCACACATGCTTTGGGTCCTTCCATAATACTTTTATATTTGTAAATCAATGTTTT
GGAGCAATCCCAAGTTTAAGGGAAATATTTTTGTAAATGTAATGGTTTTGAAAATCTGAGCAATCCTTTTGCTTA
TACATTTTTAAAGCATTTGTGCTTTAAAATTGTTATGCTGGTGTTTGAAACATGATACTCCTGTGGTGCAGATGA
GAAGCTATAACAGTGAATATGTGGTTTCTCTTACGTCATCCACCTTGACATGATGGGTCAGAAACAAATGGAAAT
CCAGAGCAAGTCCTCCAGGGTTGCACCAGGTTTACCTAAAGCTTGTTGCCTTTTCTTGTGCTGTTTATGCGTGTA
GAGCACTCAAGAAAGTTCTGAAACTGCTTTGTATCTGCTTTGTACTGTTGGTGCCTTCTTGGTATTGTACCCCAA
AATTCTGCATAGATTATTTAGTATAATGGTAAGTTAAAAAATGTTAAAGGAAGATTTTATTAAGAATCTGAATGT
TTATTCATTATATTGTTACAATTTAACATTAACATTTATTTGTGGTATTTGTGATTTGGTTAATCTGTATAAAAA
TTGTAAGTAGAAAGGTTTATATTTCATCTTAATTCTTTTGATGTTGTAAACGTACTTTTTAAAAGATGGATTATT
TGAATGTTTATGGCACCTGACTTGTAAAAAAAAAAAACTACAAAAAAATCCTTAGAATCATTAAATTGTGTCCCT
GTATTACCAAAATAACACAGCACCGTGCATGTATAGTTTAATTGCAGTTTCATCTGTGAAAACGTGAAATTGTCT
AGTCCTTCGTTATGTTCCCCAGATGTCTTCCAGATTTGCTCTGCATGTGGTAACTTGTGTTAGGGCTGTGAGCTG
TTCCTCGAGTTGA**ATG**GGGATGTCAGTGCTCCTAGGGTTCTCCAGGTGGTTCTTCAGACCTTCACCTGTGGGGGG
GGGGGTAGGCGGTGCCCACGCCCATCTCCTCATCCTCCTGAACTTCTGCAACCCCACTGCTGGGCAGACATCCTG
GGCAACCCCTTTTTTCAGAGCAAGAAGTCATAAAGATAGGATTTCTTGGACATTTGGTTCTTATCAATATTGGGC
ATTATGTAATGACTTATTTACAAAACAAAGATACTGGAAAATGTTTTGGATGTGGTGTTATGGAAAGAGCACAGG
CCTTGGACCCATCCAGCTGGGTTCAGAACTACCCCCTGCTTATAACTGCGGCTGGCTGTGGGCCAGTCATTCTGC
GTCTCTGCTTTCTTCCTCTGCTTCAGACTGTCAGCTG**TAA**AGTGGAAGCAATATTACTTGCCTTGTATATGGTAA
AGATTATAAAAATACATTTCAACTGTTCAGCATAGTACTTCAAAGCAAGTACTCAGTAAATAGCAAGTCTTTTTA
AATGCTGCTTTATTTCACTAAATTTTGTTGTGAGGTGTCACTAAAATGCCTGCAAACAAACGTAACTGCTAATCT
GAGAGGAAACCCTCTTACTAATCAGAGAAGAAACCCTCCTGTCAGAAACCTTCAGGGAAGTGAGCTGATCACACC
TAAACTGGGAGTTTGCAATGGGGTATTTGAAGCACTGTGGGAGTATTCCACTGGCCCTCTCCCTGAGAGACTTAA
CAGTCTTCCCTGTTGTCCAGATTCTGTATAAGGCAATCAGAATAATCATCTTCCTTGTTCAGCAGAGGAGCCTGG
TCCCATTTTCCCCACTTTGTGATGGGCTTCTCTCAGCGGTAGCTCAGCAGTTCCAGATGGCAGTTTGGACCAGCA
TCTAGGCTGGCCAGTTCGCTGTGTTTACTTAGAACCAACACGTTCAGAGCTGGCCTGGACCATCTGAGGGGAACA
GGAAACACCCCTAGGCTGTGGAAGCAAGTGCAGACCCCCACCCCCGGCCCTGAAGCCAAGGGGGCAGGGTTTGGG
AGTGGCCAAAGAGAAGCAGTGCAGGGATGGGTTTTCCTAGGGACAGGCTTAGCATTCCTGACTCTAGGAAGAAGG
AGCAGTGAGGCGGAGAAACAGTGGAGGGGATGGTGGCATTGGGCCCCATGGGGCCGAGATGGACACAGGGCTCGT
TCTCTTGAGTCTGGTGCCAAGGACAGCTGAAGACGACATCATTTTCAGGTGGAGAGGAGAGAGTGGAGGGAGATC
ATGCCCTGTGATGTGTCTTTTGCAGGTGAAGGTGGGAGACAAGGTCTCTGCTGACGATGAGGCAGAGCCACCGTG
AAAGTTGTAATAGGAGGACTGCCCGCCGCTGGAAGGGCCTGCAGTGACGCTAGGACACCCTCTGCCTGCATGTCA
CGTTAGCTGGGCTGGGCGAAGTAGAAGACCAAGGGGAAGAGGTGCAGTGGGGAGACCAGGTGGGATGCAACCACA
GGACCAGTGGAGGGGCTGTGGCACGTGGGCGGAGACTGAGTGGCTGGGCATGTGTTGTGGCTGAGCATGTGGTGT
GGGCAGTGGTCCTAGACCCCGCCATGTCCGGACAATGATATAGAGCGTCTCAGCATCGCCAGTCTAGACTGTCTA
TGGAGAGCAGAAAGTTGTCTGGGGCTGCCTGGGGAACTGTGAGGCCAGCTATATCACCGTCGCTGATGGTGACAT
TACGGTGGTGGCAGGAGCAAGGAGAGAGGGAAGAAGGACCCCGTCCAGCTTTAGTCACAAAATACCCAATGGAAG
ATGCCAGTGCCAATCCTGTGGGTTTCCTTGGGACTTCACACTGGCTTTCTTATCTGCTCCAGATCCATTCAGTAG
TCACTGAGTTCCTGCCAAATACTTTGTAGCGCCAGAAGCCAGGAGCGGGGTCTGCAGCAGGGCAGTCCCCATTTT
CAGGAAATGCCTGGAGCTGCTGGTCCCTGAGAGAAAGGAAAACATCTTTCAGCCGTACGCAGGCCAAGAAGGCCA
ATGTCCAGTAGCTTTGTGATTTTTTTTATATTTTTTTATTTATTTATTTTTGAGATAGAGTCTTGCTCTGTCGCT
CAGGCTGGAGTGCAGTGGCGTGATCTCCACTCACTGCAACTTCCGCCTCCTGGGGGTCAAGCAGTTCTGCCTCAGC
CTCCCGAGTAGCTGGGATTACAGGCACACGCCACCACACCCAGCTAATTTTTGTGTTTTTAGTAGAGACGGTTTC
ACCATGTCGGCCAGGCTGGTCTCAAACTCCTGACCTCAGATGATTCAGCCTCCCAAAGTGCTGGGATTACAGGTG
TGAGCCACTGCACCCAGCCTGTGATGTTTCTGTGGGGTTCCACAAATGTGTGTGTGTGTAAAAGCTGATGATTAC
AGCAAGAATGTGAACAGTAGCAGTTTTCCATTTGAAGGCAAGTTTTGTCTTTATCTGGGTATCAGAAGGACCCTC
TGGGCCATTGTCGCTTCCTGTACTCAGAGCCACCCTAGTACTACGGGCACACACAGAAAACAGCAGCCTGCGTAC
TTTCAAAGGAAAGGCATCTTTAATCACCAATGCCTGGAAAAATTATTTTGTTTCCCTCTTCCTTCCGTCTTGTTT

FIGURE 2897B

CCTAACTTCTTACCAAAGTTTAGAGTCTGAGTTTTTCGTATAATAATGTCCCACATCCACACATCGGGCCTACAG
ATGCTCTCCCTTGAATCGACTGGAAACATGACACCGGTTCCATGCTCTGGAACTGTCACCTGTGATGTGCTGGGC
TGTGTCCCAAGCACAGGAATCCCAGCAGTTTCAGCTCGATGCAGAACCACCATGCTCCAGACACAGGCTTGGGAA
AGACACGTCAAAATTAAAATACTAGGTAAGAGAAGCACCTGATTGGGTAGAAGTTGGAGAGGAATCCTGGAATTT
TGTGGCCAGAAGGAGCCACTGCCCCTTTTGTTTAGTAAGACTAGACAGTAACAGAAGCCAGTTGTCAGCTATGAA
AGTGGTGGGTGAAGCAGGGGAGGCTCCTCTATGGTGGGACCCTGGACAAGGGAAGCCGAATGTGTGAAGAAGGGG
TGCGGGGGTGTGCGGTGCCCTAGGACACTAGGGCAAAGGTTTCAAACCTGGAACAAGGCACTGGAGGAAGATCTG
CTGCCAGTCAGCAGTGCGGGCCCTCGAGTTAGCAGTCCGTGCGCAGAGGGGCCAGTTCTGAGACCAGTTTGGAGA
GTCAGGCAGTGACCCATTGGCCATGTCATAATTCCTTCAGCCTGCCTCCTCTTTAATCCCAGAGAGTGCTCTTTC
TTCATACTTCCTTTAAAATACTAAATTGTTCCCATTCCATGGGGAGCTGGCTAGGCTTTACAGGCTAGGAAATGT
AGGTTTTCTGAGATGGAACCATCTACACAAGGAGGAGGAAGGCACTAAGACTACAGATGAGACCCATGACAGGGC
TGAGCATTTGGAAGCCAACCCTGGTTGCTTTTCAAGAATTGCTTTGTGGCTGGGTGCAGTGGTTCACACCTGTAA
TTGCAGCACTTTGGGAGGCTGAGGCAGGTGGATTGCTTGAACCCAGGAGTTCGAGACCAGCCTGGGCAACATATG
GGACACCCCACCGCCCCCGGCTCTGCAAAAAAATTAAAAATTAGCCAGGCGTGGTGTCATGAGCCTGTGGTCTCA
ACTACTCAGGAGGCTGAGGCTGGAGGATCGCTTGAACCTGGGAGGTCAAGGCTCCAGTGAACCATAATTGTGCCA
CTGCACTGCAGCCTGGGCGACAATTTGTTTTCTAAATTGCTTTTGAAAGTCTACTGCATTACATATTCCAAAAAG
CAGTGGTTTTCAAATACTTTTATCACCGATATCCTTTTATGAAATGAAATCAGTAGAACTTTCTCTGCTCTGAAT
AAGCAAGGGTGGGAACCTGTCTACCTCCCACAGATAGCATAATGTGCCTGCCATAGAGGAGCCAAAAAATGGTGA
TGGGAACTGAGAGGAGAGCAAATGTCACAAAAGACTGAGCAATTGAGAAAACAAAACAAGACCACAGATGACTGT
TAACGCCTCCACAGTGGACCAAGAAAGGACAGAGAGCTGGCAGCATGGGCATCACTGTCTGGTCGGCAGCAGGAA
GGCCTCGCTAGGGAATTGAGTACAGTCATCTAACTAGTTTAAAAGTACAGGAAGGATGATTAAGGCTATTGGAGA
GGTCATACAAATAGGGGAGGGGCAGGCAATGGCTGATAAGACATGAATTTGTAAGGCGATGAGTATTGCAGTCAG
CAAAACAAACGAGACTGCTCTCCCAACACATAACTCAGCAGGGAGGCCAGGCATTGGTTTAACCATTTAATATAA
AGAAGTTAAAATTACAAATGCGCTAAGTGCCTAAAGAAGAATAAGTGCAGGAATGAGAGCAGCATGGACTGCCAC
AGTTTTAGAATAAGCACTGTCACTGCTAGATTGGAAACAAAAATCCATAAATTTGGCCCGGTGTGGTGGCGGACG
CCTGTAGTCCCAGCTACTTGGAGGCTGAGGCGTGAGAATCGCTTGAACCCGGGAGGCGGAGGTTGCAGTGAGCCG
AGATGGCGCCACTGCACTCCAGCCTGGGCGTCAGAGTGAGAACTCTGTATCAAAAAATAAAAATAAAAAAAAGTC
CATAAATCTGCAATGTCTCAGTTAAGAAAGAAAGACTGGGCCAATGCAGATTTCAAACCGGAGAAAGTCATACTG
TCAGTGAAGGCCGCCTGTGGCCGGAAGGCGCCAGGGGATTAGCACCCTGGACTCAGTGTTGCTGGGAAACAGGGC
CCCAAGGCTGGGAGCACAGTGTTTAAAGGGCATCTACCCAAGAAGGGAGCACAGGGCAAGGAGGAGCTGCAGGGG
GGCTTGGCTGCCAAAGTGAATTCTGAGGAGAGAGCTATTGCTGCCTACGATATGCAGGCTGCACAGAACACAAGT
GGAATCAGCAGGCAGGAGAGGCAGCTAACGACGCAGCCCGTTTCTTATTTCTGTTTTCTCACAAGCGATGAAAGT
GGAAAAGAGGGTGAGCAGGTGGCCCACACATGTGCCTCCAGTGCTGCGGCCCCTCCGGGGACCATCAGCCAGGCC
CCGGGGAGGGAGCCAGCCACAGTGTGTCCGGCTCTTCTCTGAAGGGAAGAGAGCCTTGAATAGACTGAAGCGAAG
ACGGTTCTGCAAGGACAAGGCAGACCGAAGGCATTGGTTTTTTTTTTCAGATAAGGAGAATTAGACTCCCAAGTA
GACACCAGAGTCACTGTTTGGTTGGTGGGTGATAGTGGGGTCACAGTGGCTGCCTGTGCTCCCCCAGGGTGAGCG
TGACTGTGCTAACCTGGGTGGGGCAGCATGCACACCCCTCTGGCAGCCCTTTGTTGCTCGCTGATGACAAGTTTG
GATGATCCCGCCAAACAGCTTGCTAAGATGTAGTCCCCAGTGTTGGAGGTGGGGCCTGATGGGAGGTGCTACCCT
TGTGAGATAAGGTTGTGTAAAAGCCTGTGGCACCTCCCCACACTGACGCTCTCACCCCTGCTCTGGCCATGTGCC
GCGCCTGCTCCCACTTCCCCTTCTGCCAGGAGTAAAAGCCCCCGAGACCTCCCAGAAGCCAAGCAGATGCTAGTG
CCATGCTTCCTCTGCAGCCTGCAGAACTGTGAGCCAATTAAACCTCTTTTCTCTAT

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FIGURE 2898

GCCCCTCCCTCCGCCCGCCCGCCGGCCCGCCCGTCAGTCTGGCAGGCAGGCAGGCAATCGGTCCGAGTGGCTGTC
GGCTCTTCAGCTCTCCCGCTCGGCGTCTTCCTTCCTCCTCCCGGTCAGCGTCGGCGGCTGCACCGGCGGCGGCGC
AGTCCCTGCGGGAGGGGCGACAAGAGCTGAGCGGCGGCCGCCGAGCGTCGAGCTCAGCGCGGCGGAGGCGGCGGC
GGCCCGGCAGCCAAC**ATG**GCGGCGGCGGCGGCGGCGGGCGCGGGCCCGGAGATGGTCCGCGGGCAGGTGTTCGAC
GTGGGGCCGCGCTACACCAACCTCTCGTACATCGGCGAGGGCGCCTACGGCATGGTGTGCTCTGCTTATGATAAT
GTCAACAAAGTTCGAGTAGCTATCAAGAAAATCAGCCCCTTTGAGCACCAGACCTACTGCCAGAGAACCCTGAGG
GAGATAAAAATCTTACTGCGCTTCAGACATGAGAACATCATTGGAATCAATGACATTATTCGAGCACCAACCATC
GAGCAAATGAAAGATGTATATATAGTACAGGACCTCATGGAAACAGATCTTTACAAGCTCTTGAAGACACAACAC
CTCAGCAATGACCATATCTGCTATTTTCTCTACCAGATCCTCAGAGGGTTAAAATATATCCATTCAGCTAACGTT
CTGCACCGTGACCTCAAGCCTTCCAACCTGCTGCTCAACACCACCTGTGATCTCAAGATCTGTGACTTTGGCCTG
GCCCGTGTTGCAGATCCAGACCATGATCACACAGGGTTCCTGACAGAATATGTGGCCACACGTTGGTACAGGGCT
CCAGAAATTATGTTGAATTCCAAGGGCTACACCAAGTCCATTGATATTTGGTCTGTAGGCTGCATTCTGGCAGAA
ATGCTTTCTAACAGGCCCATCTTTCCAGGGAAGCATTATCTTGACCAGCTGAACCACATTTTGGGTATTCTTGGA
TCCCCATCACAAGAAGACCTGAATTGTATAATAAATTTAAAAGCTAGGAACTATTTGCTTTCTCTTCCACACAAA
AATAAGGTGCCATGGAACAGGCTGTTCCCAAATGCTGACTCCAAAGCTCTGGACTTATTGGACAAAATGTTGACA
TTCAACCCACACAAGAGGATTGAAGTAGAACAGGCTCTGGCCCACCCATATCTGGAGCAGTATTACGACCCGAGT
GACGAGCCCATCGCCGAAGCACCATTCAAGTTCGACATGGAATTGGATGACTTGCCTAAGGAAAAGCTCAAAGAA
CTAATTTTTGAAGAGACTGCTAGATTCCAGCCAGGATACAGATCT**TAA**ATTTGTCAGGTACCTGGAGTTTAATAC
AGTGAGCTCTAGCAAGGGAGGCGCTGCCTTTTGTTTCTAGAATATTATGTTCCTCAAGGTCCATTATTTTGTATT
CTTTTCCAAGCTCCTTATTGGAAGGTATTTTTTTAAATTTAGAATTAAAAATTATTTAG

FIGURE 2899A

GGACACGGAGCCGCGAGGAGACAGCTGAGGCCCGCGGAGACCAGGGGGTGAAGCCTGGAGACCCTCTTGCCCTGG
CCTAGCTGCAGGCCCCCGGGATGCTTTGGGC**ATG**TCCTCTGGAGCCCCACAGAAGAGCAGCCCAATGGCCAGTGG
AGCTGAGGAGACCCCAGGCTTCCTGGACACGCTCCTGCAAGACTTCCCAGCCCTGCTGAACCCAGAGGACCCTCT
GCCATGGAAGGCCCCAGGGACGGTGCTCAGCCAGGAGGAGGTGGAGGGCGAGCTGGCTGAGCTGGCCATGGGCTT
TCTGGGCAGCAGGAAGGCCCCGCCACCACTTGCTGCTGCTCTGGCCCACGAAGCAGTTTCACAGCTGCTACAGAC
AGACCTTTCCGAATTCAGGAAGTTGCCCAGGGAGGAAGAAGAAGAGGAGGAGGACGATGACGAGGAGGAAAAGGC
CCCTGTGACCTTGCTGGATGCCCAAAGCCTGGCACAGAGTTTCTTTAACCGCCTTTGGGAAGTCGCCGGCCAGTG
GCAGAAGCAGGTGCCATTGGCTGCCCGGGCCTCACAGCGGCAGTGGCTGGTCTCCATCCACGCCATCCGGAACAC
TCGCCGCAAGATGGAGGACCGGCACGTGTCCCTCCCTTCCTTCAACCAGCTCTTCGGCTTGTCTGACCCTGTGAA
CCGCGCCTACTTTGCTGTGTTTGATGGTCACGGAGGCGTGGATGCTGCGAGGTACGCCGCTGTCCACGTGCACAC
CAACGCTGCCCGCCAGCCAGAGCTGCCCACAGACCCTGAGGGAGCCCTCAGAGAAGCCTTCCGGCGCACCGACCA
GATGTTTCTCAGGAAAGCCAAGCGAGAGCGGCTGCAGAGCGGCACCACAGGTGTGTGTGCGCTCATTGCAGGAGC
GACCCTGCACGTCGCCTGGCTCGGGGATTCCCAGGTCATTTTGGTACAGCAGGGACAGGTGGTGAAGCTGATGGA
GCCACACAGACCAGAACGGCAGGATGAGAAGGCGCGCATTGAAGCATTGGGTGGCTTTGTGTCTCACATGGACTG
CTGGAGAGTCAACGGGACCCTGGCCGTCTCCAGAGCCATCGGGGATGTCTTCCAGAAGCCCTACGTGTCTGGGGA
GGCCGATGCAGCTTCCCGGGCGCTGACGGGCTCCGAGGACTACCTGCTGCTTGCCTGTGATGGCTTCTTTGACGT
CGTACCCCACCAGGAAGTTGTTGGCCTGGTCCAGAGCCACCTGACCAGGCAGCAGGGCAGCGGGCTCCGTGTCGC
CGAGGAGCTGGTGGCTGCGGCCCGGGAGCGGGGCTCCCACGACAACATCACGGTCATGGTGGTCTTCCTCAGGGA
CCCCCAAGAGCTGCTGGAGGGCGGGAACCAGGGAGAAGGGGACCCCCAGGCAGAAGGGAGGAGGCAGGACTTGCC
CTCCAGCCTTCCAGAACCTGAGACCCAGGCTCCACCAAGAAGC**TAG**GTGGTTTCCAGGCCCCTGCCCTCCCCTTC
CTCCCATCCTTGTCCTTCTCTCCCTCAGAAGCCTCAGGACCCAACAGGTGGCAGGCAGTGGACAGGGTGCCCGCC
CCACAGTGCTTTCCCCAGCACCCCAGAGCCAGTCGGGACACCCCCCGCAGCCCGTCCTGGTGGCTGTGGAACTGC
ACTGGGTGGCGGGCAGATGGTGGAAGGCAGCTTAGGAGACCTCACCAAAGAGAAGATGGACCGGCTCTTGCTCCC
AGCTCCTATTAGGCCCGGGGTGGGACCAGAGGTCATAGGTGCCCAACGGCAGCCAAACCAAAGACACTGGTGTGC
ATGGGGCAGCATGGTTGTGCACGTGGGACCCTGGGGCGGACCCAGGAGCCAAACTCTTGAAGCACCCCCTGGGTC
AGGCCCAGCAGCGGAGTGGCCAGCCCCAGTTTCCCATTGCTCCTCTCTGCGGCCAGGGCCAGGTGGGTTCATATT
TACAGATATGCCCAGCCAGTCCTGGTCGGCCACACCAGTGTCCCAAAGAGGAGAGCGCAGCAGAGCCAGGGGTCT
GTTCTGTAGCAGCCACCCCCCTGCCCCCACTCCAGGGCAGCCATGATGTGCTTGGGCCCACCAGGGCCTTCCGGG
CTGCTCTCTTCCCTGAGCCCGGAACCGGCGACGCACATGTGTCTTTTGTTGGTGTGTTTGTTTTTTTCCAGGGAG
GTCTAATTCCGAAGCAGTATTCCAGGTTTTCTCTTTGTTTTATCAGTGCCAAGATGACCTGTTGTGTCATATAAT
TTAAGCAGAGCTTAGCATTTATTTTATTCTTTAGAAAACTTAAGTATTTACTTTTTTAAAGCTATTTTTCAAGGA
ACCTTTTTTTGCAGTATTATTGAATTTATTTTCTAAATCAGGATTGAAACAGGAACTTTTCCAGGTGGTGTTAAT
AAGCCATTCAAGTGCCTTACACAGCTTTGAAGAAACTAGGACTGCAGTGGGCTCGGATAGGCCCATTGAGGTTTT
TAGAAAAGCAGGATTTGTTTTGTTAGGGAGGCATGATTTTGGTGAGATCTTTCTGGAAGAGTTTTCCGCCTCTTT
GTGATGCTGAACACCCCCAAGGTTCTCCCCTCCCCCCGCTGCCCAGGTGACTGGCAGGAGCTGCGACTGCCACGT
AGTGGTGCCTGGGCCCGACAGCGGGGCTCTGGGCATCCCGGGTGACCTTGGCCCATCTGCCTGCATTCCCACCCC
CTTGGGCCTGGCTGGATCCCAGGCAGAGGGACCTTGCTGCTGTGTGATTGGAACATTCCCAAATATCTTGTGAAT
TTGTAATCAAATTGGTCTCATTGGGAAAGACTCTTAATTAAGAGGCTCAGGCAAGCACAGAGGCAGCCCGTGGGT
CTCTGTCTCAGTCTGGAGGCAGCAGGGATGCTGCTGGGAGTCCATGGCACAGGCCACAGCCCCTCACCTTGCCGC
GGTGGCTGGCAGCACGCCTGCCTTGCTCTGCCCCATGCCCTGAACAGGCATGAGAGCTCCACGTCCCCTAGTGCA
CCCTGAGAGGGGGCTCACAAGTGACCGATCCTGGGTGCCTCAGGGAGCTCACTGAGGGCGTGCAAAGTTGAAAGT
GGCAAGGCTGGGGGAGGGTGTCGGGTAGAGGGAAGAGGGCAGGGGGCTAGGGGAGGACTCAGAGGCCATCTGCAG
GGCCAAGCCACAGGAAGGGCTGAGCTGGAGGTGGGCAGGGCTGCTCCAGGCAGGTCAGAGCAGTGCAGGGGGAGG
AGAGGAGAAAGGGAGGAAGCTGGGCTGTGTGGTCCCCATGAAGGCATTCAGAGTCCACCTGCAGACAGCGAGAGC
CCCAGGAAGGTTTGCACAGCTGTGCCCCAAGCACCTTGGCCTCCTCTCAGCTCGCCGAGGAGGCACGCTAGAGCC
GCCTTCCCGGTGGGAGCCCTCTGTCCCACAGGGAGCGGGGAGCCAGCTTTGCTGGGGCCCTACCTGCATGCCCAG
CCTTACCCCTCATTCTCACAGCACAGATGAGGTTGAGACCATGCAGTCAATGCATTGCTTAAGGTCTCTTATTTA
CAAAAAAAAACCTTAAACATAGTCGCTGTCATTCAGACATTCAGAGAATGGTTGGCCACAAACAATGACCAAGTA

FIGURE 2899B

TTGCTTGGCTTAACTTGAAGGCCTGCTGTCTCCTTCTGGGGGTCAGGGACGCAGCTCCACCCTCACCACTAGCCC
ACCCTGCCCGTGGGCATAACCTTGACGAAGAGAGAGAATGATTGGCATCTGCTTTTCTCTTTTCTTTGCTAATAA
TTCTGTTCCTGGCTGCCGAGAGTGAAGTTTCACCATGTGGAGGTTTGGCTCCTATCACCTGGTGGTCTGATTCAT
ACCCTAGCCTGAGGCTCCACTGGAAGATCTCGCAGCCTCAGTGTATGGGAAACCCTTTCCCCAGGCTTGTCCCAG
CACTGCCGCTCCCCACCCCTGAGCCAGGACCCCAGAGGATGGCCATGCCCCGTGCCTGGCAGAGGTCTGGTGCCA
GCACTGGGAGCTGCTCCGCCCTTGCCTTGGGGCCGAGGGAGCCCTCGTCCACCCCTGCACAGCAGCTGGGCACAG
AGGAGCGCTCTTCCATCTTGACCAGGACTGCACCAAGAAGCACCAGGTGTCTTCAGCCTCCAACCTCCGGGGCGA
CCTTCTCTTCCAGCCACAGTCCCATGAGGGCCCCTAGCCAGGGACACTGGTCTGTAAATTGTAATCCTTTCTCCA
GCCCAGCTCTCCACTTGTTCCTTGTGTGAGCTGAGCAGGCAGTGCACCTCTGAGTGTCCCTTTTGTAAGGCCCAG
GGGTTGCACTGAGTCTGCAGAGGCCGCGACCTCCTAGAACGCTGTGGGTGCAGGTGAGCCGGCGTGTCCTGGGGA
GATGCTGCCAGCACACAGGGGCCCTCCTGCTGCCAGCAGGTTGGGGTGGTTAAGTCTTATTAGTGTCTATTCTTA
AAATTAAGTGGGCTGGAGAAGAATGGAGCTCCACATGCCAGCACCGTATATGGAATACAAAAGCTGGGGAAGCAG
GGCCTGCCTTACAGGTGTGGCTGACTCTGAGCCCAGGCCTGCAGGGGTGGAGGGCAGTCCCTCAGAATCCCAGAG
GCAGTCCCAGCCTCAGAACCCAGGATAGGAAATGGGTGTGTTTAGTGGGGAAAGGGACGGGGTGCAGACGGCAGG
GCCAGTATGGGGCCCCCTCCCTCTCCTCTCCTCTCCTATGGTGAGCCCAGCGTGGGCACCGGGCCGTCTCAGCCG
TGTTCCCAGGGCTGGGAGGACAGCTCTGGCCCTTCTTAGGCCTAGCCTCGTCCCAAGCTAAATGTAAGCCAGTTG
GGCTGTGTTAAAGGAAGCAGTGTTTTTGGTTCGATTCTGCCTCTGTAGCTCAAGGGGGGCAGCCCCCAGAGTCCT
GTGCATTCTGCCAAGGCTCCATAGCTTTGCCAAATGCACGGAGCTCTGCCATTCCGGTGCAGTGCAGGCCTTGCG
AAGGGTTTATCTGCGTTCGTCTCGGTGGGCTTCTCCTGCATGGGAGTTGTGTTCCTGTGCAAGGGGGAGCTTTGC
TCCAGGACAGGATGACTGTCTTCCCTATTCTTAGGGACAAGTCCCAAGATGCCAGAAAGGCAGTCTCCCAAGGAC
CCACCATGCAGAAGTGTCAATAAACCACAAGTTCTG

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FIGURE 2900

GGCTGCGGAGAGTGTGCGGCTCCAGGTGGGCTCACGCGGTCGTG**ATG**TCTCGGGAGTCGGATGTTGAGGCTCAGC
AGTCTCATGGCAGCAGTGCCTGTTCACAGCCCCATGGCAGCGTTACCCAGTCCCAAGGCTCCTCCTCACAGTCCC
AGGGCATATCCAGCTCCTCTACCAGCACGATGCCAAACTCCAGCCAGTCCTCTCACTCCAGCTCTGGGACACTGA
GCTCCTTAGAGACAGTGTCCACTCAGGAACTCTATTCTATTCCTGAGGACCAAGAACCTGAGGACCAAGAACCTG
AGGAGCCTACCCCTGCCCCCTGGGCTCGATTATGGGCCCTTCAGGATGGATTTGCCAATCTTGAATGTGTGAATG
ACAACTACTGGTTTGGGAGGGACAAAAGCTGTGAATATTGCTTTGATGAACCACTGCTGAAAAGAACAGATAAAT
ACCGAACATACAGCAAGAAACACTTTCGGATTTTCAGGGAAGTGGGTCCTAAAAACTCTTACATTGCATACATAG
AAGATCACAGTGGCAATGGAACCTTTGTAAATACAGAGCTTGTAGGGAAAGGAAAACGCCGTCCTTTGAATAACA
ATTCTGAAATTGCACTGTCACTAAGCAGAAATAAAGTTTTTGTCTTTTTTGATCTGACTGTAGATGATCAGTCAG
TTTATCCTAAGGCATTAAGAGATGAATACATCATGTCAAAAACTCTTGGAAGTGGTGCCTGTGGAGAGGTAAAGC
TGGCTTTCGAGAGGAAAACATGTAAGAAAGTAGCCATAAAGATCATCAGCAAAAGGAAGTTTGCTATTGGTTCAG
CAAGAGAGGCAGACCCAGCTCTCAATGTTGAAACAGAAATAGAAATTTTGAAAAAGCTAAATCATCCTTGCATCA
TCAAGATTAAAAACTTTTTTGATGCAGAAGATTATTATATTGTTTTGGAATTGATGGAAGGGGGAGAGCTGTTTG
ACAAAGTGGTGGGGAATAAACGCCTGAAAGAAGCTACCTGCAAGCTCTATTTTTACCAGATGCTCTTGGCTGTGC
AGTACCTTCATGAAAACGGTATTATACACCGTGACTTAAAGCCAGAGAATGTTTTACTGTCATCTCAAGAAGAGG
ACTGTCTTATAAAGATTACTGATTTTGGGCACTCCAAGATTTTGGGAGAGACCTCTCTCATGAGAACCTTATGTG
GAACCCCCACCTACTTGGCGCCTGAAGTTCTTGTTTCTGTTGGGACTGCTGGGTATAACCGTGCTGTGGACTGCT
GGAGTTTAGGAGTTATTCTTTTTATCTGCCTTAGTGGGTATCCACCTTTCTCTGAGCATAGGACTCAAGTGTCAC
TGAAGGATCAGATCACCAGTGGAAAATACAACTTCATTCCTGAAGTCTGGGCAGAAGTCTCAGAGAAAGCTCTGG
ACCTTGTCAAGAAGTTGTTGGTAGTGGATCCAAAGGCACGTTTTACGACAGAAGAAGCCTTAAGACACCCGTGGC
TTCAGGATGAAGACATGAAGAGAAAGTTTCAAGATCTTCTGTCTGAGGAAAATGAATCCACAGCTCTACCCCAGG
TTCTAGCCCAGCCTTCTACTAGTCGAAAGCGGCCCCGTGAAGGGGAAGCCGAGGGTGCCGAGACCACAAAGCGCC
CAGCTGTGTGTGCTGCTGTGTTG**TGA**ACTCCGTGGTTTGAACACGAAAGAAATGTACCTTCTTTCACTCTGTCAT
CTTTCTTTTCTTTGAGTCTGTTTTTTTATAGTTTGTATTTTAATTATGGGAATAATTGCTTTTTCACAGTCACTG
ATGTACAATTAAAAACCTGATGGAACCTGG

FIGURE 2901

GGCGCTGGGCGGCTGCGGCGCGCGGTGCGCGGTGCGTAGTCTGGAGCT**ATG**GTGGTGGTGGCAGCCGCGCCGAAC
CCGGCCGACGGGACCCCTAAAGTTCTGCTTCTGTCGGGGCAGCCCGCCTCCGCCGCCGGAGCCCCGGCCGGCCAG
GCCCTGCCGCTCATGGTGCCAGCCCAGAGAGGGGCCAGCCCGGAGGCAGCGAGCGGGGGGCTGCCCCAGGCGCGC
AAGCGACAGCGCCTCACGCACCTGAGCCCCGAGGAGAAGGCGCTGAGGAGGAAACTGAAAAACAGAGTAGCAGCT
CAGACTGCCAGAGATCGAAAGAAGGCTCGAATGAGTGAGCTGGAACAGCAAGTGGTAGATTTAGAAGAAGAGAAC
CAAAAACTTTTGCTAGAAAATCAGCTTTTACGAGAGAAAACTCATGGCCTTGTAGTTGAGAACCAGGAGTTAAGA
CAGCGCTTGGGGATGGATGCCCTGGTTGCTGAAGAGGAGGCGGAAGCCAAGGGGAATGAAGTGAGGCCAGTGGCC
GGGTCTGCTGAGTCCGCAGCACTCAGACTACGTGCACCTCTGCAGCAGGTGCAGGCCCAGTTGTCACCCCTCCAG
AACATCTCCCCATGGATTCTGGCGGTATTGACTCTTCAGATTCAGAGTCTGATATCCTGTTGGGCATTCTGGACA
ACTTGGACCCAGTCATGTTCTTCAAATGCCCTTCCCCAGAGCCTGCCAGCCTGGAGGAGCTCCCAGAGGTCTACC
CAGAAGGACCCAGTTCCTTACCAGCCTCCCTTTCTCTGTCAGTGGGGACGTCATCAGCCAAGCTGGAAGCCATTA
ATGAAC**TAA**TTCGTTTTGACCACATATATACCAAGCCCCTAGTCTTAGAGATACCCTCTGAGACAGAGAGCCAAG
CTAATGTGGTAGTGAAAATCGAGGAAGCACCTCTCAGCCCCTCAGAGAATGATCACCCTGAATTCATTGTCTCAG
TGAAGGAAGAACCTGTAGAAGATGACCTCGTTCCGGAGCTGGGTATCTCAAATCTGCTTTCATCCAGCCACTGCC
CAAAGCCATCTTCCTGCCTACTGGATGCTTACAGTGACTGTGGATACGGGGGTTCCCTTTCCCCATTCAGTGACA
TGTCCTCTCTGCTTGGTGTAAACCATTCTTGGGAGGACACTTTTGCCAATGAACTCTTTCCCCAGCTGATTAGTG
TCTAAGGAATGATCCAATACTGTTGCCCTTTTCCTTGACTATTACACTGCCTGGAGGATAGCAGAGAAGCCTGTC
TGTACTTCATTCAAAAAGCCAAAATAGAGAGTATACAGTCCTAGAGAATTCCTCTATTTGTTCAGATCTCATAGA
TGACCCCCAGGTATTGTCTTTTGACATCCAGCAGTCCAAGGTATTGAGACATATTACTGGAAGTAAGAAATATTA
CTATAATTGAGAACTACAGCTTTTAAGATTGTACTTTTATCTTAAAAGGGTGGTAGTTTTCCCTAAAATACTTAT
TATGTAAGGGTCATTAGACAAATGTCTTGAAGTAGACATGGAATTTATGAATGGTTCTTTATCATTTCTCTTCCC
CCTTTTTGGCATCCTGGCTTGCCTCCAGTTTTAGGTCCTTTAGTTTGCTTCTGTAAGCAACGGGAACACCTGCTG
AGGGGGCTCTTTCCCTCATGTATACTTCAAGTAAGATCAAGAATCTTTTGTGAAATTATAGAAATTTACTATGTA
AATGCTTGATGGAATTTTTTCCTGCTAGTGTAGCTTCTGAAAGGTGCTTTCTCCATTTATTTAAAACTACCCATG
CAATTAAAAGGTACAATGC

FIGURE 2902A

GCGGCCGCGGGGCCCGGCGCGGCGCGGGCCAAGGAGACGGCGTTCGTGGAGGTGGTGCTGTTCGAGTCGAGCCCA
AGCGGCGATTACACCACCTACACCACCGGCCTCACGGGCCGCTTCTCGCGGGCCGGGGCCACGCTCAGCGCCGAG
GGCGAGATCGTGCAG**ATG**CACCCACTGGGCCTATGTAATAACAATGACGAAGAGGACTTGTATGAATATGGCTGG
GTAGGAGTGGTGAAGCTGGAACAGCCAGAATTGGACCCGAAACCATGCCTCACTGTCCTAGGCAAGGCCAAGCGA
GCAGTACAGCGGGGAGCTACTGCAGTCATCTTTGATGTGTCTGAAAACCCAGAAGCTATTGATCAGCTGAACCAG
GGCTCTGAAGACCCGCTCAAGAGGCCGGTGGTGTATGTGAAGGGTGCAGATGCCATTAAGCTGATGAACATCGTC
AACAAGCAGAAAGTGGCTCGAGCAAGGATCCAGCACCGCCCTCCTCGACAACCCACTGAATACTTTGACATGGGG
ATTTTCCTGGCTTTCTTCGTCGTGGTCTCCTTGGTCTGCCTCATCCTCCTTGTCAAAATCAAGCTGAAGCAGCGA
CGCAGTCAGAATTCCATGAACAGGCTGGCTGTGCAGGCTCTAGAGAAGATGGAAACCAGAAAGTTCAACTCCAAG
AGCAAGGGGCGCCGGGAGGGGAGCTGTGGGGCCCTGGACACACTCAGCAGCAGCTCCACGTCCGACTGTGCCATC
TGTCTGGAGAAGTACATTGATGGAGAGGAGCTGCGGGTCATCCCCTGTACTCACCGGTTTCACAGGAAGTGCGTG
GACCCCTGGCTGCTGCAGCACCACACCTGCCCCCACTGTCGGCACAACATCATAGAACAAAAGGGAAACCCAAGC
GCGGTGTGTGTGGAGACCAGCAACCTCTCACGTGGTCGGCAGCAGAGGGTGACCCTGCCGGTGCATTACCCCGGC
CGCGTGCACAGGACCAACGCCATCCCAGCCTACCCTACGAGGACAAGCATGGACTCCCACGGCAACCCCGTCACC
TTGCTGACCATGGACCGGCACGGGGAGCAGAGCCTCTATTCCCCGCAGACCCCCGCCTACATCCGCAGCTACCCA
CCCCTCCACCTGGACCACAGCCTGGCCGCTCACCGCTGCGGCCTGGAGCACCGGGCCTACTCCCCAGCCCACCCC
TTCCGCAGGCCCAAGTTGAGTGGCCGCAGCTTCTCCAAGGCAGCTTGCTTCTCCCAGTATGAGACCATGTACCAG
CACTACTACTTCCAGGGCCTCAGCTACCCGGAGCAGGAGGGGCAGTCCCCACCTAGCCTCGCACCCCGGGGCCCG
GCCCGTGCCTTTCCTCCGAGCGGCAGTGGCAGCCTGCTCTTCCCCACCGTGGTGCACGTGGCCCCGCCCTCCCAC
CTGGAGAGCGGCAGCACGTCCAGCTTCAGCTGCTATCACGGCCACCGCTCGGTGTGCAGTGGCTACCTGGCCGAC
TGCCCAGGCAGCGACAGCAGCAGCAGCAGCTCCGGCCAGTGCCACTGTTCCTCCAGTGACTCTGTGGTAGAC
TGCACTGAGGTCAGCAACCAGGGCGTGTACGGGAGCTGCTCCACCTTCCGCAGCTCCCTCAGCAGCGACTATGAC
CCCTTCATCTACCGCAGCCGGAGCCCCTGTCGTGCCAGTGAGGCGGGGGGCTCGGGCAGCTCGGGCCGGGGACCT
GCCCTGTGCTTCGAGGGCTCCCCGCCTCCCGAGGAGCTCCCGGCGGTGCACAGTCATGGTGCTGGGCGGGGCGAG
CCTTGGCCGGGCCCTGCCTCTCCCTCGGGGGATCAGGTGTCCACCTGCAGCCTGGAGATGAACTACAGCAGCAAC
TCCTCCCTGGAGCACAGGGGGCCCAATAGCTCTACCTCAGAAGTGGGGCTCGAGGCTTCTCCTGGGGCCGCCCCT
GACCTCAGGAGGACCTGGAAGGGGGGCCACGAGTTGCCGTCGTGTGCCTGCTGCTGCGAGCCCCAGCCCTCCCCA
GCCGGGCCTAGCGCCGGAGCAGCTGGCAGCAGCACCTTGTTCCTGGGGCCCCACCTCTACGAGGGCTCTGGCCCG
GCGGGTGGGGAGCCCCAGTCAGGAAGCTCCCAGGGCTTGTACGGCCTTCACCCCGACCATTTGCCCAGGACAGAT
GGGGTGAAATACGAGGGTCTGCCCTGCTGCTTCTATGAAGAGAAGCAGGTGGCCCGCGGGGGCGGAGGGGGCAGC
GGCTGCTACACTGAGGACTACTCGGTGAGTGTGCAGTACACGCTCACCGAGGAACCACCGCCCGGCTGCTACCCC
GGGGCCCGGGACCTGAGCCAGCGCATCCCCATCATTCCAGAGGATGTGGACTGTGATCTGGGCCTGCCCTCGGAC
TGCCAAGGGACCCACAGCCTCGGCTCCTGGGGTGGGACGCGAGGCCCGGATACCCCACGGCCCCACAGGGGCCTG
GGAGCAACCCGGGAAGAGGAGCGGGCTCTGTGCTGCCAGGCTAGGGCCCTACTGCGGCCTGGCTGCCCTCCGGAG
GAGGCGGGTGCTGTCAGGGCCAACTTCCCTAGTGCCCTCCAGGACACTCAGGAGTCCAGCACCACTGCCACTGAG
GCTGCAGGACCGAGATCTCACTCAGCAGACAGCAGCAGCCCGGGAGCC**TGA**GCTCAGGAGGAACTCTTACCTGGA
AATTGGGAACTGTATGGAGACTCCAAACTGACTTCTTTCAAAAAACAAAAACAAAAAATTTTTTTAGCTTTGACA
AACACACAAAAGTGGTAATAAAGAGAGCCCTCCTTGTCAACCCAAAATGTGAGCCCCCTGTGGCAAAACCACCCC
CTACCCCATTAACAAATCAACAGACAAAATTCTCCGAGTCCTTTGCCTCTTTTGATAACATGTTGTTCTGTTTTG
TAAAGTGTGTGTGCTTGGGGTTCCGAGGTGTGGGATTGAGTTCTCTGCTTTGTTTTTTTTTAAGATATTGTATGT
AAATGTAAAAAGTTATTTAAATATATATTTTAAAGAACCCTAACTGCCAACTTTTGCTGAAAAAGAAAAAAAAAT
CACTGCTGCATTAAATGAACCACATCATGTGTAGATACTGTTGTCTCCCTGAAGGGAGCTCAGGCCTTTGAAAAG
CTCAGGGCTTCACCTGCCTTAGAAAATGAACCAGAAACTTGAAGTAAAGCTAGTTGATAGGGGTACAGGCTCTGA
GGAGCAGTGCAAAACTGCCTCTTTCTTTCTCGTGGCAAATCCCAATGTACACGATTTCAGGTCTCAGACGCCATG
CCTCTCCAGCCCACGCCTTTAGGCAGGTGATGGCAGCAGCTAGGAATAGGGTGTACATGATCCACAGCCCTGCGG
AGCCAGGTCAAGCCGCTGCTATGAAAGCTCCAGGGTGATGGGGACGATTCTGCCCAGTGTCCTCAGTCTGTCCCC
TCAGGTCATGGTCCCAAGTGAAATGACAGAGTTCACAGCCCTGGTCTTGGCTGAGGTCCAGGTCATAGTAAGGGC
ATGTTCTTGGGGCCCTCGACCTGAACTCTGACCCTCCGGGCAGGGAAGAGGAGGTTGTCCCCTTTGGTTGTCCTG

FIGURE 2902B

GCTTTGGAGTCCTTTGCAAAAATATTTTGGGCCCCCTGCCACTGGCTGCAGAAATGGCTCGACGGGGTGTGTGGG
GACAGACACCCAGAAGGAATGTACTTTTGTGGCCTTGGTGTCCGATGGGGCTGGGGGAGAGTGCTCTCCACTGAC
CCAGCAGCACACCCATGTGCAGTGCGCCTGCATCTGTGTGGGGGCAGCCACACCCCTTGGCTGCTGCTTCCTTGG
GCTGCCTTTCTGGGGGCATGTGACTGGACCTACGAGGTCTGCACTGAGCTCCATTTGAATGATACCTTTCCTATC
CCATTTCCCCCACGGAAGCACCGCTTCAGGGTTATTCAGTCCTCTGCCTCATGGCTGAAATTGCTCATCTCGTCT
GCAGATGTCTACTATCCTGTCTACCTAATGCACTATTATGTATTGATTCTCCATGAGACAGAGAGAGAGAGAGAC
TATCAGATAGTTTACACCCAAAGGGTAGGTTTTTGTATATTTTTCCAGCCTTTTTTATTAAGGGGAAGGGGAGAG
TTTAAAAAACCCAAACCGTTGTGGTTTTAAGGTGTTTCATTTTTAAAAGGGAGAGAGAATCTATTTAAAGCTATTT
CAGATCAGGGATTGTCATCCTTTTTTGTCCAATGTATTCCTTGTTCTTTAAAAAAATTTTTTTTAGAGGAAACTA
ATATTAGTCTTTGTGTTCACTAACTCTTCTGGTCACTTGTATTTATTTATTCATTCATTCATCAGATATTTGTTG
CCATCTGAAAGAACTGGCCCAGTGGGTCTGAAAGCTCGCTTGAGAATAGGAAACTTGAGACCTGGCCCCCTGTGG
GTAGGAGAACAAGGACCACCTGGGTTCTCCAGTCTTGAACGAGAATCTCACTCTTATCAGAATGTTTTTCTTAAC
CTCAGCGTATGATGAGGAAATTTACTTATCTCTAGCTAGGATTTGACAAATTCCAACATCAAATGATCAAAACAT
TTGCCACTGAGGCTTCACTGGTGAGATCCGTTCTCCGTCCTCGGGTGCAGTCCCTTGGGGGCTGCTCCTCGGACT
GCGCCCCGCACACCTGTTATCGAGGGTGTGAGAAGCGCCTAAGCTGGTGACATGTGATCTGGGACGCCTTCATTT
CTCGGGCCAGGAGTAGCAGCTGCTAAGGACAGCAGCTTGCATTGCGTGGTTTTAGGGAAGCAGGGTCTGGCTTTT
AATATGAACTGCAAAAAGCAGCTTCTCACTGATATTTTTTTGTTGTTGTTTCTGGGGGGTTTTTTTGTTTTGTTT
TTAATGCCTTTGAGTGCATATTTTCTTCCTCGTCTGAAACCGAACTCCCAAAGTGGCTTTCTTTAGCCCTGGCTG
GAAAACCACCTCTCAATAGCCTTAAGCAATAAATAGATGAGTAGAGAATGTGGCTTCAACTGGGCTTATTAAAGT
AAGTGTGTCTAGTTTTCACTTGAACAAGTGATAGCTGCAGATGGCGAAAGAAACCCATTTAATTTTTGTAGCTTA
CAGGTGGTAGAAACAAAAATGCAATTTTAAAACCTTAAATACCAAATACCAACCATTGCCTTTTTTTTTTTTGAG
ATGGAATTTTGCTCTTGTCACCCAGGCTGGAGTGCAATGGCGCGATCTCACCTCACTGCAACCTCTGCCTCCCGG
GTCCAAGTGATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCATGCGCCACCACACCCAGCTAATTT
TGTATTTTTGGTAGAGACAGGGTATCTCCATGTTGGTCAGGCTGGTCTTGGATTCCCGACCTCAGGTGATCCGCC
CACCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCATGCCTGCCCAGCAATACCAACCATTGTCTT
TTAAATTCGTGTTGGCTTCTCAGACAGGGAGATCACTGGAATAAAATAACCGATGGTCTTATTTTGTCACACGTA
AATCAAAAGAAATGTCCTCTTTGAAGTTGTAAGACTCCACCAATGACAGACACCCTTTTCGGTGGACTCTGAGTG
GTGTGTAGTGGTTTTATAGCCATGGAAACTAGGAGTATCTCACTTTCCACTGAGAACCCCTGCCCCCAATCCCTC
TAAGTTGGGGTGTGGCAGTTGGGCAGGGTCAAGTGACCCAGCCCTGGCTGTAGGACAGCCATATACAGTGAAGAG
TTCTAGAACCAGCTAAAAATGGAAGTTTGGGTGTTTACCAACAAGGTACCTCTTTATGGATGCAGCCCCAGTAAG
CTGGCTTTAACTCTCAGCTCCTTCCCTGTCTCCTCCTAATCCAAGCCCTTTTATAAAATAAAGCCCCTTCTGTCC
CACTGCTCACATACTTATGTGCTGCTAGTCTCTACTCGAAGTTCGTGCAGGACTAATGCTTTTAAAATGAGGTCT
AAAAAATAATTACTAGTCGAGACTATTATTCTTTAAACAGAACTGCCTTTTTCTACTCTTTATGTAAACTCTTTC
TATTGTGTTGGTCTAACAAGGCACTATTTTAAAATTTTTTAATTTTTCCCATAGCACTTAAAAGAGATTTTGTAA
AGACCTTGCTGTAAAGATTTTGTAATAAAATGGTCTAAGGGCTCTTTTTCCAACATTACCATTTTTAAAAAATGT
TTTAAAAGCTAGAAGACAACTTATGTATATTCTGTATATGTATAGCAGCACATTTCATTTATGGAAATATGTTCT
CAGAATATTTATTTACTAATATATTTATCTTAAGCCATGTCTTATGTTGAGAGTGTGACATTGTTGGAATAATCA
TTGAAAATGACTAACACAAGACCCTGTAAATACATGATAATTGCACACAGATTTTACATATTTGCAGACCAAAAA
TGATTTAAAACAAGTTGTAGTCTTCTATGGTTTTGTAACAAATTGTACACATGACTGTAAAAAAAAAATACAATT
TTATCAAGTATGTGTT

FIGURE 2903

TGCTGACTAATCCGCGGGCCGCGGGGAATGGGTGGCGCGCCAGCCGGTCGGCAGGGGTCACGCGGCCGGGTGTGC
GCGGAATGGATTCAGGGTTCTCGGGTCGCGCCCGGGAGCTAGAGTCCTGACTCCCAGCCGGGGTCCCCGACCGGC
CTTTCGGGGTTGCCGGGCGCGCTCTGCAAAGGGGAAACTGAGGCCCAAGGAAATTGAGTATCTCTGCAAAGTCAC
CAGCTGAGTTCGAACCAGACAGATCCTGGGACCCCCTACTCTATCCGCCACCGGAAGAATCTCCGTCCTTGTCTT
TCCATTCTGCCCTCCCGGCTTCCCAGTAAGCACACAGCCCCAGGACCACCCTTGACCGTCCTCAACCAAGCG**ATG**

CATGCCAGGGGCCCCCATGGCCAACTGTCCCCAGCACTGCCTCTGGCCTCCTCAGTCCTGATGCTGCTGATGAGC
ACCCTGTGGCTGGTGGGGGCCGGCCCCGGCCTGGTCCTGGCCCCGGAGCTGTTGCTGGACCCCTGGCAGGTGCAC
CGGCTGCTGACCCATGCCCTGGGCCACACGGCCCTGCCAGGCCTGCTCCTGAGCCTGCTGCTCCTGCCCACTGTG
GGCTGGCAGCAGGAGTGCCACCTGGGCACGCTGAGATTCCTGCATGCCTCAGCCCTGCTCGCCCTGGCTTCTGGG
CTGCTGGCAGTGCTGCTGGCAGGCCTTGGGCTGTCCAGTGCAGCCGGCAGCTGTGGATACATGCCTGTCCACCTG
GCCATGCTGGCTGGGGAGGGACACCGCCCTAGACGGCCCCGTGGGGCACTGCCACCGTGGCTGTCGCCGTGGCTG
CTGCTTGCCCTGACCCCACTGCTCAGCTCTGAGCCACCCTTCCTGCAGCTCCTTTGCGGCCTCCTTGCCGGCCTG
GCCTATGCAGCTGGGGCCTTCCGGTGGCTGGAACCCTCAGAGCGACGGCTGCAGGTGCTGCAGGAGGGCGTCTTG
TGCAGGACCTTGGCGGGGTGCTGGCCCCTGAGGCTCCTTGCCACCCCGGGTAGCCTGGCGGAGCTGCCTGTCACC
CATCCTGCCGGAGTGAGGCCTCCCATCCCTGGACCGCCTTATGTGGCCTCCCCTGACCTCTGGTCCCACTGGGAA
GACTCAGCCCTGCCCCCACCAAGCCTGAGGCCTGTGCAGCCCACCTGGGAGGGCTCCTCAGAGGCAGGCCTGGAC
TGGGCTGGGGCCAGCTTCTCCCCAGGGACTCCGATGTGGGCGGCCTTGGATGAGCAGATGCTGCAGGAGGGCATC
CAGGCCTCGCTTCTTGACGGGCCAGCCCAGGAACCCCAGAGCGCACCATGGCTGTCCAAGTCCTCTGTCTCCTCT
CTGCGGCTGCAGCAGCTGGAGCGCATGGGCTTCCCTACGGAGCAGGCGGTGGTGGCACTGGCAGCCACAGGCCGT
GTGGAGGGTGCCGTGTCACTGTTGGTTGGAGGACAAGTGGGCACTGAGACCCTGGTGACCCATGGAAAGGGTGGG
CCTGCCCACTCCGAGGGTCCTGGGCCTCCC**TAG**CCCAGGCAGAGAGTGGGGCACAGGCAGGCCCTTGGGTGCTAA
GGGCTGGGCTGCATGTGGGTAGCCCGAGCTCCTACTCTGTCTAAAGAGGGCCACAGTGGGGAGCAGGGGCACCTC
TGGAGGCAGGAGAGGCCCCCCAGCATGCTGCCCTAGTACGTGTTTAGAATAAAAACCAGTTTGTTTTTCAACCTG
GACCTCCTTGGAG

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FIGURE 2904

AGAGGGAGACGGACGTTGAGAGAACGAGGAGGAAGGAGAGAAA**ATG**GCGTCCACGGATTACAGTACCTATAGCCA
AGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATA
TGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTA
TGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA
CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAGGCCTC
CTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCAGCCACTGCACC
TACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCC
CAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC
ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCA
GAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCC
TCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTA
CGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC
CGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGG
CATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCC
TGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAG
TGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT
TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGG
CGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCA
AGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCG
TGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCG
CATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGG
AGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTG
GAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGG
TGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGG
AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGG
TGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACG
TGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC**TAG**ATGCAGAGACC
CCGCAGAGCTGCATTGACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA
ATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTGAAGAAACATTAAAA
CAAGTTAAATGGTAGTGTGCGGAGTTTTTTTTTCTTCCTTCTTTTAAAAATGGTTGTTTAAGACTTTAACAATGG
GAACCCCTTGTGAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCCTCTTAACTGTAACAATGTTCATGGTT
GTGATGTTTTTTTTTTTTTTTTAAATAAAATTCCAAATGTTTATAAA

FIGURE 2905

AGGGAGGCGGGGCGGAGACGGCGGCGAGGAGGAGGCCGCGGCGCGGGACGCATAGAGCTGCGGCTCGGGCGGCGC
CTCCCTGCGGCGGCCCGGCCCGGCTCCGGCCCCCGCTGGGGCAATGCTCCCCGGGGCCGCGGGATGAGCCAGCGA
TCCTGAACTGTGTTCCTGCCCACAGTGACTCGGCCGGTCCGGGC**ATG**GCAGACCCAGTGGCGGGCATCGCGGGCT
CGGCGGCCAAGAGCGTGCGGCCATTTCGCTCCAGTGAGGCCTACGTGGAGGCCATGAAGGAGGACCTGGCCGAGT
GGCTCAATGCCTTGTACGGCCTGGGTCTCCCGGGTGGTGGCGATGGCTTCCTGACAGGGCTGGCCACGGGCACGA
CCCTGTGCCAACATGCCAACGCCGTGACCGAGGCTGCCCGTGCATTGGCAGCCGCCCGCCCGGCCCGAGGTGTGG
CCTTCCAGGCGCACAGTGTAGTGCCTGGCTCCTTCATGGCGCGCGACAACGTGGCCACCTTCATCGGCTGGTGCC
GCGTGGAGCTGGGTGTGCCGGAGGTGCTCATGTTTGAGACTGAGGACCTGGTGCTGCGCAAGAACGAGAAGAGCG
TGGTGCTGTGCCTGCTGGAGGTGGCGCGGCGTGGGGCACGCCTGGGCCTGCTGGCCCCACGCCTCGTGCAGTTTG
AGCAGGAGATTGAGCGGGAGCTGCGTGCTGCACCCCCAGCCCCCAACGCCCCTGCCGCTGGGGAGGACACCACTG
AAACCGCCCCCGCACCAGGGACTCCTGCCCGCGGCCCCCGCATGACACCCAGCGACCTGCGCAACCTCGACGAGC
TGGTGAGGGAGATTCTGGGCCGCTGCACCTGCCCTGACCAGTTTCCCATGATCAAGGTCTCAGAGGGGAAGTACC
GTGTGGGGGACTCGAGCCTGCTCATCTTTGTGCGGGTGCTGAGGAGCCACGTGATGGTGCGAGTGGGTGGTGGCT
GGGACACGCTGGAGCATTACCTGGACAAGCACGACCCGTGCCGCTGCTCCTCCACTGCTCATCGCCCACCCCAGC
CGAGGGTCTGCACCTTTTCTCCACAGAGGGTGTCGCCCACCACCAGTCCCCGCCCTGCTAGCCCAGTCCCTGGGA
GTGAGCGCCGGGGCTCCCGGCCTGAGATGACTCCCGTTAGCTTACGAAGCACAAAGGAGGGGCCCGAGACCCCAC
CCAGGCCCCGGGATCAGCTGCCCCCCCATCCCCGCTCCCGCCGCTACTCCGGGGACAGTGACTCCTCAGCCTCCT
CCGCCCAGAGCGGCCCCCTTGGTACCCGCAGTGATGACACAGGCACTGGCCCCCGGAGGGAGCGACCCAGCCGGC
GGCTGACCACAGGCACCCCGGCCTCTCCGAGACGGCCTCCTGCCTGCGCAGCCAGTCCCGAGACCGGCTGGATCG
CGGCCGGCCCCGGGGGGCCCCAGGAGGCAGGGGAGCCCAGCTGTCGGTCCCCAGCCCTGCCCGGCGGGCCCGGAG
CCAGAGCCGCGAGGAGCAGGCTGTGCTGCTTGTGCGCAGGGATCGAGACGGGCAGCACTCATGGGTGCCAAGGGG
CAGGGGCAGTGGGGGCTCGGGCAGGAGCACCCCCCAGACTCCCCGTGCCCGCAGCCCTGCAGCACCCCGGCTTTC
CCGGGTCTCCAGCCCCAGTCCAGAGTTGGGCACCACACCGGCCAGCATCTTCCGCACACCCCTGCAGCTCGACCC
GCAGCAGGAGCAGCAGCTGTTCCGGCGCCTGGAAGAGGAGTTCCTGGCCAATGCCCGGGCCCTTGAGGCTGTTGC
TAGCG**TGA**CCCCCACTGGACCAGCCCCTGACCCAGCTCGGGCCCCCGACCCTCCAGCTCCTGACTCTGCCTATTG
TTCCTCCAGTTCCTCCTCTTCGTCCCTCAGCGTCCTGGGTGGCAAATGTGGCCAACCTGGGGACTCTGGCCGGAC
GGCCAATGGGCTGCCTGGGCCCCGAAGCCAAGCCCTTTCCAGCTCCTCCGATGAAGGCAGCCCCTGCCCTGGCAT
GGGGGGGCCACTAGATGCACCTGGGAGCCCCCTGGCTTGCACTGAACCCTCGAGGACCTGGGCACGGGGTCGGAT
GGACACACAGCCAGACCGTAAACCCTCACGTATCCCCACGCCTCGGGGCCCCCGCCGCCCCTCCGGACCCGCAGA
GCTGGGGACATGGCATGCCCTGCACTCAGTCACCCCGAGGGCTGAGCCAGATTCCTGGATGTGATGGACCAGCTC
AGCTGTCCCCAGACCCCATCCCTTCTCCTTTTCCTTTGTGGCCTTAACCCTTCTGCATCAGGGAGCCCCCTCTGC
CTCTTGAGTACCAGACCTCATGGGACCAGACCCCTTGGGACCACATGGCACAATGGGACCTCTGTTGTACATTCC
GGTTGGGGGATGAGCGTTGCTATTTAATTACTAATATTATTGAATGCCTTAGAGGAGGCCGGGCGAGCCCGGTGT
TCTGAAGACCTGTGGCCCAGCAGAGCCTCTGACAGTAAAGTTTTGCTCCAGC

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FIGURE 2906A

AAGCCTGGCTACAGATAAGGGACCAAA**ATG**ACTGACTCAAAATATTTCACCACGACCAAGAAAGGGGAGATCTTC
GAGCTGAAGGCAGAGCTCAACAGTGACAAGAAGGAGAAGAAGAAGGAGGCAGTGAAGAAAGTGATTGCATCGATG
ACCGTGGGCAAAGATGTCAGTGCCCTCTTCCCCGATGTGGTCAACTGCATGCAGACGGACAACCTGGAGCTGAAG
AAGCTAGTATACCTCTACTTGATGAATTACGCCAAGAGTCAGCCTGACATGGCCATTATGGCCGTCAACACCTTT
GTGAAGGACTGTGAGGACCCCAACCCCCTCATCCGAGCCCTGGCAGTGCGGACCATGGGCTGCATCCGCGTTGAC
AAGATCACAGAGTACCTGTGCGAGCCACTCCGGAAGTGCCTGAAGGACGAGGATCCATATGTGCGCAAGACAGCA
GCTGTGTGCGTGGCCAAGCTCCACGACATCAACGCCCAGCTGGTGGAGGACCAGGGCTTCCTGGACACCCTTAAA
GACCTCATCTCCGACTCTAACCCCATGGTGGTGGCCAATGCAGTGGCAGCGCTCTCAGAAATTGCCGAGTCTCAC
CCCAGCAGCAACCTGCTCGATCTGAACCCACAGTCCATCAACAAGCTGCTGACAGCCCTCAATGAGTGCACCGAG
TGGGGCCAGATCTTCATCCTGGACTGCCTCGCCAACTATATGCCCAAGGACGACCGCGAGGCCCAGAGCATCTGT
GAGCGGGTCACCCCCAGGCTCTCCCATGCCAACTCCGCTGTGGTGCTCTCTGCTGTGAAGGTGCTGATGAAGTTC
ATGGAGATGTTGTCTAAGGACTTGGACTACTACGGCACACTGCTCAAGAAGCTGGCCCCACCCCTGGTCACACTG
CTGTCAGCCGAGCCAGAGCTGCAGTATGTGGCCCTGCGCAACATCAATCTCATCGTGCAGAAAAGGCCTGAGATC
CTGAAGCATGAGATGAAGGTGTTCTTCGTGAAGTACAACGACCCTATCTACGTGAAGCTGGAGAAGCTGGACATC
ATGATCCGCCTGGCCTCTCAGGCCAACATCGCCCAGGTGTTGGCAGAGCTGAAAGAGTACGCAACAGAAGTGGAT
GTGGACTTTGTACGGAAGGCTGTGCGTGCTATTGGCCGCTGCGCCATCAAGGTGGAGCAATCTGCGGAGCGCTGT
GTGAGCACGCTGCTCGACCTCATCCAGACCAAGGTCAACTATGTGGTCCAGGAGGCCATCGTGGTCATCAAGGAC
ATCTTCCGCAAGTACCCCAACAAGTATGAGAGTGTGATTGCCACACTGTGTGAGAATCTGGACTCCCTGGATGAG
CCTGAGGCCCGGGCTGCCATGATCTGGATTGTGGGCGAGTACGCGGAACGGATCGACAACGCAGATGAGCTGCTG
GAGAGCTTCCTCGAGGGCTTCCATGACGAGAGCACACAGGTCCAGCTGCAGCTGCTGACAGCCATTGTGAAACTC
TTTCTAAAGAAGCCAACAGAGACCCAGGAGCTGGTGCAGCAGGTCCTCAGTTTGGCCACTCAGGACTCAGATAAC
CCAGACCTGCGGGACCGTGGCTACATCTACTGGCGCCTGCTGTCCACGGACCCGGTGGCAGCCAAGGAGGTGGTG
TTGGCTGAGAAGCCACTCATCTCTGAAGAGACGGACCTCATCGAGCCCACACTGTTAGACGAGCTTATCTGCTAC
ATCGGCACGCTGGCTTCCGTCTACCATAAGCCTCCCAGTGCCTTTGTGGAGGGGGGCCGGGGCGTCGTGCACAAG
AGCCTGCCACCTCGCACGGCCTCG**TGA**AGCGCAGAGAGCCCTGAGACAGCCCCTACTGGAGCACCTCCTGGGGAG
CAGCCAGATGTCATCCCCGCCCAGGGCGACCTGCTGGGTGACCTCCTCAACCTGGACCTCGGCCCCCCAGTGAGC
GGCCCACCCCTGGCCACCTCCTCGGTGCAGATGGGAGCTGTGGACCTTCTTGGCGGTGGCCTTGACAGCCTGATG
GGGGATGAGCCTGAAGGGATTGGGGGCACCAACTTCGTGGCACCTCCAACAGCAGCAGTACCAGCCAATCTTGGA
GCACCCATCGGCAGTGGCCTGAGTGACCTCTTTGACCTGACCAGTGGCGTGGGCACCCTGTCAGGATCATATGTG
GCCCCCAAAGCAGTCTGGCTCCCAGCCATGAAGGCTAAGGGGCTGGAGATCTCAGGCACCTTCACCCGCCAGGTG
GGCTCCATCTCCATGGACCTGCAGCTGACCAACAAGGCCTTGCAGGTCATGACCGACTTTGCCATCCAGTTCAAC
CGCAACAGCTTTGGCCTGGCCCCCGCCACCCCCCTCCAGGTCCACGCGCCACTCAGCCCCAACCAGACAGTGGAG
ATCTCCCTGCCTCTCAGCACGGTGGGCTCGGTCATGAAGATGGAGCCTCTGAACAACCTCCAGGTGGCCGTGAAG
AACAACATCGATGTCTTCTACTTCAGCACCTTGTACCCACTGCACATCCTCTTTGTGGAGGACGGGAAGATGGAC
CGGCAGATGTTCCTGGCCACATGGAAGGATATTCCCAATGAGAATGAGGCCCAGTTCCAGATCAGAGACTGCCCC
CTCAATGCAGAGGCTGCGAGCAGCAAGCTGCAGAGCAGCAACATCTTCACTGTCGCCAAGAGGAACGTGGAGGGC
CAGGACATGCTCTACCAGTCCCTGAAGCTGACCAACGGCATCTGGGTGCTGGCGGAGCTGCGGATCCAGCCGGGC
AACCCCAGCTGCACGCTGTCCCTGAAGTGTCGAGCACCAGAGGTGTCCCAGCACGTGTACCAGGCCTACGAGACC
ATCCTCAAGAACTGAGACCCCGGCCAGCGCCCACCCCAGCCTTCTGCCCGCCCCATCGAGGAGGCCCCTCGGGGG
CAGCACATCTTCCTCCTCGCAGGAGGGACCAGGCGGGGCTCCAGGCCACTCAGTGGGCTCCCTGGTCCTGATGGC
AGAACCCACCCGATCCCTGGGGTAGGGCACCACCCCCTCCTGGGGTGAGAGCGCAGTGCACTCCCGTGCTCTGGG
ACACCCCTGCTCCTGTGGCTGTGATGTGGGGTTAAGTGAGGTGGGGACCAAAGGAAACAGAGCCAGAGCAGCCAC
AGAAGCTGTGCCTGAAGGGTGAGTGTGGAGCTTGCCCCTCCGGCTCACAGCCCCGGCAGCCCCTGGCTCCTTGGT
CTCTCCGGTTGGTGTTAAAGGGCCCTCCACTGCCACCTCTCATGGGATGGACCCTGCCAACCTGGCCTGGGTGTG
CAGGGAGGGGTTCCCCTTGGTACCAGGAGAGCTGCTCACTTAGGGCCTGGGGCTCAAGGAGCTGTAGGTGCCGGC
AGAGGGGCAGAGCTAGGCTGGGAGGAGCCCAGGGCCTGCACCACCCACTTGCAACCACCAGGCTGGTGCCCTGCA
GCTGTGCCAGTTGGGCCACAGCCTCCCGAGTGCTGACCCACATGGTCAAGACCAGGCAGAAGCTCCCAGAGCCCC
TGTCTCGGGCTCCCCACCGACTGGCAGCTGCACTATCCCCAACTCCCCACTTCTGCCCCAAGGGTGGTCACTGCC

FIGURE 2906B

TGTGATACATTCCTCAGTGTCGCCTCTGAGCCCAGGCCTCCTGCCACAAAGACTGGGCCGAGAGATGGGGCTGGG
TAAGCGGGTGCGCCTCCTGTTTGGGTTTCTTCGGGGTTTCTCTGTAGTGTCTGCTGCCCTCCTCCTGGCCTCCCA
GGTTTCAGTTGTGTCTGACAGAGCATTAGGTTTTCCTGTTACTGCTGTGTAATAATAAAGAAAGATTCGGCTTTT
GGC

FIGURE 2907A

ATGATGAGCTTCGGCGGCGCGGACGCGCTGCTGGGCGCCCCGTTCGCGCCGCTGCATGGCGGCGGCAGCCTCCAC
TACGCGCTAGCCCGAAAGGGTGGCGCAGGCGGGACGCGCTCCGCCGCTGGCTCCTCCAGCGGCTTCCACTCGTGG
ACACGGACGTCCGTGAGCTCCGTGTCCGCCTCGCCCAGCCGCTTCCGTGGCGCAGGCGCCGCCTCAAGCACCGAC
TCGCTGGACACGCTGAGCAACGGGCCGGAGGGCTGCATGGTGGCGGTGGCCACCTCACGCAGTGAGAAGGAGCAG
CTGCAGGCGCTGAACGACCGCTTCGCCGGGTACATCGACAAGGTGCGGCAGCTGGAGGCGCACAACCGCAGCCTG
GAGGGCGAGGCTGCGGCGCTGCGGCAGCAGCAGGCGGGCCGCTCCGCTATGGGCGAGCTGTACGAGCGCGAGGTC
CGCGAGATGCGCGGCGCGGTGCTGCGCCTGGGCGCGGCGCGCGGTCAGCTACGCCTGGAGCAGGAGCACCTGCTC
GAGGACATCGCGCACGTGCGCCAGCGCCTAGACGACGAGGCCCGGCAGCGAGAGGAGGCCGAGGCGGCGGCCCGC
GCGCTGGCGCGCTTCGCGCAGGAGGCCGAGGCGGCGCGCGTGGACCTGCAGAAGAAGGCGCAGGCGCTGCAGGAG
GAGTGCGGCTACCTGCGGCGCCACCACCAGGAAGAGGTGGGCGAGCTGCTCGGCCAGATCCAGGGCTCCGGCGCC
GCGCAGGCGCAGATGCAGGCCGAGACGCGCGACGCCCTGAAGTGCGACGTGACGTCGGCGCTGCGCGAGATTCGC
GCGCAGCTTGAAGGCCACGCGGTGCAGAGCACGCTGCAGTCCGAGGAGTGGTTCCGAGTGAGGCTGGACCGACTG
TCGGAGGCAGCCAAGGTGAACACAGACGCTATGCGCTCAGCGCAGGAGGAGATAACTGAGTACCGGCGTCAGCTG
CAGGCCAGGACCACAGAGCTGGAGGCACTGAAAAGCACCAAGGACTCACTGGAGAGGCAGCGCTCTGAGCTGGAG
GACCGTCATCAGGCCGACATTGCCTCCTACCAGGAAGCCATTCAGCAGCTGGACGCTGAGCTGAGGAACACCAAG
TGGGAGATGGCCGCCCAGCTGCGAGAATACCAGGACCTGCTCAATGTCAAGATGGCTCTGGATATAGAGATAGCT
GCTTACAGAAAACTCCTGGAAGGTGAAGAGTGTCGGATTGGCTTTGGCCCAATTCCTTTCTCGCTTCCAGAAGGA
CTCCCCAAAATTCCCTCTGTGTCCACTCACATAAAGGTGAAAAGCGAAGAGAAGATCAAAGTGGTGGAGAAGTCT
GAGAAAGAAACTGTGATTGTGGAGGAACAGACAGAGGAGACCCAAGTGACTGAAGAAGTGACTGAAGAAGAGGAG
AAAGAGGCCAAAGAGGAGGAGGGCAAGGAGGAAGAAGGGGGTGAAGAAGAGGAGGCAGAAGGGGGAGAAGAAGAA
ACAAAGTCTCCCCCAGCAGAAGAGGCTGCATCCCCAGAGAAGGAAGCCAAGTCACCAGTAAAGGAAGAGGCAAAG
TCACCGGCTGAGGCCAAGTCCCCAGAGAAGGAGGAAGCAAAATCCCCAGCCGAAGTCAAGTCCCCTGAGAAGGCC
AAGTCTCCAGCAAAGGAAGAGGCAAAGTCACCGCCTGAGGCCAAGTCCCCAGAGAAGGAGGAAGCAAAATCTCCA
GCTGAGGTCAAGTCCCCCGAGAAGGCCAAGTCCCCAGCAAAGGAAGAGGCAAAGTCACCGGCTGAGGCCAAGTCT
CCAGAGAAGGCCAAGTCCCCAGTGAAGGAAGAAGCAAAGTCACCGGCTGAGGCCAAGTCCCCAGTGAAGGAAGAA
GCAAAATCTCCAGCTGAGGTCAAGTCCCCGGAAAAGGCCAAGTCTCCAACGAAGGAGGAAGCAAAGTCCCCTGAG
AAGGCCAAGTCCCCAGAGAAGGAAGAGGCCAAGTCCCCTGAGAAGGCCAAGTCCCCAGTGAAGGCAGAAGCAAAG
TCCCCTGAGAAGGCCAAGTCCCCAGTGAAGGCAGAAGCAAAGTCCCCTGAGAAGGCCAAGTCCCCAGTGAAGGAA
GAAGCAAAGTCCCCTGAGAAGGCCAAGTCCCCAGTGAAGGAAGAAGCAAAGTCCCCTGAGAAGGCCAAGTCCCCA
GTGAAGGAAGAAGCAAAGACCCCCGAGAAGGCCAAGTCCCCAGTGAAGGAAGAAGCCAAGTCCCCAGAGAAGGCC
AAGTCCCCAGAGAAGGCCAAGACTCTTGATGTGAAGTCTCCAGAAGCCAAGACTCCAGCGAAGGAGGAAGCAAGG
TCCCCTGCAGACAAATTCCCTGAAAAGGCCAAAAGCCCTGTCAAGGAGGAGGTCAAGTCCCCAGAGAAGGCGAAA
TCTCCCCTGAAGGCGGATGCCAAGGCCCCTGAGAAGGAGATCCCAAAAAAGGAAGAGGTGAAGTCCCCAGTGAAG
GAGGAGGAGAAGCCCCAGGAGGTGAAAGTCAAAGAGCCCCCAAAGAAGGCAGAGGAAGAGAAAGCCCCTGCCACA
CCAAAAACAGAGGAGAAGAAGGACAGCAAGAAAAGAGGAGGCACCCAAGAAGGAGGCTCCAAAGCCCAAGGTGGAG
GAGAAGAAGGAACCTGCTGTCGAAAAGCCCAAAGAATCCAAAGTTGAAGCCAAGAAGGAAGAGGCTGAAGATAAG
AAAAAAGTCCCCACCCCAGAGAAGGAGGCTCCTGCCAAGGTGGAGGTGAAGGAAGACGCTAAACCCAAAGAAAAG
ACAGAGGTGGCCAAGAAGGAACCAGATGATGCCAAGGCCAAGGAACCCAGCAAACCAGCAGAGAAGAAGGAGGCA
GCACCGGAGAAAAAAGACACCAAGGAGGAGAAGGCCAAGAAGCCTGAGGAGAAACCCAAGACAGAGGCCAAAGCC
AAGGAAGATGACAAGACCCTCTCAAAAGAGCCTAGCAAGCCTAAGGCAGAAAAGGCTGAAAAATCCTCCAGCACA
GACCAAAAAGACAGCAAGCCTCCAGAGAAGGCCACAGAAGACAAGGCCGCCAAGGGGAAG**TAA**GGCAGGGAGAAA
GGAACATCCGGAACAGCCAAAGAAACTCAGAAGAGTCCCGGAGCTCAAGGATCAGAGTAACACAATTTTCACTTT
TTCTGTCTTTATGTAAGAAGAAACTGCTTAGATGACGGGGCCTCCTTCTTCAAACAGGAATTTCTGTTAGCAATA
TGTTAGCAAGAGAGGGCACTCCCAGGCCCCTGCCCCCAGGCCCTCCCCAGGCGATGGACAATTATGATAGCTTAT
GTAGCTGAATGTGATACATGCCGAATGCCACACGTAAACACTTGACTATAAAAACTGCCCCCCTCCTTTCCAAAT
AAGTGCATTTATTGCCTCTATGTGCAACTGACAGATGACCGCAATAATGAATGAGCAGTTAGAAATACATTATGC
TTGAGATGTCTTAACCTATTCCCAAATGCCTTCTGTTTTCCAAAGGAGTGGTCAAGCCCTTGCCCAGAGCTCTCT
ATTCTGGAAGAGCGGTCCAGGTGGGGCCGGGGACTGGCCACTGAATTATGCCAGGGCGCACTTTCCACTGGAGTT

FIGURE 2907B

CACTTTCAATTGCTTCTGTGCAATAAAACCAAGTGCTTATAAAATGAAAATGTTGCTGCTGTTATTCTCTTTCCC
TGGGAAGGCTGGGGGCAGGGCAGGGGAGGTCTGGATGTGACACCCCAGACTGCATGGGACTGAGCAAGCATCAGT

FIGURE 2908A

ACCACTTGAAGAGAGGTTCCTAATACTAGACAGATGGAGAGTGGCTTGGCTGTTTCCCCCTGCATATTGGGGTTG
AAAACTTAAATGTGTAGTTCCAGTCCTTCTATGCAGAGTCTCTCCTGCCCTCCCTCCTTCCTGCAGTCTCACCAC
GCCACCACCTCCCTCGGGGGCCTCCGCGCTGAGCTTCCGGCCTCTACGCCTCGCTTCCGGTCGGCCGCCCCTTCC
TTACTTCCGGTTCTCTATGGTGCGCGGGCAAGCTTTGCTCCGCCTCCGGCAGTGGCTTACTCCCGGTGCCAGGTT
CTTGGAGCTGTGAGGAGGAACAACC**ATG**TCATCAGAATCGAGCAAAAAACGGAAGCCCAAAGTGATCCGAAGCGA
TGGAGCCCCAGCTGAAGGAAAGCGGAATCGATCTGACACCGAGCAGGAAGGTAAATACTACAGTGAGGAGGCCGA
GGTGGATCTGCGGGACCCTGGCAGAGACTATGAGTTATACAAGTACACCTGCCAGGAGCTACAGAGGCTGATGGC
TGAGATCCAAGACCTGAAGAGCAGGGGTGGCAAGGATGTGGCAATAGAAATAGAAGAACGGAGGATCCAGAGCTG
TGTGCATTTCATGACTCTAAAGAAGCTTAACCGATTAGCCCACATCAGGTTGAAGAAAGGAAGAGATCAGACCCA
CGAGGCTAAGCAGAAAGTAGATGCCTATCATCTGCAGCTCCAGAACCTGTTGTATGAGGTGATGCACCTACAGAA
GGAGATCACCAAATGTTTGGAGTTTAAGTCAAAGCATGAAGAAATTGATCTGGTCAGTTTAGAGGAGTTTTATAA
GGAGGCTCCACCAGATATCAGCAAGGCCGAAGTCACCATGGGAGACCCTCACCAGCAAACACTGGCACGTCTGGA
CTGGGAGCTGGAGCAGCGGAAAAGGCTGGCAGAGAAGTACCGAGAGTGCCTATCTAACAAGGAGAAGATTCTCAA
GGAGATTGAGGTGAAGAAGGAGTACCTGAGCAGCCTCCAGCCCCGCCTCAACAGCATCATGCAGGCTTCCCTTCC
GGTGCAGGAGTACCTGTTTATGCCATTCGACCAGGCTCACAAGCAGTATGAGACAGCCAGACACCTGCCGCCTCC
CCTCTATGTCCTCTTTGTTCAGGCCACTGCGTATGGGCAGGCCTGTGATAAGACGTTATCTGTGGCAATCGAAGG
CAGTGTGGATGAAGCCAAGGCTCTGTTCAAACCTCCAGAGGACTCCCAAGATGACGAGAGTGACTCAGATGCCGA
GGAGGAGCAGACTACGAAGCGCCGGAGACCCACACTGGGGGTTCAGTTGGACGACAAACGCAAGGAGATGCTGAA
GAGGCACCCACTGTCTGTCATGCTCGACCTGAAGTGCAAAGATGACAGTGTGCTTCACCTGACTTTCTACTACCT
CATGAACCTCAACATCATGACAGTAAAAGCCAAAGTGACAACTGCCATGGAGCTGATCACCCCCATCAGTGCAGG
TGACTTGCTGTCTCCTGACTCAGTCCTGAGTTGCTTGTATCCTGGGGATCATGGAAAGAAAACTCCGAATCCAGC
CAATCAGTATCAGTTTGATAAAGTTGGCATCCTGACTTTGAGCGACTATGTACTTGAGCTAGGTCACCCCTATTT
GTGGGTGCAGAAGCTGGGTGGCCTCCACTTCCCCAAAGAGCAGCCCCAGCAAACAGTGATTGCTGACCACTCGCT
GAGCGCCAGCCACATGGAGACCACCATGAAACTTCTGAAGACCAGGGTGCAGTCCCGCCTGGCCCTCCACAAACA
GTTTGCATCCCTAGAACATGGCATTGTGCCAGTTACCAGTGATTGCCAGTACCTCTTCCCTGCCAAGGTTGTCTC
TCGCCTGGTGAAATGGGTGACAGTTGCCCATGAGGATTACATGGAGCTGCACTTCACCAAAGACATTGTGGATGC
GGGACTGGCTGGGGACACCAATCTCTACTACATGGCGCTCATCGAAAGGGGCACAGCCAAACTGCAGGCCGCTGT
GGTGTTGAACCCTGGCTACTCCTCCATCCCACCTGTTTTCCAGCTCTGTTTGAACTGGAAAGGGGAGAAAACCAA
CAGCAACGATGACAACATTCGGGCCATGGAGGGCGAAGTCAATGTGTGCTACAAGGAGCTGTGTGGCCCTTGGCC
CAGCCACCAGCTGTTGACCAACCAGCTGCAGCGGCTGTGTGTGCTGCTGGATGTTTACCTGGAGACCGAGAGCCA
TGACGACAGTGTGGAGGGGCCCAAGGAATTTCCCCAGGAGAAGATGTGTCTGCGGCTCTTCAGGGGTCCTAGCAG
GATGAAGCCATTTAAATACAACCATCCTCAGGGATTCTTCAGCCATCGC**TGA**TCTCCCGCGCAGACCGTTGTTTC
CCCCAAGGCCTCACCCTGAGCACTGGGCTTCTGCTTTCTGCTCTGGCCCACATGTGACTCTTGATATTCTCCAAA
GACACCAGCCAATTAAAAAGCGTCACCTGACCAGTGGCCTTTGTCTGTGGTTCCTGGCAAGGTGGCTTTGCAGTC
TGGAAGGGCAGGTGGGAGCTGTGACACAGTGTGAAAAAGCATTTGTAGAGAGACTTTTTCTCAGCAGCCAATAAA
AGCAGAGTGGAAAAAGATTCCAATTCTGCAGAGAGATGCTCACCTCTTGTCTACGCACACCCTATTTGTGCTTTG
CGGGGTGAGGTCCTCATGATCTTGTATTTATTATCCCAAGTTCCTGCTGTTAAGAGGTGGTAGGAGAAGCCAAAG
GCAGCAGAGCACAAAAAGCAAAACTCTTCCCTCCCCACCCGCTCTTCCCATTAGTCCTGTCAGGGTTGCCGATGG
ACAAATTGTCTCTGATCGTTGGATGTTATAAATGTCTGACAGTGCAGTGCAAACAGAAGACAAACTCAGTTGATC
CTTGAACAACTCAGGGGTTAGGGGCACCAACACCCCCTGCCCTGCACAGTTGAAAAATCCGTGTATAACTTTTGA
CTCCCTAAAAACTTAACTAATAGCCTGCTGTTGACCAGTAGTATGCTATTAGTAGTTACTTACTGCTAACATAGT
CAGTACATATTTTCAGTATATATTTTGTATCTTATACACTGTATTCTTACAATACAGTAAACTAGAGAAAAGAAA
ATGTTATAAGGAAAGTCACAAGGGGGCCTGAGTGCAGTGGCTCACGTCTGTAATCCCAGCACTTTGGGAGGCCAA
GGCGGGTGGATCACTTGAGGTCAGGAGTTTGAGACCAGCCTGGCCGACATGGTGAAACCCTGTCTCTACTAAAAA
CATGGAAATTAGCCAAGCGTGGTGGCGCATGCCTGTAGTCCCAGTTACTCAGGAGGCTGAGGCAGAATTACTTGA
ACCCATGAGGCAGAGGTTGCAGTAAGCCAAGATCACGCTCCTGCGCTCCGGCTTGGGCGAGAGTGAGACTCCGTC
TCAAAAATAAATAAATAAGAAAGCCATAAGGAAGAAAATATATATCTACTATTAAGTAGAAGTGGATCACCATAA
AGGTCTTCACATACTGTCTCAGGGTTGAATAGTCTAAGGAAGAGGAGGGGTTGGTCTTGGTGTCTCAGGGATGGC

FIGURE 2908B

AGAGGCAGAAAAAGTGGGGGAGGTGGAGGGGGAGGCAGGCACCACTGTTATTTTTATTGAACAAAATCTGTGCAG
GGACTCATGACTGTAATCCTAGTACTTTGGAAAGCTAAGGCGGGAGGATCCCTTGAGGCCAGGAGTTCAGGTCCA
GCCTGGGCAACGTAGTGAGAGACCCTGTATCTACAAAAAATTTAAAAATCAGCCAGGTGTGGTGGTATGCACCAA
TAGTCCCAGTTACTCAGAAGGCTGAGGTGGGCGGATGACTGGAGTCCAGGAGTTCAAGGTAGCAGTGAGCTATTC
ATCGTGCCTGTACTGTACTCCAGCCTGGGAAACAATGCGAGTCCCTATCTCTAAAAAATTTTAAAAAAAGAAATC
TGCATATAATAGACCCACAGAGTCCAAACTATTGTTCAGAGATCAACTGTACTTCACAGAGAGTAATTCTAAGTC
TTACAGGATTTCATGGAGATGGCGAGAGTGGTGTTGGAGAATCAATCACATACAGAGATACAGGACAGTGAGACC
AGGTAACATTTGAGGAGAATATTTTTTTTTTATTGAGACAGGGTCTTGCTCTGTTGTCCAGGCTGGAGTGCAGTG
GCACGAACACAGCTCACTGCCGCCTCAACCTCTCCTGGGTTCAAGTGATCCTCCTGCCTCAGCCTCCCAAGTAGC
TGGGACCACAGGTGTGTGCCACCATTTCTGGCTAATTTTTAAATTTTTTGTAGAGGCGGGATCCCACTATTTTTC
CCAGGCTGGTCTCAAACTCCTGGGCTCAAATGATCCTCCCACCTCGGCCTCCCAAAGTGCTAGGATTATAGGCAT
GAGCCACCACACCCGGCCTGAGTAGAGTCTTTAAGGTAATGACAAAAGTGCCTCAAAATATAATTATTTGATTAA
GAGAAGTCTTGGGAAGATAGGTAACAACCTTTAAAATGTTCATAAAATTACATCCTTTGTAATACTCCTGCAAGT
CAAAGTAAAGGATGGCATAGACTATTCTTGGACAGTTTTGTCAAAAAGTGTATCTTGACCCCACCATCAGTACTC
CATTCTTCATTTTAAAAAATAAGATGGGCTGGGCACAGTGGCTTACGCCTTTAATATCAGTACTTTGGGAGGCTG
GTGGGCGGATCACCTGAGATCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAAT
ACAAAAATTAGCTGGGCATGGTGGTGCGCGCCTGTAATCCCAGCCACTCGGGAGGCTGAGGCAGGAGAATTGCTT
GAATCCCCGAGGCGGAGGTTGCACTGAGCCGAGATGGTGCCACTGCACCATCTGGACAACAGAGCAAGACTCCGT
CTTGG

FIGURE 2909

CCACGCTCCCATTTTACCGAGGTGGATCCTGAGGCCCAGAGTGGGCAAAGGGCTTGCCAAGGTCGCAGAGCGCGC
AGAGGATTAGAACCCTGACTTCCGTCCAGCACCTGCGGAGTTGGAGACGCCCACAGGAAACGCCCACCTGACCGG
GTGAGTGAGGGGGCGGGCGAGCCGGAGGGGTGGAGTTTATTCGCGCCCCGCCTCCGCCACCAGGGCTTGGGGGCG
GGGCCTTCCTGCAACCTTTGCGGCTCCAAC**ATG**GCTCCGCGGCTGTGCAGCATCTCTGTGACGGCGCGGCGGCTG
CTGGGGGGCCCGGGGCCTCGCGCTGGGGACGTTGCGTCTGCAGCTGCGGCGCGTTTCTATTCCAAGGACAATGAA
GGCAGCTGGTTCCGCTCCCTCTTTGTTCACAAAGTGGATCCCCGGAAGGATGCCCACTCCACCCTGCTGTCCAAG
AAGGAAACCAGCAACCTCTATAAGATCCAGTTTCACAATGTAAAGCCTGAATACCTGGATGCCTACAACAGCCTC
ACGGAGGCTGTGCTGCCCAAGCTTCACCTGGATGAGGACTACCCATGCTCACTCGTGGGCAACTGGAACACGTGG
TATGGGGAGCAGGACCAGGCAGTGCACCTGTGGCGATTCTCAGGTGGCTACCCAGCCCTCATGGACTGCATGAAC
AAGCTCAAAAACAATAAGGAGTACCTGGAGTTCCGAAGGGAGCGGAGCCAGATGCTGCTGTCCAGGAGAAACCAG
CTGCTCCTCGAGTTCAGCTTCTGGAATGAGCCACAGCCCAGAATGGGTCCCAACATCTATGAGCTGAGGACATAC
AAGCTCAAGCCAGGAACCATGATCGAGTGGGGGAACAACTGGGCTCGGGCCATCAAGTACCGGCAGGAGAACCAG
GAGGCAGTGGGCGGCTTCTTCTCACAGATAGGAGAGCTCTACGTGGTGCACCATCTCTGGGCCTATAAAGACCTG
CAGTCTCGGGAGGAGACTCGAAACGCTGCCTGGAGGAAGAGAGGCTGGGATGAAAATGTCTACTATACAGTCCCC
CTGGTGCGACACATGGAGTCTAGGATCATGATCCCCTTGAAGATCTCGCCTCTGCAG**TGA**TGCTGCCTACACCTC
CACCTCCTTCCCCTTCTCCCTCAGGCAACCCCGACAGACAGTGGCACTCCTGGTCCTGCTGTCTTGGTTTTGTCT
TGGCTCTGGGAGGACTCTGAGGGGCAGTGCTCAGTTCAGACAAGGGGGAACTGAAGGCTGACAAGTTCTGAGGAT
TACAGCTCTGCCCAGGCCCTTTCTACTTTCCCTGCCTGCCTCCCTCCCCCTGCTAGAAGTAGTTTCTGATTTCCC
TGAATGAAAGATAGTGATCTTTTAGGCCTTCATTTATCTTCTAAAATTCCTCATCTCAAGGCCACCAGTCCCCAG
TTATCACCCTTGGAAATCCTCTGTTTAGCTTAGTTGCACAAAAGGTAGTATGTCCAGTGGCTAGAGGTGGGGTGG
GAAGAGAGGAGGCCAGGCCAGGCCCTCAGGAATTCCCTGGTTTCCACTGGGCCACCCACTTGCTGGACAGTCTGA
GCCAAGTCCCTCCTGCTGGAGAAAAGCCTGGAACTGCCAAAACAAAAAAACAAATACAAACAAACCTCGTCACCA
CGGTCAGGAGGAGGTTCAGACATTCTGCCCAGAGGGGCTGGGGAAAGGGATGGGAGCCAGGAAAGATTTAGGGGC
AGGAGACAGACACGTAACAGGAACTCGGAAGGTAGAACTTAGAATTCAGAACTTGGGTTTCAATTGTAGAATTTG
GAATCTGGAATACAGAATTGGGAAGAAGAACAGAGATGACAAAAGACCACTTGAAGAGAGGTTCCTAATACTAGA
CAGATGGAGAGTGGCTTGGCTGTTTCCCCCTGCATATTGGGGTTGAAAACTTAAATGTGTAGTTCCAGTCCTTCT
ATGCAGAGTCTCTCCTGCCCTCCCTCCTTCCTGCAGGCAAATATACAAGCTAGACCCTGTTCCCTCACCCTGTAT
CCTGTCTCCCCTAATTGACATTCTATCAGCCCAACCCTCATTCTGCAGGGCCACCTGGTGTGTGGAGGTGGCGGG
AGGGGTCAGTGACTCTGGGGGTCTCCTCAGTGACCCCCATACCTCATCATGAACCCTTGGGTAGCTTGATTCTGC
CTACCATCCAGGAAAACTTGTGCTGGAATTGCTGATGGAAACAATTAAATATTTACTAT

FIGURE 2910

GCAGCCGTCAGGGCCCGTCCCCCAACTCCCCTTTCCGCTCAGGCAGGGTCCTCGCGGCCCATGCTGGCCGCTGGG
GACCCGCGCAGCCCAGACCGTTCCCGGGCCGGGCAGCCGGCCACCATGGTGGCCCTGAGGCCTGTGCAGCAACTC
CAGGGGGGCTAAAGGGCTCAGAGTGCAGGCCGTGGGGCGCGAGGGTCCCGGGCCTGAGCCCCGCGCC**ATG**GCCGG
GGCCATCGCTTCCCGCATGAGCTTCAGCTCTCTCAAGAGGAAGCAACCCAAGACGTTCACCGTGAGGATCGTCAC
CATGGACGCCGAGATGGAGTTCAATTGCGAGATGAAGTGGAAAGGGAAGGACCTCTTTGATTTGGTGTGCCGGAC
TCTGGGGCTCCGAGAAACCTGGTTCTTTGGACTGCAGTACACAATCAAGGACACAGTGGCCTGGCTCAAAATGGA
CAAGAAGGTACTGGATCATGATGTTTCAAAGGAAGAACCAGTCACCTTTCACTTCTTGGCCAAATTTTATCCTGA
GAATGCTGAAGAGGAGCTGGTTCAGGAGATCACACAACATTTATTCTTCTTACAGGTAAAGAAGCAGATTTTAGA
TGAAAAGATCTACTGCCCTCCTGAGGCTTCTGTGCTCCTGGCTTCTTACGCCGTCCAGGCCAAGTATGGTGACTA
CGACCCCAGTGTTCACAAGCGGGGATTTTTGGCCCAAGAGGAATTGCTTCCAAAAAGGGTAATAAATCTGTATCA
GATGACTCCGGAAATGTGGGAGGAGAGAATTACTGCTTGGTACGCAGAGCACCGAGGCCGAGCCAGGGATGAAGC
TGAAATGGAATATCTGAAGATAGCTCAGGACCTGGAGATGTACGGTGTGAACTACTTTGCAATCCGGAATAAAAA
GGGCACAGAGCTGCTGCTTGGAGTGGATGCCCTGGGGCTTCACATTTATGACCCTGAGAACAGACTGACCCCCAA
GATCTCCTTCCCGTGGAATGAAATCCGAAACATCTCGTACAGTGACAAGGAGTTTACTATTAAACCACTGGATAA
GAAAATTGATGTCTTCAAGTTTAACTCCTCAAAGCTTCGTGTTAATAAGCTGATTCTCCAGCTATGTATCGGGAA
CCATGATCTATTTATGAGGAGAAGGAAAGCCGATTCTTTGGAAGTTCAGCAGATGAAAGCCCAGGCCAGGGAGGA
GAAGGCTAGAAAGCAGATGGAGCGGCAGCGCCTCGCTCGAGAGAAGCAGATGAGGGAGGAGGCTGAACGCACGAG
GGATGAGTTGGAGAGGAGGCTGCTGCAGATGAAAGAAGAAGCAACAATGGCCAACGAAGCACTGATGCGGTCTGA
GGAGACAGCTGACCTGTTGGCTGAAAAGGCCCAGATCACCGAGGAGGAGGCAAAACTTCTGGCCCAGAAGGCCGC
AGAGGCTGAGCAGGAAATGCAGCGCATCAAGGCCACAGCGATTCGCACGGAGGAGGAGAAGCGCCTGATGGAGCA
GAAGGTGCTGGAAGCCGAGGTGCTGGCACTGAAGATGGCTGAGGAGTCAGAGAGGAGGGCCAAAGAGGCAGATCA
GCTGAAGCAGGACCTGCAGGAAGCACGCGAGGCGGAGCGAAGAGCCAAGCAGAAGCTCCTGGAGATTGCCACCAA
GCCCACGTACCCGCCCATGAACCCAATTCCAGCACCGTTGCCTCCTGACATACCAAGCTTCAACCTCATTGGTGA
CAGCCTGTCTTTCGACTTCAAAGATACTGACATGAAGCGGCTTTCCATGGAGATAGAGAAAGAAAAAGTGGAATA
CATGGAAAAGAGCAAGCATCTGCAGGAGCAGCTCAATGAACTCAAGACAGAAATCGAGGCCTTGAAACTGAAAGA
GAGGGAGACAGCTCTGGATATTCTGCACAATGAGAACTCCGACAGGGGTGGCAGCAGCAAGCACAATACCATTAA
AAAGCTCACCTTGCAGAGCGCCAAGTCCCGAGTGGCCTTCTTTGAAGAGCTC**TAG**CAGGTGACCCAGCCACCCCA
GGACCTGCCACTTCTCCTGCTACCGGGACCGCGGGATGGACCAGATATCAAGAGAGCCATCCATAGGGAGCTGGC
TGGGGGTTTCCGTGGGAGCTCCAGAACTTTCCCCAGCTGAGTGAAGAGCCCAGCCCCTCTTATGTGCAATTGCCT
TGAACTACGACCCTGTAGAGATTTCTCTCATGGCGTTCTAGTTCTCTGACCTGAGTCTTTGTTTTAAGAAGTATT
TGTCT

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FIGURE 2911

ATGCCGTTCCACCCGGTGACGGCGGCGTTGATGTACCGGGGCATCTACACCGTGCCCAACCTGCTGTCGGAGCAG
CGCCCGGTGGACATCCCGGAGGACGAGCTGGAGGGTGCCGGTTGCCAGGTGGGCGCCCCAGCTAGCAGCTGTGCC
CCGCGGCAAGACCTGTCCGCACCCCGGGGCGCCGCGGTGGGGGTCGCTCAGGCGGAGAGCGGCCCAGCCCCTGCC
CGCGTGGTCCCCAGCGCTGCGGAAACTTGCCGGGCCCCGCAGCGGGGTCACGGGGCCGCGCAGTCGGCGGTGACG
GGCGGTCTGGGCGAGACCCAGGCCCTCTGCCGGGAGGACGCCATTCGCGGAGGAGCCACATGTGCCAGGAAGAGG
GAGCTGGGCAGCCCGGGATGGAATGCTGCAGACACCTGCCCAGAGGTCCCAGAATACGGCACCCTTGTGCACCCT
CGGGCCATGCTCTCACCAGATCTGCAGGCTCTGGGTTGGGCTCTCAAGGCCATGCTCAGGCTGCAGGAGATCCGA
GAGGCCTTCAAGGTGTTTGACCGTGACGGCAATGGCTTCATCTCCAAGCAGGAGCTGGGCACAGCCATGCGCTCA
CTGGGTTACATGCCCAACGAGGTGGAGCTGGAGGTCATCATCCAGCGGCTGGACATGGATGGTGATGGTCAAGTG
GACTTTGAGGAGTTTGTGACCCTTCTGGGACCCAAACTCTCCACCTCAGGGATCCCAGAGAAGTTCCATGGCACC
GACTTTGATACTGTCTTCTGGAAGTGCGACATGCAGAAGCTGACGGTGGATGAGCTGAAGCGGCTGCTCTACGAC
ACCTTCTGCGAGCACCTGTCCATGAAGGACATAGAGAACATCATCATGACGGAGGAGGAGAGCCACCTGGGCACA
GCCGAGGAGTGTCCCGTGGATGTGGAGACCTGCTCCAACCAGCAGATCCGCCAGACTTGCGTGCGCAAGAGTCTC
ATCTGCGCCTTCGCCATCGCCTTCATCATCAGTGTCATGCTCATTGCGGCCAACCAGGTGCTGCGCAGTGGCATG
AAGGGCTCCTGGGAAATTAAGGAGGGATTTGCACAGGAACCCCCAGGACCCAGTCGCTGCTGTGACCCCCTTTTC
TCCATGTACCTGCTGGGCCAGCCCATTTCACAGGGATTTTCAGGAAAGGCAGAAGCTCGTGGAGGATGGGCATCT
GAGGTGGCCCTGCAGCCCCCCACCTTCTGGCCCTCCCACCAGAGGCCCAGCTACCAAGGCCACATTGTCCACCAC
CCCAGCCTAGAGCCTAGAACTGTAGTCCAGCTGAGGAAGGAGGCAGAGCTGGGGCCTGAAGGCTCTGAGCAGCCT
CCAGCCAGGGGGCTCCTCCAGGGC**TGA**

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FIGURE 2912

GGAGCCCGGAGCTGCAGCCACCGGGGAGCCAGGTACCTTCCGCGAGACGTCGAGGGGCGAGTCCTAGTCTCTTTT
CTCCGCACTGGAAGACTTGAACACTTCCTTCTCTGGTCTCTGTCACCCAGGCTGGAGTGTAGTGGCGCAATCTCA
GCTGGCTGGAGCCTTGACCTCCTTGGGCTCAAGCTATCCTCCCACCTCAGCCTCTCAAATAGCTGGGACTACAGG
CAGCAAAGCACCTGCTCTGAGTGGCC**ATG**GGGAAGCGATACTTCTGTGACTACTGCGACCGCTCCTTCCAGGACA
ACCTCCACAACCGCAAGAAGCACCTGAACGGGCTGCAGCACCTCAAGGCCAAGAAGGTCTGGTACGACATGTTCC
GAGATGCAGCTGCCATCTTGCTGGATGAGCAGAACAAGCGGCCCTGCAGGAAGTTTCTACTGACAGGCCAGTGCG
ACTTTGGCTCCAACTGCAGATTTTCCCACATGTCAGAGCGAGACCTGCAGGAGCTGAGCATCCAGGTGGAGGAGG
AGAGGCGAGCCAGGGAGTGGCTACTAGATGCTCCTGAGCTCCCCGAGGGCCATCTGGAGGACTGGCTGGAGAAGA
GAGCCAAGCGGCTGAGCTCAGCCCCAAGTAGCAGGGCTGAACCCATCAGAACCACTGTCTTCCAGTACCCCGTGG
GCTGGCCACCAGTTCAGGAGCTGCCTCCATCCCTGCGGGCACCCCCACCTGGGGGGTGGCCTCTGCAGCCCAGAG
TCCAGTGGGGC**TGA**GCCCCTTGCCCCCGACTGACCCCCACGTGGTCACTTTTCTCATCAGTCACAATAGGAAGCC
AAGCCCGGTTCCTGCTACGCCCCATGGAGGCTCCGAGACCATCTGCCCAGCCTCACTGAGGCTCAGGACACGGCC
ACACCAAGTGCAGCCCTCGTCCTGGGTCTGCACCGGGCAGCTCTCCCCTCACTCTCCTCCACCTGCCCCCCTGCT
TCTTAAGAAGATGGGGGGAGAAAACTTCCAAATGTTTATAAAGAAAGTCTGTCACCA

FIGURE 2913

CTGTGAAGAAACATGGCGGCCGCGACGTTGACTTCGAAATTGTACTCCCTGCTGTTCCGCAGGACCTCCACCTTC
GCCCTCACCATCATCGTGGGCGTCATGTTCTTCGAGCGCGCCTTCGATCAAGGCGCGGACGCTATCTACGACCAC
ATCAACGAGGGGAAGCTGTGGAAACACATCAAGCACAAGT**ATG**AGAACAAGTAGTTCCTTGGAGGCCCCCATCCA
GGCCAGAAGGACCAGGTCCACCCAGCAGCTGTTTGCCCAGAGCTGGAGCCTCAGCTTGAAGATGATGCTCAAGGT
ACTCTTCATGGACCACCATTCGCTGTTGGCAAGAAACGGCTTTACTTACAAAACAGACTCTTTACCTTCTGCTGT
GTTTGAAGTATGTTTAGTCAGCATGCTCAGGAAA**TAA**ATGTGAATTGCCCTTG

FIGURE 2914

CCGGAAGTGCGGGCGCTCAGGGAGCTGTCACCGTGGTCGGCGGCGGCGGCGGCGGCGGCACAGAGCCGGTGG
TGGAGCCGCCGAGGAGGGTCACGCAGCACA**ATG**CCAGCTCTGCCCCTGGACCAACTCCAGATCACCCACAAGGAC
CCGAAGACAGGAAAGCTGAGGACTTCACCAGCGCTGCACCCCGAGCAGAAGGCAGACCGGTATTTTGTGTTATAC
AAACCGCCCCCTAAAGACAACATTCCCGCCCTAGTGGAGGAGTACCTGGAACGCGCCACCTTCGTAGCCAATGAC
CTCGACTGGCTCCTGGCCTTGCCTCACGATAAATTCTGGTGCCAGGTGATCTTTGACGAGACTCTACAGAAGTGC
CTGGACTCCTACCTGCGCTATGTCCCCCGCAAATTCGACGAGGGGGTGGCCTCAGCCCCTGAGGTTGTTGACATG
CAGAAGCGCCTCCATCGAAGTGTTTTTCTCACCTTCCTCCGCATGTCCACTCACAAGGAATCCAAAGATCACTTC
ATTTCCCCTTCTGCGTTTGGAGAAATCCTCTACAATAACTTCCTCTTTGACATTCCAAAGATCCTGGACCTCTGC
GTGCTCTTTGGAAAAGGCAACTCACCACTGCTCCAGAAGATGATAGGAAACATCTTTACACAGCAGCCAAGTTAC
TACAGTGACCTGGATGAAACCCTGCCTACCATCCTTCAGGTCTTCAGCAATATCCTCCAGCACTGTGGTTTGCAA
GGGGACGGGGCCAATACCACACCCCAGAAGCTTGAGGAGAGGGGCCGATTGACCCCCAGTGACATGCCTCTCCTG
GAATTAAAGGACATTGTTCTCTACCTTTGTGATACCTGCACCACACTTTGGGCCTTTCTGGATATCTTCCCTTTG
GCTTGCCAGACCTTCCAGAAGCACGACTTTTGTTACAGACTAGCTTCCTTCTACGAAGCAGCAATTCCCGAAATG
GAGTCTGCAATTAAGAAGAGGAGGCTTGAAGATAGCAAGCTTCTTGGTGACCTGTGGCAGAGGCTCTCCCATTCC
AGGAAGAAGCTAATGGAGATTTTCCACATCATCCTGAACCAGATCTGCCTCCTTCCCATCCTAGAAAGCAGCTGT
GACAACATTCAGGGCTTCATCGAAGAGTTCCTTCAGATCTTCAGCTCCTTGCTGCAGGAGAAGAGGTTCCTCCGG
GACTATGATGCACTCTTCCCCGTGGCCGAAGACATCAGCTTGCTGCAGCAGGCCTCATCAGTCTTGGACGAGACG
CGGACTGCCTACATCCTCCAGGCAGTCGAGAGTGCATGGGAAGGGGTGGACAGACGGAAAGCCACAGATGCTAAA
GACCCATCGGTGATTGAGGAGCCTAATGGGGAGCCTAACGGGGTCACGGTGACAGCAGAGGCAGTCAGTCAAGCA
TCATCACATCCGGAGAACTCGGAGGAAGAGGAGTGCATGGGAGCAGCCGCGGCTGTGGGCCCTGCCATGTGTGGG
GTGGAACTGGACTCTCTCATCTCCCAAGTGAAGGACCTGCTGCCAGACCTTGGTGAGGGCTTCATCCTGGCCTGC
CTGGAGTACTACCACTACGACCCAGAGCAGGTGATCAACAATATCCTGGAGGAGCGGCTGGCCCCCACCCTCAGC
CAGCTGGACCGCAACCTAGACAGAGAAATGAAACCAGACCCTACACCCCTGCTGACGTCTCGCCACAACGTCTTC
CAGAATGACGAGTTTGATGTGTTCAGCAGGGACTCAGTAGACCTGAGCCGGGTGCACAAGGGCAAGAGCACCAGG
AAGGAGGAAAACACGCGGAGTTTGCTGAACGACAAGCGTGCAGTGGCGGCACAGCGGCAGCGCTACGAGCAGTAC
AGCGTGGTGGTGGAGGAGGTGCCACTGCAGCCAGGCGAGAGCCTGCCCTACCACAGTGTCTACTACGAGGATGAG
TACGATGACACATACGATGGCAACCAGGTGGGCGCCAATGATGCAGACTCTGATGACGAGCTCATCAGCCGCAGG
CCATTCACCATCCCTCAGGTGCTGAGAACCAAAGTGCCTAGAGAAGGGCAGGAGGAGGATGACGACGATGAGGAA
GACGATGCTGACGAGGAGGCTCCCAAGCCCGACCATTTTGTTCAGGACCCTGCAGTGCTGAGAGAGAAGGCAGAA
GCCAGGCGCATGGCCTTTCTCGCCAAGAAAGGGTACCGGCATGACAGCTCAACAGCAGTGGCCGGCAGCCCCCGA
GGCCATGGGCAGAGCCGCGAGACAACCCAGGAACGCAGGAAGAAGGAAGCCAACAAGGCGACAAGAGCCAACCAC
AACCGGAGAACCATGGCCGACCGCAAGAGGAGCAAAGGCATGATCCCATCC**TGA**GACCTGGTGCAGGGCCAGTGG
GGAGGCAGCGGCACCAGACTCACCAGGCCGCGCTCCCATCGCCTGGGGCCTCCTCACTAGGGGCCCCAAGTTCAA
CTCAACCCCTCAACAGCCTCAGCTTTGCAGCCCCTGAGAAGGCCGCCTCTCATCTACCAGCCAGCCATGAGCGCC
TTCCTGCAGAACACACAGTGCCTTATGCCACAGCCGAAGAATCCGTGGGGCCGGCAAGCAGGCACCTTCCCCCAG
CTGCGCTAGCGGGAAAGAGATGGGGATGGAGTCCCAAGGCAAGCGCCCCAAACCTCGGGCCACAAGACACCACTT
CCCCTTTACCCTGGACAGCAGGAAACCTGTATATTCAAAAACACAAAAAGTCCTGCTAATAAAATTTTTGACCCT
TTC

FIGURE 2915A

GACGTCCCAGCGGCTCAGGCGCTGCCCAGCGCCGGCCCTGGCAGGGAGCCTGGTGGGGTGGCGGAGGGGGAGACT
GTGCCGTGGAGGGCCTCGCCATGTCCTGCTGCCCGACTTCCTTGTGAAACCTCCTAGTAGAAAAAGTTCTTGGGA
CAAACTTCATTTGACTTCACCATAAGGGAAAGAAGAGAGCCTTGTTGGACACTGAAGAAGGGACGGGGATTTCTC
CTCCTAATCTGGGCCTCTTGTC**ATG**GATGAAGAGACTCGGCACAGCCTTGAGTGCATCCAGGCCAATCAGATCTT
TCCCAGGAAGCAGCTGATCCGGGAGGATGAGAATCTTCAGGTTCCTTTCCTTGAACTTCATGGAGAGAGCACAGA
GTTTGTGGGCCGTGCCGAGGATGCCATCATTGCCCTTTCCAATTACAGACTTCACATCAAGTTCAAGGAGTCTCT
TGTTAATGTTCCATTACAGCTTATAGAAAGTGTTGAATGCCGAGATATATTTCAGCTTCATTTGACTTGCAAAGA
CTGCAAAGTTATCAGGTGTCAGTTTTCAACCTTTGAGCAGTGTCAAGAGTGGCTGAAGAGACTGAACAACGCAAT
CCGACCACCTGCTAAAATAGAAGATCTCTTCTCATTTGCATACCATGCTTGGTGCATGGAGGTCTATGCCAGTGA
AAAAGAGCAACATGGAGACCTGTGCAGACCAGGGGAGCATGTAACTTCAAGGTTTAAAAACGAGGTGGAGAGGAT
GGGTTTTGATATGAACAACGCCTGGAGGATTTCCAACATCAATGAGAAGTACAAATTATGTGGTAGCTATCCTCA
AGAGCTCATAGTGCCTGCCTGGATCACTGACAAAGAACTGGAAAGTGTATCAAGTTTCAGGTCCTGGAAGCGCAT
CCCTGCCGTCATCTACAGGCACCAGAGCAATGGAGCTGTCATTGCCCGCTGTGGACAGCCAGAGGTTAGCTGGTG
GGGCTGGCGAAATGCAGATGATGAGCATCTGGTACAGTCAGTAGCCAAAGCTTGTGCCTCTGACTCCCGATCGAG
TGGCAGCAAGCTGTCAACTAGGAACACTTCTCGAGACTTTCCCAATGGGGGAGACCTTTCTGACGTGGAGTTCGA
TTCTTCTCTGTCAAATGCTTCAGGAGCAGAGAGTTTAGCCATCCAACCGCAGAAGCTTTTGATCTTGGATGCACG
CTCCTATGCAGCTGCTGTGGCAAACCGAGCCAAAGGAGGAGGCTGCGAATGCCCAGAGTATTACCCAAACTGTGA
AGTTGTGTTTATGGGGATGGCAAACATTCATTCTATTCGGAGGAGTTTTCAGTCTCTGCGGTTGCTGTGCACTCA
GATGCCAGATCCGGGAAATTGGCTATCAGCTCTTGAAAGCACAAAATGGCTCCATCACTTGTCTGTGCTTCTGAA
ATCAGCGCTTCTGGTAGTGCATGCTGTGGATCAGGATCAGCGGCCGGTGCTAGTACACTGCTCAGATGGCTGGGA
CCGCACCCCCCAGATTGTGGCATTGGCTAAGCTCTTGCTGGACCCTTATTACCGAACCATAGAGGGTTTCCAGGT
CCTCGTGGAAATGGAGTGGCTGGATTTTGGCCATAAATTTGCTGACCGGTGTGGTCATGGGGAGAACTCGGATGA
TCTGAATGAACGTTGCCCAGTGTTTCTGCAGTGGCTTGACTGTGTTCATCAGCTTCAGAGGCAATTTCCTTGCTC
TTTTGAGTTCAATGAAGCATTCCTTGTGAAACTGGTGCAGCATACCTATTCCTGCCTGTTTGGAACATTCCTGTG
CAACAACGCCAAGGAGAGAGGGGAAAAGCATACTCAGGAACGGACATGTTCCGTGTGGTCACTTCTTCGGGCAGG
CAACAAGGCTTTCAAAAACCTACTGTATTCCTCTCAGTCAGAAGCCGTGCTGTACCCTGTGTGCCATGTGCGTAA
CCTGATGCTGTGGAGTGCAGTGTACCTGCCCTGCCCATCCCCAACCACCCCTGTGGACGACAGCTGTGCACCATA
CCCAGCCCCAGGCACCAGCCCTGATGATCCCCCCCTGAGCCGGCTACCAAAGACTAGATCATACGACAATCTGAC
CACAGCCTGTGACAACACAGTGCCTCTGGCCAGCCGGCGCTGCAGCGACCCCAGCCTGAACGAGAAGTGGCAGGA
GCACCGGCGCTCACTAGAGCTGAGCAGCCTGGCTGGCCCTGGAGAGGATCCCCTTTCTGCCGACAGCCTAGGGAA
GCCCACCAGAGTGCCGGGGGGTGCCGAGCTTTCTGTTGCAGCCGGAGTAGCTGAGGGGCAGATGGAGAACATCTT
GCAGGAGGCCACCAAAGAGGAGAGTGGAGTAGAGGAACCTGCCCACAGGGCAGGCATTGAGATACAGGAGGGTAA
AGAGGACCCTCTCTTAGAAAAGGAGAGCAGGAGGAAGACACCTGAGGCCTCAGCCATTGGACTTCACCAAGACCC
AGAACTGGGTGATGCTGCTCTGAGGAGCCATCTGGATATGAGCTGGCCTCTGTTCTCACAGGGCATTTCTGAACA
GCAGAGTGGGCTCAGTGTTCTCCTCAGTTCTCTCCAGGTCCCCCCCAGGGGAGAGGATTCCCTGGAGGTCCCTGT
GGAGCAGTTTCGAATAGAAGAGATTGCAGAGGGTAGGGAGGAAGCAGTTCTTCCAATCCCAGTAGATGCAAAAGT
TGGCTATGGTACCTCACAGTCATGTTCTCTGCTACCTTCCCAAGTCCCTTTTGAGACCAGAGGACCAAACGTGGA
CAGTTCTACAGACATGTTAGTGGAAGATAAGGTGAAGTCAGTAAGTGGGCCCCAAGGTCATCATAGATCTTGCCT
TGTAAATAGTGGCAAGGACAGGCTTCCTCAGACCATGGAACCCAGCCCTTCAGAGACAAGCCTGGTCGAGAGGCC
CCAAGTGGGGTCTGTGGTGCATAGGACTTCCCTTGGCAGCACTCTCAGCCTGACACGTTCCCCTTGTGCCTTGCC
TTTAGCCGAATGTAAAGAGGGGCTTGTGTGCAATGGTGCCCCAGAGACTGAAAACAGGGCCTCAGAGCAGCCCCC
AGGTCTTAGCACCCTCCAGATGTACCCCACACCCAATGGGCATTGCGCCAATGGGGAGGCTGGTAGGAGCAAGGA
CTCACTGAGCCGTCAGCTGTCTGCTATGAGCTGCAGCTCTGCCCACTTACACTCAAGGAACTTGCACCACAAGTG
GCTGCATAGCCACTCAGGAAGGCCATCTGCAACCAGCAGCCCCGACCAGCCTTCCCGCAGCCACCTGGACGATGA
TGGCATGTCAGTGTACACAGACACGATCCAACAGCGCCTGCGTCAGATTGAGTCAGGCCACCAGCAGGAAGTAGA
AACTTTGAAGAAACAAGTCCAGGAGCTGAAGAGTCGCCTGGAGAGCCAGTACCTGACCAGCTCCCTACACTTTAA
TGGAGACTTTGGGGATGAGGTGACTTCAATCCCCGACTCGGAAAGCAATCTGGATCAGAACTGTTTGTCTCGCTG
CAGCACAGAGATTTTCTCTGAAGCCAGCTGGGAGCAGGTGGATAAACAGGACACAGAGATGACCCGTTGGCTTCC

FIGURE 2915B

TGACCACCTGGCCGCCCACTGCTATGCGTGCGACAGTGCCTTCTGGCTTGCCAGCAGGAAGCACCACTGCAGGAA
TTGTGGGAACGTATTCTGCTCCAGTTGTTGTAACCAGAAGGTTCCAGTTCCCAGCCAGCAGCTCTTTGAACCCAG
TCGAGTATGCAAGTCTTGCTATAGCAGCCTACATCCCACAAGCTCCAGCATTGACCTTGAACTGGATAAGCCCAT
TGCTGCCACTTCCAAC**TGA**AGCTCAGTGACCTGGGTGGGCAGTGGCCAAGCTGCTGTTCCTATGACAGGCCCACT
CAACCTGGGCAGACCGAGAGGCCCGTGCACTTTGGAATGGGAGCGTGGAACCACCTGTACAGAGTGACAGATTTG
GGATGCACCACTGGATTGTAGATTGATTTTCTTTCCTGTCCCCCTACTCCCTCCCTACCTTTTCCATCCTCCTC
CTCTGCCTTCAAAAAAGGAAACTTTCCCTTGGTTGTCTTAATTTTTTTTTTTTTTGATGGAAGACCAAGGGTTGC
CAGGCCCACTGTAACTGCCGAGCTGCCTGCTGTCACGTGACACTGAGGGATGGCTTGTTTCTTCCGGGTGGGAGG
ATGGTGGTCAGAGCCAGGAGTATGGAGATCTGAGACCGTGAGCAGGGAAGAAAGCCAGTGCTAACATGCAACCAT
TCCTCACGCCACCGCCACATCAGAGCTGGTTGGGAACCCTTTGCTGCTGGGGAGGCTGGAAGCATATTCCCCAAG
AGCACTGCCCTGGGCATCATCTCCCTCCTGCGAGGAGCTGAGCCAGTCCCCTCACAGATGGATAAATGAGGCTGA
TGTTTGGAGGGAGAGGCACACGGTAAATGGCATCCCCTTAGGCGCCTCTTTGGGAAAGGAAAGTGGATGCTCCTT
TGAGGCAGGCGAGGGGCTGGGAGTGGGTAGCCGTCATGTTGTCCCCCGTGGGATCCCATTTTTAACTTGACCCAG
ATTGTCTTGGGCTCCTTTTACTTTCAGGGGGCTGCTTTCCTGGGCCAGGCTGTGTAGCACTTCCCACCCTCAGGC
ATGAGTACAGACTGGTCAAAATGTTTATGCAGTCAAGGCCAAAGCCTGCCCTGAGCCCAGACACACCTGGGTCCC
CATTCTGGGGCCTGGTCCCCTAAACAATCTCTTCCTCAGCCAGCACAGGGAAATCCAGACTCAGGGTTCCAGAAA
TCCCCCGTTCCCAAACCAAACCAATCATGGATCTTCCCTTTAAGGGGTAGAATCAGCCTTTAGAGTTACAAGCCC
CTGGAAAAGGGAGCAGGTCCCATACAATCAGCCTTTCTCCTCTTCTCTTCTTGGGACAGGAATAACTGCTGAGCA
GTCCCCCTTTGCCACTCCTGGCTGTCTGAGTGGGCACTTGTCTGGCTGCTGGCCAGCAGTGAAGGGCCACTTGGT
GACTTCGTAGGGTTCCTTAGAGAAGTGACATGGCCTTGAGGAGATTCAGGGCACCTTTCCTCAGTGAGCTTTGAT
ATGGTCCAAAAACAGCCTTAAATCAAGAATATTTGTGGAGGTAGGTGTGGGGAAGGTTGGAGAAGAGTTAGGTTT
GTGCTTTGTAATCTTGGCATCCATGTTTTGTGCCTGCCCTCCCTCTTGGGGAGGCCATGCTTGACTCTGCTGAAA
GCTGCTAACTGGTGACAGGGTGGATCATGGTGAGGACTAGGGGTAAGGTCAGGGAATGCTTAAGCTCTGGCCCTG
CCCTGTATTCCTCTTCCCCTTGGTAGCAGTTCCCTGACCAAGGGCAAGGTGTGTCTCAGGAAGGTGGTTCTGTGC
ATGCCTGGGTGTGGTTAAGGCGTGGCCCAGAAGGCTTCCCTGGTGCTCTCAGTCCAGGCAAAGCCCAGAGCATCT
GAGCACGTCTCTGACTTCCAGTGGCAACACAGTTTGAACGTGGTGAAACAGGGTGTAGTTCTTTTCCACATTCTG
TGTCATCTAGTCGTGCAGGTAGGGAAAAAGTTGGTCTAATTGAAGATTGTGCATTTCCTAGTGACAGGTGCCAAG
AGGTTATGATACGGGTTTCTTGGGTCTGATGTACAGTGTGAATAAATGCTTGCAGCTCTTAGCTCTTTTTTGATC
GATGAAGCACTTTTTTATTAATATTTTCCTTTGTTAAAGGAGGAACCGTAACTCTCCATAGCTGTACATATAACC
CTTTTCTCCTAAAGAGGAGTCAGTCAGTGCTCCTATATTTTTCATTTTTTGTCAAAGCAAGAAGTAAATACTTTA
GAATTGTTAAATATATAAATAAAGCAAATAAAGTTG

FIGURE 2916

ATGGCTTGGGGAGTCAGTGCCAAATGGAGTAACGAGGGCATCACAAGTGTGGGTGACCCACAGTGGGAATGCCAG
AGTTGGAGCCTGAGCAGGAAAGATTGGTATGATGTGAAAGCACCTGCTATGTTCAGTATAATAACTATGGGAAAG
ACACTCATCGCCAGGACTCAAGGAATCAAAATTGCATCTGATGGCCTCAAGGGTCATGTGTTTGAAGTCTGCCAA
ATCCAGAAGAAGATGATGGAAATCATGACCCAAGAGGTGCAGACAAATGACTTGAAAGAAGTGGTCAATAAATTG
ATTCCAGACAGCACTGGAAAAGACATAGAAAAGGCTTGCCTATCTGTTTATCCTCTCCATGGTGTCTTCATTAGG
AAAGTAAAAATAAAGAAGCCCAAGTTTGAATTGGGAAAACTCATG**TAG**

FIGURE 2917A

ATGAACCTCTGAAAACTGCCGGCATCTGAGGTTTCCTCCAAGGCCCTCTGAAGTGCAGCCCATA**ATG**AAGGTCTT
GGCGGCAGGAGTTGTGCCCCTGCTGTTGGTTCTGCACTGGAAACATGGGGCGGGGAGCCCCCTCCCCATCACCCC
TGTCAACGCCACCTGTGCCATACGCCACCCATGTCACAACAACCTCATGAACCAGATCAGGAGCCAACTGGCACA
GCTCAATGGCAGTGCCAATGCCCTCTTTATTCTCTATTACACAGCCCAGGGGGAGCCGTTCCCCAACAACCTGGA
CAAGCTATGTGGCCCCAACGTGACGGACTTCCCGCCCTTCCACGCCAACGGCACGGAGAAGGCCAAGCTGGTGGA
GCTGTACCGCATAGTCGTGTACCTTGGCACCTCCCTGGGCAACATCACCCGGGACCAGAAGATCCTCAACCCCAG
TGCCCTCAGCCTCCACAGCAAGCTCAACGCCACCGCCGACATCCTGCGAGGCCTCCTTAGCAACGTGCTGTGCCG
CCTGTGCAGCAAGTACCACGTGGGCCATGTGGACGTGACCTACGGCCCTGACACCTCGGGTAAGGATGTCTTCCA
GAAGAAGAAGCTGGGCTGTCAACTCCTGGGGAAGTATAAGCAGATCATCGCCGTGTTGGCCCAGGCCTTC**TAG**CA
GGAGGTCTTGAAGTGTGCTGTGAACCGAGGGATCTCAGGAGTTGGGTCCAGATGTGGGGGCCTGTCCAAGGGTGG
CTGGGGCCCAGGGCATCGCTAAACCCAAATGGGGGCTGCTGGCAGACCCCGAGGGTGCCTGGCCAGTCCACTCCA
CTCTGGGCTGGGCTGTGATGAAGCTGAGCAGAGTGGAAACTTCCATAGGGAGGGAGCTAGAAGAAGGTGCCCCTT
CCTCTGGGAGATTGTGGACTGGGGAGCGTGGGCTGGACTTCTGCCTCTACTTGTCCCTTTGGCCCCTTGCTCACT
TTGTGCAGTGAACAAACTACACAAGTCATCTACAAGAGCCCTGACCACAGGGTGAGACAGCAGGGCCCAGGGGAG
TGGACCAGCCCCCAGCAAATTATCACCATCTGTGCCTTTGCTGCCCCTTAGGTTGGGACTTAGGTGGGCCAGAGG
GGCTAGGATCCCAAAGGACTCCTTGTCCCCTAGAAGTTTGATGAGTGGAAGATAGAGAGGGGCCTCTGGGATGGA
AGGCTGTCTTCTTTTGAGGATGATCAGAGAACTTGGGCATAGGAACAATCTGGCAGAAGTTTCCAGAAGGAGGTC
ACTTGGCATTCAGGCTCTTGGGGAGGCAGAGAAGCCACCTTCAGGCCTGGGAAGGAAGACACTGGGAGGAGGAGA
GGCCTGGAAAGCTTTGGTAGGTTCTTCGTTCTCTTCCCCGTGATCTTCCCTGCAGCCTGGGATGGCCAGGGTCTG
ATGGCTGGACCTGCAGCAGGGGTTTGTGGAGGTGGGTAGGGCAGGGGCAGGTTGCTAAGTCAGGTGCAGAGGTTC
TGAGGGACCCAGGCTCTTCCTCTGGGTAAAGGTCTGTAAGAAGGGGCTGGGGTAGCTCAGAGTAGCAGCTCACAT
CTGAGGCCCTGGGAGGCCTTGTGAGGTCACACAGAGGTACTTGAGGGGGACTGGAGGCCGTCTCTGGTCCCCAGG
GCAAGGGAACAGCAGAACTTAGGGTCAGGGTCTCAGGGAACCCTGAGCTCCAAGCGTGCTGTGCGTCTGACCTGG
CATGATTTCTATTTATTATGATATCCTATTTATATTAACTTATTGGTGCTTTCAGTGGCCAAGTTAATTCCCCTT
TCCCTGGTCCCTACTCAACAAAATATGATGATGGCTCCCGACACAAGCGCCAGGGCCAGGGCTTAGCAGGGCCTG
GTCTGGAAGTCGACAATGTTACAAGTGGAATAAGCCTTACGGGTGAAGCTCAGAGAAGGGTCGGATCTGAGAGAA
TGGGGAGGCCTGAGTGGGAGTGGGGGGCCTTGCTCCACCCCCCCCCATCCCCTACTGTGACTTGCTTTAGGGTGT
CAGGGTCCAGGCTGCAGGGGCTGGGCCAATTTGTGGAGAGGCCGGGTGCCTTTCTGTCTTGATTCCAGGGGGCTG
GTTCACACTGTTCTTGGGCGCCCCAGCATTGTGTTGTGAGGCGCACTGTTCCTGGCAGATATTGTGCCCCCTGGA
GCAGTGGGCAAGACAGTCCTTGTGGCCCACCCTGTCCTTGTTTCTGTGTCCCCATGCTGCCTCTGAAATAGCGCC
CTGGAACAACCCTGCCCCTGCACCCAGCATGCTCCGACACAGCAGGGAAGCTCCTCCTGTGGCCCGGACACCCAT
AGACGGTGCGGGGGGCCTGGCTGGGCCAGACCCCAGGAAGGTGGGGTAGACTGGGGGGATCAGCTGCCCATTGCT
CCCAAGAGGAGGAGAGGGAGGCTGCAGATGCCTGGGACTCAGACCAGGAAGCTGTGGGCCCTCCTGCTCCACCCC
CATCCCACTCCCACCCATGTCTGGGCTCCCAGGCAGGGAACCCGATCTCTTCCTTTGTGCTGGGGCCAGGCGAGT
GGAGAAACGCCCTCCAGTCTGAGAGCAGGGGAGGGAAGGAGGCAGCAGAGTTGGGGCAGCTGCTCAGAGCAGTGT
TCTGGCTTCTTCTCAAACCCTGAGCGGGCTGCCGGCCTCCAAGTTCCTCCGACAAGATGATGGTACTAATTATGG
TACTTTTCACTCACTTTGCACCTTTCCCTGTCGCTCTCTAAGCACTTTACCTGGATGGCGCGTGGGCAGTGTGCA
GGCAGGTCCTGAGGCCTGGGGTTGGGGTGGAGGGTGCGGCCCGGAGTTGTCCATCTGTCCATCCCAACAGCAAGA
CGAGGATGTGGCTGTTGAGATGTGGGCCACACTCACCCTTGTCCAGGATGCAGGGACTGCCTTCTCCTTCCTGCT
TCATCCGGCTTAGCTTGGGGCTGGCTGCATTCCCCCAGGATGGGCTTCGAGAAAGACAAACTTGTCTGGAAACCA
GAGTTGCTGATTCCACCCGGGGGGCCCGGCTGACTCGCCCATCACCTCATCTCCCTGTGGACTTGGGAGCTCTGT
GCCAGGCCCACCTTGCGGCCCTGGCTCTGAGTCGCTCTCCCACCCAGCCTGGACTTGGCCCCATGGGACCCATCC
TCAGTGCTCCCTCCAGATCCCGTCCGGCAGCTTGGCGTCCACCCTGCACAGCATCACTGAATCACAGAGCCTTTG
CGTGAAACAGCTCTGCCAGGCCGGGAGCTGGGTTTCTCTTCCCTTTTTATCTGCTGGTGTGGACCACACCTGGGC
CTGGCCGGAGGAAGAGAGAGTTTACCAAGAGAGATGTCTCCGGGCCCTTATTTATTATTTAAACATTTTTTTAAA
AAGCACTGCTAGTTTACTTGTCTCTCCTCCCCATCGTCCCCATCGTCCTCCTTGTCCCTGACTTGGGGCACTTCC
ACCCTGACCCAGCCAGTCCAGCTCTGCCTTGCCGGCTCTCCAGAGTAGACATAGTGTGTGGGGTTGGAGCTCTGG
CACCCGGGGAGGTAGCATTTCCCTGCAGATGGTACAGATGTTCCTGCCTTAGAGTCATCTCTAGTTCCCCACCTC

FIGURE 2917B

AATCCCGGCATCCAGCCTTCAGTCCCGCCCACGTGCTAGCTCCGTGGGCCCACCGTGCGGCCTTAGAGGTTTCCC
TCCTTCCTTTCCACTGAAAAGCACATGGCCTTGGGTGACAAATTCCTCTTTGATGAATGTACCCTGTGGGGATGT
TTCATACTGACAGATTATTTTTATTTATTCAATGTCATATTTAAAATATTTATTTTTTATACCAAATGAATACTT
TTTTTTTTAAGAAAAAAAAAGAGAAATGAATAAAGAATCTACTCTTG

FIGURE 2918

GTCACCCCCAGCGGGCGCGGGCCGGAGCACGGGCACCCAGC**ATG**GGGGTACTGCTCACACAGAGGACGCTGCTCA
GTCTGGTCCTTGCACTCCTGTTTCCAAGCATGGCGAGCATGGCGGCTATAGGCAGCTGCTCGAAAGAGTACCGCG
TGCTCCTTGGCCAGCTCCAGAAGCAGACAGATCTCATGCAGGACACCAGCAGACTCCTGGACCCCTATATACGTA
TCCAAGGCCTGGATGTTCCTAAACTGAGAGAGCACTGCAGGGAGCGCCCCGGGGCCTTCCCCAGTGAGGAGACCC
TGAGGGGGCTGGGCAGGCGGGGCTTCCTGCAGACCCTCAATGCCACACTGGGCTGCGTCCTGCACAGACTGGCCG
ACTTAGAGCAGCGCCTCCCCAAGGCCCAGGATTTGGAGAGGTCTGGGCTGAACATCGAGGACTTGGAGAAGCTGC
AGATGGCGAGGCCGAACATCCTCGGGCTCAGGAACAACATCTACTGCATGGCCCAGCTGCTGGACAACTCAGACA
CGGCTGAGCCCACGAAGGCTGGCCGGGGGGCCTCTCAGCCGCCCACCCCCACCCCTGCCTCGGATGCTTTTCAGC
GCAAGCTGGAGGGCTGCAGGTTCCTGCATGGCTACCATCGCTTCATGCACTCAGTGGGGCGGGTCTTCAGCAAGT
GGGGGGAGAGCCCGAACCGGAGCCGGAGACACAGCCCCCACCAGGCCCTGAGGAAGGGGGTGCGCAGGACCAGAC
CCTCCAGGAAAGGCAAGAGACTCATGACCAGGGGACAGCTGCCCCGG**TAG**CCTCGAGAGCACCCCTTGCCGGTGA
AGGATGCGGCAGGTGCTCTGTGGATGAGAGGAACCATCGCAGGATGACAGCTCCCGGGTCCCCAAACCTGTTCCC
CTCTGCTACTAGCCACTGAGAAGTGCACTTTAAGAGGTGGGAGCTGGGCAGACCCCTCTACCTCCTCCAGGCTGG
GAGACAGAGTCAGGCTGTTGCGCTCCCACCTCAGCCCCAAGTTCCCCAGGCCCAGTGGGGTGGCCGGGCGGGCCA
CGCGGGACCGACTTTCCATTGATTCAGGGGTCTGATGACACAGGCTGACTCATGGCCGGGCTGACTGCCCCCCTG
CCTTGCTCCCCGAGGCCTGCCGGTCCTTCCCTCTCATGACTTGCAGGGCCGTTGCCCCCAGACTTCCTCCTTTCC
GTGTTTCTGAAGGGGAGGTCACAGCCTGAGCTGGCCTCCTATGCCTCATCATGTCCCAAACCAGACACCTGGATG
TCTGGGTGACCTCACTTTAGGCAGCTGTAACAGCGGCAGGGTGTCCCAGGAGCCCTGATCCGGGGGTCCAGGGAA
TGGAGCTCAGGTCCCAGGCCAGCCCCGAAGTCGCCACGTGGCCTGGGGCAGGTCACTTTACCTCTGTGGACCTGT
TTTCTCTTTGTGAAGCTAGGGAGTTAGAGGCTGTACAAGGCCCCCACTGCCTGTCGGTTGCTTGGATTCCCTGAC
GTAAGGTGGATATTAAAAATCTGTAAATCAGGACAGGTGGTGCAAATGGCGCTGGGAGGTGTACACGGAGGTCTC
TGTAAAAGCAGACCCACCTCCCAGCGCCGGGAAGCCCGTCTTGGGTCCTCGCTGCTGGCTGCTCCCCCTGGTGGT
GGATCCTGGAATTTTCTCACGCAGGAGCCATTGCTCTCCTAGAGGGGGTCTCAGAAACTGCGAGGCCAGTTCCTT
GGAGGGACATGACTAATTTATCGATTTTTATCAATTTTTATCAGTTTTATATTTATAAGCCTTATTTATGATGTA
TATTTAATGTTAATATTGTGCAAACTTATATTTAAAACTTGCCTGGTTTCT

FIGURE 2919

GCTCAGGCGGCGGGCGCGGCTGGG**ATG**GCGAAGAGCAACGGAGAGAATGGGCCGCGCGCGCCCGCGGCCGGGGAA
AGCCTGTCGGGAACCCGGGAGAGCCTGGCCCAGGGCCCCGACGCCGCAACCACCGACGAACTCAGCTCTCTCGGG
TCTGACTCGGAGGCCAACGGCTTCGCCGAGCGCCGCATCGACAAGTTCGGCTTCATCGTGGGCTCGCAGGGCGCC
GAGGGCGCGCTGGAGGAAGTACCCCTGGAGGTGCTGAGGCAGAGGGAGTCCAAGTGGCTGGACATGCTCAACAAC
TGGGACAAATGGATGGCCAAGAAGCACAAAAAGATTCGTCTGCGGTGCCAAAAGGGCATCCCGCCTTCTCTGCGG
GGCCGTGCTTGGCAGTACCTGTCAGGAGGCAAGGTGAAGTTACAGCAGAACCCTGGAAAGTTTGACGAGCTGGAC
ATGTCCCCTGGGGACCCCAAGTGGCTGGACGTGATTGAGCGTGACCTGCACCGGCAGTTCCCATTCCATGAGATG
TTTGTGTCCCGGGGGGGCCACGGCCAGCAGGACCTATTCCGTGTGCTGAAGGCCTACACGCTGTACCGGCCCGAG
GAGGGCTACTGCCAGGCCCAGGCGCCCATTGCCGCTGTCTTGCTCATGCATATGCCTGCTGAGCAAGCCTTCTGG
TGCCTGGTACAGATCTGTGAGAAGTACCTGCCCGGCTACTACAGCGAGAAACTGGAGGCGATCCAGCTGGACGGG
GAGATCCTTTTCTCGCTGTTGCAGAAGGTGTCGCCGGTGGCCCACAAGCACCTCAGCCGTCAGAAGATCGACCCG
CTCCTCTATATGACAGAATGGTTCATGTGCGCCTTCTCCCGAACCTTGCCCTGGAGCTCTGTGCTGCGTGTCTGG
GACATGTTCTTCTGTGAAGGGGTCAAGATCATCTTCCGGGTGGGGCTGGTGCTGCTGAAGCACGCGCTGGGCTCC
CCTGAGAAGGTCAAAGCCTGCCAGGGCCAGTACGAGACCATCGAGCGACTGCGGAGCCTCAGCCCCAAGATCATG
CAGGAGGCCTTTCTGGTCCAGGAGGTGGTGGAGTTGCCCGTGACAGAGCGCCAGATTGAGCGCGAACACCTCATT
CAGCTGCGGCGCTGGCAGGAGACCCGGGGTGAGCTGCAGTGCCGCTCCCCGCCCAGGCTGCATGGTGCCAAGGCT
ATCTTGGATGCAGAACCTGGTCCCCGGCCTGCCCTACAACCTTCACCATCCATCCGCCTGCCCCTAGATGCCCCC
CTCCCTGGCTCCAAAGCCAAGCCCAAGCCACCCAAGCAGGCCCAGAAGGAGCAGCGGAAACAGATGAAGGGGAGA
GGGCAGCTGGAGAAGCCCCCAGCCCCAAATCAAGCCATGGTGGTGGCCGCTGCAGGAGATGCATGTCCCCCACAG
CATGTGCCCCCGAAGGACTCAGCCCCCAAGGACTCAGCCCCTCAGGATTTGGCTCCCCAGGTCTCAGCCCACCAC
CGCTCCCAGGAGAGCTTGACGTCCCAAGAGAGTGAGGACACCTACTTG**TAA**CCCTGGCAGCTAAGGCCTCCAGGG
CGGGGTCTCCATATAACTACACGGTTCATGAACTGACATTCCACATCCTGCCCACCCTCTGAGGGCCAAGCTGCC
TGGCCACTGGGCTGGGCTGGAGTCTGGCTGGTCCAACACAGATTCTGCCTGGTCCAACACAGATTCTGCCTGAGC
CTCCTTATTTATTTTCTTTACAGTGGCACTCAGGCTGGCCCAGCCAGGGCAGGCAGAAGCTAGGGCCTGGGGGGT
GGGGCCTCCTTCAGCCCCCTCCTCCTGGGGGATGCTCCCCAGGGTTAGGGTGCTGGTGTGAGGGGAAAGGGTGGG
GTGTTCTTTGTGTAAAATAGAAACATGGTTTTGTACAGAAATAAACAGCCTTGTATAGAG

FIGURE 2920A

GGCCGCAACTCGCTCGGCCGCCGCCATCTTGCGAGCTCGTCGTACTGACCGAGCGGGGAGGCTGTCTTGAGGCGG
CACCGCTCACCGACACCGAGGCGGACTGGCAGCCCTGAGCGTCGCAGTC**ATG**CCGGCCGGACCCGTGCAGGCGGT
GCCCCCGCCGCCGCCCGTGCCCACGGAGCCCAAACAGCCCACAGAAGAAGAAGCATCTTCAAAGGAGGATTCTGC
ACCTTCTAAGCCAGTTGTGGGGATTATTTACCCTCCTCCAGAGGTCAGAAATATTGTTGACAAGACTGCCAGCTT
TGTGGCCAGAAACGGGCCTGAATTTGAAGCTAGGATCCGACAGAACGAGATCAACAACCCCAAGTTCAACTTTCT
GAACCCCAATGACCCTTACCATGCCTACTACCGCCACAAGGTCAGCGAGTTCAAGGAAGGGAAGGCTCAGGAGCC
GTCCGCCGCCATCCCCAAGGTCATGCAGCAGCAGCAGCAGACCACCCAGCAGCAGCTGCCCCAGAAGGTCCAAGC
CCAAGTAATCCAAGAGACCATCGTGCCCAAAGAGCCTCCTCCTGAGTTTGAGTTCATTGCTGATCCTCCCTCTAT
CTCAGCCTTCGACTTGGATGTGGTGAAGCTGACGGCTCAGTTTGTGGCCAGGAATGGGCGCCAGTTTCTGACCCA
GCTGATGCAGAAAGAGCAGCGCAACTACCAGTTTGACTTTCTCCGCCCACAGCACAGCCTCTTCAACTACTTCAC
GAAGCTAGTGGAACAGTACACCAAGATCTTGATTCCACCCAAAGGTTTATTTTCAAAGCTCAAGAAAGAGGCTGA
AAACCCCCGAGAAGTTTTGGATCAGGTGTGTTACCGAGTGGAATGGGCCAAATTCCAGGAACGTGAGAGGAAGAA
GGAAGAAGAGGAGAAGGAGAAGGAGCGGGTGGCCTATGCTCAGATCGACTGGCATGATTTTGTGGTGGTGGAAAC
AGTGGACTTCCAACCCAATGAGCAAGGGAACTTCCCTCCCCCCACCACGCCAGAGGAGCTGGGGGCCCGAATCCT
CATTCAGGAGCGCTATGAAAAGTTTGGGGAGAGTGAGGAAGTTGAGATGGAGGTCGAGTCTGATGAGGAGGATGA
CAAACAGGAGAAGGCGGAGGAGCCTCCTTCCCAGCTGGACCAGGACACCCAAGTACAAGATATGGATGAGGGTTC
AGATGATGAAGAAGAAGGGCAGAAAGTGCCCCCACCCCCAGAGACACCCATGCCTCCACCTCTGCCCCCAACTCC
AGACCAAGTCATTGTCCGCAAGGATTATGATCCCAAAGCCTCCAAGCCCTTGCCTCCAGCCCCTGCTCCAGATGA
GTATCTTGTGTCCCCCATTACTGGGGAGAAGATCCCCGCCAGCAAAATGCAGGAACACATGCGCATTGGACTTCT
TGACCCTCGCTGGCTGGAGCAGCGGGATCGCTCCATCCGTGAGAAGCAGAGCGATGATGAGGTGTACGCACCAGG
TCTGGATATTGAGAGCAGCTTGAAGCAGTTGGCTGAGCGGCGTACTGACATCTTCGGTGTAGAGGAAACAGCCAT
TGGTAAGAAGATCGGTGAGGAGGAGATCCAGAAGCCAGAGGAAAAGGTGACCTGGGATGGCCACTCAGGCAGCAT
GGCCCGGACCCAGCAGGCTGCCCAGGCCAACATCACCCTCCAGGAGCAGATTGAGGCCATTCACAAGGCCAAAGG
CCTGGTGCCAGAGGATGACACTAAAGAGAAGATTGGCCCCAGCAAGCCCAATGAAATCCCTCAACAGCCACCGCC
ACCATCTTCAGCCACCAACATCCCCAGCTCGGCTCCACCCATCACTTCAGTGCCCCGACCACCCACAATGCCACC
TCCAGTTCGTACTACAGTTGTCTCCGCAGTACCCGTCATGCCCCGGCCCCCAATGGCATCTGTGGTCCGGCTGCC
CCCAGGCTCAGTGATCGCCCCCATGCCGCCCATCATCCACGCGCCCAGAATCAACGTGGTGCCCATGCCTCCCTC
GGCCCCTCCTATTATGGCCCCCCGCCCACCCCCCATGATTGTGCCAACAGCCTTTGTGCCTGCTCCACCTGTGGC
ACCTGTCCCAGCTCCAGCCCCAATGCCCCCTGTGCATCCCCCACCTCCCATGGAAGATGAGCCCACCTCCAAAAA
ACTGAAGACAGAGGACAGCCTCATGCCAGAGGAGGAGTTCCTGCGCAGAAACAAGGGTCCAGTGTCCATCAAAGT
CCAGGTGCCCAACATGCAGGATAAGACGGAATGGAAACTGAATGGGCAGGTGCTGGTCTTCACCCTCCCACTCAC
GGACCAGGTCTCTGTCATTAAGGTGAAGATTCATGAAGCCACAGGCATGCCTGCAGGGAAACAGAAGCTACAGTA
TGAGGGTATCTTCATCAAAGATTCCAACTCACTGGCTTACTACAACATGGCCAATGGCGCAGTCATCCACCTGGC
CCTCAAGGAGAGAGGCGGGAGGAAGAAG**TAG**ACAAGAGGAACCTGCTGTCAAGTCCCTGCCATTTTGCCTCTCCT
GTCTCCCACCCCCTGCCCCAGACCCAGGAGCCCCCCTGAGGCTTTGCCTTGCCTGCATATTTGTTTCGCTCTTAC
TCAGTTTGGGAATTCAAATTGTCCTGCAGAGGTTCATTCCCCTGACCCTTTCCCCACATTGGTAAGAGTAGCTGG
GTTTTCTAAGCCACTCTCTGGAATCTCTTTGTGTTAGGGTCTCGATTTGAGGACATTCATTTCTTCAGCAGCCCA
TTAGCAACTGAGAGCCCAGGGATGTCCTACAGGATAGTTTCATAGTGACAGGTGGCACTTGGCTAATAGAATATG
GCTGATATTGTCATTAATCATTTTGTACCTTGACATGGGTTGTCTAATAAAACTCGGACCCTTCTTGTGAAATCA
GTTAAATAAGACTTGTCTCGGTCACCTGTGCCCTGTCCAGACTCGAGGCAGTGGTAACACTGCACAGTGCTATGT
GGCTTCTCTTTGAGGATTTTTGGGTTTTGTAACTAAATTCTTGCTGCCCTCATACTTTTTATGTATTAGAATCAT
ATTCGTATTGCCCTTTTAAAACATTGGGATCCTCCAAAGGCCTGCCCCATGTATTTAACAGTAATACAGGAAGCA
TGGCAGGCACCATGCAAACCAAGGATGGATGGTGCAGTCCCTGTGTCAGTGGGCGGTGGTTTCCTGCTGGCCTGG
AATCACTCATCACCTGATTGATTGGCTCTGTGGTCCTGGGCAGGTGCCTCATAGGTGTGTGGATATGATGACGTT
TCTTTAAAATGTATGTATTTAACAAATACTTAATTGTATTAAGGTCATGTACCAAGGATTTGATAAAGTTTAAAT
AATTTACTCTCTACTTTTATCCATTTTATCCATTTTAACTCATGTAATCCTCATGTGAGTATTCCTGTTTAACAC
TTGAGTAAACTGAGGCACAGAGAACATAAGTTGCATGCCATAGTCACACACTGTGAAAGTGAAAAGAGAATGTGT
GCAAAACACGTCACAGTCCTGGTTTCTGAGTAAAGGCAGGCTGTTATCTTTAGAATCAAGCTATCACAGGGAGAT

FIGURE 2920B

AGGCAATGCTGTGGGTGTTGGAGGAAGGTGAGAGCCTGTTGCTAACAATTTCCTGGTTTTAAAGCTAAGGCTGAT
TTTATTGGGAAGATCTCACATGTGTGTGGCCCCTGAGAGTTCCCAGTGCCTTTTATTTGCAGTCCTTCCATTTGG
ACCTCCTAGCTGCCCCATCAGGTCATCTCCAGGGCTCAGAGGGGTGAGACCATTTCCCAAGGTCACAGAACCAGC
TCTCTAGTCACCACCCTGCCTCTCCCTCTCACCCAGAGTCAGTACCAGTTTTATGGCTTTATTACAAACTGCTGG
GTCCCTCCCATTTTCAACTTGATTGATGGGATGTCATCCCTTATCCTGTCTGACATTTGCCTCTGGCCTGGTTGC
TAGAAGTTTGCCCCAGGGGCAAGAGTTGAAATTTGGCTTCCTGAGGTGGGCTTTGTGGTTTGCGTCCCTAAAGTG
AGCCCACTACTGGTTGCTTGTCCATGGCCAACACCAGAAATCCCCTGAGCACTACCTGGGTCTCATTCCAAGAAG
GAAGAGGGTCAGGAGACCTGGGGAGTCTCATATTCCAAGTTCTTCTTTCTTTCTGGGAGCAGTGGGCAGTTCATG
GTGTTAGGGCACTCACCCCCACAGACTGGCAAACCCTGCAGGACTTCCGTGGCTGAGGCTGTGACCGGAGGCCAG
GAATGCCGTTGGGTGGATTGTGAGTGAATGGGCCCTTTGAGCTGCCCTCTAGAGAGCAAATCCAGTTTCCTGGAG
CTCCTGAATGAATATCTGTACTGGCTCGCTCAGATGCAGAAGCTCCATTGACCATGAGGCCTTGTGAACATCAGT
GGCCACAGGCCCAGTGTGCTGCTTGGCACTGCACTAGTTTAGGACCTGCAGCATGTAGGTAGCGTCCTAGTGTTT
ATAATACAAAGCTGCTCTGCACAGCTTTTCTGATTCTTCTTGCAATCTCCTGAGGATTATCTGCCCCATTTTTAA
AACGAGGTGGAATACCCAAGGTCATGTAGCCAGTGAGTGCTCTGGAAAGCCAAAGCAGCTCATCCCTTCCTGGGG
ACCACACTGCTCTGCTCCACCAGACCACACTATGAAATAGGAATAAGTGCTCCTGTTGCAGGACTGCTGGGAAAA
CAGGTGGTGTGGGACTTAAGTCACCATAATTTTGAAGACTTGCATGCAGAGGGCTCCAGGAATTGTAGACATTAA
GGAATTTCACTTTCAGTTCTACCCACTACTTAAGTACTTGTCATGTACTCTTAGAGGAGGCCAGTAATGATCAGA
ACCATTTTACTTTAAAATTAATAATATTGTATTAGAGAATATATTAAATGGTTATATTGGGTTATGTTAGGATAT
ATACTTGAATGGAAATACATGTACTATTAGCAATCATATTTCATTTATCCCTGTAATTAGACAAGAAAGCATAAT
ATAGCTCTACTCATGGGTACACATACCAGTGTATAAGATTTTTAGAAGTTTACTTTTTAAAAATAAAAGCAAAAT
GT

FIGURE 2921

GGCTGATGCTCCAGCAGACCTGCCCACTGTGCAAATTCAACGTCCTGGGGAACCGCTACTCCG**ATG**ATTAGCTGC
CCAGCTGGACTCTGCACATGGGGATGGACCCTTCCTGCCTGCACCCCGGTCCTCAGCCTGGGCTCCCAGGACAGG
ACAGGATGGGACAGCAGGATAGACAGGACAGCAAGCCCAGTGGGTGGGAGGAAGGATGAGGGCCCCACCATGTCC
ACACTGGGAAGGAGGGCCCCACAGCTTCAGACTGAGGATCTAGGGCTGGGACCTGTCAGTCAAGGAAGAGAGGTC
ACTTTGGGACCTTCTCTGCAATCCTGTGACGTGAGTCTGCCCTCCTTACAGGCAGCTCCCAGGTCAATAAGGAAA
GAGAATATGGGGCCAGTG**TAG**CTGTCGCCAGGGTTCTGGGAGCTCCCTGTGGCCTGTCTGGGAATTCCTGGGGGC
TGAGACTACAGTGGCCAGGTTTTGTGCTTATTTATTGGGGGGTGGGTTGAGGGAAGAGCTATCTGGCCTTGGGGT
ACCCTGGCCTGACCGTCTTTCAGGATACTTCTTGTCAAGGCTGTCTGCCTGTTGCCTTTGGTCCTCAAGCACTGG
GAGCCATGGGTCCCACTGCCTGTCCAGCCTGGCTCCCTTCCTGGGCCTGGCTAGGACCAGAGGTCTTAGAAACCG
TCCTGTTCTGGAATCCTTGGCTGCGGCTTTGTGTTGCTGACCGGGATACTCGAAGCCACAGGATCAATGTGGTGC
CTCATCCAGGGGCATCCTTTTTTTTTTTTTTTTTTTTTTAAAGAGTTGGAGTAGGGAAGGTTTAATAGTAAAA
TAAACGTGGCTATATTTTAACATAAGATG

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FIGURE 2922

ATGAGGTGGGCGAGGCTTTCCGCTCTCTTGTGCCAGCGGCGGTGGTGTGGCTGAGCTATGGCGTGGCCAGCTCCT
ACGTGCTGGCGGATGCCATTGACAAAGGCAAGAAGGCTGGAGAGGTGCCCAGCCCTGAAGCAGGCCGCAGCGCCA
GGGTGACTGTGGCTGTGGTGGACACCTTTGT**ATG**GCAGGCTCTAGCCTCTGTGGCCATTCCGGGCTTCACCATCA
ACCGCGTGTGTGCTGCCTCTCTCTATGTCCTGGGCACTGCCACCCGCTGGCCCCTGGCTGTCCGCAAGTGGACCA
CCACCGCGCTTGGGCTGTTGACCATCCCCATCATTATCCACCCCAT**TGA**CAGGTCGGTGGATTTCCTCCTGGACT
CCAGCCTGCGCAAGCTCTACCCAACAGTGGGGAAGCCCAGCTCCTCCTGATCATACTCTGGTACCTGGCCTGTGC
ATCGGCCTCCTGCTTCATGTCAACCTCCTACTCCTGCCAGGGAATGTGGACACCTGGCTCCCTGGTGTCCAAAGA
CCCTGGCACCTGGGTGGGTTTGAGCTGGACAGAAGCTTAGAGACAAAGGCTTCAAGAAGCAGTGGCTGCAGGGAG
TCACAGAAGGGCAGGACCTGA

FIGURE 2923

GAGGAAGTGGAGCTCCCTGTACGCGCGGCCCTAGTCGGCTCCTCAACGTGGAGCG**ATG**GGAGGCCTTGAGAAGAA
GAAGTATGAACGAGGCTCGGCCACCAACTACATCACCCGGAACAAAGCCCGGAAGAAGCTCCAGCTGAGCTTGGC
TGACTTTAGGCGGCTGTGCATTCTGAAGGGCATTTATCCCCATGAACCCAAACACAAGAAGAAGGTTAACAAGGG
TTCTACAGCAGCCCGAACGTTTTACCTTATCAAAGACATCAGGTTTCTCCTCCACGAACCCATTGTCAACAAGTT
CCGTGAATACAAGGTGTTCGTCCGGAAGCTCCGGAAGGCTTATGGGAAGAGCGAGTGGAACACTGTAGAGCGTTT
AAAGGACAATAAGCCCAACTACAAACTCGACCACATCATCAAGGAACGGTATCCCACGTTCATCGATGCCCTGCG
GGACCTGGACGATGCCCTCTCCATGTGCTTCCTGTTTTCCACCTTCCCGCGGACTGGCAAGTGCCACGTGCAGAC
CATTCAGCTGTGCCGCCGGCTCACTGTGGAGTTCATGCACTACATTATCGCTGCCCGTGCCCTGCGCAAGGTCTT
CCTGTCCATCAAAGGCATTTACTACCAGGCCGAGGTACTGGGGCAGCCCATCGTGTGGATCACTCCCTATGCCTT
CTCCCATGACCACCCGACAGACGTGGACTACAGGGTCATGGCCACCTTCACCGAGTTCTACACCACGCTGCTGGG
CTTTGTCAACTTCCGCCTTTACCAGTTGCTCAACCTCCACTATCCCCCGAAGCTCGAGGGTCAGGCCCAAGCAGA
GGCAAAGGCCGGTGAGGGCACCTACGCGTTGGACTCCGAGAGTTGTATGGAGAAACTGGCAGCCCTCAGTGCCAG
CCTGGCCCGCGTGGTGGTGCCTGCCACAGAGGAGGAGGCCGAGGTGGATGAGTTTCCCACCGATGGGGAGATGTC
AGCGCAGGAGGAAGACCGCAGGAAGGAGCTGGAGGCGCAGGAGAAGCACAAGAAGCTTTTTGAGGGCCTGAAGTT
CTTCCTGAACCGAGAGGTGCCCCGTGAGGCCCTGGCCTTCATCATCAGGAGTTTTGGTGGGGAAGTGTCCTGGGA
CAAATCTTTGTGCATTGGGGCCACCTATGACGTCACAGACTCCCGCATCACCCATCAGATTGTCGACCGGCCTGG
GCAGCAGACCTCAGTCATTGGCAGGTGCTACGTGCAGCCCCAGTGGGTGTTTGACTCAGTGAACGCCAGGCTCCT
TCTCCCCGTGGCAGAGTACTTCTCTGGGGTGCAGCTGCCCCCACACCTTTCACCCTTTGTGACCGAGAAGGAAGG
AGATTACGTTCCACCTGAGAAGCTGAAGCTGCTGGCTCTGCAGCGGGGAGAGGACCCAGGAAACCTGAATGAGTC
AGAAGAGGAGGAGGAAGAGGACGACAACAACGAAGGTGATGGTGATGAAGAGGGAGAAAATGAGGAGGAGGAGGA
AGATGCAGAGGCTGGTTCAGAAAAGGAGGAAGAGGCCCGGCTGGCAGCCCTGGAAGAGCAGAGGATGGAGGGGAA
GAAGCCCAGGGTGATGGCAGGCACCTTGAAGCTGGAGGATAAGCAGCGGCTGGCCCAGGAGGAGGAGAGTGAGGC
CAAGCGCCTGGCCATTATGATGATGAAGAAGCGGGAGAAGTACCTGTACCAGAAGATCATGTTTGGCAAGAGGCG
AAAAATCCGAGAGGCCAACAAGCTGGCGGAGAAGCGGAAAGCCCACGATGAGGCGGTGAGGTCTGAGAAGAAGGC
CAAGAAGGCAAGGCCGGAG**TGA**GTGCCTGCGGCCCCTCACAGGGCTGAGGCCAGCCCCTAGCAGCTGGATGTGGC
AGAGGCAGGCCAGAGGACCTAAGTGTGATGGACCAGAGTCACTTCTCCTCCTCCTTTCTCCAGCCAGCCCTGACC
CCTCATGCTCTCTGGCTGGGCCAGTGGGCAGCCCTCGCTTCCCTTGGATGGAGCTGCCCTGCTGGTGCCTGGTCA
GAGAAGAGGCCTCTGTGCCCAGCCTGATTCTCTGCTCCCAGGAGCCAGTGACATGAGGTGCAGAGGCCCACCCAG
CCCCCTACCTACTGCCCCCATTCATCCTGGCTTTCCACAGCCCCCTCCCACACAGTTGGACCCGTGATTCTCAGG
GTGCTGTGATGGGGTGAGGGTAGGGGGAGCATTTGTTATTAAATGACTGGACTTTTG

FIGURE 2924

CCGATTCTTGCTCACTGCTCACCCACCTGCTGCTGCC**ATG**AGGCACCTTGGGGCCTTCCTCTTCCTTCTGGGGGT
CCTGGGGGCCCTCACTGAGATGTGTGAAATACCAGAGATGGACAGCCATCTGGTAGAGAAGTTGGGCCAGCACCT
CTTACCTTGGATGGACCGGCTTTCCCTGGAGCACTTGAACCCCAGCATCTATGTGGGCCTACGCCTCTCCAGTCT
GCAGGCTGGGACCAAGGAAGACCTCTACCTGCACAGCCTCAAGCTTGGTTACCAGCAGTGCCTCCTAGGGTCTGC
CTTCAGCGAGGATGACGGTGACTGCCAGGGCAAGCCTTCCATGGGCCAGCTGGCCCTCTACCTGCTCGCTCTCAG
AGCCAACTGTGAGTTTGTCAGGGGCCACAAGGGGGACAGGCTGGTCTCACAGCTCAAATGGTTCCTGGAGGATGA
GAAGAGAGCCATTGGGCATGATCACAAGGGCCACCCCCACACTAGCTACTACCAGTATGGCCTGGGCATTCTGGC
CCTGTGTCTCCACCAGAAGCGGGTCCATGACAGCGTGGTGGACAAACTTCTGTATGCTGTGGAACCTTTCCACCA
GGGCCACCATTCTGTGGACACAGCAGCCATGGCAGGCTTGGCATTCACCTGTCTGAAGCGCTCAAACTTCAACCC
TGGTCGGAGACAACGGATCACCATGGCCATCAGAACAGTGCGAGAGGAGATCTTGAAGGCCCAGACCCCCGAGGG
CCACTTTGGGAATGTCTACAGCACCCCATTGGCATTACAGTTCCTCATGACTTCCCCCATGCGTGGGGCAGAACT
GGGAACAGCATGTCTCAAGGCGAGGGTTGCTTTGCTGGCCAGTCTGCAGGATGGAGCCTTCCAGAATGCTCTCAT
GATTTCCCAGCTGCTGCCCGTTCTGAACCACAAGACCTACATTGATCTGATCTTCCCAGACTGTCTGGCACCACG
AGTCATGTTGGAACCAGCTGCTGAGACCATTCCTCAGACCCAAGAGATCATCAGTGTCACGCTGCAGGTGCTTAG
TCTCTTGCCGCCGTACAGACAGTCCATCTCTGTTCTGGCCGGGTCCACCGTGGAAGATGTCCTGAAGAAGGCCCA
TGAGTTAGGAGGATTCACATATGAAACACAGGCCTCCTTGTCAGGCCCCTACTTAACCTCCGTGATGGGGAAAGC
GGCCGGAGAAAGGGAGTTCTGGCAGCTTCTCCGAGACCCCAACACCCCACTGTTGCAAGGTATTGCTGACTACAG
ACCCAAGGATGGAGAAACCATTGAGCTGAGGCTGGTTAGCTGG**TAG**CCCCTGAGCTCCCTCATCCCAGCAGCCTC
GCACACTCCCTAGGCTTCTACCCTCCCTCCTGATGTCCCTGGAACAGGAACTCGCCTGACCCTGCTGCCACCTCC
TGTGCACTTTGAGCAATGCCCCCTGGGATCACCCCAGCCACAAGCCCTTCGAGGGCCCTATACCATGGCCCACCT
TGGAGCAGAGAGCCAAGCATCTTCCCTGGGAAGTCTTTCTGGCCAAGTCTGGCCAGCCTGGCCCTGCAGGTCTCC
CATGAAGGCCACCCCATGGTCTGATGGGCATGAAGCATCTCAGACTCCTTGGCAAAAAACGGAGTCCGCAGGCCG
CAGGTGTTGTGAAGACCACTCGTTCTGTGGTTGGGGTCCTGCAAGAAGGCCTCCTCAGCCCGGGGGCTATGGCCC
TGACCCCAGCTCTCCACTCTGCTGTTAGAGTGGCAGCTCCGAGCTGGTTGTGGCACAGTAGCTGGGGAGACCTCA
GCAGGGCTGCTCAGTGCCTGCCTCTGACAAAATTAAAGCATTGATGGCCTGTGGACCTGC

FIGURE 2925

CGAGTGGCCCCCTGGCAGCCCTCAGGCCCTCCGGCAGCCTGGCCGGGCCCGAGTGGCC**ATG**GCAGCACTGGTGTG
GCTGCTGGCGGGAGCCAGCATGTCAAGCCTCAACAAGTGGATCTTCACAGTGCACGGCTTTGGGCGGCCCCTGCT
GCTGTCGGCCCTGCACATGCTGGTGGCAGCCCTGGCATGCCACCGGGGGGCACGGCGCCCCATGCCAGGCGGCAC
TCGCTGCCGAGTCCTACTGCTCAGTCTCACCTTTGGCACGTCCATGGCCTGCGGCAACGTGGGCCTAAGGGCTGT
GCCCCTGGACCTGGCACAACTGGTTACTACCACCACACCTCTGTTCACCCTGGCCCTGTCGGCGCTGCTGCTGGG
CCGCCGCCACCACCCACTTCAGTTGGCCGCCATGGGTCCGCTCTGCCTGGGGGCCGCCTGCAGCCTGGCTGGAGA
GTTCCGGACACCCCCTACCGGCTGTGGCTTCCTGCTCGCAGCCACCTGCCTCCGCGGACTCAAGTCGGTTCAGCA
AAATCCTGATCTGGTCCATTCAGCAGAGGACTGCAGAAGTCTGAGGAGCCTTAAGATATCAACT**TAA**AGCAATGG
GCTCGTCGCAGAAAGGAATAGCCTGTGCCGGGTCTTCAGAGAAATCCTGGCCTCGGCTCCACGCCC

FIGURE 2926

GCTGTCTAGCAACCAGATCACC**ATG**GTCATCAATGTCTCAGTGGAGGTAGTGAACACCTTGTATGAGGATATCCA
GTACATGCAGGTACCTGTGGCTGACTCCCCTAACTCACGTCTCTGTGACTTCTTTGACCCTATTGCTGACCATAT
CCACAGCGTGGAGATGAAGCAGGGCCGTACTTTGCTGCACTGTGCTGCTGGTGTGAGCCGCTCAGCTGCCCTGTG
CCTCGCCTACCTCATGAAGTACCACGCCATGTCCCTGCTGGACGCCCACACGTGGACCAAGTCATGCCGGCCCAT
CATCCGACCCAACAGCGGCTTTTGGGAGCAGCTCATCCACTATGAGTTCCAATTGTTTGGCAAGAACACTGTGCA
CATGGTCAGTTCCCCAGTGGGAATGATCCCTGACATCTATGAGAAGGAAGTCCGTTTGATGATTCCACTG**TGA**GC
CATCCCACGAGCCCCTGCATTGGAGTCAGAGGTACAGATCTATTGTTGATCTTACACCAAGATCCAAACTTGAAC
ATTCTACTTTTGTTGATACAGAAAAAAACAGATGATGCCTTTTATGAGCACAAAAAAGAGTTGCTGTAGCTTTTA
ACTTTATAATCCATTTTTTTTAAGATTAAACTAATTGTGAGATGGTGAAGATAAATTTTCTGCCCTGTGAGTGAC
ACTGGCCAGGGGATAGGTTGAGGCAGATGGTGCCCAGAAGAAAGAGGGCAGCACCCATTGCACATGGCAGGCCTG
GAATCCTGCAGCCCTCCCCAAAAACAGATTGACCCAGGAATGAATCTGCTACAATTCCACCTCATTCTTTCACAC
CCAGAGCCAGAGCCTTAAGCATCATGGTACCTCTTGCGCTTCTTACAGTGAGTGCCAATCTACTAGATAAATGGC
CTTCAGGCAGTGCTCCAGGAATCCTGGGGGGTCCCAGGCCACCTCTGCTTCCACCTTCACTATAAGTGGCCCAGT
TCTGGTTTTCTAGATTGTACTTATGCATAAGATAGTTTTTAAAGAAAGCATTCCACTGTGTAAATTTTTTTTTGT
CTTTTTTTGAAACTGTCCTGCTCTGTCACCCATCCTAGAGTGCAGTAGTGTGATCATGGCTCACTGTAGCCACAA
CCTCTCAGGCTCAAGTGATCCTCTTACCTTAGCCTCCTGCGTGGCTGGGACTACAGATGTTTGCCACCATGCCCG
CCTCATTTTTTTTCTTTTTTTATAGAGATGAGATTTTACTATGTCGCCCAGACTGGTCTCAAACTCCTGGCCTCA
AGCAATCCTCACGCCTCAGCCTCCCAAAGTGTTGATGAGCCACTGTACCCCGATACCACTGTATAAAAAATTTAA
AAAAAATTGTGAGTGCTATTGTACATGGCAAAGTTTCAAAGAGCTCTTGGCCATCCCTCACCAAACTTTGGCAAA
AGATGGTGTTAGTCCCCTTCTCCAGGGCACATGAGAAAAACAGGCCTAACATCAGGTCTCAGCGGTTCCTCTCAC
AGGCCTTGGCTTGGAAGGCTGGAGCTTCGGACCAAGGCCCAGCCCTGTCACCTCCTCTTCATGTGATGTGGACCC
CTGGGAGCATCAGTGTCCTCATCTGTCCAATGACAGCCCTTTTCTCACAGAGTTATTGTGAAGATTCAACAATTT
CTTGGCATAGTGCCTGGCACATGGTGTGTGCTTAGCGCAAATGGCAGCTCTCATCATGAATGATAGACTCTTTCA
CCCTGCTGGTCCCAGGTCGGCACACACATCCCCATAATGGCATTTCTCCTTTCTGTGCACAGCACTTTATTGTTA
CAAAGTACTCTTCCAAAAAGTTACCCTGTGTGTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 2927

GGGATTGCGGAAGCCCTCCACAGTTCATAACCGTTGGCTGGTTATGAACCGTTCATAACGGGCGTTAATAACCAT
ACCCTGTTAGACTAAGC**ATG**GTCCACCCGCGAATCCTCTACAGAGATGGCCAAGCGCTGGGGTCGTGGCTGCGTC
CTCTAGGCCAGCCTTGTGCAAAGGACCTTCTCACCACAGATCAGCCAGACCATCTTCCTCCTTCCAAGTCATCAA
AGAGTTCCAAGCTGGTCACCTGTCCCTTGATGTTCCCAGGAAACCAGGAAAGAGGACCCCTGCATTTTATCTTCC
CATCCAGAGTGGCAGGATCTCTGCCTGGGAAACAGGCTTCATTCAGCACAGCTGTGGTAGCATTAACAAAGCAAA
GTGGGCACATG**TAG**AAGTTGAAGCTAAAACATTCAAGAACTCCAGTCTGTTTCTGTGGATGTTAAGGGGGTGAAG
ATAAAACAATGGACGTGATGAGGAGGAATAACTTGAAGACAGTTTAAAGCCACAGTGATACAAAGAATGAAGAGA
AGGAAGGTGCTGGATTTTACTAAGAAAACAGACTGAGTTCAGGAGTCTCACCAGTAGAACTTTATAGTATTGCGT
TTCGATTACATGTGTGTGAATTTTAAAAACTGATTACCCTCCAGTAAAAATGTGGAACCAATTTGCATTTGGATT
AAAACATTAGGTTTGGGGACAAAAGTGGACCCCATGCTGCCTGAGATGAAGAGAGAGAGCAGGATGGCAGAGGAA
TCACCAGCTCAAGAAACCCCAAGACTTGGACAGTCTTCCAGCAGAAGAGGCCAGGGTCTCTCAGTGTACTACTCC
AAACAGGCCTCTCCTAGAGATGTAGTCTGGGAAGGTCCAAAACCCACCAGACAGGCACATCCAGTGGGGAAAAGA
CTTCCCATTCCAGTGTGGCCTGCATCCCTCACCTCTGCTTCCCAGTCTTCTGCTGACCTCAGAGGAGCAGGGTGG
CCATTGCTGATCTGGGTTAGGGAGATGCCAGAAACACACCCAGGTTTGAACCACAGGTTAGTGGTACAAAGTCAC
AGTCCTTGTGCCTTCAGAAAACCCAGAGGCCCCAAATACGAGTGGGAAGAGAGTTGGGAAAAACTGAACCAGACT
CTTCCAATGGCCATTAAAGAGAAAATTCAGCAA

FIGURE 2928A

CGAGACTCAGATTGTCTGAATTGAGCTATCGCAACTTAATGCTAAAAGCTCCTTAAAGCTACAGATTTATGACAT
AGTTCCTTCCAAAATATTACATCATAAATCATTGAGAAGATTAAAAAAAAACACTTGAAGAAATTGTAGTTTTAA
ACATCTCTGCATATATTTTGGATAGCTACTAGGTTACTTTAACTGTCATTAAGGAGCACAGACTTACTGAAGCTT
TACTGGACAGAATCCTGGGAAATCGATATCATTATAAGGTTATATTTCCCAGTTAGCGGGTGAAGGGCTGGAGAC
CTTATTGCAGTCATGGCTTTCACAAATTACAGCAGTCTGAATCGAGCTCAGCTAACCTTTGAATATCTGCACACA
AATTCGTAAGTATCCTCTAGGTGCCACTGAGGTAACCAGTAACTCGTTCCTTGATATTATATGGAAATCGTTTCC
CCAGAAAATTTTGCTTTTTCACTTTTTGAGATGTATCCCACTGGAGTGAAATGTGTCACTGGATATCTTGAGCTC
TGTATTGAAGAACTGAGATCAGTGAAATACTTGTTGCTAATCCAGAAGAATCTGATTTTTGTTTATTGGATCAAA
ATTTTCTAAATGCAAACTTTAGTTATTTGAAGTCAATATGTTGAGTTGTTTCATTCAAGTGTTTATAGGAATCCA
ACAAATACTGCTCTATTGGATCGCCAAATGTTGGACTATTTTAGTATCAACCGTTTCCCCTCTGTAGTGACAACG
TCCTAAACAGTTAGGTTTATAACAAGTGTTTACTTTCTAACAAGAAAACAGAAGACATTTAAATGACAACTTTCA
AGAAGAAAATTTTTATTTTTTCAGAAGTTGGCATTATCTTCCTGGCAGATTGCTCACATCCAATATTATTTGTAT
ATGCTAAACAGGAAACGGCAACTTGTTTATATCTCTATTTAGATAGTCTTTCCCCAAAATTTCCACAGAAACATA
CAGTGTTCATGGTTCTTGAGTTCATGAAGGAGTAATCTAATCACTCCAACATGGTCTGGAATGTTTCAGGTTTAA
TCCATATGCCCACTCTCTTGGAGGCTGTCCAGTAGCGTCAAAACTTTAGTGTTTTAATACATTCACCTGTTACTT
TTGAGATGAAGTTCACCTTTCTTGGATCACATGCAAAGGATGTTTAGGTCTGTGAAGAAAAGAATTTCTAGGCCG
GGTGCTGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGAACCACTCACGAATTCTTGTTTGGTGCCC
TTGCTGAACTGGTTGATAATGCAAGAGATGCTGATGCCACCAGAATAGATATTTATGCAGAAAGACGAGAGGACC
TTCGAGGAGGATTT**ATG**CTTTGCTTTTTGGATGATGGAGCAGGAATGGATCCAAGTGATGCTGCCAGTGTGATCC
AGTTTGGGAAGTCGGCCAAGCGAACACCTGAGTCTACTCAGATTGGGCAGTACGGGAATGGGTTAAAATCGGGCT
CAATGCGCATTGGGAAGGATTTTATCCTGTTCACCAAGAAGGAAGACACCATGACCTGCCTCTTCCTGTCTCGCA
CGTTTCATGAGGAAGAAGGCATTGATGAAGTGATAGTCCCACTGCCCACCTGGAATGCTCGGACCCGGGAACCTG
TCACAGACAATGTAGAGAAATTTGCCATTGAGACAGAACTCATCTATAAGTACTCTCCATTCCGCACTGAGGAGG
AAGTGATGACCCAGTTTATGAAGATTCCTGGGGACAGCGGAACATTGGTGATCATCTTCAATCTCAAACTCATGG
ATAATGGAGAGCCAGAACTAGACATAATCTCAAATCCAAGAGATATCCAGATGGCAGAGACGTCCCCAGAGGGCA
CGAAGCCAGAGCGGCGCTCGTTCCGTGCCTATGCCGCTGTGCTCTATATTGATCCCCGGATGAGGATCTTCATCC
ATGGGCACAAGGTGCAGACCAAGAGGCTCTCCTGCTGCCTGTACAAGCCCAGGATGTACAAGTACACGTCAAGCC
GTTTCAAGACCCGTGCGGAGCAGGAGGTGAAGAAAGCAGAGCACGTAGCAAGGATTGCTGAAGAGAAGGCGCGGG
AGGCAGAGAGCAAAGCTCGGACATTAGAAGTACGCCTAGGTGGAGACCTCACGCGGGACTCCAGGGTGATGTTGC
GACAGGTCCAGAACAGAGCCATCACTCTGCGCAGAGAAGCCGATGTCAAGAAGAGGATCAAGGAGGCCAAGCAGC
GAGCACTTAAAGAACCTAAGGAACTGAATTTTGTTTTTGGTGTCAACATTGAACACCGGGATCTGGATGGCATGT
TCATCTACAACTGTAGCCGACTGATCAAAATGTATGAGAAAGTGGGCCCACAGCTGGAAGGGGGCATGGCATGTG
GCGGGGTTGTTGGGGTTGTTGATGTGCCCTACCTGGTCCTGGAGCCTACACACAACAAACAGGACTTTGCTGATG
CCAAGGAGTACCGGCACCTGCTCCGAGCAATGGGGGAGCACCTGGCGCAGTATTGGAAGGATATTGCCATCGCCC
AGAGGGGAATCATCAAGTTCTGGGATGAGTTTGGCTACCTCTCTGCCAACTGGAACCAGCCCCCATCCAGTGAGC
TGCGTTACAAACGCCGGAGAGCTATGGAAATCCCCACCACCATCCAGTGCGATTTGTGTCTGAAATGGAGAACCC
TCCCCTTCCAGCTGAGTTCTGTGGAAAAAGATTACCCTGACACCTGGGTTTGCTCCATGAACCCTGATCCTGAAC
AGGACCGGTGTGAGGCTTCTGAACAAAAGCAGAAGGTTCCCCTGGGAACATTCAGAAAGGACATGAAGACGCAGG
AAGAGAAGCAGAAACAACTGACAGAGAAAATTCGCCAGCAGCAGGAGAAGCTGGAGGCCCTTCAGAAAACCACAC
CCATCCGCTCCCAAGCAGACCTGAAGAAATTGCCCTTGGAAGTGACCACCAGACCTTCCACTGAGGAACCTGTGC
GTAGACCTCAGCGTCCTCGGTCGCCCCCTTTACCTGCTGTGATCAGGAACGCCCCCAGCAGACCCCCTTCTTTGC
CAACTCCTAGACCAGCCAGCCAGCCCCGAAAGGCTCCTGTCATCAGCAGTACCCCAAAGCTCCCTGCTTTGGCAG
CCCGGGAGGAGGCCAGCACATCTAGGCTGCTCCAGCCACCTGAGGCACCCCGAAAGCCTGCCAACACTCTCGTCA
AGACTGCATCCCGACCTGCCCCTCTGGTGCAGCAACTGTCACCATCTTTACTGCCCAACTCCAAGAGCCCTCGGG
AGGTTCCTTCTCCCAAAGTCATCAAGACTCCAGTGGTGAAGAAGACAGAGTCACCCATCAAACTCTCCCCGGCTA
CCCCTAGTCGGAAGCGGAGTGTCGCAGTTTCTGATGAGGAAGAAGTTGAGGAGGAAGCTGAGAGGAGGAAGGAGA
GGTGCAAGCGGGGCAGATTTGTTGTGAAGGAGGAAAAGAAGGACTCGAATGAGCTCTCAGACAGTGCTGGGGAAG
AGGACTCGGCTGACCTCAAGAGAGCTCAGAAAGATAAAGGGCTGCACGTGGAGGTGCGTGTGAACAGGGAGTGGT

FIGURE 2928B

ACACGGGCCGTGTCACAGCCGTGGAGGTGGGCAAGCATGTGGTGCGGTGGAAGGTGAAGTTTGACTACGTGCCCA
CAGACACGACACCAAGAGACCGCTGGGTGGAGAAAGGCAGTGAGGATGTGCGGCTGATGAAACCCCCTTCTCCGG
AACATCAGAGCCTTGATACACAACAGGAGGGCGGGGAGGAGGAGGTGGGCCCTGTGGCCCAGCAGGCCATAGCTG
TCGCAGAGCCCTCCACTTCCGAATGCCTCCGCATTGAGCCTGACACCACTGCCCTGAGCACCAATCACGAGACCA
TCGACCTGCTTGTCCAGATCCTCCGGAATTGTTTACGGTACTTCCTGCCTCCAAGTTTCCCCATCTCCAAGAAGC
AGCTGAGTGCTATGAATTCAGATGAGCTAATATCTTTTCCTCTGAAGGAGTACTTCAAGCAATATGAAGTAGGGC
TCCAAAACCTGTGCAATTCCTACCAGAGCCGTGCTGACTCCCGGGCCAAGGCCTCCGAGGAAAGCCTGCGCACCT
CCGAGAGGAAGCTCCGCGAGACGGAGGAGAAGCTGCAGAAGCTGAGGACCAACATCGTGGCACTCCTGCAAAAGG
TGCAGGAGGACATAGACATCAACACAGATGATGAGCTGGACGCCTACATTGAGGACCTCATCACCAAGGGGGACT
GAAGGCAGGAGAGAGAGCAGCTCCCCTGCCCACCTGCCCCTCAACCCTGTAGCTGCAGGGGGAGGGGACTTCATT
CATGGGTTGGTGGTCGCACCTTGGTTTGACTTACACGGGACATTTGTGTTTTTGGAGGAAAAGATACCCTGATTC
TTTGAATCTTCCTTAAGTTTATAAATATTTATTTTTTAAAAG

FIGURE 2929

TGTCTGAAAAAATCAATTGACTATTCCCTTTTCCTAAAGGGCAGAGACAGATAATCTCACTTCCAGAGAAATGAC
TTGGAGAAAAAAAAAGTGTTGGTCTTTTTGCTCTTTTGTAATTAAATCCGGATGTACCTCAAAAGACTTAAGACTG
TGGTGATAAGATGCTTTCCTCAGCAGAAAGGAGGGAAAAAAAACAACTGGAACTCAAAGCTTGAAATTCTGTGGC
AAAACATGAGATGTCCAGGATTGGAGGTTGAAAAGATTTCACTACAGTGTTCTGCAATAGTTGGAGCAGATAACT
TTCAGTGTAGCCACAGCC**ATG**GACTCCAGATTTCCAGATTTTCAAGACCTGGACCTGGAACCCGAAAGAGCTTGT
CACGATGCGGCAGGAACACTGGAGGTAGATTTTTTTTTATTTTTGAATTTTGGGACTGTTGACCTTGCTGTGAGA
AAAGAGACAACGACTGAGCAAGCACTACCACCAGCACTGTTACTGGGAATTAGAAGACCTGAGTTTCTGTCCAGA
CCCTCAGTGCAAACTGAGGATGCTCCATCCAAAGTGAATTATGTCCTGTGCCTCCTGATTGCTGAGTGTTCACCT
GGACCTTCTGACTACCTTCCCTGTGCTATTCCATCAGCCTACAGACCTGGTACCTGGATTTTTGCCCGAGATGAT
TCCTACCACCTTACTACTGACGAAGACACCCATTCCAGTGGACCACTG**TGA**CCCAGGAGGCATTCAGCCATCATG
ATGTGGCCTTTACCTCCACTCCTGTCTTGTTCTACCCAGATTCAGCACAGCCCTTTATAGTGAAGTCAGAGTCCT
CAAGCCAAATAGCTAAAGCTGTTTTATCACAACAAAGGCCTAGTTTGTTCCATGAGTGTGCATTTCATTTCTTCA
GTTAAAGCCTTCAGAGACACACAATAAATTTGGACCAGGGGATTTTTTAGTTATTAATGCTCTCTGAAGAAAGGC
AACATCTTTTTGAGAGCAGCATTGGACCACACCCCACAATCTCAAATGATTGAAATTCATGAACATCTAGGATCC
CGTGAAGGTCACTGGACCCTGTTTTTTCTACTTCAAATCCTGTAGTAGCCTACTGAATGAGAAAACATATTCTGA
CCCATTGGGATCAAATCAAAGGCACAGTGAACTCCTCATAGCATCTTCTTTGGAATTACTCAGGAACCAGAACTT
TTTACACAAATGTAAGAAATTCTACCAAGGAGTCCCCTTACCTAACAGCATCTCACAAGGCTGCACCAGATTCCA
GAAAAGGCTTCTCTTGATACATCAAGCATTTTGTGACCGACTTATTCTTAGATCATTGGTTTTCCAAAGGCTTTG
TGGCCATGAAGCCCTTTGAGTGAAAACTGTGCAGAAGCCCAGAGTAAAAGTGAAGCTGCTCTGGATGAAGTAGTG
AAGCAAGAGTAGGGGCCTGAATCCTGCTACAACTATCTTCCTTTACCACCGTGGTGACACCTAAGGGGACTTCCT
TACAACACCTTGAACTCTTCCGAACACAGTTTGAAAACCACTGCCCCAGACAGCAATATGTTTGACCTGAATGGC
ATTCCAATCTTTTCTGTACCTCCACTCAGCACAGTTCATGTTCAGTAGATGCTGAACATTCTTAGAAATACTGTG
TGTGAACTTAGAAAAGTGCAAGAAGACAGGCATGTCTTTGACCCCAGGAATGATCATTTGCTGAAGATGGTGTCA
AGTGAACCTAGATTAACAGCCCTCCACTCCAGATGGATATCCAGTGATTCCTAGAATGGGATATAGCCAGAGAAC
AATTCTATGCACCCTACACTGACAGACTCCCTTAAGCAACACCAGATGCTCTACTGGTACTTGAAGTACATGACT
TTGAAGTCTTGACCCTCCATGAATACCTGAATTATCAGCAAGCGGGTTTTGAAGCTGGTGCCTCATTGAGGCCAT
ATTAGAGCAACTTGTACATTTGACCTCTTGTTATCAGCCATGGTACTCTACTTCGTGTGCAAGAGATAACTATGA
AAGCCAAATTCAAATACTGGCAACATTTCCTAAAGGGGCTCAATATCTATCATTCGTCTTCTTTTCCAAACTACA
CATCACTGTATGACTCAACCAGTAGCAGTTATATTGCCCCTTGGTTTTTATTCAGTTTAACTACTGTTTCCAAGA
TAAATGAGCTAATAAGCTTT

FIGURE 2930

CAGAATCCAGGGGACGGTTGCTGAGCGGGCCTGGGACAGCGGGTCGCGGCACCTCCGGCCTGCGCGTGTCTAATC
CGTCTGTCGGGTCCCGAAAGAGCTAAGCCGAGCCTGCGCCGGACGGGTGGGCTGGACTGAGAGAATTCTCTGAGC
TGGTGACAGGTGCCACAGGCACTGGGGATCTCACCAGAAAGGAACCGACGGAGCTAGGGGCCAGCGAGATGGCGG
ACGAGGCCTTAGCTGGGCTGG**ATG**AGGGAGCCCTTCGGAAGCTGCTGGAGGTCACAGCAGATCTGGCAGAGCGGC
GGCGCATCCGCTCAGCCATCCGGGAACTGCAGCGGCAGGAGCTGGAGCGCGAGGAGGAGGCCCTGGCATCCAAGC
GTTTCCGTGCCGAGCGGCAGGACAACAAGGAGAACTGGCTGCAGCTCTCAGCAGCGGGAAGCTGAGCAGCGGGCT
GCCCTGGCACGGCTGGCAGGGCAGCTGGAGTCCATGAACGATGTGGAGGAATTGACTGCACTGTTGCGAAGCGCT
GGTGAGTATGAGGAGCGCAAGCTGATCCGAGCTGCCATCCGCCGTGTACGGGCTCAGGAGATTGAGGCTGCCACC
TTGGCTGGGAGGTTGTACAGCGGGCGTCCCAACAGTGGCTCAAGAGAGGACAGCAAGGGGCTAGCGGCACACAGG
CTGGAACAGTGTGAGGTGCCAGAGCGAGAGGAACAGGAACAGCAGGCAGAGGTTTCAAAGCCAACCCCCACCCCT
GAAGGCACCAGCCAGGATGTGACCACAGTGACACTCCTGCTGCGAGCCCCACCTGGGAGCACATCCAGCTCACCT
GCCTCACCCAGCAGTTCACCCACCCCTGCCTCTCCTGAGCCTCCATTGGAGCCTGCCGAGGCCCAGTGCCTTACA
GCTGAGGTTCCAGGCAGCCCAGAGCCACCCCCCAGCCCACCCAAGACCACCAGCCCTGAGCCTCAGGAGTCTCCA
ACGCTCCCCAGCACTGAGGGCCAGGTGGTCAACAAGCTTCTGTCTGGCCCCAAAGAGACCCCTGCTGCCCAGAGC
CCCACCAGAGGCCCCTCTGACACCAAGAGAGCAGACGTGGCTGGACCCCGACCCTGCCAACGCTCCCTGTCGGTG
CTCAGCCCCCGCCAACCAGCCCAGAACCGAGAGTCCACCCCCCTTGCCAGCGGACCTTCCTCATTCCAGCGGGCT
GGCTCTGTGCGGGATCGTGTCCACAAGTTCACATCTGATTCTCCTATGGCTGCTAGGCTCCAGGATGGCACACCC
CAGGCTGCCCTAAGTCCCCTGACCCCCGCAAGGCTCCTGGGCCCCTCCCTCACCAGCACCACCCCTGCCTCCTCC
TCCAGCGGCTCCTCCTCTCGGGGCCCCAGTGATACCTCCTCCCGGTTCAGCAAGGAGCAACGAGGAGTAGCCCAG
CCCCTGGCCCAGCTTCGAAGCTGCCCCCAGGAGGAGGGCCCCAGGGGGCGGGGCTTGGCTGCTAGGCCCCTTGAA
AACAGAGCAGGGGGGCCTGTGGCACGTTCAGAGGAGCCTGGTGCCCCGCTGCCCGTGGCCGTCGGCACTGCCGAG
CCAGGGGGCAGTATGAAGACCACATTCACCATCGAGATCAAGGACGGCCGTGGCCAGGCCTCCACAGGCCGGGTG
CTGCTGCCCACAGGCAACCAGAGGGCAGAACTGACACTGGGGCTGCGGGCGCCCCCGACCCTACTCAGCACCAGT
AGTGGGGGCAAGAGCACCATCACCCGTGTCAACAGCCCTGGGACCCTGGCTCGGCTGGGCAGTGTCACTCATGTC
ACCAGCTTCAGCCATGCCCCCCCCAGTAGCCGAGGAGGCTGCAGCATCAAGATGGAAGCAGAGCCAGCAGAGCCT
CTCGCTGCAGCAGTGGAAGCGGCCAATGGGGCTGAGCAGACCCGAGTGAACAAAGCACCAGAAGGGCGGAGCCCT
CTGAGCGCTGAGGAGCTGATGACTATTGAGGATGAAGGAGTCTTGGACAAGATGCTGGATCAGAGCACGGACTTT
GAAGAGCGGAAGCTCATCCGGGCTGCACTTCGTGAGCTCCGACAAAGGAAGAGAGACCAGCGGGACAAGGAGCGG
GAACGGCGGCTGCAGGAGGCACGGGGCCGGCCAGGGGAGGGGCGCGGCAACACAGCCACTGAGACCACCACGAGG
CACAGCCAGCGGGCAGCTGATGGCTCTGCTGTCAGCACTGTTACCAAGACTGAGCGGCTCGTCCACTCCAATGAT
GGCACACGGACGGCCCGCACCACCACAGTGGAGTCGAGTTTCGTGAGGCGCTCGGAGAATGGCAGTGGCAGCACC
ATGATGCAAACCAAGACCTTCTCCTCTTCCTCCTCATCCAAGAAGATGGGCAGCATCTTCGACCGCGAGGACCAG
GCCAGCCCACGGGCCGGCAGCCTGGCGGCGCTCGAGAAACGGCAGGCCGAGAAGAAGAAAGAGCTGATGAAGGCG
CAGAGTCTGCCCAAGACCTCAGCCTCCCAGGCGCGCAAGGCCATGATTGAGAAGCTGGAGAAGGAGGGCGCGGCC
GGCAGCCCTGGCGGACCCCGCGCAGCCGTGCAGCGATCCACCAGCTTCGGGGTCCCCAACGCCAACAGCATCAAG
CAGATGCTGCTGGACTGGTGTCGAGCCAAGACTCGCGGCTACGAGCACGTCGACATCCAGAACTTCTCCTCCAGC
TGGAGTGATGGGATGGCCTTCTGTGCCCTGGTGCACAACTTCTTCCCTGAGGCCTTCGACTATGGGCAGCTTAGC
CCTCAGAACCGACGCCAGAACTTCGAGGTGGCCTTCTCATCTGCGGAGACCCATGCGGACTGCCCGCAGCTCCTG
GATACAGAGGACATGGTGCGGCTTCGAGAGCCTGACTGGAAGTGCGTGTACACGTACATCCAGGAATTCTACCGC
TGTCTGGTCCAGAAGGGGCTGGTAAAAACCAAAAAGTCC**TAA**CCCCTGCTCGGGGCCCCACGGATGCTGGTGGAC
TGTGTGCCCCTGGTGGAGGTGGACGACATGATGATCATGGGCAAGAAGCCTGACCCCAAGTGTGTCTTCACCTAT
GTGCAGTCGCTCTACAACCACCTGCGACGCCACGAACTGCGCCTGCGCGGCAAGAATGTCTAGCCTGCCCGCCCG
CATGGCCAGCCAGTGGCAAGCTGCCGCCCCCACTCTCCGGGCACCGTCTCCTGCCTGTGCGTCCGCCCACCGCTG
CCCTGTCTGTTGCGACACCCTCCCCCCCACATACACACGCAGCGTTTTGATAAATTATTGGTTTTCAACG

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FIGURE 2931

CGTGGCGCAGCGACTCGGAGGTTCGCCTCCAGCTTGCGCATCATCTGCGGCCGGGTCCCG**ATG**AGCCTCCTGTTG
CCTCCGCTGGCGCTGCTGCTGCTTCTCGCGGCGCTTGTGGCCCCAGCCACAGCCGCCACTGCCTACCGGCCGGAC
TGGAACCGTCTGAGCGGCCTAACCCGCGCCCGGGTAGAGACCTGCGGGGGATGACAGCTGAACCGCCTAAAGGAG
GTGAAGGCTTTCGTCACGCAGGACATTCCATTCTATCACAACCTGGTGATGAAACACCTCCCTGGGGCCGACCCT
GAGCTCGTGCTGCTGGGCCGCCGCTACGAGGAACTAGAGCGCATCCCACTCAGTGAAATGACCCGCGAAGAGATC
AATGCGCTAGTGCAGGAGCTCGGCTTCTACCGCAAGGCGGCGCCCGACGCGCAGGTGCCCCCCGAGTACGTGTGG
GCGCCCGCGAAGCCCCCAGAGGAAACTTCGGACCACGCTGACCTG**TAG**GTCCGGGGGCGCGGCGGAGCTGGGACC
TACCTGCCTGAGTCCTGGAGACAGAATGAAGCGCTCAGCATCCCGGGAATACTTCTCTTGCTGAGAGCCGATGCC
CGTCCCCGGGCCAGCAGGGATGGGGTTGGGGAGGTTCTCCCAACCCCACTTTCTTCCTTCCCCAGCTCCACTAAA
TTCCCTCCTGCCTT

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FIGURE 2932

GAGAGGGGCGGCTCCGCGTCATGTGACTGGAGTCCGCGTAGGAGGGGTCGGAGGTCTTACCCAACAGATTGACGC
GGCGTTAGTATTGGCCGTGTACCCGAAAAACTGATTGACTGGGCTGGCGTTAACTGTGCGGAGGCAGGATTTCCC
TGGGGAAAGTCTTCACTCAGAGCTTCGCTGACAGCCAAGG**ATG**GCAAGCAAGGGGCCCTCGGCCTCTGCATCTCC
TGAGAACTCCAGTGCAGGGGGGCCCAGTGGGAGCAGCAATGGCGCTGGCGAGAGCGGAGGGCAGGACAGCACTTT
CGAGTGCAACATCTGCTTGGACACAGCCAAGGATGCCGTCATCAGCCTGTGTGGCCACCTCTTCTGTTGGCCGTG
TTTACATCAGTGGTTGGAGACCAGACCTAACAGACAGGTGTGTCCTGTTTGCAAAGCTGGCATCAGCCGAGACAA
GGTCATCCCCCTCTATGGAAGGGGCAGCACTGGGCAACAGGACCCCAGAGAGAAGACCCCTCCTCGTCCTCAAGG
ACAGAGGCCAGAGCCGGAGAATAGAGGGGGATTTCAAGGATTTGGATTTGGAGATGGTGGCTTCCAGATGTCTTT
TGGAATTGGGGCATTTCCCTTTGGGATATTTGCCACAGCATTTAATATAAATGATGGGCGGCCTCCTCCAGCTGT
CCCTGGGACACCCCAGTATGTGGACGAGCAGTTCCTGTCACGCCTCTTCCTATTTGTGGCCCTGGTGATCATGTT
CTGGCTCCTGATTGCC**TAA**TGCTGGGCTCCTGCCTACATCCGTGGCAGGGCTCTGGACTGGTGACGTGCCACCCC
AACTCCTGGTGTTTGGCTTCCTGGCTAATCTTGACTCCTGGAATCAGTGGGATCAGTAACACATCAAGGAGTCTT
GTTTCTTCATCAGAGCTTTGGAACTCGAGACCAGTTGGCGATGACCCCTGAATATCGCCACCGCTGTAAACACTC
TATAACTTCAGGCCTTGGCATTGAGTCATCTCTCATGGGTGACACCATGAAATCTTGTTTCAGCCAGTTCTGCAG
GTCCTGACTCTGCAGAGGGAAGAGGCAGAAAGAGAGAAACTGTCAGAGTATAATTTCACCTGAGTTTAATATTAC
AGAAACAAAGGGATGCACCAAATGGTATTTCTGGAAATTTTCATGTCTTTAAATACCCCTTGGTAAGTTGCTTCT
GAAGCCAGTGGGGGCTCCTCAGATAGAGAGGTTCCCCTTTCAAATCCCAGTGCCGCTCTGTTCTCTTTCCTTCCC
CTCCCACTCCCCCTCTTCTTCCTCTGTAGAGATGCAAGAAATTGCTGTCCCATAAAAATCATAATTGCAGTAGCT
AAAGCTGGGGTCACTTCGTGAATTCACCAGAGACTCAAAGATCTTTTATTGGCTCTGGGCTGTGCTCAGTGTCTT
TGGCCTCAGAGAACAACTTGAATGACTTCCTGGTTTCCTGGCATAAATTATTCCTGGTGAGACATGTGGCTTAAC
TCACAGGTTTCCCATCAGCTTTCTCCCTAAAACTATGTTCATCTGCCTCTCTCTGCCAGAGAACATACAGCCGAG
AATACTGCCGAAGCTGAGACTGACTACTGTGCATTAGGAAAGACCTGGAGTCAGGACTTTGGTGGGATTTGGAGC
TCCGAGGCAGTAATAACTGAACAAGCAGCCCTGTCCCCTAGGCTGCAGAAGCTTGAATGCATCCTCTCCCAGAAC
CTGCCACAGGAAACTGGGGGCTTTGTCAGGTCAGCCCAACTGCATGCAAAAGACCACCATCCTCAGAAGCCAAGT
TGTCTTTTATGAAGAGGCAAGGAAAGGGGAAACCCACATGTGACCCTGATTTTGGTATGGCTTGATAGAGTTCCC
TGAAAACTCCTTGTATGTGTGCTAAAACCAGGGAAGCATGTGACTGCCAAGCAGGCAACCCCTGATGATTTGTAA
AGCCAGGTGGCAGGGCCTTGGGGAGCCCCAGCACAATGATATTGTGTGGTCTTCCCTCCTGTGGAATCGAGGGGA
AATTATTCTTCCCAATACCTTGATTTGATTTTCAGTTTCATAAGCTTCTTCCTCTGAATCTTATTGAGGGACTAT
GGTACCAAGCAGGTAGGACTGTTCACCTGGTGGAACAGTTCTTGCTCTGCCTTCTAGGCTTCATCCCAGAAATCC
AGCCTCTTTCTGGAGACCCCAAAGCTGGAGGGAGATGGGCTTTCCTCTGGGCCTCTCTCCTACTTTGCCATCCAC
ACTGCTCCTGGCTAACCCCAGCAATAACCAACAAATGGTAGGAAGCCCCATCTATTGCTTTTTCTCAATTATGAC
TGCATAGTTTATGGAAACAAAGATCTTGAGGAAGATGAGGGAAGCCCTCCCCTCTTCACAGTCCCCATCTCTTCT
CCTTTGTACCTGTCAACACCAGAGTTCAGTGTTTAAACAGACAAAATATAAAGTATTGAGTAGGTGGTTCATATG
CCGAATCCACTTGGTAGGAAGAAACCACCAGCTTTATAGTGTGCCTGATAGATTTTAAACATTCCTGGGCACCCA
CTCAAGAGTGCTCTTTTTATCACCTTCTGGAAATCCGCAAAGTTGCAGGGGCCTCTGGAGTGTCTCTTCTCTAGA
GAGAATTGGTGGGACCCCCCTCAGTGCAGTGGCCCCAACTAGTGGAGGGAGAGAGGACTTAAGTCAGATGGACTC
AACAGAAATGGGTTTCCAGAAGAATAATGAAAAGTTGTGGGTAGGAAAATGAATCATTTGGACTCTTCAATGAAA
TGGAGTGAGCCCAGGAGAGCTCAGCCAACAGAGGCACTCTGGGAACCTGTTAGTAAAGCCAGGCTGGCCAAATGC
CATTTGATTTTGAACCTCGTAGGTCCCCACTCACCCTCTGCCAGGAGCTAAGTAAGGCAGGAGAGCTGACTTGGG
ACTCCTGGCTCGGCCCCAACAGGGAGCCCCCTTCCCACCATCCCTCGGCAAGCTCACCACCTCATCCTTCTGCCA
AGGCAGCTTTCCTTTCTTTTGTGTGTTTTCTGTGTTCTTAGCCTCCACCCTCCTCCTGCCACCCTTGTGGACTAG
GACCAGGTCCTGACCCCAGTCAGAAAATGATGATATGTACAGTGGCACACCTTAACCAGTCACTAATTTTCACTG
TTGTGAAAGTGATTTGATTTAGAATTAAACAAATGGTTTTACATTA

FIGURE 2933A

CTCAAGAATGCCAGTGTGTGTGTAGCCTCCACAGAGAGGTCGTTTTCTCGGAGTCCAGAGGGGCCGCCTGAGCTT
CTGAGAACTAGGGAGGAGCCATCCCAGCCATGAGCCCCTGTGGGAATCTGCTGGGGGCCAAGTGGCCTGGAGTCC
TCAGGCTCCCGCAGCTGCTCCGGAGGGAGAGGTGAGCTCAGGGCAGCCTGCCTGCAGCCAGAGGTGCCGGGAGCC
CCGGGCCTGTCATGGTGGCCATCTACAGCCGGCCTGAGGCAGTCACAGACGGATTTGCAGCTGAGCCTGTCTATC
TGGTGTGGGAAGAAG**ATG**GGGAGTTACTTGTCAGTCCCGGCTTACTTCACCTCCAGAGACCTGTTTCGGTGTTCA
GAATGCCAGGATTCCCTCACCAACTGGTACTATGAGAAGGATGGGAAGCTCTACTGCCCCAAGGACTACTGGGGG
AAGTTTGGGGAGTTCTGTCATGGGTGCTCCCTGCTGATGACAGGGCCTTTTATGGTGGCTGGGGAGTTCAAGTAC
CACCCAGAGTGCTTTGCCTGTATGAGCTGCAAGGTGATCATTGAGGATGGGGATGCATATGCACTGGTGCAGCAT
GCCACCCTCTACTGTGGGAAGTGCCACAATGAGGTGGTGCTGGCACCCATGTTTGAGAGACTCTCCACAGAGTCT
GTTCAGGAGCAGCTGCCCTACTCTGTCACGCTCATCTCCATGCCGGCCACCACTGAAGGCAGGCGGGGCTTCTCC
GTGTCCGTGGAGAGTGCCTGCTCCAACTACGCCACCACTGTGCAAGTGAAAGAGGTCAACCGGATGCACATCAGT
CCCAACAATCGAAACGCCATCCACCCTGGGGACCGCATCCTGGAGATCAATGGGACCCCCGTCCGCACACTTCGA
GTGGAGGAGGTGGAGGATGCAATTAGCCAGACGAGCCAGACACTTCAGCTGTTGATTGAACATGACCCCGTCTCC
CAACGCCTGGACCAGCTGCGGCTGGAGGCCCGGCTCGCTCCTCACATGCAGAATGCCGGACACCCCCACGCCCTC
AGCACCCTGGACACCAAGGAGAATCTGGAGGGGACACTGAGGAGACGTTCCCTAAGGCGCAGTAACAGTATCTCC
AAGTCCCCTGGCCCCAGCTCCCCAAAGGAGCCCCTGCTGTTCAGCCGTGACATCAGCCGCTCAGAATCCCTTCGT
TGTTCCAGCAGCTATTCACAGCAGATCTTCCGGCCCTGTGACCTAATCCATGGGGAGGTCCTGGGGAAGGGCTTC
TTTGGGCAGGCTATCAAGGTGACACACAAAGCCACGGGCAAAGTGATGGTCATGAAAGAGTTAATTCGATGTGAT
GAGGAGACCCAGAAAACTTTTCTGACTGAGGTGAAAGTGATGCGCAGCCTGGACCACCCCAATGTGCTCAAGTTC
ATTGGTGTGCTGTACAAGGATAAGAAGCTGAACCTCCTGACAGAGTACATTGAGGGGGGCACACTGAAGGACTTT
CTGCGCAGTATGGATCCGTTCCCCTGGCAGCAGAAGGTCAGGTTTGCCAAAGGAATCGCCTCCGGAATGGCCTAT
TTGCACTCTATGTGCATCATCCACCGGGATCTGAACTCGCACAACTGCCTCATCAAGTTGGACAAGACTGTGGTG
GTGGCAGACTTTGGGCTGTCACGGCTCATAGTGGAAGAGAGGAAAAGGGCCCCCATGGAGAAGGCCACCACCAAG
AAACGCACCTTGCGCAAGAACGACCGCAAGAAGCGCTACACGGTGGTGGGAAACCCCTACTGGATGGCCCCTGAG
ATGCTGAACGGAAAGAGCTATGATGAGACGGTGGATATCTTCTCCTTTGGGATCGTTCTCTGTGAGATCATTGGG
CAGGTGTATGCAGATCCTGACTGCCTTCCCCGAACACTGGACTTTGGCCTCAACGTGAAGCTTTTCTGGGAGAAG
TTTGTTCCCACAGATTGTCCCCCGGCCTTCTTCCCGCTGGCCGCCATCTGCTGCAGACTGGAGCCTGAGAGCAGA
CCAGCATTCTCGAAATTGGAGGACTCCTTTGAGGCCCTCTCCCTGTACCTGGGGGAGCTGGGCATCCCGCTGCCT
GCAGAGCTGGAGGAGTTGGACCACACTGTGAGCATGCAGTACGGCCTGACCCGGGACTCACCTCCC**TAG**CCCTGG
CCCAGCCCCCTGCAGGGGGGTGTTCTACAGCCAGCATTGCCCCTCTGTGCCCCATTCCTGCTGTGAGCAGGGCCG
TCCGGGCTTCCTGTGGATTGGCGGAATGTTTAGAAGCAGAACAAGCCATTCCTATTACCTCCCCAGGAGGCAAGT
GGGCGCAGCACCAGGGAAATGTATCTCCACAGGTTCTGGGGCCTAGTTACTGTCTGTAAATCCAATACTTGCCTG
AAAGCTGTGAAGAAGAAAAAAACCCCTGGCCTTTGGGCCAGGAGGAATCTGTTACTCGAATCCACCCAGGAACTC
CCTGGCAGTGGATTGTGGGAGGCTCTTGCTTACACTAATCAGCGTGACCTGGACCTGCTGGGCAGGATCCCAGGG
TGAACCTGCCTGTGAACTCTGAAGTCACTAGTCCAGCTGGGTGCAGGAGGACTTCAAGTGTGTGGACGAAAGAAA
GACTGATGGCTCAAAGGGTGTGAAAAAGTCAGTGATGCTCCCCCTTTCTACTCCAGATCCTGTCCTTCCTGGAGC
AAGGTTGAGGGAGTAGGTTTTGAAGAGTCCCTTAATATGTGGTGGAACAGGCCAGGAGTTAGAGAAAGGGCTGGC
TTCTGTTTACCTGCTCACTGGCTCTAGCCAGCCCAGGGACCACATCAATGTGAGAGGAAGCCTCCACCTCATGTT
TTCAAACTTAATACTGGAGACTGGCTGAGAACTTACGGACAACATCCTTTCTGTCTGAAACAAACAGTCACAAGC
AAAGGAAGAGGCTGGGGGACTAGAAAGAGGCCCTGCCCTCTAGAAAGCTCAGATCTTGGCTTCTGTTACTCATAC
TCGGGTGGGCTCCTTAGTCAGATGCCTAAAACATTTTGCCTAAAGCTCGATGGGTTCTGGAGGACAGTGTGGCTT
GTCACAGGCCTAGAGTCTGAGGGAGGGGAGTGGGAGTCTCAGCAATCTCTTGGTCTTGGCTTCATGGCAACCACT
GCTCACCCTTCAACATGCCTGGTTTAGGCAGCAGCTTGGGCTGGGAAGAGGTGGTGGCAGAGTCTCAAAGCTGAG
ATGCTGAGAGAGATAGCTCCCTGAGCTGGGCCATCTGACTTCTACCTCCCATGTTTGCTCTCCCAACTCATTAGC
TCCTGGGCAGCATCCTCCTGAGCCACATGTGCAGGTACTGGAAAACCTCCATCTTGGCTCCCAGAGCTCTAGGAA
CTCTTCATCACAACTAGATTTGCCTCTTCTAAGTGTCTATGAGCTTGCACCATATTTAATAAATTGGGAATGGGT
TTGGGGTATTAATGCAATGTGTGGTGGTTGTATTGGAGCAGGGGGAATTGATAAAGGAGAGTGGTTGCTGTTAAT
ATTATCTTATCTATTGGGTGGTATGTGAAATATTGTACATAGACCTGATGAGTTGTGGGACCAGATGTCATCTCT

FIGURE 2933B

GGTCAGAGTTTACTTGCTATATAGACTGTACTTATGTGTGAAGTTTGCAAGCTTGCTTTAGGGCTGAGCCCTGGA
CTCCCAGCAGCAGCACAGTTCAGCATTGTGTGGCTGGTTGTTTCCTGGCTGTCCCCAGCAAGTGTAGGAGTGGTG
GGCCTGAACTGGGCCATTGATCAGACTAAATAAATTAAGCAGTTAACATAACTGGC

FIGURE 2934A

GGGCCTACTCTGCCGCCGCCGCCGCCCGCCCGCTCCAGCCGCCGCCGCCGCCGCCACCGCCCTCCAGGCTCCGGG
ACCCGGCCCGCGCCACCGCCCCCGTGCGCGCCCCGCCGCCGCCGCCTTCGCCTTCGCCTTTTGTTTCCTCCGCTC
CGGCGCCCCCGCCCCGGCTCGCGCTTTGCAGGGGACGCAGCGCGCGCCCCCAGCGGGCCCGGGAAAAGCCGCGGC
GCGCGCGCGCGCCTGCGCGGCGGACCCCTCCTTCTCCTCCCCGCGTGCGCGTGCCCTTCTTGGCTGCGCGCCGGC
GCCGCCTGGCGGGCGGGAGGGGAGGTGGCAGGCGCGTTTGCAGGAGGGGCGCACCTCTTCGCTCGCGCACCCCCC
CGGAAGGTAGACCGGGAAGGGGAGGCGGGCGGGCGGAGAGGAGAGAGTGGCGCGCAGTCCAGCGAGGGCGGGGGT
TGGCTATGTGGGGGGTGGTGCACCCCGCAGTCTAGACAGTCTGATCCGGGCTGGGGGCGTGTACACTCGGCGCAC
CTGCGAGACTACAGAGCCTCGGGCCGGCACGTGTGGGGAGTGTGGACACGTCTGCTGCGCCCCGCTTCTCGCTGC
TGAGGGGAAGGGAGGGGGCGGGCAGGTGCAGCGGCCGGGCTAGTGGGAGGGGGCGGCGGCC**ATG**GAGCGGGTGAA
CGACGCTTCGTGCGGCCCGTCTGGCTGCTACACATACCAGGTGAGCAGACACAGCACGGAGATGCTGCACAACCT
GAACCAGCAGCGCAAAAACGGCGGGCGCTTCTGCGACGTGCTCTTGCGGGTAGGCGACGAGAGCTTCCCAGCGCA
CCGCGCCGTGCTGGCCGCCTGCAGCGAGTACTTTGAGTCGGTGTTCAGCGCCCAGTTGGGCGACGGCGGAGCTGC
GGACGGGGGTCCGGCTGATGTAGGGGGCGCGACGGCAGCACCAGGCGGCGGGGCCGGGGGCAGCCGGGAGCTGGA
GATGCACACTATCAGCTCCAAGGTATTTGGGGACATTCTGGACTTCGCCTACACTTCCCGCATCGTGGTGCGCTT
GGAGAGCTTTCCCGAACTCATGACGGCCGCCAAGTTCCTGCTGATGAGGTCGGTTATCGAGATCTGCCAGGAAGT
CATCAAACAGTCCAACGTACAGATCCTGGTACCCCCTGCCCGCGCCGATATAATGCTCTTTCGCCCCCCTGGGAC
CTCGGACTTGGGCTTCCCTTTGGACATGACCAACGGGGCAGCCTTGGCAGCCAACAGCAATGGCATCGCCGGCAG
CATGCAGCCAGAGGAGGAGGCAGCTCGGGCGGCTGGTGCAGCCATTGCAGGCCAAGCCTCTTTGCCTGTGTTACC
TGGGGTGGACCGCTTGCCCATGGTGGCTGGACCCCTATCCCCCCAACTGCTGACTTCCCCATTCCCCAGTGTGGC
ATCCAGTGCCCCTCCCCTGACTGGCAAGCGAGGCCGGGGCCGCCCAAGGAAGGCCAACCTGCTGGACTCAATGTT
TGGGTCCCCAGGGGGCCTGAGGGAGGCAGGCATCCTTCCATGCGGTCTATGTGGTAAGGTGTTCACTGATGCCAA
CCGGCTCCGGCAGCACGAGGCCCAGCACGGTGTCACCAGCCTCCAGCTGGGCTACATCGACCTTCCTCCTCCGAG
GCTGGGTGAGAATGGGCTACCCATCTCTGAAGACCCCGACGGCCCCCGAAAGAGGAGCCGGACCAGGAAGCAGGT
GGCTTGTGAGATCTGCGGCAAGATCTTCCGTGATGTGTATCATCTTAACCGGCACAAGCTGTCCCACTCTGGGGA
GAAGCCCTACTCCTGCCCTGTGTGTGGGTTGCGGTTCAAGAGAAAAGACCGCATGTCCTACCATGTGCGGTCCCA
TGATGGGTCCGTGGGCAAGCCTTACATCTGCCAGAGCTGTGGGAAAGGCTTCTCCAGGCCTGATCACTTGAACGG
ACATATCAAGCAGGTGCACACTTCTGAGCGGCCTCACAAGTGTCAGACCTGCAATGCTTCTTTTGCCACCCGAGA
CCGTCTGCGCTCCCACCTGGCCTGTCATGAAGACAAGGTGCCCTGCCAGGTGTGTGGGAAGTACTTGCGGGCAGC
ATACATGGCAGACCACCTGAAGAAGCACAGCGAGGGGCCCAGCAACTTCTGCAGTATCTGTAACCGAGGTTTCTC
CTCTGCCTCCTACTTAAAGGTCCATGTTAAAACCCACCACGGTGTTCCCCTTCCCCAGGTCTCCAGGCACCAGGA
GCCCATCCTGAATGGGGGAGCAGCGTTCCACTGCGCCAGGACCTATGGCAACAAAGAAGGCCAGAAATGCTCACA
TCAGGATCCGATTGAGAGCTCTGACTCCTATGGTGACCTCTCAGATGCCAGCGACCTGAAGACGCCAGAGAAGCA
GAGTGCCAATGGCTCTTTCTCCTGCGACATGGCAGTCCCCAAAAACAAAATGGAGTCTGATGGGGAGAAGAAGTA
CCCATGCCCTGAATGTGGGAGCTTCTTCCGCTCTAAGTCCTACTTGAACAAACACATCCAGAAGGTGCATGTCCG
GGCTCTCGGGGGCCCCCTGGGGGACCTGGGCCCTGCCCTTGGCTCACCTTTCTCTCCTCAGCAGAACATGTCTCT
CCTCGAGTCCTTTGGGTTTCAGATTGTTCAGTCGGCATTTGCGTCATCTTTAGTAGATCCTGAGGTTGACCAGCA
GCCCATGGGGCCTGAAGGGAAA**TGA**GGCAGCTGCTGTGTCCCCACGGAAACAACCATCTGGGGACTGCTGGGAAA
TGCTGTGAATGCGGAGGGAAGTGATGTTTGGGTTCTGTAGCTGAGAGATTTTTATTCATTTTTAACTGCCCCCCA
ACCCCACTCCAACTCCTTCTCCACCACCCATTCTCCCAATGGTCTTTAGAAATAGATTTTCATCTGATATTCTGC
AGAAATATCAATGAGACTTGGTATGGGACAGGGGCAGAAAACACTACATAGGCCTCCAAGGCAAAACCAGTCCCA
GTTTCTTTAATGGGAAGAAGCTGGAATTCCTGGTGCTCAATTCTTAGTGACCCCAATCCTATACCCAAATCTATG
ATATTCTGGGACCTCAGTGATTTTGGTCCCCTCCCACTTCTCTAGTTCGTCATCCTCCCTTCCCATATCCTTCAA
AAGAACCACACTAGGGTCTCCACCTACTTATACAATGCGGATGCCCAACTGTTTTTAAGGAAGCCAGAAGCATCC
CATGGACCATGGGGTGAGTGTCCTCCAAGAGCCCCCTGAGCTCAGCCCTCTGCCTGGAGGGCTCCAGACCTTTCT
GAGCCCTGCTTGGAGGCGAGCATTTTCACTGCTAGGACAAGCTCAGCTGTTGAGGACACCCCCACCCCAAATTTC
AGTTCTTACGTGATTTTAACCATTCAACATGCTGTTGGGTTTTAATTCTCTAATTATTATTATTATTGTTATTAT
TTTTTAGGACCAGTTGTAGTGAATTGCTACTGAAAGCTATCCCAGGTGATACAGAGCTCTTTGTAAACCGCAGTC
ACACATTAGGGTTAGTATTAAACTTTGTTTAGATGTACCATAATTAACTTGGCTAGTTGATTGTTTGAAGTCTAT

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FIGURE 2934B

GGAAGAAATAGTTTTATGCAAAATTTTAAAAAATGCCAGTCTGGTCAGGGAAGTAGGGGGTTTCAATGCTGTTGG
GAACCAGGAAGGTGGGACAGCCGGCAGGTAGGGACATTGTGTACCTCAGTTGTGTCACATGTGAGCAAGCCCAGG
TTGACCTTGTGATGTGAATTGATCTGATCAGACTGTATTAAAAATGTTAGTACATTACTCTA

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FIGURE 2935

GCGGTGGCAGTTTGCCCGCGGGTGTGTGAAGGGAGACAGTGTGGAGGCCACAGGGTACTCGCCACG**ATG**AGCAGC
ACCTTAGCTAAGATCGCGGAGATAGAAGCAGAGATGGCTCGGACTCAAAAGAACAAGGCCACAGCACACCACTTA
GGGCTGCTTAAGGCTCGTCTTGCTAAGCTTCGTCGAGAACTCATTACTCCAAAGGGTGGTGGTGGTGGAGGTCCA
GGAGAAGGTTTTGATGTGGCCAAGACAGGTGATGCTCGAATTGGATTTGTTGGTTTTCCATCTGTGGGGAAGTCA
ACACTGCTTAGTAACCTGGCAGGGGTATATTCTGAGGTGGCAGCCTATGAATTCACTACTCTGACCACTGTGCCT
GGTGTCATCAGATACAAAGGTGCCAAGATCCAGCTCCTGGATCTCCCAGGTATCATTGAAGGTGCCAAGGATGGG
AAAGGTAGAGGTCGTCAAGTCATTGCAGTGGCCCGAACCTGTAACTTGATCTTGATTGTTCTGGATGTCCTGAAA
CCTTTGGGACATAAGAAGATAATTGAAAATGAGCTGGAAGGCTTTGGCATTCGCTTGAACAGCAAACCCCCCAAC
ATTGGCTTTAAGAAGAAGGACAAGGGAGGCATTAATCTCACAGCCACTTGCCCCCAGAGTGAGCTGGATGCTGAA
ACTGTGAAGAGCATTCTGGCTGAATACAAGATTCATAATGCCGATGTGACTCTACGTAGTGATGCTACAGCTGAT
GACCTCATTGATGTGGTGGAAGGAAACAGAGTTTATATCCCCTGTATCTATGTGTTAAATAAGATTGACCAAATC
TCCATTGAGGAATTGGATATCATCTATAAGGTGCCTCACTGTGTACCCATCTCTGCCCATCACCGCTGGAATTTT
GATGACCTATTGGAAAAGATCTGGGACTATCTGAAACTAGTGAGAATTTACACCAAACCCAAAGGCCAGTTACCA
GATTACACATCCCCAGTGGTGCTTCCTTACTCCAGGACCACAGTGGAGGATTTCTGCATGAAGATTCACAAAAAT
CTTATCAAAGAATTTAAATATGCTCTGGTCTGGGGTCTCTCTGTGAAACACAATCCTCAGAAAGTGGGTAAAGAC
CATACGTTGGAGGATGAGGATGTCATTCAAATTGTGAAGAAG**TGA**AACCTTTCCCTTTTCCCATCTGCCGGACGA
ACCACAACAGCGTTCCCCATGATCAAGCACCCTACCCCAGTTCTTTCTGGTTTTGGCAGTCACTGGATCAGGATC
CAGGGGAGGGAGATGGAGGCACCCAAACTGGAACTTCATTTGTCTTACCTTGGTGTCACCTTGTATGTCGAACTG
CATAAAAGATCTGGTAGGCTGGTCAGCTACATGC

FIGURE 2936A

GAGACAGCCCAAGCCGGTCGGGGTGGGGGCGCGAGAGCGAAGGCTGCGGGGAGCGGCGCTGGGACCGGTGCGGGC
AGCGGGGAGGGGAGCGGCGGCCGAGGCAAAGGGCCGCCGAGCGGCGGAGGCACCGAGTGCAGAGCATTGTAGACC
AAGGAGCC**ATG**GATAGGAGAAGTATGGGTGAAACAGAAAGTGGAGATGCTTTCCTTGACCTGAAGAAGCCTCCTG
CCTCCAAATGCCCCCATCGCTATACAAAAGAAGAACTCTTGGATATAAAAGAACTCCCCCATTCCAAACAGAGGC
CTTCATGCCTTTCTGAAAAATATGACAGTGATGGTGTCTGGGACCCTGAGAAGTGGCATGCCTCTCTCTACCCAG
CTTCAGGGCGGAGCTCACCAGTGGAAAGTCTGAAGAAAGAGTTGGATACAGACCGGCCTTCCCTGGTGCGCAGGA
TAGTAGATCCACGAGAGCGTGTGAAAGAAGATGACTTAGATGTTGTTCTCAGCCCTCAGAGACGGAGCTTTGGAG
GGGGCTGCCACGTGACAGCCGCTGTTAGCTCCCGGCGCTCAGGAAGTCCATTAGAGAAAGATAGTGATGGGCTTC
GTCTGCTTGGTGGACGTAGGATTGGCAGTGGGAGGATAATCTCTGCCCGGACCTTTGAGAAGGATCACCGTCTTA
GCGATAAGGACCTGCGGGACTTGAGAGACAGAGACCGAGAGAGGGACTTCAAGGACAAGCGTTTCAGGAGAGAGT
TTGGAGATAGTAAGCGTGTCTTTGGTGAGCGTAGAAGAAATGATTCTTACACAGAAGAAGAACCAGAGTGGTTCT
CTGCTGGACCCACAAGTCAGTCTGAAACCATCGAACTGACTGGCTTTGATGATAAGATACTAGAAGAAGATCACA
AAGGGAGAAAAAGAACAAGGCGACGGACAGCCTCTGTGAAGGAAGGTATAGTAGAGTGCAATGGAGGAGTGGCCG
AAGAGGATGAAGTGGAGGTCATCCTTGCACAGGAGCCTGCGGCTGATCAGGAAGTGCCAAGGGATGCTGTCTTGC
CTGAGCAGTCCCCAGGAGACTTTGACTTTAATGAGTTCTTTAACCTTGATAAGGTGCCATGCTTGGCTTCGATGA
TAGAAGATGTTTTGGGAGAAGGGTCAGTCTCTGCCAGTCGGTTCAGTAGGTGGTTCTCTAACCCGAGCAGATCAG
GAAGCCGATCCAGCAGTCTTGGGTCAACACCACATGAAGAGCTAGAGAGACTTGCAGGTCTGGAGCAAGCCATCC
TCTCTCCTGGACAGAACTCGGGGAATTACTTTGCTCCTATACCATTGGAAGACCATGCTGAAAATAAAGTGGATA
TTTTAGAAATGCTACAGAAAGCCAAAGTGGATTTGAAACCTCTTCTTTCCAGCCTTTCTGCAAATAAAGAAAAAC
TTAAAGAAAGCTCACATTCAGGGGTTGTGCTTTCAGTGGAGGAGGTAGAAGCAGGTCTGAAGGGCTTGAAGGTTG
ACCAGCAAGTGAAGAATTCAACTCCCTTCATGGCAGAACACCTAGAAGAGACCTTGAGTGCCGTAACCAACAATC
GACAACTGAAGAAAGACGGAGACATGACTGCGTTCAACAAGCTAGTGAGCACAATGAAGGCAAGTGGGACTTTGC
CTTCTCAGCCCAAAGTCAGCCGAAACCTTGAAAGCCATTTGATGTCCCCTGCTGAGATTCCAGGCCAGCCTGTCC
CTAAGAACATCCTGCAGGAACTTCTGGGTCAACCAGTTCAGAGACCTGCTTCTTCCAATCTTCTGAGTGGCCTTA
TGGGGAGCTTGGAGCCTACAACATCTTTACTGGGCCAAAGAGCACCCTCTCCTCCCTTGTCACAGGTGTTTCAAA
CTCGAGCAGCCTCAGCTGACTACCTTCGCCCAAGAATACCATCACCAATTGGTTTCACACCAGGACCACAGCAGC
TACTCGGAGATCCATTCCAAGGCATGCGCAAACCCATGAGCCCCATCACAGCCCAGATGAGCCAGCTGGAGTTGC
AACAGGCAGCTTTAGAAGGGCTGGCCTTGCCACATGACCTTGCTGTACAGGCAGCAAACTTCTACCAGCCTGGTT
TTGGCAAACCACAGGTGGACAGAACCAGAGATGGATTCAGAAACAGATTCAATGTTCTTATCAAACTCCCT**TGA**T
GCAGGTTTGCTACATCAGCAGTTTTTTGGCCAGAGCTGACAGGCAACAGCGAGTGACCAAGTCACCAGCACCCGT
GCATCGAGGGAATTCCTCTTCCCCTGCCCCTGCTGCCTCCATCACAAGCATGCTTTCTCCTTCCTTTACCCCTAC
CTCAGTGATTCGTAAGATGTACGAGAGCAAAGAGAAAAGCAAGGAGGAGCCAGCATCTGGAAAAGCAGCTCTTGG
TGACAGTAAAGAGGATACTCAGAAGGCCAGTGAAGAAAACCTCCTGTCATCCAGCTCTGTACCCAGTGCCGATCG
AGACTCTTCTCCCACTACAAATTCCAAACTGTCAGCATTACAGAGGTCTTCGTGTTCCACCCCACTGTCCCAGGC
CAACCGTTACACCAAAGAACAAGATTATCGACCTAAAGCAACTGGGAGAAAAACACCCACCTTGGCATCCCCAGT
TCCTACAACACCTTTTCTCCGCCCTGTCCACCAAGTTCCCCTTGTCCCCCATGTCCCTATGGTTAGGCCTGCTCA
CCAGCTTCACCCAGGGTTGGTACAGAGGATGCTGGCCCAGGGAGTACATCCACAGCATCTTCCAAGTTTGCTCCA
AACTGGTGTGCTTCCTCCTGGGATGGACTTGAGTCATTTACAGGGAATATCTGGCCCCATCCTGGGTCAGCCCTT
TTACCCTTTACCTGCTGCTAGTCACCCTCTCTTAAACCCTCGTCCTGGAACACCTCTGCATCTGGCAATGGTGCA
ACAGCAGCTACAGCGCTCAGTTCTGCATCCTCCAGGCTCTGGTTCCCATGCAGCAGCTGTCAGCGTTCAGACAAC
CCCTCAGAACGTGCCCAGCCGGTCAGGCCTGCCCCACATGCACTCCCAGCTGGAGCATCGCCCCAGCCAGAGGAG
CAGCTCCCCTGTGGGCCTTGCCAAATGGTTTGGCTCAGATGTGCTACAGCAACCCCTGCCCTCCATGCCCGCCAA
AGTTATCAGTGTAGATGAATTGGAATACCGACAGTGAGCAGGGCAGGCAGACTCAACTAAGCCCGGACCTGTGGT
GGCACACTGGGCAGGACCCTGCTTCATCTCGGGTTGGTTTATGGGCTTTTACTTTGGAGCACTCTGTGTGAAGCT
GTTTGGTGGAACCCATGCATCTGGTGTGGTCCGCATTATGATGGAAGGATCTTAACCAGTCGAGTGGAGTGTACA
TTGTCTGAATACAGGATGCACAATGTTGTCAATCCTGGAAATGGTCTTTCTTTTTTGTAAGATATGTGAATGAAG
TGTTGGTGTCCTCACCAAGAGGTGGCACCTAAGGGTTCTGAGGAAATAAATGTATAGACCCTTATGTACAGACCT
GTGTATAAACAACTTTTGTATATACATATAGGATAGCTTTTTTGAACTATACAGCTGTACATAAAAGTAGCTGAT

FIGURE 2936B

ATTAGTTAGGCCTGTGTCAACAGTTTGGATTTTTTTCACTTGTACATTTGGGATTTTCTTTTGGTTGATTAAAAT
TGCATATGCTAAGTGTGTGAATG

FIGURE 2937A

AGCAAGCTGAGCTCAGAGCGAAGCTGGCGAGCCAAGGAGATAAAGAACCCTCGGTGGGGATGCCCAGAGGGTGCA
TGCTCCACGCCCCTCGAAACCGATTCTCATTGCTGCTGCTGCAAAGCAACCCGAAGTGCGCCACCTACCCGACTG
AGGCTGCGCAAGCCCCGGGGTCTGGGCGGGGTGGTCCTCGTGCGCGCCGCGTCGCCGTGGAGACGAGGGCGGGCC
CGCGCGAGACTGGCGTCTAGAGGCGCGCGAAGCGCTGAGGCGGGCGTGGACCGCGCGGGAGTTAAGAAGCAGGTC
CCGGATCGCCGTATACCGCCGGGTTTTCTCCCAACGTCAGGCCCGATGGCTCGGCTTCCCCAGTTAGAAGGGGAA
GATAAAAGACTTTGATTC**ATG**AAGAATCTGCTCACTGAGAAGTGTATATCAAGCCACAATTTCCATCAAAAAGTG
ATTAAGCAGAGAATGGAGAAGAAGGTTGATTCCAGGTATTTTAAGGATGGTGCAGTTAAGAAACCTTATTCTGCA
AAGACACTGTCCAACAAGAAGTCTTCTGCATCCTTTGGGATCCGGAGGGAGTTACCTAGTACCAGTCATCTAGTG
CAGTATCGTGGCACACATACTTGTACCCGACAGGGCCGGTTAAGAGAACTGCGCATCAGATGCGTGGCCAGAAAG
TTCTTATATTTATGGATTCGAATGACTTTTGGAAGAGTATTTCCCTCTAAAGCCAGATTTTACTATGAGCAGCGA
TTACTACGGAAGGTCTTCGAAGAATGGAAAGAGGAGTGGTGGGTTTTCCAGCACGAGTGGAAACTCTGTGTTCGA
GCTGACTGTCACTACAGGTATTACCTGTACAACCTGATGTTCCAGACGTGGAAGACCTATGTGCGTCAGCAGCAG
GAGATGAGGAACAAGTACATTAGAGCCGAGGTTCATGATGCAAAGCAAAAGATGCGACAGGCCTGGAAGTCCTGG
TTGATCTACGTGGTTGTTCGTAGGACCAAACTTCAGATGCAGACTACAGCTCTGGAGTTTAGGCAACGGATTATC
TTACGGGTGTGGTGGAGCACGTGGAGGCAGCGACTAGGACAGGTCCGTGTGAGCCGTGCCCTCCATGCCTCTGCT
TTGAAGCACAGGGCCCTGAGCCTCCAGGTGCAGGCTTGGTCACAGTGGCGGGAACAGCTCCTGTATGTCCAGAAG
GAGAAACAAAAGGTTGTCTCTGCAGTGAAACATCATCAGCACTGGCAAAAACGGAGATTTCTAAAGGCCTGGCTT
GAATACCTGCAAGTCCGCAGAGTGAAGAGACAGCAGAATGAGATGGCTGAGCGATTCCATCATGTCACTGTGCTC
CAGATATACTTCTGTGACTGGCAGCAGGCCTGGGAGCGGAGGGAGAGCTTGTACGCTCACCATGCCCAGGTGGAG
AAACTGGCCAGGAAGATGGCCCTGCGGCGCGCCTTTACTCACTGGAAACACTACATGCTGCTGTGTGCAGAAGAA
GCTGCCCAGTTTGAGATGGCAGAAGAGCACCACAGGCACAGCCAGCTGCTGCTGCACAGGTTCTGGAACCTCTGG
CGGTCTCAGATTGAGCAGAAAAAGGAAAGAGAGCTGCTCCCCTTACTGCATGCTGCCTGGGACCACTACAGAATA
GCACTGCTGTGCAAATGTATCGAATTGTGGCTACAGTATACTCAGAAGAGGCGGTACAAGCAGCTGCTACAGGCC
AGAGCGGATGGTCATTTCCAGCAGAGAGCCCTGCCTGCTGCCTTCCACACATGGAACAGACTCTGGCGATGGCGC
CACCAGGAAAATGTCCTCAGTGCAAGAGCAACACGTTTCCACAGGGAGACATTAGAGAAGCAAGTATTTTCTCTC
TGGAGGCAGAAGATGTTTCAGCATCGAGAAAACCGCCTGGCAGAGAGAATGGCCATCCTTCACGCAGAGCGACAG
CTTCTGTATAGGTCTTGGTTCATGTGGCACCAGCAGGCAGCAGCACGTCACCAGGAGCAGGAGTGGCAAACAGTG
GCCTGTGCCCACCACCGCCACGGGCGGCTCAAGAAAGCTTTCTGCCTCTGGAGGGAAAGTGCCCAAGGGCTCAGA
ACAGAGAGGACGGGCAGGGTGCGGGCAGCAGAATTCCACATGGCCCAGCTCCTGCGTTGGGCCTGGAGCCAGTGG
AGGGAGTGCCTGGCCCTGCGGGGAGCGGAGCGGCAGAAGCTGATGCGAGCAGACCTGCACCACCAGCACAGCGTG
CTGCACAGGGCGCTGCAGGCATGGGTGACTTACCAGGGCAGGGTGCGAAGCATCCTCCGGGAGGTGGCAGCCAGG
GAGAGCCAGCACAACAGGCAGCTGCTGCAGCGGGGCATTACGTCGCTGGAAAGAGAACACCATGGCCCGAGTGGA
TGAAGCCAAAAAAACCTTTCAAGCAAGTACTCATTACAGAAGGACCATATGTTCCAAGGTCCTGGTCCAGTGGCG
GGAAGCTGTGTCAGTGCAGATGTATTACCGACAGCAGGAGGACTGTGCCATCTGGGAGGCCCAGAAGGTGCTGGA
CAGGGGCTGTCTGCGGACCTGGTTTCAGCGCTGGTGGGACTGCAGCCGGAGGTCAGCCCAGCAGAGACTGCAGCT
GGAGAGGGCAGTGCAACACCACCACCGGCAGCTGCTGCTGGAGGGGCTGGCCCGGTGGAAGACGCACCATCTGCA
GTGTGTCAGGAAGAGGCTCCTGCACAGGCAGAGCACCCAACTGCTGGCACAGAGACTCAGCCGGACCTGCTTCCG
CCAGTGGAGACAACAGCTGGCAGCCAGGAGGCAGGAGCAGCGGGCGACAGTGCGGGCCCTGTGGTTCTGGGCCTT
CTCGCTGCAGGCAAAGGTGTGGGCCACGTGGCTGGCCTTTGTACTGGAAAGGAGGAGAAAGAAGGCGCGGCTGCA
GTGGGCGCTCCAGGCCTACCAGGGGCAGCTCCTCCAGGAGGGTGCCACGCGGCTCCTGCGCTTTGCAGCCAGCAT
GAAGGCCTCCCGGCAGCAGCTGCAGGCCCAGCAGCAGGTCCAGGCGGCTCACAGTCTCCATCGTGCCGTCCGCCG
CTGTGCCACGCTCTGGAAACAGAAAGTGCTGGGCCGGGGCGGGAAGCCTCAGCCCCTGGCAGCCATCGCACCCAG
CAGGAAAGTGACGTTTGAGGGTCCCCTTCTCAACCGCATTGCTGCTGGGGCTGGGGATGGCACCCTTGAGACCAA
GAGGCCACAGGCTTCTCGGCCTCTGGGAGCTCTGGGCCGCCTGGCTGCTGAGGAGCCCCACGCCCTGGAGCTGCC
TCAGAAGCCACAGGAACATGGCCTAGGCATGGCTCAGCCAGCAGCCCCCTCCCTGACGCGGCCCTTCCTGGCAGA
GGCCCCGACAGCACTGGTCCCACACAGCCCCCTGCCTGGGGCCCTGTCAAGCGCCCCTGGCCCGAAGCAGCCCCC
GACGGCAAGCACAGGCCCGGAGCTGCTGCTGCTGCCTCTTTCCTCCTTCATGCCCTGCGGGGCGGCTGCACCAGC
CAGGGTGTCAGCACAGCGGGCTACTCCTAGGGATAAGCCCCCGGTCCCCTCATCCCTGGCCAGTGTCCCTGACCC

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FIGURE 2937B

CCATCTACTCCTTCCTGGGGACTTCTCAGCCACCAGGGCTGGGCCTGGACTTTCAACTGCAGGCAGCCTGGACCT
TGAGGCTGAACTTGAGGAGATCCAGCAGCAACTACTGCACTACCAGACCACCAAGCAGAACCTCTGGTCCTGTCG
GCGGCAAGCGAGCAGCCTGCGCAGGTGGCTGGAGCTGAACAGAGAGGAGCCGGGGCCTGAGGACCAGGAAGTAGA
GCAGCAGGTGCAGAAAGAGCTGGAACAGGTGAGGCCCCAGGCCATCCCCAGGTGTCCCTGGGGACGCCCCGGGCT
GTGCTCCCTCTCAGCCCTGCCTGTCCCTCCATGGCCCCAGGTGGAAATGCAGATCCAGCTGCTGGCAGAGGAGCT
CCAGGCTCAGCGCCAGCCCATTGGCGCCTGCGTTGCCCGCATCCAGGCCCTGCGGCAGGCCCTGTGCTAGCGTGT
TCGCACCAGGAACGCAGGTGCTGGGCTGTCGGGGAGGCCTCAGGCCACCTCCAGGAACAGAACACAGTTTTAAGT
TTGATTTTTTTTATTTCAAAATGCTTTGCAATTAAATGAATTACTGTTC

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FIGURE 2938

CGGAAGCTGGAGCCACCTGCAGCTCTGAGAGGGACAGACGGTGCTCAGCCTGTGTCCTGGGGCAAAGCTGGATTC
ATTTTCCTCCCTGGCGATCTTCTGGGGCCCACAGCTGGTGATATGGAGGCACTGACACCCTGGTCTCGGCGCTTG
TTTTAGAAGAGGCAGAACAGTGATAAAGACAAGGATCTAAATGGGCAAGGACGCCCTGCCCTCACTGGGCTCACT
GGCAGCCCTGACCCTCTATTCTGCACCCTGTGAGCCACCGAGACTGAACCAAACCCAGGAAGCGGCGCCACCAAC
CAGCCTCGCAGAGGCAGAGGCCCTGGAGCAGTGACAGCACAGGAGATCTGCTGGCTCGGGGGAAGGGGAGGAAAG
AGGAAAACAAAGGGAGTGATCGAGTGAGCCTCGCCCCGCCCTCCCTGCGCCGGCCC**ATG**ATGTGTCAGTCAGAGG
CGCGGCAAGGACCAGAGCTCCGCGCGGCGAAATGGTTGCACTTCCCCCAGCTGGCCCTGAGGCGGAGGCTGGGGC
AGCTGAGCTGCATGTCCAGACCCGCTCTGAAACTGCGCTCCTGGCCCTTGACCGTCCTCTACTACCTCCTGCCCT
TCGGCGCCCTCAGACCGCTCAGCCGGGTGGGATGGAGGCCCGTAAGCAGGGTGGCTTTGTACAAGTCAGTGCCAA
CGCGCTTGCTGTCACGGGCCTGGGGTCGCCTCAATCAGGTGGAGCTGCCACACTGGCTGCGCAGGCCCGTCTACA
GCCTGTACATCTGGACGTTTGGGGTGAACATGAAAGAGGCCGCTGTGGAGGACCTGCATCACTACCGCAACCTCA
GCGAGTTCTTCCGGCGCAAGCTGAAGCCGCAGGCCCGGCCTGTCTGTGGCCTGCACAGCGTGATTAGCCCATCGG
ATGGAAGGATCCTCAACTTTGGGCAGGTGAAGAACTGTGAGGTGGAGCAGGTAAAGGGGGTCACCTACTCCCTGG
AGTCGTTCCTGGGCCCGCGTATGTGCACAGAGGACCTGCCCTTCCCACCAGCCGCGTCGTGTGACTCCTTCAAGA
ACCAGCTGGTCACCCGGGAAGGGAATGAGCTCTATCACTGTGTCATCTACCTGGCCCCTGGGGACTACCACTGCT
TCCACTCCCCCACCGACTGGACTGTGTCCCACCGGCGCCACTTCCCAGGCTCCCTGATGTCAGTGAACCCTGGCA
TGGCTCGCTGGATCAAAGAGCTCTTCTGCCATAACGAGCGGGTGGTCCTGACGGGGGACTGGAAACATGGCTTCT
TCTCACTGACAGCTGTGGGGGCCACCAACGTGGGCTCCATTCGCATCTACTTTGACCGGGACCTGCACACAAACA
GCCCAAGGCACAGCAAGGGCTCCTACAATGACTTCAGCTTCGTGACGCACACCAATAGAGAGGGCGTCCCCATGC
GTAAGGGCGAGCACCTGGGCGAGTTCAACCTGGGCTCCACCATCGTGCTCATCTTCGAGGCCCCCAAGGACTTCA
ATTTCCAGCTGAAAACAGGACAGAAAATCCGCTTTGGGGAAGCCCTGGGCTCGCTC**TAG**AGTCTCTTTCCTGATT
ATGGCTGCTAAGGGATCTTTTCCAAACAGAGTGAGGGTCTTTTCAAGAGGGAGGCCCATGAGGCCATCCAGGTAA
GGGCCTGCCTCAGCGTGGTTGGGAGTCTGACCAGGTAGGACTTGAATGATTCGGCTACCACCTGTTCCAGAGGTG
CAGACAAGAGGTGGCGAGAGCCCCCATCATGCCCCTCAACCTATCCCGTTCCTTCTGCCTACAAATAAAAAGTGC
AGGCTGGAATGATCTCAGTCACATTTGGATCTTTTTAAACACTGTATAGACGGAAGAGCCTGCATTCCTGACCGA
ACCTTCAGTTGGTCTCGGTTGTCGTTTTTTCTTGCTGCTCCTCCCCCCATCACCTGAGCTGTTTTCTGTTGGCCC
CTTTTGTTTTTTGGCCTTAACGCTCCTGCTGCACAGGGTGAGGTGCCTCCTTGGCACAGACTGTGGATGCCTCTC
CCCCAGCAGAGCCACACAGCCTTCGTGACAACTGCTTTCCGTTCCCACATTCACCTCATCCTGCTCTTTAGAAAA
AGCAGTCTTTGTGCTTGTGGCTGAACGCATCACCCTGGACTCTGCTAGTGTCTTCTGAGGACACTGATGACACTG
ATTAATGATACAGACCTTTGCAGGACCTGATGAGTGACCCTTCTGGAGCTGGCCAGGTCCTCTGCAGCAGGCAAG
ACCAATCAATCACTGAACCTGCCTCATGGCACCAGAGTGAACAGGGCAGGCAGGTAGTAGGCCCAGCTGGGGAAA
TGGGAGAGTTCCTGTCCCCCTCCACATATCCCTACATGAAATATGGGAAAGTTGCTGCTATTGATTCAGGGTCTG
TCTTGGAGGCAGAGGACCCTTGGTGGATAGTTGGTCAGTGCCTGGAAAACCTGTCCCAGTTTATCAGGAACGCAG
GCCTGGGGAGCCCCCAGTGGCGGGGACAGGGCCAGATTTCATGTTGACCCTGGGGATGCTGTGAATTTCTCCTGC
AGGAGAGACATCATTGAATTTTTTCAACTGTATCAGTAGCACAGTATTTTTGTATGAAAAGTGGGAGACTTCTGA
ACAGTAATTCATTTAATTGCAAAGCATTTTGAAATAAAAAAAATCAAACTTAAAA

FIGURE 2939

GCAGACTAGCAGTGAGTCAACAGAGCCCTGTTTGCCAGCTCTGTTGCCAGTATAGATGCAGTGATGTGGCGGCTA
TGTTTCCCAGAGACAACAGTGGGCACAGCTATAGTGTCACCAACATGGCAGAGATAGTTTCAACTGTGCCTGTTA
CAGGTGTGGCACTCGAAGGACCAGAAGCAGCGGTTTGGAACATGGGTAACTGGGAGCAGAGGACTGGAAGAAACA
GAGCTGGGCTCCTTCCCTGTCCTGACAATGTAGGAGAGGAGTTGTTGTGAGGCCAGCCCTGCCCGTCGTTGAAAT
TCTGGACCTACCCTCTAGCTAGGTCCCTTCCCCTGCTCCAAAGTTGAGAAGGGGGCCCCACTGCAAACTTGAAAT
TACTTACCTGAAGGTGATGTATATACCTAGGCTCCAGCTGCGCTCAGCCACACCTGTCTTAACATTCAGTTTCGG
CACTGAGCCAGCTGCAGTGTTGTCAGGGGTCCCCAGGCCCGTGGTCCCTAACCACGATGGGACATGGTAATCGGC
TGCTGGCACACCACCTGCCCAGAGCTACAGGAGGTCTGGTTCTGGGGTGGAGTTGGTACAGTTTCTGAGT**ATG**GG
AACTTCCCTCCCCAAGTGGTGGGAAGTTACAGTTAACTACAGCTTACTCAACTATCACTTCCAGAGGTTTAGTGT
TTTTAATATGGGAAAGAGGAGAAATCTCAGGTCTAATCAGGGTTCTGCCCATCAGCTTTTCACTGAAACTTTCAA
CTGTGTTTTGTTTTTTGTTTTTTTTTCCATCTTTCAGTTTCTAGCTGTGTTTGCCTTCTCCCTCCGCGTTCCCTC
CTCTTTTTTTGCTTTTGGTCTCCTTTCCAGCTTCATGTCTCCA**TGA**GTTCAGCTGTACCTCATCTCCTGTTAAAG
CAGATCATGTCCACTTTTTCTTACTGACCTTACTCTAAGCTACAGTAGCTGAGGGAGGTACGGTGAAGACATGTA
GCGTTTGCCTTATTCGGAGCCTGAGGAGCCCAGAAACCCATGCTGTGAATCCCAAAACTCAGCGCTCCTCAAGAG
CTGTGAAAATCATGATACTTTGTCACAATTTTGCCTGAAAGGGTCTTTGGCACGGGCTCCAGAGCCAACCTGAGG
TCCATTCCAGATCCCACTATCTGGGCGTGAGACCTCCCCCGTGGCTCCTTCCTTGCCCACTGAGCCAAGAGCAGC
AGGGAGCGTACAGGACGGGAGCAGCAGATCCAAGGCCGCGGTGCAGCCAATGAATGCACGGCCGTCGCTCCGTCT
CCAGGCTGGAATTCCGTCTCATAATCAATGCCATGTACATTAAGATCTGCGAAAGACCAACTTTTAGGCAGTGAT
ACTTTTCTCCCATTCCCTGGGGTGGGGGGAGTATGCAGTTGGTGCTTTCTGTAATTCCCTTGTTCTGTTTTGTTT
CTGTAAGCTTTTCCCCTGGTGTCATGGAAAGGACTTCTTAAATAACCACATTGTGGGTGGCTGTATCCAAAGTTT
AAATAATTGGCCAGAAGTGCAGAGTATCCTTTCCTGGATTCGTGTCAGAAAAGGGCTCCTTGCCACAACTGAACT
TACTGTATAAAAACCTGGCTAGGGAGATTTAATTTTACTAAAATTACAGTTTAATGTTACCGTCTAGCCACAAAT
CAAGCAGCAAAAGCTATTTTGATGATGAAAGGGGGTCCCCGTTGAGCTGGCCATCTAGTGCAGTGTGCTCTCAGA
TTCCATGTTTGTTGATTGTGTGTCTTCACAAGCCCCTCTCTGGTGCTGAATTGGATTTGAATTCTTGGTGAGAGG
CCTCAGCATCTCCTTGGGCTGGTCTGGGCCAGTAAAAATAGCTGCCTGACATGTTTATATATTATCATGGTCAGT
AGTTCAATGAAATTTGTACATTTTTGGTAACATTGGTATACATGATGCCCCTGCAGTTCCTTTTCTGTTTGGTAG
TTTGTGACTCTAAGATTTCCACTGTTATGTGTGTTAATTTATGAAAATAAATTTTTTTGAAAACCTTTC

FIGURE 2940A

GAGGCAAGATGACTTCTCTGCCCCAAGCTTGGAACAGCTAAAGGGAAAAACAGTGCAAGATGAGAACAACAAAGG
TCTACAAACTCGTCATCCACAAGAAGGGCTTTGGGGGCAGTGATGATGAGCTAGTTGTGAACCCCAAAGTGTTCC
CTCACATCAAGCTTGGAGACATTGTAGAGATTGCACACCCCAACGATGAATACAGCCCTCTGCTTTTGCAGGTCA
AGTCTCTTAAGGAAGATTTACAGAAGGAAACTATCAGTGTGGACCAGACTGTGACTCAAGTGTTCCGGCTGAGAC
CTTATCAGGATGTCTATGTTAATGTCGTAGACCCTAAGGATGTGACCCTTGACCTAGTGGAATTAACTTTTAAGG
ATCAGTATATTGGCCGTGGGGATATGTGGCGACTAAAGAAAAGTTTGGTCAGCACATGTGCCTATATCACCCAGA
AGGTGGAGTTTGCTGGCATCAGAGCACAGGCTGGTGAACTGTGGGTTAAGAATGAGAAGGTCATGTGTGGCTACA
TCAGTGAAGATACCAGGGTGGTGTTTCGTTCTACGTCGGCTATGGTTTACATATTTATTCAGATGAGCTGTGAAA
TGTGGGATTTTGATATTTATGGGGATTTGTATTTTGAGAAAGCTGTGAATGGTTTCCTTGCTGATCTATTTACCA
AGTGGAAGGAGAAGAACTGTAGTCATGAAGTGACAGTGGTCCTGTTTTCTAGAACTTTCTATGATGCAAAATCTG
TTGATGAATTTCCTGAAATAAACCGAGCCTCAATTCGACAGGATCACAAGGGGAGATTCTATGAAGACTTTTACA
AAGTGGTGGTGCAGAATGAGAGAAGAGAAGAATGGACTTCACTTCTCGTAACCATTAAAAAACTCTTCATCCAGT
ATCCAGTGTTGGTGCGACTGGAACAGGCAGAGGGCTTTCCTCAAGGAGATAATTCTACCTCAGCACAAGGAAACT
ACCTGGAGGCCATCAATCTGTCATTCAATGTGTTTGATAAGCACTACATCAACCGCAACTTTGACCGAACTGGGC
AGATGTCAGTGGTGATCACGCCCGGGGTGGGTGTCTTTGAAGTGGACCGCCTACTCATGATCCTGACCAAGCAGC
GGATGATAGATAATGGAATTGGTGTGGATTTGGTGTGCATGGGAGAGCAACCGTTACATGCTGTCCCATTGTTCA
AGCTCCATAATCGGAGTGCTCCCCGTGATTCTCGTCTGGGCGATGACTATAATATCCCTCACTGGATAAACCACA
GTTTCTACACATCCAAAAGCCAGCTCTTTTGTAATAGTTTCACCCCACGAATAAAACTGGCAGGAAAGAAGCCCG
CCTCTGAGAAAGCAAAAAATGGCCGTGATACATCTCTCGGGAGTCCAAAAGAATCTGAGAACGCCCTTCCCATCC
AAGTAGATTATGACGCCTATGACGCTCAAGTGTTCAGGCTGCCCGGCCCATCCCGGGCCCAGTGCCTCACCACCT
GCAGATCTGTGCGAGAGCGAGAGAGTCACAGTCGAAAGAGTGCCAGCTCCTGTGATGTTTCATCCAGCCCTTCCC
TACCAAGCCGCACACTGCCCACTGAGGAAGTGAGGAGCCAGGCTTCTGACGACAGCTCCCTAGGCAAGAGTGCCA
ACATCCTGATGATCCCACACCCCCACCTGCACCAGTATGAAGTCAGCAGCTCCTTGGGATACACCAGCACTCGAG
ATGTCCTGGAGAACATGATGGAGCCACCACAGCGAGACTCCAGTGCACCAGGGAGGTTTCACGTTGGCAGTGCAG
AATCCATGCTGCATGTTCGACCTGGTGGATACACGCCCCAGAGAGCACTGATTAACCCCTTCGCTCCCTCTCGGA
TGCCCATGAAGCTTACGTCCAACAGAAGGCGCTGGATGCACACTTTTCCTGTGGGGCCATCCGGAGAAGCCATCC
AGATCCACCACCAGACCCGACAGAATATGGCGGAGCTACAAGGCAGCGGGCAGAGGGATCCAACTCACTCCTCTG
CAGAGCTGCTGGAGTTAGCATATCATGAAGCTGCTGGAAGGCACAGCAATTCCCGCCAGCCTGGTGACGGCATGT
CCTTCTTGAACTTCAGTGGAACAGAGGAGCTTTCTGTCGGCCTGCTTAGCAACAGTGGTGCAGGTATGAATCCTA
GGACCCAGAATAAGGATTCTCTAGAGGACAGTGTTTCTACCTCTCCAGACCCAATGCCAGGCTTCTGTTGCACAG
TTGGAGTGGACTGGAAGTCTCTCACTACTCCGGCGTGCCTCCCCCTTACCACCGACTACTTCCCTGACCGCCAGG
GCCTGCAGAATGACTACACAGAGGGCTGTTATGATCTCCTTCCAGAAGCAGACATCGACAGGAGGGACGAAGATG
GTGTGCAGATGACAGCCCAGCAGGTATTTGAAGAGTTTATTTGCCAACGTCTCATGCAGGGCTACCAAATCATAG
TGCAGCCCAAGACACAGAAACCCAATCCTGCTGTCCCGCCCCCGCTGAGCAGTAGCCCACTCTATAGCCGAGGCC
TTGTGTCCCGAAACCGCCCTGAGGAGGAGGACCAGTATTGGCTGAGTATGGGCAGAACGTTCCACAAAGTGACGC
TGAAGGATAAGATGATCACAGTGACGCGATACCTTCCCAAGTATCCTTATGAATCTGCCCAGATCCACTACACCT
ACAGCCTCTGTCCTTCCCACTCAGACTCAGAGTTCGTCTCCTGCTGGGTGGAATTCTCCCACGAACGGCTGGAGG
AGTACAAGTGGAATTACTTAGATCAGTATATCTGTTCTGCCGGCTCTGAAGACTTCAGCTTAATTGAGTCCCTGA
AGTTCTGGAGGACCCGCTTCCTGCTGCTGCCAGCCTGTGTCACCGCCACCAAGCGCATCACGGAGGGGGAGGCCC
ACTGCGACATCTATGGGGACAGGCCCCGTGCAGACGAGGACGAGTGGCAACTCCTGGATGGTTTTGTCCGCTTTG
TGGAGGGCTTGAATCGCATTCGCAGGCGGCATCGCTCGGATCGCATGATGCGGAAAGGGACCGCCATGAAAGGCT
TGCAGATGACTGGGCCCATTTCCACGCATTCTCTGGAGTCAACTGCACCCCCAGTGGGGAAGAAGGGAACCTCAG
CTCTCTCTGCCCTGTTGGAGATGGAGGCCAGTCAGAAGTGCCTGGGAGAACAGCAGGCAGCTGTGCATGGTGGGA
AGAGCTCCGCCCAGTCAGCCGAGAGCAGCAGCGTTGCCATGACTCCCACCTACATGGACAGCCCACGAAAGGTAT
CTGTGGACCAAACAGCCACTCCTATGTTGGACGGCACCAGTTTGGGCATATGCACAGGCCAATCCATGGACAGAG
GCAACAGCCAGACCTTTGGGAACTCCCAGAACATAGGAGAACAGGGCTACTCCTCCACAAACTCCAGTGACAGCA
GCTCTCAGCAGCTGGTGGCAAGCTCCTTGACCTCATCCTCTACCCTGACAGAGATCCTGGAAGCCATGAAGCACC
CCTCGACAGGAGTCCAGCTGCTCTCTGAACAGAAGGGCCTCTCACCGTACTGCTTCATCAGCGCGGAGGTGGTAC

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FIGURE 2940B

ACTGGTTGGTGAACCACGTGGAGGGGATCCAGACACAGGCGATGGCCATTGACATCATGCAGAAAATGCTGGAAG
AGCAGCTCATCACACATGCATCTGGCGAAGCCTGGCGGACCTTCATCTACGGCTTCTATTTCTACAAGATAGTAA
CGGACAAAGAGCCCGACCGAGTGGCCATGCAGCAGCCCGCCACCACCTGGCACACAGCAGGAGTGGACGACTTCG
CCAGCTTCCAGCGCAAGTGGTTTGAGGTGGCCTTTGTGGCAGAAGAGCTCGTGCACTCTGAGATTCCTGCCTTTC
TCCTGCCCTGGCTGCCTAGCCGGCCAGCCTCCTATGCAAGTAGGCACAGCTCCTTTAGCCGAAGTTTTGGAGGAC
GGAGCCAGGCGGCAGCACTTTTAGCTGCCACTGTCCCAGAGCAGAGGACTGTGACCCTGGATGTTGACGTGAACA
ACCGCACAGACCGGCTGGAGTGGTGCAGCTGTTATTACCATGGCAACTTTTCTCTGAATGCAGCCTTTGAGATCA
AGCTGCACTGGATGGCGGTGACCGCAGCAGTACTCTTCGAGATGGTCCAAGGTTGGCATCGGAAAGCCACCTCCT
GTGGCTTCTTGTTAGTCCCAGTTTTGGAGGGGCCTTTTGCACTGCCCAGTTACCTGTATGGCGACCCCCTTCGTG
CCCAGCTCTTCATCCCACTCAACATCAGCTGCTTGCTCAAGGAGGGCAGCGAGCACCTGTTTGATAGCTTTGAAC
CCGAAACGTACTGGGATCGAATGCACCTCTTCCAGGAAGCCATTGCACACAGGTTTGGGTTTGTACAAGATAAAT
ATTCTGCCTCTGCTTTTAACTTCCCTGCTGAGAACAAGCCTCAGTATATCCACGTTACAGGAACAGTGTTTCTGC
AGCTGCCCTACTCCAAGCGCAAGTTCTCAGGGCAGCAGCGGCGGCGGCGGAACTCCACCAGCTCCACCAACCAGA
ACATGTTCTGCGAGGAGCGGGTCGGCTACAACTGGGCCTACAACACCATGCTCACCAAAACATGGCGCTCCAGCG
CCACAGGGGATGAAAAGTTTGCTGATCGGCTGCTGAAGGACTTCACGGACTTCTGCATCAACCGTGACAACCGGC
TGGTCACGTTCTGGACAAGTTGCCTGGAGAAGATGCATGCCAGTGCCCCG**TGA**GGCCAGGCTGCACCTGTGCTGG
GGGAAGGTGGGTGAGCCACTGCCCTCAAACCCGGGGCGGAGGATTCCAGGCAGGCTCTAGGAGTCAGGTGTCCGT
TTGCTGCTATCAGTGAGTGGGGGCCATTGTTTTTTGTTTGTTTGTTTGTTTGTTTGTTTTTGGCCCCCACG
ACAAGTCTTCTACTCTAGAAGAAAGACTTTGGAAGCAGCTGCTGCTGCTGCCACCACTCCTGTCAGCAAGTGCTC
AGAGCAGGTGGGAGGCACAGATTGTCCGTGGGAGGGCTCCAGTGTCTGGGAAGAGGGCAGGCGGCCCCCATGAAT
GTCCTCGGAAGGGGGTGGCTCCTGGTAGCATCCTTTTCCTTCACCATCTATGGGATATTAGGGGCAGAATCTGCC
ACTTCTTGCCCAGGAGTGTGCACAGATGTAAGATAATTTTGTGAAATAATGTACCATAGACTCTCACCAACTGTA
TATACCTGTACATATCAGAAGCAAATAAAGAGCTCCACGTGC

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FIGURE 2941

GCGCGAGCCACAGCGCGCGGGGCGAGCCAGCGAGAGGGCGCGAGCGGCGGCGCTGCCTGCAGCCTGCAGCCTGCA
GCCTCCGGCCGGCCGGCGAGCCAGTGCGCGTGCGCGGCGGCGGCCTCCGCAGCGACCGGGGAGCGGACTGACCGG
CGGGAGGGCTAGCGAGCCAGCGGTGTGAGGCGCGAGGCGAGGCCGAGCCGCGAGCGAC**ATG**GGGGACCGGGAGCA
GCTGCTGCAGCGGGCGCGGCTGGCCGAGCAGGCGGAGCGCTACGACGACATGGCCTCCGCTATGAAGGCGGTGAC
AGAGCTGAATGAACCTCTCTCCAATGAAGATCGAAATCTCCTCTCTGTGGCCTACAAGAATGTGGTTGGTGCCAG
GCGATCTTCCTGGAGGGTCATTAGCAGCATTGAGCAGAAAACCATGGCTGATGGAAACGAAAAGAAATTGGAGAA
AGTTAAAGCTTACCGGGAGAAGATTGAGAAGGAGCTGGAGACAGTTTGCAATGATGTCCTGTCTCTGCTTGACAA
GTTCCTGATCAAGAACTGCAATGATTTCCAGTATGAGAGCAAGGTGTTTTACCTGAAAATGAAGGGTGATTACTA
CCGCTACTTAGCAGAGGTCGCTTCTGGGGAGAAGAAAAACAGTGTGGTCGAAGCTTCTGAAGCTGCCTACAAGGA
AGCCTTTGAAATCAGCAAAGAGCAGATGCAACCCACGCATCCCATCCGGCTGGGCCTGGCCCTCAACTTCTCCGT
GTTCTACTATGAGATCCAGAATGCACCTGAGCAAGCCTGCCTCTTAGCCAAACAAGCCTTCGATGATGCCATAGC
TGAGCTGGACACACTAAACGAGGATTCCTATAAGGACTCCACGCTGATCATGCAGTTGCTGCGAGACAACCTCAC
CCTCTGGACGAGCGACCAGCAGGATGAAGAAGCAGGAGAAGGCAAC**TGA**AGATCCTTCAGGTCCCCTGGCCCTTC
CTTCACCCACCACCCCCATCATCACCGATTCTTCCTTGCCACAATCACTAAATATCTAGTGCTAAACCTATCTGT
ATTGGCAGCACAGCTACTCAGATCTGCACTCCTGTCTCTTGGGAAGCAGTTTCAGATAAATCATGGGCATTGCTG
GACTGATGGTTGCTTTGAGCCCACAGGAGCTCCCTTTTTGAATTGTGTGGAGAAGTGTGTTCTGATGAGGCATTT
TACTATGCCTGTTGATCTATGGGAAATCTAGGCGAAAGTAATGGGGAAGATTAGAAAGAATTAGCCAACCAGGCT
ACAGTTGATATTTAAAAGATCCATTTAAAACAAGCTGATAGTGTTTCGTTAAGCAGTACATCTTGTGCATGCAAA
AATGAATTCACCCCTCCCACCTCTTTCTTCAATTAATGGAAAACTGTTAAGGGAAGCTGATACAGAGAGACAACT
TGCTCCTTTCCATCAGCTTTATAATAAACTGTTTAACGTGAGGTTTCAGTAGCTCCTTGGTTTTGCCTCTTTAAA
TTATGACGTGCACAAACCTTCTTTTCAATGCAATGCATCTGAAAGTTTTGATACTTGTAACTTTTTTTTTTTTTT
GGTTGCAATTGTTTAAGAATCATGGATTTATTTTTTGTAACTCTTTGGCTATTGTCCTTGTGTATCCTGACAGCG
CCATGTGTGTCAGCCCATGTCAATCAAGATGGGTGATTATGAAATGCCAGACTTCTAAAATAAATGTTTTGGAAT
TCAATGGGTAAATAAATGC

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FIGURE 2942

CTCTTTTACCAAGGACCCGCCAAC**ATG**TGCCGCGTTTGCACCAAAACCGTGAAGAAGGCGGCCCGGGTCATCATA
GAAAAGTACTACACACGCCTGGGCAACGACTTCCACACGAACAAGCGCGTGTGCAAGGAGATCGCCATTATCCCC
AGCAAGAAGCTCCGCAACAAGATAGCAGGCTATGTCACGCATCTGATGAAATGGATTCAGAGAGGCCCAGTAAGA
GGTATCTCCATCAAGCTGCAGGAGGAGGAGAGAGAAAGGAGAGACAATTATGTTCCTGAGGTCTCAGCCTTGGAT
CAGGAGATAATTGAAGTAGATCCTGACACTAAGGAAATGCTGAAGCTTTTGGACTTCGGCAGTCTGTCCAACCTG
CAGGTCACTCAGCCTACAGTTGGGATGAACTTCAAAATGCCTCGGGGACCTGTT**TGA**ATTTTTTCTGCAGTGCTG
TATTATTTTCAATAAATCTGGCACAACAGC

FIGURE 2943

ATGGCGGCCCATCACCGGCAGAACACAGCAGGGCGGAGGAAAGTGCAGGTTTCCTATGTTATTCGAGATGAAGTG
GAGAAGTACAACCGAAATGGAGTCAATGCTCTGCAGCTGGATCCAGCACTAAATAGACTTTTCACAGCCGGTCGA
GACTCTATCATAAGAATATGGAGTGTCAATCAGCACAAGCAAGATCCATATATAGCATCTATGGAACACCATACT
GATTGGGTAAACGACATTGTACTCTGTTGTAATGGGAAAACATTAATATCTGCTTCTTCTGACACGACAGTAAAA
GTATGGAATGCACACAAGGGATTTTGCATGTCAACATTAAGGACACATAAGGATTACGTAAAGGCCTTAGCATAT
GCCAAGGATAAAGAACTAGTAGCATCAGCTGGGTTGGACAGACAAATATTCCTTTGGGATGTGAATACTCTAACA
GCATTGACTGCCTCAAATAACACTGTCACAACTTCTTCTTTAAGTGGAAACAAAGATTCCATTTATAGCCTGGCC
ATGAATCAACTGGGAACAATCATTGTATCAGGGTCCACTGAAAAGGTGTTACGGGTATGGGATCCAAGAACATGT
GCAAAACTAATGAAGCTTAAAGGGCACACGGATAATGTGAAGGCATTGCTATTAAACAGAGATGGCACGCAATGC
CTGTCAGGCAGTTCTGATGGGACAATTCGCCTTTGGTCCCTTGGCCAGCAGAGATGTATAGCAACATACCGAGTC
CATGATGAAGGTGTTTGGGCGCTGCAAGTCAATGATGCCTTCACACATGTGTATTCTGGTGGAAGGGACAGGAAG
ATTTATTGTACAGACCTAAGAAACCCTGACATTCGGGTGCTAATTTGTGAAGAAAAAGCACCAGTTCTCAAGATG
GAGCTTGATAGATCAGCTGATCCTCCTCCTGCAATTTGGGTTGCAACAACTAAGTCTACAGTAAATAAATGGACT
TTGAAAGGAATTCATAATTTTAGAGCCTCTGGAGATTATGACAATGACTGTACAAATCCTATAACACCTCTTTGT
ACACAACCTGACCAGGTTATTAAAGGGGGTGCTAGTATTATTCAGTGCCACATTCTTAATGATAAGAGACATATA
TTAACCAAAGATACCAATAATAATGTGGCATATTGGGATGTATTGAAGGCATGTAAAGTTGAAGATCTGGGCAAA
GTGGATTTTGAAGATGAAATTAAGAAAAGATTTAAAATGGTGTATGTGCCAAATTGGTTCTCAGTAGACTTAAAA
ACAGGGATGTTAACTATTACTTTGGATGAAAGTGATTGTTTTGCTGCCTGGGTTTCTGCAAAAGATGCTGGTTTC
AGCAGCCCTGATGGGTCAGATCCAAAATGTGAATTTAGGAGGACTTTTACTCCAAGCACTCCTGGAATATTGGCC
TAGAACACATGTGAATCCAATGGATGAAGAGGAAAATGAAGTAAACCATGTAAATGGGGAGCAGGAGAACCGAGT
GCAGAAGGGAAATGGATATTTTCAAGTGCCCCCACATACACCCGTGATCTTTGGTGAAGCTGGAGGTCGCACACT
GTTCAGGCTGCTCTGCCGAGATTCCGGGGGTGAGACTGAGTCTATGCTTCTTAATGAAACAGTGCCACAATGGGT
AATTGACATCACTGTGGATAAAAATATGCCCAAATTCAACAAAATTCCTTTCTACCTCCAACCTCATGCATCTTC
AGGAGCAAAAACCTTAAAAAAAGATAGACTCTCTGCTAGTGACATGCTCCAAGTCCGAAAAGTTATGGAACATGT
TTATGAAAAAATTATCAACTTGGATAATGAGTCTCAAACCACTAGCTCTTCTAATAATGAAAAACCAGGAGAACA
GGAAAAAGAAGAAGATATTGCTGTGTTGGCAGAGGAGAAAATTGAACTTTTGTGCCAGGACCAGGTTTTGGATCC
AAATATGGACCTTCGAACAGTGAAACACTTCATATGGAAGAGCGGTGGAGACCTCACCCTCCATTACCGTCAGAA
GTCCACGTGA

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FIGURE 2944

GTCAAAGCAGCACCAGCTCTGATCGACCCCCTGTATTTG**ATG**GCTCAGGTCAGGTATTACTCAGAGCTAGAGAAT
GCCCAGAGCATCCTGCAGCGTTGCCTGGAGCTGGACCCCGCCTCCGTGGATGCCCATCTCCTCATGTGTCAGATC
TACTTGGCTCAGGGCAACTTTGGCATGTGCTTCCACTGCTTAGAGCTGGGTGTCAGCCACAACTTCCAGGTCCGA
GATCACCCCCTCTACCACCTCATCAAGGCCAGGGCCCTCAACAAGGCTGGAGACTATCCAGAGGCCATAAAGACG
CTGAAAATGGTCATCAAATTGCCAGCTCTGAAGAAGGAAGAAGGCAGAAAGTTCCTCAGGCCCTCTGTGCAGCCT
AGCCAGCGGGCATCCATCTTATTGGAACTGGTGGAGGCCCTCCGGCTGAATGGGGAGCTACATGAGGCCACCAAG
GTCATGCAGGACACCATCAATGAGTTCGGTGGCACACCAGAAGAGAACCGCATCACCATTGCCAACGTGGACTTG
GTCCTGAGCAAGGGCAATGTGGACGTGGCGCTGAACATGCTAAGGAACATCTTGCCCAAGCAGTCCTGCTATATG
GAAGCCAGAGAGAAGATGGCCAACATCTACCTGCAGACCCTCAGAGACAGGCGCCTCTACATCAGATGCTACCGT
GAGCTCTGTGAACATCTGCCTGGCCCCCACACCAGCCTGCTACTGGGCGATGCCTTAATGAGCATTCTGGAGCCC
GAGAAGGCCCTGGAGGTCTATGATGAGGCCTATAGACAGAACCCACATGACGCCTCCCTGGCCAGCAGAATTGGG
CACGCTTATGTGAAGGCCCACCAGTATACTGAGGTCAGGCTGGGC**TAG**GGTGTGAAGGGGCAGGGAGGGCCAGCC
CAGCAGGGAAGGAGGAGGACGGTACATG

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FIGURE 2945

CTAC**ATG**GAGAAGAAGGAGTTGGAGCAGCAGGGTGTGAGCACCGCCGAGAAACTGCTGCGTGAGTTTTACCCACA
TTCAGACTCCAGCCAGACCCAGCTGCGGCTGCTGCAGGGCCTCTGCCGGCTGGCCACCAGGGAGAAGGCTAACAT
GGAGGCTGCGCTGGGCAGCTTCATCCAGATAGCGCAGGCTGAGAAGGACAGCGTCCCTGCCCTGCTGGCCTTGGC
ACAAGCCTACGTGTTCCTGAAGCAGATCCCCAAGGCGCGTATGCAGTTGAAGCGCCTGGCCAAGACCCCCTGGGT
GCTGAGTGAGGCTGAGGACCTGGAGAAGAGCTGGCTCCTGCTGGCTGACATTTACTGCCAGGGCAGCAAGTTCGA
CCTCGCCTTAGAACTGCTGCGGCGCTGTGTGCAATACAACAAGTCCTGCTACAAGGCCTATGAGTACATGGGCTT
CATCATGGAGAAGGAGCAGTCCTACAAGGATGCAGTCACCAACTACAAACTGGCCTGGAAGTACAGTCATCACGC
CAACCCTGCCATTGGCTTCAAACTTGCTTTCAACTACCTGAAGGACAAGAAATTTGTGGAGGCCATCGAAATCTG
CAACGATGTCCTCAGGGAGCACCCCGACTACCCCAAGATCAGGGAGGAAATTTTGGAAAAGGCCCGAAAGTCCCT
GAGGCCC**TAG**CTGGGGTCAAGGGGCCTGGACCAGTAGAAGCCATCAACCTACTGAAGTTGTGTGGAGGGATGGAA
AGTGGGTCAGTGGAGAAGGGATTCAGA

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FIGURE 2946

GGCGGGGCTGGGCGCAGGCAGTCTCCCGCCGCCGCCGCCGCTGCCGGACGCGCAGAGCGAGGGGCGGCTGGACCG
ACGGCTGCCGGGCCGAGCGCACAGAGTCGCGGCGCAGGGGGCGTCCCCGGCCGGGACGCGGGTCGCGTCGTTGTC
CTCCGCGAGCGTCCGGATTGCAGGCTGTCTGTCCCCAGACCCCAGAGCACGTCCGGCACCACC**ATG**ACTGGGCTG
TTGAAGAGGAAATTTGACCAGCTGGATGAGGACAACTCCTCGGTCTCCTCCTCCTCCTCTTCCTCTGGGTGCCAG
TCTCGCTCCTGCTCCCCAAGCTCTTCTGTCTCCCGTGCCTGGGACTCAGAGGAGGAAGGCCCCTGGGATCAGATG
CCCCTGCCTGACCGTGACTTCTGCGGCCCCAGAAGTTTCACCCCCCTGTCTATCCTGAAGCGGGCTCGCCGGGAG
CGCCCAGGCCGTGTAGCCTTTGATGGGATCACCGTCTTCTACTTCCCCCGCTGCCAGGGCTTCACCAGTGTGCCC
AGCCGTGGTGGCTGTACTCTGGGTATGGCCCTTCGCCACAGTGCTTGCCGTCGCTTCTCTTTGGCTGAGTTTGCG
CAGGAGCAAGCCCGTGCACGGCACGAGAAGCTCCGCCAGCGCTTGAAAGAGGAGAAGTTGGAGATGCTGCAGTGG
AAGCTTTCGGCAGCTGGGGTACCCCAGGCAGAGGCAGGGCTGCCACCTGTGGTGGATGCCATTGATGACGCCTCT
GTGGAGGAGGACTTGGCAGTCGCTGTGGCAGGTGGCCGGTTGGAAGAAGTGAGCTTCCTACAGCCCTACCCAGCC
CGGCGACGTCGAGCTCTGCTGAGGGCTTCAGGTGTGCGAAGGATCGATCGGGAGGAGAAGCGGGAGCTGCAGGCA
CTGCGCCAATCCCGGGAGGATTGTGGCTGTCACTGCGATAGGATCTGCGACCCTGAGACCTGCAGCTGCAGCCTG
GCAGGCATCAAGTGCCAGATGGACCACACAGCATTCCCCTGTGGCTGCTGCAGGGAGGGCTGTGAGAACCCCATG
GGCCGTGTGGAATTTAATCAGGCAAGAGTTCAGACCCATTTCATCCACACACTCACCCGCCTGCAGTTGGAACAG
GAGGCTGAGAGCTTTAGGGAGCTGGAGGCCCCTGCCCAGGGCAGCCCACCCAGCCCTGGTGAGGAGGCCCTGGTC
CCTACTTTCCCACTGGCCAAGCCCCCCATGAACAATGAGCTGGGAGACAACAGCTGCAGCAGCGACATGACTGAT
TCTTCTACAGCATCTTCATCAGCATCGGGCACTAGTGAGGCTCCTGACTGCCCCACCCACCCAGGCCTGCCTGGC
CCTGGCTTCCAGCCTGGCGTTGATGATGACAGCCTGGCACGCATCTTGAGTTTCAGTGACTCTGACTTCGGTGGG
GAGGAGGAGGAAGAGGAGGAAGGGAGCGTGGGGAACCTGGACAACCTCAGCTGCTTCCATCCAGCTGACATCTTT
GGTACTAGTGACCCTGGTGGCCTGGCCAGCTGGACCCACAGCTATTCTGGCTGTAGCTTCACATCAGGCGTCCTG
GATGAGAATGCCAACCTGGATGCCAGCTGCTTCCTAAATGGTGGCCTTGAAGGGTCAAGGGAAGGCAGCCTTCCT
GGCACCTCAGTGCCACCCAGCATGGACGCTGGCCGGAGTAGCTCAGTGGATCTCAGCTTGTCTTCTTGTGACTCC
TTTGAGTTACTCCAGGCTCTGCCAGATTATAGTCTGGGGCCTCACTACACATCACAGAAGGTGTCTGACAGCCTG
GACAACATCGAGGCACCTCACTTCCCCCTGCCTGGCCTGTCTCCACCTGGGGATGCCAGCAGTTGCTTCCTGGAG
TCCCTCATGGGCTTCTCCGAGCCAGCCGCCGAAGCCCTAGATCCCTTTATTGACAGCCAGTTTGAGGACACTGTC
CCAGCATCTCTAATGGAGCCTGTGCCGGTG**TGA**GGACCAGGATGTCTTTTCCCAGCCCCAAGAGACCTGTTGCTG
CTTTCTTGTAATTATGGGGCTCCCCAGAGTCTGCGTAACAGTCTCCCACTGGCTGGCTCACCCACAGGTGCCATG
TGCACACTCCTGGTTTTCAAACAATTCTCTGGATTTATTTATTTGTTTTAACTTTTCTGTGCTGAAGAGAGGACT
GGGGGGAGGGGGCTTCCCCTTTCAGCTGCCCGGCCCCCCACACCCACAGCTTGCTCTTCTATCTCCACAACGTGA
GCCTGGAAGAGGAGAAAATGTGGCTCCTCTGGAGCTTGGCAGACCACTTTTCGGTCTTTGCGTGATGTTCCTTAG
CCCAAAGACGGTGAGACAGGGCTGAAATCAGGTGGCTTCTGCCACCCTGAGCCCTAGACCCATGGGTGGCTAAAT
CCACTGGACTGTGAAGACTATAATTTATTTCCATAATTTATTTGGAGATTGAGGAGGCTTTGGTTGCACTTCTTT
GGCTGGTGGGTAATGCCAGGGGTGGGGTGGGCACAGGCCCTCAAGAGCCCCTTTTGCCTTGTAGTCCTACACCTT
GCCCTGCCTGGGCTTTGGTGCAGACTAGGTGTGGATTTGAGCTCTGTGATCTATGTCTGCTGCCTGGCTCCTAGA
TGGCTCTGTGGGCAGGTGCTGGCCAAGGACATCATCTAGGCAGGGGGAGAGCCTGGGCTGAACAGCTGTGACCAA
AACTCCCTTCTGCCCCACCCTGCCCCCTCCACTTCCTGCCCTCTGTTCCATCTTCCCCCTTCCCAAAGGCCACAG
CCTTTATTCCAGGCCCAGGGATGTAGGAGGGGGAAGGAGGAAACAGGAAGCCCAGAGAGGGCAAAGGGCCTACCT
CGGGGCGCGAACCATGCCCCAGACTATTATCTCAGGGCTTTCTGGGCACTGCACTTCAGCGTGGCCCACCTGCCC
ATGCCCTGAGGCCAGTTGGCGAGGGGTGGCTCCTGAGGGTTTTTATACCCTTTGTTTGCTAATGTTTAATTTTGC
ATCATAATTTCTACATTGTCCCTGAGTGTCAGAACTATAATTTATTCCATTTCTCTCTGTGTCTGTGCCAAGAAA
CGCAGGCTCTGGGCCTGCCCCTTGCCCAGGAGGCCTTGCCAGCCTGTGTGCTTGTGGGAACACCTTGTACCTGAG
CTTACAGGTACCAATAAAGAGGCTTTATTTTT

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FIGURE 2947

ACTCGTCTCTGGTAAAGTCTGAGCAGGACAGGGTGGCTGACTGGCAGATCCAGAGGTTCCCTTGGCAGTCCACGC
CAGGCCTTCACC**ATG**GATCAGTTCCCTGAATCAGTGACAGAAAACTTTGAGTACGATGATTTGGCTGAGGCCTGT
TATATTGGGGACATCGTGGTCTTTGGGACTGTGTTCCTGTCCATATTCTACTCCGTCATCTTTGCCATTGGCCTG
GTGGGAAATTTGTTGGTAGTGTTTGCCCTCACCAACAGCAAGAAGCCCAAGAGTGTCACCGACATTTACCTCCTG
AACCTGGCCTTGTCTGATCTGCTGTTTGTAGCCACTTTGCCCTTCTGGACTCACTATTTGATAAATGAAAAGGGC
CTCCACAATGCCATGTGCAAATTCACTACCGCCTTCTTCTTCATCGGCTTTTTTGGAAGCATATTCTTCATCACC
GTCATCAGCATTGATAGGTACCTGGCCATCGTCCTGGCCGCCAACTCCATGAACAACCGGACCGTGCAGCATGGC
GTCACCATCAGCCTAGGCGTCTGGGCAGCAGCCATTTTGGTGGCAGCACCCCAGTTCATGTTCACAAAGCAGAAA
GAAAATGAATGCCTTGGTGACTACCCCGAGGTCCTCCAGGAAATCTGGCCCGTGCTCCGCAATGTGGAAACAAAT
TTTCTTGGCTTCCTACTCCCCCTGCTCATTATGAGTTATTGCTACTTCAGAATCATCCAGACGCTGTTTTCCTGC
AAGAACCACAAGAAAGCCAAAGCCATTAAACTGATCCTTCTGGTGGTCATCGTGTTTTTCCTCTTCTGGACACCC
TACAACGTTATGATTTTCCTGGAGACGCTTAAGCTCTATGACTTCTTTCCCAGTTGTGACATGAGGAAGGATCTG
AGGCTGGCCCTCAGTGTGACTGAGACGGTTGCATTTAGCCATTGTTGCCTGAATCCTCTCATCTATGCATTTGCT
GGGGAGAAGTTCAGAAGATACCTTTACCACCTGTATGGGAAATGCCTGGCTGTCCTGTGTGGGCGCTCAGTCCAC
GTTGATTTCTCCTCATCTGAATCACAAAGGAGCAGGCATGGAAGTGTTCTGAGCAGCAATTTTACTTACCACACG
AGTGATGGAGATGCATTGCTCCTTCTC**TGA**AGGGAATCCCAAAGCCTTGTGTCTACAGAGAACCTGGAGTTCCTG
AACCTGATGCTGACTAGTGAGGAAAGATTTTTGTTGTTATTTCTTACAGGCACAAAATGATGGACCCAATGCACA
CAAAACAACCCTAGAGTGTTGTTGAGAATTGTGCTCAAAATTTGAAGAATGAACAAATTGAACTCTTTGAATGAC
AAAGAGTAGACATTTCTCTTACTGCAAATGTCATCAGAACTTTTTGGTTTGCAGATGACAAAAATTCAACTCAGA
CTAGTTTAGTTAAATGAGGGTGGTGAATATTGTTCATATTGTGGCACAAGCAAAAGGGTGTCTGAGCCCTCAAAG
TGAGGGGAAACCAGGGCCTGAGCCAAGCTAGAATTCCCTCTCTCTGACTCTCAAATCTTTTAGTCATTATAGATC
CCCCAGACTTTACATGACACAGCTTTATCACCAGAGAGGGACTGACACCCATGTTTCTCTGGCCCCAAGGGCAAA
ATTCCCAGGGAAGTGCTCTGATAGGCCAAGTTTGTATCAGGTGCCCATCCCTGGAAGGTGCTGTTATCCATGGGG
AAGGGATATATAAGATGGAAGCTTCCAGTCCAATCTCATGGAGAAGCAGAAATACATATTTCCAAGAAGTTGGAT
GGGTGGGTACTATTCTGATTACACAAAACAAATGCCACACATCACCCTTACCATGTGCCTGATCCAGCCTCTCCC
CTGATTACACCAGCCTCGTCTTCATTAAGCCCTCTTCCATCATGTCCCCAAACCTGCAAGGGCTCCCCACTGCCT
ACTGCATCGAGTCAAAACTCAAATGCTTGGCTTCTCATACGTCCACCATGGGGTCCTACCAATAGATTCCCCATT
GCCTCCTCCTTCCCAAAGGACTCCACCCATCCTATCAGCCTGTCTCTTCCATATGACCTCATGCATCTCCACCTG
CTCCCAGGCCAGTAAGGGAAATAGAAAAACCCTGCCCCCAAATAAGAAGGGATGGATTCCAACCCCAACTCCAGT
AGCTTGGGACAAATCAAGCTTCAGTTTCCTGGTCTGTAGAAGAGGGATAAGGTACCTTTCACATAGAGATCATCC
TTTCCAGCATGAGGAACTAGCCACCAACTCTTGCAGGTCTCAACCCTTTTGTCTGCCTCTTAGACTTCTGCTTTC
CACACCTGGCACTGCTGTGCTGTGCCCAAGTTGTGGTGCTGACAAAGCTTGGAAGAGCCTGCAGGTGCTGCTGCG
TGGCATAGCCCAGACACAGAAGAGGCTGGTTCTTACGATGGCACCCAGTGAGCACTCCCAAGTCTACAGAGTGAT
AGCCTTCCGTAACCCAACTCTCCTGGACTGCCTTGAATATCCCCTCCCAGTCACCTTGTGGCAAGCCCCTGCCCA
TCTGGGAAAATACCCCATCATTCATGCTACTGCCAACCTGGGGAGCCAGGGCTATGGGAGCAGCTTTTTTTTCCC
CCCTAGAAACGTTTGGAACAATCTAAAAGTTTAAAGCTCGAAAACAATTGTAATAATGCTAAAGAAAAAGTCATC
CAATCTAACCACATCAATATTGTCATTCCTGTATTCACCCGTCCAGACCTTGTTCACACTCTCACATGTTTAGAG
TTGCAATCGTAATGTACAGATGGTTTTATAATCTGATTTGTTTTCCTCTTAACGTTAGACCACAAATAGTGCTCG
CTTTCTATGTAGTTTGGTAATTATCATTTTAGAAGACTCTACCAGACTGTGTATTCATTGAAGTCAGATGTGGTA
ACTGTTAAATTGCTGTGTATCTGATAGCTCTTTGGCAGTCTATATGTTTGTATAATGAATGAGAGAATAAGTCAT
GTTCCTTCAAGATCATGTACCCCAATTTACTTGCCATTACTCAATTGATAAACATTTAACTTGTTTCCAATGTTT
AGCAAATACATATTTTATAGAACTTC

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FIGURE 2948

ATTGCCAC**ATG**GTCCACATTGCATGCAAGATTGCTGAGCTGAAGGAAAAGATTGATTGCCGTTCTGGTAAAAAGC
CAGAAGATTGCCCTAAATTCTTGAAGTCTGATGATGCTGCCATCATTGACATGGTTCCTGGCAAGCCCATGTGTG
TTGAGAGCTTCTCAGAACTGTTTGTTTCAATTGGCCATTTAAGTTTAGTAGTAAAAGACTGGTTAATGATAACAA
TGCATCATAAAACCTTCAGATGGAAAGGAGAATGTTTTGTGGACCACTTTGGTTTTCTTTTTTGCATCTGGCAGT
TT**TAA**GTTATTAGTTTTTAAAATCAGTACTTTTTAATGGAA

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FIGURE 2949

GAAGCGAAATCTCCCCTTCTACAGAGTTCCTCCGGCGCTTCCTCCACCCCGGGATACACAGAACCTCATCTCCTA
CGGTGCTGAAGCCTGCAGCAGGGCAGGATGGGCAGGAGAGCAGAGCCGCGGAGTCTGCGGCGCGGGTGAAGAGCG
GCGCGTAATTCCCGCAGCAAGATTGTTCCGCGCCCGCAGCCCCTGGACTAGCAGGATCCGAACCCCGGCGGCTGC
GTGCTTATAGGCGCAGACGTCAGAGAGCCCGCGGCTTAAAGCGCGTCGCCTGGCTAGCGCCACCCCCTAGCCTTC
TTCAAGGCCTCCAGGGCTGGGCCCAAGCGCCCGTCGACGGCACCCTGGGCCCAGAGGACTCGCGGGCCTCATCTC
CA**ATG**ATTCAGAACTCACGTCCGTCGCTGCTGCAACCCCAAGATGTCGGAGACACGGTGGAAACGCTTATGTTAC
ATCCGGTGATCAAGGCTTTCCTGTGTGGCTCCATCAGTGGGACCTGCTCTACCCTCCTTTTCCAACCTCTGGATC
TCCTTAAAACACGCCTGCAAACCCTCCAGCCCTCAGATCATGGGTCTAGACGTGTTGGGATGTTGGCTGTACTCT
TGAAGGTGGTTCGCACGGAGAGTCTTTTGGGCCTTTGGAAAGGGATGTCCCCTTCCATTGTGAGATGTGTCCCTG
GCGTTGGAATCTACTTTGGCACTCTCTACTCTTTGAAGCAGTATTTCTTGCGAGGCCATCCCCCAACCGCCCTGG
AGTCAGTCATGCTGGGGGTGGGCTCTCGCTCTGTTGCAGGGGTCTGTATGTCACCTATCACTGTAATCAAGACGC
GCTATGAGAGTGGGAAATATGGCTATGAGAGTATCTACGCTGCCCTGAGGAGCATCTATCACAGTGAGGGGCACC
GGGGCCTCTTCAGTGGCCTGACAGCAACTCTCCTTCGAGATGCGCCCTTCTCAGGAATCTACCTGATGTTTTACA
ACCAGACCAAAAATATAGTGCCTCATGACCAGGTGGATGCAACCCTTATTCCTATTACAAATTTCAGCTGTGGGA
TATTTGCTGGTATTCTGGCCTCACTGGTAACTCAACCTGCGGATGTTATCAAAACTCATATGCAGCTTTATCCAC
TGAAGTTTCAATGGATTGGCCAAGCAGTGACACTTATTTTCAAAGACTATGGACTACGTGGCTTCTTCCAAGGTG
GCATCCCCCGAGCCCTCCGCAGAACTCTAATGGCAGCAATGGCGTGGACGGTGTATGAAGAGATGATGGCCAAGA
TGGGCCTGAAGTCC**TGA**CCAAGAGAGGACTGGGAACGGGTGAAATCTGTTGCCCTGCTTGGTTTCTGCCAAGGGC
TGCTGCTTCTTACTATTCTGCAGTAAGATGAAGTCCTACCTGGAAAACCAGGCAGAAATTGTGTTGCCTTTGCCT
TCAGTAATCCCCTTAAGGAGAAAATATATGGACCTGATTTCAGCCTTCAGAATCTCCAAAAGAGGAGTCATCAAT
TCATAGAGCACACTAGGGTGTTAGGAGAGAGCTTTGCATACTCTGAGAGGCTACTTGGAAAGGCATTTTCCCAGG
AGAGCTCTGTCAGGTGGCTGCGCTTCAGCCCCACCCCTACACCACAGGGTCTCCTTGGGTATGTTCTTGGGCAAG
CAATCACAAAGCCAGAGAAGCTGTAAGCTGCCTGCCGGGCCTGAGGAGCTCCAACCAGGGAAGACTGGATGTGAG
GAGAGGAGTCACTGTCACCAGGTCACAGACTGACTGAGGTGATGGTAGGATGAGGAGGAACAGATGCCCTTCTTT
AATTGGTTCTCAGTTAACTTCTCAGAGGCTCTGGAGAACGGGACAGTGGCTTTCTAGCCTCTGAATGTTCCAAAT
AAAATTTTTTGGTCTTGGCCCCTGTACTGTTTTACCTCTAAATTCTGGCATTTTTTTTTCCCTGCAATTAAAGTG
CTGTACTTTATTTATTGAACTTTATCATTGAAAGCTGTTTGGAAAACCT

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FIGURE 2950

GCCTGTCTTTTCCGTGCTACCTGCAGAGGGGTCCATACGGCGTTGTTCTGGATTCCCGTCGTAACTTAAAGGGAA
ATTTTCACA**ATG**TCCGGAGCCCTTGATGTCCTGCAAATGAAGGAGGAGGATGTCCTTAAGTTCCTTGCAGCAGGA
ACCCACTTAGGTGGCACCAATCTTGACTTCCAGATGGAACAGTACATCTATAAAAGGAAAAGTGATGGCATCTAT
ATCATAAATCTCAAGAGGACCTGGGAGAAGCTTCTGCTGGCAGCTCGTGCAATTGTTGCCATTGAAAACCCTGCT
GATGTCAGTGTTATATCCTCCAGGAATACTGGCCAGAGGGCTGTGCTGAAGTTTGCTGCTGCCACTGGAGCCACT
CCAATTGCTGGCCGCTTCACTCCTGGAACCTTCACTAACCAGATCCAGGCAGCCTTCCGGGAGCCACGGCTTCTT
GTGGTTACTGACCCCAGGGCTGACCACCAGCCTCTCACGGAGGCATCTTATGTTAACCTACCTACCATTGCGCTG
TGTAACACAGATTCTCCTCTGCGCTATGTGGACATTGCCATCCCATGCAACAACAAGGGAGCTCACTCAGTGGGT
TTGATGTGGTGGATGCTGGCTCGGGAAGTTCTGCGCATGCGTGGCACCATTTCCCGTGAACACCCATGGGAGGTC
ATGCCTGATCTGTACTTCTACAGAGATCCTGAAGAGATTGAAAAAGAAGAGCAGGCTGCTGCTGAGAAGGCAGTG
ACCAAGGAGGAATTTCAGGGTGAATGGACTGCTCCCGCTCCTGAGTTCACTGCTACTCAGCCTGAGGTTGCAGAC
TGGTCTGAAGGTGTACAGGTGCCCTCTGTGCCTATTCAGCAATTCCCTACTGAAGACTGGAGCGCTCAGCCTGCC
ACGGAAGACTGGTCTGCAGCTCCCACTGCTCAGGCCACTGAATGGGTAGGAGCAACCACTGACTGGTCT**TAA**GCT
GTTCTTGCATAGGCTCTTAAGCAGCATGGAAAAATGGTTGATGGAAAATAAACATCAGTTTCT

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FIGURE 2951

ATGCCTTCAAAGGAAAAGCAAGGGACACTCACCTTGCAAAACCATCAAAACTATTCCCACAGACGCCACATGAGC
CCCCATTTATCTGACTTAAAAGAAGCAGGGTCTGCTGGGATTCGAATCCTCTGGTTCCAGAGAGAGAAGCTCTTT
CAAAGACTGGATTCTGGCCCACAAAAGAAGGTTCCTGCTTACTGGAATCAAGAGGTCAAAGATTTTTCTGAATCA
TGCATCCACGGAGAAGAGCCCATTAGGGCTATTCCAGCAGACAGCAGTAAGGATGTCCATGAGCTTTATGTTGTT
GTTGGGAGCTGGGATTCTACTCTTCCAGAAGAATATGACCTCAAAAGGAGCCACCACAGAACGAGCTCGGCACCC
ATCTACGAATGTATTGCTAAGGATCATTGGGGATGGGGTGACCCAGAAGTGAACTGGCTCCATGATCCATTAAAC
AATCACCCTGAAATCCACAGTGCCAGTCAACTAATGGGGCTTGGAGCCATCATTAGGTCACTGGAAAATGATATC
TTCCTGGAGGTTGATACTGGCTTCACCATCCTGAGAGCAGAAGGCTTGAGGGAGGAACAGCCTCCTGGGCATGGA
GGCACCTGCCATCCCACATCAAATCACAGAGCCATGCTTAAAAGGGCCAGGTGGATGACTTATGTGGAAGAAGTG
AGCCGGGTGAGGATTTCTACTTCGAGAAACCTTGCTCGAAGCGCTTTCATCATTCTCTCCTACACAACAAACCCT
GAACTCTTAGAAGCAGCTCTTGGCACAGGAGCCTCCAACCCGTTTTTCAGCCGGCTTTCTCTACTTGTTTCTCAT
TCCATGATCACAGAAAACAGCTCCATTAAGACTCTTTTCAGGTCTACCAAAGAGCTAGTGATTGCACTCAATCGA
TGTTTCTTCGGCATTACTCAAAGTGCAGCTACACTCAGCCCACAGCTTCACATCAGATTTATCAGCAGAGAACAA
AAGAAGTACTTGAAATTGCCACTTACAACGTTTATGAGTAAACTGGAATCCAAAGTCTGGCCTCTAGCCAAGCGG
TTACGCCAGTGGCCTGACTCATATACAAAGAAGTTTGAGCACAGAATCTACCCCATCACATTTTCTGTTGGAAAC
CCTCAGGAGTGGAAGAAATTGTTCAAACCCTGTGCTGCCCAGAGACTCTTTCTTCCGATCAACCTGGAGCTCTAC
GCCTCCTACGTTTACCTGTCCATGTCTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAACTTTGCCAAATAC
TTTCTTCACCAATCTCATGAGGAGAGGGAACATGCCGAGAAACTGATGACGTTGCAGAACCAACGAGGTGGCCGA
ATCTTCCTTCAGGATATCAAGAAACCAGACTGTGACGACTGGGAGAGCGGGCTGAATGCGATGGATGACAAAAAT
GACCCCCATTTGTGTGACTTCATTGAGACACATTACCTGAATGAGCAGGTGAAAGCCATCAAAGAATTGGGTGGC
CACGTGACCAACTTGTGCAAGATGGGAGCACCCGAATCTGGCTCGGCAGAATATCTCTTTGACAAGCACACGCTG
GGAGACAGTGATAACGAAAGC**TAA**

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FIGURE 2952

ATGCTGACCCCGGCGTTCGACCTCAGCCAGGATCCGGACTTCCTGACTATCGCCATCCGCGTGCCCTACGCCCGG
GTCTCCGAGTTCGACGTCTACTTCGAGGGGTCTGACTTCAAGTTCTACGCCAAGCCATACTTTCTCAGGCGAGTT
CGGGGAATTTTTACCATTCGCCTGCCCAAAGAAACCCCTGGCCAGCATTTTGAGGGGCTGAACATGTTAACTGCT
CTTCTGGCACCAAGAAAATCCAGGACAGCAAAACCACTTGTGGAAGAAATAGGTGCTTCTGAGATTCCTGAGGAA
GTAGTTGACGATGAAGAGTTTGATTGGGAAATTGAGCAGACACCCTGTGAAGAGGTATCAGAAAGTGCTTTGAAT
CCGCAGTGCCACTATGGATTTGGAAACTTACGATCAGGAGTGTTGCAACGGTTACAGCTGCTGTTTATGGCAGCC
GTAACAAGTGGTTCAAAACTGAGTGATCATGATGAACTGAGTGATGTTATTGATATTAAGGATCCAGATTTCACC
CCTGCAGCTGAACGAAGACAGAAGCGCCTGGCCGCTGAGCTGGCCAAGTTTGATCCTGATCATTATCTAGCTGAC
TTTTTTGAAGATGAGGCGATTGAACAGATTTTGAAGTATAATCCTTGGTGGACTGACAAATATTCAAAAATGATG
GCCTTTTTGGAAAAGAGTCAGGAACAAGAAAATCATGCTACATTAGCGTGGGCTGTTGTCTGTTTAACACCTCCT
CATCAGGTGTCGCCAGGCAGATACAACAGTGCAGTGCCTCCCTATTCTGTGATCTTAAAAGTGTACACCCTTGCC
ACAACCATAGCATTTGCTCAGTACTCTCAACATAAACCAAGCTTAGATCGCAATGAAACTGCGGACCTGCAGGCT
GCCTTGCTTCAC**TGA**

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FIGURE 2953

ATGATCTTTAATTTTGCCCTGAATACCTTGGTTGCAATCACTGTGCTTGTTTATCCAAACGGCATTCAGGAATAC
ATACGACAACTGCCTCCGAATTTTCCCTACAGAGATGATGTCATGAGGCCTGGAGAACCCAGGAGTTTCCAAGCT
GTGCTGCCACCCGAGCTCTGGATCCACCTGGCTGTGGTGGCCTGTGGCAATCGGCTGGAGGAGACGCTGGTCATG
CTCAAATCAGCTGTGCTTTTTAGCCACAGGAAGATCCAATTCCACATCTTCACTGAAGACTCTCTGAAGCCCGAG
TTTGATAAGCAGTTACGCCAGTGGCCTGACTCATATACAAAGAAGTTTGAGCACAGAATCTACCCCATCACATTT
TCTGTTGGAAACCCTCAGGAGTGGAAGAAATTGTTCAAACCCTGTGCTGCCCAGAGACTCTTTCTTCCGATCAAC
CTGGAGCTCTACGCCTCCTACGTTTACCTGTCCATGTCTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAAC
TTTGCCAAATACTTTCTTCACCAATCTCATGAGGAGAGGGAACATGCCGAGAAACTGATGACGTTGCAGAACCAA
CGAGGTGGCCGAATCTTCCTTCAGGATATCAAGAAACCAGACTGTGACGACTGGGAGAGCGGGCTGAATGCGATG
GATGACAAAAATGACCCCCATTTGTGTGACTTCATTGAGACACATTACCTGAATGAGCAGGTGAAAGCCATCAAA
GAATTGGGTGGCCACGTGACCAACTTGTGCAAGATGGGAGCACCCGAATCTGGCTCGGCAGAATATCTCTTTGAC
AAGCACACGCTGGGAGACAGTGATAACGAAAGC**TAA**

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FIGURE 2954

AGTAGTTGCGCAGCTGGGGTTGGTAAGGTCGGGCCATGGTGGGGCAGAGGTTGGGAAG**ATG**GCGTGGCGAGGCTG
GGCGCAGAGAGGCTGGGGCTGCGGCCAGGCGTGGGGTGCGTCGGTGGGCGGCCGCAGCTGCGAGGAGCTCACTGC
GGTCCTAACCCCGCCGCAGCTCCTCGGACGCAGGTTTAACTTCTTTATTCAACAAAAATGCGGATTCAGAAAAGC
ACCCAGGAAGGTTGAACCTCGAAGATCAGACCCAGGGACAAGTGGTGAAGCATACAAGAGAAGTGCTTTGATTCC
TCCTGTGGAAGAAACAGTCTTTTATCCTTCTCCCTATCCTATAAGGAGTCTCATAAAACCTTTATTTTTTACTGT
TGGGTTTACAGGCTGTGCATTTGGATCAGCTGCTATTTGGCAATATGAATCACTGAAATCCAGGGTCCAGAGTTA
TTTTGATGGTATAAAAGCTGATTGGTTGGATAGCATAAGACCACAAAAAGAAGGAGACTTCAGAAAGGAGATTAA
CAAGTGGTGGAATAACCTAAGTGATGGCCAGCGGACTGTGACAGGTTTGTGT**TAG**CTTACACGTTTTAACCATTC
AAGGGAAGAGAAATCAAACCAAAAGGTA

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FIGURE 2955

ATGTCTAGAGCCCTTGATGTCCTGCAAATGAAGGAGGAGGATGTCCTTAAGTTCCTTGCAGCAGGAACCCACTTA
GGTGGTACCAACCTTGACTTCCAAATGGACAATACTGGCCAGAGGGCTGTGCTGAAGTTTGCTGCTGCCACTGGA
GCCACTCAAATTGTTGGCCGCTTCACTCCTGGAACCTTCACTAGCCAGACCCAGGCAGCCTTCAGGGAGCCACGG
CTTCTAGTGGTTACTGATCCCAGGGCTGACCACCAGCCTCTCACAGAGACATCTTATGTTAACCTACCTACCATT
GCTCTATGTCACACAGATTTTCCTCTGCGCTATGTGGACATTGCCATCACATGCAACAACAAGGGAGCTCCCTCA
GTGGGTCCGAGCTGGTGGATGCTGGCCCTGGAAGTTCTGCGCGTGTGTGGCACCATTTCCCTCGAACACCCATGG
GAGGTCATGCCTGATCTCTACTTCTACAGAGATCCTGAAGAGATTGGAAAAGAGGAGCAGGTTGCTGCTGAAAAG
ACTGTGACCAAGGAGGAATTTCAGGGCAAATGGACTGCTCCAGCTCCTGAGTTCACCGCTATTCAGCCTGAGGTT
GGAGACTGGTCTGATGGTGTACAGGTGCCCTCTGTGCCTATTCATCAGGTCCCTACTGAAGACTGGAGTGCTCAG
CCTGCCACAGAAGACTGGTCTGCAGCTCCCACTGCTCAGGCCACTGAATGGGTAGAAACAACCACTGAATGGTCT
TAA

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FIGURE 2956A

GGCTCATGCTCGGGAGCGTGGTTGAGCGGCTGGCGCGGTTGTCCTGGAGCAGGGGCGCAGGAATTCTGATGTGAA
ACTAACAGTCTGTGAGCCCTGGAACCTCCACTCAGAGAAGATGAAGGATATCGACATAGGAAAAGAGTATATCAT
CCCCAGTCCTGGGTATAGAAGTGTGAGGGAGAGAACCAGCACTTCTGGGACGCACAGAGACCGTGAAGATTCCAA
GTTCAGGAGAACTCGACCGTTGGAATGCCAAGATGCCTTGGAAACAGCAGCCCGAGCCGAGGGCCTCTCTCTTGA
TGCCTCCATGCATTCTCAGCTCAGAATCCTGGATGAGGAGCATCCCAAGGGAAAGTACCATCATGGCTTGAGTGC
TCTGAAGCCCATCCGGACTACTTCCAAACACCAGCACCCAGTGGACAATGCTGGGCTTTTTTCCTGTATGACTTT
TTCGTGGCTTTCTTCTCTGGCCCGTGTGGCCCACAAGAAGGGGGAGCTCTCAATGGAAGACGTGTGGTCTCTGTC
CAAGCACGAGTCTTCTGACGTGAACTGCAGAAGACTAGAGAGACTGTGGCAAGAAGAGCTGAATGAAGTTGGGCC
AGACGCTGCTTCCCTGCGAAGGGTTGTGTGGATCTTCTGCCGCACCAGGCTCATCCTGTCCATCGTGTGCCTGAT
GATCACGCAGCTGGCTGGCTTCAGTGGACCAGCCTTCATGGTGAAACACCTCTTGGAGTATACCCAGGCAACAGA
GTCTAACCTGCAGTACAGCTTGTTGTTAGTGCTGGGCCTCCTCCTGACGGAAATCGTGCGGTCTTGGTCGCTTGC
ACTGACTTGGGCATTGAATTACCGAACCGGTGTCCGCTTGCGGGGGGCCATCCTAACCATGGCATTTAAGAAGAT
CCTTAAGTTAAAGAACATTAAAGAGAAATCCCTGGGTGAGCTCATCAACATTTGCTCCAACGATGGGCAGAGAAT
GTTTGAGGCAGCAGCCGTTGGCAGCCTGCTGGCTGGAGGACCCGTTGTTGCCATCTTAGGCATGATTTATAATGT
AATTATTCTGGGACCAACAGGCTTCCTGGGATCAGCTGTTTTTATCCTCTTTTACCCAGCAATGATGTTTGCATC
ACGGCTCACAGCATATTTCAGGAGAAAATGCGTGGCCGCCACGGATGAACGTGTCCAGAAGATGAATGAAGTTCT
TACTTACATTAAATTTATCAAAATGTATGCCTGGGTCAAAGCATTTTCTCAGAGTGTTCAAAAAATCCGCGAGGA
GGAGCGTCGGATATTGGAAAAAGCTGGGTACTTCCAGAGCATCACTGTGGGTGTGGCTCCCATTGTGGTGGTGAT
TGCCAGCGTGGTGACCTTCTCTGTTCATATGACCCTGGGCTTCGATCTGACAGCAGCACAGGCTTTCACAGTGGT
GACAGTCTTCAATTCCATGACTTTTGCTTTGAAAGTAACACCGTTTTCAGTAAAGTCCCTCTCAGAAGCCTCAGT
GGCTGTTGACAGATTTAAGAGTTTGTTTCTAATGGAAGAGGTTCACATGATAAAGAACAAACCAGCCAGTCCTCA
CATCAAGATAGAGATGAAAAATGCCACCTTGGCATGGGACTCCTCCCACTCCAGTATCCAGAACTCGCCCAAGCT
GACCCCCAAAATGAAAAAAGACAAGAGGGCTTCCAGGGGCAAGAAAGAGAAGGTGAGGCAGCTGCAGCGCACTGA
GCATCAGGCGGTGCTGGCAGAGCAGAAAGGCCACCTCCTCCTGGACAGTGACGAGCGGCCCAGTCCCGAAGAGGA
AGAAGGCAAGCACATCCACCTGGGCCACCTGCGCTTACAGAGGACACTGCACAGCATCGATCTGGAGATCCAAGA
GGGTAAACTGGTTGGAATCTGTGGCAGTGTGGGAAGTGGAAAAACCTCTCTCATTTCAGCCATTTTAGGCCAGAT
GACGCTTCTAGAGGGCAGCATTGCAATCAGTGGAACCTTCGCTTATGTGGCCCAGCAGGCCTGGATCCTCAATGC
TACTCTGAGAGACAACATCCTGTTTGGGAAGGAATATGATGAAGAAAGATACAACTCTGTGCTGAACAGCTGCTG
CCTGAGGCCTGACCTGGCCATTCTTCCCAGCAGCGACCTGACGGAGATTGGAGAGCGAGGAGCCAACCTGAGCGG
TGGGCAGCGCCAGAGGATCAGCCTTGCCCGGGCCTTGTATAGTGACAGGAGCATCTACATCCTGGACGACCCCCT
CAGTGCCTTAGATGCCCATGTGGGCAACCACATCTTCAATAGTGCTATCCGGAAACATCTCAAGTCCAAGACAGT
TCTGTTTGTTACCCACCAGTTACAGTACCTGGTTGACTGTGATGAAGTGATCTTCATGAAAGAGGGCTGTATTAC
GGAAAGAGGCACCCATGAGGAACTGATGAATTTAAATGGTGACTATGCTACCATTTTTAATAACCTGTTGCTGGG
AGAGACACCGCCAGTTGAGATCAATTCAAAAAAGGAAACCAGTGGTTCACAGAAGAAGTCACAAGACAAGGGTCC
TAAAACAGGATCAGTAAAGAAGGAAAAAGCAGTAAAGCCAGAGGAAGGGCAGCTTGTGCAGCTGGAAGAGAAAGG
GCAGGGTTCAGTGCCCTGGTCAGTATATGGTGTCTACATCCAGGCTGCTGGGGGCCCCTTGGCATTCCTGGTTAT
TATGGCCCTTTTCATGCTGAATGTAGGCAGCACCGCCTTCAGCACCTGGTGGTTGAGTTACTGGATCAAGCAAGG
AAGCGGGAACACCACTGTGACTCGAGGGAACGAGACCTCGGTGAGTGACAGCATGAAGGACAATCCTCATATGCA
GTACTATGCCAGCATCTACGCCCTCTCCATGGCAGTCATGCTGATCCTGAAAGCCATTCGAGGAGTTGTCTTTGT
CAAGGGCACGCTGCGAGCTTCCTCCCGGCTGCATGACGAGCTTTTCCGAAGGATCCTTCGAAGCCCTATGAAGTT
TTTTGACACGACCCCCACAGGGAGGATTCTCAACAGGTTTTCCAAAGACATGGATGAAGTTGACGTGCGGCTGCC
GTTCCAGGCCGAGATGTTCATCCAGAACGTTATCCTGGTGTTCTTCTGTGTGGGAATGATCGCAGGAGTCTTCCC
GTGGTTCCTTGTGGCAGTGGGGCCCCTTGTCATCCTCTTTTCAGTCCTGCACATTGTCTCCAGGGTCCTGATTCG
GGAGCTGAAGCGTCTGGACAATATCACGCAGTCACCTTTCCTCTCCCACATCACGTCCAGCATACAGGGCCTTGC
CACCATCCACGCCTACAATAAAGGGCAGGAGTTTCTGCACAGATACCAGGAGCTGCTGGATGACAACCAAGCTCC
TTTTTTTTTGTTTACGTGTGCGATGCGGTGGCTGGCTGTGCGGCTGGACCTCATCAGCATCGCCCTCATCACCAC
CACGGGGCTGATGATCGTTCTTATGCACGGGCAGATTCCCCCAGCCTATGCGGGTCTCGCCATCTCTTATGCTGT
CCAGTTAACGGGGCTGTTCCAGTTTACGGTCAGACTGGCATCTGAGACAGAAGCTCGATTCACCTCGGTGGAGAG

FIGURE 2956B

GATCAATCACTACATTAAGACTCTGTCCTTGGAAGCACCTGCCAGAATTAAGAACAAGGCTCCCTCCCCTGACTG
GCCCCAGGAGGGAGAGGTGACCTTTGAGAACGCAGAGATGAGGTACCGAGAAAACCTCCCTCTCGTCCTAAAGAA
AGTATCCTTCACGATCAAACCTAAAGAGAAGATTGGCATTGTGGGGCGGACAGGATCAGGGAAGTCCTCGCTGGG
GATGGCCCTCTTCCGTCTGGTGGAGTTATCTGGAGGCTGCATCAAGATTGATGGAGTGAGAATCAGTGATATTGG
CCTTGCCGACCTCCGAAGCAAACTCTCTATCATTCCTCAAGAGCCGGTGCTGTTCAGTGGCACTGTCAGATCAAA
TTTGGACCCCTTCAACCAGTACACTGAAGACCAGATTTGGGATGCCCTGGAGAGGACACACATGAAAGAATGTAT
TGCTCAGCTACCTCTGAAACTTGAATCTGAAGTGATGGAGAATGGGGATAACTTCTCAGTGGGGGAACGGCAGCT
CTTGTGCATAGCTAGAGCCCTGCTCCGCCACTGTAAGATTCTGATTTTAGATGAAGCCACAGCTGCCATGGACAC
AGAGACAGACTTATTGATTCAAGAGACCATCCGAGAAGCATTTGCAGACTGTACCATGCTGACCATTGCCCATCG
CCTGCACACGGTTCTAGGCTCCGATAGGATTATGGTGCTGGCCCAGGGACAGGTGGTGGAGTTTGACACCCCATC
GGTCCTTCTGTCCAACGACAGTTCCCGATTCTATGCCATGTTTGCTGCTGCAGAGAACAAGGTCGCTGTCAAGGG
C**TGA**CTCCTCCCTGTTGACGAAGTCTCTTTTCTTTAGAGCATTGCCATTCCCTGCCTGGGGCGGGCCCCTCATCG
CGTCCTCCTACCGAAACCTTGCCTTTCTCGATTTTATCTTTCGCACAGCAGTTCCGGATTGGCTTGTGTGTTTCA
CTTTTAGGGAGAGTCATATTTTGATTATTGTATTTATTCCATATTCATGTAAACAAAATTTAGTTTTTGTTCTTA
ATTGCACTCTAAAAGGTTCAGGGAACCGTTATTATAATTGTATCAGAGGCCTATAATGAAGCTTTATACGTGTAG
CTATATCTATATATAATTCTGTACATAGCCTATATTTACAGTGAAAATGTAAGCTGTTTATTTTATATTAAAATA
AGCACTGTGCTAATAACAGTGCATATTCCTTTCTATCATTTTTGTACAGTTTGCTGTACTAGAGATCTGGTTTTG
CTATTAGACTGTAGGAAGAGTAGCATTTCATTCTTCTCTAGCTGGTGGTTTCACGGTGCCAGGTTTTCTGGGTGT
CCAAAGGAAGACGTGTGGCAATAGTGGGCCCTCCGACAGCCCCCTCTGCCGCCTCCCCACGGCCGCTCCAGGGGT
GGCTGGAGACGGGTGGGCGGCTGGAGACCATGCAGAGCGCCGTGAGTTCTCAGGGCTCCTGCCTTCTGTCCTGGT
GTCACTTACTGTTTCTGTCAGGAGAGCAGCGGGGCGAAGCCCAGGCCCCTTTTCACTCCCTCCATCAAGAATGGG
GATCACAGAGACATTCCTCCGAGCCGGGGAGTTTCTTTCCTGCCTTCTTCTTTTTGCTGTTGTTTCTAAACAAGA
ATCAGTCTATCCACAGAGAGTCCCACTGCCTCAGGTTCCTATGGCTGGCCACTGCACAGAGCTCTCCAGCTCCAA
GACCTGTTGGTTCCAAGCCCTGGAGCCAACTGCTGCTTTTTGAGGTGGCACTTTTTCATTTGCCTATTCCCACAC
CTCCACAGTTCAGTGGCAGGGCTCAGGATTTCGTGGGTCTGTTTTCCTTTCTCACCGCAGTCGTCGCACAGTCTC
TCTCTCTCTCTCCCCTCAAAGTCTGCAACTTTAAGCAGCTCTTGCTAATCAGTGTCTCACACTGGCGTAGAAGTT
TTTGTACTGTAAAGAGACCTACCTCAGGTTGCTGGTTGCTGTGTGGTTTGGTGTGTTCCCGCAAACCCCCTTTGT
GCTGTGGGGCTGGTAGCTCAGGTGGGCGTGGTCACTGCTGTCATCAATTGAATGGTCAGCGTTGCATGTCGTGAC
CAACTAGACATTCTGTCGCCTTAGCATGTTTGCTGAACACCTTGTGGAAGCAAAAATCTGAAAATGTGAATAAAA
TTATTTTGGATTTTGT

FIGURE 2957

TGCGTGCGGTGGCAGCTTCCTTGCGGAAGTGGTGACCGTGAGAGAAGAAG**ATG**GCGGCCCCTGTAGTGGCGCCGC
CTGGTGTGGTGGTTAGTCGGGCTAACAAGCGCAGCGGCGCGGGGCCGGGAGGCAGCGGTGGCGGGGGAGCCAGAG
GGGCGGAGGAGGAACCGCCGCCGCCCCTACAAGCAGTTCTGGTGGCCGATAGCTTCGATCGCCGCTTCTTCCCCA
TCTCCAAGGACCAGCCTCGGGTCCTCTTGCCCCTGGCCAATGTGGCATTAATTGACTACACTCTGGAATTCCTGA
CTGCCACAGGTGTACAGGAAACATTTGTCTTTTGTTGCTGGAAAGCTGCTCAAATCAAAGAACATTTACTGAAGT
CAAAGTGGTGCCGCCCTACATCTCTCAATGTGGTTCGAATAATTACATCAGAGCTCTATCGATCACTGGGAGATG
TCCTCCGTGATGTTGATGCCAAGGCTTTGGTGCGCTCTGACTTTCTTCTGGTGTATGGGGATGTCATCTCAAACA
TCAATATCACCAGAGCCCTTGAGGAACACAGGTTGAGACGGAAGCTAGAAAAAAATGTTTCTGTGATGACGATGA
TCTTCAAGGAGTCATCCCCCAGCCACCCAACTCGTTGCCACGAAGACAATGTGGTAGTGGCTGTGGATAGTACCA
CAAACAGGGTTCTCCATTTTCAGAAGACCCAGGGTCTCCGGCGTTTTGCATTTCCTCTGAGCCTGTTTCAGGGCA
GTAGTGATGGAGTGGAGGTTCGATATGATTTACTGGATTGTCATATCAGCATCTGTTCTCCTCAGGTGGCACAAC
TCTTTACAGACAACTTTGACTACCAAACTCGAGATGACTTTGTGCGAGGTCTCTTAGTGAATGAGGAGATCCTAG
GGAACCAGATCCACATGCACGTAACAGCTAAGGAATATGGTGCCCGTGTCTCCAACCTACACATGTACTCAGCTG
TCTGTGCTGACGTCATCCGCCGATGGGTCTACCCTCTCACCCCAGAGGCGAACTTCACTGACAGCACCACCCAGA
GCTGCACTCATTCCCGGCACAACATCTACCGAGGGCCTGAGGTCAGCCTGGGCCATGGCAGCATCCTAGAGGAAA
ATGTGCTCCTGGGCTCTGGCACTGTCATTGGCAGCAATTGCTTTATCACCAACAGTGTCATTGGCCCCGGCTGCC
ACATTGGTGATAACGTGGTGCTGGACCAGACCTACCTGTGGCAGGGTGTTCGAGTGGCGGCTGGAGCACAGATCC
ATCAGTCTCTGCTTTGTGACAATGCTGAGGTCAAGGAACGAGTGACACTGAAACCACGCTCTGTCCTCACTTCCC
AGGTGGTCGTGGGCCCAAATATCACGCTGCCTGAGGGCTCGGTGATCTCTTTGCACCCTCCAGATGCAGAGGAAG
ATGAAGATGATGGCGAGTTCAGTGATGATTCTGGGGCTGACCAAGAAAAGGACAAAGTGAAGATGAAAGGTTACA
ATCCAGCAGAAGTAGGAGCTGCTGGCAAGGGCTACCTCTGGAAAGCTGCAGGCATGAACATGGAGGAAGAGGAGG
AACTGCAGCAGAATCTGTGGGGACTCAAGATCAACATGGAAGAAGAGAGTGAAAGTGAAAGTGAGCAAAGTATGG
ATTCTGAGGAGCCGGACAGCCGGGGAGGCTCCCCTCAGATGGATGACATCAAAGTGTTCCAGAATGAAGTTTTAG
GAACACTACAGCGGGGCAAAGAGGAGAACATTTCTTGTGACAATCTCGTCCTGGAAATCAACTCTCTCAAGTATG
CCTATAACGTAAGTCTAAAGGAGGTGATGCAGGTACTGAGCCACGTGGTCCTGGAGTTCCCCCTGCAACAGATGG
ATTCCCCGCTTGACTCAAGCCGCTACTGTGCCCTGCTGCTTCCTCTGCTAAAGGCCTGGAGCCCTGTTTTTAGGA
ACTACATAAAGCGCGCAGCCGACCATTTGGAAGCGTTAGCAGCCATTGAGGACTTCTTCCTAGAGCATGAAGCTC
TTGGTATTTCCATGGCCAAGGTACTGATGGCTTTCTACCAGCTGGAGATCCTGGCTGAGGAAACAATTCTGAGCT
GGTTCAGCCAAAGAGATACAACTGACAAGGGCCAGCAGTTGCGCAAGAATCAACAGCTGCAGAGGTTCATCCAGT
GGCTAAAAGAGGCAGAAGAGGAGTCATCTGAAGATGAC**TGA**AGTCACACTGCCTGCTCCTTTGGGTGTGATTGAG
TGCCCTCCTGGCTCCTGGGCTGGGACAAGTGAGGAACTAGCTGCAGAGGGATGAGTGACCACCATCCAGGCTGAG
ACTGAAAGGAGCAGAGGCTGGAACTACAGTATTCTTTCCCCTGCTAGCAACCATGTGCCTCCCATCCTGACTGTG
GAGTTGGGATGTGGAAGTGGGGCTGGAACAAAGCTTCTGCCTAGGGAGGAGCTAAGCAGGCCCGGCAGTTGGAGG
AAGGCCAGAGGAACAGCTTTGTGCTCCGGCTTTCCCTCAGGGAACAGCAGAGAGCAGTTGGCTCTTTCTGCTGCT
TGTATATGTTAATATTAAAAGAGAGTGGTGT

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FIGURE 2958

GGAGCGTGGCGGCAAGATGGCTGTGCAAATTTCCAAGAAGAGGATGTTTGTCACTGATGACATCTTCAAAGCTGA
ACTGAATGAGTTTCTTACTCAGGAGCTGGCTGAAGATGGCTACTCTGGAGTTGAGATGCAAGTTACACCAACCAG
GACAGAAATCATTATCTTAGCCACCAGAACACAGAATATTCCTGGTGAGAAGGGCTGACGGATTCGGGAACTGAC
TGCTATAGTTCAGAAGAGGTTTGGCTTTCCAGAGGGCAGTGTAGAGCTTTATGCTGAAAAGGTTGCCACTAGAGG
TCTGTGTGCCATTGCCCAGGCAGAGTCTCTGCGTTACAAACTCCTAGGAGGGCTTGCTGTGTGGAGGGCCTGCTA
TGGTGTGCTGCGGTTCATC**ATG**GAGAGTGGGGCCAAAGGCTGCAAGGTCATGGCGTCTGGGAAACTCCGAGGACA
GAGGGCTAAATCCATGAAGTTTGTGGATGGCCTGACGATCCACAGTGGAGACCCTATTAACTACTACGTTGGCAC
TGCTGTGTGCCACGTGTTGCTCAGACAGGGTGTGCTGGGCATCAAGGTGAAGATCATGCTGCCCTGGGACCCAAC
TGGTAAGACTGGCCCTAAGAAGCCCCTGCCTGACCACGTGAGCATCGTGGAACCCAAAGATGAGATACTGCCCAC
CACCCCCATCTCAGAACAGAAGGGTGGGAAGCCAGAGCCATCTGCCATGCCCCAGCCAGTCCCTACAGCA**TAA**CA
GGGTCTCCTTAGCAGCTGTATTCTGGAGTCTGGATGTTGCTCTGTAAAGACCTTTAATAAAATCTCATACAAAGA
C

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FIGURE 2959

TCCGGTCTTGTCCACGCTAGGGGGTGCACGTACTCCCAACTGTGGTCGCGCTCTCACCCCTTCTGCTGCTCTCGT
GGCCCCCTCGCG**ATG**GCGGGCATCCTGTTTGAGGATATTTTCGATGTGAAGGATATTGACCCGGAGGGCAAGAAG
TTTGACCGAGTGTCTCGACTGCATTGTGAGAGTGAATCTTTCAAGATGGATCTAATCTTAGATGTAAACATTCAA
ATTTACCCTGTAGACTTGGGTGACAAGTTTCGGTTGGTCATAGCTAGTACCTTGTATGAAGATGGTACCCTGGAT
GATGGTGAATACAACCCCACTGATGATAGGCCTTCCAGGGCTGACCAGTTTGAGTATGTAATGTATGGAAAAGTG
TACAGGATTGAGGGAGATGAAACTTCTACTGAAGCAGCAACACGCCTCTCTGCGTACGTGTCCTATGGGGGCCTG
CTCATGAGGCTGCAGGGGGATGCCAACAACCTGCATGGATTCGAGGTGGACTCCAGAGTTTATCTCCTGATGAAG
AAGCTAGCCTTC**TGA**ACCTCGCCTGAAGCCAGCCTCTCTGCCAAGTCACTCAGGTCATGGGCATTGTTCAAGCCT
GAGTGGCAGCCGCTCTTGCTCACCTGTTGAGGAAGGGCTGGCTCACTGTCCACCGTGGCGGCATCTTTAACTGGC
CTCCACTCAATGGGAAACTGACTCGCCTGTGAAAGACACAGTGGGAGAGCTGAAAATGAATCAGAAGCTTTATGT
ATATGATTTTTAAATTAAACTTTACTTTTTCAGACTGCCCCTCCCCTTTTTGTAAAAAGTCCATTTACTGT

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FIGURE 2960A

TTTATGTATTTATTTATTTGAGACGGAGTTTCGCTCTTGTTGCCCAGGCTGGAATGCAATGGTGCGATCTCGGCT
CACCGCAGCCTCTGCCTCTGGGGTTCAAGCGATTATCCTGCCTCAGCCTCCAGAGTAGCTGGGATTACAGGCATG
CGCTGCCACGCCCGGCTGATTTTGTATTTTTAGTAGAGGCGGGGTTTCACCATGTTGGCCAGGCTGGTCTCCAAC
TCCCGACCTCAGGTGATCCGCCTGCTTCGGCCTCCCAAAATGCTGGGATTACAGGCGTGAGCCACTGCGCCCGGC
CTGAGAAGGGGGGTTTTATTGGGCAGAGGAGATCAGCAGTGGATTCAAAGGAGGCTTGGAAGGAGGCAAGGGTGT
CACAGAGTGGGATCCTTCAGGGCCTGGGTATGATGCCTGCACTAACCTCACTGGACAGTAGCGTAGGCTAGACAA
GATTTTAGAGATGTGTTGTGACCAGCTGCACTCCAGGAAAACTGTTTACATTATATCTTACCTCATTCATCCAGC
CTTTGCATTTTTGTTTGCTTGTTTTTGAGACAGAGTCTTTTTCTGTCGCCCAGGCTGGAGTGCAGTGGCACAATC
TTGGCTCACTGCAATCTCCGCCTCCTGGGTTCAAGCAATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATAACA
GGCACCCGCCACCATGCCCTGCCCATTTTTTAAATTATTTTTAGTGGAGATGGGGTTTCACCATGTTGGCCTGGC
TGGTCTCAAACTCCTGACCTCAGATGATCTACCCACCTTGGCCCCTTGGCCTCCCAAAGTGCTGGAATTACAGGC
GTGAGCCACCACGCCTGGCCCAGCCTATGCATTTTTTTTTTTTTTTTTTTTTTTGAGATGGAGTCTTGCACCGT
AGCCTAAGCTGGAGTGCAGTGGTGCGATCTCGGCTCACCGCAACCTCCGCCTCCCGGGTCCTGGTTCAAGCAATT
TTCTTGCCTCAGCCTCCTGAGTAGCTGGGATTACAGGAACGTGCCACCATGCCCAGCTAATTTTTGTATTTTTAG
TAGAGACGGGGTTTCACCATGTTGGCCAGGCTGGTCTTGAACTCGTGACCTCATGATCCGCTCACCTCGGCCTCC
CAAAGTGCTGGGATTACAGGCATGAGCCACTGACGCCTGGCCAGCCTATGCATTTTTAAGAAATTATTCTGTATT
AGGTGCTGTGCTAAACATTGGGCACTACAGTGACCAAAACAGACTGAATTCCCCAAGAGCCAAAGACCAGTGAGG
GAGACCAACAAGAAACAGGAAATGCAAAAGAGACCATTATTACTCACTATGACTAAGGGCCACAAATGGGGTACG
TTGATGGAGAGTGATTTGTTAAGAGACTACAGAGGGAGGACAGACTACCAAGAGGGGGGCCAGGAAAGCTCCTCT
GACGAGGTGGTATTTCAGCCCAAACTGGAAGAATGAGAAAGAGCTAGCCAGCCATCAGAATAGTCCAGAAGAGAT
GGGGAGCACTACACTCACTACACTTTGGCCTGAGAAAATAGCATGGGATTGGAGGAGGCTGGGGGAACACCACTT
CTGCCGACCTGGGCAGGAGGCATTGAGGGCTTGAGAAAGGGCAATGGCAGTAGCAGTAGAAAGAACAGGGTAGGA
GCAGGGACTTTGCAGGTAGAATCATTAGGTCTTATCAACAGATATGGGCAAGCAAAGCCAGGGGAGAATTGATGG
TAATGCTGAGGTTTGGAGCCAGGCTAGATGGGACAGTGGTGGGTGATGCAAAGGAAAGAGGTCAGGAAGCAGGGC
CAGACGTGGGGAGAAGGTGTGGGGGTTTGGTTTCCATCTTGCCGAGTCTGCCGGAATGTGGATGGGAAGACCAAG
AGGAGGAGCAAGGGGCAGAGGGGAAGGGAATCTTAAAGAAGTCCTGGATGCCACACTCTTCTTCCTTCCTCCTCT
TCCCTCTCCTCAGAGGTCTCACTCGTGGTTCTTCATTTCCTGCCCTGCCTCCATCTCCTCTGGGTGCTGGGAAAG
TGGAGGATTAGCTGAAGTTTTGCTTCTCGGGGCCTGTCTGAATCTCCATTGCTTTCTGGGAGGACATAATTCACC
TGTCCTAGCTTCTTATCATCTTACATTTCCCTGTAGCCACTGGGACATATGTGGTGTTCCTTCCTAGCTCCTGTC
TCCTCCTCATGCCTTTGCTGGGTATGGGCATGTTAGGGGGAAGGTCATTGCTGTCAGAGGGGCACTGACTTTCTA
ATGGTGTTACCCAAGGTGAATGTTGGAGACACAGTCGCGATGCTGCCCAAGTCCCGGCGAGCCCTAACTATCCAG
GAGATCGCTGCGCTGGCCAGGTCCTCCCTGCATGGTATGCAGCCCCTCCC**ATG**TTTCTGGCCACTTTGTCCTTTC
TCCTCCCGTTTGCACATCCCTTTGGAACTGTTTCCTGTGAGTACATGCTGGGGTCTCCCCTTTCTTCCCTTGCTC
AGGTGAATCTCAGCCCCTTCTCCCACCCAAAGGTTCACATGGATCCTAACTACTGCCACCCTTCCACCTCCCTGC
ACCTGTGCTCCCTGGCCTGGTCCTTTACCAGGCTTCTCCACCCTCCCCTATCTCCAGGTATTTCCCAGGTGGTGA
AGGACCACGTGACCAAGCCTACCGCCATGGCCCAGGGCCGAGTGGCTCACCTCATTGAGTGGAAGGGCTGGAGCA
AGCCGAGTGACTCACCTGCTGCCCTGGAATCAGCCTTTTCCTCCTATTCAGACCTCAGCGAGGGCGAACAAGAGG
CTCGCTTTGCAGCAGGTGGATGGCAGAAAGGGGATAAGCTACACTCTTGGCACAGGGCTGCTTTCTTTCTTTATT
TTATT**TAA**TTTTTTTTTGAGACGGAGTCTCACTCTGTCGCCCAGGCTGGAGTGCAGTGATGCAATCTCAGCTCAC
TGCAACCTCTGCCACCCCAGTTCAAGCGATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGTTGCCTGC
CACCGTGCCTGGCTAATTTTTGTAGTTTTAGTAGAGATGGGGTTTCACCGTCTAGGCCAGGCTGGTCTTGAACTC
CTGACCTAGTGATCCACCTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCATAAGCCACCACACCCGGCCAGG
GCTGCTTTCTTATCTCCTCGGGTCTGACATGGGGGTTGGAGTCTTCCCATACCCTGTTTCTCCTCTCTCCTGTCT
TCAAGCTGAGCCCTAGACTTAGCTCACCTTCTCTGCTTATGCATTCTGTCCCTGCGACAGGAGTGGCTGAGCAGT
TTGCCATCGCGGAAGCCAAGCTCCGAGCATGGTCTTCGGTGGATGGCGAGGACTCCACTGATGACTCCTATGATG
AGGACTTTGCTGGGGGAATGGACACAGGTGAGGGACATCCTGGGCTAGGGCTGTGGTGGACCCACCTGATAGACC
TTGGCATTCTTTCAGAGCCACATCCAGAACACTCTCAGCCTTTGCAAGGGGAGGGAGAGGGACAGACTCAGTCCA
GGCAGGCCTGGACACTCCAGGGACAGGAAGGCTGTCCACACTCATGGGTGGGAAATGAGCAGACAGAAATGGATT

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FIGURE 2960B

CGTTCCTTTCCCACAGGTGCTGAGGCTTCTCTGCCTGTCTGCACAGTTGTGCCTTGCAGTCCTC

FIGURE 2961A

CAAGCGACACAA**ATG**AACACGCCTTCTCAGCCCCGCCAGCACTTCTACCCTAGCCGGGCCCAGCCCCCGAGCAGT
GCAGCCTCCCGAGTGCAGAGTGCAGCCCCTGCCCGCCCTGGCCCAGCTGCCCATGTCTACCCTGCTGGATCCCAA
GTAATGATGATCCCTTCCCAGATCTCCTACCCAGCCTCCCAGGGGGCCTACTACATCCCTGGACAGGGGCGTTCC
ACATACGTTGTCCCGACACAGCAGTACCCTGTGCAGCCAGGAGCCCCAGGCTTCTATCCAGGTGCAAGCCCTACA
GAATTTGGGACCTACGCTGGCGCCTACTATCCAGCCCAAGGGGTGCAGCAGTTTCCCACTGGCGTGGCCCCCACC
CCAGTTTTGATGAACCAGCCACCCCAGATTGCTCCCAAGAGGGAGCGTAAGACGATCCGAATTCGAGATCCAAAC
CAAGGAGGAAAGGATATCACAGAGGAGATCATGTCTGGGGCCCGCACTGCCTCCACACCCACCCCTCCCCAGACG
GGAGGCGGTCTGGAGCCTCAAGCTAATGGGGAGACGCCCCAGGTTGCTGTCATTGTCCGGCCAGATGACCGGTCA
CAGGGAGCAATCATTGCTGACCGGCCAGGGCTGCCTGGCCCAGAGCATAGCCCTTCAGAATCCCAGCCTTCGTCG
CCTTCTCCGACCCCATCACCATCCCCAGTCTTGGAACCGGGGTCTGAGCCTAATCTCGCAGTCCTCTCTATTCCT
GGGGACACTATGACAACTATACAAATGTCTGTAGAAGAATCAACCCCCATCTCCCGTGAAACTGGGGAGCCATAT
CGCCTCTCTCCAGAACCCACTCCTCTCGCCGAACCCATACTGGAAGTAGAAGTGACACTTAGCAAACCGGTTCCA
GAATCTGAGTTTTCTTCCAGTCCTCTCCAGGCTCCCACCCCTTTGGCATCTCACACAGTGGAAATTCATGAGCCT
AATGGCATGGTCCCATCTGAAGATCTGGAACCAGAGGTGGAGTCAAGCCCAGAGCTTGCTCCTCCCCCAGCTTGC
CCCTCCGAATCCCCTGTGCCCATTGCTCCAACTGCCCAACCTGAGGAACTGCTCAACGGAGCCCCCTCGCCACCA
GCTGTGGACTTAAGCCCAGTCAGTGAGCCAGAGGAGCAGGCCAAGGAGGTGACAGCATCAATGGCGCCCCCCACC
ATCCCCTCTGCTACTCCAGCTACGGCTCCTTCAGCTACTTCCCCAGCTCAGGAGGAGGAAATGGAAGAAGAAGAA
GAAGAGGAAGAAGGAGAAGCAGGAGAAGCAGGAGAAGCTGAGAGTGAGAAAGGAGGAGAGGAACTGCTCCCCCCA
GAGAGTACCCCTATTCCAGCCAACTTGTCTCAGAATTTGGAGGCAGCAGCAGCCACTCAAGTGGCAGTATCTGTG
CCAAAGAGGAGACGGAAAATTAAGGAGCTAAATAAGAAGGAGGCTGTTGGAGACCTTCTGGATGCCTTCAAGGAG
GCGAACCCGGCAGTACCAGAGGTGGAAAATCAGCCTCCTGCAGGCAGCAATCCAGGCCCAGAGTCTGAGGGCAGT
GGTGTGCCCCCACGTCCTGAGGAAGCAGATGAGACCTGGGACTCAAAGGAAGACAAAATTCACAATGCTGAGAAC
ATCCAGCCCGGGGAACAGAAGTATGAATATAAGTCAGATCAGTGGAAGCCTCTAAACCTAGAGGAGAAAAAACGT
TACGACCGTGAGTTCCTGCTTGGTTTTCAGTTCATCTTTGCCAGTATGCAGAAGCCAGAGGGATTGCCACATATC
AGTGACGTGGTGCTGGACAAGGCCAATAAAACACCACTGCGGCCACTGGATCCCACTAGACTACAAGGCATAAAT
TGTGGCCCAGACTTCACTCCATCCTTTGCCAACCTTGGCCGGACAACCCTTAGCACCCGTGGGCCCCCAAGGGGT
GGGCCAGGTGGGGAGCTGCCCCGTGGGCCGGCTGGCCTGGGACCCCGGCGCTCTCAGCAGGGACCCCGAAAAGAA
CCACGCAAGATCATTGCCACAGTGTTAATGACCGAAGATATAAAACTGAACAAAGCAGAGAAAGCCTGGAAACCC
AGCAGCAAGCGGACGGCGGCTGATAAGGATCGAGGGGAAGAAGATGCTGATGGCAGCAAAACCCAGGACCTATTC
CGCAGGGTGCGCTCCATCCTGAATAAACTGACACCCCAGATGTTCCAGCAGCTGATGAAGCAAGTGACGCAGCTG
GCCATCGACACCGAGGAACGCCTCAAAGGGGTCATTGACCTCATTTTTGAGAAGGCCATTTCAGAGCCCAACTTC
TCTGTGGCCTATGCCAACATGTGCCGCTGCCTCATGGCGCTGAAAGTGCCCACTACGGAAAAGCCAACAGTGACT
GTGAACTTCCGAAAGCTGTTGTTGAATCGATGTCAGAAGGAGTTTGAGAAAGACAAAGATGATGATGAGGTTTTT
GAGAAGAAGCAAAAAGAGATGGATGAAGCTGCTACGGCAGAGGAACGAGGACGCCTGAAGGAAGAGCTGGAAGAG
GCTCGGGACATAGCCCGGCGGCGCTCTTTAGGGAATATCAAGTTTATTGGAGAGTTGTTCAAACTGAAGATGTTA
ACAGAGGCAATAATGCATGACTGTGTGGTCAAACTGCTTAAGAACCATGATGAAGAGTCCCTTGAGTGCCTTTGT
CGTCTGCTCACCACCATTGGCAAAGACCTGGACTTTGAAAAAGCCAAGCCCCGAATGGATCAGTATTTCAACCAG
ATGGAAAAAATCATTAAAGAAAAGAAGACGTCATCCCGCATCCGCTTTATGCTGCAGGACGTGCTGGATCTGCGA
GGGAGCAATTGGGTGCCACGCCGAGGGGATCAGGGTCCCAAGACCATTGACCAGATCCATAAGGAGGCTGAGATG
GAAGAACATCGAGAGCACATCAAAGTGCAGCAGCTCATGGCCAAGGGCAGTGACAAGCGTCGGGGCGGTCCTCCA
GGCCCTCCCATCAGCCGTGGACTTCCCCTTGTGGATGATGGTGGCTGGAACACAGTTCCCATCAGCAAAGGTAGC
CGCCCCATTGACACCTCACGACTCACCAAGATCACCAAGCCTGGCTCCATCGATTCTAACAACCAGCTCTTTGCA
CCTGGAGGGCGACTGAGCTGGGGCAAGGGCAGCAGCGGAGGCTCAGGAGCCAAGCCCTCAGACGCAGCATCAGAA
GCTGCTCGCCCAGCTACTAGTACTTTGAATCGCTTCTCAGCCCTTCAACAAGCGGTACCCACAGAAAGCACAGAT
AATAGACGTGTGGTGCAGAGGAGTAGCTTGAGCCGAGAACGAGGCGAGAAAGCTGGAGACCGAGGAGACCGCCTA
GAGCGGAGTGAACGGGGAGGGGACCGTGGGGACCGGCTTGATCGTGCGCGGACACCTGCTACCAAGCGGAGCTTC
AGCAAGGAAGTGGAGGAGCGGAGTAGAGAACGGCCCTCCCAGCCTGAGGGGCTGCGCAAGGCAGCTAGCCTCACG
GAGGATCGGGACCGTGGGCGGGATGCCGTGAAGCGAGAAGCTGCCCTACCCCCAGTGAGCCCCCTGAAGGCGGCT

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FIGURE 2961B

CTCTCTGAGGAGGAGTTAGAGAAGAAATCCAAGGCTATCATTGAGGAATATCTCCATCTCAATGACATGAAAGTA
GGCAGTCCAGTGCGTGCAGGAGCTGGCCTCACCCTCCTTGCTCTTCATCTTTGTACGGCATGGTGTCGAGTCTAC
GCTGGAGCGCAGTGCCATTGCTCG**TGA**GCATATGGGGCAGCTGCTGCACCAGCTGCTCTGTGCTGGGCATCTGTC
TACTGCTCAGTACTACCAAGGGTTGTATGAAATCTTGGAATTGGCTGAGGACATGGAAATTGACATCCCCCACGT
GTGGCTCTACCTAGCGGAACTGGTAACACCCATTCTGCAGGAAGGTGGGGTGCCCATGGGGGAGCTGTTCAGGGA
GATTACAAAGCCTCTGAGACCGTTGGGCAAAGCTGCTTCCCTGTTGCTGGAGATCCTGGGCCTCCTGTGCAAAAG
CATGGGTCCTAAAAAGGTGGGGACGCTGTGGCGAGAAGCCGGGCTTAGCTGGAAGGAATTTCTACCTGAAGGCCA
GGACATTGGTGCATTCGTCGCTGAACAGAAGGTGGAGTATACCCTGGGAGAGGAGTCGGAAGCCCCTGGCCAGAG
GGCACTCCCCTCCGAGGAGCTGAACAGGCAGCTGGAGAAGCTGCTGAAGGAGGGCAGCAGTAACCAGCGGGTGTT
CGACTGGATAGAGGCCAACCTGAGTGAGCAGCAGATAGTATCCAACACGTTAGTTCGAGCCCTCATGACGGCTGT
CTGCTATTCTGCAATTATTTTTGAGACTCCCCTCCGAGTGGACGTTGCAGTGCTGAAAGCGCGAGCGAAGCTGCT
GCAGAAATACCTGTGTGACGAGCAGAAGGAGCTACAGGCGCTCTACGCCCTCCAGGCCCTTGTAGTGACCTTAGA
ACAGCCTCCCAACCTGCTGCGGATGTTCTTTGACGCACTGTATGACGAGGACGTGGTGAAGGAGGATGCCTTCTA
CAGTTGGGAGAGTAGCAAGGACCCCGCTGAGCAGCAGGGCAAGGGTGTGGCCCTTAAATCTGTCACAGCCTTCTT
CAAGTGGCTCCGTGAAGCAGAGGAGGAGTCTGACCACAACTGAGGGCTGGTGGGGCCGGGGACCTGGAGCCCCAT
GGACACACAGATGGCCCGGCTAGCCGCCTGGACTGCAGGGGGGCGGCAGCAGCGGCGGTGGCAGTGGGTGCCTGT
AGTGTGATGTGTCTGAACTAATAAAGTGGCTGAAGAGGCAGGATGGCTTGGGGCTGCCTGGGCCCCCCTCCAGGA
TGCCGCCAGGTGTCCCTCTCCTCCCCCTGGGGCACAGAGATATATTATATATATAAAGTCTTGAAATTTGGTGTGTC
TTGGGGTGGGGAGGGGCACCAACGCCTGCCCCTGGGGTCCTTTTTTTTATTTTCTGAAAATCACTCTCGGGACTG
CCGTCCTCGCTGCTGGGGGCATATGCCCCAGCCCCTGTACCACCCCTGCTGTTGCCTGGGCAGGGGGAAGGGGGG
GCACGGTGCCTGTAATTATTAAACAT

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FIGURE 2962A

GCCGCGGCCACCGGAAGAGTCGCGGTCGCCAGTCCAGTCGGGAGAGTGGGGAGCGGAAGCGGCGGCCGCGGCGGC
GGCGGGCGGCGCTGGGACCCGGTAGCGGCCGGAGAACAAGGGAGCTGGCGCCGCCAGCAGCCGCCGAGCTGGGTT
GAGCCGCTGGGCCGCGCCGCGCGCCGCCGCCGTCTGGGAGGCTCGGCCCGGCCGCCCGAGCAGGCCGCGCGCGGG
CCGCCGGGCCCGAGGCCAGAGCC**ATG**GGCGAGACCAAGATCATCTACCACTTGGATGGGCAGGAGACGCCGTACC
TTGTGAAGCTGCCCCTGCCCGCCGAGCGCGTCACCTTGGCGGACTTTAAGGGCGTTTTGCAGCGACCCAGCTATA
AGTTCTTCTTCAAGTCTATGGACGACGATTTCGGAGTGGTGAAGGAGGAGATCTCGGATGACAATGCCAAGCTAC
CATGCTTCAATGGCCGGGTGGTGTCCTGGCTGGTGTCAGCTGAGGGCTCACACCCAGACCCAGCCCCCTTCTGTG
CTGATAACCCATCGGAGCTGCCACCACCTATGGAGCGCACGGGAGGCATCGGGGACTCCCGACCCCCATCCTTCC
ACCCTCATGCTGGTGGGGGCAGCCAGGAGAACCTGGACAATGACACAGAGACGGACTCTTTGGTGTCTGCCCAGC
GAGAGCGGCCACGCCGGAGGGATGGCCCAGAGCATGCAACCCGGCTAAATGGAACTGCGAAGGGGGAACGGCGGC
GAGAACCAGGGGGTTATGATAGCTCATCCACCCTTATGAGCAGTGAGCTGGAGACCACCAGCTTCTTTGACTCAG
ATGAGGATGACTCCACCAGCAGGTTCAGCAGCTCCACAGAACAGAGCAGTGCCTCACGCCTGATGAGAAGACACA
AGCGGCGGCGGCGGAAGCAGAAGGTTTCTCGGATTGAGCGGTCCTCGTCCTTCAGCAGCATCACGGACTCCACCA
TGTCACTCAACATCATCACGGTCACTCTCAACATGGAAAAATATAACTTCTTGGGCATCTCCATTGTGGGCCAAA
GCAACGAGCGTGGTGACGGCGGCATCTACATTGGCTCTATCATGAAGGGTGGGGCCGTGGCTGCTGATGGACGCA
TCGAGCCAGGAGATATGTTGTTACAGGTAAACGAGATCAACTTTGAGAACATGAGTAATGACGATGCAGTCCGGG
TACTGCGGGAGATTGTGCACAAACCGGGGCCCATCACCCTGACTGTAGCCAAGTGCTGGGACCCAAGTCCACGTG
GTTGCTTCACATTGCCCAGGAGCGAGCCCATCCGGCCCATTGACCCTGCGGCCTGGGTCTCCCACACTGCAGCCA
TGACCGGCACCTTCCCTGCATACGGCATGAGCCCCTCCCTGAGCACCATCACCTCCACCAGCTCCTCCATCACCA
GTTCCATCCCTGACACAGAGCGCCTAGACGACTTCCACTTGTCCATCCACAGTGACATGGCTGCCATCGTAAAAG
CCATGGCCTCCCCTGAATCAGGGTTGGAGGTCCGTGACCGCATGTGGCTCAAGATTACCATCCCTAATGCTTTCA
TCGGCTCAGATGTGGTGGACTGGCTGTACCACAATGTGGAAGGCTTCACGGACCGGAGGGAGGCCCGCAAGTATG
CCAGCAACCTGCTGAAAGCTGGCTTCATCCGCCATACCGTCAACAAGATCACCTTCTCCGAGCAGTGCTACTACA
TCTTCGGTGACCTCTGCGGCAACATGGCCAACCTGTCTCTCCACGATCACGATGGCTCCAGTGGCGCCTCTGACC
AGGACACACTGGCCCCTTTGCCGCACCCGGGGGCCGCCCCTTGGCCCATGGCTTTCCCGTACCAGTACCCGCCAC
CCCCGCACCCATACAACCCGCACCCGGGCTTCCCGGAGCTGGGCTACAGCTACGGCGGGGGCAGCGCCAGCAGTC
AGCACAGCGAAGGCAGTCGGAGCAGTGGCTCCAACCGTAGCGGCAGCGATCGGAGGAAGGAGAAGGACCCGAAGG
CCGGGGACTCCAAGTCCGGGGGCAGCGGCAGCGAATCGGACCACACCACACGCAGCAGCCTGCGGGGGCCGCGGG
AGCGGGCGCCCAGCGAGCGCTCAGGGCCGGCGGCCAGCGAGCACAGCCACCGCAGCCACCATTCCCTGGCCAGCA
GCCTTCGCAGCCACCACACACACCCGAGCTACGGTCCTCCCGGAGTGCCCCCTCTCTACGGCCCCCCCATGCTGA
TGATGCCCCCGCCGCCCGCGGCCATGGGGCCCCCAGGAGCCCCTCCGGGCCGCGACCTGGCCTCAGTGCCCCCGG
AACTGACCGCCAGCAGACAGTCCTTCCGCATGGCCATGGGAAACCCCAGTGAGTTCTTTGTGGATGTGATG**TGA**G
CAGGGCCCCTCCCCCAGCTCCATTCCGCTCCCACCCCAGCCGGCTGCGTTCCTCTCTCCATCCGTCCGTCTTTTT
TACTTTGTCTGGTACCTGAAAGGGAAATAAAAGGAACTAAATCCAGGTGCGCTAACTGCTCGCAGGGTGCTGCGA
GGGTGGGGTGCACCTACCGATTGGCTCTGCAGCCCCCTAACCTGCCTCTGGCCCCAGTTCGTTTCCTCTGCCCAC
TAATCCCTGCGCAGGACTTCCCAGGACCCCTTTTGTCTCTGGGACCAGACTTGTTGGTGCTACCCCTTACTCCCC
TCTGCAACCCCCATTTTGGGAGTTGACCCCAGCAATGACCTTGGTGGCACGCTCACTCCCTCATTCTCTCGTTTC
CCCTTTAGCTCCCTTTCACCATTTATTCAGCTACATCATCCCTCTATTAACCCCACCCCATCAGGCACGTGTGCA
AACCTCTTGACTTTACCCCACATTACTGAAACCAAAATATATTTGCTTCATCTGCCCCTACTAACCATCCCCCTG
CCTGCTGCCTCAGTCCTGCAACCTAAAGCTGTAGTCGCCTCCAATAGCCATCCATGCCATCCCTGCCTGTGCCTA
GATCAGAGGCCCAGAGGGCCCCCTCAGTTGCCTGAGCAGCTGGTGGCTTCCAGGGAGCATCTCTGCTCTACCCCT
GCCCCATGCCTGCCCTGCGTGCTGGTTCCTTCAGACCCCTAACCCTACTAACCAGCAGGCTCATCTCACCTCCAG
GCCTGAAACATTTCTTTTCTTTCTTTTTTCCTCCCCCAATTTTCCCTGGGCCTGGAGCAGCCAAGAATTTCGGGC
TGTTTGACTTTCTGTGAGCCCCCAGCGAGGGGAGGCCCAGCCTCCGAGGAGACCAGGAACCCTGCTTCAGCAGCC
CCTCAGGGCTTCCCAAGGATGTCCAGCCCCCACACCCACACGTTAACATAATGAGTCACTAGGCTTCTGGGGAGG
GCCCAACTTCACCCATGCATGAGAGACTCTCCTCCTTTCCAGAGAGAATCGGATCGCACCACGTGTGGCAGCCTG
CGGCGGGGGGAGGGGGGCCTCTTTAGCTCTCTTTATCTTTCTCTCTCACTCATGTATGCATACATGCACAGAGAT
GCATACACAGGTGCCTATGCAAGTTCATTTAAGCCTCAGGGCTGGTCCCTGCCCAAAGGGCTGGACCCTCCTAAT

FIGURE 2962B

CCTCTCCTAGGTTGTGGGGCTGGTCCCCTGACACCCTTCTCCCCTTCCTGGTAGACCTTAAACCTCGCACACATG
TCCCCAGCATTTTCTCACCTGGATAAAGCCCATAAGCTGGGTCTCAGGCTGGGCTCAGCAAAGGACTCGCCTTGC
AACCGACAGGCCATTCCCACCCCCACACACAACCTCCCCTGTTTTCACATTCACCATGGCATCCCAGAGCAAGGA
CACAGGAGCCCACAGGCCAGTTGAGGTTGGGCAAGGAGACTTCCAGGACTTCCAGACAGAGTACCAGGTTTTATT
TTTCACCTTATTCTCTACTTTAAACAAATCATAACTTTCTCTTTAAGCCTCTGCTATAAATTCTCCTGGCTCTCC
TGGGCTTCCATATTTTGGGGGCTGGGGTGTCAAAAGTGAGATGAAGTTCTTAGCTCCAGGTTTTGGGGTAAACCA
AGGTAGGAACATTTTGGCATTTATTTCAATTAACAATACTTCCTTGGACGGGTGCGGTGGCTCACGTCTGTAATC
CCAGCACTTTGGGAGGCTGAGACAGGTGGATCACTTGAGGTCGGGAGTTCGAGACCAGCCTGGCCAACATAGCAA
AACCCTGTCTCTACTAAAAATACAAAAATTAGATGGGTGTTTTGGCACCTGCCTGTAATCTCAGCTACTCAGGAG
GCTGAGGCACAAGAATCGCTTGAATCCAGGAAGCAAGCGGAGGTTGCAGTGAGTTGAGATCGCACTCCAGCCTGG
GTGACAGAGTGAGATTCTGTCTCAAAAGCAAACTAACAAAGAAAAACAATACTTCCTGGGGTTTTGGTGTGCAGA
GGGCTTTGTTGGAAGTGTGACTCAATCTTGCCTGCCTTCTGGGAGCTCTAGAATTGTTCCCAACCCAGTCCATGG
CTTCTAGCCACCACTACAGGGCTGTTTCATGTACTTCTCTCTCTGACTCTGTCTTGTCCGACTCTCTTGAGAATT
TCTCAACGATTGCTCATGCCTGTCAGTATCAGTGCTTCCATCGTTCCATCTTTGATTCACTTCTCTTTCCTTTCT
ATTTACTCCCAAAATGGAGTCATTCATCCTGATGTCCTCAATTGCTGCTGATATGCTGGTGATTCCCAAATACAT
AGCTCCAACCCCCAACTTCCCCCAGACTTTAGATCTGTATTGGTATTACCTACTGGACATCTCTATGGACAGTTC
CGTATAGACTCAACTCATCTGCCCAACCAAGTATGTTCCTCCTGAATTCCTCTCCTGGTTACTTCATCACAATCT
ACATAGGCTCACCAGCTAGAAACATTTATGAGCTTACATTCCTTCTTCCCATATCTTATCAGCATATCATATCCA
TTTCACTCCAACACTCTGTCTTGAATTTGGCCCTCCCTCTCCCCTCTCTACTTTAATTCATTGGAGCATGGGATT
TGGAGTTAGGTGGTTTTGGGTTTGAATTCCAGCTCTACTATTTTTGGTTGTGTGATAGAGTTATTTAACCTCTCT
GAGCCTCAGTTCCCTCGTATGTAAAATGATGATAATAATACCTACCTCACAGGGTTGTTGTGAGGATTTAAATTA
GATATTGTACGAAAAGTGCCTAGCACAGTGCCTGGCACACAGTAGAGTAGGTGCTCAATAAATGGTAGCTATTAT
TATT

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FIGURE 2963

CCGAGGCAGCGGGCAGACGAGCAGGGGGCGGGCGGACATCTTGGGATCCGGAGAGTGGCCGGGCCGGCAGAGCAG
GGGGCCGAGGACACCAGGTCTGTTCTCAGAGCGATGGGCCGCGGAGACTGATCTGCCGCC**ATG**ATTGGAGGCTTA
TTCATCTATAATCACAAGGGGGAGGTGCTCATCTCCCGAGTCTACCGAGATGACATCGGGAGGAACGCAGTGGAT
GCCTTTCGGGTCAATGTTATCCATGCCCGGCAGCAGGTGCGCAGCCCCGTCACCAACATTGCTCGCACCAGCTTC
TTCCACGTTAAGCGGTCCAACATTTGGCTGGCAGCAGTCACCAAGCAGAATGTCAACGCTGCCATGGTCTTCGAA
TTCCTCTATAAGATGTGTGACGTGATGGCTGCCTACTTTGGCAAGATCAGCGAGGAAAACATCAAGAACAATTTT
GTGCTCATATATGAGCTGCTGGATGAGATTCTAGACTTTGGCTACCCACAGAATTCCGAGACAGGCGCGCTGAAA
ACCTTCATCACGCAGCAGGGCATCAAGAGTCAGATGTAGACAAAAGAAGAGCAGTCACAGATCACCAGCCAGGTA
ACTGGGCAGATTGGCTGGCGGCGAGAGGGTATCAAGTATCGTCGGAATGAGCTCTTCCTGGATGTGCTGGAGAGT
GTGAACCTGCTCATGTCCCCACAAGGGCAGGTGCTGAGTGCCCATGTGTCGGGCCGGGTGGTGATGAAGAGCTAC
CTGAGTGGCATGCCTGAATGCAAGTTTGGGATGAATGACAAGATTGTTATTGAAAAGCAGGGCAAAGGCACAGCT
GATGAAACAAGCAAGAGCGGGAAGCAATCAATTGCCATTGATGACTGCACCTTCCACCAGTGTGTGCGACTCAGC
AAGTTTGACTCTGAACGCAGCATCAGCTTTATCCCGCCAGATGGAGAGTTTGAGCTTATGAGGTATCGCACAACC
AAGGACATCATCCTTCCCTTCCGGGTGATCCCGCTAGTGCGAGAAGTGGGACGCACCAAACTGGAGGTCAAGGTG
GTCATCAAGTCCAACTTTAAACCCTCACTGCTGGCTCAGAAGATCGAGGTGAGGATCCCAACCCCACTGAACACA
AGCGGGGTGCAGGTGATCTGCATGAAGGGGAAGGCCAAGTACAAGGCCAGCGAGAATGCCATCGTGTGGAAGATC
AAGCGCATGGCAGGCATGAAGGAATCGCAGATCAGCGCAGAGATTGAGCTTCTGCCTACCAACGACAAGAAGAAA
TGGGCTCGACCCCCCATTTCCATGAACTTTGAGGTGCCATTCGCGCCCTCTGGCCTCAAGGTGCGCTACTTGAAG
GTGTTTGAACCGAAGCTGAACTACAGCGACCATGATGTCATCAAATGGGTGCGCTACATTGGCCGCAGTGGCATT
TATGAAACTCGCTGC**TAG**CTGCCACTAGGCAGCTAGCCCACCTCCCCAGCCACCCTCCTCCACAGGTCCAGGTGC
CGCTCCCTCCCCCACCACACACTAGTGTCTCCTCCCTCCTGCTTTGCTGCCTTCCCTTTGCACCAGCCCGAGTCT
AGGTCTGGGCCAAGCACATTACAAGTGGGACCGGTGGAGCAGCCCCTGGGCTCCCTGGGCAGGGGAGTTCTGAGG
CTCCTGCTCTCCCATCCACCTGTCTGTCCTGGCCTAATGCCAGGCTCTGAGTTCTGTGACCAAAGCCAGGTGGGT
TCCCTTTCCTTCCCACCCCTGTGGCCACAGCTCTGGAGTGGGAGGGTTGGTTGCCCCTCACCTCAGAGCTCCCCC
AAAGGCCAGTAATGGATCCCCGGCCTCAGTCCCTACTCTGCTTTGGGATAGTGTGAGCTTCATTTTGTACACGTG
TGACTTCGTCCAGTTACAAACCCAATAAACTCTGTAGAGTGG

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FIGURE 2964

CTGGTGTCCCACGATGAGCGCTTTATCAGGCTGGTGTGCCGGGAGTTGTGGGT**ATG**CGAAGGAGGCGGCGTCACC
CGTGTGGAAGGAGGACTCGCCCAGGACATGGACTGGTCTCTCAGACCCCTGGGCCACCATGTAGGCCACCACTCC
AGGCCGTGGACTTCCCCCAACTTGGGGACAGCCTTATTCCCAAATGTCTCTATCCTTTTGACTGGAGCATCTTCT
GCACAACCTTGGGAGCCCATCCAAGGGTTGGTGAGGACTGGTCTCCCGGGGGTGGGGGTCTGGGGGGTACCCTCT
GGGGTTATAGATTCCCCCACTGCCCCAGCTCTGACTGGACCCCAAGTGGCTGCTATGTAAAT**TAA**ATCTCTCCCC
GCGTC

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FIGURE 2965

GGAAGGCTGGACCTGCAGGCTCCTCCTGGACAGTGAAACTGGGCACTTGGGGTCCAGAGGCAGGGCCTTCCTTGA
CAGAATTGTGTCCTCTCCTCTCAGAGCCCCATCAGCCACACCTG**ATG**CTGGAGGGCGGCAGCCTGAGCTCAGCAG
AATATGAGGCCCGGGTGAGGGCCCGCCGAGATTTTCAGAGGCTACAGCGAAGGGACAGTGATGGGGACCGGCAGG
TGTGGTTCCTGCAGCGACGCTTCCACAAGGACATCCTGCTGAACCCCGTGCTGGCGCTGAGCTTCTGCCCAGACC
TGAGCTCCAAGCCCGGACACCTGGGGACAGCTACTCGGGAGCTACTCTTCCTTTTGGATAGCAGCAGCGTGGCAC
ACAAGGATGCCATTGTTTTGGCTGTGAAGTCCCTCCCGCCCCAGACGCTTATCAACCTGGCCGTGTTTGGGACGT
TGGTGCAGCCACTCTTCCCAGAGAGCCGGCCTTGCAGTGATGATGCTGTGCAGCTGATCTGCGAGAGCATTGAGA
CCCTGCAGGTTCCGAGTGGGCCCCCAGACGTGCTGGCTGCTCTGGACTGGGCCGTGGGGCAGCCCCAGCACAGGG
CCTACCCTCGGCAGCTGTTCCTGCTCACTGCTGCCTCACCCATGGCCGCCACTACCCACCGAACCCTGGAGCTCA
TGAGGTGGCACAGGGGGACAGCCAGATGCTTCTCCTTTGGGCTGGGGCCCACCTGCCACCAGCTGCTCCAGGGTT
TATCTGCCCTCAGCAGAGGCCAGGCCTACTTCCTGAGGCCTGGGCAGAGGCTGCAGCCCATGCTGGTACAGGCTC
TGCGGAAGGCACTGGAGCCTGCTTTGAGTGACATCTCTGTGGACTGGTTTGTGCCCGACACTGTGGAGGCACTGC
TGACCCCCCGGGAGATCCCAGCACTCTACCCTGGGGACCAGCTGCTCGGTTACTGCTCACTCTTCAGGGTGGATG
GCTTCCGGTCCCGCCCACCAGGGGGCCAAGAGCCTGGCTGGCAGAGCTCGGGTGGGTCCGTGTTTCCATCCCCAG
AAGAGGCCCCGTCTGCTGCCAGCCCTGGCACTGAGCCCACTGGCACCTCAGAGCCACTGGGAACAGGCACTGTCT
CAGCAGAACTGTCCAGCCCATGGGCTGCCAGGGACTCGGAGCAGAGTACTGATGCTCTGACAGACCCAGTCACGG
ATCCTGGACCCAACCCCTCTGACACAGCCATATGGCGCCGCATCTTTCAGTCCTCGTACATTCGGGAGCAGTATG
TGCTCACCCACTGCTCTGCCAGCCCCGAGCCAGGCCCAGGCTCCACAGGCAGCAGTGAGTCCCCAGGCTCACAGG
GCCCTGGCTCCCCCGAAGGTAGTGCTCCCTTGGAGCCCCCTTCTCAGCAGGGCTGCCGCAGTCTGGCCTGGGGAG
AACCTGCAGGCTCCCGCTCCTGTCCCCTGCCTGCACCCACACCAGCTCCATTCAAGGTGGGGGCCTTGAGTACTG
AGGTGCTGGGCCGTCAGCACAGAGCGGCTCTGGCTGGCCGAAGCCTCTCATCCCCTCCAGGCCGGGCAAACCAAG
TCCCCGGCCGACCCCGGAAACCCTCTTTGGGTGCAATACTAGATGGCCCAAGTCCTGAGCCAGGCCAACAGTTGG
GACAAGGCCTGGATGACTCAGGAAACCTGCTCTCCCCAGCCCCTATGGACTGGGACATGCTGATGGAACCACCCT
TCTTATTCACGGCTGTGCCTCCTAGTGGGGAGTTGGCCCCTCCAGCAGTGCCTCCCCAGGCTCCACGCTGCCATG
TGGTGATCCGGGGCCTGTGTGGGGAGCAGCCCATGTGCTGGGAGGTGGGTGTTGGGCTGGAGACACTGTGGGGAC
CTGGAGATGGCTCACAGCCTCCCTCACCTCCTGTAAGAGAAGCTGCTTGGGACCAAGCACTCCATCGGCTGACAG
CAGCCTCTGTGGTCCGGGACAATGAGCAGCTGGCCCTCCGAGGAGGGGCAGAGACCACAGCTGACCGGGGCCATG
CCCGGAGGTGCTGGCTTCGAGCCCTTCAGACAAGTAAGGTCAGCTCTGCCCCCTCCTGCTTCACTTGCCCTGTAG
CTGTGGATGCTACTACTAGGGAGGTCCTGCCTGGGGCCCTGCAGGTGTGCAGCTCAGAGCCCGCTGAGCCCCCAG
GAACCCCTCCTGCCTCTCACAGCCATCTAGATGCAGCTCCTCTGCCCACTGTTGTCTACTCTAAAGGACTTCAGA
GAGGCTCTCCAGCAGGCGCCTGGGACTCGGACCAAAATGGCAACTCCAAGCGTGCTTTGGGGGACCCTGCCACTC
CCACGGAAGGTCCTCGCCGCCCACCTCCCCGTCCTCCCTGTCGGCTCAGCATGGGCCGCCGTCACAAACTCTGTA
GCCCTGACCCGGGCCAGGCCAACAACAGTGAAGGCAGCGACCATGACTACCTGCCCTTGGTGCGGCTGCAGGAGG
CACCAGGCTCCTTCCGCCTGGACGCGCCCTTCTGCGCCGCTGTGCGCATCTCGCAGGAGCGCCTCTGCCGTGCCT
CGCCCTTTGCCGTGCACCGCGCCAGCCTCAGCCCCACCTCGGCCTCATTGCCCTGGGCACTTCTGGGCCCTGGTG
TTGGCCAGGGTGACAGTGCCACGGCCTCCTGCAGCCCGTCCCCCAGCTCGGGCTCTGAGGGGCCAGGCCAGGTGG
ACAGTGGGCGGGGCTCAGACACCGAGGCCTCCGAGGGGGCGGAAGGGCTGGGCGGCACCGACCTGCGGGGCCGGA
CCTGGGCCACTGCCGTAGCACTCGCCTGGCTGGAGCACCGATGCGCCGCTGCCTTCGACGAGTGGGAACTGACAG
CGGCCAAGGCTGATTGCTGGCTGCGGGCCCAGCACTTGCCTGACGGCCTTGACCTGGCCGCCCTCAAGGCCGCAG
CCCGAGGGCTCTTCCTGCTACTGCGCCACTGGGACCAAAACCTGCAGCTACACCTGCTGTGCTACAGCCCAGCGA
ACGTG**TGA**AGGCTGCCCCCTGCTGCTTGGGCTGGCGCCCCACCCAACACACTCAAGTCACTGCCGCCCAGGGCTG
GCCTCTTGGTGCTGGGAAAGTGTAGGCTGGTGCCAGCCTGTCCCCCACTGCTTCTTACTCCCTCCCTAGAGCCCT
CTTGCCCCCACAAAAAGTGCCTGCCTGTGCTCTCTCCCTCTCCTCCCACCCCACTCACACTCCCCTCCATCCTCT
GAGCTCCCTGCAACACAGTGGAAGGGTAGAGAGCCACAGTCCCCAAATCCTATGCAATAAAGTGCCTCTTAGG

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FIGURE 2966

GGTGGGCCCACACAAGCGGCGCACCGTTAAG**ATG**GCGGCTGGGCTGCGGAAACGCGGCCGGTCCGGTTCCGCGGC
CCAGGCAGAGGGACTCTGCAAGCAATGGCTGCAGCGCGCCTGGCAAGAGCGGCGCCTGCTGCTGCGGGAGCCGCG
CTACACGCTGCTGGTGGCCGCCTGCCTCTGCCTGGCGGAGGTGGGCATCACCTTCTGGGTCATTCACAGGGTGGC
ATACACAGAGATTGACTGGAAGGCCTACATGGCCGAGGTAGAAGGCGTCATCAATGGTACCTATGACTATACCCA
ACTGCAGGGTGACACCGGACCACTTGTGTACCCAGCTGGTTTCGTGTACATCTTTATGGGGTTGTACTATGCCAC
CAGCCGAGGCACTGACATCCGCATGGCCCAGAACATCTTTGCTGTGCTCTACCTGGCTACCTTGCTGCTTGTCTT
CTTGATCTATCACCAGACCTGCAAGGTACCTCCCTTCGTCTTTTTCTTCATGTGCTGCGCCTCTTACCGTGTCCA
CTCCATCTTTGTGCTGCGGCTCTTCAATGACCCAGTGGCCATGGTGCTGCTCTTCCTCAGTATCAACCTCCTGCT
GGCCCAGCGCTGGGGCTGGGGTTGCTGCTTTTTCAGGTCAACACCTCTTCCTTTCTGGTCCCCTCTCGTTTTCTG
CATTTCCATCTCTTCCCAATTTCCTGCAGCAGAGGGAGTAAAGGAG**TAG**CCAAGACAGCATGGGTCACTCAGGGC
TCCACAAAGCGAGTCCAGGATCTATAGAAAGTTTCTGCCCTGCCATCCCCCAACATACACACATGCCCTCTTTCC
ATCCTGTCTTCCTCCCAGACAGCATTCCTTGTTGGAATTAGTCCTTCACATTCTAAATACTCAGTATATGCTCAT
TCGCATCTAGTAGGCATAGAGACTATGTATCTGCCTCCTGCCTACTCCAGGCTCTTCCCTCCAACAGTTGTGAGT
GTAGGTCCCATCTTGGAGTTTGTTGGCGTGGCGGCGGGGGGGAGGTTGCTGTGGTGATGGTGGGGGGTATGTCTT
TGGGTGTTGTGTGCATGGCCCTGGAGCTGATCTCCACCCTTCCTCTCCCCTGCTCACCCCAGCCTGGCAGTCTCT
GTGAAGATGAATGTGCTGCTCTTCGCCCCTGGGTTACTGTTTCTTCTCCTCACACAGTTTGGCTTCCGTGGGGCC
CTCCCCAAGCTGGGAATCTGTGCTGGCCTTCAGGTGGTGCTGGGGCTGCCCTTCCTGCTGGAGAACCCCAGCGGC
TACCTGTCCCGCTCCTTTGACCTTGGCCGCCAGTTTCTGTTCCACTGGACAGTGAACTGGCGCTTCCTCCCAGAG
GCGCTCTTCCTGCATCGAGCCTTCCACCTGGCCCTGTTGACTGCCCACCTCACCCTGCTCCTGCTGTTTGCCCTC
TGCAGGTGGCACAGGACAGGGGAAAGTATCTTGTCGCTGCTGAGGGATCCCTCCAAAAGGAAGGTTCCACCCCAG
CCCCTTACACCCAACCAGATCGTTTCTACCCTCTTCACCTCCAACTTCATTGGCATCTGCTTCAGCCGCTCCCTC
CACTACCAGTTCTACGTCTGGTATTTCCACACACTGCCCTACCTCCTGTGGGCCATGCCTGCACGCTGGCTCACA
CACCTGCTCAGGTTGTTGGTGCTGGGGCTCATCGAGCTCTCCTGGAACACATACCCTTCCACATCCTGCAGCTCT
GCTGCCCTGCACATATGCCATGCCGTCATCCTGCTGCAGCTCTGGCTGGGCCCGCAGCCTTTCCCCAAGAGCACC
CAACACAGCAAGAAAGCCCACTGAAGTCCACCCCTTTCCCTCAGGACCTGAGTCTACCCTCAGGACCTGGGGTTG
GTTGGACTCTGCCCTTCCAAATAAACCTTGCTAAGTCCAACTCTGTGCAACCTACATGGAGGTGGGGGCAGCCGA
TGCCTGGTCCAGGCTGTGAGGGACACGTATGGAGCAGATAAAGAATTCACTCAAGC

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FIGURE 2967

CAGGTGGTGGGCGGAGACACCAGCGCCCCGCCTTCTGCATCCTGCCTTCCGTATTGGCTGAAGGGCCGGCGGCTC
TGGCTGCCCGGCGGTTGAGAGC**ATG**GCCTCTCCAGGGGCAGGTAGGGCGCCTCCGGAGTTACCGGAGCGGAACTG
CGGGTACCGCGAAGTCGAGTACTGGGATCAGCGCTACCAAGGCGCAGCCGATTCTGCCCCCTACGATTGGTTCGG
GGACTTCTCCTCCTTCCGTGCCCTCCTAGAGCCGGAGCTGCGGCCCGAGGACCGTATCCTTGTGCTAGGTTGCGG
GAACAGTGCCCTGAGCTACGAGCTGTTCCTCGGAGGCTTCCCTAATGTGACCAGTGTGGACTACTCATCAGTCGT
GGTGGCTGCCATGCAGGCTCGCCATGCCCATGTGCCGCAGCTGCGCTGGGAGACCATGGATGTGCGGAAGCTGGA
CTTCCCCAGTGCTTCTTTTGATGTGGTGCTCGAGAAGGGCACGCTGGATGCCCTGCTGGCTGGGGAACGAGATCC
CTGGACCGTGTCCTCTGAAGGTGTCCACACTGTGGACCAGGTGTTGAGTGAGGTGAGCCGCGTGCTTGTCCCTGG
AGGCCGGTTTATCTCAATGACTTCTGCTGCCCCCCACTTTCGGACCAGACACTATGCCCAAGCCTATTATGGCTG
GTCCCTGAGGCATGCTACCTATGGCAGCGGTTTCCACTTCCATCTCTACCTCATGCACAAGGGCGGGAAGCTCAG
TGTGGCCCAGCTGGCTCTGGGGGCCCAAATCCTCTCACCCCCCAGACCTCCCACCTCACCTTGCTTCCTTCAGGA
CTCAGATCATGAGGACTTCCTTAGTGCCATTCAGCTC**TGA**GGCCAGAGCATGGTCCTCCACCCTTCCTGCCATTC
TGCCCTGGGCTCCTCAGGTAGTTGGAATTCCTGACTTAGGACTTGGGGTTGGGTCCAAGGTGCTTACATCCCAGG
GGCCTCATGCCTAAGATAGAGGGTGGGAGCGAACCCACATGAACCAATACAGCCCAGCTCCAACTAGATCCAGAT
TCCAGGTTTCTTGCTTCTTTCTTGGGTTCCTCAGTTCTCTCCTGGGTTCCCCAACCTCCTCTGCCACCACACCAA
ACCACCAGTGATGCATCCCCTGGGGCAAAGCTCATCATAACCCCTCTGCACACCAGCCAGCCTGGAGACCGTTGT
TCCTGGGGCCTGTTACTGATCCTCATCTAGCCTTGATTTATCCACAGGAGACTGCAGGCTTTGAACCTAGATTGC
TTTATGT

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FIGURE 2968

GGGGCGCTGGGAGCCCGTTGGGCCGCGAACGCAGCCGCCACGCTGGGGCCGCCGAGATCGGGTGCCCGGGATGAG
CCTCATCCGGAAAAAGGGCTTCTACAAGCAGGACGTCAACAAGACAGCCTGGGAGCTGCCCAAGACCTACGTGTC
CCCGACGCACGTCGGCAGCGGGGCCTATGGCTCCGTGTGCTCGGCCATCGACAAGCGGTCAGGGGAGAAGGTGGC
CATCAAGAAGCTGAGCCGACCCTTTCAGTCCGAGATCTTCGCCAAGCGCGCCTACCGGGAGCTGCTGCTGCTGAA
GCACATGCAGCATGAGAACGTCATTGGGCTCCTGGATGTCTTCACCCCAGCCTCCTCCCTGCGCAACTTCTATGA
CTTCTACCTGGTGATGCCCTTCATGCAGACGGATCTGCAGAAGATCATGGGGATGGAGTTCAGTGAGGAGAAGAT
CCAGTACCTGGTGTATCAGATGCTCAAAGGCCTTAAGTACATCCACTCTGCTGGGGTCGTGCACAGGGACCTGAA
GCCAGGCAACCTGGCTGTGAATGAGGACTGTGAACTGAAGATTCTGGATTTTGGGCTGGCGCGACATGCAGACGC
CGAGATGACTGGCTACGTGGTGACCCGCTGGTACCGAGCCCCCGAGGTGATCCTCAGCTGGATGCACTACAACCA
GACAGTGGACATCTGGTCTGTGGGCTGTATCATGGCAGAGATGCTGACAGGGAAAACTCTGTTCAAGGGGAAAGA
TTACCTGGACCAGCTGACCCAGATCCTGAAAGTGACCGGGGTGCCTGGCACGGAGTTTGTGCAGAAGCTGAACGA
CAAAGCGGCCAAATCCTACATCCAGTCCCTGCCACAGACCCCCAGGAAGGATTTCACTCAGCTGTTCCCACGGGC
CAGCCCCCAGGCTGCGGACCTGCTGGAGAAGATGCTGGAGCTAGACGTGGACAAGCGCCTGACGGCCGCGCAGGC
CCTCACCCATCCCTTCTTTGAACCCTTCCGGGACCCTGAGGAAGAGACGGAGGCCCAGCAGCCGTTTGATGATTC
CTTAGAACACGAGAAACTCACAGTGGATGAATGGAAGCAGCACATCTACAAGGAGATTGTGAACTTCAGCCCCAT
TGCCCGGAAGGACTCACGGCGCCGGAGTGGCATGAAGCTGTAGGACTCATCTTGCATGGCACCGCCGGCCAGAC
ACTGCCCAAGGACCAGTATTTGTCACTACCAAACTCAGCCCTTCTTGGAATACAGCCTTTCAAGCAGAGGACAGA
AGGGTCCTTCTCCTTATGTGGGAAATGGGCCTAGTAGATGCAGAATTCAAAGATGTCGGTTGGGAGAAACTAGCT
CTGATCCTAACAGGCCACGTTAAACTGCCCATCTGGAGAATCGCCTGCAGGTGGGGCCCTTTCCTTCCCGCCAGA
GTGGGGCTGAGTGGGCGCTGAGCCAGGCCGGGGGCCTATGGCAGTGATGCTGTGTTGGTTTCCTAGGGATGCTCT
AACGAATTACCACAAACCTGGTGGATTGAAACAGCAGAACTTGATTCCCTTACAGTTCTGGAGGCTGGAAATCTG
GGATGGAGGTGTTGGCAGGGCTGTGGTCCCTTTGAAGGCTCTGGGGAAGAATCCTTCCTTGGCTCTTTTTAGCTT
GTGGCGGCAGTGGGCAGTCCGTGGCATTCCCCAGCTTATTGCTGCATCACTCCAGTCTCTGTCTCTTCTGTTCTC
TCCTCTTTTAACAACAGTCATTGGATTTAGGGCCCACCCTAATCCTGTGTGATCTTATCTTGATCCTTATTAATT
AAACCTGCAAATACTCTAGTTCCAAATAAAGTCACATTCTCAGGT

FIGURE 2969A

GGAACCGCGACCACTGGAGCCTTAGCGGGCGCAGCAGCTGGAACGGGAGTACTGCGACGCAGCCCGGAGTCGGCC
TTGTAGGGGCGAAGGTGCAGGGAGATCGCGGCGGGCGCAGTCTTGAGCGCCGGAGCGCGTCCCTGCCCTTAGCGG
GGCTTGCCCCAGTCGCAGGGGCACATCCAGCCGCTGCGGCTGACAGCAGCCGCGCGCGCGGGAGTCTGCGGGGTC
GCGGCAGCCGCACCTGCGCGGGCGACCAGCGCAAGGTCCCCGCCCGGCTGGGCGGGCAGCAAGGGCCGGGGAGAG
GGTGCGGGTGCAGGCGGGGGCCCCACAGGGCCACCTTCTTGCCCGGCGGCTGCCGCTGGAAA**ATG**TCTCAGGAGA
GGCCCACGTTCTACCGGCAGGAGCTGAACAAGACAATCTGGGAGGTGCCCGAGCGTTACCAGAACCTGTCTCCAG
TGGGCTCTGGCGCCTATGGCTCTGTGTGTGCTGCTTTTGACACAAAAACGGGGTTACGTGTGGCAGTGAAGAAGC
TCTCCAGACCATTTCAGTCCATCATTCATGCGAAAAGAACCTACAGAGAACTGCGGTTACTTAAACATATGAAAC
ATGAAAATGTGATTGGTCTGTTGGACGTTTTTACACCTGCAAGGTCTCTGGAGGAATTCAATGATGTGTATCTGG
TGACCCATCTCATGGGGGCAGATCTGAACAACATTGTGAAATGTCAGAAGCTTACAGATGACCATGTTCAGTTCC
TTATCTACCAAATTCTCCGAGGTCTAAAGTATATACATTCAGCTGACATAATTCACAGGGACCTAAAACCTAGTA
ATCTAGCTGTGAATGAAGACTGTGAGCTGAAGATTCTGGATTTTGGACTGGCTCGGCACACAGATGATGAAATGA
CAGGCTACGTGGCCACTAGGTGGTACAGGGCTCCTGAGATCATGCTGAACTGGATGCATTACAACCAGACAGTTG
ATATTTGGTCAGTGGGATGCATAATGGCCGAGCTGTTGACTGGAAGAACATTGTTTCCTGGTACAGACCATATTA
ACCAGCTTCAGCAGATTATGCGTCTGACAGGAACACCCCCCGCTTATCTCATTAACAGGATGCCAAGCCATGAGG
CAAGAAACTATATTCAGTCTTTGACTCAGATGCCGAAGATGAACTTTGCGAATGTATTTATTGGTGCCAATCCCC
TGGCTGTCGACTTGCTGGAGAAGATGCTTGTATTGGACTCAGATAAGAGAATTACAGCGGCCCAAGCCCTTGCAC
ATGCCTACTTTGCTCAGTACCACGATCCTGATGATGAACCAGTGGCCGATCCTTATGATCAGTCCTTTGAAAGCA
GGGACCTCCTTATAGATGAGTGGAAAAGCCTGACCTATGATGAAGTCATCAGCTTTGTGCCACCACCCCTTGACC
AAGAAGAGATGGAGTCC**TGA**GCACCTGGTTTCTGTTCTGTTGATCCCACTTCACTGTGAGGGGAAGGCCTTTTCA
CGGGAACTCTCCAAATATTATTCAAGTGCCTCTTGTTGCAGAGATTTCCTCCATGGTGGAAGGGGGTGTGCGTGC
GTGTGCGTGCGTGTTAGTGTGTGTGCATGTGTGTGTCTGTCTTTGTGGGAGGGTAAGACAATATGAACAAACTAT
GATCACAGTGACTTTACAGGAGGTTGTGGATGCTCCAGGGCAGCCTCCACCTTGCTCTTCTTTCTGAGAGTTGGC
TCAGGCAGACAAGAGCTGCTGTCCTTTTAGGAATATGTTCAATGCAAAGTAAAAAAATATGAATTGTCCCCAATC
CCGGTCATGCTTTTGCCACTTTGGCTTCTCCTGTGACCCCACCTTGACGGTGGGGCGTAGACTTGACAACATCCC
ACAGTGGCACGGAGAGAAGGCCCATACCTTCTGGTTGCTTCAGACCTGACACCGTCCCTCAGTGATACGTACAGC
CAAAAAGGACCAACTGGCTTCTGTGCACTAGCCTGTGATTAACTTGCTTAGTATGGTTCTCAGATCTTGACAGTA
TATTTGAAACTGTAAATATGTTTGTGCCTTAAAAGGAGAGAAGAAAGTGTAGATAGTTAAAAGACTGCAGCTGCT
GAAGTTCTGAGCCGGGCAAGTCGAGAGGGCTGTTGGACAGCTGCTTGTGGGCCCGGAGTAATCAGGCAGCCTTCA
TAGGCGGTCATGTGTGCATGTGAGCACATGCGTATATGTGCGTCTCTCTTTCTCCCTCACCCCCAGGTGTTGCCA
TTTCTCTGCTTACCCTTCACCTTTGGTGCAGAGGTTTCTTGAATATCTGCCCCAGTAGTCAGAAGCAGGTTCTTG
ATGTCATGTACTTCCTGTGTACTCTTTATTTCTAGCAGAGTGAGGATGTGTTTTGCACGTCTTGCTATTTGAGCA
TGCACAGCTGCTTGTCCTGCTCTCTTCAGGAGGCCCTGGTGTCAGGCAGGTTTGCCAGTGAAGACTTCTTGGGTA
GTTTAGATCCCATGTCACCTCAGCTGATATTATGGCAAGTGATATCACCTCTCTTCAGCCCCTAGTGCTATTCTG
TGTTGAACACAATTGATACTTCAGGTGCTTTTGATGTGAAAATCATGAAAAGAGGAACAGGTGGATGTATAGCAT
TTTTATTCATGCCATCTGTTTTCAACCAACTATTTTTGAGGAATTATCATGGGAAAAGACCAGGGCTTTTCCCAG
GAATATCCCAAACTTCGGAAACAAGTTATTCTCTTCACTCCCAATAACTAATGCTAAGAAATGCTGAAAATCAAA
GTAAAAAATTAAAGCCCATAAGGCCAGAAACTCCTTTTGCTGTCTTTCTCTAAATATGATTACTTTAAAATAAAA
AAGTAACAAGGTGTCTTTTCCACTCCTATGGAAAAGGGTCTTCTTGGCAGCTTAACATTGACTTCTTGGTTTGGG
GAGAAATAAATTTTGTTTCAGAATTTTGTATATTGTAGGAATCCTTTGAGAATGTGATTCCTTTTGATGGGGAGA
AAGGGCAAATTATTTTAATATTTTGTATTTTCAACTTTATAAAGATAAAATATCCTCAGGGGTGGAGAAGTGTCG
TTTTCATAACTTGCTGAATTTCAGGCATTTTGTTCTACATGAGGACTCATATATTTAAGCCTTTTGTGTAATAAG
AAAGTATAAAGTCACTTCCAGTGTTGGCTGTGTGACAGAATCTTGTATTTGGGCCAAGGTGTTTCCATTTCTCAA
TCAGTGCAGTGATACATGTACTCCAGAGGGACAGGGTGGACCCCCTGAGTCAACTGGAGCAAGAAGGAAGGAGGC
AGACTGATGGCGATTCCCTCTCACCCGGGACTCTCCCCCTTTCAAGGAAAGTGAACCTTTAAAGTAAAGGCCTCA
TCTCCTTTATTGCAGTTCAAATCCTCACCATCCACAGCAAGATGAATTTTATCAGCCATGTTTGGTTGTAAATGC
TCGTGTGATTTCCTACAGAAATACTGCTCTGAATATTTTGTAATAAAGGTCTTTGCACATGTGACCACATACGTG
TTAGGAGGCTGCATGCTCTGGAAGCCTGGACTCTAAGCTGGAGCTCTTGGAAGAGCTCTTCGGTTTCTGAGCATA

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FIGURE 2969B

ATGCTCCCATCTCCTGATTTCTCTGAACAGAAAACAAAAGAGAGAATGAGGGAAATTGCTATTTTATTTGTATTC
ATGAACTTGGCTGTAATCAGTTATGCCGTATAGGATGTCAGACAATACCACTGGTTAAAATAAAGCCTATTTTTC
AAATTT

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FIGURE 2970A

GGTCTCACC**ATG**GAGCGGAAAGTGCTTGCGCTCCAGGCCCGAAAGAAAAGGACCAAGGCCAAGAAGGACAAAGCC
CAAAGGAAATCTGAAACTCAGCACCGAGGCTCTGCTCCCCACTCTGAGAGTGATCTACCAGAGCAGGAAGAGGAG
ATTCTGGGATCTGATGATGATGAGCAAGAAGATCCTAATGATTATTGTAAAGGAGGTTATCATCTTGTGAAAATT
GGAGATCTATTCAATGGGAGATACCATGTGATCCGAAAGTTAGGCTGGGGACACTTTTCAACAGTATGGTTATCA
TGGGATATTCAGGGGAAGAAATTTGTGGCAATGAAAGTAGTTAAAAGTGCTGAACATTACACTGAAACAGCACTA
GATGAAATCCGGTTGCTGAAGTCAGTTCGCAATTCAGACCCTAATGATCCAAATAGAGAAATGGTTGTTCAACTA
CTAGATGACTTTAAAATATCAGGAGTTAATGGAACACATATCTGCATGGTATTTGAAGTTTTGGGGCATCATCTG
CTCAAGTGGATCATCAAATCCAATTATCAGGGGCTTCCACTGCCTTGTGTCAAAAAAATTATTCAGCAAGTGTTA
CAGGGTCTTGATTATTTACATACCAAGTGCCGTATCATCCACACTGACATTAAACCAGAGAACATCTTATTGTCA
GTGAATGAGCAGTACATTCGGAGGCTGGCTGCAGAAGCAACAGAATGGCAGCGATCTGGAGCTCCTCCGCCTTCC
GGATCTGCAGTCAGTACTGCTCCCCAGCCTAAACCAGCTGACAAAATGTCAAAGAATAAGAAGAAGAAATTGAAG
AAGAAGCAGAAGCGCCAGGCAGAATTACTAGAGAAGCGAATGCAGGAAATTGAGGAAATGGAGAAAGAGTCGGGC
CCTGGGCAAAAAAGACCAAACAAGCAAGAAGAATCAGAGAGTCCTGTTGAAAGACCCTTGAAAGAGAACCCACCT
AATAAAATGACCCAAGAAAAACTTGAAGAGTCAAGTACCATTGGCCAGGATCAAACGCTTATGGAACGTGATACA
GAGGGTGGTGCAGCAGAAATTAATTGCAATGGAGTGATTGAAGTCATTAATTATACTCAGAACAGTAATAATGAA
ACATTGAGACATAAAGAGGATCTACATAATGCTAATGACTGTGATGTCCAAAATTTGAATCAGGAATCTAGTTTC
CTAAGCTCCCAAAATGGAGACAGCAGCACATCTCAAGAAACAGACTCTTGTACACCTATAACATCTGAGGTGTCA
GACACCATGGTGTGCCAGTCTTCCTCAACTGTAGGTCAGTCATTCAGTGAACAACACATTAGCCAACTTCAAGAA
AGCATTCGGGCAGAGATACCCTGTGAAGATGAACAAGAGCAAGAACATAACGGACCACTGGACAACAAAGGAAAA
TCCACGGCTGGAAATTTTCTTGTTAATCCCCTTGAGCCAAAAAATGCAGAAAAGCTCAAGGTGAAGATTGCTGAC
CTTGGAAATGCTTGTTGGCACAAACATTTCACTGAAGATATTCAAACAAGGCAATATCGTTCCTTGGAAGTTCTA
ATCGGATCTGGCTATAATACCCCTGCTGACATTTGGAGCACGGCATGCATGGCCTTTGAACTGGCCACAGGTGAC
TATTTGTTTGAACCTCATTCAGGGGAAGAGTACACTCGAGATGAAGATCACATTGCATTGATCATAGAACTTCTG
GGGAAGGTGCCTCGCAAGCTCATTGTGGCAGGAAAATATTCCAAGGAATTTTTCACCAAAAAAGGTGACCTGAAA
CATATCACGAAGCTGAAACCTTGGGGCCTTTTTGAGGTTCTAGTGGAGAAGTATGAGTGGTCGCAGGAAGAGGCA
GCTGGCTTCACAGATTTCTTACTGCCCATGTTGGAGCTGATCCCTGAGAAGAGAGCCACTGCCGCCGAGTGTCTC
CGGCACCCTTGGCTTAACTCC**TAA**GCCCCTGCCCAGCACCACAGCAGAGATCACACACTGACCCTCCGCCCTTCC
CCTTCAAGCATTTTCCTCTTCCCTTTTCAGGGTGAAGCTCTTCCTTCAAGAGTTTCTAGATCTTGTTTTTTTTTT
AATCCAACATGTTCATTTGGGTTTGCTTACTTGACCCTGTGGAGATCCCCACAGCCATTGGGCATCCTAGGTGAA
TTTGGCCTTGGTTGGGCTCTGCCAAAGACTAATGGACTAAAATGTGAAACAGCCTCTTGCCCTGTACCTTTCCTT
CCCATTAGGACATCCTTTAAATTATAAGCATCCTTTTTGAAAAGAGCTATGAAGGTGTATGAGCCCATCCTTTTA
TTCATTGACTCTAAGAGTCAAATTTTCTAGTGCATATCCTATTGCCAGCATAAGGATGAGGAGGGGGAAAGGGTC
TTAATTCTATGTACAGCAGAGACATTAAACTTGCTGTGTCCGGGCTGCATCATCTTCCTGGACTGTTTCTGTTGT
TCTCTGTGTTCACATTTTTTCCTGCAACTTTTAAGCTACTGTCTTTTTTAAATAGCTATATGAACACCAAATTTG
GGTACCATTTTATCACTGTTCAAAGCACTGTCAAATTCCTTTCATCCTTTAATAGTTAAGATCTTTGAATCTTCA
GTCTGATTTTTAATGTAAGCAAAAACAGAACCATTGAATAGTAATTTCTTGAGAACCTCAGGTGTTCTATAAACA
GTCCTTTCCTGTATGTCTTCTATTACCCTAAGACCAGAGTTATTTTGGTTGGTTGTTTTGTTTTATTTTTTGTTT
TTGTATCCATGGCTGGCACTTTACTCATTGCACTTGAGTTTATTGCCCCATAACTAAAGGATCAGGATGATGGTA
GAACGGAGATCTGGGTTTCAGAGCTTTCCCATTTAAGAAAAATAGATCTTGAGATTCTGATTCTTTTCCAAACAG
TCCCCTGCTTTCATGTACAGCTTTTTCTTTACCTTACCCAAAATTCTGGCCTTGAAGCAGTTTTCCTCTATGGCT
TTGCCTTTCTGATTTTCTCAGAGGCTCGAGTCTTTAATATAACCCCAAATGAAAGAACCAAGGGGAGGGGTGGGA
TGGCACTTTTTTTTGTTGGTCTTGTTTTGTTTTGTTTTTTGGTTGGTTGGTTCGTTATTTTTTAAGATTAGCCAT
TCTCTGCTGCTATTTCCCTACATAATGTCAATTTTTAACCATAATTTTGACATGATTGAGATGTACTTGAGGCTT
TTTTGTTTTAATTGAGAAAAGACTTTGCAATTTTTTTTTTAGGATGAGCCTCTCCTAGACTTGACCTAGAATATT
ACATATTCCTCCAGTAAGTAATACTGAAGAGCAAAAGAGAGGCAGGATTGGGGTCACAGCCGCTTCTTCAGCATG
GACCAAGTGGGCCTTGGGGATTGCAGCGTTCTCGAAGTGGCTGTAGGACTCGAATTTACAGAAAGCCACAGAGGT
GCAACTTGAGGCTCTGCTAGCAAGCCACCAGTGAGGCTATTGGGTAACCACCTTTCTATACAGGAGATTGGAATC
TACTTTGTCATTTATCCACCACAGTGACAAAGGAAAAGTGGTGCCGTTATGCAATCCATTTAACTCATAAACATA

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FIGURE 2970B

TTACTCTGAGTAACTGGCCAGCCATTCATCGGATCCTTCATTGGGTACTCCTGAAATCAGACATGTTCCTGTAGA
AAGAATTTTAAGTTAGGCTTTCTATGCACCTATCAAGAATCAAGAGAATAGATTGTATCAAACAACGGCAGGGAA
ATCCTTCAGCAATTCTAATCCACTTTGGGTTTTCAGCTGTTTTTACATCTAAAGCAATAGACTAGAACTGAATTA
TCTTCTACATAGTAAAATCACAATTGTGGAATTACAGGAATTCTGGTGATATTAAGGTGAAATAACAAAACACAA
AAGGCCCTATTTTAACAGTTGATGTGACAGTAAGTTTTAATAGAACCTGTAACTTCATTTTGGAAATGCTTCTCC
ACCAAATAAGGGCTTTTTCCCCTATTTAAGGAGCCAGATGGATTGAAAGATGTGGAAATAGGCAGCTGTAGATCT
TGATCTTCCAGGTACCCCATGTACCTTTATTGAGCTTAATTATAATACTGTCAAATTGCCACGATCTCACTAAAG
GATTTCTATTTGCTGTCAGTTAAAAATAAAGCCCTAAATACATTTTTATTCTTTCTACTGAGGGCATTGTCTGTT
TTCTTTGTAAATGCCGTACAATAAACAAATTATTTAATAACCTA

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FIGURE 2971A

GGGCCGGCTCGCGGGCGCTGCCAGTCTCGGGCGGCGGTGTCCGGCGCGCGGGCGGCCTGCTGGGCGGGCTGAAGG
GTTAGCGGAGCACGGGCAAGGCGGAGAGTGACGGAGTCGGCGAGCCCCCGCGGCGACAGGTTCTCTACTTAAAAG
ACA**ATG**ACTACTGATGAAGGTGCCAAGAACAATGAAGAAAGCCCCACAGCCACTGTTGCTGAGCAGGGAGAGGAT
ATTACCTCCAAAAAAGACAGGGGAGTATTAAAGATTGTCAAAAGAGTGGGGAATGGTGAGGAAACGCCGATGATT
GGAGACAAAGTTTATGTCCATTACAAAGGAAAATTGTCAAATGGAAAGAAGTTTGATTCCAGTCATGATAGAAAT
GAACCATTTGTCTTTAGTCTTGGCAAAGGCCAAGTCATCAAGGCATGGGACATTGGGGTGGCTACCATGAAGAAA
GGAGAGATATGCCATTTACTGTGCAAACCAGAATATGCATATGGCTCGGCTGGCAGTCTCCCTAAAATTCCCTCG
AATGCAACTCTCTTTTTTGAGATTGAGCTCCTTGATTTCAAAGGAGAGGATTTATTTGAAGATGGAGGCATTATC
CGGAGAACCAAACGGAAAGGAGAGGGATATTCAAATCCAAACGAAGGAGCAACAGTAGAAATCCACCTGGAAGGC
CGCTGTGGTGGAAGGATGTTTGACTGCAGAGATGTGGCATTCACTGTGGGCGAAGGAGAAGACCACGACATTCCA
ATTGGAATTGACAAAGCTCTGGAGAAAATGCAGCGGGAAGAACAATGTATTTTATATCTTGGACCAAGATATGGT
TTTGGAGAGGCAGGGAAGCCTAAATTTGGCATTGAACCTAATGCTGAGCTTATATATGAAGTTACACTTAAGAGC
TTCGAAAAGGCCAAAGAATCCTGGGAGATGGATACCAAAGAAAAATTGGAGCAGGCTGCCATTGTCAAAGAGAAG
GGAACCGTATACTTCAAGGGAGGCAAATACATGCAGGCGGTGATTCAGTATGGGAAGATAGTGTCCTGGTTAGAG
ATGGAATATGGTTTATCAGAAAAGGAATCGAAAGCTTCTGAATCATTTCTCCTTGCTGCCTTTCTGAACCTGGCC
ATGTGCTACCTGAAGCTTAGAGAATACACCAAAGCTGTTGAATGCTGTGACAAGGCCCTTGGACTGGACAGTGCC
AATGAGAAAGGCTTGTATAGGAGGGGTGAAGCCCAGCTGCTCATGAACGAGTTTGAGTCAGCCAAGGGTGACTTT
GAGAAAGTGCTGGAAGTAAACCCCCAGAATAAGGCTGCAAGACTGCAGATCTCCATGTGCCAGAAAAAGGCCAAG
GAGCACAACGAGCGGGACCGCAGGATATACGCCAACATGTTCAAGAAGTTTGCAGAGCAGGATGCCAAGGAAGAG
GCCAATAAAGCAATGGGCAAGAAGACTTCAGAAGGGGTCACTAATGAAAAAGGAACAGACAGTCAAGCAATGGAA
GAAGAGAAACCTGAGGGCCACGTA**TGA**CGCCACGCCAAGGAGGGAAGAGTCCCAGTGAACTCGGCCCCTCCTCAA
TGGGCTTTCCCCCAACTCAGGACAGAACAGTGTTTAATGTAAAGTTTGTTATAGTCTATGTGATTCTGGAAGCAA
ATGGCAAAACCAGTAGCTTCCCAAAAACAGCCCCCCTGCTGCTGCCCGGAGGGTTCACTGAGGGGTGGCACGGGA
CCACTCCAGGTGGAACAAACAGAAATGACTGTGGTGTGGAGGGAGTGAGCCAGCAGCTTAAGTCCAGCTCATTTC
AGTTTCTATCAACCTTCAAGTATCCAATTCAGGGTCCCTGGAGATCATCCTAACAATGTGGGGCTGTTAGGTTTT
ACCTTTGAACTTTCATAGCACTGCAGAAACCTTTAAAAAAAAAAATGCTTCATGAATTTCTCCTTTCCTACAGTTG
GGTAGGGTAGGGGAAGGAGGATAAGCTTTTGTTTTTTAAATGACTGAAGTGCTATAAATGTAGTCTGTTGCATTT
TTAACCAACAGAACCCACAGTAGAGGGGTCTCATGTCTCCCCAGTTCCACAGCAGTGTCACAGACGTGAAAGCCA
GAACCTCAGAGGCCACTTGCTTGCTGACTTAGCCTCCTCCCAAAGTCCCCCTCCTCAGCCAGCCTCCTTGTGAGA
GTGGCTTTCTACCACACACAGCCTGTCCCTGGGGGAGTAATTCTGTCATTCCTAAAACACCCTTCAGCAATGATA
ATGAGCAGATGAGAGTTTCTGGATTAGCTTTTCCTATTTTCGATGAAGTTCTGAGATACTGAAATGTGAAAAGAG
CAATCAGAATTGTGCTTTTTCTCCCCTCCTCTATTCCTTTTAGGGAATAATATTCAATACACAGTACTTCCTCCC
AGCATTGCTACTGCTCAGCTTCTTCTTTCATTCTAATCCTTGCTATTAAGAATTTAAGACTTGTGCTTACAATAT
TTTTGACCTGGAGTGGATCTATTTACATAGTCATTTAGGATCCATGCAGCTTTTTTTGTCTTTTTAAGATTATTG
GCTCATAAGCATATGTATACTGGTTTATGGAACTTTATTTACACTCCTCTATCATGCAAAAAAATTTTGACTTTT
TAGTACTAAGCTTAATTTTTAAAAACAAAATCTGTAGGGTTGACAAATAAATAGTTGCTCTTCTACACTAGGGGT
TTCACCTGCAGGTTTGACACGCAGTTGCTCGCTTTTCCTGCCCTGTCAAGCTTCTCTGTTCTGGCGTGAGTTGTG
AAAGAGTTGAAGACAGCTTCCCATGCCGGTACACAGCCAGTAGCCTAAATCTCCAGTACTTGAGCTGACCATTGA
ACTAGGGCAAGTCTTAAATGTGTACATGTAGTTGAATTTCAGTCCTTACGGGTAAACAGATTGAGCATGGCTCTC
TATTCCCTCAGCCTAAGAAACACTCATGGGAATGCATTTGGCAACCCAAGGAACCATTTGCTTAAACCTGGAACA
TCTCACCTTTTTAAATCCTAAAAAACACTGGCAGTTATATTTTAAATTAGTTTTTATTTTTATGATGGTTTTATC
AAAAGACTTTTATTATTAGATTGGGACCCCCTTCAAACCTAAAAATCAAGTTATTTCCTTTTATAATACTTTTCT
TCCCCATGGAACAAATGGGATCAATTTGTGAGTTTTTTCCTTTAATGATAACTAAAATCCCTCTAATTTCTCATT
TATGCTTTTGTCTTTTTTATGAAATATTTCTTTTAAAAGCCCCAGTCTCACCTACGAAATATGAAGAGCAAAAGC
TGATTTTGCTTACTTGCTAAACTGTTGGGAAAGCTCTGTAGAGCATGGTTCCAGTGAGGCCAAGATTGAAATTTG
ATACTAAAAAGGCCACCTAGCTTTTTGCAGATAACAAACAAGAAAGCTATTCCAAGACTCAGATGATGCCAGCTG
TCTCCCACGTGTGTATTATGGTTCACCAGGGGGAACTGGCAAAAGTGTGTGTGGGGAGGGGAAGGGTGTGTGAGT
GGTTCTGAGCAAATAACTACAGGGTGCCCATTACCACTCAAGAAGACACTTCACGTATTCTTGTATCAAATTCAA

FIGURE 2971B

TAATCTTAAACAATTTGTGTAGAAGTCCACAGACATCTTTCAACCACCTTTTAGGCTGCATATGGATTGCCAAGT
CAGCATATGAGGAATTAAAGACATTGTTTTTAAAAAAAAAAAATCATTTAGATGCACTTTTTTGTGTGTTCTTTA
AATAAATCCAAAAAAAATGTG

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FIGURE 2972

CGCCACC**ATG**GTGTGCGTGAACGTCCTGGCCGATGCTCTCAAGAGCATCAACAATGCCGAAAAGAGAGGCAAACG
CCCAGTGCTTATTAGGCCGTGCTCCAAACTCATCGTCCGGTTTCTCACTGTGATGATGAAGCATGGTTACATTGG
CGAATTTGAAATCATTGATGATCGCAGAGCTGGGAAAATTGTTGCGAACCTCACAGGCAGGCTAAACAAGTGTGG
AGTGATCAGCCCCAGATTCGGTGTGCAACTCAAAGATCTAGAAAATGGCAGAATAATCTGCTTCCATCCCACCAG
TTTGGTTTCATTGTAC**TGA**CAACCTCAGCTGGCATCATGGACCATGAAGAAGCAAGACGAAAACACACAGGAGGG
AAAATCCTGGGATTCTTTTTCTAGGGATGTAATACATATATTTACAAATAAAATGTCTCATGGAAAAAAAAGAAA
AAAGACAGGAAAAAAAAAAAAAAAAAAAAAAT

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FIGURE 2973

GCGGCGTGAGAAGCC**ATG**AGCAGCAAAGTCTCTCGCGACACCCTGTACGAGGCGGTGCGGGAAGTCCTGCACGGG
AACCAGCGCAAGCGCCGCAAGTTCCTGGAGACGGTGGAGTTGCAGATCAGCTTGAAGAACTATGATCCCCAGAAG
GACAAGCGCTTCTCGGGCACCGTCAGGCTTAAGTCCACTCCCCGCCCTAAGTTCTCTGTGTGTGTCCTGGGGGAC
CAGCAGCACTGTGACGAGGCTAAGGCCGTGGATATCCCCCACATGGACATCGAGGCGCTGAAAAAACTCAACAAG
AATAAAAAAACTGGTCAAGAAGCTGGCCAAGAAGTATGATGCGTTTTTGGCCTCAGAGTCTCTGATCAAGCAGATT
CCACGAATCCTCGGCCCAGGTTTAAATAAGGCAGGAAAGTTCCCTTCCCTGCTCACACACAACGAAAACATGGTG
GCCAAAGTGGATGAGGTGAAGTCCACAATCAAGTTCCAAATGAAGAAGGTGTTATGTCTGGCTGTAGCTGTTGGT
CACGTGAAGATGACAGACGATGAGCTTGTGTATAACATTCACCTGGCTGTCAACTTCTTGGTGTCATTGCTCAAG
AAAAACTGGCAGAATGTCCGGGCCTTATATATCAAGAGCACCATGGGCAAGCCCCAGCGCCTATAT**TAA**GGCACA
TTTGAATAAATTCTATTACCAGTTC

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FIGURE 2974

GAATTCTGCGGAGCCTGCGGGACGGCGGCGGTGGCGCCGTAGGCAGCCGGGACAGTGTTGTACAGTGTTTTGGGC
ATGCACGTGATACTCACACAGTGGCTTCTGCTCACCAACAGATGAAGACAGATGCACCAACGAGGGTCTGGAATG
GTCTGGAGTGGTCTGGAAAGCAGGGTCAGATACCCCTGGAAAACTGAAGCCCGTGGAGCAGTGATCTCTACAGGA
CTGCTTCAAGGCTGATGGGAACCACCCTGTAGAGGTCCATCTGCGTTCAGACCCAGACGATGCCAGAGCTATGAC
TGGGCCTGCAGGTGTGGCGCCGAGGGGAGATCAGCC**ATG**GAGCAGCCACAGGAGGAAGCCCCTGAGGTCCGGGAA
GAGGAGGAGAAAGAGGAAGTGGCAGAGGCAGAAGGAGCCCCAGAGCTCAATGGGGGACCACAGCATGCACTTCCT
TCCAGCAGCTACACAGACCTCTCCCGGAGCTCCTCGCCACCCTCACTGCTGGACCAACTGCAGATGGGCTGTGAC
GGGGCCTCATGCGGCAGCCTCAACATGGAGTGCCGGGTGTGCGGGGACAAGGCATCGGGCTTCCACTACGGTGTT
CATGCATGTGAGGGGTGCAAGGGCTTCTTCCGTCGTACGATCCGCATGAAGCTGGAGTACGAGAAGTGTGAGCGC
AGCTGCAAGATTCAGAAGAAGAACCGCAACAAGTGCCAGTACTGCCGCTTCCAGAAGTGCCTGGCACTGGGCATG
TCACACAACGCTATCCGTTTTGGTCGGATGCCGGAGGCTGAGAAGAGGAAGCTGGTGGCAGGGCTGACTGCAAAC
GAGGGGAGCCAGTACAACCCACAGGTGGCCGACCTGAAGGCCTTCTCCAAGCACATCTACAATGCCTACCTGAAA
AACTTCAACATGACCAAAAAGAAGGCCCGCAGCATCCTCACCGGCAAAGCCAGCCACACGGCGCCCTTTGTGATC
CACGACATCGAGACATTGTGGCAGGCAGAGAAGGGGCTGGTGTGGAAGCAGTTGGTGAATGGCCTGCCTCCCTAC
AAGGAGATCAGCGTGCACGTCTTCTACCGCTGCCAGTGCACCACAGTGGAGACCGTGCGGGAGCTCACTGAGTTC
GCCAAGAGCATCCCCAGCTTCAGCAGCCTCTTCCTCAACGACCAGGTTACCCTTCTCAAGTATGGCGTGCACGAG
GCCATCTTCGCCATGCTGGCCTCTATCGTCAACAAGGACGGGCTGCTGGTAGCCAACGGCAGTGGCTTTGTCACC
CGTGAGTTCCTGCGCAGCCTCCGCAAACCCTTCAGTGATATCATTGAGCCTAAGTTTGAATTTGCTGTCAAGTTC
AACGCCCTGGAACTTGATGACAGTGACCTGGCCCTATTCATTGCGGCCATCATTCTGTGTGGAGACCGGCCAGGC
CTCATGAACGTTCCACGGGTGGAGGCTATCCAGGACACCATCCTGCGTGCCCTCGAATTCCACCTGCAGGCCAAC
CACCCTGATGCCCAGTACCTCTTCCCCAAGCTGCTGCAGAAGATGGCTGACCTGCGGCAACTGGTCACCGAGCAC
GCCCAGATGATGCAGCGGATCAAGAAGACCGAAACCGAGACCTCGCTGCACCCTCTGCTCCAGGAGATCTACAAG
GACATGTAC**TAA**CGGCGGCACCCAGGCCTCCCTGCAGACTCCAATGGGGCCAGCACTGGAGGGGCCCACCCACAT
GACTTTTCCATTGACCAGCTCTCTTCCTGTCTTTGTTGTCTCCCTCTTTCTCAGTTCCTCTTTCTTTTCTAATTC
CTGTTGCTCTGTTTCTTCCTTTCTGTAGGTTTCTCTCTTCCCTTCTCCCTTGCCCTCCCTTTCTCTCTCCACCCC
CCACGTCTGTCCTCCTTTCTTATTCTGTGAGATGTTTTGTATTATTTCACCAGCAGCATAGAACAGGACCTCTGC
TTTTGCACACCTTTTCCCCAGGAGCAGAAGAGAGTGGGGCCTGCCCTCTGCCCCATCATTGCACCTGCAGGCTTA
GGTCCTCACTTCTGTCTCCTGTCTTCAGAGCAAAAGACTTGAGCCATCCAAAGAAACACTAAGCTCTCTGGGCCT
GGGTTCCAGGGAAGGCTAAGCATGGCCTGGACTGACTGCAGCCCCCTATAGTCATGGGGTCCCTGCTGCAAAGGA
CAGTGGGCAGGAGGCCCCAGGCTGAGAGCCAGATGCCTCCCCAAGACTGTCATTGCCCCTCCGATGCTGAGGCCA
CCCACTGACCCAACTGATCCTGCTCCAGCAGCACACCTCAGCCCCACTGACACCCAGTGTCCTTCCATCTTCACA
CTGGTTTGCCAGGCCAATGTTGCTGATGGCCCCTCCAGCACACACACATAAGCACTGAAATCACTTTACCTGCAG
GCTCCATGCACCTCCCTTCCCTCCCTGAGGCAGGTGAGAACCCAGAGAGAGGGGCCTGCAGGTGAGCAGGCAGGG
CTGGGCCAGGTCTCCGGGGAGGCAGGGGTCCTGCAGGTCCTGGTGGGTCAGCCCAGCACCTGCTCCCAGTGGGAG
CTTCCCGGGATAAACTGAGCCTGTTCATTCTGATGTCCATTTGTCCCAATAGCTCTACTGCCCTCCCCTTCCCCT
TTACTCAGCCCAGCTGGCCACCTAGAAGTCTCCCTGCACAGCCTCTAGTGTCCGGGGACCTTGTGGGACCAGTCC
CACACCGCTGGTCCCTGCCCTCCCCTGCTCCCAGGTTGAGGTGCGCTCACCTCAGAGCAGGGCCAAAGCACAGCT
GGGCATGCCATGTCTGAGCGGCGCAGAGCCCTCCAGGCCTGCAGGGGCAAGGGGCTGGCTGGAGTCTCAGAGCAC
AGAGGTAGGAGAACTGGGGTTCAAGCCCAGGCTTCCTGGGTCCTGCCTGGTCCTCCCTCCCAAGGAGCCATTCTG
TGTGTGACTCTGGGTGGAAGTGCCCAGCCCCTGCCCCTACGGGCGCTGCAGCCTCCCTTCCATGCCCCAGGATCA
CTCTCTGCTGGCAGGATTCTTCCCGCTCCCCACCTACCCAGCTGATGGGGGTTGGGGTGCTTCCTTTCAGGCCAA
GGCTATGAAGGGACAGCTGCTGGGACCCACCTCCCCCTCCCCGGCCACATGCCGCGTCCCTGCCCCGACCCGGGT
CTGGTGCTGAGGATACAGCTCTTCTCAGTGTCTGAACAATCTCCAAAATTGAAATGTATATTTTTGCTAGGAGCC
CCAGCTTCCTGTGTTTTTAATATAAATAGTGTACACAGACTGACGAAACTTTAAATAAATGGGAATTAAATATTT
AA

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FIGURE 2975

ATGGCCCTGCGCAAGGAACTGCTCAAGTCCATCTGGTACGCCTTTACCGCGCTGGACGTGGAGAAGAGTGGCAAA
GTCTCCAAGTCCCAGCTCAAGGTGCTGTCCCACAACCTGTACACGGTCCTGCACATCCCCCATGACCCCGTGGCC
CTGGAGGAACACTTCCGAGATGATGATGACGGCCCTGTGTCCAGCCAGGGATACATGCCCTACCTCAACAAGTAC
ATCCTGGACAAGGTGGAGGAGGGGGCTTTTGTTAAAGAGCACTTTGATGAGCTGTGCTGGACGCTGACGGCCAAG
AAGAACTATCGGGCAGATAGCAACGGGAACAGTATGCTCTCCAATCAGGATGCCTTCCGCCTCTGGTGCCTCTTC
AACTTCCTGTCTGAGGACAAGTACCCTCTGATCATGGTTCCTGATGAGGTGGAATACCTGCTGAAAAAGGTACTC
AGCAGCATGAGCTTGGAGGTGAGCTTGGGTGAGCTGGAGGAGCTTCTGGCCCAGGAGGCCCAGGTGGCCCAGACC
ACCGGGGGGCTCAGCGTCTGGCAGTTCCTGGAGCTCTTCAATTCGGGCCGCTGCCTGCGGGGCGTGGGCCGGGAC
ACCCTCAGCATGGCCATCCACGAGGTCTACCAGGAGCTCATCCAAGATGTCCTGAAGCAGGGCTACCTGTGGAAG
CGAGGGCACCTGAGAAGGAACTGGGCCGAACGCTGGTTCCAGCTGCAGCCCAGCTGCCTCTGCTACTTTGGGAGT
GAAGAGTGCAAAGAGAAAAGGGGCATTATCCCGCTGGATGCACACTGCTGCGTGGAGGTGCTGCCAGACCGCGAC
GGAAAGCGCTGCATGTTCTGTGTGAAGACAGCCAACCGCACGTATGAGATGAGCGCCTCAGACACGCGCCAGCGC
CAGGAGTGGACAGCTGCCATCCAGATGGCGATCCGGCTGCAGGCCGAGGGGAAGACGTCCCTACACAAGGACCTG
AAGCAGAAACGGCGCGAGCAGCGGGAGCAGCGGGAGCGGCGCCGGGCGGCCAAGGAAGAGGAGCTGCTGCGGCTG
CAGCAGCTGCAGGAGGAGAAGGAGCGGAAGCTGCAGGAGCTGGAGCTGCTGCAGGAGGCGCAGCGGCAGGCCGAG
CGGCTGCTGCAGGAGGAGGAGGAACGGCGCCGCAGCCAGCACCGCGAGCTGCAGCAGGCGCTCGAGGGCCAACTG
CGCGAGGCGGAGCAGGCCCGGGCCTCCATGCAGGCTGAGATGGAGCTGAAGGAGGAGGAGGCTGCCCGGCAGCGG
CAGCGCATCAAGGAGCTGGAGGAGATGCAGCAGCGGTTGCAGGAGGCCCTGCAACTAGAGGTGAAAGCTCGGCGA
GATGAAGAATCTGTGCGAATCGCTCAGACCAGACTGCTGGAAGAGGAGGAAGAGAAGCTGAAGCAGTTGATGCAG
CTGAAGGAGGAGCAGGAGCGCTACATCGAACGGGCGCAGCAGGAGAAGGAAGAGCTGCAGCAGGAGATGGCACAG
CAGAGCCGCTCCCTGCAGCAGGCCCAGCAGCAGCTGGAGGAGGTGCGGCAGAACCGGCAGAGGGCTGACGAGGAT
GTGGAGGCTGCCCAGAGAAAACTGCGCCAGGCCAGCACCAACGTGAAACACTGGAATGTCCAGATGAACCGGCTG
ATGCATCCAATTGAGCCTGGAGATAAGCGTCCGGTCACCAGCAGCTCCTTCTCAGGCTTCCAGCCCCCTCTGCTT
GCCCACCGTGACTCCTCCCTAAAGCGCCTGACCCGCTGGGGATCCCAGGGCAACAGGACCCCCTCGCCCAACAGC
AATGAGCAGCAGAAGTCCCTCAATGGTGGGGATGAGGCTCCTGCCCCGGCTTCCACCCCTCAGGAAGATAAACTG
GATCCAGCACCAGAAAAT**TAG**

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FIGURE 2976

GGGCGGGGCTCCGAAGAGCTCGGTTCAGATCCCGGCCGCCTGGGCTCCAGGAGCCCCGGAACCAGGATAAGTTGG
ATGGCTGCCGCGGCGAAGCGGGGGGCGGGGTGGACCGTGCCCGGTATTTTCTATACGGGTTCCGGGGCCCGGTAG
AGGCGCGCCAAGAGGAAAGGAAAGTGCGGCGGCCCTGGAACCTGGATATCGCGCGAGATTTGTGACCCAGAAGGA
AATCTCTGACCTCAGCTGTGGCTCTTGGTGCTGGCCAGAAGCCAACTTCATGTCTGAGTGCACGAGCAGCAGTTT
GCC**ATG**GAGAGCTTGGGGCTGCACACGGTGACCCTTAGTGATGGGACAACAGCCTACGTCCAGCAAGCTGTCAAA
GGAGAGAAGCTTCTTGAAGGGCAGGTGATCCAGCTCGAGGATGGGACCACCGCATACATTCACCAGGTGACGGTA
CAGAAAGAAGCTCTCTCCTTTGAGGATGGTCAGCCTGTGCAGCTGGAAGATGGCAGCATGGCTTACATACACCGC
ACACCCAGAGAAGGCTATGACCCCAGCACCCTGGAAGCCGTCCAACTGGAAGATGGCTCCACTGCCTACATTCAC
CACCCTGTGGCTGTGCCATCGGAGAGCACCATCCTGGCCGTACAGACAGAGGTGGGCTTGGAGGACCTGGCAGCA
GAGGATGATGAGGGCTTCAGTGCAGACGCAGTGGTGGCCCTGGAGCAGTATGCCAGCAAGGTTCTTCATGACAGC
CAGATTCCCCGTAATGGAAAAGGGCAGCAAGTTGGAGACAGAGCATTCCGCTGTGGCTACAAGGGCTGTGGGCGT
CTCTACACCACCGCTCATCACTTAAAGGTGCATGAACGAGCTCATACAGGTGACCGTCCATACAGATGTGACTTC
CCCAGCTGTGGAAAGGCCTTTGCCACAGGCTATGGACTGAAGAGCCACGTTCGTACCCACACTGGTGAGAAACCA
TACAAGTGCCCAGAGGAGCTGTGCAGCAAGGCCTTCAAGACCTCAGGAGACCTGCAGAAGCATGTCCGTACCCAC
ACTGGTGAACGCCCGTTCCAGTGCCCTTTTGAGGGCTGTGGCCGCTCCTTCACCACATCTAACATCCGCAAGGTA
CATGTGCGCACCCACACAGGCGAGAGGCCCTACACCTGCCCGGAGCCCCACTGTGGCCGCGGCTTCACCAGCGCC
ACCAACTATAAGAATCACGTGCGCATCCACACAGGGGAGAAGCCATACGTTTGCACGGTGCCAGGCTGCGGGAAA
CGCTTCACCGAGTACTCGAGCTTGTATAAGCACCACGTGGTGCACACACACTGCAAGCCCTACACCTGCAGCACC
TGCGGCAAGACCTACCGGCAGACCTCCACCTTGGCCATGCACAAGCGCAGTGCCCACGGCGAGCTGGAGGCCACG
GAGGAGAGCGAGCAGGCCCTCTATGAGCAGCAGCAACTTGAGGCCGCCTCTGCAGCCGAGGAGAGTCCGCCACCC
AAACGACCCCGGATAGCTTACCTTTCGGAGGTGAAGGAAGAGAGAGATGACATCCCAGCCCAGGTGGCGATGGTG
ACTGAAGAAGATGGGGCCCCCCAGGTGGCTCTGATCACTCAGGATGGTGCCCAGCAGGTCAGCCTGTCCCCGGAA
GACCTGCAGGCCCTGGGGAGTGCCATCAGTATGGTCACCCAGCACGGCAGCACCACCCTCACCATCCCCAGTCCT
GATGCCGACCTGGCCACATCTGGCACACATACAGTCACCATGGTCAGCGCCGATGGCACCCAGACGCAGCCCGTC
ACAATCATTACCTCTGGGGCTGTGGTGGCTGAGGACTCAAGTGTAGCATCTCTTCGTCATCAACAGGTGGCACTG
TTGGCCACAGCCAACGGAACGCACATTGCAGTGCAGCTGGAGGAACAGCAGACCTTAGAGGAGGCCATCAATGTG
GCCACTGCGGCCATGCAGCAAGGGGCTGTGACCCTGGAGACAACAGTGTCGGAGAGTGGCTGC**TGA**GTCCAAGAG
GGCTGGGTCCCACACCATGCTGGAGGAAGTGCCATCTGCATGGCCACTCTTGCCCCCAAGGGCCCAGGCTGTGGC
TGACACATAGAAGGTGGCCACATAGGTCTCTGGGGTGAGAAGACAGCAAGAAAACTGCCTAACTGAAGGGAATGG
GGGCCCTGCTCAAGAAGGGGGCCAGGCAGCTGGAATCAGGGGAGTGCATCATCCTCGGGAGCTGACAACAGCCAG
GCTACACCAGGGCACCCGCCTCTCAAAATCAGCTGGGCGCCCACTCTCCTCCTAAAGAACACCCTTCTGGCCCTC
AGTCTGTTCCCCTTCTCAGGTAGAGATTGGGGCTGCTATGGGGACTGGCCCTGTAGGGTTGAGCCACAGACAGCT
CTTCAGCCCAGTAGCAGTGGAGCAGGCCCTGTCCTGCCCTCCCAGCAATAACCACCTCCCTGGAGGCCAGCTGAG
ATGCCTGGCTACTTGGCACCAGGGACTTCCTGACACCACAGTCAATTAATTCCTCAGGGGCCTGTGGCTGAAGAA
AAGGTGCCCAGCCCCCACCACTCCTCAGCTGCCCCCCAACCTCTCTATGGCAGAGAGGCAGGGAGTGGCCCTGTA
CATAGACTGCTGGGGATTGGGTTTGATTTGTTTTGTTTTTTTTAATTCCATTTTGATAATTTTTTTCCTGCTCTG
GGTGGTGGTGGCACATGGATGAATGAGTATTTAATAAAAGTTCCAAATTTC

FIGURE 2977A

GGGAAGCGCGCCGCGCACCTCATGGTTCCGGGGACAGTTAGGGCGGCGGATGGAGGTCAGCGGTGGTGCTCGCTG
CGGTTTGGAATCACTTGCTAGGAGTCTTGTCTCTCTGCCACCCAGGACATCATGGCAGCTCACCTGGTAAAGCGA
TGCACGTGCCTCCTGAGAGAAGCTGCTCGTCAGGCCCCTGCCATGGCTCCAGTTGGCCGACTGAGACTTGCCTGG
GTAGCCCATAAGACTCTGACTTCCTCAGCCACCTCACCCATTTCCCACCTCCCAGGTTCCTTGATGGAGCCGGTG
GAGAAGGAACGAGCATCTACTCCCTACATAGAGAAGCAGGTGGACCACCTCATCAAGAAGGCCACAAGGCCAGAG
GAGCTCCTGGAGCTACTTGGTGGCAGTCACGACTTGGACAGCAATCAAGCAGCAATGGTACTTATCCGGCTCTCT
CACTTGCTGTCTGAGAAGCCAGAAGATAAAGGCTTGCTCATACAGGATGCCCACTTTCATCAACTTCTCTGTCTG
CTCAACAGTCAGATTGCCTCGGTCTGGCATGGTACCCTCTCGAAGCTGCTGGGAAGCCTGTATGCTCTGGGCATC
CCCAAGGCCTCCAAGGAGCTGCAGTCGGTGGAGCAGGAGGTCCGCTGGCGCATGCGGAAGCTCAAGTACAAGCAC
CTGGCCTTCCTGGCAGAGTCCTGTGCCACCCTCTCACAGGAGCAGCACTCGCAGGAGCTGCTGGCTGAGCTGCTC
ACACACCTGGAAAGGCGTTGGACAGAAATTGAAGATTCCCACACATTAGTGACCGTCATGATGAAGGTGGGACAC
CTCTCGGAGCCACTAATGAACCGCCTGGAAGACAAGCACGTCCTGAACAGAGCGCAGGACATCACCCTGCCCCAC
CTGTGCAGCGTACTTCTGGCTTTTGCGCGTCTGAACTTCCATCCAGACCAAGAGGATCAGTTCTTCAGCCTGGTA
CATGAGAAGCTGGGGTCAGAGCTGCCAGGCCTGGAGCCAGCCCTGCAGGTGGACCTGGTGTGGGCCCTGTGTGTG
CTGCAGCAGGCACGGGAAGCAGAGCTGCAAGCCGTCCTCCACCCTGAATTTCACATCCAATTTCTAGGGGGCAAG
TCTCAGAAGGATCAGAACACCTTCCAGAAGCTGCTCCACATCAACGCCACTGCCCTGCTGGAGTACCCCGAGTAC
TCGGGTCCCCTTCTGCCTGCCTCGGCTGTGGCCCCTGGGCCCTCAGCCCTTGACAGGAAGGTGACCCCCCTGCAA
AAGGAGCTGCAGGAGACGCTGAAGGGGCTGCTGGGGAGCGCCGACAAGGGCAGCCTCGAGGTGGCCACGCAGTAT
GGCTGGGTGCTGGATGCTGAGGTGCTGCTGGACAGTGACGGCGAGTTTCTGCCCGTAAGGGACTTTGTGGCACCT
CACCTTGCCCAGCCAACTGGGAGCCAGTCACCACCTCCAGGGTCTAAGAGGCTAGCGTTCTTGCGGTGGGAGTTC
CCCAACTTCAACAGCCGAAGCAAGGACTTGCTGGGTCGCTTTGTTCTGGCCCGGCGACACATAGTGGCTGCAGGC
TTCCTGATAGTGGACGTCCCATTCTATGAGTGGCTGGAACTCAAGTCTGAATGGCAGAAAGGCGCCTACCTCAAG
GACAAGATGCGCAAAGCGGTGGCTGAGGAGCTGGCCAAGTGACTTGTGCCAGCAGCATGGACTGCGTGCCTCTCC
GCCGGAGGTCTAGCTGTGGGCGGCCAAGAAGGGTCACCCTTGAGGACAAACCTCTGTGCAGGACCTTGGCCAGAG
TGGGGAGGGTGGCCAGCCACTCTGAGGGACAGAACGTCCTCTTGTGTATAATAAACCTTTAATTTTGGTGTTGGA
CCCCTGGGGCCTTCCCAGGCTTGGTCACCCTCTGCACTGTCAGCACTTGTCTGTCTGCTTTGTTGAGCAGGGCGT
GGTTCTCCAGTCTGCCCTGTGCACTCCCCCGCCACGCCCAGCCCAAGAGGGCTGCTTTAGGGACAGACCTGGGTT
GTTACCTGCCTGTCTCTCCCAGCTTCTTCCCTCCATGAGTGCTTATTCACATATGCCGGCCTCTTGCGTAGGGGT
CTGTATCAGCCCCAGCAGGCAGGTGGAGTCCTAGAATTCTGAACCTCCAGAGCAGAGGAGCTTCCCAGGGAAGCT
GATTGGAGATTCAGTGCATGGCTGGGGGTTCTGATGGAGCTGTGGCTACTGAACCACAGCCATCCTGGGAGGCTT
TCTCCCATCAGTTGTCTCACACTTAGCTGAGTGAAAGGCACCCTGACAGCATGTGGTGACAGGTGATGTGAGGGC
TGGGTGAGCACTTGGGAGGCGCTGGCTCTGGGAGAGGAGAAGATCCCACTTGGCTGACACCACGGCACCAAGAGC
CAAACTCCATCGTTGTCTTCACCACCCTGACCAGAGCCTTGTGCTGTCATCTAGGAACTGGCTGCCCAAACAGGA
CCCTGGCAGCCTCCCTGCTGCTGCGGGGATTACCAGGTGCTGGGAGGCAACAAGCTTTCTACCTTCCAGCCTCTC
CTTAGAGACACCTATTGGCAGAACCTGACTAAATAGCAGTCAGGGAACTGGGTTGCCTCCAGCCATACAGAACAG
AGAGTAGGACAGTGGGGTGGAGCTGAGATGGAGAGGCCCACAGCCCTCAGCACTGTAGGCTCCCAACCCTAGGCT
GTTTCCCCAAAAAGAAAAAGTCTAGTCACTGCTCTGATGCTTGGCCACTCACCCAAGCATTGGGGTAGTTTGTGC
TGGCTTCACTGGGCACCATCAGGCACACCCAGCCTGTAGTTTTTGTTTTATATTACCTAAGTCGGCCAGGTGTGG
TGGGATCACGCCTGTAATCCCAGCACTTAGGGAGGCTGGGGCGGGCGAATCGCCTGAGGCCAGGAATTCAAGACC
AACCTGGCCAACATTGTGAAACCCTGTCTCTACTAAAAATATAAAAATTAGTCGGGCATGATGACAGGCACCTGT
AATCCCAGCTACTCAGGAGGCTGAGGCAGGTGAATCACTTGAACCCGGGAGGTGGAGGCTGCAGTGAGTTAAGAT
TGTGCCACTGCACTCCAGCCTGGGTAACAGAGCAAGACTCTGTCTCAAAAAATATATATGTGTGTGTGTGTGTGT
GTATATATATGTACATGTGTATATAAGTATATATGTGTGTATATATGTATATATACACGTATATACACACACACC
CCTAAGTCATGATTTTGGAGCAATTGTAAGTGGTGTAGTGCTTAATTTTGGCATTCACACATTGATTGTTAGCAT
ATAGAAATGGGATTGATTTTTATGTGATCTTGCTAAACTTTATGCATTTTTAAAATTCCTTTGGATTTCCTATGT
AGATATTTATGTCCTGAAAACAGGAATGTATTTATCCTTTCAAATCAATATGCTTTTTATTTTGTTATTTATGAC
CACTTCATTAAAATATAATTCACATGCCATACACTTCACCCATTTAAAATGTATAATTAGGCCAGGTGTGGTGGC
TCACGTCTGTAATCCCAGCAGTTTGGGAGGCCAAGGCCCTCAGATCTTGAGCCCAGGAGTTCAAGACCACCCTGG

FIGURE 2977B

GCAACAGGCAAAACCCTGTCTCTATTTTTTAAAATACAAGAATTAGCCGCAGTGGCACGCACCTGTCGTCCCAGC
AACCCAGGAGGCTGAGGTAGGAGGATCACTTAAGCCTGGGAAGTCAAGCCTGCAGTGAACCATGATAGCACCACT
GCAGTCCAGCCTGGGCGACAGAGTGAGACCCCATCTCGAAAACAAAAATGTATAATTCAGTGGTTTTTAGTCTCT
TTGCAGATACATGCAACCATCACCACAATTTGCACATTTTCTAAGCCTCATATACTGATGTGATATTTTGGTGTT
TTGTGACTGGCTTCATTTACTTAGCATATTGTTTTCATGTTTCATTCATGTCGCATGTATGAGTATTCATTCCTT
TATTTGGCTGAATAATATTCCATTATAGTTTGTGCCACATTTTGTTTATCCATTCATCCATTGATGGACATGTGG
ATTGTTTCCACCTTCTGGATAATATGAACTGATACAGTTTGGATATTTTGTCCCCTCCAAATCTCATGAAATAGG
ATCACCAGTGTTGGAGAATGGGGCCTGTTAGGAAGTGTTTGGATCATAGGAACATCTGTCATAAATGGCTTGGTG
CCATCCTTGTAATGAGTGAGTTCTTGCTCTATATTAGTTCACTTGAAAGCTGGTTGTTGGGAACTCCTGCCCTAT
CTGTTCTGCCCTCTCTCGTCATGTGACATGCCTGCTCCTTGTTCACCTTCTGTCATGAGTAAAAGCTTCCTAAGG
CCTTCCCAGGAGCCAAGCAGATGTCAGTACCATGCTTGTACAGCCTGCAGAACTGTGAGCCAAATAAACTTCTTT
ATAAATT

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FIGURE 2978

TTCGGGCCCGGCTGGCGGGCGGCGCCGGGAGCGCGGGGGCGGCGGGCCCGGGTCGAGCATGTAGCGGCTGCTGGC
GGCGGGGCTCCCGGGGCGGGCCGGGCGGGCCGCGGGAGCCGCACGCGGCGATATGGAAGAGGAGGGCAAGAAGGG
CAAGAAGCCTGGAATTGTCTCGCCATTTAAACGAGTATTCCTAAAAGGTGAAAAGAGTAGAGATAAGAAAGCCCA
TGAGAAGGTGACAGAGAGGCGCCCTCTGCACACTGTGGTGTTGTCATTGCCTGAGCGCGTCGAGCCAGACAGACT
GCTGAGCGACTATATTGAGAAGGAGGTAAAGTATTTAGGTCAGTTAACGTCCATACCAGGATACCTGAATCCCTC
CAGTAGGACTGAAATCCTGCATTTCATAGACAATGCAAAGAGAGCCCACCAGCTTCCGGGACACTTGACTCAGGA
GCACGATGCTGTGCTCAGCCTGTCTGCGTACAACGTCAAGCTGGCCTGGAGGGACGGGGAGGATATCATCCTCAG
GGTGCCCATCCATGACATCGCCGCCGTCTCCTATGTTCGGGATGACGCTGCACACCTGGTGGTCCTGAAGACAGC
CCAGGACCCAGGGATCTCCCCCAGCCAGAGTCTGTGTGCGGAAAGTTCCAGAGGCCTCAGTGCAGGCTCCCTGTC
GGAGAGTGCAGTTGGGCCCGTGGAGGCATGCTGCCTGGTCATCCTGGCTGCAGAGAGCAAGGTCGCTGCGGAGGA
GCTTTGCTGTCTGCTAGGCCAGGTCTTCCAGGTTGTTTACACGGAGTCCACCATCGACTTTCTGGACAGAGCGAT
ATTTGATGGGGCCTCTACCCCGACCCACCACCTGTCCCTGCACAGCGCCAGCCACGTGACCTCTTCCACAGTCAC
ATCTTCCTTTGACTGTCAGCTTCCTCTGCATTTCAGGACTCTTGCAATCACATTGAGCCCACCCAAATTCTCCAG
GGTCATCTCCCTATTTCAAGATGACTCTTCTACAAAAGTGGACATTAAGGAGACCTACGAGGTGGAAGCCAGCAC
TTTCTGCTTCCCTGAATCTGTGGATGTGGGTGGTGCATCACCCCACAGCAAGACCATCAGTGAGAGCGAGCTGAG
CGCCAGCGCCACTGAGCTGCTGCAGGACTACATGCTGACGCTGCGCACCAAGCTGTCATCACAGGAGATCCAGCA
GTTTGCAGCACTGCTGCACGAGTACCGCAATGGGGCCTCTATCCACGAGTTCTGCATCAACCTGCGGCAGCTCTA
CGGGGACAGCCGCAAGTTCCTGCTGCTTGGTCTGAGGCCCTTCATCCCTGAGAAGGACAGCCAGCACTTCGAGAA
CTTCCTGGAGACCATTGGCGTGAAGGATGGCCGCGGCATCATCACTGACAGCTTTGGCAGGCACCGGCGGGCCCT
GAGCACCACATCCAGTTCCACCACCAATGGGAACAGGGCCACGGGCAGCTCTGATGACCGGTCGGCACCCTCAGA
GGGGGATGAGTGGGACCGCATGATCTCGGACATCAGCAGCGACATTGAGGCGCTGGGCTGCAGCATGGACCAGGA
CTCAGCATTGATGGACAGTGGATGGGGGGGCACCCACACCTTCCGCGCAGTCGTCATAGGCCTTCCCAGAAGGAGC
TGCCCAGACCTGCGTGTCAGCCCTTGGTGGTGGCCAGGGAGAGGCGCCCGGTGCAGATGGCCCCGGGCGGCCCAG
GTCCTCTACTGTGAAGGAGCAGGGAGCTGCCGAGGGACACGAGCCTCAGTGCGGGGTGGAAGGCTCTTTGCCTTG
TCCACCAGGGCTCAGCCAAGCCCTGCAGTGTGTCCCCGCTCGGGGAGGGCCCGGCCGAGCGGGCAGGGAGAGCCA
GTCCTGTCGGCTGGGCCCTTGGACGGCTGTCAGTTTTGCACATGATGTTCCTATTGTAACTCTCAGAGACCTTAA
AAAGAAGTTTACTGCAATGTGAATAATTT

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FIGURE 2979

TCCACTGAGTTGACACGCAGACGCAGCCTCAGGACCCTAAACTCTACGCCCCAGCACACCCTACCAAGCGAGCGC
CCGCGGCCGCGTGACGTCATCTACCCCAAACGCTGTGGCCCCGGCCACGCACGGCTTCGGGGCGGGACTACGCGG
TGACGTCGAGGTGCGCGGCGCAGCGCGCGGCGTCAGTCTTGGCTGGCAGACCTGTACTCCGTACTCCGTACTTCG
TAGTCGCAGCGGCGCGGTCTTCGGCAGTCTAGTCATCCACCGCCATCCTGGGCCCCACGTGTTGCCTGACCATTC
CTGAGCCCAGGTGGGAGCCGTGGCTGAGGTGACGGTCTCAAAGTGGAAGAGCTTACTGTCACAGCAACTCCTTTG
CAAGATGCCCCGGCCAGGAATAGTTGCTGAACACCCCAGGCCTGCTGAGGTCCCTCCTTGAGTCTCATGTTCAAG
CAGTCTTGTGAGTAAAGCACTGGCTACCCCTTTTCACTTACTATCTTTTCAAGCATGTTCTACCACCTTGGAAGG
TAAGAGGTTAGTACCTTCTTCCAGAGCAGAGGGCAGGCATTCTTGCTGTGCGTTGTGAAAGGGTAGAGTCCTGCG
CTCCTTTCTTGTAGTAGTCCAATGGCTC**ATG**CAGGTGCCTCTGACTCCCCTATGGGAACTGGGGCTTGGGAGGGT
GGTGGAAAATGCTGATGCTCTGGCTATTGCTATTGTTTTGAATAATCAGTGGTCCCTTGTCCCTAATCGAGGAAT
TTTGTATTTTCTACCAGTGTCCATGAAACTGGGAGGCGACCGTGTTAGCTGCCAGTTCCTGACAGCCACCTCTCA
CCAGTGGCTTCACTCTGTGTCCCTGACCCAGCACATGGCACAAGAGTGCCTGCCATCCGTCAGTGTTTCTACAGC
AGCAATCCCAAGATGCTGGAGC**TAG**AGGGGACCTGACCTGAGAGAAGATACCTTCAGTGGCTGCCAGGCTGTTCC
TTGGAACCTGTGCAGGGGTAAGTGTGCAGGAAGGTCTGACCTGGCAAGTCACTTCACTCCTGTTTTATTTAGAGT
CACCTGGCTAATGAAAAGTATTTTGACCTTCCCGTATGGTAAGTCAGGTGATTGAATCCCAGAAAGGTTCATTGT
CTTCAAGCTCACAATACTATTTTGGGACAAACAGTTGTCTAGTGTTTGGACTCATGAACCCTGATTCTTGAGGGT
GGTATTTTACTGCTTTTGTGATTTGGTTTCAACATATATAGTCTTTTCTCCGGAGTTACCTTAGGTCAGTGGCCA
GTGTTTCAGCCCCTGGAAAGGGCATGGGCTGCCACTGAGGTTGGTCACAGGCCTCTCAGCTCATGGTGGGAGTGG
GTTCAGGAGTTGGTAAGTAGGGTTCAGTTCTGTTGTTGCCACCGATGGCAACAGGGGTTTGTAATAATCCCTAGT
TGTGTCAATTATGTCACTTAATTTTCACAACAGGTCTCTGAAGTGTTTCTCATCTCATTTTTACAGATGAGGCCT
GCCTGTGTTAATACACCTAGTGAGGAGTGGAGCTGAATTTGAATGCAAGCCTTGGCACCTTAATTGAGCAAGTTT
GAAACCTCGCTTGTTGCCCTTCTGGAAGGAGTCAGGAATTTCCAGTTCTGGGCCTGGGCTGTGGGTCTGGCAGAC
AGACCTCTGGCCCTAGGTTTGGGTGCCAGGTTCTCTGCTTCCAGAATGAGAAGCTTTGCTGTGCACCAGGACCTG
GGCCCTTCTGGTATCTCCTGAATGAAAAACAAGGGATATTTAATAAATATGGATTTAAATATG

FIGURE 2980

GCGGAGTCGGCGCCGAGAAC**ATG**GCTGGAGGCAAAGCTGGAAAGGACAGTGGGAAGGCCAAGGCTAAGGCAGTAT
CTCGCTCACAGAGAGCTGGGCTACAGTTTCCTGTGGGCCGCATCCACAGACACTTGAAGACTCGCACCACAAGCC
ATGGAAGGGTGGGTGCCACTGCTGCCGTGTACAGTGCTGCGATTCTGGAGTACCTCACTGCAGAGGTGCTGGAGC
TGGCAGGTAATGCTTCTAAGGATCTCAAAGTAAAGCGTATCACTCCGCGTCACTTGCAGCTTGCAATCCGTGGTG
ATGAAGAGTTGGATTCTCTTATCAAGGCTACCATAGCTGGGGGTGGTGTGATCCCTCACATCCACAAATCTCTGA
TTGGAAAGAAGGGACAGCAGAAAACTGCT**TAG**AGGGATGCTTTAACCAACCCTCTTCCTCCCCGTCATTGTACTG
TAACTGGGACAGAAGAAATAATGGGGATATGTGGAATTTTTAACAACAGTTAAATGGAAAAGCATAGACAATTAC
TGTAGACATGATAAAAGAAACATTTGTATGTTCTTAGACTCGAAGTTTGA

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FIGURE 2981

GTTTTGCAGACGCCACCGCCGAGGAAAACCGTGTACTATTAGCC**ATG**GTCAACCCCACCGTGTTCTTCGACATTG
CCGTCGACGGCGAGCCCTTGGGCCGCGTCTCCTTTGAGCTGTTTGCAGACAAGGTCCCAAAGACAGCAGAAAATT
TTCGTGCTCTGAGCACTGGAGAGAAAGGATTTGGTTATAAGGGTTCCTGCTTTCACAGAATTATTCCAGGGTTTA
TGTGTCAGGGTGGTGACTTCACACGCCATAATGGCACTGGTGGCAAGTCCATCTATGGGGAGAAATTTGAAGATG
AGAACTTCATCCTAAAGCATACGGGTCCTGGCATCTTGTCCATGGCAAATGCTGGACCCAACACAAATGGTTCCC
AGTTTTTCATCTGCACTGCCAAGACTGAGTGGTTGGATGGCAAGCATGTGGTGTTTGGCAAAGTGAAAGAAGGCA
TGAATATTGTGGAGGCCATGGAGCGCTTTGGGTCCAGGAATGGCAAGACCAGCAAGAAGATCACCATTGCTGACT
GTGGACAACTCGAA**TAA**GTTTGACTTGTGTTTTATCTTAACCACCAGATCATTCCTTCTGTAGCTCAGGAGAGCA
CCCCTCCACCCCATTTGCTCGCAGTATCCTAGAATCTTTGTGCTCTCGCTGCAGTTCCCTTTGGGTTCCATGTTT
TCCTTGTTCCCTCCCATGCCTAGCTGGATTGCAGAGTTAAGTTTATGATTATGAAATAAAAACTAAATAACAATT
GTC

FIGURE 2982

GGACCGGCAG**ATG**AACACCAACTGGCCAGCCTCGGTGCAGGTCAGCGTCAATGCCACGCCGCTCACCATCGAGCG
TGGCGACAACAAGACCTCGCACAAGCCACTCTACCTGAAGCATGTGTGCCAGCCAGGCCGCAACACCATCCAGAT
CACCGTCACCGCCTGCTGCTGCTCCCACCTCTTCGTGCTGCAGCTAGTGCACCGCCCATCCGTCCGCTCGGTGCT
GCAGGGCCTCCTCAAAAAGCGCCTCCTGCCTGCTGAGCACTGCATCACCAAGATAAAGCGGAACTTCAGCAGCGG
CACCATCCCTGGCACCCCTGGGCCCAACGGAGAGGACGGGGTGGAGCAGACAGCTATCAAGGTGTCCCTGAAGTG
CCCCATCACCTTCCGCAGGATCCAGCTCCCTGCCCGAGGTCATGACTGTCGCCACATACAGTGCTTTGACCTGGA
GTCGTACCTGCAGCTCAACTGTGAGCGGGGGACTTGGAGGTGTCCTGTGTGCAACAAGACAGCTTTGCTGGAGGG
CCTGGAGGTGGACCAGTACATGCTGGGCATCCTGATTTACATTCAGAACTCTGACTATGAGGAGATCACCATCGA
CCCCACGTGCAGCTGGAAGCCAGTGCCCGTGAAGCCTGACATGCACATCAAGGAGGAGCCGGATGGGCCAGCACT
GAAGCGCTGCCGCACCGTGAGCCCCGCCCACGTGCTCATGCCCAGCGTGATGGAGATGATCGCCGCCCTGGGCCC
CGGCGCTGCCCCCTTTGCCCCCCTGCAGCCCCCCTCAGTCCCTGCCCCCAGCGACTACCCTGGCCAGGGTTCCAG
CTTCCTGGGGCCTGGAACTTTCCCTGAGTCCTTCCCACCCACCACGCCCAGCACCCCAACCCTTGCTGAGTTCAC
CCCGGGACCACCCCCCATCTCCTACCAGTCTGACATTCCCAGCAGCCTCCTGACTTCAGAGAAGTCTACCGCCTG
CCTCCCAAGCCAGATGGCACCAGCAGGTCACCTGGACCCCACTCACAATCCTGGGACACCAGGACTACACACCTC
CAACCTTGGGGCCCCTCCAGGTCCCCAGCTGCACCATTCAAACCCTCCCCCAGCGTCCCGGCAGTCCTTGGGCCA
AGCGAGCTTAGGACCTACGGGTGAACTGGCCTTCAGTCCTGCCACAGGCGTGATGGGGCCCCCCAGCATGTCTGG
AGCCGGGGAGGCCCCAGAACCAGCTCTGGACCTGCTCCCGGAACTGACCAACCCTGATGAGCTACTGTCCTACTT
GGGCCCACCCGACCTCCCTACGAACAACAATGACGACCTGCTTTCTCTGTTTGAGAACAAC**TGA**TCCTGTGTTTA
CCCCAAGCCCGGCGGGGACACGCTCACAGATGTCACCACAGCCCTGCCCTTCATGCCCAGCCCCATGGGACACCC
GGTGGTCTTTCCCAAACCTCCCCCAAAACACACCTGGAGCCAGAGCCTTCTGCCGCCAGCCCTGCCCCTGAATTG
GAAGCAGCCCTGTGCTCGATGGGAGGGGCTCCCAGGCCGGCAGCCCTTGCCACCTCCCTCTGCCAAGCCTGCTGC
TGCAGAACGGTTTTTGCTGAGGTGCCCCTGCCCAGCCCTGTCCAGCCTTGTCCACACACACATCTCACGCCCCTG
GTCTCACAGCCTCACACCTTGTCCTTCCACCCCTGCCTGCCCCCACCCAGCCTGCTTCTTGTCCAGCATTGATCC
TTCTGTTTCAACAACTCCTCCACTGGGCAGAGCTGGGCATCTGGCAGGGCTGGCTCTGTCCCCTGGGCCTTTGGC
TCCAGTGGCCCCTGTGCCCAGCAGTCCAGCTCTTGGAACCTCGCTGAATGGCAGCCTCTTGGGGGCCTGGAGCTC
TGGCAGCCCAGCCGTGTGTGGTGTCAGGTTCCTCTCCCCACCCCAGCTTCAAGCAGAGGCCTCGGGGTGGGGGAG
CTACAAAGCACAACAATGTACATAGTGTAGAAACACTAACAGCTGGGAGAGGGGAGCCAGCTGTCCAGCCAGCAT
GTTCCTGTTGTACAGCCCGGTCTCCCTGCGCGCTCTGCTCCTTCCCATGTGCAGACAGATCAGGGAGGAACCTCC
AATGGGTGGGGGACAGTGAGCTTCGGCCTGGCCGAGGTGGGTGGGTGGGCTCTCAGATTCAGCTCTGTGTAAAGA
TTCTCTAGCGGGCTGCGCTCCCAAGTTCCCCTTCTCTGTGAAAGTGAAGAATTAGTACAGCTGTGTTTTTTAAAG
CCACCTCTCTGTCTCCACCCCATGGGCCCACACCCAGGTGGGGGAGGAGGAAGCCACTGCATCTGTTGGCTCAGG
GCCCCAGCCTGTGCGAGCAGGGCGCCTGGGCTGTTGTGTCTCCTGTCTGTGCCGATCTCTATTAAAGGACTCCCT
CTTG

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FIGURE 2983A

GCAGTTGTGAAAAACTTCAGGACAAAA**ATG**TTTCATTTAAGGACTTGTGCTGCTAAGTTGAGGCCATTGACGGCT
TCCCAGACTGTTAAGACATTTTCACAAAACAGACCAGCAGCAGCTAGGACATTTCAACAGATTCGGTGCTATTCT
GCACCTGTTGCTGCTGAGCCCTTTCTCAGTGGGACTAGTTCGAACTATGTGGAGGAGATGTACTGTGCTTGGCTG
GAAAACCCCAAAAGTGTACATAAGTCATGGGACATTTTTTTTCGCAACACGAATGCCGGAGCCCCACCGGGCACT
GCCTACCAGAGTCCCCTTCCCCTGAGCCGAGGCTCCCTGGCTGCTGTGGCCCATGCACAGTCCCTGGTAGAAGCA
CAGCCCAACGTGGACAAGCTCGTGGAGGACCACCTGGCAGTGCAGTCGCTCATCAGGGCATATCAGATACGAGGG
CACCATGTAGCACAGCTGGACCCCCTGGGGATTTTGGATGCTGATCTGGACTCCTCCGTGCCCGCTGACATTATC
TCATCCACAGACAAACTTGGGTTCTATGGCCTGGATGAGTCTGACCTCGACAAGGTCTTCCACTTGCCCACCACC
ACTTTCATCGGGGGACAGGAATCAGCACTTCCTCTGCGGGAGATCATCCGTCGGCTGGAGATGGCCTACTGCCAG
CATATTGGGGTGGAGTTCATGTTCATCAATGACCTGGAGCAGTGCCAGTGGATCCGGCAGAAGTTTGAGACCCCT
GGGATCATGCAGTTCACAAATGAGGAGAAACGGACCCTGCTGGCCAGGCTTGTGCGGTCCACCAGGTTTGAGGAG
TTCCTACAGCGGAAGTGGTCCTCTGAGAAGCGCTTTGGTCTAGAAGGCTGCGAGGTACTGATCCCTGCCCTCAAG
ACCATCATTGACAAGTCTAGTGAGAATGGCGTGGACTACGTGATCATGGGCATGCCACACAGAGGGCGGCTGAAC
GTGCTTGCAAATGTCATCAGGAAGGAGCTGGAACAGATCTTCTGTCAATTCGATTCAAAGCTGGAGGCAGCTGAT
GAGGGCTCCGGAGATGTGAAGTACCACCTGGGCATGTATCACCGCAGGATCAATCGTGTCACCGACAGGAACATT
ACCTTGTCCTTGGTGGCCAACCCTTCCCACCTTGAGGCCGCTGACCCCGTGGTGATGGGCAAGACCAAAGCCGAA
CAGTTTTACTGTGGCGACACTGAAGGGAAAAAGGTCATGTCCATCCTGTTGCATGGGGATGCTGCATTTGCTGGC
CAGGGCATTGTGTACGAGACCTTCCACCTCAGCGACCTGCCATCCTACACAACTCATGGCACCGTGCACGTGGTC
GTCAACAACCAGATCGGCTTCACCACCGACCCTCGGATGGCCCGCTCCTCCCCCTACCCCACTGACGTGGCCCGA
GTGGTGAATGCCCCCATTTTCCACGTGAACTCAGATGACCCCGAGGCTGTCATGTACGTGTGCAAAGTGGCGGCC
GAGTGGAGGAGCACCTTCCACAAGGACGTGGTTGTCGATTTGGTGTGTTACCGGCGCAACGGCCACAACGAGATG
GATGAGCCCATGTTCACGCAGCCGCTCATGTACAAGCAGATCCGCAAGCAGAAGCCTGTGTTACAGAAGTACGCT
GAGCTGCTGGTGTCGCAGGGTGTGGTCAACCAGCCTGAGTATGAGGAGGAAATTTCCAAGTATGATAAGATCTGT
GAGGAAGCTTTTGCCAGATCTAAAGATGAGAAGATCTTGCACATTAAGCACTGGCTGGACTCTCCCTGGCCTGGC
TTCTTCACCCTGGACGGGCAGCCCAGGAGCATGTCCTGCCCCTCCACGGGTCTGACGGAGGATATTCTGACACAC
ATCGGGAATGTGGCTAGTTCTGTGCCTGTGGAAAACTTTACTATTCATGGAGGGCTGAGCCGGATCTTGAAGACT
CGTGGGGAAATGGTGAAGAACCGGACTGTGGACTGGGCTCTAGCGGAGTACATGGCGTTTGGCTCGCTCCTGAAG
GAGGGCATCCACATTCGGCTGAGCGGCCAGGACGTGGAGCGGGGCACATTCAGCCACCGCCACCATGTGCTCCAT
GACCAGAATGTGGACAAGAGAACCTGCATCCCCATGAACCATCTCTGGCCCAATCAGGCCCCCTATACTGTGTGC
AACAGCTCACTGTCTGAGTACGGCGTGCTGGGCTTTGAGCTGGGCTTCGCCATGGCCAGTCCTAATGCCCTGGTC
CTCTGGGAAGCCCAATTTGGTGACTTCCACAACACGGCCCAGTGTATCATCGACCAGTTCATCTGCCCGGGACAA
GCCAAGTGGGTGCGGCAGAATGGCATCGTGTTGCTGCTGCCCCATGGCATGGAGGGCATGGGTCCAGAACATTCC
TCCGCCCGCCCAGAGCGGTTCTTGCAGATGTGCAACGATGACCCAGATGTCCTGCCAGACCTTAAAGAAGCCAAC
TTCGACATCAATCAGCTATATGACTGCAATTGGGTTGTTGTCAACTGCTCCACTCCTGGCAACTTCTTCCACGTG
CTACGACGCCAGATCCTGCTGCCATTCCGGAAGCCGTTAATTATCTTCACCCCCAAATCCCTGTTGCGCCACCCC
GAGGCCAGATCCAGCTTTGATGAGATGCTTCCAGGAACCCACTTCCAGCGGGTGATCCCAGAAGATGGCCCTGCA
GCTCAGAACCCAGAAAATGTCAAAAGGCTTCTCTTCTGCACCGGCAAAGTGTATTATGACCTCACCCGGGAGCGC
AAAGCACGCGACATGGTGGGGCAGGTGGCCATCACAAGGATTGAGCAGCTGTCGCCATTCCCCTTTGACCTCCTG
CTGAAGGAGGTGCAGAAGTACCCCAATGCTGAGCTGGCCTGGTGCCAGGAGGAGCACAAGAACCAAGGCTACTAT
GACTACGTGAAGCCAAGACTTCGGACCACCATCAGCCGCGCCAAGCCCGTCTGGTATGCCGGCCGGGACCCAGCG
GCTGCTCCAGCCACCGGCAACAAGAAGACCCACCTGACGGAGCTGCAGCGCCTCCTGGACACGGCCTTCGACCTG
GACGTCTTCAAGAACTTCTCG**TAG**ATGCTGCCTAGGGTTGCTTGGGCCACTGCCCTCTCCACACCCATGACTGCC
CCTTGCTTCTCAACTAAAGAATAGTGCCTCAGCGCTGCCCACACCACCGCCCTCCTCGCTGTGCCACCACCCCTC
CCTCTGCTCTCATAGGAGTTAGGCTGTCGTCCCCCTCCAGTGCTTGGCTGCCCCACAGGCCACACGCTGCCCAGG
CTCTGCTGACTTCTGAGCAGTTTTCCAGGAGGCCGGGGGGAGCAGGAGGAGGAAAGGTAGCCCCCGAGGGATGTC
CTTGGGGAGGGGTCAGCTCTGGCCACAATCCTCCCCACCAGTCTCACCCACTAGGATAGGAACTGGGCCTTGTGT
GCTGGCTTCCGCTGTCACCCAGCAAGGCACAGGCTCCTGTATTTGAGACTAGGATAGCTTCATCTTGAGCCTGAG
CCTTAGAATCTGTAGAGGAGCCTGGAGTCGGATCTAGCCATGGCTGGCAGAGGTTTCTAGGGTGGGCCCCAGCCG

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FIGURE 2983B

TGGCGTGAACTGAGGATGACCCGGGGCAGCTGGCAGGAGAGAGCCTTGGCCTGACCTGGCACAGAAAGGGCAGCT
TCAGTCTCTGCAGTGTCCATTATCTGCTGTTCCTTCGAGGGTTCCAGGCTGTGTGTGGGGCCCAAGCATGCCCCA
CCCACCCCTCCTGGGCCCAGGCAGCACCTGGAGCCCACAGAGTCTGTGTGTAGCCAGGAAGCCCCGCTCAGGTAG
CCACCACCGGGGCACTGGCTGCTCTGTCTTGGTCCTGTTAACCCTCCACCTCCTCTCTTGGACTCCCTCCCCACC
CCAACCACTCTTTCTTTCTCCTTTAACCCAATGGAGACTTTCTGATGCATCGTTTTCTTTGCTGTGCCAAAGCAG
GTCAGAAGAGGGAGAGGAGGGGCTGGGGGTGAGGGGCCAGGCCATGGCCAAGGGGCCAGCTGCCCCTCATTTATC
ACTCTGACCTTCACAGGGACAGATCTGATTTATTTATTTTGGTT

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FIGURE 2984

CTGAGGCGCG**ATG**GCAGGTGTCGGGGCTGGGCCTCTGCGGGCGATGGGGCGGCAGGCCCTGCTGCTTCTCGCGCT
GTGCGCCACAGGCGCCCAGGGGCTCTACTTCCACATCGGCGAGACCGAGAAGCGCTGTTTCATCGAGGAAATCCC
CGACGAGACCATGGTCATCGGCAACTATCGTACCCAGATGTGGGATAAGCAGAAGGAGGTCTTCCTGCCCTCGAC
CCCTGGCCTGGGCATGCACGTGGAAGTGAAGGACCCCGACGGCAAGGTGGTGCTGTCCCGGCAGTACGGCTCGGA
GGGCCGCTTCACGTTCACCTCCCACACGCCCGGTGACCATCAAATCTGTCTGCACTCCAATTCTACCAGGATGGC
TCTCTTCGCTGGTGGCAAACTGCGGGTGCATCTCGACATCCAGGTTGGGGAGCATGCCAACAACTACCCTGAGAT
TGCTGCAAAAGATAAGCTGACGGAGCTACAGCTCCGCGCCCGCCAGTTGCTTGATCAGGTGGAACAGATTCAGAA
GGAGCAGGATTACCAAAGGTATCGTGAAGAGCGCTTCCGACTGACGAGCGAGAGCACCAACCAGAGGGTCCTATG
GTGGTCCATTGCTCAGACTGTCATCCTCATCCTCACTGGCATCTGGCAGATGCGTCACCTCAAGAGCTTCTTTGA
GGCCAAGAAGCTGGTG**TAG**TGCCCTCTTTGTATGACCCTTCCTTTTTACCTCATTTATTTGGTACTTTCCCCACA
CAGTCCTTTATCCACCTGGATTTTTAGGGAAAAAAATGAAAAAGAATAAGTCACATTGGTTCCATGGCCACAAAC
CATTCAGATCAGCCACTTGCTGACCCTGGTTCTTAAGGACACATGACATTAGTCCAATCTTTCAAAATCTTGTCT
TAGGGCTTGTGAGGAATCAGAACTAACCCAGGACTCAGTCCTGCTTCTTTTGCCTCGAGTGATTTTCCTCTGTTT
TTCACTAAATAAGCAAATGAAAACTCTCTCCATTACCTTCTGCTTTCTCTTTGTCCACTTACGCAGTAGGTGACT
GGCATGTGCCACAGAGCAGGCCCTGCCTCACTGTCTGCTGGTCAGTTCTGGGTTCACTTAATGGCTTTGTGAATG
TAAATAAGGGGCAGGTCTTGGCCCTAGAGGATTGAGATGTTTTTCTAAATCTTAGAACTATTTTTGGATAAATTA
TATATTTTCCTTCCTAGTAGAAGTGTTACTGCCTGTAACTAGCTCAAAATACCAATGCAGTTTCTGCATTCTGGG
TTTTGTTTTTCCTTTTTTTTTTTTTTTTTTTTTTTGAGTTTTGCTCTTGTCGCCCAGGCTGGAGTGCAATGGCG
TGATCTCAGCTCACTGGCAACATCTGCCTCCCGGGTTCAAATGATTCTCCTGCCTCAGTCTCCTGAGTAGCTGGG
ATTACAGGTGCCCGCCACCACGCTCAGCTAATTTTTGTATTTTTAGTAGAGATGGGGTTTTACCATGTTGGCCAG
GCTGGTCTTAGACTCCTGACCTCAGTTGATCCACCTGCCTCAGCCTCTGCATTCAGTTTATTCACATATTTTTGG
TAACTCCCATGGCAGCTCCTAGGATTTCAGCGGTCTGTGGGCCAGAAAGCAGGCACCAGGGCTGACCTCAAGGCC
GTATCAGAGGGCCAAGCAGAGTTCTTTTGGATACCTGCTTTTCATCCCACAGGGCCTTAGAGTCAGAGGTAAGGT
AGCAACAGAGCTAGAATGGGGCAATGCACTCTTACCCTCCTTCTCAACTTTTATTTAAGCTGTGCTAAATGTTTT
CTTCAAGGGAACCAGATTTAGTTCTTTACAGAATTTTCCAGTGAAATAAAACATGTTGTAATAGCTGTGTTTGAG
ATGAAATAAGAGGTTGTGGGTAGAGGGGAGGCACCTAAAGGAAAAGAGGAAAGGTGCCTGGGCTACCTATGCAGA
TAACCTGGAGTGGACTTCACTGTGGACTCGTGGTACTAAGGCTTGGCCTGGACAGGCAGTCTAGGGGGTATGGGA
ATACACGGTGTGGTTGTTCAACTATTTGCAAAGGTCAACCAAATAGACCACATGTTCGCAAAGTATCATCTGAGG
AAATTAAGTACCTTCTTAGCCCTCTCAGTCATAAATTTGAACAAATTTTAATACACTTCCCTCATGCCCTTCTAT
ATAAAACTTAATACCATTAGTTCCCCATTCTTGACATTTTATTTCAGTTTTTATTATATATTTATTTGAAATATT
TATTAAATTATCTGACCTACAGAACT

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FIGURE 2985

TGCTCCCGCTCGCGTCGGTGGCGTTTTTCCTGCAGCGCGTGCGTGCTGCGCTACTGAGCAGCGCCATGGAGGACT
CTGAAGCACTGGGCTTCGAACACATGGGCCTCGATCCCCGGCTCCTTCAGGCTGTCACCGATCTGGGCTGGTCGC
GACCTACGCTGATCCAGGAGAAGGCCATCCCACTGGCCCTAGAAGGGAAGGACCTCCTGGCTCGGGCCCGCACGG
GCTCCGGGAAGACGGCCGCTTATGCTATTCCGATGCTGCAGCTGTTGCTCCATAGGAAGGCGACAGGTCCGGTGG
TAGAACAGGCAGTGAGAGGCCTTGTTCTTGTTCCTACCAAGGAGCTGGCACGGCAAGCACAGTCCATGATTCAGC
AGCTGGCTACCTACTGTGCTCGGGATGTCCGAGTGGCCAATGTCTCAGCTGCTGAAGACTCAGTCTCTCAGAGAG
CTGTGCTGATGGAGAAGCCAGATGTGGTAGTAGGGACCCCATCTCGCATATTAAGCCACTTGCAGCAAGACAGCC
TGAAACTTCGTGACTCCCTGGAGCTTTGGTGGTGGACGAAGCTGACCTTCTTTTTTCCTTTGGCTTTGAAGAAG
AGCTCAAGAGTCTCCTCTGTCACTTGCCCCGGATTTACCAGGCTTTTCTCATGTCAGCTACTTTTAACGAGGACG
TACAAGCACTCAAGGAGCTGATATTACATAACCCGGTTACCCTTAAGTTACAGGAGTCCCAGCTGCCTGGGCCAG
ACCAGTTACAGCAGTTTCAGGTGGTCTGTGAGACTGAGGAAGACAAATTCCTCCTGCTGTATGCCCTGCTCAAGC
TGTCATTGATTCGGGGCAAGTCTCTGCTCTTTGTCAACACTCTAGAACGGAGTTACCGGCTACGCCTGTTCTTGG
AACAGTTCAGCATCCCCACCTGTGTGCTCAATGGAGAGCTTCCACTGCGCTCCAGGTGCCACATCATCTCACAGT
TCAACCAAGGCTTCTACGACTGTGTCATAGCAACTGATGCTGAAGTCCTGGGGGCCCCAGTCAAGGGCAAGCGTC
GGGGCCGAGGGCCAAAGGGGACAAGGCCTCTGATCCGGAAGCAGGTGTGGCCCGGGGCATAGACTTCCACCATGT
GTCTGCTGTGCTCAACTTTGATCTTCCCCCAACCCCTGAGGCCTACATCCATCGAGCTGGCAGGACAGCACGCGC
TAACAACCCAGGCATAGTCTTAACCTTTGTGCTTCCCACGGAGCAGTTCCACTTAGGCAAGATTGAGGAGCTTCT
CAGTGGAGAGAACAGGGGCCCCATTCTGCTCCCCTACCAGTTCCGGATGGAGGAGATCGAGGGCTTCCGCTATCG
CTGCAGGGATGCCATGCGCTCAGTGACTAAGCAGGCCATTCGGGAGGCAAGATTGAAGGAGATCAAGGAAGAGCT
TCTGCATTCTGAGAAGCTTAAGACATACTTTGAAGACAACCCTAGGGACCTCCAGCTGCTGCGGCATGACCTACC
TTTGCACCCCGCAGTGGTGAAGCCCCACCTGGGCCATGTTCCTGACTACCTGGTTCCTCCTGCTCTCCGTGGCCT
GGTGCGCCCTCACAAGAAGCGGAAGAAGCTGTCTTCCTCTTGTAGGAAGGCCAAGAGAGCAAAGTCCCAGAACCC
ACTGCGCAGCTTCAAGCACAAAGGAAAGAAATTCAGACCCACAGCCAAGCCCTCCTGAGGTTGTTGGGCCTCTCT
GGAGCTGAGCACATTGTGGAGCACAGGCTTACACCCTTCGTGGACAGGCGAGGCTCTGGTGCTTACTGCACAGCC
TGAACAGACAGTTCTGGGGCCGGCAGTGCTGGGCCCTTTAGCTCCTTGGCACTTCCAAGCTGGCATCTTGCCCCT
TGACAACAGAATAAAAATTTTAGCTGCCCCAGTTTGTGCCTCCAGCATATGAAAAGGACTATTTGAATCCCCAAA
ACATCAGGAGTCGGGAAACTTCGGAAGACAGCTGTGCCTGGCTCTGTGGCTGCATGCAGTGCTTCACTTGGCCAG
CAGAGGTCAGCTGTGCCGAGCTGCCCCAGCCATGAGAAGAGAAGCCTGCCCTTGCTGGCAGGTGGCTATGGCCGG
CCCAGAGCCTTCCTGCCCAGCTCCTGCAGCCCTGCTGCCTGGGATCAGGCTGGGAGATGGGCCTTCCTGACCGCC
AGCCTTCCTCTCCCCGAGCACACGCACATGTAGATTCGGGGGGAAGCTGCCTGCTCTTCCTTAGAGGAGCCGGGG
CAGCTATCTGCTGGTCCCTTTCTGAACAACTGTTGATGTGTGA

FIGURE 2986A

CTGAGGCGGCGCTGTGTGTGTGAAGCGTACCTAGGGCGGGAGGCGACATGGAGACAGGGGCGGCCGAGCTGTATG
ACCAGGCCCTTTTGGGCATCCTGCAGCACGTGGGCAACGTCCAGGATTTCCTGCGCGTTCTCTTTGGCTTCCTCT
ACCGCAAGACAGACTTCTATCGCTTGCTGCGCCACCCATCGGACCGCATGGGCTTCCCGCCCGGGGCCGCGCAGG
CCTTGGTGCTGCAGGTATTCAAAACCTTTGACCACATGGCCCGTCAGGATGATGAGAAGAGAAGGCAGGAACTTG
AAGAGAAAATCAGAAGAAAGGAAGAGGAAGAGGCCAAGACTGTGTCAGCTGCTGCAGCTGAGAAGGAGCCAGTCC
CAGTTCCAGTCCAGGAAATAGAGATTGACTCCACCACAGAATTGGATGGGCATCAGGAAGTAGAGAAAGTGCAGC
CTCCAGGCCCTGTGAAGGAA**ATG**GCCCATGGTTCACAGGAGGCAGAAGCTCCAGGAGCAGTTGCTGGTGCTGCTG
AAGTCCCTAGGGAACCACCAATTCTTCCCAGGATTCAGGAGCAGTTCCAGAAAAATCCCGACAGTTACAATGGTG
CTGTCCGAGAGAACTACACCTGGTCACAGGACTATACTGACCTGGAGGTCAGGGTGCCAGTACCCAAGCACGTGG
TGAAGGGAAAGCAGGTCTCAGTGGCCCTTAGCAGCAGCTCCATTCGTGTGGCCATGCTGGAGGAAAATGGGGAGC
GCGTCCTCATGGAAGGGAAGCTCACCCACAAGATCAACACTGAGAGTTCTCTCTGGAGTCTCGAGCCCGGGAAGT
GCGTTTTGGTGAACCTGAGCAAGGTGGGCGAGTATTGGTGGAACGCCATCCTGGAGGGAGAAGAGCCCATCGACA
TTGACAAGATCAACAAGGAGCGCTCCATGGCCACCGTGGATGAGGAGGAACAGGCGGTGTTGGACAGGCTTACCT
TTGACTACCACCAGAAGCTGCAGGGCAAGCCACAGAGCCATGAGCTGAAAGTCCATGAGATGCTGAAGAAGGGGT
GGGATGCTGAAGGTTCTCCCTTCCGAGGCCAGCGATTCGACCCTGCCATGTTCAACATCTCCCCGGGGGCTGTGC
AGTTT**TAA**TGACCAGAAGGAAAGGAAACCCTCGCCGGTGGGGAGGCAGAGCCTTATCCTCGGCTGCCCTTCTTGG
CTCCCTGCATTCCAGGGACTTGCTCGTCTTGTTTACCCCTAGCCATCCTTTCTTTCAAGGGTGAACCAGGCCTTC
CACCCTGACCTTGCATCTCCAGACTGTTCCAGAGAAGGTGCGGGGCCAGCTGCTATGTGGTGGCCGCTGTGGCTG
ACACTGAGTGAAGGTGTTTGAAATGCAGGAGAGGATATCCCAGCAAATTGGGATCACATGCTTTTGTCTCCACAG
CAACCAGCCACTGCAGGCAGCATGTCTTTCCTCCCCTGCTCTCTGCTTGCTGTTGTTTTGACGCTATTCTGCTTG
CATGTCTTCTGGTTGGGATGTGGAGTTGTTGCTGGACTCTCAGGCGAAGCTGAAGTCATTGAAGTGTGTGAAGCT
CTGTGCTTGCATGAGGGCAAGCAAGGAATGGCTGTGCCTGAGGCTGCTCTGGGAAACTCCTTGCCCCTTGACCTC
TTTTGAGAGCATTCACGTGGTCTTCTTGCTCATCCCCTTATAAATGTGCTTTGCCTGCCTCAGCCTCATGGTCAG
AGCAGTGGAGACTGGAGCCCTGTTTGCACGTTCTAGTTGTTCGGAGAAAGCCTAGGTTCTGGGCTCAGGTCCAGA
TGCAGCGGGGATTCTGTTCTCTGACTGTGGCGACCTTGCTTTGGTTCTTGTTGAAGTGAACCAAGCCCGGCCACC
ACGCATGGCATGCTGTGCTTGGCTCCCCATAAGACGTCCTCTTTGGGTGCACGGTGTCAAAGTGTGGGCAGGAGT
GGAGAGCTGGTGCCCTCAGGAGGAGACCACAGCATGTCCATCAGCTCAGCAGAGCTCGACAGCCACAAGTCCTGA
GAAGCTTTGACCTTGAAGGGCTTCTGGGAGAGGAGGAATTTCTGCATGGGGCGTGAAGGCACACTGTCCCACCAC
AACTGAACCAGAAGAGAGTGAAGACTCCCCTCTTCCCATCCTCTGTGCCAGGTGCCAGACTGTGCTCCTTGGAAC
TTATGGCCCAATCTTACCTGTTCTCCAGGGACTGGTCACTGCCTCAGGACCCCCAAGCCTATGCCCTGAGCCATG
GCTGCTGACTGACTCCAGCCAAGGTGCAAAGACGAGATTATGAGACAGGTCCTCAGGCCTGTGTTCCAAGTACTC
ACAGGGGCTCTGGGTGCCCATCGCCGGGAGTATGGTTCAGCTGCCACCGGCACTGTCCATTTGCCTGTCTGTCAA
GCTCAGAGCATGGATAAGCCACACAGCAGGGCAGTGCACCCTGGCACCATGCACGGCCAGCAAGAATCAAGGCCC
GCAGATGCTAAGAGGGCCTATTGTCAGGGGAAGGTCCCCGCTCCTGCACACTCTCTATGGATACTTGGGTTGTGG
GGGCTCTCTTGGAGAGTAAGTTTGTGGTTTGTTTCTGGTTTACAGTGGTGGCTGACACCCCTTGTAAGAAAGCAT
TCCTGGGAAGTCTTCTGTGGGTCCAAACATGTTGCTCCGATCATCACAGGAGAGCAAAAGGCCCTAGATACCCCC
TTTGGAATGTGAGAGTCTTGTTGTCTGATATTTGCCACTGAGCTGGTGAAGCCCCTCTAAAGAGATCTCGACCCT
GGGGAGCAGAATTCTTGTCATCTATGAGGGGTCCTGAGAAAGACTTGTCATTTTTTTTCCTGGAGTTCTTCCCAT
TGAGGTCCTAGGATTTGCACACCACTGTCCCACAAGAGCTTTCCTGCCTAATGAAAGGAGGTCTTGTGGTGTGTG
TCTCCTCTCTTCTCTATAGTTCCCGAGTTGGCCCCCATTGCAGCCCCCACCCTGTGGGTAGTCTTCCAGAAGTGA
TGCAGTGGTGTGAGATGCCCTACACCTTGTTATTTGGGAGACTTTGAGAGTCATTCACTTCCATGGTGACTAGTG
TTTGTTTTGCCTGATTTTATATTCTGTGTTGCATTTCTCCCCACTCCCTGCCCTGCTTTAATAAACAGCAAACCA
ATATCTAGGAAGAATGACTGAGGGATAGTATTGGGTATTGGCCCCATGGCAGGAACAGCCACTTGCATCTGGTCC
CGGTGCCACACTGCGGTGCTTGGTGTGGTTGTGGAGCCTGTCCCTGCGCGCCTTGCTCCCGTTGAGCCACGCTGT
CTGGTGGGTGATTCTCTGCCCTGAGCCACCACCCTGGACTGGCCCAGTCTCCAGAGCTGGCACACCCTGCCTGTT
TTCTCTTTTTAGACACAACAGCCGCAGTTTGGCCAGCCACTAAGTCCCACCAGCTGAGGTCCGAGGAAAGCGGGG
TGACTCATTTCCCTTGTCCAGGGCCCGAGGAGAGTGAGGTGTCCAGCCTGCAAAGCTATTCCAGCTCCTTGGTGT
TGGTTTGCAATAAATTGGTATTTAAGCAGTTCTGGGTCTGCGTGTGACATTTGCTGCTGAGACAGTTCTGTCTGT

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FIGURE 2986B

GCATGGTCATTATTGTTGCATTCTAGCCTTGAGGTCCCAGGCCAACGTACACAGCAAACACCAGCATGGGGAATT
CTTAGGGGTTGTTTCCCATCTGGTCTGAATGCACTGGGCAAGATCTCAATACAGCTTTAGAAATCCTGTAAGATT
TTGACCAGTGGGGAGAAAAAGAATGTAGCTATAGATCTTACATCCTTTCAAACAGGTTCTGGAATTCTGTAGTTA
CTGGAAAGCTTAGGGTGAGTGCAGAGTTGGGAATGATTCCACTGAAGGGCCACCTTTGCCCACCAGGCTCCAAGG
CCCTCCTTGGTCTCCAGGTGCATACCTGCTGTTAACTTTGCTGAGCCCTCGCAATGGGCTTCCTCCAGGACATAA
CGCCGTGTCTGACACAGAAGTCTCCCAGGTGGCTGGCCACCTGCTTCTTCCTCAGTCAGATCTTTGACTCTCCTT
CTCTGTGCCCACCCCATCTCCAGCCTCCTCTGACCCTGCTCACCCCTGGGGACAGGACCTAGGGGTGTGAGAAGT
ACTTGGCTGAATAAAGACTGTTTCAAAGGCAATCCTTAGAATTGCCTAGCATACTCCCAGGGCCAGAAATAACCC
GCCAGAAAGGAGAGGCGTATTTGCCCCTGAAGAGTGCAGGAGGGAGAACAGTTGAGAAGTGTTTTGTGTGGAAAT
GTGTCCAAGAGGCGTCAGCTGCTGCACAGAGAACTCACTGCCCAGAACACTGCGCTTGGGGAACAGACCTCACCC
CCACCTCAAATCTGCTCTCCACTGGGCCTGTTGGCAGCCAGCTCAGCTGGGGAAGGGACAGCATGACTCGCTTTG
TCGATGAAAAGCACGAAGTTGTCAGCACAGAACCTGGCCAGTCCTTGAGAAACTCCCTCCTTGGTGGTCAGAGGT
CAAGCAGCCCATGTGGCCCACGGTCCTGAAGAACTGGGCTATGTCCCTGAGGCTCCTCTCTACCGTCTGACTGTG
GGGTCTGGGGAACAGGCATTTAAACCAGGCTGCTGCCCTGGGGAGTGCCCACTGGACGCCAGGGTGCCCCATAGG
GACAGGGTCACAAAGCCCTGGGGCTTCCCCTGCCAGTCCTGGTGAGGACAGTGTGGTCACTATCTCAGAGAGACG
AAAAATGAATATTCTGTCATTTCAGACTAAACTACTCACCCAGCTCACACTAATATGGATTTGTTAATTTTACCT
TTTTTTTTCTTTCCAACTTTAGGTTCAAGGGTTGTTACATGGGTAAATTGGATCATAGGG

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FIGURE 2987

TCTTCCTCGGCGCTGCCTACGGAGGTGGCAGCCATCTCCTCCTCGGCATC**ATG**GCCGCCCTCAGACCCCTTGTGA
AGCCCAAGATCGTCAAAAAGAGAACCAAGAAGTTCATCCAGCACCAGTCAGACCAATATGTCAAAATTAAGCGTA
ACTGGCGGAAACCCAGAGGCACTGACAACAGGGTTCGTAGAAGATTCAAGGGCCAGATCTTGATGCCCAACATTG
GTTATGGGAGCAACAAAAAAACAAAGCACATGCTGCCCAGTGGCTTCCGGAAGTTCCTGGTCCACAACATCAAGG
AGCTGGAAGTGCTGCTGATGTGCAACAAATCTTACTGTGCCGAGATCGCTCACAATGTTTCCTCCAAGAACCGCA
AAGCCATCGTGGAAACAGCTGCCCAACTGGCCATCAGAGTCACCAACCCCAATGCCAGGCTGCGCAGCGAAGAAA
ATGAG**TAG**ACAGCTCGTGTGCACGTTTTCTGTTTAAATAAATGTAAAAACTGC

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FIGURE 2988

GCGGCGCGCTCCTGGCGAGGACGGAGCGAGCAGATCTCGCGTGCGCTCGCCGCCCGGCGCAGCCCAGCCCGGCCC
CCGCCTGGCGCCGCGAGCCGAGGTGTCTCCCGCGCCCGCGCCCGTGTCGCCGCCGTGCCCGCGAGCGGGAGCCGG
AGTCGCCGCCGCCCGAGCGCAGCCGAGCGCACGCCGAGCCCGTCCGCCGCCGCC**ATG**GCCACCACGGTGACCTGC
ACCCGCTTCACCGACGAGTACCAGCTCTACGAGGATATTGGCAAGGGGGCTTTCTCTGTGGTCCGACGCTGTGTC
AAGCTCTGCACCGGCCATGAGTATGCAGCCAAGATCATCAACACCAAGAAGCTGTCAGCCAGAGATCACCAGAAG
CTGGAGAGAGAGGCTCGGATCTGCCGCCTTCTGAAGCATTCCAACATCGTGCGTCTCCACGACAGCATCTCCGAG
GAGGGCTTCCACTACCTGGTCTTCGATCTGGTCACTGGTGGGGAGCTCTTTGAAGACATTGTGGCGAGAGAGTAC
TACAGCGAGGCTGATGCCAGTCACTGTATCCAGCAGATCCTGGAGGCCGTTCTCCATTGTCACCAAATGGGGGTC
GTCCACAGAGACCTCAAGCCGGAGAACCTGCTTCTGGCCAGCAAGTGCAAAGGGGCTGCAGTGAAGCTGGCAGAC
TTCGGCCTAGCTATCGAGGTGCAGGGGGACCAGCAGGCATGGTTTGGTTTCGCTGGCACACCAGGCTACCTGTCC
CCTGAGGTCCTTCGCAAAGAGGCGTATGGCAAGCCTGTGGACATCTGGGCATGTGGGGTGATCCTGTACATCCTG
CTCGTGGGCTACCCACCCTTCTGGGACGAGGACCAGCACAAGCTGTACCAGCAGATCAAGGCTGGTGCCTATGAC
TTCCCGTCCCCTGAGTGGGACACCGTCACTCCTGAAGCCAAAAACCTCATCAACCAGATGCTGACCATCAACCCT
GCCAAGCGCATCACAGCCCATGAGGCCCTGAAGCACCCGTGGGTCTGCCAACGCTCCACGGTAGCATCCATGATG
CACAGACAGGAGACTGTGGAGTGTCTGAAAAAGTTCAATGCCAGGAGAAAGCTCAAGGGAGCCATCCTCACCACC
ATGCTGGCCACACGGAATTTCTCAGTGGGCAGACAGACCACCGCTCCGGCCACAATGTCCACCGCGGCCTCCGGC
ACCACCATGGGGCTGGTGGAACAAGCCAAGAGTTTACTCAACAAGAAAGCAGATGGAGTCAAGCCCCAGACGAAT
AGCACCAAAAACAGTGCAGCCGCCACCAGCCCCAAAGGGACGCTTCCTCCTGCCGCCCTGGAGCCTCAAACCACC
GTCATCCATAACCCAGTGGACGGGATTAAGGAGTCTTCTGACAGTGCCAATACCACCATAGAGGATGAAGACGCT
AAAGCCCGGAAGCAGGAGATCATTAAGACCACGGAGCAGCTCATCGAGGCCGTCAACAACGGTGACTTTGAGGCC
TACGCGAAAATCTGTGACCCAGGGCTGACCTCGTTTGAGCCTGAAGCACTGGGCAACCTGGTTGAAGGGATGGAC
TTCCACAGATTCTACTTCGAGAACCTGCTGGCCAAGAACAGCAAGCCGATCCACACGACCATCCTGAACCCACAC
GTGCACGTCATTGGAGAGGATGCCGCCTGCATCGCTTACATCCGGCTCACGCAGTACATTGACGGGCAGGGCCGG
CCCCGCACCAGCCAGTCTGAGGAGACCCGCGTGTGGCACCGCGCGACGGCAAGTGGCAGAACGTGCACTTCCACT
GCTCGGGCGCGCCTGTGGCCCCGCTGCAGTGAAGCCAAGGGAGGGGCACAGAATGGGGAACAGGACACAGGATCC
TAAACTCCAAGGGGACTGTCCACCGATGAACACTCAGAGTGGACACCATCTTCCGTCCACGCTGTGCCCAGGACA
GCTGTCCCCATCCATGAACACAGGGTAAACATCTGCCGGGCTCCGCACCAGTGGCTCCCTGGGCCATGGGACAGC
GGCAGGGCTCACCACGGACAGCACGTGGCCCAGCAGCCGGCCACCCTGGCGTCCTGGGGCCTCCTCCCCTCCTCT
CCCTCTCACCTTGTCACCTCCACGGAGCTGCCTGTCTGGGATAATTTGGGGATTTTTTTTCTGGGGGATAATTCT
TTTGCATGACCCC

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FIGURE 2989

GCTGCTCCCTGAGAACGGGTCCCGCAGCTGGGCAGGCGGGCGGCCTGAGGGCGCGGAGCC**ATG**AAGCTGTACAGC
CTCAGCGTCCTCTACAAAGGCGAGGCCAAGGTGGTGCTGCTCAAAGCCGCATACGATGTGTCTTCCTTCAGCTTT
TTCCAGAGATCCAGCGTTCAGGAATTCATGACCTTCACGAGTCAACTGATTGTGGAGCGCTCATCGAAAGGCACT
AGAGCTTCTGTCAAAGAACAAGACTATCTGTGCCACGTCTACGTCCGGAATGATAGTCTTGCAGGTGTGGTCATT
GCTGACAATGAATACCCATCCCGGGTGGCCTTTACCTTGCTGGAGAAGGTACTAGATGAATTCTCCAAGCAAGTC
GACAGGATAGACTGGCCAGTAGGATCCCCTGCTACAATCCATTACCCAGCCCTGGATGGTCACCTCAGTAGATAC
CAGAACCCACGAGAAGCTGATCCCATGACTAAAGTGCAGGCCGAACTAGATGAGACCAAAATCATTCTGCACAAC
ACCATGGAGTCTCTGTTAGAGCGAGGTGAGAAGCTAGATGACTTGGTGTCCAAATCCGAGGTGCTGGGAACACAG
TCTAAAGCCTTCTATAAAACTGCCCGGAAACAAAACTCATGCTGTGCCATCATG**TGA**TGCAGCCTGCCAGAGGCC
CAATGCTGGAATGGCACCATCATTCACATCAGAACTGCAGCCCCTGGAAAAGAAGAGACA

FIGURE 2990

ACTCCACACCTGGCTGGAGCAGGAAATGCCGAGCGGCGCCTGAGCCCCAGGGAAGCAGGCTAGGATGTGAGAGAC
ACAGTCACCTGCAGCCTAATTACTCAAAAGCTGTCCCCAGGTCACAGAAGGGAGAGGACATTTCCCACTGAATCT
GTCTGAAGGACACTAAGCCCCACAGCTCAACACAACCAGGAGAGAAAGCGCTGAGGACGCCACCCAAGCGCCCAG
CAATGGCCCTGCCTGGAGAACATCCAGGCTCAGTGAGGAAGGGTCCAGAAGGGAATGCTTGCCGACTCGTTGGAG
AACAATGAAAAGGAGGAAACTGTGACTGAACCTCAAACCCCAAACCAGCCCGAGGAGAACCACATTCTCCCAGGG
ACCCAGGGCGGGCCGTGACCCCTGCGGCGGAGAAGCCTTGGATATTTCCACTTCAGAAGCCTACTGGGGAAGGCT
GAGGGGTCCCAGCTCCCCACGCTGGCTGCTGTGCAG**ATG**CTGGACGACAGAGCCAGGATGGAGGCCGCCAAGAAG
GAGAAGGTAGAGCAGATCCTGGCAGAGTTCCAGCTGCAGGAGGAGGACCTGAAGAAGGTGATGAGACGGATGCAG
AAGGAGATGGACCGCGGCCTGAGGCTGGAGACCCATGAAGAGGCCAGTGTGAAGATGCTGCCCACCTACGTGCGC
TCCACCCCAGAAGGCTCAGAAGTCGGGGACTTCCTCTCCCTGGACCTGGGTGGCACTAACTTCAGGGTGATGCTG
GTGAAGGTGGGAGAAGGTGAGGAGGGGCAGTGGAGCGTGAAGACCAAACACCAGATGTACTCCATCCCCGAGGAC
GCCATGACCGGCACTGCTGAGATGCTCTTCGACTACATCTCTGAGTGCATCTCCGACTTCCTGGACAAGCATCAG
ATGAAACACAAGAAGCTGCCCCTGGGCTTCACCTTCTCCTTTCCTGTGAGGCACGAAGACATCGATAAGGGCATC
CTTCTCAACTGGACCAAGGGCTTCAAGGCCTCAGGAGCAGAAGGGAACAATGTCGTGGGGCTTCTGCGAGACGCT
ATCAAACGGAGAGGGGACTTTGAAATGGATGTGGTGGCAATGGTGAATGACACGGTGGCCACGATGATCTCCTGC
TACTACGAAGACCATCAGTGCGAGGTCGGCATGATCGTGGGCACGGGCTGCAATGCCTGCTACATGGAGGAGATG
CAGAATGTGGAGCTGGTGGAGGGGGACGAGGGCCGCATGTGCGTCAATACCGAGTGGGGCGCCTTCGGGGACTCC
GGCGAGCTGGACGAGTTCCTGCTGGAGTATGACCGCCTGGTGGACGAGAGCTCTGCAAACCCCGGTCAGCAGCTG
TATGAGAAGCTCATAGGTGGCAAGTACATGGGCGAGCTGGTGCGGCTTGTGCTGCTCAGGCTCGTGGACGAAAAC
CTGCTCTTCCACGGGGAGGCCTCCGAGCAGCTGCGCACACGCGGAGCCTTCGAGACGCGCTTCGTGTCGCAGGTG
GAGAGCGACACGGGCGACCGCAAGCAGATCTACAACATCCTGAGCACGCTGGGGCTGCGACCCTCGACCACCGAC
TGCGACATCGTGCGCCGCGCCTGCGAGAGCGTGTCTACGCGCGCTGCGCACATGTGCTCGGCGGGGCTGGCGGGC
GTCATCAACCGCATGCGCGAGAGCCGCAGCGAGGACGTAATGCGCATCACTGTGGGCGTGGATGGCTCCGTGTAC
AAGCTGCACCCCAGCTTCAAGGAGCGGTTCCATGCCAGCGTGCGCAGGCTGACGCCCAGCTGCGAGATCACCTTC
ATCGAGTCGGAGGAGGGCAGTGGCCGGGGCGCGGCCCTGGTCTCGGCGGTGGCCTGTAAGAAGGCCTGTATGCTG
GGCCAG**TGA**GAGCAGTGGCCGCAAGCGCAGGGAGGATGCCACAGCCCCACAGCACCCAGGCTCCATGGGGAAGTG
CTCCCCACACGTGCTCGCAGCCTGGCGGGGCAGGAGGCCTGGCCTTGTCAGGACCCAGGCCGCCTGCCATACCGC
TGGGGAACAGAGCGGGCCTCTTCCCTCAGTTTTTCGGTGGGACAGCCCCAGGGCCCTAACGGGGGTGCGGCAGGA
GCAGGAACAGAGACTCTGGAAGCCCCCCACCTTTCTCGCTGGAATCAATTTCCCAGAAGGGAGTTGCTCACTCAG
GACTTTGATGCATTTCCACACTGTCAGAGCTGTTGGCCTCGCCTGGGCCCAGGCTCTGGGAAGGGGTGCCCTCTG
GATCCTGCTGTGGCCTCACTTCCCTGGGAACTCATCCTGTGTGGGGAGGCAGCTCCAACAGCTTGACCAGACCTA
GACCTGGGCCAAAAGGGCAGCCAGGGGCTGCTCATCACCCAGTCCTGGCCATTTTCTTGCCTGAGGCTCAAGAGG
CCCAGGGAGCAATGGGAGGGGGCTCCATGGAGGAGGTGTCCCAAGCTTTGAATACCCCCAGAGACCTTTTCTCTC
CCATACCATCACTGAGTGGCTTGTGATTCTGGGATGGACCCTCGCAGCAGGTGCAAGAGACAGAGCCCCCAAGCC
TCTGCCCCAAGGGGCCCACAAAGGGGAGAAGGGCCAGCCCTACATCTTCAGCTCCCATAGCGCTGGCTCAGGAAG
AAACCCCAAGCAGCATTCAGCACACCCCAAGGGACAACCCCATCATATGACATGCCACCCTCTCCATGCCCAACC
TAAGATTGTGTGGGTTTTTTAATTAAAAATGTTAAAAGTTTTAAACATG

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FIGURE 2991

GGCCAGCAGGAAGGCGGGGACCCGGGGCAAGGTGGCAGCCACCAAGCAGGCCCAACGTGGTTCTTCCAACGTCTT
TTCC**ATG**TTTGAACAAGCCCAGATACAGGAGTTCAAAGAAGCCTTCAGCTGTATCGACCAGAATCGTGATGGCAT
CATCTGCAAGGCAGACCTGAGGGAGACCTACTCCCAGCTGGGGAAGGTGAGTGTCCCAGAGGAGGAGCTGGACGC
CATGCTGCAAGAGGGCAAGGGCCCCATCAACTTCACCGTCTTCCTCACGCTCTTTGGGGAGAAGCTCAATGGGAC
AGACCCCGAGGAAGCCATCCTGAGTGCCTTCCGCATGTTTGACCCCAGCGGCAAAGGGGTGGTGAACAAGGATGA
GTTCAAGCAGCTTCTCCTGACCCAGGCAGACAAGTTCTCTCCAGCTGAGGTGGAGCAGATGTTCGCCCTGACACC
CATGGACCTGGCGGGGAACATCGACTACAAGTCACTGTGCTACATCATCACCCATGGAGACGAGAAAGAGGAA**TG**
AGGGGCAGGGCCAGGCCCACGGGGGGGCACCTCAATAAACTCTGTTGCAAAATTGG

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FIGURE 2992

GAGTTGCGGCGATGGGCGGGGCAGGCGCGCGGGGATTGGCGGGATGCGGCGCGCCGCGCGTGAACCTCCTTGGCC
TGGGCGAAGCTGTGTGGACCAAGCAAGTCAGGAGTGTGGCC**ATG**TTTTCTGAGCAGGCTGCCCAGAGGGCCCACA
CTCTACTGTCCCCACCATCAGCCAACAATGCCACCTTTGCCCGGGTGCCAGTGGCAACCTACACCAACTCCTCAC
AACCCTTCCGGCTAGGAGAGCGCAGCTTTAGCCGGCAGTATGCCCACATTTATGCCACCCGCCTCATCCAAATGA
GACCCTTCCTGGAGAACCGGGCCCAGCAGCACTGGGGCAGTGGAGTGGGAGTGAAGAAGCTGTGTGAACTGCAGC
CTGAGGAGAAGTGCTGTGTGGTGGGCACTCTGTTCAAGGCCATGCCGCTGCAGCCCTCCATCCTGCGGGAGGTCA
GCGAGGAGCACAACCTGCTCCCCCAGCCTCCTCGGAGTAAATACATACACCCAGATGACGAGCTGGTCTTGGAAG
ATGAACTGCAGCGTATCAAACTAAAAGGCACCATTGACGTGTCAAAGCTGGTTACGGGGACTGTCCTGGCTGTGT
TTGGCTCCGTGAGAGACGACGGGAAGTTTCTGGTGGAGGACTATTGCTTTGCTGACCTTGCTCCCCAGAAGCCCG
CACCCCCACTTGACACAGATAGGTTTGTGCTACTGGTGTCCGGCCTGGGCCTGGGTGGCGGTGGAGGCGAGAGCC
TGCTGGGCACCCAGCTGCTGGTGGATGTGGTGACGGGGCAGCTTGGGGACGAAGGGGAGCAGTGCAGCGCCGCCC
ACGTCTCCCGGGTTATCCTCGCTGGCAACCTCCTCAGCCACAGCACCCAGAGCAGGGATTCTATCAATAAGGCCA
AATACCTCACCAAGAAAACCCAGGCAGCCAGCGTGGAGGCTGTTAAGATGCTGGATGAGATCCTCCTGCAGCTGA
GCGCCTCAGTGCCCGTGGACGTGATGCCAGGCGAGTTTGATCCCACCAATTACACGCTCCCCCAGCAGCCCCTCC
ACCCCTGCATGTTCCCGCTGGCCACTGCCTACTCCACGCTCCAGCTGGTCACCAACCCCTACCAGGCCACCATTG
ATGGAGTCAGATTTTTGGGGACATCAGGACAGAACGTGAGTGACATTTTCCGATACAGCAGCATGGAGGATCACT
TGGAGATCCTGGAGTGGACCCTGCGGGTCCGTCACATCAGCCCCACAGCCCCTGACACTCTAGGTTGTTACCCCT
TCTACAAAACTGACCCGTTCATCTTCCCAGAGTGCCCGCATGTCTACTTTTGTGGCAACACCCCCAGCTTTGGCT
CCAAAATCATCCGAGGTCCTGAGGACCAGACAGTGCTGTTGGTGACTGTCCCTGACTTCAGTGCCACGCAGACCG
CCTGCCTTGTGAACCTGCGCAGCCTGGCCTGCCAGCCCATCAGCTTCTCGGGCTTCGGGGCAGAGGACGATGACC
TGGGAGGCCTGGGGCTGGGCCCC**TGA**CTCAAAAAAGTGGTTTTGACCAGAGAGGCCCAGATGGAGGCTGTTCATT
CCCTGCAGTGTCGGCATTGTAAATAAAGCCTGAGCACTTGCTG

FIGURE 2993A

TCCCTCGCTCACCCCATCCTCTCTCCCGCCCCTTCCTGGATTCCCTCACCCGTCTCGATCCCCTCTCCGCCCTTT
CCCAGAGACCCAGAGCCCCTGACCCCCCGCGCCCTCCCCGGAGCCCCCCGCGCGTGCCGCGGCC**ATG**GCGGCCGT
GCGCGGGGCGCCCCTGCTCAGCTGCCTCCTGGCGTTGCTGGCCCTGTGCCCTGGAGGGCGCCCGCAGACGGTGCT
GACCGACGACGAGATCGAGGAGTTCCTCGAGGGCTTCCTGTCAGAGCTAGAACCTGAGCCCCGGGAGGACGACGT
GGAGGCCCCGCCGCCTCCCGAGCCCACCCCGCGGGTCCGAAAAGCCCAGGCGGGGGGCAAGCCAGGGAAGCGGCC
AGGGACGGCCGCAGAAGTGCCTCCGGAAAAGACCAAAGACAAAGGGAAGAAAGGCAAGAAAGACAAAGGCCCCAA
GGTGCCCAAGGAGTCCTTGGAGGGGTCCCCCAGGCCGCCCAAGAAGGGGAAGGAGAAGCCACCCAAGGCCACCAA
GAAGCCCAAGGAGAAGCCACCTAAGGCCACCAAGAAGCCCAAGGAGAAGCCACCCAAGGCCACCAAGAAGCCCAA
AGAGAAGCCACCCAAGGCCACCAAGAAGCCCCCGTCAGGGAAGAGGCCCCCCATTCTGGCTCCCTCAGAAACCCT
GGAGTGGCCACTGCCCCCACCCCCCAGCCCTGGCCCCGAGGAGCTACCCCAGGAGGGAGGGGCGCCCCTCTCAAA
TAACTGGCAGAATCCAGGAGAGGAGACCCATGTGGAGGCACGGGAGCACCAGCCTGAGCCGGAGGAGGAGACCGA
GCAACCCACACTGGACTACAATGACCAGATCGAGAGGGAGGACTATGAGGACTTTGAGTACATTCGGCGCCAGAA
GCAACCCAGGCCACCCCCAAGCAGAAGGAGGAGGCCCGAGCGGGTCTGGCCAGAGCCCCCTGAGGAGAAGGCCCC
GGCCCCAGCCCCGGAGGAGAGGATTGAGCCTCCTGTGAAGCCTCTGCTGCCCCCGCTGCCCCCTGACTATGGTGA
TGGTTACGTGATCCCCAACTACGATGACATGGACTATTACTTTGGGCCTCCTCCGCCCCAGAAGCCCGATGCTGA
GCGCCAGACAGACGAAGAGAAGGAGGAGCTGAAGAAACCCAAAAAGGAGGACAGCAGCCCCAAGGAGGAGACCGA
CAAGTGGGCAGTGGAGAAGGGCAAGGACCACAAAGAGCCCCGAAAGGGCGAGGAGTTGGAGGAGGAGTGGACGCC
TACGGAGAAAGTCAAGTGTCCCCCCATTGGGATGGAGTCACACCGTATTGAGGACAACCAGATCCGAGCCTCCTC
CATGCTGCGCCACGGCCTGGGGGCACAGCGCGGCCGGCTCAACATGCAGACCGGTGCCACTGAGGACGACTACTA
TGATGGTGCGTGGTGTGCCGAGGACGATGCCAGGACCCAGTGGATAGAGGTGGACACCAGGAGGACTACCCGGTT
CACAGGCGTCATCACCCAGGGCAGAGACTCCAGCATCCATGACGATTTTGTGACCACCTTCTTCGTGGGCTTCAG
CAATGACAGCCAGACATGGGTGATGTACACCAACGGCTATGAGGAAATGACCTTTCATGGGAACGTGGACAAGGA
CACACCCGTGCTGAGTGAGCTCCCAGAGCCGGTGGTGGCTCGTTTCATCCGCATCTACCCACTCACCTGGAATGG
CAGCCTGTGCATGCGCCTGGAGGTGCTGGGGTGCTCTGTGGCCCCTGTCTACAGCTACTACGCACAGAATGAGGT
GGTGGCCACCGATGACCTGGATTTCCGGCACCACAGCTACAAGGACATGCGCCAGCTCATGAAGGTGGTGAACGA
GGAGTGCCCCACCATCACCCGCACTTACAGCCTGGGCAAGAGCTCACGAGGCCTCAAGATCTATGCCATGGAGAT
CTCAGACAACCCTGGGGAGCATGAACTGGGGGAGCCCGAGTTCCGCTACACTGCTGGGATCCATGGCAACGAGGT
GCTGGGCCGAGAGCTGTTGCTGCTGCTCATGCAGTACCTGTGCCGAGAGTACCGCGATGGGAACCCACGTGTGCG
CAGCCTGGTGCAGGACACACGCATCCACCTGGTGCCCTCACTGAACCCTGATGGCTACGAGGTGGCAGCGCAGAT
GGGCTCAGAGTTTGGGAACTGGGCGCTGGGACTGTGGACTGAGGAGGGCTTTGACATCTTTGAAGATTTCCCGGA
TCTCAACTCTGTGCTCTGGGGAGCTGAGGAGAGGAAATGGGTCCCCTACCGGGTCCCCAACAATAACTTGCCCAT
CCCTGAACGCTACCTTTCGCCAGATGCCACGGTATCCACGGAGGTCCGGGCCATCATTGCCTGGATGGAGAAGAA
CCCCTTCGTGCTGGGAGCAAATCTGAACGGCGGCGAGCGGCTAGTATCCTACCCCTACGATATGGCCCGCACGCC
TACCCAGGAGCAGCTGCTGGCCGCAGCCATGGCAGCAGCCCGGGGGGAGGATGAGGACGAGGTCTCCGAGGCCCA
GGAGACTCCAGACCACGCCATCTTCCGGTGGCTTGCCATCTCCTTCGCCTCCGCACACCTCACCTTGACCGAGCC
CTACCGCGGAGGCTGCCAAGCCCAGGACTACACCGGCGGCATGGGCATCGTCAACGGGGCCAAGTGGAACCCCCG
GACCGGGACTATCAATGACTTCAGTTACCTGCATACCAACTGCCTGGAGCTCTCCTTCTACCTGGGCTGTGACAA
GTTCCCTCATGAGAGTGAGCTGCCCCGCGAGTGGGAGAACAACAAGGAGGCGCTGCTCACCTTCATGGAGCAGGT
GCACCGCGGCATTAAGGGGGTGGTGACGGACGAGCAAGGCATCCCCATTGCCAACGCCACCATCTCTGTGAGTGG
CATTAATCACGGCGTGAAGACAGCCAGTGGTGGTGATTACTGGCGAATCTTGAACCCGGGTGAGTACCGCGTGAC
AGCCCACGCGGAGGGCTACACCCCGAGCGCCAAGACCTGCAATGTTGACTATGACATCGGGGCCACTCAGTGCAA
CTTCATCCTGGCTCGCTCCAACTGGAAGCGCATCCGGGAGATCATGGCCATGAACGGGAACCGGCCTATCCCACA
CATAGACCCATCGCGCCCTATGACCCCCCAACAGCGACGCCTGCAGCAGCGACGCCTACAACACCGCCTGCGGCT
TCGGGCACAGATGCGGCTGCGGCGCCTCAACGCCACCACCACCCTAGGCCCCCACACTGTGCCTCCCACGCTGCC
CCCTGCCCCTGCCACCACCCTGAGCACTACCATAGAGCCCTGGGGCCTCATACCGCCAACCACCGCTGGCTGGGA
GGAGTCGGAGACTGAGACCTACACAGAGGTGGTGACAGAGTTTGGGACCGAGGTGGAGCCCGAGTTTGGGACCAA
GGTGGAGCCCGAGTTTGAGACCCAGTTGGAGCCTGAGTTTGAGACCCAGCTGGAACCCGAGTTTGAGGAAGAGGA
GGAGGAGGAGAAAGAGGAGGAGATAGCCACTGGCCAGGCATTCCCCTTCACAACAGTAGAGACCTACACAGTGAA

FIGURE 2993B

CTTTGGGGACTTC**TGA**GATCAGCGTCCTACCAAGACCCCAGCCCAACTCAAGCTACAGCAGCAGCACTTCCCAAG
CCTGCTGACCACAGTCACATCACCCATCAGCACATGGAAGGCCCCTGGTATGGACACTGAAAGGAAGGGCTGGTC
CTGCCCCTTTGAGGGGGTGCAAACATGACTGGGACCTAAGAGCCAGAGGCTGTGTAGAGGCTCCTGCTCCACCTG
CCAGTCTCGTAAGAGATGGGGTTGCTGCAGTGTTGGAGTAGGGGCAGAGGGAGGGAGCCAAGGTCACTCCAATAA
AACAAGCTCATGGC

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FIGURE 2994

GTTTCCCTCTGCGTTCGCTCCGCGCTGCTGGAGGCTGTCGTCCCA**ATG**CTCCCCAAACGGCGGCGAGCGCGGGTC
GGGTCCCCTAGCGGCGATGCCGCTTCCTCCACGCCGCCCTCGACGCGCTTCCCGGGAGTCGCCATCTACCTGGTC
GAGCCTCGCATGGGTCGCAGCCGCCGGGCCTTCCTCACAGGCCTGGCGCGCTCCAAAGGCTTCCGCGTCCTTGAC
GCCTGCAGCTCCGAAGCGACACATGTTGTGATGGAAGAGACCTCAGCAGAGGAGGCCGTCAGCTGGCAGGAGCGC
AGGATGGCAGCTGCTCCCCCGGGTTGCACCCCCCCAGCTCTGCTGGACATAAGCTGGTTAACAGAGAGCCTGGGA
GCTGGGCAGCCTGTACCTGTGGAGTGCCGGCACCGCCTGGAGGTGGCTGGGCCAAGGAAGGGGCCTCTGAGCCCA
GCATGGATGCCTGCCTATGCCTGCCAGCGCCCTACGCCCCTCACACACCACAACACTGGCCTCTCCGAGGCTCTG
GAGATACTGGCCGAGGCAGCAGGCTTTGAAGGCAGTGAGGGCCGCCTCCTCACCTTCTGCAGAGCAGCCTCGGTG
CTCAAGGCCCTTCCCAGCCCTGTCACAACCCTGAGCCAGCTGCAGGGGCTTCCCCACTTTGGAGAACACTCCTCT
AGGGTTGTCCAGGAGCTGCTGGAGCATGGAGTGTGTGAGGAGGTGGAGAGAGTTCGGCGCTCAGAGAGGTACCAG
ACCATGAAGCTCTTCACCCAGATCTTCGGGGTCGGTGTGAAGACTGCTGACCGGTGGTACCGGGAAGGACTGCGA
ACCTTAGATGACCTCCGAGAGCAGCCCCAGAAACTAACCCAACAGCAGAAAGCGGGGCTCCAGCACCACCAGGAC
CTGAGCACCCCAGTCCTGCGGTCCGATGTAGATGCCCTGCAGCAGGTGGTGGAGGAAGCTGTGGGGCAGGCCCTG
CCTGGGGCCACCGTCACGCTGACCGGCGGCTTCCGCAGGGGGAAGTTGCAGGGCCATGACGTGGACTTCCTCATC
ACCCACCCCAAGGAGGGTCAGGAGGCGGGGCTGCTGCCTAGAGTGATGTGCCGCCTGCAGGACCAGGGCCTCATC
CTGTACCACCAGCACCAGCACAGCTGCTGTGAGTCCCCTACCCGCCTGGCCCAACAGAGCCACATGGACGCTTTT
GAGAGAAGTTTCTGCATTTTCCGCCTACCACAACCTCCAGGGGCTGCTGTGGGGGGATCCACGAGGCCCTGCCCA
TCCTGGAAGGCCGTGAGAGTGGACTTGGTAGTTGCACCCGTCAGCCAGTTCCCTTTCGCCCTGCTCGGTTGGACT
GGCTCCAAGCTTTTCCAGCGGGAGCTGCGCCGCTTCAGCCGGAAGGAGAAGGGCCTGTGGCTGAACAGCCATGGG
CTGTTTGACCCGGAGCAGAAGACATTTTTCCAAGCGGCTTCAGAGGAAGACATCTTCAGACACCTGGGCCTTGAG
TACCTTCCTCCAGAGCAGAGAAACGCC**TGA**GCCTGCCTGTGTCCCCCACTTCCACTCAGGAAATTGGGCTGCCCC
CAACCTGGCCACTGAATGTCTCCAGGCAGATATGCTGCCCCCTGACCCCCACCTTCACCCCTCCCCGCCAAGGCC
TGGCTCTTCCGGAGGTCAATTGTGCCTGCAGGATCAGTTGAGCCCCTGCTGGTGTGCTGCAGGGTGTGATGAGGT
GGGAGCCCTCAGTGCCAGCCTCATCACTGTGTGACCCTGGGTCTGCTCTTAGCCTCCCCATGGCTCACGTTCCTG
CCCTGGATGGGATGTGAGTGGGGCCCACATCGTGGAGCTGTGGTGGGGCCTGCAGTCATGAATGGCAAGTGGTCC
CTGATGTGCAGTGTCTCATTAGTTGCACTGCAGTTAACTGTGGCTCCTGCAGGGCACCCTGCCCAGAATGCCCAG
AAGAGAACCATGCATACCTGCACTGCATTTGAGAGCCATGAGCTGGAGGCTGTGGTTCGTGCCAGCAAGGAGCCT
ACTGTCTGGTGTGCTGTAGGCATCTGGAGAGGGAGAGGGCCTGGGTAGGAGCTGGGAGGAAGATAATTTTCAACT
ATGGGGCTTCAGTACTGCAGCGCCCCGAGCCAGGCTCTGTGCTTCTGCCTTTAAGGCCTGTTCTCAGCACAATGT
CTCAAAAATAGGTCATATCCTGCCACTCCCGTCGCAGAGCCCTTTAATGGTTCCAAACCCTAAGTCCACACATAG
CCCCTGGCTCTGGCATCTCTCCAGCCCCACTGGCCCCGAGCTGCTTGACTCACCGGCTTCCTATTTGATGCACCC
AGGCCCCCTTGTGGCCAACTCCCTCCCCTTCTCACTGAGGCAGAAGCACTGAGGTGGGCTGGACATGGGTGCCCT
CCACGTCCCTCATATCCCCAGGCACACTCTGGCCTCAGGTTTTGCCCTGGCCATGTCATCTACCTGGAGTGGGCC
CTCCCCTTCTTCAGGCCTTGAATCAAAAGCCACTTTGTTAGGCGAGGATTTCCCAGACCACTCATCACATTAAAA
AATATTTTGAAAACATGCAGT

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FIGURE 2995

CCCGTCCAGAGTCCTCTGTGGTCCCTGCTGCCACC**ATG**GCCACTCACCGCCTCGTGATGGTCCGGCACGGCGAGA
GCACATGGAACCAGGAGAACCGTTTCTGTGGCTGGTTCGATGCAGAGCTGAGTGAAAAGGGGACCGAGGAGGCCA
AGCGGGGAGCCAAGGCCATCAAGGATGCCAAGATGGAGTTTGACATCTGCTACACGTCAGTGCTGAAGCGGGCCA
TCCGCACCCTCTGGGCCATCCTGGACGGCACGGACCAGATGTGGCTGCCTGTGGTGCGCACTTGGCGCCTCAATG
AGCGGCATTACGGGGGCCTCACAGGCCTCAACAAGGCAGAAACGGCCGCCAAGCACGGGGAGGAGCAGGTGAAGA
TCTGGAGGCGCTCCTTCGACATCCCGCCGCCCCCGATGGACGAGAAGCACCCCTACTACAACTCCATTAGCAAGG
AGCGTCGGTACGCAGGCCTGAAGCCCGGGGAACTCCCCACCTGCGAGAGCCTCAAGGACACCATTGCCCGGGCCC
TGCCCTTCTGGAACGAGGAGATTGTTCCCCAGATCAAGGCCGGCAAGCGAGTGCTCATTGCAGCCCACGGGAACA
GCCTGCGGGGCATTGTCAAGCACCTGGAAGGGATGTCAGACCAGGCGATCATGGAGCTGAACCTGCCCACGGGGA
TCCCCATTGTGTATGAGCTGAACAAGGAGCTGAAGCCCACCAAGCCCATGCAGTTCCTGGGTGATGAGGAAACGG
TGCGGAAGGCCATGGAGGCTGTGGCTGCCCAGGGCAAGGCCAAG**TGA**GGGGTGGGCTTGGGCAATAAAGGCACCT
CCCCCAAC

FIGURE 2996

GGAGGCGAGGCTTGTCGGCTGTCAAAGGGGCGGCCCGGCCCGGCCCGGAAGCTACAGCAGCGGCGCGGAGACTGC
GGGGCGGGCCATGGCGGCGAACCTGAGCCGGAACGGGCCAGCGCTGCAAGAGGCCTACGTGCGGGTGGTCACCGA
GAAGTCCCCGACCGACTGGGCTCTCTTTACCTATGAAGGCAACAGCAATGACATCCGCGTGGCTGGCACAGGGGG
TGGAAATGACCCTGTTTTTATTTCCAGAATTACCTCTGGGTTTAGAGAAGTGGTTTTTAAACGAGTGTGGGTAAA
AAAAATTACCTGAGGTACTTGTCAGAATCGCAGACTTCTAGGTCCCACCCAGCTCTCATCAATCAGTTTAGTGAG
GGTGGTGCCCAGGACTCTGATTTTAAACATACCCCTAGAAAGATTCTGATACAGGTAGAGGTGAGAAGCCCTGGT
TTAGAAGCAGCTCGGCCTCCCTTCATGGTGGGACCAGGGCCAGCAGGGAATGTCAGGGCCACCCCTGACCTTCAC
TGTGACTCTGCTGCAGAGGGTGGCCTGGAGGAGATGGTGGAGGAGCTCAACAGCGGGAAGGTGATGTACGCCTTC
TGCAGAGTGAAGGACCCCAACTCTGGACTGCCCAAATTTGTCCTCATCAACTGGACAGGCGAGGGCGTGAACGAT
GTGCGGAAGGGAGCCTGTGCCAGCCACGTCAGCACCATGGCCAGCTTCCTGAAGGGGGCCCATGTGACCATCAAC
GCACGGGCCGAGGAGG**ATG**TGGAGCCTGAGTGCATCATGGAGAAGGTGGCCAAGGCTTCAGGTGCCAACTACAGC
TTTCACAAGGAGAGTGGCCGCTTCCAGGACGTGGGACCCCAGGCCCCAGTGGGCTCTGTGTACCAGAAGACCAAT
GCCGTGTCTGAGATTAAAAGGGTTGGTAAAGACAGCTTCTGGGCCAAAGCAGAGAAGGAGGAGGAGAACCGTCGG
CTGGAGGAAAAGCGGCGGGCCGAGGAGGCACAGCGGCAGCTGGAGCAGGAGCGCCGGGAGCGTGAGCTGCGTGAG
GCTGCACGCCGGGAGCAGCGCTATCAGGAGCAGGGTGGCGAGGCCAGCCCCCAGAGCGTGGGAGCAGCAGCAAGA
AGTGGTTTCAAGGAACCGAAATGAGCAGGAGTCTGCCGTGCACCCGAGGGAGATTTTCAAGCAGAAGGAGAGGGC
CATGTCCACCACCTCCATCTCCAGTCCTCAGCCTGGCAAGCTGAGGAGCCCCTTCCTGCAGAAGCAGCTCACCCA
ACCAGAGACCCACTTTGGCAGAGAGCCAGCTGCTGCCATCTCAAGGCCCAGGGCAGATCTCCCTGCTGAGGAGCC
GGCGCCCAGCACTCCTCCATGTCTGGTGCAGGCAGAAGAGGAGGCTGTGTATGAGGAACCTCCAGAGCAGGAGAC
CTTCTACGAGCAGCCCCCACTGGTGCAGCAGCAAGGTGCTGGCTCTGAGCACATTGACCACCACATTCAGGGCCA
GGGGCTCAGTGGGCAAGGGCTCTGTGCCCGTGCCCTGTACGACTACCAGGCAGCCGACGACACAGAGATCTCCTT
TGACCCCGAGAACCTCATCACGGGCATCGAGGTGATCGACGAAGGCTGGTGGCGTGGCTATGGGCCGGATGGCCA
TTTTGGCATGTTCCCTGCCAACTACGTGGAGCTCATTGAG**TGA**GGCTGAGGGCACATCTTGCCCTTCCCCTCTCA
GACATGGCTTCCTTATTGCTGGAAGAGGAGGCCTGGGAGTTGACATTCAGCACTCTTCCAGGAATAGGACCCCCA
GTGAGGATGAGGCCTCAGGGCTCCCTCCGGCTTGGCAGACTCAGCCTGTCACCCCAAATGCAGCAATGGCCTGGT
GATTCCCACACATCCTTCCTGCATCCCCCGACCCTCCCAGACAGCTTGGCTCTTGCCCCTGACAGGATACTGAGC
CAAGCCCTGCCTGTGGCCAAGCCCTGAGTGGCCACTGCCAAGCTGCGGGGAAGGGTCCTGAGCAGGGGCATCTGG
GAGGCTCTGGCTGCCTTCTGCATTTATTTGCCTTTTTTCTTTTTCTCTTGCTTCTAAGGGGTGGTGGCCACCACT
GTTTAGAATGACCCTTGGGAACAGTGAACGTAGAGAATTGTTTTTAGCAGAGTTTGTGACCAAAGTCAGAGTGGA
TCATGGTGGTTTGGCAGCAGGGAATTTGTCTTGTTGGAGCCTGCTCTGTGCTCCCCACTCCATTTCTCTGTCCCT
CTGCCTGGGCTATGGGAAGTGGGGATGCAGATGGCCAAGCTCCCACCCTGGGTATTCAAAAACGGCAGACACAAC
ATGTTCCTCCACGCGGCTCACTCGATGCCTGCAGGCCCCAGTGTGTGCCTCAACTGATTCTGACTTCAGGAAAAG
TAACACAGAGTGGCCTTGGCCTGTTGTCTTCCCCTATTTTCTGTCCCAGCTCATCCGTGTCTCTGAAGAACAAAT
ATGCTTTTGGACCACG

FIGURE 2997

TAAAAATGCAATTCACTCACAACTCTAAATGATAATTGACATTTCAGCCTCTTTCTTTTAGGCAAAACAGAAGAT
ACACACTATTAACAGTTATTTGAAGCCTTAAATTACAATAGCCTGTTAGGTGATCGGCTTTCTGCCTTGGCTTTC
TGATGCAGCACATTTTAAGATTTGCCTTTAAAGCTTTGAGCCTTGAGATTAGGTTAGTTAGGAAGAGGACAACAA
AGGGAAGAGATTATTCTAATAAAACTTCCACAGAGGGAAGAAAATTGAGGAGCTTCAGATCTCTAAAGCCAAATT
CAACCTGATCTTTCTAGGTTGGTTATAAAGCTGGTCCACTTCCAGGAAGTGATGTGTAGGTGAATAGGAACAAAA
GGTGAAGAAGCAGTAAAACTGTGACCAAGTGGCCAGATGGGGCTTTTGCCGGCTGATTGAAAGGAAGTCTACAGA
CCTAACATAAGCAGTCAGCCAAAGGTGGCTGTGGGAGGTTGATTTCTTCCAGAAACTTCCAAGTTGTGGCTACAA
ATTTATTGCCAGATATTTTCCCACTGAGAATACTGAGGTTATTCACATAATCACTTCCTTAACAAAGGAAGAAGC
ACTTTTAACTTGGGCTGCATTCCCTTTGTGAGGGTCCACATTTAGGATCCTCCTGCTACCATAAGGCCCCTTTTG
GGGTTCTTTGGGTGTGGCTGCATCTCACCATGTTGAGGATTGCCTTTTTTTTTTTTTTTTTTTTTTTTAAC
ACAGAGCCTTGCTCTGTCTCCCAGGCTGGAGTGCAGTGGTGCGATCTTGGCTCACTGCAACCTCTGCCTCCCAGG
TTCAAGCAATTCTCCTGCCTCAGCCTCCCAAGTAGCCGGAATTACAGGCATGTGCCACCATGCTGGGCTAATTTT
TGTATTTTTAGTGGAGACGGTGTTTCACCATGTTGGCCAGGCTGTTCTTGAACTCCTGGCCTCAAGTGACCCGCC
CACATTGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCCCCGTGCCCAGCAAGGATTGCTGTTTTAATTCTT
GTATCTTCGTTGCTTCTTTGGTCTTTGCTTAAACAAAACAATAAAGCTTAATAGTTGGGGAGAATGCTGTTACCA
GTGTCCTCTAGGAAGGCTGTTAGCATATGGCTCTACTGAGCAGCAGTGCCATCTGGTGCCTGAGATCATGTGCTT
CAGGCAGTTGTCACACTGCATCTACAGCCAAGCATCACAGAAACACTTCACTCATGTGGTCAGGGAAGGTGGGAC
TGATTCACATGTTAGAGACAGGTCAGATGGGAAAATTAAGGCCCAACTTGGTGTTGGGGAATAACCATACTCTGG
TCTTTCAAGTGTAGTAGCTGATGATTCCCAAGAAACTGATGAATTTTCTGAGTCCAGACAAAATTTCCCCAAGCC
TGCTCTCTCTGTTGGATATACATAATAGAGAAAGTCAAATCAGCCCTTTGGGGTTTGTGGTAAAAATTCACTCAC
CCATTGAAGCCTAAGGTGGCTTTGTACCTTCCAGATCTCTCAGCAAATCCCCTGGGCAGAAATGTCACCTGCTTG
CCATGTCTTTGAGGGGTTCAGGTCAGCCTGGAGAACAGGCTCCTTAGGTCAAAAACCTTGTTTTAAGAGCCACTG
TGGTACAGTCAATGTAACCCACTTGTGCAGAAGCCATGCTTCCAAGGAAGGTCTCAGGTTGACAACTAGACATCA
AATCTGAGAAGCCAACTGTGGAGTAATGTGTTTTTTTCTCTGTGGACAAGAGTGATCAGAAAGGTGCTTGATCTT
GAACAATTGATCCATGATGAAAAAATGACCATTAGCTCTCCCCCAGAAGCGTCTGTGTTTGCTGAATGGAGCTGA
GATTTTGATCCGCTATCAGACTCCAGAAAGATCCAGGAGTTCCAAGAACATGGCAAAGAGTCAAAATCTTAGGAC
AAGGAATTAAAATGCCAGAATGCAAATGTCCAACAGGCCTGGTAGCTCACAGCTATCAACACCCTAGAATTCCAC
ACTGCCTCACTGCAGTTGCTCAAGGATGGGTATGTTTCTGTCTCTGAAATTCGGGAAAAAGCCTTAAGTGCCAGA
GAAGGTGCTTCCAAGACTGTCTGCAGAATTCCTTTCCTAGGGTCTGTCTCTGGTACCCAAAAGGGCAGAGAAGGA
ACCCTAAGATTAGCATAGAGCCACTCATCTCTCCTCCCCTCCCCACCCCTTCTTCCCCTGCTTCCATTCCCC**ATG**

GCTCTCTCCTCTGACTGTGAAACACTTCCTCTCCAGCAGTGTTGGGAAAGTTCTGGACCTCTACTGGATCTAGCC
ATAAATGGTGGTCTTCAGAAAAATGGAGATTGTGGCTGCCAGCACCCACAAGACAGCAGCCTCATGCCATGCAGG
CAGCAAGCCATCCTGAACAGCGTTCCTCCCAGAGTCTGTTTCCTCACCTGCTGTTCACTGGTGAGAGGAAAAGGG
ACTTGTTCTCCCTTGACCAGTTTTCTAGTTTTCCTGTTCCCACCCTGGTCTTTGCCTGATGACAGAGAAACTTTC
TAAAAAAAAACAAAAACAAAAGCTATAAAAAATCTGCAAAAC

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FIGURE 2998

GTGCAGCTTGGTGGCGGCTGAGCCGGCAGCGGGCCGCCTCAGGCAGCCCCGGCCGGGCCGCCCGGGTCCCCGGCA
GCGGGGTAGG**ATG**GCGCTAAAGCGGATCCAGAAGGAATTAACCGACTTGCAGAGGGATCCTCCTGCCCAGTGTTC
TGCAGGACCTGTCGGTGATGACTTGTTCCACTGGCAGGCCACCATCATGGGCCCGAATGACAGTCCTTACCAAGG
AGGTGTTTTCTTCCTGACCATCCACTTTCCTACAGATTACCCGTTCAAGCCCCCAAAGGTTGCTTTCACAACCAA
AATTTATCACCCTAATATCAACAGCAATGGCAGCATCTGCCTTGATATCCTGCGGTCTCAGTGGTCTCCAGCGTT
GACTGTGTCAAAAGTTCTCTTGTCCATCTGCTCGCTGCTCTGCGACCCCAACCCCGATGACCCCCTGGTGCCAGA
GATAGCACACACCTACAAGGCCGACAGAGAGAAGTACAACAGACTAGCAAGAGAGTGGACACAAAAATATGCTAT
G**TAA**GTGCCTTGGAGGTTTTACATGAGACACTGTCCAAGAGAAGCTGGCAGAGAGGTCTTCCCTTAAAACTTTGG
GCTGTTGGCTGAGCCATTCAAAGAGCATCATCTGTTCTTCAAACAAATGTTGGTCACCCACTCTCTCCAGCTGCA
GCATGTTGGTGCCATTTTCAGCAATTACGGCTTTGACAGTGCCACCTCTTTGATGCCAAATCAGCAACCATTGTT
GTTATGATCTGCAGTCTTCCTGGTGACACTGGAATCTCTCTCTCTGCCGCCTCAGTTTGTCTGCTGGTCTCTTGG
GGGGCCAGGCCCTGCACGTCTCTCCTACCCGGCCTCAAATGGTGCTGCTGCCCATGATGGTACCACACCAGGGCC
TCAGCCTGGCCCCTCACCACATACCCTTTGCCTTTTAGAACTCAGTGCCATCCTGGGTGCCCAGGGCAGAGCAGG
CTTTGTTCGCACCTCATCTGCTGCAGAACCACATCCTGAGGAGTCTCAGCTTATCCTGGAGGGAATTGGGAACAG
TGTCACTGGGAAGTGAAGGCCTAGCCCTGTGGCTTCCACCAGTCTCCTCCTGCAGTGCCACGTGGTGGCATTTCT
CGCCTCACACCAAGAAGCAGCAAGTGGAAAATTTCAGGATACAAAGCACATAACACCCCATAAGAGATGATTATG
TTTTTAGAAGCAAGAGCAAAATTATGAAACCTCTAGAGATTTGGGTCATGTTACTCCATTTGATGAAGATTCTCA
CTACCGCCCGCTCCTCCCATAGGAGCCTACACTAAGTCCAAGTGTGAGCCATTCACAGACTAGAACACAAGGAGG
GAGAGAGACTCTTAAACGTAAATAAAAATGCAATTCACTCACAACTCT

FIGURE 2999A

TTCTGCCTCCTTCCCAGGCAGGTGTATCCGCGACTCGCGGAGCCTCCGTCACCTTTCACTTCACGGCAGCGGCGC
CCCGCCCACACCTCGACGCTTCGGACACCCAAAGAGTTGGAGGGTGGGAAAGTGCGTACCTTCTGGATCCGCTTT
AGCGCCATCCTACCCCGCTGCCGGGGACCCGGGCGGCCCGGCCGGGGCTGCCTGAGGCGGCCCGCTGCCGGCTCA
GCCGCCACCAAGCTGCACGCCGGGAGCCGCAGCCTGCGCTTGCGCGCGCGGGGCACTGTGGGGCCGTCGTCGCCG
CGTGCCGAGCGTCCTGGCGCGGCCGAGGGGAAGCAGCGGGGCTGCCCGGGTTACGCTGGCCACCCGCACCTGGTC
CTGTGGCTTCGACCACTAGTCAGCAAGGCCCCGGAGAGGCCAGCGAAGAGGAGGGGCTCGTTGGCTTTACGGAGA
CGCGCGGAGCACCCTCAAGGTGCCACACGCTCGCCTGCTCCCTGTTCCTACATCCTGGGCGTCTTCCCAGGCTGT
CATATAACTCCTGAGAATAGTGGTTCTTAACTCTGATAGAAGTGGAATTACTGGGCAAAGGGCATTCAGATTTGG
GAGAAGTAGCCCCAGAAATAAAAGCATCAGAGAGACGAACAGCTGTGGCCATTGCAGATTTGGAATGGAGAGAAA
TGGAAGGAGATGATTGCGAGTTCCGTTATGGAGATGGTACAAATGAGGCTCAGGACAATGATTTTCCAACAGTGG
AGAGAAGCAGGCTTCAAGAA**ATG**CTGTCACTTTTGGGCCTAGAGACGTACCAGGTCCAGAAACTCAGCCTCCAGG
ACTCTCTGCAGATCAGTTTTGACAGTATGAAGAACTGGGCCCCTCAGGTTCCCAAAGACTTGCCCTGGAATTTCC
TCAGGAAGTTGCAGGCCCTCAATGCTGATGCCAGGAATACCACTATGGTGCTGGACGTGCTCCCAGACGCCAGGC
CTGTGGAGAAGGAGAGCCAGATGGAAGAGGAGATCATCTACTGGGACCCAGCTGATGACCTTGCTGCCGACATTT
ATTCCTTTTCTGAGCTGCCCACCCCTGATACGCCAGTGAACCCCTTAGACCTTCTCTGTGCCCTGCTGCTCTCCT
CAGACAGTTTCCTGCAACAAGAAATAGCGTTGAAAATGGCCCTCTGCCAGTTTGCACTCCCACTCGTGTTGCCTG
ACTCGGAGAACCACTACCATACATTTCTGCTGTGGGCCATGCGGGGCATTGTGAGGACATGGTGGTCCCAGCCCC
CAAGGGGCATGGGGAGCTTCCGGGAAGACAGCGTGGTCTTGTCCAGGGCGCCCGCCTTCGCCTTCGTGCGCATGG
ACGTCAGTAGCAACTCCAAGTCCCAGCTTCTCAACGCCGTCCTCAGCCCGGGCCACAGGCAGTGGGACTGCTTCT
GGCATCGGGACCTCAACTTGGGCACCAATGCCCGGGAGATTTCGGATGGGTTGGTAGAAATTTCCTGGTTTTTTC
CCAGCGGAAGGGAGGACTTGGACATTTTCCCAGAACCTGTGGCCTTTCTGAACCTGAGAGGTGACATCGGGTCTC
ACTGGCTGCAGTTTAAGCTCTTGACAGAAATCTCCTCCGCTGTGTTTATATTGACTGACAATATCAGTAAGAAGG
AATACAAATTGCTGTACTCCATGAAGGAGTCAACCACAAAATACTACTTCATCCTGAGTCCCTACCGTGGGAAGC
GCAACACAAACCTGAGATTTCTGAATAAGTTAATTCCTGTGCTGAAAATAGACCACTCACATGTCCTGGTAAAGG
TCAGCAGCACTGACAGCGACAGCTTCGTGAAGAGGATCCGGGCCATCGTTGGGAATGTGCTGCGGGCACCCTGCA
GGCGGGTATCTGTGGAGGACATGGCGCACGCAGCCCGCAAACTGGGCCTAAAGGTCGACGAGGACTGTGAGGAGT
GTCAGAAAGCGAAAGACCGGATGGAGAGGATTACCAGGAAAATCAAAGACTCGGATGCCTACAGAAGGGACGAGC
TGAGGCTGCAGGGGGACCCCTGGAGAAAGGCAGCCCAAGTGGAGAAGGAGTTCTGCCAGCTCCAGTGGGCCGTGG
ACCCCCCTGAGAAGCACAGGGCTGAGCTGAGGCGGCGGCTGCTAGAACTTCGAATGCAGCAGAACGGCCATGATC
CCTCCTCGGGGGTGCAGGAGTTCATCTCGGGGATCAGCAGCCCCTCCTTGAGTGAGAAGCAGTACTTCCTGAGGT
GGATGGAGTGGGGCCTGGCACGGGTGGCCCAGCCGCGACTGAGACAGCCTCCGGAGACGCTTCTCACCCTGAGAC
CAAAGCATGGGGGCACCACAGACGTGGGGGAGCCGCTCTGGCCTGAGCCCCTAGGGGTGGAACACTTCTTGCGGG
AGATGGGACAGTTTTATGAGGCTGAGAGCTGTCTTGTGGAGGCAGGGAGGCTGCCGGCAGGCCAGAGGCGTTTTG
CCCACTTCCCAGGCTTGGCCTCGGAGCTGCTGCTGACAGGGCTGCCTCTGGAGCTAATCGATGGGAGCACGCTGA
GCATGCCCGTCCGCTGGGTCACAGGGCTCCTGAAGGAGCTGCACGTCCGACTGGAGAGACGGTCAAGGCTGGTGG
TTCTGTCAACCGTCGGGGTGCCAGGCACGGGCAAGTCCACACTCCTCAACACCATGTTTGGGCTGCGGTTTGCCA
CAGGGAAGAGCTGCGGTCCTCGAGGGGCCTTCATGCAGCTCATCACAGTGGCTGAGGGCTTCAGCCAGGACCTGG
GCTGTGACCACATCCTGGTGATAGACTCCGGGGGCTTGATAGGTGGGGCCTTGACGTCAGCTGGGGACAGATTTG
AGCTGGAGGCTTCCTTGGCCACTCTGCTCATGGGACTGAGCAATGTCACCGTGATCAGTCTAGCTGAAACCAAGG
ACATTCCAGCAGCTATTCTGCATGCATTTCTGAGGTTAGAAAAAACGGGGCACATGCCCAACTACCAGTTTGTAT
ACCAGAACCTTCATGATGTATCTGTTCCCGGCCCTAGGCCCAGAGACAAGAGACAGCTCCTGGATCCACCTGGTG
ACCTGAGCAGGGCTGCAGCCCAGATGGAGAAACAGGGCGACGGCTTCCGGGCACTGGCAGGCCTGGCCTTCTGCG
ACCCTGAGAAGCAGCACATCTGGCACATCCCAGGCCTGTGGCACGGAGCACCTCCCATGGCCGCAGTGAGCTTGG
CCTACAGTGAAGCCATATTTGAATTGAAGAGATGCCTACTCGAAAACATCAGGAACGGCTTGTCGAACCAAAACA
AAAACATCCAGCAGCTCATTGAGCTGGTGAGACGGCTG**TGA**GTGTGCAGAGAAACCCAGTTCAGGTGTAGGAGGC
TGCTGTGGGCAGCCCTGTCTGATGGGGCACCCGTGTGGGGCTGTGCTCTGGTGCCTGAGAATGGCTGGTGCCCAA
TCGACATGAGAAGACGAGGAAAAGACAGGGTTTGGAGTCTCCTCAACAGTGTTAAAAGAGGAAGTGACCTCACAG
ACCAGCTCAGAGATGTTACCAAGAATATCACAGCCCCCAGGGTAGGGAGACAAGCAGCAGTTTGTTCTGTCTCAG

FIGURE 2999B

CTCCTGTCAAGGATCCTGCGGGGTGGGCCCTCTGTATAGCTGCTCTCTGTCACTGGCCCCTGGAGTGGGAGCAGC
GTCCTTAGTCACTGCAGGCCCAGGCGGGCAGGTGGTCCCAGGACAGAGGTGGGGAAGTTGTCCTGAGGAAGCAGA
AGTAGGCCTTGCTCCCGCCCAACCCAAGGGCCTCCAGTGGACCAGCATTCAAGATGTGAGTGCCCGTGGTGTGCA
AGGCACTCCCATGGCACCGTATTTATTGACTGATCTGTGAAGGCTTCCCTGACCCCTGCCCAGGAAGAGTTCACT
GGTCGCTCTGTTGTGCCCCACAGCACTTTGTTATACCTCTGCCACACACTTCACGCAGCGCGTTGTAACTCATGT
GTTTACATGTCTGTCCCCCCAGACTGTGAGCTCCTTGAGGGCAGGGACTGTACATTCTCCAGCTCTGTGTCCCCA
GGGCCTGGCACATTGTAGACGCTTAATAAATGTCTGTTAAATG

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FIGURE 3000

AAG**ATG**GCGGCCTCCGTGTGCAGCGGGTTGCTGGGGCCACGGGTGCTGTCCTGGAGCCGAGAGCTGCCTTGCGCT
TGGCGCGCCCTGCACACCTCCCCGGTCTGCGCCAAGAACCGGGCGGCCCGAGTACGCGTAAGCAAGGGGGACAAG
CCGGTGACCTACGAGGAGGCACACGCGCCGCACTACATCGCCCACCGTAAAGGCTGGCTGTCGCTGCACACAGGT
AACCTGGATGGAGAGGACCATGCCGCAGAGCGAACGGTGGAGGATGTTTTCCTTCGCAAGTTCATGTGGGGTACC
TTCCCAGGCTGCCTGGCTGACCAGCTGGTTTTAAAGCGCCGGGGTAACCAGTTGGAGATCTGTGCCGTGGTCCTG
AGGCAGTTGTCTCCACACAAGTACTACTTCCTCGTGGGCTACAGTGAAACTTTGCTGTCCTACTTTTACAAATGT
CCTGTGCGACTCCACCTCCAAACTGTGCCCTCAAAGGTTGTGTATAAGTACCTC**TAG**AACAATCCCCTTTTTTCC
ATCAAGCTGTAGCCTGCAGAGAATGGAAACGTGGGAAAGGAATGGTATGTGGGGGAAATGCATCCCCTCAGAGGA
CTGAGGCATAGTCTCTCATCTGCTATTGAATAAAGACCTTCTATCTTG

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FIGURE 3001

CAACAACGAACTGTCTACAGACTG**ATG**CTCGTGAAAGCATGGAACGTGGACGAGCTCCAGGCCTACGCGCAGCTC
GTGTCCCTGGGGAATCCTGACTTCATCGAAGTGAAGGGCGTTACCTACTGCAGAGAAAGTTCAGCAAGCAGTCTT
ACCATGGCCCATGTGCCCTGGCATGAGGAAGTGGTACAGTTTGTCCGCGAGCTGGTGGATCTGATCCCCGAATAT
GAAATTGCATGTGAACACGAACACTCTAATTGCCTCCTGATAGCACACAGAAAGTTTAAAATTGGTGGTGAATGG
TGGACATGGATCGATTATAACCGCTTCCAGGAGCTCATCCAGGAATATGAAGATAGTGGTGGATCAAAAACGTTC
AGCGCAAAGGATTATATGGCCAGAACTCCTCACTGGGCATTATTTGGTGCCAATGAAAGAAGCTTTGATCCCAAG
GACACAAGACATCAGAGAAAGAACAAATCAAAGGCTATTTCTGGATGT**TGA**GATTATCTGATTTCAAGGTACTGA
AGGACAAAAACTTGGATGGCCTCAAAAGGTTCTTGAACACCACTCTGATTCTCCAAGGACGAATTACGTAAATTA
TACTTTCATACAAAGGAGACGATAAGGCAGTAAACATGGAGACACGGGGGACAGCGTCCACACTCAGAGGGCCTG
GGCCACAGCCCCGATGTTTCTTTTCAGAACTCAGCCCCTTTCCTGATTTTACTTCTAAGAGGAAAATTATTTTGG
GGAGGAACTACACAGTCGTGATTAGAATTTAACTGATGGTTTTGTATTATAACTTCTAAGACCTGCCAGAATGCT
AGTCCTGAGAGTGTCAGACAAGGAAGAAATCCCTGGGCCTCTTCCCCTCACCTGGCCCTTGGATTTCATGGAGCA
GCCACTTAGCATTGAATTGCACTACCCTGAGCTAAACGTGTCTGTGCTTTCTAAGATAAGAGCTTGATCCCTTTC
TTCTGTCTTAAGACAGCACCTCCTGAAAAGAATCGAAGTTGTCACAACTCTCAATTATTTTTTAAATACTGCATA
GATTGAGTTTTGGTTTATTACTAACCCTTCCCAAAATTGCATCGGATCTAAAACTACTAGATCTCATCCCATTCC
CATGTAAATTACCACAGACCGCAGTACCGGGGCTGGAGCGGAGTGAAGCTGTCTGCTGTAAGAGGAGTGGCCATG
TGAGGGCATGGAGTCATTAGTCTCACAAACACACTTTGGACTGAAGAGGATCATTTCTTTTTGTTCGTGAGGTCA
CTGTCCGGGCCTCTCATATCACGACCAGACGGCGGGTCTCCATCTTCTTTGACTCCTGTGGCCCTCGCTGCTTTA
CACAATCTGTTCTATAAGGTTCAGGTGTTTTCAAGTTGGAAAGATCATAAATACTCAAAATTGTTTTCAAGTTAG
CAAATTCTTTTAACAGTCTTTTATGCAAAAATTGAATTAATAAAATAATATTTTGT

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FIGURE 3002

CAGACACGCTGTGGCGGCTGCCTGAAGCTAGTGAGTCGCGGCGCCGCGCACTTGTGGTTGGGTCAGTGCCGCGCG
CCGCTCGGTCGTTACCGCGAGGCGCTGGTGGCCTTCAGGCTGGACGGCGCGGGTCAGCCCTGGTTTGCCGGCTTC
TGGGTCTTTGAACAGCCGCGATGTCGATCTTCACCCCCACCAACCAGATCCGCCTAACCAATGTGGCCGTGGTAC
GGATGAAGCGCGCCAGGAAGCGCTTCGAAATCGCCTGCTACAGAAACAAGGTCGTCGGCTGGCGGAGCGGCTTGG
AAAAAGACCTTGATGAAGTTCTGCAGACCCACTCAGTGTTTGTAAATGTTTCCTAAGGTCAGGTTGCCAAGAAGG
AAGATCTCATCAGTGCGTTTGGAACAGATGACCAAACTGAAATCTGTAAGCAGATTTTGACTAAAGGAGAAGTTC
AAGTATCAGATAAAGACACACACAACTGGAGCAG**ATG**TTTAGGGACATTGCAATTATTGTGGCAGACAAATGTGT
GACTCCTGAAACAAAGAGACCATACACCGTGATCCTTATTGAGAGAGCCATGAAGGACATCCACTATTTGGTGAA
AACCAACAGGAGTACAAAACAGCAGGCTTTGGAAGTGATAAAGCAGTTAAAAGAGAAAATGAAGATAGAACGTGC
TCACATGAGGCTTCAGTTCATCCTTCCAGTGAATGAAGGCAAGAAGCTGAAAGAAAAGCTCAAGCCACTGATCAA
GGTCATAGAAAGTAAAGATTATGGCCAACAGTTAGAAATCGTATGTCTGATTGACCTGGGCTGCTTCCGAGAAAT
TGATGAGCTAATAAAAAAGGAAACCAAAGGCAAAGGTTCTTTGGAAGTACTCAATCTGAAAGATTTGAAGAAGGA
GATGAGAAATTTGAATGACACCCATCAGTCTCTTCACCTC**TAA**AACAC

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FIGURE 3003

AGGAGCTCGCCCCTGAGCCTGAGGAGACCTGGGTAGTGGAGACGCTGTGTGGGCTCAAGATGAAGCTGAAGCAAC
AGCGAGTGTCACCCATCCTCCCTGAGCACCACAAGGACTTCAACAGTCAGCTTGAGGATCCTGTCATTAAAAGAT
TCCTGGCCTGGGACAAAGGTCTGAGGGTGTCGGACAAGTATCTCCTGGCTATGGTCATAGTGTATTTCAGCCGGG
CCGGCCTCCCCTCCTGGCAATACCAATGCATTCATTTCTTCCTGGCTCTCTACCTGGCCAATGACATGGAGGAGG
ACGACGAGGACCCCAAACAAAACATCTTCTACTTCCTGTATGGGAAGACCCGCTCTCGCATACCCTTGCTCCGTA
AGCGTCGGTTCCAGTTATGCCGTTGCATGAACCCGAGGGCCAGGAAGAACCGCTCTCAGATAGTCCTGTTCCAGA
AACTTCGGTTCCAGTTCTTCTGTTCCATGAGCTGCAGGGCTTGGGTTTCCCCGGAGGAGTTGGAGGAGATCCAGG
CTTATGACCCAGAGCACTGGGTGTGGGCGCGAGATCGCGCTCGCCTTTCCTAGAGCTCCAGGGACCGTGGAGGCC
TGAGGTCATCGGCCTGAGAGAAGAACACCGGACCCAGGGGAGATGTGGATTTTCAGCAGGAACTTTATTCCAATG
CTAATGGCAGACACCAGGAAGAAGGAGAGGAACCATTTGTGCAGATCATCTAGAAGAACCTGGACCATTCTTGAT
GGAGCTGAATACAGTGATCATGTTGTCCTACCTAGGAGCAGGGGGAGGGGGGTGGGGTCCTTCTAGGAGTCCTTG
GAGAAAAGTAAGAAACCAGGAGTGTTTCCAGTTCCACCCTTTCCTGCGGCACCACCACCCTTTTTATATTGCTGA
ATTCCAACCTCCCTGGGGCGGAACCTGGAGGTCCTATTTCTTACGGACTTGGTTGCCACAGTCCAGGAGCATTTG
AAGGCACAATGCAGGGGCTCAGATTGGCACAGAATTCTTTTGTGAAATATCAGTGCCACAGATTGTAACAGATAG
CTTCATGCACACTCTGCATTTTATTGGTTTGTTTGGAAAATGTTGGCCATTGAATTATTCATAGATTTATTTCAA
ATAGTTTGGAAATTGTTGTACCTTTGAAAACATGCTGTTCCTGTAGTTTTTTGATGAGAGTTATAGTTGTTATAT
ATACATAAAGATAATTTTCTTTTCATTTTTAAGAGACAATTCTTTTTATCCTAAATATTTTATTATCTTTAAATT
TGTTCCTGTATTATTATATGTGCTCCTGAAGCGAGCACTCTTTTTATCTATGATACTTCCATAATAATCTCTTCT
ATTTATAGCTATTGGTAGTTCCCTACCAGAAAAAAACATAATTCTGGTGATTGAAATTTTTATTTGCTATTTAGG
TTTGTGACTGAATTGTGAGAATTCAGTTGTGATTTTTAACATGTCTCAGATATATATACTAACATGTCTAATATA
TACTATCTATTTTATTGGTTTATTTTGAAAAACATGGGTATAGAATTATTTAAATATTATTTTATTTATTTAAAT
ATTTATTAAATATATTTATTTATTTAAATATTATTACTACTTTAAATATTATTTTAAATATTTTGGAAATACTGG
TATTTTTGAATAGATGCTGTTTCTATAAAGCTGTGTGATGGGTGTTATAACTGTTATATACACATACATATAATT
TTGTTTTCCTTTTTAAGAGAGGATTCTTTTCATCCTAAATCTTTTACCTTTCAATCTTTGTATCTATTATTACAC
ATGCTGCTGAAGGGAGCATGGTTTTTATCTATGATACTTAGTTAACATATATATTACATTTATAGCTATGTAGTA
GTTCCCTTAAATTCTTGTAAAAATAAATTTTTATTTGATATTTCATATATGTCTGAAATGTGAGAATACAGATGT
AATTTTTTACCTTGTTTTGGCATGTTTGTATGTTACTTTAAAGAGGATGTGTGTGCTAAAGGAGGACATGAGCTG
TGTGTTTTCAAGAGAACAATAGAGTGCGTCTCTTGGGGAAACATAATAAAAATGAACTTTTCTCACCTTC

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FIGURE 3004A

CGCTTCCTGCGCCTCTTCAGGTCACCGCTTGCTCTAGTTCCCAGGCTTTGGCCTCTAGTGGATGAGAATCACCGA
GTCTGCGGGGCTGGACGCTGACCGCCCGGGCCAGCACCTAGGCGGGCGGGAGCTGTGCGGCCCAGGGTTCGCGCG
GGCCGGGTAGAGGCTCGAGCCGGGACCCCCGAGCGTGAACCCCGGAGCCAGCGGCGCTGGGGCCAGAGGGGCCAG
GCGGGAGGTGGTGGCGGAGGCGAAGGGGCGACGGGACCTGGGCCTGGCCCGTGTGTGTCCTCGGCGGCCTGGCGC
CGGCCGTCGCTGTACGGTGAGCCCCAGGGAGGCGGATCTGGGCCCCGAGAAGGACACCCGCCTGGATTTGCCCCG
TAGGCCCGGCCCGGGCCCCTCGGGAGCAGAACAGCCTTGGTGAGGTGGACGGGAGGGGACTTCGCGAGCAGACGC
GCGCGCCAGCGACAGCAGCCCGCCCCGGCCTCTCGGGAGCCGTGGGGCAGAGGCTGCAGAGCCCCAGGAGGGGGC
CAGTGTCATTCAAAGATGTGGCTGTGGATTTCACCCAGGAGGAGTGGTGGCAACTGGACCCTGATGAGAAGATAA
CATACGGGGATGTGATGTTGGAGAACTACAGCCATCTAGTTTCCCTGGCTTATGAGGTGGCAACATCTTGTACTT
CGGAGATCTGAAGCCGAGCAACTTGCCCAAGTCCTTCTTCTTTTCCCATTAACAAGATATGATATCACCAAGCCA
AACGTCATCATTAAGTTGGAGCAGGGAGAGGAGCTGTGGATAACGGGAGGTGAATTTCCATGTCAACATAGTCCA
GCCCTTCACATCCTCAGCCGAAGATCTCACTTCCTCCCAGAGGCCTTTGCTGACTGACCCCTCAGGGATTGTGGG
ACTTTACCAAATCGGTTTGTAATAACACCTAGAAGACGCTATCCGATCCATCAGGCCCAGTATTCCTGTCTGGGG
GTACTTCCCACCGTGTGCTGGAATGGTTATCACAAGAAGGCTGTGCTGTCCCCTCGCAACTCCAGG**ATG**GTGTGT
AGCCCAGTGACTGTGAGGATCGCCCCTCCTGACAGAAGATTTTCGCGTTCTGCGATACCAGAGCAGATAATCAGC
TCAACACTGTCCTCACCATCAAGTAACGCCCCAGACCCATGTGCAAAGGAGACAGTACTGAGTGCCCTCAAAGAG
AAGGAGAAGAAAAGGACAGTGGAGGAAGAAGACCAAATATTCCTTGATGGCCAGGAAAATAAAAGAAGGCGCCAT
GATAGCAGTGGCAGTGGACATTCAGCATTTGAGCCCCTGGTGGCCAATGGAGTCCCCGCTTCTTTTGTGCCTAAG
CCTGGGTCTCTGAAGAGAGGCCTCAATTCTCAGAGCTCAGATGACCACTTGAATAAGAGATCCCGAAGCTCTTCC
ATGAGCTCCTTGACAGGCGCTTACGCAAGTGGCATCCCTAGCTCCAGCCGCAATGCCATTACCAGTTCCTACAGC
TCCACTCGAGGCATCTCACAGCTCTGGAAGAGAAATGGCCCCAGTTCATCACCCTTCTCTAGCCCAGCCTCCTCC
CGCTCCCAGACACCGGAGAGGCCAGCAAAGAAAATAAGAGAAGAGGAGCTGTGTCATCATTCCAGTTCTTCAACT
CCATTGGCAGCAGACAGGGAGTCCCAGGGAGAAAAGGCTGCAGATACAACCCCAAGGAAGAAACAAAACTCGAAT
TCTCAGTCTACACCTGGCAGCTCTGGGCAGCGTAAGCGGAAAGTTCAGCTGCTGCCTTCTCGGCGAGGGGAACAG
CTGACCTTGCCTCCACCTCCCCAGCTTGGCTATTCGATCACTGCCGAGGACCTAGACTTAGAGAAGAAGGCTTCA
TTACAGTGGTTCAACCAGGCCTTGGAGGACAAGAGCGATGCTGCCTCGAACTCTGTCACTGAGACCCCACCTATC
ACTCAGCCTTCATTTACCTTTACCCTGCCTGCTGCTGCACCTGCCTCCCCACCCACCTCCCTCCTGGCCCCAAGC
ACCAACCCACTGTTAGAGAGCTTGAAGAAGATGCAGACTCCCCCGAGCCTGCCACCCTGCCCAGAATCTGCTGGA
GCAGCAACCACTGAGGCCCTCTCACCTCCAAAGACACCCAGCCTCCTACCCCCGCTGGGTTTATCACAGTCAGGG
CCGCCAGGGCTGCTCCCCAGCCCCTCCTTTGACTCCAAACCCCCGACCACTTTGCTGGGGCTGATCCCTGCTCCA
TCCATGGTACCAGCCACTGACACCAAGGCACCTCCAACCCTTCAGGCAGAGACGGCTACCAAACCCCAAGCCACA
TCTGCCCCGTCCCCCGCCCCCAAGCAAAGCTTCCTGTTTGGAACACAGAACACCTCACCTTCCAGCCCTGCCGCC
CCTGCTGCATCTTCAGCACCTCCCATGTTCAAGCCCATTTTCACGGCTCCACCCAAGAGTGAGAAGGAAGGCCCC
ACACCGCCTGGCCCTTCAGTCACAGCCACAGCGCCCTCCAGCTCCTCCCTCCCCACGACCACCAGCACCACAGCC
CCGACCTTCCAGCCTGTCTTTAGCAGCATGGGGCCACCTGCATCTGTGCCCTTGCCTGCTCCCTTCTTCAAGCAG
ACAACTACTCCCGCCACTGCTCCCACCACAACTGCCCCGCTCTTCACTGGCCTGGCCAGCGCCACCTCTGCTGTG
GCTCCCATCACCTCTGCCAGTCCATCCACAGACTCTGCTTCGAAGCCTGCGTTTGGCTTTGGCATAAACAGTGTG
AGCAGCAGCAGTGTGAGTACCACGACCAGCACCGCCACTGCCGCCTCACAGCCTTTCCTCTTCGGGGCGCCCCAG
GCCTCTGCTGCCAGCTTCACCCCGGCCATGGGCTCCATATTCCAGTTTGGCAAACCTCCTGCCTTGCCCACAACC
ACCACAGTCACCACCTTCAGCCAGTCCCTGCACACTGCCGTGCCAACGGCCACCAGCAGCAGCGCTGCCGACTTT
AGTGGTTTTGGCAGCACCCTCGCCACCTCCGCCCCGGCCACCAGCAGCCAGCCCACTCTGACGTTCAGTAACACG
AGCACCCCCACGTTCAACATTCCCTTTGGCTCAAGCGCCAAGTCCCCGCTCCCATCATATCCGGGAGCCAACCCC
CAGCCCGCATTTGGGGCCGCTGAGGGGCAGCCACCGGGGGCCGCCAAGCCGGCCCTTGCCCCCAGCTTTGGCAGC
TCTTTCACTTTTGGAAACTCTGCAGCCCCGGCTGCTGCACCCACACCTGCACCTCCGTCCATGATCAAGGTCGTG
CCTGCGTACGTGCCTACGCCCATCCATCCTATCTTTGGCGGTGCCACGCACTCGGCGTTTGGGTTGAAAGCCACG
GCTTCGGCCTTCGGCGCTCCCGCCAGCTCACAGCCCGCCTTTGGCGGCTCCACTGCTGTCTTCTTCGGTGCAGCC
ACCAGCTCCGGCTTTGGAGCCACCACCCAGACCGCCAGCAGCGGGAGCAGCAGCTCGGTGTTTGGCAGCACAACA
CCATCACCCTTCACGTTTGGGGGTTCGGCAGCCCCCGCTGGCAGTGGGAGCTTTGGGATCAATGTGGCCACCCCA

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FIGURE 3004B

GGCTCCAGCACCACCACCGGAGCTTTCAGCTTTGGAGCAGGACAGAGTGGGAGCACAGCCACCTCCACCCCCTTC
GCAGGGGGCTTAGGTCAGAACGCCCTGGGCACCACCGGCCAGAGCACACCGTTTGCCTTCAACGTGAGCAGCACA
ACTGAGAGCAAACCTGTGTTTGGAGGCACCGCCACCCCCACCTTTGGTCTGAACACCCCTGCGCCTGGAGTGGGC
ACATCAGGCAGCAGCCTCTCCTTTGGGGCATCCTCAGCACCCGCCCAAGGCTTTGTTGGTGTTGCACCTTTCGGC
AACACTTTTGCTCACCAGCAAGAACACAGCCCGAGGAAGGGACCCAATAACCTTTCAAAACGCAAACTGCTGCCT
GCGGTGAGGGCCCAGGGTCTTCCACGGAGAGGACAGGCATCTTCCTTTCCCACCAGGAAGGAG**TGA**GCCCGGAGC
CTCTGCTATGTGCAAGGCGGTGTGCAAGCACCGGCTGCAGCTTTTTGCTCTCTTCTTTCTCTTTGGGGCTGGGCT
GGGTGTGCGTTCTGGTGCTGATGCTTTGGCCTGTGAGGCTGAGCTAGAGAAATGTAGATGTTAGATGTGCCAGTA
CCATCCTGCGCCTCCCAAGCATGCCCCCACTCACTCACGTCGGCATCTCGACCCGTTCAATTACAGCAACGAAGA
AGCCACCGCTAAGCGTGGTCTTGGGGGAAGCCCGGAGGCAGTGCTCGGCACCCGGGAACGTGCTCAGGCCTCGGT
GGGGCCGGGCAGGCAGGGCGGGAGCTAGCCTGCAAGAGAAACAGCCCCAATGCTGGGTAAGAGAGCAGTTCACCC
CATCCCCCCCTCCACGACCCTGGCGCACGCCCTGTACCTGAAGGCGCCCGGGTTCTGCTGCAGCGCATCTTGTAC
CATGTCTTCATTCTCCTCCTGGCAGAGGGAGCACATGGAGTAGACGAGCCGCTGCAGGGAAGGGAAAGTGAGCGC
GTGGCACAGGGCTCGCTGCTGGAACCCTGCCAGGGCATGCAGACGCACCGGGCTAGGTGTCCCTGCCCCGGGCTC
CTCCAGCTGTCTGCTCGGCATACCTAAGGAAAAGCGTGTCTCGGTTACACAGCTTCACAGGCTGCCTCAGTCCTG
AAATCCTCGCTCCTGAAATCCTCGCTTCACAGAGGAGAACTTTTGCTCCAGGGTCCCAAGCCCATTAAAGTGTCA
GAACTAAGACCAAAACAGATGACTCCAGGTCTAAGCTGCTGTGGACCTCTGAGTCCCTCAGCCACGCCTTCTCAC
CATCTCACCCGAGCCACTGCAGGAAGGATCCAGCAGGACATAGTGGACCTCACGATAGCGCGGATCTAAGGGGGA
GACCGCCAGGAAGTCCTCCTCAGCCAGCTCACAGCAGGAGACGCCAGCCCAGGCCAGCAGCGTGGCCATGGATGC
CAGCCGCCTGGCATCCAGGTCAAAGGCAAAGATCTTCCTAGGGCAGAGGGCAGAGCAGGGGTGAGCTGAGCATGC
ATGGAGCAGCTAAGGGCCTGTCACAGCTGACACAGACAACCAGAACATGCAGGTTAAGCCAGGACACACAATATT
GAAACAGCCTATATTTAAAGGGCCCAGGGTCAGAGGTAACTGGCCTGGGGTCTCTGCCCCAAGGGCTAAGGGATC
CACATCTCACACCTGCAGTGGGGAAAGCTTAGCTTGGGGCAAATACCGTGAACTACTTTGGTGCAGCAGGAAAGA
GTTAAGCGAAAGTCATCCTTTCAGCCTTCATTACCCACTGAAAGGCACAAAATCAAACCCCATGTCCTCCTCCTC
CTCCTGTGGCACTCACCCTTGGTTCTTCAGAAGAGCAGCCAAGTGACTGGTCTTTATTGCCTGGGGTGGCACAGG
CATCCATGACATGGGAGCCTGGCGGGGGTCCAGCAGCATGGCTGGGAGACAGCTGGCCTGGCAGGCAGAACACAG
GGGCCGGGTAAACAGAGACCCCAGGCTAGGCCCTTCCCGTGCCTACACATTCTTCCCTTTTCTATTCCTCTTGCC
TACCCTGTCCTGCAGAATGAGGTGTCCGGCCCGGTACAGTGGGTGTTCATGCAGATCTGTCTGGGCGGGAAACAC
CAGCAGCTCCGGCATCAAGGGGTCCAGGAGAAAATGCTTCCCCTTGAGGGCTCGTAAGTCATCGAGGCTGCCAGG
GAAGAACCATTCATTCATCATTTCCTGAATTTCTCCCTGCCAGGCCCTATTTCAACGGTCCATTCATGCAACAAA
TGTTACCACAGCTATGGAGAAATCAACAGGGTGATAAGGGAATCCGGGATCCGCAGTTGAGGGAATGGGTTGTCA
AGCCAGACTTATGGGTCAGGAGCCCCCTCTACTGTTTACCAGCAGTGGGAGCCTGGGCAAGTGATTCAATCTCAA
GCCCCACTGGCATCTCTGTAAAATAGTAGGTGTGAGGATTCAATGAGCCAATATATCCAAGATACTTACGTGCCA
CAATTTAATAAATGTTAGCTATTCCTGTTGAAGCATAACCTTGGAGAAAGGTTACTTTACAGGGGGGTGAGGAGT
GGGGAAGTGAGAGCTGAGCTCATTCTTGATGGATGAGGAGTTAGTCATGTGAGGCGCTTAGGTTAAAACTACATT
CACTATAACTCAGTAAAGCAGTCCCGCCCACTCTCCGACCCATGCAGAAATAGGCCTAGGGAGTCACATGTCTCA
GTTCAGAAATCTATCGAAGTGGCAGAGCTGGAATTCAAACACAAGCAGCCGTTCTCTGCTATTCCACCCTGGTGT
CCAAGCAACATGGTAGGGCAGAAGGAAGAGGATCTTACAAAGAGTAAGGGAAAGGGAGAGGGGCAGAGGCTGCTT
CTCAGAGCCACCAAAGGACAAAATAAGACAGGTGTGAGCCCAGTGGAGGAGGCACGGGGCAGAGACCAGCCACTG
TTGCTGGCACGCTGGTGCACGTAGCACTGTGGCAGATGGACCTGGAGAGGAAGCAGGAGGGACAGCACAATGGAG
CCAAGAAAGGACTTAGCATGGCCGGGCGCGGTGGTTCATGCCTGTAATCCCAGCATTTTGGGAGGCCAAGGTGGG
CAGATCACCTGAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGAGAAATCCCGTCTCTACTAAAAATACAAA
ATTAGCCAGGCATGGTGCTGCATGCCTGCAATCCTGTAGGGAAAAGAAAGAGAGATCAGACTGTTACTGTGTCTG
TGTAGAAAGGGAAGACATAAGAAATTCCATTTTGACCTGTACCTTGAACAATTGGTTGGCTGAGATGCTGTTAAT
TTGTGACTTTGCCCCAAATTTGAGCTCACAAAAACATGTGTTGTATGGAATCAAGGTTTAAAGGATCTAGGGCTG
TGCAGGACATGCCTTGTTAATAAAACGTTTACAAGC

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FIGURE 3005

AACATGGGGCTGTACGCTGCGGTGGCAGGCGTGCTGGCCGGCGTGGAGAGCCGCCAGGGCTCTATCAAGGGGCTG
GTGTACTCCAGCAACTTCCAGAACGTGAAGCAGCTGTACGCGCTGGTGTGCGAAACGCAGCGCTACTCCGCCGTG
CTGGATGCCGTGATCTCCAGCGCCGGCCTCCTCAGTGCGAAGAAGCTGCAGCCGCACCTGGCCAAGGGTGCTAGT
GTATGAGTTGTTGGGAAAGGGCTTTCGAGGGGGTGGGGGCCAATGGAAGGCTCTGTTGGGACGGCACCAGGCGAG
GTGTTGAGTTGGCTCGGCTCAAGGTTCTTCGGGGTGTGAGCTGGCATGAGGACCTGTTGGAAGTGGGATCCAGGC
CTGGTCCAGCCTCCCAGCTGCCTCGATTTGTGCGTGTGAACACTCTCAAGACCTGCTCCGTTTATGTAGTTATTT
CAAGAGACAAGGTTTCTCCTATCAGGGTCGGGCTTCCAGGCTGGATGGAGTGCCCTGGCGCGATCTTGGCTCACC
GCAACCTCTGCCTCCTGGGTTCAAGCGATTCTCCTGCTTCAGCCTTCTGAGCAGCTGGGATTATGAAGGGGTGGC
CTGCCCCTCCACATCTGTGGGATATCTCATCAGCCTCGATGACTTACGAGCCCTCAAGGGGAAGCATTTTCTCCT
GGACCCCTTG**ATG**CCGGAGCTGCTGGTGTTTCCCGCCCAGACAGATCTGCATGAACACCCACTGTACCGGGCCGG
ACACCTCATTCTGCAGGACAGGGCCAGCTGTCTCCCAGCCATGCTGCTGGACCCCCGCCAGGCTCCCATGTCATG
GATGCCTGTGCCACCCCAGGCAATAAAGACCAGTCACTTGGCTGCTCTTCTGAAGAACCAAGGGAAGATCTTTGC
CTTTGACCTGGATGCCAGGCGGCTGGCATCCATGGCCACGCTGCTGGCCTGGGCTGGCGTCTCCTGCTGTGAGCT
GGCTGAGGAGGACTTCCTGGCGGTCTCCCCCTTAGATCCGCGCTATCGTGAGGTCCACTATGTCCTGCTGGATCC
TTCCTGCAGTGGCTCGGGTATGCCGAGCAGACAGCTGGAGGAGCCCGGGGCAGGGACACCTAGCCCGGTGCGTCT
GCATGCCCTGGCAGGGTTCCAGCAGCGAGCCCTGTGCCACGCGCTCACTTTCCCTTCCCTGCAGCGGCTCGTCTA
CTCCATGTGCTCCCTCTGCCAGGAGGAGAATGAAGACATGGTACAAGATGCGCTGCAGCAGAACCCGGGCGCCTT
CAGGCTAGCTCCCGCCCTGCCTGCCCGGCCCCACCGAGGCCTGAGCACGTTCCCGGGTGCCGAGCACTGCCTCCG
GGCTTCCCCCAAGACCACGCTTAGCGGTGGCTTCTTCGTTGCTGTAATTGAACGGGTCGAGATGCCGACCTCAGC
CTCACAGGCCAAAGCATCAGCACCAGAACGCACACCCAGCCCAGCCCCAAAGAGAAAGAAGAGAGCAAAAAGCTG
CAGCCGGTGCTTGCACACCGCCTTGCACATAGCAGAGGCTCCGGGCTCACTCCTTCCTGGTGGGAAAGGAAGATG
CCTGTCCTCTCCGTGGAAGACCCTGGGCCCTCACCGCAGGCAGCAGTTTGCGTTT**TGA**AAGGTTATTGGGTCCCT
TCCTCGGGCTGTGTTCTTGCTGGTGAGCAAAAGTGTTGCCTGCAGAAATAAAATGCAGAACGTACTCT

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FIGURE 3006

GCAATTCTC**ATG**TCTCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTAGGAGGCAGAGGTTGCAGT
GAGCTGAGATTGCACCACTGCACCCCAGCCTGGGCAATAAGAGTGAAACTCCATCTCAAAAAAAAAAAAAAAAAA
AGGTGCATGAAACATATGAAGCAAAAAGTGAAAGTCCCCATTCTTTTCCTTTTTCCAGAGGTGATTTTTGTGGCC
AATCTGGTTTCATTCCCTCCCAGACACTTTTCTAGGCATCTATGCGCCTCTATTCACATA**TAA**ACAAAATAGGAG
TTTTCCTGTGCTTCCCTTAAATGGCATATGTATCTTTCACTCTTTTTTTTCACCTAGTGGATCTTTAATACCTTA
AAAGCTCAACCTGGGCTTGGTGCGGTGGCTCATACGTGTAATCCCAGGCCTTTGGGAGGCCAAGGTGGGAGGATC
ACTTGAGCTCAGGAGTTCCAGACCATTCCAAAGCAAAAACAAAAGGATTTTGAGATCAGTGTGGGCAACTTAGCA
AAACACCATCTCTT

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FIGURE 3007

TTTCATCGTTTCTGCTTACCCTACTTTTCTTTCCCATCCTGATCCCTCTCCCACCAGACTGGACTCTGAAACGGG
CATGTACAGAGAAGAGGAGACCCCAACACGCTTCAAGCTTTGAGTGGAGAGGACACAGCCTCTGCTGGGACAGGG
AACAGAGGGATGCGGAGACCCTGAAGATGCTTTTGGACAGTGGTCTGAGGTTGGGACAGTGGCAGGAGATACCAT
TCACCCAGGATCTCCAGGACAAGAGATCAGCCTGGCAGTTACATGTGTTTTTTTTCAAACTGGTTGCCAGGTTGG
CATGAGCGATGACATCAGAGATTCCGACCTTCCTGATTGGAGGGACCGGACTCTGTCGGCACCTGGGAGTTCAGT
TGGACAACAGTAACTTCTCAGAGCTGTTCTCCACTCCTGACTTCTCCCAGCCTCGAGAATTGATAACACACTCTT
CTGGATCCCAGCAGTGTCCAGAAGAAGACCAAGGACAGAACAGAGACTAGGTTTGGTGAG**ATG**GGACAGATTTTG
GGAAAGATCATGATGAGCCATCAACCGCAGCCCCAGGAAGAGCGGAGCCCCCAGCGGAGCACCTCAGGGTACCCC
CTCCAGGAGGTGGTGGATGATGAAGTGTCGGGACCATCAGGTGAGGGGACTGGAGGAAGAAGAGGTGGCATAGGA
TTGACTAAGATGAAGGAAGGGGGCCAGGCGTGGTGGCTCACCCCTGTAACCCCAACACTTTGGGAGGCTGAGGCG
GGCAGATCACCTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGG**TGA**AACCCCATCTCTACTAAAAGTACA
AAAATTAGCCAGGCGGTAGTGGTGTGTGCCTATAATCCCAGCTACTTGGGAGGCTAAGACAGGAGAATCACTTGA
GCCTGGGAGGAAGAGGTTGCAGTGAGCCGAGATCGTGCTACTGCACTCCAGTCTGGGTGACAGAGTGAGATGCTA
TCTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAGAAAAAAAAGAAGGGTCAGAGGTCAGGAAGGAGA
ACCTGGGGAGGGTGTGTGGGAAGAATGGAGAAATTCAGGCTGGGTGCAGTGGCTCACACTTGTAATCCCAGCACT
TTGGGAAGCCAAGGCAGGCGGATCACTTGAGGCCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCTGT
CTCTATTAAAAGTACAAAATGGAGCTGGGCATTATGGCAGGCACCTGTAATCCCAGCTACCTGAGAGGCTGAGGC
AGGAGAATAACTGGAATCCGGGAGATGCATGTTGCAGTGAGCTGAGATTGCACCACTACACTCCAGCCTGGGTGA
CAAAGCAAGATTCTGTCTCGAAAC

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FIGURE 3008

CCCCAAGCCACATCTGCCCCGTCCCCCGCCCCCAAGCAAAGCTTCCTGTTTGGAACACAGAACACCTCACCTTCC
AGCCCTGCCGCCCCTGCTGCATCTTCAGCATCTCCC**ATG**TTCAAGCCCATTTTCACGGCTCCACCCAAGAGTGAG
AAGGAAGGCCCCACACCGCCTGGCCCTTCAGTCTCAGCCACAGCGCCCTCCAGCTCCTCCCTCCCCACGACCACC
AGCACCACAGCCCCGACCTTCCAGCCTGTCTTTAGCAGCATGGGGCCACCTGCATCTGTGCCCTTGCCTGCTCCC
TTCTTCAAGCAGACAACTACTCCCGCCACTGCTCCCACCACAACTGCCCCGCTCTTCACTGGCCTGGCCAGCGCC
ACCTCTGCTGTGGCTCCCATCACCTCTGCCAGTCCATCCACAGACTCTGCTTCGAAGCCTGCGTTTGGCTTTGGC
ATAAACAGTGTGAGCAGCAGCAGTGTGAGTACCACGACCAGCACCGCCACTGCCGCCTCACAGCCTTTCCTCTTC
GGGGCGCCCCAGGCCTCTGCTGCCAGCTTCACCCCGGCCATGGGCTCCATATTCCAGTTTGGCAAACCTCCTGCC
TTGCCCACAACCACCACAGTCACCACCTTCAGCCAGTCCCTGCCCACTGCCGTGCCAACGGCCACCAGCAGCAGC
GCTGCCGACTTTAGTGGTTTTGGCAGCACCCTCGCCACCTCCGCCCCGGCCACCAGCAGCCAGCCCACTCTGACG
TTCAGTAACACGAGCACCCCCACGTTCAACATTCCCTTTGGCTCAAGCGCCAAGTCCCCGCTCCCATCATATCCG
GGAGCCAACCCCCAGCCCGCATTTGGGGCCGCTGAGGGGCAGCCACCGGGGGCCGCCAAGCCAGCCCTTACCCCC
AGCTTTGGCAGCTCTTTCACTTTTGGAAACTCTGCAGCCCCGGCTGCTGCACCCACACCTGCACCTCCGTCCATG
ATCAAGATCGTGCCTGCGCACGTGCCTACGCCCATCCAGCCTACCTTTGGCGGTGCCACGCACTCGGCGTTTGGG
TTGAAAGCCACGGCTTCGGCCTTCGGCGCTCCCGCCAGCTCACAGCCCGCCTTTGGCGGCTCCACTGCTGTCTTC
TCCTTCGGTGCAGCCACCAGCTCTGGCTTTGGAGCCACCACCCAGACCGCCAGCAGCGGGAGCAGCAGCTCGGTG
TTTGGCAGCACAACACCATCACCCTTCACGTTTGGGGGTTCGGCAGCCCCCGCTGGCAGTGGGAGCTTTGGGATC
AACGTGGCCACCCCAGGCTCCAGCGCCACCACCGGAGCTTTCAGCTTTGGAGCAGGACAGAGTGGGAGCACAGCC
ACCTCCACCCCCTTCGCAGGGGGCTTAGGTCAGAACGCCCTGGGCACCACCGGCCAGAGCACACCGTTTGCCTTC
AACGTGGGCAGCACAACTGAGAGCAAACCTGTGTTTGGAGGCACCGCCACCCCCACCTTTGGTCTGAACACCCCT
GCGCCTGGAGTGGGCACATCAGGCAGCAGCCTCTCCTTTGGGGCATCCTCAGCACCCGCCCAAGGCTTTGTTGGT
GTTGCACCTTTCGGATCGGCGGCCCCTTCATTTTCCATTGGTGCGGGATCCAAGACCCTAGGGGCTCGACAGCGA
CTGCAGGCCCGAAGGCAGCACACCCGCAAAAAG**TAG**CCTTTGTCCCCTGTCCCTGTTCCCCCCACCCCTTCCCTA
AATCTGGACCTTGGCACGTGCTAGAAAGAGCCTTGGACCCTTCCAGCTGCGTAAAGCAAACCTACCCCGGATCTC
TGGCTTCAGCCGCCAGGGGGCAGTGGCAGCCCTGGGGCCCTTTCCCTTCTGGAGGAAGCACAAGCCTCAGGGAAG
GGGAAGCAGGATGCGGAGGGCCAAAGCCCGGGACCTCTACTTGAACAGTTCCACTGGGGAGGCTGGAGAACTAAG
GAAACACCTGTACATAGTGTCCGCTGCCCTGACTCCCGCTTAGCGCACCCTTAGGCAGGCGCCCCTTCCACCTTT
CCCCGAGAGCCGTCGTCGCTGGAGGGGGCAGGGTCCAGCCCGCCTGGATCGGTGGTGTGCACCTGATGGGATTTG
GGAAATGGGCTATCCGTAAAGCTTTATCTTGCTTGGCTTAGCTGTGAGAAGTGGTTCTCTTCCTCTGGTCCCTTC
TGGGGACTCTGTTTCCCCATTTCTTGCTGCTGTGTCCCTCACCGGTTCCTTGCAGGATTCCCTCCTTTTTAAATG
CCCTTGAATCTAGCTTTGCCTTGGAGACCCCAGTGGGTGCTGCTCCTGCCATTTTCTTCCTGCCAAGCCTGAATC
AATGTTTCATCTCCAACCCTCTGCCAGTTTGGCCCCTCAGAGCTTGGTGGCTCAAGACTGTTAGCCTGGCAGAGC
CAGGGGTGAAGGGAGAAGCTCTTGGAGCAGGCAGGATGCCCACCGCTGCTTCAGCTGCCTCCTCGCCCAGCTACC
CTTTGGCCCCATTGGGCCCTCGTCTGCCTCTCCAGGATTGTATGTTTCAAGCCTTGCCCTGTGTTCCTTTGTCTG
ACGCTCTGTGTATTGCTCTTTGAATCGAGTTTGGAGGAAGAGTTGAGTTGTATGAGTGGCGGCATGTTGGTAGTG
CCGGACTTCCTGTTTCAAGTTTTCTGGGGCCTCGCTAATTGAATGTGGAAAGTAGCACCACTTGACGGCTACAAG
TGCCGACTCCTGAATTTTCCCATGGTGTTCTGACTTCAAGGGCTGGCAGCCAGGGAGAATGGGCCCAGGGGAAGC
AAAGACCTCTTCCCTCTGCCGTTTCTGTCCCACTTAACTGACCTCACTGGAGGCTACATCACCCAAAGTAGATGT
TAGAAAACCTAAATTAATGAACCATATTTTTAAAATCCTATTTTTCCCAAAC

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FIGURE 3009

AAAGGCGCGCGGGAAC**ATG**GGGCTGTATGCTGCAGCTGCAGGCGTGTTGGCCGGCGTGGAGAGCCGCCAGGGCTC
TATCAAGGGGTTGGTGTACTCCAGCAACTTCCAGAACGTGAAGCAGCTGTACGCGCTGGTGTGCGAAACGCAGCG
CTACTCCGCCGTGCTGGATGCTGTGATCGCCAGCGCCGGCCTCCTCCGTGCGGAGAAGAAGCTGCGGCCGCACCT
GGCCAAGGTGCTAGTGTATGAGTTGTTGTTGGGAAAGGGCTTTCGAGGGGGTGGGGGCCGATGGAAGGCTCTGTT
GGGCCGGCACCAGGCGAGGCTCAAGGCTGAGTTGGCTCGGCTCAAGGTTCATCGGGGTGTGAGCCGGAATGAGGA
CCTGTTGGAAGTGGGATCCAGGCCTGGTCCAGCCTCCCAGCTGCCTCGATTTGTGCGTGTGAACACTCTCAAGAC
CTGCTCCGATGATGTAGTTGATTATTTCAAGAGACAAGGTTTCTCCTATCAGGGTCGGGCTTCCAGCCTCGATGA
CTTACGAGCCCTCAAGGGGAAGCATTTTCTCCTGGACCCCTTGATGCCGGAGCTGCTGGTGTTTCCCGCCCAGAC
AGATCTGCATGAACACCCACTGTACCGGGCCGGACACCTCATTCTGCAGGACAGGGCCAGCTGTCTCCCAGCCAT
GCTGCTGGACCCCCCGCCAGGCTCCCATGTCATCGATGCCTGTGCCGCCCCAGGCAATAAGACCAGTCACTTGGC
TGCTCTTCTGAAGAACCAAGGGAAGATCTTTGCCTTTGACCTGGATGCCAAGCGGCTGGCATCCATGGCCACGCT
GCTGGCCCGGGCTGGCGTCTCTTGCTGTGAACTGGCTGAGGAGGACTTCCTGGCGGTCTCCCCCTCGGATCCACG
CTACCATGAGGTCCACTACATCCTGCTGGATCCTTCCTGCAGTGGCTCGGGTATGCCGAGCAGACAGCTGGAGGA
GCCCGGGGCAGGCACACCTAGCCCGGTGCGTCTGCATGCCCTGGCAGGGTTCCAGCAGCGAGCCCTGTGCCACGC
GCTCACTTTCCCTTCCCTGCAGCGGCTCGTCTACTCCACGTGCTCCCTCTGCCAGGAGGAGAATGAAGACGTGGT
GCGAGATGCGCTGCAGCAGAACCCGGGCGCCTTCAGGCTAGCTCCCGCCCTGCCTGCCTGGCCCCACCGAGGCCT
GAGCACGTTCCCGGGTGCCGAGCACTGCCTCCGGGCCTCCCCTGAGACCACACTCAGCAGTGGCTTCTTCGTTGC
TGTAATTGAACGGGTCGAGGTGCCAAGG**TGA**GTGAGTGGGGGCGTGCTTGGGAGGCGCAGGATGGCACCGGCACA
TCTAACATCTACACTTCTCTAGCTCAGCCTCACAGGCCAAAGCATCAGCACCAGAACGCACACCCAGCCCAGCCC
CAAAGAGAAAGAAGAGACAGCAAAGAGCCGCAGCCGGTGCTTGCACACCGCCTTGCACATAGCAGAGGCTCCGGG
CTGACTCCTTCCTGGTGGGAAAGGAAGATGCCTGTCCTCTCCGTGGAGGACCCTGGGCCCTCACCGCAGGAAGCA
GTTTGGGTTTTGAAAGGTTATTGGGTCCCTTCCTTGGGCTGTGTTCTTGCTGGTGAGCAAAGTGTTGCCTGCAAA
AATAAAATGCAGAACGTACTCT

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FIGURE 3010A

CGTTGGCCGGGCCCGGGGGAGGAGGGGAATCTCCCGCCATTTTTCAATAATTTCCTCCGGTGCTGCTGAGGAGGA
GTCGTGACTGCCGGCCGCCGGGACCCGAAGCGGAGGTCGGCGGGGGGCTGCTGGGAGGCGCGGCGGTGTGCGCGG
GAGCTCTGCGCCGTGGCGTTCCGCTCCATGACTGTCGCGCGGCCGCGCCGGCGGTGAGGGAGCCGGAGTTCGCGC
CGCCCTCTCACCCCTCCCTTCCCCCACCCCACCCCCGGGCGCCTGGCGCTCGCTCCGGGCCGCGGGGCCTAGTGC
TGCGCCGCGGGGCCGGCCCCAGCAGCCGCCAGTCCCCACCGCCGCCGCCGCG**ATG**GCGCCGCTCCTGGGCCGCAA
GCCCTTCCCGCTGGTGAAGCCGTTGCCCGGAGAGGAGCCGCTCTTCACCATCCCGCACACTCAGGAGGCCTTCCG
CACCCGGGAAGAGTATGAAGCCCGCTTGGAAAGGTACAGTGAGCGCATTTGGACGTGCAAGAGTACTGGAAGCAG
TCAGCTAACACACAAGGAAGCCTGGGAGGAAGAACAGGAAGTTGCTGAGCTTTTGAAGGAGGAGTTTCCTGCCTG
GTATGAGAAGCTTGTTCTGGAAATGGTTCACCATAACACAGCCTCCTTAGAGAAGTTAGTAGATACTGCTTGGTT
GGAGATCATGACCAAATATGCTGTGGGAGAAGAGTGTGACTTCGAGGTTGGGAAGGAGAAAATGCTCAAGGTGAA
GATTGTGAAGATTCATCCTTTGGAGAAAGTGGATGAAGAGGCCACTGAGAAGAAATCTGATGGTGCCTGTGATTC
TCCATCAAGTGACAAAGAGAACTCCAGTCAGATTGCTCAGGACCATCAGAAGAAGGAGACAGTTGTGAAAGAGGA
TGAAGGAAGGAGAGAGAGTATTAATGACAGAGCACGTAGATCGCCACGAAAACTTCCTACTTCATTAAAAAAAGG
AGAAAGGAAATGGGCTCCTCCAAAATTTCTGCCTCACAAATATGATGTGAAACTACAAAATGAAGATAAGATCAT
CAGTAACGTGCCAGCAGACAGCTTGATTCGTACAGAGCGCCCACCAAATAAGGAGATAGTTCGATACTTTATACG
GCATAATGCATTACGAGCTGGTACTGGTGAAAATGCACCTTGGGTCGTAGAAGATGAATTGGTGAAGAAATACTC
TCTGCCCAGCAAGTTCAGTGACTTTTTACTTGATCCATACAAGTATATGACTCTCAACCCTTCTACTAAGAGGAA
GAATACTGGATCCCCAGACAGGAAGCCCTCAAAGAAATCCAAGACAGACAACTCTTCTCTTAGTTCACCACTAAA
TCCTAAGTTATGGTGTCACGTACACTTGAAGAAGTCATTGAGTGGCTCGCCACTCAAAGTGAAGAACTCAAAGAA
TTCCAAATCTCCTGAAGAACATCTAGAAGAAATGATGAAGATGATGTCGCCCAATAAGCTGCACACTAACTTTCA
CATTCCTAAAAAAGGCCCACCTGCCAAGAAACCAGGGAAGCACAGTGACAAGCCTTTGAAGGCAAAGGGCAGAAG
CAAAGGCATCCTGAATGGACAGAAATCCACAGGGAATTCCAAATCTCCCAAAAAAGGACTGAAGACTCCTAAAAC
CAAAATGAAGCAGATGACTTTGTTGGATATGGCCAAAGGCACGCAGAAGATGACACGAGCCCCACGGAATTCTGG
GGGTACACCTAGGACCTCTAGTAAACCTCATAAACATCTGCCTCCTGCAGCCCTACACCTCATTGCATACTACAA
AGAAAACAAAGACAGGGAGGACAAGAGGAGCGCCCTGTCCTGTGTTATCTCCAAAACAGCTCGTCTTCTCTCTAG
TGAAGATAGAGCTCGTCTCCCAGAAGAATTGCGAAGTCTTGTTCAAAAACGCTATGAACTTCTAGAGCACAAAAA
GAGGTGGGCTTCTATGTCTGAAGAACAACGGAAAGAATATTTGAAAAAGAAACGGGAGGAGCTGAAAAAGAAGTT
GAAGGAAAAAGCCAAAGAACGAAGAGAGAAAGAAATGCTTGAGAGATTAGAAAAACAGAAGCGGTATGAGGACCA
AGAGTTAACTGGCAAAAACCTTCCAGCATTCAGATTGGTGGATACCCCTGAAGGGCTGCCCAACACGCTGTTTGG
GGATGTGGCCATGGTGGTGGAATTCTTGAGCTGTTATTCTGGGCTACTTTTACCAGATGCTCAGTATCCTATTAC
TGCTGTGTCCCTTATGGAAGCCTTGAGTGCAGATAAGGGTGGCTTTTTATACCTTAACAGGGTGTTGGTCATCCT
CTTACAGACCCTCCTACAAGATGAGATAGCAGAAGACTATGGTGAATTGGGAATGAAGCTGTCGGAAATCCCCTT
GACTCTGCATTCTGTTTCAGAGCTGGTGCGGCTCTGCTTGCGCAGATCTGATGTTCAGGAGGAAAGCGAGGGCTC
AGACACAGATGACAATAAAGATTCAGCTGCATTTGAGGATAATGAGGTACAAGATGAGTTCCTAGAAAAGCTGGA
GACCTCTGAATTTTTTGAGCTGACGTCAGAGGAGAAGCTACAGATCTTGACAGCACTGTGCCACCGGATCCTCAT
GACATACTCAGTGCAAGACCACATGGAGACCAGACAGCAGATGTCTGCAGAGTTGTGGAAGGAACGGCTTGCTGT
GTTGAAGGAAGAAAATGATAAGAAGAGAGCAGAGAAACAGAAACGGAAAGAAATGGAAGCCAAAAATAAAGAAAA
TGGAAAAGTTGAGAATGGGTTAGGCAAAACTGATAGGAAAAAAGAAATTGTGAAGTTTGAGCCCCAAGTAGATAC
AGAAGCTGAAGACATGATTAGTGCTGTGAAGAGCAGAAGGTTGCTTGCCATTCAAGCTAAGAAGGAACGGGAAAT
CCAGGAAAGAGAAATGAAAGTGAAACTGGAACGCCAAGCTGAAGAAGAACGAATACGGAAGCACAAAGCAGCTGC
TGAGAAAGCTTTCCAGGAAGGGATTGCCAAGGCCAAACTAGTCATGCGCAGGACTCCTATTGGCACAGATCGAAA
CCATAATAGATACTGGCTCTTCTCAGATGAAGTTCCAGGATTATTCATTGAAAAAGGCTGGGTACATGACAGCAT
TGACTACCGATTCAACCATCACTGCAAAGACCACACAGTCTCTGGTGATGAGGATTACTGTCCTCGCAGTAAGAA
AGCAAACTTAGGTAAAAATGCAAGCATGAACACACAACATGGAACAGCAACAGAAGTTGCTGTAGAGACAACCAC
ACCCAAACAAGGACAGAACCTATGGTTTTTATGTGATAGTCAAAAGGAGCTGGATGAGTTGCTAAACTGTCTTCA
CCCTCAGGGAATAAGAGAAAGTCAACTTAAAGAGAGACTAGAGAAGAGGTACCAGGACATTATTCACTCTATTCA
TCTAGCACGGAAGCCAAATTTGGGTCTAAAATCTTGTGATGGCAACCAGGAGCTTTTAAACTTCCTTCGTAGTGA
TCTCATTGAAGTTGCAACAAGGTTACAAAAAGGAGGACTTGGATATGTGGAAGAAACATCAGAATTTGAAGCCCG

FIGURE 3010B

GGTAGATGTGAAGCTTAAAAAGAGATCAGTGAAGCAGGAGGATCGCTTCAGGCCAGGAGTTTGAGACCAGCCTGC
GCAACATAGTCATTTCATTAGAGAAATTGAAGGATTTTGGTGAGTGTGTGATTGCCCTTCAGGCCAGTGTCATAA
AGAAATTTCTCCAAGGCTTCATGGCTCCCAAGCAAAAGAGAAGAAAACTCCAAAGTGAAGATTCAGCAAAAACTG
AGGAAGTGGATGAAGAGAAGAAAATGGTAGAGGAAGCAAAGGTTGCATCTGCACTGGAGAAATGGAAGACAGCAA
TCCGGGAAGCTCAGACTTTCTCCAGGATGCACGTGCTGCTTGGGATGCTTGATGCCTGTATCAAGTGGGATATGT
CCGCAGAAAATGCTAGGTGCAAAGTTTGTCGAAAGAAAGGTGAGGATGACAAATTGATCTTGTGTGATGAGTGTA
ATAAAGCCTTCCACCTGTTTTGTCTGAGGCCGGCCCTCTATGAAGTACCAGATGGTGAGTGGCAGTGCCCAGCTT
GCCAGCCCGCTACTGCCAGGCGCAACTCCCGTGGCAGGAACTATACTGAAGAGTCTGCTTCTGAGGACAGTGAAG
ATGATGAGAGTGATGAAGAGGAGGAGGAGGAAGAAGAGGAGGAGGAGGAAGAAGATTATGAGGTGGCTGGTTTGC
GATTGAGACCTCGAAAGACCATCCGGGGCAAGCACAGCGTCATCCCCCCTGCAGCAAGGTCAGGCCGGCGCCCGG
GTAAGAAGCCACACTCTACCAGGAGGTCTCAGCCCAAGGCACCACCTGTGGATGATGCTGAGGTGGATGAGCTGG
TGCTTCAGACCAAGCGGAGCTCCCGGAGGCAAAGCCTGGAGCTGCAGAAGTGTGAAGAGATCCTCCACAAGATCG
TGAAGTACCGCTTCAGCTGGCCCTTCAGGGAGCCTGTGACCAGAGATGAGGCCGAGGACTACTATGATGTGATCA
CGCACCCCATGGACTTTCAGACAGTGCAGAACAAATGTTCCTGTGGGAGCTACCGCTCTGTGCAGGAGTTTCTTA
CTGACATGAAGCAAGTGTTTACCAATGCTGAGGTTTACAACTGCCGTGGCAGCCATGTGCTAAGCTGCATGGTGA
AGACAGAACAGTGTCTAGTGGCTCTGTTGCATAAACACCTTCCTGGCCACCCATATGTCCGCAGGAAGCGCAAGA
AGTTTCCTGATAGGCTTGCTGAAGATGAAGGGGACAGTGAGCCAGAGGCCGTTGGACAGTCCAGGGGACGAAGAC
AGAAGAAGTAGAGAGGCAGGGCCGTGGTGACAGTATCAGTGAGTGCCATACAGAATTGTGTATTCACCAGCATCA
TGAAACAGTTGTGGTCTTTTGAGTTGATCTTGGCAGAGTAAAGGGACGTGTCCTGGAGCCATTCCTGAATCTCCC
CTTCTTTGTGACAGCTCCTCCCACCCCCCCAAAAAATAAAAAAACCACAAAAAACAAAAAAACAAAACTAAGGCA
CTTCACTTAGAGACTGGAGTCCTGCTTATAATCATGCATATAACCTTTACTTTGATGGATCTGGCCAGAGGGGTG
TTGGAGCCCAGCCCACCCACATACCAGTCAAGCTCTTAGGGGAGCAGAAGAAAAGCAGGAAGAATTTAAATGTTT
AATTTTTTTTTTAAATTGACTTTTCTAGTTATTAAAAGTTGCTTGTTTCAGCAGTGATATTGTATAAAGAACATC
TTGTAAGATACTCCTGACATCTTGCTTTAGCACATGTACAGTACAGTTTCTATGATAATGTGTTTGCTCTAACTT
CCCTGGCTTCTCCTTCAGCCCATCCACTCTCCTCTAGAGCAGTTGGGTTGGAGGCTCATTGAGGCAAGCAGCAAC
ATTGGAGGGGGAGCAGGGCAGTGCTGTGTCTGCTGCCTCCCATGCCCGTTCTGACCTCAGCCTTGGAACTCCTCA
AGAACCTGAAGATTCCAGTGGTCAGTGTCGGTGGGGGGTGGGAGGAGAGAGCGGCAGAGAAGCTCTGAGAGCCCC
TTCCCCCACAACAAATCTAGCTCTAGTTGTTATATTTAGGCAAAACTTTGTAGTCTTCTTTCCCTTTTATGATGG
ATTTTGATAAAAGTACAAAACAGGGTTTTTCTTTTTTATCACCTTTGAATTTGGAAATTTTGAGCACCCAAGCTC
TTCTGTACCTATTTAAAGTCCACCAAGGGGACTGCAGCTCCTAGAACATGAGAATCAAGCCTCTTAATTTTAAAC
TGCGGAATGTGGCCTCTGCTTCCTCCGTCCTCCTGCCCAAGGACGACGAGGATTGCTCCAGGGCTGCTGGGTAGT
TTACCGTCCCTTCTATAGGCATGGAGTTGGCACTGACATCACAGCTTCATAACCCCACCACCGCCAGCTTCCCCT
GCCTCCTACATCCAGTCTGTTCTTGTTCATAGTGAGAATCCTGTGTTCCCACTTCAGTGACACCTGAATTGTTTG
TTGTTGTTTTTTTTTTTTATTGTCTTCAAAGAGGAAGGGCCCCATTAAAGGGTGAACTTGTAATAAATTGGAATT
TCAAATAAACCTCATGTACTTGTGTTTATAAAGAAGAAACCA

FIGURE 3011

GAGATGGCGCAGGAGTGCGGTTCCACAGGGTCAGGTTCCTAACACGCTGGCCAGAGCAGGGAGCCGACCTCCAAA
CTCTCAGGGAAGAGAACCAGGTTGCCCACCGGCGGCACCTCGCACCTCGCCCTGACCACAAGCACGTGCGCCCAA
CCCGCCTCGCACCCCGGCCCGGGTAGGGGGCTCAGGGGACTCCCGGGGCACTCAGGAGGGACGCCCCGGGCGGGG
CGCGCAGGCGCGCTGAGGCCGTGAGCCCCAAGGGGCGGGCGGGTGCGCGCGCTTTCTCGCGCACGCGCGCACGGA
GGGGGCGACGGCCGCTGTGACGCTGCGGCGGCGGCGGGCGGGCGGCGGCGCGTGAGGCGCGCGATCCCCGGTGTC
TTGGGAGCAGTGCCCCGGCCCCCGCCGCTCCCGCCGCCGCC**ATG**TCGGGCCGGTCGGTCCGGGCGGAGACCCGCA
GCCGGGCCAAGGACGACATCAAGAAGGTGATGGCGGCCATCGAGAAAGTGCGGAAATGGGAGAAGAAGTGGGTGA
CTGTGGGTGACACGTCCCTGAGGATATTTAAGTGGGTTCCTGTGACAGACAGCAAGGAGAAAGAAAAGTCAAAAT
CGAACAGTTCAGCAGCCCGAGAACCTAATGGCTTTCCTTCTGATGCCTCAGCCAATTCCTCTCTCCTTCTTGAAT
TCCAGGACGAAAACAGCAACCAGAGTTCCGTGTCTGACGTCTATCAGCTTAAGGTGGACAGCAGCACCAACTCAA
GCCCCAGCCCCCAGCAGAGTGAGTCCCTGAGCCCAGCACACACCTCCGACTTCCGCACGGATGACTCCCAGCCCC
CAACGCTGGGCCAGGAGATCCTGGAGGAGCCCTCCCTGCCCTCCTCGGAAGTTGCTGATGAACCTCCTACCCTCA
CCAAGGAAGAACCAGTTCCACTAGAGACACAGGTCGTTGAGGAAGAGGAAGACTCAGGTGCCCCGCCCCTGAAGC
GCTTCTGTGTGGACCAACCCACAGTGCCGCAGACGGCGTCAGAAAGC**TAG**CACCATCCCGGCCCTCCGCCTCCTG
GCCCTGCCTCTATTTATTGCATTCTGGTTCTGGCCGCGCCGCGTTGCTGGGGTAAGGGCAAGCACTGGGGTCAAG
AGCCTGCACACATGAGCCTTCCGGGCTGGAAGGCTGGCGTAGGACTTGGGGCTGTAGCATCATCTTCCTGACCCT
GGCACCTGTGTCTACTTGCTCCCGAGAAGAGGAGCGCTCATGTCTTTTTTGCACCCCAAGTTGGCTGGAGCATCG
GCCACCCCAAGATTCATCTGTGACCTCCAGGCAGCAGTCTCTGCTCCAGAATCTCTGGACGGAGCTGCTGGCAGC
TTCTGCGAGAAGAGAGAGATGTGGAAGGCACCTTCTAGAAGAGAGCGTGCCTCAGGTTACTTGAACTTGAACGGA
GACTGTAGACTCCCGGACTTTCCCCTAGGACTGGGGGCCCTGTAGGCTGCTGTTGGAGGACTGGGTAGAGACATT
GGAGGGAAGGGAAGGGCTTTTCTCCACACAAGGGCAGAGAGTCCGTCTAGATTTCTTGCTGTCCTGCCAGCTCTG
CCCATGCCTGAGGTGGTCCTACCTCTCACGGGCACCCTAGCTGCTGACAGCCCTTTGTGGCCGCCGTCCCCATCC
CCTGCCCTCAGCACACACATCTGCACACACGCAGCTTTGTTCTCACCTCTACCTGTCATTCCAGCATCCCTGCCT
CTTGTCACAAACTGCCCCAGCAAGAATTTGAGGTTCTGACAACAGTACCCATCCCCCACAGTACCCCTTCAGCTC
AGTTTCTAGAAAGCTCCCTTTTCTTTGAAATCTGCATGTTGAATTGAACTTTGTGATTTTATTTTTTGTTTCAAA
AAAGTTTAAGAAAATGGAAATGGGCAACAGTGAGTGAAGACATATTTTAGCACTGAATAGAATATTTTTAAAATT
AAACTATTTGAAATATG

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FIGURE 3012

GGCCAGGCCGCGCCCCCGCGTGCGTGCGCGGCCCGGCAGAGCCGTGCGGGCGCCCGCGTACTCACTAGCTGAGGT
GGCAGTGGTTCCACCAACATGGAGCTCTCGCAGATGTCGGAGCTCATGGGGCTGTCGGTGTTGCTTGGGCTGCTG
GCCCTGATGGCGACGGCGGCGGTAGCGCGGGGGTGGCTGCGCGCGGGGGAGGAGAGGAGCGGCCGGCCCGCCTGG
CCCAGGAGCTTTTTTCCTGTTGGAATTGGGGAGCATCTGCAGTCATTTACCACATGCCAGCTTTGTGACTCAATT
AAGTATCTTTTACAAAAGTGACTGGCTCCACTCCCCCGCACAGGACTCAACAGATGTTGACTTCTCATCCCCGAG
TTCTTTCAGGCCAAAAAGCAAATGGATTTCCACCTGACAAATCTTCGGGATCCAAGAAGCAGAAACAATATCAGC
GGATTCGGAAGGAGAAGCCTCAACAACACAACTTCACCCACCGCCTCCTGGCTGCAGCTCTGAAGAGCCACAGCG
GGAACATATCTTGCATGGACTTTAGCAGCAATGGCAAATACCTGGCTACCTGTGCAGATGATCGCACCATCCGCA
TCTGGAGCACCAAGGACTTCCTGCAGCGAGAGCACCGCAGCATGAGAGCCAACGTGGAGCTGGACCACGCCACCC
TGGTGCGCTTCAGCCCTGACTGCAGAGCCTTCATCGTCTGGCTGGCCAACGGGGACACCCTCCGTGTCTTCAAGA
TGACCAAGCGGGAGGATGGGGGCTACACCTTCACAGCCACCCCAGAGGACTTCCCTAAAAAGCACAAGGCGCCTG
TCATCGACATTGGCATTGCTAACACAGGGAAGTTTATCATGACTGCCTCCAGTGACACCACTGTCCTCATCTGGA
GCCTGAAGGGTCAAGTGCTGTCTACCATCAACACCAACCAGATGAACAACACACACGCTGCTGTATCTCCCTGTG
GCAGATTTGTAGCCTCGTGTGGCTTCACCCCAGATGTGAAGGTTTGGGAAGTCTGCTTTGGAAAGAAGGGGGAGT
TCCAGGAGGTGGTGCGAGCCTTCGAACTAAAGGGCCACTCCGCGGCTGTGCACTCGTTTGCTTTCTCCAACGACT
CACGGAGGATGGCTTCTGTCTCCAAGGATGGTACATGGAAACTGTGGGACACAGATGTGGAATACAAGAAGAAGC
AGGACCCCTACTTGCTGAAGACAGGCCGCTTTGAAGAGGCGGCGGGTGCCGCGCCGTGCCGCCTGGCCCTCTCCC
CCAACGCCCAGGTCTTGGCCTTGGCCAGTGGCAGTAGTATTCATCTCTACAATACCCGGCGGGGCGAGAAGGAGG
AGTGCTTTGAGCGGGTCCATGGCGAGTGTATCGCCAACTTGTCCTTTGACATCACTGGCCGCTTTCTGGCCTCCT
GTGGGGACCGGGCGGTGCGGCTGTTTCACAACACTCCTGGCCACCGAGCCATGGTGGAGGAGATGCAGGGCCACC
TGAAGCGGGCCTCCAACGAGAGCACCCGCCAGAGGCTGCAGCAGCAGCTGACCCAGGCCCAAGAGACCCTGAAGA
GCCTGGGTGCCCTGAAGAAGTGACTCTGGGAGGGCCCGGCGCAGAGGATTGAGGAGGAGGGATCTGGCCTCCTCA
TGGCACTGCTGCCATCTTTCCTCCCAGGTGGAAGCCTTTCAGAAGGAGTCTCCTGGTTTTCTTACTGGTGGCCCT
GCTTCTTCCCATTGAAACTACTCTTGTCTACTTAGGTCTCTCTCTTCTTGCTGGCTGTGACTCCTCCCTGACTAG
TGGCCAAGGTGCTTTTCTTCCTCCCAGGCCCAGTGGGTGGAATCTGTCCCCACCTGGCACTGAGGAGAATGGTAG
AGAGGAGAGGAGAGAGAGAGAGAATGTGATTTTTGGCCTTGTGGCAGCACATCCTCACACCCAAAGAAGTTTGTA
AATGTTCCAGAACAACCTAGAGAACACCTGAGTACTAAGCAGCAGTTTTGCAAGGATGGGAGACTGGGATAGCTT
CCCATCACAGAACTGTGTTCCATCAAAAAGACACTAAGGGATTTCCTTCTGGGCCTCAGTTCTATTTGTAAGATG
GAGAATAATCCTCTCTGTGAACTCCTTGCAAAGATGATATGAGGCTAAGAGAATATCAAGTCCCCAGGTCTGGAA
GAAAAGTAGAAAAGAGTAGTACTATTGTCCAATGTCATGAAAGTGGTAAAAGTGGGAACCAGTGTGCTTTGAAAC
CAAATTAGAAACACATTCCTTGGGAAGGCAAAGTTTTCTGGGACTTGATCATACATTTTATATGGTTGGGACTTC
TCTCTTCGGGAGATGATATCTTGTTTAAGGAGACCTCTTTTCAGTTCATCAAGTTCATCAGATATTTGAGTGCCC
ACTCTGTGCCCAAATAAATATGAGCTGGGGATT

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FIGURE 3013

CCCCGCGCTGCGCGGAGCAGGGACCAGGCGGTTGCGGCGGCGACAGCC**ATG**GCCGGCGCGCTGGCAGGTCTGGCC
GCGGGCTTGCAGGTCCCGCGGGTCGCGCCCAGCCCAGACTCGGACTCGGACACAGACTCGGAGGACCCGAGTCTC
CGGCGCAGCGCGGGCGGCTTGCTCCGCTCGCAGGTCATCCACAGCGGTCACTTCATGGTGTCGTCGCCGCACAGC
GACTCGCTGCCCCGGCGGCGCGACCAGGAGGGGTCCGTGGGGCCCTCCGACTTCGGGCCGCGCAGTATCGACCCC
ACACTCACACGCCTCTTCGAGTGCTTGAGCCTGGCCTACAGTGGCAAGCTGGTGTCTCCCAAGTGGAAGAATTTC
AAAGGCCTCAAGCTGCTCTGCAGAGACAAGATCCGCCTGAACAACGCCATCTGGAGGGCCTGGTATATCCAGTAT
GTGAAGCGGAGGAAGAGCCCCGTGTGTGGCTTCGTGACCCCCCTGCAGGGGCCTGAGGCTGATGCGCACCGGAAG
CCGGAGGCCGTGGTCCTGGAGGGGAACTACTGGAAGCGGCGCATCGAGGTGGTGATGCGGGAATACCACAAGTGG
CGCATCTACTACAAGAAGCGGCTCCGTAAGCCCAGCAGGGAAGATGACCTCCTGGCCCCTAAGCAGGCGGAAGGC
AGGTGGCCGCCGCCGGAGCAATGGTGCAAACAGCTCTTCTCCAGTGTGGTCCCCGTGCTGCTGGGGGACCCAGAG
GAGGAGCCGGGTGGGCGGCAGCTCCTGGACCTCAATTGCTTTTTGTCCGACATCTCAGACACTCTCTTCACCATG
ACTCAGTCCGGCCCTTCGCCCCTGCAGCTGCCGCCTGAGGATGCCTACGTCGGCAATGCTGACATGATCCAGCCG
GACCTGACGCCACTGCAGCCAAGCCTGGATGACTTCATGGACATCTCAGATTTCTTTACCAACTCCCGCCTCCCA
CAGCCGCCCATGCCTTCAAACTTCCCAGAGCCCCCCAGCTTCAGCCCCGTGGTTGACTCCCTCTTCAGCAGTGGG
ACCCTGGGCCCAGAGGTGCCCCCGGCTTCCTCGGCCATGACCCACCTCTCTGGACACAGCCGTCTGCAGGCTCGG
AACAGCTGCCCTGGCCCCTTGGACTCCAGCGCCTTCCTGAGTTCTGATTTCCTCCTTCCTGAAGACCCCAAGCCC
CGGCTCCCACCCCCTCCTGTACCCCCACCTCTGCTGCATTACCCTCCCCCTGCCAAGGTGCCAGGCCTGGAGCCC
TGCCCCCCACCTCCCTTCCCTCCCATGGCACCACCCACTGCTTTGCTGCAGGAAGAGCCTCTCTTCTCTCCCAGG
TTTCCCTTCCCCACCGTCCCTCCTGCCCCAGGAGTGTCTCCGCTGCCTGCTCCTGCAGCCTTCCCACCCACCCCA
CAGTCTGTCCCCAGCCCAGCCCCCACCCCCTTCCCCATAGAGCTTCTACCCTTGGGGTATTCGGAGCCTGCCTTT
GGGCCTTGCTTCTCCATGCCCAGAGGCAAGCCCCCCGCCCCATCCCCTAGGGGACAGAAAGCCAGCCCCCCTACC
TTAGCCCCTGCCACTGCCAGTCCCCCCACCACTGCGGGGAGCAACAACCCCTGCCTCACACAGCTGCTCACAGCA
GCTAAGCCGGAGCAAGCCCTGGAGCCACCACTTGTATCCAGCACCCTCCTCCGGTCCCCAGGGTCCCCGCAGGAG
ACAGTCCCTGAATTCCCCTGCACATTCCTTCCCCCGACCCCGGCCCCTACACCGCCCCGGCCACCTCCAGGCCCG
GCCACATTGGCCCCTTCCAGGCCCCTGCTTGTCCCCAAAGCGGAGCGGCTCTCACCCCCAGCGCCCAGCGGCAGT
GAACGGCGGCTGTCAGGGGACCTCAGCTCCATGCCAGGCCCTGGGACTCTGAGCGTCCGTGTCTCTCCCCCGCAA
CCCATCCTCAGCCGGGGCCGTCCAGACAGCAACAAGACCGAGAACCGGCGTATCACACACATCTCCGCGGAGCAG
AAGCGGCGCTTCAACATCAAGCTGGGGTTTGACACCCTTCATGGGCTCGTGAGCACACTCAGTGCCCAGCCCAGC
CTCAAGGTGAGCAAAGCTACCACGCTGCAGAAGACAGCTGAGTACATCCTTATGCTACAGCAGGAGCGTGCGGGC
TTGCAGGAGGAGGCCCAGCAGCTGCGGGATGAGATTGAGGAGCTCAATGCCGCCATTAACCTGTGCCAGCAGCAG
CTGCCCGCCACAGGGGTACCCATCACACACCAGCGTTTTGACCAGATGCGAGACATGTTTGATGACTACGTCCGA
ACCCGTACGCTGCACAACTGGAAGTTCTGGGTGTTCAGCATCCTCATCCGGCCTCTGTTTGAGTCCTTCAACGGG
ATGGTGTCCACGGCAAGTGTGCACACCCTCCGCCAGACCTCACTGGCCTGGCTGGACCAGTACTGCTCTCTGCCC
GCTCTCCGGCCAACTGTCCTGAACTCCCTACGCCAGCTGGGCACATCTACCAGTATCCTGACCGACCCGGGCCGC
ATCCCTGAGCAAGCCACACGGGCAGTCACAGAGGGCACCCTTGGCAAACCTTTA**TAG**TCCTGGCCAGACCCTGCT
GCTCACTCAGCTGCCCTGGGGGCTGCTTTCCCTGGGCACGGGCTCCAGGGATCATCTCTGGGCACTCCCTTCCTG
CCCCAGGCCCTGGCTCTGCCCTTCCCTGGGGGGTGGAGCAGGGTCCAGGTTTCACACTTGCCACCTCCTGGAGGT
CAAGAAGAGCAGAGTCCCCGTCCCTGCTCTGCCACTGTGCTCCAGCACCGTGACCTTGGGTGACTCGTCCGCTGT
CTTTGGACCGCTGTGTTTCAATCTGCAAAATGGGGATGGGGAAGGTTCAATCAGCAGATGACCCCCAGGCCTTGG
CAGCTGTGACATTGGGGGCCTAGGCTGGCAACTCCGGGGGCTCAACGGTGGAAAGAGGAGGATGCTGTTTCTCTG
TCACCTCCACTTGCTCCCCGACAGGTGGGGCACAGACCTCTGTTCCTGAGCAGAGAAGCAGAAAAGGAGGTTCCC
TCTCTCTGCTCCTTCACTGCTGACCCAGAGGGGCTGCAGGATGGTTTCCCCTGGGAGAGGCCAGGAGGGCCTGAT
CCCAGGAGACACCAGGGCCAGAGTGACCACAGCAGGGCAGGCATCATGTGTGTGTGTGTGTGTGGATGTGTGTGT
GTGGGTTTTGTAAAGAATTCTTGACCAATAAAAGCAAAAACTGTCTGCTGGTT

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FIGURE 3014

CCTGCCGAATCAATTCAAC**ATG**GCAGCCATGCGCTGGCGATGGTGGCAGCGGCTGTTACCTTGGAGGTTGCTGCA
GGCCCGTGGCTTTCCACAAAATTCTGCACCCAGCCTGGGCCTAGGAGCGAGGACTTATTCCCAGGGCGACTGCTC
GTATTCGCGCACGGCGCTGTATGATCTGCTCGGCGTCCCCTCCACAGCCACGCAGGCCCAAATCAAGGCGGCTTA
CTACCGTCAGTGCTTTCTCTACCACCCGGACCGCAACTCCGGGAGCGCGGAGGCCGCCGAGCGCTTCACGCGCAT
CTCCCAGGCCTACGTGGTGCTGGGCAGTGCCACCCTCCGTCGCAAGTATGATCGCGGCCTACTCAGCGACGAGGA
CCTGCGCGGACCTGGCGTCCGGCCCTCCAGGACGCCCGCACCCGACCCCGGCTCGCCGCGTACCCCGCCGCCCAC
CTCTCGGACCCACGACGGTTCTCGGGCCTCCCCCGGCGCCAACCGCACGATGTTCAACTTTGACGCCTTCTACCA
GGCCCACTACGGGGAACAACTGGAGCGGGAACGGCGCCTGAGGGCCCGGCGGGAGGCCCTTCGCAAACGGCAGGA
GTATCGGTCCATGAAAGGCCTCCGCTGGGAGGATACCCGAGACACGGCTGCCATTTTCCTCATCTTTTCAATCTT
CATCATCATCGGCTTTTATATT**TAA**TCGGAGAGAGAAGGGAAGGGGAGTGTCCCCAGCCAACCCCCCAGAAACGG
CCTTTTTTCCTGCCTCTGAACCCTTGGCCATTGATAGTCTACCTTTGCTGGGATCCGAAGGAACTGTACTCCCCC
TGCCCTCCCCGACCCGCCCAGCTTAGCCGATGACCTGCACATCGCTCCACTGTGGTCCAGAAAAGGAGGCCTTTC
GATGTCTGAGAAAGAGGCCCCACGCTGTAGAGTCCCGAAAGCCCAGGAGTGAAGGGGGTTCCTGGAGTCTCTAGG
GTGCTTCTTCCAGAGTCTGTCTTCTTGCTTCCAGATGTGGTCAACTTCTGGAACACTCGCTGTAGCTTTATTGTT
TAGCCCCAAGCAAGATTTATCTCCTCCTGCCCCGCATGTGTATGGTGGGCCTCTGTAACCTTGAAATGTGCAATG
TGACCAATTGTTGACTACCAAAAGAAAAGGTCTGGGGTTGTACG

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FIGURE 3015

GCTGCTGAGGCGTGAGA**ATG**GCGTCCCGCGGCCGGCGTCCGGAGCATGGCGGACCCCCAGAGCTGTTTTATGACG
AGACAGAAGCCCGGAAATACGTTCGCAACTCACGGATGATTGATATCCAGACCAGGATGGCTGGGCGAGCATTGG
AGCTTCTTTATCTGCCAGAGAATAAGCCCTGTTACCTGCTGGATATTGGCTGTGGCACTGGGCTGAGTGGAAGTT
ATCTGTCAGATGAAGGGCACTATTGGGTGGGCCTGGATATCAGCCCTGCCATGCTGGATGAGGCTGTGGACCGAG
AGATAGAGGGAGACCTGCTGCTGGGGGATATGGGCCAGGGCATCCCATTCAAGCCAGGCACATTTGATGGTTGCA
TCAGCATTTCTGCTGTGCAGTGGCTCTGTAATGCTAACAAGAAGTCTGAAAACCCTGCCAAGCGCCTGTACTGCT
TTTTTGCTTCTCTTTTTTCTGTTCTCGTCCGGGGATCCCGAGCTGTCCTGCAGCTGTACCCTGAGAACTCAGAGC
AGGTGAGTCCCTCGGCTACTGGGTGTGCCGGGGAGTTGGGGGACTCAACAGGTAAGCTGTCCTGGGGAAGCGACA
AAGAATCTTATGCAGATTGGCGGGAAAAGGAGGAAACATGCACCCTAGTGTGGCCCCTGATGGCACATTTGATGA
CC**TGA**TATCCTAAGGGGGTGGCATCTGCGGAGGTGGGGTGGGATGCCTTCTCTTGGCAGATGACATGGTATTACA
GATAAGGTGATGCGACTGATTTCCATAACCAAATAAGTAAATGCCATTTAGGAAGGGTGAGAGGGCACCGACAGT
TCTCCGTTGTGTGATGTATAAATTAAGGAATGGCGGAGTAGGATGTAGATGTTGAAAGATAAGTGAAGAGCTGTT
CCTGACTAATAACATGAATGACTCTGGATTCCAATTGGTGGCCATCTCCCTAAACTTGAGTGGGGAGCTGGGTCC
CTGCACTGGAAAGTGAGAATGAGGGGAGTTGCTTTGTTCTGTAATTCTCCTGAGGGAGGTGTGGGCCATGCCAGA
TTCTAGCCTGTACTTTTCTCTACGTGGCTTACAGCGACCTTAAGTTCTCCCAGGCAGGATTTGTCCTGGAGCAGA
CTGGCTTCTGAAGGAGGGGAGGGAGGTGAAGCTGTCTGCTCCTCTCAACCTCCGCTGCCTGACCCGCTGCCTTTC
TTTCCTCAGTTGGAGCTGATCACAACCCAGGCCACAAAGGCAGGCTTCTCCGGTGGCATGGTGGTAGACTACCCT
AACAGTGCCAAAGCAAAGAAATTCTACCTCTGCTTGTTTTCTGGGCCTTCGACCTTTATACCAGAGGGGCTGAGT
GAAAATCAGGATGAAGTTGAACCCAGGGAGTCTGTGTTCACCAATGAGAGGTTCCCATTAAGGATGTCGAGGCGG
GGAATGGTGAGGAAGAGTCGGGCATGGGTGCTGGAGAAGAAGGAGCGGCACAGGCGCCAGGGCAGGGAAGTCAGA
CCTGACACCCAGTACACCGGCCGCAAGCGCAAGCCCCGCTTCTAAGTCACCACGCGGTTCTGGAAAGGCACTTGC
CTCTGCACTTTTCTATATTGTTCAGCTGACAAAGTAGTATTTTAGAAAAGTTCTAAAGTTATAAAAATGTTTTCT
GCAGTAAAAAAAAAGTTCTCTGGGCCGGGCGTGGTGGCTCACACCTGTAATCCCAGCACCTTGGGAGGCTGAGGT
GGGAGGATCATTTGAGGCCAGGAGTTTGAGACCTGCCTGGGCAACATAATGAAACTTCCTTTCCAGGGAGGAAAA
AAAAAAAAAAAAAAAGCTCTGAGAGCATCTTATTTTGTTTAAAGGCAAGAAATAAAATTTCCTTTTGTGG

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FIGURE 3016

GTCGCGCATGCGGGGCTCACACGGCTGCAGCCGGCGCCGCTGCCACTCCCGGGAGC**ATG**AAGGACCGAACCCAGG
AGCTCCGCACGGCCAAGGACAGCGATGATGATGATGATGTCGCTGTCACCGTGGACCGAGACCGCTTCATGGATG
AGTTCTTTGAGCAGGTGGAGGAGATTCGAGGCTTCATTGACAAGATCGCAGAGAACGTGGAGGAGGTGAAGCGGA
AGCACAGTGCCATCCTGGCATCCCCCAACCCCGATGAGAAGACGAAGGAGGAGCTGGAAGAACTCATGTCCGACA
TAAAGAAGACAGCAAACAAAGTTCGTTCCAAGTTAAAGAGCATCGAGCAGTCCATCGAGCAAGAGGAAGGCCTGA
ACCGCTCCTCCGCTGACCTGAGGATCCGGAAGACACAGCACTCCACGCTGTCCAGAAAGTTTGTGGAGGTCATGT
CGGAGTACAACGCCACGCAGTCCGACTACCGCGAGCGCTGCAAAGGCCGCATCCAGAGGCAGCTGGAGATCACCG
GCAGGACCACGACCAGTGAGGAGCTGGAGGACATGCTGGAGAGTGGGAACCCCGCCATCTTTGCCTCTGGGATCA
TCATGGACTCCAGCATCTCGAAGCAGGCTCTGAGCGAGATTGAGACGCGGCACAGTGAGATCATCAAGCTGGAGA
ACAGCATCCGTGAGCTACACGACATGTTCATGGACATGGCCATGCTCGTGGAGAGCCAGCCTCAGGGTGCTTTCC
TGAAGTCCTGCCCCGAGCCCCAACCCAACCCTGAGGAGGGGGCCCTCTGGAGCTCGGGTGCCCCCGGCCCCGCAG
GGAGAGATGAT**TGA**CAGGATCGAGTACAATGTGGAACACGCGGTAGACTATGTGGAGAGGGCCGTGTCTGACACC
AAGAAGGCCGTCAAGTACCAGAGCAAGGCGCGCCGGAAGAAAATCATGATCATCATCTGCTGTGTGATCCTGGGC
ATCGTCATCGCCTCCACTGTTGGGGGCATCTTCGCCTAGAAGCCACCCAAACTGCCACTCCACTCCAGGTGGGCC
ACTCCAAGGAGGCCCTGGCTGCTGCCACCTGGCTGGGCTGCCCTCCCAACCCCCGCCTCTGGCTCAGAGCACCCT
CCCTCCCGGCCCCCATGCTCCCTTCTCTGCCATGGGCCCTCCGTCCCCGCCCCGTGTCGTGTGCATGATCTCTGT
GAGTGTGCGTCTGTACGGGAAGAGGCAGAGGGAGGCAGCCAGCGGGGCGTGATGCAGTGTGCACAGCGAGGAGCA
GACCCAGGCAGGGCCGCCAGGGTGACACAGGCCACCCTTCCTTGCCTTCAGTAACTCGGTGGGCCCAGGTTCTGC
TCTTCCCTGGGGACCCTAACCTCGCCTCCAGCTGACCTGCCCTGTCCTCTCCAGCTGTCCCCACAAGCAGAGCCC
TGAGGGGTGGGGACCAGCTGGCCACATGGTGCTGCTTTTCAGGTTAGGGGAGAGGTGGCCCTGAGGGACAGCCCA
GCTCTGAGTCTCAGTCGCTGATCACTGCCAGGGAGGCTCAGGCTGCCATGGCTCCAGGCTCCCTCCCCTGCCTAG
GGGCAAAGTCCATCGGGTCCTGGGCCTCAGCTTCCCTTCCCACATTCCTCCGGCCCCAGGAGCAACCCCTTGGGC
TAGGTCTGACCCCAGGTGTCCCTCTGGAAGGGGCTGGCTGGTGCCCTATTTCCAGCCACCCCAGCAGCTAGGGAG
GCAAAGCAGGCTGCAGTCAGTCCCTCAAGCCAGCGTTGCATGTTTGGGATGGTGGCTCCTGTTGTCTTGCGCTCT
GGGAAGTCAGATGTCATTTCAGGCCTGCAGTCTCATCCTGCCCTTGCCATCCTCCCATCGATGTGCCACGTGGGT
GTCACGTGTCCCAGATGCAGTATTCGGCAGCCAGCCGGGGAGGGCTACCTCCTCCTCCTCACCACCTTGGGGCTT
CTCATGGGAAATGTGCCCCCGCCCCAGGACCCTCTCCCTTGTGGACAGGCAGGGAGATGCATGCGAGTGCATGCA
GCAGGGGATGGGGCCGTGTCCGTGTGCCCCACCCTCCCTCGGCTTTACTCCTGCCCAGTGACTGTGACCACTGTC
CGTGTTGCCTTCTTGAACAGCGATTCCCCCCAACCCCTTCACCAAAGGTCTTGGTACAACCAGCTGCCCATTTTG
TGAAATTTTTATGTAGAATAAACATTTGTATCTGT

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FIGURE 3017

AGCTTGCAAGCATGCTCCGCTGGACCCGAGCCTGGAGGCTCCCGCGTGAGGGACTCGGCCCCCACGGCCCTAGCT
TCGCGAGGGTGCCTGTCGCACCCAGCAGCAGCAGCGGCGGCCGAGGGGGCGCCGAGCCGAGGCCGCTTCCGCTTT
CCTACAGGCTTCTGGACGGGGAGGCAGCCCTCCCGGCCGTCGTCTTTTTGCACGGGCTCTTCGGCAGCAAAACTA
ACTTCAACTCCATCGCCAAGATCTTGGCCCAGCAGACAGGCCGTGCTGACGGTGGATGCTCGTAACCACGGTGAC
AGCCCCCACAGCCCAGACATGAGCTACGAGATCATGAGCCAGGACCTGCAGGACCTTCTGCCCCAGCTGGGCCTG
GTGCCCTGCGTCGTCGTTGGCCACAGCATGGGAGGAAAGACAGCCATGCTGCTGGCACTACAGAGGGTGAGCCGC
CCATGTCTGGGGCCTCCTCCCATTCAGTATATACCCTGAGGGCCCTGCAGGCAACCTGGGACTCACATGATCGTT
GGATGACCAAGTTCAGGCTCCAGGAGCCATGCCTGAGACTCCCTATGTCTGCCTAAGACTGGTCCCAGTTCGGTT
CTCTCCCACAGCCAGAGCTGGTGGAACGTCTCATTGCTGTAGATATCAGCCCAGTGGAAAGCACAGGTGTCTCCC
ACTTTGCAACCTATGTGGCAGCC**ATG**AGGGCCATCAACATCGCAGATGAGCTGCCCCGCTCCCGTGCCCGAAAAC
TGGCGGATGAACAGCTCAGTTCTGTCATCCAGGACATGGCCGTGCGGCAGCACCTGCTCACTAACCTGGTAGAGG
TAGACGGGCGCTTCGTGTGGAGGGTGAACTTGGATGCCCTGACCCAGCACCTAGACAAGATCTTGGCTTTCCCAC
AGAGGCAGGAGTCCTACCTCGGGCCAACACTCTTTCTCCTTGGTGGAAACTCCCAGTTCGTGCATCCCAGCCACC
ACCCTGAGATTATGCGGCTCTTCCCTCGGGCCCAGATGCAGACGGTGCCGAACGCTGGCCACTGGATCCACGCTG
ACCGCCCACAGGACTTCATAGCTGCCATCCGAGGCTTCCTGGTC**TAA**GAGTTGCTGGCAAGAAGATGGCCGGGCG
TGGTGGCTCATGCCTGTAATTCCAGCACTTTGGGAGGCTAAGGCGGGAGGATGACTTGAGGCCAGGAGTTGGAGA
CCAGCCTGGCCAACATGGTGAAACCCTGTCTCTACTAAAAATACAAAAATTAGCCTGGCGTGGTGGTGCACACCT
GTAATCCCAGCTACTCTGGAGGCTGAGGCAGGAGAATCACTTGAACCCTGGAGGCAGAGGTTGCAATGAGCCGAG
ATCACACCACTACACTCCAGCCTAGGCAACAGAGCAAGACTCTGTCTCAAAAAAAACAAAACAAAAAGGAGGCAC
AAAACCCCAGGCTTCAAGTCTCTGCAGCCTGCTCCACATTTGGGCACAGAAGGACTCAGACAGGCACTGTGTGGG
CACGAGGTTTTACAGGGGTGGTCAGACCTCAGGCTTTAATGAATAAAGACACTACTCCC

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FIGURE 3018

GGCAGGTGCAGGCGCAGCCGCGGCGAGAGCGTATGGAGCCGAGCCGTTAGCGCGCGCCGTCGGTGAGTCAGTCCG
TCCGTCCGTCCGTCCGTCGGGGCGCCGCAGCTCCCGCCAGGCCCAGCGGCCCCGGCCCCTCGTCTCCCCGCACCC
GGAGCCACCCGGTGGAGCGGGCCTTGCCGCGGCAGCC**ATG**TCCATGGGCCTGGAGATCACGGGCACCGCGCTGGC
CGTGCTGGGCTGGCTGGGCACCATCGTGTGCTGCGCGTTGCCCATGTGGCGCGTGTCGGCCTTCATCGGCAGCAA
CATCATCACGTCGCAGAACATCTGGGAGGGCCTGTGGATGAACTGCGTGGTGCAGAGCACCGGCCAGATGCAGTG
CAAGGTGTACGACTCGCTGCTGGCACTGCCACAGGACCTTCAGGCGGCCCGCGCCCTCATCGTGGTGGCCATCCT
GCTGGCCGCCTTCGGGCTGCTAGTGGCGCTGGTGGGCGCCCAGTGCACCAACTGCGTGCAGGACGACACGGCCAA
GGCCAAGATCACCATCGTGGCAGGCGTGCTGTTCCTTCTCGCCGCCCTGCTCACCCTCGTGCCGGTGTCCTGGTC
GGCCAACACCATTATCCGGGACTTCTACAACCCCGTGGTGCCCGAGGCGCAGAAGCGCGAGATGGGCGCGGGCCT
GTACGTGGGCTGGGCGGCCGCGGCGCTGCAGCTGCTGGGGGGCGCGCTGCTCTGCTGCTCGTGTCCCCCACGCGA
GAAGAAGTACACGGCCACCAAGGTCGTCTACTCCGCGCCGCGCTCCACCGGCCCGGGAGCCAGCCTGGGCACAGG
CTACGACCGCAAGGACTACGTC**TAA**GGGACAGACGCAGGGAGACCCCACCACCACCACCACCACCAACACCACCA
CCACCACCGCGAGCTGGAGCGCGCACCAGGCCATCCAGCGTGCAGCCTTGCCTCGGAGGCCAGCCCACCCCCAGA
AGCCAGGAAGCCCCCGCGCTGGACTGGGGCAGCTTCCCCAGCAGCCACGGCTTTGCGGGCCGGGCAGTCGACTTC
GGGGCCCAGGGACCAACCTGCATGGACTGTGAAACCTCACCCTTCTGGAGCACGGGGCCTGGGTGACCGCCAATA
CTTGACCACCCCGTCGAGCCCCATCGGGCCGCTGCCCCCATGCTCGCGCTGGGCAGGGACCGGCAGCCCTGGAAG
GGGCACTTGATATTTTTCAATAAAAGCCTTTCGTTTTGC

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FIGURE 3019

GGCAGCTGTCGGCTGGAAGGAACTGGTCTGCTCACACTTGCTGGCTTGCGCATCAGGACTGGCTTTATCTCCTGA
CTCACGGTGCAAAGGTGCACTCTGCGAACGTTAAGTCCGTCCCCAGCGCTTGGAATCCTACGGCCCCCACAGCCG
GATCCCCTCAGCCTTCCAGGTCCTCAACTCCCGTGGACGCTGAACA**ATG**GCCTCCATGGGGCTACAGGTAATGGG
CATCGCGCTGGCCGTCCTGGGCTGGCTGGCCGTCATGCTGTGCTGCGCGCTGCCCATGTGGCGCGTGACGGCCTT
CATCGGCAGCAACATTGTCACCTCGCAGACCATCTGGGAGGGCCTATGGATGAACTGCGTGGTGCAGAGCACCGG
CCAGATGCAGTGCAAGGTGTACGACTCGCTGCTGGCACTGCCGCAGGACCTGCAGGCGGCCCGCGCCCTCGTCAT
CATCAGCATCATCGTGGCTGCTCTGGGCGTGCTGCTGTCCGTGGTGGGGGGCAAGTGTACCAACTGCCTGGAGGA
TGAAAGCGCCAAGGCCAAGACCATGATCGTGGCGGGCGTGGTGTTCCTGTTGGCCGGCCTTATGGTGATAGTGCC
GGTGTCCTGGACGGCCCACAACATCATCCAAGACTTCTACAATCCGCTGGTGGCCTCCGGGCAGAAGCGGGAGAT
GGGTGCCTCGCTCTACGTCGGCTGGGCCGCCTCCGGCCTGCTGCTCCTTGGCGGGGGGCTGCTTTGCTGCAACTG
TCCACCCCGCACAGACAAGCCTTACTCCGCCAAGTATTCTGCTGCCCGCTCTGCTGCTGCCAGCAACTACGTG**TA**
AGGTGCCACGGCTCCACTCTGTTCCTCTCTGCTTTGTTCTTCCCTGGACTGAGCTCAGCGCAGGCTGTGACCCCA
GGAGGGCCCTGCCACGGGCCACTGGCTGCTGGGGACTGGGGACTGGGCAGAGACTGAGCCAGGCAGGAAGGCAGC
AGCCTTCAGCCTCTCTGGCCCACTCGGACAACTTCCCAAGGCCGCCTCCTGCTAGCAAGAACAGAGTCCACCCTC
CTCTGGATATTGGGGAGGGACGGAAGTGACAGGGTGTGGTGGTGGAGTGGGGAGCTGGCTTCTGCTGGCCAGGAT
AGCTTAACCCTGACTTTGGGATCTGCCTGCATCGGCGTTGGCCACTGTCCCCATTTACATTTTCCCCACTCTGTC
TGCCTGCATCTCCTCTGTTCCGGGTAGGCCTTGATATCACCTCTGGGACTGTGCCTTGCTCACCGAAACCCGCGC
CCAGGAGTATGGCTGAGGCCTTGCCCACCCACCTGCCTGGGAAGTGCAGAGTGGATGGACGGGTTTAGAGGGGAG
GGGCGAAGGTGCTGTAAACAGGTTTGGGCAGTGGTGGGGGAGGGGGCCAGAGAGGCGGCTCAGGTTGCCCAGCTC
TGTGGCCTCAGGACTCTCTGCCTCACCCGCTTCAGCCCAGGGCCCCTGGAGACTGATCCCCTCTGAGTCCTCTGC
CCCTTCCAAGGACACTAATGAGCCTGGGAGGGTGGCAGGGAGGAGGGGACAGCTTCACCCTTGGAAGTCCTGGGG
TTTTTCCTCTTCCTTCTTTGTGGTTTCTGTTTTGTAATTTAAGAAGAGCTATTCATCACTGTAATTATTATTATT
TTCTACAATAAATGGGACCTGTGCACAGG

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FIGURE 3020

ATGGCGGGTCTGACGGCGGCGGCCCCGCGGCCCGGAGTCCTCCTGCTCCTGCTGTCCATCCTCCACCCCTCTCGG
CCTGGAGGGGTCCCTGGGGCCATTCCTGGTGGAGTTCCTGGAGGAGTCTTTTATCCAGGGGCTGGTCTCGGAGCC
CTTGGAGGAGGAGCGCTGGGGCCTGGAGGCAAACCTCTTAAGCCAGTTCCCGGAGGGCTTGCGGGTGCTGGCCTT
GGGGCAGGGCTCGGCGCCTTCCCCGCAGTTACCTTTCCGGGGGCTCTGGTGCCTGGTGGAGTGGCTGACGCTGCT
GCAGCCTATAAAGCTGCTAAGGCTGGCGCTGGGCTTGGTGGTGTCCCAGGAGTTGGTGGCTTAGGAGTGTCTGCA
GGTGCGGTGGTTCCTCAGCCTGGAGCCGGAGTGAAGCCTGGGAAAGTGCCGGGTGTGGGGCTGCCAGGTGTATAC
CCAGGTGGCGTGCTCCCAGGAGCTCGGTTCCCCGGTGTGGGGGTGCTCCCTGGAGTTCCCACTGGAGCAGGAGTT
AAGCCCAAGGCTCCAGGTGTAGGTGGAGCTTTTGCTGGAATCCCAGGAGTTGGACCCTTTGGGGGACCGCAACCT
GGAGTCCCACTGGGGTATCCCATCAAGGCCCCCAAGCTGCCTGGTGGCTATGGACTGCCCTACACCACAGGGAAA
CTGCCCTATGGCTATGGGCCCGGAGGAGTGGCTGGTGCAGCGGGCAAGGCTGGTTACCCAACAGGGACAGGGGTT
GGCCCCCAGGCAGCAGCAGCAGCGGCAGCTAAAGCAGCAGCAAAGTTCGGTGCTGGAGCAGCCGGAGTCCTCCCT
GGTGTTGGAGGGGCTGGTGTTCCTGGCGTGCCTGGGGCAATTCCTGGAATTGGAGGCATCGCAGGCGTTGGGACT
CCAGCTGCAGCTGCAGCTGCAGCAGCAGCCGCTAAGGCAGCCAAGTATGGAGCTGCTGCAGGCTTAGTGCCTGGT
GGGCCAGGCTTTGGCCCGGGAGTAGTTGGTGTCCCAGGAGCTGGCGTTCCAGGTGTTGGTGTCCCAGGAGCTGGG
ATTCCAGTTGTCCCAGGTGCTGGGATCCCAGGTGCTGCGGTTCCAGGGGTTGTGTCACCAGAAGCAGCTGCTAAG
GCAGCTGCAAAGGCAGCCAAATACGGGGCCAGGCCCGGAGTCGGAGTTGGAGGCATTCCTACTTACGGGGTTGGA
GCTGGGGGCTTTCCCGGCTTTGGTGTCGGAGTCGGAGGTATCCCTGGAGTCGCAGGTGTCCCTGGTGTCGGAGGT
GTTCCCGGAGTCGGAGGTGTCCCGGGAGTTGGCATTTCCCCCGAAGCTCAGGCAGCAGCTGCCGCCAAGGCTGCC
AAGTACGGAGTGGGGACCCCAGCAGCTGCAGCTGCTAAAGCAGCCGCCAAAGCCGCCCAGTTTGGGTTAGTTCCT
GGTGTCGGCGTGGCTCCTGGAGTTGGCGTGGCTCCTGGTGTCGGTGTGGCTCCTGGAGTTGGCTTGGCTCCTGGA
GTTGGCGTGGCTCCTGGAGTTGGTGTGGCTCCTGGCGTTGGCGTGGCTCCCGGCATTGGCCCTGGTGGAGTTGCA
GCTGCAGCAAAATCCGCTGCCAAGGTGGCTGCCAAAGCCCAGCTCCGAGCTGCAGCTGGGCTTGGTGCTGGCATC
CCTGGACTTGGAGTTGGTGTCGGCGTCCCTGGACTTGGAGTTGGTGCTGGTGTTCCTGGACTTGGAGTTGGTGCT
GGTGTTCCTGGCTTCGGGGCAGGTGCAGATGAGGGAGTTAGGCGGAGCCTGTCCCCTGAGCTCAGGGAAGGAGAT
CCCTCCTCCTCTCAGCACCTCCCCAGCACCCCCTCATCACCCAGGGTACCTGGAGCCCTGGCTGCCGCTAAAGCA
GCCAAATATGGAGCAGCAGTGCCTGGGGTCCTTGGAGGGCTCGGGGCTCTCGGTGGAGTAGGCATCCCAGGCGGT
GTGGTGGGAGCCGGACCCGCCGCCGCCGCTGCCGCAGCCAAAGCTGCTGCCAAAGCCGCCCAGTTTGGCCTAGTG
GGAGCCGCTGGGCTCGGAGGACTCGGAGTCGGAGGGCTTGGAGTTCCAGGTGTTGGGGGCCTTGGAGGTATACCT
CCAGCTGCAGCCGCTAAAGCAGCTAAATACGGTGCTGCTGGCCTTGGAGGTGTCCTAGGGGGTGCCGGGCAGTTC
CCACTTGGAGGAGTGGCAGCAAGACCTGGCTTCGGATTGTCTCCCATTTTCCCAGGTGGGGCCTGCCTGGGGAAA
GCTTGTGGCCGGAAGAGAAAA**TGA**

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FIGURE 3021

GCGCCGAGCCGGTTTCCCCGCCGGTGTCCGAGAGGCGCCCCCGGCCCGGCCCGGCCCGGCCCGCGCCCTCCGCCC
CCGCCTCCCCGGGCCGGCGGCGGTGGGCGAGCTCGCGGGCCCGGCCGCCCCCAGCCCCAGCCCCGCCGGGCCCCG
CCCCCCGTCGAGTGC**ATG**AGGTTGACGCTACTTTGTTGCACCTGGAGGGAAGAACGTATGGGAGAGGAAGGAAGC
GAGTTGCCCGTGTGTGCAAGCTGCGGCCAGAGGATCTATGATGGCCAGTACCTCCAGGCCCTGAACGCGGACTGG
CACGCAGACTGCTTCAGGTGTTGTGACTGCAGTGCCTCCCTGTCGCACCAGTACTATGAGAAGGATGGGCAGCTC
TTCTGCAAGAAGGACTACTGGGCCCGCTATGGCGAGTCCTGCCATGGGTGCTCTGAGCAAATCACCAAGGGACTG
GTTATGGTGGCTGGGGAGCTGAAGTACCACCCCGAGTGTTTCATCTGCCTCACGTGTGGGACCTTTATCGGTGAC
GGGGACACCTACACGCTGGTGGAGCACTCCAAGCTGTACTGCGGGCACTGCTACTACCAGACTGTGGTGACCCCC
GTCATCGAGCAGATCCTGCCTGACTCCCCTGGCTCCCACCTGCCCCACACCGTCACCCTGGTGTCCATCCCAGCC
TCATCTCATGGCAAGCGTGGACTTTCAGTCTCCATTGACCCCCCGCACGGCCCACCGGGCTGTGGCACCGAGCAC
TCACACACCGTCCGCGTCCAGGGAGTGGATCCGGGCTGCATGAGCCCAGATGTGAAGAATTCCATCCACGTCGGA
GACCGGATCTTGGAAATCAATGGCACGCCCATCCGAAATGTGCCCCTGGACGAGATTGACCTGCTGATTCAGGAA
ACCAGCCGCCTGCTCCAGCTGACCCTCGAGCATGACCCTCACGATACACTGGGCCACGGGCTGGGGCCTGAGACC
AGCCCCCTGAGCTCTCCGGCTTATACTCCCAGCGGGGAGGCGGGCAGCTCTGCCCGGCAGAAACCTGTCTTGAGG
AGCTGCAGCATCGACAGGTCTCCGGGCGCTGGCTCACTGGGCTCCCCGGCCTCCCAGCGCAAGGACCTGGGTCGC
TCTGAGTCCCTCCGCGTAGTCTGCCGGCCACACCGCATCTTCCGGCCGTCGGACCTCATCCACGGGGAGGTGCTG
GGCAAGGGCTGCTTCGGCCAGGCTATCAAGGTGACACACCGTGAGACAGGTGAGGTGATGGTGATGAAGGAGCTG
ATCCGGTTCGACGAGGAGACCCAGAGGACGTTCCTCAAGGAGGTGAAGGTCATGCGATGCCTGGAACACCCCAAC
GTGCTCAAGTTCATCGGGGTGCTCTACAAGGACAAGAGGCTCAACTTCATCACTGAGTACATCAAGGGCGGCACG
CTCCGGGGCATCATCAAGAGCATGGACAGCCAGTACCCATGGAGCCAGAGAGTGAGCTTTGCCAAGGACATCGCA
TCAGGGATGGCCTACCTCCACTCCATGAACATCATCCACCGAGACCTCAACTCCCACAACTGCCTGGTCCGCGAG
AACAAGAATGTGGTGGTGGCTGACTTCGGGCTGGCGCGTCTCATGGTGGACGAGAAGACTCAGCCTGAGGGCCTG
CGGAGCCTCAAGAAGCCAGACCGCAAGAAGCGCTACACCGTGGTGGGCAACCCCTACTGGATGGCACCTGAGATG
ATCAACGGCCGCAGCTATGATGAGAAGGTGGATGTGTTCTCCTTTGGGATCGTCCTGTGCGAGATCATCGGGCGG
GTGAACGCAGACCCTGACTACCTGCCCCGCACCATGGACTTTGGCCTCAACGTGCGAGGATTCCTGGACCGCTAC
TGCCCCCCAAACTGCCCCCCGAGCTTCTTCCCCATCACCGTGCGCTGTTGCGATCTGGACCCCGAGAAGAGGCCA
TCCTTTGTGAAGCTGGAACACTGGCTGGAGACCCTCCGCATGCACCTGGCCGGCCACCTGCCACTGGGCCCACAG
CTGGAGCAGCTGGACAGAGGTTTCTGGGAGACCTACCGGCGCGGCGAGAGCGGACTGCCTGCCCACCCTGAGGTC
CCCGAC**TGA**GCCAGGGCCACTCAGCTGCCCCTGTCCCCACCTCTGGAGAATCCACCCCCACCAGATTCCTCCGCG
GGAGGTGGCCCTCAGCTGGGACAGTGGGGACCCAGGCTTCTCCTCAGAGCCAGGCCCTGACTTGCCTTCTCCCAC
CCCGTGGACCGCTTCCCCTGCCTTCTCTCTGCCGTGGCCCAGAGCCGGCCCAGCTGCACACACACACCATGCTCT
CGCCCTGCTGTAACCTCTGTCTTGGCAGGGCTGTCCCCTCTTGCTTCTCCTTGCATGAGCTGGAGGGCCTGTGTG
AGTTACGCCCCTTTCCACACGCCGCTGCCCCAGCAACCCTGTTCACGCTCCACCTGTCTGGTCCATAGCTCCCTG
GAGGCTGGGCCAGGAGGCAGCCTCCGAACCATGCCCCATATAACGCTTGGGTGCGTGGGAGGGCGCACATCAGGG
CAGAGGCCAAGTTCCAGGTGTCTGTGTTCCCAGGAACCAAATGGGGAGTCTGGGGCCCGTTTTCCCCCCAGGGGG
TGTCTAGGTAGCAACAGGTATCGAGGACTCTCCAAACCCCCAAAGCAGAGAGAGGGCTGATCCCATGGGGCGGAG
GTCCCCAGTGGCTGAGCAAACAGCCCCTTCTCTCGCTTTGGGTCTTTTTTTTGTTTCTTTCTTAAAGCCACTTTA
GTGAGAAGCAGGTACCAAGCCTCAGGGTGAAGGGGGTCCCTTGAGGGAGCGTGGAGCTGCGGTGCCCTGGCCGGC
GATGGGGAGGAGCCGGCTCCGGCAGTGAGAGGATAGGCACAGTGGACCGGGCAGGTGTCCACCAGCAGCTCAGCC
CCTGCAGTCATCTCAGAGCCCCTTCCCGGGCCTCTCCCCCAAGGCTCCCTGCCCCTCCTCATGCCCCTCTGTCCT
CTGCGTTTTTTCTGTGTAATCTATTTTTTAAGAAGAGTTTGTATTATTTTTTCATACGGCTGCAGCAGCAGCTGC
CAGGGGCTTGGGATTTTATTTTTGTGGCGGGCGGGGGTGGGAGGGCCATTTTGTCACTTTGCCTCAGTTGAGCAT
CTAGGAAGTATTAAAACTGTGAAGCTTTCTCAGTGCACTTTGAACCTGGAAAACAATCCCAACAGGCCCGTGGGA
CCATGACTTAGGGAGGTGGGACCCACCCACCCCCATCCAGGAACCGTGACGTCCAAGGAACCAAACCCAGACGCA
GAACAATAAAATAAATTCCGTACTCCCCACCC

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FIGURE 3022

GACGGCAA**ATG**GCGGACTTCGACACCTACGACGATCGGGCCTACAGCAGCTTCGGCGGCGGCAGAGGGTCCCGCG
GCAGTGCTGGTGGCCATGGTTCCCGTAGCCAGAAGGAGTTGCCCACAGAGCCCCCCTACACAGCATACGTAGGAA
ATCTACCTTTCAATACGGTTCAGGGCGACATAGATGCTATCTTTAAGGATCTCAGCATAAGGAGTGTACGGCTAG
TCAGAGACAAAGACACAGATAAATTTAAAGGATTCTGCTATGTAGAATTCGATGAAGTGGATTCCCTTAAGGAAG
CCTTGACATACGATGGTGCACTGTTGGGCGATCGGTCACTTCGTGTGGACATTGCAGAAGGCAGAAAACAAGATA
AAGGTGGCTTTGGATTCAGAAAAGGTGGACCAGATGACAGAGGAATGGGTAGCTCTCGAGAATCTAGAGGTGGAT
GGGATTCCCGGGATGACTTCAATTCTGGCTTCAGGGATGACTTCTTAGGGGGCAGGGGAGGTAGTCGCCCAGGCG
ACCGGCGAACAGGCCCCCCCATGGGCAGCCGCTTCAGAGATGGCCCTCCCCTCCGTGGATCCAACATGGATTTCA
GAGAACCCACAGAAGAGGAAAGAGCACAGAGACCACGACTCCAGCTTAAACCTCGAACAGTCGCGACGCCCCTCA
ATCAAGTAGCCAATCCCAACTCTGCTATCTTCGGGGGTGCCAGGCCTAGAGAGGAAGTCGTTCAAAAGGAGCAAG
AA**TGA**GCCTGCGGTTGGGAGGGAATGGGGCGTGGGGGGTTAGAGCAGGACCACAGCCTGGTGAGTCCCCGGGCAG
CCGTCCTGCAGCCGCCACTCCTGCGCCTGCCATTGGCCTCCTCACAGCGGAAACACAGCTTGTGAGTGCATGTCA
GCTGTTAACAAGTGGTTTTTAGTACATTCTGGGCTTTGCTGTATCTATCTAGTGCCTGTTTGTGCGTTTTTTTCT
TTCTTCCGCTGCTTCCCCATTTTCCTTCTGTCCTTTTTCTCCTGCTCCTTGTTTTCCCAGCAGCACATGGGGTTC
CTCGGAGGAGCAGAGGTGGCCGCCGTGGGGGGGCGTTTGGGCTGCGGTGCTGCGTCATTTTTCCTTTGCTTTCTC
TTTACTTTAGACACTGGCCCAACTCCAGGCGTTTCCTTTCATTCCCTCAGTGCTTCTCTTCTGACCTGCATGTTG
AGTTCTGTATTGCTGGGGCTTCCAACAAAAACCAGAGTCACTGACAGAGGGAACAGCAGAGACCTTGTTGGTATT
CAGCTGTGATGGATATAGAGAATCAGAGGCACCTTGTTTTCACAACTAGGATAAAAATATCTGCAGGGTCCTTTC
CATTCCTATTTAGAGGGAGTCCTGGCTCCATGACCCCCTCCCGAGTGGACTGTCCAAGCAGATAGGCTCACACGA
GAAACAGTGAGGCTGAAAGGGGGGGCTATGGAAGAGCGGTAGGGAGTCCACGGAGAAGATGCAGTGAATGCTTGC
ATGCATTCACACGTGTGTGTGTCCCAGCTAGTTCACTCCTTTCGCCGTGCGTGGTGGAGGCTGGCCTCTCTGGCT
GGGTGCAGTGAATGGCCAGCGGGTTTCTTTTCTGCTGGGCCAAGGCGCTTTGGGGGTGGAGGGGGTGGTGCTGGT
GCTGCACTGGGCTGACTGCGGCGCTGACGCAGCGTTTCCCCCCATCCCTGTTGCCTGTGTGTTGTGTGGATCTGT
TCCTAGTATAGGCAACATAATGAGATACTGTGCTTCCCACCTCCCCTTCAGTTCAGAGCCAAAATGGGTCTAGAA
TCTGGCACTTTACTCATTTCCTTTGATAAATTGTACTATGCAGAGCTGTCAGGAACCTTCAGATAGCAGTAGAGG
ACTGCAGCTGTCTAGGTCTGCGGCCACATCTTGGGGACACACTGGACTGTTCCCATGTGCAGGGTTCAGCAGTTA
TGTGGGAGTGCTAGGGGTTAGGCTTTTGAGCTTGAACGCCTGCGTGTGAACAGATGAAAAATCCTTCAGTACCCA
AGTCCCAGTCTGTCCTATGGGGAGCAGTTTGGGGGCGGCCGGCAGCAGGAGCCTGGGAAAGAGGCCCTCGCCAGG
TGATGGCAGGGCCAGGGTGGCCTGGGGCACCCAGCGGAATGTGCTTAGTATTTGGTCACCAGCCGTCATCCTGGG
CTTTTCCTACTGTGTCTTGTTACAAGGCCTCAGCAATCCACAGAACTCTCTCTCCTTCCTTCCACCTGTCAGCTT
CTCTGCTTCTGAGATAAGAACCATTTGTGTAACACCAACACTTAACTTCAGAAAGACATGCATTATGTGGTGTAA
TCAAACCCGATGCTTTCAGATGACCTACTTACATCTTCAATGTGGATAAGATAAAGAACAAAACACATGCATCTA
AACTGCTGGGCAATCCAGTTGACTTTTAAATGTAAGAATGGAATTCCAAACACTTAACACATTCAGCTATATGAC
AGAAAGTAAATCTATGGATATGGTATTTTGTGAATGATCTTTTAAATAAAAGAAAACCTTACGTAATATTT

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FIGURE 3023

CAGTGCGGCGGATGTACGGATGATTCAGTGGCTGGCAGGAAGCCCGCCCTGCCCGCCCGCCAGTGTCAGTGGTGT
TGGCATCAGCTTGGGCAGGTGTGCGGGCTCAGGATGGGGCGGCCGTGGTGAGGAACCCTGGACTCTCAGAGATGG
AATTTCACCGTGTTGCCTAGGCTGGTCTGGAGCTCTTGATCTCAAGCGATCCTCCCTGCCTCGGCCTCCCAACGT
GCTGGGATTATAGGCGTGAGCCACCGCTCCTGGCCAGGGTCTGTTCCTAGTTGCAACAGTTCTTGGAAACCCACT
CGAGAGGGCCACGCCTCCATTCACCAGGCCACGCATCACAAGAGGCAACACCAGGAGCCAAC**ATG**AGCTCGGGGA
CTGAACTGCTGTGGCCCGGAGCAGCGCTGCTGGTGCTGTTGGGGGTGGCAGCCAGTCTGTGTGTGCGCTGCTCAC
GCCCAGGTGCAAAGAGGTCAGAGAAAATCTACCAGCAGAGAAGTCTGCGTGAGGACCAACAGAGCTTTACGGGGT
CCCGGACCTACTCCTTGGTCGGGCAGGCATGGCCAGGACCCCTGGCGGACATGGCACCCACAAGGAAGGACAAGC
TGTTGCAATTCTACCCCAGCCTGGAGGATCCAGCATCTTCCAGGTACCAGAACTTCAGCAAAGGAAGCAGACACG
GGTCGGAGGAAGCCTACATAGACCCCATTGCCATGGAGTATTACAACTGGGGGCGGTTCTCGAAGCCCCCAGAAG
ATGATGATGCCAATTCCTACGAGAATGTGCTCATTTGCAAGCAGAAAACCACAGAGACAGGTGCCCAGCAGGAGG
GCATAGGTGGCCTCTGCAGAGGGGACCTCAGCCTGTCACTGGCCCTGAAGACTGGCCCCACTTCTGGTCTCTGTC
CCTCTGCCTCCCCGGAAGAAGATGAGGAATCTGAGGATTATCAGAACTCAGCATCCATCCATCAGTGGCGCGAGT
CCAGGAAGGTCATGGGGCAACTCCAGAGAGAAGCATCCCCTGGCCCGGTGGGAAGCCCAGACGAGGAGGACGGGG
AACCGGATTACGTGAATGGGGAGGTGGCAGCCACAGAAGCC**TAG**GGCAGACCAAGAAGAAAGGAGCCAAGGCAAA
GAGGGACCACTGTGCTCATGGACCCATCGCTGCCTTCCAAGGACCATTTCCCAGAGCTACTCAACTTTTAAGCCC
CTGCCATGGTTGCTCCTGGAAGGAGAACCAGCCACCCTGAGGACCACCTGGCCATGCGTGCACAGCCTGGGAAAA
GACAGTTACTCACGGGAGCTGCAGGCCCGTCACCAAGCCCTCTCCCGACCCAGGCTTTGTGGGGCAGGCACCTGG
TACCAAGGGTAACCCGGCTCCTGGTATGGACGGATGCGCAGGATTTAGGATAAGCTGTCACCCAGTCCCCATAAC
AAAACCACTGTCCAACACTGGTATCTGTGTTCTTTTGTGCTATGAATTTGGATTCCTAATTGCTATTGTTGGTTG
CTGGGGTTTTAAATGATTGATAAGCTTGTACAGTTAACTTATAGAGGGGGAGCCATATTTAACATTCTGGATTTC
AGAGTAGAGATTTCTGTGTTGTCTCCTAGAAAGCATTACATGTAGTTTATTTCAGCATCCTTGTTGGGTGGGGCC
CTGGCTCTCTTCCCCTTTGGTGGGACCTCCCCTTTCTTTGGGCTTCAGTTCACTCAGGAAGAAATGAGGCTGTCG
CCATCTTTATGTGCTTCCAGTGGAAATGTCACTTGCTACAGACAATAGTGCATGAGAGTCTAGAGAAGTAGTGAC
CAGAACAGGGCAGAGTAGGTCCCCTCCATGGCCCTGAATCCTCCTCTGCTCCAGGGCTGGCCTCTGCAGAGCTGA
TTAAACAGTGTTGTGACTGTCTCATGGGAAGAGCTGGGGCCCAGAGGGACCTTGAGTCAGAAATGTTGCCAGAAA
AAGTATCTCCTCCAACCAAAACATCTCAATAAAACCATTTTAGTTG

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FIGURE 3024

GGGAAGAGGAGGCGCGAGA**ATG**GAGGTGGAGGCCGTCTGTGGTGGCGCGGGCGAGGTGGAGGCCCAGGACTCTGA
CCCTGCCCCTGCCTTCAGCAAGGCCCCCGGCAGCGCCGGCCACTACGAACTGCCGTGGGTTGAAAAATATAGGCC
AGTAAAGCTGAATGAAATTGTCGGGAATGAAGACACCGTGAGCAGGCTAGAGGTCTTTGCAAGGGAAGGAAATGT
GCCCAACATCATCATTGCGGGCCCTCCAGGAACCGGCAAGACCACAAGCATTCTGTGCTTGGCCCGGGCCCTGCT
GGGCCCAGCACTCAAAGATGCCATGTTGGAACTCAATGCTTCAAATGACAGGGGCATTGACGTTGTGAGGAATAA
AATTAAAATGTTTGCTCAACAAAAAGTCACTCTTCCCAAAGGCCGACATAAGATCATCATTCTGGATGAAGCAGA
CAGCATGACCGACGGAGCCCAGCAAGCCTTGAGGAGAACCATGGAAATCTACTCTAAAACCACTCGCTTCGCCCT
TGCTTGTAATGCTTCGGATAAGATCATCGAGCCCATTCAGTCCCGCTGTGCAGTCCTCCGGTACACAAAGCTGAC
CGACGCCCAGATCCTCACCAGGCTGATGAATGTTATCGAGAAGGAGAGGGTACCCTACACTGATGACGGCCTAGA
AGCCATCATCTTCACGGCCCAGGGAGACATGAGGCAGGCGCTGAACAACCTGCAGTCCACCTTCTCAGGATTTGG
CTTCATTAACAGTGAGAACGTGTTCAAGGTCTGTGACGAGCCCCACCCACTGCTGGTAAAGGAGATGATCCAGCA
CTGTGTGAATGCCAACATTGACGAAGCCTACAAGATTCTTGCTCACTTGTGGCATCTGGGCTACTCACCAGAAGA
TATCATTGGCAACATCTTTCGAGTGTGTAAAACTTTCCAAATGGCAGAATACCTGAAACTGGAGTTTATCAAGGA
AATTGGATACACTCACATGAAAATAGCGGAAGGAGTGAACTCTCTTTTGCAGATGGCAGGCCTCCTGGCAAGGCT
GTGTCAGAAGACAATGGCCCCGGTGGCCAGT**TAG**AGCAGAGACTTCACTGACTGACTTACAGGTGCCCTATTCTG
AGGTACAGGAGCCGCGGCTTTCTGATGGGGGAAAATGCCGCCTTAGGCTGGAGCCAACATGACTGTCCTTTAAAC
TCCAGTGGCTGGCCAGGCACGGTAGCTCACGCCTGTAATCCCAACACTTTGGGAGGCCGAGGCAGGTGGATCACC
TGAGGTCAGAAGTTCAAGACCAGCCTGGCCAACATGGGGAAACCCTGTCTTTACTAAAAATATAAAAATTAGCTG
GGTGTGGTGGCGGGCACCTGTAATCCCAGCTACTCGGGAGGCTGTGGCAGGAGAATCGCTTGAACCCAGGAGGTG
GAGGTTGCAGTGAGCCAAGATCACACCATTGCACTCCAGCCTGGGCGACAGAGTCTCCATCTGGGGAAAAAAATT
AAATAAATAAACTCCCG

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FIGURE 3025

ATGGCTCAGAGGCTCAGGCAAGAGCTACAGATGCTCATGACCGAATGTCTCACCTGGGCCCGGAATGGCAGCAGC
AAGCACCCTCTCAGCCTAGCCCAGAAGCCAGAGTTCCTATTTCATCAGTTGCAAAGCAGAGACAATGCCATCTGC
CCGATAGCAGAGCAAAAGGCAGAGGGGAAGTTCTCTTCAAGGTACAGAAACCACGACTCCGCAGAGAACCGCAGA
GATGGCAGCATGACCAGACCACGGACAGACTGGACTCTGAAACGGGCATGTACAGAGAAGAGGAGACCCCAACAC
GCTTCAAGCTTTGAGTGGAGAGGACACAGCCTCTGCTGGGACAGGGAACAGAGGGATGCGGAGACCCTGAAGATG
CTTTTGGACAGTGGTCTGAGTGTCCAGAAGAAGACCAAGGACAGAACAGAGACTAGGTTTGGTGAGATGGGACAG
ATTTTGGGAAAGATCATGATGAGCCATCAACCGCAGCCCCAGGAAGAGCAGAGCCCCCAGCGGAGCACCTCAGGG
TACCCCCTCCAGGAGGTGGTGGATGATGAAGTGTCGGGACCATCAGCCCCTGGGGTAGATCCCAGCCCCCCACGT
AGGTCCCTTGGCTGGAAAAGGAAGAGGGAATGTTTGGATGAATCTGATGATGAGCCAGAGAAGGAGCTCGCCCCT
GAGCCTGAGGAGACCTGGGTGGCGGAGACGCTGTGTGGCCTCAAGATGAAGGCGAAGCGACGGCGAGTGTCGCTC
GTGCTCCCTGAGTACTACGAGGCCTTCAACAGGCTGCTTGAGGATCCTGTCATTAAAAGACTCCTGGCCTGGGAC
AAAGATCTGAGGGTGTCGGACAAGATCCCATCGGAGCCCACCATCCTGGGAGCATCACCGAAAACCCTTCCTCCG
GCTTCTCGGATTTGCATCCGACCTTCGAATACCCCTCCACCCCGCAATTTCCACATGAGCACAGTCACCCCAATG
CTGAGGTCCCTTCTC**TGA**

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FIGURE 3026

AGAACCTGCTAAGGCCATCAAACCTATTGATCGGAAGTCAGTCCATCAGATTTGCTCTGGGCCGGTGGTACTGAG
TCTAAGCACTGCGGTGAAGAAGATAGTAGGAAACAGTCTGGATGCTGGTGCCACTAATATTGATCTAAAGCTTAA
GGACTATGGA**ATG**GATCTCATTGAAGTTTCAGGCAATGGATGTGGGGTAGAAGAAGAAAACTTCGAAGGCTTAAC
TCTGAAACATCACACATCTAAGATTCAAGAGTTTGCCGACCTAACTCGGGTTGAAACTTTTGGCTTTCGGGGGAA
AGCTCTGAGCTCACTTTGTGCACTGAGTGATGTCACCATTTCTACCTGCCACGTATCGGCGAAGGTTGGGACTCG
ACTGGTGTTTGATCACGATGGGAAAATCATCCAGAAAACCCCCTACCCCCACCCCAGAGGGACCACAGTCAGCGT
GAAGCAGTTATTTTCTACGCTACCTGTGCGCCATAAGGAATTTCAAAGGAATATTAAGAAGAAACGTGCCTGCTT
CCCCTTCGCCTTCTGCCGTGATTGTCAGTTTCTTGAGGGCTCCCCAGCCATGCTTCCTGTACAGCCTGCAAAACT
G**TGA**GTCAATTAAACCTCTTTTCTTCATAAA

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FIGURE 3027

TTTCATCGTTTCTGCTTACCCTACTTTTCTTTCCCATCCTGATCCCTCTCCCACCAGACTGGACTCTGAAACGGG
CATGTACAGAGAAGAGGAGACCCCAACATGCTTCAAGCTTTGAGTGGAGAGGACACAGCCTCTGCTGGGACAGGG
AACAGAGGGATGCGGAGACCCTGAAGATGCTTTTGGACAGTGGTCTGAGGTTGGGACAGTGGCAGGAGATACCAT
TCACCCAGGATCTCCAGGACAAGAGATCAGCCTGGCAGTTACATGTGTTTTTTTTCAAACTGGTTGCCAGGTTGG
CATGAGCGATGACATCAGAGATTCCGACCTTCCTGATTGGAGGGACCGGACTCTGTCGGCACCTGGGAGTTCAGT
TGGACAACAGTAACTTCTCAGAGCTGTTCTCCACTCCTGACTTCTCCCAGCCTCGAGAATTGATAACACACTCTT
CTGGATCCCAGCAGTGTCCAGAAGAAGACCAAGGACAGAACAGAGACTAGGTTTGGTGAG**ATG**GGACAGATTTTG
GGAAAGATCATGATGAGCCATCAACCGCAGCCCCAGGAAGAGCGGAGCCCCCAGCGGAGCACCTCAGGGTACCCC
CTCCAGGAGGTGGTGGATGATGAAGTGTCGGGACCATCAGGTGAGGGGACTGGAGGAAGAAGAGGTGGCATAGGA
TTGACTAAGATGAAGGAAGGGGGCCAGGCGTGGTGGCTCACCCCTGTAACCCCAACACTTTGGGAGGCTGAGGCG
GGCAGATCACCTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGG**TGA**AACCCCATCTCTACTAAAAGTACA
AAAATTAGCCAGGCGGTAGTGGTGTGTGCCTATAATCCCAGCTACTTGGGAGGCTAAGACAGGAGAATCACTTGA
GCCTGGGAGGAAGAGGTTGCAGTGAGCCGAGATCGTGCTACTGCACTCCAGTCTGGGTGACAGAGTGAGATGCTA
TCTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAGAAAAAAAAGAAGGGTCAGAGGTCAGGAAGGAGA
ACCTGGGGAGGGTGTGTGGGAAGAATGGAGAAATTCAGGCTGGGTGCAGTGGCTCACACTTGTAATCCCAGCACT
TTGGGAAGCCAAGGCAGGCGGATCACTTGAGGCCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCTGT
CTCTATTAAAAGTACAAAATGGAGCTGGGCATTATGGCAGGCACCTGTAATCCCAGCTACCTGAGAGGCTGAGGC
AGGAGAATAACTGGAATCCGGGAGATGCATGTTGCAGTGAGCTGAGATTGCACCACTACACTCCAGCCTGGGTGA
CAAAGCAAGATTCTGTCTCGAAAC

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FIGURE 3028

GCCCCTGGGGTAGATCCCAGCCCCCCACGTAGGTCCCTTGGCTGGAAAAGGAAGAGGGAATGTTTGGATGAATCT
GATGATGAGCCAGAGAAGGAGCTCGCCCCTGAGCCTGAGGAGACCTGGGTGGCGGAGACGCTGTGTGGCCTCAAG
ATGAAGGCGAAGCGACGGCGAGTGTCGCTCGTGCTCCCTGAGTACTACGAGGCCTTCAACAGGCTGCTTGAGGAT
CCTGTCATTAAAAGACTCCTGGCCTGGGACAAAGATCTGAGGGTGTCGGACAAGTATCTCCTGGCTATGGTCATA
GCGTATTTCAGCCGGGCCGGCCTCCCCTCCTGGCAATACCAACGCATTCATTTCTTCCTGGCTCTCTATCTGGCC
AATGACATGGAGGAGGACGACGAGGCCCCCAAACAAAACATCTTCTACTTCCTGTACGAGAAGAACCGCTCTCGC
ATACCCTTGCTCCGTAAGCGTCGGTTCCAGTTAGGCCGTTCCATGAACCCGAGGGCCAGGAAGAACCGCTCTCGC
ATACCCTTGCTCCGTAAGCGTCGGTTCCAGTTAGGCCGTTCCATGAACCTGAGGGCCAGGAAGAACCGCTCTCAG
ATAGTCCTGTTCCAGAAACGTCGGTTCCAGTTCTTCTGTTCCATGAGCGGCAGGGCTTGGGTTTCCCCGGAGGAG
TTGGAGGAGATCCAGGCTTATGACCCAGAGCACTGGGTGTGGGCGCGAGATCGCGCTCGCCTTTCCTAGAGCTCC
AGGGACCGTGGAGGCCTGAGGTCATCGGCCTGAGAGAAGAACACCGGACCCAGGGGAGATGTGGATTTTCAGCAG
GAACTTTATTCCAATGCTAATGGCAGACACCAGGAAGGAGGAGAGGAACCATTTGTGCAGATCATCTAGAAGAAC
CTGGACCATTCTTGATGGAGCTGAATACAGTGATCACGTTGTCCTCCTAGGAGCAGGGGTGGGGGGAGGGGGGTG
GGGTCCTTCTAGGAGTCCTTGGAGAAAAGTAAGAAACCAGGAGTGTTTCCAGTTCCACCCTTTCCTGCAGCACCA
CCACCCTTTCTATATTGCTGAATTCCAACCTCCCTGGGGCGGAACCTGGAGGTGCTGTTTCTTATGGACTTGGTT
ACCACAGTCCAGAAGCATTTGAAGGCACAATGCAGGGGCTCAGATTGGCACAGATTTCTTCTGTGAAATATCAGT
GCCACAGATTGTAACAGATAGCTTCATGCACACTCTGCATTTTATTGGTTTGTTTGGAAAATGTTGGCCATTGAA
TTATTCATAGATTTATTTCAAATAGTTTGGAAATTGTTGTACTTTTGAAAACATGCTGTTCCTGTAGTTTTTTGA
TGAGAGTTATAGTTGTTATATATACATAAAGATAATTTTCTTTTCATTTTTAAGAGACAATTCTTTTTATCCTAA
ATATTTTATTATCTTTAAATTTCTTTCTGTATTATTATATGTGCTCCTGAAGCGAGCACTCTTTTTATCTATGAT
ACTTCCATAATAATCTCTTCTATTTATAGCTATTGGTAGTTCCCCACCACAAAAAAAACATAATTCTGGTGATAG
AAATTTTTATTTGCTGTTTAGGTTTGTGACTGAATTGTGAGAATTCAGTTGTGATTTTTAACATGTCTCAGATAT
ATATACTAACACGTCTAATATATACTATCTATTTTATTGGTTTATTTTGAAAAACATGGGTATAGAATTATTTAA
ATATTATTTTATTTATTGAAATATTTATTAAATATATTTATTTAAATATTATTACTTGAAATATTATTTTAAATA
TTTTTGAAATACTGCTATTTTTGAATAGATGCTGTTTCTATAAAGCTGTGTGATGGGTGTTATAACTGTTATATA
CACATACGTATAATTTTGCTTTCCTTTTTAAGAGAGGATTCTTTTCATCCTAAATCTTTTACCTTTCAATCTTTG
TATCTATTATTACACGTGTTGCTGAAGGGAGCATGGTTTTTATCTGTGATACTTAGTTAACATATATATTACATT
TATAGCTATGTAGTAGTTCCCCTAAATTCTTGTAAAAATAAATTTTTATTTGATATTTCATATATGTTTGAAATG
TGAGAATTCAGGTGTAATTTTTTACCTTGTTTTGGCATGTTTGTATGTTACTTTAAAGAGGATGTGTGTTCTAAA
GGAGGACATGAGCTGTGTGTTTTCAAGAGAACAATAGAGTGCGTCTCTTGGGGAAACATAATAAAAATGAACTTT
TCTCACCTTC

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FIGURE 3029

GGATCCGGTGTTGCATCCTTGGAGAGAGCTGAGAGCTCGAGTACAGAACCTGCTAAGGCCATCAAACCTATTGAT
CGGAAGTCAGTCCATCAGATTTGCTCTGGGCCGGTGGTACTGAGTCTAAGCACTGCGGTGAAGAAGATAGTAGGA
AACAGTCTGGATGCTGGTGCCACTAATATTGATCTAAAGCTTAAGGACTATGGAATGGATCTCATTGAAGTTTCA
GGCAATGG**ATG**TGGGGTAGAAGAAGAAAACTTCGAAGGCTTAATGATGTCACCATTTCTACCTGCCACGTATCGG
CGAAGGTTGGGACTCGACTGGTGTTTGATCACGATGGGAAAATCATCCAGAAAACCCCCTACCCCCACCCCAGAG
GGACCACAGTCAGCGTGAAGCAGTTATTTTCTACGCTACCTGTGCGCCATAAGGAATTTCAAAGGAATATTAAGA
AGAAACGTGCCTGCTTCCCCTTCGCCTTCTGCCGTGATTGTCAGTTTCTTGAGGGCTCCCCAGCCATGCTTCCTG
TACAGCCTGCAAAACTG**TGA**GTCAATTAAACCTCTTTTCTTCAT

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FIGURE 3030

CAGTGTGGCAGTGGAGGCCGTCAGATTACTGATACTTATCCTTAAGAACATGGAAGGGGTGCTGATGGACGTGGA
CTGTGAGAGCGTCTACCCCATTGTGTAGGCCTCTAATTGAGGCCTGGCCTCTGCTGTGGGTGAATTTCTGTACTG
GAAACTTTTCTACCCTGAGTGCGAGATAAGAACG**ATG**GGTGGAAGAGAGCAACGCCAGAGCCCAGGTGCCCAGAG
GACTTTCTTCCAGCTTCTGCTGTCCTTCTTTGTGGAGAGCAAGCTCCACGACCACGCTGCTTACTTAGTAGACAA
CCTGTGGGACTGTGCAGGGACTCAGCTGAAGGACTGGGAGGGTCTGACAAGCCTGCTGCTGGAGAAGGACCAGAG
CACGTGCCACATGGAGCCAGGGCCAGGGACCTTCCACCTCCTAGGG**TGA**AACCAGGAGAGATTGCTTGCTTCACT
TGTACAAGAATCGGCTCCCAGACACCTGCCACTCGTGAATGCATCTGATAAACTCACTCACACTGAGGCCTTGGG
GACTGAGGCCCTGGCGGATCACGGGTGCCCAGGGGCTCGGAGGCCGCCTCCTCTGGGAAGCCTGCCCAGGTTCCG
ATGGACTCCCACAGGCAATACCCCTGGGCCTTCCTCGCGGCCCCTGTTGGCCCCAATTCCCCCACCCCCTGCAAG
GTCTGTGCCTCTCCTGCAGCCCCGCCACCAACTAGGGCGAGAGGAGCTCGCCCCCACCCAAACGTATTGGTTCGA
TGAAGGAAGGGCCCATGGTTCTGCCACTGGCCCTGGACACCCAGTGCTGGTTTCCCGTGGAAGTCCCCCTGGACT
GAGTGGCGGCTGGGTGCTCTAGTGATTTGCGACCTGGGGCCTCTGACTCCCATCATGTTGGGAAAGTCGTTGAAC
CTCACCGGTGAAACGGGCACAGTGAAGTCATTTCCCCGAAGTCTCAGGACTCTGTGTAAGGCTGGGGACAGGGGC
TTGTTGGGGCCTAAGGGCACCTTGGGAACTGCAGGAGCCCGTTCTGCCTCCATAAGACACTCACTCCTGGCAGGG
TCCCCTCTCCGGGCACAGCCCAGATCCACCCCCATCATCCCTCTCCATCTGTGGCTCCCTGCCCCTCACAGAGGA
TTCATCACTCTGTTCAGAATCCCCAGGACTCCCTAGGGAAGGAGGTCCCAGCCTGGCCTCCCAAGACCGTGCTTG
CCCAATTCCAGGACTTCCTCACATGGCTCCTACCTCCAGCACAGAAGCGGCACTAAACCAGGTGGTCAATCAGGG
AGCACCACCGAGGTTCTGAATGGTCCAGGGATGAGCAGTGATGCCTCAAGCTAAGCCAATCAAAGCCTTCCCTGG
GATTGTCTCAAGGAGTCCGCAGTGAGATTCTGGGTCTCAGTACTGGGAAAGGGTGAGGCTGAGGCTGCCTGCTGT
CCTGGGGGCCTCACCCTGCCACCAACAGGAAGCCACACAGAGGGAAGCAGAAATGAGACGCAGCCAGTGAGGGCA
GGGTACAAAGGTGAGATCCCGGAGAGACAGATGCTGGGACATCATCCTTGGGTACTGGTTCCAACAGTGCCTGCA
GATGGAGCCACCCTCGGAGAGTCCACAACAGCAGCCAATCCATTCTATGCGTGTCTGAGCTACTTTAAGTCGGGT
TTTTGACTGTTTGAATGAGAGTCTCATCTTGGCTAGGCACCATGGCGCAACAACTGGGGAGGTGGAGGTAGGAAG
ATTGCTTGAGGCCAAGAGTCCCAGAGCAGCCTGGGCAACCTATCAAGACGCTGTCTTTACGAAAAGAAAAAAAAC
TAGCTAGGTGTGGTGGTGCGTGCCTGTGGTCCCAGCTACTGGGGAGGCTGAGGTGGGAGGATTGCTTGAGCCCAG
GAAGTGGAGGCTGCAGTGACCTATGATGGCACCACTGTACTCCAGCCTGGGTGACAGAGCAAGACCCTGTCT

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FIGURE 3031

AACATGGGGCTGTACGCTGCGGTGGCAGGCGTGCTGGCCGGCGTGGAGAGCCGCCAGGGCTCTATCAAGGGGCTG
GTGTACTCCAGCAACTTCCAGAACGTGAAGCAGCTGTACGCGCTGGTGTGCGAAACGCAGCGCTACTCCGCCGTG
CTGGATGCCGTGATCTCCAGCGCCGGCCTCCTCAGTGCGAAGAAGCTGCAGCCGCACCTGGCCAAGGGTGCTAGT
GTATGAGTTGTTGGGAAAGGGCTTTCGAGGGGGTGGGGGCCAATGGAAGGCTCTGTTGGGACGGCACCAGGCGAG
GTGTTGAGTTGGCTCGGCTCAAGGTTCTTCGGGGTGTGAGCTGGCATGAGGACCTGTTGGAAGTGGGATCCAGGC
CTGGTCCAGCCTCCCAGCTGCCTCGATTTGTGCGTGTGAACACTCTCAAGACCTGCTCCGTTTATGTAGTTATTT
CAAGAGACAAGGTTTCTCCTATCAGGGTCGGGCTTCCAGGCTGGATGGAGTGCCCTGGCGCGATCTCGGCTCACC
GCAACCTCTGCCTCCTGGGTTCAAGCGATTCTCCTGCTTCAGCCTTCTGAGCAGCTGGGATTATGAAGGGGTGGC
CTGCCCCTCCACATCTGTGGGATATCTCATCAGCCTTGATGACTTACAAGCCCTCAAGGGGAAGCATTTTCTCCT
GGACTCCTTGATGCCGGAGCTGCTGGTGTTTCCCGCCCAGACAGATCTGCATGAACACCCACTGTACCGGGCCGG
ACACCTCATTCTGCAGGACAGGGCCAGCTGTCTCCCAGCCATGCTGCTGGACCCCCGCCAGGCTCCCATGTCATC
GATGCCTGTGCCGCCCCAGGCAATAAGACCAGTCACTTGGCTGCTCTTCTGAAGAACCAAGGGAAGATCTTTGCC
TTTGACCTGGATGCCAAGCGGCTGGCATCC**ATG**GCCACGCTGCTGGCCTGGGTTGGCGTCTCCTGCTGTGAGCTG
GCTGAGGAGGACTTCCTGGCGGTCTCCCCCTTAGATCCGCGCTATCGTGAGGTCCACTATGTCCTGCTGGATCCT
TCCTGCAGTGGCTCGGGTATGCCGAGCAGACAGCTGGAGGATCCCGGGGCAGGGACACCTAGCCCGGTGCGTCTG
CATGCCCTGGCAGGGTTCCAGCAGCGAGCCCTGTGCCACGCGCTCACTTTCCCTTCCCTGCAGCGGCTCGTCTAC
TCCATGTGCTCCCTCTGCCAGGAGGAGAATGAAGACATGGTACCAGATGCGCTGCAGCAGAACCCGGGCGCCTTC
AGGCTAGCTCCCGCCCTGCCTGCCCGGCCCCACCGAGGCCTGAGCACGTTCCCGGGTGCCGAGCACTGCCTCCGG
GCTTCCCCCAAGACCACGCTTAGCGGTGGCTTCTTCGTTGCTGTAATTGAACGGGTCGAGATGCCGACCTCAGCC
TCACAGGCCAAAGCATCAGCACCAGAACGCACACCCAGCCCAGCCCCAAAGAGAAAGAAGAGACAGCAAAGAGCC
GCAGCCGGTGCTTGCACACCGCCTTGCACA**TAG**CAGAGGCTCCAGGCTGACTCCTTCCTGGTGGGAAAGGAAGAT
GCCTGTCCTCTCCGTGGAGGACCCTGGGCCCTCACCGCAGGCAGCAGTTTGCATTTTGAAAGGTTATTGGGTCCC
TTCCTCGGGCTGTGTTCTTGCTGGTGAGCAAAAGTGTTGCCTGCAGAAATAAAATGCAGAACGTACTCT

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FIGURE 3032A

GAGCCCCAGGGAGGCGGATCTGGGCCCCGAGAAGGACACCCGCCTGGATTTGCCCCGTAGGCCCGGCCCGGGCCC
CTCGGGAGCAGAACAGCCTTGGTGAGGTGGACAGGAGGGGACCTCGCGAGCAGACGCGCGCGCCAGCGACAGCAG
CCCGCCCCGGCCTCTCGGGAGCCGTGGGGCAGAGGCTGCGGAGCCCCAGGAGGGGGCCAGTGTCATTCAAAGATG
TGGCTGTGGATTTCACCCAGGAGGAGTGGCGGCAACTGGACCCTGATGAGAAGATAACATACGGGGATGTGATGT
TGGAGAACTACAGCCATCTAGTTTCCTTGGCTTATGAGGTGGCAACATCTTGTACTTCGGAGATTCTGAAGCCGA
GCAACTTGCCCAAGTCCTTCTTCTTTTCCCATTAACAAGATATGATATCACCAAGCCAAACGTCATCATTAAGTT
GGAGCAGGGAGAGGAGCTGTGGATAACGGGAGGTGAATTTCCATGTCAACATAGTCCAGCCCCTCACATCCTCAG
CCGAAGATCTCACTTCGTCCCAGAGGCCTTTGCTGACTGACCCCTCAGGGATCGTGGGACTTTACCAGATCGGTT
TGTAATAACACCTCGAAGACGCTATCCGATCCATCAGACCCAGTATTCCTGTCCGGGGGTACTTCCCACAGTGTG
CTGGAATGGTTATCACAAGAAGGCTGTGCTGTCCCCTCGCAACTCCAGG**ATG**GTGTGTAGCCCAGTGACTGTGAG
GATCGCCCCTCCTGACAGAAGATTTTCACGTTCTGCGATACCAGAGCAGATAATCAGCTCAACACTGTCGTCACC
ATCAAGTAATGCCCCAGACCCATGTGCAAAGGAGACTGTACTGAGTGCCCTCAAAGAGAAGAAGAAGAAAAGGAC
AGTGGAGGAAGAAGACCAAATATTCCTTGATGGCCAGGAAAATAAAAGAAGGCGCCATGATAGCAGTGGCAGTGG
ACATTCAGCATTTGAGCCCCTGGTGGCCAGTGGAGTCCCCGCTTCTTTTGTGCCTAAGCCTGGGTCTCTGAAGAG
AGGCCTCAATTCTCAGAGCTCAGATGACCACTTGAATAAGAGATCCCGAAGCTCTTCCATGAGCTCCTTGACAGG
CGCTTACACAAGTGGCATCCCTAGCTCCAGCCGCAATGCCATTACCAGTTCCTACAGCTCCACTCGAGGCATCTC
ACAGCTCTGGAAGAGAAATGGCCCCAGTTCATCACCCTTCTCTAGCCCAGCCTCATCCCGCTCCCAGACACCGGA
GAGGCCAGCAAAGAAAATAAGAGAAGAAGAGCTGTGTCATCATTCCAGTTCTTCAACTCCATTGGCAGCAGACAA
GGAGTCCCAGGGAGAAAAGGCTGCAGATACAACCCCAAGGAAGAAACAAAACTCGAATTCTCAGTCTACACCTGG
CAGCTCTGGGCAGCGTAAGCGGAAAGTTCAGCTGCTGCCTTCTCGGCGAGGGGAACAGCTGACCTTGCCTCCACC
TCCCCAGCTTGGCTATTCGATCACTGCCGAGGACCTAGACTTAGAGAAGAAGGCTTCATTACAGTGGTTCAACCA
GGCCTTGGAGGACAAGAGTGATGCTGCCTCGAACTCTGTCACTGAGACCCCACCTACCACTCAGCCTTCATTTAC
CTTTACCCTGCCTGCTGCTGCAACTGCCTCCCCACCCACCTCCCTCCTGGCCCCAAGCACCAACCCACTGTTAGA
GAGCTTGAAGAAGATGCAGACTCCCCCGAGCCTGCCACCCTGCCCAGAATCTGCTGGAGCAGCAACCACTGAGGC
CCTCTCACCTCCAAAGACACCCAGCCTCCTACCCCCGCTGGGTTTATCACAGTCAGGGCCGCCAGGGCTGCTCCC
CAGCCCCTCCTTTGACTCCAAACCCCCGACCACTTTGCTGGGGCTGATCCCTGCTCCATCCATGGTACCAGCCAC
TGACACCAAGGCACCTCCAACCCTTCAAGCAGAGACGGCTACCAAACCCCAAGCCACATCTGCCCCGTCCCCCGC
CCCCAAGCAAAGCTTCCTGTTTGGAACACAGAACACCTCACCTTCCAGCCCTGCCGCCCCTGCTGCATCTTCAGC
ATCTCCCATGTTCAAGCCCATTTTCACGGCTCCACCCAAGAGTGAGAAGGAAGGCCCCACACCGCCTGGCCCTTC
AGTCACAGCCACAGCGCCCTCCAGCTCCTCCCTCCCCACGACCACCAGCACCACAGCCCCGACCTTCCAGCCTGT
CTTTAGCAGCATGGGGCCACCTGCATCTGTGCCCTTGCCTGCTCCCTTCTTCAAGCAGACAACTACTCCCGCCAC
TGCTCCCACCACAACTGCCCCGCTCTTCACTGGCCTGGCCAGCGCCACCTCTGCTGTGGCTCCCATCACCTCTGC
CAGTCCATCCACAGACTCTGCTTCGAAGCCTGCGTTTGGCTTTGGCATAAACAGTGTGAGCAGCAGCAGTGTGAG
TACCACGACCAGCACCGCCACTGCCGCCTCACAGCCTTTCCTCTTCGGGGCGCCCCAGGCCTCTGCTGCCAGCTT
CACCCCGGCCATGGGCTCCATATTCCAGTTTGGCAAACCTCCTGCCTTGCCCACAACCACCACAGTCACCACCTT
CAGCCAGTCCCTGCCCACTGCCGTGCCAACGGCCACCAGCAGCAGCGCTGCCGACTTTAGTGGTTTTGGCAGCAC
CCTCGCCACCTCCGCCCCGGCCACCAGCAGCCAGCCCACTCTGACGTTCAGTAACACGAGCACCCCCACGTTCAA
CATTCCCTTTGGCTCAAGCGCCAAGTCCCCGCTCCCATCATATCCGGGAGCCAACCCCCAGCCCGCATTTGGGGC
CGCTGAGGGGCAGCCACCGGGGGCCGCCAAGCCAGCCCTTACCCCCAGCTTTGGCAGCTCTTTCACTTTTGGAAA
CTCTGCAGCCCCGGCCCCGGCTACTGCACCCACACCTGCACCTGCGTCCACGATCAAGATCGTGCCTGCGCACGT
GCCTACGCCCATCCAGCCTACCTTTGGCGGTGCCACGCACTCGGCGTTTGGATTGAAAGCCACGGCTTCCGCCTT
CGGCGCTCCCGCCAGCTCACAGCCCGCCTTTGGCGGCTCCACTGCTGTCTTCTCCTTCGGTGCAGCCACCAGCTC
CGGCTTTGGAGCCACCACCCAGACCGCCAGCAGCGGGAGCAGCAGCTCGGTGTTTGGCAGCACAACACCATCACC
CTTCACGTTTGGGGGTTCGGCAGCCCCCGCTGGCAGTGGGAGCTTTGGGATCAACGTGGCCACCCCAGGCTCCAG
CGCCACCACCGGAGCTTTCAGCTTTGGAGCAGGACAGAGTGGGAGCACAGCCACCTCCACCCCCTTCACAGGGGG
CTTAGGTCAGAACGCCCTGGGCACCACCGGCCAGAGCACACCGTTTGCCTTCAACGTGGGCAGCACAACTGAGAG
CAAACCTGTGTTTGGAGGCACCGCCACCCCCACCTTTGGTCAGAACACCCCTGCGCCTGGAGTGGGCACATCGGG
CAGCAGCCTCTCCTTTGGGGCATCTTCAGCACCCGCCCAAGGCTTTGTTGGTGTTGGACCGTTCGGCAACACTTT

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FIGURE 3032B

TGCTCACCAGCAAGAACACAGCCCGAGGAAGGGACCCAATAACCTTTCAAAATGCAAACTGCTGCCTGCGGTGAG
GGCCCAGGGTCCTCCACGGAGAGGACAGGCATCTTCCTTTCCCACCAGGAAGGAGTCAGCCTGGAGCCTCTGCTA
TGTGCAAGGCGGTGTGCAAGCACCGGCTGCGGCTCTTTGCTGTCTCTTCTTTCTCTTTGGGGCTGGGCTGGGTGT
GCGTTCTGGTGCTGATGCTTTGGCCTGTGAGGCTGAGCTAGAGAAGTGTAGATGT**TAG**ATGTGCCAGTACCATCC
TGCGCCTCCCAAGCATGCCCCCACTCACTCACGTCGGCATCTCGACCCGTTCAATTACAGCAACGAAGAAGCCAC
CGCTAAGCGTGGTCTTGGGGGAAGCCCGGAGGCAGTGCTCGGCACCCGGGAACGTGCTCAGGCCTCGGTGGGGCC
GGGCAGGCAGGGCGGGAGCTAGCCTGCAAGAGAAACAGCCCCAATGCTGGGTAAGAGAGCAGTTCACCCCATCCC
CCCCCTCCACGACCCTGGCGCCCGCCCTGTACCTGAAGGCGCCCGGGTTCTGCTGCAGCGCATCTGGTACCATGT
CTTCATTCTCCTCCTGGCAGAGGGAGCACATGGAGTAGACGAGCCGCTGCAGGGAAGGGAAAGTGAGCGCGTGGC
ACAGGGCTCGCTGCTGGAACCCTGCCAGGGCATGCAGACGCACCGGGCTAGGTGTCCCTGCCCCGGGATCCTCCA
GCTGTCTGCTCGGCATACCTAAGGAAAAGCGTGTCTCGGTTACACAGCTTCACAGGCTGCCTCAGTCCTGAAATC
CTCGCTCCTGAAATCCTTGCCTCACAGAGGAGAACTTTTGCTCCAGGGTCCCAAGCCCATTAAAGTGTCAGAACT
AAGACCAAAACAGATGACTCCAGGTCTAAGCTGCTGTGGACCTCCGAGTCCCTCAGCCACGCCTTCTCACCATCT
CACCCGAGCCACTGCAGGAAGGATCCAGCAGGACATAGTGGACCTCACGATAGCGCGGATCTAAGGGGGAGACCG
CCAGGAAGTCCTCCTCAGCCAGCTCACAGCAGGAGACGCCAACCCAGGCCAGCAGCGTGGCCATGGATGCCAGCC
GCTTGGCATCCAGGTCAAAGGCAAAGATCTTCCTAGGGCAGAGGGCAGAGCAGGGGTGAGCTGAGCATGCACGGA
GCAGCTAAGGGCCTGTCACAGCTGACACAGACAACCAGAACATGCAGGTTAAGCCAGGACACACAATATTGAAAC
GGCCTATATTTAAAGGGCCCAGGGTCAGAGGTAACTGGCCTGGGGTCTCTGCCCCAAGGGCTAAGGGATCCACAT
CTCACACCTGCAGTGGGGAAAGCTTAGCTTGGGGCAAATACCGTGAACTACTTTGGTACAGCAGGAAAGAGTTAA
GCGAAAGTCATCCTTTCAGCCTTTATTACCCACTGAAAGGCACAAAATCAAACCCCATGTCCTCCTCCTCCTCCT
CCTGTGGCACTCACCCTTGGTTCTTCAGAAGAGCAGCCAAGTGACTGGTCTTATTGCCTGGGGCGGCACAGGCAT
CGATGACATGGGAGCCTGGCGGGGGTCCAGCAGCATGGCTGGGAGACAGCTGGCCTGGCAGGCAGAGCACAGGGG
CCGGGTAAACAGAGACCCCAGGCTAGGCCCTTCCCGTGCCTACACATTCTTCCCTTTTCTATTCCTCTTGCCTAC
CCTGTCCTGCAGAATGAGGTGTCCGGCCCGGTACAGTGGGTGTTCATGCAGATCTGTCTGGGCGGGAAACACCAG
CAGCTCCGGCATCAAGGAGTCCAGGAGAAAATGCTTCCCCTTGAGGGCTTGTAAGTCATCAAGGCTGCCAGGGAA
GAACCATTCATTCATTTCCTGAATTTCTCCCTGCCAGGCCCTATTTCAACGGTCCATTCATGCAACAAATGTTAC
CACAGCTATGGAGAAATCAACAGGGTGATAAGGGAATCCGGGATCCGCAGTTGAGGGAATGGGTTGTCAAGCCAG
ACTGATGGGTCAGGAGCCCCCTCTACTGTTTACCAGCAGTGGGAGCCTGGGCAAGTGATTCAATCTCAAGCCCCA
CTGGCATCTCTGTAAAATAGTAGGTGTGAGGATTCAATGAGCCAATATATCCAAGATACTTACGTGCCACAATTT
AATAAATGTTAGCTATTCCTGTTGAAGCATAACCTTGGAGAAAGGTTACTTTACAGGGGGGTGAGGAGTGGGGAA
GTGAGAGCTGAGCTCATTCTTGATGGATGAGGAGTTAGTCATGTGAGGCGCTTAGGTTAAAACTACATTCACTAT
AACTCAGTAAAGCAGTCCCGCCCACTCTCCGACCCATGCAGAAATAGGCCTAGAGAGTCACATGTCTCAGTTCAG
AAATCTATCGAAGTGGCAGAGCTGGAATTCAAACACAAGCAGCCGTTCTCTGCTATTCCACCCTGGTGTCCAAGC
AACATGGTAGGGCAGAAGGAAGAGGATCTTACAAAGAGTAAGGGAAAGGGAGAGGGGCAGAGGCTGCTTCTCAGA
GCCACCAAAGGACAAAATAAGACAGGTGTGAGCCCAGTGGAGGAGGCACGGGGCAGAGACCAGCCACTGTTGCTG
GCACGCTGGTGCACGTAGCACTGTGGCAGATGGACCTGGAGAGGAAGCAGGAGGGACAGCACAATGGAGCCAAGA
AAGGACTTAGCATGGCCGGGCGCGGTGGTTCATGCCTGTAATCCCAGCATTTTGGGAGGCCAAGGTGGGCAGATC
ACCTGAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGAGAAATCCCGTCTCTACTAAAAATACAAAATTAGC
CAGGCATGGTGCTGCATGCCTGCAATCCTGTAGGGAAAAGAAAGAGAGATCAGACTGTTACTGTGTCTGTGTAGA
AAGGGAAGACATAAGAAATTCCATTTTGACCTGTACCTTGAACAATTGGTTGGCTGAGATGCTGTTAATTTGTGA
CTTTGCCCCAAATTTGAGCTCACAAAAACATGTGTTGTATGGAATCAAGGTTTAAAGGATCTAGGGCTGTGCAGG
ACATGCCTTGTTAATAAAACGTTTACAAGC

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FIGURE 3033

ATGTGTCCTTGGCGGCCTAGACTAGGCCGTCGCTGTATGGTGAGCCCCAGGGAGGCGGATCTGGGCCCCCAGAAG
GACACCCGCCTGGATTTGCCCCGTAGGCCCGGCCCGGGCCCCTCGGGAGCAGAACAGCCTTGGTGAGGTGGACAG
GAGGGGACCTCGCGAGCAGACGCGCGCGCCAGCGACAGCAGCCCCGCCCCGGCCTCTCGGGAGCCGGGGGGCAGA
GGCTGCGGAGCCCCAGGAGGGTCTATCAGCCACAGTCTCTGCATGTTTCCAAGAGCAACAGGAA**ATG**AACACATT
GCAGGGGCCAGTGTCATTCAAAGATGTGGCTGTGGATTTCACCCAGGAGGAGTGGCGGCAACTGGACCCTGATGA
GAAGATAGCATACGGGGATGTGATGTTGGAGAACTACAGCCATCTAGTTTCTGTGGGGTATGATTATCACCAAGC
CAAACATCATCATGGAGTGGAGGTGAAGGAAGTGGAGCAGGGAGAGGAGCCGTGGATAATGGAAGGTGAATTTCC
ATGTCAACATAGTCCAGAACCTGCTAAGGCCATCAAACCTATTGATCGGAAGTCAGTCCATCAGATTTGCTCTGG
GCCAGTGGTACTGAGTCTAAGCACTGCAGTGAAGGAGTTAGTAGAAAACAGTCTGGATGCTGGTGCCACTAATAT
TGATCTAAAGCTTAAGGACTATGGAGTGGATCTCATTGAAGTTTCAGACAATGGATGTGGGGTAGAAGAAGAAAA
CTTTGAAGGCTTAATCTCTTTCAGCTCTGAAACATCACACATG**TAA**

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FIGURE 3034A

CAGCATCAATAAGGCCATTAATACGCAGGAAGTGGCTGTAAAGGAAAAACACGCCAGAACGTGCATACTGGGCAC
CCACCATGAGAAAGGGGCACAGACCTTCTGGTCTGTTGTCAACCGCCTGCCTCTGTCTAGCAACGCAGTGCTCTG
CTGGAAGTTCTGCCATGTGTTCCACAAACTCCTCCGAGATGGACACCCGAACGTCCTGAAGGACTCTCTGAGATA
CAGAAATGAATTGAGTGAC**ATG**AGCAGGATGTGGGGCCACCTGAGCGAGGGGTATGGCCAGCTGTGCAGCATCTA
CCTGAAACTGCTAAGAACCAAGATGGAGTACCACACCAAAAATCCCAGGTTCCCAGGCAACCTGCAGATGAGTGA
CCGCCAGCTGGACGAGGCTGGAGAAAGTGACGTGAACAACTTTTTCCAGTTAACAGTGGAGATGTTTGACTACCT
GGAGTGTGAACTCAACCTCTTCCAAACAGTATTCAACTCCCTGGACATGTCCCGCTCTGTGTCCGTGACGGCAGC
AGGGCAGTGCCGCCTCGCCCCGCTGATCCAGGTCATCTTGGACTGCAGCCACCTTTATGACTACACTGTCAAGCT
TCTCTTCAAACTCCACTCCTGCCTCCCAGCTGACACCCTGCAAGGCCACCGGGACCGCTTCATGGAGCAGTTTAC
AAAGTTGAAAGATCTGTTCTACCGCTCCAGCAACCTGCAGTACTTCAAGCGGCTCATTCAGATCCCCCAGCTGCC
TGAGAACCCACCCAACTTCCTGCGAGCCTCAGCCCTGTCAGAACATATCAGCCCTGTGGTGGTGATCCCTGCAGA
GGCCTCATCCCCCGACAGCGAGCCAGTCCTAGAGAAGGATGACCTCATGGACATGGATGCCTCTCAGCAGAATTT
ATTTGACAACAAGTTTGATGACATCTTTGGCAGTTCATTCAGCAGTGATCCCTTCAATTTCAACAGTCAAAATGG
TGTGAACAAGGATGAGAAGGACCACTTAATTGAGCGACTATACAGAGAGATCAGTGGATTGAAGGCACAGCTAGA
AAACATGAAGACTGAGAGCCAGCGGGTTGTGCTGCAGCTGAAGGGCCACGTCAGCGAGCTGGAAGCAGATCTGGC
CGAGCAGCAGCACCTGCGGCAGCAGGCGGCCGACGACTGTGAATTCCTGCGGGCAGAACTGGACGAGCTCAGGAG
GCAGCGGGAGGACACCGAGAAGGCTCAGCGGAGCCTGTCTGAGATAGAAAGGAAAGCTCAAGCCAATGAACAGCG
ATATAGCAAGCTAAAGGAGAAGTACAGCGAGCTGGTTCAGAACCACGCTGACCTGCTGCGGAAGAATGCAGAGGT
GACCAAACAGGTGTCCATGGCCAGACAAGCCCAGGTAGATTTGGAACGAGAGAAAAAAGAGCTGGAGGATTCGTT
GGAGCGCATCAGTGACCAGGGCCAGCGGAAGACTCAAGAACAGCTGGAAGTTCTAGAGAGCTTGAAGCAGGAACT
TGCCACAAGCCAACGGGAGCTTCAGGTTCTGCAAGGCAGCCTGGAAACTTCTGCCCAGTCAGAAGCAAACTGGGC
AGCCGAGTTCGCCGAGCTAGAGAAGGAGCGGGACAGCCTGGTGAGTGGCGCAGCTCATAGGGAGGAGGAATTATC
TGCTCTTCGGAAAGAACTGCAGGACACTCAGCTCAAACTGGCCAGCACAGAGGAATCTATGTGCCAGCTTGCCAA
AGACCAACGAAAAATGCTTCTGGTGGGGTCCAGGAAGGCTGCGGAGCAGGTGATACAAGACGCCCTGAACCAGCT
TGAAGAACCTCCTCTCATCAGCTGCGCTGGGTCTGCAGATCACCTCCTCTCCACGGTCACATCCATTTCCAGCTG
CATCGAGCAACTGGAGAAAAGCTGGAGCCAGTATCTGGCCTGCCCAGAAGACATCAGTGGACTTCTCCATTCCAT
AACCCTGCTGGCCCACTTGACCAGCGACGCCATTGCTCATGGTGCCACCACCTGCCTCAGAGCCCCACCTGAGCC
TGCCGACTCACTGACCGAGGCCTGTAAGCAGTATGGCAGGGAAACCCTCGCCTACCTGGCCTCCCTGGAGGAAGA
GGGAAGCCTTGAGAATGCCGACAGCACAGCCATGAGGAACTGCCTGAGCAAGATCAAGGCCATCGGCGAGGAGCT
CCTGCCCAGGGGACTGGACATCAAGCAGGAGGAGCTGGGGGACCTGGTGGACAAGGAGATGGCGGCCACTTCAGC
TGCTATTGAAACTGCCACGGCCAGAATAGAGGAGATGCTCAGCAAATCCCGAGCAGGAGACACAGGAGTCAAATT
GGAGGTGAATGAAAGGATCCTTGGTTGCTGTACCAGCCTCATGCAAGCTATTCAGGTGCTCATCGTGGCCTCTAA
GGACCTCCAGAGAGAGATTGTGGAGAGCGGCAGGGGTACAGCATCCCCTAAAGAGTTTTATGCCAAGAACTCTCG
ATGGACAGAAGGACTTATCTCAGCCTCCAAGGCTGTGGGCTGGGGAGCCACTGTCATGGTGGATGCAGCTGATCT
GGTGGTACAAGGCAGAGGGAAATTTGAGGAGCTAATGGTGTGTTCTCATGAAATTGCTGCTAGCACAGCCCAGCT
TGTGGCTGCATCCAAGGTGAAAGCTGATAAGGACAGCCCCAACCTAGCCCAGCTGCAGCAGGCCTCTCGGGGAGT
GAACCAGGCCACTGCCGGCGTTGTGGCCTCAACCATTTCCGGCAAATCACAGATCGAAGAGACAGACAACATGGA
CTTCTCAAGCATGACGCTGACACAGATCAAACGCCAAGAGATGGATTCTCAGGTTAGGGTGCTAGAGCTAGAAAA
TGAATTGCAGAAGGAGCGTCAAAAACTGGGAGAGCTTCGGAAAAAGCACTACGAGCTTGCTGGTGTTGCTGAGGG
CTGGGAAGAAGGAACAGAGGCATCTCCACCTACACTGCAAGAAGTGGTAACCGAAAAAGAA**TAG**AGCCAAACCAA
CACCCCATATGTCAGTGTAAATCCTTGTTACCTATCTCGTGTGTGTTATTTCCCCAGCCACAGGCCAAATCCTTG
GAGTCCCAGGGGCAGCCACACCACTGCCATTACCCAGTGCCGAGGACATGCATGACACTTCCAAAGACTCCCTCC
ATAGCGACACCCTTTCTGTTTGGACCCATGGTCATCTCTGTTCTTTTCCCGCCTCCCTAGTTAGCATCCAGGCTG
GCCAGTGCTGCCCATGAGCAAGCCTAGGTACGAAGAGGGGTGGTGGGGGGCAGGGCCACTCAACAGAGAGGACCA
ACATCCAGTCCTGCTGACTATTTGACCCCCACAACAATGGGTATCCTTAATAGAGGAGCTGCTTGTTGTTTGTTG
ACAGCTTGGAAAGGGAAGATCTTATGCCTTTTCTTTTCTGTTTTCTTCTCAGTCTTTTCAGTTTCATCATTTGCA
CAAACTTGTGAGCATCAGAGGGCTGATGGATTCCAAACCAGGACACTACCCTGAGATCTGCACAGTCAGAAGGAC
GGCAGGAGTGTCCTGGCTGTGAATGCCAAAGCCATTCTCCCCCTCTTTGGGCAGTGCCATGGATTTCCACTGCTT

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FIGURE 3034B

CTTATGGTGGTTGGTTGGGTTTTTTGGTTTTGTTTTTTTTTTTAAGTTTCACTCACATAGCCAACTCTCCCAAAG
GGCACACCCCTGGGGCTGAGTCTCCAGGGCCCCCCAACTGTGGTAGCTCCAGCGATGGTGCTGCCCAGGCCTCTC
GGTGCTCCATCTCCGCCTCCACACTGACCAAGTGCTGGCCCACCCAGTCCATGCTCCAGGGTCAGGCGGAGCTGC
TGAGTGACAGCTTTCCTCAAAAAGCAGAAGGAGAGTGAGTGCCTTTCCCTCCTAAAGCTGAATCCCGGCGGAAAG
CCTCTGTCCGCCTTTACAAGGGAGAAGACAACAGAAAGAGGGACAAGAGGGTTCACACAGCCCAGTTCCCGTGAC
GAGGCTCAAAAACTTGATCACATGCTTGAATGGAGCTGGTGAGATCAACAACACTACTTCCCTGCCGGAATGAAC
TGTCCGTGAATGGTCTCTGTCAAGCGGGCCGTCTCCCTTGGCCCAGAGACGGAGTGTGGGAGTGATTCCCAACTC
CTTTCTGCAGACGTCTGCCTTGGCATCCTCTTGAATAGGAAGATCGTTCCACCTTCTACGCAATTGACAAACCCG
GAAGATCAGATGCAATTGCTCCCATCAGGGAAGAACCCTATACTTGGTTTGCTACCCTTAGTATTTATTACTAAC
CTCCCTTAAGCAGCAACAGCCTACAAAGAGATGCTTGGAGCAATCAGAACTTCAGGTGTGACTCTAGCAAGGCTC
ATCTTTCTGCCCGGCTACATCAGCCTTCAAGAATCAGAAGAAAGGCCAAGGTGCTGGACTGTTACTGACTTGGAT
CCCAAAGCAAGGAGATCATTTGGAGCTCTTGGGTCAGAGAAAATGAGAAAGGACAGAGCCAGCGGCTCCAACTCC
TTTCAGCCACATGCCCCAGGCTCTCGCTGCCCTGTGGACAGGATGAGGACAGAGGGCACATGAACAGCTTGCCAG
GGATGGGCAGCCCAACAGCACTTTTCCTCTTCTAGATGGACCCCAGCATTTAAGTGACCTTCTGATCTTGGAAAA
ACAGCGTCTTCCTTCTTTATCTATAGCAACTCATTGGTGGTAGCCATCAAGCACTTCCCAGGATCTGCTCCAACA
GAATATTGCTAGGTTTTGCTACATGACGGGTTGTGAGACTTCTGTTTGATCACTGTGAACCAACCCCCATCTCCC
TAGCCCACCCCCCTCCCCAACTCCCTCTCTGTGCATTTTCTAAGTGGGACATTCAAAAAACTCTCTCCCAGGACC
TCGGATGACCATACTCAGACGTGTGACCTCCATACTGGGCTAAGGAAGTATCAGCACTAGAAATTGGGCAGTCTT
AATGTTGAATGCTGCTTTCTGCTTAGTATTTTTTTGATTCAAGGCTCAGAAGGAATGGTGCGTGGCTTCCCTGTC
CCAGTTGTGGCAACTAAACCAATCGGTGTGTTCTTGATGCGGGTCAACATTTCCAAAAGTGGCTAGTCCTCACTT
CTAGATCTCAGCCATTCTAACTCATATGTTCCCAATTACCAAGGGGTGGCCGGGCACAGTGGCTCACGCCTGTAA
TCCCAGCACTTTGAGAGGCTGAGGTGGTAGGATCACCTGAGGTCAGGAGTTCAAGACCAGCCTGTCCAACATGGT
GAAACCCCCATCTCTACTAAAAATACCAAAAATTAGCCGAGCGTAGTGACGGGTGCCCGTAATCCCAGCTACTCA
GGAGGCTGAGACAGGAGAATCACCTGAACCCCAGAGGCAGAGGTTGCAGTGAGCTGAGATCACGCCATTGTACTC
CAGCCTGGGCAACAAGAGCAAAACTCCGTCTCAAAAAAAAAAAAAAAATTACAAATGGGGCAAACAGTCTAGTGTA
ATGGATCAAATTAAGATTCTCTGCCCAGCCGGGCACAGTGGCGCATGCCTGTAATCCCAGAACTTTGGGAGGCCA
AGACGGGATGATTGCTTGAGCTCAGGAGTTTGAGACCAGGCTGGGCATCATAGCAAGACCTCATCTCTACTAAAA
TTCAAAAACAAAATTAGCCGGGCATGATGGTGCATGCCTGTAGTCTCAGCTAGTTGGGGAGCTAAGGTGGGAGAA
TTGCTTGAGCTTGGGAAGTCGAGGCTGCAGTCAGCCCTGATTGTGCCAGTGCACTCCGGCCTGGGTGACAGAGTG
AGACCCTGTCTCAAAAAAAAAAAAGATTCTGTGTCAGAGCCCAGCCCAGGAGTTTGAGGCTGCAATGAGCCATGAT
TTCCCACTGCACTCCAGCCTGAGTGACAGAGCGAGACTCCATCTCTTTAAAAACAAACAAAAAATTATCTGAATG
ATCCTGTCTCTAAAAAGAAGCCACAGAAATGTTTAAAAACTTCATCGACTTAGCCTGAGTCATAACGGTTAAGAA
AGCACTTAAACAGAAGCAGAGGCTAATTCAGTGTCACATGAGGAAGTAGCTGTCAGATGTCACATAATTACTTTC
GTAATAGCTCAGATTAGAATGGCTACCCCATTCTCTAGACAAAATCAAATTGTCCTATTGTGACTCTTCTAAAAA
TGAAGATGAAGAGCTATTTAATGACACACCTTGGATTAAAACGGGAATCACATCTTAAAGCTAAAAATGAACCTG
CAAGCCTTCTAAATGAGTCACTGAGCATCACTAGTGACAAGTCTCGGGTGAGCGTAAATGGGTCATGACAAGATG
GGACAGCAACAAAATCATGGCTTAGGATCGACAAGAAGTTAAAAAACAGCTGCATCTGTTACTTAAGTTTGTAAG
ACAGTGCCCTGAGACCTCTAGAGAAAAGATGTTTGTTTACATAAGAGAAAGAGGCCAGACATGGTGTCTCACACG
TTTAATCCCAGCACTTTGGGAGGCAGGGGCGGGTGGATCACCTGAGGTCAGGAGTTCAAGACTAGCCTGGCCAAC
ATGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCGGGCATGGTGGCAGGCGCCTATAATCCCAGCTAC
TGGGGAGGCTGAGGCAGGAGAATC

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FIGURE 3035

ATGGGGCGGGGCCTCTGGGAGGCGTGGCCTCCGGCCGGCTCCTCTGCTGTTGCCAAGGGAAACTGCCGCGAGGAG
GCGGAAGGAGCAGAGGACCGGCAGCCGGCGTCGAGGCGGGGCGCGGGAACGACGGCGGCCATGGCGGCCTCGGGG
CCCGGGTGTCGCAGCTGGTGCTTGTGTCCCGAGGTGCCATCCGCCACCTTCTTCACTGCGCTGCTCTCGCTGCTG
GTTTCCGGGCCTCGCCTGTTCCTGCTGCAGCAGCCCCTGGCGCCCTCGGGCCTCACGCTGAAGTCCGAGGCCCTT
CGCAACTGGCAAGTTTACAGGCTGGTAACCTACATCTTTGTCTACGAGAATCCCATCTCCCTGCTCTGCGGCGCT
ATCATCATCTGGCGCTTTGCTGGCAATTTCGAGAGAACCGTGGGCACCGTCCGCCACTGCTTCTTCACCGTGATC
TTCGCCATCTTCTCCGCTATCATCTTCCTGTCATTCGAGGCTGTGTCATCACTGTCAAAGCTGGGGGAAGTGGAG
GATGCCAGAGGTTTCACCCCAGTGGCCTTTGCCATGCTGGGAGTCACCACCGTCCGTTCTCGGATGAGGCGGGCC
CTGGTGTTTGGCATGGTTGTGCCCTCAGTCCTGGTTCCGTGGCTCCTGCTGGGTGCCTCGTGGCTCATTCCCCAG
ACCTCTTTCCTCAGTAATGTCTGCGGGCTGTCCATCGGGCTGGCCTATGGCCTCACCTACTGCTATTCCATCGAC
CTCTCAGAGCGAGTGGCACTGAAGCTCGATCAGACCTTCCCCTTCAGCCTGATGAGGAGGATATCCGTGTTCAAG
TACGTCTCAGGGTCTTCAGCCGAGAGGAGGGCAGCCCAGAGCCGGAAACTGAACCCGGTGCCTGGCTCCTACCCC
ACACAGAGCTGCCACCCTCACCTGTCCCCAAGCCACCCTGTGTCCCAGACGCAGCACGCCAGTGGTCAGAAGCTG
GCCTCCTGGCCCTCCTGCACCCCCGGGCACATGCCCACCTTGCCTCCGTACCAGCCTGCCTCCGGCCTGTGCTAT
GTGCAGAACCACTTTGGTCCAAACCCCACCTCCTCCAGTGTCTACCCAGCTTCTGCGGGCACCTCCCTGGGCATC
CAGCCCCCCACGCCTGTGAACAGCCCTGGCACGGTGTATTCTGGGGCCTTGGGCACACCAGGGGCTGCAGGCTCC
AAGGAGTCCTCCAGGGTCCCCATGCCC**TGA**GAGAATTTCTAGGGAAGTCATCTCACTTGGCCTTCTGAAGGTCCT
CCCTAAGAGTCTCCTGACAAAAGTTACTTATTGA

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FIGURE 3036

GTTTC**ATG**ATCAACATGGGAGACTCCCACGTGGACACCAGCTCCACCGTGTCCGAGGCGGTGGCCGAAGAAGTAT
CTCTTTTCAGCATGACGGACATGATTCTGTTTTCGCTCATCGTGGGTCTCCTAACCTACTGGTTCCTCTTCAGAA
AGAAAAAAGAAGAAGTCCCCGAGTTCACCAAAATTCAGACATTGACCTCCTCTGTCAGAGAGAGCAGCTTTGTGG
AAAAGATGAAGAAAACGGGGAGGAACATCATCGTGTTCTACGGCTCCCAGACGGGGACTGCAGAGGAGTTTGCCA
ACCGCCTGTCCAAGGACGCCCACCGCTACGGGATGCGAGGCATGTCAGCGGACCCTGAGGAGTATGACCTGGCCG
ACCTGAGCAGCCTGCCAGAGATCGACAACGCCCTGGTGGTTTTCTGCATGGCCACCTACGGTGAGGGAGACCCCA
CCGACAATGCCCAGGACTTCTACGACTGGCTGCAGGAGACAGACGTGGATCTCTCTGGGGTCAAGTTCGCGGTGT
TTGGTCTTGGGAACAAGACCTACGAGCACTTCAATGCCATGGGCAAGTACGTGGACAAGCGGCTGGAGCAGCTCG
GCGCCCAGCGCATCTTTGAGCTGGGGTTGGGCGACGACGATGGGAACTTGGAGGAGGACTTCATCACCTGGCGAG
AGCAGTTCTGGCCGGCCGTGTGTGAACACTTTGGGGTGGAAGCCACTGGCGAGGAGTCCAGCATTCGCCAGTACG
AGCTTGTGGTCCACACCGACATAGATGCGGCCAAGGTGTACATGGGGGAGATGGGCCGGCTGAAGAGCTACGAGA
ACCAGAAGCCCCCCTTTGATGCCAAGAATCCGTTCCTGGCTGCAGTCACCACCAACCGGAAGCTGAACCAGGGAA
CCGAGCGCCACCTCATGCACCTGGAATTGGACATCTCGGACTCCAAAATCAGGTATGAATCTGGGGACCACGTGG
CTGTGTACCCAGCCAACGACTCTGCTCTCGTCAACCAGCTGGGCAAAATCCTGGGTGCCGACCTGGACGTCGTCA
TGTCCCTGAACAACCTGGATGAGGAGTCCAACAAGAAGCACCCATTCCCGTGCCCTACGTCCTACCGCACGGCCC
TCACCTACTACCTGGACATCACCAACCCGCCGCGTACCAACGTGCTGTACGAGCTGGCGCAGTACGCCTCGGAGC
CCTCGGAGCAGGAGCTGCTGCGCAAGATGGCCTCCTCCTCCGGCGAGGGCAAGGAGCTGTACCTGAGCTGGGTGG
TGGAGGCCCGGAGGCACATCCTGGCCATCCTGCAGGACTGCCCGTCCCTGCGGCCCCCCATCGACCACCTGTGTG
AGCTGCTGCCGCGCCTGCAGGCCCGCTACTACTCCATCGCCTCATCCTCCAAGGTCCACCCCAACTCTGTGCACA
TCTGTGCGGTGGTTGTGGAGTACGAGACCAAGGCTGGCCGCATCAACAAGGGCGTGGCCACCAACTGGCTGCGGG
CCAAGGAGCCTGCCGGGGAGAACGGCGGCCGTGCGCTGGTGCCCATGTTCGTGCGCAAGTCCCAGTTCCGCCTGC
CCTTCAAGGCCACCACGCCTGTCATCATGGTGGGCCCCGGCACCGGGGTGGCACCCTTCATAGGCTTCATCCAGG
AGCGGGCCTGGCTGCGACAGCAGGGCAAGGAGGTGGGGGAGACGCTGCTGTACTACGGCTGCCGCCGCTCGGATG
AGGACTACCTGTACCGGGAGGAGCTGGCGCAGTTCCACAGGGACGGTGCGCTCACCCAGCTCAACGTGGCCTTCT
CCCGGGAGCAGTCCCACAAGGTCTACGTCCAGCACCTGCTAAAGCAAGACCGAGAGCACCTGTGGAAGTTGATCG
AAGGCGGTGCCCACATCTACGTCTGTGGGGATGCACGGAACATGGCCAGGGATGTGCAGAACACCTTCTACGACA
TCGTGGCTGAGCTCGGGGCCATGGAGCACGCGCAGGCGGTGGACTACATCAAGAAACTGATGACCAAGGGCCGCT
ACTCCCTGGACGTGTGGAGC**TAG**GGGCCTGCCTGCCCCACCCACCCCACAGACTCCGGCCTGTAATCAGCTCTCC
TGGCTCCCTCCCGTAGTCTCCTGGGTGTGTTTGGCTTGGCCTTGGCATGGGCGCAGGCCCAGTGACAAAGACTCC
TCTGGGCCTGGGGTGCATCCTCCTCAGCCCCCAGGCCAGGTGAGGTCCACCGGCCCCTGGCAGCACAGCCCAGGG
CCTGCATGGGGGCACCGGGCTCCATGCCTCTGGAGGCCTCTGGCCCTCGGTGGCTGCACAGAAGGGCTCTTTCTC
TCTGCTGAGCTGGGCCCAGCCCCTCCACGTGATTTCCAGTGAGTGTAAATAATTTTAAATAACCTCTGGCCCTTG
GAATAAAGTTCTGTTTTCTGT

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FIGURE 3037

GAGGAGCCTCGGGTGGGCCGGGGTTGCTGCGCCGTCCTCCACTACTGGCTACTGGCGCTGCAGCCATGCAGCCCC
CGCCCCCGGGCCCGCTGGGCGACTGCCTGCGGGACTGGGAGGATCTACAGCAGGACTTCCAGAACATCCAGGAGA
CCCATCGGCTCTACCGCCTGAAGCTGGAGGAGCTGACCAAACTTTAGAACAATTGCACCAGCTCCATCACGCGGC
AGAAGAAGCGGCTCCAGGAGCTGGCCCTCGCCCTGAAGAAATGCAAACCCTCCCTCCCAGCAGAGGCCGAGGGGG
CCGCACAGGAGCTGGAGAACCAG**ATG**AAAGAGCGCCAAGGCCTCTTCTTTGACATGGAGGCCTATTTGCCTAAGA
AGAATGGATTGTACCTGAGCCTGGTTCTGGGGAACGTCAACGTCACGCTCCTGAGCAAGCAGGCTAAGTTTGCCT
ACAAGGACGAGTATGAGAAGTTCAAGCTCTACCTCACCATCATCCTCATCCTCATCTCCTTCACTTGCCGCTTCC
TGCTCAACTCCAGGGTGACAGATGCTGCCTTCAACTTCCTGCTGGTCTGGTACTACTGCACCCTGACCATCCGGG
AGAGCATCCTCATCAACAACGGCTCCCGGATCAAAGGCTGGTGGGTGTTCCATCACTACGTGTCCACCTTCCTGT
CGGGAGTCATGCTGACGTGGCCCGACGGTCTCATGTACCAGAAATTCCGGAACCAATTCCTCTCCTTTTCCATGT
ACCAGAGCTTCGTGCAGTTTCTCCAGTACTACTACCAGAGCGGCTGCCTCTACCGCCTGCGGGCGCTGGGCGAGC
GGCACACCATGGACCTCACTGTGGAGGGCTTCCAGTCCTGGATGTGGCGGGGCCTCACCTTCCTGCTGCCTTTTC
TTTTCTTTGGACACTTCTGGCAGCTTTTTAACGCGCTGACGTTGTTCAACCTGGCCCAGGACCCTCAGTGCAAGG
AGTGGCAGGTGCTTATGTGCGGCTTTCCCTTCCTCCTCCTTTTCCTCGGCAATTTCTTCACCACCCTGAGGGTTG
TGCACCACAAGTTTCACAGTCAGCGGCACGGGAGCAAGAAGGAT**TGA**GGCTGGGCCTTCCCCTGCCGGCCCAGAG
GGGCTTCTGTCCTGTGTGTTGTGGGAGGGGATGGGAGGCGCCCCTCGAGTGTGCGTGTATCAGGGGGTCTCTTCT
ATTCTCCCTTGGGTTTTATGGGCGCTGTGGGCCCTGAAGGAAGACCTGGGCCCAGTGCCCTCAATAAAGAGAGGC
CCAG

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FIGURE 3038

GCCACTTCCGGGAGTCGGAAAGGAAAGCTGTGGGACCATCCTGGCAACCCCGGTGTTTGGCTGGGTTCTAGCGTA
GCCGTCTGTGTGGCCGGTGGGGGACCTGCGGTCGGAGTGGGAGGGCCAGTCTGCACCCAAGAGGTGGAAGAGGAC
GGGCTTTAGGCTGGAAGCGCCTTAGAGGAGCCATTTTTCCAGGTGGGGCCCCAGGCAGAGGCTCCGACAGGGAGC
CTGGCCATAGTCGCGCAGCCGGGGAGGTGGAGCGCGTCCCAGACCCGAGCCCCCGACCTCAGCCAAACCCATTCC
TTCTGCCCTTGGAGGCCAGAGGGGACTCTGAGCTCCGGAAAGG**ATG**CCTGGTTTGCTTTTATGTGAACCAACAGA
GCTTTACAACATCCTGAATCAGGCCACAAAACTCTCCAGATTAACAGACCCCAACTATCTCTGTTTATTGGATGT
CCGTTCCAAATGGGAGTATGACGAAAGCCATGTGATCACTGCCCTTCGAGTGAAGAAGAAAAATAATGAATATCT
TCTCCCGGAGTCTGTGGACCTGGAGTGTGTGAAGTACTGCGTGGTGTATGATAACAACAGCAGCACCCTGGAGAT
ACTCTTAAAAGATGATGATGATGATTCAGACTCTGATGGTGATGGCAAAGATCTTGTGCCTCAAGCAGCCATTGA
GTATGGCAGGATCCTGACCCGCCTCACCCACCACCCCGTCTACATCCTGAAAGGGGGCTATGAGCGCTTCTCAGG
CACGTACCACTTTCTCCGGACCCAGAAGATCATCTGGATGCCTCAGGAACTGGATGCATTTCAGCCATACCCCAT
TGAAATCGTGCCAGGGAAGGTCTTCGTTGGCAATTTCAGTCAAGCCTGTGACCCCAAGATTCAGAAGGACTTGAA
AATCAAAGCCCATGTCAATGTCTCCATGGATACAGGGCCCTTTTTTGCAGGCGATGCTGACAAGCTTCTGCACAT
CCGGATAGAAGATTCCCCGGAAGCCCAGATTCTTCCCTTCTTACGCCACATGTGTCACTTCATTGAAATTCACCA
TCACCTTGGCTCTGTCATTCTGATCTTTTCCACCCAAGGTATCAGCCGCAGTTGTGCCGCCATCATAGCCTACCT
CATGCATAGTAACGAGCAGACCTTGCAGAGGTCCTGGGCCTATGTCAAGAAGTGCAAAAACAACATGTGTCCAAA
TCGGGGATTGGTGAGCCAGCTGCTGGAATGGGAGAAGACTATCCTTGGAGATTCCATCACAAACATCATGGATCC
GCTCTAC**TGA**TCTTCTCCGAGGCCCACCGAAGGGTACTGAAGAGCCTCACCTGGGGGCATTTTGTGGGTGGAGGG
CCAGAGTGTGTATACCCAGGCTTGTCTGGAAGGAGAAGGCCTTTGCTGCCTGAAAGTCTC

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FIGURE 3039

GGCGCTGGGCAGTGTGGAGGTCGTTGGAGTCACTTCCCCGTCACCAGCTCCTGTGCCTGCCAGTCGGTGCCCCTC
CCGCTCCAGCC**ATG**CTCTCCGCCCTCGCCCGGCCTGCCAGCGCTGCTCTCCGCCGCAGCTTCAGCACCTCGGCCC
AGAACAATGCTAAAGTAGCTGTGCTAGGGGCCTCTGGAGGCATCGGGCAGCCACTTTCACTTCTCCTGAAGAACA
GCCCCTTGGTGAGCCGCCTGACCCTCTATGATATCGCGCACACACCCGGAGTGGCCGCAGATCTGAGCCACATCG
AGACCAAAGCCGCTGTGAAAGGCTACCTCGGACCTGAACAGCTGCCTGACTGCCTGAAAGGTTGTGATGTGGTAG
TTATTCCGGCTGGAGTCCCCAGAAAGCCAGGCATGACCCGGGACGACCTGTTCAACACCAATGCCACGATTGTGG
CCACCCTGACCGCTGCCTGTGCCCAGCACTGCCCGGAAGCCATGATCTGCGTCATTGCCAATCCGGTTAATTCCA
CCATCCCCATCACAGCAGAAGTTTTCAAGAAGCATGGAGTGTACAACCCCAACAAAATCTTCGGCGTGACGACCC
TGGACATCGTCAGAGCCAACACCTTTGTTGCAGAGCTGAAGGGTTTGGATCCAGCTCGAGTCAACGTCCCTGTCA
TTGGTGGCCATGCTGGGAAGACCATCATCCCCCTGATCTCTCAGTGCACCCCCAAGGTGGACTTTCCCCAGGACC
AGCTGACAGCACTCACTGGGCGGATCCAGGAGGCCGGCACGGAGGTGGTCAAGGCTAAAGCCGGAGCAGGCTCTG
CCACCCTCTCCATGGCGTATGCCGGCGCCCGCTTTGTCTTCTCCCTTGTGGATGCAATGAATGGAAAGGAAGGTG
TTGTGGAATGTTCCTTCGTTAAGTCACAGGAAACGGAATGTACCTACTTCTCCACACCGCTGCTGCTTGGGAAAA
AGGGCATCGAGAAGAACCTGGGCATCGGCAAAGTCTCCTCTTTTGAGGAGAAGATGATCTCGGATGCCATCCCCG
AGCTGAAGGCCTCCATCAAGAAGGGGGGAAGATTTCGTGAAGACCCTGAAG**TGA**GCCGCTGTGACGGGTGGCCAGT
TTCCTTAATTTATGAAGGCATCATGTCACTGCAAAGCCGTTGCAGATAAACTTTGTATTTTAATTTGCTTTGGTG
ATGATTACTGTATTGACATCATCATGCCTTCCAAATTGTGGGTGGCTCTGTGGGCGCATCAATAAAAGCCGTCCT
TGATTTTATTTTTCAAGGTCCCTTCTGTAAATGCTGTGCTTTCTTCCCTGTGAGAGCCAACTTTAGAGTGTCTGC
TACCTCTTCATTACCAATCAGAATTAGATGATGTTTAACTGTTAGACTGAAGCGTGACGCTTTCATCAGTAGCTT
CAAGAAAGTCTAAATTGTTAATTTATGGAATTGGACACAGTATTCAGTTTACCCGTACATGCTCCTCCCGCCCCT
CCTGTTGGCACCCTTGCATCGCCCAGGCCTGATTCCTCCTGGGGGGTAGTTCACCCCCACGGGTTCATAGTTCAGC
GGCGAATGCCAGGCAGCTGTTTTCTGGCTGAGCAAACAGCACCTTTCTCATTGAGCTTCCTCTACTGACCTCTGT
CCCCCTTGGGATTTCATCTTCTGACCGAACCCTGATGTTCAGTGGCAGAGACAGCCCATAGCCAGAACTGTGGGT
AGACCAGGGTTGGGGTGTGCGGTTTGGGACAGCCCAAACCCCAGCCGCTGTGTCAAGGCCTAGGACGCCATGCTG
CCATCAAAAGGGGGTTCCAGGTTTCCATCAGTGGCCTAAAGAAGGGACTTCTTGTTGTACTGAGGAGTGCGGAAT
TAAAGAGATTTGACTCCCTTTAGTATTGGGGGCAGTCCGTTCCCCAGACACTGTGGCCTCTGAAGTGGAAACTGA
AAGCTGCATACCTGGGAAAGAACTTTCTAGGAATAGGCAATGGCCTTCAGTGGAAGAGGGAGGGCTGGAGGTGTG
CCCAGTACTTGGATGTTCATCTGTCCACAACAGCTTTTTGTTTTTTTAAAAAAGCTAAAATGGAAATGGATTTTA
TCATAAAGGATGACATCGTTTTCTTCTACAATTAATACATGTTCATTGTATAAAACCCAAAAAGCAGCTAAAAAA
TAAAGCGGGAAAGG

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FIGURE 3040

ATGCCGGGCTTCATGCAGCCGGGCTGCGTGGCTGCGCAGAGCAGACTCCAGTGGGAGGAAGAGGCCTTTGCCAGC
AGTCAGAGCAGCCAAGGGGCCCAATCCCTCACATTCTCCAAGTTTGAAGGAAAGAAAACCAACGAGAAGACCCAC
GAGGTTACCACAGTGAAGAAATCTTCAGTGCGTCTTCCAGGGTCGGATCAAAGAAGGCTACAAAACAAAAGAACA
GTTGCCAGCACTTGGAAGAGGATGTGGATCCAAACCAAATGGAGGACAGATACTCCCTCTATGGACAAGATACTC
ATGGAAGAAGTCAAGTTAGAAGAGCAGCTGAAGGAGGCTGTGGAAGAAGATAAGCAAGCACTGGCAGATACTGAG
GGCTCAGAGCAGAGCAGCCAAAAATTGGTGGAGGAGGGAAATATGTATAGCATTCAGGGCTTCTGCAAGGACTCG
TTAGAGGTTGCAGATGTTTTGGAGAAGGCAACACAGTGTGTTCCAGAAGAAGAAATTAAAGACAATAACCCTCAC
CTGAAGAACCTCTCTCTACTCACAATGAGTGAAGTCCAGATTCAGGAAGTGTTCAGCAAGCACTGCCAAGATGAA
CTCTGTCACAGCAAGTTCCACCCTTATGAGCTTCTTGGACTCACTGAGGCAGTAAAAGAACCATATCCTGTGTTT
GAATCAAATCCCAAGTTCCTGTACGTAGAAGGTTTGCCAGACAGGATTCCCTTTCGAAGCCCTCCTGGTTTGGAA
TTCCATGACTTGAAAGGATCGTCCATGGGAGTAATAAAATCAAATTTGTTGGTAAAAAGCCCAGCTGCCGCCCGC
CCCAACAGCATCTCCTGGCCCAAGGCTATTTCAAGTGGGCCCCTCCAGGGCCCAGCTGCTGCACCCCAACCAATG
GCCTGTGCAAACCCAAAGCGTCTTGAAGTTGGCCTCGCCAGGCCCAGCTCCTGCCTGTCATCCCGGCAGCATTCG
TACGACCAAAACCTCCTCCAGCCCAGCTCTCCAGGCCCACCTGTGGCCTCGCAGTGGCCTCCCCGGGGCCAGATC
TTGCCTCACGGTGGCCTTCCCCGGCCGTGTTCCTGCCAGCCTCCCAGCGGCCTCGACAAGCCCATCGCATGCCTC
TCACTGGGCTCTGGAGGTCCAGCTCAAGCCTCACGGTGGCCTCTCCAGGCCCAGCTCCCGCCCGCCCCGACGGCG
TCTCCCGGCCAAGGGTTTCTCAAGTGGGCCCCTCCAGGGCCCAGCTGCTGCCCCCCGGCCGATGGCCTGTGCGGG
CCCAAAGTGTCC**TGA**

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FIGURE 3041

CTCAAACACCGCCTGCTAAAAATACCCGACTGGAGGAGCATAAAAGCGCAGCCGAGCCCAGCGCCCCGCACTTTT
CTGAGCAGACGTCCAGAGCAGAGTCAGCCAGC**ATG**ACCGAGCGCCGCGTCCCCTTCTCGCTCCTGCGGGGCCCCA
GCTGGGACCCCTTCCGCGACTGGTACCCGCATAGCCGCCTCTTCGACCAGGCCTTCGGGCTGCCCCGGCTGCCGG
AGGAGTGGTCGCAGTGGTTAGGCGGCAGCAGCTGGCCAGGCTACGTGCGCCCCCTGCCCCCCGCCGCCATCGAGA
GCCCCGCAGTGGCCGCGCCCGCCTACAGCCGCGCGCTCAGCCGGCAACTCAGCAGCGGGGTCTCGGAGATCCGGC
ACACTGCGGACCGCTGGCGCGTGTCCCTGGATGTCAACCACTTCGCCCCGGACGAGCTGACGGTCAAGACCAAGG
ATGGCGTGGTGGAGATCACCGGCAAGCACGAGGAGCGGCAGGACGAGCATGGCTACATCTCCCGGTGCTTCACGC
GGAAATACACGCTGCCCCCCGGTGTGGACCCCACCCAAGTTTCCTCCTCCCTGTCCCCTGAGGGCACACTGACCG
TGGAGGCCCCCATGCCCAAGCTAGCCACGCAGTCCAACGAGATCACCATCCCAGTCACCTTCGAGTCGCGGGCCC
AGCTTGGGGGCCCAGAAGCTGCAAAATCCGATGAGACTGCCGCCAAG**TAA**AGCCTTAGCCCGGATGCCCACCCCT
GCTGCCGCCACTGGCTGTGCCTCCCCCGCCACCTGTGTGTTCTTTTGATACATTTATCTTCTGTTTTTCTCAAAT
AAAGTTCAAAGCAACCACCTGT

FIGURE 3042A

CAGCAGCCGCAGCCGCCTCGCGCCCGGTCCCGCGGTCGCAGCTCCAGCCGCCTCCTCCGCGCAGCCGCCGCCTCA
GCTGCTCGCTCTGTGGGTCGGTCCTCTCCGGCACTTGGGCTCCAGTCGCGCCCTCCAAGCCCTTCAGGCCGCCCC
AGTGTCCTCCTCCTTCTCCGGCCAGACCCAGCCCCGCGAAG**ATG**GTGGACCGCGAGCAACTGGTGCAGAAAGCCC
GGCTGGCCGAGCAGGCGGAGCGCTACGACGACATGGCCGCGGCCATGAAGAACGTGACAGAGCTGAATGAGCCAC
TGTCGAATGAGGAACGAAACCTTCTGTCTGTGGCCTACAAGAACGTTGTGGGGGCACGCCGCTCTTCCTGGAGGG
TCATCAGTAGCATTGAGCAGAAGACATCTGCAGACGGCAATGAGAAGAAGATTGAGATGGTCCGTGCGTACCGGG
AGAAGATAGAGAAGGAGTTGGAGGCTGTGTGCCAGGATGTGCTGAGCCTGCTGGATAACTACCTGATCAAGAATT
GCAGCGAGACCCAGTACGAGAGCAAAGTGTTCTACCTGAAGATGAAAGGGGACTACTACCGCTACCTGGCTGAAG
TGGCCACCGGAGAGAAAAGGGCGACGGTGGTGGAGTCCTCCGAGAAGGCCTACAGCGAAGCCCACGAGATCAGCA
AAGAGCACATGCAGCCCACCCACCCCATCCGATTAGGCCTGGCTCTTAACTACTCCGTCTTCTACTATGAGATCC
AGAACGCCCCAGAGCAAGCGTGCCACTTGGCCAAGACCGCGTTCGACGACGCCATCGCCGAGCTTGACACCCTCA
ACGAGGACTCCTACAAGGACTCCACGCTCATCATGCAGCTCCTCCGCGACAACCTCACGCTCTGGACGAGCGACC
AGCAGGACGACGATGGCGGCGAAGGCAACAAT**TAA**GGCCCCAGGGGAACTGGCAGCGCACGCGGATGCTACTACT
GCAGTCTTTATTTTTTTCCCATGAGTTGGGGGTCGGGTGGGGGAGGGAAAGGGAGGGATGACCTTCCCAGGGAGA
AACCCACGACCTGTCCTGTCTTTGATCGCCTCTTTGACATTTTTGCCAAAATACCACTAGTGGAAAGTCAGGCTA
GCTGTGCTGGTATTGGAATAGCAGCCTCACACTGGCGTCTGGACTGTTCTGTAGATTCATGCAAGTGGAGCTGTC
TGTCTCTAATTTAACTTATTGCTAGATAATAGGGTTTTCAGATGAAAAGAAAACTTAAAGAGGAATGGCCCTCAT
TCAGTAAGTTCTGTGGTTCCAGTAAGGATTTTTATGTACATACGCTCTCGTCTCTCGTTTTGGGTACTTTCTATC
TCATCTGTCTCGGCTCTGCATGTTTTCCAGGGTGTAGCCTACAGACATGGAACAGTGTAAATCCCAGACTGACAG
ACTTAGAACCTGAGGTCTCATTCATCCTTATGGTTTAGGCCTTGCCAGTTTTCCGAAGTCTCTGATTAGTTGACA
GTATTAACACTAAATTGCAGTTTACAGTATTTCTACATTACAGCCATATGTAACATCAAGCCATCGATTGTGTAC
TTTTCCTTTGCTAGTTGTTTGGGCTTTAACATCCTTATTCAGCCTTATCCAGGTTGGTTTTGCTGTTGATCGGTC
TCCTAGGCTAAATGAGAATGAAAGCGACTTCAGGTCAGGTGGCTGTGGGATTTTTTTTTTTTGGTCCTTCTTTCC
TCTTAACGTAAATCCACCACCAAAATTATTAATCCTCTTGAGAGAAACGTGAAACGCCACAAAAATAGAGAAAAT
TCAGGTCTGTATGTCATGGATCGTGTTGGTATTTTCAGAGAACATCCCGCTTCTGAAGCTGCTGCAGCTCCCTCC
TCAGGGATCACACTGCCGTCACCCACTCTGCACTGGGGCGTTTCCTACTGCGCCTCGTGCTGGCGGACGCAGCTG
GGTGCAGAAGCTGTGGGGTCGGAGAGGCGTTTGGAGAAGGTCTGTGGTGCAGTGTGTGAAAATTCAGGTGCTAGA
AGCCTACTGGTAGAAAAACCCAAAAGGAAGAGCTATATCCTTAACCATTCTGTCCAATTTCGGGAGCCTTGTCAG
TGTGTCAGTTTTTCCTCCCCGAAGACACTCCTTCCCCAAGTAATTGTAGGAAGATAAAAAAACTGTTACCAGATA
ACAAACACTGAACTCCTATTTGACCAGAACTTTTTCCTCTCGAGATAGTTTTTTCTTTTTAATGAAAAAAGCATA
GGAATTGGAGATTGGCTTGTCTCACGCAGCCAGTGCACATTTGGAATTGACGGAAACAACGTTGCTATTTCCACC
CATTTGTTTTCGGCAGCCTTAAGGCCCTCATTCTCATTTCGGGTGAATCTGTCTATCTGTGAACGTGGCCCGCAT
GTGCATTCTTTTTTTTATATATATAAAGTCAGTGACGAGGAACTCCCGAGACGTGTAATGACACCACACTTGTTT
TCTTTGTTTCTTTGTTTTATTTAGGCAAGAAGAGGTGTGAGTAATTGAGGAAAAACTGACAGATGCTTTTGCTAA
TACCAAAATTGAGCTTACAATTAGGAACTGAGTATGTGTAACAGGATACAGGTGACAGTGAAGATAGAAGAACCA
CGATGACCACAGACTCAATGTGCTCTGTAACATCGCACAGTTTACCCAGCATGACTTTCCTTAGGAGGCCCCCTC
CTCACGCTAGAGTAAAAGTCCCAGTTAAGTGAAGCCTACCAGAAGAACTAGTAGAAGAAGCTTTGCCGCTTTTGT
GCCTCTCACAGGCGCCTAAAGTCATTGCCATGGGAGGAAGACGATTTGGGGGGGGAGGGGGGGGGGGCAGGGTA
GGTGGGGCTTTCCCTAATTTATCTTCATGTCCAGTGAGCAGTGTTGCGTTTTTCCTTGTAGCATTTGGAAATGAT
TTACTGGAATTACAAAACCTATTTTTCCTTTAAATTTCAGCTTTGGCTCTGGCTGCTTTTTAGAATAATGCAAGA
TAAAAATCACACCTGAGGGCTGAAAACGGAGAGGGAATGGGAGACTTGATATTTAAGCAGCTTGAATGGTTTTTC
TTTTCTTTATTTTTAAAGAAATGCACTTGCCTATGATACTGTCTCTCCAGTGAAATGATTACTCCTCCATTACTC
TATTGATACAATATTGTGCATGCTAGTGTTGTATTTCTATACAGTAGCTTGAAATTGATTAACTTATACTGTAGG
TGTTATGTATTCCTATGACAAAAAAAATTAAGTCTTCAAATTTTTTAAAGGTTTTTTTTTTTTAATTTAATTTTT
CCTTTTGGGGGTAAAGTTTGCTCTACCAAATAGTGATTGTAACAAATTGATCTGTTTTGGATGTTGCTATAGTGA
CATGCAGTTATATATTTTGTTTTTAAAAGGGGGGGAGCAAAAGAAACACCAGTGTTAGCTTAATCTTAATGTCTG
GTGTTTGTCATGGTGAAATTATAACTATTACAGTGTTGGAGAACAACAAATATGTTCTCTGAATGAGCCTTTGTG
CTTTTTGTCATGTTATGCAGTGAACTATTTTTAAGGTCTAATCAGTGATTATTTTTCCAGCTCCGTGTTTCTCTA

FIGURE 3042B

AGGAATTATTTCACACACGGACCATCTTTAGCAGTTTCCTCAGTGATGGAATATCATGAATGTGAGTCATTATGT
AGCTGTCGTACATTGAGCAAATAAACTTACAGATCTG

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FIGURE 3043

TTTTCTGGGGCCGCTCCAGCTGGTGCCGGCCACCTCCACTCCCCTTTGCTTCTTGCTGTCCCTAAGGTCGGATGG
GGACAGGCTGGGGCCACCAGCCAGCTCCATGGACAGGGACTTTGCCTCTGCTCACCTTCCAGCTGTGGAAAGAAA
AGAAGAAACGCCTGTGTTGATTTCCATTTGGAAGATCCTTCCTCCTCCTAAACTTCCAGGGGCAGACAAAGTGAT
TCGATCTTGGATTGACTGTAGAAGAAGGGACAGAAAGAGCCCAGAACATTCCCCCAGATGTTCCAACTGTGACTT
CTCCCTGGCGCCTTGATGGGAGCATCTGAAACACCCTTCACCATCTAG**ATG**CACAAGGAAGCAGAGATGCTAATT
GGTCCCCAGCTGGATGAGAAGCGCTGGGGGTGGAGGTTGGGAGATGGGAGTGCTGCCCCTCCCTTCCTCCCCCAA
GCCCTGTCTTTCCTTCTCCTCCTGCCACTGGCCAGCGCCCTACAGCCCACTCCACTGCCCTTTCAAGAGCTGAGG
CTGGTGGGGGGCCCCAGCCGCTGCCGGGGCCGCCTGGAAGTCATGCACGGTGGCTCCTGGGGCAGCGTCTGTGAT
GACGACTGGGACGTGGTGGACGCCAACGTAGTGTGTCGCCAGCTGGGCTGTGGCCTGGCACTGCCCGTGCCACGG
CCCCTTGCCTTTGGCCAAGGCCGAGGCCCCATCCTGCTGGACAACGTGGAGTGCCGCGGGCAGGAAGCTGCGCTG
AGCGAGTGCGGCAGCCGCGGCTGGGGCGTCCACAATTGCTTTCACTACGAGGATGTGGCTGTCCTGTGTGATGAA
TTCTTGCCAACGCAGCCCCCAACAAGGAAGATGTTAACCAGTAGAGCACCTCCTACGACACTGCCGAATGGAAAA
AGTGAGGGCAGCGTACGCCTGGTAGGGGGCGCGAACCTGTGTCAGGGCCGAGTGGAGATCCTGCACAGTGGCCTG
TGGGGCACCGTGTGTGACGACGACTGGGGGCTGCCGGATGCCGCTGTGGTCTGTCGTCAGCTGGGCTGCGGGGCG
GCCATGGCCGCCACCACCAACGCCTTCTTCGGCTATGGCACCGGACACATCCTGCTGGACAACGTGCACTGCGAA
GGCGGCGAGCCCCGCCTGGCAGCCTGCCAGAGCCTGGGCTGGGGTGTGCACAACTGCGGCCACCACGAGGACGCG
GGCGCGCTCTGCGCAGGCCTGGGTCCCCCAACGCTCACAGCACTGCCATCCTCAGCCACAAGAGAGGACTGGGCT
TGGCAGACAGATCCGTCCGCTACAGGAGTTGGCCCCCAGCCTTCCCGGGAGACAGCACTGCTCACCACCGCCGCC
TGGGCCGCGGGGAAGAAAAGTGGACGGCTGCGACTGGTGGGCGGCCCGGGTCCGTGCCGCGGCCGCGTGGAGGTG
TTGCACGCCGGGGGCTGGGGCACCGTGTGCGACGATGACTGGGACTTTGCGGACGCGCGCGTGGCCTGCCGCGAA
GCGGGCTGCGGGCCTGCGCTGGGCGCTACGGGACTGGGCCACTTCGGCTACGGCCGCGGCCCCGTGCTGCTGGAC
AACGTGGGCTGCGCCGGCACCGAGGCTCGCCTGAGCGACTGCTTCCACCTGGGCTGGGGCCAGCACAACTGCGGC
CACCACGAGGACGCGGGAGCGCTCTGCGCAGGCCCAGAGGAGCTGGGACTGCAAGTCCAGCAGGATGGTTCTGAG
ACCACGCGGGTGCCCACTCCTCGGCCCAGGGACGGGCATCTACGTCTGGTCAATGGAGCCCACCGATGCGAGGGA
CGTGTAGAGCTCTACCTAGGGCAACGGTGGGGCACTGTCTGTGATGATGCTTGGGACCTGCGGGCAGCCGGTGTC
CTGTGCCGCCAGCTGGGCTGTGGCCAGGCCCTCGCAGCCCCTGGCGAGGCTCACTTTGGCCCAGGCCGAGGCCCC
ATTCTCCTGGACAATGTCAAGTGCCGTGGGGAAGAAAGTGCTCTGCTGCTCTGCTCTCATATCCGCTGGGATGCC
CACAACTGTGACCACAGCGAGGATGCCAGTGTCCTGTGCCAGCCTTCA**TGA**CCCAGCCCGCTCTGCAGACCACCT
CTTCTTCTGGGAGCTGTGACCTCCCTTCCTCCTCCAGGAAGCCCTCCTCTTGTGATGACTACAGTTCACTTTGCC
CCTCCTTCCCTTGCCTGGGAGAGAGCCTACCTAGACAGTGCAGTCCTGCTTGGGGGAGCCTGGCTGTACCCCCGT
CCACTTACTGCGTGACCTCAGCCTGTCATCGACTGTTGTGAGCCCAATTCAGTGAAAGCTCCTGTGGTTTTGCTC
AGCCAAAACCAAAACGAGGGGAAGAGGATGATTCCTAACTCTTCTGTTTGGTGGGGCTCTTTTTATAGCACCAGA
CTCTGCCTTCCTTGACCTAGATCCAGGAGGCTCAGGGGCTCTTTAAATGGGGTATCTCCTCTTCCCCCAACCCAT
CTTGGGATCCCCAAGAAGAGGGAAGGCAGGAGGGGCCTACAGCTCCTACCTTGGGCCCTCAGGGGCTGCAGAGGA
ACCTGGGTCCCTGTCCTGCCCTGCTCCGCGAGGGCCTGGACTAACTCAGATGGTGCTCGGCTGGACAAGGGGACT
GGGGGAGGGGCCAAAGCAGGGACAGTGGCCCCTCCCTGCAGCTGGAACCAGCATCTCTGATTTATGCCGTCTCCA
CCACAGAGCCTCCACTTTGCAGGAGTGAAGAACCCTGGGGGCCTGTAGCCACCAGTTCATAGGTGCCAAGTCAAT
AAAGCATTGTCCCCCGTCTCTTATAACTGCA

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FIGURE 3044

GAGGCGGCTGCCTGCTGCTCTGCAGGTACC**ATG**GAGCTGAGCTATAGGCTCTTCATCTGCCTCCTGCTCTGGGGT
AGTACTGAGCTGTGCTACCCCCAACCCCTCTGGCTCTTGCAGGGTGGAGCCAGCCATCCTGAGACGTCCGTACAG
CCCGTACTGGTGGAGTGTCAGGAGGCCACTCTGATGGTCATGGTCAGCAAAGACCTTTTTGGCACCGGGAAGCTC
ATCAGGGCTGCTGACCTCACCTTGGGCCCAGAGGCCTGTGAGCCTCTGGTCTCCATGGACACAGAAGATGTGGTC
AGGTTTGAGGTTGGACTCCACGAGTGTGGCAACAGCATGCAGGTAACTGACGATGCCCTGGTGTACAGCACCTTC
CTGCTCCATGACCCCCGCCCCGTGGGAAACCTGTCCATCGTGAGGACTAACCGCGCAGAGATTCCCATCGAGTGC
CGCTACCCCAGGCAGGGCAATGTGAGCAGCCAGGCCATCCTGCCCACCTGGTTGCCCTTCAGGACCACGGTGTTC
TCAGAGGAGAAGCTGACTTTCTCTCTGCGTCTGATGGAGGAGAACTGGAACGCTGAGAAGAGGTCCCCCACCTTC
CACCTGGGAGATGCAGCCCACCTCCAGGCAGAAATCCACACTGGCAGCCACGTGCCACTGCGGTTGTTTGTGGAC
CACTGCGTGGCCACACCGACACCAGACCAGAATGCCTCCCCTTATCACACCATCGTGGACTTCCATGGCTGTCTT
GTCGACGGTCTCACTGATGCCTCTTCTGCATTCAAAGTTCCTCGACCCGGGCCAGATACACTCCAGTTCACAGTG
GATGTCTTCCACTTTGCTAATGACTCCAGAAACATGATATACATCACCTGCCACCTGAAGGTCACCCTAGCTGAG
CAGGACCCAGATGAACTCAACAAGGCCTGTTCCTTCAGCAAGCCTTCCAACAGCTGGTTCCCAGTGGAAGGCTCG
GCTGACATCTGTCAATGCTGTAACAAAGGTGACTGTGGCACTCCAAGCCATTCCAGGAGGCAGCCTCATGTCATG
AGCCAGTGGTCCAGGTCTGCTTCCCGTAACCGCAGGCATGTGACAGAAGAAGCAGATGTCACCGTGGGGCCACTG
ATCTTCCTGGACAGGAGGGGTGACCATGAAGTAGAGCAGTGGGCTTTGCCTTCTGACACCTCAGTGGTGCTGCTG
GGCGTAGGCCTGGCTGTGGTGGTGTCCCTGACTCTGACTGCTGTTATCCTGGTTCTCACCAGGAGGTGTCGCACT
GCCTCCCACCCTGTGTCTGCTTCCGAA**TAA**AAGAAGAAA

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FIGURE 3045

GGGCATGCGCAGCGGCTCGCTCGGAAGCTGCGACGCCGAGTTTCACTCTGGCTGCCTTCTCCTGAGAGTCGGAGC
CACAGCCAGAGCCCTGCCCAGGCCGAGCCGGAGCTGCAGCCCGAGCGCGGTGGTGCCCTCAGCCCCGTCCTCTTG
TCCTCCTCAGCCTCGGTGCCTTGGAATTTGTGTCGCTGAGTCAGCAAGCCTTTCAGATTTGCCCGGTTTTTGTTG
TTTGTGGTTTGTATCAAGATGGGAACTCAAACAAGTCATTCCTCCTAAGGAGCTGGTGTCTTCATCCAGAAGGGA
CAGTTTGTGCCAGCTCTCCAGAGAGAAAAGATCTGCCGGAGGCGCTGGGCAATGACCCCGGGACTCCAGGCCAGA
GGGGTCTGAAGCTGTTTGGGAAAGCAGCGGGACTCCTTGGGAAG**ATG**GCCATGGCCCCAAGCCCTTCCCTGGTGC
AGGTGTACACCAGCCCCGCGGCTGTGGCCGTGTGGGAATGGCAGGACGGGCTGGGCACCTGGCACCCCTACAGTG
CCACCGTCTGCAGCTTCATCGAGCAGCAGTTTGTCCAGCAGAAGGGCCAACGTTTTGGGCTTGGGAGCCTGGCCC
ACAGCATCCCCTTGGGCCAGGCAGACCCCTCGCTGGCCCCTTACATTATTGACCTCCCCAGCTGGACCCAGTTCC
GCCAGGACACCGGCACCATGCGGGCTGTGCGGAGACACCTGTTCCCCCAGCACTCAGCCCCTGGCCGAGGTGTCG
TCTGGGAGTGGCTGAGCGACGATGGCTCCTGGACTGCCTATGAAGCCAGCGTCTGTGACTATCTGGAGCAGCAGG
TGGCCAGGGGCAACCAGCTCGTGGACTTGGCCCCCCTGGGGTACAACTACACTGTCAACTACACCACCCACACGC
AGACCAACAAGACTTCCAGCTTCTGCCGCAGCGTGCGGCGCCAAGCAGGGCCGCCTTACCCGGTGACCACCATCA
TCGCTCCGCCGGGCCACACAGGCGTCGCCTGCTCTTGCCACCAGTGCCTCAGTGGCAGCAGAACTGGCCCCGTGT
CAGGCCGCTACCGCCACTCCATGACCAACCTCCCTGCATACCCCGTCCCCCAGCACCCCCCACACAGGACCGCTT
CTGTGTTTGGGACCCACCAGGCCTTTGCACCGTACAACAAACCCTCACTCTCCGGGGCCCGGTCTGCGCCCAGGC
TGAACACCACCAACGCCTGGGGCGCAGCTCCTCCTTCCCTGGGGAGCCAGCCCCTCTACCGCTCCAGCCTCTCCC
ACCTGGGACCGCAGCACCTGCCCCCAGGATCCTCCACCTCCGGTGCAGTCAGTGCCTCCCTCCCCAGCGGTCCCT
CAAGCAGCCCAGGGAGCGTCCCTGCCACTGTGCCCATGCAGATGCCAAAGCCCAGCAGAGTCCAGCAGGCGCTCG
CAGGAGCGACCCCGAAGCCAGAGCCAGAGCCAGAGCAGGTCATAAAAAACTACACGGAAGAGCTGAAAGTGCCCC
CAGATGAGGACTGCATCATCTGCATGGAGAAGCTGTCCACAGCGTCTGGATACAGCGATGTGACTGACAGCAAGG
CAATCGGGTCCCTAGCTGTGGGCCACCTCACCAAGTGCAGCCATGCCTTCCACCTGCTGTGCCTCCTGGCCATGT
ACTGCAACGGCAATAAGGATGGAAGTCTGCAGTGTCCCTCCTGCAAAACCATCTATGGAGAGAAGACGGGGACCC
AGCCCCAGGGAAAGATGGAGGTATTACGGTTCCAGATGTCGCTCCCCGGCCACGAGGACTGCGGGACCATCCTCA
TAGTTTACAGCATTCCCCATGGTATCCAGGGCCCTGAGCACCCCAATCCCGGAAAGCCGTTCACTGCCAGAGGGT
TTCCCCGCCAGTGCTACCTTCCAGACAACGCCCAGGGCCGCAAGCCTCCAGGGGCTTCCAGAACCCGGAGACACT
GGCTGACATTCCGGCCTCCCCACAGCTGC**TGA**CCGATGGCCACTACATGACGCTGCCCCTGTCTCCGGACCAGCT
GCCCTGTGGCGACCCCATGGCGGGCAGCGGAGGCGCCCCCGTGCTGCGGGTGGGCCATGACCACGGCTGCCACCA
GCAGCCCTTCTGCAACGCGCCCCTCCCTGGCC

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FIGURE 3046

CCGGCGGCTGCGGCGGCTGGAGCAGGCGAGCGGCGGCGGCCGATAGCGAGTGTCAGGGCCGGCCGGGGCGGCGCT
TCTCGGCCTGTCGCTGGTCGGCCTCCTACTGTACCTCGTGCCTGCTGCGGCTGCGCTGGCCTGGCTGGCCGTGGG
GACTACCGCGGCCTGGTGGGGACTGAGCCGCGAGCCCCGAGGTTCGCGCCCCTTGTCCTCCTTCGTTCAGAAGGC
GCGACATCGGCGAACACTGTTCGCTTCGCCTCCGGCCAAGTCGACAGCCAACGGAAACCTCCTAGAGCCGCGGAC
CCTGCTCGAAGGACCTGACCCTGCCGAACTGCTCCTCATGGGCAGTTACCTGGGCAAGCCCGGGCCGCCGCAGCC
CGCCCCCGCTCCGGAGGGCCAGGACCTGCGGAATAGGCCTGGCCGCCGCCCGCCCGGCGCCGCGCTCCACA
CCGCCCTCCCCGCCGACCCATCGCGTTCACCACTTTTACCCCTCTCTCCCCACTCCTCTTCTCCGACCCTCCGGG
AGGCCTTCCCCACGGGATCGTGGGACTTTACCAGATCGGTTTGTAATAACACCTCGAAGACGCTATCCGATCCAT
CAGGCCCAGTATTCCTGTCCGGGGGTACTTCCCACAGTGTGCTGGAATGGTTATCACAAGAAGGCTGTGCTGTCC
CCTCGCAACTCCAGG**ATG**GTGTGTAGCCCAGTGACTCTGAGGATCGCCCCTCCTGACAGAAGATTTTCGCGTTCT
GCGATACCAGAGCAGATAATCAGCTCAACACTGTCCTCACCATCAAGTAATGCCCCAGACCCATGTGCAAAGGAG
ACTGTACTGAGTGCCCTCAAAGAGAAGAAGAAGAAAAGGACAGTGGAGGAAGAAGACCAAATATTCCTTGATGGC
CAGGAAAATAAAAGAAGCTGTCTTGTCGACGGTCTCACTGATGCCTCTTCTGCATTCAAAGTTCCTCGACCCGGG
CCAGATACACTCCAGTTCACAGTGGATGTCTTCCACTTTGCTAATGACTCCAGAAACATGATATACATCACCTGC
CACCTGAAGGTCACCCTAGCTGAGCAGGACCCAGATGAACTCAACAAGGCCTGTTCCTTCAGCAAGCCTTCCAAC
AGCTGGTTCCCAGTGGAAGGCCTGGCTGACATCTGTCAATGCTGTAACAAAGGTGACTGTGGCACTCCAAGCCAT
TCCAGGAGGCAGCCTCGTGTCGTGAGCCAGTGGTCCACGTCTGCTTCCCTG**TAA**CCGCAGGCATGTGACAGAAGA
AGCAGATGTCACCGTGGGGCCACTGATCTTCCTGGACAGGAGGGGTGACCATGAAGTAGAGCAGTGGGCTTTGCC
TTCTGACACCTCAGTGGTGCTGCTGGGCGTAGGCCTGGCTGTGGTGGTGTCCCTGACTCTGACTGCTGTTATCCT
GGTTCTCACCAGGAGGTGTCGCACTGCCTCCCACCCTGTGTCTGCTTCCGAATAAAAGAAGAAAGCAA

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FIGURE 3047

ATGGGCACCGAATCACCCCTCTCTGGCCTCTCCAAGGCTCTCTGCACCCACTCCCCGACCTGGCCCCTGCTGACC
GGCCACCAGGCCCAGGGAGCTCTTCCCCACATCCCGAGCTCCACCTCCCGAGACCTTCTCCTTGCAGTCACTCCA
GCCCACCCTCTTCCCTTGCGAACACTCCACGTCCTCCAGGCCCAGCTTGCATCGCTCAGGATGACCCATCACACG
CCCTCTGCACCCTCCACAGCACCCACCAGAACCCTAGTAACCGCGTCCACGTGTGGCTGTGACCACAGTCCTTCT
GCTCCTCCCCAGGTGGCAGCAACCCCAAGCCTGCTTCATTCACAGCTGCATCACCGGGACCCAGCAGGGGCATGC
CACGTGTCTCAAGGAGGAACGGCCACAAGGGCAGCCCTGAGTACACAGCATGAGAACACAGGTGAGTCAGGCCTG
CAACAACTCCGAACACAGGAATTGGCAGCTCTGGCACTTACGCAAACACAACCGCACTCCCTGGTTTCAGTGGCC
TTCTCCCCACCAAAACAGAAACTCCCTGAGGGCAGAGCTGCGGCTGCAGTTCTTCAGGTGCCCAATATCCCAGAG
GCTCTGAAACACCAAAGGAGGGTCTCTCGTCAGGTCTTCGCCGCAAATCTCTCTCCAGAGGATCGTGGC**TGA**

FIGURE 3048A

ATGTCTGTCCTGTTCACAGATCTGCCGGAGGCGCTGGGCAATGACCCCGGGACTCCAGGCCAGAGGGGTCTGAAG
CTGTTTGGGAAAGCAGCGGGACTCCTTGGGAAGATGGCCATGGCCCCAAGCCCTTCCCTGGTGCAGGATGGGCTG
GGCACCTGGCACCCCTACAGTGCCACCATCTGCAGCTTCATCGAGCAGCAGTTTGTCCAGCAGAAGGGCCAACGT
TTTGGGCTTGGGAGCCTGGCCCACAGCATCCCCTTGGGCCAGGCAGACCCCTCGCTGGCCCGTTACATTATTGAC
CTCCCCAGCTGGACCCAGTTCCGCCAGGACACCGGCACCATGCGGACTGTGCGGAGACACCTGTTCCCCCAGCAC
TCAGCCCCTGGCCGAGGTGTCGTCTGGGAGTGGCTGAGCGACGATGGCTCCTGGACCGCCTATGAAGCCGGCGTC
TGTGACGATCTGGAGCAGCAGGTGGCCAGGGGCAACCAGCTCGTGGACTTGGCCCCCCTGGGGTACAACTACACT
GTCAACTACACCACCCACACGCAGACCAACAAGACTTCCAGCTTCTGCTGCAGCGTGCGGCGCCAAGCAGGGCCG
CCTTACCCAGTGACCACCATCATCGCTCCGCCGGGCCACACAGGCGTCGCCTGCTCTTGCCACCAGTGCCTCAGT
GGCAGCAGAACTGGCCCTGTATCAGGCCGCTACCGCCACTCCATGACCAACCTCCCTGCATACCCCGCCCCCCAG
CACCCCCCCCACAGGACCGCTTCTGTGTTTGGGACCCACCAGGCCTTTGCACCATACAACAAACCCTCACTCTCC
GGGGCCCGGTCTGCGCCCAGGCTGAACACCACGAACGCCTGGGACGCAGCTCCTCCTTCCCTGGGGAGCCAGCCC
CTCTACCGCTCCAGCCTCTCCCACCTGGGACCGCAGCACCTGCCCCCAGGATCCTCCACCTCCGGTGCAGTCAGA
AAACTCGGAGTCCTCATGTCTCACGTTTCCCACTCTGTCTGGGATCTCCTGGAGATGGTCACAGACAGGAAAGCC
AGGGAGGGCCTAATAGGTGGACCAGGAGTTGGGGAGAGGAGGAGGGTGCCTGAGGCCATGACTATAGGGACTTCT
CAGAGAAGGACACTTCAGGAGGCAGTTGGTGCCCCCATCTGGGAACGTTCTGCAGGTCCGAGCCCTCTGAGGACG
GGGCCCCTATCTTGGGAACCTCTGGATCCTTGTACGGTTCAGTTCCTAGAGGTCACAGCAGGGACACACACCGGG
GAGGAACTGCGATTATATGGGGGAAGTGGTGACATTTTTAGAGCTTTCTACAGAACATTCTCCTGGTTCCTGCTC
TCCATTCACAGGTCCTTGGAAGCAAGGACTTCTTGTTCGTTCTTTAGGAACGGAAGCAAACGTTCTCGTTCAGAT
ATGTGCCTCTCCCTGGTGAAGGAAGACCTCACTTCCTGGGATTTTTCTGTGGGATGGAGCAGCCAGGGACCCCAT
CTCTGTGCCTCCCTCCCCAGCGGTCCCTCAAGCAGCCCAGGGAGCGTCCCTGCCACTGTGCCCATGCAGATGCCA
AAGCCCAGCAGAGTCCAGCAGGCGCTCGCAGAGACCGTGGGCGGGACTGAAGAGAAAATGAAGGAGCGGCCAGAG
AGGGAGGACCGGGGAGCTGGCACTATGGAAAGTGGGGTAGGCCGAGGGTGTGGCAGGAACGGGTTCGTCCAGCAG
GACACGCTGTGTCCCAGGAAGCGCTGGGTCATCAGGGAGCACGAAGGAAGCAGTGTCAGAGGAGAGTCCCCCAGG
GCAAGTGTGGGGTTCCCTGCAGGCATCCGGCAGTGTCCCCAGGGAGACCTGTGCGTCCCCGTGGCCATTGATGCC
CCAGAGTTCAGCTCCTCTCCTCCAGTCACAGCTGGCATGAGGGGGCTTGTTCTTGAGGACTTTGTGATTTTTGTA
AGCAGCAAGTTGTGGGTGAGAGGCGGCGCCCGGCTCAGGATGCGGGGACAACCGTCCCTTCCGCCAGGGCCAGCA
CGTGTCTCGGGAAAGGCCCCCAGACAGCGGCCCAGGTCTGCTGCCCAGGTCCTCTCGGAGCCTCCGCTTAGCAGA
GGGGCTTGGCGAGGTCTAGGAAATACTCGAAGCGCCTGGCATGCGGCAAGGGTGGCTTCCGATCGTGTCCGACCT
CCAGCCCACAGGCGAGGAGAGTCGCTGGACTTAGGAGCTAGTCTGCATGTGACAGACCTTCCCAGTCAGTGGCAG
GCGTTTCCCGGGACAGTGTCTGTGTGGCGGTCGGCGTGTGTGCAGCTGCCTGTACATGCTGGACCCCAGACTCCC
TTGTCCTTGCGATGTTCATGCCAGGGAGCGACCCCGAAGCCAGAGCCAGAGCCAGAGCAGGTCATAAAAAACTAC
ACGGAAGAGCTGAAAGTGCCCCCAGATGAGCTGCCGTCTGCACAGCCAGCACGCAGCTTGGATCATGGGAGCACT
CCCTGCCTGGAACCCCCAGCAGGACCCCCAACTCACACACAACCCCAAGCCCCTGAGTGTGGCAGCCAGACCCCC
GAGGGCGCGCCTCTCCCTGATCCTGTCTCATCTCCTGCTCCCAGCCCACCCCCTGCCAGCTTTAGTGCCCATGCG
CTGGCTCCTCGTTCAGAACGTCCTCCTCCCTCTTCCGGGTGCCCACTCTGTGCTTGTCCATCTGGCAATTCCTGT
CTCCCTTACCCCACTCCGAGGGCCTCCCCCAGGATCCTGCCCTGTCCGTCCTTCCCATTTGGTGGCTTCTGCTGT
CATGTCGGGCCTGTGCTGCTGGACTGCATCATCTGCATGGAGAAGCTGTCCGCAGCGTCTGGATACAGCGATGTG
ACTGACAGCAAGGCAATCGGGCCCCTGGCTGTGGGCTGCCTCACCAAGTGCAGCCACGCCTTCCACCTGCTGTGC
CTCCTGGCCATGTACTGCAACGGCAATAAGCCAAGGCCCAGCTCCGCAGATCAGACGCTGCAAGGCTGTCTATCC
GACTGCAAATGCGATTCACCCGTGGAGATTTCTGCTCAGGATCCAAGTTTTCCCACTCGCCACCTGTCTCCTGAT
AGCATGTCCCTTAACGAAAATGGCATAAGTTGCTGGTGCAAAACAAAGCTTTCCAGGGAAGCTGTTGGAAGCCAG
TTTCCGGGCAGGAGGCTGCCAGCAACTCCCTGGGATGGTGGCCAGCCCATTCCCGGGGCCCTTTACCATCTGATG
GTGGAGGTGACGGTCTTGGGTGTTCTCAGACTGCCAGCTCAGTGGGTTGCGTCTGCCTCTCTCAGGATGGAAGTC
TGCAGTGTCCCTCCTGCAAAACCATCTATGAGAGAAGACGGGGACCCAGCCCCAGGGAAAGATGGAGCTCAGAGG
GAAATTCAGGAACATTCGGGGTTGGCATCTCGGAGCGGGGGAGGAGCTGGAGCTGTGCAGGGGCCTGTCCCTGTG
CGGGCTCTCGGAGCACCCTATCCTGGTGTCTGTTCCTCCCGCAGGGCCCTGAGCACCCCAATCCCGGAAAGCCGT
TCACTGCCAGAGGGTTTCCCCGCCAGTGCTACCTTCCAGACAACGCCCAGGGCCGCAAGCCAGACCCAAGGGGCT

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FIGURE 3048B

GGGGGCCCTGCTGGAGTGATTGGACCCTGGGCGCCCACCCCCCTCCGATTGGGAGAGGCAGCCCCAGGGACCCCC
ACGCCTGTCTCCGTGGCTCACCTTTTGTCCCCCGTGGCCACAGAGCTGGTGCCCTACACACCACAGATAACAGCT
TGGGACCTGGAAGGGAAGGTCACAGCCACCACCTTCTCCCTGGAGCAGCCGCGCTGTGTCTTCGATGGGCTTGCC
AGCGCCAGCGATACCGTCTGGCTCGTGGTGGCCTTCAGCAATGCCTCCAGGGGCTTCCAGAACCCGGAGACACTG
GCTGACATTCCGGCCTCCCCACAGCTGCTGACCGATGGCCACTACATGACGCTGCCCGTGTCTCCGGACCAGCTG
CCCTGTGACGACCCCATGGCGGGCAGCGGAGGCGCCCCCGTGCTGCGGGTGGGCCATGACCACGGCTGCCACCAG
CAGCCCTTCTGCAACGCGCCCCTCCCTGGCCCTGGACCCTATCGGCCTTGCAGAGCTCCCAGCCCTGCAAAGAGA
CAAACCGAGCCCCTCTGCGGGGCTCCTGGTGCCCTGGGTCCTCAGGCTGCTGCCACCTTCACCTGCTCTTTTGGC
TTG**TGA**

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FIGURE 3049

AGTACAGAACCTGCTAAGGCCATCAAACCTATTGATCGGAAGTCAGTCCATCAGATTTGCTCTGGGCCAGTGGTA
CTGAGTCTAAGCACTGCAGTGAAGGAGTTAGTAGAAAACAGTCTGGATGCTGGTGCCACTAATATTGATCTAAAG
CTTAAGGACTATGGA**ATG**GATCTCATTGAAGTTTCAGGCAATGGATGTGGGGTAGAAGAAGAAAACTTCGAAGGC
TTAACTCTGAAACATCACACATCTAAGATTCAAGAGTTTGCCGACCTAACTCGGGTTGAAACTTTTGGCTTTCGG
GGGAAAGCTCTGAGCTCACTTTGTGCACTGAGTGATGTCACCATTTCTACCTGCCACGTATCGGCGAAGGTTGGG
ACTCGACTGGTGTTTGATCACGATGGGAAAATCATCCAGAAAACCCCCTACCCCCACCCCAGAGGGACCACAGTC
AGCGTGAAGCAGTTATTTTCTACGCTACCTGTGCGCCATAAGGAATTTCAAAGGAATATTAAGAAGAAACGTGCC
TGCTTCCCCTTCGCCTTCTGCCGTGATTGTCAGCTTCTTGAGGGCTCCCCAGCCATGCTTCCTGTACAGCCTGCA
AAACTGACTCCTAGAAGTACCCCACCCCACCCCTGCTCCTTGGAGGACAACGTGATCACTGTATTCAGCTCCATC
AAGAATGGTCCAGGTTCTTCTAGA**TGA**TCTGCACAAATGGTTCCTCTCCTCCTTCCTGATGTCTGCCATTAGCAT
TGGAATAAAGTTCCTGCTGAAAATCCACATCTCCCCTGGGTCCGGTGTTCTGGAAGTGAGAGAGACAATGTCACA
CTTCAAGGAGGCAGCTCTCTAGACAGGAAGGTTATTCACGTCCCATGTCAAGTCTAGCTAGAGTTCAGAGCAATT
GAGAAGTGCAATTTTATCTCCTGCCTTTCATTCTATACCCTGCTTCTGAACCATCGTGTTCAACTGTGAAACTCA
CACTTTGGTGACCCTGACTCCAAAACTTAATACACCCAAGGTCAGCCCCAGTGATCTGCTTCATAGCCAGGACTT
TGGGTGGGTCTTCCCAGGGAGTAGGGCACCCTCAGAGAATGTGGCTTTGGACTTCATCACAGCTGGGGCCTTTTG
TGTCACTTCAGATCTAAACTTGTAACCGTGCTAGATCTGCTTCTAACGTGACAACATCACGAACCACGAGTCCAG
AAGCCTAATCCATAATCCTCCCTCCTCATGACGAAGTCTCATGCTCTGTGCTCAACATGGTTAGCTGCACAAGAT
GTAAACCAAAGCTTCACTGAACCCTCGACCCAAATCGGTAACTCAAGTGCATCAATCATAATGAACCTCCCCGAA
CTCAGTATTTATGATTATTTTTGAGGCAGGGTCTCACTCTGTCGCCCGGGCTGGAGTGCAGTGGCAGGATCAGGG
CTCCCTGCAGCCCCGACCTCCCAGGCTCCAGCGATCCTCCCGCCTCAGCCTCCTGAGTAGTTGGGAGTAGAGATG
CCTCCCACATCGCCTGGCTAATTTTTGTATTTTTGTGGAGAGGGGATCTCGCCACGTTGCCCAGGCTTGAAGCCA
GATCAAGCAATTGGGTTCCTTGGATTTCCGAAATAGACCCCAATATTCTGCCTTTACCCCGGAGGATGCAGATGT
ACCTTCTCTCAGGCCGATGACCTCAGGCCTCCACGGTCCCTGGAGCTCTAGGAAAGGTGGGCGCGATCTCGCGCC
CACACCCAGTGCTCTGGGTCATAAGCCTGGATCTGGAAAAACAAACGCGCTTTGAGAAGACGGGGACTCCCCAGG
ATACCCCTCTCTCCCCTCGTCCAGCCTCCAGCCCACCCGATTCCTCCCCACATCCTCCACGTCCCCAGGCCCCAC
CCACCTCTTCCAACTCCTCCAGGGAAACCCAAGCCCTGCAGCGCATGGAACAAAAGAAGTGGAACCGATACTTCC
GGAACAAGGCTATCTGAGAGCAGTTCTTCCTGGCCCTCGGGTTCATGTAACGGCATAACTGGAACCAAAGCTCAC
TGAGCAAGGGTATATGAGAGCGGGTCTCCTCGTACAGGAAGTAGAAGATGTTTTGTTTGGGGGCCTCGTCGTCCT
CCTCCATGTCATTGGCCAGATAGCTGAGGACAGAAATCAGGTTGCTGCTCAGGGGCACCACCAGGAGAGACCTCC
GGCTGAGGTCAGCTTCTCAGAGAGGAAGGTAAGGGACCGTCCCTAGCTCAGGACTGGCACCCACCCTGCAGAGAG
CCACGCCTTCCTCAGGAGGGCTCTGCTGGACAGAGACCTGATCAAGGGCGTCTCCCACTCCTTCAGGATGGAGAC
AAAAACCCAACTGGTGACCAAGAGTGGTGGCTTATGCCTGGAATCCCAGCACACTGGGAGGCCGAAGCAGGAGGA
TCACTTGAGGCCAGGAGTTTGAGACAGGCCTGGGCAACATAGCAAGACCCTCGTCTCTATTAAAAATATAAAAAA
TACGCCAGACGTGGCTCATGCCTGTAATCCCAGCGCTTTGGAAGGCTGAAGCAGGTGGATTGCTTGAGACCAGGA
GTTTGAGACCAGCCTGGTCAACACAGAGAAACCCCATCTATACTAAAAATACAAAAATCAGCCTGGTGCGGTGGC
ACACCCATTAGTCCTAGCTACTCAGGAGGCTGAAGCATAAGAATTGTGTGAACCCAGGAGGCGGAGGTTGCAGTG
AGCCAAGATTGGGCCCCTCCATTCCAGCCTGAGAGACACAGCAACACTCTTGTCTTGATAAATAAATAAATAAAT
AAATAAATAAATAAA

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FIGURE 3050

ACATGATAATCTCACTCTTGTAAGGTTTCATCGTTTCTGCTTACCCTACTTTTCTTTCCCATCCTGATCCCTCTC
CCACCAGACTGGACTCTGAAACGGGCATGTACAGAGAAGAGGAGACCCCAACACGCTTCAAGCTTTGAGTGGAGA
GGACACAGCCTCTGCTGGGACAGGGAACAGAGGGATGCGGAGACCCTGAAGATGCTTTTGGACAGTGGTCTGAGG
TTGGGACAGTGGCAGGAGATACCATTCACCCAGGATCTCCAGGACAAGAGATCAGCCTGGCAGTTACATGTGTTT
TTTTTCAAACTGGTTGCCAGGTTGGCATGAGCGATGACATCAGAGATTCCGACCTTCCTGATTGGAGGGACCGGA
CTCTGTCGGCACCTGGGAGTTCAGTTGGACAACAGTAACTTCTCAGAGCTGTTCTCCACTCCTGACTTCTCCCAG
CCTCGAGAATTGATAACACACTCTTCTGGATCCCAGCAGTGTCCAGAAGAAGACCAAGGACAGAACAGAGACTAG
GTTTGGTGAG**ATG**GGACAGATTTTGGGAAAGATCATGATGAGCCATCAACCGCAGCCCCAGGAAGAGCGGAGCCC
CCAGCGGAGCACCTCAGGGTACCCCCTCCAGGAGGTGGTGGATGATGAAGTGTCGGGACCATCAGGTGAGGGGAC
TGGAGGAAGAAGAGGTGGCATAGGATTGACTAAGATGAAGGAAGGGGGCCAGGCGTGGTGGCTCACCCCTGTAAC
CCCAACACTTTGGGAGGCTGAGGCGGGCAGATCACCTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGG**TG**
AAACCCCATCTCTACTAAAAGTACAAAAATTAGCCAGGCGGTAGTGGTGTGTGCCTATAATCCCAGCTACTTGGG
AGGCTAAGACAGGAGAATCACTTGAGCCTGGGAGGAAGAGGTTGCAGTGAGCCGAGATCGTGCTACTGCACTCCA
GTCTGGGTGACAGAGTGACATGCTATCTCAAAAAAAAAAAAAAAAAAAAAAGAAGAAACAAAAGAAGGGTCAGAGG
TCAGGAAGGAGAACCTGGGGAGGGTGTGTGGGAAGAATGGAGAAATTCAGGCTGGGTGCAGTGGCTCACACTTGT
AATCCCAGCACTTTGGGAAGCCAAGGCAGGCAGATCACTTGAGGCCAGGAGTTTGAGACCAGCCTGGCCAACATG
GTGAAACCCTGTCTCTATTAAAAGTACAAAATTGAGCTGGGCATTATGGCAGGCACCTGTAATCCCAGCTACCTG
AGAGGCTGAGGCAGGAGAATAAATGGAATCCGGGAGATGGATGTTGCAGTGAGCTGAGATTGCACCACTACACTC
CAGCCTGGGTGACAAAGCAAGATTCTGTCTCGAAAC

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FIGURE 3051

GCTCCGGGCCAGCCGCGGTCCAGAGCGCGCGAGGTTCGGGGAGCTCGGCCAGGCTGCTGGTACCTGCGTCCGCCC
GGCGAGCAGGACAGGCTGCTTTGGTTTGTGACCTCCAGGCAGGACGGCCATCCTCTCCAGA**ATG**AAGATCTTCTT
GCCAGTGCTGCTGGCTGCCCTTCTGGGTGTGGAGCGAGCCAGCTCGCTGATGTGCTTCTCCTGCTTGAACCAGAA
GAGCAATCTGTACTGCCTGAAGCCGACCATCTGCTCCGACCAGGACAACTACTGCGTGACTGTGTCTGCTAGTGC
CGGCATTGGGAATCTCGTGACATTTGGCCACAGCCTGAGCAAGACCTGTTCCCCGGCCTGCCCCATCCCAGAAGG
CGTCAATGTTGGTGTGGCTTCCATGGGCATCAGCTGCTGCCAGAGCTTTCTGTGCAATTTCAGTGCGGCCGATGG
CGGGCTGCGGGCAAGCGTCACCCTGCTGGGTGCCGGGCTGCTGCTGAGCCTGCTGCCGGCCCTGCTGCGGTTTGG
CCCC**TGA**CCGCCCAGACCCTGTCCCCCGATCCCCCAGCTCAGGAAGGAAAGCCCAGCCCTTTCTGGATCCCACAG
TGTATGGGAGCCCCTGACTCCTCACGTGCCTGATCTGTGCCCTTGGTCCCAGGTCAGGCCCACCCCCTGCACCTC
CACCTGCCCCAGCCCCTGCCTCTGCCCCAAGTGGGGCCAGCTGCCCTCACTTCTGGGGTGGATGATGTGACCTTC
CTTGGGGGACCGCGGAAGGGACGAGGGTTCCCTGGAGTCTTACGGTCCAACATCAGGACCAAGTCCCATGGACAT
GCTGACAGGGTCCCCAGGGAGACCGTGTCAGTAGGGATGTGTGCCTGGCTGTGTACGTGGGTGTGCAGTGCACGT
GAGAGCACGTGGCGGCTTCTGGGGGCCATGTTTGGGGAGGGAGGTGTGCCAGCAGCCTGGAGAGCCTCAGTCCCT
GTAGCCCCCTGCCCTGGCACAGCTGCATGCACTTCAAGGGCAGCCTTTGGGGGTTGGGGTTTCTGCCACTTCCGG
GTCTAGGCCCTGCCCCAAATCCAGCCAGTCCTGCCCCAGCCCACCCCCACATTGGAGCCCTCCTGCTGCTTTGGT
GCCTCAAATAAATACAGATGTCCCC

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FIGURE 3052

TGTTGAGAGGCTGGCCTGCGGTGATGTGGCCAAAGAGGAAGAGCTGGGCTGGGGTGAGTGTTGGTCACATGGTTG
AAACTAGGTGGGGAGGGGAGTGGTCCAGGGGAGAGTCCAGGCCCAGCTCTGCTGGGACTTGCCATGGGGGTCACG
ACTCATCTGCAGGGAAGGTCTGGGCTTTATCTCTGAGCACCTCTGTGTGCTGCTCACCCTGAAGTGGGGGTGGGC
CTGTGCCTGGCCTGTCCCCTCATCCTGGGAGCTCCCAATGCCCATCTGCAAGGCTGTGGACCCCTCAGGAGTGGC
CTGGAGCCTGGCTCCCATTGCCAC**ATG**GTGGCTGTGTGTGTGGAGAGGGTTGATAGTGGAGTGGTCAGGCCCAGG
CTGCCCTGGGGGATGAAGTGCCATCCTCTGGGTGCCCTGGAGAAAGAAGAGAACTCAGTGAGCCCTGTCTGGTAC
TTTCCTGGAGGAGGGCTCCCATGCTGGCCCTCCACCCCTCTGTCCCCTGTCACCCTGAGGCCTCTGGATTTCCTC
TCTGCCCTTCCCAACCTGCCAACTTCACGGGTTTCTGGCTGGGTTCTGGGGATGGCCCCTAGGGGAGACGGGCCA
GGCACAAGCGGGGCTGTGTCAAGGTGGGTATGCAGGGGTAGCACAAGTGTGCAGAGCCTGGGGAGGCATGGGCAA
AGCATGGCAGGCGGCGGGGCAGGGGATCTTGGAAGGTCACGGGCTGGGGAGCAGTGTGGGCAGCGGCCCAGAGGT
GGGAAGGCCGTAGCT**TAG**CTGGGTGTCCCCTTTCTGTCCTCTGCAGGTGGAGCCCCCTGAGCTGCCCGCTGATCT
GCAGCACTGGATCTCCTACAACGAGGCCAGCAGCCAGCTGCTCCGCATGGAGAGTGGGCTCAGTGATGTCACCAA
GGACCAGTGACCGCCACCTTCACACCGTCTGCCCTGGCCACCATCCTGGGCCTGGGGGCTGCCCACAGATGGGCA
GTCTCAGCCATACTCTGTTCCAGCTGGAGTAGCCTCCTGACCAGCCTGGCCCACCCTGCTCCACCCACTGGGCCC
CCCCAGTTATTGATACCCCTCTGTGCTGGGCTCCACGCTAGGCAGAAGGAGGAGTGGCATTGGCATCCTGACCCA
GCTCTGCCCTCAAGGTGGGGATGGATGGGCAAAGGAGAGTCCTGCCTGGCCCTACGATGAGGCCACTCATGTGGG
CCTAGGTAGGGGAGGATGGTGCCTGGAGCAGAGGGACCCACAAGTGCCTCCCGAGCCTAGATCCTGGCTCGGACC
ACTGCAAGGGCCGAGGCAGGGCCAGACCAGAGCATCCTGGGTACAGGCCTGGGCTCTCCAGGGCCTGGGCCTGAT
TCAGGTGCAGTGGGCACTCCTGAAGGGTCAGAGCGGCATCTGCCAGGCAGCCCCTCTGGCTTCCGCTGAGGTGGT
TGCAGGCCTGGGGCAGAGCCTGGGTGGTCAGAGGCCGGGGCTAGAGGCAGATGGAAGGGAGGCATTTGCTGACAG
AGGACGGGGCACCCGGGCTCCCCACTGCAGTCGGCCTTGCCTCCTCCTCCTCCTCTACCTCCAGTCAGGCTGGAC
GGGAGGGTAGCCTTGTGGCTGAGAGGGGTCAGACTAGGTGGCACAGGGGCTCCTGGAAAGACAGCAGGCTTCCTG
CTGGGCGTTCCCTTGTTGGAGGGAATAGAGTGGGGGTGGGACTCTGCAGGGGTGTCCTTGTCCACTCGCACCCCT
CGCCGCCCACCAGGGCCATGCTCTGTGACTTGGGCTGATCCCCACCCTTTCTGGGCCTACAGCACCACAGGCCGC
TGTACCCCCTTAGAGCTGCCCCTCTCTGGCCTGGCCGGCAGGCGTCTTCTTAACTCCTTTGTCCTCTATATTCAG
CATGTTCCTTGTCAGCTGCTGGGCCGGCCCTGCCTTGCGCTAGCAGAGCCTCTCCTGGCAGCTTCTCAGGTCTCC
CTAATGGAGACACCAGCCTGAGGCTCCAGCTGATGCCCTCAGCTCCCAGAGAGGGGGTGCCCCATCTAGCTGGGT
GCAGGGGTCACTGCTTGTCAGCTCAGGGCCCTGTGCCCGCTTGCCTGTTCCCCTACATCTGTGCCTGCACATCCA
GAACTGCCTCCTTGCCGCTGCCTCCAGGAAGCCCACCTTGAGCCAGAGTCAAGGGCTGCAGCACTGCCCGATAGA
ACACGCCCGCCCTCACTGCTGTTCTTGCCTTACAGCCACCATGGGAAAGCTGCAACCTTTCTGTTTTATTTAAAG
AAAGCCCAACATTAAAGGGTTTTCATTGC

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FIGURE 3053

GGCCAACTGCGCCTGGGGAGCAGCGGGATCCGGGGATGGGGCTGCCCTGTGTGCTCACCTGCCTGACCTGCCCCA
GGCCTCCTCCTGTCCCACCCTGCCTAATGCTCTAGAGTCCCCCTGGGCTGGCCTCAGGATTGCAAGCAGTGCGAG
GGCCTGGTCTCGGCCCTGGTCTCAGCCCTATCCAGATGTCCGAGGCAG**ATG**GACCACCCGCTGAGCGTCAGAAAT
GGGTTGCCTCCAGGGACTCCAGATTTTCCTGTTTGCTCTTGGCCTTCTGCCCACCCACCCCACTGCCATGGGCCC
AAAGCAGCCGGGTTCCCTGGAGATCCTGTCTTCCACCTAGTGCAGGGCATGAGGCCGGGGCCAGGACAGCCGGAC
CAGGCCCTGGGGCTTCTGGGAGCTGACTCACCTTGCAGGGAGTCCCACCACCACCTTCTGGGGCCCCACACGGTC
CCATGCTGGAACACACATCCCTGTGTG**TAA**TTTTTTTTATTTCATGCAGCATTAATTAAAAAAATAAAGATAGCA
TGTCACTTGCAAA

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FIGURE 3054

CTTTCCCGGAGGCTGGCAG**ATG**CGCGTGGTGCGGCTGCTGCGGCTCCGGGCGGCTCTGACGCTGCTCGGGGAGGT
CCCCCGCCGCCCGGCCTCCCGGGGTGTCCCGGGCTCGCGCAGGACGCAGAAGGGCAGTGGAGCCAGGTGGGAGAA
GGAGAAGCACGAAGACGGGGTGAAGTGGAGACAGCTGGAGCACAAGGGCCCGTACTTCGCACCCCCATACGAGCC
CCTTCCCGACGGAGTGCGTTTCTTCTATGAAGGAAGGCCTGTGAGATTGAGCGTGGCAGCGGAGGAGGTCGCCAC
TTTTTATGGGAGGATGTTAGATCATGAATACACAACAAAGGAGGTTTTCCGGAAGAACTTCTTCAATGACTGGCG
AAAGGAAATGGCGGTGGAAGAGAGGGAAGTCATCAAGAGCCTGGACAAGTGTGACTTCACGGAGATCCACAGATA
CTTTGTGGACAAGGCCGCAGCCCGGAAAGTCCTGAGCAGGGAGGAGAAGCAGAAGCTAAAAGAAGAGGCAGAAAA
ACTTCAGCAAGAGTTCGGCTACTGTATTTTAGATGGTCACCAAGAAAAAATAGGCAACTTCAAGATTGAGCCGCC
TGGCTTGTTCCGTGGCCGTGGCGACCATCCCAAGATGGGGATGCTGAAGAGAAGGATCACGCCAGAGGATGTGGT
TATCAACTGCAGCAGGGACTCGAAGATCCCCGAGCCGCCGGCGGGGCACCAGTGGAAGGAGGTGCGCTCCGATAA
CACCGTCACGTGGCTGGCAGCTTGGACCGAGAGCGTTCAGAACTCCATCAAGTACATCATGCTGAACCCTTGCTC
GAAGCTGAAGGGGGAGACAGCTTGGCAGAAGTTTGAAACAGCTCGACGCCTGCGGGGATTTGTGGACGAGATCCG
CTCCCAGTACCGGGCTGACTGGAAGTCTCGGGAAATGAAGACGAGACAGCGGGCGGTGGCCCTGTATTTCATCGA
TAAGCTGGCACTGAGAGCAGGAAATGAGAAGGAGGACGGTGAGGCGGCCGACACCGTGGGCTGCTGTTCCCTCCG
CGTGGAGCACGTCCAGCTGCACCCGGAGGCCGATGGCTGCCAACACGTGGTGGAATTTGACTTCCTGGGGAAGGA
CTGCATCCGCTACTACAACAGAGTGCCGGTGGAGAAGCCGGTGTACAAGAACTTACAGCTCTTTATGGAGAACAA
GGACCCCCGGGACGACCTCTTCGACAGGCTGACCACGACCAGCCTGAACAAGCACCTCCAGGAGCTGATGGACGG
GCTGACGGCCAAGGTGTTCCGGACCTACAACGCCTCCATCACTCTGCAGGAGCAGCTGCGGGCCCTGACGCGCGC
CGAGGACAGCATAGCAGCTAAGATCTTATCCTACAACCGAGCCAACCGAGTCGTGGCCATTCTCTGCAACCATCA
GCGAGCAACCCCCAGTACGTTCGAGAAGTCGATGCAGAATCTCCAGACGAAGATCCAGGCAAAGAAGGAGCAGGT
GGCTGAGGCCAGGGCAGAGCTGAGGAGGGCGAGGGCTGAGCACAAAGCCCAAGGGGATGGCAAGTCCAGGAGTGT
CCTGGAGAAGAAGAGGCGGCTCCTGGAGAAGCTGCAGGAGCAGCTGGCGCAGCTGAGTGTGCAGGCCACGGACAA
GGAGGAGAACAAGCAGGTGGCCCTGGGCACGTCCAAGCTCAACTACCTGGACCCCAGGATCAGCATTGCCTGGTG
CAAGCGGTTCAGGGTGCCAGTGGAGAAGATCTACAGCAAAACACAGCGGGAGAGGTTCGCCTGGGCTCTCGCCAT
GGCAGGAGAAGACTTTGAATTC**TAA**CGACGAGCCGTGTTGAAACTTCTTTTGTATGTGTGTGTTTTTTTCACT
ATTAAAGCAGTACTGGGGAATTTTGTACAATAAAA

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FIGURE 3055

GGCCGGACACTTCCGTCCGGCGCGCGGCGTCCTCCTCCCGCTCGGAAGGTCCCAGGTGTGACACCTTCAGCAGGT
CTCAGGGAAG**ATG**GCAGCCCTAGGGGACATTCAGGAGTCCCCTTCTGTCCCGTCCCCTGTCAGTCTCTCATCACC
GGGGACACCTGGAACCCAGCACCACGAGCCTCAGCTTCACCTCCATGGGCATCAACATGGCTCCCCTGGCTCCAG
CCCTAAGGTGCTCTCCCAGCCGTCCGACCTGGATCTCCAAGACGTAGAGGAAGTGGAGATCGGCAGAGACACCTT
CTGGCCCGACTCCGAGCCCAAGCCGGAGCAGGCTCCACGCTCTCCTGGCTCTCAGGCCCCTGACGAGGGGGCGGG
CGGGGCGCTGCGCAGCCTCCTGAGGAGCCTTCCCCGCAGGGCCCGGTGCAGCGCCGGCTTCGGGCCTGAATCCAG
CGCGGAGCGGCCGGCGGGCCAGCCGCCTGGGGCCGTCCCTTGCGCCCAGCCGCGGGGCGCCTGGCGCGTGACGCT
CGTGCAGCAAGCAGCGGCCGGGCCCGAGGGTGCGCCCGAGCGGGCTGCCGAGCTGGGAGTCAACTTCGGTCGGAG
CCGGCAGGGCAGCGCGCGGGGGGCCAAGCCGCACAGGTGCGAGGCCTGCGGCAAGAGTTTCAAGTATAACTCGCT
GCTCCTGAAGCACCAGCGCATCCACACGGGCGAGAAGCCCTACGCCTGCCACGAGTGCGGCAAGCGCTTCCGCGG
CTGGTCGGGCTTCATCCAGCACCACCGCATCCACACGGGCGAGAAGCCCTACGAGTGCGGCCAGTGCGGCCGCGC
CTTCAGCCACAGCTCGCACTTCACGCAGCACCTGCGCATCCACAACGGCGAGAAGCCCTACAAGTGCGGCGAGTG
CGGCCAGGCCTTCAGCCAGAGCTCCAACCTGGTGCGCCACCAGCGGCTGCACACGGGTGAGAAGCCCTACGCCTG
CAGCCAGTGCGGCAAGGCCTTCATCTGGAGCTCCGTGCTCATCGAGCACCAGCGCATCCACACTGGCGAGAAGCC
CTACGAGTGCTCCGACTGCGGCAAAGCCTTCCGCGGCCGCTCGCACTTCTTCCGGCACCTGCGGACCCACACGGG
CGAGAAGCCCTTCGCGTGTGGCGCCTGCGGCAAGGCCTTCGGCCAGAGCTCCCAGCTCATCCAGCACCAGCGGGT
GCACTACCGCGAG**TAG**CCGGGCGGGGGCTCGGGGCTCGGCCTCCTACCTGCCCCCAACCCACCCTCCACCCCGTC
CCCCACGGTGGGCACTGCCCAGCACCGCATGCCACGTGTCCGGAATAAATTCTTTTTGATTGTTGG

FIGURE 3056A

GCCCTGACCAGCAGACACCATCCTTCCAGCCTCTCTTGGCCACCCGGACCAGCGGGCACCACCCTCCCAGCCTCA
CGCGGCCACCCTGACCAGCAGGCACCATCCTTCCAGCCTTGCTCAGTCACCCTGACCCAGAGGGCTGCCCTGACC
AGCGGGCACCATCCTCCCAGCCCCACTCAGCTGCCCTGACCAGCGGGCACCATCCTCCCAGCCTCACTCGGCCAG
CCGAGCTCTGTAGGCCTCAGAGTGCAGAGAACCTCAAATGTTGTGACTTTGCTCTGCTGCAGGGACCTGCCATGG
AGTGTCCCTTGTGCGAGCATTTTGAGAGCTATGCCAGCATCCATCCCTGCAGGTCCCATCCCTGAGCCATTTCTC
AGGAGAGCAGGAAGGGAGCAGGGAGAGGGGTGCTCCCAGCCAGCCCCGGAACCAGAGGTCTGGGGACGCAGCCGA
CCAGCCCTCCTTGTCTGGGCCTCTGTTTCCTCTTCGACACAGGGAAGCAGGGAGGGGCCGATCAGCGACTTAGGC
CTGTTGGCTGTGGTGGGGTCCACCTGCGTTTCTGGGGAGCCCACGGACCCTGGGGTGTACCTGGGTTTCATTCCC
AGTGACCTCTCCTATTGGTCCCCATTTGGGGCGCTGAGATGTGATCGTTTCTTTCCTGAGAATGAGCTGAGGTAA
AAACATGCTGGGGAGGAAGATGGGCCCTGGGGGCAGCGAGCTGCGCCTCTGCACCGGGAGAAAGGCCGTGTCCCC
AGAGCTGAGGCGGTGGTGGGCAGGGCTCCTGAGAAGCCGGGGCAGGGCAGGGTGTCTCTGAGGTCAATGAGGAAC
AGCTGAGGTCCAGGGACGCAGGAAGGATGGGGTGAACTCCGGGATGGGGCCGGCAGGGAGCCTCACGCTTACAGA
GCCTGGTGTTGGCACTCTCCTGGCTTCCTCCGCAAACCTAGCCACGTGGTCAGGGAGCCCGGGCCTAGCAGACGG
CCCCCACCTTGACAGAATCCCCAGGGTCGTGCGTGGCGGTGGGGGCGACTTCACAGCCGAGACCGGGCCTAACGC
TGCTGTCTCGCAGTCACCCCTGCAGGCCGCTCAGGGCAGGGCTCTGGCCTGACGGGGGTTCCTGGACACGCCTCT
GAGCCGGCAGCCCCTACCCGCACCCGTGCACCTTCCACGCCCGTCTCCAGCAGCCCCTGCCCCCACCCGCACCCC
TGCACCTGCCACGCCTGTCTCCGGCAGCCCCTGCCCGCACCCGCACCCCTGCACCTGCCACGCCCGTCTCCGGCA
GCACCTGCCACGCCCGTCTCCGGCAGCACCTGCCACGCCCGTCTCCGGCAGCACCTGCCACGCCCGTCTCCGGCA
GCCCCTGCCCGCACCCGCACCCCTGCACCTGCCACGCCCGTCTCCGGCAGCCCCTGCCTGCACCCGCACCCCTCA
CGGCTGTCTCCGGCAGCCCCTGCCCGCGCCCGCACCTCTGCACCTCCCACGCCCCTCTCCGGCAGCCCCTGCCCA
CACCCGCACCCCTGCACCTCCCACGCCCGTCTTGCCCTGGGGCCCAGGTGCAGGTCTGTGAGGAGGGCAGCCCCG
TGCTCCCGTGGCCACCGCTCAGCCAAATGGATTCAGCGAGGGTTTTTAGTGTTTGTGCCTGTGTCCCCGTGTGCC
TGTTTCCTGGTGAGGCTGGATGCCTGGCATGTCTGAACACTCACATTCCCCAGGCATGCATGTGCAGCCGCCGCC
GCCACCCATGTACTGTGGCGCTGACCCCTCCTGTAACAGCTGTGGTCTTGGCCTCTCGTGTTGGTGGCAGATGTC
CCATTTCCCAGTTACTTTCTGTTGTCCAAAAGTTTAACTGTCCTGCCAGCCAAAGCTGCTGAGCATTACTCTGAT
AGACCATCAGTCCTTGGTAAGTGTCCTGTGCATCTGGGATAAGCATCCGTTTGTTTTCAGCTGCGCTTTCTGTGA
CTTGCTCTGCGTGAGTCCTCGGTCCACGTGGGCCGTTGCGCTGGTTCCCAGCCTGCCCGACACACTCACTGCGAC
GCCTCCCTTGCCTACTGCTTGCTGGCTTCTGTGTTCTCTGCAGTAAACATTGATTTCTGACTCGAGTGCTGTCTT
CATTGAGCTCTCTGCACTCTGGGGATGCAGTCAGCGACCCCACGAAGGCTACCGGCTTCCTCCCAGGGAACAGTG
CAGGTGCTGCTTCCCAGGACCACAGGACCCTGGCTGGTCGCTGCCTGTGATGGGTCTCCACAAGACCACTCCCCA
TTAGCCAGACTCACAGGAGACTGACACATAAATGAGAAAGTTGTTCACTAACTCACAATGGGAGCAACCCTTTGC
AGTGCGGAAATGCTCTCAGCCTTTCTGGCCCCGGATACCTGGGAAGCTAAGGGTTCATTAGGTGGCCTAGTGCCT
GCACTCAGGATGCCCCAGAGGAGGCCCCGGGGTTCCTGAACGCCTTCTTCAGGCCCTGTCTTCAGCCCTTCTCCA
GGCCCTCTGAGTTCCAAACAGCACTCACTTTTGTCTGGTCCTCTGTTCCCCGGCTCGCACCTCCTTCGTCAGGGC
AGTTGCTCTCAACCAGGGGTACTTCTGCCCCTGGGGCCCACTCGGCA**ATG**TCCGGGACCGTGTTGGCGGTCACAG
CTGGGCGGGGGCACCACCGGAATCTGGTGTGCAGAGGCGGGGGTCCTGCCCAGATGCCAGAGGTGCTGCAGGTGA
GAGATACAGATTTAGACCCTGTGACGACAAAGAAAAGGACGGGAAAGGTGGCTCTCAAGGCCCCAGGGAACCGCC
CAGAGACGCCTGGGGTTCCAGAAGCTGGAAAGGCATGGAGCGGTGCGGGAACAAGCCTCTGCGGTGGCTGGAGAT
GTGGGGATGGAGACTGGTCATGCCTTCACACACTTAACCAGAACCCTCCCAGCTCTCCCTCCCCTGCAACCAAGC
CAGCAAGGCGACACGGTGGCTGGCGCTGGCGAGAGGCAAGTGTGCTTGACTGCCTTTCTCCACTCTTGAGGACAA
CACCCAGAGTGGCCCCGTCTTTGCCCCACCAGCCCAGGCCTAAAGCTTCCTCATCATCCGCATCCCGGCCTGGGA
CT**TAG**GCGGACTTCTGCCAGCTGTGTCACGTGCAGGGGACTGCAGCCACTGACCCCCTCTCCCTTCTGTCCTGCT
CTTCTCTACCCCACAGCCCCAGGCAGATCTTCAGTGCATGTCAGCTCTCCTCCCTCCCTCCCTGCAGACCCCTGT
GCCCCGCAGTGCCCTGAGAATGACGTCTGAGCCCCCAGTGGAGGTGTCAAGGCTGTTCGGTCTGTCCCCATCCCG
TTCTGTCCTCCCCTTGCTCACCACACTCCCCTGCCTGGTCTTCCAAACTCGAACCCCAGGCAACTCCTTCAGGCA
TCAGACCTCTGCCCCTGCGCCCCTCCTGCCTCTCTGTGATGGGCTGGCCCTTCCCTTCTGCTGCCTCCCCTCCCT
CCTTCCTGCTCCAACCCCTATCTCTCTCTGATGCTGCCCCTTAGAGAAGCCTTCTTGGACCTTAAGCCTGGCCAC
TCCTCTAAGCCCCTCATCTCCAGGTGTGGTCTAGGAAGTGCTCTCAGCCTCTCTACTCCAGTGGCTCGGGGTCTC

FIGURE 3056B

TGACCAGCCCTCCTGCCAGGGAAGCTTTGAAGGTTCCCACAGGGACCCCTAGAGACAAGGGCACTGCCCGTCCAG
ATGGCACCCTCACCCCAACCCCAGCAGCACTGGCTGGAGCAGGCCATGCCTGTGTGGGTATCTGAACAGGCACTG
GATTCCCCGATCTCAACAAAAGAAGCCCATGGAGGCCTTTTCTAATCCACAGTCCAAGAGGACAAATCAAGACAA
CAGGCTGGGGGGGCTGGCTGTGGGCCGACTCCCACGTCTTAGGACCAGGGGCTCTGGGGCTGTTTGGGCTGGAAC
CCCTCCTCCCAGCATAACAAACACTAGCTCATTATTTACAGTGAATACCCAACAAAACCCTGCTCGAGGTGAGGA
GCGGGGACCTGCTGCTCCAACAGACCAGACTGGCTGCTGGCTCCGAGCTCATTAAATCAGCAACCTTTGCACTCC

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FIGURE 3057

GATGGCGGCGGAGCAGGACCCCGAGGCGCGCGCGGGGCGGCCGCTGCTCACTGACCTCTACCAGGCCACCATGGC
GTTGGGCTATTGGCGCGCGGGCCGGGCGCGGGACGCCGCCGAGTTCGAGCTCTTCTTCCGCCGCTGCCCGTTCGG
CGGCGCCTTCGCCTTGGTAGCCGGCTTGCGCGACTGTGTGCGCTTCCTGCGCGCCTTCCGCCTGCGGGACGCCGA
CGTGCAGTTCCTGGCCTCGGTGCTGCCCCCAGACACGGATCCTGCGTTCTTCGAGCACCTTCGGGCCCTCGACTG
CTCCGAGGTGACGGTGCGAGCCCTGCCCGAGGCTCCCTCGCCTTCCCCGGAGTGCCGCTCCTGCAGGTGTCCGGG
CCGCTCCTGGTGGTGCAGCTGCTGGAGACACCGCTGCTCTGCCTGGTCAGCTACGCCAGCCTGGTGGCCACCAAC
GCAGCGCGCGTTCGCTTGATCGCAGGGCCAGAGAAGCGGCTGCTAGAGATGGGCCTGAGGCGGGCTCAGGGCCCG
ATGGGGCCTGACAGCCTCCACCTACAGCTACCTGGGCGGCTTCGACAGCAGCAGCAACGTGCTAGCGGGCCAGCT
GCGAGGTGTGCCGGTGGCCGGGACCCTGGCCCACTCCTTCGTCACTTCCTTTTCAGGCAGCGAGGTGCCCCCTGA
CCCG**ATG**TTGGCGCCAGCAGCTGGTGAGGGCCCTGGGGTGGACCTGGCGGCCAAAGCCCAGGTGTGGCTGGAGCA
GGTGTGTGCCCACCTGGGGCTGGGGGTGCAGGAGCCGCATCCAGGCGAGCGGGCAGCCTTTGTGGCCTATGCCTT
GGCTTTTCCCCGGGCCTTCCAGGGCCTCCTGGACACCTACAGCGTGTGGAGGAGTGGTCTCCCCAACTTCCTAGC
AGTCGCCCTGGCCCTGGGAGAGCTGGGCTACCGGGCAGTGGGCGTGAGGCTGGACAGTGGTGACCTGCTACAGCA
GGCTCAGGAGATCCGCAAGGTCTTCCGAGCTGCTGCAGCCCAGTTCCAGGTGCCCTGGCTGGAGTCAGTCCTCAT
CGTAGTCAGCAACAACATTGACGAGGAGGCGCTGGCCCGACTGGCCCAGGAGGGCAGTGAGGTGAATGTCATTGG
CATTGGCACCAGTGTGGTCACCTGCCCCCAACAGCCTTCCCTGGGTGGTGTCTATAAGCTGGTGGCCGTGGGGGG
CCAGCCACGAATGAAGCTGACCGAGGACCCCGAGAAGCAGACGTTGCCTGGGAGCAAGGCTGCTTTCCGGCTCCT
GGGCTCTGACGGGTCTCCACTCATGGACATGCTGCAGTTAGCAGAAGAGCCAGTGCCACAGGCTGGGCAGGAGCT
GAGGGTGTGGCCTCCAGGGGCCCAGGAGCCCTGCACCGTGAGGCCAGCCCAGGTGGAGCCACTACTGCGGCTCTG
CCTCCAGCAGGGACAGCTGTGTGAGCCGCTCCCATCCCTGGCAGAGTCTAGAGCCTTGGCCCAGCTGTCCCTGAG
CCGACTCAGCCCTGAGCACAGGCGGCTGCGGAGCCCTGCACAGTACCAGGTGGTGCTGTCCGAGAGGCTGCAGGC
CCTGGTGAACAGTCTGTGTGCGGGGCAGTCCCCC**TGA**GACTCGGAGCGGGGCTGACTGGAAACAACACGAATCAC
TCACTTTTCCCC

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FIGURE 3058

CAGAAAAATGGCTACAAACTTCCTAGCACATGAGAAGATCTGGTTCGACAAGTTCAAATATGACGACGCAGAAAG
GAGATTCTACGAGCAGATGAACGGGCCTGTGGCAGGTGCCTCCCGCCAGGAGAACGGCGCCCGTGATCCTCCGTG
ACATTGCGAGAGCCAGAGAGAACATCCAGAAATCCCTGGCTGGAAGCTCAGGCCCCGGGGCCTCCAGCGGCACCA
GCGGAGACCACGGTGAGCTCGTCGTCCGGATTGCCAGTCTGGAAGTGGAGAACCAGAGTCTGCGTGGCGTGGTAC
AGGAGCTGCAGCAGGCCATCTCCAAGCTGGAGGCCCGGCTGAACGTGCTGGAGAAGAGCTCGCCTGGCCACCGGG
CCACGGCCCCACAGACCCAGTGACA**ATG**AGGAGGAGGACAAGGAGGCGGCACAGCTGCGGGAGGAGCGGCTACGG
CAGTACGCGGAGAAGAAGGCCAAGAAGCCTGCACTGGTGGCCAAGTCCTCCATCCTGCTGGATGTCAAGCCTTGG
GATGATGAGACGGACATGGCCCAGCTGGAGGCCTGTGTGCGCTCTATCCAGCTGGACGGGCTGGTCTGGGGGGCT
TCCAAGCTGGTGCCCGTGGGCTACGGTATCCGGAAGCTACAGATTCAGTGTGTGGTGGAGGACGACAAGGTGGGG
ACAGACTTGCTGGAGGAGGAGATCACCAAGTTTGAGGAGCACGTGCAGAGTGTCGATATCGCAGCTTTCAACAAG
ATCTGAAGCC**TGA**GTGTGTGTACGTGCGCGCGTGCGTGAGGCCCTGCCACGATTAAAGACTGAGAC

FIGURE 3059

CCCCGTGACCCCTCTTCAGGCACCCACCACCCTG**ATG**GTGACAGAGGGGGACAGCCAGCACCCATCTGTCCCCGT
CAGGGCTCTTGTTCTCACAGCCCCCTGGAGCATGCCCCATGCCCCAACCTTGGGCCTGGCTCCTGGCCCAGATGG
CACCTGGCCTCTTGAGTCTGCTGGGGGACCCCAAAGTTGGTGGTCCCATAGCCTGCCCTCCTGGGTCTCCACCTC
ATGCCTGGACAGGACGCTGTGGCCTGTCCGGGCCTTGGCCAGCCCTGCAGCTGCACCCCCGATCCTCATCCCTCA
CCCCATTCCCTGCCAGCATCCTAAGGCTCCTGGCGGGCATCCTCTCTGCTCAAAATTATTGACCTGTCTCCCGGC
CACACCTGCTGTGCCCTCTCAGCCAGGCCATCATCACCCCCTGTTCATTATGTCAGGCCTCATGGGAGCCTGGCC
TTCTCCAGAAGCTGGCCCCGGCGTCCTCCCAAGCTGGACCACGGCTGAA**TGA**GGAACGCGCCACTGGACACATGA
GGAAGAGGCTGCTCTGGGAGCTACTGATGCTGTGACCTCACCTCTCTGGCTTTGGGCGGCAGGTCCCTGCACCTA
GGATGCCTGCCTGGAAATGTCCTTGCATTCGTGGCCTCCTTCACAGCCTCCTCCTCAGAGAAGCCTCTGCGAGTG
CACAGGGAGTGTGTGCAGCCTTGTGAAGGGCTGGGACCACTTGCCCAGACTGGGGCCCCTCAGGCACAGGCGTGG
GGTCCTACTGACCTGTCTCCCCAGCTCCCACACAGAAAGCATCTAAAAT

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FIGURE 3060

CCTGGGCGGGCCCTGCGTCAGGTTGCAGTTTCACTTTTAGCTCTGGGCACCTCCAGCTCCTGCTCGCCGGACGGC
TCCCAGGGAGAGCAGACGCGCCAGACGCGCCACCCTCGGGGCGCCGACGGTCACGGAGC**ATG**GGGTCGGCCTTTG
AGCGGGTAGTCCGGAGAGTGGTCCAGGAGCTGGACCATGGTGGGGAGTTCATCCCTGTGACCAGCCTGCAGAGCT
CCACTGGCTTCCAGCCCTACTGCCTGGTGGTTAGGAAGCCCTCAAGCTCATGGTTCTGGAAACCCCGTTATAAGT
GTGTCAACCTGTCTATCAAGGACATCCTGGAGCCGGATGCCGCGGAACCAGACGTGCAGCGTGGCAGGAGCTTCC
ACTTCTACGATGCCATGGATGGGCAGATACAGGGCAGCGTGGAGCTGGCAGCCCCAGGACAGGCAAAGATCGCAG
GCGGGGCCGCGGTGTCTGACAGCTCCAGCACCTCAATGAATGTGTACTCGCTGAGTGTGGACCCTAACACCTGGC
AGACTCTGCTCCATGAGAGGCACCTGCGGCAGCCAGAACACAAAGTCCTGCAGCAGCTGCGCAGCCGCGGGGACA
ACGTGTACGTGGTGACTGAGGTGCTGCAGACACAGAAGGAGGTGGAAGTCACGCGCACCCACAAGCGGGAGGGCT
CGGGCCGGTTTTCCCTGCCCGGAGCCACGTGCTTGCAGGGTGAGGGCCAGGGCCATCTGAGCCAGAAGAAGACGG
TCACCATCCCCTCAGGCAGCACCCTCGCATTCCGGGTGGCCCAGCTGGTTATTGACTCTGACTTGGACGTCCTTC
TCTTCCCGGATAAGAAGCAGAGGACCTTCCAGCCACCCGCGACAGGCCACAAGCGTTCCACGAGCGAAGGCGCCT
GGCCACAGCTGCCCTCTGGCCTCTCCATGATGAGGTGCCTCCACAACTTCCTGACAGATGGGGTCCCTGCGGAGG
GGGCGTTCACTGAAGACTTCCAGGGCCTACGGGCAGAGGTGGAGACCATCTCCAAGGAACTGGAGCTTTTGGACA
GAGAGCTGTGCCAGCTGCTGCTGGAGGGCCTGGAGGGGGTGCTGCGGGACCAGCTGGCCCTGCGAGCCTTGGAGG
AGGCGCTGGAGCAGGGCCAGAGCCTTGGGCCGGTGGAGCCCCTGGACGGTCCAGCAGGTGCTGTCCTGGAGTGCC
TGGTGTTGTCCTCCGGAATGCTGGTGCCGGAACTCGCTATCCCTGTTGTCTACCTGCTGGGGGCACTGACCATGC
TGAGTGAAACGCAGCACAAGCTGCTGGCGGAGGCGCTGGAGTCGCAGACCCTGTTGGGGCCGCTCGAGCTGGTGG
GCAGCCTCTTGGAGCAGAGTGCCCCGTGGCAGGAGCGCAGCACCATGTCCCTGCCCCCCGGGCTCCTGGGGAACA
GCTGGGGCGAAGGAGCACCGGCCTGGGTCTTGCTGGACGAGTGTGGCCTAGAGCTGGGGGAGGACACTCCCCACG
TGTGCTGGGAGCCGCAGGCCCAGGGCCGCATGTGTGCACTCTACGCCTCCCTGGCACTGCTATCAGGACTGAGCC
AGGAGCCCCAC**TAG**CCTGTGCCCGGGCATGGCCTGGCAGCTCTCCAGCAGGGCAGAGTGTTTGCCCACCAGCTGC
TAGCCCTAGGAAGGCCAGGAGCCCAGTAGCCATGTGGCCAGTCTACCATGGGGCCCAGGAGTTGGGGAAACACAA
TAAAGGTGGCATACGAAGG

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FIGURE 3061

CAGGTGCAACTGAC**ATG**GGTGAACCCCAGGGATCCATGCGGATTCTAGTGACAGGGGGCTCTGGGCTGGTAGGCA
AAGCCATCCAGAAGGTGGTAGCAGATGGAGCTGGACTTCCTGGAGAGGACTGGGTGTTTGTCTCCTCTAAAGACG
CCGATCTCACGGATACAGCACAGACCCGCGCCCTGTTTGAGAAGGTCCAACCCACACACGTCATCCATCTTGCTG
CAATGGTGGGGGGCCTGTTCCGGAATATCAAATACAATTTGGACTTCTGGAGGAAAAACGTGCACATGAACGACA
ACGTCCTGCACTCGGCCTTTGAGGTGGGCGCCCGCAAGGTGGTGTCCTGCCTGTCCACCTGTATCTTCCCTGACA
AGACGACCTACCCGATAGATGAGACCATGATCCACAATGGGCCTCCCCACAACAGCAATTTTGGGTACTCGTATG
CCAAGAGGATGATCGACGTGCAGAACAGGGCCTACTTCCAGCAGTACGGCTGCACCTTCACCGCTGTCATCCCCA
CCAACGTCTTCGGGCCCCACGACAACTTCAACATCGAGGATGGCCACGTGCTGCCTGGCCTCATCCACAAGGTGC
ACCTGGCCAAGAGCAGCGGCTCGGCCCTGACGGTGTGGGGTACAGGGAATCCGCGGAGGCAGTTCATATACTCGC
TGGACCTGGCCCAGCTCTTTATCTGGGTCCTGCGGGAGTACAATGAAGTGGAGCCCATCATCCTCTCCGGTGGGC
GAGGAAGA**TGA**GGTCTCCATCAAGGAGGCAGCCGAGGCGGTGGTGGAGGCCATGGACTTCCATGGGGAAGTCACC
TTTGATACAACCAAGTCGGATGGGCAGTTTAAGAAGACAGCCAGTAACAGCAAGCTGAGGACCTACCTGCCCGAC
TTCCGGTTCACACCCTTCAAGCAGGCGGTGAAGGAGACCTGTGCTTGGTTCACTGACAACTACGAGCAGGCCCGG
AAGTGAAGCTGGAAGACAGGATCAGGTGCCAGCGGACCATCGGCTGGCAGAGCCCAGCGGCCACCACCCGTCAAC
CCTGCCAGGAGCTGAGGGCACCACCCAGCAACCTGGGCCTGCATTCCATCCGCTCTGCAGCCCCAAGCATCTTTC
CAGTGGGGCCCCCATTCACGTTGGTCCTCAGGGAAACCAGGGTCCCGGGCAGGCCCGGCGCTTTGCTCCCCACAC
CAGCCCCCTGCGCGTGTCCACTCTGATCCTGCATCCCACTCCCTGGGAGCCAATAAAGTGCATTTTCACAG

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FIGURE 3062

AGCGCAGCGGCGTCCGAGGCAACAAG**ATG**GCAGCTGCGGAGCCGTCTCCGCGGCGCGTGGGCTTCGTGGGCGCGG
GCCGCATGGCGGGGGCCATCGCGCAGGGCCTCATCAGAGCAGGAAAAGTGGAAGCTCAGCACATACTGGCCAGTG
CACCAACAGACAGGAACCTATGTCACTTTCAAGCTCTGGGTTGCCGGACCACGCACTCCAACCAGGAGGTGCTGC
AGAGCTGCCTGCTCGTCATCTTTGCCACCAAGCCTCATGTGCTGCCAGCTGTCCTGGCAGAGGTGGCTCCTGTGG
TCACCACTGAACACATCTTGGTGTCCGTGGCTGCTGGGGTGTCTCTGAGCACCCTGGAGGAGCTGCTGCCCCCAA
ACACACGGGTGCTGCGGGTCTTGCCCAACCTGCCCTGTGTGGTCCAGGAAGGGGCCATAGTGATGGCGCGGGGCC
GCCACGTGGGGAGCAGCGAGACCAAGCTCCTGCAGCATCTGCTGGAGGCCTGTGGGCGGTGTGAGGAGGTGCCTG
AAGCCTACGTCGACATCCACACTGGCCTCAGTGGCAGTGGCGTGGCCTTCGTGTGTGCATTCTCCGAGGCCCTGG
CTGAAGGAGCCGTCAAGATGGGCATGCCCAGCAGCCTGGCCCACCGCATCGCTGCCCAGACCCTGCTGGGGACGG
CCAAGATGCTGCTGCACGAGGGCCAACACCCAGCCCAGCTGCGCTCAGACGTGTGCACCCCGGGTGGCACCACCA
TCTATGGACTCCACGCCCTGGAGCAGGGCGGGCTGCGAGCAGCCACCATGAGCGCCGTGGAGGCTGCCACCTGCC
GGGCCAAGGAGCTCAGCAGAAAG**TAG**GCTGGGCTCTGGCCATCCTTTCCTGCCTCTGTGCCCCTGCCTCTCCCTG
TGTCCCTTCCCCTGAGGACTGCGGCTCCCTCCCTCCTGCATGAGGGTCTCCTACTGCTCCTTCTCCCCTTGCACA
GGGAAATGCAGGGGGCAGGACTTGGGAGGTTCCAGCAGGCGGGGGAGCCCCGACCAGTGGGGACACTCCTCCCTC
CCCAGTGAGCAGAAGGCACCGTGGTGGTGGCTCTGCCCCTTGCTGCAGTGAGCCCACCTTGCTGCAACATTGGTT
CTGAGGGGCCCAAGAGATGGCGTCTTGGTCATTTGCCCGCATGGTTGGGCAGTTGGTTGAGGCCATGAACAGAAC
TTACGGTAACAGGCACGGCTGGCCCAATGCCTGGTCTGGAGCTGGAGCTTGCCTTTGGCTTTCCAGGTGGCTCCG
TGCAGCTACAGCCAGGCCGGCTGCCTCATCTCAGCTCTAGGGGGCACGAGCCATATGGGGTCTGCACAAGAGACC
CTCTCCCCTGCAGTAAAGCCAGGGGCCCTGGCCTGATGGGGCCCCCATGGGGAGCTGGAGCCTGCCCTGCAGCCT
GGAGAAGAGGGTGGCTGTGGTGGGCGTGCTCATCCCCTGCTAAGGAGCAGGAGCTGCTGGGCCAGGTCTGCGGCA
GTGCTGGGGTGGCACCAGGTGGGCAGTGGTAGGTGGGGTGGCTTGAGGTCTGGGAGGGTGGCCCTGGCCAGCCAG
GACACATGCAGACCCCTGGCTTTAGTCTGGATACAGGCTCCCTCTTTCCTCCCAATCCTAAGCTCCTGACAAGTG
GCCAGGTGGCTCTGGGCCCTCCTGCCCCGTGCCTAGGTCAGGGGTCCTGGAATACCCCGTAGCTCTGGCACCACC
ACACTGGCCTCTGATGGCAAGACTTGGCCCCTCCACCTGTCCCTAACGGACGGCAGGTCAGGAAAGCCAGGACTC
AGGGGAGAAGCAAACCCCCAGGATTGAAGGCTAGGGTTCTAGGGCCTTTGGGTGGGGAGGGCCCGGGCCGGACAG
CCTCAGCTCCGTCCCCTGCCCCACAAGATTCACCTGGGCCTCCAGTCCCACGCTGGCCCCAACTGCTGCAGCTCT
CGGCTTCCGCCCAACAGCCTCTGGAGGTGAGGCGGGAGCATGCCCTCAGCGAGGCTGGGCGGCGGGTCCTGCTGT
GCCATCTCCCTGTGCGCCTGAGCAGATCAATCCACCAGTGCAAAACAGGGCTAACGGCACCTGCAGGACAGCAGC
ACGCTCCATCCCTCATGCTCAGCTGCCTCTGCGGCCACGGACTTCTGCCCTTCATCTGCTCTCTCTTACTCTCCT
GAGCCTAGCCCGTCCGTAAGCTCCCTCCCCTGCCTGGTTCCCAGGGCAGGCTGACTCAGTTGACTGCTTGGTCCA
AGCCTGGCCCTGGCACTTGTCAGGGTCAGCCTAAGGAGATGGGAATAAAGAGGCCAGAGAGCACCAAGTGAGCTC
ATGTTTC

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FIGURE 3063

CGCGTGGTGCGGCTGCTGCGGCTCCGGGCGGCTCTGACGTGCTCGGGGAGGTCCCCGCCGCCCGCCTCCCGGGATGTCCGCTCGCGCAGGACGCAGAAGGGCAGTGGAGCCAGAAACAGCCAGAAAGGCCCTTTCAGAAATGTCTGTTGCACATGCTTTCCCCTCTCAGACCCTTCAGAGACTTCCTGTTGCTCTGAGGACACTCATCCCAGCCGACCAGGCCACCAGGCCCCCAACAGCACTACCTGGCTGGGGTCACGTGCAGGTCTCCTGGCTCTGGCAGGTGGGAGAAGGAGAAGCACGAAGACGGGGTGAAGTGGAGACAGCTGGAGCACAAGGGCCCGTACTTCGCACCCCCATACGAGCCCCTTCCCGATGGAGTGCGTTTCTTCTATGAAGGAAGGCCTGTGAGATTGAGCGTGGCAGCGGAGGAGGTCGCCACTTTTTATGGGAGGATGTTAGATCATGAATACACAACAAAGGAGGTTTTCCGGAAGAACTTCTTCAATGACTGGCGAAAGG

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FIGURE 3064

GCGGACTCGGGAG**ATG**GAGGAAAAGGAGATATTACGGCGGCAGATCCGCCTACTGCAGGGTCTGATTGATGACTA
CAAAACCCTCCACGGCAATGCCCCGGCCCCTGGTACCCCAGCAGCTTCTGGGTGGCAGCCACCCACTTACCACAG
TGGCAGAGCCTTTAGTGCCCGCTACCCTCGTCCAAGCCGGAGGGGCTACTCTTCCCACCATGGGCCTTCGTGGCG
CAAGAAATACTCCCTCGTGAATCGGCCCCCGGGACCCTCAGACCCTCCTGCCGACCATGCTGTGCGGCCGTTGCA
CGGGGCCCGGGGGGGCCAGCCTCCTGTCCCGCAGCAGCATGTCCTTGAGAGACAGGTCCAGCTCAGTCAGGGTCA
GAACGTGGTCATCAAAGTTAAACCGCCATCAAAGTCTGGCTCTGCCAGTGCCTCAGGGGCCCAGCGGGGCTCTTT
GGAAGAATATGAGGACACCCCCTGGAGTGACCAAAGGCCCCGGGAAGGTGAAGGTGAGCCCCCTCGGGGACAGCT
GCAGCCCTCGAGGCCAACAAGAGCCAGGGGGACCTGCAGTGTGGAAGATCCTCTTCTGGTCTGCCAGAAGGAGCC
TGGTAAGCCCAGGATGGTGAAGTCAGTGGGCAGTGTGGGCGACAGCCCCTGGGAGCCCCGCCGGACAGTCAGTGA
GAGCGTGATTGCCGTCAAGGCGAGCTTCCCATCCTCCGCTCTGCCCCCACGCACTGGCGTGGCCCTGGGCCGGAA
GCTGGGTTCTCATTCCGTGGCCAGCTGTGCTCCACAGCTCCTTGGGGACAGGAGAGTAGATGCTGGCCACACAGA
TCAGCCAGTTCCGTCTGGCTCAGTGGGGGGTCCCGCCAGACCGGCCTCAGGACCCAGGCAGGCCCGGGAGGCCTC
GCTGGTTGTGACCTGTCGAACTAACAAGTTCCGGAAAAACAACTACAAATGGGTGGCTGCCTCCTCGAAGAGTCC
CCGGGTTGCTCGGAGGGCCCTCAGTCCCAGAGTGGCTGCAGAGAATGTGTGCAAGGCCTCTGCTGGCATGGCAAA
CAAGGTGGAGAAGCCGCAGCTCATAGCTGACCCAGAGCCCAAGCCCAGGAAGCCAGCCACGTCCTCCAAGCCAGG
GTCTGCCCCCAGCAAGTACAAGTGGAAGGCCTCCAGCCCCTCTGCCTCCTCCTCTTCCTCCTTCCGTTGGCAGTC
GGAGGCCGGCAGCAAGGACCATGCCTCCCAGCTCTCCCCAGTCCTGTCTAGGTCCCCGTCGGGGGACAGACCAGC
AGTAGGACACAGTGGCTTGAAGCCCCTCTCTGGGGAGACCCCGCTCTCGGCTTACAAAGTGAAGAGCCGCACCAA
GATCATCCGGAGACGCGGCAGCACAAGCCTTCCTGGAGACAAGAAAAGCGGCACCTCACCTGCCGCCACCGCCAA
GAGCCACCTCAGCCTCCGGCGGAGACAGGCCCTCAGGGGGAAGAGCAGCCCTGTCCTGAAGAAGACCCCCAACAA
GGGCCTGGTACAGGTCACCACGCACCGACTATGTCGCCTGCCACCGAGCCGGGCCCACCTCCCCACCAAGGAAGC
GTCCAGCCTGCATGCTGTGCGGACTGCACCCACCAGCAAGGTGATCAAGACCCGCTACCGCATTGTCAAGAAGAC
GCCGGCCTCGCCTCTCAGCGCCCCGCCCTTCCCCCTGTCTCTGCCCTCCTGGCGGGCCCGGCGGCTCTCACTATC
CAGGTCCCTGGTGCTGAACCGCCTGCGTCCAGTTGCCAGCGGGGGTGGGAAAGCCCAACCGGGCTCCCCTTGGTG
GCGGAGCAAAGGCTACCGCTGCATCGGAGGGGTCCTCTACAAAGTATCTGCCAACAAGCTCTCCAAGACCTCCGG
CCAGCCCAGTGATGCGGGCAGCAGGCCCCTCCTGCGCACAGGCCGGCTGGATCCTGCAGGCAGCTGTAGCCGTTC
CCTGGCCAGCCGGGCAGTGCAGCGCAGCCTGGCCATCATCCGGCAGGCGCGGCAGCGCAGGGAGAAGAGGAAGGA
GTACTGCATGTACTACAACCGCTTCGGCAGGTGCAACCGTGGCGAGCGCTGCCCCTACATCCACGATCCCGAGAA
GGTGGCCGTGTGCACCAGGTTTGTCCGGGGCACCTGCAAGAAAACGGATGGGACCTGCCCCTTCTCCCACCATGT
GTCCAAGGAGAAGATGCCGGTGTGCTCCTACTTCCTGAAGGGCATCTGCAGCAACAGCAACTGTCCCTATAGCCA
CGTGTACGTGTCCCGCAAGGCCGAGGTCTGCAGCGACTTCCTCAAAGGCTACTGCCCCCTGGGTGCAAAGTGCAA
GAAGAAACACACGCTGCTGTGCCCCGACTTTGCCCGCAGGGGGGCGTGTCCCCGCGGCGCCCAGTGCCAGCTGCT
CCACCGTACCCAGAAACGCCACAGTCGGCGGGCAGCCACGTCCCCCGCCCCAGGGCCCAGCGACGCAACCGCCAG
GAGCAGGGTCTCGGCCAGCCACGGGCCCAGGAAGCCTTCAGCATCCCAGCGCCCCACCAGGCAGACGCCCAGCTC
GGCTGCCCTCACTGCGGCTGCCGTGGCTGCACCTCCCCACTGCCCAGGGGGGTCAGCCTCTCCCTCATCCTCGAA
GGCTTCCTCCTCCTCCTCCTCCTCCTCATCCCCTCCCGCTTCCTTGGACCACGAGGCACCATCTCTCCAGGAGGC
TGCCTTAGCAGCAGCGTGCTCCAACAGGCTCTGCAAGCTGCCTTCCTTCATCTCCCTGCAGTCCTCGCCGAGCCC
AGGAGCCCAGCCCAGGGTCCGGGCCCCTAGGGCCCCCCTCACCAAGGACTCAGGGAAGCCTCTGCACATCAAACC
ACGTCTG**TGA**GGACCCCAGGGACCGGCCTGCACCTACCTCAGACCCTCATCCTTGGAGAGGAAAGAGGCTCTGTC
CACCACTCTACCCCACAGGAGGGCCGCCCGCCACCAAGCCTCACCTGGGGGCCACAGGGACACTGCTCTGCCTGC
CTGGCCCTCAACCTTCCATGACCAGCGTGTGCGCAGGGCCTGGTCTTCCTCCCCCAAGCCAGGCCCCTGTCCCCA
CCCCACCACCTTCCAGGGTGCCAGGCAGGGCTGGCCTCCAGGCCTGTCCCCGACTGCCATTGGCAACAGTGGCCC
TGCAGCCCCCAGCCCTCCCCACCCAGGTTTTCGGCCCAGTGAAGAGGCCACTGGCCAGGCCTCCCAGGCAGGTGT
TTTATGTTCAGCAATAAAGGTTCTATCCGT

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FIGURE 3065A

GGCCGCTACGCCGAGGCTCTGGAGCAGCACTGGCAGGAGCTGCAGCTTCGGGAGCGCGCTGACGACCCCTCTGGG
CTGTGCCGTGGCCCACCGCAAGATCGGAGAGCGCCTGGCCGAGATGGAGGACTACCCGGCTGCCTTGCAGCACCA
GCACCAGTACCTGGAGCTGGCACATTCCCTGCGCAACCACACGGAGCTGCAGAGGGCCTGGGCCACCATCGGCCG
CACCCACCTGGACATCTATGACCACTGCCAGTCGAGGGATGCTTTGCTGCAGGCACAGGCTGCCTTTGAGAAGAG
CTTGGCTATTGTGGATGAGGAGCTGGAGGGGACACTGGCCCAGGGAGAGCTGAATGAGATGAGGACCCGCCTCTA
TCTCAACCTGGGCCTCACCTTTGAGAGCCTGCAGCAGACAGCCCTGTGCAACGATTACTTCAGGAAGAGCATCTT
CCTTGCGGAGCAGAACCACCTTTACGAGGACCTATTCCGCGCCCGCTACAACCTGGGCACCATCCACTGGCGCGC
GGGCCAGCACTCCCAGGCTATGCGCTGCTTGGAGGGTGCCCGGGAGTGTGCGCACACCATGAGGAAGCGGTTCAT
GGAGAGCGAGTGCTGCGTGGTTATTGCACAGGTCCTCCAAGACCTGGGAGACTTTTTTGGCTGCCAAGCGAGCCC
TGAAGAAGGCCTACAGGCTGGGCTCCCAGAAGCCTGTGCAGAGGGCAGCCATCTGTCAGAACCTCCAGCATGTGC
TGGCAGTGGTCCGGCTGCAGCAACAGCTGGAAGAGGCTGAGGGCAGAGACCCTCAGGGTGCC**ATG**GTCATCTGTG
AGCAGCTAGGGGACCTCTTCTCCAAGGCAGGAGACTTTCCCAGGGCAGCTGAGGCTTACCAGAAGCAGCTGCGTT
TTGCTGAGCTGCTGGACAGACCGGGTGCTGAGCGGGCCATCATCCACGTGTCCCTGGCCACCACACTGGGAGACA
TGAAGGACCACCATGGGGCCGTGCGCCACTATGAGGAGGAACTGAGGCTGCGCAGCGGCAACGTGCTGGAGGAGG
CCAAGACCTGGCTGAACATTGCACTGTCCCGCGAGGAGGCCGGCGATGCCTACGAGCTGCTGGCCCCGTGCTTCC
AGAAAGCGCTCAGCTGTGCCCAGCAGGCCCAGCGTCCCCAGCTGCAGAGGCAGGTCTTGCAGCATCTCCATACCG
TGCAGCTGAGGCTGCAGCCCCAGGAGGCCCCTGAGACCGAAACCAGACTGCGGGAGCTCAGTGTAGCTGAAGATG
AAGATGAGGAGGAGGAGGCGGAGGAGGCGGCAGCCACAGCGGAGAGCGAAGCCCTGGAGGCCGGCGAGATGGAGC
TCTCAGAGGGCGAGGACGACACCGATGGCCTGACCCCGCAGCTGGAGGAGGACGAGGAGCTTCAGGGCCACCTGG
GCCGGCGGAAGGGGAGCAAGTGGAACCGGCGAAACGACATGGGGGAGACCCTGCTGCACCGAGCCTGCATCGAGG
GCCAGCTGCGCCGCGTCCAGGACCTTGTGAGGCAGGGCCACCCCCTTAACCCTCGGGACTACTGTGGCTGGACAC
CTCTGCACGAGGCCTGCAACTACGGGCATCTAGAAATTGTCCGCTTCCTGCTGGACCACGGGGCCGCAGTGGACG
ACCCAGGTGGCCAGGGCTGCGAAGGCATCACCCCCCTCCACGATGCCCTCAACTGTGGCCACTTCGAGGTGGCTG
AGCTGCTGCTTGAACGGGGGGCGTCCGTCACCCTCCGCACTCGAAAGGGCCTCAGCCCGCTGGAGACGCTGCAGC
AGTGGGTGAAGCTGTACCGCAGGGACCTGGACCTGGAGACGCGGCAGAAGGCCAGGGCCATGGAGATGCTGCTCC
AGGCGGCTGCCTCGGGCCAAGATCCCCACAGCTCCCAGGCCTTCCACACCCCAAGCAGCCTTCTGTTTGACCCCG
AGACCTCTCCTCCTTTGAGCCCCTGCCCAGAACCCCCCTCTAATAGCACTAGACTCCCAGAGGCCTCTCAGGCCC
ATGTCAGGGTCTCCCCAGGGCAGGCGGCACCAGCCATGGCCAGGCCTCGGAGGAGCAGGCATGGGCCAGCCAGCA
GCAGCAGCAGCTCAGAAGGCGAGGACAGCGCAGGCCCCGCACGGCCGTCCCAGAAGAGGCCTCGGTGCTCGGCCA
CAGCACAACGGGTGGCAGCCTGGACGCCTGGCCCCGCCAGCAACAGGGAAGCAGCCACAGCCAGCACCAGCCGGG
CAGCCTACCAGGCAGCCATCCGGGGTGTGGGCAGTGCTCAGAGCCGGCTGGGGCCTGGCCCACCGCGGGGCCACA
GCAAAGCCCTTGCCCCCCAGGCAGCGCTCATCCCGGAGGAGGAGTGCCTGGCTGGGGACTGGCTGGAGCTGGACA
TGCCCCTGACCCGCAGCCGCCGGCCCCGCCCCCGGGGCACTGGAGACAACCGCAGGCCCAGTAGTACCTCTGGGT
CGGACAGTGAGGAGAGCAGGCCCCGTGCCCGAGCCAAGCAGGTCCGCCTGACCTGCATGCAGAGTTGCAGTGCGC
CAGTTAACGCAGGGCCCAGCAGCCTGGCTTCAGAACCTCCAGGGAGCCCCAGCACCCCCAGGGTCTCAGAGCCCA
GTGGGGACAGCTCTGCGGCAGGCCAGCCCTTGGGTCCGGCCCCGCCCCCTCCCATCCGGGTTCGAGTTCAAGTTC
AGGATCATCTCTTCCTCATCCCTGTCCCACACAGCAGTGACACCCACTCTGTGGCCTGGCTGGCCGAGCAGGCGG
CCCAGCGCTACTACCAGACCTGCGGGCTGCTGCCCAGGCTCACCCTACGGAAAGAGGGGGCCCTGCTGGCCCCAC
AGGACCTCATCCCTGATGTGCTGCAGAGCAATGACGAGGTGTTGGCTGAGGTGACTTCGTGGGACCTGCCCCCAT
TGACTGACCGCTACCGCAGGGCCTGCCAGAGCCTGGGGCAAGGGGAGCACCAACAGGTGCTGCAGGCCGTGGAGC
TCCAGGGCTTGGGCCTCTCGTTCAGCGCCTGCTCCCTGGCCCTGGACCAGGCCCAGCTTACACCCCTGCTGCGGG
CCCTCAAGCTGCACACAGCACTCCGGGAGCTGCGCCTGGCAGGGAACCGGCTGGGGGACAAGTGTGTGGCTGAGC
TGGTGGCTGCCCTGGGCACCATGCCCAGCCTGGCCCTCCTTGACCTCTCCTCCAATCACCTGGGTCCCGAAGGCC
TGCGCCAGCTTGCCATGGGGCTCCCAGGCCAAGCCACCTTGCAGAGTTTGGAGGAGCTGGACTTAAGCATGAACC
CCCTGGGGGACGGCTGTGGCCAGTCCCTGGCCTCCCTCCTGCACGCCTGCCCCTTACTCAGCACCCTGCGCCTGC
AGGCGTGTGGCTTCGGCCCCAGCTTCTTTCTGAGCCACCAGACAGCACTGGGTAGTGCTTTCCAAGATGCTGAGC
ACCTGAAGACCCTGTCCCTGTCCTACAACGCCCTGGGAGCCCCTGCCCTGGCCAGGACCCTGCAGAGCCTGCCCG
CCGGCACCCTCCTGCACTTAGAGCTCAGCTCCGTGGCAGCCGGCAAGGGTGATTCGGACCTCATGGAGCCTGTAT

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FIGURE 3065B

TCCGATACCTGGCCAAGGAAGGCTGTGCTCTAGCCCACCTGACCCTGTCTGCAAACCACCTGGGGGACAAGGCTG
TTAGAGACCTGTGCAGATGTCTCTCTCTGTGCCCCTCACTCATCTCACTGGATCTGTCTGCCAACCCTGAGATCA
GCTGTGCCAGCTTGGAAGAGCTCCTGTCCACCCTCCAAAAGCGGCCCCAAGGCCTTAGCTTCCTTGGCCTGTCAG
GCTGCGCCGTCCAGGGTCCCCTGGGCCTGGGCCTGTGGGACAAGATAGCCGCGCAGCTCCGGGAACTGCAGCTGT
GCAGCAGACGCCTCTGCGCTGAGGACAGGGACGCCCTGCGCCAGCTGCAGCCCAGTCGGCCGGGCCCCGGCGAGT
GCACGCTGGACCACGGCTCCAAGCTCTTCTTTCGGCGCCTC**TGA**CCCTGGCGCTGCCTTTCCCCACCCTCACCGA
AGCCCCTAATAAATGAAGCTGCTGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAACACTTTGGGAGGCCCAGG
CGGGCGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACATGGTGAAACCCCGTCTCTACTAAAAATACC
AAAAATTAGCCGGGCGTGGTGGTGGAAGCCTGTAGTCCCAGCTACTCCGGAGGCTGAGGCAGGAGAATGGCGTGA
ACCCGGGAGGCGGAGCTTGCAGTGAGCCGAGATCGCACCACTGCACTCCAGCCTGGGCGACAGACCGAGACTCCG
TCTC

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FIGURE 3066

GCGCACCCCGCCCCCGGCGCCATCTTCCCGACCGCGAGCCGTCCAGGTCTCAGTGCTGTGCCCCCCCCAGAGCCT
AGAGG**ATG**TTTCATGGGATCCCAGCCACGCCGGGCATAGGAGCCCCTGGGAACAAGCCGGAGCTGTATGAGGAAG
TGAAGTTGTACAAGAACGCCCGGGAGAGGGAGAAGTACGACAACATGGCAGAGCTGTTTGCGGTGGTGAAGACAA
TGCAAGCCCTGGAGAAGGCCTACATCAAGGACTGTGTCTCCCCCAGCGAGTACACTGCAGCCTGCTCCCGGCTCC
TGGTCCAATACAAAGCTGCCTTCAGGCAGGTCCAGGGCTCAGAAATCAGCTCTATTGACGAATTCTGCCGCAAGT
TCCGCCTGGACTGCCCGCTGGCCATGGAGCGGATCAAGGAGGACCGGCCCATCACCATCAAGGACGACAAGGGCA
ACCTCAACCGCTGCATCGCAGACGTGGTCTCGCTCTTCATCACGGTCATGGACAAGCTGCGTCTGGAGATCCGCG
CCATGGATGAGATCCAGCCCGACCTGCGAGAGCTGATGGAGACCATGCACCGCATGAGCCACCTCCCACCCGACT
TTGAGGGCCGCCAGACGGTCAGCCAGTGGCTGCAGACCCTGAGCGGCATGTCGGCGTCAGATGAGCTGGACGACT
CACAGGTGCGTCAGATGCTGTTCGACCTGGAGTCAGCCTACAACGCCTTCAACCGCTTCCTGCATGCC**TGA**GCCC
GGGGCACTAGCCCTTGCACAGAAGGGCAGAGTCTGAGGCGATGGCTCCTGGTCCCCTGTCCGCCACACAGGCCGT
GGTCATCCACACAACTCACTGTCTGCAGCTGCCTGTCTGGTGTCTGTCTTTGGTGTCAGAACTTTGGGGGCCGGG
CCCCTCCCCACAATAAAGATGCTCTCCGACCTTC

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FIGURE 3067

AGTCTGGCCCTGGACAACCCCAGCAAAGCCGCCCTCAGCCAGCCCAGAAGCACTGGGCCTTGGCCACAGCAACAC
CCACTGAGCACGCTGGGAGCTGAGT**ATG**GCGTCCCTGGTCTCGCTGGAGCTGGGGCTGCTTCTGGCTGTGCTGGT
GGTGACGGCGACGGCGTCCCCGCCTGCTGGTCTGCTGAGCCTGCTCACCTCTGGCCAGGGCGCTCTGGATCAAGA
GGCTCTGGGCGGCCTGTTAAATACGCTGGCGGACCGTGTGCACTGCGCCAACGGGCCGTGTGGAAAGTGCCTGTC
TGTGGAGGACGCCCTGGGCCTGGGCGAGCCTGAGGGGTCAGGGCTGCCCCCGGGCCCGGTCCTGGAGGCCAGGTA
CGTCGCCCGCCTCAGTGCCGCCGCCGTCCTGTACCTCAGCAACCCCGAGGGCACCTGTGAGGACGCTCGGGCTGG
CCTCTGGGCCTCTCATGCAGACCACCTCCTGGCCCTGCTCGAGAGCCCCAAGGCCCTGACCCCGGGCCTGAGCTG
GCTGCTGCAGAGGATGCAGGCCCGGGCTGCCGGCCAGACCCCCAAGATGGCCTGCGTAGATATCCCTCAGCTGCT
GGAGGAGGCGGTGGGGGCGGGGGCTCCGGGCAGTGCTGGCGGCGTCCTGGCTGCCCTGCTGGACCATGTCAGGAG
CGGGTCTTGCTTCCACGCCTTGCCGAGCCCTCAGTACTTCGTGGACTTTGTGTTCCAGCAGCACAGCAGCGAGGT
CCCTATGACGCTGGCCGAGCTGTCAGCCTTGATGCAGCGCCTGGGGGTGGGCAGGGAGGCCCACAGTGACCACAG
TCATCGGCACAGGGGAGCCAGCAGCCGGGACCCTGTGCCCCTCATCAGCTCCAGCAACAGCTCCAGTGTGTGGGA
CACGGTATGCCTGAGTGCCAGGGACGTGATGGCTGCATATGGACTGTCGGAACAGGCTGGGGTGACCCCGGAGGC
CTGGGCCCAACTGAGCCCTGCCCTGCTCCAACAGCAGCTGAGTGGAGCCTGCACCTCCCAGTCCAGGCCCCCCGT
CCAGGACCAGCTCAGCCAGTCAGAGAGGTATCTGTACGGCTCCCTGGCCACGCTGCTCATCTGCCTCTGCGCGGT
CTTTGGCCTCCTGCTGCTGACCTGCACTGGCTGCAGGGGGGTCACCCACTACATCCTGCAGACCTTCCTGAGCCT
GGCAGTGGGTGCAGTCACTGGGGACGCTGTCCTGCATCTGACGCCCAAGGTGCTGGGGCTGCATACACACAGCGA
AGAGGGCCTCAGCCCACAGCCCACCTGGCGCCCTCCTGGCTATGCTGGCCGGGCTCTACGCCTTCTTCCTGTT**TG**
AGAACCTCTTCAATCTCCGGCAGCCCAGGGACCCGGAGGACCTGGAGGACGGGCCCTGCGGCCACAGCAGCCATA
GCCACGGGGGCCACAGCCACGGTGTGTCCCTGCAGCTGGCACCCAGCGAGCTCCGGCAGCCCAAGCCCCCCCACG
AGGGCTCCCGCGCAGACCTGGTGGCGGAGGAGAGCCCGGAGCTGCTGAACCCTGAGCCCAGGAGACTGAGCCCAG
AGTTGAGGCTACTGCCCTATATGATCACTCTGGGCGACGCCGTGCACAACTTCGCCGACGGGCTGGCCGTGGGCG
CCGCCTTCGCGTCCTCCTGGAAGACCGGGCTGGCCACCTCGCTGGCCGTGTTCTGCCACGAGTTGCCACACGAGC
TGGGGGACTTCGCCGCCTTGCTGCACGCGGGGCTGTCCGTGCGCCAAGCACTGCTGCTGAACCTGGCCTCCGCGC
TCACGGCCTTCGCTGGTCTCTACGTGGCACTCGCGGTTGGAGTCAGCGAGGAGAGCGAGGCCTGGATCCTGGCAG
TGGCCACCGGCCTGTTCCTCTACGTAGCACTCTGCGACATGCTCCCGGCGATGTTGAAAGTACGGGACCCGCGGC
CCTGGCTCCTCTTCCTGCTGCACAACGTGGGCCTGCTGGGCGGCTGGACCGTCCTGCTGCTGCTGTCCCTGTACG
AGGATGACATCACCTTCTGATACCCTGCCCTAGTCCCCCACCTTTGACTTAAGATCCCACACCTCACAAACCTAC
AGCCCAGAAACCAGAAGCCCCTATAGAGGCCCCAGTCCCAACTCCAGTAAAGACACTCTTGTCCTTGG

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FIGURE 3068

CCCCGGCACCCCAGGGCAGGTGCAGACCCGCGAGTGCATCGAGGCCGTGATCCGCTTCGCCTTCGAAGAGCGGCT
CTTTCTGCTGGCGGACGAGGTGTACCAGGACAACGTGTACGCCGCGGGTTCGCAGTTCCACTCATTCAAGAAGGT
GCTC**ATG**GAGATGGGGCCGCCCTACGCCGGGCAGCAGGAGCTTGCCTCCTTCCACTCCACCTCCAAGGGCTACAT
GGGCGAGTGCGGGTTCCGCGGCGGCTATGTGGAGGTGGTGAACATGGACGCTGCAGTGCAGCAGCAGATGCTGAA
GCTGATGAGTGTGCGGCTGTGCCCGCCGGTGCCAGGACAGGCCCTGCTGGACCTGGTGGTCAGCCCGCCCGCGCC
CACCGACCCCTCCTTTGCGCAGTTCCAGGCTGAGAAGCAGGCAGTGCTGGCAGAGCTGGCGGCCAAGGCCAAGCT
CACCGAGCAGGTCTTCAATGAGGCTCCTGGCATCAGCTGCAACCCAGTGCAGGGCGCCATGTACTCCTTCCCGCG
CGTGCAGCTGCCCCCGCGGGCGGTGGAGCGCGCTCAGGAGCTGGGCCTGGCCCCCGATATGTTCTTCTGCCTGCG
CCTCCTGGAGGAGACCGGCATCTGCGTGGTGCCAGGGAGCGGCTTTGGGCAGCGGGAAGGCACCTACCACTTCCG
GATGACCATTCTGCCCCCCTTGGAGAAACTGCGGCTGCTGCTGGAGAAGCTGAGCAGGTTCCATGCCAAGTTCAC
CCTCGAGTACTCC**TGA**GCACCCCAGCTGGGGCCAGGCTGGGTCGCCCTGGACTGTGTGCTCAGGAGCCCTGGGAG
GCTCTGGAGCCCACTGTACTTGCTCTTGATGCCTGGCGGGGTGGGGTGGGGGGGGTGCTGGGCCCCTGCCTCTCT
GCAGGTCCCTAATAAAGCTGTGTGGCAGTCTG

FIGURE 3069

AGCCGCCGGCCGCCGGTGTCCGGACCGCTCGCCCCCGTTTGGACCCGACTTCGGTTCTTCTGGGGTGTTGATGCT
CCTAAAGCCCGAGAGCACGTGTCCAGACCCTAGCCTGTACGACGCTGACTCTGCCCGGTCCCAGAACCAAAGCCA
TGCCGGGGTGTGGCCTCTGACCCCACGCGGAGGGGACCTCGCCTTGCGGGACCCCACCTGGAACCCGACCTCCCA
GCCTCGCAGCCGGCCTGAGCCGCC**ATG**CGCGGGAAGTTGCTGCCGCTGGCCGGCCTCTACCTGGTGCAGGGCCTG
CCCTACGGGCTCCAGTCCGGCCTCCTGCCAGTGCTGCTGCGTGCCGGCGGCCTCTCGCTGACGCGCGTGGGGCTG
GCCAAGGTTCTGTACGCTCCGTGGCTGCTCAAGCTGGCTTGGGCCCCGCTGGTGGACGCGCAGGGCTCGGCGAGG
GCCTGGGTGACGCGCAGCACGGCGGGCCTGGGCCTGGTGTGTGGGCTGCTTGCCGGGCTGCCCCCTCCTGGAGCT
GGCCAGGCCGGGCTGCCCGCCGCTGTGGCGGGGTTGCTGCTGTTGTTGAACCTGGGTGCCGCCATGCAGGATGTG
GCCCTGGACGCGCTGGCTGTGCAGCTGCTGGAGCCGGCCGAACTGGGGCCGGGCAATACCGTGCAGGTGGTCGCG
TACAAGCTGGGGGCCGCGCTAGCTGGGGGCGCGCTGCTGGCGCTGCTGCCCACCTTCTCGTGGCCGCAACTCTTT
CTGCTCCTGGCTGCCACCTACTGGCTGGCCGCGGCCCTGGCCTGGGCTGCACCAGCCCTGCGGCGGCTCCCACAG
CAGCCCCCTTCCGAGCAGCGTCCCCACACCGCGCACCTTCTGCGGGACGTGCTAGCCGTGCCGGGGACCGTGTGG
ACGGCAGGCTTTGTGCTCACCTACAAGCTGGGTGAGCAGGGTGCCAGCAGCCTGTTTCCTCTTCTCCTGCTGGAC
CACGGCGTTTCTGCTCCCGAGTTGGGACTGTGGAATGGTGTGGGTGCTGTGGTCTGCTCCATCGCTGGCTCCTCC
CTGGGTGGGACCTTGCTGGCCAAGCACTGGAAACTGCTGCCTCTGTTGAGGTCGGTGCTGCGCTTCCGCCTCGGG
GGCCTAGCCTGTCAGACTGCCTTGGTCTTCCACCTGGACACCCTGGGGGCCAGCATGGACGCTGGCACAATCTTG
AGAGGGTCAGCCTTGCTGAGCCTATGTCTGCAGCACTTCTTGGGAGGCCTGGTCACCACAGTCACCTTCACTGGG
ATGATGCGCTGCAGCCAGCTGGCCCCCAGGGCCCTGCAGGCCACACACTACAGCCTTCTGGCCACGCTGGAGCTG
CTGGGGAAGCTGCTGCTGGGCACTCTGGCCGGAGGCCTGGCTGATGGGTTGGGGCCACATCCCTGCTTCTTGCTC
CTGCTCATCCTCTCTGCCTTTCCCGTTCTGTACCTGGACCTAGCACCCAGCACCTTTCTC**TGA**GCTGAGTGGCTG
GAGTGGTCAATAAAGCCACATGTGCCTGTG

FIGURE 3070A

CGGGGCTGGAGGCGGTGGCTGCGGTTGCGGGACCGGCACTATGCTGGGCCTTCCTACCACTTGTGTGTGGCTTGG
TAGTGGCCTAGGGTCTCTCCTCCCTGCTGAAGTCCCTCTCCTGCAGGTGGCCGTCTGCCCGGCCCAGCACC**ATG**C
ACACGCTTGTGTTCTTGAGCACACGGCAGGTGCTGCAGTGCCAGCCAGCTGCCTGCCAGGCCCTGCCCTTGCTGC
CACGCGAACTCTTCCCCCTGCTGTTCAAGGTGGCCTTCATGGACAAGAAGACAGTGGTACTGCGCGAGTTGGTAC
ACACGTGGCCCTTCCCGCTGCTCAGTTTCCAGCAGCTGCTACAGGAGTGTGCCCACTGCAGCCGTGCCCTCCTGC
AGGAGCGGCCTAGCACTGAGAGCATGCAGGCTGTTATCCTGGGGCTGACTGCCCGGCTCCACACCTCAGAGCCTG
GGGCCAGCACACAGCCCCTCTGCAGGAAGCATGCGCTGCGGGTGCTGGACATGACGGGCCTCTTGGATGATGGTG
TGGAACAGGATCCTGGCACCATGAGCATGTGGGACTGTACTGCTGCCGTAGCTCGCACATGCATTGCCCAGCAGC
AGGGTGGGGCCGCAGAGCCTGGGCCAGCCCCCATCCCCGTGGAGGTGCGCGTGGACCTGCGGGTGAACCGGGCCT
CCTATGCGTTCCTGCGGGAGGCACTCCGAAGCAGCGTGGGCAGCCCGCTGCGGCTCTGCTGCCGGGACCTGCGAG
CTGAGGACCTGCCCATGCGCAACACTGTGGCCCTGCTGCAGCTTCTGGATGCAGGCTGCCTGCGCCGCGTGGACC
TGCGCTTCAACAATCTGGGCCTGCGCGGCCTGTCTGTGATCATCCCACACGTGGCCCGCTTCCAGCACCTGGCCA
GCCTGCGGCTCCACTATGTGCATGGGGATTCAAGGCAGCCCTCCGTGGATGGCGAGGACAACTTCCGCTACTTCC
TTGCCCAGATGGGCCGCTTCACCTGTCTGCGTGAGCTCAGCATGGGCTCCTCTCTCCTTTCAGGGAGGCTGGACC
AGCTGCTCAGCACCCTGCAGAGCCCCCTGGAGAGCCTGGAGTTGGCCTTCTGTGCTCTGCTGCCTGAGGACCTAC
GCTTCCTGGCACGGAGCCCACATGCTGCCCACCTCAAGAAGTTGGACCTGAGTGGTAACGACCTGTCTGGCAGCC
AGCTGGCACCCTTCCAGGGTCTGTTGCAGGCATCAGCAGCCACACTGTTGCATCTGGAGCTGACTGAGTGTCAGC
TCGCAGACACCCAGCTGTTGGCCACACTACCCATCCTGACTCAGTGCGCCAGTCTCCGGTACCTTGGCCTCTATG
GCAACCCACTGTCCATGGCGGGCCTCAAGGAGCTGCTGCGGGACTCAGTGGCACAGGCTGAGCTGCGTACTGTGG
TGCACCCCTTCCCTGTGGACTGCTATGAGGGCTTGCCCTGGCCGCCGCCTGCCTCTGTCCTGCTGGAGGCCTCCA
TCAATGAGGAGAAGTTTGCCCGCGTAGAAGCTGAGTTGCACCAGCTGCTTCTAGCCTCAGGCCGTGCCCATGTGC
TCTGGACCACGGACATCTACGGGCGACTGGCTGCGGACTACTTCAGCCTA**TGA**TGAAGTAGCTCTGGGTGAGACA
CAGGCCGCCCTGCAGTCTCTTTAGGTAGGCAGGGCCTTTGCTGGGACCCCTGGTGGAGGCCTTCACAAAAGCACT
GGTTACTGGTTTCCTGCTGGGTCTACCTTGCTTCTGGGCACACCTCAAGCCTCCCCTGCTTTCTGCAGTGCCCCA
CGCGGTTTTCCCTGCACTTGCTCCATAATTGGCTGATCATCTGTGGGCCCCGGGGCTGGATGTCAGGCCTCCATT
GCCCTGCTCAGTTTGGCTGCATTTGGCTGCCGTCTGGGGTCCTGGTCCTTTGTGCAAATGCTTTGGGATTCCAGT
TGTGAGCTGAGAGAGATGATGGCCTCTCTGGGCCTTTCCTCTCCCTTTACTGAGAGCTCAGTGCTTCTGGGGTTG
AAGTTGGACAGAGGCCTGCTTCAGGGAAGCTGGGAGTCCCCAGGCACTCACGCCTCTTACGTGTTCCCTACCCTG
CCACCCAGCCACCCCACTGGGCTGGGCTCGGGCTGGAGGGGGTCATCAAGGTACACATGTGCCTGGAAGTTGAAT
TTGTGGCTGTTTTTTTTTCTGTCCACGTTGGTCACCCTTATCCTTATCTCTGCTGTCACCCCCAACATGGCCACC
CGGCAACAACTGCCATCCAGCCTGTCGCCCCGCCCTTCGCGGGGCAGCCCCGTCGGCACTGCCGGCCAGTCCTTG
CTCTTCCCACCTTTCGGAGGCCCAAGATCCTACTGTGGCCGGCCAGGGCCAGCGAGGGACCCCCCCCATGCAGAG
CTGGAGGTTGGGGTGATGTCTTTTCGGAAGAGCTTCAAGGGAGGTGTTGGGGCCTCCCCGGCCACCTTCCATTGC
TACCCCAGGATTCCCGAGTGCAACGTTCCCGGCTCGCGCCCCACACACGGCTCAGCGCACACTGCGCGGCTTCCA
CCTTTACTGACGGAGCATGCGCGAGGCCGCACCGGCCAATCTCCGGCGCCCACGTCATCCGCGCGCCCGCGGCCC
TAGCAGTGGATCTCGTAGGCGACCGGCGGGGGCACGCGGAGTCCCGGCCCCGCCCCCTGTTCCGGGCCGCAGTCA
GCGGGCGCCTCCGCCGGACCCTCGGCGAAGAGCGGCTTGGAGCGGTTGATGACGAACATCTCGTGGCCGCGCTCG
TCGCGGAGCTCCTCTAGCTGTGCGAACGTACAGGGGCCGTCCAAGTAGTCGTTGACGAACAGCGCTCCCTCCCCC
GGAGGCCCCCGCGCCTTTTTTCGCCTGCGGCGCCGGCGACAGATCATGGCGACCAGGAGCAGCGCCGTGAGCGCC
AGCAGCGCGATGGCCGCCGCAATGGCCGTCTGTGTGGCCACGCCCAGGGCGCGGAAGGCCATGCTGCCCGCCTCG
GGCCGGGGCTCGCTGCCGGCGGGGCGGGCGGCCGGAGGCGGCGGTTGCGCGGGCTGCTGCGGCTGCTGCCGGGAC
GCGTTGACCAGGAGCCGGAAGGGCACGCGGGCAGCGCCGCCGGCGTTGGAGGCCTCGCACTCGTACTTACCGGCG
TGCGCCAGCGTGATGTTGCTGAGGAAGAGCATGCCGCTGCCCGTGTCGGATGCCGAGTGTCCGCCCAGGCCCAGC
AACCCGCCTTCTAGCTGGGCCTGGGCTCGCGGCCGGCCCTCGCGAGGCTGGGGCACCTTTCTCCAGGTCACCAAT
GGCTGCGGGTAGCCGGAGGCTTGGCAGGCAACCCGCAGGTCCTCACCCAGGTTGGCTGTGAGCTCCAGCGGCTGC
ACGTGGACAGAGGGCGGAATGCAGATGAGGCTGCTGTGGGATACGTCCAGGAGACTCTGGAGCGCCAGGCGCGGG
GGCTCTGCACACATGATCTTCCTGTCCCTGGAGGTGAGCAGCCGCTGGCCGCCCTCCTTGATCCAGGCACCCAGC
CAGTGCAGGGCGCAGTCACAGCGCCATGGGTTCTCTGTGGGAGAGCAGCGTTAGGCAGGTGGCTTGAGGGTGCTG

FIGURE 3070B

CTAAAACAGCCTGTGCAGTTGGGGTTTTGCAGGCCAGGACAGAGGCCTCTTTCCCACCTCCCACAGCGTTTTCAC
ACGGAGTCCAAGGCCCTGCCACCCCTTCCTTGACCCCAAGCTCCTTGGGGCGGCAGGCCCTTCACCCTCNGCCCC
CCTCCCCCTTTAGCTCTGTGATGCCTGCCTGTTACAGATCACTTCTCCGTCGGTCTCTGAGAAAGCACCTGCTCCT
TAAGTCTTCCTGCAACAAGTGCCACTGTTTTTAGGAACCTGGGCGTCCACATAGACATCTCACCAGCACTGAAAC
CTCACAAGTCCTCTCAGCCTTGCCTTTGGATGCCCTCTCTTGGGAATGTCCCCAGTCCTGGTCAGCTGTCTCTCT
CCTTTGCAATTTTGTCTGCCTCCCCTCAGCCTAAAAGTGTGCAGAACCCTCAATTCTGTTAAGTCACCCTGTGGA
GTTCCTGTCTTCTGTTTTCCCCAGGCAGGGTGCCTGAGCTGTATTCCCCAGCACACCCACTCCCGCAGCCCTCCA
GTGTGGCTGCAGGCGGTGGTGCAGCCTTCCAGACTGCTGCCCAGTTGCCTGATGTCAGAGCCCCTCCACACATGA
GCCTGCTCCCTACTGCCAACACCGTGGCCCAGACAGAGACGCTTTCCGAGGAAGAGGTACCTGTGAGGCGCAGGA
CTTGCAGACTGGCCAGGGGCTGCAGGGCCTCTCGGCTGATGGTGCCCAGCTGGTTCCTGCTGAGGTCCAGCAGTG
CTAGGGAGGACAGCCCCGCTAGAGCCTGGTCCTCCAGCAGCTCAATGCTGTTTTCTTGCAGGTGAAGCTCCTGCA
GTCGCTGAAGTAAGGACAGCAGATCGTGAGGAAAAAGGGCGCCGAGGTTGGGGGCATGTCTCTCTTCTTACCAAG
CTAGACTGGGTTGCCTTTTCTAACTATTCCAGCCCTACAGGGCGAGGGGCCATAATGGAGTATCCCGCCCCTTTA
GACCCCAGGCGCTCACCGGCAGGTGCAAGAAGGTGAAATCCAGCAGCCGCGCCAGCTGGTTGCCCGCCAGGTAGA
GCACGCGCAGCTGGGCCAGGCCTACGAAGGCGCCGCTGCGCAAGCCGCGCAGCCGGTTGCTAGTGAGCGCCAGCT
CCAGCAGGCGCGGCTGCGCGCGGAAGGCGCCGGCCTCCAGGGCGCGCAGGCTGTTGTTGTGCAGGTAGAGCCGGC
GCAGAGCGGCGAGTGGCGCCAGGGCTCCCGGCTCTAGGCGGGCGATGTTGTTGTCCTGCAGGAACAGTGTCTGCA
GGCCGGGGAAAGAGGAGGCGCTTACCCCGTTGCGGGGGTCTTCCTCTCCCTGGGGGCACCCCGTCCTCCCGCAGC
TCCACACGGTGCCCACCTGCGTCCCTGGCGGGATTCCCAGCGGGACGACGCGCAACCGCAGGGCGCCACACTCCA
CCGTGGCGCTGTAGCAGCGGCAGGCTGCTGGGCAGCCGGCGGCGCGGAGCGGCAGTAGTAGCAGCAGCAGCGGCA
GCAGTGCGGGGGCCCTCAGGGCCATCTCCCGAGGCCCGGTTCCTCACCGGCCCTTCCGCGGTTCAGCCGCAGACG
CGTGCCCTCCTGAAACACAGGTTGGCAGGCCAGTCTCGGCAGTCGAGAGCCAGCCAATAGATGGAATGGAGGCCT
GCACCTGCGTCTAACTTTTGACGCTATAAATAGGTTCAAGAAACTAATAAAACGTTCTGGTTTTCTCCTTTGAC

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FIGURE 3071A

AGCCTGAGAAGCCAGGCCCCGGCAGCAAGGACCCCAAGGCCGACAGCGTGCGGGCCATCAGCGTGCGCACCCTCT
ACCTGGTCAGCACCACCGTGGACAGG**ATG**AGTCACGTCCTCTGGCCATACCTGCTCCAGTTCCTCACCCCTGTGC
GCTTCACTGGGGCCCTGACTCCGCTCTGCAGGAGCCTCGTGCATCTGGCGCAGAAGAGGCAGGAGGCCGGGGCCG
ACGCCTTCCTCATCCAGTACGACGCCCATGCGAGCCTCCCGTCTCCCTATGCTGTAACCGGAAGACTGTTGGTTG
TGTCTTCCAGCCCCTACCTAGGGGACGGACGTGGGGCAGCGGCGCTGCGCCTCCTCAGTGTTCTGCACCCAAACA
TTCACCCTTTGCTGGGTCAGCATTGGGAAACGACTGTCCCGCTGCTGCTGGGGTACCTGGATGAGCACACAGAAG
AGACCCTGCCACAGGAGGAGTGGGAGGAGAAGCTGTTGATGTTCCTGCGAGACACCCTGGCCATCATTTCTGACA
ACGCGTGGATCTGCCAGCTGAGCCTGGAGCTGTGCAGGCAGCTGCCCTGCTACGATGAGGCACCCCAGGAGAAGA
ACTTCCTGTACAAATGCATAGGCACCACCCTGGGTGCTGCTTCAAGTAAGGAGGTGGTGAGGAAGCACCTTCAAG
AGCTGCTGGAGACGGCCAGATACCAGGAGGAGGCAGAACGCGAGGGCCTCGCCTGCTGCTTCGGGATCTGTGCCA
TCTCCCACCTCGAGGACACGCTGGCCCAGCTGGAGGACTTCGTGAGGTCAGAGGTCTTCAGAAAATCCATTGGCA
TTCTCAACATTTTTAAGGATCGAAGTGAGAACGAAGTGGAGAAGGTGAAGAGTGCTCTGATCCTGTGCTATGGGC
ACGTGGCGGCCCGGGCCCCCCGGGAGCTGGTGCTGGCCAAGGTAGAGTCAGACATCCTCCGGAACATCTGCCAGC
ACTTCAGCACCAAGGACCCAGCCCTGAAGCTGTGCCTTGTCCAGAGTGTGTGCATGGTCAGCCGCGCCATCTGCA
GCAGCACCCAGGCTGGCTCCTTCCACTTCACCCGGAAAGCAGAGCTGGTGGCACAGATGATGGAGTTCATCAGGG
CAGAGCCCCCGGACTCCTTGAGGACACCTATTCGGAAGAAAGCCATGCTCACCTGCACTTACTTGGTCTCCGTGG
AGCCAGCGCTGGACGAGCAGGCCCGGGCGGATGTGATCCATGGCTGCCTGCACAGCATCATGGCCCTGCTGCCTG
AGCCCAAGGAGGAGGACGGAGGCTGCCAGAAGTCCCTGTATCTGGAGACACTGCACGCCCTTGAGGATCTGCTGA
CGAGCCTCCTGCAGCGGAACATGACCCCCCAAGGCCTGCAGATCATGATTGAGCACCTGAGCCCATGGATCAAGT
CCCCAAGAGGTCACGAGCGGGCGCGGGCCCTGGGCCTGAGCGCCCTCCTGCTGCGCTACTTCCTGGAGCACCTGC
GTGTCAGCGCCCTGGTGCCCTTCCACAACCTGGGCCTTCTCATCGGCCTCTTCTCCCCACGGTGTGCGGACCTGT
GGCCTGCCACCCGCCAGGAGGCCGTGGACTGTGTCTACTCCCTGCTGTACCTCCAGCTCGGCTATGAGGGCTTCT
CCCGGGACTACCGCGATGACGTGGCGGAGCGGCTCCTCAGCCTCAAGGACGGCCTCGTGCACCCTGACCCCGCCA
TTCTCTTCCACACCTGCCACAGTGTAGGCCAGATTATTGCCAAGCGCCTCCCCCCAGACCAGCTCATCAGCCTCT
TGCTAACCATGTTTGAGGCCCTGGGAGACCCCGAAAAGAACTGCTCCCGAGCAGCTACCGTCATGATCAACTGCC
TGCTGCAGGAGCGGGGCGGTGTGCTCCAGGAGAAGGTGCCCGAGATCGTGAGCGTCCTGCGCTCCAAGCTTCAGG
AGGCCCAGGGAGAGCACGTCCTGCCGGCCGCCCAGCACAGCGTGTACCTCCTGGCCACCCAGCACTGCGCAGCCG
TGGTGTCCAGCCTCCTGGGCAGCCCCTTGCCCTTGGACAGGTACCCAGCTCAGACTCCAGGCTTAGGGGTCCCTC
TGGAA**TGA**TGCTCCCCCTGGAATGATGCTCCCCGAGCCCTCCACCCGGCTCTGCACCCCGACTTTCTGCATGAGT
TCCCATGGCTGTAGGCCACGTGGGACAGAAAGTGACATGGAGCCAGGCCCCAGTCTCTCAGGTACCCACGGGGAC
CTCTCCTCTCCAGGCGTTTTGGGATCCTCACTGGCTCCGGTGGGCCCTGCACAGCACCCCCACAGGGAAGCTGCT
GTTTCTGCCTTCCTCTAAGGTCCCAAAACTGCCTGGCTGCTCTGTTGGCCCCAGGCTCCAGCACACACTGGAGGC
TGCCCCTCACCCTGTGTCTTGGTTCCGGCTACTCCAAGCCTTGTCCTCTGCAGGGCATCCACTGCTGCCTGTGAG
CAGACCCCTGGGAACTGCCTGATCTGAGCCCCCTCAGGAGCCCAAGGACAACCTTGTCTGTACCATACATCACTA
TGTCTTCCCAAGCTCACACCTCCCAGCTCCCAGCAAAGGGCAGGGCGTGTCTACCACCCACCAGCCCACTGGGGT
CCCCCTTCCTCGCCGAGGCCTCCGGAGCATGGGTCTGCTGGCCCTTCCTTTCTTTGCCATCTTAGTCATGGACAG
AGGCTGGCCCAGGGGCACCTGGCTTCCTGTGACCTCCGGGAGACTCCATGCTGGGCAAGGCAGAGTGACCCTTCC
CCTGGCAGGCGGGGGCATGAGGCTGCCACGGGGAACACAGGTTTCCTTGCACCTGGCCCTTTACCCTGTCAGCTT
TGCTGTTTTCATGTGCTCTGACGCCCTCCCATTAGGTGCATCCAAGCTGCAATGCCCACTTCCTCCTGGCAGGGG
GGACCCGCAGGCACCTTCTGCTCAGAGGTGCACTTGTCTGGTGGCCCTGCTCCTTCCTGGTACTGTTGACCTTTC
TGTGTGTTTGTTTTAAATCTCTTGCATGGTAAATAGCTGCATTTTGTTACTGATAAGAGTGAGTTTAAATCCACT
GTCATATCTTTTGCGTCTTTGTTACACATTTTGTTTTTTAAAAATCTTCTTTCTTGTCCTTTTTTAGATTGACAG
TGTCCCTCTTACCTCACTTTCTCCACTCAGTTTGTAATCCTGCAGTCTGTTGCTTTTCTTTTAGCGTTTGCCCTA
AAGGTGGCTGCATGTGTCCTCACTGAAGTCCAGCATGGGCCCCAAATGCAGGCTGAGGTCTGGGTCTGGCTGGGC
TGCTGGGCGCCCGAGTCATCATGACCATTGTTCCTGGGCACAGCCGGCGTTGACTTGTATTTCCTCCGTGATTAC
CGCCTGGCTCATCAATCACTGTTTTCGTTTTCCGTGGAGGCGTGGCTCACACAAAGGGCAAGCACGGAGTCACTG
GGTCCTGCAGGACTTTCCAGGTCAAGGCAGAGGAGGTGTCCGGTCCCCAGCAGGCTCCTGTGTGCCCCTCAGTCC
CCTAGAGGGTCACGGCCACCTGACCGCCACCACTAGAGGTTTTGGCGATTGTGCTGTGTGGTGGGTCTTCCCGGC

FIGURE 3071B

CTCTGCTTAGCACAGCAGTGCTGCTGCCCATCCTTCCTCCTTGCCAGGTAGTGCCGGGTGCTGCTGCCCATCCTT
CCTCTGCCGGGCAGTGCCGGGTGCTGCTGCCCATCCTTTCTCCTTGCCGGGTAGTGCCGGGTGCTGCTGCCCATC
CTTTCTCCTTGCCGGACAGTGCTGGGTGCCGTGTGGGCTGCACTGTGTGTGTGTTTCTAGGTGATGGACATTCAG
ATTGTTTTTTGGTTTGGGGCTGCTGGGGATGGCGATGCTTTGAATGTTCCTGGGAGTGTCTGTTGGTGGGTAGAG
CATGCATTTCTCTTTCGTGTGTATATAGGAGTGGAATCAAGGCCGGGCACTGTGGCTCATACCTGTAATCCCAGC
AGTGTGGGAGGCTGAGGCAGGAGGATTACCTGAGGTCAGAAGTTTGCGACCAGCCTGGCCAACATGGCAAAACCC
CGTCTCTACTGAAAATATAAAAATTGGCCAGGCATGGCCAGGCGCAGTGGCTCACCCCTGTAATCCCAGCACTTT
GGGAGGCTGAGGTGGGTGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACATGGTAAAACCCCGTCTCT
ACTAAAAATATAAAAAATTAGCCAGGCGAGGTGGCAGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGG
AGAATGGTGTGAACCCAGGAGGCGGAGCTTGCAGTGAGTTGAGATTGCACCACTGCACTCCAGCCTGGGCGACAG
AGCAAGAACTCTGTCTC

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FIGURE 3072

CTCCTGCGCACGCGGCCCGGTCGCTGTCGGAAGCGGCTGTGCGGGTGGCGGCCGGCGCGCGGTGGGGC**ATG**GCGG
GTTCGCGGGGTGCGGGGCGCACGGCGGCGCCGAGCGTGCGGCCGGAGAAGCGGCGGTCTGAGCCCGAACTGGAGC
CTGAGCCCGAGCCGGAGCCCCCCCTCCTCTGCACCTCTCCTCTCAGCCACAGCACCGGCAGCGATTCTGGCGTCT
CCGACAGCGAGGAGAGTGTGTTCTCAGGCCTGGAAGATTCCGGCAGTGACAGCAGTGAGGATGATGACGAAGGCG
ACGAGGAGGGAGAGGACGGAGCCCTTGATGACGAGGGCCACAGTGGGATTAAAAAGACCACTGAGGAGCAGGTGC
AGGCCAGCACTCCTTGCCCGAGGACAGAGATGGCGAGCGCCCGGATTGGGGATGAGTATGCGGAGGACAGCTCTG
ATGAGGAGGACATCCGGAACACGGTGGGCAACGTGCCCTTGGAGTGGTACGATGACTTCCCCCACGTGGGCTACG
ACCTGGATGGCAGGCGCATCTACAAGCCCCTGCGGACCCGGGATGAGCTGGACCAGTTCCTGGACAAGATGGACG
ATCCTGACTACTGGCGCACCGTGCAGGACCCGATGACAGGGCGGGACCTGAGACTGACGGATGAGCAGGTGGCCC
TGGTGCGGCGGCTGCAGAGTGGCCAGTTTGGGGATGTGGGCTTCAACCCCTATGAGCCGGCTGTCGACTTCTTCA
GCGGGGACGTCATGATCCACCCGGTGACCAACCGCCCGGCCGACAAGCGCAGCTTCATCCCCTCCCTGGTGGAGA
AGGAGAAGGTCTCTCGCATGGTGCACGCCATCAAGATGGGCTGGATCCAGCCTCGCCGGCCCCGAGACCCCACCC
CCAGCTTCTATGACCTGTGGGCCCAGGAGGACCCCAACGCCGTGCTCGGGCGCCACAAGATGCACGTACCTGCTC
CCAAGCTGGCCCTGCCAGGCCACGCCGAGTCGTACAACCCACCCCCTGAATACCTGCTCAGCGAGGAGGAGCGCT
TGGCGTGGGAACAGCAGGAGCCAGGCGAGAGGAAGCTGAGCTTTTTGCCACGCAAGTTCCCGAGCCTGCGGGCCG
TGCCTGCCTACGGACGCTTCATCCAGGAACGCTTCGAGCGCTGCCTTGACCTGTACCTGTGCCCACGGCAGCGCA
AGATGAGGGTGAATGTAGACCCTGAGGACCTCATCCCCAAGCTGCCTCGGCCGAGGGACCTGCAGCCCTTCCCCA
CGTGCCAGGCCCTGGTCTACAGGGGCCACAGTGACCTTGTCCGGTGCCTCAGTGTCTCTCCTGGGGGCCAGTGGC
TGGTTTCAGGCTCTGACGACGGCTCCCTGCGGCTCTGGGAGGTGGCCACTGCCCGCTGTGTGAGGACTGTTCCCG
TGGGGGGCGTGGTGAAGAGTGTGGCCTGGAACCCCAGCCCCGCTGTCTGCCTGGTGGCTGCAGCCGTGGAGGACT
CGGTGCTGCTGCTGAACCCAGCTCTGGGGGACCGGCTGGTGGCGGGCAGCACAGATCAGCTGTTGAGCGCCTTCG
TCCCGCCTGAGGAGCCCCCCTTGCAGCCGGCCCGCTGGCTGGAGGCCTCAGAGGAGGAGCGCCAAGTGGGCCTGC
GGCTGCGCATCTGCCACGGGAAGCCAGTGACGCAGGTGACCTGGCACGGGCGTGGGGACTACCTGGCCGTGGTGC
TGGCCACCCAAGGCCACACCCAGGTGCTGATTCACCAGCTGAGCCGTCGCCGCAGCCAGAGTCCGTTCCGCCGCA
GCCACGGACAGGTGCAGCGAGTGGCCTTCCACCCTGCCCGGCCCTTCCTGTTGGTGGCGTCCCAGCGCAGCGTCC
GCCTCTACCACCTGCTGCGCCAGGAGCTCACCAAGAAGCTGATGCCCAACTGCAAGTGGGTGTCCAGCCTGGCGG
TGCACCCTGCAGGTGACAACGTCATCTGTGGGAGCTACGATAGCAAGCTGGTGTGGTTTGACCTGGATCTTTCCA
CCAAGCCATACAGGATGCTGAGACACCACAAGAAGGCTCTGCGGGCTGTGGCCTTCCACCCGCGGTACCCACTCT
TTGCGTCAGGCTCGGACGACGGCAGTGTCATCGTCTGCCATGGCATGGTGTACAATGACCTTCTGCAGAACCCCT
TGCTGGTGCCCGTCAAGGTGCTGAAGGGACACGTGCTGACCCGAGATCTGGGAGTGCTGGACGTCATCTTCCACC
CCACCCAGCCGTGGGTCTTCTCCTCGGGGGCAGACGGGACTGTCCGCCTCTTCACC**TAG**CTGTTCTGCCTGCCTG
GGGCTGGGGTGGTCGTGCTGAAGTCAACAGAGCCTTTACCCTGTGCTGCCTGGTGCTCCCACCTTCTTGAATTGG
GGTTGCCAACAAAGCCGCCCCCACCACA

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FIGURE 3073

GCCCGTTGCAAGATGGCGGCGGCCATGCTGGGCCCCGGGGCTGTGTGTGCGCAGCGGGCGGCGGCGCGGCCCGGA
AGGCTGGCGCGGCGACGGCGTTAGCCCGGCCCTCGGCCCCTCTTTGCGGCCGCTCCCTCCGCCTATTCCCTCCTT
GCTCGAG**ATG**GATCTGCCCGTGGGCCCCGGCGCGGCGGGGCCCAGCAACGTCCCGGCCTTCCTGACCAAGCTGTG
GACCCTCGTGAGCGACCCGGACACCGACGCGCTCATCTGCTGGAGCCCGAGCGGGAACAGCTTCCACGTGTTCGA
CCAGGGCCAGTTTGCCAAGGAGGTGCTGCCCAAGTACTTCAAGCACAACAACATGGCCAGCTTCGTGCGGCAGCT
CAACATGTATGGCTTCCGGAAAGTGGTCCACATCGAGCAGGGCGGCCTGGTCAAGCCAGAGAGAGACGACACGGA
GTTCCAGCACCCATGCTTCCTGCGTGGCCAGGAGCAGCTCCTTGAGAACATCAAGAGGAAAGTGACCAGTGTGTC
CACCCTGAAGAGTGAAGACATAAAGATCCGCCAGGACAGCGTCACCAAGCTGCTGACGGACGTGCAGCTGATGAA
GGGGAAGCAGGAGTGCATGGACTCCAAGCTCCTGGCCATGAAGCATGAGAATGAGGCTCTGTGGCGGGAGGTGGC
CAGCCTTCGGCAGAAGCATGCCCAGCAACAGAAAGTCGTCAACAAGCTCATTCAGTTCCTGATCTCACTGGTGCA
GTCAAACCGGATCCTGGGGGTGAAGAGAAAGATCCCCCTGATGCTGAACGACAGTGGCTCAGCACATTCCATGCC
CAAGTATAGCCGGCAGTTCTCCCTGGAGCACGTCCACGGCTCGGGCCCCTACTCGGCCCCCTCCCCAGCCTACAG
CAGCTCCAGCCTCTACGCCCCTGATGCTGTGGCCAGCTCTGGACCCATCATCTCCGACATCACCGAGCTGGCTCC
TGCCAGCCCCATGGCCTCCCCCGGCGGGAGCATAGACGAGAGGCCCCTATCCAGCAGCCCCCTGGTGCGTGTCAA
GGAGGAGCCCCCCAGCCCGCCTCAGAGCCCCCGGGTAGAGGAGGCGAGTCCCGGGCGCCCATCTTCCGTGGACAC
CCTCTTGTCCCCGACCGCCCTCATTGACTCCATCCTGCGGGAGAGTGAACCTGCCCCCGCCTCCGTCACAGCCCT
CACGGACGCCAGGGGCCACACGGACACCGAGGGCCGGCTTCCTTCCCCCCCGCCCACCTCCACCCATGAAAAGTG
CTTCAGGGTAGCCTGCCTGGACAAGAATGAGCTCAGTGACCACTTGGATGCTATGGACTCCAACCTGGATAACCT
GCAGACCATGCTGAGCAGCCACGGCTTCAGCGTGGACACCAGTGCCCTGCTGGACCTGTTCAGCCCCTCGGTGAC
CGTGCCCGACATGAGCCTGCCTGACCTTGACAGCAGCCTGGCCAGTATCCAAGAGCTCCTGTCTCCCCAGGAGCC
CCCCAGGCCTCCCGAGGCAGAGAACAGCAGCCCGGATTCAGGGAAGCAGCTGGTGCACTACACAGCGCAGCCGCT
GTTCCTGCTGGACCCCGGCTCCGTGGACACCGGGAGCAACGACCTGCCGGTGCTGTTTGAGCTGGGAGAGGGCTC
CTACTTCTCCGAAGGGGACGGCTTCGCCGAGGACCCCACCATCTCCCTGCTGACAGGCTCGGAGCCTCCCAAAGC
CAAGGACCCCACTGTCTCC**TAG**AGGCCCCGGAGGAGCTGGGCCAGCCGCCCACCCCCACCCCCAGTGCAGGGCTG
GTCTTGGGGAGGCAGGGCAGCCTCGCGGTCTTGGGCACTGGTGGGTCGGCCGCCATAGCCCCAGTAGGACAAACG
GGCTCGGGTCTGGGCAGCACCTCTGGTCAGGAGGGTCACCCTGGCCTGCCAGTCTGCCTTCCCCCAACCCCGTGT
CCTGTGGTTTGGTTGGGGCTTCACAGCCACACCTGGACTGACCCTGCAGGTTGTTCATAGTCAGAATTGTATTTT
GGATTTTTACACAACTGTCCCGTTCCCCGCTCCACAGAGATACACAGATATATACACACAGTGGATGGACGGACA
AGACAGGCAGAGATCTATAAACAGACAGGCTCT

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FIGURE 3074

GTCCCTGGGCCGGACGGCGGTGTCCCGGCGTGGCGGGAAGCCGGCACTGGAGCGGGAGCGCACTGGGCGCGGGAC
CGGGAGGCGCAGGGACCGGACGGCTCCCGAGTCGCCCACCTGACGCTAGAAGAAGTCTTCACTTCCCAGGAGAGC
CAAAGCGTGTCTGGCCCTAGGTGGGAAAAGAACTGGCTGTGACCTTTGCCCTGACCTGGAAGGGCCCAGCCTTGG
GCTGA**ATG**GCAGCACCCACGCCCGCCCGTCCGGTGCTGACCCACCTGCTGGTGGCTCTCTTCGGCATGGGCTCCT
GGGCTGCGGTCAATGGGATCTGGGTGGAGCTACCTGTGGTGGTCAAAGAGCTTCCAGAGGGTTGGAGCCTCCCCT
CTTACGTCTCTGTGCTTGTGGCTCTGGGGAACCTGGGTCTGCTGGTGGTGACCCTCTGGAGGAGGCTGGCCCCAG
GAAAGGACGAGCAGGTCCCCATCCGGGTGGTGCAGGTGCTGGGCATGGTGGGCACAGCCCTGCTGGCCTCTCTGT
GGCACCATGTGGCCCCAGTGGCAGGACAGTTGCATTCTGTGGCCTTCTTAGCACTGGCCTTTGTGCTGGCACTGG
CATGCTGTGCCTCGAATGTCACTTTCCTGCCCTTCTTGAGCCACCTGCCACCTCGCTTCTTACGGTCATTCTTCC
TGGGTCAAGGCCTGAGTGCCCTGCTGCCCTGCGTGCTGGCCCTAGTGCAGGGTGTGGGCCGCCTCGAGTGCCCGC
CAGCCCCCATCAACGGCACCCCTGGCCCCCCGCTGGACTTCCTTGAGCGTTTTCCCGCCAGCACCTTCTTCTGGG
CACTGACTGCCCTTCTGGTCGCTTCAGCTGCTGCCTTCCAGGGTCTTCTGCTGCTGTTGCCGCCACCACCATCTG
TACCCACAGGGGAGTTAGGATCAGGCCTCCAGGTGGGAGCCCCAGGAGCAGAGGAAGAGGTGGAAGAGTCCTCAC
CACTGCAAGAGCCACCAAGCCAGGCAGCAGGCACCACCCCTGGTCCAGACCCTAAGGCCTATCAGCTTCTATCAG
CCCGCAGTGCCTGCCTGCTGGGCCTGTTGGCCGCCACCAACGCGCTGACCAATGGCGTGCTGCCTGCCGTGCAGA
GCTTTTCCTGCTTACCCTACGGGCGTCTGGCCTACCACCTGGCTGTGGTGCTGGGCAGTGCTGCCAATCCCCTGG
CCTGCTTCCTGGCCATGGGTGTGCTGTGCAGGTCCTTGGCAGGGCTGGGCGGCCTCTCTCTGCTGGGCGTGTTCT
GTGGGGGCTACCTGATGGCGCTGGCAGTCCTGAGCCCCTGCCCGCCCCTGGTGGGCACCTCGGCGGGGGTGGTCC
TCGTGGTGCTGTCGTGGGTGCTGTGTCTTGGCGTGTTCTCCTACGTGAAGGTGGCAGCCAGCTCCCTGCTGCATG
GCGGGGGCCGGCCGGCATTGCTGGCAGCCGGCGTGGCCATCCAGGTGGGCTCTCTGCTCGGCGCTGTTGCTATGT
TCCCCCCGACCAGCATCTATCACGTGTTCCACAGCAGAAAGGACTGTGCAGACCCCTGTGACTCC**TGA**GCCTGGG
CAGGTGGGGACCCCGCTCCCCAACACCTGTCTTTCCCTCAATGCTGCCACCATGCCTGAGTGCCTGCAGCCCAGG
AGGCCCGCACACCGGTACACTCGTGGACACCTACACACTCCATAGGAGATCCTGGCTTTCCAGGGTGGGCAAGGG
CAAGGAGCAGGCTTGGAGCCAGGGACCAGTGGGGGCTGTAGGGTAAGCCCCTGAGCCTGGGACCTACATGTGGTT
TGCGTAATAAAACATTTGTATTT

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FIGURE 3075

GCTTCCCCGAGCGCCGTCGGTGGTC**ATG**GCTGCCCCAGCCTCCCGGCAGGTCCGACGCAGAGCCCGGGCAGCGCC
GCGGCCCCGCTCGGCCGAGGATTGGTGGTGGGACCGGCTGGCGCCGAGGGGCTCGGGGTACCACCTGCTGCAGTC
CGACAGCATGCTGCTGGTGCTGTCCGAACCAGGCCCCGCCCGGCCCCGCGCACAGCGGCGCGATTCCCGCCGCAC
TCCCCGGCAGCCGCCCCGGGGCCCCAGCGCCGCGGCCAAGCCCAAGGCCGGGCTCAGGTCCGAGGCGGCGGCCGC
GCCCGCACCCGCACCGGCACCCACGCCCACGCCCGAGGAAGGGCCCGACGCGGGCTGGGGAGACCGCATTCCCTT
GGAAATCCTGGTGCAGATTTTCGGGTTGTTGGTGGCGGCGGACGGCCCCATGCCCTTCCTGGGCAGGGCTGCGCG
CGTGTGCCGCCGCTGGCAGGAGGCCGCTTCCCAACCCGCGCTCTGGCACACCGTGACCCTGTCGTCCCCGCTGGT
CGGCCGGCCTGCCAAGGGCGGGGTCAAGGCGGAGAAGAAGCTCCTTGCTTCCCTGGAGTGGCTTATGCCCAATCG
GTTTTCACAGCTCCAGAGGCTGACCCTCATCCACTGGAAGTCTCAGCTGGTAGGTGAGTGCTGTCCTCGGCTCAC
TTTCCTCAAGCTCTCCGGCTGCCACGGTGTGACTGCTGACGCTCTGGTCATGCTAGCCAAAGCCTGCTGCCAGCT
CCATAGCCTGGACCTACAGCACTCCATGGTGGAGTCCACAGCTGTGGTGAGCTTCTTGGAGGAGGCAGGGTCCCG
AATGCGCAAGTTGTGGCTGACCTACAGCTCCCAGACGACAGCCATCCTGGGCGCACTGCTGGGCAGCTGCTGCCC
CCAGCTCCAGGTCCTGGAGGTGAGCACCGGCATCAACCGTAATAGCATTCCCCTTCAGCTGCCTGTCGAGGCTCT
GCAGAAAGGCTGCCCTCAGCTCCAGGTGCTGCGGCTGTTGAACCTGATGTGGCTGCCCAAGCCTCCGGGACGAGG
GGTGGCTCCCGGACCAGGCTTCCCTAGCCTAGAGGAGCTCTGCCTGGCGAGCTCAACCTGCAACTTTGTGAGCAA
CGAGGTCCTGGGCCGCCTACTCCACGGCTCTCCCAACCTGCGCTTACTGGATCTTCGTGGCTGTGCGCGCATCAC
GCCGGCTGGCCTTCAGGATCTGCCATGTCGGGAGCTGGAGCAGCTTCATCTGGGCCTGTATGGCACGTCAGACCG
GCTGACTCTAGCCAAGGAGGGCAGCCCCTTTTTGACCCAGAAGTGGTGCCATACACTGCGAGAACTGGACTTGAG
TGGCCAGGGGTTCAGTGAGAAGGACCTGGAGCAGGCCCTGGCTGCCTTCTTAAGCACCCCTGGGGGCTCACACCC
AGCCCTGTGCTCTCTTAACCTCAGGGGCACCCGGGTCACACCAAGCACTGTCAGCTCTGTGATCAGCAGCTGCCC
GGGCCTGCTTTACCTCAACCTGGAGTCCTGCCGGTGCCTTCCCCGGGGTTTGAAGCGGGCCTACCGGGGCCTGGA
GGAAGTCCAGTGGTGTCTGGAGCAGGTGCTCACCAGCCCCTCACCCAGC**TAG**GCAGCCACAGACCTGGGACACCT
CAGCCAGCTTGCCCACCCTCCACCTTTGCCCAATTTCAGATATTTGAGCATTTTGTTAAAATAAAACATTTTTAG
G

FIGURE 3076

GAAGCTCTGGGAAGGGGATGCCCCCGAGGGTGCCAGTCCAGCTAGCTGCCCCACCCCTCAGGCCCAGCCTGGCCC
CCAAGCTCCCCACTCTGGTGCCCCGAGCAGCCCTGTGGGCAAGCAGCCGCCGCCATGGCCGAGCACCTGGAGCTG
CTGGCAGAGATGCCCATGGTGGGCAGGATGAGCACACAGGAGCGGCTGAAGCATGCCCAGAAGCGGCGCGCCCAG
CAGGTGAAGATGTGGGCCCAGGCTGAGAAGGAGGCCCAGGGCAAGAAGGGTCCTGGGGAGCGTCCCCGGAAGGAG
GCAGCCAGCCAAGGGCTCCTGAAGCAGGTCCTCTTCCCTCCCAGTGTTGTCCTTCTGGAGGCCGCTGCCCGAAAT
GACCTGGAAGAAGTCCGCCAGTTCCTTGGGAGTGGGGTCAGCCCTGACTTGGCCAACGAGGACGGCCTGACGGCC
CTGCACCAGTGCTGCATTGATGATTTCCGAGAGATGGTGCAGCAGCTCCTGGAGGCTGGGGCCAACATCAATGCC
TGTGACAGTGAGTGCTGGACGCCTCTGCATGCTGCGGCCACCTGCGGCCACCTGCACCTGGTGGAGCTGCTCATC
GCCAGTGGCGCCAATCTCCTGGCGGTCAACACCGACGGGAACATGCCCTATGACCTGTGTGATGATGAGCAGACG
CTGGACTGCCTGGAGACTGCCATGGCCGACCGTGGCATCACCCAGGACAGCATCGAGGCCGCCCGGGCCGTGCCA
GAACTGCGCATGCTGGACGACATCCGGAGCCGGCTGCAGGCCGGGGCAGACCTCCATGCCCCCCTGGACCACGGG
GCCACGCTGCTGCACGTCGCAGCCGCCAACGGGTTCAGCGAGGCGGCTGCCCTGCTGCTGGAACACCGAGCCAGC
CTGAGCGCTAAGGACCAAGACGGCTGGGAGCCGCTGCACGCCGCGGCCTACTGGGGCCAGGTGCCCCTGGTGGAG
CTGCTCGTGGCGCACGGGGCCGACCTGAACGCAAAGAGGTGCGGGCCAAGCTTCTGGAACTGAAACACAAGCACG
ACGCCCTCCTGCGCGCCCAGAGCCGCCAGCGCTCCTTGCTGCGCCGCCGCACCTCCAGCGCCGGCAGCCGCGGGA
AGGTGGTGAGGCGGGTGAGCCTAACCCAGCGCACCGACCTGTACCGCAAGCAGCACGCCCAGGAGGCCATCGTGT
GGCAACAGCCGCCGCCCACCAGCCCGGAGCCGCCCGAGGACAACGATGACCGCCAGACAGGCGCAGAGCTCAGGC
CGCCGCCCCCGGAGGAGGACAACCCCGAAGTGGTCAGGCCGCACAATGGCCGAGTAGGGGGCTCCCCAGTGCGGC
ATCTATACTCCAAGCGACTAGACCGGAGTGTCTCCTACCAGCTGAGCCCCCTGGACAGCACCACCCCCCACACCC
TGGTCCACGACAAGGCCCACCACACCCTGGCTGACCTGAAGCGCCAGCGAGCTGCTGCCAAGCTGCAGCGACCCC
CACCTGAGGGGCCCGAGAGCCCTGAGACAGCTGAGCCTGGCCTGCCTGGTGACACGGTGACCCCCCAGCCTGACT
GTGGCTTCAGGGCAGGCGGGGACCCACCCCTGCTCAAGCTCACAGCCCCGGCGGTGGAGGCTCCCGTGGAGAGGA
GGCCGTGCTGCCTGCTCATGTGAGGCTGTTGCTCAGCATGCAGGGGCCCTGTCTCGGGCACAGCCCAAGGCTGCC
TCCCCACGGTGCGTGCCCTGGTGCTGCGGGTGCAGCACGGAAACCCCGGCTTCTACTGTACAGGACACTGGCCCC
TCTCAGGTCAGAAGACATGCCTGGAGGGATGTCTGGCTGCAAAGACTATTTTTATCCTGCAACTCTTGATAAAGG
GCTGTTTTGCCATGG

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FIGURE 3077

GGGCCACACAGCGGACCCCTAAGCGGACCGCTGGCACCGGTCGGGTGGCAGCAGAGTGTCGCTCGACATGGGGGA
GGCCGGGGCTGGCGCTGGCGCCTCGGGAGGGCCGGAGGCAAGCCCGGAGGCAGAGGTGGTGAAGCTGCTGCCCTT
CCTGGGCGCCGGGCGCGCGGGCGGACCTGCAGGCGGCGGCGGTGCGGCACGTGCTGGCGCTGACTGGCTGCGGAC
CCGGCCGCGCGCTGTTGGCGGGGCAGGCGGCGCTGCTGCAGGCGCTG**ATG**GAGCTGGCGCCGGCCTCTGCCCCGG
CCCGGGACGCCGCCCGCGCGCTCGTGAACTTGGCCGCCGACCCCGGCCTGCACGAGACATTGCTGGCGGCCGACC
CCGGGCTGCCAGCGCGCCTGATGGGCCGCGCGTTGGACCCGCAGTGGCCCTGGGCCGAGGAGGCGGCCGCCGCGC
TAGCCAACCTCAGTCGCGAGCCGGCGCCGTGTGCAGCGCTCATGGCGGCGCTGGCGGCCGCGGAGCCGGCAGACT
CGGGCCTGGAGCGGCTGGTGCGCGCGCTGTGCACGCCCGGCTACAACGCCCGCGCGCCCCTGCACTACCTAGCGC
CGCTGCTCTCCAACCTCAGCCAACGCCCTGCGGCGCGGGCCTTCCTACTGGACCCCGACAGGTGCGTGGTCCAGC
GGCTGCTGCCCCTTACCCAGTACCCCGACTCCTCTGTACGCAGGGGCGGGGTGGTGGGGACGCTGCGGAATTGCT
GCTTCGAGCACCGACATCACGAGTGGTTGCTTGGACCTGAGGTGGACATTCTCCCCTTTTTGCTCCTGCCCTTGG
CTGGGCCTGAGGATTTCTCCGAGGAAGAGATGCAACGGCTGCCTGTCGACTTGCAGTACCTGCCACCAGACAAGC
AGCGAGAACCTGATGCAGACATCCGCAAGATGCTTGTTGAAGCCATCATGCTGCTGACAGCCACAGCACCAGGTC
GGCAGCAGGTGCGGGACCAGGGAGCCTACCTGATCCTTCGAGAGCTGCACAGCTGGGAGCCGGAGCCCGACGTGC
GGACGGCTTGTGAGAAGCTCATCCAGGTGCTTATTGGGGACGAGCCTGAACGTGGCATGGAAAACCTGCTGGAGG
TGCAGGTGCCTGAGGATGTGGAGCAGCAGCTGCAGCAGCTGGATTGCAGGGAGCAGGAGCAGTTGGAGCGGGAGC
TGGCCCCAGAGCCATGGGTGGAGAGGGCCACACCCACC**TGA**GGCCCCTGCAGCCGGACACCAGCTCCAGGGTCCC
CTTTGCCAGGCTTTCTCAGACCAGGCCTTCCTGCAGCTGTCTGCAGGCCCCCTGGGTCCCCTTGTTCAGAGACTG
TGCTCTTCTGAGAAGCAGAGCTACGCTTAGGCTCCAGTAAGGATTGGAGGCACTTTCCAGCCCTGTGCAGTGTTG
CTACCAGCAAGAATGAAGGTTGTGCAGAGCAGTACTGTGAGGTAGGCACCGTGACTCGGCTGCCTGTGCAGAAGG
TGGAGGTGGCAGGCGGATGGCCAGGGAGCCATGAGAAGACTCTTCCTGGGCACGGCGTGGGGACTGGACAGAAAA
CCACTGCAAGCCCCAAGGAGCCAGCTGAAGCCTCCCAATCCCCAGGGCACTGCAGAGTCTGGGCAGAGGTGGGCG
CATAGGTACAAGTGCTGCTTTGTCAGCCTCACTCCCTGCAGCTCTCAGCTCCCTGTTCCCTGAGACCTGGCCTCA
AAGGGCTGACCCAGCCATACGTAGATCCTGGGGGTCTTTCTAGGACTGTGCCTCCCTGCTTGACCTATGCTCCAGG
ACCCTGCCCTCAACCCTTGTCAGCTCCCTAAGTCTTCCTGTTTCCCAGTCTCAGATTGAGTGGGTGCTCTCATTG
GCCTCTCTAGCTAGGCCGTCTCCCTGGTCAGCTTCCTTGAGCCTGGGCCACTCCTCCCTGGCCTTCTTACCTCTG
CCAAGAGCCTCCAGATGTGCCTGCAGCCTAGTCCCTGCCCAAGCTTCTCCCCCAGCCACCCTCTGCCCCTGTGGT
AGAGCCCACTATAGGCCCAGGCGCCTTACGTGCTTCTCCCCTGGACCTATGTGCATCCCTCACCTGCCAGTTATG
TGGCTGCCAAGCCCCACAGGCTGTCATGGTGGCTCTTGCCACACTTCCCTTCCTGAGCTGACCTGACCTCACTGC
CACCTCTTGCATTGGGATCCTGAGGGCTGGCCCCTGCTCACTGATGGGCCCTCCCAGGCCCGTCAAGCCCTGGTG
AAGGAGCTTAGCTTGTCTTCTTGGCAATTCACAATGCCTCACTCCACACCCTAAAACTGGAGCGTCCCCTATGGT
CTCCTGCTGTGGCTTGGGTGCCGGGCGTCTCCCGCCTCCAGGATCTCCTCTCACCTGCCCCCATTAAAGCTCTGC
CACTCATGCAGGCATGTGTGGACCATGTTTTCCCCTGGCCAGAGCCCCCACCTGCCACTGGAGGCCAGTTGCCCT
CTTAGCACTCAGACATCAGCACTGTCTTCACAGAATAAATGCTTTATCTGGCCTTG

FIGURE 3078

GGCGCCGAGTCTGGGCGCGGGGACGCGGGGCGGCGCGAAGCGGGGCCCTCTGCCGCCCCGCGCTCCCATGTACGC
CTTTTACTCGTTGCTCATCTACATCTTCTACAGCCTCTTCCGCAGGGATGGTGGCGCCGCGGCGGCCGCGGAGCC
CGGGGACCCCGCCCAGAGAGCCCGCAAGCCCCGGGGTCGCCGGCGCCCAGACCTGCCCGCGCCAGAGCTGTGGAC
CGAGCTGACCGGCCTGGCCGCCAGCTCCGAGCCTGAGGATGGGTCGGAAGGCGCAGCCGAGGGTCGCGCGGCCGC
GGTGTCCCTGGAAGAGGCCCTACTGCGCCTCGCCGAGTTCCTCTCCGTCCAGCTGGGGGCGGAAGAGAGCTGCGG
GGGCCCGGCGGACCTGGGCCAGTCTGGCGAGGTCCCCTCACTGTTGACAGTGACCAGTCAGCTCTTGGCCCTTCT
GGCATGGCTTCGAAGCCCCAGGGGGAGGCAGGCCCTGCTCCAGGGGACTCAGCCAGCCCCTCGGGTCCGGCCCCC
CTCTCCAGATGGATCCACATCCCAAGAAGAAAGCCCTTCCCACTTCACCGCAGTCCCAGGCGAGCCACTGGGGGA
TGAGACCCAGGGACAGCAGCCCCTCCAGTTGGAGGAGGATCAGAGGGCGTGGCAGCGGCTGGAGCAGCTCATCCT
GGGACAGGAGGAGCTGAAGCAGCAGCTGGAACAGCAGGAGGAGGAGTTGGGTCGACTGCGCCTGGGCGTGGGCGA
CGGACTCAGAGAAAAGGGTTCAGCATCTGACTCTGGAGAACGAGGCCCTGAAGCAGAGCCTGAGTCTC**ATG**CGGG
ACCTCCTGCTGCACTGGGGCCCCGGGCCCCCCATCAGGGCTCCGCAGGAGGAGGCGGAGGCATTGCTAGAGCTCC
AGGGCCGGCTTCAGGAGGCCCAAGACACCACAGAAGCCCTCCGAGCCCAGCTGGGGGTGCAGGAGGTGCAGCTGC
AGGGCCTTCAAGGGGCCCTCCAGCAGCTCCAGCAGGAGACGGAGCAGAACTGCAGGCGTGAGCTACAGCAGATGC
ATGGGCAGCTGGCAGGACTTCGGGCACGGATGGCCAGCCTGCGTCAGGGCTGCGGGGACCTCCGAGGTTTGGTCA
GCACCTTTACCCAGAGCTGTCAGGGTTCGCTGAGTGAGGCCCGGGGCCAGGTGTCCTGGGCCTTGGGGGCACTGT
CATCTGGAGGGCCTGGCACTCAGCTCCCTGAGGGGCAGCAAGGGCCCCCAGCCGGATGCCCAGGGCGGCTGCCAG
AACTCAAGGGAAATATCCGTGTGCTGTGTCGGCTGAGGCCAGGGACATCTTCTAGCCTTGTGAGTGTGGAGCCTG
GCCCAGGGGGCACCGTCACCACCTGCTACCGGGGGCGCCATCGTCGATTCCGCCTAGACTGGGTCTTCCCTCCAG
ACGCCAGCCAGGAGGAGGTCTTCAGAGAGCTGGAACCTGCGGTGCTGTCCTGCCTCCGAGGCTACAGCGTCTGCA
TCTTCACCTATGGCCAGACAGGCACCGGGAAGACCTACAGCATGGAGGGCCCTCCTGAGGACCCCGGCATAGTTC
CTAGGGCGCTGCAGTCGCTGTTCCGGGAGATGGGGGCCGGCCGGCAGCACCGGGTGACACTCAGCATGGTGGAGA
TCTACAATGAGGCTGTCAGGGACCTCCTTGCTCCAGGGCCTCCCGAGCGCCTGGCCGTGAGGCAGGGCCCAGAAG
GCCAGGGCGGGATCCAGGTGGCTGGCCTCACCCACTGGGACGTGCCCAACCTGGAGACATTGCACCAGATGCTGA
AACTGGGGAGGAGCAACCGGGCCACCGCCGCCACCGCCATGAACCAGCGCAGCTCCCGCTCGCATGCCCTGGTCA
CGCTGACGCTGCGCGCGGCGTCTCCACCGCGCGCTCCAGGCACCGCAGGCACGCTGCACCTGGTGGACCTGGCGG
GATCCGAACGCGCACGGAAGGCAGGGGCGGTCGGCCCGCCGCGGAGAGACCCAGACGGCGCCCGGCGCCTGCGGG
AGGCCCAGACCATAAACCGCTCGCTGCTGGCGCTAGGAGGCGTGATGGCCGCACTGCGGGCCCACCGGCCGCACG
TGCCCTTCCGCGACTCGCAGCTCACGCGACTGCTGCAGCCGGCGCTGGGCCCAGGCACCACCGCGGTGCTGCTGC
TGCAGGTGGGCGCCGGGGCGGGGCAGGTGTGTGCGTGCCGGTCGCCGCCCACCCGGGCCCGCCCACCCGCGCCTC
TTGCCCGCAGATCTCCACGCGGCCGGAGGATCTCGGGGAGACAGTCTGCTCCCTCAAGTTCGCCGACCGAGTGGG
TCAAGTGGAGCTGGGGCCAGCCCGGCGCCGCAGGGTCCCGCGCTCCTCCGGGACGCCTTCTTCCCTCAGCACCGA
CACTCCGCTCACCGGGACCCCCTGCACCCCTACGCCGTCCCCTGGCAGTCCTCCATGCCCCAGTCCCGACAACGG
CTCGGGCTCGGCTCTCGCGCCCGCAGAGGGCCTGCCCCTCTAGTCCTGGGTCGCGGCCCTGCCCATGGGGTCTCA
GGCCAGGTCTCTGCTGGCAGAGGCGG**TAG**TAAAGTCCCTGTACCCCGTCTCCCAGGGCACAAGCTCCCTAGCCTC
TTTGGATCCATTGCCCCTGAGCTCCCAGAGTCACCCCTCCACCTCCGCAGCCAGTGAAGTGTGTTGTGCCTGCTG
AAGTGATCACCCCCCGCCCCCAGCCCTGCATCAGGCCACAGGTCTTGGCTTTCTCCTTATCACCATTTGCTGTTA
TCACGGCACACAGCAGGGAATCCCAGGCCCCCCCGCCAAGTGGTTACCCAAGTCACCACTCCTGACCCAAAAATC
AGGCATGGCATTAAAACGTTGCAAATTCCTTTACTGTTATCCCCCCCACCACCAGGACCATGTAGGGTGCAGTCT
TTACTCCCTAACCCGTTTCCCGAAAAAGGTGCTACCTCCTTTCCAGACAGATGAGAGAGGGCAGGACTTCAGGCT
GGATCCACCACTGGGCTCTCCCTCCCCAGCCTGGAGCACGGGAGGGGAGGTGACGCCTGGTGACTGATGGATGGG
TATGGGCTGAGAAGAGGGGACTAGGAAGGGCTATTCCAGGCTCAGGCCCTGCTCCTGCAGGCTTTGCCGCTGAGT
GTAGGAAAAACAGGCATGGCAGACCAGGGTGAGGGTTGTGCCCAGCTGGGCCACGGCCATGCGTGGGGTGGCCCA
ATAAACACCGTGGACTCCC

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FIGURE 3079

CGGAGCAGTGGTCGGAGATGTGGCGACCGGCTGGAGTGCAGTGTCTCAATCTTGGCTCACTGCAATCTCCGCCTA
CCAAGATCAAGCGATTCTCCTGTCTCAGCCTCCCAACTACCTGGGATTACAGGTGCAGCTCTGTCATTTCCACTC
TGCTCTGCTGCACAGAAGGCAGAAGCCCTGGCCGTCCCCTGCTGTGTTCTTCAGGAGAAACGTCAGGGGCCTTCC
TCCAAGGTTCTCCAGCCCCACACCCCTGTGGAGGAAGGTGCTCTCCACCGCGGTAGTGGGGGCGCCCCTGCTCCT
CGGAGCCCGCT**ATG**TCATGGCAGAGGCACGGGAGAAGAGGAGGATGCGGCTCGTGGTGGATGGCATGGGGCGCTT
TGGCAGACCTTGCCTCCCCAGGCCTTGGAGACCCACCCTCCTGGTGTCCTCCTCTCTTCCTAGTGGACCTCAGGC
TGCAGGTCTCTGAAGGTCGGCCTGCAGATCTCCCTGGACTACTGGTGGTGCACCAATGTTGTCCTTCGAGGGGTG
GAAGAGAACAGCCCAGGCTACTTGGAGGTGATGTCTGCGTGTCACCAGCGGGCGGC**TGA**TGCCCTGGTGGCAGGG
GCCATCAGCAACGGGGGCCTCTACGTGAAGCTGGGCCAGGGGCTGTGCTCCTTCAACCACCTGCTTCCCCCCGAG
TATACCCGGACCCTGCGCGTGCTAGAGGACAGGGCCCTCAAGCGGGGCTTCCAGGAG

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FIGURE 3080

ATGGTCACCATGGAGCCCGGGTACCTGTTCCTGGGTTCTCGCCTGGGCAATTCCCTCCTCCTCAAGTACACGGAG
AAGCTGCAGGAGCCCCCGGCCAGTGCTGTCCGTGAGGCTGCCGACAAGGAAGAGCCTCCCTCAAAGAAGAAGCGA
GTGGATGCGACGGCCGGCTGGTCAGCTGCGGGTAAGTCGGTGCCGCAGGATGAGGTGGACGAGATTGAAGTGTAC
GGCAGCGAGGCCCAGTCGGGAACACAGCTGGCCACCTACTCCTTTGAGGTGTGTGACAGCATCCTGAACATTGGA
CCCTGTGCCAATGCCGCCGTGGGCGAACCTGCCTTCCTCTCTAAAGAGTTTCAGAACAGCCCCGAGCCGGACCTG
GAGATTGTGGTTTGCTCCGGCCACGGGAAGAACGGGGCTTTGTCGGTGCTGCAGAAGAGCATCCGGCCCCAGGTG
GTGACAACATTTGAGCTTCCCGGCTGCTATGACATGTGGACAGTCATCGCCCCGGTGCGTAAGGAGGAGGAGGAC
AATCCCAAGGGGGAGGGCACAGAGCAGGAACCCAGCACCACCCCTGAAGCAGACGACGACGGCCGCAGACACGGA
TTCCTGATTCTGAGCCGGGAAGACTCCACCATGATCCTGCAGACGGGGCAGGAGATCATGGAGCTGGACACCAGT
GGCTTCGCCACTCAGGGCCCCACGGTCTTTGCTGGGAACATCGGGGACAACCGCTACATTGTCCAAGTGTCACCA
CTGGGCATCCGCCTGCTGGAAGGAGTGAATCAGCTGCACTTCATCCCCGTGGACCTGGGCGCCCCCATCGTGCAG
TGCGCCGTGGCCGACCCCTATGTGGTCATCATGAGTGCCGAGGGCCACGTCACCATGTTCCTGCTGAAGAGTGAC
TCCTACGGTGGCCGCCACCACCGCCTGGCGCTGCACAAGCCCCCGCTGCACCATCAGTCCAAGGTGATTACGCTG
TGCCTGTACCGAGACCTCAGCGGCATGTTCACCACTGAGAGCCGCCTGGGTGGGGCCCGTGACGAGCTCGGGGGC
CGCAGTGGCCCGGAGGCCGAGGGCCTGGGCTCAGAGACTAGCCCCACAGTGGATGACGAGGAGGAGATGCTGTAT
GGGGATTCGGGCTCCCTCTTCAGCCCCAGCAAGGAGGAGGCCCGAAGAAGCAGCCAGCCCCCTGCTGACCGGGAC
CCTGCACCCTTCCGGGCAGAGCCTACCCACTGGTGCCTGCTGGTGCGGGAGAATGGCACCATGGAGATCTACCAG
CTTCCCGACTGGCGGCTGGTGTTCCTGGTGAAGAACTTCCCTGTGGGGCAGCGGGTCCTTGTGGACAGCTCCTTT
GGACAGCCCACTACACAGGGCGAGGCCCGCAGGGAGGAGGCCACGCGCCAGGGGGAGCTGCCCCTCGTCAAGGAG
GTGCTGCTGGTGGCGCTGGGCAGCCGCCAGAGCAGGCCCTACCTGCTGGTGCATGTGGACCAAGAGCTGCTTATC
TACGAGGCCTTCCCCCACGACTCTCAGCTCGGCCAGGGCAATCTCAAAGTCCGCTTTAAGAAGGTCCCTCACAAC
ATCAACTTCCGTGAGAAGAAGCCAAAGCCATCCAAGAAGAAAGCAGAAGGTGGCGGCGCAGAGGAGGGGGCTGGG
GCCCGGGGCCTCGTGGCGCGTTTCCGCTACTTCGAGGATATTTATGGCTACTCAGGGGTCTTCATCTGCGGCCCC
TCCCCTCACTGGCTCTTGGTGACCGGCCGAGGGGCTCTGCGGCTACACCCCATGGCCATCGACGGCCCGGTCGAC
TCTTTCGCTCCATTCCACAATGTCAACTGTCCCCGCGGCTTCCTGTACTTCAACAGACAGGGCGAGCTGAGGATC
AGTGTCCTGCCTGCCTACCTGTCCTATGATGCCCCATGGCCTGTCAGGAAGATCCCGCAGCGTTGCACGGCCCAC
TATGTGGCTTACCACGTGGAGTTTAAGGTGTATGCTGTGGCCACCAGCACCAACACGCCGTGTGCCCGCATCCCA
CGCATGACTGGCGAGGAGAAGGAGTTTGAGACCATCGAGAGAGATGAGCGGTACATCCACCCCCAGCAGGAGGCC
TTCTCCATCCAGCTCATCTCCCCGGTCAGCTGGGAGGCTATTCCCAATGCCAGGATCGAGCTGCAGGAGTGGGAG
CATGTGACCTGCATGAAGACAGTGTCTCTGCGCAGTGAGGAGACCGTGTCGGGCCTCAAAGGCTACGTGGCCGCC
GGGACCTGCCTCATGCAGGGGGAGGAGGTCACGTGCCGAGGGCGGATCTTGATCATGGATGTGATTGAGGTGGTG
CCCGAGCCTGGCCAGCCCTTGACCAAGAACAAGTTCAAAGTCCTTTACGAGAAGGAGCAGAAGGGGCCCGTGACC
GCCCTGTGCCACTGCAATGGCCACCTGGTGTCGGCCATCGGCCAGAAGATTTTCCTGTGGAGCCTGCGGGCCAGC
GAGCTGACGGGCATGGCCTTCATCGACACGCAGCTCTACATACACCAGATGATCAGCGTCAAGAACTTCATCCTG
GCAGCCGACGTCATGAAGAGCATTTCGCTGCTGCGCTACCAGGAGGAAAGCAAGACGCTGAGCCTGGTGTCGCGG
GATGCCAAGCCCCTGGAGGTGTACAGCGTGGACTTCATGGTGGACAATGCCCAGCTGGGTTTTCTGGTGTCTGAC
CGCGACCGCAACCTCATGGTGTACATGTACCTGCCCGAAGCCAAGGAGAGTTTCGGGGGCATGCGCCTGCTGCGT
CGGGCAGACTTCCACGTGGGTGCCCACGTGAACACGTTTTGGAGGACCCCGTGCCGGGGGGCCACTGAAGGGCTC
AGCAAAAAGTCGGTCGTGTGGGAGAATAAGCACATCACGTGGTTTGCCACCCTGGACGGCGGCATCGGGCTGCTG
CTGCCCATGCAGGAGAAGACCTACCGGCGGCTGCTGATGCTGCAGAACGCGCTGACCACCATGCTGCCACACCAC
GCCGGCCTCAACCCCCGCGCCTTCCGGATGCTGCACGTGGACCGCCGCACCCTCCAGAATGCCGTGCGCAACGTG
CTGGATGGGGAGCTGCTCAACCGCTACCTGTACCTGAGCACCATGGAGCGCAGCGAGGTAGCCAAGAAGATCGGC
ACCACACCAGACATAATCCTGGACGACTTGCTGGAGACGGACCGCGTCACCGCCCACTTCTAGCCCCGTGGATGC
CGTCACCACCAGCACACGGAACTACCTCCCACCCCCTTTTTGTACAAAACACAAGGAAAAACATTTTTTGC

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FIGURE 3081

CGCTCGCTCCGGCAACTGGAGGCACGGCAGAGGAGGCAGGGCCGACGGCGGTGGGCGGTGCGTTGCGCAGGCTCG
GGCCTCCCGCTCGCCGCTGCGTTGGGACCGCGCAGCCCGGTGTGTGCAGTGGCCTCAGGGATCCGGAAAGTCTAG
GACTGAACTTCTCCTAACATCCAGTAATGGGGACCTGGAACCTGGGCGTACTAGAGTGCCGCGCGTAGGGCTCCA
GGTCGCTGGCTTCTGCGCTTTCTTCCTCTCCAAAGTTGAGTATCTCCTATCTGTGTCCTCATACATACTGCCGCC
TGAGGTGCC**ATG**GCCCCCAAGCCGGGGGCCGAGTGGAGCACAGCCCTGTCCCATCTGGTGCTGGGAGTGGTGTCT
CTGCACGCAGCCGTGAGCACAGCCGAGGCAAGTCGAGGGGCTGCTGCTGGCTTCCTGCTCCAGGTCTTGGCTGCC
ACCACCACGCTGGCCCCAGGGCTGAGCACACATGAAGACTGCCTTGCTGGAGCCTGGGTGGCCACCGTCATCGGC
CTTCCCCTTCTGGCCTTCGATTTCCACTGGGTGAATGGGGACCGCTCCTCTGCCAACCTGCTCCTGGGAGGAGGC
ATGGTGCTGGCAGTGGCTGGCGGCCACCTCGGCCCTGAGGGCCGCTCTGTGGCTGGTCAGGCAATGCTGTTGGTG
GTCGCAGTGACCATCCTCATTGTAGCTGTCTTCACGGCCAACACTTATGGGATGTGGGGGGGGGCGATGCTGGGT
GTGGCAGGCCTCCTGAGCCGGCTGGAGGAGGACAGGCTGCTGCTGCTACCGAAGGAGGATGTCTGTCGCTGGGCC
TTGGCTGTAGGCAGCTGGGCTTACTGCCGGGCCCTGCATACACAGCGCCTCCAGTGGGAG**TGA**CAGTTGGATACA
GCCAGGCAGGGTTTCTGCCCTGCCGAACACTTTCCCTCCCACCTGCCTGCTCCTGGCGCCTTCTCCCTAGGGGTA
GACTCTTCTGCCTACTGAAGTGGGTTTGCTGCACATTGACTGGTCAGGGGCAGAGTCTGGGTGCTGTCCTTTGGC
CACGTGTGGGGACTTGTCTAGACCAGAATGAAAGGGACAGGGTCCCAGACACGTTTGGGGGTCCTGATTCTGGGC
TGGACACGGTTGTGGATCCAGAGAAGAGGCCTAGTCTCCAATAAATCTTAGGAATTTTGCAGG

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FIGURE 3082

CTAATGGTCACTTG**ATG**TGCGCTGGCTGTTTTATCCACCTACTAGCAGATGCCCGGCTGAAGGAGGAGCAGGCCA
CGTGCCCCAATTGTCGTTGTGAGATCAGTAAGAGCCTCTGCTGCCGGAACCTGGCCGTGGAGAAAGCCGTGAGCG
AGCTGCCTTCAGAGTGTGGCTTCTGCCTGCGCCAGTTTCCCCGCTCCCTCCTGGAGAGGCACCAGAAAGAGGAAT
GCCAGGACAGGGTAACCCAGTGCAAGTACAAACGCATCGGCTGCCCATGGCACGGCCCCTTCCATGAGCTGACGG
TGCACGAGGCTGCGTGCGCCCACCCGACCAAGACAGGCAGTGAGCTGATGGAGATCCTGGATGGGATGGACCAGA
GCCACCGCAAGGAGATGCAGCTGTACAACAGCATCTTCAGCCTGCTCAGCTTCGAGAAGATTGGCTACACAGAGG
TCCAGTTCCGGCCGTACCGCACAGACGACTTCATCACGCGCCTGTACTATGAGACGCCCAGGTTCACAGTGCTGA
ACCAGACGTGGGTCCTGAAGGCTCGAGTCAACGACTCGGAGCGTAACCCCAACCTGTCCTGCAAGCGTACGCTCT
CCTTCCAGCTCCTCCTCAAGAGCAAGGTCACGGCACCGCTGGAGTGCTCCTTCCTGCTGCTCAAGGGCCCCTACG
ACGACGTGAGGATCAGCCCCGTCATCTACCACTTTGTCTTCACCAACGAGAGCAACGAGACGGACTACGTGCCAC
TGCCCATCATTGACTCCGTGGAGTGCAACAAGCTGCTGGCTGCCAAGAACATCAACCTGCGGCTCTTCCTGTTCC
AGATACAGAAG**TAG**GGCGGGGCCTCAGGATGTCCGAGGAGCCCACGGGCGGCATCCCAGCACCGCTGCCCTGTCC
ACCTGGCTGGCAGCTGCTTCACAGGACTATCTGATCACTTTAGCAAAGGAGGAGAACAAACGAAGCCAACACAGG
GCAAGTCTGCATGCGTGCACGACGGGGCCCCCGCCTCCGGCTCACCCCACCGACCCCTGCCTCCCCTCCTTCCGA
GGGCCGCCAGAGGCTGGGCTGACCCGAAGAGGAGACGGTGCACCAGGCGCCCCGAGGCTAAGAGACGGTGGCAGC
AAGGAGGCCGAGAGGCACAGCGACCCTGCCCCAGCCCTTCTGTGCAGTCAGGCGGCGGTGCTGCTCCATCCCTGC
GGGTTCCGGCGGGGCGCGGGGGCCTTGCTGACATCAGACGGGATATCCGAATATCTGATAGCAATTAAAAGGCAG
CCTTGTTTCGTACTTTCTGTTTTGTTCGAGGGGAAGGCATGGCTGTGAATGGACAGCGTGGGGGCTTTGGTTTGG
CCTGGGGGTCAGAGCCTGCCCCGCCCCCATCTGTGTGCCCGCACACGTCCCCCGAGGAAAGACTCAGAGACACTG
CCTCCCCCTACGCTCTGTCATGGGGTCTTGAGACTGAGGCTTGGGCAGGAAGATCCAGGTAGGGTCGGGGCTGCC
CTGGCCAACCGGCCGCTCCCAGGGAGACAGGACTCAGCCACCAGGGCTCAGCAGGCATTTTCGGAAAGCAGGGTG
AAATTGTCTCTTCCCAGGAAAAAGATTAAACTCCTTGCAGGCTCTTGGATAAGTTACAC

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FIGURE 3083

AATGGACGAGAGAGGCGGCCGTCCATTAGTTAGCGGCTCCGGAGCAACGCAGCCGTTGTCCTTGAGGCCGACGGG
CCTGACGCGGGCGGGTTGAACGCGCTGGTGAGGCGGTCACCCGGGCTACGGCGGCCGGCAGGGGGCAGTGGCGGC
CGTTGTCTAGGGCCCGGAGGTGGGGCCGCGCGCCTCGGGCGCTACGAACCCGGCAGGCCCACGCTTGGCTGCGGC
CGGGTGCGGGCTGAGGCC**ATG**GGCGACCGCGGCAGCTCCCGGCGCCGGAGGACAGGGTCGCGGCCCTCGAGCCAC
GGCGGCGGCGGGCCTGCGGCGGCGGAAGAGGAGGTGCGGGACGCCGCTGCGGGCCCCGACGTGGGAGCCGCGGGG
GACGCGCCAGCCCCGGCCCCCAACAAGGACGGAGACGCCGGCGTGGGCAGCGGCCACTGGGAGCTGAGGTGCCAT
CGCCTGCAGGATTCTTTATTCAGCTCTGACAGTGGCTTCAGCAACTACCGTGGCATCCTGAACTGGTGTGTGGTG
ATGCTGATCTTGAGCAATGCCCGGTTATTTCTGGAGAACCTCATCAAGTATGGCATCCTGGTGGACCCCATCCAG
GTGGTTTCTCTGTTCCTGAAGGATCCCTATAGCTGGCCCGCCCCATGCCTGGTTATTGCGGCCAATGTCTTTGCT
GTGGCTGCATTCCAGGTTGAGAAGCGCCTGGCGGTGGGTGCCCTGACGGAGCAGGCGGGACTGCTGCTGCACGTG
GCCAACCTGGCCACCATTCTGTGTTTCCCAGCGGCTGTGGTCTTACTGGTTGAGTCTATCACTCCAGTGGGCTCC
CTGCTGGCGCTGATGGCGCACACCATCCTCTTCCTCAAGCTCTTCTCCTACCGCGACGTCAACTCATGGTGCCGC
AGGGCCAGGGCCAAGGCTGCCTCTGCAGGGAAGAAGGCCAGCAGTGCTGCTGCCCCGCACACCGTGAGCTACCCG
GACAATCTGACCTACCGCGATCTCTACTACTTCCTCTTCGCCCCCACCTTGTGCTACGAGCTCAACTTTCCCCGC
TCTCCCCGCATCCGGAAGCGCTTTCTGCTGCGACGGATCCTTGAGATGCTGTTCTTCACCCAGCTCCAGGTGGGG
CTGATCCAGCAGTGGATGGTCCCCACCATCCAGAACTCCATGAAGCCCTTCAAGGACATGGACTACTCACGCATC
ATCGAGCGCCTCCTGAAGCTGGCGGTCCCCAATCACCTCATCTGGCTCATCTTCTTCTACTGGCTCTTCCACTCC
TGCCTGAATGCCGTGGCTGAGCTCATGCAGTTTGGAGACCGGGAGTTCTACCGGGACTGGTGGAACTCCGAGTCT
GTCACCTACTTCTGGCAGAACTGGAACATCCCTGTGCACAAGTGGTGCATCAGACACTTCTACAAGCCCATGCTT
CGACGGGGCAGCAGCAAGTGGATGGCCAGGACAGGGGTGTTCCTGGCCTCGGCCTTCTTCCACGAGTACCTGGTG
AGCGTCCCTCTGCGAATGTTCCGCCTCTGGGCGTTCACGGGCATGATGGCTCAGATCCCACTGGCCTGGTTCGTG
GGCCGCTTTTTCCAGGGCAACTATGGCAACGCAGCTGTGTGGCTGTCGCTCATCATCGGACAGCCAATAGCCGTC
CTCATGTACGTCCACGACTACTACGTGCTCAACTATGAGGCCCCAGCGGCAGAGGCC**TGA**GCTGCACCTGAGGGC
CTGGCTTCTCACTGCCACCTCACACCCGCTGCCAGAGCCCACCTCTCCTCCTAGGCCTCGAGTGCTGGGGATGGG
CCTGGCTGCACAGCATCCTCCTCTGGTCCCAGGGAGGCCTCTCTGCCCCTATGGGGCTCTGTCCTGCACCCCTCA
GGGATGGCGACAGCAGGCCAGACACAGTCTGATGCCAGCTGGGAGTCTTGCTGACCCTGCCCCGGGTCCGAGGGT
GTCAATAAAGTGCTGTCCAGTG

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FIGURE 3084

GGCTGCCGTGCTGCTCGGCGGCGCTGAGGCCAAATAGTTGCATCACATGTATCTAATCCGAGAGTCTCATGCTTC
TGCTCCTCAGTGACCAGCTCCTGCTCACTGCCCTCAGAAAGCCCAACCCTCAGGCA**ATG**GCGGCCTTGTTCCTGT
CTGCCCCACCCCAGGCCGAGGTGACCTTCGAGGACGTGGCTGTGTACCTCTCCCGGGAGGAATGGGGCCGCCTGG
GCCCTGCTCAGAGGGGCCTCTACAGGGACGTGATGCTGGAGACCTACGGGAACCTAGTCTCACTGGGAGTAGGAC
CTGCAGGCCCCAAGCCTGGAGTGATCTCGCAGTTGGAGCGAGGGGATGAGCCCTGGGTCCTGGATGTTCAGGGCA
CCTCTGGGAAAGAGCACCTGAGAGTCAACAGCCCAGCTCTTGGGACCAGAACTGAGTACAAGGAGTTGACTTCAC
AGGAGACATTTGGTGAGGAAGATCCCCAGGGATCTGAGCCAGTAGAAGCCTGTGACCACATCAGTAAGTCAGAGG
GGAGCCTGGAAAAGCTAGTGGAGCAGAGAGGCCCCAGGGCAGTCACACTGACCAACGGGGAGAGCAGCAGGGAGT
CTGGGGGAAACCTCAGGTTGCTGTCAAGACCTGTTCCTGATCAGAGACCTCACAAATGTGATATATGTGAGCAAA
GTTTTGAACAGAGATCATATCTCAACAACCATAAGCGTGTACACAGGTCAAAAAAAACAAATACAGTTCGTAACT
CTGGGGAAATCTTCAGTGCAAACTTAGTTGTTAAAGAAGATCAGAAAATTCCTACTGGGAAAAAATTGCATTATT
GCAGTTACTGTGGGAAAACATTCAGGTACAGTGCCAACCTTGTCAAGCATCAGCGGCTTCACACTGAAGAGAAGC
CCTACAAATGTGATGAGTGTGGGAAAGCCTTCAGCCAGAGCTGCGAGTTCATCAATCACCGAAGGATGCACTCAG
GAGAGATTCCCTACCGGTGTGACGAGTGTGGGAAGACATTCACCCGGAGGCCCAACCTCATGAAGCACCAGAGGA
TTCACACTGGGGAGAAACCCTACAAGTGTGGGGAGTGTGGGAAGCACTTTAGCGCCTACTCTTCCCTGATTTATC
ACCAGAGAATCCACACCGGAGAGAAACCCTATAAATGTAATGACTGCGGGAAAGCCTTCAGTGATGGCTCAATCC
TTATCCGACATCGTCGGACTCACACCGGAGAGAAGCCATTTGAGTGCAAGGAATGTGGCAAAGGCTTTACACAAA
GTTCTAACCTTATCCAACATCAGAGAATTCACACTGGAGAGAAACCCTATAAATGTAATGAATGTGAGAAAGCTT
TCATTCAAAAAACCAAACTCGTGGAACATCAGAGAAGCCACACTGGAGAGAAGCCCTATGAATGCAATGACTGTG
GCAAAGTTTTCAGCCAAAGCACACACCTCATCCAGCACCAGAGAATCCACACAGGAGAGAAGCCCTACAAGTGCA
GCGAGTGTGGGAAGGCCTTCCACAACAGTTCCAGACTCATCCACCACCAGAGGCTGCACCACGGAGAGAAACCCT
ACAGATGCAGCGATTGCAAGAAAGCCTTCAGCCAGAGCACGTACTTGATTCAGCACCGGAGGATCCACACCGGGG
AGAAGCCCTACAAGTGCAGCGAGTGTGGGAAGGCCTTCCGGCACAGTTCCAACATGTGTCAGCATCAGCGGATTC
ACCTCCGGGAGGACTTCTCCATG**TAA**CAGTGGCGCGGTGTCCGAGGGCAGAGTCCAGCTGAGCACTTCCTGCATG
CGCCCCCGGCACCTGACTCTGCCCTTTATGTATTATCCACACGATGTTTTCACAGAGTGAAAGGACGTTTCTCAT
TAAACAAACCTCTTTTCTT

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FIGURE 3085

GCGGCATGGGCAGTATCCGCCGCCATCCTCTTCCGTGAGGCGCGCTGAGACCCGGACCGGCCCTCCTGAGAGGAT
GCCGGTGCGGGCGCCCGCGGAGAGGGACCCGTCGCC**ATG**GGCCGTGTGATCCGTGGACAGAGGAAGGGCGCCGGG
TCTGTGTTCCGCGCGCACGTGAAGCACCGTAAAGGCGCTGCGCGCCTGCGCGCCGTGGATTTCGCTGAGCGGCAC
GGCTACATCAAGGGCATCGTCAAGGACATCATCCACGACCCGGGCCGCGGCGCGCCCTCGCCAAGGTGGTCTTC
CGGGATCCGTATCGGTTTAAGAAGCGGACGGAGCTGTTCATTGCCGCCGAGGGCATTCACACGGGCCAGTTTGTG
TATTGCGGCAAGAAGGCCCAGCTCAACATTGGCAATGTGCTCCCTGTGGGCACCATGCCTGAGGGTACAATCGTG
TGCTGCCTGGAGGAGAAGCCTGGAGACCGTGGCAAGCTGGCCCGGGCATCAGGGAACTATGCCACCGTTATCTCC
CACAACCCTGAGACCAAGAAGACCCGTGTGAAGCTGCCCTCCGGCTCCAAGAAGGTTATCTCCTCAGCCAACAGA
GCTGTGGTTGGTGTGGTGGCTGGAGGTGGCCGAATTGACAAACCCATCTTGAAGGCTGGCCGGGCGTACCACAAA
TATAAGGCAAAGAGGAACTGCTGGCCACGAGTACGGGGTGTGGCCATGAATCCTGTGGAGCATCCTTTTGGAGGT
GGCAACCACCAGCACATCGGCAAGCCCTCCACCATCCGCAGAGATGCCCCTGCTGGCCGCAAAGTGGGTCTCATT
GCTGCCCGCCGGACTGGACGTCTCCGGGGAACCAAGACTGTGCAGGAGAAAGAGAAC**TAG**TGCTGAGGGCCTCAA
TAAAGTTTGTGTTTATGCC

FIGURE 3086

ATGGGGCGCCTGCAACTGGTTGTGTTGGGCCTCACCTGCTGCTGGGCAGTGGCGAGTGCCGCGAAGGAAGCTGAA
AGCCGAGCTACTCCACACCCGGACCCCATGCTGCACTATGTGGGCTTCGTCCCTGTCATTGATGGAGACTTCATC
CCCGCTGACCCGATCAACCTGTACGCCAACGCCGCCGACATCGACTATATAGCAGGCACCAACAACATGGACGGC
CACATCTTCGCCAGCATCGACATGCCTGCCATCAACAAGGGCAACAAGAAAGTCACGGAGGAGGACTTCTACAAG
CTGGTCAGTGAGTTCACAATCACCAAGGGGCTCAGAGGCGCCAAGACGACCTTTGATGTCTACACCGAGTCCTGG
GCCCAGGACCCATCCCAGGAGAATAAGAAGAAGACTGTGGTGGACTTTGAGACCGATGTCCTCTTCCTGGTGCCC
ACCGAGATTGCCCTAGCCCAGCACAGAGCCAATGCCAAGAGTGCCAAGACCTACGCCTACCTGTTTTCCCATCCC
TCTCGGATGCCCGTCTACCCCAAATGGGTGGGGGCCGACCATAGAGATGAGATCCAGACAGTCTCTAAGGCTATG
ACCGCCTACTGGACCAACTTTGCCAAAACAGGGGACCCCAACATGGGCCACTCGGCTGTGCCCACACACTGGGAA
CCCTACACTACGGAAAACAGCGGCTACCTGGAGATCACCAAGAAGATGGGCAGCAGCTCCATGAAGCGGAGCCTG
AGAACCAACTTCCTGCGCTACTGGACCCTCACCTATCTGGCGCTGCCCACAGTGACCGACCAGGAGGCCAGTTCC
ATGCCCTCCACAGGGGACTCTGAGGCCACTCCCGTCTCCCCCGACAGGCAACTCCGAGTCTGCCCCCGTGACTCT
GAGGCTCCCCCGTACCCCCTACGGGTGACTCTGAGGCCCGTGCCCACCTTGGGTGACACTGAGGCTGCCCCTGTG
TCCCCCACAGATGACTCCGAGGAAGCTCAGATGCTGCAGTCATTAGTTTCTAGTGTCCCATCAGCCTTGACTCCA
GATGATGAAGTTGAAAATACTGACAGGCTGGAGGCCATCTGGGGTCCTGCTGGCTCCCAGTTCCAGGAAGCCTGG
AAGAGCACTGGGGTGAGCTCGGGCCAGCGCATGTTTACTGTCACAGGGGACATGTTTCAGCACTTTCATTGTAAG
GCTGTGGCCTTCTGTGCTTGTGGATCCTCAGTCTCAGTGGCCTTCCTCTTCCCCCCACCCCAACTCCTGTGTTGC
GTGTTTAACACACCTACGCCCAACCGGGACATAACTAAATCC**TAG**

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FIGURE 3087

ATGGCGGCGGAGGCGGCCGATTTGGGGCTGGGGGCCGCCGTCCCCGTGGAGCTGAGGCGGGAGCGACGCATGGTG
TGCGTGGAGTACCCGGGAGTGGTGCGTGATGTGGCTAAGATGCTGCCGACTCTGGGCGGCGAGGAAGGCGTCTCC
CGGATCTACGCAGACCCCACCAAGAGGCTGGAGCTGTACTTCCGGCCCAAGGACCCATACTGCCACCCAGTGTGC
GCCAACCGCTTCAGTACCAGCAGCCTGCTGCTCCGCATCAGGAAGAGAACGAGGCGGCAGAAAGGGGTGCTGGGC
ACTGAGGCCCACTCCGAGGTCACATTTGACATGGAGATCCTTGGCATCATCTCCACCATTTACAAATTTCAGGGG
ATGTCTGACTTCCAGTACTTGGCTGTGCATACGGAAGCAGGCGGCAAGCATACGTCAATGTATGACAAGGTGCTC
ATGCTCCGGCCCGAGAAGGAGGCCTTTTTCCACCAGGAGCTGCCGCTCTACATCCCCCCACCCATCTTCTCCCGG
CTGGACGCCCCGGTGGACTACTTCTACCGACCAGAGACCCAGCACCGGCACTTTAAAAAGAAGGCCCAGGCTCGA
TCCCGTCTTTCTAGTTTTGTTTCACAATGTGAAAATTACTGCTATTCTTTGGAAGGCTACAACAATCCCCCCATC
TCAGGTGAGAATCTGATTGGCCTGAGCAGAGCCCGGCGCCCCCACAATGCCATCTTTGTCAACTTTGAGGATGAG
GAGGTGCCCAAGCAGCCACTGGAGGCTGCAGCCCAGACGTGGAGGAGAGTCTGCACTAACCCCGTGGACCGGAAG
GTGGAGGAGGAGCTGAGGAAGGCAAGTCCTGCGCTGCGCCTGGCCCCGCTGTTTGACATCCGTCCCATCTGGTCC
CGAAATGCTGTCAAGGCCAACATCAGCGTCCACCCAGACAAGCTCAAGGTCTTGCTTCCCTTCATAGCCTATTAC
ATGATAACAGGCCCCTGGCGCAGCCTATGGATTCGATTTGGGTATGACCCCCGAAAAAACCCAGATGCCAAGATT
TATCAAGTCCTCGATTTCCGAATCCGTTGTGGAATGAAACACGGTTACGCCCCCAGTGACTTGCCGGTCAAAGCA
AAGCGCAGCACCTACAACTACAGCCTCCCCATCACCGTCAAGAAGACATCCAGCCAGCTTGTCACCATGCATGAC
CTGAAGCAGGGCCTGGGCCCGTCGGGGACGAGTGGTGCTCGGAAACCAGCTTCCAGCAAGTACAAGCTCAAGGAC
TCTGTCTACATCTTCCGGGAAGGGGCCTTGCCACCCTATCGGCAGATGTTCTACCAGTTATGCGACTTGAATGTG
GAAGAGTTGCAGAAGATCATTCACCGCAATGACGGGGCAGAGAATTCCTGCACAGAACGGGATGGGTGGTGCCTC
CCCAAGACCAGCGACGAGCTCAGGGACACCATGTCCCTCATGATCCGGCAGACCATCCGCTCCAAGAGGCCTGAG
GGCTGTGCGGTGGCTGGAGCTGCCACTGAGTGTCTCGGTGAGGGTGACCTCACACTGGCTGAGCTTAAAGGCCCC
ATC**TGA**

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FIGURE 3088

AGGATGGCAATGCCAGTGGAACCACGCTGCTTGAGGCTCTGGACTGCATCCTACCACCAACTCGCCCAACTGACA
AGCCCTTGCGCCTGCCTCTCCAGGATGTCTACAAAATTGGTGGTATTGGTACTGTTCCTGTTGGCCGAGTGGAGA
CTGGTGTTCTCAAACCCGGT**ATG**GTGGTCACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAAATCTGTCGAAA
TGCACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATGTGGGCTTCAAGGTCAAGAATGTGTCTGTCAAGG
ATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAATGACCCACCAATGGAAGCAGCTGGCTTCACTGCTCAGG
TGATTATCCTGAACCATCCAGGCCAAATAAGCGCCGGCTATGCCCCTGTATTGGATTGCCACATGGCTCACATTG
CATGCAAGTTTGCTGAGCTGAAGGAAAATGGCAAGGTCACCAAGTCTGCCCAGAAAGCTCAGAAGGCTAAA**TGA**A
TATTATCCCTAATACCTGCCACCCCACTCTTAATC

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FIGURE 3089

GCCAAA**ATG**GGAAAGGAAAAGACTCATATCAACATTGTCGTCATTGGACACGTAGATTCGGGCAAGTCCACCACT
ACTGGCCATCTGATCTATAAATGCGGTGGCATCGACAAAAGAACCATTGAAAAATTTGAGAAGGAGGCTGCTGAG
ATGGGAAAGGGCTCCTTCAAGTATGCCTGGGTCTTGGATAAACTGAAAGCTGAGCGTGAACGTGGTATCACCATT
GATATCTCCTTGTGGAAATTTGAGACCAGCAAGTACTATGTGACTATCATTGATGCCCCAGGACACAGAGACTTC
ATCAAAAACATGATTACAGGGACATCTCAGGCTGACTGTGCTGTCCTGATTGTTGCTGCTGGTGTTGGTGAATTT
GAAGCTGGTATCTCCAAGAATGGGCAGACCCGAGAGCATGCCCTTCTGGCTTACACACTGGGTGTGAAACAACTA
ATTGTCGGTGTTAACAAAATGGATTCCACTGAGCCACCCTACAGCCAGAAGAGATATGAGGAAATTGTTAAGGAA
GTCAGCACTTACATTAAGAAAATTGGCTACAACCCCGACACAGTAGCATTTGTGCCAAATTCT**TGA**AGTCTGGTG
ATGCTGCCATTGTTGATATGGTTCCTGGCAAGCCCATGTGTGTTGAGAGCTTCTCAGACTATCCACCTTTGGGTC
GCTTTGCTGTTCGTGATATGAGACAGACAGTTGCGGTGGGTGTC

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FIGURE 3090

AAATTGTTAAGGAAGTCAGCACTTACATTAAGAAAATTGGCTACAACCCCGACACAGTAGCATTTGTGCCAATTT
CTGGTTGGAATGGTGACAAC**ATG**CTGGAGCCAAGTGCTAACATGCCTTGGTTCAAGGGATGGAAAGTCACCCGTA
AGGATGGCAATGCCAGTGGAACCACGCTGCTTGAGGCTCTGGACTGCATCCTACCACCAACTCGCCCAACTGACA
AGCCCTTGCGCCTGCCTCTCCAGGATGTCTACAAAATTGGTGGTATTGGTACTGTTCCTGTTGGCCGAGTGGAGA
CTGGTGTTCTCAAACCCGGTATGGTGGTCACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAAATCTGTCGAAA
TGCACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATGTGGGCTTCAAGGTCAAGAATGTGTCTGTCAAGG
ATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAATGACCCACCAATGGAAGCAGCTGGCTTCACTGCTCAGG
TGATTATCCTGAACCATCCAGGCCAAATAAGCGCCGGCTATGCCCCTGTATTGGATTGCCACATGGCTCACATTG
CATGCAAGTTTGCTGAGCTGAAGGAAAAGATTGATCGCCGTTCTGGTAAAAAGCTGGAAGATGGCCCTAACCACC
TTTGGGTCGCTTTGCTGTTCGTGATA**TGA**GACAGACAGTTGCGGTGGG

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FIGURE 3091

CTAAAAGCCAAA**ATG**GGAAAGGAAAAGACTCATATCAACATTGTCGTCATTGGACACGTAGATTCGGGCAAGTCC
ACCACTACTGGCCATCTGATCTATAAATGCGGTGGCATCGACAAAAGAACCATTGAAAAATTTGAGAAGGAGGCT
GCTGAGATGGGAAAGGGCTCCTTCAAGTATGCCTGGGTCTTGGATAAACTGAAAGCTGAGCGTGAACGTGGTATC
ACCATTGATATCTCCTTGTGGAAATTTGAGACCAGCAAGTACTATGTGACTATCATTGATGCCCCAGGACACAGA
GACTTCATCAAAAACATGATTACAGGGACATCTCAGGCTGACTGTGCTGTCCTGATTGTTGCTGCTGGTGTTGGT
GAATTTGAAGCTGGTATCTCCAAGAATGGGCAGACCCGAGAGCATGCCCTTCTGGCTTACACACTGGGTGTGAAA
CAACTAATTGTCGGTGTTAACAAAATGGATTCCACTGAGCCACCCTACAGCCAGAAGAGATATGAGGAAACTACA
AAATTGGTGGTATTGGTACTGTTCCTGTTGGCCGAGTGGAGACTGGTGTTCTCAAACCCGGTATGGTGGTCACCT
TTGCTCCAGTCAACGTTACAACGGAAG**TAA**AATCTGTCGAAATGCACCATGAAGCTTTGAGTGAAGCTCTTCCTG
GGGACAATGTGG

FIGURE 3092

ATGGCCCAACAAGCAAATGTCGGGGAGCTTCTTGCCATGCTGGACTCCCCCATGCTGGGTGTGCGGGACGACGTG
ACAGCTGTCTTTAAAGAGAACCTCAATTCTGACCGTGGCCCTATGCTTGTAAACACCTTGGTGGATTATTACCTG
GAAACCAGCTCTCAGCCGGCATTGCACATCCTGACCACCTTGCAAGAGCCACATGACAAGCACCTCTTGGACAGG
ATTAACGAATATGTGGGCAAAGCCGCCACTCGTTTATCCATCCTCTCGTTACTGGGTCATGTCATAAGACTGCAG
CCATCTTGGAAGCATAAGCTCTCTCAAGCACCTCTTTTGCCTTCTTTACTAAAATGTCTCAAGATGGACACTGAC
GTCGTTGTCCTCACAACAGGCGTCTTGGTGTTGATAACCATGCTACCAATGATTCCACAGTCTGGGAAACAGCAT
CTTCTTGATTTCTTTGACATTTTTGGCCGTCTGTCATCATGGTGCCTGAAGAAACCAGGCCACGTGGCGGAAGTC
TATCTCGTCCATCTCCATGCCAGTGTGTACGCACTCTTTCATCGCCTTTATGGAATGTACCCTTGCAACTTCGTC
TCCTTTTTGCGTTCTCATTACAGTATGAAAGAAAACCTGGAGACTTTTGAAGAAGTGGTCAAGCCAATGATGGAG
CATGTGCGAATTCATCCGGAATTAGTGACTGGATCCAAGGACCATGAACTGGACCCTCGAAGGTGGAAGAGATTA
GAAACTCATGATGTTGTGATCGAGTGTGCCAAAATCTCTCTGGATCCCACAGAAGCCTCATATGAAGATGGCTAT
TCTGTGTCTCACCAAATCTCAGCCCGCTTTCCTCATCGTTCAGCCGATGTCACCACCAGCCCTTATGCTGACACA
CAGAATAGCTATGGGTGTGCTACTTCTACCCCTTACTCCACGTCTCGGCTGATGTTGTTAAATATGCCAGGGCAG
CTACCTCAGACTCTGAGTTCCCCATCGACACGGCTGATAACTGAACCACCACAAGCTACTCTTTGGAGCCCATCT
ATGGTTTGTGGTATGACCACTCCTCCAACTTCTCCTGGAAATGTCCCACCTGATCTGTCACACCCTTACAGTAAA
GTCTTTGGTACAACTGCAGGTGGAAAAGGAACTCCTCTGGGAACCCCAGCAACCTCTCCTCCTCCAGCCCCACTC
TGTCATTCGGATGACTACGTGCACATTTCACTCCCCCAGGCCACAGTCACACCCCCCAGGAAGGAAGAGAGAATG
GATTCTGCAAGACCATGTCTACACAGACAACACCATCTTCTGAATGACAGAGGATCAGAAGAGCCACCTGGCAGC
AAAGGTTCTGTCACTCTAAGTGATCTTCCAGGGTTTTTAGGTGATCTGGCCTCTGAAGAAGATAGTATTGAAAAA
GATAAAGAAGAAGCTGCAATATCTAGAGAACTTTCTGAGATCACCACAGCAGAGGCAGAGCCTGTGGTTCCTCGA
GGAGGCTTTGACTCTCCCTTTTACCGAGACAGTCTCCCAGGTTCTCAGCGGAAGACCCACTCGGCAGCCTCCAGT
TCTCAGGGCGCCAGCGTGAACCCTGAGCCTTTACACTCCTCCCTGGACAAGCTTGGGCCTGACACACCAAAGCAA
GCCTTTACTCCCATAGACCTGCCCTGCGGCAGTGCTGATGAAAGCCCTGCGGGAGACAGGGAATGCCAGACTTCT
TTGGAGACCAGTATCTTCACTCCCAGTCCTTGTAAAATTCCACCTCCGACGAGAGTGGGCTTTGGAAGCGGGCAG
CCTCCCCCGTATGATCATCTTTTTGAGGTGGCATTGCCAAAGACAGCCCATCATTTTGTCATCAGGAAGACTGAG
GAGCTGTTAAAGAAAGCAAAAGGAAACACAGAGGAAGATGGTGTGCCCTCTACCTCCCCAATGGAAGTGCTGGAC
AGACTGATACAGCAGGGAGCAGACGCGCACAGCAAGGAGCTGAACAAGTTGCCTTTACCCAGCAAGTCTGTCGAC
TGGACCCACTTTGGAGGCTCTCCTCCTTCAGATGAGATCCGCACCCTCCGAGACCAGTTGCTTTTACTGCACAAC
CAGTTACTCTATGAGCGTTTTAAGAGGCAGCAGCATGCCCTCCGGAACAGGCGGCTCCTCCGCAAGGTGATCAAA
GCAGCAGCTCTGGAGGAACATAATGCTGCCATGAAAGATCAGTTGAAGTTACAAGAGAAGGACATCCAGATGTGG
AAGGTTAGTCTGCAGAAAGAACAAGCTAGATACAATCAGCTCCAGGAGCAGCGTGACACTATGGTAACCAAGCTC
CACAGCCAGATCAGACAGCTGCAGCATGACCGAGAGGAATTCTACAACCAGAGCCAGGAATTACAGACGAAGCTG
GAGGACTGCAGGAACATGATTGCGGAGCTGCGGATAGAACTGAAGAAGGCCAACAACAAGGTGTGTCACACTGAG
CTGCTGCTCAGTCAGGTTTCCCAAAAGCTCTCAAACAGTGAGTCGGTCCAGCAGCAGATGGAGTTCTTGAACAGG
CAGCTGTTGGTTCTTGGGGAGGTCAACGAGCTCTATTTGGAACAACTGCAGAACAAGCACTCAGATACCACAAAG
GAAGTAGAAATGATGAAAGCCGCCTATCGGAAAGAGCTAGAAAAAAACAGAAGCCATGTTCTCCAGCAGACTCAG
AGGCTTGATACCTCCCAAAAACGGATTTTGGAACTGGAATCTCACCTGGCCAAGAAAGACCACCTTCTTTTGGAA
CAGAAGAAATATCTAGAGGATGTCAAACTCCAGGCAAGAGGACAGCTGCAGGCCGCAGAGAGCAGGTATGAGGCT
CAGAAAAGGATAACCCAGGTGTTTGAATTGGAGATCTTAGATTTATATGGCAGGTTGGAGAAAGATGGCCTCCTG
AAAAAACTTGAAGAAGAAAAAGCAGAAGCAGCTGAAGCAGCAGAAGAAAGGCTTGACTGTTGTAATGACGGGTGC
TCAGATTCCATGGTAGGGCACAATGAAGAGGCATCTGGCCACAACGGTGAGACCAAGACCCCCAGGCCCAGCAGC
GCCCGGGGCAGTAGTGGAAGCAGAGGTGGTGGAGGCAGCAGCAGCAGCAGCGAGCTTTCTACCCCAGAGAAA
CCCCCACACCAGAGGGCAGGCCCATTCAGCAGTCGGTGGGAGACGACTATGGGAGAAGCGTCTGCCAGCATCCCC
ACCACTGTGGGCTCACTTCCCAGTTCAAAAAGCTTCCTGGGTATGAAGGCTCGAGAGTTATTTCGTAATAAGAGC
GAGAGCCAGTGTGATGAGGACGGCATGACCAGTAGCCTTTCTGAGAGCCTAAAGACAGAACTGGGCAAAGACTTG
GGTGTGGAAGCCAAGATTCCCCTGAACCTAGATGGCCCTCACCCGTCTCCCCCGACCCCGGACAGTGTTGGACAG
CTACATATCATGGACTACAATGAGACTCATCATGAACACAGCTAA

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FIGURE 3093

CCCAGATACCCGATCCTCGGTCGCGCGGGTCGCCCCCGCCCCGACCTCCCCGGCTGACGCGCTCTGCGGCTCGGA
TTCCTCTTCTCCTGTAAATGACCACAGAGGAAGACA**ATG**AATGAGGTGAAAGAATCCCTTCGCAGCATCGAGCAG
AAGTACAAGCTCTTCCAGCAGCAGCAGCTCACCTTCACCGCCGCTCTGGAGCACTGCAGGGAGAACGCCCACGAC
AAGATCCGGCCCATCTCCAGCATTGGACAGGTGCAGAGCTACATGGAACACTACTGCAACAGCTCCACAGACCGG
CGGGTTCTGCTCATGTTCCTGGACATCTGTTCAGAGCTGAATAAGCTCTGCCAGCACTTTGAGGCCGTGCACTCT
GGCACCCCAGTCACCAACAACCTCCTGGAGAAATGCAAAACCCTCGTTAGCCAAAGCAACGACTTAAGCAGCCTC
AGAGCAAAATACCCTCATGATGTGGTGAACCACCTCAGCTGTGACGAGGCCCGGAACCACTACGGCGGCGTGGTC
AGCCTCATCCCCCTCATCCTAGACTTAATGAAAGAATGGATCGCCCACTCCGAGAAGTTGCCGCGCAAGGTGCTG
CAGCACGTGAGTGAGCCCCAGGCGCACCAGGAGAGCACCAGGGGAGCCGCTCGTCCTGCCCAGGCCATAGGGACC
CAGCCCAGGGCCACTAAACACAAGTGTAGACAGCTCACAAAAGCCAGCCTCAAACCCAGGGGATGTTCAAAACCA
CCCTGGAGGCCTCCTGGTGGGAAATTG**TAA**CTCAGAGCCAGGAGCTCCGTCGGCGGAGAGCTTTGCTGTTTAATT
TGGATTTTACTGGTTGGTCCTTTTTTCACTGGTACCCATGGACCCTGCCACTTACTAACCCCAAGGGAATCAGCC
AATATATTACTGAGACTTCCTCTCTCTCTTCTTGCTTTAACTTCTTTTTTTTTTGAGACGGAGTCTCGCTCTGTC
GCCCAGGCTGGAGTGCGGTGGCGCAACCTCGGCTCACTGCAACCTCCGCCTCCCAGGTTCACGCCATTCTCCTGC
CTCAGCCTCCCAAGTAGCTGGGACTACAGGCGCCCACCACCTCGCCTGGCTAATTTTTTGTATTTTTAGTAGAGA
CAGCGTTTCACCATGTTAGCCAGGATGGTCTCAATCTCCTGACCTCATGATCTACCCTCGTGATCGGCCTCCCAA
AGTGCTGGGATTACAGGCGTGAGCCACAGCGCCCGGCCCTCTTGCTTTAACTTCTAACATTTCCACTTCTAAGCA
TCAGGCTCCGTGCTGATGAAGAGGAAACCCACTTACAGAAGTTGCCCAAACAGGATGGTGTGGTAGAGGGTCCCA
GGAGGGCACTGAACTGTCACCTAGGTCCTCTTTGAGCCACATCCGGCTCCAGTGCCACGCCTGTCCCTGCTGCGG
GCTGCAGTTTTGCAGAGGGTGATCAAGCTGGAGACCATCTGCTCCTTGCCCCACCACCAGCCCCAACTGTAGGCA
AGGCACACGCTGTTTGCGAGCCAGGGATGCTCCCCTCCAGGATGGAGTGGGGGTCGGCATGTGGAACTCAGCGTG
TTTATTTTTTTATTTTTTGAGATGGAGTTTCACTCTGTCTCCCAGGCTGGAGTGCAGTGGCACGATCTTGGCTCA
CTGCAACCTCCACCTCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGAATTACAGGCGCCCAC
CACCCCACCTGGCTAATTTATATATATATATATTTTTTAGTAGAGACGGGGCTTCACCACGTTGGCCAGGCTGGT
CTTGAACTCCTGACCTCAACTGGTCCACCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACGGC
ACCTGGCCAGAACTCAGTAGTGTGTTTAGTTCTCTGGACCACAGCCAAAGGGGAATAAACTCACCTTTCCTTCGC
CTTTACTTGGGAGAGGGAGACCATGACAGAAGCCAGAATTCTGATTTTGTGGCTCCTGAGCAAGGGCGATGACCT
GGTTTTCACAGCGTAGTCGAACCCCAAACATTGTAAAATGTGTCCCTGGCTTCTGAGCTTGCCCAAAGTAATGTC
TGACTGTTGGTTTTTCCCTTCACAGGGGACGACTTAGCTTCTGTATTATTGTTGCTTCCTCAGGGGGAGACAGTC
AAGAATAAAAAGTATTCTACCACCT

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FIGURE 3094

GAGCTCAATCCCTGGGCAGGGAAAAGGGGGTCCTCGGGGCTCCCCGCTCGCTGTCCTTTTTCTGGACAGGCAGTT
CCTTGGCCACCTGGTAGGGCCGCGTTGCCTGGCAACGGCGGGGTCCTTCTTGGCTCGGCGGCGCTCGGGGCCTGA
GGGGAGAAAACCGCCGCGGAGGGCGCTGGGGGTGGCGGCGGCGGTCCGGGAGGTGGTCGCGCGACTGCGTGGAGC
GCCAGGGCGTCCGACCTCTGCACCTGAGAGAAG**ATG**AACACGGCCGACCAGGCCCGGGTGGGGCCCGCGGACGAC
GGGCCTGCGCCGTCTGGGGAGGAGGAGGGAGAGGGGGGCGGCGAGGCGGGCGGGAAGGAGCCAGCAGCGGACGCG
GCCCCGGGGCCCAGCGCTGCATTCCGCCTCATGGTGACTCGGCGGGAGCCGGCCGTGAAGCTGCAGTATGCGGTG
AGCGGCCTGGAACCGCTGGCTTGGTCCGAGGACCACCGCGTGTCTGTGTCCACGGCCCGCAGCATCGCTGTGCTG
GAGCTCATCTGCGACGTGCACAACCCGGGCCAGGACCTGGTTATCCACCGCACCTCGGTGCCCGCACCGCTCAAC
AGCTGTCTCCTCAAAGTTGGCTCAAAAACAGAAGTTGCTGAGTGCAAGGAGAAATTCGCCGCCTCCAAGGACCCC
ACGGTCAGTCAGACTTTCATGTTGGATAGGGTGTTCAACCCTGAGGGGAAGGCTTTACCACCAATGAGAGGATTC
AAGTACACCAGCTGGTCTCCCATGGGTTGCGATGCTAATGGCAGGTGCCTCTTGGCAGCACTGACCATGGACAAT
CGCCTGACCATCCAGGCAAATCTCAACAGACTGCAGTGGGTCCAGCTGGTTGACCTGACTGAGATCTATGGAGAA
CGTCTTTATGAGACCAGTTACAGGCTCTCTAAAAATGAGGCCCCGGAAGGAAATCTCGGGGATTTTGCTGAGTTT
CAGAGGAGACACAGCATGCAGACCCCAGTCAGAATGGAGTGGTCGGGCATCTGTACCACCCAGCAGGTCAAGCAT
AACAACGAATGCCGGGACGTTGGCAGTGTGCTCCTGGCTGTCCTCTTTGAAAACGGTAATATCGCCGTGTGGCAG
TTTCAGCTGCCGTTTGTAGGAAAAGAATCCATCTCTTCATGCAACACAATTGAGTCAGGAATCACCTCTCCCAGT
GTATTGTTTTGGTGGGAATATGAGCACAATAATCGAAAAATGAGTGGCCTTATTGTGGGGAGTGCTTTTGGACCC
ATAAAAATTCTTCCTGTCAATCTCAAAGCAGTCAAAGGCTATTTCACTTTAAGGCAGCCTGTTATCTTGTGGAAA
GAAATGGACCAGTTACCTGTGCACAGTATCAAATGTGTGCCACTTTATCATCCTTACCAGAAGTGTAGTTGCAGC
TTAGTAGTGGCTGCAAGAGGCTCTTATGTATTTTGGTGTCTTCTTCTGATCTCCAAAGCAGGGCTGAATGTTCAC
AATTCCCATGTCACAGGCCTTCACTCACTGCCAATTGTCTCCATGACTGCAGACAAACAGAATGGAACAGTCTAT
ACTTGCTCCAGTGACGGAAAGGTGAGGCAGCTGATTCCCATTTTCACAGATGTTGCATTGAAGTTTGAACACCAG
TTGATTAAACTCTCAGATGTGTTTGGCTCAGTGAGGACTCACGGGATAGCAGTGAGCCCCTGCGGTGCATACCTG
GCCATCATCACCACTGAGGGCATGATCAACGGCCTCCACCCTGTTAACAAAAACTACCAGGTCCAATTTGTTACT
CTCAAAACCTTTGAAGAGGCAGCTGCTCAGCTCCTGGAATCTTCAGTTCAAAACCTTTTTAAGCAGGTAGATTTA
ATAGACCTAGTACGCTGGAAGATTTTAAAAGATAAACATATCCCTCAATTTTTACAAGAAGCTTTGGAAAAAAAG
ATTGAAAGCAGTGGAGTCACCTATTTTTGGCGTTTTAAGCTTTTCCTCCTGAGGATTTTATATCAGTCAATGCAG
AAAACCCCTTCAGAAGCCTTGTGGAAACCCACCCATGAGGACTCAAAAATCTTACTAGTGGATTCGCCTGGGATG
GGCAATGCTGACGATGAACAGCAGGAAGAAGGCACTTCTTCCAAACAGGTGGTGAAGCAAGGCCTGCAGGAGAGG
AGCAAGGAAGGAGATGTAGAGGAGCCCACTGATGACTCGCTCCCCACGACTGGAGATGCTGGAGGCCGTGAGCCA
ATGGAAGAGAAACTCCTGGAAATCCAAGGGAAAATCGAAGCTGTGGAGATGCACTTGACCAGGGAACACATGAAG
CGAGTCTTAGGAGAAGTGTATCTGCACACCTGGATCACAGAAAACACTAGCATCCCCACCCGCGGACTCTGTAAC
TTTTTAATGTCTGATGAAGAGTATGATGACAGAACTGCACGGGTGCTGATTGGACATATCTCAAAGAAGATGAAC
AAACAGACTTTCCCTGAGCACTGTAGTTTGTGTAAAGAGATCTTGCCATTCACAGATCGCAAACAGGCAGTCTGT
TCCAATGGCCACATTTGGCTCCGGTGCTTCTTAACCTACCAGTCCTGCCAGAGTTTGATATATAGAAGGTGTTTG
CTCCATGACAGCATTGCCCGGCATCCAGCTCCAGAAGATCCCGACTGGATTAAGAGGTTACTGCAAAGCCCCTGC
CCTTTCTGTGATTCTCCTGTCTTC**TAA**ATAATCAGTGACGGGAAGATGGAAGGGCATGATGAACTCTGCCATAGA
AAACTTCCTCCAGCCTGAAGAGAAGGATGCACTGGAGGAAGCCGGACCCTCACGAGTGGAGAGAAGTCCTTGGTG
ATTGTAAAGAGGGCCCCTGGAGCTCATTTCTGAATCGCACTCTCCATTTCCAGAGACTAAAGGATGTCCTTTGAA
ATGGCTGGACTCAGAGAGTTGGAGTCGTTTTGAGATGAGCATTAGCCCCAGCTTTGTAACCAATGAGGAACACTT
ACTTATTTTTAAGTATCTTGACAGAAGCAATTTGAACACAGTGTCCCGTCATTTCTAGAAACAGAATGGTCTCTT
CTAGAGAGCTTGGATAAGGACCTTGCTGGGTTGAGTTAGGTTTTAATCCTTGCTTTGGTTTGGAACTGCCTTCGG
GCTCCAGAACTTAAATTGCTTGGTCCGTGGCATCTGATGTACCAACAGAGATTAAAAGTG

FIGURE 3095

AAAAAGGACAGCGAGCGGGGAGCCCCGAGGACCCCCTTTTCCCTGCCCAGGGATTGAGCTCCAGAGCCTGTTAGG
GAGCTACCCAGACAGGCTTTAGTTCCTAAAGTGCTGAGGAAACGCACGGGGCGGTAAAGGGGAGGCTCGTCGGTG
AG**ATG**GCGCCGGATCTCGCTTCTCAGAGGCATTCAGAGAGCTTCCCCAGCGTGAACTCTCGGCCGAATGTAATTT
TGCCAGGCCGCGAGGGACGCAGAGAGGGGCTGCCACCAGGCGGGGGCACGCGCGGTAGTCTTGTCCCTACCCGCC
CGGTGCCGCCGTCCCCGGCTCCCCTCGGGACGAGTCCGTACAGCTGGAGCCGTTCCGGACCCGGAAGGGGCGGTG
GCGCAGGGTCCTCGCGCGTCCCACGTGGGGTCCCGGGCCCAGCAGTCTGCGCACCGGGCTCGCTGCTGCACCACG
CGTCACCCACGCAGACCATGGCAGCCGCCGACGGTTCGCTCTTCGACAACCCCAGGACGTTCTCCAGACGTCCCC
CAGCCCAGGCGAGTCGGCAAGCAAAGGCTACGAAAAGAAAATACCAAGCGTCCAGTGAGGCTCCCCCAGCGAAAC
GGAGGAACGAAACTTCATTTCTCCCAGCCAAGAAAACTAGTGTTAAAGAAACTCAGAGGACTTTTAAGGGGAACG
CACAAAAAATGTTTTCTCCAAAGAAGCATTCGGTTAGCACAAGTGATAGAAACCAGGAGGAGAGACAGTGCATTA
AGACTTCATCACTGTTTAAAAACAACCCTGACATTCCAGAACTCCACAGACCTGTGGTAAAGCAGGTGCAAGAAA
AAGTGTTTACTTCAGCTGCTTTTCATGAGCTGGGCCTCCACCCACATTTAATTTCCACAATAAATACGGTCTTAA
AAATGTCTAGTATGACCAGTGTTCAGAAGCAAAGTATTCCTGTGTTGCTGGAAGGCAGAGATGCTCTCGTGAGAT
CCCAGACGGGCTCAGGTAAAACTCTTGCCTATTGCATCCCTGTGGTCCAGTCCCTTCAAGCAATGGAGTCAAAAA
TACAGCGCAGTGATGGCCCCTATGCCCTGGTGCTCGTGCCAACGAGAGAGCTAGCTCTACAAAGCTTTGACACTG
TCCAGAAACTGCTTAAGCCTTTCACCTGGATTGTGCCTGGAGTGTTAATGGGAGGAGAGAAGAGAAAATCAGAAA
AGGCCAGACTCCGCAAAGGAATAAATATCCTTATCTCAACTCCTGGACGCCTGGTGGATCATATAAAATCCACAA
AGAACATTCATTTTAGTCGGCTGCGGTGGTTGGTGTTTGATGAAGCAGACAGAATCTTGGATTTGGGTTTTGAAA
AGGACATCACAGTGATACTTAATGCTGTAAATGCTGAATGCCAAAAACGACAGAATGTCTTGCTATCAGCGACAC
TCACAGAAGGTGTAACGCGGCTAGCTGATATCAGTTTGCATGATCCAGTCAGTATTTCTGTCCTGGACAAGAGCC
ATGACCAGTTGAACCCAAAGGACAAAGCGGTCCAGGAGGTCTGTCCTCCACCAGCTGGCGACAAGCTGGACAGCT
TTGCAATACCAGAGAGTCTCAAGCAGCATGTGACTGTGGTTCCCAGCAAACTGAGGCTTGTCTGCCTAGCGGCCT
TCATCCTTCAGAAATGCAAGTTTGAGGAAGACCAGAAGATGGTTGTCTTTTTCTCAAGTTGCGAGCTGGTGGAGT
TCCACTACAGCCTCTTCCTACAGACCCTGCTGAGCAGCTCAGGGGCGCCGGCATCAGGGCAGTTGCCATCTGCCT
CCATGCGATTAAAATTCCTACGGCTGCATGGCGGCATGGAGCAGGAGGAAAGAACAGCAGTGTTTCAGGAATTTT
CACATTCCAGAAGAGGCGTCCTTCTTTGCACGGATGTTGCAGCTCGGGGCTTAGATCTCCCTCAAGTCACGTGGA
TTGTTCAGTACAACGCTCCATCTTCACCTGCAGAATACATCCACCGGATTGGAAGAACCGCCCGGATTGGCTGCC
ATGGGAGCAGCCTGCTCATTTTGGCTCCTTCGGAGGCAGAATATGTCAACTCGTTGGCTTCTCACAAAATCAACG
TTTCTGAGATTAAGATGGAAGATATTTTGTGTGTTCTGACAAGAGATGATTGTTTTAAAGGGAAACGATGGGGAG
CCCAGAAATCCCATGCTGTTGGCCCCCAGGAAATCCGAGAGCGAGCCACAGTCTTGCAGACGGTATTTGAAGATT
ACGTGCACTCCAGTGAGAGGAGGGTCTCCTGGGCAAAGAAAGCTCTGCAGTCCTTCATCCAAGCCTACGCCACCT
ACCCCAGGGAGCTGAAGCACATCTTCCACGTCCGATCCCTCCACCTTGGGCATGTGGCGAAGAGCTTCGGACTAA
GAGATGCCCCCAGGAATCTTAGTGCCTTGACTAGAAAGAAGAGGAAAGCACACGTGAAAAGGCCTGACCTTCATA
AGAAGACCCAGAGTAAACACAGCCTCGCTGAAATCCTACGTTCGGAATACTCAAGCGGCATGGAGGCCGACATCG
CCAAGGTCAAAAAGCAAAACGCACCTGGAGAGCCTGGTGGCCGGCCCCTGCAGCACAGTCTGCAGCCGACACCCT
GCTTTGGCCGTGGGAAAACATTAAAATGGAGAAAAACCCAAAAAGGTGTACAGCGGGACAGCAAGACTTCCCAGA
AAGTT**TAA**AATCTCTCTGGGTCTTCGAGTGGAACCTGGAAGCCCCGGGTGGCAGTGGATTGATGTCCAGTTCTTG
TCAGAGGAGGCTTGTGAAAAATAACTGCGCCTTTGCCTGAATACCACGTCCCCAAGAATCAGAGGGGCCACAGCC
CTTCTCCTCCATGGGAGGCCCTGGAGCCTGATAGAAATCAGTGGTGTGGGGCACTGTAGAGACTAGCCAGCTCCC
GACGGAAGGGGTCTGTGTCTTGTATTGATCCCATCAGTGCCCGGCACTCCCTTCACCCAGGTGCTGACGTGCCGG
GGTTGAGCTGGCACCCCGGGATGTGATGTAAGAACGCCCTGCGCGTCAGCCTGGAACGGGCTTGATTGCTGCCCT
TAACTGTGTTCTGAAGTTTCACAGCTTGGCTTCAGCCTATCAGCGCATACATTGGCATGAATTTTGTGAATTAGG
GTGTTAAAAACTGGAATTGAATTTGTACAAAAAGAGAATATATTTATCACTAATTATTTTCTTAATGTAGGAATG
TACCGTTAAAAAGGACCAAAAGTTTTTGGTCTGGGTCAAAAAATACGAATGTGTTCTCAG

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FIGURE 3096A

ATGGGGCAGCAGCCTGGAAAAGTACTTGGGGACCAAAGAAGGCCAAGCTTGCCTGCCCTGCATTTTATCAAAGGA
GCAGGGAAGAAGGAATCATCGAGGCATGGGGGTCCACACTGCAATGTTTTTGTGGAACAAGCCCTTCAGCGGCCA
GTAGCATCTGACTTTGAGCCTCAGGGTCTGAGTGAAGCCGCTCGTTGGAACTCCAAGGAAAACCTTCTCGCTGGA
CCCAGTGAAAATGACCCCAACCTTTTCGTTGCACTGTATGATTTTGTGGCCAGTGGAGATAACACTCTAAGCATA
ACTAAAGGTGAAAAGCTCCGGGTCTTAGGCTATAATCACAATGGGGAATGGTGTGAAGCCCAAACCAAAAATGGC
CAAGGCTGGGTCCCAAGCAACTACATCACGCCAGTCAACAGTCTGGAGAAACACTCCTGGTACCATGGGCCTGTG
TCCCGCAATGCCGCTGAGTATCTGCTGAGCAGCGGGATCAATGGCAGCTTCTTGGTGCGTGAGAGTGAGAGCAGT
CCTGGCCAGAGGTCCATCTCGCTGAGATACGAAGGGAGGGTGTACCATTACAGGATCAACACTGCTTCTGATGGC
AAGCTCTACGTCTCCTCCGAGAGCCGCTTCAACACCCTGGCCGAGTTGGTTCATCATCATTCAACGGTGGCCGAC
GGGCTCATCACCACGCTCCATTATCCAGCCCCAAAGCGCAACAAGCCCACTGTCTATGGTGTGTCCCCCAACTAC
GACAAGTGGGAGATGGAACGCACGGACATCACCATGAAGCACAAGCTGGGCGGGGGCCAGTACGGGGAGGTGTAC
GAGGGCGTGTGGAAGAAATACAGCCTGACGGTGGCCGTGAAGACCTTGAAGGAGGACACCATGGAGGTGGAAGAG
TTCTTGAAAGAAGCTGCAGTCATGAAAGAGATCAAACACCCTAACCTGGTGCAGCTCCTTGGGGTCTGCACCCGG
GAGCCCCCGTTCTATATCATCACTGAGTTCATGACCTACGGGAACCTCCTGGACTACCTGAGGGAGTGCAACCGG
CAGGAGGTGAACGCCGTGGTGCTGCTGTACATGGCCACTCAGATCTCGTCAGCCATGGAGTACCTGGAGAAGAAA
AACTTCATCCACAGAGATCTTGCTGCCCGAAACTGCCTGGTAGGGGAGAACCACTTGGTGAAGGTAGCTGATTTT
GGCCTGAGCAGGTTGATGACAGGGGACACCTACACAGCCCATGCTGGAGCCAAGTTCCCCATCAAATGGACTGCA
CCCGAGAGCCTGGCCTACAACAAGTTCTCCATCAAGTCCGACGTCTGGGCATTTGGAGTATTGCTTTGGGAAATT
GCTACCTATGGCATGTCCCCTTACCCGGGAATTGACCTGTCCCAGGTGTATGAGCTGCTAGAGAAGGACTACCGC
ATGGAGCGCCCAGAAGGCTGCCCAGAGAAGGTCTATGAACTCATGCGAGCATGTTGGCAGTGGAATCCCTCTGAC
CGGCCCTCCTTTGCTGAAATCCACCAAGCCTTTGAAACAATGTTCCAGGAATCCAGTATCTCAGACGAAGTGGAA
AAGGAGCTGGGGAAACAAGGCGTCCGTGGGGCTGTGAGTACCTTGCTGCAGGCCCCAGAGCTGCCCACCAAGACG
AGGACCTCCAGGAGAGCTGCAGAGCACAGAGACACCACTGACGTGCCTGAGATGCCTCACTCCAAGGGCCAGGGA
GAGAGCGATCCTCTGGACCATGAGCCTGCCGTGTCTCCATTGCTCCCTCGAAAAGAGCGAGGTCCCCCGGAGGGC
GGCCTGAATGAAGATGAGCGCCTTCTCCCCAAAGACAAAAAGACCAACTTGTTCAGCGCCTTGATCAAGAAGAAG
AAGAAGACAGCCCCAACCCCTCCCAAACGCAGCAGCTCCTTCCGGGAGATGGACGGCCAGCCGGAGCGCAGAGGG
GCCGGCGAGGAAGAGGGCCGAGACATCAGCAACGGGGCACTGGCTTTCACCCCCTTGGACACAGCTGACCCAGCC
AAGTCCCCAAAGCCCAGCAATGGGGCTGGGGTCCCCAATGGAGCCCTCCGGGAGTCCGGGGGCTCAGGCTTCCGG
TCTCCCCACCTGTGGAAGAAGTCCAGCACGCTGACCAGCAGCCGCCTAGCCACCGGCGAGGAGGAGGGCGGTGGC
AGCTCCAGCAAGCGCTTCCTGCGCTCTTGCTCCGCCTCCTGCGTTCCCCATGGGGCCAAGGACACGGAGTGGAGG
TCAGTCACGCTGCCTCGGGACTTGCAGTCCACGGGAAGACAGTTTGACTCGTCCACATTTGGAGGGCACAAAAGT
GAGAAGCCGGCTCTGCCTCGGAAGAGGGCAGGGGAGAACAGGTCTGACCAGGTGACCCGAGGCACAGTAACGCCT
CCCCCCAGGCTGGTGAAAAAGAATGAGGAAGCTGCTGATGAGGTCTTCAAAGACATCATGGAGTCCAGCCCGGGC
TCCAGCCCGCCCAACCTGACTCCAAAACCCCTCCGGCGGCAGGTCACCGTGGCCCCTGCCTCGGGCCTCCCCCAC
AAGGAAGAAGCTGGAAAGGGCAGTGCCTTAGGGACCCCTGCTGCAGCTGAGCCAGTGACCCCCACCAGCAAAGCA
GGCTCAGGTGCACCAGGGGGCACCAGCAAGGGCCCCGCCGAGGAGTCCAGAGTGAGGAGGCACAAGCACTCCTCT
GAGTCGCCAGGGAGGGACAAGGGGAAATTGTCCAGGCTCAAACCTGCCCCGCCGCCCCCACCAGCAGCCTCTGCA
GGGAAGGCTGGAGGAAAGCCCTCGCAGAGCCCGAGCCAGGAGGCGGCCGGGGAGGCAGTCCTGGGCGCAAAGACA
AAAGCCACGAGTCTGGTTGATGCTGTGAACAGTGACGCTGCCAAGCCCAGCCAGCCGGGAGAGGGCCTCAAAAAG
CCCGTGCTCCCGGCCACTCCAAAGCCACAGTCCGCCAAGCCGTCGGGGACCCCCATCAGCCCAGCCCCCGTTCCC
TCCACGTTGCCATCAGCATCCTCGGCCCTGGCAGGGGACCAGCCGTCTTCCACCGCCTTCATCCCTCTCATATCA
ACCCGAGTGTCTCTTCGGAAAACCCGCCAGCCTCCAGAGCGGATCGCCAGCGGCGCCATCACCAAGGGCGTGGTC
CTGGACAGCACCGAGGCGCTGTGCCTCGCCATCTCTAGGAACTCCGAGCAGATGGCCAGCCACAGCGCAGTGCTG
GAGGCCGGCAAAAACCTCTACACGTTCTGCGTGAGCTATGTGGATTCCATCCAGCAAATGAGGAACAAGTTTGCC
TTCCGAGAGGCCATCAACAAACTGGAGAATAATCTCCGGGAGCTTCAGATCTGCCCGGCGACAGCAGGCAGTGGT
CCAGCGGCCACTCAGGACTTCAGCAAGCTCCTCAGTTCGGTGAAGGAAATCAGTGACATAGTGCAGAGGTAGCAG
CAGTCAGGGGTCAGGTGTCAGGCCCGTCGGAGCTGCCTGCAGCACATGCGGGCTCGCCCATACCCGTGACAGTGG
CTGACAAGGGACTAGTGAGTCAGCACCTTGGCCCAGGAGCTCTGCGCCAGGCAGAGCTGAGGGCCCTGTGGAGTC

FIGURE 3096B

CAGCTCTACTACCTACGTTTGCACCGCCTGCCCTCCCGCACCTTCCTCCTCCCCGCTCCGTCTCTGTCCTCGAAT
TTTATCTGTGGAGTTCCTGCTCCGTGGACTGCAGTCGGCATGCCAGGACCCGCCAGCCCCGCTCCCACCTAGTGC
CCCAGACTGAGCTCTCCAGGCCAGGTGGGAACGGCTGATGTGGACTGTCTTTTTCATTTTTTCTCTCTGGAGCC
CCTCCTCCCCCGGCTGGGCCTCCTTCTTCCACTTCTCCAAGAATGGAAGCCTGAACTGAGGCCTTGTGTGTCAGG
CCCTCTGCCTGCACTCCCTGGCCTTGCCCGTCGTGTGCTGAAGACATGTTTCAAGAACCGCATTTCGGGAAGGGC
ATGCACGGGCATGCACACGGCTGGTCACTCTGCCCTCTGCTGCTGCCCGGGGTGGGGTGCACTCGCCATTTCCTC
ACGTGCAGGACAGCTCTTGATTTGGGTGGAAAACAGGGTGCTAAAGCCAACCAGCCTTTGGGTCCTGGGCAGGTG
GGAGCTGAAAAGGATCGAGGCATGGGGCATGTCCTTTCCATCTGTCCACATCCCCAGAGCCCAGCTCTTGCTCTC
TTGTGACGTGCACTGTGAATCCTGGCAAGAAAGCTTGAGTCTCAAGGGTGGCAGGTCACTGTCACTGCCGACATC
CCTCCCCCAGCAGAATGGAGGCAGGGGACAAGGGAGGCAGTGGCTAGTGGGGTGAACAGCTGGTGCCAAATAGCC
CCAGACTGGGCCCAGGCAGGTCTGCAAGGGCCCAGAGTGAACCGTCCTTTCACACATCTGGGTGCCCTGAAAGGG
CCCTTCCCCTCCCCCACTCCTCTAAGACAAAGTAGATTCTTACAAGGCCCTTTCCTTTGGAACAAGACAGCCTTC
ACTTTTCTGAGTTCTTGAAGCATTTCAAAGCCCTGCCTCTGTGTAGCCGCCCTGAGAGAGAATAGAGCTGCCACT
GGGCACCTGCGCACAGGTGGGAGGAAAGGGCCTGGCCAGTCCTGGTCCTGGCTGCACTCTTGAACTGGGCGAATG
TCTTATTTAATTACCGTGAGTGACATAGCCTCATGTTCTGTGGGGGTCATCAGGGAGGGTTAGGAAAACCACAAA
CGGAGCCCCTGAAAGCCTCACGTATTTCACAGAGCACGCCTGCCATCTTCTCCCCGAGGCTGCCCCAGGCCGGAG
CCCAGATACGGGGGCTGTGACTCTGGGCAGGGACCCGGGGTCTCCTGGACCTTGACAGAGCAGCTAACTCCGAGA
GCAGTGGGCAGGTGGCCGCCCCTGAGGCTTCACGCCGGGAGAAGCCACCTTCCCACCCCTTCATACCGCCTCGTG
CCAGCAGCCTCGCACAGGCCCTAGCTTTACGCTCATCACCTAAACTTGTACTTTATTTTTCTGATAGAAATGGTT
TCCTCTGGATCGTTTTATGCGGTTCTTACAGCACATCACCTCTTTGCCCCCGACGGCTGTGACGCAGCCGGAGGG
AGGCACTAGTCACCGACAGCGGCCTTGAAGACAGAGCAAAGCGCCCACCCAGGTCCCCCGACTGCCTGTCTCCAT
GAGGTACTGGTCCCTTCCTTTTGTTAACGTGATGTGCCACTATATTTTACACGTATCTCTTGGTATGCATCTTTT
ATAGACGCTCTTTTCTAAGTGGCGTGTGCATAGCGTCCTGCCCTGCCCCCTCGGGGGCCTGTGGTGGCTCCCCCT
CTGCTTCTCGGGGTCCAGTGCATTTTGTTTCTGTATATGATTCTCTGTGGTTTTTTTTGAATCCAAATCTGTCCT
CTGTAGTATTTTTTAAATAAATCAGTGTTTACATTAG

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FIGURE 3097

GGCCTGGAGTTGTGGAGTCGGATATCGCAGCTCCCGACTGAGCTGCGCCTGCGCAACTCATTGGCGCCAAGATGG
CGATGGAGATGAGGCTTCCAGTGGCTCGCAAGCCTCTTAGCGAGAGACTGGGCCGCGACACTAAGAAACATCTAG
TGGTGCCGGGGGATACAATCACTACGGACACAGGATTCATGCGGGGCCATGGAACGTATATGGGAGAAGAGAAGC
TCATTGCATCTGTTGCTGGCTCTGTGGAGAGAGTAAACAAGTTGATCTGTGTGAAAGCTTTGAAAACCAGATACA
TTGGTGAAGTAGGAGACATCGTAGTGGGACGAATCACAGAGGTTCAACAGAAGAGGTGGAAGGTGGAGACCAACT
CCAGGCTGGATTCGGTCTTGCTGCTCTCGTCCATGAACCTTCCTGGAGGAGAGCTGAGGAGAAGATCTGCAGAAG
ATGAGCTTGCAATGAGAGGTTTCTTACAGGAAGGGGACCTTATCAGTGCTGAGGTCCAGGCAGTGTTCTCTGACG
GAGCTGTCTCTTTGCACACGAGGAGCCTGAAATATGGAAAACTAGGTCAGGGGGTTTTGGTCCAGGTTTCCCCCT
CCCTGGTGAAACGGCAGAAGACCCACTTTCATGATTTGCCATGTGGTGCCTCAGTGATTCTCGGTAACAACGGCT
TCATCTGGATTTACCCAACACCTGAGCACAAAGAAGAGGAAGCAGGGGGCTTCATTGCAAACCTGGAGCCTGTCT
CTCTTGCTGATCGAGAGGTGATATCCCGGCTTCGGAACTGCATCATCTCGCTGGTAACTCAGAGGATGATGCTGT
ATGATACCAGCATCCTGTACTGCTATGAAGCATCCCTTCCACATCAGATCAAAGACATCTTAAAGCCAGAAATAA
TGGAGGAGATTGTGATGGAAACACGCCAGAGGCTTTTGGAACAGGAGGGATAAGGAGGTGCTCCAGAAGCACGGG
ACTGTGGACCTTGCAGGAGTGAAGACTGTGATGTGTGGTCCCCATATGTGGCTCAGCAAAGACTCGAGAGATCAT
CCCTTTGTCTGCATTGACGGCCCTGTGACGGCCTCCAGCCCACAGGCCTGCTTTCTCCTGTCCTAACACCAAGCC
TGGGTGGCAGATGAACAGTGCTTCCTTGGGTTGCCAGCTGAGTCCCGGTATTAGGGAATAGTTTCAGCTCTTTCA
AAGTGCACAGTGTTACAGTCGAATGGGCTCCCATCCTGGAATAATATGGAGAATCCTTTGTCTTCCACTCACTGT
CATTCACAAGGCACAGTGCCCCATGAAATTGCCCCAATAGAAAACATGGCATCCCTGACCTCCAAATGGTCTGTT
TTGGCCTCCATTCCTATATCCTTTAAATGACTGAGAATGCAGCTGGTAAAGTTGGAAGAATAAAGTTAACCAAGC
AGGCCAGGCACGGTGGCTCACGCCTATAATCCCAGCACTTAGGGAGGCCAAGGCGGGCAGATCACCTGAGGTCAA
TAGTTCGAGACCAGCCTGGCCAACAAGGTGAAACCCCATCTCTACTAAAAATACAAAAAATTAGCCAGGTGTGGT
GGTGTGCACCTGTAGTCCCAGCTATTTGGGAGGCTGAGGTGGGAGAATCACTTGAACCTGGGAGGCGGAGGTTGC
AGTGAGCTGAAATCGCGTACCACACTCCAGCCTGGGTGACAGAGCGAGACTGTGTTTCAAAGAAAAAAAAAAACA
AGCAGCCTTTTGCTTGGTTGGAATCTGATTTTCTGTTGCGTGTTCCTTGTAGCCATAGATGTGATTATGTCCACA
CCGGGCTGCCTTAATCTGTCCTGCTTGGAGAGTGACTTGTAAGATGCTGAATTATTCATGATAATACAGTGAATG
TTCTGGGTCCATGTACTCAGATAAACATGAAGAAAATAAGCAAAGAAAAATGGAGACTGGGAAAGCAAAGCTGTT
TTCATCCTATAATTGAAGTAGTGTGGAGCATTAACTTGTGGATGATTCAGAGTTAAAAGATAAAAAGACGCCAGA
GTTCTCGCTGAAGAATGTGAGAA

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FIGURE 3098

TTTCCGGCTACGGGTCCCCAAGCGGAGCGGGAGGCCGGACCGGGGAGCCGAGCGGCGGCGTCGGCGGCGTCGGCG
GCGGCGGCGACGGCGGCGGGGGCGGTA**ATG**GCGGAGCTGGTGCAGGGGCAGAGCGCTCCTGTGGGGATGAAGGCC
GAGGGCTTCGTGGATGCCCTGCACCGGGTCCGGCAGATTGCTGCTAAAATTGATTCAATTCCTCACTTGAATAAT
TCCACACCTCTAGTGGACCCCTCAGTATATGGATACGGAGTACAAAAACGGCCCTTGGATGATGGAGTAGGTAAC
CAGTTAGGGGCCTTGGTACATCAAAGGACGGTAATAACGGAAGAATTCAAAGTGCCTGACAAAATGGTTGGATTT
ATTATCGGCAGGGGAGGTGAGCAGATTTCACGGATTCAAGCAGAATCTGGTTGCAAAATTCAGATTGCTTCAGAG
AGTTCTGGGATTCCAGAGAGGCCCTGTGTACTTACCGGAACCCCAGAAAGTATTGAACAAGCCAAACGGCTCCTG
GGACAGATTGTGGACCGCTGTCGAAATGGACCTGGCTTTCATAATGACATAGACAGCAACAGCACAATCCAGGAG
ATTCTCATTCCCGCATCTAAAGTGGGTCTGGTCATCGGCAGAGGAGGGGAAACAATCAAGCAGTTGCAGGAGCGG
ACAGGGGTGAAGATGGTCATGATCCAGGATGGCCCATTGCCCACGGGAGCAGACAAGCCTCTTCGTATCACTGGA
GATGCATTTAAAGTACAGCAAGCAAGAGAAATGGTACTAGAGATTATCCGAGAAAAAGACCAAGCTGACTTTCGG
GGTGTACGCGGCGATTTCAACTCTCGAATGGGAGGAGGCAGTATAGAGGTATCTGTGCCTAGGTTTGCTGTGGGG
ATTGTAATAGGAAGAAACGGGGAAATGATCAAAAAGATCCAGAATGATGCTGGTGTGAGGATTCAGTTTAAACCA
GATGATGGGATTAGTCCAGAAAGAGCTGCCCAGGTCATGGGCCCTCCGGATCGGTGTCAGCATGCAGCGCATATC
ATCAGCGAGCTGATTCTTACAGCCCAGGAAAGAGACGGCTTTGGAGGCCTGGCAGCAGCCAGAGGAAGAGGTCGT
GGCCGTGGCGACTGGAGCGTGGGAGCCCCTGGTGGCGTCCAGGAGATAACATACACGGTGCCAGCCGATAAGTGT
GGCCTCGTCATAGGCAAAGGGGGTGAGAACATCAAAAGCATCAACCAGCAGTCAGGGGCGCACGTGGAGCTTCAG
AGGAACCCCCCTCCCAACAGCGACCCCAACCTGCGGAGATTCACCATCAGGGGGGTTCCCCAGCAGATCGAGGTG
GCCAGGCAGCTCATAGATGAGAAAGTTGGCGGGACCAATCTCGGAGCACCTGGAGCCTTCGGACAGAGTCCATTC
AGCCAGCCACCTGCCCCACCTCATCAAAATACCTTTCCTCCAAGGAGCTCCGGGTGCTTCCCAAACATGGCTGCC
AAGGTGAATGGGAACCCCCACAGCACCCCTGTGAGTGGTCCTCCGGCCTTTCTGACCCAGGGCTGGGGCAGCACC
TACCAGGCGTGGCAGCAGCCCACACAGCAGGTCCCAAGCCAGCAGAGCCAGCCGCAGAGCAGCCAGCCCAACTAC
AGCAAGGCCTGGGAAGACTATTACAAAAAACAGAGTCACGCCGCCAGCGCTGCTCCTCAGGCCAGCTCCCCACCG
GACTACACAATGGCCTGGGCAGAATATTACAGACAGCAGGTCGCTTTCTACGGACAGACGTTAGGGCAGGCGCAG
GCCCACAGCCAGGAGCAG**TAG**GACAGCGTCCTCGTGGCCAACTCTCCCCTCAAAATCATTGTCAAAGAAAACCTA
TTTGTAACAGAGGTTTTTACATTTGCAAACCTTTTGATGAAGAACTGTTGTTTTGTTCTGTGAAACACTATATTT
AGATTAACGGAATTTTTCTAAAAATCAGGAAAATTAGTTACTAAAAATTGCTGATCATTTTTGTTTCATTATTTT
TGTTATTTCAAATGTATAAGCTCTGGGATTCTTTTTGGAGCAATACCTACAAAGTCAGGCACCAGAATGTGCCTC
AGAGCTGTGACATTTCAACATGATGGTTTTGGTTTGGTTTGGTTTTGTGTCCTTTTTATTTGCAGTTTTTTCTGT
TGCAACAGAAAGTGGCTTGGAAGTCTTAGGTGGTATGTAACAAATTCTTTTTAAAAATTTTAAAGCAGTATTTAA
GTATTCTTAAATGTGTAAATTCATTTAATGTTTTACTTCTAATTTCTTGTATCTTGGCTGTCTGGTTTTATTGCA
TTTTTAAAAAAACTGAACTATTATGTATTGTAATGAATGATGTGAATTCTGAACTGAGACAGATAATTGTATTGC
TGTCCAACAGGGGTTGGGAGGGGCATTTTGTAGGGTTTGTATAATTTCTAGAGTTCGAAAGGGGTAATATAAAAA
TGTGCTCGTGTGTTTAGCCTACGTTTTTCTCATGCCTCCATTACCAGTTGCAATTGTGTATCTAAGACCTCCAAG
CTTGTTTTTAAAACAAAACAAAAAACCTTTCTCTATTATCTCAGAAATATAAATACTGTTATTTTTAATATTAAG
AAATTCAATATAACTTTTAACACACACTGTGGAACATTAAACCGTATAAAAATGTAGTTATAACTATTTTTAATT
CCAAGGTGTTGTTTGCTTTTTTCTTTTAAATATTTTCTTAATATTTTGTCAGATTAACTAGATGAATAAATAAAT
CTAGTATTAACCGCATTATGAATTAAATAATTTTGATTTAATGAAAGGGATAATATGATTTCCAGTGTTTACTGT
AGTGTATCTTGTACAGATAACATGTATTTTTAAAGGAAAAAAAACGGAATTGAAGCTATTTTTTCTTGCATTTCT
AATTGACCTGAGGGACATTCCGTTTGAAATGTACTGAAGTTACAGTTTCTGGTTTTTTCTCCTTATTTTTCTTAT
AATGCTTGAAATGTCTAACTATTAAAAAAGACAATTGGAAAATGTTATGCATGGGGTTTTTAAGAAAACAAAGTG
TTCTTTTTATTTGACTGACAATTCATTTTACACTCTATATAATAAAATCTCCACAAGGCATCTTGTGGGCAAAGT
C

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FIGURE 3099

GCGCCCCCGCCGGCGCGCCCCTGGGAGGGTGAGCCGGCGCCGGGCCCAGGCCCGGACCTGGTGGGAGGCGGGGGG
AGGTGGGGACGAGGCCTGGGGAGGCGGGCCCCGCCCATCTGCAGGTGGCTGTGAACGCTGAGCGGCTCCAGGCGG
GGGCCGGGCCCGGGGGCGGGGTCTGTGGCGCGCGTCCCCGCCACGTGTCCCCGGTCACCGGCCCTGCCCCCGGGC
CCTGTGCTTATAACCTGGGATGGGCACCCCTGCCAGTCCTGCTCTGCCGCCTGCCACCGCTGCCCGAGCCCGACG
CT**ATG**TCCAGCAAAGGCTCCGTGGTTCTGGCCTACAGTGGCGGCCTGGACACCTCGTGCATCCTCGTGTGGCTGA
AGGAACAAGGCTATGACGTCATTGCCTATCTGGCCAACATTGGCCAGAAGGAAGACTTCGAGGAAGCCAGGAAGA
AGGCACTGAAGCTTGGGGCCAAAAAGGTGTTCATTGAGGATGTCAGCAGGGAGTTTGTGGAGGAGTTCATCTGGC
CGGCCATCCAGTCCAGCGCACTGTATGAGGACCGCTACCTCCTGGGCACCTCTCTTGCCAGGCCCTGCATCGCCC
GCAAACAAGTGGAAATCGCCCAGCGGGAGGGGGCCAAGTATGTGTCCCACGGCGCCACAGGAAAGGGGAACGATC
AGGTCCGGTTTGAGCTCAGCTGCTACTCACTGGCCCCCCAGATAAAGGTCATTGCTCCCTGGAGGATGCCTGAAT
TCTACAACCGGTTCAAGGGCCGCAATGACCTGATGGAGTACGCAAAGCAACACGGGATTCCCATCCCGGTCACTC
CCAAGAACCCGTGGAGCATGGATGAGAACCTCATGCACATCAGCTACGAGGCTGGAATCCTGGAGAACCCCAAGA
ACCAAGCGCCTCCAGGTCTCTACACGAAGACCCAGGACCCAGCCAAAGCCCCCAACACCCCTGACATTCTCGAGA
TCGAGTTCAAAAAAGGGGTCCCTGTGAAGGTGACCAACGTCAAGGATGGCACCACCCACCAGACCTCCTTGGAGC
TCTTCATGTACCTGAACGAAGTCGCGGGCAAGCATGGCGTGGGCCGTATTGACATCGTGGAGAACCGCTTCATTG
GAATGAAGTCCCGAGGTATCTACGAGACCCCAGCAGGCACCATCCTTTACCATGCTCATTTAGACATCGAGGCCT
TCACCATGGACCGGGAAGTGCGCAAAATCAAACAAGGCCTGGGCTTGAAATTTGCTGAGCTGGTGTATACCGGTT
TCTGGCACAGCCCTGAGTGTGAATTTGTCCGCCACTGCATCGCCAAGTCCCAGGAGCGAGTGGAAGGGAAAGTGC
AGGTGTCCGTCCTCAAGGGCCAGGTGTACATCCTCGGCCGGGAGTCCCCACTGTCTCTCTACAATGAGGAGCTGG
TGAGCATGAACGTGCAGGGTGATTATGAGCCAACTGATGCCACCGGGTTCATCAACATCAATTCCCTCAGGCTGA
AGGAATATCATCGTCTCCAGAGCAAGGTCACTGCCAAA**TAG**ACCCGTGTACAATGAGGAGCTGGGGCCTCCTCAA
TTTGCAGATCCCCCAAGTACAGGCGCTAATTGTTGTGATAATTTGTAATTGTGACTTGTTCTCCCCGGCTGGCAG
CGTAGTGGGGCTGCCAGGCCCCAGCTTTGTTCCCTGGTCCCCCTGAAGCCTGCAAACGTTGTCATCGAAGGGAAG
GGTGGGGGGCAGCTGCGGTGGGGAGCTATAAAAATGACAATTAAAAGAGACACTAGTCTTTTATTTCTAGTGAGT
GTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG

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FIGURE 3100

ATGTGGCTGACCTTATCTGTACGAGCTTTTCCTGGGGCCCGTGGAGCGGGTAGTCCAAGCTGGGTATTAATCCTG
GAGCCAGGAAAGGCTCTGAGAAGTGAAAGAACACCACGAACAAAGTCTTCAGATGGGGCCTTTAAGCTCAGCCAG
TGTGAGGTCACCCTCACCGAGACACTCAGTGGCAGCTCCAGCCACCGCACAGCCCTCTGCAGTGATGGGAACAGG
GGACCGAGTGGACCTGCAGAGCCACGTCTGTCCCTCTGTCTGTCGACCACAGCCGGTGCCAGCAATTCAGGAGGC
CTAGTGGGCGAGGGAGGCTGGGGAAAGGACTGGAGGGGAGGCCCAGCCTTGGGCCCTGTCACACGTAGTCCAGAA
TCTCTGTCTCCATTTCGTTTTCACTGCCGTCGGATGGCT**TGA**

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FIGURE 3101

CCAGAGGCTG**ATG**CTCACCATGGGGCGCCTGCAACTGGTTGTGTTGGGCCTCACCTGCTGCTGGGCAGTGGCGAG
TGCCGCGAAGCTGGGCGCCGTGTACACAGAAGGTGGGTTCGTGGAAGGCGTCAATAAGAAGCTCGGCCTCCTGGG
TGACTCTGTGGACATCTTCAAGGGCATCCCCTTCGCAGCTCCCACCAAGGCCCTGGAAAATCCTCAGCCACATCC
TGGCTGGCAAGGGACCCTGAAGGCCAAGAACTTCAAGAAGAGATGCCTGCAGGCCACCATCACCCAGGACAGCAC
CTACGGGGATGAAGACTGCCTGTACCTCAACATTTGGGTGCCCCAGGGCAGGAAGCAAGTCTCCCGGGACCTGCC
CGTTATGATCTGGATCTATGGAGGCGCCTTCCTCATGGGGTCCGGCCATGGGGCCAACTTCCTCAACAACTACCT
GTATGACGGCGAGGAGATCGCCACACGCGGAAACGTCATCGTGGTCACCTTCAACTACCGTGTCGGCCCCCTTGG
GTTCCTCAGCACTGGGGACGCCAATCTGCCAGGTAACTATGGCCTTCGGGATCAGCACATGGCCATTGCTTGGGT
GAAGAGGAATATCGCGGCCTTCGGGGGGGACCCCAACAACATCACGCTCTTCGGGGAGTCTGCTGGAGGTGCCAG
CGTCTCTCTGCAGACCCTCTCCCCCTACAACAAGGGCCTCATCCGGCGAGCCATCAGCCAGAGCGGCGTGGCCCT
GAGTCCCTGGGTCATCCAGAAAAACCCACTCTTCTGGGCCAAAAAGGTGGCTGAGAAGGTGGGTTGCCCTGTGGG
TGATGCCGCCAGGATGGCCCAGTGTCTGAAGGTTACTGATCCCCGAGCCCTGACGCTGGCCTATAAGGTGCCGCT
GGCAGGCCTGGAGTACCCCATGCTGCACTATGTGGGCTTCGTCCCTGTCATTGATGGAGACTTCATCCCCGCTGA
CCCGATCAACCTGTACGCCAACGCCGCCGACATCGACTATATAGCAGGCACCAACAACATGGACGGCCACATCTT
CGCCAGCATCGACATGCCTGCCATCAACAAGGGCAACAAGAAAGTCACGGAGGAGGACTTCTACAAGCTGGTCAG
TGAGTTCACAATCACCAAGGGGCTCAGAGGCGCCAAGACGACCTTTGATGTCTACACCGAGTCCTGGGCCCAGGA
CCCATCCCAGGAGAATAAGAAGAAGACTGTGGTGGACTTTGAGACCGATGTCCTCTTCCTGGTGCCCACCGAGAT
TGCCCTAGCCCAGCACAGAGCCAATGCCAAGAGTGCCAAGACCTACGCCTACCTGTTTTCCCATCCCTCTCGGAT
GCCCGTCTACCCCAAATGGGTGGGGGCCGACCATGCAGATGACATTCAGTACGTTTTCGGGAAGCCCTTCGCCAC
CCCCACGGGCTACCGGCCCCAAGACAGGACAGTCTCTAAGGCCATGATCGCCTACTGGACCAACTTTGCCAAAAC
AGGGGACCCCAACATGGGCGACTCGGCTGTGCCCACACACTGGGAACCCTACACTACGGAAAACAGCGGCTACCT
GGAGATCACCAAGAAGATGGGCAGCAGCTCCATGAAGCGGAGCCTGAGAACCAACTTCCTGCGCTACTGGACCCT
CACCTATCTGGCGCTGCCCACAGTGACCGACCAGGAGGCCACCCCTGTGCCCCCCACAGGGGACTCCGAGGCCAC
TCCCGTGCCCCCCACGGGTGACTCCGAGACCGCCCCCGTGCCGCCCACGGGTGACTCCGGGGCCCCCCCCCGTGCC
GCCCACGGGTGACTCCGGGGCCCCCCCCCGTGCCGCCCACGGGTGACTCCGGGGCCCCCCCCCGTGCCGCCCACGGG
TGACTCCGGGGCCCCCCCCCGTGCCGCCCACGGGTGACTCCGGGGCCCCCCCCCGTGCCGCCCACGGGTGACTCCGG
GGCCCCCCCCCGTGCCGCCCACGGGTGACTCCGGCGCCCCCCCCCGTGCCGCCCACGGGTGACGCCGGGCCCCCCCC
CGTGCCGCCCACGGGTGACTCCGGCGCCCCCCCCCGTGCCGCCCACGGGTGACTCCGGGGCCCCCCCCCGTGACCCC
CACGGGTGACTCCGAGACCGCCCCCGTGCCGCCCACGGGTGACTCCGGGGCCCCCCCCTGTGCCCCCCACGGGTGA
CTCTGAGGCTGCCCCTGTGCCCCCCACAGATGACTCCAAGGAAGCTCAGATGCCTGCAGTCATTAGGTTT**TAG**CG
TCCCATGAGCCTTGGTATCAAGAGGCCACAAGAGTGGGACCCCAGGGGCTCCCCTCCCATCTTGAGCTCTTCCTG
AATAAAGCCTCATACCCCT

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FIGURE 3102

CACCCAGAGGCTG**ATG**CTCACCATGGGGCGCCTGCAACTGGTTGTGTTGGGCCTCACCTGCTGCTGGGCAGTGGC
GAGTGCCGCGAAGACCCCATGCTGCACTATGTGGGCTTCGTCCCTGTCATTGATGGAGACTTCATCCCCGCTGAC
CCGATCAACCTGTACGCCAACGCCGCCGACATCGACTATA**TAG**CAGGCACCAACAACATGGACGGCCACATCTTC
GCCAGCATCGACATGCCTGCCATCAACAAGGGCAACAAGAAAGTCACGGAGGAGGACTTCTACAAGCTGGTCAGT
GAGTTCACAATCACCAAGGGGCTCAGAGGCGCCAAGACGACCTTTGATGTCTACACCGAGTCCTGGGCCCAGGAC
CCATCCCAGGAGAATAAGAAGAAGACTGTGGTGGACTTTGAGACCGATGTCCTCTTCCTGGTGCCCACCGAGATT
GCCCTAGCCCAGCACAGAGCCAATGCCAAGAGTGCCAAGACCTACGCCTACCTGTTTTCCCATCCCTCTCGGATG
CCCGTCTACCCCAAATGGGTGGGGGCCGACCATAGAGATGAGATCCAGTACATCTTTGGGGAGCCCTTTGCCACC
CCACTCCGGGCTACCGGCCCCAAGACAGGACAGTCTCTAAGGCCATGACCGCCTACTGGACCAACTTTGCCAAAA
CAGGGGACCCCAACATGGGCGACTCGGCTGTGCCCACACACTGGGAACCCTACACTACGGAAAACAGCGGCTACC
TGGAGATCACCAAGAAGATGGGCAGCAGCTCCATGAAGCGGAGCCTGAGAACCAACTTCCTGCGCTACTGGACCC
TCACCTATCTGGCGCTGCCCACAGTGACCGACCAGGAGGCCAGTTCCATGCCCTCCACAGGGGACTCTGAGGCCA
CTCCCGTCTCCCCCGACAGGCAACTCCGAGTCTGCCCCCGTCCCTGCAACGGGTGACTCTCAGGATGCCCCTGTG
CCCCTCACAAGTGACTCTGAGGCTGCCCCCGTGCCCCCCTCAGGTGACTCTGAGGCTCCCCCGTACCCTACGGGT
GACTCTGAGGCCCGTGCCCACCTTGGGTGACACTGAGGCTGCCCCATCCCCGCTACGGGTGACTCTGAGGCCGCC
CCTGTGTCCCCCACAGATGACTCCGAGGAAGCTCAGATGCTGCAGTCATTAGTTTCTAGTGTCCCATCAGCCTTG
GTCTCAAGAGGCCGAGAGGGTGCAACCCCAGGGGCTCCCCTCCCATCTTGAGCTCTTCCTGAATAAAACCTCATT
CCCC

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FIGURE 3103

AGAGTCGCACGCGCAGCGGGGAAGGTGTGAGTCGTGAACGGCCCGGGTCTCCGCC**ATG**GCCTCTCTACTCGCCAA
GGACGCCTACCTGCAGAGCCTGGCCAAGAAGATCTGCTCCCATTCGGCCCCGGAACAGCAGGCGCGCACGCGGGC
TGGCAAAACTCAAGGCTCAGAAACTGCAGGGCCCCCAAAAAAGAAAAGGAAGAAAACACAAAAGAAATTCCGGAA
GCGAGAAGAGAAGGCTGCTGAGCACAAGGCCAAGTCCTTGGGGGAGAAATCTCCAGCAGCCTCTGGGGCCAGGAG
GCCTGAGGCAGCCAAAGAGGAAGCAGCTTGGGCTTCCAGCTCAGCAGGGAACCCTGCAGATGGCCTGGCCACTGA
GCCTGAGTCTGTCTTTGCTCTGGATGTTCTGCGACAGCGACTGCATGAGAAGATCCAGGAGGCCCGGGGCCAGGG
CAGTGCCAAGGAGCTGTCCCCTGCCGCCTTGGAGAAAAGGCGGCGGAGAAAGCAGGAACGGGACCGGAAGAAGAG
GAAGCGAAAGGAGCTGCGGGCGAAAGAGAAGGCCAGGAAGGCTGAGGAGGCCACGGAGGCCCAGGAGGTGGTGGA
GGCAACCCCAGAGGGGGCCTGCACGGAGCCGCGGGAGCCGCCCGGGCTGATCTTCAATAAGGTGGAGGTGAGCGA
AGACGAGCCGGCCAGCAAGGCGCAGCGCAGAAAAGAGAAGAGGCAGAGGGTGAAGGGGAACCTCACGCCGCTGAC
CGGGAGGAACTACCGGCAGCTGCTGGAGCGCCTGCAGGCACGGCAGAGCCGGCTGGACGAGCTGCGCGGCCAGGA
TGAGGGGAAGGCGCAGGAGCTGGAGGCGAAGATGAAGTGGACCAACCTCCTCTACAAGGCGGAGGGCGTGAAGAT
CCGTGACGACGAACGCCTGCTGCAGGAGGCCCTGAAGCGCAAGGAGAAGCGCAGGGCGCAGCGGCAGCGCCGGTG
GGAGAAGCGCACGGCCGGCGTGGTGGAGAAGATGCAGCAGCGCCAGGACCGGCGGCGGCAGAACCTGCGCAGGAA
GAAGGCGGCCCGCGCCGAGCGCCGCCTGCTCAGAGCCCGCAAGAAGGGCCGCATCCTGCCGCAGGACCTGGAGCG
CGCAGGCCTGGTC**TGA**GTCTTTCCCACCTGGGGCCGCCGTCTTCCGTCCTAGGAGACTCCAGGACACCCTCTGAG
TCCTTGACGCTGGCTCTGTCCCAGGATCTCCACAGACCTCGGCCTCTCCATGTGAGGGGGACACAGTGGTGCTCT
GCTGAGTTGTGAGGGCCCAGATCACAGATCCCATGTGAGAAAGAGAGAGTTTCAGCGTCATCCTTGAACGCAGGA
TCCGGGACCTTCAGACCCAGGGAAAGGGTGAGGGAGACTGGGGCCTGGTCTGCTTTCCCGGGCCTGAAAGCTTCC
CCGAGGTTTGCAGGGTCAGGGAGGAGGAACGGTGGGGGTGGGCAGTCACTGCCTGTTCCCCACTGCCTGTGTTCG
CAGGAGCCACGGGACAGAAGACGGTGGCCTCTGCTGCCGGGCCACGTTAGTCCGCAGCTCACCCGAACAGAGGAC
AACCCTGAGGTGTGGCATATGGGCACCTGGCACTGGGAGTCGGGGGAGCACGTCCAGGCGTGGTGCATCCTGGGG
CAGAACGCCATGGCTCCTCCCCGCTCTCTTGGCTTCTGCCTGTTGGGGTCTCATTCCTTTCTGTTCCCCAGTGCC
CCGGGGCGGCATTTTACTGCTCAGAATTTGGAGGGAGGGAGCAGTACCTTCCCGGAGTCCACGCATGTGAGTTGG
GTCAAGTGCATTGGACCTAGGGAAAGAGAAAGAAAGAATAAAAGCTGGAGAGAGAGTGAAGTGAATGCAAGATAA
AAAGTGGGATGGAAGAATTAAATCCAGAGTTCCAGGCAATCAAAATGAGTGCAGGTTGAAAGAAAACAGGTGAAT
TTTAGTGGCATATGGATGATAAAGCTGTAAATAAAATTCTTTTGATGAAACTCTCCGGTTACGAGACAAAGACTG
TAACTGAACAGGAGCTGGTGTGACTGTTACCAGACAGAGGCAACTGATGAAAAAGCCCTGTGAAAGATAGGATGT
GAGGTGAGCATGAGCTTGAGCTGAGAGACAGACACAACAGTATCTGAAAAGAATACATACTCTTTCCATGCATAT
ATGGAACATGGATGGAAACTGACCACCTACTTTGTCCAGAAAAGAAGTCTTAAGATATTTCAAGGAATCAGTGTC
GTTATCTGACCGTATCCCAATGTCATTAAAAAAAATTTGAGCTA

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FIGURE 3104

AAAAATCGAGGCGGGGCTGAGAGGCTGCGGCGGCTGACTAGGTTTTCGGACCGCGGCGCGGCGGGGAAGAGAGAC
TGCGGCGGGAGGGCCAGGCCGTGGGAGAGACGCGGGAAAGTGCGGGTCGCAGAGGCACTTGACCACCCCGCCCTA
GGCCGACCCGGCGGACGCGGCGTCTGGTGTGCGGGCGCTGGGGCGGGTCCCAGGTCTCCCCGCTGCGCTGCTTGA
GGCTCAGCC**ATG**GCCCAGCAGAGAGCCCTGCCCCAGAGCAAGGAGACGCTGCTGCAGTCCTACAACAAGCGGCTG
AAGGACGACATTAAGTCCATCATGGACAACTTCACCGAGATCATCAAGACCGCCAAGATTGAGGACGAGACGCAG
GTGTCACGGGCCACTCAGGGTGAACAGGACAATTACGAGATGCATGTGCGAGCCGCCAACATCGTCCGAGCCGGC
GAGTCCCTGATGAAGCTGGTGTCCGACCTCAAGCAGTTCCTGATCCTCAATGACTTCCCCTCCGTGAACGAGGCC
ATTGACCAGCGCAACCAGCAGCTGCGCACACTGCAGGAGGAGTGCGACCGGAAGCTCATCACGCTGCGAGACGAG
ATCTCCATTGACCTCTACGAGCTGGAGGAGGAGTATTACTCGTCCAGCTCAAGCCTTTGCGAAGCTAATGACCTG
CCTCTGTGCGAAGCTTACGGGAGGCTGGACCTCGACACAGACTCTGCTGATGGCCTCTCGGCCCCTCTGCTGGCG
TCCCCGGAGCCCAGTGCTGGCCCCCTACAGGTGGCAGCCCCTGCCCACTCCCATGCTGGTGGCCCTGGCCCCACT
GAGCACGCC**TGA**GCCTCCGGGGCCACGCTTCGTTCTCAGGAACAAAACCTGAGGCAGCCCTTTGGATGCCCTCAC
AGCCTTGCTTCTCTCAGCCTAGGTTCCCATTTGGGGACTTCAGGACCCCAGAGCCACTAGGACTTCCTTGGGAAG
CCCGTTAGCCCAGGGTGGGTCCCACCAGGACAGTAGGGAAACAGTTGTTTCCCTAGCCATTTCCGAATAGCCCAT
CATTCCGAGTCATCATCTCTGTTTGCTGCCTTCCTGGCCAGCCAGGTGGAAGAAAGTTTCCAAGCTAGGTCTGGC
CCGTTGGGGATCTCAGCAGTGGGGCAGGAGGGTGCCTGATTTCGGGGAGTCCTGACCCGAGCCTGTTGTCAGAGT
TGGGAGGGGCTCTGAGCAGTGTTGGGCAGGCCGGGTCTCCCATCCCGAGGCCAGCGTTCCTGTGCAGAGCCCCAT
CCACTGGTTCTTGCCCTGAGCCACATATGTCTGTGCCATGGGCTGAGTGCCACGACAGGCCCGTGTGACAGCTGC
TGCCCACGCATGTGGAAGCTAGGTGGGACTCATTCCTAATTCTGCCGTTGTAATGAGACTTGATTAAAACACCGC
CACTTTTTTGC

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FIGURE 3105

TTTCCTTTCTCTCTCCTCCCGCCGCCCAAG**ATG**CCGAAAGGAAAGAAGGCCAAGGGAAAGAAGGTGGCTCCGGCC
CCAGCTGTCGTGAAGAAGCAGGAGGCTAAGAAAGTGGTGAATCCCCTGTTTGAGAAAAGGCCTAAGAATTTTGGC
ATTGGACAGGACATCCAGCCCAAAAGAGACCTCACCCGCTTTGTGAAATGGCCCCGCTATATCAGGTTGCAGCGG
CAGAGAGCCATCCTCTATAAGCGGCTGAAAGTGCCTCCTGCGATTAACCAGTTCACCCAGGCCCTGGACCGCCAA
ACAGCTACTCAGCTGCTTAAGCTGGCCCACAAGTACAGACCAGAGACAAAGCAAGAGAAGAAGCAGAGACTGTTG
GCCCGGGCCGAGAAGAAGGCTGCTGGCAAAGGGGACGTCCCAACGAAGAGACCACCTGTCCTTCGAGCAGGAGTT
AACACCGTCACCACCTTGGTGGAGAACAAGAAAGCTCAGCTGGTGGTGATTGCACACGACGTGGATCCCATCGAG
CTGGTTGTCTTCTTGCCTGCCCTGTGTCGTAAAATGGGGGTCCCTTACTGCATTATCAAGGGAAAGGCAAGACTG
GGACGTCTAGTCCACAGGAAGACCTGCACCACTGTCGCCTTCACACAGGTGAACTCGGAAGACAAAGGCGCTTTG
GCTAAGCTGGTGGAAGCTATCAGGACCAATTACAATGACAGATACGATGAGATCCGCCGTCACTGGGGTGGCAAT
GTCCTGGGTCCTAAGTCTGTGGCTCGTATCGCCAAGCTCGAAAAGGCAAAGGCTAAAGAACTTGCCACTAAACTG
GGT**TAA**ATGTACACTGTTGAGTTTTCTGTACATAAAAATAATTGAAATAATACAAATTTTCCTTC

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FIGURE 3106

GCGTCCCGGAAGCGCCCGCGGGGCCGGGTGCG**ATG**GCGGCGGTGGCTGCGTTGCAGCTGGGGCTGCGGGCGGCGG
GGCTGGGACGGGCCCCGGCCAGCGCCGCCTGGAGGAGCGTCCTCAGGGTCTCCCCGCGCCCAGGGGTGGCCTGGA
GGCCAAGCAGATGTGGCAGTTCTGCAGCAGAAGCATCTGCCACAAAAGCGGAAGATGACTCCTTTCTTCAGTGGG
TCCTGCTCCTCATCCCTGTGACTGCCTTTGGCTTGGGGACATGGCAGGTCCAGCGTCGGAAGTGGAAGCTGAACC
TGATTGCAGAGTTGGAGTCCAGAGTTCTGGCTGAGCCTGTCCCTCTGCCAGCCGACCCAATGGAACTGAAAAATC
TGGAGTATAGGCCAGTGAAGGTCAGGGGGTGCTTTGACCATTCCAAGGAGCTGTATATGATGCCCCGGACCATGG
TGGACCCTGTCCGGGAGGCCCGGGAGGGCGGCCTCATCTCCTCCTCAACTCAGAGTGGGGCCTATGTGGTCACTC
CCTTCCACTGCACCGACCTGGGAGTCACCATCCTGGTAAATAGAGGGTTCGTTCCCAGGAAGAAAGTGAATCCTG
AAACCCGGCAGAAAGGCCAGATTGAGGGAGAAGTGGACCTCATTGGGATGGTGAGGCTGACAGAAACCAGGCAGC
CTTTTGTCCCTGAGAACAATCCAGAAAGGAACCACTGGCATTATCGAGACCTGGAAGCTATGGCCAGAATCACAG
GCGCAGAGCCCATCTTCATTGATGCCAACTTCCAGAGCACAGTCCCTGGAGGACCCATTGGAGGGCAAACCAGAG
TTACTCTGAGGAACGAGCATCTGCAGTACATCGTGACCTGGTATGGACTCTCTGCAGCTACATCCTACCTGTGGT
TTAAGAAATTCCTACGTGGGACACCTGGTGTG**TGA**CAGATCAGCTGCTGAAGCCCTGTCCCTGGATAATGCAGTA
TTTCAAGACTGCCTTTATGCTGGATCATGTGCTACTGGTATAAAGTTCTGGCCTTCTACCTT

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FIGURE 3107

GCGAGCGGCTTCCGCCGGGCTGCTCCGCGGGCGCGTCGGCC**ATG**AGCGAGTTGCCGGGCGACGTGCGGGCGTTTC
TGCGGGAGCACCCGAGCCTGCGGCTCCAGACGGACGCCCGCAAGGTGAGGTGCATCCTGACAGGTCACGAGCTGC
CCTGCCGCCTGCCGGAGCTCCAGGTCTACACCCGCGGCAAAAAGTACCAGCGGCTGGTCCGCGCCTCCCCGGCCT
TCGACTATGCAGAGTTCGAGCCGCACATCGTGCCCAGCACCAAGAACCCGCACCAGTTGTTCTGCAAACTCACCC
TGCGGCACATCAACAAGTGCCCAGAACACGTGCTGAGGCACACCCAGGGCCGGCGGTACCAGCGAGCTCTGTGTA
AATATGAAGAATGTCAGAAGCAAGGGGTGGAGTACGTGCCTGCCTGCCTGGTGCACCGGAGGAGGAGGAGGGAGG
ACCAGATGGACGGTGACGGGCCTCGCCCGCGGGAAGCCTTCTGGGAGCCCACATCCAGTGATGAGGGGGGAGCTG
CAAGTGATGACAGCATGACAGACCTGTACCCACCTGAGCTATTCACCAGAAAGGACCTTGGAAGCACGGAGGATG
GGGATGGCACTGATGACTTTTTGACAGACAAAGAGGATGAGAAGGCAAAGCCCCCAAGAGAGAAGGCCACTGATG
AGAGCAGGAGAGAGACGACCGTGTACCGAGGGCTGGTCCAGAAGCGCGGGAAGAAGCAGTTGGGCTCGTTGAAAA
AGAAGTTCAAGAGTCATCACCGCAAACCCAAGAGCTTCAGCTCCTGTAAACAGCCAGGT**TAA**TAAAAGCACATGC
CGTG

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FIGURE 3108

GGAGCCGCAGCCGACGCGGAGCGAGGCCGGCCGCCGGGCACTTCCTGTGGAGGCCGCAGCGGGTGCGGGCGCCGA
CGGGCGAGAGCCAGCGAGCGAGCGAGCGAGCCGAGCCGAGCCTCCCGCCGTCGCC**ATG**GGCCAGAACGACCTGAT
GGGCACGGCCGAGGACTTCGCCGACCAGTTCCTCCGTGTCACAAAGCAGTACCTGCCCCACGTGGCGCGCCTCTG
TCTGATCAGCACCTTCCTGGAGGACGGCATCCGTATGTGGTTCCAGTGGAGCGAGCAGCGCGACTACATCGACAC
CACCTGGAACTGCGGCTACCTGCTGGCCTCGTCCTTCGTCTTCCTCAACTTGCTGGGACAGCTGACTGGCTGCGT
CCTGGTGTTGAGCAGGAACTTCGTGCAGTACGCCTGCTTCGGGCTCTTTGGAATCATAGCTCTGCAGACGATTGC
CTACAGCATTTTATGGGACTTGAAGTTTTTGATGAGGAACCTGGCCCTGGGAGGAGGCCTGTTGCTGCTCCTAGC
AGAATCCCGTTCTGAAGGGAAGAGCATGTTTGCGGGCGTCCCCACCATGCGTGAGAGCTCCCCCAAACAGTACAT
GCAGCTCGGAGGCAGGGTCTTGCTGGTTCTGATGTTCATGACCCTCCTTCACTTTGACGCCAGCTTCTTTTCTAT
TGTCCAGAACATCGTGGGCACAGCTCTGATGATTTTAGTGGCCATTGGTTTTAAAACCAAGCTGGCTGCTTTGAC
TCTTGTTGTGTGGCTCTTTGCCATCAACGTATATTTCAACGCCTTCTGGACCATTCCAGTCTACAAGCCCATGCA
TGACTTCCTGAAATACGACTTCTTCCAGACCATGTCGGTGATTGGGGGCTTGCTCCTGGTGGTGGCCCTGGGCCC
TGGGGGTGTCTCCATGGATGAGAAGAAGAAGGAGTGG**TAA**CAGTCACAGATCCCTACCTGCCTGGCTAAGACCCG
TGGCCGTCAAGGACTGGTTCGGGGTGGATTCAACAAAACTGCCAGCTTTTATGTATCCTCTTCCCTTCCCCTCCC
TTGGTAAAGGCACAGATGTTTTGAGAACTTTATTTGCAGAGACACCTGAGAATCGATGGCTCAGTCTGCTCTGGA
GCCACAGTCTGGCGTCTGACCCTTCAGTGCAGGCCAGCCTGGCAGCTGGAAGCCTCCCCCACGCCGAGGCTTTGG
AGTGAACAGCCCGCTTGGCTGTGGCATCTCAGTCCTATTTTTGAGTTTTTTTGTGGGGGTACAGGAGGGGGCCTT
CAAGCTGTACTGTGAGCAGACGCATTGGTATTATCATTCAAAGCAGTCTCCCTCTTATTTGTAAGTTTACATTTT
TAGCGGAAACTACTAAATTATTTTGGGTGGTTCAGCCAAACCTCAAAACAGTTAATCTCCCTGGTTTAAAATCAC
ACCAGTGGCTTTGATGTTGTTTCTGCCCCGCATTGTATTTTATAGGAATAGTGAAAACATTTAGGGACACCCAAA
GAATGATGCAGTATTAAAGGGGTGGTAGAAGCTGCTGTTTATGATAAAAGTCATCGGTCAGAAAATCAGCTTGGA
TTGGTGCCAAGTGTTTTATTGGGTAACACCCTGGGAGTTTTAGTAGCTTGAGGCAAGGTGGAGGGGCAAGAAGTC
CTTGGGGAAGCTGCTGGTCTGGGTGCTGCTGGCCTCCAAGCTGGCAGTGGGAAGGGCTAGTGAGACCACACAGGG
GTAGCCCCAGCAGCAGCACCCTGCAAGCCAGCCTGGCCAGCTGCTCAGACCAGCTTGCAGAGCCGCAGCCGCTGT
GGGCAGGGGGTGTGGCAGGAGCTCCCAGCACTGGAGACCCACGGACTCAACCCAGTTACCTCACATGGGGCCTTT
TCTGAGCAAGGTCTCGAAAGCGCAGGCCGCCCTGGCTGAGCAGCACCGCCCTTTCCCAGCTGCACTCGCCCTGTG
GACAGCCCCGACACACCACTTTCCTGAGGCTGTCGCTCACTCAGATTGTCCGTTTGCTATGCCGAATGCAGCCAA
AATTCCTTTTTACAATTTGTGATGCCTTACCGATTTGATCTTAATCCTGTATTTAAAGTTTTCTAACACTGCCTT
ATACTGTGTTTCTCTTTTTGGGGGAGCTTAACTGCTTGTTGCTCCCTGTCGTCTGCACCATAGTAAATGCCACAA
GGGTAGTCGAACACCTCTCTGGCCCCTAGACCTATCTGGGGACAGGCTGGCTCAGCCTGTCTCCAGGGCTGCTGC
GGCCCAGCCCCGAGCCTGCCTCCCTCTTGGCCTCTCATCCATTGGCTCTGCAGGGCAGGGGTGAGGCAGGTTTCT
GCTCATAAGTGCTTTTGGAAGTCACCTACCTTTTTAACACAGCCGAACTAGTCCCAACGCGTTTGCAAATATTCC
CCTGGTAGCCTACTTCCTTACCCCCGAATATTGGTAAGATCGAGCAATGGCTTCAGGACATGGGTTCTCTTCTCC
TGTGATCATTCAAGTGCTCACTGCATGAAGACTGGCTTGTCTCAGTGTTTCAACCTCACCAGGGCTGTCTCTTGG
TCCACACCTCGCTCCCTGTTAGTGCCGTATGACAGCCCCCATCAAATGACCTTGGCCAAGTCACGGTTTCTCTGT
GGTCAAGGTTGGTTGGCTGATTGGTGGAAAGTAGGGTGGACCAAAGGAGGCCACGTGAGCAGTCAGCACCAGTTC
TGCACCAGCAGCGCCTCCGTCCTAGTGGGTGTTCCTGTTTCTCCTGGCCCTGGGTGGGCTAGGGCCTGATTCGGG
AAGATGCCTTTGCAGGGAGGGGAGGATAAGTGGGATCTACCAATTGATTCTGGCAAAACAATTTCTAAGATTTTT
TTGCTTTATGTGGGAAACAGATCTAAATCTCATTTTATGCTGTATTTTATATCTTAGTTGTGTTTGAAAACGTTT
TGATTTTTGGAAACACATCAAAATAAATAATGGCGTTTGTTGT

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FIGURE 3109

GCGCTTCCGGGGACTGGAGCGTGCGTGCTGAGGTATGCGCAACGCGTGCGGGGTCTCTTCCGGAGTCTTTTCCTG
GACGGGGTCCCTGCGGTGGGTGTGTTTCGGCCTGGCCTGGGCAGGCGCTTGTGCTGCCAGGGCGCCGGGCCCGGG
GAGGCCGGGGTCTCGGGTGGCCGCCGGCCCAGGCGCTGGACGGCAGCAGGATGGGGAAGGCGAAGGTCCCCGCCT
CCAAGCGCGCCCCGAGCAGCCCCGTGGCTAAGCCGGGTCCTGTCAAGACGCTCACTCGGAAGAAAAACAAGAAGA
AAAAAAGGTTTTGGAAAAGCAAGGCGCGGGAAGTAAGCAAGAAGCCAGCAAGCGGCCCCGGTGCTGTGGTGCGAC
CTCCAAAGGCACCAGAAGACTTTTCTCAAAACTGGAAGGCGCTGCAAGAGTGGCTGCTGAAACAAAAATCTCAGG
CCCCAGAAAAGCCTCTTGTCATCTCTCAGATGGGTTCCAAAAAGAAGCCCAAAATTATCCAGCAAAACAAAAAAG
AGACCTCGCCTCAAGTGAAGGGAGAGGAGATGCCGGCAGGAAAAGACCAGGAGGCCAGCAGGGGCTCTGTTCCTT
CAGGTTCCAAGATGGACAGGAGGGCGCCAGTACCTCGCACCAAGGCCAGTGGAACAGAGCACAATAAGAAAGGAA
CCAAGGAAAGGACAAATGGTGATATTGTTCCAGAACGAGGGGACATCGAGCATAAGAAGCGGAAAGCTAAGGAGG
CAGCCCCAGCCCCACCCACCGAGGAAGACATCTGGTTTGACGACGTGGACCCAGCGGATATCGAAGCTGCCATAG
GTCCAGAGGCGGCCAAGATAGCGAGGAAACAGTTGGGTCAGAGCGAGGGCAGCGTCAGCCTCAGCCTCGTGAAAG
AGCAGGCCTTCGGCGGCCTGACAAGAGCCTTAGCCTTGGACTGTGAGATGGTGGGCGTGGGCCCTAAGGGGGAGG
AGAGCATGGCCGCCCGTGTGTCCATCGTGAACCAGTATGGGAAGTGCGTTTATGACAAGTACGTCAAACCAACTG
AGCCCGTGACGGACTATAGGACAGCGGTCAGTGGGATTCGGCCTGAGAACCTCAAGCAGGGAGAAGAGCTTGAAG
TTGTTCAGAAGGAAGTGGCAGAGATGCTGAAGGGCAGAATTCTAGTGGGGCACGCTCTGCATAATGACCTAAAGG
TACTATTTCTTGATCATCCAAAAAAGAAGATTCGGGACACACAGAAATATAAACCTTTCAAGAGTCAAGTAAAGA
GTGGAAGGCCGTCTCTGAGACTACTTTCAGAGAAGATCCTTGGGCTCCAGGTCCAGCAGGCGGAGCACTGTTCAA
TTCAGGATGCCCAGGCAGCAATGAGGCTGTACGTCATGGTGAAGAAGGAGTGGGAGAGCATGGCCCGAGACAGGC
GCCCCCTGCTGACTGCTCCAGACCACTGCAGTGACGACGCCTAGCAGTCCTGCCCTGCTGCTGCTGCCGCCCCGC
TACAGAGGCAATGTGACCAGTCACAGGGACAGATCACATCTCCCCAGAGTGGCAACTCTGGTGAAACCTTTTCAG
AATCATGGCAGAGGGGCGTGGCGTGGTGCTACTGAGAAGGTCCTCCTTCCTCTTGACTTTGTGGTCTGAAACCTG
GTCTTACTGTCCATGTGTGTTTGGGCCCGGATGGTCAGGGTGGGGAGCAGGGACGGCCATGGGCACGCCTGGCCA
CGCTTTACCGACTGCTGACCCCCTGGGCCAGGTGAGGTTGGGGCCTGTGGGCCGCCAGTCCATACGGTGCTGTCA
CTGCCCATCTTCGGTGACACCCTGGGGTGAGGTGCTCAGCACCTTCCTCTCGAGGAGCCACATTTTCCTCCTTTG
TGTTAGGGGACATAACAAGCTCTGCTGGGCTTGAGGGACCCAGACCAGGTGTCTGCAGTCAGCTCCTGAGACACA
GCTGGCCGGCACAACAGGTGTTACATCAGGGGTTTCCTGTGGCCGTTTGAACTTTGAGCATTTATCTAAATTAAA
TTGGCCCAGGGTTGGCTGGTGGGTCACCCAGCAGAGGCTTCTCCCCATAGCACGAGGATGTGTTGCCTGGGCACG
GTGACTGCGGTTATTCCTGGAGGTCGGCAGACATGCCAACCTTGGGCTATTTGAGCTGGAGAAGCTATGTGATGC
TAGCCGGTGGCTTTCTGGGCTAGGCCCCAGTTTGAGGCTCCCCTGGGAACTAGAGCCAGGAACAGCCAGTGGCAC
TGACAAGGGGACGGAGTCCAAGGCGTTATTGGGCCACCTGACAGCTGGACAGAAAAGGGGCAGACACACCGAGGA
TGCGATTTAAAATAAATGCAGATGTTTACTTGG

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FIGURE 3110

ACGCGGCCGGCTACCGAGCCCTTTGTGAGGGCTGTGAGCTGCGCCTGACGGTGGCACC**ATG**AGCAGCTCAGGTGG
GGCGCCCGGGGCGTCCGCCAGCTCTGCGCCGCCCGCGCAGGAAGAGGGCATGACGTGGTGGTACCGCTGGCTGTG
TCGCCTGTCTGGGGTGCTGGGGGCAGTCTCTTGCGCGATCTCTGGCCTCTTCAACTGCATCACCATCCACCCTCT
GAACATCGCGGCCGGCGTGTGGATGATCATGAATGCCTTCATCTTGTTGCTGTGTGAGGCGCCCTTCTGCTGCCA
GTTCATCGAGTTTGCAAACACAGTGGCGGAGAAGGTGGACCGGCTGCGCTCCTGGCAGAAGGCTGTCTTCTACTG
CGGGATGGCGGTCGTTCCCATCGTCATCAGCCTGACCCTGACCACGCTGCTGGGCAACGCCATCGCCTTTGCTAC
GGGGGTGCTGTACGGACTCTCTGCTCTGGGCAAAAAGGGCGATGCGATCTCCTATGCCAGGATCCAGCAGCAGAG
GCAGCAGGCGGATGAGGAGAAGCTCGCGGAGACCCTGGAGGGGGAGCTG**TGA**AGGGCTGGGCGCCCCTCCCTCCC
TGTCCCCTCTTCTGGCTCTGTGTGGGTCCAAGTGAGGCCTGGACTGTCCACGCTGAGGCACAGCCTGGAGAGGGG
CCTTTGCACGTGTCCCTACACCTGGAGTCCTCTGCTCCTTTCTCCAGACTGGCTTAAGCCAGGAGCCACTGGCTG
CTGGTGTGAGGGTCTGGGCTGCTGGACTTGAGGCAGAGCCTGCAGCAGCTGTGTGGACACTACCCAGCCCTACTC
CTCTGCTGGGTGGGTCTGCAGATCTCACACCACAGACAGGGCTGCCTGTGACCTGCTGTGACCTGGGAGCAGCTT
CCCCTGGAGATGCTGGTCCTGGCTTGAGGGGAGGGGCAAGTGGGACCCTGCCACCTGGGCACTGAGCAGAGGGAC
CTCCCCCAGCTCTCTTAGCAGGTGGAGCCCCAGGGCCTGGGACAGCCTGCCGCTGCCAGCAACCTCCCACTGCTG
CCTAGGGTGCAGCGCCCACTGTCACCCTGCCTTCTGAAGAAGCCCACAGGGCTCCTAAGGTGCACCCCGGTACCT
GGAACTGCAGCCTTGGCAGTGACTGGACAGCTGGGTGGGGGATGCTCCCTGCTGGCCCTGGGAACCTTGGACAGG
CCACCTCAAGGCCCCTCGGCTGCCCCTCCTCCCTGGGCCTGCTGGGGCCCCTAGGTTCTGCCCATCACCCCCCGC
CCCTGCTGGCCTTGGTGCTAAGGAAGTGGGGAGAGCAGGCTCTCCCTGGCACCGAGGGTGCCCACCCTCTCCCTG
GTGTGGCCCCGTCAACATCAGCCACAGCCCAGCCCCATTAGTGGGTTAGCGGGTCTGACCTCAGCCCCACTCAGG
TGCTCCTGCTGGCCTGCCCAAGCCCTGCCCTCAGGGAGCTTCTGCCTTTTAAGAACTGGGCAGAGGCCACAGTCA
CCTCCCCACACAGAGCTGTCCCCACTGCCCTGGGTGCCAGGCTGTCCGGAGCCAGGCCTACCCAGGGAGGATGCA
GAGAGCTGGTGCCCAGGATGTGCACCCCCATATTCCCTCTGCCCTGTGGCCTCAGCCCGCTGGCCTCTCTGACCG
TGAGGCTGGCTCTCAGCCATCGGGCAGGTGCCTGGTCGGGCCTGGCTTAGCCCAGGTGGGGCTTGGCAGAAGCGG
GCGGGTGTGGAAGATATTCCATCTGGGGCCAACCCCAGGCTGGGCCTGCGCTGAGCTTCTGGAGCGCAGGTACTG
GGTCTTGCTAAGTGAACTGTTTCCCAGGAACACCTCTCGGGCCCATCTGCGTCTGAGGCTGGGAGTGGCATCTGA
GGCCGGGAGTGGCATCTGAGGCCAGGAGTGGCAGGCTGGTGGGCTGGGCGTGGGGTTTTCTGGGCCCTGCCCAGT
ACTGCCCTGGGGACTTGGTGGGCTCCTGGGTCAGCAGCATCCCACCCCTGGGAGTCTGGCCAGCTGAGCCCCAGG
GTGGCAGGGGCATTATAGCCTGGTGGACATGTGCCTTCAGGGTTCCTCCGGGGCCACCTTCCTCAGGCCAGTGCT
GGGTTCAAAGGGCTGTGTGTGTGTGTGTGTGTGTGTGTATGTATATGTGTGTGGGTGCACACATCTGTCCCAT
GTATGCAGTGAGACCTGTCTACCTCCCACAAGGAGCAAGGGCTCTGCCCGCCCTCTGCTCATTCCTACCCAGGTA
GTGGGACCCCGGGCCCCCTTCTGCCTGGCTTGCCTGCTTCTGCCCTTTCCAGAGGGGTCTCACTGACAGCCAGAG
ACAGCAGGAGAAGGGTTGGCTGTGGATCAAGGAAGGCTGCCCCTGTACCCTGTGGGGAAATGGTGGGTGCATGGC
TGGATGCAGAGGTGGAAGGCCCTGGGCCACAGGCGAGAGTGGGCGTGTCACCTGTCCCAGGTTCCCAGCAAGTCT
GCAGCTGTGCAGTCCTGGGGTCCCTGACCCTGTCGCCCAGGGGGCGTGCTGTCCAGCAGGGGCCCTGCCTTGCAA
GGAACGTCTCTTCCGGCGGCTGGGCCGCTCCTGCCTGGTCTGGGCTGTGTGTGGCGCCCTTTCCTTCTTGTTTGT
TCCTCTGTGTTCTGTGTGCGTCTTAAGCAATAAAGCGTGGCCGTGGCTCGCG

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FIGURE 3111

CTGAGCGCCCTCCGCTCGCCCCGAGAGAGACCCGGCC**ATG**CAGGAGCCGCTGCTGGGAGCCGAGGGCCCGGACTA
CGACACCTTCCCCGAGAAGCCGCCCCCGTCGCCAGGGGACAGGGCGCGGGTCGGGACCCTGCAGAACAAAAGGGT
GTTCCTGGCCACCTTCGCCGCAGTGCTCGGCAATTTCAGCTTTGGGTATGCCCTGGTCTACACATCCCCTGTCAT
CCCAGCCCTGGAGCGCTCCTTGGATCCTGACCTGCATCTGACCAAATCCCAGGCATCCTGGTTTGGGTCCGTGTT
CACCCTGGGAGCAGCGGCCGGAGGCCTGAGTGCCATGATCCTCAACGACCTCCTGGGCCGGAAGCTGAGCATCAT
GTTCTCAGCTGTGCCGTCGGCGGCCGGCTATGCGCTCATGGCGGGTGCGCACGGCCTCTGGATGCTGCTGCTCGG
AAGGACGCTGACGGGCTTCGCCGGGGGGCTCACAGCTGCCTGCATCCCGGTGTACGTGTCTGAGATTGCTCCCCC
AGGCGTTCGTGGGGCTCTGGGGGCCACACCCCAGCTCATGGCAGTGTTCGGATCCCTGTCCCTCTACGCCCTTGG
CCTCCTGCTGCCGTGGCGCTGGCTGGCTGTGGCCGGGGAGGCGCCTGTGCTCATCATGATCCTGCTGCTCAGCTT
CATGCCCAACTCGCCGCGCTTCCTGCTCTCTCGGGGCAGGGACGAAGAGGCCCTGCGGGCGCTGGCCTGGCTGCG
TGGGACGGACGTCGATGTCCACTGGGAGTTCGAGCAGATCCAGGACAACGTCCGGAGACAGAGCAGCCGAGTATC
GTGGGCTGAGGCACGGGCCCCACACGTGTGCCGGCCCATCACCGTGGCCTTGCTGATGCGCCTCCTGCAGCAGCT
GACGGGCATCACGCCCATCCTGGTCTACCTGCAGTCCATCTTCGACAGCACCGCTGTCCTGCTGCCCCCCAAGGA
CGACGCAGCCATCGTTGGGGCCGTGCGGCTCCTGTCCGTGCTGATCGCCGCCCTCACCATGGACCTCGCAGGCCG
CAAGGTGCTGCTCTTCGTCTCAGCGGCCATCATGTTTGCTGCCAACCTGACTCTGGGGCTGTACATCCACTTTGG
CCCCAGGCCTCTGAGCCCCAACAGCACTGCGGGCCTGGAAAGCGAGTCCTGGGGGGACTTGGCGCAGCCCCTGGC
AGCACCCGCTGGCTACCTCACCCTGGTGCCCCTGCTGGCCACCATGCTCTTCATCATGGGCTACGCCGTGGGCTG
GGGTCCCATCACCTGGCTGCTCATGTCTGAGGTCCTGCCCCTGCGTGCCCGTGGCGTGGCCTCAGGGCTCTGCGT
GCTGGCCAGCTGGCTCACCGCCTTCGTCCTCACCAAGTCCTTCCTGCCAGTGGTGAGCACCTTCGGCCTCCAGGT
GCCTTTCTTCTTCTTCGCGGCCATCTGCTTGGTGAGCCTGGTGTTCACAGGCTGCTGTGTGCCCGAGACCAAGGG
ACGGTCCCTGGAGCAGATCGAGTCCTTCTTCCGCATGGGGAGAAGGTCCTTCTTGCGC**TAG**GTCAAGGTCCCCGC
CTGGAGGGGGCCAAACCCCCAGTGGCTGGGCCTCTGTGTTGGCTACAAACCTGCACCCTGGGACCAAGAGGCAGC
AGTCATCCCTGCCACCAGCCAGAGCACAGGAAGAGCAGTGTGATGGGGCCTCAGCAGCGGGTGCCCCTGGCTCGG
GACAGGTAGCACTGCTGTCCAGCCACAGCCCCAGCCCAGGCAGCCCACAGTGCTGCACGTAGCCATGGGCCGCAG
GAGTGCATACAACCCTGCATCCAGGGACACGGCCCTGCTGGGTGACCTCAGGCCTAGTCCCTTTCCCTTGCGTGA
AGGACACGCCCCACAGAAGGCTACGGGGAGGACTGAGAGGACAGGGCTGGAGGCAGCCAAGTAACGTAGTCATAT
CATCGCGCTCTGATCTGGTGGCATCTGGCTGTGCAAGGAAGACCCGGCTTTGCCCTCACAAGTCTTATGGGCACC
ACAGGGAACATCCTGGACTTAAAAAGCCAGGGCAGGCCGGGCACAGTGGCTCACGCCTGTAATCCCAGCACTTTG
GGAGGCCAAAGCAGGTGGATTACCCAAGGCCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTC
TACTAAAAAATACAAAAAAGCTGGGTGTGGTGGCACACACCCGTAGTTCCAGCTACTTGGGAGGCTGAGGCAGCA
TTGCTTGAACCCGGGAGGTGGAGGCTGCAATGAGCTGAGATCATGCCATTGCACTCCAGCCTGGGCAACGAGAGT
GAAACTCCGTCCCCACCCCCTGCCAAAAAAAAAAAAAAAAAAGCCAGGGCAAAGGACCTGGCGTGGCCACTTCCT
CCTGCCCCAGCCCAACCTCTGGGAACAGGCAGCTCCTATCTGCAAACTGTGTTCACCCTTTTGTAAAAATAAAGG
AACTGGACCCGT

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FIGURE 3112

GAGAAGTGTGGGCTACCCGGCCACTGCCCTGGAGCTGTGGTGACTGCTGCGTTTTTCTCCCATGCACTTGCACGT
CCAGGACTCCTGGGAGAACTTGGGCCACACTCCTTCCTTGCCCTCTTGAGCTCATTCGTCACCCTGTTGGGTGAG
CACAGCCCTAGCTCAGGCCACTGGGCAAGCCACACCATCCAAAGAGGAGGTCCTCTGCCCCAGGACCCCCACACC
ACCCCAGCTCCCTGTTTCGCTGAGGCCTGGAGCCCCC**ATG**GCCTCACTGAGCCGAGCCCTACGTGTGGCTGCTGC
CCACCCTCGCCAGAGCCCTACCCGGGGCATGGGGCCATGCAACCTGTCCAGCGCAGCTGGCCCCACAGCCGAGAA
GAGTGTGCCATATCAGCGGACCCTGAAGGAGGGACAGGGCACCTCGGTGGTGGCCCAAGGCCCAAGCCGGCCCCT
GCCCAGCACGGCCAACGTGGTGGTCATTGGTGGAGGCAGCTTGGGCTGCCAGACCCTGTACCACCTGGCCAAGCT
GGGCATGAGTGGGGCGGTGCTGCTGGAGCGGGAGCGGCTGACCTCCGGGACCACCTGGCACACGGCAGGCCTGCT
GTGGCAGCTGCGGCCCAGTGACGTGGAGGTGGAGCTTCTGGCCCACACTCGGCGGGTGGTGAGCCGGGAGCTGGA
GGAGGAGACGGGACTACACACGGGCTGGATCCAGAATGGGGGCCTCTTCATCGCGTCCAACCGGCAGCGCCTGGA
CGAGTACAAGAGGCTCATGTCGCTGGGCAAGGCGTATGGTGTGGAATCCCATGTGCTGAGCCCGGCAGAGACCAA
GACTCTGTACCCGCTGATGAATGTGGACGACCTCTACGGGACCCTGTATGTGCCGCACGACGGTACCATGGACCC
CGCTGGCACCTGTACCACCCTCGCCAGGGCAGCTTCTGCCCGAGGAGCACAGGTCATTGAGAACTGCCCAGTGAC
CGGCATTCGTGTGTGGACGGATGATTTTGGGGTGCGGCGGGTCGCGGGTGTGGAGACTCAGCATGGTTCCATCCA
GACACCCTGCGTGGTCAACTGTGCAGGAGTGTGGGCAAGTGCTGTGGGCCGGATGGCTGGAGTCAAGGTCCCGCT
GGTGGCCATGCACCATGCCTATGTCGTCACCGAGCGCATCGAGGGGATTCAGAACATGCCCAATGTCCGTGATCA
TGATGCCTCTGTCTACCTCCGCCTCCAAGGGGATGCCTTGTCTGTGGGTGGCTATGAGGCCAACCCCATCTTTTG
GGAGGAGGTGTCAGACAAGTTTGCCTTCGGCCTCTTTGACCTGGACTGGGAGGTGTTCACCCAGCACATTGAAGG
CGCCATCAACAGGGTCCCCGTGCTGGAGAAGACAGGAATCAAGTCCACGGTCTGCGGCCCTGAATCCTTCACGCC
CGACCACAAGCCCCTGATGGGGGAGGCACCTGAGCTCCGAGGGTTCTTCCTGGGCTGTGGCTTCAACAGCGCAGG
AATGATGCTGGGTGGTGGCTGTGGGCAGGAGCTGGCCCACTGGATCATCCATGGGCGCCCGGAGAAGGACATGCA
TGGCTATGACATCAGGCGCTTCCATCACTCGCTCACGGACCACCCCCGCTGGATCCGAGAGCGAAGCCATGAGTC
CTACGCCAAGAACTACTCCGTCGTCTTCCCCCACGATGAGCCGCTGGCCGGGCGCAACATGAGGAGAGACCCGCT
GCACGAGGAACTCCTTGGACAAGGCTGCGTGTTCCAGGAGCGGCATGGCTGGGAGCGACCGGGATGGTTTCATCC
CCGAGGCCCAGCTCCGGTCCTCGAGTACGACTACTACGGGGCTTACGGGAGCCGCGCGCACGAGGACTACGCCTA
CCGCAGGCTGCTGGCAGACGAGTACACCTTCGCCTTCCCGCCCCACCACGACACGATCAAGAAGGAGTGCCTGGC
CTGCAGAGGGGCCGCCGCTGTGTTTGACATGTCCTACTTCGGGAAGTTCTACCTGGTGGGGCTGGATGCAAGGAA
GGCTGCCGACTGGCTCTTCTCCGCAGATGTCAGCCGACCCCCAGGCTCCACCGTGTACACGTGCATGCTCAACCA
CCGTGGGGGCACCGAGAGTGACCTGACTGTCAGCCGCCTGGCACCCAGCCACCAGGCCTCCCCGCTGGCCCCCGC
CTTTGAAGGGGACGGTTACTACCTGGCCATGGGCGGGGCCGTGGCCCAGCACAACTGGTCCCACATCACCACCGT
GCTGCAGGACCAGAAGTCCCAGTGCCAGCTCATCGACAGCTCCGAGGACCTGGGTATGATCAGTATCCAGGGCCC
AGCCAGCCGAGCCATTTTGCAGGAGGTGCTGGACGCAGACCTGAGCAACGAGGCCTTCCCGTTCTCCACCCACAA
GCTACTGAGAGCCGCAGGGCACCTGGTCCGAGCCATGCGGCTGTCCTTTGTCGGGGAGCTGGGCTGGGAGCTGCA
CATTCCAAAGGCGTCCTGCGTGCCTGTGTACCGGGCTGTGATGGCCGCGGGTGCCAAGCACGGCCTCATCAACGC
AGGGTACCGCGCCATTGACTCCCTGAGCATTGAGAAAGGCTACCGGCACTGGCACGCGGACCTGCGGCCAGACGA
CAGCCCCCTGGAGGCAGGCCTGGCCTTCACCTGCAAGCTCAAGTCGCCGGTGCCCTTCCTGGGGAGGGAGGCCCT
GGAGCAGCAGCGGCCGCAGGCCTCCGCCGGCGCCTGGTGTGCTTCACCATGGAGGACAAAGTACCCATGTTTGGC
CTGGAGGCCATCTGGAGGAACGGCCAAGTGGTGGGCCATGTCCGGAGGGCTGACTTTGGGTTCGCCATCGACAAG
ACCATCGCCTACGGTTACATCCATGACCCCAGCGGTGGGCCGGTCTCGCTGGACTTTG**TGA**AGAGCGGGGACTAT
GCCCTGGAGAGAATGGGGGTGACCTATGGTGCCCAGGCTCACCTGAAGTCGCCCTTCGACCCCAACAACAAGAGG
GTGAAGGGAATCTACTGAGGGCTCAGACCACATGCCCCATCCCATGCTGTCCATCCATTCTCACAGGTCCCAAAT
GGCCCTGGGTCCCAGGACCCTGGACCCAGCCAGAACTTGTGCCCTCCCTGTCCTTAGCCTAGGCCTAGTCCTGCG
AAAACCCCCAAACCAGATACGGACAGAGACCAAGATGGCCCATCCTGTGGTCACTGACTGGAAGGCAGTCTCTAA
TCCACCCCAATCCTCCCAGAAAGCAAACCTGTAAGTGTCTTGGGCTCAGGGACCATGGCTTGTAGCCCTTTCCAA
GCTTCTAGAAGGTGCTTAGTAAATACTTGATAAGCCCCACGTG

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FIGURE 3113

GGGCTCCCAGACATCACCTCTGCCCGCCGCCACCTCCTCCAACTCTCCCAGCTCAGCCGGAGCCGGAGCGCGCAA
CAACCAAGTCCGAGACTGGAGGCAGATCGGGGGGAGGGGAGAAGCGCCAAGCGCGCTGCCCTCCCAGGGAAACTC
ACTGCCGCCTACTCCCAGCCGGCCACAGTCACCAGCTCAAAATGGCGACGACGAGAAGGGAGTCGGCGCTCCGAC
CACCATCCACCTACTAAGGAAGCGCGCTCTGGCCGGCCCCGGCGATTGGTCACCGCCCGCTAGGGGACAGCCCTG
GCCTCCTCTGATTGGCAAGCGCTGGCCACCTCCCCACACCCCTTGCGAACGCTCCCCTAGTGGAGAAAAGGAGTA
GCTATTAGCCAATTCGGCAGGGCCCGCTTTTTAGAAGCTTGATTTCCTTTGAAGATGAAAGACTAGCGGAAGCTC
TGCCTCTTTCCCCAGTGGGCGAGGGAACTCGGGGCGATTGGCTGGGAACTGTATCCACCCAAATGTCACCGATTT
CTTCCTATGCAGGAAATGAGCAGACCCATCAATAAGAAATTTCTCAGCCTGGCCGAAAATGGTTGGCCCCACGAA
GCCACGACAACTGGAGGCAAAGAGGGTTGCTCAACGCCCCGCCTCATTGGAAAACCAAATCAGATCTGGGACCTA
TATAGCGTGGCGGAGGCGGGGCGATGATTGTCGCGCTCGCACCCACTGCAGCTGCGCACAGTCGCATTTCTTTCC
CCGCCCCTGAGACCCTGCAGCACCATCTGTC**ATG**GCGGCTGGGCTGTTTGGTTTGAGCGCTCGCCGTCTTTTGGC
GGCAGCGGCGACGCGAGGGCTCCCGGCCGCCCGCGTCCGCTGGGAATCTAGCTTCTCCAGGACTGTGGTCGCCCC
GTCCGCTGTGGCGGGAAAGCGGCCCCCAGAACCGACCACACCGTGGCAAGAGGACCCAGAACCCGAGGACGAAAA
CTTGTATGAGAAGAACCCAGACTCCCATGGTTATGACAAGGACCCCGTTTTGGACGTCTGGAACATGCGACTTGT
CTTCTTCTTTGGCGTCTCCATCATCCTGGTCCTTGGCAGCACCTTTGTGGCCTATCTGCCTGACTACAGGTGCAC
AGGGTGTCCAAGAGCGTGGGATGGGATGAAAGAGTGGTCCCGCCGCGAAGCTGAGAGGCTTGTGAAATACCGAGA
GGCCAATGGCCTTCCCATCATGGAATCCAACTGCTTCGACCCCAGCAAGATCCAGCTGCCAGAGGATGAG**TGA**CC
AGTTGCTAAGTGGGGCTCAAGAAGCACCGCCTTCCCCACCCCCTGCCTGCCATTCTGACCTCTTCTCAGAGCACC
TAATTAAAGGGGCTGAAAGTCTG

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FIGURE 3114A

CTTATTGATGGGTCTGCTCATTTCCTGCATAGGAAGAAATCGGTGACATTTGGGTGGATACAGTTCCCAGCCAAT
CGCCCCGAGTTCCCTCGCCCACTGGGGAAAGAGGCAGAGCTTCCGCTAGTCTTTCATCTTCAAAGGAAATCAAGC
TTCTAAAAAGCGGGCCCTGCCGAATTGGCTAATAGCTACTCCTTTTCTCCACTAGGGGAGCGTTCGCAAGGGGTG
TGGGGAGGTGGCCAGCGCTTGCCAATCAGAGGAGGCCAGGGCTGTCCCCTAGCGGGCGGTGACCAATCGCCGGGG
CCGGCCAGAGCGCGCTTCCTTAGTAGGTGGATGGTGGTCGGAGCGCCGACTCCCTTCTCGTCGTCGCCATTTTGA
GCTGGTGACTGTGGCCGGCTGGGAGTAGGCGGCAGTGAGTTTCCCTGGGAGGGCAGCGCGCTTGGCGCTTCTCCC
CTCCCCCCGATCTGCCTCCAGTCTCGGACTTGGTTGTTGCGCGCTCCGGCTCCGGCTGAGCTGGGAGAGTTGGAG
GAGGTGGCGGCGGGCAGAGGTGATGTCTGGGAGCCCTTCCTTGACAGCCCGGGCCGAGAAGAGTCCCTGCAGGAA
GCATCACCCAGGCTGGCAGATCATGGTAGCAGCAGCGGGGGTGGCTGGGAAGTGAAACGGAGCCAGCGGCTGAGG
AGGGGCCCCAGCAGCCCCCGAAGGCCCTATCAGGAC**ATG**GAGTATGAAAGACGTGGTGGTCGTGGTGACAGGACT
GGCCGCTATGGAGCCACTGACCGCTCGCAGGATGATGGTGGGGAGAACCGCAGCCGAGACCACGACTACCGGGAC
ATGGACTACCGTTCATATCCTCGCGAGTATGGCAGCCAGGAGGGCAAGCATGACTATGACGACTCATCTGAGGAG
CAGAGTGCGGAGGATTCCTACGAGGCCTCCCCGGGCTCCGAGACTCAGCGTAGGCGGCGGCGGCGGCACAGGCAC
AGCCCCACCGGCCCGCCAGGCTTCCCCCGAGACGGCGACTATCGGGACCAGGACTATCGGACCGAGCAAGGGGAG
GAGGAGGAGGAGGAGGAGGATGAGGAGGAGGAGGAGAAGGCCAGTAACATCGTCATGCTGAGGATGCTGCCACAG
GCAGCCACTGAGGATGACATCCGTGGCCAGCTGCAGTCGCACGGCGTGCAAGCACGGGAGGTTCGGCTGATGCGG
AACAAATCTTCAGGTCAGAGCCGGGGCTTCGCCTTCGTCGAGTTTAGTCACTTGCAGGACGCTACACGATGGATG
GAAGCCAATCAGCACTCCCTCAACATCCTGGGCCAGAAGGTGTCGATGCACTACAGTGACCCCAAGCCCAAGATC
AATGAGGACTGGCTGTGCAATAAGTGTGGCGTCCAGAACTTCAAACGCCGAGAGAAGTGCTTCAAATGTGGCGTG
CCCAAGTCAGAGGCAGAGCAGAAGCTGCCCCTCGGCACGAGGCTGGATCAGCAGACACTGCCACTGGGTGGCCGG
GAGCTGAGCCAGGGCCTGCTTCCCCTGCCGCAGCCCTACCAGGCCCAGGGAGTCCTGGCCTCCCAAGCCCTGTCA
CAGGGCTCGGAGCCAAGCTCAGAGAACGCCAATGACACCATCATTTTGCGCAACCTGAACCCACACAGCACCATG
GATTCCATCCTGGGGGCCCTGGCACCCTACGCGGTGCTGTCCTCCTCCAACGTGCGCGTCATAAAGGACAAGCAG
ACCCAACTGAACCGCGGCTTTGCCTTCATCCAGCTCTCCACCATCGTGGAGGCAGCCCAGCTGCTGCAGATCCTG
CAGGCCCTGCACCCACCACTCACTATCGACGGCAAGACCATCAATGTTGAGTTTGCCAAGGGTTCTAAGAGGGAC
ATGGCCTCCAATGAAGGCAGTCGCATCAGTGCTGCCTCTGTGGCCAGCACTGCCATTGCTGCGGCCCAGTGGGCC
ATCTCACAGGCCTCCCAAGGTGGGGAGGGTACCTGGGCCACCTCCGAGGAGCCGCCGGTCGACTACAGCTACTAC
CAACAGGATGAGGGCTATGGCAACAGCCAGGGCACAGAGTCTTCCCTCTATGCCCATGGCTACCTCAAGGGCACC
AAGGGCCCTGGCATCACTGGAACCAAAGGGGATCCCACTGGAGCAGGTCCCGAGGCCTCCCTAGAGCCTGGGGCC
GACTCTGTGTCGATGCAGGCTTTCTCTCGCGCCCAGCCTGGTGCTGCTCCTGGCATCTACCAACAATCAGCCGAG
GCGAGCAGTAGCCAGGGCACTGCTGCCAACAGCCAGTCGTATACCATCATGTCACCCGCTGTGCTCAAATCTGAG
CTCCAGAGCCCTACCCATCCTAGTTCTGCTCTCCCACCGGCTACCAGCCCCACTGCCCAGGAATCCTACAGCCAG
TACCCTGTTCCCGACGTCTCTACCTACCAGTACGATGAGACCTCCGGCTACTACTATGACCCCCAGACCGGCCTC
TACTATGACCCCAACTCCCAGTATTACTACAATGCTCAGAGCCAGCAGTACCTGTACTGGGATGGGGAGAGGCGG
ACCTATGTTCCCGCCCTGGAGCAGTCGGCCGACGGACATAAGGAGACAGGGGCACCCTCGAAGGAGGGCAAAGAG
AAGAAGGAGAAGCACAAGACCAAGACAGCTCAACAGATTGCCAAGGACATGGAACGCTGGGCCCGCAGTCTCAAC
AAACAAAAAGAAAACTTCAAAAATAGCTTCCAGCCTATCAGCTCCCTGCGAGATGACGAGAGGCGGGAGTCAGCC
ACTGCAGATGCTGGCTATGCCATCCTCGAGAAGAAGGGAGCACTAGCCGAGAGACAGCACACCAGCATGGATCTC
CCGAAATTGGCCAGTGACGACCGCCCAAGCCCTCCGCGAGGACTGGTGGCAGCCTACAGCGGGGAGAGTGACAGT
GAGGAGGAGCAGGAGCGTGGGGGCCCTGAGCGGGAGGAGAAGCTCACCGACTGGCAGAAGCTGGCCTGTCTGCTC
TGCCGACGCCAGTTCCCCAGCAAAGAGGCGCTCATCCGGCACCAGCAGCTCTCAGGGCTCCACAAGCAAAACCTT
GAGATTCACCGGCGAGCCCACTTGTCAGAAAACGAGCTAGAAGCACTAGAGAAGAATGACATGGAGCAAATGAAG
TACCGGGACCGTGCAGCTGAACGCAGAGAAAAGTATGGCATCCCCGAGCCGCCAGAGCCCAAGAGGAGGAAGTAC
GGCGGCATATCCACAGCCTCTGTAGACTTCGAGCAGCCTACTCGGGACGGGCTGGGCAGTGACAACATTGGCAGT
CGGATGCTGCAGGCCATGGGCTGGAAAGAGGGCAGCGGCCTGGGCCGCAAGAAGCAGGGCATTGTAACGCCTATC
GAGGCCCAAACACGGGTGCGGGGCTCCGGCCTGGGTGCACGGGGCAGCTCCTACGGGGTCACCTCAACCGAGTCC
TACAAGGAGACACTGCACAAGACAATGGTGACCCGCTTCAACGAGGCCCAG**TGA**GCAGCTTCAAGAGCAACTTCT
CCACATGTTGGGTGTCCATCCTGGGGCAGGGAAGGACAGAGTGTTGGATGGCTGGGACGGGGCCTTGCTCTTGTC

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FIGURE 3114B

GGCCAGCCCACTCCCCAGCCAGAGAGGGCTTGACCAAATCAAATTGAGGTGGTGACTTTTGTTGGAAAATTGGGC
TGGGATCACGTCCTGTTTTGTAATAAAAGCTGAAAAGTCTGC

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FIGURE 3115A

GTTCCGGCCCCAGGCTCAGCGTCCGCCATCTTGTGTCGGCGGCTCGGCTGTAAGGAGGTGGCAGGGACAACCACA
ACCACAACGGCCGGGGGAGGAGAAGGCGGCAGCGGCGATTCTAGGCGGCCCAGGCGGCGGGGAGGAGGAGAAGGA
GGAGGGTGGCGGCCGGGCTTGGCTTCGGCTCCTTGAGGAGTTGGCGGCGGCGCGACCCGGGGAACCGGCATTG**AT**
GTCCAGCTCGCCGCTGTCCAAGAAACGTCGCGTGTCCGGGCCTGATCCAAAGCCGGGTTCTAACTGCTCCCCTGC
CCAGTCCGTGTTGTCCGAAGTGCCCTCGGTGCCAACCAACGGAATGGCCAAGAACGGCAGTGAAGCAGACATAGA
CGAGGGCCTTTACTCCCGGCAGCTGTATGTGTTGGGCCATGAGGCAATGAAGCGGCTCCAGACATCCAGTGTCCT
GGTATCAGGCCTGCGGGGCCTGGGCGTGGAGATCGCTAAGAACATCATCCTTGGTGGGGTCAAGGCTGTTACCCT
ACATGACCAGGGCACTGCCCAGTGGGCTGATCTTTCCTCCCAGTTCTACCTGCGGGAGGAGGACATCGGTAAAAA
CCGGGCCGAGGTATCACAGCCCCGCCTCGCTGAGCTCAACAGCTATGTGCCTGTCACTGCCTACACTGGACCCCT
CGTTGAGGACTTCCTTAGTGGTTTCCAGGTGGTGGTGCTCACCAACACCCCCCTGGAGGACCAGCTGCGAGTGGG
TGAGTTCTGTCACAACCGTGGCATCAAGCTGGTGGTGGCAGACACGCGGGGCCTGTTTGGGCAGCTCTTCTGTGA
CTTTGGAGAGGAAATGATCCTCACAGATTCCAATGGGGAGCAGCCACTCAGTGCTATGGTTTCTATGGTTACCAA
GGACAACCCCGGTGTGGTTACCTGCCTGGATGAGGCCCGACACGGGTTTGAGAGCGGGGACTTTGTCTCCTTTTC
AGAAGTACAGGGCATGGTTGAACTCAACGGAAATCAGCCCATGGAGATCAAAGTCCTGGGTCCTTATACCTTTAG
CATCTGTGACACCTCCAACTTCTCCGACTACATCCGTGGAGGCATCGTCAGTCAGGTCAAAGTACCTAAGAAGAT
TAGCTTTAAATCCTTGGTGGCCTCACTGGCAGAACCTGACTTTGTGGTGACGGACTTCGCCAAGTTTTCTCGCCC
TGCCCAGCTGCACATTGGCTTCCAGGCCCTGCACCAGTTCTGTGCTCAGCATGGCCGGCCACCTCGGCCCCGCAA
TGAGGAGGATGCAGCAGAACTGGTAGCCTTAGCACAGGCTGTGAATGCTCGAGCCCTGCCAGCAGTGCAGCAAAA
TAACCTGGACGAGGACCTCATCCGGAAGCTGGCATATGTGGCTGCTGGGGATCTGGCACCCATAAACGCCTTCAT
TGGGGGCCTGGCTGCCCAGGAAGTCATGAAGGCCTGCTCCGGGAAGTTCATGCCCATCATGCAGTGGCTATACTT
TGATGCCCTTGAGTGTCTCCCTGAGGACAAAGAGGTCCTCACAGAGGACAAGTGCCTCCAGCGCCAGAACCGTTA
TGACGGGCAAGTGGCTGTGTTTGGCTCAGACCTGCAAGAGAAGCTGGGCAAGCAGAAGTATTTCCTGGTGGGTGC
GGGGGCCATTGGCTGTGAGCTGCTCAAGAACTTTGCCATGATTGGGCTGGGCTGCGGGGAGGGTGGAGAAATCAT
CGTTACAGACATGGACACCATTGAGAAGTCAAATCTGAATCGACAGTTTCTTTTCCGGCCCTGGGATGTCACGAA
GTTAAAGTCTGACACGGCTGCTGCAGCTGTGCGCCAAATGAATCCACATATCCGGGTGACAAGCCACCAGAACCG
TGTGGGTCCTGACACGGAGCGCATCTATGATGACGATTTTTTCCAAAACCTAGATGGCGTGGCCAATGCCCTGGA
CAACGTGGATGCCCGCATGTACATGGACCGCCGCTGTGTCTACTACCGGAAGCCACTGCTGGAGTCAGGCACACT
GGGCACCAAAGGCAATGTGCAGGTGGTGATCCCCTTCCTGACAGAGTCGTACAGTTCCAGCCAGGACCCACCTGA
GAAGTCCATCCCCATCTGTACCCTGAAGAACTTCCCTAATGCCATCGAGCACACCCTGCAGTGGGCTCGGGATGA
GTTTGAAGGCCTCTTCAAGCAGCCAGCAGAAAATGTCAACCAGTACCTCACAGACCCCAAGTTTGTGGAGCGAAC
ACTGCGGCTGGCAGGCACTCAGCCCTTGGAGGTGCTGGAGGCTGTGCAGCGCAGCCTGGTGCTGCAGCGACCACA
GACCTGGGCTGACTGCGTGACCTGGGCCTGCCACCACTGGCACACCCAGTACTCGAACAACATCCGGCAGCTGCT
GCACAACTTCCCTCCTGACCAGCTCACAAGCTCAGGAGCGCCGTTCTGGTCTGGGCCCAAACGCTGTCCACACCC
GCTCACCTTTGATGTCAACAATCCCCTGCATCTGGACTATGTGATGGCTGCTGCCAACCTGTTTGCCCAGACCTA
CGGGCTGACAGGCTCTCAGGACCGAGCTGCTGTGGCCACATTCCTGCAGTCTGTGCAGGTCCCCGAATTCACCCC
CAAGTCTGGCGTCAAGATCCATGTTTCTGACCAGGAGCTGCAGAGCGCCAATGCCTCTGTTGATGACAGTCGTCT
AGAGGAGCTCAAAGCCACTCTGCCCAGCCCAGACAAGCTCCCTGGATTCAAGATGTACCCCATTGACTTTGAGAA
GGATGATGACAGCAACTTTCATATGGATTTCATCGTGGCTGCATCCAACCTCCGGGCAGAAAACTATGACATTCC
TTCTGCAGACCGGCACAAGAGCAAGCTGATTGCAGGGAAGATCATCCCAGCCATTGCCACGACCACAGCAGCCGT
GGTTGGCCTTGTGTGTCTGGAGCTGTACAAGGTTGTGCAGGGGCACCGACAGCTTGACTCCTACAAGAATGGTTT
CCTCAACTTGGCCCTGCCTTTCTTTGGTTTCTCTGAACCCCTTGCCGCACCACGTCACCAGTACTATAACCAAGA
GTGGACATTGTGGGATCGCTTTGAGGTACAAGGGCTGCAGCCTAATGGTGAGGAGATGACCCTCAAACAGTTCCT
CGACTATTTTAAGACAGAGCACAAATTAGAGATCACCATGCTGTCCCAGGGCGTGTCCATGCTCTATTCCTTCTT
CATGCCAGCTGCCAAGCTCAAGGAACGGTTGGATCAGCCGATGACAGAGATTGTGAGCCGTGTGTCGAAGCGAAA
GCTGGGCCGCCACGTGCGGGCGCTGGTGCTTGAGCTGTGCTGTAACGACGAGAGCGGCGAGGATGTCGAGGTTCC
CTATGTCCGATACACCATCCGC**TGA**CCCCGTCTGCTCCTCTAGGCTGGCCCCTTGTCCACCCCTCTCCACACCCC
TTCCAGCCCAGGGTTCCCATTTGGCTTCTGGCAGTGGCCCAACTAGCCAAGTCTGGTGTTCCCTCATCATCCCCC
TACCTGAACCCCTCTTGCCACTGCCTTCTACCTTGTTTGAAACCTGAATCCTAATAAAGAATTAATAACTCCCAC

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FIGURE 3115B

ATCGCCTGCCCTGCTGGTTCCAGGGAAGGAAGGGACTTCCTGGA

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FIGURE 3116

GGAGGGGGCAGTTGGGCGGGGATAGGCCGTCCTAGCTAAGGTGGTAAAGGCCAATAACTCTTCAGGCTGCCTCTC
CTCGAAAAGTCATCTTCTCGCGAACCTTTAAAATGCCTTCCTCCCCAAGCACCTCAAGGGACTAGAACTGAGTGC
TTCATTTGTCTTTTTTCCTCCTTGCAAAAGTCCCGTTTGCCACCATGGGGATGTACCAAGTGAGACCGAGTAGGG
GGAACGAGTGGTGATTGACGCGCCAGGTTACTGGCCACTGCTCACCTAGGCGCTAGCAAACTTCTGCCAAGATCG
GAACTGAGTACTAAACAGCCTCCACAGTTCTCCCTGGTGCCGTCTCCGGCTTGGCGCCGCATCCTCCTCTGGGCT
CGCGATGGCCGCGTCCCCTCCCGCTGCGGACGGGTCCTTTGGTACATGCAGTCCGAGATCGCCATGGATCGGATG
AAGAAGATCAAACGGCAGCTGTCAATGACACTCCGAGGTGGCCGAGGCATAGACAAGACCAATGGTGCCCCTGAG
CAGATAGGCCTGGATGAGAGTGGTGGTGGTGGCGGCAGTGACCCTGGAGAGGCCCCCACACGTGCTGCTCCTGGG
GAACTTCGTTCTGCACGGGGCCCACTCAGCTCTGCACCAGAGATTGTGCACGAGGACTTGAAGATGGGGTCTGAT
GGGGAGAGTGACCAGGCTTCAGCCACGTCCTCGGATGAGGTGCAGTCTCCAGTGAGAGTGCGTATGCGCAACCAT
CCCCCACGCAAGATCTCCACTGAGGACATCAACAAGCGCCTATCACTACCAGCTGACATCCGGCTGCCTGAGGGC
TACCTGGAGAAGCTGACCCTCAATAGCCCCATCTTTGACAAGCCCCTCAGCCGCCGCCTCCGTCGTGTCAGCCTA
TCTGAGATTGGCTTTGGGAAACTGGAGACCTACATTAAGCTGGACAAACTGGGCGAGGGTACCTATGCCACCGTC
TACAAAGGCAAAAGCAAGCTCACAGACAACCTTGTGGCACTCAAGGAGATCAGACTGGAACATGAAGAGGGGGCA
CCCTGCACCGCCATCCGGGAAGTGTCCCTGCTCAAGGACCTCAAACACGCCAACATCGTTACGCTACATGACATT
ATCCACACGGAGAAGTCCCTCACCCTTGTCTTTGAGTACCTGGACAAGGACCTGAAGCAGTACCTGGATGACTGT
GGGAACATCATCAACATGCACAACGTGAAACTGTTCCTGTTCCAGCTGCTCCGTGGCCTGGCCTACTGCCACCGG
CAGAAGGTGCTACACCGAGACCTCAAGCCCCAGAACCTGCTCATCAACGAGAGGGGAGAGCTCAAGCTGGCTGAC
TTTGGCCTGGCCCGAGCCAAGTCAATCCCAACAAAGACATACTCCAATGAGGTGGTGACACTGTGGTACCGGCCC
CCTGACATCCTGCTTGGGTCCACGGACTACTCCACTCAGATTGACATGTGGGGTGTGGGCTGCATCTTCTATGAG
ATGGCCACAGGCCGTCCCCTCTTTCCGGGCTCCACGGTGGAGGAACAGCTACACTTCATCTTCCGTATCTTAGGA
ACCCCAACTGAGGAGACGTGGCCAGGCATCCTGTCCAACGAGGAGTTCAAGACATACAACTACCCCAAGTACCGA
GCCGAGGCCCTTTTGAGCCACGCACCCCGACTTGATAGCGACGGGGCCGACCTCCTCACCAAGCTGTTGCAGTTT
GAGGGTCGAAATCGGATCTCCGCAGAGGATGCCATGAAACATCCATTCTTCCTCAGTCTGGGGGAGCGGATCCAC
AAACTTCCTGACACTACTTCCATATTTGCACTAAAGGAGATTCAGCTACAAAAGGAGGCCAGCCTTCGGTCTTCG
TCGATGCCTGACTCAGGCAGGCCAGCTTTCCGCGTGGTGGACACCGAGTTCTAAGCCACAGACCGAGGCCCCAGC
AGGCAGCGGCTGGAGGGATGCCACACCCCTCACAGGGCAGCCCCCAACTACATCTTCCCTGCTTACTCTCTGCCT
ACCTGCCTGAGCCATGTTCACCTGCCCACTTGTCCCCTGCTGCCTGCCCAAACACCCCACCATTGGCCTGTCAAC
CCACCCATTGGCCTGTCTGCTGGGTGCTAACAAAGCTCTCATCACTCCTTCACTTGGTCTGTCTGTCTCTGTCTT
GGTAGTTGCCGGTGGACAGCATGGCCGTGCCAGCCTCCCACACTGAGGCCAGGTCTACCCCCCATCATACCAGCC
CCCAGGACCACTACCCCACGGCCAGCCAGGGGTCCAGAGCTAGCCCAGGCTGGGGATCTCGACTCAGACAAGATG
GTGACAATGCCTTGAGTCTGAGGCATCCTCTGCCTGCTTTCCTGCCTGCCCCACCTGCCTCATATTGTGTGGGCC
TTTTTTTGTTTGTTTCATTCATTGTTTTTTTTTTTTTAATTATTTTAAATGAGATTTTTGTTTTTTTTAAATGCA
ATATCTCTGTATACAGACTGGCTGGGCCCCACCCCCTGCGTGTGGCCCTCCCACAGTATTTTGTGCAATGAAGCC
CTGCTCCCAGCCTTTCAGAGACAGGGACACAGCCCCTATTTGGAACCCTGATCATCACCAGACCCTGGGATTGGC
TATGGGAAAGCATGCCACAGCCACTCGCCTTCCTACCCCCGCCCGCCATCCCCAGTTGCAGGGGGATCTGGGGAC
TACCAGAGACTCTGGGAAATGGACAAGGTGGGGGGCCCCACTCTTTCTCTCCTGCAGTCCCGTAGCTGGGGCCTC
CTTCCTTCTCAGGGTCTCCCCAGCCCAGTCCCCTTGCTCCCATCCCACTCGGTGCTGTTGGGTAGGGGCCCTGCC
AGGAACTGACCAGCTCAGCGAGGAGCCATAATGTGCATATGTGCACAAGCAGGGTTGGGGGAGGGGGGTGTGAGG
GGTTGTGCCCAGGTGTTGCCCCCTATCTCCTGGGGAGGGTGAGGCAGGGCAGGGACAGTCTCCAGGGTCAGTCCC
TGGATGGGTGGTTACCTCCCCTTCCTCCACCCTAAGCCCTGGGGCCCTGAAATGGGGTGGGAGGGCAGGGGTGGG
AGCCCTCCTAGTGGGTTTGGGGGGTTGGGTTCCTGAATGCACCATAATCGCTGTATGAAATATTAAAAAGTCTAA
AGTG

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FIGURE 3117

CAGCTGCTGCTGCGGCGGCTGTGGCGGCGGCAGCGGCGGTGACTGAGGATAGAGAGCCACAGCACGAGGAGCTGC
CAGGCCTGGACAGCCAGTGGCGCCAGATAGAAAACGGCGAGAGTGGGCGAGAACGTCCACTGCGGGCCGGCGAAA
GCTGGTTCCTTGTGGAGAAGCACTGGTATAAGCAGTGGGAGGCATACGTGCAGGGAGGGGACCAGGACTCCAGCA
CCTTCCCTGGCTGCATCAACAATGCCACACTCTTTCAAGATGAGATAAACTGGCGCCTCAAGGAGGGACTGGTGG
AAGGCGAGGATTATGTGCTGCTCCCAGCAGCTGCTTGGCATTACCTGGTCAGCTGGTATGGTCTAGAGCATGGCC
AGCCACCCATTGAACGCAAGGTCATAGAGCTGCCCAACATCCAGAAGGTCGAAGTGTACCCAGTAGAACTGCTGC
TTGTCCGGCACAATGATTTGGGCAAATCTCACACTGTTCAGTTCAGCCATACCGATTCTATTGGCCTAGTATTGC
GCACAGCTCGGGAGCGGTTTCTGGTGGAGCCCCAGGAAGACACTCGGCTTTGGGCCAAGAACTCAGAAGGCTCTT
TGGATAGGTTGTATGACACACACATCACGGTTCTCGATGCGGCCCTTGAGACTGGGCAGTTGATCATC**ATG**GAGA
CCCGCAAGAAAGATGGCACTTGGCCCAGCGCACAGCTGCATGTCATGAACAACAACATGTCGGAAGAGGATGAGG
ACTTCAAGGGTCAGCCAGGCATCTGTGGCCTCACCAATCTGGGCAACACGTGCTTCATGAACTCGGCCCTGCAGT
GCCTCAGCAATGTGCCACAGCTCACCGAGTACTTCCTCAACAACTGCTACCTGGAGGAGCTCAACTTCCGCAACC
CACTGGGCATGAAGGGTGAGATCGCAGAGGCCTATGCAGACCTGGTGAAGCAGGCGTGGTCTGGCCACCACCGCT
CCATTGTGCCACATGTGTTCAAGAACAAGGTTGGCCATTTTGCATCCCAATTTCTGGGCTACCAGCAGCATGACT
CTCAGGAGCTGCTGTCATTCCTCCTGGACGGGCTGCATGAGGACCTTAATCGGGTGAAGAAGAAGGAGTATGTGG
AGCTGTGCGATGCTGCTGGGCGACCGGATCAGGAGGTGGCACAGGAGGCATGGCAAAACCACAAACGGCGGAACG
ATTCTGTGATCGTGGACACTTTCCACGGCCTCTTCAAGTCCACGCTGGTGTGCCCCGATTGTGGCAATGTATCTG
TGACCTTCGACCCCTTCTGCTACCTCAGTGTTCCACTGCCTATCAGCCACAAGAGGGTCTTGGAGGTCTTCTTTA
TCCCCATGGATCCGCGCCGCAAGCCAGAGCAGCACCGGCTCGTGGTCCCCAAGAAAGGCAAGATCTCGGATCTAT
GTGTGGCTCTGTCCAAACACACGGGCATCTCGCCAGAGAGGATGATGGTGGCTGATGTCTTCAGTCACCGCTTCT
ATAAGCTCTATCAGCTAGAGGAGCCTCTGAGCAGCATCTTGGACCGTGATGATATCTTCGTCTATGAGGTGTCAG
GTCGCATTGAGGCCATTGAGGGCTCAAGAGAGGACATCGTGGTTCCTGTCTACCTGCGGGAGCGCACCCCTGCCC
GTGACTACAACAACTCCTACTACGGCCTGATGCTTTTTGGACACCCCCTCCTGGTATCAGTGCCCCGGGACCGCT
TCACCTGGGAGGGCCTGTATAACGTCCTGATGTACCGGCTCTCACGCTACGTGACCAAACCCAACTCAGATGATG
AGGACGATGGGGATGAGAAAGAAGATGACGAGGAGGATAAAGATGACGTCCCTGGGCCCTCAACTGGGGGCAGCC
TCCGAGACCCTGAGCCAGAGCAGGCTGGGCCCAGCTCTGGAGTCACGAACAGGTGCCCGTTCCTCCTGGACAATT
GCCTTGGCACATCTCAGTGGCCCCCAAGGCGACGACGCAAGCAGCTGTTCACCCTGCAGACGGTGAACTCCAATG
GGACCAGCGACCGCACAACCTCCCCTGAAGAAGTCCATGCCCAGCCGTACATTGCTATCGACTGGGAGCCAGAGA
TGAAGAAGCGTTACTATGACGAGGTAGAGGCTGAGGGCTACGTGAAGCATGACTGCGTCGGGTACGTGATGAAGA
AGGCTCCCGTGCGGCTGCAGGAGTGCATTGAGCTCTTCACCACTGTGGAGACCCTGGAGAAGGAAAACCCCTGGT
ACTGCCCTTCCTGCAAGCAGCACCAGCTGGCAACCAAGAAGCTGGACCTGTGGATGCTGCCGGAGATTCTCATCA
TCCACCTGAAACGCTTTTCCTACACCAAGTTCTCCCGAGAGAAGCTGGACACCCTCGTGGAGTTTCCTATCCGGG
ACCTGGACTTCTCTGAGTTTGTCATCCAGCCACAGAATGAGTCGAATCCGGAGCTGTACAAATATGACCTCATCG
CGGTTTCCAACCATTATGGGGGCATGCGTGATGGACACTACACAACATTTGCCTGCAACAAGGACAGCGGCCAGT
GGCACTACTTTGATGACAACAGCGTCTCCCCTGTCAATGAGAATCAGATCGAGTCCAAGGCAGCCTATGTCCTCT
TCTACCAACGCCAGGACGTGGCGCGACGCCTGCTGTCCCCGGCCGGCTCATCTGGCGCCCCAGCCTCCCCTGCCT
GCAGCTCCCCACCCAGCTCTGAGTTCATGGATGTTAAT**TGA**GAGCCCTGGGTCCTGCCACAGAAAAAAAAAAAAA
AAAGCCCTCTCTGCAATCTCGCTTCTCGTGTCCGCCCCGCTTCTCTTATTCGTGTTAGGTGCCCCCGCCAGGCAT
TGCAGGCTTAGTCGTGGCTACTGTTCTCCTGTGCCGCTGCATCGCTCTCTCCCGGGAAAGAACAGGTCGTGTCTC
CTCCTAGCAGTGCGCGCCCCGCCTGTGTTTGCCCTTCCAGCAGTGACCCTCCCTTCTAGTCTTTATTTATGGTCG
TGCCCTTCCCTCTCCTCAGCCCAGAGTGTTCTGCGTGGGTGGTGATGGGGGTTCACCTGAACACAGAGTGTATTT
TCTTATTGAGGCCCTGTACCTTCTGCTGTGTGTGTGTATATATAAAGCACCAGTCTGCTCCCC

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FIGURE 3118

AGCTTCCAGCTTGGGGAAGAGTGGGGTTGTCAGCAGGAGAGCCTGAGGGCTGAGGCCCAGCGTGAACATGGCAGC
TAATGGGGACTCTCCCCCATGGTCCCCGGCCCTGGCTGCAGAGGGACGTGGCAGCTCATGTGAGGTGAGGAGGGA
GAGGACCCCAGAGGCAAGAATTCATTCAGTGAAGAGATACCCTGACCTGTCCCCAGGGCCTAAGGGCAGAAGCAG
TGCTGACCATGCTGCCTTGAACAGCATTGTGTCGTTACAGGCTTCAGTGTCATTTGAGGACGTGACTGTGGACTT
CAGCAAGGAGGAGTGGCAGCACTTGGACCCTGCCCAGAGACGCCTGTACTGGGATGTGACACTAGAGAACTACAG
CCACCTGCTCTCAGTGGGGTACCAAATTCCCAAGTCAGAGGCTGCCTTCAAGTTGGAGCAAGGAGAGGGGCCATG
GATGCTGGAGGGGGAAGCCCCACATCAGAGCTGTTCAGGTGAGGCTATTGGGAAAATGCAGCAACAGGGAATTCC
TGGAGGAATTTTCTTCCACTGTGAGAGATTTGATCAACCCATAGGAGAAGATTCATTATGTTCTATTTTAGAAGA
ACTGTGGCAAGATAATGACCAGCTAGAGCAACGTCAGGAAAACCAGAATAACCTTTTAAGTCATGTGAAAGTATT
GATTAAGGAGAGGGGCTATGAACATAAAAACATTGAAAAAATAATTCATGTGACTACCAAGCTTGTTCCTTCAAT
TAAAAGACTCCATAACTGTGACACAATTTTGAAGCATACTTTAAACTCACATAATCATAATAGAAACAGTGCAAC
AAAGAACCTTGGCAAGATTTTTGGAAATGGTAACAATTTCCCCCATAGCCCTTCCTCTACTAAGAATGAGAATGC
TAAAACAGGAGCAAATTCCTGTGAACATGACCACTATGAAAAACATCTCAGCCACAAACAAGCTCCCACCCACCA
TCAGAAAATTCATCCTGAGGAGAAGCTTTATGTGTGTACTGAATGTGTAATGGGCTTCACTCAGAAGTCACATCT
GTTTGAGCATCAGAGAATTCATGCTGGAGAAAAGTCCCGTGAATGTGACAAAAGCAACAAAGTCTTCCCCCAGAA
ACCCCAGGTTGATGTACATCCAAGTGTTTATACAGGAGAAAAACCCTATCTGTGTACTCAATGTGGGAAAGTCTT
TACCCTCAAATCAAACCTCATTACACATCAAAAAATTCATACCGGGCAGAAACCCTACAAATGCAGTGAATGTGG
AAAAGCCTTTTTCCAGAGATCAGACCTCTTTAGACATCTGAGAATTCATACAGGAGAAAAACCTTATGAATGCAG
TGAATGTGGAAAAGGCTTCTCCCAGAACTCAGACCTCAGTATACATCAGAAAACTCATACCGGAGAGAAACACTA
TGAATGCAATGAATGTGGGAAGGCTTTCACAAGAAAATCAGCACTCAGGATGCATCAGAGAATCCACACGGGAGA
GAAACCTTATGTATGCGCTGACTGTGGGAAGGCCTTCATCCAGAAATCACATTTCAACACACATCAGAGAATTCA
TACTGGAGAAAAGCCGTATGAATGCAGTGACTGTGGGAAATCCTTCACTAAGAAGTCACAACTCCATGTGCATCA
AAGAATTCACACCGGAGAGAAACCCTATATATGTACAGAATGTGGAAAGGTCTTCACTCACAGGACAAACCTCAC
CACACATCAGAAAACTCATACTGGGGAAAAACCCTATATGTGTGCTGAATGTGGAAAGGCTTTTACTGACCAGTC
AAATCTCATTAAACACCAGAAAACTCACACTGGAGAGAAACCCTATAAGTGCAATGGCTGTGGAAAAGCCTTCAT
ATGGAAGTCGCGCCTCAAAATACATCAGAAATCTCATATTGGAGAGAGACACTATGAATGCAAGGACTGCGGGAA
AGCCTTCATCCAGAAATCAACACTAAGCGTGCATCAGAGAATCCATACAGGAGAGAAACCGTACGTTTGTCCTGA
ATGCGGGAAGGCCTTTATCCAGAAATCGCACTTCATTGCGCATCATAGAATCCATACTGGAGAGAAGCCTTATGA
ATGCAGCGACTGTGGGAAATGCTTCACTAAGAAGTCACAACTCCGTGTGCATCAGAAAATCCACACAGGTGAGAA
GCCCAATATATGTGCTGAATGTGGAAAGGCCTTCACTGACCGATCAAATCTCATAACACATCAGAAAATCCACAC
TAGGGAGAAACCCTATGAATGTGGTGACTGCGGGAAAACCTTCACCTGGAAGTCACGCCTCAATATACATCAGAA
GTCTCATACTGGAGAAAGACACTATGAATGTAGTAAATGTGGGAAAGCTTTCATCCAGAAAGCCACACTAAGTAT
GCATCAGATAATTCATACAGGAAAGAAACCTTATGCTTGTACAGAATGTCAGAAGGCCTTTACTGACAGATCGAA
TCTCATTAAACACCAGAAAATGCATAGTGGAGAAAAACGCTATAAAGCCAGTGACTGAGAAAGTCTTCACCTGGA
AATCACAACTGGGTATGCATCAGGTATCTAATAGCAGGGAGGAGGAAGGCCTGTTGC

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FIGURE 3119

TGGCGGCGGGGGCGAGGTGAGATGTTGGCAGTGGAAAGGGGTTCGGGCTCGGGGGGCGGGGGGACGCGGAGCGATG
GCCCCGCGCGGCCGCAGGGGCGGATAAAAAGCCGTCGCGCTGCGGGAGTGGGCGGGAGGGAGAGGGGTTGTCCGA
GGGCCACAAGAGTATGACGGGGCTGTACGAGCTGGTGTGGCGGGTGCTGCACGCGCTGCTCTGTCTGCACCGCAC
GCTCACCTCCTGGCTCCGCGTTCGGTTCGGCACCTGGAACTGGATCTGGCGGCGCTGCTGCCGAGCCGCCTCTGC
CGCGGTCCTAGCGCCGCTCGGCTTCACGCTCCGCAAGCCCCCGGCAGTCGGCAGGAACCGCCGTCACCACCGGCA
CCCGCGCGGGGGGTCGTGCCTGGCAGCCGCACACCACCGGATGCGCTGGCGCGCGGACGGTCGTTCCTTGGAGAA
GCTGCCTGTGCATATGGGCCTGGTGATCACCGAGGTGGAGCAGGAACCCAGCTTCTCGGACATCGCGAGCCTCGT
GGTGTGGTGTATGGCCGTGGGCATCTCCTACATTAGCGTCTACGACCACCAAGGTATTTTCAAAAGAAATAATTC
CAGATTGATGGATGAAATTTTAAAACAACAGCAAGAACTTCTGGGCCTAGATTGTTCAAAATACTCACCAGAATT
TGCAAATAGTAATGACAAAGACGATCAAGTTTTAAATTGCCATTTGGCAGTGAAGGTGCTGTCTCCGGAAGATGG
AAAAGCAGATATTGTAAGAGCTGCTCAGGACTTTTGCCAGTTAGTGGCCCAGAAGCAAAAGAGACCCACAGATTT
GGATGTAGATACGTTAGGCAGTTTACTTAGTTCAAATGGTTGTCCTGATCCTGATTTAGTATTGAAGTTCGGTCC
TGTGGACAGCACATTAGGCTTTCTTCCCTGGCACATCAGATTGACTGAGATTGTCTCTTTGCCTTCCCACCTAAA
CATCAGTTATGAGGACTTTTTCTCTGCCCTTCGTCAATATGCAGCCTGTGAACAGCGTCTGGGAAAGTAGTGGTC
ATTGGTTGCGTAATTTGATTTGAGGCTTGTGGAGGAAAGGACCCAAGTGACTCTGATGTTTACAAAGCACCTATG
AAACCCTGTACACACCTGGTTCATAATCCTCATAATTTATCAACAAACACAAAAAAGTGTCTTACTTGAGAGTGA
GTGTGTGTGTGTGGGTGTGCACGTGCACACATGTGCACGTTTGTATGCATGGAAATAAACTTATAAATGGGGACG
TATTGGAGAAGGAAATACATAGACCTACAACTTTGAGCAAATAGCAGTGATGTTTTAGGAACTGAAATGTCACAC
TTAAAGTCTTCAGCCCAGCTACTTCCCTATTTTTGTGGGGAGAAGAGGGCCTGATTAGAACTGTTCTGGTTGTGT
TTGGCGGGAGGGGAATAATTTTTGTTCAGTCCTTCTTAGTGACCAAACTTTAATTTTTAAGAATAATATATTGAC
TTACTGAACTGAAGCATTCTGAGTTGAAAGGAGCTCCAGAGGAGTGGAGTTCTGTGTTGCTCACATGTTAAAATC
TTGCTCACCTTCAGAGCAGAGGGAATACCTATCTTCAGATATCCGTCCATTTTCATCTCTTAATTGTAGTCAAAA
GTATGACTTGAGAGTGTTGCTCTGGTATTCTGGGTTCTGAAGTCTGGTATTCTGGTATTCTGGGTTCAAAAGTAT
GACTTGAGAGTGTTGCTCTGGTATTCTGAGAGTTGCTCTGTATTCTGGGTTCTGAAGATTATTTGAAAAATAACT
CCTACTACATTGAAATGCAGACTTTTAAAAATTTAAACATTGGATTAGGCAGTCAAAAAAACCAAGCAAGCATAA
AAGGTCAATAAGTTGTAATCTTGATAGTAAAGGTGGAAAACTTATTATAAATGGAAAGAAAGTTTTGGTTTCCTT
TTTTGTTTGATGGGCAGTATGCCATATTATACCCAAAGTTCTTTTAAAAAATATTTCCATCAACCATTTTTATTT
AAAATAAACATTTGAGGGAAGTTACCAAGGCAGCTTTTTTCCTCAAAAGTAACCTGTTCCTCTTTGGAATAGCAC
ATTTTAGGGGCATGGTTAATACCTGAGATTTTTACTCAGTAAATCCTGATGGTTACTGTGTGTAAAATATCTTTA
AGTAGGATTGAAGGCCTCTGTGGGGAAATAAAATATTACCAAAGTCTATAAAAAATAAATTTTACATGTTCTCTTT
TATGACAGAGAGCAGCACTGGTTCTGTTATTTTTAAAATGAATAATTGATTTCTTGATAGGTGTTTAATATTTCT
TCCCTCACTGCTGATTCTTAGATAGAAACCATTCTTTATATTTGATAGACTGTTTTCAGAAAACCCTTATCAACA
AGTGTACAATACTTATCTAAAACTATACATTTAGAATGGAGCAGTTTAATACTAGATCTCAGAAGTTTTGAAAAA
TAGCAAAGAAGACTGGATTTGGAAAGCATGGTCTACAATTGGTTGTTAAATTCTGAAGCTATGAAGAATAAATGT
TTCAACTTTGGATTATGAAACCCCATTTATGATTTTTTAAATACACTTGAAATAAAAATGATTAAACT

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FIGURE 3120

TGACCCAATAAGGGTGGAAGGCTGAGTCCCGCAGAGCCAATAACGAGAGTCCGAGAGGCGACGGAGGCGGACTCT
GTGAGGAAACAAGAAGAGAGGCCCAAGATGGAGACGGCGGCGGCTGTAGCGGCGTGACAGTGAAGCTGAGACCTT
GGCACTCAAGAGTGAGACAAGCAACAGGAGGGCCTGAGCAGAGAAGGAACTGGAAGGACTTCAGATGTGAGCAGG
ATCTCTTGGACTGTCGTGTGAAAATTAGGCTGCAGGGGGCGACAGGAGCCTGGACTTTGAATTTTATTTTGTCCC
CTGCCACTTTGCTTCTAGACTATCATTATTGGACCTCTGAATTCTTGTCTGCCTTCTTGTAGGAGCCCCATGGCA
CCTGCCCAGCCCCACCTCAGCCCATCTTGACAAAATCTAAGGCTCC**ATG**GAGCCACCACGGGGCCCCCCTGCCAA
TGGGGCCGAGCCATCCCGGGCAGTGGGCACCGTCAAAGTATACCTGCCCAACAAGCAACGCACGGTGGTGACTGT
CCGGGATGGCATGAGTGTCTACGACTCTCTAGACAAGGCCCTGAAGGTGCGGGGTCTAAATCAGGACTGCTGTGT
GGTCTACCGACTCATCAAGGGACGAAAGACGGTCACTGCCTGGGACACAGCCATTGCTCCCCTGGATGGCGAGGA
GCTCATTGTCGAGGTCCTTGAAGATGTCCCGCTGACCATGCACAATTTTGTACGGAAGACCTTCTTCAGCCTGGC
GTTCTGTGACTTCTGCCTTAAGTTTCTGTTCCATGGCTTCCGTTGCCAAACCTGTGGCTACAAGTTCCACCAGCA
TTGTTCCTCCAAGGTCCCCACAGTCTGTGTTGACATGAGTACCAACCGCCAACAGCCCTCAAGGTTCTACCACAG
TGTCCAGGATTTGTCCGGAGGCTCCAGACAGCATGAGGCTCCCTCGAACCGCCCCCTGAATGAGTTGCTAACCCC
CCAGGGTCCCAGCCCCCGCACCCAGCACTGTGACCCGGAGCACTTCCCCTTCCCTGCCCCAGCCAATGCCCCCCT
ACAGCGCATCCGCTCCACGTCCACTCCCAACGTCCATATGGTCAGCACCACGGCCCCCATGGACTCCAACCTCAT
CCAGCTCACTGGCCAGAGTTTCAGCACTGATGCTGCCGGTAGTAGAGGAGGTAGTGATGGAACCCCCCGGGGGAG
CCCCAGCCCAGCCAGCGTGTCCTCGGGGAGGAAGTCCCCACATTCCAAGTCACCAGCAGAGCAGCGCGAGCGGAA
GTCCTTGGCCGATGACAAGAAGAAAGTGAAGAACCTGGGGTACCGGGACTCAGGCTATTACTGGGAGGTACCACC
CAGTGAGGTGCAGCTGCTGAAGAGGATCGGGACGGGCTCGTTTGGCACCGTGTTTCGAGGGCGGTGGCATGGCGA
TGTGGCCGTGAAGGTGCTCAAGGTGTCCCAGCCCACAGCTGAGCAGGCCCAGGCTTTCAAGAATGAGATGCAGGT
GCTCAGGAAGACGCGACATGTCAACATCTTGCTGTTTATGGGCTTCATGACCCGGCCGGGATTTGCCATCATCAC
ACAGTGGTGTGAGGGCTCCAGCCTCTACCATCACCTGCATGTGGCCGACACACGCTTCGACATGGTCCAGCTCAT
CGACGTGGCCCGGCAGACTGCCCAGGGCATGGACTACCTCCATGCCAAGAACATCATCCACCGAGATCTCAAGTC
TAACAACATCTTCCTACATGAGGGGCTCACGGTGAAGATCGGTGACTTTGGCTTGGCCACAGTGAAGACTCGATG
GAGCGGGGCCCAGCCCTTGGAGCAGCCCTCAGGATCTGTGCTGTGGATGGCAGCTGAGGTGATCCGTATGCAGGA
CCCGAACCCCTACAGCTTCCAGTCAGACGTCTATGCCTACGGGGTTGTGCTCTACGAGCTTATGACTGGCTCACT
GCCTTACAGCCACATTGGCTGCCGTGACCAGATTATCTTTATGGTGGGCCGTGGCTATCTGTCCCCGGACCTCAG
CAAAATCTCCAGCAACTGCCCCAAGGCCATGCGGCGCCTGCTGTCTGACTGCCTCAAGTTCCAGCGGGAGGAGCG
GCCCCTCTTCCCCCAGATCCTGGCCACAATTGAGCTGCTGCAACGGTCACTCCCCAAGATTGAGCGGAGTGCCTC
GGAACCCTCCTTGCACCGCACCCAGGCCGATGAGTTGCCTGCCTGCCTACTCAGCGCAGCCCGCCTTGTGCCT**TA**
GGCCCCGCCCAAGCCACCAGGGAGCCAATCTCAGCCCTCCACGCCAAGGAGCCTTGCCCACCAGCCAATCAATGT
TCGTCTCTGCCCTGATGCTGCCTCAGGATCCCCCATTCCCCACCCTGGGAGATGAGGGGGTCCCCATGTGCTTTT
CCAGTTCTTCTGGAATTGGGGGACCCCCGCCAAAGACTGAGCCCCCTGTCTCCTCCATCATTTGGTTTCCTCTTG
GCTTTGGGGATACTTCTAAATTTTGGGAGCTCCTCCATCTCCAATGGCTGGGATTTGTGGCAGGGATTCCACTCA
GAACCTCTCTGGAATTTGTGCCTGATGTGCCTTCCACTGGATTTTGGGGTTCCCAGCACCCCATGTGGATTTTGG
GGGGTCCCTTTTGTGTCTCCCCCGCCATTCAAGGACTCCTCTCTTTCTTCACCAAGAAGCACAGAATTCTGCTGG

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FIGURE 3121

GGGCGCGACCATCTGCGCTGCGGCGCCGGCGACTCAGCGCTGCCTCAGTCTGCGGTGGGCAGCGGAGGAGTCGTG
TCGTGCCTGAGAGCGCAGCTGTGCTCCTGGGCACCGCGCAGTCCGCCCCCGCGGCTCCTGGCCAGACCACCCCTA
GGACCCCCTGCCCCAAGTCGCAGCC**ATG**AACTACCTGCGGCGCCGCCTGTCGGACAGCAACTTTATGGCCAATCT
GCCAAATGGGTACATGACAGACCTGCAGCGTCCGCAGCCGCCCCCACCGCCGCCCGGTGCCCACAGCCCCGGAGC
CACGCCCGGTCCCGGGACCGCCACTGCCGAGAGGTCCTCCGGGGTCGCCCCAGCGGCCTCTCCGGCCGCCCCTAG
CCCCGGGTCCTCGGGGGGCGGTGGCTTCTTCTCGTCGCTGTCCAACGCGGTCAAGCAGACCACGGCGGCGGCAGC
TGCCACCTTCAGCGAGCAGGTGGGCGGCGGCTCTGGGGGCGCAGGCCGCGGGGGAGCCGCCTCCAGGGTGCTGCT
GGTCATCGACGAGCCGCACACCGACTGGGCAAAATACTTCAAAGGGAAAAAGATCCATGGAGAAATTGACATTAA
AGTAGAACAGGCCGAATTCTCTGATCTCAACCTTGTGGCCCATGCCAATGGTGGATTCTCTGTGGATATGGAAGT
TCTTCGGAATGGGGTGAAGGTCGTGCGGTCTCTGAAGCCGGATTTTGTGCTGATCCGCCAGCACGCCTTCAGCAT
GGCACGCAACGGAGACTACCGCAGTTTGGTCATTGGGCTGCAGTATGCTGGAATCCCCAGTGTTAACTCCTTGCA
TTCTGTCTACAACTTCTGTGACAAGCCCTGGGTGTTTGCCCAGATGGTTCGACTGCATAAGAAACTGGGGACAGA
AGAATTCCCTCTAATTGATCAGACCTTCTACCCCAATCACAAAGAAATGCTCAGCAGTACAACGTACCCCGTGGT
TGTGAAGATGGGGCACGCACACTCTGGGATGGGCAAGGTCAAGGTTGACAACCAGCATGACTTCCAGGACATCGC
AAGTGTCGTGGCACTGACCAAGACGTATGCCACTGCCGAGCCCTTCATCGATGCCAAATATGACGTGCGTGTCCA
GAAGATTGGGCAGAACTACAAGGCCTACATGAGGACGTCAGTGTCAGGGAACTGGAAGACCAATACTGGCTCTGC
GATGCTGGAGCAAATTGCCATGTCTGACAGATACAAGCTGTGGGTGGACACGTGCTCAGAGATTTTTGGGGGACT
GGACATCTGCGCAGTGGAAGCGCTACATGGCAAGGACGGAAGGGATCACATCATTGAGGTGGTGGGTTCCTCCAT
GCCGCTCATTGGTGACCACCAGGATGAAGACAAACAGCTCATCGTAGAGCTCGTGGTCAACAAGATGGCTCAGGC
CCTGCCCCGGCAGCGACAGCGGGATGCCTCCCCTGGCAGGGGCTCCCATGGCCAGACTCCGTCCCCAGGGGCCCT
GCCCTTGGGCCGCCAGACCTCCCAGCAGCCCGCAGGGCCCCCGGCTCAGCAGCGACCCCCACCACAGGGCGGCCC
TCCACAGCCGGGTCCAGGCCCCCAGCGCCAGGGACCCCCATTGCAGCAGCGCCCGCCCCCGCAGGGCCAGCAGCA
CCTTTCAGGCCTTGGACCCCCAGCTGGCAGCCCCCTGCCCCAGCGCCTTCCAAGTCCCACCTCAGCGCCCCAGCA
GCCCGCGTCCCAGGCCGCGCCGCCGACCCAGGGTCAAGGCCGCCAATCCCGGCCAGTGGCGGGAGGCCCCGGGGC
GCCTCCAGCAGCCCGCCCGCCCGCCTCTCCGTCTCCCCAGCGCCAGGCGGGCCCCCCACAGGCTACCCGTCAGAC
ATCCGTCTCTGGCCCGGCTCCGCCAAAGGCCTCTGGGGCCCCACCGGGCGGGCAGCAGCGCCAGGGCCCGCCCCA
GAAACCCCCAGGCCCAGCCGGCCCCACACGCCAGGCCAGCCAGGCGGGTCCCGTGCCCCGCACTGGGCCACCCAC
CACGCAGCAGCCTCGGCCCAGCGGCCCGGGCCCCGCTGGACGTCCCAAACCACAGCTGGCCCAGAAACCCAGCCA
GGACGTGCCGCCACCCGCCACCGCCGCTGCAGGGGGACCTCCGCACCCCCAGCTCAAAGCCAGCCCCGCCCAGGC
CCAGCCTTAGCCAGGACGAGGTGAAAGCTGAGACCATCCGCAGCCTGAGGAAGTCTTTCGCCAGCCTCTTCTCCG
AC**TGA**TACCCCACTCTGAGAACCCCAAAATCCCTGGGCAACCCTTCTCTGGGCCCTGAATCCATTTCTCACTTTT
GGAGTCTCCAAATCCCTTGAGAACCCATCTCCCGGTTCTCCAAGATTCCACCTCTCATTCCTCAAGATCCCCGAG
TACCTTGAGAAACCTGACTCCTCCTGGCCCTAAATCCGGTTCTCACATGTGGAATCCCCAAGTCCTTTTAGAACC
CCACTCGTGGTCACTTCAGGATCTACTTCTGTTTTAGAACCTCCACATTCCTGAAGACCTCCGCCCCTGGTTTCC
CCAGAGGGCGTTTTCCTTCCTGGAAGTGCCCAAATACCAGGCAACCCATTGCAGAATCCCTTCCTGGAGCCCTGA
AGTTCCTGGAAAACCCTATTTTTGGTCCCAAATCTCTCCAGCACACCTATTTCCCATCATAATTTTCCAAATCCT
CAAGAAACCCCTACTGTTGAGCCCCTTCCCATGGATCTTCCATCCCTCTGAAGATCCACATCTTCAAATGCCACC
CAACACCTAGCCCCACAAGGATTTCCCTTCACCAGCTCCCCTCAACCTCATTCAATACCTTGGGAGCCCCTCCCA
CTTCCAGGACCCCTCGGTTCCCCCAGGGACCCCCTCCCCAGTTTCCTGCCTCTGACAGCTGTCTTTAAATATGCA
AACTCCACCCATCTTCCCAGAATCCTTTGCACACGGAAGGCCAGTGGTCTCCGCTTCCCCACCTTTGCTGTGGTG
TCTGTGTCTGTGACTGACGTGGCCTCCTTTTGTGCCGTGCTTGGCATATGTGGTCCTCGTTCATCGTGCCGCCTG
TGGTGATGCGTGCAGTGACGCTGTTTATGTGGTCCGCACCTCCCCCTGACCTTCACTCCTTGCCTGGACTCACCC
CACCCCTCAGCGGCTCTGAACCCCAAGAGAAGAGTCGGGAAACAAAATAAACAAGCAAAGGCCCAGC

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FIGURE 3122

CATCGCCGCAGATCCAGCGCCCAGAGAGACACCAGAGAACCCACC**ATG**GCCCCCTTTGAGCCCCTGGCTTCTGGC
ATCCTGTTGTTGCTGTGGCTGATAGCCCCCAGCAGGGCCTGCACCTGTGTCCCACCCCACCCACAGACGGCCTTC
TGCAATTCCGACCTCGTCATCAGGGCCAAGTTCGTGGGGACACCAGAAGTCAACCAGACCACCTTATACCAGCGT
TATGAGATCAAGATGACCAAGATGTATAAAGGGTTCCAAGCCTTAGGGGATGCCGCTGACATCCGGTTCGTCTAC
ACCCCCGCCATGGAGAGTGTCTGCGGATACTTCCACAGGTCCCACAACCGCAGCGAGGAGTTTCTCATTGCTGGA
AAACTGCAGGATGGACTCTTGCACATCACTACCTGCAGTTTTGTGGCTCCCTGGAACAGCCTGAGCTTAGCTCAG
CGCCGGGGCTTCACCAAGACCTACACTGTTGGCTGTGAGGAATGCACAGTGTTTCCCTGTTTATCCATCCCCTGC
AAACTGCAGAGTGGCACTCATTGCTTGTGGACGGACCAGCTCCTCCAAGGCTCTGAAAAGGGCTTCCAGTCCCGT
CACCTTGCCTGCCTGCCTCGGGAGCCAGGGCTGTGCACCTGGCAGTCCCTGCGGTCCCAGATAGCC**TGA**ATCCTG
CCCGGAGTGGAAGCTGAAGCCTGCACAGTGTCCACCCTGTTCCCACTCCCATCTTTCTTCCGGACAATGAAATAA
AGAGTTACCACCCAGC

FIGURE 3123

ACATTGGGCTCCTCCTCCTCGGGCCCACGTGAGCTGTAGGGAAACGCAGGGGCGGCTTCTAGGTGCTGCCGCCGC
CACCGCCACCACCACCTCCACCGCCGCCTCGGAACCCAGGCCTGGGGGGCGGTGGGGCCGCGTATGGAGCCCCCG
CCCCCCGGAGCTGCCAACATTGCCAACGCCACCGCCACGCTACACACAGGTACCCCTGGGATGGCGTGAGCACTC
CCCCAGCG**ATG**GACCCATCTGTGACGCTGTGGCAGTTTCTGCTGCAGCTGCTGAGAGAGCAAGGCAATGGCCACA
TCATCTCCTGGACTTCACGGGATGGTGGTGAATTCAAGCTGGTGGATGCAGAGGAGGTGGCCCGGCTGTGGGGGC
TACGCAAGAACAAGACCAACATGAATTACGACAAGCTCAGCCGGGCCTTGCGGTACTACTATGACAAGAACATCA
TCCGCAAGGTGAGCGGCCAGAAGTTCGTCTACAAGTTTGTGTCCTACCCTGAGGTCGCAGGGTGCTCCACTGAGG
ACTGCCCGCCCCAGCCAGAGGTGTCTGTTACCTCCACCATGCCAAATGTGGCCCCTGCTGCTATACATGCCGCCC
CAGGGGACACTGTCTCTGGAAAGCCAGGCACACCCAAGGGTGCAGGAATGGCAGGCCCAGGCGGTTTGGCACGCA
GCAGCCGGAACGAGTACATGCGCTCGGGCCTCTATTCCACCTTCACCATCCAGTCTCTGCAGCCGCAGCCACCCC
CTCATCCTCGGCCTGCTGTGGTGCTCCCCAGTGCAGCTCCTGCAGGGGCAGCAGCGCCCCCCTCGGGGAGCAGGA
GCACCAGTCCAAGCCCCTTGGAGGCCTGTCTGGAGGCTGAAGAGGCCGGCTTGCCTCTGCAGGTCATCCTGACCC
CGCCCGAGGCCCCAAACCTGAAATCGGAAGAGCTTAATGTGGAGCCGGGTTTGGGCCGGGCTTTGCCCCCAGAAG
TGAAAGTAGAAGGGCCCAAGGAAGAGTTGGAAGTTGCGGGGGGAGAGAGGGTTTGTGCCAGAAACCACCAAGGCCG
AGCCAGAAGTCCCTCCACAGGAGGGCGTGCCAGCCCGGCTGCCCGCGGTTGTTATGGACACCGCAGGGCAGGCGG
GCGGCCATGCGGCTTCCAGCCCTGAGATCTCCCAGCCGCAGAAGGGCCGGAAGCCCCGGGACCTAGAGCTTCCAC
TCAGCCCGAGCCTGCTAGGTGGGCCGGGACCCGAACGGACCCCAGGATCGGGAAGTGGCTCCGGCCTCCAGGCTC
CGGGGCCGGCGCTGACCCCATCCCTGCTTCCTACGCATACATTGACCCCGGTGCTGCTGACACCCAGCTCGCTGC
CTCCTAGCATTCACTTCTGGAGCACCCTGAGTCCCATTGCGCCCCGTAGCCCGGCCAAGCTCTCCTTCCAGTTTC
CATCCAGTGGCAGCGCCCAGGTGCACATCCCTTCTATCAGCGTGGATGGCCTCTCGACCCCCGTGGTGCTCTCCC
CAGGGCCCCAGAAGCCA**TGA**CTACTACCACCACCACCACCACCCCTTCTGGGGTCACTCCATCCATGCTCTCTCC
AGCCAGCCATCTCAAGGAGAAACATAGTTCAACTGAAAGACTCATGCTCTGATTGTGGTGGGGTGGGGATCCTTG
GGAAGAATTACTCCCAAGAGTAACTCTCATTATCTCCTCCACAGAAAACACACAGCTTCCACAACTTCTCTGTTT
TCTGTCAGTCCCCCAGTGGCCGCCCTTACACGTCTCCTACTTCAATGGTAGGGGCGGTTTATTTATTTATTTTTT
GAAGGCCACTGGGAGGAGCCTGACCTAACCTTTTAGGGTGGTTAGGACATCTCCCCCACCTCCCCACTTTTTTCC
CCAAGACAAGACAATCGAGGTCTGGCTTGAGAACGACCTTTCTTTCTTTATTTCTCAGCCTGCCCTTGGGGAGAT
GAGGGAGCCCTGTCTGCGTTTTTGGATGTGAGTAGAAGAGTTAGTTTGTTTTGTTTTATTATTCCTGGCCATACT
CAGGGGTCCAGGAAGAATTTGTACCATTTAATGGGTTGGGAGTCTTGGCCAAGGAAGAATCACACCCTTGGAATA
GAAATTTCCACCTCCCCAACCTTTCTCTCAGACAGCTTATCCTTTTCAACCAACTTTTTGGCCAGGGAGGAATGT
CCCTTTTGTTCTTCCCCCTGAGAAGCCATTCCTTTGTCTGCCAACCTCCCTGGGGTCCTGCCTGTTTCCTCCCAA
TGGAGGGTTTTTTTGGGGGGTGGTCCCCGTCTGGGGGGCCCCTCCAGCCAGTACTCCAGGTCTCCCTGTCTCTCC
CCCGCTGCCATTTTGATAGTATAATCTATTTTTAAATGGGGCTTTTCAATAGGGGAGAGGGAGTCATCTCTTCCT
ATATTTGGTGGGGTGGGTGGGAAGGAAGGGATTTGGGGGGGAATCTTCCTGCCGCCTCCCCCACTCCAAGTGTTT
ATTTTTGATACCAAACATGAATTTTCAGTTCCCTCCCTCCCAGCCCCCCAATTTCCTGCGGGCGGGTACAAAGGA
CCCTTTCAATGTCCCTGGAGTTGGGAGGGAGGAATGGGGGACATAAAGCCTGTCCTGTCTCTATTCTAGGCAAGA
GAGAGTGGGTTCAAAAGACTCCTGGGCTCACCTGTTAGCGCTGGCCCAGCCCAGGCCTTGGGACCTGGGGGTTGG
TGATTTGGGGGACAGTGCTACACTCGTCTCCACTGTTTGTTTTACTTCCCCAAAATGGACCTTTTTTTTTCTAA
AGAGTCCCAGAGAATGGGGAATTGTTCCTGTAAATATATATTTTTCAAAGTGA

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FIGURE 3124

GGGTCTCAGCAGCTCGGGTGGCGGGAGGAGTGGCAGCGGCCAGGCAGCCCAGTTTCGCGAAGGCTCTCGGCGCGC
CGCAGCCCGCAGGCACCCGGCACACACCCTCCCTGCCACCAGGATGCCCAAGAGGAAGGTCAGCTCCACCAAAGG
GGCCGCCAAGGAAGAGCCCAAGAGGAGATCGGCGCGGTTGTCAGCTAAACCTCCTGCAAAAGTGGAAGTGAAGCC
AAAAAAGGCAGCAGCGAAGGATAAATCTTCAGACAAAAAAGTGCAAACAAAAGGGAAAAGGAGAGCAAAGGGAAA
ACAGGCCGAAGTGGCTAACCAAGAAACTAAAGAAGATTTACCTGCAGTAAACAGGGAAACGAAAACTGAGGAGAG
TCCAGCCTCTGATGAAGCAGGAGAGAAAGAAGCCAAGTCTGATTAATACCATATACCATGTCTTATCAGTGGTCC
CTGTCTCCCTTCTTGTACAATCCAGAGGAATATTTTTATCAACTATTTTGTAAATGCAAGTTTTTTAGTAGCTCT
AGAAACATTTTTAAGAAGGAGGGAATCCCACCTCATCCCACTTTTTAAGTGTAAATGCTTTTTTTAAGAGGTGAA
ATCATTTGCTGGTTGTTTATTTTTTGGTACAACCAGAAAATAGTGTGGGATATTGAATTATGGGAGGCTCTGACT
GTCTCGGGTGTCAGCTTAACATTCCATAGATGGGGGGGTTAGTTTTTATATCCTATAATACAAAGCATATTAAAT
GGCAATATGGAGTCAGTCCTGCATTTAATGTCTTGAACATTTTAAATTACTTCTATTCCCATGTTGTTTTTTAGT
AGAATTGTTTCCTAAAGAAAACCACTCTTTGATCATGGCTCTCCCTGTCAGAATTGTGTGCACTCTGTAACATCT
TTGGTTGTGGTTTTCCTAATCACTTGGTTACTGTGCTGTGAAAGATTACAAATTTGAACATGTAGTGTACGTGCT
ATTCAGTTGTGAACTGGTGGGCCGTATGTAACAGCTGACCAACATGTGAAGATACTGGTACTTGATAGCCTCTTA
AGGAAAATTTGCTTCCAAATTTTAAGCTGGAAAGTCACTGGAATAACTTTAAAAAAGAATTACAATACATGGCTT
TTTAGAATTTCGTTATGTATGTTAAGATTTGTGTACAAATTGAAATGTCTGTACTGATCCTCAACCAATAAAATC
TCA

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FIGURE 3125

GGTGACTGGCCCAGCCGCACCGCGTCTCCCGCCTTCTCCGCAGCCCCGCAGGCCCCGGGCCCTGTCATTCCCAGC
GCTGCCCTGTCTTGCGTTCCAGTGTTCCAGCTTCTGCGAG**ATG**ACCCTCAAGGCGAGCGAGGGCGAGAGTGGGGG
CAGCATGCACACGGCGCTCTCCGACCTCTACCTGGAGCATTTGCTGCAGAAGCGTAGTCGGCCAGAGGCTGTATC
GCATCCATTGAATACTGTGACCGAGGACATGTACACCAACGGGTCTCCTGCCCCAGGTAGCCCTGCCCAGGTCAA
GGGACAGGAGGTGCGGAAAGTGCGACTCATACAGTTTGAGAAGGTCACAGAAGAGCCCATGGGAATCACGCTGAA
GCTGAATGAAAAACAGTCCTGTACGGTGGCCAGAATTCTTCATGGTGGCATGATCCATAGACAAGGCTCCCTTCA
CGTGGGGGATGAGATCCTAGAAATCAATGGCACAAATGTGACAAATCATTCAGTGGATCAGCTGCAGAAGGCGAT
GAAAGAAACCAAAGGAATGATCTCATTAAAAGTAATTCCCAACCAGCAAAGCCGTCTTCCTGCACTACAGATGTT
CATGAGAGCGCAGTTTGACTATGATCCCAAAAAGGACAATCTGATCCCTTGCAAGGAGGCGGGACTGAAGTTTGC
TACTGGGGACATTATCCAGATTATCAACAAGGATGACAGCAATTGGTGGCAGGGACGGGTGGAAGGCTCCTCCAA
GGAGTCAGCAGGATTGATCCCTTCCCCTGAGCTGCAGGAATGGCGAGTGGCAAGTATGGCTCAGTCAGCTCCTAG
CGAAGCCCCGAGCTGCAGTCCCTTTGGGAAGAAGAAGAAGTACAAAGACAAATATCTGGCCAAGCACAGCTCGAT
TTTTGATCAGTTGGATGTTGTTTCCTACGAGGAAGTCGTTCGGCTCCCTGCATTCAAGAGGAAGACCCTGGTGCT
GATCGGAGCCAGTGGGGGTGGGTCGCAGCCACATTAAGAATGCCCTGCTCAGCCAGAATCCGGAGAAGTTTGTGTA
CCCTGTCCCATATACAACACGGCCGCCAAGGAAGAGTGAGGAAGATGGGAAGGAGTACCACTTTATCTCAACGGA
GGAGATGACGAGGAACATCTCTGCCAATGAGTTCTTGGAGTTTGGCAGCTACCAAGGCAACATGTTTGGCACCAA
ATTTGAAACAGTGCACCAGATCCATAAGCAGAACAAGATTGCCATCCTTGACATTGAGCCCCAGACCCTGAAAAT
TGTTCGGACAGCAGAACTTTCGCCTTTCATTGTGTTCATTGCACCTACTGACCAGGGCACTCAGACAGAAGCCCT
GCAGCAGCTGCAGAAGGACTCTGAGGCCATCCGCAGCCAGTACGCTCACTACTTTGACCTCTCACTGGTCAATAA
TGGTGTTGATGAAACCCTTAAGAAATTACAAGAAGCCTTCGACCAAGCGTGCAGTTCTCCACAGTGGGTGCCTGT
CTCCTGGGTTTAC**TAA**GCTTGTAGAATGGGGGAACCCACTGTATGCCCCTCTCCAGCATTTGGAATTCCACCCGC
CTTGCTTTAAGACAAACAGGGCTGCTCCAACTAGTTTTGTGTCAGCTTCCAGCTCTCTGCAGCTATCCTAATTCA
GCCAGTAAGGTTCAGTCTTCTTGCTCAGGCTCCTGAAGGGTTGATTCTCCTGATAGATGGGGCCCCACTGATCTG
GATTTGAAAAGGATTTCTAGAAATTGGGGGTAAGAAGTACTACCAAAATGTAACTGCTAATCAAGGGTGATGCAC
AGCAAAAGCAATGGACCCCATCCCTCTAAAGCCTGCCCTCCTTTGCCTTCAACTGTATATGCTGGGTATTTCATT
TGTCTTTTTATTTTGGAGAAAGCGTTTTTAACTGCAACTTTCTATAATGCCAAAATGACACATCTGTGCAATAGA
ATGATGTCTGCTCTAGGGAAACCTTCAAAAGCAATAAAAATGCTGTGTTG

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FIGURE 3126

AGCAGCGCGGCCTGACGGGACCAAGGCGGCGGGAGTCTGCGGTCGTTCCCTCGGCTGTGGACCGGGCGGCACGCA
CGCGGTGCAGGGTAAC**ATG**GCGGATGCGGAAGTAATTATTTTGCCAAAGAAACATAAGAAGAAAAAGGAGCGGAA
GTCATTGCCAGAAGAAGATGTAGCCGAAATACAACACGCTGAAGAATTTCTTATCAAACCTGAATCCAAAGTTGC
TAAGTTGGACACGTCTCAGTGGCCCCTTTTGCTAAAGAATTTTGATAAGCTGAATGTAAGGACAACACACTATAC
ACCTCTTGCATGTGGTTCAAATCCTCTGAAGAGAGAGATTGGGGACTATATCAGGACAGGTTTCATTAATCTTGA
CAAGCCCTCTAACCCCTCTTCCCATGAGGTGGTAGCCTGGATTCGACGGATACTTCGGGTGGAGAAGACAGGGCA
CAGTGGTACTCTGGATCCCAAGGTGACTGGTTGTTTAATCGTGTGCATAGAACGAGCCACTCGCTTGGTGAAGTC
ACAACAGAGTGCAGGCAAAGAGTATGTGGGGATTGTCCGGCTGCACAATGCTATTGAAGGGGGGACCCAGCTTTC
TAGGGCCCTAGAAACTCTGACAGGTGCCTTATTCCAGCGACCCCCACTTATTGCTGCAGTAAAGAGGCAGCTCCG
AGTGAGGACCATCTACGAGAGCAAAATGATTGAATACGATCCTGAAAGAAGATTAGGAATCTTTTGGGTGAGTTG
TGAGGCTGGCACCTACATTCGGACATTATGTGTGCACCTTGGTTTGTTATTGGGAGTTGGTGGTCAGATGCAGGA
GCTTCGGAGGGTTCGTTCTGGAGTCATGAGTGAAAAGGACCACATGGTGACAATGCATGATGTGCTTGATGCTCA
GTGGCTGTATGATAACCACAAGGATGAGAGTTACCTGCGGCGAGTTGTTTACCCTTTGGAAAAGCTGTTGACATC
TCATAAACGGCTGGTTATGAAAGACAGTGCAGGTAAATGCCATCTGCTATGGGGCCAAGATTATGCTTCCAGGTG
TTCTTCGATA**TGA**GGACGGCATTGAGGTCAATCAGGAGATTGTGGTTATCACCACCAAAGGAGAAGCAATCTGCA
TGGCTATTGCATTAATGACCACAGCGGTCATCTCTACCTGCGACCATGGTATAGTAGCCAAGATCAAGAGAGTGA
TCATGGAGAGAGACACTTACCCTCGGAAGTGGGGTTTAGGTCCAAAGGCAAGTCAGAAGAAGCTGATGATCAAGC
AGGGCCTTCTGGACAAGCATGGGAAGCCCACAGACAGCACACCTGCCACCTGGAAGCAGGAGTATGTTGACTACA
GTGAGTCTGCCAAAAAAGAGGTGGTTGCTGAAGTGGTAAAAGCCCCGCAGGTAGTTGCCGAAGCAGCAAAAACTG
CGAAGCGGAAGCGAGAGAGTGAGAGTGAAAGTGACGAGACTCCTCCAGCAGCTCCTCAGTTGATCAAGAAGGAAA
AGAAGAAGAGTAAGAAGGACAAGAAGGCCAAAGCTGGTCTGGAGAGCGGGGCCGAGCCTGGAGATGGGGACAGTG
ATACCACCAAGAAGAAGAAGAAGAAGAAGAAAGCAAAAGAGGTAGAATTGGTTTCTGAGTAGTGAAGGCCACTTG
AAGCTGGAGGAGAAACTAAAGCCTTATTGAGAAAACATGTTATAGATCCTTTTGTTGCTGAGAGAGTGGAACATA
GGTCCTAGACAGGGTGAAGAGTTCTGGCACATTTTAGCTGCTACTTTGAGACCTCGGTGATGTTACCTGGTGTGG
TCATCCCATCTTGTCCTGTTTTAAGGATATGGGTGGTGAAAGATGAAAGAGGCAGAGTTTATCCCAATGACTTCT
CTGTTTGAGTTGGGAAGCCTCACCTTCAGACCCAGTAACTGTCCGCAGCTGTCTGCTAGTGGTTGTCTTAACATC
GTAGTCCTAGTTTGCATTTTTTAAATCCCCTCTGTTTAAAAGGTTTGTAAAACAAAAACAAAAAACTAAGTCTGC
TCAGTGAAATGCTGTAGAACCCTAAATAAGTGGTAGAAGAGTGTCACTGAATTTTGTCTCTGAATTCAGTATAAC
TGAGTTTTGTCCATGCTGGTGTCTGGGTTATAGGCCTGATGGGCCTGGTAGTTTTCCATCTTGTTCTGGCCTAGA
GGTCAGTCCTTTGCACTTCCTCAAAGCTTGTGTACAGTGCTCACCTAAATCCATCTGACTACTTGTTCCTGTGCC
CTCTTGTTTTAGGCCTCGTTTACTTTTAAAAAATGAAATTGTTCATTGCTGGGAGAAGAATGTTGTAATTTTTAC
TTATTAAAGTCAACTTGTTAAGTTTTTTATGTATTCCTGTTGGGTTTTCTTGTTGATCTCATGCTAGCAGAGCAA
AAATTGTAAAATATTTTGATTAAAAATCTAGGGACCTTTATGTCCTATTTG

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FIGURE 3127A

CCCAGCTGGAGGAAGCGGCGGCGGCGGCCACGATGAGTGCGGGCGACGCAGTGTGCACCGGCTGGCTCGTTAAGT
CGCCCCCCGAGAGGAAGCTACAGCGCTACGCCTGGCGCAAGCGCTGGTTTGTCCTCCGGCGAGGCCGCATGAGCG
GCAACCCCGATGTCTTGGAGTACTACAGGAACAAGCACTCCAGCAAGCCCATCCGGGTGATAGACCTCAGCGAGT
GTGCAGTGTGGAAGCATGTGGGCCCCAGCTTTGTTCGGAAGGAATTTCAGAATAATTTCGTGTTCATTGTCAAGA
CTACTTCCCGTACATTCTACCTGGTGGCCAAAACTGAGCAAGAAATGCAGGTGTGGGTGCACAGCATCAGTCAGG
TCTGCAACCTTGGCCACCTGGAGGATGGTGCAGATTCCATGGAGAGCCTCTCTTACACGCCCTCCTCCCTGCAGC
CATCCTCTGCCAGCTCCCTTCTTACCGCCCATGCTGCCAGCTCCTCTTTGCCAAGAGATGACCCAAACACTAATG
CCGTAGCCACTGAGGAAACCAGAAGTGAGTCAGAGCTTCTCTTCCTTCCAGATTATCTGGTTTTGTCCAACTGCG
AGACTGGAAGACTGCACCATACCAGTCTACCCACCAGATGTGATAGCTGGTCAAACTCAGACCGTTCATTGGAAC
AGGCTTCATTTGATGATGTTTTTGTTGACTGCCTGCAGCCGCTCCCCTCCAGTCATTTGGTCCACCCCTCATGCC
ATGGCAGTGGAGCTCAGGAGGTGCCATCCTCGAGGCCTCAGGCTGCCCTGATCTGGAGTAGAGAAATCAATGGGC
CACCCAGGGACCACTTGTCTTCTTCACCATTGCTGGAAAGTTCCTTAAGTTCCACCATTCAGGTAGATAAAAATC
AAGGTTCCTTACCCTGTGGAGCAAAAGAACTAGACATTATGTCCAACACTCCACCTCCCCGCCCCCCTAAGCCAA
GCCATCTGTCTGAACGGCGCCAAGAGGAGTGGAGTACACACAGTGGTAGCAAGAAGCCAGAATGCACTCTGGTTC
CAAGAAGAATCTCCCTCTCTGGTTTAGACAACATGAGAACCTGGAAAGCTGATGTAGAAGGCCAATCCTTAAGAC
ACCGAGACAAGCGGCTTAGTTTGAATTTGCCATGCAGGTTCTCCCCGATGTACCCCACAGCTTCAGCCAGTATCG
AAGACAGCTATGTGCCCATGAGCCCCCAGGCTGGTGCCTCTGGTCTTGGACCCCACTGCAGCCCTGATGACTACA
TTCCAATGAACTCAGGAAGCATCTCAAGCCCGTTGCCTGAGCTGCCTGCAAACCTGGAACCTCCCCCAGTGAATA
GAGATCTCAAGCCTCAGAGGAAATCACGGCCACCTCCTCTGGACCTGAGAAACCTCTCGATCATCCGGGAACATG
CATCTCTTACCAGGACCCGCACTGTGCCTTGCAGTCGAACCAGCTTTCTCTCTCCAGAAAGAAATGGTATTAATT
CTGCAAGATTTTTTGCTAATCCTGTTTCCAGAGAAGACGAAGAAAGCTACATCGAAATGGAGGAGCACCGAACAG
CCAGTTCCCTGAGCAGTGGTGCCCTTACGTGGACAAAGAAATTCAGCCTAGATTATTTGGCCCTGGACTTCAATT
CAGCATCACCAGCCCCCATGCAGCAGAAACTTCTCCTTTCAGAAGAACAAAGAGTAGACTATGTCCAAGTGGATG
AGCAGAAGACACAGGCTCTCCAGAGCACAAAACAGGAGTGGACGGATGAAAGGCAATCCAAAGTATGAGAGGTGC
GGGCTTGTGCCATGTGTGAAACAGGGAAGCTTGGGGCTCAGTTTGAGTTTTTTCTTTTTTTTTTTTTTTGTCCA
CTAAAAACACACTGATGGTCAACACAGGTCAAAACCAAGAGAGAATGTGTAGTTTTCAAGGTCTTGGCCAGAACC
TTTAGGAAAGAAGACCTGTTTATACATTGAAGGAAGAAAAGAAGGAAGCAGTTGCCTTCCGGAGGGGGCTCTGAG
AGAATCTAGCCTCCCCTCTGTCCTATTGGAGCAAAGATTGGAGTGAGTGTTGCCACCAACAGGATTTTATCGTTT
GACTCCAATACCTGAAATTCTGACTTCTCTCCTGTGCTTCAATGAGAATGATAAATTATCCTAGCAAAGGGGCCT
CTGGAGACCATCTTGTTCCAGCCTCTGAAGACAGTTGAGGAGATCAAGCCCAGCAATGGTGGCAGAATCTTACTC
CACAGACTTCAGCAGACTAGTCATTTCAATACCCAAAGAAAGACAAGTGACAGGGGCAATGGATCTCAGGCTCTG
AGATAAGTATATCAGATGACACTGGTGGCTCTAAGGATATTGCAATTAAGCAGCTACCTGTAGCCAGGTATTCTG
CTGCTCTTGGCCTTTTCCCACGCATCGTCTCGTGTCTTCTCCGAAAGACCTTGGAAGATAGGCCTGGAAGAGACT
GTTGATGCCACTTTGAAGAAAAGAACACTGAGAACTAGAGGAGGGAACACTTTGCCCAAGATTACTCACAAAGCC
AAGACCCAGAGTCCAGCTTAGAGAATAGAGTTGTTCAGGCTGCCAATTGCAAGCTCATTCCTCTACCTCATACTT
CCTCTGAGGATTTTGACAAAATGGATTAATTGGGTGAGCCTTGGAGACATGTGGGAAACACCTGCAGACACAAAA
TGAGTAGTCATCCTGTCTCCCTTTCAATAGGGATCTGAACAGGTGTTTTGATACTTGAAAGATGTGCATGTCAAG
TGAGGGTTTCTTTCTGCGATGTTCAACTGGAACTCTCCCATCAGTAGTTACAATTAGAAATACCTACTGATGGTT
AGTCTGAAGGCCATTCTCATGGTCACCTATACAGTGTGTTTCCCTGTGAGCTAGCAGACACAATGACCAGGAAAA
AACCTATGAATTCCATTCTTAGGTTTCCCAGCCAATTGCTCCCTTCTGCTTTAGAAGTGACTAGGTACTGAGAGT
ACAAACACTCCCACTTTATAATGAAGGCGTCATGTCACCCCTTCCTTTACAGGTCCTGGGGTCCAGGAGACCCAG
AATGAAGGTGTCAGTTGGGCATGAAGTGTTATTTAGTGTCCATTCTTGATCCTTCTGAGCACCTACAGCTGGAAA
CTAAGCAGATACTGGTCCTGCATTCTGACTGAGATTGTGTCTTCTTTATGAGGATAGATCAAATTGGCAGTCAGG
CCCATGATAGTCAGTGCAGTTGGGGCAGTTGTAGACTTTGCTACAGGATTTCAGGGTTTCCAATCACCCCACAGG
TAAGTGAATGCCAAAGTCTTCTTTTTTCAGACCATACAAGAAGTCATTTTGATTTTCAAAGAAGCCGTTTTGATT
TTCAAAGAAGCAGGTTCTGGTGACATTATTTTCTTCCTTGGACAAAGTGGGGGGAAATTTCTAAGTATTTTAACT
GAGTTCAGGGTCCTTAGTGAGCCTGGACAGAGCAAGGAGAGGGCTCCCCACTCCCTAAGCCCCACAGCCAGCTCT
GCATCACCACACACAGCCAGAGCCTGTGAGGAGCTGCCTTCTTCCCCATGTGACTTGCAAAGAGTCTCAGGCAAG

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FIGURE 3127B

AAACCAGGGCTTCAAACTGCTAGTTCCCATGGAGGGTAGTTCCCTCGTGTGGAGCACTTGTGTTAGGATCACTGA
TTATCTGACAAAGGCTGGTGCAGAAAAAAAATTGTAGGCCCAAGTGTCAAGAACCACACCAGATTGGAGATAGAA
AAGAATAGCTGAAATTATGTCAGTGGTGAAATGTCACTCCATTGACCCACCGAAAAAAGAAAAGAAATCTGTTTC
TACCAAACATTTCCAGAAACGTATTTATAGCATGAAGAAACACACATGGGTAGTGTGACCTGTTTGGATGTGATT
ACTTAAAAATGGAATGCTCTGAATAGGCACTCTCTACATTAAAGGTATGGAAGGCGATAGGGGTCAGAATTTTAA
AAATTTAATTTTGAAAAAGGTGACTCACCCCTCATTTCCAGAGTGTAGGCAATTATGTCCTGCTTTGATAAAACT
GCTAGAGGATGGCTATGCAAAAGCATAACGATTCAAGGAAACAAAGTACAGGTAGTTTTTGAGCTGACAGCAGCA
AAGGCACCATAAGTCAAAATATTGGTTTTGGTGGAGATGATCGATGTGTGTGTGTGAGAGAGAGCTATGTTTCTA
ACCAAGGGCCTAATGTTTGTTACAGAAATGATCCCAGAGACCTACAAGATGTGGGAATCAGCATAACAGGGCAAT
GCAGCAATTAACCCCACATCGTTTTCTGTAGTTCCTTTTTGTTTCATTTTCTTCTGTCTCACCTCGTTAGAAAAT
TCCTCCCAGTCAGGGGTCGTCCAGTGCAGGACGGGGGACCCAAGGGTCTCAAGCCTGCAAGTCCAGAAGGTGACA
AACCCAGGAGCACTGGGAGTTAAGCTTTCCTTGGGGAGGGAAGAGCCTTGATGTCCAGCACACAGCCTGGCTATA
AAGACACGAAGCGACCTACCCACTGTACAGTCCACTTCACAGGATCAGCTGAATCATGACCTTTAAAAGTTCCGA
GTTGAAACTGAAGGCTCTCCTCAGACCTGGCTTTTTCCTCAGTCCCTGTTCATACCATCTCTGCACCCACAATCA
CACTGATTTTTCAAATTCATTTTGTTTTTGCTGTTTCATTTCTGGCATTAATAAAAGTCTTATAAGG

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FIGURE 3128

CATGGCCCTTGTGATCCAGGTGGGGAAACTAAGGCCCAGAGAAGTGAGGACCCCGCAGACTATCAATCCCAGTCT
CTTCCCCTCACTCCCTGTGAAGCTCTCCAGCATCATCGAGGTCCCATCAGCCCTTGCCCTGTTGG**ATG**AATAGGC
ACCTCTGGAAGAGCCAACTGTGTGAGATGGTGCAGCCCAGTGGTGGCCCGGCAGCAGATCAGGACGTACTGGGCG
AAGAGTCTCCTCTGGGGAAGCCAGCCATGCTGCACCTGCCTTCAGAACAGGGCGCTCCTGAGACCCTCCAGCGCT
GCCTGGAGGAGAATCAAGAGCTCCGAGATGCCATCCGGCAGAGCAACCAGATTCTGCGGGAGCGCTGCGAGGAGC
TTCTGCATTTCCAAGCCAGCCAGAGGGAGGAGAAGGAGTTCCTCATGTGCAAGTTCCAGGAGGCCAGGAAACTGG
TGGAGAGACTCGGCCTGGAGAAGCTCGATCTGAAGAGGCAGAAGGAGCAGGCTCTGCGGGAGGTGGAGCACCTGA
AGAGATGCCAGCAGCAGATGGCTGAGGACAAGGCCTCTGTGAAAGCCCAGGTGACGTCCTTGCTCGGGGAGCTGC
AGGAGAGCCAGAGTCGCTTGGAGGCTGCCACTAAGGAATGCCAGGCTCTGGAGGGTCGGGCCCGGGCGGCCAGCG
AGCAGGCGCGGCAGCTGGAGAGTGAGCGCGAGGCGCTGCAGCAGCAGCACAGCGTGCAGGTGGACCAGCTGCGCA
TGCAGGGCCAGAGCGTGGAGGCCGCGCTCCGCATGGAGCGCCAGGCCGCCTCGGAGGAGAAGAGGAAGCTGGCCC
AGTTGCAGGTGGCCTATCACCAGCTCTTCCAAGAATACGACAACCACATCAAGAGCAGCGTGGTGGGCAGTGAGC
GGAAGCGAGGAATGCAGCTGGAAGATCTCAAACAGCAGCTCCAGCAGGCCGAGGAGGCCCTGGTGGCCAAACAGG
AGGTGATCGATAAGCTGAAGGAGGAGGCCGAGCAGCACAAGATTGTGATGGAGACCGTTCCGGTGCTGAAGGCCC
AGGCGGATATCTACAAGGCGGACTTCCAGGCTGAGAGGCAGGCCCGGGAGAAGCTGGCCGAGAAGAAGGAGCTCC
TGCAGGAGCAGCTGGAGCAGCTGCAGAGGGAGTACAGCAAACTGAAGGCCAGCTGTCAGGAGTCGGCCAGGATCG
AGGACATGAGGAAGCGGCATGTCGAGGTCTCCCAGGCCCCCTTGCCCCCCGCCCCTGCCTACCTCTCCTCTCCCC
TGGCCCTGCCCAGCCAGAGGAGGAGCCCCCCCGAGGAGCCACCTGACTTCTGCTGTCCCAAGTGCCAGTATCAGG
CCCCTGATATGGACACCCTGCAGATACATGTCATGGAGTGCATTGAG**TAG**GGCCGGCCAGTGCAAGGCCACTGCC
TGCCGAGGACGTGCCCGGGACCGTGCAGTCTGCGCTTTCCTCTCCCGCCTGCCTAGCCCAGGATGAAGGGCTGGG
TGGCCACAACTGGGATGCCACCTGGAGCCCCACCCAGGAGCTGGCCGCGGCACCTTACGCTTCAGCTGTTGATCC
GCTGGTCCCCTCTTTTGGGGTAGATGCGGCCCCGATCAGGCCTGACTCGCTGCTCTTTTTGTTCCCTTCTGTCTG
CTCGAACCACTTGCCTCGGGCTAATCCCTCCCTCTTCCTCCACCCGGCACTGGGGAAGTCAAGAATGGGGCCTGG
GGCTCTCAGGGAGAACTGCTTCCCCTGGCAGAGCTGGGTGGCAGCTCTTCCTCCCACCGGACACCGACCCGCCCG
CTGCTGTGCCCTGGGAGTGCTGCCCTCTTACCATGCACACGGGTGCTCTCCTTTTGGGCTGCATGCTATTCCATT
TTGCAGCCAGACCGATGTGTATTTAACCAGTCACTATTGATGGACATTTGGGTTGTTTCCCATCTTTTTGTTACC
ATAAATAATGGCATAGT

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FIGURE 3129

AGGGACAGCCCAGAGGAGGCGTGGCCACGCTGCCGGCGGAAGTGGAGCCCTCCGCGAGCGCGCGAGGCCGCCGGG
GCAGGCGGGGAAACCGGACAGTAGGGGCGGGGCCGGGCCGGCGATGGGGATGCGGGAGCACTACGCGGAGCTGCA
CCCGTGCCCGCCGGAATTGGGGATGCAGAGCAGCGGCAGCGGGTATGGCAGGCAGCCGGCGGGCCGGCCTCCAGC
GCAGGTGCCCGAGAGGCAGGGGCTGGCCTGGGATGCGCGCGCACCTGCCCTCGCCCCGCCCCGCCCGCACGAGGG
GTGGTGGCCGAGGCCCCGCCCCGCACGCCTCGCCTGAGGCGGGTCCGCTCAGCCCAGGCGCCCGCCCCCGCCCCC
GCCGATTAAATGGGCCGGCGGGGCTCAGCCCCCGGAAACGGTCGTACACTTCGGGGCTGCGAGCGCGGAGGGCGA
CGACGACGAAGCGCAGACAGCGTC**ATG**GCAGAGCAGGTGGCCCTGAGCCGGACCCAGGTGTGCGGGATCCTGCGG
GAAGAGCTTTTCCAGGGCGATGCCTTCCATCAGTCGGATACACACATATTCATCATCATGGGTGCATCGGGTGAC
CTGGCCAAGAAGAAGATCTACCCCACCATCTGGTGGCTGTTCCGGGATGGCCTTCTGCCCGAAAACACCTTCATC
ATGGGCTATGCCCGTTCCCGCCTCACAGTGGCTGACATCCGCAAACAGAGTGAGCCCTTCTTCAAGGCCACCCCA
GAGGAGAAGCTCAAGCTGGAGGACTTCTTTGCCCGCAACTCCTATGTGGCTGGCCAGTACGATGATGCAGCCTCC
TACCAGCGCCTCAACAGCCACATGGATGCCCTCCACCTGGGGTCACAGGCCAACCGCCTCTTCTACCTGGCCTTG
CCCCCGACCGTCTACGAGGCCGTCACCAAGAACATTCACGAGTCCTGCATGAGCCAGATAGGCTGGAACCGCATC
ATCGTGGAGAAGCCCTTCGGGAGGGACCTGCAGAGCTCTGACCGGCTGTCCAACCACATCTCCTCCCTGTTCCGT
GAGGACCAGATCTACCGCATCGACCACTACCTGGGCAAGGAGATGGTGCAGAACCTCATGGTGCTGAGATTTGCC
AACAGGATCTTCGGCCCCATCTGGAACCGGGACAACATCGCCTGCGTTATCCTCACCTTCAAGGAGCCCTTTGGC
ACTGAGGGTCGCGGGGGCTATTTCGATGAATTTGGGATCATCCGGGACGTGATGCAGAACCACCTACTGCAGATG
CTGTGTCTGGTGGCCATGGAGAAGCCCGCCTCCACCAACTCAGATGACGTCCGTGATGAGAAGGTCAAGGTGTTG
AAATGCATCTCAGAGGTGCAGGCCAACAATGTGGTCCTGGGCCAGTACGTGGGGAACCCCGATGGAGAGGGCGAG
GCCACCAAAGGGTACCTGGACGACCCCACGGTGCCCCGCGGGTCCACCACCGCCACTTTTGCAGCCGTCGTCCTC
TATGTGGAGAATGAGAGGTGGGATGGGGTGCCCTTCATCCTGCGCTGCGGCAAGGCCCTGAACGAGCGCAAGGCC
GAGGTGAGGCTGCAGTTCCATGATGTGGCCGGCGACATCTTCCACCAGCAGTGCAAGCGCAACGAGCTGGTGATC
CGCGTGCAGCCCAACGAGGCCGTGTACACCAAGATGATGACCAAGAAGCCGGGCATGTTCTTCAACCCCGAGGAG
TCGGAGCTGGACCTGACCTACGGCAACAGATACAAGAACGTGAAGCTCCCTGACGCCTACGAGCGCCTCATCCTG
GACGTCTTCTGCGGGAGCCAGATGCACTTCGTGCGCAGCGACGAGCTCCGTGAGGCCTGGCGTATTTTCACCCCA
CTGCTGCACCAGATTGAGCTGGAGAAGCCCAAGCCCATCCCCTATATTTATGGCAGCCGAGGCCCCACGGAGGCA
GACGAGCTGATGAAGAGAGTGGGTTTCCAGTATGAGGGCACCTACAAGTGGGTGAACCCCCACAAGCTC**TGA**GCC
CTGGGCACCCACCTCCACCCCCGCCACGGCCACCCTCCTTCCCGCCGCCCGACCCCGAGTCGGGAGGACTCCGGG
ACCATTGACCTCAGCTGCACATTCCTGGCCCCGGGCTCTGGCCACCCTGGCCCGCCCCTCGCTGCTGCTACTACC
CGAGCCCAGCTACATTCCTCAGCTGCCAAGCACTCGAGACCATCCTGGCCCCTCCAGACCCTGCCTGAGCCCAGG
AGCTGAGTCACCTCCTCCACTCACTCCAGCCCAACAGAAGGAAGGAGGAGGGCGCCCATTCGTCTGTCCCAGAGC
TTATTGGCCACTGGGTCTCACTCCTGAGTGGGGCCAGGGTGGGAGGGAGGGACAAGGGGGAGGAAAGGGGCGAGC
ACCCACGTGAGAGAATCTGCCTGTGGCCTTGCCCGCCAGCCTCAGTGCCACTTGACATTCCTTGTCACCAGCAAC
ATCTCGAGCCCCCTGGATGTCCCCTGTCCCACCAACTCTGCACTCCATGGCCACCCCGTGCCACCCGTAGGCAGC
CTCTCTGCTATAAGAAAAGCAGACGCAGCAGCTGGGACCCCTCCCAACCTCAATGCCCTGCCATTAAATCCGCAA
ACAGCC

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FIGURE 3130

AACCACATCTTCGTCCCAGCCCCGGAGGCTCCTGTGGGCAAGATCGTGAGCCAACGGGTTCCTGAGGCCCCTCCT
GGCCAGGCAGGGTTTCCCCGCGCGTTTCCGAGGAGCCCTGCCTGGCCGGGCGGCTGGACAAACAGGTCGTAGCAC
CGATCGCGCCCGCCCCCAGCAGGGGTCCCGCACAGGCTTGCCCCTGACCCCCACCCAAACCTGTCCTTCCGCTTT
GCCCCCAAACAGTGCACTTGCCGGCGGTCCCAACCCAGCAGGAGAAGTGGAC**ATG**AGGTTGGCAGGCCCTCTCCG
CATTGTGGTCCTAGTCGTCAGTGTGGGTGTCACATGGATCGTGGTCAGCATCCTCCTGGGTGGGCCTGGCAGTGG
CTTTCCTCGCATCCAGCAACTCTTCACCAGTCCAGAGAGCTCGGTGACTGCAGCGCCACGGGCCAGGAAGTACAA
GTGTGGCCTGCCCCAGCCGTGTCCTGAGGAGCACCTGGCCTTCCGCGTGGTCAGCGGGGCCGCCAACGTCATTGG
GCCCAAGATCTGCCTCGAGGACAAGATGCTGATGAGCAGCGTCAAGGACAACGTGGGCCGCGGGCTGAACATCGC
CCTGGTGAACGGGGTCAGCGGCGAGCTCATCGAGGCCCGGGCCTTTGACATGTGGGCCGGAGATGTCAACGACCT
GTTGAAGTTTATTCGGCCACTGCACGAAGGCACCCTGGTGTTCGTGGCATCCTACGACGACCCAGCCACCAAGAT
GAATGAAGAGACCAGAAAGCTCTTCAGTGAGCTGGGCAGCAGGAACGCCAAGGAGCTGGCCTTCCGGGACAGCTG
GGTGTTTGTCGGGGCCAAGGGTGTGCAGAACAAGAGCCCCTTTGAGCAGCACGTGAAGAACAGTAAGCACAGCAA
CAAGTACGAAGGCTGCCCCGAGGCGCTGGAGATGGAAGGCTGTATCCCGCGGAGAAGCACGGCCAGC**TAG**CACGG
CCAGTGCCAGGACCGGGCCGAGGGAGGCCAGACCAAGGGAGGCACGCGCGCTGCCGGGCGGACAGAGGCTGAGGC
TCACACCCCACACCCGGGCAGGAGCGCTCCCTGGCCCCAACACATCGGGGCTCCGAGGCAGTGACCAGAACGTGG
TCTCAAGGTGGTGGGGGCTATGGGGGCTGCAGGGGGTAGCCCTGCCGCACTTTGTCACGGGAGCCCAGGGTACCC
GCCTCCTTTTCGTAACACTGTTCCCCCCGGTCAGCCCATCTAGCCCTGTCCTCCATTCCTCACGCCATCTCCATC
CCCATCTTGAGTCCTGGAACGGCCCTGGGTGCCTGCCCCTCACTGTGCATCTCTGGGAGCAGCCCGGCAGGTTGG
GGCGTCTTCCAGAACCTCTCCCTTCTGGAGCCACTCTGCACTGCGGGCTAAACATGTTTCCAGTGTGATTCCTTC
CAGTGAGCCAAACCCGGTGGCTGCTTCATGAGCCTGACTGCCTCTCGCCTGCTCTCAGCAGGAAGGGACCCCTGG
AGCAGGCTGGCCCGGGGTGGTGAAGTAGCTGGAGCCCGATCACAGTCCCGCGGTTTGTCAGGGGGCCCACCTTCT
AGATGACCCCTTAATAAAGTGATGGCCCCAC

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FIGURE 3131

ATGCAGCTGACGGTGAAGGCGCTGCAGGGCCGCGAGTGCAGCCTGCAGGTGCCAGAGGACGAGCTGGTGTCCACG
CTGAAGCAGCTGGTCTCCGAGAAGCTGAACGTCCCAGTGCGCCAGCAGCGGCTGCTGTTCAAGGGCAAGGCCCTG
GCAGATGGGAAACGACTCTCGGATTATAGCATCGGGCCCAACTCCAAGCTCAACCTAGTGGTCAAACCCCTGGAG
AAGGTGCTACTAGAAGAAGGCGAGGCCCAGAGGCTGGCCGACTCCCCACCCCCGCAGGTCTGGCAGCTGATCTCC
AAAGTCTTGGCCCGCCACTTCAGTGCGGCAGATGCCAGCAGGGTCCTGGAACAGCTACAGAGGGATTACGAGAGG
TCCCTGAGTCGCCTGACGCTGGACGACATCGAACGGTTGGCCAGCCGCTTCCTGCACCCTGAAGTGACTGAGACA
ATGGAGAAGGGCTTCTCCAAA**TAG**

FIGURE 3132

CGGGACGCGG**ATG**CAGACGCAGGCGGAGGCGCTGACGGCGGGGATGGCCGGGGTGGCCACAGCTGCCGCGGGGGC
GTGGACACAGCCGCAGCTCCGGCCGGTGGAGCTCCCCCAGCGCACGCGCCAGGTCCGGGCAGAGACGCCGCGTCT
GCGCCAGGGGGTCACGAATGCGGCCGCACATATTCACCCTCAGCGTGCCTTTCCCGACCCCCTTGGAGGCGGAAA
TCGCCCATGGGTCCCTGGCACCAGATGCCGAGCCCCACCAAAGGGTGGTTGGGAAGGATCTCACAGTGAGTGGCA
GGATCCTGGTCGTCCGCTGGAAAGC**TGA**AGACTGTCGCCTGCTCCGAATTTCCGTCATCAACTTTCTTGACCAGC
TTTCCCTGGTGGTGCGGACCATGCAGCGCTTTGGGCCCCCCGTTTCCCGCTAAGCCTGGCCTGGGCAAATGGAGC
GAGGTCCCACTTTGCGTCTCCTTGTAGGCAGTGCGTCCATCCTTCCCTAGGGCAGGAATTCCCACAGTTGCTACT
TTCCTGGGAGGGCCTCATGTTTTATCTGGTTCTTAAATGTTTGTTACTACAGAAAATAAAACTG

FIGURE 3133A

AGTGTGTGGGCGGCGGCGGCGGCTGCGCGCTTGGGGCCCGGGGCGCGGGGCGAGGCCGTGGGGACGTGCGAG
CGGGGCCGCGGTGGGGCTCGGGGGCGCGTCCACGTGGCCAGAGGGCGGCCACCCGGAGCCAGCGGAGGGACAGGC
CTGTCCCCAGGCGCGGCTGCCGGCC**ATG**CCCTCTGTCTGCCTCCTCCTGCTGCTCTTCCTTGCCGTGGGGGGGGC
CCTGGGCAACAGGCCCTTCCGTGCCTTCGTGGTGACAGACACCACGCTTACCCACCTGGCTGTGCACCGGGTGAC
TGGGGAGGTGTTCGTGGGCGCAGTGAACCGAGTCTTTAAGCTGGCCCCCAACCTGACTGAGCTGCGGGCCCATGT
CACGGGGCCCGTCGAGGACAACGCTCGCTGCTACCCGCCCCCCAGCATGCGCGTGTGTGCCCACCGCCTGGCCCC
CGTGGACAACATCAACAAGCTGCTGCTCATAGACTATGCGGCCCGCCGCCTGGTGGCCTGCGGCAGCATCTGGCA
GGGCATCTGCCAGTTCCTGCGTCTGGACGACCTCTTCAAGCTGGGTGAGCCGCACCACCGCAAGGAGCACTACCT
GTCGGGGGCCCAGGAGCCCGACTCCATGGCTGGTGTCATTGTGGAGCAGGGCCAGGGGCCCAGCAAGCTGTTTGT
GGGCACTGCTGTCGACGGCAAGTCGGAGTACTTCCCCACCTTGAGCTCCCGCAAGCTCATCAGTGATGAAGACAG
CGCGGACATGTTCAGTCTCGTGTACCAGGATGAGTTTGTGTCCTCCCAGATCAAGATCCCCTCAGACACGCTGTC
CTTGTACCCTGCCTTTGACATCTACTACATCTACGGCTTCGTCAGCGCCTCCTTCGTGTACTTCCTGACGCTGCA
GCTGGACACCCAGCAGACGCTGTTGGACACAGCGGGCGAGAAATTTTTCACGTCCAAGATCGTGCGCATGTGCGC
GGGAGACTCAGAGTTCTACTCATACGTGGAATTCCCCATCGGCTGCTCCTGGCGCGGCGTGGAGTACCGCTTGGT
GCAGAGCGCCCACCTGGCCAAGCCTGGCCTGCTGCTGGCCCAGGCCCTGGGCGTGCCGGCTGATGAGGACGTCCT
CTTCACCATCTTCTCTCAGGGCCAGAAGAACCGGGCCAGCCCACCCCGGCAGACCATCCTCTGCCTCTTCACCCT
CAGCAACATCAATGCCCACATCCGGCGCCGCATCCAGTCCTGCTATCGTGGGGAGGGCACTCTGGCTCTGCCCTG
GCTGCTGAACAAGGAGCTGCCCTGCATCAACACCCCCATGCAGATCAACGGCAACTTCTGTGGGCTGGTGTTGAA
CCAGCCTCTGGGAGGCCTGCATGTGATCGAGGGGCTGCCCCTGCTGGCCGACAGCACCGACGGCATGGCCAGCGT
GGCCGCCTACACCTACCGCCAGCACTCTGTGGTCTTCATTGGCACGCGCAGCGGCAGCTTGAAGAAGGTGCGGGT
CGATGGCTTCCAGGATGCCCACCTGTATGAGACAGTCCCCGTGGTGGATGGCAGCCCCATCCTCCGAGACCTGCT
CTTCAGCCCGGACCACCGGCACATCTATCTCCTGAGTGAGAAGCAGGTGAGCCAGCTCCCGGTGGAGACCTGTGA
GCAGTACCAGAGCTGCGCAGCCTGCCTGGGCTCCGGGGACCCGCACTGTGGTTGGTGTGTGCTGCGACACAGGTG
CTGCCGCGAAGGGGCCTGTCTGGGCGCCTCTGCCCCACACGGCTTTGCTGAGGAGCTGAGCAAGTGTGTCCAGGT
GCGGGTCCGGCCCAACAATGTGTCAGTGACGTCACCTGGGGTGCAGCTGACCGTCACCCTGCACAACGTGCCAGA
CCTCAGTGCGGGCGTGAGCTGCGCCTTCGAGGCGGCGGCGGAGAACGAGGCGGTCCTGCTGCCCTCCGGTGAACT
GCTCTGCCCCTCACCCTCCCTCCAGGAGCTCCGAGCTCTTACCAGGGGGCATGGGGCCACCCGCACTGTGCGGCT
GCAGCTTCTCTCCAAGGAGACAGGCGTGAGGTTTGCCGGTGCTGACTTTGTCTTCTACAACTGCAGCGTCCTCCA
GTCGTGCATGTCCTGTGTTGGCAGCCCTTACCCCTGCCACTGGTGTAAGTACCGCCACACGTGTACCAGCCGCCC
CCACGAGTGCTCCTTCCAGGAGGGCAGGGTCCACAGCCCTGAGGGCTGCCCTGAGATCCTGCCCAGTGGGGACCT
CCTGATCCCCGTTGGGGTCATGCAGCCTCTTACCTTGCGGGCTAAGAACCTACCTCAGCCGCAGTCGGGCCAGAA
GAACTATGAGTGCGTGGTGCGGGTGCAGGGGCGGCAGCAGCGGGTGCCTGCCGTGCGCTTCAACAGCAGCAGTGT
GCAGTGCCAGAACGCCTCGTACTCCTATGAAGGTGATGAGCATGGTGACACCGAGCTGGACTTCTCCGTGGTCTG
GGATGGAGACTTCCCCATAGACAAGCCTCCCAGCTTCCGAGCCCTCCTGTACAAGTGCTGGGCGCAGCGGCCCAG
CTGTGGCCTCTGCCTCAAGGCTGATCCCCGCTTCAACTGTGGCTGGTGCATCTCAGAGCACAGGTGCCAGCTGCG
GACCCACTGCCCGGCCCCGAAGACCAACTGGATGCACCTGAGCCAGAAGGGCACCCGGTGCAGCCACCCCCGCAT
CACGCAGATCCACCCTCTCGTGGGGCCCAAGGAAGGAGGCACCCGGGTCACCATCGTGGGTGACAACCTGGGCCT
CTTGTCCCGAGAGGTGGGCCTGCGGGTGGCTGGCGTGCGTTGCAACTCCATTCCGGCCGAGTACATCAGTGCTGA
GAGGATCGTGTGTGAGATGGAGGAGTCGCTGGTGCCCAGCCCGCCGCCGGGGCCCGTGGAGCTGTGTGTGGGTGA
CTGTTCAGCCGACTTCCGCACGCAGTCGGAGCAGGTCTACAGCTTTGTGACCCCAACGTTTGACCAAGTGAGTCC
CAGCCGTGGCCCGGCGTCCGGGGGCACACGGCTTACCATCTCAGGCAGCTCTCTGGATGCTGGCAGCAGGGTCAC
AGTGACTGTGAGGGACAGCGAGTGCCAGTTTGTAAGGAGAGATGCCAAGGCGATCGTGTGCATCTCACCTCTCTC
CACCCTGGGCCCCAGCCAGGCCCCCATCACACTTGCCATTGACCGGGCTAACATCTCCAGCCCCGGGCTCATCTA
CACCTACACTCAGGACCCCACCGTCACCCGCCTTGAGCCCACCTGGAGCATCATCAATGGAAGCACTGCCATCAC
TGTGAGTGGGACCCACCTGCTGACGGTCCAGGAGCCCCGGGTCCGTGCCAAGTACCGCGGCATTGAGACCACCAA
TACATGCCAAGTGATCAACGACACTGCCATGCTGTGTAAGGCCCCCGGCATCTTTCTTGGGCGGCCCCAGCCTCG
GGCGCAAGGCGAGCACCCTGATGAGTTTGGCTTCCTGCTGGACCACGTGCAAACGGCCCGCTCCCTCAACCGCTC
CTCCTTTACCTACTACCCTGATCCCAGCTTTGAGCCGCTGGGGCCCTCTGGCGTGCTGGACGTCAAACCGGGCTC

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FIGURE 3133B

CCACGTGGTGCTGAAGGGCAAGAACCTGATTCCCGCGGCAGCCGGCAGCTCCCGCCTCAACTACACTGTGCTGAT
AGGAGGCCAGCCGTGTTCGCTCACTGTCTCGGACACACAACTCCTGTGCGACTCACCCAGCCAGACTGGCCGGCA
GCCTGTCATGGTGCTGGTGGGTGGCCTGGAGTTCTGGCTGGGCACCCTGCACATCTCGGCAGAGCGGGCGCTGAC
CCTACCGGCCATGATGGGGCTGGCGGCGGGGGGTGGGCTCCTGCTGCTGGCCATCACAGCCGTGCTGGTGGCGTA
CAAGCGCAAGACTCAGGACGCGGACCGTACCCTCAAGCGTCTGCAGCTGCAGATGGACAACCTGGAGTCCCGTGT
GGCCCTGGAGTGCAAGGAAGCTTTTGCAGAGCTGCAGACGGACATCAATGAGCTGACTAACCACATGGACGAGGT
GCAGATCCCCTTCCTGGACTACCGGACTTACGCCGTGCGCGTGCTCTTCCCGGGCATCGAGGCCCACCCGGTGCT
CAAGGAGCTGGATACGCCACCCAACGTGGAGAAGGCCCTGCGCCTCTTCGGGCAGCTGCTGCACAGCCGCGCGTT
CGTGCTTACCTTCATCCACACGCTGGAGGCCCAGAGCAGCTTCTCCATGCGCGACCGCGGCACCGTGGCCTCGCT
CACCATGGTGGCCCTGCAGAGCCGGCTCGACTATGCCACGGGGCTGCTCAAGCAACTGCTGGCCGACCTCATCGA
GAAGAACCTCGAGAGCAAGAACCACCCCAAGCTGCTGCTACGCAGGACAGAGTCAGTGGCTGAGAAGATGCTTAC
CAACTGGTTCACGTTCCTGCTGCATAAGTTTCTGAAGGAGTGTGCTGGGGAGCCTCTCTTCCTGCTTTACTGTGC
CATCAAGCAGCAGATGGAGAAGGGCCCCATTGATGCCATCACGGGCGAGGCACGATACTCCCTGAGCGAGGACAA
GCTCATCCGTCAGCAGATCGACTACAAGACACTGACCCTTCACTGCGTGTGTCCGGAGAACGAGGGCAGCGCCCA
GGTCCCAGTGAAGGTTCTCAACTGTGACAGCATCACCCAGGCCAAAGATAAGCTGCTGGACACTGTGTACAAGGG
CATTCCGTACTCCCAGCGTCCCAAAGCTGAGGACATGGACCTGGAGTGGCGCCAGGGCCGCATGACTCGCATCAT
CCTCCAGGATGAGGATGTCACCACCAAGATCGAGTGTGACTGGAAGAGGCTCAACTCACTGGCCCACTACCAGGT
GACAGACGGTTCCTTGGTGGCATTGGTGCCCAAACAAGTGTCTGCCTATAACATGGCCAACTCCTTCACCTTCAC
CCGCTCCCTCAGCCGCTACGAGAGCTTGCTCCGCACGGCCAGCAGCCCTGATAGCCTCCGCTCACGGGCACCCAT
GATTACGCCTGACCAGGAGACAGGCACCAAATTGTGGCACCTGGTGAAAAACCACGACCATGCCGACCATCGCGA
GGGGGACCGTGGCAGCAAGATGGTCTCCGAGATCTACCTGACACGGCTGCTGGCCACCAAGGGCACACTGCAGAA
GTTCGTGGATGACCTCTTTGAGACAGTGTTCAGCACAGCCCACCGGGGCTCGGCCCTGCCCCTGGCCATCAAGTA
CATGTTCGACTTCCTGGATGAGCAGGCGGACCAGCGCCAGATCAGCGACCCCGATGTGCGCCACACCTGGAAGAG
CAACTGCCTGCCGCTGCGCTTCTGGGTGAATGTGATCAAGAACCCGCAGTTCGTGTTCGACATCCACAAGAACAG
CATCACGGATGCCTGCCTGTCGGTGGTAGCCCAGACCTTCATGGACTCCTGCTCTACATCCGAGCACCGCCTGGG
GAAGGACTCGCCCTCCAACAAACTGCTCTACGCCAAGGACATCCCCAACTACAAGAGCTGGGTGGAGAGGTATTA
TCGAGACATTGCAAAGATGGCATCCATCAGCGACCAGGACATGGATGCCTACCTGGTGGAGCAGTCCCGCCTCCA
CGCCAGCGACTTCAGCGTCCTGAGTGCGCTCAACGAGCTGTATTTCTATGTCACCAAGTACCGCCAGGAGATTCT
CACGGCTCTGGACCGAGATGCCTCTTGTCGGAAGCATAAGTTGCGGCAGAAACTGGAACAGATCATCAGCCTCGT
GTCCAGCGACAGC**TAA**GGTGGTGGAATCGGTGAGGAGGGGGCTTCTCAGTCCTGTGCCGTCCTCCCATCCAGGGG
AGTGGCTGGCTCAAGCCTGGGTCCCCGGGCTGAGCCCTGGATTGGGTATCGTGGGGCAGGTCACCCTGGCCACGA
TGCCCCCGGCACACCCAGGCCCCCTTCATTAGTGCCTTGCTTTGGGCCCTGCAGGGGGAGGGGTGACAGGGCGAG
CCCCCACCCCAGCAGCAGCAATACCCCC

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FIGURE 3134

CCGCCGCTGCCGCTGCCGCTGTCGCTGTCGCCGCCGCCGCCGCCCGCCGCCGCCGCCGCCGCCGCCGCCGCTGCC
ATGGCTCAATACAAGGGCGCCGCGAGCGAGGCCGGCCGCGCCATGCACCTGATGAAGAAGCGGGAGAAGCAGCGC
GAGCAGATGGAGCAGATGAAGCAGCGCATCGCGGAGGAGAACATCATGAAATCCAACATTGACAAGAAGTTCTCT
GCGCACTACGACGCGGTGGAGGCAGAGCTCAAGTCCAGCACCGTGGGTCTCGTGACCCTGAATGACATGAAGGCC
AAGCAGGAGGCTCTGGTGAAGGAGCGGGAGAAGCAGCTGGCCAAGAAGGAGCAGTCCAAGGAGCTGCAGATGAAG
CTGGAGAAGCTTCGAGAGAAGGAGCGTAAGAAGGAAGCCAAGCGGAAGATCTCCAGCCTGTCCTTCACCCTGGAG
GAGGAAGAAGAGGGAGGCGAGGAGGAAGAGGAGGCGGCCATGTATGAGGAGGAGATGGAAAGGGAAGAGATCACC
ACGAAGAAGAGAAAACTGGGGAAGAACCCAGACGTTGACACAAGCTTCTTGCCTGATCGAGACCGTGAGGAGGAG
GAGAATCGGCTTCGGGAAGAGCTGCGGCAGGAGTGGGAAGCCAAGCAGGAGAAGATCAAGAGTGAGGAGATCGAG
ATCACCTTCAGCTACTGGGATGGCTCTGGGCACCGGCGGACAGTCAAGATGAGAAAGGGCAACACCATGCAGCAG
TTCCTGCAGAAGGCGCTCGAGATCCTTCGGAAAGACTTCAGTGAGCTGAGGTCCGCAGGGGTGGAGCAGCTCATG
TACATCAAGGAGGACTTGATCATCCCTCACCATCACAGCTTCTACGACTTCATCGTCACCAAGGCACGGGGGAAG
AGTGGACCACTCTTCAACTTTGATGTTCATGACGATGTGCGGTTGCTCAGTGACGCCACTGTGGAGAAGGATGAG
TCCCATGCAGGCAAGGTGGTGCTGAGGAGCTGGTACGAGAAGAACAAGCACATCTTTCCCGCCAGCCGCTGGGAA
CCCTACGACCCTGAAAAGAAGTGGGACAAGTACACGATCCGC**TGA**GCATCCAGGAGGCTGCGCGGCCCCGGCTCC
TCAGCTCCCTCAGTGTGCCCCGTGGTGTCACCGGGACTCCAGGCACCCGCTCCCCTGCGACCATGCCAGGCACGC
TGGGAGGAGGACGGCAGCTGCTCGTGTCCTGCCCCTGCCACATCAGTGACTGCTTTATTCTTTTCCAATAAAGAA
GTGCACGTGTCAGAGCTGGAGCGCCTGCATTGTGAG

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FIGURE 3135

CGGCGGCGGCGGTGGCGGCGGCGACTGCTGCGGTGAAGGAGGAGGAGGAGCCGAGCGGGCGCTGGCACCGAGGCC
TGACC**ATG**GACGAGGAATACGATGTGATCGTGCTGGGGACCGGTCTCACCGAATGCATCCTGTCGGGCATCATGT
CTGTGAACGGGAAGAAGGTGCTGCACATGGACCGGAACCCCTACTACGGGGGCGAGAGCTCCTCCATCACACCCC
TGGAGGAGCTGTATAAGCGTTTTCAGTTGCTGGAGGGGCCCCCTGAGTCGATGGGCCGAGGCCGAGACTGGAATG
TTGACCTGATTCCCAAATTCCTCATGGCTAACGGGCAGCTGGTAAAGATGCTACTGTATACAGAGGTGACTCGCT
ACCTGGACTTCAAGGTGGTGGAGGGCAGCTTTGTCTACAAGGGGGGCAAGATCTACAAAGTGCCGTCCACTGAGA
CTGAGGCCTTGGCTTCCAATCTGATGGGCATGTTTGAGAAACGGCGCTTCCGCAAGTTCCTGGTGTTTGTGGCAA
ACTTCGATGAGAATGACCCCAAGACCTTTGAGGGCGTTGACCCCCAGACTACCAGCATGCGTGACGTCTACCGGA
AGTTTGATCTGGGCCAGGATGTCATCGATTTCACTGGCCATGCCCTGGCGCTCTACCGCACTGATGACTACCTGG
ACCAGCCCTGCCTTGAGACCGTCAACCGCATCAAGTTGTACAGTGAGTCCCTGGCCCGGTATGGCAAGAGCCCAT
ATTTATACCCGCTCTACGGCTTGGGCGAGCTGCCCCAGGGTTTTGCAAGATTGAGTGCCATCTATGGGGGGACAT
ATATGCTGAACAAACCTGTGGATGACATCATCATGGAGAACGGCAAGGTGGTGGGCGTGAAGTCTGAGGGAGAGG
TGGCCCGCTGCAAGCAGCTGATCTGTGACCCCAGCTACATCCCGGACCGTGTGCGGAAGGCTGGCCAGGTTATCC
GCATCATCTGTATCCTTAGCCACCCCATCAAGAACACCAACGACGCCAACTCCTGCCAAATAATCATCCCCCAGA
ACCAGGTCAACAGGAAGTCAGACATCTACGTGTGCATGATCTCCTATGCACACAACGTGGCGGCCCAGGGCAAGT
ACATAGCTATTGCCAGCACTACTGTGGAGACCACGGACCCTGAAAAGGAGGTGGAGCCGGCTCTGGAGCTGTTGG
AGCCCATTGACCAGAAGTTTGTGGCTATCAGTGACTTGTATGAGCCCATTGATGATGGTTGTGAGAGCCAGGTGT
TCTGTTCCTGCTCCTACGATGCCACCACACACTTTGAGACAACCTGCAACGACATCAAAGACATCTACAAACGCA
TGGCTGGCACGGCCTTTGACTTTGAGAACATGAAGCGCAAACAGAACGACGTCTTTGGAGAAGCTGAGCAG**TGA**T
TGTGGCCGCCCCCAGCCCCTGCTGCCCCAGCCTGTGTCTGTTCTCCTCGAGGGCTCCAGCATCCTCTGCTTCCCC
CACCACGTTCCCATCACCCACCTCATTGATCCACTGACCAAATCCTTAACCCTAGCGATGGCTTGGGAGATGGGG
GGTTGGATAGCATCCTCTTTCTTGGCCCTTCCTTATCCTAGGAAAAGAGGGTTCCTCTCCTTGTGTGTGTCTCTT
CCCCCCACCCCTAATTCTTCTGCTCTGTTTGGGAAGACGTGGAGGAAAAGGTGACTTCTGCCCCCACCGCTCTTA
CCCCCACTGTAGTGGCCTTTGGAGATGCCCCCACCTCCCCCCCACCAACTCTCGCGTGTTGGAGAGAAGGGGCCC
TCCCAGCACAAAGTTGCATTCCTCCCCCCTAATTTATTCTAATTTATTAACTTTGACCCACCCTTTCTGAGCCTG
CAGCCTTCCCGTGTGGCCTGAGGGCTGTCGAGTGAGCTGCCCCAGCCCCTCCCAGCCCTTGCCCAGCCTGGGGGA
GTGGGGAAGGCTTGGGCATGGCCCCGTTGGAGGTTGATTTGCTGTTTTGTTTCTTGTCTTTGTGTTCTGTGGTAC
TTGCTGAGAGAAAAGAAAAGTGAGCCAAGCAGAAGGAGGTGGGAAAACGGACCCAAACCCCAGTGTGCCCTGCCC
CATGCCTTTCCTTTAGTGGTGGGAAACCCTTATCTTGCAAAGTGAATGTGTCCCCTTCCCCACCCTCTAGTGTAT
TTCACAGAAAACAAAACCTCCCAATAAAACGGTTGAAACCTG

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FIGURE 3136

GGCAGTGGAGGCTGAGGCT**ATG**ATGGCGGCCATGGCGACGGCTCGAGTGCGGATGGGGCCGCGGTGCGCCCAGGC
GCTCTGGCGCATGCCGTGGCTGCCGGTGTTTTTGTCGTTGGCGGCGGCGGCGGCGGCAGCGGCGGAGCAGCA
GGTCCCGCTGGTGCTGTGGTCGAGTGACCGGGACTTGTGGGCTCCTGCGGCCGACACTCATGAAGGCCACATCAC
CAGCGACTTGCAGCTCTCTACCTACTTAGATCCCGCCCTGGAGCTGGGTCCCAGGAATGTGCTGCTGTTCCTGCA
GGACAAGCTGAGCATTGAGGATTTCACAGCATATGGCGGTGTGTTTGGAAACAAGCAGGACAGCGCCTTTTCTAA
CCTAGAGAATGCCCTGGACCTGGCCCCCTCCTCACTGGTGCTTCCTGCCGTCGACTGGTATGCAGTCAGCACTCT
GACCACTTACCTGCAGGAGAAGCTCGGGGCCAGCCCCTTGCATGTGGACCTGGCCACCCTGCGGGAGCTGAAGCT
CAATGCCAGCCTCCCTGCTCTGCTGCTCATTCGCCTGCCCTACACAGCCAGCTCTGGTCTGATGGCACCCAGGGA
AGTCCTCACAGGCAACGATGAGGTCATCGGGCAGGTCCTGAGCACACTCAAGTCCGAAGATGTCCCATACACAGC
GGCCCTCACAGCGGTCCGCCCTTCCAGGGTGGCCCGTGATGTAGCCGTGGTGGCCGGAGGGCTAGGTCGCCAGCT
GCTACAAAAACAGCCAGTATCACCTGTGATCCATCCTCCTGTGAGTTACAATGACACCGCTCCCCGGATCCTGTT
CTGGGCCCAAAACTTCTCTGTGGCGTACAAGGACCAGTGGGAGGACCTGACTCCCCTCACCTTTGGGGTGCAGGA
ACTCAACCTGACTGGCTCCTTCTGGAATGACTCCTTTGCCAGGCTCTCACTGACCTATGAACGACTCTTTGGTAC
CACAGTGACATTCAAGTTCATTCTGGCCAACCGCCTCTACCCAGTGTCTGCCCGGCACTGGTTTACCATGGAGCG
CCTCGAAGTCCACAGCAATGGCTCCGTCGCCTACTTCAATGCTTCCCAGGTCACAGGGCCCAGCATCTACTCCTT
CCACTGCGAGTATGTCAGCAGCCTGAGCAAGAAGGGTAGTCTCCTCGTGGCCCGCACGCAGCCCTCTCCCTGGCA
GATGATGCTTCAGGACTTCCAGATCCAGGCTTTCAACGTAATGGGGGAGCAGTTCTCCTACGCCAGCGACTGTGC
CAGCTTCTTCTCCCCCGGCATCTGGATGGGGCTGCTCACCTCCCTGTTCATGCTCTTCATCTTCACCTATGGCCT
GCACATGATCCTCAGCCTCAAGACCATGGATCGCTTTGATGACCACAAGGGCCCCACTATTTCTTTGACCCAGAT
TGTG**TGA**CCCTGTGCCAGTGGGGGGGTTGAGGGTGGGACGGTGTCCGTGTTGTTGCTTTCCCACCCTGCAGCGCA
CTGGACTGAAGAGCTTCCCTCTTCCTACTGCAGCATGAACTGCAAGCTCCCCTCAGCCCATCTTGCTCCCTCTTC
AGCCCGCTGAGGAGCTTTCTTGGGCTGCCCCCATCTCTCCCAACAAGGTGTACATATTCTGCGTAGATGCTAGAC
CAACCAGCTTCCCAGGGTTCGTCGCTGTGAGGCGTAAGGGACATGAATTCTAGGGTCTCCTTTCTCCTTATTTAT
TCTTGTGGCTACATCATCCCTGGCTGTGGATAGTGCTTTTGTGTAGCAAATGCTCCCTCCTTAAGGTTATAGGGC
TCCCTGAGTTTGGGAGTGTGGAAGTACTACTTAACTGTCTGTCCTGCTTGGCTGTCGTTATCGTTTTCTGGTGAT
GTTGTGCTAACAATAAGAAGTACACGGGTTTATTTCTGTGGCCTGAGAAGGAAGGGACCTCCACGACAGGTGGGC
TGGGTGCGATCGCCGGCTGTTTGGCATGTTCCCACCGGGAGTGCCGGGCAGGAGCATGGGGTGCTTGGTTGTTTC
CTTCCTAATAAAATAAACGCGGGTCGCCATG

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FIGURE 3137

CCGGGCCGGGGTGCCAGCGCCCGCTTTCCCGTTTCCTCCCGTTCCGCAGCGCGCCCACGGCCTGTGACTTCGGAG
ACCGCTCCCCAGTGACGAGAGAGCGGGGCCGGGCGCTGCTCCGGCCTGACCTGCGAAGGGACCTCGGTCCAGTAC
CCTGTTGCGCCGCGCCCCCGTCCGTCCGTGCGCGGGCCAGTCAGGGGCCAGTGTGTCGAGGCGGTAGAGGTCGCA
GCCTAGAGGCGTTCCACAGGTCGGCCCGGGGCGCTGGGAGCCCGGCCGGCGGTCGGGTGGGGTGGCCTCTGCACG
TGAAAGTGGCCGTTCCCCGCGGTGCCGCCGCTCACCTGGACCCTGGCCAGCAGCGTCGTCATGGGCTTGGTGGGC
ACCTACAGCTGCTTCTGGACCAAGTACATGAACCACCTGACCGTGCACAACAGGGAGGTGCTGTACGAGCTCATC
GAGAAGCGAGGCCCGGCCACGCCCCTCATCACCGTGTCCAATCACCAGTCCTGCATGGACGACCCTCATCTCTGG
GGGATCCTGAAACTCCGCCACATCTGGAACCTGAAGTTGATGCGTTGGACCCCTGCAGCTGCAAGACATCTGCTT
CACCAAGGAGCTACACTCCCACTTCTTCAGCTTGGGCAAGTGTGTGCCTGTGTGCCGAGGAGCAGAATTTTTCCA
AGCAGAGAATGAGGGGAAAGGTGTTCTAGACACAGGCAGGCAC**ATG**CCAGGTGCTGGAAAAAGAAGAGAGAAAGG
AGATGGCGTCTACCAGAAGGGGATGGACTTCATTTTGGAGAAGCTCAACCATGGGGACTGGGTGCATATCTTCCC
AGAAGGGAAAGTGAACATGAGTTCCGAATTCCTGCGTTTCAAGTGGGGAATCGGGCGCCTGATTGCTGAGTGTCA
TCTCAACCCCATCATCCTGCCCCTGTGGCATGTCGGAATGAATGACGTCCTTCCTAACAGTCCGCCCTACTTCCC
CCGCTTTGGACAGAAAATCACTGTGCTGATCGGGAAGCCCTTCAGTGCCCTGCCTGTACTCGAGCGGCTCCGGGC
GGAGAACAAGTCGGCTGTGGAGATGCGGAAAGCCCTGACGGACTTCATTCAAGAGGAATTCCAGCATCTGAAGAC
TCAGGCAGAGCAGCTCCACAACCACCTCCAGCCTGGGAGA**TAG**GCCTTGCTTGCTGCCTTCTGGATTCTTGGCCC
GCACAGAGCTGGGGCTGAGGGATGGACTGATGCTTTTAGCTCAAACGTGGCTTTTAGACAGATTTGTTCATAGAC
CCTCTCAAGTGCCCTCTCCGAGCTGGTAGGCATTCCAGCTCCTCCGTGCTTCCTCAGTTACACAAAGGACCTCAG
CTGCTTCTCCCACTTGGCCAAGCAGGGAGGAAGAAGCTTAGGCAGGGCTCTCTTTCCTTCTTGCCTTCAGATGTT
CTCTCCCAGGGGCTGGCTTCAGGAGGGAGCATAGAAGGCAGGTGAGCAACCAGTTGGCTAGGGGAGCAGGGGGCC
CACCAGAGCTGTGGAGAGGGGACCCTAAGACTCCTCGGCCTGGCTCCTACCCACCGCCCTTGCCGAACCAGGAGC
TGCTCACTACCTCCTCAGGGATGGCCGTTGGCCACGTCTTCCTTCTGCCTGAGCTTCCCCCCCACCACAGGCCCT
TTCCTCAGGCAAGGTCTGGCCTCAGGTGGGCCGCAGGCGGGAAAAGCAGCCCTTGGCCAGAAGTCAAGCCCAGCC
ACGTGGAGCCTAGAGTGAGGGCCTGAGGTCTGGCTGCTTGCCCCCATGCTGGCGCCAACAACTTCTCCATCCTTT
CTGCCTCTCAACATCACTTGAATCCTAGGGCCTGGGTTTTCATGTTTTTGAAACAGAACCATAAAGCATATGTGT
TGGCTTGTT

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FIGURE 3138

CTTGAACGCCTGACCTCGTATCCACCCGCCTCAGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCACGCC
CAGCCCATAATTTATTGATTTTTTAAAATTTGTCCAGCCTTCTATTACCACGTCGAATCCATTAGCTACAGCCAT
CCCATGAGAAGCTGAGTGGATTCAGCCCCACCTCCTGCTCACAGACCCTGTCCGAGCACCTCATTTGTCCCAACA
GCATTACTGCAGGACCCCCAGGACGTTGGACTGCCAGCTCCCTGGGTCTCCTCCTCTCTGGGGCAGATCCTCAGT
CCTCCCTTGACTTCACGACTGTGGCCAGATCATGTGTGGACTGTCCCTCTCTTTGGGTCTCCAGAGCGCTTGCAT
CAAACACCCCTAACTCAGAAGTGTGCAGCCACACTGGGACTCAGAACCCAACAACAGGGACAGAAGACTCACGCC
CTTGGGGTGCCCGGTCTCGTGGCATCAGGCATGACTTCCAGCTCCTGCGCCTTCCCCAGCAACTGCTGACTGGGG
ACCCAGACCGGGAGCTGAGCGACGGGCCTGGCGAGCGAAGCTCGGGGTCTCACTCAGGCACCAGCCCCTCCTTGC
CCCAGGCTTGAGTGACTCACAGCCCTATTCAGGCAGGAGCTGCTCTTCTGGGGTATCGCGATCCACTTAAGGATG
AGGCAGACTTGGTGACAAGCTGGTCTGAGCAGCGCCTCCAGAGCCAGAACTGAGCCCAGTGAGAGCGCACCCTGG
GGCAGCCTGGATTCCTGGGGTGTCCCCGGCAGCCACACACAGCC**ATG**CACTACCCAACTGCACTCCTCTTCCTCA
TCCTGGCCAATGGGGCCCAGGCCTTTCGCATCTGCGCCTTCAATGCCCAGCGGCTGACACTGGCCAAGGTGGCCA
GGGAGCAGGTGATGGACACCTTAGTTCGGATACTGGCTCGCTGTGACATCATGGTGCTGCAGGAGGTGGTGGACT
CTTCCGGCAGCGCCATCCCGCTCCTGCTTCGAGAACTCAATCGATTTGATGGCTCTGGGCCCTACAGCACCCTGA
GCAGCCCCCAGCTGGGGCGCAGCACCTACATGGAGACGTATGTGTACTTCTATCGGTCACACAAAACACAGGTCC
TGAGTTCCTACGTGTACAACGATGAGGATGACGTCTTTGCCCGGGAGCCATTTGTGGCCCAGTTCTCTTTGCCCA
GCAATGTCCTTCCCAGCCTGGTGTTGGTCCCGCTGCACACCACTCCTAAGGCCGTAGAGAAGGAGCTGAACGCCC
TCTACGATGTGTTTCTGGAGGTCTCCCAGCACTGGCAGAGCAAGGACGTGATCCTGCTTGGGGACTTCAATGCTG
ACTGCGCTTCACTGACCAAAAAGCGCCTGGACAAGCTGGAGCTGCGGACTGAGCCAGGCTTCCACTGGGTGATTG
CCGATGGGGAGGACACCACAGTGCGGGCCAGCACCCACTGCACCTATGCCCGCGTCGTGCTGCACGGGGAGCGCT
GCCGGAGTCTGCTGCACACTGCGGCTGCCTTTGACTTCCCCACGAGCTTCCAGCTCACCGAGGAGGAGGCCCTCA
ACATCAGTGACCACTACCCCGTGGAGGTGGAGCTGAAGCTGAGCCAGGCGCACAGCGTCCAGCCTCTCAGCCTCA
CTGTTCTGTTGCTGCTATCACTCCTGTCCCCTCAGCTGTGCCCTGCTGCC**TGA**GCGTCCCCCTACCCCCCCAGGG
CCTGCTGCCTTTTGGGACTTAAACCCCAGCCTCCCCCGTCCATCCAGCCCTGGGGCTGGGGGGCTTCAACTATAG
TTGCCCTGTGACTGTAGTCCACCCCTGCCTGCCTTGTTTGATTTGGCTCTTGTTCTTTGGTTGGGCTTGTGCCTA
GATTAGGAGAGGAAGCCAGGGGCCCTGCACTCATGCCACCTGCCAGGTAGTGTAGTATCAGGAGTGGAGACAAAG
TGGGCTCTGGGTTGGGGTAGGGGAAGGGAGGGTTCAGAAAGAGGAATGAAGATGTTGTATGACAAGAAGGAAAGT
TACTGAGAACAAAAACCCAGATTGGTGAGATAGGACACTTGTGCAGCAGATATGCCAATGGGCCATGTTTATTGT
GGATTGGTAAGAATCACCAGGAAACCATTAAGCCCCAATAGCTACAAGGAGGGTGGTTAATCTGCTATATCAAAC
TCCTTCCCTGAAACCAGCAAACACCGGGAAACATTTTGGCTCATTATAATCCGGTGAACAATGCAGTCAGGCCTG
TTATAACCGCTGAGCAGCCACACTCGCACCTCCTGGGTGCTGTAGTCTGTGTTGGTACAGGCTTCTGCATGCCTG
GTAAAGGTCCAGCCAAGGCTGGTCAAGGCAACATCTCCACACAGAAAATCTGCACCAGTTATGTAAGCTAAAAAG
CTGTGTGAACCCAGGTGTCCCGGAAAGGGGCTGCAGGACACAGCAAAATGCCAGCAGCATGCCGGACCCCTCCCT
TCCATCCTCCTCTCCAAAGAAGAGAGGTCAGGAAAAACACTGGCTGGGACGCTAGAAGGGTCATGTGTTAACTAT
AATCACATTTATGGTTTGGAACCATCACCCCAAGGTAAAAAAAAAATAAAAGGTATTCCCAGGTATGTTTGGCAA
AATAAAATAAAGGTAATTAAAAACCT

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FIGURE 3139

CTCTTTCCCTTCGGTGTGCCACTGAAGATCCTGGTGTCGCC**ATG**GGCCGCCGCCCCGCCCGTTGTTACCGGTATT
GTAAGAACAAGCCGTACCCAAAGTCTCGCTTCTGCCGAGGTGTCCCTGATGCCAAGATTCGCATTTTTGACCTGG
GGCGGAAAAAGGCAAAAGTGGATGAGTTTCCGCTTTGTGGCCACATGGTGTCAGATGAATATGAGCAGCTGTCCT
CTGAAGCCCTGGAGGCTGCCCGAATTTGTGCCAATAAGTACATGGTAAAAAGTTGTGGCAAAGATGGCTTCCATA
TCCGGGTGCGGCTCCACCCCTTCCACGTCATCCGCATCAACAAGATGTTGTCCTGTGCTGGGGCTGACAGGCTCC
AAACAGGCATGCGAGGTGCCTTTGGAAAGCCCCAGGGCACTGTGGCCAGGGTTCACATTGGCCAAGTTATCATGT
CCATCCGCACCAAGCTGCAGAACAAGGAGCATGTGATTGAGGCCCTGCGCAGGGCCAAGTTCAAGTTTCCTGGCC
GCCAGAAGATCCACATCTCAAAGAAGTGGGGCTTCACCAAGTTCAATGCTGATGAATTTGAAGACATGGTGGCTG
AAAAGCGGCTCATCCCAGATGGCTGTGGGGTCAAGTACATCCCCAGTCGTGGCCCTCTGGACAAGTGGCGGGCCC
TGCACTCA**TGA**GGGCTTCCAATGTGCTGCCCCCCTCTTAATACTCACCAATAAATTCTACTTCCTGTCCACCTAT
GTCTTTGTATCTACATTCTTGACGGGGAAGGAACTTCCTCTGGGAACCTTTGGGTCATTGCCCTTTCACTTCAGA
AACAGGTTGACAACTCAGCCCTGCTCATGAGGCAGCAAACCCTGCAAAGGGCTGGGACTGGTGGCCTTATGTCAG
TTGTCTACTCTGGAGCTTGACTTGGACCTCCCCAGGTCCTAGGCAGTAGGTTGAAAAACACTGAAGTGCTTTTCA
TGAAGCACAGCTGCAGCAAAGCCTTGCAATCCCAGGCTGGGGTCAGCCTACAGTTGTGTTGCTTATTACAACACA
TGCGGACCAAGAGGGGCTTGTGGGCTAGAGGCTGACCAGCAGCGTTTATTTAGCAAGGGTAGGTGTGCATCACAT
TGGGCTTGTTCTCACCCATCTGGTTTGGCCATTCCTCCTTGGTGGGAATCATCCAGGTACTGCTGAGGTCACCTG
CGATTTGCCCCATTTCCTATCTCTAGCAACCTCCTGGGCCCCATGCCCCCACCCCTTCTAGAACCTGCATTCCCA
GGGCCTTCACCACCTGACCAAAGGTCTAGGCTAACCTTTGGTCATTTGTAACAAGACCTCGGAACAGACACGTGT
GTGGCATGGTTTGGCCTGGGGATCTTAGATGTCTGACCTGAACTATTGTAGAACAGCGCTGGCTTTTGGGGGAGC
AGCAAAAATGAGAGGAGTGCTAGGTGGGTGGCCTGAGCATCTGTATCCAGGGACAGGACTCCAAAGGCTTTTGGT
CCCAGAGCTGGGGTATGTTGGCCCCAGCCCCCAGCCTGTGGCTCCCAAAAGGCCTCTGGTTTTTTGTAATCTCAG
TTTACAGCCATTTCTTAGGTTTTTAATTACCTTTATTTTATTTTGCCAAACATACCTGGGAATACCTTTTATTTT
TTTTTTACCTTGGGGTGATGGTTCCAAACCATAAATGTGATTATAGTTAACACATGACCCTTCTAGCGTCCCAGC
CAGTGTTTTTCCTGACCTCTCTTCTTTGGAGAGGAGGATGGAAGGGAGGGGTCCGGCATGCTGCTGGCATTTTGC
TGTGTCCTGCAGCCCCTTTCCGGGACACCTGGGTTCACACAGCTTTTTAGCTTACATAACTGGTGCAGATTTTCT
GTGTGGAGATGTTGCCTTGACCAGCCTTGGCTGGACCTTTACCAGGCATGCAGAAGCCTGTACCAACACAGACTA
CAGCACCCAGGAGGTGCGAGTGTGGCTGCTCAGCGGTTATAACAGGCCTGACTGCATTGTTCACCGGATTATAAT
GAGCCAAAATGTTTCCCGGTGTTTGCTGGTTTCAGGGAAGGAGTTTGATATAGCAGATTAACCACCCTCCTTGTA
GCTATTGGGGCTTAATGGTTTCCTGGTGATTCTTACCAATCCACAATAAACATGGCCCATTGGCATATCTGC

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FIGURE 3140

CGGCCGGTTTTGGTAGGCCCGGGCCGCCGCCAGGCCTCCGCCTGAGCCCGCACCCGCC**ATG**GACAACTACGCAGA
TCTTTCGGATACCGAGCTGACCACCTTGCTGCGCCGGTACAACATCCCGCACGGGCCTGTAGTAGGATCAACTCG
TAGGCTTTACGAGAAGAAGATCTTCGAGTACGAGACCCAGAGGCGGCGGCTCTCGCCCCCCAGCTCGTCCGCCGC
CTCCTCTTATAGCTTCTCTGACTTGAATTCGACTAGAGGGGATGCAGATATGTATGATCTTCCCAAGAAAGAGGA
CGCTTTACTCTACCAGAGCAAGGGCTACAATGACGACTACTATGAAGAGAGCTACTTCACCACCAGGACTTATGG
GGAGCCCGAGTCTGCCGGCCCGTCCAGGGCTGTCCGCCAGTCAGTGACTTCATTCCCAGATGCTGACGCTTTCCA
TCACCAGGTGCATGATGACGATCTTTTGTCTTCTTCTGAAGAGGAGTGCAAGGATAGGGAACGCCCCATGTACGG
CCGGGACAGTGCCTACCAGAGCATCACGCACTACCGCCCTGTTTCAGCCTCCAGGAGCTCCCTGGACCTGTCCTA
TTATCCTACTTCCTCCTCCACCTCTTTTATGTCCTCCTCATCATCTTCCTCTTCATGGCTCACCCGCCGTGCCAT
CCGGCCTGAAAACCGTGCTCCTGGGGCTGGGCTGGGCCAGGATCGCCAGGTCCCGCTCTGGGGCCAGCTGCTGCT
TTTCCTGGTCTTTGTGATCGTCCTCTTCTTCATTTACCACTTCATGCAGGCTGAAGAAGGCAACCCCTTC**TAG**AG
GGAGCCATGAGGGTCTGGGCTTCAGAGCTAGGTCTTTGGGGAAGTCCTGGCTGACTGCCTTAGCAGTGGGGGTGG
GGGTGGGGGCAGGGGCAGGGGCTTTATGTGTTTTTGCTTGGGGGGCGCTGGGCCTAGCCCAGAGTAGTGCTTGCT
CCCCCTGCCTTGTCCCACCAGGGAGGCAGCAGACTCAGGCCCTCCATGGTCCTCTTTGTCATTTTGTTGACATGC
ATTCCTCCTTTTGTCATCTTGTTGGGGGGAGGGGATTAACCAAAGGCCACCCTGACTTTGTTTTTGTGGACACAC
AATAAAAGCCCCGTTTATTTGT

FIGURE 3141A

GCGATCCGGGCGCCACCCCGCGGTCATCGGTCACCGGTCGCTCTCAGGAACAGCAGCGCAACCTCTGCTCCCTGC
CTCGCCTCCCGCGCGCCTAGGTGCCTGCGACTTTAATTAAAGGGCCGTCCCCTCGCCGAGGCTGCAGCACCGCCC
CCCCGGCTTCTCGCGCCTCAAA**ATG**AGTAGCTCCCACTCTCGGGCGGGCCAGAGCGCAGCAGGCGCGGCTCCGGG
CGGCGGCGTCGACACGCGGGACGCCGAGATGCCGGCCACCGAGAAGGACCTGGCGGAGGACGCGCCGTGGAAGAA
GATCCAGCAGAACACTTTCACGCGCTGGTGCAACGAGCACCTGAAGTGCGTGAGCAAGCGCATCGCCAACCTGCA
GACGGACCTGAGCGACGGGCTGCGGCTTATCGCGCTGTTGGAGGTGCTCAGCCAGAAGAAGATGCACCGCAAGCA
CAACCAGCGGCCCACTTTCCGCCAAATGCAGCTTGAGAACGTGTCGGTGGCGCTCGAGTTCCTGGACCGCGAGAG
CATCAAACTGGTGTCCATCGACAGCAAGGCCATCGTGGACGGGAACCTGAAGCTGATCCTGGGCCTCATCTGGAC
CCTGATCCTGCACTACTCCATCTCCATGCCCATGTGGGACGAGGAGGAGGATGAGGAGGCCAAGAAGCAGACCCC
CAAGCAGAGGCTCCTGGGCTGGATCCAGAACAAGCTGCCGCAGCTGCCCATCACCAACTTCAGCCGGGACTGGCA
GAGCGGCCGGGCCCTGGGCGCCCTGGTGGACAGCTGTGCCCCGGGCCTGTGTCCTGACTGGGACTCTTGGGACGC
CAGCAAGCCCGTTACCAATGCGCGAGAGGCCATGCAGCAGGCGGATGACTGGCTGGGCATCCCCCAGGTGATCAC
CCCCGAGGAGATTGTGGACCCCAACGTGGACGAGCACTCTGTCATGACCTACCTGTCCCAGTTCCCCAAGGCCAA
GCTGAAGCCAGGGGCTCCCTTGCGGCCCAAACTGAACCCGAAGAAAGCCCGTGCCTACGGGCCAGGCATCGAGCC
CACAGGCAACATGGTGAAGAAGCGGGCAGAGTTCACTGTGGAGACCAGAAGTGCTGGCCAGGGAGAGGTGCTGGT
GTACGTGGAGGACCCGGCCGGACACCAGGAGGAGGCAAAAGTGACCGCCAATAACGACAAGAACCGCACCTTCTC
CGTCTGGTACGTCCCCGAGGTGACGGGGACTCATAAGGTTACTGTGCTCTTTGCTGGCCAGCACATCGCCAAGAG
CCCCTTCGAGGTGTACGTGGATAAGTCACAGGGTGACGCCAGCAAAGTGACAGCCCAAGGTCCCGGCCTGGAGCC
CAGTGGCAACATCGCCAACAAGACCACCTACTTTGAGATCTTTACGGCAGGAGCTGGCACGGGCGAGGTCGAGGT
TGTGATCCAGGACCCCATGGGACAGAAGGGCACGGTAGAGCCTCAGCTGGAGGCCCGGGGCGACAGCACATACCG
CTGCAGCTACCAGCCCACCATGGAGGGCGTCCACACCGTGCACGTCACGTTTGCCGGCGTGCCCATCCCTCGCAG
CCCCTACACTGTCACTGTTGGCCAAGCCTGTAACCCGAGTGCCTGCCGGGCGGTTGGCCGGGGCCTCCAGCCCAA
GGGTGTGCGGGTGAAGGAGACAGCTGACTTCAAGGTGTACACAAAGGGCGCTGGCAGTGGGGAGCTGAAGGTCAC
CGTGAAGGGCCCCAAGGGAGAGGAGCGCGTGAAGCAGAAGGACCTGGGGGATGGCGTGTATGGCTTCGAGTATTA
CCCCATGGTCCCTGGAACCTATATCGTCACCATCACGTGGGGTGGTCAGAACATCGGGCGCAGTCCCTTCGAAGT
GAAGGTGGGCACCGAGTGTGGCAATCAGAAGGTACGGGCCTGGGGCCCTGGGCTGGAGGGCGGCGTCGTTGGCAA
GTCAGCAGACTTTGTGGTGGAGGCTATCGGGGACGACGTGGGCACGCTGGGCTTCTCGGTGGAAGGGCCATCGCA
GGCTAAGATCGAATGTGACGACAAGGGCGACGGCTCCTGTGATGTGCGCTACTGGCCGCAGGAGGCTGGCGAGTA
TGCCGTTCACGTGCTGTGCAACAGCGAAGACATCCGCCTCAGCCCCTTCATGGCTGACATCCGTGACGCGCCCCA
GGACTTCCACCCAGACAGGGTGAAGGCACGTGGGCCTGGATTGGAGAAGACAGGTGTGGCCGTCAACAAGCCAGC
AGAGTTCACAGTGGATGCCAAGCACGGTGGCAAGGCCCCACTTCGGGTCCAAGTCCAGGACAATGAAGGCTGCCC
TGTGGAGGCGTTGGTCAAGGACAACGGCAATGGCACTTACAGCTGCTCCTACGTGCCCAGGAAGCCGGTGAAGCA
CACAGCCATGGTGTCCTGGGGAGGCGTCAGCATCCCCAACAGCCCCTTCAGGGTGAATGTGGGAGCTGGCAGCCA
CCCCAACAAGGTCAAAGTATACGGCCCCGGAGTAGCCAAGACAGGGCTCAAGGCCCACGAGCCCACCTACTTCAC
TGTGGACTGCGCCGAGGCTGGCCAGGGGGACGTCAGCATCGGCATCAAGTGTGCCCCTGGAGTGGTAGGCCCCGC
CGAAGCTGACATCGACTTCGACATCATCCGCAATGACAATGACACCTTCACGGTCAAGTACACGCCCCGGGGGGC
TGGCAGCTACACCATTATGGTCCTCTTTGCTGACCAGGCCACGCCCACCAGCCCCATCCGAGTCAAGGTGGAGCC
CTCTCATGACGCCAGTAAGGTGAAGGCCGAGGGCCCTGGCCTCAGTCGCACTGGTGTCGAGCTTGGCAAGCCCAC
CCACTTCACAGTAAATGCCAAAGCTGCTGGCAAAGGCAAGCTGGACGTCCAGTTCTCAGGACTCACCAAGGGGGA
TGCAGTGCGAGATGTGGACATCATCGACCACCATGACAACACCTACACAGTCAAGTACACGCCTGTCCAGCAGGG
TCCAGTAGGCGTCAATGTCACTTATGGAGGGGATCCCATCCCTAAGAGCCCTTTCTCAGTGGCAGTATCTCCAAG
CCTGGACCTCAGCAAGATCAAGGTGTCTGGCCTGGGAGAGAAGGTGGACGTTGGCAAAGACCAGGAGTTCACAGT
CAAATCAAAGGGTGCTGGTGGTCAAGGCAAAGTGGCATCCAAGATTGTGGGCCCCTCGGGTGCAGCGGTGCCCTG
CAAGGTGGAGCCAGGCCTGGGGGCTGACAACAGTGTGGTGCGCTTCCTGCCCCGTGAGGAAGGGCCCTATGAGGT
GGAGGTGACCTATGACGGCGTGCCCGTGCCTGGCAGCCCCTTTCCTCTGGAAGCTGTGGCCCCCACCAAGCCTAG
CAAGGTGAAGGCGTTTGGGCCGGGGCTGCAGGGAGGCAGTGCGGGCTCCCCCGCCCGCTTCACCATCGACACCAA
GGGCGCCGGCACAGGTGGCCTGGGCCTGACGGTGGAGGGCCCCTGTGAGGCGCAGCTCGAGTGCTTGGACAATGG
GGATGGCACATGTTCCGTGTCCTACGTGCCCACCGAGCCCGGGGACTACAACATCAACATCCTCTTCGCTGACAC

FIGURE 3141B

CCACATCCCTGGCTCCCCATTCAAGGCCCACGTGGTTCCCTGCTTTGACGCATCCAAAGTCAAGTGCTCAGGCCC
CGGGCTGGAGCGGGCCACCGCTGGGGAGGTGGGCCAATTCCAAGTGGACTGCTCGAGCGCGGGCAGCGCGGAGCT
GACCATTGAGATCTGCTCGGAGGCGGGGCTTCCGGCCGAGGTGTACATCCAGGACCACGGTGATGGCACGCACAC
CATTACCTACATTCCCCTCTGCCCCGGGGCCTACACCGTCACCATCAAGTACGGCGGCCAGCCCGTGCCCAACTT
CCCCAGCAAGCTGCAGGTGGAACCTGCGGTGGACACTTCCGGTGTCCAGTGCTATGGGCCTGGTATTGAGGGCCA
GGGTGTCTTCCGTGAGGCCACCACTGAGTTCAGTGTGGACGCCCGGGCTCTGACACAGACCGGAGGGCCGCACGT
CAAGGCCCGTGTGGCCAACCCCTCAGGCAACCTGACGGAGACCTACGTTCAGGACCGTGGCGATGGCATGTACAA
AGTGGAGTACACGCCTTACGAGGAGGGACTGCACTCCGTGGACGTGACCTATGACGGCAGTCCCGTGCCCAGCAG
CCCCTTCCAGGTGCCCGTGACCGAGGGCTGCGACCCCTCCCGGGTGCGTGTCCACGGGCCAGGCATCCAAAGTGG
CACCACCAACAAGCCCAACAAGTTCACTGTGGAGACCAGGGGAGCTGGCACGGGCGGCCTGGGCCTGGCTGTAGA
GGGCCCCTCCGAGGCCAAGATGTCCTGCATGGATAACAAGGACGGCAGCTGCTCGGTCGAGTACATCCCTTATGA
GGCTGGCACCTACAGCCTCAACGTCACCTATGGTGGCCATCAAGTGCCAGGCAGTCCTTTCAAGGTCCCTGTGCA
TGATGTGACAGATGCGTCCAAGGTCAAGTGCTCTGGGCCCGGCCTGAGCCCAGGCATGGTTCGTGCCAACCTCCC
TCAGTCCTTCCAGGTGGACACAAGCAAGGCTGGTGTGGCCCCATTGCAGGTCAAAGTGCAAGGGCCCAAAGGCCT
GGTGGAGCCAGTGGACGTGGTAGACAACGCTGATGGCACCCAGACCGTCAATTATGTGCCCAGCCGAGAAGGGCC
CTACAGCATCTCAGTACTGTATGGAGATGAAGAGGTACCCCGGAGCCCCTTCAAGGTCAAGGTGCTGCCTACTCA
TGATGCCAGCAAGGTGAAGGCCAGTGGCCCCGGGCTCAACACCACTGGCGTGCCTGCCAGCCTGCCCGTGGAGTT
CACCATCGATGCAAAGGACGCCGGGGAGGGCCTGCTGGCTGTCCAGATCACGGATCCCGAAGGCAAGCCGAAGAA
GACACACATCCAAGACAACCATGACGGCACGTATACAGTGGCCTACGTGCCAGACGTGACAGGTCGCTACACCAT
CCTCATCAAGTACGGTGGTGACGAGATCCCCTTCTCCCCGTACCGCGTGCGTGCCGTGCCCACCGGGGACGCCAG
CAAGTGCACTGTCACAGGTGCTGGCATCGGCCCCACCATTCAGATTGGGGAGGAGACGGTGATCACTGTGGACAC
TAAGGCGGCAGGCAAAGGCAAAGTGACGTGCACCGTGTGCACGCCTGATGGCTCAGAGGTGGATGTGGACGTGGT
GGAGAATGAGGACGGCACTTTCGACATCTTCTACACGGCCCCCCAGCCGGGCAAATACGTCATCTGTGTGCGCTT
TGGTGGCGAGCACGTGCCCAACAGCCCCTTCCAAGTGACGGCTCTGGCTGGGGACCAGCCCTCGGTGCAGCCCCC
TCTACGGTCTCAGCAGCTGGCCCCACAGTACACCTACGCCCAGGGCGGCCAGCAGACTTGGGCCCCGGAGAGGCC
CCTGGTGGGTGTCAATGGGCTGGATGTGACCAGCCTGAGGCCCTTTGACCTTGTCATCCCCTTCACCATCAAGAA
GGGCGAGATCACAGGGGAGGTTCGGATGCCCTCAGGCAAGGTGGCGCAGCCCACCATCACTGACAACAAAGACGG
CACCGTGACCGTGCGGTATGCACCCAGCGAGGCTGGCCTGCACGAGATGGACATCCGCTATGACAACATGCACAT
CCCAGGAAGCCCCTTGCAGTTCTATGTGGATTACGTCAACTGTGGCCATGTCACTGCCTATGGGCCTGGCCTCAC
CCATGGAGTAGTGAACAAGCCTGCCACCTTCACCGTCAACACCAAGGATGCAGGAGAGGGGGGCCTGTCTCTGGC
CATTGAGGGCCCGTCCAAAGCAGAAATCAGCTGCACTGACAACCAGGATGGGACATGCAGCGTGTCCTACCTGCC
TGTGCTGCCGGGGGACTACAGCATTCTAGTCAAGTACAATGAACAGCACGTCCCAGGCAGCCCCTTCACTGCTCG
GGTCACAGGTGACGACTCCATGCGTATGTCCCACCTAAAGGTCGGCTCTGCTGCCGACATCCCCATCAACATCTC
AGAGACGGATCTCAGCCTGCTGACGGCCACTGTGGTCCCGCCCTCGGGCCGGGAGGAGCCCTGTTTGCTGAAGCG
GCTGCGTAATGGCCACGTGGGGATTTCATTCGTGCCCAAGGAGACGGGGGAGCACCTGGTGCATGTGAAGAAAAA
TGGCCAGCACGTGGCCAGCAGCCCCATCCCGGTGGTGATCAGCCAGTCGGAAATTGGGGATGCCAGTCGTGTTCG
GGTCTCTGGTCAGGGCCTTCACGAAGGCCACACCTTTGAGCCTGCAGAGTTTATCATTGATACCCGCGATGCAGG
CTATGGTGGGCTCAGCCTGTCCATTGAGGGCCCCAGCAAGGTGGACATCAACACAGAGGACCTGGAGGACGGGAC
GTGCAGGGTCACCTACTGCCCCACAGAGCCAGGCAACTACATCATCAACATCAAGTTTGCCGACCAGCACGTGCC
TGGCAGCCCCTTCTCTGTGAAGGTGACAGGCGAGGGCCGGGTGAAAGAGAGCATCACCCGCAGGCGTCGGGCTCC
TTCAGTGGCCAACGTTGGTAGTCATTGTGACCTCAGCCTGAAAATCCCTGAAATTAGCATCCAGGATATGACAGC
CCAGGTGACCAGCCCATCGGGCAAGACCCATGAGGCCGAGATCGTGGAAGGGGAGAACCACACCTACTGCATCCG
CTTTGTTCCCGCTGAGATGGGCACACACACAGTCAGCGTGAAGTACAAGGGCCAGCACGTGCCTGGGAGCCCCTT
CCAGTTCACCGTGGGGCCCCTAGGGGAAGGGGGAGCCCACAAGGTCCGAGCTGGGGGCCCTGGCCTGGAGAGAGC
TGAAGCTGGAGTGCCAGCCGAATTCAGTATCTGGACCCGGGAAGCTGGTGCTGGAGGCCTGGCCATTGCTGTCGA
GGGCCCCAGCAAGGCTGAGATCTCTTTTGAGGACCGCAAGGACGGCTCCTGTGGTGTGGCTTATGTGGTCCAGGA
GCCAGGTGACTACGAAGTCTCAGTCAAGTTCAACGAGGAACACATTCCCGACAGCCCCTTCGTGGTGCCTGTGGC
TTCTCCGTCTGGCGACGCCCGCCGCCTCACTGTTTCTAGCCTTCAGGAGTCAGGGCTAAAGGTCAACCAGCCAGC

FIGURE 3141C

CTCTTTTGCAGTCAGCCTGAACGGGGCCAAGGGGGCGATCGATGCCAAGGTGCACAGCCCCTCAGGAGCCCTGGA
GGAGTGCTATGTCACAGAAATTGACCAAGATAAGTATGCTGTGCGCTTCATCCCTCGGGAGAATGGCGTTTACCT
GATTGACGTCAAGTTCAACGGCACCCACATCCCTGGAAGCCCCTTCAAGATCCGAGTTGGGGAGCCTGGGCATGG
AGGGGACCCAGGCTTGGTGTCTGCTTACGGAGCAGGTCTGGAAGGCGGTGTCACAGGGAACCCAGCTGAGTTCGT
CGTGAACACGAGCAATGCGGGAGCTGGTGCCCTGTCGGTGACCATTGACGGCCCCTCCAAGGTGAAGATGGATTG
CCAGGAGTGCCCTGAGGGCTACCGCGTCACCTATACCCCCATGGCACCTGGCAGCTACCTCATCTCCATCAAGTA
CGGCGGCCCCTACCACATTGGGGGCAGCCCCTTCAAGGCCAAAGTCACAGGCCCCCGTCTCGTCAGCAACCACAG
CCTCCACGAGACATCATCAGTGTTTGTAGACTCTCTGACCAAGGCCACCTGTGCCCCCCAGCATGGGGCCCCGGG
TCCTGGGCCTGCTGACGCCAGCAAGGTGGTGGCCAAGGGCCTGGGGCTGAGCAAGGCCTACGTAGGCCAGAAGAG
CAGCTTCACAGTAGACTGCAGCAAAGCAGGCAACAACATGCTGCTGGTGGGGGTTCATGGCCCAAGGACCCCCTG
CGAGGAGATCCTGGTGAAGCACGTGGGCAGCCGGCTCTACAGCGTGTCCTACCTGCTCAAGGACAAGGGGGAGTA
CACACTGGTGGTCAAATGGGGGGACGAGCACATCCCAGGCAGCCCCTACCGCGTTGTGGTGCCC**TGA**GTCTGGGG
CCCGTGCCAGCCGGCAGCCCCCAAGCCTGCCCCGCTACCCAAGCAGCCCCGCCCTCTTCCCCTCAACCCCGGCCC
AGGCCGCCCTGGCCGCCCGCCTGTCACTGCAGCCGCCCCTGCCCTGTGCCGTGCTGCGCTCACCTGCCTCCCCAG
CCAGCCGCTGACCTCTCGGCTTTCACTTGGGCAGAGGGAGCCATTTGGTGGCGCTGCTTGTCTTCTTTGGTTCTG
GGAGGGGTGAGGGATGGGGGTCCTGTACACAACCACCCACTAGTTCTCTTCTCCAGCCAAGAGGAATAAAGTTTT
GCTTCCATTC

FIGURE 3142A

CCGGAAAATGGCCGCCGCCGCCGCCGCCGCCGCGCCGAGCGGAGGAGGAGGAGGAGGCGAGGAGGAGAGACTGCTCCA
TAAAAATACAGACTCACCAGTTCCTGCTTTGATGTGACATGTGACTCCCCAGAATACACCTTGCTTCTGTAGACC
AGCTCCAACAGGATTCC**ATG**GTAGCTGGGATGTTAGGGCTCAGGGAAGAAAAGTCAGAAGACCAGGACCTCCAGG
GCCTCAAGGACAAACCCCTCAAGTTTAAAAAGGTGAAGAAAGATAAGAAAGAAGAGAAAGAGGGCAAGCATGAGC
CCGTGCAGCCATCAGCCCACCACTCTGCTGAGCCCGCAGAGGCAGGCAAAGCAGAGACATCAGAAGGGTCAGGCT
CCGCCCCGGCTGTGCCGGAAGCTTCTGCCTCCCCCAAACAGCGGCGCTCCATCATCCGTGACCGGGGACCCATGT
ATGATGACCCCACCCTGCCTGAAGGCTGGACACGGAAGCTTAAGCAAAGGAAATCTGGCCGCTCTGCTGGGAAGT
ATGATGTGTATTTGATCAATCCCCAGGGAAAAGCCTTTCGCTCTAAAGTGGAGTTGATTGCGTACTTCGAAAAGG
TAGGCGACACATCCCTGGACCCTAATGATTTTGACTTCACGGTAACTGGGAGAGGGAGCCCCTCCCGGCGAGAGC
AGAAACCACCTAAGAAGCCCAAATCTCCCAAAGCTCCAGGAACTGGCAGAGGCCGGGGACGCCCCAAAGGGAGCG
GCACCACGAGACCCAAGGCGGCCACGTCAGAGGGTGTGCAGGTGAAAAGGGTCCTGGAGAAAAGTCCTGGGAAGC
TCCTTGTCAAGATGCCTTTTCAAACTTCGCCAGGGGGCAAGGCTGAGGGGGGTGGGGCCACCACATCCACCCAGG
TCATGGTGATCAAACGCCCCGGCAGGAAGCGAAAAGCTGAGGCCGACCCTCAGGCCATTCCCAAGAAACGGGGCC
GAAAGCCGGGGAGTGTGGTGGCAGCCGCTGCCGCCGAGGCCAAAAAGAAAGCCGTGAAGGAGTCTTCTATCCGAT
CTGTGCAGGAGACCGTACTCCCCATCAAGAAGCGCAAGACCCGGGAGACGGTCAGCATCGAGGTCAAGGAAGTGG
TGAAGCCCCTGCTGGTGTCCACCCTCGGTGAGAAGAGCGGGAAAGGACTGAAGACCTGTAAGAGCCCTGGGCGGA
AAAGCAAGGAGAGCAGCCCCAAGGGGCGCAGCAGCAGCGCCTCCTCACCCCCCAAGAAGGAGCACCACCACCATC
ACCACCACTCAGAGTCCCCAAAGGCCCCCGTGCCACTGCTCCCACCCCTGCCCCCACCTCCACCTGAGCCCGAGA
GCTCCGAGGACCCCACCAGCCCCCCTGAGCCCCAGGACTTGAGCAGCAGCGTCTGCAAAGAGGAGAAGATGCCCA
GAGGAGGCTCACTGGAGAGCGACGGCTGCCCCAAGGAGCCAGCTAAGACTCAGCCCGCGGTTGCCACCGCCGCCA
CGGCCGCAGAAAAGTACAAACACCGAGGGGAGGGAGAGCGCAAAGACATTGTTTCATCCTCCATGCCAAGGCCAA
ACAGAGAGGAGCCTGTGGACAGCCGGACGCCCGTGACCGAGAGAGTTAGC**TGA**CTTTACACGGAGCGGATTGCAA
AGCAAACCAACAAGAATAAAGGCAGCTGTTGTCTCTTCTCCTTATGGGTAGGGCTCTGACAAAGCTTCCCGATTA
ACTGAAATAAAAAATATTTTTTTTTCTTTCAGTAAACTTAGAGTTTCGTGGCTTCAGGGTGGGAGTAGTTGGAGC
ATTGGGGATGTTTTTCTTACCGACAAGCACAGTCAGGTTGAAGACCTAACCAGGGCCAGAAGTAGCTTTGCACTT
TTCTAAACTAGGCTCCTTCAACAAGGCTTGCTGCAGATACTACTGACCAGACAAGCTGTTGACCAGGCACCTCCC
CTCCCGCCCAAACCTTTCCCCCATGTGGTCGTTAGAGACAGAGCGACAGAGCAGTTGAGAGGACACTCCCGTTTT
CGGTGCCATCAGTGCCCCGTCTACAGCTCCCCCAGCTCCCCCCACCTCCCCCACTCCCAACCACGTTGGGACAGG
GAGGTGTGAGGCAGGAGAGACAGTTGGATTCTTTAGAGAAGATGGATATGACCAGTGGCTATGGCCTGTGCGATC
CCACCCGTGGTGGCTCAAGTCTGGCCCCACACCAGCCCCAATCCAAAACTGGCAAGGACGCTTCACAGGACAGGA
AAGTGGCACCTGTCTGCTCCAGCTCTGGCATGGCTAGGAGGGGGGAGTCCCTTGAACTACTGGGTGTAGACTGGC
CTGAACCACAGGAGAGGATGGCCCAGGGTGAGGTGGCATGGTCCATTCTCAAGGGACGTCCTCCAACGGGTGGCG
CTAGAGGCCATGGAGGCAGTAGGACAAGGTGCAGGCAGGCTGGCCTGGGGTCAGGCCGGGCAGAGCACAGCGGGG
TGAGAGGGATTCCTAATCACTCAGAGCAGTCTGTGACTTAGTGGACAGGGGAGGGGGCAAAGGGGGAGGAGAAGA
AAATGTTCTTCCAGTTACTTTCCAATTCTCCTTTAGGGACAGCTTAGAATTATTTGCACTATTGAGTCTTCATGT
TCCCACTTCAAAACAAACAGATGCTCTGAGAGCAAACTGGCTTGAATTGGTGACATTTAGTCCCTCAAGCCACCA
GATGTGACAGTGTTGAGAACTACCTGGATTTGTATATATACCTGCGCTTGTTTTAAAGTGGGCTCAGCACATAGG
GTTCCCACGAAGCTCCGAAACTCTAAGTGTTTGCTGCAATTTTATAAGGACTTCCTGATTGGTTTCTCTTCTCCC
CTTCCATTTCTGCCTTTTGTTCATTTCATCCTTTCACTTCTTTCCCTTCCTCCGTCCTCCTCCTTCCTAGTTCAT
CCCTTCTCTTCCAGGCAGCCGCGGTGCCCAACCACACTTGTCGGCTCCAGTCCCCAGAACTCTGCCTGCCCTTTG
TCCTCCTGCTGCCAGTACCAGCCCCACCCTGTTTTGAGCCCTGAGGAGGCCTTGGGCTCTGCTGAGTCCGACCTG
GCCTGTCTGTGAAGAGCAAGAGAGCAGCAAGGTCTTGCTCTCCTAGGTAGCCCCCTCTTCCCTGGTAAGAAAAAG
CAAAAGGCATTTCCCACCCTGAACAACGAGCCTTTTCACCCTTCTACTCTAGAGAAGTGGACTGGAGGAGCTGGG
CCCGATTTGGTAGTTGAGGAAAGCACAGAGGCCTCCTGTGGCCTGCCAGTCATCGAGTGGCCCAACAGGGGCTCC
ATGCCAGCCGACCTTGACCTCACTCAGAAGTCCAGAGTCTAGCGTAGTGCAGCAGGGCAGTAGCGGTACCAATGC
AGAACTCCCAAGACCCGAGCTGGGACCAGTACCTGGGTCCCCAGCCCTTCCTCTGCTCCCCCTTTTCCCTCGGAG
TTCTTCTTGAATGGCAATGTTTTGCTTTTGCTCGATGCAGACAGGGGGCCAGAACACCACACATTTCACTGTCTG
TCTGGTCCATAGCTGTGGTGTAGGGGCTTAGAGGCATGGGCTTGCTGTGGGTTTTTAATTGATCAGTTTTCATGT

FIGURE 3142B

GGGATCCCATCTTTTTAACCTCTGTTCAGGAAGTCCTTATCTAGCTGCATATCTTCATCATATTGGTATATCCTT
TTCTGTGTTTACAGAGATGTCTCTTATATCTAAATCTGTCCAACTGAGAAGTACCTTATCAAAGTAGCAAATGAG
ACAGCAGTCTTATGCTTCCAGAAACACCCACAGGCATGTCCCATGTGAGCTGCTGCCATGAACTGTCAAGTGTGT
GTTGTCTTGTGTATTTCAGTTATTGTCCCTGGCTTCCTTACTATGGTGTAATCATGAAGGAGTGAAACATCATAG
AAACTGTCTAGCACTTCCTTGCCAGTCTTTAGTGATCAGGAACCATAGTTGACAGTTCCAATCAGTAGCTTAAGA
AAAAACCGTGTTTGTCTCTTCTGGAATGGTTAGAAGTGAGGGAGTTTGCCCCGTTCTGTTTGTAGAGTCTCATAG
TTGGACTTTCTAGCATATATGTGTCCATTTCCTTATGCTGTAAAAGCAAGTCCTGCAACCAAACTCCCATCAGCC
CAATCCCTGATCCCTGATCCCTTCCACCTGCTCTGCTGATGACCCCCCCAGCTTCACTTCTGACTCTTCCCCAGG
AAGGGAAGGGGGGTCAGAAGAGAGGGTGAGTCCTCCAGAACTCTTCCTCCAAGGACAGAAGGCTCCTGCCCCCAT
AGTGGCCTCGAACTCCTGGCACTACCAAAGGACACTTATCCACGAGAGCGCAGCATCCGACCAGGTTGTCACTGA
GAAGATGTTTATTTTGGTCAGTTGGGTTTTTATGTATTATACTTAGTCAAATGTAATGTGGCTTCTGGAATCATT
GTCCAGAGCTGCTTCCCCGTCACCTGGGCGTCATCTGGTCCTGGTAAGAGGAGTGCGTGGCCCACCAGGCCCCCC
TGTCACCCATGACAGTTCATTCAGGGCCGATGGGGCAGTCGTGGTTGGGAACACAGCATTTCAAGCGTCACTTTA
TTTCATTCGGGCCCCACCTGCAGCTCCCTCAAAGAGGCAGTTGCCCAGCCTCTTTCCCTTCCAGTTTATTCCAGA
GCTGCCAGTGGGGCCTGAGGCTCCTTAGGGTTTTCTCTCTATTTCCCCCTTTCTTCCTCATTCCCTCGTCTTTCC
CAAAGGCATCACGAGTCAGTCGCCTTTCAGCAGGCAGCCTTGGCGGTTTATCGCCCTGGCAGGCAGGGGCCCTGC
AGCTCTCATGCTGCCCCTGCCTTGGGGTCAGGTTGACAGGAGGTTGGAGGGAAAGCCTTAAGCTGCAGGATTCTC
ACCAGCTGTGTCCGGCCCAGTTTTGGGGTGTGACCTCAATTTCAATTTTGTCTGTACTTGAACATTATGAAGATG
GGGGCCTCTTTCAGTGAATTTGTGAACAGCAGAATTGACCGACAGCTTTCCAGTACCCATGGGGCTAGGTCATTA
AGGCCACATCCACAGTCTCCCCCACCCTTGTTCCAGTTGTTAGTTACTACCTCCTCTCCTGACAATACTGTATGT
CGTCGAGCTCCCCCCAGGTCTACCCCTCCCGGCCCTGCCTGCTGGTGGGCTTGTCATAGCCAGTGGGATTGCCGG
TCTTGACAGCTCAGTGAGCTGGAGATACTTGGTCACAGCCAGGCGCTAGCACAGCTCCCTTCTGTTGATGCTGTA
TTCCCATATCAAAAGACACAGGGGACACCCAGAAACGCCACATCCCCCAATCCATCAGTGCCAAACTAGCCAACG
GCCCCAGCTTCTCAGCTCGCTGGATGGCGGAAGCTGCTACTCGTGAGCGCCAGTGCGGGTGCAGACAATCTTCTG
TTGGGTGGCATCATTCCAGGCCCGAAGCATGAACAGTGCACCTGGGACAGGGAGCAGCCCCAAATTGTCACCTGC
TTCTCTGCCCAGCTTTTCATTGCTGTGACAGTGATGGCGAAAGAGGGTAATAACCAGACACAAACTGCCAAGTTG
GGTGGAGAAAGGAGTTTCTTTAGCTGACAGAATCTCTGAATTTTAAATCACTTAGTAAGCGGCTCAAGCCCAGGA
GGGAGCAGAGGGATACGAGCGGAGTCCCCTGCGCGGGACCATCTGGAATTGGTTTAGCCCAAGTGGAGCCTGACA
GCCAGAACTCTGTGTCCCCCGTCTAACCACAGCTCCTTTTCCAGAGCATTCCAGTCAGGCTCTCTGGGCTGACTG
GGCCAGGGGAGGTTACAGGTACCAGTTCTTTAAGAAGATCTTTGGGCATATACATTTTTAGCCTGTGTCATTGCC
CCAAATGGATTCCTGTTTCAAGTTCACACCTGCAGATTCTAGGACCTGTGTCCTAGACTTCAGGGAGTCAGCTGT
TTCTAGAGTTCCTACCATGGAGTGGGTCTGGAGGACCTGCCCGGTGGGGGGGCAGAGCCCTGCTCCCTCCGGGTC
TTCCTACTCTTCTCTCTGCTCTGACGGGATTTGTTGATTCTCTCCATTTTGGTGTCTTTCTCTTTTAGATATTGT
ATCAATCTTTAGAAAAGGCATAGTCTACTTGTTATAAATCGTTAGGATACTGCCTCCCCCAGGGTCTAAAATTAC
ATATTAGAGGGGAAAAGCTGAACACTGAAGTCAGTTCTCAACAATTTAGAAGGAAAACCTAGAAAACATTTGGCA
GAAAATTACATTTCGATGTTTTTGAATGAATACGAGCAAGCTTTTACAACAGTGCTGATCTAAAAATACTTAGCA
CTTGGCCTGAGATGCCTGGTGAGCATTACAGGCAAGGGGAATCTGGAGGTAGCCGACCTGAGGACATGGCTTCTG
AACCTGTCTTTTGGGAGTGGTATGGAAGGTGGAGCGTTCACCAGTGACCTGGAAGGCCCAGCACCACCCTCCTTC
CCACTCTTCTCATCTTGACAGAGCCTGCCCCAGCGCTGACGTGTCAGGAAAACACCCAGGGAACTAGGAAGGCAC
TTCTGCCTGAGGGGCAGCCTGCCTTGCCCACTCCTGCTCTGCTCGCCTCGGATCAGCTGAGCCTTCTGAGCTGGC
CTCTCACTGCCTCCCCAAGGCCCCCTGCCTGCCCTGTCAGGAGGCAGAAGGAAGCAGGTGTGAGGGCAGTGCAAG
GAGGGAGCACAACCCCCAGCTCCCGCTCCGGGCTCCGACTTGTGCACAGGCAGAGCCCAGACCCTGGAGGAAATC
CTACCTTTGAATTCAAGAACATTTGGGGAATTTGGAAATCTCTTTGCCCCCAAACCCCCATTCTGTCCTACCTTT
AATCAGGTCCTGCTCAGCAGTGAGAGCAGATGAGGTGAAAAGGCCAAGAGGTTTGGCTCCTGCCCACTGATAGCC
CCTCTCCCCGCAGTGTTTGTGTGTCAAGTGGCAAAGCTGTTCTTCCTGGTGACCCTGATTATATCCAGTAACACA
TAGACTGTGCGCATAGGCCTGCTTTGTCTCCTCTATCCTGGGCTTTTGTTTTGCTTTTTAGTTTTGCTTTTAGTT
TTTCTGTCCCTTTTATTTAACGCACCGACTAGACACACAAAGCAGTTGAATTTTTATATATATATCTGTATATTG
CACAATTATAAACTCATTTTGCTTGTGGCTCCACACACACAAAAAAAGACCTGTTAAAATTATACCTGTTGCTTA

FIGURE 3142C

ATTACAATATTTCTGATAACCATAGCATAGGACAAGGGAAAATAAAAAAAGAAAAAAAAGAAAAAAAACGACAA
ATCTGTCTGCTGGTCACTTCTTCTGTCCAAGCAGATTCGTGGTCTTTTCCTCGCTTCTTTCAAGGGCTTTCCTGT
GCCAGGTGAAGGAGGCTCCAGGCAGCACCCAGGTTTTGCACTCTTGTTTCTCCCGTGCTTGTGAAAGAGGTCCCA
AGGTTCTGGGTGCAGGAGCGCTCCCTTGACCTGCTGAAGTCCGGAACGTAGTCGGCACAGCCTGGTCGCCTTCCA
CCTCTGGGAGCTGGAGTCCACTGGGGTGGCCTGACTCCCCCAGTCCCCTTCCCGTGACCTGGTCAGGGTGAGCCC
ATGTGGAGTCAGCCTCGCAGGCCTCCCTGCCAGTAGGGTCCGAGTGTGTTTCATCCTTCCCACTCTGTCGAGCCT
GGGGGCTGGAGCGGAGACGGGAGGCCTGGCCTGTCTCGGAACCTGTGAGCTGCACCAGGTAGAACGCCAGGGACC
CCAGAATCATGTGCGTCAGTCCAAGGGGTCCCCTCCAGGAGTAGTGAAGACTCCAGAAATGTCCCTTTCTTCTCC
CCCATCCTACGAGTAATTGCATTTGCTTTTGTAATTCTTAATGAGCAATATCTGCTAGAGAGTTTAGCTGTAACA
GTTCTTTTTGATCATCTTTTTTTAATAATTAGAAACACCAAAAAAATCCAGAAACTTGTTCTTCCAAAGCAGAGA
GCATTATAATCACCAGGGCCAAAAGCTTCCCTCCCTGCTGTCATTGCTTCTTCTGAGGCCTGAATCCAAAAGAAA
AACAGCCATAGGCCCTTTCAGTGGCCGGGCTACCCGTGAGCCCTTCGGAGGACCAGGGCTGGGGCAGCCTCTGGG
CCCACATCCGGGGCCAGCTCCGGCGTGTGTTCAGTGTTAGCAGTGGGTCATGATGCTCTTTCCCACCCAGCCTGG
GATAGGGGCAGAGGAGGCGAGGAGGCCGTTGCCGCTGATGTTTGGCCGTGAACAGGTGGGTGTCTGCGTGCGTCC
ACGTGCGTGTTTTCTGACTGACATGAAATCGACGCCCGAGTTAGCCTCACCCGGTGACCTCTAGCCCTGCCCGGA
TGGAGCGGGGCCCACCCGGTTCAGTGTTTCTGGGGAGCTGGACAGTGGAGTGCAAAAGGCTTGCAGAACTTGAAG
CCTGCTCCTTCCCTTGCTACCACGGCCTCCTTTCCGTTTGATTTGTCACTGCTTCAATCAATAACAGCCGCTCCA
GAGTCAGTAGTCAATGAATATATGACCAAATATCACCAGGACTGTTACTCAATGTGTGCCGAGCCCTTGCCCATG
CTGGGCTCCCGTGTATCTGGACACTGTAACGTGTGCTGTGTTTGCTCCCCTTCCCCTTCCTTCTTTGCCCTTTAC
TTGTCTTTCTGGGGTTTTTCTGTTTGGGTTTGGTTTGGTTTTTATTTCTCCTTTTGTGTTCCAAACATGAGGTTC
TCTCTACTGGTCCTCTTAACTGTGGTGTTGAGGCTTATATTTGTGTAATTTTTGGTGGGTGAAAGGAATTTTGCT
AAGTAAATCTCTTCTGTGTTTGAACTGAAGTCTGTATTGTAACTATGTTTAAAGTAATTGTTCCAGAGACAAATA
TTTCTAGACACTTTTTCTTTACAAACAAAAGCATTCGGAGGGAGGGGGATGGTGACTGAGATGAGAGGGGAGAGC
TGAACAGATGACCCCTGCCCAGATCAGCCAGAAGCCACCCAAAGCAGTGGAGCCCAGGAGTCCCACTCCAAGCCA
GCAAGCCGAATAGCTGATGTGTTGCCACTTTCCAAGTCACTGCAAAACCAGGTTTTGTTCCGCCCAGTGGATTCT
TGTTTTGCTTCCCCTCCCCCCGAGATTATTACCACCATCCCGTGCTTTTAAGGAAAGGCAAGATTGATGTTTCCT
TGAGGGGAGCCAGGAGGGGATGTGTGTGTGCAGAGCTGAAGAGCTGGGGAGAATGGGGCTGGGCCCACCCAAGCA
GGAGGCTGGGACGCTCTGCTGTGGGCACAGGTCAGGCTAATGTTGGCAGATGCAGCTCTTCCTGGACAGGCCAGG
TGGTGGGCATTCTCTCTCCAAGGTGTGCCCCGTGGGCATTACTGTTTAAGACACTTCCGTCACATCCCACCCCAT
CCTCCAGGGCTCAACACTGTGACATCTCTATTCCCCACCCTCCCCTTCCCAGGGCAATAAAATGACCATGGAGGG
GGCTTGCACTCTCTTGGCTGTCACCCGATCGCCAGCAAAACTTAGATGTGAGAAAACCCCTTCCCATTCCATGGC
GAAAACATCTCCTTAGAAAAGCCATTACCCTCATTAGGCATGGTTTTGGGCTCCCAAAACACCTGACAGCCCCTC
CCTCCTCTGAGAGGCGGAGAGTGCTGACTGTAGTGACCATTGCATGCCGGGTGCAGCATCTGGAAGAGCTAGGCA
GGGTGTCTGCCCCCTCCTGAGTTGAAGTCATGCTCCCCTGTGCCAGCCCAGAGGCCGAGAGCTATGGACAGCATT
GCCAGTAACACAGGCCACCCTGTGCAGAAGGGAGCTGGCTCCAGCCTGGAAACCTGTCTGAGGTTGGGAGAGGTG
CACTTGGGGCACAGGGAGAGGCCGGGACACACTTAGCTGGAGATGTCTCTAAAAGCCCTGTATCGTATTCACCTT
CAGTTTTTGTGTTTTGGGACAATTACTTTAGAAAATAAGTAGGTCGTTTTAAAAACAAAAATTATTGATTGCTTT
TTTGTAGTGTTCAGAAAAAAGGTTCTTTGTGTATAGCCAAATGACTGAAAGCACTGATATATTTAAAAACAAAAG
GCAATTTATTAAGGAAATTTGTACCATTTCAGTAAACCTGTCTGAATGTACCTGTATACGTTTCAAAAACACCCC
CCCCCCACTGAATCCCTGTAACCTATTTATTATATAAAGAGTTTGCCTTATAAATTT

FIGURE 3143

CGCGGACCCGGCCGGCCCAGGCCCGCGCCCGCCGCGGCCCTGAGAGGCCCCGGCAGGTCCCGGCCCGGCGGCGGC
AGCC**ATG**GCCGGGGGGCCGGGCCCGGGGGAGCCCGCAGCCCCCGGCGCCCAGCACTTCTTGTACGAGGTGCCGCC
CTGGGTCATGTGCCGCTTCTACAAAGTGATGGACGCCCTGGAGCCCGCCGACTGGTGCCAGTTCGCCGCCCTGAT
CGTGCGCGACCAGACCGAGCTGCGGCTGTGCGAGCGCTCCGGGCAGCGCACGGCCAGCGTCCTGTGGCCCTGGAT
CAACCGCAACGCCCGTGTGGCCGACCTCGTGCACATCCTCACGCACCTGCAGCTGCTCCGTGCGCGGGACATCAT
CACAGCCTGGCACCCTCCCGCCCCGCTTCCGTCCCCAGGCACCACTGCCCCGAGGCCCAGCAGCATCCCTGCACC
CGCCGAGGCCGAGGCCTGGAGCCCCCGGAAGTTGCCATCCTCAGCCTCCACCTTCCTCTCCCCAGCTTTTCCAGG
CTCCCAGACCCATTCAGGGCCTGAGCTCGGCCTGGTCCCAAGCCCTGCTTCCCTGTGGCCTCCACCGCCATCTCC
AGCCCCTTCTTCTACCAAGCCAGGCCCAGAGAGCTCAGTGTCCCTCCTGCAGGGAGCCCGCCCCTTTCCGTTTTG
CTGGCCCCTCTGTGAGATTTCCCGGGGCACCCACAACTTCTCGGAGGAGCTCAAGATCGGGGAGGGTGGCTTTGG
GTGCGTGTACCGGGCGGTGATGAGGAACACGGTGTATGCTGTGAAGAGGCTGAAGGAGAACGCTGACCTGGAGTG
GACTGCAGTGAAGCAGAGCTTCCTGACCGAGGTGGAGCAGCTGTCCAGGTTTCGTCACCCAAACATTGTGGACTT
TGCTGGCTACTGTGCTCAGAACGGCTTCTACTGCCTGGTGTACGGCTTCCTGCCCAACGGCTCCCTGGAGGACCG
TCTCCACTGCCAGACCCAGGCCTGCCCACCTCTCTCCTGGCCTCAGCGACTGGACATCCTTCTGGGTACAGCCCG
GGCAATTCAGTTTCTACATCAGGACAGCCCCAGCCTCATCCATGGAGACATCAAGAGTTCCAACGTCCTTCTGGA
TGAGAGGCTGACACCCAAGCTGGGAGACTTTGGCCTGGCCCGGTTCAGCCGCTTTGCCGGGTCCAGCCCCAGCCA
GAGCAGCATGGTGGCCCGGACACAGACAGTGCGGGGCACCCTGGCCTACCTGCCCGAGGAGTACATCAAGACGGG
AAGGCTGGCTGTGGACACGGACACCTTCAGCTTTGGGGTGGTAGTGCTAGAGACCTTGGCTGGTCAGAGGGCTGT
GAAGACGCACGGTGCCAGGACCAAGTATCTGAAAGACCTGGTGGAAGAGGAGGCTGAGGAGGCTGGAGTGGCTTT
GAGAAGCACCCAGAGCACACTGCAAGCAGGTCTGGCTGCAGATGCCTGGGCTGCTCCCATCGCCATGCAGATCTA
CAAGAAGCACCTGGACCCCAGGCCCGGGCCCTGCCCACCTGAGCTGGGCCTGGGCCTGGGCCAGCTGGCCTGCTG
CTGCCTGCACCGCCGGGCCAAAAGGAGGCCTCCTATGACCCAGGTGTACGAGAGGCTAGAGAAGCTGCAGGCAGT
GGTGGCGGGGGTGCCCGGGCATTCGGAGGCCGCCAGCTGCATCCCCCCTTCCCCGCAGGAGAACTCCTACGTGTC
CAGCACTGGCAGAGCCCACAGTGGGGCTGCTCCATGGCAGCCCCTGGCAGCGCCATCAGGAGCCAGTGCCCAGGC
AGCAGAGCAGCTGCAGAGAGGCCCCAACCAGCCCGTGGAGAGTGACGAGAGCCTAGGCGGCCTCTCTGCTGCCCT
GCGCTCCTGGCACTTGACTCCAAGCTGCCCTCTGGACCCAGCACCCCTCAGGGAGGCCGGCTGTCCTCAGGGGGA
CACGGCAGGAGAATCGAGCTGGGGGAGTGGCCCAGGATCCCGGCCCACAGCCGTGGAAGGACTGGCCCTTGGCAG
CTCTGCATCATCGTCGTCAGAGCCACCGCAGATTATCATCAACCCTGCCCGACAGAAGATGGTCCAGAAGCTGGC
CCTGTACGAGGATGGGGCCCTGGACAGCCTGCAGCTGCTGTCGTCCAGCTCCCTCCCAGGCTTGGGCCTGGAACA
GGACAGGCAGGGGCCCGAAGAAAGTGATGAATTTCAGAGC**TGA**TGTGTTCACCTGGGCAGATCCCCCAAATCCGG
AAGTCAAAGTTCTCATGGTCAGAAGTTCTCATGGTGCACGAGTCCTCAGCACTCTGCCGGCAGTGGGGGTGGGGG
CCCATGCCCGCGGGGGAGAGAAGGAGGTGGCCCTGCTGTTCTAGGCTCTGTGGGCATAGGCAGGCAGAGTGGAAC
CCTGCCTCCATGCCAGCATCTGGGGGCAAGGAAGGCTGGCATCATCCAGTGAGGAGGCTGGCGCATGTTGGGAGG
CTGCTGGCTGCACAGACCCGTGAGGGGAGGAGAGGGGCTGCTGTGCAGGGGTGTGGAGTAGGGAGCTGGCTCCCC
TGAGAGCCATGCAGGGCGTCTGCAGCCCAGGCCTCTGGCAGCAGCTCTTTGCCCATCTCTTTGGACAGTGGCCAC
CCTGCACAATGGGGCCGACGAGGCCTAGGGCCCTCCTACCTGCTTACAATTTGGAAAAGTGTGGCCGGGTGCGGT
GGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGCAGGAGGATCGCTGGAGCCCAGTAGGTCAAGACCAG
CCAGGGCAACATGATGAGACCCTGTCTCTGCCAAAAAATTTTTTAAACTATTAGCCTGGCGTGGTAGCGCACGCC
TGTGGTCCCAGCTGCTGGGGAGGCTGAAGTAGGAGGATCATTTATGCTTGGGAGGTCGAGGCTGCAGTGAGTCAT
GATTGTATGACTGCACTCCAGCCTGGGTGACAGAGCAAGACCCTGTTTCAAAAAGAAAAACCCTGGGAAAAGTGA
AGTATGGCTGTAAGTCTCATGGTTCAGTCCTAGCAAGAAGCGAGAATTCTGAGATCCTCCAGAAAGTCGAGCAGC
ACCCACCTCCAACCTCGGGCCAGTGTCTTCAGGCTTTACTGGGGACCTGCGAGCTGGCCTAATGTGGTGGCCTGC
AAGCCAGGCCATCCCTGGGCGCCACAGACGAGCTCCGAGCCAGGTCAGGCTTCGGAGGCCACAAGCTCAGCCTCA
GGCCCAGGCACTGATTGTGGCAGAGGGGCCACTACCCAAGGTCTAGCTAGGCCCAAGACCTAGTTACCCAGACAG
TGAGAAGCCCCTGGAAGGCAGAAAAGTTGGGAGCATGGCAGACAGGGAAGGGAAACATTTTCAGGGAAAAGACAT
GTATCACATGTCTTCAGAAGCAAGTCAGGTTTCATGTAACCGAGTGTCCTCTTGCGTGTCCAAAAGTAGCCCAGG
GCTGTAGCACAGGCTTCACAGTGATTTTGTGTTCAGCCGTGAGTCACACTACATGCCCCCGTGAAGCTGGGCATT
GGTGACGTCCAGGTTGTCCTTGAGTAATAAAAACGTATGTT

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FIGURE 3144

GAATTTCCCCCAGCGAGGCGAGTGAGGCGAAATACCCGTATGGTGATAGCTGGCCTTTTCGCGCCAATACTGAAA
AAGGCAGAACGTTCCTCCGCTGGCGCCAGCCAATCAGCAGGACTCCTGCCTTCCTTCGGGGCAAGGTCGCAGCAT
CTGCCTCGGAAATCACGAAATCACGGGGCTTCTTTCTGCTGGCTCAGCCGGGAGGCCCAGAGTGTTCTGCAGAGG
CTGCGTATTGAAGGCTGCTCTCTGAAGCTCCCTGCCCCAGGTCACGCCGCCGGTTCCAG**ATG**AATCCAGAGTGGG
GGCAGGCCTTCGTGCACGTGGCCGTGGCCGGTGGCCTCTGTGCCGTGGCTGTGTTCACGGGCATTTTCGACAGTG
TTTCCGTGCAAGTGGGCTATGAGCACTACGCCGAGGCGCCCGTGGCCGGCCTCCCTGCCTTCCTGGCCATGCCGT
TCAACTCACTCGTGAACATGGCCTACACGCTGCTGGGGCTGTCGTGGCTGCACAGGGGCGGCGCGATGGGGCTGG
GTCCCCGCTACCTGAAGGACGTGTTCGCAGCCATGGCCCTGCTCTATGGCCCCGTGCAGTGGCTGCGCCTGTGGA
CGCAGTGGCGCCGTGCCGCGGTGCTGGACCAGTGGCTCACACTGCCCATCTTTGCATGGCCCGTGGCCTGGTGCC
TCTACCTAGACCGCGGCTGGCGGCCCTGGCTGTTCCTCTCTCTTGAGTGCGTCTCCCTGGCCAGTTATGGCCTCG
CTCTGCTGCATCCCCAGGGCTTCGAGGTCGCACTGGGTGCTCACGTGGTGGCCGCTGTGGGGCAGGCGCTGCGCA
CCCACAGGCACTATGGCAGCACCACCTCGGCTACCTACTTAGCTTTGGGGGTGCTCTCTTGCCTGGGCTTTGTGG
TCCTCAAGCTGTGTGACCATCAGCTCGCACGGTGGCGTCTCTTCCAGTGCCTCACAGGCCACTTCTGGTCCAAGG
TCTGTGACGTGCTCCAGTTCCACTTTGCGTTTTTGTTTCTGACGCATTTCAACACTCACCCAAGATTCCATCCCT
CTGGCGGGAAGACGCGT**TGA**ACCCAGGGAAGAACCTGCTGAAAACCGATGACCCCCAGCATTGAAATGGACTCTG
AGATGGCAGCGTGGTGCCAGTGTCAGACATCCTGTGTGTGATGATATGCACTGATCACACAAGACTGCCCTTTCC
TGAGAAGCTGCGGGCTTCGGTGTGGAGGGGTGGAGTGCTGTGATCTCGACAACTTACTTTCAAAGACATAAAGCA
CAGATCTCCGCACAGGGGATGTGTGTGTTCCTGATGTAATTTGCATAACTTTTCTGTAGTTTGAAATGTTTCCAA
ATAAATATTGGCAAGGGGAGTGGAAATGACACCAAGAAGCCCCTCATGCTCATGGTTGGAC

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FIGURE 3145A

AGGGAGGAGGCATGAGCGCCCTGCCGTTACCGCTTCTTCTGCCGTACAGTTGCCGCTTCGGGGCCTAACTCTAGC
TCTTTGAAGCGGCTCCTGTGGGAAGGAGTCATAAGGCGGGAAGTGAGGATCGGACACCGCCTTGAGTTTGGTGTG
CAGTGGAAGAACTGACCTAGGAGGAAGAGAATAGGGGGGAACGGGGAGCTAGTCTCAAGATGGCGGCTCCCACGG
CGGCAGGCGCAGCCTGAGCAGCAGAGGCGGACTAAGGGGAGAGGCGCGAGACTTCACAAGCCGTACGGCGCGAGC
CCCCAAACGGCCCTCGAGAGCTCGAGCTGGTTCCACCGGCCTCCGGCCCGCCTCCATTCGTTAGGTGTGTCGAGG
CTGTTTCGGGAGCGGCGGCTGCACTAAGGCGCTGGGCGGGGAAGCGGGACGGTCTCAAGATGGCGGCTCCCACAA
TTGTGGTCTGAGCGCCGGCGGGGCTGCGACGACCGCGGCGCTTGTGGCTCCTTTCCACCCGCCCCGGAAGCCGGC
CAGTGCTGGGGACTTGGGGGTGTGGGAACCGGGCCGGGGCTCCGCCATTTCCGGCGGGGGAGGGCTACGACTGAG
GAAGGGAGGAGAGAGAGGCGGCTCAAGATGGCGGCTCCCAGGGCCTCCCGCCCGAGCTTGTAAGCGGGAGCGCCC
GGACAAGTAGTCGGGGCGACGGGACTCAGCGGCCTCCAGCTTCTTGAGCCTAGGCGCTCGACAGTTTCGGGCGGC
TCTTGCGGAGACGGGGTGAGCGAGAAGAAAGGGAAGAGCCAAAGGGAAGGAGGGCAGTTAAGATGGCGGCCTCCA
TGGAGTCGTCTACCGCTGTGTGAGAAACCGCTTCTCCGTGAGAGCTGCCTTAGACGAAAGGGGGTGTGTGAAAGG
AATTGAGGGGCTCCCTTCCCGCTTGTTGACTTCTCCCCACCGCACCCTTTCCCGGAACT**ATG**GCTTCGGCCGTGT
CGCCCGCCAACTTGCCAGCGGTGCTTCTGCAGCCCCGCTGGAAGCGAGTGGTGGGCTGGTCGGGTCCGGTGCCAC
GGCCCCGCCACGGCCACCGCGCCGTGGCCATCAAGGAGCTCATCGTGGTGTTTGGCGGCGGCAACGAGGGAATAG
TGGACGAACTGCACGTGTACAACACGGCAACCAACCAGTGGTTCATCCCAGCCGTGAGGGGGGACATTCCCCCTG
GGTGTGCAGCCTATGGCTTCGTGTGTGACGGGACTCGCCTCCTGGTGTTTGGTGGGATGGTGGAGTATGGGAAAT
ACAGCAATGACCTCTACGAACTCCAGGCGAGCCGGTGGGAGTGGAAGAGACTCAAAGCAAAGACGCCCAAAAACG
GGCCCCCTCCGTGTCCTCGACTCGGGCACAGCTTCTCCCTTGTGGGCAACAAATGCTACCTGTTTGGGGGTCTGG
CCAATGATAGCGAGGACCCAAAGAACAACATTCCAAGGTACCTGAATGACTTATATATCCTGGAATTACGGCCAG
GCTCTGGAGTGGTAGCCTGGGACATTCCCATCACTTACGGGGTCCTACCACCACCCCGGGAGTCACATACTGCCG
TGGTCTACACCGAAAAAGACAATAAGAAGTCCAAGCTGGTGATCTACGGCGGGATGAGTGGCTGCAGGCTGGGGG
ACCTGTGGACCCTAGATATTGACACCCTGACGTGGAATAAGCCCAGTCTCAGCGGGGTGGCGCCTCTTCCTCGCA
GTCTCCACTCGGCAACCACCATCGGAAATAAAATGTACGTGTTTGGTGGCTGGGTGCCTCTCGTCATGGATGACG
TCAAAGTGGCCACACACGAGAAGGAGTGGAAGTGTACCAACACGCTGGCTTGTCTCAACCTGGATACCATGGCCT
GGGAGACCATCCTGATGGATACACTGGAGGACAACATCCCCCGTGCTCGGGCTGGCCACTGCGCAGTCGCCATCA
ACACCCGCCTGTACATTTGGAGTGGGCGTGACGGCTACCGCAAGGCCTGGAACAACCAGGTCTGCTGCAAGGACC
TCTGGTACCTAGAGACAGAAAAGCCACCACCCCCAGCCCGAGTACAACTGGTACGCGCCAACACCAACTCCCTGG
AGGTGAGCTGGGGGGCAGTGGCAACAGCCGACAGCTACCTTCTCCAGCTCCAGAAATATGACATTCCTGCCACGG
CTGCTACTGCCACCTCCCCTACACCCAATCCGGTCCCATCTGTGCCTGCCAACCCTCCCAAGAGCCCTGCCCCAG
CAGCAGCCGCACCTGCTGTGCAGCCGCTGACCCAAGTAGGCATCACGCTCCTGCCCCAGGCTGCCCCCGCACCCC
CGACCACCACCACCATCCAGGTCTTGCCAACGGTGCCTGGCAGCTCCATTTCTGTGCCCACCGCAGCCAGGACTC
AAGGTGTCCCTGCTGTTCTCAAAGTGACCGGTCCTCAGGCTACAACAGGAACTCCATTGGTCACCATGCGACCTG
CCAGCCAGGCTGGGAAAGCCCCTGTCACCGTGACCTCCCTTCCCGCCGGAGTGCGGATGGTTGTGCCAACACAGA
GTGCCCAGGGAACGGTGATTGGCAGTAGCCCACAGATGAGTGGGATGGCCGCACTGGCCGCTGCGGCCGCTGCCA
CCCAGAAGATCCCCCCTTCCTCGGCACCCACGGTGCTGAGTGTCCCAGCGGGTACCACCATCGTGAAGACCATGG
CTGTGACACCTGGCACTACCACCCTCCCAGCCACTGTGAAGGTGGCCTCCTCGCCAGTCATGGTGAGCAACCCTG
CCACTCGCATGCTGAAGACTGCAGCCGCCCAGGTGGGGACATCGGTTTCCTCCGCCACCAACACGTCTACCCGCC
CTATCATCACAGTGCACAAGTCAGGCACTGTGACAGTGGCCCAGCAAGCCCAGGTGGTGACCACAGTTGTGGGCG
GGGTCACCAAGACCATCACCCTGGTGAAGAGCCCCATCTCTGTCCCAGGAGGCAGTGCTCTGATTTCCAATCTGG
GCAAAGTGATGTCGGTGGTCCAGACCAAACCAGTTCAGACTTCAGCAGTCACAGGCCAGGCGTCCACGGGTCCTG
TGACTCAGATCATCCAGACCAAAGGGCCCCTGCCAGCGGGAACAATCCTGAAGCTGGTGACCTCAGCAGATGGCA
AGCCCACCACCATCATCACTACCACGCAGGCCAGTGGGGCGGGGACCAAGCCCACCATCCTGGGCATCAGCAGCG
TCTCCCCCAGTACCACCAAGCCCGGCACGACCACCATCATCAAAACCATCCCCATGTCGGCCATCATCACCCAGG
CGGGCGCCACGGGTGTGACCAGCAGTCCTGGCATCAAGTCCCCCATCACCATCATCACCACCAAGGTGATGACTT
CAGGAACTGGAGCACCTGCGAAAATCATCACTGCTGTCCCCAAAATTGCCACTGGCCACGGGCAGCAGGGAGTGA
CCCAGGTGGTGCTTAAGGGGGCCCCGGGACAGCCAGGCACCATCCTCCGCACTGTGCCCATGGGGGGTGTTCGCC
TGGTCACACCCGTCACCGTCTCCGCCGTCAAGCCAGCCGTCACCACGTTGGTTGTGAAAGGCACCACAGGTGTCA

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FIGURE 3145B

CGACCCTAGGCACAGTGACAGGCACCGTCTCCACCAGCCTTGCCGGGGCGGGGGGCCACAGCACTAGTGCTTCCC
TGGCCACGCCCATCACCACCTTGGGCACCATTGCCACCCTCTCAAGCCAGGTGATCAACCCCACTGCCATCACTG
TGTCGGCCGCACAGACCACGCTGACAGCGGCAGGCGGGCTCACAACCCCAACCATCACCATGCAGCCCGTGTCCC
AGCCCACCCAGGTAACTCTGATCACGGCACCTAGTGGGGTGGAGGCCCAGCCTGTGCATGACCTCCCTGTGTCCA
TTCTGGCCTCCCCGACTACAGAACAGCCCACCGCCACAGTTACCATCGCCGACTCAGGCCAGGGTGATGTGCAGC
CTGGCACTGTCACCTTGGTGTGCTCCAACCCACCCTGTGAGACCCACGAGACTGGCACCACCAACACGGCCACCA
CTACTGTTGTGGCTAACCTTGGGGGACACCCCCAGCCCACCCAAGTGCAGTTCGTCTGTGACAGACAGGAGGCAG
CTGCTTCTCTTGTGACCTCGACTGTGGGCCAGCAGAATGGTAGCGTGGTCCGAGTCTGTTCGAACCCGCCCTGCG
AGACCCACGAGACGGGCACCACCAACACCGCCACCACCGCCACCTCCAACATGGCCGGGCAGCATGGCTGCTCAA
ACCCACCCTGCGAGACCCACGAGACGGGCACCACCAACACTGCCACTACAGCCATGTCGAGCGTCGGCGCCAACC
ACCAGCGAGATGCCCGTCGGGCCTGTGCAGCTGGCACCCCTGCCGTGATCCGGATCAGTGTGGCCACTGGGGCGC
TGGAGGCAGCCCAGGGCTCTAAGTCCCAGTGCCAAACCCGCCAGACCAGCGCGACCAGCACCACCATGACTGTGA
TGGCCACCGGGGCCCCGTGCTCGGCCGGCCCACTCCTTGGGCCGAGCATGGCACGGGAGCCCGGGGGCCGCAGCC
CTGCTTTTGTGCAGTTGGCCCCTCTGAGCAGCAAAGTCAGGCTGAGCAGCCCAAGCATTAAGGACCTTCCTGCGG
GGCGCCACAGCCATGCGGTCAGCACCGCTGCCATGACCCGTTCCAGCGTGGGTGCTGGGGAGCCCCGCATGGCAC
CTGTGTGCGAGAGCCTCCAGGGTGGCTCGCCCAGCACCACAGTGACTGTGACAGCCCTGGAGGCACTGCTGTGCC
CCTCGGCCACCGTGACCCAAGTCTGCTCCAACCCACCATGTGAGACCCACGAGACAGGCACCACCAACACCGCCA
CTACCTCGAATGCAGGCAGCGCCCAGAGGGTGTGCTCCAACCCGCCATGCGAGACCCACGAGACGGGCACCACCC
ACACGGCCACCACCGCTACTTCAAACGGGGGCACGGGCCAGCCCGAGGGTGGGCAGCAGCCCCCTGCTGGTCGCC
CCTGTGAGACACACCAGACCACTTCCACTGGCACCACCATGTCGGTCAGCGTGGGTGCCCTGCTTCCCGACGCCA
CTTCTTCCCACAGGACCGTGGAGTCTGGCCTAGAGGTGGCGGCGGCACCCAGCGTCACCCCCCAGGCTGGCACCG
CGCTGCTGGCTCCTTTCCCAACACAGAGGGTGTGCTCCAACCCCCCCTGTGAGACCCACGAGACGGGCACCACTC
ACACGGCCACCACTGTCACTTCCAACATGAGTTCAAACCAAGACCCCCCACCTGCTGCCAGCGATCAGGGAGAGG
TGGAGAGCACCCAGGGCGACAGCGTGAACATCACCAGCTCCAGTGCCATCACGACAACCGTGTCCTCCACACTGA
CGCGGGCTGTGACCACCGTGACGCAGTCCACACCGGTCCCGGGCCCCTCTGTGCCGCCCCCAGAGGAACTCCAGG
TGTCGCCAGGTCCTCGCCAGCAGCTGCCGCCACGGCAGCTTCTGCAGTCGGCTTCCACAGCCCTGATGGGGGAGT
CCGCCGAGGTCCTGTCAGCCTCCCAGACCCCTGAGCTCCCGGCCGCCGTGGATCTGAGCAGCACAGGGGAGCCAT
CTTCGGGCCAGGAGTCTGCCGGCTCTGCGGTGGTGGCCACTGTGGTGGTCCAGCCACCCCCACCCACACAGTCCG
AAGTAGACCAGTTATCACTTCCCCAAGAGCTAATGGCCGAGGCCCAAGCTGGCACCACCACCCTCATGGTAACGG
GGCTCACCCCCGAGGAGCTGGCAGTGACGGCTGCTGCAGAAGCAGCTGCCCAGGCCGCAGCCACGGAGGAAGCCC
AGGCCCTGGCCATCCAGGCGGTGCTCCAGGCCGCGCAGCAGGCCGTCATGGGCACCGGCGAGCCCATGGACACCT
CCGAGGCAGCAGCAACCGTGACTCAGGCGGAGCTGGGGCACCTGTCGGCCGAGGGTCAGGAGGGCCAGGCCACCA
CCATACCCATTGTGCTGACACAGCAGGAGCTGGCTGCCCTGGTGCAGCAGCAGCAGCTGCAGGAGGCCCAGGCCC
AGCAGCAGCATCACCACCTCCCCACTGAGGCCCTGGCCCCTGCCGACAGTCTCAACGACCCAGCCATTGAGAGCA
ATTGCCTCAATGAGCTGGCCGGCACGGTCCCCAGCACTGTGGCGCTGCTGCCCTCAACGGCCACTGAGAGCCTGG
CTCCATCCAACACATTTGTGGCCCCCCAGCCGGTTGTGGTGGCCAGCCCAGCCAAGCTGCAGGCTGCAGCTACCC
TGACCGAAGTGGCCAATGGCATCGAGTCCCTGGGTGTGAAGCCAGACCTGCCGCCCCCACCCAGCAAAGCCCCCA
TGAAGAAGGAAAACCAGTGGTTTGATGTGGGAGTCATTAAGGGCACCAATGTAATGGTGACACACTATTTCCTGC
CACCAGATGATGCTGTCCCATCAGACGATGATTTGGGCACCGTCCCTGACTATAACCAGCTGAAGAAGCAGGAGC
TGCAGCCAGGCACAGCCTATAAGTTTCGTGTTGCCGGAATCAATGCCTGTGGCCGGGGGCCCTTCAGCGAAATCT
CAGCCTTTAAGACGTGCCTGCCTGGTTTCCCAGGGGCCCCTTGTGCCATTAAAATCAGCAAAAGTCCGGATGGTG
CTCACCTCACCTGGGAGCCACCCTCTGTGACCTCCGGCAAGATTATCGAGTACTCCGTGTACCTGGCCATCCAGA
GCTCACAGGCTGGGGGCGAGCTCAAGAGCTCCACCCCGGCCCAGCTGGCCTTCATGCGGGTGTACTGCGGGCCCA
GCCCCTCCTGCCTGGTGCAGTCCTCCAGCCTTTCCAACGCCCACATCGACTACACCACCAAGCCCGCCATCATCT
TCCGCATCGCCGCCCGCAATGAGAAGGGCTATGGCCCGGCCACACAAGTGAGGTGGCTGCAGGAAACCAGTAAAG
ACAGCTCTGGCACCAAGCCAGCCAACAAGCGGCCCATGTCCTCTCCAGAAATGAAATCTGCTCCAAAGAAATCTA
AGGCCGATGGTCAG**TGA**GAGGAAGCTGACTAGCCCCTGGATTCTTCTCCAGACCCCCCTGCTTCAGGAACACCCG
CCAGGGCCCACCCCTCCCACCCCGTCCCAGCATTCGCACTTCACCCTCGCGAGCCGCTGTTCACTCCTCTCCCCT

FIGURE 3145C

TTCTCTTTCTCTCTGTTTTTAAAATAATCTAAAGAAAGCACATTTTACCATTGCTGTTGGGAGGAAGCAGAGGCA
GATGGGAAAGCAGAGAGAGGAGCGCGCTTCCTTTCCTCCCCGCTGCCGCCCACCCTGGGGAGAGACTTTTGCGGG
GAGGGAAGGCGGAGCTGAGGACAGCCAGCTCCGCCCTCCCAAGGCTGTGCGTTCCTGAGGGCCAGGTCGGGGGCA
GGCATGGAGGGGAGGAAAGGCGTCCCTCTTGGCCCTCCCCAGAGTGGCTTTCCTGGCACCCTGGCCTGGGTGTCT
GGTTCTGTTTTCTTTTCTTCCCCTTGTGTTTCCAGTCACCTAACTTCCCTTCCTCAGGCTCCCCCGGCCCACCCT
GCTCAGTGACCCCACAGGAAGCTTACACATTTTCTCAGAGGCCTTTGTGCTCCCACCTCTTCTACCCTCCCCCTC
TTCTTTCCCATTTTAAAAAAGAAAAGAAGGAAAAAGAAAAAAGGGGCAAGGAGCCCCGCGGCGGCCTGGGCAGCG
CCTGTGCAGACCTCCCTGCAGGCCGCACTGCCAACTGCTGCATTTGTTGTGTTTTTTAGGTTGCAATTGGTGAAG
TTCACACTTTCATTGTAATTTTAGCGTGTGGGGTTTTGTCCCTTTTTTGTTGTTGTTAGCTGTGTACAGAATGTG
TAATCTTTTTTCTTTTCTCTTTTTTTTGTTTTGTTTTGTTTTGTTTTTGTTTTTTTACTTTTTTCTTCTTGGCTA
ATTCTTGGCAGGGATCTTTCTGGAGGAAAAGCTGGGGCCAGCCAGGGCAGGAGAGGTGTGAAATCTGCCACGAGG
GGCCTGCTGTTTGCCACCCAGCCCAACTTCCTGTTGCTGGCCCCTGCCCTCTGCCCTTTTGCCTGTCCTCAGGCC
GCTGGAACAAAGGAAGGACAGCTCATTCCTCATGGGCGATCACTCCGCATCTATAGGGTCGAGCCTAGGGGAGCT
TGAGGGAGGGCTGGGGCCTCCTTGTCCTGGATTTCCAGCTCTCCCCATGCCCCCTCCCTGAGCACCACCGGCACC
GCCTCCCAAACAGGGCTGCTGGTTTCCGCAGCCACTGCTCCACCTCCCCCAAATCGTCATGGAAAGGGTGGAGAA
TGGAGGGGAACCAGGCGTCCTTGGAGGCAGCTTGGGAGGGTGACTGTGTAGTGTCACCCACAAGGGAGGCTAGGG
CAATGGAGCAGGCCACCAGCAGCAGCTGTGCAGCATGGAACTCAGGCCAGGCTCCGAGGCTGGGGGATCTGCTTG
GAGTTTTCTGCCCCCCACCCCAAACTTCTGTCGAGGAGCAAGGCTTGCCAGCAAGTCAGAAGGATTTGAACCGAG
CAGCCAATCTTTCCAGCCCTCCCCTACCGACCTCTGCCTGGAGACGCAGCAGCCTGTGTCCTCCAGGGCCTCTGG
TTTGTTGTATTATAGTATATTTCGCTGTGGAAAATGTCACGTTTAGTCACCTTGGAGCCCACTCACCTGGTCCTG
TTGTTTTACCCCATCCCTTCTCTCGCGCGCCTATTGATTTGTTTCTGAGGAGAGTACACCGTTCACTATTGTAGA
GTAACCCCTGTGACTCAATATTACCATAGTGCGATGTCGTTTTGTGCTATTTTGAACAATTAAAAGACTTTTTTT
GAAATAA

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FIGURE 3146

CGGTCCCAGCCCCGGCCGTCCCGGCGTCGCTTCGGAGCGCGGCGGCAGCTGACTGCGCCTTCACGATCCGCTGGG
ACCCGCGAGCCCCGCCGCCGTT**ATG**AACATCCGCAATGCGAGGCCAGAGGACCTAATGAACATGCAGCACTGCAA
CCTCCTCTGCCTGCCCGAGAACTACCAGATGAAATACTACTTCTACCATGGCCTTTCCTGGCCCCAGCTCTCTTA
CATTGCTGAGGACGAGAATGGGAAGATTGTGGGGTATGTCCTGGCCAAAATGGAAGAGGACCCAGATGATGTGCC
CCATGGACATATCACCTCATTGGCTGTGAAGCGTTCCCACCGGCGCCTCGGTCTGGCTCAGAAACTGATGGACCA
GGCCTCTCGAGCCATGATAGAGAACTTCAATGCCAAATATGTCTCCCTGCATGTCAGGAAGAGTAACCGGGCCGC
CCTGCACCTCTATTCCAACACCCTCAACTTTCAGATCAGTGAAGTGGAGCCCAAATACTATGCAGATGGGGAGGA
CGCCTATGCCATGAAGCGGGACCTCACTCAGATGGCCGACGAGCTGAGGCGGCACCTGGAGCTGAAAGAGAAGGG
CAGGCACGTGGTGCTGGGTGCCATCGAGAACAAGGTGGAGAGCAAAGGCAATTCACCTCCGAGCTCAGGAGAGGC
CTGTCGCGAGGAGAAGGGCCTGGCTGCCGAGGATAGTGGTGGGGACAGCAAGGACCTCAGCGAGGTCAGCGAGAC
CACAGAGAGCACAGATGTCAAGGACAGCTCAGAGGCCTCCGACTCAGCCTCC**TAG**AGCCTGCCCCATCCCCTCCT
CACCCCACGAGCTTTCACAATAAATTCGCTCCGTGGCACTG

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FIGURE 3147

CGTGGGAGCAGTGGGGTTCGACGGCGCGGCCGCGAGGCCGCC**ATG**GCCGCTCACGGGAAGCTGCGGCGGGAGCGG
GGGCTGCAGGCTGAGTATGAGACGCAAGTCAAAGAGATGCGCTGGCAGCTGAGCGAGCAGCTGCGCTGCCTGGAG
CTGCAGGGCGAGCTGCGGCGGGAGTTGCTGCAGGAGCTGGCAGAGTTCATGCGGCGCCGCGCTGAGGTGGAGCTG
GAATACTCCCGGGGCCTGGAAAAGCTGGCCGAGCGCTTCTCCAGCCGTGGAGGCCGCCTGGGGAGCAGCCGGGAG
CACCAAAGCTTCCGGAAGGAGCCGTCCCTCCTGTCGCCCTTGCACTGCTGGGCGGTGCTGCTGCAGCACACGCGG
CAGCAGAGCCGGGAGAGCGCGGCCCTGAGTGAGGTGCTGGCCGGGCCCCTGGCCCAGCGCCTGAGTCACATTGCA
GAGGACGTGGGGCGCCTGGTCAAGAAGAGCAGGGATCTGGAGCAGCAGCTGCAGGATGAGCTCCTGGAGGTGGTC
TCAGAGCTCCAGACGGCCAAGAAGACGTACCAGGCATATCACATGGAGAGCGTGAATGCCGAGGCCAAGCTCCGG
GAGGCCGAGCGGCAGGAGGAGAAGCGGGCAGGCCGGAGTGTCCCCACCACCACCGCTGGTGCCACTGAGGCAGGG
CCCCTCCGCAAGAGCTCCCTCAAGAAGGGAGGGAGGCTGGTGGAGAAGCGGCAGGCCAAGTTCATGGAGCACAAA
CTCAAGTGCACAAAGGCGCGCAACGAGTACCTGCTTAGCCTGGCTAGTGTCAACGCTGCTGTCAGTAACTACTAC
CTGCATGACGTCTTGGACCTCATGGACTGCTGTGACACAGGGTTCCACCTGGCCCTGGGGCAGGTGCTCCGGAGC
TACACGGCCGCTGAGAGCCGCACCCAAGCCTCCCAAGTGCAGGGCCTGGGCAGCCTGGAAGAAGCTGTGGAGGCC
CTGGATCCTCCAGGGGACAAAGCCAAGGTTCTCGAGGTGCATGCTACCGTCTTCTGTCCCCCGCTGCGCTTTGAC
TACCACCCCCATGATGGGGATGAGGTGGCTGAGATCTGCGTTGAAATGGAGCTGCGGGACGAGATTCTGCCCAGA
GCCCAGAACATCCAGAGCCGCCTGGACCGACAGACCATTGAGACAGAGGAGGTGAACAAGACTCTGAAGGCGACA
CTGCAGGCCCTGCTGGAGGTGGTGGCCTCGGATGACGGGGATGTGCTTGATTCCTTCCAGACCAGCCCCTCCACC
GAGTCCCTCAAGTCCACCAGCTCAGACCCAGGCAGCCGGCAGGCGGGCCGGAGGCGCGGCCAGCAGCAGGAGACC
GAAACCTTCTACCTCACGAAGCTCCAGGAGTATCTGAGTGGACGGAGCATCCTCGCCAAGCTGCAGGCCAAGCAC
GAGAAGCTGCAGGAGGCCCTTCAGCGAGGTGACAAGGAGGAGCAGGAGGTGTCTTGGACCCAGTACACACAGAGA
AAATTCCAGAAGAGCCGCCAGCCCCGCCCCAGCTCCCAGTATAACCAGAGACTCTTTGGGGGAGACATGGAGAAG
TTTATCCAGAGCTCAGGCCAGCCTGTGCCCCTGGTGGTGGAGAGCTGCATTCGCTTCATCAACCTCAATGGCCTG
CAGCATGAAGGCATCTTCCGGGTATCGGGTGCCCAGCTCCGGGTCTCAGAGATCCGTGATGCCTTCGAGAGAGGG
GAGGACCCACTGGTGGAGGGCTGCACTGCCCATGACCTGGACTCGGTGGCCGGGGTGCTGAAGCTCTACTTCCGG
AGCCTGGAGCCCCCACTCTTCCCCCCAGACCTGTTCGGCGAGCTGCTGGCTTCTTCGGAGCTGGAGGCCACAGCG
GAGAGGGTGGAGCACGTGAGCCGCCTGCTGTGGCGGCTGCCCGCGCCGGTGCTGGTGGTTCTGCGCTACCTCTTC
ACCTTCCTCAACCACCTGGCCCAGTACAGCGATGAGAACATGATGGACCCCTACAACCTGGCCGTGTGCTTCGGG
CCCACGCTGCTACCGGTGCCCGCTGGGCAGGACCCGGTGGCGCTGCAGGGCCGGGTGAACCAGCTGGTGCAGACG
CTCATAGTGCAGCCCGATCGGGTCTTCCCGCCCCTGACCTCGCTGCCTGGCCCCGTCTACGAGAAGTGCATGGCA
CCGCCTTCCGCCAGCTGCCTGGGGGACGCCCAGCTGGAGAGCCTGGGGGCGGACAATGAGCCGGAGCTGGAAGCC
GAGATGCCCGCACAGGAGGATGACCTGGAGGGGGTCGTGGAGGCTGTGGCCTGCTTTGCCTACACGGGCCGCACA
GCCCAGGAGCTGAGCTTCCGGCGGGGGGACGTACTGCGGCTGCACGAGAGGGCCTCGAGCGACTGGTGGCGGGGG
GAGCACAACGGCATGCGGGGCCTCATCCCCCACAAGTATATCACGCTGCCCGCCGGGACGGAGAAGCAGGTGGTG
GGCGCAGGGCTGCAGACTGCAGGGGAGTCTGGGAGCAGTCCCGAGGGCCTCCTGGCATCGGAGCTGGTCCACCGG
CCAGAGCCATGCACCTCACCTGAGGCCATGGGACCCTCTGGACACAGACGACGCTGCTTGGTCCCAGCCTCCCCA
GAGCAACACGTGGAGGTGGATAAGGCTGTGGCACAGAACATGGACTCTGTGTTTAAGGAGCTCTTGGGAAAGACC
TCTGTCCGCCAGGGCCTTGGGCCAGCATCTACCACCTCTCCCAGTCCTGGGCCCCGAAGCCCAAAGGCCCCGCCC
AGCAGCCGCCTGGGCAGGAACAAAGGCTTCTCCCGGGGCCCTGGGGCCCCAGCCTCACCCTCAGCTTCCCACCCC
CAGGGCCTAGACACGACCCCCAAGCCACAC**TGA**GGTGCCGCTGCTGGAGATGCGTGCCCCCGGCGGCTACCCGCT
GGACCGGCCACTCTCCCCAGCCCCCTTGCTTCTCTCCAGCCCTGTCCAGCAAGTGCAGGGTGCCTGCACTTCACC
CTGTGCAGAGAGGTGGGATGGGGCCGTGCACACAGGGATGCCCGCTCCACATCCTGCCTGCCCCTCAGCCCTGGC
CCAGGCCCCTTTTGGAGGCAGCTGAGGAAGGATGCTGGGGAAAGCCCTCTTCTGCAGCTTTGTGGAAGGCTGATC
AGTGGCTGCTGGGTGGCGGGTACCCTTGCTCAGATGCCTGGCAGGGCTGGGTGGCGATTCATAAAGACCTCGTGT
TGATTCCCCG

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FIGURE 3148A

GCGCGGTGCCGCCGGGAAAG**ATG**GTCGTGGCGCTGCGGTACGTGTGGCCTCTCCTCCTCTGCAGCCCCTGCCTGC
TTATCCAGATCCCCGAGGAATATGAAGGACACCATGTGATGGAGCCACCTGTCATCACGGAACAGTCTCCACGGC
GCCTGGTTGTCTTCCCCACAGATGACATCAGCCTCAAGTGTGAGGCCAGTGGCAAGCCCGAAGTGCAGTTCCGCT
GGACGAGGGATGGTGTCCACTTCAAACCCAAGGAAGAGCTGGGTGTGACCGTGTACCAGTCGCCCCACTCTGGCT
CCTTCACCATCACGGGCAACAACAGCAACTTTGCTCAGAGGTTCCAGGGCATCTACCGCTGCTTTGCCAGCAATA
AGCTGGGCACCGCCATGTCCCATGAGATCCGGCTCATGGCCGAGGGTGCCCCCAAGTGGCCAAAGGAGACAGTGA
AGCCCGTGGAGGTGGAGGAAGGGGAGTCAGTGGTTCTGCCTTGCAACCCTCCCCCAAGTGCAGAGCCTCTCCGGA
TCTACTGGATGAACAGCAAGATCTTGCACATCAAGCAGGACGAGCGGGTGACGATGGGCCAGAACGGCAACCTCT
ACTTTGCCAATGTGCTCACCTCCGACAACCACTCAGACTACATCTGCCACGCCCACTTCCCAGGCACCAGGACCA
TCATTCAGAAGGAACCCATTGACCTCCGGGTCAAGGCCACCAACAGCATGATTGACAGGAAGCCGCGCCTGCTCT
TCCCCACCAACTCCAGCAGCCACCTGGTGGCCTTGCAGGGGCAGCCATTGGTCCTGGAGTGCATCGCCGAGGGCT
TTCCCACGCCCACCATCAAATGGCTGCGCCCCAGTGGCCCCATGCCAGCCGACCGTGTCACCTACCAGAACCACA
ACAAGACCCTGCAGCTGCTGAAAGTGGGCGAGGAGGATGATGGCGAGTACCGCTGCCTGGCCGAGAACTCACTGG
GCAGTGCCCGGCATGCGTACTATGTCACCGTGGAGGCTGCCCCGTACTGGCTGCACAAGCCCCAGAGCCATCTAT
ATGGGCCAGGAGAGACTGCCCGCCTGGACTGCCAAGTCCAGGGCAGGCCCCAACCAGAGGTCACCTGGAGAATCA
ACGGGATCCCTGTGGAGGAGCTGGCCAAAGACCAGAAGTACCGGATTCAGCGTGGCGCCCTGATCCTGAGCAACG
TGCAGCCCAGTGACACAATGGTGACCCAATGTGAGGCCCGCAACCGGCACGGGCTCTTGCTGGCCAATGCCTACA
TCTACGTTGTCCAGCTGCCAGCCAAGATCCTGACTGCGGACAATCAGACGTACATGGCTGTCCAGGGCAGCACTG
CCTACCTTCTGTGCAAGGCCTTCGGAGCGCCTGTGCCCAGTGTTCAGTGGCTGGACGAGGATGGGACAACAGTGC
TTCAGGACGAACGCTTCTTCCCCTATGCCAATGGGACCCTGGGCATTCGAGACCTCCAGGCCAATGACACCGGAC
GCTACTTCTGCCTGGCTGCCAATGACCAAAACAATGTTACCATCATGGCTAACCTGAAGGTTAAAGATGCAACTC
AGATCACTCAGGGGCCCCGCAGCACAATCGAGAAGAAAGGTTCCAGGGTGACCTTCACGTGCCAGGCCTCCTTTG
ACCCCTCCTTGCAGCCCAGCATCACCTGGCGTGGGGACGGTCGAGACCTCCAGGAGCTTGGGGACAGTGACAAGT
ACTTCATAGAGGATGGGCGCCTGGTCATCCACAGCCTGGACTACAGCGACCAGGGCAACTACAGCTGCGTGGCCA
GTACCGAACTGGATGTGGTGGAGAGTAGGGCACAGCTCTTGGTGGTGGGGAGCCCTGGGCCGGTGCCACGGCTGG
TGCTGTCCGACCTGCACCTGCTGACGCAGAGCCAGGTGCGCGTGTCCTGGAGTCCTGCAGAAGACCACAATGCCC
CCATTGAGAAATATGACATTGAATTTGAGGACAAGGAAATGGCGCCTGAAAAATGGTACAGTCTGGGCAAGGTTC
CAGGGAACCAGACCTCTACCACCCTCAAGCTGTCGCCCTATGTCCACTACACCTTTAGGGTTACTGCCATAAACA
AATATGGCCCCGGGGAGCCCAGCCCGGTCTCTGAGACTGTGGTCACACCTGAGGCAGCCCCAGAGAAGAACCCTG
TGGATGTGAAGGGGGAAGGAAATGAGACCACCAATATGGTCATCACGTGGAAGCCGCTCCGGTGGATGGACTGGA
ACGCCCCCCAGGTTCAGTACCGCGTGCAGTGGCGCCCTCAGGGGACACGAGGGCCCTGGCAGGAGCAGATTGTCA
GCGACCCCTTCCTGGTGGTGTCCAACACGTCCACCTTCGTGCCCTATGAGATCAAAGTCCAGGCCGTCAACAGCC
AGGGCAAGGGACCAGAGCCCCAGGTCACTATCGGCTACTCTGGAGAGGACTACCCCCAGGCAATCCCTGAGCTGG
AAGGCATTGAAATCCTCAACTCAAGTGCCGTGCTGGTCAAGTGGCGGCCGGTGGACCTGGCCCAGGTCAAGGGCC
ACCTCCGCGGATACAATGTGACGTACTGGAGGGAGGGCAGTCAGAGGAAGCACAGCAAGAGACATATCCACAAAG
ACCATGTGGTGGTGCCCGCCAACACCACCAGTGTCATCCTCAGTGGCTTGCGGCCCTATAGCTCCTACCACCTGG
AGGTGCAGGCCTTTAACGGGCGAGGATCGGGGCCCGCCAGCGAGTTCACCTTCAGCACCCCAGAGGGAGTGCCTG
GCCACCCCGAGGCGTTGCACCTGGAGTGCCAGTCGAACACCAGCCTGCTGCTGCGCTGGCAGCCCCCACTCAGCC
ACAACGGCGTGCTCACCGGCTACGTGCTCTCCTACCACCCCCTGGATGAGGGGGGCAAGGGGCAACTGTCCTTCA
ACCTTCGGGACCCCGAACTTCGGACACACAACCTGACCGATCTCAGCCCCCACCTGCGGTACCGCTTCCAGCTTC
AGGCCACCACCAAAGAGGGCCCTGGTGAAGCCATCGTACGGGAAGGAGGCACTATGGCCTTGTCTGGGATCTCAG
ATTTTGGCAACATCTCAGCCACAGCGGGTGAAAACTACAGTGTCGTCTCCTGGGTCCCCAAGGAGGGCCAGTGCA
ACTTCAGGTTCCATATCTTGTTCAAAGCCTTGGGAGAAGAGAAGGGTGGGGCTTCCCTTTCGCCACAGTATGTCA
GCTACAACCAGAGCTCCTACACGCAGTGGGACCTGCAGCCTGACACTGACTACGAGATCCACTTGTTTAAGGAGA
GGATGTTCCGGCACCAAATGGCTGTGAAGACCAATGGCACAGGCCGCGTGAGGCTCCCTCCTGCTGGCTTCGCCA
CTGAGGGCTGGTTCATCGGCTTTGTGAGTGCCATCATCCTCCTGCTCCTCGTCCTGCTCATCCTCTGCTTCATCA
AGCGCAGCAAGGGCGGCAAATACTCAGTGAAGGATAAGGAGGACACCCAGGTGGACTCTGAGGCCCGACCGATGA
AAGATGAGACCTTCGGCGAGTACAGGTCCCTGGAGAGTGACAACGAGGAGAAGGCCTTTGGCAGCAGCCAGCCAT

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FIGURE 3148B

CGCTCAACGGGGACATCAAGCCCCTGGGCAGTGACGACAGCCTGGCCGATTATGGGGGCAGCGTGGATGTTCAGT
TCAACGAGGATGGTTCGTTCATTGGCCAGTACAGTGGCAAGAAGGAGAAGGAGGCGGCAGGGGGCAATGACAGCT
CAGGGGCCACTTCCCCCATCAACCCTGCCGTGGCCCTAGAA**TAG**TGGAGTCCAGGACAGGAGATGCTGTGCCCCT
GGCCTTGGGATCCAGGCCCCTCCCTCTCCAGCAGGCCCATGGGAGGCTGGAGTTGGGGCAGAGGAGAACTTGCTG
CCTCGGATCCCCTTCCTACCACCCGGTCCCCACTTTATTGCCAAAACCCAGCTGCACCCCTTCCTGGGCACACGC
TGCTCTGCCCCAGCTTGGGCAGATCTCCCACATGCCAGGGGCCTTTGGGTGCTGTTTTGCCAGCCCATTTGGGCA
GAGAGGCTGTGGTTTGGGGGAGAAGAAGTAGGGGTGGCCCGAAAGGGTCTCCGAAATGCTGTCTTTCTTGCTCCC
TGACTGGGGGCAGACATGGTGGGGTCTCCTCAGGACCAGGGTTGGCACCTTCCCCCTCCCCCAGCCACTCCCCAG
CCAGCCTGGCTGGGACTGGGAACAGAACTCGGTGTCCCCACCATCTGCTGTCTTTTCTTTGCCATCTCTGCTCCA
ACCGGGATGGGAGCCGGGCAAACTGGCCGCGGGGGCAGGGGAGGCCATCTGGAGAGCCCAGAGTCCCCCCACTCC
CAGCATCGCACTCTGGCAGCACCGCCTCTTCCCGCCGCCCAGCCCACCCCATGGCCGGCTTTCAGGAGCTCCATA
CACACGCTGCCTTCGGTACCCACCACACAACATCCAAGTGGCCTCCGTCACTACCTGGCTGCGGGGCGGGCACAC
CTCCTCCCACTGCCCACTGGCCGGC

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FIGURE 3149

TCGTGTTCATGGGAGCTCGTTTTCTTTTCCTCTAGGCAGAGAAGAGGCG**ATG**GCGGCGATGGCATCTCTCGGCGC
CCTGGCGCTGCTCCTGCTGTCCAGCCTCTCCCGCTGCTCAGCCGAGGCCTGCCTGGAGCCCCAGATCACCCCTTC
CTACTACACCACTTCTGACGCTGTCATTTCCACTGAGACCGTCTTCATTGTGGAGATCTCCCTGACATGCAAGAA
CAGGGTCCAGAACATGGCTCTCTATGCTGACGTCGGTGGAAAACAATTCCCTGTCACTCGAGGCCAGGATGTGGG
GCGTTATCAGGTGTCCTGGAGCCTGGACCACAAGAGCGCCCACGCAGGCACCTATGAGGTTAGATTCTTCGACGA
GGAGTCCTACAGCCTCCTCAGGAAGGCTCAGAGGAATAACGAGGACATTTCCATCATCCCGCCTCTGTTTACAGT
CAGCGTGGACCATCGGGGCACTTGGAACGGGCCCTGGGTGTCCACTGAGGTGCTGGCTGCGGCGATCGGCCTTGT
GATCTACTACTTGGCCTTCAGTGCGAAGAGCCACATCCAGGCC**TGA**GGGCGGCACCCCAGCCCTGCCCTTGCTTC
CTTCAATAAACATCACAGGACCTGGGACTGCACAGGA

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FIGURE 3150

GGTCGCGGTCCCCCCCCTCAACATGGCGGCAGCGGTGCTCTAGGCGCCGGAAGGGGGCGTGAATCGGTGCGACCGC
GCGCGTGCGCAGTACCGGGTCCGCGCCTGTCCCCGAAACTTCGCACCCCGTCGAACTCTCGCGAGAGCGGTATCT
GCGTGTCGGGACGTGCGGAGGCTCTCACTTTCCGTCATGGCGCTGAAGGTAGCGACCGTCGCCGGCAGCGCCGCG
AAGGCGGTGCTCGGGCCAGCCCTTCTCTGCCGTCCCTGGGAGGTTCTAGGCGCCCACGAGGTCCCCTCGAGGAAC
ATCTTTTCAGAACAAACAATTCCTCCGTCCGCTAAGTATGGCGGGCGGCACACGGTGACCATGATCCCAGGGGAT
GGCATCGGGCCAGAGCTCATGCTGCATGTCAAGTCCGTCTTCAGGCACGCATGTGTACCAGTGGACTTTGAAGAG
GTGCACGTGAGTTCCAATGCTGATGAAGAGGACATTCGCAATGCCATCATGGCCATCCGCCGGAACCGCGTGGCC
CTGAAGGGCAACATCGAAACCAACCATAACCTGCCACCGTCGCACAAATCTCGAAACAACATCCTTCGCACCAGC
CTGGACCTCTATGCCAACGTCATCCACTGTAAGAGCCTTCCAGGCGTGGTGACCCGGCACAAGGACATAGACATC
CTCATTGTCCGGGAGAACACAGAGGGCGAGTACAGCAGCCTGGAGCATGAGAGTGTGGCGGGAGTGGTGGAGAGC
CTGAAGATCATCACCAAGGCCAAGTCCCTGCGCATTGCCGAGTATGCCTTCAAGCTGGCGCAGGAGAGCGGGCGC
AAGAAAGTGACGGCCGTGCACAAGGCCAACATCATGAAACTGGGCGATGGGCTTTTCCTCCAGTGCTGCAGGGAG
GTGGCAGCCCGCTACCCTCAGATCACCTTCGAGAACATGATTGTGGATAACACCACCATGCAGCTGGTGTCCCGG
CCCCAGCAGTTTGATGTCATGGTGATGCCCAATCTCTATGGCAACATCGTCAACAATGTCTGCGCGGGACTGGTC
GGGGGCCCAGGCCTTGTGGCTGGGGCCAACTATGGCCATGTGTACGCGGTGTTTGAAACAGCTACGAGGAACACC
GGCAAGAGTATCGCCAATAAGAACATCGCCAACCCCACGGCCACCCTGCTGGCCAGCTGCATGATGCTGGACCAC
CTCAAGCTGCACTCCTATGCCACCTCCATCCGTAAGGCTGTCCTGGCATCCATGGACAATGAGAATATGCACACT
CCGGACATCGGGGGCCAGGGCACAACATCTGAAGCCATCCAGGACGTCATCCGCCACATCCGCGTCATCAACGGC
CGGGCCGTGGAGGCCTAGGCTGGCCCTAGGACCTTCTTGGTTTGCTCCTTGGATTCCCCTTCCCACTCCAGCACC
CCAGCCAGCCTGGTACGCAGATCCCAGAATAAAGCACCTTCTCCCTAG

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FIGURE 3151

GGAGCTGCGGGCTGCGTGGCCGGGATGAGCGCCAGCACGGGCGGTGGTGGGGACAGCGGCGGCAGCGGCGGCAGT
AGCAGCAGCTCACAGGCCTCCTGCGGGCCCGAGTCCTCGGGCTCCGAACTAGCCCTGGCCACACCGGTGCCTCAG
ATGCTGCAGGGCCTTCTGGGCTCCGACGACGAGGAACAGGAAGACCCCAAAGACTACTGCAAGGGCGGCTACCAC
CCTGTGAAGATCGGCGACGTGTTCAATGGGCGGTACCACGTGGTGCGCAAACTGGGCTGGGGCCACTTCTCCACC
GTCTGGCTCTGCTGGGACATCCAGCGCAAGCGCTTTGTGGCCCTCAAAGTGGTGAAGAGTGCGGGGCATTACACG
GAGACAGCTGTGGATGAGATCAAGCTCCTGAAATGTGTCCGGGACAGCGACCCCAGTGACCCCAAAAGAGAGACC
ATTGTCCAGCTCATTGATGACTTCAGGATCTCAGGAGTCAATGGAGTCCATGTGTGCATGGTGCTGGAGGTGCTG
GGCCACCAGCTCCTCAAATGGATCATCAAGTCCAACTACCAGGGCCTGCCCGTGCCCTGCGTGAAGAGCATCGTG
AGGCAGGTGCTGCACGGCCTGGACTACCTCCACACCAAGTGCAAGATCATCCACACGGACATCAAGCCCGAGAAC
ATCTTGCTGTGTGTGGGGGACGCTTACATCAGGCGCCTGGCTGCCGAGGCCACGGAGTGGCAACAGGCAGGGGCG
CCGCCCCCCTCCCGCTCCATAGTCAGCACTGCCCCCCAGGAGGTCTTGACCGGTAAGCTGTCCAAAAACAAGAGG
AAGAAGATGAGGCGCAAACGGAAACAGCAGAAGCGGCTGCTGGAGGAGCGGCTGCGGGACCTGCAGAGGCTGGAG
GCCATGGAGGCTGCCACCCAGGCTGAGGACTCTGGCTTGAGACTAGACGGGGGCAGCGGCTCCACATCCTCTTCA
GGCTTCTCCGGCTCCCTCTTCTCTCCTGCCTCCTGCTCCATCCTCTCCGGCTCGTCCAATCAGCGAGAGACCGGG
GGCCTCCTGTCGCCTAGCACACCATTCGGTGCCTCGAACCTCCTGGTGAACCCCCTGGAGCCCCAAAATGCAGAT
AAGATCAAGATCAAGATCGCAGACCTGGGCAACGCCTGCTGGGTGCACAAGCACTTCACGGAAGACATCCAGACT
CGGCAGTACCGGGCCGTCGAGGTGCTGATCGGCGCCGAATACGGCCCCCCGGCAGACATCTGGAGCACAGCCTGC
ATGGCCTTCGAGCTGGCCACTGGTGACTACCTGTTCGAGCCGCATTCTGGAGAAGACTACAGTCGTGATGAGGAC
CACATCGCTCACATAGTGGAGCTTCTGGGGGACATCCCCCCAGCCTTCGCCCTCTCAGGCCGCTATTCCCGGGAG
TTCTTCAACCGGAGAGGAGAGCTGCGGCACATCCACAATCTCAAGCACTGGGGCCTGTACGAGGTACTCATGGAA
AAGTACGAGTGGCCCCTAGAGCAGGCCACACAGTTCAGCGCCTTTCTGCTGCCCATGATGGAGTACATCCCCGAA
AAGCGGGCCAGTGCCGCTGACTGCCTCCAGCACCCCTGGCTCAACCCCTAGGCCCGGCTGTGGCTCCACCTCCAG
CTCTCCGTGCCTTAAGGGAAAAGCGGGACAGCTCCCACCACCCTGCTGGGCGCCAGTTCTCCACAACCACAGGGC
AGAGAGACGCTGGAGCCAGGCCCGGCTCTCAGAGCGTGTTCTGCCTGAGACCCCCGTGAGGGCTCTCGGAGAAAG
TGTGTGTATTCCTTTCTTAATAAAGTGTGGACTGA

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FIGURE 3152A

GCGGACGGACGCGCCTGGTGCCCCGGGGAGGGGCGCCACCGGGGGAGGAGGAGGAGGAGAAGGTGGAGAGGAAGA
GACGCCCCCTCTGCCCGAGACCTCTCAAGGCCCTGACCTCAGGGGCCAGGGCACTGACAGGACAGGAGAGCCAAG
TTCCTCCACTTGGGCTGCCCGAAGAGGCCGCGACCCTGGAGGGCCCTGAGCCCACCGCACCAGGGGCCCCAGCAC
CACCCCGGGGGCCTAAAGCGACAGTCTCAGGGGCCATCGCAAGGTTTCCAGTTGCCTAGACAACAGGCCCAGGGT
CAGAGCAACAATCCTTCCAGCCACCTGCCTCAACTGCTGCCCCAGGCACCAGCCCCAGTCCCTACGCGGCAGCCA
GCCCAGGTGAC**ATG**CCGGTGCTCTCCAGGCCCCGGCCCTGGCGGGGGAACACGCTGAAGCGCACGGCCGTGCTCC
TGGCCCTCGCGGCCTATGGAGCCCACAAAGTCTACCCCTTGGTGCGCCAGTGCCTGGCCCCGGCCAGGGGTCTTC
AGGCGCCCGCCGGGGAGCCCACGCAGGAGGCCTCCGGGGTCGCGGCGGCCAAAGCTGGCATGAACCGGGTATTCC
TGCAGCGGCTCCTGTGGCTCCTGCGGCTGCTGTTCCCCCGGGTCCTGTGCCGGGAGACGGGGCTGCTGGCCCTGC
ACTCGGCCGCCTTGGTGAGCCGCACCTTCCTGTCGGTGTATGTGGCCCGCCTGGACGGAAGGCTGGCCCGCTGCA
TCGTCCGCAAGGACCCGCGGGCTTTTGGCTGGCAGCTGCTGCAGTGGCTCCTCATCGCCCTCCCTGCTACCTTCG
TCAACAGTGCCATCCGTTACCTGGAGGGCCAACTGGCCCTGTCGTTCCGCAGCCGTCTGGTGGCCCACGCCTACC
GCCTCTACTTCTCCCAGCAGACCTACTACCGGGTCAGCAACATGGACGGGCGGCTTCGCAACCCTGACCAGTCTC
TGACGGAGGACGTGGTGGCCTTTGCGGCCTCTGTGGCCCACCTCTACTCCAACCTGACCAAGCCACTCCTGGACG
TGGCTGTGACTTCCTACACCCTGCTTCGGGCGGCCCGCTCCCGTGGAGCCGGCACAGCCTGGCCCTCGGCCATCG
CCGGCCTCGTGGTGTTCCTCACGGCCAACGTGCTGCGGGCCTTCTCGCCCAAGTTCGGGGAGCTGGTGGCAGAGG
AGGCGCGGCGGAAGGGGGAGCTGCGCTACATGCACTCGCGTGTGGTGGCCAACTCGGAGGAGATCGCCTTCTATG
GGGGCCATGAGGTGGAGCTGGCCCTGCTACAGCGCTCCTACCAGGACCTGGCCTCGCAGATCAACCTCATCCTTC
TGGAACGCCTGTGGTATGTTATGCTGGAGCAGTTCCTCATGAAGTATGTGTGGAGCGCCTCGGGCCTGCTCATGG
TGGCTGTCCCCATCATCACTGCCACTGGCTACTCAGAGTCAGATGCAGAGGCCGTGAAGAAGGCAGCCTTGGAAA
AGAAGGAGGAGGAGCTGGTGAGCGAGCGCACAGAAGCCTTCACTATTGCCCGCAACCTCCTGACAGCGGCTGCAG
ATGCCATTGAGCGGATCATGTCGTCGTACAAGGAGGTGACGGAGCTGGCTGGCTACACAGCCCGGGTGCACGAGA
TGTTCCAGGTATTTGAAGATGTTCAGCGCTGTCACTTCAAGAGGCCCAGGGAGCTAGAGGACGCTCAGGCGGGGT
CTGGGACCATAGGCCGGTCTGGTGTCCGTGTGGAGGGCCCCCTGAAGATCCGAGGCCAGGTGGTGGATGTGGAAC
AGGGGATCATCTGCGAGAACATCCCCATCGTCACGCCCTCAGGAGAGGTGGTGGTGGCCAGCCTCAACATCAGGG
TGGAGGAAGGCATGCATCTGCTCATCACAGGCCCCAATGGCTGCGGCAAGAGCTCCCTGTTCCGGATCCTGGGTG
GGCTCTGGCCCACGTACGGTGGTGTGCTCTACAAGCCCCCACCCCAGCGCATGTTCTACATCCCGCAGAGGCCCT
ACATGTCTGTGGGCTCCCTGCGTGACCAGGTGATCTACCCGGACTCAGTGGAGGACATGCAAAGGAAGGGCTACT
CGGAGCAGGACCTGGAAGCCATCCTGGACGTCGTGCACCTGCACCACATCCTGCAGCGGGAGGGAGGTTGGGAGG
CTATGTGTGACTGGAAGGACGTCCTGTCGGGTGGCGAGAAGCAGAGAATCGGCATGGCCCGCATGTTCTACCACA
GGCCCAAGTACGCCCTCCTGGATGAATGCACCAGCGCCGTGAGCATCGACGTGGAAGGCAAGATCTTCCAGGCGG
CCAAGGACGCGGGCATTGCCCTGCTCTCCATCACCCACCGGCCCTCCCTGTGGAAATACCACACACACTTGCTAC
AGTTCGATGGGGAGGGCGGCTGGAAGTTCGAGAAGCTGGACTCAGCTGCCCGCCTGAGCCTGACGGAGGAGAAGC
AGCGGCTGGAGCAGCAGCTGGCGGGCATTCCCAAGATGCAGCGGCGCCTCCAGGAGCTCTGCCAGATCCTGGGCG
AGGCCGTGGCCCCAGCGCATGTGCCGGCACCTAGCCCGCAAGGCCCTGGTGGCCTCCAGGGTGCCTCCACC**TGA**C
ACAACCGTCCCCGGCCCCTGCCCCGCCCCCAAGCTCGGATCACATGAAGGAGACAGCAGCACCCACCCATGCACG
CACCCCGCCCCTGCATGCCTGGCCCCTCCTCCTAGAAAACCCTTCCCGCCCTCGGGAAAGTAGATGTGGAGGGTG
GCGCCCTGCGTAACCCTCGCCCTGTCCCTCCCACTCCCTGGGGGCGCTGTTCCACAGTGACTGGGCCCTGTCCAG
GGCAGTGAGTCCTCTACTTTGCTCCGTGGAGGAAGCTGGGGTACAAGGGGCCCAGTGCTGGCCACACAGCAGCGC
AGCCGAGCCCCAGGAGCCCGTCAGGCCACAGCCCCTGGCACTGCAGGTGGCCTCCCTCCAGAGACTCGAGTCCCC
ATGATTCCCTCCTCGTCAGTCTCTCAAAGACCCCATGGTCCATCCCCTGAGGGTGGTCAGCCAAGGCTCCCGTTC
CGTGGGATGCCATAAAAGCCGCCCAGTGGGACCCACAGTCACACAGAGCGCCTCACCTGCATCCTCTCCCCCACA
AGAGCCCCAAAGATCCCACGGGAGAGGGGAGAGGGACGCACAGCACTGCCTGCCAAGCGAGAATGCAGGCCCCGC
CCCCTCGGCCCCTCACCACCTCTTTCTACAGCCTAATTTATTGGATTCCCTATTCGTAGCCATCTCCGTGGCCAA
TGTGACTACCGTGCCAGCAGCGGGGGCGGCCCAGCCTCTGAGTCCCGTGGGGCCCCGGCTCCCACCGGTGCCAAA
CCCAGCCCCTGCGGCCGTCACCCCGCCAGCCTACACTGCCAGCCGCCACCGGGGCACACGGGCCTCTGCTTGCCA
GCCAGGAGTGCGGACACCATGTTCCCAGCTCAGTGCCAAAGAGGGGTCACCAGGGGGAGCTGTCTGCGGAGCCAG
CGCCTGCCCGAGAGAGACCCCACCGCCACCGTGTGCCTTTCCCGGGCCCTCAGCCCTCGGGCCGGGCACCACCCC

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FIGURE 3152B

CAGTCCCCCCAGTAAA

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FIGURE 3153

TTTCCGGCCGCGGTATGAGGGGCGGGGCCGGGGCTGCTGTGGGAGAGTTCTGTTGCTGCGGCGGGGCCTGCACGT
TGACTGTGGGAAACTCGGAAACAAGCTCACATCTTCCTGTGGGAAACCTTCTAGCAACAGG**ATG**AGTCTGCAGTG
GACTGCAGTTGCCACCTTCCTCTATGCGGAGGTCTTTGTTGTGTTGCTTCTCTGCATTCCCTTCATTTCTCCTAA
AAGATGGCAGAAGATTTTCAAGTCCCGGCTGGTGGAGTTGTTAGTGTCCTATGGCAACACCTTCTTTGTGGTTCT
CATTGTCATCCTTGTGCTGTTGGTCATCGATGCCGTGCGCGAAATTCGGAAGTATGATGATGTGACGGAAAAGGT
GAACCTCCAGAACAATCCCGGGGCCATGGAGCACTTCCACATGAAGCTTTTCCGTGCCCAGAGGAATCTCTACAT
TGCTGGCTTTTCCTTGCTGCTGTCCTTCCTGCTTAGACGCCTGGTGACTCTCATTTCGCAGCAGGCCACGCTGCT
GGCCTCCAATGAAGCCTTTAAAAAGCAGGCGGAGAGTGCTAGTGAGGCGGCCAAGAAGTACATGGAGGAGAATGA
CCAGCTCAAGAAGGGAGCTGCTGTTGACGGAGGCAAGTTGGATGTCGGGAATGCTGAGGTGAAGTTGGAGGAAGA
GAACAGGAGCCTGAAGGCTGACCTGCAGAAGCTAAAGGACGAGCTGGCCAGCACTAAGCAAAAACTAGAGAAAGC
TGAAAACCAGGTTCTGGCCATGCGGAAGCAGTCTGAGGGCCTCACCAAGGAGTACGACCGCTTGCTGGAGGAGCA
CGCAAAGCTGCAGGCTGCAGTAGATGGTCCCATGGACAAGAAGGAAGAG**TAA**GGGCCTCCTTCCTCCCCTGCCTG
CAGCTGGCTTCCACCTGGCACGTGCCTGCTGCTTCCTGAGAGCCCGGCCTCTCCCTCCAGTACTTCTGTTTGTGC
CCTTCTGCTTCCCCCATTCCCTTCCACAGCTCATAGCTCGTCATCTCGGCCCTTGTCCACACTCTCCAAGCACAT
TACAGGGGACCTGATTGCTACACGTTCAGAATGCGTTTGCTGTCATCCTGCTTGGCCTGGCCAGGCCTGGCACAG
CCTTGGCTTCCACGCCTGAGCGTGGAGAGCACGAGTTAGTTGTAGTCCGGCTTGCGGTGGGGCTGACTTCCTGTT
GGTTTGAGCCCCTTTTTGTTTTGCCCTCTGGGTGTTTTCTTTGGTCCCGCAGGAGGGTGGGTGGAGCAGGTGGAC
TGGAGTTTCTCTTGAGGGCAATAAAAGTTGTCATGGTG

FIGURE 3154A

TAGTCGGAGCGAGGTGGCGAGTCGCTGAGCCCGCCGCGGCCCCGAGAGCGGCTGCAGCCGCCGCCGCCGGGAAGG
AGAGGGCGAGGCGCGCCCGAGCCGCCGCCGCCGCCGCCACCGCCGCCGCCGCCACCACCGCCACCGGAGTCGCGG
GCCAGCCGGGCAGCCTCCGCGGGCCCCGGCCGGGGCGGGGGGCGCGGGCCACAGGCCCCTGCTCCGGCCGCCGCT
TGCAGACCGCGGGCGCCGATGTCGCCCGCGCCCCGCTAGGCTGAGCCTCGGGTCGGGCGAGGAGCCGCCGCAGCC
GCCGCCGCCCGAGCCGCGGGCAGGAGCCTCGGGAGCCGCCGCCGCCGCCGCCGCCCGGCCGGGCCCCGCCGC
CGCCCGCGCGCCCCCGGGCCCCCGACACACATGAGATTCTTCAGGCTCACTTTCAAGTGCTTCGTGGACTGCTTC
TGACTGCGCCGCCCGCGCCCCGCACCCCGCCGCCCGCCCGCCGCCCCGTCCCCCGGCCCGGCCGCCCCCGGCCC
CCGGCCGGCCCGCGCCCTCGGGGCCCTCCCCGGTGCCGCCGGTGCCCCCCGCCTGACCGCCGCCCCCCGTGAGGC
GCCGCGACCCCGGCCCGGCCGTGCGGCCCGCCGAGGCC**ATG**GCGAAGAAGAGCGCCGAGAACGGCATCTATAGCG
TGTCCGGCGACGAGAAGAAGGGCCCCCTCATCGCGCCCGGGCCCGACGGGGCCCCGGCCAAGGGCGACGGCCCCG
TGGGCCTGGGGACACCCGGCGGCCGCCTGGCCGTGCCGCCGCGCGAGACCTGGACGCGCCAGATGGACTTCATCA
TGTCGTGCGTGGGCTTCGCCGTGGGCTTGGGCAACGTGTGGCGCTTCCCCTACCTGTGCTACAAGAACGGCGGAG
GTGTGTTCCTTATTCCCTACGTCCTGATCGCCCTGGTTGGAGGAATCCCCATTTTCTTCTTAGAGATCTCGCTGG
GCCAGTTCATGAAGGCCGGCAGCATCAATGTCTGGAACATCTGTCCCCTGTTCAAAGGCCTGGGCTACGCCTCCA
TGGTGATCGTCTTCTACTGCAACACCTACTACATCATGGTGCTGGCCTGGGGCTTCTATTACCTGGTCAAGTCCT
TTACCACCACGCTGCCCTGGGCCACATGTGGCCACACCTGGAACACTCCCGACTGCGTGGAGATCTTCCGCCATG
AAGACTGTGCCAATGCCAGCCTGGCCAACCTCACCTGTGACCAGCTTGCTGACCGCCGGTCCCCTGTCATCGAGT
TCTGGGAGAACAAAGTCTTGAGGCTGTCTGGGGGACTGGAGGTGCCAGGGGCCCTCAACTGGGAGGTGACCCTTT
GTCTGCTGGCCTGCTGGGTGCTGGTCTACTTCTGTGTCTGGAAGGGGGTCAAATCCACGGGAAAGATCGTGTACT
TCACTGCTACATTCCCCTACGTGGTCCTGGTCGTGCTGCTGGTGCGTGGAGTGCTGCTGCCTGGCGCCCTGGATG
GCATCATTTACTATCTCAAGCCTGACTGGTCAAAGCTGGGGGTCCCCTCAGGTGTGGATAGATGCGGGGACCCAGA
TTTTCTTTTCTTACGCCATTGGCCTGGGGGCCCTCACAGCCCTGGGCAGCTACAACCGCTTCAACAACAACTGCT
ACAAGGACGCCATCATCCTGGCTCTCATCAACAGTGGGACCAGCTTCTTTGCTGGCTTCGTGGTCTTCTCCATCC
TGGGCTTCATGGCTGCAGAGCAGGGCGTGCACATCTCCAAGGTGGCAGAGTCAGGGCCGGGCCTGGCCTTCATCG
CCTACCCGCGGGCTGTCACGCTGATGCCAGTGGCCCCACTCTGGGCTGCCCTGTTCTTCTTCATGCTGTTGCTGC
TTGGTCTCGACAGCCAGGTTTGTAGGTGTGGAGGGCTTCATCACCGGCCTCCTCGACCTCCTCCCGGCCTCCTAC
TACTTCCGTTTCCAAAGGGAGATCTCTGTGGCCCTCTGTTGTGCCCTCTGCTTTGTCATCGATCTCTCCATGGTG
AC**TGA**TGGCGGGATGTACGTCTTCCAGCTGTTTGACTACTACTCGGCCAGCGGCACCACCCTGCTCTGGCAGGCC
TTTTGGGAGTGCGTGGTGGTGGCCTGGGTGTACGGAGCTGACCGCTTCATGGACGACATTGCCTGTATGATCGGG
TACCGACCTTGCCCCTGGATGAAATGGTGCTGGTCCTTCTTCACCCCGCTGGTCTGCATGGGCATCTTCATCTTC
AACGTTGTGTACTACGAGCCGCTGGTCTACAACAACACCTACGTGTACCCGTGGTGGGGTGAGGCCATGGGCTGG
GCCTTCGCCCTGTCCTCCATGCTGTGCGTGCCGCTGCACCTCCTGGGCTGCCTCCTCAGGGCCAAGGGCACCATG
GCTGAGCGCTGGCAGCACCTGACCCAGCCCATCTGGGGCCTCCACCACTTGGAGTACCGAGCTCAGGACGCAGAT
GTCAGGGGCCTGACCACCCTGACCCCAGTGTCCGAGAGCAGCAAGGTCGTCGTGGTGGAGAGTGTCATGTGACAA
CTCAGCTCACATCACCAGCTCACCTCTGGTAGCCATAGCAGCCCCTGCTTCAGCCCCACCGCACCCCTCCAGGGG
GCCTGCCTTTCCCTGACACTTTTGGGGTCTGCCTGGGGGAGGAGGGGAGAAAGCACCATGAGTGCTCACTAAAAC
AACTTTTTCCATTTTTAATAAAACGCCAAAAATATCACAACCCACCAAAAATAGATGCCTCTCCCCCTCCAGCCC
TAGCCGAGCTGGTCCTAGGCCCCGCCTAGTGCCCCACCCCCACCCACAGTGCTGCACTCCTCCTGCCCCTGCCAC
GCCCACCCCCTGCCCACCTCTCCAGGCTCTGCTCTGCAGCACACCCGTGGGTGACCCCTCACCCCAGAAGCAGCA
GTGGCAGCTTGGGAAATGTGAGGAAGGGAAGGAGGGAGAGACGGGAGGGAGGAGAGAGAGGAGAAGGGAGGCAGG
GGAGGGGCAGCAGAACCAAGGCAAATATTTCAGCTGGGCTATACCCCTCTCCCCATCCCTGTTATAGAAGCTTAG
AGAGCCAGCCAGCAATGGAACCTTCTGGTTCCTGCGCCAATCGCCACCAGTATCAATTGTGTGAGCTTGGGTGCG
AGTGCACGCGTGCGTGAGTACGGAGAGTATATATAGATCTCTATCTCTTAGCAAAGGTGAATGCCAGATGTAAAT
GGCGCCTCTGGGCAAAGGAGGCTTGTATTTTGCACATTTTATAAAAACTTGAGAGAATGAGATTTCTGCTTGTAT
ATTTCTAAAAAGAGGAAGGAGCCCAAACCATCCTCTCCTTACCACTCCCATCCCTGTGAGCCCTACCTTACCCCT
CTGCCCCTAGCCAAGGAGTGTGAATTTATAGATCTAACTTTCATAGGCAAAACAAAAGCTTCGAGCTGTTGCGTG
TGTGAGTCTGTTGTGTGGATGTGCGTGTGTGGTCCCCAGCCCCAGACTGGATTGGAAAAGTGCATGGTGGGGGCC
TCGGGGCTGTCCCCACGCTGTCCCTTTGCCACAAGTCTGTGGGGCAAGAGGCTGCAATATTCCGTCCTGGGTGTC

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FIGURE 3154B

TGGGCTGCTAACCTGGCCTGCTCAGGCTTCCCACCCTGTGCGGGGCACACCCCCAGGAAGGGACCCTGGACACGG
CTCCCACGTCCAGGCTTAAGGTGGATGCACTTCCCGCACCTCCAGTCTTCTGTGTAGCAGCTTTAACCCACGTTT
GTCTGTCACGTCCAGTCCCGAGACGGCTGAGTGACCCCAAGAAAGGCTTCCCCGACACCCAGACAGAGGCTGCAG
GGCTGGGGCTGGGTGAGGGTGGCGGGCCTGCGGGGACATTCTACTGTGCTAAAAAGCCACTGCAGACATAGCAAT
AAAAACATGTCATTTTCC

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FIGURE 3155

GCTTCTGCGCGCCGGGGCCGCCTCTCCTTCCGCCGGTGCCGCGGCGCCTCATGGAAGCCCCGGAGGCGGCGGAGG
GGGGCCTGCAGCGCGGGGCCCGGAGGGCAGCCGGCGCCCGAAGCCAGGGTGCACTTCCGAGTGGCGAGGTTCATC
ATGGAGGCAGGTGTCAAGCTAGGGATGCGGTCCATTCCCATTGCCACTGCTTGCACCATTTACCATAAGTTCTTT
TGCGAGACCAACCTGGACGCCTATGACCCTTACCTGATTGCCATGTCTTCAATTTACTTGGCCGGCAAAGTGGAA
GAGCAGCACCTGCGGACTCGTGACATCATCAATGTGTCCAACAGGTACTTTAACCCAAGCGGTGAGCCCCTGGAA
TTGGACTCCCGCTTCTGGGAACTCCGGGACAGCATCGTGCAGTGTGAGCTTCTCATGCTGAGAGTTCTGCGCTTC
CAGGTCTCCTTCCAGCATCCACACAAGTACCTGCTCCACTACCTGGTTTCCCTCCAGAACTGGCTGAACCGCCAC
AGCTGGCAGCGGACCCCTGTTGCCGTCACCGCCTGGGCCCTGCTGCGGGACAGCTACCATGGGGCGCTGTGCCTC
CGCTTCCAGGCCCAGCACATCGCCGTGGCGGTGCTCTACCTGGCCCTGCAGGTCTACGGAGTTGAGGTGCCCGCC
GAGGTCGAGGCTGAGAAGCCGTGGTGGCAGGTGTTTAATGACGACCTTACCAAGCCAATCATTGATAATATTGTG
TCTGATCTCATTCAGATTTATACCATGGACACAGAGATCCCCTAAGGTCCTGGCCCAGGCCTGCCCAAAGAGAAG
CCACATCTGCGTTTGTCCTTTGAGAGGACTTTGACTACAATACAGGCATGACATCAATGAAAGGAAAGTCATGAA
ATCGATGAGACTGAATCCCTACGGATTTCTTAAAAGCCAGATTTGTAGGGAGAATGAATGTGCAACGTGGCTGAA
ATCTATTTTGTGTAATAAAAGGTGATACAAGTC

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FIGURE 3156A

GTGTCCACGCTTAGCAGCTTTCTCACCGCCGCCAAACCTTGCCTGGGCACTGGGACCGTGGGTGGCCGCCTGTCC
CTAGCTGTGGCTGAGCCAAGATTGCACTTGTGAGAAGGCCTGACAGGCAGC**ATG**GGCGACATGGCCAATAGTTCC
ATCGAGTTCCACCCCAAGCCCCAGCAGCAGCGGGATGTCCCCCAGGCTGGAGGCTTTGGGTGCACGCTGGCGGAG
CTGCGCACCCTCATGGAGCTGCGAGGGGCCGAGGCGCTGCAGAAGATCGAGGAGGCCTACGGGGATGTCAGCGGG
CTCTGCCGGAGGCTGAAGACCTCACCCACAGAGGGCCTGGCGGACAACACCAATGACCTGGAGAAGCGCAGGCAG
ATCTACGGGCAGAACTTCATCCCCCCAAAGCAACCCAAGACCTTCCTGCAGCTGGTGTGGGAGGCCCTGCAGGAC
GTGACCCTCATCATCCTGGAGGTGGCTGCCATCGTCTCTCTGGGCCTCTCGTTCTATGCGCCGCCAGGAGAGGAG
AGTGAAGCCTGTGGGAATGTGTCGGGAGGCGCAGAAGATGAGGGCGAGGCCGAAGCTGGCTGGATCGAGGGGCCT
GCCATCCTGCTGTCCGTCATCTGTGTGGTGCTGGTCACGGCCTTCAATGACTGGAGCAAGGAGAAGCAGTTCCGA
GGCCTGCAGAGCCGAATTGAGCAGGAGCAGAAGTTCACGGTCATCCGGAACGGGCAGCTCCTCCAGGTCCCCGTG
GCTGCGCTGGTGGTGGGGGACATTGCCCAGGTCAAGTACGGCGACCTGCTGCCAGCCGACGGCGTGCTCATCCAG
GCCAATGACCTCAAGATCGACGAGAGCTCCCTGACGGGCGAGTCTGACCACGTGCGCAAGTCAGCTGACAAAGAT
CCCATGCTGCTCTCAGGCACTCATGTCATGGAAGGTTCTGGAAGAATGGTGGTGACCGCCGTTGGCGTGAATTCC
CAGACAGGCATCATCTTCACGCTGCTTGGAGCTGGCGGAGAGGAGGAAGAGAAGAAAGATAAGAAAGGCAAGCAG
CAGGATGGGGCCATGGAGAGTAGCCAGACCAAAGCTAAGAAGCAGGATGGTGCAGTGGCCATGGAGATGCAGCCC
CTGAAGAGCGCGGAGGGTGGGGAGATGGAGGAGCGGGAGAAGAAGAAAGCCAACGCACCCAAAAAGGAGAAGTCT
GTCCTTCAGGGGAAGCTCACAAAGCTAGCCGTGCAGATCGGGAAAGCAGGGCTGGTGATGTCTGCCATCACCGTC
ATCATCCTGGTCCTCTACTTTGTGATTGAGACGTTTGTCGTGGAAGGCCGGACATGGCTGGCAGAGTGCACGCCG
GTCTATGTACAATACTTCGTGAAGTTCTTCATCATTGGTGTCACTGTGCTGGTCGTGGCTGTCCCAGAGGGCCTG
CCTCTTGCTGTCACCATCTCCTTAGCTTACTCTGTCAAGAAAATGATGAAAGACAACAACCTGGTGCGCCACCTG
GATGCCTGCGAGACCATGGGCAACGCCACAGCCATCTGCTCCGACAAGACGGGCACGCTCACCACCAACCGTATG
ACCGTGGTCCAGTCCTACCTAGGGGACACCCACTACAAAGAGATTCCGGCCCCCAGCGCCCTGACCCCTAAGATC
CTCGACCTCCTGGTCCATGCCATCTCCATCAACAGTGCCTATACCACCAAAATACTACCTCCTGAGAAGGAAGGC
GCCCTCCCACGCCAGGTGGGCAATAAGACGGAGTGCGCCCTGCTGGGCTTCGTCTTGGACCTGAAGCGGGACTTC
CAGCCCGTGCGCGAGCAGATCCCGGAAGACAAGCTTTACAAAGTGTACACCTTCAACTCGGTCCGCAAGTCCATG
AGCACAGTCATCCGCATGCCCGACGGTGGCTTCCGCCTCTTCAGCAAGGGGGCCTCAGAGATCCTCTTGAAAAAG
TGCACCAACATCTTGAACAGCAATGGCGAACTCCGGGGCTTTCGGCCTCGGGACCGGGACGACATGGTGAGGAAG
ATCATCGAGCCGATGGCTTGCGATGGCCTCCGCACCATCTGCATCGCCTACCGGGACTTCTCTGCAGGCCAGGAG
CCCGACTGGGACAACGAGAATGAGGTCGTGGGTGACCTCACCTGCATAGCTGTCGTGGGCATTGAGGACCCTGTG
CGGCCCGAGGTCCCTGAAGCTATCCGAAAATGCCAGCGTGCTGGCATCACAGTCCGCATGGTGACTGGGGACAAC
ATCAACACGGCCCGGGCCATCGCAGCCAAATGCGGCATCATCCAGCCCGGGGAGGACTTCCTGTGCCTAGAAGGG
AAGGAGTTCAACCGGCGGATCCGCAATGAGAAAGGCGAGATAGAACAGGAGCGGCTGGACAAGGTGTGGCCCAAG
CTGAGGGTGCTGGCCCGGTCGTCTCCCACCGACAAGCACACACTGGTCAAAGGGATTATCGACAGCACCACTGGT
GAGCAGCGGCAGGTGGTGGCTGTGACAGGGGATGGCACCAACGATGGGCCGGCCCTCAAGAAGGCGGACGTGGGC
TTCGCCATGGGCATCGCAGGGACCGACGTGGCCAAGGAGGCCTCCGACATCATCCTGACCGATGACAACTTCACC
AGCATCGTCAAGGCAGTCATGTGGGGCCGTAACGTCTATGACAGCATCTCCAAGTTCCTGCAGTTTCAACTGACG
GTCAATGTGGTGGCTGTGATCGTGGCCTTCACAGGTGCCTGCATTACTCAGGACTCTCCTCTCAAAGCCGTGCAG
ATGTTGTGGGTGAACTTGATCATGGACACATTTGCCTCTCTGGCCCTGGCGACGGAGCCACCCACAGAGTCGCTG
CTGCTGCGGAAGCCGTACGGCCGCGACAAGCCCCTCATCTCCCGCACCATGATGAAGAACATTCTGGGCCACGCC
GTGTACCAGCTCGCCATCATCTTCACCCTGCTGTTTGTCGGGGAGCTCTTCTTCGACATCGACAGCGGGAGGAAT
GCGCCCCTGCACTCGCCACCCTCAGAGCACTACACCATCATCTTCAACACGTTCGTCATGATGCAGCTCTTTAAC
GAGATCAACGCCCGCAAGATCCACGGCGAGAGGAACGTGTTCGACGGCATCTTCAGCAACCCCATCTTCTGCACC
ATCGTTTTGGGCACTTTCGGGATTCAGATTGTCATCGTCCAGTTTGGCGGGAAGCCCTTCAGCTGCTCCCCACTA
TCCACAGAACAGTGGCTCTGGTGCCTGTTTGTTGGTGTTGGGGAGCTGGTCTGGGGACAGGTCATTGCCACCATC
CCCACCAGCCAGCTCAAGTGCCTGAAGGAAGCCGGGCACGGGCCCGGGAAGGACGAGATGACCGACGAGGAGCTG
GCCGAAGGCGAGGAAGAGATCGACCATGCCGAGCGGGAGCTCCGCAGGGGCCAGATCCTCTGGTTCCGGGGCCTG
AACCGGATTCAGACGCAGATCCGGGTGGTGAAAGCGTTCCGTAGCTCGCTCTATGAAGGCCTGGAGAAACCAGAA
TCCAAGACCTCCATTCACAACTTCATGGCCACGCCCGAGTTTCTGATCAATGACTACACCCACAACATCCCGCTC

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FIGURE 3156B

ATTGACGACACGGACGTGGACGAGAACGAGGAGCGCCTCCGGGCCCCCCCGCCCCCGTCCCCCAACCAGAACAAC
AACGCCATAGACAGCGGCATCTACCTGACCACGCATGTCACCAAGTCAGCTACCTCTTCAGTGTTTTCCTCCAGT
CCCGGGAGCCCGCTCCACAGCGTGGAGACGTCCCTC**TAA**CAAGAACTTGTCTCAGCACATGCGCACACGCACACT
CGGACTCACACGAAGTCACACGCACACATGCACGCACACACACATATGGGGACCTGCACACCTGCAAAACGAGGG
AACAACTAAGGTGGCTGAAGACCTTTCTGGCAGGGCATTTGCAAGGACCCAAATCCATTCAACAAGGGTGCAGCC
TGCCACAGGCTCCTCATCCGGACTGAGGAAGACGAGGACAGGGAGGAGGAAAAGGAGGAAGAGGAGGACAAAAAG
GGGGAGGAGAAGGTTCTTCGTCCAAAGGAG

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FIGURE 3157

TCTCTCCACAAACTGCCCAGGAGTGAGTAGCTGCTTTCGGTCCGCCGGACACACCGGACAGATAGACGTGCGGAC
GGCCCACCACCCCAGCCCGCCAACTAGTCAGCCTGCGCCTGGCGCCTCCCCTCTCCAGGTCCATCCGCC**ATG**TGG
CCCCTGTGGCGCCTCGTGTCTCTGCTGGCCCTGAGCCAGGCCCTGCCCTTTGAGCAGAGAGGCTTCTGGGACTTC
ACCCTGGACGATGGGCCATTCATGATGAACGATGAGGAAGCTTCGGGCGCTGACACCTCGGGCGTCCTGGACCCG
GACTCTGTCACACCCACCTACAGCGCCATGTGTCCTTTCGGCTGCCACTGCCACCTGCGGGTGGTTCAGTGCTCC
GACCTGGGTCTGAAGTCTGTGCCCAAAGAGATCTCCCCTGACACCACGCTGCTGGACCTGCAGAACAACGACATC
TCCGAGCTCCGCAAGGATGACTTCAAGGGTCTCCAGCACCTCTACGCCCTCGTCCTGGTGAACAACAAGATCTCC
AAGATCCATGAGAAGGCCTTCAGCCCACTGCGGAAGCTGCAGAAGCTCTACATCTCCAAGAACCACCTGGTGGAG
ATCCCGCCCAACCTACCCAGCTCCCTGGTGGAGCTCCGCATCCACGACAACCGCATCCGCAAGGTGCCCAAGGGA
GTGTTCAGTGGGCTCCGGAACATGAACTGCATCGAGATGGGCGGGAACCCACTGGAGAACAGTGGCTTTGAACCT
GGAGCCTTCGATGGCCTGAAGCTCAACTACCTGCGCATCTCAGAGGCCAAGCTGACTGGCATCCCCAAAGACCTC
CCTGAGACCCTGAATGAACTCCACCTAGACCACAACAAAATCCAGGCCATCGAACTGGAGGACCTGCTTCGCTAC
TCCAAGCTGTACAGGCTGGGCCTAGGCCACAACCAGATCAGGATGATCGAGAACGGGAGCCTGAGCTTCCTGCCC
ACCCTCCGGGAGCTCCACTTGGACAACAACAAGTTGGCCAGGGTGCCCTCAGGGCTCCCAGACCTCAAGCTCCTC
CAGGTGGTCTATCTGCACTCCAACAACATCACCAAAGTGGGTGTCAACGACTTCTGTCCCATGGGCTTCGGGGTG
AAGCGGGCCTACTACAACGGCATCAGCCTCTTCAACAACCCCGTGCCCTACTGGGAGGTGCAGCCGGCCACTTTC
CGCTGCGTCACTGACCGCCTGGCCATCCAGTTTGGCAACTACAAAAAG**TAG**AGGCAGCTGCAGCCACCGCGGGGC
CTCAGTGGGGGTCTCTGGGGAACACAGCCAGACATCCTGATGGGGAGGCAGAGCCAGGAAGCTAAGCCAGGGCCC
AGCTGCGTCCAACCCAGCCCCCCACCTCGGGTCCCTGACCCCAGCTCGATGCCCCATCACCGCCTCTCCCTGGCT
CCCAAGGGTGCAGGTGGGCGCAAGGCCCGGCCCCCATCACATGTTCCCTTGGCCTCAGAGCTGCCCCTGCTCTCC
CTCCACAGCCACCCAGAGGCACCCCATGAAGCTTTTTTCTCGTTCACTCCCAAACCCAAGTGTCCAAGTCTCCAG
TCCTAGGAGAACAGTCCCTGGGTCAGCAGCCAGGAGGCGGTCCATAAGAATGGGGACAGTGGGCTCTGCCAGGGC
TGCCGCACCTGTCCAGACACACATGTTCTGTTCCTCCTCCTCATGCATTTCCAGCCTTTCAACCCTCCCCGACTC
TGCGGCTCCCCTCAGCCCCCTTGCAAGTTCATGGCCTGTCCCTCCCAGACCCCTGCTCCACTGGCCCTTCGACCA
GTCCTCCCTTCTGTTCTCTCTTTCCCCGTCCTTCCTCTCTCTCTCTCTCTCTTTCTGTGTGTGTGTGTGTGTG
TGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTCTTGTGCTTCCTCAGACCTTTCTCGCTTCTGAGCTTGGTGGC
CTGTTCCCTCCATCTCTCCGAACCTGGCTTCGCCTGTCCCTTTCACTCCACACCCTCTGGCCTTCTGCCTTGAGC
TGGGACTGCTTTCTGTCTGTCCGGCCTGCACCCAGCCCCTGCCCACAAAACCCCAGGGACAGCGGTCTCCCCAGC
CTGCCCTGCTCAGGCCTTGCCCCCAAACCTGTACTGTCCCGGAGGAGGTTGGGAGGTGGAGGCCCAGCATCCCGC
GCAGATGACACCATCAACCGCCAGAGTCCCAGACACCGGTTTTCCTAGAAGCCCCTCACCCCCACTGGCCCACTG
GTGGCTAGGTCTCCCCTTATCCTTCTGGTCCAGCGCAAGGAGGGGCTGCTTCTGAGGTCGGTGGCTGTCTTTCCA
TTAAAGAAACACCGTGCAACGTG

FIGURE 3158

ATGGGCGGGGCGCGGCTCGGAGCGCGAAACATGGCGGGGCAGGACGCTGGCTGCGGCCGTGGCGGCGACGACTAC
TCAGAGGACGAAGGCGACAGCAGCGTGTCCAGGGCGGCTGTGGAGGTGTTCGGGAAGCTGAAGGACCTAAACTGC
CCCTTCCTCGAGGGTCTGTATATCACAGAGCCAAAGACAATTCAGGAACTGCTGTGCAGCCCCTCAGAGTACCGC
TTGGAGATCCTAGAGTGGATGTGTACCCGGGTCTGGCCCTCACTGCAGGACAGGTTCAGCTCACTGAAAGGGGTC
CCAACAGAGGTGAAGATCCAAGAAATGACGAAGCTGGGCCACGAGCTGATGCTGTGTGCGCCAGATGACCAGGAG
CTCCTCAAGGGCTGTGCCTGCGCCCAGAAGCAGCTACACTTCATGGACCAGTTGCTCGATACCATCCGGAGCCTG
ACCATTGGGTGCTCCAGTTGCTCGAGCCTGATGGAGCACTTCGAGGACACCAGGGAGAAGAACGAGGCCTTGCTG
GGGGAGCTCTTCTCTAGCCCCCACCTGCAGATGCTCCTGAATCCAGAGTGCGACCCGTGGCCCCTGGACATGCAG
CCCCTCCTCAACAAGCAGAGTGATGACTGGCAGTGGGCCAGTGCCTCTGCCAAGTCCGAGGAGGAGGAGAAGCTG
GCGGAGCTTGCCAGGCAGCTGCAGGAGAGTGCTGCCAAGTTGCACGCGCTTAGAACGGAGTACTTTGCACAGCAT
GAGCAAGGGGCTGCTGCGGGCGCAGCCGACATCAGCACCCTAGACCAGAAGCTGCGTCTGGTCACTTCCGACTTC
CACCAGCTAATCTTGGCTTTTCTCCAAGTCTACGACGACGAGCTGGGCGAGTGCTGCCAGCGCCCAGGCCCTGAC
CTCCACCCGTGCGGCCCCATCATCCAGGCCACGCACCAGAATCTGACTTCCTACAGCCAAATCCCCAGAGGCCAA
CCTAAAAAGCCGGCTTTAGTTACGATGACTACAGTTCCCACGTGCGCAACTCTGCCCTTGGCTCAAGGATTCCGT
GATGTTCATTTTGGTTTTCTAAGCGAGAGGCTCCGAGCCTTCCAACCTCTGACTGGCTGGTCCTGTGAGACCCCT
CGATCAGGGATGCTGCTGCAAGTGGTCATGGCAGTTGCTGACACCTCTGCGAAGGCCGTGGAGACCGTGAAGAAG
CAGCAAGGCGAGCAGATCTGCTGGGGTGGCAGCAGCTCCGTCATGAGTCTAGCTACCAAGATGAATGAACTAATG
GAGAAATAGAAAGTCTTCAGTGATGGCCTACGCCAAAGCACAGGATGGGGCGGGCAGGAAGCCCTCTCCCAAGAT
CGAGTTGGCCGAGGATGGATGATTGTGGCAGCAGAAGCCGTTGCAGCCCCACGTTGTGCTCTAGGCAGCTGGGGG
CGGGCTGCGGCCGCTGATTAAAGGCCGCCTAGAGCAGCCTGTGTGGCGACAGGTGCCCAGAAGCCCAGGAAGCCG
GTCAGTGCCCGCCCCAGTTTGAGGACTTGCTATCCCCGTGGGAACATCACC**ATG**TCCGAGGCACCCCGGGCCGAG
ACCTTTGTCTTCCTGGACCTGGAAGCCACTGGGCTCCCCAGTGTGGAGCCCGAGATTGCCGAGCTGTCCCTCTTT
GCTGTCCACCGCTCCTCCCTGGAGAACCCGGAGCACGACGAGTCTGGTGCCCTAGTATTGCCCCGGGTCCTGGAC
AAGCTCACGCTGTGCATGTGCCCGGAGCGCCCCTTCACTGCCAAGGCCAGCGAGATCACCGGCCTGAGCAGTGAG
GGCCTGGCGCGATGCCGGAAGGCTGGCTTTGATGGCGCCGTGGTGCGGACGCTGCAGGCCTTCCTGAGCCGCCAG
GCAGGGCCCATCTGCCTTGTGGCCCACAATGGCTTTGATTATGATTTCCCCCTGCTGTGTGCCGAGCTGCGGCGC
CTGGGTGCCCGCCTGCCCCGGGACACTGTCTGCCTGGACACGCTGCCGGCCCTGCGGGGCCTGGACCGCGCCCAC
AGCCACGGCACCCGGGCCCGGGGCCGCCAGGGTTACAGCCTCGGCAGCCTCTTCCACCGCTACTTCCGGGCAGAG
CCAAGCGCAGCCCACTCAGCCGAGGGCGACGTGCACACCCTGCTCCTGATCTTCCTGCACCGCGCCGCAGAGCTG
CTCGCCTGGGCCGATGAGCAGGCCCGTGGGTGGGCCCACATCGAGCCCATGTACTTGCCGCCTGATGACCCCAGC
CTGGAGGCC**TGA**

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FIGURE 3159

CTTCTCCGCTCCTTCTAGGATATCCGCCTGGTTTGGCCCGCCTGCCTCCACTCCTGCCTTCACC**ATG**TCCATCAG
GGTGACCCAGAAGTCCTACAAGTTGTCCACCTCTGGTCCCCGGGCCTTCAGCAGCCACTCCTACTCGAGTGGGCC
CAGTGCCTGCATCAGCTCCTTGAGCTTCTCCCAAGTGGGCAGCAGCAGCTTTCGGGGTGGCCTGGGTGGCGGTTA
TGGTGGGGCCAGCGGCATGGGAGGCATCACCGCAGTCATGGTCAACCAGAACCTGCTGAGCCCCCTTGTCCTGGA
GGTGGACCCCAACATCCAGGCCGTGTGCACCCAGGAGAAGGAGCCGATCAAGACCCTCAACAACAAGTTTGCCTC
CTTCATAGACAAGGTACGGTTCCTGGAGCAGCAGAACAAGATGCCGGAGACCAAGTGGAGCCTCCTGCAGCAGCA
GAAGACGGCTCGGAGCAACATGGACAAGTTCGAGAGCTACATCAACAACCTTAGGCAGCAGCTGGAGATTCTGGG
CCAGGAGAAGCTGAAGCTGGAGGCGGAGCTTGGCAACATGCAGGGGCTGGTGGAGGACTTCAAGAACAAGTATGA
GGATGAGATCAATAAGCGTACAGAGATGGAGAATGAATTTGTGCTCACCAAGAAGGATGTGGATGAAGCTTACAT
GAACAAGGTAGAGCTGGAGTCTCGCCTGGAAGGGCTTACTGAAGAGATCAGCTTCCTCAGGCAGCTGTATGAAGA
GGAGATCCGGGAGCTGCAGTCCCAGATCTCAGACACATCTGTGGTGCTGTCCATGGACAACAGCCACTCCCTGGA
CATGGACAGCGTCATTGCTGAGGTCAAGGCACAGTACGAGGACCGCCAGCCGCAGCCAGGC**TGA**GGCTGAGAGCA
TGTACCAGATCAAGAATGAGGAGCTGCAAGAGCCTGGCTGGGAAGCACGGGGATGACCTGTGGCGCACAAAGACT
GAGATCTCCTAGATAAACCGGAACATCAGCCGGCTCCAGGCTGAGATTGAGGGCCCCAAAGGCCAGAGGGCTTCC
CTGGAGGCCGCCATTGCAGATGCACAGCAGCGCGGAGAGCTGACTATTAAGTATGCCAACGCCAAGTTGTCCGAG
CTGGAGGCCGCCCTGCAGCGGGCCAAGCAGGACATGTTGCGGCAGCTGCGTGAGTACCAGCAGCTGATGAACGTC
AAGCTGGTCCTAGACGTCGAGATCGCCACCTACAGGAAGCTACTGGAGGGCGAGGAGAGCCGGCTGGAGTCTGGG
ATGCAGAACATGAGTATTCACACGAAGACCACCAGCGGCTATGCAGGTGGTCTGAGCTCGGCCTATGGGGGCCTC
ACAAGCCCCAGCCTCAGCTATGGCCTGGGCTCCAGCTTTGGCTCTGGCGCGGGCTCCAGCTCCTTCAGCCGCACC
AGCTCCTCGAGGGCCGTGGTTGTGAAGAAGATCGAGACACGTGATAGGAAGCTGGTGTCCGAGTCCTCCGACTCC
TGCCCAAGTGAACAGCTGAGGCAGCCCCTCCCAGCCTGCCCCTTCTGCGCTGCCCCAGAGCCTGGGAGGGAGGCC
ACTAT

FIGURE 3160A

AATTGGCTCATTTAAGAATTTCAAAACATTTAATGTAAAAGCTTTTTTTTTTTTAAGGAAGTCCATAAATTTTGG
TTCCCAGGGTTGCACTGGACTTGGAAGGAGTGCTGTTGTGTACATACTATTGTATGGTTTTATTTATTATTTTAC
TGTACAAATCAGCCGAAAGAATTTTTCCAAGTGCCATTTCGGATTTATTAATCCTTTTTTTTTTTCCTTTCCTCAA
AGATATTTGCTGTTGTCATATTAAGCATTGGAGACTAGAAAATTACTTTCCCCCTTTGAGCTAGAGGGTCTCTTG
CCAACAGAAGGACAGCTGAGAAAGCTGGATTTAAAGGATGGTTTTATCTGTACTTTGCAGTTAACAGTGATATTT
TGAAGGCACATTTTTCTGTGATTCATTTTTTTTTGGCCATAGTGCTAACCTTGAAGAGATTCGTGGCTGGGTTTT
TGGTTTCTGAGAAGGTCGTAGTTTTTCCTCTTTTCCTTTTTTTTTTCTTTTTTCTTTTCTTTTCTTTTTTTTTAAA
GCGGGGGAGGGGAAGAGGGGCTGAGAAAGGAAATCATGTTCACTGGTAGAAGTAGAGTGGAGCATCAGTTACCAG
GGTCCTGAGAGCTGGAGGAGAAAGGATTCTATCTTCAAGTTGGGAGGCCCTCCTCTCACCTTGCTCAAAAATTGC
AAGCGATTCAATCCTGATCAAGACACCAAAGCTACAGGATTCTGGAACCGTGGAGACACCGAGAAACC**ATG**AGTG
TAAGGTTACCCCAGAGTATAGACAGGTTAAGTAGCCTGTCTTCTCTGGGAGATTCTGCACCAGAGCGCAAGTCCC
CTTCCCACCATCGCCAGCCTTCGGATGCCTCTGAGACAACAGGTCTCGTTCAACGCTGTGTCATTATCCAAAAGG
ACCAGCATGGCTTCGGCTTCACAGTCAGTGGGGATCGCATTGTTCTGGTGCAGTCTGTGCGGCCTGGAGGTGCAG
CCATGAAGGCCGGTGTGAAAGAGGGCGACCGGATCATCAAAGTCAACGGCACCATGGTGACCAATAGCTCACACC
TGGAAGTGGTAAAGCTGATCAAATCTGGCGCCTATGTCGCACTCACCCTCCTGGGCTCTTCACCTTCATCCATGG
GCATCTCTGGGCTCCAGCAGGACCCATCCCCAGCAGGAGCTCCCCGAATCACGTCAGTGATCCCCTCACCACCAC
CTCCTCCACCTCTACCACCTCCACAACGCATCACAGGACCCAAACCTCTGCAGGATCCCGAAGTTCAAAAACATG
CCACCCAGATCCTCAGGAATATGCTGAGGCAGGAAGAAAAAGAATTACAGCGTATCTGTGAGGTCTATAGCCGGA
ACCCCGCCAGCCTACTGGAAGAGCAGATCGAAGGTGCCCGGCGGCGAGTCACTCAGTTACAGCTGAAGATCCAGC
AGGAGACTGGTGGCTCAGTGGACATACTTCCACTATATGGTGACACCAGCCAGAGACCATCAGAAGGCCGGCTCT
CTCTGGATTCCCAGGAGGGGGACAGTGGCTTGGACTCTGGGACAGAACGCTTTCCTTCCCTCAGTGAGTCATTGA
TGAATCGGAACTCGGTACTGTCAGACCCTGGGCTAGACAGTCCTCGAACCTCCCCTGTGATCATGGCCAGGGTGG
CCCAGCACCACAGGCGGCAGGGCTCGGATGCAGCAGTCCCCTCAACCGGTGACCAGGGTGTAGATCAAAGCCCAA
AGCCTTTAATTATTGGCCCAGAGGAAGACTATGACCCGGGTTATTTCAACAACGAGAGCGACATCATATTCCAGG
ATCTGGAGAAACTGAAGTCTCGGCCAGCTCACCTGGGGGTTTTTCTACGTTACATCTTCTCTCAGGCGGACCCCA
GTCCACTGCTTTTTTACCTGTGTGCAGAAGTTTATCAGCAGGCAAGCCCCAAGGATTCCCGAAGCTTGGGGAAAG
ACATCTGGAATATTTTCCTGGAGAAAAATGCGCCTCTGAGAGTGAAGATCCCTGAGATGCTACAGGCTGAAATTG
ACTCGCGCCTGCGGAACAGCGAAGATGCCCGTGGTGTTCTCTGTGAAGCTCAAGAGGCAGCCATGCCTGAGATCC
AAGAGCAGATCCACGACTACAGAACGAAGCGCACACTGGGGCTGGGCAGCCTGTATGGTGAAAATGACCTGCTGG
ACCTGGATGGGGACCCTCTCCGAGAGCGCCAAGTGGCTGAGAAGCAGCTGGCTGCCCTTGGAGATATTTTGTCCA
AGTATGAGGAAGACAGGAGCGCCCCCATGGACTTCGCCCTCAATACCTACATGAGCCATGCTGGGATCCGTCTTC
GAGAGGCACGACCTTCCAACACAGCTGAAAAGGCCCAGTCTGCTCCTGACAAGGACAAGTGGCTACCGTTCTTCC
CTAAGACCAAGAAGAGCAGCAATTCCAAGAAAGAAAAGGATGCCTTGGAGGACAAGAAGCGAAACCCTATCCTCA
AATACATTGGGAAGCCCAAAAGCTCTTCTCAAAGCACATTTCATATTCCCTTGTCCCCTGTGGAAGTCAAACCAG
GCAATGTGAGGAACATCATTCAGCACTTTGAGAACAACCAGCAGTATGATGCCCCAGAACCTGGGACACAACGAC
TCTCGACCGGAAGCTTTCCTGAGGACCTGCTGGAGAGTGACAGTTCACGCTCAGAGATTCGCCTGGGCCGCTCTG
AAAGCCTCAAGGGCCGGGAAGAGATGAAACGGTCTCGAAAGGCAGAGAACGTGCCCCGCTCTCGCAGTGATGTTG
ACATGGATGCTGCTGCGGAGGCTACTCGCCTGCACCAGTCAGCCTCGTCCTCTACCTCCAGCCTCTCCACCAGGT
CTCTTGAGAACCCAACCCCTCCATTCACTCCCAAAATGGGCCGCAGGAGCATTGAGTCCCCCAGTTTGGGGTTCT
GCACAGATACCCTCCTTCCCCACCTCCTAGAGGATGATCTGGGCCAGCTGTCTGACCTGGAGCCAGAGCCAGATG
CCCAAAATTGGCAGCATACAGTGGGCAAGGATGTGGTGGCTGGGCTAACCCAGCGGGAGATTGACCGGCAAGAGG
TCATCAATGAGCTGTTTGTGACTGAAGCTTCCCACCTGCGCACACTCCGGGTCCTGGACCTGATCTTCTACCAGC
GAATGAAGAAGGAGAACCTGATGCCCCGGGAGGAGCTGGCCCGGCTCTTCCCGAACCTGCCTGAACTCATAGAGA
TTCACAATTCCTGGTGTGAAGCCATGAAGAAGCTCCGGGAGGAAGGCCCCATCATCAAAGAGATCAGTGACCTCA
TGCTGGCCCGGTTTGATGGCCCTGCCCGAGAGGAACTCCAGCAAGTGGCTGCACAGTTCTGTTCCTATCAGTCAA
TAGCCCTAGAGCTAATCAAGACCAAGCAACGCAAGGAGAGTCGATTCCAGCTCTTCATGCAGGAGGCTGAGAGCC
ACCCTCAGTGTCGGCGGCTGCAGCTGAGAGACCTCATCATCTCTGAGATGCAGCGGCTCACCAAGTACCCGCTGC
TGCTGGAGAGCATCATCAAGCACACAGAGGGTGGCACCTCTGAGCATGAGAAGCTGTGCCGGGCCCGGGACCAGT

FIGURE 3160B

GCCGGGAGATTCTCAAGTATGTGAATGAAGCGGTAAAACAAACAGAGAACCGCCACCGTTTAGAGGGCTACCAGA
AACGCCTGGATGCCACCGCCCTGGAGAGGGCCAGCAACCCCCTGGCAGCAGAGTTCAAGAGCCTGGATCTTACAA
CCAGAAAAATGATCCATGAGGGACCCCTGACCTGGAGGATCAGCAAGGATAAGACCTTGGACCTCCACGTGCTGC
TGCTGGAGGACCTCCTAGTGCTGCTACAGAAACAGGATGAGAAGCTATTGCTGAAGTGCCACAGCAAGACTGCTG
TGGGCTCCTCAGACAGCAAGCAGACCTTCAGCCCCGTGCTCAAGCTCAATGCTGTGCTCATCCGCTCTGTGGCCA
CAGATAAACGGGCCTTCTTCATCATCTGCACCTCCAAGCTGGGCCCACCCCAGATCTATGAGCTGGTTGCATTGA
CGTCATCAGACAAGAACACATGGATGGAGCTCTTAGAAGAGGCCGTGCGGAATGCCACCAGGCACCCCGGAGCTG
CCCCAATGCCCGTCCATCCTCCACCCCCAGGTCCCCGGGAGCCAGCCCAGCAGGGCCCCACACCCAGCAGGGTAG
AACTGGATGACTCAGACGTGTTCCATGGTGAACCTGAACCTGAGGAGCTGCCTGGAGGCACTGGGTCCCAGCAGA
GGGTCCAAGGGAAGCACCAGGTCCTGCTAGAGGACCCTGAGCAGGAGGGCAGTGCAGAGGAAGAGGAACTGGGTG
TCCTGCCTTGCCCTTCCACATCCCTGGATGGAGAGAACAGGGGCATCAGGACAAGGAACCCCATCCACTTGGCCT
TCCCAGGCCCTCTGTTCATGGAAGGGCTCGCTGACTCCGCTCTGGAAGATGTGGAGAACCTGCGACATCTGATCC
TGTGGAGCCTGCTGCCAGGTCACACCATGGAAACTCAGGCTGCCCAGGAGCCCGAGGACGACCTGACACCCACAC
CTTCTGTCATCAGCGTCACCTCTCACCCCTGGGACCCAGGCTCCCCAGGGCAAGCACCCCCTGGGGGTGAAGGGG
ACAACACCCAGCTTGCAGGGCTGGAGGGGGAACGGCCAGAGCAGGAAGACATGGGTCTCTGTTCTCTGGAACACC
TACCCCCAAGGACCAGAAATTCTGGGATATGGGAGTCTCCAGAACTGGACAGGAATCTGGCTGAAGATGCTTCAA
GCACAGAGGCAGCAGGAGGTTACAAAGTTGTGAGAAAAGCTGAGGTGGCAGGCAGCAAGGTTGTCCCTGCACTAC
CAGAGAGTGGCCAGTCAGAGCCTGGGCCACCTGAAGTGGAAGGCGGAACAAAGGCTACGGGGAACTGCTTTTATG
TCAGCATGCCATCAGGACCCCCGGACTCAAGCACCGACCACTCAGAGGCACCCATGAGCCCCCCTCAGCCTGACA
GCCTCCCTGCAGGGCAGACAGAGCCTCAGCCTCAGCTGCAGGGAGGCAACGATGATCCAAGACGCCCCAGCCGCT
CTCCTCCAAGCCTGGCCCTCAGGGACGTGGGCATGATCTTCCATACCATTGAGCAGCTCACTCTCAAGCTCAACA
GGCTCAAGGATATGGAGCTGGCCCACAGAGAGCTGCTCAAGTCCCTTGGGGGAGAGTCATCTGGTGGCACCACGC
CTGTGGGCAGTTTCCACACAGAAGCAGCTAGATGGACAGATGGCTCCCTCTCACCTCCCGCTAAGGAGCCCCTAG
CTTCTGACTCCAGGAACAGCCATGAACTGGGGCCCTGCCCTGAGGATGGCTCTGACGCCCCCCTGGAAGACAGCA
CAGCAGACGCAGCCGCGTCACCAGGACCATAACCGTACAAACCACCAAATCCTCTGCGTCCCCACTCCTCCTTCA
GGGACTGGCCTGAGACCGGGGCACAGGGTAGGGGGGATCCCAACACTCCTCCCTGTGGAGGAGGCAGTTAGGGAA
ACTAGGATCCAGCCAAGGCCCGGGGGGAGACCCGCATGTTGCTTGGTCTGCTCAAGTCGGAGTCAGGTTTCAGTG
TCTTTTCCCTCCCTTAGCCCAACCCTCCAAGGCCTCATGTCTCCTAAGCATGCTGACTGCATCCGAAAGGCCCCC
ACTCACCATGGTCTGCCCTCACCCCACATATGTGTGTACACGCGCACGCCTGTATGTGCGCTGCCCTCAGACATG
CAAGTGAAAGGAGGAGGCTTCTGTGTAAATGCACTTTCTTCCTCCCCTCTTTCTCCATAAGACCCCAGGCAGAGG
TGGGTGCCTCCCCTCCCCTCTTTGTCACTTTGGTTTCCTATAAATATGTATGTATCGT

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FIGURE 3161

GGAGAGATGATGAGTTGCTGAGTGTGCACACCTTTCCGGAACACATACACACACCCTGCTCTGGGATCCCTTGTG
AGGCTGCCCTC**ATG**GAGTTCCCCCTGGCCCAGATATGTCCCCAAGGGAGTCACGAAGCCCCCATCCCAACCTTCA
GCACCTTCCAGATCACAGACATGACCCGCAGGAGCTGCCAGAACCTGGGCTACACTGCGGCATCTCCCCAGGCCC
CGGAGGCTGCCTCCAACACAGGGAATGCTGAGAGGGCAGAGGAGGTGCCTGGAGAAGGAAGCCTGTTCCTGCAGG
CCGAGACCCGGGCTTGGTTCCAGAAGACCCAGGCCCACTGGCTCCTGCAGCACGGGGCAGCCCCTGCCTGGTTCC
ATGGCTTCATCACCCGGAGGGAGGCAGAGAGGCTGCTGGAGCCCAAGCCTCAGGGGTGCTACTTGGTGCGGTTCA
GCGAGAGCGCGGTGACCTTCGTGCTGACTTACAGGAGCCGGACTTGCTGCCGCCACTTCCTGCTGGCCCAGCTCA
GGGACGGGCGCCACGTGGTGCTGGGCGAGGACAGCGCCCACGCGCGGCTGCAGGACCTGCTGCTGCACTACACCG
CGCACCCGCTCAGCCCCTACGGGGAGACGCTCACCGAGCCCCTCGCCCGACAGACTCCTGAGCCTGCAGGACTTT
CCCTGAGGACCGAAGAATCAAACTTTGGAAGCAAAAGCCAGGACCCAAACCCCCAGTACAGCCCAATCATCAAAC
AGGGGCAAGCCCCAGTCCCGATGCAGAAAGAGGGGGCCGGGGAGAAGGAGCCCTCCCAGCTGCTCAGGCCCAAGC
CTCCCATCCCCGCCAAACCTCAGCTGCCCCCAGAAGTCTACACAATCCCTGTTCCACGACACCGCCCGGCCCCAC
GCCCCAAGCCCTCCAATCCTATCTACAATGAGCCTGATGAACCCATAGCTTTCTATGCCATGGGCCGGGGCAGCC
CTGGGGAAGCCCCCAGCAACATCTATGTGGAAGTGGAAGATGAGGGCCTACCCGCCACCCTTGGGCACCCTGTCC
TACGGAAGAGCTGGTCCAGGCCTGTCCCAGGAGGCCAGAATACAGGTGGCTCCCAGCTGCATTCTGAGAACTCTG
TGATTGGGCAAGGCCCTCCCCTGCCCCACCAGCCCCCACCCGCCTGGAGACACACCCTCCCCCACAATCTTTCTA
GACAGGTGCTTCAGGACAGAGGACAGGCATGGCTTCCCCTTGGGCCTCCTCAG**TAG**GCGGTCTGGCCTGACCCCC
AACAAAGAAGCCTGGAGGTCAGAGAAGCAAATGCGGAGCCTGCTCCCTCCTAAGAAGATCCCAAGAATCCAATGG
CTCAGTCCTTGGTGATCTAAGACAGCAAAGAAGTGTGCAAGGAGGGCCCTGTTAGCTCCCACTGTCCTGGTTTCT
CCTCCTGGAGTCTAATTTCCTTGGCCCTCTGAGCCTTTTGAGTCTGGGCCCTGGTCCAATGCTGCTGTTGTCTGA
GGAATGGTTTGGTGAGAACAGATGTTAGAACTTGTTTGTTGATTCTTGTCTGGCTAATAAATCATCACCAACTGC
CTTCTCCTACAGGGA

FIGURE 3162

CTGCGGCAAAGAACCGGGCTGTGTCCAAAGTGTTCTCTGGAAGTTGTAGTTCCTGTATTGGTGAGGCAAGGAGGA
GGCGGAGTGACTCGGCGGCCATTAGCTGTGTGTAGTTGCCCGGGACTAGGAGCTTAAGTGAAGAGGTACGCCTTG
TTCGGTGGAAATCAGCCGTAGCCATGAGTTTCTGCCGGGGCTAGCCCTAGAGTACGGAGCAGGCGGACTTTTCGG
TTCCCCGCCCCGCCAGGTGGCGGGGCCTACTAGGCCTCCGGGCATCCCCGGTCTCAAGTAGGCCTCATCTGCCGG
CAAGGGCGCCCGAAACGCGGGAGGCGCC**ATG**TCGCTGGTTGCTTACGCCAGCAGCGATGAGAGCGAGCCGGATGA
GGCTGAGCCCGAGCCGGAGGAAGAGGAGGCGGTGGCTCCTACATCTGGGCCCGCTTTAGGGGGCTTGTTCGCTTC
TCTCCCTGCGCCCAAGGGTCCGGCCTTGCTGCCTCCGCCCCCTCAGATGCTGGCGCCAGCCTTTCCCCCGCCGCT
GTTGCTTCCCCCACCCACCGGAGACCCCAGGCTTCAGCCTCCTCCCCCCTTGCCCTTCGGCCTGGGAGGCTTCCC
CCCACCTCCAGGCGTGAGCCCGGCTGAAGCGGCGGGAGTTGGGGAGGGACTGGGATTGGGGTTGCCCTCGCCCCG
AGGCCCTGGCCTCAATCTGCCCCCTCCAATTGGCGGTGCCGGTCCCCCGCTGGGGCTTCCCAAGCCAAAGAAGAG
GAAAGAGCCCGTGAAGATCGCGGCGCCGGAGTTGCATAAGGGAGATTCAGATTCTGAGGAAGATGAACCCACAAA
GAAGAAAACTATCCTTCAGGGATCCAGTGAGGGGACTGGTTTGTCTGCCTTGCTTCCCCAACCTAAAAACCTGAC
TGTGAAAGAGACTAACAGGTTGCTCCTGCCCCATGCCTTCTCCCGCAAACCCTCGGATGGCTCCCCTGATACTAA
GCCCTCCAGACTGGCTTCTAAGACCAAGACTTCCTCTCTTGCCCCTGTTGTGGGCACCACAACCACCACTCCGTC
GCCCTCTGCTATCAAGGCTGCTGCCAAGAGTGCTGCCCTGCAGGTGACAAAGCAGATCACGCAGGAAGAAGACGA
CAGTGATGAGGAAGTAGCCCCCGAAAACTTTTTCTCCCTCCCTGAAAAGGCTGAGCCACCTGGAGTTGAGCCATA
CCCTTACCCCATCCCCACTGTCCCTGAAGAGCTGCCTCCAGGCACGGAACCAGAGCCGGCTTTCCAGGACGATGC
AGCCAATGCCCCCCTTGAATTCAAGATGGCAGCAGGTTCAAGTGGGGCCCCTTGGATGCCTAAGCCTGGGGACGA
CTACAGCTACAATCAGTTTTCCACATATGGCGATGCCAATGCCGCTGGTGCTTATTATCAGGATTATTACAGTGG
TGGCTACTATCCTGCACAGGACCCGGCCCTGGTCCCCCCCCCAGGAAATTGCCCCAGATGCCTCCTTCATCGATGA
CGAAGCATTTAAGCGGCTGCAGGGCAAGAGGAACCGAGGGAGAGAAGAAATCAACTTTGTGGAGATCAAAGGTGA
TGACCAGCTCAGTGGGGCCCAGCAATGGATGACTAAGTCATTGACAGAAGAGAAAACCATGAAGTCATTCAGCAA
AAAGAAAGGTGAGCAGCCAACAGGCCAGCAGCGGCGGAAACACCAGATCACATATCTTATTCATCAGGCCAAGGA
GCGGGAGCTGGAACTGAAGAACACCTGGTCAGAGAACAAGCTCAGCCGCCGTCAGACCCAAGCCAAATATGGATT
C**TAG**GGCTCTGGAACTGATTGCTCCCAGGATCTCCTGCCAGCCCAGCTGGCCTGGCCCCCAGCTTCACCTCTGGG
ACCCCAGCTGCTCTAAGCCCAGGATCTCTTTCCCCAAGGACCCAGCCCTCGCCTCTGCGAGAATGAACATATTTG
ATAGATTTTTCTTAACAAGTTAGAAAATTCAGCTCCTTTCTGTCCTGGAGCTAGCAAAGACTTGTGTGATGCCTC
CGAAGGGGCTCTGAGTTCTGGGGTGGGAGTTTTGCTCTCTGTCAGGTGTGATAAAATGTTGAACCCTCCCCACCA
CCACTTTTTTTTTTTTAAACCAGGGATGTCTGTTGAAATAAAACATTCAGTCTGAC

FIGURE 3163

GAGGAGGAGTGGGGACCGGGCGGGGGGTGGAGGAAGAGGCCTCGCGCAGAGGAGGGAGCAATTGAATTTCAAACA
CAAACAACTGCACGAGCGCGCACCCACCGCGCCGGAGCCTTGCCCCGATCCGCGCCCGCCCCGTCCGTGCGGCGC
GCGGGCGGAGACGCCGTGGCCGCGCCGGAGCTCGGGCCGGGGGCCACCATCGAGGCGGGGGCCGCGCGAGGGCCG
GAGCGGAGCGGCGCCGCCACCGCCGCACGCGCAAACTTGGGCTCGCGCTTCCCGGCCCGGCGCGGAGCCCGGGGC
GCCCGGAGCCCCGCC**ATG**TCGCGATCCAACCGGCAGAAGGAGTACAAATGCGGGGACCTGGTGTTCGCCAAGATG
AAGGGCTACCCACACTGGCCGGCCCGGATTGACGAGATGCCTGAGGCTGCCGTGAAATCAACAGCCAACAAATAC
CAAGTCTTTTTTTTCGGGACCCACGAGACGGCATTCCTGGGCCCCAAAGACCTCTTCCCTTACGAGGAATCCAAG
GAGAAGTTTGGCAAGCCCAACAAGAGGAAAGGGTTCAGCGAGGGGCTGTGGGAGATCGAGAACAACCCTACTGTC
AAGGCTTCCGGCTATCAGTCCTCCCAGAAAAAGAGCTGTGTGGAAGAGCCTGAACCAGAGCCCGAAGCTGCAGAG
GGTGACGGTGATAAGAAGGGGAATGCAGAGGGCAGCAGCGACGAGGAAGGGAAGCTGGTCATTGATGAGCCAGCC
AAGGAGAAGAACGAGAAAGGAGCGTTGAAGAGGAGAGCAGGGGACTTGCTGGAGGACTCTCCTAAACGTCCCAAG
GAGGCAGAAAACCCTGAAGGAGAGGAGAAGGAGGCAGCCACCTTGGAGGTTGAGAGGCCCCTTCCTATGGAGGTG
GAAAAGAATAGCACCCCCTCTGAGCCCGGCTCTGGCCGGGGGCCTCCCCAAGAGGAAGAAGAGGAGGAGGATGAA
GAGGAAGAGGCTACCAAGGAAGATGCTGAGGCCCCAGGCATCAGAGATCATGAGAGCCTG**TAG**CCACCAATGTTT
CAAGAGGAGCCCCCACCCTGTTCCTGCTGCTGTCTGGGTGCTACTGGGGAAACTGGCCATGGCCTGCAAACTGGG
AACCCCTTTCCCACCCCAACCTGCTCTCCTCTTCTACTCACTTTTCCCACTCCAAGCCCAGCCCATGGAGATTGA
CCTGGATGGGGCAGGCCACCTGGCTCTCACCTCTAGGTCCCCATACTCCTATGATCTGAGTCAGAGCCATGTCTT
CTCCCTGGAATGAGTTGAGGCCACTGTGTTCCTTCCGCTTGGGAGGGGCAATCCTCAAATGCGGGGTGGGGGCAG
CACAGGAGGGCGGCCTCCTTCTGAGCTCCTGTCCCCTGCTACACCTATTATCCCAGCTGCCTAGATTCAGGGAAA
GTGGGACAGCTTGTAGGGGAGGGGCTCCTTTCCATAAATCCTTGATGATTGACAACACCCATTTTTCCTTTTGCC
GACCCCAAGAGTTTTGGGAGTTGTAGTTAATCATCAAGAGAATTTGGGGCTTCCAAGTTGTTCGGGCCAAGGACC
TGAGACCTGAAGGGTTGACTTTACCCATTTGGGTGGGAGTGTTGAGCATCTGTCCCCCTTTAGATCTCTGAAGCC
ACAAATAGGATGCTTGGGAAGACTCCTAGCTGTCCTTTTTCCTCTCCACACAGTGCTCAAGGCCAGCTTATAGTC
ATATATATCACCCAGACATAAAGGAAAAGACACATTTTTTAGGAAATGTTTTTAATAAAAGAAAATTACAAAAAA
AAATTTTAAAGACCCCTAACCCTTTGTGTGCTCTCCATTCTGCTCCTTCCCCATCGTTGCCCCCATTTCTGAGGT
GCACTGGGAGGCTCCCCTTCTATTTGGGGCTTGATGACTTTCTTTTTGTAGCTGGGGCTTTGATGTTCCTTCCAG
TGTCATTTCTCATCCACATACCCTGACCTGGCCCCCTCAGTGTTGTCACCAGATCTGATTTGTAACCCACTGAGA
GGACAGAGAGAAATAAGTGCCCTCTCCCACCCTCTTCCTACTGGTCTCTCTATGCCTCTCTACAGTCTCGTCTCT
TTTACCCTGGCCCCTCTCCCTTGGGCTCTGATGAAAAATTGCTGACTGTAGCTTTGGAAGTTTAGCTCTGAGAAC
CGTAGATGATTTCAGTTCTAGGAAAATAAAACCCGTTGATTACT

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FIGURE 3164

GCGGGGGAGGGGACGCTGAGGGCCCATGTGCTGAAAATCCGAAGTGCCGCGGAAAGTGGAGAGCTGACAAGGAAG
GTTTCGAGCGTTTTGCTGGCAAAGGGATTTCTTACAACCTCCAGGCATGCGTCTTTCTGCCCTGCTGGCCTTGGC
ATCCAAGGTCACTCTGCCCCCCCCATTACCGCTATGGGATGAGCCCCCCAGGCTCTGTTGCAGACAAGAGGAAGAA
CCCCCCATGGATCAGGCGGCGCCCAGTGGTTGTGGAACCCATCTCTGATGAAGACTGGTATCTGTTCTGTGGGGA
CACGGTGGAGATCCTAGAAGGCAAGGATGCCGGGAAGCAGGGCAAAGTGGTTCAAGTTATCCGGCAGCGAAACTG
GGTGGTCGTGGGAGGGCTGAACACACATTACCGCTACATTGGCAAGACCATGGATTACCGGGGAACCATGATCCC
TAGTGAAGCCCCCTTGCTCCACCGCCAGGTCAAACTTGTGGATCCTATGGACAGGAAACCCACTGAGATCGAGTG
GAGATTTACTGAAGCAGGAGAGCGGGTACGAGTCTCCACACGATCAGGGAGAATTATCCCTAAACCCGAATTTCC
CAGAGCTGATGGCATCGTCCCTGAAACGTGGATTGATGGCCCCAAAGACACATCAGTGGAAGATGCTTTAGAAAG
AACCTATGTGCCCTGTCTAAAGACACTGCAGGAGGAGGTGATGGAGGCCATGGGGATCAAGGAGACCCGGAAATA
CAAGAAGGTCTATTGGTATTGAGCCTGGGGCAGAGCAGCTCCTCCCCAACTTCTGTCCCAGCCTTGAAGGCTGAG
GCACTTCTTTTTCAGATGCCAATAAAGAGCACTTTATGAGTC

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FIGURE 3165

AAGGCAGGCGCGCGGGTTAGAACGCGCCAGAGGTCGGCGCGCGCACACCCGCACCGCCCCGACCCCAGGTAGTGA
GGCCAGTGATTCCGAGTGTGTGAGGAGAGGAGTGTACGGCAAGGGGCGGGAACTGGAACTTGGCCCGCCTCGTTG
TGAGCTGAGCTCAGCGGCACGCTTTTGTGGCGTCACTGCACTGTTACCCCGCCCTACGTGTCTCTGACGCTGACA
CCTTCTCACTGTGAAACGTCGCGACCTGTGACGTCTGGGGGGCGCCTCAAATCTTCCACTCCAGCATCGGATCCC
GGAAAGGCAGCGTCGGAGACTGGACCCAAAACTCTTCCTGTTCTGCCTGCAGAGTTGAGCCCCGTCCGGGTCCTG
GACCCGCGTAGTACTGACCCTGGATCCCTGTTCACTGCGTTCTCGCTCCCCGCGCTCCCTGCTGGACCCCGGGATT
GCCGGGCATCTCCGCCCGAGGCCTCTCTCATGAGGGGAGGAAGCAGCTAGCTGTTAACCTCACCCGTGTCCTGGC
ACTCTACCGTTCCATCTTGGATGCCTACATCATCGAATTTTTCACAGACAACCTATGGGACACACTCCCTTGCTC
ATGGCAGGAAGCATTGGATGGACTGAAACCACCACAGCTGGCCACAATGCTGCTGGGGATGCCTGGGGAAGGGGA
GGTCGTCAGGTACAGGTCAGTGTGGCCACTCACCCTGCTGGCCCTGAAGTCCACGGCGTGTGCCCTGGCCTTTAC
CCGGATGCCTGGCTTTCAGACCCCCTCAGAATTCCTGGAGAACCCCAGCCAGAGCTCCCGACTAACAGCTCCATT
CCGGAAACATGTCAGGCCCAAGAAGCAGCATGAGATCCGGAGGCTGGGAGAGTTGGTGAAGAAGCTGAGTGATTT
CACAGGCTGCACCCAGGTTGTAGACGTGGGCTCAGGCCAGGGCCATCTCTCCCGCTTCATGGCTCTTGGCCTGGG
GTTGATGGTGAAGAGCATCGAAGGGGATCAGAGACTGGTGGAGAGAGCCCAGCGCCTGGACCAGGAGCTTCTGCA
GGCTCTGGAGAAAGAGGAGAAGAGGAACCCGCAGGTGGTCCAAACCAGCCCTCGTCACTCCCCACACCACGTGGT
TAGGTGGGTAGACCCCACAGCCCTGTGTGAGGAGCTTCTGCTTCCACTGGAGAACCCGTGTCAGGGCAGGGCCCG
CTTGCTGCTCACAGGCCTCCACGCCTGTGGGGATCTGAGTGTTGCCTTGCTGAGACACTTCTCCTGCTGTCCTGA
GGTGGTGGCCCTGGCCTCAGTGGGCTGCTGCTACATGAAGCTGAGTGACCCTGGCGGCTACCCACTGAGTCAGTG
GGTGGCTGGGCTGCCTGGCTATGAACTGCCCTACCGGCTTCGGGAGGGGGCCTGCCATGCCCTGGAGGAATATGC
TGAGCGGCTACAGAAAGCTGGCCCTGGCCTTCGAACTCACTGCTACCGTGCAGCACTGGAGACAGTCATCCGACG
GGCCCGGCCCGAGCTCCGTCGGCCAGGCGTGCAGGGTATCCCCAGGGTCCACGAGCTCAAGATTGAAGAATATGT
GCAGCGGGGGCTACAGCGAGTGGGGCTAGATCCCCAGCTGCCACTGAATCTGGCTGCCCTTCAGGCCCACGTGGC
CCAGGAGAACCGTGTGGTGGCCTTCTTCAGCCTGGCTCTACTGCTTGCCCCACTGGTGGAGACGCTTATTCTACT
GGACCGGCTGCTGTACCTTCAGGAACAGGGTTTCCATGCTGAGCTCCTGCCCATCTTCAGTCCTGAACTCTCTCC
CAGAAACCTGGTTCTGGTGGCCACCAAGATGCCCCTGGGTCAGGCTCTTTCTGTTCTGGAGACTGAAGACAGCTG
ATGCAGCCTGAGGAAACATCTCAGACCCCATCATCTGAAAGTGCCCAGAGAGCACAGTGGCAGAGTACATCTCAT
CCAGAGAAACAGCATCCTGCATCCTCCAGAGTCCTGGTTCCTTCAGTTTCATCCCCTTTCTCTCCTTCCATGGAT
TATGTAATACATTGTAAAGTTTTAATTAATTAAAAATTGGATATCTG

FIGURE 3166

CTGGGAGGTAGGTTTGTGAGCGTGAGAGATCGATCTGTACCGCGGGGATCCGAAGTATGCTTATCCAGGTGGGCT
GCCTCAAGCCTCGATCCCACCCCCGCGCTGGTAGATGGTGTCAAGGTCCTTGCGTGGGAGAAGGACTTGGGTGAG
ATGCATGCGGAGATTGCCCCCAATTCCGGCCTGGAGCCAAGGGAAAGGGATGCCTGGATTTGTGTCTCTATTGGT
GGTCCACGCTGCGGATGCCTGGGTAGCCCAGAGGTTATCTACGCCATACTTCTCACTGTTTTTGAGCATACCTAG
ATGTTCCTTTCCTAGGCGGAGTATAGATCGCACGTGTTCTAGCCTCTTAGACTCAGAGGGTTCGAGCTCTATAAG
CCCCTCCACTCCCTTCATTTTACAAATGAGACTCAAACCTAGAGCGCGGTAATGACCTTACTAAGACCAAATGGC
TGGTGAATTGGGCTTCACTAGAATCCAGGCTTGCTGGCTAACACCAATGCTCCCTCCATCATTTCATGTTATGTT
TTCATTTCCCCTCTGTCTGAGAGATTGCTCTGATGTCTTTCCTTCCATAAGTCCTACGGAGATCGAGCTTACCTC
ATTTTTCTCCCAGGCCTAGGAGCTCAATTACCAGGATCACTTTCTTCCCCAGGGTGTACTACAGACCTCCACATG
TTGGACAGTAGGATTCAGCAGAGAATGAGTCCCACATCCTCTTTTCATCCATAAGCCACTCTTCCCAACTACTCT
TCCGCCTTCCATTGTCCCT**ATG**TCTACTTTACTGCTCAATCTGGATTTTGGGGAACCTCCTCCCAAAAAGGCATT
AGAAGGAAATGCCAAGCACCGAAATTTTGTCAAGAAGCGGAGGCTCTTAGAACGGAGAGGCTTTCTGAGTAAAAA
GAACCAACCCCCTAGCAAGGCGCCTAAGTTGCACTCTGAACCTTCAAAGAAAGGGGAAACTCCTACGGTCGATGG
CACTTGGAAGACCCCTTCCTTCCCAAAAAAGAAGACAGCTGCTTCCAGCAATGGGTCAGGACAGCCCCTGGACAA
GAAAGCTGCAGTGTCTTGGTTGACCCCTGCCCCTTCAAAAAAGGCTGATTCTGTTGCTGCTAAAGTAGATTTGCT
GGGGGAGTTCCAGAGTGCCCTTCCAAAGATCAATAGCCACCCAACCCGCTCTCAGAAGAAGAGCTCCCAGAAGAA
ATCCTCTAAAAAGAACCATCCTCAGAAGAATGCCCCACAGAACTCCACCCAAGCTCATTCAGAGAATAAATGCTC
CGGAGCATCCCAGAAGTTGCCACGGAAGATGGTGGCAATTGACTGTGAGATGGTGGGCACAGGACCAAAGGGGCA
TGTTAGTTCCTTGGCTCGATGTAGCATTGTCAACTACAACGGAGATGTGCTTTATGACGAGTACATTCTTCCCCC
CTGCCACATTGTGGACTACCGAACCAGGTGGAGTGGTATCCGGAAGCAGCACATGGTGAATGCCACACCCTTCAA
GATTGCTCGAGGCCAGATCTTGAAGATACTCACAGGGAAGATAGTGGTGGGGCATGCCATCCACAACGACTTCAA
AGCCCTTCAGTACTTTCACCCCAAGTCCCTCACCCGTGACACCTCCCATATCCCCCCCCTCAACCGGAAGGCTGA
CTGCCCGGAGAATGCCACCATGTCTCTGAAGCATCTCACCAAGAAGCTGCTAAACCGGGATATCCAGGTTGGGAA
GAGCGGACATTCCTCTGTGGAAGATGCCCAGGCCACCATGGAGCTATATAAGTTGGTTGAAGTCGAGTGGGAAGA
GCACCTAGCCCGGAATCCCCCTACAGAC**TAG**TGGCAGTGGGGACGCTGGTGATATGAGGAGGCAGAGGCAGCACC
CAGGAGAAACAGGGCAGTGGACCAATGGACAGCTCCACCAGCTCCACATCTTTGGAAGCTAGATTTGGGGAGAGA
GAAGCTCTACCCCAGACTTAATACCCATTGAAATTTCACCTCAGGTGTTGTGTCCTGTGTCTGGTTAAGTGTCCC
ATGGAAGGGGAAAGCCTTCACGTCAGAACCCAACCCTATACCTTTTACTTCTTAAATGGTGCTAACCACAGGTGT
CCCAGGGTGCTCTGTGCCAGTTAAGATTTTTAACTTTCAAGGGGCAGGGCATACTGGGAAATGTAGTTTCCCAAA
CTGCCTTATCACTTGGGTGGACATATGTCTCCTTTTATGCCTTTTGGTCTTGAGTAATTAACAGCATCCTCTTCC
ACGCTCAGAAGTGTTCTGGTTGGGGCCAGGCATGGTGGCTCACACCTGTAGTCCCAACACTTAGGGAGGCCGAGG
CGGGCGGATCACCTGAGATCAGGAGTTCAAGACCAGCCTGGCCAACATGGCGAATTCCCGTTCTCTACTAAAAAT
ACAAAAAATGTGTGGGGTGTGGTGGCAGGAGCCTGTAATCCTAGCTACTCAGGAGGCTGAGGCAGGAGAATCGCT
TGAGCCCAGGAGGCGGAGATTGCAGTGAGCCGAGATCGTGTCACTGCACTCCAGCCTGGGTGACAAGAGTGAGAC
TCCGTCTCCAAAAAAAAAAAAAAAGAATTTATTAACCTGGTTGGTTAATAAATTGTGTGGTCCCTGCCGGGCGTG
GTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGACGGGCAGATCACGAGGTCAGGAGATCGAGACCAT
CCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCAGGCGTGGTGGCGGGCACCTGTA
GTTCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCCAGGAGGCGGAGCTTGCAGTGAGCCGAGATT
GTGCCACTGCACTCCAGCCTGGGCCACGGCCACAGAGCGAGACTCTGTCTC

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FIGURE 3167

AGCTTTGGGGTTGTCCCTGGACTTGTCTTGGTTCCAGAACCTGACGACCCGGCGACGGCGACGTCTCTTTTGACT
AAAAGACAGTGTCCAGTGCTCCAGCCTAGGAGTCTACGGGGACCGCCTCCCGCGCCGCCACC**ATG**CCCAACTTCT
CTGGCAACTGGAAAATCATCCGATCGGAAAACTTCGAGGAATTGCTCAAAGTGCTGGGGGTGAATGTGATGCTGA
GGAAGATTGCTGTGGCTGCAGCGTCCAAGCCAGCAGTGGAGATCAAACAGGAGGGAGACACTTTCTACATCAAAA
CCTCCACCACCGTGCGCACCACAGAGATTAACTTCAAGGTTGGGGAGGAGTTTGAGGAGCAGACTGTGGATGGGA
GGCCCTGTAAGAGCCTGGTGAAATGGGAGAGTGAGAATAAAATGGTCTGTGAGCAGAAGCTCCTGAAGGGAGAGG
GCCCCAAGACCTCGTGGACCAGAGAACTGACCAACGATGGGGAACTGATCCTGACCATGACGGCGGATGACGTTG
TGTGCACCAGGGTCTACGTCCGAGAG**TGA**GTGGCCACAGGTAGAACCGCGGCCGAAGCCCACCACTGGCCATGCT
CACCGCCCTGCTTCACTGCCCCCTCCGTCCCACCCCCTCCTTCTAGGATAGCGCTCCCCTTACCCCAGTCACTTC
TGGGGGTCACTGGGATGCCTCTTGCAGGGTCTTGCTTTCTTTGACCTCTTCTCTCCTCCCCTACACCAACAAAGA
GGAATGGCTGCAAGAGCCCAGATCACCCATTCCGGGTTCACTCCCCGCCTCCCCAAGTCAGCAGTCCTAGCCCCA
AACCAGCCCAGAGCAGGGTCTCTCTAAAGGGGACTTGAGGGCCTGAGCAGGAAAGACTGGCCCTCTAGCTTCTAC
CCTTTGTCCCTGTAGCCTATACAGTTTAGAATATTTATTTGTTAATTTTATTAAAATGCTTTAAAAAAA

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FIGURE 3168

AGTCGCTCAGGCTACTCCCACCCCGCCCCGCCCCGTCATTGTCCCCGTCGGTCTCTTTTCTCTTCCGTCCTAAAA
GCTCTGCGAGCCGCTCCCTTCTCCCGGTGCCCCGCGTCTGTCCATCCTCAGTGGGTCAGACGAGCAGGATGGAGG
GCTGCAGAACTGGCTCAGGAAAGCCCTCCTGGG**ATG**GCTGGAGTGGAAAATGAGGATGAGGCAGAGCTGAATCTG
AGGGAGCAGGATGGCTTCACTGGGAAGGAGGAGGTGGTAGAGCAGGGAGAGCTGAATGCCACAGAGGAGGTCTGG
ATCCCAGGCGAGGGGCACCCAGAGAGCCCTGAGCCCAAAGAGCAGAGAGGCCTGGTTGAGGGAGCCAGTGTGAAG
GGAGGGGCTGAGGGCCTCCAGGACCCTGAAGGGCAATCACAACAGGTGGGGGCCCCAGGCCTCCAGGCTCCCCAG
GGGCTGCCAGAGGCGATAGAGCCCCTGGTGGAAGATGATGTGGCCCCAGGGGGTGACCAAGCCTCCCCAGAGGTC
ATGTTGGGGTCAGAGCCTGCCATGGGTGAGTCTGCTGCGGGAGCTGAGCCAGGCCCGGGGCAGGGGGTGGGAGGG
CTGGGGGACCCAGGCCATCTGACCAGGGAAGAGGTGATGGAACCACCCCTGGAAGAGGAGAGTTTGGAGGCAAAG
AGGGTTCAGGGCTTGGAAGGGCCTAGAAAGGACCTAGAGGAGGCAGGTGGTCTGGGGACAGAGTTCTCCGAGCTG
CCTGGGAAGAGCAGAGACCCTTGGGAGCCTCCCAGGGAGGGTAGGGAGGAGTCAGAGGCTGAGGCCCCCAGGGGA
GCAGAGGAGGCGTTCCCTGCTGAGACCCTGGGCCACACTGGAAGTGATGCCCCTTCACCTTGGCCTCTGGGGTCA
GAGGAAGCTGAGGAGGATGTACCACCAGTGCTGGTCTCCCCCAGCCCAACGTACACCCCGATCCTGGAAGATGCC
CCTGGGCCTCAGCCTCAGGCTGAAGGGAGTCAGGAGGCTAGCTGGGGGGTGCAGGGGAGGGCTGAAGCCCTGGGG
AAAGTAGAGAGCGAGCAGGAGGAGTTGGGTTCTGGGGAGATCCCCGAGGGCCCCCAGGAGGAAGGGGAGGAGAGC
AGAGAAGAGAGCGAGGAGGATCAGGAGGAGGGGAGGGAGCCAGGGGCTGGGCGGTGGGGGCCAGGGTCTTCTGTT
GGCAGCCTCCAGGCCCTGAGTAGCTCCCAGAGAGGGGAATTCCTGGAGTCTGATTCTGTGAGTGTCAGTGTCCCC
TGGGATGACAGCTTGAGGGGTGCAGTGGCTGGTGCCCCCAAGACTGCCCTGGAAACGGAGTCCCAGGACAGTGCT
GAGCCTTCTGGCTCAGAGGAAGAGTCTGACCCTGTTTCCTTGGAGAGGGAGGACAAAGTCCCTGGCCCTCTAGAG
ATCCCCAGTGGGATGGAGGATGCAGGCCCAGGGGCAGACATCATTGGTGTTAATGGCCAGGGTCCCAACTTGGAG
GGGAAGTCACAGCATGTGAATGGGGGAGTGATGAACGGGCTGGAGCAGTCTGAGGAAGTGGGGCAAGGAATGCCG
CTAGTCTCTGAGGGAGACCGAGGGAGCCCCTTTCAGGAGGAGGAGGGGAGTGCTCTGAAGACCTCTTGGGCAGGG
GCTCCTGTTCACCTGGGCCAGGGTCAGTTCCTGAAGTTCACTCAGAGGGAAGGAGATAGAGAGTCCTGGTCCTCA
GGGGAGGAC**TAG**GAAAAGACCATCTGCCCGGCACTGGGGACTTAGGGGTGCGGGGAGGGGAAGGACGCCTCCAAG
CCCGCTCCCTGCTCAGGAGCAGCACTCTTAACTTACGATCTCTTGACATATGGTTTCTGGCTGAGAGGCCTGGCC
CGCTAAGGTGAAAAGGGGTGTGGCAAAGGAGCCTACTCCAAGAATGGAGGCTGTAGGAATATAACCTCCCACCCT
GCAAAGGGAATCTCTTGCCTGCTCCATCTCATAGGCTAAGTCAGCTGAATCCCGATAGTACTAGGTCCCCTTCCC
TCCGCATCCCGTCAGCTGGAAAAGGCCTGTGGCCCAGAGGCTTCTCCAAAGGGAGGGTGACATGCTGGCTTTTGT
GCCCAAGCTCACCAGCCCTGCGCCACCTCACTGCAGTAGTGCACCATCTCACTGCAGTAGCACGCCCTCCTGGGC
CGTCTGGCCTGTGGCTAATGGAGGTGACGGCACTCCCATGTGCTGACTCCCCCCATCCCTGCCACGCTGTGGCCC
TGCCTGGCTAGTCCCTGCCTGAATAAAGTAATGCCTCCGCTTC

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FIGURE 3169

GGCGGCGCACAAGTCAGGTCCGGCACATGTTTCCGCGGAGCGGACCCAGCAATGACGGATGATATCACCTCTTCT
TCTCTGGTGAGAGTCTGAGGATAGAGACTTTTTTCTCACCATGAATGTCACCCCAGAGGTCAAGAGTCGTGGGAT
GAAGTTTGCTGAGGAGCAGCTGCTAAAGCATGGATGGACTCAAGGCAAAGGCCTCGGCCGGAAGGAGAATGGTAT
CACTCAGGCTCTCAGGGTGACACTGAAGCAAGACACTCATGGGGTAGGACATGACCCTGCCAAGGAGTTCACAAA
CCACTGGTGGAATGAGCTCTTCAACAAGACTGCGGCCAACTTGGTAGTGGAAACTGGGCAGGATGGAGTACAGAT
AAGGAGCCTTTCTAAGGAGACCACCCGTTATAATCATCCCAAGCCCAACTTGCTGTATCAGAAGTTTGTGAAGAT
GGCTACATTGACTTCAGGTGGAGAGAAGCCAAACAAAGACTTGGAGAGCTGCAGTGATGACGACAACCAGGGGTC
CAAGTCCCCAAAGATTCTGACTGATGAGATGCTGCTCCAAGCCTGTGAGGGGCGAACAGCACACAAGGCTGCCCG
TCTTGGGATCACAATGAAGGCCAAGCTTGCTCGCCTAGAGGCCCAGGAGCAGGCCTTCCTGGCTCGTCTCAAAGG
CCAGGACCCTGGGGCCCCTCAACTGCAGTCAGAGAGCAAGCCCCCCAAAAAAAAGAAAAAGAAAAGGAGGCAGAA
AGAGGAGGAAGAAGCTACAGCATCTGAAAGGAATGATGCAGATGAGAAGCACCCAGAACATGCTGAGCAGAACAT
CAGAAAAAGCAAGAAGAAGAAAAGGCGACATCAAGAAGGAAAGGTCTCAGATGAAAGAGAGGGTACAACTAAAGG
GAATGAGAAGGAGGACGCTGCAGGAACAAGTGGGCTTGGGGAATTGAATAGCAGAGAGCAAACCAATCAGTCCCT
CAGGAAAGGGAAGAAAAAGAAGAGGTGGCACCATGAAGAGGAGAAGATGGGGGTCTTGGAGGAAGGAGGAAAAGG
CAAGGAGGCTGCAGGCAGTGTCAGGACAGAGGAGGTAGAGAGCAGGGCATATGCTGACCCATGCAGCCGAAGAAA
GAAGAGGCAGCAACAGGAGGAGGAGGACTTGAACCTAGAAGATAGAGGTGAGGAAACTTTTAGGTGGTGGAACCA
GGGAAGCAGAGAGCAGAGCATGCAGTGATGGAAGAAGCAGGAAAAGCAAGAAGAAAAGACAGCAGCATCAAGAGG
AGGAGGACATCTTGGATGTAAGGGATGAGAAGGATGGCGGGGCTAGGGAAGCAGAGAGCAGAGCACACACTGGCT
CAAGCAGCAGAGGTAAGAGGAAGAGGCAGCAGCATCCCAAGAAGGAAAGAGCTGGAGTCAGCACTGTCCAGAAAG
CCAAAAAGAAACAGAAGAAGAGAGACTAAAGGTCTGGTAAAGGTAGGGCTCAATTGATTGATTTTCAGGAGTTGA
AGCCTCAAAGACCAGGGTTGATGCAGGTCTGCAGGTCTTCTGCACCCCCCTCAATGAGGAGTCCCTCCCAGAAAG
GAAACTGATCTCTGGGACGTCAGCTGCTGAGAGGAGCAAGCGGTAGTACCACCCCTTAGTTGAGGGAGTCAGCAC
AGTCCTTTCTGCAGCTTCTAACCCAGGACCATGAACTCAGGTGCCTAGAGAAGCCAGGCAGCTAAAGGACAAGGA
ATGCTGGGGGCTGTGGGAACAGGAATGCAGATACCCTTTGAAGGAGCATTCCTGCTAAAAGAAGCTGAAAATGTA
GACCTATGTGAAGTGCTCTGATTTCTAAATATTGTGAAGGTTAAGAAAAACATAAATTTAGGTCTATGGGCTAGA
TTTAGCCCACAGTTGCCAGTTTCTAGCGCTACCAAATGAATGAATAAACATGAGCTTGCGCTCCTAGCCTAGAGA
TAAATCCTGACTGGCATCTCTGTTCCCAGCCTGGGAAGGTCCTGAATACAAATTAGAAGATATTCCTTGGAGGCC
TTTGAAGAAATTCCTTCGGTTAACCTCTTTGTAGTCTTGCTACACTGATAAGTAGAAGTAGCTCCCTGTCTGTGT
CCCAAATGAATAAGAATTGTGTAAAGGACAGCA

FIGURE 3170

ATAAGGCCTTCTCAACACCATCACCATCCCTATTCCCTTGTGGAAGCCCCCTAAGAATTTATAGCTCCAGGCAGT
GGTTTGCCAGCCCCCACCATTGCTCCTTGAGGAGCCACAGGGAGGTGTGCCATCCTGCATACTCGAACTTGGATA
GGAGATGGGCTGCTGCTGCTGGGATGTGCAGCAGCTTTGGCCTCTCTCACCCACAGCTGGCTGGTGAGCAGAACA
AGAAGAGGAAATGCTCTGGTTCATCAGGTCTTCACAGTGGACAAGTGCCAGTGACTGACAGTAAAGATGCCCCGC
TCCACCCCGACCATAGTACCTGTTCACAGTACCTTCATTTAATCAGATTAATTGAGAGTCTACTATGGGCCAAGG
AGTTGGGGATTCAGAGTGGAATAAGAATGAGATGGGCCCAGCCCAGATGGAATCTACATAGGCAATTATGATGGA
AGTGTTGCCTGTGATAGAGGAAGGGTACTCAACTCAGACTTCAGAGAATGGCTTCTAAAAGTAACTGATGTATAA
GCTGAGCTCTGGAGGATAAGAGAAACTCAGAAGGTAAAGGGGGAAAGGGAGAAGAATGTCCCAAGCAGAGGGAGC
AACATGTGCAATAACCTGAAGATGGAAGACTGTCGTACCTTCAAAGAAAAGAAACAGATTGGAATCTGTTATGCT
AATGGTTAGGCTAAAGTAGTGGTCCTGGAGAAAAGTGAAGAGATGAGGCTGGAGATGGCAGGAACAGGCATGCAG
AGCCATATAAGCCAGTCCGATAAATCTGGATTGTGTCATCCTAGGTCAAACAAGACCCAGTGACATGATGACATT
TATGTTTTAGAGAGAACACTGGATGCTTTGTGGAGAAGTCCATCCTCCACAAAGGTTGGGGTGGGGAGTGAGACT
ACAGGTGTTCTTAGGAGGCTGCTGGAGAAAGAAATTAGGCAAGAGATGATGATGGCCCGAAGTGGGGTAGTAGAT
GGTAACAGAGATGTAGAGAAATGGGAAAGATTTGCTAGGTAACATGTATAGCCCTTAGCACATAATGACCATTAC
ATGTTAGCTTCCTCCTATTGGTACAGTAGAAAGTGGAGGCCTGAAGTCCTGGGTTCCAGTCCTGTTTGCCATTAC
TAGCCAGCTGTGGGCTCTTCAGCAAACCACTTTTCACCCTTTTAGCCACATCTGCAAAGCAGGGATGGTCCAGAT
AATCTCTCAGGTCTCCTCTGGCTTCTAAGTCCTTTGAATTAGATGTCCCCTGGCCCCCCCAAAATTTGGCAGCTC
CTGACTTAAGAGACTGTACCCTACCTCCCACGCCCTATTGCTGCTCCCTTAACAGATGGCAGGATCCACGGAACC
TGAAGATCTCAATTCCTGCTGAGGGTCTGGGCAGTCTAAGTAAGCAACAGCAAGGCTGGTCACAGGATCCCACTA
TGTTAGGAAAGTTCTGAGAATTGATAAGGCATACAAGGCAACTGTTCAGGCCCCAGGGAAACCAGGGAAGAGAAA
AAGGATGGACTCTGTTACCCACAGCCTCTAATACCTTCACAAACTTCTGATACAGCAAGTTGGGCTTGGGATGAT
TATAACGGGTGGTCTCCTTAGAAAGGCTCCTTATCTGTACTCCATCCTGTAGAGAATTATCAGTACCAGTGAATG
GGTGACATATCATGACTGCCTACGCCACAGGTCCCAGGCCCTCTGTTTCATGTGCCCATCTATCAAGAGCTCATA
CCTGCCCAGTTTCCACTACCAAGTTGGCCGCAGTCTTGTTGAAGAGCTCATTCCACCAGTGGTTTGTGAACTCCT
TGGCAGGGTCATGTCCTACCTGCCAGGGGAATAAATATGAGCTCTGAGTGCCTGCCTCACCTGCCCTCAAGGGTC
CCCTCTCCCACACATGCTAACCTTCCTCAGTCCACCCAGTCTTACCCCATGAGTGTCTTGCTTCAGTGTCACCCT
GAGAGCCTGAGTGATACCATTCTCCTTCCGGCCGAGGCCTTTGCCTGCAGAGGACAGTGAGCGATTTGGCTTATT
CTCCTGCCTGCTGTGAGACCTCACAAGGCACCCCCCACACAGGCCTCTTGCCATTCCACACACCTGACATTGGGG
TATACTCTGTACCTCTCAGAAGACCTCCTAGCGCACTTCTTTCTAGTACCACTCCATATAGTCCCCTGCCTTTGT
GTGAGCCTGAACTATCTCTTCCTTCAAATTCTTTTGGTAGAGAGCCCATATCTCTTTTTCCCTCCCCTAGTCCTC
CCAACCACCACTTCTTCATTATCCACTGTCAAATTTCTTCCTTTCTTCCCTTTTCTGGGAAAGTTAGAAATTTTC
TTCTGCAAATTTCCCTTTAAACTAGCTTTTCCTCCTTTAATTAAATGGACTACATGGGGGGGTAATCCAGGATGA
TGGCTTTCCCCTGGGCAGATGGTAGGCAGGGAGCTGGGGGATGTGGAAGAGGCCCCATGGGGATCACCTTGAGTC
CATCCATGCTTTAGCAGCTGCTCCTCAGCAAACTTCATCCCACGACTCTTGACCTCTGGGGTGACATTCATGGTG
AGAAAAAAGTCTCTATCCTCAGACTCTCACCAGAGAAGAAGAGGTGATATCATCCTTTTAAGAAGAAAGTAGAAA
GTGCCCAAACAGCCATCAGTTCCATCCTGACTGCTTGTTAAGAATTCTCTGCTAGTTGGGTGCAGTGGCACACAC
CTGTAGTCCCAGCTACATGGGAGGCTGAGGCGGGATTGCTTGAGTCCAGCCTGGGCAGTATAGCAAGACCCTCTC
TCATAAAAAGAATAAAGCGGCCAGGCACAGTGGTTCACATTTGTAATCCCAGCACTTTGGAAGGCCAAGGTAGAA
GAATCACTTGAGCCCAGGAGTTCCAGACCAGTGTGGGCAACGTAGTGAAACCCTGCCTCTAGAAAAAATAAAAAA
TTAAAAAG

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FIGURE 3171

GGGCCGGGGGCGCGCGCTCTGCGAGCTGG**ATG**TCCAGGCTGCGGGCGCTGCTGGGCCTCGGGCTGCTGGTTGCGG
GCTCGCGCGTGCCGCGGATCAAAAGCCAGACCATCGCCTGTCGCTCGGGACCCACCTGGTGGGGACCGCAGCGGC
TGAACTCGGGTGGCCGCTGGGACTCAGAGGTCATGGCGAGCACGGTGGTGAAGTACCTGAGCCAGGAGGAGGCCC
AGGCCGTGGACCAGGAGCTATTTAACGAATACCAGTTCAGCGTGGACCAACTTATGGAACTGGCCGGGCTGAGCT
GTGCTACAGCCATCGCCAAGGCATATCCCCCCACGTCCATGTCCAGGAGCCCCCCTACTGTCCTGGTCATCTGTG
GCCCGGGGAATAATGGAGGAGATGGTCTGGTCTGTGCTCGACACCTCAAACTCTTTGGCTACGAGCCAACCATCT
ATTACCCCAAAAGGCCTAACAAGCCCCTCTTCACTGCATTGGTGACCCAGTGTCAGAAAATGGACATCCCTTTCC
TTGGGGAAATGCCCGCAGAGCCCATGACGATTGATGAACTGTATGAGCTGGTGGTGGATGCCATCTTTGGCTTCA
GCTTCAAGGGCGATGTTCGGGAACCGTTCCACAGCATCCTGAGTGTCCTGAAGGGACTCACTGTGCCCATTGCCA
GCATCGACATTCCCTCAGGATGGGACGTGGAGAAGGGAAATGCTGGAGGGATCCAGCCAGACTTGCTCATATCCC
TCACAGCCCCCAAAAAATCTGCAACCCAGTTTACCGGTCGCTACCATTACCTGGGGGGTCGTTTTGTGCCACCTG
CTCTGGAGAAGAAGTACCAGCTGAACCTGCCACCCTACCCTGACACCGAGTGTGTCTATCGTCTGCAG**TGA**GGGA
AGGTGGGTGGGTATTCTTCCCAATAAAGACTTAGAGCCCCTCTCTTCCAGAACTGTGGATTCCTGGGAGCTCCTC
TGGCAATAAAAGTCAGTGAATGGTGGAAGTCAGAGACCAACCCTGGGGATTGGGTGCCATCTCTCTAGGGGTAAC
ACAAAGGGCAAGAGGTTGCTATGGTATTTGGAAACAATGAAAATGGACTGTTAGATGCC

FIGURE 3172

CAGGGGCGAGGGCTACCCGCTCTTTGCCGTGACAACACCGTTCCCCCAGCCGGGCTGGAGGCTGTGCAGAAGGTA
TCCTGCAGACCATGAACTGAGCACTGTTCCCAGACCGTTCATGAGCACAGTGTAAGGTGTGCCGAGACCCACCAC
CCAGCGAGCCCCTCCCCTCCGTAGCACTGAGGACCCCCGGAGAAG**ATG**GGGAGGAAAAAGATTCAGATCCAGCGA
ATCACCGACGAGCGGAACCGACAGGTGACTTTCACCAAGCGGAAGTTTGGCCTGATGAAGAAGGCGTATGAGCTG
AGCGTGCTATGTGACTGCGAGATCGCACTCATCATCTTCAACCACTCCAACAAGCTGTTCCAGTACGCCAGCACC
GACATGGACAAGGTGCTGCTCAAGTACACGGAGTACAATGAGCCACACGAGAGCCGCACCAACGCCGACATCATC
GAGACCCTGAGGAAGAAGGGCTTCAACGGCTGCGACAGCCCCGAGCCCGACGGGGAGGACTCGCTGGAACAGAGC
CCCCTGCTGGAGGACAAGTACCGACGCGCCAGCGAGGAGCTCGACGGGCTCTTCCGGCGCTATGGGTCAACTGTC
CCGGCCCCCAACTTTGCCATGCCTGTCACGGTGCCCGTGTCCAATCAGAGCTCACTGCAGTTCAGCAATCCCAGC
GGCTCCCTGGTCACCCCTTCCCTGGTGACATCATCCCTCACGGACCCGCGGCTCCTGTCCCCCCAGCAGCCAGCA
CTACAGAGGAACAGTGTGTCTCCTGGCCTGCCCCAGCGGCCAGCTAGTGCGGGGGCCATGCTGGGGGGTGACCTG
AACAGTGCTAACGGAGCCTGCCCCAGCCCTGTTGGGAATGGCTACGTCAGTGCTCGGGCTTCCCCTGGCCTCCTC
CCTGTGGCCAATGGCAACAGCCTAAACAAGGTCATCCCTGCCAAGTCTCCACCCCCACCTACCCACAGCACCCAG
CTTGGAGCCCCCAGCCGCAAGCCCGACCTGCGAGTCATCACTTCCCAGGCAGGAAAGGGGTTAATGCATCACTTG
ACTGAGGACCATTTAGATCTGAACAATGCCCAGCGCCTTGGGGTCTCCCAGTCTACTCATTCGCTCACCACCCCA
GTGGTTTCTGTGGCAACGCCGAGTTTACTCAGCCAGGGCCTCCCCTTCTCTTCCATGCCCACTGCCTACAACACA
GATTACCAGTTGACCAGTGCAGAGCTCTCCTCCTTACCAGCCTTTAGTTCACCTGGGGGGCTGTCGCTAGGCAAT
GTCACTGCCTGGCAACAGCCACAGCAGCCCCAGCAGCCGCAGCAGCCACAGCCTCCACAGCAGCAGCCACCGCAG
CCACAGCAGCCACAGCCACAGCAGCCTCAGCAGCCGCAACAGCCACCTCAGCAACAGTCCCACCTGGTCCCTGTA
TCTCTCAGCAACCTCATCCCGGGCAGCCCCCTGCCCCACGTGGGTGCTGCCCTCACAGTCACCACCCACCCCCAC
ATCAGCATCAAGTCAGAACCGGTGTCCCCAAGCCGTGAGCGCAGCCCTGCGCCTCCCCCTCCAGCTGTGTTCCCA
GCTGCCCGCCCTGAGCCTGGCGATGGTCTCAGCAGCCCAGCCGGGGGATCCTATGAGACGGGAGACCGGGATGAC
GGACGGGGGGACTTCGGGCCCACACTGGGCCTGCTGCGCCCAGCCCCAGAGCCTGAGGCTGAGGGCTCAGCTGTG
AAGAGGATGCGGCTTGATACCTGGACATTAAAG**TGA**CGATTCCCACTCCCCTCCTCTCAGCCTCCCTGATGAAGA
GTTGACAATCTCACCGCCCGCCCTTCCCTGCCCCGGGCTCCTCCCGCTCGACCCCCACTTCCTTTCTTGTGCTTC
GTGTCCTGTTGACGGTTACATTTGTGTATAATTATTATATTATT

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FIGURE 3173

TTGCGTAGGGGGCGGGACTAAGGCTGTCAATTGGTCTGTTTTTGTGCCGATCAATGAGATGGGTGCGGTGATTGG
CGACTACCTTGAGAGTAGCGGGTTGAGGTGTAAGCCCTGAGGAGGCAGCGTTTTCTGGGCTTCTGTCTGGTTCTC
TCTCTCCAGAAGGTTCTGCCGGTTCCCCCAGCTCTGGGTACCCGGCTCTGCATCGCGTCGCCATG**ATG**GGCCATC
GTCCAGTGCTCGTGCTCAGCCAGAACACAAAGCGTGAATCCGGAAGAAAAGTTCAATCTGGAAACATCAATGCTG
CCAAGACTATTGCAGATATCATCCGAACATGTTTGGGACCCAAGTCCATGATGAAGATGCTTTTGGACCCAATGG
GAGGCATTGTGATGACCAATGATGGCAATGCCATTCTTCGAGAGATTCAAGTCCAGCATCCAGCGGCCAAGTCCA
TGATCGAAATTAGCCGGACCCAGGATGAAGAGGTTGGAGATGGGACCACATCAGTAATTATTCTTGCAGGGGAAA
TGCTGTCTGTAGCTGAGCACTTCCTGGAGCAGCAGATGCACCCAACAGTGGTGATCAGTGCTTACCGCAAGGCAT
TGGATGATATGATCAGCACCCTAAAGAAAATAAGTATCCCAGTCGACATCAGTGACAGTGATATGATGCTGAACA
TCATCAACAGCTCTATTACTACCAAAGCCATCAGTCGGTGGTCATCTTTGGCTTGCAACATTGCCCTGGATGCTG
TCAAGATGGTACAGTTTGAGGAGAATGGTCGGAAAGAGATTGACATAAAAAAATATGCAAGAGTGGAAAAGATAC
CTGGAGGCATCATTGAAGACTCCTGTGTCTTGCGTGGAGTCATGATTAACAAGGATGTGACCCATCCACGTATGC
GGCGCTATATCAAGAACCCTCGCATTGTGCTGCTGGATTCTTCTCTGGAATACAAGAAAGGAGAAAGCCAGACTG
ACATTGAGATTACACGAGAGGAGGACTTCACCCGAATTCTCCAGATGGAGGAAGAGTACATCCAGCAGCTCTGTG
AGGACATTATCCAACTGAAGCCCGATGTGGTCATCACTGAAAAGGGCATCTCAGATTTAGCTCAGCACTACCTTA
TGCGGGCCAATATCACAGCCATCCGCAGAGTCCGGAAGACAGACAATAATCGCATTGCTAGAGCCTGTGGGGCCC
GGATAGTCAGCCGACCAGAGGAACTGAGAGAAGATGATGTTGGAACAGGAGCAGGCCTGTTGGAAATCAAGAAAA
TTGGAGATGAATACTTTACTTTCATCACTGACTGCAAAGACCCCAAGGCCTGCACCATTCTCCTCCGGGGGGCTA
GCAAAGAGATTCTCTCGGAAGTAGAACGCAACCTCCAGGATGCCATGCAAGTGTGTCGCAATGTTCTCCTGGACC
CTCAGCTGGTGCCAGGGGGTGGGGCCTCCGAGATGGCTGTGGCCCATGCCTTGACAGAAAAATCCAAGGCCATGA
CTGGTGTGGAACAATGGCCATACAGGGCTGTTGCCCAGGCCCTAGAGGTCATTCCTCGTACCCTGATCCAGAACT
GTGGGGCCAGCACCATCCGTCTACTTACCTCCCTTCGGGCCAAGCACACCCAGGAGAACTGTGAGACCTGGGGTG
TAAATGGTGAGACGGGTACTTTGGTGGACATGAAGGAACTGGGCATATGGGAGCCATTGGCTGTGAAGCTGCAGA
CTTATAAGACAGCAGTGGAGACGGCAGTTCTGCTACTGCGAATTGATGACATCGTTTCAGGCCACAAAAAGAAAG
GCGATGACCAGAGCCGGCAAGGCGGGGCTCCTGATGCTGGCCAGGAG**TGA**GTGCTAGGCAAGGCTACTTCAATGC
ACAGAACCAGCAGAGTCTCCCCTTTTCCTGAGCCAGAGTGCCAGGAACACTGTGGACGTCTTTGTTCAGAAGGGA
TCAGGTTGGGGGGCAGCCCCCAGTCCCTTTCTGTCCCAGCTCAGTTTTCCAAAAGACACTGACATGTAATTCTTC
TCTATTGTAAGGTTTCCATTTAGTTTGCTTCCGATGATTAAATCTAAGTCATTTG

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FIGURE 3174

GAATTGCGGCCGT**ATG**CGCGGCTCTGTGGAGTGCACCTGGGGTTGGGGGCACTGTGCCCCCAGCCCCCTGCTCCT
TTGGACTCTACTTCTGTTTGCAGCCCCATTTGGCCTGCTGGGGGAGAAGACCCGCCAGGTGTCTCTGGAGGTCAT
CCCTAACTGGCTGGGCCCCCTGCAGAACCTGCTTCATATACGGGCAGTGGGCACCAATTCCACACTGCACTATGT
GTGGAGCAGCCTGGGGCCTCTGGCAGTGGTAATGGTGGCCACCAACACCCCCCACAGCACCCTGAGCGTCAACTG
GAGCCTCCTGCTATCCCCTGAGCCCGATGGGGGCCTGATGGTGCTCCCTAAGGACAGCATTCAGTTTTCTTCTGC
CCTTGTTTTTACCAGGCTGCTTGAGTTTGACAGCACCAACGTGTCCGATACGGCAGCAAAGCCTTTGGGAAGACC
ATATCCTCCATACTCCTTGGCCGATTTCTCTTGGAACAACATCACTGATTCATTGGATCCTGCCACCCTGAGTGC
CACATTTCAAGGCCACCCCATGAACGACCCTACCAGGACTTTTGCCAATGGCAGCCTGGCCTTCAGGGTCCAGGC
CTTTTCCAGGTCCAGCCGACCAGCCCAACCCCCTCGCCTCCTGCACACAGCAGACACCTGTCAGCTAGAGGTGGC
CCTGATTGGAGCCTCTCCCCGGGGAAACCGTTCCCTGTTTGGGCTGGAGGTAGCCACATTGGGCCAGGGCCCTGA
CTGCCCCTCAATGCAGGAGCAGCACTCCATCGACGATGAATATGCACCGGCCGTCTTCCAGTTGGACCAGCTACT
GTGGGGCTCCCTCCCATCAGGCTTTGCACAGTGGCGACCAGTGGCTTACTCCCAGAAGCCGGGGGGCCGAGAATC
AGCCCTGCCCTGCCAAGCTTCCCCTCTTCATCCTGCCTTAGCATACTCTCTTCCCCAGTCACCCATTGTCCGAGC
CTTCTTTGGGTCCCAGAATAACTTCTGTGCCTTCAATCTGACGTTCGGGGCTTCCACAGGCCCTGGCTATTGGGA
CCAACACTACCTCAGCTGGTCGATGCTCCTGGGTGTGGGCTTCCCTCCAGTGGACGGCTTGTCCCCACTAGTCCT
GGGCATCATGGCAGTGGCCCTGGGTGCCCCAGGGCTCATGCTGCTAGGGGGCGGCTTGGTTCTGCTGCTGCACCA
CAAGAAGTACTCAGAGTACCAGTCCATAAAT**TAA**GGCCCGCTCTCTGGAGGGAAGGACATTACTGAACCTGTCTT
GCTGTGCCTCGAAACTCTGGAGGTTGGAGCATCAAGTTCCAGCCGGCCCCTTCACTCCCCCATCTTGCTTTTCTG
TGGAACCTCAGAGGCCAGCCTCGACTTCCTGGAGACCCCCAGGTGGGGCTTCCTTCATACTTTGTTGGGGGACTT
TGGAGGCGGGCAGGGGACAGGGCTATTGATAAGGTCCCCTTGGTGTTGCCTTCTTGCATCTCCACACATTTCCCT
TGGATGGGACTTGCAGGCCTAAATGAGAGGCATTCTGACTGGTTGGCTGCCCTGGAAGGCAAGAAAATAGATTTA
TTTTTTTTC

FIGURE 3175A

GTCGCGGGCAGCCGCCTCACAGCGATGGCGGCCGAGCAGGGCCGGTGGCGGCGGCGGCTGCGGCTACGGCCGGAG
ACGGCAGTGTTGGCGGTAGTGGTGGGTGGCAGGGGCCTGTGACCGGGAGCTGCCCCCGGACCCGGGCACC**ATG**AG
CCAAGGCCCCCCCACAGGGGAGAGCAGCGAGCCCGAAGCAAAAGTCCTCCACACTAAGCGGCTTTACCGGGCTGT
GGTGGAGGCTGTGCATCGACTTGACCTCATCCTTTGCAACAAAACTGCTTATCAAGAAGTATTCAAACCAGAAAA
CATTAGCCTGAGGAACAAGCTGCGTGAGCTCTGCGTCAAGCTTATGTTCCTGCACCCAGTGGACTATGGGAGAAA
GGCTGAGGAGCTGCTGTGGAGAAAGGTATACTATGAAGTTATCCAGCTTATCAAGACTAACAAAAAGCACATCCA
CAGCCGGAGCACTTTGGAATGTGCCTACAGGACGCACCTGGTTGCTGGTATTGGCTTCTACCAGCATCTCCTTCT
CTATATCCAGTCCCACTACCAGCTGGAACTGCAGTGCTGCATCGACTGGACCCATGTCACTGACCCCCTCATAGG
ATGCAAGAAGCCAGTGTCTGCCTCAGGGAAGGAGATGGATTGGGCACAGATGGCATGTCACCGATGTCTGGTGTA
TCTGGGGGATTTGTCCCGATATCAGAATGAATTAGCTGGCGTAGATACCGAGCTGCTAGCCGAGAGATTTTACTA
CCAAGCCCTGTCAGTAGCTCCTCAGATTGGAATGCCCTTCAATCAGCTGGGCACCCTGGCAGGCAGCAAGTACTA
TAATGTGGAAGCCATGTATTGCTACCTGCGCTGCATCCAGTCAGAAGTGTCCTTTGAGGGAGCCTATGGGAACCT
CAAGCGGCTGTATGACAAGGCAGCCAAAATGTACCACCAACTGAAGAAGTGTGAGACTCGGAAACTGTCTCCTGG
CAAAAAGCGATGTAAAGACATTAAAAGGTTGCTAGTGAACTTTATGTATCTGCAAAGCCTCCTACAGCCCAAAAG
CAGCTCCGTGGACTCAGAGCTGACCTCACTTTGCCAGTCAGTCCTGGAGGACTTCAACCTCTGCCTCTTCTACCT
GCCCTCCTCACCCAACCTCAGCCTGGCCAGTGAGGATGAGGAGGAGTATGAGAGTGGATATGCTTTCCTCCCGGA
CCTTCTCATCTTTCAAATGGTCATCATCTGCCTTATGTGTGTGCACAGCTTGGAGAGAGCAGGATCCAAGCAGTA
CAGTGCAGCCATTGCCTTCACCCTGGCCCTCTTTTCCCACCTCGTCAATCATGTCAACATACGGCTGCAGGCTGA
GCTGGAAGAGGGCGAGAATCCCGTCCCGGCATTCCAGAGTGATGGCACAGATGAACCAGAGTCCAAGGAACCTGT
GGAGAAAGAGGAGGAGCCAGATCCTGAGCCTCCTCCTGTAACACCCCAAGTGGGTGAGGGCAGAAAGAGCCGTAA
GTTCTCTCGCCTCTCCTGTCTCCGCCGTCGCCGCCACCCACCCAAAGTTGGTGATGACAGTGACCTGAGTGAAGG
CTTTGAATCGGACTCAAGCCATGACTCAGCCCGGGCCAGTGAGGGCTCAGACAGTGGCTCTGACAAGAGTCTTGA
AGGTGGGGGAACGGCCTTTGATGCTGAAACAGACTCGGAAATGAATAGCCAGGAGTCCCGATCAGACTTGGAAGA
TATGGAGGAAGAGGAGGGGACACGGTCACCAACCCTGGAGCCCCCTCGGGGCAGATCAGAGGCTCCCGATTCCCT
CAATGGCCCACTGGGCCCCAGTGAGGCTAGCATTGCCAGCAATCTACAAGCCATGTCCACCCAGATGTTCCAGAC
TAAGCGCTGCTTCCGACTGGCCCCCACCTTTAGCAACCTGCTCCTCCAGCCCACCACCAACCCTCATACCTCGGC
CAGCCACAGGCCTTGCGTCAATGGGGATGTAGACAAGCCTTCAGAGCCAGCCTCTGAGGAGGGCTCTGAGTCGGA
GGGGAGTGAGTCCAGTGGACGCTCCTGTCGGAATGAGCGCAGCATCCAGGAGAAGCTTCAGGTCCTGATGGCCGA
AGGTCTGCTTCCTGCTGTGAAAGTCTTCCTGGACTGGCTTCGGACCAACCCCGACCTCATCATCGTGTGTGCGCA
GAGCTCTCAAAGTCTGTGGAACCGCCTGTCTGTGTTGCTGAATCTGTTGCCTGCTGCTGGTGAACTCCAGGAGTC
TGGCCTGGCCTTGTGTCCTGAGGTCCAAGATCTTCTTGAAGGTTGTGAACTGCCTGACCTCCCCTCTAGCCTTCT
GCTCCCAGAGGACATGGCTCTTCGTAACCTGCCCCCGCTCCGAGCTGCCCACAGACGCTTTAACTTTGACACGGA
TCGGCCCCTGCTCAGCACCTTAGAGGAGTCAGTGGTGCGCATCTGCTGCATCCGCAGCTTTGGTCATTTCATCGC
CCGCCTGCAAGGCAGCATCCTGCAGTTCAACCCAGAGGTTGGCATCTTCGTCAGCATTGCCCAGTCTGAGCAGGA
GAGCCTGCTGCAGCAGGCCCAGGCACAGTTCCGAATGGCACAGGAGGAAGCTCGTCGGAACAGGCTCATGAGAGA
CATGGCTCAGCTACGACTTCAGCTCGAAGTGTCTCAGCTGGAGGGCAGCCTGCAGCAGCCCAAGGCCCAGTCAGC
CATGTCTCCCTACCTCGTCCCTGACACCCAGGCCCTCTGCCACCATCTCCCTGTCATCCGCCAACTGGCCACCAG
TGGCCGCTTCATTGTCATCATCCCAAGGACAGTGATCGATGGCCTGGATTTGCTGAAGAAGGAACACCCAGGGGC
CCGGGATGGGATTCGGTACCTGGAGGCAGAGTTTAAAAAAGGAAACAGGTACATTCGCTGCCAGAAAGAGGTGGG
AAAGAGCTTTGAGCGGCATAAGCTGAAGAGGCAGGATGCAGATGCCTGGACTCTCTATAAGATCCTAGACAGCTG
CAAACAGCTGACTCTGGCCCAGGGGGCAGGTGAGGAGGATCCGAGTGGCATGGTGACCATCATCACAGGCCTTCC
ACTGGACAACCCCAGCGTGCTTTCAGGCCCCATGCAGGCAGCCCTGCAGGCCGCTGCCCACGCCAGTGTGGACAT
CAAGAATGTTCTGGACTTCTACAAGCAGTGGAAGGAAATTGGT**TGA**TACTGACCCCCAGGCCCTGCAGTGGGGCT
GACTCCAGATCTCTCCTGCCCTCCCTGGCAGCCAGGACCAGCACCTGTAGTCACCCCACCACACGCAGACTCATG
CACGCACACAGGAGGGAGGCCTAGCTGCTCAGAGGCTGCAGGGAGGGCCCAGGAGCCGGCTGGGAGGGTGGGGTC
CCTTTGTTGCCAAGACGTTAGGAAAGCGAGGAAAGTGCTTGGATTAGGAGAGTCTTGTGGGCCCCTGGCCAGCCT
TCCTGCCTCAGCTCCCCTGCTGTCTCCAGGGGCAGGTGGTAGGCATGGGTACCTGCATTTCACTGGAATGGGTTC
TTGGATCTCTGAGGGGAAGGAACAGCAAAAGAGGCCCTTCTTCCTCACCCAAGATGCAGGGTGGTTGGGGCCAGG

FIGURE 3175B

AGTTTGGACCCTCTAGGTCTTGGGGGAAGAGCTGGGTAATACCTGGTGTCTGAGTGATTCTCTGCAGACCCTTCC
CCTCCTCAAGGATCACCCATCCTCCTTTCAGCCCCCTTTATGGGGACCAGGCAGCTCTGGAGCCAGCCACAGGGG
CTGTTAGAGAAGCAAGGCCTGGAGTGGCCTGCACCGAGTAGCAGGGTCAGGGTTCGTGTGCTCCTCCTCCTGCTG
CAGGGGCTGCACATCCCATTGCCCCACTTCTGCTTTGTGTCTCCCTCTGTCTAGCTTCCAGGGCAGGGAGCAGGC
CCCACCTAGGGCTGCAGGCAGTCTGGCCTGTGCCAGCACGGTCTCCTGTGCCCACCAGCCCCACAGGTGCTGTGC
TTTGTGCTCTTGGCTGCTGTGCTGGGACAGAATGGGATGCCAGGAAGAGAAGAAAGGGGGTGCAGTCTGAGGCCA
CCACCCCCCTTCCTATCTAAGGGAGGGCTGAAGACAAGGGGCCGGCATTCAGTGGGCAGCAGAAAGGAGAGGCTC
CTTGAAGCTGCTCAGTCAGAGGCCCCCGTCCCTCCTTTTGCCTTCCGCAGGACTGAAGACCTGAAGGGGCTGGCT
TTTGGAGTGTTGAGGTGAATATCTGGGAGCAGAGATCATGAATAGCTCAGGGCAGTGAATGGCGCACCAAGAGCA
GGGCTGTGTGTGGGAGGCTGCAGCCAGGATTGCCTCAGCTCCTCCCCCTCAGGCTGGGAGGATAGCACAGGCTAG
GGGCTCGGGGTGGAGGGTCTCAGCTCTGCTGCCCCCACCCCAGTACTAGCCTAGCTTCCCAAGCTGTGGCTTAGA
GGATAGTTGGCTTCCTGCCTCTCTCCTCTAAAATAGCAAGTCTGGGAAATCCTGGGGTGAGTGGAGTCACCCCAC
TCCCAGTTGCTGGCAGAGACTGAGACTAAAGCATCACTTAATAAACCCCCCAAGCCC

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FIGURE 3176

ACTCCCCGCCCAGGCCTGGCCCGCCTGCCTGGCCACTCTTCCTCCATCAGCCTGGCTGGCAGCAGCCTTGGACTC
CGCCCGTGGAGCCCTGGGCCTGTTGACCCACCAGCTTAGGAGCACCCACCAAGCTCTGGGTGTTCTGGGAAGATG
GCATC**ATG**TCTGGCTACCGCCGCCCCACCAGCTCGGCTTTGGACTGTGTCCTCAGCTCCTTCCAGATGACCAACG
AGACGGTCAACATCTGGACTCACTTCCTGCCCACCTGGTACTTCCTGTGGCGGCTCCTGGCGCTGGCGGGCGGCC
CCGGCTTCCGTGCGGAGCCGTACCACTGGCCGCTGCTGGTCTTCCTGCTGCCCGCCTGCCTCTACCCCTTCGCGT
CGTGCTGCGCGCACACCTTCAGCTCCATGTCGCCCCGCATGCGCCACATCTGCTACTTCCTCGACTACGGCGCGC
TCAGCCTCTACAGTCTGGGCTGCGCCTTCCCCTATGCCGCCTACTCCATGCCGGCCTCCTGGCTGCACGGCCACC
TGCACCAGTTCTTTGTGCCTGCCGCCGCACTCAACTCCTTCCTGTGCACCGGCCTCTCCTGCTACTCCCGTTTCC
TGGAGCTGGAAAGCCCTGGGCTCAGTAAGGTCCTCCGCACAGGAGCCTTCGCCTATCCATTCCTGTTCGACAACC
TCCCACTCTTTTATCGGCTCGGGCTGTGCTGGGGCAGGGGCCACGGCTGTGGGCAGGAGGCCCTGAGCACCAGCC
ATGGCTACCATCTCTTCTGCGCGCTGCTCACTGGCTTCCTCTTCGCCTCCCACCTGCCTGAAAGGCTGGCACCAG
GACGCTTTGATTACATCGGCCACAGCCACCAGTTATTCCACATCTGTGCAGTGCTGGGCACCCACTTCCAGCTGG
AGGCAGTGCTGGCTGATATGGGATCACGCAGAGCCTGGCTGGCCACACAGGAACCTGCCCTGGGCCTGGCAGGCA
CAGTGGCCACACTGGTCTTGGCTGCAGCTGGGAACCTACTCATTATTGCTGCTTTCACAGCCACCCTGCTTCGGG
CCCCCAGTACATGCCCTCTGCTGCAGGGTGGCCCACTGGAGGGGGGTACCCAGGCCAAACAACAG**TGA**GGCCCCA
TCCCTGACCCTGTCCTGGAGGGGGCAGAGGCCAGGCCCCAGTGCTGACGAGGAGCCCAGATTTGGGCCTAATCAG
GTGGGGACGCATCTCAGCCTGGAACCAACAGGGGCTGAGGAGAGAGGGCACAGGAGAGAGGGCAGAGAAGAGGAG
GGGTGTCTAGGGGGACTGGCAGAGTGTGAGAGGGACCGTGAGGGGGCTCTTGATGGGAGTGGAAGAAGTGCTGAG
GGTCTGAGAGGGGAGATGCATGCGTGTCCAGGCTGAAGATGCCCCTATATTCTGTCAAAGGTTGGCGGGGGGAGG
TGTTGGGGTCCTTTCATCTGGCTCCGTTTCTGGTGCTTCTGGAAGTCTCTGCTCAGCACAGGGAAGAACTAACAC
GACTAACCTAGGCCTACCCTGAATGCTTCTTGCTAACCAGGCCGAGAGGCCACACACTTGCCCCCCCATCCCCAC
AAACCAGGTAATGCCAGTTTGCCAGCAGCTATTTGCCTATAGAGATGAGTCTGTCCTGGTCATAACTGTGTGCTC
AAGGTGTCCAGGCTTTTGGGGGTGGGCCTATCTGGGTGCATTATGGATGGTTTGGTGGATTGAGGTGTGGGGAGG
AGGGTCCTAGGCTAGAGGGGGTATCCCTAGTTAGACTTTGGGAAGCCACCTTCAACGTTTTCTGGAACAAGGCAG
GTACAAATAAAAAAATAAAACTTTGGAAAGC

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FIGURE 3177

GCAAGTAGCGCCAATCTAGGCAGCGGCTGTGAGGAAAAAAGGCATGAGGGGTCGTCTTCGGAATCTGTGCCACCC
GGCACTACCATTTCGAGGGTGAAGCTCCTCGACACC**ATG**GTGGACACTTTTCTTCAGAAGCTGGTCGCCGCCGGC
AGCTACCAGAGATTCACTGACTGCTATAAGTGCTTCTACCAGTTGCAGCCTGCGATGACACAGCAAATCTATGAC
AAGTTTATAGCTCAGTTGCAGACATCTATCCGGGAGGAAATCTCTGACATCAAAGAGGAGGGGAACCTAGAAGCT
GTCTTGAATGCCTTGGATAAAATTGTGGAAGAAGGCAAAGTCCGCAAAGAGCCAGCCTGGCGCCCCAGCGGGATC
CCAGAGAAGGATCTGCACAGTGTTATGGCACCCTACTTCCTGCAGCAACGGGACACCCTGCGGCGCCATGTGCAG
AAACAGGAGGCCGAGAACCAGCAGCTGGCAGATGCCGTCCTGGCAGGGCGGAGGCAGGTGGAGGAGCTGCAGCTA
CAGGTCCAGGCCCAGCAGCAGGCCTGGCAGGCTCTACACAGAGAACAGAGGGAGCTGGTTGCTGTGCTGAGGGAG
CCTGAG**TGA**GGAGACCGCCAGCCCCAGAAGCAGAGGGCAGTCAAGGTCAAGAGCCTGTGGTCCAGCATGCCTGGC
CTGGGCGGGCTACCTCTGAGAACGGCTGAAATGGTGCCCAGTCCATCAGCAGTGATGGAATTTGCTGGAGGACTA
GGCCAGAGCAAGCCTCACTGCCACTGTGCCTTTGGGGCACCCTTGGGGTTGGACATACACCCCCTTTAGATTCCT
CTGTTTCTTCTACCTGGATAATTCTTGGCCATGTTCTCTCTTCTCTAGGTTCAGGTCAGCTCTGCCCCTCCGCCC
CCCTCCTGCTGGTTCCCCAGCCCTTTTCCCTGGCCCTGGCTTGGAGAATCTGTTTTCAATCTCCACTGATTGCCC
CCTTGCTGGCCAGCCCAGGGGCCTTTACCATGTTCTCTCCACATCCGTAAATAAACTTCCTTCACTAC

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FIGURE 3178A

AAACAAGAAGAATGGGATTGATATTTCCGCAGGAAGTTTGGAAGTTATGTAACAGAGCAGGTTGAGATCCTACCT
TTTAGGAGCAGCCTGCCCCTTTTGAAGGGGTAAAGGGAGTGGGTGCAGTGCCCTCTCTTCTGTTGTAGTGGCTTA
TCCCTCTAAGGCATGACCCTTGGATAGGGGTTACCTGCCTCGGAAAGTCCCCACTTCCTTGTGGGAGTTTAAAAT
AGATTGGCATATGTGAGAGATGGAGACAAGGTGGGAAATCGGATCCTGTCTTAGGATTTCTCATCAGGAGATGCT
GATACTTGGTGTTTCAGCTTGATAAATTGAGAAGGTGCCATGAAACCAGGTCCTGGAACAGAATCCCTGGTTGCT
CTGTCTTTTAGCTGCTCTGACCCTCTGCCCTGCAGAGCATGCATTTTGCATGTGCCTGGCAGGAGGCCCTCCTGC
TTGAGCCCTGCTGTATTTGTCTGTGTTGACAACGTGACTGCCAGCCATTAAGCTTGGTCAGTCCACAGACACACT
AGGAAAGCAGAGGCAGCTCTTGGTTTCTCTGGAACAGAGCTGCAAGAAGTCTCTGGGCATCTGCATGGCCAGGAG
CTTATGCTTAACTGTTGAGTGACCTGCAGCCATAAGGGCATTAATTCTGCCTTCCAGAGGTGGGAATGACTTGGC
TTTAAACAGTGATTTGTGTGAGAATTCTTCAAATCCCATAAGGTAGAAGGCATGGTGGAGTAGAGGAGAAATCTT
GGCTCATATCTGCCTCTTCCATTGACCAGCTGTGTGACCTTGGGCCTGTTACTTTTAACCTACCTGACCCTCCAT
TTCCTCATTTATCAGAAGTGTCTAACTGTACACAAGTTAAACTGTAAGGATTACATGAGGTAGTAGTCAATCCTG
GTGTTTCTCTGTATCTTCTCACTTCTCACTGGTGTTGGAAATATGATCTTGCGACCCTAGATGGCAGCCACTCTG
GGGCAGAAGAGACAGTGACCACCTTTTGAAGAGCTCAAAGGAGAATATTGCCCCACAGGGCTTAGTGGGTCCCCC
AGGCTGAGGCTGGGGAGGAGGGCCACCTTTGCCTACAGCAAGTGGCATATCATTGTTCTAGGGGTTCTCTTGACG
GCAGAACTTTGCCTCTAGCTCATTTTCCACAGCCTAGATTTTCCAATCTTGCCAATCCAGTTGACTTCTGTCTTC
TCATTTCCAAGCCATTGTTCTCTCTCTTTCACTATCTACATGGATTATCCTTCATTCAAACTGCTTTGTCCCGGC
TGGGTGCGGTGGCTCATGCCTGTAATCCTAGCACTTTGGGAAGCCGAGGCGGGTGGATCACGAGGTCAGGAGATC
GAGACCATCCTGGCTAACATGGTGAAACCCCGTCTCTACTAAAATTAAAAAAATTAGCCGGGCGTGGTGGCAGGC
GCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCATGAACCCGGGAGGTGGAGCTTGCAGTGGGT
GGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCGTCTGAAAAAAAAAAACAAAAAAACTGCT
TTGTCCTGTAGGAATCCTGTGCGGGTTATGTGCACCTCCCTCAATCCTTACCTTGAAGCTAAGGTTTCCCCTCAG
CTCTCAAGTACTCAGTTTGCACTGCAGGTAGTCCCTATTTTAACGAAAGTTATACGGTCCAGCTCAGGGAATCCT
GAAAAGCTGCCCTTGCTTCCATGGTAATCAAAAGGCAGTTCTCATGGAATAAAAGCTACCTGAAGCCTGAGTTGG
GACCTTTGGCTGGGGAAGGTGGTTGAGGACGTTCTCTGATTAGATGCTTGGCATGAGGTTTGCTACTGGAACTGC
TAGTGTAGAATGTTTCAGCCCCCTAGAGTTGTCCCTGTGATGTGGCTACCTCCTTTCTCTGGGATTTCTCTTAAA
GTCTGGGGAGCCCCTGCTTCTCATTTCCTGGAATTTATCTTCCCAGTCTCCCTTTCTGGCTGAAAATTTCTAGTA
TCTTACAGAACAGCGGTGGGATACACTGGAGCACATCATATTACCACTAAGTATGTCTAATAAATGATGTCCTCT
GATTTGACATTTCCTAAATGTGAAGCTCCTGATTTTATACAATTTTGAAATTAGTAAGCTTGTTAGTTTTGTTTG
AAATTCTAGGCATTGGATACACTTAACATGAGGGCTACATGTGCATCAACATACTCTGGTTTCCTTCCCTCTGTA
TCTTTTTTTTTTTTGAGATGGAGTCTCACTGTCTCCTAGGCTGGAGTGCAGTGGTGTGATCATGGCTCACTGCAG
CCCCAACCTTCAGGGCTCAGGTGATCCTCCCACCTCAGCCACCCAAGTAGCTGGGACCACAGGTGCATGCCACCA
TGCCTGGCTAACTTATTTTTATATATTGTAGAGACGGAGTCTCCCTATGTTGCCTAGGCTGACCTTGAGCTCTTG
GGCTCAGGTGATCCTCCCACCTTGGCCTCCCAAAGTGTTGGGATTATAGGCGTGAGCCACTGTGTCCAGCCTTTT
CCTCTGTATCTTGTATCCATTCCCCAGAGCGATACTGTGTATCCTTGAACAGACGGTTTCTTGAAGTCAGAGTCT
ATCTCCTCTGTCACTTCTCCCCCTTCATTATCTAAGACTGAGGTTGTGGTTTATATGCTTAGAGTTGAAAGCATG
GGGTCCAACGTGTTCTGTACTCTGTAGTTCCCCAGACTCTTCAGGGAAACTACTTAGCTCTCAGGTGGTTCTTTT
CTGTTTTTCTCAGAGCAAGTTATCTAATAACTGAAGAGGACTCTGCCCTTTGGCCTGTTCCTGACTTTCTAACTC
CTTTTGCTGGAGGAAGGGGAGGTTGAGGGGGGTGCCCTGTGGTGTGAAAGCCCCACTTGCCCTCTCCTCTATACT
TTCTTCCAATGCAGACGGGAGAAAGTATCATAAATGTAGTGACTGTGGGTCAGGGGAGCTCTGAGAGGCCAGCAC
AGGAAACCAGAAACAAAATGAGTCAGTTCGTAGGTGGCGATCAGAGGCACCCTGCTGAGGGTGCAAGGCCACAGG
TGATGCCTCCTCAGTAGGCCCAGGAGCATCAAAACGGGAACAGTCCCTTTCAGCCTTCAGGAGCCTCCCAAATGT
CACTTAGTGATGTCCCATTCACCTGCTTAAAGGCCCTGCATCCTGCCAGGTAGTTGGTTTGTCCATAGCATCCTG
AGCTCTGCTTGGGTGAGCCAGACAAAAAGAATGATTCCTGGCCAGAGTAGTGATACCAGGGCCCAGACAGAGGCA
GAGAGTCCGGATAGAAGATCCTGTAAGCTGGGGTAGGGAGCCGAGGAGGCCATGGAGCCAGGGGAATCATTGAAG
TGAGGGACAATTTCTGGAGGAGGGAAACTGAGTAAGGAAGGCCTGGCCAAGGACCAAGAAGGGGACAGTATCCTG
ATCTATGAAAGAAGACTCAAGTGGGGATTGACAGAGCCAGATTGGGTGGAGTCCAAGCTTTGGGCAGGTGAGTGT
CCAGGAG**ATG**AGGGCTGAGAATGGGCCTTCAGAGCCCAGCCAGAAGGGGAAAGCACAAAGCTCCACCCTCCTTCT

FIGURE 3178B

TCACATCCCTCCATACTGCTCAAATCCCAGGTCTTCAGGCACCATGGAGGACAAACGCAACATCCAGATCATCGA
GTGGGAACACCTGGACAAGAAGAAGTTCTACGTGTTTGGTGTGGCAATGACAATGATGATCCGTGTCAGTGTCTA
CCCATTCACCCTCATCCGCACCCGGTTGCAAGTTCAGAAGGGGAAGAGCCTCTACCATGGGACCTTCGATGCCTT
CATCAAGATCCTGCGAGCAGATGGTATCACTGGCCTCTACCGAGGGTTCCTGGTCAATACCTTCACCCTCATCTC
TGGCCAGTGTTATGTCACCACTTATGAGCTCACCCGGAAGTTTGTAGCTGACTACAGCCAGAGTAACACAGTCAA
ATCACTGGTGGCTGGTGGCTCAGCCTCCCTTGTGGCCCAGAGCATCACAGTGCCCATTGATGTAGTCTCCCAGCA
CCTGATGATGCAACGCAAGGGTGAGAAAATGGGCCGCTTTCAGGTGCGGGGGAACCCAGAGGGACAAGGGGTAGT
TGCCTTTGGCCAAACCAAGGACATCATCAGGCAGATCCTGCAGGCTGATGGACTTCGCGGCTTCTATCGAGGCTA
TGTGGCTTCACTGCTTACCTATATCCCAAACAGTGCTGTCTGGTGGCCCTTCTATCACTTCTATGCAGAGCAGCT
CTCCTACCTGTGTCCTAAGGAGTGCCCTCACATTGTCTTTCAAGCTGTCTCGGGGCCCCTGGCTGCAGCCACTGC
CTCCATCCTCACCAATCCCATGGATGTCATACGAACCCGTGTGCAGGTTGAGGGCAAGAACTCCATCATCCTGAC
CTTCAGACAGCTGATGGCAGAAGAAGGGCCTTGGGGCCTCATGAAGGGCCTCTCGGCCAGAATCATCTCAGCCAC
ACCTTCCACCATTGTCATTGTGGTGGGCTATGAGAGCCTCAAGAAACTCAGCCTCCGACCTGAGCTGGTGGACTC
GAGACACTGG**TAA**CCAGTGGTGGGGAGAGAAGCCTGCTGTTTTCCACACTACCGTGGGTCAGGGGCAGAGTGGAG
AGGACAGCACCCTCTCCAGGTGCTCCCACCACACACCCAGCCCTGCCCTGGGCCAAGTGGCCTATCTGGGATAGG
GATAGAGACTTTGAACTGCTCTTGCTGAAGAGGCTCCACGCCTGGATCCCTTGCCCCCACTATTTAAAATTCTCT
TCTGAGCTGGGCTCCCTCACTCAGTCCCTGTATTTGATACTGGCCTAAAGACCCCACCCCCCACCCTGCCAGCCC
TTCTTCTGGCTTCCCCTTCCATCTGTGTCCCTGAGACCCTGAGAAGAGCTGTACATAGAGCTTGCTTACTACCAC
TGGTTCTTCCTCTTGGGCTTTCAGCCCAGACTCCAAGCAGCTGCTATCAACCCTCTCTCCCTTCATCTCTTAGCC
TTGCTTATTTTTATTTTGGGACCGAGCTGCCCACTAGATGACTCTGCTTTTCCCTGCATTTGGGGCTAAGGTGCC
AGGTACTTATTTGCACAGGGAGCAGGAGCAGCAAAAAATCTCTGGTTCTCCAGAGCACTCGTCCTCTCTTTGGAG
GGGTTATTAGGTTGGGAGAAATGTTGATACTTTTGTTTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT
GTGTGTGTTTTAACATCTGTGAACCAGGCTATTAGTCCTGCTAAAGCGCCAATCCTGCTGTCAGAGCTCACCCCC
TTCCTAAGACAGGTAGAAAAATGTAATGTAGCTTTTTCCACAAGCCACTTCCCTGTCCCTTCAGTCTCAGGAGCC
CTAGGAGAGTCTAAGCTGGGGCATCCCCTGGCCCAGAGGACTCCCGTGGTGGGCACAGTTCTAAGTGGATCAGGC
TGTCTTGGGTGCACTGGACTTGGAGCACTACCTTGAGAAGTCAGGTTGAGAAAGTAGTTGATCTAGAAGGCAACA
AGTGGGCATGTGTTCCCCAGCACATTACCCAGGCCAGCAGAGCCAAACCTAGGAGAGGGCAGTGGGTAGATTCTC
TGCCCCAGGCAGCCATGACATACACATAAATACCCCAATCACTCAGACTTACGGCAACAAGTGTTGTCTCACTAT
GGTGATCTCTAAGATCCACATCACTGGATGCGTAGTCATCCCAGTCATGGTACCCTGTGGAGGAATGCTGGAAGA
ACATAAAGAGCAGTTCAGAAAGTCACCCAATACCAGGACCACTGCATTTACCAGCCTGATACTGCCAAGATTATC
TGATGCTCTCCTCAGGAGCTAGGAGAGGAGTGCTCCTTCCTCCCTACCGCTACTCTCCCCAAGCCTGTGTTGCAG
GTAGAGAGGTGCAGCAAATAGAGAAGGCATGTCAAACCCTGCATTTCTACCTGAGACGTGTGACCTGGATGATCC
TCCAAACCCTATTGGTCCCACCCCCTGGGAAAGGCCATGGTGCCAGTTTGAAAGGTGCTAGCTACCTGAAGCCTT
GATATTTCTTCATGGCTGCCGCACATTCTTCCACCTTGGCCAGAACAGGTTCTGAAAACCACTTCTCTACCTTCA
CCACCACCACTGCCCATCTTGATCTCTTTGAGGGTTTTCCCATTTCACTTGATCTTATTTTTGTTTATCCCTTCC
TGCACTTTGTCAAGAGAGTCCTCCAGTTTCTATCCAGGAATGTTCACATCCAAAGGGTTGGACCCACGGATCATT
CTGAATCTTCCTGCCCCTCCTCACTGCTTAACCCTGAGAACCACAAATATAATGGAAGCAGTTCCCCCCACCCTC
ACCCCATCTCTTTAAGCTCATCCTAGCAAGACCTCTAGAGACCCTAGAGACTCGACTTTAGTCCTTCCCCGCCAT
GGCACAGTGGGGAAGGTGTCAATGGGGAGTGTCACGGACAGGAGGTAGGATCCTGCCGCTCGCGTCTTAGTGTTT
CTCCCTCAAGACTTTCCTTCTGTTTTGTTGTCTTGTGCAGTATTTTACAGCCCCTCTTGTGTTTTTCTTTATTTC
TCGTACACACACGCAGTTTTAAGGGTGATGTGTGTATAATTAAAAGGACCCTTGGCCCATACTTTCCTAATTCTT
TAGGGACTGGGATTGGGTTTGACTGAAATATGTTTTGGTGGGGATGGGACGGTGGACTTCCATTCTCCCTAAACT
GGAGTTTTGGTCGGTAATCAAAACTAAAAGAAACCTCTGGGAGACTGGAAACCTGATTGGAGCACTGAGGAACAA
GGGAATGAAAAGGCAGACTCTCTGAACGTTTGATGAAATGGACTCTTGTGAAAATTAACAGTGAATATTCACTGT
TGCACTGTACGAAGTCTCTGAAATGTAATTAAAAGTTTTTATTGAGCCCCCG

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FIGURE 3179

GATGAGCAAGTGGTGGGGACGCCCCTGCTGGTGAAATCTGGCGTGGAGTATACACGGCTTGCAGTGGAGACAGCC
CAGGGCCTTGATGGGCACAGCCATCTTGTC**ATG**TACCTGGGAACCACCACAGGGTCGCTCCACAAGGCTGTGGTA
AGTGGGGACAGCAGTGCTCATCTGGTGGAAGAGATTCAGCTGTTCCCTGACCCTGAACCTGTTCGCAACCTGCAG
CTGGCCCCCACCCAGGGTGCAGTGTTTGTAGGCTTCTCAGGAGGTGTCTGGAGGGTGCCCCGAGCCAACTGTAGT
GTCTATGAGAGCTGTGTGGACTGTGTCCTTGCCCGGGACCCCCACTGTGCCTGGGACCCTGAGTCCCGAACCTGT
TGCCTCCTGTCTGCCCCCAACCTGAACTCCTGGAAGCAGGACATGGAGCGGGGGAACCCAGAGTGGGCATGTGCC
AGTGGCCCCATGAGCAGGAGCCTTCGGCCTCAGAGCCGCCCGCAAATCATTAAAGAAGTCCTGGCTGTCCCCAAC
TCCATCCTGGAGCTCCCCTGCCCCCACCTGTCAGCCTTGGCCTCTTATTATTGGAGTCATGGCCCAGCAGCAGTC
CCAGAAGCCTCTTCCACTGTCTACAATGGCTCCCTCTTGCTGATAGTGCAGGATGGAGTTGGGGGTCTCTACCAG
TGCTGGGCAACTGAGAATGGCTTTTCATACCCTGTGATCTCCTACTGGGTGGACAGCCAGGACCAGACCCTGGCC
CTGGATCCTGAACTGGCAGGCATCCCCCGGGAGCATGTGAAGGTCCCGTTGACCAGGGTCAGTGGTGGGGCCGCC
CTGGCTGCCCAGCAGTCCTACTGGCCCCACTTTGTCACTGTCACTGTCCTCTTTGCCTTAGTGCTTTCAGGAGCC
CTCATCATCCTCGTGGCCTCCCCATTGAGAGCACTCCGGGCTCGGGGCAAGGTTCAGGGCTGTGAGACCCTGCGC
CCTGGGGAGAAGGCCCCGTTAAGCAGAGAGCAACACCTCCAGTCTCCCAAGGAATGCAGGACCTCTGCCAGTGAT
GTGGACGCTGACAACAACTGCCTAGGCACTGAGGTAGCT**TAA**ACTCTAGGCACAGGCCGGGGCTGCGGTGCAGGC
ACCTGGCCATGCTGGCTGGGCGGCCCAAGCACAGCCCTGACTAGGATGACAGCAGCACAAAAGACCACCTTTCTC
CCCTGAGAGGAGCTTCTGCTACTCTGCATCACTGATGACACTCAGCAGGGTGATGCACAGCAGTCTGCCTCCCCT
ATGGGACTCCCTTCTACCAAGCACATGAGCTCTCTAACAGGGTGGGGGCTACCCCCAGACCTGCTCCTACACTGA
TATTGAAGAACCTGGAGAGGATCCTTCAGTTCTGGCCATTCCAGGGACCCTCCAGAAACACAGTGTTTCAAGAGA
CCCTAAAAAACCTGCCTGTCCCAGGACCCTATGGTAATGAACACCAAACATCTAAACAATCATATGCTAACATGC
CACTCCTGGAAACTCCACTCTGAAGCTGCCGCTTTGGACACCAACACTCCCTTCTCCCAGGGTCATGCAGGGATC
TGCTCCCTCCTGCTTCCCTTACCAGTCGTGCACCGCTGACTCCCAGGAAGTCTTTCCTGAAGTCTGACCACCTTT
CTTCTTGCTTCAGTTGGGGCAGACTCTGATCCCTTCTGCCCTGGCAGAATGGCAGGGGTAATCTGAGCCTTCTTC
ACTCCTTTACCCTAGCTGACCCCTTCACCTCTCCCCCTCCCTTTTCCTTTGTTTTGGGATTCAGAAAACTGCTTG
TCAGAGACTGTTTATTTTTTATTAAAAATATAAGGCTT

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FIGURE 3180

ACTCAGTGTTCGCGGGAGCGCCGCACCTACACCAGCCAACCCAGATCCCGAGGTCCGACAGCGCCCGGCCCAGAT
CCCCACGCCTGCCAGGAGCAAGCCGAGAGCCAGCCGGCCGGCGCACTCCGACTCCGAGCAGTCTCTGTCCTTCGA
CCCGAGCCCCGCGCCCTTTCCGGGACCCCTGCCCCGCGGGCAGCGCTGCCAACCTGCCGGCC**ATG**GAGACCCCGT
CCCAGCGGCGCGCCACCCGCAGCGGGGCGCAGGCCAGCTCCACTCCGCTGTCGCCCACCCGCATCACCCGGCTGC
AGGAGAAGGAGGACCTGCAGGAGCTCAATGATCGCTTGGCGGTCTACATCGACCGTGTGCGCTCGCTGGAAACGG
AGAACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTGGTCAGCCGCGAGGTGTCCGGCATCAAGGCCG
CCTACGAGGCCGAGCTCGGGGATGCCCGCAAGACCCTTGACTCAGTAGCCAAGGAGCGCGCCCGCCTGCAGCTGG
AGCTGAGCAAAGTGCGTGAGGAGTTTAAGGAGCTGAAAGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTG
CTCAGGCTCGGCTGAAGGACCTGGAGGCTCTGCTGAACTCCAAGGAGGCCGCACTGAGCACTGCTCTCAGTGAGA
AGCGCACGCTGGAGGGCGAGCTGCATGATCTGCGGGGCCAGGTGGCCAAGCTTGAGGCAGCCCTAGGTGAGGCCA
AGAAGCAACTTCAGGATGAGATGCTGCGGCGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAACTGG
ACTTCCAGAAGAACATCTACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTCATGAGACCCGACTGGTGGAGATTG
ACAATGGGAAGCAGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAACTGCGGGCCCAGCATGAGGACC
AGGTGGAGCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAGTCTGCTGAGA
GGAACAGCAACCTGGTGGGGGCTGCCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATCGACAGCCTCTCTGCCC
AGCTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGACCTGGAGGACTCACTGGCCCGTG
AGCGGGACACCAGCCGGCGGCTGCTGGCGGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCAAGGATGCAGCAGC
AGCTGGACGAGTACCAGGAGCTTCTGGACATCAAGCTGGCCCTGGACATGGAGATCCACGCCTACCGCAAGCTCT
TGGAGGGCGAGGAGGAGAGGCTACGCCTGTCCCCCAGCCCTACCTCGCAGCGCAGCCGTGGCCGTGCTTCCTCTC
ACTCATCCCAGACACAGGGTGGGGGCAGCGTCACCAAAAAGCGCAAACTGGAGTCCACTGAGAGCCGCAGCAGCT
TCTCACAGCACGCACGCACTAGCGGGCGCGTGGCCGTGGAGGAGGTGGATGAGGAGGGCAAGTTTGTCCGGCTGC
GCAACAAGTCCAATGAGGACCAGTCCATGGGCAATTGGCAGATCAAGCGCCAGAATGGAGATGATCCCTTGCTGA
CTTACCGGTTCCCACCAAAGTTCACCCTGAAGGCTGGGCAGGTGGTGACGATCTGGGCTGCAGGAGCTGGGGCCA
CCCACAGCCCCCCTACCGACCTGGTGTGGAAGGCACAGAACACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTC
TCATCAACTCCACTGGGGAAGAAGTGGCCATGCGCAAGCTGGTGCGCTCAGTGACTGTGGTTGAGGACGACGAGG
ATGAGGATGGAGATGACCTGCTCCATCACCACCACGTGAGTGGTAGCCGCCGC**TGA**GGCCGAGCCTGCACTGGGG
CCACCCAGCCAGGCCTGGGGGCAGCCTCTCCCCAGCCTCCCCGTGCCAAAAATCTTTTCATTAAAGAATGTTTTG
GAACTTT

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FIGURE 3181

CTCTGCTTCCTTACAGCACCCCCACCTGCCAGAGCTGATCCTCCCTAGGCCCTGCCTAACCTTGAGTTGGCCCCC
AATCCCTCTGGCTGCAGAAGTCCCCTTACCCCCAATGAGAGGAGGGGCAGGACCAGATCTTTTGAGAGCTGAGGG
TTGAGGGCATTGAGCCAACACACAGATTTGTCGCCTCTGTCCCCGAAGACACCTGCACCCTCCATGCGGAGCCAA
G**ATG**GGGAATGGAACTGAGGAAGATTATAACTTTGTCTTCAAGGTGGTGCTGATCGGCGAATCAGGTGTGGGGAA
GACCAATCTACTCTCCCGATTCACGCGCAATGAGTTCAGCCACGACAGCCGCACCACCATCGGGGTTGAGTTCTC
CACCCGCACTGTGATGTTGGGCACCGCTGCTGTCAAGGCTCAGATCTGGGACACAGCTGGCCTGGAGCGGTACCG
AGCCATCACCTCGGCGTACTATCGTGGTGCAGTGGGGGCCCTCCTGGTGTTTGACCTAACCAAGCACCAGACCTA
TGCTGTGGTGGAGCGATGGCTGAAGGAGCTCTATGACCATGCTGAAGCCACGATCGTCGTCATGCTCGTGGGTAA
CAAAAGTGACCTCAGCCAGGCCCGGGAAGTGCCCACTGAGGAGGCCCGAATGTTCGCTGAAAACAATGGACTGCT
CTTCCTGGAGACCTCAGCCCTGGACTCTACCAATGTTGAGCTAGCCTTTGAGACTGTCCTGAAAGAAATCTTTGC
GAAGGTGTCCAAGCAGAGACAGAACAGCATCCGGACCAATGCCATCACTCTGGGCAGTGCCCAGGCTGGACAGGA
GCCTGGCCCTGGGGAGAAGAGGGCCTGTTGCATCAGCCTC**TGA**CCTTGGCCAGCACCACCTGCCCCCACTGGCTT
TTTGGTGCCCCTTGTCCCCACTTCAGCCCCAGGACCTTTCCTTGCCCTTTGGTTCCAGATATCAGACTGTTCCCT
GTTCACAGCACCCTCAGGGTCTTAAGGTCTTCATGCCCTATCACAAATACCTCTTTTATCTGTCCACCCCTCACA
GACTAGGACCCTCAAATAAAGCTGTTTTATATC

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FIGURE 3182

GGAAGCAGCGGGCAGCGGCCCGCGGGAGGCACCTCGGAGATCTGGGTGCAAAAGCCCAGGGTTAGGAACCGTAGG
C**ATG**CTGCGCCCCAAGGCTTTGACCCAGGTGCTAAGCCAAGCCAACACTGGAGGCGTCCAGAGCACCCTGCTGCT
GAATAACGAGGGATCACTGCTGGCCTACTCTGGTTACGGGGACACTGACGCCCGGGTCACCGCTGCCATAGCCAG
TAACATCTGGGCCGCCTACGACCGGAACGGGAACCAAGCGTTTAATGAAGACAATCTCAAATTCATCCTCATGGA
CTGCATGGAGGGCCGTGTAGCCATCACCCGAGTGGCCAACCTTCTGCTGTGTATGTATGCCAAGGAGACCGTGGG
CTTTGGAATGCTCAAGGCCAAGGCCCAGGCTTTGGTGCAGTACCTGGAGGAGCCCCTCACCCAAGTGGCGGCATC
T**TAA**CGGCATTGGTGGAAGCTGGGGTCAGAAAAGAGAAATGACCATTTGGAGGGGCGGGGCCTCCTAGAAGAACC
TTCTTAGACAATGGGGGGAGGATGGGACTTTGTTTTTTCCAAGAATAAACTTCAACTCCTGT

FIGURE 3183

GGAGGAGCCGGGCGGGCTGGCGGGCGGCCGGGTGGCGGCGGCGGC**ATG**GCGGAGCCGAGCGGGGCCGAGACGAGG
CCCCCCATTCGGGTCACCGTCAAGACCCCCAAGGACAAGGAGGAAATTGTGATCTGCGATCGAGCCTCGGTCAAG
GAGTTCAAAGAGGAAATCTCCCGGAGGTTTAAGGCTCAGCAGGATCAGCTGGTCCTGATCTTCGCAGGCAAGATC
CTCAAGGATGGGGACACACTGAACCAGCACGGAATCAAGGACGGGCTCACTGTCCATCTGGTCATCAAGACCCCT
CAGAAGGCTCAAGATCCAGCTGCTGCCACTGCTTCTTCCCCCTCCACACCTGACCCTGCCTCAGCACCCTCCACC
ACGCCTGCTTCACCCGCCACCCCTGCCCAGCCCTCCACCTCTGGCAGTGCCTCTTCAGATGCTGGCAGTGGAAGC
CGGAGGAGCAGTGGTGGGGGGCCCTCTCCGGGGGCTGGGGAGGGATCCCCCAGTGCTACTGCGTCCATACTCTCT
GGCTTTGGGGGCATCCTGGGGCTGGGCAGCCTAGGCCTGGGCTCTGCCAACTTCATGGAGCTGCAGCAGCAGATG
CAGCGGCAGCTGATGTCCAATCCTGAGATGCTGTCACAGATCATGGAGAACCCCCTGGTCCAGGATATGATGTCT
AACCCTGATCTGATGCGTCACATGATTATGGCCAACCCCCAGATGCAGCAGTTGATGGAGCGGAACCCTGAGATC
AGCCACATGCTCAATAACCCTGAACTCATGAGGCAGACAATGGAGCTTGCTCGGAATCCAGCCATGATGCAAGAG
ATGATGCGGAACCAGGACCGGGCCCTGAGCAACCTTGAGAGCATCCCTGGAGGGTATAATGCCCTCCGCCGCATG
TACACGGACATCCAGGAGCCCATGTTCAGTGCTGCCCGGGAACAGTTTGGCAACAATCCCTTCTCTTCCCTGGCC
GGGAACTCCGACAGCTCATCCTCCCAGCCTCTGCGGACTGAGAATCGAGAGCCCCTCCCTAACCCCTGGAGCCCC
TCGCCCCCCACCTCCCAGGCCCCCGGGTCCGGTGGGGAGGGCACCGGAGGATCGGGGACCAGCCAGGTGCACCCG
ACAGTCTCGAACCCCTTTGGGATCAATGCGGCTAGCCTGGGGTCAGGGATGTTCAATAGCCCAGAAATGCAAGCC
CTCCTCCAGCAGATCTCTGAGAACCCCCAGCTGATGCAGAATGTGATCTCAGCACCCTACATGCGCAGCATGATG
CAGACGCTTGCCCAGAACCCCGACTTTGCTGCTCAGATGATGGTGAATGTGCCGCTCTTCGCGGGGAACCCCCAA
CTGCAGGAGCAGCTCCGCCTGCAGCTCCCAGTCTTCCTGCAGCAGATGCAGAACCCAGAGTCACTCTCCATCCTT
ACCAATCCCCGAGCCATGCAGGCATTGCTGCAGATCCAGCAGGGACTACAGACCTTGCAGACCGAGGCCCCTGGG
CTGGTACCCAGCCTTGGCTCCTTTGGGATATCCCGGACCCCAGCACCCTCAGCAGGCAGCAACGCAGGGTCTACG
CCCGAGGCCCCCACTTCCTCACCAGCCACGCCAGCCACATCTTCTCCAACAGGGGCTTCCAGCGCCCAGCAGCAA
CTCATGCAGCAGATGATCCAGCTTTTGGCTGGAAGTGGAAACTCACAGGTGCAGACGCCAGAAGTGAGATTTCAG
CAGCAGCTGGAGCAGCTCAACTCCATGGGCTTCATCAATCGTGAGGCTAACCTGCAGGCCCTGATTGCCACAGGA
GGGGACATCAACGCAGCTATCGAGAGACTGCTGGGCTCCCAGCTCTCC**TAA**TCCCTCGGCCCATGCCTCCTGCCT
CTCCCCTCCCTCGATGTCAGCATTCGGTTCTTCTGTCAATCCTTACCCTCTGCAGCTTGTCCTCCCTTCCGTCTT
CTCCCTCATCCTTTCCAAACAGCAGGGTGACTTTAGAGGCATGGGCTCCAACCCCTTAGCTCTGTCTGAGAATTA
TGGTTTTACTGCTACGTCTCTAACAGACTCTTCTCTCCTGGTCTCCTTGAGCAGTGCTACTTAAACAGTTTTCAC
AGTTTCATTGATTGACTCTACCTCCTTGCCCCACACCACTTTTGCAATCTTTAAACTTTCAGTGGCTGTGCAGAG
TCGAGGGAGGAACCAGCTCTCTGGTTTACTGGAACATAGTCTTCCATCTATACCACTAGGGTTTTGTCTTATGTT
TACTTTTGGTAACTCTCTTCCTTCTTTTTCTCCCTACCCCCCAACCCCTAGCCCAACCAATGCTAGAATTTCTTG
CTCTGAAGGAGGAGCAGGTGAAACAGGTGGTAATTTTCCTTCTCGGCCCCTATTCTGGTTCATTCAGCACTTTTT
GGTGGGAACTGTTGGAAATTCCAGGGTAAGGAGGAAGATGCCTGTTCTCCCTGTCTGAAGAGGGAGATGAGACAG
CTCTCTGGACAGGAATTAACAAACGCTGGAGCAGCCCAGAGGAAATTCGTGTGAAAGAGGAGGGAATGAGATTAT
TCGGAGGAAGGGAATGGGGGAGACAGCCTGAGTAAAAGGCTTGGAAGTTGGAATTAACAGTGGGGAGCAGAAGCA
CTCATAGCTCTTTTAGGCAGAAGAATCCAGGCCCGAGCTGGCAGAAGAGACTTAGAGATGCTAATGGAATTTAAA
CTGAAAAAAGGAGCCCAATGAAGCTAAGCGCCACGCCCCACAAGGGGTCATATTGGCTTTAGTTCCTCAAGCATA
TGTGCTTATATGCACACACACACACATTTCCATGGACCCAGGTCTTGCTTGTGTCCCCAGGCACCAGTAGTTTGA
GCCCCCCTCAAAAGACATGAAGGGGGTTGGGGTCTGTGTGAGTAGTGGGGAGGTGCATGTGTATCCACATGTGTG
CATACACTCTTAAGTTGGGTGGGAAGTGGATTCCTTGTTGGTTTCTGGTTCAGAGTGCTCTCCCACCACCAGAGA
CAAGTGGGTAAAAAGGTCAGTCCATTGCAGGAATATATATCCGGGAGAGCTAGGTCCCTTGGGGCTCTGGATGCT
GGGTAACCCAGAGGTAATGTGGGTACCCTTTCTGAAGCTGTCAGGGCTGTGACTAGCACCCTTATCACCCCTCAC
TGCCTTGTGGGAATAGTAGAGGGTTTTTTTCCTCCAGAGCCCCTGGCCTTTCAGTTCTTAACTATTTCCCTCCAG
GCCAGAAAGTTTTCTTTGAGGAAGGAGAGGAGAGGGTGGCAATGATGCCTTTGATCTGGAATTGGACATTTCTCT
GTCAGAGCACAGAGGAGGCTCATATCACCTCTTCCCTCTCCTACTTGGCCCAGCTGCTTGGAGGACCGACCCCAT
GGCTGAGAATATGACGGCAAGAGGAACAGAGTTTGCTCCAAGTGGGAAAGGGTCCCAAGCAGTCCAGAGAAGATG
TCTGTGTGGCTTTCCCTCCCTGCCTCCCCCAGCTCCCACACTGGCCTTTGTAAATAAATGGCGTGGTCTTTGTTG
TG

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FIGURE 3184

GCTCTCTTCCTGTCTTTGTGGCTCCGGAAAGGCGTTTGGGATGCCAACG**ATG**AGGCTGCTGTCATTTGTGGTGTT
GGCTCTATTTGCTGTCACTCAAGCAGAGGAAGGAGCCAGGCTTTTGGCTTCCAAATCACTGCTGAACAGATACGC
CGTGGAGGGACGAGACCTGACCTTGCAGTACAACATCTACAATGTTGGCTCAAGTGCTGCATTAGACGTGGAACT
ATCTGATGATTCCTTCCCTCCAGAAGACTTTGGCATTGTGTCTGGAATGCTCAATGTCAAATGGGACCGGATTGC
CCCTGCTAGCAATGTCTCCCACACTGTGGTCCTGCGCCCTCTCAAGGCTGGTTATTTCAACTTCACCTCGGCAAC
AATTACTTACCTGGCCCAGGAGGATGGGCCCGTTGTGATTGGCTCTACCAGTGCACCTGGACAGGGAGGAATCCT
GGCTCAGCGGGAGTTTGACAGGCGATTCTCCCCTCATTTTCTGGACTGGGCAGCCTTTGGGGTCATGACCCTTCC
CTCCATCGGCATCCCCCTGCTATTGTGGTACTCCAGCAAGAGGAAATATGACACTCCCAAAACGAAGAAGAAC**TG**
ATTGGGGCTTCCACAGCCCTCCTCTCCCAAGAAATCCAGGCTCCTCTCCCAAGAAATCCAGGTGCTTTCCAGACT
CCAAAGGGTATCTTAAATGCAATCTCTTCTCTCTTAGCCCTTGGCCACTTTCTCCTGGATCCTGCCCTGCTCTCA
GCCATAGTGAAGGACCAGCCCTAGGAGTCTGCGAGAGCCTCCTTGGTTCCATCGTGAAGCCATAAACAGGAATGC
CTTTGGCAATAGCCTTGAGCCTAGAGGGCCCTCTGATGCCCCACTGAGGTGCTGTTGGTTTATTGCTGGCAACGT
GAATTCTCTCAGGGGTCTAGGAGGGGCATTTTGGAGACTGCCTGACACCACCCCTATCCCCTGCCTCCCCCTCTC
AGAAGAGGGTGGAAGATGAAATGAAAGCTATGGGACTCTTGGAGGATACCCAGTGTCTATTCTGGGTTAGAGAAG
TGCTTACTAAGGGGTTTTCTAATAAAAACAAATGCCACATTG

FIGURE 3185A

GAGACCAACGCGTGCGGGCCGAACCCCTCCCCCCGCCTTCCCCCAACAATACAGGACGCCGGGGTCCGCGCCGCG
TCCTCCCTGGTCCCCCCGTCCGATTATGTCTCGGATCGAATCCCTCACGCGGGCGCGGATCGACCGGAGCAGAGA
GCTGGCGAGCAAGACCCGGGAAAAGGAGAAA**ATG**AAGAAAGCCAAGGATGCCCGCTATACAAATGGGCACCTCTT
CACCACCATTTCAGTTTCAGGCATGACCATGTGCTATGCCTGTAACAAGAGCATCACAGCCAAGGAAGCCCTCAT
CTGCCCAACCTGCAATGTGACTATCCACAACCGCTGTAAAGACACCCTCGCCAACTGTACCAAGGTCAAGCAGAA
GCAACAGAAAGCGGCCCTGCTGAAGAACAACACCGCCTTGCAGTCCGTTTCTCTTCGAAGTAAGACAACCATCCG
GGAGCGGCCAAGCTCGGCCATCTACCCCTCCGACAGCTTCCGGCAGTCCCTCCTGGGCTCCCGCCGTGGCCGCTC
CTCCTTGTCTTTAGCCAAGAGTGTTTCTACCACCAACATTGCTGGACATTTCAATGATGAGTCTCCCCTGGGGCT
GCGCCGGATCCTCTCACAGTCCACAGACTCCCTCAACATGCGGAACCGAACCCTATCCGTGGAATCCCTCATTGA
CGAAGAGGTAATCTACAGTGAGCTGATGAGTGACTTTGAGATGGATGAGAAGGACTTTGCAGCTGACTCTTGGAG
TCTTGCTGTGGACAGCAGCTTCCTGCAGCAGCATAAAAAGGAGGTGATGAAGCAGCAAGATGTCATCTATGAGCT
AATCCAGACAGAGCTGCACCATGTGAGGACACTGAAGATCATGACCCGCCTCTTCCGCACGGGGATGCTGGAAGA
GCTACACTTGGAGCCAGGAGTGGTCCAGGGCCTGTTCCCCTGCGTGGACGAGCTCAGTGACATCCATACACGCTT
CCTCAGCCAGCTATTAGAACGCCGACGCCAGGCCCTGTGCCCTGGCAGCACCCGGAACTTTGTCATCCATCGCTT
GGGTGATCTGCTCATCAGCCAGTTCTCAGGTCCTAGTGCGGAGCAGATGTGTAAGACCTACTCGGAGTTCTGCAG
CCGCCACAGCAAGGCCTTAAAGCTCTATAAGGAGCTGTACGCCCGAGACAAACGCTTCCAGCAATTCATCCGGAA
AGTGACCCGCCCCGCCGTGCTCAAGCGGCACGGGGTACAGGAGTGCATCCTGCTGGTGACTCAGCGCATCACCAA
GTACCCGTTACTCATCAGCCGCATCCTGCAGCATTCCCACGGGATCGAGGAGGAGCGCCAGGACCTGACCACAGC
ACTGGGGCTAGTGAAGGAGCTGCTGTCCAATGTGGACGAGGGTATTTATCAGCTGGAGAAAGGGGCCCGTCTGCA
GGAGATCTACAACCGCATGGACCCTCGGGCCCAAACCCCAGTGCCTGGCAAGGGCCCCTTTGGCCGAGAGGAACT
TCTGAGGCGCAAACTCATCCACGATGGCTGCCTGCTCTGGAAGACAGCGACGGGGCGCTTCAAAGATGTGCTAGT
GCTGCTGATGACAGATGTACTGGTGTTTCTCCAGGAAAAGGACCAGAAGTACATCTTTCCTACCCTGGACAAGCC
TTCAGTGGTATCGCTGCAGAATCTAATCGTACGAGACATTGCCAACCAGGAGAAAGGGATGTTTCTGATCAGCGC
AGCCCCACCTGAGATGTACGAGGTGCACACAGCATCCCGGGATGACCGGAGCACCTGGATCCGGGTCATTCAGCA
GAGCGTGCGCACATGCCCATCCAGGGAGGACTTCCCCCTGATTGAGACAGAGGATGAGGCTTACCTGCGGCGAAT
TAAGATGGAGTTGCAGCAGAAGGACCGGGCACTGGTGGAGCTGCTGCGAGAGAAGGTCGGGCTGTTTGCTGAGAT
GACCCATTTCCAGGCCGAAGAGGATGGTGGCAGTGGGATGGCCCTGCCCACCCTGCCCAGGGGCCTTTTCCGCTC
TGAGTCCCTTGAGTCCCCTCGTGGCGAGCGGCTGCTGCAGGATGCCATCCGTGAGGTGGAGGGTCTGAAAGACCT
GCTGGTGGGGCCAGGAGTGGAACTGCTCTTGACACCCCGAGAGCCAGCCCTGCCCTTGGAACCAGACAGCGGTGG
TAACACGAGTCCTGGGGTCACTGCCAATGGTGAGGCCAGAACCTTCAATGGCTCCATTGAACTCTGCAGAGCTGA
CTCAGACTCTAGCCAGAGGGATCGAAATGGAAATCAGCTGAGATCACCGCAAGAGGAGGCGTTACAGCGATTGGT
CAATCTCTATGGACTTCTACATGGCCTACAGGCAGCTGTGGCCCAGCAGGACACTCTGATGGAAGCCCGGTTCCC
TGAGGGCCCTGAGCGGCGGGAGAAGCTGTGCCGAGCCAACTCTCGGGATGGGGAGGCTGGCAGGGCTGGGGCTGC
CCCTGTGGCCCCTGAAAAGCAGGCCACGGAACTGGCATTACTGCAGCGGCAACATGCGCTGCTGCAGGAGGAGCT
ACGGCGCTGCCGGCGGCTAGGTGAAGAACGGGCAACCGAAGCTGGCAGCCTGGAGGCCCGGCTCCGGGAGAGTGA
GCAGGCCCGGGCACTGCTGGAGCGTGAGGCCGAAGAGGCTCGAAGGCAGCTGGCCGCCCTGGGCCAGACCGAGCC
ACTCCCAGCTGAGGCCCCCTGGGCCCGCAGACCTGTGGATCCTCGGCGGCGCAGCCTCCCCGCAGGCGATGCCCT
GTACTTGAGTTTCAACCCCCCACAGCCCAGCCGAGGCACTGACCGCCTGGATCTACCTGTCACTACTCGCTCTGT
CCATCGAAACTTTGAGGACCGAGAGAGGCAGGAACTGGGGAGCCCCGAAGAGCGGCTGCAAGACAGCAGTGACCC
TGACACTGGCAGCGAGGAGGAAGGTAGCAGCCGTCTGTCTCCGCCCCACAGTCCACGAGACTTTACCAGAATGCA
GGACATCCCGGAGGAGACGGAGAGCCGCGACGGGGAGGCTGTAGCCTCCGAGAGC**TAA**GGGGGCCCCTCCCCCCT
GCCCCGTGCCCCACTGAAGAACATTACTGAGGGGGCTAACCTTGGGGACTCCAATTTGCCAATGATGAGGGAACA
TTTGAAAGAACTGCAAATTGTCCTTGCCAGCTCTTGGGATCCTTGGATACCTGGGGCCATTTAAGAAGCTAGGGG
AATTAGGCCACAACACCCCCTGGGACATCCGAAAGCTACACCACAGATGCCAGTGGTTCATGCCTTCTTCCCGCA
ACTTTAGGAAAATTTATTTATTTATTGTTTATTAGTTATGGGGGGAGAGGGGAGATTTAAAGGACCAGGGACATG
GGAACCAAGCCATAGGGATCAGAGGGCCTTGTCCTTGAACACTACTGGGGTATATTCAGGCTCATCCACGCAGCT
GCTGGGTTCTTGCCCTAACGGCCCTCCCCTGCAACATCCGTCTTGGAGGAGAGGCTGCAGCCACAGCACCCTACT
GCCCTTTAAATAAAGGAGGGCTGTGGGCAGGGCCATGTCCCTTTCTCCTCTCCCCTCAACCTCTTACTGCTGTTC

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FIGURE 3185B

TCCCTTTCTCCGTCCTTCATGGAAGCCCTGGGAGATAACCTGGCTTCCTGGAGTTGATGGAATAAAGGTTGGGGT
GGCCATAATGGTTTGTTGGGGGTGAGGGAAAAAACCCACAGGGACCAGAATGTTTTGTTGTTCTTTTGTTTTCTT
TTTTGTACCAAAGTCAACTGCACGTGTTTTATATTTTTAAGAGATCGTAGGCAATTAGAGATCGAAGCCTCCTAT
CTCCACATCTCTGAAGAAGTTGAGGGGTGGGGGAGAGAATGACTTCTGCCTTCATCTGCAGTAACGGGGGGACCT
ATACTGACCTCTTCCCCAGCCATTTAGAAACAAGTTCTAGGGTGGGTTGGAAAATCTCCAAGAGCCCTGACCTCA
TCTTCCACCTCAGCAACCATGACCTGAAACCTCAGCGTGAATTTGGGGGATTTTTCAGTGGAACCCTTGCCCCCA
AATGTCGACCAGCCCCCAAATGTCGAAGAATTTTCTTCTTGCCAATTTTGTTGTTTAAAAAAAAAATTCAGGGAA
AATTAAAAACCTGGAACTCCA

FIGURE 3186A

CGGGTGGTTGAGTAGAAGCGGTCGCC**ATG**TCCGCGGGGAGCGCGACACATCCTGGAGCTGGCGGGCGCCGCAGCA
AATGGGACCAACCAGCTCCAGCCCCACTTCTCTTCCTCCCGCCAGCGGCCCCAGGTGGGGAGGTCACCAGCAGTG
GGGGAAGTCCTGGGGGCACCACAGCTGCTCCTTCAGGAGCCTTGGATGCTGCTGCTGCTGTGGCTGCCAAGATTA
ATGCCATGCTCATGGCAAAAGGGAAGCTGAAACCAACTCAGAATGCTTCTGAGAAGCTTCAGGCTCCTGGCAAAG
GCCTAACTAGCAATAAAAGCAAGGATGACCTGGTGGTAGCTGAAGTAGAAATTAATGATGTGCCTCTCACATGTA
GGAACTTGCTGACTCGAGGACAGACTCAAGACGAGATCAGCCGACTTAGTGGGGCTGCAGTATCAACTCGAGGGA
GGTTCATGACAACTGAGGAAAAAGCCAAAGTGGGACCAGGGGATCGTCCATTATATCTTCATGTTCAGGGCCAGA
CACGGGAATTAGTGGACAGAGCTGTAAACCGGATCAAAGAAATTATCACCAATGGAGTGGTAAAAGCTGCCACAG
GAACAAGTCCAACTTTTAATGGTGCAACAGTAACTGTCTATCACCAGCCAGCACCCATCGCTCAGTTGTCTCCAG
CTGTTAGCCAGAAGCCTCCCTTCCAGTCAGGGATGCATTATGTTCAAGATAAATTATTTGTGGGTCTAGAACATG
CTGTACCCACTTTTAATGTCAAGGAGAAGGTGGAAGGTCCAGGCTGCTCCTATTTGCAGCACATTCAGATTGAAA
CAGGTGCCAAAGTCTTCCTGCGGGGCAAAGGTTCAGGCTGCATTGAGCCAGCATCTGGCCGAGAAGCTTTTGAAC
CTATGTATATTTACATCAGTCACCCCAAACCAGAAGGCCTGGCTGCTGCCAAGAAGCTTTGTGAGAATCTTTTGC
AAACAGTTCATGCTGAATACTCTAGATTTGTGAATCAGATTAATACTGCTGTACCTTTACCAGGCTATACACAAC
CCTCTGCTATAAGTAGTGTCCCTCCTCAACCACCATATTATCCATCCAATGGCTATCAGTCTGGTTACCCTGTTG
TTCCCCCTCCTCAGCAGCCAGTTCAACCTCCCTACGGAGTACCAAGCATAGTGCCACCAGCTGTTTCATTAGCAC
CTGGAGTCTTGCCGGCATTACCTACTGGAGTCCCACCTGTGCCAACACAATACCCGATAACACAAGTGCAGCCTC
CAGCTAGCACTGGACAGAGTCCGATGGGTGGTCCTTTTATTCCTGCTGCTCCTGTCAAAACTGCCTTGCCTGCTG
GCCCCCAGCCCCAGCCCCAGCCCCAGCCCCCACTCCCAAGTCAGCCCCAGGCACAGAAGAGACGATTCACAGAGG
AGCTACCAGATGAACGGGAATCTGGACTGCTTGGATACCAGCATGGACCCATTCATATGACTAATTTAGGTACAG
GCTTCTCCAGTCAGAATGAGATTGAAGGTGCAGGATCGAAGCCAGCAAGTTCCTCAGGCAAAGAGAGAGAGAGGG
ACAGGCAGTTGATGCCTCCACCAGCCTTTCCAGTGACTGGAATAAAAACAGAGTCCGATGAAAGGAATGGGTCTG
GGACCTTAACAGGGAGCCATGGTGAGTGTGATATAGCTGGGGGAACAGGGGAGTGGCTAAGACTGGTC**TAA**AGCT
ATTAGTTTTCTCAGCCGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGGGCAGATCA
CCTAAGGTCAGGAGTTCAAGACCAGCTTGGCCAACATAGTGAAATCCCATCTCTACTAAAAATACAAAAACTAGC
GGGCATGGTGGTGGGCGCCTGTAATTCCAGCTACTCAGGGGGTTGAGGCAGGAGAATCGCTTCAACCTGGGAGGC
AGAGGTTGCAGTGAGCCAAGATCAGACCACTGCCCTCCAGCCTGGGCAATAGAGCAAGACTCCATCTCATAAATA
AATAAATACATAAATAAAGCTATTAATTTTCTAACCTGATGTTCATTCAGGTGTTTAATCCAACCTCTATAATCT
GTTGGCCAGTGAAAATACTTTTGGGCTGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGG
TGGGCGGATAACCTGAGGTCAGGAGTTTGAGACCAGCGTGGCTAACATGGTGAAACCCCGTCTCTACTAAAAATA
GAAAAATTAAGCTGGGCATGGTGGTGCATGCCTGTAATTCCAGCGGCTTGGAAGGCTGAGGCAGGAGAATCACTT
GAACTTGGGAGGTGGAGGTTGCAGTGAGCCAAGATCACACCACTGCATTCCAGCCTGGGCACTAGAGTGAGACTC
TGTCTCAAAAAAAAAGAAAGAGAAAGAGAAAATAGTTTCTAAAAAATTGTATACAGACAACCTTTTATTTCCAAC
AAACGTGTGCCGAGAGAGAGAGAGAGAAAATAGTTTTAAAAAAATTGTATACAGACAACCTTTTGTTTCCAACCA
ACGTGTATCTAGAAAAGAGTTAGTCGACTTATTTTATACATAGCATCAGTGAATAGTAATGAGTGGTAGGTCATT
TCAAAATCCTGTTGCCTATATTATGTGAATACCAGGAGGTCATCTGATACGGACTTAATAAAGGTTGATTTTGCT
TTATATTGGGAGCTGAGCCACACCTCCCCTTATAACTCTATTGGTCAGTAATGGTCAGTTTGTGGCTGTTAGGAA
AATGTTGCCTTTTAGCATTCCAGAACTCTAAATCCTGTAGAGGTACATGGGATATTTTATTCTTTGCCTGTACTC
ATAAAAATGAACAGAAGAAAATACGTTTTTTTCTTTTCTTAACTTCTTTTCTTTTAACTCTTTAAAAGGTGAAAT
ATCAGCCCTCAAGAGACTCACTTGCTAACTTTCCTTTTTTTCTTTTTTTTTCTTTTTTTGTGTTTCTTTTTTCTT
TCTCTGTTTTCTTACATGGTTCTGGTGGATTCACATTTGCTGATGCTGGTGCTGTTTTTCGTGTGATCTTCAACG
TTTTTGGGTGACCATTGACCCTGTGACCTCAAAATGGTGTCCAACTAACCACTTAAAATTAACATCTTTTTTTTA
ATTAACGAATTTATGGTATTTTTTTTTTCCCTTGGCGGGGATGGGGTTGGGGTTGTTTTTTCTCTATTCTAGAT
TATCCAGCCAAGAAGATGAAAACTACAGAGAAGGGATTTGGCTTGGTGGCTTATGCTGCAGATTCATCTGATGAA
GAGGAGGAACATGGAGGTCATAAAAATGCAAGTAGTTTTCCACAGGGCTGGAGTTTGGGATACCAATATCCTTCA
TCACAACCACGAGCTAAACAACAGATGCCATTCTGGATGGCTCCCTAGGAAACAGTGGAACAGAGTTTTGACCCT
CAGTGACTCTTCTTAGCAATAATGCATGCATTTGATTTAACAAGACTCTGGGGCCTGTGCTGGGAACCATCTGGA
CCTTTGCAGAAGTTAGAGATTCAGTGCCCCCCTTTCTTAAAGGGGTTCCTTAACAACCACAAAAATCCTTATTTC

FIGURE 3186B

TGCAGTGGCATAGAATCTGTTAAAATTTAATTAGAATCACAAATTTATCTCAGAAGCTTTTTAACAGTTGGTGAA
ATGTGCTTGTCCAACAAAGCATCCTAACAGGGTCGTTCCCATACACATTTGACCTGGTCAGCCTTTTCCAGGTGA
ATAGCCCCAGTTCTGACATAAAGAAAGTTTTATTTGTATTTTACTACTGTTTGGTCAATTTTGATATATAACTGG
TTACAAACAGAGCCTTACTATTTATTAGTGGGGAAATGATTTTAAGACCGTCCTTTTCAGTATTTAATTCTGACA
GATCTGCATCCCTGTTTTGTTTTGGATTATTTCTGTTTTGGAAAATGCTGTCTCATTTAAAACTGTTGGATATAG
CTGGATCCTGGATAGGAAAATGAAATTATTTTTTCATTGTGTTTTTTAATTGGGGTGATCCAAAGCTGGCACCTT
CAGGCACATTGGTCTCATAGCCATTACTGTTTTTATTGCCCTTCTAAGATCCTGTCTTCAGCTGGGTCAGAGAAA
ACTTCTTGACTAAAACTGGTCAGAACTCATCACAGAAATGAAATACAGTGGTCTCTCTCTCCCAGAACTGGTTGC
AGCTAAAACAGAGAGATCTGACTGCTGGCTATAGGATTTTGGACTTAATGACTGAAATTGCAAATTGTCCTTTTT
CTTGGCATTACAGATTTTGCCAAAATAACTTTTTGTATCAAATATTGATGTGTGAAAGTGAAGGAGCTAGTCTGC
TGAACCAGGAATAGTTTGAGATATTGAACTGTCATTTTTGCACATTTGAATACTTTGCAGGCTGGCTTTGTATAA
ACTTATCCTCTGGTTTCCTATATGTTGTAAATATTTAGACCATAATTTCATTATAAATAAATCTATAAATATTC

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FIGURE 3187

AGAAATCTTCAGCCAAACAGCTGCAGGAAGTAGAGAAGGTTAAACCCCAGAGTGAGAAAGTTCATCAGACTCTGA
TTCTGGACCCAGCACAGAGGAAGAGACTCCAGCAGCAG**ATG**CAGCAGCACGTTCAGCTCTTGACCCAAATCCACC
TTCTTGCCACCTGCAACCCCAACCTCAATCCGGAGGCCACTACCACCAGGATATTTCTTAAAGAGCTGGGAACCT
TTGCTCAAAGCTCCATCGCCCTTCACCATCAGTACAACCCCAAGTTTCAGACCCTGTTCCAACCCTGTAACTTGA
TGGGAGCTATGCAGCTGATTGAAGACTTCAGCACACATGTCAGCATTGACTGCAGCCCTCATAAAACTGTCAAGA
AGACTGCGAATGAATTTCCCTGTTTGCCAAAGCAAGTGGCTTGGATTCTGGCCACAAGCAAGGTTTTCATGTATC
CAGAGTTACTTCCAGTGTGTTCCCTGAAGGCAAAGAATCCCCAGGATAAGATCGTCTTCACCAAGGCTGAGGACA
ATTTGTTAGCTTTAGGACTGAAGCATTTTGAAGGAACTGAGTTTCCTAATCCTCTAATCAGCAAGTACCTTCTAA
CCTGCAAAACTGCCCACCAACTGACAGTGAGAATCAAGAACCTCAACATGAACAGAGCTCCTGACAACATCATTA
AATTTTATAAGAAGACCAAACAGCTGCCAGTCCTAGGAAAATGCTGTGAAGAGATCCAGCCACATCAGTGGAAGC
CACCTATAGAGAGAGAAGAACACCGGCTCCCATTCTGGTTAAAGGCCAGTCTGCCATCCATCCAGGAAGAACTGC
GGCACATGGCTGATGGTGCTAGAGAGGTAGGAAATATGACTGGAACCACTGAGATCAACTCAGATCGAAGCCTAG
AAAAAGACAATTTGGAGTTGGGGAGTGAATCTCGGTACCCACTGCTATTGCCTAAGGGTGTAGTCCTGAAACTGA
AGCCAGTTGCCACCCGTTTCCCCAGGAAGGCTTGGAGACAGAAGCGTTCATCAGTCCTGAAGCCCCTCCTTATCC
AACCCAGCCCCTCTCTCCAGCCCAGCTTCAACCCTGGGAAAACACCAGCCCGATCAACTCATTCAGAAGCCCCTC
CGAGCAAAATGGTGCTCCGGATTCCTCACCCAATACAGCCAGCCACTGTTTTACAGACAGTTCCAGGTGTCCCTC
CACTGGGGGTCAGTGGAGGTGAGAGTTTTGAGTCTCCTGCAGCACTGCCTGCTGTGCCCCCTGAGGCCAGGACAA
GCTTCCCTCTGTCTGAGTCCCAGACTTTGCTCTCTTCTGCCCCTGTGCCCAAGGTAATGCTGCCCTCCCTTGCCC
CTTCTAAGTTTCGAAAGCCATATGTGAGACGGAGACCCTCAAAGAGAAGAGGAGTCAAGGCCTCTCCCTGTATGA
AACCTGCCCCTGTTATCCACCACCCTGCATCTGTTATCTTCACTGTTCCTGCTACCACTGTGAAGATTGTGAGCC
TTGGCGGTGGCTGTAACATGATCCAGCCTGTCAATGCGGCTGTGGCCCAGAGTCCCCAGACTATTCCCATCACTA
CCCTCTTGGTTAACCCTACTTCCTTCCCCTGTCCATTGAACCAGTCCCTTGTGGCCTCCTCTGTCTCACCCTTAA
TTGTTTCTGGCAATTCTGTGAATCTTCCTATACCATCCACCCCTGAAGATAAGGCCCACGTGAATGTGGACATTG
CTTGTGCTGTGGCTGATGGGGAAAATGCCTTTCAGGGCCTAGAACCCAAATTAGAGCCCCAGGAACTATCTCCTC
TCTCTGCTACTGTTTTCCCGAAAGTGGAACATAGCCCAGGGCCTCCACTAGCAGATGCAGAGTGCCAAGAAGGAT
TGTCAGAGAATAGTGCCTGTCGCTGGACCGTTGTGAAAACAGAGGAGGGGAGGCAAGCTCTGGAGCCGCTCCCTC
AGGGCATCCAGGAGTCTCTAAACAACCCTACCCCTGGGGATTTAGAGGAAATTGTCAAGATGGAACCTGAAGAAG
CTAGAGAGGAAATCAGTGGATCCCCTGAGCGTGATATTTGTGATGACATCAAAGTGGAACATGCTGTGGAATTGG
ACACTGGTGCCCCAAGCGAGGAGTTGAGCAGTGCTGGAGAAGTAACGAAACAGACAGTCTTACAGAAGGAAGAGG
AGAGGAGTCAGCCAACTAAAACCCCTTCATCTTCTCAAGAGCCCCCTGATGAAGGAACCTCAGGGACAGATGTGA
ACAAAGGATCATCAAAGAATGCTTTGTCCTCAATGGATCCTGAAGTGAGGCTTAGTAGCCCCCCAGGGAAGCCAG
AAGATTCATCCAGTGTTGATGGTCAGTCAGTGGGGACTCCAGTTGGGCCAGAAACTGGAGGAGAGAAGAATGGGC
CAGAAGAAGAGGAAGAAGAGGACTTTGATGACCTCACCCAAGATGAGGAAGATGAAATGTCATCAGCTTCTGAGG
AATCTGTGCTTTCTGTCCCAGAACTCCAGGTGAGAGCTGGAGAATATTCTCAAGTATTTCGTGGACTCAGTAATA
TGTATCACTTATTGATATGCCACCTGCTTGCTTGCTGCACTATGGATAGTCCTAAAATCATTTGTATT**TGA**TTTG
TGAATGCATTATGGGACATGATTGTGGAGTTGAGGTGAAATGAGATGGAAAGGATGAAATTTTACTTATTATATT
AAACTCGTTTACACATTAAA

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FIGURE 3188

ATGAAATGACGGATGAAGCAGTTGGAGACTCTGCTGAGAAGCCTCCTACTTTTGCTTCACCTGAGACTGCTCCAG
AAGTGGAGACCAGCAGAACTCCACCAGGAGAGAGCATCAAAGCTGCTGGAAAAGGCCGGAACAATCATCGAGCTC
GCAACAAGCGGGGAAGTCGGGCTCGGGCCAGCAAGGACACCTCCAAGCTGCTGTTGCTGTATGATGAGGACATTC
TCGAGCGAGATCCACTCAGGGAGCAGAAGGACTTGGCCTTTGCCCAAGCTTATCTGACCAGGGTGCGAGAAGCCC
TACAACATATCCCTGGCAAGTATGAAGACTTCCTTCAAGTCATCTATGAATTTGAGTCAAGTACCCAGAGACGGA
CGGCTGTAGATCTCTACAAAAGCCTGCAAATTCTGCTCCAAGACTGGCCTCAGCTGTTGAAAGACTTTGCTGCTT
TCCTGTTACCTGAGCAAGCTCTGGCCTGTGGATTATTTGAGGAGCAGCAGGCTTTTGAGAAGAGCCGCAAGTTCC
TTCGGCAGCTGGAGATTTGCTTTGCAGAGAACCCCTCACACCACCAGAAGATTATCAAGGTCCTCCAAGGCTGTG
CAGACTGCCTTCCCCAGGAGATCACCGAGCTCAAGACACAGATGTGGCAGCTCCTCAAGGGCCACGACCACCTGC
AGGATGAGTTTTCTATCTTCTTTGACCACTTGCGCCCAGCAGCTAGCCGGATGGGTGACTTTGAAGAGATCAATT
GGACTGAGGAAAAGGAGTATGAGTTTGATGGCTTTGAAGAAGTGGCCCTGCCTGATGTGGAAGAAGAGGAGGAGC
CTCCCAAGATACCCACAGCCTCAAAGAACAAGAGGAAAAAAGAGATCGGGGTCCAAAATCATGATAAGGAGACTG
AATGGCCAGATGGGGCCAAGGACTGTGCCTGCTCCTGCCATGAAGGAGGTCCAGATTCCAAGCTGAAGAAGAGCA
AAAGGCGGAGCTGTAGCCACTGTAGCAGCAAGGTCTGTGACAGCAAATCCTACAAGAGCAAGGAGCCCCATGAGT
TGGTGGGCAGCAGCCCCCACCGAGAGGCTAGTCCTATGCCTGGTGCTAAGGAAGCTGGGCAGGGCAAGGATATGA
TGGAAGAGGAAGCCCCAGAGGAGCGGGAGAGCACTGAGGCCACCCAGAGCAGGACTGTCAGGACCACCAGAAAGG
GAGAGATGCCTGTTTCAGGATTGGCAGTGGGGAGCACTTTGCCATCCCCTCGAGAAGTGACTGTTACAGAACGGC
TCCTCCTGGATGGCCCACCACCTCATTCACCAGAGACTCCTCAATTTCCCCCCACAACTGGAGCTGTACTGTACA
CTGTTAAGAGAAACCAGGTTGGGCCTGAGGTTCGCTCCTGCCCCAAGGCATCCCCCAGACTTCAGAAAGAGAGGG
AGGGCCAAAAGGCAGTGAGTGAGTCAGAGGCTTTGATGCTGGTCTGGGATGCATCAGAAACTGAGAAATTGCCTG
GTACCGTGGAACCCCCTGCTTCCTTCCTGAGTCCTGTTTCCTCAAAGACCAGAGATGCAGGGAGAAGACATGTGT
CCGGGAAACCAGACACTCAAGAGAGATGGCTGCCCTCAAGCAGAGCTCGGGTGAAGACAAGAGACAGGACGTGCC
CTGTCCATGAATCTCCATCAGGAATTGACACCTCAGAGACTTCTCCCAAAGCCCCTAGAGGGGGTTTGGCTAAAG
ACAGTGGAACACAGGCCAAGGGTCCAGAGGGGGAGCAGCAGCCAAAGGCCGCAGAAGCTACGGTGTGTGCCAACA
ACAGCAAGGTCAGCTCCACTGGGGAAAAGGTTGTCCTGTGGACAAGGGAAGCTGACCGTGTGATCCTCACCATGT
GCCAGGAGCAAGGGGCACAGCCACAGACCTTCAACATCATCTCCCAGCAGCTGGGAAATAAGACCCCTGCTGAGG
TTTCCCACCGTTTTCGAGAACTCATGCAGCTCTTCCACACTGCCTGTGAAGCCAGCTCTGAGGATGAGGATGATG
CAACCAGTACCAGCAATGCAGACCAGCTGTCTGACCATGGGGACCTTCTGTCTGAAGAGGAGCTGGATGAATGAG
ACTCTGGGAATCATCTACACAGGACCAAACCCAACAGGCGCCCTGGCACCGGGGAGGGGGTAGTTGTACTCTGCT
TGTACAGTCCTTGAGCCCAGTTTACAGATCTGGAGAGCAGGAGGCCAGGACAAGGACAAAGGCTGGAGGATGGAG
TAGGACCCAGGGGCTCTGCCATCCTAGGCATCATTCAAGGTCTTTTATGAAGACTTTACAGATGTCCTCTGTAAA
TAGCATCGAGAGTGGAGTTCAGCTCCTTTCTCTACTTTTTTTTGGTCTGATGGCACATATTTATTGTTCTGTGGT
CTAATCACAGTGTTTCTAAATGTAAAAAGTGCATATGTTGGTGTAGCTAGTCCCGCGACATTGAGCTCCTCTGCA
TGAAGACACTGGGCTCCTGCATCCAGCTGTTTTTATTGCAAACTAGCTCCTTTCTCCCACACTGGGAACTTTAGT
CCACGAGGCTGTCACCACCCTGGTAGCACTGGGCCAGGCTTTGTAGCTCCTGCAGCAGCTCTGCTACGTCATCGT
GCTCCACTCCAGCATCCATGAAGCTGGCCCAGCGCCGCAAGTCGAGTTTGGTGAGGTCTCTGGCCAAGGCTTCCA
GGGTCTGGTGCAGGGACGAAGAGGAACACAGTGCCCCAAACACTGGGATGCTCTCCACTGCTGTGGAGGGAGAGG
AAACAGAGACCTGTAGATGGATGATTATTCTGCCCTGGGACTCGCCAAACTGATAAGGAAGTCCAACCTTAGTAG
ACTTGATTGTAAACTCAACAAATTTGGTGTATTGTCCCCTTAGTACACCAGTACTCCAGAGGAAGAATGCTTTTC
TTGGGAGCCATAGGGTGAATAAAGGAATGTTTAACTGTGG

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FIGURE 3189

CCTTTTTTGCAGTCTCAGGACGGGCGCTTTGGAGCCGGCCCCAGGCAGCGTGTGTCGGTCGCCTAGTCTGGAGAA
CTAGTCCTCGACTCACGGTGAGGGAATGGACCGACACGGGTATTGTACCGCTGAGGGAAAGGAGCGGGACTCCGG
ACCTCCAGGAGTGCAAGG**ATG**ATGCTGAAAGGAATAACAAGGCTTATCTCTAGGATCCATAAGTTGGACCCTGGG
CGTTTTTTACACATGGGGACCCAGGCTCGCCAAAGCATTGCTGCTCACCTAGATAACCAGGTTCCAGTTGAGAGT
CCGAGAGCTATTTCCCGCACCAATGAGAATGACCCGGCCAAGCATGGGGATCAGCACGAGGGTCAGCACTACAAC
ATCTCCCCCCAGGATTTGGAGACTGTATTTCCCCATGGCCTTCCTCCTCGCTTTGTGATGCAGGTGAAGACATTC
AGTGAAGCTTGCCTGATGGTAAGGAAACCAGCCCTAGAACTTCTGCATTACCTGAAAAACACCAGTTTTGCTTAT
CCAGCTATACGATATCTTCTGTATGGAGAGAAGGGAACAGGAAAAACCCTAAGTCTTTGCCATGTTATTCATTTC
TGTGCAAAACAGGACTGGCTGATACTACATATTCCAGATGCTCATCTTTGGGTGAAAAATTGTCGGGATCTTCTG
CAGTCCAGCTACAACAAACAGCGCTTTGATCAACCTTTAGAGGCTTCAACCTGGCTGAAGAATTTCAAAACTACA
AATGAGCGCTTCCTGAACCAGATAAAAGTTCAAGAGAAGTATGTCTGGAATAAGAGAGAAAGCACTGAGAAAGGG
AGTCCTCTGGGAGAAGTGGTTGAACAGGGCATAACACGGGTGAGGAACGCCACAGATGCAGTTGGAATTGTGCTG
AAAGAGCTAAAGAGGCAAAGTTCTTTGGGTATGTTTCACCTCCTAGTGGCCGTGGATGGAATCAATGCTCTTTGG
GGAAGAACCACTCTGAAAAGAGAAGATAAAAGCCCGATTGCCCCCGAGGAATTAGCACTTGTTCACAACTTGAGG
AAAATGATGAAAAATGATTGGCATGGAGGCGCCATTGTGTCGGCTTTGAGCCAGACTGGGTCTCTCTTTAAGCCC
CGGAAAGCCTATCTGCCCCAGGAGTTGCTGGGAAAGGAAGGATTTGATGCCCTGGATCCCTTTATTCCCATCCTG
GTTTCCAACTATAACCCAAAGGAATTTGAAAGTTGTATTCAGTATTATTTGGAAAACAATTGGCTTCAACATGAG
AAAGCTCCTACAGAAGAAGGGAAAAAAGAGCTGCTGTTCCTAAGTAACGCGAACCCCTCGCTGCTGGAGCGGCAC
TGTGCCTACCTC**TAA**GCCAAGATCACAGCATGTGAGGAAGACAGTGGACATCTGCTTTATGCTGGACCCAGTAAG
ATGAGGAAGTCGGGCAGTACACAGGAAGAGGAGCCAGGCCCTTGTACCTATGGGATTGGACAGGACTGCAGTTGG
CTCTGGACCTGCATTAAAATGGGTTTCACTGTGAATGCGTGACAATAAGATATTCCCTTGTTCCTAAAACTTTAT
ATCAGTTTATTGGATGTGGTTTTTCACATTTAAGATAATTATGGCTCTTTTCCTAAAAAATAAAATATCTTTCT

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FIGURE 3190

CAAACAGCAGAAGGAGGTAGAGAAGGTTAAACCCCAGTGTAAGGAAGTTCATCAGACCCTGATTCTGGACCCAGC
ACAAAGGAAGAGACTCCAGCAGCAG**ATG**CAGCAGCATGTTCAGCTCTTGACACAAATCCACCTTCTTGCCACCTG
CAACCCCAATCTCAATCCGGAGGCCAGTAGCACCAGGATATGTCTTAAAGAGCTGGGAACCTTTGCTCAAAGCTC
CATCGCCCTTCACCATCAGTACAACCCCAAGTTTCAGACCCTGTTCCAACCCTGTAACTTGATGGGAGCTATGCA
GCTGATTGAAGACTTCAGCACACATGTCAGCATTGACTGCAGCCCTCATAAAACTGTCAAGAAGACTGCCAATGA
ATTTCCCTGTTTGCCAAAGCAAGTGGCTTGGATCCTGGCCACAAGCAAGGTTTTCATGTATCCAGAGTTACTTCC
AGTGTGTTCCCTGAAGGCAAAGAATCCCCAGGATAAGATCCTCTTCACCAAGGCTGAGGACAATTTGTTAGCTTT
AGGACTGAAGCATTTTGAAGGGACTGAGTTTCTTAACCCTCTAATCAGCAAGTACCTTCTAACCTGCAAGACTGC
CCGCCAACTGACAGTGAGAATCAAGAACCTCAACATGAACAGAGCTCCTGACAACATCATTAAATTTTATAAGAA
GACCAAACAGCTGCCAGTCCTAGGAAAATGCTGTGAAGAGATCCAGCCACATCAGTGGAAGCCACCTATAGAGAG
AGAAGAACACCGGCTCCCATTCTGGTTAAAGGCCAGTCTGCCATCCATCCAGGAAGAACTGCGGCACATGGCTGA
TGGTGCTAGAGAGGTAGGAAATATGACTGGAACCACTGAGATCAACTCAGATCAAGGCCTAGAAAAAGACAACTC
AGAGTTGGGGAGTGAAACTCGGTACCCACTGCTATTGCCTAAGGGTGTAGTCCTGAAACTGAAGCCAGTTGCCGA
CCGTTTCCCCAAGAAGGCTTGGAGACAGAAGCGTTCATCAGTCCTGAAACCCCTCCTTATCCAACCCAGCCCCTC
TCTCCAGCCCAGCTTCAACCCTGGGAAAACACCAGCCCAATCAACTCATTCAGAAGCCCCTCCGAGCAAAATGGT
GCTCCGGATTCCTCACCCAATACAGCCAGCCACTGTTTTACAGACAGTTCCAGGTGTCCCTCCACTGGGGGTCAG
TGGAGGTGAGAGTTTTGAGTCTCCTGCAGCACTGCCTGCTATGCCCCCTGAGGCCAGGACAAGCTTCCCTCTGTC
TGAGTCCCAGACTTTGCTCTCTTCTGCCCCTGTGCCCAAGGTAATGATGCCCTCCCCTGCCTCTTCCATGTTTCG
AAAGCCATATGTGAGACGGAGACCCTCAAAAAGAAGGGGAGCCAGGGCCTTTCGCTGTATCAAACCTGCCCCTGT
TATCCACCCTGCATCTGTTATCTTCACTGTTCCTGCTACCACTGTGAAGATTGTGAGCCTTGGCGGTGGCTGTAA
CATGATCCAGCCTGTCAATGCGGCTGTGGCCCAGAGTCCCCAGACTATTCCCATCGCCACCCTCTTGGTTAACCC
TACTTCCTTCCCCTGTCCATTGAACCAGCCCCTTGTGGCCTCCTCTGTCTCACCCTTAATTGTTTCTGGCAATTC
TGTGAATCTTCCTATACCATCCACCCCTGAAGATAAGGCCCACATGAATGTGGACATTGCTTGTGCTGTGGCTGA
TGGGGAAAATGCCTTTCAGGGCCTAGAACCCAAATTAGAGCCCCAGGAACTATCTCCTCTCTCTGCTACTGTTTT
CCCCAAAGTGGAACATAGCCCAGGGCCTCCACCAGTCGATAAACAGTGCCAAGAAGGATTGTCAGAGAACAGTGC
CTATCGCTGGACCGTTGTGAAAACAGAGGAGGGAAGGCAAGCTCTGGAGCCGCTCCCTCAGGGCATCCAGGAGTC
TCTAAACAACTCTTCCCCTGGGGATTTAGAGGAAGTTGTCAAGATGGAACCTGAAGATGCTACAGAGGAAATCAG
TGGATTTCTT**TGA**GCTAGGAGAATAAGAGTCTGGAGACTGGGAGCCTTCACTTCGGCCTCCGATTGGTGGCGCAT
AGGGTGTAACCAATAGGAAACCCCTAAAGGGTACTTAAACCCCAGATTTTGCAACTGGGGCTCTTGAGCAGCTTG
CTTTAGCCTGCTCCCACTCTGTGGAATATACTTTTGCTTCAATAAATCTGTGCTTTTATTGC

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FIGURE 3191

AGCGCAGT**ATG**GCGGGCGGGGCCCGGGAGGTGCTCACACTGCAGTTGGGACATTTTGCCGGTTTCGTGGGCGCGC
ACTGGTGGAACCAGCAGGATGCTGCGCTGGGCCGAGCGACCGATTCCAAGGAGCCCCCGGGAGAGCTGTGCCCCG
ACGTCCTGTATCGTACGGGCCGGACGCTGCACGGCCAGGAGACCTACACGCCGCGACTCATCCTCATGGATCTGA
AGGGTAGTTTGAGCTCCCTAAAAGAGGAAGGTGGACTCTACAGGGACAAACAGTTGGATGCTGCAATAGCATGGC
AGGGGAAGCTCACCACACACAAAGAGGAACTCTATCCCAAGAACCCTTATCTCCAAGACTTTCTGAGTGCAGAGG
GAGTGCTGAGTAGTGATGGTGTCTGGAGGGTCAAATCCATTCCCAATGGCAAAGGTTCCTCACCACTCCCCACCG
CTACAACTCCAAAACCACTTATCCCTACAGAGGCCAGCATCAGGGTCTGGTCAGACTTCCTCAGAGTCCATCTCC
ATCCCCGGAGCATCTGTATGATTCAGAAGTACAACCACGATGGGGAAGCAGGTCGGCTGGAGGCTTTTGGCCAAG
GGGAAAGTGTCCTAAAGGAACCCAAGTACCAGGAAGAGCTGGAGGACAGGCTGCATTTCTACGTGGAGGAATGTG
ACTACTTGCAGGGCTTCCAGATCCTGTGTGACCTGCACGATGGCTTCTCTGGGGTAGGCGCGAAGGCGGCAGAGC
TGCTACAAGATGAATATTCAGGGCGGGGAATAATAACCTGGGGCCTGCTACCTGGTCCCTACCATCGTGGGGAGG
CCCAGAGAAACATCTATCGTCTATTAAACACAGCTTTTGGTCTCGTGCACCTGACTGCTCACAGCTCTCTTGTCT
GCCCCTTGTCCTTGGGTGGGAGCCTGGGCCTGCGACCCGAGCCACCTGTCAGCTTCCCTTACCTGCATTATGATG
CC**TGA**GGCCAAGTGCCCATCTTGGTGTCTTCTTACAGGCCACTCTGCCCTTCCACTGCAGTGCCATCCTGGCTAC
AGCCCTGGACACAGTCACTGTTCCTTATCGCCTGTGTTCCTCTCCAGTTTCCATGGTTCATCTGGCTGACATGCT
GAGCTTCTGTGGGAAAAAGGTGGTGACAGCAGGAGCAATCATCCCTTTCCCCTTGGCTCCAGGCCAGTCCCTTCC
TGATTCCCTGATGCAGTTTGGAGGAGCCACCCCATGGACCCCACTGTCTGCATGTGGGGAGCCTTCTGGAACACG
TTGCTTTGCCCAGTCAGTGGTGCTGAGGGGTATAGACAGAGCATGCCACACAAGCCAGCTCACCCCAGGGACACC
TCCACCCTCTGCCCTTCATGCATGTACCACTGGGGAAGAAATCTTGGCTCAGTATTTACAACAGCAGCAGCCTGG
AGTCATGAGTTCTTCCCATCTGCTGCTGACTCCCTGCAGGGTGGCTCCTCCTTACCCCCACCTCTTCTCAAGCTG
CAGTCCACCGGGTATGGTTCTGGATGGTTCCCCCAAGGGAGCAGCAGTGGAGAGCATCCCAGTGTTTGGGGCACT
GTGTTCCTCTTCGTCCCTGCACCAGACCCTGGAAGCCTTGGCCAGAGACCTCACCAAACTCGACTTGCGGCGCTG
GGCCAGCTTCATGGATGCTGGAGTGGAGCACGATGACGTAGCAGAGCTGCTGCAGGAGCTACAAAGCCTGGCCCA
GTGCTACCAGGGTGGTGACAGCCTCGTGGACTAAAGTTCCCAGTGTGGGAGAAAGGAGCTAGTTTGCAATAAAAA
CAGCTGGATGCAGGAGCCCAGTGTCTTCATGCAGAGGAGCTCAATGTCGCGGGACTAGCTACACCAACATATGCA
CTTTTTACATTTAGAAACACTGTGATTAGACCACAGAACAATAAATATGTGCCATCAGACC

FIGURE 3192A

CGCCTCCCCTCAGTTTGCCCCCTTTAGCCTTCCACCTTTCCCTTCTCCTCTCTCGCATTTCCGCCAGTCAGCTTA
CCCGCTGGCCGCCTCCTGACAAGCGGGAGGGATCCGCCGTGGACCCAGGGAAGCGGAGGAGCCTGGCGGCCACCC
CCTCTTCCCCACTTCCCTGCACTCTCATCGCTCTCGGCCTCGGCCTCGGCCTCCGACACGAGAAAGATGCTGGTT
TCGAGTTTTGGAGATCCTTGTTTTTTATGGAACACAGTTCTGTAAAATTTTCATAAGATTCCTTGGCAATAACAT
ACGCTTGTG**ATG**GACCCTAGAAATACTGCTATGTTAGGATTGGGTTCTGATTCCGAAGGTTTTTCAAGAAAGAGT
CCTTCTGCCATCAGTACTGGCACATTGGTCAGTAAGAGAGAAGTAGAGCTAGAAAAAAACACAAAGGAGGAAGAG
GACCTTCGCAAACGGAATCGAGAAAGAAACATCGAAGCTGGGAAAGATGATGGTTTGACTGATGCACAGCAACAG
TTTTCAGTGAAAGAAACAAACTTTTCAGAGGGAAATTTAAAATTGAAAATTGGCCTCCAGGCTAAGAGAACTAAA
AAACCTCCAAAGAACTTGGAGAACTATGTATGTCGACCTGCCATAAAAACAACTATTAAGCACCCAAGGAAAGCA
CTTAAAAGTGGAAAGATGACGGATGAAAAGAATGAACACTGTCCTTCAAAACGAGACCCTTCAAAGTTGTACAAG
AAAGCAGATGATGTTGCAGCCATTGAATGCCAGTCTGAAGAAGTCATCCGTCTTCATTCACAGGGAGAAAACAAT
CCTTTGTCTAAGAAGCTGTCTCCAGTACACTCAGAAATGGCAGATTATATTAATGCAACGCCATCTACTCTTCTT
GGTAGCCGGGATCCTGATTTAAAGGACAGAGCATTACTTAATGGAGGAACTAGTGTAACAGAAAAGTTGGCACAG
CTGATTGCTACCTGTCCTCCTTCCAAGTCTTCCAAGACAAAACCGAAGAAGTTAGGAACTGGCACTACAGCAGGA
TTGGTTAGCAAGGATTTGATCAGGAAAGCAGGTGTTGGCTCTGTAGCTGGAATAATACATAAGGACTTAATAAAA
AAGCCAACCATCAGCACAGCAGTTGGATTGGTAACTAAAGATCCTGGGAAAAAGCCAGTGTTTAATGCAGCAGTA
GGATTGGTCAATAAGGACTCTGTGAAAAAACTGGGAACTGGCACTACAGCGGTATTCATTAATAAAAACTTAGGC
AAAAAGCCAGGAACTATCACTACAGTAGGACTGCTAAGCAAAGATTCAGGAAAGAAGCTAGGAATTGGTATTGTT
CCAGGTTTAGTGCATAAAGAGTCTGGCAAGAAGTTAGGACTTGGCACTGTGGTTGGACTGGTTAATAAAGATTTG
GGAAAGAAATTGGGTTCTACTGTTGGCCTAGTGGCCAAGGACTGTGCAAAGAAGATTGTAGCAAGTTCAGCAATG
GGATTGGTTAATAAGGACATTGGAAAGAAACTAATGAGTTGTCCTTTGGCAGGTCTGATCAGTAAAGATGCCATA
AACCTTAAAGCCGAAGCACTGCTCCCCACTCAGGAACCGCTTAAGGCTTCTTGTAGTACAAACATCAATAATCAG
GAAAGTCAGGAACTTTCTGAATCCCTGAAAGATAGTGCCACCAGCAAAACTTTTGAAAAGAATGTTGTACGGCAG
AATAAAGAAAGCATATTGGAAAAGTTCTCAGTACGAAAAGAAATCATTAATTTGGAGAAAGAAATGTTTAATGAA
GGAACATGCATTCAGCAAGACAGTTTCTCATCCAGTGAAAAGGGATCTTATGAAACCTCAAAGCATGAAAAGCAG
CCTCCTGTATATTGCACTTCTCCGGACTTTAAAATGGGAGGTGCTTCTGATGTATCTACCGCTAAATCCCCATTC
AGTGCAGTAGGAGAAAGCAATCTCCCTTCCCCATCACCTACTGTATCTGTTAATCCTTTAACCAGAAGTCCCCCT
GAAACTTCTTCACAGTTGGCTCCTAATCCATTACTTTTAAGTTCTACTACAGAACTAATCGAAGAAATTTCTGAA
TCTGTTGGAAAGAACCAGTTTACTTCTGAAAGTACCCACTTGAACGTTGGTCATAGGTCAGTTGGTCATAGTATA
AGTATTGAATGTAAAGGGATTGATAAAGAGGTAAATGATTCAAAAACTACCCATATAGATATTCCAAGAATAAGC
TCTTCCCTTGGAAAAAAGCCAAGTTTGACTTCTGAATCCAGCATTCATACTATTACTCCTTCAGTTGTTAACTTC
ACTAGTTTATTTAGTAATAAGCCTTTTTTAAAACTGGGTGCAGTATCTGCATCAGACAAACACTGCCAAGTTGCT
GAAAGCCTAAGTACTAGTTTGCAGTCCAAACCATTAAAAAAAAGAAAAGGAAGAAAACCTCGGTGGACTAAAGTG
GTGGCAAGAAGCACATGCCGGTCTCCAAAAGGGCTAGAATTAGAAAGATCAGAGCTTTTTAAAAACGTTTCATGT
AGCTCACTATCAAATAGTAATTCTGAGCCAGCCAAGTTTATGAAAAACATTGGACCCCCTTCATTTGTAGATCAT
GACTTCCTTAAACGCCGATTGCCAAAGTTGAGCAAATCCACAGCTCCATCTCTTGCTCTCTTAGCTGATAGTGAA
AAACCATCTCATAAGTCTTTTGCTACTCACAAACTATCCTCCAGTATGTGTGTCTCTAGTGACCTTTTGTCTGAT
ATTTATAAGCCCAAAAGAGGAAGGCCTAAATCTAAGGAGATGCCTCAACTGGAAGGGCCACCTAAAAGGACTTTA
AAAATCCCTGCTTCTAAAGTGTTTTCTTTACAGTCTAAGGAAGAACAAGAACCCCCAATTTTACAGCCAGAAATT
GAAATCCCTTCCTTCAAACAAGGTCTGTCTGTGTCTCCTTTTCCAAAAAAGAGAGGCAGGCCTAAGAGGCAAATG
AGGTCACCAGTCAAGATGAAGCCACCTGTACTGTCAGTGGCTCCATTTGTTGCCACTGAAAGTCCAAGCAAGCTA
GAATCTGAAAGTGACAACCATAGAAGTAGCAGTGATTTCTTTGAGAGCGAGGATCAACTTCAGGATCCAGATGAC
CTAGATGACAGTCATAGGCCAAGTGTCTGTAGTATGAGTGACCTTGAGATGGAACCAGATAAAAAAATTACCAAG
AGAAACAATGGACAATTAATGAAAACAATTATCCGCAAAATAAATAAAATGAAGACTTTAAAGAGAAAGAAACTG
TTGAATCAGATTCTTTCAAGTTCTGTAGAATCAAGTAATAAAGGGAAAGTGCAATCCAAACTCCATAATACGGTA
TCAAGTCTTGCTGCCACATTTGGCTCTAAATTGGGCCAACAGATAAATGTCAGCAAGAAAGGAACCATTTATATA
GGAAAGAGAAGAGGTCGCAAACCAAAAACTGTCTTAAATGGTATTCTTTCTGGTAGTCCTACTAGCCTTGCTGTT
CTTGAGCAAACAGCTCAACAGGCAGCTGGGTCAGCATTAGGACAGATTCTTCCCCCATTACTGCCTTCATCTGCT

FIGURE 3192B

AGTAGTTCTGAGATTCTTCCATCACCTATTTGCTCTCAGTCTTCTGGGACTAGTGGAGGTCAGAGCCCTGTAAGT
AGTGATGCAGGTTTTGTTGAACCCAGTTCAGTGCCATATTTGCATTTACACTCCAGACAGGGCAGTATGATTCAG
ACTCTTGCAATGAAGAAGGCCTCAAAGGGGAGGAGGCGGTTATCTCCTCCTACTTTGTTGCCAAATTCTCCTTCG
CACTTGAGTGAACTCACATCTCTAAAAGAAGCTACTCCTTCCCCAATCAGTGAGTCTCATAGTGATGAGACCATT
CCCAGTGATAGTGGAATTGGAACAGATAATAACAGCACATCAGACAGGGCAGAGAAATTTTGTGGGCAAAAAAAG
AGGAGGCATTCTTTTGAGCATGTTTCTCTGATTCCCCCTGAAACCTCTACAGTGCTAAGCAGTCTTAAAGAAAAA
CATAAACACAAATGTAAGCGCAGGAATCATGATTACCTCAGCTATGACAAGATGAAAAGGCAGAAACGAAAACGG
AAAAAGAAATATCCCCAGCTTCGAAATAGACAGGATCCAGACTTTATTGCAGAGCTGGAGGAACTAATAAGTCGC
CTAAGTGAAATTCGGATCACTCATCGAAGTCATCATTTTATCCCCCGAGATCTTCTGCCAACTATCTTTCGAATC
AACTTTAATAGTTTCTATACACATCCTTCTTTCCCCTTAGACCCTTTGCACTACATTCGAAAACCTGACTTAAAA
AAGAAAAGAGGGAGACCCCCTAAGATGAGGGAGGCAATGGCTGAAATGCCTTTTATGCACAGCCTTAGTTTTCCT
CTTTCTAGTACTGGATTCTATCCATCTTATGGTATGCCTTACTCTCCTTCACCCCTTACAGCTGCTCCCATAGGA
TTAGGTTACTATGGAAGGTATCCTCCCACTCTTTATCCACCTCCTCCATCTCCTTCTTTCACCACGCCACTTCCA
CCTCCTTCCTATATGCATGCTGGTCATTTACTTCTCAATCCTGCCAAATACCATAAGAAAAAGCATAAGCTACTT
CGACAGGAGGCCTTTCTTACAACCAGCAGGACTCCCCTCCTTTCCATGAGTACCTACCCCAGTGTTCCTCCTGAG
ATGGCCTATGGTTGGATGGTTGAGCACAAACACAGGCACCGTCACAAACACAGAGAACACCGTTCTTCTGAACAA
CCCCAGGTTTCTATGGACACTGGCTCTTCCCGATCTGTCCTGGAATCTTTGAAGCGCTATAGATTTGGAAAGGAT
GCTGTTGGAGAGCGATATAAGCATAAGGAAAAGCACCGTTGTCACATGTCCTGCCCTCATCTCTCTCCTTCAAAA
AGCTTAATAAACAGAGAGGAACAGTGGGTCCACCGAGAGCCTTCAGAATCTAGTCCATTGGCCTTGGGATTGCAG
ACACCTTTACAGATTGACTGTTCAGAAAGTTCTCCAAGCTTATCCCTTGGAGGATTCACTCCCAACTCTGAGCCA
GCCAGCAGTGATGAACATACAAACCTTTTCACAAGTGCAATAGGCAGCTGCAGAGTTTCAAACCCTAACTCCAGT
GGCCGGAAGAAATTAACTGACAGCCCTGGACTCTTTTCTGCACAGGACACTTCACTAAATCGGCTTCACAGAAAG
GAGTCACTGCCTTCTAACGAAAGGGCAGTACAGACTTTGGCAGGCTCCCAGCCAACCTCTGATAAACCCTCCCAG
CGGCCATCAGAGAGCACAAATTGTAGCCCTACCCGGAAAAGGTCTTCATCTGAGAGTACTTCTTCAACAGTAAAC
GGAGTTCCCTCTCGAAGTCCAAGATTAGTTGCTTCTGGGGATGACTCTGTGGATAGTCTGCTGCAGCGGATGGTA
CAAAATGAGGACCAAGAGCCCATGGAGAAAAGTATTGATGCTGTGATTGCAACTGCCTCTGCACCACCTTCTTCC
AGTCCAGGCCGTAGCCACAGCAAGGACCGAACCCTGGGAAAACCAGACAGCCTTTTAGTGCCTGCAGTCACAAGT
GACTCTTGCAATAATAGCATCTCACTCCTATCTGAAAAGTTGACAAGCAGCTGTTCCCCCCATCATATCAAGAGA
AGTGTAGTGGAAGCTATGCAACGCCAAGCTCGGAAAATGTGCAATTACGACAAAATCTTGGCCACAAAGAAAAAC
CTAGACCATGTCAATAAAATCTTAAAAGCCAAAAAACTTCAAAGGCAGGCCAGGACAGGGAATAACTTTGTGAAA
CGTAGGCCAGGTCGACCTCGGAAATGTCCCCTTCAGGCTGTCGTATCAATGCAAGCATTCCAGGCTGCTCAGTTT
GTCAACCCAGAATTGAACAGAGACGAGGAAGGAGCAGCACTGCACCTCAGTCCTGACACAGTTACAGATGTAATT
GAGGCTGTTGTTCAGAGTGTAAATCTGAACCCAGAACATAAAAAGGGGTTGAAGAGAAAAGGTTGGCTATTGGAA
GAACAGACCAGAAAAAAGCAGAAGCCATTACCAGAGGAAGAAGAGCAAGAGAATAATAAAAGCTTTAATGAAGCA
CCAGTTGAGATTCCCAGTCCTTCTGAAACCCCAGCTAAACCTTCTGAACCTGAAAGTACCTTGCAGCCTGTGCTT
TCTCTCATCCCAAGGGAAAAGAAGCCCCCACGTCCCCCAAAGAAGAAGTATCAGAAAGCAGGGCTGTATTCTGAC
GTTTACAAAACTACAGACCCAAAGAGTCGATTGATCCAATTAAAGAAAGAGAAGCTGGAGTATACTCCAGGAGAG
CATGAATATGGATTATTTCCAGCGCCCATTCATGTTGTGTTTTTTGTTTCAGGAAAGTATCTAAGACAAAAGAGA
ATTGACTTCCAGCTTCCTTATGATATCCTTTGGCAGTGGAAACACAATCAGCTATACAAAAAGCCAGATGTCCCA
CTATATAAGAAAATTCGTTCAAATGTCTACGTTGATGTCAAACCCCTTTCTGGTTACGAAGCTACCACCTGTAAC
TGTAAGAAGCCAGATGATGACACCAGGAAGGGCTGTGTTGATGACTGCCTCAATAGAATGATCTTTGCTGAGTGT
TCCCCCAACACTTGCCCATGTGGCGAGCAATGCTGTAACCAGAGGATACAGAGGCATGAATGGGTGCAATGTCTA
GAACGATTTCGAGCTGAGGAAAAAGGTTGGGGAATCAGAACCAAAGAGCCCCTAAAAGCTGGGCAGTTCATCATT
GAATACCTAGGGGAGGTCGTCAGTGAACAGGAGTTCAGGAACAGGATGATTGAGCAGTATCATAATCACAGTGAC
CACTACTGCCTGAACCTGGATAGTGGGATGGTGATTGACAGTTACCGCATGGGAAATGAGGCCCGATTCATCAAC
CATAGCTGTGACCCAAATTGTGAAATGCAGAAATGGTCTGTTAATGGAGTATACCGGATTGGACTCTATGCTCTT
AAAGACATGCCAGCTGGGACTGAACTCACTTATGATTATAACTTTCATTCCTTCAATGTGGAAAAACAGCAACTT
TGTAAGTGTGGCTTTGAGAAATGTCGAGGAATCATCGGAGGCAAGAGTCAGCGTGTGAATGGACTCACCAGCAGC

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FIGURE 3192C

AAAAACAGCCAGCCCATGGCCACACACAAAAAATCTGGACGGTCAAAAGAGAAGAGAAAGTCTAAGCACAAGCTG
AAGAAAAGGAGAGGCCATCTCTCTGAGGAACCCAGTGAAAATATCAACACCCCAACTAGATTGACCCCCCAATTA
CAGATGAAGCCAATGTCCAATCGTGAAAGGAACTTTGTGTTAAAGCATCATGTATTCTTGGTCCGAAACTGGGAG
AAGATTCGTCAAAAACAGGAGGAAGTAAAGCACACCAGTGATAATATTCACTCAGCATCATTATATACCCGTTGG
AATGGGATCTGCCGAGATGATGGGAATATCAAGTCTGATGTCTTCATGACCCAGTTCTCTGCCCTGCAGACAGCT
CGATCTGTTCGAACAAGACGGTTGGCAGCTGCAGAGGAAAATATTGAAGTGGCTCGGGCAGCCCGCCTAGCCCAG
ATCTTCAAAGAAATTTGTGATGGTATCATCTCTTATAAAGATTCTTCCCGGCAAGCACTGGCAGCTCCACTTTTG
AACCTTCCCCCAAAGAAAAAGAATGCTGATTATTATGAGAAGATCTCTGATCCCCTAGATCTTATCACCATAGAG
AAGCAGATCCTCACTGGTTACTATAAGACAGTGGAAGCTTTTGATGCTGACATGCTCAAAGTCTTTCGGAATGCT
GAGAAGTACTATGGGCGTAAATCCCCAGTTGGGAGAGATGTTTGTCGTCTACGAAAGGCCTATTACAATGCCCGG
CATGAGGCATCAGCCCAGATTGATGAGATTGTGGGAGAGACAGCAAGTGAGGCAGACAGCAGTGAGACCTCAGTC
TCTGAAAAGGAGAATGGGCATGAGAAGGACGACGATGTTATTCGCTGTATCTGTGGCCTCTACAAGGATGAAGGT
CTCATGATCCAGTGTGACAAGTGCATGGTATGGCAGCACTGTGATTGTATGGGAGTGAACTCAGATGTGGAGCAC
TACCTTTGTGAGCAGTGTGACCCAAGGCCTGTGGACAGGGAGGTTCCCATGATCCCTCGGCCCCACTATGCCCAA
CCTGGCTGTGTCTACTTCATCTGTTTGCTCCGAGATGACTTGCTGCTTCGTCAGGGTGACTGTGTGTATCTGATG
AGGGATAGTCGGCGCACCCCTGATGGCCACCCGGTCCGTCAGTCCTATCGACTGTTATCTCACATTAACCGAGAT
AAACTTGACATCTTTCGCATTGAGAAGCTTTGGAAGAATGAAAAAGAGGAACGGTTTGCCTTTGGTCACCATTAT
TTCCGTCCCCACGAAACACACCACTCTCCATCCCGTCGGTTCTATCATAATGAACTATTTCGGGTGCCACTCTAT
GAGATCATTCCCTTGGAGGCTGTAGTGGGGACCTGCTGTGTGTTGGACCTTTATACGTATTGTAAAGGGAGACCC
AAAGGAGTAAAGGAGCAAGATGTGTACATCTGTGATTATCGGCTTGACAAGTCAGCACACCTGTTTTACAAGATC
CACCGGAACCGCTATCCTGTCTGCACCAAACCCTATGCTTTTGATCACTTCCCCAAGAAGCTCACTCCCAAAAAA
GATTTCTCGCCTCATTACGTCCCAGACAACTACAAGAGGAATGGAGGACGATCATCCTGGAAGTCTGAGCGCTCA
AAGCCACCCCTAAAAGACTTGGGCCAGGAGGATGATGCTCTACCCTTGATTGAAGAGGTTCTAGCCAGTCAAGAG
CAAGCAGCCAATGAGATACCCAGCCTGGAGGAGCCAGAACGGGAAGGGGCCACTGCTAACGTCAGTGAGGGTGAA
AAAAAAACAGAGGAAAGTAGTCAAGAACCCCAGTCAACCTGTACCCCTGAGGAACGACGGCATAACCAACGGGAA
CGACTCAACCAGATCTTGCTCAATCTCCTTGAAAAAATCCCTGGAAAAAATGCCATTGATGTGACCTACTTGCTG
GAGGAAGGATCAGGCAGGAAACTGCGAAGGCGTACTTTGTTTATCCCAGAAAACAGCTTTCGAAAG**TGA**CCCTCA
AAGAATGAGAACCTCAAGCATCTGGGATCCAGTGGAGCTAATCAGTCCTGCCTCCTGCTCTCTGGGTATAGACAG
GGGTGGGAAGGGTCCATCTGGGCAAGGGGAATGGGGCCATGTTGTTGACATTAGGTACTTAATAAGCCTTGGAGC
TAGTGGAGAGGGAGAGGAAAGGGTTCTGTCCAAGACAGTTCAGGTTAATTAATTTTCTTCTCCATTGCTTCACCT
TAAGGGTTAATAATGTAGAGAGGAGGGAGGACCACATTGATGACCAGAACCTACTGGTACTTTATAGCATTTGCC
CCACCCCACAGCTTAGGTTTTTCTGTCATCCTCAGATCCCACAGGCATTGCGAAGAAGCTGCTTCCTATACCCAG
GTATAACTCAAAATCCAAAGGGATAGGGCCAGGATCCCTATTCCTACCCCATCTATTCTCTGTTGGCTCCAAGAG
CTACCCCAGAGACCTTAAACAGAAACAGTAGCTGAGGCTTCTTCCTAGATACCTGACTAGGGAAGTTTGTCTCTC
CTTTCTTGCCCAACCAGGTCAAAGTAAAATGTGAGTTGACAGCTCAAAGCACTTGTAACTGCTGCCCCCTCCCTA
CCTCTACTCCCCAAAATGGAATCATGGGATAGGGAAGGCCCCCATGGGGTCAGAAGGGCACGGTAGTTCTTGCAA
TTATTTTTGTTTTACCCTTCATAACC

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FIGURE 3193

CGCCCTACAGGCCCTAGCAGGGCAGGCGGGAGGTGAGCGCGGCCATCCCGCTCCCGGAGTTCCGGGATCCTGGAG
TCCGTAGTTCGTGGTCCTTCGCCGGTGTCCCCGGAGCCCAGCGGCTGTGG**ATG**GCAGAAGCCCAGAGTGGGACTG
GTCAGCTGCAGGAGCAGAAGAAAGGTCTTCTGATAGCCGTCAGCGTCTCCGTTGATAAAATCATCTCGCATTTCG
GGGCCGCCCGGAACTTGGTGCAGAAGGCCCAGTTGGGTGATAGCCGGCTGAGCCCGGATGTGGGGCACCTGGTGC
TGACCACCCTCTGCCCGGCCCTCCACGCCCTGGTGGCGGACGGGCTGAAGCCTTTCCGGAAGGACCTCATCACCG
GGCAGCGCAGGAGCAGCCCCTGGAGCGTGGTGGAGGCGTCGGTGAAGCCAGGCTCCAGCACCCGCTCCCTTGGAA
CCCTGTATAGCCAGGTCAGCCGTCTAGCCCCGCTGAGCAGCAGCCGTAGCCGCTTCCATGCCTTTATCCTGGGCC
TCCTCAACACCAAGCAGTTGGAGCTGTGGTTTTCCAGTCTCCAGGAAGATGCAGGCCTGCTCTCCCTCCTGTACC
TGCCAACAGGATTTTTCTCCCTGGCCCGCGGTGGTTGTCCCTCCCTGTCCACAGAGCTGCTGCTCCTGCTGCAGC
CATTGTCGGTGCTCACTTTCCACCTGGACCTGCTCTTTGAGCACCACCACCACCTGCCCCTGGGCCCACCTCAGG
CCCCTGCCCCTCCAGGCCCACCTCCAGCTCTGCAGCAGACTATGCAAGCCATGCTGCACTTTGGGGGCCGGCTGG
CCCAGAGCCTTCGGGGGACTTCCAAGGAAGCTGCTTCAGACCCCTCTGACTCTCCAAACCTTCCCACACCAGGGA
GCTGGTGGGAGCAGTTGACCCAGGCCTCCCGGGTCTATGCCTCTGGGGGCACTGAGGGCTTTCCTCTTTCCCGAT
GGGCACCGGGGCGTCATGGGACTGCAGCTGAAGAAGGTGCACAGGAGAGACCCCTGCCCACAGATGAGATGGCAC
CAGGCAGGGGCCTCTGGTTGGGAAGACTATTTGGAGTGCCTGGGGGCCCCGCAGAAAATGAGAATGGAGCCCTAA
AGTCCAGGAGACCATCTAGCTGGCTGCCCCCGACAGTGAGTGTGTTGGCTCTTGTGAAGCGGGGGGCACCTCCCG
AGATGCCTTCTCCTCAGGAGCTTGAGGCCTCAGCACCCAGGATGGTGCAAACCCATAGGGCAGTGCGGGCTCTCT
GTGATCACACTGCTGCAAGACCTGACCAGTTGAGCTTCCGGCGTGGGGAAGTGCTGCGTGTCATCACCACAGTGG
ATGAGGACTGGCTCCGCTGTGGGCGGGATGGCATGGAGGGTCTGGTGCCTGTGGGGTATACCTCCCTTGTTCTG**T**
AGCCCTGGGACCCTTTCCTGCGTATGTGTCTCCTTCCTGTCACCTGGGAATGGAATGGCCAGTGAACACCATCCC
AGAAGCATTTTCCCTCTGCAAAATGACGTTTCTTCCCACGTCTGTTTCTGCTAATATTTAAAATAAACTTTCCTT
CTTCCCTCCTATACCCACCTGTAAGGTGAAATCTGCTCTTCTTCCAAATATATAAAAAAGGAATTGCCCTCCAGG
TAATCCCTTTCCTTTTTCCCGTCTATATAAGGGAATGTCTTCCTTCCTATCTATCTGCAAAATGGAAATCTAGAC
CTCCTTCTTCATCCATAAGTGGACTGTGCCAGTACAATACATGCCTCAGCCCCCAAGCCTAGAAGGACCTCTAGT
CTCCTTCCTGTGTGGAATCTTCCCCACTCCATCCCTCCCAAGTTGCCTGTATTGATAATGTACTCACTCATGCTG
TACTAGGTGCTGAAGCCTGGACACCCTTGGTGGGTGGGCCTGTGGTGATGGTTTGCATCCTTCCTCCTTTGTCCC
AATAAAGTATGGGAGTTG

FIGURE 3194

AGGTGAGAGAGGATGTGTGCTGGGCCTTGGAGGAAGGGGGCCGAGACCGGGCCTTACTTCTGTAACGATACTGTG
AGGCATCGGAAGGCCAGCCTGTTGTGTCCGTTTTGAAGGATGCCCCTGTCCCGCTGGTTGAGATCTGTGGGGGTC
TTCCTGCTGCCAGCCCCCTACTGGGCACCCCGGGAGAGGTGGCTGGGTTCCCTACGGCGGCCCTCCCTGGTGCAC
GGGTACCCAGTCCTGGCCTGGCACAGTGCCCGCTGCTGGTGCCAAGCGTGGACAGAGGAACCTCGAGCCCTTTGC
TCCTCCCTCAGAATGAACGGAGACCAGAATTCAGATGTTTATGCCCAAGAAAAGCAGGATTTCGTTCAGCACTTC
TCCCAGATCGTTAGGGTGCTGACTGAGGATGAGATGGGGCACCCAGAGATAGGAGATGCTATTGCCCGGCTCAAG
GAGGTCCTGGAGTACAATGCCATTGGAGGCAAGTATAACCGGGGTTTGACGGTGGTAGTAGCATTCCGGGAGCTG
GTGGAGCCAAGGAAACAGGATGCTGATAGTCTCCAGCGGGCCTGGACTGTGGGCTGGTGTGTGGAACTGCTGCAA
GCTTTCTTCCTGGTGGCAGATGACATCATGGATTCATCCCTTACCCGCCGGGGACAGATCTGCTGGTATCAGAAG
CCGGGCGTGGGTTTGGATGCCATCAATGATGCTAACCTCCTGGAAGCATGTATCTACCGCCTGCTGAAGCTCTAT
TGCCGGGAGCAGCCCTATTACCTGAACCTGATCGAGCTCTTCCTGCAGAGTTCCTATCAGACTGAGATTGGGCAG
ACCCTGGACCTCCTCACAGCCCCCCAGGGCAATGTGGATCTTGTCAGATTCACTGAAAAGAGGTACAAATCTATT
GTCAAGTACAAGACAGCTTTCTACTCCTTCTACCTTCCTATAGCTGCAGCCATGTACATGGCAGGAATTGATGGC
GAGAAGGAGCACGCCAATGCCAAGAAGATCCTGCTGGAGATGGGGGAGTTCTTTCAGATTCAGGATGATTACCTT
GACCTCTTTGGGGACCCCAGTGTGACCGGCAAAATTGGCACTGACATCCAGGACAACAAATGCAGCTGGCTGGTG
GTTCAGTGTCTGCAACGGGCCACTCCAGAACAGTACCAGATCCTGAAGGAAAATTACGGGCAGAAGGAGGCTGAG
AAAGTGGCCCGGGTGAAGGCGCTATATGAGGAGCTGGATCTGCCAGCAGTGTTCTTGCAATATGAGGAAGACAGT
TACAGCCACATTATGGCTCTCATTGAACAGTACGCAGCACCCCTGCCCCCAGCCGTCTTTCTGGGGCTTGCGCGC
AAAATCTACAAGCGGAGAAAGTGACCTAGAGATTGCAAGGGCGGGGAGAGGAGGCTCTCAATAAATAATCGTGTA
ACCTT

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FIGURE 3195

TCCCAGGGTCCCGGGTTGGGGGGGTGGAGCAGCATTTCGTCGCCGCGGGGGTGCCGGGACTCCGGCCGCAGTGTC
GCCGCCATCACGGACTTCCTGTGGGACAAGCGCACGGGCCTCGCCGCCAGAACG**ATG**CCGCATCCTCGAAGGTAC
CACTCCTCAGAGCGAGGCAGCCGGGGGAGTTACCGTGAACACTATCGGAGCCGAAAGCATAAGCGACGAAGAAGT
CGCTCCTGGTCAAGTAGTAGTGACCGGACACGACGGCGTCGGCGAGAGGACAGCTACCATGTCCGTTCTCGAAGC
AGTTATGATGATCGTTCGTCCGACCGGAGGGTGTATGACCGGCGATACTGTGGCAGCTACAGACGCAACGATTAT
AGCCGGGATCGGGGAGATGCCTACTATGACACAGACTATCGGCATTCCTATGAATATCAGCGGGAGAACAGCAGT
TACCGCAGCCAGCGCAGCAGCCGGAGGAAGCACAGACGGCGGAGGAGGCGCAGCCGGACATTTAGCCGCTCATCT
TCGCAGCACAGCAGCCGGAGAGCCAAGAGTGTAGAGGACGACGCTGAGGGCCACCTCATCTACCACGTCGGGGAC
TGGCTACAAGAGCGATATGAAATCGTTAGCACCTTAGGAGAGGGGACCTTCGGCCGAGTTGTACAATGTGTTGAC
CATCGCAGGGGTGGGGCTCGAGTTGCCCTGAAGATCATTAAGAATGTGGAGAAGTACAAGGAAGCAGCTCGACTT
GAGATCAACGTGCTAGAGAAAATCAATGAGAAAGACCCTGACAACAAGAACCTCTGTGTCCAGATGTTTGACTGG
TTTGACTACCATGGCCACATGTGTATCTCCTTTGAGCTTCTGGGCCTTAGCACCTTCGATTTCCTCAAAGACAAC
AACTACCTGCCCTACCCCATCCACCAAGTGCGCCACATGGCCTTCCAGCTGTGCCAGGCTGTCAAGTTCCTCCAT
GATAACAAGCTGACACATACAGACCTCAAGCCTGAAAATATTCTGTTTGTGAATTCAGACTATGAGCTCACCTAC
AACCTAGAGAAGAAGCGAGATGAGCGCAGTGTGAAGAGCACAGCTGTGCGGGTGGTAGACTTTGGCAGTGCCACC
TTTGACCATGAGCACCATAGCACCATTGTCTCCACTCGCCATTACCGAGCACCAGAAGTCATCCTTGAGTTGGGC
TGGTCACAGCCTTGTGATGTGTGGAGTATAGGCTGCATCATCTTTGAATACTATGTGGGATTCACCCTCTTCCAG
ACCCATGACAACAGAGAGCATCTAGCCATGATGGAAAGGATCTTGGGTCCTATCCCTTCCCGGATGATCCGAAAG
ACAAGAAAGCAGAAATATTTTTACCGGGGTCGCCTGGATTGGGATGAGAACACATCAGCTGGGCGCTATGTTCGT
GAGAACTGCAAACCGCTGCGGCGGTATCTGACCTCAGAGGCAGAGGAACACCACCAGCTCTTCGATCTGATTGAA
AGCATGCTAGAGTATGAACCAGCTAAGCGGCTGACCTTGGGTGAAGCCCTTCAGCATCCTTTCTTCGCCCGCCTT
CGGGCTGAGCCGCCCAACAAGTTGTGGGACTCCAGTCGGGATATCAGTCGG**TGA**CGATCAGGCCCTGGGCCCCCC
TGCATCTTTTATAGCAGTGGGTGTCCAGTCCAGGACACTGGTGCTTTTTTATACAAGAGAACGAGCCAGAGTTCA
CTCCTTCCTCCTGGCTCTCTATATACCTGTGAATATGTGAAATAGTGTAAATATGAAAGAACTTGTACCTATCAC
TTCAACCCCTGCCTTGTACATAATACTATTCCATCCACACAGTTTCCACCCTCACCTGCCCCCTCATACGGAGTT
GGATGGGGGCCGAGTGAGGTAACCAGGTGGCATCTACCCCATGTTTTATAAGGAATTTTGTACAGTCTTTGTGAA
ATAAAATAACGTGCTTCATTTGA

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FIGURE 3196

GGTAGTTGGTTGTGGGCACTGGGTTAGAGGTATCACGTGGGGGCACTTTCGTCTTAGCTTTTGGACAAGACGCAG
GCGCAACCCACGGCTGCTGCGGGGATCCTTGTGGCCCTTCCGGTCGGTGGAACCAATCCGTGCACAGAGAAGCGG
GGCGAACTGAGGCGAGTGAAGTGGACTCTGAGGGCTACCGCTACCGCCACTGCTGCGGCAGGGGCGTGGAGGGCA
GAGGGCCGCGGAGGCCGCAGTTGCAAAC**ATG**GCTCAGAGCAGAGACGGCGGAAACCCGTTCGCCGAGCCCAGCGA
GCTTGACAACCCCTTTCAGGACCCAGCTGTGATCCAGCACCGACCCAGCCGGCAGTATGCCACGCTTGACGTCTA
CAACCCTTTTGAGACCCGGGAGCCACCACCAGCCTATGAGCCTCCAGCCCCTGCCCCATTGCCTCCACCCTCAGC
TCCCTCCTTGCAGCCCTCGAGAAAGCTCAGCCCCACAGAACCTAAGAACTATGGCTCATACAGCACTCAGGCCTC
AGCTGCAGCAGCCACAGCTGAGCTGCTGAAGAAACAGGAGGAGCTCAACCGGAAGGCAGAGGAGTTGGACCGAAG
GGAGCGAGAGCTGCAGCATGCTGCCCTGGGGGGCACAGCTACTCGACAGAACAATTGGCCCCCTCTACCTTCTTT
TTGTCCAGTTCAGCCCTGCTTTTTCCAGGACATCTCCATGGAGATCCCCCAAGAATTTCAGAAGACTGTATCCAC
CATGTACTACCTCTGGATGTGCAGCACGCTGGCTCTTCTCCTGAACTTCCTCGCCTGCCTGGCCAGCTTCTGTGT
GGAAACCAACAATGGCGCAGGCTTTGGGCTTTCTATCCTCTGGGTCCTCCTTTTCACTCCCTGCTCCTTTGTCTG
CTGGTACCGCCCCATGTATAAGGCTTTCCGGAGTGACAGTTCATTCAATTTCTTCGTTTTCTTCTTCATTTTCTT
CGTCCAGGATGTGCTCTTTGTCCTCCAGGCCATTGGTATCCCAGGTTGGGGATTCAGTGGCTGGATCTCTGCTCT
GGTGGTGCCGAAGGGCAACACAGCAGTATCCGTGCTCATGCTGCTGGTCGCCCTGCTCTTCACTGGCATTGCTGT
GCTAGGAATTGTCATGCTGAAACGGATCCACTCCTTATACCGCCGCACAGGTGCCAGCTTTCAGAAGGCCCAGCA
AGAATTTGCTGCTGGTGTCTTCTCCAACCCTGCGGTGCGAACCGCAGCTGCCAATGCAGCCGCTGGGGCTGCTGA
AAATGCCTTCCGGGCCCCG**TGA**CCCCTGACTGGGATGCCCTGGCCCTGCTACTTGAGGGAGCTGACTTAGCTCCC
GTCCCTAAGGTCTCTGGGACTTGGAGAGACATCACTAACTGATGGCTCCTCCGTAGTGCTCCCAATCCTATGGCC
ATGACTGCTGAACCTGACAGGCGTGTGGGGAGTTCACTGTGACCTAGTCCCCCCATCAGGCCACACTGCTGCCAC
CTCTCACACGCCCCAACCCAGCTTCCCTCTGCTGTGCCACGGCTGTTGCTTCGGTTATTTAAATAAAAAGAAAGT
GGAACTGGAACTGAC

FIGURE 3197

CCTGCGGCAGCCGGAGCTCGGGGAGCGGAGCGTGGTGGGGAGGGGAGCGGGACAGGCGACACAGGAGACAGCGGC
GCCGCGGCCTCTCCCCACCAGGCGGCCCCGGATCCTACTGGACGCCCTGAGGGCACACCGACCGCGCCTCTAGAG
TCACCCCACGCCGACCCCTCCCCTCTTCTCTAGACTTATTTCCATCCTTCCCGCTTTTACCCTCCCCACCCCTCC
CTGGGCTCCAGGCCGCCGCCCCCTCCTCACTCCTGGACCGGCCCTTCTCGGTGCCCCTCTTCCCTAGGGAGATGC
GATGAGCCGGTGCCCCCGCGTCCTCATCGTCGCCCCGGGCACGGTGCCCGTCCAGTGCCCGTGGTGGGGAGGGAG
CACTCCGCGGTCCCTCCGTGACGCCCCTCGCTTGGCCCCCCCCACAGCTGGCGTCCCTCGGCCATGCCCCAGGGG
ACCCAGCCAGGGGGTGGGCTCTAGAGCGAGTGGGGTGGAGAGGAGAAAGGACGGGGCCTTGGGCGCCTCTGAGAT
GCTCCCAAGTGCCAGGGAGGGCCGAGCGAGGCGCAGGCAACCGGGCAGCAGGC**ATG**ATGCCCTCGCCTAGTGACT
CCAGCCGCTCGCTGACCAGCCGGCCCAGCACCAGGGGCCTTACCCACCTCCGCCTCCACCGACCCTGGCTGCAGG
CCCTGCTTACGCTGGGGCTGGTCCAAGTGCTCCTGGGCATCCTGGTGGTCACCTTCAGCATGGTGGCCTCTTCCG
TCACCACCACCGAGAGCATCAAGAGGTCCTGCCCGTCTTGGGCTGGGTTCTCGCTGGCGTTCTCCGGGGTGGTTG
GCATTGTGTCCTGGAAGCGGCCATTCACTCTAGTGATCTCCTTCTTCTCCTTGCTTTCGGTGCTCTGTGTCATGC
TTAGCATGGCTGGCTCTGTTCTCTCCTGTAAGAATGCTCAACTGGCCCGAGACTTCCAACAGTGCTCTCTGGAAG
GAAAGGTCTGTGTGTGCTGTCCCTCTGTTCCCCTCCTCCGGCCCTGTCCAGAGTCGGGGCAGGAACTGAAAGTTG
CCCCTAACTCCACCTGTGATGAAGCCCGAGGGGCCCTCAAGAACCTGCTCTTCAGCGTCTGTGGGCTCACCATTT
GTGCCGCTATAATCTGTACACTCTCTGCTATTGTCTGCTGCATCCAAATCTTCTCCCTGGACCTCGTGCATACGC
AGCTGGCCCCTGAGCGGTCAGTCTCAGGCCCACTGGGACCTCTGGGCTGCACGTCCCCGCCCCCAGCCCCTCTCC
TACACACCATGCTGGACCTGGAGGAATTTGTCCCGCCTGTGCCCCCACCGCCCTACTATCCCCCAGAGTATACCT
GCAGCTCAGAAACAGATGCACAGAGCATCACGTACAATGGCTCCATGGACAGCCCAGTGCCCTTGTACCCTACCG
ATTGCCCCCCTTCTTATGAGGCAGTCATGGGACTACGAGGAGACAGCCAGGCCACTCTCTTTGACCCTCAGCTTC
ACGATGGCTCGTGCATCTGTGAACGAGTGGCCTCCATTGTAGACGTGTCCATGGACAGCGGGTCTCTGGTGCTGT
CAGCCATTGGTGACCTCCCTGGGGGCTCTAGCCCGTCGGAGGACTCGTGCCTGCTGGAGCTGCAGGGCTCCGTGC
GCTCCGTGGACTACGTTCTCTTTCGCTCCATCCAGCGCAGCCGTGCCGGCTACTGCCTCAGCCTGGACTGTGGCC
TGCGGGGCCCCTTCGAGGAAAGCCCCCTGCCACGGCGCCCCCCACGGGCTGCCCGCTCCTATTCCTGCTCTGCCC
CTGAAGCTCCACCCCCACTGGGTGCCCCCACAGCTGCCCGCAGCTGCCACCGGTTGGAGGGCTGGCCGCCCTGGG
TGGGACCCTGCTTCCCCGAGCTGAGGCGGCGGGTCCCCCGGGGAGGGGGCCGCCCAGCCGCAGCCCCGCCCACCC
GAGCCCCGACTCGTCGCTTCAGCGATAGCTCAGGTTCCCTCACCCCACCGGGGCACCGGCCTCCTCATCCGGCAT
CCCCACCACCGCTGCTGCTGCCACGGTCCCACAGCGACCCAGGCATCACGACCTCCAGTGACACTGCTGACTTCA
GGGACCTTTATACCAAAGTGCTTGAGGAAGAAGCTGCTTCTGTTTCCTCTGCAGATACAGGGCTCTGCTCTGAAG
CCTGCCTCTTCCGCCTAGCCCGCTGCCCTTCCCCCAAGTTGCTACGTGCCCGGTCAGCCGAGAAACGGCGCCCTG
TGCCCACCTTCCAAAAAGTTCCCCTGCCCTCGGGCCCTGCACCTGCCCACTCCCTGGGGGACCTAAAGGGCAGCT
GGCCAGGTCGGGGCCTGGTCACTCGTTTCCTCCAGATATCCAGGAAAGCCCCAGACCCCAGTGGGACTGGAGCTC
ATGGACATAAGCAGGTGCCCCGGAGCCTGTGGGGCCGGCCTGGCCGAGAGAGCCTCCACCTTCGCAGCTGCGGAG
ATCTGAGCTCTAGCTCTTCCCTGCGGCGTCTCCTGTCTGGCCGCAGGCTGGAGCGTGGTACCCGCCCCCACAGCC
TCAGCCTCAACGGGGGCAGCCGGGAGACTGGGCTC**TGA**CCTAGGCTTCTTGTCACACTGAACACATCCAGCCACA
GGCACCAGCTGGTTGGGACCAGCAGCCCCCAGCATCCTCTTGCACTGGCTGGCACAAAAAGAAACCTGCTGTATA
CCCCCCAAAGTGTCCCTTTCCCTCCTACCTCTGGGGTCTCTTGCTGCTTGCCTCTGCTGCTCTGGACTGGGAGAG
CTTCTGTCCTGTGCTGCATGGGTATTTAGACTGTGGGGGAGATGCCCCTTCTTATAGCACTGGAGGAGGAAAACA
AATTCTTGTCCCCCTCAGAATGAGAGTGGCTCTTTCTGATTTGCAAGGGCACTATGGTCAGGGCAAAGGCATGGC
CCAGGTGTTTAAGTACAGGGTGACGTGTGCCTATGCAATGGGGTGGTAAGGCAGGCACGAAGAGTCCAAAAAATC
TAGGTGGCCTCTCAGCTCTGCCACCTCTAGCTGCATGACCTTGGGCAAGCTATGTAACCCCAATTGCCTGCTCCA
TTAAAGACTGTGAAGGTAGAATGTTTGTAAAGCTCTTAACAGTATGTAAGCCTTCAATAAATTTCAGTTTTCCCC
TT

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FIGURE 3198

CAGTGCCCCACAGCTCTTCAGGCCCTTCCTGTGCCTGGCTGCCCTCCCACCCTACCCTTTTGTACCTCTGAGAAG
GCTCTGGCCCCACGCACAGCCCCACTGTCACCAGGGCCAGTATCTGTCTCAGGGACCTCCTATCCAGAGCCTGAG
CCAGCCCCAGCCCCAGCCCCAGCTCCAGCTGCTCCATCTGAACCTGTATCTTCTTCCAAGCCACCCATTACCCTC
TTGGAGTCAGACTCACGCATCTCCAAAGAAGAACTTTTGAGAGCCCAGGCGCTGAGAGAGCAGGGTCAGACACTC
CCGAGCCTCTCGGTACAGCTGTAGGGGCGACACAGGTAGGCTTGCAGCTGCGGGAACAGTGCCACCTCCGCACCT
AAGCACTCCCATTCCTGGCCAGCATCCTTGGGGCTCATCTCATACAATAGCCCCCGGTCTCAGAGCTACCTCCTT
CTCCAGCTCTTCCTCGTCCTCAGGCCTGTGCTCCCCAGTCAGCAGCTGTAGCCGTTCCATGTACTGCCGCTGCAT
GCGGCCAGGCAGGAAGAAGTTGAGGGGAAAGGGCATAGCCTCTGCATACCACTTCCGGGTCACTTCTACGTAGTT
CTTGGTGTCTATCCAAAAAGTATGTACCTGGATTGGGTGGGCAGGAAGAAACAGGCAGGTCTGAGCCAGTGCACC
TGTCTGATTCAAGGTGGGCTTCTGACCTCCATGCTCTCCTGAGTCTCTGTGTGGGTCTGTGTGTTCCCGTCCCCT
CCCCGGCTGGCCATGGATGCTGGGAGGTCTGGGCACACTCACCAGCACCGGGATCAACTTCTCCTCCAGGAGAGA
CATGAAGGCCAGGGTGTCTGCCCCTTGCTGAGCTGACAGATCATAATCAGCATTGTACTTCTGTGGAGGAAATAT
CC**ATG**GCGTGGACGCTGGGGAGCTGCAAGGGCACTTCACCAGGGAGGAAGGAGTCCTGTCTGGTACCCCCCTCAC
TGGCCTCTGAGTGCAGTGGAGGTACAGCAAGGAACTTTTCCTGCCAAGGCCCCCTTGCCTGGGCCCAGCCAGTAG
CCTGTTGCTGTTGGCAAAAAGCCTGGGCCTTGGAGCCCGCTGGCCGTCAAGGTCCTGGGCCCATTGAGAAGAAGG
AAGAAAGGTTGGGCCGCAAACTAGGAGCAGCTCCCAGAATTTCCATGGAAAGCTGGAACAATGCCTGC**TGA**CAGC
AACTTTCTAACAGTAACTTTCCCGACCCAGACACCACAAAGCTAGCACAACGGAGCTCAGATGCAGGCTAGGACT
CGGTCCATGCCTCAGGAACCAGGGAAAGCCATCCTCACACTCCCTGGATCCAGGGAACCCACGCCCAGGGCCCCC
CAGCTTGTTCCCTCAGTGCCCAGCTCTTGGCTATTTCTTTCACTTCATTCCATCGCCCAGACACCATTACCACAT
ACACATTCCATCCATACCCCCAGGTCTCAGCCTGCCCTACCTTCCCAGGCTCCAGTCCCTGTTCCTCAGCATCCC
CCACCACATCCTGAGTAAGCTTTGTCCCCAGATAACCTCTTCAGCATGATCCTTAAATCTCCCTAAGCCTCAGTT
TCTCCCCTGTGGAATGGGGGTAAGAATCTCTTTCTCTGAATGCCCCTGTGTTAGGAAATAATTTAGAATACTTCG
GAAACAAAAAGCTCTGTTCACACCTAAGCAATCAGGGCAGTGGCCCTGGCCTTGCCAGGAACTTAGGCTTTTATC
TGGATCCTCTTTCCAGGCCTCTCAATTAATTCCCCAGGTCCTTAACCTTTGGGAAATTAGAAATTAGGAAGAGTG
TCCCACTTCTGACACTGTGTTCCCTCTTGGAACCTGACCGTCAATGCTAGAAGAACCCTTGGAAAACATGCTGGC
CCAGCCCTCTAGTTTTACAAATAAGGGAGTGCACAGCCCTGAGAGGTTACATGGCCTGCCCAAGATCACGCAGTC
AATGGCAGAGTAAAGAGCATAGCCTAGGCCTCCCCACTCCTCTAGTAATGCTCTTTCATCTTCTCCAACCTGGCT
CTAAGCCTTGTCCATCCTGAGCCCCATATCTAGCCCAACCTAGTCCCTGAAAACAAGAAGTGGCCCTTAGAAATC
TCTCTCCAGTCCCACTATCAGAGGCCAACTGCTGTCTTCCAGTCTCCTTCAGCCTGTGCTCCTCTCCCTCCCTGA
CTGACAGGCAGAAGGTACCGTGCCTCTGGATATCCCCACAGTGCCCTGAGCTGCATCTCTTGCCGACTGCTTTAA
TACATCACAGTGACATTGTGTGTGTCTCTGCCACCAGACTATTGCTCCTTGATGCTCTGGGTCACCTGCATCTAG
CATGGCATATATCTAGTGCTCAATAAATGTGTATTGTACGG

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FIGURE 3199

AAGCCCCAGCCCGGCCTCCGCTCCGGCCGCCGCCACCGCCCCTGTTTTGTTTCCATGGCGACAGGCGGCGCAGGG
CCCGCTCCAAACATAACGCGCTGTGGAAAACATGCTGCTCGGGGGACCCCCCCGCAGTCCCCGCTCGGGGACGAG
CCCCAAGGGGCCCTGGAGCAGTACAGGCCACGTGCAGTTTGGCAAGAGCCCCCAGACCTGGCCCAGGCGCACAAG
ACCCCGCTCTCCAGAGCCTGCCGCGCCTTCAAGGGTTCGGGGCTCCACTTGGACGAGGCGCCGTGACTCTCCGAG
GCGCGCCGGGCCGACAGCGCTGTCCCGCTACGTGGGCCACCTCTGGATGGGCCGGCGGCCGCCCTCCCCCGAGGC
CCGCGGCCCAGTCCCCCGCAGTTCAGCTGCCAGTCGGGCCAGAAGAAGCCTCGCCTCCCCGGGGATCTCCCCAGG
CCCCCTGACCGCAACGATCGGAGGGGCGGTGGCGGGGGGCGGGCCCAGGCAGGGGAGGGCAGAAGCACACAAGGA
AGTGTTTCCGGGACAGAGGGTGGGCAAGATGGCGGCGCCCATGGAGCTGTTCTGCTGGTCAGGGGGCTGGGGGCT
GCCGTCAGTGGACCTGGACAGCCTGGCCGTGCTGACCTATGCCAGATTTACTGGTGCTCCACTGAAGGTACACAA
GATCAGCAACCCCTGGCAGAGCCCTTCAGGAACTCTGCCTGCCCTTCGGACCAGTCATGGAGAGGTCATCTCAGT
TCCACACAAGATCATCACCCACCTTCGAAAAGAGGTACATACTTTTTGGATAGACACCAAGAACTACGTGGAAGT
GACCCGGAAGTGGTATGCAGAGGCTATGCCCTTTCCCCTCAACTTCTTCCTGCCTGGCCGCATGCAGCGGCAGTA
CATGGAACGGCTACAGCTGCTGACTGGGGAGCACAGGCCTGAGGACGAGGAAGAGCTGGAGAAGGAGCTGTACCG
AGAGGCTCGGGAGTGTCTGACCCTGCTCTCTCAGCGCCTGGGCTCTCAAAAGTTCTTCTTTGGAGATGCCCCTGC
CTCCTTGGACGCCTTCGTCTTCAGCTACTTGGCCCTGCTGCTGCAGGCAAAGCTGCCCAGTGGGAAGCTGCAGGT
CCACCTGCGTGGGCTGCACAACCTCTGTGCCTATTGTACCCACATTCTCAGTCTCTACTTCCCCTGGGATGGAGC
TGAGGTACCACCGCAACGCCAGACACCAGCAGGCCCAGAGACTGAGTGAGTGAGCCATACCGGCGCCGGAACCAG
ATCCTATCTGTGCTGGCAGTGACTGGCAGCCATGGTGGGCTACGCCTTGCTCAGCGGCATTGTCTCCATCCAGCG
GGCAACGCCTGCTCGTGGCCCCAGGCACCCGGACCCTGGGCATGGCTGAGGAGGATGAAGAGGAATGATTTGTCC
TCACGCTCCCAAGACTGGTTTTTCTACTCTCATGCATTCCAGAGGCCCCCGTGCCTCCTCGTTGTTGGTACAGCC
GGACACGGGGTGTGCCACCCAGAATAAAGCCACTCACACTG

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FIGURE 3200

ATGGAGACGCAGGAACTTCGGGGGGCCCTGGCTCTTCTCCTCCTTTGCTTTTTCACATCTGCCAGTCAGGATCTG
CAGGTAATTGACCTGCTGACTGTGGGCGAGTCTCGGCAGATGGTAGCTGTGGCAGAGAAGATCCGGACAGCCTTG
CTCACTGCTGGGGACATCTACCTCTTATCCACCTTCCGCCTGCCCCCCAAGCAGGGTGGTGTCCTCTTTGGCCTC
TATTCTCGCCAAGACAACACTCGATGGCTGGAGGCCTCTGTTGTAGGCAAGATCAACAAAGTACTGGTGCGATAC
CAGCGGGAGGATGGCAAAGTCCACGCCGTGAACCTACAGCAAGCGGGCCTGGCTGATGGGCGCACACACACAGTT
CTCCTGCGACTCCGAGGTCCCTCCAGACCCAGCCCTGCCCTACATCTCTACGTGGACTGCAAACTGGGTGACCAA
CATGCAGGCCTTCCAGCACTGGCCCCCATTCCTCCAGCGGAGGTCGATGGGCTGGAGATTAGGACTGGACAGAAG
GCGTATTTGAGGATGCAGGGCTTTGTGGAATCTATGAAAATTATTCTGGGTGGGTCCATGGCCCGGGTAGGAGCC
CTGAGTGAGTGTCCATTCCAAGGGGACGAGTCCATCCACAGTGCAGTGACCAATGCACTGCACTCCATTCTAGGG
GAGCAGACCAAGGCGCTGGTCACCCAACTCACCCTCTTCAACCAGATCCTGGTGGAGCTGCGGGATGATATACGA
GACCAGGTGAAGGAAATGTCCCTGATCCGAAACACCATTATGGAGTGTCAGGTGTGCGGCTTCCATGAGCAGCGT
TCCCACTGCAGCCCCAATCCCTGCTTCCGAGGTGTGGACTGCATGGAAGTGTACGAGTACCCAGGCTACCGCTGT
GGGCCCTGCCCCCCTGGCCTGCAGGGCAACGGCACCCACTGCAGTGACATCAATGAGTGTGCTCACGCTGACCCC
TGTTTCCCGGGCTCCAGCTGCATCAACACCATGCCCGGCTTCCACTGTGAGGCCTGTCCTCGAGGGTACAAGGGC
ACACAGGTGTCTGGTGTGGGCATTGACTATGCCCGGGCCAGCAAACAGGTCTGCAATGACATCGATGAATGCAAC
GATGGCAACAATGGTGGCTGTGACCCAAACTCCATCTGCACCAACACTGTGGGCTCTTTCAAGTGTGGTCCCTGC
CGCCTGGGTTTCCTGGGCAACCAGAGCCAGGGCTGCCTCCCAGCCCGGACCTGCCACAGCCCAGCCCACAGCCCC
TGCCACATCCATGCTCACTGTCTCTTTGAACGCAATGGTGCAGTGTCCTGCCAGTGTAACGTGGGCTGGGCTGGG
AATGGGAACGTGTGTGGGACTGACACAGACATCGATGGCTACCCAGACCAAGCACTGCCCTGCATGGACAACAAC
AAACACTGCAAACAGGACAACTGCCTTTTGACACCCAACTCTGGGCAGGAAGATGCTGATAATGATGGTGTGGGG
GACCAGTGTGATGATGATGCTGATGGGGATGGGATCAAGAATGTTGAGGACAACTGCCGGCTGTTCCCCAACAAA
GACCAGCAGAACTCAGATACAGATTCATTTGGTGATGCCTGTGACAATTGCCCCAACGTTCCCAACAATGACCAG
AAGGACACAGATGGCAATGGGGAAGGAGATGCCTGTGACAACGACGTGGATGGGGATGGCATCCCCAATGGATTG
GACAATTGCCCTAAAGTCCCCAACCCACTACAGACAGACAGGGATGAGGACGGGGTGGGAGATGCTTGCGACAGC
TGCCCTGAAATGAGCAATCCTACCCAGACAGATGCAGACAGCGACCTGGTGGGGGATGTCTGTGATACTAATGAA
GACAGCGATGGGGATGGGCATCAGGACACCAAGGACAACTGCCCACAGCTGCCAAATAGCTCCCAGCTGGACTCT
GATAACGATGGACTTGGAGATGAGTGTGATGGGGATGATGACAATGATGGCATCCCAGATTATGTGCCTCCTGGT
CCCGATAACTGCCGCCTGGTACCCAATCCCAATCAGAAGGACTCAGATGGCAATGGCGTTGGTGATGTGTGTGAG
GATGACTTTGACAATGATGCTGTGGTCGACCCCCTGGATGTGTGTCCTGAAAGTGCAGAGGTAACGCTTACGGAT
TTTCGGGCCTATCAGACCGTCGTCCTGGATCCTGAGGGTGATGCTCAGATTGACCCAAACTGGGTTGTGCTCAAC
CAGGGCATGGAAATCGTTCAGACCATGAACAGTGACCCTGGCTTGGCAGTTGGATACACGGCCTTCAATGGTGTG
GACTTTGAAGGCACCTTCCATGTGAACACAGTGACTGATGATGACTACGCAGGCTTTCTCTTCAGTTATCAAGAC
AGTGGCCGCTTCTACGTAGTCATGTGGAAGCAGACCGAGCAGACCTACTGGCAGGCTACACCCTTCCGGGCGGTT
GCCCAGCCCGGGCTGCAGCTCAAGGCAGTGACATCAGTGTCTGGCCCAGGTGAGCACCTCCGAAATGCCCTGTGG
CATACTGGCCACACCCCTGATCAGGTACGACTGCTGTGGACAGACCCACGAAATGTGGGCTGGCGGGACAAGACC
TCCTATCGCTGGCAGCTTCTGCACCGGCCTCAAGTTGGCTACATTCGGGTGAAGCTCTATGAGGGACCCCAGCTT
GTGGCGGATTCTGGGGGTGATCATTGACACATCCATGCGAGGGGGGCGTCTTGGTGTATTCTGCTTCTCCCAAGAA
AACATAATTTGGTCCAATCTCCAGTATCGATGCAATGACACAGTGCCTGAGGACTTTGAGCCATTCCGGAGGCAG
CTGCTCCAGGGAAGGGTG**TGA**

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FIGURE 3201

CGCTCCACCTCTCAAGCAGCCAGCGCCTGCCTGAATCTGTTCTGCCCCCTCCCCACCCATTTCACCACCACC**ATG**

ACACCGGGCACCCAGTCTCCTTTCTTCCTGCTGCTGCTCCTCACAGTGCTTACAGTTGTTACAGGTTCTGGTCAT
GCAAGCTCTACCCCAGGTGGAGAAAAGGAGACTTCGGCTACCCAGAGAAGTTCAGTGCCCAGCTCTACTGAGAAG
AATGCTGTGAGTATGACCAGCAGCGTACTCTCCAGCCACAGCCCCGGTTCAGGCTCCTCCACCACTCAGGGACAG
GATGTCACTCTGGCCCCGGCCACGGAACCAGCTTCAGGTTCAGCTGCCACCTGGGGACAGGATGTCACCTCGGTC
CCAGTCACCAGGCCAGCCCTGGGCTCCACCACCCCCCCAGCCCACGGTGTCACCTCGGCCCCGGACACCAGGCCG
GCCCGGGGCTCCACCGCCCCCCCAGCCCACGGTGTCACCTCGGCCCCGGACACCAGGCCGGCCCCGGGCTCCACC
GCCCCCCCAGCCCATGGTGTCACCTCGGCCCCGGACAACAGGCCCGCCTTGGGCTCCACCGCCCCTCCAGTCCAC
AATGTCACCTCGGCCTCAGGCTCTGCATCAGGCTCAGCTTCTACTCTGGTGCACAACGGCACCTCTGCCAGGGCT
ACCACAACCCCAGCCAGCAAGAGCACTCCATTCTCAATTCCCAGCCACCACTCTGATACTCCTACCACCCTTGCC
AGCCATAGCACCAAGACTGATGCCAGTAGCACTCACCATAGCACGGTACCTCCTCTCACCTCCTCCAATCACAGC
ACTTCTCCCCAGTTGTCTACTGGGGTCTCTTTCTTTTTCCTGTCTTTTCACATTTCAAACCTCCAGTTTAATTCC
TCTCTGGAAGATCCCAGCACCGACTACTACCAAGAGCTGCAGAGAGACATTTCTGAAATGTTTTTGCAGATTTAT
AAACAAGGGGGTTTTCTGGGCCTCTCCAATATTAAGTTCAGGCCAGGATCTGTGGTGGTACAATTGACTCTGGCC
TTCCGAGAAGGTACCATCAATGTCCACGACGTGGAGACACAGTTCAATCAGTATAAAACGGAAGCAGCCTCTCGA
TATAACCTGACGATCTCAGACGTCAGCGTGAGTGATGTGCCATTTCCTTTCTCTGCCCAGTCTGGGGCTGGGGTG
CCAGGCTGGGGCATCGCGCTGCTGGTGCTGGTCTGTGTTCTGGTTGCGCTGGCCATTGTCTATCTCATTGCCTTG
GCTGTCTGTCAGTGCCGCCGAAAGAACTACGGGCAGCTGGACATCTTTCCAGCCCGGGATACCTACCATCCTATG
AGCGAGTACCCCACCTACCACACCCATGGGCGCTATGTGCCCCCTAGCAGTACCGATCGTAGCCCCTATGAGAAG
GTTTCTGCAGGTAATGGTGGCAGCAGCCTCTCTTACACAAACCCAGCAGTGGCAGCCACTTCTGCCAACTTG**TAG**

GGGCACGTCGCCCGCTGAGCTGAGTGGCCAGCCAGTGCCATTCCACTCCACTCAGGTTCTTCAGGGCCAGAGCCC
CTGCACCCTGTTTGGGCTGGTGAGCTGGGAGTTCAGGTGGGCTGCTCACAGCCTCCTTCAGAGGCCCCACCAATT
TCTCGGACACTTCTCAGTGTGTGGAAGCTCATGTGGGCCCCTGAGGGCTCATGCCTGGGAAGTGTTGTGGTGGGG
GCTCCCAGGAGGACTGGCCCAGAGAGCCCTGAGATAGCGGGGATCCTGAACTGGACTGAATAAAACGTGGTCTCC
CACTG

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FIGURE 3202

GC**ATG**CGCATAGCTAACCGCACCCGGTTCAGCTCGCCTTTCTTGGCCAGAGGCGCCGGTTGGACTCACGGGCGGG
GCATGATGGTGGTGGGTACGGGCACCTCGCTGGCGCTCTCCTCCCTCCTGTCCCTGCTGCTCTTTGCTGGGATGC
AGATGTACAGCCGTCAGCTGGCCTCCACCGAGTGGCTCACCATCCAGGGCGGCCTGCTTGGTTCGGGTCTCTTCG
TGTTCTCGCTCACTGCCTTCAATAATCTGGAGAATCTTGTCTTTGGCAAAGGATTCCAAGCAAAGATCTTCCCTG
AGATTCTCCTGTGCCTCCTGTTGGCTCTCTTTGCATCTGGCCTCATCCACCGAGTCTGTGTCACCACCTGGTATC
TTCATCTTCTCCATGGTTGGTCTGTACTACATCAACAAGATCTCCTCCACCCTGTACCAGGCAGCAGCTCCAGTC
CTCACACCAGCCAAGGTCACAGGCAAGAGCAAGAAGAGAAACTGACCCTGAATGTTCAA**TAA**AGTTGATTCTTTG
T

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FIGURE 3203

GTAGGTCCCGGCAACCGCAGGCTCGCGGCGGGCGCTGGGCGCGGGATCCGACTCCAGTCGTA**ATG**GAGGCGGGCG
GCTTTCTGGACTCGCTCATTTACGGAGTCATGCACATGCGAATGACCCGGAGTGTGGACAACGTCCAGTTCCTGC
CCTTTCTCACCACGGAAGTCAACAACCTGGGCTGGCTGAGTTATGGGGCTTTGAAGGGAGACGGGATCCTCATCG
TCGTCAACACAGTGGGTGCTGCGCTTCAGACCCTGTATATCTTGGCATATCTGCATTACTGCCCTCGGAAGCGTG
TTGTGCTCCTACAGACTGCAACCCTGCTAGGGGTCCTTCTCCTGGGTTATGGCTACTTTTGGCTCCTGGTACCCA
ACCCTGAGGCCCGGCTTCAGCAGTTGGGCCTCTTCTGCAGTGTCTTCACCATCAGCATGTACCTCTCACCACTGG
CTGACTTGGCTAAGGTGATTCAAACTAAATCAACCCAATGTCTCTCCTACCCACTCACCATTGCTACCCTTCTCA
CCTCTGCCTCCTGGTGCCTCTATGGGTTTCGACTCAGAGATCCCTATATCATGGTGTCCAACTTTCCAGGAATCG
TCACCAGCTTTATCCGCTTCTGGCTTTTCTGGAAGTACCCCCAGGAGCAAGACAGGAACTACTGGCTCCTGCAAA
CC**TGA**GGCTGCTCATCTGACCACTGGGCACCTTAGTGCCAACCTGAACCAAAGAGACCTCCTTGTTTCAGCTGGG
CCTGCTGTCCAGCTTCCCAGGTGCAGTGGGTTGTGGGAACAAGAGATGACTTTGAGGATAAAAGGACCAAAGAAA
AAGCTTTACTTAGATGATTGATTGGGGCCTAGGAGATGAAATCACTTTTTATTTTTTAGAGATTTTTTTTTTTAA
TTTTGGAGGTTGGGGTGCAATCTTTAGAATATGCCTTAAAAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCCAG
CACTTTGGGAGGCCAAGGTGGGCGGATCGCCTGAGGTCAGGAGTTCAAGACCAACCTGACTAACATGGTGAAACC
CCATCTCTACTAAAAATACAAAATTAGCCAGGCATGATGGCACATGCCTGTAATCCCAGATACTTGGGAGGCTGA
GGCAGGAGAATTGCTTGAACCCAGGAGGTGGAGGTTGCAGTGAGCTGAGATCGTGCCATTGTGATATGAATATGC
CTTATATGCTGATATGAATATGCCTTAAAATAAAGTGTTCCCCACCCCTG

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FIGURE 3204

CCCAGGTTCCGGAATGAGGACTACACCATACATGTGCAGCTGAATGACTACGTGGACATCATCTGTCCGCACTAT
GAAGATCACTCTGTGGCAGACGCTGCC**ATG**GAGCAGTACATACTGTACCTGGTGGAGCATGAGGAGTACCAGCTG
TGCCAGCCCCAGTCCAAGGACCAAGTCCGCTGGCAGTGCAACCGGCCCAGTGCCAAGCATGGCCCGGAGAAGCTG
TCTGAGAAGTTCCAGCGCTTCACACCTTTCACCCTGGGCAAGGAGTTCAAAGAAGGACACAGCTACTACTACATC
TCCAAACCCATCCACCAGCATGAAGACCGCTGCTTGAGGTTGAAGGTGACTGTCAGTGGCAAAATCACTCACAGT
CCTCAGGCCCATGACAATCCACAGGAGAAGAGACTTGCAGCAGATGACCCAGAGGTGCGGGTTCTACATAGCATC
GGTCACAGTGCTGCCCCACGCCTCTTCCCACTTGCCTGGACTGTGCTGCTCCTTCCACTTCTGCTGCTGCAAACC
CCG**TGA**AGGTGTATGCCACACCTGGCCTTAAAGAGGGACAGGCTGAAGAGAGGGACAGGCACTCCAAACCTGTCT
TGGGGCCACTTTCAGAGCCCCCAGCCCTGGGAACCACTCCCACCACAGGCATAAGCTATCACCTAGCAGCCTCAA
AACGGGTCAGTATTAAGGTTTTCAACCGGAAGGAGGCCAACCAGCCCGACAGTGCCATCCCCACCTTCACCTCGG
AGGGATGGAGAAAGAAGTGGAGACAGTCCTTTCCCACCATTCCTGCCTTTAAGCCAAAGAAACAAGCTGTGCAGG
CATGGTCCCTTAAGGCACAGTGGGAGCTGAGCTGGAAGGGGCCACGTGGATGGGCAAAGCTTGTCAAAGATGCCC
CCTCCAGGAGAGAGCCAGGATGCCCAGATGAACTGACTGAAGGAAAAGCAAGAAACAGTTTCTTGCTTGGAAGCC
AGGTACAGGAGAGGCAGCATGCTTGGGCTGACCCAGCATCTCCCAGCAAGACCTCATCTGTGGAGCTGCCACAGA
GAAGTTTGTAGCCAGGTACTGCATTCTCTCCCATCCTGGGGCAGCACTCCCCAGAGCTGTGCCAGCAGGGGGGCT
GTGCCAACCTGTTCTTAGAGTGTAGCTGTAAGGGCAGTGCCCATGTGTACATTCTGCCTAGAGTGTAGCCTAAAG
GGCAGGGCCCACGTGTATAGTATCTGTATATAAGTTGCTGTGTGTCTGTCCTGATTTCTACAACTGGAGTTTTTT
TATACAATGTTCTTTGTCTCAAAATAAAGCAATGTGTTTTTTCGG

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FIGURE 3205

GGAGCTGGGAAGCGGAGAAGCCGGGAGCGCGGGGCTCAGTCGGGGGGCGGCGGCGGCGGCTCCGGGGATGGC
GGCGGCTCCGCTGCTGCTGCTGCTGCTGCTCGTGCCCGTGCCGCTGCTGCCGCTGCTGGCCCAAGGGCCCGGAGG
GGCGCTGGGAAACCGGCATGCGGTGTACTGGAACAGCTCCAACCAGCACCTGCGGCGAGAGGGCTACACCGTGCA
GGTGAACGTGAACGACTATCTGGATATTTACTGCCCGCACTACAACAGCTCGGGGGTGGGCCCCGGGGCGGGACC
GGGGCCCGGAGGCGGGGCAGAGCAGTACGTGCTGTACATGGTGAGCCGCAACGGCTACCGCACCTGCAACGCCAG
CCAGGGCTTCAAGCGCTGGGAGTGCAACCGGCCGCACGCCCCGCACAGCCCCATCAAGTTCTCGGAGAAGTTCCA
GCGCTACAGCGCCTTCTCTCTGGGCTACGAGTTCCACGCCGGCCACGAGTACTACTACATCTCCACGCCCACTCA
CAACCTGCACTGGAAGTGTCTGAGGATGAAGGTGTTCGTCTGCTGCGCCTCCACATCGCACTCCGGGGAGAAGCC
GGTCCCCACTCTCCCCCAGTTCACCATGGGCCCCAATATGAAGATCAACGTGCTGGAAGACTTTGAGGGAGAGAA
CCCTCAGGTGCCCAAGCTTGAGAAGAGCATCAGCGGGACCAGCCCCAAACGGGAACACCTGCCCCTGGCCGTGGG
CATCGCCTTCTTCCTCATGACGTTCTTGGCCTCCTAGCTCTGCCCCCTCCCCTGGGGGGGGAGAGATGGGGCGGG
GCTTGGAAGGAGCAGGGAGCCTTTGGCCTCTCCAAGGGAAGCCTAGTGGGCCTAGACCCCTCCTCCCATGGCTAG
AAGTGGGGCCTGCACCATACATCTGTGTCCGCCCCCTCTACCCCTTCCCCCCACGTAGGCACTGTAGTGGACCAA
GCACGGGGACAGCCATGGGTCCCGGGCGGCCTTGTGGCTCTGGTAATGTTTGGTACCAAACTTGGGGGCCAAAAA
GGGCAGTGCTCAGGACTCCCTGGCCCCTGGTACCTTTCCCTGACTCCTGGTGCCCTCTCCCTTTGTCCCCCCAGA
GAGACATATGCCCCCAGAGAGAGCAAATCGAAGCGTGGGAGGCACCCCCATTGCTCTCCTCCAGGGGCAGAACAT
GGGGAGGGGACTAGATGGGCAAGGGGCAGCACTGCCTGCTGCTTCCTTCCCCTGTTTACAGCAATAAGCACGTCC
TCCTCCCCCACTCCCACTTCCAGGATTGTGGTTTGGATTGAAACCAAGTTTACAAGTAGACACCCCTGGGGGGGC
GGGCAGTGGACAAGGATGGCAAGGGGTGGGCATTGGGGTGCCAGGCAGGCATGTACAGACTCTATATCTCTATAT
ATAATGTACAGACAGACAGAGTCCCTTCCCTCTTTAACCCCCTGACCTTTCTTGACTTCCCCTTCAGCTTCAGAC
CCCTTCCCCACCAGGCTAGGCCCCCCACACCTGGGGGACCCCCTGGCCCCTCTTTTGTCTTCTGTGAAGACAGGA
CCTATGCAACGCACAGACACTTTTGGAGACCGTAAAACAACAACGCCCCCTCCCTTCCAGCCCTGAGCCGGGAAC
CATCTCCCAGGACCTTGCCCTGCTCACCCTATGTGGTCCCACCTATCCTCCTGGGCCTTTTTCAAGTGCTTTGGC
TGTGACTTTCATACTCTGCTCTTAGTCT

FIGURE 3206A

CGCCGGCCGAGGAGGAGGGGTGGGGGTAGCGGCGGCGCCCGCGGCCCGGAGCGGGGGTTGGGGGAGTAGAGAAAG
CGGGGCGCGCGGAGGAACGCTGGGTCCCCGGCGCCGCGGGAGCTGGGAGGACCGAGCCGGCCGAGCGAGCAGCGC
GGCAGCACAGTCCCCGCGTGGCGCAGCGCGGCGGGGACGCGGGGACCGCCCGGATCTCCTTCCACTGCGCCCCGC
GCTCTGCGGTCCTCGGCCGCCTCTTCTTCCTTCACTCACTGCCCGGGCGGGAGCGGCGCCCAAGTCGGGTGCGCC
ATGTCTGGGGCCGGGTAGCCCCGCCGCCCGCCGGCCCGCCAGCTCGCCCTCCGAGCCACCCGCCAGCGGGCCGGC
CGGCCGGGAAGCGCGGGACAGGCAGATGCAGTGAGTGAGGGGGGGGCCATGGCGGAGGAGCGGCCCCCCCGGCTG
GTGGATTACTTCGTGGTAGCTGGGCTTGCAGGGAACGGAGCACCCATCCCTGAGGAAACGTGGGTTCCTGAACCC
AGTGGGCCCCTGCGCCCTCCCCGGCCAGCTGAGCCCATCACAG**ATG**TGGCAGTCATCGCTAGGGCACTGGGCGAG
GAAGTGCCCCAGGGCTACACATGCATCCAGGCTTCTGCTGGGGGCCACCCCTTGGAACTCAGTGCTGGACTTCTG
GGTGGAACTCAACCCGTCATCTGCTACCGCAGGGGCCGTGACAAGCCCCCCCTCGTTGAGCTGGGGGTGTTGTAT
GAGGGGAAGGAACGTCCCAAGCCTGGCTTCCAAGTGCTTGACACGACACCCTACAGCCACTCAGCAAACCTGGCC
CCTCCAGGCCCCGGGCACCCCCGCACCTACCTCACTTACCGGCGGGCAGCAGAGGGGGCAGGGCTGCATGCCCTG
GGCATCACTGACCTCTGCCTGGTGCTGCCCAGTAAGGGCGAGGGCACTCCTCATACTTACTGCCGGCTGCCCCGC
AACCTCAACCCTGGCATGTGGGGCCCAGCAGTGTACCTGTGCTATAAGGTGGGCCTGGCGAAGGCCAACACGCTG
GTGTACGAGGCAGTTCTACGAGGCGTTCCCAAGGGCCAGGCTATCAGAGCGACAGGCACGGGCACTGGGCCTGCT
GAGCGCCGTGGAGCGGGGTCGGGCACTGGGGGGCAGAGCTGTGCGCAGCCGGCGTGCCATCGCTGTGCTGTCCCG
CTGGCCTGCCTTCCCTGCCTTCCGCGCCTTCCTCACCTTCCTTTACCGCTACTCCGTCTCAGGCCCCCACCGCCT
ACCCTTGGAAGCGCACATCTCCCACTTCATTCACAACGTTCCCTTCCCTTCCCCACAGAGACCCCGCATCCTAGT
GCAGATGTCTCCCTATGACAACTTGCTCCTCTGTCAGCCTGTATCCTCACCCCTGCCCCTCAGTGGTGCCAGCTT
CCTGCAGCTGCTGCAGAGCCTGGGCCCTGAGCTGGCTATCACACTGCTGCTGGCTGTGCTCACAGAGCACAAGCT
GCTAGTCCACTCGCTGCGGCCAGACCTGCTCACCAGCGTCTGTGAGGCCCTCGTCTCGATGATCTTCCCACTGCA
CTGGCAGTGCCCCTACATTCCTCTGTGCCCGCTGGTGCTGGCAGATGTGCTGAGTGCCCCAGTGCCCTTCATTGT
GGGTATCCACTCCAGCTACTTTGATCTGCATGACCCGCCTGCTGATGTCATCTGTGTAGACCTTGATACCAACAC
GCTCTTCCAGACTGAGGAAAAGAAGCTCCTCTCCCCTCGGACCCTGCCCCGCAGACCCTACAAGGTTCTGCTGGC
CACACTGACAAACCTGTACCAGCAGCTGGACCAGACATACACTGGACCTGAGGAGGAAGCATCCCTGGAGTTCCT
ACTGACAGACTACGAGGCAGTGTGTGGCCGCAGGGCCCGGCTGGAGCGCGAAGTCCAAGGAGCCTTCCTCCGCTT
CATGGCCTGTCTGCTCAAGGGCTACCGGGTCTTCCTGCGCCCACTCACCCAGGCCCCCTCCGAGGGAGCTCGTGA
TGTTGACAACCTTTTCTTCCTGCAGGGCTTCCTCAAATCCCGGGAACGCTCCAGCCACAAACTTTACTCTCAGCT
GCTGCACACACAGATGTTCTCACAGTTCATTGAGGAGTGCTCTTTTGGCTCTGCTCGCCATGCTGCCCTTGAATT
CTTTGACTCTTGTGTTGAAAAGGTCCACCCAGAGCAGGAGAAGCCTGAGCCGACACCCTTAGTGGAGCTAGAGGA
GCTGTCAGGAAGTGAGCTCACTGTCTTTATCACACCTCCCGAGGAGCCTGCCTTACCAGAGGGCAGTGAATCCAC
TCCCCAGTACTGCTATGATGGATTCCCAGAGCTACGGGCTGAGTTGTTTGAGTCTCTTCAAGAGCAACCTGGGGC
CCTGCCTGTGCCAGGCCCTTCCCGTAGCGCCCCCAGCAGTCCTGCTCCTCGCCGTACCAAACAGGAGATGAAAGT
TGCACAGCGGATGGCACAGAAGTCAGCAGCTGTGCCTGAGCTGTGGGCCCGGTGCCTGCTGGGGCACTGCTATGG
GCTGTGGTTCCTGTGTCTGCCTGCCTATGTGCGGTCGGCACCCTCCCGAGTGCAGGCACTGCACACAGCCTACCA
TGTGCTGCGCCAGATGGAGAGCGGCAAGGTGGTGCTCCCTGATGAGGTGTGTTACCGGGTACTGATGCAGCTCTG
CTCACACTATGGGCAGCCTGTGCTGTCTGTGCGGGTCATGCTGGAGATGCGTCAGGCAGGCATTGTGCCCAACAC
CATCACCTATGGCTACTACAATAAGGCTGTGTTGGAAAGCAAGTGGCCGTCTGGCACACCAGGTGGGCGTCTGCG
CTGGGCCAAGCTCCGGAATGTTGTCCTGGGGGCTGCTCAGTTCCGCCAGCCCTTGAGAGAACGGCAACAGCAGCA
GCAGCAGCAACAGCAGCAGCAGCAGCAGCAGCAGCAGGAGCAGGTGTCAGCACATCAAGAGGCAGGCAGCTCCCA
GGCAGAGCCCTATTTGGAGCGCCCTTCCCCTACTCGCCCTCTTCAGCGCCAGACTACTTGGGCTGGGCGAAGTCT
GAGAGACCCAGCCTCACCCCCTGGACGCCTGGTGAAGAGTGGTAGCCTGGGCAGTGCCCGAGGGGCACAGCCCAC
TGTGGAGGCCGGTGTGGCCCACATGATAGAGGCCTTGGGGGTCCTGGAACCCCGGGGATCACCTGTGCCCTGGCA
CGATGGAAGTCTCTCAGACCTGAGCCTGACAGGGGAGGAGCCGCTCCCTGGAGGCAGCCCAGGGGGCTCAGGCTC
AGCCCTGAGTGCCCAGTCCACTGAGGCCCTGGAAGGGCTAAGTGGGCGGGGACCCAAGGCTGGTGGGCGACAGGA
TGAGGCAGGCACCCCCCGACGAGGGCTGGGTGCCCGCCTCCAACAGCTGCTCACTCCTTCCCGCCACTCCCCTGC
CTCCCGCATTCCCCCACCTGAGCTGCCTCCTGACCTGCCACCCCCAGCCCGCCGCAGCCCCATGGACAGTCTTCT
GCACCCCCGGGAGCGCCCTGGATCCACTGCCTCCGAGAGCTCAGCCTCTCTGGGCAGTGAGTGGGACCTCTCAGA

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FIGURE 3206B

ATCTTCTCTCAGCAACCTGAGTCTTCGCCGTTCCTCAGAGCGCCTCAGTGACACCCCTGGATCCTTCCAGTCACC
TTCCCTGGAAATTCTGCTGTCCAGCTGCTCCCTGTGCCGTGCCTGTGATTCGCTGGTGTATGATGAGGAAATCAT
GGCTGGCTGGGCACCTGATGACTCTAACCTCAACACAACCTGCCCCTTCTGCGCCTGCCCCTTTGTGCCCCTGCT
CAGTGTCCAGACCCTTGATTCCCGGCCCAGTGTCCCCAGCCCCAAATCTGCTGGTGCCAGTGGCAGCAAAGATGC
TCCTGTCCCTGGTGGTCCTGGCCCTGTGCTCAGTGACCGAAGGCTCTGCCTTGCTCTGGATGAGCCCCAGCTCTG
CAACGGGCACATGGGGGGAGCCTCCCGGCGGGTTGAGAGTGGGGCATGGGCATACCTGAGCCCCCTGGTGCTGCG
TAAGGAGCTGGAGTCGCTGGTAGAGAACGAGGGCAGTGAGGTGCTGGCGTTGCCTGAACTGCCCTCTGCCCACCC
CATCATCTTCTGGAACCTTTTGTGGTATTTCCAACGGCTACGCCTGCCCAGTATTCTACCAGGCCTGGTGCTGGC
CTCCTGTGATGGGCCTTCGCACTCCCAGGCCCCATCTCCTTGGCTAACCCCTGATCCAGCCTCTGTTCAGGTACG
GCTGCTGTGGGATGTACTGACCCCTGACCCCAATAGCTGCCCACCTCTCTATGTGCTCTGGAGGGTCCACAGCCA
GATCCCCCAGCGGGTGGTATGGCCAGGCCCTGTACCTGCATCCCTTAGTTTGGCACTGTTGGAGTCAGTGCTGCG
CCATGTTGGACTCAATGAAGTGCACAAGGCTGTGGGGCTCCTGCTGGAAACTCTAGGGCCCCCACCCACTGGCCT
GCACCTGCAGAGGGGAATCTACCGTGAGATATTATTCCTGACAATGGCTGCTCTGGGCAAGGACCACGTGGACAT
AGTGGCCTTCGATAAGAAGTACAAGTCTGCCTTTAACAAGCTGGCCAGCAGCATGGGCAAGGAGGAGCTGAGGCA
CCGGCGGGCGCAGATGCCCACTCCCAAGGCCATTGACTGCCGAAAATGTTTTGGAGCACCTCCAGAATGC**TAG**AG
ACCTTAAGCTTCCCTCTCCAGCCTAGGGTGGGGAAGTGAGGAAGAAGGGATTCTAGAGTTAAACTGCTTCCCTGT
TGCCTTCATGGAGTTGGGAACAGGCTGGGAAGGATGCCCAGTCAAAGGCTCCAAGCGAGGACAACAGGAAGAGGG
ATCCACTGTTACCAAAAGTCCTGATTCCCCCATCACCAACCTACCCAGTTTGTTCGTGCTGATGTTGGGGGAGAT
CTGGGGGGAGTTGGTACAGCTCTGTTCTTCCCTTGTCCTATACCGGGAACTCCCCTCCAGGGTACCCACAGATCT
GCATTGCCCTGGTCATTTTAGAAGTTTTTGTTTTAAAAAACAACTGGAAAGATGCAGAGCTACTGAGCCTTTGCC
CTGAATGGGAGGTAGGGATGTCATTCTCCACCAATAATGGTCCCTCTTCCCTGACGTTGCTGAAGGAGCCCAAGG
CTCTCCATGCCTTTCTACCTAAGTGTTTGTATTTTATTTTAAATTATTTATTCTGGAGCCACAGCCCCCTTGCTT
ATGAGGTTCTTATGGAGAGTGAGAAAGGGAAGGGAAATAGGGCACCATGGTCCGGTGGTTTGTAGTTCCTTCAAA
GTCAGGCACTGGGAGCTAGAGGAGTCTCAAGCTCCCCTTAGGAAGAACTGGTGCCCCCTCCAGTCCTAATTTTTC
TTGCCTGCCCCGCCTTGGGGAATGCCTCACCCACCCAGGTCCTGACCTGTGCAATAAGGATTGTTCCCTGCGAAG
TTTTGTTGGATGTAAATATAGTAAAAGCTGCTTCTGTCTTTTTC

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FIGURE 3207

GCCGGAAGCGCGCGGAGACCATGTAGTGAGACCCTCGCGAGGTCTGAGAGTCACTGGAGCTACCAGAAGCATCATG
GGGGCCCTGGGGAGAGCCAGAGCTCCTGGTGTGGCGCCCCGAGGCGGTAGCTTCAGAGCCTCCAGTGCCTGTGGG
GCTGGAGGTGAAGTTGGGGGCCCTGGTGCTGCTGCTGGTGCTCACCCTCCTCTGCAGCCTGGTGCCCATCTGTGT
GCTGCGCCGGCCAGGAGCTAACCATGAAGGCTCAGCTTCCCGCCAGAAAGCCCTGAGCCTAGTAAGCTGTTTCGC
GGGGGGCGTCTTTTTGGCCACTTGTCTCCTGGACCTGCTGCCTGACTACCTGGCTGCCATAGATGAGGCCCTGGC
AGCCTTGCACGTGACGCTCCAGTTCCCACTGCAAGAGTTCATCCTGGCCATGGGCTTCTTCCTGGTCCTGGTGAT
GGAGCAGATCACACTGGCTTACAAGGAGCAGTCAGGGCCGTCACCTCTGGAGGAAACAAGGGCTCTGCTGGGAAC
AGTGAATGGTGGGCCGCAGCATTGGCATGATGGGCCAGGGGTCCCACAGGCGAGTGGAGCCCCAGCAACCCCCTC
AGCCTTGCGTGCCTGTGTACTGGTGTTCTCCCTGGCCCTCCACTCCGTGTTCGAGGGGCTGGCGGTAGGGCTGCA
GCGAGACCGGGCTCGGGCCATGGAGCTGTGCCTGGCTTTGCTGCTCCACAAGGGCATCCTGGCTGTCAGCCTGTC
CCTGCGGCTGTTGCAGAGCCACCTTAGGGCACAGGTGGTGGCTGGCTGTGGGATCCTCTTCTCATGCATGACACC
TCTAGGCATCGGGCTGGGTGCAGCTCTGGCAGAGTCGGCAGGACCTCTGCACCAGCTGGCCCAGTCTGTGCTAGA
GGGCATGGCAGCTGGCACCTTTCTCTATATCACCTTTCTGGAAATCCTGCCCCAGGAGCTGGCCAGTTCTGAGCA
AAGGATCCTCAAGGTCATTCTGCTCCTAGCAGGCTTTGCCCTGCTCACTGGCCTGCTCTTCATCCAAATCTAGGG
GGCTTCAAGAGAGGGGCAGGGGAGATTGATGATCAGGTGCCCCTGTTCTCCCTTCCCTCCCCCAGTTGTGGGGAA
TAGGAAGGAAAGGGGAAGGGAAATACTGAGGACCAAAAAGTTCTCTGGGAGCTAAAGATAGAGCCTTTGGGGCTA
TCTGACTAATGAGAGGGAAGTGGGCAGACAAGAGGCTGGCCCCAGTCCCAAGGAACAAGAGATGGTCAAGTCGCT
AGAGACATATCAGGGGACATTAGGATTGGGGAAGACACTTGACTGCTAGAATCAGAGGTTGGACACTATACATAA
GGACAGGCTCACATGGGAGGCTGGAGGTGGGTACCCAGCTGCTGTGGAACGGGTATGGACAGGTCATAAACCTAG
AGTCAGTGTCCTGTTGGTCCTAGCCCATTTCAGCACCCTGCCACTTGGAGTGGACCCCTCCTACTCTTCTTAGCG
CCTACCCTCATACCTATCTCCCTCCTCCCATCTCCTAGGGGACTGGCGCCAAATGGTCTCTCCCTGCCAATTTTG
GTATCTTCTCTGGCCTCTCCAGTCCTGCTTACTCCTCTATTTTTAAAGTGCCAAACAAATCCCCTTCCTCTTTCT
CAAAGCACAGTAATGTGGCACTGAGCCCTACCCAGCACCTCAGTGAAGGGGGCCTGCTTGCTCTTTATTTTGGTC
CCGGATCCTGGGGTGGGGCAGAAATATTTTCTGGGCTGGGGTAGGAGGAAGGTTGTTGCAGCCATCTACTGCTGC
TGTACCCTAGGAATATGGGGACATGGACATGGTGTCCCATGCCCAGATGATAAACACTGAGCTGCCAAAACATTT
TTTTAAATACACCCGAGGAGCCCAAGGGGGAAGGGCAATGCCTACCCCCAGCGTTATTTTTGGGGAGGGAGGGCT
GTGCATAGGGACATATTCTTTAGAATCTATTTTATTAACTGACCTGTTTTGGGACCTGTTACCCAAATAAAAGAT
GTTTCTAG

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FIGURE 3208

GCGAGGCGCCACCGACGCGGAAGACTATAAGCCCCAGCGGGCGACGACCGAACGCCCCCGGGAACACCGGGCCCC
GAGCTCGGTCCCGCGCCCGAGGATCCTCCACGGGGCTAGATGGCTGCGTCGGGGGCGGGAGCGGAGGTGAGCGGG
CGCTAGGGCCGCGAGCCCCCGCCGGCCCTTCCTCCAGCGCCCTGCGGACCCCGCAGAAGGCGCTCGCCTCCCTAG
CCCGCAAAAACATATCGATTTTTCTCGCTGTGGCAACGGGGACGTCCTGATAGATCCTCTGCTCCAATAGGCAAC
TCCGGCCTTCCCTGCCCTGACCTGGAACCTCTGGGAGGGCTGCAGAGTAAGTGCCGCCTCTGCGCTCCGACGGAG
GCACGAGGCCTGTGGAGTAGGTCCCTCTGTTCCGACAGGTGCGACACTTGGCGCTCC**ATG**CTTGCGGGTGCCGGG
AGGCCTGGCCTCCCCCAGGGCCGCCACCTCTGCTGGTTGCTCTGTGCTTTCACCTTAAAGCTCTGCCAAGCAGAG
GCTCCCGTGCAGGAAGAGAAGCTGTCAGCAAGCACCTCAAATTTGCCATGCTGGCTGGTGGAAGAGTTTGTGGTA
GCAGAAGAGTGCTCTCCATGCTCTAATTTCCGGGCTAAAACTACCCCTGAGTGTGGTCCCACAGGATATGTAGAG
AAAATCACATGCAGCTCATCTAAGAGAAATGAGTTCAAAAGCTGCCGCTCAGCTTTGATGGAACAACGCTTATTT
TGGAAGTTCGAAGGGGCTGTCGTGTGTGTGGCCCTGATCTTCGCTTGTCTTGTCATCATTCGTCAGCGACAATTG
GACAGAAAGGCTCTGGAAAAGGTCCGGAAGCAAATCGAGTCCATA**TAG**CTACATTCCACCCTTGTATCCTGGGTC
TTAGAGACCCTATCTCAGACAGTGAAAGTGAAATGGACTGATTTGCACTCTTGGTTCTTTGGAGCCTTGTGGTGG
AATCCCCTTTTCCCCATCTTCTTCTTTCAGATCATTAATGAGCAGAATAAAAAGAGTAAAATGGT

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FIGURE 3209

GGGAGGAAAACTTCTTCCTGGCCTGGGCTCCGTGCCGCTCTGTTTGCCAACCGTCCAGTCCCGCCTACCAGTGCC
GGGCGCTCCCCACCCCTCCCCCGGCTCCCCCGGTGTCCGCC**ATG**GCCAAAGCCTACGACCACCTCTTCAAGTTGC
TGCTGATCGGGGACTCGGGGGTGGGCAAGACTTGTCTGATCATTCGCTTTGCAGAGGACAACTTCAACAACACTT
ACATCTCCACCATCGGAATTGATTTCAAGATCCGCACTGTGGATATAGAGGGGAAGAAGATCAAACTACAAGTCT
GGGACACGGCTGGCCAAGAGCGGTTCAAGACAATAACTACTGCCTACTACCGTGGAGCCATGGGCATTATCCTAG
TATACGACATCACGGATGAGAAATCTTTCGAGAATATTCAGAACTGGATGAAAAGCATCAAGGAGAATGCCTCGG
CTGGGGTGGAGCGCCTCTTGCTGGGGAACAAATGTGACATGGAGGCCAAGAGGAAGGTGCAGAAGGAGCAGGCCG
ATAAGTTGGCTCGAGAGCATGGAATCCGATTTTTCGAAACTAGTGCTAAATCCAGTATGAATGTGGATGAGGCTT
TTAGTTCCCTGGCCCGGGACATCTTGCTCAAGTCAGGAGGCCGGAGATCAGGAAACGGCAACAAGCCTCCCAGTA
CTGACCTGAAAACTTGTGACAAGAAGAACACCAACAAGTGCTCCCTGGGC**TGA**GGACCCTTTCTTGCCTCCCCAC
CCCGGAAGCTGAACCTGAGGGAGACAACGGCAGAGGGAGTGAGCAGGGGAGAAATAGCAGAGGGGCTTGGAGGGT
CACATAGGTAGATGGTAAAGAGAATGAGGAGAAAAAGGAGAAAAGGGAAAAGCAGAAAGGAAAAAAAGGAAGAGA
GAGGAAGGGAGAAGGGAGAGGAATGAATTGAGGAAGTGAAAGAAGGCAAGGAGGTAGGAAGAGAGGGAGGAGGAA
AGGAAGGAGAGATGCCTCAGGCTTCAGACCTTACCTGGGTTTTCAGGGCAAACATAAATGTAAATACACTGATTT
ATTCTGTTACTAGATCAGGTTTTAGGGTCCTGCAAAAGGCTAGCTCGGCACTACACTAGGGAATTTGCTCCTGTT
CTGTCACTTGTCATGGTCTTTCTTGGTATTAAAGGCCACCATTTGCACAAAAAAAAAAAAAAA

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FIGURE 3210

CCTTTCCGGCGGTGACGACCTACGCACACGAGAAC**ATG**CCTCTCGCAAAGGATCTCCTTCATCCCTCTCCAGAAG
AGGAGAAGAGGAAACACAAGAAGAAACGCCTGGTGCAGAGCCCCAATTCCTACTTCATGGATGTGAAATGCCCAG
GATGCTATAAAATCACCACGGTCTTTAGCCATGCACAAACGGTAGTTTTGTGTGTTGGCTGCTCCACTGTCCTCT
GCCAGCCTACAGGAGGAAAAGCAAGGCTTACAGAAGGATGTTCCTTCAGGAGGAAGCAGCAC**TAA**AAGCACTCTG
AGTCAAGATGAGTGGGAAACCATCTCAATAAACACATTTTGGAT

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FIGURE 3211

ACTCAGGCAGCAGCCCCTTCTTTCTTGCCCCAGTCTCCAGTTCTCCAGTGTTCACAGGTGAGCCTACCAACAGCC
ACTGCTC**ATG**ATGGAGGCCATCAAGAAAAAGATGCAGATGCTGAAGTTAGACAAGGAGAATGCTCTGGATCGGGC
AGAGCAAGCTGAAGCTGAGCAGAAGCAGGCAGAAGAAAGAAGTAAACAGCTGGAGGATGAGCTGGCAGCCATGCA
GAAGAAGCTGAAAGGGACAGAGGATGAGCTGGACAAGTATTCTGAAGCTTTGAAGGATGCCCAGGAGAAGCTGGA
ACTGGCAGAGAAGAAGGCTGCTGATGCTGAGGCTGAGGTGGCCTCCTTGAACCGTAGGATCCAGCTGGTTGAAGA
AGAGCTGGACCGTGCTCAGGAGCGCCTGGCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAAAGCTGCTGATGA
GAGTGAGAGAGGTATGAAGGTTATTGAAAACCGGGCCTTAAAAGATGAAGAAAAGATGGAACTCCAGGAAATCCA
ACTCAAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCTCGTAAGTTGGTGATCAT
TGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGGCAGAGTCTAAGTGTTCTGAGCTGGAGGAGGAGCT
GAAGAATGTCACCAACAACCTCAAGTCTCTTGAGGCTCAGGCGGAGAAGTACTCTCAAAAAGAAGATAAATATGA
GGAAGAAATCAAGATTCTTACTGATAAACTCAAGGAGGCAGAGACCCGTGCTGAGTTTGCTGAGAGATCGGTAGC
CAAGCTGGAAAAGACAATTGATGACCTGGAAGATGAGCTCTATGCCCAGAAACTGAAGTACAAGGCCATTAGCGA
GGAGCTGGACCACGCCCTCAATGACATGACCTCTATA**TAA**TTATCACCGTTTCTGCTCTGTTCTGGATCTGCCCC
CTTTACTCCTCGGGGAACCCAAGGCCCCACTCTCGCTCTGGATTCCATTTGGGTCAGCCTGGCTGGTCCCCAAGG
CATTAGGATGGGGGAGCAAAAAGCAACTTATGTATTTTCTTCCACCCCCACCCCAAATTAAAATGTTAAGCTGCT
GGA

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FIGURE 3212

GTCAGGGGGAAGCTGGAAGGCGTCGTTCTCCTTTCCCAGCTCTCCTGCCTGTCCGCCATGTTTTCAGGCCGGGTC
TGGCTTGGTCTTCCCCCGTAAGGAAATGGCCGGGGAGCTCCAGGGGACCCAGGCGCCGTCGCTTCGGCGGAGCCT
GGGCTGACCAGCCAGGACAGCGGGGTAAACCCGAACAATTCTGCGCGAGGTAGGGAGGCC**ATG**GCGTCCGGCAGT
AACTGGCTCTCCGGGGTGAATGTCGTGCTGGTGATGGCCTACGGGAGCCTGGACTTGAAAGAGGAGATTGATATT
CGACTCTCCAGGGTTCAGGATATCAAGTATGAGCCCCAGCTCCTTGCAGATGATGATGCTAGACTACTACAACTG
GAAACCCAGGGAAATCAAAGTTGCTACAACTATCTGTATAGGATGAAAGCTCTGGATGCCATTCGTACCTCTGAG
ATCCCATTTCATTCTGAAGGCCGGCATCCCCGTTCCTTAATGGGCAAGAATTTCCGCTCCTACCTGCTGGATCTG
CGAAACACTAGTACGCCTTTCAAGGGTGTACGCAAAGCACTCATTGATACCCTTTTGGATGGCTATGAAACAGCC
CGCTATGGGACAGGGGTCTTTGGCCAGAATGAGTACCTACGCTATCAGGAGGCCCTGAGTGAGCTGGCCACTGCG
GTTAAAGCACGAATTGGGAGCTCTCAGCGACATCACCAGTCAGCAGCCAAAGACCTAACTCAGTCCCCTGAGGTC
TCCCCAACAACCATCCAGGTGACATACCTCCCCTCCAGTCAGAAGAGTAAACGTGCCAAGCACTTCCTTGAATTG
AAGAGCTTTAAGGATAACTATAACACATTGGAGAGTACTCTG**TGA**CGGAGCTGAAGGACTCTTGCCGTAGATTAA
GCCAGTCAGTTGCAATGTGCAAGACAGGCTGCTTGCCGGGCCGCCCTCGGAACATCTGGCCCAGCAGGCCCAGAC
TGTATCCATCCAAGTTCCCGTTGTATCCAGAGTTCTTAGAGCTTGTGTCTAAAGGGTAATTCCCCAACCCTTCCT
TATGAGCATTTTTAGAACATTGGCTAAGACTATTTTCCCCCAGTAGCGCTTTTTTCTGGATTTGCATTCAGGTGT
TATTCTTAATGTTTCTGTCAAAGCTTCTTAAAAATCTTCACTTGGTTTCAGCCATAGTTCACCTTCCCTGTTCCA
GGTTTATTTAATTCCAAAGGTGAGAGTTGGAGTGAGATGTCTTCCATATCTATACCTTTGTGCACAGTTGAATGG
GAACTGTTTGGGTTTAGGGCATCTTAGAGTTGATTGATGGAAAAAGCAGACAGGAACTGGTGGGAGGTCAAGTGG
GGAAGTTGGTGAATGTGGAATAACTTACCTTTGTGCTCCACTTAAACCAGATGTGTTGCAGCTTTCCTGACATGC
AAGGATCTACTTTAATTCCACACTCTCATTAATAAATTGAATAAAAGGGAATGTTTTGGCACCTGATATAATCTG
CCAGGCTATGTGACAGTAGGAAGGAATGGTTTCCCCTAACAAGCCCAATGCACTGGTCTGACTTTATAAATTATT
TAATAAAATGAACTATTATCAAATAAAACGTATGAATCAGT

FIGURE 3213

CCCGACTAAGTGACTTAAACTCCCACCTACTCCTGGAATAAGGAGTCAAAGCCCGGATAGGCGCAGTATTCTACC
TTGTAAATACTGTTATTTGTATATACTGTAA**ATG**ATGACATCGGTGGGCACTAACCGAGCCCGGGGAAACTGGGA
ACAACCTCAAAACCAAAACCAGACACAGCACAAGCAGCGGCCACAGGCCACTGCAGAACAAATTAGACTTGCACA
GATGATTTCGGACCATAATGATGCTGACTTTGAGGAGAAGGTGAAACAATTGATTGATATTACAGGCAAGAACCA
GGATGAATGTGTGATTGCTTTGCATGACTGCAATGGAGATGTCAACAGAGCTATCAATGTTCTTCTGGAAGGAAA
CCCAGACACGCATTCCTGGGAGATGGTCGGGAAGAAGAAGGGAGTCTCAGGCCAGAAGGATGGTGGCCAGACGGA
ATCCAATGAGGAAGGCAAAGAAAATCGAGACCGGGACAGAGACTATAGTCGGCGACGTGGTGGGCCACCAAGACG
GGGGAGAGGTGCCAGCCGTGGACGAGAGTTTCGAGGTCAGGAAAATGGATTGGATGGCACCAAGAGTGGAGGGCC
TTCTGGAAGAGGAACAGAAAGAGGCAGAAGGGGCCGTGGCCGAGGCAGAGGTGGCTCTGGTAGGCGAGGAGGAAG
GTTTTCTGCTCAAGGAATGGGAACCTTTAACCCAGCTGATTATGCAGAGCCAGCCAATACTGATGATAACTATGG
CAATAGCAGCGGCAATACGTGGAACAACACTGGCCACTTTGAACCAGATGATGGGACGAGTGCATGGAGGACTGC
AACAGAGGAGTGGGGGACTGAAGATTGGAATGAAGATCTTTCTGAGACCAAGATCTTCACTGCCTCTAATGTGTC
TTCAGTGCCTCTGCCTGCGGAGAATGTGACAATCACTGCTGGTCAGAGAATTGACCTTGCTGTTCTGCTGGGGAA
GACACCATCTACAATGGAGAATGATTCATCTAATCTGGATCCGTCTCAGGCTCCTTCTCTGGCCCAGCCTCTGGT
GTTCAGTAATTCGAAGCAGACTGCCATATCACAGCCTGCTTCAGGGAACACATTTTCTCATCACAGTATGGTGAG
CATGTTAGGGAAAGGATTTGGTGATGTCGGTGAAGCTAAAGGCGGCAGTACTACAGGCTCCCAGTTCTTGGAGCA
ATTCAAGACTGCCCAAGCCCTGGCTCAGTTGGCAGCTCAGCATTCTCAGTCTGGAAGCACCACCACCTCCTCTTG
GGACATGGGCTCGACGACACAATCCCCATCACTGGTGCAGTATGATTTGAAGAACCCAAGTGATTCAGCAGTGCA
CAGCCCCTTTACAAAGCGCCAGGCTTTTACCCCATCTTCAACCATGATGGAGGTGTTCCTTCAGGAGAAGTCACC
TGCAGTGGCTACCTCCACAGCTGCACCTCCACCTCCGTCTTCTCCTCTGCCAAGCAAATCCACATCGGCTCCACA
GATGTCGCCTGGATCTTCAGACAACCAGTCCTCTAGCCCTCAGCCGGCTCAGCAGAAACTGAAACAGCAGAAGAA
AAAAGCCTCCTTGACTTCTAAGATTCCTGCTCTGGCTGTGGAGATGCCTGGCTCAGCAGATATCTCAGGGCTAAA
CCTGCAGTTTGGGGCATTGCAGTTTGGGTCAGAGCCTGTCCTTTCTGATTATGAGTCCACCCCCACCACGAGCGC
CTCTTCAAGCCAGGCTCCAAGTAGCCTGTATACCAGCACGGCCAGTGAATCATCCTCTACAATTTCATCTAACCA
GAGTCAGGAGTCTGGTTATCAGAGCGGCCCAATTCAGTCGACAACCTATACCTCCCAAAATAATGCTCAGGGCCC
TCTTTATGAACAGAGATCCACACAGACTCGGCGGTACCCCAGCTCCATCTCTTCATCACCCCAAAAGGACCTGAC
TCAGGCAAAGAATGGCTTCAGTTCTGTGCAGGCCACGCAGTTACAGACCACACAATCTGTTGAAGGTGCTACAGG
CTCTGCAGTGAAATCTGATTCACCTTCCACTTCTAGCATCCCCCCTCTCAATGAAACGGTATCTGCAGCTTCCTT
ACTGACGACAACCAATCAGCATTCATCCTCCTTGGGTGGCTTGAGCCACAGTGAGGAGATTCCAAATACTACCAC
CACACAACACAGCAGCACGTTATCTACGCAGCAGAATACCCTTTCATCATCAACATCTTCTGGGCGCACTTCGAC
ATCCACTCTTTTGCACACAAGTGTGGAGAGTGAGGCGAATCTCCATTCTTCCTCCAGCACTTTTTCCACCACATC
CAGCACAGTCTCTGCACCTCCCCCAGTGGTCAGTGTCTCCTCCAGTCTCAATAGTGGCAGTAGCCTGGGCCTCAG
CCTAGGCAGCAACTCCACTGTCACAGCCTCGACTCGAAGCTCAGTTGCTACGACTTCAGGAAAAGCTCCTCCCAA
CCTCCCTCCTGGGGTCCCGCCGTTGTTGCCTAATCCGTATATTATGGCTCCAGGGCTGTTACATGCCTACCCGCC
ACAAGTATATGGTTATGATGACTTGCAGATGCTTCAGACAAGATTTCCATTGGATTACTACAGCATCCCATTTCC
CACACCCACTACTCCGCTGACTGGGAGGGATGGTAGCCTGGCCAGCAACCCTTATTCTGGTGACCTCACAAAGTT
CGGCCGTGGGGATGCCTCCTCCCCAGCCCCGGCCACAACCTTGGCCCAACCCCAACAGAACCAGACGCAGACTCA
CCATACCACGCAGCAGACATTCCTGAACCCGGCGCTGCCTCCTGGCTACAGTTACACCAGCCTGCCATACTATAC
AGGGGTCCCGGGCCTCCCCAGCACCTTCCAGTATGGGCCTGCTGTGTTCCCTGTGGCTCCTACCTCTTCCAAGCA
GCATGGTGTGAATGTCAGTGTGAATGCATCGGCCACCCCTTTCCAACAGCCGAGTGGATATGGGTCTCATGGATA
CAACACTGGAAGAAAATATCCACCCCCTTACAAGCATTTCTGGACGGCTGAGAGC**TAA**TTTGGCCCAAGGCTGGG
GGCTGTGTTTTGTGTGTGTGTATAAATTTGCACTGAAGTCTTGTTTCAGAAACCAGACCACTGAGGAGAGCCTGC
TGAGCTGAGGCCATGGCCTGCGTGGCTTGGGGAAATGAGTTGGTGGATACCTTCTGGGCTTTTGAACTTGCCCCT
CCCCCATTTCCCTCTCCCCCATGTGTCTGACCCTGTCTTACCCATTTCAAGTTCAAGCGGTGCAGCACCTTCGAA
GCATCAATGCACACACCTGCTGTTGCTTTTGATTTCTGGAAGGCATGTAGTTTCAACTTGTAACAAAAATATTTG
TAGTCTTCAATAAACTGTGGTATTTCTTTAGCTAAC

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FIGURE 3214

GTCCGGCTTACCGTCGTTTACGACAGTGTCAGGATCGCGGGCTTGCTTTCCGGTAGCGTGGGCTGACGCCTCGCT
CAATTTCTCACAGGGCTGCGCAGGTTTCCCCCGTCTGCGAATGGACCACTGGAGGGGTTCAAAGGTTCGCGTCCC
AGTACGGGA**ATG**AGCCTCTTTGATCTCTTCCGGGGCTTTTTCGGCTTTCCTGGACCTCGGAGCCACAGAGATCCC
TTTTTTGGAGGGATGACTCGAGATGAAGATGATGATGAGGAAGAAGAAGAAGAAGGGGGCTCATGGGGCCGTGGG
AACCCAAGGTTCCATAGTCCTCAGCACCCCCCTGAGGAATTTGGCTTCGGCTTCAGCTTCAGCCCAGGAGGAGGG
ATACGTTTCCACGATAACTTCGGCTTTGATGACCTAGTACGAGATTTCAATAGCATCTTCAGCGATATGGGGGCC
TGGACCTTGCCTTCCCATCCTCCTGAACTTCCAGGTCCTGAGTCAGAGACACCTGGTGAGAGACTACGGGAGGGA
CAGACACTTCGGGACTCAATGCTTAAGTATCCAGATAGTCACCAGCCCAGGATCTTTGGGGGGGTCTTGGAGAGT
GATGCAAGAAGTGAATCCCCCCAACCAGCACCAGACTGGGGCTCCCAGAGGCCATTTCATAGGTTTGATGATGTA
TGGCCTATGGACCCCCATCCTAGAACCAGAGAGGACAATGATCTTGATTCCCAGGTTTCCCAGGAGGGTCTTGGC
CCGGTTCTACAGCCCCAGCCCAAATCCTATTTCAAGAGCATCTCTGTGACCAAGATCACTAAACCAGATGGGATA
GTGGAGGAGCGCCGGACTGTGGTGGACAGTGAGGGCCGGACAGAGACTACAGTAACCCGACACGAAGCAGATAGC
AGTCCTAGGGGTGATCCAGAATCACCAAGACCTCCAGCCCTGGATGATGCCTTTTCCATCCTGGACTTATTCCTG
GGACGTTGGTTCCGGTCCCGG**TAG**CCTTGTTAACCCTCAGAGGCCTTCAAGTCCTTTCCACCTCTCACCCATTGC
CCACCATTAATAAGCTTAGCTTCTCTTGCCACCTCAGGGGCTTGGATATGTGGAATAGTGAACTGGGGCCATGTC
AGTTTGTCACTCACCCAAACTGACCAATAAAACCTTTATTTATGCT

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FIGURE 3215

CCTACAGAGGGGTCCATACCGTGTTGTTCTGGATTCCCGTTGTAACTTAAAGGGAAATTTTCACA**ATG**TCCAGAG
CCCTTGATGTCCTGCAAATGAAGGAGGAGGATGTCCTTAAGTTCCTTGCAGCAGGAACCCACTTAGGTGGCACTA
ATCTTGACTTCCAGATGGAACAGTACATCTATAAAAGGAAAAGTGATGGCATCTACATCATAAATCTGAAGAGGA
CCTGGGAGAAGCTTCTGCTGGCAGCTCGTGCCATTGTTGCCATTGAAAACCCTGCTGATGTCAGTGTTATATCCT
CCAGGAATACTGGCCAGAGGGCCATGCTGAAGTTTGCTGCTGCCACTGGAGCCACTCCAATTGCTGGCCACTTCA
CTCCTGGAACCTTCACTAACCGGATCCAGGCAGCCTTCCGGGAGCCACAGCTTCCTGTGGTTACTGACCCCAGGG
CTGACCACCAGCCTCTCACGGAGGTATCTTATGTTAACTTACCTACCATTGCGCTGTGTAACACAGATTCTCCTC
TGCGCTATGTGGACATTGCCATCCCATGCAACAATAAGGGAGCTCACTCAGTGGGTTGGATGTGGTGGATGCTGG
CTCAGGAAGTTCTGCGCATGCGTGGCACCATTTCCCGTGAACACCCATGGGAGGTCATGCCTGATCTCTGCTTCT
ACAGAGATCCTGAAGAGATTGAAAAAGAAGAGCAGGCTGCTGCTGAAGAGGCAGTGACCAAGGAGGAATTTCAGG
GTGAATGGACTGCTCCAGCTCCTGAGTTCACTGCTACTCAGCCTGAGGTTGCAGACTGGTCTGAAGGTCTGCAGG
TGCCCTCTGTGTCTATTCAG**TAG**TTCCCTACTGAAGACTGGAGCGCTCAGCCTGCCACGGAAGACTGGTCTGCAG
CTCCCACTGCTCAGGCCACTGAATGGGTAGGAGCAACCACTGAATGGTCTTAAGCTGTTCTTGCATGGGCTCTTA
AGCAACATGGAAAAATGGTTGATGGAAAATAAATAAACATCAGTTTCT

FIGURE 3216

GGGGGGGGCCTGTCCCGGAGGTGGCGGCGGCGCCATCTTGGCGAAGGGGGGATCAGGAAGTGCGGACCGCGGCGG
CGGCGGCGGCGGCGGCGGCGGCGGCGGAGCCCGGAGCGCAGGCCGGAGGCTCCCGGCCCGCCGGCCCCGGAGCGG
AGCGGAGCGGAGGATGCAGCAGCCGCAGCCGCAGGGGCAGCAGCAGCCGGGGCCGGGGCAGCAGCTGGGGGGCCA
GGGGGCGGCGCCGGGGGCCGGGGGCGGCCCAGGGGGGGGCCCGGGGCCGGGGCCCTGCCTGAGGCGAGAGCTGAA
GCTGCTCGAGTCCATCTTCCACCGCGGCCACGAGCGCTTCCGCATTGCCAGCGCCTGCCTGGACGAGCTGAGCTG
CGAGTTCCTGCTGGCTGGGGCCGGAGGGGCCGGGGCGGGGGCCGCGCCCGGACCGCATCTCCCCCCACGGGGGTC
GGTGCCTGGGGATCCTGTCCGCATCCACTGCAACATCACGGAGTCATACCCTGCTGTGCCCCCCATCTGGTCGGT
GGAGTCTGATGACCCTAACTTGGCTGCTGTCTTGGAGAGGCTGGTGGACATAAAGAAAGGGAATACTCTGCTATT
GCAGCATCTGAAGAGGATCATCTCCGACCTGTGTAAACTCTATAACCTCCCTCAGCATCCAGATGTGGAGATGCT
GGATCAACCCTTGCCAGCAGAGCAGTGCACACAGGAAGACGTGTCTTCAGAAGATGAAGATGAGGAGATGCCTGA
GGACACAGAAGACTTAGATCACTATGAAATGAAAGAGGAAGAGCCAGCTGAGGGCAAGAAATCTGAAGATGATGG
CATTGGAAAAGAAAACTTGGCCATCCTAGAGAAAATTAAAAAGAACCAGAGGCAAGATTACTTAAATGGTGCAGT
GTCTGGCTCGGTGCAGGCCACTGACCGGCTGATGAAGGAGCTCAGGGATATATACCGATCACAGAGTTTCAAAGG
CGGAAACTATGCAGTCGAACTCGTGAATGACAGTCTGTATGATTGGAATGTCAAACTCCTCAAAGTTGACCAGGA
CAGCGCTTTGCACAACGATCTCCAGATCCTCAAAGAGAAAGAAGGAGCCGACTTCATTCTACTTAACTTTTCCTT
TAAAGATAACTTTCCCTTTGACCCACCATTTGTCAGGGTTGTGTCTCCAGTCCTCTCTGGAGGGTATGTTCTGGG
CGGAGGGGCCATCTGC**ATG**GAACTTCTCACCAAACAGGGCTGGAGCAGTGCCTACTCCATAGAGTCAGTGATCAT
GCAGATCAGTGCCACACTGGTGAAGGGGAAAGCACGAGTGCAGTTTGGAGCCAACAAATCTCAATACAGTCTGAC
AAGAGCACAGCAGTCCTACAAGTCCTTGGTGCAGATCCACGAAAAAAACGGCTGGTACACACCCCCAAAAGAAGA
CGGC**TAA**CCCTGGAGTATCACCCTTCCTCCCTCCCCAGGCACCACTGGACCAATTACCTTTGAATGCTGTATTTG
GATCTCACGCTGCCTCTGTGGTTCCCTCCCTCATTTTTCCTGGACGTGATAGCTCTGCCTATTGCAGGACAATGA
TGGCTATTCTAAACGCTAAGGAAAAAAAACAAACACAGAACTGTTTCAAGTACTCAAGACTGACTTACAGACCAA
CCAACCACCTTGCTGGAACCCTTGCTAGCAGGCATTCTTATAAAAGAAACTTTCGAGCCTCCTTATATTGCTGGA
AACTCAGCTGTGCTCCAGACTAGAGCCTCCTTACCTATGCTATGGATTTTTAATTTATTTTCTCTTATTTCATGT
ACACTGCTTTTTTTGGTTACAGTGTATGATGGATGTGTATGAAAAAAATGTATCTTTGGGAAAACAATTACAGTT
TGTTAATTTGAAGATGCTGGTCTTGACTCATCTTTATTTTTATTCGCACATCCCACCCCATCCCCTGAACTACTT
GGGAGGTGGGGAGGGGTACGAGTCCACTGTTGCTTTGGTAGAGATGAGAGGCCGCATTTTGCTGCTAAAGCAAGA
GAAACTTGGAGCTGAAGCACACACCTGGTCTGCCCCTAGATTTCTCCTCAAGGCCTCTGGAGCAACCAGCACTTG
CCCCCTTGGAATGCAGAGCCTGGCCTGCCAAACTACAATGTGGTAGGCTGAAACGATGGTGTTAATTCTTAGGAC
TACTTTTCTAGTCACAGATGTTTTCAAATTTCTAAGAAAAAGAAAATGAGGCTCAAGAGGCTGCTTCGTAGAATT
CCTTTTGAATGAATTGAGTGGGGATGGGGACACAGTCTCCAAGTGTGTATGTGGTCTTTTCTGATCTCAGCTGTG
TGGCTGCAACTCTTCGCTGTTCATTGGTTCCTCTCCTGGAAAGTGGCTTCTAACCAGCACTGGATGGTGATCATT
GGTAAGCTTTGCTCACCTCCCTCTCTCTTGCTTCATTTGGCTTTATCAAAAAGAACAGACCTAGCTCTGAATTTG
TTTGGCTTGGGAAATTATGGATTCTTTCAAGCCACTCCCACAAGGTGGGTCCTACTAGAAAGGGTTAGCATTTTA
AGGGGGGTTGTTCTATACACCTGTGTCCTTACCCCAGGCTCAGGAACTGCCAGGGAGGGAAGATGAGGTGGGGAG
TCTGTACTGAGATGGAACTGTCAGTGCTGTGTTGTATGTACTTGCTGTTGTAAAAGTTTGGGCATGACTTTGCAT
CTAGCGGGTGCTGCCTGCATCTCTTTGTCTGTAAGCTTGCTCTGGGACTCAGCCTCTTAGGACCTACGATGCCAG
CAGCTCTCATTAACAGTGAAATGACAGAGGCCAAAGATGGCCAAGTGAAGACCCAAGTCTCAGAAAACCCAGACT
TGGGACAACTGCCTGGGAACTAGGATGCTAGAGCAGTTCTGTAATGCTTTGAGACACAGCAATTTTCACATTGGC
CATTCTTTCCCCTCCCCTACCCCTTTTCTTTTGAGGGACTTTTAATGTTTGCTGCTTTAGGTGGATGGAGAGTCC
ACCAGTCCCACTCAATGCTGCTCTAACTCTACCCACACCCACCTAATTAGGGGTGCTAATAAAACATGCTGAGGT
TGAGATAAAGACGGGACATAAGGGGAAAATTCATTCCATAGAGCTGAAATCTGGTTTTCAAGGCCTCTGTGGCTT
TCTTCTGAACTTACCACCAGCCCTGGCTGGAATGTAGATTGTGTTTTTAGTAATGTGTACTGTGAGCTGTCTTCT
GTATAATGTATTTTGTAATGTATTTTTCTCATCTACCAAAGGATGAAACAAATAAAATTATTTAAATA

FIGURE 3217A

CGAAATTGAACCGGAGCCATCTTGGGCCCGGCGCGCAGACCCGCGGAGTTTCCCGTGCCGACGCCCCGGGGCCAC
TTCCAGTGCGGAGTAGCGGAGGCGTGGGGGCCTCGAGGGGCTGGCGCGGCCCAGCGGTCGGGCCAGGGTCGTGCC
GCCGGCGGGTCGGGCCGGGCAATGCCTCGCGGGCGCA**ATG**AATCCGCGGCAGGGGTATTCCCTCAGCGGATACTA
CACCCATCCATTTCAAGGCTATGAGCACAGACAGCTCAGGTACCAGCAGCCTGGGCCAGGATCTTCCCCCAGTAG
TTTCCTGCTTAAGCAAATAGAATTTCTCAAGGGGCAGCTCCCAGAAGCACCGGTGATTGGAAAGCAGACACCGTC
ACTGCCACCTTCCCTCCCAGGACTCCGGCCAAGGTTTCCAGTACTACTTGCCTCCAGTACCAGAGGCAGGCAAGT
GGACATCAGGGGTGTCCCCAGGGGCGTGCATCTCAGAAGTCAGGGGCTCCAGAGAGGGTTCCAGCATCCTTCACC
ACGTGGCAGGAGTCTGCCACAGAGAGGTGTTGATTGCCTTTCCTCACATTTCCAGGAACTGAGTATCTACCAAGA
TCAGGAACAAAGGATCTTAAAGTTCCTGGAAGAGCTTGGGGAAGGGAAGGCCACCACAGCACATGATCTGTCTGG
GAAACTTGGGACTCCGAAGAAAGAAATCAATCGAGTTTTATACTCCCTGGCAAAGAAGGGCAAGCTACAGAAAGA
GGCAGGAACACCCCCTTTGTGGAAAATCGCGGTCTCCACTCAGGCTTGGAACCAGCACAGCGGAGTGGTAAGACC
AGACGGTCATAGCCAAGGAGCCCCAAACTCAGACCCGAGTTTGGAACCGGAAGACAGAAACTCCACATCTGTCTC
AGAAGATCTTCTTGAGCCTTTTATTGCAGTCTCAGCTCAGGCTTGGAACCAGCACAGCGGAGTGGTAAGACCAGA
CAGTCATAGCCAAGGATCCCCAAACTCAGACCCAGGTTTGGAACCTGAAGACAGCAACTCCACATCTGCCTTGGA
AGATCCTCTTGAGTTTTTAGACATGGCCGAGATCAAGGAGAAAATCTGCGACTATCTCTTCAATGTGTCTGACTC
CTCTGCCCTGAATTTGGCTAAAAATATTGGCCTTACCAAGGCCCGAGATATAAATGCTGTGCTAATTGACATGGA
AAGGCAGGGGGATGTCTATAGACAAGGGACAACCCCTCCCATATGGCATTTGACAGACAAGAAGCGAGAGAGGAT
GCAAATCAAGAGAAATACGAACAGTGTTCCTGAAACCGCTCCAGCTGCAATCCCTGAGACCAAAAGAAACGCAGA
GTTCCTCACCTGTAATATACCCACATCAAATGCCTCAAATAACATGGTAACCACAGAAAAAGTGGAGAATGGGCA
GGAACCTGTCATAAAGTTAGAAAACAGGCAAGAGGCCAGACCAGAACCAGCAAGACTGAAACCACCTGTTCATTA
CAATGGCCCCTCAAAAGCAGGGTATGTTGACTTTGAAAATGGCCAGTGGGCCACAGATGACATCCCAGATGACTT
GAATAGTATCCGCGCAGCACCAGGTGAGTTTCGAGCCATCATGGAGATGCCCTCCTTCTACAGTCATGGCTTGCC
ACGGTGTTCACCCTACAAGAAACTGACAGAGTGCCAGCTGAAGAACCCCATCAGCGGGCTGTTAGAATATGCCCA
GTTCGCTAGTCAAACCTGTGAGTTCAACATGATAGAGCAGAGTGGACCACCCCATGAACCTCGATTTAAATTCCA
GGTTGTCATCAATGGCCGAGAGTTTCCCCCAGCTGAAGCTGGAAGCAAGAAAGTGGCCAAGCAGGATGCAGCTAT
GAAAGCCATGACAATTCTGCTAGAGGAAGCCAAAGCCAAGGACAGTGGAAAATCAGAAGAATCATCCCACTATTC
CACAGAGAAAGAATCAGAGAAGACTGCAGAGTCCCAGACCCCCACCCCTTCAGCCACATCCTTCTTTTCTGGGAA
GAGCCCCGTCACCACACTGCTTGAGTGTATGCACAAATTGGGGAACTCCTGCGAATTCCGTCTCCTGTCCAAAGA
AGGCCCTGCCCATGAACCCAAGTTCCAATACTGTGTTGCAGTGGGAGCCCAAACTTTCCCCAGTGTGAGTGCTCC
CAGCAAGAAAGTGGCAAAGCAGATGGCCGCAGAGGAAGCCATGAAGGCCCTGCATGGGGAGGCGACCAACTCCAT
GGCTTCTGATAACCAGCCTGAAGGTATGATCTCAGAGTCACTTGATAACTTGGAATCCATGATGCCCAACAAGGT
CAGGAAGATTGGCGAGCTCGTGAGATACCTGAACACCAACCCTGTGGGTGGCCTTTTGGAGTACGCCCGCTCCCA
TGGCTTTGCTGCTGAATTCAAGTTGGTCGACCAGTCCGGACCTCCTCACGAGCCCAAGTTCGTTTACCAAGCAAA
AGTTGGGGGTCGCTGGTTCCCAGCCGTCTGCGCACACAGCAAGAAGCAAGGCAAGCAGGAAGCAGCAGATGCGGC
TCTCCGTGTCTTGATTGGGGAGAACGAGAAGGCAGAACGCATGGGTTTCACAGAGGTAACCCCAGTGACAGGGGC
CAGTCTCAGAAGAACTATGCTCCTCCTCTCAAGGTCCCCAGAAGCACAGCCAAAGACACTCCCTCTCACTGGCAG
CACCTTCCATGACCAGATAGCCATGCTGAGCCACCGGTGCTTCAACACTCTGACTAACAGCTTCCAGCCCTCCTT
GCTCGGCCGCAAGATTCTGGCCGCCATCATTATGAAAAAAGACTCTGAGGACATGGGTGTCGTCGTCAGCTTGGG
AACAGGGAATCGCTGTGTGAAAGGAGATTCTCTCAGCCTAAAAGGAGAAACTGTCAATGACTGCCATGCAGAAAT
AATCTCCCGGAGAGGCTTCATCAGGTTTCTCTACAGTGAGTTAATGAAATACAACTCCCAGACTGCGAAGGATAG
TATATTTGAACCTGCTAAGGGAGGAGAAAAGCTCCAAATAAAAAAGACTGTGTCATTCCATCTGTATATCAGCAC
TGCTCCGTGTGGAGATGGCGCCCTCTTTGACAAGTCCTGCAGCGACCGTGCTATGGAAAGCACAGAATCCCGCCA
CTACCCTGTCTTCGAGAATCCCAAACAAGGAAAGCTCCGCACCAAGGTGGAGAACGGAGAAGGCACAATCCCTGT
GGAATCCAGTGACATTGTGCCTACGTGGGATGGCATTCGGCTCGGGGAGAGACTCCGTACCATGTCCTGTAGTGA
CAAAATCCTACGCTGGAACGTGCTGGGCCTGCAAGGGGCACTGTTGACCCACTTCCTGCAGCCCATTTATCTCAA
ATCTGTCACATTGGGTTACCTTTTCAGCCAAGGGCATCTGACCCGTGCTATTTGCTGTCGTGTGACAAGAGATGG
GAGTGCATTTGAGGATGGACTACGACATCCCTTTATTGTCAACCACCCCAAGGTTGGCAGAGTCAGCATATATGA
TTCCAAAAGGCAATCCGGGAAGACTAAGGAGACAAGCGTCAACTGGTGTCTGGCTGATGGCTATGACCTGGAGAT

FIGURE 3217B

CCTGGACGGTACCAGAGGCACTGTGGATGGGCCACGGAATGAATTGTCCCGGGTCTCCAAAAAGAACATTTTTCT
TCTATTTAAGAAGCTCTGCTCCTTCCGTTACCGCAGGGATCTACTGAGACTCTCCTATGGTGAGGCCAAGAAAGC
TGCCCGTGACTACGAGACGGCCAAGAACTACTTCAAAAAAGGCCTGAAGGATATGGGCTATGGGAACTGGATTAG
CAAACCCCAGGAGGAAAAGAACTTTTATCTCTGCCCAGTA**TAG**TATGCTCCAGTGACAGATGGATTAGGGTGTGT
CATACTAGGGTGTGAGAGAGGTAGGTCGTAGCATTCCTCATCACATGGTCAGGGGATTTTTTTTTCTCCTTTTTT
TTTCTTTTTAAGCCATAATTGGTGATACTGAAAACTTTGGGTTCCCATTTATCCTGCTTTCTTTGGGATTGCTAG
GCAAGGTCTGGCCAGGCCCCCCTTTTTTCCCCCAAGTGAAGAGGCAGAAACCTAAGAAGTTATCTTTTCTTTCTA
CCCAAAGCATACATAGTCACTGAGCACCTGCGGTCCATTTCCTCTTAAAAGTTTTGTTTTGATTTGTTTCCATTT
CCTTTCCCTTTGTGTTTGCTACACTGACCTCTTGCGGTCTTGATTAGGTTTCAGTCAACTCTGGATCATGTCAGG
GACTGATAATTTCATTTGTGGATTACGCAGACCCCTCTACTTCCCCTCTTTCCCTTCTGAGATTCTTTCCTTGTG
ATCTGAATGTCTCCTTTTCCCCCTCAGAGGGCAAAGAGGTGAACATAAAGGATTTGGTGAAACATTTGTAAGGGT
AGGAGTTGAAAACTGCAGTTCCCAGTGCCACGGAAGTGTGATTGGAGCCTGCAGATAATGCCCAGCCATCCTCCC
ATCCTGCACTTTAGCCAGCTGCAGGGCGGGCAAGGCAAGGAAAGCTGCTTCCCTGGAAGTGTATCACTTTCTCCG
GCAGCTGGGAAGTCTAGAACCAGCCAGACTGGGTTAAGGGAGCTGCTCAAGCAATAGCAGAGGTTTCACCCGGCA
GGATGACACAGACCACTTCCCAGGGAGCACGGGCATGCCTTGGAATATTGCCAAGCTTCCAGCTGCCTCTTCTCC
TAAAGCATTCCTAGGAATATTTTCCCCGCCAATGCTGGGCGTACACCCTAGCCAACGGGACAAATCCTAGAGGGT
ATAAAATCATCTCTGCTCAGATAATCATGACTTAGCAAGAATAAGGGCAAAAAATCCTGTTGGCTTAACGTCACT
GTTCCACCCGGTGTAATATCTCTCATGACAGTGACACCAAGGGAAGTTGACTAAGTCACATGTAAATTAGGAGTG
TTTTAAAGAATGCCATAGATGTTGATTCTTAACTGCTACAGATAACCTGTAATTGAGCAGATTTAAAATTCAGGC
ATACTTTTCCATTTATCCAAGTGCTTTCATTTTTCCAGATGGCTTCAGAAGTAGGCTCGTGGGCAGGGCGCAGAC
CTGATCTTTATAGGGTTGACATAGAAAGCAGTAGTTGTGGGTGAAAGGGCAGGTTGTCTTCAAACTCTGTGAGGT
AGAATCCTTTGTCTATACCTCCATGAACATTGACTCGTGTGTTCAGAGCCTTTGGCCTCTCTGTGGAGTCTGGCT
CTCTGGCTCCTGTGCATTCTTTGAATAGTCACTCGTAAAAACTGTCAGTGCTTGAAACTGTTTCCTTTACTCATG
TTGAAGGGACTTTGTTGGCTTTTAGAGTGTTGGTCATGACTCCAAGAGCAGAGCAGGGAAGAGCCCAAGCATAGA
CTTGGTGCCGTGGTGATGGCTGCAGTCCAGTTTTGTGATGCTGCTTTTACGTGTCCCTCGATAACAGTCAGCTAG
ACACACTCAGGAGGACTACTGAGGCTCTGCGACCTTCAGGAGCTGAGCCTGCCTCTCTCCTTTAGATGACAGACC
TTCATCTGGGAACGTGCTGAGCCAGCACCCTCAGATGATTTCCCTCCAAACTGCTGACTAGGTCATCCTCTGTCT
GGTAGAGACATTCACATCTTTGCTTTTATTCTATGCTCTCTGTACTTTTGACCAAAAATTGACCAAAGTAAGAAA
ATGCAAGTTCTAAAAATAGACTAAGGATGCCTTTGCAGAACACCAAAGCATCCCAAGGAACTGGTAGGGAAGTGG
CGCCTGTCTCCTGGAGTGGAAGAGGCCTGCTCCCTGGCTCTGGGTCTGCTGGGGGCACAGTAAATCAGTCTTGGC
ACCCACATCCAGGGCAGAGAGGTCTGTGGTTCTCAGCATCAGAAGGCAGCGCAGCCCCTCTCCTCTTCAGGCTAC
AGGGTTGTCACCTGCTGAGTCCTCAGGTTGTTTGGCCTCTCTGGTCCATCTTGGGCATTAGGTTCTCCAGCAGAG
CTCTGGCCAGCTGCCTCTTCTTTAACTGGGAACACAGGCTCTCACAAGATCAGAACCCCCACTCACCCCCAAGAT
CTTATCTAGCAAGCCTGTAGTATTCAGTTTCTGTTGTAGGAAGAGAGCGAGGCATCCCTGAATTCCACGCATCTG
CTGGAAACGAGCCGTGTCAGATCGCACATCCCTGCGCCCCCATGCCCCTCTGAGTCACACAGGACAGAGGAGGCA
GAGCTTCTGCCCACTGTTATCTTCACTTTCTTTGTCCAGTCTTTTGTTTTTAATAAGCAGTGACCCTCCCTACTC
TTCTTTTTAATGATTTTTGTAGTTGATTTGTCTGAACTGTGGCTACTGTGCATTCCTTGAATAATCACTTGTAAA
AATTGTCAGTGCTTGAAGCTGTTTCCTTTACTCACATTGAAGGGACTTCGTTGGTTTTTTGGAGTCTTGGTTGTG
ACTCCAAGAGCAGAGTGAGGAAGACCCCCAAGCATAGACTCGGGTACTGTGATGATGGCTGCAGTCCAGTTTTAT
GATTCTGCTTTTATGTGTCCCTTGATAACAGTGACTTAACAATATACATTCCTCATAAATAAAAAAAAAACAAGA
ATCTGAATTCTT

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FIGURE 3218

GATCACAGACTGCGGAGTGGGTCAGGGGCTGCGAGGGCTGCCCCAAGTCCTACCGGGTTTGCACGGGCGCGCCCG
GCTCCGCCCGCAAGTGCGCCTTCCTGACTTACTGCTGGGTGCGCGGGGCTGGGGGTGCGAGTACCACCCCTGAAG
TCTCTTCCTGGGCGACCTCCGGGGCCTCATTCTAGGCCTCCTTAAAGAGAAGGATCTAAATTAGGAAAAGGAAGT
GCCCTTATCCACGACCAAGCTCTTCCACCTGCGGAGCTCGCTTAGTCTGCACCTCAACCGTGCGGAAAGTGACTG
CCCTGTTTACTGAGGAAAAACTGGGGCTCAGAAAGATACCATGGAGTAGTTTGAAACAGGAACAAAATCTTCTGA
AAGCTCGGAGCAGAAGCCTTTTTGGTCAAC**ATG**GAGGAAAAAAGACGGCGAGCCCGAGTTCAGGGAGCCTGGGCT
GCCCCTGTTAAAAGCCAGGCCATTGCTCAGCCAGCTACCACTGCTAAGAGCCATCTCCACCAGAAGCCTGGCCAG
ACCTGGAAGAACAAAGAGCATCATCTCTCTGACAGAGAGTTTGTGTTCAAAGAACCTCAGCAGGTAGTACGTAGA
GCTCCTGAGCCACGAGTGATTGACAGAGAGGGTGTGTATGAAATCAGCCTGTCACCCACAGGTGTATCTAGGGTC
TGTTTGTATCCTGGCTTTGTTGACGTGAAAGAAGCTGACTGGATATTGGAACAGCTTTGTCAAGATGTTCCCTGG
AAACAGAGGACTGGCATCAGAGAGGATATAACTTATCAGCAACCAAGACTTACAGCATGGTATGGAGAACTTCCT
TACACTTATTCAAGAATCACTATGGAACCAAATCCTCACTGGCACCCTGTGCTGCGCACACTAAAGAACCGCATT
GAAGAGAACACTGGCCACACCTTCAACTCCTTACTCTGCAATCTTTATCGCAATGAGAAGGACAGCGTGGACTGG
CACAGTGATGATGAACCCTCACTAGGGAGGTGCCCCATTATTGCTTCACTAAGTTTTGGTGCCACACGCACATTT
GAGATGAGAAAGAAGCCACCACCAGAAGAGAATGGAGACTACACATATGTGGAAAGAGTGAAGATACCCTTGGAT
CATGGGACCTTGTTAATCATGGAAGGAGCGACACAAGCTGACTGGCAGCATCGAGTGCCCAAAGAATACCACTCT
AGAGAACCGAGAGTGAACCTGACCTTTCGGACAGTCTATCCAGACCCTCGAGGGGCACCCTGG**TGA**CGTCAGAGC
TTTGAGAGAGAAGCTTCACTGAAACGGAGCAAACCTTCCACTGAGAAGCCACTTCAAGAGGCTGGTGCTGCTAGA
TCTCATGATGTGGCTGTTGGGAAGATGGTGGGGTTTGTTTGCCAGCTTGGAGTCCTATTAAATGAAAGCCAGCAA
CTCATGTTGGTAATAGGTCTACTGTGGGAACAGTTATCCCTAACCACAGCTCAAAATCGCTATCATCTTTAGGCA
AATTAAAATCTATGTGGCAGTGCTCATGGATGATTTTGTTCTAAGCAGTTTTCCTCCTGCCCTCCCCCGCCCCCC
ACACGCCC

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FIGURE 3219

AAGAAAAATTCAAAGTGGAGACAAGAACCATTGCTGTTGACTTTGCATCAGAAGATATTTATGATAAAATTAAAA
CAGGCTTGGCTGGTCTTGAAATCGGCATCTTAGTGAACAACGTGGGA**ATG**TCGTATGAGTATCCTGAATACTTTT
TGGATGTTCCTGACTTGGACAATGTGATCAAGAAAATGATAAATATTAATATTCTTTCTGTTTGTAAGATGACAC
AATTGGTACTGCCTGGCATGGTGGAAAGATCCAAAGGGGCTATTCTGAACATTTCATCTGGCAGTGGCATGCTCC
CTGTCCCACTCTTGACCATCTATTCTGCAACCAAGACTTTTGTAGATTTCTTCTCTCAGTGCCTCCATGAGGAGT
ATAGGAGCAAGGGCGTCTTTGTGCAGAGTGTCCTGCCATACTTCGTAGCTACAAAACTGGCTAAAATCCGGAAGC
CAACTTTGGATAAGCCCTCTCCGGAGACGTTTGTGAAGTCTGCAATTAAAACAGTCGGCCTGCAATCCCGAACCA
ATGGATACCTGATCCATGCTCTTATGGGCTCGATAATCTCAAACCTGCCTTCTTGGATTTATTTGAAAATAGTCA
TGAATATGAACAAGTCTACACGGGCTCACTATCTGAAGAAAACCAAGAAGAAC**TAA**GCATTGATAACTGCATTGT
AACTTGGCCAGATGCTCCAGCATATGCACGTTCACTGCAAAGCACCCTACTGGTTTTGAAAATCTGACCTTGTCA
TTTCAATAGTTATTAACATGACTAAATATTATCTTAATTAAGAGGAAAATAGAAGTTGCTTTTAGGGGTTTCTGA
CATATATTCTGGATACTATCCGAGGTAATTTTGAAGTTTAATATAAATGCTCATATCAAATGAATATAGAACTAA
TATTGTCGGGAACACCTAATAGAAAGGAATACTATTATAGCAAATCACAGAATGATAGACTCAAGCATAAAACTT
GGCAGTTTTATCTGCTTCAAAATGCCATTGATCATTATTCCTGTATTTTCTCTGAAACTGATTATAAAAACCAAT
GTCCAGCTACTCTTTTGTTTTTGACACTTGAAGAAATGGAGATCGATTTGATTTGTTTATAAGCAGACACACTGC
AATTTACAAAGATCTCTTTACGGTTTTATAAAATTATCTTCCAGTTTGTACATTTATATGGAATTGTTCTTTATC
AAGGGTAGCTAATGACATGAAAATAATTGTGAAATATGGAATTATTTCTGACACATGAAGCCCACTAAACTATGC
TTTCTTATAATGCATATTTCTTCTCAGTTTAAATGTATGTAAATATCGAAGCTATATGGTATGATTTATAAAGAT
AAATGGGCCAAAGTGTACATTGAGACTGGCAGCCATCTATGGTACCACTGAAACCCTGACCCAGAAAAGTGGCTT
GCTTGGACACCCAGCTGCCTTTGTTTCTGCATTAAACCAATATTGATCACACATATGACACAGGCTAGTCCTATA
AAAGTAATGACTTCATAGAAATGGCATTATAATTTTTAAGTTGATACTCTACAGGTAGCTATTGATATAATTAGT
TTTAATAAAACATGCTGCAACCATGGTATACAACAAAAATACATTTCTTTGGTGATTGAAATTAAGGCCGTATTT
ACAATGACTTAATATAAGACTGACTTTTATCCTGCTTCATAACTTGTATGGAGAACTCACCAAGAAAGAATTCAA
TACTGTGAAATATGCAGCAAGAAGATTGGTCTTTACCTAGGCTGTGTTTCCTAAGCTCTGAGTTTTCAGCACCAG
TAGATTTGTATTAAAAGAAAAAAAAATGGGGCCTTAGCTTCTGGCTTTTAATTTTGCCAGCTAAGGACATAAAAC
AAAAATAAACAAACAAAAACAAATAGCCATCTGCTATCAGCATCATTATGTAAAAGAAAATATATTTTAGCCCCT
AAAATTAGGAAGAATGTAATCTCAGAATAAAGGTTGTCATTTAAGTTGAATAAATATATAGCTTTATGAAAAACA
C

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FIGURE 3220

GTGGAGCACCATGGAAGGCGACTGTCTGAGCTGCATGAAGTATCTGATGTTTGTATTCAATTTCTTCATATTTCT
GGGCGTGGCCTGCCTGCTGGCATCGGATCTGGGTC**ATG**GTGGACCCCACCGGCTTCCGGGAGATCGTGGCTGCCA
ATCCTCTGCTCCTCACGGGCGCCTACATCCTCCTGGCCATGGGGGGCCTGCTCTTTCTGCTCGGCTTCCTGGGCT
GCTGCGGGGCCGTCCGTGAGAACAAGTGTCTGCTGCTATTTTTCTTCCTGTTCATCCTGATCATCTTCCTGGCAG
AGCTCTCAGCAGCCATCCTGGCCTTCATCTTCAGGGAAAATCTCACCCGAGAATTCTTCACCAAGGAGCTCACCA
AGCACTACCAGGGCAATAACGACACAGACGTCTTCTCTGCCACCTGGAACTCGGTCATGATCACATTTGGTTGCT
GCGGGGTCAACGGGCCTGAAGACTTTAAGTTTGCATCTGTGTTTCGACTCCTGACCCTGGATAGTGAAGAGGTGC
CGGAGGCCTGCTGCCGGAGGGAACCCCAAAGTCGGGACGGGGTCCTGCTGAGCCGGGAGGAGTGCCTCCTGGGAA
GGAGCCTATTCCTAAACAAGCAGGGCTGTTACACGGTGATCCTCAACACCTTCGAGACCTACGTCTACTTGGCCG
GAGCCCTTGCCATCGGGGTACTGGCCATCGAGGAAGAAAGAGCTCATTCTGTCTCACAAGCCACCGGCATCCTGT
ATCAGTTCCAGCCTCCCCTCAGGCTTTCCAGTCACCAGGGACACTCGGAGCCACAGCCTAGAGCCCCGTGTTCCC
TGGCCTGTGCGTCTGCCCCCTTC**TGA**GATGCAGCCAGAAGCTCTGTGCCTGCTGCAAAGATTCAGGTGGACCCTC
CTCTAATCTCCTCCTGCTGTGCCCGCCAGTCCTTGCCCTCCCACCAGGTCTCTGAGCTCAGTCTTACCAAATTCG
CCCTTTAACAGCTTGCTCTGGCAACCCCATAAATGACACCTGAGCTCCGTAGAAGCTAAGCTCCTGAGACCCAGG
GGGACCTGCCACTGGTACCGCGGCCCAGCCTGGGGCCTGGGGGCTGCCCCTCTTGAACCACCCACATGCTTAGCC
CCAGCTTTTTGGAAGAGGCAAATGGCTGGTCTGAGGATGACACACAAAAACA

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FIGURE 3221

CACCGCCAGCCAAAGCAGTCCCTTCCATTTCAGGCACCGCCTGGGCCCGGGAGACACCGCAAGGCTATTTAAGAT
GGTGTGGTTTGCCCATCTACGTTGATCGTCCCAAGAAAGGGCAACCGTCTGCAGAACTTGCCAGGAAAGTCATCC
TGGGCGGCGCGGCCACGCCAGAGTCTCCCCGCGCGGCTTCCTCCCCCGGCGCCTTCTTTCCTCGCGCGTGCGCCC
CCTGCAGGCGGCCCCCGGGAGAGCTTCGCGGGGGAGCCGTGAGCCTGGTTTCCCCGCCAACCCCCATTCCCGCCG
CCCCGGCGGCCACCCTGGGGGCGAGGCAGCCCGGCGCGTGGGAGGGGACGGCGCGCCATTGGCTTGTGCGCGGAA
CCGAGAGGAGGGACCAGCGCGGGCCGCCAGACTCGCCCTTCTGCAGAGGCCGGGCTGGAGGAGAAG**ATG**GCGGCC
AAGCAGCCCCCGCCTCTGATGAAGAAGCACAGCCAGACGGACCTCGTGAGCCGCCTGAAGACCCGCAAGATCCTC
GGCGTGGGCGGGGAGGATGACGACGGGGAGGTGCATCGCTCCAAGATCAGCCAGGTCTTAGGCAATGAAATCAAG
TTTACCATTCGGGAGCCTTTGGGGCTCAGGGTCTGGCAGTTCGTCTCTGCTGTGCTCTTCTCCGGCATTGCCATC
ATGGCGCTTGCCTTCCCTGACCAGCTCTATGATGCGGTCTTTGATGGAGCCCAGGTGACCAGCAAGACCCCCATC
CGCCTCTACGGCGGTGCCCTCCTCAGCATCTCCCTGATCATGTGGAACGCTCTCTACACGGCTGAGAAGGTCATC
ATTCGATGGACCCTGCTCACCGAAGCTTGCTATTTCGGGGTCCAGTTCTTGGTGGTCACTGCCACGCTAGCTGAG
ACGGGCCTCATGTCCCTGGGGATCCTGCTGCTCCTGGTCAGCCGCCTCCTTTTTGTCGTCATCAGCATTTACTAC
TATTACCAAGTCGGCCGAAGACCCAAGAAGGCC**TAG**TTGCCCGCATGCCTGGGCCCTCGCATGCCTGGGCCAGAG
TGGCGCTGGGGCCTCGGCTTCCCTTTGGCTCCTGGAAGGCAGGAGGGTCCCCTGCCCTGCCCCAGTCCTGCCCCA
GGGAGGCAGGGGGTGGGGGGCCTTCCTTTCCTCCTGGGCACCCCGTGTGCTGTGATCTCCTGGGCTTTCAGGCTT
GACATGCTGGTCTGGGGAGAGACAGGGCCTCTGCTGCCCTGTTCTTCACCCTCACAGTGATACCTCCTTTCCTTG
GGTCTCTTGGCCTCCAGACCCCCTCAATAGACACTGACTAAAGTCAAGCTGGAGTCATGAGGGTAGTGGGCTAAG
TCGAGGGTCCAGCCTCTTCTGCCAGGAAGCCCTTCTTGCTTTTGAGAGAGGCTGTGACCACCCCCCATCCTTCTC
CCTACACTCCCAGCCAACCTAGTGCCCAAGCAGCTAAACTTGGCTTCCTTCTAATCCTGGAAAACCCTGTACCCC
TCCTCCTCAATCTGGCCCTCTCCACATGCACACCCTGAGAACACACACAGACACACAACACACACACATACACAC
CCCTGAACACACACACAGACACACATACACCCATGATGTGAGCAAACACACACACGTGCGCCTTCATAGCCCAGC
CAAGGGCATGCAGGCAGGGTGTGCTGCCTGAGATGGCACCTCCCTTTCAGCCATTCTTCAAGAATGGGCCACACA
CAGCTAGAAGTCCTCTCCCAGCTAGAAGTCCTGTCCCCACTCTCCTGGCCTGACAAGATGAGCTCTCCTGGGACC
TTGCTCTAGGGCACTCTGCCTCTACCCTAGGACACTGGAATGCCCTGGGAGCCCCCTCCCTGCAACCAGCCTGAG
TTCAGCCCCACGGACAAAGGGACACACAGCCCCCAATGGAGACCATTGTAAGTGGTGGGGCTGGGAGAGGAGGAA
CAGAAGGAAAGCCATAGCGCTCTCTTGCCCCTTGGCATGTACCCCAAGGCCTGATGGCCACTGGGCTCAGCCTGT
CCCCCACTCCTGCCTGCTTCCCGGTGAGCTGCCCCCGACACGTGCAGCCCGGGCTGCCTCCAGGGTCTGGCTGAG
TGGGATCAGGTGGCCCTCCAACTCAGCACAGGAAATAAGTAGAAACATTTCAGCAGGCCACCTCCCCTCATCTTC
CCCGCCCTGTCCAGCGCCCTGGCAAAGGCTGACAACTGGCTGTCTTGGGGCCGAACAGCCCCTGCCCTGCCTCTG
AGGGCCCACCAGCCTGTGCTGCATACCCACCGCCCAGCTTCTCCCTGAGGGCCCACCAGCCTGTGCTGCATACCC
ACCACCCAGCTTCTCCCTGAGGGCCCACCAGCCTGTGCTGTACACCCCGTTAGTCCCTGATCCCAACCTTCTCCC
TCCTGCCAGCACACCGATGCACACACCGGAAGTGGCGAGCCCAAGCCCTGGGGACAGGTGTAGGGAGAAAAGCAG
CCCCAGGCCTCAGACTCGCTTCCCATCCTGGCATAGAGTGGGGGATGGCTGGAGGGTGTCTATAGGTACAGCCCG
CTCTGGCTGCTGCCAGGTGGGCCCCTGCCAGGGGTCCTCACCCCTGTCCACCCTGTGCCTGGCTGTCCCTGCACC
CAGATACAGCAACATGGCCTGTACCCAGCAGAGTGGTGGCACCACCATGGTTACAGCGGATGCCCCGAGACTCTG
CTTGGTAAACGTGGCAGAGCAGAATGGGAGGCTGGACCCTGAGGAAGGGCCCCTCTCCTGGCATCTGTCTCTTGC
TACCTAAGCCTGTGCCTCTCCCTAAAGAGCTGCCTCCCTGCTGCCGAGCCCTGGTCTGGCCACGAGCCACTACTG
CCTCCCACAGGCACCACTGCCTCCCGCTGCTGCCCACAGGTGGTGCCGCCAATGGGCAGTGCCCTCAGGCCGAAG
CCTCAATCCCCCATCTGAGCCAGGCCTAATCCTCTAATAGTGATGGTTGGTTTGTCCTCCCATAACTGCAGGTGG
ATTCCACCTGGGGAATGAGGCTGCGTGTCGGGCGTCTGCTGGCCCTGAGACATCCAGTCTTCCACACTCAACTGT
GAGATGGGAGGGTGGCGTGGCCTTACCCCATGAGGCTGTCCAGGCTCTGGCACACAGCTGTGCTCACAAAATACT
GGGTGGCTTGGTTAGAGCTAATTGTAGTGGAGCCTGCAGGTGAGGGTGAGGGAGGGGGCTGCAGGTCAGGTAAGA
TCTGGAAGACAGACGTACAGCTTGGAGGGCAGGGGGACTCTAAGGCAAGGAGATTTACAGTTGGGAAGGAGGCAG
TGGCAGAGGGGTGAGGGACAGGGGCCCTTAAGTCCAGCGAGGAAAGCTCGGTGTGGGCCCGCTCTACGCTCCGTT
TGGGGTGACCTGGAACGCCTCTTCTCCCAGCTCCCTCCAGCCATCAGCAGCCTCTTGTCAAGCTTCTGCCTCGCC
CCAGTCTATCCCCAACCCCAAATTAAGACCACCTTTCTTCACGGTCACTATTTATTCTTTGTTCCTTTTTCTTTT
TGTAAGAAACATTCACAAAAACCAGTGCAAAACCATC

FIGURE 3222A

GGCGGCGGGAGAGCTGCTGGCTCGCCCGGATCCCGGGAGCTGCCTGGAGGCGGGCCCGGCCCGGGGAAGGTGAGC
GGCTGCGGGACCCAGCCCCTCGCCGGGAGCGGGCACC**ATG**GTGCTGTCGGTGCCTGTGATCGCGCTGGGCGCCAC
GCTGGGCACAGCCACCAGCATCCTCGCGTTGTGCGGGGTCACCTGCCTGTGTCGGCACATGCACCCCAAGAAGGG
GCTGCTGCCGCGGGACCAGGACCCCGACCTGGAGAAGGCGAAGCCCAGCTTGCTCGGGTCTGCACAACAGTTCAA
TGTTAAAAAGTCCACGGAACCTGTTCAGCCCCGTGCCCTCCTCAAGTTCCCAGACATCTATGGACCCAGGCCAGC
TGTGACGGCTCCAGAGGTCATCAACTATGCAGACTATTCACTGAGGTCTACGGAGGAGCCCACTGCACCTGCCAG
CCCCCAACCCCCGAATGACAGTCGCCTCAAGAGGCAGGTCACAGAGGAGCTGTTCATCCTCCCTCAGAATGGTGT
GGTGGAGGATGTCTGTGTCATGGAGACCTGGAACCCAGAGAAGGCTGCCAGTTGGAACCAGGCCCCCAAACTCCA
CTACTGCCTGGACTATGACTGTCAGAAGGCAGAATTGTTTGTGACTCGCCTGGAAGCTGTGACCAGCAACCACGA
CGGAGGCTGTGACTGCTACGTCCAAGGGAGTGTGGCCAATAGGACCGGCTCTGTGGAGGCTCAGACAGCCCTAAA
GAAGCGGCAGCTGCACACCACCTGGGAGGAGGGCCTGGTGCTCCCCCTGGCGGAGGAGGAGCTCCCCACAGCCAC
CCTGACGCTGACCTTGAGGACCTGCGACCGCTTCTCCCGTCACAGCGTGGCCGGGGAGCTCCGCCTGGGCCTGGA
CGGGACATCTGTGCCTCTAGGGGCTGCCCAGTGGGGCGAGCTGAAGACTTCAGCGAAGGAGCCATCTGCAGGAGC
TGGAGAGGTCCTACTATCCATCAGCTACCTCCCGGCTGCCAACCGCCTCCTGGTGGTGCTGATTAAAGCCAAGAA
CCTCCACTCTAACCAGTCCAAGGAGCTCCTGGGGAAGGATGTCTCTGTCAAGGTGACCTTGAAGCACCAGGCTCG
GAAGCTGAAGAAGAAGCAGACTAAACGAGCTAAGCACAAGATCAACCCCGTGTGGAACGAGATGATCATGTTTGA
GCTGCCTGACGACCTGCTGCAGGCCTCCAGTGTGGAGCTGGAAGTGCTGGGCCAGGACGATTCAGGGCAGAGCTG
TGCGCTTGGCCACTGCAGCCTGGGCCTGCACACCTCGGGCTCTGAGCGCAGCCACTGGGAGGAGATGCTCAAAAA
CCCTCGCCGGCAGATTGCCATGTGGCACCAGCTGCACCTG**TAA**CCAGCTGCCCAGCTGCCTCCCTTCTTGGACAG
CCCTGACCCGTCCTCTGCAACCTCCTTTCTGTGCCCCTTTCCTCATTCTGACACCCAGAAGACAGTGACAGATGT
GTTTGCAAGGCTGGGATGGCTCTCTCATCATACTCTTGTTTCTTAGAAATAAGCAAGACAGAGCAGGAAATGGAA
TATGCGGGTCACACTGAGGAATGCATTTTGCTCATCTGTGTTATTGAAGGAGGTGCTTATTAAATACAGTTCCTA
TGCCTGTTTTATAGGTGGGGTTAGGCCAGATGCAGAGAAAGCTAAATGTGGGAATCATGGATGCAAAGAAGAATT
TGGCTTTTTGAAAAACAAGCATTTCAAAAATGATGAAGGAAGTGAAAGTATCCTGGATCAACTCCTAGAGTTAGA
GATTGCCCAGGTGGAAAGAAACCTTAGCCAGCGTTCAATCAAGCTCACCATGCAGGGCAGTCACCCGGCAGTTCT
CAAACTTTAGCATGTGAAGAGTCACCAGCAGATTCCTGGGCTCGCCTGGAGACATTCCTAGTCGGTATTCCTGGT
CGAAGCCCAGGAGCCTTCCTTTTTAACAAGCTGATGTAGAGGGTGGAGCACTGTATGTGGAGAAATTCCTTCTAC
AATATTCCACACAGGTTTTTGGCCACAGTCCTTGATGGAGTCCCAAAACCATGGTGCAGCCAGTTCCAATGCTGG
ACACCTCAACCATCAGGGTGAAATCTGGGGCCTCAGCTTTTTAATTTAATTATTTTAATTCTTAATACTTTAATT
TGTGCATTTCATAAGCCCCCTGCTCTTGGACTGAATTTTGTGCTTTTTATTGAAGAATTTTATTGTTTTTATCTT
AAAATCAGTTTCTATTATCCTTGGGGAGACCATCCCTAACAAAGTACAGGTGGGATCTCCTGTGAGTCATTGGCT
GGGTTCTGATTGCTAGATGTCACACCCACCAGCATCACCAAAGTGACTCTGAGATAGACCGGTCCCTTCTCAGCG
TTCCAGTCACTTCAGGAGGAATTTAGTTATTGACTTAGTCTATGACATCTGGCTACATGTAGGTAGAGAAGAAAG
ACAATTTTAAAAAGGAAATCAGGTCTTTTGCAACTGTGCCTCCCTCTGTCTGTTTTCACTTGAATGGGTAAATAA
CCAGCAGCTAGGTTTTGAATTCCTACCTTGTTATTCTAAACAGATGTCCACATTGTTAATTAAATCTAAATTATG
AGCCTTGCTGAGTGGATACGGTACTTACACCTGAACCAGGATTCCTGGGTTCTGTTGTTGACATTGCCCTTCAGC
ACCTGTTTGGCCAGCTGTATAAGATAGGACTAATGACTAGGAAGCCTACCCCAATGAATGATATACTAGATGAAA
TAGTGTTCAAAACCTGTAGGCACTCTCTGGCTAAAAACAAACTCTGAGGCCACCAGCAGATCATCTTTAAGCTAA
GTTACTATTTTTCACCTTTTTTTTTAGACGGAGTTTTGCTCTTTGTTGCCCAGGCTGGAGTGCAGTGGCACGATC
TCGGCTCACTGCAACCTCCGCCTCCCAAGTTCAAGCGATTCTCCTGTCTCAGCCTCCTGGGTAGCTGGGATTACA
GGTGCCCACCAACATGCCTGGCTAATTTTTGTACTTTTAGTAGAGATGGGGTTTCACCATGTTGGCCAGGCTGGT
CTTCAACTCCAGATCTCAGGTGATCTACCCTCCTCGGCCTCCCAAAGTACTGGGATTACAGGCCTGAGCCACCGC
GCCCGGCCTATTTTTCACTTTAATTTGGCAGCTGAGAATGCCCAAAAAGTGCCAGAAGCATCGTGGCATTTCCAG
AACCATGGATTCTGCCTTTGGACCCCTCTCTATTAATATTAAAACTCTGGGCCTTCAGATGTCACCCTAATCCAC
TGCCCTAAGACAGAATTTCTGGACAAGATGGGTAAGGGCTTCATTCCTTCAACAAGTCAAGTCATACTTGGCCTC
TCCCTGAGAATCTGAGCAGGAGCCTTATAACCTGTGGTCATTATTTTTTCTTTCTGTACAGAAATAGAAAAGCAT
TAGAAATAACTTCTAACCATCCTCTGAAAAAACAGAAAAAATATCGAATCCCTCTTTCATGAGAAGTCTTTTGGA
TAATTGGAAACCTTCATCACTGAGGTTGGCCAGCCCCTGCCAAGTGTTGTGTAGGCAAAGCACTTGTTAGTGGCT

FIGURE 3222B

TCCTATGAAATGTTTTAGAGATCTCTTCACCATACTGGTTTCTTCTCTTTGGTTGGTGTGGGTAAAAGAAAACAA
AACATTTCCTATAAGCTGAAAGCTGACCAGCATTCTCTTCTTGGTAACATCTACTACTCCAACCTAGAAAATTTG
GATTCTAGACCAAAAATCAGGAAACATGGCTCCTTATAAATCTGTGCAGCTGCCTTATAGTACCATCAAAGGAAT
TTCAGGTGGGCTGGGCGGGGCCCCGATCCCAGAATTATCAACTCCACCCATCATCATTTGGTCATGAAGCATCCT
TTCATTCTTCTTCTTCTTTTTTTTGGGGGGGGCGGGGCGGGGGAGGGATCTCAAAGTTTTAGTCTTCCAGAATCC
AAATTAAAGGTTGCCCCTGATGGGGGCCAGGTTCCGCCACAGAACATCTTAGATGTCAGCCTTGACCTCACTTAG
CAGGGATTACAGAAATGAGATACATTTTGAAGGAGAGTTGTCTGTTATGTTCACTGTATTCTAAGTGCCTGGGAT
AAAGCTGTCTCATGGGTGCTCCATATATATTCATATATATTTGTTGAGTGAATTAATGAATTAAGAGTGGCTGGC
AGAGTAGGCAGAAAAAGACACTGCAAATGGCATAAAAATTAAAGTCCTAGCTGAGTTCTCAATGGTAAAGGCATC
AGATGTCTTAGCAGTCAAGCTAGAAATTCATGACAATGAGTATTACTATTTGCCTAATGACAACTCATTGCTCTC
CATGTAAATGTAATCAACAGATGAAGAGAATATAATTGCTCTGCTTTTCCACTAAAACTCCATCTTAGTGAATTT
TAAATTATCCAGAGATGTCAAACTGCCAAATAAAAATATTTCAGTAGTCTTTGCATCAGCTTACCTTGTACCAGA
AACATTTCCAATTTACTATCAAATTATAGTAACTGAGCCTGTGTGAAGTATCTCATCATTTTCGAAAGGAACACC
TTGTGTGATGCCAGTGAGCATTTCTAAAAAGGGTGTGAGGTAGAGGTAAAAATAAGGTGAGAGACCATTTCAGAA
TGCACTGTTGCTCAAAAAGGTGATCTGGTTCTTTCTTCAGAGATTTCTACGGGGATAGAAAATCGGGAGTCTGCC
CTCATTAATCTGTGACTCCACCTCTTGCATCAAATCAATATCTATTTGTTGAGCACTTATTGATTAAGACCTTGC
ATATGTCTGTCCATTTTGATTTGAGATACAACTTTTTGTGTGGGTTGAATGACAAATCACTCCAAACAAAACTGG
GCACAGAGAATCAGCTAGGAGACCAGTTATTCAGGGTCCATTTCTCTTGGATGTAAAGGAGTCCTGGGTAAAATG
TGGCTGTAACCTAAACCAACTAGTCCTTGTGATTTGTTTCTGCCCTCTGTGTTTCCTGTTGTCAAATGCTAAGTG
TGTGTTTTGCAGTCATGAACTAAAGCACAAAAAGATGCATGAGACATTGTAGTCATATGTCTGGTGTGACACTTT
GGAGCAAAAACCTTGCAGTGGTAAATAAAAAATTTCCAACAGGG

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FIGURE 3223

CCCCGCCCGTTTGCCAGCGCTCAGGCAGGAGCTCTGGACTGGGCGCGCCGCCGCCCTGGAGTGAGGGAAGCCCAG
TGGAAGGGGGTCCCGGGAGCCGGCTGCGATGGACGCCGTCTTGGAACCCTTCCCGGCCGACAGGCTGTTCCCCGG
ATCCAGCTTCCTGGACTTGGGGGATCTGAACGAGTCGGACTTCCTCAACAATGCGCACTTTCCTGAGCACCTGGA
CCACTTTACGGAGAACATGGAGGACTTCTCCAATGACCTGTTCAGCAGCTTCTTTGATGACCCTGTGCTGGATGA
GAAGAGCCCTCTATTGGACATGGAACTGGACTCCCCTACGCCAGGCATCCAGGCGGAGCACAGCTACTCCCTGAG
CGGCGACTCAGCGCCCCAGAGCCCCCTTGTGCCCATCAAGATGGAGGACACCACCCAAGATGCAGAGCATGGAGC
ATGGGCGCTGGGACACAAACTGTGCTCCATCATGGTGAAGCAGGAGCAGAGCCCGGAGCTGCCCGTGGACCCTCT
GGCTGCCCCCTCGGGCCATGGCTGCCGCGGCCGCCATGGCCACCAGCCCCGCTGCTGGGCCTCAGCCCCTTGTCC
AGGCTGCCCATCCCCCACCAGGCCCCGGGAGAGATGACTCAGCTGCCAGTGATCAAAGCAGAGCCTCTGGAGGTG
AACCAGTTCCTCAAAGTGACACCGGAGGACCTGGTGCAGATGCCTCCGACGCCCCCCAGCAGCCATGGCAGTGAC
AGCGACGGCTCCCAGAGTCCCCGCTCTCTGCCCCCCTCCAGCCCTGTCAGGCCCATGGCGCGCTCCTCCACGGCC
ATCTCCACCTCCCCACTCCTCACTGCCCCTCACAAATTACAGGGGACATCAGGGCCACTGCTCCTGACAGAGGAG
GAGAAGCGGACCCTGATTGCTGAGGGCTACCCCATCCCCACAAAACTCCCCCTCACCAAAGCCGAGGAGAAGGCC
TTGAAGAGAGTCCGGAGGAAAATCAAGAACAAGATCTCAGCCCAGGAGAGCCGTCGTAAGAAGAAGGAGTATGTG
GAGTGTCTAGAAAAGAAGGTGGAGACATTTACATCTGAGAACAATGAACTGTGGAAGAAGGTGGAGACCCTGGAG
AATGCCAACAGGACCCTGCTCCAGCAGCTGCAGAAACTCCAGACTCTGGTCACCAACAAGATCTCCAGACCTTAC
AAGATGGCCGCCACCCAGACTGGGACCTGCCTCATGTGCCCTCCCGAAGCCTCCTATTCTACGATGACGGGGCAG
GCTTATGGGAAGATGGCCGCAGCACCCTGCTGCCCATGGAGCCCCCAGATGGCTGGGAAATCAACCCCGGGGGGC
CGGCAGAGCAGCGGCCCCGGGACCACCTGCAGCATGATCACCTGGACAGCACCCACGAGACCACCAAGTACC**TGA**

GTGAGGCCTGGCCTAAAGACGGTGGAAACGGCACCAGCCCCGACTTCTCCCACTCCAAGGAGTGGTTCCACGACA
GGGATCTGGGCCCCAACACCACCATCAAACTCTCCTAGGCCATGCCAAGACCCAGGACATAGGACGGACCCCTGG
TACCCAGAAGAGGAGTTCTTGCTCACTAACCCGGATCCGCCTCGTGCCCCTGCCTCCTGGAGCTTCCCATTCCAG
GAGAAAAGGCTCCACTTCCCAGCCCTTCCTTGCCCCTGACATTTGGACTCTTCCCTTGGGCCGACCACTCTGTTC
TCATTCTCCTTCCCACCAACATCCATCCGTCCTTCTCAGACAAACCACTCACTGGGTACCCCACCTCCTCTCTCA
TATGCCCAACACGACCACTGCCTCCCTGCCCCCACACCTGCACCCAAACAGACACATCAACGCACCCCACTCACA
GACACCCCTTACCCCACCCCCACTGTACAGAGACCAAGAACAGAAATTGTTTGTAAATAATGAACCTTATTTTTT
ATTATTGCCAATCCCCTAAGATATTGTATTTTACAAATCTCCCTCTTCCCTTCGCCCCTCCCTTGTTTTATATTT
TATGAAGTTAGTGCGGGCTTTGCTGCTCCCTGGCCCAGGAAAGAGGGACTCCCTGACCCTCACCTGGCACCCCCC
TGCTGCTGCCCAAGCCGCTGGGCCTTTTTAATTGCCAAACTGCTCTCTTCATCAGCTCAGCACATGCTTTAAGAA
AGCAAAACTAAAAAAAAAAAAAAAAAAGAGGCAGCATC

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FIGURE 3224A

AGGACTCTCTTAGCCTCCACCCATGTGAACCATAATATCTATATTACGGAGGTGAAGACTGGCAAGTGTGTTCAT
TCCCTGATTGGACACCGCCGTACTCCATGGTGTGTCACTTTTCATCCCACCATCTCAGGCCTTATTGCTTCTGGC
TGCCTAGATGGGGAGGTTAGGATTTGGGATTTACACGGTGGCAGTGAAAGCTGGTTCACAGATAGCAACAATGCC
ATTGCCTCCCTGGCTTTCCACCCTACGGCTCAGCTCCTGCTGATTGCCACTGCCAATGAGATCCACTTCTGGGAC
TGGAGTCGACGGGAACCCTTTGCTGTGGTGAAGACAGCTAGTGAG**ATG**GAACGGGTCCGTCTGGTGAGATTTGAT
CCACTTGGACACTACTTACTCACAGCAATTGTTAACCCCTCTAATCAACAGGGTGATGACGAACCAGAGATCCCC
ATAGATGGAACAGAATTATCCCACTACCGTCAGCGTGCCCTCCTGCAATCACAGCCAGTTCGCCGGACGCCTCTC
CTCCACAATTTCCTGCACATGCTGTCCTCCCGCTCTTCTGGCATCCAGGTGGGAGAGCAAAGCACAGTGCAAGAT
TCTGCTACCCCCTCACCCCCACCGCCTCCCCCTCAGCCCTCCACGGAGCGCCCCAGGACTTCCGCTTACATCAGG
CTCCGACAGCGGGTCAGTTACCCCACAGCTGAGTGCTGCCAGCACCTTGGGATCCTGTGCCTTTGCAGCCGCTGC
TCTGGCACTCGAGTTCCTTCCCTCTTGCCACACCAGGACAGTGTCCCCCCTGCTTCTGCCAGAGCTACTACCCCT
TCCTTTTCTTTTGTACAGACCGAGCCCTTCCATCCCCCGGAGCAGGCCTCGTCAACGCAGCAGGACCAGGGCCTC
CTGAACCGGCCGTCTGCCTTCAGTACAGTCCAGAGCAGCACTGCCGGCAACACGCTCCGCAACCTCAGTCTGGGT
CCTACCCGCCGCTCTTTGGGAGGGCCTCTGTCTAGCCACCCTTCTAGGTATCACCGAGAAATAGCTCCTGGGTTG
ACAGGATCTGAGTGGACCCGGACAGTACTCAGTCTGAACTCCCGCTCTGAGGCGGAATCCATGCCCCCGCCCAGA
ACCAGTGCCTCTTCGGTGAGTTTGCTGTCTGTGCTGAGACAGCAGGAAGGTGGCTCTCAGGCATCTGTGTACACT
TCAGCCACAGAAGGGAGGGGTTTTCCGGCATCAGGGTTGGCAACTGAGTCAGATGGAGGGAATGGCTCCAGCCAA
AACAACTCAGGCAGCATTCGCCATGAGCTTCAGTGTGACCTGAGACGCTTCTTTCTGGAGTATGACCGGCTTCAG
GAGCTGGATCAGAGCCTGAGTGGGGAAGCTCCCCAGACCCAACAGGCCCAGGAAATGCTCAACAATAACATTGAA
TCTGAGAGGCCAGGCCCTTCCCACCAGCCCACCCCACACAGCAGTGAGAACAACTCCAACCTGTCCCGTGGCCAC
CTGAATCGCTGTCGTGCTTGCCACAATCTCCTGACCTTCAACAACGATACCCTGCGCTGGGAAAGAACCACACCT
AACTACTCCTCTGGCGAGGCTAGTTCCTCTTGGCAGGTCCCCAGCTCCTTTGAGAGTGTGCCATCAAGTGGCAGC
CAGTTGCCACCTCTCGAGCGGACTGAGGGCCAAACGCCCAGCTCCAGCAGGCTGGAGTTGAGCAGCTCTGCTAGT
CCGCAGGAGGAGAGGACTGTGGGGGTGGCCTTTAACCAGGAGACAGGCCACTGGGAAAGAATTTACACCCAGTCC
AGCAGATCTGGAACTGTGTCACAGGAGGCCTTACATCAGGATATGCCTGAGGAGAGCTCTGAGGAGGATTCACTC
AGGAGGAGGCTGCTGGAATCTTCCCTCATTTCATTATCCCGTTATGATGGAGCAGGATCCAGAGAGCACCCAATT
TACCCAGACCCAGCGAGGGACAATGGTGACAGATCCAGGCACCGAGCTCCACGCAATGCCCGGATGTCTGCACCT
TCGCTTGGACGCTTTGTCCCAAGGCGTTTCTTGCTGCCTGAGTACTTGCCTTATGCTGGGATTTTTCATGAACGT
GGACAGCCTGGCTTGGCTACTCACTCTTCTGTTAACAGGGTCCTGGCAGGGGCAGTGATCGGTGATGGACAGTCT
GCTGTGGCCAGTAACATTGCCAATACTACCTACCGGCTCCAGTGGTGGGACTTCACTAAGTTTGACCTCCCTGAA
ATCAGTAATGCTTCCGTGAATGTGCTGGTGCAGAACTGCAAGATCTACAATGATGCCAGCTGTGACATTTCTGCA
GATGGCCAGCTCCTGGCAGCTTTCATCCCCAGCAGCCAGAGGGGCTTTCCTGATGAAGGCATCCTGGCAGTGTAC
TCCCTGGCCCCCCATAACCTGGGCGAAATGCTCTACACCAAGCGATTTGGTCCCAATGCCATTTCGGTGAGCCTG
TCCCCAATGGGCAGATATGTAATGGTGGGCTTGGCCTCACGAAGGATCCTGCTGCACCCCTCCACAGAGCACATG
GTGGCCCAGGTCTTCAGGCTGCAACAGGCCCATGGTGGAGAGACCTCCATGAGGAGAGTTTTCAACGTCCTTTAT
CCCATGCCTGCCGACCAGCGGAGACATGTCAGTATCAACTCTGCCCGTTGGCTGCCTGAGCCAGGGCTTGGCTTG
GCCTATGGTACTAACAAAGGAGACCTGGTGATCTGCCGACCAGAGGCCTTAAACTCTGGTGTTGAGTACTACTGG
GACCAGCTGAACGAGACGGTCTTCACTGTCCATTCCAACAGCAGGAGCAGCGAGCGGCCTGGAACCAGCAGAGCC
ACATGGAGGACAGACAGAGACATGGGGCTGATGAATGCCATTGGGCTTCAGCCCCGGAACCCTGCCACCTCAGTG
ACATCTCAGGGCACCCAGACTCTGGCCCTTCAGCTGCAGAATGCCGAAACACAGACTGAGAGGGAGGTGCCGGAG
CCAGGGACAGCCGCCTCAGGTCCTGGTGAAGGTGAGGGTTCAGAGTATGGTGCCAGTGGAGAAGATGCGCTCAGC
AGGATCCAGAGGCTGATGGCGGAGGGCGGCATGACAGCCGTGGTGCAGCGGGAGCAGAGCACCACCATGGCCTCC
ATGGGCGGCTTCGGCAACAACATCATCGTCAGCCACCGCATTCACCGCAGCTCTCAGACGGGCACTGAACCTGGT
GCCGCCCACACCTCCTCACCCCAGCCCTCCACCTCTCGGGGACTGCTCCCAGAGGCCGGGCAACTGGCAGAGCGA
GGCCTAAGCCCCCGGACAGCTTCCTGGGACCAGCCTGGTACCCCTGGGCGGGAGCCAACCCAGCCAACCCTGCCC
TCTTCCTCCCCTGTCCCCATTCCTGTTTCCCTTCCCAGCGCTGAGGGACCAACCCTCCACTGCGAGTTGACCAAT
AACAACCACCTTCTGGATGGTGGCAGCAGCAGGGGGGACGCTGCAGGCCCTAGGGGAGAACCACGGAACAGG**TAG**

AGACAAACGTTGCACTGGTGCCTCCCCTCGAACCGCCAAGCAGAAACCGGACCTCACAGCTGACTGGGAACTGGA

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FIGURE 3224B

CATGTGGAAGAGCTGCTGGCTGCATCAGGGAACAGGAGGAGGAAGAGGGTCAGGGTGGAGAGGAAGATCAGTCAG
TGGGCACAAGACAGTCAAATGGGCAAGGCCTGCCTCGGGGAACTAGAACCTTCCAGGATCTGGAGCCCGGGAGAG
CCACACTGTGGGCTTAATGTGAATAGAGGAACAAGTGGGTATCTCTGCCAGGCACCCCACTTTCTCCTAGTAACA
TGGGCTCAGGGGACTCAGCCCTGGACAGAGAGCCTCCAGAGAGTGAACAGTCTTCCAGATCTGGGCCAATCATCC
TGGACAGAGGCCCGCGAGGCAGCTTTGCCCTGTCCACCTGTTGGGTGGGCAGAGCCACCAGGAACCCAGACACCA
CCTCCAACTCTGAGCCTTCCAGAGCTTCAGCCTCTCTTCGTCGTCTTACCCCACTGAAACCAACAGGGATCGGGC
CAGGCTCCCAGATTCTTGAGGACAGGGACTTCGGCATTTACTAATGGGGGACTACTGTGGGGTAAGGGGGCGCCT
GCTTGCCTGATACAGGATGGGGTCAAGGGACAGTGGGCAGGTCCTCACTCAGGAGTGGGGGGTGTAGGCTGGCCA
GCCCCCAGGGCTTGTCCACCAGTCTTCTCCCCGCAAGGCCCTCAGAGCAGCGCCTGTGGGTGTCAGTATTACCTG
AGCCTAGGCCAAAGCTAGCCCAAGGCTGGGGAAGGGGAGGAGACTCCAGGTCAGAATGTGAGGTCTCAGTCTGTG
ATTTAAGGTGTTGCATGTGGACTCTTAACTGTACGTGTAGTTTCTAGTGGAGAAATCAAGGCTCTGATCATTTTG
TTTTTAGTATGAAAATGTGATTTCCTTTCTGTTTGTAACTCCTCATAGAAACATTGTGGTGGGAGGAGAGGGGAT
AGTCTACAGCTAATGAGGGAAACACCAAAGATCACATCATTAAAATGATGACATGCCCCTC

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FIGURE 3225

TTTTCATTTAAATATTCTTCTTTTGCTTCTCTTAAGCAGAAGCTGGTCTCTGCTTTTCACCACCTGGAATCCCAG
TCCCAACAGCTGCTCTTCTAACCCTTCCGGCCTAATTGTGGAATAATCGTTTAAATCATTAAGAGACAGAATCTG
ATGTTGGTAGCTCTGACAGACCTCTCTAGCTTCTTTCATAAGCCAGGGCTCTTGCCCAGCTCCTGCACACAGCCT
GCCAGTTCTCCATCTTAGCACAGTTCCACTTTTCCATAGTAGCCAGAAACATCTGGCTGAAGACAAACAGTTACA
AAGCAGAAGCCAAGGTGATGGGATCTGTTGTCACATATGGGGCTGGCAGCTCAAGGAATGTGGTTCTCTGCTGAG
GAGATGTGGTAATCCAGTCAGCCCCTGGCTGTCCTGCCAAGGGTCTCAAGGCAGCTAGCCAGCAGCTGCATGCTT
GGTGACTGGAGCTACTACTACTGCCAGGCTGCCTGGTGAACCTTTTTTGATTCTCAGTAGGTACCATCTGCCACC
AAGCACTAAGAAAGGGAGCTGAAGTACCTAGAAAGTTCCCATTTGGGAAGTGTTCCTGTCACCCAAGAGACAGGA
TCAAGGCATCTCAACAAGGTTTAGGTCAACCAAGTGTCCACCCAGTCTGACTTTAAACCCCCATGCTACAGAAAG
GTTTCTGGTTTTCCAGGTCTTGGTTGCCCCTTACGTCCAAAGGCACCAGATCACTCAGCAAATGTCCCTGAATTC
AGTGATTGGTGGAAGGGAAGACACCAGCTTTTTTGGATAGCTGTGCTGTATCACCGTTTAAGGCAAGAAGTGAAT
TTTTGTCTGAGAACAGGGAGCAAGGGTTTAATGGGACAGTACAGCATCTCCCTCTTTGCACAGGTAAGTATAGGT
GGGTGTCTCCATCTCTAATGTCAAGCTCTGACCATAAAGGAATGCTTTAGTGGGTAATGGGCCTGTCCTAGAGCT
TTGCTACCCAGAATTCCCCTTCTGTCTGGTGTTACCTCTTGGAATTCACTGTGGTAATGTTCAGAGAGGCAAATG
TGTTGGGCCAACAGACATTCCCAGGAGAACATCCTCCAGAGCATTGATTTATTTTAAGATGGCACTAAGTGACAT
CTCTCCCCAAGAGATGATCTCTGACACAATCCCATATGAAAACTCTTCTGAAAATGAATTGCTAATTGCTATTAG
CCTTGATGCACTTACTCTAAGCAGTTCTTCAGACTTCTGGATCAGTGCTTCTCAAACTGTGGTTCTTGGACAACT
TACAGTAGAACTACATGGGTCCTTATTAAAATACAGATCCATTTCAGACCTAAAATCAGAATAAGAATGGGAGTC
AGAGGGACCCAGGATTAGTATTTTTAAAACAAGATTTCTTCATTTTAGGTGTCTGCCCTCAGCCTCCTCAGCAAG
GCAGAGTCAGTCTCAGGTCTACTTGCCATTGTGGTTTTGTGCATGGTGCTTTGATTCTTTGCTAATTATGTTGCA
GGCACAGTGGTGTTTGTCTTCTGTTTCCTACCAAACTCAGCTTTTTTGGCTGTCTGCGCCTCACCTCCCATCTTT
TCTAGGCTGTTGCTGCTTTCCAGGTTTCTCCCTTGAATAGCTGTATGTGCTGGAGTCTTTTCTTTATGTTGAATC
ATTTTAATTTTTGTCCTTATTTCTAGGATCTAGGGTCCTTTTGATCTTTCCCTTCTCTGTTTATCGTGCTAGTCC
TCCCAGTTTTAATGATGGGTAAGTCAGGAAAGTAAGACTGGGCACATATTTTCTCTCTCCCTTCCCACTGTCCAT
TTGCGATTCCTCCAGATTGGATATGCTACTCTCTATGACTCAGAATCTTATTTTCTGTCTGATTCCCTTCTGCTT
GAGCCAGAGAGGGCTTTTTGTTAATTTTTGTTTTGTTTTTAGGTTAAGCTTTTAGAGACTGCTGAGCTGAAGTTT
TGCTGAATTCTCAAAACACTAAACTGCCTGTGTTCCCTCTCGGCTTTCATTTTCTAATTGGAACCAGGCACAGTA
TTGTAACAGAGAACTGCAATTAATTTTCTAAAATAGTGGCAACTTGCACAGTATAATAACTTTGGTTGTAACCAA
GTGAAAGCATAATAACAAAAATACAAAATTACTGATGAAACCAGAAAGAGTCATATACCACATTCTTCCTTTAGT
TTGTATCTCAGTAAGTGCTGTGTTACTTAGGAATAGGGGCAGAAGCCTGCAACTGGGCAGGGAGGTTCAGGGACA
TGAGGACGAAGCTAGGGCATTTTGAGCTAGAAAGCAAGAATAAGGATTAGTGCTTTCAACACTGGAATTAACATG
GACCACCCCCCCACCTCCCAATAAGTGGGGATTGTAGGCACATAAGTGGTTTAGTAAGAAGTGGAAAAGGTTTTT
CTGTGGAGTTCGAGTTCCATCGGCTCCCATCCGGGCTATCCTGCCACCTTAGCGGCTGCTCCTCCCCAGGATGCG
GGCAGGGGGCCTCTCTCCCACTCCCCACACACCGATTTCTGAGTAGCGATAGGGGCTGGAGGCTTATTTTATGGG
GTAGGGGGCCGCTGGTAGGCGAAGATTGTCCGAGGGAGAGGGGGAGGATGAAGCCAGTGCGTGGCGGAGACCTGC
CAG**ATG**TTGATGCCTAAGAAGAACCGGATTGCCATTTATGAACTCCTTTTTAAGGAGGGAGTCATGGTGGCCAAG
AAGGATGTCCACATGCCTAAGCACCCGGAGCTGGCAGACAAGAATGTGCCCAACCTTCATGTCATGAAGGCCATG
CAGTCTCTCAAGTCCCGAGGCTACGTGAAGGAACAGTTTGCCTGGAGACATTTCTACTGGTACCTTACCAATGAG
GGTATCCAGTATCTCCGTGATTACCTTCATCTGCCCCCAGAGATTGTGCCTGCCATCCTACGCCGTAGCCGTCCA
GAGACTGGCAGGCCTCGGCCTAAAGGTCTGGAGGGTGAGCGACCTGCGAGACTCACAAGAGGGGAAGCTGACAGA
GATACCTACAGACGGAGTGCTGTGCCACCTGGTGCCGACAAGAAAGCCGAGGCTGGGGCTGGGTCAGCAACCGAA
TTCCAGTTTAGAGGCGGATTTGGTCGTGGACGTGGTCAGCCACCTCAG**TAA**AATTGGAGAGGATTCTTTTGCATT
GAATAAACTTATAGCCAAAAAACCTT

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FIGURE 3226

ATGGCCAACTTCACACCTGTCAATGGCAGCTCGGGCAATCAGTCCGTGCGCCTGGTCACGTCATCATCCCACAAT
CGCTATGAGACGGTGGAAATGGTCTTCATTGCCACAGTGACAGGCTCCCTGAGCCTGGTGACTGTCGTGGGCAAC
ATCCTGGTGATGCTGTCCATCAAGGTCAACAGGCAGCTGCAGACAGTCAACAACTACTTCCTCTTCAGCCTGGCG
TGTGCTGATCTCATCATAGGCGCCTTCTCCATGAACCTCTACACCGTGTACATCATCAAGGGCTACTGGCCCCTG
GGCGCCGTGGTCTGCGACCTGTGGCTGGCCCTGGACTACGTGGTGAGCAACGCCTCCGTCATGAACCTTCTCATC
ATCAGCTTTGACCGCTACTTCTGCGTCACCAAGCCTCTCACCTACCCTGCCCGGCGCACCACCAAGATGGCAGGC
CTCATGATTGCTGCTGCCTGGGTACTGTCCTTCGTGCTCTGGGCGCCTGCCATCTTGTTCTGGCAGTTTGTGGTG
GGTAAGCGGACGGTGCCCGACAACCAGTGCTTCATCCAGTTCCTGTCCAACCCAGCAGTGACCTTTGGCACAGCC
ATTGCTGCCTTCTACCTGCCTGTGGTCATCATGACGGTGCTGTACATCCACATCTCCCTGGCCAGTCGCAGCCGA
GTCCACAAGCACCGGCCCGAGGGCCCGAAGGAGAAGAAAGCCAAGACGCTGGCCTTCCTCAAGAGCCCACTAATG
AAGCAGAGCGTCAAGAAGCCCCCGCCCGGGGAGGCCGCCCGGGAGGAGCTGCGCAATGGCAAGCTGGAGGAGGCC
CCCCCGCCAGCGCTGCCACCGCCACCGCGCCCCGTGGCTGATAAGGACACTTCCAATGAGTCCAGCTCAGGCAGT
GCCACCCAGAACACCAAGGAACGCCCAGCCACAGAGCTGTCCACCACAGAGGCCACCACGCCCGCCATGCCCGCC
CCTCCCCTGCAGCCGCGGGCCCTCAACCCAGCCTCCAGATGGTCCAAGATCCAGATTGTGACGAAGCAGACAGGC
AATGAGTGTGTGACAGCCATTGAGATTGTGCCTGCCACGCCGGCTGGCATGCGCCCTGCGGCCAACGTGGCCCGC
AAGTTCGCCAGCATCGCTCGCAACCAGGTGCGCAAGAAGCGGCAGATGGCGGCCCGGGAGCGCAAAGTGACACGA
ACGATCTTTGCCATTCTGCTAGCCTTCATCCTCACCTGGACGCCCTACAACGTCATGGTCCTGGTGAACACCTTC
TGCCAGAGCTGCATCCCTGACACGGTGTGGTCCATTGGCTACTGGCTCTGCTACGTCAACAGCACCATCAACCCT
GCCTGCTATGCTCTGTGCAACGCCACCTTTAAAAAGACCTTCCGGCACCTGCTGCTGTGCCAGTATCGGAACATC
GGCACTGCCAGG**TAG**

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FIGURE 3227

GCGAAGCAGCGCGGGCAGCGAG**ATG**CAGCACCGAGGCTTCCTCCTCCTCACCCTCCTCGCCCTGCTGGCGCTCAC
CTCCGCGGTCGCCAAAAAGAAAGATAAGGTGAAGAAGGGCGGCCCGGGGAGCGAGTGCGCTGAGTGGGCCTGGGG
GCCCTGCACCCCCAGCAGCAAGGATTGCGGCGTGGGTTTCCGCGAGGGCACCTGCGGGGCCCAGACCCAGCGCAT
CCGGTGCAGGGTGCCCTGCAACTGGAAGAAGGAGTTTGGAGCCGACTGCAAGTACAAGTTTAAAAAATGGGGTGA
AGTG**TGA**TGGGGGCACAGGCACCAAAGTCCGCCAAGGCACCCTGAAGAAGGCGCGCTACAATGCTCAGTGCCAGG
AGACCATCCGGGTCCCCCAGCCCTGCACCCCCAAGACCAAAGCAAAGGCCAAAGCCAAGAAAGGGAAGGGAAAGG
ACTAGACGCCAAGCCTGGATGCCAAGGAGCCCCTGGTGTCACATGGGGCCTGGCCCACGCCCTCCCTCTCCCAGG
CCCGAGATGTGACCCACCAGTGCCTTCTGTCTGCTCGTTAGCTTTAATCAATCATGCCCTGCCTTGTCCCTCTCA
CTCCCCAGCCCCACCCCTAAGTGCCCAAAGTGGGGAGGGACAAGGGATTCTGGGAAGCTTGAGCCTCCCCCAAAG
CAATGTGAGTCCCAGAGCCCGCTTTTGTTCTTCCCCACAATTCCATTACTAAGAAACACATCAAATAAACTGACT
TTTTCCCCCCAATAAAAGCTCTTCTTTTTTAATAT

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FIGURE 3228

GCGGCGCGGAGCGGGCGTGCTGAACCCCGGCCGCCGGCCCGGCATGGGCGTCTCCCGCGGGCCCTCCGCCGGCCG
GGGCTAGGGCCGG**ATG**GAGCCGCGGGACGGTAGCCCCGAGGCCCGGAGCAGCGACTCCGAGTCGGCTTCCGCCTC
GTCCAGCGGCTCCGAGCGCGACGCCGGTCCCGAGCCGGACAAGGCGCCGCGGCGACTCAACAAGCGGCGCTTCCC
GGGGCTGCGGCTCTTCGGGCACAGGAAAGCCATCACCAAGTCGGGCCTCCAGCACCTGGCCCCCCCTCCGCCCAC
CCCTGGGGCCCCGTGCAGCGAGTCAGAGCGGCAGATCCGGAGTACAGTGGACTGGAGCGAGTCAGCGACATATGG
GGAGCACATCTGGTTCGAGACCAACGTGTCCGGGGACTTCTGCTACGTTGGGGAGCAGTACTGTGTAGCCAGGAT
GCTGAAGTCAGTGTCTCGAAGAAAGTGCGCAGCCTGCAAGATTGTGGTGCACACGCCCTGCATCGAGCAGCTGGA
GAAGATAAATTTCCGCTGTAAGCCGTCCTTCCGTGAATCAGGCTCCAGGAATGTCCGCGAGCCAACCTTTGTACG
GCACCACTGGGTACACAGACGACGCCAGGACGGCAAGTGTCGGCACTGTGGGAAGGGATTCCAGCAGAAGTTCAC
CTTCCACAGCAAGGAGATTGTGGCCATCAGCTGCTCGTGGTGCAAGCAGGCATACCACAGCAAGGTGTCCTGCTT
CATGCTGCAGCAGATCGAGGAGCCGTGCTCGCTGGGGGTCCACGCAGCCGTGGTCATCCCGCCCACCTGGATCCT
CCGCGCCCGGAGGCCCCAGAATACTCTGAAAGCAAGCAAGAAGAAGAAGAGGGCATCCTTCAAGAGGAAGTCTAG
CAAGAAAGGGCCTGAGGAGGGCCGCTGGAGACCCTTCATCATCAGGCCCACCCCCTCCCCGCTCATGAAGCCCCT
GCTGGTGTTTGTGAACCCCAAGAGTGGGGGCAACCAGGGTGCAAAGATCATCCAGTCTTTCCTCTGGTATCTCAA
TCCCCGACAAGTCTTCGACCTGAGCCAGGGAGGGCCCAAGGAGGCGCTGGAGATGTACCGCAAAGTGCACAACCT
GCGGATCCTGGCGTGCGGGGGCGACGGCACGGTGGGCTGGATCCTCTCCACCCTGGACCAGCTACGCCTGAAGCC
GCCACCCCCTGTTGCCATCCTGCCCCTGGGTACTGGCAACGACTTGGCCCGAACCCTCAACTGGGGTGGGGGCTA
CACAGATGAGCCTGTGTCCAAGATCCTCTCCCACGTGGAGGAGGGGAACGTGGTACAGCTGGACCGCTGGGACCT
CCACGCTGAGCCCAACCCCGAGGCAGGGCCTGAGGACCGAGATGAAGGCGCCACCGACCGGTTGCCCCTGGATGT
CTTCAACAACTACTTCAGCCTGGGCTTTGACGCCCACGTCACCCTGGAGTTCCACGAGTCTCGAGAGGCCAACCC
AGAGAAATTCAACAGCCGCTTTCGGAATAAGATGTTCTATGCCGGGACAGCTTTCTCTGACTTCCTGATGGGCAG
CTCCAAGGACCTGGCCAAGCACATCCGAGTGGTGTGTGATGGAATGGACTTGACTCCCAAGATCCAGGACCTGAA
ACCCCAGTGTGTTGTTTTCCTGAACATCCCCAGGTACTGTGCGGGCACCATGCCCTGGGGCCACCCTGGGGAGCA
CCACGACTTTGAGCCCCAGCGGCATGACGACGGCTACCTCGAGGTCATTGGCTTCACCATGACGTCGTTGGCCGC
GCTGCAGGTGGGCGGACACGGCGAGCGGCTGACGCAGTGTCGCGAGGTGGTGCTCACCACATCCAAGGCCATCCC
GGTGCAGGTGGATGGCGAGCCCTGCAAGCTTGCAGCCTCACGCATCCGCATCGCCCTGCGCAACCAGGCCACCAT
GGTGCAGAAGGCCAAGCGGCGGAGCGCCGCCCCCCTGCACAGCGACCAGCAGCCGGTGCCAGAGCAGTTGCGCAT
CCAGGTGAGTCGCGTCAGCATGCACGACTATGAGGCCCTGCACTACGACAAGGAGCAGCTCAAGGAGGCCTCTGT
GCCGCTGGGCACTGTGGTGGTCCCAGGAGACAGTGACCTAGAGCTCTGCCGTGCCCACATTGAGAGACTCCAGCA
GGAGCCCGATGGTGCTGGAGCCAAGTCCCCGACATGCCAGAAACTGTCCCCCAAGTGGTGCTTCCTGGACGCCAC
CACTGCCAGCCGCTTCTACAGGATCGACCGAGCCCAGGAGCACCTCAACTATGTGACTGAGATCGCACAGGATGA
GATTTATATCCTGGACCCTGAGCTGCTGGGGGCATCGGCCCGGCCTGACCTCCCAACCCCCACTTCCCCTCTCCC
CACCTCACCCTGCTCACCCACGCCCCGGTCACTGCAAGGGGATGCTGCACCCCCTCAAGGTGAAGAGCTGATTGA
GGCTGCCAAGAGGAACGACTTCTGTAAGCTCCAGGAGCTGCACCGAGCTGGGGGCGACCTCATGCACCGAGACGA
GCAGAGTCGCACGCTCCTGCACCACGCAGTCAGCACTGGCAGCAAGGATGTGGTCCGCTACCTGCTGGACCACGC
CCCCCCAGAGATCCTTGATGCGGTGGAGGAAAACGGGGAGACCTGTTTGCACCAAGCAGCGGCCCTGGGCCAGCG
CACCATCTGCCACTACATCGTGGAGGCCGGGGCCTCGCTCATGAAGACAGACCAGCAGGGCGACACTCCCCGGCA
GCGGGCTGAGAAGGCTCAGGACACCGAGCTGGCCGCCTACCTGGAGAACCGGCAGCACTACCAGATGATCCAGCG
GGAGGACCAGGAGACGGCTGTG**TAG**CGGGCCGCCCACGGGCAGCAGGAGGGACAATGCGGCCAGGGGACGAGCGC
CTTCCTTGCCCACCTCACTGCCACATTCCAGTGGGACGGCCACGGGGGGACCTAGGCCCCAGGGAAAGAGCCCCA
TGCCGCCCCCTAAGGAGCCGCCCAGACCTAGGGCTGGACTCAGGAGCTGGGGGGGCCTCACCTGTTCCCCTGAGG
ACCCCGCCGGACCCGGAGGCTCACAGGGAACAAGACACGGCTGGGTTGGATATGCCTTTGCCGGGGTTCTGGGGC
AGGGCGCTCCCTGGCCGCAGCAGATGCCCTCCCAGGAGTGGAGGGGCTGGAGAGGGGGAGGCCTTCGGGAAGAGG
CTTCCTGGGCCCCCTGGTCTTCGGCCGGGTCCCCAGCCCCCGCTCCTGCCCCACCCCACCTCCTCCGGGCTTCCT
CCCGGAAACTCAGCGCCTGCTGCACTTGCCTGCCCTGCCTTGCTTGGCACCCGCTCCGGCGACCCTCCCCGCTCC
CCTGTCATTTCATCGCGGACTGTGCGGCCTGGGGGTGGGGGGCGGGACTCTCACGGTGACATGTTTACAGCTGGG
TGTGACTCAGTAAAGTGGATTTTTTTTCTTT

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FIGURE 3229A

GAAGAAGTCCCGGGCGGTACCCGGCCGTAGGCCCATCCTGCAACTCTCTCCGCCGGGTCCTCGGGGCAGCACGCC
GGGCCGGGACCCGGAGCCGGAACCCGACACTGAGCCGGACTCAACCGCGGCGGTCCCCAGCCAGCCCGCCCCGTC
GGCGGCGACGACCACCACCACCGCGGTGACTGCCGCCGCGGCCTCGGACGACTCGCCTTCAGAAGATGAACAGGA
AGCGGTGCAGGAGGTTCCTAGAGTTGTTCAGAATCCTCCAAAACCAGTC**ATG**ACCACTAGACCCACAGCTGTTAA
AGCAACAGGCGGTCTATGCTTGCTTGGTGCTTATGCTGACAGTGATGACGATGACAATGATGTTTCCGAAAAACT
AGCACAATCCAAAGAGACAAATGGAAACCAGTCAACTGATATTGATAGTACATTGGCCAACTTCCTAGCGGAGAT
CGATGCCATAACAGCTCCTCAGCCTGCAGCTCCTGTAGGAGCTTCTGCTCCACCTCCAACTCCACCTCGACCAGA
GCCAAAGGAAGCAGCAACATCTACCCTTTCTTCTTCTACTTCAAATGGAACAGACTCCACCCAAACATCTGGTTG
GCAATATGATACTCAGTGTTCACTGGCAGGAGTCGGAATTGAGATGGGCGATTGGCAGGAAGTCTGGGATGAGAA
CACGGGATGTTATTATTATTGGAATACACAAACAAATGAAGTGACTTGGGAGTTACCCCAATATCTTGCCACACA
GGTACAGGGATTACAGCATTACCAGCCCAGTTCTGTGCCAGGTGCTGAAACTAGTTTTGTGGTAAATACAGACAT
ATATTCTAAGGAGAAAACGATTTCTGTTTCCAGTAGTAAAAGTGGACCAGTCATAGCCAAGCGAGAAGTTAAAAA
GGAAGTAAATGAAGGAATTCAGGCTCTCTCAAATAGTGAGGAGGAGAAGAAAGGGGTGGCAGCATCGCTGCTTGC
TCCTTTATTGCCTGAGGGAATAAAAGAAGAAGAAGAGAGATGGAGAAGAAAAGTAATTTGTAAAGAGGAGCCAGT
TTCAGAAGTAAAAGAAACAAGTACAACAGTAGAAGAAGCAACAACAATAGTAAAGCCACAGGAAATTATGTTGGA
CAATATAGAAGACCCTTCTCAGGAGGATCTTTGCAGTGTTGTCCAATCTGGAGAAAGTGAGGAGGAAGAGGAACA
AGATACCCTTGAACTGGAGCTAGTTTTGGAAAGGAAAAAAGCAGAGTTGCGAGCCTTGGAGGAAGGAGATGGTAG
TGTGTCAGGGTCTAGTCCACGTTCTGATATCAGCCAGCCAGCATCTCAAGATGGAATGCGTAGGCTTATGTCTAA
AAGAGGAAAATGGAAGATGTTTGTTCGAGCTACCAGTCCAGAATCTACCAGTAGGAGTTCTAGTAAAACTGGACG
AGATACTCCAGAAAATGGAGAAACTGCAATTGGTGCTGAAAATTCAGAAAAAATAGATGAGAATTCAGATAAAGA
GATGGAAGTAGAAGAATCTCCAGAGAAAATAAAAGTACAGACAACACCAAAAGTAGAAGAAGAACAGGATTTGAA
ATTTCAGATTGGAGAACTGGCAAATACCCTGACAAGTAAATTCGAGTTTCTAGGCATTAATAGACAATCCATCTC
CAACTTTCATGTGCTGCTCTTACAGACTGAGACTCGAATTGCAGACTGGCGGGAAGGGGCTCTTAATGGAAACTA
CCTTAAACGAAAACTTCAGGATGCAGCAGAACAACTAAAACAGTATGAAATAAACGCCACTCCTAAAGGCTGGTC
CTGCCACTGGGACAGGGATCATAGACGGTATTTCTATGTAAACGAACAGTCGGGCGAGTCTCAGTGGGAGTTTCC
AGATGGTGAAGAGGAAGAAGAAGAAAGCCAAGCACAAGAAAATAGAGATGAGACTCTTGCCAAACAGACCTTGAA
AGACAAAACTGGCACTGATTCAAATTCAACAGAATCCTCTGAAACTTCCACAGGTTCTCTTTGTAAAGAATCCTT
TTCTGGTCAAGTTTCTTCTTCATCACTCATGCCACTTACTCCATTCTGGACCCTCCTTCAGTCAAATGTTCCTGT
GCTTCAACCTCCATTACCCTTGGAAATGCCACCACCCCCACCTCCACCTCCAGAATCACCTCCACCCCCTCCTCC
ACCACCTCCTCCTGCGGAAGATGGTGAGATCCAGGAGGTAGAGATGGAGGATGAGGGAAGTGAGGAGCCCCCTGC
CCCAGGAACAGAGGAAGATACCCCTTTGAAACCTTCAGCACAAACCACAGTTGTAACTAGCCAGAGTTCAGTTGA
TTCCACCATCTCTAGTTCTTCTTCCACTAAAGGAATAAAGAGGAAAGCTACAGAAATTAGCACTGCAGTGGTTCA
GAGGTCAGCTACCATTGGCAGTTCTCCAGTTCTCTATAGCCAGTCAGCTATAGCTACAGGTCACCAGGCAGCAGG
GATTGGAAACCAGGCAACAGGAATTGGACATCAGACAATACCAGTTAGCCTTCCAGCAGCAGGAATGGGTCATCA
GGCCAGAGGAATGAGCCTGCAGTCAAATTACCTTGGACTAGCGGCAGCACCTGCAATTATGAGTTATGCAGAATG
TTCTGTCCCAATTGGAGTGACTGCTCCCTCATTGCAGCCAGTTCAGGCCCGAGGTGCTGTGCCTACCGCTACCAT
TATAGAACCACCACCACCACCTCCTCCNTNCCTCCTCCTCCACCACCACCAGCTCCCAAAATGCCACCACCTGAA
AAGACAAAAAAAGGAAGGAAAGACAAGGCAAAGAAGAGTAAGACCAAAATGCCATCTTTGG**TAA**AAAAGTGGCAG
AGTATCCAGCGTGAGTTAGATGAAGAGGACAATTCTAGTTCCAGTGAAGAGGATCGGGAATCAACTGCACAGAAG
CGAATTGAAGAGTGGAAACAGCAGCAGCTGGTTAGTGGCATGGCAGAGAGAAATGCTAATTTTGAAGCCCTTCCT
GAGGATTGGAGAGCAAGGCTGAAGAGAAGGAAAATGGCTCCAAACACATAGTTTTTAAGTTTTTAAAACTTTTTT
GTATTATTGTTTGTTTTGTGTTCAGTTCAAAGTCTTAACCAGTTTTATTGTCAAATAAACTATAAATGTTATGGG
GGAGATCTTATAAATTTCCTGGGCAAGAGTGTATGCATACAAAGTTTTCACTTTTGTGAAATGTAATTTTTCTGT
TTTTGCAAAGGGATGAGGTGATTGGAATTGCTTTGACCATGCTGCCTTTATTCTCAAACTGGCAAACTTAGCATG
TTAGGTGTATTAACCTCATCAGTCTTGAAGAACATGTGGCTCATGAGTATAACACTTCTGTAGAGGACTCCCTGA
CAAAAGTGAAGAATTAACTTCTCCTCCAGAACAAGTGCAATTCAGAAGGCAGCTCTGCATTCTACCTTGCTTGAC
TGGAATTGTCTGAAGCTTTTTCTGGCCTCTTTTCTCTAGTCGGCCACCCCTGAAGTGCTGAGGTCTAAGTGGTTT
ACCTCGTGCTGATAGATGGCCACACTCTTTAGAGTAGTTCTCATAAGTTCTAGAACTGGTAGCTCGGTCGTTTCG

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FIGURE 3229B

CACACTAGGTGGCATACAGGCAGCAGCAGGTGTTCATATCCTTGATTTTGAGAATTTCCCCTCAAGTATGTGGCA
GTAAATACAACAAGACACTCTATGTATTAATGTCTCCATTGTCTTAACCCTGTTCCAAAACAAAATTCACCTCCT
TTCTTTATGTGAATGTATTCTCCATAAAATTCCAGTATTTAAAAAGCAGTTTACTGTTCTGTACTTTCTGTTGTA
TCACAATCAGGTAAAAGTCACTTTAAACTGAGGAAACGGCAAATTGTGTTTTAAAGCTCTTTGTATTTCTCCAGT
TTCTGACCTTGTAAATTTGTATATATGCACTAATAAAGCTTTTTTTAT

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FIGURE 3230

GTGATGGAGGATATTTGTAGTAAACTGCAAGAGATTAGGAACCCAATCCATGCAATTGGACTACTTATACGGGAA
ATGGATTATGAAACAGAAGTGGAAATGGAAAAGGGATTCAATCCAGCTCAGCCTTTGAATATTCGAATGAATCTT
ACCCAGCTCTATGGTAGTAACACAGCAGGGTATATTGTGTGCAGAGGGGTGCATAAAATCGCCAGTACTCGTTTC
CTGATCTGCAGAGATCTTTTGATCTTACAGCAGCTGTTAATGAGGCTTGGAGATGCTGTGATTTGGGGAACTGGT
CAGCTCTTTCAAGCTCAGCAAGACCTACTACATCGAACAGCTCCCCTACTCTTATCTTATTACCTCATTAAATGG
GGAAGTGAGTGCTTGGCAACTGATGTTCCACTTGACACACTGGAGTCTAATCTCCAACACTTATCAGTACTGGAA
TTAACAGACTCTGGTGCTTTAATGGCAAATAGGTTTGTATCTAGTCCTCAGACTATTGTGGAGTTATTCTTCCAA
GAAGTTGCAAGAAAACACATTATATCTCACCTCTTCTCTCAGCCAAAGGCACCTCTGAGCCAAACTGGATTGAAT
TGGCCTGAAATGATTACTGCAATTACCAGTTATTTATTGCAGCTTTTATGGCCTAGCAATCCTGGTTGTCTCTTT
CTAGAATGTTTGATGGGAAATTGCCAATATGTACAATTGCAGGATTATATTCAACTGCTACATCCCTGGTGTCAA
GTCAATGTTGGTTCCTGTCGATTTATGCTGGGAAGGTGTTACCTAGTTACAGGAGAAGGACAGAAGGCTCTGGAA
TGTTTTTGTCAGGCAGCATCTGAAGTAGGCAAAGAGGAATTCTTGGATCGCTTGATTCGCTCAGAGGATGGGGAG
ATCGTGTCTACCCCCAGGCTGCAGTATTATGACAAGGTTTTACGACTACTAGATGTCATTGGTTTGCCTGAACTG
GTTATTCAGTTGGCTACATCAGCCATAACTGAAGCAGGTGATGACTGGAAAAGTCAGGCTACTCTAAGGACATGT
ATTTTCAAACATCATTTGGATTTGGGTCACAATAGCCAAGCATATGAAGCCTTAACCCAAATTCCTGATTCCAGC
AGGCAATTAGATTGTTTACGGCAGTTGGTGGTAGTTCTTTGTGAACGCTCACAGCTACAGGATCTTGTAGAGTTT
CCCTATGTGAATCTGCATAATGAGGTTGTGGGAATAATTGAGTCACGTGCTAGAGCTGTGGACCTTATGACTCAC
AATTACTATGAACTTCTGTATGCCTTTCACATCTATCGCCACAATTACCGCAAGGCTGGCACAGTGATGTTTGAG
TATGGAATGCGGCTTGGCAGAGAAGTTCGAACTCTCCGGGGACTTGAGAAACAAGGCAACTGTTATCTGGCTGCT
CTCAATTGTTTACGACTTATTCGTCCAGAATATGCGTGGATTGTGCAGCCAGTGTCTGGTGCAGTGTATGATCGC
CCTGGAGCATCCCCTAAGAGGAATCATGATGGAGAATGCACAGCTGCCCCCACAAATCGACAAATTGAAATCCTG
GAACTGGAAGATCTGGAGAAAGAGTGTTCCTTGGCTCGCATCCGCCTCACTTTGGCTCAGCATGATCCATCAGCG
GTTGCAGTTGCTGGAAGTTCATCAGCAGAGGAAATGGTCACTCTCTTGGTTCAGGCGGGCCTCTTTGACACTGCC
ATATCACTCTGTCAGACTTTTAAGCTTCCCTTAACGCCAGTCTTTGAAGGGCTTGCCTTCAAATGCATCAAATTG
CAATTTGGAGGAGAGGCAGCACAAGCAGAAGCCTGGGCCTGGCTAGCAGCCAATCAGCTCTCATCTGTCATCACT
ACTAAGGAGTCTAGTGCTACAGATGAAGCATGGCGACTATTATCCACTTACCTGGAGAGGTACAAAGTCCAGAAT
AACTTGTATCACCACTGTGTAATCAACAAGCTCTTGTCTCATGGAGTGCCTCTGCCTAATTGGCTTATAAACAGT
TACAAGAAGGTTGATGCTGCTGAATTGCTTCGTTTATACTTAAACTATGACCTTTTAGAAGAAGCTGTGGATTTG
GTGTCAGAATATGTGGATGCTGTATTGGGAAAAGGACATCAATACTTCGGAATTGAGTTTCCACTGTCCGCAACA
GCCNCNCAATGGTGTGGCTTCCATACTCCTCTATTGATCAGCTTCTCCAAGCTCTGGGAGAGAACAGTGCCAACA
GTCACAACATCGCACTGTCCCAGAAAATACTTGACAAATTGGAGGACTACCAGCAAAAAGTTGATAAGGCAACAC
GGGATTTATTATATCGTCGGACCTTGTGATTTGGATTGTCACCTAGCCTTTGTAACCGCTTGGTGCCTCTTAGGA
CTTAAGACTACCCTACAGGAACCCTGTACTCAAGGCCGATTTTTGTAACTGTAAATGATGTGTACAACATTCAAG
TCTGCATTCTGCACAAGATAGGAGGGCGGAAGAGTCAGAGGACCCTGTGCTTGCTGGTGGTGCTAACACAATTTC
TGGTGTTCAACCTTGGTCTCAAATAGCTGCTTTTGTATATGATTCACGAGCTTTTTTAGAGTTTATATTTTTTTA
AACTACCGAAGACATTCATTATCTGCAAATTAAGACTCACCTTCACTTTCCAAAATAGCTGAGGGTTGTTGGCTT
GTTGTAGCTGACCACCAAAAGCAGTCACTGCAAATCTTTTAATTCTTCCCTATCACCTTTTGTATTTTAATGCAA
TTATTTTGGTCCAGAACTGACCTGTATTTTCTGTATTGTACACAAAAGCTAATAATTTTGTGTACTTTTTATTTA
TTTTGGAGGTTTTATATGATCTTCAATTGAGTATTAAATAATTTGCCTAGATTAAGCCTAAAATGATGACCAGCT
AATTAAAGAAGATATTTTGAATCTGGTTCTGAGCTAAAGTTGAGTAAATTCTTAGCTAAGAAAAAATTGGAAATC
CATCATCTATATTAGCAACAGATTCTCAGAGTAAATTGTTAACTTCTATGATTTATGATAATCAAGCTGGACTTG
ATCATACAAGTTAGTCTCATAATGTATTGGACCAAAATGTAAACTTCATTGGTCAGATTTAGAAGCATTCATGCT
CACAAGTTTTGGGAAAGTGAAAAATAATAAAATCATCTTGGATTTTATTCTGTATATTAAAATTTATCTTTTAAG
GAAACAATCTGTATACTACTTGCTTGTATAGCCTTTTGACCCTTCTTGAGTTTTTCAGAAGCCTTTAATTTTTAT
ACTTTCAATACCATATTTACATTATATACTTTAAT

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FIGURE 3231

GGTCGCTTGGTGGCTCCGTCTGTCTGTCCGTCCGCCCGCGGGTGCCATC**ATG**GCGGACGCGGCCAGTCAGGTGCT
CCTGGGCTCCGGTCTCACCATCCTGTCCCAGCCGCTCATGTACGTGAAAGTGCTCATCCAGGTGGGATATGAGCC
TCTTCCTCCAACAATAGGACGAAATATTTTTGGGCGGCAAGTGTGTCAGCTTCCTGGTCTCTTTAGTTATGCTCA
GCACATTGCCAGTATCGATGGGAGGCGCGGGTTGTTCACAGGCTTAACTCCAAGACTGTGTTCGGGAGTCCTTGG
AACTGTGGTCCATGGTAAAGTTTTACAGCATTACCAGGAGAGTGACAAGGGTGAGGAGTTAGGACCTGGAAATGT
ACAGAAAGAAGTCTCATCTTCCTTTGACCACGTTATCAAGGAGACAACTCGAGAGATGATCGCTCGTTCTGCTGC
TACCCTCATCACACATCCCTTCCATGTGATCACTCTGAGATCTATGGTACAGTTCATTGGCAGAGAATCCAAGTA
CTGTGGACTTTGTGATTCCATAATAACCATCTATCGGGAAGAGGGCATTCTAGGATTTTTCGCGGGTCTTGTTCC
TCGCCTTCTAGGTGACATCCTTTCTTTGTGGCTGTGTAACTCACTGGCCTACCTCGTCAATACCTATGCACTGGA
CAGTGGGGTTTCTACCATGAATGAAATGAAGAGTTATTCTCAAGCTGTCACAGGATTTTTTGCGAGTATGTTGAC
CTATCCCTTTGTGCTTGTCTCCAATCTTATGGCTGTCAACAACTGTGGTCTTGCTGGTGGATGCCCTCCTTACTC
CCCAATATATACGTCTTGGATAGACTGTTGGTGCATGCTACAAAAAGAGGGGAATATGAGCCGAGGAAATAGCTT
ATTTTTCCGGAAGGTCCCCTTTGGGAAGACTTATTGTTGTGACCTGAAAATGTTAATT**TGA**AGATGTGGGGCAGG
GACAGTGACATTTCTGTAGTCCCAGATGCACAGAATTATGGGAGAGAATGTTGATTTCTATACAGTGTGGCGCGC
TTTTTTAATAATCATTTAATCTTGGGAAAATT

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FIGURE 3232

CATCTGAGTAAC**ATG**GCGGCGGCGGCGGTAGCCAGGCTGTGGTGGCGCGGGATCTTGGGGGCCTCGGCGCTGACC
AGGGGGACTGGGCGACCCTCCGTTCTGTTGCTGCCGGTGAGGCGGGAGAGCGCCGGGGCCGACACGCGCCCCACT
GTCAGACCACGGAATGATGTGGCCCACAAGCAGCTCTCAGCTTTTGGAGAGTATGTGGCTGAAATCTTGCCCAAG
TATGTCCAACAAGTTCAGGTGTCCTGCTTCAATGAGTTAGAGGTCTGTATCCATCCTGATGGCGTCATCCCAGTG
CTGACTTTCCTCAGGGATCACACCAATGCACAGTTCAAATCTCTGGTTGACTTGACAGCAGTGGACGTCCCAACT
CGGCAAAACCGTTTTGAGATTGTCTACAACCTGTTGTCTCTGCGCTTCAACTCACGGATCCGTGTGAAGACCTAC
ACAGATGAGCTGACGCCCATTGAGTCTGCTGTCTCTGTGTTCAAGGCAGCCAACTGGTATGAAAGGGAGATCTGG
GACATGTTTGGAGTCTTCTTTGCTAACCACCCTGATCTAAGAAGGATCCTGACAGATTATGGCTTCGAGGGACAT
CCTTTCCGGAAAGACTTTCCTCTATCTGGCTATGTTGAGTTACGTTATGATGATGAAGTGAAGCGGGTGGTGGCA
GAGCCGGTGGAGTTGGCCCAAGAGTTCCGCAAATTTGACCTGAACAGCCCCTGGGAGGCTTTCCCAGTCTATCGC
CAACCCCCGGAGAGTCTCAAGCTTGAAGCCGGAGACAAGAAGCCTGATGCCAAG**TAG**CTCCAGGGAACGCATGTG
GATCCTAGACAGCGCCTTATCTATGATTGAGTGTCCGTGTAAATAAATTCCTACTTAGACTT

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FIGURE 3233

AGCGGAGGTTCCGGGCTCCGGGATGAAAGGAGGGAACGCAGCTGGCAGAGAGAGAAGTTGGCTAGC**ATG**GAATCA
CCAGAGGAGCCTGGAGCATCCATGGATGAGAACTACTTTGTGAACTACACTTTCAAAGATCGGTCACATTCAGGC
CGTGTGGCTCAAGGCATCATGAAACTGTGTCTAGAGGAGGAGCTCTTTGCTGATGTCACCATTTCGGTGGAAGGC
CGGGAGTTTCAGCTCCATCGGCTGGTCCTCTCAGCTCAGAGCTGCTTCTTCCGATCCATGTTCACTTCCAACCTG
AAGGAGGCCCACAACCGGGTGATTGTGCTGCAGGATGTCAGCGAGTCTGTTTTCCAGCTCCTGGTTGATTATATC
TACCATGGGACTGTGAAACTTCGAGCTGAGGAGTTGCAGGAAATTTATGAGGTGTCAGACATGTATCAGCTGACA
TCTCTCTTTGAGGAATGCTCTCGGTTTTTGGCCCGCACAGTGCAAGTGGGAAACTGCCTTCAGGTGATGTGGCTG
GCAGATCGGCACAGTGATCCTGAGCTCTATACGGCTGCCAAGCACTGTGCCAAGACCCACCTGGCCCAGCTGCAG
AATACAGAGGAATTTCTCCACTTGCCCCACCGCTTACTCACAGATATCATCTCGGATGGAGTTCCGTGTTCTCAG
AACCCAACAGAGGCAATAGAAGCCTGGATCAACTTTAATAAAGAGGAAAGAGAGGCTTTTGCAGAGTCACTCAGG
ACAAGCTTGAAGGAAATTGGGGAGAATGTGCACATTTACCTGATTGGGAAAGAGTCATCTCGTACCCACTCGTTG
GCTGTGTCCTTGCACTGTGCTGAAGATGACTCCATCAGTGTAAGTGGCCAAAACAGTTTGTGCCACCAGATCACT
GCGGCCTGCAAGCATGGTGGAGACTTGTATGTGGTGGGAGGGTCCATCCCACGGCGCATGTGGAAGTGCAACAAT
GCCACCGTTGACTGGGAGTGGTGTGCTCCTTTGCCTCGGGACCGGCTCCAGCACACCCTGGTGTCTGTGCCCGGG
AAAGATGCCATATATTCACTGGGTGGCAAGACACTGCAAGATACCCTCTCCAACGCAGTCATTTATTATCGCGTA
GGTGATAATGTGTGGACAGAGACAACTCAGCTAGAGGTGGCTGTGTCAGGGGCTGCTGGTGCCAACCTCAACGGG
ATCATCTACTTACTAGGGGGGGAGGAGAATGATCTGGACTTCTTTACCAAACCTTCCCGACTCATCCAGTGCTTT
GACACAGAGACAGACAAATGCCATGTGAAGCCCTATGTGCTGCCCTTTGCAGGCCGCATGCACGCAGCTGTGCAT
AAAGATCTGGTGTTCATCGTGGCTGAAGGGGACTCCCTGGTGTGCTACAATCCCTTGCTAGACAGCTTCACCCGG
CTTTGCCTTCCTGAGGCCTGGAGCTCTGCCCCATCCCTCTGGAAGATTGCCAGCTGTAACGGGAGCATCTATGTC
TTCCGGGACCGATATAAAAAGGGGGATGCCAACACCTACAAGCTTGACCCTGCCACTTCAGCCGTAACTGTCACA
AGAGGTATTAAGGTGCTGCTTACCAATTTGCAGTTTGTGTTGGCC**TAA**GGCTGTGGGGAGGGGAGGAGAACTGCT
CACTCCTTTTCCCTCCCCATACAAACTCAAAGTCCCCTGGGCCCCAATTCAGAGTTATGTTTTTTTTGGCACATA
CTAGAAAGGCAGTGCCTCAGCCCTTCCCTGAATCCATGGAGGTGTTCTGTTTGGGGCTTTTTAGACTGCTGCTGC
TCAGCTGGTTGCTTGAACTGACAGTAGGCCAGCCTGTTCTCTGCCATTCCCTAGTCATCCTGTGCCTCACCACAG
CTTGCTTAGAGCAAGCCTTTTCTCAGACCTTAGGCACAGCCTCTCCTCTTTACCTGATCAATGTTAAATGTAAGC
ACCCCTGATCCCAGGACATAAGGAAAGATGCCCAATTGTACTTTTGTTCTATAGCCTGTGAAATGGCTAGTTGAT
CATTTTTCCACAAAGAATTAGGTGTTAAGAGTTTTCCTTCAGGCTTTACTTAGGAGAATGGACTAAGCTGAAGGT
GTACTTCACCAGCAAGAGTCAACTCTAGAATTCAGGATGTTCCTTCTATTGTTTTCTTAGCCATCTGTCAGGAAA
TGTAACTTTGGTTTTATTTTTGGCTTATTCCAAGGGGTAAGCCAGAAAATAGAAATGATTATTTCTGATTAATAG
CAGAAACTTTTTCAATCTCAAATATATAAGGTGTCTGCTCTTTTAAAAGCTCTAAGCTAAGTCAAGAGCTAGGAA
CTGTTGATACAAATAAAAGTTTTTGAAGGG

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FIGURE 3234

CCGCCCCGGCACCCGCCTGCTCTTCTCGCGGGTCCGGACCGCGAGCGCGGGGGCCGACGGGTCGCCGCTGCGCCG
GGCCGGG**ATG**GCGGCCACCGCGCTGCTGGAGGCCGGCCTGGCGCGGGTGCTCTTCTACCCGACGCTGCTCTACAC
CCTGTTCCGCGGGAAGGTGCCGGGTCGGGCGCACCGGGACTGGTACCACCGCATCGACCCCACCGTGCTGCTGGG
CGCGCTGCCGTTGCGGAGCTTGACGCGCCAGCTGGTACAGGACGAGAACGTGCGCGGGGGTGATCACCATGAACGA
GGAGTACGAGACGAGGTTCCTGTGCAACTCTTCACAGGAGTGGAAGAGACTAGGAGTCGAGCAGCTGCGGCTCAG
CACAGTAGACATGACTGGGATCCCCACCTTGGACAACCTCCAGAAGGGAGTCCAATTTGCTCTCAAGTACCAGTC
GCTGGGCCAGTGTGTTTACGTGCATTGTAAGGCTGGGCGCTCCAGGAGTGCCACTATGGTGGCAGCATACCTGAT
TCAGGTGCACAAATGGAGTCCAGAGGAGGCTGTAAGAGCCATCGCCAAGATCCGGTCATACATCCACATCAGGCC
TGGCCAGCTGGATGTTCTTAAAGAGTTCCACAAGCAGATTACTGCACGGGCAACAAAGGATGGGACTTTTGTCAT
TTCAAAGACA**TGA**TGTATGGGGATTAGAAAGAACTCAAGACACTCCTGCTTGATACAGAACAAAAAGAGCTTAAC
AGGACCAACAGGGCTTAAGCCCAGACTTGACGTAACAGAAATGTGCCAATAGGTAATAGGTAATTTTTCTTTCTC
TGACTTGTTTTGTTTTCTTGAAATAACACTGTTGTGTGGCTAGAAAGGAAAAGATTTAGTGTGGCTTGTATTCAT
GGGATACAGGACAGGGATGGGGCTATCATCTTTTCTTGAATAGGGCTAAAGAAGTATTTTAACAAAAATCTATTA
TGTACCTAATATTGTGCCTAATAATATTTAGCACCACAACTCAAAAAACATTTAGCACTTGAAAAAAGGAGACTC
ACCTCTGGCTCTTTGCCACTGTCAGAATCTGAATCTCACTGGCCCTGTGGAGTAGGGATCCTATCTGGAGAAGTG
GGAGCATGGGCTGCAGTCAGGACTGCTGCAGACTGAGCCATGTGATGGTACGTAATGAGTTCCCCTGAGGGAATG
AAACACCCTCACCCCTTCAAAGTCACCCCTTTGGAATTCAACACAGACACACATATCCCTTCAAAAACTTTTATT
TGTATCAACAGTTCCTAGCTCTTGACTTAGCTTAGAGCTTTTAAAAGAGCAGACACCTTATATATTTGAGATTGA
AAAAGTTTCTGCTATTAATCAGAAATAATCATTTCTATTTTCTGGCTTACCCCTTGGAATAAGCCAAAAATAAAA
CCAAAGTTACATTTCCTGACAGATGGCTAAGAAAACAATAGAAGGAACATCCTGAATTCTAGAGTTGACTCTTGC
TGGTGAAGTACACCTTCAGCTTAGTCCATTCTCCTAAGTAAAGCCTGAAGGAAAACTCTTAACACCTAATTCTTT
GTGGAAAAATGATCAACTAGCCATTTCACAGGCTATAGAACAAAAGTACAATTGGGCATCTTTCCTTATGTCCTG
GGATCAGGGGTGCTTACATTTAACATTGATCAGGTAAAGAGGAGAGGCTGTGCCTAAGGTCTGAGAAAAGGCTTG
CTCTAAGCAAGCTGTGGTGAGGCACAGGATGACTAGGGAATGGCAGAGAACAGGCTGGCCTACTGTCAGTTCAAG
CAACCAGCTGAGCAGCAGCAGTCTAAAAAGCCCCAAACAGAACACCTCCATGGATTCAGGGAAGGGCTGAGGCAC
TGCCTTTCTAGTATGTGCCAAAAAAAACATAACTCTGAATTGGGGCCCAGGGGACTTTGAGTTTGTATGGGGAGG
GAAAAGGAGTGAGCAGTTCTCCTCCCCTCCCCACAGCCTTAGGCCAACACAAACTGCAAATTGGTAAGCAGCACC
TTAATACCTCTTGTGACAGTTACGGCTGAAGTGGCAGGGTCAAGCTTGTAGGTGTTGGCATCCCCCTTTTTATAT
CGGTCCCGGAAGACATAGATGCTCCCGTTACAGCTGGCAATCTTCCAGAGGGATGGGGCAGAGCTCCAGGCCTCA
GGAAGGCAAAGCCGGGTGAAGCTGTCTAGCAAGGGATTGTAGCACACCAGGGAGTCCCCTTCAGCCACGATGAAC
ACCAGATCTTTATGCACAGCTGCGTGCATGCGGCCTGCAAAGGGCAGCACATAGGGCTTCACATGGCATTTGTCT
GTCTCTGTGTCAAAGCACTGGATGAGTCGGGAAGGTTTGGTAAAGAAGTCCAGATCATTCTCCTCCCCCCCTAGT
AAGTAGATGATCCCGTTGAGGTTGGCACCAGCAGCCCCTGACACAGCCACCTCTAGCTGAGTTGTCTCTGTCCAC
ACATTATCACCTACGCGATAATAAATGACTGCGTTGGAGAGGGT

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FIGURE 3235

GCTCAAAGAAA**ATG**AACGGCACCCTGGACCACCCAGACCAACCAGATCTTGATGCTATCAAGATGTTTGTGGGCC
AGGTTCCAAGGACCTGGTCTGAAAAGGACTTGCGGGAACTCTTCGAACAGTATGGTGCTGTGTATGAAATCAACG
TCCTAAGGGATAGGAGCCAAAACCCGCCTCAGAGCAAAGGGTGCTGTTTTGTTACATTTTACACCCGTAAAGCTG
CATTAGAAGCTCAGAATGCTCTTCACAACATGAAAGTCCTCCCAGGGATGCATCACCCTATACAGATGAAACCTG
CTGACAGTGAGAAGAACAATGCAGTGGAAGACAGGAAGCTGTTTATTGGTATGATTTCCAAGAAGTGCACTGAAA
ATGACATCCGAGTCATGTTCTCTTCGTTTGGACAGATTGAAGAATGCCGGATATTGCGGGGACCTGATGGCCTGA
GCCGAGGTTGTGCATTTGTGACTTTTACAACAAGAGCCATGGCACAGACGGCTATCAAGGCAATGCACCAAGCAC
AGACCATGGAGGGTTGCTCATCACCCATGGTGGTAAAATTTGCTGATACACAGAAGGACAAAGAACAGAAGAGAA
TGGCCCAGCAGCTCCAGCAGCAGATGCAGCAAATCAGCGCCATCTGTGTGGGGAAACCTTGCTGGTCTAAATACT
CTTGGACCCCAGTATTTAGCACTCCTTCAGCAGACTGCCTCCTCTGGGAACCTCAACACCCTGAGCAGCCTCCAC
CCAATGGGAGGGTTGAATGCAATGCAGTTACAGAATTTGGCTGCACTAGCTGCTGCAGC**TAG**TGCAGCTCAGAAC
ACACCAAGTGGTACCAATGCTCTCACTACATCCAGCAGTCCCCTCAGCGTGCTCACTAGTTCAGGGTCCTCACCT
AGCTCTAGCAGCAGTAATTCTGTCAACCCCATAGCCTCACTTGGAGCCCTGCAGACATTAGCTGGAGCAACGGCT
GGCCTCAATGTTGGCTCTTTGGCAGGAATGGCTGCTTTAAATGGTGGCCTGGGCAGCAGTGGCCTTTCCAATGGC
ACCGGGAGCACCATGGAGGCCCTCACTCAGGCCTACTCGGGTATCCAGCAATATGCTGCTGCTGCGCTCCCCACT
CTGTACAACCAGAATCTTCTGACACAGCAGAGTATTGGTGCTGCTGGAAGCCAGAAGGAAGGTCCAGAGGGAGCC
AACCTGTTCATCTACCACCTGCCCCAGGAGTTTGGTGATCAGGACCTGCTGCAGATGTTTATGCCCTTTGGGAAT
GTCGTGTCTGCCAAGGTTTTCATAGACAAGCAGACAAACCTGAGCAAGTGTTTTGGTTTTGTAAGTTACGACAAT
CCTGTTTCGGCCCAAGCTGCCATCCAGTCCATGAACGGCTTTCAGATTGGCATGAAGCGGCTTAAAGTGCAGCTC
AAACGTTCGAAGAATGACAGCAAGCCCTACTGAGCGTGCTCCCCTCTGAGACTGGAGTGAGAGGGTCTTCTGATT
CCTGCCGTTTGTTCATCGTTGTGCCTAAAGCATGTCGATGTGGCGTCAAGTACATCGTCCAAATCCCTGTCTCTT
CAGCTTCTCTGATGCTTGAACTCTCACCTTTGACCTTGTGTTGACCTTTGATGCTGATGTGTATTTTTATTATGT
TTGTTTCTTTCTTCGTTTTTTTTTCTTTTTTTCTTTCCTTTTTTTTTCCTTTTGTGCTGCCAAATTGGTTTTGCT
AGAACGACTGCTGAAGGGGAAATATTTAAACTTGCATTTGAATATAAAAAAAATCTATTTTTCTAGAACTTCATA
AGATAACCACTTGATTTTGTGATTCCAATTCTTTGTAATTGTCTTCAGAGCAGCCCTACTAGCACATACCGCGTG
GTGTTTGTATTTCTGTGAACACACAGCCAGTCCGTTTCTAGGCTTTGTTTCTCTGTGTGCTTAGTTTTAAAGACA
ACTTTGAAGTAAACAATGAAATAAAAGATGTCACT

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FIGURE 3236

TAAAGTGCAGCTCAAACGTTCGAAGAATGACAGCAAGCCCTACTGAGCGTGCTCCCCTCTGAGACTGGAGTGAGA
GGGTCTTCTGGTAAGTGGGGGAGGAGCACCCTTAATGATTCGAAGCCCTGAGGCTGTGTGTTGACAGCCCTGGAC
CCTGATCCCTGCCACTCTCGCAGGCACAGCTTGCCCTGAAGACTCGGCTACTGCCTTCTGTGGGAGTTTCGCTTC
GTACAGAGGACAAGTTTGTGCTTTGGTTTCCAGTGTTTTACTTTGGAGTTTAGGTGCCATATCCTGAGGTTTTTT
TTGTTTTTGTTTTTGTTTCTCCTTTATTTAAAGTTTGCTGTGTTTGTAACCAGTGTGTGTTGAGAAGGACCAACA
CCAAACCACCCTGGGGAAGGGGGACAGGGAAACATTTAACACAGACGATGATCAGGATTTGCCCCAAACCACCCC
AAGAGAGAGGACTGAGTGGAACAAAAAAGTGACCCCCAGAACCTCTCTTAGTGTGAGGGTGGGTAGAATGAGAAC
TGACACCTGGGAGCTGTGGGGAGCAGAGCGGCTTTGGGGAAGAGTGGAGTGACTAGACACCTAATGCCCTGGCAG
CTGGAGACTCAAACTCCTGTACAGCTACCTTCTGGGAAATAGTTTTTGACACCTATTTTTCAGATTCTTGTCCGG
AATTTCTGCTGCTCTTTTCAAAAAAGGGCATTAACAATTCTCTGGAAATAAAGCACCTGTTAGCCTGACAT**ATG**C
AAAAAGCAGGGCGGCATCACCCATTACGAGCTCCCCCAGCCAGCAGTCAGTATTGGATTGGCCTTGCCTGGCTGG
TGGCAGTTTGGGAGAAACAGCCAAAGAGGTTAGTTTATTTCAACACCAAATTAGACCATGGCCCATTTCCAACGG
GTCTCTTTAAAGGCCTCTATGGAATACATTGCCTGGTTTCCTTCTTTGCAGTTCACCACAGCAAGGAATGTCACC
TCCATCCCAAGCCACCATTTTCTCATGAAGGCAAATCCAAGAAGGGCTTGCAGTTCTTGCTGAAGGGGGTACCAT
TTGTGGGCAGAGTGATCAATACCATC**TAG**TTGGGGGAGGAGGAGCTTATTTCTTGGTGTACTTGAATCAGAAGGT
CCCTGCAAGCCAGTATGCTTCATTTGCCAGTGGCCAGAAATTCTCCCTTGCCTCCTTGATTGAGGTGTCCCAGAT
GTAGTATTCCCACAGGGGTCTGGCAGGCCCCTCCTGTAACCACTCCAGTCACATTTTCTGCTCTTGAGGCAGAGG
TGACATCAGGACGTTTACAGCCTCCACATGAATTGAGTGTTCATTTACCTCAGTATTACCGTGTTCATTTTTGTC
CTCGTGCTACAGTTAGCTCCCTGCCGCCTCTTGCAGGTCTTACTTCAGCTCTTGCCTGTGACCCACACAGCTTCT
GGGCTCTGCCTCTGCTCTAAGAAGTGCTGTGGGGGTAGAGAACCAGGAAGGACATGCTGTTGGGAATGTACACCT
GGGCAGAGGTGGCCCTGTTAAGATGTGACTGTAGCCACAGCCAGGGATGGGATCCCTGGGTCTCTGGAATCTGAA
ACCTCAACAAATACCAGTCTTGACCCCTAGCAGCAGAGATAAGAATAAAGGGGTTGGTTTGCTATTAAGTCAGAT
GGGGGCTCTCTCCTTGTCATGCTGTCCCTGTGGGTAACAGACAGGGATTGACCATCTTACTGTTGTACAGGTAGC
TGGTGGTGTTGGATTATCCCATTGAAGCTGGGACAGCTGTTCCTTTCTCATAGTGATAACTTGGGTCTGTTGTCC
TCTAAGGAACGTGAAACATACACTTCTTAAGCTGAACCACGTAAACTTGAAATTCTGCGCACTGGGAGAAATGTG
TCCTGTGTTTCAAAGGATAAAACTGTTCTAAAGGCTTCCAGGGTCATGATGGGATTTTTTAAATAAATGCAAAAA
AT

FIGURE 3237A

GCTAGGTTGGGGAGGCGCTGTTCTGAATCCCAACCGGCTGGAACCAAGAATGTCGTTTCTATTTTTATAGAAGTT
TTATACAGCTCCGGGGTGGAGAATATTTATTACCTAAATTATATCTCTGGAAAAGGCCAGGATTTTGTAGAATCC
AGAATGTGATTGTTATACACACAGGGTGCTGTGTATGATTGAAACTACTGACTTTCTGTGGCCCGTTTGCAGCCC
AGCTAACCTGCCCAAGGGGAAGGTGTTAATGCTGTGAATTGGCAGAGGAGAGAGCTGTGCTCCATAGGGTGCTGC
CGGTGCTGTGCTCCCTAGCCTTCTGTTCTGTCTTCCTCCTTAGCCAGAACGCCACTCCCTTCCCACATCCCCTTC
TTCTCTCCGCCTTCCCCCATCTCACCATTATTTGTCCATGGATTTGTCCTGGGCTCTGGGACCTTATGAAACCCC
TTTCCTAATGACATAAGAGGCCAAGGTGCAATCCACCCACCTTTGATACCAGACCCTGAGGGCTTCATACCTGCT
GATGGGTTTTCTTTTCTAAAAGGAATGCTCGCCCCAGCAGGGTCCTGGGCTGCTTGAGCAGCCAGCTGGTGAGAC
CATGCACTTCTCTGTTCTCTCCTCCCCCTGCCCAGTGAGTTAGCACAGCAGTAGCACTGCCCTTGAGCACAGTTC
TTTCCCCAGGCCAAAGATGGTTTTGTGAAGAAGCTGCTCCCCTACAAGTCTCACGTGTGAAAGGGCTCAGCTCAG
AGTGGAGACTCGCTGTCAAGTCTTAAGCAATCCTTTTCTGTTGTGTGAAGGTTTCACTTACAATGTGTTTTCTGC
TGTAGTTTTGTTTCTTACTTGGGTTACATCATGAAATTGATTTGCCTTGAATGCAGCCAGACCACTGTCTCCTGG
GTTCCCCTTGAGTGGCCAGGGCCTGGATGGAAGCTAAGAGCTTGGATTTCTGGGAACAAAGGGCCATCCCCATAA
GATTGAGCAGAAATTCTGGTCCTCTTCCCTGAAAAATTTTCCCCACCCCAGCCAGCATCTTCTGCTTCCCCTTGG
GTTGTGACCAGGGAGTGGGGAGAGAGGCTGAGGCTCTGCTCCCCTGGAGACCTTCTCTTAGGAGTTGGGTGCTTC
ATGGAAAATCCAAGCCTTAGGTTCCCTTCTGTCTCTGGCAATTAGATGTGTTCTTGGTGTCCTCCATGTCCTTTT
TGACTTTTCCCTGTGTCCATTGTTAGCATGTGCAAAAGTTCCCTGTCATTACCCAACCCCTGCCCGCCCACCTCA
TTTCAGGGCTGTACACACAGTGAGTGTTCCTGTTCTCTCTCTCTTTGTTTGGATGTATTGCTCTGTGTAACTCAG
TGGGTCTCCCTCTTTCTGGTTTGTTTTTTTTTCTAGATTCCTGCCGTTTGTTCATCGTTGTGCCTAAAGCATGTC
GATGTGGCGTCAAGTACATCGTCCAAATCCCTGTCTCTTCAGCTTCTCTGATGCTTGAACTCTCACCTTTGACCT
TGTGTTGACCTTTGATGCTGATGTGTATTTTTATTATGTTTGTTTCTTTCTTCGTTTTTTTTTCTTTTTTTCTTT
CCTTTTTTTTTCCTTTTGTGCTGCCAAATTGGTTTTGCTAGAACGACTGCTGAAGGGGAAATATTTAAACTTGCA
TTTGAATATAAAAAAAATCTATTTTTCTAGAACTTCATAAGATAACCACTTGATTTTGTGATTCCAATTCTTTGT
AATTGTCTTCAGAGCAGCCCTACTAGCACATACCGCGTGGTGTTTGTATTTCTGTGAACACACAGCCAGTCCGTT
TCTAGGCTTTGTTTCTCTGTGTGCTTAGTTTTAAAGACAACTTTGAAGTAAACAATGAAATAAAAGATGTCACTA
AAACCTCTGAGGCTCCTGAGCACATTTTGCTGATACAGTCTGTGGGGCTTGAGGAGACCGCATGTATTGTTCTTT
CTTTTGTTTTTCTTCTGAGTTCTCAACTGCGGAGAGCACCTGAACCCCCTTTCCTTTTTGACCGCAGGCTGCACT
TTGGGCCCCAGCCAGCCCTTTTTCTTTTTCTTTTTCTTTTGTGGTTCTTCCCTGGAGCGACTCTGGGGAGTCCTG
GATATCCCGCCTGCCCCTTCCCCTCAGCCCCATGCTTGTTCCAACAGTCTCCACAGCAAAATGTGATGCTTTGAT
TTTTTTGTTGTTGTTTTTGTTTTTGTATTGTTTTTGTGTTTTTGTTTTGAATTTTTTCCTTTCCTACTAAGATTA
TGCCCAGAAAAAAGTTTTGCATGTTTCCTGCTGTTTCTTCACACCTTCGTATATATCACCTTCACCTCTCTGTTT
TCTATAGTTTGTGCAAAAACTGATCGATTTAAAAGGGTTTCAAAGAAGCTGTTTTAAATTGTTGTAGGGTTGATT
ATTTTTTTCAAGATTGTATTGTTTAATTTTGAAGTGGCAACTTTCTCCTCTATTGCCCTTAGAGCGTTTGCCTGT
GCACTTAGACTGTCACTTCGTGTGGCCTCCAGGTCTTACCGGGGCTTCCGGGAGGCTGGCTGCTTTGCTCAGAGA
GGGTGGGAAGGGGGCCTGGAGAGACACGAGAAGCAGAGGTAGAGCCTAGAAGGTGGCAGCAGGTGGGTAAGAGGC
TTATTTAGCACATTAGGGGCAGTGAGCACCTGGAGGAAGGAGGGCGCTCCCAATCACCCGTAGGAGGCCATCTGC
ACACCAAGCGGCAATTCACCTGCTGGCGCTTTTCCTAGGTGACAAGCACAATACTACAGTCTTCACACTGTTTAC
AGCCCTGGGCACCAGCCACCCGGCACTGGCTCTTCATCACAGCTCTGCTCTTGCTTAGCTAGTGGGGTGGGGGAA
AGGGCAGGGATTTGTTTTTTTAATTGGGTGGAGAGCCAAACAGCTACTGTCCCTGGGTGCCAAGCAAGCCAGTTT
TTTGGTTCCCTGAGGGAAACTGACCCTCCTCTCTTGTGGCACCATCCAGCCTCAGGGTCTTGGAGACTTGAGTAA
GAATGTGAGTGGAGGGGGAGAGGTGAGGAGAGGAGCACAGGGTGGATCTGTGGAGGGAAGAGGTTACAGGGGGAG
GAGCTGATGATAGATCCCACCCAGACTTAAGCTGCTGGTGGGTGGGTGAGCTGGGAAGTAGGACTGTCCAGGGAA
GGGTGGAGAGATGTAGCTAGGGGCTGGGGAGGGGGAGGTGGAAGCGCTATTGAGCATCCTCCACACCAAGGTTG**A**
TGAAGGAAGGGATCCCAGCAGGGTTTCTGCTCTGGGGCTGGCAGGTTGCCTGGTATTATGCCCAAGGCCGCTCTG
CCTGGGGGAAAGGGCAGCCAGGCAGAGGCCCAGTGTCTGGTAGGCTGCTGAATTTCCTGGAAGGGGTGATTGGAT
GGAAAGAGGCCAGAAACCCCAGCCTGAGAGACTGCTGTGCACCCCACAGTCTGACTGCACAGAGCCGCCTCTGTT
GGCAGGAGGCACTGAGGCTCCCCTTCCTGTGTATTGAGAAGCAGTGTTTGCCAATATATTTTGCTTTCAATTCCA
AGAGGAGCTCTGGGAAAACCTGTGGA**TAA**AACCAAATGCCAAATGTTGGACGTTGTTTCCTTTTCCTTTTCTCTC

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FIGURE 3237B

TCTGATTGTTTTAATTGTTCTGTGGTGGTTTTAATGGATTTGAGACCCTGGAGCGGCAGCTGCCTTTCTGATTTC
CAGCTGCTTTTTGTGAATAATTT

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FIGURE 3238

GATTCGCTGCTCCGCAGCACGGCCGGAGCTGGTCGGGTCAAGAGTCGGGATTTGTGGGGAGAGGTTTTCCACTGG
TCAAGAGAAGGCTTTAAGAAAGACGGTATTAATCTCCCGTTGCGGCTCCCGCCTGGTCCCATCTTCTGCCCGCTC
CTCCAGGAA**ATG**AATCTGCTGCCGAATATTGAGAGTCCAGTGACTCGGCAGGAGAAGATGGCGACCGTGTGGGAT
GAGGCCGAGCAAGATGGAATTGGGGAGGAGGTGCTCAAGATGTCCACGGAGGAGATCATCCAGCGCACACGGCTG
CTGGACAGTGAGATCAAGATCATGAAGAGTGAAGTGTTGAGAGTCACCCATGAGCTCCAAGCCATGAAGGACAAG
ATAAAAGAGAACAGTGAGAAAATCAAAGTGAACAAGACCCTGCCGTACCTTGTCTCCAACGTCATCGAGCTCCTG
GATGTTGATCCTAATGACCAAGAGGAGGATGGTGCCAATATTGACCTGGACTCCCAGAGGAAGGGCAAGTGTGCT
GTGATCAAAACCTCTACACGACAGACGTACTTCCTTCCTGTGATTGGGTTGGTGGATGCTGAAAAGCTAAAGCCA
GGAGACCTGGTGGGTGTGAACAAAGACTCCTATCTGATCCTGGAGACGCTGCCCACAGAGTATGACTCGCGGGTG
AAGGCCATGGAGGTAGACGAGAGGCCCACGGAGCAATACAGTGACATTGGGGGTTTGGACAAGCAGATCCAGGAG
CTGGTGGAGGCCATTGTCTTGCCAATGAACCACAAGGAGAAGTTTGAGAACTTGGGGATCCAACCTCCAAAAGGG
GTGCTGATGTATGGGCCCCCAGGGACGGGGAAGACCCTCCTGGCCCGGGCCTGTGCCGCACAGACTAAGGCCACC
TTCCTAAAGCTGGCTGGCCCCCAGCTGGTGCAGATGTTCATTGGAGATGGTGCCAAGCTAGTCCGGGATGCCTTT
GCCCTGGCCAAGGAGAAAGCGCCCTCTATCATCTTCATTGATGAGTTGGATGCCATCGGCACCAAGCGCTTTGAC
AGTGAGAAGGCTGGGGACCGGGAGGTGCAGAGGACAATGCTGGAGCTTCTGAACCAGCTGGATGGCTTCCAGCCC
AACACCCAAGTTAAGGTAATTGCAGCCACAAACAGGGTGGACATCCTGGACCCCGCCCTCCTCCGCTCGGGCCGC
CTTGACCGCAAGATAGAGTTCCCGATGCCCAATGAGGAGGCCCGGGCCAGAATCATGCAGATCCACTCCCGAAAG
ATGAATGTCAGTCCTGACGTGAACTACGAGGAGCTGGCCCGCTGCACAGATGACTTCAATGGGGCCCAGTGCAAG
GCTGTGTGTGTGGAGGCGGGCATGATCGCACTGCGCAGGGGTGCCACGGAGCTCACCCACGAGGACTACATGGAA
GGCATCCTGGAGGTGCAGGCCAAGAAGAAAGCCAACCTACAATACTACGCC**TAG**GGCACACAGGCCAGCCCCAGT
CTCACGGCTGAAGTGCGCAATAAAAGATGGTTTAGGGTCCCTGCC

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FIGURE 3239

GGGGCCGCCCGGATCGCCGCCGCCGCCGCCGCACGTACGTGGCATGCCTGGATGTCCCTGCCCTGGCTGTGGCAT
GGCGGGCCCAAGGCTCCTCTTCCTCACTGCCCTTGCCCTGGAGCTCTTGGAAAGGGCTGGGGGTTCCCAGCCGGC
CCTCCGGAGCCGGGGGACTGCGACGGCCTGTCGCCTGGACAACAAGGAAAGCGAGTCCTGGGGGGCTCTGCTGAG
CGGAGAGCGGCTGGACACCTGGATCTGCTCCCTCCTGGGTTCCCTCATGGTGGGGCTCAGTGGGGTCTTCCCGTT
GCTTGTCATTCCCCTAGAGATGGGGACCATGCTGCGCTCAGAAGCTGGGGCCTGGCGCCTGAAGCAGCTGCTCAG
CTTCGCCCTGGGGGGACTCTTGGGCAATGTGTTTCTGCATCTGCTGCCCGAAGCCTGGGCCTACACGTGCAGCGC
CAGCCCTGGTGGTGAGGGGCAGAGCCTGCAGCAGCAGCAACAGCTGGGGCTGTGGGTCATTGCTGGCATCCTGAC
CTTCCTGGCGTTGGAGAAGATGTTCCTGGACAGCAAGGAGGAGGGGACCAGCCAGGCCCCCAACAAAGACCCCAC
TGCTGCTGCCGCCGCGCTCAATGGAGGCCACTGTCTGGCCCAGCCGGCTGCAGAGCCCGGCCTCGGTGCCGTGGT
CCGGAGCATCAAAGTCAGCGGCTACCTCAACCTGCTGGCCAACACCATCGATAACTTCACCCACGGGCTGGCTGT
GGCTGCCAGCTTCCTTGTGAGCAAGAAGATCGGGCTCCTGACAACCATGGCCATCCTCCTGCATGAGATCCCCCA
TGAGGTGGGCGACTTTGCCATCCTGCTCCGGGCCGGCTTTGACCGATGGAGCGCAGCCAAGCTGCAACTCTCAAC
AGCGCTGGGGGGCCTACTGGGCGCTGGCTTCGCCATCTGTACCCAGTCCCCCAAGGGAGTAGTTGGGTGTTCTCC
CGCTGCAGAGGAGACGGCAGCCTGGGTCCTGCCCTTCACCTCTGGCGGCTTTCTCTACATCGCCTTGGTGAACGT
GCTCCCTGACCTCTTGGAAGAAGAGGACCCGTGGCGCTCCCTGCAGCAGCTGCTTCTGCTCTGTGCGGGCATCGT
GGTAATGGTGCTGTTCTCGCTCTTCGTGGATTAACTTTCCCTGATGCCGACGCCCCTGCCCCCTGCAGCAATAAG
ATGCTCGGATTCACTCTGTGACCGCATATGTGAGAGGCAGAGAGGGCGAGTGGCTGCGAGAGAGAATGAGCCTCC
CGCCAGACAGGAGGGAGGTGCGTGTGGATGTATGTGGTGTGCACATGTGGCCAGAGGTGTGTGCGCGAGACCGAC
ACTGTGATCCCTGTGCTGGGTCCGGGGCCCAGTGTAGCGCCTGTCCCCAGCCATGCTGTGGTTACCTCTCCTTGC
CGCCCTGTCACCTTCACCTCCCGGAGTAAGCAGCGAGGAAGAGCAGCACTGGTCCCAAGCAGAGGCCTTGCCCTG
CTGGGACCCCGGGAGTGAGAGCAGCCCAAGGATCCAGGGTGCAGGGAACTCCAGAGCTGCCCACCTCCCACTGCC
CCCTCAGCACACACACAGTCCCCAGGCGGCCTAGGGGCCAAGGCTGGGGCGGCTTTGGTCCCTTTTCCTGGCCCT
TCCTTCCCCACTTCTAAGCCAAAGAAAGGAGAGGCAGGTGCTCCTGTACCCCAGCCCCACTCAGCACTGACAGTC
CCCAGCTCCTAGTAGTGAGCTGGGAGGCGCTTCCTAAGACCCTTTCCTCAGGGCTGCCCTGGGAGCTCATTCCTG
GCCAACACGCCCTGGCAGCACCAGCAGCTCTTGCCACCTCCAGCTGCCAAACAGCAGCCTGCCGGGCAGGGAGCA
GCCCCAGGCCAGAGAGGCCTCCCGGTCCAGCTCAGGGATGCTCCTGCCAGCACAGGGGCCAGGGACTCCTGGAGC
AGGCACATAGTGAGCCCGGGCAGCCCTGCCCAGCTCAGGCCCCTTTCCTTCCCCATTGAGGTTGGGGTAGGTGGG
GGCGGTGAGGGCTCCACGTTGTCAGCGCTCAGGAATGTGCTCCGGCAGAGTGCTGAAGCCATAATCCCCAACCAT
TTCCCTTGGCTGACGCCCAGGTACTCAGCTGGCCCACTCCACAGCCAGGCCTGGCCCTGCCCTTCACCGTGGATG
TTTTCAGAAGTGGCCATCGAGAGGTCTGGATGGTTTTATAGCAACTTTGCTGTGATTCCGTTTGTATCTGTAAAT
ATTTGTTCTATAGATAAGATACAAATAAATATTATCCACAT

FIGURE 3240A

ACCGCGGCCGCGCGCCCCCCTCTGCCCCCGCTGCCCAGGATTGGTAGGCTCCACCGCTCGGCAGCCGGCTTCCCT
GCTCGGACGCCGAGCACCGCCAAAGCGCACTTCGATTTTCAGAATTCCTCCTGGGAATGCTGACTCCTTGCTTGG
TGCCCTGATGCTTCTCTGAGATAAACTGATGAATTGGAACC**ATG**GTGCAAAAGAAGAAGTTCTGTCCTCGGTTAC
TTGACTATCTAGTGATCGTAGGGGCCAGGCACCCGAGCAGTGATAGCGTGGCCCAGACTCCTGAATTGCTACGGC
GATACCCCTTGGAGGATCACACTGAGTTTCCCCTGCCCCCAGATGTAGTGTTCTTCTGCCAGCCCGAGGGCTGCC
TGAGCGTGCGGCAGCGGCGCATGAGCCTTCGGGATGATACCTCTTTTGTCTTCACCCTCACTGACAAGGACACTG
GAGTCACGCGATATGGCATCTGTGTTAACTTCTACCGCTCCTTCCAAAAGCGAATCTCTAAGGAGAAGGGGGAAG
GTGGGGCAGGGTCCCGTGGGAAGGAAGGAACCCATGCCACCTGTGCCTCAGAAGAGGGTGGCACTGAGAGCTCAG
AGAGTGGCTCATCCCTGCAGCCTCTCAGTGCTGACTCTACCCCTGATGTGAACCAGTCTCCTCGGGGCAAACGCC
GGGCCAAGGCGGGGAGCCGCTCCCGCAACAGTACTCTCACGTCCCTGTGCGTGCTCAGCCACTACCCTTTCTTCT
CCACCTTCCGAGAGTGTTTGTATACTCTCAAGCGCCTGGTGGACTGCTGTAGTGAGCGCCTTCTGGGCAAGAAAC
TGGGCATCCCTCGAGGCGTACAAAGGGACACCATGTGGCGGATCTTTACTGGATCGCTGCTGGTAGAGGAGAAGT
CAAGTGCCCTTCTGCATGACCTTCGAGAGATTGAGGCCTGGATCTATCGATTGCTGCGCTCCCCAGTACCCGTCT
CTGGGCAGAAGCGAGTAGACATCGAGGTCCTACCCCAAGAGCTCCAGCCAGCTCTGACCTTTGCTCTTCCAGACC
CATCTCGATTCACCCTAGTGGATTTCCCACTGCACCTTCCCTTGGAACTTCTAGGTGTGGACGCCTGTCTCCAGG
TGCTAACCTGCATTCTGTTAGAGCACAAGGTGGTGCTACAGTCCCGAGACTACAATGCACTCTCCATGTCTGTGA
TGGCATTCGTGGCAATGATCTACCCACTGGAGTATATGTTTCCTGTCATCCCGCTGCTACCCACCTGCATGGCAT
CAGCAGAGCAGCTGCTGTTGGCTCCAACCCCGTACATCATTGGGGTTCCTGCCAGCTTCTTCCTCTACAAACTGG
ACTTCAAAATGCCTGATGATGTATGGCTAGTGGATCTGGACAGCAATAGGGTGATTGCCCCCACCAATGCAGAAG
TGCTGCCTATCCTGCCAGAACCAGAATCACTAGAGCTGAAAAAGCATTTAAAGCAGGCCTTGGCCAGCATGAGTC
TCAACACCCAGCCCATCCTCAATCTGGAGAAATTTCATGAGGGCCAGGAGATCCCCCTTCTCTTGGGAAGGCCTT
CTAATGACCTGCAGTCCACACCGTCCACTGAATTCAACCCACTCATCTATGGCAATGATGTGGATTCTGTGGATG
TTGCAACCAGGGTTGCCATGGTACGGTTCTTCAATTCCGCCAACGTGCTGCAGGGATTTCAGATGCACACGCGTA
CCCTGCGCCTCTTTCCTCGGCCTGTGGTAGCTTTTCAAGCTGGCTCCTTTCTAGCCTCACGTCCCCGGCAGACTC
CTTTTGCCGAGAAATTGGCCAGGACTCAGGCTGTGGAGTACTTTGGGGAATGGATCCTTAACCCCACCAACTATG
CCTTTCAGCGAATTCACAACAATATGTTTGATCCAGCCCTGATTGGTGACAAGCCAAAGTGGTATGCTCATCAGC
TGCAGCCTATCCACTATCGCGTCTATGACAGCAATTCCCAGCTGGCTGAGGCCCTGAGTGTACCACCAGAGCGGG
ACTCTGACTCCGAACCTACTGATGATAGTGGCAGTGATAGTATGGATTATGACGATTCAAGCTCTTCTTACTCCT
CCCTTGGTGACTTTGTCAGTGAAATGATGAAATGTGACATTAATGGTGATACTCCCAATGTGGACCCTCTGACAC
ATGCAGCACTGGGGGATGCCAGCGAGGTGGAGATTGACGAGCTGCAGAATCAGAAGGAAGCAGAAGAGCCTGGCC
CAGACAGTGAGAACTCTCAGGAAAACCCCCCACTGCGCTCCAGCTCTAGCACCACAGCCAGCAGCAGCCCCAGCA
CTGTCATCCACGGAGCCAACTCTGAACCTGCTGACTCTACGGAGATGGATGATAAGGCAGCAGTAGGCGTCTCCA
AGCCCCTCCCTTCCGTGCCTCCCAGCATTGGCAAATCGAACGTGGACAGACGTCAGGCAGAAATTGGAGAGGGGT
CAGTGCGCCGGCGAATCTATGACAATCCATACTTCGAGCCCCAATATGGCTTTCCCCCTGAGGAAGATGAGGATG
AGCAGGGGGAAAGTTACACTCCCCGATTCAGCCAACATGTCAGTGGCAATCGGGCTCAAAAGCTGCTGCGGCCCA
ACAGCTTGAGACTGGCAAGTGACTCAGATGCAGAGTCAGACTCTCGGGCAAGCTCTCCCAACTCCACCGTCTCCA
ACACCAGCACCGAGGGCTTCGGGGGCATCATGTCTTTTGCCAGCAGCCTCTATCGGAACCACAGTACCAGCTTCA
GTCTTTCAAACCTCACACTGCCCACCAAAGGTGCCCGAGAGAAGGCCACGCCCTTCCCCAGTCTGAAAGTATTTG
GGCTAAATACTCTAATGGAGATTGTTACTGAAGCCGGCCCCGGGAGTGGTGAAGGAAACAGGAGGGCGTTAGTGG
ATCAGAAGTCATCTGTCATTAAACACAGCCCAACAGTGAAAAGAGAACCTCCATCACCCCAGGGTCGATCCAGCA
ATTCTAGTGAGAACCAGCAGTTCCTGAAGGAGGTGGTGCACAGCGTGCTGGACGGCCAGGGAGTTGGCTGGCTCA
ACATGAAAAAGGTGCGCCGGCTGCTGGAGAGCGAGCAGCTGCGAGTCTTTGTCCTGAGCAAGCTGAACCGCATGG
TGCAGTCAGAGGACGATGCCCGGCAGGACATCATCCCGGATGTGGAGATCAGTCGGAAGGTGTACAAGGGAATGT
TAGACCTCCTCAAGTGTACAGTCCTCAGCTTGGAGCAGTCCTATGCCCACGCGGGTCTGGGTGGCATGGCCAGCA
TCTTTGGGCTTTTGGAGATTGCCCAGACCCACTACTATAGTAAAGAACCAGACAAGCGGAAGAGAAGTCCAACAG
AAAGTGTAAATACCCCAGTTGGCAAGGATCCTGGCCTAGCTGGGCGGGGGGACCCAAAGGCTATGGCACAACTGA
GAGTTCCACAACTGGGACCTCGGGCACCAAGTGCCACAGGAAAGGGTCCTAAGGAACTGGACACCAGAAGTTTAA
AGGAAGAAAATTTTATAGCATCTATTGAATTGTGGAACAAGCACCAGGAAGTGAAAAAGCAAAAAGCTTTGGAAA

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FIGURE 3240B

AACAGAGGCCTGAAGTAATCAAACCTGTCTTTGACCTTGGTGAGACAGAGGAGAAAAAGTCCCAGATCAGCGCAG
ACAGTGGTGTGAGCCTGACGTCTAGTTCCCAGAGGACTGATCAAGACTCTGTCATCGGCGTGAGTCCAGCTGTTA
TGATCCGCAGCTCAAGTCAGGATTCTGAAGTTAGCACCGTGGTGAGTAATAGCTCTGGAGAGACCCTTGGAGCTG
ACAGTGACTTGAGCAGCAATGCAGGTGATGGACCAGGTGGCGAGGGCAGTGTTCACCTGGCAAGCTCTCGGGGCA
CTTTGTCTGATAGTGAAATTGAGACCAACTCTGCCACAAGCACCATCTTTGGTAAAGCCCACAGCTTGAAGCCAA
GCATAAAGGAGAAGCTGGCAGGCAGCCCCATTCGTACTTCTGAAGATGTGAGCCAGCGAGTCTATCTCTATGAGG
GACTCCTAGGAAGGGACAAAGGATCCATGTGGGACCAGTTAGAGGATGCAGCTATGGAGACCTTTTCTATAAGCA
AAGAGCGTTCTACTTTATGGGACCAAATGCAATTCTGGGAAGATGCCTTCTTAGATGCTGTGATGTTGGAGAGAG
AAGGGATGGGTATGGACCAGGGTCCCCAGGAAATGATCGACAGGTACCTGTCCCTTGGAGAACATGACCGGAAGC
GCCTGGAAGATGATGAAGATCGCTTGTTGGCCACACTTCTGCACAACCTCATCTCCTACATGCTGCTGATGAAGG
TAAATAAGAATGACATCCGCAAGAAGGTGAGGCGCCTAATGGGAAAGTCGCACATTGGGCTTGTGTACAGCCAGC
AAATCAATGAGGTGCTTGATCAGCTGGCGAACCTGAATGGACGCGATCTCTCTATCTGGTCCAGTGGCAGCCGGC
ACATGAAGAAGCAGACATTTGTGGTACATGCAGGGACAGATACAAACGGAGATATCTTTTTCATGGAGGTGTGCG
ATGACTGTGTGGTGTTGCGTAGTAACATCGGAACAGTGTATGAGCGCTGGTGGTACGAGAAGCTCATCAACATGA
CCTACTGTCCCAAGACGAAGGTGTTGTGCTTGTGGCGTAGAAATGGCTCTGAGACCCAGCTCAACAAGTTCTATA
CTAAAAAGTGTCGGGAGCTGTACTACTGTGTGAAGGACAGCATGGAGCGCGCTGCCGCCCGACAGCAAAGCATCA
AACCCGGACCTGAATTGGGTGGCGAGTTCCCTGTGCAGGACCTGAAGACTGGTGAGGGTGGCCTGCTGCAGGTGA
CCCTGGAAGGGATCAACCTCAAATTCATGCACAATCAGGTTTTCATAGAGCTGAATCACATTAAAAAGTGCAATA
CAGTTCGAGGCGTCTTTGTCCTGGAGGAATTTGTTCCTGAAATTAAAGAAGTGGTGAGCCACAAGTACAAGACAC
CAATGGCCCACGAAATCTGCTACTCCGTATTATGTCTCTTCTCGTACGTGGCTGCAGTTCATAGCAGTGAGGAAG
ATCTCAGAACCCCGCCCCGGCCTGTCTCTAGC**TGA**TGGAGAGGGGCTACGCAGCTGCCCCAGCCCAGGGCACGCC
CCTGGCCCCTTGCTGTTCCCAAGTGCACGATGCTGCTGTGACTGAGGAGTGGATGATGCTCGTGTGTCCTCTGCA
AGCCCCCTGCTGTGGCTTGGTTGGTTACCGGTTATGTGTCCCTCTGAGTGTGTCTTGAGCGTGTCCACCTTCTCC
CTCTCCACTCCCAGAAGACCAAACTGCCTTCCCCTCAGGGCTCAAGAATGTGTACAGTCTGTGGGGCCGGTGTGA
ACCCACTATTTTGTGTCCTTGAGACATTTGTGTTGTGGTTCCTTGTCCTTGTCCCTGGCGTTATAACTGTCCACT
GCAAGAGTCTGGCTCTCCCTTCTCTGTGACCCGGCATGACTGGGCGCCTGGAGCAGTTTCACTCTGTGAGGAGTG
AGGGAACCCTGGGGCTCACCCTCTCAGAGGAAGGGCACAGAGAGGAAGGGAAGAATTGGGGGGCAGCCGGAGTGA
GTGGCAGCCTCCCTGCTTCCTTCTGCATTCCCAAGCCGGCAGCTACTGCCCAGGGCCCGCAGTGTTGGCTGCTGC
CTGCCACAGCCTCTGTGACTGCAGTGGAGCGGCGAATTCCCTGTGGCCTGCCATGCCTTCGGCATCAGAGGATGG
AGTGGTCGAGGCTAGTGGAGTCCCAGGGACCGCTGGCTGCTCTGCCTGAGCATCAGGGAGGGGGCAGGAAAGACC
AAGCTGGGTTTGCACATCTGTCTGCAGGCTGTCTCTCCAGGCACGGGGTGTCAGGAGGGAGAGACAGCCTGGGTA
TGGGCAAGAAATGACTGTAAATATTTCAGCCCCACATTATTTATAGAAAATGTACAGTTGTGTGAATGTGAAATA
AATGTCCTCAACTCCC

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FIGURE 3241

CAGTGCCTTGGTAATGACCAGGGCTCCAGGAAGAG**ATG**TCCTTGTGGCTGGGGGCCCCTGTGCCTGACATTCCTC
CTGACTCTGCGGTGGAGCTGTGGAAGCCAGGCGCACAGGATGCAAGCAGCCAGGCCCAGGGAGGCAGCAGCTGCA
TCCTCAGAGAGGAAGCCAGGATGCCCCACTCTGCTGGGGGTACTGCAGGGGTGGGGCTGGAGGCTGCAGAGCCCA
CAGCCCTGCTCACCAGGGCAGAGCCCCCTTCAGAACCCACAGAGATCCGTCCACAAAAGCGGAAAAAGGGGCCAG
CCCCCAAAATGCTGGGGAACGAGCTATGCAGCGTGTGTGGGGACAAGGCCTCGGGCTTCCACTACAATGTTCTGA
GCTGCGAGGGCTGCAAGGGATTCTTCCGCCGCAGCGTCATCAAGGGAGCGCACTACATCTGCCACAGTGGCGGCC
ACTGCCCCATGGACACCTACATGCGTCGCAAGTGCCAGGAGTGTCGGCTTCGCAAATGCCGTCAGGCTGGCATGC
GGGAGGAGTGTGTCCTGTCAGAAGAACAGATCCGCCTGAAGAAACTGAAGCGGCAAGAGGAGGAACAGGCTCATG
CCACATCCTTGCCCCCCAGGGCTTCCTCACCCCCCCAAATCCTGCCCCAGCTCAGCCCGGAACAACTGGGCATGA
TCGAGAAGCTCGTCGCTGCCCAGCAACAGTGTAACCGGCGCTCCTTTTCTGACCGGCTTCGAGTCACGCCTTGGC
CCATGGCACCAGATCCCCATAGCCGGGAGGCCCGTCAGCAGCGCTTTGCCCACTTCACTGAGCTGGCCATCGTCT
CTGTGCAGGAGATAGTTGACTTTGCTAAACAGCTACCCGGCTTCCTGCAGCTCAGCCGGGAGGACCAGATTGCCC
TGCTGAAGACCTCTGCGATCGAGGTGATGCTTCTGGAGACATCTCGGAGGTACAACCCTGGGAGTGAGAGTATCA
CCTTCCTCAAGGATTTCAGTTATAACCGGGAAGACTTTGCCAAAGCAGGGCTGCAAGTGGAATTCATCAACCCCA
TCTTCGAGTTCTCCAGGGCCATGAATGAGCTGCAACTCAATGATGCCGAGTTTGCCTTGCTCATTGCTATCAGCA
TCTTCTCTGCAGACCGGCCCAACGTGCAGGACCAGCTCCAGGTAGAGAGGCTGCAGCACACATATGTGGAAGCCC
TGCATGCCTACGTCTCCATCCACCATCCCCATGACCGACTGATGTTCCCACGGATGCTAATGAAACTGGTGAGCC
TCCGGACCCTGAGCAGCGTCCACTCAGAGCAAGTGTTTGCACTGCGTCTGCAGGACAAAAAGCTCCCACCGCTGC
TCTCTGAGATCTGGGATGTGCACGAA**TGA**CTGTTCTGTCCCCATATTTTCTGTTTTCTTGGCCGGATGGCTGAGG
CCTGGTGGCTGCCTCCTAGAAGTGGAACAGACTGAGAAGGGCAAACATTCCTGGGAGCTGGGCAAGGAGATCCTC
CCGTGGCATTAAAAGAGAGTCAAAGGGT

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FIGURE 3242

TTGCTGCATAGATTACAACGGTG**ATG**GCGGGCAAGCGGTCCGGCTGGAGCCGGGCGGCTCTCCTCCAGCTCCTTC
TCGGCGTGAACCTGGTGGTGATGCCGCCCACCCGGGCCCGGAGTCTGCGCTTCGTTACCTTGCTGTACCGCCATG
GAGACCGTTCACCAGTGAAGACATATCCCAAGGACCCCTATCAGGAAGAAGAATGGCCCCAGGGGTTTGGTCAGT
TAACCAAGGAGGGGATGCTACAGCACTGGGAACTGGGCCAGGCCCTGCGGCAGCGCTATCACGGCTTCCTAAACA
CCTCTTATCACCGGCAAGAGGTTTATGTGCGAAGCACAGACTTTGACCGGACTCTCATGAGTGCTGAGGCCAACC
TGGCTGGACTCTTCCCTCCCAACGGGATGCAGCGCTTCAACCCGAACATCTCGTGGCAGCCTATTCCTGTGCACA
CTGTGCCCATCACTGAGGACAGGCTGCTGAAGTTCCCGTTGGGCCCATGTCCCCGTTATGAGCAGCTGCAGAACG
AGACCCGGCAGACACCAGAGTATCAGAATGAGAGTTCTCGGAATGCACAATTTCTGGACATGGTGGCCAACGAGA
CAGGGCTTACAGACCTGACACTGGAGACCGTCTGGAATGTCTATGACACACTCTTCTGTGAGCAAACGCACGGGC
TGCGCCTGCCGCCCTGGGCCTCACCCCAAACCATGCAGCGTCTCAGCCGGCTAAAGGACTTCAGCTTCCGCTTCC
TCTTCGGAATCTACCAGCAGGCGGAGAAGGCCCGGCTTCAGGGGGGAGTCCTGCTGGCTCAGATAAGGAAGAACC
TGACCCTAATGGCGACCACCTCCCAGCTCCCCAAGCTGCTGGTTTACTCTGCGCACGACACTACCCTGGTTGCCC
TGCAAATGGCACTGGATGTCTACAATGGTGAACAAGCCCCCTACGCCTCCTGCCACATATTTGAACTGTACCAGG
AAGATTCTGGGAATTTCTCAGTGGAGATGTACTTTCGGAACGAGAGTGACAAGGCCCCCTGGCCGCTCAGCCTGC
CTGGCTGCCCTCACCGCTGCCCACTGCAGGACTTCCTTCGCCTCACAGAGCCCGTCGTGCCCAAGGATTGGCAGC
AGGAGTGCCAGCTGGCAAGCGGTCCTGCAGACACAGAGGTGATTGTGGCCTTGGCTGTATGTGGCTCCATCCTCT
TCCTCCTCATAGTGCTGCTCCTCACCGTCCTCTTCCGGATGCAGGCCCAGCCTCCTGGCTACCGCCACGTCGCAG
ATGGGGAGGACCACGCC**TGA**CAACCACTCAGCCCCCTTCCCTCCACCTCCTAGGGGAGGTGGGCTGGGCCCTCGC
TCCTGACTGTTGCTGCTCCCCAGCCCATGGACAGGAGATCCTGGGTTGGGCCTCCCTCTGATGACCCCAGCCAGA
TGAGCGAGTGGGGCTCAGCGTGGCCCATGGTGCCTGTCACTCAGCATTCCCATGCCTGATGTTTACCAAGTGCTG
TGTTGGACACTGGCTTTCTCCAAACAGGATTTGCCTCCTCCACGCTCCCTACACACCTGAGATGTAAACTGGCAG
TCAGTGTTCACTCAGGACCTAGGATTAGAAAATGGCAGAGTTGGTGCTGGATCCACCTTGCACTTCTATCAAGCC
CTGTTCTTTTTCCTCCAGCCTGAAGTCTTCGGCAAATAGCTCAGAGGGACACGGTCTTGCCTCTCAGTGCTTATT
TTAGTGGGAAAAACAGCTAATACCAGGGGTACAAACATTGGCTCCCAAGGAACTGGATCACCCAACAGCCAGCCA
GCCACATTTCCCTGTGTCTGGCTAGAGCCACCATTAGACTCAGACAGAATGCTTCAGGAATCGTTGTCACCCCTT
CAACTGGAGCAGGACGGAAGGTTGTCTGTACTTGGGAGGGAGTAGGGAGTGGTGGGAAGGGAGTTGCTTGTCACA
CGAATCAGGAAACTGCTCTCCCTCAGCTGGGCTGGGGTCTCCAGGGACCTGAGCTACATGCAGGTTGTGAGCTGG
AAAAGAAAGTTCTAGACTGTGGCCCAGAATAGGGCTGGGGCAGCTCCCAGAGAATGAATAGTGCTGTTTCCTATT
GGACTGATA

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FIGURE 3243

GAGCTCCAAGCTGGTTTGAACAAGCCCTGGGCATGTTTGGCGGGAAGTTGGCTTAGCTCGGCTACCTGTGGCCCC
GCAGTTTTGTAGTCCCCGCCTTGTTTCTCCCCAGAGGCCTCTCAATCCTCCCTCCATGATCTTCGCATAGAGCAC
AGTACCCCTTCACACGGAGGACGCG**ATG**GCTCCCAAGAAACGCCCAGAAACCCAGAAGACCTCCGAGATTGTATT
ACGCCCCAGGAACAAGAGGAGCAGGAGTCCCCTGGAGCTGGAGCCCGAGGCCAAGAAGCTCTGTGCGAAGGGCTC
CGGTCCTAGCAGAAGATGTGACTCAGACTGCCTCTGGGTGGGGCTGGCTGGCCCACAGATCCTGCCACCATGCCG
CAGCATCGTCAGGACCCTCCACCAGCATAAGCTGGGCAGAGCTTCCTGGCCATCTGTCCAGCAGGGGCTCCAGCA
GTCCTTTTTGCACACTCTGGATTCTTACCGGATATTACAAAAGGCTGCCCCCTTTGACAGGAGGGCTACATCCTT
GGCGTGGCACCCAACTCACCCCAGCACTGTGGCTGTGGGTTCCAAAGGGGGAGATATCATGCTCTGGAATTTTGG
CATCAAGGACAAACCCACCTTCATCAAAGGGATTGGAGCTGGAGGGAGCATCACTGGGCTGAAGTTTAACCCTCT
CAATACCAACCAGTTTTACGCCTCCTCAATGGAGGGAACAACTAGGCTGCAAGACTTTAAAGGCAACATTCTACG
AGTTTTTGCCAGCTCAGACACCATCAACATCTGGTTTTGTAGCCTGGATGTGTCTGCTAGTAGCCGAATGGTGGT
CACAGGAGACAACGTGGGGAACGTGATCCTGCTGAACATGGACGGCAAAGAGCTTTGGAATCTCAGAATGCACAA
AAAGAAAGTGACGCATGTGGCCCTGAACCCATGCTGTGATTGGTTCCTGGCCACAGCCTCCGTAGATCAAACAGT
GAAAATTTGGGACCTGCGCCAGGTTAGAGGGAAAGCCAGCTTCCTCTACTCGCTGCCGCACAGGCATCCTGTCAA
CGCAGCTTGTTTCAGTCCCGATGGAGCCCGGCTCCTGACCACGGACCAGAAGAGCGAGATCCGAGTTTACTCTGC
TTCCCAGTGGGACTGCCCCCTGGGCCTGATCCCGCACCCTCACCGTCACTTCCAGCACCTCACACCCATCAAGGC
AGCCTGGCATCCTCGCTACAACCTCATTGTTGTGGGCCGATACCCAGATCCTAATTTCAAAAGTTGTACCCCTTA
TGAATTGAGGACGATCGACGTGTTCGATGGAAACTCAGGGAAGATGATGTGTCAGCTCTATGACCCAGAATCTTC
TGGCATCAGTTCGCTTAATGAATTCAATCCCATGGGGGACACGCTGGCCTCTGCAATGGGTTACCACATTCTCAT
CTGGAGCCAGGAGGAAGCCAGGACACGGAAG**TGA**GAGACACTAAAGAAGGTGTGGGCCAGACAAGGCCTTGGAGC
CCACACATGGGATCAAGTCCTGCAAGCAGAGGTGGCGATTTGTTAAAGGGCCAAAAGTATCCAAGGTTAGGGTTG
GAGCAGGGGTGCTGGGACCTGGGGCACTGTGGGACTGGGACACTTTTATGTTAATGCTCTGGACTTGCCTCCAGA
GACTGCTCCAGAGTTGGTGACACAGCTGTCCCAAGGGCCCCTCTGTATCTAGCCTGGAACCAAGGTTATCTTGGA
ACTAAATGACTTTTCTCCTCTCAGTGGGTGGTAGCAGAGGGATCAAGCAGTTATTTGATTTGTGCTCACTTTTGA
TATGGCCAATAAAACCATACCG

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FIGURE 3244

ATGGCTTTTAAGGATACCGGAAAAACACCCGTGGAGCCGGAGGTGTGTGCTGACTTGATCAGAGGCGCAAAGGAA
AAGAATCTCAAAGTGAAAGGACCAGTCCGAATGCTTACCAAGACTTTGAGAATCACTACAAGAAAAACCCCTTGT
GGTGAAGGTTCTAAGACATGGGATCGTTTCCAGATGAGAATCCACCAGCGACTCATTGACTTGCACAGTCCTTCT
GAGATTGTTAAGCAGATTACTTCCATCAGTATTGAGCCAGGAGTTGAGGTGGAAGTCACCATTGCAGGATGCTTA
AGTCAACAATTT**TAA**

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FIGURE 3245

AGGACTCGGGCCGGAGCGTGGCCGGACCCCCACCCGCCGAGGGGCCCAGGGAGGACGCGGCAGAGTCACGGTGGC
AGCATTGAGAGTTGGACACCCGGGTCCTTGAAGTGATCTCTAGGCCCCAGCCCCAAATCCGCCACCATTCCGTGC
TGCGGGGACACC**ATG**GCTCCAGAAGAGGACGCTGGAGGGGAGGCCTTAGGGGGCAGTTTCTGGGAGGCTGGCAAC
TACAGGCGCACGGTACAGCGGGTGGAGGACGGGCACCGGCTGTGCGGGGACCTGGTCAGCTGCTTCCAGGAGCGC
GCCCGCATCGAGAAGGCTTATGCCCAGCAGTTGGCTGACTGGGCCCGAAAGTGGAGGGGGACCGTGGAGAAGGGC
CCCCAGTATGGCACACTGGAGAAGGCCTGGCATGCCTTTTTCACGGCGGCTGAGCGGCTGAGCGCGCTGCACCTG
GAGGTGCGGGAGAAGCTGCAAGGGCAGGACAGTGAGCGGGTGCGCGCCTGGCAGCGGGGGGCTTTCCACCGGCCT
GTGCTGGGCGGCTTCCGCGAGAGCCGGGCGGCCGAGGACGGCTTCCGCAAGGCCCAGAAGCCCTGGCTGAAGAGG
CTGAAGGAGGTTGAGGCTTCCAAGAAAAGCTACCACGCAGCCCGGAAGGATGAGAAGACCGCCCAGACGAGGGAG
AGCCACGCAAAGGCAGACAGCGCCGTCTCCCAGGAGCAGCTGCGCAAACTGCAGGAACGGGTGGAACGCTGTGCC
AAGGAGGCCGAGAAGACAAAAGCTCAGTATGAGCAGACGCTGGCAGAGCTGCATCGCTACACTCCACGCTACATG
GAGGACATGGAACAGGCCTTTGAGACCTGCCAGGCCGCCGAGCGCCAGCGGCTTCTTTTCTTCAAGGATATGCTG
CTCACCTTACACCAGCACCTGGACCTTTCCAGCAGTGAGAAGTTCCATGAACTCCACCGTGACTTGCACCAGGGC
ATTGAGGCAGCCAGTGACGAAGAGGATCTGCGCTGGTGGCGCAGCACCCACGGGCCAGGCATGGCCATGAACTGG
CCACAGTTCGAGGAGTGGTCCTTGGACACACAGAGGACAATCAGCCGGAAAGAGAAGGGTGGCCGGAGCCCTGAT
GAGGTTACCCTGACCAGCATTGTGCCTACAAGAGATGGCACCGCACCCCCACCCCAGTCCCCGGGGTCCCCAGGC
ACGGGGCAGGATGAGGAGTGGTCAGATGAAGAGAGTCCCCGGAAGGCTGCCACCGGGGTTCGGGTGAGGGCACTC
TATGACTACGCTGGCCAGGAAGCTGATGAGCTGAGCTTCCGAGCAGGGGAGGAGCTGCTGAAGATGAGTGAGGAG
GACGAGCAGGGCTGGTGCCAAGGCCAGTTGCAGAGTGGCCGCATTGGCCTGTACCCTGCCAACTACGTGGAGTGT
GTGGGCGCC**TGA**GTGTCCTGACAGCCCTTCTGCAACGTTTACCCACCCTGGTTCAGAGCCCAGCTTCTCCTGGAG
AGCCGGACCCTCAGGGCCCTGAACCGTCGCTCTCTGGCTGCTCCTCTGTCCCTTGAGGGAGGAAGTCCTGGGACC
CAGGGAGGGGAGGGGCCTTTGTCTAGGGAAGGGACTGGTAGGGAAGGGACGAGTCTAGGCTGAGGGCAAGATGGG
AGGTCAGAGGTGACAGAAGCGTTCAGGGGTGCCTGGGCCTCCCCAGGAGCTGTGGACTCAGTTCCTGACCTCTGC
TTTGGGGTTCCTGGGGTGGGCTTGGGGTGAGTGTAGTTCTGGCCTAGCAGCACCCTCTTGTGGCTTGTTCTAGCG
TGTATTAAAACTTGACACACACCCACACACAAAAAC

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FIGURE 3246

TGGGAAGGAGAGAAA**ATG**GCGGCGGAGCCGAACAAGACCGAAATCCAGACTCTTTTTAAGAGGCTTCGCGCAGTT
CCAACCAACAAGGCCTGTTTCGACTGCGGCGCCAAGAATCCGAGTTGGGCCAGCATCACGTACGGTGTTTTCTTG
TGCATTGACTGTTCCGGGGTGCACCGCTCCCTGGGCGTCCATCTGAGCTTCATCAGGTCCACAGAGTTGGATTCC
AACTGGAACTGGTTCCAGCTGAGGTGTATGCAGGTCGGCGGGAATGCCAATGCGACGGCTTTTTTTCGCCAACAT
GGATGCACAGCCAATGATGCCAACACCAAATATAATAGCCGAGCTGCCCAGATGTACCGGGAGAAGATCCGGCAG
CTGGGGAGTGCGGCCCTGGCTAGGCATGGCACTGATCTTTGGATAGACAACATGAGTAGTGCCGTTCCTAATCAC
TCCCCAGAGAAGAAGGACTCTGATTTCTTCACAGAACACACTCAACCCCCTGCCTGGGATGCGCCAGCCACTGAG
CCTTCAGGGACCCAGCAGCCAGCCCCGTCTACAGAGAGCAGTGGCCTGGCACAGCCGGAGCATGGCCCCAACACA
GACCTGCTTGGCACCTCACCCAAAGCCTCACTGGAACTGAAAAGCTCCATCATTGGCAAGAAGAAGCCAGAGCTT
CAG**TGA**GATTGAGCGGCAGGCTCAGGTGGCAGAGAAGCTCCGTGAGCAGCAGGCAGCCGATGCCAAGAAGCAGGC
GGAGGAGTCCATGGTCGCCTCCATGCGTCTGGCCTACCAGGAGCTCCAGATTGATCGTAAGAAAGAGG

FIGURE 3247

TTCCGCCGCGTGGGTGCCATGGCAACGGAGAGAGACGGCAACCTGGGTTCCGGAAGCCGGAGAGCTGGAGCTTTG
AAGCCACCCCGGTCAAAGG**ATG**CTGAGTCCGGAGCGCCTAGCCCTACCGGACTACGAGTATCTGGCTCAGCGACA
TGTCCTCACCTACATGGAGGATGCAGTGTGCCAGCTGCTAGAAAACAGGGAAGATATTAGCCAATATGGAATTGC
CAGGTTCTTCACTGAATATTTTAACAGTGTATGCCAGGGAACACACATTCTCTTTCGAGAATTCAGCTTCGTCCA
AGCCACCCCCCACAATAGGGTATCATTTTTACGGGCCTTCTGGAGATGCTTCCGAACTGTGGGCAAAAATGGCGA
TTTGCTGACCATGAAAGAATATCACTGTTTGCTGCAATTACTGTGTCCTGATTTCCCGCTGGAGCTCACTCAGAA
AGCAGCCAGGATTGTGCTCATGGACGATGCCATGGACTGCTTGATGTCTTTTTCAGATTTCCTCTTTGCCTTCCA
GATCCAGTTTTACTACTCAGAATTCCTGGACAGTGTGGCTGCCATCTATGAGGACCTGCTGTCAGGCAAGAACCC
CAACACAGTGATTGTGCCGACGTCGTCCAGTGGGCAGCACCGCCAACGACCTGCCTTGGGCGGGGCCGGCACGCT
GGAGGGCGTGGAGGCGTCGCTGTTCTACCAGTGTCTGGAAAACCTGTGTGATCGGCACAAGTACAGCTGCCCACC
CCCAGCACTTGTCAAAGAGGCCCTCAGCAATGTTCAGAGACTGACCTTCTATGGATTCCTCATGGCTCTCTCAAA
GCACCGTGGAATCAACCAAGCCCTCGGAGCTTTGCCTGACAAGGGGGATCTGATGCACGACCCAGCAATGGATGA
AGAGCTGGAACGGCTG**TAA**GTGTCAAGTGGGAGGATACTGCCCCCTTGTGGGGGCCAGACGGGTCGGACACGGCT
GTGCCCCATCTGGGGCCAACACCACTTGTCTGTAACATCCCACATCTGCCAGGGAAGGGTCTGGGGGCCAGTGGA
GGCCTGAGGTGTCCCTCCCTCTGAGTCCTTTGGGGGCTGCAGCCCAGGGGTTTACCCTAGTGTTAAGAGTGGGCA
TGGAGGCCCTGCTCTCTGTACAGGAGGCCTCTCGCTGCCCTCCAGGCTTCTTCCCTTCTTCAGGCTGGCCCAGGT
CCCAGGCCTGGTCAACTCGGTCACAGCCAGTCCAGAGGCCAGTTGCCTGCCTTCCCGGACCCCTCCCCGGGTTGG
CTCTCCCTGGAGACCTCTCCATCATTCCCGAAAAGTGGATGGAGAGAGTGATGGCTCCACTGAAGAGACAGACGA
GTCGGAGACTTGAGGAGTCCAAAGGGTCCTGCCCACAGCGCCCTGTACCTGCTCCCACCCAGCCCTTGGTGTGCC
CACCCAGCCTCCTCTCCAGCACCTTGCTGTGCTGCCCTCTGCTGCTGACAAGGTGAATAACAGCCCCAAGACCAG
CCAGAGGGGCTCTGATGATCAGCCCAGCCAGTGGCCCCGGAAGGTGAATGGCCTGCTCTCCCTGGCCCTATCAGC
CTGTGAACTTCACTTAGGCCCCAAGCTGACAGACTGTGCTGAGGCCACCTTGTCACGCCGTAGCCTGTTAGTCCT
CCTAACCTCTTAAGAGCAGTCTCTTCTGAGCCAGCCTCTGCGGGTCCCCCAATAAGGTTCATCTCCTCACAGCAA
CTCCATTAAGGGGGAGAACCCGAATAGCCACGCAGGGCCTTGCACCATCAAGGGTGACACCTGCGACGCAAGTAC
CAGGAGGACATAACCGCTGTGGCCTGTTGGAGAACAGCCAGTAGCCTTGGTAATATGAAGGGTGGGCCAGAAGAT
GATTTCACTTGCAAAAACTGCTTCAAGTCTTGACCCCTTTGTGTCTAATAGCTAAACAAACATGTGAAACGAATA
AAAAGTCCCTCATGTCTGGT

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FIGURE 3248

ATTGCTGGGGCTGCAGCGCTGCCTCCGAGACCGCGAGGTGGGTGGATCGGGTCTTCCTGGAAGGGTGCGATAAGG
CCGGGCGAGGTGCCTGGGATGCTTCTCCCCTTCCGCGAGGAAGAGATCTAATTGGGTAGGGCGGGTGTAGACTAG
CCTGCCGAGCCGCCCGCTGGCACCTGCAGCCTCCTGGGCGCCCGCCGGGCCCCGGCGAGAAAGTTGTTAAAGGGA
GCGAGGTGGTTGTTCCTGGGGTGCTTGGCGCGCCCTCTCACGCCCTGCCCAACAGAAGCCGCAGTCCCGTGGGGT
CTGGAGACGCAGTTTCCTGTTAATGACAATAAATCCCTGCTCCCCCTGCCTCAGACATCTACGCAGCGAAATCGA
GCCTGGCCTTGAGGGTCCACACCGCGAGGGAAG**ATG**CGTGCGCCCATTCCAGAGCCTAAGCCTGGAGACCTGATT
GAGATTTTTCGCCCTTTCTACAGACACTGGGCCATCTATGTTGGCGATGGATATGTGGTTCATCTGGCCCCTCCA
AGTGAGGTCGCAGGAGCTGGTGCAGCCAGTGTCATGTCCGCCCTGACTGACAAGGCCATCGTGAAGAAGGAATTG
CTGTATGATGTGGCCGGGAGTGACAAGTACCAGGTCAACAACAAACATGATGACAAGTACTCGCCGCTGCCCTGC
AGCAAAATCATCCAGCGGGCGGAGGAGCTGGTGGGGCAGGAGGTGCTCTACAAGCTGACCAGTGAGAACTGCGAG
CACTTTGTGAATGAGCTGCGCTATGGAGTCGCCCGCAGTGACCAGGTCAGAGATGTCATCATCGCTGCAAGCGTT
GCAGGAATGGGCTTGGCAGCCATGAGCCTTATTGGAGTCATGTTCTCAAGAAACAAGCGACAAAAGCAA**TAA**CTG
AAAAAGACTGTCCTGTCAGCGATGACTTTATACATCAAGGGGGTCTTGTTTTGCTAGAGAGTTTGGGGTTTGGTT
TGTGGATTTCATTGTGATTTATAATAAGGCTTATTTTCACAGAATAAAATAAAGCAAAACGAGGGAGGATTTTAT
TGGGGGAAGTGCAGC

FIGURE 3249

AGTTAAACACCAAAGCTGTCTCTCACACTGGTGGTTCCAGGATAAAGCCTCGGCCTGGGGCCTGGTCTGCACGTT
AGGCGCCGGCCGCAGCTCGCAGGAGGACCCGAGCCAGCCCGCCCCTTCCCGCACAGCCTGCTGGGAGTTGTAGTT
CAGTCGTCGGAGAACCACGCCAAGCCCCGCCCCAGATGAGTGCGCAGT**ATG**AGGACCGCTGGCCGGGACCCAGTG
AGCGCGGGACTACAATTCCCAAAGGACGGTAGCACTCAGCGCCCCGCCAACAGAGATGATGCCATGGAGAGCAGC
AAGCCTGGTCCAGTGCAGGTTGTTTTGGTTCAGAAAGATCAACATTCCTTTGAGCTAGATGAGAAAGCCTTGGCC
AGCATCCTCTTGCAGGACCACATCCGAGATCTTGATGTGGTGGTGGTTTCAGTGGCTGGTGCCTTCCGAAAGGGC
AAGTCCTTCATTCTGGATTTTATGCTACGATACTTATATTCTCAGAAGGAAAGTGGCCATTCAAATTGGTTGGGT
GACCCAGAAGAACCGTTAACAGGATTTTCCTGGAGAGGGGGATCTGATCCAGAAACCACTGGGATTCAAATCTGG
AGTGAAGTTTTCACTGTGGAGAAGCCAGGTGGGAAGAAGGTTGCAGTTGTTCTGATGGATACCCAGGGGGCATTT
GACAGCCAGTCAACTGTGAAAGACTGTGCTACCATCTTTGCTCTAAGCACTATGACTAGTTCTGTTCAGATTTAT
AATTTATCTCAGAACATTCAAGAAGATGATCTTCAACAGCTGCAGCTCTTCACAGAATACGGTCGTCTGGCAATG
GATGAAATTTTCCAAAAGCCTTTCCAGACACTGATGTTTTTGGTTAGAGATTGGAGTTTCCCTTATGAATATAGC
TATGGACTCCAAGGAGGAATGGCATTTTTGGATAAGCGTTTACAGGTGAAGGAACATCAACATGAAGAAATTCAG
AATGTTCGAAATCACATTCACTCATGTTTCTCCGATGTCACCTGCTTTCTCTTACCACATCCAGGACTCCAGGTG
GCCACAAGCCCTGACTTTGATGGGAAATTAAAAGATATTGCTGGTGAATTCAAAGAGCAGTTACAGGCACTGATA
CCGTATGTATTAAACCCATCTAAGTTAATGGAAAAGGAGATCAATGGCTCAAAGGTCACCTGTCGGGGACTACTG
GAGTATTTTAAGGCATATATTAAAATTTATCAAGGAGAAGATCTGCCTCACCCCAAGTCCATGCTTCAGGCCACT
GCTGAAGCCAACAACTTAGCAGCTGCAGCCTCTGCCAAGGACATTTATTATAACAACATGGAAGAGGTTTGTGGG
GGAGAGAAACCTTATTTGTCTCCAGACATTCTAGAGGAGAAGCACTGTGAATTCAAACAACTTGCTCTGGACCAT
TTTAAGAAGACCAAGAAGATGGGTGGGAAGGATTTCAGCTTTCGTTACCAGCAGGAGCTGGAGGAGGAAATCAAG
GAATTATATGAGAACTTCTGCAAGCACAATGGTAGCAAGAACGTCTTCAGCACCTTCCGAACCCCTGCAGTGCTG
TTCACGGGCATTGTAGCTTTGTACATAGCCTCAGGCCTCACTGGCTTCATAGGTCTTGAGGTTGTAGCCCAGTTG
TTCAACTGTATGGTTGGACTACTGTTAATAGCACTCCTCACCTGGGGCTACATCAGGTATTCTGGTCAATATCGT
GAGCTGGGCGGAGCTATTGATTTTGGTGCCGCATATGTGTTGGAGCAGGCTTCTTCTCATATCGGTAATTCCACT
CAGGCCACTGTGAGGGATGCAGTTGTTGGAAGACCATCCATGGATAAAAAAGCTCAA**TAG**CATCTTAACGTGAAG
ATCAAACAAGAACACAACAAGCCCCTACTGATTTCTGGGTTTCTGCCACGGCCACAGGTTCATATCCAGAGGAAT
GGCAGATCTGAGACGATCCAGGAAGAGCTAAAACATGGCCCTGTAATAAATGAGCAGACCTCTCCTGTGGTTTCA
AATTATTAAACACACTTCCATTTCTCTTGGAAGCATTTCTTTTCCTTGCTGTTATAGATGCAAGCCTGTGTCTAT
TTTCATATTACTCTGCTTTGTGCACTTTATGGAGGAGGAAGCTAGAGGAAAAATGGAAATGCAGCTTTTAAGTTC
TTTATGTGCCACTTAGTGCCTTTTAAGATTGATTCCATGGTTTTGCACACACGATGGGGAGGGGATGGAGGATAA
CCTCATGAAAGGTGCCGTTTTCGGGTGAAACTTGACATTTCTTTTATACTTTACTCTTTTGAGAAGGATTCTTTT
TTTTTTTTTTTTTTTTTTTGAGTTGGAGTCTCGCTCTGTCACCAGGCTTGAGTGCAGTGGTGTGATCTTGGCTCA
CTGCAACCTCTGCCTGCCGGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGTGTACG
CCACCATA

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FIGURE 3250

CAGGTGACCAGCGCC**ATG**TCCAGCCAGGTGGTGGGCATTGAGCCTCTCTACATCAAGGCAGAGCCGGCCAGCCCT
GACAGTCCAAAGGGTTCCTCGGAGACAGAGACCGAGCCTCCTGTGGCCCTGGCCCCTGGTCCAGCTCCCACTCGC
TGCCTCCCAGGCCACAAGGAAGAGGAGGATGGGGAGGGGGCTGGGCCTGGCGAGCAGGGCGGTGGGAAGCTGGTG
CTCAGCTCCCTGCCCAAGCGCCTCTGCCTGGTCTGTGGGGACGTGGCCTCCGGCTACCACTATGGTGTGGCATCC
TGTGAGGCCTGCAAAGCCTTCTTCAAGAGGACCATCCAGGGGAGCATCGAGTACAGCTGTCCGGCCTCCAACGAG
TGTGAGATCACCAAGCGGAGACGCAAGGCCTGCCAGGCCTGCCGCTTCACCAAGTGCCTGCGGGTGGGCATGCTC
AAGGAGGGAGTGCGCCTGGACCGCGTCCGGGGTGGGCGGCAGAAGTACAAGCGGCGGCCGGAGGTGGACCCACTG
CCCTTCCCGGGCCCCTTCCCTGCTGGGCCCCTGGCAGTCGCTGGAGGCCCCCGGAAGACAGCAGCCCCAGTGAAT
GCACTGGTGTCTCATCTGCTGGTGGTTGAGCCTGAGAAGCTCTATGCCATGCCTGACCCCGCAGGCCCTGATGGG
CACCTCCCAGCCGTGGCTACCCTCTGTGACCTCTTTGACCGAGAGATTGTGGTCACCATCAGCTGGGCCAAGAGC
ATCCCAGGCTTCTCATCGCTGTCGCTGTCTGACCAGATGTCAGTACTGCAGAGCGTGTGGATGGAGGTGCTGGTG
CTGGGTGTGGCCCAGCGCTCACTGCCACTGCAGGATGAGCTGGCCTTCGCTGAGGACTTAGTCCTGGATGAAGAG
GGGGCACGGGCAGCTGGCCTGGGGGAACTGGGGGCTGCCCTGCTGCAACTAGTGCGGCGGCTGCAGGCCCTGCGG
CTGGAGCGAGAGGAGTATGTTCTACTAAAGGCCTTGGCCCTTGCCAATTCAGACTCTGTGCACATCGAAGATGCC
GAGGCTGTGGAGCAGCTGCGAGAAGCTCTGCACGAGGCCCTGCTGGAGTATGAAGCCGGCCGGGCTGGCCCCGGA
GGGGGTGCTGAGCGGCGGCGGGCGGGCAGGCTGCTGCTCACGCTACCGCTCCTCCGCCAGACAGCGGGCAAAGTG
CTGGCCCATTTCTATGGGGTGAAGCTGGAGGGCAAGGTGCCCATGCACAAGCTGTTCTTGGAGATGCTCGAGGCC
ATGATGGAC**TGA**GTGCAAGGGGTGGGACTGGTGGGGGTTCTGGCAGGACCTGCCTAGCATGGGGTCAGCCCCAAG
GGCTGGGGCGGAGCTGGGGTCTGGGCAGTGCCACAGCCTGCTGGCAGGGCCAGGCAATGCCATCAGCCCCTGGGA
ACAGGCCCCACGCCCTCTCCTCCCCCTCCTAGGGGGTGTCAGAAGCTGGGAACGTGTGTCCAGGCTCTGGGCACA
GTGCTGCCCCTTGCAAGCCATAACGTGCCCCCAGAGTGTAGGGGGCCTTGCGGAAGCCATAGGGGGCTGCACGGG
ATGCGTGGGAGGCAGAAACCTATCTCAGGGAGGGAAGGGGATGGAGGCCAGAGTCTCCCAGTGGGTGATGCTTTT
GCTGCTGCTTAATCCTACCCCCTCTTCAAAGCAGAGTGGGACTTGGAGAGCAAAGGCCCATGCCCCCTTCGCTCC
TCCTCTCATCATTTGCATTGGGCATTAGTGTCCCCCCTTGAAGCAATAACTCCAAGCAGACTCCAGCCCCTGGAC
CCCTGGGGTGGCCAGGGCTTCCCCATCAGCTCCCAACGAGCCTCCTCAGGGGGTAGGAGAGCACTGCCTCTATGC
CCTGCAGAGCAATAACACTATATTTATTTTTGGGTTTGGCCAGGGAGGCGCAGGGACATGGGGCAAGCCAGGGCC
CAGAGCCCTTGACTGTACAGAGACTCTATTTTAATGTATATTTGCTGCAAAGAGAAACCGCTTTTGGTTTTAAAC
CTTTAATGAGAAAAAAATATATAATACCGAGCTC

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FIGURE 3251

TCCGGTTCCGGCCTGGCGAGAGTTTGTGCGGCGAC**ATG**AAACTGCTTACCCACAATCTGCTGAGCTCGCATGTGC
GGGGGGTGGGGTCCCGTGGCTTCCCCCTGCGCCTCCAGGCCACCGAGGTCCGTATCTGCCCTGTGGAATTCAACC
CCAACTTCGTGGCGCGTATGATACCTAAAGTGGAGTGGTCGGCGTTCCTGGAGGCGGCCGATAACTTGCGTCTGA
TCCAGGTGCCGAAAGGGCCGGTTGAGGGATATGAGGAGAATGAGGAGTTTCTGAGGACCATGCACCACCTGCTGC
TGGAGGTGGAAGTGATAGAGGGCACCCTGCAGTGCCCGGAATCTGGACGTATGTTCCCCATCAGCCGCGGGATCC
CCAACATGCTGCTGAGTGAAGAGGAAACTGAGAGT**TGA**TTGTGCCAGGCGCCAGTTTTTCTTGTTATGACTGTGT
ATTTTTGTTGATCTATACCCTGTTTCCGAATTCTGCCGTGTGTATCCCCAACCCTTGACCCAATGACACCAAACA
CAGTGTTTTTGAGCTCGGTATTATATATTTTTTTCTCATTAAAGGTTTAAAACC

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FIGURE 3252

CACGGGCGGGGCGGGGCCTGGGTCCACCGGGGTTCTGAGGGGAGACTGAGGTCCTGAGCCGACAGCCTCAGCTCC
CTGCCAGGCCAGACCCGGCAGACAGATGAGGGCCCAGGAGGCCTGGCGGGCCTGGGGGCGCTACGGTGGGAGAGG
AAGCCAGGGGTACCTGCCTCTGCCTTCCAGGGCCACCGTTGGCCCCAGCTGTGCCTTGACTACGTAACATCTTGT
CCTCACAGCCCAGAGC**ATG**TTCCAGATCCCAGAGTTTGAGCCGAGTGAGCAGGAAGACTCCAGCTCTGCAGAGAG
GGGCCTGGGCCCCAGCCCCGCAGGGGACGGGCCCTCAGGCTCCGGCAAGCATCATCGCCAGGCCCCAGGCCTCCT
GTGGGACGCCAGTCACCAGCAGGAGCAGCCAACCAGCAGCAGCCATCATGGAGGCGCTGGGGCTGTGGAGATCCG
GAGTCGCCACAGCTCCTACCCCGCGGGGACGGAGGACGACGAAGGGATGGGGGAGGAGCCCAGCCCCTTTCGGGG
CCGCTCGCGCTCGGCGCCCCCCAACCTCTGGGCAGCACAGCGCTATGGCCGCGAGCTCCGGAGGATGAGTGACGA
GTTTGTGGACTCCTTTAAGAAGGGACTTCCTCGCCCGAAGAGCGCGGGCACAGCAACGCAGATGCGGCAAAGCTC
CAGCTGGACGCGAGTCTTCCAGTCCTGGTGGGATCGGAACTTGGGCAGGGGAAGCTCCGCCCCCTCCCAG**TGA**CC
TTCGCTCCACATCCCGAAACTCCACCCGTTCCCACTGCCCTGGGCAGCCATCTTGAATATGGGCGGAAGTACTTC
CCTCAGGCCTATGCAAAAAGAGGATCCGTGCTGTCTCCTTTGGAGGGAGGGCTGACCCAGATTCCCTTCCGGTGC
GTGTGAAGCCACGGAAGGCTTGGTCCCATCGGAAGTTTTGGGTTTTCCGCCCACAGCCGCCGGAAGTGGCTCCGT
GGCCCCGCCCTCAGGCTCCGGGCTTTCCCCCAGGCGCCTGCGCTAAGTCGCGAGCCAGGTTTAACCGTTGCGTCA
CCGGGACCCGAGCCCCCGCGATGCCCTGGGGGCCGTGCTCACTACCAAATGTTAATAAAGCCCGCGTCTGTGCCG
CC

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FIGURE 3253

AGCGGCCGCTGCCCTGACCCGACGGGTATCAGCCGGCTCTCCCCCTCCACCCAGGACGACATGAACGACCGAGGC
CAGGGAGTCCTCTCCTTGGGCCTCTGCATCCCCCCATCCTTGGCTCTGGGGTAGGCCCAGGGAGGAGACACCCCC
AACCCCTATCCGGTCTGTCCTGGAGAAAAGAGACTGCCCTTCCATGCCCCTGAGTGAGGGGCCTGGGGCCCAGGC
TGCCTGTGTTCCCCAAGGGCAAGGGTCTCTCTGTTGAGGAGGAGGGGCCTGTCAGCCACAACTTCTTTCCTCCTG
AGCGCCCCATCTCCCTCTCTGCACCCTGCAATTCCCACCCCTCCGTATTTATTTCCCTGGTCCCGCCGACAGTCC
CCTCCTTGTCTGTCTCCGGGATTCAGGCCTCCCTCCCTGAC**ATG**GAGAGTAACCTGTCTGGCCTGGTGCCTGCTG
CCGGGCTGGTGCCTGCGCTGCCACCTGCTGTGACCCTGGGGCTGACAGCTGCCTACACCACCCTGTATGCCCTGC
TCTTCTTCTCCGTCTATGCCCAGCTCTGGCTGGTGCTTCTGTATGGGCACAAGCGTCTCAGCTATCAGACGGTGT
TCCTGGCCCTCTGTCTGCTCTGGGCCGCCTTGCGTACCACCCTCTTCTCCTTCTACTTCCGAGATACTCCCCGCG
CCAACCGCCTGGGGCCCTTGCCCTTCTGGCTTCTCTACTGCTGCCCCGTCTGCCTGCAGTTCTTCACCTTGACGC
TTATGAACCTCTACTTTGCCCAGGTGGTGTTCAAGGCCAAGGTGAAGCGTCGGCCGGAGATGAGCCGAGGCTTGC
TCGCTGTCCGAGGGGCCTTTGTGGGGGCCTCGCTGCTCTTTCTGCTGGTGAACGTGCTGTGTGCTGTGCTCTCCC
ATCGGCGCCGGGCACAGCCCTGGGCCCTGCTGCTTGTCCGCGTCCTGGTGAGCGACTCCCTGTTCGTCATCTGCG
CGCTGTCTCTTGCTGCCTGCCTCTGCCTCGTCGCCAGGCGGGCGCCCTCCACTAGCATCTACCTGGAGGCCAAGG
TAGGGCTGCAGCAC**TGA**TGCCCAGGTGTCTTTTGGGTCTCTCGGCAGCGGTTCTCAGGGTGTAGAG

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FIGURE 3254

GCGCCGTAAATAGAGTCCAAGTGGGCGGAGAGCCGTCCCGCGCCGCCCGCTC**ATG**TCTCTACAGAGCCGACTGTC
CGGCCGCCTGGCACAGCTGCGCGCGGCGGGGCAGCTGCTCGTCCCCCCGCGCCCCCGGCCCGGACACTTGGCGGG
TGCCACGAGGACCCGCAGCAGCACGTGCGGTCCCCCGGCGTTCCTGGGCGTGTTCGGCCGCCGTGCGCGGACCTC
GGCGGGAGTTGGGGCGTGGGGGGCGACGNCGGTGGGGCGGACAGCCGGGGTGCGCACTTGGGCCCCCCTGGCCAT
GGCGGCGAAGGTGGACCTGAGCACCTCCACCGACTGGAAGGAGGCGAAATCCTTTCTGAAGGGCCTGAGTGACAA
GCAGCGGGAGGAACATTACTTCTGCAAGGACTTTGTCAGGCTGAAGAAGATCCCGACATGGAAGGAGATGGCGAA
AGGGGTGGCTGTGAAGGTGGAGGAGCCCAGGTATAAAAAGGACAAGCAGCTCAATGAGAAAATCTCCCTGCTCCG
CAGCGACATCACCAAGCTGGAGGTGGACGCCATCGTCAACGCCGCCAACAGCTCCCTGCTCGGAGGCGGTGGCGT
GGACGGCTGCATTCATCGGGCCGCCGGCCCCCTGCTTACCGACGAGTGCCGGACCCTGCAGAGCTGTAAGACTGG
CAAGGCCAAGATCACCGGCGGCTATCGGCTCCCGGCCAAGTACGTCATCCACACAGTGGGGCCCATCGCCTACGG
GGAGCCCAGCGCCAGCCAGGCTGCCGAGCTCCGCAGCTGCTACCTGAGCAGTCTGGACCTGCTGCTGGAGCACCG
GCTCCGCTCGGTGGCGTTCCCCTGCATCTCCACCGGCGTGTTTGGCTACCCCTGTGAGGCGGCCGCCGAGATCGT
GCTGGCCACGCTGCGAGAGTGGCTGGAGCAGCACAAGGACAAGGTGGACCGGCTGATCATCTGCGTGTTCCTCGA
GAAGGACGAGGACATCTACCGGAGCCGGCTCCCCCACTACTTCCCCGTGGCC**TGA**GGCTCCCGCAGCCCACCCTG
ACCGGGACTGACCCGCCTTCGGGACCCCGCTCCCAGCTCTGAGAGGTCGCCAAAGCCTGCAGCCTGGCCTGGGCC
TGGCCACCCCTTCTTTCCCTCCGCGCCCCGCCCCCGAGGAGCCTAATAAAGATCTCGTTGTGGC

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FIGURE 3255

GGCGAGGAAGGGGCGGGAGCCGGGGTCCCGGTAGCTTCTAGTAGGTTCCAGAAGGCGGCGCGTGCGGTTGGGAAC
GCGGAGCGGACGGATTCGATTCAACGGGGTTCCGGACCGCGCTGCGCTATGGAGCAGGTCAATGAGCTGAAGGAG
AAAGGCAACAAGGCCCTGAGCGTGGGTAACATCG**ATG**ATGCCTTACAGTGCTACTCCGAAGCTATTAAGCTGGAT
CCCCACAACCACGTGCTGTACAGCAACCGTTCTGCTGCCTATGCCAAGAAAGGAGACTACCAGAAGGCTTATGAG
GATGGCTGCAAGACTGTCGACC**TAA**AGCCTGACTGGGGCAAGGGCTATTCACGAAAAGCAGCAGCTCTAGAGTTC
TTAAACCGCTTTGAAGAAGCCAAGCGAACCTATGAGGAGGGCTTAAAACACGAGGCAAATAACCCTCAACTGAAA
GAGGGTTTACAGAATATGGAGGCCAGGTTGGCAGAGAGAAAATTCATGAACCCTTTCAACATGCCTAATCTGTAT
CAGAAGTTGGAGAGTGATCCCAGGACAAGGACACTACTCAGTGATCCTACCTACCGGGAGCTGATAGAGCAGCTA
CGAAACAAGCCTTCTGACCTGGGCACGAAACTACAAGATCCCCGGATCATGACCACTCTCAGCGTCCTCCTTGGG
GTCGATCTGGGCAGTATGGATGAGGAGGAAGAGATTGCAACACCTCCACCACCACCCCCTCCCAAAAAGGAGACC
AAGCCAGAGCCAATGGAAGAAGATCTTCCAGAGAATAAGAAGCAGGCACTGAAAGAAAAAGAGCTGGGGAACGAT
GCCTACAAGAAGAAAGACTTTGACACAGCCTTGAAGCATTACGACAAAGCCAAGGAGCTGGACCCCACTAACATG
ACTTACATTACCAATCAAGCAGCGGTATACTTTGAAAAGGGCGACTACAATAAGTGCCGGGAGCTTTGTGAGAAG
GCCATTGAAGTGGGGAGAGAAAACCGAGAAGACTATCGACAGATTGCCAAAGCATATGCTCGAATTGGCAACTCC
TACTTCAAAGAAGAAAAGTACAAGGATGCCATCCATTTCTATAACAAGTCTCTGGCAGAGCACCGAACCCCAGAT
GTGCTCAAGAAATGCCAGCAGG

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FIGURE 3256

CCCAACGCACAGTACTGGTCCCAGTTTCACAGCGTGAGGCCACAGGGGCCCCAGTTGAGGCAGCAGCAACACAAA
CAAAACAAACAAGTGCTGGGGTACTGCCTCCTCCTCATGCTGGCGGGCATGGGCCTGCACTACATTGCCTTCAGG
AAGGTGAAGCAGATGCACCTTAACTTCATGG**ATG**AAAAGGATCGGATCATCACAGCCTTCTACAACGAAGCCCGG
GCACGGGCCAGGTCTGTCCCTGCTCTATTCTGCTCCCTGCTCCCTGTCCAGGAACCACACTTCGGGATCCCTATC
CCAACCACCCAGGTGCCCTCTCCTCCAGGGCCAACAGAGGCATCCTTCAGCAGGAGCGACAACGGCTAGGGCAGC
GGCAGCCGCCACCATCCGAGCCAACCCAAGGCCCCGAGATCGTGCCCCGGGGCGCCGGCCCCTGAGGGGCTCACC
TGGATGGGGCCTGCAGTGCGTTCCCGCTTTGCTTCCTTCCTGGACGGCCCGCTCCCCGAAACGCGCGCAA**TAA**AG
TGATTCGCAGA

FIGURE 3257

GGCGGCTGGTGAGCGCCCGCTGGAGGCTGGAGCTTCCGGGCCCTGGAAAGGGGTCCCCGCGCGCCCCGGGTCGGA
GGCAGACCCCTGGGTTTGGGGGACATGGGCATTTGGGGCGCCTGAACCCAAGACCTCTGG**ATG**AGCTGCCCCGTT
CAGACCATGGATCCTGAGGTGACCTTGCTGCTGCAGTGCCCTGGCGGGGGCCTGCCCCAGGAGCAGATACAGGCC
GAGCTGAGCCCCGCCCATGACCGTCGCCCACTGCCAGGTGGGGACGAGGCCATCACTGCCATCTGGGAGACCCGG
CTAAAGGCCCAACCCTGGCTCTTCGACGCCCCCAAGTTCCGCCTGCACTCAGCCACCCTGGCGCCTATTGGCTCT
CGGGGGCCACAGCTGCTCCTGCGCCTGGGCCTTACTTCCTACCGAGACTTCCTGGGCACCAACTGGTCCAGCTCA
GCTGCCTGGCTGCGACAGCAGGGTGCCACCGACTGGGGTGACACGCAGGCCTATCTGGCGGACCCACTGGGGGTG
GGCGCTGCACTAGCCACAGCCGATGACTTCCTTGTCTTCCTGCGCCGCTCCCGGCAGGTGGCTGAGGCCCCTGGG
CTGGTGGACGTACCTGGTGGGCACCCTGAGCCTCAGGCCCTGTGCCCTGGTGGCAGCCCCCAGCACCAGGACCTC
GCTGGGCAGCTGGTGGTACATGAACTCTTTTCCAGTGTCCTTCAGGAGATCTGTGATGAGGTGAACCTGCCGCTG
CTCACCCTGAGCCAGCCCCTGCTGTTGGGCATCGCCCGAAATGAGACCAGTGCTGGCCGAGCCAGTGCCGAGTTC
TATGTCCAGTGCAGCCTGACTTCTGAGCAGGTGAGGAAGCACTACCTGAGTGGGGGACCCGAGGCCCACGAGTCT
ACAGGAATCTTCTTTGTGGAGACACAGAACGTGCAGAGATTGCTCGAGACGGAGATGTGGGCTGAACTCTGCCCC
TCGGCCAAAGGCGCCATCATCCTCTACAACCGGGTTCAGGGAAGTCCCACTGGAGCGGCCCTAGGGTCCCCAGCC
CTACTCCCGCCGCTC**TGA**AAATAATAAACGACTTTATTCTTGG

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FIGURE 3258

GGCACGTCGGCCCTGCCTCCCGGACCACCCTGCGGGGCGCACCAGCGATCTGGGGTGCGGGGCTCGGCCTCCCTG
CGCTCCTGGCTGACCGTGTGACCTTGGGACCGAGACGTGCAGCTGTCCAAGGCTCTGTCCTATGCCCTGCGCCAT
GGGGCCTTGAAGCTGGGGCTTCCC**ATG**GGAGCTGATGGCTTCGTGCCCCTGGGCACCCTCCTGCAGTTGCCCCAG
TTCCGCGGCTTCTCTGCTGAAGATGTGCAGCGCGTGGTGGACACCAATAGGAAGCAGCGGTTCGCCCTGCAGCTG
GGGGATCCCAGCACTGGCCTTCTCATCCGGGCCAACCAGGGCCATTCCCTGCAGGTACCTAAGTTGGAGCTGATG
CCCCTGGAGACACCGCAGGCCCTGCCCCCGATGCTAGTCCATGGTACATTCTGGAAGCACTGGCCATCCATCCTA
CTCAAAGGCCTGTCCTGCCAGGGAAGGACGCACATTCACCTGGCCCCAGGACTGCCTGGAGACCCCGGTATCATC
AGTGGCATGCGGTCCCATTGTGAAATAGCTGTGTTCATCGATGGACCCCTGGCTCTGGCAGATGGAATACCCTTC
TTCCGCTCTGCCAATGGGGTGATTCTGACTCCAGGGAATACTGATGGCTTCCTCCTTCCCAAGTACTTCAAGGAG
GCCCTGCAGCTACGCCCTACCCGAAAGCCCCTTTCCTTGGCTGGTGATGAAGAGACAGAGTGTCAGAGTAGCCCC
AAGCACAGCTCCAGAGAAAGGAGGAGGATCCAACAA**TAA**AATATTAATTTATAAAAAAGAAATTTTAAAAAGTAA
CAAGAAAGAACTCGTTTGAAACCATGTTTCATCATCCTGT

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FIGURE 3259

AGACAGACCCCGTGCGGCTGACACAGCTGTATGAGCAGGCCCGGTGGGACCTGCTGCTGGAGGAGATTGACTGCA
CCGAGGAGGAGATGATGGTGTTTGCCGCCCTGCAGTACCACATCAACAAGCTGTCCCAGAGCGGGGAGGTGGGGG
AGCCGGCTGGCACAGACCCAGGGCTGGACGACCTGGATGTGGCCCTGAGCAACCTGGAGGTGAAGCTGGAGGGGT
CGGCGCCCACAGATGTGCTGGACAGCCTCACCACCATCCCAGAGCTCAAGGACCATCTCCGAATCTTTCGGCCCC
GGAAGCTGACCCTGAAGGGCTACCGCCAACACTGGGTGGTGTTCAAGGAGACCACACTGTCCTACTACAAGAGCC
AGGACGAGGCCCCTGGGGACCCCATTCAGCAGCTCAACCTCAAGGGCTGTGAGGTGGTTCCCGATGTTAACGTCT
CCGGCCAGAAGTTCTGCATTAAACTCCTAGTGCCCTCCCCTGAGGGC**ATG**AGTGAGATCTACCTGCGGTGCCAGG
ATGAGCAGCAGTATGCCCGCTGGATGGCTGGCTGCCGCCTGGCCTCCAAAGGCCGCACCATGGCCGACAGCAGCT
ACACCAGCGAGGTGCAGGCCATCCTGGCCTTCCTCAGCCTGCAGCGCACGGGCAGTGGGGGCCCGGGCAACCACC
CCCACGGCCCTGATGCCTCTGCCGAGGGCCTCAACCCCTACGGCCTCGTTGCCCCCCGTTTCCAGCGAAAGTTCA
AGGCCAAGCAGCTCACCCCACGGATCCTGGAAGCCCACCAGAATGTGGCCCAGTTGTCGCTGGCAGAGGCCCAGC
TGCGCTTCATCCAGGCCTGGCAGTCCCTGCCCGACTTCGGCATCTCCTATGTCATGGTCAGGTTCAAGGGCAGCA
GGAAAGACGAGATCCTGGGCATCGCCAACAACCGACTGATCCGCATCGACTTGGCCGTGGGCGACGTGGTCAAGA
CCTGGCGTTTCAGCAACATGCGCCAGTGGAATGTCAACTGGGACATCCGGCAGGTGGCCATCGAGTTTGATGAAC
ACATCAATGTGGCCTTCAGCTGCGTGTCTGCCAGCTGCCGAATTGTACACGAGTATATCGGGGGCTACATTTTCC
TGTCGACGCGGGAGCGGGCCCGTGGGGAGGAGCTGGATGAAGACCTCTTCCTGCAGCTCACCGGGGGCCATGAGG
CCTTC**TGA**GGGCTGTCTGATTGCCCCTGCCCTGCTCACCACCTGTCACAGCCACTCCCAAGCCCACACCCACAGG
GGCTCACTGCCCCACACCCGCTCCAGGCAGGCACCCAGCTGGGCATTTCACCTGCTGTCACTGACTTTGTGCAGG
CCAAGGACCTGGCAGGGCCAGACGCTGTACCATCACCCAGGCCAAGGATGGGGGTGGGGGTCCCTGAGCTCATGT
GGTGCCCCCTTTCCTTGTCTGAGTGGCTGAGGCTGATACCCCTGACCTATCTGCAGTCCCCCAGCACACAAGGAA
GACCAGATGTAGCTACAGGATGATGAAACATGGTTTCAAACGAGTTCTTTCTTGTTACTTTTTAAAATTTCTTTT
TTATAAATTAATATTTTATTGTTGG

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FIGURE 3260

GGCTACGGCTGACCGTTTTTTGTGGTGTACTCCGTGCCATC**ATG**TCCGTCCTGACGCCGCTGCTGCTGCGGGGCT
TGACAGGCTCGGCCCGGCGGCTCCCAGTGCCGCGCGCCAAGATCCATTCGTTGCCGCCGGAGGGGAAGCTTGGGA
TCATGGAATTGGCCGTTGGGCTTACCTCCTGCTTCGTGACCTTCCTCCTGCCAGCGGGCTGGATCCTGTCACACC
TGGAGACCTACAGGAGGCCAGAG**TGA**AGGGGTCCGTTCTGTCCCTCACACTGTGACCTGACCAGCCCCACCGGCC
CATCCTGGTCATGTTACTGCATTTGTGGCCGGCCTCCCCTGGATCATGTCATTCAATTCCAGTCACCTCTTCTGC
AATCATGACCTCTTGATGTCTCCATGGTGACCTCCTTGGGGGTCACTGACCCTGCTTGGTGGGGTCCCCCTTGTA
ACAATAAAATCTATTTAAACTTT

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FIGURE 3261

GGTTGAATGTCTCCATTGAATGTAAGCGAGTGTCTGGACTGGAGCCAGCCACCGTGGATTGGGCCTTCGACCTGA
CCAAAACGAAT**ATG**CAAACCATGTATGAGCAGAGCGAGTGGGGCTGGAAGGACCGAGAGAAACGGGAGGAAATGA
CAGATGACCGAGCCTGGTACCTCATCGCGTGGGAAAACAGCTCCGTCCCTGTTGCCTTTTCTCACTTCCGGTTTG
ACGTGGAGTGTGGGGATGAAGTCCTGTACTGCTATGAAGTGCAGTTGGAAAGCAAGGTGCGGCGGAAAGGCCTGG
GGAAGTTCCTCATACAGATCCTGCAGCTCATGGCCAACAGCACACAGATGAAGAAGGTTATGTTAACAGTATTTA
AACACAATCATGGTGCCTACCAGTTCTTCAGAGAAGCGTTGCAGATT**TGA**AATTGATGACTCTTCCCCCAGCATG
TCCGGTTGCTGTGGGGAGGATTGCTCCTATGAGATCCTGAGCCGGAGGACCAAGTTTGGGGACAGCCATCACTCC
CACGCGGGTGGGCACTGTGGTGGCTGCTGCCACTGAACTCTCAGAGCCACTTTCAAGTCACAATGCTCTCTCCTA
AGGCCTTTCCTCTTTCCTGGTCTCACTGTTCACCGGGTGTCCTCAGAGCTGTGGCCTCCCCAGCCCTGCACGTGC
CAGGCTGCGCCCTGAGAGCACAGAACCCTGGGGAGAAGTGGTATCAGCTGCTCCTCCTCTCCTAGGAGACCAGAG
TGCTAGAAGGGAATGAAAGGGAGAGGGAAGAGTAGGTGGGGCCGGGCAGTGAAGCTCATCCTCCACAGTGGCTGC
CTCCTCATTTGGCTCCTGGGGCCTGCAGTGGAGGTTCTCGCACCTCTGCAGCCCCTAGATTCCTGGCAACCTCCC
CTCCCCTGACACATACACACTTGGACAAATGGAATGTTTATGTCCACCTTTATGAAAGTTCTGGAGTCCTGGGTC
TGGGGTTTGCTGGTCCCCAAAGAGGAACACACTGGGTGTAAGATCTGGGTGTAGAGGGCGGCTTCAGAGAGACTC
ACGCTTGCGCAGTTGGAATTGCTGTTAACGGAGACTGGGAAGATCTTTTGTGCCAAGATGCAGGGAAATGAAGAA
AGCTCTTTCCAGCTGTTTTTATGGATTCATGGAGTGGGCTCATGTTGGGACCAGCTGACTCTGGGAGGAAGACTG
CCTCTCCATCGCTGTCAGAGAGCCTGAAAGGACCAACAATGAGGTGTTCTTGGGACCCGCCATGGGGATGATTGC
TTCTCTAGGCTCCTGGATGTTGCTGCATTCTAAGCTTAACCTCCTGGTCTCATGGCAGTGACTTGAGCTTTTGAT
TCATAGAAGAAAGCCAGAGGTTCTGCTTGTTCTTGTCTGCCAGCCCTCGTCGTTCTTTCTCCTCTGCCTCTCACC
TCTACCCCAAATACCTCTGTTCTTAGTCTCAAGGGGAGAATAACATCAGGGAGCCCCTCATCTTCCCCAGAAGGA
CTTCTCGTTCCTCATGTAGTTAACTCCATTGATTTTCCTATCTTGGTGCTGATAGCTCTCTAAGGGTAGGGCACA
CCTCCCCACAGCCACCCTCCCTCTTCAGAGAGCCCCCAGCCAGCAGCAGGCCCCTCTGCCTGCACTCCTCAGGCT
TGCCCCTCGCTGCCTCAGTGAGGCACTAGTGCCACTGCCGTGGCCCAGCCGGGCCATAGCTCAGGCTGCAGCAGA
AATGCCTCTCAGTGGCCAACAGTTGCTTTTCTCTCTGGTGTCACCCTGTGGCAACAGGCTGGAGCAGGGGAAGGA
GAAAGCCTTCCTCTTCTCTCATAGGATAGAAAGGCAGGCTCAGAACTAATGCTCATCCTGATCTCTAGGCCTTGT
TCCTCTTCCAGGGAAGAAAAGCCAAATCCTTATCAAGGAAAAAGCACCTAACAGCTCCCTTTGGATATCCCTGAG
CTCTGCTGTGGGGAGTATCATAAAGGTTCTAGCCTTCGTGAAGTTGTTCTCGTGGAGGTCTGTTGGTCCCTCTGA
CCTCAGCATCTGCTCACATCCCACCCTCTGCCCAACTCTGGCAGTCTCTCCTGGCAGATCTCCCCAGAGTGGTCC
TTGCTTCTCACCTGGATTCCTGCTTGTGCAGGAGCCTGTGTACACAGGGCCTCCCTCACCCAGCCTGGCCCCTCT
GCTGAGCACTTTGCGCTGCTCTTGATGGGCAGCAGTGGGACTGGGAACTCCTTAGAGAGGGCCTTGCAGCTTTAC
ACTGGAATAAGTCTGCCTCTGCCTCTGCCTCACCCTGCTGGCTCCTGGTGGGTTTCATCCCAGGCAGAGTTGACA
TTGCTGGAGGGGTTTGGTGGACTCCTAAGAATCATGAAACCACAGGAGCATGTTTAGGAAGAGATTTGTCTCTGG
TCCCTGTCTCTGAAAGGACACAGATGCTAAATATTTATTGTCTTAGATCATGGATTCCTGATACCTCTCACTCAA
GGGGACCAAAAGGGACCCCCCCCGTGTTCATCCCTTGTAAGGTGAGTTCAGTCTACGTTGTCTCTTTCCAGTCACT
GGATACGTGGCACCAACTGGTCAATGGGTGCTTGGTGCCATACCCTGCTCACCCTAGTCTCTGCAGGCCATGTCC
TGAAGGGTTCCTCAGGAGGTCGGGACTAGGGTGGGAGAGGCACTATCTGAGACCTGCAATCACTCTTGTTGGTCT
TGAGCCCATTCATTTCCAAAACATCCATCTTTCTCCACTTTCCCCAGGTCTTGGTTTTGAGAAACAGCAGGCATG
GCTGAGTGCGGTGGCTTACACCTGTAATCCCAGCACTTTGGGAGGCTGAGGCAGGCGGGTCACCTGAGGTCAGGA
GTTCAAGACCAGCCTGGTCAACATGGCAAAAGCCCATCTCTACTAAAAAATACAAAAATCACCCAGGCGTGGTTG
TGGCCTGTGATCCCAGCTACTCGGGAGGCTGAGGCAGGAGACTCGCTTGAACCCAGCAGGTGGAGGTTGTGGTGA
GCTGAGATCACGCCATTGCACTCCAGCCTAGGCGACCGAGTGAGACTCCATCTC

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FIGURE 3262

AGGTGTTAACTGTCTGGCCTATGATGAAGCCATC**ATG**GCTCAGCAGGACCGAATTCAGCAAGAGATTGCTGTGCA
GAACCCTCTGGTGTCAGAGCGGCTGGAGCTCTCGGTCCTATACAAGGAGTATGCTGAAGATGACAACATCTATCA
ACAGAAGATCAAGGACCTCCACAAAAAGTACTCGTACATCCGCAAGACCAGGCCTGACGGCAACTGTTTCTATCG
GGCTTTCGGATTCTCCCACTTGGAGGCACTGCTGGATGACAGCAAGGAGTTGCAGCGGTTCAAGGCTGTGTCTGC
CAAGAGCAAGGAAGACCTGGTGTCCCAGGGCTTCACTGAATTCACAATTGAGGATTTCCACAACACGTTCATGGA
CCTGATTGAGCAGGTGGAGAAGCAGACCTCTGTCGCCGACCTGCTGGCCTCCTTCAATGACCAGAGCACCTCCGA
CTACCTTGTGGTCTACCTGCGGCTGCTCACCTCGGGCTACCTGCAGCGCGAGAGCAAGTTCTTCGAGCACTTCAT
CGAGGGTGGACGGACTGTCAAGGAGTTCTGCCAGCAGGAGGTGGAGCCCATGTGCAAGGAGAGCGACCACATCCA
CATCATTGCGCTGGCCCAGGCCCTCAGCGTGTCCATCCAGGTGGAGTACATGGACCGCGGCGAGGGCGGCACCAC
CAATCCGCACATCTTCCCTGAGGGCTCCGAGCCCAAGGTCTACCTTCTCTACCGGCCTGGACACTACGATATCCT
CTACAAA**TAG**GGCTGGCTCCAGCCCGCTGCTGCCCTGCTGCCCCCCTCTGCCAGGCGCTAGACATGTACAGAGGT
TTTTCTGTGGTTGTAAATGGTCCTATTTCACCCCCTTCTTCCTGTCACATGACCCCCCCCCATGTTTTATTAAAG
GGGGTGCTGGTGGTGAGCCGTGTGTGCGTGTCCCTGCTCTGCTGCCCGCCTGGCTGCTCTGTCTGCTGCCCCCTC
CCCCCAGGTGGGTCCCCCTGCTTTTCACCTATCTACTCCTGAGCTTCCCCAACAGGAGCAGGTTTGAGGGGCCAG
GCCTCTTGGAGGCCCCTCCTGCTTCGTTGGGTTCTGCTTCCTTCCCTTCTTAGCTGGCTCAGGGGCTTCTATGGG
ATCCTGGAAGTTCCTTAGGGACTTGCCCAGGGTCCCAGGGCCACCCACACTTCATCTGCTCCCTCATAGGCCCCA
CCTCCACGTCCCGGCTGGGCCCCAGACCCCAGCTTCCTGCCCTCCACCGGGAGTCTGCATGGTTGGGAGTCCTGG
GTGGAGGGGCCTTTGTGAGGCTGGACCCGGCTCAGGGCAGGTGGAGGAGCTGGGCCTCCCACAGGGTGCCCGGGC
AGTGCCATCCTGGTGGGGGAGGGCAGCCTTCAAACGTGTGGGGTCTACAGTCCTCAGGTCTAGGCAGGGCTGCCG
GTTCTCCACCTCCCCATCCGCCCCAGGCCCCCTGCCTGTGCCTGCCTTGCACCCCCTCTGCTTGGGCCACGGTGT
CTCTGCATTGCCTGCCTTTTTGCCTTCACCTCTTTTCTTCCCCGCCCCCTGCACATTCGGGGTCTCAGCCCCCAG
GCTGTGAGCTCCTTGGGGGCAGGCCCTCAATAAATGTGAACTGCTGCTGCCGCC

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FIGURE 3263

CCTTCAGCATAAAAGCTGATCCACAAACAAGAGGAGCACCAGACCTCCTCTTGGCTTCGAG**ATG**GCTTCGCCACA
CCAAGAGCCCAAACCTGGAGACCTGATTGAGATTTTCCGCCTTGGCTATGAGCACTGGGCCCTGTATATAGGAGA
TGGCTACGTGATCCATCTGGCTCCTCCAAGTGAGTACCCCGGGGCTGGCTCCTCCAGTGTCTTCTCAGTCCTGAG
CAACAGTGCAGAGGTGAAACGGGAGCGCCTGGAAGATGTGGTGGGAGGCTGTTGCTATCGGGTCAACAACAGCTT
GGACCATGAGTACCAACCACGGCCCGTGGAGGTGATCATCAGTTCTGCGAAGGAGATGGTTGGTCAGAAGATGAA
GTACAGTATTGTGAGCAGGAACTGTGAGCACTTTGTCACCCAGCTGAGATATGGCAAGTCCCGCTGTAAACAGGT
GGAAAAGGCCAAGGTTGAAGTTGGTGTGGCCACGGCGCTTGGAATCCTGGTTGTTGCTGGATGCTCTTTTGCGAT
TAGGAGATACCAAAAAAAAAGCGACAGCC**TGA**AGCAGCCACAAAATCCTGTGTTAGAAGCAGCTGTGGGGGTCCCA
GTGGAGATGAGCCTCCCCCATGCCTCCAGCAGCCTGACCCTCGTGCCCTGTCTCAGGCGTTCTCTAGATCCTTTC
CTCTGTTTCCCTCTCTCGCTGGCAAAAGTATGATCTAATTGAAACAAGACTGAAGGATCAATAAACAGCCATCTG
CCCCTTC

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FIGURE 3264

AGAGTGGGCGTCTGGCGGGGTCCGCAGTTTCAGCAGAGCCGTGCAGCC**ATG**GCCCCAATCAAGGTGGGAGATGCC
ATCCCAGCAGTGGAGGTGTTTGAAGGGGAGCCAGGGAACAAGGTGAACCTGGCAGAGCTGTTCAAGGGCAAGAAG
GGTGTGCTGTTTGGAGTTCCTGGGGCCTTCACCCCTGGATGTTCCAAGACACACCTGCCAGGGTTTGTGGAGCAG
GCTGAGGCTCTGAAGGCCAAGGGAGTCCAGGTGGTGGCCTGTCTGAGTGTTAATGATGCCTTTGTGACTGGCGAG
TGGGGCCGAGCCCACAAGGCGGAAGGCAAGGTTCGGCTCCTGGCTGATCCCACTGGGGCCTTTGGGAAGGAGACA
GACTTATTACTAGATGATTCGCTGGTGTCCATCTTTGGGAATCGACGTCTCAAGAGGTTCTCCATGGTGGTACAG
GATGGCATAGTGAAGGCCCTGAATGTGGAACCAGATGGCACAGGCCTCACCTGCAGCCTGGCACCCAATATCATC
TCACAGCTC**TGA**GGCCCTGGGCCAGATTACTTCCTCCACCCCTCCCTATCTCACCTGCCCAGCCCTGTGCTGGGG
CCCTGCAATTGGAATGTTGGCCAGATTTCTGCAATAAACACTTGTGGTTTGCGG

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FIGURE 3265

GGAGCCGCCATGTAACCGGCGCCGCCCGGAGCCCGAGCCGCGCGGGCCCCAGCGACCCGCCCGCCATGGGGGACG
AGGACGACGATGAGAGCTGCGCCGTGGAGCTGCGGATCACAGAAGCCAACCTGACCGGGCACGAGGAGAAGGTGA
GCGTGGAGAACTTCGAGCTGCTCAAGGTGCTGGGCACGGGAGCCTACGGCAAGGTGTTCCTGGTGCGGAAGGCGG
GCGGGCACGACGCGGGGAAGCTGTACGCCATGAAGGTGCTGCGCAAGGCGGCGCTGGTGCAGCGCGCCAAGACGC
AAGAGCACACGCGCACCGAGCGCTCGGTGCTGGAGCTGGTGCGCCAGGCGCCCTTCCTGGTCACGCTGCACTACG
CTTTCCAGACGGATGCCAAGCTGCACCTCATCCTGGACTATGTGAGCGGCGGGGAGATGTTCACCCACCTCTACC
AGCGCCAGTACTTCAAGGAGGCTGAGGTGCGCGTGTATGGGGGTGAGATCGTGCTGGCCCTGGAACACCTGCACA
AGCTCGGCATCATTTACCGAGACCTGAAACTGGAGAATGTGCTGCTGGACTCCGAGGGCCACATTGTCCTCACGG
ACTTCGGGCTGAGCAAGGAGTTCCTGACGGAGGAGAAAGAGCGGACCTTCTCCTTCTGTGGCACCATCGAGTACA
TGGCCCCCGAAATCATCCGTAGCAAGACGGGGCATGGCAAGGCTGTGGACTGGTGGAGCCTGGGCATCTTGCTCT
TCGAGCTGCTGACGGGGGCCTCGCCCTTCACCCTGGAGGGCGAGAGGAACACGCAGGCTGAGGTGTCTCGACGGA
TCCTGAAGTGCTCCCCTCCCTTCCCCCCTCGGATCGGGCCCGTGGCGCAGGACCTGCTGCAGCGGCTGCTTTGTA
AGGATCCTAAGAAGCGATTGGGCGCGGGGCCCCAGGGGGCACAAGAAGTCCGGAACCATCCCTTCTTCCAGGGCC
TCGATTGGGTGGCTCTGGCTGCCAGGAAGATTCCAGCCCCATTCCGGCCCCAAATCCGCTCAGAGCTGGATGTGG
GCAACTTTGCGGAGGAATTCACTCGGCTGGAGCCTGTCTACTCACCCCCTGGCAGCCCCCCACCTGGGGACCCCC
GAATCTTTCAGGGATACTCCTTTGTGGCACCCTCCATTCTCTTTGACCACAACAACGCGGTGATGACCGATGGGC
TGGAAGCGCCTGGTGCTGGAGACCGGCCAGGTCGGGCAGCGGTGGCCAGGAGCGCTATGATGCAGGACTCGCCCT
TCTTCCAGCAGTACGAGCTGGACCTGCGGGAGCCTGCGCTGGGCCAGGGCAGCTTTTCTGTGTGTCGCCGCTGCC
GCCAGCGCCAGAGCGGCCAGGAGTTCGCAGTCAAGATCCTCAGTCGCAGGCTGGAGGCGAACACGCAGCGCGAAG
TGGCTGCCCTGCGCCTGTGCCAGTCACACCCCAACGTGGTGAATCTGCACGAGGTGCATCACGACCAGCTGCACA
CGTACCTGGTCCTGGAGCTGCTGCGGGGCGGGGAGCTGCTGGAGCACATCCGCAAGAAGCGGCACTTCAGCGAGT
CGGAAGCAAGCCAGATCCTGCGCAGCCTCGTGTCGGCCGTGAGCTTCATGCACGAGGAGGCGGGCGTGGTGCACC
GCGACCTCAAGCCGGAGAACATCCTGTACGCCGACGACACGCCCGGGGCCCCGGTGAAAATCATCGACTTCGGGT
TCGCGCGGTTGCGGCCGCAGAGTCCCGGGGTGCCCATGCAGACGCCCTGCTTCACGCTGCAGTACGCTGCCCCCG
AGCTGCTGGCGCAGCAGGGCTACGACGAGTCCTGCGACCTCTGGAGCCTGGGCGTCATTCTGTACATGATGCTGT
CGGGGCAGGTCCCCTTCCAGGGGGCCTCTGGCCAGGGCGGGCAGAGCCAGGCGGCCGAGATCATGTGCAAAATCC
GCGAGGGGCGCTTCTCCCTTGACGGGGAGGCCTGGCAGGGTGTATCCGAGGAAGCCAAGGAGCTGGTCCGAGGGC
TCCTGACCGTGGACCCCGCCAAGCGGCTGAAGCTCGAGGGACTGCGGGGCAGCTCGTGGCTGCAGGACGGCAGCG
CGCGCTCCTCGCCCCCGCTCCGGACGCCCGACGTGCTCGAGTCCTCTGGGCCCGCAGTGCGCTCGGGTCTCAACG
CCACCTTCATGGCATTCAACCGGGGCAAGCGGGAGGGCTTCTTCCTGAAGAGCGTGGAGAATGCACCCCTGGCCA
AGCGGCGGAAGCAGAAGCTGCGGAGCGCCACCGCCTCCCGCCGGGGCTCCCCTGCACCAGCCAACCCGGGCCGAG
CCCCCGTCGCCTCCAAAGGGGCCCCCCGCCGAGCCAACGGCCCCCTGCCCCCCTCCTAATCCCCACCACTGTGAC
CCCCTTCCCTCATAGGGGCTGTGACCTGGGAGCCCGGCTCACTCCCGGAGGCCTCTGCCTGCGGCTGACCTGATC
CCCAAGGGACTGTCCTTTCCTCTCCTACCCCACCCCACTCCCAGACAGAGCAGAAGTATTTTTATAAGCAGAGAA
TTTTTTATGTCTTACCAGATAGAGTTGCAGGGAAGGGGGGGCCTGCTGGGGAGTGGGGTTTGGGGGGCCCTCTCC
CAGGACACTGCCTCTTCTGGGCAGAAGGCCCCTCCAGGGGGACTGCTCCAACAGGAAAGAGCCCCTCCCCCACTT
CTAAGCACTGAGTTAGGAGTGCTAACTCCTAAACTGGGACCCCCTACCCTGTTCTCCCCTGAGGCCCCGTTCCTG
GGAGGGGCACCCCTCAACTGTCACTTTATGGACTGTCTGTGCAATTACGTCCACCAAAGACCCGTGTTGGGGGTA
CTGAAGGAGAGGCCCTGGGGGACCCTCTGAAGCATTTCTGCCTCACTTTATGTCATCTGCTTCTCCCCTGTTGGG
GCTAAGGAAGGAGATAGGTGGCTCCTAAAAGAGGAGGCCATCTTCTCACCCACCCCTTCCTCTTTGGCACAGCTA
CTCCTGGCTGGGGGTGGGGCCTTGGGGGTCTGGGCTGGGCATCCATGGTCACTGCCTCAGCCCAGCCAGGCTGTG
CCTTTGACTTTAAAATAAAAGTCCACCCAGTGCTGTGTGTGGC

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FIGURE 3266

CGATTTCATTCCTCGCTCCCCACAGGTCCCTCTCCCCAAAATATTCCCATCTTGTCCTAGCCCATCCCCCAGACT
ATCTCAAGGACCAGCTGTCCCCACGCCCCCGACCTCCACTAGGCCTGTGCCACCCGCTGCCTGCAGGAAGACGCC
CGGTCCCGGGCCGGGTTAGCCCC**ATG**GGAACGCAGCGCCTGTGTGGCCGCGGGACTCAAGGCTGGCCTGGCTCAA
GTGAACAGCACGTCCAGGAGGCGACCTCGTCCGCGGGTTTGCATTCTGGGGTGGACGAGCTGGGGGTTCGGTCCG
AGCCCGGTGGGAGGCTCCCGGAGCGCAGCCTGGGCCCAGCCCACCCCGCGCCGGCGGCCATGGCAGGCACCCTGG
ACCTGGACAAGGGCTGCACGGTGGAGGAGCTGCTCCGCGGGTGCATCGAAGCCTTCGATGACTCCGGGAAGGTGC
GGGACCCGCAGCTGGTGCGCATGTTCCTCATGATGCACCCCTGGTACATCCCCTCCTCTCAGCTGGCGGCCAAGC
TGCTCCACATCTACCAACAATCCCGGAAGGACAACTCCAATTCCCTGCAGGTGAAAACGTGCCACCTGGTCAGGT
ACTGGATCTCCGCCTTCCCAGCGGAGTTTGACTTGAACCCGGAGTTGGCTGAGCAGATCAAGGAGCTGAAGGCTC
TGCTAGACCAAGAAGGGAACCGACGGCACAGCAGCCTAATCGACATAGACAGCGTCCCTACCTACAAGTGGAAGC
GGCAGGTGACTCAGCGGAACCCTGTGGGACAGAAAAAGCGCAAGATGTCCCTGTTGTTTGACCACCTGGAGCCCA
TGGAGCTGGCGGAGCATCTCACCTACTTGGAGTATCGCTCCTTCTGCAAGATCCTGTTTCAGGACTATCACAGTT
TCGTGACTCATGGCTGCACTGTGGACAACCCCGTCCTGGAGCGGTTCATCTCCCTCTTCAACAGCGTCTCACAGT
GGGTGCAGCTCATGATCCTCAGCAAACCCACAGCCCCGCAGCGGGCCCTGGTCATCACACACTTTGTCCACGTGG
CGGAGAAGCTGCTACAGCTGCAGAACTTCAACACGCTGATGGCAGTGGTCGGGGGCCTGAGCCACAGCTCCATCT
CCCGCCTCAAGGAGACCCACAGCCACGTTAGCCCTGAGACCATCAAGCTCTGGGAGGGTCTCACGGAACTAGTGA
CGGCGACAGGCAACTATGGCAACTACCGGCGTCGGCTGGCAGCCTGTGTGGGCTTCCGCTTCCCGATCCTGGGTG
TGCACCTCAAGGACCTGGTGGCCCTGCAGCTGGCACTGCCTGACTGGCTGGACCCAGCCCGGACCCGGCTCAACG
GGGCCAAGATGAAGCAGCTCTTTAGCATCCTGGAGGAGCTGGCCATGGTGACCAGCCTGCGGCCACCAGTACAGG
CCAACCCCGACCTGCTGAGCCTGCTCACGGTGTCTCTGGATCAGTATCAGACGGAGGATGAGCTGTACCAGCTGT
CCCTGCAGCGGGAGCCGCGCTCCAAGTCCTCGCCAACCAGCCCCACGAGTTGCACCCCACCACCCCGGCCCCCGG
TACTGGAGGAGTGGACCTCGGCTGCCAAACCCAAGCTGGATCAGGCCCTCGTGGTGGAGCACATCGAGAAGATGG
TGGAGTCTGTGTTCCGGAACTTTGACGTCGATGGGGATGGCCACATCTCACAGGAAGAATTCCAGATCATCCGTG
GGAACTTCCCTTACCTCAGCGCCTTTGGGGACCTCGACCAGAACCAGGATGGCTGCATCAGCAGGGAGGAGATGG
TTTCCTATTTCCTGCGCTCCAGCTCTGTGTTGGGGGGGCGCATGGGCTTCGTACACAACTTCCAGGAGAGCAACT
CCTTGCGCCCCGTCGCCTGCCGCCACTGCAAAGCCCTGATCCTGGGCATCTACAAGCAGGGCCTCAAATGCCGAG
CCTGTGGAGTGAACTGCCACAAGCAGTGCAAGGATCGCCTGTCAGTTGAGTGTCGGCGCAGGGCCCAGAGTGTGA
GCCTGGAGGGGTCTGCACCCTCACCCTCACCCATGCACAGCCACCATCACCGCGCCTTCAGCTTCTCTCTGCCCC
GCCCTGGCAGGCGAGGCTCCAGGCCTCCAGAGATCCGTGAGGAGGAGGTACAGACGGTGGAGGATGGGGTGTTTG
ACATCCACTTG**TAA**TAGATGCTGTGGTTGGATCAAGGACTCATTCCTGCCTTGGAGAAAATACTTCAACCAGAGC
AGGGAGCCTGGGGGTGTCGGGGCAGGAGGCTGGGGATGGGGGTGGGATATGAGGGTGGCATGCAGCTGAGGGCAG
GGCCAGGGCTGGTGTCCCTAAGGTTGTACAGACTCTTGTGAATATTTGTATTTTCCAGATGGAATAAAAAGGCCC
GTGTAATTAACCTTC

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FIGURE 3267

ACTTACTGTCATTAAACCAGTATGATGATGGAGTGGGGAATGCCTCAGTTTCTCCCACCGCCGAGGGCCTATAGG
ACTACAGTTCCCAGGGCCCCGTGCTGCAGGCTAGCGGCCTCCCGCCAATGCTGGCCAGTAACCTGAGCATCCCTC
TCCAAAAGGTCACTTCAGGGCTCCTTGAGGGACAGCAACAGGGGGAGCCTAGAGCTGCTCAGCTTCGGTGGGGGT
GGAGTGAGGGCTGTGGCCCTGCCTCACACAACCTCCCTCACACCACCCCTGCAATGCAGGGTCGTGGGCCCCTTT
CTCAAAGACATCCAGTGGCCTCTGCTAGTTGCACCTCTTCCGTCAGGGGACACTGACTTGGCTCCTGCACCACAG
CCTGCAGGGGGTCCTGGTTCCTTTTGCCACAACACATGGCCTCCCATCCTGGTTCAGCCACTGACAGACAGCTCC
CCAATCCAGCACTCTGCCTGCTCCTTCTTGTATCCAACCCTCCAAAAGGCAGGGACAAGGGACAGAAGACCATGT
GCAAGGCCTGGAGGAAGTGGGTCAGCACAGGCCTGTGAACAAGCCAGGCCAGTCTTGGCGGCCCAAGTGGAGCTC
ACCTCTCCCTCCCCTCTCCTCTCCTCCCCTTGCCCTCAAAATAGCTCCCTGAGCTGCCAGGCCAAGACCCTCCCA
TTGCAGGGGAGGCGGGGCGTGCTGCCCAGAGCCAGGCTTTAAATCCCCTTGAGGCTGGGGAGCTCCACTCCTTGG
CTGGAGGCAGTGCTGAGGCCGCCGTCCCCTCTACCATCAGTCCAGTCCGGCCCGCCCTCCTGCAGCC**ATG**TCCCG
GCCCCTGTCAGACCAAGAGAAAAGAAAGCAAATCAGTGTGCGTGGCCTGGCCGGCGTGGAGAACGTGACTGAGCT
GAAAAAGAACTTCAACCGGCACCTGCATTTCACACTCGTAAAGGACCGCAATGTGGCCACCCCACGAGACTACTA
CTTTGCTCTGGCCCATACCGTGCGCGACCACCTCGTGGGGCGCTGGATCCGCACGCAGCAGCACTACTATGAGAA
GGACCCCAAGAGGATCTACTACCTGTCTTTAGAGTTCTATATGGGACGGACGCTACAGAACACCATGGTGAACCT
GGCCTTAGAGAATGCCTGTGACGAGGCCACCTACCAGCTGGGCCTGGACATGGAGGAGCTGGAGGAAATTGAGGA
GGATGCGGGGCTGGGCAACGGGGGCCTGGGCCGGCTGGCAGCCTGCTTTCTTGACTCCATGGCAACACTGGGCCT
GGCCGCCTATGGCTACGGGATTCGCTATGAGTTTGGGATTTTTAACCAGAAGATCTCCGGGGGCTGGCAGATGGA
GGAGGCCGATGACTGGCTTCGCTACGGCAACCCCTGGGAGAAGGCCCGGCCCGAGTTCACGCTACCTGTGCACTT
CTACGGCCATGTGGAGCACACCAGCCAGGGTGCCAAGTGGGTGGACACACAGGTGGTACTGGCCATGCCCTACGA
TACGCCCGTGCCTGGCTATCGCAACAATGTTGTCAACACCATGCGCCTCTGGTCTGCCAAGGCTCCCAATGACTT
CAACCTCAAGGACTTCAATGTCGGTGGCTACATCCAGGCTGTGTTGGACCGAAACCTGGCGGAGAACATCTCTCG
TGTCCTGTACCCCAATGATAATTTCTTCGAAGGGAAGGAGCTGCGGCTGAAGCAGGAGTATTTCGTGGTGGCTGC
CACCCTCCAGGACATCATCCGTCGCTTCAAGTCTTCCAAGTTCGGCTGCCGTGATCCCGTGCGCACGAACTTCGA
TGCCTTCCCAGATAAGGTGGCCATCCAGCTCAATGACACCCACCCCTCCCTGGCCATCCCCGAGCTGATGAGGAT
CCTGGTGGACCTGGAACGGATGGACTGGGACAAGGCGTGGGATGTGACAGTGAGGACCTGTGCCTACACCAACCA
CACGGTGCTGCCCGAGGCCCTGGAGCGCTGGCCGGTGCACCTCTTGGAGACGCTGCTGCCGCGGCACCTCCAGAT
CATCTACGAGATCAACCAGCGCTTCCTCAACCGGGTGGCGGCCGCATTCCCAGGGGACGTAGACCGGCTGCGGCG
CATGTCGCTGGTGGAGGAGGGCGCAGTGAAGCGCATCAACATGGCACACCTGTGCATCGCGGGGTCGCACGCCGT
CAACGGCGTGGCGCGCATCCACTCCGAGATCCTCAAGAAGACCATCTTCAAAGACTTCTATGAGCTGGAGCCTCA
TAAGTTCCAGAATAAGACCAACGGCATCACCCCTCGGCGCTGGCTGGTTCTGTGTAACCCCGGGCTGGCAGAGGT
CATTGCTGAGCGCATCGGGGAGGACTTCATCTCTGACCTGGACCAGCTGCGCAAACTGCTCTCCTTTGTGGATGA
TGAAGCTTTCATTCGGGATGTGGCCAAAGTGAAGCAGGAAAACAAGTTGAAGTTTGCTGCCTACCTAGAGAGGGA
ATACAAAGTCCACATCAACCCCAACTCACTCTTCGACATCCAGGTGAAGCGGATTCACGAATATAAACGACAGCT
CCTCAACTGCCTCCATGTCATCACCCTGTACAACCGCATCAAGAGGGAGCCCAATAAGTTTTTTGTGCCTCGGAC
TGTGATGATTGGAGGGAAGGCTGCACCTGGGTACCACATGGCCAAGATGATCATCAGACTCGTCACAGCCATCGG
GGATGTGGTCAACCATGACCCGGCAGTGGGTGACCGCCTCCGTGTCATCTTCCTGGAGAACTACCGAGTCTCACT
GGCCGAGAAAGTGATCCCAGCTGCAGACCTCTCTGAGCAGATCTCCACTGCGGGCACTGAAGCCTCAGGCACCGG
CAACATGAAGTTCATGCTCAACGGGGCTCTGACCATTGGCACCATGGACGGGGCCAATGTGGAGATGGCAGAAGA
GGCGGGAGAGGAAAACTTCTTCATCTTTGGCATGCGGGTGGAGGATGTGGATAAGCTTGACCAAAGAGGGTACAA
TGCCCAGGAGTACTACGATCGCATTCCTGAGCTTCGGCAGGTCATTGAGCAGCTGAGCAGTGGCTTCTTCTCCCC
CAAACAGCCCGACCTGTTCAAGGACATTGTCAATATGCTCATGCACCATGACCGGTTTAAAGTCTTCGCAGATTA
TGAAGACTACATTAAATGCCAGGAGAAAGTCAGCGCCTTGTACAAGAACCCAAGAGAGTGGACGCGGATGGTGAT
CCGGAACATAGCCACCTCTGGCAAGTTCTCCAGTGACCGCACCATTGCCCAGTATGCCCGGGAGATCTGGGGTGT
GGAGCCTTCCCGCCAGCGCCTGCCAGCCCCGGATGAGGCCATC**TGA**GCCTCCAGACCAGACCCCAAACCAGCCCT
TGAGTCTGTCACACTCTCTTGGGCCAGCCCCAGCACCTCATGCAGAGGGTGGGGTACTGGAGTTAGATCTCT

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FIGURE 3268

AAATGAAGTGCGCGCTGCGACACCTCCCAGCCCACCGAACTCCGCCGCCATTTCCTCGCTTGGCCTAACGGTTCG
GCCAATCCCAGCGCGCATCAAGAAGGACTGAGGCTCCGCCAATCGGAGGCCGCCGATTTCGACCCTTCGCCTCGG
CCCGGCCCAATCCAGGCCCCGGCCCCGCCGCCCCCGGCCCGCCCCCGCGGTGCCCTCTCTCCTCCCTCTTTGTGC
GTCTCGCGCCGCCGCCGCCCGCCGCGTGAGAGGACGGGCTCCGCGCGCTCCGGCAGCGCATTCGGGTCCCCTCCC
CCCGGGAGGCTTGCGAAGGAGAAGCCGCCGCAGAGGAAAAGCAGGTGCCGGTGCCTGTCCCCGGGGGCGCC**ATG**G
CGACCGGAGCGAACGCCACGCCGTTGGACTTCCCAAGTAAGAAGCGGAAGAGGAGCCGCTGGAACCAAGACACAA
TGGAACAGAAGACAGTGATTCCAGGAATGCCTACAGTTATTCCCCCTGGACTTACTCGAGAACAAGAAAGAGCTT
ATATAGTGCAACTGCAGATAGAAGACCTGACTCGTAAACTGCGCACAGGAGACCTGGGCATCCCCCCTAACCCTG
AGGACAGGTCCCCTTCCCCTGAGCCCATCTACAATAGCGAGGGGAAGCGGCTTAACACCCGAGAGTTCCGCACCC
GCAAAAAGCTGGAAGAGGAGCGGCACAACCTCATCACAGAGATGGTTGCACTCAATCCGGATTTCAAGCCACCTG
CAGATTACAAACCTCCAGCAACACGTGTGAGTGATAAAGTCATGATTCCACAAGATGAGTACCCAGAAATCAACT
TTGTGGGGCTGCTCATCGGGCCCAGAGGGAACACCCTGAAGAACATAGAGAAGGAGTGCAATGCCAAGATTATGA
TCCGGGGGAAAGGGTCTGTGAAAGAAGGGAAGGTTGGGCGCAAAGATGGCCAGATGTTGCCAGGAGAAGATGAGC
CACTTCATGCCCTGGTTACTGCCAATACAATGGAGAACGTCAAAAAGGCAGTGGAACAGATAAGAAACATCCTGA
AGCAGGGTATCGAGACTCCAGAGGACCAGAATGATCTACGGAAGATGCAGCTTCGGGAGTTGGCTCGCTTAAATG
GGACCCTTCGGGAAGACGATAACAGGATCTTAAGACCCTGGCAGAGCTCAGAGACCCGCAGCATTACCAACACCA
CAGTGTGTACCAAGTGTGGAGGGGCTGGCCACATTGCTTCAGACTGTAAATTCCAAAGGCCTGGTGATCCTCAGT
CAGCTCAGGATAAAGCACGGATGGATAAAGAATATTTGTCCCTCATGGCTGAACTGGGTGAAGCACCTGTCCCAG
CATCTGTGGGCTCCACCTCTGGGCCTGCCACCACACCCCTGGCCAGCGCACCTCGTCCTGCTGCTCCCGCCAACA
ACCCACCTCCACCGTCTCTCATGTCTACCACCCAGAGCCGCCCACCCTGGATGAATTCTGGCCCTTCAGAGAGTC
GGCCCTACCACGGCATGCATGGAGGTGGTCCTGGTGGGCCCGGAGGTGGCCCCCACAGCTTCCCACACCCATTAC
CCAGCCTGACAGGTGGGCATGGTGGACATCCCATGCAGCACAACCCCAATGGACCCCCACCCCCTTGGATGCAGC
CACCACCACCACCGATGAACCAGGGCCCCCACCCTCCTGGGCACCATGGCCCTCCTCCAATGGATCAGTACCTGG
GAAGTACGCCTGTGGGCTCTGGGGTCTATCGCCTGCATCAAGGAAAAGGTATGATGCCGCCACCACCTATGGGCA
TGATGCCGCCGCCGCCGCCGCCTCCCAGTGGGCAGCCCCCACCCCCTCCCTCTGGTCCTCTTCCCCCATGGCAAC
AACAGCAGCAGCAGCCTCCGCCACCCCCTCCGCCCAGCAGCAGTATGGCTTCCAGTACCCCCTTGCCATGGCAGC
AAAATACGACGACTACCACCACGAGCGCTGGCACAGGGTCCATCCCGCCATGGCAACAGCAGCAGGCGGCTGCCG
CAGCTTCTCCAGGAGCCCCTCAGATGCAAGGCAACCCCACTATGGTGCCCCTGCCCCCCGGGGTCCAGCCGCCTC
TGCCGCCTGGGGCCCCTCCCCCTCCGCCCCGTAGCATCGAGTGTCTTCTTTGTCTTCTTTCTCTCCTCACCCAAC
TCCCTTTGCCTCTCCCCAAACCGGGCCGCCAGGATCCCTCCCCGCGGCGGCGATGGCCCGAGCCA**TGA**GAGTGAG
GACTTTCCGCGCCCATTGGTGACCCTTCCAGGCAGACAGCCTCAGCAACGCCCCTGGTGGACAGGATGGTTCGGC
AAAGCAGCCTGAGTTATTTTTGTGGACGGAATCGGAACACGCTGGCTCCATATCGTGAAATTTTTATTAATTTTT
TTCTTTTTCCTTTGTTACTTCTTTATCTTTTCCTTTCTTCAGACTCCGTCCAAGGAGATGCTCTCCCCGGTCTTC
TGCTGCAATTTAGATTCCTTTCCCTTCTCTCCAGTTCTCCTTCCCTTACCAAGGAGAGGGGAGCAAATGGTTTTG
GGCAAGGGCTTTGGCCATTCATGTCAAGCTGGTTGTGGGTTTTTCAAGGTGCCATAGCCACCCCCAAATATGTTT
GTTTAAAGCGTGGGGTTTTTTAATCTCTGCCACCCTTGTCAAGGGAGTCTTGTAAAGTTGCCGAGGGTAGGTTCA
TCTCCAGGTTTCGGGATTCCCATCCGTCCTGGCGATCCTGCCAGCAGTGGGTGGGCAGCCTGAGCTCCCTCGGGC
TCGCCTGCCAGCCTGGAGTTCTTCCTGTGCTCCTTGATCACCTGAGCTGCCTCAGATTCCATTTGGTCCTCTCCT
TCCTGGAAGGCTTCCTTTTATGTTTTGTTTTAATCCCAAATGTCTGAATGTTTTGCAGTGTGTAGGGGTTTGAGC
CCCTTGTTCATTCTCCTTCCTTTTTCCTCCCGCTTCCCTCTCCATGAAGTGATTCTGTTGACAATAATGTATACT
GCGCGTTCTCTTCACTGGTTTATCTGCAGAAATTTCTCTGGGCTTTTTTCGGTGTTAGATTCAACACTGCGCTAA
AGCGGGGATGTTCCATTGAATAAAAGAGCAGTGTGGTTTTCTGGG

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FIGURE 3269

GCGCCGGGCC**ATG**GCGCTGCTGCGGGATGTGTCGCTGCAGGACCCGCGGGACCGCTTCGAGCTGCTGCAGCGCGT
GGGGGCCGGGACCTATGGCGACGTCTACAAGGCCCGCGACACGGTCACGTCCGAACTGGCCGCCGTGAAGATAGT
CAAGCTAGACCCAGGGGACGACATCAGCTCCCTCCAGCAGGAAATCACCATCCTGCGTGAGTGCCGCCACCCCAA
TGTGGTGGCCTACATTGGCAGCTACCTCAGGAATGACCGCTTGTGGATCTGCATGGAGTTCTGCGGAGGGGGCTC
CCTGCAGGAGATTTACCATGCCACTGGGCCCCTGGAGGAGCGGCAGATTGCCTACGTCTGCCGAGAGGCACTGAA
GGGGCTCCACCACCTGCATTCTCAGGGGAAGATCCACAGAGACATCAAGGGAGCCAACCTTCTCCTCACTCTCCA
GGGAGATGTCAAACTGGCTGACTTTGGGGTGTCAGGCGAGCTGACAGCGTCTGTGGCCAAGAGGAGGTCTTTCAT
TGGGACTCCCTACTGGATGGCTCCCGAGGTGGCTGCTGTGGAGCGCAAAGGTGGCTACAATGAGCTATGTGACGT
CTGGGCCCTGGGCATCACTGCCATTGAGCTGGGCGAGCTGCAGCCCCCTCTGTTCCACCTGCACCCCATGAGGGC
CCTGATGCTCATGTCGAAGAGCAGCTTCCAGCCGCCCAAACTGAGAGATAAGACTCGCTGGACCCAGAATTTCCA
CCACTTTCTCAAACTGGCCCTGACCAAGAATCCTAAGAAGAGGCCGACAGCAGAGAAGCTCCTGCAGCACCCGTT
CACGACTCAGCAGCTCCCTCGGGCCCTCCTCACACAGCTGCTGGACAAAGCCAGTGACCCTCATCTGGGGACCCC
CTCCCCTGAGGACTGTGAGCTGGAGACCTATGACATGTTTCCAGACACCATTCACTCCCGGGGGCAGCACGGCCC
AGCCGAGAGGACCCCCTCGGAGATCCAGTTTCACCAGGTGAAATTTGGCGCCCCACGCAGGAAGGAAACTGACCC
ACTGAATGAGCCGTGGGAGGAAGAGTGGACACTACTGGGAAAGGAAGAGTTGAGTGGGAGCCTGCTGCAGTCGGT
CCAGGAGGCCCTGGAGGAAAGGAGTCTGACTATTCGGTCAGCCTCAGAATTCCAGGAGCTGGACTCCCCAGACGA
TACCATGGGAACCATCAAGCGGGCCCCGTTCCTAGGGCCACTCCCCACTGACCCTCCAGCAGAGGAGCCTCTGTC
CAGTCCCCCAGGAACCCTGCCCCCACCTCCTTCAGGCCCCAACAGCTCCCCACTGCTGCCCACGGCCTGGGCCAC
CATGAAGCAGCGGGAGGATCCTGAGAGGTCATCCTGCCACGGGCTCCCCCCAACTCCCAAGGTGCATATGGGCGC
CTGCTTCTCCAAGGTCTTCAATGGCTGCCCCCTGCGGATCCACGCTGCTGTCACCTGGATTCACCCTGTTACTCG
GGACCAGTTCCTGGTGGTAGGGGCCGAGGAAGGCATCTACACACTCAACCTGCATGAACTGCATGAGGATACGCT
GGAGAAGCTGATTTCACATCGCTGCTCCTGGCTCTACTGCGTGAACAACGTGCTGCTGTCACTCTCAGGGAAATC
CACGCACATCTGGGCCCATGACCTCCCAGGCCTGTTTGAGCAGCGGAGGCTACAGCAACAGGTTCCCCTCTCCAT
CCCCACCAACCGCCTCACCCAGCGCATCATCCCCAGGCGCTTTGCTCTGTCCACCAAGATTCCTGACACCAAAGG
CTGCTTGCAGTGTCGTGTGGTGCGGAACCCCTACACGGGTGCCACCTTCCTGCTGGCCGCCCTGCCCACCAGCCT
GCTCCTGCTGCAGTGGTATGAGCCGCTGCAGAAGTTTCTGCTGCTGAAGAACTTCTCCAGCCCTCTGCCCAGCCC
AGCTGGGATGCTGGAGCCGCTGGTGCTGGATGGGAAGGAGCTGCCGCAGGTGTGTGTTGGGGCCGAGGGGCCTGA
GGGGCCCGGCTGCCGCGTCCTGTTCCATGTCCTGCCCCTGGAGGCTGGCCTGACGCCCGACATCCTCATCCCACC
TGAGGGGATCCCAGGCTCGGCCCAGCAGGTGATCCAGGTGGACAGGGACACAATCCTAGTCAGCTTTGAACGCTG
TGTGAGGATTGTCAACATGCAGGGCGAGCCCACGGCCACACTGGCACCTGAGCTGACCTTTGATTTCCCCATCGA
GACTGTGGTGTGCCTGCAGGACAGTGTGCTGGCCTTCTGGAGCCATGGGATGCAAGGCCGAAGCCTGGATACCAA
TGAGGTGACCCAGGAGATCACAGATGAAACAAGGATCTTCCGAGTGCTTGGGGCCCACAGAGACATCATCCTGGA
GAGCATTCCCACTGACAACCCAGAGGCGCACAGCAACCTCTACATCCTCACGGGCCACCAGAGCACCTAC**TAA**GA
GCAGCGGGCCTGTCCAGGGGCTCCCCGCCCCACCCCACGCCTTAGCTGCAGGCCCTTTTGGGCAAAGGGGCCCAT
CCTAGACCAGAGGAGCCCAGGCCCTGGCCCTGCTGGGGCTGAAGGTCAGAAGTAATCCTGAGAAATGTTTCAGGC
CTGGGGAGGGAGGGGAGCCCCCGACGCCTCTGCAATAACTGGACCAGGGGGAGCTGCTGTCACTCCCCCATCCCC
GAGGCAGCCCAGTCCCTAGTGCCCAAGGCAGGGACCCTGGGCCTGGGCCATCCATTCCATTTTGTTCCACATTTC
CTTTCTACTCTTTCTGCCAAGAGCCTGCCCCTGCATTTGTCCTGGGAAACACGGTATTTAAGAGAGAACTATATT
GGTATTAAAGCTGGTTTGTTTT

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FIGURE 3270

TATATTTATGTATATGCACATACACACAAAATTAGGCGGGAGTGGTGGCGCACGCCTGTGATCACAGCTACTCGG
GAGGCTGAGGCACGAGAATCGCTTGAGCCCGTGAAGTCGAGGCTGCAGTGAGCCCAGATCGAGCCACTGCATTCC
AGCCTGGGCGAAAGAGAAAGACCGTGTCTCAAAACAAACAAACAAAAGCTACTCTTAGCACGTGTTAGAGTATCT
CGCGGGCGGAAGTGGGAAACGAGTGCTGCACACAGACAACCTGATCTTTTTCCTCATAACTTGCCGACCGACCCG
TGACAGCAAAACCGGCAGAAGCTCGGCGACCTCCCACCCCGAGTCTGCAGGTAGCCGCCGCCCACCGCCCGCCGT
C**ATG**GGGCTGAAGGCCGCCCAGAAGACGCTGTTCCCGCTGCGCTCCATCGACGACGTGGTGCGCCTGTTTGCTGC
CGAGCTGGGCCGAGAGGAGCCGGACCTGGTGCTCCTTTCCTTGGTGCTGGGCTTCGTGGAGCATTTTCTGGCTGT
CAACCGCGTCATCCCTACCAACGTTCCCGAGCTCACCTTCCAGCCCAGCCCCGCCCCCGACCCGCCTGGCGGCCT
CACCTACTTTCCCGTGGCCGACCTGTCTATCATCGCCGCCCTCTATGCCCGCTTCACCGCCCAGATCCGAGGCGC
CGTCGACCTGTCCCTCTATCCTCGAGAAGGGGGTGTCTCCAGCCGTGAGCTGGTGAAGAAGGTCTCCGATGTCAT
ATGGAACAGCCTCAGCCGCTCCTACTTCAAGGATCGGGCCCACATCCAGTCCCTCTTCAGCTTCATCACAGGTTG
GAGCCCAGTAGGCACCAAATTGGACAGCTCCGGTGTGGCCTTTGCTGTGGTTGGGGCCTGCCAGGCCCTGGGTCT
CCAGGATGTCCACCTCGCCCTGTCTGAGGATCATGCCTGGGTAGTGTTTGGGCCCAATGGGGAGCAGACAGCTGA
GGTCACCTGGCACGGCAAGGGCAACGAGGACCGCAGGGGCCAGACAGTCAATGCCGGTGTGGCTGAGCGGAGCTG
GCTGTACCTGAAAGGATCATACATGCGCTGTGACCGCAAGATGGAGGTGGCGTTCATGGTGTGTGCCATCAACCC
TTCCATTGACCTGCACACCGACTCGCTGGAGCTTCTGCAGCTGCAGCAGAAGCTGCTCTGGCTGCTCTATGACCT
GGGACATCTGGAAAGGTACCCCATGGCCTTAGGGAACCTGGCAGATCTAGAGGAGCTGGAGCCCACCCCTGGCCG
GCCAGACCCACTCACCCTCTACCACAAGGGCATTGCCTCAGCCAAGACCTACTATCGGGATGAACACATCTACCC
CTACATGTACCTGGCTGGCTACCACTGTCGCAACCGCAATGTGCGGGAAGCCCTGCAGGCCTGGGCGGACACGGC
CACTGTCATCCAGGACTACAACTACTGCCGGGAAGACGAGGAGATCTACAAGGAGTTCTTTGAAGTAGCCAATGA
TGTCATCCCCAACCTGCTGAAGGAGGCAGCCAGCTTGCTGGAGGCGGGCGAGGAGCGGCCGGGGGAGCAAAGCCA
GGGCACCCAGAGCCAAGGTTCCGCCCTCCAGGACCCTGAGTGCTTCGCCCACCTGCTGCGATTCTACGACGGCAT
CTGCAAATGGGAGGAGGGCAGTCCCACGCCTGTGCTGCACGTGGGCTGGGCCACCTTTCTTGTGCAGTCCCTAGG
CCGTTTTGAGGGACAGGTGCGGCAGAAGGTGCGCATAGTGAGCCGAGAGGCCGAGGCGGCCGAGGCCGAGGAGCC
GTGGGGCGAGGAAGCCCGGGAAGGCCGGCGGCGGGGCCCACGGCGGGAGTCCAAGCCAGAGGAGCCCCCGCCGCC
CAAGAAGCCAGCACTGGACAAGGGCCTGGGCACCGGCCAGGGTGCAGTGTCAGGACCCCCCCGGAAGCCTCCTGG
GACTGTCGCTGGCACAGCCCGAGGCCCTGAAGGTGGCAGCACGGCTCAGGTGCCAGCACCCGCAGCATCACCACC
GCCGGAGGGTCCAGTGCTCACTTTCCAGAGTGAGAAGATGAAGGGCATGAAGGAGCTGCTGGTGGCCACCAAGAT
CAACTCGAGCGCCATCAAGCTGCAACTCACGGCACAGTCGCAAGTGCAGATGAAGAAGCAGAAAGTGTCCACCCC
TAGTGACTACACTCTGTCTTTCCTCAAGCGGCAGCGCAAAGGCCTC**TGA**ACTACTGGGGACTTCGGACCGCTTGT
GGGGACCCAGGCTCCGCCCTTAGTCCCCCAACTCTGAGCCCATGTTCTGCCCCCAGCCCAAAGGGGACAGGCCTC
ACCTCTACCCAAACCCTAGGTTCCCGGTCCCGAGTACAGTCTGTATCAAACCCACGATTTTCTCCAGCTCAGAAC
CCAGGGCTCTGCCCCAGTCGTTAGAATATAGGTCTCTTCTCCCAGAATCCCAGCCGGCCAATGGAAACCTCACGC
TGGGTCCTAATTACCAGTCTTTAAAGGCCCAGCCCCTAGAAACCCAAGCTCCTCCTCGGAACCGCTCACCTAGAG
CCAGACCAACGTTACTCAGGGCTCCTCCCAGCTTGTAGGAGCTGAGGTTTCACCCTTAACCCAAGGAGCACAGGT
CCCACCTCCAGCCCGGGAGCCTAGGACCACTCAGCCCCTAGGAGTATATTTCCGCACTTCAGAATTCCATATCTT
GCGAATCCAAGCTCCCTGCCCCAAATAACTTCAGTCCTGCTCCAGAATTTGGAAATCCTAGTTTCCTCTCCTTCG
TATCCCGAGTCTGGGACACAAAACTCCGCCCCCAGCCTATGAGCATCCTGAGCCCCGCCCTCTTCCTGACGAAAC
TGGCCCCGGATCAGAGCAGGACCTCCCTTCCGACCCTCTGGGAACCTCCCAGAGGTCCAGCCCATCTCGGAGCAT
CCCGGAGGAAATCTGCAGAGGGTTAGGAGTGGGTGACAAGAGCCTGATCTCTTCCTGTTTTGTACATAGATTTAT
TTTTCAGTTCCAAGAAAGATGAATACATTTTGTT

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FIGURE 3271

GGCACCAGTCGGAGGGGCGGGGCTGGGAGGGGCTCCTCCCTACCGCCCCCAATTCCGCCCTGCCCCCGCCGCGGC
GGCGCTAGCCGCCACTGAGGGACCGACCCTATAAAGGCCGCTCCGCGAGGGGTGCGCAGCATTCGGCAGAGGGCG
CTTCGACGGGCTGGGCTGTGCGCCTGCGCAGTGTGGGTCGCTCCCGATTCCCTGCCCCGGCCGGCCCCGCCTCGG
CTCCGCACCCTCGCCCCGCTCTCAGCCGCCGCTCTGCCCCGCAGCAGCCAGCCCCGTGTCCGGCAGT**ATG**TTCAG
CTGGGTCAGCAAGGATGCCCGCCGCAAGAAGGAGCCGGAGCTCTTCCAGACGGTGGCTGAGGGGCTGCGGCAGCT
GTACGCGCAGAAGCTGCTACCCCTGGAGGAGCACTACCGCTTCCACGAGTTCCACTCGCCCGCGCTGGAGGACGC
TGACTTCGACAACAAGCCTATGGTGCTCCTCGTGGGGCAGTACAGCACGGGCAAGACCACCTTCATCCGACACCT
GATCGAGCAGGACTTCCCGGGGATGCGCATCGGGCCCGAGCCCACCACCGACTCCTTCATCGCCGTCATGCACGG
CCCCACTGAGGGCGTGGTGCCGGGCAACGCGCTCGTGGTGGACCCGCGGCGCCCCTTCCGCAAGCTCAACGCGTT
TGGCAACGCTTTCCTCAACAGGTTCATGTGTGCCCAGCTGCCCAACCCCGTCCTGGACAGCATCAGCATCATCGA
CACCCCCGGGATCCTGTCTGGAGAGAAGCAGCGGATCAGCAGAGGCTATGACTTTGCAGCCGTCCTGGAGTGGTT
CGCGGAGCGTGTGGACCGCATCATCCTGCTCTTCGACGCCCACAAGCTGGACATCTCCGATGAGTTCTCGGAAGT
GATCAAGGCTCTGAAGAACCATGAGGACAAGATCCGCGTGGTGCTGAACAAGGCAGACCAGATCGAGACGCAGCA
GCTGATGCGGGTGTACGGGGCCCTCATGTGGTCCCTGGGCAAGATCATCAACACCCCCGAGGTGGTCAGGGTCTA
CATCGGCTCCTTCTGGTCCCACCCGCTCCTCATCCCCGACAACCGCAAGCTCTTTGAGGCCGAGGAGCAGGACCT
CTTCAAGGACATCCAGTCACTGCCCCGAAACGCCGCCCTCAGGAAGCTCAATGACCTGATCAAGCGGGCACGGCT
GGCCAAGGTTCACGCCTACATCATCAGCTCCCTCAAGAAAGAGATGCCCAATGTCTTTGGTAAAGAGAGCAAAAA
GAAAGAGCTGGTGAACAACCTCGGAGAGATCTACCAGAAGATTGAGCGCGAGCACCAGATCTCCCCTGGGGACTT
CCCGAGCCTCCGCAAGATGCAGGAACTCCTGCAGACCCAGGACTTCAGCAAGTTCCAGGCGCTGAAGCCCAAGCT
GCTGGACACGGTGGATGACATGCTGGCCAACGACATCGCGCGGCTGATGGTGATGGTGCGGCAGGAGGAGTCCCT
GATGCCTTCCCAGGTGGTCAAGGGCGGCGCCTTTGACGGCACCATGAACGGGCCGTTCGGGCACGGCTACGGCGA
GGGGGCCGGCGAGGGCATCGACGACGTGGAGTGGGTGGTGGGCAAGGACAAGCCCACCTACGACGAGATCTTCTA
CACGCTGTCCCCTGTCAACGGCAAGATCACGGGCGCCAACGCCAAGAAGGAGATGGTGAAGTCCAAGCTCCCCAA
CACCGTGCTAGGGAAGATCTGGAAGCTGGCCGACGTGGACAAGGACGGGCTGCTGGACGACGAGGAGTTCGCGCT
GGCCAACCACCTCATCAAGGTCAAGCTGGAGGGCCACGAGCTGCCTGCCGACCTGCCCCCGCACCTGGTGCCGCC
CTCCTCTGCCTGGGGCCAT**TGA**GCCCAGCCTCCAGGGCCCGGGCGCGTTTGCAGGCCAGTGGCCACTGTCCGGGC
TGTGATGGCACCAAGGCAGGTGGAGCACCAGGTACCACACAGCTGGGCTTCCCACCAGGCTTTCCCGCGGGGGTC
TCAGGGAGCTTCTCCCCAGCGCTGCTCGGAGTCTGCAGGAACTGGCCTTGTTCTCCTTAGCCCGTCACTCCATAC
AGTATTAGGTGAGGATGGATGCGGGCGCTGTCCTTGCCGGGAAGTCACTGTTGAAGTTGCAGTGGCTTGTTCACA
CCTGTGGGAAGAGAAGTGAAGACTTTCTCCTTGCATTAAAAAGTCTGAACTGTG

FIGURE 3272A

ACGGGGATCGCCGGCGGGCGGCAAGCGGAGGCGGCCCAGGCCCGGCGGTCTCCGAG**ATG**TCACGATGGCTGTGGC
CATGGTCAAACTGTGTGAAAGAGCGGGTCTGCCGCTACTTGCTGCACCACTACTTAGGTCACTTCTTCCAAGAGC
ACCTCAGCCTGGACCAGCTCAGCCTCGATCTGTACAAGGGCAGCGTTGCCCTGCGAGACATCCACCTGGAAATCT
GGTCTGTGAACGAGGTGCTGGAGTCAATGGAGTCACCGCTGGAGCTGGTGGAAGGCTTCGTGGGCTCCATCGAGG
TGGCCGTGCCCTGGGCTGCTCTGCTCACCGACCACTGCACAGTGCGCGTGTCCGGCCTCCAGCTCACCTTGCAGC
CCCGCCGGGGTCCAGCGCCAGGGGCTGCCGACTCACAGAGCTGGGCCTCATGCATGACCACAAGCCTGCAGCTGG
CCCAGGAGTGTCTGCGGGATGGGCTACCGGAGCCCTCTGAGCCACCACAGCCCCTGGAGGGGCTGGAGATGTTTG
CCCAGACCATTGAGACTGTGCTTCGGAGGATCAAAGTGACCTTCCTGGACACTGTCGTGAGGGTGGAGCACTCTC
CGGGTGATGGGGAACGTGGTGTGGCCGTCGAGGTCCGTGTGCAGAGACTGGAGTACTGTGATGAGGCAGTGCGGG
ACCCAAGCCAGGCGCCGCCGGTGGACGTGCATCAGCCGCCTGCCTTCCTGCACAAGCTGCTGCAGCTGGCAGGGG
TCCGCCTGCACTACGAGGAGCTCCCGGCACAGGAAGAGCCTCCAGAGCCCCCCTTGCAGATCGGCAGCTGCTCAG
GGTACATGGAGCTGATGGTGAAGTTGAAGCAAAATGAGGCCTTCCCTGGCCCCAAGTTGGAGGTGGCGGGACAGC
TGGGCTCCCTGCACCTGCTCCTGACCCCGAGGCAGCTCCAGCAACTTCAGGAACTGCTCAGCGCCGTGAGCCTTA
CAGACCACGAGGGCCTGGCTGACAAGCTGAACAAGAGCCGCCCGCTAGGTGCCGAAGACCTGTGGCTGATTGAGC
AGGACCTGAACCAGCAGCTGCAGGCAGGGGCAGTGGCTGAGCCCCTCAGCCCAGACCCCCTTACCAACCCCCTTC
TCAACCTGGATAACACTGACCTCTTCTTCTCCATGGCTGGCCTCACAAGCAGTGTGGCCTCAGCCCTCTCTGAGC
TCTCCCTCTCCGATGTAGACCTGGCCTCCTCTGTGCGCAGCGACATGGCCTCCCGCCGGCTCTCTGCCCAGGCCC
ACCCAGCTGGCAAGATGGCCCCCAACCCCCTCCTGGACACCATGCGCCCTGACTCGCTGCTGAAGATGACCTTGG
GGGGTGTGACCCTGACCTTGCTTCAGACGTCTGCCCCATCTTCCGGACCACCTGACCTCGCCACGCACTTTTTCA
CCGAGTTTGATGCCACCAAGGATGGGCCCTTCGGTTCCCGAGACTTCCATCACCTTCGACCACGCTTCCAGAGGG
CCTGTCCCTGTAGCCATGTTCGGCTAACGGGCACAGCCGTGCAGCTGTCCTGGGAGCTGCGGACGGGCAGTCGGG
GCCGGCGGACAACCAGCATGGAAGTGCACTTCGGGCAGCTGGAGGTGCTGGAGTGTCTGTGGCCCCGGGGCACCT
CTGAGCCTGAGTACACGGAGATCCTGACCTTTCCTGGTACGCTGGGCTCCCAGGCCTCAGCTCGGCCCTGCGCCC
ATCTGCGCCACACACAGATCCTGCGCCGTGTGCCTAAGAGCCGACCCCGGCGCTCAGTTGCCTGCCATTGCCACT
CAGAACTGGCCCTGGACCTGGCCAACTTCCAGGCGGACGTGGAGCTGGGGGCCCTGGACCGGCTGGCCGCCCTAC
TGCGCCTGGCCACCGTACCTGCTGAGCCTCCAGCCGGCCTGCTGACAGAGCCCCTGCCGGCGATGGAGCAGCAGA
CGGTATTTCGGCTCTCTGCACCCCGGGCCACGCTGCGGCTGCGCTTCCCCATTGCCGACCTGCGGCCTGAGCCGG
ACCCCTGGGCGGGCCAGGCCGTGCGGGCTGAGCAGCTTCGGCTGGAGCTGAGTGAGCCCCAGTTCCGGTCAGAGC
TTAGCAGTGGGCCTGGTCCCCCAGTCCCCACCCACCTGGAACTCACCTGCTCCGACCTACATGGTATCTATGAAG
ATGGAGGGAAGCCACCTGTCCCTTGCCTGCGTGTCTCCAAAGCCCTGGACCCCAAGAGCACTGGGCGCAAGTACT
TCCTGCCCCAGGTAGTGGTGACTGTGAACCCCCAGTCCAGCAGCACACAGTGGGAGGTGGCCCCGGAGAAGGGAG
AGGAACTGGAGCTGTCAGTGGAGAGTCCCTGTGAGCTGCGGGAACCTGAGCCCTCGCCCTTCTCCTCTAAGAGGA
CCATGTATGAGACAGAGGAGATGGTGATCCCTGGAGACCCTGAGGAGATGAGGACGTTCCAGAGCCGGACCCTGG
CACTGTCCCGCTGCAGCCTGGAAGTGATCCTGCCCAGTGTCCACATCTTTCTGCCCAGCAAGGAGGTCTACGAGA
GCATCTACAACAGGATCAACAACGACCTGCTCATGTGGGAGCCTGCAGATCTGCTTCCCACCCCCGACCCCGCCG
CCCAGCCCTCGGGCTTCCCCGGCCCCTCAGGCTTCTGGCACGACAGCTTTAAGATGTGCAAGTCAGCCTTCAAGC
TGGCCAACTGCTTTGATCTCACCCCAGACTCGGACTCGGATGACGAGGATGCCCACTTCTTCTCAGTGGGGGCAT
CAGGTGGCCCACAGGCCGCTGCCCCTGAGGCCCCAAGTCTTCACTTGCAGAGCACCTTCTCTACACTGGTGACAG
TGCTGAAGGGGCGGATCACAGCCCTCTGTGAGACCAAGGATGAGGGTGGGAAGCGGCTGGAGGCTGTGCACGGGG
AGCTGGTGCTGGACATGGAGCACGGTACCCTCTTCAGCGTCTCCCAGTACTGTGGCCAGCCAGGACTTGGCTACT
TCTGTCTGGAAGCTGAAAAGGCAACACTCTACCACCGAGCGGCCGTGGATGACTACCCGCTGCCCAGTCACCTGG
ACCTTCCCAGTTTCGCTCCCCCGGCTCAGCTGGCCCCAACCATCTACCCATCGGAGGAAGGGGTGACCGAGCGGG
GAGCCTCGGGCCGCAAGGGCCAGGGCCGGGGACCCCACATGTTGTCCACTGCTGTGCGCATCCACCTGGACCCCC
ACAAGAATGTGAAGGAGTTCCTGGTGACACTGCGGTTGCACAAAGCCACCTTGCGCCACTACATGGCCCTGCCCG
AGCAGAGCTGGCATTCCCAGTTGTTGGAGTTCCTAGACGTGCTGGATGACCCTGTGCTGGGCTACCTGCCCCCGA
CGGTCATCACCATCCTGCACACACACCTGTTCTCCTGCTCTGTGGACTATAGGCCACTCTACCTCCCAGTGCGTG
TCCTCATCACCGCGGAGACCTTCACTCTCTCCAGCAACATCATCATGGACACCTCCACCTTCCTGCTCAGGTTCA
TCCTCGATGACTCCGCCTTGTACCTGTCCGACAAGTGTGAGGTGGAGACCCTGGACCTGCGGCGAGATTATGTCT

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FIGURE 3272B

GTGTTTTGGATGTTGACCTCTTGGAACTTGTGATTAAAACCTGGAAAGGGAGCACCGAGGGCAAACTGAGCCAGC
CACTATTCGAGCTGCGCTGCTCCAACAATGTGGTACACGTGCACAGCTGTGCCGACTCCTGTGCCCTGCTGGTCA
ACCTGCTCCAGTACGTAATGAGCACAGGCGATCTGCACCCCCCACCCCGGCCCCCCAGCCCCACGGAGATCGCCG
GCCAGAAGCTCTCGGAGAGTCCTGCCTCTCTGCCCTCGTGCCCCCCAGTGGAGACGGCCCTCATCAACCAGCGTG
ACCTGGCCGACGCCCTCCTGGACACCGAGCGCAGCCTACGGGAGCTGGCCCAGCCTTCAGGTGGCCACCTCCCTC
AGGCGTCGCCCATCTCCGTCTACCTATTCCCAGGTGAACGGAGTGGGGCCCCACCCCCTTCACCACCTGTCGGGG
GCCCTGCTGGCAGCTTAGGGTCATGCTCAGAGGAGAAGGAAGATGAAAGGGAAGAGGAGGGCGATGGAGACACCC
TGGACAGTGATGAGTTCTGCATCCTTGATGCTCCCGGCCTGGGCATCCCGCCCCGAGATGGGGAGCCTGTGGTGA
CACAGCTGCATCCCGGCCCCATCGTTGTGAGGGACGGTTACTTCTCACGGCCGATCGGCAGCACGGACTTGCTGC
GGGCACCTGCCCATTTCCCAGTGCCCAGCACTCGGGTGGTGCTACGTGAGGTCTCCCTCGTCTGGCACCTCTATG
GGGGCCGAGACTTTGGCCCCCACCCCGGCCACAGGGCAAGAACTGGCCTCTCAGGTCCCAGGAGCTCCCCTTCCC
GCTGCTCTGGCCCCAACCGGCCCCAGAACTCATGGCGCACGCAGGGGGGCAGCGGGCGGCAGCACCATGTCCTCA
TGGAGATCCAGCTGAGCAAGGTAAGCTTCCAGCACGAGGTGTACCCAGCGGAGCCAGCCACAGGCCCTGCGGCCC
CCAGCCAGGAGCTGGAGGAGCGACCGCTGTCCCGTCAGGTGTTCATCGTGCAGGAGCTGGAGGTCCGAGACCGGC
TCGCCTCCTCCCAGATCAACAAGTTCCTGTACCTACACACGAGTGAGCGGATGCCGCGACGTGCCCACTCTAACA
TGCTCACCATCAAAGCGCTGCATGTGGCCCCCACTACCAACCTGGGTGGGCCTGAGTGCTGTCTCCGCGTCTCGC
TGATGCCCCTGCGGCTCAATGTGGACCAGGATGCCCTCTTCTTCCTCAAGGACTTCTTCACTAGTCTGGTGGCCG
GCATCAACCCCGTGGTCCCAGGGGAGACCTCCGCTGAGGCTCGCCCCGAGACTCGAGCCCAGCCCAGCAGCCCCC
TGGAAGGGCAGGCCGAAGGCGTAGAGACCACTGGTTCGCAGGAGGCCCCAGGAGGTGGACACAGCCCCTCCCCTC
CTGACCAGCAGCCCATCTACTTCAGAGAGTTCCGCTTCACGTCTGAGGTCCCCATCTGGCTGGATTACCATGGCA
AGCACGTCACGATGGACCAGGTGGGCACTTTTGCTGGCCTCCTCATCGGCCTGGCCCAACTCAACTGCTCCGAGC
TGAAGCTAAAGCGGCTCTGTTGCAGGCACGGGCTCCTGGGTGTGGACAAGGTGCTGGGCTATGCCCTCAACGAGT
GGCTGCAGGACATCCGCAAGAACCAGCTGCCCGGCCTGCTGGGAGGCGTGGGCCCCATGCACTCGGTTGTCCAGC
TCTTCCAAGGGTTCCGGGACCTGCTGTGGCTGCCCATTGAGCAGTACAGGAAGGATGGCCGCCTCATGCGGGGGC
TGCAGCGAGGGGCTGCCTCCTTTGGCTCATCCACAGCCTCTGCCGCCCTGGAACTCAGCAACCGGTTGGTACAGG
CTATCCAGGCCACAGCTGAGACCGTGTATGACATCCTGTCCCCGGCAGCCCCCGTCTCCCGCTCCCTGCAGGATA
AGCGCTCTGCGCGGAGGCTGCGCAGGGGCCAGCAGCCTGCCGACCTGCGGGAGGGTGTGGCCAAGGCCTACGACA
CAGTGCGAGAGGGCATCTTGGATACAGCTCAGACCATCTGTGACGTGGCATCGCGGGGCCATGAGCAGAAGGGGC
TGACGGGCGCCGTGGGGGGCGTGATCCGCCAGCTGCCCCCGACTGTGGTGAAGCCGCTCATCCTGGCCACGGAGG
CCACGTCCAGCCTGCTCGGGGGCATGCGCAACCAGATTGTCCCCGACGCCCACAAGGACCACGCCCTCAAGTGGC
GCTCGGACAGTGCCCAAGACTGAGCCTGGGGTGCCCGGCACCCAGAGGGTGCTGCCCACCATGCTCCTGAGCCTC
CCAAGAGCTGCAGCCCACGGGCCCGGCCCGGCCTGGCCCTTCAGGGGATGGCCACTGTGAAGGACGCCTTCCCAG
CCTGCCCGTTGCCAATCTGCTGTGAGAGGGGGGCCTCCCTGCCTTGGGGCCTTAGCCCTGGCTCTGCACTTTTCC
TCCGGGGAGAAAGGACACTGCCCCTCCCCCGACCTGGGCCCACACTGCTGCCTTCTCCCAGGACGGAGGCTTTTG
GACCCTCGGACCCCATCCCACTCAGCCAAGTGTCTTTCTGTGTCTGGGGGGAGGAGGGGATGATATCCGTGTGGT
TCGATGTATTATTTTTAAGCTCCGTGAGTGCGTGGGTCAGTGTCTGCATGAAGTGGAATAAACTGCCCACCGCC

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FIGURE 3273

AAGGAGAGAGGGAGGGCGGAGGGCGGAGGGGCGGCGGGAGGAGGGCGGGGAGGAGCGCTCTTCCTGGTTGGGCCC
TGCCCTGAGCTGCCACCGGGAAGCCAGCCTCAGGGACTGCAGCGACCCCCAAACACCCCTCCCCCAGGATGTCGG
AGGAGATCATCACGCCGGTGTACTGCACTGGGGTGTCAGCCCAAGTGCAGAAGCAGCGGGCCAGGGAGCTGGGCC
TGGGCCGCCATGAGAATGCCATCAAGTACCTGGGCCAGGATTATGAGCAGCTGCGGGTGCGATGCCTGCAGAGTG
GGACCCTCTTCCGTGATGAGGCCTTCCCCCCGGTACCCCAGAGCCTGGGTTACAAGGACCTGGGTCCCAATTCCT
CCAAGACCTATGGCATCAAGTGGAAGCGTCCCACGGAACTGCTGTCAAACCCCCAGTTCATTGTGGATGGAGCTA
CCCGCACAGACATCTGCCAGGGAGCACTGGGGGACTGCTGGCTCTTGGCGGCCATCGCCTCCCTCACTCTCAACG
ACACCCTCCTGCACCGAGTGGTTCCGCACGGCCAGAGCTTCCAGAATGGCTATGCCGGCATCTTCCATTTCCAGC
TGTGGCAATTTGGGGAGTGGGTGGACGTGGTCGTGGATGACCTGCTGCCCATCAAGGACGGGAAGCTAGTGTTCG
TGCACTCTGCCGAAGGCAACGAGTTCTGGAGCGCCCTGCTTGAGAAGGCCTATGCCAAGGTAAATGGCAGCTACG
AGGCCCTGTCAGGGGGCAGCACCTCAGAGGGCTTTGAGGACTTCACAGGCGGGGTTACCGAGTGGTACGAGTTGC
GCAAGGCTCCCAGTGACCTCTACCAGATCATCCTCAAGGCGCTGGAGCGGGGCTCCTGCTGGGCTGCTCCATAGA
CATCTCCAGCGTTCTAGACATGGAGGCCATCACTTTCAAGAAGTTGGTGAAGGGCCATGCCTACTCTGTGACCGG
GGCCAAGCAGGTGAACTACCGAGGCCAGGTGGTGAGCCTGATCCGGATGCGGAACCCCTGGGGCGAGGTGGAGTG
GACGGGAGCCTGGAGCGACAGCTCCTCAGAGTGGAACAACGTGGACCCATATGAACGGGACCAGCTCCGGGTCAA
GATGGAGGACGGGGAGTTCTGGATGTCATTCCGAGACTTCATGCGGGAGTTCACCCGCCTGGAGATCTGCAACCT
CACACCCGACGCCCTCAAGAGCCGGACCATCCGCAAATGGAACACCACACTCTACGAAGGCACCTGGCGGCGGGG
GAGCACCGCGGGGGGCTGCCGAAACTACCCAGCCACCTTCTGGGTGAACCCTCAGTTCAAGATCCGGCTGG**ATG**A
GACGGATGACCCGGACGACTACGGGGACCGCGAGTCAGGCTGCAGCTTCGTGCTCGCCCTTATGCAGAAGCACCG
TCGCCGCGAGGCCGCTTCGGCCGCGACATGGAGACTATTGGCTTCGCGGTCTACGAGGTCCCTCCGGAGCTGGTC
GCGAGCCGGCCGTACACTTGAAGCGTGACTTCTTCCTGGCCAATGCGTCTCGGGCGCGCTCAGAGCAGTTCATCA
ACCTGCGAGAGGTCAGCACCCGCTTCCGCCTGCCACCCGGGGAGTATGTGGTGGTGCCCTCCACCTTCGAGCCCA
ACAAGGAGGGCGACTTCGTGCTGCGCTTCTTCTCAGAGAAGAGTGCTGGGACTGTGGAGCTGGATGACCAGATCC
AGGCCAATCTCCCCGATGAGCAAGTGCTCTCAGAAGAGGAGATTGACGAGAACTTCAAGGCCCTCTTCAGGCAGC
TGGCAGGGGAGGACATGGAGATCAGCGTGAAGGAGTTGCGGACAATCCTCAATAGGATCATCAGCAAACACAAAG
ACCTGCGGACCAAGGGCTTCAGCCTAGAGTCGTGCCGCAGCATGGTGAACCTCATGGATCGTGATGGCAATGGGA
AGCTGGGCCTGGTGGAGTTCAACATCCTGTGGAACCGCATCCGGAATTACCTGTCCATCTTCCGGAAGTTTGACC
TGGACAAGTCGGGCAGCATGAGTGCCTACGAGATGCGGATGGCCATTGAGTCGGCAGGCTTCAAGCTCAACAAGA
AGCTGTACGAGCTCATCATCACCCGCTACTCGGAGCCCGACCTGGCGGTCGACTTTGACAATTTCGTTTGCTGCC
TGGTGCGGCTAGAGACCATGTTCCGATTTTTCAAAACTCTGGACACAGATCTGGATGGAGTTGTGACCTTTGACT
TGTTTAAGTGGTTGCAGCTGACCATGTTTGCA**TGA**GGCAGGGACTCGGTCCCCCTTGCCGTGCTCCCCTCCCTCC
TCGTCTGCCAAGCCTCGCCTCCTACCACACCACACCAGGCCACCCCAGCTGCAAGTGCCTTCCTTGGAGCAGAGA
GGCAGCCTCGTCCTCCTGTCCCCTCTCCTCCCAGCCACCATCGTTCATCTGCTCCGGGCAGAACTGTGTGGCCCC
TGCCTGTGCCAGCCATGGGCTCGGGATGGACTCCCTGGGCCCCACCCATTGCCAAGCCAGGAAGGCAGCTTTCGC
TTGTTCCTGCCTCGGGACAGCCCCGGGTTTCCCCAGCATCCTGATGTGTCCCCTCTCCCCACTTCAGAGGCCACC
CACTCAGCACCACCGGCCTGGCCTTGCCTGCAGACTATAAACTATAACCACTAGCTCGACACAGTCTGCAGTCCA
GGCGTGTGGAGCCGCCTCCCGGCTCGGGGAGGCCCCGGGGCTGGGAACGCCTGTGCCTTCCTGCGCCGAAGCCAA
CGCCCCCTCTGTCCTTCCCTGGCCCTGCTGCCGACCAGGAGCTGCCCAGCCTGTGGGCGGTCGGCCTTCCCTCCT
TCGCTCCTTTTTTATATTAGTGATTTTAAAGGGGACTCTTCAGGGACTTGTGTACTGGTTATGGGGGTGCCAGAG
GCACTAGGCTTGGGGTGGGGAGGTCCCGTGTTCCATATAGAGGAACCCCAAATAATAAAAGGCCCCACATCTGTC
TGTG

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FIGURE 3274

GTTCCGGTTCGCAGGGGGTGGGGAGTGTTGTTAACCGGAGGGGCAGCCGCAGTCGCGCGGATTGAGCGGGCTCGC
GGCGCTGGGTTCCTGGTCTCCGGGCCAGGGCA**ATG**TTCCGCACGGCAGTGATGATGGCGGCCAGCCTGGCGCTGA
CCGGGGCTGTGGTGGCTCACGCCTACTACCTCAAACACCAGTTCTACCCCACTGTGGTGTACCTGACCAAGTCCA
GCCCCAGCATGGCAGTCCTGTACATCCAGGCCTTTGTCCTTGTCTTCCTTCTGGGCAAGGTGATGGGCAAGGTGT
TCTTTGGGCAACTGAGGGCAGCAGAGATGGAGCACCTTCTGGAACGTTCCTGGTACGCCGTCACAGAGACTTGTC
TGGCCTTCACCGTTTTTCGGGATGACTTCAGCCCCCGCTTTGTTGCACTCTTCACTCTTCTTCTCTTCCTCAAAT
GTTTCCACTGGCTGGCTGAGGACCGTGTGGACTTTATGGAACGCAGCCCCAACATCTCCTGGCTCTTTCACTGCC
GCATTGTCTCTCTTATGTTCCTCCTGGGCATCCTGGACTTCCTCTTCGTCAGCCACGCCTATCACAGCATCCTGA
CCCGTGGGGCCTCTGTGCAGCTGGTGTTTGGCTTTGAGTATGCCATCCTGATGACGATGGTGCTCACCATCTTCA
TCAAGTATGTGCTGCACTCCGTGGACCTCCAGAGTGAGAACCCCTGGGACAACAAGGCTGTGTACATGCTCTACA
CAGAGCTGTTTACAGGCTTCATCAAGGTTCTGCTGTACATGGCCTTCATGACCATCATGATCAAGGTGCACACCT
TCCCACTCTTTGCCATCCGGCCCATGTACCTGGCCATGAGACAGTTCAAGAAAGCTGTGACAGATGCCATCATGT
CTCGCCGAGCCATCCGCAACATGAACACCCTGTATCCAGATGCCACCCCAGAGGAGCTCCAGGCAATGGACAATG
TCTGCATCATCTGCCGAGAAGAGATGGTGACTGGTGCCAAGAGACTGCCCTGCAACCACATTTTCCATACCAGCT
GCCTGCGCTCCTGGTTCCAGCGGCAGCAGACCTGCCCCACCTGCCGTATGGATGTCCTTCGTGCATCGCTGCCAG
CGCAGTCACCACCACCCCCGGAGCCTGCGGATCAGGGGCCACCCCCTGCCCCCCACCCCCCACCACTCTTGCCTC
AGCCCCCCAACTTCCCCCAGGGCCTCCTGCCTCCTTTTCCTCCAGGCATGTTCCCACTGTGGCCCCCCATGGGCC
CCTTTCCACCTGTCCCGCCTCCCCCCAGCTCAGGAGAGGCTGTGGCTCCTCCATCCACCAGTGCAGCCCTTTCTC
GGCCCAGTGGAGCAGCTACAACCACAGCTGCTGGCACCAGTGCTACTGCTGCTTCTGCCACAGCATCTGGCCCAG
GCTCTGGCTCTGCCCCAGAGGCTGGCCCTGCCCCTGGTTTCCCCTTCCCTCCTCCCTGGATGGGTATGCCCCTGC
CTCCACCCTTTGCCTTCCCCCCAATGCCTGTGCCCCCTGCGGGCTTTGCTGGGCTGACCCCAGAGGAGCTACGAG
CTCTGGAGGGCCATGAGCGGCAGCACCTGGAGGCCCGGCTGCAGAGCCTGCGTAACATCCACACACTGCTGGACG
CCGCCATGCTGCAGATCAACCAGTACCTCACCGTGCTGGCCTCCTTGGGGCCCCCCCGGCCTGCCACTTCAGTCA
ACTCCACTGAGGAGACTGCCACTACAGTTGTTGCTGCTGCCTCCTCCACCAGCATCCCTAGCTCAGAGGCCACGA
CCCCAACCCCAGGAGCCTCCCCACCAGCCCCTGAAATGGAAAGGCCTCCAGCTCCTGAGTCAGTGGGCACAGAGG
AGATGCCTGAGGATGGAGAGCCCGATGCAGCAGAGCTCCGCCGGCGCCGCCTGCAGAAGCTGGAGTCTCCTGTTG
CCCAC**TGA**CACTGCCCCAGCCCAGCCCCAGCCTCTGCTCTTTTGAGCAGCCCTCGCTGGAACATGTCCTGCCACC
AAGTGCCAGCTCCCTCTCTGTCTGCACCAGGGAGTAGTACCCCCAGCTCTGAGAAAGAGGCGGCATCCCCTAGGC
CAAGTGGAAAGAGGCTGGGGTTCCCATTTGACTCCAGTCCCAGGCAGCCATGGGGATCTCGGGTCAGTTCCAGCC
TTCCTCTCCAACTCTTCAGCCCTGTGTTCTGCTGGGGCCATGAAGGCAGAAGGTTTAGCCTCTGAGAAGCCCTCT
TCTTCCCCCACCCCTTTCCAGGAGAAGGGGCTGCCCCTCCAAGCCCTACTTGTATGTGCGGAGTCACACTGCAGT
GCCGAACAGTATTAGCTCCCGTTCCCAAGTGTGGACTCCAGAGGGGCTGGAGGCAAGCTATGAACTTGCTCGCTG
GCCCACCCCTAAGACTGGTACCCATTTCCTTTTCTTACCCTGATCTCCCCAGAAGCCTCTTGTGGTGGTGGCTGT
GCCCCCTATGCCCTGTGGCATTTCTGCGTCTTACTGGCAACCACACAACTCAGGGAAAGGAATGCCTGGGAGTGG
GGGTGCAGGCGGGCAGCNNTGNGGGNCCNNGCNCCGCCCCTCCCCCCAGGCCCCTTTCCTCTGCAGCTTCTCAAG
TGAGACTGACCTGTCTCACCCAGCAGCCACTGCCCAGCCGCACTCCAGGCAAGGGCCAGTGCGCCTGCTCCTGAC
CACTGCAATCCCAGCGCCCAAGGAAGGCCACTTCTCAACTGGCAGAACTTCTGAAGTTTAGAATTGGAATTACTT
CCTTACTAGTGTCTTTTGGCTTAAATTTTGTCTTTTGAAGTTGAATGCTTAATCCCGGGAAAGAGGAACAGGAGT
GCCAGACTCCTGGTCTTTCCAGTTTAGAAAAGGCTCTGTGCCAAGGAGGGACCACAGGAGCTGGGACCTGCCTGC
CCCTGTCTTTTCCCCTTGGTTTTGTGTTACAAGAGTTGTTGGAGACAGTTTCAGATGATTATTTAATTTGTAAAT
ATTGTACAAATTTTAATAGCTTAAATTGTATATACAGCCAAATAAAAACTTGCATTAAC

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FIGURE 3275

GTAGCAGGTAAAG**ATG**GCAGCTACCATGTTCCGGGCTACGCTGCGGGGATGGAGAACCGGTGTCCAGCGGGGCTG
CGGGCTACGGCTGTTGAGCCAGACCCAGGGCCCTCCAGATTACCCCAGGTTTGTGGAGTCTGTGGATGAATATCA
GTTTGTGGAGCGCCTGTTACCGGCTACCAGGATCCCAGATCCCCCAAAGCATGAACATTATCCTACCCCTAGTGG
CTGGCAGCCTCCCAGAGACCCCCCACCCAACCTGCCTTACTTTGTACGACGCTCTCGGATGCACAACATCCCCGT
CTACAAGGACATCACGCATGGCAACCGGCAGATGACTGTGATCCGGAAAGTGGAAGGGGACATCTGGGCCCTGCA
GAAAGACGTGGAAGATTTTCTGAGCCCGCTGCTGGGGAAGACACCTGTCACCCAGGTCAATGAGGTGACAGGTAC
CCTACGGATCAAGGGCTACTTTGACCAGGAGCTTAAAGCCTGGCTCTTGGAGAAAGGCTTC**TGA**GGCCCAGCCGA
GCAGCCTGCTTGTCAGCATGCCCTGTGGATCAAGTCTAGGGGGCCTCAGGAGGAGGGAGGTGGGTGTTGGAGCCC
CTGAGACAGGGGATACAGAAACTAGGGCTAAAGGACTTTGGGGTCAGGCCTTGCTTGCATAAAGGAGAAAACAAC
TCTATGTACATGCTGGGGGAGAGTGCCTAATGTGGGAGACCAAATAGGGATCACCAGGCTAATGGGGGGCGTCAG
CAGCTTTCTCTCCCTCCTATCTTGGCCTGTTCTTTTTTGTTTTTTGAGACGGAGTCTCACTCTGTTGCCCAGGGT
GGAGTGCAGTGGCATGATCTTGGCTCACTGCAACTTCCACCTCTGGGATCAAGGGATTCTCCTGCCTCAGCCTCT
TGAGTAGCTGGGATTACAGGCGCCCACCACCACAGCCTGCTAATTTTTGTATTTTTAGTAGAGATGGGGTTTCAC
CATGTTGGCCAGGCTGGTCTCAAACTCCTGACTCGAAGTGATCCGCCCACCTTGGCCTCCCAAAGCGTTGGGATT
ATAGGCATGAGCCATGTGCCTGGTCCACCTTGGCCTGTTTTGTTTTTCTTTCCTTGGGCTCAGCAATTCAAATTC
TAGTTGTTATTTGGTGGAAGCAGTAGCCCAACCCCAGTTTAGGGGAAGGTAGCACAGGGCAGAGCCACTGGGCAC
TTTGTTTCCTTGGCCCTCCGAAGCTCACTGTTGCAAATACCCCCAAGCCTTTGCTCTAGGCCAGATCTTGTTTGG
TGCAGGTGATGGAGAACACAGATGACTCGGGCATGGGTCTTGGAGATCTTCTGTTCAAAGTACAGTGCTGGCACT
GGGGCACAGAGTGCCCACGTTAGCCCCGGGCTCTGATAGAGAGGTAGGAGGCACGTTCTTGGTCACTGTTCCATT
GCAGACCAGACTTGCTGGCCTGACCACAAGGGAGTGGCTGGGAACTCACAGCCAGCATAGGGACATCCCCCTGCA
GCCTTCTGACCTGCAATCAAGGCTGGGGAGGGGTTTGCAGGCAGGAATATGCTGACCTTTCACCCTGCCATCCCA
TCCCAACCCCAGCTCACTAGCCTTCATATATGCCTTATACTTGGAGTCACAGGGGCCAAAGGCCTGAGACCCCAC
CCTGCCCCCAAACTGGCTAAGACAGCTTTCAGTTCCTGACTCCCCAACTTGGTCTCTGCCCTGAAGCAGGGCACT
GAACTCTGGGCTGCTTCTCTGTGTGTAAAATGGGCACATCTTCCTAATCTGTTAATGGTCAGTGGTGTCCCCAAG
GATAGTGCTGGCTTCCATGGAAACCCTCACTCCTGGAGATTCCATTCCATTTTCAAGTGTACAGCCACAGCAAGG
AGCCCGACACTGATTTGATCGATTCTGTGACACAAACCCCACCAATTGTTAATGCAAGTTTTTATTTGGCTGTAT
ATACAATTTAAGCTATTAAAATTTGTACAATATTTACAAATTAAA

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FIGURE 3276

CAGTGACGTGACACGCAGCCCACGGTCTGTACTGACGCGCCCTCGCTTCTTCCTCTTTCTCGACTCCATCTTCGC
GGTAGCTGGGACCGCCGTTCAGTCGCCAAT**ATG**CAGCTCTTTGTCCGCGCCCAGGAGCTACACACCTTCGAGGTG
ACCGGCCAGGAAACGGTCGCCCAGATCAAGGCTCATGTAGCCTCACTGGAGGGCATTGCCCCGGAAGATCAAGTC
GTGCTCCTGGCAGGCGCGCCCCTGGAGGATGAGGCCACTCTGGGCCAGTGCGGGGTGGAGGCCCTGACTACCCTG
GAAGTAGCAGGCCGCATGCTTGGAGGTAAAGTCCATGGTTCCCTGGCCCGTGCTGGAAAAGTGAGAGGTCAGACT
CCTAAGGTGGCCAAACAGGAGAAGAAGAAGAAGAAGACAGGTCGGGCTAAGCGGCGGATGCAGTACAACCGGCGC
TTTGTCAACGTTGTGCCCACCTTTGGCAAGAAGAAGGGCCCCAATGCCAACTCT**TAA**GTCTTTTGTAATTCTGGC
TTTCTCTAATAAAAAAGCCACTTAGTTCAGTC

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FIGURE 3277

GTCCAGGCAGGTGCAGGCGCCGCGGGGCCGGATCCTCCGCGCGGCCGAGTCCATCTCCTGGGAAATGGGGCGGAC
AGTGTTTCCTTGACTGACTATTGTGAGCGCCCTCTCTCTCCGGCGGAGCGGAGACC**ATG**GCCCCCACTCAGGGCC
CCCGGGCCCCGCTGGAATTCGGAGGGCCCCTGGGCGCCGCGGCTCTGCTACTGCTGCTGCCCGCCACCATGTTCC
ACCTGCTCCTGGCGGCCCGTTCGGGCCCCGCGCGCCTGCTGGGTCCACCCGCGTCCCTGCCGGGGCTGGAGGTGC
TGTGGAGCCCACGGGCGCTGCTGCTGTGGCTCGCCTGGCTCGGCCTGCAGGCGGCGCTCTACCTACTGCCGGCGC
GCAAGGTGGCCGAGGGGCAGGAATTGAAGGACAAGAGTCGCCTGCGCTATCCTATTAACGGCTTCCAGGCCCTGG
TGCTGACAGCCCTGTTGGTGGGGCTGGGGATGTCAGCGGGGCTGCCTCTGGGGGCGCTCCCGGAAATGCTCCTGC
CCTTGGCGTTTGTCGCCACCCTCACCGCTTTCATCTTCAGCCTCTTTCTCTACATGAAGGCGCAGGTAGCCCCAG
TTTCGGCCCTGGCACCTGGGGGGAACTCAGGCAATCCGATTTACGACTTTTTTCTGGGACGAGAGCTCAACCCTC
GTATCTGTTTCTTCGACTTCAAATATTTCTGTGAACTGCGACCCGGCCTCATCGGCTGGGTCCTCATCAACCTGG
CCCTGTTGATGAAGGAGGCAGAGCTTCGAGGCAGTCCCTCACTGGCCATGTGGCTGGTCAATGGCTTCCAGTTGC
TCTACGTGGGTGATGCCCTCTGGCACGAGGAGGCCGTCCTCACCACCATGGATATCACACATGACGGGTTTGGCT
TCATGCTGGCGTTTGGGGACATGGCCTGGGTGCCCTTCACCTACAGCCTGCAGGCCCAGTTCCTGCTGCACCACC
CGCAGCCCCTGGGGGTTGCCCATGGCCTCTGTCATCTGCCTCATCAATGCTACTGGTTACTACATCTTCCGTGGGG
CGAATTCCCAGAAAAACACTTTCCGAAAGAATCCTTCTGACCCCAGAGTGGCTGGGCTTGAGACCATCTCTACAG
CCACAGGGCGGAAACTGCTGGTGTCTGGGTGGTGGGGTATGGTCCGCCATCCCAACTATCTTGGAGACCTCATCA
TGGCTCTGGCTTGGTCCTTGCCCTGCGGGGTGTCACACCTGCTGCCCTACTTCTACCTCCTCTACTTCACCGCGC
TGCTGGTGCACCGTGAGGCCCGGGATGAGCGGCAGTGCCTGCAGAAGTACGGCCTGGCCTGGCAGGAGTACTGCC
GGCGTGTGCCTTACCGCATCATGCCCTACATCTAC**TGA**AGCGGCTCCACCACCCCAGGTGGGGGCATGTGCCCAC
TCATCCACCAGCACACCCAGGACCAGGAGCCTCGACACACTTGGGACTCAAGGGCTTGCACCCCACCCAGCCCTG
AGGATGAACAACCTCAGAGAAGAGGTGGTTTAGAGCAAGGAAAAAAATGAAACCAGTGACC

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FIGURE 3278

GGAAGTGCCTCCTCCCCGTCCCCTTCCTTTCCAGCCTCACGCCCGTGGGCTGCAGTTGGAACG**ATG**GCGGCGGCA
GCTGCCGCCGGGCCTAGCCCGGGGTCTGGACCTGGGGACTCCCCAGAAGGGCCCGAGGGGGAGGCTCCGGAGCGT
CGGCGGAAGGCGCACGGGATGCTGAAGCTTTACTACGGCCTCTCGGAAGGGGAGGCGGCGGGACGCCCCGCGGGG
CCCGACCCCCTGGACCCGACTGATCTGAACGGGGCGCACTTCGACCCGGAAGTTTACCTAGACAAGCTGCGTAGA
GAGTGCCCTCTGGCCCAGTTGATGGACAGTGAGACGGACATGGTGCGGCAGATCCGGGCTCTAGACAGCGACATG
CAGACCCTGGTCTATGAGAACTACAACAAGTTCATCTCAGCCACAGACACCATCCGGAAGATGAAGAACGATTTC
CGGAAGATGGAGGATGAGATGGACCGGCTGGCCACCAACATGGCAGTGATCACCGACTTCAGCGCTCGCATCAGC
GCCACGCTGCAGGACCGCCACGAGCGCATCACCAAGCTGGCAGGTGGGCGCTGCCGGGCAGGGCCTGCAGTGGGC
CTTTCCTGGGGCTCTGGGGCTAACGTCACCCTCCGTCCCCCAGGGGTCCACGCGCTGCTGCGGAAGCTGCAGTTC
CTCTTTGAGCTGCCCTCGCGCCTCACCAAGTGCGTGGAACTGGGCGCCTATGGGCAGGCGGTGCGCTACCAGGGC
CGCGCGCAGGCCGTGCTGCAGCAGTACCAACACCTGCCCTCGTTCCGCGCCATCCAGGACGACTGCCAGGTCATC
ACGGCCCGCCTGGCCCAGCAGCTGCGGCAGCGCTTTAGGGAGGGCGGCTCAGGCGCCCCGGAGCAGGCAGAGTGC
GTGGAGCTGCTGCTGGCCCTGGGCGAGCCTGCGGAGGAGCTGTGCGAGGAGTTCCTGGCGCACGCCCGCGGCCGG
CTGGAGAAGGAGCTGAGAAACCTGGAGGCCGAGCTGGGGCCCTCACCTCCGGCTCCCGACGTGTTAGAGTTCACC
GACCATGGAGGCAGTGGCTTCGTGGGCGGCCTCTGCCAGGTGGCGGCGGCCTACCAGGAGCTGTTTGCGGCCCAG
GGCCCAGCAGGTGCCGAGAAGCTGGCGGCCTTCGCCCGGCAGCTGGGCAGCCGCTATTTTGCGCTGGTGGAGCGG
CGGCTGGCGCAGGAGCAGGGTGGTGGTGACAACTCACTGCTGGTGCGGGCGCTGGACCGCTTCCACCGGCGCTTG
CGGGCTCCCGGGGCCCTGCTGGCCGCTGCCGGGCTCGCAGACGCTGCCACGGAGATCGTGGAACGAGTGGCCCGC
GAGCGCCTGGGCCACCACCTGCAGGGTCTCCGGGCGGCCTTCCTGGGCTGCCTGACAGACGTCCGCCAGGCGCTG
GCAGCACCTCGCGTGGCTGGGAAGGAGGGCCCTGGCCTGGCCGAGTTGCTGGCCAATGTGGCCAGCTCCATCCTG
AGCCACATTAAGGCCTCTCTGGCAGCAGTGCACCTTTTCACCGCCAAAGAGGTGTCCTTCTCCAACAAGCCCTAC
TTCCGGGGTGAGTTCTGCAGTCAGGGTGTCCGTGAGGGCCTCATCGTGGGCTTCGTCCACTCTATGTGCCAGACG
GCTCAGAGCTTCTGCGACAGCCCTGGGGAGAAGGGGGGTGCCACACCACCTGCCCTGCTCCTGCTGCTCTCCCGC
CTCTGCCTGGACTACGAGACGGCCACCATCTCCTACATCCTCACTCTCACTGATGAACAGTTTCTGGTGCAGGAT
CAGTTCCCAGTGACGCCCGTGAGCACGCTGTGTGCAGAGGCCAGGGAAACGGCGCGGCGGCTGCTGACCCACTAC
GTGAAGGTGCAGGGCCTGGTCATATCACAGATGCTGCGCAAGAGCGTGGAGACTCGCGACTGGCTCAGCACTCTG
GAGCCCCGGAATGTGCGGGCCGTCATGAAGCGGGTGGTGGAGGATACCACCGCCATCGACGTGCAGGTGGGGCTC
CTGTACGAAGAGGGTGTTCGCAAGGCCCAGAGCAGCGACTCCAGCAAGAGGACTTTCTCCGTGTACAGCAGCTCT
CGGCAGCAGGGCCGCTACGCCCCCAGCTATACCCCCAGTGCCCCGATGGACACCAACCTCTTGAGCAATATCCAG
AAGCTATTCTCTGAACGTATTGATGTGTTCAGCCCTGTGGAGTTCAACAAGGTGTCGGTGCTGACCGGCATCATC
AAGATCAGCCTGAAGACGCTGCTGGAGTGTGTGCGGCTGCGCACCTTTGGGCGCTTCGGGCTGCAGCAGGTGCAA
GTGGACTGCCACTTTCTGCAGCTCTACCTGTGGCGTTTTGTGGCCGACGAAGAACTCGTGCACTTGCTGCTGGAC
GAAGTGGTGGCCTCTGCTGCCCTGCGCTGCCCAGACCCTGTGCCCATGGAGCCCAGTGTGGTTGAGGTCATCTGC
GAGCGCGGC**TAG**GCGCAGCCGCTGCCATGCACCGGTCTGTCCCTGCACCCCATGGCACCCAGGATCTGGTCTCGG
TGGTCCTTCCCCGCAGGCAGGTGTCAGGACCGGCCTAATAAACATGTGTGGCCTCCTCCTCTCGCTTGCTGGGCG
GGCCTTTCCGGGGGCGGGGTTTTGAAGCTGAGGCTTCTGAGGCGCCCGCGTCGGGTCCGCCCCCGAGCGCCGATT
GGCTGGTGTGCTGGGCCCAGCATGGGCAGGGGGCGGTTCCACTTAAAAACCCTGGGACGA

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FIGURE 3279

GAGGGATAATCGGGGCGGCCGGGGCTGAAGGGAGAGGCGCAGGAGCCCTGGGGAGAGTGGTCCCTGCCCTTCCGC
GCCTCGAGCCATCGCTACCGCCCTTCGGAACCAGTGCAGCGGCCGATCAGTAAACACAGAGACTGGGGATCGATC
ATGGGGCTTTGTAAGTGCCCCAAGAGAAAGGTGACCAACCTGTTCTGCTTCGAACATCGGGTCAACGTCTGCGAG
CACTGCCTGGTAGCCAATCACGCCAAGTGCATCGTCCAGTCCTACCTGCAATGGCTCCAAGATAGCGACTACAAC
CCCAATTGCCGCCTGTGCAACATACCCCTGGCCAGCCGAGAGACGACCCGCCTTGTCTGCTATGATCTCTTTCAC
TGGGCCTGCCTCAATGAACGTGCTGCCCAGCTACCCCGAAACACGGCACCTGCCGGCTATCAGTGCCCCAGCTGC
AATGGCCCCATCTTCCCCCCAACCAACCTGGCTGGCCCCGTGGCCTCCGCACTGAGAGAGAAGCTGGCCACAGTC
AACTGGGCCCGGGCAGGACTGGGCCTCCCTCTGATCGATGAGGTGGTGAGCCCAGAGCCCGAGCCCCTCAACACG
TCTGACTTCTCTGACTGGTCTAGTTTTAATGCCAGCAGTACCCCTGGACCAGAGGAGGTAGACAGCGCCTCTGCT
GCCCCAGCCTTCTACAGCCAGGCCCCCCGGCCCCCAGCTTCCCCAGGCCGGCCCGAGCAGCACACAGTGATCCAC
ATGGGCAATCCTGAGCCCTTGACTCACGCCCCTAGGAAGGTGTATGATACGCGGGATGATGACCGGACACCAGGC
CTCCATGGAGACTGTGACGATGACAAGTACCGACGTCGGCCGGCCTTGGGTTGGCTGGCCCGGCTGCTAAGGAGC
CGGGCTGGGTCTCGGAAGCGGCCGCTGACCCTGCTCCAGCGGGCGGGGCTGCTGCTACTCTTGGGACTGCTGGGC
TTCCTGGCCCTCCTTGCCCTCATGTCTCGCCTAGGCCGGGCCGCAGCTGACAGCGATCCCAACCTGGACCCACTC
ATGAACCCTCACATCCGCGTGGGCCCCTCC**TGA**GCCCCCTTGCTTGTGGCTAGGCCAGCCTAGGATGTGGGTTCT
GTGGAGGAGAGGCGGGGTAATGGGGAGGCTGAGGGCACCTCTTCACTGCCCCTCTCCCTCAAGCCTAAGACACTA
AGACCCCAGACCCAAAGCCAAGTCCACCAGAGTGGCTGCAGGCCAGGCCTGGAGTCCCCGTGGGTCAAGCATTTG
TCTTGACTTGCTTTCCTCCCGGGTCTCCAGCCTCCGACCCCTCGCCCCATGAAGGAGCTGGCAGGTGGAAATAAA
CAACAACTTTATTAAAAC

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FIGURE 3280

GCAGCGAGTGGCCTTCCCGGTTGGCGCGCGCCCGGGGCGGCGGCGCTGGAGGAGCTCGAGACGGAGCCTAAGTTA
TGTCTGGGAGGCGAACGCGGTCCGGAGGAGCCGCTCAGCGCTCCGGGCCAAGGGCCCCATCTCCTACTAAGCCTC
TGCGGAGGTCCCAGCGGAAATCAGGCTCTGAACTCCCGAGCATCCTCCCTGAAATCTGGCCGAAGACACCCAGTG
CGGCTGCAGTCAGAAAGCCCATCGTCTTAAAGAGGATCGTGGCCCATGCTGTAGAGGTCCCAGCTGTCCAATCAC
CTCGCAGGAGCCCTAGGATTTCCTTTTTCTTGGAGAAAGAAAACGAGCCCCCTGGCAGGGAGCTTACTAAGGAGG
ACCTTTTCAAGACACACAGCGTCCCTGCCACCCCCACCAGCACTCCTGTGCCGAACCCTGAGGCCGAGTCCAGCT
CCAAGGAAGGAGAGCTGGACGCCAGAGACTTGGAAATGTCTAAGAAAGTCAGGCGTTCCTACAGCCGGCTGGAGA
CCCTGGGCTCTGCCTCTACCTCCACCCCAGGCCGCCGGTCCTGCTTTGGCTTCGAGGGGCTGCTGGGGGCAGAAG
ACTTGTCCGGAGTCTCGCCAGTGGTGTGCTCCAAACTCACCGAGGTCCCCAGGGTTTGTGCAAAGCCCTGGGCCC
CAGACATGACTCTCCCTGGAATCTCCCCACCACCCGAGAAACAGAAACGTAAGAAGAAGAAAATGCCAGAGATCT
TGAAAACGGAGCTGGATGAGTGGGCTGCGGCCATGAATGCCGAGTTTGAAGCTGCTGAGCAGTTTGATCTCCTGG
TTGAATGAGATGCAGTGGGGGGTGCACCTGGCCAGACTCTCCCTCCTGTCCTGTACATAGCCACCTCCCTGTGGA
GAGGACACTTAGGGTCCCCTCCCCTGGTCTTGTTACCTGTGTGTGTGCTGGTGCTGCGCATGAGGACTGTCTGCC
TTTGAGGGCTTGGGCAGCAGCGGCAGCCATCTTGGTTTTAGGAAATGGGGCCGCCTGCCCAGCCACTCACTGGTG
TCCTGTCTCTTGTCGTCCTGTCCTTCCTATCTCCCCAAAGTACCATAGCCAGTTTCCAGATGGGCCACAGACTGG
GGAGGAGAATCAGTGGCCCAGCCAGAAGTTAAAGGGCTGAGGGTTGAGGTGAGAGGCACCTCTGCTCTTGTTGGG
AGGGGTGGCTGCTTGGAAATAGGCCCAGGGCTCTGCCAGCCTCGGCCTCTCCCTCCTGAGTTGCCTTCTGTTGGT
GGCTTTCTTCTTGAACCCACCTGTGTAAAGAGGTTTTCAGTTCCGTGGGTTTCCCCTTTGATTCTGTAAATAGTC
CCAGAGAGAATTCGTGGGCTGAGGGCAATTCTGTCTTGGAGGAAGAAGCTGGACATTCAGCCTGTGGAGTCTGAG
TTTTGAAGGATGTAGGGAGCCTTAGTTGGGTCTCAGACCATAAGTGTGTACTACACAGAAGCTGTGTTTTCTAGT
TCTGGTCTGCTGTTGAGATGTTTGGTAAATGCCAGGTTGATAGGGCGCTGGCTGCTTGGAGCAAAGGGTGCATTT
CAGGGTGTGGCCACCAGGTGCTGTGAGTTTCTGTGGCTCATGGCCTCTGGGCTGGTCCCTTGCACAGGGCCCACG
CTGGAGTCTTACCACTCTGCTGCAGGGGTGGAAGGTGGCCCCTCTTGTCACCCATACCCATTTCTTACAAAATAA
GTTACACCGAGTCTACTTGGCCCTAGAAGAGAAAGTTGAAGAGTCCCAGACCTACTAGCATTTTGCAACTATGCT
TGTAAAGTCCTCGGAAAGTTTCCTCGCGTACCAGACAGCGGCGGGGGCTGATAGCAATTTTAGTTTTTGGCCTCC
CTATCCTCTCACATGAGAACACTGCCTGGATGCATCTCATGATCTCTGGAGAATTTCCCCATCTTTCTCTTCTTT
CCATCGTGTGGATTCAATAGTGTGGATTTGAAGGCTGCCCTGCCCCCGACTCTCCTGCCGCACCCCTGGCCATTG
TACCTTTTGATGTTTAGAAGTTCGTGGAAGTAGACGCTGAGGTGTGCAGAGGAGCTGGTGGATAACAGAGAATGC
CAGGGAAGATGAGTGCTGGGTCAGGGTACTTGGATGAAACGGTGCAGGCCAGGCGGGCCCTAATAAAACCCTCTG
CCAGGTCTGGGAGTCCCAGGCCATCTGCTCAACGCTCTGTGGTTTGTCAGACCTGCAAGCAAGCCCCCTGCTGGG
GAAGCCTAGGTGTCCTTGAGCTGAACCGCACTGAAGAACTCTTGTCCTCACTGGCTGATGCAGCAGAACTCTTGG
GAAATGTCTTAGTCCTGCAGAATCAGGAGTCACCAGATGATGCAGAGTTGAGATCATCATTGCAAAGTTCTCTGT
TCCTGAGGAACTAAATTTAAGGAAAAAATGGGATTTTGTTTTAGAGTTGGAAAAAAAGCCTGATTAAAGAGTTTC
TGCCTGTT

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FIGURE 3281

GTGCACGATCTGATTTTCTGGAGAGATGTGAAGAAGACTGGGTTTGTCTTTGGCACCACGCTGATC**ATG**CTGCTT
TCCCTGGCAGCTTTCAGTGTCATCAGTGTGGTTTCTTACCTCATCCTGGCTCTTCTCTCTGTCACCATCAGCTTC
AGGATCTACAAGTCCGTCATCCAAGCTGTACAGAAGTCAGAAGAAGGCCATCCATTCAAAGCCTACCTGGACGTA
GACATTACTCTGTCCTCAGAAGCTTTCCATAATTACATGAATGCTGCCATGGTGCACATCAACAGGGCCCTGAAA
CTCATTATTCGTCTCTTTCTGGTAGAAGATCTGGTTGACTCCTTGAAGCTGGCTGTCTTCATGTGGCTGATGACC
TATGTTGGTGCTGTTTTTAACGGAATCACCCTTCTAATTCTTGCTGAACTGCTCATTTTCAGTGTCCCGATTGTC
TATGAGAAGTACAAGACCCAGATTGATCACTATGTTGGCATCGCCCGAGATCAGACCAAGTCAATTGTTGAAAAG
ATCCAAGCAAAACTCCCTGGAATCGCCAAAAAAAAGGCAGAA**TAA**GTACATGGAAACCAGAAATGCAACAGTTAC
TAAAACACCATTTAATAGTTATAACGTCGTTACTTGTACTATGAAGGAAAATACTCAGTGTCAGCTTGAGCCTGC
ATTCCAAGCTTTTTTTTTAATTTGGTGTTTTCTCCCATCCTTTCCCTTTAACCCTCAGTATCAAGCACAAAAATT
GATGGACTGATAAAAGAACTATCTTAGAACTCAGAAGAAGAAAGAATCAAATTCATAGGATAAGTCAATACCTTA
ATGGTGGTAGAGCCTTTACCTGTAGCTTGAAAGGGGAAAGATTGGAGGTAAGAGAGAAAATGAAAGAACACCTCT
GGGTCCTTCTGTCCAGTTTTCAGCACTAGTCTTACTCAGCTATCCATTATAGTTTTGCCCTTAAGAAGTCATGAT
TAACTTATGAAAAAATTATTTGGGGACAGGAGTGTGATACCTTCCTTGGTTTTTTTTTGCAGCCCTCAAATCCTA
TCTTCCTGCCCCACAATGTGAGCAGCTACCCCTGATACTCCTTTTCTTTAATGATTTAACTATCAACTTGATAAA
TAACTTATAGGTGATAGTGATAATTCCTGATTCCAAGAATGCCATCTGATAAAAAAGAATAGAAATGGAAAGTGG
GACTGAGAGGGAGTCAGCAGGCATGCTGCGGTGGCGGTCACTCCCTCTGCCACTATCCCCAGGGAAGGAAAGGCT
CCGCCATTTGGGAAAGTGGTTTCTACGTCACTGGACACCGGTTCTGAGCATTAGTTTGAGAACTCGTTCCCGAAT
GTGCTTTCCTCCCTCTCCCCTGCCCACCTCAAGTTTAATAAATAAGGTTGTACTTTTCTTACTATAAAATAAATG
TCTGTAACTGCTGTGCACTGCTGTAAACTTGTTAGAGAAAAAAATAACCTGCATGTGGGCTCCTCAGTTATTGAG
TTTTTGTGATCCTATCTCAGTCTGGGGGGGAACATTCTCAAGAGGTGAAATACAGAAAGCCTTTTTTTCTTGATC
TTTTCCCGAGATTCAAATCTCCGATTCCCATTTGGGGGCAAGTTTTTTTCTTCACCTTCAATATGAGAATTCAGC
GAACTTGAAAGAAAAATCATCTGTGAGTTCCTTCAGGTTCTCACTCATAGTCATGATCCTTCAGAGGGAATATGC
ACTGGCGAGTTTAAAGTAAGGGCTATGATATTTGATGGTCCCAAAGTACGGCAGCTGCAAAAAGTAGTGGAAGGA
AATTGTCTACGTGTCTTGGAAAAATTAGTTAGGAATTTGGATGGGTAAAAGGTACCCTTGCCTTACTCCATCTTA
TTTTCTTAGCCCCCTTTGAGTGTTTTAACTGGTTTCATGTCCTAGTAGGAAGTGCATTCTCCATCCTCATCCTCT
GCCCTCCCAGGAAGTCAGTGATTGTCTTTTTGGGCTTCCCCTCCAAAGGACCTTCTGCAGTGGAAGTGCCACATC
CAGTTCTTTTCTTTTGTTGCTGCTGTGTTTAGATAATTGAAGAGATCTTTGTGCCACACAGGATTTTTTTTTTTT
TTAAGAAAAACCTATAGATGAAAAATTACTAATGAAACTGTGTGTACGTGTCTGTGCGTGCAACATAAAAATACA
GTAGCACCTAAGGAGCTTGAATCTTGGTTCCTGTAAAATTTCAAATTGATGTGGTATTAATAAAAAAAAAAAAAA

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FIGURE 3282

CGCCAAGCCCCGCCCCAGATGAGTGCGCAGT**ATG**AGGACCGCTGGCCGGGACCCAGTGAGCGCGGGACTACAATT
CCCAAAGGACGGTAGCACTCAGCGCCCCGCCAACAGGTACCCGGCGGCTCGCTTCGCGCACACGCGGCAGGCGGT
GGCGGGATTCTGCCGCGTGCGCTTTCCCGCCCCGCCTCGCCTAGCCTCGTCCTGCGCTCGCCACGCCTCGGGCTG
TCCGTTGGGCCACGCAGACCGCGCTGCGCTCGCTCCGTCGCGGCTCCGCGTGCCCCACCTTCTGGCTAGTTTTTT
C**TAG**AGCCCAGGCTCCGCCCGTTTCCCGCTTCCAGGGCCCGGTTCGTTCCCGCCCGCACCCGTCCCTCTCCTCTG
CACCCCTGCTGCTTCTGCTTTGAAGGCGGAGGCTCCATGTTGTCCCCTCAGCGAGTGGCAGCAGCTGCCTCAAGA
GGAGCAGTGTAATGTGTGTGCTGTTGAAATGACCGTTTCACTTGCGAAATCGAAGAGCAAAAAGGAAAAGAACAG
TGAAGAATTTTTAAATGAGTCTCAGTTCTCAAATTCAAATACGAAGCAATGGAACGTTTTGTCAGTCTTAGAATA
ACGGACCAAAAATGTACGATTTCACATATTGGCTTACTTTTGGAGATTTAAGAAGCATAACCTACGGAGTACTAA
TCCCTGTCAAGAATTTAGCATTGCAACATAG

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FIGURE 3283

AGTAGAGATGGGGTTTCACCATGTTGGCCAGGCTGGTGTCAAACTCCTGACCTCAGGTGATCCACCCACCTTGGC
CTTCCAGAGTGCTGGGATTACAGGCATGAGCCACCGCACCCAGCGTTGTTTTGTTTTTTAGTCAGCAATGGTTTT
GGATTCCAAAGCTCTCAGGACCAAGGCCCACGCATTTTGTCTAGTTGTCATGTACTCTTCAGTTTCTCAAACTGG
AATTGTCCCCCGCTATGTGTTTTTCATAACATCAGCCTCTTGCAGAGTCCAGGCAGTTTGTCTTGTGTGGGATGA
TCCATCATCTGGAGTTGTCTTTCCTGATGTTGTCCCCTCTGTTTGGTGCTGGGTGAGGCATTAGAGTTGGAAGTC
CACATGCTTGAGTTGCCTGTACTGAGCTTGTCCAAGGGAATGAGCCTAATTTCTTTCTGTTGCTTCATTCTAGGA
CTGTGAGGAATGTATCCAGCTGGAGCCGACCTTCATCAAGGGTTATACACGGAAAGCCGCTGCGCTGGAAGCG**ATG**
AAGGACTACACCAAAGCCATGGATGTGTACCAGAAGGCGCTAGACCTGGACTCCAGCTGTAAGGAGGCGGCAGA
CGGCTACCAGCGCTGTATGATGGCGCAGTACAACCGGCACGACAGCCCCGAAGATGTGAAGCGACGAGCCATGGC
CGACCCTGAGGTGCAGCAGATCATGAGTGACCCAGCCATGCGCCTTATCCTGGAACAGATGCAGAAGGACCCCCA
GGCACTCAGCGAACACTTAAAGAATCCTGTAATAGCACAGAAGATCCAGAAGCTGATGGATGTGGGTCTGATTGC
AATTCGG**TGA**TGACTTGTTCATCCCCCCTTCCCTTCGCCCTCATGTGGAAAGAGGAGCTGGGACCGCGGCGAGCA
GCACGGAGCGGAAGGGAGAGCAGGGGAGAGAAGGCCTCATCTCTCTATATTTATACATAACCCCGGGGAAGACAC
AGAGACTCGTACCTGCGCTGTTTGTGCCGCCGCTGCCTCTGGGCCCTCCCAGCACACGCATGGTCTCTTCACCGC
TGCCCTCGAGTTCCATGTCTCTTTCCCCTGCCCCTAGTTGCTGTCTCGGCTGCTCTCCCATAGTTGGTTTTTTTT
TTATTTGGGGGCAGTGGGCATGTTATGGGGAGGGGAGGGGGTTCTTCCAGCCTCAGGTCCCAGCTGTCTCACGTT
GTTTATTCTGCGTCCCCTTCTCCAATAAAACAAGCCAGTTGGGCGTGGTTATATGTT

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FIGURE 3284

AAAACACTAAGGGGAGCGCGCGAAGCTGAACTTGGCGCTCGATGGGGGCCGTTAGCCGCCCTAGAGCGCGCGGAG
CCGCAGAGGCGTAGCTGGACTACAACGCAGTGCATCTCGGGAGGCCAACTCGACTGGACTGGGTGAGAGGACAGA
GGTGGCTCG**ATG**GGCGGCCCGAAGGCCGGGGATCATGGCGGGAAGGCGGGCCCAGACAGGTTCAGCCCCGCCCCC
GACCCGCCGCTCCCCACCCCCCGGCCGGCCTCGCGTGCCTTCCCGCAGCACTGCCGTCCCCGGGATGCTGAGCGC
CCACCGTCTCCCCGCAGCCCCCTCATGCCCGGCTGCGAGCTGCCCGTGGGCACCTGCCCGGACATGTGCCCGGCC
GCCGAGCGCGCCCAGCGCGAAAGGGAGCACCGCCTGCACCGCTTGGAGGTGGTGCCGGGTTGCCGCCAGGACCCG
CCCCGCGCGGATCCGCAGCGCGCGGTGAAGGAGTACAGCCGACCCGCCGCCGGCAAGCCCCGGCCCCCGCCCAGC
CAGTTGCGTCCGCCCTCCGTGCTGCTGGCCACCGTGCGCTACCTGGCCGGTGAGGTGGCGGAGAGCGCCGACATC
GCCCGCGCCGAGGTGGCCAGCTTCGTGGCAGACCGCTTGCGAGCTGTGCTCCTGGACCTGGCGCTGCAGGGAGCG
GGCGACGCCGAGGCAGCTGTGGTGCTGGAGGCGGCGCTGGCCACGCTGCTGACCGTAGTGGCGCGGCTCGGGCCC
GACGCGGCGCGGGGACCCGCGGACCCGGTGCTGCTGCAGGCCCAGGTGCAGGAGGGCTTCGGCTCGCTGCGGCGC
TGCTACGCGCGGGGCGCCGGGCCGCACCCCCGCCAACCCGCCTTCCAGGGCCTCTTTCTGCTCTATAACCTGGGT
GAGTCGGGATCCTGGCGGCTGGGCAGAGCGTGGGGACAGGAGCCCACCATGACAGTGGAGGCTCGGTGGAAGCCC
TGCATGAGGTTCTACAGCTGCCTGCTGCCCTGCGCGCCTGCCCGCCCCTCCGCAAGGCCTTGGCGG**TAG**ATGCTG
CCTTCCGAGAGGGCAATGCTGCCCGCCTGTTCCGTCTGCTCCAGACCCTGCCCTACCTGCCAAGTTGCGCTGTGC
AGTGCCATGTGGGCCATGCCCGCCGGGAAGCCCTGGCCCGCTTCGCTCGTGCCTTTAGCACCCCCAAGGGCCAGA
CCTTGCCTCTGGGCTTCATGGTCAACCTCTTGGCCCTGGATGGACTCAGGGAAGCACGGGACCTGTGCCAGGCCC
ACGGGCTGCCCTTGGACGGAGAGGAGAGAGTTGTGTTCCTGAGGGGTCGCTACGTGGAGGAAGGGCTACCGCCTG
CCAGTACGTGCAAGGTGTTAGTGGAGAGCAAACTTCGAGGACGTACCCTGGAGGAGGTGGTCATGGCAGAGGAGG
AAGATGAGGGCACGGACAGACCTGGGTCCCCAGCCTGAGGAGGGAGCGTGAGCCTCCCAGAGCCCCAGGACTGGG
CCAGAGCACTTAGGTTTCTTTTTCCATGGTTTCCAGGTAATAAAAGGAACTTGTTTTGTTGGT

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FIGURE 3285

CTCCGGGGACC**ATG**GGGCTCCTGACCATTCTGAAGAAGATGAAGCAGAAAGAGCGGGAGCTGCGACTGCTCATGC
TTGGCCTGGACAATGCTGGAAAGACAACCATCCTGAAGAAGTTCAATGGGGAGGACATCGACACCATCTCCCCAA
CGCTGGGCTTCAACATCAAGACCCTGGAGCACCGAGGATTCAAGCTGAACATCTGGGATGTGGGTGGCCAGAAGT
CCCTGCGGTCCTACTGGCGGAACTACTTTGAGAGCACCGATGGCCTCATCTGGGTAGTGGACAGCGCAGACCGCC
AGCGCATGCAGGACTGCCAGCGGGAGCTCCAGAGCCTGCTGGTGGAGGAGCGCCTGGCCGGAGCAACCCTCCTCA
TCTTTGCTAATAAGCAGGACCTGCCTGGAGCACTGTCCTCTAACGCCATCCGCGAGGTCCTGGAGCTGGACTCCA
TCCGCAGCCACCACTGGTGCATCCAGGGCTGCAGCGCCGTCACCGGGGAGAACCTGCTGCCGGGCATCGACTGGC
TCCTGGATGACATTTCCAGCCGCATTTTCACAGCTGAC**TGA**ACCACTCCAGATGCCCCCCACCTAGCAGTCCAGG
TCCCTCAACCTTCACCAAACACTACCCATGGGGGGTTGGGAGTCAGCCGGCCAAACTAACACTCCCCCTCCTCCA
CCCCAGCCTGCTGCTGCTACTGCTGCCCGCTGCTGCTCTGTGGCCACCCGGCTCCCATGGCGGGAGGGCTGTGCC
CTGGCTGTCTCTCTGGCTCCTGACCTGGCCTTTGGCTACCATACCAAGAAGAGAGGGCTGGGCGGGGAGGAGCTG
CTACTGCTGCTACCGAGGCTGTGGGCCTCATCCTTCACTCAGTTGTGAAATAAACCGCTCCTTGCCCCG

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FIGURE 3286

GGAGACCGGAGGTCTGAGCTGCAGCCACTACACAGGCCTGGAATTCTACCACAGGGAATTTGCAGCACGAGTCTC
TGGAAAAAGACAACCTCGCCCTGCGGAAGGAGATCCAGTCCCTGCAGGCCGAGCTGGCGTGGTGGAGCCGGACCC
TGCACGTGCATGAGCGCCTGTGCCCC**ATG**GATTGTGCCTCCTGCTCAGCTCCAGGGCTCCTGGGCTGCTGGGACC
AGGCTGAGGGGCTCCTGGGCCCTGGCCCACAGGGACAACATGGCTGCCGGGAGCAGCTGGAGCTGTTCCAGACCC
CGGGTTCCTGTTACCCAGCTCAGCCGCTCTCTCCAGGTCCACAGCCTCATGATTCTCCCAGCCTCCTCCAGTGCC
CCCTGCCCTCACTGTCCCTTGGCCCCGCTGTGGTTGCTGAACCTCCTGTCCAGCTGTCCCCCAGCCCTCTCCTGT
TTGCCTCGCACACTGGTTCCAGCCTGCAGGGGTCTTCCTCTAAGCTCAGTGCCCTCCAGCCCAGCCTCACGGCCC
AAACTGCCCCTCCACAGCCCCTCGAGCTGGAGCATCCCACCAGAGGGAAGCTGGGGTCCTCTCCCGACAACCCTT
CCTCTGCCCTGGGGCTTGCACGTCTGCAGAGCAGGGAGCACAAACCTGCTCTCTCAGCAGCCACTTGGCAAGGGC
TGGTTGTGGATCCCAGCCCTCACCCTCTCCTGGCCTTTCCTCTGCTCTCCTCTGCTCAAGTCCACTTC**TAA**CCTG
GTCTTCGGAGCTGGGTTGGCCCCTTCTTTGGGCTCAGGAAGCAGCCTTAGCACACGGGCCTCTCCTCCCTCACTA
CTGGGTGCTGCCCTGCGTGGCTGACCAGCTGGCCCAGGATTTCACAGTCGAAAAGGAAGCCACCACTGATGCCTC
CCACTGTGACAGGCCCTGTCACCACCAATATCTTATTTCAACCTCACAGTTGACCTGAGAAATCGAGATTATCAC
TCCACTTTTTCAGACAAGGAAACTGAGGCTCAGGGAAGCCAAGTGACAAGTCCAAGGTCACGAAGACTTTCTTGG
AGCCCGAAACACCACCCTCTGCTCCTCCTTCTCCTGTCCTGGCCCAGGCATCCTAGGGGCTGAAATCCTGGAAAC
CGTGGGCTGGTGTGAGAAGGTTTGCATGCTCAGAGCAGAGAAGGGCTCTCCCCACTGCTTCGTGATTCCAGGGCC
AGAGCCATGCAGTCCCAGAAACCCCAACCTAGCTGGGGCAGGTCCAGAGTCCAAGCCCTGGTGGGTAGAGGCCAA
GCAGAAGCCCTGAAGTGGACTCTTGCTTCCCCTAGTAGTGTTTTCAGTGCCAAGAAGCTGAAACTGTGAGCTGGA
GTTGGGGAGAGGTCTGGAAGAGGACCATCTGGGATTTCTACAGCCTGGGTACCCATAGCCACACCAAGGCTTCTG
GGAGATTCTGCAGGGTCAGCTTTCCAGGCTGTTCCCAAATAGCTCCCTGCCTCCCCACTGCCCCTAAAGCCACAG
CAGAAGAGCCATTCATCTCATAAACAAAAAGGAAGAGGAAAGAATGAGGAAGGACCCTGTGCAAGGTTATTTGCA
GGCAGGGATGGGCTTGTACCTGACAGCACCCACCCCTGTGTGGCCCCCAGGCCCTCATCACCCTCAGACCCCTCC
TAAGCAGTTCCCTCATTGCTCTTTGGACTAGGCTGACAGCAGGAAGAGCAGGGCCCATGACCGGGTGGAAGTTCA
GTTTTGGTGTCTGCTTCAAGAGGGGGTTTTACACTCTGATTCCAGGACAAGCACTCTGAGGCGGGTGGGGGAGAG
AAACCCTGGCTCTTCACCCAGGTTTCACACACATGTAAATGAAACACTATGTTAGTATCTAACACACTCCTGGAT
ACAGAACACAAGTCTTGGCACATATGTGATGGAAATAAAGTGTTTTGCAATCTTT

FIGURE 3287

ATGAATGCAGCACTGAGCTCTGTTTGCCCTCTAAGCTTGTCCCCAGAAAAAACAAGATATACCCTAAATATGCAC
GATCTGATTTTCTGGAGAGATGTGAAGAAGACTGGGTTTGTCTTTGGCACCACGCTGATCATGCTGCTTTCCCTG
GCAGCTTTCAGTGTCATCAGTGTGGTTTCTTACCTCATCCTGGCTCTTCTCTCTGTCACCATCAGCTTCAGGATC
TACAAGTCCGTCATCCAAGCTGTACAGAAGTCAGAAGAAGGCCATCCATTCAAAGCCTACCTGGACGTAGACATT
ACTCTGTCCTCAGAAGCTTTCCATAATTACATGAATGCTGCCATGGTGCACATCAACAGGGCCCTGAAACTCATT
ATTCGTCTCTTTCTGGTAGAAGATCTGGTTGACTCCTTGAAGCTGGCTGTCTTCATGTGGCTGATGACCTATGTT
GGTGCTGTTTTTAACGGAATCACCCTTCTAATTCTTGCTGAACTGCTCATTTTCAGTGTCCCGATTGTCTATGAG
AAGTACAAGGAGATGGGCCAC**TAA**

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FIGURE 3288

CCCACCTTGGGACACCTTGACTCCAAGCCCAGCAGTAAGTCCAAC**ATG**ATTCGGGGCCGCAACTCAGCCACCTCT
GCTGATGAGCAGCCCCACATTGGAAACTACCGGCTCCTCAAGACCATTGGCAAGGGTAATTTTGCCAAGGTGAAG
TTGGCCCGACACATCCTGACTGGGAAAGAGGTAGCTGTGAAGATCATTGACAAGACTCAACTGAACTCCTCCAGC
CTCCAGAAACTATTCCGCGAAGTAAGAATAATGAAGGTTTTGAATCATCCCAACATAGTTAAATTATTTGAAGTG
ATTGAGACTGAGAAAACGCTCTACCTTGTCATGGAGTACGCTAGTGGCGGAGAGGTATTTGATTACCTAGTGGCT
CATGGCAGGATGAAAGAAAAAGAGGCTCGAGCCAAATTCCGCCAGATAGTGTCTGCTGTGCAGTACTGTCACCAG
AAGTTTATTGTCCATAGAGACTTAAAGGCAGAAAACCTGCTCTTGGATGCTGATATGAACATCAAGATTGCAGAC
TTTGGCTTCAGCAATGAATTCACCTTTGGGAACAAGCTGGACACCTTCTGTGGCAGTCCCCCTTATGCTGCCCCA
GAACTCTTCCAGGGCAAAAAATATGATGGACCCGAGGTGGATGTGTGGAGCCTAGGAGTTATCCTCTATACACTG
GTCAGCGGATCCCTGCCTTTTGATGGACAGAACCTCAAGGAGCTGCGGGAACGGGTACTGAGGGGAAAATACCGT
ATTCCATTCTACATGTCCACGGACTGTGAAAACCTGCTTAAGAAATTTCTCATTCTTAATCCCAGCAAGAGAGGC
ACTTTAGAGCAAATCATGAAAGATCGATGGATGAATGTGGGTCACGAAGATGATGAACTAAAGCCTTACGTGGAG
CCACTCCCTGACTACAAGGACCCCCGGCGGACAGAGCTGATGGTGTCCATGGGTTATACACGGGAAGAGATCCAG
GACTCGCTGGTGGGCCAGAGATACAACGAGGTGATGGCCACCTATCTGCTCCTGGGCTACAAGAGCTCCGAGCTG
GAAGGCGACACCATCACCCTGAAACCCCGGCCTTCAGCTGATCTGACCAATAGCAGCGCCCCATCCCCATCCCAC
AAGGTACAGCGCAGCGTGTCGGCCAATCCCAAGCAGCGGCGCTTCAGCGACCAGGCTGGTCCTGCCATTCCCACC
TCTAATTCTTACTCTAAGAAGACTCAGAGTAACAACGCAGAAAATAAGCGGCCTGAGGAGGACCGGGAGTCAGGG
CGGAAAGCCAGCAGCACAGCCAAGGTGCCTGCCAGCCCCCTGCCCGGTCTGGAGAGGAAGAAGACCACCCCAACC
CCCTCCACGAACAGCGTCCTCTCCACCAGCACAAATCGAAGCAGGAATTCCCCACTTTTGGAGCGGGCCAGCCTC
GGCCAGGCCTCCATCCAGAATGGCAAAGACAGCCTAACCATGCCAGGGTCCCGGGCCTCCACGGCTTCTGCTTCT
GCCGCAGTCTCTGCGGCCCGGCCCCGCCAGCACCAGAAATCCATGTCGGCCTCCGTGCACCCCAACAAGGCCTCT
GGGCTGCCCCCCACGGAGAGTAACTGTGAGGTGCCGCGGCCCAGCACAGCCCCCCAGCGTGTCCCTGTTGCCTCC
CCATCCGCCCACAACATCAGCAGCAGTGGTGGAGCCCCAGACCGAACTAACTTCCCCCGGGGTGTGTCCAGCCGA
AGCACCTTCCATGCTGGGCAGCTCCGACAGGTGCGGGACCAGCAGAATTTGCCCTACGGTGTGACCCCAGCCTCT
CCCTCTGGCCACAGCCAGGGCCGGCGGGGGGCCTCTGGGAGCATCTTCAGCAAGTTCACCTCCAAGTTTGTACGC
AGAAATCTGTCTTTCAGGTTTGCCAGAAGGAACCTGAATGAACCTGAAAGCAAAGACCGAGTGGAGACGCTCAGA
CCTCACGTGGTGGGCAGTGGCGGCAACGACAAAGAAAAGGAAGAATTTCGGGAGGCCAAGCCCCGCTCCCTCCGC
TTCACGTGGAGTATGAAGACCACGAGCTCCATGGAGCCCAACGAGATGATGCGGGAGATCCGCAAGGTGCTGGAC
GCGAACAGCTGCCAGAGCGAGCTGCATGAGAAGTACATGCTGCTGTGCATGCACGGCACGCCGGGCCACGAGGAC
TTCGTGCAGTGGGAGATGGAGGTGTGCAAACTGCCGCGGCTCTCTCTCAACGGGGTTCGATTTAAGCGGATATCG
GGCACCTCCATGGCCTTCAAAAACATTGCCTCCAAAATAGCCAACGAGCTGAAGCTT**TAA**CAGGCTGCCAGGAGC
GGGGGCGGCGGGGGGCGGGCCAGCTGGACGGGCTGCCGGCCGCTGCGCCGCCCCACCTGGGCGAGACTGCAGCGA
TGGATTGGTGTGTCTCCCCTGCTGGCACTTCTCCCCTCCCTGGCCCTTCTCAGTTTTCTCTTACATGTTTGTGGG
GGGTGGGAGATTGTTNTCCAGCACCCCACATTCACCCCTGCCCAGAGATTCCCCCTTCTCCTCTCCCCTACTGGA
GGCAAAGGAAGGGGAGGGTGGATGGGGGGGCAGGGCTCCCCCTCGGTACTGCGGTTGCACAGAGTATTTCGCCTA
AACCAAGAAATTTTTTATTACCAAAAAG

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FIGURE 3289

GCTGCTGACTGGCGGGCCGCCAGGCGCGTGCGTAGAGACGCCCACACGCCCGCTGATGCGCACGCGCCCTGGGCC
GCGCGTGCGCGCGTGGGGTTCCGGAATGAGCCGGGGAAAGCAAGGGGAAGGTTTGGGGTTGGCTCCCGGTTTCGC
GCATGCGTGCACTGCACAAACCATTTGGCGGGTTTTTCCGGCCACTCAGTTCTGCCACCGTCACTGAGAAGCTCA
GCGGTAGCTTTTGGGAAGCAGGACGTTCTCACCAGGAGAGCGTCCTCTCGAGATTTCTGCTCCCTCCATTCAGGG
CGTTTGGGAGCCACCCCTTCATTTTTTAAAAAAAGTATTTCTCTGTGACCGACGGCCGGGGCCTTCTGACGGTCT
GAGGTCTTGCTTGGGCCAGTCACCTCCTGTCACGGTCCGCGGAGGGGGGAAGGATAAGAGGGCGAGGAGCTCATC
GCTCGCCACCCCCGTGGGCTTCTTGGGCGCAGGTCGGAGCTGGGTGGGCCGGCTCCCCGGCCCCTGGCTTGGGCG
ACC**ATG**TCCGCATCCGCCCAGCAGCTGGCGGAGGAGCTGCAGATCTTCGGCCTAGACTGCGAGGAGGCTCTAATT
GAGAAATTGGTAGAGCTTTGTGTTCAGTATGGACAGAATGAGGAGGGAATGGTAGGCGAGCTTATAGCCTTCTGC
ACCAGCACACATAAAGTTGGCCTTACCTCAGAGATCCTGAACTCTTTTGAGCATGAGTTTCTGAGCAAAAGATTA
TCGAAAGCCAGGCATAGTACCTGCAAGGACAGTGGCCATGCAGGAGCTAGAGACATTGTTTCCATTCAAGAGCTA
ATTGAAGTGGAAGAAGAAGAGGAAATCCTCTTGAACTCTTACACCACACCTTCAAAGGGTTCTCAGAAGCGAGCT
ATCTCTACCCCAGAAACCCCCCTAACAAAAAGGAGTGTGTCAACTCGTAGCCCCCATCAGCTACTCTCACCGTCA
AGTTTCTCTCCAAGTGCTACTCCCTCCCAGAAATACAACTCACGAAGTAACCGAGGAGAAGTGGTTACCTCCTTC
GGCTTAGCACAGGGAGTATCTTGGTCTGGGAGAGGAGGAGCTGGAAACATCAGCCTGAAGGTCTTGGGATGTCCA
GAGGCACTAACTGGGAGCTACAAATCCATGTTTCAGAAGCTCCCAGACATTCGAGAAGTTCTGACCTGTAAGATA
GAAGAACTTGGCAGCGAACTCAAGGAACATTACAAGATTGAAGCTTTCACTCCTTTGCTAGCCCCAGCACAGGAG
CCTGTCACTCTGCTGGGCCAGATTGGCTGTGATAGCAACGGGAAGCTGAACAACAAGTCAGTGATTCTCGAGGGA
GACCGGGAACATTCCTCGGGTGCTCAAATTCCAGTGGATTTATCTGAGCTTAAGGAATATTCTCTGTTTCCTGGA
CAGGTTGTAATTATGGAAGGAATCAACACCACTGGTAGGAAACTTGTTGCCACCAAACTCTACGAGGGTGTGCCA
CTTCCATTTTATCAGCCCACTGAAGAGGATGCAGACTTTGAGCAAAGCATGGTCCTGGTTGCCTGTGGACCATAC
ACCACATCTGACAGCATCACGTATGACCCCCTGCTTGACCTGATTGCTGTCATCAACCATGACCGGCCAGATGTC
TGCATCCTGTTTGGCCCTTTCCTGGATGCTAAGCATGAACAGGTGGAGAATTGTCTACTGACAAGTCCATTTGAA
GACATTTTCAAGCAGTGTCTACGAACAATTATTGAAGGCACAAGAAGCTCCGGCTCCCACCTTGTCTTTGTCCCG
TCATTGAGAGATGTGCACCATGAGCCTGTGTACCCCCAGCCGCCTTTCAGCTACTCCGATCTGTCTCGAGAGGAC
AAAAAGCAAGTACAGTTTGTGTCCGAGCCCTGCAGCCTCTCCATAAACGGAGTGATCTTCGGCTTGACATCCACA
GATCTGCTTTTCCACCTGGGGGCCGAGGAGATCAGTAGTTCTTCCGGAACTTCAGACAGATTCAGCCGAATACTC
AAGCACATCTTGACCCAGAGGAGCTACTACCCACTCTACCCGCCCCAAGAAGACATGGCCATTGACTATGAGTCG
TTCTATGTTTACGCACAGCTGCCTGTCACCCCAGATGTCCTCATCATCCCGTCAGAGCTGAGGTACTTCGTGAAG
GATGTCCTCGGCTGTGTCTGTGTGAACCCTGGGCGCCTTACCAAAGGGCAGGTGGGAGGCACCTTCGCCCGACTC
TACCTTAGGAGGCCGGCAGCGGACGGGGCAGAGAGGCAGAGCCCATGCATTGCTGTGCAGGTCGTCAGGATC**TGA**

GGCTTCTGTCCTCTGCTGTTCTCTGCTGTGTGGGCCCTTAAAGTCTTAGCCAAGAGCCAAGACATAGCCCTGTGA
CAAGGTGAACAGTTGGGTGGGAAAGGAGAGAGGAGCCAGCCAGGGAGGGGCAGCTGCAGTGACCAGGCCCAGCAG
GGAGGACTTGTGCAGCCGGGCCTGCCTCTGAGTGGTGCCTCTCCTGGAAGGAAGCTCTTGCTTCTCAGTCCATGC
TCCGTGTCCAGAAGTAAGCCAGCTGTGGATCCCGCCCACTCAGAAAAGGCGAGAAGGCTTTGTGATTTTCTACAT
GAATCAAACACAGAAACAACTTTTGGAGAAATTAAATTCTGAGTGTGACTTCTGAGTTTGACCTTTCTTCTATTT
TCTTTTATTTATTTATTTTGTTTTTAGACGGAGTCTCGATCTGTCGCCCAGGCTGGAGTGCAGTGGTGAGATCTC
GGCTCACTGCAAGCTCTGCCGCCCGGGTTCATGCCATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA

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FIGURE 3290

AAG**ATG**GCGGCTGTGGTGGAGAATGTAGTGAAGCTCCTTGGGGAGCAGTACTACAAAGATGCCATGGAGCAGTGC
CACAATTACAATGCTCGCCTCTGTGCTGAGCGCAGCGTGCGCCTGCCTTTCTTGGACTCACAGACCGGAGTAGCC
CAGAGCAATTGTTACATCTGGATGGAAAAGCGACACCGGGGTCCAGGATTGGCCTCCGGACAGCTGTACTCCTAC
CCTGCCCGGCGCTGGCGGAAAAAGCGGCGAGCCCATCCCCCTGAGGATCCACGACTTTCCTTCCCATCTATTAAG
CCAGACACAGACCAGACCCTGAAGAAGGAGGGGCTGATCTCTCAGGATGGCAGTAGTTTAGAGGCTCTGTTGCGC
ACTGACCCCCTGGAGAAGCGAGGTGCCCCGGATCCCCGAGTTGATGATGACAGCCTGGGCGAGTTTCCTGTGACC
AACAGTCGAGCGCGAAAGCGGATCCTAGAACCAGATGACTTCCTGGATGACCTCGATGATGAAGACTATGAAGAA
GATACTCCCAAGCGTCGGGGAAAGGGGAAATCCAAGGGTAAGGGTGTGGGCAGTGCCCGTAAGAAGCTGGATGCT
TCCATCCTGGAGGACCGGGATAAGCCCTATGCCTGTGACATTTGTGGAAAACGTTACAAGAACCGACCAGGCCTC
AGTTACCACTATGCCCACTCCCACTTGGCTGAGGAGGAGGGCGAGGACAAGGAAGACTCTCAACCACCCACTCCT
GTTTCCCAGAGGTCTGAGGAGCAGAAATCCAAAAAGGGTCCTGATGGATTGGCCTTGCCCAACAACTACTGTGAC
TTCTGCCTGGGGGACTCAAAGATTAACAAGAAGACGGGACAACCCGAGGAGCTGGTGTCCTGTTCTGACTGTGGC
CGCTCAGGGCATCCATCTTGCCTCCAATTTACCCCCGTGATGATGGCGGCAGTGAAGACATACCGCTGGCAGTGC
ATCGAGTGCAAATGTTGCAATATCTGCGGCACCTCCGAGAATGACGACCAGTTGCTCTTCTGTGATGACTGCGAT
CGTGGCTACCACATGTACTGTCTCACCCCGTCCATGTCTGAGCCCCCTGAAGGAAGTTGGAGCTGCCACCTGTGT
CTGGACCTGTTGAAAGAGAAAGCTTCCATCTACCAGAACCAGAACTCCTCT**TGA**TGTGGCCACCCACCTGCTCCC
CGACATATCTAAGGCTGTTTCTCTCCTCCACTTCATATTTCATACCCATCTTTCCCTTCTTCCTCCTCTCCTTCA
CAAATCCAGAGAACCTTGGGGTGGTTGTGCCAGCCTGCCTTTGGCAGCTGCAAGCTGAGGTGGCAGCTCTGACCA
CCTCTGGCCCCAGGCCCTCAGGGAGAAAGGAGCAACACACTGCCCCTAGGCGTGCGTGTGGCCCAGTTTCTCTCT
GCTCTCCATTAAGTGCATTCACTCTGCTTGCCTTGGGCCCAGCCCCTGGTGATCACAGGGTTCAAACAGTGTCCT
CCTAGAAAGAGTGGGAGAGCAGCTCACTTCTCTGTGTTCTGCCTCCCCTCTGGTCTCCAGAGTTTTCCTGTCCTC
TAGAGGCAAGCCAGGCCAGGGAGCTGGGAGCGAGCAAGCTGAGGCCACGTCCACAAGGAGCTTTTCATGCCCCTG
TGCCGCATAGCCTCACCTCTTTCCTCCAGAGTGGCTCTCTGCGGCCCTGTGTTCCTGCTACAGAGTGTTCTTTTC
TGGAGTCAGGATGTTCTCGGTCACCCTCCTGGTTCTGCCCTGTCCCATTCCACCCCACCCCAGGGGGAACAGTAG
CTTCACCTTGTTATTCCCATTGCTCTCCTGGCTCACTCTTACGGTCGGTCTCCAGTGACTGAAGCATTCCCCACC
CTTGGAATTTCTCATCTTCTGCCTCCCTTCCTACTCCTTTTGGTTTTGTGGGGAGAGGGGAAGGATCAGGGGGCC
AGGCCAGCAGCTCGGGGGCCACAAGGAGATGGATAATGTGCCTGTTTTTTAACACAACAAAAAAGCCTACCTCCA
AAATCCCCTTTTTGTTCTTCCTGGACCTGGGCATTCAGCCTCCTGCTCTTAACTGAATTGGGAGCCTCTGCCACC
TGCCCCGTGTATCCTGGCTCTCAGCTCATGGGGAAGCCACATAGACATCCCTTTCTTCCCTTGCACGCTCGCTAG
CAGCTGGTAAGGTCTTCACACCCTGATTCCTCAAGTTTTCTGCTTAGTGGCACTGACATTAAGTAGTGGGGGGAC
AGTCCATGCCAGGACACCCTGGAGTAGCCTTCCCCCTTGGCCGTGGGCAGGCCCTAACTCACTGTCGCTTTGGAG
TTGAGGTGTCTTTTCTTTTTCTTTCTTTAGTTCCTGTATTCTAAACATTAGTAAAAATAAATGTTTTTACACAGA

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FIGURE 3291A

GGAATTCTCTGGGGCTTTGGGGAATTTAGTGCGTGGGTGAGCCAAGAAAATACTAATTAATAATAGTAAGTTGTT
AGTGTTGGTTAAGTTGTTGCTTGGAAGTGAGAAGTTGCTTAGAAACTTTCCAAAGTGCTTAGAACTTTAAGTGCA
AACAGACAAACTAACAAACAAAAATTGTTTTGCTTTGCTACAAGGTGGGGAAGACTGAAGAAGTGTTAACTGAAA
ACAGGTGACACAGAGTCACCAGTTTTCCGAGAACCAAAGGGAGGGGTGTGTGATGCCATCTCACAGGCAGGGGAA
ATGTCTTTACCAGCTTCCTCCTGGTGGCCAAGACAGCCTGTTTCAGAGGGTTGTTTTGTTTGGGGTGTGGGTGTT
ATCAAGTGAATTAGTCACTTGAAAGATGGGCGTCAGACTTGCATACGCAGCAGATCAGCATCCTTCGCTGCCCCT
TAGCAACTTAGGTGGTTGATTTGAAACTGTGAAGGTGTGATTTTTTCAGGAGCTGGAAGTCTTAGAAAAGCCTTG
TAAATGCCTATATTGTGGGCTTTTAACGTATTTAAGGGACCACTTAAGACGAGATTAGATGGGCTCTTCTGGATT
TGTTCCTCATTTGTCACAGGTGTCTTGTGATTGAAAATCATGAGCGAAGTGAAATTGCATTGAATTTCAAGGGAA
TTTAGTATGTAAATCGTGCCTTAGAAACACATCTGTTGTCTTTTCTGTGTTTGGTCGATATTAATAATGGCAAAA
TTTTTGCCTATCTAGTATCTTCAAATTGTAGTCTTTGTAACAACCAAATAACCTTTTGTGGTCACTGTAAAATTA
ATATTTGGTAGACAGAATCCATGTACCTTTGCTAAGGTTAGAATGAATAATTTATTGTATTTTTAATTTGAATGT
TTGTGCTTTTTAAATGAGCCAAGACTAGAGGGGAAACTATCACCTAAAATCAGTTTGGAAAACAAGACCTAAAAA
GGGAAGGGGATGGGGATTGTGGGGAGAGAGTGGGCGAGGTGCCTTTACTACATGTGTGATCTGAAAACCCTGCTT
GGTTCTGAGCTGCGTCTATTGAATTGGTAAAGTAATACCAATGGCTTTTTATCATTTCCTTCTTCCCTTTAAGTT
TCACTTGAAATTTTAAAAATCATGGTTATTTTTATCGTTGGGATCTTTCTGTCTTCTGGGTTCCATTTTTTAAAT
GTTTAAAAATATGTTGACATGGTAGTTCAGTTCTTAACCAATGACTTGGGGATGATGCAAACAATTACTGTCGTT
GGGATTTAGAGTGTATTAGTCACGCATGTATGGGGAAGTAGTCTCGGGTATGCTGTTGTGAAATTGAAACTGTAA
AAGTAGATGGTTGAAAGTACTGGTATGTTGCTCTGTATGGTAAGAACTAATTCTGTTACGTCATGTACATAATTA
CTAATCACTTTTCTTCCCCTTTACAGCACAAATAAAGTTTGAGTTCTAAACTCATTAGAATTGTTGTATTGCTAT
GTTACATTTCTCGACCCCTATCACATTGCCTTCATAACGACTTTGGATGTATCTTCATATTGTAGATTTAGGTCT
AGATTTGCTAGCTCCAAGTAATTAAGGCCATGTAGGAGAGCATGGTAACCACAGATAGAACTGGTATTATCCCAA
GTGGTCTGCAGACTGCTGAGTGGGGATGGGATCTGCTCTCTGTTGAGAGTTGGTAATCATTGGTTTGAAATGTGA
TGAAACCACTCAAGCCAATGAAGGTGGGTGTGTAGGTGGGGAGTACTTTGCCATAATATTTTAAAACATTACCTG
GTTAGAGTTCTAAGTGGTACTTATTTTTGTTTGGTTAGGGGAAAGCCTGAATAAAAACAGAAATGGACACATAAT
ATGCATATTCCATAGTCTTTGGGAGGCTGGAATGTGCCTGGGATTTGGGTCTAAGTGTATGCGTAATTCTTACCT
CACTAAAGAATTTGCCTTGTTTTTTTCCTTTTGGTGAGTGACTAAAACGTCTGGGCTTCCCTGTGTGCGTGCTAC
AGTAAGCAAGCAGAGGCTGTGCAAAGGTGTGAGCAGGATCACGTGGAATCTGGAGGATACATCTTGGCTTGCAAA
CTGCCTCTGTCTCCTGGGTGGGACTGTTCTGTCCTTGCACTGCTGTTCTGTGTTACCTCTTGGGGTGTAAGGTTT
TGCTTACAGGAGACAAACTTTGGGCGTAGAATGGAAGCCACTGCCAGCCTCTGTGCTGAGAAGGAAGGTGCTTGT
TTCAAAGGGAGCAGCAAGGGAGGCTTGTTCTACTCACCTGGGCCTGTTTGCCTGAGAAGGGGAGATAAGGGCTGA
ACTGGGACTAGCCAGGGGGACCAACACAAATGGTGGGGGATCATGACCTGAAGGATTCTTTCCTTCCCATGAGCT
GCAGGGCTGGTTGCCGTCCTTGCAACTGTGTCTTATTTGCCTGTGCCGTTATATCTTGGTGACCCCTCCACGTGT
ACACTACTGACAAACGGGTGGAGTGCTGGGGAGAAGTCACTGTGCCGCCCACCTAGTAAACCTTCTGTCTGTGCT
CATGGCATCTCCAAGATGGGGCACTGCTGTGTGCAGAATCCAGGGTCCTCTTTCTGCTTGCAACTCCTTTCCCTG
GATGCCCCAGAAACAATCCAGGCCTCCTTTCCTATCTTACCCCTTTGCTTTGCTTTTTACCCCAGCACCTCTATA
ACCGCCTTCTCTTCTTTTCAGAACTCCTTGTTTCTCATCCTGTTTTTTATGATTACAAAACTCTTGCTTCCACCC
TGGAAGATAACTGCTATAGATGCCTGTATGTAAATGGTGCTGTCTCCAGCAACTGGCATGCTGAAGAAGAATTGA
TTCACGGGGTATAAATGTTGGGGATTGGAAGTGGGGATGAAATGGCACTTGTTGATACAGGAGCAGAGAGGTGAG
GCCGACTGCTGAAGACAGCTCGCCACCCTCCTTGCCTCCACTCCAATCCAGGGGCTGGGGCCACATTCTTTGCCT
TCATTTATCCTCAGATCAGGTGAGATCGACAGGAGGTGTTGATGGCAGTGCCAGCAATTATTGCTAATCCGTTTG
CATCCTTATGCATAGATCTGAATTCAGACTTTGTGAATTTCCAGAGGTGTGGGTAATATAATAGAATTCAGTGAG
TGGGCATGGCTGATCTTGTGCAAATTAAAAGTTATGGGGCATAAGAATAGCAAAAGTTGAACTTCTTTTAAAAAG
GAAAGTACCCTGAGAGCCAGTATTGGTTGAGGCTCTTCAGTATGCCCAGGTTGGCAGCACTGAGAACCGCAGGAA
CGGCCTGTTGTTACAAAAAGGAGATTGACTCAGCTGCCCTTGGTGCATCTGACTGACTATGACTGCTGAGAGATT
CCAAGGACCCTTAATGCCAGGGCTAACCTCTCCATGTGCAGTGAGACCTCTGGAGGAAGTGTCATCCTCTGGCTT
TGTGTGGTACTCATTATGGTGCAGTGCGGGCATGAAATGAAGACACCCAAATAGGCTTACAGATACGATATGTTT
TAAATGTTCGTATTTAACAAAAACATACTGACACTGTTTGGAAATGGCAACAGGAAGATAGCAAAATGAATACTA

FIGURE 3291B

ACATTACGAAAAGATGAACAGGTACATGTTCCAAGGCAGGTGGCTGTGAACTTCCTCTGAGTGAAGGCATCCCCT
CCAGCACCTTTCAGCCTGCTAGTTAGGACGACCCGCCGCCACCCTCCAGGACCTCCAGCCCTGCACTGCCTTTCC
TCTCTTTTAAATAATTCTTCATTGAGTTCTAATATGTAAAAAAAAAAAGTTTACTGTAAAGTTTGCAAATAAGGA
AATTTTTTTTAAAAGTCCTCAGTAATCTTACCAGTAACAATTGTTATGGGCACATTTGCTTTTGGAAGATTTCTT
TTGTATGCATGGGATAAGTACATTTTTAAACAAAAATGGGATTATGCCATAAATTCTATTTTGTGACTTTAATAT
ATAGTGAACACCTTTTTTAATGATGACAGGATGTTCCCTTGCATGGCTGTATCAATTTAAACAATCTTGTTTCAA
TGGGCATACAGGGTATTTTCTAGTTTTTTTTTCCTCTTAGAAAATAATACTTGCGATGACTTTCCTTGTAGCTCA
GACTTTTTCACGTCTGTTGTTATCTCTTTGGGAATGCTGAATACATACATTTCGAGAAGGAAATGACTGTTAAAC
TCTTAAGACTTCAGGTTCATATTGCTAAACTGCCCAGCAGGGAGGGATTTTTTCAATTAGTGTTCTCACTGGTGA
GGCAAACCTGATGCCTTCCCCTCTTCCTCAGAACCGGCTTTATCACATTGAAAACCTTTGCTCCTCCGACGGATC
GAGTCTGCTTTCCCTGTGGATGTGAGCATTGCTTTGTCTGCTGGTGACTGAACATCTCTACCATGTGTCAATTGG
CCATTTGTGGTGTGTGTGTGTGTGCGTGTGTGTGTGTGTGTGTGTGTGTATGATTTTCTAATTCCTAGTCATTTT
TCTATTGATTGTTTTGCAAAAGCCATTTACATCTTAAGGATATTGATAATCTTTTGTTATATTTGATGCAAATAT
TTTTTTCCAGTTTATAGGTTGCCTTTTAATTTTGTGTTTCAGGTAGATAAAAGTTAAACGATTTTCTTAGGTTAG
TTTATCACTGTGGTTTCTGAACTTGTTATGTGTAGATCTTTTCCACCCCAAGAGTACATAAATATTAATCCATAC
TTTCTTATGGAACTTGTATGGTTTCGTTTTTTACATTTAAACCTTCTTCCCCGTGGTGTGTGTTGTGGAATCTGT
GTTTGTGTGAGGAGGGGCATGGTGCTCTCAGAACCCACCTCCTGTGGCCAGAGAGCCCTGTCCTGTGAGGGTGGT
TATCACAGTGGCAGGGTTCAATTCAGAAGACCTTGAGGGCAGGCTGATGTTTCCTGAATGGGCCCCTGGTTGTTG
CTTGTCCCTGACTCTCCATTTCCCCATCTGAGTGGATTTGGACCTAATAGGGCACTGGAGCTGGTTCGAATCCTG
ACTGGACTACTTGGCAACTTTATGTCTGGGAGCAAGTTACTTAACCTCCCCAAGCCTGTGTCTGTGAAATGCGGG
TAAATGAATGTAG**ATG**TTTGGCAGCAGCTACTCCTTGTTGAGCTCTCACAGTGAACTCTCCTGCCTCTGCCCTCC
TTCCCCGCCTCCCCTGGTGCCTAGCGTCAGGTCTAGCCACTTCCTCCTGGGCCCCTCTCCCTTTTCTGTGGCTGG
CTGCCTGCCCGCCTGGCGCTGGACCTTTCATGTAACGGGAATCAGCATGTATATTCTGGTCTGGTCTGTTTCTAC
ACTTAATTTTGTTTCCAGTAGTATTTCCCTGTACCGGCAGAGTTCACAAACACATTTGAAGAGGCTTTTTCTCAG
GATTCTTAACCTTCCCAAAGGAAGTCCCATGGATGGGTTTCTAGAAGTCTATAAATGCTCTGAAATTGTATTTTT
CTGTGGAAAGCATAACTTTCATCTGCTTGTTCGTGCTCAAAAAAGATCA**TGA**ATGAATGATTGCATGATTTTATG
CCATTGTGCTTATACTAAAGGATATGTAGCCCATCTCTTGAGCTGTTAAACTGTTTTGACTACTTTAAATCGTGC
AGCTGTGAGCATCTCTGTAAATTTAGTGTACACATGTATCCCCTGGAGTGGCATTGCCTCGGCAGTGAGCACTTA
TGGTTTTATAACTCTCTTCACAGACTCAAATGACTCCAGAAAGCTACACTTCCTGTTGTGAGTATATGATATCCA
TTTCCCTACATAGCCACTAACATCAGGTTTTTACAATTTTATTTATTTCTTGCTACTTTAAGAAATTTTTGTGGT
GAAATACATATAATAGAAGTTGACTATCTGAATCATTTTTAAGTATACATTCAGTAGTGTTAAGTATGTCGCCAT
TGTTGTACAACCAATCTCCAGAACTTTTTCATCTTGCAAAACAAACTCTGTACCCATTAAATAACATTAAACATT
CCATTCCCTCCAGCCTCAGCAACCCCATTCTACTTTCTGTTTCTGTGAGTTTGACTATTCCAAGCACTTCATATC
AGTTAAATCATGAAGTATTTGTCTGTCTGTGACTGGCTTATTTCTCTGAGCACAGTGTCCTCGAGATGCGTCTAT
GTTGTAGCATATGTCAGAATTTCCTTCCTTTTTAAAAGATCCAAATAATATTCTTATTTTATATCTTTTTTTTAT
CCATTCATCCATTAGTGGACACTTGGGTTGCTTTTGGCTATTGTAAATAATGGTGCTATGTACAAATATCTATAT
TATTGTATTTACAAGTATAATGCTGTAATGTACACACATCTTTTTGAGATCCTACCTTCAGTTCTTTTGAGTATA
TAGCCAGAAGTGGTATTACTAAATCTTACGATATTTCTATTTTTAATTTATTGAGGAACCACTGTAGTTTTTCAT
AGCAACTGCACCATTTTACGTTCTCACCAAGAGTGCACAAGGGTTCCGAGGTTCCCACATCCTCCCCAACACTTG
TTATTTTCTGCTTTTTTTAGATTGCAGCCATCATAGTGGGTGTGAGGTGACATTTCATTGTGGTTTTGATTTGCA
TTTCCCTAATGAGGAGTGATGCTGAGCATCTTTTCATATGCTTACTGGTCATTTGTATGTTGTCTTTGGAAAAAT
GTCTATTCAAGTCCTTTGACTATTTTAAAAATTGGGTTATTAGAGTTATCGTTGTTGTTGACTTGTAGGAGTTTC
TTTCTATATTCTGGATATTAATCCCCTATCAGATATATGATTTGCAAATATCTTCTCTTATTCCATAAGGTTACT
TTTTCACTTTGTTGATTGTGTTCTTTGATGTATAGAAGTTTTTAGTTTTGAAATAGTCTAATTTATCTGTTTTTA
CTTTTGTGGTCTGTGCTTTTGGTGTCATATCCAAGAAATCCTTGCCAAATCCAACGTTATAAGGTACTTTTAAGG
TATTTTAGTTGTCTTAGTCTATATTTCTGTACTCACCTTTCTTTATCCACTCATCAGTTGATGGGCATGTAGGTT
GGTTCCATATCTTTGCAATTCTGAATTGTGCTGTGATCAGGTGTCTTTTTAGTATAATGATTTACTCTCCTTTGG
GTAGATACCCAGTAGTGGGATTGCTGGATCGAATGGTTTTTATAATTTTCTATTTTACCACAGTTTCTCTCTGCA

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FIGURE 3291C

TTTTTCCTCTTTGACCACTAACCATGTGAAATTCTCATATTGACCTTTATAATGATCATGAACTCTTAGTATCAT
TGGGAAGGCCACATTTGCCACTTATGATTGTAAACCTTATCCTCCATTTTTCCTGTTATTGTTGGTGCAAAAAGC
ACCTATTATACCAGGACTTTAAAAATCAGTCTGATAAGTCTTTGATAAGTCTAATAATAATAACTGATAAGTCCA
TTGAATTTGCTTCTGATTACTTTTTCTTTAGTAGCTAAACATGTATGTACTCCTATGATTACAATGAACACTCCT
CTCCATTTAAATTAATTATTTACATTGATGAAATAGCAAAATGTTAATGACTAAATACTGTCTTGGTTTTTTCGT
TCCAGGTCAGTCAATATTAACTTCTTATAATTTTCTTTTTTTTCTTTATGTGTGTGTGTGTGTGTATTTTTTTTT
TTTTAATTTCAATGGCTTTTGGGGTACAAATGGCTTTTGGTCATATAGATGAATTCTACAGTAGTGAAGTCTGAG
ATTTTACTGCACCGGTCACCTGAGTAGTGTACATTGTACCCAATATGTGGTTTTTTATACCTTGCCCCCCTCTTA
CCCTCCCCACTTTGAGTCTCTAGTGTCCATTATGTCACTCTGTATACCTTTTTGTACCCATAAGTTAGCTCTCAC
TTATAAGTGAGAACACACAGTATTTGGTTTTCCATTCCTGAGTTGCTTCACTTAGAATAATATCCTCCAGCTCCA
TCCAAAATTGCTGCAAAAAAAAAAAAAAACCACAAACATTATTTTGTTCTTTTTTATTGCTAAGTCATATTCCATG
GTGTAGAGATACCACATTTTATTTATCCACTCACTGGTTGATGGGTTGGTTCCACATCTTTGCAATTGTGACTTG
TACTGCCATCAAGTGTCTTTCTGGTATAATGACTTCTTTTCCTTTGGGTAGATACCCAGGAGTGGGATTGCTAGA
TCAAATGGTTCTTAACATTTTCTCTCTGGATCTATTTCTGGAAATTTTAGGCTCCAGTTTTTGTTGTTGTTGTTA
ATAAAATGCAATGGAATGTAATGATCATCACTTTTCATTATGCTTTAAAATCTGGTAAATGGAGGCTAGAACACT
CCTGTAAGGCAAGAATATTCTCTCTGTTGGAACTCAAATACACAGAACTGGGTAAATCTCAATCTTAATCTTTGA
TTCAGGACACAACATGGCTCTCTTTTACTTGCTTTCTTTAATTGTTTTTTAATAATGTGGTAAGCATTTCTGAAT
CTCCTATCCAATACAAAAACTAGGACAATACAGACAGTAACTCCTATGGTTACAATGAACACTCCTCTCCACTTA
AATTAATTATTTACACTGATGAAATTGAAATAGCAAAATTTTAATGACTAAATACTGTCTTTGATTTTTTGTTCC
AGGTCTGTCAATATTAACTTCTTATAATTTTCTTTTTTTTTCTTTATGTGTGTGTGTGTGTGTATATATATATAT
ATTTAATTTCAATGGCTTTTGGGGTACAAATGGCTTTTGGTCATATATATGAGTTCTACAGTAGTGAAGTCTGAG
ATTTTACTACACCTTCCACTTATGTGGTCCCACACCACCCGCCTCCCCTGCCGCCTCCTGCCACCCCCTAGGCCA
AGGTAATAATCATCCTGAATCCTGGGTTTATCTCTCACTTGCTTTCTTTTCATATAATTTTGCAAAAGAATCTGA
TCTAAATGTGTTTTTCAGAGTATATATTTATATTTTAGCTGTTCTTAGAGAAAATTTATTATTTTGCATGTAATC
TTATGGAACATTCTCATTTAATACCATGGTAAGATTCAGCCCTTGCCCAGGGGATAGTTCATTTAGTTTGTTTAC
TGGATAGAGCTCATCATGTGACTATACCTCAGTTAGTTTATCAGTTCTCCCATCCATGGTGACTAGGTTGCCTCT
CAGCCTCTCAACAACACTGTTTCTCAGTGTCCTTGTAGAAGTGATATGTGGGTGTTTTCTCCTTACACAGAGTTG
AAAGGTGACGACAACAACGTTGGCACTACCAATCCCCCACCCTCCAGAGGGGTAACCAGTGTTACCAGTTTGCTG
TGTTTCCTGCTACACCTCGCCTTATTCACTTCCATTTGTATCTGAAAAACGTGTTGCATGGTTTCTTTTCTATAG
AAGTGGTAAAATGCTATTGTGTCCTGTACATTATTGATTACTTTTTTTCATTTAACAGTAGGGAGATGCCTGGGA
GTACACAGAGAACTGCCCTCATTGTTTTCAACTTCTGCACTGTATGTCTGTGAGTTTAGCCATTCTGCTGTTAAT
GGAAATTTACAGTATTCTAATCTTTTGATATTACAAACAGTTCTGTGCGATCATCGTCATACACAACCCCTTGTG
CACAATGCATGAGTGTTTCTCAGGGTAGGTACCAAGAAGTGAAATTCCTGGGTCATAGGGCGTGAGTCCGACATT
TTTCTCCATTCTGCCCTGTTGCCCTCCAGAGTGGGTGTCCAGCTTTGCATACCTAAGTATGAGAGTATCTGTTGT
TCATATCCTCTACGACGCTCCATATATGAAACTTAAGTTTCTGCTAGTTGCCATCTTTGATCTATCATGTATGCA
GTGACCTACTAAGACTGTAATTGGTACAGTAGATTCTTGTCATCTGTGTGTGAATTTAGCATTCATGGGCTTAAT
GCTGACAAGGCCCCCAGGGTCCAAGACATATAATCATGTATAATTTTGTCAAGGTATAATTTTTTAAATTGCTTT
TGTCATGTGTCTGCTGGTGATGCCCAACCCAGTGCTCTGCACCCAGGTCACACTGTGGCTTTGTCCTCTGCTTAT
GCCTGCATTGCAGCAACTGTCCTGAAGAGACCAAAATTATGCAGATTTAGGTAAGTCCATGGCTAATGTTATTAT
ATTATGTGCTATTGTAATGGATGGGGCTGTGGAGTGTATGAATTTATAAATCACTGGTCTTGTAATTAAAATTCA
AACACTATAGAAAAAGGCCATGTAGAAGATAAAAGTTCCTCTATAATCCCGGACCCCTAAGATAACTACTAATGA
CAACTTCATTTATATTCCTTCAGACATTTTCTGGCTGTGGATGTACTAAAATGTATCCTATTATTCTCTGCCCTA
AAATGGAATCATACAAGGTGTACTGTTATTTTTATGGCTCTATAACATGTCATATTGTACGTGTTGGTATGGTCA
TTTTAACCATTTTTCTAGTGATGGCTTTGAGGTTATTTGCAGTTTCCTAGCCATCTCAAAGTGTGCTGCGGGGAT
CTCTTTTGCATCCCTCTGGGTGCAGAGCTGAGGCACCCAGAGGCAGTGTCCAGAGGAGGCAGCATCTGTAGGTGT
CTTCACCTGCTCTGGCTCTTGGCACATCTGGTTGGTGACACTGTTTTGTGAGATGGGTTGAAAGCACGTGCTGCC
AAAATAGAATAATGTTGGTCCTCTCCTCATGTGCCGTGGAACTGGGGTAAAACTGCGTAGTGGCTGCAGCTGCCT
GTCCATACCGGAATCGAGTATAACACGGTGCCTGGCTTAGCACAAAACAGTAGTGGGTCCTGCAGGCCCCAGAGT

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FIGURE 3291D

CTAATTCCTGGTATTCTTTCCCCTACACAGATTAAATAAACCAAAAACAAACTATTCTAGGAAAGCGTCTGTGAC
ATTTGTAAAAAGTGGTATTTAATGATCTTTTATTCACTTGTCTGTTTAGTTTGTTGAAATCTTAAGTGGCATCCT
GGTCTGGGAAGGAGTGCTGTCTGCGCCTGCCCTCCGCTGGGCACAGCGTGGCTGCTTCAGGGGCTAAGCACACAC
TTTCTGTCTTCTAAAGGGCCGCCACATGCCAGGAGCTCAGGTGTGAGCCCGGCTCTGGCTCTTACCTCATAGGGT
CACTCATAGGGGCACAGGGAGCAGAACATTGTACACAGCGAGGCACCACCCGGCTTGGCATCTGCCTCGGTGGAC
TTACTACCTCTAGAAGGAAATACCTGAGTTCCTCTGGCCTCAGCTCCTAGAGTGACTGGTGTGCTGTCCCTGTTA
CTCTTCTGTCAAGGTGACAACTGTGTGACCCATCATCTGTGTGTCAAAGCAAGGCCCTGCCTGGGCCTCTGCTCC
TGTGCTGACCCCAAAGGCAAATGCTTTGCTAGTTTCCTTCCAGTTAATTTCACCTATGAATAGATGTGTGAAAAC
TGTTCAAAGCCATACCTGCACATGTTTGAACTTCAAACCCTGTGGGTGATTCAGTGGCATCTTTCTCTAACCCCC
AGCCTCCCTTCCCACAGAGGCCACCGTCATGGCCAGTTGCTGCAGTTTCTTTCCAGAGAACCTGTGTATGTGTAA
AGCTGTACAGGCGTGGGTACACCACACAGCCTGTCTTGCACTGTGGACTGTTGAGTTACTAGTACATCTAGGTAA
GCACCGCATATCTGTATTCATGTCTGCCTTGGTCTTTTCAACATCTGTGTGGTAGCCGTGTTTGAATTACCCATT
CCCTTTTTGGGGAACCATTAAGTTGTTTCAGCAATTTTTACTGTAGATAAGGCTATACCGCATATCTGTGTACAT
GGGTTTTTATGTACATGGGCAAGTATATCTGTGAGAGAAAAGTTTCCTCAGGAGGAATTCTGGGCACAGCATGTG
TAAATTTCTAAATATGATGGACACCCCCAGCTTCCACCTCAAGGAGGTTGGTCCCATTGACATTTCCCCACACCT
TCACCCAGGCTGTGCCCTTAAACTTGGTTATTTGTCAATGTGAGAAGTGGAAAATAGTATTTAATTGTAGTTTGG
ATTTGTATTTCTATTGGGTTGTATACTTACTGATTAATAATAAGAGCTCTTTACATATTAAGGAAATTAACCCTT
TTCAAATACATTCCTATTTCTCACTAATCTTTAAGTTTTATTGTAATATTTTGCTCTTTAGTTTATATATATATG
TATATATATATATATATGTATATATATATATATATACATATATATATACATATATATATA

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FIGURE 3292

ATGGTCCGCTGCGTCCGACTGGTGGAAGCAGGATCTGTGGTGAGATACCTCAGCACAAGCATATGCAGGCCTGTG
GTAGACGCCGGAAGTAGGGCCCTTTGTCTCCAAGAATGGGCAGACTCTCAACAGGTGAAAGAAAAACAGTACTCC
AGCAGAGATGTCCAGAGAGCAGCCGCTCTCAACATCTACCGTATCCCACCGTCTAGCAGGAAGCCCGCTCTCTGT
CCAACTCCGCGGGACCGACTAGAGTACGACGAGGACCGACTAGAGCACATCGCCTACGTGCGCGCCCGGGAGCTG
CACACTCTTGAAGTGACCGGCCTGGAGACGGTTGCCCAGAGCAAGCCACTACTTGCCTTTCCTCCTGTGGCTTCC
CCAGACAACACTCTTGACTCTCCCTTTCCTTTGAAGGCCCATGTAGCATCCCTGGAGGGCCTCATCCCTGAAGAT
AAGGTTGTGCTTCTGGCAGGTTCTCCCTTACAGAATGAAGCCACCCTGGGTCAGTGTGGGGTGGAAGCCCTGACA
ACCCTGGAAGTGGTTGGCCGCAGGCTAGGAGTGGTAAGAGTGCCAGGAACGGAGCGCGTTTGCTGCACACCATTT
GCCATTGGTGCATCGAGCACACTCCCAGCTCCAGGATTATGGGAAGACCTTTTTGGGGCTGGAACAGCGCGCAGT
GGCCACCGCCGCCGGGTCTCCAGCCCCCAGGAGCGCGGCCTCCTCCCGGACTCTCTCCGATGCGGTCCTGCCCTG
GGGACACGGCAGGAAGAAGGGACCTGGCTGGGGGACGTGGCCCCGGCGCGGGGGCAGGGGAGGCAGCGCGGGACT
CCCAGCGGCCCCTGCGCGGGCCTTCCTGAACAGCAGCAGCAGCTGGGAATGCAAAATGACATCCCTATGTTGTCC
CTGCCCTTTGTCCAGGGTGAGAGGGACCCTTCCTCGGTGGAGTTGACACAGACCTGCCTCTCTCTCATGTCTGTA
CTGGGACCCACAGTGCTACAGCTGGGCTGCCACAGCCAGGCCTTTCGGGAGGATCCACCAATAGGCTTCAGGGCC
CAGGGCCAAGGAGGGCGGCTCACGGCCCTCGCGTATCCCTGCGCGGCGCTCGCGAGCCGCCCCTCCCCCGGCGTT
TGTCCC**TGA**

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FIGURE 3293

AGCCCCCCCATCCCCGCCCCTCTCCCGCCCCTCCCTTGTCCCCGCCCCTTCCCGCCCCAACTCAGGTTCTGCCCC
ACCCCGCCCCAATTCACGTCCTGCTCCGCCCCGACGTAGGCCCCGCCCTGGCCCCCGGGCCCCGCCCCCGTCTGA
CGCAGGCCCCGCCCCCTCTCCGCCCCGCCCCGGCTCGGGCGGCCGGAGGACCCGGAGCTAAGGCGCCCGAACCCG
CGGCGGCGGTGGGGACG**ATG**TGGTTCTTTGCCCGGGACCCGGTCCGGGACTTTCCGTTCGAGCTCATCCCGGAGC
CCCCAGAGGGCGGCCTGCCCGGGCCCTGGGCCCTGCACCGCGGCCGCAAGAAGGCCACAGGCAGCCCCGTGTCCA
TCTTCGTCTATGATGTGAAGCCTGGCGCGGAAGAGCAGACCCAGGTGGCCAAAGCTGCCTTCAAGCGCTTCAAAA
CTCTACGGCACCCCAACATCCTGGCTTACATCGATGGACTGGAGACAGAAAAATGCCTCCACGTCGTGACAGAGG
CTGTGACCCCGTTGGGAATATACCTCAAGGCGAGAGTGGAGGCTGGTGGCCTGAAGGAGCTGGAGATCTCCTGGG
GGCTACACCAGATCGTGAAAGCCCTCAGCTTCCTGGTCAACGACTGCAGCCTCATCCACAACAATGTCTGCATGG
CCGCCGTGTTCGTGGACCGAGCTGGCGAGTGGAAGCTTGGGGGCCTGGACTACATGTATTCGGCCCAGGGCAACG
GTGGGGGACCTCCCCGCAAGGGGATCCCCGAGCTTGAGCAGTATGACCCCCCGGAGTTGGCTGACAGCAGTGGCA
GAGTGGTCAGAGAGAAGTGGTCAGCAGACATGTGGCGCTTGGGCTGCCTCATTTGGGAAGTCTTCAATGGGCCCC
TACCTCGGGCAGCAGCCCTACGCAACCCTGGGAAGATCCCCAAAACGCTGGTGCCCCATTACTGTGAGCTGGTGG
GAGCAAACCCCAAGGTGCGTCCCAACCCAGCCCGCTTCCTGCAGAACTGCCGGGCACCTGGTGGCTTCATGAGCA
ACCGCTTTGTAGAAACCAACCTCTTCCTGGAGGAGATTCAGATCAAAGAGCCAGCCGAGAAGCAAAAATTCTTCC
AGGAGCTGAGCAAGAGCCTGGACGCATTCCCTGAGGATTTCTGTCGGCACAAGGTGCTGCCCCAGCTGCTGACCG
CCTTCGAGTTCGGCAATGCTGGGGCCGTTGTCCTCACGCCCCTCTTCAAGGTGGGCAAGTTCCTGAGCGCTGAGG
AGTATCAGCAGAAGATCATCCCTGTGGTGGTCAAGATGTTCTCATCCACTGACCGGGCCATGCGCATCCGCCTCC
TGCAGCAGATGGAGCAGTTCATCCAGTACCTTGACGAGCCAACAGTCAACACCCAGATCTTCCCCCACGTCGTAC
ATGGCTTCCTGGACACCAACCCTGCCATCCGGGAGCAGACGGTCAAGTCCATGCTGCTCCTGGCCCCAAAGCTGA
ACGAGGCCAACCTCAATGTGGAGCTGATGAAGCACTTTGCACGGCTACAGGCCAAGGATGAACAGGGCCCCATCC
GCTGCAACACCACAGTCTGCCTGGGCAAAATCGGCTCCTACCTCAGTGCTAGCACCAGACACAGGGTCCTTACCT
CTGCCTTCAGCCGAGCCACTAGGGACCCGTTTGCACCGTCCCGGGTTGCGGGTGTCCTGGGCTTTGCTGCCACCC
ACAACCTCTACTCAATGAACGACTGTGCCCAGAAGATCCTGCCTGTGCTCTGCGGTCTCACTGTAGATCCTGAGA
AATCCGTGCGAGACCAGGCCTTCAAGGCCATTCGGAGCTTCCTGTCCAAATTGGAGTCTGTGTCGGAGGACCCGA
CCCAGCTGGAGGAAGTGGAGAAGGATGTCCATGCAGCCTCCAGCCCTGGCATGGGAGGAGCCGCAGCTAGCTGGG
CAGGCTGGGCCGTGACCGGGGTCTCCTCACTCACCTCCAAGCTGATCCGTTCGCACCCAACCACTGCCCCAACAG
AAACCAACATTCCCCAAAGACCCACGCCTGAAGGCCACTGGGAGACGCAGGAGGAGGACAAGGACACAGCAGAGG
ACAGCAGCACTGCTGACAGATGGGACGACGAAGACTGGGGCAGCCTGGAGCAGGAGGCCGAGTCTGTGCTGGCCC
AGCAGGACGACTGGAGCACCGGGGGCCAAGTGAGCCGTGCTAGTCAGGTCAGCAACTCCGACCACAAATCCTCCA
AATCCCCAGAGTCCGACTGGAGCAGCTGGGAAGCTGAGGGCTCCTGGGAACAGGGCTGGCAGGAGCCAAGCTCCC
AGGAGCCACCTCCTGACGGTACACGGCTGGCCAGCGAGTATAACTGGGGTGGCCCAGAGTCCAGCGACAAGGGCG
ACCCCTTCGCTACCCTGTCTGCACGTCCCAGCACCCAGCCGAGGCCAGACTCTTGGGGTGAGGACAACTGGGAGG
GCCTCGAGACTGACAGTCGACAGGTCAAGGCTGAGCTGGCCCGGAAGAAGCGCGAGGAGCGGCGGCGGGAGATGG
AGGCCAAACGCGCCGAGAGGAAGGTGGCCAAGGGCCCCATGAAGCTGGGAGCCCGGAAGCTGGAC**TGA**ACCGTGG
CGGTGGCCCTTCCCGGCTGCGGAGAGCCCGCCCCACAGATGTATTTATTGTACAAACCATGTGAGCCCGGCCGGC
CCAGCCAGGCCATCTCACGTGTACATAATCAGAGCCACAATAAATTCTATTTCAC

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FIGURE 3294

CAGAGACTGATGAGTGCCGACTGAACCAGAACATCTGTGGCCACGGAGAGTGCGTGCCGGGCCCCCCTGACTACT
CCTGCCACTGCAACCCCGGCTACCGGTCACATCCCCAGCACCGCTACTGCGTGGATGTGAACGAGTGCGAGGCAG
AGCCCTGTGGCCCGGGGAGGGGCATCTGC**ATG**AACACCGGCGGCTCCTACAATTGCCACTGCAACCGCGGCTACC
GCCTGCACGTGGGCGCCGGGGGGCGCTCGTGCGTGGACCTGAACGAATGCGCCAAGCCCCACCTGTGCGGCGACG
GCGGCTTCTGCATCAACTTTCCCGGTCACTACAAGTGCAACTGCTACCCCGGCTACCGGCTCAAAGCCTCCCGGC
CTCCTGTGTGCGAAGACATCGACGAGTGCCGGGACCCAAGCTCTTGCCCGGATGGCAAATGCGAGAACAAGCCCG
GGAGCTTCAAGTGCATCGCCTGTCAGCCTGGCTACCGCAGCCAGGGGGGCGGGGCCTGTCGCGACGTGAACGAGT
GCGCCGAGGGCAGCCCCTGCTCGCCTGGCTGGTGCGAGAACCTCCCGGGCTCCTTCCGCTGCACCTGTGCCCAGG
GCTACGCGCCCGCGCCCGACGGCCGCAGTTGCTTGGATGTGGACGAGTGTGAGGCTGGGGACGTGTGTGACAATG
GCATCTGCAGCAACACGCCAGGATCTTTCCAGTGTCAGTGCCTCTCTGGCTACCATCTGTCCAGGGACCGGAGCC
ACTGCGAGGACATTGATGAGTGTGACTTCCCTGCAGCCTGCATTGGGGGTGACTGCATCAATACCAATGGCTCCT
ACAGATGTCTTTGCCCCCAGGGGCATCGGCTGGTGGGTGGCAGGAAATGCCAAGACATAGATGAGTGCAGCCAGG
ACCCGAGCCTGTGCCTTCCCCATGGGGCCTGCAAGAACCTTCAGGGCTCCTATGTGTGTGTCTGCGATGAGGGCT
TCACTCCCACCCAGGACCAGCACGGTTGTGAGGAGGTGGAGCAGCCCCACCACAAGAAGGAGTGCTACCTGAACT
TCGATGACACAGTGTTCTGCGACAGCGTATTGGCCACCAACGTGACCCAGCAGGAGTGCTGCTGCTCTCTGGGGG
CCGGCTGGGGCGACCACTGCGAAATCTACCCCTGCCCAGTCTACAGCTCAGCCGAGTTCCACAGCCTCTGCCCAG
ACGGAAAGGGCTACACCCAGGACAACAACATCGTCAACTACGGCATCCCAGCCCACCGTGACATCGACGAGTGCA
TGTTGTTCGGGTCGGAGATTTGCAAGGAGGGCAAGTGCGTGAACACGCAGCCTGGCTACGAGTGCTACTGCAAGC
AGGGCTTCTACTACGACGGGAACCTGCTGGAATGCGTGGACGTGGACGAGTGCCTGGACGAGTCCAACTGCCGGA
ACGGAGTGTGTGAGAACACGCGCGGCGGCTACCGCTGTGCCTGCACGCCCCCTGCCGAGTACAGTCCCGCGCAGC
GCCAGTGCCTGAGCCCGGAAGAGATGGACGTGGACGAGTGCCAGGACCCGGCAGCCTGCCGCCCTGGCCGCTGCG
TCAACCTGCCGGGCTCCTACCGCTGCGAGTGTCGCCCGCCCTGGGTGCCCGGGCCCTCCGGCCGCGATTGCCAGC
TCCCCGAGAGCCCGGCCGAGCGTGCCCCGGAGCGGCGCGACGTGTGCTGGAGCCAGCGCGGAGAGGACGGCATGT
GCGCTGGCCCCCTGGCCGGGCCTGCCCTCACCTTCGACGACTGCTGCTGCCGCCAGGGCCGCGGCTGGGGCGCCC
AATGCCGACCGTGCCCGCCGCGCGGCGCGGGGTCCCATTGCCCGACATCGCAGAGCGAGAGCAATTCCTTCTGGG
ACACAAGCCCCCTGCTGTTGGGGAAGCCCCCAAGAGATGAGGACAGTTCAGAGGAGGATTCAGACGAGTGTCGCT
GCGTGAGTGGCCGCTGCGTGCCGCGGCCGGGCGGCGCCGTGTGCGAGTGTCCCGGCGGCTTCCAGCTCGACGCCT
CCCGCGCCCGCTGCGTGGATATCGACGAGTGCCGAGAGCTGAACCAGCGCGGGCTGCTGTGCAAGAGCGAGCGCT
GCGTGAACACCAGCGGCTCCTTCCGCTGCGTCTGCAAAGCCGGCTTCGCGCGCAGCCGCCCGCACGGGGCCTGCG
TTCCCCAGCGCCGCCGC**TGA**CGCCGCCGACGCCGCCCTCGGCCCAGACCTCGGTGATCACTGAGGGATTTCCGCG
AGCTCGGCCTCACTTCTGCCCCGACTTGTGGCTCGGACCCAGGGACCTTCAGGGCCCGCAGACCCTCCCGGCGCC
TTGAGACCCGAGGCGCCCCTACCGGCCCCCCTCCCCGGTTAGCGGGCGGTTGTAAGGTCTCCGGCGGGCGCTGCC
TGCCTTCCTCCCAGAGGGTGTTTCCTAGAAACTGATAAATCAGATCGTGCCTCTTTACCCTTGGCTTTCG

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FIGURE 3295

CTCCCAAAGCAGAATTGCAGCTGCCGCCGCCGCCACCTCCAGGCCACTATGGCGCCTGGGCTGCCCAGGAGCTTC
AGGCCAAGTTGGCAGAGATCGGAGCTCCGATCCAGGGTAATCGCGAGGAGCTGGTGGAGCGGCTGCAGAGCTACA
CCCGCCAGACTGGCATCGTGCTGAATCGGCCGGTTTTGAGAGGGGAAGATGGGGACAAAGCCGCTCCACCTCCCA
TGTCGGCACAGCTCCCTGGAATTCCCATGCCACCACCACCTTTGGGACTCCCCCCTCTGCAGCCTCCTCCGCCAC
CCCCACCACCTCCACCAGGCCTTGGCCTTGGCTTTCCTATGGCCCACCCACCAAATTTGGGGCCCCCGCCTCCTC
TCCGTGTGGGTGAGCCAGTGGCACTGTCAGAGGAGGAGCGGCTGAAGTTGGCTCAGCAGCAGGCGGCATTGCTGA
TGCAGCAGGAGGAGCGTGCCAAGCAGCAGGGAGATCATTCGCTGAAGGAACATGAGCTCTTGGAGCAGCAGAAGC
GGGCAGCTGTGTTACTGGAGCAGGAACGACAGCAGGAGATTGCCAAGATGGGCACCCCAGTCCCTCGGCCCCCAC
AAGACATGGGCCAGATTGGTGTGCGCACTCCTCTGGGTCCTCGAGTAGCTGCTCCAGTGGGCCCAGTGGGCCCCA
CTCCTACAGTTTTGCCCATGGGAGCCCCTGTTCCCCGGCCTCGTGGTCCCCCACCGCCCCCTGGAGATGAGAACA
GAGAGATGGATGACCCCTCTGTGGGCCCCAAGATCCCCCAGGCTTTGGAGAAGATCCTGCAGCTGAAGGAGAGCC
GCCAGGAAGAGATGAATTCTCAGCAGGAGGAAGAGGAAATGGAAACAGATGCTCGCTCGTCCCTGGGCCAGTCAG
CGTCAGAGACTGAGGAGGACACAGTGTCCGTATCTAAAAAGGAGAAAAACCGGAAGCGTAGGAACCGAAAGAAGA
AGAAAAAGCCCCAGCGGGTGCGAGGGGTGTCCTCTGAGAGCTCTGGGGACCGGGAGAAAGACTCAACCCGGTCCC
GTGGCTCTGATTCCCCAGCAGCTGATGTTGAGATTGAGTATGTGACTGAAGAACCTGAAATTTACGAGCCCAACT
TTATCTTCTTTAAGAGGATCTTTGAGGCTTTTAAGCTCACTGATGATGTGAAGAAGGAGAAAGAGAAGGAGCCAG
AGAAACTTGACAAACTGGAGAACTCTGCAGCCCCCAAGAAGAAGGGATTTGAAGAGGAGCACAAGGACAGTGATG
ATGACAGCAGTGATGACGAGCAGGAAAAGAAGCCAGAAGCCCCCAAGCTGTCCAAGAAGAAGTTGCGCCGAATGA
ACCGCTTCACTGTGGCTGAACTCAAGCAGCTGGTGGCTCGGCCCGATGTCGTGGAGATGCACGATGTGACAGCGC
AGGACCCTAAGCTCTTGGTTCACCTCAAGGCCACTCGGAACTCTGTGCCTGTGCCACGCCACTGGTGTTTTAAGC
GCAAATACCTGCAGGGCAAACGGGGCATTGAGAAGCCCCCCTTCGAGCTGCCAGACTTCATCAAACGCACAGGCA
TCCAGGAGATGCGAGAGGCCCTGCAGGAGAAGGAAGAACAGAAGACCATGAAGTCAAAAATGCGAGAGAAAGTTC
GGCCTAAGATGGGCAAAATTGACATCGACTACCAGAAACTGCATGATGCCTTCTTCAAGTGGCAGACCAAGCCAA
AGCTGACCATCCATGGGGACCTGTACTATGAGGGGAAGGAGTTCGAGACACGACTGAAGGAGAAGAAGCCAGGAG
ATCTGTCTGATGAGCTAAGGATTTCCTTGGGGATGCCAGTAGGACCAAATGCCCACAAGGTCCCTCCCCCATGGC
TGATTGCCATGCAGCGATATGGACCACCCCCATCGTATCCCAACCTGAAAATCCCTGGGCTGAACTCGCCCATCC
CTGAGAGCTGTTCCTTTGGGTACCATGCTGGTGGCTGGGGCAAACCTCCAGTGGATGAGACTGGGAAACCGCTCT
ATGGGGACGTGTTTGGAACCAATGCTGCTGAATTTCAGACCAAGACTGAGGAAGAAGAGATTGATCGGACCCCTT
GGGGGGAACTGGAACCATCTGATGAAGAATCCTCAGAAGAAGAGGAAGAGGAAGAAAGTGATGAAGACAAACCAG
ATGAGACAGGCTTTATTACCCCTGCAGACAGTGGCCTTATCACTCCTGGAGGCTTTTCATCAGTGCCTGCTGGAA
TGGAGACCCCTGAACTCATTGAGCTGAGGAAGAAGAAGATTGAGGAGGCGATGGACGGAAGTGAGACACCTCAGC
TCTTCACTGTGTTGCCAGAGAAGAGAACAGCCACTGTTGGAGGGGCCATGATGGGATCAACCCACATTTATGACA
TGTCCACGGTTATGAGCCGGAAGGGCCCGGCTCCTGAGCTGCAAGGTGTGGAAGTGGCGCTGGCGCCTGAAGAGT
TGGAGCTGGATCCTATGGCCATGACCCAGAAGTATGAGGAGCATGTGCGGGAGCAGCAGGCTCAAGTAGAGAAGG
AGGACTTCAGTGACATGGTGGCTGAGCACGCTGCCAAACAGAAGCAAAAAAAACGGAAAGCTCAGCCCCAGGACA
GCCGTGGGGGCAGCAAGAAATATAAGGAGTTCAAGTTTTAGGTCCCCTCACACTAGCCCTTTTTTTGGCCCTACG
TCTGGATGCCTGGGCTTCACACAAGAACCACCTCTCCCGCAGTTCCCAAGGACTTGTCATTTCATGTTCTTATTT
TAGACCTGTTTTGTAAATAAAGCTGTTTCCCAAGGAAAGAGATG

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FIGURE 3296

GGAGTTTCGCCGCCGCAGTCTTCGCCACC**ATG**CCGCCCTACACCGTGGTCTATTTCCCAGTTCGAGGCCGCTGCG
CGGCCCTGCGCATGCTGCTGGCAGATCAGGGCCAGAGCTGGAAGGAGGAGGTGGTGACCGTGGAGACGTGGCAGG
AGGGCTCACTCAAAGCCTCCTGCCTATACGGGCAGCTCCCCAAGTTCCAGGACGGAGACCTCACCCTGTACCAGT
CCAATACCATCCTGCGTCACCTGGGCCGCACCCTTGGGCTCTATGGGAAGGACCAGCAGGAGGCAGCCCTGGTGG
ACATGGTGAATGACGGCGTGGAGGACCTCCGCTGCAAATACATCTCCCTCATCTACACCAACTATGAGGCGGGCA
AGGATGACTATGTGAAGGCACTGCCCGGGCAACTGAAGCCTTTTGAGACCCTGCTGTCCCAGAACCAGGGAGGCA
AGACCTTCATTGTGGGAGACCAGATCTCCTTCGCTGACTACAACCTGCTGGACTTGCTGCTGATCCATGAGGTCC
TAGCCCCTGGCTGCCTGGATGCGTTCCCCCTGCTCTCAGCATATGTGGGGCGCCTCAGTGCCCGGCCCAAGCTCA
AGGCCTTCCTGGCCTCCCCTGAGTACGTGAACCTCCCCATCAATGGCAACGGGAAACAG**TGA**GGGTTGGGGGGAC
TCTGAGCGGGAGGCAGAGTTTGCCTTCCTTTCTCCAGGACCAATAAAATTTCTAAGAGAGCT

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FIGURE 3297

GCGTGACGTCTTTCCTGCGCGCCACCTAGCGTCTCTATCGCGCCAGTTCCTCAGCCTCAGTGCTATGAAGGTGAC
AGCGTGAGGTGACCCATCTGGCCCGCCGCG**ATG**CTGGCAACACGGCGGCTGCTCGGCTGGTCGCTTCCCGCGCGG
GTATCTGTGCGTTTCAGCGGCGACACGACAGCACCCAAGAAAACCTCATTTGGCTCGCTGAAGGATGAAGACCGG
ATTTTCACCAACCTGTACGGCCGCCATGACTGGAGGCTGAAAGGTTCCCTGAGTCGAGGTGACTGGTACAAGACA
AAGGAGATCCTGCTGAAGGGGCCCGACTGGATCCTGGGCGAGATCAAGACATCGGGTTTGAGGGGCCGTGGAGGC
GCTGGCTTCCCCACTGGCCTCAAGTGGAGCTTCATGAATAAGCCCTCAGATGGCAGGCCCAAGTATCTGGTGGTG
AACGCAGACGAGGGGGAGCCGGGCACCTGCAAGGACCGGGAGATCTTACGCCATGATCCTCACAAGCTGCTGGAA
GGCTGCCTGGTGGGGGGCCGGGCCATGGGCGCCCGCGCTGCCTATATCTACATCCGAGGGGAATTCTACAATGAG
GCCTCCAATCTGCAGGTGGCCATCCGAGAGGCCTATGAGGCAGGTCTGATTGGCAAGAATGCTTGTGGCTCTGGC
TATGATTTTGACGTGTTTGTGGTGCGCGGGGCTGGGGCCTACATCTGTGGAGAGGAGACAGCGCTCATCGAGTCC
ATTGAGGGCAAGCAGGGCAAGCCCCGCCTGAAGCCCCCCTTCCCCGCAGACGTGGGAGTGTTTGGCTGCCCCACA
ACTGTGGCCAACGTGGAGACAGTGGCAGTGTCCCCCACAATCTGCCGCCGTGGAGGTACCTGGTTTGCTGGCTTT
GGCAGAGAACGCAACTCAGGCACCAAACTATTCAACATCTCTGGCCATGTCAACCACCCTTGCACTGTGGAGGAG
GAGATGTCTGTGCCCTTGAAAGAACTGATTGAGAAGCATGCTGGGGGTGTCACGGGCGGCTGGGACAACCTCCTT
GCTGTGATCCCTGGCGGCTCGTCTACCCCACTGATCCCCAAGTCTGTGTGTGAGACGGTGCTGATGGACTTCGAT
GCGCTGGTGCAGGCACAGACAGGCCTGGGCACAGCTGCGGTGATCGTCATGGACCGCTCGACGGACATCGTGAAA
GCCATCGCCCGCCTCATTGAGTTCTATAAGCACGAGAGCTGTGGCCAGTGTACCCCATGCCGTGAGGGTGTGGAC
TGGATGAACAAGGTGATGGCACGTTTCGTGAGGGGGGATGCCCGGCCGGCCGAGATCGACTCCCTGTGGGAGATC
AGCAAGCAGATAGAAGGCCATACGATTTGTGCTCTGGGTGACGGGGCCGCCTGGCCTGTGCAGGGTCTGATCCGC
CACTTTCGGCCGGAGCTCGAGGAGCGGATGCAGCGGTTTGCCCAGCAGCATCAGGCCCGGCAGGCTGCCTCT**TAG**

CCCACCACCCTGGCCTGCTGTCCTGCGTCTATCCATGTGGAATGCTGGACAATAAAGCGAGTGCTGCCCACCCTC
C

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FIGURE 3298

GTCAAAGCCCTGCGTCCTTCGGCCCCCAGAGCGGAGAAGCGCGCAAGGCACCGGTGGCAGCGGCGACGGCAGCTG
CGACAGCAACCCCTGCTGGGCCGAAACTGGGCAGAGCGGAGCAGACGTCTGAAGCAGCGCGAGTGAGGCGCGAGG
GTAGCGCCCGCGCCCGGGAAGACCCCTCGGCGCGAACCGGCAGCCCAGCCCCGGGTCCCGGTTCCCAAGGCCCCG
CCTCTAGGGCCTGGGGACTAATCGGATTGAGAGCGCGCCGGCCCGGGCCGCGAACTCGCCAATTGCGGAGGGCGG
TGGCCACCGCCCAATCCGGAGCAGACAGGTGCGAGGTCCGGAAGGCGGAGGCCAATCGGCGGCGGTTGCGACCTG
CTGGGGCAGGTCTCGGCCAATAAGGAGGCTCGAGTGACATCTTCGCGCACCAATCGGGAGTGAGGGAGCATTCGT
GCCCGCTCGCCCTTCCGGCCAGACCTCTATTTACCAGGGGCGTGCAGCCCGCTTGCCAATCAGAGCGCGGCTGAG
CGGCCCCGCAGCCAACCCCCGAGGAGCGGCCGGCTGGCGTCCGCCGCGCCCAGGAGTTGGGGATGTCCTACAAAC
CCATCGCCCCTGCTCCCAGCAGCACCCCTGGCTCCAGCACCCCTGGGCCGGGCACCCCGGTCCCTACAGGTGAGG
ATCCAGCTCCACCCCTGCTCGCCTGCCGGGCGGTCGAGGTCTCGAAGAGAAGACGGCCTGAGTTCTGCAATACTG
GGCCTGCCGCCTACCCTCGCTGAGCCTCAGTTTGCTGGCCTGTGAAGTGGGCGTGGTCACGTAAGGGCTTGTAGG
TGGAGCGCAGTGGGAGGGATTTGTCCCTGAAGTTGATCAGCATGGA**ATG**AAGCATCCTTTGGAGGGAATCGGGCG
AACCCGGTCCTGGGCTTGGAAAAGCTGGGAGGCGGCGTCCCTGCCCCGCGCTGACCTCTTACTCGCGCCTGTTGC
TGCAGGAAGCGTCCCGTCGCCGTCGGGCTCAGTGCCAGGAGCCGGCGCTCCTTTCAGACCGCTGTTTAACGACTT
TGGACCGCCTTCCATGGGCTACGTGCAGGCGATGAAGCCACCCGGCGCCCAGGGCTCCCAGAGCACCTACACGGA
CCTGCTGTCAGTCATAGAGGAGATGGGCAAAGAGATCCGGCCTACCTATGCTGGCAGCAAGAGCGCCATGGAGCG
CCTGAAGAGAGGTATCATCCATGCCCGGGCCCTAGTCAGAGAGTGCCTGGCAGAGACAGAGCGGAACGCCCGCAC
G**TAA**CAGGAAGCGCCTCGGCCTCAGCGTCTGGACCTATCCGGCCACTGCAGAGCACCCGCTTCTCCCTGGCCTTC
ATCCCGAGTTGCACTAACCATCCTGGGCTTCCTGTCCTGTGTCCCTTGGTGGGTCCCCTCCAGGAACCAAGGAGT
GGCCCTCCAGGTGGCAGCACTAAGGACACCCCCCCACAACAAGAGTTAGCAGCGAGGTCCCCATGAGTCCCACCC
ATGACCTGCCGACAGTGTTGCCCACCGGAACTTTTGTGGCCCCTACCGCTCAGCCCTTCCCAGCACTTCTCCCAC
TTTGTCCCGAGCCTCCTTCTCCCCCAGCAGGGGCACAGGCCTGGCACCTCCCTGCCTTGTGTCCTGAGCCATAGT
GACTCTTTTATCTGTGTGTCTTTTGCTAAATATGCCCTTTTTATATTAATAAAAGATGATTTGGAGTTGTGCTCT
C

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FIGURE 3299

CGCGGGCGGCGGTGCTAGGCTCGCCTCTGCCTCCCTCGTGGCGGGCCCGGACATGGGGTCCCGTGGCCTGAGTCC
CTCGGCCGGCGCGCAGGGCTCGGGCCGCGCGCAGCCTCCCCGCACTGACTGTCGCGCCGTGCCCTGCGCCAGGAG
GAGCGGAGGCCGCGCGCCCGCCGAGCGCCTTCAGGATGCTCATCAAGGAATACCACATTCTGCTGCCCATGAGCC
TGGACGAGTACCAGGTGGCCCAGCTCTACATGATCCAGAAAAAGAGCCGGGAGGAGTCTAGTGGTGAGGGCAGCG
GCGTGGAGATCCTGGCCAACCGGCCCTACACGGATGGGCCCGGGGGCAGCGGGCAATACACACACAAGGTGTACC
ACGTGGGCTCCCACATCCCAGGCTGGTTCCGGCACTGCTGCCCAAGGCTGCCCTGCAGGTAGAAGAGGAATCCTG
GAATGCCTACCCCTACACCCGAACCCGGTACACCTGCCCTTTCGTGGAGAAATTCTCCATTGAAATTGAGACCTA
TTACCTGCCTGATGGGGGGCAGCAGCCAAACGTCTTCAACCTGAGCGGGGCCGAGAGGAGACAGCGCATCCTGGA
CACCATCGACATCGTGCGGGATGCAGTGGCCCCAGGCGAGTACAAAGCAGAAGAGGACCCCCGGCTTTATCACTC
GGTCAAGACGGGCCGAGGGCCACTGTCTGATGACTGGGCACGGACGGCGGCACAGACGGGGCCCCTTATGTGTGC
CTATAAGCTGTGCAAGGTTGAGTTCCGCTACTGGGGCATGCAAGCCAAGATCGAGCAGTTCATCCATGATGTAGG
TACTGCGTCGGGTGATGCTGCGGCCCACCGCCAGGCCTGGTGCTGGCAGGATGAGTGGACAGAGCTGAGCATGGC
TGACATCCGGGCACTGGAAGAGGAGACTGCTCGCATGCTGGCCCAGCGCATGGCCAAGTGCAACACAGGCAGTGA
GGGTCCGAGCCCAGCCCCCCGGGAAACCGAGCACCGAGGCCCGGTCTGCGGCAGCAACACTGGCACCCCCGATGG
GCCTGAGCCCCCCCAGGCCCAGATGCCTCCCCCGATGCCAGCTTTGGGAAGCAGTGGTCCTCATCCTCCCGTTCC
TCCTACTCATCCCAACATGGAGGGGCTGTGTCTCCCCAGAGCTTGTCTGAGTGGCGC**ATG**CAGAACATTGCCCGA
GACTCTGAGAACAGCTCCGAGGAAGAGTTCTTTGATGCCCACGAAGGCTTCTCGGACAGTGAGGAGGTCTTCCCC
AAGGAGATGACCAAGTGGAACTCCAATGACTTCATTGATGCCTTTGCCTCCCCAGTGGAGGCAGAGGGAACGCCA
GAGCCTGGAGCCGAGGCAGCTAAAGGCATTGAGGATGGGGCCCAAGCACCCAGGGACTCAGAGGGCCTGGATGGA
GCCGGGGAGCTGGGGGCTGAGGCATGCGCAGTCCACGCCCTCTTCCTTATCCTGCACAGCGGCAACATCCTGGAC
TCAGGCCCTGGAGACGCCAACTCCAAGCAGGCGGATGTGCAGACGCTGAGCTCCGCCTTCGAGGCCGTCACCCGC
ATCCACTTCCCTGAGGCCTTGGGCCACGTGGCGCTGCGACTGGTGCCCTGTCCACCCATCTGCGCCGCCGCCTAT
GCCCTTGTCTCCAACCTGAGCCCTTACAGCCACGATGGGGACAGCCTGTCTCGCTCCCAAGACCACATTCCACTG
GCTGCCCTGCCACTGCTGGCCACCTCATCCTCCCGCTACCAGGGCGCCGTGGCCACCGTCATTGCCCGCACCAAC
CAGGCCTACTCAGCCTTCCTGCGCTCACCTGAGGGTGCCGGCTTCTGTGGGCAGGTCGCACTGATTGGAGATGGT
GTTGGTGGCATCCTGGGCTTTGATGCACTCTGCCACAGTGCTAACGCGGGCACCGGGAGTCGGGGCAGCAGCCGC
CGTGGGAGCATGAACAATGAGCTGCTCTCTCCGGAGTTTGGCCCAGTGCGGGACCCCCTGGCAGATGGTGTGGAA
GGCCTGGGTCGGGGCAGCCCAGAACCCTCGGCCTTGCCTCCCCAGCGCATCCCCAGCGACATGGCCAGTCCTGAG
CCCGAGGGCTCTCAGAACAGCCTTCAGGCAGCCCCCGCAACCACCTCCTCCTGGGAGCCCCGGCGGGCAAGCACG
GCCTTCTGCCCACCCGCTGCCAGTTCCGAGGCACCTGACGGCCCCAGCAGCACTGCCCGCCTTGACTTCAAGGTC
TCTGGCTTCTTCCTCTTCGGCTCCCCACTGGGCCTGGTGCTGGCTCTGCGCAAAACTGTGATGCCCGCCCTGGAG
GCAGCCCAGATGCGCCCAGCCTGTGAACAGATCTACAACCTCTTCCACGCGGCTGACCCCTGCGCCTCACGCCTC
GAGCCCCTGCTGGCCCCGAAGTTCCAGGCCATCGCCCCACTGACCGTGCCCCGCTACCAGAAGTTCCCCCTGGGA
GATGGCTCATCCCTGCTGCTGGCCGACACTCTGCAGACGCACTCCAGCCTCTTTCTGGAGGAGCTGGAGATGCTG
GTGCCCTCAACACCCACCTCTACTAGCGGTGCCTTCTGGAAGGGCAGTGAGTTGGCCACTGACCCCCCGGCCCAG
CCAGCCGCCCCCAGCACCACCAGTGAGGTGGTTAAGATCCTGGAGCGCTGGTGGGGGACCAAGCGGATCGACTAC
TCGCTGTACTGCCCCGAGGCGCTCACCGCCTTTCCCACCGTCACGCTGCCCCACCTCTTCCACGCCAGCTACTGG
GAGTCCGCCGACGTGGTGGCGTTCATCCTGCGCCAGGTGATCGAGAAGGAGCAGGCCACAGCTGGCGGAATGCGA
GGAGCCGTCCATCTACAGCCCGGCCTTCCCCAGGCAGAAGTGGCAGCGAAAACGCACGCAGGTCAAGATCCGGGT
AGAACTGAACATCGTGGCCGGTTATGGGTCTCCCAAAGATGTGGCTGTATACGCGGCGCTGGGGCTGTCCCCGAG
CCAGACCTACATCGTGGGCCGTGCCGTGCGGAAGCTACAGGCGCAGTGCCAGTTCCTGTCAGACGGCTATGTGGC
CCACCTGGGCCAGCTGGAAGCGGGCTCGCACTCGCATGCCTCCTCGGGACCCCCGAGAGCTGCCTTGGGCAAGAG
CAGCTATGGTGTGGCTGCCCCCGTGGACTTCCTGCGCAAACAGAGCCAGCTGCTTCGCTCGAGGGGCCCCAGCCA
GGCGGAGCG**TGA**GGGCCCGGGAACACCACCCACCACCCTGGCACGGGGCAAAGCACGGAGCATCAGCCTGAAGCT
GGACAGCGAGGAGTGAGGCCCACACCAGCCTGGACCTGGGTTATTTATTGACACACCCAAGGGGCCCGAGGGGCT
GCGTGTGGGAGGCTGGGGACCCAGACTTTTGGCCCCAGCGCTGGCCCCCCCAGCCCCACACCCTATATCTCCGTG
TGCTCCTCGGTGTTACTTCCCTTTCATATGAGGGGACCCAGCGCCGGGGGGAGGGAGGAGGGCGTGGGCATGGGC
GCAGAGGCTTTTCCAGTGTGTATAAATCCATGAAAATAAACGCCACCTGCACCCC

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FIGURE 3300

AGGCCACGTTCCACTACCGGACGCTGCACAGTGACGACGAGGGCACCGTGCTGGACGACAGCCGGGCTCGTGGCA
AGCCC**ATG**GAGCTCATCATTGGCAAGAAGTTCAAGCTGCCTGTGTGGGAGACCATCGTGTGCACCATGCGAGAAG
GGGAGATTGCCCAGTTCCTCTGTGACATCAAGCATGTGGTCCTGTACCCGCTGGTGGCCAAGAGTCTCCGCAACA
TCGCGGTGGGCAAGGACCCCCTGGAGGGCCAGCGGCACTGCTGCGGTGTTGCACAGATGCGTGAACACAGCTCCC
TGGGCCATGCTGACCTGGACGCCCTGCAGCAGAACCCCCAGCCCCTCATCTTCCACATGGAGATGCTGAAGGTGG
AGAGCCCTGGCACGTACCAGCAGGACCCATGGGCCATGACAGACGAAGAGAAGGCAAAGGCAGTGCCACTTATCC
ACCAGGAGGGCAACCGGTTGTACCGCGAGGGGCATGTGAAGGAGGCTGCTGCCAAGTACTACGATGCCATTGCCT
GCCTCAAGAACCTGCAGATGAAGGAACAGCCTGGGTCCCCTGAATGGATCCAGCTGGACAAGCAGATCACGCCGC
TGCTGCTCAACTACTGCCAGTGCAAGCTGGTGGTCGAGGAGTACTACGAGGTGCTGGACCACCTAGCTCTTCCAT
CCTCAACAAGTACGACGACAACGTCAAGGCCTACTTCAAGCGGGGCAAGGCCCACGCGGCCGTGTGGAATGCCCA
GGAGGCCCAGGCTGACTTTGCCAAAGTGCTGGAGCTGGACCCAGCCCTGGCGCCTGTGG**TGA**GCCGAGAGCTGCT
GGGCCCTGGAGGCACGGATCCGGCAGAAGGACGAAGAGGACAAAGCCCGGTTCCGGGGGATCTTCTCCCATTGAC
AGGAGCACTTGGCCCTGCCTTACCTGCCAAGCCCACTGCTGCAGCTGCCAGCCCCCCTGCCCGTGCTGCGTCATG
CTTCTGTGTATATAAAGGCCTTTATTTATCTCTC

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FIGURE 3301

GACTCCGGGGCGACCGCCGCGAGTCCGCAGTAGTTCGGGCC**ATG**GAGGCGGAGCCGCCGCTCTACCCGATGGCGG
GGGCTGCGGGGCCGCAGGGCGACGAGGACCTGCTCGGGGTCCCGGACGGGCCCGAGGCCCCGCTGGACGAGCTGG
TGGGCGCGTACCCCAACTACAACGAGGAGGAGGAGGAGCGCCGCTACTACCGCCGCAAGCGCCTGGGCGTGCTCA
AGAACGTGCTGGCTGCCAGCGCCGGGGGCATGCTCACCTACGGCGTCTACCTGGGCCTCCTGCAGATGCAGCTGA
TCCTGCACTACGACGAGACCTACCGCGAGGTGAAGTATGGCAACATGGGGCTGCCCGACATCGACAGCAAAATGC
TGATGGGCATCAACGTGACTCCCATCGCCGCCCTGCTCTACACACCTGTGCTCATCAGGTTTTTTGGAACGAAGT
GGATGATGTTCCTCGCTGTGGGCATCTACGCCCTCTTTGTCTCCACCAACTACTGGGAGCGCTACTACACGCTTG
TGCCCTCGGCTGTGGCCCTGGGCATGGCCATCGTGCCTCTTTGGGCTTCCATGGGCAACTACATCACCAGGATGG
CGCAGAAGTACCATGAGTACTCCCACTACAAGGAGCAGGATGGGCAGGGGATGAAGCAGCGGCCTCCGCGGGGCT
CCCACGCGCCCTATCTCCTGGTCTTCCAAGCCATCTTCTACAGCTTCTTCCATCTGAGCTTCGCCTGCGCCCAGC
TGCCCATGATTTATTTCCTGAACCACTACCTGTATGACCTGAACCACACGCTGTACAATGTGCAGAGCTGCGGCA
CCAACAGCCACGGGATCCTCAGCGGCTTCAACAAGACGGTTCTGCGGACGCTCCCGCGGAGCGGAAACCTCATTG
TGGTGGAGAGCGTGCTCATGGCAGTGGCTTCCTGGCCATGCTGCTGGTGCTGGGTTTGTGCGGAGCCGCTTACCG
GCCCACGGAGGAGATCGATCTGCGCAGCGTGGGCTGGGGCAACATCTTCCAGCTGCCCTTCAAGCACGTGCGTGA
CTACCGCCTGCGCCACCTCGTGCCTTTCTTTATCTACAGCGGCTTCGAGGTGCTCTTTGCCTGCACTGGTATCGC
CTTGGGCTATGGCGTGTGCTCGGTGGGGCTGGAGCGGCTGGCTTACCTCCTCGTGGCTTACAGCCTGGGCGCCTC
AGCCGCCTCACTCCTGGGCCTGCTGGGCCTGTGGCTGCCACGCCCGGTGCCCCTGGTGGCCGGAGCAGGGGTGCA
CCTGCTGCTCACCTTCATCCTCTTTTTCTGGGCCCCTGTGCCTCGGGTCCTGCAACACAGCTGGATCCTCTATGT
GGCAGCTGCCCTTTGGGGTGTGGGCAGTGCCC**TGA**ACAAGACTGGACTCAGCACACTCCTGGGAATCTTGTACGA
AGACAAGGAGAGACAGGACTTCATCTTCACCATCTACCACTGGTGGCAGGCTGTGGCCATCTTCACCGTGTACCT
GGGCTCGAGCCTGCACATGAAGGCTAAGCTGGCGGTGCTGCTGGTGACGCTGGTGGCGGCCGCGGTCTCCTACCT
GCGGATGGAGCAGAAGCTGCGCCGGGGCGTGGCCCCGCGCCAGCCCCGCATCCCGCGGCCCCAGCACAAGGTGCG
CGGTTACCGCTACTTGGAGGAGGACAACTCGGACGAGAGCGACGCGGAGGGCGAGCATGGGGACGGCGCGGAGGA
GGAGGCGCCGCCCGCAGGGCCCAGGCCTGGCCCCGAGCCCGCTGGACTCGGCCGCCGGCCCTGCCCGTACGAACA
GGCGCAGGGGGGAGACGGGCCGGAGGAGCAGTGAGGGGCCGCCTGGTCCCCGGACTCAGCCTCCCTCCTCGCCGG
CCTCAGTTTACCACGTCTGAGGTCGGGGGGACCCCCTCCGAGTCCCGCGCTGTCTTCAAAGGCCCCTGTCTCCCC
TCCCCCACGTTGGGGACGCCCCTCCCAGAGCCCAGGTCACCTCCGGGCTTCCGCAGCCCCCTCCAAGGCGGAGTG
GAGCCTTGGGAACCCCTCGGCCAAGCACAGGGGTTCGAAAATACAGCTGAAACCCCGCGGGCCCTTAGCACGCGC
CCCAGCGCCGGAGCACGGTCAGGGTCTTCTTGCGACCCGGCCCGCTCCAGATCCCCACAGCTCTCGGCCGCGGAC
CCGGGCCGCGTGTGAGCGCACTTTGCACCTCCTATCCCCAGGGTCCGCCGAGAGCCACGATTTTTTACAGAAAAT
GAGCAATAAAGAGATTTTGTACTGTC

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FIGURE 3302

ATTTCTTAACAGCAGGGCCACCAGGCAGAGCGGGACAGCCAGGAGGAAGGGCAGCTTGGCAGAGCCTCAGG**ATG**G
ACCCCCTTGGGGACACGCTGCGGCGACTGCGGGAGGCCTTCCACGCGGGGCGCACGCGGCCAGCTGAGTTCCGGG
CTGCGCAGCTCCAAGGCCTGGGCCGCTTCCTGCAAGAAAACAAGCAGCTTCTGCACGACGCACTGGCCCAGGACC
TGCACAAGGCCACGCAGCTGGACTCCGCCTTCATCCGGAAGGAGCCCTTTGGCCTGGTCCTCATCATTGCGCCCT
GGAACTATCCGCTGAACCTGACGCTGGTGCCCCTCGTGGGAGCCCTCGCTGCAGGGAACTGTGTGGTGCTGAAGC
CATCGGAGATTAGCAAGAACGTCGAGAAGATCCTGGCCGAGGTGCTGCCCCAATACGTGGACCAGAGCTGCTTTG
CTGTGGTGCTGGGCGGGCCCCAGGAGACGGGGCAGCTGCTAGAGCACAGGTTCGACTACATCTTCTTCACAGGGA
GCCCTCGTGTGGGCAAGATTGTTATGACTGCTGCCGCCAAGCACCTGACACCTGTCACCCTGGAGCTGGGGGGCA
AGAACCCTTGCTACGTGGACGACAACTGCGACCCCCAGACCGTGGCCAACCGCGTGGCCTGGTTCCGCTACTTCA
ACGCCGGCCAGACCTGCGTGGCCCCCGACTACGTCCTATGCAGCCCTGAGATGCAGGAGAGGCTGCTGCCTGCCC
TGCAGAGCACCATCACCCGTTTCTATGGCGACGACCCCCAGAGCTCCCCAAACCTGGGCCGCATCATCAACCAGA
AACAGTTCCAGCGGCTGCGGGCATTGCTGGGCTGCGGCGTGTGGCCATTGGGGGCCAGAGCGATGAGAGCGATCG
CTACATCGCCCCCACGGTGCTGGTGGATGTGCAGGAGATGGAGCCTG**TGA**TGCAGGAGGAGATCTTCGGGCCCAT
CCTGCCCATCGTGAACGTGCAGAGCTTGGACGAGGCCATCGAGTTCATCAACCGGCGGGAGAAGCCCCTGGCCCT
GTACGCCTTCTCCAACAGCAGCCAGGTGGTCAAGCGGGTGCTGACCCAGACCAGCAGCGGGGGCTTCTGTGGGAA
CGACGGCTTCATGCACATGACCCTGGCCAGCCTGCCTTTTGGAGGAGTGGGTGCCAGTGGGATGGGCCGGTACCA
TGGCAAGTTCTCCTTCGACACCTTCTCCCACCATCGCGCCTGCCTCCTGCGCAGCCCGGGGATGGAGAAGCTCAA
CGCCCTCCGCTACCCGCCGCAATCGCCGCGCCGCCTGAGGATGCTGCTGGTGGCCATGGAGGCCAAGGCTGCAGC
TGCACACTGCTCTGAGCCCTTCCCCAGGCCCAGGCTGTAGACCACCATGACAGCTGTCGCCTGCGGCTGGTGGAG
ACGGGGCCTGGGCTCCCGGGCCCGAGGAGGAAAAGGATTGCCAAGGCTCCAGGGCACCCCTCAAAGCAGCGCCTG
CCTCCTCCCTCCTGGGTCTTCCCTCTCCCTGCCTCAGCCTCCTCCCTCAGCCGCTCCCAACCATGAGAGCCGAGG
TGGGAGGCATGGGAAACAGTGCAGTGACTCACCCCCTGCCCCCGCACCAACCACCCATATTCAGGAGAAGAGGAC
AGACACGGCACCTCTGAGTCACCCCTCTCCTGTGGAGCGGGCGTCCGAGGGGCCCTGGCATCTGACTCAGGCCAC
ACCATGGAATCACTGCATCCAAGGCCATTCCTGCCCTCTCTGAGTCTCAGTTTTTCCATTTGTTCAGTGGAGAGA
ATTAACCATTGATACCTCCTGGCTGGGTGAGGCGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCCGAGGCAG
GCGGATCACCTGAAATCAGGAGTTCAAGATCAGCCTGGCTAACATGGCGAAACCCCGTCTCTACTAAAAATACAA
AAATTAGCCTGGCGTGGTGGCGCATGCCTGTAATCCCAGCTACTCAGGAGGCTAAGGCAGGAGAATCGCTTGAAC
CCGGGAGGTGGAGGTTGCCGTGAGCTGAGATTGCGTCACTGAACTCCGGCCTGGGTGACAGAAGGAGGCTCTGCC
TTAAAAAAAAAAAAAAAAAAAAACCTCCTGGGACTGTTGCAAGGATGAAATGAAGGATTGAGGGATTGAGGGATTG
CTGAGCTGGAGCTCCAGGTGTCCTATCTTTCTCAGTGGGGTGGCACGGAGCGGGGCCGCCTCCCTCTTCTCTCCA
GGCAGGTGGGGCTGTGGTTATGCGATAGGGTCTCCCTTCCCTCCAGCCCATGCCAGAGGAGCTTGTAACTCTTTA
TCCTCATGGTGCCCACTACGAGTCATACTCTTCCCCATGCTGCTCATCCTCCTGGGCCCCATCCACTCAGCCAAA
GCAGAATGCAGGGTTTCCTGCCTGACAACCCTTCTCACCTCCCAAGTCCCACTTTTGAACAAGCTGATGATTCTG
AAACTGGCCCAATTTCCTAACAAGCCGGATGCTTGAGAAACCTACATTTGGACAATGAGAGGCTGCTCCTGCGGC
CTGCGGGCCACCTCCTCTTCCTTGGCTCCTGCTTTCTTTTTAGACTATATCAACCTACAACTTTAGTCGGGAAGA
GGGACAGGGGTGGACCTGAGTTTCGTCTCCTGTCTCTCTGGCTGATGTCACCTGAATAAAGCCTTCTTCCCTGGC

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FIGURE 3303

CCCGCTGGCCCAATGGCAGCGTCCTACAGTGTAGCCTCCGCCTCCCGATTGACTGGCCTGCTTGGCAAGGCAAGT
AGCGGCGGCGCTTCAAG**ATG**CGCTGCCTGACCACGCCTATGCTGCTGCGGGCCCTGGCCCAGGCTGCACGTGCAG
GACCTCCTGGTGGCCGGAGCCTCCACAGCAGTGCAGTGGCAGCCACCTACAAGTATGTGAACATGCAGGATCCCG
AGATGGACATGAAGTCAGTGACTGACCGGGCAGCCCGCACCCTGCTGTGGACTGAGCTCTTCCGAGGCCTGGGCA
TGACCCTGAGCTACCTGTTCCGGGAACCGGCCACCATCAACTACCCGTTCGAGAAGGGCCCGCTGAGCCCTCGCT
TCCGTGGGGAGCATGCGCTGCGCCGGTACCCATCCGGGGAGGAGCGTTGCATTGCCTGCAAGCTCTGCGAGGCCA
TCTGCCCCGCCCAGGCCATCACCATCGAGGCTGAGCCAAGAGCTGATGGCAGCCGCCGGACCACCCGCTATGACA
TCGACATGACCAAGTGCATCTACTGCGGCTTCTGCCAGGAGGCCTGTCCCGTGGATGCCATCGTCGAGGGCCCCA
ACTTTGAGTTCTCCACGGAGACCCATGAGGAGCTGCTGTACAACAAGGAGAAGTTGCTCAACAACGGGGACAAGT
GGGAGGCCGAGATCGCCGCCAACATCCAGGCTGACTACTTGTATCGG**TGA**CGCCCCACCGGCCCGCAGCCCCTGC
TGCCCAATAAAACCACTCCGACCCCACGG

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FIGURE 3304

GCGGCGCCTAGTCCCGGGCTGGCGGGAGTGCAGTTCTGAGTCCCGCCCGGCGTGCGCGGAGCGGGGCAGCCAGCA
GCGGAGGCGCGGCGCGCAGCACACCCGGGGACC**ATG**GGCTCCATGTTCCGGAGCGAGGAGGTGGCCCTGGTCCAG
CTCTTTCTGCCCACAGCGGCTGCCTACACCTGCGTGAGTCGGCTGGGCGAGCTGGGCCTCGTGGAGTTCAGAGAC
CTCAACGCCTCGGTGAGCGCCTTCCAGAGACGCTTTGTGGTTGATGTTCGGCGCTGTGAGGAGCTGGAGAAGACC
TTCACCTTCCTGCAGGAGGAGGTGCGGCGGGCTGGGCTGGTCCTGCCCCCGCCAAAGGGGAGGCTGCCGGCACCC
CCACCCCGGGACCTGCTGCGCATCCAGGAGGAGACGGAGCGCCTGGCCCAGGAGCTGCGGGATGTGCGGGGCAAC
CAGCAGGCCCTGCGGGCCCAGCTGCACCAGCTGCAGCTCCACGCCGCCGTGCTACGCCAGGGCCATGAACCTCAG
CTGGCAGCCGCCCACACAGATGGGGCCTCAGAGAGGACGCCCCTGCTCCAGGCCCCCGGGGGGCCGCACCAGGAC
CTGAGGGTCAACTTTGTGGCAGGTGCCGTGGAGCCCCACAAGGCCCCTGCCCTAGAGCGCCTGCTCTGGAGGGCC
TGCCGCGGCTTCCTCATTGCCAGCTTCAGGGAGCTGGAGCAGCCGCTGGAGCACCCCGTGACGGGCGAGCCAGCC
ACGTGGATGACCTTCCTCATCTCCTACTGGGGTGAGCAGATCGGACAGAAGATCCGCAAGATCACGGACTGCTTC
CACTGCCACGTCTTCCCGTTTCTGCAGCAGGAGGAGGCCCGCCTCGGGGCCCTGCAGCAGCTGCAACAGCAGAGC
CAGGAGCTGCAGGAGGTCCTCGGGGAGACAGAGCGGTTCCTGAGCCAGGTGCTAGGCCGGGTGCTGCAGCTGCTG
CCGCCAGGGCAGGTGCAGGTCCACAAGATGAAGGCCGTGTACCTGGCCCTGAACCAGTGCAGCGTGAGCACCACG
CACAAGTGCCTCATTGCCGAGGCCTGGTGCTCTGTGCGAGACCTGCCCGCCCTGCAGGAGGCCCTGCGGGACAGC
TCGATGGAGGAGGGAGTGAGTGCCGTGGCTCACCGCATCCCCTGCCGGGACATGCCCCCCACACTCATCCGCACC
AACCGCTTCACGGCCAGCTTCCAGGGCATCGTGGATGCCTACGGCGTGGGCCGCTACCAGGAGGTCAACCCCGCT
CCCTACACCATCATCACCTTCCCCTTCCTGTTTGCTGTGATGTTCGGGGATGTGGGCCACGGGCTGCTCATGTTC
CTGTTCGCCCTGGCCATGGTCCTTGCGGAGAACCGACCGGCTGTGAAGGCCGCGCAGAACGAGATCTGGCAGACT
TTCTTCAGGGGCCGCTACCTGCTCCTGCTTATGGGCCTGTTCTCCATCTACACCGGCTTCATCTACAACGAGTGC
TTCAGTCGCGCCACCAGCATCTTCCCCTCGGGCTGGAGTGTGGCCGCCATGGCCAACCAGTCTGGCTGGAGTGAT
GCATTCCTGGCCCAGCACACGATGCTTACCCTGGATCCCAACGTCACCGGTGTCTTCCTGGGACCCTACCCCTTT
GGCATCGATCCTATTTGGAGCCTGGCTGCCAACCACTTGAGCTTCCTCAACTCCTTCAAGATGAAGATGTCCGTC
ATCCTGGGCGTCGTGCACATGGCCTTTGGGGTGGTCCTCGGAGTCTTCAACCACGTGCACTTTGGCCAGAGGCAC
CGGCTGCTGCTGGAGACGCTGCCGGAGCTCACCTTCCTGCTGGGACTCTTCGGTTACCTCGTGTTCCTAGTCATC
TACAAGTGGCTGTGTGTCTGGGCTGCCAGGGCCGCCTCGGCCCCCAGCATCCTCATCCACTTCATCAACATGTTC
CTCTTCTCCCACAGCCCCAGCAACAGGCTGCTCTACCCCCGGCAGGAGGTGGTCCAGGCCACGCTGGTGGTCCTG
GCCTTGGCCATGGTGCCCATCCTGCTGCTTGGCACACCCCTGCACCTGCTGCACCGCCACCGCCGCCGCCTGCGG
AGGAGGCCCGCTGACCGACAGGAGGAAAACAAGGCCGGGTTGCTGGACCTGCCTGACGCATCTGTGAATGGCTGG
AGCTCCGATGAGGAAAAGGCAGGGGGCCTGGATGATGAAGAGGAGGCCGAGCTCGTCCCCTCCGAGGTGCTCATG
CACCAGGCCATCCACACCATCGAGTTCTGCCTGGGCTGCGTCTCCAACACCGCCTCCTACCTGCGCCTGTGGGCC
CTGAGCCTGGCCCACGCCCAGCTGTCCGAGGTTCTGTGGGCCATGGTGATGCGCATAGGCCTGGGCCTGGGCCGG
GAGGTGGGCGTGGCGGCTGTGGTGCTGGTCCCCATCTTTGCCGCCTTTGCCGTGATGACCGTGGCTATCCTGCTG
GTGATGGAGGGACTCTCAGCCTTCCTGCACGCCCTGCGGCTGCACTGGGTGGAATTCCAGAACAAGTTCTACTCA
GGCACGGGCTACAAGCTGAGTCCCTTCACCTTCGCTGCCACAGATGAC**TAG**GGCCCACTGCAGGTCCTGCCAGAC
CTCCTTCCTGACCTCTGAGGCAGGAGAGGAATAAAGACGGTCCGCCCTGGC

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FIGURE 3305

GAGGTCCTGTAATAAAGAGGGATCCGAACAAGCTCAGAAAGAAAATGAATTTCAAGGGGCTGAGGCCATGGTTCT
GGAGAGCGTTATGTTTGCCATTCTCGCAGAGAGGTCACTTGGGCCAAAACTCTATGGCATCTTTCCCCAAGGCCG
ACTGGAGCAGTTCATCCCGAGCCGGCGATTAGATACTGAAGAATTAAGTTTGCCAGATATTTCTGCAGAAATCGC
CGAGAAAATGGCTACATTTCATGGTATGAAAATGCCATTCAATAAGGAACCAAAATGGCTTTTTGGCACAATGGA
AAAGTATCTAAAGGAAGTGCTGAGAATTAAATTTACTGAGGAATCCAGAATTAAAAAGCTCCACAAATTGCTCAG
TTACAATCTGCCCTTGGAACTGGAAAACCTGAGATCATTGCTTGAATCTACTCCATCTCCAGTTGTATTTTGTCA
TAATGACTGTCAAGAAGGTAATATCTTGTTGCTGGAAGGCCGAGAGAATTCTGAAAAACAGAAACTGATGCTCAT
TGATTTCGAATACAGCAGTTACAATTACAGGGGATTCGACATTGGAAATCACTTCTGTGAGTGGATGTATGATTA
TAGCTATGAAAAATACCCTTTTTTCAGAGCAAACATCCGGAAGTATCCCACCAAGAAACAACAGCTCCATTTTAT
TTCCAGTTACTTGCCTGCATTCCAAAATGACTTTGAAAACCTCAGTACTGAAGAAAAATCCATTATAAAAGAAGA
AATGTTGCTTGAAGTTAATAGGTTTGCCCTTGCATCTCATTTCCTCTGGGGACTGTGGTCCATTGTACAAGCCAA
GATTTCATCTATTGAATTTGGGTACATGGACTACGCCCAAGCAAGGTTTGATGCCTATTTCCACCAGAAGAGGAA
GCTTGGGGTGTGACTGTGGGGAGGACTCCATCCACCTCATCACTGGACTGCATGGGGAGGCAGCAGAGCGGGGTC
CCCTCTGTGCTTCGACTACTGCTCCTGTGGCAGGAGGCTTTGGGTGGCTCACTACTGAACACATGTGTATGATAC
TAAAGACGGTATTAAAATGGAGCGACGTTTATTTCATCTCTTGTTTACGATTTCACTAGGACTCAGAAACGAGAT
CGGGAAGCAGAAATATAGTGCAATAGTGCAACATCTCTGAATCCTTTTAATCTAGAGAAGGCATTTCATATTTGG
GGGCTAAGGTTTCCAGTCAGATGAGGCAAACAGCAAGAGTAAGCAGTGTTACTTGCAGGTACTTTGGTTAATGTT
GATTTAAATTTTCATGAATGTGCTGGTGAACACTGTGACCAGGCTTTTGTAGATGGCGATGTGTTATAGACGGTG
CTCACTCCCAAGGGACAGCAAGTGAGCAGAGATGTACTGCAAAGTCGCCAGTCACTGCTGCAAGGTGGCCTCTGC
CTGGGGCCTCCAGAAGCTGCTCCTTTACCCTCTTGGTCCCATGGCTGAAGCTGGAGCAGCGGATTGCTCTGGAGC
AGCCAAGGCCGCCAGCGTGTGGAGCAGAGCTCTCCCCTCCTGCTGGGCGTGTGTGACACTGATGAGTTTCACTGT
ACTGCATGTGACTTCTCCCCTGCCCTTCCTCCTGATGGAGTGTGCAGACAGCCATGCGTGGCCACGGGGGCAGTG
TGAGGACCTCCCTGTCTCCCGGCTCCCCTCCCAGGGGAGCCAGCTGCTTGACCTAGCTCTTTGGGCCTCTCCTGC
CCTCTGCTCTGCCTGGAGTGTCGGATCCTGTGAGTAGGCTGGGCCTCCCCTGGGCAGGGTTCTCCAAGGGCCCGG
TTTCCCGGCCCTTACCTTTCCTGATGCCCCTGACATCATCATTCTTGTGGGAGACAGCAGCCTGTATGTGGTGTG
GGGCGTGGATCGAGTGTAGCTGTGAAATCCATATATATGAAATGTCC

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FIGURE 3306

TGAAGAAGCCTGCAAAGCCTTTACTTTCAAAGATAAAATTGAGAAATCATTGCAAGCGGCTGGAGCAAAAGAATG
CTTCAAGAAAACTCGAA**ATG**GGAAACTTAGTACTGAAAGAGCCTAAAGTAGTTCTGTATAAAAATTTGCCCATTA
AAAAAGATAAGGAGCCAGAGGGACCAGCCCAAGCCGCAGTTGCCAGCGGGTGCTTGACTAGACACGCGGCGAGAG
AACACAGACAGAATCCTGTGAGAGGTGCTCATTCGCAGGGGGAGAGCTCGCCCTGCACCTACATAACTCGGCGGT
CAGTGAGGACAAGAACAAATCTGAAGGAGGCCTCTGACATCAAGCTTGAACCAAATACGTTGAATGGCTATAAAA
GCAGTGTGACGGAACCTTGCCCCGACAGTGGTGAACAGCTGCAGCCAGCTCCTGTGCTGCAGGAGGAAGAACTGG
CTCATGAGACTGCACAAAAAGGGGAGGCAAAGTGTCATAAGAGTGACACAGGCATGTCCAAAAAGAAGTCACGAC
AAGGAAAACTTGTGAAACAGTTTGCAAAAATAGAGGAATCTACTCCAGTGCACGATTCTCCTGGAAAAGACGACG
CGGTACCAGATTTGATGGGTCCCCATTCTGACCAGGGTGAGCACAGTGGCACTGTGGGCGTGCCTGTGAGCTACA
CAGACTGTGCTCCTTCACCCGTCGGTTGTTCAGTTGTGACATCAGATAGCTTCAAAACAAAAGACAGCTTTAGAA
CTGCAAAAAGTAAAAAGAAGAGGCGAATCACAAGGTATGATGCACAGTTAATCCTAGAAAATAACTCTGGGATTC
CCAAATTGACTCTTCGTAGGCGTCATGATAGCAGCAGCAAAACAAATGACCAAGAGAATGATGGAATGAACTCTT
CCAAAATAAGCATCAAGTTAAGCAAAGACCATGACAACGATAACAATCTCTATGTAGCAAAGCTTAATAATGGAT
TTAACTCAGGATCAGGCAGTAGTTCTACAAAATTAAAAATCCAGCTAAAACGAGATGAGGAAAATAGGGGGTCTT
ATACAGAGGGGCTTCATGAAAATGGGGTGTGCTGCAGTGATCCTCTTTCTCTCTTGGAGTCTCGAATGGAGGTGG
ATGACTATAGTCAGTATGAGGAAGAAAGTACAGATGATTCCTCCTCTTCTGAGGGCGATGAAGAGGAGGATGACT
ATGATGATGACTTTGAAGACGATTTTATTCCTCTTCCTCCAGCTAAGCGCTTGAGGTTAATAGTTGGAAAAGACT
CTATAGATATTGACATTTCTTCAAGGAGAAGAGAAGATCAGTCTTTAAGGCTTAATGCC**TAA**GCTCTTGGTCTTA
ACTTGACCTGGGATAACTACTTTAAAGAAATAAAAAATTCCAGTCAATTATTCCTCAACTGAAAGTTTAGTGGCA
GCACTTCTATTGTCCCTTCACTTATCAGCATACTATTGTAGAAAGTGTACAGCATACTGACTCAATTCTTAAGTC
TGATTTGTGCAAATTTTTATCGTACTTTTTAAATAGCCTTCTTACGTGCAATTCTGAGTTAGAGGTAAAGCCCTG
TTGTAAAATAAAGGCTCAAGCAAAATTGTACAGTGATAGCAACTTTCCACACAGGACGTTGAAAACAGTAATGTG
GCTACACAGTTTTTTTAACTGTAAGAGCATCAGCTGGCTCTTTAATATATGACTAAACAATAATTTAAAACAAAT
CATAGTAGCAGCATATTAAGGGTTTCTAGTATGCTAATATCACCAGCAATGATCTTTGGCTTTTTGATTTATTTG
CTAGATGTTTCCCCCTTGGAGTTTTGTCAGTTTCACACTGTTTGCTGGCCCAGGTGTACTGTTTGTGGCCTTTGT
TAATATCGCAAACCATTGGTTGGGAGTCAGATTGGTTTCTT

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FIGURE 3307

CGCGGGGGGCGCGACGGCGGCGGCGGCGGCCGGTTGGGGGCGGGGGGCTCGGACGCTGCGGGGACTCATTTTTCC
CGTCAGCGGAGGGAGCGAGCGGTGCTGCGGCCCGCGCCGCCATCTTGGATTTTACTCTCCATTTTTCTCTGGAAT
TATTTTTGGTGATTAATTTTCTGGGGGGGGACTGGGACGCGGGGCCCGGCGGCGCGGCCCCGCATCGCAGCGGCCG
GGCAGCGGGGCCTGGGACGCGCCCCGAGGAGGAGCGGGGCGGCGCAGGCGGAGAGAACATTGAAAGTATTCTCTA
AGCTATTTGAAGAGAGTGACTAAATGCACCTGGGTCAGGCTGTCTGTGGGTATGAAGTGGTTGGGAGAATCCAAG
AAC**ATG**GTGGTGAATGGCAGGAGAAATGGAGGCAAGTTGTCTAATGACCATCAGCAGAATCAATCAAAATTACAG
CACACGGGGAAGGACACCCTGAAGGCTGGCAAAAATGCAGTCGAGAGGAGGTCGAACAGATGTAATGGTAACTCG
GGATTTGAAGGACAGAGTCGCTATGTACCATCCTCTGGAATGTCCGCCAAGGAACTCTGTGAAAATGATGACCTA
GCAACCAGTTTGGTTCTTGATCCCTATTTAGGTTTTCAAACACACAAAATGAATACTAGCGCCTTTCCTTCGAGG
AGCTCAAGGCATTTTTCAAAATCTGACAGTTTTTCTCACAACAACCCTGTGAGATTTAGGCCTATTAAAGGAAGG
CAGGAAGAACTAAAGGAAGTAATTGAACGTTTTAAGAAAGATGAACACTTGGAGAAAGCCTTCAAATGTTTGACT
TCAGGCGAATGGGCACGGCACTATTTTCTCAACAAGAATAAAATGCAGGAGAAATTATTCAAAGAACATGTATTT
ATTTATTTGCGAATGTTTGCAACTGACAGTGGATTTGAAATATTGCCATGTAATAGATACTCATCAGAACAAAAT
GGAGCCAAAATAGTTGCAACAAAAGAGTGGAAACGAAATGACAAAATAGAATTACTGGTGGGTTGTATTGCCGAA
CTTTCAGAAATTGAGGAGAACATGCTACTTAGACATGGAGAAAACGACTTCAGTGTCATGTACTCCACAAGGAAA
AACTGTGCTCAACTCTGGCTGGGTCCTGCTGCGTTTATAAACCATGATTGCAGACCTAATTGTAAGTTTGTGTCA
ACTGGTCGAGATACAGCATGTGTGAAGGCTCTAAGAGACATTGAACCTGGAGAAGAAATTTCTTGTTATTATGGA
GATGGGTTCTTTGGAGAAAATAATGAGTTCTGCGAGTGTTACACTTGCGAAAGACGGGGCACTGGTGCTTTTAAA
TCCAGAGTGGGACTGCCTGCGCCTGCTCCTGTTATCAATAGCAAATATGGACTCAGAGAAACAGATAAACGTTTA
AATAGGCTTAAAAAGTTAGGTGACAGCAGCAAAAATTCAGACAGTCAATCTGTCAGCTCTAACACTGATGCAGAT
ACCACTCAGGAAAAAAACAATGCAAGTAAG**TAA**GGGAGATTTGATAAGCATATCTTTTAAAAGTATTTTCACACA
ATTTGCTTTATAAAGTGTGCTTCAGTAGTTTTAAACTTTTAAATACTCAGAGAGACTGGGACTTGTGAGCTTTGG
CTGCACTTCAAGGCTCTAGACGTGATTTGAGTAGAGGCACAGTCTGTATCCCATCTCTAACTTCAGTACCGTCCT
CTAGACTATTTTTCTTGAATACCTTGGTAACTGGATATGAGTTCTTCATCATATGTTCCAAGGTCATCATATGTT
TTAAACATTTTCAAGGTGTTAGAGACTGTGATGATGTCGCTAAGTCCTGCAAGAAGACAAAAGGACTGAGTAGAA
TTAAATTAGACTCTATACATTCCAGTGCCTAGCCAGTTTGTTAGAAAAGATGATGGACTTGGGGAATTCATAGCT
TCTGGCCTTAAGGCTTCCACCTTTTCATTGCTTGCTGACCTTTTTCAAAACGAACTGACTCAGTTCAGCAGACCA
CCAGTACCAGACTCAGAATTGTGATAGAGGAGCATTTTGAACAGTGCCGTATTGTGACATGCTGTATTGGCTACT
CCAGAAAGTAGGAGTAAAGATGGAAAGGAGAAAGAAGCAACCTCTGAGATTCCAGTGGTGTGTGGGGGCAAGATC
TGATGGAAACTGAAAAAGAGAACGAAGACTAAACAAAGAGAAAGGAAAGAGAAGAAACCCTAAATGGGCAAAGGA
AAGCACATCCTGTTTGCGGAGCTTTGAAATATTGGAACCATTTCTAATTGCTCCTGTTTTTCTGGGTAACACCAG
TTTTCTGTAGTTGCCACTAAAGCAGTAGACTCTTGAGTCTCACTTGTCTCTGAGAGAGACAGAAGTTAGAAAGTT
TTGACTTGGCGATTCCGAAAGTATGCCTTTGTTGGCACTTAAATGTCCAGTGAGACTTCTTGGCACCTTAGAGCC
CTCTGAGATACTGATTATTTTAGGTTCTTCTCCCTACTTTCAGATGTTTTCAGCCCAACACTGGGTGCTCTCTTC
CACTACAGAGAATCCTGAAGAAAAGGGAAGGTGTTTCCCATGATGGTGAATGTCACTGCCATGAATTCCTGAATC
TACCTGCTGCTGGGAGTCAGAGTCCAAGCATAACCCGTGTAGCATAAAAGCAGCGCTGTAGCCCTATTCCAGTCT
TTTTCGTTAATGTCCAGAGTGAACAACAAGAGTTAGTCAATCATTAACTGTTGACTGTTGATTCTCATAATAAAT
GCAGCATAACGACC

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FIGURE 3308

GCCTGGGTTGCGCTGCCGGCCACGTCCCCGCGCCGGGCCTCAGGCTCCTTCCTACTGTCCGAGGGCCACCAGGCC
GCCGGGGGCCTGCTGCGCCCGGATGCGTCTGTTACTAGAGTGGAGAGTCTACCTTCGTCTCACATGTGCCACAAA
GGATGGCATGGCCCGGGAGTGCCCCACCACGTGGCTTTCACCCCCTGCAAAGCCAGACTTCGCCCAGCGACACAG
TGTCAAGCCCACAGCTCTCCAAGGAGGAAGATGGTCCAGGCTGGGAGCATCCCCTTAGCAGCAGCCTCTGATCCC
TTGGCCAAGCAGGAGGGAACCATTAGCAGCCTGAGGAGCTGGCTGGCTGGGAGCCTCGGGGACCGCCCAGCCTTG
CTCCCAGCTCACCCACAAG**ATG**TGGACAGCTCTTGTGCTCATTTGGATTTTCTCCTTGTCCTTATCTGAAAGCCA
TGCGGCATCCAACGATCCACGCAACTTTGTCCCTAACAAAATGTGGAAGGGATTAGTCAAGAGGAATGCATCTGT
GGAAACAGTTGATAATAAAACGTCTGAGGATGTAACCATGGCAGCAGCTTCTCCTGTCACATTGACCAAAGGGAC
TTCGGCAGCCCACCTCAACTCTATGGAAGTCACAACAGAGGACACAAGCAGGACAGATGTGAGTGAACCAGCAAC
TTCAGGAGGTGCAGCTGATGGTGTGACCTCCATTGCTCCCACGGCTGTGGCCTCCAGTACGACTGCGGCCTCCAT
TACGACTGCGGCCTCCAGTATGACTGTGGCCTCCAGTGCTCCCACGACTGCAGCCTCCAGTACAACTGTGGCCTC
CATTGCTCCCACGACTACAGCCTCCAGTATGACTGCGGCCTCCAGCACTCCCATGACACTTGCACTCCCCGCGCC
CACGTCCACTTCCACAGGGCGGACCCCGTCCACTACCGCCACTGGGCATCCATCTCTCAGCACAGCCCTCGCACA
AGTGCCAAAGAGCAGCGCGTTGCCAAGAACAGCAACCCTGGCCACATTGGCCACACGTGCTCAGACTGTAGCGAC
CACAGCAAACACAAGCAGCCCCATGAGCACTCGTCCAAGTCCTTCCAAGCACATGCCCAGTGACACCGCGGCAAG
CCCTGTACCCCCTATGCGTCCCCAAGCACAAGGTCCCATTAGCCAGGTGTCAGTGGACCAGCCTGTGGTTAACAC
AACAAATAAATCCACACCCATGCCCTCAAACACAACCCCAGAGCCCGCCCCCACCCCCACAGTGGTGACCACCAC
CAAGGCACAAGCCAGGGAGCCAACTGCCAGCCCAGTGCCAGTACCTCACACCAGCCCAATCCCTGAGATGGAGGC
CATGTCCCCCACGACACAGCCAAGCCCCATGCCATATACCCAGAGGGCCGCTGGGCCAGGCACATCCCAGGCACC
GGAGCAGGTAGAGACTGAAGCCACACCAGGTACTGATTCCACTGGGCCAACACCCAGGAGCTCAGGGGGCACTAA
GATGCCAGCCACGGACTCGTGCCAGCCCAGCACCCAAGGCCAGTACATGGTGGTCACCACTGAGCCCCTCACCCA
GGCCGTGGTAGACAAAACTCTCCTTCTGGTGGTGCTGTTACTCGGGGTGACCCTTTTCATCACAGTCTTGGTTTT
GTTTGCCCTGCAGGCCTATGAGAGCTACAAGAAGAAGGACTACACCCAGGTGGACTACTTAATCAACGGGATGTA
TGCGGACTCAGAAATG**TGA**GGGGGGCGGGGGCCTGGCGGGAGGCCTGGCCCCTTCCTCGTCCTTTCCTTTTGCCT
TTGAGACCAAACCAAGTGCTTCCAAATTCTTTTGGTGCAATTGAGGAGATATGCCAGATGCTTAAACACATTTAA
TTGCTGTCAGATTAATTCCATGATCACTAAAGAGTTGCTGCTTTTTTCATATTTATTTTTGTAAATGATTCTGTG
CCCAGGAGCAGCTGGGGGTTCCACCTCAGGGTGGGGCGGGCAGGACCCCGTCTCCCCAGGTGTCGGAGCCTGACC
TGAATTAAAGTACTGACTGCTCGCC

FIGURE 3309A

ATGGAGCCCGAGTGAGCGCGGCGCGGGCCCGTCCGGCCGCCGGACAACATGGAGGCAGCGCCGCCCGGGCCGCCG
TGGCCGCTGCTGCTGCTGCTGCTGCTGCTGCTGGCGCTGTGCGGCTGCCCGGCCCCCGCCGCGGCCTCGCCGCTC
CTGCTATTTGCCAACCGCCGGGACGTACGGCTGGTGGACGCCGGCGGAGTCAAGCTGGAGTCCACCATCGTGGTC
AGCGGCCTGGAGGATGCGGCCGCAGTGGACTTCCAGTTTTCCAAGGGAGCCGTGTACTGGACAGACGTGAGCGAG
GAGGCCATCAAGCAGACCTACCTGAACCAGACGGGGGCCGCCGTGCAGAACGTGGTCATCTCCGGCCTGGTCTCT
CCCGACGGCCTCGCCTGCGACTGGGTGGGCAAGAAGCTGTACTGGACGGACTCAGAGACCAACCGCATCGAGGTG
GCCAACCTCAATGGCACATCCCGGAAGGTGCTCTTCTGGCAGGACCTTGACCAGCCGAGGGCCATCGCCTTGGAC
CCCGCTCACGGGTACATGTACTGGACAGACTGGGGTGAGACGCCCCGGATTGAGCGGGCAGGGATGGATGGCAGC
ACCCGGAAGATCATTGTGGACTCGGACATTTACTGGCCCAATGGACTGACCATCGACCTGGAGGAGCAGAAGCTC
TACTGGGCTGACGCCAAGCTCAGCTTCATCCACCGTGCCAACCTGGACGGCTCGTTCCGGCAGAAGGTGGTGGAG
GGCAGCCTGACGCACCCCTTCGCCCTGACGCTCTCCGGGGACACTCTGTACTGGACAGACTGGCAGACCCGCTCC
ATCCATGCCTGCAACAAGCGCACTGGGGGGAAGAGGAAGGAGATCCTGAGTGCCCTCTACTCACCCATGGACATC
CAGGTGCTGAGCCAGGAGCGGCAGCCTTTCTTCCACACTCGCTGTGAGGAGGACAATGGCGGCTGCTCCCACCTG
TGCCTGCTGTCCCCAAGCGAGCCTTTCTACACATGCGCCTGCCCCACGGGTGTGCAGCTGCAGGACAACGGCAGG
ACGTGTAAGGCAGGAGCCGAGGAGGTGCTGCTGCTGGCCCGGCGGACGGACCTACGGAGGATCTCGCTGGACACG
CCGGACTTCACCGACATCGTGCTGCAGGTGGACGACATCCGGCACGCCATTGCCATCGACTACGACCCGCTAGAG
GGCTATGTCTACTGGACAGATGACGAGGTGCGGGCCATCCGCAGGGCGTACCTGGACGGGTCTGGGGCGCAGACG
CTGGTCAACACCGAGATCAACGACCCCGATGGCATCGCGGTCGACTGGGTGGCCCGAAACCTCTACTGGACCGAC
ACGGGCACGGACCGCATCGAGGTGACGCGCCTCAACGGCACCTCCCGCAAGATCCTGGTGTCGGAGGACCTGGAC
GAGCCCCGAGCCATCGCACTGCACCCCGTGATGGGCCTCATGTACTGGACAGACTGGGGAGAGAACCCTAAAATC
GAGTGTGCCAACTTGGATGGGCAGGAGCGGCGTGTGCTGGTCAATGCCTCCCTCGGGTGGCCCAACGGCCTGGCC
CTGGACCTGCAGGAGGGGAAGCTCTACTGGGGAGACGCCAAGACAGACAAGATCGAGGTGATCAATGTTGATGGG
ACGAAGAGGCGGACCCTCCTGGAGGACAAGCTCCCGCACATTTTCGGGTTCACGCTGCTGGGGGACTTCATCTAC
TGGACTGACTGGCAGCGCCGCAGCATCGAGCGGGTGCACAAGGTCAAGGCCAGCCGGGACGTCATCATTGACCAG
CTGCCCGACCTGATGGGGCTCAAAGCTGTGAATGTGGCCAAGGTCGTCGGAACCAACCCGTGTGCGGACAGGAAC
GGGGGGTGCAGCCACCTGTGCTTCTTCACACCCCACGCAACCCGGTGTGGCTGCCCCATCGGCCTGGAGCTGCTG
AGTGACATGAAGACCTGCATCGTGCCTGAGGCCTTCTTGGTCTTCACCAGCAGAGCCGCCATCCACAGGATCTCC
CTCGAGACCAATAACAACGACGTGGCCATCCCGCTCACGGGCGTCAAGGAGGCCTCAGCCCTGGACTTTGATGTG
TCCAACAACCACATCTACTGGACAGACGTCAGCCTGAAGACCATCAGCCGCGCCTTCATGAACGGGAGCTCGGTG
GAGCACGTGGTGGAGTTTGGCCTTGACTACCCCGAGGGCATGGCCGTTGACTGGATGGGCAAGAACCTCTACTGG
GCCGACACTGGGACCAACAGAATCGAAGTGGCGCGGCTGGACGGGCAGTTCCGGCAAGTCCTCGTGTGGAGGGAC
TTGGACAACCCGAGGTCGCTGGCCCTGGATCCCACCAAGGGCTACATCTACTGGACCGAGTGGGGCGGCAAGCCG
AGGATCGTGCGGGCCTTCATGGACGGGACCAACTGCATGACGCTGGTGGACAAGGTGGGCCGGGCCAACGACCTC
ACCATTGACTACGCTGACCAGCGCCTCTACTGGACCGACCTGGACACCAACATGATCGAGTCGTCCAACATGCTG
GGTCAGGAGCGGGTCGTGATTGCCGACGATCTCCCGCACCCGTTCGGTCTGACGCAGTACAGCGATTATATCTAC
TGGACAGACTGGAATCTGCACAGCATTGAGCGGGCCGACAAGACTAGCGGCCGGAACCGCACCCTCATCCAGGGC
CACCTGGACTTCGTGATGGACATCCTGGTGTTCCACTCCTCCCGCCAGGATGGCCTCAATGACTGTATGCACAAC
AACGGGCAGTGTGGGCAGCTGTGCCTTGCCATCCCCGGCGGCCACCGCTGCGGCTGCGCCTCACACTACACCCTG
GACCCCAGCAGCCGCAACTGCAGCCCGCCCACCACCTTCTTGCTGTTCAGCCAGAAATCTGCCATCAGTCGGATG
ATCCCGGACGACCAGCACAGCCCGGATCTCATCCTGCCCCTGCATGGACTGAGGAACGTCAAAGCCATCGACTAT
GACCCACTGGACAAGTTCATCTACTGGGTGGATGGGCGCCAGAACATCAAGCGAGCCAAGGACGACGGGACCCAG
CCCTTTGTTTTGACCTCTCTGAGCCAAGGCCAAAACCCAGACAGGCAGCCCCACGACCTCAGCATCGACATCTAC
AGCCGGACACTGTTCTGGACGTGCGAGGCCACCAATACCATCAACGTCCACAGGCTGAGCGGGGAAGCCATGGGG
GTGGTGCTGCGTGGGGACCGCGACAAGCCCAGGGCCATCGTCGTCAACGCGGAGCGAGGGTACCTGTACTTCACC
AACATGCAGGACCGGGCAGCCAAGATCGAACGCGCAGCCCTGGACGGCACCGAGCGCGAGGTCCTCTTCACCACC
GGCCTCATCCGCCCTGTGGCCCTGGTGGTAGACAACACACTGGGCAAGCTGTTCTGGGTGGACGCGGACCTGAAG
CGCATTGAGAGCTGTGACCTGTCAGGGGCCAACCGCCTGACCCTGGAGGACGCCAACATCGTGCAGCCTCTGGGC
CTGACCATCCTTGGCAAGCATCTCTACTGGATCGACCGCCAGCAGCAGATGATCGAGCGTGTGGAGAAGACCACC

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FIGURE 3309B

GGGGACAAGCGGACTCGCATCCAGGGCCGTGTCGCCCACCTCACTGGCATCCATGCAGTGGAGGAAGTCAGCCTG
GAGGAGTTCTCAGCCCACCCATGTGCCCGTGACAATGGTGGCTGCTCCCACATCTGTATTGCCAAGGGTGATGGG
ACACCACGGTGCTCATGCCCAGTCCACCTCGTGCTCCTGCAGAACCTGCTGACCTGTGGAGAGCCGCCCACCTGC
TCCCCGGACCAGTTTGCATGTGCCACAGGGGAGATCGACTGTATCCCCGGGGCCTGGCGCTGTGACGGCTTTCCC
GAGTGCGATGACCAGAGCGACGAGGAGGGCTGCCCCGTGTGCTCCGCCGCCCAGTTCCCCTGCGCGCGGGGTCAG
TGTGTGGACCTGCGCCTGCGCTGCGACGGCGAGGCAGACTGTCAGGACCGCTCAGACGAGGCGGACTGTGACGCC
ATCTGCCTGCCCAACCAGTTCCGGTGTGCGAGCGGCCAGTGTGTCCTCATCAAACAGCAGTGCGACTCCTTCCCC
GACTGTATCGACGGCTCCGACGAGCTCATGTGTGAAATCACCAAGCCGCCCTCAGACGACAGCCCGGCCCACAGC
AGTGCCATCGGGCCCGTCATTGGCATCATCCTCTCTCTCTTCGTCATGGGTGGTGTCTATTTTGTGTGCCAGCGC
GTGGTGTGCCAGCGCTATGCGGGGGCCAACGGGCCCTTCCCGCACGAGTATGTCAGCGGGACCCCGCACGTGCCC
CTCAATTTCATAGCCCCGGGCGGTTCCCAGCATGGCCCCTTCACAGGCATCGCATGCGGAAAGTCCATGATGAGC
TCCGTGAGCCTGATGGGGGGCCGGGGCGGGGTGCCCCTCTACGACCGGAACCACGTCACAGGGGCCTCGTCCAGC
AGCTCGTCCAGCACGAAGGCCACGCTGTACCCGCCGATCCTGAACCCGCCGCCCTCCCCGGCCACGGACCCCTCC
CTGTACAACATGGACATGTTCTACTCTTCAAACATTCCGGCCACTGCGAGACCGTACAGGCCCTACATCATTCGA
GGAATGGCGCCCCCGACGACGCCCTGCAGCACCGACGTGTGTGACAGCGACTACAGCGCCAGCCGCTGGAAGGCC
AGCAAGTACTACCTGGATTTGAACTCGGACTCAGACCCCTATCCACCCCCACCCACGCCCCACAGCCAGTACCTG
TCGGCGGAGGACAGCTGCCCGCCCTCGCCCGCCACCGAGAGGAGCTACTTCCATCTCTTCCCGCCCCCTCCGTCC
CCCTGCACGGACTCATCC**TGA**CCTCGGCCGGGCCACTCTGGCTTCTCTGTGCCCCTGTAAATAGTTTTAAATATG
AACAAAGAAAAAAATATATTTTATGATTTAAAAAATAAATATAATTGGGATTTTAAAAACATGAGAAATGTGAAC
TGTGATGGGGTGGGCAGGGCTGGGAGAACTTTGTACAGTGGAGAAATATTTATAAACTTAATTTTGTAAAACAG

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FIGURE 3310A

CAGATAAGAAAACAAGCTCAGAGAGATGTGGTGACTTGCTCAAATAGTGACAGAACTTCCTCGGCCATATGGAGG
GGTCATATAATACCCTTGTGTCTTCAGTTTGAGGAGAGCTTGTTTCATATCCATATCCCACTGTATTCCTGCTAA
TCTGCTAATGCAGTAAATTGGAGGAAAACTGTTACCAGGATAACCTGTAATGGGCAAGGAGCCACAAAGAAGAAA
ACATTTCTTTTAATTTTTAAACTTGGTTTGAAAGACCAGC**ATG**TTTTGGAAATTTGATCTTCACTCATCATCCCA
CATAGACACACTTCTAGAAAGAGAAGATGTAACACTGAAGGAGTTAATGGATGAGGAAGATGTTTTACAGGAATG
TAAAGCTCAGAACCGCAAACTTATAGAGTTTCTGTTAAAAGCAGAATGTCTCGAAGATTTAGTCTCATTCATTAT
AGAAGAACCACCTCAAGACATGGATGAAAAGATCAGATACAAGTATCCAAATATATCTTGTGAGTTGCTCACTTC
TGATGTCTCCCAGATGAATGATAGACTGGGAGAAGATGAATCCTTGCTAATGAAATTATATAGCTTCCTCCTAAA
CGATTCCCCTTTGAATCCACTACTTGCCAGTTTCTTCAGCAAGGTGCTAAGTATTCTTATCAGCAGAAAACCAGA
ACAGATTGTGGATTTCTTAAAGAAGAAGCATGATTTTGTAGACCTTATTATAAAGCACATAGGAACTTCTGCTAT
CATGGATTTGTTGCTCAGGCTCCTGACGTGTATCGAACCTCCACAGCCCAGGCAAGATGTGCTGAATTGGTTAAA
TGAGGAGAAAATTATCCAGAGGCTTGTGGAAATAGTTCATCCATCGCAAGAAGAAGATCGACATTCAAATGCATC
ACAATCACTTTGTGAAATTGTTCGCCTGAGCAGAGACCAGATGTTACAAATTCAGAACAGTACAGAGCCCGACCC
CCTGCTTGCCACTCTAGAAAAGCAAGAAATTATAGAGCAGCTTCTATCAAATATTTTCCACAAGGAGAAAAATGA
GTCAGCCATAGTCAGTGCAATCCAGATATTGCTGACTTTACTTGAGACACGACGACCAACATTTGAAGGCCATAT
AGAGATCTGCCCACCAGGCATGAGCCATTCAGCTTGTTCAGTAAACAAGAGTGTTCTAGAAGCCATCAGAGGAAG
ACTTGGATCTTTTCATGAACTCCTGCTGGAGCCACCCAAGAACATGTTCTTCAAGTATACATGGAATAACTTTTT
GCATACACAAGTGGAAATTTGTATTGCACTGATTCTTGCAAGTCCTTTTGAAAACACAGAAAATGCCACAATTAC
CGATCAAGACTCCACTGGTGATAATTTGTTATTAAAACATCTTTTCCAAAAATGTCAATTAATAGAACGAATACT
TGAAGCCTGGGAAATGAATGAGAAGAAACAGGCTGAGGGAGGAAGACGGCATGGTTACATGGGACACCTAACGAG
GATAGCTAACTGTATCGTGCACAGCACTGACAAGGGCCCCAACAGTGCATTAGTGCAGCAGCTTATCAAAGATCT
TCCCGACGAAGTCAGGGAACGATGGGAGACGTTCTGCACAAGCTCCTTAGGAGAAACTAACAAGAGGAACACGGT
AGATCTAGCCTTTTCTGATTATCAGATGCAACAAATGACGTCCAATTTTATTGACCAGTTTGGCTTCAACGATGA
GAAGTTTGCAGATCAAGATGACATTGGCAATGTTTCTTTTGATCGAGTATCAGACATCAACTTTACTCTCAATAC
AAATGAAAGTGGAAATATTGCCTTGTTTGAAGCATGTTGTAAGGAAAGAATACAACAGTTTGATGATGGTGGCTC
TGATGAGGAAGATATATGGGAGGAAAAGCACATCGCATTCACACCAGAATCCCAAAGACGATCCAGCTCGGGGAG
TACAGACAGTGAGGAAAGTACAGACTCTGAAGAAGAAGATGGAGCAAAGCAAGACTTGTTTGAACCCAGCAGTGC
CAACACGGAGGATAAAATGGAGGTGGACCTGAGTGAACCACCCAACTGGTCAGCTAACTTTGATGTCCCAATGGA
AACAACCCACGGTGCTCCATTGGATTCTGTGGGATCTGATGTCTGGAGCACAGAGGAGCCGATGCCAACTAAAGA
GACGGGCTGGGCTTCTTTTTCAGAGTTCACGTCTTCCCTGAGCACAAAAGATTCTTTAAGGAGTAATTCTCCAGT
GGAAATGGAAACCAGCACTGAACCCATGGACCCTCTGACTCCCAGTGCGGCTGCCCTGGCAGTGCAGCCAGAAGC
GGCAGGCAGTGTGGCCATGGAAGCCAGCTCTGACGGAGAGGAGGATGCAGAAAGTACAGACAAGGTAACTGAGAC
AGTGATGAATGGCGGCATGAAGGAAACGCTCAGCCTCACTGTAGATGCCAAGACAGAGACTGCGGTCTTCAAAAG
TGAGGAAGGGAAACTGTCTACCTCTCAAGATGCTGCTTGTAAAGACGCAGAGGAGTGTCCCGAGACTGCAGAGGC
GAAGTGCGCGGCACCCAGGCCTCCCAGCAGCAGTCCCGAGCAGAGGACTGGCCAACCAAGCGCACCAGGTGACAC
TTCAGTGAATGGCCCTGTA**TGA**CGGGTGACGTCTGCTGCTGCTGACTGAGGACTGCAGACCGCCACCACTCAGGG
GCTCTGGAGGGGTCAGCTGGAGCCCACCAAGCTGTCACTGCTGCACTCACTCTGCAAGGGATCAGGACCAGCAAC
CTTTATATTCTAGATTCTAAGACATTGTACAGAGAAATTCAGAAGTGTAAAAATATTGCACATTGACAAATACCA
AGAATTTTTGCGTATGTTTATATTGTATTGTTCTAAATAATGGGTAGCCTGTGAAATAAGATCTTGCCACCCATG
TAATAATAGTAGTAATACTATAGTTAAAATGGCTGTAAGAATAGTTTTATAAAAGTGAATACACAGATCTATTGT
ATTTGAAACATAACTTTGACAATTATTAGTGTGACCAAAGTATTAGGCGGTTTTCATACATTTTTCACCTTGTAC
AAAATTATGAATTCATTTTTCCTCCAGGCCGACAAGGAGTTGTAGAATGAAAATGCCCTCTAAGTGTTATTTTGG
TTGTTCTAACTTACAAAAGTGATTTTGAATAAGAAATATTTGGTGTTCTTTTTATAACCAGTTTTTGATTGGTAA
TTGTTTTCTGTATTGTTTAAAACGGATCAAAAATGTAAGTCTATTGGTAGAGATTAAGTAAAGTATTTATTGCTA
CATCATAGTTGATAAATTGATGTTATCGTAAAGCCATATGTTCTGTTCAAGTCTTGTTTGCTTGAAATGATTATT
CCTACAAGTGAAACACTAGACTATTTGGAGTGTATATGGCTTGTGTTTTGGGATTTTTTTTTTTTTTTTGGCTT
TTGTTTTTGTTTGTTTTTTTGTTTCGTTTGGTAGTTCATCTGCCTTTTAACCCATTCACCAAAATTTACCTTGTT
AACAAGCATCACCAATGAACATTTCAGAGCAATCTGCATATTTAACAGACCTAAAATAAATCCTATTAGGCAAGT

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FIGURE 3310B

CAGTTGAAAATGCTCGTGCTGCTAATGGAATTAGAGTGCGTTCATTTTACAGGCTAGTATTTTAAAAGTAGAAAT
CAAAATCTGGCACCGAAGCATGCTAATTGTTTACTGTACCTTGTGAGGTTTTCACTCATAAATTTAAACCAGTGT
ATTTTTTTAGAACTGGTTTGTGTATATATATAGTGATTATGGATACTAATTCAATGTAATTTATAATTTTCTATG
TCAATACAAAAATACATCACAGCCTTCTCAAACAGCTCAAGCAATATATTGTATATTGCCATATCGTCTGGTGAA
AGGGTTAAATTACTTCACCTCTTGCACTTTTAGATGCAAATCAGTTTTTCATTTCTGTAATAGAAAATTATTCAC
GTATTTTTACATCATTTGTTTTTCCTGACCAGTATTTAAAACCAAAAGGATATTCTGAAAAATGGCCAACAATTT
TTTTAGAAGTAGCATCCCAAGCAGCGTGCCTAAACATTACATTGCATATGGAAATAAAAGAATCAAACGTCTAAT
GCCTTATTATTTCTGATTTCCTTTTTCATTTTAAGTGGTGTGGAGATTCCAGCACTCCCAGGACAGTGGAGTCAG
CAGTAAGCCCTGGGACAGGTGGCAAGGGTGGGTCCCTTGACCTTTGCACGCCTCCTCAGGAACCCCCTTTCCCGG
GTGAGCCCCTCTCTGAAGAGACTGTCCTTGGGCCTCCTCTGGAAGCAGCACCCCCAGAGGACAGGGCTCCTCCTG
CTTGCCTCAGGGCTGCCTGACTTGAATGGCGTTGGACCTCGGGGATTACTGGTAGATAATATGCTCTGGTCTCGC
CTGGTGGTGAGTTTTGCCAGCCATGGCCAGGGTTTGGCTCCACTGGTGGCACACGTGGCCTCCGTGGTATGGACC
TGGTGGCTTCTCCATCCCACTGTGGCCTCTGTGGTATGGACCTGGTGGCTTCTCCATCCTACCCAAGGTAACAGT
GTCTTGCTTCATCCCACTGACTGCTGGGAGAGAGCCTCTGGGACTTTTCTTTGGGGCATCATTTTGTTTTGTCTT
TCGTAGCAGGGAAAGGATATGACAATGGGGAGGACAGTTCTTTTGGAGGTTGGAGGGGCCAAGCCAAGGACAGGA
GCAAGTGTGCCCTCATTTTGTTTCTACTTTTAATTTCTGTGTGTTGGCCATACTGA

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FIGURE 3311

GGTCAAGGCGAAGCTCGCGGGGGGCGACAGCGACGGCGGGGAGCTCCTCGGGGAGTACCCCGGGATCCCAGAGCT
CAGCGCGCTGGAGGACGTCGCGCTCCTGCAGGCCCCGCAGCCGCCCGCCTGCAACGTGCACTTCCTGTCCTCGCT
GCTACCCGCGCACCGCAGCCCGGCGGTGTTGCCCCTGGGCGCCTGGGTCCTGGAAGGAGCCTCCCACCCGGGCGT
CCGCATGATCCCAGTTGAAATCAAGGAAGCAGGTGGTACTACTACAAGTAATAATCCGGAAGAAGCAACTTTGCA
GAATCTTCTTGCTCAGGAATCCTGTTGCAAGTTCCCATCGTCCCAGGAACTAGAGGATGCCTCCTGCTGTTCTCT
TAAGAAAGATTCCAACCCA**ATG**GTGATATGCCAATTGAAAGGGGGCACACAAATGCTATGTATAGACAATTCTAG
AACAAGAGAACTAAAAGCACTCCATTTGGTTCCTCAGTATCAAGATCAAAATAATTATCTACAGTCAGATGTCCC
TAAACCAATGACTGCTTTAGTAGGGAGATTTTTGCCAGCATCAACAAAATTAAATCTCATTACACAACAACTTGA
GGGAGCCTTACCATCGGTAGTCAACGGGTCTGCTTTCCCCTCGGGATCAACTCTTCCAGGACCACCAAAAATAAC
TTTGGCTGGGTACTGTGACTGCTTTGCCAGTGGGGACTTTTGCAACAACTGCAATTGTAATAATTGTTGCAACAA
CTTGCATCATGATATTGAACGGTTTAAAGCCATTAAGGCATGTCTTGGTAGAAATCCAGAAGCTTTCCAGCCAAA
AATTGGGAAGGGCCAATTGGGCAATGTCAAGCCCCAGCACAACAAAGGGTGCAACTGCAGGAGGTCAGGCTGCCT
GAAGAATTACTGCGAGTGCTATGAGGCCCAAATTATGTGTTCTTCTATTTGCAAATGCATTGGTTGCAAAAATTA
TGAAGAAAGCCCAGAACGAAAGACACTAATGAGCATGCCAAACTACATGCAGACTGGAGGTTTGGAAGGCAGCCA
TTACCTGCCACCAACGAAATTTTCAGGACTTCCAAGATTCAGTCACGATAGGCGGCCTTCCTCATGCATCTCCTG
GGAGGTGGTGGAGGCCACATGCGCCTGCCTGCTTGCTCAGGGAGAAGAGGCCGAGAAAGAACACTGCTCCAAGTG
CCTGGCAGAGCAGATGATCCTGGAGGAATTTGGAAGGTGCTTATCACAGATTCTCCACACTGAGTTTAAATCTAA
GGGATTGAAAATGGAG**TAG**AGTATAAAGTGTGAATGCATGTTGATTTTGTCTTAGTCTAGAAATCTCTAGTTTAG
AAAGGATGTTTAGGGGAACATGAGGCTGGCTCTGCAGCAACAACCAGGCTCCCCTGCATCCCTGGGCCCAGGGAG
TTTACTCAGAGCTCTCTGAAGATGTGGCAACCCATGCCCCCTTTTCTGAGGAGGTGCATGGCCTGAGCATTGTTT
GTCTGGCCCAGAGGAGAGAGCTTGGGTTCCCATAGTCCTGGGAGAGTGTCTGCAGGGCGGCGGAGGGCAGAGCAG
GCCCTGCGGAGAGCTCACTCTGGTCGACTCTTCCTCTCAGAGAATGTTGCTCTGGAGGCTGCTCTGCATGAAAAC
CCTAATGGTTTCTTGTTTGTTTTTCAAATTATTTAGAAATAAGTTCTCCGGATGGGCTGTTGTGATACCACTTAA
AATCTCTAGAGAACTACTGAACACCTAAAGATTTTCTGTAGCGTAGATATTTCCCCAGAGGCACGCGAACTGTCA
GTCTTTCCTAAGGCCCCCGGGAGACGCAGGCAATGGGGCCTCGCAGGCCAGGCTTGCACCAGCATGTCTTGAGTT
AGAGGACTTAAAATTATCCAGTTTCTTCTGTGTTTCTACTTGAATTGTGGAAAAGCTCTATTATCCAATTAACTT
CTCCATAATTATTGTTGTAATATTATTATTGTTTGTAAAACATGGTTCACATAACTAGCTTGTGGAAACCAGCAG
GTAAAATGAATTCTTAAGTTGACGCTTTTGGTTCTGTTGTAAAGCAAAGATGAATAAAAATTTCCAATGTC

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FIGURE 3312A

TCAGTGGCGTTTGCCCTGATTCCCGGGGCCTGGCTTTCAGCGTAGCAATTCTGCCGGCGAAGAAGGTGAGCGCAG
TGCTGTGTGGCAGCAGAGGTCCTTAGGACGAGGAACAGCGGGACGAGGAAGGGCAGACTGGTGAAATCGCAAACT
GGGCGTCTGTTCCGGCACCGGACCCCTGTTTGCAAAGGTCC**ATG**GCTAATGAAACACAGAAGGTTGGTGCCATCC
ATTTTCCTTTTCCCTTCACACCCTATTCCATCCAGGAAGACTTCATGGCAGAGCTGTACCGGGTTTTGGAGGCTG
GCAAGATTGGGATATTTGAGAGTCCAACTGGCACTGGGAAGTCCTTAAGTCTTATTTGTGGGGCCCTCTCCTGGC
TCCGTGACTTTGAACAGAAGAAGCGTGAAGAAGAGGCACGACTCCTTGAAACTGGAACTGGCCCCTTACATGATG
AGAAAGATGAATCCCTGTGTCTGTCTTCCTCCTGCGAAGGGGCTGCAGGCACCCCGAGGCCTGCTGGAGAACCGG
CCTGGGTTACTCAGTTTGTGCAGAAGAAAGAAGAGAGGGACCTGGTGGACCGACTGAAGGTGGAGCAGGCCAGGA
GGAAGCAGCGAGAAGAACGCCTGCAGCAGCTGCAGCACAGGGTGCAGCTCAAGTATGCAGCCAAGCGCCTGAGGC
AGGAAGAAGAAGAAACAGAGAATCTCCTCCGCCTCAGCAGGGAGATGCTAGAGACAGGCCCGGAGGCCGAGCGGC
TGGAGCAGCTGGAGTCTGGGGAGGAGGAGCTGGTCCTCGCCGAATACGAGAGTGATGAGGAGAAAAAGGTGGCGA
GCAGAGTGGATGAGGATGAGGATGACCTGGAGGAAGAACACATAACTAAGATTTATCACTGTAGTCGGACACACT
CCCAGCTGGCCCAGTTTGTGCATGAGGTGAAGAAGAGCCCCTTTGGCAAGGATGTTCGGCTGGTCTCCCTCGGCT
CCCGGCAGAACCTTTGTGTAAATGAAGACGTGAGAAGCCTAGGTTCTGTGCAGCTTATCAACGACCGCTGCGTGG
ACATGCAGAGAAGCAGGCACGAGAAGAAGAAAGGAGCTGAGGAGGAGAAGCCAAAGAGGAGGAGGCAGGAGAAGC
AGGCAGCCTGCCCCTTCTACAACCACGAGCAGATGGGCCTTCTCCGGGATGAGGCCCTGGCAGAGGTGAAGGACA
TGGAGCAGCTGCTGGCCCTTGGGAAGGAGGCCCGGGCCTGTCCCTATTACAGGAGCCGCCTTGCCATCCCTGCAG
CCCAGCTGGTGGTGCTGCCCTATCAGATGCTGCTGCATGCGGCCACTCGGCAGGCCGCCGGCATCCGGCTGCAGG
ACCAGGTGGTGATCATCGACGAGGCGCACAACCTGATCGACACCATCACGGGCATGCACAGCGTGGAGGTCAGCG
GCTCCCAGCTCTGCCAGGCCCATTCCCAGCTGCTGCAGTACATGGAGCGATACGGGAAGCGTTTGAAGGCCAAGA
ACCTGATGTACCTGAAGCAGATCCTGTATTTGCTGGAGAAATTCGTGGCTGTGCTAGGGGGGAACATTAAGCAAA
ATCCCAATACACAGAGTCTGTCACAGACAGGGACGGAGCTGAAGACCATCAACGACTTTCTCTTCCAGAGCCAGA
TCGACAACATCAACCTGTTCAAGGTGCAGCGATACTGTGAGAAGAGCATGATCAGCAGAAAGCTCTTTGGCTTCA
CTGAACGGTACGGAGCAGTGTTCTCATCCCGGGAGCAGCCCAAACTGGCTGGGTTTCAGCAATTCCTGCAGAGCC
TGCAGCCCAGGACGACTGAAGCTCTTGCAGCCCCTGCAGACGAGAGTCAGGCCAGCGTCCCGCAACCAGCTTCCC
CACTAATGCACATCGAAGGCTTCCTGGCAGCTCTCACTACGGCCAACCAGGACGGCAGGGTCATCCTGAGCCGCC
AAGGCAGCCTCAGTGAGAGCACCCTGAAGTTTTTGCTCCTGAATCCAGCTGTGCACTTTGCCCAAGTGGTGAAGG
AATGCCGGGCAGTGGTCATTGCGGGGGGGGACCATGCAGCCGGTGTCTGACTTCCGGCAGCAGCTGCTGGCCTGTG
CTGGGGTGGAAGCTGAGCGCGTGGTGGAGTTTTCCTGTGGTCACGTGATCCCTCCAGACAACATCTGCCCCTTGT
CATCTGCAGCGGGATCTCCAACCAGCCGCTGGAATTCACCTTCCAGAAAAGAGACCTGCCTCAGA**TGA**TATTCCA
GGAACCTAAGAGCGCACACCAGGTGGAGCAGGTGCTGCTGGCGTATTCCAGGTGCATCCAGGCCTGTGGCCAGGA
GAGAGGCCAGGTGACAGAGGCCCTGCTCCTCTCTGTGGTTGGAGGAAAGATGAGTGAAGGGATCAACTTCTCTGA
CAACCTAGGCCGGTGTGTGGTGATGGTGGGCATGCCCTTCCCCAACATCAGGTCTGCAGAGCTGCAGGAGAAGAT
GGCCTACTTGGATCAAACCCTCCCCAGAGCCCCCGGCCAGGCACCCCCAGGGAAGGCTCTGGTGGAGAACCTGTG
CATGAAGGCCGTCAACCAGTCCATAGGCAGGGCCATCAGGCACCAGAAGGATTTTGCCAGCATAGTGCTCCTGGA
CCAGCGATACGCCCGGCCCCCTGTCCTGGCCAAGCTGCCGGCCTGGATCCGAGCCAGTGTGGAGGTCAAAGCTAC
CTTTGGCCCCGCCATTGCTGCTGTGCAGAAGTTTCACCGGGAGAAGTCGGCCTCTTCCTGATGGGCAACCACACC
ACCGCCCGGCGCCGTGCCCTTCCTTTGTCCTGCCCTCTGGAGACAGTGTTTGTCGTGGGCGTGGTCTGCAGGGAT
CCTGTTACAAAGGTGAAACCCAGGAGGAGAGTGTGGAGTCCAGAGCGCTGCCGGGACCCAGGCACAGGCGTTAGC
TCCCGTAGGAGAAAATGCGGGAATCCTGAATGAACAGTGGGTCCTGGCTGTCCTTGGGGCGTTCCAGGGCAGCTC
CCCTCCTGGAATAGAATCTTTCTTTCCATCCTGCATGGCTGAGAGCCAGGCTTCCTGCTTGGAGTCCGCAGGAGG
CTGTGGCAGCAGTGGCATCCACTGTGGCATCTCCGTCCTGCCCACCTTAAGAGGCGAGATGGAGCAGGTCCATCT
GCCTCTGCCCTTTCTAGCCAAGGTTATAGCTGCCCTGGACTGCTCACTCTCTGGTCTCAATTTAAAATGATCCCG
TGGCCACAGGGCTCCTGCCCAGGGGCTTGTCACCTTCCCCTCCTCCTTCCTGAGTCACTCCTTCAGTAGAAGGCC
CTGCTCTCTATCCTGCCCCACAGCCCTGCCTGGATTTGTATCCTTGGCTTCGTGCCAGTTCCTCCAAGTCTATGG
CACCTCCCTCCCTCTCAACCACTTGAGCAAACTCCAAGACACCTTCTACCCCGACACCAGCAATTATGCCAAGGG
CCATTAGGCTCTCAACATGACTATAGAGACCCCGTATCATCATGGAGACCTTTGTTCCTGTGGGAAAATAACCCT
CCCACCTGCAACAGCTGCCCCTGCTGACTGCGCCTGTCTTCTCCCTCTGACCCCAGAGAAAGGGGCCGTGGTCAG

FIGURE 3312B

CTGGGATCTTCTGCCACCATCAGGGACAAACCGGGGGCAGGAGGAAAGTCACTGATGCCCAGCTGTTTGCATCCT
GCACAGCTACAGGTCCTTAATTAAAAGTGTACTGTTGGTT

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FIGURE 3313A

TACAATACAGTCTGTTCTCCTCCAGCTCCTTCTTTCTGCAAC**ATG**GGGAAGAACAAACTCCTTCATCCAAGTCTG
GTTCTTCTCCTCTTGGTCCTCCTGCCCACAGACGCCTCAGTCTCTGGAAAACCGCAGTATATGGTTCTGGTCCCC
TCCCTGCTCCACACTGAGACCACTGAGAAGGGCTGTGTCCTTCTGAGCTACCTGAATGAGACAGTGACTGTAAGT
GCTTCCTTGGAGTCTGTCAGGGGAAACAGGAGCCTCTTCACTGACCTGGAGGCGGAGAATGACGTACTCCACTGT
GTCGCCTTCGCTGTCCCAAAGTCTTCATCCAATGAGGAGGTAATGTTCCTCACTGTCCAAGTGAAAGGACCAACC
CAAGAATTTAAGAAGCGGACCACAGTGATGGTTAAGAACGAGGACAGTCTGGTCTTTGTCCAGACAGACAAATCA
ATCTACAAACCAGGGCAGACAGTGAAATTTCGTGTTGTCTCCATGGATGAAAACTTTCACCCCCTGAATGAGTTG
ATTCCACTAGTATACATTCAGGATCCCAAAGGAAATCGCATCGCACAATGGCAGAGTTTCCAGTTAGAGGGTGGC
CTCAAGCAATTTTCTTTTCCCCTCTCATCAGAGCCCTTCCAGGGCTCCTACAAGGTGGTGGTACAGAAGAAATCA
GGTGGAAGGACAGAGCACCCTTTCACCGTGGAGGAATTTGTTCTTCCCAAGTTTGAAGTACAAGTAACAGTGCCA
AAGATAATCACCATCTTGGAAGAAGAGATGAATGTATCAGTGTGTGGCCTATACACATATGGGAAGCCTGTCCCT
GGACATGTGACTGTGAGCATTTGCAGAAAGTATAGTGACGCTTCCGACTGCCACGGTGAAGATTCACAGGCTTTC
TGTGAGAAATTCAGTGGACAGCTAAACAGCCATGGCTGCTTCTATCAGCAAGTAAAAACCAAGGTCTTCCAGCTG
AAGAGGAAGGAGTATGAAATGAAACTTCACACTGAGGCCCAGATCCAAGAAGAAGGAACAGTGGTGGAATTGACT
GGAAGGCAGTCCAGTGAAATCACAAGAACCATAACCAAACTCTCATTTGTGAAAGTGGACTCACACTTTCGACAG
GGAATTCCCTTCTTTGGGCAGGTGCGCCTAGTAGATGGGAAAGGCGTCCCTATACCAAATAAAGTCATATTCATC
AGAGGAAATGAAGCAAACTATTACTCCAATGCTACCACGGATGAGCATGGCCTTGTACAGTTCTCTATCAACACC
ACCAATGTTATGGGTACCTCTCTTACTGTTAGGGTCAATTACAAGGATCGTAGTCCCTGTTACGGCTACCAGTGG
GTGTCAGAAGAACACGAAGAGGCACATCACACTGCTTATCTTGTGTTCTCCCCAAGCAAGAGCTTTGTCCACCTT
GAGCCCATGTCTCATGAACTACCCTGTGGCCATACTCAGACAGTCCAGGCACATTATATTCTGAATGGAGGCACC
CTGCTGGGGCTGAAGAAGCTCTCCTTCTATTATCTGATAATGGCAAAGGGAGGCATTGTCCGAACTGGGACTCAT
GGACTGCTTGTGAAGCAGGAAGACATGAAGGGCCATTTTTCCATCTCAATCCCTGTGAAGTCAGACATTGCTCCT
GTCGCTCGGTTGCTCATCTATGCTGTTTTACCTACCGGGGACGTGATTGGGGATTCTGCAAAATATGATGTTGAA
AATTGTCTGGCCAACAAGGTGGATTTGAGCTTCAGCCCATCACAAAGTCTCCCAGCCTCACACGCCCACCTGCGA
GTCACAGCGGCTCCTCAGTCCGTCTGCGCCCTCCGTGCTGTGGACCAAAGCGTGCTGCTCATGAAGCCTGATGCT
GAGCTCTCGGCGTCCTCGGTTTACAACCTGCTACCAGAAAAGGACCTCACTGGCTTCCCTGGGCCTTTGAATGAC
CAGGACAATGAAGACTGCATCAATCGTCATAATGTCTATATTAATGGAATCACATATACTCCAGTATCAAGTACA
AATGAAAAGGATATGTACAGCTTCCTAGAGGACATGGGCTTAAAGGCATTCACCAACTCAAAGATTCGTAAACCC
AAAATGTGTCCACAGCTTCAACAGTATGAAATGCATGGACCTGAAGGTCTACGTGTAGGTTTTTATGAGTCAGAT
GTAATGGGAAGAGGCCATGCACGCCTGGTGCATGTTGAAGAGCCTCACACGGAGACCGTACGAAAGTACTTCCCT
GAGACATGGATCTGGGATTTGGTGGTGGTAAACTCAGCAGGTGTGGCTGAGGTAGGAGTAACAGTCCCTGACACC
ATCACCGAGTGGAAGGCAGGGGCCTTCTGCCTGTCTGAAGATGCTGGACTTGGTATCTCTTCCACTGCCTCTCTC
CGAGCCTTCCAGCCCTTCTTTGTGGAGCTCACAATGCCTTACTCTGTGATTCGTGGAGAGGCCTTCACACTCAAG
GCCACGGTCCTAAACTACCTTCCCAAATGCATCCGGGTCAGTGTGCAGCTGGAAGCCTCTCCCGCCTTCCTAGCT
GTCCCAGTGGAGAAGGAACAAGCGCCTCACTGCATCTGTGCAAACGGGCGGCAAACTGTGTCCTGGGCAGTAACC
CCAAAGTCATTAGGAAATGTGAATTTCACTGTGAGCGCAGAGGCACTAGAGTCTCAAGAGCTGTGTGGGACTGAG
GTGCCTTCAGTTCCTGAACACGGAAGGAAAGACACAGTCATCAAGCCTCTGTTGGTTGAACCTGAAGGACTAGAG
AAGGAAACAACATTCAACTCCCTACTTTGTCCATCAGGTGGTGAGGTTTCTGAAGAATTATCCCTGAAACTGCCA
CCAAATGTGGTAGAAGAATCTGCCCGAGCTTCTGTCTCAGTTTTGGGAGACATATTAGGCTCTGCCATGCAAAAC
ACACAAAATCTTCTCCAGATGCCCTATGGCTGTGGAGAGCAGAATATGGTCCTCTTTGCTCCTAACATCTATGTA
CTGGATTATCTAAATGAAACACAGCAGCTTACTCCAGAGATCAAGTCCAAGGCCATTGGCTATCTCAACACTGGT
TACCAGAGACAGTTGAACTACAAACACTATGATGGCTCCTACAGCACCTTTGGGGAGCGATATGGCAGGAACCAG
GGCAACACCTGGCTCACAGCCTTTGTTCTGAAGACTTTTGCCCAAGCTCGAGCCTACATCTTCATCGATGAAGCA
CACATTACCCAAGCCCTCATATGGCTCTCCCAGAGGCAGAAGGACAATGGCTGTTTCAGGAGCTCTGGGTCACTG
CTCAACAATGCCATAAAGGGAGGAGTAGAAGATGAAGTGACCCTCTCCGCCTATATCACCATCGCCCTTCTGGAG
ATTCCTCTCACAGTCACTCACCCTGTTGTCCGCAATGCCCTGTTTTGCCTGGAGTCAGCCTGGAAGACAGCACAA
GAAGGGGACCATGGCAGCCATGTATATACCAAAGCACTGCTGGCCTATGCTTTTGCCCTGGCAGGTAACCAGGAC
AAGAGGAAGGAAGTACTCAAGTCACTTAATGAGGAAGCTGTGAAGAAAGACAACTCTGTCCATTGGGAGCGCCCT

FIGURE 3313B

CAGAAACCCAAGGCACCAGTGGGGCATTTTTACGAACCCCAGGCTCCCTCTGCTGAGGTGGAGATGACATCCTAT
GTGCTCCTCGCTTATCTCACGGCCCAGCCAGCCCCAACCTCGGAGGACCTGACCTCTGCAACCAACATCGTGAAG
TGGATCACGAAGCAGCAGAATGCCCAGGGCGGTTTCTCCTCCACCCAGGACACAGTGGTGGCTCTCCATGCTCTG
TCCAAATATGGAGCAGCCACATTTACCAGGACTGGGAAGGCTGCACAGGTGACTATCCAGTCTTCAGGGACATTT
TCCAGCAAATTCCAAGTGGACAACAACAACCGCCTGTTACTGCAGCAGGTCTCATTGCCAGAGCTGCCTGGGGAA
TACAGCATGAAAGTGACAGGAGAAGGATGTGTCTACCTCCAGACATCCTTGAAATACAATATTCTCCCAGAAAAG
GAAGAGTTCCCCTTTGCTTTAGGAGTGCAGACTCTGCCTCAAACTTGTGATGAACCCAAAGCCCACACCAGCTTC
CAAATCTCCCTAAGTGTCAGTTACACAGGGAGCCGCTCTGCCTCCAACATGGCGATCGTTGATGTGAAGATGGTC
TCTGGCTTCATTCCCCTGAAGCCAACAGTGAAAATGCTTGAAAGATCTAACCATGTGAGCCGGACAGAAGTCAGC
AGCAACCATGTCTTGATTTACCTTGATAAGGTGTCAAATCAGACACTGAGCTTGTTCTTCACGGTTCTGCAAGAT
GTCCCAGTAAGAGATCTGAAACCAGCCATAGTGAAAGTCTATGATTACTACGAGACGGATGAGTTTGCAATTGCT
GAGTACAATGCTCCTTGCAGCAAAGATCTTGGAAATGCT**TGA**AGACCACAAGGCTGAAAAGTGCTTTGCTGGAGT
CCTGTTCTCAGAGCTCCACAGAAGACACGTGTTTTTGTATCTTTAAAGACTTGATGAATAAACACTTTTTCTGGT
C

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FIGURE 3314

CATCAGCCCAGCCTGCAAGGAGGCGCCACCGGACCTGCACACTCAGGAGCAGACTCAGCTAGATTGGAAGAGAGG
ATGGGAAGACAATGGATGACCTACCTGTGGAGAGAAACTACCCATTCCAGAACCTCCTCTCTGCTGAAAGCTGAA
CACTCAATGGGAAGACCTGTTTGCAGAGAGGAGCCAGCCACTCCAGGGTCTCCGTTCTGCTAGAAGCTGAACACT
CGTTGGGACACCCTTGCTGTGGAAAGGACATCCTTACTGTGGAAATGAGCTACTAACTGCAGGAGCTGAGGAGCT
GCACAGCAAGGTTAAAAGAGCTGTAACACAAACAGGGCTGCAACATGCCCCTTGCTCCCCACAGGGAGAGAAGAG
CTCTGGCCCTCGGAGAAGCCCAGACCTGGGAGCTCCTTGAGCCCGGGCTGTGACTCCCTCTTTGGGGCCCTGGTT
GGCGTCACTGCATTCGCCAGTGCCACTGTTGGAAGCTGCTTGTG**ATG**CGCCTGGTCCAGGGGGAAGCTGTTTGTT
GTGTGCCTGGTCCAGCCACCTCATGGAGAGCCTGTGCTGGCACCTGGAGCTGCCCAACCTGGGCAGCAGCTTGTG
TGTGTGACTGCACAGTGGCCACGCTTGCTCACACACCCCTAGCACACCCCTCTGCTCCACCCGTCTCAATCTCCC
TTGGATCCGGGATCCAGGTTGGTAGCAAGTGCGAGTGGGCAGAAGCAGCCCAGTGGGCCCAGAGCAAAACTCAGG
CAAAGGTGCCACTAGACTGGCCAGGAAAGCGACACCCTAAAGATCCCATAATGCTGATATGT**TAA**TTCTATTCTA
TAAGCACCACACAGAAGTGATAGCTTTTATTTCTTATTTTGTCTAGCCTGGAGACAGAGCTAAGGATTCCTTGAA
CTGCAAAGTCTTTTCCAGTTCTTAGTTTATACAATCCATACTCACCTTCTGCCTAACTAAGCATTGTCATTTTTG
TGCCAAATGAAGAGTAGGACTCCTACGATTGTCCTCAGACTCTCTTGGCTCAATCCTCCTGCTTTAACCTTTCCT
ACTTCAAAAACTCCTGAAGTTTTGCTTCCCCTTCTATAGAATGGAAATATATGTCGCAATACTTACTGCAAAGAA
AATTATATATTTTAAAAATAGACTAAAGAGATGTTGTGAGACATCAGACATCAATCAGATGTTGTGAGAACTGAT
TTCTGCATCAGAATATCTCCTTGACTTTACAGCTATCCTTTAATCCTGGCTCAAAGTTCCAGAAGAAAGATGATC
CAATATAATACTCCTATTTGGACTTTGAGTCATACACATTCCTTCTTCTGAGAAAACGTGCTTCTGCATGAATCC
TCCCTTCATTATTTTCAGCTCATCTATTATTGAATCTGAAACCCCAGGTTAACTGACTGATCACTCTCATCAGTG
GCAGATTTTGGTGTAACATAGGACACATCACTCCCAATTCAGGTCAAGTCCCAATTATCTTGCCTCTCAATATGA
CATGTTCAATGTTGTATTTCATTCTACTTCATTTTAATGTAAAAAGTCTTTTCTGGTGAAGTCAGTCTTTTATTT
TCTCATAAAAATTCACCCTTTGGGTTTTTCATAGGGTATTCCCATAACCAAACACACTTTACACTTTCCTAGTAC
ATAACCCAATACTTTCTTCTTTCCCCACAGTCCTTACATGAAGCCTACTCAGACCGACATCACTGTATCATTTTT
TTGTATTCTGAAGTCCTTCAGCACTTGATTCCTTTAAGTTTAATCTTGGTATTCTATTGGGAATCATATGGAAAT
GTACAATGATATTTATTGAATGAACAGGAAACAGGGAAAGACATTGACCAGAAAAAGTGTTTATTCATCAAGTCT
TTAAAGATACAAAAACACGTGTCTTCTGTGGAGCTCTGAGAACAGGACTCCAGCAAAGCACTTTTCAGCCTTGTG
GTCTTCAAGCATTTCCAAGATCTGTGACATTGGAAAGAAAAAAAATTAAGACAGATTTGGGTCTCCATGAGCAGA
GAGTATTCTTTCCCTTAGTTCTGGGTAGCATAGTGCCCAAGGAAACCTAATCAGTACAGTGGGAAACCAAATCTA
TTCCAAATCATTACCCATAAGCAATCCTATGGACTCTCTGAGGTTTGACAGAGTCAGCGGCCCTCTCCAATAAAT
GTGTTTTTCTAT

FIGURE 3315

TTCCGGTTCCCAGAGTGGGGCACAGCGAGGCGCTAGGGGGAACGCTGGCCTCTGAAACTAGCTCTGGGACCGGGG
TCTGCGGCCGGCCCCTAGCTGGCCCCGTCTCCCATCCCCAGAAGGGTATTCACTGGGGATTCTGAGCTTTGGCTA
CTCCAGTTTCCCACGACACG**ATG**TTCCCTTTCTACAGCTGCTGGAGGACTGGACTGCTACTACTACTCCTGGCTG
TGGCAGTGAGAGAATCCTGGCAGACAGAAGAAAAAACTTGCGACTTGGTAGGAGAAAAGGGTAAAGAGTCAGAGA
AAGAGTTGGCTCTAGTGAAGAGGCTGAAACCACTGTTTAATAAAAGCTTTGAGAGCACTGTGGGCCAGGGTTCAG
ACACATACATCTACATCTTCAGGGTGTGCCGGGAAGCTGGCAACCACACTTCTGGGGCAGGCCTGGTGCAAATCA
ACAAAAGTAATGGGAAGGAGACAGTGGTAGGGAGACTCAACGAGACTCACATCTTCAACGGAAGTAATTGGATCA
TGCTGATCTATAAAGGGGGTGATGAATATGACAACCACTGTGGCAAGGAGCAGCGTCGTGCAGTGGTGATGATCT
CCTGCAATCGACACACCCTAGCGGACAATTTTAACCCTGTGTCTGAGGAGCGTGGCAAAGTCCAAGATTGTTTCT
ACCTCTTTGAGATGGATAGCAGCCTGGCCTGTTCACCAGAGATCTCCCACCTCAGTGTGGGTTCCATCTTACTTG
TCACGTTTGCATCACTGGTTGCTGTTTATGTTGTTGGGGGGTTCCTATACCAGCGACTGGTAGTGGGAGCCAAAG
GAATGGAGCAGTTTCCCCACTTAGCCTTCTGGCAGGATCTTGGCAACCTGGTAGCAGATGGCTGTGACTTTGTCT
GCCGTTCTAAACCTCGAAATGTGCCTGCAGCATATCGTGGTGTGGGGGATGACCAGCTGGGGGAGGAGTCAGAAG
AAAGGGATGACCATTTATTACCAATG**TAG**ATTGCACTTTATATGTCCAGCCTCTTCCTCAGTCCCCCAAACCAAA
GCTACACAGCCAGATTTCTCAAGCAGTCTCAACTCCAGTCCCTCATCTCACCCTTACTATTGCTCTTGCTTTCCA
GTTTGCTTTTGATTTGCATCTTCTCACTAGTAAAACTGCCTTCCCTTTGTTCCTTATTTTCTGTTTTTTCTCTAG
AGAGGTACAGTTGTAAGTCAGAGTTAATATAATAGGGCCTGTGAAAACAGAGGCTTTTGCATTGTCTCTTGACAT
CAGAAGTTACAATAGGCATATGGGCAAAATGGTGTAGCAGGCTCACTGGCCGTTTGTTTTTTAAACACATTTTCA
CAAGTTTTTGAGACACTGGATTTCTTTAATTAAAAAAAAAATGCCAAGAAACATTATTTATACAGGGTTGATTGC
TTTCATGTTGTTATTCTGTACCCTATAGTAGCCTCCATGAGAATCTGGTATTTCTTGCTGCTTGGAACTACTTTG
CAGTGATTACTTGGTTGCAGTCCAAGTACTCTCGTTTAGTCTGAGCCTGGAGATGTTCTAGACTTGCTTCTCCCA
CCTCTGAGATTAGGACAGGAAAAATGTGAAATTTCCCAATTACAGGATTATACGGTACCATCACATCATTTGTGG
AAATTGGGGTGACTGTATAGCTGGGATTGGGCTAAGGACTGTGGTCTTATCTGTCCACATACAGCCAAAATGCCT
ATCCAGAAATCCAGTTCGTTGGAAAGGAAAATTGGTACTCCTGTGCCACAGGGGTTCCAGAAAAGGGAAGTCACT
TTACCTTGCGGTGGTGGGATCCTGATGTCTTTCATCCATTTGTAGTAAAAGCTGGTAAAGCTTTTCTTACTCCTG
GTTCCCTACCAGTATTTCTAAACATGTCGCACTTTCTCCACAGGCATGTGGTTTTGACCTTTTTTTCAATCTTCT
AGAAAGGGAACGGAAGCAGAAGTGGGACATCGAGGGCTCTGCTGTCCTCTGCGCTGGGTGTGGAATGCTGCTGCA
CCTGTCCCTTCTGCTGGCTCAGGGAAGTGTCTTCTTGCCCACATTTCTGTGGGGAAAGGTTTTTAATCCTCTGAT
GCTTCCATCTTCCTGTTTAGGCCATGTGCCCAGAAACCTGGACTGATCTTTCTTTAATAGTGAACCCCTGGGCCA
CTGAAGAGTAACATGGCTCCACTGGACACAAAAGAGGGATGGAATCAACAGGCAGGGGGCCTTTTATAAGCCTTA
GGAAAAGAAAATGAAACTATTTCATCTTTGGACTTTTCAATACTATTGGAGTGATTTTTTTCTTTCTAAACAGGG
AAAATAATGTTACAAAAGCATCTTTTTTGTTATTTGTTTGCATCCCTCCCCCACACCCTGGTGTTTTAAAATGAA
GAAAAAAAACCATCACCTTTTGTACAAAAACTCTTAATGATTAAAAAACAAACA

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FIGURE 3316

GGCTCCCGGAATATGGAGCCCTGGGCGCGGGGGCGGCGTGTCAGGTGGTTGCGGAGCTGAATCATATTCTAAGAA
CTCAGCCACTCAGGTATCCACC**ATG**GTGCTGGGTCCTGAACAGAAGATGTCAGATGACAGTGTTTCTGGAGATCA
TGGGGAGTCTGCCAGTCTTGGTAACATCAACCCTGCCTATAGTAATCCCTCTCTTTCACAGTCCCCTGGGGACTC
AGAGGAGTACTTCGCCACTTACTTTAATGAGAAGATCTCCATTCCTGAGGAGGAGTACTCTTGTTTTAGCTTTCG
TAAACTCTGGGCTTTCACCGGACCAGGTTTTCTTATGAGCATTGCCTACCTGGATCCAGGAAATATTGAATCCGA
TTTGCAGTCTGGAGCAGTGGCTGGATTTAAGTTGCTCTGGATCCTTCTGTTGGCCACCCTTGTGGGGCTGCTGCT
CCAGCGGCTTGCAGCTAGACTGGGAGTGGTTACTGGGCTGCATCTTGCTGAAGTATGTCACCGTCAGTATCCCAA
GGTCCCACGAGTCATCCTGTGGCTGATGGTGGAGTTGGCTATCATCGGCTCAGACATGCAAGAAGTCATTGGCTC
AGCCATTGCTATCAATCTTCTGTCTGTAGGAAGAATTCCTCTGTGGGGTGGCGTTCTCATCACCATTGCAGATAC
TTTTGTATTTCTCTTCTTGGACAAATATGGCTTGCGGAAGCTAGAAGCATTTTTTGGCTTTCTCATCACTATTAT
GGCCCTCACATTTGGATATGAGTATGTTACAGTGAAACCCAGCCAGAGCCAGGTACTCAAGGGCATGTTCGTACC
ATCCTGTTCAGGCTGTCGCACTCCACAGATTGAACAGGCTGTGGGCATCGTGGGAGCTGTCATCATGCCACACAA
CATGTACCTGCATTCTGCCTTAGTCAAGTCTAGACAGGTAAACCGGAACAATAAGCAGGAAGTTCGAGAAGCCAA
TAAGTACTTTTTCATTGAATCCTGCATTGCACTCTTTGTTTCCTTCATCATCAATGTCTTTGTTGTCTCAGTCTT
TGCTGAAGCATTTTTTGGGAAAACCAACGAGCAGGTGGTTGAAGTCTGTACAAATACCAGCAGTCCTCATGCTGG
CCTCTTTCCTAAAGATAACTCGACACTGGCTGTGGACATCTACAAAGGGGGTGTTGTGCTGGGATGTTACTTTGG
GCCTGCTGCACTCTACATTTGGGCAGTGGGGATCCTGGCTGCAGGACAGAGCTCCACCATGACAGGAACCTATTC
TGGCCAGTTTGTCATGGAGGGATTCCTGAACCTAAAGTGGTCACGCTTTGCCCGAGTGGTTCTGACTCGCTCTAT
TGCCATCATCCCCACTCTGCTTGTTGCTGTCTTCCAAGATGTAGAGCATCTAACAGGGATGAATGACTTTCTGAA
TGTTCTACAGAGCTTACAGCTTCCCTTTGCTCTCATACCCATCCTCACATTTACGAGCTTGCGGCCAGTAATGAG
TGACTTTGCCAATGGACTAGGCTGGCGGATTGCAGGAGGAATCTTGGTCCTTATCATCTGTTCCATCAATATGTA
CTTTGTAGTGGTTTATGTCCGGGACCTAGGGCATGTGGCATTATATGTGGTGGCTGCTGTGGTCAGCGTGGCTTA
TCTGGGCTTTGTGTTCTACTTGGGTTGGCAATGTTTGATTGCACTGGGCATGTCCTTCCTGGACTGTGGGCATAC
GTGCCATCTGGGATTGACAGCTCAGCCTGAACTCTATCTTCTGAACACCATGGACGCTGACTCACTTGTGTCTAG
A**TGA**CTGACAGCCTGAGAGACTCTATAAGAACATGTTTTTCTAAGCCCTTTTTGTGCCAGGTGTCCCGTTAACGT
CTCTGTTAGTTCAGAGAGACGGGATTTCACCATGTTGCCCAGGCTGGTGTTGAACTCATGAGCTCAAGTAATCTG
CTGGCCTTGGCCTCCCAAAGTGCTGAGATTATAGGCGTGAGCCACTGCATCCAGCTCACTCCTCATTTCTTTCTA
GCCCCAAAGGTGTTGAGTCAGCAAATCCTGCAGCCTTTGTGTGACTTTGAGCATCACTTTCCCCTTTCAGCATTA
AATATATGACCTCTCTGCCTTATTTTAGAACTTACTACATTTCAATAAAACTTTTTAAAAAATCC

FIGURE 3317

CAGCCCTCTCATCTCCTGGAACCATGGCCAGCACATCCACCACCATCAGGAGCCACAGCAGCAGCCGCCGGGGTT
TCAGTGCCAACTCAGCCAGGCTCCCTGGGGTCAGCCGCTCTGGCTTCAGCAGCATCTCCGTGTCCCGCTCCAGGG
GCAGTGGTGGCCTGGGTGGTGC**ATG**TGGAGGAGCTGGCTTTGGCAGCCGCAGTCTGTATGGCCTGGGGGGCTCCA
AGAGGATCTCCATTGGAGGGGGCAGCTGTGCCATCAGTGGCGGCTATGGCAGCAGAGCCGGAGGCAGCTATGGCT
TTGGTGGCGCCGGGAGTGGATTTGGTTTCGGTGGTGGAGCCGGCATTGGCTTTGGTCTGGGTGGTGGAGCCGGCC
TTGCTGGTGGCTTTGGGGGCCCTGGCTTCCCTGTGTGCCCCCCTGGAGGCATCCAAGAGGTCACCGTCAACCAGA
GTCTCCTGACTCCCCTCAACCTGCAAAT**TGA**CCCCGCCATCCAGCGGGTGCGGGCCGAGGAGCGTGAGCAGATCA
AGACCCTCAACAACAAGTTTGCCTCCTTCATCGACAAGGTGCGGTTCCTAGAGCAGCAGAACAAGGTTCTGGACA
CCAAGTGGACCCTGCTGCAGGAGCAGGGCACCAAGACTGTGAGGCAGAACCTGGAGCCGTTGTTCGAGCAGTACA
TCAACAACCTCAGGAGGCAGCTGGACAACAT

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FIGURE 3318

C**ATG**GCCAGCACATCCACCACCATCAGGAGCCACAGCAGCAGCCGCCGGGGTTTCAGTGCCAACTCAGCCAGGCT
CCCTGGGGTCAGCCGCTCTGGCTTCAGCAGCGTCTCCGTGTCCCGCTCCAGGGGCAGTGGTGGCCTGGGTGGTGC
ATGTGGAGGAGCTGGCTTTGGCAGCCGCAGTCTGTATGGCCTGGGGGGCTCCAAGAGGATCTCCATTGGAGGGGG
CAGCTGTGCCATCAGTGGCGGCTATGGCAGCAGAGCCGGAGGCAGCTATGGCTTTGGTGGCGCCGGGAGTGGATT
TGGTTTCGGTGGTGGAGCCGGCATTGGCTTTGGTCTGGGTGGTGGAGCCGGCCTTGCTGGTGGCTTTGGGGGCCC
TGGCTTCCCTGTGTGCCCCCCTGGAGGCATCCAAGAGGTCACCGTCAACCAGAGTCTCCTGACTCCCCTCAACCT
GCAAATCGATCCCACCATCCAGCGGGTGCGGGCTGAGGAGCGTGAACAGATCAAGACCCTCAACAACAAGTTTGC
CTCCTTCATCGACAAGGTGCGGTTCCTGGAGCAGCAGAACAAGGTTCTGGAAACAAAGTGGACCCTGCTGCAGGA
GCAGGGCACCAAGACTGTGAGGCAGAACCTGGAGCCGTTGTTCGAGCAGTACATCAACAACCTCAGGAGGCAGCT
GGACAGCATTGTCGGGGAACGGGGCCGCCTGGACTCAGAGCTCAGAGGCATGCAGGACCTGGTGGAGGACTTCAA
GAACAAATATGAGGATGAAATCAACAAGCGCACAGCAGCAGAGAATGAATTTGTGACTCTGAAGAAGGATGTGGA
TGCTGCCTACATGAACAAGGTTGAACTGCAAGCCAAGGCAGACACTCTCACAGACGAGATCAACTTCCTGAGAGC
CTTGTATGATGCAGAGCTGTCCCAGATGCAGACCCACATCTCAGACACATCTGTGGTGCTGTCCATGGACAACAA
CCGCAACCTGGACCTGGACAGCATCATCGCTGAGGTCAAGGCCCAATATGAGGAGATTGCTCAGAGAAGCCGGGC
TGAGGCTGAGTCCTGGTACCAGACCAAGTACGAGGAGCTGCAGGTCACAGCAGGCAGACATGGGGACGACCTGCG
CAACACCAAGCAGGAGATTGCTGAGATCAACCGCATGATCCAGAGGCTGAGATCTGAGATCGACCACGTCAAGAA
GCAGTGCGCCAACCTGCAGGCCGCCATTGCTGATGCTGAGCAGCGTGGGGAGATGGCCCTCAAGGATGCCAAGAA
CAAGCTGGAAGGGCTGGAGGATGCCCTGCAGAAGGCCAAGCAGGACCTGGCCCGGCTGCTGAAGGAGTACCAGGA
GCTGATGAATGTCAAGCTGGCCCTGGACGTGGAGATCGCCACCTACCGCAAGCTGCTGGAGGGTGAGGAGTGCAG
GCTGAATGGCGAAGGCGTTGGACAAGTCAACATCTCTGTGGTGCAGTCCACCGTCTCCAGTGGCTATGGCGGTGC
CAGTGGTGTCGGCAGTGGCTTAGGCCTGGGTGGAGGAAGCAGCTACTCCTATGGCAGTGGTCTTGGCGTTGGAGG
TGGCTTCAGTTCCAGCAGTGGCAGAGCCATTGGGGGTGGCCTCAGCTCTGTTGGAGGCGGCAGTTCCACCATCAA
GTACACCACCACCTCCTCCTCCAGCAGGAAGAGCTATAAGCAC**TAA**AGTGCGTCTGCTAGCTCTCGGTCCCACAG
TCCTCAGGCCCCTCTCTGGCTGCAGAGCCCTCTCCTCAGGTTGCCTTTCCTCTCCTGGCCTCCAGTCTCCCCTGC
TGTCCCAGGTAGAGCTGGGTATGGATGCTTAGTGCCCTCACTTCTTCTCTCTCTCTCTATACCATCTGAGCACCC
ATTGCTCACCATCAGATCAACCTCTGATTTTACATCATGATGTAATCACCACTGGAGCTTCACTGTTACTAAATT
ATTAATTTCTTGCCTCCAGTGTTCTATCTCTGAGGCTGAGCATTATAAGAAAATGACCTCTGCTCCTTTTCATTG
CAGAAAATTGCCAGGGGCTTATTTCAGAACAACTTCCACTTACTTTCCACTGGCTCTCAAACTCTCTAACTTATA
AGTGTTGTGAACCCCCACCCAGGCAGTATCCATGAAAGCACAAGTGACTAGTCCTATGATGTACAAAGCCTGTAT
CTCTGTGATGATTTCTGTGCTCTTCGCTGTTTGCAATTGCTAAATAAA

FIGURE 3319

TCGACAGCTCTCTCGCCCAGCCCAGTTCTGGAAGGGATAAAAAGGGGGCATCACCGTTCCTGGGTAACAGAGCCA
CCTTCTGCGTCCTGCTGAGCTCTGTTCTCTCCAGCACCTCCCAACCCACTAGTGCCTGGTTCTCTTGCTCCACCA
GGAACAAGCCACC**ATG**TCTCGCCAGTCAAGTGTGTCCTTCCGGAGCGGGGGCAGTCGTAGCTTCAGCACCGCCTC
TGCCATCACCCCGTCTGTCTCCCGCACCAGCTTCACCTCCGTGTCCCGGTCCGGGGGTGGCGGTGGTGGTGGCTT
CGGCAGGGTCAGCCTTGCGGGTGCTTGTGGAGTGGGTGGCTATGGCAGCCGGAGCCTCTACAACCTGGGGGGCTC
CAAGAGGATATCCATCAGCACTAGTGGTGGCAGCTTCAGGAACCGGTTTGGTGCTGGTGCTGGAGGCGGCTATGG
CTTTGGAGGTGGTGCCGGTAGTGGATTTGGTTTCGGCGGTGGAGCTGGTGGTGGCTTTGGGCTCGGTGGCGGAGC
TGGCTTTGGAGGTGGCTTCGGTGGCCCTGGCTTTCCTGTCTGCCCTCCTGGAGGTATCCAAGAGGTCACTGTCAA
CCAGAGTCTCCTGACTCCCCTCAACCTGCAAATCGACCCCAGCATCCAGAGGGTGAGGACCGAGGAGCGCGAGCA
GATCAAGACCCTCAACAATAAGTTTGCCTCCTTCATCGACAAGGTGCGGTTCCTGGAGCAGCAGAACAAGGTTCT
GGACACCAAGTGGACCCTGCTGCAGGAGCAGGGCACCAAGACTGTGAGGCAGAACCTGGAGCCGTTGTTCGAGCA
GTACATCAACAACCTCAGGAGGCAGCTGGACAGCATCGTGGGGGAACGGGGCCGCCTGGACTCAGAGCTGAGAAA
CATGCAGGACCTGGTGGAAGACTTCAAGAACAAGTATGAGGATGAAATCAACAAGCGTACCACTGCTGAGAATGA
GTTTGTGATGCTGAAGAAGGATGTAGATGCTGCCTACATGAACAAGGTGGAGCTGGAGGCCAAGGTTGATGCACT
GATGGATGAGATTAACTTCATGAAGATGTTCTTTGATGCGGAGCTGTCCCAGATGCAGACGCATGTCTCTGACAC
CTCAGTGGTCCTCTCCATGGACAACAACCGCAACCTGGACCTGGATAGCATCATCGCTGAGGTCAAGGCCCAGTA
TGAGGAGATTGCCAACCGCAGCCGGACAGAAGCCGAGTCCTGGTATCAGACCAAGTATGAGGAGCTGCAGCAGAC
AGCTGGCCGGCATGGCGATGACCTCCGCAACACCAAGCATGAGATCTCTGAGATGAACCGGATGATCCAGAGGCT
GAGAGCCGAGATTGACAATGTCAAGAAACAGTGCGCCAATCTGCAGAACGCCATTGCGGATGCCGAGCAGCGTGG
GGAGCTGGCCCTCAAGGATGCCAGGAACAAGCTGGCCGAGCTGGAGGAGGCCCTGCAGAAGGCCAAGCAGGACAT
GGCCCGGCTGCTGCGTGAGTACCAGGAGCTCATGAACACCAAGCTGGCCCTGGACGTGGAGATCGCCACTTACCG
CAAGCTGCTGGAGGGCGAGGAATGCAGACTCAGTGGAGAAGGAGTTGGACCAGTCAACATCTCTGTTGTCACAAG
CAGTGTTTCCTCTGGATATGGCAGTGGCAGTGGCTATGGCGGTGGCCTCGGTGGAGGTCTTGGCGGCGGCCTCGG
TGGAGGTCTTGCCGGAGGTAGCAGTGGAAGCTACTACTCCAGCAGCAGTGGGGGTGTCGGCCTAGGTGGTGGGCT
CAGTGTGGGGGGCTCTGGCTTCAGTGCAAGCAGTGGCCGAGGGCTGGGGGTGGGCTTTGGCAGTGGCGGGGGTAG
CAGCTCCAGCGTCAAATTTGTCTCCACCACCTCCTCCTCCCGGAAGAGCTTCAAGAGC**TAA**GAACCTGCTGCAAG
TCACTGCCTTCCAAGTGCAGCAACCCAGCCCATGGAGATTGCCTCTTCTAGGCAGTTGCTCAAGCCATGTTTTAT
CCTTTTCTGGAGAGTAGTCTAGACCAAGCCAATTGCAGAACCACATTCTTTGGTTCCCAGGAGAGCCCCATTCCC
AGCCCCTGGTCTCCCGTGCCGCAGTTCTATATTCTGCTTCAAATCAGCCTTCAGGTTTCCCACAGCATGGCCCCT
GCTGACACGAGAACCCAAAGTTTTCCCAAATCTAAATCATCAAAACAGAATCCCCACCCCAATCCCAAATTTTGT
TTTGGTTCTAACTACCTCCAGAATGTGTTCAATAAAATGCTTTTATAATAT

FIGURE 3320

GAAAC**ATG**CAGGACCTGGTGGAAGACTTCAAGAACAAGTATGAGGATGAAATCAACAAGCGTACCACTGCTGAGA
ATGAGTTTGTGATGCTGAAGAAGGATGTAGATGCTGCCTACATGAACAAGGTGGAGCTGGAGGCCAAGGTTGATG
CACTGATGGATGAGATTAACTTCATGAAGATGTTCTTTGATGCGGAGCTGTCCCAGATGCAGACGCATGTCTCTG
ACACCTCAGTGGTCCTCTCCATGGACAACAACCGCAACCTGGACCTGGATAGCATCATCGCTGAGGTCAAGGCCC
AGTATGAGGAGATTGCCAACCGCAGCCGGACAGAAGCCGAGTCCTGGTATCAGACCAAGTCCGCAACACCAAGCA
TGAGATCTCTGAGA**TGA**ACCGGATGATCCAGAGGCTGAGAGCCGAGATTGACAATGTCAAGAAACAGTGCGCCAA
TCTGCAGAACGCCATTGCGGATGCCGAGCAGCGTGGGGAGCTGGCCCTCAAGGATGCCAGGAACAAGCTGGCCGA
GCTGGAGGAGGCCCTGCAGAAGGCCAAGCAGGACATGGCCCGGCTGCTGCGTGAGTACCAGGAGCTCATGAACAC
CAAGCTGGCCCTGGACGTGGAGATCGCCACTTACCGCAAGCTGCTGGAGGGCGAGGAATGCAGACTCAGTGGAGA
AGGAG

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FIGURE 3321

GCGAGTGCGCGCTCCTCCTCGCCCGCCGCTAGGTCCATCCCGGCCCAGCCACC**ATG**TCCATCCACTTCAGCTCCC
CGGTATTCACCTCGCGCTCAGCCGCCTTCTCGGGCCGCGGCGCCCAGGTGCGCCTGAGCTCCGCTCGCCCCGGCG
GCCTTGGCAGCAGCAGCCTCTACGGCCTCGGCGCCTCACGGCCGCGCGTGGCCGTGCGCTCTGCCTATGGGGGCC
CGGTGGGCGCCGGCATCCGCGAGGTCACCATTAACCAGAGCCTGCTGGCCCCGCTGCGGCTGGACGCCGACCCCT
CCCTCCAGCGGGTGCGCCAGGAGGAGAGCGAGCAGATCAAGACCCTCAACAACAAGTTTGCCTCCTTCATCGACA
AGGTGCGGTTTCTGGAGCAGCAGAACAAGCTGCTGGAGACCAAGTGGACGCTGCTGCAGGAGCAGAAGTCGGCCA
AGAGCAGCCGCCTCCCAGACATCTTTGAGGCCCAGATTGCTGGCCTTCGGGGTCAGCTTGAGGCACTGCAGGTGG
ATGGGGGCCGCCTGGAGGCGGAGCTGCGGAGCATGCAGGATGTGGTGGAGGACTTCAAGAATAAGTACGAAGATG
AAATTAACCACCGCACAGCTGCTGAGAATGAGTTTGTGGTGCTGAAGAAGGATGTGGATGCTGCCTACATGAGCA
AGGTGGAGCTGGAGGCCAAGGTGGATGCCCTGAATGATGAGATCAACTTCCTCAGGACCCTCAATGAGACGGAGT
TGACAGAGCTGCAGTCCCAGATCTCCGACACATCTGTGGTGCTGTCCATGGACAACAGTCGCTCCCTGGACCTGG
ACGGCATCATCGCTGAGGTCAAGGCGCAGTATGAGGAGATGGCCAAATGCAGCCGGGCTGAGGCTGAAGCCTGGT
ACCAGACCAAGTTTGAGACCCTCCAGGCCCAGGCTGGGAAGCATGGGGACGACCTCCGGAATACCCGGAATGAGA
TTTCAGAGATGAACCGGGCCATCCAGAGGCTGCAGGCTGAGATCGACAACATCAAGAACCAGCGTGCCAAGTTGG
AGGCCGCCATTGCCGAGGCTGAGGAGCGTGGGGAGCTGGCGCTCAAGGATGCTCGTGCCAAGCAGGAGGAGCTGG
AAGCCGCCCTGCAGCGGGGCAAGCAGGATATGGCACGGCAGCTGCGTGAGTACCAGGAACTCATGAGCGTGAAGC
TGGCCCTGGACATCGAGATCGCCACCTACCGCAAGCTGCTGGAGGGCGAGGAGAGCCGGTTGGCTGGAGATGGAG
TGGGAGCCGTGAATATCTCTGTGATGAATTCCACTGGTGGCAGTAGCAGTGGCGGTGGCATTGGGCTGACCCTCG
GGGGAACCATGGGCAGCAATGCCCTGAGCTTCTCCAGCAGTGCGGGTCCTGGGCTCCTGAAGGCTTATTCCATCC
GGACCGCATCCGCCAGTCGCAGGAGTGCCCGCGAC**TGA**

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FIGURE 3322

CTCTCTGTCAAGAGCCATTGCCTGAAACTGGAGGAGAACATCAAGACAGCTGAGGAGCAGGGTGAGCTGGCCTTC
CAGGATGCCAAGACCAAGCTGGCCCAGCTGGAGGCCGCCCTGCAGCAGGCCAAGCAGGACATGGCGCGGCAGCTG
CGCAAGTACCAGGAGCTGATGAACGTCAAGCTGGCCCTGGACATCGAGATCGCCACCTACAGGAAGCTGGTGGAG
GGCGAGGAGGGCAGGATGGACTCGCCCTCAGCCACTGTGGTCAGCGCTGTGCAGTCCAGGTGCAAAACCGCCCCT
TCCCTCCCCTACCCCTTATGTTCCCTGTAGCTGCCTCCAGATCAGGCCTCTCCAAGGCCCCCTCCCGAAAGAAGA
AGGGCAGCAAAGGCCCCGTGATCAAAATCACCGAAATGTCAGAGAAGTACTTCTCGCAGGAGTCGGAGGTCTCAG
AGTAAGGCGGCTGGACCCCAGGAACCCCAGGGCACTCCACTGCAGCAGGAGGGACTTAAGCTAGACTCAAGAAAG
CAGCTTGGAGCCTCTAGGTTGAGAAGAGAGGCAAAACCTGATATTGAACTGAGAGAGGGGTTCAAAACTGACTGT
GTTTTGTGGGCTGCCAGGGTGGGAGAGGAGCATCACCAGCTCCTCAGAGCCACTCCGCTCCATATCAGTATCTCA
CAGTCCCATCCTTCCAACCTTCTGGCCAGAGGTTTTCCTGATGGGTGAGTCGGAATTAGGGGTCAGTTTTGTCTC
CACCTCCTCGCTCCTCTGAGGCTCCTCCTCCAGCATCAGGCTCTGCCAAGGCCCCTCTGACTCTTGCCCAATCCT
TGACCTTGACTCCTATCTCAAGCCTTGCCTTGTCTCTGCCTCGGAACTGGGACTGGGACTGGCTCATCCACCTAT
GTGCGGGAGCCGAGGAGGACGGCGTGGGCCCTGTCCTGTATCTGGAATTCCTGGGAAGGCTGGCTGCTGAAGACC
CTCTTGGCTTTCCCGTGCTCTTTGGGCTCCCCAGAGACCTGACAGTATTAGGGAGTGAAGGGAGGAGGGGCCCTG
GCTATTTGGGACCTAAGCCTAGGCCCCAGAGATCAGCCCGAACACCCGCATCCCTTCCTCCTCCCATGGGTCCCT
CCCAGTAGGCAGTAGTCAGAACTGGATGGGCTGCCCCCAGCCAGCTCCCAGCAGCTTCTCCGGAAGCTGCTCTTG
CCATAATCAACTCCCTGGGAGTGGAAGCCAGATGGCAGCTTGAGATTGGGCAGGAGCATTCGATCTTCCTTTCAC
CTCCCTGCCATGCTGGGGTCCTACCCAGCCTGGATCTGAGCTCTGTGCCCCCAGCCGGGTTGTTCCCAGCCTGAG
CACCGGGCTTTGGTGCACCAGGCCTTGGAGACCCCTGGTCCCACCCCTGCCGTGAAGCCCCAGGCCCACTTCCCA
AGAATCTCACTTCTCAGGGCCTCTGTTCTCCTCTCCACTGGGCCAAATAGCCTGGCCCTCCCCTCCTTGGCATTC
ATGGGGGAGCCCAGGAACCCCCCACACCT**ATG**GGGTTAGAGCTCCTCCTTTCTTCTCACTCCTTCCCCTTCCTCC
CTCCATGCCCACTCCCCCTGCCTCCAGCAGGCCAGGAAGAAGGCACAGTCCAGGCAAGTCTGGGAGCTTCCAAGC
CCTTGAGGTCCAGCTGTGGGGCCCAAATGACAGCCTTACAAGGGTTCTACCAGAGAGGAAAATTCCACATCCCAC
CAGAAGACAGGGGTGTTGGCAGGCATACTCCTATCTCCTCCTCTTGGCTCTCAATGCTGAGGCTTGCAGAGGCAT
CCCAGCGGCACCAGCCTCCCACTGCACAGCTTCCTTCCCTCCTTCACTCTCCTCTCCCCTCCCTGCCCCTTGCCT
CACCTCCTCTTCTAGACTGCATTAGATTCATTCATCTCATTTGCCAGGACATGTTGGCCAGAGGTCTGGGCCCAT
CCCAGGCCTCAAGGCCCTCCAGGCCTGTGGGGAGCACTGGAGGGTTACTGACTCTCTGGCCATGGGAACTCAGAG
ATTCTCATCCCCAAAGTCCCAAAAGAGGGTGC**TGA**TTGGTGCTTTTCCTCAGGCTCTTCATTGGTTTCCAAGGGA
GCAAATCCTCAGTGGGGATACAAGACATATAAAGTATATATTATTTTTTCATAACTTATGTGGCTTTTAACTTAT
TGCTTCCCTTCCTGTTTCTGCATGATCAGTCTGTATGTACTATCTGGAAAGATAACACATACTCCAGCCACCTCA
CCTGATTGGCTATCTTGGGGCCATGTCCCCTTCTTGCTGCCACAGGATGAATAAAGTGTTGAGATTTGTCTATGG
AGAAAGCTGTGTGTCTGTTTTTATCTCCCCTCTCAGGACCAGTCAGCCACTGGTCAATCAGGCTGATCATGGAAC
ATTAGGAATTCTCCAATTAAGGGAGAAAAAGTCCAGGGACTTAGTTATATCTTCAGACCAGTGCAGCTGGTACAC
ACAAAGTTCTCCTGTCTCACCATCTGATATGGTTTGGATGCTCGTCCCCTCCAAATCTCATGTTGAAATGTAATT
CCCAGTGTTGGAAGTGGAGCCTGGTGGGAAGTATTTGGATCATGAGAGAGGATCCTTCATGAATGGCTCAGCACC
ATCTCCTTGGTGATGAGTGAGTTCTCACTCAATTCACATAGATATGGTTGTTTAAAAGAGTCTGAGACCTCTCCC
CTCTTTCTCGCCATGTGATATGCCTGCTCCCCCTTCACCTTCCGCCTTTACTGTAAGCTTCCTGAGGCCCTCACC
AGAAGCTGAGCAAATGTTGGTGCCATGCCAGTACAGCCTGCAGAATTGTGAGCCAAAATAAATGTCTTTTCTTTA
TAAATTA

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FIGURE 3323

TTCCGGTCCCGGCTCAGCCTCCGACCCAGGTGGTCTGGAGCCTGCCGGGAGAGTGGTGGCATCTGAGAGGCTGGT
CGTGGACTGTGGTTGGGGGAGGTGGGAGCTGTTTTAACCGTGTGCCCCCTCTCCTGTGCCGGCGTGGGCATCCCC
CGGGGCAGTGGAACGCGGGCGCTCCTCCAGCTTCCGAGTCCAGCCAGCCTGGGCGCGGGGCGCCGCCCCCGAGAC
ACCCGAGGAGTCCGTTCCTCCCTGGTTACGTGGACTGTGGAGCTGGTCTCTTGTGGCTCAGCGCCGTGCGGAGGT
TGAAGCGTACCTGCGGAGGTCGCACCAGGGCGTGAGGAGGAGGAGGAAGGGCATGAGCCGAGCTTGAGGAATCCG
TGCTCCAAACTCTACACTCAAGGGTGGCCCTTGGGTAGGGTGAAGATCCCCTGTCTTTATCCTAGTTCCACACCT
TGGTGTGGGTTACTGGGTGCAGG**ATG**AACTGTCGCTCGGAGGTGCTGGAGGTGTCGGTGGAGGGGCGGCAGGTGG
AGGAGGCCATGCTGGCTGTGCTGCACACGGTGCTTCTGCACCGCAGCACAGGCAAGTTCCACTACAAGAAGGAGG
GCACCTACTCCATTGGCACCGTGGGCACCCAGGATGTTGACTGTGACTTCATCGACTTCACTTATGTGCGTGTCT
CTTCTGAGGAACTGGATCGTGCCCTGCGCAAGGTTGTTGGGGAGTTCAAGGATGCACTGCGCAACTCTGGTGGCG
ATGGGCTGGGGCAGATGTCCTTGGAGTTCTACCAGAAGAAGAAGTCTCGCTGGCCATTCTCAGACGAGTGCATCC
CATGGGAAGTGTGGACGGTCAAGGTGCATGTGGTAGCCCTGGCCACGGAGCAGGAGCGGCAGATCTGCCGGGAGA
AGGTGGGTGAGAAACTCTGCGAGAAGATCATCAACATCGTGGAGGTGATGAATCGGCATGAGTACTTGCCCAAGA
TGCCCACACAGTCGGAGGTGGATAACGTGTTTGACACAGGCTTGCGGGACGTGCAGCCCTACCTGTACAAGATCT
CCTTCCAGATCACTGATGCCCTGGGCACCTCAGTCACCACCACCATGCGCAGGCTCATCAAAGACACCCTTGCCC
TC**TGA**GCGTCGCTGGATCTCTGGGAGCTCCTTGATGGCTCCCAGACCTTGGCTTTTGGGAATTGCACTTTTGGGC
CTTTGGGCTCTGGAACCTGCTCTGGGTCATTGGTGAGACTTGGAAGGGGCAGCCCCCGCTGGCTTCTTGGTTTTG
TGGTTGCCAGCCTCAGGTCATCCTTTTAATCTTTGCTGACGGTTCAGTCCTGCCTCTACTGTCTCTCCATAGCCC
TGGTGGGGTCCCCCTTCTTTCTCCACTGTACAGAAGAGCCACCACTGGGATGGGGAATAAAGTTGAGAACATG

FIGURE 3324

GAAACTTGGGGGAGTGCACAGAAGAACTTCGGGAGCGCACGCGGGACCAGGGACCAGGCTGAGACTCGGGGCGCC
AGTCCGGGCAGGGGCAGCGGGAGCCGGCCGGAG**ATG**CCCTGTATCCAAGCCCAATATGGGACACCAGCACCGAGT
CCGGGACCCCGTGACCACCTGGCAAGCGACCCCCTGACCCCTGAGTTCATCAAGCCCACCATGGACCTGGCCAGC
CCCGAGGCAGCCCCCGCTGCCCCCACTGCCCTGCCCAGCTTCAGCACCTTCATGGACGGCTACACAGGAGAGTTT
GACACCTTCCTCTACCAGCTGCCAGGAACAGTCCAGCCATGCTCCTCAGCCTCCTCCTCGGCCTCCTCCACATCC
TCGTCCTCAGCCACCTCCCCTGCCTCTGCCTCCTTCAAGTTCGAGGACTTCCAGGTGTACGGCTGCTACCCCGGC
CCCCTGAGCGGCCCAGTGGATGAGGCCCTGTCCTCCAGTGGCTCTGACTACTATGGCAGCCCCTGCTCGGCCCCG
TCGCCCTCCACGCCCAGCTTCCAGCCGCCCCAGCTCTCTCCCTGGGATGGCTCCTTCGGCCACTTCTCGCCCAGC
CAGACTTACGAAGGCCTGCGGGCATGGACAGAGCAGCTGCCCAAAGCCTCTGGGCCCCCACAGCCTCCAGCCTTC
TTTTCCTTCAGTCCTCCCACCGGCCCCAGCCCCAGCCTGGCCCAGAGCCCCCTGAAGTTGTTCCCCTCACAGGCC
ACCCACCAGCTGGGGGAGGGAGAGAGCTATTCCATGCCTACGGCCTTCCCAGGTTTGGCACCCACTTCTCCACAC
CTTGAGGGCTCGGGGATACTGGATACACCCGTGACCTCAACCAAGGCCCGGAGCGGGGCCCCAGGTGGAAGTGAA
GGCCGCTGTGCTGTGTGTGGGGACAACGCTTCATGCCAGCATTATGGTGTCCGCACATGTGAGGGCTGCAAGGGC
TTCTTCAAGCGCACAGTGCAGAAAAACGCCAAGTACATCTGCCTGGCTAACAAGGACTGCCCTGTGGACAAGAGG
CGGCGAAACCGCTGCCAGTTCTGCCGCTTCCAGAAGTGCCTGGCGGTGGGCATGGTGAAGGAAGTTGTCCGAACA
GACAGCCTGAAGGGGCGGCGGGGCCGGCTACCTTCAAAACCCAAGCAGCCCCCAGATGCCTCCCCTGCCAATCTC
CTCACTTCCCTGGTCCGTGCACACCTGGACTCAGGGCCCAGCACTGCCAAACTGGACTACTCCAAGTTCCAGGAG
CTGGTGCTGCCCCACTTTGGGAAGGAAGATGCTGGGGATGTACAGCAGTTCTACGACCTGCTCTCCGGTTCTCTG
GAGGTCATCCGCAAGTGGGCGGAGAAGATCCCTGGCTTTGCTGAGCTGTCACCGGCTGACCAGGACCTGTTGCTG
GAGTCGGCCTTCCTGGAGCTCTTCATCCTCCGCCTGGCGTACAGGTCTAAGCCAGGCGAGGGCAAGCTCATCTTC
TGCTCAGGCCTGGTGCTACACCGGCTGCAGTGTGCCCGTGGCTTCGGGGACTGGATTGACAGTATCCTGGCCTTC
TCAAGGTCCCTGCACAGCTTGCTTGTCGATGTCCCTGCCTTCGCCTGCCTCTCTGCCCTTGTCCTCATCACCGAC
CGGCATGGGCTGCAGGAGCCGCGGCGGGTGGAGGAGCTGCAGAACCGCATCGCCAGCTGCCTGAAGGAGCACGTG
GCAGCTGTGGCGGGCGAGCCCCAGCCAGCCAGCTGCCTGTCACGTCTGTTGGGCAAACTGCCCGAGCTGCGGACC
CTGTGCACCCAGGGCCTGCAGCGCATCTTCTACCTCAAGCTGGAGGACTTGGTGCCCCCTCCACCCATCATTGAC
AAGATCTTCATGGACACGCTGCCCTTC**TGA**CCCCTGCCTGGGAACACGTGTGCACATGCGCACTCTCATATGCCA
CCCCATGTGCCTTTAGTCCACGGACCCCCAGAGCACCCCCAAGCCTGGGCTTGAGCTGCAGAATGACTCCACCTT
CTCACCTGCTCCAGGAGGTTTGCAGGGAGCTCAAGCCCTTGGGGAGGGGGATGCCTTCATGGGGGTGACCCCACG
ATTTGTCTTATCCCCCCCAGCCTGGCCCCGGCCTTTATGTTTTTTGTAAGATAAACCGTTTTTAACACATAGCGC
CGTGCTGTAAATAAGCCCAGTGCTGCTGTAAATACAGGAAGAAAGAGCTTGAGGTGGGAGCGGGGCTGGGAGGAA
GGGATGGGCCCCGCCTTCCTGGGCAGCCTTTCCAGCCTCCTGCTGGCTCTCTCTTCCTACCCTCCTTCCACATGT
ACATAAACTGTCACTCTAGGAAGAAGACAAATGACAGATTCTGACATTTATATTTGTGTATTTTCCTGGATTTAT
AGTATGTGACTTTTCTGATTAATATATTTAATATATTGAATAAAAAATAGACATGTAGTTG

FIGURE 3325

ATGAGGCTCCTCCGCAGACGCCACATGCCCCTGCGCCTGGCCATGGTGGGCTGCGCCTTTGTGCTCTTCCTCTTC
CTCCTGCATAGGGATGTGAGCAGCAGAGAGGAGGCCACAGAGAAGCCGTGGCTGAAGTCCCTGGTGAGCCGGAAG
GATCACGTCCTGGACCTCATGCTGGAGGCCATGAACAACCTTAGAGATTCAATGCCCAAGCTCCAAATCAGGGCT
CCAGAAGCCCAGCAGACTCTGTTCTCCATAAACCAGTCCTGCCTCCCTGGGTTCTATACCCCAGCTGAACTGAAG
CCCTTCTGGGAACGGCCACCACAGGACCCCAATGCCCCTGGGGCAGATGGAAAAGCATTTCAGAAGAGCAAGTGG
ACCCCCCTGGAGACCCAGGAAAAGGAAGAAGGCTATAAGAAGCACTGTTTCAATGCCTTTGCCAGCGACCGGATC
TCCCTGCAGAGGTCCCTGGGGCCAGACACCCGACCACCTGAGTGTGTGGACCAGAAGTTCCGGCGCTGCCCCCCA
CTGGCCACCACCAGCGTGATCATTGTGTTCCACAACGAAGCCTGGTCCACACTGCTGCGAACAGTGTACAGCGTC
CTACACACCACCCCTGCCATCTTGCTCAAGGAGATCATACTGGTGGATGATGCCAGCACAGAGGAGCACCTAAAG
GAGAAGCTGGAGCAGTACGTGAAGCAGCTGCAGGTGGTGAGGGTGGTGCGGCAGGAGGAGCGGAAGGGGCTGATC
ACCGCCCGGCTGCTGGGGGCCAGCGTGGCACAGGCGGAGGTGCTCACGTTCCTGGATGCCCACTGTGAGTGCTTC
CACGGCTGGCTGGAGCCCCTCCTGGCTCGAATCGCTGAGGACAAGACAGTGGTGGTGAGCCCAGACATCGTCACC
ATCGACCTTAATACTTTTGAGTTCGCCAAGCCCGTCCAGAGGGGCAGAGTCCATAGCCGAGGCAACTTTGACTGG
AGCCTGACCTTCGGCTGGGAAACACTTCCTCCACATGAGAAGCAGAGGCGCAAGGATGAAACCTACCCCATCAAA
TCCCCGACGTTTGCTGGTGGCCTCTTCTCCATCTCCAAGTCCTACTTTGAGCACATCGGTACCTATGATAATCAG
ATGGAGATCTGGGGAGGGGAGAACGTGGAAATGTCCTTCCGGGTGTGGCAGTGTGGGGGCCAGCTGGAGATCATC
CCCTGCTCTGTCGTAGGCCATGTGTTCCGGACCAAGAGCCCCCACACCTTCCCCAAGGGCACTAGTGTCATTGCT
CGCAATCAAGTGCGCCTGGCAGAGGTCTGGATGGACAGCTACAAGAAGATTTTCTATAGGAGAAATCTGCAGGCA
GCAAAGATGGCCCAAGAGAAATCCTTCGGTGACATTTCGGAACGACTGCAGCTGAGGGAACAACTGCACTGTCAC
AACTTTTCCTGGTACCTGCACAATGTCTACCCAGAGATGTTTGTTCCTGACCTGACGCCCACCTTCTATGGTGCC
ATCAAGAACCTCGGCACCAACCAATGCCTGGATGTGGGTGAGAACAACCGCGGGGGGGAAGCCCCTCATCATGTAC
TCCTGCCACGGCCTTGGCGGCAACCAGTACTTTGAGTACACAACTCAGAGGGACCTTCGCCACAACATCGCAAAG
CAGCTGTGTCTACATGTCAGCAAGGGTGCTCTGGGCCTTGGGAGCTGTCACTTCACTGGCAAGAATAGCCAGGTC
CCCAAGGACGAGGAATGGGAATTGGCCCAGGATCAGCTCATCAGGAACTCAGGATCTGGTACCTGCCTGACATCC
CAGGACAAAAAGCCAGCCATGGCCCCCTGCAATCCCAGTGACCCCCATCAGTTGTGGCTCTTTGTCTAGGACCCA
GATCATCCCCAGAGAGAGCCCCCACAAGCTCCTCAGGAAACAGGATTGCTGATGTCTGGGAACCTGATCACCAGC
TTCTCTGGAGGCCGTAAAGATGGATTTCTAAACCCACTGGGTGGCAAGGCAGGACCTTCCTAATCCTTGCAACAA
CATTGGGCCCATTTTCTTTCCTTCACACCGATGGAAGAGACCATTAGGACATATATTTAGCCTAGCGTTTTCCTG
TTCTAGAAATAGAGGCTCCCAAAGTAGGGAAGGCAGCTGGGGGAGGGTTCAGGGCAGCAATGCTGAGTTCAAGAA
AAGTACTTCAGGCTGGGCACAGTGGCTCATGCCTGAAATCCTAGCACTTTGGGAAGACAATGTGGGAGAATGGCT
TGAGCCCAGGAGTTCAAGACCGGCCTGAGCAACATAGTGAGGATCCCATCTCTACGCCCACCCTCCCCCCGGCAA
AAAAAAAAAGCTGGGTATGGTGGCTTATGCCTGTAGTCGCAGCTACTCAGAAGGCTGAGGTGGGAGGATTGCTTG
TTCCCCGGAGGTTGAAGCTACAGTGAGCCTTGATTGTGTCACTGCACTCCAGCCTGGGCAACAGGTAAGACTCTG
TCTCAAAAAAAAACAAAAAAGAAGAAGAAAAGTACTTCTACAGCCATGTCCTATTCCTTGATCATCCAAAGCACC
TGCAGAGTCCAGTGAAATGATATATTCTGGCTGGGCACAGTGGCTCACACCTGTAATCCTAGCACTTTGGGAGGC
CAAGGCAGGTGGATCACCTGAGGTCAGAAGTTTGAAACCAGCCTGGACTACATGGTGAAACTCCATCTCTACTAA
AAGTACAAAAATTAGCTGGGCATGATGGCACGCACCTGCAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATC
ACTCGAACCCAGGAGGCAGAGGTTGCAGTGAGCCAAGACAGCACCATTGCACCCCAGCCTGAGCAACAAGAGCGA
AACTCCATCTCAGG

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FIGURE 3326

CGCGGGGCCAGGGCGGCGGCCCCCAGGGAGTTGGCAGG**ATG**GCAGAGGGCAAGGCAGGCGGCGCGGCCGGCCTCT
TCGCCAAGCAGGTGCAGAAGAAGTTTAGCAGGGCCCAGGAGAAGGTGCTGCAGAAATTGGGGAAAGCTGTAGAAA
CCAAAGATGAACGATTTGAACAAAGCGCTAGCAACTTCTACCAACAACAGGCAGAAGGCCACAAGCTGTACAAGG
ACCTGAAGAACTTCCTTAGTGCAGTCAAAGTGATGCATGAAAGTTCAAAAAGAGTGTCAGAAACCCTGCAGGAGA
TCTACAGCAGCGAGTGGGACGGTCATGAGGAGCTGAAGGCCATCGTATGGAATAATGATCTCCTTTGGGAAGACT
ACGAGGAGAAACTGGCTGACCAGGCTGTAAGGACCATGGAAATCTATGTTGCCCAGTTCAGTGAAATTAAGGAGA
GAATTGCCAAGCGGGGTCGGAAACTCGTGGACTATGACAGTGCCCGACACCACCTGGAGGCAGTGCAGAATGCCA
AGAAGAAAGATGAGGCCAAGACTGCCAAGGCAGAGGAAGAGTTCAACAAAGCCCAGACTGTGTTTGAAGATCTGA
ACCAAGAACTACTAGAGGAGCTGCCTATTCTTTATAATAGTCGTATTGGCTGCTATGTGACCATCTTCCAAAACA
TTTCCAACTTGAGGGATGTCTTCTACAGGGAAATGAGCAAGCTGAACCACAATCTCTACGAGGTGATGAGCAAAC
TGGAGAAGCAACATTCCAATAAAGTCTTTGTGGTGAAGGGACTGTCAAGCAGCAGCAGGCGCTCTTTAGTCATTT
CTCCCCCAGTTCGAACAGCTACAGTCTCCAGTCCTCTTACCTCACCTACTAGTCCCTCTACACTTTCCTTGAAGA
GTGAGAGTGAATCTGTCTCAGCAACTGAAGATCTGGCACCTGATGCAGCCCAAGGGGAAGACAATTCTGAGATCA
AGGAGCTCTTAGAAGAGGAGGAAATAGAGAAGGAAGGATCTGAAGCAAGCTCCTCTGAGGAAGATGAGCCTCTAC
CAGCCTGCAATGGCCCCGCCCAGGCCCAGCCCTCTCCTACCACTGAAAGGGCCAAGTCCCAGGAGGAAGTTCTCC
CCAGCTCCACAACTCCATCACCAGGCGGAGCCCTGAGCCCTTCAGGGCAGCCTTCATCATCTGCCACAGAAGTAG
TCCTCCGAACCCGCACCGCAAGTGAAGGATCTGAACAACCAAAGAAGAGAGCCTCTATCCAGAGGACCTCAGCAC
CCCCTAGTAGGCCTCCTCCACCCAGAGCCACTGCAAGCCCCAGGCCCTCCTCAGGGAACATACCTTCCAGCCCTA
CAGCCTCTGGAGGGGGTTCACCCACCAGCCCTAGGGCCTCCTTGGGGACTGGGACTGCAAGTCCTAGGACCTCCC
TAGAGGTCTCTCCTAATCCAGAACCACCAGAGAAGCCAGTAAGAACTCCTGAGGCCAAAGAAAATGAAAACATCC
ACAATCAGAACCCTGAAGAACTTTGTACTTCCCCCACCTTAATGACATCTCAGGTTGCTTCAGAGCCTGGAGAGG
CAAAGAAGATGGAAGACAAGGAAAAGGATAATAAGCTTATCTCAGCTAACTCCTCGGAGGGCCAAGACCAGCTTC
AAGTCTCCATGGTACCAGAAAACAACAACCTCACAGCACCTGAACCTCAAGAAGAGGTATCCACAAGTGAAAATC
CACAACTC**TGA**AGAGAAACTACCAAGACTCCTCCTGCCCCAAACCTCGCCAGAGAAGCTCTTCAACCAGAGGGTA
TAGGTCAGAGGGATATAAGAGCCAGCATCCATCCCTGGGTTCTCAGTAGGAATGCTGGTGCTGTCTAAAGACCTG
GCATTAATGGAGGCGGAGGAGCAGCCTTACGGGAGGGATGGAGGGAGGCAGGCTGGGGAGAAGAGAACATTAGAC
TCAGGGAATATTTAATTCTGGTTTTAGCATTATTAGAATAAGACTTTATACATTAACTAAAGTGGAGCTTTAATC
ACTATAAAAAGCAAAAGTATCTATAGACACAGACACTTGCCTATACAGAGACATAACCACACACACTCAGAGGAT
AGTGAACAAATCTGTCTTTGACTTACGACCCATTTTGCAAGACTTAAAGCCGGAAGAACACATTTTCAGATTGTT
AAATAAAGTCTGATTCTGACT

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FIGURE 3327

GCCGGAGAGCCGGGTCGCCCACATTCGCCGCAGCCACCTCGGCCGTGGCAGGAACCGAAACCCGGAGCGGCCGAA
GCTCAGCGCTCCGCTGGGGCAGAGGGTCGCGGCGGCTGGGAACGCCGCTCCCCGACGCACCGGCCGCCCCCAGCG
CAGCGCGCTCCGCGGGGTGCTGATCTGCCTCTTCTCCAAGAAACTCAACCACTAGTGACAATGACCAGCCTCCTG
ACTACTCCTTCTCCAAGAGAAGAACTGATGACCACCCCAATTTTACAGCCCACTGAGGCCCTGTCCCCAGAAGAT
GGAGCCAGCACAGCACTCATTGCAGTTGTTATCACCGTTGTCTTCCTCACCCTGCTCTCGGTCGTGATCTTGATC
TTCTTTTACCTGTACAAGAACAAAGGCAGCTACGTCACCT**ATG**AACCTACAGAAGGTGAGCCCAGTGCCATCGTC
CAGATGGAGAGTGACTTGGCCAAGGGCAGCGAGAAAGAGGAATATTTCATCTAATGACTCCCAGGCCCCAAGGAG
CTTATTCCTGGCTCCATCGCTAACACGT**TGA**CTGCTTATTATGGGAAAGTTTTCTCTGAAGCCAGGGAGAAGCAT
TGATTGATGTGGGCAAATCCAAGCTCCAGCCAGGTCGCAGTCCCAAATGCCGACATCACTGACTCCAGGGACCAG
GGACATGGAGAAAGCTGTTTATGATATCTTTAACCAGGCCCTCTTACTAGAGCTGGTGTTTGTGACTGGCCAACA
AGATGTGGCTATGCCAGGGGACATCTGAGTATGTGCCCAGTCATCTTTTTTCACAGGTTGAAGGGAGAGAAAAGA
TTTTGAGTTAAGGTCATTGGCTGCTCTACTCTGTCCCCTACCTGGTCACCTAGTGATAGCCCCAGTGGAGATACT
GTCCATACAAGGTCTTCCCAGAGGCTGGATACCACAGTAAAAGGCCAGGCCAGGAGGGGTAGGAGACTATGGAGA
TCTTACCTCCTGATAAATGTGCTACACCCCCTAATCTGAGCCCTTCCTTTCCGTGTTCCCCAACAACCTCATGCT
TACGTGATTTTTATTCAAATTAAAAATTTTCATTGCTACAG

FIGURE 3328

GACTTGCTCCGGTTTGCAGAGCTAGGAGGTGGCAGGCTGTGCGCTCAAACTCAGGCTGTCTAACTCCACATTCTG
TGGGGTGAGAGGATGGGTGATGGGGTGTCTTTTCTGGAGGAGGGAGGTGCTGTGAGCCTAGCGAGATGGAGGTAC
AGTGGGTGTGGGCCTGGAGCGCTGGGCCCAGGCAGGGGCTTCTGATTAGGAAGCCCTGGGGCACCAGTTCAGGTT
CTCCCAGAGAGTAGTGTGATGGGATCCAGTAACCTGTGCCCTCCAG**ATG**ACTTCTGTAGGTGTGTTTAGTGACAT
GCTCAACGGGTGCGGGAAGGATGGGCTTGTGCCAAGGGCCAAGCCCAGAGATGTTTCAGATTTTTCCCTTTATGC
CCCTGCAACCAAGCCCTGCTGCTCCAGGACATATAAGAGACGAAGGCTGAGGGCTCCAGCACTCACCGGCCTGGG
CCCTGTCACTTCTCTGATAGCTCCCAGCTCGCTCTCTGCAGCCATGATTGCCAGACAGCAGTGTGTCCGAGGCGG
GCCCCGGGGCTTCAGCTGTGGCTCGGCCATTGTAGGCGGTGGCAAGAGAGGTGCCTTCAGCTCAGTCTCCATGTC
TGGAGGTGCTGGCCGATGCTCTTCTGGGGGATTTGGCAGCAGAAGCCTCTACAACCTCAGGGGGAACAAAAGCAT
CTCCATGAGTGTGGCTGGGTCACGACAAGGTGTCTGCTTTGGGGGTGCTGGAGGCTTTGGCACTGGTGGCTTTGG
TGCCGGCGGCTTCGGAGCTGGTTTCGGCACTGGTGGCTTTGGTGGTGGATTTGGGGGCTCCTTCAGTGGTAAGGG
TGGCCCTGGCTTCCCCGTCTGCCCCGCTGGGGGAATTCAGGAGGTCACCATCAACCAGAGCTTGCTCACCCCCCT
CCACGTGGAGATTGACCCTGAGATCCAGAAAGTCCGGACGGAAGAGCGCGAACAGATCAAGCTCCTCAACAACAA
GTTTGCCTCCTTCATCGACAAGGTGCAGTTCTTAGAGCAACAGAATAAGGTCCTGGAGACCAAATGGAACCTGCT
CCAGCAGCAGACGACCACCACCTCCAGCAAAAACCTTGAGCCCCTCTTTGAGACCTACCTCAGTGTCCTGAGGAA
GCAGCTAGATACCTTGGGCAATGACAAAGGGCGCCTGCAGTCTGAGCTGAAGACCATGCAGGACAGCGTGGAGGA
CTTCAAGACTAAGTATGAAGAGGAGATCAACAAACGCACAGCAGCCGAGAATGACTTTGTGGTCCTAAAGAAGGA
CGTGGATGCTGCCTACCTGAACAAGGTGGAGTTGGAGGCCAAGGTGGACAGTCTTAATGACGAGATCAACTTCCT
GAAGGTCCTCTATGGATGCGGAGCTGTCCCAGATGCAGACCCATGTCAGCGACACGTCCGTGGTCCTTTCCATGG
ACAACAACCGCAACCTGGACCTGGACAGCATTATTGCCGAGGTCCGTGCCCAGTACGAGGAGATTGCCCAGAGGA
GCAAGGC**TGA**GGCTGAAGCCCTGTACCAGACCAAGGTCCAGCAGCTCCAGATCTCGGTTGACCAACATGGTGACA
ACCTGAAGAACACCAAGAGTGAAATTGCAGAGCTCAACAGGATGATCCAGAGGCTGCGGGCAGAGATCGAGAACA
TCAAGAAGCAGTGCCAGACTCTTCAGGTATCCGTGGCTGATGCAGAGCAGCGAGGTGAGAATGCCCTTAAAGATG
CCCACAGCAAGCGCGTAGAGCTGGAGGCTGCCCTGCAGCAGGCCAAGGAGGAGCTGGCACGAATGCTGCGTGAGT
ACCAGGAGCTCATGAGTGTGAAGCTGGCCTTGGACATCGAGATCGCCACCTACCGCAAACTGCTGGAGGGCGAGG
AGTACAGAATGTCTGGAGAATGCCAGAGTGCCGTGAGCATCTCTGTGGTCAGCGGTAGCACCAGCACTGGAGGCA
TCAGCGGAGGATTAGGAAGTGGCTCCGGGTTTGGCCTGAGTAGTGGCTTTGGCTCCGGCTCTGGAAGTGGCTTTG
GGTTTGGTGGCAGTGTCTCTGGCAGTTCCAGCAGCAAGATCATCTCTACCACCACCCTGAACAAGAGACGATAGA
GGAGACGAGGTCCCTGCAGCTCACTGTGTCCAGCTGGGCCCAGCACTGGTGTCTCTGTGCTTCCTTCACTTCACC
TCCATCCTCTGTCTCTGGGGCTCATCTTACTAGTATCCCCTCCACTATCCCATGGGCTCTCTCTGCCCCAGGATG
ATCTTCTGTGCTGGGACAGGGACTCTGCCTCTTGGAGTTTGGTAGCTACTTCTTGATTTGGGCCTGGTGACCCAC
CTGGAATGGGAAGGATGTCAGCTGACCTCTCACCTCCCATGGACAGAGAAGAAAATGACCAGGAGTGTCATCTCC
AGAATTATTGGGGTCACATATGTCCCTTCCCAGTCCAATGCCATCTCCCACTAGATCCTGTATTATCCATCTACA
TCAGAACCAAACTACTTCTCCAACACCCGGCAGCACTTGGCCCTGCAAGCTTAGGATGAGAACCACTTAGTGTCC
CATTCTACTCCTCTCATTCCCTCTTATCCATCTGCAGGTGAATCTTCAATAAAATGCTTTTGTCATTC

FIGURE 3329

CTCTCATCCTGCCCTCCGGCCCCTCTGCAGCT**ATG**AGGTCCTCCGTCTCTCGGCAAACATACTCCACAAAAGGGG
GCTTCAGCTCCAACTCTGCCAGCGGAGGGAGTGGGTCCCAGGCCCGCACCAGCTTCAGCTCAGTGACGGTGTCTC
GGAGCAGTGGCAGTGGTGGCGGGGCCCACTGTGGCCCCGGCACAGGTGGCTTTGGCAGCCGAAGCCTCTATAACT
TGGGGGGCCACAAGAGTATCTCTGTCAGTGTGGCCGGAGGGGCCTTGTCGGGGCGGGCTCTGGGGGGCTTTGGCT
TTGGCAGCAGGGCATTTATGGGACAGGGGGCTGGCAGGCAGACGTTTGGGCCTGCTTGTCCTCCTGGGGGGATCC
AGGAGGTCACTGTCAACCAGAGCCTGCTGACCCCCCTCCATGTGGAGATTGACCCCGAGATCCAGCGAGTGCGCA
CTCAGGAGCGGGAGCAGATCAAGACCCTCAACAACAAGTTCGCCTCCTTCATCGACAAGGTGCGGTTCCTGGAGC
AACAGAATAAGGTGCTGGAGACCAAGTGGGCACTGCTGCAGGAGCAGGGCCAGAACTTGGGTGTCACCAGGAACA
ACCTGGAGCCCCTCTTTGAGGCCTACCTGGGTAGCATGCGGAGCACGCTGGACAGACTTCAGAGCGAGCGGGGGA
GGCTGGACTCAGAGCTCAGGAACGTGCAGGACCTTGTGGAGGACTTCAAGAACAAGTACGAGGATGAAATCAACA
AGCACACTGCTGCAGAGAACGAGTTTGTGGTGCTCAAGAAGGATGTGGATGCAGCATACATGGGCCGGATGGATC
TGCATGGCAAAGTGGGCACCTTGACCCAGGAGATTGACTTCCTGCAGCAACTCTATGAAATGGAGCTGAGCCAAG
TGCAGACCCACGTGTCTAACACCAATGTGGTGCTGTCCATGGACAACAACCGCAACCTGGACCTGGACAGCATCA
TCGCCGAGGTCAAGGCCCAGTATGAGCTGATTGCCCAGAGGAGCCGGGCTGAGGCCGAGGCCTGGTACCAGACCA
AGTATGAGGAGCTGCAGGTGACTGCTGGGAAGCATGGGGACAACCTGCGGGACACCAAGAACGAGATTGCTGAGC
TCACCCGCACTATCCAGAGGCTGCAGGGGGAGGCTGATGCAGCCAAGAAGCAGTGTCAGCAGCTGCAGACGGCCA
TTGCGGAAGCGGAGCAGCGTGGGGAGCTGGCACTCAAGGATGCTCAGAAGAAGCTTGGGGATCTGGATGTGGCCC
TGCACCAGGCCAAGGAGGACCTGACACGGCTGCTGCGTGACTACCAGGAGCTGATGAATGTCAAGCTGGCCCTGG
ACGTGGAGATTGCCACCTACCGCAAGCTTCTGGAGAGCGAGGAGAGCAGGATGTCTGGAGAATGGTCCCAGTGCA
GTCAGCATTTGGAGTATTACTCCCCACTTCCTGCTCCACCCCTGGCCAGGCCCCAGAACTCTGCTCAGTTTATGC
AACNTGTACNTGTCNTAAAGCATGCTCTCNTCCATTCGAGCCCCTGGAGACAGGTTCAGAGGGTCCTAGTTCTGG
GGTTCTCTATCCATTTCCCA**TAG**CTCTGCTGCTTGATTTTGTTCTGATTCCCCACTGATCTCTGGGTCTCCCCCA
GCCCTCTCTGGCATGGCCGCCCTGACTAATCCAGACCCTTTGCTTTGCAGCTGTGACTGGCAACTCCACCACTGT
GTGCGGAGGTGGCGCAGCCAGCTTTGGAGGTGGCATCTCCCTGGGTGGGAGTGGGGGGGCCACCAAGGGTGGATT
CAGCACAAATGTGGGCTATAGCACCGTCAAGGGAGGGCCAGTCTCTGCGGGCACCTCCATCCTGCGGAAGACCAC
TACGGTCAAGACGTCCAGCCAGAGGTATTAGCTGCTGAGCCCTGCAAGGGCCCCTGCAATCCTGTCCCTGCCCTC
CTCACCCCACCTCTGCTGTCCTTTCCAGTCACTTCTCAGGAGCAGGAACAGCCAGGGGACCTCAGACCCAGGGTA
TTTTCATAC

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FIGURE 3330

GCTCCTTCTAGGATCTCCGCCTGGTTCGGCCCGCCTGCCTCCACTCCTGCCTCTACC**ATG**TCCATCAGGGTGACC
CAGAAGTCCTACAAGGTGTCCACCTCTGGCCCCCGGGCCTTCAGCAGCCGCTCCTACACGAGTGGGCCCGGTTCC
CGCATCAGCTCCTCGAGCTTCTCCCGAGTGGGCAGCAGCAACTTTCGCGGTGGCCTGGGCGGCGGCTATGGTGGG
GCCAGCGGCATGGGAGGCATCACCGCAGTTACGGTCAACCAGAGCCTGCTGAGCCCCCTTGTCCTGGAGGTGGAC
CCCAACATCCAGGCCGTGCGCACCCAGGAGAAGGAGCAGATCAAGACCCTCAACAACAAGTTTGCCTCCTTCATA
GACAAGGTACGGTTCCTGGAGCAGCAGAACAAGATGCTGGAGACCAAGTGGAGCCTCCTGCAGCAGCAGAAGACG
GCTCGAAGCAACATGGACAACATGTTCGAGAGCTACATCAACAACCTTAGGCGGCAGCTGGAGACTCTGGGCCAG
GAGAAGCTGAAGCTGGAGGCGGAGCTTGGCAACATGCAGGGGCTGGTGGAGGACTTCAAGAACAAGTATGAGGAT
GAGATCAATAAGCGTACAGAGATGGAGAACGAATTTGTCCTCATCAAGAAGGATGTGGATGAAGCTTACATGAAC
AAGGTAGAGCTGGAGTCTCGCCTGGAAGGGCTGACCGACGAGATCAACTTCCTCAGGCAGCTATATGAAGAGGAG
ATCCGGGAGCTGCAGTCCCAGATCTCGGACACATCTGTGGTGCTGTCCATGGACAACAGCCGCTCCCTGGACATG
GACAGCATCATTGCTGAGGTCAAGGCACAGTACGAGGATATTGCCAACCGCAGCCGGGCTGAGGCTGAGAGCATG
TACCAGATCAAGTATGAGGAGCTGCAGAGCCTGGCTGGGAAGCACGGGGATGACCTGCGGCGCACAAAGACTGAG
ATCTCTGAGATGAACCGGAACATCAGCCGGCTCCAGGCTGAGATTGAGGGCCTCAAAGGCCAGAGGGCTTCCCTG
GAGGCCGCCATTGCAGATGCCGAGCAGCGTGGAGAGCTGGCCATTAAGGATGCCAACGCCAAGTTGTCCGAGCTG
GAGGCCGCCCTGCAGCGGGCCAAGCAGGACATGGCGCGGCAGCTGCGTGAGTACCAGGAGCTGATGAACGTCAAG
CTGGCCCTGGACATCGAGATCGCCACCTACAGGAAGCTGCTGGAGGGCGAGGAGAGCCGGCTGGAGTCTGGGATG
CAGAACATGAGTATTCATACGAAGACCACCAGCGGCTATGCAGGTGGTCTGAGCTCGGCCTATGGGGGCCTCACA
AGCCCCGGCCTCAGCTACAGCCTGGGCTCCAGCTTTGGCTCTGGCGCGGGCTCCAGCTCCTTCAGCCGCACCAGC
TCCTCCAGGGCCGTGGTTGTGAAGAAGATCGAGACACGTGATGGGAAGCTGGTGTCTGAGTCCTCTGACGTCCTG
CCCAAG**TGA**ACAGCTGCGGCAGCCCCTCCCAGCCTACCCCTCCTGCGCTGCCCCAGAGCCTGGGAAGGAGGCCGC
TATGCAGGGTAGCACTGGGAACAGGAGACCCACCTGAGGCTCAGCCCTAGCCCTCAGCCCACCTGGGGAGTTTAC
TACCTGGGGACCCCCCTTGCCCATGCCTCCAGCTACAAAACAATTCAATTGCTTTTTTTTTTTGGTCCAAAATAA
AACCTCAGCTAGCTCTGCCAA

FIGURE 3331

GTCGTCCGCAAAGCCTGAGTCCTGTCCTTTCTCTCTCCCCGGACAGC**ATG**AGCTTCACCACTCGCTCCACCTTCT
CCACCAACTACCGGTCCCTGGGCTCTGTCCAGGCGCCCAGCTACGGCGCCCGGCCGGTCAGCAGCGCGGCCAGCG
TCTATGCAGGCGCTGGGGGCTCTGGTTCCCGGATCTCCGTGTCCCGCTCCACCAGCTTCAGGGGCGGCATGGGGT
CCGGGGGCCTGGCCACCGGGATAGCCGGGGGTCTGGCAGGAATGGGAGGCATCCAGAACGAGAAGGAGACCATGC
AAAGCCTGAACGACCGCCTGGCCTCTTACCTGGACAGAGTGAGGAGCCTGGAGACCGAGAACCGGAGGCTGGAGA
GCAAAATCCGGGAGCACTTGGAGAAGAAGGGACCCCAGGTCAGAGACTGGAGCCATTACTTCAAGATCATCGAGG
ACCTGAGGGCTCAGATCTTCGCAAATACTGTGGACAATGCCCGCATCGTTCTGCAGATTGACAATGCCCGTCTTG
CTGCTGATGACTTTAGAGTCAAGTATGAGACAGAGCTGGCCATGCGCCAGTCTGTGGAGAACGACATCCATGGGC
TCCGCAAGGTCATTGATGACACCAATATCACACGACTGCAGCTGGAGACAGAGATCGAGGCTCTCAAGGAGGAGC
TGCTCTTCATGAAGAAGAACCACGAAGAGGAAGTAAAAGGCCTACAAGCCCAGATTGCCAGCTCTGGGTTGACCG
TGGAGGTAGATGCCCCCAAATCTCAGGACCTCGCCAAGATCATGGCAGACATCCGGGCCCAATATGACGAGCTGG
CTCGGAAGAACCGAGAGGAGCTAGACAAGTACTGGTCTCAGCAGATTGAGGAGAGCACCACAGTGGTCACCACAC
AGTCTGCTGAGGTTGGAGCTGCTGAGACGACGCTCACAGAGCTGAGACGTACAGTCCAGTCCTTGGAGATCGACC
TGGACTCCATGAGAAATCTGAAGGCCAGCTTGGAGAACAGCCTGAGGGAGGTGGAGGCCCGCTACGCCCTACAGA
TGGAGCAGCTCAACGGGATCCTGCTGCACCTTGAGTCAGAGCTGGCACAGACCCGGGCAGAGGGACAGCGCCAGG
CCCAGGAGTATGAGGCCCTGCTGAACATCAAGGTCAAGCTGGAGGCTGAGATCGCCACCTACCGCCGCCTGCTGG
AAGATGGCGAGGACTTTAATCTTGGTGATGCCTTGGACAGCAGCAACTCCATGCAAACCATCCAAAAGACCACCA
CCCGCCGGATAGTGGATGGCAAAGTGGTGTCTGAGACCAATGACACCAAAGTTCTGAGGCAT**TAA**GCCAGCAGAA
GCAGGGTACCCTTTGGGGAGCAGGAGGCCAATAAAAAGTTCAGAGTTCATTGGATGTC

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FIGURE 3332

AGATAAGAGCTGGACGGAGGCTAAAGCGGCAGCCCCAGCTTCGCGCCCCGCCCAGTCCCTTTCCCCTGCTGGGGA
TCCCCCCTCTTCCCCGCCCACCCCTTACCCGCATGCAGCCCAGCGCCCTATGCTAGCCCTCCCCCTCCCCCCCTG
CTGGAGCGGGGCGCCGCCGGGGGAGGAGGGGGAATCGGCTGCGGGTCCTTGGTGTTTCCAGCACCCAGTTTCCCT
TCAAGCCGGGTCGCG**ATG**TACGACTGTATGGAAACGTTTGCCCCGGGTCCGCGACGGCTGTACGGGGCGGCCGGG
CCCGGGGCCGGCTTGCTGCGCAGAGCCACCGGCGGCTCCTGTTTCGCCGGACTTGAATCTTTTGCCTGGCCGCAA
CCCGCCAGCCTGCAATCGGTGGAGACACAGAGCACCAGCTCAGAGGAGATGGTGCCCAGCTCGCCCTCGCCCCCT
CCGCCTCCTCGGGTCTACAAGCCATGCTTCGTGTGCAATGACAAGTCCTCTGGCTACCACTATGGGGTCAGCTCT
TGTGAAGGCTGCAAGGGCTTCTTTCGCCGAAGCATCCAGAAGAACATGGTGTACACGTGTCACCGCGACAAAAAC
TGTATCATCAACAAGGTGACCAGGAATCGCTGCCAGTACTGCCGGCTACAGAAGTGCTTCGAAGTGGGCATGTCC
AAGGAAGCTGTGCGAAATGACCGGAACAAGAAGAAGAAAGAGGTGAAGGAAGAAGGGTCACCTGACAGCTATGAG
CTGAGCCCTCAGTTAGAAGAGCTCATCACCAAGGTCAGCAAAGCCCATCAGGAGACTTTCCCCTCGCTCTGCCAG
CTGGGCAAGTATACCACGAACTCCAGTGCAGACCACCGCGTGCAGCTGGATCTGGGGCTGTGGGACAAGTTCAGT
GAGCTGGCTACCAAGTGCATCATCAAGATCGTGGAGTTTGCCAAGCGGTTGCCTGGCTTTACAGGGCTCAGCATT
GCTGACCAGATCACTCTGCTCAAAGCTGCCTGCCTAGATATCCTGATGCTGCGTATCTGCACAAGGTACACCCCA
GAGCAGGACACCATGACCTTCTCCGACGGGCTGACCCTGAACCGGACCCAGATGCACAATGCCGGCTTCGGGCCC
CTCACAGACCTTGTCTTTGCCTTTGCTGGGCAGCTCCTGCCCCTGGAGATGGATGACACCGAGACAGGGCTGCTC
AGCGCCATCTGCCTCATCTGCGGAGACCGCATGGACCTGGAGGAGCCCGAAAAAGTGGACAAGCTGCAGGAGCCA
CTGCTGGAAGCCCTGAGGCTGTACGCCCGGCGCCGGCGGCCCAGCCAGCCCTACATGTTCCCAAGGATGCTAATG
AAAATCACCGACCTCCGGGGCATCAGCACTAAGGGAGCTGAAAGGGCCATTACTCTGAAGATGGAGATTCCAGGC
CCGATGCCTCCCTTAATCCGAGAGATGCTGGAGAACCCTGAAATGTTTGAGGATGACTCCTCGCAGCCTGGTCCC
CACCCCAATGCCTCTAGCGAGGATGAGGTTCCTGGGGGCCAGGGCAAAGGGGGCCTGAAGTCCCCAGCC**TGA**CCA
GGGCCCCTGACCTCCCCGCTGTGGGGGTTGGGGCTTCAGGCAGCAGACTGACCATCTCCCAGACCGCCAGTGACT
GGGGGAGGACCTGCTCTGCCCTCTCCCCACCCCTTCCAATGAGCTCCTTGTTTTTGCCAAAGTTTCTAGGGGTGC
CTCTGTGTTCATCCCCTTCCTGATCTAACCGGCTCCCTCGCCAGTCCCGGGGGCCTGCCCTGCTCCCACCAGGAG
AGAGGGCAAAGGGATGAGCCTGGGTTTGGACTCTAAAATCTCAGCACTGCCCCATGGGTCCTAGACTTCCCAGGG
CAAGAGGAAGACCCTGCCATTCCACAGCCCCTTCCTCTGCCAGGTGCTTGGCTCTCTGAGAGCAAACAGGAACAC
TAGAGACCAAAAAGGGGACAAAGGAGAAGGGCTGAGCCCACCTTCTTGCTCCTACCCTTGGTGCCTAATGCTGTG
TGATGCACCTGCAGGGTGTGTGCTAGCCTCTGTGCCCCGTCCTTGTGCCAGGTCAAGGTGGGGGCAGGCTGGGCC
CTGCATTTCTGGGGCAGGAACAGAGGGTGAAAGGGACAGATAGATGCAGGTCCATTCTGCACCTCTTGGCTCGGG
TGCAGAGTTCACCCTGTGCCCTCCGTTATAAGTCCCTCCCCCAGCCCTGTCATGTGCCTTGGGCTCCTCCTGCCC
TCCATCTCAGCCATTGGGGCAGGGACCCTCCTACACTACAGAGGGGCCAGGGGATCCCTCTCTCCCTAGTGCCTT
CCACCCTTTACTCCCCAGAGCAGCTTGGCCCAGGGAGGGGGGATGCTGCTTAGCTGATCCCGCCCTGACCCAGAG
GAAGCCTCTATTTATTTATTAGCTTTTGTTTACACCGTGGAATTGACCCCTTCCTCCAGGGGTCTTGGGTGGGGG
AGCCCAGGGCCCCTGTGACCCCTCCTTTCTTCCTCCAATCCCCAGTTTGTATTTAGCTGCCAAATAAGATTCCCA
TTGGCTCCCTGTGTTCTCTTGGGGGGTCAGGGTGCTGTCCCCTCCCCTCTGTTTACATCTCCCCTCTACCCCGCT
GTATCGCATATTGCTGAGTTTTCTATTTTTGCAAAATAAAGTGATGGAAACTC

FIGURE 3333

GCTTGGGGACGCACGGAGAGGTGCAGCTGGGCCGTCCAGCATCAAACACTAGCCTCCACACGTGGAAAAGACCCT
GACTCCCACAGTAGACTAGTCTTATGGGAGTCCTGGCTCTTGGGCCAGGCTGCATTAGGAAAATGGAAACCAGAC
TGTCTTCAAATTCTTCTGCCTAGCCTTAGCCATTAGAGAGAGGTCCTGCTAAAGATGGACTGCAAATGCGCTTGA
TGGAAGGAG**ATG**TCAATTCCACTGAAGTCCTCATTTCTGCTGAGCTACCTGTGCACCCTGCCTCCGGCTCTCCTG
AGCAGAGAGATCCTGATGGCTGACTCAGAAGCACTCCCCTCCCTTGCTGGGGACCCAGTGGCTGTGGAAGCCTTG
CTCCGGGCCGTGTTTGGGGTTGTTGTGGATGAGGCCATTCAGAAAGGAACCAGTGTCTCCCAGAAGGTCTGTGAG
TGGAAGGAGCCTGAGGAGCTGAAGCAGCTGCTGGATTTGGAGCTGCGGAGCCAGGGCGAGTCACAGAAGCAGATC
CTGGAGCGGTGTCGGGCTGTGATTCGCTACAGTGTCAAGACTGGTCACCCTCGGTTCTTCAACCAGCTCTTCTCT
GGGTTGGATCCCCATGCTCTGGCCGGGCGCATTATCACTGAGAGCCTCAACACCAGCCAGTACACATATGAAATC
GCCCCCGTGTTTGTGCTCATGGAAGAGGAGGTGCTGAGGAAACTGCGGGCCCTGGTGGGCTGGAGCTCTGGGGAC
GGAATCTTCTGCCCTGGTGGCTCCATCTCCAACATGTATGCTGTAAATCTGGCCCGCTATCAGCGCTACCCGGAT
TGCAAGCAGAGGGGCCTCCGCACACTGCCGCCCCTGGCCCTATTCACATCGAAGGAGTGTCACTACTCCATCCAG
AAGGGAGCTGCGTTTCTGGGACTTGGCACCGACAGTGTCCGAGTGGTCAAGGCTGATGAGAGAGGGAAAATGGTC
CCCGAGGATCTGGAGAGGCAGATTGGTATGGCCGAGGCTGAGGGTGCTGTGCCGTTCCTGGTCAGTGCCACCTCT
GGCACCACTGTGCTAGGGGCCTTTGACCCCCTGGAGGCAATTGCTGATGTGTGCCAGCGTCATGGGCTATGGCTG
CATGTGGATGCTGCCTGGGGTGGGAGCGTCCTGCTGTCACAGACACACAGGCATCTCCTGGATGGGATCCAGAGG
GCTGACTCTGTGGCCTGGAATCCCCACAAGCTCCTCGCAGCAGGCCTGCAATGCTCTGCACTTCTTCTCCAGGAT
ACCTCGAACCTGCTCAAGCGCTGCCATGGGTCCCAGGCCAGCTACCTTTTCCAGCAGGACAAGTTCTACGATGTG
GCTCTGGACACGGGAGACAAGGTGGTGCAGTGTGGCCGCCGTGTGGACTGTCTGAAGCTGTGGCTCATGTGGAAG
GCACAGGGCGATCAAGGGCTGGAGCGGCGCATCGACCAGGCCTTTGTCCTTGCCCGGTACCTGGTGGAGGAAATG
AAGAAGCGGGAAGGGTTTGAGCTAGTCATGGAGCCTGAGTTTGTCAATGTGTGTTTCTGGTTCGTACCCCCCAGC
CTGCGAGGGAAGCAGGAGAGTCCAGATTACCACGAAAGGCTGTCAAAGGTGGCCCCCGTGCTCAAGGAGCGCATG
GTGAAGGAGGGCTCCATGATGATTGGCTACCAGCCCCACGGGACCCGGGGCAACTTCTTCCGTGTGGTTGTGGCC
AACTCTGCACTGACCTGTGCTGATATGGACTTCCTCCTCAACGAGCTGGAGCGGCTAGGCCAGGACCTG**TGA**GCC
TTCTCTGTCTTGCTGCCGGCCTTGATACCACCCCTCACCCGCAGAGTCACTGCATTCCCTCCCAGCCTTTGAGGC
CGGGTGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCACTTGAGGTCAGGAGT
TCGAGACCAGCCTGGCCAATAAGGTGAAACCCTGTCTCTACTAAAAATACAAAAATTAGCCGAGCATGGTGGCCT
GTGCCTGTAAACCCAGCTACTCAGGAGGTTGGGGCAGAATTGCTTGAACCCAGGGGGCAGAGGTTGCAGTGAGCC
GAGATTGCACCCCTGCACTCCAGGCTGGGCAACAGTACGAGACTCTGTTCCAAAAAAAATAAAAAAGAACAGCCT
TTTTAGGCCACAGTGACCTGCGCAATGTTTATATGCTTTGACCTACTAACTTTCTCCTAACTAAATATTTGATTT
TAGGAGAGTGTTTAAATAAATTACAGTATGTCTATATGATGAAATGTTATTTTGCCATTAAAATTTTGTTTACAA
AGATAATTTTTATTGACATAAAAATAACTTTAATGTAATTTATGTTGAAAAAGCTGAATACAAGTCTTTATATAG
AGTAATATTTGAGCTGTGTTCAAAAATACATAGGAAAAGACTGATAAAATGAAATATGGCAAAATGTTAATAGTT
TTCCCTGGAATAGGATAATAGGCAATTTTAAAACAGACTCCTTTAAAAAAACAAACAAACAAAAAAAACATAGAC
TTCTTTATATCTTTTGAGCTCCCTCCCTTTTATTATGTAATGAATATGTGTTGCTTTTGTAATAGGAAA

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FIGURE 3334

AGTTTCTAAGGATCATGTCTGCGAGCCAGGATTCCTGATCCAGAGACAACGGCCCCAATGGG**ATG**GAGCCCAAAG
GTGTCATTGAGAGTAACTGGAATGAGATTGTTGACAGCTTTGATGACATGAACCTCTCAGAGTCCCTTCTCCGTG
GCATCTACGCCTATGGTTTAGAGAAGCCGTCTGCCATCCAGCAGCGAGCCATTCTACCTTGTATCAAGGGTTATC
ACGTGATTGCTCAAGCCCAATCTGGGGCTGGGAAAATGGCCACATTTGCCATATTGATTCTGCAGCAGATTGAAT
TAGATCTAAAAGCCACCCAGGCCTTGCTCCTAGCACCCACTCAAGAATTGGCTCAGCAGATACAGAAGGTGGTCA
TGGCACTAGGAGACTACATGGGTGCCTCCTGTCATGCCTGTATCAGGGGCACCAACATGCGTGCTGAGGTGCAGA
AACTGCAGACGAAGCTCCTCACATCATTGTGGGTACCCCTGGCCATGTGTTTGATATGCTTAACGGGAGATACCT
GTCTCCCAAATACATCAAGATGTTTGTACTGGACGAAGCTGACGAAATGT**TAA**GCCGTGGATTCAAGGACCAGAT
CTATGACATATTCCAAAAGCTCAACAGCAACACCCAGGTAGTTTTGCTGTCAGCTGCGATGCCTTCTGATGTGCT
TGAGGTGACCAAGAAGTTCATGAGGGACCTCATTCGGATTCTTGTCACGAAGGAAGTGTTGACCTTGGAGGGTAT
CCGCCAATTCTACATCAATTTGGAACGAGAGGAGTGGAAGCTGGACACACTATGTGACTTGTATGAAACCCTGAC
CATCACCCCAGGCAGTCATCTTCATCAACACCCGGAGGAAGGTGGACTGGCTCACCGAGAAGATGCATGCTCGAG
ATTTCACTGTCTTCACCATTCGTGGAGATATGGACCAAAACGAACAAGACGTGATCTTGAGGGAGTTTCGTTATG
GCTCTAGCAGTTTTGATTACCACTGACCTGCTGGCCAGAGGCATTGATGTGCAACAGGTTTCTTTAGTCACCAAC
TATGACCTTCCCACCAACAGGGAAAACCATATCCATAGAATCGGTCGAGGTGGACGGTTTGGCCGTAAAGGTGTG
GCTATTAACGTGGTGACAGAAGAAGACAAGAGGACTCTTCGAGACATCGAGATCTTCTACAACTCCTCCATTGAG
GAAATGCCCCTCAATGTTGCTGACCTCATCTGAGGGGCTGTCCTGCCACCCAGCCCCAGCCAGGGCTCTATCTCG
GGGGGCTGAGGAGCAGCAGGAGTGGGGAGGGAAGGGAGCCAAGGGATGGACATCTTGTCATTTTTTTCTTTGAAT
AAATGTCACTTTTTGAGGCAAAA

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FIGURE 3335

GGAGGACTGGGTGCGCGTGCAGGGATCGGAAGCCGGTTGGAGTGTGTGAGGTTTTCTCGCTCTAGGGAGATTCTT
CAAGCAATCACT**ATG**TCAACAGACACAGGTGTTTCCCTTCCTTCATATGAGGAAGATCAGGGATCAAAACTTATT
GGAAAAGCTAAAGAGGCACCATTTGTACCCGTTGGAATAGCAGGTTTTGCAGCAATTGTTGCATATGGATTATAC
AAACTGAAGAGCAGGGGAAATACTAAAATGTCCATTCATCTGATCCACATGCGTGTGGCAGCCCAAGGCTTTGTT
GTAGGAGCAATGACTGTTGGTATGGGCTACTTCATGTATCGGGAATTCTGGGCAAAACCTAAGCCT**TAG**AAGAAG
AGATGCTGTCTTGGTCTTGTTGGACGAGCTTGCTTTAGTTAGACGTCTCATTATTGAAGTTACTATTATTGTTGG
AAATAAACTAATTTGTATGGGTTTAGATGGTAACATGGCATTTTGAATATTGGCTTCCTTTCTTGCAGGCTTGAT
TTGCCTGGTGACCAAATTACTAGTGACTAGTTTACTAACTAGGTCATTAAAGGAAGTCAAGTTAACTTAAACACG
TCAACTAAACGCACTTGATGGTGTTGAAATGTCCACCTTCTTAAATTTTTAAGATGAACTGAGTTCTAAAGAAGA
TAACAGGCCAATCCTGAAGGTACTCCCAGTTTGCTGCAGAATCTCACATATTTTGGATGTTGTATAAGAGTCCTA
TTTGCCCCAGTTAATTCAACTTTTGTCTGCCTGTTCTGTGGACTGGCTGGCTCTGTTAGAACTCTGTCCAAAAAG
TGCATGGAATATAACTTGTAAAGCTTCCCACAATTGACAATATATGTGCATGTGTTTAAGCCAAATCCAGAAAGC
TTAAACAATAGAGCTGCATAATAGTATTTATTAAAGAATCACAACTGTAAACATGAGAATAACTTAAGGATTCTA
GTTTAGTTTTTTGTAATTGCAAATTATATTTTTGCTGCTGATATATTAGAATAATTTTTAAATGTCATCTTGAAA
TAGAAATATGTATTTTAAGCACTCATGCAAAGGTAAATGAACACTTTTTAAATGTGTGTTGCTTATTTTTTCCAT
AAGAATTGTAAACATTGAACTGAACAAATTACCTATAATGGATTTGATTAATGACTAATGAGCAAGCGGGTTTGG
CCAGACAGTATACCCAAACTTTTATATAGTATACAGAAGGCTATCACACTTGTGAAATTCTCTTGTCTAATCCGA
ATTTGCATTCCATGGTGATAACATGGTATATGTATTGTTATTAAAGTAAGTGACCCATGTC

FIGURE 3336

GCAGCTGCGCTGCGACTGCTCTGGAAGGAGAGGACGGGGCACAAACCCTGACC**ATG**ACCCCCCACAGGCTGCTGC
CACCGCTGCTGCTGCTGCTAGCTCTGCTGCTCGCTGCCAGCCCAGGAGGCGCCTTGGCGCGGTGCCCAGGCTGCG
GGCAAGGGGTGCAGGCGGGTTGTCCAGGGGGCTGCGTGGAGGAGGAGGATGGGGGGTCGCCAGCCGAGGGCTGCG
CGGAAGCTGAGGGCTGTCTCAGGAGGGAGGGGCAGGAGTGCGGGGTCTACACCCCTAACTGCGCCCCAGGACTGC
AGTGCCATCCGCCCAAGGACGACGAGGCGCCTTTGCGGGCGCTGCTGCTCGGCCGAGGCCGCTGCCTTCCGGCCC
GCGCGCCTGCTGTTGCAGAGGAGAATCCTAAGGAGAGTAAACCCCAAGCAGGCACTGCCCGCCCACAGGATGTGA
ACCGCAGAGACCAACAGAGGAATCCAGGCACCTCTACCACGCCCTCCCAGCCCAATTCTGCGGGTGTCCAAGACA
CTGAGATGGGCCCATGCCGTAGACATCTGGACTCAGTGCTGCAGCAACTCCAGACTGAGGTCTACCGAGGGGCTC
AAACACTCTACGTGCCCAATTGTGACCATCGAGGCTTCTACCGGAAGCGGCAGTGCCGCTCCTCCCAGGGGCAGC
GCCGAGGTCCCTGCTGGTGTGTGGATCGGATGGGCAAGTCCCTGCCAGGGTCTCCAGATGGCAATGGAAGCTCCT
CCTGCCCCACTGGGAGTAGCGGC**TAA**AGCTGGGGGATAGAGGGGCTGCAGGGCCACTGGAAGGAACATGGAGCTG
TCATCACTCAACAAAAAACCGAGGCCCTCAATCCACCTTCAGGCCCCGCCCCATGGGCCCCTCACCGCTGGTTGG
AAAGAGTGTTGGTGTTGGCTGGGGTGTCAATAAAGCTGTGCTTGGGGTC

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FIGURE 3337A

GCTGGCCGTCTGCGCACCCTCTCTCCCCTCGGCTCTTTCCTAGGAAAGCTGAGCCTCATAGCTTCCGGGAGAAGG
TTTTCCGGAAGAAACCTCCAGTCTGTGCAGTATGTAAGGTGACCATCGATGGGACAGGCGTTTCGTGCAGAGTCT
GCAAGGTGGCGACGCACAGAAAATGTGAAGCAAAGGTGACTTCAGCCTGTCAGGCCTTGCCTCCCGTGGAGTTGC
GGCGAAACACGGCCCCAGTCAGGCGCATAGAGCACCTGGGATCCACCAAATCTCTGAACCACTCAAAGCAGCGCA
GCACTCTGCCCAGGAGCTTCAGCCTGGACCCGCTC**ATG**GAGCGGCGCTGGGACTTAGACCTCACCTACGTGACGG
AGCGCATCTTGGCCGCCGCCTTCCCCGCGCGGCCCGATGAACAGCGGCACCGGGGCCACCTGCGCGAGCTGGCCC
ATGTGCTGCAATCCAAGCACCGGGACAAGTACCTGCTCTTCAACCTTTCAGAGAAAAGGCATGACCTGACCCGCT
TAAACCCCAAGGTTCAAGACTTCGGCTGGCCTGAGCTGCATGCTCCACCCCTGGACAAGCTGTGCTCCATCTGCA
AAGCCATGGAGACATGGCTCAGTGCTGACCCACAGCACGTGGTCGTACTATACTGCAAGGGAAACAAGGGCAAGC
TTGGGGTCATCGTTTCTGCCTACATGCACTACAGCAAGATCTCTGCAGGGGCGGACCAGGCACTGGCCACTCTTA
CCATGCGGAAATTCTGCGAGGACAAGGTGGCCACAGAACTGCAGCCCTCCCAGCGTCGATATATCAGCTACTTCA
GTGGGCTGCTATCTGGCTCCATCAGAATGAACAGCAGCCCTCTCTTCCTGCACTATGTGCTCATCCCCATGCTGC
CAGCCTTTGAACCTGGCACAGGCTTCCAGCCCTTCCTTAAAATCTACCAGTCCATGCAGCTTGTCTACACATCTG
GAGTCTATCACATTGCAGGCCCTGGTCCCCAGCAGCTTTGCATCAGCCTGGAGCCAGCCCTCCTCCTCAAAGGCG
ATGTCATGGTAACATGTTATCACAAGGGTGGCCGGGGCACAGACCGGACCCTCGTGTTCCGAGTCCAGTTCCACA
CCTGCACCATCCACGGACCACAGCTCACTTTCCCCAAGGACCAGCTTGACGAGGCCTGGACTGATGAGAGGTTCC
CCTTCCAAGCCTCCGTGGAGTTTGTCTTCTCCTCCAGCCCCGAGAAGATCAAAGGCAGCACTCCACGGAACGACC
CCTCGGTCTCTGTCGACTACAACACCACTGAGCCAGCCGTGCGCTGGGACTCCTATGAGAACTTCAACCAGCACC
ACGAGGACAGTGTGGATGGCTCCTTGACCCACACCCGGGGTCCCCTGGATGGCAGTCCTTATGCCCAGGTGCAGC
GGCCTCCCCGGCAGACCCCCCCGGCACCCTCTCCAGAGCCTCCACCACCCCCCATGCTCTCTGTCAGCAGCGACT
CAGGCCATTCCTCCACGCTGACCACAGAGCCGGCTGCTGAGTCCCCTGGCCGGCCGCCCCCTACAGCTGCTGAAC
GGCAGGAGCTGGATCGCCTCCTAGGAGGCTGCGGAGTGGCCAGTGGGGGCCGGGGAGCTGGGCGCGAGACGGCCA
TCCTAGATGACGAAGAGCAGCCCACTGTGGGCGGAGGCCCCCACCTCGGAGTGTATCCAGGCCATAGGCCTGGCC
TCAGCCGCCACTGCTCCTGCCGCCAGGGCTACCGGGAGCCCTGCGGGGTTCCCAATGGGGGCTACTACCGGCCAG
AGGGAACCCTGGAGAGGAGGCGACTGGCCTACGGGGGCTATGAGGGATCCCCCCAGGGCTACGCCGAGGCCTCGA
TGGAGAAGAGGCGCCTCTGCCGATCGCTGTCAGAGGGGCTATACCCCTACCCACCTGAGATGGGGAAACCAGCCA
CTGGGGACTTTGGCTACCGCGCCCCAGGCTACCGGGAGGTGGTCATCCTGGAGGACCCTGGGCTGCCTGCCCTAT
ACCCATGCCCAGCCTGCGAGGAGAAGCTGGCGCTGCCTACAGCAGCCTTGTATGGACTGCGGCTGGAGAGGGAGG
CTGGAGAAGGGTGGGCAAGTGAGGCTGGCAAGCCTCTCCTGCACCCAGTGCGGCCTGGGCACCCGCTGCCTCTGC
TCTTGCCTGCCTGTGGGCATCACCATGCCCCGATGCCTGACTACAGCTGCCTGAAGCCACCCAAGGCAGGCGAGG
AAGGGCACGAGGGCTGCTCCTACACCATGTGCCCCGAAGGCAGGTATGGGCATCCAGGGTACCCTGCCCTGGTGA
CATACAGCTATGGAGGAGCAGTTCCCAGTTACTGCCCAGCATATGGCCGTGTGCCTCATAGCTGTGGCTCTCCAG
GAGAGGGCAGAGGGTATCCCAGCCCTGGTGCCCACTCCCCACGGGCTGGCTCCATTTCCCCGGGCAGCCCGCCCT
ATCCACAATCTAGGAAGCTGAGCTACGAGATCCCTACGGAGGAGGGAGGGGACAGGTACCCATTGCCTGGGCACC
TGGCCTCAGCAGGACCTTTGGCATCTGCAGAGTCGCTGGAGCCGGTGTCCTGGAGGGAGGGCCCCAGTGGGCACA
GCACACTGCCTCGGTCTCCCCGAGATGCCCCATGCAGTGCTTCGTCAGAGTTGTCTGGTCCCTCCACGCCCCTGC
ACACCAGCAGTCCAGTCCAGGGCAAGGAAAGCACCCGGCGACAGGACACCAGGTCCCCCACCTCAGCGCCCACTC
AGAGACTGAGTCCTGGCGAGGCCTTGCCCCCTGTTTCCCAGGCAGGCACCGGAAAGGCCCCTGAGCTGCCGTCGG
GAAGTGGGCCTGAGCCTCTGGCCCCTAGCCCAGTCTCTCCGACCTTCCCTCCCAGCTCGCCCAGTGACTGGCCTC
AGGAAAGGAGTCCAGGGGGCCACTCAGATGGCGCCAGTCCTCGGAGCCCTGTGCCCACCACACTTCCTGGCCTCC
GCCACGCCCCCTGGCAAGGCCCTCGAGGCCCCCCCGACAGCCCAGATGGGTCTCCCCTCACTCCTGTGCCTTCCC
AGATGCCCTGGCTTGTGGCCAGCCCAGAGCCGCCTCAGAGCTCACCTACACCTGCTTTCCCCCTGGCTGCCTCCT
ATGACACCAATGGCCTTAGCCAGCCCCCACTTCCTGAGAAACGCCACCTGCCCGGGCCGGGGCAACAGCCAGGAC
CCTGGGGCCCAGAGCAGGCATCATCGCCAGCCAGAGGCATCAGTCACCATGTCACCTTCGCACCTCTGCTCTCAG
ATAATGTCCCCCAAACCCCAGAGCCTCCTACACAAGAGAGCCAAAGCAATGTCAAGTTTGTCCAGGATACATCCA
AGTTCTGGTACAAGCCACACCTGTCCCGTGACCAAGCCATTGCCCTGCTGAAGGACAAGGACCCTGGGGCCTTCC
TGATCAGGGACAGTCATTCATTCCAAGGAGCTTATGGGCTGGCCCTCAAGGTGGCCACACCGCCACCCAGTGCCC
AGCCCTGGAAAGGGGACCCCGTGGAACAGCTGGTCCGCCATTTCCTCATCGAGACTGGGCCCAAAGGGGTGAAGA

FIGURE 3337B

TCAAGGGCTGCCCCAGTGAGCCCTACTTTGGCAGCCTGTCCGCCTTGGTCTCCCAGCACTCCATCTCCCCCATCT
CCCTGCCCTGCTGCCTGCGCATTCCCAGCAAAGATCCTCTGGAAGAGACCCCAGAGGCTCCAGTGCCCACCAACA
TGAGCACAGCGGCAGACCTCCTGCGTCAGGGTGCTGCCTGCAGCGTGCTCTACTTGACCTCAGTGGAGACAGAGT
CACTGACGGGCCCCCAAGCTGTGGCCCGGGCCAGCTCTGCAGCTCTGAGCTGTAGCCCCCGCCCGACACCAGCTG
TTGTCCACTTCAAGGTGTCAGCCCAGGGCATTACACTGACGGACAACCAAAGGAAGCTCTTCTTTCGCCGCCATT
ATCCAGTGAACAGCATCACCTTCTCCAGCACTGACCCTCAAGACCGGAGATGGACCAACCCAGACGGGACCACCT
CCAAGATCTTTGGTTTCGTGGCCAAGAAGCCGGGAAGCCCCTGGGAGAATGTGTGTCACCTCTTTGCAGAGCTTG
ACCCAGATCAGCCTGCTGGCGCCATTGTCACCTTCATCACCAAAGTTCTACTGGGCCAGAGAAAA**TGA**AGGAAGG
CCACAAGCTCAGAGCCCACATCAACACTGCCCCCCTCCCAGCACCCCACAGCCCTCACATCCCCTGGCCTGGACC
CAGGAGACCCAGGAGAAAGCACCCTCCCTTAGGAATGAGGAGTGGGCATCAGGCCTGGGACACTGCTCTCCTTCC
CCGCCCCCAGCCTGCTAAGTTAAGTGGACAGGCCCACAAGATGACCTTGCATGTGAGCAGATGGCAGAGATGGGT
GTGTGAGGGGTGAGGAGGCATCAGCAGTTGAGCCCCGAAGGAGATCAGGCAGCCCCACCTGCAGGAGAACGTCAG
CCCTCCAGGGGATCAGCCCCTGCCAGTTCCACCCAGCTGCAGGTGCCAGCACGGCAGGGATGGGAGAGGGGTGGG
GAGCGAGTCACTGCCTCCTCTGAGCAGAGATTCAGAGTAGGATCACATGAATAGGGGAAAAAAGAGAGTCTATTT
TTGTCTAATAATAAAGAATTTCTATAAACTTT

FIGURE 3338

TCTAATCTTGGACAATATGGTATCCAATACTGAATGAAAACTTCAGAGATGGTAGGAGGAGGAGGAGCAGGTGGT
CAATGACTACAGTAAAAACCACTGGGAGTGCAGAGTATTTGTCAAAGAACTTCAGCATTACAATGAACTTTAAAG
ATCAGATTTATTTGGAGAAAACAAAAAACCCACAACCCAAAGGATGGGATTTTACATCAAGACATCTCCCAGGTA
ATAAGTCTACAGATTACAAATCATTTTCATAGAAGATATTTTTGTACAAATTTTACATGTATTCAGGAGCGGGAC
ATTAATCAATCCCTGTTTCTATTTTAATAGGGGGGACAAGGTAGGGGAGAGGGAAAAACAGTTTTGGATATAACT
ATTTGGAAGGAGAGTAGACATGAAGAGGGCAAACCCTAGCTTTTCATTATCTACAATCAATAGTTTGTTTTTCTT
TTTTAAAAAAGAAAGAAAAACCCTTTCAATCTTCAATACTCTTTAAAAGCCCACTTCTTAGCTACTGGCCAATCC
ACACCAATTATTTAAATTCACTTGGTACACACCTTTGTCCACTGGGTAAATTATATTCATTATGCCCACTGCTGC
AGCACGCATAAACCAACACCCCTGCATGGCTGAACAGGGCCTAATCTAGGACTGATGGGAGAAGGGCTTGCAAAC
CAAGATCAAGGTGTTTCTCCGCTAATACTGTCTACCAAGCTGATCCCTACAAAAATGCATATAAAAGCAGGCAAG
TTTAGCTACTGTGTTGCAAGAGAAACCAGGACCTTGTTAAATAGTTCTCTCCATTACCATTTATTCTCTCAAGGG
AAGCTTAAAAAAACAACAACAAAACAACACATTGGTCTGGCCACCTCATGAATCCAACAAGCATTAGTGTGGCAT
TTCAGTGGAGAAGGAAACTTGGGGGGAAAAATCCCATCAAGGTTGTAAGAAAGGCTCCCAATTTAACTGTCCCTG
TCCCTATTTATCCATCATCCAAGACCATCCATTATTCTAGAGCACTCTGATCAATAAAAGGGGTCCAAGCATCAG
GAGCAGGCAAGGAGAACCAAAAGACATCAAGAAACCGATTTGCTTGAGAAAAGCAGCGATTCTTCCTTTCAGAGT
TCTCCATGGCTGAGAAAATGCCCAAGACATCATGTATGTGACTTAGATACTGCTTTTTGGGAGGTTAAGAGTAGC
ATGAAGAACTTAAGATGATGATAAGAGTCTAAATTTTTAGTTTCAAGGTTTCAATAGA**ATG**TGGATATATTCAAA
ACTTTCAAAAAGGACAGTGTTTAGAAAGGGTAAAACTAGGACACAGAAAACACTGGGAATTACCACGACCCCCAA
GTGCTTCCGGCTCCAGGAAATAACCATTCATGTGTTTGCTGGAGGTCACACAATTTTCCCCTATTACCTGGTGCA
AAATGACTCATCACTTCCCAAAAGCTTCTTTTCAAACCACGATTTTCCCATTTATTTTGGTCCAATGCAGTCCCA
TTCTTTATGGCCTATAGTCTCACTCCCAACTACCCCCCTGGGGGGTT

FIGURE 3339

TGCAGCGTCAGCTGGATGAGCCAAAACTAGAACGACGGCCTCGGGAGAGACACCCAAGCTGGCGAAGTGAAGAAA
CTCAGGAACGGGAACGGTCGAGGACAGGAAGTGAGTCATCACAAACTGGGACCTCCACCACATCTAGCAGAAATG
CACGAAGGAGAGAGAGTGAGAAGTCTCTAGAAAATGAAACACTCAATAAGGAGGAAGATTGCCACTCTCCAACTT
CTAAACCTCCCAAACCTGATCAGCCCCTAAAGGTA**ATG**CCAGCCCCTCCACCAAAGGAGAATGCTTGGGTGAAGC
GAAGTTCTAACCCTCCTGCTCGATCTCAGAGCTCAGACACAGAGCAGCAGTCCCCTACAAGTGGTGGGGGAAAAG
TAGCTCCAGCTCAACCATCTGAGGAAGGACCAGGAAGGAAAGATGAAAATAAAGTAGATGGGATGAATGCCCCAA
AAGGCCAAACTGGGAACTCTAGCCGTGGTCCAGGCGACGGAGGGAACAGAGACCACTGGAAGGAGTCAGATAGGA
AAGATGGCAAAAAGGATCAAGACTCCAGATCTGCACCTGAGCCAAAGAAACCTGAGGAAAATCCAGCTTCCAAGT
TCAGTTCTGCAAGCAAGTATGCTGCTCTCTCTGTTGATGGTGAAGATGAAAATGAGGGAGAAGATTATGCCGAA**T**
AGACCTCTACATCCTGTGCTTTTCTCCTAGTTTCTCTCCACCCTGGAACATTCGAGAGCAAATCAAAACCTCTAT
CCAGACAAGACAAAAT

FIGURE 3340

AATCTAGCCCGGGAACCGAGTTGCGGGAGTGCGGTCTGTGCCGTTCCGGCCAGGAGTTTGCCGACTGCAGACGTC
CTGCGAACCGGCAAG**ATG**TGCTCTCTGGGGTTGTTCCCTCCTCCACCGCCTCGGGGTCAAGTCACCCTATATGAG
CACAATAACGAGCTGGTGACGGGCAGTAGCTATGAGAGCCCGCCCCCCGACTTCCGGGGCCAGTGGATCAATCTT
CCTGTCCTACAACTGACAAAGGATCCCCTAAAGACCCCTGGAAGGCTGGACCATGGCACAAGAACTGCCTTCATC
CATCACCGGGAGCAAGTGTGGAAGAGATGCATCAACATTTGGCGTGATGTGGGCCTTTTTGGGGTGCTAAATGAA
ATTGCAAACTCAGAAGAAGAGGTGTTTGAGTGGGTGAAGACGGCATCCGGCTGGGCCCTGGCACTCTGTCGATGG
GCCTCTTCCCTCCATGGGTCCCTGTTCCCCCATCTGTCTCTCAGGAGCGAAGATCTGATCGCTGAATTTGCCCAA
GTCACAAATTGGTCCAGCTGCTGCTTGCGTGTCTTTGCATGGCACCCCCACACCAACAAGTTTGCAGTGGCCCTG
CTAGATGACTCAGTCCGTGTGTATAATGCCAGCAGCACCATAGTCCCCTCCCTGAAGCACCGGCTGCAGCGAAAT
GTGGCGTCTCTGGCCTGGAAGCCCCTTAGTGCCTCTGTCTTGGCTGTGGCCTGCCAGAGCTGCATTCTTATCTGG
ACCCTGGACCCTACCTCCTTGTCTACCCGACCCTCTTCTGGCTGTGCCCAAGTGCTGTCTCACCCTGGGCATACA
CCTGTTACCAGCTTGGCCTGGGCCCCCAGTGGGGGGCGGCTGCTCTCAGCTTCACCCGTGGATGCTGCTATCCGG
GTATGGGATGTCTCAACAGAGACCTGTGTCCCCCTTCCCTGGTTCCGAGGAGGTGGGGTGACCAACCTGCTCTGG
TCCCCAGACGGCAGCAAAATCCTGGCTACCACTCCTTCAGCTGTCTTTCGAGTCTGGGAGGCCCAGATGTGGACT
TGTGAGAGGTGGCCTACTCTATCAGGGCGCTGTCAGACTGGCTGCTGGAGCCCAGATGGCAGCCGACTGCTGTTC
ACTGTATTGGGAGAGCCACTGATTTACTCCCTGTCTTTTCCAGAACGTTGTGGTGAGGGAAAGGGGTGCGTTGGA
GGTGCAAAGTCAGCAACGATTGTGGCAGATCTGTCTGAGACAACAATACAGACACCAGATGGTGAGGAGAGGCTT
GGGGGAGAGGCTCACTCCATGGTCTGGGACCCCAGTGGGGAACGTCTGGCTGTGCTTATGAAAGGAAAGCCAAGG
GTACAGGATGGTAAACCAGTCATCCTCCTTTTTCGCACTCGAAACAGCCCTGTGTTTGAGCTCCTTCCCTGTGGC
ATTATCCAGGGGGAGCCAGGAGCCCAGCCCCAGCTCATCACTTTCCATCCTTCCTTCAACAAAGGGGCCCTGCTC
AGTGTGGGCTGGTCCACAGGCCGAATTGCCCACATCCCGCTGTACTTTGTCAATGCCCAGTTTCCACGTTTTAGC
CCAGTGCTTGGGCGGGCCCAGGAACCCCCTGCTGGGGGTGGAGGCTCTATTCATGACCTGCCCCTCTTTACTGAG
ACATCCCCAACCTCTGCCCCTTGGGACCCTCTCCCAGGGCCACCACCTGTTCTGCCCCACTCCCCACATTCCCAC
CTC**TAA**GAATAAATAAGTTTTCCTTTTGTTTTCCACTCA

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FIGURE 3341

CTCCCTGCAGGGAGCTGCTT**ATG**GGACACCAATTCCTGCGCGGCCTCTTAACGCTGCTGCTGCCGCCGCCACCCC
TGTATACCCGGCACCGCATGCTCGGTCCAGAGTCCGTCCCGCCCCCAAAACGATCCCGCAGCAAACTCATGGCAC
CGCCCCGAATCGGGACGCACAATGGCACCTTCCACTGCGACGAGGCACTGGCATGCGCACTGCTTCGCCTCCTGC
CGGAGTACCGGGATGCAGAGATTGTGCGGACCCGGGATCCCGAAAAACTCGCTTCCTGTGACATCGTGGTGGACG
TGGGGGGCGAGTACGACCCTCGGAGACACCGATATGACCATCACCAGAGGTCTTTCACAGAGACCATGAGCTCCC
TGTCCCCTGGGAAGCCGTGGCAGACCAAGCTGAGCAGTGCGGGACTCATCTATCTGCACTTCGGGCACAAGCTGC
TGGCCCAGTTGCTGGGCACTAGTGAAGAGGACAGCATGGTGGGCACCCTCTATGACAAGATGTATGAGAACTTTG
TGGAGGAGGTGGATGCTGTGGACAATGGGATCTCCCAGTGGGCAGAGGGGGAGCCTCGATATGCACTGACCACTA
CCCTGAGTGCACGAGTTGCTCGACTTAATCCTACCTGGAACCACCCCGACCAAGACACTGAGGCAGGGTTCAAGC
GTGCAATGGATCTGGTTCAAGAGGAGTTTCTGCAGAGATTAGATTTCTACCAACACAGCTGGCTGCCAGCCCGGG
CCTTGGTGGAAGAGGCCCTTGCCCAGCGATTCCAGGTGGACCCAAGTGGAGAGATTGTGGAACTGGCGAAAGGTG
CATGTCCCTGGAAGGAGCATCTCTACCACCTGGAATCTGGGCTGTCCCCTCCAGTGGCCATCTTCTTTGTTATCT
ACACTGACCAGGCTGGACAGTGGCGAATACAGTGTGTGCCCAAGGAGCCCCACTCATTCCAAAGCCGGCTGCCCC
TGCCAGAGCCATGGCGGGGTCTTCGGGACGAGGCCCTGGACCAGGTCAGTGGGATCCCTGGCTGCATCTTCGTCC
ATGCAAGCGGCTTCACTGGCGGTCACCACACCCGAGAGGGTGCCTTGAGCATGGCCCGTGCCACCTTGGCCCAGC
GCTCATACCTCCCACAAATCTCC**TAG**TCTAATAAAACCTTCCATCTC

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FIGURE 3342

AGTCGGCCTTCCCAAC**ATG**GCGCAGTCTATTAACATCACGGAGCTGAATCTGCCGCAGCTAGAAATGCTCAAGAA
CCAGCTGGACCAGGAAGTGGAGTTCTTGTCCACGTCCATTGCTCAGCTCAAAGTGGTACAGACCAAGTATGTGGA
AGCCAAGGACTGTCTGAACGTGCTGAACAAGAGCAACGAGGGGAAAGAATTACTCGTCCCACTGACGAGTTCTAT
GTATGTCCCTGGGAAGCTGCATGATGTGGAACACGTGCTCATCGATGTGGGAACTGGGTACTATGTAGAGAAGAC
AGCTGAGGATGCCAAGGACTTCTTCAAGAGGAAGATAGATTTTCTAACCAAGCAGATGGAGAAAATCCAACCAGC
TCTTCAGGAGAAGCACGCCATGAAACAGGCCGTCATGGAAATGATGAGTCAGAAGATTCAGCAGCTCACAGCCCT
GGGGGCAGCTCAGGCTACTGCTAAGGCC**TGA**GAGTTTTTGCAGAAATGGGGCAGAGGGACACCCTTTGGGCGTGG
CTTCCTGGTGATGGGAAGGGTCTTGTGTTTTAATGCCAATAAATGTGCCAGCTGGGCA

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FIGURE 3343A

ACGGACGCCCTCTTCCCCGCCCTCCTTGCGCGCAGCCTTCTGGGATGTATAGTCCTAGATCCGAGCACGCAGCGG
CAAAAGGGCGCAGAAGAACCACAAACCCCAGAAGCCCTCGCGCCCACTCTTCTCCCTCCCCTCCAGAAGTCGGAG
TGCTGTTTTTGTTGTTGGTGAAAGGTGAGGGGAACAGCTGATCCGTCTGTTGGGAGGACAGATATCTCAAGGCCA
GG**ATG**GAAGAATCACCACTAAGCCGGGCACCATCCCGTGGTGGAGTCAACTTTCTCAATGTAGCCCGGACCTACA
TCCCCAACACCAAGGTGGAATGTCACTACACCCTTCCCCCAGGCACCATGCCCAGTGCCAGTGACTGGATTGGCA
TCTTCAAGGTGGAGGCTGCCTGTGTTCGGGATTACCACACATTTGTGTGGTCTTCCGTGCCTGAAAGTACAACTG
ATGGTTCCCCCATTCACACCAGTGTCCAGTTCCAAGCCAGCTACCTGCCCAAACCAGGAGCTCAGCTCTACCAGT
TCCGATATGTGAACCGCCAGGGCCAGGTGTGTGGGCAGAGCCCCCCTTTCCAGTTCCGAGAGCCAAGGCCCATGG
ATGAACTGGTGACCCTGGAGGAGGCTGATGGGGGCTCTGACATCCTGCTGGTTGTCCCCAAGGCAACTGTGTTAC
AGAACCAGCTCGATGAGAGCCAGCAAGAACGGAATGACCTGATGCAGCTGAAGCTACAGCTGGAGGGACAGGTGA
CAGAGCTGAGGAGCCGAGTGCAGGAGCTCGAGAGGGCTCTGGCAACTGCCAGGCAGGAGCACACGGAGCTGATGG
AACAGTACAAGGGGATTTCCCGGTCCCATGGGGAGATCACAGAAGAGAGGGACATCCTGAGCCGGCAACAGGGAG
ACCATGTGGCACGCATCCTGGAGCTAGAGGATGACATCCAGACCATCAGTGAGAAAGTGCTGACGAAGGAAGTGG
AGCTGGACAGGCTTAGAGACACAGTGAAGGCCCTGACTCGGGAACAAGAGAAGCTCCTTGGGCAACTGAAAGAAG
TACAAGCAGACAAGGAGCAAAGTGAGGCTGAGCTCCAAGTGGCACAACAGGAGAACCATCACTTAAATTTGGACC
TGAAGGAGGCGAAGAGCTGGCAAGAGGAGCAGAGTGCTCAGGCTCAGCGACTGAAAGACAAGGTGGCCCAGATGA
AGGACACCCTAGGCCAGGCCCAGCAGCGGGTGGCCGAGCTGGAGCCCTTGAAGGAGCAGCTTCGAGGGGCCCAGG
AGCTTGCAGCCTCAAGCCAGCAGAAAGCCACCCTTCTTGGGGAGGAGTTGGCCAGTGCAGCAGCAGCCAGGGACC
GCACCATAGCCGAACTACACCGCAGCCGCCTGGAAGTGGCTGAAGTTAACGGCAGGCTGGCTGAGCTCGGTTTGC
ACTTGAAGGAAGAAAAATGCCAATGGAGCAAGGAGCGGGCAGGGCTGCTGCAGAGTGTGGAGGCAGAGAAGGACA
AGATCCTGAAGCTGAGTGCAGAGATACTTCGATTGGAGAAGGCAGTTCAGGAGGAGAGGACCCAAAACCAAGTGT
TCAAGACTGAGCTGGCCCGGGAGAAGGATTCTAGCCTGGTACAGTTGTCAGAAAGTAAGCGGGAGCTGACAGAGC
TGCGGTCAGCCCTGCGTGTGCTCCAGAAGGAAAAGGAGCAGTTACAGGAGGAGAAACAGGAATTGCTAGAGTACA
TGAGAAAGCTAGAGGCCCGCCTGGAGAAGGTGGCAGATGAGAAGTGGAATGAGGATGCCACCACAGAGGATGAGG
AGGCCGCTGTGGGGCTGAGCTGCCCGGCAGCTCTGACAGACTCAGAGGACGAGTCCCCAGAAGACATGAGGCTCC
CACCCTATGGCCTTTGTGAGCGTGGAGACCCAGGCTCCTCTCCTGCTGGGCCTCGAGAGGCTTCTCCCCTTGTTG
TCATCAGCCAGCCGGCTCCCATTTCTCCTCACCTCTCTGGGCCAGCTGAGGACAGTAGCTCTGACTCGGAGGCTG
AAGATGAGAAGTCAGTCCTGATGGCAGCTGTGCAGAGTGGGGGTGAGGAGGCCAACTTACTGCTTCCTGAACTGG
GCAGTGCCTTCTATGACATGGCCAGG**TGA**GTTCAACCAGCAAGGCCAGGAGGGAGGTGGGAGGAGGTCAGAGGGA
AAGGGCATCTGTGTGGACAGTCACCAGGCCCTGCTCCCAACCCCTGCCCTTCTTGGCCTCAGCCAAGAAAAGGAG
ATACAGGTATGGTTAACAAGGAAAATGACTCACTGCTCCAAATCCCAGATGCCTTCAGGTAATCCCTACCCCTAT
CTTATCAATGCACTCAGAGGTCCTGCCTTTAACTGGCTTCTATGTTGTTCTAGCACCATCTTCTGCAGAGCCCAA
ATTGCCCTGCTTCCCCTCTCTCCTGCCTCTACCCCTTCCCCAACCACCAGGTAGGTACCTAGGGTCCTCCGGGGA
GGAAGGGAGGTGACCATGGCCCCCAGGGATAGGAGCAGAGAGAAGACTGGGATCCAGCATCCATCTGGCTACAAC
TGAAATGCTTTCCCTCTTCCCTGACTTCCCTGGGTAACCCTTAGGGAAGGGAACCTATAGAGGTGGGGGTTTCAG
GTATCAGATTGTCCCCTTCTGCCTTCCCTTTTATTCCCAGGTTCAAGGGGGCAGGCACAGGGAAGAGAGATTTGA
TCATCTAGTCCCGGTTTTGCCTGGATGTGAGATGGGCTCAGGGCAGGGAGGGGGTGATGCTGTCATCCTTCTCGG
CTGGAGCAGGAAGATGAAGGACGATGTCAGACTCATTTTCAGCCTCATTAGGCAGCAGACGGAGATGGAGGGAGG
AGAGCAGGAGGCTGGGGGATGGGCTCTGCACTGCAGAGACCAGCAGGGACTAAAGAAGAGAGGACATGGGGAACT
GGAAAAATAAGCCTTCCAGGATTGTGGGGAGAAAGACGCTGTGGGAGAGGCCAGGATGCTGCATTAGGCACAGGA
TAACCTGGGAACCCAGGCACATGGGTCCTGCTCTCCGAAGTCTGCAAGTCAAGAAGGGAACAGAGCACGCCGACC
CTCTCCCTTTCCCCTCTGTCTCTCTTAGTGGCTTTACAGTGGGTACCCTGTCAGAAACCAGCACTGGGGGCCCTG
CCACCCCCACATGGAAGGAGTGTCCTATCTGTAAGGAGCGCTTTCCTGCTGAGAGTGACAAGGATGCCCTGGAGG
ACCACATGGATGGACACTTCTTTTTCAGCACCCAGGACCCCTTCACCTTTGAGTGATCTTACTCCCTCGTACATG
CACAAATACACACTCATGCACACACACACTCACACACATGCATACACTTAGGTTTCATGCCCATTTTCTATCACA
CTGGGCTCCATGATATTCTGTTCCCTAAGAACTGCTTCTGTGTGCCCTGTTTTCATCCCAAGATTTCTCACTTCA
TCCTCTCCTACCTGGCTCTTTTGTCCCAGGGAGGGGTCCTGTTCGGAAGCAGTGGCTGAATTTATCCCCTGAAAG
TGGTTTTGGAGGAACCGGGATGGAGGAGGCCTTCCCCTGTGGGAATAGAATCGTCCACTCCTAGCCCTGGTTGCT

FIGURE 3343B

TCTGATACACAGCCACTGCACACACACACTCACACTCACACTCCCTTGTCTGATGCCCCAAAGCCAATTCCTGGG
GCACCCTACCCTCTCTTATTTGGAGTTTCCGTTGGTTTACCTGAGTTTTCTCTGGGGTCTGCACAGAGGCAGCAG
CATGGACATCATGGCCTCTCAGGTCCCTTTTGGTTCTCAGTTTCATTGGTTCCTCTTTCTGTTCCCCCATTGACT
TCTGTGCCCCACCCTAGCCTTTTCCATAACCTTAGGTATTCAGTTTGGAGGGGTTTTTTGTATTTTTGAGGATTC
CTGTATTCTGTATCCTCTCCTCGCATCTCCTCACATGGAAAGAAATAATGTATTTGTGCCTTCTGTGAGGAATGG
GGGGAACAAGTGGTCCCAGGTATCCCCATTTCCAAGGCCCCCCTCCCTCTCCAGGTCCCCCCACAGCAATAAAAG
CTTCCCCCTGATATCCATCCCTTTGTAGTTTGAACAAATATATTTATATGATATGT

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FIGURE 3344

ATGACATGCCCTCGCAATGTAACTCCGAACTCGTACGCGGAGCCCTTGGCTGCGCCCGGCGGAGGAGAGCGCTAT
AGCCGGAGCGCAGGCATGTATATGCAGTCTGGGAGTGACTTCAATTGCGGGGTGATGAGGGGCTGCGGGCTCGCG
CCCTCGCTCTCCAAGAGGGACGAGGGCAGCAGCCCCAGCCTCGCCCTCAACACCTATCCGTCCTACCTCTCGCAG
CTGGACTCCTGGGGCGACCCCAAAGCCGCCTATCGCCTGGAACAACCTGTTGGCAGGCCGCTGTCCTCCTGCTCC
TACCCACCTAGTGTCAAGGAGGAGAATGTCTGCTGCATGTACAGCGCAGAGAAGCGGGCGAAAAGTGGCCCCGAG
GCAGCTCTCTACTCCCACCCCTTGCCGGAGTCCTGCCTTGGGGAGCACGAGGTACCCGTGCCCAGCTACTACCGC
GCCAGCCCGAGCTACTCCGCGCTGGACAAGACGCCCCACTGTTCTGGGGCCAACGACTTCGAAGCCCCTTTCGAG
CAGCGGGCCAGTCTCAACCCGCGCGCCGAACATCTGGAATCGCCTCAGCTGGGGGGCAAAGTGAGTTTCCCTGAG
ACCCCCAAGTCCGACAGCCAGACCCCCAGCCCCAATGAAATCAAGACGGAGCAGAGCCTGGCGGGCCCTAAAGGG
AGCCCCTCGGAGAGCGAAAAGGAGAGGGCCAAAGCTGCCGACTCCAGCCCAGACACCTCGGATAACGAAGCGAAA
GAGGAGATAAAGGCAGAAAACACCACAGGAAATTGGCTGACAGCAAAGAGCGGAAGGAAGAAGAGGTGCCCCTAT
ACTAAACACCAGACGCTGGAATTGGAGAAAGAATTTCTGTTCAATATGTATTTGACGCGAGAGCGCCGCCTGGAG
ATTAGCAAGACCATTAACCTTACAGACAGACAAGTCAAAATCTGGTTTCAAAATCGCAGAATGAAACTCAAGAAA
ATGAACCGAGAGAATCGGATCCGGGAACTGACCTCCAATTTTAATTTCACCTGAGAGCGCGGCCTCTCCTCCTCC
CTTCCCGCTCCTTCCTCTCCCCGCCCCTCCTCCCTTTGTGCCTGGTGATATATTTTTTTTTCCTCCCTGAGTATA
AATGCAATGCGACTGCAAAAAAGGCAAAGACCTCAGACTCTCCTTCCAAGGGACCTGTGGTTCGTGCTGCGAAGA
TGCTTCCACTTAAAGCATGAGAAATGGGGTGCCGGGATGTGGGGTGTGGTGTGTGCCCTCATAGATGGGGGTGGG
AGTGTGGCTGGTGTGTGTGTCAAGCCCTCACTCACCCACGCACTCACACACAGCATTCTGTTCTCCATGCAAAGT
TAAGATCGAATCCATCCGCTTGTAGGGGAAAAAAAGGAAAAAAATTAACCAGAGAGGGTCTGTAATCTCGCAGAG
CACAGGCAGAATCGTTCCTTCCTTGCTGCATTTCCTCCTTAGACTAATAGACGTTTTGGAAAGTTCGGCTAGTGT
TCGTGTGTTTGTCGTAGCACCCAGAGCCTCCACCAAACCCTCTCCATGTCTTTACCTCCCAGTCGCTCTAAGAAT
CTGCTTGAAGTCTCGTATTTGTACTGCTTTCTGCTTTTCTCCCACCCCTCCTAGCACCCCCACATCCCCCATCTA
GTAACATCTCAGAAATTTCATCCAGAGGAACAAAAAAATTAAAAATAGAACATAGCAAAGCAAAGACAGAATGCC
CCCCCCCCCAAATATTGTCCTGTCCCTGTCTGGGAGTTGTGTTATTTAAAGATATTCTGTATGTTGTATCTTTTG
CATGTAGCTTCCTTAATGGAGAAAAAAAAACCTAATAAATTTCCAGAATCAT

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FIGURE 3345

TTTTGTCTGTCCTGGATTGGAGCCGTCCCTATAACCATCTAGTTCCGAGTACAAACTGGAGACAGAAATAAATAT
TAAAGAAATCATAGACCGACCAGGTAAAGGCAAAGGGATGAATTCCTACTTCACTAACCCTTCCTTATCCTGCCA
CCTCGCCGGGGGCCAGGACGTCCTCCCCAACGTCGCCCTCAATTCCACCGCCTATGATCCAGTGAGGCATTTCTC
GACCTATGGAGCGGCCGTTGCCCAGAACCGGATCTACTCGACTCCCTTTTATTCGCCACAGGAGAATGTCGTGTT
CAGTTCCAGCCGGGGGCCGTATGACTATGGATCTAATTCCTTTTACCAGGAGAAAGACATGCTCTCAAACTGCAG
ACAAAACACCTTAGGACATAACACACAGACCTCAATCGCTCAGGATTTTAGTTCTGAGCAGGGCAGGACTGCGCC
CCAGGACCAGAAAGCCAGTATCCAGATTTACCCCTGGATGCAGCGAATGAATTCGCACAGTGGGGTCGGCTACGG
AGCGGACCGGAGGCGCGGCCGCCAGATCTACTCGCGGTACCAGACCCTGGAACTGGAGAAGGAATTTCACTTCAA
TCGCTACCTAACGCGGCGCCGGCGCATCGAGATCGCCAACGCGCTTTGCCTGACCGAGCGACAGATCAAAATCTG
GTTCCAGAACCGCCGGATGAAGTGGAAAAAAGAATCTAATCTCACATCCACTCTCTCGGGGGGCGGCGGAGGGGC
CACCGCCGACAGCCTGGGCGGAAAAGAGGAAAAGCGGGAAGAGACAGAAGAGGAGAAGCAGAAAGAGTGACCAGG
ACTGTCCCTGCCACCCCTCTCTCCCTTTCTCCCTCGCTCCCCACCAACTCTCCCCTAATCACACACTCTGTATTT
ATCACTGGCACAATTGATGTGTTTTGATTCCCTAAAACAAAATTAGGGAGTCAAACGTGGACCTGAAAGTCAGCT
CTGGACCCCCTCCCTCACCGCACAACTCTCTTTCACCACGCGCCTCCTCCTCCTCGCTCCCTTGCTAGCTCGTTC
TCGGCTTGTCTACAGGCCCTTTTCCCCGTCCAGGCCTTGGGGGCTCGGACCCTGAACTCAGACTCTACAGATTGC
CCTCCAAGTGAGGACTTGGCTCCCCCACTCCTTCGACGCCCCCACCCCCGCCCCCCGTGCAGAGAGCCGGCTCCT
GGGCCTGCTGGGGCCTCTGCTCCAGGGCCTCAGGGCCCGGCCTGGCAGCCGGGGAGGGCCGGAGGCCCAAGGAGG
GCGCGCCTTGGCCCCACACCAACCCCCAGGGCCTCCCCGCAGTCCCTGCCTAGCCCCTCTGCCCCAGCAAATGCC
CAGCCCAGGCAAATTGTATTTAAAGAATCCTGGGGGTCATTATGGCATTTTACAAACTGTGACCGTTTCTGTGTG
AAGATTTTTAGCTGTATTTGTGGTCTCTGTATTTATATTTATGTTTAGCACCGTCAGTGTTCCTATCCAATTTCA
AAAAAGGAAAAAAAAGAGGGAAAATTACAAAAAGAGAGAAAAAAAGTGAATGACGTTTGTTTAGCCAGTAGGAGA
AAATAAATAAATAAATAAA

FIGURE 3346

GGAGAAAGGGGGGGCTGTGGCGTGGGGGCTGAGGAGGGGCTAAGGCGGGAGGGGCGCCTCATCCCTTCACCCTCC
CTTTTCGCCATGTGGGGGCCCTGAGCGCCGCCCCAGAAGAGGTCGAGGGA**ATG**TTGTGGGCTGGGGCACACCAGC
ACGGCAGAAACTGGAGAAAGCGAGAGACGTCGCCAGGGACCCAGGGACCTCTCCCTCCAGTTCCCCGGGCCCGCC
CGGCCCTGATGGCCACTCACGCTATAGCGCCCACTCTGTCCTGGGCCATCCCGCGCCAGCAGTGTAGCCCCCAGC
CCGGGCGCCTGAATGCTCTCCCTCCGGATCGCTGCTCGGGTCCCCACTTTGGCGACCGTGCCCCCGAGTCCTGCT
TCCCCGGGGCCTGCTCTGTATCAGGCGCCTGCGCCTTCAAGGGTACCCGGCCCGCCTGCCCTCCCCAAGAGCCGA
GTTTGCGCTCCTCCCGGAATCGTTTGAGAGAAGGACAAACTTTTGGCAGGATGGAAATC**TAG**ATGAGCCTGTCCG
GAGCAGAACACCCCTGATTAGCCAGGCCCACCGCCATCCACATCTGCTCGGCAAAGAAGGAAGGCAGCTTGTTCC
AGACCTTGGTGAGCAGCTGCAGACTGCCTGCCTAGAACAGCCTCCTTACTCCAGCCTGGCAGGGAAGGAAGGAAC
CTGACTTGCTTCGCAGGATCTGGAAGCTCAGCCGGCAGAGCTGAGAGCCGCAGTTGCATCCTGGAGCCTGATGCT
AGAAGCAGCTTCCGTCTTTGGGTTCTTGCTGCCTCGGCCTCTGCTCTGTTCAGTTTGCTGTTGTGTTTTTCTCCC
CCATGTGGGGGTGGTGGGGTACAGGGAAATAAAATGCTTTCTCCCAGGCCCCTAATCCTTCCCCATGCCTGCATC
AGGCTCAAAGCTGCTGACAGTCATGAACTGCACCTTCCAGCCCTGCCCATAAGCTACTCAAAGCAAATTCAAATT
CTCTTCTGGCCAGGAGGAAGGGCAGATGCTCCCTCCTTCCTCAAGCCTCCCTGGCTCATTGATCCATTTTGAGGG
CATTTGGGGGTCAAAGTTGAGACCAGATTGCTTCAGTTTGTATAAAATTAGCATTTCTTATCACACCAAGGCCAC
ACCTGTTCTCTGGCCTCACAAACCAGTGAGGATGTAAAGGTTTGTTGAGGTGGAGGAACAGAAGTGAAATGAGCA
ATCTGCTCCATTTAGAAGTCAGTCGCTTCGGCTGTTCATTCCACTAATATTTATCTAGTACCTATTCTGTGCCAA
GCATTGTCTCTACCTCAGTTTGCCACAAATATGAAAAAAAAAAAATTCTTGGAACTGTGAGGCTTCAATGTGTTG
TGGACCAATATACAAATAAACCAATGGAAAAG

FIGURE 3347

AACGGGATGGGGAGCTGGACCAGCAGATTATGAGCTTACAGAAAGCCTGGCCTACATTTTACTCTTTTTGGATTT
CTTCCTCATCAAGAGACTGCTGCAGTGCCTGTCATGTGACAGCGGCATGGACAT**ATG**CCCCAGGCTTTCCTGCTG
GGGTCCATCCATGAGCCTGCAGGTGCCCTCATGGAGCCCCAGCCCTGCCCTGGAAGCTTGGCTGAGAGCTTCCTG
GAGGAGGAGCTTCGGCTCAATGCTGAGCTGAGCCAGCTGCAGTTTTCGGAGCCTGTGGGCATCATCTACAATCCC
GTGGAGTATGCATGGGAGCCACATCGCAACTACGTGACTCGCTACTGCCAGGGCCCCAAGGAAGTACTCTTCCTG
GGCATGAACCCTGGACCTTTTGGCATGGCCCAGACTGGGGTGCCCTTTGGGGAAGTAAGCATGGTCCGGGACTGG
TTGGGCATTGTGGGGCCTGTGCTGACCCCTCCCCAAGAGCATCCTAAACGACCAGTGCTGGGACTGGAGTGCCCA
CAGTCAGAAGTGAGTGGTGCCCGATTCTGGGGCTTTTTCCGGAACCTCTGTGGACAGCCTGAGGTCTTCTTCCAT
CACTGTTTTGTCCACAATCTATGCCCTCTGCTTTTCCTGGCTCCCAGCGGGCGCAACCTTACTCCTGCTGAGCTG
CCTGCCAAGCAGCGAGAACAGCTTCTTGGGATCTGTGATGCAGCCCTCTGCCGGCAGGTGCAGCTGCTGGGGGTG
CGGCTGGTGGTGGGAGTTGGGCGACTGGCAGAGCAGCGGGCACGACGGGCTCTGGCAGGCCTGATGCCAGAGGTC
CAGGTGGAAGGGCTCCTGCATCCCTCTCCCCGTAACCCACAGGCCAACAAGGGCTGGGAGGCAGTGGCCAAGGAA
AGATTGAATGAGCTGGGGCTGCTGCCACTGCTGTTGAAA**TGA**GTGCCCTTGGGGCCTTGCATGGGACACATTCAA
GACCTCGAAGTCATTCTTGGCCAAGCAGATGACAACACATCTCCTGGACTGGAGCAAAAGGTCCTTCTGTGCACC
CTGGTCGCTGGGAAACGTATTCTTTGATCTGTTGAACTGTCTTCCAACCTGCCATGGCAGTTTTGACACTACTCC
TGTTTGCCCTCCTGATTCCTGCTTTCTTTACCTTTTAACATTGCCCCTTTCAGGGGACCCCACTTTGTAGGGAAT
CTGCAGAAGGTGTGCTTTTGCACTTGCAGACTGCTCTACCTCAGTGTTTCCTTGGGAGACTTTATTCAGCTGAGA
GTGCCCTAGACAGTAACTTCTAAGGTCACGTTTACTATTTCAGAGGAAATATCTTGCCAGGATACCTACCCATCC
TTATAGAACAGTTACCTTTAGCTGACCCCTTTCCTCACAGGGACCAAGACAAAGCATGGGACATGAAATTAAGAG
TGAACTTCTTATGGGAGGCTGCAGCTGGATCAGAGGAAAAATCCAGTGTGACAGAGTGCAAGTCAGAAGACCTGG
CTTTTCATCCCAGCTTTGAAACTTGGAACTTTTTGATTGACAAATTAATAAACCTCTCTATGCCTCAGGC

FIGURE 3348

TGACCCTAACAGTCGATTCAAGGCCAAGTGGTCAGTTTGTCAGCCTTTTTTAAGGGATTTCTTTTTATTTTTAGG
AATTCCAAACAGAGTTAACCTAAACTGTCATTGCCAAAAGATCAGTCTTAAACTTTCTTAGCACCTGTACCTGTT
TAATGTGATCAGCTATCAGTGAGGAAAAAAAAAAAAAATCTATTTAGGTCTTGGAATGGTTCCTGTACCTAGAGTA
TCCATATTGAACCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGAGATGGAAACTTGCTCTTTTGCCCAGGCTGGAG
TGCAGTGGCGTGATCTTGGCTCACTGCAACCTCCGCCTCCCGGGTTCAAGCAGTTCTCTGCCTCAGCCTCCTGAG
CAGCTGGGATTATAGGCGCCTGCCACCATGCCCGGCTAATTTTTGTATTTTTAGTAGAGACAGGGTTCACCATCT
TGGCCGTGCTGGTCTTGAACTCCTGACCTTGTGATCCGCCTGCCTCGGCCACTCAAAGTGCTGGGATTGCAGGCG
TGAGCCAGCACCCGGCCACAGTATCTTTATTACAGCTCACTGCAGCCTCAATCTCCTGGGCTCAAATGATCCTCC
TGCCTCAGCCTCCCAAGCAGCTGGGACTACAGGCGCACACCACGGTGTCTGGCTAATTTTATTATTTAAAAAATG
TTTTGTAGAGACAGTCTCCCTGTGTTGCCCAGGCTGGTCTCCAACTCGTGAGCTCAAGTGATCCACGTGCCTCAG
CCTCCCAAAGTGCTGGGATTACAAGCATAAGCCACCGCACCCGGCCCCTAGTGAACATTTTACTGTATGTGTTGA
TAAATCATCTTTTGAGTTTCTGTTGTATGTGGGGACTTCCTACACTGGCTGCTGTGAAGAGGTATGGAAGAAAGG
AGAGGCTTTCTGCCTAGAAATTCTTTGAGAACACCTGAAAAGACAGTTTAATCATGTCACAACACTCTTAAGGCT
CAAGTCAGTGTTCTGGTTTCCGGTAGCTTTAGGATTGGATTCTAAACGAGGGCTGGTGGTGAGTTTGGTGTTTGT
CTCGTGTCACCCTCACCCCTCACCTCCTCAGTTTAGGATAAGAGACATAATGATTTCTACCAGAATCCAAAGTAA
ATCCAAAGGGGGAGAAAAGACATAACTGTTTTTTCTTCTACCTTTTTTTTGTTAAAGAGTTACATCTCTCACAGG
AGGAAAGAATTCAAGAGTCTATATGATTAGTTACAGAGAATATTTTCATCCCCTCTCCCTGAATAGAAAAGCAGG
GGTCACCATTTGTATCCTTACCCTTGAGGTGTTTTTGAAGATGCTGTAACTCTTGAAGTTGAGCTGAGGCAGAAA
GGTTGGAAAAATGCAGCCCTCTGGGTATTGTGGGGAGGGATGTGATGTAGTAAGAGGGTGTTTTGTGGTGCTAGG
ATTCCCACGCCACCAACTTGCAGCTTTATAAGAGCGCTACCAAGAACCACCACTGGGGAAAAGGTTCTTATTCAT
TGTTTCTGTTGGAATGTGATCTTGCTTTCTGGATTTTAGGAATTCAGGTTACTCAGTATAAAACTCTGAGAAATC
AGTGTGACTTAGTCCTTCACCTCCTAAGATAAAGTGAATATTTCTTTACAAAATAATTCATGTCCTTAATGTTAA
AGATGTAATTTTATTTTCAAAACATCTATAACATGACTTTCAGAAGCAGTTCATTTTTCCAAGATTCCTCACATT
ATACTAGATAAATAATAGGCCCTCAGTTAATACCCTTCAGTTATTGAATTAATCTAGTTTGTGGAATGAGGTGTA
TCCTGCCAACTTCCCTCTGCTCCCAAGTACACTCTGAGAGGTAAAATGCTCTGGGAAATGGAACAAGAATCGAGT
GGATGCTGACTCTGTGTGCCCACCTCCTCAACTGATTGATA**ATG**GTTGACCTTGGGCAAGTCACTTCTTTCAATG
CCTCAGTTCCCCATCTGTCAAATGGGGTTAATAATACTGACCTACCTCACAGGGGTGTTGTTGTGAGGCATTGTA
AATCAAAGTTAATAGAATACTTCAGGGTCCTCTGTGGAGGATGTCTTGAGCCAGAGTTTAAGCCTGACACACAGG
CTTTGGTCCTCACTGAGCTGTCTCCAAGACTGGAACTACTTAGTGACTCGGCAAATTTTCTGCCCCCCACCCCTC
ATCAAAGCTGC**TAG**TTCAGATGTTGACAGTGTTTTCATGAATGTTGGAATCTTACTAGTCCAGACTTACTTAGGA
TGTTGTTGGGGAAGGCACTTGGGATTTTCTGTGTCTTGCATTCACAGAGGGAGGCCATTTCAGATTCAAGAGCAT
TGGATTAGGGAATCGTGAGGCAGGGATGCTACTGCGTATTTCTCTCTGCAGGTTGGGGATTAAAGTTCCTTTCCC
CATGGGTTTGAAGCAGACTCAGACTGTCTCAGGATCAAAGCAACCCTCAATGGTTTTGATTTATGTCATTGCTTA
CCACTCCCCAACCAATCCCAGGACAGCTGGGTCACTGTACCCCTTTGTGGTATCTGTACCTGGGCCTCTCCTTCC
TCATAGGGACCAGCTGATTGAATAAATGTGACCACCTTATTTCCACCCCCCACCCCCAAAAGCTACATTGGAATT
ATTTTTCCTAGAAATGTGTATAACACTCAGAATTGGGCATTGATCCTTAAAGCTTCATCCCATTCACCGTATTCA
ACATCTGTCATCTCTTAGTGTCTGCAGTCTGAACCTAACCTTGACCTTTTTTCCCTCTGGTTTGAGAAAACTTTG
GACACTATTTCTACTTGGCCAGGTGTGGGCTCAAGAGCCTTACTCTTTCCATCTCAGTTTAGGGGCGCAGCCAGC
TCCTCTTCCCAATAGGGCTCTTTCTGCTTTCCCTCTCCTTGGCCCTAGATTTGTAATCCATGAAAAAGCACAAGG
TCCTGGCTCCTTGCGGTCACATTCTGGTTCTCTGTGTTTTGTGGACTCTGCTCTCACTGTTCACCCAGCACTAGC
AGTACCAGATGGTTCTGTGGAGTCCTGGGGAATGGAGAGAGCACAGTCTGACTCCCTGCCAAGTAGCCAGGAGTT
GACTTGCCCATGGTCCGCTGGCTTTCCCACCACTTCCTACAGGATGGGATCTAAGAGACTCAAGAGCTGGGTTTC
TTTCAGCACTCTGTACTGTCCCAAATAGCAAACAAATCACTTTGTAGCCAGATTTCTGAATGGAAATGAGAAATT
GAATTCTCCATGGACTTTTAGGTTTATGGGGGAGTTTTAGCTGTGTTTCTTGGTTTTATTTCAGCCAAACATGTC
TGCTTTTGATTTTTTTTTTAAAGTATAAGTGGTCTATATATATGTTCACCTTTTAAATGTAAATGTTTAAAAAGT
AAGCATTTATGTGTTTCCATAACTGACATCTGATGCAGACCTCATTCTCTCCCCCTCTTCTACCCTCCTCTTTTC
CCCCTTTTCATACTCTTGTATTGGTTCTAATAAATGGTTGCTTTTC

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FIGURE 3349

GGAGCACCCATTTTAAACCTGGAGAGAACCATGATGTTTTCTTCTTCAAATAACAATCTAGTTTTTTTTCCCCCA
GTACTAAAATTGTATTGTCTTTCAGACAATATAATTTTTATTTAAAATTGGAACATACTATCTTCATGCTTTCTA
AGCTAAATCTTCATTTAGATTTCACTCCTCAGTAGATCCCAGAGAAGAAGCTATATAGGATCCAGATTCAAATTT
AACAGTGTCTTCTACTTTTTTAGTTATGTTTTCTATCAACTCCTGCTGCCTTTTCAAATACGGATATTTTTCAGG
AGACTCTTCTACTTGTCCACTGACTGTATTTTTTCCTTTTTGATCCGTAGCCCTGGTTAAATGGCTGACATCCTT
CCGTGGATGATTCTTGGAGGTAGTCTCAGAATTCCAAAGTGATTGTCTGTCTTCTTCTTGTCTTGATCCTA**ATG**C
AGACATTCACCTCTATTATTTATTTATTTTTTTTAGACAGAGTCTCGCTCTGTCACCAGGCTGGAGTGCAGTGGC
ACAATCTTGGCTTACTGTACCCTCCACCTCCTGGGTTCAAGCGATTCTCCTGCCTCAGCCTCTCGAGTAGCTGGG
ACTACAGGTGTGTGCCACCATGCCCAGCTAATTTTTGTATTTTTGGTAGAGATGGGGTTTTACCATGTTTGCCAG
GATGGTCTCGATTTCCTGACCTTGTGATCTGCCCACCTTGGCCTCCCAAAGTGCTGGAATTACAGGCA**TGA**GCCA
CCGTGCCTGGCCACCTCTATTAAATTTTTGTGGACAAAAATAAAATTGTCATTATTTGTTTGCTCTCATGGAGCA
CTTTCAGTAATACAATTTTTTTTAAATTCCAGTTGCCCTCTTTGTTGCTCTGTCCTCTGTAATACCTGACTTTGC
TAAAGACTTGAGGGGTGGTTTCAGAGGAGGGTCAGGTGATGGGAAGGCAGGATGAGAAAAGCCCTGGACTTGCAT
GTTTGAGAAGGCTTCCAACCACATCTTCACTCAGACTCTTGGAATTCCTGTCCCCAAAACAAGCTTCTGTTTTTT
GCTCACAATGCTATATTTCTAAATTTTTCCTGAATTACTGAGAAGCAGTCATTAGCTTTGTTAAGTTTGGTTTGG
GGACATTGTTGGTATCAAAAATCGAAGTCTTATTCATTTGATGTAGGCCATGAATCATCAATAACTGGTTGCTGG
AAAGCTTGACTACCATCCACTGGGGTGCTATTTTGAGAAGGATTTTTGGGTATCTTTATAGTCTGCAATTAGTTG
ATGATTGCTTTCTAGTTTATCAACTGCATTTATATTTGCTTTTCTGTTCATGGAAAATCCTTTATTTGCTGGGGT
TTTTTGTTTGTTTGTTTGTTTTTCCCACTTACAGCAAGTAAAAGTGGTCTGAGGTTATCCTTGTTTTTCTTCGCG
GTTTGCCATGTGTGAAAGTAGATTTCCTGCTATTGATATATTCTCATTATAGACAGAATAGTGGAGAACAGTGTT
GCCATGGACAAAATCCAGTTTTGGTCCACTCTGGGGAGCATTTGGACCTGTGGTGCTTCTAACAATTAAAAGTCT
AGATGGTCCTTGACTGTCCCCCAGCCATACTGCATACTACTTTGTGCATTCTACTTTGTGTCATTAATGAAAGAT
TGGTTCTGTCCCTGTAACTTAGGCATTTATTATTCTTAACTCTTCATTCCTGTTCTGTAGCCACCCAGCAGTCCA
TTTTCCCTATGTTCAGGCCAAACCACAGGGCATTGGGGAAGGTTTTTGGGATTTTCTTATTGAGATTTTGTTGAA
TCTGTAGTTTACCCCAGCTTTCCTAAGGTACAGTGAGGGGTTGGAGGGATCTGTGTTTGGCCCGGGGAGCAATTG
TCTCTACCTTAAGGTTCAGTTTTGAGGGCATAAAATACTACTTTGCAATGTCATGAGAACACCGTTAGATCTGAA
ATGTGGAAATGGTTTCTCACAATTTAAAGGAAAAACCCACTTTGCACCCATGATCCCATCATTTTGGTTGAGATT
TTAGAAT

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FIGURE 3350

GGAAGAGCCGAGACTGCGAAGGAGAACGCAGCAAGCCCAGGCGGCGGTGGAAAGGCTGGAGGACACACCTAAACA
TGTGGAATCCCAATGCCGGGCAGCCAGGGCCAAATCCATATCCCCCCAATATTGGGTGCCCTGGAGGTTCCAATC
CTGCCCACCCACCACCTATTAATCCACCCTTTCCCCCAGGCCCCTGTCCTCCTCCCCCAGGAGCTCCCCATGGCA
ATCCAGCTTTCCCCCCAGGTGGGCCCCCTCATCCTGTGCCACAGCCAGGGTATCCAGGATGCCAACCGTTGGGTC
CCTACCCTCCTCCATACCCACCGCCTGCCCCTGGAATCCCTCCTGTGAATCCCTTGGCTCCTGGCATGGTTGGAC
CAGCAGTGATAGTAGACAAGAAGATGCAGAAGAAAATGAAGAAAGCTCATAAAAAAGATGCACAAGCACCAAAAGC
ACCACAAGTACCACAAGCATGGCAAGCATTCCTCCTCTTCCTCCTCCTCTTCCAGCAGTGATTCTGACTGAATAC
AGGCCCTGGACCCTTCCCTCAAGTCTCACCAGTTCTGCTCTCCCATCAAGCTTCAGATGCCATGTTGTACTGGGG
GAATGTAGCCCTTGTGCTCCCCACCCCCTACCTCCACCTGAGCCTCACCCTGCTGTTGAGCCCTGAGTGGCTAGG
GGAAATGGGAAGAGGATTGCCATGGCCTGGCCATCTTGTTGCTGCTTGGTTAGATCATATAGCTAATGAATTAGG
CAGGGGAGCTATTTTTTGAAGATGATGAACTAAATGTTGAAGACAAGTTTGAGATCTGTAAAATGTGATTTTTTA
CTTCCACTTATAATACTTGTGATTGGGGAGGTTTGTGGAAATTCAATTATGATGAAAAACCTATCTTTTTTGTAA
TGTTGGCATACTTGGGGAATTTAGTGGCAAATACATTCCCCAGCAGGCCTTTTGTTGGTTGCACTAACTGCAAGG
TTGCTGGGAAGTAGAGTCCATTTGGTTGATGAGCTTTGACTGCGGTTTTGGAACCTTACCTCTCCTCCTTAGCCC
AATATGCTGTCTCGGGTCCTATTCAAATAAAGTTATTTCTCCTGG

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FIGURE 3351

TTTAACTGTGCTATGGAGTAGAAGCAGGAGGTTTTCAACCTAGTCACAGAGCAGCACCTACCCCCTCCTCCTTTC
CACACCTGCAAACTCTTTTACTTGGGCTGAATATTTAGTGTAATTACATCTCAGCTTTGAGGGCTCCTGTGGCAA
ATTCCCGGATTAAAAGGTTCCCTGGTTGTGAAAATACATGAGATAAATC**ATG**AAGGCCACTATCATCCTCCTTCT
GCTTGCACAAGTTTCCTGGGCTGGACCGTTTCAACAGAGAGGCTTATTTGACTTTATGCTAGAAGATGAGGCTTC
TGGGATAGGCCCAGAAGTTCCTGATGACCGCGACTTCGAGCCCTCCCTAGGCCCAGTGTGCCCCTTCCGCTGTCA
ATGCCATCTTCGAGTGGTCCAGTGTTCTGATTTGGGTCTGGACAAAGTGCCAAAGGATCTTCCCCCTGACACAAC
TCTGCTAGACCTGCAAAACAACAAAATAACCGAAATCAAAGATGGAGACTTTAAGAACCTGAAGAACCTTCACGC
ATTGATTCTTGTCAACAATAAAATTAGCAAAGTTAGTCCTGGAGCATTTACACCTTTGGTGAAGTTGGAACGACT
TTATCTGTCCAAGAATCAGCTGAAGGAATTGCCAGAAAAAATGCCCAAAACTCTTCAGGAGCTGCGTGCCCATGA
GAATGAGATCACCAAAGTGCGAAAAGTTACTTTCAATGGACTGAACCAGATGATTGTCATAGAACTGGGCACCAA
TCCGCTGAAGAGCTCAGGAATTGAAAATGGGGCTTTCCAGGGAATGAAGAAGCTCTCCTACATCCGCATTGCTGA
TACCAATATCACCAGCATTCCTCAAGGTCTTCCTCCTTCCCTTACGGAATTACATCTTGATGGCAACAAAATCAG
CAGAGTTGATGCAGCTAGCCTGAAAGGACTGAATAATTTGGCTAAGTTGGGATTGAGTTTCAACAGCATCTCTGC
TGTTGACAATGGCTCTCTGGCCAACACGCCTCATCTGAGGGAGCTTCACTTGGACAACAACAAGCTTACCAGAGT
ACCTGGTGGGCTGGCAGAGCATAAGTACATCCAGGTTGTCTACCTTCATAACAACAATATCTCTGTAGTTGGATC
AAGTGACTTCTGCCCACCTGGACACAACACCAAAAAGGCTTCTTATTCGGGTGTGAGTCTTTTCAGCAACCCGGT
CCAGTACTGGGAGATACAGCCATCCACCTTCAGATGTGTCTACGTGCGCTCTGCCATTCAACTCGGAAACTATAA
G**TAA**TTCTCAAGAAAGCCCTCATTTTTATAACCTGGCAAAATCTTGTTAATGTCATTGCTAAAAAATAAATAAAA
GCTAGATACTGGAAACCTAACTGCAATGTGGATGTTTTACCCACATGACTTATTATGCATAAAGCCAAATTTCCA
GTTTAAGTAATTGCCTACAATAAAAAGAAATTTTGCCTGCCATTTTCAGAATCATCTTTTGAAGCTTTCTGTTGA
TGTTAACTGAGCTACTAGAGATATTCTTATTTCACTAAATGTAAAATTTGGAGTAAATATATATGTCAATATTTA
GTAAAGCTTTTCTTTTTTAATTTCCAGGAAAAAATAAAAAGAGTATGAGTCTTCTGTAATTCATTGAGCAGTTAG
CTCATTTGAGATAAAGTCAAATGCCAAACACTAGCTCTGTATTAATCCCCATCATTACTGGTAAAGCCTCATTTG
AATGTGTGAATTCAATACAGGCTATG

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FIGURE 3352

GTGGATTCTTGTCCATAGTGCATCTGCTTTAAGAATTAACGAAAGCAGTGTCAAGACAGTAAGGATTCAAACCAT
TTGCCAAAA**ATG**AGTCTAAGTGCATTTACTCTCTTCCTGGCATTGATTGGTGGTACCAGTGGCCAGTACTATGAT
TATGATTTTCCCCTATCAATTTATGGGCAATCATCACCAAACTGTGCACCAGAATGTAACTGCCCTGAAAGCTAC
CCAAGTGCCATGTACTGTGATGAGCTGAAATTGAAAAGTGTACCAATGGTGCCTCCTGGAATCAAGTATCTTTAC
CTTAGGAATAACCAGATTGACCATATTGATGAAAAGGCCTTTGAGAATGTAACTGATCTGCAGTGGCTCATTCTA
GATCACAACCTTCTAGAAAACTCCAAGATAAAAGGGAGAGTTTTCTCTAAATTGAAACAACTGAAGAAGCTGCAT
ATAAACCACAACAACCTGACAGAGTCTGTGGGCCCACTTCCCAAATCTCTGGAGGATCTGCAGCTTACTCATAAC
AAGATCACAAAGCTGGGCTCTTTTGAAGGATTGGTAAACCTGACCTTCATCCATCTCCAGCACAATCGGCTGAAA
GAGGATGCTGTTTCAGCTGCTTTTAAAGGTCTTAAATCACTCGAATACCTTGACTTGAGCTTCAATCAGATAGCC
AGACTGCCTTCTGGTCTCCCTGTCTCTCTTCTAACTCTCTACTTAGACAACAATAAGATCAGCAACATCCCTGAT
GAGTATTTCAAGCGTTTTAATGCATTGCAGTATCTGCGTTTATCTCACAACGAACTGGCTGATAGTGGAATACCT
GGAAATTCTTTCAATGTGTCATCCCTGGTTGAGCTGGATCTGTCCTATAACAAGCTTAAAAACATACCAACTGTC
AATGAAAACCTTGAAAACTATTACCTGGAGGTCAATCAACTTGAGAAGTTTGACATAAAGAGCTTCTGCAAGATC
CTGGGGCCATTATCCTACTCCAAGATCAAGCATTTGCGTTTGGATGGCAATCGCATCTCAGAAACCAGTCTTCCA
CCGGATATGTATGAATGTCTACGTGTTGCTAACGAAGTCACTCTTAAT**TAA**TATCTGTATCCTGGAACAATATTT
TATGGTTATGTTTTTCTGTGTGTCAGTTTTCATAGTATCCATATTTTATTACTGTTTATTACTTCCATGAATTTT
AAAATCTGAGGGAAATGTTTTGTAAACATTTATTTTTTTTAAAGAAAAGATGAAAGGCAGGCCTATTTCATCACA
AGAACACACACATATACACGAATAGACATCAAACTCAATGCTTTATTTGTAAATTTAGTGTTTTTTTATTTCTAC
TGTCAAATGATGTGCAAAACCTTTTACTGGTTGCATGGAAATCAGCCAAGTTTTATAATCCTTAAATCTTAATGT
TCCTCAAAGCTTGGATTAAATACATATGGATGTTACTCTCTTGCACCAAATTATCTTGATACATTCAAATTTGTC
TGGTTAAAAAATAGGTGGTAGATATTGAGGCCAAGAATATTGCAAAATACATGAAGCTTCATGCACTTAAAGAAG
TATTTTTAGAATAAGAATTTGCATACTTACCTAGTGAAACTTTTCTAGAATTATTTTTCACTCTAAGTCATGTAT
GTTTCTCTTTGATTATTTGCATGTTATGTTTAATAAGCTACTAGCAAAATAAAACATAGCAAATGGC

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FIGURE 3353

GCAGAACAAAGAATACTCCACTTTTGATAG**ATG**GGGTTACCAGGATTCAGGCTACATGGCCTGAGGCAAGGTCAC
AACATGAGTGACAGAATGTGTCCTGGAAGCCAGGCATCCTCTGGGGTGTATTTGGGGCGCTCAACAAGGCTTGAT
CGAGCTTTGGGGGTAGATCTAGCTATTCCATGGGGATTCTTTTCAGAATTGCTGTTTTCGGTAACTAATTCCATG
ACCAGGTCCATGGCATTGGATGACATTGCGCTACACTGTTGCTCACCCGGGTCACCCGTCCTCACAGGTTGGATG
GCAAGCATGTTGTGTTCGGTCACGTCAAAGAGGGCATGGACGTCG**TGA**AGAAAAATAGAATCTTTCGGCTCTAAG
AGTGGGAGGACATCCAAGAAGATTGTCATCACAGACTGTGGCCAGTTGAGCTAATCTGTGGCCCAGGGTGCTGGC
ATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTGGCCCGCGTTGGGCTGTCAGCCAAGGTGCCTGAAACGATAC
GTGTGCCCACTCCACTGTCACAGTGTGCCTGAGGAAGGCTGCTAGGGATGTTAGACCTCGGCCAGGACCCACCAC
ATTGCTTCCTAATACCCACCCTTCCTCACGACCTCATTTCTGGGCATCTTTGTGGACATGATGTCACCCACCCCT
TGTCAAGCATTGCCTGTGATTGCCCAGCCCAGATTCATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCAT
CCAAGTGAAAGTCTTTTCCTTGACCAAGGGGGACAGTCAGTTTTGCAAAAGGACTCTAATACCTGTTTAATATTG
TCTTCCTAATTGGGATAATTTAATTAACAAGATTGACTAGAAGTGAAACTGCAACACTAACTTCCCCGTGCTGTG
GTGTGACCTGAGTTGGTGACACAGGCCACAGACCCCAGAGCTTGGCTTTTGAAACACAACTCAGGGCTTTTGTGA
AGGTTCCCCCGCTGAGATCTTTCCTCCTGGTTACTGTGAAGCCTGTTGGTTTGCTGCTGTCGTTTTTGAGGAGGG
CCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAACCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTG
TTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCCGGAGGGAAGCATTTCCTGGTAGGCTTTGATTTTTCTGTG
TGTTAAAGAAATTCAATCTACTCATGATGTGTTATGCATAAAACATTTCTGGAACATGGATTTGTGTTCACCTTA
AATGTGAAAATAAATCCTATTTTCTATGG

FIGURE 3354A

GGACGCACAGGCATTCCCCGCGCCCCTCCAGCCCTCGCCGCCCTCGCCACCGCTCCCGGCCGCCGCGCTCCGGTA
CACACAGGATCCCTGCTGGGCACCAACAGCTCCACC**ATG**GGGCTGGCCTGGGGACTAGGCGTCCTGTTCCTGATG
CATGTGTGTGGCACCAACCGCATTCCAGAGTCTGGCGGAGACAACAGCGTGTTTGACATCTTTGAACTCACCGGG
GCCGCCCGCAAGGGGTCTGGGCGCCGACTGGTGAAGGGCCCCGACCCTTCCAGCCCAGCTTTCCGCATCGAGGAT
GCCAACCTGATCCCCCCTGTGCCTGATGACAAGTTCCAAGACCTGGTGGATGCTGTGCGGGCAGAAAAGGGTTTC
CTCCTTCTGGCATCCCTGAGGCAGATGAAGAAGACCCGGGGCACGCTGCTGGCCCTGGAGCGGAAAGACCACTCT
GGCCAGGTCTTCAGCGTGGTGTCCAATGGCAAGGCGGGCACCCTGGACCTCAGCCTGACCGTCCAAGGAAAGCAG
CACGTGGTGTCTGTGGAAGAAGCTCTCCTGGCAACCGGCCAGTGGAAGAGCATCACCCTGTTTGTGCAGGAAGAC
AGGGCCCAGCTGTACATCGACTGTGAAAAGATGGAGAATGCTGAGTTGGACGTCCCCATCCAAAGCGTCTTCACC
AGAGACCTGGCCAGCATCGCCAGACTCCGCATCGCAAAGGGGGGCGTCAATGACAATTTCCAGGGGGTGCTGCAG
AATGTGAGGTTTGTCTTTGGAACCACACCAGAAGACATCCTCAGGAACAAAGGCTGCTCCAGCTCTACCAGTGTC
CTCCTCACCCTTGACAACAACGTGGTGAATGGTTCCAGCCCTGCCATCCGCACTAACTACATTGGCCACAAGACA
AAGGACTTGCAAGCCATCTGCGGCATCTCCTGTGATGAGCTGTCCAGCATGGTCCTGGAACTCAGGGGCCTGCGC
ACCATTGTGACCACGCTGCAGGACAGCATCCGCAAAGTGACTGAAGAGAACAAAGAGTTGGCCAATGAGCTGAGG
CGGCCTCCCCTATGCTATCACAACGGAGTTCAGTACAGAAATAACGAGGAATGGACTGTTGATAGCTGCACTGAG
TGTCACTGTCAGAACTCAGTTACCATCTGCAAAAAGGTGTCCTGCCCCATCATGCCCTGCTCCAATGCCACAGTT
CCTGATGGAGAATGCTGTCCTCGCTGTTGGCCCAGCGACTCTGCGGACGATGGCTGGTCTCCATGGTCCGAGTGG
ACCTCCTGTTCTACGAGCTGTGGCAATGGAATTCAGCAGCGCGGCCGCTCCTGCGATAGCCTCAACAACCGATGT
GAGGGCTCCTCGGTCCAGACACGGACCTGCCACATTCAGGAGTGTGACAAGAGATTTAAACAGGATGGTGGCTGG
AGCCACTGGTCCCCGTGGTCATCTTGTTCTGTGACATGTGGTGATGGTGTGATCACAAGGATCCGGCTCTGCAAC
TCTCCCAGCCCCCAGATGAACGGGAAACCCTGTGAAGGCGAAGCGCGGGAGACCAAAGCCTGCAAGAAAGACGCC
TGCCCCATCAATGGAGGCTGGGGTCCTTGGTCACCATGGGACATCTGTTCTGTCACCTGTGGAGGAGGGGTACAG
AAACGTAGTCGTCTCTGCAACAACCCCACACCCCAGTTTGGAGGCAAGGACTGCGTTGGTGATGTAACAGAAAAC
CAGATCTGCAACAAGCAGGACTGTCCAATTGATGGATGCCTGTCCAATCCCTGCTTTGCCGGCGTGAAGTGTACT
AGCTACCCTGATGGCAGCTGGAAATGTGGTGCTTGTCCCCCTGGTTACAGTGGAAATGGCATCCAGTGCACAGAT
GTTGATGAGTGCAAAGAAGTGCCTGATGCCTGCTTCAACCACAATGGAGAGCACCGGTGTGAGAACACGGACCCC
GGCTACAACTGCCTGCCCTGCCCCCCACGCTTCACCGGCTCACAGCCCTTCGGCCAGGGTGTCGAACATGCCACG
GCCAACAAACAGGTGTGCAAGCCCCGTAACCCCTGCACGGATGGGACCCACGACTGCAACAAGAACGCCAAGTGC
AACTACCTGGGCCACTATAGCGACCCCATGTACCGCTGCGAGTGCAAGCCTGGCTACGCTGGCAATGGCATCATC
TGCGGGGAGGACACAGACCTGGATGGCTGGCCCAATGAGAACCTGGTGTGCGTGGCCAATGCGACTTACCACTGC
AAAAAGGATAATTGCCCCAACCTTCCCAACTCAGGGCAGGAAGACTATGACAAGGATGGAATTGGTGATGCCTGT
GATGATGACGATGACAATGATAAAATTCCAGATGACAGGGACAACTGTCCATTCCATTACAACCCAGCTCAGTAT
GACTATGACAGAGATGATGTGGGAGACCGCTGTGACAACTGTCCCTACAACCACAACCCAGATCAGGCAGACACA
GACAACAATGGGGAAGGAGACGCCTGTGCTGCAGACATTGATGGAGACGGTATCCTCAATGAACGGGACAACTGC
CAGTACGTCTACAATGTGGACCAGAGAGACACTGATATGGATGGGGTTGGAGATCAGTGTGACAATTGCCCCTTG
GAACACAATCCGGATCAGCTGGACTCTGACTCAGACCGCATTGGAGATACCTGTGACAACAATCAGGATATTGAT
GAAGATGGCCACCAGAACAATCTGGACAACTGTCCCTATGTGCCCAATGCCAACCAGGCTGACCATGACAAAGAT
GGCAAGGGAGATGCCTGTGACCACGATGATGACAACGATGGCATTCCTGATGACAAGGACAACTGCAGACTCGTG
CCCAATCCCGACCAGAAGGACTCTGACGGCGATGGTCGAGGTGATGCCTGCAAAGATGATTTTGACCATGACAGT
GTGCCAGACATCGATGACATCTGTCCTGAGAATGTTGACATCAGTGAGACCGATTTCCGCCGATTCCAGATGATT
CCTCTGGACCCCAAAGGGACATCCCAAAATGACCCTAACTGGGTTGTACGCCATCAGGGTAAAGAACTCGTCCAG
ACTGTCAACTGTGATCCTGGACTCGCTGTAGGTTATGATGAGTTTAATGCTGTGGACTTCAGTGGCACCTTCTTC
ATCAACACCGAAAGGGACGATGACTATGCTGGATTTGTCTTTGGCTACCAGTCCAGCAGCCGCTTTTATGTTGTG
ATGTGGAAGCAAGTCACCCAGTCCTACTGGGACACCAACCCCACGAGGGCTCAGGGATACTCGGGCCTTTCTGTG
AAAGTTGTAAACTCCACCACAGGGCCTGGCGAGCACCTGCGGAACGCCCTGTGGCACACAGGAAACACCCCTGGC
CAGGTGCGCACCCTGTGGCATGACCCTCGTCACATAGGCTGGAAAGATTTCACCGCCTACAGATGGCGTCTCAGC
CACAGGCCAAAGACGGGTTTCATTAGAGTGGTGATGTATGAAGGGAAGAAAATCATGGCTGACTCAGGACCCATC
TATGATAAAACCTATGCTGGTGGTAGACTAGGGTTGTTTGTCTTCTCTCAAGAAATGGTGTTCTTCTCTGACCTG

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FIGURE 3354B

AAATACGAATGTAGAGATCCC**TAA**TCATCAAATTGTTGATTGAAAGACTGATCATAAACCAATGCTGGTATTGCA
CCTTCTGGAACTATGGGCTTGAGAAAACCCCCAGGATCACTTCTCCTTGGCTTCCTTCTTTTCTGTGCTTGCATC
AGTGTGGACTCCTAGAACGTGCGACCTGCCTCAAGAAAATGCAGTTTTCAAAAACAGACTCAGCATTCAGCCTCC
AATGAATAAGACATCTTCCAAGCATATAAACAATTGCTTTGGTTTCCTTTTGAAAAAGCATCTACTTGCTTCAGT
TGGGAAGGTGCCCATTCCACTCTGCCTTTGTCACAGAGCAGGGTGCTATTGTGAGGCCATCTCTGAGCAGTGGAC
TCAAAAGCATTTTCAGGCATGTCAGAGAAGGGAGGACTCACTAGAATTAGCAAACAAAACCACCCTGACATCCTC
CTTCAGGAACACGGGGAGCAGAGGCCAAAGCACTAAGGGGAGGGCGCATACCCGAGACGATTGTATGAAGAAAAT
ATGGAGGAACTGTTACATGTTCGGTACTAAGTCATTTTCAGGGGATTGAAAGACTATTGCTGGATTTCATGATGC
TGACTGGCGTTAGCTGATTAACCCATGTAAATAGGCACTTAAATAGAAGCAGGAAAGGGAGACAAAGACTGGCTT
CTGGACTTCCTCCCTGATCCCCACCCTTACTCATCACCTGCAGTGGCCAGAATTAGGGAATCAGAATCAAACCAG
TGTAAGGCAGTGCTGGCTGCCATTGCCTGGTCACATTGAAATTGGTGGCTTCATTCTAGATGTAGCTTGTGCAGA
TGTAGCAGGAAAATAGGAAAACCTACCATCTCAGTGAGCACCAGCTGCCTCCCAAAGGAGGGGCAGCCGTGCTTA
TATTTTTATGGTTACAATGGCACAAAATTATTATCAACCTAACTAAAACATTCCTTTTCTCTTTTTTCCTGAATT
ATCATGGAGTTTTCTAATTCTCTCTTTTGGAATGTAGATTTTTTTTAAATGCTTTACGATGTAAAATATTTATTT
TTTACTTATTCTGGAAGATCTGGCTGAAGGATTATTCATGGAACAGGAAGAAGCGTAAAGACTATCCATGTCATC
TTTGTTGAGAGTCTTCGTGACTGTAAGATTGTAAATACAGATTATTTATTAACTCTGTTCTGCCTGGAAATTTAG
GCTTCATACGGAAAGTGTTTGAGAGCAAGTAGTTGACATTTATCAGCAAATCTCTTGCAAGAACAGCACAAGGAA
AATCAGTCTAATAAGCTGCTCTGCCCCTTGTGCTCAGAGTGGATGTTATGGGATTCTTTTTTTCTCTGTTTTATC
TTTTCAAGTGGAATTAGTTGGTTATCCATTTGCAAATGTTTTAAATTGCAAAGAAAGCCATGAGGTCTTCAATAC
TGTTTTACCCCATCCCTTGTGCATATTTCCAGGGAGAAGGAAAGCATATACACTTTTTTCTTTCATTTTTCCAAA
AGAGAAAAAAATGACAAAAGGTGAAACTTACATACAAATATTACCTCATTTGTTGTGTGACTGAGTAAAGAATTT
TTGGATCAAGCGGAAAGAGTTTAAGTGTCTAACAAACTTAAAGCTACTGTAGTACCTAAAAAGTCAGTGTTGTAC
ATAGCATAAAAACTCTGCAGAGAAGTATTCCCAATAAGGAAATAGCATTGAAATGTTAAATACAATTTCTGAAAG
TTATGTTTTTTTTCTATCATCTGGTATACCATTGCTTTATTTTTATAAATTATTTTCTCATTGCCATTGGAATAG
ATATCTCAGATTGTGTAGATATGCTATTTAAATAATTTATCAGGAAATACTGCCTGTAGAGTTAGTATTTCTATT
TTTATATAATGTTTGCACACTGAATTGAAGAATTGTTGGTTTTTTCTTTTTTTTGTTTTGTTTTTTTTTTTTTT
TTTTTTGCTTTTGACCTCCCATTTTTACTATTTGCCAATACCTTTTTCTAGGAATGTGCTTTTTTTTGTACACAT
TTTTATCCATTTTACATTCTAAAGCAGTGTAAGTTGTATATTACTGTTTCTTATGTACAAGGAACAACAATAAAT
CATATGGAAATTTATATTT

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FIGURE 3355

TGGGGGCGTCCTCCTTCGTCCCCGCCCGGCTGTCAAGCTGTGTTCTAGCGGCCGAGGGACCGAGGGGGGCTAAGA
AAGGGGGCGCCCAGCCATGCAGAGGCAAAAAGGCGCTGCGGAACGGGGTCCCCGTCGCCAGTGCTGAGGCAGGAG
GTCGGAGCCACAAGTGAGGGGCTGGGAAGCAGGACCCAGCACGGGCGTCTTGGCAGGCGGCCGGGCGCAGGGCCA
GGCTGCTGGGGACGCTCAGGGCTTTCCACCCAAGCCATGGGCGCTGTCGGGCACTCGGGGGTCCCCTCGTGGCTC
CGGCCACTCGGCGTGGGCATTACGTTGGCTTCACATCGCCATCCAGCCTCGAAGCCAACAGGACTGAAAAATAGC
TTCGGCCAAACGTTCTCCTCCCGCTAAGGAGAGGGGTCGAGTGCGTCAGCCCGAGGGGACTGGAGAGGGATGCCC
TAGCCCTCGAGGGGCGGAGGACCCGCGGTTGAAGGAGGCAGCGGGAGCGGAGAGCGCCCTCCTTGACCATCGAAT
GCCTCCTTCTGTGTTTCCATTCCTGTCGAGTGGGCTGGGCCACGCTGACCACCCTGGAGGAGGGACGGACGACGC
TCGGCGGGCTCTGACCGTGCCGCCTTCTTGTGGCTGCTGACTGGGATCCAGGAGGGAGTGGGCATGGGGCGCAGC
CGCGCCTCCCTCCCTCCCCGCCTCCCGGGCGCCGGGGTTGGCGATGTGGAGACGTGAGGGGACCCGTCGGCTGCT
CCGGCTTCTCCAGGACTCCGCCAGGCGCCCGCGCGTCCCTCCTCACCCGGAGGAGGAGAGGCTCCGCGCGGGGCT
CCGAGGCGGGCGGCGCGCGGAGCCGGAGTCCCAGCCTCGCC**ATG**GGACATAACGGGAGCTGGATCTCTCCAAATG
CCAGCGAGCCGCACAACGCGTCCGGCGCCGAGGCTGCGGGTGTGAACCGCAGCGCGCTCGGGGAGTTCGGCGAGG
CGCAGCTGTACCGCCAGTTCACCACCACCGTGCAGGTCGTCATCTTCATAGGCTCGCTGCTCGGAAACTTCATGG
TGTTATGGTCAACTTGCCGCACAACCGTGTTCAAATCTGTCACCAACAGGTTCATTAAAAACCTGGCCTGCTCGG
GGATTTGTGCCAGCCTGGTCTGTGTGCCCTTCGACATCATCCTCAGCACCAGTCCTCACTGTTGCTGGTGGATCT
ACACCATGCTCTTCTGCAAGGTCGTCAAATTTTTGCACAAAGTATTCTGCTCTGTGACCATCCTCAGCTTCCCTG
CTATTGCTTTGGACAGGTACTACTCAGTCCTCTATCCACTGGAGAGGAAAATATCTGATGCCAAGTCCCGTGAAC
TGGTGATGTACATCTGGGCCCATGCAGTGGTGGCCAGTGTCCCTGTGTTTGCAGTAACCAATGTGGCTGACATCT
ATGCCACGTCCACCTGCACGGAAGTCTGGAGCAACTCCTTGGGCCACCTGGTGTACGTTCTGGTGTATAACATCA
CCACGGTCATTGTGCCTGTGGTGGTGGTGTTCCTCTTCTTGATACTGATCCGACGGGCCCTGAGTGCCAGCCAGA
AGAAGAAGGTCATCATAGCAGCGCTCCGGACCCCACAGAACACCATCTCTATTCCCTATGCCTCCCAGCGGGAGG
CCGAGCTGCACGCCACCCTGCTCTCCATGGTGATGGTCTTCATCTTGTGTAGCGTGCCCTATGCCACCCTGGTCG
TCTACCAGACTGTGCTCAATGTCCCTGACACTTCCGTCTTCTTGCTGCTCACTGCTGTTTGGCTGCCCAAAGTCT
CCCTGCTGGCAAACCCTGTTCTCTTTCTTACTGTGAACAAATCTGTCCGCAAGTGCTTGATAGGGACCCTGGTGC
AACTACACCACCGGTACAGTCGCCGTAATGTGGTCAGTACAGGGAGTGGCATGGCTGAGGCCAGCCTGGAACCCA
GCATACGCTCGGGTAGCCAGCTCCTGGAGATGTTCCACATTGGGCAGCAGCAGATCTTTAAGCCCACAGAGGATG
AGGAAGAGAGTGAGGCCAAGTACATTGGCTCAGCTGACTTCCAGGCCAAGGAGATATTTAGCACCTGCCTGGAGG
GAGAGCAGGGGCCACAGTTTGCGCCCTCTGCCCCACCCCTGAGCACAGTGGACTCTGTATCCCAGGTGGCACCGG
CAGCCCCTGTGGAACCTGAAACATTCCCTGATAAGTATTCCCTGCAGTTTGGCTTTGGGCCTTTTGAGTTGCCTC
CTCAGTGGCTCTCAGAGACCCGAAACAGCAAGAAGCGGCTGCTTCCCCCCTTGGGCAACACCCCAGAAGAGCTGA
TCCAGACAAAGGTGCCCAAGGTAGGCAGGGTGGAGCGGAAGATGAGCAGAAACAATAAAGTGAGCATTTTTCCAA
AGGTGGATTCC**TAG**CAAGGATTGTAAATTCTTGGAAGCAACGGGGAGCTTCCATATTCCCACCAGAGTGTGGGAA
TGCTGTGGCCATGTGATTGTATGATCTCCTTGCAACTCAGTGTGAGTTGATTCCTCCAATATGGGCCAGATGCTT
TTGAATGATAGGGAAATCTACATAAAATCCAGTGTCCTCTTTATTGAGGGAGTATATGTATCCATCTCAGTGATC
CATGTCCTTAGTGAAGTCCACATTATTCTCTGTGGGGACAAGAGCTGGGCAGTTTTGAATGGGTCTTGAGGTGGG
TACCCCATGTGCACTTTCTGAGGATGCCTCACTTCCCTGGGCTCTGCAGAGAACACACAGAGAGAAGACTTTCAG
AGCTCACAGGAGCAGGGAGCAGGAGCACTCTAAGGGAATTC

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FIGURE 3356A

GGTCAAAGAGCCCCCTGAAATCAATTTAGTTTTGTACCCTCAAGGCCTAACTGGTGAAGAAGTATATGTAAAAGT
GGATTTGAGGGTTAAATGCCCACCTACCTATCCAGATGTAGTTCCTGAAATAGAGTTAAAAAATGCCAAAGGTCT
ATCAAATGAAAGTGTCAATTTGTTAAAATCTCGCCTAGAAGAACTGGCCAAGAAACACTGTGGGGAGGTG**ATG**AT
CTTTGAACTGGCTTACCACGTGCAGTCATTTCTCAGCGAGCATAACAAGCCCCCTCCCAAGTCTTTTCATGAAGA
AATGCTGGAAAGGCGGGCTCAGGAGGAGCAGCAGAGGCTGTTGGAGGCCAAGCGGAAAGAAGAGCAGGAGCAACG
TGAAATCCTGCATGAGATTCAGAGAAGGAAAGAAGAGATAAAAGAAGAGAAAAAAAGGAAAGAAATGGCTAAGCA
GGAACGTTTGGAAATTGCTAGTTTGTCAAACCAAGATCATACCTCTAAGAAGGACCCAGGAGGACACAGAACGGC
TGCCATTCTACATGGAGGCTCTCCTGACTTTGTAGGAAATGGTAAACATCGGGCAAACTCCTCAGGAAGGTCTAG
GCGAGAACGTCAGTATTCTGTATGTAATAGTGAAGATTCTCCTGGCTCTTGTGAAATTCTGTATTTCAATATGGG
GAGTCCTGATCAGCTCATGGTGCACAAAGGGAAATGTATTGGCAGTGATGAACAACTTGGAAAATTAGTCTACAA
TGCTTTGGAAACAGCCACTGGTGGCTTTGTCTTGTTGTATGAGTGGGTCCTTCAGTGGCAGAAAAAAATGGGTCC
ATTCCTTACCAGTCAAGAAAAAGAGAAGATTGATAAGTGCAAAAAGCAGATTCAAGGAACAGAAACAGAATTCAA
CTCACTGGTAAAATTGAGCCATCCAAATGTAGTACGCTACCTTGCAATGAATCTCAAAGAGCAAGACGACTCCAT
CGTGGTGGACATTTTAGTGGAGCACATTAGTGGGGTCTCTCTTGCTGCACACCTGAGCCACTCAGGCCCCATCCC
TGTGCATCAGCTTCGCAGGTACACAGCTCAGCTCCTGTCAGGCCTTGATTATCTGCACAGCAATTCTGTGGTGCA
TAAGGTCCTGAGTGCATCTAATGTCTTGGTGGATGCAGAAGGCACCGTCAAGATTACGGACTATAGCATTTCTAA
GCGCCTCGCAGACATTTGCAAGGAGGATGTGTTTGAGCAAACCCGAGTTCGTTTTAGTGACAATGCTCTGCCTTA
TAAAACGGGGAAGAAAGGAGATGTTTGGCGTCTTGGCCTTCTGCTGCTGTCCCTCAGCCAAGGACAGGAATGTGG
AGAGTACCCTGTGACCATCCCTAGTGACTTACCAGCTGACTTTCAAGATTTTCTAAAGAAATGTGTGTGCTTGGA
TGACAAGGAAAGATGGAGTCCCCAGCAGTTGTTGAAACACAGCTTTATAAATCCCCAGCCAAAAATGCCTCTAGT
GGAACAAAGTCCTGAAGATTCTGAAGGACAAGATTATGTTGAGACTGTTATTCCTAGCAACCGGCTACCCAGTGC
TGCCTTCTTTAGTGAGACACAGAGACAGTTTTCCCGATACTTCATTGAGTTTGAAGAATTACAACTTCTTGGTAA
AGGAGCTTTTGGAGCTGTCATCAAGGTGCAGAACAAGTTGGACGGCTGCTGCTACGCAGTGAAGCGCATCCCCAT
CAACCCGGCCAGCCGGCAGTTCCGCAGGATCAAGGGCGAAGTGACACTGCTGTCACGGCTGCACCATGAGAACAT
TGTGCGCTACTACAACGCCTGGATCGAGCGGCACGAGCGGCCGGCGGGACCGGGGACGCCGCCCCCGGACTCCGG
GCCCCTGGCCAAGGATGACCGAGCTGCACGCGGGCAGCCGGCGAGCGACACAGACGGCCTGGACAGCGTAGAGGC
CGCCGCGCCGCCACCCATCCTCAGCAGCTCGGTGGAGTGGAGCACTTCGGGCGAGCGCTCGGCCAGTGCCCGTTT
CCCCGCCACCGGCCCGGGCTCCAGCGATGACGAGGACGACGACGAGGACGAGCACGGTGGCGTCTTCTCCCAGTC
CTTCCTGCCTGCTTCAGATTCTGAAAGTGATATTATCTTTGACAATGAAGATGAGAACAGTAAAAGTCAGAATCA
GGATGAAGATTGCAATGAAAAGAATGGCTGCCATGAAAGTGAGCCATCAGTGACGACTGAGGCTGTGCACTACCT
ATACATCCAGATGGAGTACTGTGAGAAGAGCACTTTACGAGACACCATTGACCAGGGACTGTATCGAGACACCGT
CAGACTCTGGAGGCTTTTTCGAGAGATTCTGGATGGATTAGCTTATATCCATGAGAAAGGAATGATTCACCGGGA
TTTGAAGCCTGTCAACATTTTTTTGGATTCTGATGACCATGTGAAAATAGGTGATTTTGGTTTGGCGACAGACCA
TCTAGCCTTTTCTGCTGACAGCAAACAAGACGATCAGACAGGAGACTTGATTAAGTCAGACCCTTCAGGTCACTT
AACTGGGATGGTTGGCACTGCTCTCTATGTAAGCCCAGAGGTCCAAGGAAGCACCAAATCTGCATACAACCAGAA
AGTGGATCTCTTCAGCCTGGGAATTATCTTCTTTGAGATGTCCTATCACCCCATGGTCACGGCTTCAGAAAGGAT
CTTTGTTCTCAACCAACTCAGAGATCCCACTTCGCCTAAGTTTCCAGAAGACTTTGACGATGGAGAGCATGCAAA
GCAGAAATCAGTCATCTCCTGGCTGTTGAACCACGATCCAGCAAAACGGCCCACAGCCACAGAACTGCTCAAGAG
TGAGCTGCTGCCCCCACCCCAGATGGAGGAGTCAGAGCTGCATGAAGTGCTGCACCACACGCTGACCAACGTGGA
TGGGAAGGCCTACCGCACCATGATGGCCCAGATCTTCTCGCAGCGCATCTCCCCTGCCATCGATTACACCTATGA
CAGCGACATACTGAAGGGCAACTTCTCAATCCGTACAGCCAAGATGCAGCAGCATGTGTGTGAAACCATCATCCG
CATCTTTAAAAGACATGGAGCTGTTCAGTTGTGTACTCCACTACTGCTTCCCCGAAACAGACAAATATATGAGCA
CAACGAAGCTGCCCTATTCATGGACCACAGCGGGATGCTGGTGATGCTTCCTTTTGACCTGCGGATCCCTTTTGC
AAGATATGTGGCAAGAAATAATATATTGAATTTAAAACGATACTGCATAGAACGTGTGTTCAGGCCGCGCAAGTT
AGATCGATTTCATCCCAAAGAACTTCTGGAGTGTGCATTTGATATTGTCACTTCTACCACCAACAGCTTTCTGCC
CACTGCTGAAATTATCTACACTATCTATGAAATCATCCAAGAGTTTCCAGCACTTCAGGAAAGAAATTACAGTAT
TTATTTGAACCATACCATGTTATTGAAAGCAATACTCTTACACTGTGGGATCCCAGAAGATAAACTCAGTCAAGT
CTACATTATTCTGTATGATGCTGTGACAGAGAAGCTGACGAGGAGAGAAGTGGAAGCTAAATTTTGTAATCTGTC

FIGURE 3356B

TTTGTCTTCTAATAGTCTGTGTCGACTCTACAAGTTTATTGAACAGAAGGGAGATTTGCAAGATCTTATGCCAAC
AATAAATTCATTAATAAAACAGAAAACAGGTATTGCACAGTTGGTGAAGTATGGCTTAAAAGACCTAGAGGAGGT
TGTTGGACTGTTGAAGAAACTCGGCATCAAGTTACAGGTCTTGATCAATTTGGGCTTGGTTTACAAGGTGCAGCA
GCACAATGGAATCATCTTCCAGTTTGTGGCTTTCATCAAACGAAGGCAAAGGGCTGTACCTGAAATCCTCGCAGC
TGGAGGCAGATATGACCTGCTGATTCCCCAGTTTAGAGGGCCACAAGCTCTGGGGCCAGTTCCCACTGCCATTGG
GGTCAGCATAGCTATAGACAAGATATCTGCTGCTGTCCTCAACATGGAGGAATCTGTTACAATAAGCTCTTGTGA
CCTCCTGGTTGTAAGTGTTGGCCAGATGTCTATGTCCAGGGCCATCAACCTAACCCAGAAACTCTGGACAGCAGG
CATCACAGCAGAAATCATGTACGACTGGTCACAGTCCCAAGAGGAATTACAAGAGTACTGCAGACATCATGAAAT
CACCTATGTGGCCCTTGTCTCGGATAAAGAAGGAAGCCATGTCAAGGTTAAGTCTTTCGAGAAGGAAAGGCAGAC
AGAGAAGCGTGTGCTGGAGACTGAACTTGTGGACCATGTACTGCAGAAACTGAGGACTAAAGTCACTGATGAAAG
GAATGGCAGAGAAGCTTCCGATAATCTTGCAGTGCAAAATCTGAAGGGGTCATTTTCTAATGCTTCAGGTTTGTT
TGAAATCCATGGAGCAACAGTGGTTCCCATTGTGAGTGTGCTAGCCCCGGAGAAGCTGTCAGCCAGCACTAGGAG
GCGCTATGAAACTCAGGTACAAACTCGACTTCAGACCTCCCTTGCCAACTTACATCAGAAAAGCAGTGAAATTGA
AATTCTGGCTGTGGATCTACCCAAAGAAACAATATTACAGTTTTTATCATTAGAGTGGGATGCTGATGAACAGGC
ATTTAACACAACTGTGAAGCAGCTGCTGTCACGCCTGCCAAAGCAAAGATACCTCAAATTAGTCTGTGATGAAAT
TTATAACATCAAAGTAGAAAAAAAGGTGTCTGTGCTATTTCTGTACAGCTATAGAGATGACTACTACAGAATCTT
ATTT**TAA**CCCTAAAGAACTGTCGTTAACCTCATTCAAACAGACAGAGGCTTATACTGGAATAATGGAATGTTGTA
CATTCATCATAATTTAAAATTAAATTCTAAGAAGAGGCTGGGTGCAGTGGCTCACACCTTTAATCCCAGCACTTT
GGGAAGCCAAGGCAGGAAGACTGCTTGAAACCAGGAGTTTGAGACCAGCCTGAGCAACAAAGCAAGACCCCATCT
CTATAAAAACTAAAAAAATTAGTTGGGCATGGTGGCACATGCCTGTAGTCCCAGCTACTCCAGAGGCTGAGATGG
ATCATCTGAGCCTCAGGAGGTTGAGGCTGCAGTGAGCTGTGACTGCGCCACTGCACTCCAGTCTGGGACAACAGA
GCAAGACCCTGTCTTAAAAAAAAAAAGAAAAAAAAAATTTTTTTCTAAGAAGCTGTCCTACAAAGTTGAGCTTTG
TTAGTTTTTCATGTGTAATATATTATAAATTTATCTTTTGGGATATAATAAATGCTTTCATAT

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FIGURE 3357

TCGAGCCAGCGTCGCCGCG**ATG**GTGTTGTTGGAGAGCGAGCAGTTCCTGACGGAGCTGACCAGACTTTTCCAGAA
GTGCCGGACGTCGGGCAGCGTCTATATCACCTTGAAGAAGTATGACGGTCGAACCAAACCCATTCCAAAGAAGGG
TACTGTGGAGGGCTTTGAGCCCGCAGACAACAAGTGTCTGTTAAGAGCTACCGATGGGAAGAAGAAGATCAGCAC
TGTGGTGAGCTCCAAGGAAGTGAATAAGTTTCAGATGGCTTATTCAAACCTCCTTAGAGCTAACATGGATGGGCT
GAAGAAGAGAGACAAAAAGAACAAAACTAAGAAGACCAAAGCAGCAGCAGCAGCAGCAGCAGCACCTGCCGC
AGCAGCAACAGCACCAACAACAGCAGCAACAACAGCAGCAACAGCAGCACAG**TAA**AGGGCATACATTTCCTGCTT
TCACCAATTAACCACTGAATTGCTATTTTTTCCTTTTGGCCAGATAGCTAGGTTTCTGGTTCCCCCACAGTAGGT
GTTTTCACATAAGATTAGGGTCCTTTTGGAAAGAATAGTTGCAGTGTTTATAGGATAGTTGTGGTAAGAATCTAG
TTTATTTTGCATTTGGCTAATTGGTCTGTGCTGCATGGTTATATACTCCTGGATTATAGATTAAAAGTCTCTGTA
GACATCTCTGTGAAGAGCAAGCTATCATTAAACATGTCTGTTTATC

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FIGURE 3358

GGAAACATTCCTATGTATGTGAGACACACCTATGCCAGGGCAAAGACTCCAAGCTCAAGTTTTTCTCTTGCCTTC
TAGTCACAAGAACATGGCTTTGGAGTGTGACACTGGCCTAGGAATCCATGACTCCCAAAGGACGGGGCTAGGGGT
AGAGGAGGTTCAGGCAAAGCCCTTAGATTTTGGAGACATCAGGCAGATGTCTCCAAAA**ATG**ATTGTGATCAAGAA
TCTGAATTATAAGATTCACAGTCTGCTCCCCAACCCAGTGCTGCCAACTGTACAGCTGCGCCTCCACGAAGGGGC
ATATGCCAGGCTCGTC**TGA**CCCTGGAATGAGGATGTAGGAAGCAGGCAGAGCTCGGGTTCAGCCCTCACAATGGG
ACTGAAGCAGGAGAGAAGGCTGGGCAGAAGGGCTGTGGGGAAGTAGGGCTTGTCTCCATGGATGACGTCCAGAAG
GATGTCAGGAGGAGGAATATCACAGGAGTTATAGACATTGGAGGGAACAGAGACTGGCACAGGACCTCTTCATTG
CAGGAAGATGGTAGTGTAGGCAGGTAACATTGAGCTCTTTTCAAAAAAGGAGAGCTCTTCTTCAAGATAAGGAAG
TGGTAGTTATGGTGGTAACCCCCGGCTATCAGTCCGGATGGTTGCCACCCCTCCTGCTGTAGGATGGAAGCAGCC
ATGGAGTGGGAGGGAGGCGCAATAAGACACCCCTCCACAGAGCTTGGCATCATGGGAAGCTGGTTCTACCTCTTC
CTGGCTCCTTTGTTTAAAGGCCTGGCTGGGAGCCTTCCTTTTGGGTGTCTTTCTCTTCTCCAACCAACAGAAAAG
ACTGCTCTTCAAAGGTGGAGGGTCTTCATGAAACACAGCTGCCAGGAGCCCAGGCACAGGGCTGGGGGCCTGGAA
AAAGGAGGGCACACAGGAGGAGGGAGGAGCTGGTAGGGAGATGCTGGCTTTACCTAAGGTCTCGAAACAAGGAGG
GCAGAATAGGCAGAGGCCTCTCCGTCCCAGGCCCATTTTTGACAGATGGCGGGACGGAAATGCAATAGACCAGCC
TGCAAGAAAGACATGTGTTTTGATGACAGGCAGTGTGGCCGGGTGGAACAAGCACAGGCCTTGGAATCCAATGGA
CTGAATCAGAACCCTAGGCCTGCCATCTGTCAGCCGGGTGACCTGGGTCAATTTTAGCCTCTAAAAGCCTCAGTC
TCCTTATCTGCAAAATGAGGCTTGTGATACCTGTTTTGAAGGGTTGCTGAGAAAATTAAAGATAAGGGTATCCAA
AATAGTCTACGGCCATACCACCCTGAACGTGCCTAATCTCGTAAGCTAAGCAGGGTCAGGCCTGGTTAGTACCTG
GATGGGGAGAGTATGGAAAACATACCTGCCCGCAGTTGGAGTTGGACTCTGTCTTAACAGTAGCGTGGCACACAG
AAGGCACTCAGTAAATACTTGTTGAATAAATGAAGTAGCGATTTGGTGTG

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FIGURE 3359A

GTTAGTGGTCTGGAGAGCACTACAAGCCCTCACAGGCCCCAGGAAGCTGCTTTTCCTTTCCCCAGACCTTGAGCT
GAACAGCTCGAGCTCCCACAACACTCTGAGGCCTGCACCCAGAGGCAGTGCCCAGGAGAGCGCTGTCCGGCCTCG
GAGA**ATG**GTGGAGCCCCTGGAGGACAGAAGGCAAGAGAACTTCTTCTGTGGCCCCCCTGAGAAGAGCTATGCAAA
GCTGGTGTTCATGTCCACCTCCTCGGGCAGCCTATGGAACCTGCATGCCATCCATTCCATGTGTCGCATGGAACA
GGACCAGATCCGCTCCCATACCAGCTTCGGGGCTCTGTGCCAGCGGACAGCAGCCAACCAGTGCTGCCCCAGCTG
GTCCCTGGGCAACTATCTGGCTGTGCTCTCCAACCGCTCCTCCTGCCTGGACACTACCCAAGCTGACGCAGCCCG
CACACTGGCCCTGCTTCGGACCTGTGCCCTCTACTACCACAGTGGCGCCTTGGTGCCCTCTTGTCTGGGACCTGG
GCAGAACAAGTCCCCACGCTGTGCCCAGGTTCCCACCAAGTGCTCCCAGAGTAGTGCCATCTACCAACTCCTGCA
CTTTCTGCTTGACAGGGACTTTCTGAGTCCCCAGACCACTGACTACCAGGTGCCTTCCCTCAAGTACAGCCTGCT
CTTCCTGCCCACCCCAAAGGGTGCTTCCCTCATGGACATCTACCTGGACCGGCTGGCCACCCCCTGGGGGCTTGC
TGACAACTACACCTCTGTCACTGGCATGGACCTGGGCCTCAAGCAGGAGCTGCTGAGGCACTTCCTGGTCCAGGA
CACGGTGTACCCCTTGCTGGCTCTGGTTGCCATCTTCTTCGGCATGGCCCTGTACCTGCGCTCACTCTTCCTCAC
GCTCATGGTGCTGCTGGGGGTGCTGGGCTCACTGCTGGTGGCCTTCTTCCTTTACCAGGTGGCCTTCCGCATGGC
CTACTTCCCCTTCGTCAATCTGGCAGCCCTCCTCCTGCTGAGCAGCGTCTGCGCCAACCACACGCTCATCTTCTT
CGACCTGTGGCGCCTTAGCAAGAGCCAGCTGCCGTCGGGGGGGCTGGCGCAGCGCGTGGGCCGCACCATGCACCA
CTTCGGCTACCTGCTGCTGGTCTCCGGCCTCACCACGAGCGCGGCCTTCTATGCCAGCTACCTGAGCCGCCTGCC
GGCCGTTCGCTGCCTCGCCCTCTTCATGGGCACGGCTGTGCTGGTGCACCTGGCGCTCACGCTGGTCTGGCTGCC
CGCCTCCGCCGTGCTCCACGAGCGCTACCTGGCGCGCGGCTGTGCGCGCCGGGGCGCGGGGCCGGTGGGAGGGCAG
CGCGCCCCGGCGGCTACTGCTGGCGCTGCACCGGCGGCTCCGCGGCCTGCGGAGGGCGGCGGCTGGCACCTCGCG
TCTGCTCTTCCAGCGCCTGCTGCCCTGCGGCGTCATCAAGTTCCGCTACATCTGGATCTGCTGGTTCGCAGCACT
GGCGGCAGGGGGCGCCTACATCGCCGGAGTCAGCCCCCGCCTGCGGCTGCCCACGCTGCCGCCGCCCGGCGGCCA
GGTCTTCCGGCCCAGCCACCCCTTCGAGCGCTTCGACGCGGAGTATCGCCAGCTGTTCCTGTTCGAGCAGCTGCC
GCAGGGCGAGGGCGGCCACATGCCCGTGGTTTTGGTGTGGGGCGTCCTGCCTGTGGACACTGGCGACCCTCTGGA
CCCTCGTAGCAACAGCAGCCTGGTGAGGGACCCTGCCTTCTCGGCCAGCGGCCCTGAGGCCCAGCGCTGGCTGCT
GGCACTCTGTCACCGGGCCCGGAATCAGAGCTTCTTCGACACCCTGCAGGAAGGCTGGCCCACGCTGTGTTTCGT
GGAGACCCTCCAGCGCTGGATGGAGAGCCCCAGCTGCGCCCGCCTGGGGCCTGACCTCTGCTGCGGCCACTCGGA
CTTCCCCTGGGCCCCCCAGTTTTTCCTGCACTGCCTGAAAATGATGGCTCTGGAGCAAGGCCCCGATGGCACCCA
GGACCTGGGACTCCGCTTTGATGCCCATGGCAGCCTGGCCGCCCTGGTCCTACAATTCCAGACCAACTTCCGGAA
CAGTCCGGACTACAACCAGACCCAGCTCTTCTACAATGAGGTCAGCCACTGGCTGGCAGCGGAGCTGGGCATGGC
ACCTCCAGGCCTCCGCCGTGGTTGGTTCACTAGCCGTCTAGAGCTGTATAGCCTGCAGCACAGCCTGAGCACTGA
GCCTGCTGTGGTGCTGGGCCTGGCTTTGGCGCTGGCCTTTGCCACACTGCTCCTGGGCACCTGGAATGTTCCCCT
CAGCCTATTCTCCGTGGCAGCTGTGGCAGGCACCGTGCTGCTCACTGTAGGACTCCTGGTTCTCCTCGAGTGGCA
GCTCAACACTGCCGAGGCCCTGTTTCTCTCTGCCTCAGTGGGCCTCTCAGTAGACTTCACTGTCAACTACTGCAT
CTCCTATCACCTGTGCCCACACCCTGACCGCCTGAGCCGTGTGGCCTTCTCTCTGCGCCAGACCAGCTGCGCCAC
AGCCGTGGGGGCTGCAGCCCTGTTTGCGGCAGGCGTGCTCATGCTGCCTGCCACAGTGCTGCTCTATCGCAAGCT
GGGCATCATCCTCATGATGGTCAAATGCGTCAGTTGTGGCTTTGCCAGCTTCTTCTTCCAATCTCTCTGCTGTTT
CTTCGGGCCAGAGAAGAACTGTGGGCAGATCCTCTGGCCCTGTGCCCACCTGCCATGGGATGCTGGTACTGGGGA
CCCTGGTGGGGAGAAGGCAGGCCGCCCACGACCAGGGTCAGTGGGAGGGATGCCCGGGTCCTGCTCAGAGCAATA
TGAGCTACAGCCCCTGGCACGGCGTCGGAGCCCCAGCTTTGACACCAGCACAGCCACCAGCAAGCTGTCCCACCG
GCCCTCAGTACTCTCTGAGGATCTGCAGCTCCATGATGGTCCGTGCTGTTCCCGGCCCCCACCAGCCCCTGCCTC
CCCAAGGGAGCTGCTGCTGGACCACCAGGCAGTCTTCAGCCAGTGCCCTGCCCTGCAGACCTCCTCCCCCTATAA
GCAGGCTGGCCCCAGCCCCAAAACCCGGGCCAGGCAGGACTCCCAAGGGGAGGAGGCTGAGCCCCTGCCAGCCTC
ACCAGAAGCCCCAGCCCACTCTCCTAAGGCCAAGGCTGCAGATCCTCCTGATGGCTTCTGTTCCTCAGCCAGCAC
CCTGGAGGGGCTCAGCGTCTCTGATGAGACCTGCCTAAGCACCTCTGAGCCCAGTGCCCGTGTACCAGATTCCGT
GGGTGTGTCCCCAGATGACCTGGATGACACTGGGCAGCCAGTCCTTGAGCGAGGCCAGCTCAATGGGAAGCGGGA
CACCCTGTGGCTGGCGCTGAGGGAGACAGTGTATGACCCATCATTGCCCGCTTCCCATCACAGCAGCTTGTCCTG
GAAGGGCCGAGGGGGGCCAGGGGATGGCAGCCCTGTGGTGCTGCCCAATAGCCAGCCAGACCTGCCAGATGTTTG
GCTGCGCAGGCCCAGCACTCACACGTCAGGCTATAGCAGC**TGA**GGGGGACCCGGGGAGGCTGGACAGGGCGCGGA

FIGURE 3359B

ACCCTGTCATGGATGACAAGGCAAGGGCAGCAATAGGCTGGAGCCCGAAGGTATTTCTCCAGATCCACAGGGAGA
GGTCTCACCCTCCAGCTGTGGATGTTAAACCCTGCCAGATGTCCCAGCCTTGATCTGTCTGCTCCTACTCCTCAC
ATCTGGAGGATTCCAGCAGGAGGGGTTTTGGAGGGGACCTGCTTGCGACCTGCTGAGGGCTTGTCTGCTCCCACA
GCACCATCTAAGACCCCTCCTCTAGAAGTGGGGAAGGCCAGATGTGTAGCTTCGGGTATCAGAGGAGGCTGACCT
GGCCCCCATCCCAAGTTACAAGAACTTCAGTGAGACTAAGGGACCCCCATCCTAGGGATCTTGTCAGGGTTCCTT
ACTGACCAGAGGAGCCCGCAGCAATCTCCACAGCCTCCTGGGTCTCACCCCTTTCATGGGCTCTTCATCAGGACA
CTTCCCTCTCTTTTGGGAGCTTCTCTGGGCAGAATTGGGCTGGGACCTCTCTCCCCAACTGCCCTGCTCTCCTCA
TACTCACCGGTTTGACCAGAAATTCTCCAAATCCAGCCATAGATGGCTGCTGGGTGTGCAGCAGGAGAAGGAGGA
TGGTCAGCCTTGGAGCATCTCTCAATTACGGGACAGTCCCTCTTTGGAAGCAGGCTCCTGTGCTTTCCTGTGTTA
ATAAACAGTAATAATCCTTTCCATCTCTGC

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FIGURE 3360

ACAAATTGCATCACCCTCCTCCTCTGCCCAGACCTGGGGGCTCCAACACCTTTCGCTAGGTCTGGCTCTGGCCTC
TGAGCGAACCTTCCGTACAGT**ATG**GCGGCTCCCGAAGCCCCGCCCCTGGACAGAGTTTTCCGTACAACATGGCTG
TCTACAGAGTGCGATTCCCACCCACTTCCGCCTAGCTACCGGAAGTTTCTATTTGAAACCCAGGCGGCCGACTTA
GCCGGTGGCACGACAGTTGCTGCAGGGAATCTTTTAAACGAGAGCGAGAAGGACTGCGGGCAGGACCGGCGGGCT
CCTGGGGTTCAGCCGTGCCGCCTCGTTACGATGACCAGTGTGGTTAAGACAGTGTATAGCCTGCAGCCCCCCTCT
GCGCTGAGCGGCGGCCAGCCGGCAGACACACAAACTCGGGCCACTTCTAAGAGTCTCTTACCTGTTAGGTCCAAA
GAAGTCGATGTTTCCAAACAGCTTCATTCAGGAGGTCCAGAGAATGATGTTACAAAAATCACCAAACTGAGACGA
GAGAATGGGCAAATGAAAGCTACTGACACTGCCACCAGAAGGAATGTCAGAAAAGGCTACAAACCACTGAGTAAG
CAAAAATCAGAGGAAGAGCTCAAGGACAAGAACCAGCTGTTAGAAGCCGTCAACAAGCAGTTGCACCAGAAGTTG
ACTGAAACTCAGGGAGAGCTGAAGGACCTGACCCAGAAGGTAGAGCTGCTGGAGAAGTTTCGGGACAACTGTTTG
GCAATTTTGGAGAGCAAGGGCCTTGATCCAGCTTTAGGCAGTGAGACCCTGGCATCACGACAAGAATCCACTACT
GATCACATGGACTCTATGTTGCTGTTAGAAACTTTGCAAGAGGAGCTGAAGCTTTTTAACGAAACAGCCAAAAAG
CAGATGGAGGAGTTACAGGCCTTAAAGGTAAAGCTGGAGATGAAAGAGGAAAGAGTCCGATTCCTAGAACAGCAA
ACCTTATGTAACAATCAAGTAAATGATTTAACAACAGCCCTTAAGGAAATGGAGCAGCTATTAGAAATG**TAA**GAA
GAAGCAAGTGGCCAGATGGCTCCCTCTTGGGCATAAAATCTCAGAGGAAGCTACTTAGGACATCATCTTGGCCAT
GATCTTCTGGGACTCACCATCTCCAGAATGAAAACAATTTCTACAGTAGACTTAAGGACAGTTTATGCTGAAATG
GCAATTCCTCATTTAAGCAAGTTTTCCCAACCTTCAGGTTGGTCAGCCCTCCTGAGCCTCACAGGTGGATAATTG
AGGCCTACAAGAGAGGGGAGCCTAGGAGCTTGGATTGACCTTCTAGTCAACCACCTGACTTCAGCACACCATTAC
AATCGGGAGACTAAACCAACAACCAGAGGATCTAAAATGTCACATTCAGATTTTCAGGAAGAAAATCTTCATTAC
AGTGGAGCACAAATGTTCCATACAAGACATCATTGAGGAGCCATGCTGTCCCCTTCTAACCTGAAACACATTCTT
TCCCATCCTGGTTGGGCTTCTGTACCTCCTTATTAATTTATGAACCTGAAGTTGCTTGAAGTGTTTTGGGCTTAA
TAAATGGGGTGAAAGTATAGGTAGCAGTAACACCTACATGAAACAATACACCTTGGATCTTTTAATCTAAATTAC
TTTTCTTTTTTAAGTCTACTTTTAAAATAAATACTTCTGTAAATATTCTGACTGTAACATTGAGGAATGAAAATA
GCCTTTTAACCTA

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FIGURE 3361

TTTCCGCAGTTAGGGGCTGCTATTTCAACGCAGGGAGATAAAAAGAAAAAAACACTTGCTCTTCTACCCCGCTAA
AAACACTCATCCTAGGGAGCACGCCAGCATTTGCAGCGTTCGGGGCAGGGCCACTCGGCCTGCGGCCGTTGCACT
GGCTGGAAGCTGGCAGGCGATCACGGTTGATTGGCTCGGGTGCGGTCCAAGGGCAGCAACGCCTTCGGCGGGCCG
CCTAGGGTGATTGGCTGCTGCAGCCCACCCCCTAGCCGGTTTGGTGGGCGGCGAAGCCTGGATTGGTGGAGCTAA
GAGCTGGCTCAGTTTCAGCGCTGGCTCTTCGTGCATGGCAGAG**ATG**GCGACTGCGACTCGGCTGCTGGGGTGGCG
TGTGGCGAGCTGGAGGCTGCGGCCGCCGCTTGCCGGCTTCGTTTCCCAGCGGGCCCACTCGCTTTTGCCCGTGGA
CGATGCAATCAATGGGCTAAGCGAGGAGCAGAGGCAGCTTCGTCAGACCATGGCTAAGTTCCTTCAGGAGCACCT
GGCCCCCAAGGCCCAGGAGATCGATCGCAGCAATGAGTTCAAGAACCTGCGAGAATTTTGGAAGCAGCTGGGGAA
CCTGGGCGTATTGGGCATCACAGCCCCTGTTCAGTATGGCGGCTCCGGCCTGGGCTACCTGGAGCATGTGCTGGT
GATGGAGGAGATATCCCGAGCTTCCGGAGCAGTGGGGCTCAGTTACGGTGCCCACTCCAACCTCTGCATCAACCA
GCTTGTACGCAATGGGAATGAGGCCCAGAAAGAGAAGTATCTCCCGAAGCTGATCAGTGGTGAGTACATCGGAGC
CCTGGCCATGAGTGAGCCCAATGCAGGCTCTGATGTTGTCTCTATGAAGCTCAAAGCGGAAAAGAAAGGAAATCA
CTACATCCTGAATGGCAACAAGTTCTGGATCACTAATGGCCCTGATGCTGACGTCCTGATTGTCTATGCCAAGAC
AGATCTGGCTGCTGTGCCAGCTTCTCGGGGCATCACAGCCTTCATTGTGGAGAAGGGTATGCCTGGCTTTAGCAC
CTCTAAGAAGCTGGACAAGCTGGGGATGAGGGGCTCTAACACCTGTGAGCTAATCTTTGAAGACTGCAAGATTCC
TGCTGCCAACATCCTGGGCCATGAGAATAAGGGTGTCTACGTGCTGATGAGTGGGCTGGACCTGGAGCGGCTGGT
GCTGGCCGGGGGGCCTCTTGGGCTCATGCAAGCGGTCCTGGACCACACCATTCCCTACCTGCACGTGAGGGAAGC
CTTTGGCCAGAAGATCGGCCACTTCCAGTTGATGCAGGGGAAGATGGCTGACATGTACACCCGCCTCATGGCGTG
TCGGCAGTATGTCTACAATGTCGCCAAGGCCTGCGATGAGGGCCATTGCACTGCTAAGGACTGTGCAGGTGTGAT
TCTTTACTCAGCTGAGTGTGCCACACAGGTAGCCCTGGACGGCATTCAGTGTTTTGGTGGCAATGGCTACATCAA
TGACTTTCCCATGGGCCGCTTTCTTCGAGATGCCAAGCTGTATGAGATAGGGGCTGGGACCAGCGAGGTGAGGCG
GCTGGTCATCGGCAGAGCCTTCAATGCAGACTTTCAC**TAG**TCCTGAGACCCTTCGCCCCCTTTTCCTGCACCTAG
TGGCCTTTCTTGGGAAGTAGAGATGTGGCGGCTTTCCCACCCTGCCCACAGCAGGCCCTCCTGCCCAGCTGCTCT
TGTCAGCCCTCTGGCCTCTGGATGAGGTTGAGTTCTCCACAACAGCTCCCAAGCATCATGGGCCTCGCAGCCGGG
CCTGTGCCACGGCTAGTGTTGTGTGATTTAAAATGGACTCAGCAGGAAGCATATTGTCTGGGGATTGTTGGGACA
GGTTTTGGTGACTCTGTGCCCTTGCTCTCTAACTTCTGAGCCCACCTCCCAGGGTAGGCACCTGGGGGCATGCAG
GTGCCCACCTCCCAGGGTAGGCACCTGGGGGCATGCAGGTACCCACCTCTTTCTCTTGGGTGAGGCTCTGGCAAG
GAGATCTCTCTGCTCAAGCACAGCAGAATCATGGCCCCTCTCCATGAATTGGAACTTGGTACAGGTTAAGTATCC
CTAATCCTGAAATCTGAAACACTTGTGGTTCCAAGCATTTTGGATAAGGCAAATTCAACTTTCAGTCTCTTTTCT
GGGGGAAAAAAATAATAAACCTAGCCTAGCCAGGCGTGGTG

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FIGURE 3362A

TTTCTCGAGAACCTACTGTGTGCATATCCCGGGCTTAGTGAAGTCCTAGGCGGGCTCTGGCACCACCAGGTGCCC
AAGACACAGCTCCTTCCCGCACCTAACAGGGACTTCCCATCTCTCTCTGTGCCCTTAGCCTGCTGTGCCCACCCA
CCCCACTGACCCCGCGAGCGTGCTCGGGCTTGGGAGGGCACGTCTGTGGGGGTGAGAGACGGAGCCACAGCATTT
GGTGACTAGGGGGAAGCCAGGTTGGAAGTACTCC**ATG**ACACACACTCGGAGAAAGTCCCTTCCCATGCTGAGTTC
GGGCCTCACTGGCCGCCGAGAGCCCCTGCAGATGGAAGACAGCAACATGGAGCAGGGGGTTGAGGGTGTGGAGCC
AGGCATGCCCGAGAGCCCAGGTCACCTCACAGGGCGCCGCAAGAATTACCCACTTCGTAAGCGCCCATTGGTTCC
TGAGAAGCCCAAGGCCTGCAAAGTGCTGCTGACTCGCCTGGAGAATGTGGCCGGTCCCCGGAGTGCAGATGAGGC
TGATGAGCTACCGCCTGACCTGCCCAAGCCCCCCAGCCCGGCCCCATCCAGTGAAGACCCTGGCCTTGCCCAGCC
CCGCAAGCGGCGCCTGGCCTCCCTCAATGCTGAAGCTCTCAATAACCTGCTGCTGGAGCGAGAGGACACCAGCAG
CCTGGCAGGCACCCGCCGCAGTCGAGCAGGGGATCCCCACCGCAGCCGTGACCGTGATCGTGCTACTGGGGGCTG
GTCCTCCTCCAAGAAGCGGCCCCGGCTGGGGGACCTTGGAGGAGGAAGTCGGGACCTGTCTCCAGAGCCAGCACC
CGATGAAGGTCCCCGCCGAGATGGAGACCCAGCTCCCAAGAGACTGGCTAGCCTGAACGCAGCTGCTTTCCTAAA
ACTGAGCCAGGAGCGGGAGCTACCCCTGCGGCTGCCTCGTGCCCATGCAGAAGTAGATGGGCGCTCCACTGAGCC
CCCAGCACCCAAGGCCCCGAGGCCAAAGTGGCCCAAGGTCAATGGCAAGAACTATCCCAAGGCTTGGCAGGGGGC
CAGCTCTGGGGAGGCTGCAGGCCCACCTGGCTGGCAAGGCTGCCCTGATGAACCATGGCCATCTGCAACTCCTTG
TGGGCCATCCGTCCAGCCATCTCATCAGCCCCTGAGCAAGGCTCTGGAGAGCCCTTTGGGGCTGCGCCCTCACCT
GCCCCTGCTGATGGGTGGACAGGCGGCTCTGAAGCCGGAGCCTGGGCGCCCAGGCGAGGAGTCACCTGCCCCTAA
GCAGGAACTGCATCAGCCCTCTTTCCCCACACCTCAGCTGTCGCCGCTGCCGATGCCTGGCAACCCCGCCGACTA
CAATGGCCTGTGTGTTGGGCCTGAGCTCACTGCACTAGGCAGCTTCTACCTGTACTGTGGCCAAGAGGGGCTGCA
GTGTGGGGGCTACTCGCCCTGCCCCATGCTTCCTGAGGGCAAGCTGTCCCCAGTGGCTGCACCTCACGAGGAGGG
GCTCCTCTTAGCTCCGAGCTCAGTGCCCTCAGGCACCCCTTTCCAGCACCCTCCCTGGGGCTCCTCTCGCTACTG
CTCTAGCGAGGACACTGGAGTGAATGGCTACAGCATCTGCGGAGTGTTGCCCCTGTCTGTTACCCACGCTGGCAC
TACCTGTGGCGGCTGCCCATACAAAATGCCTTTTGCAGCAGGCTGCAGATCCCTGGGCCAGTTGGAATTTCCTCT
CCCGGAAGCTGGCCACCCAGCCTCACCCGCCCACCCACTCCTGGGGGTGCCCTGTACCCAGTGTGCCACCTGCAGC
AGAGCCCGTCCCCCATCTTCAGACACCCACCTCGGAGCCCCAGACAGTAGCCCGTGCGTGCCCTCAGAGCGCCAA
ACCTCCCAGCGGTTCTAAGTCAGGTCTGCGCACAGGCTCCAGCTGCAGGCACACTGCAAGGAGCAAGGCTGCCCG
CAGGCCTAGCCACCCCAAGCAGCCACGTGTCCAGCGCCCACGCCCTCGCCGCCGCCGTCGCCGCCGCACTAATGG
CTGGGTACCTGTTGGGGCTGCGTGTGAGAAGGCTGTGTATGTCTTGGATGAGCCGGAGCCAGCCATCCGAAAGAG
CTACCAGGCGGTAGAGCGGCATGGGGAGACAATCCGAGTCCGGGACACCGTCCTTCTCAAATCAGGCCCACGAAA
GACCTCCACACCTTATGTGGCCAAGATCTCTGCCCTCTGGGAGAACCCCGAGTCAGGAGAGCTGATGATGAGCCT
CCTGTGGTATTACAGACCTGAGCACTTACAGGGAGGCCGCAGTCCCAGCATGCACGAGCCCTTGCAGAATGAAGT
GTTTGCATCGCGACATCAGGACCAGAACAGTGTGGCCTGCATTGAGGAGAAGTGCTATGTGCTGACTTTTGCCGA
GTACTGCAGGTTCTGTGCCATGGCCAAGCGCCGAGGTGAAGGCCTCCCCAGCCGAAAGACAGCACTGGTTCCCCC
CTCTGCAGACTATTCCACCCCACCCCACCGCACAGTGCCAGAGGACACGGACCCTGAGCTGGTGTTCCTTTGCCG
CCATGTCTATGACTTCCGCCACGGGCGCATCCTTAAGAACCCCCAG**TAG**CCTCCTCATGCCCATGCTGGGGCTAC
CCATGGGCAAGTGGGGCTCGGGGTAGGGGGCACTGCTTGAAGCACAGCACTTGGTTAGGGGGCCACAGAGGCCTA
AGTTTGCTGGCCTGTGGTTTTCTTGGGGGGGAGGGCAGGGGCCCCTGTGGGTTCTGGGCTCCAGGGGAGGGAGCT
GGGGAGGCCAGGGTATAAGAAAAGCATCAGAACTCTCAGCTTGGCCCAAGGTACCTTCTGTGGTTCCCCTGGGTG
GAGATTTCCGAAAAGTAGTCTTCTCTGAGGCTGGGCCAAGCCTGAGGGAAATGGGGCCCTAGGAGGGTGGGGGCG
GGAAGGAGGGGCAAGGTCTTTCAGGAACCAGACCCAACAGGCCCTTCTGTAGCCTCCCCCTTGCCCTCAAAGGGG
GAGTGGGGGCCAGCTTTACCTCACCCACTGTGACCCGCCGCTTCCCCTTCAGCCTGGGACCAGGCTTTCCTAGAT
CCCAGCACAGCTCTGAGCTTGTTCCTTTGAGGCATAGAGAGCCAGAGTCTGGCTTCCAGAGCATTGACTTCCTCT
TCCTAGACTTGAGGCCTTTTCTCTGGCTTTCCTCCTTTGCCCTGCAGTAGCAACTGGTGCTGGGACAAGTTGACC
CACCTCTCACAGTCATGGGTGTGGCCCACTTGTGGGAGTCTCCTGTCCACCTCCCAGAGACGGCCACCCAGCGGG
TCTGGCTTCCCAGAAAGTTAACTGATGATTGTGGGGTTTGTCATATCTGGGAGGGAAGATGGGTGCTGGGAGAGG
GTTGGGGGCAGGGGGCAAGGAAAATTGCTACCTGATTTGTTGAAGATTTTTCCTCTTGCCTTACACATGGAGGTT
CCAGGAAACCTCTTGCAGAACTTCACACGTGATTCTTCAAGCCACACCCACCTGAAATCAAACCAAAGGAGTGCT
GTGGCTCCCCTTGCCCTGCCACCCTTTCCCTAGTCTTTTGTAGATTGCACTAATTTACATCCTAGCAAGAATCAA

FIGURE 3362B

CACTGTATCAGTCCACGGACCTGCTGAGCTGCAGCCACTTGCTCTAGGAGCTAAGGACTTGCATTTTCAGTTTGT
TCCTGTTGCCCAGAGGCCCTGTTCTCACCTCATGCTGCTCCCCAGAGTAGACTAACAGGCTCAGTCCCCTGTTGT
CCTTGTGGAGACTAGGCCTTGGCCCTGGCCCTGAGACTCTGTGAGGGGGCTGGAGCAGCCTGGTTATTTCCTATC
TGTACCAAAGAGGAGTATGGTGGGAGAGGGAGTGGAGTGCAGTGTGGCTTGGGCCTGGTGCTGGGAACCTGCTAG
CTGAGCACTTCCACAAGGGCATACCCCTGGGGGGCAGGGGCTGGGGCTGAGAACTGCAGCCCTGGGTCTTCCCTTA
GGGAGGAAGGGCAGATGAACCCAGCAGGCTTAGGAGGTGGCACTGGGTGAGGACAGCTGGGCAGGGGCTGCAGAG
GGAGGTGGAAATGAACCCTGAGGGCTCCCCCAACTTGCCATGCCCTGTCCCTTAGTAGATGAGTTGCTCCTGATT
GGTCATTGGGTTTGGGTGAGGCCTGGAGGCTTCAGAGGTGAATTTATGCTTGGGAAGCCTGATCCCAAACCTGAA
GGGAAGGGACTTGGATCTCCTTATATTGAATAAGCTGTTTGGAGGAAGGTGTCTGTCTGGGAGGATGGGGCAGTA
AATGAGGTTGGCAGAGTGGCAGTGGGGGCTCTGCAGAGCCAGCCTTGGAGCCTGCTCATTCTGGGCCCTTGCTGC
CAAGGAGCCCAGCCTCACCTAGCAGGAAAGGAGATGAAGGCCCTCCTCCCAGGAGGTAGGGTCTTGGCTGCCCCG
AACTTAAATGCTTTTGAAATCTCTTAGATGTGGAAATATTTTTTCGAACCTGAAAATGCAGCTGGTAGAATTTCA
ATGGAAGCATAATCCATGTAAAATATATTTTAGTTGATATTTTGTAAAATGCACTTTTTGTGTGTGTTGATCCTG
GTTTCCCAGATCTGTATTTCAGTGTTTACAAGGGAGGAAGGACCTTTCCTCACCTCCCTTTTGACAGAGATTAGA
AGTACTTCTTTAAGAAAAAAATAAATTTGAGAAATTGTATTGATTTAG

FIGURE 3363

TCCGGCCCGGGTCCCTCGCCGCGCCCGCCGCCCGCCGCCCGCTTCGGCGCCGCAGCCCGGGAGCCGGCCACCCCT
ACACGCGCCAGGGCTGTCCCCTGCCCTCCCCTCCCCAACTACCCCCGGTCCCAGACCCTCCTCCCGCCCCCAGCC
CGAGCCCGCCTTCCAGGCCGCCCTCGGATCGGCCGGGCCCGCGCAGGCCCCCACCCCTTGAGCACC**ATG**TTCCCC
CGCCCGCTGACCCCGCTGGCGGCCCCAAATGGCGCCGAGCCCCTGGGCCGGGCGCTGAGGCGGGCCCCTCTGGGC
AGGGCCCGGGCGGGGCTGGGTGGGCCGCCCCTGCTGCTGCCGTCCATGCTGATGTTTGCGGTGATCGTGGCCTCC
AGCGGGCTGCTGCTCATGATCGAGCGGGGCATCCTGGCCGAGATGAAGCCCCTGCCCCTGCACCCGCCCGGCCGC
GAGGGCACAGCCTGGCGCGGGAAAGCCCCCAAGCCTGGGGGCCTGTCCCTCAGGGCTGGGGACGCGGACTTGCAA
GTGCGGCAGGACGTCCGGAACAGGACCCTGCGGGCGGTGTGCGGACAGCCAGGCATGCCCCGGGACCCCTGGGAC
TTGCCGGTGGGGCAGCGGCGCACCCTGCTGCGCCACATCCTCGTAAGTGACCGTTACCGCTTCCTCTACTGCTAC
GTCCCCAAGGTGGCCTGCTCTAACTGGAAGCGGGTGATGAAGGTGCTGGCAGGCGTCCTGGACAGCGTGGACGTC
CGCCTCAAGATGGACCACCGCAGTGACCTGGTGTTCCTGGCCGACCTGCGGCCTGAGGAGATTCGCTACCGCCTG
CAGCACTACTTTAAGTTCCTGTTTGTGCGGGAGCCCTTGGAACGCCTCCTCTCTGCCTACCGCAACAAGTTTGGC
GAGATCCGAGAGTACCAGCAACGCTATGGGGCTGAGATAGTGAGGCGGTACAGGGCTGGAGCGGGGCCCAGCCCT
GCAGGCGACGATGTCACATTCCCCGAGTTCCTGAGATACCTGGTGGATGAGGACCCTGAGCGCATGAATGAGCAT
TGGATGCCCGTGTACCACCTGTGCCAGCCTTGTGCCGTGCACTATGACTTTGTGGGCTCCTATGAGAGGCTGGAG
GCTGATGCAAATCAGGTGCTGGAGTGGGTACGGGCACCACCTCACGTCCGATTTCCAGCTCGCCAGGCCTGGTAC
CGGCCAGCCAGCCCCGAAAGCCTGCATTACCACTTGTGCAGTGCCCCCCGGGCCCTGCTGCAGGATGTGCTGCCT
AAGTATATCCTGGACTTCTCCCTCTTTGCCTACCCACTGCCTAATGTCACCAAGGAGGCGTGTCAGCAG**TGA**CCA
TGGGTGTGGGGCCAGCAGCTGGTGGGGACTGGTTTCAACGCCAGCTTTCTGTGCTTCTGCCTGTCATTCGGAGAA
ACTCTGGCTCTGGGGCTTGGGGCTTCTCAGGATCCTGGATGGCAGAGACTGCCCTCAGAAGTTCCTTGTCCAGGG
TGGGCACCCACAGTGACTCAGAGGACAGGGCTAGGCAGGAGACCTGCTGCTCCTCATTGGGGGGATCTCTTGGGG
GGCAGACACCAGTTTGCCAATGAAGCAACACATCTGATCTAAAGACTGGCTCCAGACCCCGGGCTGCCAGGATTA
TGCAGTCCACTTGGTCTACCTTAATTTAACCTGTGGCCAAACTCAGAGATGGTACCAGCCAGGGGCAAGCATGAC
CAGAGCCAGGGACCCTGTGGCTCTGATCCCCCATTTATCCACCCCATGTGCCTCAGGACTAGAGTGAGCAATCAT
ACCTTATAAATGACTTTTGTGCCTTTCTGCTCCAGTCTCAAAATTTCCTACACCTGCCAGTTCTTTACATTTTTC
CAAGGAAAGGAAAACGGAAGCAGGGTTCTTGCCTGGTAGCTCCAGGACCCAGCTCTGCAGGCACCCAAAGACCCT
CTGTGCCCAGCCTCTTCCTTGAGTTCTCGGAACCTCCTCCCTAATTCTCCCTTCCTTCCCCACAAGGCCTTTGAG
GTTGTGACTGTGGCTGGTATATCTGGCTGCCATTTTTCTGATGCATTTATTTAAAATTTGTACTTTTTGATAGAA
CCCTTGTAAGGGCTTTGTTTTCCTAATAGCTGACTTTTTAATAAAGCAGTTTTATATAT

FIGURE 3364

GGGGACTCCGCCCCTCCCGATTTCCTCCGGGCTACAGGCGACAGAGCTGAGCCAAGCGTTTACTGGGCAGCTGTT
ACGCTCAGATTCCAA**ATG**AAAATGTTTGAGAGCGCTGACTCTACAGCCACAAGATCTGGCCAGGATCTCTGGGCT
GAAATTTGTTCCTGTCTGCCAAATCCTGAACAAGAAGATGGTGCCAACAATGCATTCTCAGACTCCTTTGTGGAT
TCTTGCCCTGAAGGTGAAGGCCAGAGGGAGGTGGCTGACTTTGCTGTCCAGCCAGCTGTAAAGCCTTGGGCTCCC
TTGCAGGATTCAGAAGTGTATTTAGCATCTCTAGAGAAGAAGCTAAGAAGAATCAAAGGTTTAAATCAGGAAGTG
ACTTCCAAGGACATGCTTCGAACTCTGGCCCAAGCCAAGAAGGAATGCTGGGATCGGTTCCTCCAGGAGAAGTTA
GCTTCAGAGTTCTTTGTGGATGGACTTGATTCTGATGAGAGCACCTTGGAACATTTCAAGAGGTGGCTCCAGCCA
GATAAAGTAGCCGTCAGCACAGAGGAGGTCCAGTATCTGATTCCTCCAGAGTCACAGGTTGAGAAGCCAGTGGCC
GAGGACGAGCCAGCAGCCGGGGACAAGCCAGCAGCAGCAGAACAG**TAA**ATTACACACACACACACACACACAC
ACACACACACACACACACACACACACACACACACACACACACGCCGAGCAGCTGTCTCGGGTCCAGAGCGAGCAGCGTG
GAGCTCAGTGACAGCAGCAGGGAGAAATCCACTGAAGGAAAAAACCCAAATTTCCACTCCACAAAGAAAACAGCT
GCAAGCCCCCAGGGACTTACCTGGGGCTGGCATGTGTGACTGTCTCGGATGAAGTGACTGACCCAGTGCACACTG
GATCAAAATGCTGCTTTCCTCTGTGTCTCACAGCTTGGCTGAGCTCTGTCTCTGCAGGTTAGAAGTCTGCTAAAG
ATCAAATGTGAAAGTACTTGGAGAAACTGAGGCCTCTTATGTGTAATGTGTAAGTTAAGTGAGCCATATATTTTC
TTGCCTCTTCCGGACATTCATGCTTGTGTCCCAAGCATTCCCTTGGTGAATTGTCACGTGAGTGGGGCCAGTAAG
AGTGAAGTCTGCTCCTTGAATCCAAGCCCCATCTGGGGCTTCTCTAACAAATCTGTAGTAAGTATACGGACTCCA
GGGAGAGAGGCTGGGCTTCTTTCTCTCATTTGTTCCTTGTGGAACAAATGGGCAAAAGAAGTGTGAAAATGTGGG
TGTTTATGTCTGTGTATATGTATTTTTTACTTCATGCATGGCTTCTCCTCCAACTTCCTCCTGCACTTAAAAAGG
GCCAGGTTCCAAATTAGACTTGTAAATATGGTGTTAGTGTTTGACACTACTCCTGGATAGTTCCAAACATCTTCC
TTGTGGCAGGTTTCCTGGCTGAGCCCGAGCTTCCCTCCCTGTTTATTGTGTTCATGATCAGTATGTGTTTCCATA
TAAAACTTTTCTCAACGGAA

FIGURE 3365

ATGTGGCTGGACCGCCGCGGATGGCTCAGGGTTCTTGGACATTGGCGCTACGACCTTAGGCGCCCTAGCTTTACC
AGGACTTGGAGTGGCGATAAGGGCCCAATGGCAGAAACAGTGTCTACCCAGGTTGGGACAGAGGGCGGGCTGAGG
GCTTCGCATCAGCAAAACGGTGACGCTGGTGGCGACGCGAAGGTTGAGCTGTCCCCCGGGCCCCCGAAGCCGGCT
GGCCGGGAAGTGGAGCCGGCCCCAGTAGGCGGGGAGCATCCCTCGGCTGCAGCCCCAGGCCCGGGCAAGCATAAG
AAGCGGCGGGGCGCAACCAGGGAGCGTGTCGTGCCGCCCCCGAAGAAGCGGCGGACCGGGGTGAGCTTCGGAGAT
GAGCACTTTGCAGAAACCAGTTATTACTTCGAGGGCGGCCTGCGTAAGGTGCGGCCCTATTACTTTGACTTCCGG
ACCTACTGCAAAGGTCGCTGGGTGGGCCACAGCTTGCTGCACGTCTTCAGTACCGAGTTCCGAGCTCAGCCCCTG
GCCTACTATGAGGCCGCGGTCCGGGCGGGCCGCCTGCAACTCAACGAGAAGCCGGTGCAGGACCTCAACATCGTG
CTCAAGGACAATGATTTCTTGCGGAACACAGTGCACAGGCATGAGCCACCAGTCACAGCAGAGCCCATTCGCCTG
CTAGCTGAGAACGAAGATGTGGTGGTTGTAGACAAGCCTTCCTCCATTCCCGTTCACCCCTGTGGCCGCTTCCGA
CACAACACAGTTATCTTCATCCTAGGCAAGGAGCACCAACTCAAGGAGCTACACCCCTTGCATCGGCTTGACCGC
CTTACCTCAGGGGTGCTTATGTTTGCCAAGACAGCTGCAGTCTCTGAGAGAATTCACGAGCAGGTTCGGGACCGG
CAGCTGGAGAAGGAGTACGTGTGCCGGGTGGAAGGGGAGTTCCCCACTGAGGAAGTGACCTGTAAAGAACCCATC
TTAGTGGTGTCTTACAAAGTAGGGGTGTGCCGTGTAGATCCCCGGGGCAAGCCCTGTGAGACAGTGTTCCAGAGG
CTAAGCTACAATGGCCAGTCCAGTGTGGTACGGTGCCGGCCACTCACAGGCCGCACACACCAGATTCGAGTCCAC
CTTCAGTTCTTGGGCCATCCCATTCTCAACGACCCCATCTACAACTCAGTTGCCTGGGGTCCTTCTCGAGGCCGG
GGCGGCTACATTCCCAAGACAAACGAGGAGTTGCTACGGGACCTGGTAGCAGAGCACCAGGCCAAACAGAGCCTG
GATGTGCTAGATCTCTGTGAGGGTGACCTGTCCCCAGGACTCACAGACTCTACGGCCCCCTCCTCAGAGTTGGGC
AAGGACGACCTGGAAGAGTTGGCTGCAGCTGCCCAGAAGATGGAGGAAGTAGCTGAGGCAGCCCCTCAGGAGTTG
GACACAATAGCCTTGGCATCAGAGAAGGCAGTTGAAACAGATGTCATGAATCAAGAGACAGACCCACTCTGTGCA
GAGTGCCGGCTGGTGCGACAGGATCCCTTGCCCCAAGACCTTGTGATGTTCCTACATGCCCTACGCTATAAAGGG
CCAGGCTTTGAGTACTTTTCACCAATGCCTGCCTGGGCACAGGATGACTGGCAAAAGGAC**TGA**

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FIGURE 3366

TAAGGAGAGTGCGGCGCTTCCCGAGGCGTGCAGCTGGGAACTGCAACTCATCTGGGTTGTGCGCAGAAGGCTGGG
GCAAGCGAGTAGAGAAGTGGAGCGTAAGCCAGGGGCGTTGGGGGCCGTGCGGGTCGGGCGCGTGCCACGCCCGCG
GGGTGAAGTCGGAGCGCGGGGCCTGCTGGAGAGAGGAGCGCTGCGGACCGAGTA**ATG**GCAATGCAGATGCAGCTT
GAAGCAAATGCAGATACTTCAGTGGAAGAAGAAAGCTTTGGCCCACAACCCATTTCACGGTTAGAGCAGTGTGGC
ATAAATGCCAACGATGTGAAGAAATTGGAAGAAGCTGGATTCCATACTGTGGAGGCTGTTGCCTATGCGCCAAAG
AAGGAGCTAATAAATATTAAGGGAATTAGTGAAGCCAAAGCTGATAAAATTCTGGCTGAGGCAGCTAAATTAGTT
CCAATGGGTTTCACCACTGCAACTGAATTCCACCAAAGGCGGTCAGAGATCATACAGATTACTACTGGCTCCAAA
GAGCTTGACAAACTACTTCAAGGTGGAATTGAGACTGGATCTATCACAGAAATGTTTGGAGAATTCCGAACTGGG
AAGACCCAGATCTGTCATACGCTAGCTGTCACCTGCCAGCTTCCCATTGACCGGGGTGGAGGTGAAGGAAAGGCC
ATGTACATTGACACTGAGGGTACCTTTAGGCCAGAACGGCTGCTGGCAGTGGCTGAGAGGTATGGTCTCTCTGGC
AGTGATGTCCTGGATAATGTAGCATATGCTCGAGCGTTCAACACAGACCACCAGACCCAGCTCCTTTATCAAGCA
TCAGCCATGATGGTAGAATCTAGGTATGCACTGCTTATTGTAGACAGTGCCACCGCCCTTTACAGAACAGACTAC
TCGGGTCGAGGTGAGCTTTCAGCCAGGCAGATGCACTTGGCCAGGTTTCTGCGGATGCTTCTGCGACTCGCTGAT
GAGTTTGGTGTAGCAGTGGTAATCACTAATCAGGTGGTAGCTCAAGTGGATGGAGCAGCGATGTTTGCTGCTGAT
CCCAAAAAACCTATTGGAGGAAATATCATCGCCCATGCATCAACAACCAGATTGTATCTGAGGAAAGGAAGAGGG
GAAACCAGAATCTGCAAAATCTACGACTCTCCCTGTCTTCCTGAAGCTGAAGCTATGTTCGCCATTAATGCAGAT
GGAGTGGGAGATGCCAAAGAC**TGA**ATCATTGGGTTTTTCCTCTGTTAAAAACCTTAAGTGCTGCAGCCTAATGAG
AGTGCACTGCTCCCTGGGGTTCTCTACAGGCCTCTTCCTGTTGTGACTGCCAGGATAAAGCTTCCGGGAAAACAG
CTATTATATCAGCTTTTCTGATGGTATAAACAGGAGACAGGTCAGTAGTCACAAACTGATCTAAAATGTTTATTC
CTTCTGTAGTGTATTAATCTCTGTGTGTTTTCTTTGGTTTTGGAGGAGGGGTATGAAGTATCTTTGACATGGTGC
CTTAGGAATGACTTGGGTTTAACAAGCTGTCTACTGGACAATCTTATGTTTCCAAGAGAACTAAAGCTGGAGAGA
CCTGACCCTTCTCTCACTTCTAAATTAATGGTAAAATAAAATGCCTCAGCTATGTAGCAAAGG

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FIGURE 3367

GACGTCACGGTCACTGACAGCGTGAGCCCGCGGCGGCTGCTGCCATGGTGGCTGGCGGCCGGGTAAGGGTCTGAG
TGGATCTCCTGCCAGGCCAGAGCGCCTTCGGGGGCCGCGGCGGAAGGCCAGGAGTTTGCAGCCAGGGCGCCGGGT
TTGTGGTCTGCAGTGTCGTGAGGCTGAGGTGCAGC**ATG**TCTAGACTGGGAGCCCTGGGTGGTGCCCGTGCCGGGC
TGGGACTGTTGCTGGGTACCGCCGCCGGCCTTGGATTCCTGTGCCTCCTTTACAGCCAGCGATGGAAACGGACCC
AGCGTCATGGCCGCAGCCAGAGCCTGCCCAACTCCCTGGACTATACGCAGACTTCAGATCCCGGACGCCACGTGA
TGCTCCTGCGGGCTGTCCCAGGTGGGGCTGGAGATGCCTCAGTGCTGCCCAGCCTTCCACGGGAAGGACAGGAGA
AGGTGCTGGACCGCCTGGACTTTGTGCTGACCAGCCTTGTGGCGCTGCGGCGGGAGGTGGAGGAGCTGAGAAGCA
GCCTGCGAGGGCTTGCGGGGGAGATTGTTGGGGAGGTCCGATGCCACATGGAAGAGAACCAGAGAGTGGCTCGGC
GGCGAAGGTTTCCGTTTGTCCGGGAGAGGAGTGACTCCACTGGCTCCAGCTCTGTCTACTTCACGGCCTCCTCGG
GAGCCACGTTCACAGATGCTGAGAGTGAAGGGGGTTACACAACAGCCAATGCGGAGTCTGACAATGAGCGGGACT
CTGACAAAGAAAGTGAGGACGGGGAAGATGAAGTGAGCTGTGAGACTGTGAAGATGGGGAGAAAGGATTCTCTTG
ACTTGGAGGAAGAGGCAGCTTCAGGTGCCTCCAGTGCCCTGGAGGCTGGAGGTTCCTCAGGCTTGGAGGATGTGC
TGCCCCTCCTGCAGCAGGCCGACGAGCTGCACAGGGGTGATGAGCAAGGCAAGCGGGAGGGCTTCCAGCTGCTGC
TCAACAACAAGCTGGTGTATGGAAGCCGGCAGGACTTTCTCTGGCGCCTGGCCCGAGCCTACAGTGACATGTGTG
AGCTCACTGAGGAGGTGAGCGAGAAGAAGTCATATGCCCTAGATGGAAAAGAAGAAGCAGAGGCTGCTCTGGAGA
AGGGGGATGAGAGTGCTGACTGTCACCTGTGGTATGCGGTGCTTTGTGGTCAGCTGGCTGAGCATGAGAGCATCC
AGAGGCGCATCCAGAGTGGCTTTAGCTTCAAGGAGCATGTGGACAAAGCCATTGCTCTCCAGCCAGAAAACCCCA
TGGCTCACTTTCTTCTTGGCAGGTGGTGCTATCAGGTCTCTCACCTGAGCTGGCTAGAAAAAAAAACTGCTACAG
CCTTGCTTGAAAGCCCTCTCAGTGCCACTGTGGAAGATGCCCTCCAGAGCTTCCTAAAGGCTGAAGAACTACAGC
CAGGATTTTCCAAAGCAGGAAGGGTATATATTTCCAAGTGCTACAGAGAACTAGGGAAAAACTCTGAAGCTAGAT
GGTGGATGAAGTTGGCCCTGGAGCTGCCAGATGTCACGAAGGAGGATTTGGCTATCCAGAAGGACCTGGAAGAAC
TGGAAGTCATTTTACGAGAC**TAA**CCACGTTTCACTGGCCTTCATGACTTGATGCCACTATTTAAGGTGGGGGGGC
GGGGAGGCTTTTTTCCTTAGACCTTGCTGAGATCAGGAAACCACACAAATCTGTCTCCTGGGTCTGACTGCTACC
CACTACCACTCCCCATTAGTTAATTTATTCTAACCTCTAACCTAATCTAGAATTGGGGCAGTACTCATGGCTTCC
GTTTCTGTTGTTCTCTCCCTTGAGTAATCTCTTAAAAAAATCAAGATTCACACCTGCCCCAGGATTACACATGGG
TAGAGCCTGCAAGACCTGAGACCTTCCAATTGCTGGTGAGGTGGATGAACTTCAAAGCTATAGGAACAAAGCACA
TAACTTGTCACTTTAATCTTTTTCACTGACTAATAGGACTCAGTACATATAGTCTTAAGATCATACCTTACCTAC
CAAGGTAAAAAGAGGGATCAGAGTGGCCCACAGACATTGCTTTCTTATCACCTATCATGTGAATTCTACCTGTAT
TCCTGGGCTGGACCACTTGATAACTTCCAGTGTCCTGGCAGCTTTTGGAATGACAGCAGTGGTATGGGGTTTATG
ATGCTATAAAACAATGTCTGAAAAGTTGCCTAGAATATATTTTGTTACAAACTTGAAATAAACCAAATTTGATGT
T

FIGURE 3368

TCCCAGCTGCGCGTCGCAGTCCCGACGCGAGAAGGGCTGGAGTCGGCGTCCAGCCTAGAGCCCCCGGTGGGAGCC
AGGCCGGGACGCGTGCACC**ATG**CCCTACCTGCTCATCAGCACCCAGATCCGCATGGAGGTGGGCCCCACTATGGT
GGGCGATGAACAGTCGGATCCAGAGCTGATGCAGCATCTGGGGGCTTCAAAGAGAAGAGCCTTGGGAAACAACTT
TTATGAATACTACGTCGATGACCCTCCCCGCATAGTCCTGGACAAGCTGGAACGCAGGGGCTTCCGTGTGCTGAG
CATGACGGGGGTGGGCCAGACGCTGGTGTGGTGTCTGCACAAGGAG**TGA**CCTTCTCATGCTGATTTGCAGACGGG
GCACCCCTGTGGAGGGGCTGCTGTGGGCCCTGACCTCCAAGCTCCTGCCTCACCGTCTGCCTTGCTCCTCTCTTC
CCAAATCATCACCGCCATGGGCCCAGCCCCAAAGGGCAGTGAATGGCCTTCTCTGAAACCCTGCGTCAAGCAGTG
GGAGAGGGCAGTGCCCGGTGCCCTGGTGCTCCCAGCTGCCCTCCTGCTTCGGGCCTGGGCCGAGGGCCTTGTGTA
GGCCATGTTCCTCGGGCAGCTGCCCCGGGCCGGAGCTGGGCACTCCAGCGGCCCTGGCGCGTGGCTCCTGCATAG
CTAGCCCAAGCCAATAAAGGGCTGTGATGAGTGGCTGC

FIGURE 3369

ATCCGTCAGGCCGGAACC**ATG**GCAGTGACCAAGGAGCTCTTACAGATGGACCTGTACGCGCTGCTAGGCATTGAG
GAGAAGGCAGCGGACAAAGAGGTAAAGAAGGCGTATAGGCAGAAGGCCCTCTCCTGCCACCCAGACAAAAATCCA
GATAATCCCAGAGCAGCTGAACTCTTCCACCAGCTTTCTCAGGCCTTGGAGGTGCTGACCGATGCTGCAGCCAGG
GCTGCATATGACAAGGTCAGGAAAGCCAAGAAGCAAGCAGCAGAGAGGACCCAGAAACTTGATGAGAAAAGGAAG
AAAGTGAAGCTTGACCTGGAGGCCCGGGAGCGGCAGGCCCAGGCCCAGGAGAGTGAGGAGGAAGAGGAGAGCCGG
AGCACCAGGACACTAGAGCAAGAGATCGAACGCCTGAGAGAAGAGGGTTCCCGGCAGCTGGAGGAACAGCAGAGG
CTCATCCGGGAGCAGATACGCCAGGAGCGTGACCAGAGGTTGAGAGGAAAGGCAGAAAATACTGAAGGCCAAGGA
ACCCCCAAACTAAAGCTAAAATGGAAGTGCAAGAAGGAGGATGAGTCAAAAGGTGGCTACTCCAAAGACGTCCTC
CTACGGCTTTTGCAGAAGTATGGTGAGGTTCTCAACCTGGTGCTTTCCAGTAAGAAGCCAGGCACTGCTGTGGTG
GAGTTTGCAACCGTCAAGGCAGCGGAGCTGGCTGTCCAGAATGAAGTTGGCCTGGTGGATAACCCTCTGAAGATT
TCCTGGTTGGAGGGACAGCCCCAGGATGCCGTGGGCCGCAGCCACTCAGGACTGTCAAAGGGCTCAGTGCTGTCA
GAGAGGGACTACGAGAGCCTCGTCATGATGCGCATGCGCCAGGCGGCCGAGCGGCAACAGCTGATCGCACGGATG
CAGCAGGAAGACCAGGAGGGGCCGCCTACG**TAG**CCCCAGCTCCAGCCATCCACCCCTCAGCCCTTTTCTTCAACG
TCACCAATAAATTTTTTTTTTTTTT

FIGURE 3370

AGGAGAGCGTCCGGATTCCCTGCTCTAGGTCGCGGCGGGACAGTGCCAGTGGGCGTGTGGGGCGGGGCAGGGCAG
GGAAGGGAAGGGCGGAGCTGGGGTGAGGGTCCAAGGGGCCCAGGACTTGGCCGGCGTGATCTCAGCTCTGCAGAC
CCTGCGGTGCTGGGAGCCACC**ATG**GAGAGTAGGTGCTACGGCTGCGCTGTCAAGTTCACCCTCTTCAAGAAGGAG
TACGGCTGTAAGAATTGTGGCAGGGCCTTCTGTTCAGGCTGCCTAAGCTTCAGTGCAGCAGTGCCTCGGACTGGG
AACACCCAACAGAAAGTCTGCAAGCAATGCCATGAGGTCCTGACCAGAGGGTCTTCTGCCAATGCCTCCAAGTGG
TCACCACCTCAGAACTATAAGAAGCGTGTGGCAGCCTTGGAAGCCAAGCAAAAGCCCAGCACTTCCCAGAGCCAG
GGACTGACACGACAAGACCAGATGATTGCTGAGCGCCTAGCACGACTCCGCCAGGAGAACAAGCCCAAGTTAGTC
CCCTCACAGGCAGAGATAGAGGCACGGCTGGCTGCCCTAAAGGATGAACGTCAGGGTTCCATCCCTTCCACCCAG
GAAATGGAGGCACGACTTGCAGCGTTGCAGGGCAGAGTTCTACCTTCTCAAACCCCCCAGCCGGCACATCACACA
CCGGACACCAGGACCCAAGCCCAGCAGACACAGGATCTGCTAACGCAGCTGGCAGCTGAGGTGGCTATCGATGAA
AGCTGGAAAGGAGGAGGCCCAGCTGCCTCTCTCCAGAATGATCTCAACCAGGGTGGCCCAGGGAGCACTAATTCC
AAGAGGCAGGCCAACTGGTCCTTGGAGGAGGAGAAGAGCAGACTGCTGGCTGAGGCAGCACTTGAGTTGCGGGAG
GAGAACACGAGGCAGGAACGGATTCTGGCCCTGGCCAAGCGACTAGCCATGCTGCGGGGACAGGACCCCGAGAGA
GTGACCCTCCAGGACTATCGCCTCCCAGACAGTGATGACGACGAGGATGAGGAGACAGCCATCCAAAGAGTCCTG
CAGCAGCTCACTGAAGAAGCTTCCCTGGATGAGGCAAGTGGCTTTAACATCCCTGCAGAGCAGGCTTCTCGACCC
TGGACGCAACCCCGCGGGGCAGAGCCTGAGGCCCAGGATGTGGACCCCAGGCCTGAGGCTGAGGAAGAGGAGCTC
CCCTGGTGCTGCATCTGCAATGAGGATGCCACCCTACGCTGCGCTGGCTGCGATGGGGACCTCTTCTGTGCCCGC
TGCTTCCGAGAGGGCCATGATGCCTTTGAGCTTAAAGAGCACCAGACATCTGCCTACTCTCCTCCACGTGCAGGC
CAAGAGCAC**TGA**AGACACCCTGGTCCTCCCGGAAGGGCAGTCCCACAGGCAGCGGCACCCATTTCTGGGCCCAGC
CACAGGACGTCCGATGGGAGAGCTTGTCTGGCTCTACTGATGATGGATAGGCCCCTTCCTGAGCCTTGGTGTCCC
TGGAATGAGGAAAGATTCTCCATTCGAGAGAATGACTGGGAGGGAAGAAGTCGGGGCCCTCCTATTAGAAGCCCA
GACTGGAAGTGAGAGGCATGATGGGGAGAGACCAGACTGAATCTACGGGTGAGCCCTGTAACCTGGCTCTAGGGC
ACAGGCCCCTCCCCTGGCACTTAGTGGGTCTAATAAAGTATGTTGATTCATTGG

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FIGURE 3371

CGGCCGAGCCCCAGCTCTCCGAGCACCGGGTCGGAAGCCGCGACCCGAGCCGCGCAGGAAGCTGGGACCGGAACC
TCGGCGGACCCGGCCCCACCCAACTCACCTGCGCAGGTCACCAGCACCCTCGGAACCCAGAGGCCCGCGCTCTGA
AGGTGACCCCCCTGGGGAGGAAGGCG**ATG**GCCCCTGCGAGGACGATGGCCCGCGCCCGCCTCGCCCCGGCCGGCA
TCCCTGCCGTCGCCTTGTGGCTTCTGTGCACGCTCGGCCTCCAGGGCACCCAGGCCGGGCCACCGCCCGCGCCCC
CTGGGCTGCCCGCGGGAGCCGACTGCCTGAACAGCTTTACCGCCGGGGTGCCTGGCTTCGTGCTGGACACCAACG
CCTCGGTCAGCAACGGAGCTACCTTCCTGGAGTCCCCCACCGTGCGCCGGGGCTGGGACTGCGTGCGCGCCTGCT
GCACCACCCAGAACTGCAACTTGGCGCTAGTGGAGCTGCAGCCCGACCGCGGGGAGGACGCCATCGCCGCCTGCT
TCCTCATCAACTGCCTCTACGAGCAGAACTTCGTGTGCAAGTTCGCGCCCAGGGAGGGCTTCATCAACTACCTCA
CGAGGGAAGTGTACCGCTCCTACCGCCAGCTGCGGACCCAGGGCTTTGGAGGGTCTGGGATCCCCAAGGCCTGGG
CAGGCATAGACTTGAAGGTACAACCCCAGGAACCCCTGGTGCTGAAGGATGTGGAAAACACAGATTGGCGCCTAC
TGCGGGGTGACACGGATGTCAGGGTAGAGAGGAAAGACCCAAACCAGGTGGAACTGTGGGGACTCAAGGAAGGCA
CCTACCTGTTCCAGCTGACAGTGACTAGCTCAGACCACCCAGAGGACACGGCCAACGTCACAGTCACTGTGCTGT
CCACCAAGCAGACAGAAGACTACTGCCTCGCATCCAACAAGGTGGGTCGCTGCCGGGGCTCTTTCCCACGCTGGT
ACTATGACCCCACGGAGCAGATCTGCAAGAGTTTCGTTTATGGAGGCTGCTTGGGCAACAAGAACAACTACCTTC
GGGAAGAAGAGTGCATTCTAGCCTGTCGGGGTGTGCAAGGCCCCTCCATGGAAAGGCGCCATCCAGTGTGCTCTG
GCACCTGTCAGCCCACCCAGTTCCGCTGCAGCAATGGCTGCTGCATCGACAGTTTCCTGGAGTGTGACGACACCC
CCAACTGCCCCGACGCCTCCGACGAGGCTGCCTGTGAAAAATACACGAGTGGCTTTGACGAGCTCCAGCGCATCC
ATTTCCCCAGTGACAAAGGGCACTGCGTGGACCTGCCAGACACAGGACTCTGCAAGGAGAGCATCCCGCGCTGGT
ACTACAACCCCTTCAGCGAACACTGCGCCCGCTTTACCTATGGTGGTTGTTACGGCAACAAGAACAACTTTGAGG
AAGAGCAGCAGTGCCTCGAGTCTTGTCGCGGCATCTCCAAGAAGGATGTGTTTGGCCTGAGGCGGGAAATCCCCA
TTCCCAGCACAGGCTCTGTGGAGATGGCTGTCGCAGTGTTCCTGGTCATCTGCATTGTGGTGGTGGTAGCCATCT
TGGGTTACTGCTTCTTCAAGAACCAGAGAAAGGACTTCCACGGACACCACCACCACCCACCACCCACCCCTGCCA
GCTCCACTGTCTCCACTACCGAGGACACGGAGCACCTGGTCTATAACCACACCACGCGGCCCCTC**TGA**GCCTGGG
TCTCACCGGCTCTCACCTGGCCCTGCTTCCTGCTTGCCAAGGCAGAGGCCTGGGCTGGGAAAAACTTTGGAACCA
GACTCTTGCCTGTTTCCCAGGCCCACTGTGCCTCAGAGACCAGGGCTCCAGCCCCTCTTGGAGAAGTCTCAGCTA
AGCTCACGTCCTGAGAAAGCTCAAAGGTTTGGAAGGAGCAGAAAACCCTTGGGCCAGAAGTACCAGACTAGATGG
ACCTGCCTGCATAGGAGTTTGGAGGAAGTTGGAGTTTTGTTTCCTCTGTTCAAAGCTGCCTGTCCCTACCCCATG
GTGCTAGGAAGAGGAGTGGGGTGGTGTCAGACCCTGGAGGCCCCAACCCTGTCCTCCCGAGCTCCTCTTCCATGC
TGTGCGCCCAGGGCTGGGAGGAAGGACTTCCCTGTGTAGTTTGTGCTGTAAAGAGTTGCTTTTTGTTTATTTAAT
GCTGTGGCATGGGTGAAGAGGAGGGGAAGAGGCCTGTTTGGCCTCTCTATCCTCTCTTCCTCTTCCCCCAAGATT
GAGCTCTCTGCCCTTGATCAGCCCCACCCTGGCCTAGACCAGCAGACAGAGCCAGGAGAAGCTCAGCTGCATTCC
GCAGCCCCCACCCCCAAGGTTCTCCAACATCACAGCCCAGCCCGCCCACTGGGTAATAAAAGTGGTTTGTGGA

FIGURE 3372

AGCCTGGACCCATTCAGTCAGAGGCAGCCAGCGGGACCTGCTTCACCGAGCGCAGCGAAGCCGAGACCCGGGCTG
GCCCCTCTGCTGCCCCCGGAGCGGGCC**ATG**CCGCCGCGGGAGCTGAGCGAGGCCGAGCCGCCCCCGCTCCGGGCC
CCGACCCCTCCCCCGCGGCGGCGTAGCGCGCCCCCAGAGCTGGGCATCAAGTGCGTGCTGGTGGGCGACGGCGCC
GTGGGCAAGAGCAGCCTCATCGTCAGCTACACCTGCAATGGGTACCCCGCGCGCTACCGGCCCACTGCGCTGGAC
ACCTTCTCTGTGCAAGTCCTGGTGGATGGAGCTCCGGTGCGCATTGAGCTCTGGGACACAGCGGGACAGGAGGAT
TTTGACCGACTTCGTTCCCTTTGCTACCCGGATACCGATGTCTTCCTGGCGTGCTTCAGCGTGGTGCAGCCCAGC
TCCTTTCAAAACATCACAGAGAAATGGCTGCCCGAGATCCGCACGCACAACCCCCAGGCGCCTGTGCTGCTGGTG
GGCACCCAGGCCGACCTGAGGGACGATGTCAACGTACTAATTCAGCTGGACCAGGGGGGCCGGGAGGGCCCCGTG
CCCCAACCCCAGGCTCAGGGTCTGGCCGAGAAGATCCGAGCCTGCTGCTACCTTGAGTGCTCAGCCTTGACGCAG
AAGAACTTGAAGGAAGTATTTGACTCGGCTATTCTCAGTGCCATTGAGCACAAAGCCCGGCTGGAGAAGAAACTG
AATGCCAAAGGTGTGCGCACCCTCTCCCGCTGCCGCTGGAAGAAGTTCTTCTGCTTCGTT**TGA**GCAGCTATGGCT
GCATAGCAAGTAGTAGGCAGGAGGCCAAAGACTTCTGAGACCTGGGGCACCCGGGCCTTTGCGGCAGCTACTGGC
AGGGCCTGGCCACCTCATAGGACTCAGTTCCCTTCTGAACACTCGGGGGACATGGGCCTCTAACTGCCCACTCTG
ATATGCCTGGGTGAGCCTAGGAGGGAAGGCTCTGATTTGGATTTCTCCAGTCAAAGCTCACAGAAAAAAACCTGG
CACTTTGATTTTCATGGGATGGTCCTAACAGGGTCAGTCACCTCCGAGCAGTTTGGGAACCCAGTTTCTTGTCCT
GGGCCCTCAGGTCAGCCTGGCTGAATTAGGACCCTTCCTTGG

FIGURE 3373

GCTGAGCTGCCGGGGCGAGGTTGGGATCACCTGGCACCGGCTGAAGGGAGCCTGTGATTTTTTTGTAGCGGGGGC
GGGGAGTAAGGTGCAAGACTGCGCCAGATTCAAGGACGAGGGCTGCCCGATTATCTCGCTGCATAAGGCAAGAGC
AAGAGGATCCTCAGGATTTTAAAGAGGAGGCGACGGCTGCAGGTTCCCAGGATCTGTCAGAGGCTGGGGAGTTAC
AGCTTCCATTCTGGGGCGACGGGGACCCCGGGGGGGGTAGCCCTTTTGTAATCCCCAGGCCCCGGACAAAGAGCCC
AGAGGCCGGGCACC**ATG**GCGTCCATCCTGGATGAGTACGAGAACTCGCTGTCCCGCTCGGCCGTCTTGCAGCCCG
GCTGCCCTAGCGTGGGCATCCCCCACTCGGGGTATGTGAATGCCCAGCTGGAGAAGGAAGTGCCCATCTTCACAA
AGCAGCGCATTGACTTCACCCCTTCCGAGCGCATTACCAGTCTTGTCGTCTCCAGCAATCAGCTGTGCATGAGCC
TGGGCAAGGATACACTGCTCCGCATTGACTTGGGCAAGGCAAATGAGCCCAACCACGTGGAGCTGGGACGTAAGG
ATGACGCAAAAGTTCACAAGATGTTCCTTGACCATACTGGCTCTCACCTGCTGATTGCCCTGAGCAGCACGGAGG
TCCTCTACGTGAACCGAAATGGACAGAAGGTACGGCCACTAGCACGCTGGAAGGGGCAGCTGGTGGAGAGTGTGG
GTTGGAACAAGGCACTGGGCACGGAGAGCAGCACAGGCCCCATCCTGGTCGGGACTGCCCAAGGCCACATCTTTG
AAGCAGAGCTCTCAGCCAGCGAAGGTGGGCTTTTCGGCCCTGCTCCGGATCTCTACTTCCGCCCATTGTACGTGC
TAAATGAAGAAGGGGGTCCAGCACCTGTGTGCTCCCTTGAGGCCGAGCGGGGCCCTGATGGGCGTAGCTTTGTTA
TTGCCACCACTCGGCAGCGCCTCTTCCAGTTCATAGGCCGAGCAGCAGAGGGGGCTGAGGCCCAGGGTTTCTCAG
GGCTCTTTGCAGCTTACACGGACCACCCACCCCCATTCCGTGAGTTTCCCAGCAACCTGGGCTACAGTGAGTTGG
CCTTCTACACCCCCAAGCTGCGCTCCGCACCCCGGGCCTTCGCCTGGATGATGGGGGATGGTGTGTTGTATGGGG
CATTGGACTGTGGGCGCCCTGACTCTCTGCTGAGCGAGGAGCGAGTCTGGGAGTACCCAGAGGGGGTAGGGCCTG
GGGCCAGCCCACCCCTAGCCATCGTCTTGACCCAGTTCCACTTCCTGCTGCTACTGGCAGACCGGGTGGAGGCAG
TGTGCACACTGACCGGGCAGGTGGTGCTGCGGGATCACTTCCTGGAGAAATTTGGGCCGCTGAAGCACATGGTGA
AGGACTCCTCCACAGGCCAGCTGTGGGCCTACACTGAGCGGGCTGTCTTCCGCTACCACGTGCAACGGGAGGCCC
GAGATGTCTGGCGCACCTATCTGGACATGAACCGCTTCGATCTGGCCAAAGAGTATTGTCGAGAGCGGCCCGACT
GCCTGGACACGGTCCTGGCCCGGGAGGCCGATTTCTGCTTTCGCCAGCGTCGCTACCTGGAGAGCGCACGCTGCT
ATGCCCTGACCCAGAGCTACTTTGAGGAGATTGCCCTCAAGTTCCTGGAGGCCCGACAGGAGGAGGCTCTGGCTG
AGTTCCTGCAGCGAAAACTGGCCAGTTTGAAGCCAGCCGAACGTACCCAGGCCACACTGCTGACCACCTGGCTGA
CAGAGCTCTACCTGAGCCGGCTTGGGGCTCTGCAGGGCGACCCAGAGGCCCTGACTCTCTACCGAGAAGTCAGAA
ATCTGACCCAATTCCACCCCCTGCCTCTAGCACCTCTTCTGTCCCTGTCATTCCCCACACACGTCCTGTTCACCT
CGAGAGAGAGAGAGAGAGAGCACCTTTCTTCCGTCTGTTCACTCTGCGGCCTCTGGAATCCCAGCTCTTCTCTCT
CAGAAGAAGCCTTCTCTTCCTCCTGCCTG**TAG**GTGTCCCAGAAGTGAGAAGGCAGCCTTCGAAGTCCTGGGCATT
GGGTGAGAAAGTGATGCTAGTTGGGGCATGCTTTTGTGCACACTCTCTGGGGCTCCAGTGTGAAGGGTGCCCTGG
GGCTGAGGGCCTTGTGGAGGATGGTCGGTGGTGGTGATGGAGGTGGAGAGCATTAAACTGTCTGCACTGC

FIGURE 3374

CAGGCCAGGTGTGTGCGTCCGTCGGTCTTTCCGTGCCCACGCCGGAGACCAGCCCCGGAGGCCGCCTGGGCCTAT
CCCTGTGCCAGGCACC**ATG**AAGCAGGAGTCTGCAGCCCCGAACACCCCGCCCACCTCGCAGTCCCCTACGCCGTC
CGCTCAGTTCCCCCGAAACGACGGCGACCCTCAAGCGCTGTGGATTTTCGGGTACGGCTCCCTGGTGTGGAGGCC
CGACTTCGCCTACAGCGACAGCCGTGTGGGCTTCGTGCGCGGCTACAGCCGCCGTTTCTGGCAGGGAGACACCTT
CCATCGGGGCAGCGACAAGATGCCTGGCCGTGTGGTGACGCTCCTTGAAGATCATGAGGGCTGCACTTGGGGCGT
GGCATACCAAGTGCAAGGGGAGCAGGTAAGCAAGGCCCTGAAGTACCTGAATGTGCGAGAGGCAGTGCTTGGTGG
CTACGATACCAAGGAGGTCACCTTCTATCCCCAAGATGCTCCTGACCAACCACTGAAGGCATTGGCCTATGTGGC
CACCCCACAGAACCCTGGTTACCTGGGCCCTGCGCCTGAAGAGGCCATTGCCACGCAGATCCTGGCCTGCCGGGG
CTTCTCCGGCCACAACCTTGAATACTTGCTGCGTCTGGCAGACTTCATGCAGCTCTGTGGGCCTCAGGCGCAGGA
CGAGCACCTGGCAGCCATCGTGGACGCTGTGGGCACCATGTTGCCCTGCTTCTGCCCCACCGAGCAGGCTCTGGC
GCTGGTG**TGA**GGGGCTGAGCCCCTGCGGGGAGTGCTCATGTGGACATCAGGGCCAGACACCCACTCCAGTGCACA
AGACAGACTTGCGACCGCTTGAGCCCACTGAGCAGATATGGTGGGTGGCTGGAGGCTTCTCTTTCTCAGTCCCTG
CCTGTCTGCCAGCCTGCAGCTCTCCTGCTTGACACTGACTTACTACTTGAAACTTTATTTATTGCACCATGTTGG
TGTGGTGGGCAGGTGGAGGGCCTGCCCTGGACACAGGGGCCCTGCTGAGCAGTGGCCCCATCCTGGAACTTGACC
AGATTCCCCCCAGTGCTGCTGCTAACCCCACACCACCCAGGCCTCCACCTCCCCAGGGAGTCTCCAAGAGCCTCG
ATCCTCTGCTCACTCAGCCCAGCCATCCATAGCCCTGGGAATTCCACCTGCCAAGGATCCCAGCAGGCTGGATGA
GGGATAGTAGGGCATGAGGAGAAGGAGCCCTGTAAGGACTGAGGCCCCGGCCAGCCCTTCTCCTCCACCAGTTCC
CCAGAGCAGAGCTGGAGCTGATGCCTGGACACAGCTGCTGAGCCTGGCCTGGGCCTCTTACCCACTTGGTTGTTT
TCTTGTCCCTCTGTCTGTCTGTCTATCTACTTGTCTGTCTGGGCCACTCCTGCCTGTGTGTTGGTCTATTCCTGG
GAAGCTCATCACTACAGGCCCTGGCAACCTTCCCAGTCTGTCCCATACTGTTACCCATAAAACTATCTCTTT

FIGURE 3375A

CCGCGGAGGGAGCGAGCTAGGAGCGTCCACGCCCAACGCAGTCACCGTCCCACGGCCTCAGAGAGCGAACCGCGG
CTCCACCGTCGGCGGGGCGACCCCCCCCTCCGGACCCCGCCCGCACCCCGCCCCCCCTCCGCCGCCGTCGCGGCG
GCGGGGCCAGGCGGCCCGAGCCGTGCAGTCGGAGGTCCTTGTGCATGAAGACAGATTTGTTCT**ATG**GCCTCGGAG
TTGGGTGCCAGGGATGATGGAGGCTGCACTGAGCTGGCAAAGCCCCTCTATCTTCAGTACTTGGAGAGGGCCCTC
CGGTTGGACCATTTTCTGCGACAAACGTCAGCTATCTTCAATAGGAATATTTCTAGTGATGACAGTGAAGATGGA
CTGGATGACAGTAATCCATTATTGCCCCAGTCTGGGGATCCCTTAATACAAGTTAAGGAAGAACCTCCAAATTCA
TTGCTTGGTGAAACTTCTGGAGCAGGCAGTTCTGGAATGTTAAACACATATTCTCTGAATGGAGTTCTACAGTCA
GAATCAAAATGTGATAAGGGGAATTTATATAATTTCTCTAAGCTGAAGAAAAGCAGAAAGTGGCTAAAGAGCATT
CTGCTAAGTGATGAATCCAGCGAGGCTGATTCTCAGAGTGAAGACGATGATGAAGAAGAACTCAATCTCAGCAGA
GAAGAACTTCACAACATGCTTCGACTACACAAATATAAGAAACTTCACCAAAATAAGTATAGTAAAGACAAGGAG
TTGCAGCAATATCAGTACTACAGTGCAGGCCTGCTCTCCACATATGACCCTTTCTATGAGCAACAACGGCACCTA
CTTGGACCCAAGAAAAAGAAATTTAAGGAGGAAAAGAAACTTAAAGCTAAGTTGAAAAAAGTGAAGAAAAAAAGA
CGAAGAGATGAAGAACTTTCCTCTGAAGAATCCCCTCGTCGCCATCACCACCAGACCAAAGTCTTTGCCAAGTTT
TCTCACGATGCACCTCCCCCTGGCACTAAGAAAAAGCACTTATCCATTGAGCAGCTGAATGCTCGTCGCAGGAAA
GTATGGCTCAGCATTGTGAAAAAGGAACTACCAAAGGCAAATAAGCAGAAAGCTTCAGCTCGTAACCTGTTTCTC
ACCAATAGCCGAAAGCTTGCTCACCAGTGCATGAAGGAGGTGCGTCGAGCTGCCTTGCAGGCCCAGAAGAACTGT
AAGGAAACCTTGCCTCGTGCCCGCCGCCTCACCAAGGAGATGCTTCTGTACTGGAAGAAATATGAGAAAGTAGAG
AAGGAGCACCGCAAGAGAGCAGAGAAGGAAGCTTTGGAGCAGCGGAAGTTGGATGAGGAAATGCGGGAGGCCAAG
AGGCAACAGCGAAAACTCAACTTCTTAATTACCCAGACAGAGTTGTATGCCCATTTCATGAGTCGCAAACGAGAT
ATGGGTCATGATGGTATCCAGGAAGAAATCCTAAGGAAACTGGAAGACAGTTCTACCCAGAGACAAATCGATATA
GGTGGAGGAGTGGTAGTTAACATCACACAGGAGGATTATGATAGTAACCATTTTAAAGCCCAGGCCCTGAAGAAT
GCTGAAAATGCTTACCATATTCACCAAGCTCGGACAAGGTCATTTGATGAAGATGCAAAAGAAAGTCGAGCAGCT
GCCCTACGGGCAGCAAACAAGTCTGGCACTGGGTTTGGGGAGAGTTATAGCCTGGCTAACCCATCTATCCGGGCT
GGTGAGGATATTCCACAGCCCACAATTTTTAATGGCAAATTGAAAGGTTATCAACTGAAAGGCATGAATTGGTTG
GCCAATCTATATGAACAGGGTATTAATGGCATTCTTGCTGATGAAATGGGCCTTGGTAAAACAGTACAGAGCATT
GCCCTTCTGGCCCATCTGGCTGAGAGAGAGAACATTTGGGGACCTTTCTTAATAATTTCACCTGCGTCTACACTT
AACAATTGGCACCAGGAGTTTACTAGATTTGTTCCTAAATTTAAGGTGCTACCATATTGGGGAAATCCTCATGAT
AGAAAAGTCATCAGAAGGTTCTGGAGTCAGAAGACCCTCTACACTCAGGATGCCCCCTTCCATGTGGTTATTACC
AGCTATCAGCTGGTGGTGCAGGATGTAAAGTATTTCCAGCGGGTCAAGTGGCAATACATGGTACTGGATGAGGCT
CAGGCGCTCAAGAGTAGTTCCAGTGTTCGTTGGAAGATCCTCTTACAGTTCCAGTGTCGGAATCGGCTTTTGCTA
ACCGGGACCCCAATTCAGAACACCATGGCAGAGCTTTGGGCTCTGCTGCATTTCATTATGCCAACATTATTTGAT
TCACATGAGGAATTTAATGAATGGTTTTCCAAGGACATTGAGAGCCATGCCGAAAACAAATCTGCTATTGATGAG
AATCAACTTTCTCGCTTACACATGATTTTGAAGCCATTTATGCTGAGGAGAATCAAGAAAGATGTGGAAAATGAA
TTATCTGACAAGATTGAGATTCTAATGTATTGCCAACTGACCAGCCGACAGAAGCTGCTATATCAGGCACTAAAG
AACAAAATTTCCATTGAGGATTTATTGCAGTCTTCTATGGGCTCTACCCAACAAGCACAGAACACCACCAGCAGC
CTCATGAATCTGGTCATGCAGTTTAGGAAGGTGTGTAATCACCCGGAGTTATTTGAACGGCAAGAAACTTGGTCT
CCATTTCATATTTCCCTAAAGCCATACCACATTTCAAAGTTTATCTACCGTCATGGACAGATCAGGGTCTTCAAT
CATTCACGAGACAGGTGGTTAAGGGTTCTTTCTCCATTTGCACCAGACTATATCCAACGGTCTCTCTTTCACAGA
AAAGGTATTAATGAAGAAAGCTGTTTCTCTTTCCTTCGCTTTATTGATATATCTCCAGCAGAAATGGCAAACCTT
ATGCTTCAGGGACTTTTGGCCAGATGGTTAGCTCTTTTCCTGTCTCTGAAAGCCTCCTACAGGCTCCATCAGCTA
CGCTCCTGGGGAGCGCCAGAAGGGGAGAGCCACCAGAGATACCTGAGGAACAAGGATTTCCTTCTTGGGGTTAAT
TTTCCACTCTCCTTTCCAAACCTTTGCAGCTGCCCTTTGTTAAAGTCTCTTGTTTTCAGCAGCCACTGTAAAGCA
GTGAGTGGCTACTCAGACCAGGTTGTCCATCAGCGGAGATCAGCTACCTCCTCGCTGCGTCGCTGCCTGCTCACT
GAGCTGCCATCTTTTTTGTGTGTGGCCAGTCCACGAGTTACCGCAGTGCCATTGGATTCTTACTGCAATGACCGA
AGTGCAGAATATGAAAGGCGAGTTCTGAAGGAAGGAGGGAGTCTGGCAGCCAAGCAGTGTTTGTTGAATGGGGCC
CCTGAACTGGCTGCAGACTGGCTAAATAGACGATCACAGTTCTTCCCAGAGCCAGCTGGAGGTCTGTGGAGCATC
AGACCTCAGAATGGCTGGTCTTTCATCAGGATTCCAGGCAAGGAGAGCCTCATCACTGACAGTGGAAAGCTGTAT
GCCCTTGATGTCCTGCTGACTCGGCTCAAGTCTCAAGGGCATAGGGTCCTTATCTACTCCCAGATGACCAGGATG

FIGURE 3375B

ATAGACCTACTGGAGGAATACATGGTTTACAGGAAGCATACCTACATGAGGCTTGATGGCTCATCCAAGATCTCG
GAGAGGCGAGACATGGTTGCTGATTTTCAGAACAGG**TAA**TGACATCTTTGTGTTCCTGTTAAGCACACGAGCTGG
AGGACTGGGTATCAATCTCACTGCTGCAGACACAGTGATTTTCTATGATAGCGACTGGAACCCCACTGTGGACCA
GCAGGCCATGGACAGGGCCCACCGCTTAGGGCAGACAAAGCAGGTTACTGTGTACCGGCTCATCTGTAAAGGCAC
CATTGAAGAACGCATTCTGCAAAGAGCCAAGGAGAAGAGTGAGATTCAGCGGATGGTGATTTCAGGTGGGAACTT
CAAACCAGATACCTTGAAACCCAAAGAGGTGGTTAGTCTTCTTCTAGACGACGAAGAGTTGGAGAAGAAACTGAG
GCTGCGGCAGGAAGAGAAACGGCAACAGGAGGAAACCAACCGAGTGAAAGAGCGCAAGCGGAAGCGGGAAAAGTA
TGCAGAGAAGAAGAAAAAAGAAGATGAATTGGATGGGAAAAGGAGAAAAGAGGGTGTGAACCTGGTGATCCCATT
TGTTCCCTCGGCTGATAACTCCAACCTCTCTGCTGACGGAGATGACTCCTTCATTAGCGTGGACTCAGCCATGCC
AAGCCCTTTCAGTGAGATCTCCATCAGCAGTGAGCTGCACACTGGCTCCATTCCCCTGGACGAGAGCAGCAGTGA
CATGCTGGTCATTGTGGATGACCCAGCCTCCTCAGCCCCTCAGTCTCGAGCTACCAACTCTCCCGCATCCATAAC
AGGCTCCGTCTCAGATACCGTGAATGGAATTTCCATTCAGGAAATGCCAGCTGCAGGACGTGGTCACTCAGCCCG
AAGCCGAGGCCGCCCCAAAGGTTCAGGAAGCACAGCCAAAGGAGCAGGGAAGGGCCGGAGCCGAAAGTCCACGGC
AGGCAGTGCTGCTGCAATGGCAGGAGCCAAAGCCGGGGCTGCAGCGGCCTCTGCAGCTGCCTATGCCGCATACGG
GTACAACGTGTCTAAAGGAATCTCCGCCAGCAGTCCTCTGCAGACATCCCTTGTTCGGCCTGCTGGCCTTGCTGA
CTTTGGACCTTCAAGCGCCTCTTCTCCTTTGAGTTCCCCTTTGAGCAAGGGAAATAATGTTCCTGGGAATCCCAA
GAACCTCCACATGACCAGCAGCCTAGCCCCAGACTCTCTGGTCCGGAAACAGGGCAAAGGCACCAACCCCTCTGG
AGGACGGTAACCATCTGGGCCCTCCGACTTCCTTCAACCAAACCAGGGCTAGAGTCCTGACCTGCCAGTGGTCTT
TGGATGGCTTGCCCCGTGCAGCATCTTGCATCCTGAGTCAGAAGTGGAAATGTCCAGCAGGGGAAGGACAGGCAG
GTGGATGGTGTGAGCACTTTTATCATCTGTGTCTCATCAGGAGCATCTGGGGTGCCTGTAGGAGGAAGGCCACAG
GGCATGGATCAGCCCCACTGCATCTCAAGTGAACTGTATAGCCAAGTCTTAAACCTCTCACGGGGCAAGCCTGAC
ACAGACCCCCTTTAGATGCTCAGGCATACTGTTTCCATCCCGATTCCACTCTTCGGCTCTGACACGTCCCTTGCA
AAGTCTCCGCAGGTGCTGTGAAGAGCCTTCCATGGTAGAGATTTCTCTTAAGAGTGTGATTTCTCATAGGGCTAG
TAAGGGAGATTGTATACCTGTTGTCCACAGTCTTCAGGCAGCTCCCCAGGTCTCTGAACCCCAGAGTGTCATCAT
TGGAGAGAGCAGTGACTGCGAGAGATGGTGGAGGCCGCTAAGCATGGTAGAGGCTAGAGGAAGTCTATCCACAGG
CAGTTGTGTTCCCAGCAATTCCTCCCATCCTGCATGGTTCACACCAAGAGAACCTTCAGATCCTACCAGCAACCG
TAGCACCTTCCACCCAGGGGACTCCCAGAAGCCAGTAGAGAGACCAGGAGCCACCTCAATCAGCAGGACAGCCTC
ACTGCCCCTCTTGCAGAGTCCCCTTTGCCCATCCTGAATGCACAGTCTCCCTGCTCATGCCCTTCAGTCCCCTGC
TTGGCTGTATGCACTGTCTATATTGCACTGAGAGAGGAAGGGACAGCAGGAGTGAGGTGAAGAGGGCGGAGAGAG
GGGGCAGGCTCGGCACCGGCCCTCCCAGCCCGGCCAGCCTGAGCTTGCTGCCCTCCAGTAGAGACAGAGGGGCAG
TGTTTGCATGGGAGGTGTTTCTGCCTGTCCCTGCCTGATGTCCCTGGTGGAGCAGGTACCTCCGGGCGGGCAAGC
CTCTGATTTGCACACCTGAAAATCGCGGAATTGAGTTTCGATAGATTGATTTTTAAAACTTTTTTGGAGTAGGGG
GTATAGGGGAATCATTTAATTTAAATCATTAAGATTCCCCTGCTCAAACCCAGATTCCTGTGTACAGATGCTATT
TAGAGGGAATCAGAAAAATGCCAAGCCTTTTCTCTTTGAATGTGCTATTTTTATAACTGAACTTGTACATATGTA
TAAAGAGAGACACATCTTCCTTTTACTAACTGGATAAAAAAATCTTAAATAAAATGGAGTGAGATAATTTTATGT

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FIGURE 3376

CTTCTTCATCCTTTTTATATGTTCTTTGCTTCCTACTTCCCTGTCTTCCAACATACTGTTCACTTACTCTGGCAG
TCTTTCTGCTTTTCATTAAGCCTCAAAATCTCCTCTGTTCTACTTGGCACCACAAGCTATGTCCTATATATGTAT
TTCTGACTTGGCAGGATAGTTCAGGGGTCTGGCAGTTTTTATTTACCTTCATTATTAAATGGGCCTCTGGGATGT
TGCCTCTTCAGGAGCTTTTTGGTAATCAATACTTCTCTCAGAAGTATGAGACCATCCTCTGCACTCTGCTCTGTC
ATCAAAGGCTGCTGGGTGGAGATACCCTTTTTGAAAGGTGGCCTTGGTGAGAGGTATGGAGCCAAGTCTTCTAGG
TTGCTTGCCCACATCACTCTATCTCTGGCCTCTGATTCTCAACTTTGTACCTGTGTGGCTCCTCTTGTTAGTGCA
ATGTTGACTGTTGAAAAAGCAGCAGTATGCTTACAGGTTTGCTTAGTTTGGGGACACCGTTACCACCAGA**ATG**GC
TGCTCTGACAATATGCCTAGGGACTTTCTCATGGCTTTTATTTAATAAGGAGGCTGGGCACCCTATAAAGCCTCA
TGCATTCACACCTTTGCAGCATGGTTTATGCCTCACCTCCCAAGTAGCTGGGATTACAGGTGTGCACCACCATGC
CCGGCTAATTTTTTGTATTTTTAGTGGAGACAGGGTTTCACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCT
CAATTCTCCCACCTCAGCCTCCCAAGTAGCTGGGATTACAGACGTGTGCCACCATACCTGGGTAATTTTTGCATT
TTTAGTGGAGAGGGAGTTTCACCATGTTGGCCAGGTTGGTCTTGAACTCCTGACCTCAGGTGATCCTCCTGCCTC
GGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCGTGCTCAGCCGCAAAATTCTTTA**TGA**ATTTTACACTT
GGCAAATGTTAATGACGGAAGCCATAGTCTGCTCCTAATACATGTCCAAAGCATTGACTGTTGTGTCATTAGCTG
CCTGGTTACATTAGCTCCCTGGCTTCTTGTTTAGACCACTGCTAATCCCTTAAAAACAAGAGGTCTGGCACTAGT
AGCACAACCTAAGGTGGCATTACAGATCTTTGAGCGAGCCACAGCAACTTTTCTGCCAAGTCAGCTTAGTTTAGA
CTTCAGTGAATCAGGCTATTGCTATCCTAATGTATGTCTCTATGAGTGTATTTAGCCACACATCTGCCCTTGGTT
GACTTTCTGACTCATTGCTTGCTTGCTTGTTTCCTTGCTTTGGAAAACTATTGAAGATTGCTAAAAAATACCACT
GCAAAGTGATGGAAAAGGGTGGAGAACAGGGGAGTAGCCAGGCTGGATGGCTCAAATATAAATGAATGAGGAATT
CTTTATGAAGTATCAGTCAGATTTTATGATTAAGTGATGTAATATAGGAATTATGTAAAAGGGAAGAATGTCTGA
TACTGATCTATTAGAGAGGTACTTTAGAGGCTTCTTGATTGGCATAAAGTTCCTAAGGTTATAGATTTTCCCCCC
TTTTGGCTGTATAGCAAAGTGTTTTAATCCACGGTTGTGCCTTATTGTTCCATTAAAATTGTATCTTCGATCCAT
CAATAAATACTTGTGGTTGAAAC

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FIGURE 3377

GAGCTGTGCTTGGGGCGGGGCCTGGCGTGTATTCGAAAGGAAGGCGCCGGCTGCGGGAAG**ATG**GCGGCTCAGCCG
CTGCGGCATCGCTCACGTTGTGCAACGCCGCCCCGGGGGGACTTTTGTGGTGGCACTGAGAGGGCGATTGACCAA
GCTTCTTTTACGACCTCCATGGAGTGGGATACGCAGGTGGTGAAGGGGTCCTCGCCGCTCGGCCCCGCAGGGCTG
GGGGCTGAGGAGCCAGCCGCCGGCCCGCAGCTGCCGTCTTGGCTGCAGCCTGAGAGGTGCGCTGTGTTCCAGTGC
GCACAGTGTCACGCAGTGCTCGCCGACTCGGTGCACCTCGCCTGGGACCTGTCGCGGTCCCTCGGGGCCGTGGTC
TTCTCCAGAGTTACAAATAACGTCGTTTTGGAAGCGCCCTTCCTAGTTGGCATTGAAGGTTCACTCAAAGGCAGT
ACTTACAACCTTTTATTCTGTGGTTCTTGTGGGATTCCCGTTGGTTTCCATCTGTATTCTACCCATGCTGCCCTG
GCTGCCTTGAGAGGTCACTTCTGCCTTTCCAGTGACAAAATGGTGTGCTATCTCTTAAAAACAAAAGCCATAGTA
AATGCATCAGAGATGGATATTCAAAATGTTCCTCTATCAGAAAAGATTGCAGAGCTGAAAGAGAAGATAGTGCTA
ACGCACAATCGCTTAAAATCACTAATGAAGATTCTGAGTGAAGTGACTCCTGACCAGTCCAAGCCAGAAAAC**TGA**

TCCTGTACCAAAGCTTGAGTGTCAGGTTCAGGCTTTATTGCTGTCTTCAACAACAGGTGCTGCTTAGTCATTTCT
TGAAAAAGATTGGCTTCAAGAATGGAGGGGAAATGCAGTTTCTATTTACCTTTAGGCTGATTTTCCAAATTATTT
GTGAAGCTGTTTTTAGAAGATGAGAGACTAAGGATTCTTCTCTTTTATAGCTATTTGCCTTAAGAACTTACTTTA
GATTCTTATTGAATTCATAATACTTATCTCTGAAAATGTCTTTGACTGTAAATTTAGGAATTAAGATGCAGAGTC
CCATGTGTCCTCTGATCTAAAGTTGCATGGTTGGTCTGAAAATAGAGTTGGGCTTAATGTTGACTTCTATTACTC
CTGCATGGAGCAGTTGTTATGAATACTAATACATCACTTTTTAACTTCTGTAAAATACAGATCATAATATTCTAT
AGGTAATGTTTAATAAATTGCCTGAATAATA

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FIGURE 3378

GGGATTTGAACCGCGCTGACGAAGTTTGGTGATCCATCTTCCGAGTATCGCCGGGATTTCGAATCGCGATGATCA
TCCCCTCTCTAGAGGAGCTGGACTCCCTCAAGTACAGTGACCTGCAGAACTTAGCCAAGAGTCTGGGTCTCCGGG
CCAACCTGAGGGCAACCAAGTTGTTAAAAGCCTTGAAAGGCTACATTAAACATGAGGCAAGAAAAGGAAATGAGA
ATCAGGATGAAAGTCAAACTTCTGCATCCTCTTGTGATGAGACTGAGATACAGATCAGCAACCAGGAAGAAGCTG
AGAGACAGCCACTTGGCCATGTCACCAAAACAAGGAGAAGGTGCAAGACTGTCCGTGTGGACCCTGACTCACAGC
AGAATCATTCAGAGATAAAAATAAGTAATCCCACTGAATTCCAGAATCATGAAAAGCAGGAAAGCCAGGATCTCA
GAGCTACTGCAAAAGTTCCTTCTCCACCAGACGAGCACCAAGAAGCTGAGAATGCTGTTTCCTCAGGTAACAGAG
ATTCAAAGGTACCTTCAGAAGGAAAGAAATCTCTCTACACAGATGAGTCATCCAAACCTGGAAAAAATAAAAGAA
CTGCAATCACTACTCCAAACTTTAAGAAGCTTCATGAAGCTCATTTTAAGGAAATGGAGTCCATTGATCAATATA
TTGAGAGAAAAAAGAAACATTTTGAAGAACACAATTCC**ATG**AATGAACTGAAGCAGCAGCCCATCAATAAGGGAG
GGGTCAGGACTCCAGTACCTCCAAGAGGAAGACTCTCTGTGGCTTCTACTCCCATCAGCCAACGACGCTCGCAAG
GCCGGTCTTGTGGCCCTGCAAGTCAGAGTACCTTGGGTCTGAAGGGGTCACTCAAGCGCTCTGCTATCTCTGCAG
CTAAAACGGGTGTCAGGTTTTCAGCTGCTACTAAAGATAATGAGCATAAGCGTTCACTGACCAAGACTCCAGCCA
GAAAGTCTGCACATGTGACCGTGTCTGGGGGCACCCCAAAAGGCGAGGCTGTGCTTGGGACACACAAATTAAAGA
CCATCACGGGGAATTCTGCTGCTGTTATTACCCCATTCAAGTTGACAACTGAGGCAACGCAGACTCCAGTCTCCA
ATAAGAAACCAGTGTTTGATCTTAAAGCAAGTTTGTCTCGTCCCCTCAACTATGAACCACACAAAGGAAAGCTAA
AACCATGGGGGCAATCTAAAGAAAATAATTATCTAAATCAACATGTCAACAGAATTAACTTCTACAAGAAAACTT
ACAAACAACCCCATCTCCAGACAAAGGAAGAGCAACGGAAGAAACGCGAGCAAGAACGAAAGGAGAAGAAAGCAA
AGGTTTTGGGAATGCGAAGGGGCCTCATTTTGGCTGAAGAT**TAA**TAATTTTTTAACATCTTGTAAATATTCCTGT
ATTCTCAACTTTTTTCCTTTTGTAAATTTTTTTTTTTTGCTGTCATCCCCACTTTAGTCACGAGATCTTTTTCTG
CTAACTGTTCATAGTCTGTGTAGTGTCCATGGGTTCTTCATGTGCTATGATCTCTGAAAAGACGTTATCACCTTA
AAGCTCAAATTCTTTGGGATGGTTTTTACTTAAGTCCATTAACAATTCAGGTTTCTAACGAGACCCATCCTAAAA
TTCTGTTTCTAGATTTTTAATGTCAAGTTCCCAAGTTCCCCCTGCTGGTTCTAATATTAACAGAACTGCAGTCTT
CTGCTAGCCAATAGCATTTACCTGATGGCAGCTAGTTATGCAAGCTTCAGGAGAATTTGAACAATAACAAGAATA
GGGTAAGCTGGGATAGAAAGGCCACCTCTTCACTCTCTATAGAATATAGTAACCTTTATGAAACGGGGCCATATA
GTTTGGTTATGACATCAATATTTTACCTAGGTGAAATTGTTTAGGCTTATGTACCTTCGTTCAAATATCCTCATG
TAATTGCCATCTGTCACTCACTATATTCACAAAAATAAAACTCTACAACTCATTCTAACATTGCTTACTTAAAAG
CTACATAGCCCTATCGAAATGCGAGGATTAATGCTTTAATGCTTTTAGAGACAGGGTCTCACTGTGTTGCCCAGG
CTGGTCTCAAACTCCACCAAATGTACTTCTTATTCATTTTATGGAAAAGACTAGGCTTTGCTTAGTATCATGTCC
ATGTTTCCTTCACCTCAGTGGAGCTTCTGAGTTTTATACTGCTCAAGATCGTCATAAATAAAATTTTTTCTCATT
GTC

FIGURE 3379

GGTGTGTCCCGGGTGTGGGGAGGCGACAGAGCCCTGGCACTTGAGGGTTGAGGGGGCCTCCCCAGCGCGGCGAAC
CGTCTAGCCTCCGGAGGCCAGGCCGTGAGTGCGGGAGGTATACGCCAAGGCGGAAGAATTTTGCCACTCACTACC
TGTGTGACCTCGGGTAAATTAGCCTTGGAACGTCAGTTTCTTCGTCTCTATAATTGAAATAATAATAGTACCTCT
CTCAGGATTGTTGTGAGCCGTCAGTGAAACACTTAGAGCAGTTTCTGGCACATGGTAGAATTGGGCTATTTGCTG
AAGCTTCTTGGTGGCCCTTGCTAGCCCAGGAAGAAACTTACATTTTGATTTTTTTGTACC**ATG**GCTTTGGTTCAC
AAATTGCTGCGTGGTACTTATTTTCTCAGAAAATTCTCTAAGCCAACTTCTGCCTTGTATCCATTTTTGGGTATT
CGCTTTGCAGAGTATTCCAGTAGTCTTCAGAAACCAGTGGCTTCTCCTGGCAAAGCCTCCTCACAGAGGAAGACT
GAAGGGGATTTGCAAGGAGATCACCAGAAAGAAGTTGCTTTGGATATAACTTCTTCTGAGGAGAAGCCTGATGTT
AGTTTCGATAAAGCAATTAGAGATGAAGCAATATACCATTTTAGGCTTTTGAAGGATGAAATTGTGGATCATTGG
AGAGGACCGGAAGGCCACCCTCTGCATGAGGTCTTGCTGGAACAAGCCAAGGTTGTCTGGCAATTCCGGGGGAAA
GAAGATTTGGATAAGTGGACAGTGACTTCTGATAAGACGATTGGAGGCAGAAGTGAAGTGTTTTTGAAAATGGGC
AAGAATAACCAAAGTGCACTGCTATATGGAACTCTGAGCTCTGAGGCGCCTCAGGACGGGGAGTCTACCCGAAGT
GGGTACTGTGCAATGATATCCAGGATTCCAAGGGGTGCTTTTGAGAGGAAGATGTCTTACGATTGGTCCCAGTTC
AATACTCTGTATCTCCGTGTACGTGGGGATGGTCGGCCTTGGATGGTGAATATCAAGGAGGACACAGATTTCTTC
CAGAGGACGAATCAGATGTATAGTTACTTCATGTTCACCCGCGGGGGACCCTACTGGCAGGAGGTCAAGATTCCT
TTTTCCAAATTTTTCTTCTCTAATCGAGGAAGAATCCGGGATGTTCAGCATGAGCTTCCGCTTGATAAGATCTCT
TCTATAGGATTCACCTTGGCTGATAAAGTGGATGGTCCATTCTTCCTGGAGATAGATTTTATTGGCGTGTTTACT
GATCCAGCTCATACAGAAGAATTTGCCTATGAAAATTCTCCAGAGCTTAACCCAAGGCTTTTTAAA**TAA**AGATCA
TATGGTAGTTTTGTTTTACTAATCTAAGGGTACTAGCATCTACAATGATATAGACAAAATAAAATATTTCTTTAA
TGGCATCCAA

FIGURE 3380A

AGCGGAGCGCGCATGCGCGGTCGCCTTTGTGTGGGTCGAGCAGCGGCGGCGGCGGCGGCAGTGGCGGTCCCACTG
GCAGGCGGGCAAGAGGGGAGTCCGGGCGGCGGCCGGCGTGGGAGCCGGGGGACCACCATGGTAAAGAAGCGGAAA
GGCCGCGTCGTGATCGACTCGGACACAGAGGACAGCGGCAGCGACGAGAACCTGGATCAGGAGCTCTTGTCCCTG
GCAAAGCGAAAGCGCAGTGACTCTGAGGAGAAGGAGCCGCCTGTGAGTCAGCCTGCAGCCTCGTCAGACTCGGAG
ACGTCTGACAGTGACGATGAGTGGACATTTGGGAGCAATAAAAATAAGAAGAAAGGAAAAGCCAGAAAAATAGAG
AAGAAAGGAACC**ATG**AAGAAACAGGCCAACAAAACTGCCTCCTCAGGCAGTTCAGACAAAGACAGTTCAGCTGAG
AGCTCAGCCCCTGAGGAAGGTGAAGTGTCAGACTCTGACAGCAACAGCTCCTCTTCCAGTTCAGATTCAGACTCT
TCCTCAGAAGATGAAGAGTTCCATGATGGCTATGGAGAAGACCTCATGGGAGATGAGGAAGACAGGGCCCGTCTG
GAACAGATGACAGAGAAAGAGAGAGAGCAAGAACTGTTCAATCGCATAGAGAAGAGGGAGGTGTTGAAAAGAAGA
TTTGAAATCAAGAAAAAACTAAAAACAGCCAAAAAGAAAGAAAAGAAAGAAAAGAAGAAAAAGCAAGAAGAGGAG
CAAGAAAAGAAAAAACTGACACAGATTCAAGAATCTCAGGTAACATCCCACAACAAGGAACGGCGTTCCAAGCGG
GATGAGAAACTAGACAAGAAATCTCAAGCCATGGAGGAGCTAAAAGCAGAGCGAGAAAAACGAAAGAACAGAACA
GCTGAGCTCCTTGCCAAAAAACAGCCATTAAAAACCAGTGAGGTCTACTCTGATGATGAAGAGGAGGAAGAGGAT
GACAAATCCAGTGAAAAGTCAGACCGCTCATCACGAACATCATCGTCTGATGAAGAAGAGGAGAAAGAAGAGATC
CCTCCCAAATCCCAACCAGTTTCCTTACCTGAAGAATTGAATCGGGTTCGATTATCACGGCATAAGCTAGAACGC
TGGTGTCACATGCCCTTCTTTGCTAAAACTGTCACAGGATGTTTTGTGCGGATTGGCATCGGAAACCACAACAGC
AAACCAGTTTACCGGGTCGCTGAGATTACGGGTGTTGTGGAAACTGCCAAAGTTTACCAACTAGGTGGCACCAGA
ACAAACAAAGGGCTGCAACTACGGCATGGCAATGACCAACGCGTGTTCCGTTTAGAGTTTGTCTCAAACCAAGAA
TTCACCGAAAGTGAGTTTATGAAGTGGAAAGAAGCGATGTTCTCTGCTGGCATGCAGTTGCCCACTCTAGATGAA
ATCAATAAAAAGGAATTATCTATTAAAGAAGCTCTTAATTATAAATTCAATGATCAGGACATTGAAGAGATTGTA
AAAGAGAAAGAAAGGTTCAGAAAAGCTCCACCCAACTACGCTATGAAGAAGACTCAGCTACTGAAGGAAAAGGCC
ATGGCTGAGGACCTGGGGGATCAGGACAAGGCCAAACAAATCCAAGATCAACTGAATGAGCTGGAGGAACGGGCA
GAGGCCCTGGACCGCCAGCGGACCAAGAACATATCCGCTATCAGTTACATCAACCAGCGGAACCGGGAGTGGAAC
ATTGTAGAGTCTGAGAAGGCCCTTGTGGCTGAAAGTCACAACATGAAAAACCAACAGATGGATCCCTTTACTCGG
CGGCAGTGCAAGCCTACCATCGTTTCTAATTCCAGAGACCCAGCTGTTCAAGCTGCCATCTTGGCCCAGCTGAAT
GCAAAATACGGTTCTGGAGTGTTACCAGATGCTCCAAAGGAAATGAGCAAGGGTCAAGGCAAAGATAAAGATTTG
AATTCTAAGTCAGCCAGTGACCTCTCAGAAGATCTGTTCAAAGTACACGATTTTGATGTGAAGATTGACTTACAA
GTTCCCAGCTCAGAGTCAAAGGCTTTAGCCATCACCTCCAAGGCTCCGCCAGCCAAGGATGGGGCTCCAAGGAGA
TCTCTGAACTTGGAAGACTACAAAAAACGACGAGGGCTTATT**TGA**GCACACCCAGCCTGCTGCTTCTGACCCTGC
ATGCCCCATCGCAGCGTCCCACCTTTCCTCCTTTCCTTTGATTTAGCCTCTTTGGGCTGGAGCAGCTGTTGAACT
GGGAAGAGACTCTAAACTGCCAGTCATCTGTAATATAAACCATTTGCTGTATAGACCTCCTTTGTCTGCACACCA
TCTCCCACCAGCCTCCCCTCCCCCAGGGCCCCACCCAGTGTGGGCCTGGGCTCTCTTGGGCTTTATCCATGTCTT
TAGATTTGTGTTTGCCTTTTGTTTTTTTAACCGCGCAGTTCATTGGCCACTCTGCACGCATTCAGTATTACCATG
GAGCTGGGAATCTTGCTGGAGCCCCTGGGGCAATAGCAGCAGCACCAGGCGGTCTCCTCTACAGACTGCCTTGGC
CCACCCATTGAACATTCGGCACGTGACCTTGTGGGGGGAGCGGGGATTGGGCACCTGCGATCCTCTTTCCTCTCT
TCATCTTTCTCTTCTGCCCTTCTTTTTGGAAGAAGGGGTTTCAAAACCAGTTTAGTTTCCAAAAAGTGTACATTT
GTGGGGGGGGGGGTCTAATTTGAGAGCGAGAGTGTGTATGTGTGTGTGTGTAAGTGTGTGGATTTTTTTATCATT
TTTTTAAAATGCAGTACTCTTTGTATCAGTCTGTCATGGGTCTATAGCTGTTTCAGATTTTTTTCAGCTGTACTT
GAGCATCTGAAACTGCAAGAAAGAAACTCATTAAATGTGATTCTTCTTACTAAACAGGCCTGACTGCTGTAGCTG
TGTAACTTCCCCATTCCCACCTACTCTTCCCATCCTTTCCCAACTTTGGAGAAAACTCCCCAGTTTAGCCCCCTG
ACCTGCAGGCTGTGTCCTGGCAGGTGTGGGAGGGAAGCCCATGGCCAGGTACCAGGGAGGGCAGTGAATGTCTTG
CTCTTCCCATGGGTACAGCCCACAGCTTCTTGGCTGAACGTAGAACTTCTTTTTCTCACCCAGTATACCAGCCTC
TTCCTGGTGATTCTGTTTTGCTGCTTTGGCAAGAACTACATTTTGTTTTTAAGAGAAATTTCTGAATATGAATGT
GGAGAGCAAACACAAAAAGATTTAGGTTACGCCGGGTGCAGTAGCTCACGCCTGTAATCCCAGCACTTTGGGAGG
CCTAGGCGGGTGGATCACCTGAGGTCAGGAGTTCAAGACCAATCTGACTAACACGGTGAAACCCCATCTCTACTA
AAACTACAAAACTTAGCCGGGCATGGTGGTGCGTGCCTGTAATCCCAGCTACTCGGGGGGCTGAGACAGGAGAAT
CCCTTGAACCTGGGAGGCGGAGGTTGTGGTGAGCCAAGATCGTGCCACTGCACTCCAGTCTGGGTGACAGAGTGA
GACTCCGCCTCAAAAAGATTTAGGTTGCAAATGTTTCAAGCATGTGCAGTTTTGTGTGTGTGTATACATATATAT

FIGURE 3380B

GGTCAGCATATATATTGTGCAGCTAGGGCGAAGCCAGCAGAGGTGTGTGTATGTCTTTATGAAATGTTTGAAAAG
AGATAAACTGACTGCTTGATAATCACTCTCAGGTGTAAAGCTCCAAGTGTAAATAAAAGTGGCATTTAACAAATC
TTTCAGAACAAAGTACAGCTGACTATATATACCAAGAGCTAAGCTAAAGGAACAGCTGAGAGCTCCGATCTCCAC
GAGAGACTAATCTAAAAGCTCTGCTTTGTACTTCCTCACCCTGCTTTCGTACAAGGAAGGGGGACGATGGGAAAT
CATGGACTTGTAAGTTGTATTTAAACATAAAAATGAACTTGGTAACTTCTGGGTTTAGTAGAGCCTCAGTGTCGC
TTTAACTTAGTTTACTTTTTTTTTATTTTTAAAGCAGCAATGGATGGTTTTAAAGGAGTATTATGATTGTAAAAT
TGCTAAATATGACTGTAACACAGCTTTGTGGTAGCTGTGACACAGTTCACTTGGGCAAAGGAGTGGTGATGGACT
CGTTAAAATCATATATACTTGAATAGTCCATTGACCGAAACTCTTTATAGACTATTGTGTAAATGTGGAATCACA
GACTGTTAACATTGCCTGGACTTCAGCAGAGTCCTGGAGCTGCTGGGACCTCTCCTATCATGATGAACTTGGACT
TTTTTTTTTGATTTCTGGTTTTAAAAAACATAAAATTATAGAATCCAGATAATTCGCTGGAGTCATTCTGATCCA
CCATGTAGATCTGTATTTAGTATCATTTGGATTTGGAGAAGTGTTGATTACATTATGGCTGTGTAATAAAATTTT
TATTAAAACTGC

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FIGURE 3381A

GCGATCTCTGCGGGGCAAGATGGCGGCGCCCAGACAGGCCTGGAGCACGGATGAATAAGAGGGAACCCCCACACG
GAGAGACTGCTGGAGAGAGTCGTACTGGGGAGGCAGCTGGAGCAGCAAGATGCTGTCGAGACCGAAGCCAGGGGA
GTCCGAGGTGGACCTGCTGCACTTCCAGAGTCAGTTTCTCGCAGCTGGTGCAGCCCCAGCAGTGCAGTTGGTGAA
GAAAGGAAATAGGGGCGGTGGTGATGCCAACTCAGACCGGCCTCCGCTCCAGGACCATCGGGATGTGGTGATGTT
GGACAATCTCCCAGATTTGCCCCCAGCTTTGGTCCCTTCTCCTCCAAAGAGAGCCAGGCCCAGCCCTGGCCACTG
CCTGCCTGAGGATGAGGACCCAGAAGAGAGGCTGAGGAGGCATGATCAGCACATCACTGCTGTCTTGACTAAGAT
TATTGAACGAGATACAAGTTCAGTGGCCGTGAATCTGCCTGTGCCCAGTGGTGTTGCTTTCCCTGCTGTGTTCCT
TCGCTCGCGGGACACACAGGGGAAATCAGCAACATCTGGTAAGAGAAGCATCTTTGCCCAGGAAATTGCGGCAAG
GAGGATAGCTGAAGCCAAGGGCCCATCAGTTGGGGAAGTTGTGCCCAACGTGGGCCCACCAGAGGGTGCCGTGAC
CTGTGAGACACCCACTCCTAGGAACCAGGGCTGCCAGCTTCCTGGGAGCAGCCACAGCTTTCAGGGACCCAATCT
GGTCACAGGGAAGGGGCTCAGGGATCAAGAAGCTGAGCAGGAAGCCCAGACTATCCATGAAGAGAACATAGCAAG
ACTGCAGGCCATGGCTCCTGAGGAGATCCTGCAGGAACAGCAGCGGTTGCTGGCCCAGCTTGACCCCAGCTTGGT
TGCTTTCTTGAGATCTCACAGCCACACGCAAGAGCAAACAGGAGAGACAGCCTCTGAGGAGCAGAGGCCAGGAGG
ACCCTCTGCTAATGTCACCAAGGAGGAACCCCTCATGTCAGCTTTTGCCAGTGAGCCCAGGAAGAGAGACAAGCT
GGAGCCAGAAGCCCCAGCTCTGGCATTGCCCGTGACCCCTCAGAAAGAATGGCTGCACATGGACACTGTCGAGCT
GGAGAAGCTCCACTGGACCCAGGACTTGCCCCCTGTCCGGCGGCAGCAGACACAGGAGAGGATGCAGGCTCGATT
CAGTCTTCAGGGAGAACTACTGGCCCCTGACGTGGACCTGCCCACCCACCTGGGTCTGCACCACCATGGAGAGGA
GGCAGAGAGAGCGGGGTATTCCCTACAGGAGCTGTTCCACCTGACCCGCAGCCAGGTTTCCCAGCAGAGAGCACT
GGCACTGCATGTGTTAGCCCAGGTCATCAGCAGGGCCCAGGCTGGTGAGTTTGGGGACCGGCTAGCAGGCAGTGT
CTTAAGCCTCCTTTTGGATGCTGGTTTCCTCTTCCTACTGCGCTTCTCCTTGGATGACAGAGTGGATGGGGTCAT
TGCAACCGCCATCCGTGCTCTTCGGGCTCTGCTGGTGGCTCCTGGAGATGAGGAGCTCCTCGACAGCACCTTCTC
TTGGTACCATGGAGCTTTGACGTTCCCTCTGATGCCCAGCCAGGAGGACAAGGAGGATGAGGACGAGGATGAAGA
ATGCCCAGCAGGAAAAGCAAAAAGGAAAAGCCCTGAAGAAGAAAGCCGGCCTCCACCTGACCTGGCCCGACATGA
TGTCATCAAGGGGCTCCTGGCTACCAGCCTGCTGCCTCGGCTGCGCTACGTGCTGGAGGTGACATACCCAGGACC
TGCGGTGGTCCTTGACATCCTGGCTGTGCTCATCCGCCTGGCCCGGCATTCCCTGGAATCAGCCACAAGGGTCCT
GGAGTGCCCTCGGCTGATAGAGACTATAGTTCGAGAGTTCTTGCCCACCAGTTGGTCTCCTGTGGGGGCAGGGCC
TACCCCTAGTCTATACAAAGTACCCTGTGCTACTGCCATGAAACTACTTCGTGTCCTGGCCTCAGCTGGGAGGAA
TATTGCTGCCCGGCTGTTGAGCAGCTTTGATCTCCGGAGCCGCCTGTGCCGCATCATAGCTGAGGCTCCCCAAGA
ACTGGCCTTGCCCCCAGAGGAAGCTGAGATGCTGAGCACCGAGGCCCTCCGTCTGTGGGCTGTGGCTGCCTCCTA
TGGCCAGGGCGGTTACCTTTACAGGGAGCTCTACCCAGTGCTGATGCGGGCCTTGCAGGTGGTGCCGCGGGAGCT
CAGCACCCACCCACCTCAACCCCTGTCCATGCAGCGGATAGCCTCACTGCTCACTCTCCTCACCCAGCTAACCCT
GGCAGCCGGCAGTACCCCTGCTGAAACCATCAGTGATTCTGCTGAGGCCAGCCTCTCGGCCACCCCTTCCTTAGT
CACTTGGACACAGGTGTCTGGGCTCCAGCCTCTTGTTGAGCCGTGTCTAAGGCAGACCTTGAAGTTGCTGTCCAG
ACCTGAGATGTGGAGAGCCGTGGGCCCAGTGCCCGTTGCCTGCCTGTTGTTCCTGGGAGCCTACTACCAGGCCTG
GAGCCAGCAACCAAGCTCATGCCCGGAGGATTGGCTCCAGGACATGCAGCGCCTGTCAGAGGAGCTGCTGCTGCC
ACTGCTGAGTCAGCCCACACTGGGCAGCCTGTGGGATTCCCTTAGGCACTGCTCCCTTCTCTGCAACCCGCTGTC
CTGTGTGCCAGCCCTTGAAGCTCCCCCCAGCCTCGTGTCACTGGGCTGCTCGGGAGGCTGCCCCCGTCTCAGTCT
GGCTGGCTCAGCCTCACCCTTCCCATTCCTCACTGCCCTCCTCTCTCTTCTTAATACCCTGGCCCAGATCCACAA
GGGGCTGTGTGGCCAGCTGGCTGCCATATTGGCTGCCCCGGGACTCCAGAATTACTTCCTCCAGTGTGTGGCTCC
TGGGGCTGCCCCACACCTCACACCTTTCTCTGCATGGGCCCTGCGCCATGAGTACCACCTGCAGTACCTGGCACT
CGCTCTGGCCCAGAAAGCGGCAGCGCTGCAGCCACTGCCAGCCACCCATGCTGCCCTCTATCATGGTATGGCCTT
GGCCCTGCTGAGCCGGCTGCTGCCCGGAAGTGAGTACCTCACCCATGAGCTGCTGCTGAGCTGTGTATTCCGGCT
GGAGTTCCTCCCGGAAAGAACATCAGGGGGTCCAGAGGCAGCCGACTTCTCTGACCAGCTGTCGTTAGGAAGCAG
CAGGGTCCCTCGGTGTGGGCAAGGGACTCTGCTGGCTCAGGCCTGCCAGGACCTCCCCAGCATCCGCAACTGCTA
CCTGACTCATTGCTCGCCAGCCCGAGCCAGTCTGCTGGCCTCCCAGGCTCTGCACCGAGGGGAGCTACAGCGAGT
CCCAACCCTGCTACTGCCCATGCCTACGGAGCCGCTGCTGCCCACCGACTGGCCCTTCCTGCCACTGATTCGCCT
CTACCACCGGGCTTCAGACACCCCCTCGGGACTCTCTCCCACAGACACCATGGGCACAGCCATGCGGGTCCTGCA
GTGGGTGCTAGTTTTGGAGAGCTGGCGCCCCCAGGCTCTCTGGGCTGTGCCCCCTGCTGCCCGCCTGGCACGGCT

FIGURE 3381B

CATGTGTGTGTTCCTGGTGGACAGTGAGCTGTTCCGGGAGTCCCCAGTACAGCATCTGGTGGCAGCCCTCCTCGC
CCAGCTCTGTCAGCCTCAAGTCTTGCCAAACCTCAACCTGGACTGCCGACTCCCTGGCCTGACGTCTTTCCCTGA
CCTCTATGCCAACTTCCTGGATCATTTTGAGGCTGTCTCTTTTGGGGACCACCTCTTTGGGGCCCTGGTCCTCCT
GCCCCTGCAGCGTCGGTTCAGTGTCACCTTGCGCCTTGCCCTCTTTGGGGAACACGTGGGAGCCTTGCGAGCTCT
GAGCCTGCCTCTGACCCAGGTACTTTCTCAGCCCAGCAGGACCTGCAAGGGTACCCTGCACTGGGCCTCGGGGGC
AGTCCTGAGCCTTGAGGAGCTTTGGAAGACCTCAGCTTCCTCATCTTACCTCTTGGGGGCTTTGAGGGGATTAAG
AGAATCAATGAAAAGGGCT**TAA**CATGGGCTGGGTGTGGTGGCTCACGCCTGTAATTCCATCACTCTGGGAAGCTG
AGGTGGGTGGATCACTTAAGGTCAGGAGTTTGAGACCAGCCTGGGCAACATAGTGAAACCCCATTTCTACTAAAA
ATACAAAACTTAGCTGGGCGTGGTTGCGGGTGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATCGC
TTGAACCCGGGAAGCGGAGGCTACAGTGAGCCGAGATCGCGCCACTGCACCCCAGCCCAGTGACAGAGCAAGACC
CTGTCTCAAAAAAGAAAAAAGGAAAGGGTTTAACCTGGTGTCTGGCATATAGTGGGTATTCATTACTATTAATAA
GGCATAGCTCCTTGCTTATCAGTGCTACAATCTAGATAAGAAGAGATTTACTGAAAACCTACATAGTTGTGAATT
ATTCAGATGCTAGGTGGTATCAGGATTCAGAGAAGGGAAAGATCAAATTGGGCTTTGTGGAAGAAGTGGGGATTG
ACCCAGGCACTGTAGGTTGGGTAGAATTTGAATTGGTGAGGAGGTAGAAAGGCAGGAGATTCCTAACAGAATAAC
ATAAGCAAAAGGAGCATGACAAAGGGCAGAAGGAGGGAGGAGAGATTTCTGTTGGGAACTTAAGGCTGGTCTTGA
ATTCCTAATTTCGTGTGATCCGCCTGCCTCAGCCTCCCAAGTGCTGAGATTACAGGCGTGGCCCACTACACATGG
CCAATTTCATGCTTTTTAATGGCTGCTTCTCAGTTCCCAGTTTTCCCCAACATCTGCTCTGTAGTCTTTAACCCT
GATCCTTGTGCTAGAAGGACAGATGTTTGTCTAGGACCTGATCTCTGCCCTCATGATTTGGTTTCATGTGATCGT
TATCCACACACCTTATGTATGTATATACATTCCTACCCTCCCCCTCAGCACGTCATTTCCCCTGTCACAGTTGCC
TGTGTCCCTGGAGTGTTACACAGTGCCTCCTGAAGACAACCTGGCCCTCCTTCAGCTCTACTTCCGGACCCTGGT
TACTGGTGCGCTCCGCCCACGTTGGTGCCCCGTGCTCTATGCTGTGGCTGTGGCTCATGTCAATAGCTTCATCTT
CTCTCAGGACCCACAGAGCTCAGTAAGTTACATCTCCATCTTCAGAGGAAGGAAGGGAGCTAGCAATTGAGCTGC
CTCTGGGCCAGCTGGGGAAGAGGTAAGTGTCAAGCAAGGCCAGTGGTGGGTACCAGCCCTCGGCTCAGTGCCACC
TCTCCCTGTTCTGCTTCTAGGATGAGGTCAAAGCTGCCCGCAGGAGTATGCTGCAGAAAACATGGCTGCTGGCAG
ATGAGGGTCTCCGGCAGCACCTCCTGCACTATAAGCTTCCCAATTCCACGCTCCCAGAGGGCTTTGAGCTCTATT
CTCAGTTGCCCCCTCTGCGTCAGCACTACCTCCAGAGACTGACTTCAACAGTGCTCCAAAATGGGGTATCAGAGA
CCTAGGATAGTTGATATAGATGGAAAGATGGGTACGTTGTCCTGTATCCAGCCTTTCAACAGATGTCTGGCCAGA
CGAAGAACATTGTGTCCTAATGGTAGGCAGGAGACCAAGGAGCAGAAGGCTTGCCTTCCTGGGAGCAGGTTGTTT
GAGCTGTTTTAGAGCAGTGAGCCCTACCATTACATCCTGATATCTGGGGCTTCTGAAGGTCTGTACTGGGAGTGA
AGAGTGGCTTAGCTATTTACCCGCTCTTTGGGGACAGGGCAAACTAAATGCATCCCTTCTTACCTAACTCCCAAC
CCCTGCCCTGGGCTGAGGCATATGAATGCTATAGTTGTGCATTAAAATAAATGTTTTTTATCTCCTGG

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FIGURE 3382A

CCCCGCCCTCCTCCCTCCTCGCTCGCGGGCCGGGCCCGGCATGGTGCGGCGTCGCCGCCG**ATG**GCGCTGAGGCGG
AGCATGGGGCGGCCGGGGCTCCCGCCGCTGCCGCTGCCGCCGCCACCGCGGCTCGGGCTGCTGCTGGCGGCTCTG
GCTTCTCTGCTGCTCCCGGAGTCCGCCGCCGCAGGTCTGAAGCTCATGGGAGCCCCGGTGAAGCTGACAGTGTCT
CAGGGGCAGCCGGTGAAGCTCAACTGCAGTGTGGAGGGGATGGAGGAGCCTGACATCCAGTGGGTGAAGGATGGG
GCTGTGGTCCAGAACTTGGACCAGTTGTACATCCCAGTCAGCGAGCAGCACTGGATCGGCTTCCTCAGCCTGAAG
TCAGTGGAGCGCTCTGACGCCGGCCGGTACTGGTGCCAGGTGGAGGATGGGGGTGAAACCGAGATCTCCCAGCCA
GTGTGGCTCACGGTAGAAGGTGTGCCATTTTTTCACAGTGGAGCCAAAAGATCTGGCAGTGCCACCCAATGCCCCT
TTCCAACTGTCTTGTGAGGCTGTGGGTCCCCCTGAACCTGTTACCATTGTCTGGTGGAGAGGAACTACGAAGATC
GGGGGACCCGCTCCCTCTCCATCTGTTTTAAATGTAACAGGGGTGACCCAGAGCACCATGTTTTCCTGTGAAGCT
CACAACCTAAAAGGCCTGGCCTCTTCTCGCACAGCCACTGTTCACCTTCAAGCACTGCCTGCAGCCCCCTTCAAC
ATCACCGTGACAAAGCTTTCCAGCAGCAACGCTAGTGTGGCCTGGATGCCAGGTGCTGATGGCCGAGCTCTGCTA
CAGTCCTGTACAGTTCAGGTGACACAGGCCCCAGGAGGCTGGGAAGTCCTGGCTGTTGTGGTCCCTGTGCCCCCC
TTTACCTGCCTGCTCCGGGACCTGGTGCCTGCCACCAACTACAGCCTCAGGGTGCGCTGTGCCAATGCCTTGGGG
CCCTCTCCCTATGCTGACTGGGTGCCCTTTCAGACCAAGGGTCTAGCCCCAGCCAGCGCTCCCCAAAACCTCCAT
GCCATCCGCACAGATTCAGGCCTCATCTTGGAGTGGGAAGAAGTGATCCCCGAGGCCCCTTTGGAAGGCCCCCTG
GGACCCTACAAACTGTCCTGGGTTCAAGACAATGGAACCCAGGATGAGCTGACAGTGGAGGGGACCAGGGCCAAT
TTGACAGGCTGGGATCCCCAAAAGGACCTGATCGTACGTGTGTGCGTCTCCAATGCAGTTGGCTGTGGACCCTGG
AGTCAGCCACTGGTGGTCTCTTCTCATGACCGTGCAGGCCAGCAGGGCCCTCCTCACAGCCGCACATCCTGGGTA
CCTGTGGTCCTTGGTGTGCTAACGGCCCTGGTGACGGCTGCTGCCCTGGCCCTCATCCTGCTTCGAAAGAGACGG
AAAGAGACGCGGTTTGGGCAAGCCTTTGACAGTGTCATGGCCCGGGGAGAGCCAGCCGTTCACTTCCGGGCAGCC
CGGTCCTTCAATCGAGAAAGGCCCGAGCGCATCGAGGCCACATTGGACAGCTTGGGCATCAGCGATGAACTAAAG
GAAAAACTGGAGGATGTGCTCATCCCAGAGCAGCAGTTCACCCTGGGCCGGATGTTGGGCAAAGGAGAGTTTGGT
TCAGTGCGGGAGGCCCAGCTGAAGCAAGAGGATGGCTCCTTTGTGAAAGTGGCTGTGAAGATGCTGAAAGCTGAC
ATCATTGCCTCAAGCGACATTGAAGAGTTCCTCAGGGAAGCAGCTTGCATGAAGGAGTTTGACCATCCACACGTG
GCCAAACTTGTTGGGGTAAGCCTCCGGAGCAGGGCTAAAGGCCGTCTCCCCATCCCCATGGTCATCTTGCCCTTC
ATGAAGCATGGGGACCTGCATGCCTTCCTGCTCGCCTCCCGGATTGGGGAGAACCCCTTTAACCTACCCCTCCAG
ACCCTGATCCGGTTCATGGTGGACATTGCCTGCGGCATGGAGTACCTGAGCTCTCGGAACTTCATCCACCGAGAC
CTGGCTGCTCGGAATTGCATGCTGGCAGAGGACATGACAGTGTGTGTGGCTGACTTCGGACTCTCCCGGAAGATC
TACAGTGGGGACTACTATCGTCAAGGCTGTGCCTCCAAACTGCCTGTCAAGTGGCTGGCCCTGGAGAGCCTGGCC
GACAACCTGTATACTGTGCAGAGTGACGTGTGGGCGTTCGGGGTGACCATGTGGGAGATCATGACACGTGGGCAG
ACGCCATATGCTGGCATCGAAAACGCTGAGATTTACAACTACCTCATTGGCGGGAACCGCCTGAAACAGCCTCCG
GAGTGTATGGAGGACGTGTATGATCTCATGTACCAGTGCTGGAGTGCTGACCCCAAGCAGCGCCCGAGCTTTACT
TGTCTGCGAATGGAACTGGAGAACATCTTGGGCCAGCTGTCTGTGCTATCTGCCAGCCAGGACCCCTTATACATC
AACATCGAGAGAGCTGAGGAGCCCACTGCGGGAGGCAGCCTGGAGCTACCTGGCAGGGATCAGCCCTACAGTGGG
GCTGGGGATGGCAGTGGCATGGGGGCAGTGGGTGGCACTCCCAGTGACTGTCGGTACATACTCACCCCCGGAGGG
CTGGCTGAGCAGCCAGGGCAGGCAGAGCACCAGCCAGAGAGTCCCCTCAATGAGACACAGAGGCTTTTGCTGCTG
CAGCAAGGGCTACTGCCACACAGTAGCTGT**TAG**CCCACAGGCAGAGGGCATCGGGGCCATTTGGCCGGCTCTGGT
GGCCACTGAGCTGGCTGACTAAGCCCCGTCTGACCCCAGCCCAGACAGCAAGGTGTGGAGGCTCCTGTGGTAGTC
CTCCCAAGCTGTGCTGGGAAGCCCGGACTGACCAAATCACCCAATCCCAGTTCTTCCTGCAACCACTCTGTGGCC
AGCCTGGCATCAGTTTAGGCCTTGGCTTGATGGAAGTGGGCCAGTCCTGGTTGTCTGAACCCAGGCAGCTGGCAG
GAGTGGGGTGGTTATGTTTCCATGGTTACCATGGGTGTGGATGGCAGTGTGGGGAGGGCAGGTCCAGCTCTGTGG
GCCCTACCCTCCTGCTGAGCTGCCCCTGCTGCTTAAGTGCATGCATTGAGCTGCCTCCAGCCTGGTGGCCCAGCT
ATTACCACACTTGGGGTTTAAATATCCAGGTGTGCCCCTCCAAGTCACAAAGAGATGTCCTTGTAATATTCCCTT
TTAGGTGAGGGTTGGTAAGGGGTTGGTATCTCAGGTCTGAATCTTCACCATCTTTCTGATTCCGCACCCTGCCTA
CGCCAGGAGAAGTTGAGGGGAGCATGCTTCCCTGCAGCTGACCGGGTCACACAAAGGCATGCTGGAGTACCCAGC
CTATCAGGTGCCCCTCTTCCAAAGGCAGCGTGCCGAGCCAGCAAGAGGAAGGGGTGCTGTGAGGCTTGCCCAGGA
GCAAGTGAGGCCGGAGAGGAGTTCAGGAACCCTTCTCCATACCCACAATCTGAGCACGCTACCAAATCTCAAAAT
ATCCTAAGACTAACAAAGGCAGCTGTGTCTGAGCCCAACCCTTCTAAACGGTGACCTTTAGTGCCAACTTCCCCT

FIGURE 3382B

CTAACTGGACAGCCTCTTCTGTCCCAAGTCTCCAGAGAGAAATCAGGCCTGATGAGGGGGAATTCCTGGAACCTG
GACCCCAGCCTTGGTGGGGGAGCCTCTGGAATGCATGGGGCGGGTCCTAGCTGTTAGGGACATTTCCAAGCTGTT
AGTTGCTGTTTAAAATAGAAATAAAATTGAAGACTAAAGACCTA

FIGURE 3383

ATGAATAAAACTGACAAAAATCCTTGCTTTCAGAAATTTGTCATTGCCATCTCAACCAAAACTGGCATTAGCAAT
GTAAAAATCCCAAAACATCTTATTGATGCTCACTTCGAGAAGCAGTTGCAGAAGCCCAGACACCAGGAAGGTGAG
ATCTCTGACACAGAAAAAGAGAACTACAAGACTACAGAGCAGTGCAAGATTGATCAGAAAGCTGTGGACTCACAA
ATTGTACGAAAAATCAAAGCTATTCCTCAGCTCCAGGGCTACCTGCGATCTGTGTTTGCCCTGACGAATGGAATT
TATCCTCACAAATTGGTGTTT**TAA**

FIGURE 3384A

ATCTCCAAGGTAGCATCCAATGCCAAGGTGGCTGCATCCAGGAAACCACGTACCCTGTTGCCTTCAACATCCAAT
TCCAAA**ATG**GCATCCTCCTCTGGCACTGCAACAAATCGCCCTGGGAAGAATCTGAAGGCGTTTGTCCCAGCAAAA
CGGCCAATTGCGGCTCGACCCTCTCCTGGTGGTGTGTTCACACAGTTTGTGATGAGTAAAGTTGGAGCCTTGCAG
CAGAAGATACCTGGAGTTAGCACACCCCAAACCCTGGCAGGGACACAGAAGTTCAGTATCAGACCTTCTCCAGTA
ATGGTCGTCACACCTGTGGTTTCTTCTGAGCCAGTTCAGGTGTGCAGCCCTGTGACTGCTGCTGTCACTACTACC
ACCCCTCAAGTGTTTTTAGAAAATACTACTGCTGTGACACCTATGACTGCTATTTCTGACGTGGAAACTAAAGAA
ACTACTTATTCTTCTGGTGCCACCACTACAGGGGTTGTTGAGGTCTCTGAAACTAATACCAGCACCTCTGTAACA
TCTACCCAGTCTACAGCCACTGTGAACCTTACCAAAACCACTGGGATAACTACCCCTGTGGCTTCAGTTGCTTTT
CCTAAGTCTTTGGTAGCATCTCCTTCAACCATAACTCTTCCTGTTGCTTCCACTGCTTCCACCTCCTTAGTCGTG
GTGACTGCAGCTGCATCTTCCTCCATGGTGACCACACCAACTTCATCTCTGGGCTCTGTTCCTATTATACTCTCA
GGAATTAATGGGAGTCCACCAGTGAGCCAGAGACCAGAAAATGCTGCTCAAATTCCAGTGGCTACTCCACAGGTC
TCTCCTAACACAGTGAAACGTGCTGGACCTCGATTGTTGTTGATTCCAGTGCAGCAGGGTTCTCCTACTCTTAGA
CCTGTCTCAAACACACAACTTCAGGGACATCGGATGGTCTTGCAGCCTGTTAGGAGTCCAAGTGGAATGAACTTA
TTCAGGCACCCTAATGGGCAGATTGTCCAGCTTCTACCTTTGCATCAGCTTCGAGGCTCTAATACCCAGCCCAAC
TTACAGCCTGTCATGTTTCGGAACCCAGGGTCTGTGATGGGAATCCGGTTACCTGCTCCTTCCAAACCCTCTGAG
ACTCCGCCATCTTCCACTTCGTCCTCTGCTTTCTCTGTCATGAATCCTGTAATTCAAGCTGTTGGGTCTTCTTCA
GCAGTGAATGTTATCACTCAGGCACCATCATTGCTTTCCTCTGGAGCTAGTTTTGTGTCTCAGGCTGGTACATTG
ACCCTGAGGATTTCTCCTCCTGAACCACAAAGCTTTGCAAGTAAAACAGGCTCTGAAACCAAAATAACTTATAGC
TCAGGAGGACAGCCTGTTGGTACAGCCAGTCTTATTCCTCTCCAGTCTGGTAGTTTTGCCTTGTTACAGCTCCCA
GGACAAAAGCCTGTTCCTAGCTCCATTCTTCAGCATGTTGCTTCCCTTCAGATGAAGAGAGAATCTCAGAATCCA
GACCAGAAAGATGAAACAAACTCAATAAAAAGAGAGCAAGAAACGAAGAAGGTTCTACAGTCAGAAGGAGAGGCT
GTAGACCCTGAGGCTAATGTAATAAAACAAAACTCAGGAGCTGCTACCTCAGAAGAAACTCTGAATGATTCCTTG
GAAGATAGGGGTGATCATTTGGATGAAGAATGCCTTCCAGAAGAAGGTTGTGCAACTGTCAAACCATCTGAGCAT
TCCTGTATCACTGGGTCACATACAGATCAAGATTATAAAGATGTTAATGAAGAATATGGGGCTAGGAATCGTAAG
AGTTCCAAAGAAAAAGTGGCTGTTCTGGAAGTTAGGACCATTTCTGAAAAAGCCAGTAATAAGACAGTCCAAAAT
TTAAGTAAAGTACAGCATCAAAAACTTGGTGATGTGAAGGTGGAACAGCAGAAAGGATTTGACAATCCAGAAGAA
AACTCAAGTGAATTTCCAGTCACCTTTAAGGAAGAAAGTAAATTTGAATTGTCAGGAAGCAAAGTTATGGAGCAG
CAATCTAATCTACAGCCAGAGGCCAAAGAGAAGGAATGTGGAGACTCTCTGGAGAAAGACAGGGAAAGATGGAGA
AAACATCTGAAGGGCCCCTTAACCAGGAAATGTGTTGGAGCTTCACAGGAATGTAAGAAAGAGGCAGACGAGCAG
TTAATTAAAGAAACAAAGACATGTCAGGAAAATTCAGATGTGTTTCAGCAAGAACAAGGCATCTCTGACTTACTT
GGAAAAAGTGGAATTACTGAAGATGCCAGAGTTTTGAAAACTGAATGTGATTCTTGGAGTAGGATTTCTAATCCT
TCAGCCTTCTCCATTGTTCCTAGGAGAGCTGCAAAAAGCAGCAGAGGGAATGGACATTTTCAGGGTCACTTACTG
CTACCTGGAGAACAGATACAACCAAAGCAAGAGAAGAAGGGTGGGAGAAGCAGTGCTGACTTCACTGTTTTGGAT
TTGGAAGAAGATGATGAAGATGATAATGAGAAAACTGATGATTCTATTGATGAAATTGTGGATGTTGTTTCTGAC
TACCAGAGTGAGGAGGTTGATGATGTAGAAAAGAATAACTGTGTAGAATACATTGAGGATGATGAGGAGCACGTG
GACATTGAGACTGTAGAAGAGCTCTCAGAGGAAATTAATGTTGCTCACCTGAAGACCACAGCGGCCCACACACAG
TCATTCAAACAGCCGTCCTGTACTCACATCTCTGCAGATGAAAAAGCAGCTGAAAGGAGTCGAAAGGCTCCACCA
ATTCCTCTAAAACTGAAGCCTGATTACTGGAGTGACAAACTACAGAAAGAAGCAGAAGCGTTTGCTTATTATCGC
CGGACACACACTGCCAATGAGCGGCGGCGGCGTGGTGAAATGAGGGATCTCTTTGAGAAATTAAAGATCACATTG
GGATTACTTCATTCTTCCAAGGTTTCCAAAAGTCTCATTCTTACTCGAGCCTTCAGTGAAATTCAGGGACTAACA
GATCAGGCAGACAAATTGATAGGACAGAAAAATCTCCTGACTCGAAAACGGAATATTCTGATACGGAAAGTATCG
TCTCTTTCAGGTAAGACAGAAGAAGTGGTCCTGAAGAAGCTAGAGTATATTTATGCAAAACAGCAAGCACTAGAG
GCACAAAAAAGAAAAAAGAAGATGGGATCAGATGAGTTTGACATATCTCCCAGAATTAGCAAACAGCAGGAAGGA
TCTTCTGCATCATCTGTAGATCTTGGACAGATGTTTATAAATAACAGGAGGGGGAAACCTTTGATTCTTTCCAGA
AAAAAAGACCAGGCCACAGAAAATACCTCACCCTTGAACACTCCACACACCTCTGCCAACCTTGTGATGACTCCG
CAAGGGCAATTGCTCACCCTAAAAGGTCCCCTATTCTCAGGACCAGTGGTAGCTGTTTCTCCTGATCTCTTAGAA
TCTGATCTTAAGCCTCAAGTTGCCGGTAGTGCTGTGGCTCTACCAGAAAATGACGACTTATTTATGATGCCACGA
ATTGTTAATGTGACATCATTGGCCACAGAGGGAGGTTTGGTAGATATGGGTGGCAGCAAATATCCTCATGAAGTT

FIGURE 3384B

CCTGATAGCAAGCCATCTGACCATCTGAAAGACACCGTCAGGAATGAAGATAATTCCTTAGAGGATAAGGGTAGA
ATCTCTTCCAGAGGAAACAGAGATGGCAGAGTGACGTTGGGTCCAACGCAGGTTTTTCTGGCAAACAAAGATTCT
GGTTATCCACAAATAGTTGACGTTTCCAATATGCAGAAAGCACAAGAGTTCTTACCTAAAAAGATTTCTGGTGAT
ATGAGAGGGATTCAGTATAAATGGAAAGAGAGTGAATCAAGAGGGGAGAGAGTGAAGTCAAAGGATTCTTCATTT
CATAAATTAAAGATGAAAGATCTCAAGGACTCAAGCATAGAGATGGAACTGAGGAAAGTAACATCAGCTATAGAG
GAAGCAGCTCTTGATTCCAGTGAACTGCTGACTAACATGGAAGATGAGGATGATACTGATGAGACACTGACTTCA
CTGCTCAATGAAATTGCCTTTCTTAATCAACAACTAAATGATGACTCTGTTGGCCTGGCTGAACTACCCAGCTCT
ATGGATACAGAGTTCCCAGGGGATGCTCGGCGGGCTTTTATTAGTAAGGTTCCTCCTGGAAGCAGAGCAACTTTC
CAGGTTGAGCACTTGGGAACTGGTTTGAAAGAGTTGCCTGATGTTCAAGGGGAGAGTGACTCTATCAGTCCCCTC
CTCTTGCACTTGGAAGACGATGACTTTTCTGAGAATGAAAAACAACTTGCAGAACCAGCCTCTGAGCCAGATGTC
CTTAAGATTGTTATTGACTCTGAAATAAAGGATTCCCTCCTTTCCAACAAGAAAGCTATTGATGGAGGGAAGAAT
ACTTCTGGCCTCCCTGCAGAGCCCGAAAGTGTGTCCTCACCCCCCACCCTACACATGAAGACTGGCTTGGAGAAC
AGCAACAGCACAGACACTTTGTGGAGGCCTATGCCAAAGTTGGCCCCTCTAGGTTTAAAAGTAGCTAATCCTTCC
AGTGATGCAGATGGTCAGAGTCTCAAGGTGATGCCTTGTTTGGCACCTATAGCTGCCAAAGTTGGGTCAGTTGGA
CACAAAATGAACTTAACAGGGAATGACCAGGAAGGCCGGGAAAGCAAGGTGATGCCTACATTGGCACCTGTTGTG
GCTAAATTGGGCAACTCGGGGGCCTCACCAAGTTCTGCAGGGAAA**TGA**ACTTACTTGTCCTTAAGCAGAAGCCAG
GCTGTGAGGGGAAATAGATCTCACCTCCTTTCTCTGCAGGCATCTGTTTGTTTGTGTCTTAGAACTTGGATCCTT
GACTTCAATGATGCAGTGGATAATGATGGGAGAAAGGGGGTAGGGTGCTGACCCTGGTATAAGAAGTACTCTGAA
ATTCTGATCATGTTAAAATGTGTTACCTCACTTGTGGTGCTGGGTCCCCTCATCCTCTCTAAGAAGATGTGATCC
ATTACTGAACATGAGGTGCCCCTCTTACCCAAGGAATTTATAACATGACTCTGGCTCCACAGTGGTTTCTAGTTC
TTCCCCCACAAGCGAAAGAGCTGTTTGCAACTTTGGAGTTGCTGTAGACTGAACTGTAGCTTGTAGCTGTTGAAT
TAAGTCCAAAATCTAAGGAATGCGATGGACTTGTGCAAAGGGATCCAGAAGAGACACTTTTTAGTTGATGTTTCA
AGAATAGGGAGAGAGAGGATGGGTACCATGGAATACCAAAGTGAAGGACTTTGTGTCATTCAGTAAAATTTTCTT
TTTTCATATCCTAAGTAGCTCCCATTCCCTCACCTTTTCAATCAGAATTAACAAATTCAAGCCTTCAGTAAAGTA
GGGATGCTTTTAACTTTTATTATTAATTATTTTGAGATCTTAAAAAAAATAGTAGTTCTCCCTTATTATTTTTGTG
GGCATTGAAAAGCTCATTTCACAGTACCAGAGATTTTTACTGGGAGTATATATTTTGGAGGTAGGCATAGAGGGA
GCCCTACCCCTTCCACAAATTACGTTACTCAAGAGACAGCTAAAATAAAATGCATTATCTCCCCAGACCAGAGAC
AGTGGCCAAAATAAAAAATCATGGGGCTGGAAATTTCCCAAATCAAACCAGCCTCCTGGTGCTTGAAGGTTTCAT
TCACTATTACCTGCACAGGATGTAAAGAAAAGTCACAGTAGGCACTCTTTACCAGGGAAATAAGGCAGTATTTGA
ATCACAAGATATATTTTTTATCTGCAACCATGGATCCAATGATCTGTAGAGCTTTTTCACTCATTAACTGTCAGG
ATATGAAGGACTGACAGTCTGTAAAGATATTTATATTTTTGTATAGTTGTTTTCATAGATTTCTCAAAGGCTGAA
GTTTTCAACCTAGAAGATGAGATTTGTATTGAGTATAGAAATGATGTTTCCTATCTAGTTTGTAAATAATCATGG
TGCACTTGAGGGGTCTCTTGGAAACTCCTAGGGGGTCAAGAATCACTATTCTGAAACTGTATAGACTGGGATTTA
GCTGCTGCATTTTGCCTTTCTTAAATAATTATATTTTGGAATGTAACCCCTGTTCTGTCTTCATTGACAGGATTT
GCTTGTGTTGTTAAAACACTAACACAAGAGCTTCCAGTGCCTGGGCCGTGCCTAGGTGATGCTATTTCTTCTATA
TCTCCTGTCTTCTTTATCCCAAATCCCACTCAGCATATCTTCAGACCTAGGTTGTAAGACCAACTTTGGATTGGA
TCTAGCCAGTGAATTATTATTTCCATGGTTGGTTCCCTTTCTGTTAACTCTGGTAATCAACAGATTGAAAACGGT
GGAAGAACTTCTGAAAATTGCAGTGGGAGCAAATTCTTGTTGGTTTTGTGCTGCTTGCCTTTCTAGATCTGCTCA
TCAGCACTTAACCTTCCCTCCTCTAAAGGTTACTAAAGAAGCCTGAAGTAGGTAAAGAGTGCTCCTCAGCTTCTT
ATCCTTCCACTCTTTACCCAGCAGATTTCATTCAATGCCTTAGCCAAGGAGTCCAGCACCTGTCTCCCCTGCTAA
TAATTGTCCTTAGAGATGCTAGTACTTTAATCCAGGTATAGCAGTTTCCCGTTATTTTCTTGCTTGTCGTTCCCC
TACATTTCCTCCTGATTTCCCAAGACTCTCTTTGTGGCTTTTGAGGGTCAGCCAAGGAGCAGGCAAGTGAGTGAA
CAATCCTCAGGAAAAGAAGGACCATTTTAGCTTAACACTTCCTTTTTTTTTTTTTTTTTTTAAGAAGAATATAG
GTAAACAGGTAATGATTCTTGATTGGAGATACCATTTGACTCTTGATGAGAGTTGTACGAAGATGGAAATGAGGG
ATGATTCCAGGCGTTTTAGGGGGAAGGCTGCAGATACCATTCTAACCCCCAAGATACTGTGTTCTCAAGACCTCT
TAGAACTAGGTGTTGTCAGGGATAATTTGAGGAGGGCTTAGTCTTCAGAACAATCCTGCAGTCTTGACAGAAATC
TAAAATCTCCAAAAACTCCTACCCTTTAACCTTACCCTAGGGGGAACTGATCTATGAATATTACATGTGTGATTA
TGAAAGGTGAAGTTGAGTGAGAGGAGTTGAGGAACGTGGAAGACAGTGAGCTCTCACCCTAACACTATAAGAAGC

FIGURE 3384C

ATGATCTCAATAGACCAATAATTCACCTTTTTATACATCTGTAAATAAATGGAATGTTTTTAAGAATATAATTAT
GTCAGATTTAGCATTTTCTTTTATATATTAAATATATATATCTTTCCTTTTCTGCTTTCGAAAAGTGACTATTTT
TTTAGAAATCTAAGAACAGAAGTTTGGTGATTGAAAGGTAGAATATATAAACCTGAAATAAAGCAGTTAAAACAA
TTAAAGCAG

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FIGURE 3385

GACGCAGCC**ATG**GCGGAGGCGGCTTTGGAAGCCGTGCGGAGCGAGTTACGAGAATTCCCGGCCGCTGCAAGGGAG
CTCTGCGTGCCTCTTGCTGTGCCCTACCTGGACAAACCCCCAACTCCGCTCCACTTCTACCGGGACTGGGTCTGC
CCCAACAGGCCGTGCATTATCCGCAACGCTCTGCAGCACTGGCCGGCCCTCCAGAAGTGGTCCCTCCCCTATTTC
AGAGCCACAGTGGGCTCCACAGAGGTGAGTGTGGCCGTGACCCCAGATGGTTACGCGGATGCCGTGAGAGGGGAT
CGCTTCATGATGCCAGCTGAGCGCCGCCTGCCCCTGAGCTTCGTGCTGGATGTGCTGGAGGGCCGGGCCCAGCAC
CCTGGAGTCCTCTATGTGCAGAAGCAGTGCTCCAACCTGCCCAGCGAGCTGCCCCAGCTGCTGCCTGATCTGGAA
TCCCATGTGCCCTGGGCCTCCGAAGCCCTGGGAAAGATGCCCGATGCTGTGAACTTCTGGCTGGGGGAGGCGGCT
GCAGTGACTTCTTTGCACAAGGACCACTATGAGAACCTCTACTGCGTGGTCTCAGGAGAGAAGCATTTCCTGTTC
CATCCGCCCAGCGACCGGCCCTTCATCCCCTATGAGCTGTACACGCCGGCAACCTACCAGCTAACTGAAGAGGGC
ACCTTTAAGGTGGTGGATGAAGAGGCCATGGAGAAGGCAGAGGTGTCCAGGACCTGCCTGCTCACGGTTCGTGTC
CTGCAGGCCCATCGCCTACCCTCTAAGGACCTAGTGACCCCCTCTGACTGCTACGTGACTCTCTGGCTGCCCACG
GCCTGCAGCCACAGGCTCCAGACACGCACGGTCAAGAACAGCAGTAGCCCTGTCTGGAACCAGAGCTTTCACTTC
AGGATCCACAGGCAGCTCAAGAATGTCATGGAACTGAAAGTCTTTGACCAGGACCTGGTGACCGGAGATGACCCT
GTGTTGTCAGTACTGTTTGATGCGGGGACTCTGCGGGCTGGGGAGTTCCGGCGCGAGAGCTTCTCACTGAGCCCT
CAGGGTGAGGGGCGCCTGGAAGTTGAATTTCGCCTGCAGAGTCTGGCTGACCGTGGCGAGTGGCTCGTCAGCAAT
GGCGTTCTGGTGGCCCGGGAGCTCTCCTGCTTGCACGTTCAACTGGAGGAGACAGGAGACCAGAAGTCCTCAGAG
CACAGAGTTCAGCTTGTGGTTCCTGGGTCCTGTGAGGGTCCGCAGGAGGCCTCTGTGGGCACTGGCACCTTCCGC
TTCCACTGCCCAGCCTGCTGGGAGCAGGAGCTGAGTATTCGCCTGCAGGATGCCCCCGAGGAGCAACTAAAGGCG
CCACTGAGTGCCCTGCCCTCTGGTCAAGTGGTGAGGCTTGTCTTCCCCACGTCCCAGGAGCCCCTGATGAGAGTG
GAGCTGAAAAAAGAAGCAGGACTGAGGGAGCTGGCCGTGCGACTGGGCTTCGGGCCCTGTGCAGAGGAGCAGGCC
TTCCTGAGCAGGAGGAAGCAGGTGGTGGCCGCGGCCTTGAGGCAGGCCCTGCAGCTGGACGGAGACCTGCAGGAG
GATGAGATCCCAGTGGTAGCTATTATGGCCACTGGTGGTGGGATCCGGGCAATGACTTCCCTGTATGGGCAGCTG
GCTGGCCTGAAGGAGCTGGGCCTCTTGGATTGCGTCTCCTACATCACCGGGGCCTCGGGCTCCACCTGGGCCTTG
GCCAACCTTTATGAGGACCCAGAGTGGTCTCAGAAGGACCTGGCAGGGCCCACTGAGTTGCTGAAGACCCAGGTG
ACCAAGAACAAGCTGGGTGTGCTGGCCCCCAGCCAGCTGCAGCGGTACCGGCAGGAGCTGGCCGAGCGTGCCCGC
TTGGGCTACCCAAGCTGCTTCACCAACCTGTGGGCCCTCATCAACGAGGCGCTGCTGCATGATGAGCCCCATGAT
CACAAGCTCTCAGATCAACGGGAGGCCCTGAGTCATGGCCAGAACCCTCTGCCCATCTACTGTGCCCTCAACACC
AAAGGGCAGAGCCTGACCACTTTTGAATTTGGGGAGTGGTGCGAGTTCTCTCCCTACGAGGTCGGCTTCCCCAAG
TACGGGGCCTTCATCCCCTCTGAGCTCTTTGGCTCCGAGTTCTTTATGGGGCAGCTGATGAAGAGGCTTCCTGAG
TCCCGCATCTGCTTCTTAGAAGGTATCTGGAGCAACCTGTATGCAGCCAACCTCCAGGACAGCTTATACTGGGCC
TCAGAGCCCAGCCAGTTCTGGGACCGCTGGGTCAGGAACCAGGCCAACCTGGACAAGGAGCAGGTCCCCCTTCTG
AAGATAGAAGAACCACCCTCAACAGCCGGCAGGATAGCTGAGTTTTTCACCGATCTTCTGACGTGGCGTCCACTG
GCCCAGGCCACACATAATTTCCTGCGTGGCCTCCATTTCCACAAAGACTACTTTCAGCATCCTCACTTCTCCACA
TGGAAAGCTACCACTCTGGATGGGCTCCCCAACCAGCTGACACCCTCGGAGCCCCACCTGTGCCTGCTGGATGTT
GGCTACCTCATCAATACCAGCTGCCTGCCCCTCCTGCAGCCCACTCGGGACGTGGACCTCATCCTGTCATTGGAC
TACAACCTCCACGGAGCCTTCCAGCAGTTGCAGCTCCTGGGCCGGTTCTGCCAGGAGCAGGGGATCCCGTTCCCA
CCCATCTCGCCCAGCCCCGAAGAGCAGCTCCAGCCTCGGGAGTGCCACACCTTCTCCGACCCCACCTGCCCCGGA
GCCCCTGCGGTGCTGCACTTTCCTCTGGTCAGCGACTCCTTCCGGGAGTACTCGGCCCCTGGGGTCCGGCGGACA
CCCGAGGAGGCGGCAGCTGGGGAGGTGAACCTGTCTTCATCGGACTCTCCCTACCACTACACGAAGGTGACCTAC
AGCCAGGAGGACGTGGACAAGCTGCTGCACCTGACACATTACAATGTCTGCAACAACCAGGAGCAGCTGCTGGAG
GCTCTGCGCCAGGCAGTGCAGCGGAGGCGGCAGCGCAGGCCCCAC**TGA**TGGCCGGGGCCCCTGCCACCCCTAACT
CTCATTCATTCCCTGGCTGCTGAGTTGCAGGTGGGAACTGTCATCACGCAGTGCTTCAGAGCCTCGGGCTCAGGT
GGCACGGTCCCAGGGTCCAGGCTGAGGGCTGGGAGCTCCCTTGCGCCTCAGCAGTTTGCAGTGGGGTAAGGAGGC
CAAGCCCATTTGTGTAATCACCCAAAACCCCCCGGCCTGTGCCTGTTTTCCCTTCTGCGCTACCTTGAGTAGTTG
GAGCACTTGATACATCACAGACTCATAC

FIGURE 3386

GGGAGAGTCGAACCCGGAGCAGGGTCCCATCCGAGCGTGGACTGGCGGCAGG**ATG**TTCAGCTGGATGGGGCGGCA
GGCGGGCGGGCGCGAACGCGCTGGCGGCGCGGACGCGGTGCAGACGGTGACGGGCGGGCTGCGCTCGCTCTACCT
GCGCAAGGTGCTGCCGCTGGAGGAGGCGTACCGCTTCCACGAGTTCCACTCGCCTGCGCTGGAGGACGCCGACTT
CGAGAACAAGCCCATGATCCTGCTGGTGGGCCAGTACAGCACCGGCAAGACCACCTTCATCAGATACCTACTGGA
GCAGGATTTCCCAGGCATGAGGATTGGTCCGGAGCCCACCACAGACTCCTTCATCGCCGTGATGTATGGAGAGAC
TGAGGGCAGCACCCCAGGGAATGCTTTAGTCGTGGACCCCAAAAAGCCGTTTAGAAAGCTCAGTCGCTTTGGAAA
CGCTTTCCTGAATCGATTCATGTGCTCACAGCTCCCCAATCAGGTCCTGAAGAGCATCAGCGTCATCGACAGCCC
CGGCATCCTTTCTGGGGAGAAGCAGCGCATCAGCCGAGGCTATGACTTCTGCCAGGTCCTGCAGTGGTTTGCCGA
GAGGGTGGACAGGATCATCCTGCTCTTTGACGCTCACAAGCTGGACATCTCAGATGAATTCTCAGAGGCCATCAA
GGCCTTCCGGGGCCAGGACGACAAGATCCGTGTCGTGCTGAACAAGGCCGACCAAGTGGACACGCAGCAGCTGAT
GCGGGTCTACGGGGCCCTCATGTGGTCCCTAGGCAAGGTCATCAACACGCCCGAGGTACTGCGCGTCTACATTGG
CTCCTTCTGGGCGCAGCCCCTGCAGAACACGGACAACCGCCGGCTCTTCGAGGCTGAGGCCCAGGACCTCTTTAG
AGACATCCAGAGCCTCCCCCAGAAGGCAGCGGTGCGCAAGCTCAACGACCTCATCAAGCGAGCGAGGCTGGCCAA
GGTGCATGCCTACATCATCAGCTACCTGAAGAAGGAGATGCCAAGTGTATTTGGAAAGGAAAACAAGAAGAGAGA
GCTTATCAGCAGGCTACCGGAAATCTACATTCAGCTACAGCGAGAATACCAGATTTCTGCAGGGGACTTCCCTGA
GGTCAAGGCTATGCAGGAACAGCTTGAGAACTATGACTTCACCAAATTCCACTCGCTGAAGCCCAAGCTGATCGA
GGCAGTGGACAACATGCTGAGCAACAAGATCTCGCCCCTCATGAACCTCATCAGCCAGGAGGAGACGAGCACGCC
CACGCAGCTGGTGCAGGGCGGCGCCTTCGATGGCACCACCGAGGGCCCCTTCAACCAGGGCTACGGGGAGGGTGC
CAAGGAGGGCGCCGACGAGGAGGAGTGGGTCGTGGCCAAAGACAAGCCCGTCTACGACGAGCTCTTCTACACTCT
GTCGCCCATCAATGGCAAGATATCAGGTGTCAACGCCAAGAAGGAGATGGTGACCTCCAAGCTGCCCAACAGCGT
CCTGGGCAAGATCTGGAAGCTGGCCGACTGCGACTGCGACGGCATGCTTGATGAGGAGGAGTTCGCGCTGGCCAA
GCACCTCATCAAGATCAAGCTCGACGGCTACGAGCTGCCCAGCAGCCTGCCCCCCCACCTCGTGCCCCCCTCGCA
CAGGAAGTCCCTGCCCAAGGCCGAC**TGA**GGGGTGGGCTGCAGAACGGGGTGGGAACTGGGGGACCTGGGCCTCAG
GCCTGCTCCACCACTGACTCACCGAATGACCTTGGGCAAGGCACTGCCCTCTCTGTGCCTTGGTTTCCCCATCTG
TAGAATGGGGAGGGTGGACACTGGAAACTAGATGACTTCTTTCACCTCCAAAATTCCCTTAGTTTCTATGAAAAT
ATTGGGGGTAGGGGGGTGGATTAGGAGATTGAAGGGTTGAGAAGAAAGAGAAATTGTCCAAAGAGTCCTCAGAAC
CTGCCTGGAGAAATGCGCATGGGGGTGGGCCTGGTAAGTCCCAGGAACCACAGGAAGTGAGCTAAGGCTCACCCA
GAGCAGCTGGGTCTCCAGGCTGCCTGGGCTTTTTGTCCTCATGAACAACTCTGGAGCAGCTGTCTGTCCCTCAGA
GGGCACCTGGAGGCAGCAAAGATTATCTTATTTATTTTATTTTGTTTTCTGCTATATTTAGAGTGGCAAAAAAAT
AGAGCAGAGGGTTTCTGCTGTCTCCAGACTGTCTACCAAAGAGAAGGCGACAGATGCCTCCTGGGTTTGGAAGGG
GGATGCACTGTGGATCTGCCATCCATTCTGCAGTCTCCAGCAGAGCAGGCAGTCAGGCCCCAGCGTGCCTCCATC
CCAGTGCCCCGATGACCATCTGGTCAGCCCTCCCAACCTCCCTTCCAGGGGGCTTACCAGCAAAGCCATATTCGG
CTAGGAATTTGGAATTCACAACCTTTATTAACCCCTGGCAAAACTTCCCGTTTGCATGTCAAATCACATTGAAGC
CTGAAAATTAGCTTTTCTTACTGGTTTTTCCAATAAGTAATAGCAAAGCCCACTTATCATACTTAAACTACAGTA
AAGAAAAGAGGTGGTTCTCTGCAGTGATCGTTTAGTGTGGCCCTCAAACATTAAATATCCCGAGGTCTCCTTGGT
GGGTGGCAGGATTTAAATTCAATCAAATCCTGTCCTAGTGTGTGCAGTGTCTTCGGCCCTGTGGACACAGGTGAA
TGAGGGACCAGCCCTGCCCTGGGCTGTTGAGAAGAGATCAGTCCACCCAGAGTTAGACATTGTTTTTGTAGAAAA
CAGGCATTTATTATGTCTAGGGTTTTGTGTTTTTTTTTTTTCCTTACAGGATAAAAGCCTTTATACAGAAACAAA
ATGGAACCTTTCATATAAAACCTTTTCTTT

FIGURE 3387A

GGGGTTGACGATGGCTGTGTTGTTGAAGGGCCTGTAGCCGGGGGGTTCCTGGCCGGATCCCGGTCTACCCTTAGC
CCAGACTCGTTCCGGACCCCAGCCCGGCCCGGAACACTCTGGGCGAGACGGCGGTGGCAACTCTCCCCTTGCCGC
CATGCACGACGCTTTCGAGCCAGTGCCGATCCTAGAAAAGCTGCCTCTGCAAATCGACTGTCTGGCTGCCTGGGA
GGAATGGCTTCTTGTGGGAACCAAACAAGGACATCTTCTTCTCTATAGGATTCGGAAGGACGTTGTGCCAGCAGA
TGTAGCATCACCTGAAAGCGGCAGTTGCAACAGATTTGAAGTGACACTAGAGAAATCCAATAAGAACTTCTCCAA
AAAGATTCAGCAGATCCATGTGGTTTCCCAGTTTAAGATTCTGGTCAGCTTGTTAGAAAATAACATTTATGTCCA
TGACCTATTGACATTTCAACAAATCACTACGGTTTCAAAGGCAAAGGGAGCATCACTGTTTACTTGTGACCTCCA
GCACACAGAGACCGGTGAGGAGGTGTTACGGATGTGTGTGGCAGTAAAAAAGAAGCTGCAGCTCTATTTCTGGAA
GGACAGGGAATTTCATGAATTGCAGGGGGACTTTAGTGTGCCAGATGTGCCCAAGTCCATGGCGTGGTGTGAAAA
TTCTATCTGTGTGGGTTTCAAGAGAGACTACTACCTAATAAGGGTGGATGGAAAGGGGTCCATCAAAGAGCTCTT
TCCAACAGGAAAACAGCTGGAGCCCTTAGTTGCACCTCTGGCAGATGGAAAAGTGGCTGTGGGCCAGGATGATCT
CACCGTGGTACTCAATGAGGAAGGGATCTGCACACAGAAATGTGCCCTGAACTGGACGGACATACCAGTGGCCAT
GGAGCACCAGCCTCCCTACATCATTGCAGTGTTGCCTCGATATGTTGAGATCCGAACATTTGAACCGAGGCTTCT
GGTCCAAAGCATTGAATTGCAAAGGCCCCGTTTCATTACCTCAGGAGGATCAAACATTATCTATGTGGCCAGCAA
TCATTTTGTTTGGAGACTCATCCCTGTCCCCATGGCAACCCAAATCCAACAACTTCTCCAGGACAAGCAGTTTGA
ATTGGCTCTGCAGCTCGCAGAAATGAAAGATGATTCTGACAGTGAAAAGCAGCAACAAATTCATCACATCAAGAA
CTTGTATGCCTTCAACCTCTTCTGCCAGAAGCGTTTTGATGAGTCCATGCAGGTCTTTGCTAAACTTGGCACAGA
TCCCACCCATGTGATGGGCCTGTACCCTGACCTGCTGCCCACAGACTACAGAAAGCAGTTGCAGTATCCCAACCC
ATTGCCTGTGCTCTCCGGGGCTGAATTGGAGAAGGCTCACTTAGCTCTGATTGACTACCTGACACAGAAACGAAG
TCAATTGGTAAAGAAGCTGAATGACTCTGATCACCAGTCAAGCACCTCACCGCTCATGGAAGGCACTCCCACCAT
CAAATCCAAGAAGAAGCTGCTACAAATCATCGACACCACCCTGCTCAAGTGCTATCTCCATACAAATGTGGCCCT
GGTGGCCCCCTTGCTACGCCTGGAGAACAATCACTGCCACATCGAGGAGAGCGAGCACGTGCTAAAGAAGGCTCA
CAAGTACAGTGAGCTTATCATCCTGTATGAGAAGAAGGGGCTCCACGAGAAAGCTCTGCAGGTGCTCGTGGACCA
GTCCAAGAAAGCCAACTCCCCTCTGAAAGGCCACGAGAGGACAGTGCAGTATCTGCAGCATCTGGGCACAGAAAA
CCTGCATTTGATTTTCTCCTACTCAGTGTGGGTGCTGAGAGACTTCCCAGAAGATGGCCTGAAGATATTTACTGA
AGATCTCCCGGAAGTGGAGTCTCTGCCACGTGATCGAGTCCTCGGCTTCTTAATAGAGAATTTTAAGGGTCTGGC
TATTCCTTATCTGGAACACATCATCCATGTTTGGGAGGAGACAGGCTCTCGGTTCCACAACTGCCTGATCCAGCT
ATACTGTGAGAAGGTGCAAGGTCTGATGAAGGAGTATCTCCTGTCCTTCCCTGCAGGCAAAACCCCAGTCCCAGC
TGGAGAGGAAGAGGGTGAGCTGGGAGAATACCGGCAAAAGCTCCTCATGTTCTTGGAGATTTCCAGCTACTATGA
TCCAGGCCGGCTCATCTGTGATTTTCCCTTTGATGGCCTCTTAGAAGAACGAGCTCTCCTGTTGGGGCGCATGGG
GAAACATGAACAAGCTCTTTTCATTTATGTCCACATCTTGAAGGATACAAGGATGGCTGAGGAGTACTGCCACAA
ACACTATGACCGAAACAAAGATGGCAACAAAGATGTGTATCTGTCCCTGCTTCGGATGTACCTGTCGCCCCCCAG
CATTCACTGCCTGGGGCCAATCAAGCTGGAACTACTGGAGCCAAAAGCCAACCTCCAGGCCGCTCTGCAGGTCCT
CGAGCTACACCACAGCAAACTGGACACCACCAAGGCCCTCAACCTTCTGCCAGCAAACACTCAGATCAATGACAT
ACGCATCTTCCTGGAAAAGGTCTTGGAAGAAAATGCACAAAAGAAACGGTTCAATCAAGTGCTCAAGAACCTTCT
CCATGCAGAATTCCTGAGGGTCCAGGAAGAGCGGATTTTACACCAGCAGGTGAAGTGCATCATCACAGAGGAGAA
GGTGTGCATGGTGTGTAAGAAGAAGATTGGGAACAGTGCATTTGCAAGATACCCCAATGGAGTGGTCGTCCATTA
CTTCTGTTCCAAAGAGGTAAACCCAGCTGACACTTGAGCCCAGCATCCTGGGGATCCAGCGGATGGACAGCTTGG
CTCTCCCAGAGAGGTGAAGGAGCACCTGGCCTTAGGAATCCTGGCTGCCACCACCACAAGGCTCCCCATTTGGAC
ATTACTGGCTATCTTGTGCCCTGGAACAACTCTGAATTAATTAGACTCATGGTCTGGCATTGCCAGCTTTTTAAT
GGGAAAAGAGATTAGTTATACCTTATACCATTATGTTGTGGGCAATTCCAGAGAATTCAGTACCTGCTTGGTCAG
GAGGATGTGCACCATCTTGCCTTTGCACACCAGTCACCTGAACAAGGAAACTTGTCACAAGTGTTTGTAACCATG
GGGTTGTTCATCAAGGGCTTTTCTATTAAGTACATGACTTCACAAGGACCGCTCAGCATGGCTCACTGGAGAGTT
CCATGAGAGAACAGCACTCAAGCTTCTGGCCGCATGGACCCGATGGCTCGCATTCTGTGTAGTGTTTTACGTCTC
CATGGTAACTGTGCCCTGCACCCCTCGGTAGCCGCCCTGTTAGTTTTCAGTCTCCTTTTCTTTCTCACCATTTAT
CACTTCCCTCACTGCCCTACCCAGGCTTTCTCTCCCACTTCCCTGACTCTGGGAATAACTAATATTTAAGCAAGG
TAAGATGAGAAGCAAGGGGTCTCAGTTCTAGGAATACAGTGCTAGTTGATTGTCAGGTATGTTGTAAATAGACCC
TCTTTGGCCATACACTCCATGCCTAGATGCCTCGGAGAGCATCATTCTCTGCCTAGGCAAGGCCCTGCATCCCTT

FIGURE 3387B

GCCTCAGGCCGGGCTGAGTGTGACTGCAGCTCCTGAGGATGGGCCTGCCCTGTCTGGGGTATGCGTGATCCCTAG
ATACATGTTCCCACAGAGGTGCCTGCTCCGTCTTCGCTCACCAGACACTCAGGCAGGCTGGCTTAGTCTTTGTGC
GTGGCGATTTTGTGCTCTGGGCCCTTTCTCTTTTTCCAGCCAGTTTCCATTCACTTGCCTTACAGCCTGCCCTGG
CCGTCACTCCCCAGCTTTGTTCAGCAATGGTGTGGTTGGAGAGTTGTGCTGGGATAGCGCAGGAAGGTGGGTCCC
GGCAACACGCAGGGGATGAGTGGACCTGGAACTGACAATGGCGTGCTGCCAAGTGTTCCTGAGAGGTGTTTAGGC
ACAGCAGAGGGGACGCGGGGGGCAAGAACAGCAGGACGCTGGTTTAAAAATAACTCACCGCCAAACCTGTGGAGC
AGTGTGGGGCATCCTGCCAGAGGTGCACAGGCTGGAGTTTCAGGCACTGCAGGCTGATGACACACAGGGAGAGTG
GCCCTGCCTCCTGTCCTCCCCGGGGTTTTTGCAGACTCGAAGTCTCACTGCACCAGTGTCTTTGATGGTGGTGAG
GGTGGGTGATGGTGCCCAGCACCAACAGTTTTAGTGGCCTGTCCTTGACCTGCCGTGGTCCTTTGTAAACTATGG
CTCCATGCTGTGTGACAGATCAACGTGCTGATGGTAAGTAGACTAGGCTTCCCCAGGCATGCCGTCCGTGGGGGC
CTGAAGAGACAGTGAGTGCCATTGGCCCCATTCGCAGATGTGGGAGACTCTGCTCAGGCCTGTGAGGCTGGGCAG
CCCTTCACCAGAGTTCGGAGGAGCAGTGTGTGGCGCCACGTCCCGACTGGCCATACCCACACAGAAGCAGTGCTG
CCCGGGGCCTCATCTGGGCCAGCTTGGACTCTGCTTCCTCCAGGAGCAGCAGGGAAGCTCTGGGCCACCTCCCTG
GATAGCAGGAACTTGACCTGCCATGTGTGCCCTGCCTTCCTGGCCAGCTGTGCTTGTTATCTTCCATTCTCACAA
ACTGTCTTTGAAGCAATAGAATAAAGAATGTGTGTTTTCTTTCCTGGTATACATACATGATCCCATGCTCCCAAG
CTCCATTCTTCCTTCCCTCAACTCTCTGCCCTCCACAGAGCTATGGAGAAGGCTGGAGATGAAAGCTTTGTAGTG
AGGACTGATAAAGATCTCATCACTGCTCCTTATAATAAACCTAATAAAGCAAGAAA

FIGURE 3388

GACTGTCTGAGAGAGGGGCCGCTACGCCGCACAGCAAACAAGCTCCGCGACGTTTCCAGGACCCGGATAATCCCG
CCCTTAGAGCAGAGCCGGAAGAAGGCGGGACGAACCGGAAGAGGGTGAAATGCTTTCGGTAGGCACTCCACGGCT
GTGAAG**ATG**GCGGCGGCTGCGTGGCTTCAGGTGTTGCCTGTCATTCTTCTGCTTCTGGGAGCTCACCCGTCACCA
CTGTCGTTTTTCAGTGCGGGACCGGCAACCGTAGCTGCTGCCGACCGGTCCAAATGGCACATTCCGATACCGTCG
GGGAAAAATTATTTTAGTTTTGGAAAGATCCTCTTCAGAAATACCACTATCTTCCTGAAGTTTGATGGAGAACCT
TGTGACCTGTCTTTGAATATAACCTGGTATCTGAAAAGCGCTGATTGTTACAATGAAATCTATAACTTCAAGGCA
GAAGAAGTAGAGTTGTATTTGGAAAAACTTAAGGAAAAAAGAGGCTTGTCTGGGAAATATCAAACATCATCAAAA
TTGTTCCAGAACTGCAGTGAACTCTTTAAAACACAGACCTTTTCTGGAGATTTTATGCATCGACTGCCTCTTTTA
GGAGAAAAACAGGAGGCTAAGGAGAATGGAACAAACCTTACCTTTATTGGAGACAAAACCGCAATGCATGAACCA
TTGCAAACTTGGCAAGATGCACCATACATTTTTATTGTACATATTGGCATTTCATCCTCAAAGGAATCATCAAAA
GAAAATTCACTGAGTAATCTTTTTACCATGACTGTTGAAGTGAAGGGTCCCTATGAATACCTCACACTTGAAGAC
TATCCCTTGATGATTTTTTTCATGGTGATGTGTATTGTATATGTCCTGTTTGGTGTTCTGTGGCTGGCATGGTCT
GCCTGCTACTGGAGAGATCTCCTGAGAATTCAGTTTTGGATTGGTGCTGTCATCTTCCTGGGAATGCTTGAGAAA
GCTGTCTTCTATGCGGAATTTCAGAATATCCGATACAAAGGAGAATCTGTCCAGGGTGCTTTGATCCTTGCAGAG
CTGCTTTCAGCAGTGAAACGCTCACTGGCTCGAACCCTGGTCATCATAGTCAGTCTGGGATATGGCATCGTCAAG
CCACGCCTTGGAGTCACTCTTCATAAGGTTGTAGTAGCAGGAGCCCTCTATCTTTTGTTCTCTGGCATGGAAGGG
GTCCTCAGAGTTACTGGGGCCCAGACTGATCTTGCTTCCTTGGCCTTTATCCCCTTGGCTTTCCTAGACACTGCC
TTGTGCTGGTGGATATTTATTAGCCTGACTCAAACAATGAAGCTATTAAAACTTCGGAGGAACATTGTAAAACTC
TCTTTGTATCGGCATTTCACCAACACGCTTATTTTGGCAGTGGCAGCATCCATTGTGTTTATCATCTGGACAACC
ATGAAGTTCAGAATAGTGACATGTCAGTCGGACTGGCGGGAGCTGTGGGTAGACGATGCCATCTGGCGCTTGCTG
TTCTCCATGATCCTCTTTGTCATCATGGTTCTCTGGCGACCATCTGCAAACAACCAGAGGTTTGCCTTTTCACCA
TTGTCTGAGGAAGAGGAGGAGGATGAACAAAAGGAGCCTATGCTGAAAGAAAGCTTTGAAGGAATGAAAATGAGA
AGTACCAAACAAGAACCCAATGGAAATAGTAAAGTTAACAAAGCACAGGAAGATGATTTGAAGTGGGTAGAAGAG
AATGTTCCTTCTTCTGTGACAGATGTAGCACTTCCAGCCCTTCTGGATTCAGATGAGGAACGAATGATCACACAC
TTTGAAAGGTCCAAAATGGAG**TAA**GGAATGGGAAGATTTGCAGTTAAAGATGGCTACCATCAGGGAAGAGATCAG
CATCTGTGTCAGTCTTCTGTACGGCTCCATGGGATTAAAGGAAGCAATGACATCCTGATCTGTTCCTTGATCTTT
GGGCATTGGAGTTGGCGAGAGGTGTCAGAACAAAGAGAACATCTTACTGAAAACAAGTTCATAAGATGAGAAAAA
TCTACGAGCTTCTTATTTACAACACTGCTGCCCCCTTTCCTCCCAGACTCTGACATGGATGTTCATGCAACTTAA
GTGTGTTGTTCCTGAACTTTCTGTAATGTTTCATTTTTTAAATCTGACAAACTAAAAAGTTTAACGTCTTCTAAA
AGATTGTCATCAACACCATAATATGTAATCTCCAGGAGCAACTGCCTGTAATTTTTATTTATTTAGGGAGTTACA
TAGGTGATGGGGGAAATTGTTAACTACCTTTCATTTTCCTGGGAAGTCAAGGTTACATCTTGCAGAGGTTGTTTT
GAGAAAAAAGGGCCCTTCTGAGTTAAGGAGCCATAGTTCTATCAATGATCAAAAGAAAAAAAAAAAAAGAGAAAC
TGTTACAGTATGATTCAGATCATTTAAAAAAGCAAAATCAAGTGCAATTTTGTTTACAAATGGTGTATATTAAAG
ATTTTTCTATTTCAGATGTACTTTAAAGAGAAATATTAGCTTAACTCTTTTGACATCTGCTATTGTGACACATCC
CATTGCTGGCAATGTGGTGCACACTCCGAAACTTTTAACTACTGTTTTGTAAGCCTCCAAGGGTGGCATTGCAGG
GTCCTTAGGCAATGTTTTGTTTGCCTTTATGCAGAGAGGTGCTCCAAGTGCTGTGATTGAGCACCGTGCTAGAGG
AACTGTAATGCTTCAGAAGTTGTAGCTTATACAAAGGAAACAGGTCCTGCTGGCTTAATTTAAACAGTTATTGCA
TGAAGTAGCGTGGAGGCCCTGGACTGCTGCTCGTTCTTTAGGATGGACTGTTCTGGTATCTGGTATTGGTTTAGA
GACTGTTAATAAGGGACATCACAAGGTGATGGGATTCATTTGAAGCACTCTATTTCTGTTTTAATGGTTTTATCC
AATTTTGCCTTCCCAAGATTTTTGTTCTACATAAAAAGTTCATGCCACTTTTTAATAT

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FIGURE 3389A

AGACGTTAGTGAAGTGAATACTCACCGACGGTATCGGAATGTGCCATTTGGACCGGTCGGCAGCAGCTACGGTTG
CCGGTCCCGCACTGAAAAACGACAGTGGTGACGGGTGAGCTCCCAGAAGCAGAAGAATGACAGGCAACACCTGAA
GCCACGCAGCCGCCGCCATCTTCACAGCCGTGGAGTGCCTACCGAAAGCATTTCACCCTCTTCCGGTTCGTCCCG
CCTTCTTCCGGCTCTGCTCTAAGGGCGGGATTATCCGGGTCCTGGAAACGTCGCGGAGCTTGTTTGCTGTGCGGC
GTAGCGGCCCCTCTCTCAGACAGTCGTCTGTGCGCCGTGAGACTTTGGACCTACTGCGCAGGCGTCATCCTGTTG
GAACCTGGTCAGCTGGGTTAGAGAGATCGCTACATGCCAGCCTGGCCTGAGTCTTTTCTGTCTCCCAGCCGTTAA
AGGTTTTAGGACCAGGCAGGCACCCCGTGCAGGATTTGGCTCTCTACTTCCGCTCGCCCCAGCCCTTCATCCCTT
CTAAGTCAATGTCAGACTTTGGGGCCAGAAAGTCTGGAAAAGCCCTAAGCCTGGCTGCCCAAGTGGCGTCTAGTA
GTGAGTTCTCCGGTTTGGGTGGTATTTAAGCAAAGGCTGGAATTCGGCGGTGGTGGAGTACACGCGATTCCTAGA
CTGGGTAGTGTAACAACCTTCAAAGGCCCCTTCTAGCCCTGAAGAGTACGATGCTGCAGTACAATCTGGCTGGAG
ACCTAGCCTCCAGCAAAGACCCGGCCGGCACTTCCCACCCTTAACCGAAAACGGAGACAGAGAGGGACTCATTGC
GTACACGCCCTCACCGCCGCCCAGTTTCGGTTCCTAACAAAAGCACGTTCCTCATCAGCCACCCATAATCAAGAC
AAATTTGCCAAATAAATCATTGTAGAAACGCTAGTTTGGGCCTGAAAAATTCCAGGAGCAAGAGTCAAGATTTGT
CACTCCATGAGAATCTGGAGGGGACTCCCTTCCCAGAAACTTGACGATGAAGTACTGGTTGTAATTTTAGAAAGA
CACCCAATCGGCTTTTTTAAAAGATCGCCCAGGGCCCTTGTCCTGAGAGCTGGGAGCTGGTCGGAGTGACAGAGA
AGCC**ATG**GAAGCAGCAGTGAAAGAGGAAATAAGTCTTGAAGATGAAGCTGTAGATAAAAACATTTTCAGAGACTG
TAACAAGATCGCATTTTACAGGCGTCAGAAACAGTGGCTTTCCAAGAAGTCCACCTATCAGGCATTATTGGATTC
AGTCACAACAGATGAAGACAGCACCAGGTTCCAAATCATCAATGAAGCAAGTAAGGTTCCTCTCCTGGCTGAAAT
TTATGGTATAGAAGGAAACATTTTCAGGCTTAAAATTAATGAAGAGACTCCTCTAAAACCCAGATTTGAAGTTCC
GGATGTCCTCACAAGCAAGCCAAGCACTGTAAGGCTGATTTCATGCTCTGGGGACACAGGCAGTCTGATATTGGC
AGATGGAAAAGGAGACCTGAAGTGCCATATCACAGCAAACCCATTCAAGGTAGACTTGGTGTCTGAAGAAGAGGT
TGTGATTAGCATAAATTCCCTGGGCCAATTATACTTTGAGCATCTACAGATTCTTCACAAACAAAGAGCTGCTAA
AGAAAATGAGGAGGAGACATCAGTGGACACCTCTCAGGAAAATCAAGAAGATCTGGGCCTGTGGGAAGAGAAATT
TGGAAAATTTGTGGATATCAAAGCTAATGGCCCTTCTTCTATTGGTTTGGATTTCTCCTTGCATGGATTTGAGCA
TCTTTATGGGATCCCACAACATGCAGAATCACACCAACTTAAAAATACTGGTGATGGAGATGCTTACCGTCTTTA
TAACCTGGATGTCTATGGATACCAAATATATGATAAAATGGGCATTTATGGTTCAGTACCTTATCTCCTGGCCCA
CAAACTGGGCAGAACTATAGGTATTTTCTGGCTGAATGCCTCGGAAACACTGGTGGAGATCAATACAGAGCCTGC
AGTAGAGTACACACTGACCCAGATGGGCCCAGTTGCTGCTAAACAAAAGGTCAGATCTCGCACTCATGTGCACTG
GATGTCAGAGAGTGGCATCATTGATGTTTTTCTGCTGACAGGACCTACACCTTCTGATGTCTTCAAACAGTACTC
ACACCTTACAGGCACACAAGCCATGCCCCCTCTTTTCTCTTTGGGATACCACCAGTGCCGCTGGAACTATGAAGA
TGAGCAGGATGTAAAAGCAGTGGATGCAGGGTTTGATGAGCATGACATTCCTTATGATGCCATGTGGCTGGACAT
AGAGCACACTGAGGGCAAGAGGTACTTCACCTGGGACAAAAACAGATTCCCAAACCCCAAGAGGATGCAAGAGCT
GCTCAGGAGCAAAAAGCGTAAGCTTGTGGTCATCAGTGATCCCCACATCAAGATTGATCCTGACTACTCAGTATA
TGTGAAGGCCAAAGATCAGGGCTTCTTTGTGAAGAATCAGGAAGGGGAAGACTTTGAAGGGGTGTGTTGGCCAGG
TCTCTCCTCTTACCTGGATTTCACCAATCCCAAGGTCAGAGAGTGGTATTCAAGTCTTTTTGCTTTCCCTGTTTA
TCAGGGATCTACGGACATCCTCTTCCTTTGGAATGACATGAATGAGCCTTCTGTCTTTAGAGGGCCAGAGCAAAC
CATGCAGAAGAATGCCATTCATCATGGCAATTGGGAGCACAGAGAGCTCCACAACATCTACGGTTTTTATCATCA
AATGGCTACTGCAGAAGGACTGATAAAACGATCTAAAGGGAAGGAGAGACCCTTTGTTCTTACACGTTCTTTCTT
TGCTGGATCACAAAAGTATGGTGCCGTGTGGACAGGCGACAACACAGCAGAATGGAGCAACTTGAAAATTTCTAT
CCCAATGTTACTCACTCTCAGCATTACTGGGATCTCTTTTTGCGGAGCTGACATAGGCGGGTTCATTGGGAATCC
AGAGACAGAGCTGCTAGTGCGTTGGTACCAGGCTGGAGCCTACCAGCCCTTCTTCCGTGGCCATGCCACCATGAA
CACCAAGCGACGAGAGCCCTGGCTCTTTGGGGAGGAACACACCCGACTCATCCGAGAAGCCATCAGAGAGCGCTA
TGGCCTCCTGCCATATTGGTATTCTCTGTTCTACCATGCACACGTGGCTTCCCAACCTGTCATGAGGCCTCTGTG
GGTAGAGTTCCCTGATGAACTAAAGACTTTTGATATGGAAGATGAATACATGCTGGGGAGTGCATTATTGGTTCA
TCCAGTCACAGAACCAAAAGCCACCACAGTTGATGTGTTTCTTCCAGGATCAAATGAGGTCTGGTATGACTATAA
GACATTTGCTCATTGGGAAGGAGGGTGTACTGTAAAGATCCCAGTAGCCTTGGACACTATTCCAGTGTTTCAGCG
AGGTGGAAGTGTGATACCAATAAAGACAACTGTAGGAAAATCCACAGGCTGGATGACTGAATCCTCCTATGGACT
CCGGGTTGCTCTAAGCACTAAGGGTTCTTCAGTGGGTGAGTTATATCTTGATGATGGCCATTCATTCCAATACCT

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FIGURE 3389B

CCACCAGAAGCAATTTTTGCACAGGAAGTTTTCATTCTGTTCCAGTGTTCTGATCAATAGTTTTGCTGACCAGAG
GGGTCATTATCCCAGCAAGTGTGTGGTGGAGAAGATCTTGGTCTTAGGCTTCAGGAAGGAGCCATCTTCTGTGAC
TACCCACTCATCTGATGGTAAAGATCAGCCTGTGGCTTTTACGTATTGTGCCAAAACATCCATCCTGAGCCTGGA
GAAGCTCTCACTCAACATTGCCACTGACTGGGAGGTCCGCATCATA**TGA**CAAAGAACTGCCCCTGGTGATGTGAG
CAGGGACCTGCCTGCCCCTTTCAACCTTTCCCCTCACCTTTTTTGAGATTTTTGCTGCAATCTGTTTGCCTTCCC
TGAATCAAAATAATCTTTCATTCGTCACCATTATACTAATGAACAATAGATTTCATGTTTCAAAATTTCAGATTT
TACATGTTAAGATGTACTAACAATATTCCTTGTATCAAACATCTCCTTTTCTCCCTGATACATAGCCCTGAGACA
TTTATAGCGTTCAGGAGTCTTCTATTGCTTCCATTCCTTCAGCAGGGCTGCGTGGGTCTGTTTTAACGTGGGCCA
AGCCTACCTGGGCAGCCCATTTGCCAGGGCTTGCCTCAGGCCATGCAGCATTGGCGCTCTGGCTGCAGCAGCTGA
GTTGCTCAAGGCCAGTGTCCAAGTGGACAGCAGCCTCTGGTACTCCCCCCAGTTATCTTCCACCCACATGGACTG
GGCAGAGCAGCCCTCTTCTGTGTGCACTGCATACGCTGCAGCCGTGGGAGTTATTCTCCCCTAGAGATCGACTTG
GCAGCACGAAGGATTCTTTTCTCTTTCATGCTTCTCAGGCTCAATAGTTTCTAATTAATCTTAAAATCCATGTCT
TTTACATTGTTTTTTTAATTAAGTGCTGTTTACTAACCAAATAATATTTATAACATGAGTAAGCTATAATTAATA
ACAATGAAATAAATACCCATGTACCCACCACTGGACTTCAGAAGTAGAACTCATGACTGGGACTAGGATGAGGCA
AGGGAGACCCTGGCCTTGGGCACAAAATGTAAGGGATGCCAAAAAAATACAGTAATCAAAGTAAGTAATATTTCA
ATCCAATATTTTTAAAAATCAGAATTAATGCAAAAAAAACCATGATGAACAAAATATTAAAATTTAAAATAAAGA
CAGGATTAGTATTACTGAGTTTTCCTTTTGTCCCAGGCTCTAATATGGCTTGGCATGGGGCAGAACATTACAACA
TACCAGTCGTGTCATGGTGCCCAAGGCTCCACAGACCTCAGTGGCTCCCTGCTGCCTGCCACAGCATCTGTTTTA
GCAGCCTCGACTCCTCAGCACTCCTCAGCACACACCTCTTCTTATCAGGCTTCCTCCACTTAGCAACTTGCTAAC
GGCCACCTCTGTGCCTTCTGATCCCTGGGCGCCAATATCCTCCTGCCCTTACCATCCTTCCAGGCCCAACTTAAA
TCCCACTTTCCCATGAAGCCTAACTGCGTGAACACCCCTACCCCCATACCCATTAGCAGTGATTTTGCCCTTCCC
CGTAATGCTGTCCCACTTATAACTGTGCTCTACTTAGCATTCTCAGGGATCATACCTTAATGTTTTCAGTATGTC
TGCGTTCTCCTACTAGATTGTATGTCCCTCAAGAGCATGTTCTGTTTCTCTTCTGTCTGACAGAGCACTATTATA
CCTGACTTTCAGTAACTGTTAGCTGTGATTAGTTAGCTGGTGGATTTAATTGATTAAAAAATTACGATTGAATGT

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FIGURE 3390A

GAGTGCAGCTGGCACCATGGGTGTGCTCCAGAGCAACTTCTGCTTGCTCTGAGCCCCCTGCCCTGCCTCCCCTTT
CACCATGTTTCCTCTGACAAGATTTTAAGTACAGCAATTCAAGAAGATTTCTCCTCCTAAACGACATTTATCTGA
AGTCTATTGCCTCTTGATTGCTGGAAAAGAATCTTAAAATCATTTCAAAAGTAACTTATAAACAAACTTATTAAA
AGTGATGAAAGGAGCATTGAAATTAATTAGCACTAATTTTTCACTGTGCCAAAGTGTGCAGTGTCCTTCAGAGGA
AACAATAACAGATCTGGTGAGTGTGCC**ATG**CCAGTGGGGAGAATTGAATGTCCCTCATCTCCCTCTTTCCCTAGG
GACATTAGTCATGAGTGCCGAGTGTGCGGGGTCACAGAAGTGGGTCTTTCTGCATATGCAAAGCACATTTCTGGC
CAGTTGCACAAAGATAACGTTGATGCCCAGGAAAGAGAAGATGATGGAAAAGGAGAGGAAGAGGAAGAAGATTAT
TTTGACAAGGAACTCATTCAGTTAATAAAACAAAGGAAAGAACAAAGTCGACAAGATGAACCTTCCAATAGCAAC
CAAGAAATAAACTCTGATGACAGACGACCCCAATGGAGACGAGAAGACCGAATTCCTTACCAAGACAGAGAGAGT
TACAGTCAGCCTGCATGGCATCATCGTGGACCTCCACAGCGGGATTGGAAATGGGAAAAAGATGGCTTTAATAAT
ACTAGGAAAAACAGCTTTCCACATTCTTTGAGGAATGGTGGTGGACCAAGAGGACGTTCCGGGTGGCATAAGGGT
GTTGCAGGAGGCTCCTCGACTTGGTTTCACAACCATAGTAATTCTGGAGGTGGTTGGCTTTCAAATAGTGGAGCA
GTAGATTGGAATCATAATGGTACAGGAAGGAATTCCAGTTGGCTTTCTGAAGGAACAGGTGGCTTTTCCAGTTGG
CATATGAACAACAGTAACGGAAACTGGAAATCCAGTGTACGTAGTACAAATAATTGGAATTACAGTGGCCCTGGA
GACAAATTTCAACCAGGCAGAAACAGAAATTCTAACTGTCAAATGGAAGACATGACTATGCTATGGAACAAGAAA
TCTAATAAGTCAAACAAATACAGTCACGACAGATATAATTGGCAGCGGCAAGAAAATGACAAACTTGGTACAGTT
GCCACATATAGAGGTCCTTCTGAAGGATTTACAAGTGATAAATTTCCTTCAGAAGGCTTACTCGACTTCAATTTT
GAGCAGCTGGAAAGCCAAACCACTAAACAAGCAGACACTGCTACTTCCAAAGTTAGTGGAAAGAATGGCAGTGCG
GCAAGGGAAAAGCCTCGTCGCTGGACGCCTTACCCTTCTCAGAAGACTCTGGATTTACAGTCGGGATTGAAAGAC
ATCACTGGTAACAAGTCAGAAATGATAGAGAAACCTCTCTTTGATTTTAGCTTGATAACTACAGGAATACAGGAG
CCCCAAACTGATGAAACACGTAATTCCCCAACACAGAAAACACAAAAAGAAATACATACTGGATCTCTTAATCAC
AAGGCCTCTTCTGATTCCGCTGCTTCCTTCGAGGTGGTGAGACAGTGCCCCACTGCAGAAAAACCTGAACAAGAG
CATACACCAAATAAAATGCCATCATTGAAATCCCCACTCCTTCCATGTCCAGCCACTAAATCATTGTCTCAAAAG
CAAGATCCAAAGAATATCTCAAAAAACACCAAAACAAATTTTTTTTCCCCTGGAGAACACTCAAATCCCTCGAAC
AAGCCCACTGTGGAAGATAACCATGGTCCTTACATATCCAAACTGCGTAGTTCATGTCCTCATGTTTTAAAAGGG
AATAAAAGTACATTTGGCTCTCAAAAGCAATCTGGTGATAATTTAAATGATACTTTACGAAAGGCCAAAGAGGTG
CTACAGTGTCATGAGTCATTGCAAAATCCACTTCTTAGCACTTCTAAAAGTACCAGGAACTATGCAAAAGCAAGT
AGAAATGTAGAAGAATCTGAAAAAGGGTCTTTGAAAATTGAGTTTCAAGTGCACGCACTAGAAGATGAAAGTGAT
GGAGAGACATCTGACACGGAAAAGCATGGAACAAAAATTGGAACCCTAGGTTCTGCAACTACAGAATTGTTATCT
GGCAGCACTCGAACTGCTGATGAGAAAGAGGAGGATGACCGCATCCTGAAGACTTCTAGAGAGCTATCCACTTCC
CCATGTAATCCCATAGTTCGCCAGAAAGAATCTGAATTACAAATGACATCTGCAGCCAGTCCACACCCTGGCTTA
TTGCTAGACTTGAAAACCTCTCTAGAAGATGCACAGGTTGATGACTCTATTAAATCTCATGTATCTTATGAAACA
GAAGGCTTTGAGAGTGCTAGCTTGGATGCAGAGCTTCAAAAAAGTGACATCAGTCAGCCCTCGGGCCCTCTCCTG
CCTGAACTAAGTAAGCTTGGCTTTCCTGCCTCACTTCAGAGGGATCTAACCCGGCACATTAGTTTGAAGAGCAAA
ACTGGAGTACACCTTCCTGAGCCAAACCTCAATAGTGCCCGCCGCATTCGCAATATTAGCGGTCACCGAAAGAGT
GAGACAGAGAAGGAGTCTGGGCTCAAGCCAACCCTACGGCAGATTCTAAATGCATCTCGGAGAAATGTCAACTGG
GAACAGGTCATTCAGCAAGTAACCAAGAAAAAGCAAGAGCTGGGCAAAGGCTTACCCAGGTTTGGCATAGAAATG
GTACCCCTTGTTCAAAATGAACAAGAAGCCTTAGATTTGGATGGGGAACCTGATCTGTCCAGTCTAGAAGGATTC
CAGTGGGAAGGTGTTTCCATTTCCTCGTCCCCTGGCTTGGCAAGAAAGCGAAGCCTTTCTGAGAGCAGCGTGATC
ATGGACAGAGCTCCTTCTGTGTATAGCTTCTTCAGTGAGGAAGGTACAGGCAAAGAAAATGAGCCCCAGCAGATG
GTTTCACCTAGTAACTCATTGAGGGCTGGACAGAGCCAGAAAGCAACCATGCACCTCAAACAAGAAGTGACACCT
CGGGCTGCCTCCCTCCGAACAGGTGAAAGGGCTGAAAATGTTGCTACCCAAAGGCGACATAGTGCACAATTATCC
TCTGACCATATAATACCTTTGATGCATTTGGCAAAAGACTTGAACAGCCAGGAGAGGTCTATACCACCGTCAGAG
AATCAGAATTCCCAGGAGAGTAATGGAGAGGGAAACTGTCTGTCATCAAGCGCATCCTCAGCCCTTGCGATCTCC
AGTTTAGCGGATGCAGCCACAGATAGTAGCTGTACCTCTGGTGCTGAACAAAATGATGGCCAAAGTATTAGAAAG
AAACGAAGAGCCACTGGAGATGGATCTTCTCCTGAACTCCCAAGTCTTGAGAGAAAAAATAAAAGAAGGAAAATT
AAAGGAAAAAAAGAACGTTCTCAGGTTGACCAGCTGCTGAATATTTCTTTAAGGGAGGAAGAACTTAGTAAGTCA
TTGCAGTGCATGGATAACAATCTTCTGCAAGCCCGTGCAGCCCTTCAGACAGCTTATGTGGAAGTTCAGAGGCTA

FIGURE 3390B

CTTATGCTCAAGCAGCAGATAACTATGGAGATGAGTGCACTGAGGACCCATAGAATACAGATTCTACAGGGATTA
CAAGAAACATATGAACCTTCTGAGCACCCAGACCAGGTTCCCTGTAGCCTCACACGAGAACGAAGGAACAGTAGA
TCTCAAACATCCATTGATGCCGCACTGCTGCCCACTCCCTTTTTCCCACTTTTTCTGGAGCCTCCATCTTCCCAT
GTGTCTCCATCACCCACCGGAGCCTCTCTTCAAATAACCACGTCTCCTACTTTCCAAACCCATGGCAGTGTCCCT
GCTCCAGACTCATCAGTTCAGATTAAACAAGAGCCCATGTCTCCTGAACAAGATGAGAATGTGAATGCTGTGCCA
CCAAGCTCTGCCTGCAATGTGTCCAAGGAATTACTGGAAGCTAATAGAGAGATCAGTGACAGTTGTCCAGTTTAT
CCAGTCATCACTGCTAGATTGTCCTTACCAGAGTCAACAGAAAGTTTCCATGAGCCTAGCCAAGAACTGAAGTTT
TCTGTGGAGCAAAGAAATACCAGAAACAGAGAAAACTCTCCCTCTTCCCAATCAGCTGGTCTTTCTAGCATAAAT
AAAGAAGGGGAAGAGCCAACCAAAGGCAATAGTGGGTCTGAAGCCTGTACCAGTTCTTTTCTAAGATTGTCTTTT
GCTTCAGAAACCCCTTTGGAGAAGGAACCCCACTCTCCAGCTGACCAGCCTGAACAACAGGCAGAATCCACTTTG
ACATCAGCTGAGACTAGGGGAAGCAAGAAAAAGAAGAAACTCCGGAAGAAGAAAAGTCTACGGGCTGCCCATGTT
CCTGAGAATAGTGACACTGAACAGGATGTTTTGACTGTTAAACCTGTAAGGAAAGTAAAAGCTGGAAAGTTAATT
AAAGGGGGGAAAGTAACAACCTCCACTTGGGAAGACAGCAGGACTGGTCGGGAGCAGGAGAGTGTCAGAGATGAG
CCAGATAGTGACTCGTCTCTGGAAGTCCTAGAAATTCCTAATCCTCAGTTAGAAGTAGTAGCCATTGATTCTTCA
GAATCAGGAGAAGAGAAACCAGACAGCCCATCTAAAAAGGATATTTGGAACTCTACAGAGCAAAACCCACTAGAA
ACGTCTCGTTCTGGGTGTGATGAAGTTAGCTCTACCAGTGAAATTGGCACTCGCTATAAAGATGGCATCCCTGTA
AGTGTGGCAGAAACTCAGACTGTGATCTCCTCCATAAAAGGATCAAAGAATTCTTCAGAAATATCTTCAGAGCCA
GGAGATGATGATGAACCCACAGAAGGAAGCTTTGAGGGACACCAAGCTGCCGTAAATGCAATTCAGATATTTGGG
AACTTGCTATATACCTGTTCAGCAGATAAAACTGTTCGGGTTTATAATCTGGTGAGTCGGAAATGTATTGGTGTC
TTTGAGGGTCATACCTCCAAAGTTAACTGCCTCCTGGTTACTCAGACCTCCGGGAAGAATGCTGCCCTTTACACC
GGGTCCAGTGACCATACCATCCGCTGCTATAATGTTAAGAGCCGAGAGTGTGTGGAGCAGTTACAGCTGGAAGAC
CGGGTCCTCTGCCTCCACAGTAGATGGCGAATCCTCTATGCGGGACTGGCAAATGGCACTGTGGTCACCTTCAAC
ATAAAGAACAACAAACGACTTGAGATCTTTGAATGCCATGGCCCTCGGGCAGTCAGCTGTCTTGCTACAGCTCAG
GAAGGTGCCCGAAAACTGCTGGTCGTGGGGTCTTATGACTGCACAATTAGTGTACGCGATGCCCGGAATGGACTG
CTCCTCAGAACTCTGGAGGGCCATAGCAAAACCATTCTTTGCATGAAGGTGGTGAATGATCTCGTGTTCAGTGGC
TCCAGTGATCAGTCAGTCCATGCTCACAACATTCACACTGGTGAGCTCGTGCGGATCTATAAAGGTCACAATCAT
GCAGTGACTGTGGTGAATATCCTAGGAAAAGTGATGGTGACTGCTTGCCTGGATAAATTTGTTCGTGTCTATGAA
TTACAGTCTCATGATCGATTACAAGTTTATGGAGGACACAAAGACATGATTATGTGTATGACCATCCATAAAAGC
ATGATTTACACTGGCTGTTATGATGGCAGTATTCAGGCCGTGAGGCTTAATCTGATGCAGAATTACCGCTGTTGG
TGGCATGGTTGCTCTCTGATATTTGGCGTTGTAGATCATTTAAAACAACACTTGCTGACCGACCACACTAATCCC
AACTTCCAGACTCTGAAATGTCGCTGGAAGAACTGCGATGCTTTTTTCACTGCTAGGAAAGGATCCAAACAGGAT
GCTGCAGGACATATTGAACGACATGCTGAAGATGACAGCAAAATTGATTCA**TGA**AGTTTTTTGCCTCCCACGTTG
GGAAGTCATTAGTTGAACTATTTTCACATTGGCCCCCCACACAGGCCACTCTCTTCCCTTTCTTGGTGAAGTAAG
GAAGGAGAAAGTGGTTACTAGCCAGGCATACCCCTAGCATAAGTCTGGGCAGCTCTATGGGATGATAAATTACAC
TTTTAAGTTCTTGCTGGAGGTTTTAAATAGATTTAGACAAATGTTAAGGAACCATACTTCTCTGGGACAGCATGG
CATATAGTGATATATGCTATTTGCGTTCTCCAGATGTTTATTGAAGATACAGATCCTAATTGGTTACCCAGTTTG
ACCCTAATCATATGTATATTTTATTGATTTCAGTTTGCAATTTTTAATTTATGTTCTTATGATGGTTTAAACCTA
TAGTCAGGCTTTTAAGTACAAGTTTGTTTAAGTGCCAGACTTTGAGGATCAGTTTTAATTTCTCCATTTGTAATA
GCTGGGTATTTAAACTGGAAGCAAATAGTTTTCTTTCTTAACAATTATGTGCAGTGTGTGTCACTGTTTTCTTGC
TTTATAGATAGAGCTGGCTTTAAGTGCTAAAGGACACAGTAGATTTTTGACAAACAGTGGCTGCTCTGCTGACTA
TCTTTTAGGAATTCAGGAAGCAAATCACATAGTGACAAGTCCTTACAGACACCACTTCTAGTAAATCTCTGTAAA
TGTGGATAGAAAGCTCAGTGTGAGGCAGTGCGTAGACCTAACGTCTACCTTTACATCTGCTGTTGAACCTGGGCA
CTACCTGTTACAGATCCTGTCAGGCTGTTGAACTGGAGGTGTACCTTTATCTTCCTTTCTAGTGTCTGACCCTGC
AAGCCTAATGTTGGTTTGAACCCTTTTGGTTTGTTCAGTTGCCAGCCTCCATCTCTCCCACTGTATGGCCGTGCC
TAGACCGATGGCAGCCATCGAATATTCCTCTGGGCTCACGGGGTGTTTTCCACCCCCCTGCAGCAACTAAGATGG
TGGGGGAGAGGGGGTTAGAATAAAGCATCTGAATACAGTTTTCAGGACCTCAAGCAGACTTCCTAGAGACTTGTT
TCTGAGACAGTTCTTTGCCTTCACTTCCCTGCTAGCTGGGAAAGAAGAGTGGAGCAGAGACTCTGCCTGGCCACT
GAGAACAGCCAAATTCACAAACCCTCAGTGGGGCTTTGTTTTTGGATTTTCTCCGGACTCATCAGTAAACCTGTA

FIGURE 3390C

GAAGTGTCGCTTTCCAGCCTTTTGTTTCTGGATCCTCAAAACTCAGAACGTGGCCGGGCGTGGTGGCTCACGCCT
GTAATCCCAGCACTTTGGGAGGCTGAGGCAGGCAGATCACCTGAGGCTAGGAGTTGCAGACCAGCCTGGCCAACA
TGGCAAAACCCCGTCTCTACTAAAAATACAAAAAGCCGGGCGTGGTGGGCGCCTGTAATCCCAGCTGCTCAGGAG
GCTGAGGCAGGAGAATCGCTTGAACCCGGGAGGCAGAGATTGCAGTAAGCTGAGATCGTGCCACTGCACTCCAGC
CTGGTGACAGAGTGAGACTCCGTCTCAAAAAAAAAAAAAAAAAACTCAGCTTCTTCAGAGAGATAAAATTGGGGGA
GGAGCCCAGGGCCACATACCAAGCTTTGGGACATGGTGCCTCATGCTCTCTGGGATTGCAGACCATCCAGGTCTG
TCTTCGCCCCTGTTAGTGCACATATATCCACTCACATGTCTTCCCTCAGGCTATCGGGCAGGGGGACTTCACCAG
GGGGTTTATGGATAGGCTTCAAGAGGGTCTGTGAGCCCCCAGAAATTGTGTGTGAGACTGAGTATGTGTTCTTTT
TTCCAGGAAAGGCTCCAGTGGTTCTTACTTGATCCAAAAAATGTCAAGAATTAATCTAGGAGGCCGGGCCTGGTG
GCTCACACCTGTAATCCCAGCTCTTTGGGAGGCCGAGGCGGGTGGATCACTCAAGGTCAGGCATTTGAGACCAGC
CTGGCCAACATAGTGAAACCCCGTCTCTATTAAAAATACAAAAATTAGCTGGGTGTGGTGGTATGTGCCTGTAGT
CTCAGCTACTCAGGAGGCTGAGACAGGAGAATCACTTGAACCCTGGAGGTAGAAGTTGCAGTGAGCCAAGATCAT
ACTACTGCACTCCAGCCTGGGCGACAAGAGTGAAACTCCACCTCAAAAAAAAAAAAAAAAAGAGTTAATCTAGGAG
ATAATGAATGGCCTAGTACTAGATAATATATGGCCCCACAAGCTCTTGACTTCTGTCCTTGGGGAAAGCCATTTT
GTTAACCACACTAGTGAGATTTACATGATGCTTAATGGAGAACAGAGAAGATCTTGTTGCAAAAGGTGTATTAAA
TATTTGTGCTGTTTCTGTATGAGATTGAGAAGCTTTTCCCACCTCTCACCCCTATTTCCTATAAGGATATCCAGA
GAAGCCAAACTGTTCTGTGGGTTTGGGAATGGTCATTTCCCGGGAAAATGCATCTGGATCGATGACTAAACCTGG
CCCTTTTCTCTGGGCTGTAGTGAAGCCGCATTTTCACGCTGGCTGGCAGTGTGCTGAGAGCCTCGAATGCTCTGC
GGCGTAGTGCCCTTCTGCCCTGCCTGACGATGTATCGAAAAGATGAGAGTGAAGGAGACTTTGTGCAGCAGGAAA
CGGGTAGGTGAGGTGTTGGGCAGTTGTGGGAACTTCTGAGAGTATTACAGAGTGGTAGAATCGGTAAGAACTCTG
ATTTGGACTTCGCTTTGGTGGAACTGTGTGCCTATACCTGCCTGTGTGTGTGCAAGTGTGCAGGTTCCTTTGTAT
GTATGTGTACGTGTGGGAACCTGTGTTTGTCATATTTTTCTTCATTTCACAAAGGCTTTTTTTGAAGCAGTGGCA
GTATGCCTTTGTTTCAAGAACACATGAAATTCTTTTAACACCAGATTAGTGTGTTACCCCAAATGAACGGTTCTA
GCCCTCTATTAAGAAATAAAGGGACCATAAGCATTTTGGCTGCTTATGGCTGTGTGTTACTACTTACAAGAGTCT
TGAAAATTATACAGAACTTTGCCTTCTTTTTTTAATGTCTTCCACAATGTTGTGACTGATTATAACCCTGTTTCC
CCTCAGAGAAGAGCTATGGCTCAGGGATCTGTGTTGACTCTGGCATTTAGTGGCTTTGTGAAGGAAAGAAACCAT
TAAATGACCTGACAAAAACTGACTCATGTCTTTAAAGTAGTTGAAGCCACTTTTAGAATGTTACTCTCGGTTGCT
TTTGTCTAATTCTAATGGCTTAAAGCCAAGAAAACCATAGTATAAATCTTTTTGTGTACCTATGCTAGTGTTTAA
ATGGCAGTTCGTTGTGATAAAGTATCAGTCACTTCAAGTTTTCTGTGAAAGTTTTTAATTAGGTTAAAAATAATT
TTGGCATACGTCTCTACTCAGTTTATAAAGCAGTTCCACACCATGCAAACAAAACTCTAACAGCAAAGGTTATCT
TGACCTGATGTTACTTGAATCTGAGAGAAAGTCATTACTTACTACTGCACTCCTGCTTTTGTGGGAAAAATTTTC
TTCTTCCCCAGAAGAGTTAACAGTTGAGTGTTCAGCTCCTGACTTACCTTTAATTTAGAGGCAATATTATTACTG
TTTAAGTGATTATTTGCTTAACACAGGTTTTATTTTGTCTTTTTGCTGGTAGATTATACAAGGGACAACTTTAGT
GATGAGGCATGTGGATGATTTGGTGGGAGTAGGTATATACTTAGTGGAATGGTTTATTTTATGGAAGAGAATTCA
TTGGAGGTGAGATTGAAGTATATTGTGAAGTGGGATTTGAACAGCACATATGCTCTGGTTTGCTCAAATAACTGC
AGTTTATGCTTACATCTAAATTTTGTTTCTGTTACCTAAACGGGAGCTTCTAGAATTACGAAGGCCATACCTGCC
ACATTTATAAAATAATGGTTTTATCCCTGCCCCCAAATCATCAGGTTCCTCGGGTTTAAGAGAAGTGGTCTAATA
GACAGGAATAGAAGTTGTGGTGGAGGTGATTTGGGATAGACTAGGTTTCCTTATGCAAGTGGATATGAGCTCCTC
ATAGAAACCAGACCTACTGTATTAGACAGTAACCTCTAACCTCACCTCCAAGCCCAAGTATATGGCCCTGCTGGG
TTACCTGGTGACTACATTTCCCAGATTCACTCTAAATTCAAGGTAGTGACCCAAATAAATTGGGAAAGGAGGGGG
TCAAGGAGGAAAAGCTGTTGAAAATCTTTCTCCTATTTAAGAGAAATATATGCCCTAGAGCTGCTCCAGCACCCT
TGGTTTCTGATTTTTTTAATATTGAATATGGATTAGAAGAATGAAATCAGATGACACCTGACTGCAAAAATGTTT
ATAAGCAAATAGCCTTCTTACATTTTGGTATAAAGCTGTGAACTTCGTAACTTTGTAAAGCAAGATATAAAGCAA
ATACAAGAGGAAAATAAAGTACTTTTACTAATTG

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FIGURE 3391

CGCGACTAGGGTGCAGCGCCAGGTCCGGTGTTGGGGTGTCCGAGTTGCCGCCGGAGAGGAGTGGCCTCGCCCGCT
TGAGTTTTGATTCATC**ATG**GATAATCTGTCATCAGAAGAAATTCAACAGAGAGCTCACCAGATTACTGATGAGTC
TCTGGAAAGTACGAGGAGAATCCTGGGTTTAGCCATTGAGTCTCAGGATGCAGGAATCAAGACCATCACTATGCT
GGATGAACAAAAGGAACAACTAAACCGCATAGAAGAAGGCTTGGACCAAATAAATAAGGACATGAGAGAGACAGA
GAAGACTTTAACAGAACTCAACAAATGCTGTGGCCTTTGTGTCTGCCCATGTAATAGAACAAAGAACTTTGAGTC
TGGCAAGGCTTATAAGACAACATGGGGAGATGGTGGAGAAAACTCACCTTGCAATGTAGTATCTAAACAGCCAGG
CCCGGTGACAAATGGTCAGCTTCAGCAACCAACAACGGGAGCAGCCAGTGGTGGATACATTAAACGCATAACTAA
TGATGCCAGAGAAGATGAAATGGAAGAGAACCTGACTCAAGTGGGCAGTATCCTGGGAAATCTAAAAGACATGGC
CCTGAACATAGGCAATGAGATTGATGCTCAAAATCCACAAATAAAACGAATCACAGACAAGGCTGACACCAACAG
AGATCGTATTGATATTGCCAATGCCAGAGCAAAGAAACTCATTGACAGC**TAA**AGCTACTGCTGTTCTTCTTTATC
ATTTATTCACTTCCGTAGCTCCTCCTTGAAAGTTATTACCTTTTCAGAGTTTAAGTTTTCGGTTCCACGCTCTTC
TAATTGGGAGATAATATGGAAGAAGGGCCAGAGCAGTTACAGCCCTCCTTCTTTTTTGTTTTCTGTTGAGGGCCG
ACTGCTGCTCTGCCTTCCTTCTAGTATTTTCTTTCTCAATTCATACGCTTAGATTGGTTTTCATATGTCATGTTT
AGTGTTTTCATCCTCCTCATATACTTCAGCAGGTTCTTTTGCTTTCAAGATTTGGAAGCATTGCCAAAGACAGCC
ATGAAGAAGGAAGCTGTAGAGGTGTTTTTTGTTGTTGTTTATTTTTGCTTTTGTGGTTGAGGGAAGGACAAGAGA
TAAGAGGTTGTTACCTCAGTAAAAACCTTCAGGCCACAAAGCAAAAAGTTGCATAGCCACAACGAAGATCTAGTT
GGATATAGTTTTTGATTTAAGTTGCAGTTATAGCCAATTTAGGCTAATGCTTGGTTTTGGAGCTTTTATACACAA
CGTTTTTGTTAGGCATCACAGTTTTGCAACCTCTGCTCCAAAGAGAAAAATAGAATGAGTTTTCTTTCTTTTTTT
TTTTTTTGGAGTCAGAGTCTCGCTCTCTTGTCCAGGCTGGAGTGCAATAGCGCGATCTGGGCTCACTGCAACCTC
CGCCTCCCTGGTTCAAGCAATTCTCCTGCCTTGCCTCCTGAGTAGCTGGGATTACAGGCGTGTGTCACCACGCTC
GGCTAATTTTTGTATTTTTAGTAGAGACAGGGTTTCACCATGTCAAGCTGGTCTTGGACTCCTGACGTCGTGATC
CACCCGCCTTGGCCTCCCAAAGTACTGGGATTACAGGCGTGAGCCACTGTGCCTGGCTGAGTTTTCTTAAAGTGA
GCTTAATTTCTGAACTCTTAGTGATTCATATATGTACATAAATCTGTGATCCCATTTCTTATTGCACCATTCAGG
AACACTTTATATAAATGAGTGGCTTTTTATTTCATATTATTAGTAGTATCATGGTTCCATTACAGGCCTATTAAC
ATCATACATTGTCATTAGTCTTTGAAGAAAAAATATGTAAATATATATGTGTAACATGAGAATTTCTCTCTAAAG
CAGGGCTTAAAATTTTTTGGAAAAGTTTGACAAAGCATACCACATGAATTCAGATTTACCTCAATGCTAAGAATT
ATGTTTAGTTAGGAAAAAGGAAAGTCATTTTGACCTCAGGTAGAAAAATAGATTGCTTTGAGTTTTATGTAGCTT
TAGACTTTAAAAAGTTAGAATTTATTCTGTAACTAAAAATTATTTGAAAAAATTATGCCTCTGGTTTAATTATTG
GTGATTACACACTCTTTCTCTTACCCTTGTGTATTGAACTATGTCCATAATCAAGTTGATGTGGATCCTGAAAAG
TGTTATGAACATCTGATTGGTATTTGTCACATTTATTTTAAAATTAGCATCTGAACACTTCAAAGCTGTCAGTGT
GTATTGGTTTCACCAATAACCACTGCTTGATCCTTACAATTAAATTTTTTAACTAAC

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FIGURE 3392

GAAGGACGGAGCCGAGCCGCGGCTGCCTCCCTCGCTCACTCCCTCGCGCACTCGCCCGCCCCCTCCCTCCCTCCC
CTCCCTTCCCCGGCCCCGGCTCTGGCCCCGGCCCATTCGCTGTTGGGTCTTCTGCTAGGGAGG**ATG**TCGGGTTCG
TCGCTGCCCAGCGCCCTGGCCCTCTCGCTGTTGCTGGTCTCTGGCTCCCTCCTCCCAGGGCCAGGCGCCGCTCAG
AACGCTGGGTTTGTCAAGTCGCCCATGTCAGAAACTAAGCTCACGGGGGACGCCTTTGAGCTGTACTGTGACGTG
GTCGGGAGCCCCACGCCAGAGATCCAGTGGTGGTACGCAGAAGTCAACCGGGCAGAGTCTTTCAGACAGCTGTGG
GACGGTGCTCGGAAGCGCCGTGTCACCGTAAACACCGCCTACGGGTCAAACGGCGTGAGTGTGCTGAGAATAACC
CGGCTCACCTTGGAGGACTCTGGGACTTACGAGTGCAGGGCCAGCAACGACCCCAAGAGGAATGACTTGAGGCAA
AACCCCTCCATAACATGGATTCGAGCCCAGGCCACCATAAGCGTCCTTCAGAAGCCAAGGATTGTCACCAGTGAA
GAGGTCATTATTCGAGACAGCCCTGTTCTCCCTGTCACCCTGCAGTGTAACCTCACCTCCAGCTCTCACACCCTT
ACATACAGCTACTGGACAAAGAATGGGGTGGAACTGAGTGCCACTCGTAAGAATGCCAGCAACATGGAGTACAGG
ATCAATAAGCCGAGAGCTGAGGATTCAGGCGAATACCACTGCGTATATCACTTTGTCAGCGCTCCTAAAGCAAAC
GCCACCATTGAAGTGAAAGCCGCTCCTGACATCACTGGCCATAAACGGAGTGAGAACAAGAATGAAGGGCAGGAT
GCCACTATGTATTGCAAGTCAGTTGGCTACCCCCACCCAGACTGGATATGGCGCAAGAAGGAGAACGGGATGCCC
ATGGACATTGTCAATACCTCTGGCCGCTTCTTCATCATCAACAAGGAAAATTACACTGAGTTGAACATTGTGAAC
CTGCAGATCACGGAAGACCCTGGCGAGTATGAATGTAATGCCACCAACGCCATTGGCTCCGCCTCTGTTGTCACT
GTCCTCAGGGTGCGGAGCCACCTGGCCCCACTCTGGCCTTTCTTGGGAATTCTGGCTGAAATTATCATCCTTGTG
GTGATCATTGTTGTGTATGAGAAGAGGAAGAGGCCAGATGAGGTTCCTGACGATGATGAACCAGCTGGACCAATG
AAAACCAACTCTACCAACAATCACAAAGATAAAAACTTGCGCCAGAGAAACACAAAT**TAA**GTACTGCTTACAATA
TCTTTAGGTTCCTGAAACTGGTGGCAACATGACCTGCTAAAATTTTCTGCTTGGACCTCTTTGGTTCTCTCCCCT
TTCAAGTGAGCAACACCACAATGACTGTCTAAAGCATGCCTTATTTAGCCTCTCCTGTAAGGGTGATCTAGCCAG
GTACATTTTAAACAATGCTTCAGTGTAGAAGGTGTAAACTATTTTGGGCTTGATGTGCTGTGAATGTTGCTTTTT
TTTTTCCTTTGTTAAAATATTTAAATAGAAGTGAAAAGGTCCTCTGAGGATCAGATCATGCATGCGCCATTTTTT
ACTTAATGCAGCTGTTAAATTGGCAAAGCTCTAAAATGCACTGCTGCCATCTAGTGATACACTTTTGTAAAGTAC
AGCAAAACCTACAGATATATACAGTATATAAATATATATATATATATATTTATATTTTTGGGGGTGGGAGAAATC
CAAAATAAAGTAAATGCTTGTTTCATTTTTAAGCTGCTGATATTCATTCCTTATTGTATGTTGTCAGATGAGGAA
ATTGTGCAGTTCTGGTACATAAAGATGAGTAATATAAACTGAAATCTATAATTTTAAGGGCTTAACCTGTGACTT
TAATAAGCTGGAACAGTCCACTGAATGGGTATAATGAATTGCAGTATATACGTATGATTGCTTTTTAAGTGATTA
TCTTTTCTTCTGTTAAGTCATGTAAATTCATAAATCCTTTTGCACTGATGTGTTGAACCTTATTCTTGTACATTC
ATTCAATCAAGGCAAACTTTTATAATTTTTCTTTTGTTTCCAATGACCTTGAAATGTTATAGCATGGTAATATTC
TATGCAACTATAGTTATACTTTTTGGTTTGACACTGTATTTTTTCACATTGATTTACTGGTTGATGATAGATTTT
ATAACCTAACGGTTCTCATGCGGTGCGTAATTGTAGATGCATGTACTTGTGTGTTTTGTGTAATTATTGAAGTGC
AATGATGTATAAAAAAGTGGATTCACCTGTTTTTAAAAATAAAACATTGATA

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FIGURE 3393A

CTCTCCAGAGGCGGGCCCTGAGCCGGCACCTCCCCTTTCGGACAGCTCAAGGGACTCAGCCAACTGGCTCACGCC
TCCCCTTCAGCTTCTCTTCACGCACTCCAAGATCTAAACCGAGAATCGAAACTAAGCTGGGGTCC**ATG**GAGCCTG
CACCCGCCCGATCTCCGAGGCCCCAGCAGGACCCCGCCCGGCCCCAGGAGCCCACCATGCCTCCCCCCGAGACCC
CCTCTGAAGGCCGCCAGCCCAGCCCCAGCCCCAGCCCTACAGAGCGAGCCCCCGCTTCGGAGGAGGAGTTCCAGT
TTCTGCGCTGCCAGCAATGCCAGGCGGAAGCCAAGTGCCCGAAGCTGCTGCCTTGTCTGCACACGCTGTGCTCAG
GATGCCTGGAGGCGTCGGGCATGCAGTGCCCCATCTGCCAGGCGCCCTGGCCCCTAGGTGCAGACACACCCGCCC
TGGATAACGTCTTTTTCGAGAGTCTGCAGCGGCGCCTGTCGGTGTACCGGCAGATTGTGGATGCGCAGGCTGTGT
GCACCCGCTGCAAAGAGTCGGCCGACTTCTGGTGCTTTGAGTGCGAGCAGCTCCTCTGCGCCAAGTGCTTCGAGG
CACACCAGTGGTTCCTCAAGCACGAGGCCCGGCCCCTAGCAGAGCTGCGCAACCAGTCGGTGCGTGAGTTCCTGG
ACGGCACCCGCAAGACCAACAACATCTTCTGCTCCAACCCCAACCACCGCACCCCTACGCTGACCAGCATCTACT
GCCGAGGATGTTCCAAGCCGCTGTGCTGCTCGTGCGCGCTCCTTGACAGCAGCCACAGTGAGCTCAAGTGCGACA
TCAGCGCAGAGATCCAGCAGCGACAGGAGGAGCTGGACGCCATGACGCAGGCGCTGCAGGAGCAGGATAGTGCCT
TTGGCGCGGTTCACGCGCAGATGCACGCGGCCGTCGGCCAGCTGGGCCGCGCGCGTGCCGAGACCGAGGAGCTGA
TCCGCGAGCGCGTGCGCCAGGTGGTAGCTCACGTGCGGGCTCAGGAGCGCGAGCTGCTGGAGGCTGTGGACGCGC
GGTACCAGCGCGACTACGAGGAGATGGCCAGTCGGCTGGGCCGCCTGGATGCTGTGCTGCAGCGCATCCGCACGG
GCAGCGCGCTGGTGCAGAGGATGAAGTGCTACGCCTCGGACCAGGAGGTGCTGGACATGCACGGTTTCCTGCGCC
AGGCGCTCTGCCGCCTGCGCCAGGAGGAGCCCCAGAGCCTGCAAGCTGCCGTGCGCACCGATGGCTTCGACGAGT
TCAAGGTGCGCCTGCAGGACCTCAGCTCTTGCATCACCCAGGGGAAAGATGCAGCTGTATCCAAGAAAGCCAGCC
CAGAGGCTGCCAGCACTCCCAGGGACCCTATTGACGTTGACCTGCCCGAGGAGGCAGAGAGAGTGAAGGCCCAGG
TTCAGGCCCTGGGGCTGGCTGAAGCCCAGCCTATGGCTGTGGTACAGTCAGTGCCCGGGGCACACCCCGTGCCAG
TGTACGCCTTCTCCATCAAAGGCCCTTCCTATGGAGAGGATGTCTCCAATACAACGACAGCCCAGAAGAGGAAGT
GCAGCCAGACCCAGTGCCCCAGGAAGGTCATCAAGATGGAGTCTGAGGAGGGGAAGGAGGCAAGGTTGGCTCGGA
GCTCCCCGGAGCAGCCCAGGCCCAGCACCTCCAAGGCAGTCTCACCACCCCACCTGGATGGACCGCCTAGCCCCA
GGAGCCCCGTCATAGGAAGTGAGGTCTTCCTGCCCAACAGCAACCACGTGGCCAGTGGCGCCGGGGAGGCAGAGG
AACGCGTTGTGGTGATCAGCAGCTCGGAAGACTCAGATGCCGAAAACTCGTCCTCCCGAGAGCTGGATGACAGCA
GCAGTGAGTCCAGTGACCTCCAGCTGGAAGGCCCCAGCACCCTCAGGGTCCTGGACGAGAACCTTGCTGACCCCC
AAGCAGAAGACAGACCTCTGGTTTTCTTTGACCTCAAGATTGACAATGAAACCCAGAAGATTAGCCAGCTGGCTG
CGGTGAACCGGGAAAGCAAGTTCCGCGTGGTCATCCAGCCTGAAGCCTTCTTCAGCATCTACTCCAAGGCCGTGT
CCCTGGAGGTGGGGCTGCAGCACTTCCTCAGCTTTCTGAGCTCCATGCGCCGCCCTATCTTGGCCTGCTACAAGC
TGTGGGGGCCTGGCCTCCCAAACTTCTTCCGGGCCCTGGAGGACATTAACAGGCTGTGGGAATTCCAGGAGGCCA
TCTCGGGCTTCCTGGCTGCCCTGCCTCTCATCCGGGAGCGTGTGCCCGGGGCCAGCAGCTTCAAACTCAAGAACC
TGGCCCAGACCTACCTGGCGAGAAACATGAGCGAGCGCAGCGCCATGGCTGCCGTGCTGGCCATGCGTGACCTGT
GCCGCCTCCTCGAGGTCTCCCCGGGCCCCCAGCTGGCCCAGCATGTCTACCCCTTCAGTAGCCTGCAGTGCTTTG
CCTCCCTGCAGCCCCTGGTGCAGGCAGCTGTGCTGCCCCGGGCTGAGGCCCGCCTCCTGGCCCTACACAACGTGA
GCTTCATGGAGCTGCTGAGTGCACACCGCCGTGACCGGCAGGGGGGCCTGAAGAAGTACAGCCGCTATCTAAGCC
TGCAGACCACCACGTTGCCCCCTGCCCAGCCTGCTTTCAACCTGCAGGCTCTGGGCACCTACTTTGAAGGCCTGT
TGGAGGGTCCGGCGCTGGCACGGGCAGAAGGAGTCTCCACCCCACTTGCTGGCCGTGGCTTGGCAGAGAGGGCCT
CCCAGCAGAGC**TGA**GAGGAGGGGGTGACCAGCTTGGAGTCTCTGGTGGGCAGAGAGGGATGGGGTCCCTGAGCCA
GGCCCCACCCATCACAGCATTCCCAGGTCCTGGTACCCAGCCCTCAGTTGTCATTTGGTTCAGAATCAGTTCCCT
TTCTCTGGGACCAAATTTCCCTTCTCTAAACATCCTACAGAGAAGGTTCCAAAGCTGAGCACCCATCACCCTAGG
TGTGCACCAGACTCCTATTAGCCCCTCCTTCCAGGAGCTAGAACCAGGGAGGTCCTGAGTGAGGAAGGCATGACC
TCTGGGCTCTCTAGGTGGCCCTGGTCTTGCCCCATCCATCCCACCTGCCACTACCTTGGGTGTCCTTACAGCTCT
GCCCTGACCCCAGCCCCTGCCCCTGGACACCTGCTGACAGCTCCCACACAGAACAGTCTGAGGTGATGCTGGCTA
CAGCCCTGGCAGCCCATGGCAACTCAAAGTGCCTTCCAAACCAAACTGCCCCTCATGAGGTTAGGGTCCCCCACC
CTCCACCTGCCCAGAGGCCAACTCTGTTCCCTTCTCCTTTCATCCCAGAGGGGCCTCATCAGCAAAGACAGAAAC
TGATGTTCCATGCATGTCCCTGCTTCCAAAGCCTGACCTTCCAAAGCTTGCTTCCTTCCTCCTGGCTGCACAGAC
ACCTCTGCTTGGCCACAGCTTTGCTCTTTGGTCCTCAGGCCACCAGACCCCTCACAGCATGGCCCTTGGCTCTTC
CTGCACTGCCCTCACCCTCAGCCGTCCCAAGGAGTGCCCAGCACTACTCAGCATGTAGTCCAGGACCTGCGGCAT

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FIGURE 3393B

CAGCATCCCCTGGGAGCTTCTTAGAAATGCAGACCTGTGGGCTCTACCACAGGCCTCTGGAATCAGAATCTTCAG
GGTGGGGCCCAGCAGTCTGTGTTTTAACAGGTTCTCCCGGTGATGCTGGTGCATGCTCAAGTTTGAGAACCGCTG
CTCTCATAGACTGCTCCTCCAAGGGGAAGCAGTGTGGAACAGCAGAGAAAGTCCCGTCCCTATCTCTGACTGTGC
AGTGAGTGTGGCCTAGGAACAGGTCCCTTCCTAAGCTCTAGTGTCCCCATCTGTAAAATGGGCTGATTGGCCTCC
ACGGTCAGAGCGGCCATCTGGCTGTGCCATCCTGCATTTTTAGGAATGGAAAGCAGGCCTCTGAGGCAGTGGACA
GGAAGACTTCTCATCCTTGAATTCTAGCTCCCATTCCAAACTGTTAGTCCCCAACCTTGTGGTCACATCAGAGGT
CAACAGCAGAACAGAGGCAGGTCAGGGTTGTCCGCTCTGATTAGCAGAACGACAGCCCCTTCCTCCTCCTCCCTC
CTTCCCATCCCTACTCATTAGCTCCCTGCTCCTGGGATGCTTCCCAAGCAGCCCAGGCCTCTAGCCTCCATGGCT
GATGACCTCAGCTTTCACACTGGTGAAGTCTGTGTACCCATACTGCAGCCCCATCCCATGGGGCCCCTGAAGACC
CACTGAGGAATTCCGTAGGGTCTTGTTCCCACGACCGGAGTGCTGGCTCTCACAGTGAATTTTGATGCATTTAAA
ATAAGATTCTGATGCCAGACTGTTAAAACAGGCGCTGGTTCTGAAGCACCGATGGAAACAGATTGATGCAGATGG
AAGGAGGAAGGGAGACTGGGCCCACTGATTTCCAGCCCCACCATGTGTGCTGTTTTCAGATGTGATTGAGGGGTG
TTCTGCCCTGCCTCCACTGTCACAGCCTTTAATAAAGATGTGAATCTTG

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FIGURE 3394

GCGCCGCCGCGGGTGGCCGCGCGGGTGAAGCCGGAAGCAGCAGCCAGGAGGGCGGGGCCGCGTAGGGCCCACTGG
CCAGGGAGGGCGCCGCGCGGAGGCGCGGGGCGTGTCTCCTGTCAAAAGCC**ATG**CTCGGCAGGTCTGGGTACCGGG
CGCTGCCCCTGGGTGATTTTGACCGCTTCCAGCAGTCGAGCTTCGGCTTTCTGGGCTCGCAGAAGGGCTGCTTGT
CCCCGGAGCGGGGCGGCGTGGGGACAGGGGCCGATGTACCCCAGAGCTGGCCCTCCTGCCTCTGTCATGGCCTCA
TCAGTTTCCTGGGGTTCTTGCTGCTGTTGGTCACCTTCCCCATTTCTGGCTGGTTTGCCCTGAAGATTGTGCCCA
CCTACGAGCGGATGATTGTGTTCCGCCTGGGCCGGATCCGCACCCCCCAGGGACCTGGCATGGTTCTGCTCTTGC
CCTTCATTGACTCCTTTCAGAGGGTGGATCTGAGGACACGAGCCTTCAACGTCCCTCCCTGCAAGCTGGCCTCTA
AGGACGGGGCTGTGCTGTCCGTGGGAGCCGATGTCCAGTTTCGCATCTGGGACCCGGTGCTGTCGGTGATGACTG
TGAAAGACCTGAACACAGCCACACGCATGACAGCCCAGAACGCCATGACCAAGGCCCTGCTCAAGAGGCCGCTGC
GGGAGATCCAGATGGAGAAGCTCAAGATCAGCGACCAGCTTCTGCTGGAGATCAACGATGTGACCAGGGCCTGGG
GGCTGGAGGTAGACCGCGTGGAGCTGGCAGTGGAGGCCGTGCTCCAGCCGCCCCAGGACAGCCCAGCTGGGCCCA
ACCTGGACAGCACCCTCCAGCAGCTGGCCCTGCACTTCCTGGGAGGAAGCATGAACTCAATGGCAGGAGGTGCCC
CGTCCCCGGGGCCAGCAGACACCGTGGAGATGGTGAGTGAAGTTGAGCCACCTGCCCCTCAAGTTGGTGCCAGGT
CCAGTCCGAAGCAGCCTCTGGCGGAGGGGCTACTGACTGCTCTACAGCCCTTCCTGTCTGAGGCCCTGGTCAGCC
AAGTCGGGGCCTGCTACCAGTTCAATGTCGTCCTGCCCAGCGGCACCCAAAGCGCCTACTTCCTGGACCTCACTA
CAGGACGAGGAAGAGTGGGACACGGGGTGCCTGATGGCATCCCTGATGTGGTGGTGGAGATGGCCGAGGCAGACC
TGCGGGCCCTGCTATGCAGAGAGCTGCGGCCCCTGGGGGCCTACATGAGTGGACGGCTGAAGGTGAAGGGCGACC
TGGCTATGGCCATGAAGCTGGAGGCTGTCCTCAGGGCCTTGAAG**TAG**CAGCCTTGGCTGACTTTCCAGAGCCCAG
TCCCAAGCCTGGCACCAAGCCTGAGGGGCCTCTTGGAGGAGGAGGTGTTCATCTGCACCACAGAGAGTTGAGGCC
CTAACAAATTTCAGGCCCAGCCAAGAGCCCATGAATGGAGGCTGCAGGAGGCTGAGTCCGGCTGCCATGCACGTC
TCCCCTACAGTGGTTCTCTGGACAAGGCTTTGTCCATCCCGGTCCCCAGCTGAGTGCCCAGCGCTGAGCTGGGTG
CACGGTGTGATTCCAGGAGGAGAGCCAGGCCTGCCCTGCCCTGCTGGCTTCCTGACTGGAGAGACAGGACCCACA
GAAACAGCCTGACAGCAGCTGGTTTGGTCCTTGTGTGAGGGACCAAGCATGTGGCCCAGGCTCTAAGCTCTGCGG
GGATTGGAGAGGGATGGGGAGGGAAGGGAAGGCAGCTCCAAGAAGAGGTCCCTGTGGCGAAGTTACCTGGGGATC
CTGGCTGGCCCACCTTCCTGGCTGCAGTCCAGGCCCGTGCTGGCGGGATTGGGCATGGGAAGGAGCAGGGCCTGC
TGCTTCCCTGGCGCTGCTCCCAAAGATTTCTGACTCATCTGCCAGCTCTGTCCTGCATGCCTGGCGAGCTGGGGC
CCAGGGCAGCATGAAGGAGAGCCCTGCGTTCTGTGCTTCTTACCAGAGGTTTGCAAGCCTCAGACAAATAAATGT
GGTGTTTACAATGT

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FIGURE 3395

GCCAGCCGAGCGGCCAGCCAGTGCGGGGCTGGCCATGTAAGGCCCACAGGCGGTCCTGCCCGCCCGGTGCCCTGC
GGAGAGCCTCGTGCAGCCCTGGGCACCGCCCCTGCCCTGCCCTGACCCCTTGGCCTTGAAATGCTGTCATCGGAG
GAGCCGTCCCGCTCGGGACAAGGCCAGCATGGACAAAGCTAGAGCTGGGGCAAGCAAGGAGCCTTCCTGTCCTCG
AGGCCGTGGGAAGAGAAGCACGCCCAGGGGGCCACTCCTGAGAGCCTCTCTGTCCACCAGGCCTCTGCAGAGGGG
TCACC**ATG**GCTCTGGCCCGAGGCAGCCGGCAGCTGGGGGCCCTGGTGTGGGGCGCCTGCCTGTGCGTGCTGGTGC
ACGGGCAGCAGGCGCAGCCCGGGCAGGGCTCGGACCCCGCCCGCTGGCGGCAGCTGATCCAGTGGGAGAACAACG
GGCAGGTGTACAGCTTGCTCAACTCGGGCTCAGAGTACGTGCCGGCCGGACCTCAGCGCTCCGAGAGTAGCTCCC
GGGTGCTGCTGGCCGGCGCGCCCCAGGCCCAGCAGCGGCGCAGCCACGGGAGCCCCCGGCGTCGGCAGGCGCCGT
CCCTGCCCCTGCCGGGGCGCGTGGGCTCGGACACCGTGCGCGGCCAGGCGCGGCACCCATTCGGCTTTGGCCAGG
TGCCCGACAACTGGCGCGAGGTGGCCGTCGGGGACAGCACGGGCATGGCCCGGGCCCGCACCTCCGTCTCCCAGC
AACGGCACGGGGGCTCCGCCTCCTCGGTCTCGGCTTCGGCCTTCGCCAGCACCTACCGCCAGCAGCCCTCCTACC
CGCAGCAGTTCCCCTACCCGCAGGCGCCCTTCGTCAGCCAGTACGAGAACTACGACCCCGCGTCGCGGACCTACG
ACCAGGGTTTCGTGTACTACCGGCCCGCGGGCGGCGGCGTGGGCGCGGGGGCGGCGGCCGTGGCCTCGGCGGGGG
TCATCTACCCCTACCAGCCCCGGGCGCGCTACGAGGAGTACGGCGGCGGCGAAGAGCTGCCCGAGCCCCCGAGAG
GCCCTACGTGCCGCCGCCGCCGCCGCCCCCCGACGGCCTGGACCGCCGCTACTCGCACAGTCTGTACAGCGAGGG
CACCCCCGGCTTCGAGCAGGCCTACCCTGACCCCGGTCCCGAGGCGGCGCAGGCCCATGGCGGAGACCCACGCCT
GGGCTGGTACCCGCCCTACGCCAACCCGCCGCCCGAGGCGTACGGGCCGCCGCGCGCGCTGGAGCCGCCCTACCT
GCCGGTGCGCAGCTCCGACACGCCCCCGCCGGGTGGGGAGCGGAACGGCGCGCAGCAGGGCCGCCTCAGCGTGGG
CAGCGTGTACCGGCCCAACCAGAACGGCCGCGGTCTCCCTGACTTGGTCCCAGACCCCAACTATGTGCAAGCATC
CACTTATGTGCAGAGAGCCCACCTGTACTCCCTGCGCTGTGCTGCGGAGGAGAAGTGTCTGGCCAGCACAGCCTA
TGCCCCTGAGGCCACCGACTACGATGTGCGGGTGCTACTGCGCTTCCCCCAGCGCG**TGA**AGAACCAGGGCACAGC
AGACTTCCTCCCCAACCGGCCACGGCACACCTGGGAGTGGCACAGCTGCCACCAGCATTACCACAGCATGGACGA
GTTCAGCCACTACGACCTACTGGATGCAGCCACAGGCAAGAAGGTGGCCGAGGGCCACAAGGCCAGTTTCTGCCT
GGAGGACAGCACCTGTGACTTCGGCAACCTCAAGCGCTATGCATGCACCTCTCATACCCAGGGCCTGAGCCCAGG
CTGCTATGACACCTACAATGCGGACATCGACTGCCAGTGGATCGACATAACCGACGTGCAGCCTGGGAACTACAT
CCTCAAGGTGCACGTGAACCCAAAGTATATTGTTTTGGAGTCTGACTTCACCAACAACGTGGTGAGATGCAACAT
TCACTACACAGGTCGCTACGTTTCTGCAACAAACTGCAAAATTGTCCAATCCTGATCTCCGGGAGGGACAGATGG
CCAATCTCTCCCCTTCCAAAGCAGGCCCTGCTCCCCGGGCAGCCTCCCGCCGAGGGGCCCAGCCCCCAACCCACA
GGCACGGAGGGGCATCCCTCCCTGCCGGCCTCAGGGAGCGAACGTGGATGAAAACCACAGGGATTCCGGACGCCA
GACCCCATTTTATACTTCACTTTTCTCTACAGTGTTGTTTTGTTGTTGTTGGTTTTTATTTTTTATACTTTGGCC
ATACCACAGAGCTAGATTGCCCAGGTCTGGGCTGAATAAAACAAGGTTTTTCT

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FIGURE 3396

CAGGCCGAGGCAGGGAGAACTCTCCACTCGGAGGAGGAGCTGGGGTCCTCTTCCATCCCGTCTTCATCCTGCCTG
GCTGCGTGACCTCGGGAGGCACC**ATG**CAGGAGCTGCATCTGCTCTGGTGGGCGCTTCTCCTGGGCCTGGCTCAGG
CCTGCCCTGAGCCCTGCGACTGTGGGGAAAAGTATGGCTTCCAGATCGCCGACTGTGCCTACCGCGACCTAGAAT
CCGTGCCGCCTGGCTTCCCGGCCAATGTGACTACACTGAGCCTGTCAGCCAACCGGCTGCCAGGCTTGCCGGAGG
GTGCCTTCAGGGAGGTGCCCCTGCTGCAGTCGCTGTGGCTGGCACACAATGAGATCCGCACGGTGGCCGCCGGAG
CCCTGGCCTCTCTGAGCCATCTCAAGAGCCTGGACCTCAGCCACAATCTCATCTCTGACTTTGCCTGGAGCGACC
TGCACAACCTCAGTGCCCTCCAATTGCTCAAGATGGACAGCAACGAGCTGACCTTCATCCCCCGCGACGCCTTCC
GCAGCCTCCGTGCTCTGCGCTCGCTGCAACTCAACCACAACCGCTTGCACACATTGGCCGAGGGCACCTTCACCC
CGCTCACCGCGCTGTCCCACCTGCAGATCAACGAGAACCCCTTCGACTGCACCTGCGGCATCGTGTGGCTCAAGA
CATGGGCCCTGACCACGGCCGTGTCCATCCCGGAGCAGGACAACATCGCCTGCACCTCACCCCATGTGCTCAAGG
GTACGCCGCTGAGCCGCCTGCCGCCACTGCCATGCTCGGCGCCCTCAGTGCAGCTCAGCTACCAACCCAGCCAGG
ATGGTGCCGAGCTGCGGCCTGGTTTTGTGCTGGCACTGCACTGTGATGTGGACGGGCAGCCGGCCCCTCAGCTTC
ACTGGCACATCCAGATACCCAGTGGCATTGTGGAGATCACCAGCCCCAACGTGGGCACTGATGGGCGTGCCCTGC
CTGGCACCCCTGTGGCCAGCTCCCAGCCGCGCTTCCAGGCCTTTGCCAATGGCAGCCTGCTTATCCCCGACTTTG
GCAAGCTGGAGGAAGGCACCTACAGCTGCCTGGCCACCAATGAGCTGGGCAGTGCTGAGAGCTCAGTGGACGTGG
CACTGGCCACGCCCGGTGAGGGTGGTGAGGACACACTGGGGCGCAGGTTCCATGGCAAAGCGGTTGAGGGAAAGG
GCTGCTATACGGTTGACAACGAGGTGCAGCCATCAGGGCCGGAGGACAATGTGGTCATCATCTACCTCAGCCGTG
CTGGGAACCCTGAGGCTGCAGTCGCAGAAGGGGTCCCTGGGCAGCTGCCCCCAGGCCTGCTCCTGCTGGGCCAAA
GCCTCCTCCTCTTCTTCTTCCTCACCTCCTTC**TAG**CCCCACCCAGGGCTTCCCTAACTCCTCCCCTTGCCCCTAC
CAATGCCCCTTTAAGTGCTGCAGGGGTCTGGGGTTGGCAACTCCTGAGGCCTGCATGGGTGACTTCACATTTTCC
TACCTCTCCTTCTAATCTCTTCTAGAGCACCTGCTATCCCCAACTTCTAGACCTGCTCCAAACTAGTGACTAGGA
TAGAATTTGATCCCCTAACTCACTGTCTGCGGTGCTCATTGCTGCTAACAGCATTGCCTGTGCTCTCCTCTCAGG
GGCAGCATGCTAACGGGGCGACGTCCTAATCCAACTGGGAGAAGCCTCAGTGGTGGAATTCCAGGCACTGTGACT
GTCAAGCTGGCAAGGGCCAGGATTGGGGGAATGGAGCTGGGGCTTAGCTGGGAGGTGGTCTGAAGCAGACAGGGA
ATGGGAGAGGAGGATGGGAAGTAGACAGTGGCTGGTATGGCTCTGAGGCTCCCTGGGGCCTGCTCAAGCTCCTCC
TGCTCCTTGCTGTTTTCTGATGATTTGGGGGCTTGGGAGTCCCTTTGTCCTCATCTGAGACTGAAATGTGGGGAT
CCAGGATGGCCTTCCTTCCTCTTACCCTTCCTCCCTCAGCCTGCAACCTCTATCCTGGAACCTGTCCTCCCTTTC
TCCCCAACTATGCATCTGTTGTCTGCTCCTCTGCAAAGGCCAGCCAGCTTGGGAGCAGCAGAGAAATAAACAGCA
TTTCTGATGCC

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FIGURE 3397

GGGCGCTGGGGCCCTGGGCAGCGCGGGCTCGATGTGTGTCAGCCAAGTAGCTGGTCCCACTGGAGCGGTGAGGTC
GCCACCGGATAGTGTTCCTGCCCCATTACTAGCGATCTGTGACCTTGGGCCAGTGATTTTACTGAGTCTTGCTTC
CCTCATCTTTAAAATGTGGCTAATGCCTGCCTTAGGGAACCGTTGTGAGGATTAAGTGAGACATGGTATATAAAA
CGACCTCCTTCTGGCATAAACTTGAGGTGGAAGATACCTTGAGGATGCTTGAAGGTCTGCTAGGCAGCTTCACAG
CCTTTTCTTTCCTCTTCTCTATCAGAGGTCTCTTTGGAAGCAATAATGATGACTATAACAAGAACTTATCTTGCT
TTGCAAGATTCTTCCGCCGTCAGAGTTTCTGATTTATTTTCTGGGGTTCCATGTATGCCAGGGAGAAAGAGAGAG
CGCGAAAGAGAGAGG**ATG**TCTCTCTCAGACTGGCACCTGGCGGTGAAGCTGGCTGACCAGCCACTTACTCCAAAG
TCTATTCTTCGGTTGCCAGAGACAGAACTGGGAGAATACTCGCTAGGGGGCTATAGTATTTCATTTCTGAAGCAG
CTTATTGCTGGCAAACTCCAGGAGTCTGTTCCAGACCCTGAGCTGATTGATCTGATCTACTGTGGTCGGAAGCTA
AAAGATGACCAGACACTTGACTTCTATGGCATTCAACCTGGGTCCACTGTCCATGTTCTGCGAAAGTCCTGGCCT
GAACCTGATCAGAAACCGGAACCTGTGGACAAAGTGGCTGCCATGAGAGAGTTCCGGGTGTTGCACACTGCCCTG
CACAGCAGCTCCTCTTACAGGGAGGCGGTCTTTAAGATGCTCAGCAATAAGGAGTCTCTGGATCAGATCATTGTG
GCCACCCCAGGCCTCAGCAGTGACCCTATTGCTCTTGGGGTTCTCCAGGACAAGGACCTCTTCTCTGTCTTCGCT
GATCCCAATATGCTTGATACGTTGGTGCCTGCTCACCCAGCCCTCGTCAATGCCATTGTCCTGGTTCTGCACTCC
GTAGCAGGCAGTGCCCCAATGCCTGGGACTGACTCCTCTTCCCGGAGCATGCCCTCCAGCTCATACCGGGATATG
CCAGGTGGCTTCCTGTTTGAAGGGCTCTCAGATGATGAGGATGACTTTCACCCAAACACCAGGTCCACACCCTCT
AGCAGTACTCCCAGCTCCCGCCCAGCCTCCCTGGGGTACAGTGGAGCTGCTGGGCCCCGGCCCATCACCCAGAGT
GAGCTGGCCACCGCCTTGGCCCTGGCCAGCACTCCGGAGAGCAGCTCTCACACACCGACTCCTGGCACCCAGGGT
CATTCCTCAGGGACCTCACCAATGTCCTCTGGTGTCCAGTCAGGGACGCCCATCACCAATGATCTCTTCAGCCAA
GCCCTACAGCATGCCCTTCAGGCCTCTGGGCAGCCCAGCCTTCAGAGCCAGTGGCAGCCCCAGCTGCAGCAGCTA
CGTGACATGGGCATCCAGGACGATGAGCTGAGCCTGCGGGCCCTGCAGGCCACCGGTGGGGACATCCAAGCAGCC
CTGGAGCTCATCTTTGCTGGAGGAGCCCCA**TGA**ACTCCCTGCTTCCCCTGAACCCCCAGCAAGTTGCAGAGGCTA
CTGCCCTTGGGAGGCACTCATGAAGGTGCCTCCATCTCTCCCTTCCCCAATATACCTGATGGTCAACTCTC

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FIGURE 3398

GGCGGGACGCGCACGCTCACAGTGAGGTCTCAAAAGATCCCCACCTCAGTTTTCTCATCTGGAAAGTGGGGCCTC
GTAATCCTGTCCGACCCGGCGCGGGACAGTAGGTGTCAGGGATTTTGGTGACCCCACGCTCGAGGCCTCTGCAAA
AGGGGGCTGTCCAGTGGCCCAGAGACGCAGCCGGCGGGGCTTTTGTCTAGCGGGGGAGTCTTAACTGAGAGGCCA
CGCAGGCCGGCAGGAAGCCGCTCCACAGGAGGGGGCTCAAGGAGAGGGGATCTCCTCCCTCCAGACTCCGGCCCC
GCCAGAGTAGCTCTAGGGTATCTTCCCAGAAACTGCCCCGCACGCACTGGCGAGCTGGGAGCGCCACCACGGCTT
TCAAAAAACCCGCACACACCAAGATAATAATGTGTCGTTCGCTCGTTTCGCGCAAGCGGAGTCGCGTCCGCCTTC
CCGAGCTCCGGCACACAGACCTCAGGCCGCTCTCGCGCTCTCCGGGGCCCCGAGAACA**ATG**CCCGTCCTCTCCGC
GCGCAGGAGGGAGTTGGCGGACCACGCGGGGTCGGGGCGACGGAGCGGGCCCAGCCCCACGGCCAGGTCGGGGCC
CCACCTCTCGGCTCTGAGAGCCCAGCCGGCCCGGGCCGCGCACCTGTCAGGTCGGGGGACCTACGTGCGCCGCGA
CACGGCGGGAGGCGGGCCGGGCCAGGCTCGTCCCCTCGGCCCTCCCGGAACTAGTCTCCTAGGCCGCGGCGCCCG
CCGGAGCGGAGAGGGCTGGTGCCCCGGAGCCTTCGAGTCGGGGGCTAGAGCGGCCAGGCCTCCGAGCCGGGTCGA
GCCGAGGCTGGCGACGGCTGCGTCACGCGAGGGGGCGGGGCTGCCACGGGCGGAGGTCGCAGCCGGAAGCGGAAG
AGGCGCTCGGAGCGGGGAGTGGGGCCTAGCTGCAGCCGGAGCCTGGGAGACGCCA**TGA**CCGCCTGCCCTACCAGA
GGAGGTACCGGGAGCGCCGTGACAGCGATACATACCGGTGTGAAGAGCGGAGCCCATCCTTTGGAGAGGACTACT
ATGGACCTTCACGTTCTCGTCATCGTCGGCGATCGCGGGAGAGGGGGCCATACCGGACCCGCAAGCATGCCCACC
ACTGCCACAAACGCCGCACCAGGTCTTGTAGCAGCGCCTCCTCGAGAAGCCAACAGAGCAGTAAGCGCAGCAGCC
GGAGTGTGGAAGATGACAAGGAGGGTCACCTGGTGTGCCGGATCGGCGATTGGCTCCAAGAGCGATATGAGATTG
TGGGGAACCTGGGTGAAGGCACCTTTGGCAAGGTGGTGGAGTGCTTGGACCATGCCAG

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FIGURE 3399

ATGATCCGCTGCGGCCTGGCCTGCGAGCGCTGCCGCTGGATCCTGACCCTGCTCCTACTCAGCGCCATCGCCTTC
GACATCATCGCGCTGGCCGGCCGCGGCTGGCTGCAGTCGAGCGACCGCGTCCAGACGTCCTCGCTGTGGTGGAGA
TGTTTCCTTCCACAGGGGCGGCGGCGGCGGCAGCGGGTCCTAAGAGGACGGCTGCCACAGCCTCATGGAGTACGC
GTGGGGTCGAGCAGCGCTGCCATGCTTTTCTGGGGCGTCAGCATCCTGGTGATCTGTTTCATCCTCTCCTTCTTC
GTCCTGTGTGTACCCCAGATACTTGTCTTCCTAAGAGTGATTGGAGGTCTCCTTGCCTTGGCTGCTGTGTTCCAG
ATCATCTCCCTGGTAATTTACCCCGTGAAGTACACTCAACCTTCAACCTTCATGCCAAGCCCCGCTGTCACTTCC
ATCTATAACTGGGCCTGCGGCTTTGGGTGGGCAGCCATGATTATCCTCATTGGCTGTGCTTTCTTCTGCTGCTGC
CTCCCCAGCTGCGAAGATGACCTCCTGGGCAATACCAAGCCCAGGTACTTCTACACATCCGCC**TAA**

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FIGURE 3400

ACTTCCGCTGCTGTTTCGTAGCCGACTGCTGAAGGCTGGTTTGCGTCGACATGGCGGTTACCCTGAGTCTCTTGC
TGGGCGGGCGCGTTTGCGCCGCCGTCACTCGCTGTGGGTTCGCGACCCGGGGGGTGGCGGGCCCAGGCCCTATTG
GCCGGGAGCCGGACCCCGATTCCGACTGGGAGCCGGAGGAACGGGAGCTGCAGGAGGTGGAGAGGTACCGGCTTC
TCCCCGGGCCCTCAGCTTGAAGCAGGGCCTCGTGCCCCGGCGCTCCAGGCCGCGCCCCCTTGGCGCCGGGTGTCC
TGCCGCTGCTTGCGCAGCGGCCCTTGTTTCTTCTTACCCGTTGTTAGGGGCGCAGCGTCAGGTGTTCAGCTCCCC
TGGGACCACTGGTCCCTTCATTAGTGACGTATTTCATCATCAGTTTAGAGAGTTCGGCATGCTTACAGGCAGTTA
TTGTTCTAGGTGTTAGCTTTCTGGGTGTACGGAGCAGCTCTAAGCCGGCAACATGGCCCGGTTGCCCTTGCGATC
AAAGAGAAGAGGGCTGGGCGCTCCATGATTTAGCCTGAGGCTCTTCAAACATCCATTCTGCTTCCACGCATGGCT
TCTGCCATTGGTTCTCTTCCCCCAGCACCCTGAAACGACAGAAACAAGCAATCCGATTCCAGAAAATTCGGAGGC
AA**ATG**GAGGCGCCTGGTGCCCCGCCCAGGACCCTGACGTGGGAAGCCATGGAGCAGATACGGTATTTACATGAGG
AATTTCCAGAGTCCTGGTCAGTTCCCAGGTTGGCTGAAGGCTTTGATGTCAGCACTGATGTGATCCGAAGAGTTT
TAAAAAGCAAGTTTTTACCCACATTGGAGCAGAAGCTGAAGCAGGATCAAAAAGTCCTTAAGAAAGCTGGGCTTG
CCCACTCGCTGCAGCACCTCCGGGGCTCTGGAAATACCTCAAAGCTGCTCCCTGCAGGCCACTCTGTATCAGGCT
CTTTGCTTATGCCAGGGCATGAAGCCTCATCTAAAGACCCAAATCACAGCACAGCTTTGAAAGTGATAGAGTCAG
ACACTCACAGGACAAATACACCAAGGAGAAGGAAGGGAAGAAATAAAGAAATCCAGGACCTGGAGGAGAGCTTTG
TGCCTGTTGCTGCACCCCTAGGTCATCCAAGAGAGCTGCAGAAGTACTCCAGTGATTCTGAGAGCCCCAGAGGAA
CTGGCAGTGGTGCGTTGCCAAGTGGTCAGAAGCTGGAGGAGTTGAAGGCAGAGGAGCCAGATAACTTCAGCAGCA
AAGTAGTGCAGAGGGGCCGAGAGTTCTTTGACAGCAACGGGAACTTCCTGTACAGAATT**TGA**GTCGGGGCTTGGC
TTATGGAGATGCCTCGTGAAACACAGCTGGGCAAGTATTAATGTATATGGAACAGCCTGGATTTCTGCATATGGA
TAAGCCACCTTGGAATAGGAAGAGGTGTTGAGCCTGGACTGTGGGAGGAAAGAGCTGCGTGGATAGATTCAAACT
TCCTGTGGTAGTGCTCCCAGTCTGACCTCTGTAGACCTTCAGTACTCACTCTTCTTGCTTAGGCTCTCTGTGTGT
TGAAAGCCATCCCGTGTTGCATGTGTTGTTACAATTTTCTGTGATACTTGCAATTTATGTTTGAGAAGAAGTGAA
AAGTTTGCCTTCTGACCTCATTTCCTTCTTGATCAGTGAACACTAACATTTTGGGGACAACTTAGTCAATTGGTT
TTCCTTACAACAAAATAAAGTAAAATGTAGCAGTC

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FIGURE 3401

GCGGCCCAAGGGCGGAAGTGAGAAAGTTGTCTGCGTCTCGAGGCGAGTTGGCGGAGCTGTGCGCGCGGCGGGGCG
ATGGGGGGCTCGGGCAGTCGCCTGTCCAAGGAGCTGCTGGCCGAGTACCAGGACTTGACGTTCCTGACGAAGCAG
GAGATCCTCCTAGCCCACAGGCGGTTTTGTGAGCTGCTTCCCCAGGAGCAGCGGAGCGTGGAGTCGTCACTTCGG
GCACAAGTGCCCTTCGAGCAGATTCTCAGCCTTCCAGAGCTCAAGGCCAACCCCTTCAAGGAGCGAATCTGCAGG
GTCTTCTCCACATCCCCAGCCAAAGACAGCCTTAGCTTTGAGGACTTCCTGGATCTCCTCAGTGTGTTCAGTGAC
ACAGCCACGCCAGACATCAAGTCCCATTATGCCTTCCGCATCTTTGACTTTGATGATGACGGAACCTTGAACAGA
GAAGACCTGAGCCGGCTGGTGAACTGCCTCACGGGAGAGGGCGAGGACACACGGCTTAGTGCGTCTGAGATGAAG
CAGCTCATCGACAACATCCTGGAGGAGTCTGACATTGACAGGGATGGAACCATCAACCTCTCTGAGTTCCAGCAC
GTCATCTCCCGTTCTCCAGACTTTGCCAGCTCCTTTAAGATTGTCCTG**TGA**CAGCAGCCCCAGCGTGTGTCCTGG
CACCCTGTCCAAGAACCTTTCTACTGCTGAGCTGTGGCCAAGGTCAAGCCTGTGTTGCCAGTGCGGGCCAAGCTG
GCCCAGCCTGGAGCTGGCGCTGTGCAGCCTCACCCCGGGCAGGGGCGGCCCTCGTTGTCAGGGCCTCTCCTCACT
GCTGTTGTCATTGCTCCGTTTGTGTTTGTACTAATCAGTAATAAAGGTTTAGAAGTTTGACCCTATGTGTGACAT
GAGATACACTGGTATGAGGAAGGACTGGACTTCTCTTCTAAGAGCCTTCAATCATCCTAGGAATAAGCAGCATAT
CGAGCAGAGGCCAGCGGGAAGTCAAGCCGCACCCACGCTGGCTGTCCCCGTGGGAGGGTGTGAGGATGAAGGGGC
AGCAGGAGGTGTGGGACTCGCCTGTATCCTGATTGGGGTGGTGGTTAGATGAGTCTCTGCATGCATCAAAATGTA
AAGAACCGTACATCAGTAAAGTCTATTTTACTGCA

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FIGURE 3402A

GCTCTGCCCAAGCCGAGGCTGCGGGGCCGGCGCCGGCGGGAGGACTGCGGTGCCCCGCGGAGGGGCTGAGTTTGC
CAGGGCCCACTTGACCCTGTTTCCCACCTCCCGCCCCCCAGGTCCGGAGGCGGGGGCCCCCGGGGCGACTCGGGG
GCGGACCGCGGGGCGGAGCTGCCGCCCGTGAGTCCGGCCGAGCCACCTGAGCCCGAGCCGCGGGACACCGTCGCT
CCTGCTCTCCGA**ATG**CTGCGCACCGCGATGGGCCTGAGGAGCTGGCTCGCCGCCCCATGGGGCGCGCTGCCGCCT
CGGCCACCGCTGCTGCTGCTCCTGCTGCTGCTGCTCCTGCTGCAGCCGCCGCCTCCGACCTGGGCGCTCAGCCCC
CGGATCAGCCTGCCTCTGGGCTCTGAAGAGCGGCCATTCCTCAGATTCGAAGCTGAACACATCTCCAACTACACA
GCCCTTCTGCTGAGCAGGGATGGCAGGACCCTGTACGTGGGTGCTCGAGAGGCCCTCTTTGCACTCAGTAGCAAC
CTCAGCTTCCTGCCAGGCGGGGAGTACCAGGAGCTGCTTTGGGGTGCAGACGCAGAGAAGAAACAGCAGTGCAGC
TTCAAGGGCAAGGACCCACAGCGCGACTGTCAAAACTACATCAAGATCCTCCTGCCGCTCAGCGGCAGTCACCTG
TTCACCTGTGGCACAGCAGCCTTCAGCCCCATGTGTACCTACATCAACATGGAGAACTTCACCCTGGCAAGGGAC
GAGAAGGGGAATGTCCTCCTGGAAGATGGCAAGGGCCGTTGTCCCTTCGACCCGAATTTCAAGTCCACTGCCCTG
GTGGTTGATGGCGAGCTCTACACTGGAACAGTCAGCAGCTTCCAAGGGAATGACCCGGCCATCTCGCGGAGCCAA
AGCCTTCGCCCCACCAAGACCGAGAGCTCCCTCAACTGGCTGCAAGACCCAGCTTTTGTGGCCTCAGCCTACATT
CCTGAGAGCCTGGGCAGCTTGCAAGGCGATGATGACAAGATCTACTTTTTCTTCAGCGAGACTGGCCAGGAATTT
GAGTTCTTTGAGAACACCATTGTGTCCCGCATTGCCCGCATCTGCAAGGGCGATGAGGGTGGAGAGCGGGTGCTA
CAGCAGCGCTGGACCTCCTTCCTCAAGGCCCAGCTGCTGTGCTCACGGCCCGACGATGGCTTCCCCTTCAACGTG
CTGCAGGATGTCTTCACGCTGAGCCCCAGCCCCCAGGACTGGCGTGACACCCTTTTCTATGGGGTCTTCACTTCC
CAGTGGCACAGGGGAACTACAGAAGGCTCTGCCGTCTGTGTCTTCACAATGAAGGATGTGCAGAGAGTCTTCAGC
GGCCTCTACAAGGAGGTGAACCGTGAGACACAGCAGATGGTACACCGTGACCCACCCGTGCCCACACCCCGGCCT
GGAGCGTGCATCACCAACAGTGCCCGGGAAAGGAAGATCAACTCATCCCTGCAGCTCCCAGACCGCGTGCTGAAC
TTCCTCAAGGACCACTTCCTGATGGACGGGCAGGTCCGAAGCCGCATGCTGCTGCTGCAGCCCCAGGCTCGCTAC
CAGCGCGTGGCTGTACACCGCGTCCCTGGCCTGCACCACACCTACGATGTCCTCTTCCTGGGCACTGGTGACGGC
CGGCTCCACAAGGCAGTGAGCGTGGGCCCCCGGGTGCACATCATTGAGGAGCTGCAGATCTTCTCATCGGGACAG
CCCGTGCAGAATCTGCTCCTGGACACCCACAGGGGGCTGCTGTATGCGGCCTCACACTCGGGCGTAGTCCAGGTG
CCCATGGCCAACTGCAGCCTGTACAGGAGCTGTGGGGACTGCCTCCTCGCCCGGGACCCCTACTGTGCTTGGAGC
GGCTCCAGCTGCAAGCACGTCAGCCTCTACCAGCCTCAGCTGGCCACCAGGCCGTGGATCCAGGACATCGAGGGA
GCCAGCGCCAAGGACCTTTGCAGCGCGTCTTCGGTTGTGTCCCCGTCTTTTGTACCAACAGGGGAGAAGCCATGT
GAGCAAGTCCAGTTCCAGCCCAACACAGTGAACACTTTGGCCTGCCCGCTCCTCTCCAACCTGGCGACCCGACTC
TGGCTACGCAACGGGGCCCCCGTCAATGCCTCGGCCTCCTGCCACGTGCTACCCACTGGGGACCTGCTGCTGGTG
GGCACCCAACAGCTGGGGGAGTTCCAGTGCTGGTCACTAGAGGAGGGCTTCCAGCAGCTGGTAGCCAGCTACTGC
CCAGAGGTGGTGGAGGACGGGGTGGCAGACCAAACAGATGAGGGTGGCAGTGTACCCGTCATTATCAGCACATCG
CGTGTGAGTGCACCAGCTGGTGGCAAGGCCAGCTGGGGTGCAGACAGGTCCTACTGGAAGGAGTTCCTGGTGATG
TGCACGCTCTTTGTGCTGGCCGTGCTGCTCCCAGTTTTATTCTTGCTCTACCGGCACCGGAACAGCATGAAAGTC
TTCCTGAAGCAGGGGGAATGTGCCAGCGTGCACCCCAAGACCTGCCCTGTGGTGCTGCCCCCTGAGACCCGCCCA
CTCAACGGCCTAGGGCCCCCTAGCACCCCGCTCGATCACCGAGGGTACCAGTCCCTGTCAGACAGCCCCCCGGGG
TCCCGAGTCTTCACTGAGTCAGAGAAGAGGCCACTCAGCATCCAAGACAGCTTCGTGGAGGTATCCCCAGTGTGC
CCCCGGCCCCGGGTCCGCCTTGGCTCGGAGATCCGTGACTCTGTGGTG**TGA**GAGCTGACTTCCAGAGGACGCTGC
CCTGGCTTCAGGGGCTGTGAATGCTCGGAGAGGGTCAACTGGACCTCCCCTCCGCTCTGCTCTTCGTGGAACACG
ACCGTGGTGCCCGGCCCTTGGGAGCCTTGGGGCCAGCTGGCCTGCTGCTCTCCAGTCAAGTAGCGAAGCTCCTAC
CACCCAGACACCCAAACAGCCGTGGCCCCAGAGGTCCTGGCCAAATATGGGGGCCTGCCTAGGTTGGTGGAACAG
TGCTCCTTATGTAAACTGAGCCCTTTGTTTAAAAAACAATTCCAAATGTGAAACTAGAATGAGAGGGAAGAGATA
GCATGGCATGCAGCACACACGGCTGCTCCAGTTCATGGCCTCCCAGGGGTGCTGGGGATGCATCCAAAGTGGTTG
TCTGAGACAGAGTTGGAAACCCTCACCAACTGGCCTCTTCACCTTCCACATTATCCCGCTGCCACCGGCTGCCCT
GTCTCACTGCAGATTCAGGACCAGCTTGGGCTGCGTGCGTTCTGCCTTGCCAGTCAGCCGAGGATGTAGTTGTTG
CTGCCGTCGTCCCACCACCTCAGGGACCAGAGGGCTAGGTTGGCACTGCGGCCCTCACCAGGTCCTGGGCTCGGA
CCCAACTCCTGGACCTTTCCAGCCTGTATCAGGCTGTGGCCACACGAGAGGACAGCGCGAGCTCAGGAGAGATTT
CGTGACAATGTACGCCTTTCCCTCAGAATTCAGGGAAGAGACTGTCGCCTGCCTTCCTCCGTTGTTGCGTGAGAA
CCCGTGTGCCCCTTCCCACCATATCCACCCTCGCTCCATCTTTGAACTCAAACACGAGGAACTAACTGCACCCTG

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FIGURE 3402B

GTCCTCTCCCCAGTCCCCAGTTCACCCTCCATCCCTCACCTTCCTCCACTCTAAGGGATATCAACACTGCCCAGC
ACAGGGGCCCTGAATTTATGTGGTTTTTATACATTTTTTAATAAGATGCACTTTATGTCATTTTTTAATAAAGTC
TGAAGAATTACTGTTT

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FIGURE 3403

CGCCGACGCAGACCCCGCTCTGCACGGCAGCTCGCCCGCACCCCTC**ATG**GCCACAGTTCAGCAGCTGGAAGGAAG
ATGGCGCCTGGTGGACAGCAGAGGCTTTGATGAATATGTGAAGGAGCTAGGAGTGGGAATAGCTTTGCGAAAAAT
GGACACAATAGCCAAGCCAGATTGTATCATCACTTGTGATGGCAAAAACCTCACCATAAAAACCGAGAGCACTTT
GAAAACAACACAGTTTTCTTGTACCCTGGGAGAGAATTTTGAAGAAACCACAGCTGATGGCAGAAAAACTCAGAC
TGTGTGCAACTTTACAGATGGTGCATTGGTTCAACATCAGGAGTGGGATGGGAAGGAAAACACAATAAGAAGAAA
ATTGAAAGATGGGAAATTAGTGGTGGACTGTGTCATGAACAGTGTCACCTGTACTCGGATCTATGAAAAAGTAGA
A**TAA**AAATTCCATCATCACTTTGGACAGGAGTTAACTAAGAGAATGACCAAGCTCAGTTCAATGAGCAAATCTCC
ATACCGTTTCTTTTTTTTTTTTTTCATTACTGTGTTCAATTATCTTTATCCCAAACATTTTACATACAGCTATTT
CAAAGTGTGTTGGATTAATTAGGATCATCCCTTTGGTTAATAAATAAATGTGTTTGTGCT

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FIGURE 3404A

GGTGATTGTGTTGTTACAGTGCTGCTTGCTGAAGAGGACAAAGCTGAAGATGATGTAGTGTTTTACTTGGTATTT
TTGGGTTCCACCCTCCGTCACTGTACAAGTACTCGGAAGGTCAGTTCTGATACATTGGAGACCATTGCTCCTGGT
CATGATTGTTGTGAAACAGTGAAGGTGCAGCTCTGTGCTTCCAAAGAGGGCCTTCCCGTGTTTGTGGTGGCTGAA
GAAGACTTTCATTTCGTCCAGGATGAAGCGTATGATGCAGCTCAATTCCTAGCAACCAGTGCTGGAAATCAGCAG
GCTTTGAACTTTACCCGTTTTCTTGACCAGTCAGGACCCCCATCTGGGGATGTGAATTCCCTTGATAAGAAGTTG
GTGCTGGCATTCAGGCACCTGAAGCTGCCCACGGAGTGGAATGTATTGGGGACAGATCAGAGTTTGCATGATGCT
GGCCCGCGAGAGACATTGATGCATTTTGCTGTGCGGCTGGGACTGCTGAGGTTGACGTGGTTCCTGTTGCAGAAG
CCAGGTGGCCGCGGAGCTCTCAGTATCCACAACCAGGAAGGGCGACGCCTGTGAGCTTGGCCTTGGAGCGAGGCT
ATCACAAGCTGCACCAGCTTCTAACCGAGGAGAATGCTGGAGAACCAGACTCCTGGAGCAGTTTATCCTATGAAA
TACCGTATGGAGACTGTTCTGTGAGGCATCATCGAGAGTTGGACATCTATACATTAACCTCTGAGTCTGATTCAC
ATCATGAACACCCATTTCCTGGAGACGGTTGCACTGGACCAATTTTTAAACTT**ATG**AACATCCAACAGCAACTAA
TGAAAACAAACCTCAAGCAGATGGACAGTCTTATGCCCTTAATGATGACAGCACAGGATCCTTCCAGTGCCCCAG
AGACAGATGGCCAGTTTCTTCCCTGTGCACCGGAGCCCACGGACCCTCAGCGACTTTCTTCTTCTGAAGAGACTG
AGAGCACTCAGTGCTGCCCAGGGAGCCCTGTTGCACAGACTGAAAGTCCCTGTGATTTGTCAAGCATAGTTGAGG
AGGAGAATACAGACCGTTCCTGTAGGAAGAAAAATAAAGGCGTGGAAAGAAAAGGGGAAGAGGTGGAGCCAGCAC
CTATTGTGGACTCTGGAACTGTATCTGATCAAGACAGCTGCCTTCAGAGCTTGCCTGATTGTGGAGTAAAGGGCA
CGGAAGGCCTTTCGTCCTGTGGAAACAGAAATGAAGAAACTGGAACAAAATCTTCTGGAATGCCCACAGACCAGG
AGTCCCTGAGCAGTGGAGATGCTGTGCTTCAGAGAGACTTGGTCATGGAGCCAGGCACAGCCCAGTATTCCTCTG
GAGGTGAACTGGGAGGCATTTCAACAACAAATGTCAGTACCCCAGACACTGCAGGGGAAATGGAACATGGGCTCA
TGAACCCAGATGCCACTGTTTGGAAGAATGTGCTTCAGGGAGGGGAAAGTACAAAGGAAAGATTTGAGAACTCTA
ATATTGGCACAGCTGGAGCCTCTGACGTGCACGTCACAAGTAAGCCTGTGGATAAAATCAGTGTTCCAAACTGTG
CCCCTGCTGCCAGTTCCCTGGATGGTAACAAACCTGCTGAGTCTTCACTTGCATTTAGTAATGAAGAAACCTCCA
CTGAAAAAACAGCAGAAACGGAAACTTCACGAAGTCGTGAGGAGAGTGCTGATGCTCCAGTAGATCAGAATTCTG
TGGTGATTCCAGCTGCTGCAAAAGACAAGATTTCAGATGGATTAGAACCTTATACTCTCTTAGCAGCAGGCATAG
GTGAGGCAATGTCACCCTCAGATTTAGCCCTTCTTGGGCTGGAAGAAGATGTAATGCCACACCAGAACTCAGAAA
CAAATTCATCTCATGCTCAAAGCCAAAAGGGCAAATCCTCACCCATTTGTTCTACAACTGGAGACGATAAACTTT
GTGCAGACTCTGCATGTCAACAGAACACAGTGACTTCTAGTGGCGATTTGGTTGCAAAACTGTGTGATAACATAG
TTAGCGAGTCCGAAAGCACCACAGCAAGGCAACCCAGCTCACAAGATCCACCCGATGCCTCCCACTGTGAAGACC
CACAGGCTCATACAGTCACCTCTGACCCTGTAAGGGATACCCAGGAACGTGCGGATTTTTGTCCTTTCAAAGTGG
TGGATAACAAAGGCCAACGAAAAGATGTGAAACTAGATAAACCTTTAACAAATATGCTTGAGGTGGTTTCACATC
CACATCCAGTTGTCCCTAAAATGGAGAAAGAACTGGTGCCAGACCAGGCAGTAATATCAGACAGTACTTTCTCTC
TGGCAAACAGTCCAGGCAGTGAATCAGTAACCAAGGATGACGCACTTTCTTTTGTCCCCTCCCAGAAAGAAAAGG
GAACAGCAACTCCTGAACTACATACAGCTACAGATTATAGAGATGGCCCAGATGGAAATTCGAATGAGCCTGATA
CGCGGCCACTAGAAGACAGGGCAGTAGGCCTGTCCACATCCTCCACTGCTGCAGAGCTTCAGCACGGGATGGGGA
ATACCAGTCTCACAGGACTTGGTGGAGAGCATGAGGGTCCCGCCCCTCCAGCAATCCCAGAAGCTCTGAATATCA
AGGGGAACACTGACTCTTCCCTGCAAAGTGTGGGTAAGGCCACTTTGGCTTTAGATTCAGTTTTGACTGAAGAAG
GAAAACTTCTGGTGGTTTCAGAAAGCTCTGCAGCTCAGGAACAAGATAAGGATAAAGCGGTGACCTGTTCCTCTA
TTAAGGAAAATGCTCTCTCTTCAGGAACTTTGCAGGAAGAGCAGAGAACACCACCTCCTGGACAAGATACTCAAC
AATTTCATGAAAAATCAATCTCAGCTGACTGTGCCAAGGACAAAGCACTTCAGCTAAGTAATTCACCGGGTGCAT
CCTCTGCCTTTCTTAAGGCAGAAACTGAACATAACAAGGAAGTGGCCCCACAAGTCTCACTGCTGACTCAAGGTG
GGGCTGCCCAGAGCCTGGTGCCACCAGGAGCAAGTCTGGCCACAGAGTCAAGGCAGGAAGCCTTGGGGGCAGAGC
ACAACAGCTCCGCTCTGTTGCCATGTCTGTTGCCAGATGGGTCTGATGGGTCCGATGCTCTTAACTGCAGTCAGC
CTTCTCCTCTGGATGTTGGAGTGAAGAACACTCAATCCCAGGGAAAAACTAGTGCCTGTGAGGTGAGTGGAGATG
TGACGGTGGATGTTACAGGGGTTAATGCTCTACAAGGTATGGCTGAGCCCAGAAGAGAGAATATATCACACAACA
CCCAAGACATCCTGATTCCAAACGTCTTGTTGAGCCAAGAGAAGAATGCCGTTCTAGGTTTGCCAGTGGCTCTAC
AGGACAAAGCTGTGACTGACCCACAGGGAGTTGGAACCCCAGAGATGATACCTCTTGATTGGGAGAAAGGGAAGC
TGGAGGGAGCAGACCACAGCTGTACCATGGGTGACGCTGAGGAAGCCCAAATAGACGATGAAGCACATCCTGTCC
TACTGCAGCCTGTTGCCAAGGAGCTCCCCACAGACATGGAGCTCTCAGCCCATGATGATGGGGCCCCAGCTGGTG

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FIGURE 3404B

TGAGGGAAGTCATGCGAGCCCCGCCTTCAGGCAGGGAAAGGAGCACTCCCTCTCTACCTTGCATGGTCTCTGCCC
AGGACGCACCTCTGCCTAAGGGGGCAGACTTGATAGAGGAGGCTGCCAGCCGTATAGTGGATGCTGTCATCGAAC
AAGTCAAGGCCGCTGGAGCACTGCTTACTGAGGGGGAGGCCTGTCACATGTCACTGTCCAGCCCTGAGTTGGGTC
CTCTCACTAAAGGACTAGAGAGTGCTTTTACAGAAAAAGTGAGTACTTTCCCACCTGGGGAGAGCCTACCAATGG
GCAGTACTCCTGAGGAAGCCACGGGGAGCCTTGCAGGATGTTTTGCTGGAAGGGAGGAGCCAGAGAAGATCATTT
TACCTGTCCAGGGGCCTGAGCCAGCAGCAGAAATGCCAGACGTGAAAGCTGAAGATGAAGTGGATTTTAGAGCAA
GTTCAATTTCTGAAGAAGTGGCTGTAGGGAGCATAGCTGCTACACTGAAGATGAAGCAAGGCCCAATGACCCAGG
CGATAAACCGAGAAAACTGGTGTACAATAGAGCCATGCCCTGATGCAGCATCTCTTCTGGCTTCCAAGCAGAGCC
CAGAATGTGAGAACTTCCTGGATGTTGGACTGGGCAGAGAGTGTACCTCAAAACAAGGTGTACTTAAAAGAGAAT
CTGGGAGTGATTCTGACCTCTTTCACTCACCCAGTGATGACATGGACAGCATCATCTTCCCAAAGCCAGAGGAAG
AGCATTTGGCCTGTGATATCACCGGATCCAGTTCATCCACCGATGACACGGCTTCACTGGACCGACATTCTTCTC
ATGGCAGTGATGTGTCTCTCTCCCAGATTTTAAAGCCAAACAGGTCAAGAGATCGGCAAAGCCTTGATGGATTCT
ACAGCCATGGGATGGGAGCTGAGGGTCGAGAAAGTGAGAGTGAGCCTGCTGACCCAGGCGACGTGGAGGAGGAGG
AGATGGACAGTATCACTGAAGTGCCTGCAAACTGCTCTGTCCTAAGGAGCTCCATGCGCTCTCTTTCTCCCTTCC
GGAGGCACAGCTGGGGGCCTGGGAAAAATGCAGCCAGCGATGCAGAAATGAACCACCGGAGTATGAGCTGGTGCC
CCTCTGGTGTGCAGTACTCTGCTGGCCTGAGTGCTGACTTTAATTACAGAAGTTTCAGTCTAGAAGGCTTGACAG
GAGGAGCTGGTGTCGGAAACAAGCCATCCTCATCTCTAGAAGTAAGCTCTGCAAATGCCGAAGAGCTCAGACACC
CATTCAGTGGTGAGGAACGGGTTGACTCTTTGGTGTCACTTTCAGAAGAGGATCTGGAGTCAGACCAGAGAGAAC
ATAGGATGTTTGATCAGCAGATATGTCACAGATCTAAGCAGCAGGGATTTAATTACTGTACATCAGCCATTTCCT
CTCCATTGACAAAATCCATCTCATTAATGACAATCAGCCATCCTGGATTGGACAATTCACGGCCCTTCCACAGTA
CCTTCCACAATACCAGTGCTAATCTGACTGAGAGTATAACAGAAGAGAACTATAATTTCCTGCCACATAGCCCCT
CCAAGAAAGATTCTGAATGGAAGAGTGGAACAAAAGTCAGTCGTACATTCAGCTACATCAAGAATAAAATGTCTA
GCAGCAAGAAGAGCGAAAAGGAAAAAGAAAAAGATAAGATTAAGGAGAAGGAGAAAGATTCTAAAGACAAGGAGA
AAGATAAGAAGACTGTCAACGGGCACACTTTCAGTTCCATTCCTGTTGTGGGTCCCATCAGCTGTAGCCAGTGTA
TGAAGCCCTTCACCAACAAAGATGCCTATACTTGTGCAAATTGCAGTGCTTTTGTCCACAAAGGCTGCCGAGAAA
GTCTAGCCTCCTGTGCAAAGGTCAAAATGAAGCAGCCCAAAGGGAGCCTTCAGGCACATGACACATCATCACTGC
CCACGGTCATTATGAGAAACAAGCCCTCACAGCCCAAGGAGCGTCCTCGGTCCGCAGTCCTCCTGGTGGATGAAA
CCGCTACCACCCCAATATTTGCCAATAGACGATCCCAGCAGAGTGTCTCGCTCTCCAAAAGTGTCTCCATACAGA
ACATTACTGGAGTTGGCAATGATGAGAACATGTCAAACACCTGGAAATTCCTGTCTCATTCAACAGACTCACTAA
ATAAAATCAGCAAGGTCAATGAGTCAACAGAATCACTTACTGATGAGGGAGTAGGTACAGACATGAATGAAGGAC
AACTACTGGGAGACTTTGAGATTGAGTCCAAACAGCTGGAAGCAGAGTCTTGGAGTCGGATAATAGACAGCAAGT
TTCTAAAACAGCAAAAGAAAGATGTGGTCAAACGGCAAGAAGTAATATATGAGTTGATGCAGACAGAGTTTCATC
ATGTCCGCACTCTCAAGATCATGAGTGGTGTGTACAGCCAGGGGATGATGGCGGATCTGCTTTTTGAGCAGCAGA
TGGTAGAAAAGCTGTTCCCCTGTTTGGATGAGCTGATCAGTATCCATAGCCAATTCTTCCAGAGGATTCTGGAGC
GGAAGAAGGAGTCTCTGGTGGATAAAAGTGAAAAGAACTTTCTCATCAAGAGGATAGGGGATGTGCTTGTAAATC
AGTTTTCAGGTGAGAATGCAGAACGTTTAAAGAAGACATATGGCAAGTTTTGTGGGCAACATAACCAGTCTGTAA
ACTACTTCAAAGACCTTTATGCCAAGGATAAGCGTTTTCAAGCCTTTGTAAAGAAGAAGATGAGCAGTTCAGTTG
TTAGAAGGCTTGGAATTCCAGAGTGCATATTGCTTGTAACTCAGCGGATTACCAAGTACCCAGTTTTATTCCAAA
GAATATTGCAGTGTACCAAAGACAATGAAGTGGAGCAGGAAGATCTAGCACAGTCCTTGAGCCTGGTGAAGGATG
TGATTGGAGCTGTAGACAGCAAAGTGGCAAGTTATGAAAAGAAAGTGCGTCTCAATGAGATTTATACAAAGACAG
ATAGCAAGTCAATCATGAGGATGAAGAGTGGTCAGATGTTTGCCAAGGAAGATTTGAAACGGAAGAAGCTTGTAC
GTGATGGGAGTGTGTTTCTGAAGAATGCAGCAGGAAGGTTGAAAGAGGTTCAAGCAGTTCTTCTCACTGACATTT
TAGTTTTCCTTCAAGAAAAAGACCAGAAGTACATCTTTGCATCATTGGACCAGAAGTCAACAGTGATCTCTTTAA
AGAAGCTGATTGTGAGAGAAGTGGCACATGAGGAGAAAGGTTTATTCCTGATCAGCATGGGGATGACAGATCCAG
AGATGGTAGAAGTCCATGCCAGCTCCAAAGAGGAACGAAACAGCTGGATTCAGATCATTCAGGACACAATCAACA
CCCTGAACAGAGATGAAGATGAAGGAATTCCTAGTGAGAATGAGGAAGAAAAGAAAATGTTGGACACCAGAGCCC
GAGAATTAAAAGAACAACTTCACCAGAAGGACCAAAAAATCCTACTCTTGTTGGAAGAGAAGGAGATGATTTTCC
GGGACATGGCTGAGTGCAGCACCCCTCTCCCAGAGGATTGCTCCCCAACACATAGCCCTAGAGTTCTCTTCCGCT

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FIGURE 3404C

CCAACACAGAAGAGGCTCTCAAAGGAGGACCTTTAATGAAAAGTGCAATAAATGAGGTGGAGATCCTTCAGGGTT
TGGTGAGTGGAAATCTGGGAGGCACACTTGGGCCGACTGTCAGCAGCCCCATTGAGCAAGATGTGGTCGGTCCCG
TTTCCCTGCCCCGGAGAGCAGAGACCTTTGGAGGATTTGACAGCCATCAGATGAATGCTTCAAAAGGAGGCGAGA
AGGAAGAGGGAGATGATGGCCAAGATCTTAGGAGAACGGAATCAGATAGTGGCCTAAAAAAGGGTGGAAATGCTA
ACCTGGTATTTATGCTTAAAAGAAACAGTGAGCAGGTTGTCCAGAGCGTTGTTCATCTCTACGAGCTCCTCAGCG
CTCTGCAGGGTGTGGTGCTGCAGCAGGACAGCTACATTGAGGACCAGAAACTGGTGCTGAGCGAGAGGGCGCTCA
CTCGCAGCTTGTCCCGCCCGAGCTCCCTCATTGAGCAGGAGAAGCAGCGCAGCCTGGAGAAGCAGCGCCAGGACC
TGGCCAACCTGCAGAAGCAGCAGGCCCAGTACCTCGAGGAGAAGCGCAGGCGCGAGCGTGAGTGGGAAGCTCGTG
AGAGGGAGCTGCGGGAGCGGGAGGCCCTCCTGGCCCAGCGCGAGGAGGAGGTGCAGCAGGGGCAGCAGGACCTGG
AAAAGGAGCGGGAGGAGCTCCAGCAGAAGAAGGGCACATACCAGTATGACCTGGAGCGACTGCGTGCTGCCCAGA
AACAGCTTGAGAGGGAACAGGAGCAGCTGCGCCGGGAGGCAGAGCGGCTCAGCCAGCGGCAGACAGAACGGGACC
TGTGTCAGGTTTCCCATCCACATACCAAGCTGATGAGGATCCCATCGTTCTTCCCCAGTCCTGAGGAGCCCCCCT
CGCCATCTGCACCTTCCATAGCCAAATCAGGGTCATTGGACTCAGAACTTTCAGTGTCCCCAAAAAGGAACAGCA
TCTCTCGGACACACAAAGATAAGGGGCCTTTTCACATACTGAGTTCAACCAGCCAGACAAACAAAGGACCAGAAG
GGCAGAGCCAGGCCCCTGCGTCCACCTCTGCCTCTACCCGCCTGTTTGGGTTAACAAAGCCAAAGGAAAAGAAGG
AGAAAAAAAAGAAGAACAAAACCAGCCGCTCTCAGCCCGGTGATGGTCCCGCGTCAGAAGTATCAGCAGAGGGTG
AAGAGATCTTCTGC**TGA**CCCTCTTCCTCTCTGCTGAGGCAGCTGCCTCCTGATCCTGGCCAGCCCACCTCTCCTG
CTGTCCCCGCGTGCACAAGTCTCTTACACTGGACGCCCACTGCTCCTCAGCGTCCAGTCCTCCTGGGCGGCCCCA
GGTCCTGGACAATAAGCAACAGATGATATTGAGTGTCGGGTGGGGAAGGAGGCCCAGACTCTGCTTCGGCCATGA
TTTGTGACTGCCCAGGACTCTCAGGTTGGGCTGGCCCTACTCAGGATTACACTGAAAGTAATGGCCTCGTAAGTA
CAGGTGATGGTTTTGGACACGTCAGGAATTCCTAAAGGCTGAAAGAGTGTATCCAAGTAAGGTCTGAACCTCCGA
ATGCCTTTTATTTGGGGGAACACAAAACCAAACAGCAGATGTTTTGGACTTGATCTGTGTACGTACATGGGGACC
TGTCTGCATATACACACGGGGAATGCCAGAAGAAGGCCCAGTCTGCACCAGGCGTCTGGTCAACTTAGCACAAGG
GCAGTGCCTGGACGGACCCGGAGCCCCCGCATATCAGCAGTTCACCCAGTACTCCTCAGAGACTGGTTTCCCTCT
AAACCCATCCCGGGCACATACCACCCGTGTTTTGCATGTATTTCTCATTTCATTTTAGGGATGACAAACATTTGT
GAAACCAGTGAGAGAAGGCTTGATGTGTATAAAAGACGTGATGTGCACCACCTCGATCTCGGTGTTTCAGGCACT
AAAGCAACAAAACAACCCATAGTATCTCATTCTGTCATCAGATCCAGAAGAAATATCCTGGTTTTCCAGCATGTT
TACCCACATGTTTTGGCCATGGATAAAGTGAAGAGGCCTACTCACCATTATCCCTGCAGCGTGACACCTTTTGAT
TGTCACTGACCACTCAGAAGGGGCCACGGCCTCCTGGCTGTGTTCCTGAGCCCCCGTCGTGCCTCTCCCAGACAG
CAGCTGTCTGGCCCTTGCTGGGTGAGGGCACACCACTGCCAGGGGTCAGCCTCGCACCCAGGCCAGGCAGAAGCT
GTGCTCTGAAGCTAGGACAGCTGGCTGAGAAGTGGGTTCAGGCGAAGGGTGAAGCCATGTGTAGCAGTTCCTGCC
AGTGCAGATCTGGAGAGGAGCTGGCCCGGAAGGCGTGGTTGTGAAAGCGCCCTTCTTATGTTAGGAGGCCTTGGC
AAAATTGGATTTCTTCAAAAATACATGTAAAGGTCTGTTGTTGAATTGTACTCTGCCCCTGGAAGCAGATACAGA
TGGCTGCCTGCTGCTCGGCTTTGCTTTTGCTTTTCCCACCGTGTTTTCATCTTTGTTCACTTGAGGCTTTCCCCA
GCTGGTGTGTGCAGGACAGTTCATGGTAATGTTGCCCTCTGAGGCCCCGTACACCAGAAGGGAGGCCCTGGAAAA
TTTTGTGCTTCCAACGTGGCCTTCAATTCTTGCTTTTTTGCCCCTCGGAAGCATGGGGCTTTTGAGCACACTTAA
AAAAAGAAAA

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FIGURE 3405

GGGCGGGAAGGCCGGAGAAACTAGTTTGTTGGCGGCGCCTAGGCTGTATCGCAGCGAGAGCGTTTTTGCCTGTGG
AGAGCCGGCCGACGGGAGCCGCGGCGGAGCCTGTTGAGCTCGCGCGGGCTGCCGGGAGTGGTCTCTGAGGCGGCG
GCGGCGGCGGGGATCGTCTCCGGCACTGACGCACC**ATG**TCGGTCAGTGTCCATGAGACCCGCAAGTCGCGGAGCA
GCACGGGGTCCATGAACGTCACCCTCTTCCACAAGGCCTCCCACCCGGACTGTGTGCTGGCCCACCTCAACACGC
TTCGCAAGCACTGCATGTTCACCGACGTCACACTCTGGGCGGGCGACCGTGCCTTCCCCTGTCACCGTGCCGTGC
TGGCCGCCTCTAGCCGCTATTTTGAGGCCATGTTCAGCCATGGCCTTCGGGAGAGCCGGGATGACACTGTCAACT
TCCAGGACAACCTGCACCCGGAGGTGCTGGAGCTGCTGCTGGACTTTGCCTACTCCTCACGCATCGCCATCAACG
AGGAGAACGCTGAGTCACTGCTGGAGGCAGGCGACATGCTGCAGTTCCACGATGTGCGGGATGCTGCCGCCGAGT
TCCTGGAGAAGAACCTTTTCCCCTCCAACTGCCTGGGCATGATGCTGCTCTCGGACGCCCACCAGTGCCGCCGGC
TGTATGAGTTCTCCTGGCGCATGTGCCTGGTGCACTTTGAGACGGTGAGGCAGAGCGAGGACTTCAACAGCCTGT
CCAAGGACACACTGCTGGACCTCATCTCGAGTGATGAGCTGGAGACCGAGGACGAGCGGGTGGTCTTCGAGGCCA
TCCTCCAGTGGGTGAAGCACGACCTGGAGCCACGGAAGGTCCACTTGCCCGAGCTCCTCCGCAGCGTGCGTCTGG
CCTTGCTGCCGTCCGACTGCCTGCAGGAGGCCGTCTCCAGCGAGGCCCTCCTCATGGCAGACGAGCGCACCAAGC
TTATCATGGATGAGGCCCTGCGCTGCAAGACCAGGATCCTGCAGAATGATGGCGTGGTCACCAGCCCCTGTGCCC
GGCCACGCAAGGCGGGCCACACGCTACTCATCCTGGGGGGCCAGACCTTCATGTGTGACAAGATCTACCAGGTGG
ACCACAAGGCCAAGGAGATCATCCCCAAGGCCGACCTGCCCAGCCCCCGGAAGGAGTTCAGCGCCTCAGCGATCG
GCTGCAAGGTCTATGTGACGGGGGGCAGGGGCTCCGAGAACGGGGTCTCCAAGGATGTCTGGGTGTACGACACCG
TACATGAGGAATGGTCCAAGGCGGCGCCCATGCTGATTGCCCGCTTTGGCCATGGCTCAGCTGAGCTGGAGAACT
GCCTCTATGTGGTGGGGGGACACACATCCCTGGCAGGGGTCTTCCCGGCCTCGCCTTCTGTCTCCCTGAAACAAG
TGGAGAAATACGACCCTGGGGCCAACAAGTGGATGATGGTGGCCCCCTTGCGGGATGGCGTCAGCAATGCCGCAG
TGGTGAGTGCCAAGCTGAAGCTCTTTGTTTTCGGAGGAACCAGCATCCACCGGGACATGGTGTCCAAGGTCCAGT
GCTATGACCCCTCGGAGAACAGGTGGACGATCAAGGCCGAGTGCCCCCAGCCTTGGCGGTACACAGCCGCTGCCG
TCCTGGGCAGCCAGATCTTCATCATGGGAGGTGACACGGAATTCACAGCCGCCTCGGCCTACCGCTTTGACTGTG
AGACCAACCAGTGGACGCGGATTGGGGACATGACTGCCAAGCGCATGTCCTGCCATGCCCTGGCTTCCGGCAACA
AGCTCTATGTGGTCGGGGGCTACTTTGGGACCCAGAGGTGTAAGACTCTGGACTGCTATGACCCCACTTCAGATA
CATGGAACTGCATCACCACAGTGCCCTACTCACTTATCCCCACGGCCTTTGTCAGCACCTGGAAGCACCTGCCCG
CG**TGA**GGAGCACCTGCTGAGCCCAGCCAGACCGCGGCCTTCAGTGTCACAGCGTGGCCTTGCTTGTCTGCCACAG
CGGGAGCTAAGCCGGCCCTGGGCCAGCACTCCGAGAGGTGGAAGGGGCCCTGCCAGCTCTGGGGAGCAGCAGCCT
TGGGCTGTTCTGAGCTTTAGGCAAGAGAAGAGAAGCATCTCTTGCATCCGTGCCCCTGGGGGCCTCTTCAGCTTT
GCAGTGGTTTGTGGGAAGACATACCTCCCAGAGGGGCATGGACTGCCACCAGGACTGACCCTGGCGTCGGGGAGA
AGGACACTTGCAGAGCCTTGAGATCACCTGTTTGGCAGGTCCTGGACTGGGGCCGGGCAGGCAGGGGCAGGGAGG
CGCCCCGGGTGGGCTTTGGGGCTGCGGCACTGCCACACATCCTTTCCCTCCTGGCCTGCCCTGCTGGGGCTCTAC
TGCCATCTATAGATGGTGTCCTGGGCCTGGGAAACTAGGTTCCCAGGGGTTGAGACCAGAAAGGTGACCAAGACA
GATTTTTTAAGGTGCAGAAACTGCAGGGGGGCCTCAGTGACATCCATGAGGCCTTATTAGCAAAGGACACCCAGA
CCTCCAAGGTTTGTGGGCCCCTTCCACAAAGCTGTAAGTCCCAGCCCACCTACTCAGGGCCTTGCTCAGTGCTGT
GGCCCGGTGGGGACACAGTTGCTCGTGGCCACTCAGTGGAGCTGGGCCTGCAGCAGACTCAAGGCTCCGAGTGCC
CTGGGGGTCACCCCTCCCCTCCCCTCCTCAGAGCCCACCCTGAGAGGCAGCAGTGACCCCCATGGCACACACCTG
CCAACAGCACTGGGGGCTTCTCCCCAGGAGACCACGCTGCCCTCCAAGACCAGGAGCAGCTGTGAGCTGGAGACA
GCAGAGGGACCCCAGGGTGTCCCCTGCAGATCCCACCAGGGCCGCATCCATCTCAGTGTGGAGGACAGTGACGGG
ACCCTCACCATCCTCTTGCGTTTTGGCCCCCATTTGCTCCCTGAGCTCCAAGATAAGAATGGCCCCGAGAGAACT
GCTGAACATTTGTTCATTGCTGTCACCTCCTGAGTCACTGGGGTCCCTCACCAGCACCTCCCTGACACCTGGGCT
ATGGAGAGGTTGGCGCCTGTCAGTGACCATCCTAATGCCTCTCGCTCACTCCCAAGCCACCATTTGAGAGGGAGG
GGTGTTGGTGCCCTGACAGGGACTGGGCAGGGTGTCCAAACTTGGGGCTTCCCAGGCACCTGCAGTGTGAACACT
GCTTGGCTGGCTCAAGATTAGGGCCGCGGAGGGGGCTGTGCACATACCAGTTACTTAAGCAGCCACGAGTGTCCC
CCATGCCTTGGTGCGGGTCCTGGAGGCCTCTTGGGGGTGGGACCTTTGGGCAGGGTTTGCCCACTGACACGCCCG
CCATGGGGCACTGGCTGCATGGGGCTCCTTGGACCCTGTAGACCCAGCAGGAGCCTGGCCGCGGGGACTGCAGGG
AGGGTGCCTGGACCCGTGGGGTTGCTTCATTGAGATAAAGCACACTTATCACATAGCACAAAGGACGTGCCATGG
TGCTTTCCCCAAAAGTTGTGTTGCTTTTATCAGTTTTCTAACTTAATAAAAAGAGTTGAG

FIGURE 3406

GAAAAACAAAAAGAATCTTTGTTTTACCCCGAAAGAGAGGCAGAGGCAGAAAGTCTTCTTCTGCTTTTTGCATCT
CTAAGAGGCTGAAAAAGAGA**ATG**GAAGTGCTGGGGCATTTTGGCCAGGGCAGTAATGGATATTTGGAGTTGGCAC
TTCCCTCAGCTAGAGGAGTCTCAGTGTGTCTGAGAAAATGGCAGTCAGCCATCCAGGATTTTAGGAGCAACGCCA
CTGCTCTGTGCCACATCAGAAATCAGGCATGGCCCCAACCTGAAGGAACTTGTAGCTTAATGGGGAAGCACACCA
AGAATAAAAGAGCCTCCAGAACATGTGGTGCCTGTGGTCCTGAGACAGCAGGAAATGGCTCTCAGGCCAGAGTTG
CTGGAAGAACCCATGTGGCAGGATCGGTGGGAGGCAGTTACAGAGGGAAACGCCCATCCCAGCAACTAGGGGAGG
CCGCCACTCCTCTCGTGGATGGA**TGA**TATTCTTGCTTGGGGATGTTGAGACAGCTGCACTCTGCATAGTTCCTGA
TTTGCCTCTCTACTGCTGATGAAAAACCTCTCTTTCTCTATAGCTGCTGCTTATATTGGAAGGCTTTTGGTTATT
CAGCACACTCACTCCTGAGCTTATTTCAGTGATATTCCTTGGTTATTTCGAAACATGGATGCTTGTGGCAGATGG
AGAGCCTGGGTGTACACAGATCTGCCTGTGTTTTGAAATGCATACCATGTTGCCGTTTGTTTGATTGATTGATCT
TGGACCACGAAAGAAAATTATACTGACAGCTTCCAGGGTAGGGGGCAGTTGTAGCTTTCTGCAGATGTTGCCAAA
TATATTGGGGGTGGGGAGCAGCAAATGCCATGTGTTGCTTTTTATGACATAAGGAGGGATTCCACCCCCATCCCA
ATAAAATCGGTGCTTTGACAAAGGAGGGTTCCCAGGCAGCTAAGAGAACCCAGAGTAGATGATCCTCTTTATCTC
TGGTTTAACCTGTGACTAGGATTCTTGGTGTAAGCTCGGCTTTTCCACTTATCCTCTAACCGGAACAGGCTTCTA
TAATCTCTTTGCCTTAAAATAATTATCTGCATCCCTGTGTAGAGCAATCTTAAGCAGCTCTCCTTGTTTCTTCAG
GGAATGGGAATTCTTTTCTAAGTCGCCCCATCAAAGGTACTATTGGTTTTTTACAACGCCGGCGTTTGTGTATGT
AGTAAAAGTATTAACAGCATTAAAGGCGATATTTTTAACATGTTTATAGATACTACTTGGGGGAGGGCAGCTAAT
GAAACCTTCAAGCTCTATGCAGTCCACAGACGTGAGCTCTGTAGAGTTCGCAGAGGTGGGTAAGTACCCAGCCAG
CACACCCAGTTGAATTCAGCCAGGATTTATTGAGTTGGCATCACGGACGCTGACAGCCTCCAAGTGAAAACCCTT
CTCTTGAATATGTACAGGTTTCCCATCCACATACCAAGCTGATGAGGATCCCATCGTTCTTCCCCAGTCCTGAGG
AGCCCCCCTCGCCATCTGCACCTTCCATAGCCAAATCAGGGTCATTGGACTCAGAACTTTCAGTGTCCCCAAAAA
GGAACAGCATCTCTCGGACACACAAAGATAAGGGGCCTTTTCACATACTGAGTTCAACCAGCCAGACAAACAAAG
GACCAGAAGGGCAGAGCCAGGCCCCTGCGTCCACCTCTGCCTCTACCCGCCTGTTTGGGTTAACAAAGCCAAAGG
AAAAGAAGG

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FIGURE 3407A

CTTCCAGTCTCTGCTGATGTGATTTCAGATGGGCGCGGCTCCAGACCATCCCCTGCA**ATG**GCCAGTTACGCAGCC
TCTCCGAGCCACTGCCTCTCTGTGGAAGGAGGGCCTGAGGCTGACGGGGAGCAGCCGCCTCGCTTGGCCACTCTG
GGACCTGGGGTGATGGAGGGTGCAGCGGAGACTGACCAGGAGGCTCTGTGTGCAGGGGAGACTGGGGCCCAGAAG
CCACCTGGAGATCGGATGCTGTGTCCAGGGAGGATGGATGGTGCAGCTCTGGGGGAACAGCCAACTGGGCAGAAG
GGAGCCTCGGCAAGGGGGTTCTGGGGACCAAGAGAGACCAAGGCGTTGGGTGTGTGCAAAGAGTCTGGGAGCGAG
CCTGCGGAGGACAGCAGCAGGGCCCACAGCCGATCAGAGGAAGGTGTCTGGGAGGAGAACACGCCCCCCTTGGGC
CCCCTGGGTTTTCCCGAGACTTCCAGCTCTCCGGCGGACAGCACCACCAGCAGCTGCCTCCAGGGCCTCCCGGAC
AACCCAGACACCCAGGGTGGAGTCCAGGGGCCTGAAGGCCCCACTCCTGATGCCTCTGGCTCCAGTGCCAAGGAT
CCTCCAAGCTTGTTTGATGATGAGGTCTCTTTCTCCCAGCTCTTCCCTCCAGGCGGTCGCTTGACTAGAAAGAGG
AACCCGCATGTCTACGGGAAGCGCTGTGAGAAGCCGGTGCTCCCGCTGCCAACCCAGCCCAGCTTTGAGGAGGGC
GGTGACCCCACGCTGGGCCCAGCCCGCCTGCCCACGGACCTCAGCGACTCCAGCTCCCTCTGCCTCTGCCATGAG
GACCCGTGGGAGGACGAGGATCCCGCAGGTCTGCCCGAGTCCTTCCTCCTGGATGGGTTCCTCAATAGCAGGGTG
CCTGGCATTGACCCCTGGGCCCCCGGCCTCAGCCTGTGGGCCCTGGAGCCCAGCAGGGAAGCTGGTGCAGAGAAG
CTGCCCTCCCACTGCCCCGAGGACGATCGGCCGGAGGCCATTCCTGAGCTGCACATGGTCCCAGCGGCTTGGCGA
GGCCTGGAGATGCCGGCCCCTGCCGATGACTCCTCCTCTTCTCTCGGAGATGTGAGCCCCGAGCCCCCCAGCCTG
GAGAGAGAACGCTGTGACGGTGGGCTTCCCGGGAACACCCACCTGCTGCCGCTCCGTGCCACGGACTTTGAGGTG
CTCAGCACCAAGTTTGAGATGCAAGACCTGTGCTTTCTGGGACCCTTTGAAGACCCCGTGGGTCTCCCCGGCCCC
AGCTTCTTAGACTTCGAGGGCACGGCGAGCTCACAGGGGCCACAGAGCCGAAGGACAGAGGAGGCTGCAGGGGCA
GGGAGGGCCCAAGGCAGAGGCCGGCCGGCCAAGGGCAGGCGGGCCTCCTACAAGTGCAAAGTGTGCTTCCAGCGC
TTCCGCAGCCTGGGCGAGCTGGACCTGCACAAGCTGGCCCACACGCCCGCGCCGCCGCCCACCTGCTACATGTGC
GTGGAGCGCAGGTTTGGCTCGCGGGAGCTGCTGCGGGGGCACCTGCAGGAGAGGCACGCGCAGAGCAAGGCCGGG
CCCTGGGCGTGCGGCATGTGCCTGAAGGAGGTGGCCGACGTCTGGATGTACAACGAGCACCTGCGTGAGCACGCG
GTCCGCTTCGCCCGCAGGGGGCAGGCGCGGAGGTCCTTGGGGGACCTGCCCGGAGGCCTGGAGGGCAGCAGCGCT
GTCGCCCACCTTCTGAACAGCATCACGGAACCCGCGCCCAAACACCACAGGGGCAAGCGCTCCGCCGGCAAGGCC
GCCGGGAGCCCGGGAGACCCGTGGGGGCAAGAGGGAGAAGCCAAGAAAGACAGCCCGGGCGAGAGGGCGAAACCC
CGGGCACGCAGCACCCCCAGCAACCCAGACGGGGCCGCGACCCCAGACAGCGCCTCTGCCACCGCCCTGGCTGAC
GCCGGCAGCCCGGGCCCCCCCAGGACGACCCCCAGCCCGTCCCCCGACCCCTGGGCCGGCGGGGAGCCCCTCCTG
CAAGCCACCCCGGTGCACGAGGCCTGCAAGGACCCCTCCCGCGACTGCCACCACTGCGGGAAGCGCTTCCCCAAG
CCCTTCAAGCTGCAGCGCCACCTGGCGGTGCACAGCCCGCAGCGCGTCTACCTGTGCCCCCGGTGCCCCCGGGTC
TACCCCGAGCACGGGGAGCTGCTGGCACACCTGGGCGGGGCGCACGGGCTGCTGGAGCGGCCGGAGCTGCAGCAC
ACGCCGCTGTATGCCTGCGAGCTCTGCGCCACGGTTATGCGCATCATCAAGAAGTCCTTCGCCTGCAGCTCCTGC
AACTACACCTTCGCCAAGAAGGAGCAGTTCGACCGCCACATGAACAAGCACCTCAGGGGGGGGCGGCAGCCCTTC
GCGTTCCGCGGCGTGCGGAGGCCGGGAGCGCCGGGACAGAAGGCCCGGGCCCTCGAGGGCACACTGCCCAGCAAA
CGGCGCAGGGTGGCCATGCCCGGCAGTGCCCCTGGGCCCGGCGAGGACAGGCCTCCTCCCCGGGGAAGCAGCCCC
ATCCTGAGTGAGGGCTCTCTCCCGGCCCTGCTCCACCTGTGTTCGGAGGTGGCTCCCAGCACCACCAAGGGATGG
CCCGAGACCCTAGAGAGGCCTGTAGACCCCGTGACCCACCCGATCAGAGGTTGTGAGCTGCCATCCAACCACCAG
GAGTGTCCCCCGCCGTCTCTGTCTCCCTTCCCAGCTGCCTTGGCTGATGGCAGAGGAGACTGCGCGCTGGACGGA
GCCCTGGAGAGGCCAGAGAACGAGGCTTCCCCAGGCAGCCCCGGGCCTCTTCTCCAGCAAGCTCTCCCTCTGGGG
GCATCTCTGCCGCGGCCGGGAGCCAGAGGCCAAGATGCGGAGGGAAAGAGGGCTCCTCTCGTGTTCTCAGGGAAA
CGCAGGGCCCCGGGTGCCCGTGGCAGGTGTGCCCCTGACCATTTCCAGGAAGACCACCTACTTCAGAAAGAGAAG
GAGGTGTCCTCAAGCCACATGGTGTCTGAGGGGGGGCCCCGAGGCACCTTCCACAAGGGCAGCGCCACCAAGCCT
GCGGGCTGCCAGAGCTCATCAAAGGACAGGTCGGCAGCATCCACCCCCAGCAAAGCACTCAAGTTCCCAGTGCAC
CCAAGGAAGGCGGTGGGGAGCCTGGCACCCGGGGAGCTGGCCCGTGGCACAGAGAATGGGATGAAGCCCGCCACC
CCCAAAGCCAAACCCGGCCCCAGCTCCCAGGGCAGTGGAAGCCCTCGCCCCGGCACCAAGACAGGAGGTGGCAGC
CAGCCCCAGCCAGCCAGCGGGCAGCTCCAGAGCGAGACAGCCACCACCCCAGCCAAGCCCAGCTTCCCCAGCCGG
AGCCCTGCACCAGAGAGGCTCCCCGCTCGAGCCCAAGCCAAGAGCTGCACCAAGGGGCCAAGGGAAGCTGGTGAG
CAGGGGCCCCACGGGAGCCTAGGTCCCAAGGAGAAGGGAGAGAGCAGTACGAAGAGGAAAAAGGGCCAGGTCCCA
GGGCCAGCCAGGAGTGAAAGTGTGGGGAGCTTCGGGAGAGCCCCCTCAGCCCCTGACAAGCCCCCCCGGACCCCT

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FIGURE 3407B

CGGAAGCAGGCAACTCCCAGCCGCGTGCTCCCGACCAAGCCCAAGCCCAACAGCCAGAACAAACCCAGGCCGCCA
CCATCAGAGCAGCGGAAGGCAGAGCCGGGCCACACACAGAGGAAGGACAGACTGGGCAAGGCCTTCCCCCAGGGG
AGACCCCTGCTCAGGCCCCCCAAGAGGGGCACAGCTGTCCACGGTGCTGAACCTGCCGAGCCACACACCCACCGG
ACGGCCGAGGCCCAGAGTGACCTCCTCAGCCAGCTCTTCGGGCAGAGACTAACTGGCTTCAAAATCCCTTTAAAG
AAAGATGCTTCCGAG**TAA**TTTCTAGGAGCAAGAGCCTGGGACCGGAGCTGGGCGTTCCTGTCTCGGCCTGCCTCC
TTGGCCAGCTCCGGCTCCCTGAGATGGTCCACTCTGTGGCCACTTGACTTCTTGTGCAACTGCTCAGGCCTTGAT
GTCAGAGCTGAGGTGGTGATGCTTTGAACAGGGCCCAGGTGGGCAGCATTCCCTTTCTTGCTGGAAGGCTGGGGG
TGAAAGACGGGGCCACTGCAGCCCTTTTGAGACCACACAGCTGTTTTCTTGGTACCAAGTACTTGAAGAGACAGC
AGCCCATCCCCTCAGCCCACACCCCTGCGCCCTGTGGGCACCGACACCACAGAAGCCAATGTTTGGAGATTTGCA
CAACCTCCCGTTCCCCCACATGGAGAAGGGAAGTAAGTTGAGGCAGCCGTGGGATGGTGGTAGGTTCCCTCTTAG
TCTTGCTGCTGTTGCTGGAATTCCAAAGTGACCTTAGAAACCACGTGGGGGAAGGCAGTGCTCACTACTTAGAAG
GGTTGCTTCTGAGCCGCCTGGTCCCCCAAGAGCACAACAGGCCTCCTCCCTCTGACCACAGGGTCATGCCTCCTC
CCTCTGACCACAGGGTCATGCCAGCCTCCATTTGCTCTGCGGGAGAAAAGCCCATCTCTAGCACACCTTGACCCC
AGGAACCGGGTTCCCGTATGGAACTGGGAAGAAACCGCCCCTGTGCCAGCTCCCGCGGGCCCTCCTCGTTCCCTC
CCAGCCTCCATGGCCGCCCTCTAGAGCCTCCCTGCTGTACGGAGCTCTGGGCTCCGCCTATTTGCAATGTTACTC
TGAAGTTTCTGGTGCTATTTTTGTGTTGTAATGTGAATACAGGCTTCCTTGATTTTTTTTTTTAATGGGGGTATT
GGGTGGGACAGACGGGGTCAGGGAGGCCCCACCATGGCTTGTCGAGGGCACGGGCACCTGCATGGCGGCGCTCTC
CCTGCCTCCCCTGCCGGGCTGCAAGCCTGAGGTCTGTGCTGCCAGACGGGGATGCTCAGGGCTGGGGCTGCAGAG
CCGCTGCCCTGGCCAGGGCACCCTCATGCACCGACCCAACCCAGGCCTGGGACGCACGTGTCCTCTCACAGCGTC
GTGCCTGTGAAGGTGGGTCAAAGGGTGAGAGGGCTTCCTTCTCACCCTTCTCTCCATAAGTATCTTGAAGATCCA
TGGTTTGTTTTGCTCTATTGTTTAGTTTTTACTTGGGTGCAATGTGTACGTCAAAAGTTTTTATTTTGATATTTG
AAAGAGACCAAATCAGGCCCAGACCGCCTCTCTGGAAGGTGTTGTAGGCCATTCAAAACGCCTCCGGAGTGTCGC
AAACCAAGTGCGGAGGGGCCCTGAGGTTGTACTGTAAACATCATAGTGACTTGTCTTTTCAAATATATTCCCACT
ATTTTCGC

FIGURE 3408A

ATGGATGCGGGGGCCATCCCGCAGGTGCTGGTGATGATGGAGATAGCAGACATGGGTGCGGGGGCCCTCCCGCAG
GTGCTGGTGATGATGGAGATAGCGGGTGTGGGTGCATGGGCTCTCCCGCAGGTACTGGTGATGATGGAGATAGTG
GGCCTGGGTGCGGGGGCCCTCCCGCAGGTGCTGGTGATGATGGAGATAGCAGACATGGGTGCTGGTGATGATGGA
GATAGCAGACATGGGTGCGGGGCCCTCCCGCAGGTGCTGGTGATGATGGAGATAGCAGACATGGATGCGGGGGCC
ATCCCGCAGGTGCTGGTGATGATAGAGATAGCAGACATGGGTGCGTGGGCCCTCCCGCAGGTGCTGGTGATGATA
GAGATAGCAGACATGGGTGCGTGGGCCATCCCGCAGGTGCTGGTGATGATGGAGATAGCGGCGGCCGTGGACGCA
GCTGATAAGATCGGTCCCCGGAGATGGGACAAAGGGGCCGCCATCGGCTCGAGGGCTGGTCATATCCTGCCCGAA
AGGGCCGAGCAGGGCCTGAGATGCGGCAAGATGCTATCTCGGGTTTATTGCGTCTCAGAAGGATGTTCTAAGGGC
AGCAGAGGCCACGTGGATGCCCGTTTGTGGGTCTCTGCACACACGGTGGCCGGACGGCAGATCCGGGGCTGCCCT
CAGAGCGCTCGCCACCCCCACCCGCCTTTAGCTGTCGTTCCTCCAACCCCACCAGCCATGAAGGCCCCTCAGGGC
TGGAAGGCTGTGTGCGGTCTCTTCGGCAGGCGGTGGTGCCCTCCTCCTCCAAACACAGGCACTCAGGTCCACGGT
GTCCCAGTGCCTTGGGGACACAGCCGTTCAACAGCCGGCCCTGAGGGGCTGACAGTCCAGCAGGAAGACAGAGTT
AATGAAATCAAGACCTCTGCCCCCTGGTGCCCTCAGGAGGTGGCCCATCCCGACGCTCACTCTGAACCTCTCCCA
GATGTGGCCTTCGGTGCCTGCCGTGGGCCCTGGTTGGTGAATCCTGGGAACCAGGGCTCTGCCTCCCGAGGGTCT
GACTTTGGAGCCGGTGACCTTGGGCAGGTCACCTCACCCCCTGTTAAATGGGCTCCAGGTCCTCAGGGGCCCCGC
GGGGTTTGCCTGCGTGGGAACCAAGCACAGGTGATCAGCAAGCGAATCCGCACGCGGCGCGTCATCGTGGACAGA
GGGGCCGGCTTGCCCCGCCCCACGCAGCTGACCCCTGGCCACCCCGCCCCACACCCCTCCGATCCCTGGACTCCT
TGGAGGCCCCTCGCCCAGCCCCCGGCCATCCCTGAGTGGTGGGTTCTGCCCCTGGGCGAGTGGAACGGCCACCTT
TATCAGAGCCAGCCCTCTCTGGCAGTGTGTGATACCCATACCCAGAAGGGGCGGCCGCCACGGGAAATGCCAGCC
ACGCTCTTATCTGGGAGGCTTGGCCGGCTGGCCCTGGAGCTCCGATTAGGGAGCAGGACCGTTTGCCTGTGGGTG
CCTCGTGGGCCGGCCCTTGCTCTGGAGAACGACCATCGCAGGGCTCACAGCTCGCTCAAACCCAGCCACAGGCAT
CCTCCTGGCTGCGTCCCTACACCCCACAGTGCCCTAGAGATCTTGCTGCAGGGCTGCCCAGGCCCCTGGGACCCA
GCACCTGCCCGGCCCCTGCCATTCACCCCAGGCCCCCAGGACTGCCACCCTCCACTGCCCCTTGGGCCAACCCTA
GCGGGAGACGAGCTGGAGCCGGTGGTGCAGGATGGGCAGAGGCGCATACGGGCCCGACTCAGCCTCGCCACGGGC
CTGTCCTGGGGCCCGTTCCATGGGAGTGTCCAGACCAGAGCCTCATCCCCCAGGCAGGCGGAGCCGGTGCCTACC
TGCTATTTCTGGGCGGCTCCACACTCCAGGACTCACGGGAGATGCAGTTCTGTTCACTGTGTTCCCCACACCTGG
CAACAGCTGGTGCACAAGGCCTGCCTGCCGGATAAGGGACAGCCAGGGCAGACTGGCAGGGAGGCCCTCACCCCT
TCCCAGCCTGTGGTCGCAGAAGTAGGAGCGGCAGGCCCCTCTGAGAGTGTTTGGCAGTGGGGGCCGTGGCAGGCC
TGCCCCAGCAGAAGCCCCCATCGGAGCCGGCAGAGCCCCACAGCTGGCGTGCAGTTCCTGAGCCCTGCTCTGCGG
CCCTGGGAATCACGGGGGTGTCCTTTAAAAGGGGGGCACCCACCCGATGCCAGCCTGCACAAAGCACCTTTCTCG
GGGCAGCCACTCACCACAGTGGACACTCAGCATGTGCTGCCCCGGACATGCCCTGTGGACGGCACCCCATGCCCA
CTTTGTCCTGCCAGGGTCCCACGCGTGCTGGCAAAGTCCAGGAAAGCTCATGGGCTGGCACCTAGTGGGGAGAGC
CCAGCCCTGACCCTGCTGCTGGTGGACGAGGCCTGCTGGCTGAGGACGCTGCCCCAGGCCCTGACTGAGGCCGAG
GCCAACACAGAGATCCACAGGAAGGGTCAGTATGACGCGGCACCTCCGTCCCAAGCCTTCCGGAAGGGTCACCAA
GCCGGTGCCTGCGGGGGGACTCCTGAGCGTGCTCCTCACGGCCGAGCCCCACAGCACCCCCGGCCACCCTGTGAA
GAAGGAGCCAGCAGAGCCCACGCCGGGATGGCCTCCATCCTTGCCACCGCAGTGATCAACAGACAGCGCGTGGCC
ATCGTGGACAGGCACGAGTCACGCAGGGAACACGCAGCAAGTCTGGCTCCGGCCAGCGGCTGGGGCTTCCCAGGG
GAACAGGGACGGCACCGGATGGCGTTTGGAGGGGGACGGCTGGCCTTCAGCCTGACCCCGCCTGCTTCCCACCCC
ACAGAAGACGTCTTCCCCTGCAAGGACTGTGGCATCTGGTACCGCAGCGAGCGCAACCTGCAGGCGCACCTGCTC
TACTACTGCGCCAGCCGCCAGGGCACCGGCTCCCCGGCCGCAGCCGCCACAGACGAGAAGCCCAAAGAGACCTAC
CCCAACGAGCGCGTCTGCCCCTTCCCCCAGTGCCGCAAGAGCTGCCCCAGCGCCAGCTCCCTGGAGATCCACATG
CGCAGCCACAGCGGAGAGCGGCCCTTCGTGTGCCTGATCTGCCTGTCGGCCTTCACCACCAAGGCCAACTGCGAG
CGGCACCTCAAGGTGCACACGGACACGCTGAGCGGTGTCTGCCACAGCTGTGGCTTCATCTCCACCACAAGGGAC
ATCCTCTACAGCCACTTGGTCACCAACCACATGGTCTGCCAGCCTGGCTCCAAGGGTGAGATCTACTCGCCAGGG
GCCGGACACCCAGCAACCAAGCTGCCCCCAGACAGTCTGGGCAGCTTCCAGCAGCAGCACACGGCCCTGCAAGGC
CCCCTGGCCTCCGCGGACCTGGGCCTGGCGCCCACCCCATCGCCAGGACTGGACAGAAAGGCCCTGGCCGAGGCC
ACCAACGGAGAGGCCAGAGCGGAGCCTCTGGCCCAGAATGGAGGCAGCAGCGAGCCCCCGGCGGCCCCCAGGAGC
ATCAAGGTGGAGGCGGTGGAGGAGCCGGAGGCGGCCCCCATCCTGGGCCCCGGAGAGCCTGGGCCCCAGGCCCCC

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FIGURE 3408B

CCCGCCCCGGCCAGGGTCAAGGCCGAGCTGTCCAGCCCCACGCCGGGCTCCAGCCCGGTGCCCGGCGAGCTGGGC
CTGGCCGGGGCCCTGTTCCTTCCGCAGTACGTGTTCGGGCCCGACGCGGCGCCCCCCGCCTCGGAGATCCTGGCC
AAGATGTCCGAGCTGGGCGCTACGTGCTTCGAGTGCGAGATCACCTTCAGCAACGTCAACAACTACTACGTGCAC
AAGCGCCTCTACTGTTCAGGCCGCCCCCCGGCACCGGCGCTGGCCGACTACCACGAGTGCACGGCCTGCCGCGTG
AGCTTCCACAGCCTCGAGGCCTACCTGGCGCACAAGAAGTACTCGTGCCCCGCTGCGCCACCGCCCGGCGCGCTC
GGCCTGCCCGCCGCCGCCTGCCCCTACTGCCCCCCGAACGGCCCGGTGCGCGGGGACCTGCTGGAGCATTTCCGC
CTGGCGCACGGCCTGCTGCTCGGCGCGCCCCTGGCCGGCCCGGGGGGCGTCCAGACTCCCAGCAAGGGCACGCCG
GCGCCGCTGCCCAACGGCAACCACCGGTACTGCCGTCTTTGCAACATCAAGTTCAGCAGCCTGTCCACCTTCATC
GCCCACAAGAAGTATTACTGCTCCTCGCACGCCGCCGAGCACGTGAAAGCCAGGGCTGAGGACAACCGTGTGGTG
GAGTCACCTGTGGTGGCTGAGTCGGTGCAAGGGGCTGGGTACCGCTGCCATCGCCCGTCCCAGGTCATTGGCGTG
TGGCCAGAGCCCGTCCCCATCGCACCCAGGACTCGCCTCGGGCACGCGTCTTCTGCACAGACCCTGGGGCCCCCA
CACCTGGCAGACGCCATCAGTCACCCCTACTCCCTCAAGCCATCACCCCAGTCTCCCCCCACCAGACCACCGCCT
GGGCCTCCACCCTGTGCCTCCCCTGTAGCCGCTGACTCGGTGGTGGCCCAGGCCTTCTCCCGCCTCTCCCCAGGA
AGCTGCCTGCCCTGCTCACAGACACCCCCTCGGCCCCCCAGCTGGTTCTCTGCTGAGCCAGGCATCCTCAGTGGC
CCCCTGCCCCTCAAGCTGGAGAGCATCAGCCTTGCCTATTCACCCTTCATTGTCAAAGCAATGCTTGATTTGTCC
AAATCCCACCGCTTCCCAAACCCATCCACCATCGCCGACTCCCAGACCTGGGACTTCACCCTTGAGTCTCTC**TGA**

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FIGURE 3409

GGAAAAGCGGAAAAGGGATTCGTCCACACAACCACCCAAATCTGCAAAACCTCCAGCAGGGGGGAAGTCCTCCCA
GCAGCCCTCGACACCCCAGCAGGCACCCCCCGGGCAGCCCCAGCAGGGCACATTTGTGGCCCACAAGGAGATCAA
GTTGACACTGTTGAATAAGGCGGCTGATAAAGGAAGCAGGAAGCGCT**ATG**AACCATCAGACAAGGACAGGCAGAG
CCCTCCTCCAGCCAAGCGGCCCAACACATCCCCAGACCGAGGTTCTCGGGACCGGAAGTCAGGTGGGAGACTGGG
CTCCCCGAAGCCAGAGCGGCAGAGAGGCCAGAACTCCAAAGCCCCTGCAGCCCCGGCTGACAGGAAGCGCCAGCT
GTCACCCCAGTCCAAGAGCTCCAGCAAGGTCACGAGCGTGCCCGGCAAAGCCTCGGATCCCGGCGCCGCCAGCAC
CAAATCAGGGAAGGCCAGCACGCTGTCTCGGCGGGAGGAGCTGC**TGA**AACAGCTGAAGGCCGTGGAGGATGCTAT
TGCACGCAAGCGGGCCAAGATCCCCGGGAAAGCATAGGCCGTGCCCCGACCGGACTGGACGCATTTTTATACATA
GGAAGTCCCGCAGGACAGACAGACACAGACAGCGCTAGTGACCAGCACGGTTCTCATGTAAATTACAAGCCCCAG
CCGCCAGCCCCGCCTTCTCTTCCTCCTCCTCCGTCTTCTTCCCTGGCCCTGGTCAGGCCTGTGGAGCCCCAGCTC
TGGGTCCCTAGCCCGGGTCCAGGCAGCCAGGCTCCCTCCTGAGCTGAGAA

FIGURE 3410

GCAGTGTCCCAGCCGGGTTCGTGTCGCC**ATG**GGGCAGATCGAGTGGGCCATGTGGGCCAACGAACAGGCGCTGGC
GTCCGGCCTGATCCTCATCACCGGGGGCATCGTGGCCACAGCTGGGCGCTTCACCCAGTGGTACTTTGGTGCCTA
CTCCATTGTGGCGGGCGTGTTTGTGTGCCTGCTGGAGTACCCCCGGGGGAAGAGGAAGAAGGGCTCCACCATGGA
GCGCTGGGGACAGAAGTACATGACCGCCGTGGTGAAGCTGTTCGGGCCCTTTACCAGGAATTACTATGTTCGGGC
CGTCCTGCATCTCCTGCTCTCGGTGCCCGCCGGCTTCCTGCTGGCCACCATCCTTGGGACCGCCTGCCTGGCCAT
TGCGAGCGGCATCTACCTACTGGCGGCTGTGCGTGGCGAGCAGTGGACGCCCATCGAGCCCAAGCCCCGGGAGCG
GCCGCAGATCGGAGGCACCATCAAGCAGCCGCCCAGCAACCCCCCGCCGCGGCCCCCGGCCGAGGCCCGCAAGAA
GCCCAGCGAGGAGGAGGCTGCGGTGGCGGCGGGGGGACCCCCGGGAGGTCCCCAGGTCAACCCCATCCCGGTGAC
CGACGAGGTCGTG**TGA**CCTCGCCCCGGACCTGCCCTCCCGCCAGGTGCACCCACCTGCAATAAATGCAGCGAAGC
CGGG

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FIGURE 3411

CAGTGTCCCAGCCGGGTTCGTGTCGCC**ATG**GGGCAGATCGAGTGGGCCATGTGGGCCAACGAACAGGCGCTGGCG
TCCGGCCTGAGTGAGTGCACGTCAGGGACGGTGGAGGCTGCAGCCTGGAGGGGTGTCCCAAGACCCCAGCCGGGA
CCTCGGGCTACTTACAGGGTGGGGAAGTGGGGCGCCAGGCGGGCCAGGCCGGGCCGGGGTCAGGCCAGGAGGGTG
CGGGGAACGGGGGCGGGACCCTCAGGCCGCGGGCTGGAAGGAGGAGTTCTGAGACCCCCAGTAATTCCCTTGCAG
ACCCTGCGGAGCGCGGCGCCCCTCCCCCATTCCCTTCTCTCGGTCCCCCGACTCCGCGAAGGAGGAAGTTGCAGC
GCAGGGGAAGAGGCGGTTCAGCCCCGGTGGTTTCCGGGGTCACCGCCCCGAAGCCCCCGAGTGGGGGCTCCGGCC
TGGGCATCGGGAGAAGCTCCCCTGCCCCTCGGTAGCCAGCTGGCCTGGAGGTCGCTCTCCCTGGGCTTGGGGTGG
GGAATGGGCTCATGCCCTGGGGCTCAGCCCTTCTCATCTGGAGTCTGCGCTGGAGGCGGTCTGAGATTTCACAAG
GCGCCGAAACCACCCAGTGACGGCCCTGCCCAGCCCAGCTGCACAGGCACTTTGCTCTTGGGGTGGGATGGCACA
GCCCCCAGTCACCCTCCTGTGCATTTGCTCAGAGGTTCTGGTGAGGGCAGCGGACTCCATTTGGAAATGGACCCT
CTCGGGACCAGGGCCAGGGAGTGTCTGGCCCAGCACGGG**TGA**GGCTGGGCTCAGGCGAGGTCTGAGGGCAGAGGC
ACCACTGCAGCAGCTCCAGGAAGGACCTGCACCGGGGGAGGAGTGCCTGGGAAGGGCCTGGGGGCTGAGGGTGAG
GAGGAGGGGCCCGCTGCCACCACTCCCCTGGGGCTCTGAGCGCCCTCCCTGTTGTCTGGAGGGTGCGTGGCAGCT
GGAGTGGGAGCAGAGACCTCAGGGTGGGAGGGCTGGAGGACGGGGCCCTGCAGCCTGTCCTGTGCCCAGGAAAGT
GACCGCCTGCTTCGAGTCAGCGGCCAAGAAGTCGGTGGGTCAGTTCAGACAGCTCTCCCCAGAGCTGCCCCGTGA
GACTCACCCTGCCTGCCCCGCACTCCCTACAGGAAGTAGACGGACTGAGGGCACCCAGCTGGGAGCCAGGAGACC
TGGGCTCTAGTCTGGCCTCCTGCTGAAACCCTCCAGGGGCTCCTGGCCCGAAGAGTTAGAGCCAGACTGGACGCC
CTGCACTGCCCGCCCTGGCCTCCCGGCTCTCCGGCCCCCTCCTCCAGCTGCCGTGCTTCCTTTCTGTTCCTAGAT
CTCCTGAGCGTGCCCCAGGGCCTCGGCACAAGCTGCTGCTTCTGCAGAGCCTCATGGCTGTCTCATTTATTTCTC
AATTCAAATGCCACCTGCCTGGGGAGGTCCTTCCAGACCGTGCAGCCCCAGGAGGCAGCTGGCCCGGAGACAGCA
GGGCCTTGACAAAGAGTCCCCCCTGTACACAGCAGGTGCTCTGTAAATGTGGCTGGGTGCCAGAATACGTCCTCA
GACCTCCCTGGTGGCACCAGCGGCAGCTTTGCACCCTCTTTCGGATGGCAGGCTCGGGACCAGGACGGTCCCCAA
AGATGCATGGACAATTGGCTGAGTAGACTCAAGGACACTGCCCTCCCCTCCTCCGACGCAGACAGACAAACCCAG
AGAGTTAATGTGTAGCTGGGCTCAAACCAAGGATAGGAAATCTTCCAACAAGACCATGTGGAGACAAAAACAGAA
TGGCTGGCAGGGCAAGGTGGCTACACCTGTAATCCTAGCACTTTGGGAGGCCAAGGCGGGCGGATCACGAGGTCA
GGAGATCGAGACCATCCTGGCTAACACAGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGGTATGG
TGGCAGGCGCGCATAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGCTTCAACCTGGGAGGTGGAGGTTG
TAGTGAGCTGAGATCACGCCACGGAACTCCAGCCTGGGTGACAGGGCAAGACTCTGTCTCC

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FIGURE 3412

TGGGACC**ATG**GCCTCGGAGAAGCCGCTGGCGGCAGTCACTTGTACAGCGCCGGTCAACATCGCGGTCATCAAGTA
CTGGGGCAAGCGCGATGAAGAGCTGGTTCTGCCCATCAACTCCTCCCTGAGCGTCACTCTGCACCAGGACCAGTT
AAAAACCACCACAACAGCCGTCATCAGCAAGGACTTCACCGAGGACCGGATTTGGCTGAATGGCCGGGAGGAGGA
TGTGGGGCAGCCGCGGCTGCAGGCCTGCCTGCGGGAGATCCGCTGCCTGGCCCGGAAGCGGAGGAACTCACGGGA
TGGGGACCCGCTGCCCTCCAGCCTCAGCTGCAAGGTGCACGTGGCATCGGTGAACAACTTCCCCACGGCTGCGGG
CCTGGCCTCCTCAGCGGCGGGCTATGCCTGCCTAGCCTACACCCTGGCCCGTGTCTACGGCGTGGAGAGTGACCT
CTCAGAAGTGGCTCGCCGGGGCTCAGGCAGCGCCTGCCGGAGCCTGTATGGGGGCTTTGTGGAGTGGCAGATGGG
AGAGCAGGCCGACGGGAAGGACAGCATCGCTCGGCAAGTGGCCCCCGAGTCACACTGGCCTGAACTCCGCGTGCT
CATCCTTGTGGTGAGCGCTGAGAAGAAGCTGACAGGCAGTACCGTGGGCATGCGGGCCAGTGTGGAGACCAGCCC
CCTGCTTCGGTTCCGGGCCGAGTCCGTGGTGCCCGCGCGCATGGCGGAGATGGCCCGCTGCATCCGGGAGCGAGA
CTTCCCCAGCTTCGCCCAGCTGACCATGAAGGACAGCAACCAGTTCCACGCCACCTGCCTCGACACCTTCCCGCC
CATCTCTTACCTCAATGCCATCTCCTGGCGCATCATCCACCTGGTGCACCGCTTCAACGCCCACCACGGGGACAC
CAAGGTGGCGTACACCTTTGACGCGGGCCCCAATGCCGTGATCTTCACCCTGGACGACACTGTGGCTGAGTTTGT
GGCTGCTGTGTGGCACGGCTTTCCCCCAGGCTCGAATGGAGACACGTTTCTGAAGGGGCTGCAGGTGAGGCCGGC
CCCTCTCTCAGCTGAGCTTCAGGCTGCGCTGGCCATGGAGCCGACCCCCGGTGGGGTCAAATACATCATTGTCAC
TCAGGTGGGGCCAGGGCCTCAAATCCTGGATGACCCCTGCGCCCACCTCCTGGGTCCTGACGGCCTGCCGAAGCC
AGCTGCC**TGA**CTGCCTCAGCAGGGACCGCATGCCGCTTGGAGAAGGGGTGGCCTCGCCGGAGCTAGGGAGCGGAT
GTGGTGGGCTGGCCGGACTCCTGGGACATGTGGGTGGTGGCTTGACCCCGGGCCCATGGGCAGCTTGCTGTGGGG
CAGTGCAGGGAGTCCTGCGGCCGCCCAGGTGTCAGGAGAGGTCCCCGCCGAGTGCTTCAGCTGCCCTAAGCTGCA
CCAGCGCTTTGCCAAGATGGGATGGGGAGGGGGTATGAGAACTGGCAGAGCCTCGGTGCAGCAGGGCTGAAGGGC
TTTCTCACCCCAGCTCTGGCTATGCCCAGTTCTCTGAGAAAGGAGCTCAGTGGGGAGGTGGTCCCTCCAGCGGAC
CAGGGAAGGGGTCACCGTGCTGGGAGCAGCCTCCTTGGGCCTCAGGAAACCACCAAGTGCCTCGGATGGTGGCTG
CCCACGGCGCTTCTGCTGAGACCCTGCCCCCGGCCCAGGTGTCTCGGAGGGTGGCTGCCCACGGCCTGGGTGTGG
CTGGAATGGTGGCAGGAGTGGGCACCAGTGCGGCCCCGGTGGCCATGGGGAATAAACCAGCATTGCTGCC

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FIGURE 3413

GGCTGTGACTAGCGGGCCGGCCCGGGCCAGGACAGCGGGCGGCGGGCGGCGCGGGCCTGGCCCCGGGATGGCTAT
GTTCCGCAGCCTGGTGGCCTCGGCTCAGCAGCGGCAGCCGCCGGCCGGGCCGGCGGGCGGCGACAGCGGCCTGGA
GGCGCAGTACACCTGCCCCATCTGCCTGGAGGTCTATCACCGGCCCGTGGCCATCGGCAGCTGCGGCCACACGTT
CTGCGGGGAGTGTCTCCAGCCCTGCCTGCAGGTGCCATCCCCGCTGTGCCCACTGTGCCGCATGCCCTTCGACCC
CAAGAAGGTGGACAAGGCCACCCACGTGGAGAAGCAGCTCTCATCCTACAAAGCGCCCTGTCGAGGCTGCAACAA
AAAGGTGACCCTGGCAAAGATGAGAGTGCACATTTCGTCCTGCCTGAAGGTCCAGGAGCAGATGGCCAACTGCCC
CAAGTTCGTCCCCGTGGTGCCCACATCACAGCCTATCCCCAGCAACATCCCCAACAGGTCCACCTTCGCCTGCCC
GTACTGTGGTGCCCGCAACCTGGACCAGCAGGAGCTGGTGAAGCACTGTGTGGAAAGCCACCGCAGCGACCCCAA
CCGCGTGGTGTGCCCCATCTGCTCGGCAATGCCCTGGGGGGACCCCAGCTACAAGAGCGCCAACTTCCTGCAGCA
CCTGCTTCACCGACACAAGTTCTCCTACGACACCTTTGTGGACTACAGTATTGACGAGGAGGCCGCCTTCCAGGC
TGCTCTGGCCCTGTCTCTCTCTGAGAACTGAAGGGAAGCGCAGCCACCCGCCTGCGTCTGGGGTCAGGGATGTCC
CCGCTCCTGTGTCGCACCTGGCACCTGCTCGGGAGTGCACCTCACCGGACTGAGCTCACAGGAGGAGCCTGCACC
CGCGCAGAAGGGGAGCCGGGGCCGAGCCTCCGGGCCTGAATACGGGCCAGCCGCCGAGGCCGCCAGAGCAGGGCC
GCCTGGTCCCACCGGCGTCGCTGGGTTCTTCGGTGCTTCTGGCCGAGCAGGCGGCCTACTTGGGCAGGGCTGGAC
GCTGAGACCTGGAGCTGCCACCGTCTCTTCAAGCCATGATACCCCCTCGTGGGAAGAAGGGACCGACGCGCGAGT
CGCGGCTGCGCAGTCGAGCCCGGGAGGAACCCAGGCTGCTGCCCTGGCCAGCCCGACCCTGCCCCGGCCCCACTT
CCACCTTGCGCATTTGGTACTGGCTTTTGTGATACTTAGGAACCCTGGCATCTTTTCTATATTATCCAGTGTGAT
AATCTTTTCACGTTTTATAGAGCAAAGACAGAGCAGTTACTCTTCATATTGCAATATCTGTGTTTGACTAGGAAT
AATAGTATTTTTATGGAACATTTACAAAATTATATTTTTTAAGAAAACAATCAAAACAAGCATTGGGGGATTGGG
GCAAGGATGGAAGGAGCAGTGGGGCAGCTGCCAGAGCTCAGGCGAGCCATGGGGTCTGCTGTGGGGTCTGCCCTG
GCCACCCACTGTGTGTCTGGGTCCTTGAGGTTTGTACGTTTCTCTTTGATGACCAGGAAGAAATCCCAGCACCCC
AGCCACAGGCTGTGGCTGCTCCCAGCAGAGGCGGGGCCGGCAGAGAAGGGGCCTCCTCCACCCAGAGTCCTGGCC
TTGGCCCGCTGTCACCTTCAAAGCTGACTGTGCCCCGCTGCGGGAGGGGACGGCACCCCAGTGGTGGCAGAGCTT
GGGGGCCTGGGCAGGGGCCCGCTTGGCGGGCCGGGCAACACGTCAACATTCTTTTCTGTTCTTGGCATTAATTAT
TGCTGTCTTTTTTTTAAAAAAAAAAGTTTAAATAAAATGTCTCAGAGC

FIGURE 3414

CTCCGACGTCATCGGGGCGCGCCCTCGCGCTGTCGCCGCCACAGTCTGCGACGGGACCCGGCGTGCCC**ATG**TGTC
AGGTGGGCGAGGACTACGGGGAGCCGGCGCCTGAGGAGCCGCCCCCGGCGCCGCGGCCCAGGGACTGTTTCAAGG
CCTTCTACGTCCACAAGTTCAGAGCCATGCTGGGCAAGAACCGGCTCATCTTTCCAGGCGAGAAGGTGCTCTTGG
CGTGGTCTGGGGGGCCTTCGTCCAGCTCCATGGTCTGGCAGGTTCTTGAGGGCCTGAGCCAAGATTCTGCCAAAA
GACTGCGCTTTGTGGCAGGAGTCATCTTTGTTGACGAGGGAGCAGCCTGTGGCCAGAGCCTAGAGGAGAGATCAA
AGACCCTGGCCGAAGTGAAGCCCATTCTGCAAGCAACTGGGTTCCCATGGCATGTGGTGGCCTTAGAGGAGGTGT
TCAGCCTGCCACCGTCGGTGCTTTGGTGCTCTGCCCAGGAGCTAGTGGGATCCGAGGGGGCCTACAAGGCGGCCG
TGGACAGCTTCCTCCAGCAGCAGCATGTGCTGGGGGCCGGGGGTGGTCCTGGCCCGACTCAAGGGGAGGAACAGC
CACCCCAGCCCCCGCTGGACCCCCAGAACCTGGCAAGACCGCCTGCCCCTGCCCAGACTGAGGCTCTTTCCCAAC
TGTTCTGCTCAGTGAGGACACTGACTGCCAAGGAGGAGCTTCTGCAGACCCTGCGGACCCACCTGATCCTCCACA
TGGCCCGAGCCCACGGCTACTCCAAGGTCATGACTGGGGACAGCTGCACACGCTTGGCTATCAAGCTCATGACCA
ACCTGGCGCTGGGTCGAGGGGCCTTCCTGGCCTGGGATACGGGCTTCTCGGATGAGCGGCACGGGGACGTGGTGG
TGGTGCGGCCCATGCGGGACCACACCCTGAAGGAGGTCGCTTTCTACAACCGCCTGTTCTCTGTTCCTTCTGTCT
TCACACCAGCCGTCGACACCAAGGCCCCTGAAAAGGCCAGCATCCACCGGCTGATGGAGGCCTTCATCCTCAGGC
TGCAGACCCAGTTCCCCTCCACTGTCAGCACTGTGTACAGGACAAGTGAGAAGCTGGTGAAGGGCCCCCGGGATG
GCCCTGCTGCTGGCGACTCCGGCCCCCGCTGCCTCCTCTGCATGTGTGCCCTGGACGTCGACGCCGCTGACAGTG
CCACGGCTTTTGGGGCTCAGACCTCCTCGCGTCTCTCCCAGATGCAGTCACCCATCCCCCTGACTGAGACCCGGA
CACCCCCGGGGCCCTGCTGTTCTCCAGGGGTGGGCTGGGCCCAGCGCTGCGGCCAGGGGGCCTGTAGGAGGGAGG
ACCCCCAAGCCTGCATTGAGGAGCAGCTGTGCTACAGCTGCCGCGTGAACATGAAGGACTTGCCCTCACTGGACC
CCCTGCCGCCGTACATCCTGGCTGAGGCCCAGCTCCGCACACAGAGGGCCTGGGGCTTGCAGGAGATCCGGGACT
GTCTGATTGAGGACAGTGACGACGAGGCGGGCCAGAGC**TGA**GCGTGAGGACGTGCTTGCCGGGACAGCAGGCAGT
GGCCACCTGGTACACCACACTGGAGCCGGAAGGCAAGGACGGGGGACTGGCCTCTGATTGTCCATTTGTATAAAT
AAAACATTTTTTAATT

FIGURE 3415A

CC**ATG**GACCTGCGCCCTGAGCTGCCCACCACCCTGGGCCCCGTCAGCCTGCGCCAGCTGGGGCTGGAGCACACCC
GCTACCCCTGTCTGGACCTTGGTGCCATGTTGCTCTACACCCTGACCTTCTGGCTCCTGCTGCGCCAGTTTGTGA
AAGAGAAGCTGCTGAAGTGGGCAGAGTCTCCAGCTGCGCTGACGGAGGTCACCGTGGCAGACACAGAGCCCACGC
GGACGCAGACGCTGTTGCAGAGCCTGGGGGGAGCTGGTGAAGGGCATGTACGCCAAGTACTGGATCTATGTGTGTG
CTGGCATGTTCATCGTGGTCAGCTTCGCCGGCCGCCTCGTGGTCTACAAGATTGTCTACATGTTCCTCTTCCTGC
TCTGCCTCACCCTCTTCCAGGTCTACTACAGCCTGTGGCGGAAGCTGCTCAAGGCCTTCTGGTGGCTCGTGGTGG
CCTACACCATGCTGGTCCTCATCGCCGTCTACACCTTCCAGTTCCAGGACTTCCCTGCCTACTGGCGCAACCTCA
CTGGCTTCACCGACGAGCAGCTGGGGGACCTGGGCCTGGAGCAGTTCAGCGTGTCCGAGCTCTTCTCCAGCATCC
TGGTGCCCGGCTTCTTCCTCCTGGCCTGCATCCTGCAGCTGCACTACTTCCACAGGCCCTTCATGCAGCTCACCG
ACATGGAGCACGTGTCCCTGCCTGGCACGCGCCTCCCGCGCTGGGCTCACAGGCAGGATGCAGTGAGTGGGACCC
CACTGCTGCGGGAGGAGCAGCAGGAGCATCAGCAGCAGCAGCAGGAGGAGGAGGAGGAGGAGGAGGACTCCAGGG
ACGAGGGGCTGGGCGTGGCCACTCCCCACCAGGCCACGCAGGTGCCTGAAGGGGCAGCCAAGTGGGGCCTGGTGG
CTGAGCGGCTGCTGGAGCTGGCAGCCGGCTTCTCGGACGTCCTCTCACGCGTGCAGGTGTTCCTGCGGCGGCTGC
TGGAGCTTCACGTTTTCAAGCTGGTGGCCCTGTACACCGTCTGGGTGGCCCTGAAGGAGGTGTCGGTGATGAACC
TGCTGCTGGTGGTGCTGTGGGCCTTCGCCCTGCCCTACCCACGCTTCCGGCCCATGGCCTCCTGCCTGTCCACCG
TGTGGACCTGCGTCATCATCGTGTGTAAGATGCTGTACCAGCTCAAGGTTGTCAACCCCCAGGAGTATTCCAGCA
ACTGCACCGAGCCCTTCCCCAACAGCACCAACTTGCTGCCCACGGAGATCAGCCAGTCCCTGCTGTACCGGGGGC
CCGTGGACCCTGCCAACTGGTTTGGGGTGCGGAAAGGGTTCCCCAACCTGGGCTACATCCAGAACCACCTGCAAG
TGCTGCTGCTGCTGGTATTCGAGGCCATCGTGTACCGGCGCCAGGAGCACTACCGCCGGCAGCACCAGCTGGCCC
CGCTGCCTGCCCAGGCCGTGTTTGCCAGCGGCACCCGCCAGCAGCTGGACCAGGATCTGCTCGGCTGCCTCAAGT
ACTTCATCAACTTCTTCTTCTACAAATTCGGGCTGGAGATCTGCTTCCTGATGGCCGTGAACGTGATCGGGCAGC
GCATGAACTTTCTGGTGACCCTGCACGGTTGCTGGCTGGTGGCCATCCTCACCCGCAGGCACCGCCAGGCCATTG
CCCGCCTCTGGCCCAACTACTGCCTCTTCCTGGCGCTGTTCCTGCTGTACCAGTACCTGCTGTGCCTGGGGATGC
CCCCGGCCCTGTGCATTGATTATCCCTGGCGCTGGAGCCGGGCCGTCCCCATGAACTCCGCACTCATCAAGTGGC
TGTACCTGCCTGATTTCTTCCGGGCCCCCAACTCCACCAACCTCATCAGCGACTTTCTCCTGCTGCTGTGCGCCT
CCCAGCAGTGGCAGGTGTTCTCAGCTGAGCGCACAGAGGAGTGGCAGCGCATGGCTGGCGTCAACACCGACCGCC
TGGAGCCGCTGCGGGGGGAGCCCAACCCCGTGCCCAACTTTATCCACTGCAGGTCCTACCTTGACATGCTGAAGG
TGGCCGTCTTCCGATACCTGTTCTGGCTGGTGCTGGTGGTGGTGTTTGTCACGGGGGCCACCCGCATCAGCATCT
TCGGGCTGGGCTACCTGCTGGCCTGCTTCTACCTGCTGCTCTTCGGCACGGCCCTGCTGCAGAGGGACACACGGG
CCCGCCTCGTGCTGTGGGACTGCCTCATTCTGTACAACGTCACCGTCATCATCTCCAAGAACATGCTGTCGCTCC
TGGCCTGCGTCTTCGTGGAGCAGATGCAGACCGGCTTCTGCTGGGTCATCCAGCTCTTCAGCCTTGTATGCACCG
TCAAGGGCTACTATGACCCCAAGGAGATGATGGACAGAGACCAGGACTGCCTGCTGCCTGTGGAGGAGGCTGGCA
TCATCTGGGACAGCGTCTGCTTCTTCTTCCTGCTGCTGCAGCGCCGCGTCTTCCTTAGCCATTACTACCTGCACG
TCAGGGCCGACCTCCAGGCCACCGCCCTGCTAGCCTCCAGGGGCTTCGCCCTCTACAACGCTGCCAACCTCAAGA
GCATTGACTTCCACCGCAGGATAGAGGAGAAGTCCCTGGCCCAGCTGAAAAGACAGATGGAGCGTATCCGTGCCA
AGCAGGAGAAGCACAGGCAGGGCCGGGTGGACCGCAGTCGCCCCCAGGACACCCTGGGCCCCAAGGACCCCGGCC
TGGAGCCAGGGCCCGACAGTCCAGGGGGCTCCTCCCCGCCACGGAGGCAGTGGTGGCGGCCCTGGCTGGACCACG
CCACAGTCATCCACTCCGGGGACTACTTCCTGTTTGAGTCCGACAGTGAGGAAGAGGAGGAGGCTGTTCCTGAAG
ACCCGAGGCCGTCGGCACAGAGTGCCTTCCAGCTGGCGTACCAGGCATGGGTGACCAACGCCCAGGCGGTGCTGA
GGCGGCGGCAGCAGGAGCAGGAGCAGGCAAGGCAGGAACAGGCAGGACAGCTACCCACAGGAGGTGGTCCCAGCC
AGGAGGTGGAGCCAGCAGAGGGCCCCGAGGAGGCAGCGGCAGGCCGGAGCCATGTGGTGCAGAGGGTGCTGAGCA
CGGCGCAGTTCCTGTGGATGCTGGGGCAGGCGCTAGTGGATGAGCTGACACGCTGGCTGCAGGAGTTCACCCGGC
ACCACGGCACCATGAGCGACGTGCTGCGGGCAGAGCGCTACCTCCTCACACAGGAGCTCCTGCAGGGCGGCGAAG
TGCACAGGGGCGTGCTGGATCAGCTGTACACAAGCCAGGCCGAGGCCACGCTGCCAGGCCCCACCGAGGCCCCCA
ATGCCCCAAGCACCGTGTCCAGTGGGCTGGGCGCGGAGGAGCCACTCAGCAGCATGACAGACGACATGGGCAGCC
CCCTGAGCACCGGCTACCACACGCGCAGTGGCAGTGAGGAGGCAGTCACCGACCCCGGGGAGCGTGAGGCTGGTG
CCTCTCTGTACCAGGGACTGATGCGGACGGCCAGCGAGCTGCTCCTGGACAGGCGCCTGCGCATCCCAGAGCTGG
AGGAGGCAGAGCTGTTTGCGGAGGGGCAGGGCCGGGCGCTGCGGCTGCTGCGGGCCGTGTACCAGTGTGTGGCCG

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FIGURE 3415B

CCCACTCGGAGCTGCTCTGCTACTTCATCATCATCCTCAACCACATGGTCACGGCCTCCGCCGGCTCGCTGGTGC
TGCCCGTGCTCGTCTTCCTGTGGGCCATGCTGTCGATCCCGAGGCCCAGCAAGCGCTTCTGGATGACGGCCATCG
TCTTCACCGAGATCGCGGTGGTCGTCAAGTACCTGTTCCAGTTTGGGTTCTTCCCCTGGAACAGCCACGTGGTGC
TGCGGCGCTACGAGAACAAGCCCTACTTCCCGCCCCGCATCCTGGGCCTGGAGAAGACTGACGGCTACATCAAGT
ACGACCTGGTGCAGCTCATGGCCCTTTTCTTCCACCGCTCCCAGCTGCTGTGCTATGGCCTCTGGGACCATGAGG
AGGACTCACCATCCAAGGAGCATGACAAGAGCGGCGAGGAGGAGCAGGGAGCCGAGGAGGGGCCAGGGGTGCCTG
CGGCCACCACCGAAGACCACATTCAGGTGGAAGCCAGGGTCGGACCCACGGACGGGACCCCAGAACCCCAAGTGG
AGCTCAGGCCCCGTGATACGAGGCGCATCAGTCTACGTTTTAGAAGAAGGAAGAAGGAGGGCCCAGCACGGAAAG
GAGCGGCAGCCATCGAAGCTGAGGACAGGGAGGAAGAAGAGGGGGAGGAAGAGAAAGAGGCCCCCACGGGGAGAG
AGAAGAGGCCAAGCCGCTCTGGAGGAAGAGTAAGGGCGGCCGGGCGGCGGCTGCAGGGCTTCTGCCTGTCCCTGG
CCCAGGGCACATATCGGCCGCTACGGCGCTTCTTCCACGACATCCTGCACACCAAGTACCGCGCAGCCACCGACG
TCTATGCCCTCATGTTCCTGGCTGATGTTGTCGACTTCATCATCATCATTTTTGGCTTCTGGGCCTTTGGGAAGC
ACTCGGCGGCCACAGACATCACGTCCTCCCTATCAGACGACCAGGTACCCGAGGCTTTCCTGGTCATGCTGCTGA
TCCAGTTCAGTACCATGGTGGTTGACCGCGCCCTCTACCTGCGCAAGACCGTGCTGGGCAAGCTGGCCTTCCAGG
TGGCGCTGGTGCTGGCCATCCACCTATGGATGTTCTTCATCCTGCCCGCCGTCACTGAGAGGATGTTCAACCAGA
ATGTGGTGGCCCAGCTCTGGTACTTCGTGAAGTGCATCTACTTCGCCCTGTCCGCCTACCAGATCCGCTGCGGCT
ACCCCACCCGCATCCTCGGCAACTTCCTCACCAAGAAGTACAATCATCTCAACCTCTTCCTCTTCCAGGGGTTCC
GGCTGGTGCCGTTCCTGGTGGAGCTGCGGGCAGTGATGGACTGGGTGTGGACGGACACCACGCTGTCCCTGTCCA
GCTGGATGTGTGTGGAGGACATCTATGCCAACATCTTCATCATCAAATGCAGCCGAGAGACAGAGAAGAAATACC
CGCAGCCCAAAGGGCAGAAGAAGAAGAAGATCGTCAAGTACGGCATGGGTGGCCTCATCATCCTCTTCCTCATCG
CCATCATCTGGTTCCCGCTGCTCTTCATGTCGCTGGTGCGCTCCGTGGTTGGGGTTGTCAACCAGCCCATCGATG
TCACCGTCACCCTCAAGCTGGGCGGCTATGAGCCGCTGTTCACCATGAGCGCCCAGCAGCCGTCCATCATCCCCT
TCACGGCCCAGGCCTATGAGGAGCTGTCCCGGCAGTTTGACCCCCAGCCGCTGGCCATGCAGTTCATCAGCCAGT
ACAGCCCTGAGGACATCGTCACGGCGCAGATTGAGGGCAGCTCCGGGGCGCTGTGGCGCATCAGTCCCCCCAGCC
GTGCCCAGATGAAGCGGGAGCTCTACAACGGCACGGCCGACATCACCCTGCGCTTCACCTGGAACTTCCAGAGGG
ACCTGGCGAAGGGAGGCACTGTGGAGTATGCCAACGAGAAGCACATGCTGGCCCTGGCCCCCAACAGCACTGCAC
GGCGGCAGCTGGCCAGCCTGCTCGAGGGCACCTCGGACCAGTCTGTGGTCATCCCTAATCTCTTCCCCAAGTACA
TCCGTGCCCCCAACGGGCCCGAAGCCAACCCTGTGAAGCAGCTGCAGCCCAATGAGGAGGCCGACTACCTCGGCG
TGCGTATCCAGCTGCGGAGGGAGCAGGGTGCGGGGGCCACTGGCTTCCTCGAATGGTGGGTCATCGAGCTGCAGG
AGTGCCGGACCGACTGCAACCTGCTGCCCATGGTCATTTTCAGTGACAAGGTCAGCCCACCGAGCCTCGGCTTCC
TGGCTGGCTACGGCATCATGGGGCTGTACGTGTCCATCGTGCTGGTCATCGGCAAGTTCGTGCGCGGATTCTTCA
GCGAGATCTCGCACTCCATTATGTTCGAGGAGCTGCCGTGCGTGGACCGCATCCTCAAGCTCTGCCAGGACATCT
TCCTGGTGCGGGAGACTCGGGAGCTGGAGCTGGAGGAGGAGTTGTACGCCAAGCTCATCTTCCTCTACCGCTCAC
CAGAGACCATGATCAAGTGGACTCGTGAGAAGGAG**TAG**GAGCTGCTGCTGGCGCCCGAGAGGGAAGGAGCCGGCC
TGCTGGGCAGCGTGGCCACAAGGGGCGGCACTCCTCAGGCCGGGGGAGCCACTGCCCCGTCCAAGGCCGCCAGCT
GTGATGCATCCTCCCGGCCTGCCTGAGCCCTGATGCTGCTGTCAGAGAAGGACACTGCGTCCCCACGGCCTGCGT
GGCGCTGCCGTCCCCCACGTGTACTGTAGAGTTTTTTTTTTAATTAAAAAATGTTTTATTTATACAAATGG

FIGURE 3416

CGCGCACTCCGCCGCC**ATG**GAGCAGCGCCGCGTCACCGACTTCTTCGCGCGCCGCCGCCCCGGGCCCCCCCGCAT
CGCGGCGCCCAAGCTGGCCTGCCGCACCCCCAGCCCCGCCAGGCCCGCACTCCGCGCCCCGGCCTCCGCTACCAG
TGGCAGCCGCAAGCGCGCCCGCCCGCCCGCCGCCCCCGGACGCGACCAGGCCAGGACACCGGCCCGCAGGAGACT
GCGGCTGTCGGTGGACGAGGTTTCCAGCCCCAGTACCCCCGAGGCCCCAGACATCCCAGCCTGCCCTTCTCCGGG
CCAGAAGATAAAGAAATCCACCCCGGCAGCAGGTCAGCCGCCCCACCTGACATCCGCGCAGGACCAGGACACCAT
CTCTGAGCTTGCGTCATGCCTGCAACGGGCCCGGGAGCTGGGGGCAAGAGTCCGGGCGCTGAAGGCCAGTGCCCA
GGATGCTGGGGAGTCCTGCACCCCAGAGGCCGAGGGCCGCCCTGAGGAGCCATGTGGCGAGAAGGCGCCCGCCTA
CCAGCGCTTCCATGCCCTGGCCCAGCCCGGCCTGCCGGGACTCGTGCTGCCCTACAAGTACCAGGTGCTGGCGGA
GATGTTCCGCAGCATGGACACCATCGTGGGCATGCTCCACAACCGCTCCGAGACGCCCACCTTTGCCAAGGTCCA
GCGGGGCGTCCAGGACATGATGCGTAGGCGTTTTGAGGAGTGCAATGTTGGCCAGATCAAAACCGTGTACCCGGC
CTCCTACCGCTTCCGCCAGGAGCGCAGTGTCCCCACCTTCAAGGATGGCACCAGGAGGTCAGATTACCAGCTCAC
CATCGAGCCACTGCTGGAGCAGGAGGCTGACGGAGCAGCCCCCCAGCTCACGGCCTCGCGCCTCCTGCAGCGACG
GCAGATCTTCAGCCAGAAGCTGGTGGAGCATGTCAAGGAGCACCACAAGGCCTTCCTGGCCTCCCTGAGCCCCGC
CATGGTGGTGCCGGAGGACCAGCTGACCCGCTGGCACCCGCGCTTCAACGTGGATGAAGTACCCGACATCGAGCC
GGCCGCGCTGCCCCAGCCACCCGCCACGGAGAAGCTCACCACTGCTCAGGAGGTGCTGGCCCGGGCCCGCAACCT
GATTTCACCCAGGATGGAGAAGGCCTTGAGTCAATTGGCCCTGCGCTCTGCTGCGCCCAGCAGCCCCGGGTCTCC
CAGGCCAGCACTGCCGGCTACCCCACCAGCCACCCCGCCTGCAGCCTCTCCCAGTGCTCTGAAGGGGGTGTCCCA
GGATCTGCTGGAGCGGATCCGAGCCAAGGAGGCACAGAAGCAGCTGGCACAGATGACGCGGTGCCCGGAGCAGGA
GCAGCGGCTGCAGCGCTTAGAACGGCTGCCTGAGCTGGCCCGCGTGCTGCGGAGCGTCTTTGTGTCCGAACGCAA
GCCTGCGCTCAGCATGGAGGTGGCCTGTGCCAGGATGGTGGGCAGCTGTTGTACTATCATGAGCCCTGGGGAAAT
GGAGAAGCACCTGCTGCTCCTCTCCGAGCTGCTGCCGGACTGGCTCAGCCTCCACCGCATCCGCACCGACACCTA
CGTCAAGCTGGACAAGGCCGCGGACCTCGCCCACATCACTGCACGCCTGGCCCACCAGACACGTGCTGAGGAGGG
GCTG**TGA**GCCTGGGGGCCACTGTGGACAGACGTGGGCTTCAGAAGCTCGCTGGCCTGGGCCCACCAGCATTTTCT
TTTATGAACATGATACACTTTGGCCTTCCTTTCCCCAGCGCCCCTGAGGGCCAGAGGCAGATGTGGGCTGCAGGC
TGCACAGCCCGAGGGTCTCTGGCTGCGGGCGGTGGGCCCCTTCATGGGGCTCACCTGGTGGATTCACATTAAACC
GGTTTCTGTGGGC

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FIGURE 3417

ACCCCTCGTGGCGGTCCCGCCCGTCCCCGCGCAGGCGCGCTCGGGCTGCCGCTGGCTCTTCGCACGCGGCC**ATG**G
CCGACTCCGAGCTGCAGCTGGTTGAGCAGCGGATCCGCAGCTTCCCCGACTTCCCCACCCCAGGCGTGGTATTCA
GGGACATCTCGCCCGTCCTGAAGGACCCCGCCTCCTTCCGCGCCGCCATCGGCCTCCTGGCGCGACACCTGAAGG
CGACCCACGGGGGCCGCATCGACTACATCGCAGGCCTAGACTCCCGAGGCTTCCTCTTTGGCCCCTCCCTGGCCC
AGGAGCTTGGACTGGGCTGCGTGCTCATCCGAAAGCGGGGGAAGCTGCCAGGCCCCACTCTGTGGGCCTCCTATT
CCCTGGAGTACGGGAAGGCTGAGCTGGAGATTCAGAAAGACGCCCTGGAGCCAGGACAGAGGGTGGTCGTCGTGG
ATGATCTGCTGGCCACTGGTGGAACCATGAACGCTGCCTGTGAGCTGCTGGGCCGCCTGCAGGCTGAGGTCCTGG
AGTGCGTGAGCCTGGTGGAGCTGACCTCGCTTAAGGGCAGGGAGAAGCTGGCACCTGTACCCTTCTTCTCTCTCC
TGCAGTATGAG**TGA**CCACAGGGCCTCCCAGCCCAACATCTCCAGCTGGATCCCAGGGAAATATCAGCCTTGGGCA
ACTGCAGTGACCAGGGGCACCGGCTGCCCACAGGGAACACATTCCTTTGCTGGGGTTCAGCGCCTCTCCTGGGGC
TGGAAGTGCCAAAGCCTGGGGCAAAGCTGTGTTTCAGCCACACTGAACCCAATTACACACAGCGGGAGAACGCAG
TAAACAGCTTTCCCAC

FIGURE 3418

CGGACGCTCGCTAGGTCGGCTCGCTGGCCGGGGCTCCGCGGCTCCCGTGGTTGCC**ATG**GCGGCGGTTGTCGCGGC
GACGAGGTGGTGGCAGCTGTTGCTGGTGCTCAGCGCCGCGGGGATGGGGGCCTCGGGCGCCCCGCAGCCCCCCAA
CATCCTGCTCCTGCTCATGGACGACATGGGATGGGGTGACCTCGGGGTGTATGGAGAGCCCTCCAGAGAGACCCC
GAATTTGGACCGGATGGCTGCAGAAGGGCTGCTTTTCCCAAACTTCTATTCTGCCAACCCTCTGTGCTCGCCATC
GAGGGCGGCACTGCTCACAGGACGGCTACCCATCCGCAATGGCTTCTACACCACCAACGCCCATGCCAGAAACGC
CTACACACCGCAGGAGATTGTGGGCGGCATCCCAGACTCGGAGCAGCTCCTGCCGGAGCTTCTGAAGAAGGCCGG
CTACGTCAGCAAGATTGTCGGCAAGTGGCATCTGGGTCACAGGCCCCAGTTCCACCCCCTGAAGCACGGATTTGA
TGAGTGGTTTGGATCCCCCAACTGCCACTTTGGACCTTATGACAACAAGGCCAGGCCCAACATCCCTGTGTACAG
GGACTGGGAGATGGTTGGCAGATATTATGAAGAATTTCCTATTAATCTGAAGACGGGGGAAGCCAACCTCACCCA
GATCTACCTGCAGGAAGCCCTGGACTTCATTAAGAGACAGGCACGGCACCACCCCTTTTTCCTCTACTGGGCTGT
CGACGCCACGCACGCACCCGTCTATGCCTCCAAACCCTTCTTGGGCACCAGTCAGCGAGGGCGGTATGGAGACGC
CGTCCGGGAGATTGATGACAGCATTGGGAAGATACTGGAGCTCCTCCAAGACCTGCACGTCGCGGACAACACCTT
CGTCTTCTTCACGTCGGACAACGGCGCTGCCCTCATTTCCGCCCCCGAACAAGGTGGCAGCAACGGCCCCTTTCT
GTGTGGGAAGCAGACCACGTTTGAAGGAGGGATGAGGGAGCCTGCCCTCGCATGGTGGCCAGGGCACGTCACTGC
AGGCCAGGTGAGCCACCAGCTGGGCAGCATCATGGACCTCTTCACCACCAGCCTGGCCCTTGCGGGCCTGACGCC
GCCCAGCGACAGGGCCATTGATGGCCTCAACCTCCTCCCCACCCTCCTGCAGGGCCGGCTGATGGACAGGCCTAT
CTTCTATTACCGTGGCGACACGCTGATGGCGGCCACCCTCGGGCAGCACAAGGCTCACTTCTGGACCTGGACCAA
CTCCTGGGAGAACTTCAGACAGGGCATTGATTTCTGCCCTGGGCAGAACGTTTCAGGGGTCACAACTCACAATCT
GGAAGACCACACGAAGCTGCCCCTGATCTTCCACCTGGGACGGGACCCAGGGGAGAGGTTCCCCCTCAGCTTTGC
CAGCGCCGAGTACCAGGAGGCCCTCAGCAGGATCACCTCGGTCGTCCAGCAGCACCAGGAGGCCTTGGTCCCCGC
GCAGCCCCAGCTCAACGTGTGCAACTGGGCGGTCATGAACTGGGCACCTCCGGGCTGTGAAAAGTTAGGGAAGTG
TCTGACACCTCCAGAATCCATTCCCAAGAAGTGCCTCTGGTCCCAC**TAG**CACCTGCGCAGACTCAGGCCAGGCCT
AGAATCTCCGGTTGGCCCTGCAAGTGCCTGGAGGAAGGATGGCTCTGGCCTCGGTCCTCCCCCAACCCTGCCCAA
GCCAGACAGACAGCACCTGCAGACGCAGGGGGACTGCACAATTCCACCTGCCCAGGACCTGACCCTGGCGTGTGC
TTGGCCCTCCTCCTCGCCCACGGCGCCTCAGATTTCAGGACCCTCCTCCTCGCCCACGGCGCCTCAGACCTCAGG
ACCCTGCCGTCTCACGCCTTTGTGAACCCCAAATATCTGAGACCAGTCTCAGTTTATTTTGCCAAGGTTAAGGAT
GCACCTGTGACAGCCTCAGGAGGTCCTGACAACAGGTGCCTGAGGTGGCTGGGGATACAGTTTGCCTTTATACAT
CTTAGGGAGACACAAGATCAGTATGTGTATGGCGTACATTGGTTCAGTCAGCCTTCCACTGAATACACGATTGAG
TCTGGCCCAGTGAATCCGCATTTTTATGTAAACAGTAAGGGAACGGGGCAATCATATAAGCGTTTGTCTCAGGGG
AGCCCCAGAGGGATGACTTCCAGTTCCGTCTGTCCTTTGTCCACAAGGAATTTCCCTGGACGCTAATTATGAGGG
AGGCGTGTAGCTTCTTATCATTGTAACTATGTTATTTAGAAATAAAACGGGAGGCAGGTTTGCCTAATTCCCAGC
TTG

FIGURE 3419

GTGACCAGCGGCGGGTCACGTGACGCGGTGCCTGGCGCCGAGCCTCCCAAG**ATG**GCGGTGTGCATCGCGGTGATT
GCCAAGGAGAATTACCCCCTCTACATTCGCAGCACCCCTACGGAGAACGAGCTGAAGTTCCACTACATGGTGCAC
ACATCTCTGGACGTGGTGGATGAGAAGATCTCCGCAATGGGGAAGGCCCTGGTCGACCAGAGGGAGCTGTACCTG
GGCCTGCTCTACCCCACGGAGGACTACAAGGTATACGGCTACGTCACCAACTCCAAGGTGAAGTTTGTCATGGTG
GTAGATTCCTCCAACACAGCCCTTCGAGACAACGAAATTCGCAGCATGTTCCGGAAGCTACACAACTCCTACACA
GACGTGATGTGCAACCCCTTCTACAACCCGGGGGACCGCATCCAGTCCAGCAGGGCCTTTGATAACATGGTGACG
TCGATGATGATACAGGTGTGC**TGA**GTGAGCTGTGCTGCCAGCCATCGCAGAGGAGCCCGCGCACGACTGTGGTGG
GGCCGTCGGTCTGTTCTGGTTGCCTCTTCCTGAATGGGACGCCTGGGGCTTTCAGGGCAGGCAGCTGTGCATGTT
CTCTCAACTAAAGGTCTTGTGAGAGGA

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FIGURE 3420A

CTCCAGGTTGGCCCCTGAGGGTGGCCTCCTC**ATG**CCGGCTTCAAGACTGAGGGACAGGGCAGCCAGTTCAGCCTC
GGGATCCACCTGTGGCTCCATGTCCCAGACGCACCCTGTGCTGGAGAGCGGCCTCCTGGCATCTGCCGGCTGCTC
CGCACCCCGGGGTCCCAGGAAGGGCGGCCCAGCCCCAGTGGACAGGAAAGCTAAGGCCTCAGCGATGCCGGACTC
CCCAGCGGAGGTGAAGACGCAGCCCCGGTCCACACCCCCCAGCATGCCGCCCCCACCGCCTGCCGCATCCCAGGG
GGCCACACGCCCCCCCTCCTTCACGCCACACACACATCGAGAGGACGGGCCTGCGACGCTGCCCCACGGCCGTTT
TCATGGCTGCTTAAAATGGTCTATGGTCTGTCTCTTGATGAACGGCAGCAGCCACTCACCAACAGCCATCAATGG
TGCACCGTGCACACCCAACGGCTTCAGCAATGGCCCGGCCACCTCGTCCACAGCCTCCTTGTCCACACAGCACCT
GCCCCCAGCCTGCGGGGCCCGGCAGCTCAGCAAGCTCAAGCGCTTCCTCACCACACTGCAGCAGTTTGGCAGCGA
CATCTCCCCAGAGATTGGGGAGCGCGTGCGCACACTGGTGCTGGGCCTGGTGAACTCGACATTGACGATCGAGGA
GTTTCATTCCAAGCTTCAGGAGGCCACCAACTTCCCTCTGCGGCCGTTTGTCATTCCCTTCCTGAAGGCAAACCT
GCCCTTGCTGCAGCGGGAGCTCCTGCACTGTGCACGCCTGGCCAAGCAGACGCCCGCCCAGTACTTGGCCCAGCA
TGAGCAGCTCCTGCTGGACGCCAGCGCCTCCTCCCCCATCGACTCCTCAGAGCTGCTACTGGAAGTCAACGAGAA
CGGCAAGAGGAGGACGCCCGACAGGACCAAAGAGAACGGGTCAGACCGCGACCCGCTGCACCCCGAGCACCTCAG
CAAACGGCCATGCACCCTGAACCCTGCCCAGCGCTACAGCCCCAGCAACGGGCCACCGCAGCCCACACCGCCGCC
GCACTACCGCCTGGAGGACATAGCCATGGCCCACCACTTCCGAGATGCCTACCGCCACCCAGACCCCCGGGAGCT
ACGAGAGCGCCATCGGCCGCTTGTGGTGCCTGGGTCCCGGCAGGAAGAAGTGATCGACCACAAGCTCACAGAGCG
TGAGTGGGCAGAAGAGTGGAAGCACCTCAACAACCTCCTGAACTGCATCATGGACATGGTGGAGAAGACGCGGCG
CTCGCTCACGGTGCTGCGCAGGTGCCAGGAGGCCGACCGCGAGGAGCTCAACCACTGGGCGCGGCGCTACAGCGA
CGCCGAGGACACAAAGAAGGGCCCCGCTCCCGCCGCGGCCCGGCCCCGCAGCAGCTCCGCCGGTCCCGAAGGGCC
TCAGCTAGACGTGCCTCGCGAGTTCCTGCCGAGGACCCTCACCGGCTACGTGCCTGAGGACATCTGGAGGAAGGC
TGAAGAGGCCGTGAATGAGGTGAAGCGGCAGGCCATGTCGGAGCTGCAGAAAGCCGTGTCGGACGCGGAGCGCAA
AGCGCACGAGCTCATCACCACGGAGCGTGCCAAGATGGAGCGGGCCCTGGCCGAGGCGAAGCGGCAGGCCTCCGA
GGACGCCCTGACGGTCATCAACCAGCAGGAGGACTCCAGCGAGAGCTGCTGGAACTGCGGGCGGAAAGCCAGTGA
GACGTGCAGCGGCTGCAACGCGGCACGCTACTGCGGGTCCTTCTGCCAGCATCGGGACTGGGAGAAGCATCACCA
CGTGTGTGGCCAGAGCCTGCAGGGCCCCACAGCCGTGGTGGCCGACCCGGTGCCTGGACCGCCCGAAGCCGCCCA
CAGCCTGGGCCCCTCCCTGCCTGTGGGTGCTGCCAGCCCCAGCGAAGCCGGCTCTGCGGGGCCTTCTCGCCCCGG
CTCCCCCAGCCCACCTGGCCCACTGGACACCGTGCCCCGC**TGA**CCCCACTGGCCCCTGGCCTGCCGGACACAGCA
CCGTGCCAACCCCACCCAGCTCCAGGCCCACCGGATGCTGTGCCTGGCCTCCGATGCCTGGCCTGCCAGACACTG
CGCCCCGCCTGACCTGGGGGAGCCGACCAATTAGTCACTGCTGCTACTGCCCCTCTCCGAAAGAAGACACAGAAC
CAACAAAACCGCATTCAGTGCACCTGCCTCAGCTACCTAATGATTCCGCGCGGAGACCTCCTGACAACGTCTCTT
CAAGCATCCTCAGAAGCCTCGACTGAGCTTTAGACAGCAGAGCAGATGCCGCAGGCGCGGCGGCTCTGCCCACCT
CTCTTTTCCTCTCTGTCTGTCTCTCCCCCTCTGTCTTCTCTATCCTCTCTCTCTCTATGACTATCACACACTTTC
TCTTCAATGAAAAAATCGAATTGGTGGCTTATATTTTCAGCAAAGAATTTTGGGGGGTTTTGTGTGTTGGCAAAA
GAGCTACTCAGAAATGGACAAAGAAAACGGGGGGGTTCTCCCCCTCCTGATTAAAAAGGGAGAAAGAAAACTGCG
ATTTTATAGCTGGAGATCTGAACCCAGCTGTGCCCCTCCCCCAGGGGCGTGAGGCTGATCAGCGAAGACGGGAGG
AAAGATTTCGATTTCTGACTCAAGATGCATTTTTGGTTTCAGATTTTTTTTTCCTGTAATGTTAAACTCTTTGGC
TTTAAGTAAAAATCCAAAAAGTTTTTTTAAAAAAGCAAAGGAAGCATACTTGTGAACTACCTTGCTAGCTAGCCA
GCCAAGGATACCGGACACACCTCTGCTCCAAAGGAAATCCAAAAAAGCAAACACAAGAAATCAAAATCCAAAATT
TGTTTGTCACTGCCAAAGTATTTTTTTCACTGTTTCACTTGCTCTTGGGTTTGTTTGGATGTGGGTCTTTTTCTC
TTCTGTTCTGATTTTGTTTGTGGGTGTCGGGATATTTGGGTGCAGAGGGTTTGTGCCCAGTTAGAAGCGACTTTT
GTTCTCTTCTGCGTAGGCGTTGGTGCGTCCGCCGCGTGTGCGTGGTCCGTGTGCCGTTGCTCCGGCCTGCGTCTC
CATATGTGTAGGAAAGGACACGCCGTCTGTCCTCACGCCCCCTGTGACTTTTCATATTTCCGTTTTCCACTTGTG
GAAAAAAAGTGCTAAAGTTTTCTTCCCAGAGAGAGCATAATTCCGAAACAAAACTGTGACAATCTTTTGGGTTGA
TTCTCGACTGCTTTTCGAGCATGCGGAGCCAGCAGGCCTCCCTGAAACACTGCTTCTCGGCCAGCCCGTCCTCCT
CTACCTCTCTCCTCTCCGCGCCCTCCGACCTCTCTCGGCCCCCTCACCCCAGCTCCGACCTCTCTCAGCCCCATC
GCCCCAACTCCAACCTCTCGGCCCCATCGCCCCACCGCAGCTACTCCCCTTTCTTCCAAACTTTTGCAGAAAAAA
CAAAAAAACTACAAACAAAAGCAGCCCTCTGCCTCCTCCCCAGGGAAGACCCTGACCGTGTACATAGCCCTGGTG
CTCCTGCCCAGCCACCCCTCAGATGCGTTCGCCTCTGGCCCTGGGGTGTGTCTCGGTGACGTTTTCTATCAGACG

FIGURE 3420B

TGCTCCCTCCCATCCTCCAGCCCTGCCCACCCTCCCTCCACTCCTCTCAACTGCCTCAGCGATTTCAAGAAGGAA
ATAAAGGGATAAAGAAATTCATGCTTGCACCGAGTACAAGGACAGACAGCAGGCACGGCCCGCAGCCTGGCATCT
GTGCGTGTGGCGTGGCCCGTGGCTTGGCATCTGTGTGCGTGGTGTGGCCCGTGGCCTGGCATCTGTGTGCGTGGC
GTGGCCCGTGGCCTGGCATCTGTGTGTGTGGCGTGGCCCGTGGCCTGGCATCTGTGCGCGTGGCGTGGCCCGTGG
CCTGGCATCTGTGTGCGTGGCTATCAGGAGTTCTAGGAACTCAGTGCAATACGGGAGTGACCCAGCTACTGAACC
AGCCACGAACAGCCCGCCAGAGGCCTGAAGCTGAGCGTGTACGTTAATGTGAATGTATATAGTCTTTGCAGAGGT
CCAAATGATATTCATGATGGTAATAAACGAGATGTTTGCCAAATAAAAAA

FIGURE 3421

GGAGTCTCGCGAGGATCTTGTGACTTATCGCGGCATCGCCCAGCGGTTGCCGGGAAACGGCGTGGCTTCCGGGGG
CGGGCGCCCTGGTCCCGGAGTCGCCGCTGGGCCTGTCCGCTGGCGTC**ATG**GCACCGAAAAAGAAAGGGAAGAAAG
GCAAAGCCAAAGGCACCCCGATTGTCGATGGGCTCGCTCCAGAGGACATGAGCAAGGAGCAGGTGGAGGAGCATG
TCAGCCGCATCCGGGAGGAGCTGGACCGCGAGCGGGAGGAACGAAACTACTTCCAGCTGGAGCGGGACAAGATCC
ACACCTTCTGGGAGATCACACGGAGGCAGCTGGAGGAGAAGAAGGCTGAGCTGCGGAACAAAGACCGGGAGATGG
AAGAAGCCGAGGAGAGGCACCAGGTGGAGATCAAGGTGTACAAGCAGAAAGTGAAGCACCTGCTATATGAGCACC
AGAACAACCTGACAGAGATGAAGGCTGAGGGCACTGTAGTCATGAAGCTGGCACAGAAAGAGCACCGCATACAGG
AGAGTGTGCTGCGCAAGGACATGCGGGCACTGAAGGTGGAGCTCAAGGAGCAGGAGCTGGCCAGTGAGGTGGTGG
TGAAGAACCTGCGGCTGAAACACACCGAGGAGATCACCAGGATGCGGAATGATTTTGAGAGGCAAGTTCGAGAAA
TTGAGGCCAAGTATGATAAGAAGATGAAGATGCTGAGGGACGAACTCGACTTGCGGAGAAAGACTGAGCTCCACG
AAGTGGAGGAGAGGAAGAATGGCCAGATCCACACGCTGATGCAGCGCCACGAGGAGGCCTTCACCGACATTAAGA
ACTACTACAACGACATCACCCTCAACAACCTGGCCCTCATCAACTCCCTCAAGGAGCAGATGGAGGACATGCGGA
AGAAGGAGGACCACCTGGAGAGGGAGATGGCAGAGGTGTCTGGGCAGAACAAGCGCCTGGCAGACCCTCTCCAGA
AGGCTCGGGAGGAGATGAGCGAGATGCAGAAACAGCTCGCAAACTACGAGAGGGACAAGCAGATCCTGCTTTGCA
CAAAAGCCCGTTTGAAAGTCAGGGAGAAAGAGCTGAAAGACCTGCAGTGGGAGCATGAAGTGTTAGAGCAGCGAT
TCACCAAGGTGCAGCAGGAGCGGGACGAGCTCTATCGGAAGTTCACCGCAGCCATCCAGGAGGTGCAGCAGAAGA
CAGGGTTCAAGAACCTCGTGCTAGAACGCAAGCTGCAGGCTCTGAGCGCCGCTGTGGAGAAGAAGGAGGTGCAGT
TCAACGAGGTCCTGGCTGCCTCTAACCTGGACCCTGCAGCCCTGACGCTGGTGTCCCGCAAGCTGGAGGATGTTC
TTGAGTCGAAGAACAGCACCATCAAGGACCTGCAGTATGAGCTGGCCCAGGTCTGTAAGGCCCATAACGACCTGC
TGCGCACGTATGAGGCAAAGCTGCTGGCCTTCGGGATCCCTCTGGACAACGTGGGCTTCAAGCCCTTGGAAACAG
CTGTGATCGGACAGACACTGGGCCAGGGCCCCGCGGGACTGGTGGGCACCCCGACG**TAG**CTGCCCCCCTGGGGGG
CCACAGCCCAGAGAACCAGCCTAGGAACACTCGGGATGACACCCCTTATCACACCAAGGACAGCAAGTTTTTTAG
ATTTTATCATCAGCAAATGAAAGCTTTTCACATGTTCTTGCCATCCTCTTTCCTGGCTCTGTGGAGGAGAACCAC
CTGCAGGACCCTCACCCATGGTGTCCCTGTCGCTCCCTTCCCTGGGTGCCGCACGTCCAGCCTGTGTCCAGGCCT
ACTCCCTGGTCTCACCTCCGACCACAGTCGGCGGCACCTTCTCAGAGTGCCCCGCACTCACCTGGGGGTTGGGGC
AGTGCCGCGCTGTGCTGCCTGTCTTCGCGCCACTGTTGTCCCACCGAATGGACAGCTTTGCAGGTGCTGGCACTA
ACTTCATTGACACCTGAGTCACAGCTGCCCAGTGGGATTCTCCAGGGGGCCGGGACTTCCCTAGGAAGTGGTGAG
CCAATGCTCCCTGATGAGCACAAAGCCCGCTCTGTTGAGGGCTGGGTGGGTGCAGCCAGCGTGCGGGAACGGGCA
GGCAGCCTCCCGCTGCCAGTCTTCGCTCTAACTCCCTCGGTAGGTGATGTAGGACCAGGGGCACGTGGAACTTCT
GGGCCTTGCTGGTGATGGTTAAAACAACCTGAGATGGAGAGGCCAGGAGAGAGTATAAGGGGATAGCAGCAAACC
ACCTATCTGGCCCCAACACACCTGAGAGAATTCAGCAGCCCAGACTGAGGGTCTGGGATGGGGTGAACCTTCCGC
ACCAGAGGGACACTCCACAGAAGCCACAGCCCAGTAAGTCAGGCGCTTCTGCGGCGGCTCCAGTGTGGGGTGAGG
CAGTGAGGTTAGGCCCAGAGAGCTGGAGTTGGCTCAGATGAAAACCTCTGTCAACAAAGAGGGGATGAATCACCC
TTGGCCCAGCCTCCCCACAAAGCCTGACCCTGGGCAGGTGAGTGACGGGTGTGTCCTCGTAGAGTCTATTGCTGC
CTGGACACCTTTCTTTTGGGAGCTCAAAGCAAGTGAGCTCACCTACCTGCCACCGCCCAGGACCAGTCTGCCCAC
TGCCTAAATGATGCCCGGCCAGCAGGACCTGGCCTGCAGATCCCAGTGAGTCATGAGCCTCAGCCCCCTCCAGCC
CACTGGGGCTCTCACCTCCACATGTGGGTAGAAGCTTTCCTGCCCCCTCTTCCTCCAGTAGCCCTCAGTGTCGAA
GGTGAGCTTGTAGGTGCCTGCCTTCATCTGGTCCAGGACAGTGACCATCTGGGTCTGTGTAGCTGGGGAGAGGAT
GAGGCTGCAGAGATGGGGACCAGAAGCCCCCCACCCCAGCTTTCCTGGGTCTGCATCCCAGTGGGCCTCAGACAC
TGCCCTGCCACCTGTCAGACTTGGGTGAGCAGACACAGTGAGGCTGTTAGGTCCTGCAGTTCCAGAGCAGTCTAG
GGACACCACTGCCCTGTCTTTAGGAAATCACAACACAGAGAAGCAAAAAGGGAAAAAGTCTCCCACAATTTATCC
CATGAGCAAGAACCACTTTATAGCTGGCATATATTTTTCCAGATTTTCTCTATGCATAAGTATATTTGTTTAAAA
ACTTATAAAGTGGATTATACTATTTGTATTGTTTT

FIGURE 3422

GTGAGCCGAGATTGCACCACTGCACTCCAGCCTGGGTGACAGAGCGAGACTCCATCTAAAAAAAATAAATAAACA
TGGGAGAAACCTGGAAGAATATTTGCTCAACTGTGAGGCATGGTTGGTGGCTAAGGGATCACAGA**ATG**GCAGGCC
TGCCTATTCCTCCTGAGATCGTTAAGGAGGCTGAGGTGCCGCAGGCTGCGCTGGGCGTCCCAGCCCAGGGGACAG
GGGACAATGGCCACACGCCTGTGGAGGAGGAGGTCGGGGGCATCCCAGTACCAGCACCGGGGCTCCTGCAGGTCA
CGGAGAGGAGGCAGCCTCTGAGCAGCGTCTCCTCTCTGGAGGTCCACTTCGACCTCCTGGACCTCACTGAGCTCA
CCGACATGTCGGACCAGGAGCTGGCCGAGGTCTTTGCTGACTCGGACGACGAGAACCTCAACACCGAGTCCCCAG
CAGGTCTGCACCCGCTGCCCCGGGCCGGCTACCTGCGCTCCCCTTCCTGGACGAGGACAAGGGCTGAGCAGAGCC
ACGAGAAGCAGCCCCTAGGCGACCCCGAGCGGCAGGCCACAGTCCTGGACACGTTTCTCACTGTGGAGAGGCCCC
AGGAGGAC**TAG**ACCATCTCCACCTGCCCCAGCTCCTGCAGGGATGGGGTCCGAACACGATGGCAGATCTGGGCAG
TGCTGACCCAGCAGACACACTTCACCCGCCCACGAGGCTCCAGCCGTCACCTCCTGACACACACCCTGGGGGCAG
CTCTCTGCCAGCCCCGAGACCGGCCTTGTCTGCTGGGCACGGGTCTTCGCCTCACTTGGAGACCAGCCGGCTTTC
CTGGGGGACACACGGGGCCCCCGGATGCCTCTGGGAGCCCCAGCACAAGCACAGCCCAGTGGCCTTACGTCCAGC
TCGTTCCTGGGCCCCGAGTCAGGAAGACAGCGTCACGGAGTCACTGCCAGGAACGTGCTGAGGAATGGAGTGGCC
CACGGCGGCCTTGGGGTGAAGGGGACCCAGGCCTGTGACAGCCACTCCAGGAACTCCTGGGGGTGCTCCAACCTC
CGCGTTTTCCTGTGCTGCCAAGCTCAGAAGCCAGAGGCGGGTTTGGTAGTGGCTAATGGGACAATGTGCTGTCCA
GCAAAGCACACATGGAGAAGCGGCCCCAAAATTCCCACCTTGATTTCCATCCTGCCCCTTCTTCTACTCCACGGA
GGCGCTGTCTCACTAGGGTCCCCTCCCCAAGGCTCAGCTCTAAGACCTGCACCTGCTTCTCTTGGCCCCTGCGTG
ACAGACAAGTCCATTCCCTCCTTAGCTCAGAACACCAAATATCACCAGACTGCCTAAGAGACTTGATGACACCTC
CCGGAATGCTCTCGGGGTGGGGTTCACCTCTCCTTGTCCTGCACCCACTGCTAGGCCACATTCTCGTTTCTGCTC
ACATCCCATTGCCCGGCTACAAGGCCTGCCCACGGCCCTTAAACTTGCTGGGCAGGTTTGGAGCCCATGGGACCC
CGTGGGTCTCTGTCCAGGAGCAGCAGAGGAGGCTGACAGGCCCTGCTCCCTCTGCTCTGGGGGTGTCTGGGAGCC
CCAGCTCACACCCTCCCAATGCTTATATGCTGAAGCTCACAGAATGGGCTTCTTGCCTGACAGCAAGTCAAAGAA
TGAGTTTAATATCAAAGTGTAAGCTTACTTTCCATCCCCAAGCCAGCCTGCCCCCTGCCCCATTTCCCATGAGCA
CACTTCTGGGGAAGGAAAACAGGCTCCTGGCCTTCACTCTCAGCAGAGCTTTGGAGATGCCCCAGGCATGCCCTG
AGCTCCTTCTGTGTACCTGCTCCCACTTCTGAGCCACCCGCTGCCCCTCCGCACTGCTGGCAAACCCAGTTCCTG
CCTCAGCCAGGTCTCCTTCCCTGGTTTCCAGTCACACAGAGCCCAGCAGCTTTCTCTTTCAGTCCCATAAGGGCA
GCCTTGTGTCCCTGGCCACACTTCCACCCGCCAGGGTCTTCCTCCCCATCTTTCCATCCTTCCTGCTGAGCTTCC
ACAGAGCTCGTTTGCAAACAGGGGGATTAAAGCATCACTGCGCATTCG

FIGURE 3423

AGATGCGAGGCGGCGGTCAGCAGGTGCCGAACCCACGGCCAGGCTTCCGTGGCCAGCAGCCCTAGAGGAATGGCC
ATCCTGTCCCTGCGAGCCCCTGGGCCCTGGCAGGCGATGCAGGTGGGATGCT**ATG**GAATATGATGAGAAGCTGGC
CCGTTTCCGGCAGGCCCACCTCAACCCCTTCAACAAGCAGTCTGGGCCGAGACAGCATGAGCAGGGCCCTGGGGA
GGAGGTCCCGGACGTCACTCCTGAAGAGGCCCTGCCTGAGCTGCCCCCTGGGGAGCCGGAATTCCGCTGCCCTGA
ACGCGTGATGGATCTCGGCCTGTCTGAGGACCACTTCTCCCGCCCTGTGGGTCTGTTCCTGGCCTCTGACGTCCA
GCAGCTGCGGCAGGCGATCGAGGAGTGCAAGCAGGTGATTCTGGAGCTGCCCGAGCAGTCGGAGAAGCAGAAGGA
TGCCGTGGTGCGACTCATCCACCTCCGGCTGAAGCTCCAGGAGCTGAAGGACCCCAATGAGGATGAGCCAAACAT
CCGAGTGCTCCTTGAGCACCGCTTTTACAAGGAGAAGAGCAAGAGCGTCAAGCAGACCTGTGACAAGTGTAACAC
CATCATCTGGGGGCTCATTCAGACCTGGTACACCTGCACAGGTGGGCCGAGACCCAGACGAGGAGTGAGGAATGA
GAGAGACCAAAGTTCCTGCCTCCGCTGGGCTCACATTCAGATG**TGA**GCTATCCAGTGTGGTGGCCACTAGCCAAA
CATGGCCAGTCAAAGTTAAATTAACTAAATATGCATTTCCTCGTTGTACTGTCTACATTGGACAGGGCTGTTCTG
GATGAGAAATTAAACTAGTGAATTAC

3931/5332

FIGURE 3424

AGCCCGGGGCAGCCAGCAGTACCGGGCCCTGACCGTGCCCGAGCTCACCCAGCAGATGTTCGATGCCAAGAACAT
GATGGCGCCGC**ATG**TCCATGAAGGAGGTGGACGAGCAGATGCTGGCCATCCAGAGCAAGAACAGCAGCTACTTCG
TGGAGTGGATCCCCAACAACGTGAAGGTGGCCGTGTGTGACATCCCGCCCCGCGGCCTCAAGATGTCCTCCACCT
TCATCGGGAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTCACGGCCATGTTCCGGCGCA
AGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCCGAGAGCAACATGAACG
ACCTGGTGTCCGAGTACCAGCAGTACCAGGACGCCACGGCCGAGGAAGAGGGCGAGATGTACGAAGACGACGAGG
AGGAGTCGGAGGCCCAGGGCCCCAAG**TGA**AGCTGCTCGCAGCTGGAGTGAGAGGCAGGTGGCGGCCGGGGCCGAA
GCCAGCAGTGTCTAAACCCCCGGAGCCATCTTGCTGCCGACACCCTGCTTTCCCCTCGCCCTAGGGCTCCCTTGC
CGCCCTCCTGCAGTATTTATGGCC

FIGURE 3425

GGAGAGGGTGTGAGGGCAGATCTGGGGGTGCCCAGATGGAAGGAGGCAGGCATGGGGGACACCCAAGGCCCCCTG
GCAGCACCATGAACTAAGCAGGACACCTGGAGGGGAAGAACTGTGGGGACCTGGAGGCCTCCAACGACTCCTTCC
TGCTTCCTGGACAGGACT**ATG**GCTGTGCAGGGATCCCAGAGAAGACTTCTGGGCTCCCTCAACTCCACCCCCACA
GCCATCCCCCAGCTGGGGCTGGCTGCCAACCAGACAGGAGCCCGGTGCCTGGAGGTGTCCATCTCTGACGGGCTC
TTCCTCAGCCTGGGGCTGGTGAGCTTGGTGGAGAACGCGCTGGTGGTGGCCACCATCGCCAAGAACCGGAACCTG
CACTCACCCATGTACTGCTTCATCTGCTGCCTGGCCTTGTCGGACCTGCTGGTGAGCGGGAGCAACGTGCTGGAG
ACGGCCGTCATCCTCCTGCTGGAGGCCGGTGCACTGGTGGCCCGGGCTGCGGTGCTGCAGCAGCTGGACAATGTC
ATTGACGTGATCACCTGCAGCTCCATGCTGTCCAGCCTCTGCTTCCTGGGCGCCATCGCCGTGGACCGCTACATC
TCCATCTTCTACGCACTGCGCTACCACAGCATCGTGACCCTGCCGCGGGCGCGGCGAGCCGTTGCGGCCATCTGG
GTGGCCAGTGTCGTCTTCAGCACGCTCTTCATCGCCTACTACGACCACGTGGCCGTCCTGCTGTGCCTCGTGGTC
TTCTTCCTGGCTATGCTGGTGCTCATGGCCGTGCTGTACGTCCACATGCTGGCCCGGGCCTGCCAGCACGCCCAG
GGCATCGCCCGGCTCCACAAGAGGCAGCGCCCGGTCCACCAGGGCTTTGGCCTTAAAGGCGCTGTCACCCTCACC
ATCCTGCTGGGCATTTTCTTCCTCTGCTGGGGCCCCTTCTTCCTGCATCTCACACTCATCGTCCTCTGCCCCGAG
CACCCCACGTGCGGCTGCATCTTCAAGAACTTCAACCTCTTTCTCGCCCTCATCATCTGCAATGCCATCATCGAC
CCCCTCATCTACGCCTTCCACAGCCAGGAGCTCCGCAGGACGCTCAAGGAGGTGCTGACATGCTCCTGG**TGA**GCG
CGGTGCACGCGGCTTTAAGTGTGCTGGGCAGAGGGAGGTGGTGATATTGTGTGGTCTGGTTCCTGTGTGACCCTG
GGCAGTTCCTTACCTCCCTGGTCCCCGTTTGTCAAAGAGGATGGACTAAATGATCTCTGAAAGTGTTGAAG

FIGURE 3426

GCCGAGTTTTCTGCGCTTCCTTCTCCCTCTCTCCAGACGTCGTGGTCGTTCGGTCCT**ATG**TCGCGCCGGGCCCTC
CGGAGGCTGAGGGGGGAACAGCGCGGCCAGGAGCCCCTCGGGCCCGGCGCCTTGCATTTCGATCTCCGTGATGAC
GATGACGCGGAAGAAGAAGGGCCCAAGCGGGAGCTTGGTGTCCGGCGTCCCGGGGGCGCAGGGAAGGAGGGCGTC
CGAGTCAACAACCGCTTCGAGCTGATAAACATTGACGATCTTGAGGATGACCCTGTGGTGAACGGGGAGAGGTCT
GGCTGTGCGCTCACAGACGCTGTGGCACCAGGGAACAAAGGAAGGGGTCAGCGTGGAAACACAGAGAGCAAGACG
GATGGAGATGACACCGAGACAGTGCCCTCAGAGCAGTCTCATGCAAGTGGCAAACTCCGGAAGAAGAAAAAAAAA
CAGAAAAACAAGAAAAGCAGCACGGGAGAAGCATCGGAAAACGGACTAGAAGATATCGATCGCATCCTAGAGAGG
ATTGAGGACAGCACTGGGTTGAACCGTCCCGGCCCAGCTCCCCTGAGCTCCAGGAAGCACGTTCTCTACGTGGAG
CACAGACACTTGAATCCAGACACAGAACTGAAAAGGTATTTTGGTGCCCGGGCAATCCTGGGGGAGCAAAGGCCA
CGGCAGAGACAACGTGTGTACCCCAAGTGCACATGGCTGACCACCCCTAAAAGCACCTGGCCCCGCTACAGCAAA
CCAGGTCTGTCCATGCGGCTGCTGGAATCAAAAAAAGGCCTCTCCTTCTTTGCGTTTGAGCACAGTGAGGAGTAC
CAGCAGGCTCAGCACAAGTTCCTGGTGGCCGTGGAGTCTATGGAGCCGAACAACATCGTGGTTCTGCTCCAGACG
AGCCCTTACCACGTTGACTCACTCCTGCAGCTCAGCGATGCCTGCCGCTTTCAAGAGGATCAGGAGATGGCTCGA
GACCTCGTAGAGAGAGCGCTGTACAGCATGGAATGTGCGTTCCACCCCCTGTTCAGTCTCACCAGTGGGGCCTGC
CGGCTGGATTACCGCAGACCCGAGAACAGGAGCTTCTACCTGGCCCTCTACAAGCAGATGAGCTTCCTGGAGAAG
CGAGGCTGCCCGCGCACGGCGCTGGAGTACTGCAAGCTCATCCTGAGTCTCGAGCCGGATGAGGACCCCCTCTGC
ATGCTGCTGCTCATCGACCACCTGGCCTTGCGGGCCCGGAACTACGAGTACCTGATCCGCCTCTTCCAGGAGTGG
GAGGCTCATCGGAACCTGTCCCAGCTCCCTAATTTTGCCTTCTCTGTTCCACTGGCGTATTTCCTGCTGAGCCAG
CAGACAGACCTCCCTGAGTGTGAGCAGAGCTCTGCCAGGCAGAAGGCCTCTCTCCTGATACAGCAGGCGCTCACC
ATGTTCCCTGGAGTCCTCCTGCCCCTGCTCGAGTCTTGCAGTGTGCGGCCCGACGCCAGCGTTTCCAGTCACCGC
TTCTTTGGACCCAATGCTGAAATAAGCCAGCCCCCTGCCCTGAGCCAGCTGGTGAACCTGTACCTTGGGAGGTCA
CACTTTCTCTGGAAAGAGCCCGCCACCATGAGCTGGCTGGAGGAGAACGTCCACGAGGTTCTGCAAGCAGTGGAC
GCCGGGGACCCAGCCGTGGAAGCCTGTGAGAACCGGCGGAAGGTGCTCTACCAGCGTGCACCCAGGAATATCCAC
CGCCATGTGATCCTCTCTGAGATCAAGGAAGCCGTCGCTGCCCTGCCCCCGGACGTGACCACGCAGTCTGTGATG
GGGTTTGATCCTCTGCCTCCTTCGGACACAATCTACTCCTACGTCAGGCCAGAGAGGCTAAGTCCTATCAGCCAT
GGAAACACCATTGCTCTCTTCTTCCGGTCACTGTTGCCAAACTATACCATGGAGGGGGAGAGGCCCGAGGAAGGA
GTGGCTGGGGGTCTGAACCGCAACCAGGGCCTGAACAGGCTGATGCTGGCTGTGCGCGACATGATGGCCAACTTC
CACCTCAACGACCTGGAGGCGCCGCACGAGGACGACGCTGAGGGGGAGGGGGAGTGGGAC**TGA**GCGTCCGCAGAG
GTGACCGAAAAGCCGTATGATGATGTTCCCGATTTCTCTGTTGGTCGGAGTCGGCCAGTTGCCTGAAGTAGGGAA
GCTGAGTGTGTCGCTCCCTGGTCCACTGTTTCTCCTATAAATGTAAATGGGTC

FIGURE 3427

CTTGCTTTGTCACCCAGGCTGGAGTGCAGAGGCCCGATCTCGGTTCACTGCAACCTCCACCTCCCAGGTTCAAGC
GATTCTCCTGCCTCAGCCTCCCAAGTAAATGGGATTTCAGGCGTGCACCACCACGCCCAGCTAATTTTTGTATTT
TTAGTAGAGACGGGGTTTCATCATGTTGGTCAGGCTGGTCTTGAACTCCTGACCTCGTGATCCGCCCGCCTCGGC
CTCCCAAAGTGCTGGGATTACAGGTGTGGGCCACCGCGCCCGGCCGGGAACATCCTTTTCATCCGGTCC**ATG**TCT
TGCTTGTGCCTTGGTCTCTTGTGGACCGACAGCTGCTGTCTCCCTGGCCGGGTGCTGGGCCCTCTGCACCCACCA
GCCGCGTTCTCCCCGCCCCACCCCCCTGCAGTACCGCCCAGTGACCGCGCCCCTGTCCCGCAGACCGTGCAGTCC
CTCGGCTTCGCCATCTACCGCGCGCTGGACTGGGGGCTGGACGAGAGCGAGGAGCGCGAACTCAGCCCTCAGCTG
GAGCGGCTCATCGACCTCATGGCCAACAACGACAGCGAGGACAGCGGCTGCGGTGCCGCCGATGAGGGCTACGGG
GGTCCCGAGGAGGAGGAGGAGGCCGAGGGCGTCCCCCGCAGCGTGCGCACCTTTGCCCAGGCCATGCGGCTGTGC
GCGGCGCGGCTGACCGACCCCCGGGGCGCACAGGCGCATTACCAGGCCGTGTGCCGCGCGCTCTTCGTGGAGACG
CTGGAGCTGCGGGCCTTCCTGGCCAGGGTCCGGGAGGCCAAGGAGATGCTGCAGAAGCTTCGGGAGGACGAGCCG
CATCTGGAGACGCCTCGGGCAGAGCTGGACAGCCTGGGTCACACAGACTGGGCCCGACTGTGGGTTCAGCTCATG
CGGGAGCTCCGCCGCGGAGTGAAGCTGAAGAAGGTGCAAGAGCAGGAGTTCAACCCCCTCCCCACCGAGTTCCAG
CTCACGCCCTTCGAGATGCTGATGCAGGACATCCGGGCCCGGAACTACAAGCTGCGCAAGGTCATGGTGGATGGG
GACATCCCGCCCCGGGTGAAGAAGGACGCTCACGAGCTCATCCTGGACTTTATCCGCTCACGGCCTCCACTGAAG
CAGGTCTCTGAGAGGCGGCTGCGCCCGTTGCCACCAAAGCAAAGGTCCCTGCATGAGAAGATCCTGGAGGAGATC
AAGCAGGAGCGGAGGCTGCGCCCGGTGCGGGGCGAGGGCTGGGCTGCCCGCGGGTTTGGCTCTCTGCCCTGCATC
CTCAACGCCTGCTCCGGAGATGCCAAGTCCACCTCCTGCATCAACCTGTCAGTCACAGATGCTGGGGGCAGCGCC
CAGCGCCCGCGGCCCCGCGTGCTGCTCAAGGCGCCTACCTTGGCTGAAATGGAAGAGATGAATACATCTGAGGAA
GAAGAGTCTCCGTGTGGGGAGGTGACGCTGAAACGGGACCGCTCCTTCTCAGAGCATGACCTGGCCCAGCTCCGA
AGTGAGGTGGCCTCTGGCCTGCAGTCGGCCACCCACCCCCCAGGAGGGACGGAGCCACCACGGCCCCGAGCTGGC
AGTGCGCATGTGTGGAGGCCCGGCTCCCGAGACCAGGGTACCTGTCCCGCGAGTGTCTCTGACCCCAGCCACCCC
CTACTCAGCAACCGGGGCTCCTCGGGGGACAGACCCGAGGCCTCCATGACCCCCGATGCCAAACACCTGTGGCTG
GAGTTCAGCCACCCCGTGGAGAGCCTGGCGCTGACTGTGGAAGAGGTGATGGACGTGCGCCGTGTGCTGGTGAAG
GCCGAGATGGAAAAGTTTTTGCAGAACAAGGAGCTCTTCAGCAGTCTGAAGAAGGGGAAGATTTGCTGCTGCTGC
CGGGCCAAGTTCCCGCTGTTCTCGTGGCCGCCCAGCTGTCTCTTCTGCAAGAGAGCCGTCTGCACTTCCTGTAGC
ATAAAGATGAAGATGCCTTCTAAGAAATTTGGACACATCCCTGTCTACACACTGGGCTTTGAGAGTCCTCAGAGG
GTATCAGCTGCCAAAACCGCGCCAATCCAGAGAAGAGACATCTTTCAGTCTCTGCAAGGGCCACAGTGGCAGAGC
GTGGAGGAGGCGTTCCCCCACATCTACTCCCACGGCTGTGTCCTGAAGGATGTCTGCAGTGAGTGCACCAGCTTT
GTGGCAGACGTGGTGCGTTCCAGCCGCAAGAGCGTGGACGTCCTCAACACTACGCCACGACGCAGTCGCCAGACC
CAATCCCTCTACATCCCTAACACCAGGACTCTTGACTTCAAG**TGA**CAGCCCCAGGTGGCCAGGCCTCCAGGAGGC
ACCAGGCAGGCCCTGTATCAGGCTAGGACGCTCTGAGCTGTGCATGTACATATATACATATATAGATACATTTAT
AATATATACACACAGTCTATATATTTATATACACTGTTTCCTGGCCCCAGAGCTCATTTGGGTTCAGGCGCACTT
CAAAACCCTCCCTGGGGGAGGCTGTTTCTTCTCAGGATTCCTTGCCAGGGAGGAAGGGGAGGGAACAGGGTGGGT
TTTCTCACTGAAGAGAGAAAGCAGAAGGTTCTAGATCCTGGCACAGACTGCATCCCATGTTCCCATGCTCTTCTC
CGTCCCCAGGAATGCGAACGGCAGTTTCCCTTCCCCAGTGGACGTCTAGGTGGGGACAGGGTATCTTGGCTCCCA
GCTGGACCAGAGTGCCCTGCTTGCCTCTGCTCTCCCTTTGTGGGGACTCAGGCAGCAGAGGCATCTGGGAAGTCT
CTGAGTAGGCAGGGTCCTCCTGGGAGGCACCCCCACCTGTTTGAAAGGTCTGGCCAGGCGTGGTGGTTCAGGCCT
GTAATTCCAGCACTTTGGGAGGCCGAGGAGGGAGGATCA

FIGURE 3428A

AGCCGCCGCCGGGGCTGTAGGCGCCAAGGCC**ATG**TCCGACTCGTGGGTCCCGAACTCCGCCTCGGGCCAGGACCC
AGGGGGCCGCCGGAGGGCCTGGGCCGAGCTGCTGGCGGGAAGGGTCAAGAGGGAAAAATATAATCCTGAAAGGGC
ACAGAAATTAAAGGAATCAGCTGTGCGCCTCCTGCGAAGCCATCAGGACCTGAATGCCCTTTTGCTTGAGGTAGA
AGGTCCACTGTGTAAAAAATTGTCTCTCAGCAAAGTGATTGACTGTGACAGTTCTGAGGCCTATGCTAATCATTC
TAGTTCATTTATAGGCTCTGCTTTGCAGGATCAAGCCTCAAGGCTGGGGGTTCCCGTGGGTATTCTCTCAGCCGG
GATGGTTGCCTCTAGCGTGGGACAGATCTGCACGGCTCCAGCGGAGACCAGTCACCCTGTGCTGCTGACTGTGGA
GCAGAGAAAGAAGCTGTCTTCCCTGTTAGAGTTTGCTCAGTATTTATTGGCACACAGTATGTTCTCCCGTCTTTC
CTTCTGTCAAGAATTATGGAAAATACAGAGTTCTTTGTTGCTTGAAGCGGTGTGGCATCTTCACGTACAAGGCAT
TGTGAGCCTGCAAGAGCTGCTGGAAAGCCATCCCGACATGCATGCTGTGGGATCGTGGCTCTTCAGGAATCTGTG
CTGCCTTTGTGAACAGATGGAAGCATCCTGCCAGCATGCTGACGTCGCCAGGGCCATGCTTTCTGATTTTGTTCA
AATGTTTGTTTTGAGGGGATTTCAGAAAAACTCAGATCTGAGAAGAACTGTGGAGCCTGAAAAAATGCCGCAGGT
CACGGTTGATGTACTGCAGAGAATGCTGATTTTTGCACTTGACGCTTTGGCTGCTGGAGTACAGGAGGAGTCCTC
CACTCACAAGATCGTGAGGTGCTGGTTCGGAGTGTTCAGTGGACACACGCTTGGCAGTGTAATTTCCACAGATCC
TCTGAAGAGGTTCTTCAGTCATACCCTGACTCAGATACTCACTCACAGCCCTGTGCTGAAAGCATCTGATGCTGT
TCAGATGCAGAGAGAGTGGAGCTTTGCGCGGACACACCCTCTGCTCACCTCACTGTACCGCAGGCTCTTTGTGAT
GCTGAGTGCAGAGGAGTTGGTTGGCCATTTGCAAGAAGTTCTGGAAACGCAGGAGGTTCACTGGCAGAGAGTGCT
CTCCTTTGTGTCTGCCCTGGTTGTCTGCTTTCCAGAAGCGCAGCAGCTGCTTGAAGACTGGGTGGCGCGTTTGAT
GGCCCAGGCATTCGAGAGCTGCCAGCTGGACAGCATGGTCACTGCGTTCCTGGTTGTGCGCCAGGCAGCACTGGA
GGGCCCCTCTGCGTTCCTGTCATATGCAGACTGGTTCAAGGCCTCCTTTGGGAGCACACGAGGCTACCATGGCTG
CAGCAAGAAGGCCCTGGTCTTCCTGTTTACGTTCTTGTCAGAACTCGTGCCTTTTGAGTCTCCCCGGTACCTGCA
GGTGCACATTCTCCACCCACCCCTGGTTCCCGGCAAGTACCGCTCCCTCCTCACAGACTACATCTCATTGGCCAA
GACACGGCTGGCCGACCTCAAGGTTTCTATAGAAAACATGGGACTCTACGAGGATTTGTCATCAGCTGGGGACAT
TACTGAGCCCCACAGCCAAGCTCTTCAGGATGTTGAAAAGGCCATCATGGTGTTTGAGCATACGGGGAACATCCC
AGTCACCGTCATGGAGGCCAGCATATTCAGGAGGCCTTACTACGTGTCCCACTTCCTCCCCGCCCTGCTCACACC
TCGAGTGCTCCCCAAAGTCCCTGACTCCCGTGTGGCGTTTATAGAGTCTCTGAAGAGAGCAGATAAAATCCCCCC
ATCTCTGTACTCCACCTACTGCCAGGCCTGCTCTGCTGCTGAAGAGAAGCCAGAAGATGCAGCCCTGGGAGTGAG
GGCAGAACCCAACTCTGCTGAGGAGCCCCTGGGACAGCTCACAGCTGCACTGGGAGAGCTGAGAGCCTCCATGAC
AGACCCCAGCCAGCGTGATGTTATATCGGCACAGGTGGCAGTGATTTCTGAAAGACTGAGGGCTGTCCTGGGCCA
CAATGAGGATGACAGCAGCGTTGAGATATCAAAGATTCAGCTCAGCATCAACACGCCGAGACTGGAGCCACGGGA
ACACATGGCTGTGGACCTCCTGCTGACGTCTTTCTGTCAGAACCTGATGGCTGCCTCCAGTGTCGCTCCCCCGGA
GAGGCAGGGTCCCTGGGCTGCCCTCTTCGTGAGGACCATGTGTGGACGTGTGCTCCCTGCAGTGCTCACCCGGCT
CTGCCAGCTGCTCCGTCACCAGGGCCCGAGCCTGAGTGCCCCACATGTGCTGGGGTTGGCTGCCCTGGCCGTGCA
CCTGGGTGAGTCCAGGTCTGCGCTCCCAGAGGTGGATGTGGGTCCTCCTGCACCTGGTGCTGGCCTTCCTGTCCC
TGCGCTCTTTGACAGCCTCCTGACCTGTAGGACGAGGGATTCCTTGTTCTTCTGCCTGAAATTTTGTACAGCAGC
AATTTCTTACTCTCTCTGCAAGTTTTCTTCCCAGTCACGAGATACTTTGTGCAGCTGCTTATCTCCAGGCCTTAT
TAAAAAGTTTCAGTTCCTCATGTTCAGATTGTTCTCAGAGGCCCGACAGCCTCTTTCTGAGGAGGACGTAGCCAG
CCTTTCCTGGAGACCCTTGCACCTTCCTTCTGCAGACTGGCAGAGAGCTGCCCTCTCTCTCTGGACACACAGAAC
CTTCCGAGAGGTGTTGAAAGAGGAAGATGTTCACTTAACTTACCAAGACTGGTTACACCTGGAGCTGGAAATTCA
ACCTGAAGCTGATGCTCTTTCAGATACTGAACGGCAGGACTTCCACCAGTGGGCGATCCATGAGCACTTTCTCCC
TGAGTCCTCGGCTTCAGGGGGCTGTGACGGAGACCTGCAGGCTGCGTGTACCATTCTTGTCAACGCACTGATGGA
TTTCCACCAAAGCTCAAGGAGTTATGACCACTCAGAAAATTCTGATTTGGTCTTTGGTGGCCGCACAGGAAATGA
GGATATTATTTCCAGATTGCAGGAGATGGTAGCTGACCTGGAGCTGCAGCAAGACCTCATAGTGCCTCTCGGCCA
CACCCCTTCCCAGGAGCACTTCCTCTTTGAGATTTTCCGCAGACGGCTCCAGGCTCTGACAAGCGGGTGGAGCGT
GGCTGCCAGCCTTCAGAGACAGAGGGAGCTGCTAATGTACAAACGGATCCTCCTCCGCCTGCCTTCGTCTGTCCT
CTGCGGCAGCAGCTTCCAGGCAGAACAGCCCATCACTGCCAGATGCGAGCAGTTCTTCCACTTGGTCAACTCTGA
GATGAGAAACTTCTGCTCCCACGGAGGTGCCCTGACACAGGACATCACTGCCCACTTCTTCAGGGGCCTCCTGAA
CGCCTGTCTGCGGAGCAGAGACCCCTCCCTGATGGTCGACTTCATACTGGCCAAGTGCCAGACGAAATGCCCCTT
AATTTTGACCTCTGCTCTGGTGTGGTGGCCGAGCCTGGAGCCTGTGCTGCTCTGCCGGTGGAGGAGACACTGCCA

FIGURE 3428B

GAGCCCGCTGCCCCGGGAACTGCAGAAGCTACAAGAAGGCCGGCAGTTTGCCAGCGATTTCCTCTCCCCTGAGGC
TGCCTCCCCAGCACCCAACCCGGACTGGCTCTCAGCTGCTGCACTGCACTTTGCGATTCAACAAGTCAGGGAAGA
AAACATCAGGAAGCAGCTAAAGAAGCTGGACTGCGAGAGAGAGGAGCTATTGGTTTTCCTTTTCTTCTTCTCCTT
GATGGGCCTGCTGTCGTCACATCTGACCTCAAATAGCACCACAGACCTGCCAAAGGCTTTCCACGTTTGTGCAGC
AATCCTCGAGTGTTTAGAGAAGAGGAAGATATCCTGGCTGGCACTCTTTCAGTTGACAGAGAGTGACCTCAGGCT
GGGGCGGCTCCTCCTCCGTGTGGCCCCGGATCAGCACACCAGGCTGCTGCCTTTCGCTTTTTACAGTCTTCTCTC
CTACTTCCATGAAGACGCGGCCATCAGGGAAGAGGCCTTCCTGCATGTTGCTGTGGACATGTACTTGAAGCTGGT
CCAGCTCTTCGTGGCTGGGGATACAAGCACAGTTTCACCTCCAGCTGGCAGGAGCCTGGAGCTCAAGGGTCAGGG
CAACCCCGTGGAACTGATAACAAAAGCTCGTCTTTTTCTGCTGCAGTTAATACCTCGGTGCCCGAAAAAGAGCTT
CTCACACGTGGCAGAGCTGCTGGCTGATCGTGGGGACTGCGACCCAGAGGTGAGCGCCGCCCTCCAGAGCAGACA
GCAGGCTGCCCCTGACGCTGACCTGTCCCAGGAGCCTCATCTCTTC**TGA**CGGGACCTGCCACTGCACACCAGCCC
AGCTCCCGTGTAAATAATTTATTACAAGCATAACATGGAGCTCTTGTTGCACTAAAAAGTGGATTACAAATCTCC
TCGACTGCTTTAGTGGGGAAAGGAATCAATTATTTATGAACTGTCCGGCCCCGAGTCACTCAGCGTTTGCGGGAA
AATAAACCACTGGTCCCAGAGCAGAGGAAGGCTACTTGAGCCGGACACCAAGCCCGCCTCCAGCACCAAGGGCGG
GCAGCACCCTCCGACCCTCCCATGCGGGTGCACACGAAGGGTGAGGCTGACACAGCCACTGCGGAGTCCAGGCTG
CTAGAGGTGCTCATCCTCACTGCCGTCCTCAGGTGGGTTCGGGCTTCACCGCCTGGCCCTCTGTGGTCACAGAGG
GGCTCGGTGGCCCAGGTGGTGGTTCCGCCTCCAGGGGCAGGGCCTTGTCCTGGGTCTGTGTCAGCGGGTGCACCA
TGGACATGTGTACATTGAGGTTGTGGGCCTTCTCAAACCGCCGGCCACACTGGTCACAGGCAAAGTCCAGCTCAG
TCTCAGCCTTGTGTTTGGTCATGTGGTACTTGAGGGATGCCCGCTGCCTGCACTGGAACCCACAGACCTCACACC
TGGGGGACAGAGGCAGATAAGAAGGTGCGAGGGCCACAGCCCTGGGAGGGGGTCCTGACTCACACTTACTGCAAA
GGCTTGGCTCCCGAATGTCGCATTTGGTGGACGAGAAGGTGCTTCCGCTGCTTGAAGGTTTGTCCACATTCGTCA
CAGATATAGTTCCGCACCTCTGAGAGGGGAGAGTCCAGTGAGTCCAGGCCCCTGATGCTCCAACCTCCCGGGGGG
ACGACGATGACAATGTGAAACCATCACAGCTGGGAAGACATTTCTGCACATGGTTCACCATGCAGTGGGCCCAAG
CAAGGGGCCTATGAGGGCCTCGTTTATTAAGATCTTTAAACTGCTTTATACACTGTCACGTGGCTTCATCAGCTG
TGTGCATTTCAGGATGGTTTTTAAAGAAACCTCAGAAAGCTATTTCCTT

FIGURE 3429A

CCCACGGGTGTTAGTGGCGGGGGCGGCAGAGTCCGGGTGGGTTGTCGCGACGGAGCCGGGCCTCTTCGCCGTCTT
GAGACGGGGCTGGCGAGAAGGGCCCCTCACGGAGTTGCCATGGGCGTCTAACCGCGGCAGCCAGGCCCCTCTCTA
CGTGAGACCCCGGCCCCCCTCCCCTTTCTGCAGCCCGCCCGCCACCTGCGCGCCGCGTGGCCTCCGCCGGCGCCT
GCCCGCCCCGCGCCTCCGTCTCCCACGGAGCAGGCCGGGCTCTCGCC**ATG**GGTCACTGTCGCCTCTGCCACGGGA
AGTTTTCCTCGAGAAGCCTGCGCAGCATCTCCGAGAGGGCGCCTGGAGCGAGCATGGAGAGGCCATCCGCAGAGG
AGCGCGTGCTCGTACGGGACTTCCAGCGCCTGCTTGGTGTGGCTGTCCGCCAGGACCCCACCTTGTCTCCGTTTG
TCTGCAAGAGCTGCCACGCCCAGTTCTACCAGTGCCACAGCCTTCTCAAGTCCTTCCTGCAGAGGGTCAACGCCT
CCCCGGCTGGTCGCCGGAAGCCTTGTGCAAAGGTCGGTGCCCAGCCCCCAACAGGGGCAGAGGAGGGAGCGTGTC
TGGTGGATCTGATCACATCCAGCCCCCAGTGCCTGCACGGCTTGGTGGGGTGGGTGCATGGACATGCGGCCAGCT
GCGGGGCCCTGCCCCACCTTCAGAGGACACTGTCCTCCGAGTACTGCGGCGTCATCCAGGTCGTGTGGGGCTGCG
ACCAGGGCCACGACTACACCATGGATACCAGCTCCAGCTGCAAGGCCTTCTTGCTGGACAGTGCGCTGGCAGTCA
AGTGGCCATGGGACAAAGAGACGGCGCCACGGCTGCCCCAGCACCGAGGGTGGAACCCTGGGGATGCCCCTCAGA
CCTCCCAGGGTAGAGGGACAGGGACCCCAGTTGGGGCTGAGACCAAGACCCTGCCCAGCACGGATGTGGCCCAGC
CTCCTTCGGACAGCGACGCGGTGGGGCCCAGGTCGGGCTTCCCACCTCAGCCAAGCCTGCCCCTTTGCAGGGCCC
CAGGGCAGTTGGGTGAGAAGCAGCTTCCATCTTCAACCTCGGATGATCGGGTAAAAGACGAGTTCAGTGACCTTT
CTGAGGGAGACGTCTTGAGTGAAGATGAAAATGACAAGAAGCAAAATGCCCAGTCTTCGGACGAGTCCTTTGAGC
CTTACCCAGAAAGGAAAGTCTCTGGTAAGAAGAGTGAAAGCAAAGAAGCCAAGAAGTCTGAAGAACCAAGAATTC
GGAAGAAGCCGGGACCCAAGCCCGGATGGAAGAAGAAGCTTCGTTGTGAGAGGGAGGAGCTTCCCACCATCTACA
AGTGTCCTTACCAGGGCTGCACGGCCGTGTACCGAGGCGCTGACGGCATGAAGAAGCACATCAAGGAGCACCACG
AGGAGGTCCGGGAGCGGCCCTGCCCCCACCCTGGCTGCAACAAGGTTTTCATGATCGACCGCTACCTGCAGCGCC
ACGTGAAGCTCATCCACACAGCTGTGATGGTTTCACATTGTCATCGTCGTCCCCCCGGGAGGTTGGAGCATCAGG
GGCCTGGACTCACTGGACTCTCCCCTCTCAGAGGTGCGGAACTATATCTG**TGA**CGAATGTGGACAAACCTTCAAG
CAGCGGAAGCACCTTCTCGTCCACCAAATGCGACATTCGGGAGCCAAGCCTTTGCAGTGTGAGGTCTGTGGGTTC
CAGTGCAGGCAGCGGGCATCCCTCAAGTACCACATGACCAAACACAAGGCTGAGACTGAGCTGGACTTTGCCTGT
GACCAGTGTGGCCGGCGGTTTGAGAAGGCCCACAACCTCAATGTACACATGTCCATGGTGCACCCGCTGACACAG
ACCCAGGACAAGGCCCTGCCCCTGGAGGCGGAACCACCACCTGGGCCACCGAGCCCCTCTGTGACCACAGAGGGC
CAGGCGGTGAAGCCCGAACCCACCTGAGGACGGCAGTGAGGATGAGCACCTCTAGCAGCCTGGACTCCGCAGTGG
CTGTGTCAGCCTCACCCTTCGTGTGCACCCGCATGGGAGGGTCGGAGGGTGCTGCCCGCCCTTGGTGCTGGAGGC
GGGCTTGGTGTCCGGCTCAAGTAGCCTTCCTCTGCTCTGGGACCAGTGGTTTATTTTCCCGCAAACGCTGAGTGA
CTCGGGGCCGGACAGTTCATAAATAATTGATTCCTTTCCCCACTAAAGCAGTCGAGGAGATTTGTAATCCACTTT
TTAGTGCAACAAGAGCTCCATGTTATGCTTGTAATAAATTATTTACACGGGAGCTGGGCTGGTGTGCAGTGGCAG
GTCCCGTCAGAAGAGATGAGGCTCCTGGGACAGGTCAGCGTCAGGGGCAGCCTGCTGTCTGCTCTGGAGGGCGGC
GCTCACCTCTGGGTCGCAGTCCCCACGATCAGCCAGCAGCTGTGAGAGAGGAGCAGGTCCTCAGCCCATGCCGCC
CACTAGGCCTCAGACCACAGGGGAGGGGCTCTGGCAGAAATAGTCGAGTTGTATTGCCAGCCAGGCAGGCACATG
GCCCAGGCAGCTGTCAATTCTCATGTCCCCCACATGGCCCAAGGTGGGCATCTTGACGTTACCTCTGCCACGTGT
GAGAAGCTCTTTTTCGGGCACCGAGGTATTAACTGCAGCAGAAAAAGACGAGCTTTTGTTATCAGTTCCACGGGG
TTGCCCTAGAGAGAAAACAGGCAAACTCACAGGTTAGAAGACATACAGAAACAGGGCTGGTGTGTCCCCCATAGT
CTGCATGCTGTGCCGGAACATTCTTTGGCAGAAGGAGCCTCCGGCTGGGGGGAGCTCCCCTGGAGGTGGGACTGG
CCCTTGCACCTGCCTGACCCTTGAGCTCCAGGCTCCTGCCAGCTGGAGGTGAAACTGTGCTTGTATCCCCAGCCA
CGAAGAGCTGGACCAGCTTCAAGTACATGTCCACAGCAACATGCAGGAAGGCCTCTTCCCTGATGGCCGCGTCTT
CATGGAAGTAGGAGAGAAGACTAGAGGTAAAGACATAGTGACAAATGGCTACAGACTGCTGGAAAGGTAGCAGGT
GATGCCAAGGGATACTGCTCATCTGTGGAGCAGAGGCACAGACAACCCTTCCCATCTGGCGGGACCCAGAGGTGC
TGAGATGGGGGTCTGGGAAACACTGCCCAGCCCTGACCAGCCCTGTGGGTGGAGGTACCTGTAAAAAGCGAAAGG
CAGCAGCCTGGTGTGCTGATCCGGGGCCACACGGAGGAGGAGCCGCCCCAGCCTGAGGTCTGCAACACCAAGAAG
TGGCTCAGGCAACTCTGGACATCTCTGCCTATTATCAGTGCTGGGGACACCCCTGGGGGTCGGGACGTGTACCCT
GGGAGGCCTGGCTGTGGGGATAGTGTGGGGCGAACAGCCTGAGCTGAGGATACCCAGGTACCTGTCAGCAGCTGG
GAGAGGATGGGGGGGTCGACCTCTTGCAGGAGGGTGGGTGTGGTGCAGAGAGAGGCAGTCCCCATGATAGGCCCA
TTGGTCCTGGGGGTTGACCAGTGAGCCAGTAAATTATCTTATTGCTTTAAACAAGTTTGTGCTTAATCTGTCCCAA

FIGURE 3429B

CTAAAATGGAGCTTATAAACTTACTTAGCAAGG

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FIGURE 3430

GCGGCCGCGTCCCTTCCTGCGGTCCGCTGCTCGGGCGGCTCCAGCACCAGCGCCGGCTGCGTTCCGGGCCTCCGG
TCGCCCGTCCAGCCCCTCGGCTACCGCCGCCGCCTCCCCCGCTCGGCGCC**ATG**GCCGCTGCGGCCGGGGACGGCA
CGGTGAAGCCGCTGCAGAGCGCCATGAAGCTTGCCAACGGGGCCATCGAGCTGGACACCGGCAACCGGCCCCGGG
AGGCATACACGGAATACCTGAGGAGCATCCACTATATCTCCCAGGTGTTACTAGAAGAAGTGGAAACCACTAAAG
AAGCTGGGGAAACTGTGCCCCCCGACACCTCCAAGATGCTGAAGCTAGCACAGCAGTGTCTGGAGAGGGCCCAGT
CGACGGCCGCCAAGCTTGGGAAAACACGCCTGAAGCCAACCATGCCTGCAGCTGCTCCCATTCCCCAGCCTGCCG
GCCGACACCGCCGTGTATACTCCGATGAAGGAGGAAAGCTCTCTCCTTTTCTGCCACCCGAGATCTTCCAGAAGC
TTCAGGGGGCAGAGTCACAAAGCTGTAAGAAAGAGCTGACGCCACTGGAGGAGGCCTCCCTGCAGAATCAGAAGC
TGAAGGCTGCGTATGAGGCCCGAATGGCGCGGCTAGACCCCAGCCAGGCCATGCAGAAGACATCCCTGACCCTCT
CTCTACAGCGGCAGATGATGGAGAACCTAGTGATTGCCAAAGCCCGGGAGGAGACACTCCAGAGAAAGATGGAGG
AGCGCCGGCTGCGGCTCCAGGAGGCCGCCAACAGGAGGTTTTGCAGCCAAGTCGCCCTGACCCCGGAGGAACGGG
AGCAGCGGGCCCTTTACGCCGCCATCCTGGAGTACGAACAGGACCATGACTGGCCGAAGCACTGGAAGGCCAAGC
TCAAGAGGAATCCGGGGGACCTGTCACTCGTGACCAGCCTGGTCTCACACCTGCTCAGCCTCCCCGACCACCCGA
TCGCGCAGCTCCTGAGGCGGCTGCAGTGCTCCGTGTACAGCGCCCTGTATCCCGCCGTGAGCAGAGCAGCCGCGC
CAGCCCCAGGCTGCTGCCCCCCGACCCCCAACCCCGGAAGCCGACGGCTGCGGCCCTCGCAGAGCCTCCATTGCA
TGCTGTCCCCGCCCGAGCCCAGCGCAGCCCCGCGGCCCCAGGACAGTCCCCCCACGCCCCCACTCCAACCCGGCC
CCGTGGGGTCTCCCTCACCCCTGGGGGACACCGCATCTGGATTGCCAGACAAGGACAGCTCGTTCGAGGACCTGG
AGCAGTTCCTGGGGACGTCTGAGCGGCAGGGCCGGGGCCGTGGGGTACAGCCGGAGCCCCAGCTGCAGCAGCTGA
AGACCGCGGTGGAGGAGATCCACAATGCCGTAGACAGGCTGCTCTCGCTGACCCTTCTGGCCTTCGAAGGCCTAA
ACACAGCTGCCTCCAAGGACCGCTGCCTGGCCTGCATTGAGGAACCCTTTTTCTCCCCGCTGTGGCCTCTGCTGC
TGGCCCTGTACAGGAGCGTGCACCGAGCCCGGGAGGCTGCCCTGAGCAGGAGCATGGAGCTCTACAGGAATGCAC
CCCCCACCGCCATTGGCATCCCCACCAAGCTCCTCCCCCAGAACCCTGAGGCCAAGGGGGCCACTGGCCTACCCC
TACTGCGCGGCGGCCCAGGAGCTCGGACTGCTGGTCCTGGAGAGCTGCCCCCAGAAGAAGCTGGAGTGCATAGTG
CGGACCCTGCGGATCATCTGTGTCTGTGCGGAAGACTACTGCCCCACCCCAGAGGCCACACCCCAGGCCGGGCCC
CCGCCCATCGCTGCAGCTGCCATTGGTGCCGA**TGA**CCTGCTGCCCATCCTGTCCTTCGTGGTGCTGAGGAGCGGC
CTCCCTCAGCTGGTGTCGGAGTGCGCGGCCCTGGAGGAGTTCATCCACGAGGGGTACCTGATCGGAGAGGAGGGC
TACTGCCTCACATCACTGCAGAGTGCCCTGAGCTACGTGGAGCTGCTGCCCCGGGGAGGCCTGGCCAAGTAGTAC
AGCTAGAGCCCAGGGTCCCTGCAGGGCCTGGCCTCGCCTCCCAGGGCTGTCTCTCCTACACCTGGAGCCATGGGA
TCTACTGAGGACCATCCTGGAGCCTCACGCTGCTCTGCACATGGTGGGGGCTTGTCCACTGTGGTGTGCTCTCCA
GCTCTTCACCTTCCTCACCTCACATCTGACCCTGGAGCTTGGGGTTGGCACCTCTGCCCCGACAGAATGGGGCTG
AATCAGCTCCAGGAGGAACCAGGCCCTGCTCTCCTGTGTAGGCCTCAGAGAGGCCAAGAAGGGAAGCTTTGGGCT
TCGGTGGGTGCAGGCTCAGCGATGAACATCTGGCTGGGGCAGCTCCTGGGGAGCATCAGGGAAGAGGGGGCCATG
AGCCGGCCAGCAGTGGAGACGGCAGTCCAGTTTCTCTCCCCTCTGACCCCTAGAAGGGGAGTTGTAGCCCCATGA
ACTAGTTTCTTGTCTGGGTCAGGAACAAGGGCCGGCTGGGGCCTGGGGTGCAGCTGGTGTCAGGGTATGCTGTTT
GCTGATGGGCAGGGACACCCCTGCAGGGTCTCGGGCTCTGAGCCCAGGACATTCCCTGCCCCTTACTCACCTTGG
CTGTGGGCTGTGAACATTCCGGGACCCTGGGCATCTTATCTAGGTCCGTGCAGCCCAAGGGTCAGCCCTCTTGAC
TGTCACATGCTGCCCCCACCCAGCCTAAAATAAAGAGCTCACTGCTGTG

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FIGURE 3431

AGCGACTCACAAAAGGTCCTCGCGCCAGCGGCGTGCGTCACCATGGCGACCGCGCGCCGCGCAGCCGCGCCCCGC
CCCTCTGGCGGGACCGGCCACCATCCTCTCGCGAGAGCATCCCGTGCGACCGGAAGTGGGGCGGCGACCCCGGAA
GTCCCCGCCGGGTGCAGCTTGGTCGGTTCGATCGCCGCCGGGACCTGACACCGCCCGGAGTTGGCGTCCCTTCTC
CCTCTCCGAGTGCTGCTCCTGTCATTGTGGCC**ATG**GACGTTCACGGCGAAGCAGCTGGAGAAGCTGGCCAAGAAG
GCGGAGAAGGACTCCAAGGCGGAGCAGGCCAAAGTGAAGAAGGCCCTTCTGCAGAAAAATGTAGAGTGTGCCCGT
GTGTATGCCGAGAACGCCATCCGCAAGAAGAACGAAGGTGTGAACTGGCTTCGGATGGCGTCCCGCGTAGACGCA
GTGGCCTCCAAGGTGCAGACAGCTGTGACTATGAAGGGGGTGACCAAGAATATGGCCCAGGTGACCAAAGCCCTG
GACAAGGCCCTGAGCACCATGGACCTGCAGAAGGTCTCCTCAGTGATGGACAGGTTCGAGCAGCAGGTGCAGAAC
CTGGACGTCCATACATCGGTGATGGAGGACTCCATGAGCTCGGCCACCACCCTGACCACGCCGCAGGAGCAGGTG
GACAGCCTCATCATGCAGATCGCCGAGGAGAATGGCCTGGAGGTGCTGGACCAGCTCAGCCAGCTGCCCGAGGGC
GCCTCTGCCGTGGGCGAGAGCTCTGTGCGCAGCCAGGAGGACCAGCTGTCACGGAGGTTGGCCGCCTTGAGGAAC
TAGCCGTGCCCCGCCGGTGTGCACCGCCTCTGCCCCGTGATGTGCTGGAAGGCTCCTGTCCTCTCCCCACCGCGT
CTTGCCTTTGTGCTGACCCCGCGGGGCTGCGGCCGGCAGCCACTCTGCGTCTCTCACCTGCCAGGCCTGCGTGGC
CT**TAG**GGTTGTTCCTGTTCTTTTAGGTTGGGCGGTGGGTCTGTGTCCTGGTGTTGAGTTTCTGCAAATTTCTGGG
GGTGATTTCTGTGACTCTGGGCCCACAGCGGGGAGGCCAAGAGGGGCCCTGTGGACTTTCACCCAGCACTGTGGG
GGCCTTCAGACTCTGGGGCAGCAGACATGCTGCTTCCCATCAGCCAGAGGGGGTCAGGGCTGCCCTGTTGCCAAA
CAACTCCCTGAGGCCTCTCCGCACCACCTCAGCGGGCAGGAGGTCCCACCATGTGGACAGACATAGCCCAAGGAG
GCACCACAGGTCTATGTGTGCTGGGGGATGTCAGGTGCCACCCAACGCTGTCCTGGTGGTATTTACAATGACATC
CTCCTCCTCCATCACTCCAGGGGTGGTGTCTCGGCCGCCCCTACCAGCTGGCTGAGCCCCCTGGCCTCCTGCGCT
CCCTCACTTCCCTCAGTTCCCAAAGCTGCCCAGTCCATGGGGACAGAACCGTCACTCAGATCCACATTCAAGTGT
GCCCACCCTGCAGTCTTCATCCTCACTCAGCTGCTGCCTCTGGAGGTGCCTTTGGCCACATGTGCTGTGCTGTTT
GTCTCCTCGACAGGGAGCCTGTCCACCAGCAGGCTGCGGTCCCAGCGGGTGCGTCTGCAGCTCCTCCCCTTGGGC
AGCCTGGTTCTCCCGGAGGACCTTTCCTTGGGGCCCTGCTTCATGACGATGCTGCCTGTGTCACCCTCTACCATC
TGTAAACAACTGGGTGCCTTCCCCGACCACACCCCAATGCCTTCCCAGCTTGGAAGCCAAGGCAGCTGATGAAGG
GAGCTCAGGAGAGCCGTCTTCAGCTGGGCTGGGGTTGGGGCTGCTGTGAGGAAAACCTGCCATTGTGGCCCTGGA
GAGTCACCAGCAGCTCTTGGGAAGGACTTGCTGGGAGGCTGAGAGAGGCTTTGGGCACAGCCTGCTGTCTTTTCC
ATTTCCTAAAGTTTACTTCATTGTCTTGAGGCTTCCAGGTTTTGTTTTTGTTTTTGCCAAAGTAGAAAAGGCAGG
TGGTGGGCGGCTGGCAGGGAGTGCGGGTCCCCGCCCCTCTTCAGTCCTGCCCTCCCCTCCTCAGTCCTGCCCACC
CCGTGCAGCCCATGCTGAGGCTGCAGTGGTGTCGTGGGTGTTACGTGCAGGAACGTGGAGACCCTGACGTGGGCT
CACTGCGTTTGGTTTTCTTTTCAGAACTTGGGAGCCCCCAGGGAGGGGCTAGTGTTGGTAGGTCCTAGACGTGGA
TCCCTCCAGCCTCCCCAAAATCAACCCTGGTGTTGAGAGAACGTCCTTCTGTCCATCGTGGGTAACAGCCTTGGG
GAGGGTGCAGAGCTCTGCAGAGCCATGGGCCAGGTGGGGCTGCCTCAGTCCTGTCCCCTTGGGCACTGAGGAGAG
GGGCCCATTCACCTTTCTCCTAGAATGCTGTTGTAAATAAACAAATGGATCCCTGG

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FIGURE 3432

CTGGGTCCTGGCCTTTGGGCATCATCCAGCGCCATCGGCCTGGCGCTTCAGCCAACGCGGGAGTGGATGGGCCCC
TTCTTCTTCGCAGACAGCGTTCGGCCGCTGCCCGGGCTCTAGGCGCGGCCGGACGGCCCAGTCTGGAGGGTTCGG
GGCGGAGGCCCGGGGGGGTGCGCGCGCCCGGGGTCCGGCCTCTCACTCGCTCCCCTCTCGTCCGCAGCCGCAGGG
CCGTAGGCAGCC**ATG**GCGCCCAGCCGGAATGGCATGGTCTTGAAGCCCCACTTCCACAAGGACTGGCAGCGGCGC
GTGGCCACGTGGTTCAACCAGCCGGCCCGTAAGATCCGCAGACGTAAGGCCCGGCAAGCCAAGGCGCGCCGCATC
GCCCCGCGCCCCGCGTCGGGTCCCATCCGGCCCATCGTGCGCTGCCCCACGGTTCGGTACCACACGAAGGTGCGC
GCCGGCCGCGGCTTCAGCCTGGAGGAGCTCAGGGTGGCCGGCATTCACAAGAAGGTGGCCCGGACCATCGGCATT
TCTGTGGATCCGAGGAGGCGGAACAAGTCCACGGAGTCCCTGCAGGCCAACGTGCAGCGGCTGAAGGAGTACCGC
TCCAAACTCATCCTCTTCCCCAGGAAGCCCTCGGCCCCCAAGAAGGGAGACAGTTCTGCTGAAGAACTGAAACTG
GCCACCCAGCTGACCGGACCGGTCATGCCCGTCCGGAACGTCTATAAGAAGGAGAAAGCTCGAGTCATCACTGAG
GAAGAGAAGAATTTCAAAGCCTTCGCTAGTCTCCGTATGGCCCGTGCCAACGCCCGGCTCTTCGGCATACGGGCA
AAAAGAGCCAAGGAAGCCGCAGAACAGGATGTTGAAAAGAAAAAA**TAA**AGCCCTCCTGGGGACTTGGAATCAGTC
GGCAGTCATGCTGGGTCTCCACGTGGTGTGTTTCGTGGGAACAACTGGGCCTGGGATGGGGCTTCACTGCTGTGA
CTTCCTCCTGCCAGGGGATTTGGGGCTTTCTTGAAAGACAGTCCAAGCCCTGGATAATGCTTTACTTTCTGTGTT
GAAGCACTGTTGGTTGTTTGGTTAGTGACTGATGTAAAACGGTTTTCTTGTGGGGAGGTTACAGAGGCTGACTTC
AGAGTGGACTTGTGTTTTTTCTTTTTAAAGAGGCAAGGTTGGGCTGGTGCTCACAGCTGTAATCCCAGCACTTTG
AGGTTGGCTGGGAGTTCAAGACCAGCCTGGCCAACATGTCAGAACTACTAAAAATAAAGAAATCAGCCATG

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FIGURE 3433

TTTCAGGCCAAC**ATG**GCCGTGCTGCTGCTGCTGCTCCGTGCCCTCCGCCGGGGTCCAGGCCCGGGTCCTCGGCCG
CTGTGGGGCCCAGGCCCGGCCTGGAGTCCAGGGTTCCCCGCCAGGCCCGGGAGGGGGCGGCCGTACATGGCCAGC
AGGCCTCCGGGGGACCTCGCCGAGGCTGGAGGCCGAGCTCTGCAGAGCTTACAATTGAGACTGCTAACCCCTACC
TTTGAAGGGATCAACGGATTGTTGTTGAAACAACATTTAGTTCAGAATCCAGTCAGACTCTGGCAACTTTTAGGT
GGTACTTTCTATTTTAACACCTCAAGGTTGAAGCAGAAGAATAAGGAGAAGGATAAGTCGAAGGGGAAGGCGCCT
GAAGAGGACGAAGAGGAGAGGAGACGCCGTGAGCGGGACGACCAGATGTACCGAGAGCGGCTGCGCACCTTGCTG
GTCATCGCGGTTGTCATGAGCCTCCTGAATGCTCTCAGCACCAGCGGAGGCAGCATTTCCTGGAACGACTTTGTC
CACGAGATGCTGGCCAAGGGCGAGGTGCAGCGCGTCCAGGTGGTGCCTGAGAGCGACGTGGTGGAAGTCTACCTG
CACCCTGGAGCCGTGGTGTTTGGGCGGCCTCGGCTAGCCTTGATGTACCGAATGCAGGTTGCAAATATTGACAAG
TTTGAAGAGAAGCTTCGAGCAGCTGAAGATGAGCTGAATATCGAGGCCAAGGACAGGATCCCAGTTTCCTACAAG
CGAACAGGATTCTTTGGAAATGCCCTGTACTCTGTGGGGATGACGGCAGTGGGCCTGGCCATCCTGTGGTATGTT
TTCCGTCTGGCCGGGATGACTGGAAGGGAAGGTGGATTCAGTGCTTTTAATCAGCTTAAAATGGCTCGTTTCACC
ATTGTGGATGGGAAGATGGGGAAAGGAGTCAGCTTCAAAGACGTGGCAGGAATGCACGAAGCCAAACTGGAAGTC
CGCGAGTTTGTGGATTATCTGAAGAGCCCAGAACGCTTCCTCCAGCTTGGCGCCAAGGTCCCAAAGGGCGCACTG
CTGCTCGGCCCCCCCGGCTGTGGGAAGACGCTGCTGGCCAAGGCGGTGGCCACGGAGGCTCAGGTGCCCTTCCTG
GCGATGGCCGGCCCAGAGTTCGTGGAGGTCATTGGAGGCCTCGGCGCTGCCCGTGTGCGGAGCCTCTTTAAGGAA
GCCCGAGCCCGGGCCCCCTGCATCGTCTACATCGATGAGATCGACGCGGTGGGCAAGAAGCGCTCCACCACCATG
TCCGGCTTCTCCAACACGGAGGAGGAGCAGACGCTCAACCAGCTTCTGGTAGAAATGGATGGAATGGGTACCACA
GACCATGTCATCGTCCTGGCGTCCACGAACCGAGCTGACATTTTGGACGGTGCTCTGATGAGGCCAGGCCGACTG
GACCGGCACGTCTTCATTGATCTCCCCACGCTGCAGGAGAGGCGGGAGATTTTTGAGCAGCACCTGAAGAGCCTG
AAGCTGACCCAGTCCAGCACCTTTTACTCCCAGCGTCTGGCAGAGCTGACACCAGGATTCAGTGGGGCTGACATC
GCCAACATCTGCAATGAGGCTGCGCTGCACGCGGCGCGGGAGGGACACACTTCCGTGCACACTCTCAACTTCGAG
TACGCCGTGGAGCGCGTCCTCGCAGGGACTGCCAAAAAGAGCAAGATCCTGTCCAAGGAAGAACAGAAAGTGGTT
GCGTTTCATGAGTCGGGCCACGCCTTGGTGGGCTGGATGCTGGAGCACACGGAGGCCGTGATGAAGGTCTCCATA
ACCCCTCGGACAAACGCCGCCCTGGGCTTTGCTCAGATGCTCCCCAGAGACCAGCACCTCTTCACCAAGGAGCAG
CTGTTTGAGCGGATGTGCATGGCCCTGGGAGGACGGGCCTCGGAAGCACTGTCCTTCAACGAGGTCACTTCTGGG
GCACAGGACGACCTGAGGAAGGTCACCCGCATCGCCTACTCCATGGTGAAGCAGTTTGGGATGGCACCTGGCATC
GGGCCCATCTCCTTCCCTGAGGCGCAGGAGGGCCTCATGGGCATCGGGCGGCGCCCCTTCAGCCAAGGCCTGCAG
CAGATGATGGACCATGAAGCAAGACTGCTGGTGGCCAAGGCCTACAGACACACCGAGAAGGTGCTGCAGGACAAC
CTGGACAAGTTGCAGGCGCTGGCAAACGCCCTTCTGGAAAAGGAAGTGATAAACTATGAGGACATTGAGGCTCTC
ATTGGCCCGCCGCCCCATGGGCCGAAGAAAATGATCGCACCGCAGAGGTGGATCGACGCCCAGAGGGAGAAACAG
GACTTGGGCGAGGAGGAGACCGAAGAGACCCAGCAGCCTCCACTTGGAGGCGAAGAGCCGACTTGGCCCAAG**TAG**

TTGGGAGGTGTTGGCTGCACGTGCGGGTGGTCCGGGAAGTGAGGGCTCACTCAGCCACCCTGAGTTGCTTTTCAG
CTGAGGTTTGCACTTCCTCTCGCGGCCCTCAGTAGTCCCTGCACAGTGACTTCTGAGATCTGTTGATTGATGACC
CTTTTCATGATTTTAAGTTTCTCTGCAGAAACTACTGACGGAGTCCTGTGTTTGTGAGTCGTTTCCCCTATGGGG
AAGGTTATCAGTGCTTCCCGAGTGAGCATGGAACACTTCGAGTTCCCAGGGTTATAGACAGTCGTTCCCAGTGTG
GCTGAGGCCACCCAGAGGCAGCAGAGCATTCAGACTCCAAACAGACCCCTGTTCATGCCGACGCTTGCACGACCG
CCCCAGTTCCTGTGGCTCCCTCGGAATGCTAAGGGGATCGGACATGAAAGGACCCTGTGAGCCGATTGTCCTATC
TCCAGCGGCCCTGTCATCCAGCTCACTCATCAATGGGGCCAGTCAGGCCCAGGCACTGGGCTCCGGAGGACTCAC
CACTGCCCCCTGCTGCCATGTGGACTGGTGCAAGTTGAGGACTTCTTGCTGGTCTAGTCACGCATGCAGTGTTGG
GGATGCCTTGGTTTTTACTGCTCTGAGAATTGTTGAGATACTTTACTAATAAACTGTGTAGTTGG

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FIGURE 3434

GGGGAGGCGCCGCCGCCGAGCCCGCGGCCAGACGCCCCATCAGTAGCGTCCGCACCGGGAGCCGCGGCTCTCGCC
CGAGCCGTGGGCGCGCCCGAGGGGCGGGCTCGCCTCCCGCCGTCCCTCGCAGCTCTGCCGGGCCCGAGCCCGCGC
CGCCGGCCGCCGGCCGCCTTGCCGCTCGGCCGCGCGGCCCGGGAAACGCGGCCGCGGGCTGCATGGGCAGCGCCC
GCGCCCCGCCGCTGAGCCGTCGCGGAACCTGGCAGCCCTCGGAGCACGAATATATACAGCCCTGCTCTGGGACAC
ACCTCCATTGGATTTAAAAGACAGTCCTCGTCAGCACTGACTTTCAGCTATGGAATCGCAGACGGTTGATGATGA
AGCGCCGGCCGTGTAAATGAAGATCGGGTGAGGAGCAGGACG**ATG**CCCAAGGGTGGGTGCCCTAAAGCACCACAG
CAGGAAGAGCTTCCCCTCAGCAGCGACATGGTGGAGAAGCAGACTGGGAAAAAGGATAAAGATAAAGTTTCTCTA
ACCAAGACCCCAAAACTGGAGCGTGGCGATGGCGGGAAGGAGGTGAGGGAGCGAGCCAGCAAGCGGAAGCTGCCC
TTCACCGCGGGCGCCAATGGGGAGCAGAAGGACTCGGACACAGGACCGCCGGGGTCCTGCTTGTCCTGGGGCAGC
CACGAGGGAGCCCTCGTCAGGAGCGCCATGGGCCGAAGCTGCCTGCCCTCTGCACGTGGATGTTTCTTTGGAACA
AGGGGAAAAATTATGATTTTCTTATTTTGCTTTGACCTG**TGA**ATGACACCCTGGTCTCTGGTGCCTGGGGTGTGC
TCTCTGCAGTGCTGCCAGGCACATGCTGGTTCCTTCAGCGTTAGGTGCTTGGCACCTTCAGTCTTTTCCTGACGT
CATGTTTGTTCCTGGTGCCTCAGATAGGAGACGGCTGTTCTGACGGCTCCTGCTTCCCCATTCCTGGAGGGAAGA
CAGACTTAGCCACTGGTATCTGTGGGACTTCTTGGAACTCTGAATGCCAGACCTTGCCCAGTGCTAGAGGCGACA
AGTGTGTGAAGTTGAAGAGGCTTCTCCCACCCGCTCAGCTGCAGTGGACCCGAGCGGGCAGAGAGAGCAGAGTGC
AGCAGGGGCCAGGCTGTGCTCGCAGGCGGGGCAGGTGCCTGGAGAGCATGGCGCCCCTGGGAGCCTCTGGCCAGG
AAGGGCATGTGCACTGCAGTGTGCCGTGGACCAGTGGCCTCAGCTCAGTGTGTTGACGAGGGTCCCAAGGCACTC
ACGTGTGTGGGGATGTTAGCAACACACGGCGGGAAGCCCTGATGCAGTTTCTCACCAAGCGTGTAGCAGACCCCA
CGCACCCCACACAGGTCAGGCACCCCACACAGGGCACAGACCCCACACACCCCACACAGGGCAGGCACCCCACAC
AGGGCACAGACCCCACGCACCCCACACAGGGCAGG

FIGURE 3435

TAGTTTTATCTCTATACCCAAAATGGAGGTTAAAAGTTACACTAAAAATAACACGATTGCACCAAAGAAAGCGTC
CCATCGTATCCTGTCAGACACGTCGGACGAGGAGGACGCGAGTGTCACCGTGGGGACAGGAGAGAAGCTGAGACT
CTCGGCACATACGATATTGCCTGGTAGTAAGACACGAGAGCCTTCTAATGCCAAGCAGCAGAAGGAAAAAAATAA
AGTGAAAAAGAAGCGAAAGAAAGAAACAAAAGGCAGAGAGGTTCGCTTCGGAAAGCGGAGCGACAAGTTCTGCTC
CTCGGAGTCGGAGAGCGAGTCCTCAGAGAGTGGGGAGGATGACAGGGACTCTCTGGGGAGCTCTGGCTGCCTCAA
GGGGTCCCCGCTGGTGCTGAAGGACCCCTCCCTGTTCAGCTCCCTCTCTGCCTCCTCCACCTCGTCTCACGGGAG
CTCTGCCGCCCAGAAGCAGAACCCCAGCCACACAGACCAGCACACCAAGCACTGGCGGACAGACAATTGGAAAAC
CATTTCTTCCCCGGCTTGGTCAGAGGTCAGTTCTTTATCAGACTCCACAAGGACGAGACTGACAAGCGAGTCTGA
CTACTCCTCTGAGGGCTCCAGTGTGGAATCGCTGAAGCCAGTGAGGAAGAGGCAGGAGCACAGGAAGCGAGCCTC
CCTGTCGGAGAAGAAGAGCCCCTTCCTGTCCAGCGCGGAGGGCGCTGTCCCCAAACTGGACAAGGAGGGGAAAGT
TGTCAAAAAACATAAAACAAAACACAAACACAAAAACAAGGAGAAGGGACAGTGTTCCATCAGCCAAGAGCTGAA
GTTGAAAAGTTTTACTTACGAATATGAGGACTCCAAGCAGAAGTCAGATAAGGCTATACTGTTAGAGAATGATCT
TTCCACTGAAAACAAGCTAAAAGTGTTAAAGCACGATCGCGACCACTTTAAAAAAGAAGAGAAACTTAGCAAAAT
GAAATTAGAAGAAAAAGAATGGCTCTTTAAAGATGAAAAATCACTGAAGAGAATCAAAGACACAAACAAAGACAT
CAGCAGGTCTTTCCGAGAAGAGAAAGACCGTTCGAATAAAGCAGAAAAGGAGAGATCGCTGAAGGAAAAGTCTCC
GAAAGAAGAAAAACTGAGACTGTACAAAGAGGAGAGAAAGAAGAAATCAAAAGACCGGCCCTCAAAATTAGAGAA
GAAGAATGATTTAAAAGAGGACAAAATTTCAAAAGAGAAGGAGAAGATTTTTAAAGAAGATAAAGAAAAACTCAA
AAAAGAAAAGGTTTATAGGGAAGATTCTGCTTTTGACGAATATTGTAACAAAAATCAGTTTCTGGAGAATGAAGA
CACCAAATTTAGCCTTTCTGACGATCAGCGAGATCGGTGGTTTTCTGACTTGTCCGATTCATCCTTTGATTTCAA
AGGGGAGGACAGCTGGGACTCGCCAGTGACAGACTACAGGGACATGAAGAGCGACTCTGTGGCCAAGCTCATCTT
GGAGACGGTGAAGGAGGACAGCAAGGAGAGGAGGCGGGACAGCCGGGCCCGGGAGAAGCGAGACTACAGAGAGCC
CTTCTTCCGAAAGAAGGACAGGGACTATTTGGATAAAAACTCTGAGAAGAGGAAAGAGCAGACTGAAAAGCATAA
AAGTGTCCCTGGCTACCTTTCGGAAAAGGACAAGAAGAGGAGAGAGTCCGCAGAGGCCGGGCGGGACAGAAAGGA
CGCCCTGGAGAGCTGCAAGGAGCGCAGGGACGGCAGGGCCAAGCCCGAGGAGGCGCACCGGGAGGAGCTGAAGGA
GTGTGGCTGCGAGAGTGGCTTCAAGGACAAGTCCGACGGCGACTTTGGGAAGGGCCTGGAGCCGTGGGAACGGCA
CCACCCAGCACGAGAGAAGGAGAAGAAGG**ATG**GCCCCGATAAGGAAAGGAAGGAGAAGACAAAACCAGAAAGATA
CAAAGAGAAATCCAGTGACAAGGACAAAAGTGAGAAATCAATCCTGGAAAAATGTCAGAAGGACAAAGAATTTGA
TAAATGTTTTAAAGAGAAAAAAGATACCAAGGAAAAACATAAAGACACACATGGCAAAGACAAAGAAAGGAAAGC
GTCTCTCGACCAAGGGAAAGAGAAGAAGGAGAAGGCTTTCCCTGGGATCATCTCAGAAGACTTCTCTGAAAAAAA
AGATGACAAGAAAGGCAAAGAGAAAAGCTGGTACATCGCAGACATCTTCACAGATGAGAGTGAGGACGACAGAGA
CAGCTGCATGGGGAGCGGGTTCAAGATGGGAGAGGCCAGCGACTTGCCGAGGACGGACGGCCTCCAGGAGAAGGA
GGAAGGACGGGAGGCCTATGCCTCCGACAGACACAGGAAGTCTTCTGACAAGCAGCACCCTGAGAGGCAGAAGGA
CAAGGAGCCCAGAGACAGGAGAAAGGACCGAGGGGCTGCCGACGCGGGGAGAGACAAAAAAGAGAAAGTCTTTGA
AAAGCACAAGGAGAAGAAGGATAAAGAGTCCACAGAAAAGTACAAGGACAGGAAGGACAGAGCCTCAGTGGACTC
CACGCAAGATAAGAAAAATAAACAGAAGCTCCCCGAGAAGGCTGAAAAGAAGCACGCTGCCGAAGACAAGGCTAA
AAGCAAACACAAAGAGAAGTCGGACAAAGAACATTCCAAGGAGAGGAAGTCCTCGAGAAGTGCCGACGCGGAAAA
AAGCCTGCTTGAAAAGTTGGAAGAAGAGGCTCTCCATGAGTACAGAGAAGACTCCAACGATAAAATCAGCGAGGT
CTCCTCTGACAGCTTCACGGACCGAGGGCAGGAGCCGGGGC**TGA**CTGCCTTCCTGGAGGTCTCTTTCACGGAGCC
ACCTGGAGACGACAAGCCGAGGGAGAGCGCCTGCCTCCCTGAGAAGCTGAAAGAGAAGGAGAGGCACAGACACTC
CTCATCTTCATCCAAGAAGAGCCACGACCGAGAGCGAGCCAAGAAAGAGAAGGCCGAGAAGAAAGAGAAGGGCGA
AGATTACAAGGAGGGCGGTAGCAGGAAGGACTCCGGCCAGTACGAAAAGGACTTCCTGGAGGCGGATGCTTACGG
AGTTTCTTACAACATGAAAGCTGACATAGAAGATGAGCTAGATAAAACCATTGAATTGTTTTCTACCGAAAAGAA
AGATAAAAATGATTCCGAGAGAGAACCTTCCAAG

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FIGURE 3436

CTGTCTTACAGCTGATCCGGTTCTTGCGGCGGTGCGTGCTGGCGCCGGAGAGTTCCGCGCGTGTCCTCGGGCTGT
CCGCGGGGAAGCTGGTCCGGGAGTGGGCGCCCGCCCGCCTGCCTCGCGCCTTGCGCCCCCGGCACCGCTTCCAGA
AGGGAAAGTCGCCGCCGCTCGCGGTAGACCCGGGCAGCGCTTCCATTCCGCGGAGCTGGAAATAGGGATCCAGCC
ATCCGTGGGTCAGGAGGAATGGAGACTGTACCTTCCACATAGATTCACAAGCTGCCCTGCAGTGGCCTTGGCTTC
AGGAAAGGAGCATTCAGACGCTTCCGTCAGCCTCCCAGG**ATG**GCAGCCCCTGACCTGGCCCACGGAGGTCATGTT
TCTAGGGACTCAGTCTGCCTTCATGAAGAACAGACACAGGCAGCAGGGATGGTGGCTGGCTGGCTGATAAATTGT
TACCAGGACGCGGTGACCTTTGACGACGTGGCTGTGGACTTCACCCAGGAGGAATGGACTTTACTGGACCCATCT
CAGAGAGACCTCTACAGAGATGTGATGCTGGAAAACTACGAGAACCTGGCCTCAGTAGAATGGCGACTTAAAACC
AAAGGGCCAGCACTTCGGCAGGATAGATCTTGGTTCAGAGCATCAAATGAGACACAGACGGCAAGAAGCCACAAT
GGAGGGCAGCTCTGTGACCGCACGCAGTGTGGAGAAGCTTTCAGTGAACACTCAGGCCTCAGCACACACGTGAGA
ACTCAAAATACAGGAGACAGTTGTGTGTCTAATCATTATGAAAGGGACTTTTTTATTCCATGCCAGAAAACCTTG
TTCAAAATTGGAGAGCAGTTTTCCGTGTTGGGTCAGTGTGGAAAAGCCTTCAGCTCTACTCCAAATGTTGTTTCC
CAGCAAGCATGCACTCGGGACAGATCTCTTGACTACAGCAGCTGTGGGGAAGTGTTCCTTAATCAGTCATACCTT
CAGGCACGTGCGGGAAGTCACAACGGAGAAGAAACATGGAAATGGAAGCCGTGTGGGAAAGCTCTAACTCACTCC
ATGGGCTGCGCCACACCTGTTGAAATGCATGCCGTCAGGAATCCCCACGTATGTAGGGAATGTGGGAAGGCCTTT
AGGTACACTGCCTACCTTACTGGTCGCGTGCAAGTCCACCCTGGGGAAAAGCCCTGTGAATTGGAAGAATGTGGA
AAAGCCTCCCCTGTTTCTTCCAGCCTAACTCAACATGTAAGAATTCATGCTGCAGAGAAACCCTGTGAATGTAAA
GAATGCGGAAAAGCCTTCACTGGACTCTCAGGTCTTTCTAAACACGTCCAAACAGACCCTGGACAGAAGCCCTAT
GAATGTAAGGACTGTGGGAAAGCCTGCGGTGGGTTTTATCTACTGAATGAGCATGGAAAAACTCACACGAGGGAG
AAGCCCTTTGCATGTGTGGTTTGCGGAAAATATTTTAGAAATTCCTCATGCCTTAATAATCATGTTCGAATTCAC
ACTGGAATAAAACCCTATACATGCAGCTACTGTGGGAAGGCCTTCACTGTGCGCTGTGGCCTTACTAGACACGTA
CGAACACACACGGGCGAGAAGCCATACACGTGTAAGGACTGCGGGAAAGCCTTCTGTACATCCTCGGGCCTTACT
GAGCATGTAAGGACTCACACTGGAGAGAAACCATATGAATGTAAAGATTGTGGGAAATCCTTCACTGTTTCTTCA
AGCCTGACTGAGCACGCGAGAATCCATACCGGAGAGAAACCCTACGAATGTAAGCAGTGTGGCAAAGCCTTCACA
GGGCGCTCAGGCCTCACTAAACACATGCGGACACACACCGGGGAGAAGCCCTATGAATGTAAGGACTGTGGGAAA
GCCTACAATAGGGTTTATCTACTGAATGAGCATGTGAAAACTCACACAGAGGAGAAGCCCTTTATATGTACGGTA
TGCAGGAAATCCTTCAGAAATTCCTCGTGCCTGAATAAGCACATTCAGATTCACACTGGAATAAAACCTTATGAA
TGTAAGGACTGTGGGAAAACATTCACTGTTTCTTCGAGCCTAACCGAGCACATACGAACTCACACTGGAGAGAAA
CCTTATGAATGTAAAGTATGCGGAAAGGCCTTCACCACATCCTCACACCTTATCGTGCACATAAGAACCCACACC
GGTGAGAAACCCTACATATGTAAGGAGTGTGGGAAAGCCTTTGCTTCCTCCTCACACCTTATCGAACACAGAAGG
ACTCACACAGGAGAGAAACCTTACATATGTAACGAGTGTGGGAAAGCCTTCCGTGCCTCCTCTCACCTGCATAAA
CATGGAAGAATTCACACTGGGCAGAAACCCTATAAATGTAAGGAATGTGGGAAAGCATACAATAGGTTTTATCTA
CTAAAAGAACATTTAAAAACTTACACTGAAGAGCAGGTTTTTGTATGTAAGGACTGTGGAAAATCTTTTAAGAAT
TCCTCATGCCTTAACCATCACACTCAAATTCACACTGATGAGAAACCTTTC**TAA**TGTAAAGAATGTGGGGAAGCT
GTCAGCTACACTCATTCACGTTGAAGACATGAAAGACCTCTCGTTCTCCAGATGTCCATGACTTGAGGAATGTGG
CTAGGCAATCAGCATCTCATCACAACCCGGCAGGCAGGAACTCACCCTGGAGCCCTATGCAGCAGACACAGAGAA
AGCCCTCAGTGTTCTCTAAGGTCTTGCTGAATATGGATGGTATCCAGTAGAGAGAACTCTATTGATGTGTGATAT
GCAGCAGCATTGTTGCTGTTCTGCTCAGTACTTTGATGATCCCTTGTGATCTCACAATGAAGAAAAACCTTAGGA
GGGTGAGAATTGTTGGGAAGTCATTTTTTACATTACATCTTTCCTCACCCTTTAGTAAACGTGGTGATTGAC

FIGURE 3437

AGGTGACCCCAGGGTTTGAAGAAAAGGAGGGGGAGCTGCTGGTGAGGGGACCCTCCGTGTTTCGAGAATACTGGA
ATAAACCAGAAGAAACTAAGAGTGCATTCACCCTGGATGGCTGGTTTAAGACAGGGGACACCGTGGTGTTTAAGG
ATGGCCAGTACTGGATCCGAGGCCGGACCTCAGTGGACATCATCAAGACTGGAGGCTACAAGGTCAGCGCCCTGG
AGGTGGAGTGGCACCTGCTGGCCCACCCCAGCATCACAGATGTGGCTGTGATTGGAGTTCCGGATATGACATGGG
GCCAGCGGGTCACTGCTGTGGTGACCCTCCGAGAAGGACACTCACTGTCCCACAGGGAGCTCAAAGAGTGGGCCA
GAA**ATG**TCCTGGCCCCGTACGCGGTGCCCTCGGAGCTGGTGCTGGTGGAGGAGATCCCGCGGAACCAGATGGGCA
AGATTGACAAGAAGGCGCTCATCAGGCACTTCCACCCCTCATGACCCGGCAGACTGGGACTGCGGGTCTGGTGGG
GAGCAGCAGACGTCCCCTTCACACCGAGAACCACGGGGGCCCGTCCAAGACCTGGCCTCCCTTAAACCTGAACCC
CCCAAATCAGGTCACGTAGAATCAAGAACTGTTTGGGATGAAATCACCATGTGGGGTCCCCAGCCTCGGGCCAGT
TGTTGCAGCTCAAGGAGACCGTCCCTGGTGTCACCTCTGCCTGGTCACCGCCGACCTCATCTGTGCAGCGCGGTG
CAGCCAGCCCCTGGCCCCACGTGC**TGA**GGCACCTCCCGCCCCACAGTGCCCTGCAGTTGCCAGGCTCTCCAGGGC
AGGTCCCAGAGGTTTCCCACAAAAAACAAAGACTCCACTGGAGGAAAC

FIGURE 3438

TGCCAGCGGGGAGGCTGCAGCCGCGGGTTGTTACAGCTGCTGGAGCAGCAGCGGCCCCCGCTCCCGGGAACCGTT
CCCGGGCCGTTGATCTTCGGCCCCACACGAACAGCAGAGAGGGGCAGCAGG**ATG**AATGTGGGCACAGCGCACAGC
GAGGTGAACCCCAACACGCGGGTGATGAACAGCCGTGGCATCTGGCTCTCCTACGTGCTGGCCATCGGTCTCCTC
CACATCGTGCTGCTGAGCATCCCGTTTGTGAGTGTCCCTGTCGTCTGGACCCTCACCAACCTCATTCACAACATG
GGCATGTATATCTTCCTGCACACGGTGAAGGGGACACCCTTTGAGACCCCGGACCAGGGCAAGGCGAGGCTGCTA
ACCCACTGGGAGCAGATGGATTATGGGGTCCAGTTCACGGCCTCTCGGAAGTTCTTGACCATCACACCCATCGTG
CTGTACTTCCTCACCAGCTTCTACACTAAGTACGACCAGATCCATTTTGTGCTCAACACCGTGTCCCTGATGAGC
GTGCTTATCCCCAAGCTGCCCCAGCTCCACGGAGTCCGGATTTTTGGAATCAATAAGTAC**TGA**GAGTGCAGCCCC
TTCCCCTGCCCAGGGTGGCAGGGGAGGGGTAGGGTAAAAGGCATGTGCTGCAACACTGAAGACAGAAAGAAGAAG
CCTCTGGACACTGCCAGAGATGGGGGTTGAGCCTCTGGCCTAATTTCCCCCCTCGCTTCCCCCAGTAGCCAACTT
GGAGTAGCTTGTAGTGGGGTTGGGGTAGGCCCCCTGGGCTCTGACCTTTTCTGAATTTTTTGATCTTTTCCTTTT
GCTTTTTGAATAGAGACTCCATGGAGTTGGTCATGGAATGGGCTGGGCTCCTGGGCTGAACATGGACCACGCAGT
TGCGACAGGAGGCCAGGGGAAAAACCCCTGCTCACTTGTTTGCCCTCAGGCAGCCAAAGCACTTTAACCCCTGCA
TAGGGAGCAGAGGGCGGTACGGCTTCTGGATTGTTTCACTGTGATTCCTAGGTTTTTTCGATGCCACGCAGTGTG
TGCTTTTGTGTATGGAAGCAAGTGTGGGATGGGTCTTTGCCTTTCTGGGTAGGGAGCTGTCTAATCCAAGTCCCA
GGCTTTTGGCAGCTTCTCTGCAACCCACCGTGGGTCCTGGTTGGGAGTGGGGAGGGTCAGGTTGGGGAAAGATGG
GGTAGAGTGTAGATGGCTTGGTTCNCAGAGGTGAGGGGGCCAGGGCTGCTGCCATCCTGGCCTGGTGGAGGTTGG
GGAGCTGTAGGAGAGCTAGTGAGTCGAGACTTAGAAGAATGGGGCCACATAGCAGCAGAGGACTGGTGTAAGGGA

FIGURE 3439

GGTTTGCAGCTGCTCCGTCATCGTGCGGCCCGACGCTATCTCGCGCTCGTGTGCAGGCCCGGCTCGGCTCCTGGT
CCCCGGTGCGAGGGTTAACGCGAGGCCCCGGCCTCGGTCCCCGGACTAGGCCGTGACCCCGGGTGCC**ATG**AAGCA
GGAGGGCTCGGCGCGGCGCCGCGGCGCGGACAAGGCGAAACCGCCGCCCGGCGGAGGAGAACAAGAACCCCCACC
GCCGCCGGCCCCCCAGGATGTGGAGATGAAAGAGGAGGCAGCGACGGGTGGCGGGTCGACGGGGGAGGCAGACGG
CAAGACGGCGGCGGCAGCGGCTGAGCACTCCCAGCGAGAGCTGGACACAGTCACCTTGGAGGACATCAAGGAGCA
CGTGAAACAGCTAGAGAAAGCGGTTTCAGGCAAGGAGCCGAGATTCGTGCTGCGGGCCCTGCGGATGCTGCCTTC
CACATCACGCCGCCTCAACCACTATGTTCTGTATAAGGCTGTGCAGGGCTTCTTCACTTCAAATAATGCCACTCG
AGACTTTTTGCTCCCCTTCCTGGAAGAGCCCATGGACACAGAGGCTGATTTACAGTTCCGTCCCCGCACGGGAAA
AGCTGCGTCGACACCCCTCCTGCCTGAAGTGGAAGCCTATCTCCAACTCCTCGTGGTCATCTTCATGATGAACAG
CAAGCGCTACAAAGAGGCACAGAAGATCTCTGATGATCTGATGCAGAAGATCAGTACTCAGAACCGCCGGGCCCT
AGACCTTGTAGCCGCAAAGTGTTACTATTATCACGCCCGGGTCTATGAGTTCCTGGACAAGCTGGATGTGGTGCG
CAGCTTCTTGCATGCTCGGCTCCGGACAGCTACGCTTCGGCATGACGCAGACGGGCAGGCCACCCTGTTGAACCT
CCTGCTGCGGAATTACCTACACTACAGCTTGTACGACCAGGCTGAGAAGCTGGTGTCCAAGTCTGTGTTCCCAGA
GCAGGCCAACAACAATGAGTGGGCCAGGTACCTCTACTACACAGGGCGAATCAAAGCCATCCAGCTGGAGTACTC
AGAGGCCCGGAGAACGATGACCAACGCCCTTCGCAAGGCCCCTCAGCACACAGCTGTCGGCTTCAAACAGACGGT
GCACAAGCTTCTCATCGTGGTGGAGCTGTTGCTGGGGGAGATCCCTGACCGGCTGCAGTTCCGCCAGCCCTCCCT
CAAGCGCTCACTCATGCCCTATTTCCTTCTGACTCAAGCTGTCAGGACAGGAAACCTAGCCAAGTTCAACCAGGT
CCTGGATCAGTTTGGGGAGAAGTTTCAAGCAGATGGGACCTACACCCTAATTATCCGGCTGCGGCACAACGTGAT
TAAGACAGGTGTACGCATGATCAGCCTCTCCTATTCCCGAATCTCCTTGGCTGACATCGCCCAGAAGCTGCAGTT
GGATAGCCCCGAAGATGCAGAGTTCATTGTTGCCAAGGCCATCCGGGATGGTGTCATTGAGGCCAGCATCAACCA
CGAGAAGGGCTATGTCCAATCCAAGGAGATGATTGACATCTATTCCACCCGAGAGCCCCAGCTAGCCTTCCACCA
GCGCATCTCCTTCTGCCTAGATATCCACAACATGTCTGTCAAGGCCATGAGGTTTCCTCCCAAATCGTACAACAA
GGACTTGGAGTCTGCAGAGGAACGGCGTGAGCGAGAACAGCAGGACTTGGAGTTTGCCAAGGAGATGGCAGAAGA
TGATGATGACAGCTTCCCT**TGA**GCTGGGGGGCTGGGGAGGGGTAGGGGGAATGGGGACAGGCTCTTTCCCCCTTG
GGGGTCCCCTGCCCAGGGCACTGTCCCCATTTTCCCACACACAGCTCATATGCTGCATTCGTGCAGGGGGTGGGG
GTGCTGGGAGCCAGCCACCCTGACCTCCCCCAGGGCTCCTCCCCAGCCGGTGACTTACTGTACAGCAGGCAGGAG
GGTGGGCAGGCAACCTCCCNCCNNGGCAGGGTCCTGGCCAGCAGTGTGGGAGCAGGAGGGGAAGGATAGTTCTGT
GTACTCCTTTAGGGAGTGGGGGACTAGAACTGGGATGTCTTGGCTTGTATGTTTTTTGAAGCTTCGATTATGATT
TTTAAACAATAAAAAGTTCTCC

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FIGURE 3440

CCAAACCGGCCTCCGTCCGGGCCCTGCTGTTTGACATCTCCTTCCTCATGCTGTGCCATGTGGCCCAGACCTATG
GTTCAGAGGTGATTCTGTCCGAGTCGCGCACAGGAGCTGAGGTGCCCTTCTTCGAGACCTGGATGCAGACCTGCA
TGCCTGAGGAGGGCAAGATCCTGAACCCTGACCACCCCTGCTTCCGCCCCGACTCCACCAAAGTGGAGTCCCTGG
TGGCCCTGCTCAACAACTCCTCGGAGATGAAGCTAGTGCAGATGAAGTGGCATGAGGCCTGTCTCAGCATCTCAG
CCGCCATCTTGGAAATCCTCAATGCCTGGGAGAATGGGGTCCTGGCCTTCGAGTCCATCCAGAAAATCACTGATA
ACATCAAAGGGNAAGGTATGCAGTCTGGCGGTGTGTGCTGTGGCTTNGGCTTGTGGCCCACGTCCGGATGCTGGG
GCTGGATGAGCGTGAGAAGTCGCTGCAGATGATCCGCCAGCTGGCAGGGCCNACTGTTTAGTGAGAACACCCTGC
AGTTCTACAATGAGAGGGTGGTGATC**ATG**AACTCGATCCTGGAGCGCATGTGTGCCGACGTGCTGCAGCAGACAG
CCACGCAGATCAAGTTTCCCTCCACCGGGGTGGACACAATGCCCTACTGGAACCTGCTGCCCCCCAAGCGGCCCA
TCAAAGAGGTGCTGACGGACATTTTTGCCAAGGTGCTGGAGAAGGGCTGGGTGGACAGCCGCTCCATCCACATCT
TTGACACCCTGCTGCACATGGGCGGCGTCTACTGGTTCTGCAACAACCTGATTAAGGAGCTGCTGAAGGAGACGC
GGAAGGAGCACACGCTGCGGGCAGTGGAGCTGCTCTACTCCATCTTCTGCCTGGACATGCAGCAAGTGACCCTGG
TCCTGCTGGGCCACATCCTACCTGGCCTGCTCACTGACTCCTCCAAGTGGCACAGCCTCATGGACCCCCCGGGCA
CTGCTCTTGCCAAGCTGGCCGTGTGGTGTGCCCTCAGTTCCTACTCCTCCCACAAGGGACAGGCGTCCACCCGCC
AGAAGAAGAGACACCGCGAAGACATTGAGGATTATATCAGCCTCTTCCCCCTGGACGATGTGCAGCCTTCGAAGT
TGATGCGACTGCTGAGCTCTAATGAGGACGATGCCAACATCCTTTCGAGCCCCACAGACCGATCCATGAGCAGCT
CCCTCTCAGCCTCTCAGCTCCACACGGTCAACATGCGGGACCCTCTGAACCGAGTCCTGGCCAACCTGTTCCTGC
TCATCTCCTCCATCCTGGGGTCTCGCACCGCTGGCCCCCACACCCAGTTCGTGCAGTGGTTCATGGAGGAGTGTG
TGGACTGCCTGGAGCAGGGTGGCCGTGGCAGCGTCCTGCAGTTCATGCCCTTCACCACCGTGTCGGAACTGGTGA
AGGTGTCAGCCATGTCCAGCCCCAAGGTGGTTCTGGCCATCACGGACCTCAGCCTGCCCCTGGGCCGCCAGGTGG
CTGCTAAAGCCATTGCTGCACTC**TGA**GGGGCTTGGCATGGCCGCAGTGGGGGCTGGGGACTGGCGCAGCCCCAGG
CGCCTCCAAGGGAAGCAGTGAGGAAAGATGAGGCATCGTGCCTCACATCCGCTCCACATGGTGCAAGAGCCTCTA
GCGGCTTCCAGTTCCCCGCTCCTGACTCCTGACCTCCAGGATGTCTCCCGGTTTCTTCTTTCAAAATTTCCTCTC
CATCTGCTGGCACCTGAGGAGAGTGAGCAGCCTGGACCACAAGCCCAGTGGTCACCCCTGTGTGCGCCCGCCCCA
GCCCAGGAGTAGTCTTACCTCTGAGGAACTTTCTAGATGCAAAGTGTGTATGTGTGTGTGTGTGTGTGTGTGT
GTGTTTGTGTGTATTTTGTAATATGTGAGGGAAATCTACCTTCGTTCATGTATAAATAAAGCTCCTCGTGGCTCC
CTT

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FIGURE 3441A

CACACACACACACACACACACACACACCCCAACACACACACACACACCCCAACACACACACACACACACACAC
ACACACACACACACACACACACACACACACACACAGCGGGATGGCCGAGCGCCGCACGCGTAGCACGCCGGGACTAG
CTATCCAGCCTCCCAGCAGCCTCTGCGACGGGCGCGGTGCGTAAGTACCTCGCCGGTGGTGGCCGTTCTCCGTAA
G**ATG**GCGGACCGGCGGCGGCAGCGCGCTTCGCAAGACACCGAGGACGAGGAATCTGGTGCTTCGGGCTCCGACAG
CGGCGGCTCCCCGTTGCGGGGAGGCGGGAGCTGCAGCGGTAGCGCCGGAGGCGGCGGCAGCGGCTCTCTGCCTTC
ACAGCGCGGAGGCCGAACCGGGGCCCTTCATCTGCGGCGGGTGGAGAGCGGGGGCGCCAAGAGTGCTGAGGAGTC
GGAGTGTGTGAGTGAAGATGGCATTGAAGGTGATGCTGTTCTCTCGGATTATGAAAGTGCAGAAGACTCGGAAGG
TGAAGAAGGTGAATACAGTGAAGAGGAAAACTCCAAAGTGGAGCTGAAATCAGAAGCTAATGATGCTGTTAATTC
TTCAACAAAAGAAGAGAAGGGAGAAGAAAAGCCTGACACCAAAAGCACTGTGACTGGAGAGAGGCAAAGTGGGGA
CGGACAGGAGAGCACAGAGCCTGTGGAGAACAAAGTGGGTAAAAAGGGCCCTAAGCATTTGGATGATGATGAAGA
TCGGAAGAATCCAGCATACATACCTCGGAAAGGGCTCTTCTTTGAGCATGATCTTCGAGGGCAAACTCAGGAGGA
GGAAGTCAGACCCAAGGGGCGTCAGCGAAAGCTATGGAAGGATGAGGGTCGCTGGGAGCATGACAAGTTCCGGGA
AGATGAGCAGGCCCCAAAGTCCCGACAGGAGCTCATTGCTCTTTATGGTTATGACATTCGCTCAGCTCATAATCC
TGATGACATCAAACCTCGAAGAATCCGGAAACCCCGATATGGGAGTCCTCCACAAAGAGATCCAAACTGGAACGG
TGAGCGGCTAAACAAGTCTCATCGCCACCAGGGTCTTGGGGGCACCCTACCACCAAGGACATTTATTAACAGGAA
TGCTGCAGGTACCGGCCGTATGTCTGCACCCAGGAATTATTCTCGATCTGGGGGCTTCAAGGAAGGTCGTGCTGG
TTTTAGGCCTGTGGAAGCTGGTGGGCAGCATGGTGGCCGGTCTGGTGAGACTGTTAAGCATGAGATTAGTTACCG
GTCACGGCGCCTAGAGCAGACTTCTGTGAGGGATCCATCTCCAGAAGCAGATGCTCCAGTGCTTGGCAGTCCTGA
GAAGGAAGAGGCAGCCTCAGAGCCACCAGCTGCTGCTCCTGATGCTGCACCACCACCCCCTGATAGGCCCATTGA
GAAGAAATCCTATTCCCGGGCAAGAAGAACTCGAACCAAAGTTGGAGATGCAGTCAAGCTTGCAGAGGAGGTGCC
CCCTCCTCCTGAAGGACTGATTCCAGCACCTCCAGTCCCAGAAACCACCCCAACTCCACCTACTAAGACTGGGAC
CTGGGAAGCTCCGGTGGATTCTAGTACAAGTGGACTTGAGCAAGATGTGGCACAACTAAATATAGCAGAACAGAA
TTGGAGTCCGGGGCAGCCTTCTTTCCTGCAACCACGGGAACTTCGAGGTATGCCCAACCATATACACATGGGAGC
AGGACCTCCACCTCAGTTTAACCGGATGGAAGAAATGGGTGTCCAGGGTGGTCGAGCCAAACGCTATTCATCCCA
GCGGCAAAGACCTGTGCCAGAGCCCCCCGCCCCTCCAGTGCATATCAGTATCATGGAGGGACATTACTATGATCC
ACTGCAGTTCCAGGGACCAATCTATACCCATGGTGACAGCCCTGCCCCGCTGCCTCCACAGGGCATGCTTGTGCA
GCCAGGAATGAACCTTCCCCACCCAGGTTTACATCCCCACCAGACACCAGCTCCTCTGCCCAATCCAGGCCTCTA
TCCCCCACCAGTGTCCATGTCTCCAGGACAGCCACCACCTCAGCAGTTGCTTGCTCCTACTTACTTTTCTGCTCC
AGGCGTCATGAACTTTGGTAATCCCAGTTACCCTTATGCTCCAGGGGCACTGCCTCCCCCACCACCGCCTCATCT
GTATCCTAATACACAGGCCCCATCACAGGTATATGGAGGAGTGACCTACTATAACCCCGCCCAGCAGCAGGTGCA
GCCAAAGCCCTCCCCACCCCGGAGGACTCCCCAGCCAGTCACCATCAAGCCCCCTCCACCTGAGGTTGTAAGCAG
GGGTTCCAGT**TAA**TACAAGTTTCTGAATATTTTAAATCTTAACATCATATAAAAAGCAGCAGAGGTGAGAACTCA
GAAGAGAAATACAGCTGGCTATCTACTACCAGAAGGGCTTCAAAGATATAGGGTGTGGCTCCTACCAGCAAACAG
CTGAAAGAGGAGGACCCCTGCCTTCCTCTGAGGACAGGCTCTAGAGAGAGGGAGAAACAAGTGGACCTCGTCCCA
TCTTCACTCTTCACTTGAGTTGGCTGTGTTCGGGGGAGCAGAGAGAGCCAGACAGCCCCAAGCTTCTGAGTCTAG
ATACAGAAGCCCATGTCTTCTGCTGTTCTTCACTTCTGGGAAATTGAAGTGTCTTCTGTTCCCAAGGAAGCTCCT
TCCTGTTTGTTTTGTTTTCTAAGATGTTCATTTTTAAAGCCTGGCTTCTTATCCTTAATATTATTTTAATTTTTT
CTCTTTGTTTCTGTTTCTTGCTCTCTCTCCCTGCCTTTAAATGAAACAAGTCTAGTCTTCTGGTTTTCTAGCCCC
TCTGGATTCCCTTTTGACTCTTCCGTGCATCCCAGATAATGGAGAATGTATCAGCCAGCCTTCCCCACCAAGTCT
AAAAAGACCTGGCCTTTCACTTTTAGTTGGCATTTGTTATCCTCTTGTATACTTGTATTCCCTTAACTCTAACCC
TGTGGAAGCATGGCTGTCTGCACAGAGGGTCCCATTGTGCAGAAAAGCTCAGAGTAGGTGGGTAGGAGCCCTTCT
CTTTGACTTAGGTTTTTAGGAGTCTGAGCATCCATCAATACCTGTACTATGATGGGCTTCTGTTCTCTGCTGAGG
GCCAATACCCTACTGTGGGGAGAGATGGCACACCAGATGCTTTTGTGAGAAAGGGATGGTGGAGTGAGAGCCTTT
GCCTTTAGGGGTGTGTATTCACATAGTCCTCAGGGCTCAGTCTTTTGAGGTAAGTGGAATTAGAGGGCCTTGCTT
CTCTTCTTTCCATTCTTCTTGCTACACCCCTTTTCCAGTTGCTGTGGACCAATGCATCTCTTTAAAGGCAAATAT
TATCCAGCAAGCAGTCTACCCTGTCCTTTGCAATTGCTCTTCTCCACGTCTTTCCTGCTACAAGTGTTTTAGATG
TTACTACCTTATTTTCCCCGAATTCTATTTTTGTCCTTGCAGACAGAATATAAAAACTCCTGGGCTTAAGGCCTA
AGGAAGCCAGTCACCTTCTGGGCAAGGGCTCCTATCTTTCCTCCCTATCCATGGCACTAAACCACTTCTCTGCTG

FIGURE 3441B

CCTCTGTGGAAGAGATTCCTATTACTGCAGTACATACGTCTGCCAGGGGTAACCTGGCCACTGTCCCTGTCCTTC
TACAGAACCTGAGGGCAAAGATGGTGGCTGTGTCTCTCCCCGGTAATGTCACTGTTTTTATTCCTTCCATCTAGC
AGCTGGCCTAATCACTCTGAGTCACAGGTGTGGGATGGAGAGTGGGGAGAGGCACTTAATCTGTAACCCCCAAGG
AGGAAATAACTAAGAGATTCTTCTAGGGGTAGCTGGTGGTTGTGCCTTTTGTAGGCTGTTCCCTTTGCCTTAAAC
CTGAAGATGTCTCCTCAAGCCTGTGGGCAGCATGCCCAGATTCCCAGACCTTAAGACACTGTGAGAGTTGTCTCT
GTTGGTCCACTGTGTTTAGTTGCAAGGATTTTTCCATGTGTGGTGGTGTTTTTTGTTACTGTTTTAAAGGGTGCC
CATTTGTGATCAGCATTGTGACTTGGAGATAATAAAATTTAGACTATAAACTTG

FIGURE 3442

ATGAGATCCGCGGTGTTCAAGGCGGCCGCGGCCCCTGCCGGCGGCAATCCTGAGCAGCGACTGGACTACGAGCGG
GCTGCGGCGCTGGGCGGGCCCGAGGACGAGCCTGGGGCGGCCGAAGCCCACTTCCTCCCCCGGCACCGTAAGCTC
AAGGAGCCGGGGCCCCCGCTGGCCTCCTCCCAGGGCGGGAGCCCCGCGCCTTCCCCGGCCGGCTGCGGCGGCAAG
GGCCGGGGCTTGTTACTCCCGGCCGGGGCGGCCCCCGGGCAGCAGGAAGAGAGCTGGGGCGGTTCGGTGCCCTTG
CCCTGTCCGCCCCCGGCCACCAAGCAAGCCGGCATTGGGGGGGAGCCTGCCGCAGCCGGAGCCGGCTGCAGCCCC
CGGCCCAAGTATCAGGCGGTGCTGCCCATTCAGACGGGCTCTCTCGTGGCGGCGGCCAAAGAGCCTACGCCCTGG
GCTGGGGACAAGGGTGGGGCGGCCTCCCCCGCTGCCACCGCCTCGGACCCGGCGGGACCCCCACCACTACCTCTG
CCCGGGCCGCCACCCCTCGCGCCCACCGCCACCGCCGGGACCCTGGCGGCCAGCGAGGGCAGATGGAAGAGTATG
AGGAAGAGCCCTCTCGGGGGTGGTGGCGGCTCGGGAGCCTCCAGTCAGGCCGCCTGCCTCAAACAGATCCTTCTG
CTGCAATTGGACCTCATCGAACAGCAGCAGCAGCAGCTGCAGGCCAAGGAAAAGGAGATCGAGGAGCTGAAGTCA
GAGAGAGACACGCTCCTTGCTCGGATTGAACGTATGGAAAGGCGGATGCAGCTGGTAAAGAAGGATAACGAGAAA
GAAAGGCACAAGCTGTTTCAGGGCTATGAAACTGAAGAGAGAGAGGAAACAGAGCTATCTGAGAAAATTAAACTG
GAGTGCCAGCCGGAGCTTTCCGAGACATCCCAGACTCTGCCTCCCAAGCCCTTCTCATGTGGGCGGAGTGGAAAG
GGACATAAAAGGAAATCCCCATTTGGAAGTACAGAAAGAAAGACTCCTGTTAAAAAGCTGGCTCCTGAATTTTCA
AAAGTCAAAACAAAAACTCCTAAGCACTCTCCTATTAAAGAGGAACCCTGTGGTTCCTTATCTGAAACTGTTTGT
AAACGTGAATTGAGGAGCCAAGAAACCCCAGAAAAGCCCCGGTCTTCAGTGGACACCCCACCAAGACTCTCCACT
CCCCAAAAGGGACCCAGCACCCATCCCAAGGAGAAAGCCTTCTCAAGTGAGATAGAAGATTTGCCGTACCTTTCC
ACCACAGAAATGTATTTGTGTCGTTGGCACCAGCCTCCCCCATCACCGTTACCATTACGGGAATCCTCTCCAAAG
AAGGAGGAGACTGTAGCAAGTAAGGCATAGAACACTTGCTCTTATACCCTAGTGGTGGCGGTCAAGCTAACAA
GTGTGAAAATGCCTTTGGCATTTTTAAAAAAGTGCAATCAATAAAGCAGAGTTCTGTCAAGAATGAGTAAGTTAA
CAGCCAGAGACAGACACTGTGCAGGCATTGCAAATAGATGGAATTACAGCAAAATGTGCTCAATGTATTTGCCTG
CTTACAACACTGGGAGATGTGTTTGCCAGTAAGTTGCTCATCACAAGAGCACCAGACTTGGGGGTGTAATCTCCG
GCAACTTGCATGCCCTCTGAAAGAAGGGTTTTCTGTGCTGTGAAATGCATAGAACTATACTTTGCCATGCACGAC
TGTTCCTGCAATTGATATTGTGTGAAATCT

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FIGURE 3443

CCAGGGACAGCGCCGCCTCAGATATCCTGCTGGATGACATTGTCCTTACCCATTCTCTCTTCCTCCCGACGGAGA
AATTTCTGCAGGAGCTACACCAGTACTTTGTTCGGGCAGGAGGC**ATG**GAGGGCCCTGAAGGGCTGGGCCGGAAGC
AAGCCTGTCTAGCCATGCTTCTCCATTTCTTGGACACCTACCAGGGGCTGCTTCAAGAGGAAGAGGGGGCCGGCC
ACATCATCAAGGATCTATACCTGCTAATTATGAAGGACGAGTCCCTTTACCAGGGCCTCCGAGAGGACACTCTGA
GGCTGCACCAGCTGGTGGAGACGGTGGAACTAAAGATTCCAGAGGAGAACCAGCCACCCAGCAAGCAGGTGAAGC
CACTCTTCCGCCACTTCCGCCGGATAGACTCCTGTCTGCAGACCCGGGTGGCCTTCCGGGGCTCTGATGAGATCT
TCTGCCGTGTATACATGCCTGACCACTCTTATGTGACCATACGCAGCCGCCTTTCAGCATCTGTGCAGGACATTC
TGGGCTCTGTGACGGAGAAACTTCAATATTCAGAGGAGCCCGCGGGGCGTGAGGATTCCCTCATCCTGGTAGCTG
TGTCCTCCTCTGGAGAGAAGGTCCTTCTCCAGCCCACTGAGGACTGTGTTTTCACCGCACTGGGCATCAACAGCC
ACCTGTTTGCCTGTACTCGGGACAGCTATGAGGCTCTGGTGCCCCTCCCCGAGGAGATCCAGGTCTCCCCTGGAG
ACACAGAGATCCACCGAGTGGAGCCTGAGGACGTTGCCAACCACCTAACTGCCTTCCACTGGGAGCTGTTCCGAT
GTGTGCATGAGCTGGAGTTCGTGGACTACGTGTTCCACGGGGAGCGCGGCCGCCGGGAGACGGCCAACTTGGAGC
TGCTGCTGCAGCGCTGCAGCGAGGTCACGCACTGGGTGGCCACCGAAGTGCTGCTCTGCGAGGCCCCGGGCAAGC
GCGCGCAGCTGCTCAAGAAGTTCATCAAGATCGCGGCCCTCTGCAAGCAGAACCAGGACCTGCTGTCTTTCTACG
CCGTGGTCATGGGGCTGGACAACGCCGCTGTCAGCCGCCTTCGACTCACCTGGGAGAAGCTGCCAGGGAAATTCA
AGAACTTGTTTCGCAAATTTGAGAACCTGACGGACCCCTGCAGGAACCACAAAAGCTACCGAGAAGTGATCTCCA
AAATGAAGCCCCCTGTGATTCCCTTCGTGCCTCTGATCCTCAAAGACCTGACTTTCCTGCACGAAGGGAGTAAGA
CCCTTGTAGATGGTTTGGTGAACATCGAGAAGCTGCATTCAGTGGCCGAAAAAGTGAGGACAATCCGCAAATACC
GGAGCCGGCCCCTTTGCCTGGACATGGAGGCATCCCCCAATCACCTGCAGACCAAGGCCTATGTGCGCCAGTTTC
AGGTCATCGACAACCAGAACCTCCTCTTCGAGCTCTCCTACAAGCTGGAGGCAAACAGTCAG**TGA**GAGTGGAGGC
TCCAGTCAGACCCGCCAGATCCTTGGGCACCTGGCACTCAAGCACTTTGCACGATGTCTCAACCAACATCTGACA
TCTTTCCCGTGGAGCAACTTCCTGCTCCACGGGAAAGAGGTCGATGGATTTACCCCTGGACCCATAAGTCTGTTC
ATCCTGCTGAAGTCCCCTCCCCATTGCTCCTTCAAGCCAAAACTACACTTTGCTGGTTCCTGTCCCCTCTGAGAA
AGGGGATAGAAAGCTCCTTCCTCTATGTCCTCCCATCGAGATCTGTTCTGGGGATGGAGCTTCCAACTTCCTCTT
GCAGCAGGAAAGAATGCTGCTCACCCTTCTGTCTTGCAGAGTGGGATTGTGGGAGGGATTGGCAGCCTTCTTCTC
CACCACCTGTCCAGCTTCTTCCTGGTCAGGGCTGGGACCCCCAGGAATATTATGTTGCCGTGTGTGTGTGTGTGT
GTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTCTTCTTTTAGGGAGCAAGAGTGCATCTGGTAAT
TGAGGGTGGATGTTGTGTGTGCTGGGGAGGGGTCCTTCTGTTTGGTGCTACCCTTGTCTACTCTGCCCCTGGATG
GTGCGGGGTGCTTTCTCCACCCCCACACTCCCTGCTCAGCTCCTCGTGCTGCCCTGCATGCCCAGGCTTGTGAGC
CAAGCTGCTTTTTGGGGCAGGGAGTAGCAGCAGGTGGGAGGGGTTACCCATCAGCCCTTGCAAGTCCCCCACTCA
GGCCTCTGGAAGGTCCAGGGATGGGCTCTGATGAGAGGGTAAAAGATGCTCAGGGAAACACAGGCCTCAGCTGCC
TAGAGGACCCTCCCCCTGCCTTGCAGTGGGCTCGGGTAGAGCAGTATCAGGAGCTAGGGTTGTCTGCTGCCCACA
CTCCTGCTTTTTGGGATATCTAACTGCTAAGGAGGGAGTTGACATCCCCCTTCTGGCTCATGTGTCTGACACCAA
CAACATGGTCTCTGTCCCTCTCTCTTTGACTCTCCCTTTGTCCTCCCCATAGAGCTGGGGTGGGGTGGATCCCTA
TACCTGGGGCAGGCAGCCCCAAAGTGGGGGAGGGGGATGGCAGAGACTGTAAAGGCGCCACTGGACTCTGGCAAG
GCCTTTATTACCTTTACTCCCCTCCCTCTCCCATCACCAGCCTCAAGGCCTGAGGGGTGCAGGGGCTCCTGGCAG
CTACTGGGTGAGGTTTCCTGGCACAGACTCACCCTTCTTTCTGGCACCACCTCTTTCCCTTTTGAAGAGACAGCA
ACAGCCGTAGCAAAAGCAGCTGCTGCTCCTGCTATGAGGGTGTATATATTTTTTACCCAAAGCTCTGGAATTGTA
CATTTATTTTTTAAAACTCAAAGAGGGAAAGAGCCTTGTATCATATGTGAACATTGTATCATAGGTAATGTTGTA
CAGACCCTTTTATACAGTGATCTGTCTTGTTCCTGCAGCAAAAATCCTCTATGGACATAGGAGGTGCTGTGTCCC
ATGCCCTCTTGCCCTGACAGTGTCCCATGGGCCCCCTTCTGCTCCCTGCCCCCTCCCTGCTACTGCTGATGCACT
CTCCTCTCCCTGCAGCCCCTGGCTTCCCAGCCTTCCTCCTGACCCCTTCCAACAGCCTTGGAACTCCAGCTGCCA
CCACCCTCTGGGTCGGACACTGGGACCCACTGGCCCAGTCTTGGCTGCTGCTTACCCCTAGCCTTGATGCCTGCC
CAGGGACCCCCAGCCCCCTCCCGTTGCCCTGCAGCTTTAACAGAGTGAACCATGTGTATTGTACAGGCGCGGTTG
TCATTGCAGAAACCGCTGGGTGGAGAAGAAGCCGATAAAGTCTATGAATC

FIGURE 3444

CGAGGCGCTCCCTGGGATCACATGGTACCTGCTCCAGTGCCGCGTGCGGCCCGGGAACCCTGGGCTGCTGGCGCC
TGCGCAGAGCCCTCTGTCCCAGGGAAAGGCTCGGGCAAAAGGCGGCTGAGATTGGCAGAGTGAAATATTACTGCC
GAGGGAACGTAGCAGGGCACACGTCTCGCCTCTTTGCGACTCGGTGCCCCGTTTCTCCCCATCACCTACTTACTT
CCTGGTTGCAACCTCTCTTCCTCTGGGACTTTTGCACCGGGAGCTCCAGATTCGCCACCCCGCAGCGCTGCGGAG
CCGGCAGGCAGAGGCACCCCGTACACTGCAGAGACCCGACCCTCCTTGCTACCTTCTAGCCAGAACTACTGCAGG
CTGATTCCCCCTACACACTCTCTCTGCTCTTCCCATGCAAAGCAGAACTCCGTTGCCTCAACGTCCAACCCTTCT
GCAGGGCTGCAGTCCGGCCACCCCAAGACCTTGCTGCAGGGTGCTTCGGATCCTGATCGTGAGTCGCGGGGTCCA
CTCCCCGCCCTTAGCCAGTGCCCAGGGGGCAACAGCGGCGATCGCAACCTCTAGTTTGAGTCAAGGTCCAGTTTG
AATGACCGCTCTCAGCTGGTGAAGAC**ATG**ACGACCCTGGACTCCAACAACAACACAGGTGGCGTCATCACCTACA
TTGGCTCCAGTGGCTCCTCCCCAAGCCGCACCAGCCCTGAATCCCTCTATAGTGACAACTCCAATGGCAGCTTCC
AGTCCCTGACCCAAGGCTGTCCCACCTACTTCCCACCATCCCCCACTGGCTCCCTCACCCAAGACCCGGCTCGCT
CCTTTGGGAGCATTCCACCCAGCCTGAGTGATGACGGCTCCCCTTCTTCCTCATCTTCCTCGTCGTCATCCTCCT
CCTCCTTCTATAATGGGAGCCCCCCTGGGAGTCTACAAGTGGCCATGGAGGACAGCAGCCGAGTGTCCCCCAGCA
AGAGCACCAGCAACATCACCAAGCTGAATGGCATGGTGTTACTGTGTAAAGTGTGTGGGGACGTTGCCTCGGGCT
TCCACTACGGTGTGCACGCCTGCGAGGGCTGCAAGGGCTTTTTCCGTCGGAGCATCCAGCAGAACATCCAGTACA
AAAGGTGTCTGAAGAATGAGAATTGCTCCATCGTCCGCATCAATCGCAACCGCTGCCAGCAATGTCGCTTCAAGA
AGTGTCTCTCTGTGGGCATGTCTCGAGACGCTGTGCGTTTTGGGCGCATCCCCAAACGAGAGAAGCAGCGGATGC
TTGCTGAGATGCAGAGTGCCATGAACCTGGCCAACAACCAGTTGAGCAGCCAGTGCCCGCTGGAGACTTCACCCA
CCCAGCACCCCACCCCAGGCCCCATGGGCCCCTCGCCACCCCCTGCTCCGGTCCCCTCACCCCTGGTGGGCTTCT
CCCAGTTTCCACAACAGCTGACGCCTCCCAGATCCCCAAGCCCTGAGCCCACAGTGGAGGATGTGATATCCCAGG
TGGCCCGGGCCCATCGAGAGATCTTCACCTACGCCCATGACAAGCTGGGCAGCTCACCTGGCAACTTCAATGCCA
ACCATGCATCAGGTAGCCCTCCAGCCACCACCCCACATCGCTGGGAAAATCAGGGCTGCCCACCTGCCCCCAATG
ACAACAACACCTTGGCTGCCCAGCGTCATAACGAGGCCCTAAATGGTCTGCGCCAGGCTCCCTCCTCCTACCCTC
CCACCTGGCCTCCTGGCCCTGCACACCACAGCTGCCACCAGTCCAACAGCAACGGGCACCGTCTATGCCCCACCC
ACGTGTATGCAGCCCCAGAAGGCAAGGCACCTGCCAACAGTCCCCGGCAGGGCAACTCAAAGAATGTTCTGCTGG
CATGTCCTATGAACATGTACCCGCATGGACGCAGTGGGCGAACGGTGCAGGAGATCTGGGAGGATTTCTCCATGA
GCTTCACGCCCGCTGTGCGGGAGGTGGTAGAGTTTGCCAAACACATCCCGGGCTTCCGTGACCTTTCTCAGCATG
ACCAAGTCACCCTGCTTAAGGCTGGCACCTTTGAGGTGCTGATGGTGCGCTTTGCTTCGTTGTTCAACGTGAAGG
ACCAGACAGTGATGTTCCTAAGCCGCACCACCTACAGCCTGCAGGAGCTTGGTGCCATGGGCATGGGAGACCTGC
TCAGTGCCATGTTCGACTTCAGCGAGAAGCTCAACTCCCTGGCGCTTACCGAGGAGGAGCTGGGCCTCTTCACCG
CGGTGGTGCTTGTCTCTGCAGACCGCTCGGGCATGGAGAATTCCGCTTCGGTGGAGCAGCTCCAGGAGACGCTGC
TGCGGGCTCTTCGGGCTCTGGTGCTGAAGAACCGGCCCTTGGAGACTTCCCGCTTCACCAAGCTGCTGCTCAAGC
TGCCGGACCTGCGGACCCTGAACAACATGCATTCCGAGAAGCTGCTGTCCTTCCGGGTGGACGCCCAG**TGA**CCCG
CCCGGCCGGCCTTCTGCCGCTGCCCCCTTGTACAGAATCGAACTCTGCACTTCTCTCTCCTTTACGAGACGAAAA
GGAAAAGCAAACCAGAATCTTATTTATATTGTTATAAAATATTCCAAGATGAGCCTCTGGCCCCCTGAGCCTTCT
TGTAAATACCTGCCTCCCTCCCCCATCACCGAACTTCCCCTGCTCCTTTTTTTAAACCACTCTGTCTCCCCCACA
ACCCTCCCCTGGCCCTCTGATTTGTTCTGTTCCTGTCTCAAATCCAATAGTTCACAGCTGAGCTGG

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FIGURE 3445

AGGGCTTCTTTCGCCGCACAATCCAGAAGAACCTNCCATCCCACCTATTCCTGCAAATATGACAGCTGCTGTGTC
ATTGACAAGATCACCCGCAATCAGTGCCAGCTGTGCCGCTTCAAGAAGTGCATCGCCGTGGGC**ATG**GCCATGGAC
TTGGTTCTAGATGACTCGAAGCGGGTGGCCAAGCGTAAGCTGATTGAGCAGAACCGGGAGCGGCGGCGGAAGGAG
GAGATGATCCGATCACTGCAGCAGCGACCAGAGCCCACTCCTGAAGAGTGGGATCTGATCCACATTGCCACAGAG
GCCCATCGCAGCACCAATGCCCAGGGCAGCCATTGGAAACAGAGGCGGAAATTCCTGCCCGATGACATTGGCCAG
TCACCCATTGTCTCCATGCCGGACGGAGACAAGGTGGACCTGGAAGCCTTCAGCGAGTTTACCAAGATCATCACC
CCGGCCATCACCCGTGTGGTGGACTTTGCCAAAAAACTGCCCATGTTCTCCGAGCTGCCTTGCGAAGACCAGATC
ATCCTCCTGAAGGGGTGCTGCATGGAGATCATGTCCCTGCGGGCGGCTGTCCGCTACGACCCTGAGAGCGACACC
CTGACGCTGAGTGGGGAGATGGCTGTCAAGCGGGAGCAGCTCAAGAATGGCGGCCTGGGCGTAGTCTCCGACGCC
ATCTTTGAACTGGGCAAGTCACTCTCTGCCTTTAACCTGGATGACACGGAAGTGGCTCTGCTGCAGGCTGTGCTG
CTAATGTCAACAGACCGCTCGGGCCTGCTGTGTGTGGACAAGATCGAGAAGAGTCAGGAGGCGTACCTGCTGGCG
TTCGAGCACTACGTCAACCACCGCAAACACAACATTCCGCACTTCTGGCCCAAGCTGCTGATGAAGGAGAGAGAA
GTGCAGAGTTCGATTCTGTACAAGGGGGCAGCGGCAGAAGGCCGGCCGGGCGGGTCACTGGGCGTCCACCCGGAA
GGACAGCAGCTTCTCGGAATGCATGTTGTTCAGGGTCCGCAGGTCCGGCAGCTTGAGCAGCAGCTTGGTGAAGCG
GGAAGTCTCCAAGGGCCGGTTCTTCAGCACCAGAGCCCGAAGAGCCCGCAGCAGCGTCTCCTGGAGCTGCTCCAC
CGAAGCGGAATTCTCCATGCCCGAGCGGTCTGTGGGGAAGACGACAGCAGTGAGGCGGACTCCCCGAGCTCCTCT
GAGGAGGAACCGGAGGTCTGCGAGGACCTGGCAGGCAATGCAGCCTCTCCC**TGA**AGCCCCCCAGAAGGCCGATGG
GGAAGGAGAAGGAGTGCCATACCTTCTCCCAGGCCTCTGCCCCAAGAGCAGGAGGTGCCTGAAAGCTGGGAGCGT
GGGCTCAGCAGGGCTGGTCACCTCCCATCCCGTAAGACCACCTTCCCTTCCTCAGCAGGCCAAACATGGCCAGAC
TCCCTTGCTTTTTGCTGTGTAGTTCCCTCTGCCTGGGATGCCCTTCCCCCTTTCTCTGCCTGGCAACATCTTACT
TGTCCTTTGAGGCCCCAACTCAAGTGTCACCTCCTTCCCCAGCTCCCCCAGGCAGAAATAG

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FIGURE 3446

CTCCTCTCCAGCCCTTCTCCTGTGTGCCTGCCTCCTGCCGCCGCCACC**ATG**ACCACCTCCATCCGCCAGTTCACC
TCCTCCAGCTCCATCAAGGGCTCCTCCGGCCTGGGGGGCGGCTCGTCCCGCACCTCCTGCCGGCTGTCTGGCGGC
CTGGGTGCCGGCTCCTGCAGGCTGGGATCTGCTGGCGGCCTGGGCAGCACCCTCGGGGGTAGCAGCTACTCCAGC
TGCTACAGCTTTGGCTCTGGTGGTGGCTATGGCAGCAGCTTTGGGGGTGTTGATGGGCTGCTGGCTGGAGGTGAG
AAGGCCACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTGCGTGCCCTGGAGGAGGCCAAC
ACTGAGCTGGAGGTGAAGATCCGTGACTGGTACCAGAGGCAGGCCCCGGGGCCCGCCCGTGACTACAGCCAGTAC
TACAGGACAATTGAGGAGCTGCAGAACAAGATCCTCACAGCCACCGTGGACAATGCCAACATCCTGCTACAGATT
GACAATGCCCGTCTGGCTGCTGATGACTTCCGCACCAAGTTTGAGACAGAGCAGGCCCTGCGCCTGAGTGTGGAG
GCCGACATCAATGGCCTGCGCAGGGTGCTGGATGAGCTGACCCTGGCCAGAGCCGACCTGGAGATGCAGATTGAG
AACCTCAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGAGGAGATGAACGCCCTGCGAGGCCAGGTGGGT
GGTGAGATCAATGTGGAGATGGACGCTGCCCCAGGCGTGGACCTGAGCCGCATCCTCAACGAGATGCGTGACCAG
TATGAGAAGATGGCAGAGAAGAACCGCAAGGATGCCGAGGATTGGTTCTTCAGCAAGACAGAGGAACTGAACCGC
GAGGTGGCCACCAACAGTGAGCTGGTGCAGAGTGGCAAGAGTGAGATCTCGGAGCTCCGGCGCACCATGCAGGCC
TTGGAGATAGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCTGGAGGGCAACCTGGCGGAGACAGAGAACCGC
TACTGCGTGCAGCTGTCCCAGATCCAGGGGCTGATTGGCAGCGTGGAGGAGCAGCTGGCCCAGCTTCGCTGCGAG
ATGGAGCAGCAGAACCAGGAATACAAAATCCTGCTGGATGTGAAGACGCGGCTGGAGCAGGAGATTGCCACCTAC
CGCCGCCTGCTGGAGGGAGAGGATGCCCACCTGACTCAGTACAAGAAAGAACCGGTGACCACCCGTCAGGTGCGT
ACCATTGTGGAAGAGGTCCAGGATGGCAAGGTCATCTCCTCCCGCGAGCAGGTCCACCAGACCACCCGC**TGA**GGA
CTCAGCTACCCCGGCCGGCCACCCAGGAGGCAGGGAGGCAGCCGCCCCATCTGCCCCACAGTCTCCGGCCTCTCC
AGCCTCAGCCCCCTGCTTCAGTCCCTTCCCCATGCTTCCTTGCCTGATGACAATAAAGCTTGTTGACTCAGCT

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FIGURE 3447

ATGACCACCTGCAGCCGCCAGTTCACCTCCTCCAGCTCCATGAAGGGCTCCTGCGGCATCGGAGGCGGCATCGGG
GGCGGCTCCAGCCGCATCTCCTCCGTCCTGGCCGGAGGGTCCTGCCGTGCCCCCAGCACCTACGGGGGCGGCCTG
TCTGTCTCCTCTCGCTTCTCCTCTGGGGGAGCCTGCGGGCTGGGGGGCGGCTATGGCGGTGGCTTCAGCAGCAGC
AGCAGCTTTGGTAGTGGCTTCGGGGGAGGATATGGTGGTGGCCTTGGTGCTGGCTTCGGTGGTGGCTTGGGTGCT
GGCTTTGGTGGTGGTTTTGCTGGTGGTGATGGGCTTCTGGTGGGCAGTGAGAAGGTGACCATGCAGAACCTCAAT
GACCGCCTGGCCTCCTACCTGGACAAGGTGCGTGCTCTGGAGGAGGCCAACGCCGACCTGGAAGTGAAGATCCGT
GACTGGTACCAGAGGCAGCGGCCCAGTGAGATCAAAGACTACAGTCCCTACTTCAAGACCATCGAGGACCTGAGG
AACAAGATCATTGCGGCCACCATTGAGAATGCGCAGCCCATTTTGCAGATTGACAATGCCAGGCTGGCAGCCGAT
GACTTCAGGACCAAGTATGAGCACGAACTGGCCCTGCGGCAGACTGTGGAGGCCGACGTCAATGGCCTGCGCCGG
GTGTTGGATGAGCTGACCCTGGCCAGGACTGACCTGGAGATGCAGATCGAAGGCCTGAAGGAGGAGCTGGCCTAC
CTGAGGAAGAACCACGAGGAGGAGATGCTTGCTCTGAGAGGTCAGACCGGCGGAGATGTGAACGTGGAGATGGAT
GCTGCACCTGGCGTGGACCTGAGCCGCATCCTGAATGAGATGCGTGACCAGTACGAGCAGATGGCAGAGAAAAAC
CGCAGAGACGCTGAGACCTGGTTCCTGAGCAAGACCGAGGAGCTGAACAAAGAAGTGGCCTCCAACAGCGAACTG
GTACAGAGCAGCCGCAGTGAGGTGACGGAGCTCCGGAGGGTGCTCCAGGGCCTGGAGATTGAGCTGCAGTCCCAG
CTCAGCATGAAAGCATCCCTGGAGAACAGCCTGGAGGAGACCAAAGGCCGCTACTGCATGCAGCTGTCCCAGATC
CAGGGACTGATTGGCAGTGTGGAGGAGCAGCTGGCCCAGCTACGCTGTGAGATGGAGCAGCAGAGCCAGGAGTAC
CAGATCTTGCTGGATGTGAAGACGCGGCTGGAGCAGGAGATTGCCACCTACCGCCGCCTGCTGGAGGGCGAGGAT
GCCCACCTTTCCTCCCAGCAAGCATCTGGCCAATCCTATTCTTCCCGCGAGGTCTTCACCTCCTCCTCGTCCTCT
TCGAGCCGTCAGACCCGGCCCATCCTCAAGGAGCAGAGCTCATCCAGCTTCAGCCAGGGCCAGAGCTCC**TAG**

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FIGURE 3448

GGGTTGCTCCGTCCGTGCTCCGCCTCGCC**ATG**ACTTCCTACAGCTATCGCCAGTCGTCGGCCACGTCGTCCTTCG
GAGGCCTGGGCGGCGGCTCCGTGCGTTTTGGGCCGGGGGTCGCCTTTCGCGCGCCCAGCATTCACGGGGGCTCCG
GCGGCCGCGGCGTATCCGTGTCCTCCGCCCGCTTTGTGTCCTCGTCCTCCTCGGGGGCCTACGGCGGCGGCTACG
GCGGCGTCCTGACCGCGTCCGACGGGCTGCTGGCGGGCAACGAGAAGCTAACCATGCAGAACCTCAACGACCGCC
TGGCCTCCTACCTGGACAAGGTGCGCGCCCTGGAGGCGGCCAACGGCGAGCTAGAGGTGAAGATCCGCGACTGGT
ACCAGAAGCAGGGGCCTGGGCCCTCCCGCGACTACAGCCACTACTACACGACCATCCAGGACCTGCGGGACAAGA
TTCTTGGTGCCACCATTGAGAACTCCAGGATTGTCCTGCAGATCGACAATGCCCGTCTGGCTGCAGATGACTTCC
GAACCAAGTTTGAGACGGAACAGGCTCTGCGCATGAGCGTGGAGGCCGACATCAACGGCCTGCGCAGGGTGCTGG
ATGAGCTGACCCTGGCCAGGACCGACCTGGAGATGCAGATCGAAGGCCTGAAGGAAGAGCTGGCCTACCTGAAGA
AGAACCATGAGGAGGAAATCAGTACGCTGAGGGGCCAAGTGGGAGGCCAGGTCAGTGTGGAGGTGGATTCCGCTC
CGGGCACCGATCTCGCCAAGATCCTGAGTGACATGCGAAGCCAATATGAGGTCATGGCCGAGCAGAACCGGAAGG
ATGCTGAAGCCTGGTTCACCAGCCGGACTGAAGAATTGAACCGGGAGGTCGCTGGCCACACGGAGCAGCTCCAGA
TGAGCAGGTCCGAGGTTACTGACCTGCGGCGCACCCTTCAGGGTCTTGAGATTGAGCTGCAGTCACAGCTGAGCA
TGAAAGCTGCCTTGGAAGACACACTGGCAGAAACGGAGGCGCGCTTTGGAGCCCAGCTGGCGCATATCCAGGCGC
TGATCAGCGGTATTGAAGCCCAGCTGGGCGATGTGCGAGCTGATAGTGAGCGGCAGAATCAGGAGTACCAGCGGC
TCATGGACATCAAGTCGCGGCTGGAGCAGGAGATTGCCACCTACCGCAGCCTGCTCGAGGGACAGGAAGATCACT
ACAACAATTTGTCTGCCTCCAAGGTCCTC**TGA**GGCAGCAGGCTCTGGGGCTTCTGCTGTCCTTTGGAGGGTGTCT
TCTGGGTAGAGGGATGGGAAGGAAGGGACCCTTACCCCCGGCTCTTCTCCTGACCTGCCAATAAAAATTTATGGT
CCAAGGG

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FIGURE 3449

GGTACCTCCTGCCAGCATCTCTTGGGTTTGCTGAGAACTCACGGGCTCCAGCTACCTGGCC**ATG**ACCACCACATT
TCTGCAAACTTCTTCCTCCACCTTTGGGGGTGGCTCAACCCGAGGGGGTTCCCTCCTGGCTGGGGGAGGTGGCTT
TGGTGGGGGGAGTCTCTCTGGGGGAGGTGGAAGCCGAAGTATCTCAGCTTCTTCTGCTAGGTTTGTCTCTTCAGG
GTCAGGAGGAGGATATGGGGGTGGCATGAGGGTCTGTGGCTTTGGTGGAGGGGCTGGTAGTGTTTTCGGTGGAGG
CTTTGGAGGGGGCGTTGGTGGGGGTTTTGGTGGTGGCTTTGGTGGTGGCGATGGTGGTCTCCTCTCTGGCAATGA
GAAAATTACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTACGTGCCCTGGAGGAGGCCAA
TGCTGACCTGGAGGTGAAGATCCATGACTGGTACCAGAAGCAGACCCCAACCAGCCCAGAATGCGACTACAGCCA
ATACTTCAAGACCATTGAAGAGCTCCGGGACAAGATCATGGCCACCACCATCGACAACTCCCGGGTCATCCTGGA
GATCGACAATGCCAGGCTGGCTGCGGACGACTTCAGGCTCAAGTATGAGAATGAGCTGGCCCTGCGCCAGGGCGT
TGAGGCTGACATCAACGGCTTGCGCCGAGTCCTGGATGAGCTGACCCTGGCCAGGACTGACCTGGAGATGCAGAT
CGAGGGCCTGAATGAGGAGCTAGCCTACCTGAAGAAGAACCACGAAGAGGAGATGAAGGAGTTCAGCAGCCAGCT
GGCCGGCCAGGTCAATGTGGAGATGGACGCAGCACCGGGTGTGGACCTGACCCGTGTGCTGGCAGAGATGAGGGA
GCAGTACGAGGCCATGGCGGAGAAGAACCGCCGGGATGTCGAGGCCTGGTTCTTCAGCAAGACTGAGGAGCTGAA
CAAAGAGGTGGCCTCCAACACAGAAATGATCCAGACCAGCAAGACGGAGATCACAGACCTGAGACGCACGATGCA
GGAGCTGGAGATCGAGCTGCAGTCCCAGCTCAGCATGAAAGCTGGGCTGGAGAACTCACTGGCCGAGACAGAGTG
CCGCTATGCCACGCAGCTGCAGCAGATCCAGGGGCTCATTGGTGGCCTGGAGGCCCAGCTGAGTGAGCTCCGATG
CGAGATGGAGGCTCAGAACCAGGAGTACAAGATGCTGCTTGACATAAAGACACGGCTGGAGCAGGAGATCGCTAC
TTACCGCAGCCTGCTCGAGGGCCAGGATGCCAAGATGGCTGGCATTGCCATCAGGGAAGCCTCTTCAGGAGGTGG
TGGTAGCAGCAGCAATTTCCACATCAATGTAGAAGAGTCAGTGGATGGACAGGTGGTTTCTTCCCACAAGAGAGA
AATC**TAA**GTGTCTATTGCAGGAGAAACGTCCCTTGCCACTCCCCACTCTCATCAGGCCAAGTGGAGGACTGGCCA
GAGGGCCTGCACATGCAAACTCCAGTCCCTGCCTTCAGAGAGCTGAAAAGGGTCCCTCGGTCTTTTATTTCAGGG
CTTTGCATGCGCTCTATTCCCCCTCTGCCTCTCCCCACCTTCTTTGGAGCAAGGAGATGCAGCTGTATTGTGTAA
CAAGCTCATTTGTACAGTGTCTGTTCATGTAATAAAGAATTACTTTTCCTTTTGCAAAT

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FIGURE 3450

GGCCAAGCAAGCTTCTATCTGCACCTGCTCTCAATCCTGCTCTCACC**ATG**AGCCTCCGCCTGCAGAGCTCCTCTG
CCAGCTATGGAGGTGGTTTCGGGGGTGGCTCTTGCCAGCTGGGAGGAGGCCGTGGTGTCTCTACCTGTTCAACTC
GGTTTGTGTCCGGGGGATCAGCTGGGGGCTATGGAGGCGGCGTGAGCTGTGGTTTTGGTGGAGGGGCTGGTAGTG
GCTTTGGAGGTGGCTATGGAGGTGGCCTTGGAGGTGGCTATGGAGGTGGCCTTGGAGGTGGCTTTGGTGGGGGTT
TTGCTGGTGGCTTTGTTGACTTTGGTGCTTGTGATGGCGGCCTCCTCACTGGCAATGAGAAGATCACCATGCAGA
ACCTCAACGACCGCCTGGCTTCCTACCTGGAGAAGGTGCGCGCCCTGGAGGAGGCCAACGCTGACCTGGAGGTGA
AGATCCGTGACTGGCACCTGAAGCAGAGCCCAGCTAGCCCTGAGCGGGACTACAGCCCCTACTACAAGACCATTG
AAGAGCTCCGGGACAAGATCCTGACCGCCACCATTGAAAACAACCGGGTCATCCTGGAGATTGACAATGCCAGGC
TGGCTGCGGACGACTTCAGGCTCAAGTATGAGAATGAGCTGGCCCTGCGCCAGAGCGTGGAGGCCGACATCAACG
GCCTGCGCCGGGTGCTGGATGAGCTCACTCTGTCTAAGACTGACCTGGAGATGCAGATCGAGAGCCTGAATGAAG
AGCTAGCCTACATGAAGAAGAACCATGAAGAGGAGATGAAGGAATTTAGCAACCAGGTGGTCGGCCAGGTCAACG
TGGAGATGGATGCCACCCCAGGCATTGACCTGACCCGCGTGCTGGCAGAGATGAGGGAGCAGTACGAGGCCATGG
CAGAGAGGAACCGCCGGGATGCTGAGGAATGGTTCCACACCAAGAGTGCAGAGCTGAACAAGGAGGTGTCTACCA
ACACTGCCATGATTCAGACCAGCAAGACAGAGATCACGGAGCTCAGGCGCACGCTCCAAGGCCTGGAGATTGAGC
TGCAGTCCCAGCTGAGCATGAAAGCGGGGCTGGAGAACACGGTGGCAGAGACGGAGTGCCGCTATGCCCTGCAGC
TGCAGCAGATCCAGGGACTCATCAGCAGCATCGAGGCCCAGCTGAGCGAGCTCCGCAGTGAGATGGAGTGCCAGA
ACCAAGAGTACAAGATGCTGCTGGACATCAAGACACGTCTGGAGCAGGAGATCGCCACCTACCGCAGCCTGCTCG
AGGGCCAGGACGCCAAGAAGCGTCAGCCCCCG**TAG**CACCTCTGTTACCACGACTTCTAGTGCCTCTGTTACCACC
ACCTCTAATGCCTCTGGTCGCCGCACTTCTGATGTCCGTAGGCCTTAAATCTGCCTGGCGTCCCCTCCCTCTGTC
TTCAGCACCCAGAGGAGGAGAGAGCCGGCAGTTCCCTGCAGGAGAGAGGAGGGGCTGCTGGACCCAAGGCTCAGT
CCCTCTGCTCTCAGGACCCCCTGTCCTGACTCTCTCCTGATGGTGGGCCCTCTGTGCTCTTCTCTTCCGGTCGGA
TCTCTCTCCTCTCTGACCTGGATACGCTTTGGTTTCTCAACTTCTCTACCCCAAAGAAAAGATTATTCAATAAAG
TTTCCTGCCTTTCTGCAAACATA

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FIGURE 3451

ACCCGAGCACCTTCTCTTCACTCAGCCAACTGCTCGCTCGCTCACCTCCCTCCTCTGCACC**ATG**ACCACCTGCAG
CCGCCAGTTCACCTCCTCCAGCTCCATGAAGGGCTCCTGCGGCATCGGGGGCGGCATCGGGGGCGGCTCCAGCCG
CATCTCCTCCGTCCTGGCCGGAGGGTCCTGCCGCGCCCCCAGCACCTACGGGGGCGGCCTGTCTGTCTCATCCTC
CCGCTTCTCCTCTGGGGGAGCCTGCGGGCTGGGGGGCGGCTATGGCGGTGGCTTCAGCAGCAGCAGCAGCAGCTT
TGGTAGTGGCTTTGGGGGAGGATATGGTGGTGGCCTTGGTGCTGGCTTGGGTGGTGGCTTTGGTGGTGGCTTTGC
TGGTGGTGATGGGCTTCTGGTGGGCAGTGAGAAGGTGACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCT
GGACAAGGTGCGTGCTCTGGAGGAGGCCAACGCCGACCTGGAAGTGAAGATCCGTGACTGGTACCAGAGGCAGCG
GCCTGCTGAGATCAAAGACTACAGTCCCTACTTCAAGACCATTGAGGACCTGAGGAACAAGATTCTCACAGCCAC
AGTGGACAATGCCAATGTCCTTCTGCAGATTGACAATGCCCGTCTGGCCGCGGATGACTTCCGCACCAAGTATGA
GACAGAGTTGAACCTGCGCATGAGTGTGGAAGCCGACATCAATGGCCTGCGCAGGGTGCTGGACGAACTGACCCT
GGCCAGAGCTGACCTGGAGATGCAGATTGAGAGCCTGAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGA
GGAGATGAATGCCCTGAGAGGCCAGGTGGGTGGAGATGTCAATGTGGAGATGGACGCTGCACCTGGCGTGGACCT
GAGCCGCATTCTGAACGAGATGCGTGACCAGTATGAGAAGATGGCAGAGAAGAACCGCAAGGATGCCGAGGAATG
GTTCTTCACCAAGACAGAGGAGCTGAACCGCGAGGTGGCCACCAACAGCGAGCTGGTGCAGAGCGGCAAGAGCGA
GATCTCGGAGCTCCGGCGCACCATGCAGAACCTGGAGATTGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCT
GGAGAACAGCCTGGAGGAGACCAAAGGTCGCTACTGCATGCAGCTGGCCCAGATCCAGGAGATGATTGGCAGCGT
GGAGGAGCAGCTGGCCCAGCTCCGCTGCGAGATGGAGCAGCAGAACCAGGAGTACAAGATCCTGCTGGACGTGAA
GACGCGGCTGGAGCAGGAGATCGCCACCTACCGCCGCCTGCTGGAGGGCGAGGACGCCCACCTCTCCTCCTCCCA
GTTCTCCTCTGGATCGCAGTCATCCAGAGATGTGACCTCCTCCAGCCGCCAAATCCGCACCAAGGTCATGGATGT
GCACGATGGCAAGGTGGTGTCCACCCACGAGCAGGTCCTTCGCACCAAGAAC**TGA**GGCTGCCCAGCCCCGCTCAG
GCCTAGGAGGCCCCCCGTGTGGACACAGATCCCACTGGAAGATCCCCTCTCCTGCCCAAGCACTTCACAGCTGGA
CCCTGCTTCACCCTCACCCCCTCCTGGCAATCAATACAGCTTCATTATCTGAGTTGCAT

FIGURE 3452

ACCCGAGCACCTTCTCTTCACTCAGCCAACTGCTCGCTCGCTCACCTCCCTCCTCTGCACC**ATG**ACCACCTGCAG
CCGCCAGTTCACCTCCTCCAGCTCCATGAAGGGCTCCTGCGGCATCGGGGGCGGCATCGGGGGCGGCTCCAGCCG
CATCTCCTCCGTCCTGGCCGGAGGGTCCTGCCGCGCCCCCAGCACCTACGGGGGCGGCCTGTCTGTCTCATCCTC
CCGCTTCTCCTCTGGGGGAGCCTGCGGGCTGGGGGGCGGCTATGGCGGTGGCTTCAGCAGCAGCAGCAGCAGCTT
TGGTAGTGGCTTTGGGGGAGGATATGGTGGTGGCCTTGGTGCTGGCTTGGGTGGTGGCTTTGGTGGTGGCTTTGC
TGGTGGTGATGGGCTTCTGGTGGGCAGTGAGAAGGTGACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCT
GGACAAGGTGCGTGCTCTGGAGGAGGCCAACGCCGACCTGGAAGTGAAGATCCGTGACTGGTACCAGAGGCAGCG
GCCTGCTGAGATCAAAGACTACAGTCCCTACTTCAAGACCATTGAGGACCTGAGGAACAAGATTCTCACAGCCAC
AGTGGACAATGCCAATGTCCTTCTGCAGATTGACAATGCCCGTCTGGCCGCGGATGACTTCCGCACCAAGTATGA
GACAGAGTTGAACCTGCGCATGAGTGTGGAAGCCGACATCAATGGCCTGCGCAGGGTGCTGGACGAACTGACCCT
GGCCAGAGCTGACCTGGAGATGCAGATTGAGAGCCTGAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGA
GGAGATGAATGCCCTGAGAGGCCAGGTGGGTGGAGATGTCAATGTGGAGATGGACGCTGCACCTGGCGTGGACCT
GAGCCGCATTCTGAACGAGATGCGTGACCAGTATGAGAAGATGGCAGAGAAGAACCGCAAGGATGCCGAGGAATG
GTTCTTCACCAAGACAGAGGAGCTGAACCGCGAGGTGGCCACCAACAGCGAGCTGGTGCAGAGCGGCAAGAGCGA
GATCTCGGAGCTCCGGCGCACCATGCAGAACCTGGAGATTGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCT
GGAGAACAGCCTGGAGGAGACCAAAGGTCGCTACTGCATGCAGCTGGCCCAGATCCAGGAGATGATTGGCAGCGT
GGAGGAGCAGCTGGCCCAGCTCCGCTGCGAGATGGAGCAGCAGAACCAGGAGTACAAGATCCTGCTGGACGTGAA
GACGCGGCTGGAGCAGGAGATCGCCACCTACCGCCGCCTGCTGGAGGGCGAGGACGCCCACCTCTCCTCCTCCCA
GTTCTCCTCTGGATCGCAGTCATCCAGAGATGTGACCTCCTCCAGCCGCCAAATCCGCACCAAGGTCATGGATGT
GCACGATGGCAAGGTGGTGTCCACCCACGAGCAGGTCCTTCGCACCAAGAAC**TGA**GGCTGCCCAGCCCCGCTCAG
GCCTAGGAGGCCCCCCGTGTGGACACAGATCCCACTGGAAGATCCCCTCTCCTGCCCAAGCACTTCACAGCTGGA
CCCTGCTTCACCCTCACCCCCTCCTGGCAATCAATACAGCTTCATTATCTGAGTTGCAT

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FIGURE 3453

AGTTCTGCGGTGCCAGGGAGTGGAGCAGAGCTCAGCCCCGTCCCAAACACAGATGGGACC**ATG**AACTCCGGACAC
AGCTTCAGCCAGACCCCCTCGGCCTCCTTCCATGGCGCCGGAGGTGGCTGGGGCCGGCCCAGGAGCTTCCCCAGG
GCTCCCACCGTCCATGGCGGTGCGGGGGGAGCCCGCATCTCCCTGTCCTTCACCACGCGGAGCTGCCCACCCCCT
GGAGGGTCTTGGGGTTCTGGAAGAAGCAGCCCCCTACTAGGCGGAAATGGGAAGGCCACCATGCAGAATCTCAAC
GACCGCCTGGCCTCCTACCTGGAGAAGGTTCGCGCCCTGGAGGAGGCCAACATGAAGCTGGAAAGCCGCATCCTG
AAATGGCACCAGCAGAGAGATCCTGGCAGTAAGAAAGATTATTCCCAGTATGAGGAAAACATCACACACCTGCAG
GAGCAGATAGTGGATGGTAAGATGACCAATGCTCAGATTATTCTTCTCATTGACAATGCCAGGATGGCAGTGGAT
GACTTCAACCTCAAGTATGAAAATGAACACTCCTTTAAGAAAGACTTGGAAATTGAAGTCGAGGGCCTCCGAAGG
ACCTTAGACAACCTGACCATTGTCACAACAGACCTAGAACAGGAGGTGGAAGGAATGAGGAAAGAGCTCATTCTC
ATGAAGAAGCACCATGAGCAGGAAATGGAGAAGCATCATGTGCCAAGTGACTTCAATGTCAATGTGAAGGTGGAT
ACAGGTCCCAGGGAAGATCTGATTAAGGTCCTGGAGGATATGAGACAAGAATATGAGCTTATAATAAAGAAGAAG
CATCGAGACTTGGACACTTGGTATAAAGAACAGTCTGCAGCCATGTCCCAGGAGGCAGCCAGTCCAGCCACTGTG
CAGAGCAGACAAGGTGACATCCACGAACTGAAGCGCACATTCCAGGCCCTGGAGATTGACCTGCAGACACAGTAC
AGCACGAAATCTGCTTTGGAAAACATGTTATCCGAGACCCAGTCTCGGTACTCCTGCAAGCTCCAGGACATGCAA
GAGATCATCTCCCACTATGAGGAGGAACTGACGCAGCTACGCCATGAACTGGAGCGGCAGAACAATGAATACCAA
GTGCTGCTGGGCATCAAAACCCACCTGGAGAAGGAAATCACCACGTACCGACGGCTCCTGGAGGGAGAGAGTGAA
GGGACACGGGAAGAATCAAAGTCGAGCATGAAAGTGTCTGCAACTCCAAAGATCAAGGCCATAACCCAGGAGACC
ATCAACGGAAGATTAGTTCTTTGTCAAGTGAATGAAATCCAAAAGCACGCA**TGA**GACCAATGAAAGTTTCCGCCT
GTTGTAAAATCTATTTTCCCCCAAGGAAAGTCCTTGCACAGACACCAGTGAGTGAGTTCTAAAAGATACCCTTGG
AATTATCAGACTCAGAAACTTTTATTTTTTTTTTCTGTAACAGTCTCACCAGACTTCTCATAATGCTCTTAATAT
ATTGCACTTTTCTAATCAAAGTGCGAGTTTATGAGGGTAAAGCTCTACTTTCCTACTGCAGCCTTCAGATTCTCA
TCATTTTGCATCTATTTTGTAGCCAATAAAACTCCGCACTAGC

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FIGURE 3454

CGGAACTAAACGGGGTGAGGTCACATTCGGTTATCTCTAACGTTGGAAAACGATGGAGCTAACACCCATTATGGA
GATTAACCACTTTTCATCAGGTTTTTAACTTAAGTCGTGAGGAATACAACGGTGAACACAAGATTCATTTTATTT
TCATCACCATGGGACGTATCCTGTTGTTGAGTACTCTGGGTCAGACCTCTGAAGACTTCTCAGATGGATCCTAGT
CTCTGGGCTTGCCCTGAAATTACTCGCTGCTCAGGGAGAGAGTTGAA**ATG**GTTGGCATCCTCCCACTCTGTTGCT
CCGGCTGTGTCCCCTCGCTCTGTTGTTCCAGCTATGTCCCCTCTGTTGCTCCAACTGCAGCTCATTCTGTTAGAG
TTCCTCATTCAGCTGGTCACTGTGGCCAGAGGGTGTTGGCCTGCTCCCTTCCTCAAGTATTCTTAAAGCCATGGA
TTTTTGTGGAGCATTTTTCTTCCTGGCTCTCCCTTGAGTTATTTTCCTTTCTTCGCTATCTTGGGACTCTTCTTT
GTGCTTGCGGACATCGGTTGAGAGAAGGACTTCTTCTTCCTTGTCTCCTTGGTGTTGGCTCGTGGTTGCTCTTCA
ACAACTGGACTGGAGGCTCTTGGTTTTCTCTTCATCTTCAACAAGTCAGTCTCTCTCAAGGGTCTCACGTTGCAG
CATTCTTACCAGAGGCCATTGGGCCTGGAGTTCCAGTTCCAGTGTCTGGAGAGTCCACCTCAGCTCAGCAATCTC
ATGCCGGTTGGCAATTGTCAGCAGAAGCCGATGCCTGCCCATCAGTTCTTTACTCTGAGGTGTTAGAGTGGAATA
AAAATATAAATACTTATACTAGTTTTCATGACTTCTGCTTAATATTGGGTATTTTTTTGTTTTGTTTTGTTTTGG
CGGTGATAGGCTTACCTTACATTAAACCAGGCCTTAGCCTTTCTGTGGCTTTGTTATGGCAAAGCCTCATATTAC
TCTCTAGTCTGGTTCAGCAGGACAGTCAGGTCCACACCTGGGGCTGTTTGTTTTCTACGTTTACCTCAACA**TAA**G
GTACCTTATCATTGTCAGCCTTCATCTCCTGATCCAAAATAAAATAAAATGCCACAGGTTACTTGATTTTGCATC
TGGAATATGATTATTTAAAGAAATTAAAAATTTAAAACTGAAAATGTAGAGTTTAGAAATCTTTTTTAAGGTTTC
AAAAAAATTTCTAGGAGACAACAAAATAGTGTTACTAGATTTAGCAAATAAAATACAGAATGCCAATTAAATTTG
AATTTCAAATGAACATTGAATACTTTTTTTGGTATAACTATATTCCATGCAATATTTGGGACATATCTGTTATAT
TATTCATTGTTTACCTGAAATTATAATTTAAACTGAGAGTTCTGTATTTTATCTGGCAACCTTATTATGAAAATA
TTTAGGATCAATATAAAGGAATAATATTTTTAATTTTTACAAACTATTTTAATATAAGTAATTTATTTGATTTTC
ATTGTCATCCTGAGAGTTAAGTT

FIGURE 3455

AACAGCATCACC**ATG**TCTGTTCGATACAGCTCAAGCAAGCACTACTCTTCCTCCCGCAGTGGAGGAGGAGGAGGA
GGAGGAGGATGTGGAGGAGGAGGAGGAGTGTCATCCCTAAGAATTTCTAGCAGCAAAGGCTCCCTTGGTGGAGGA
TTTAGCTCAGGGGGGTTCAGTGGTGGCTCTTTTAGCCGTGGGAGCTCTGGTGGGGGCTGCTTTGGGGGCTCATCA
GGTGGCTATGGAGGATTAGGAGGTTTTGGTGGAGGTAGCTTTCGTGGAAGCTATGGAAGTAGCAGCTTTGGTGGG
AGTTATGGAGGCATCTTTGGAGGGGGCAGTTTCGGAGGTGGCAGCTTTGGTGGGGGCAGCTTTGGTGGAGGCGGC
TTTGGTGGAGGCGGCTTTGGAGGAGGCTTTGGTGGTGGATTTGGAGGAGATGGTGGCCTTCTCTCTGGAAATGAA
AAAGTAACCATGCAGAATCTGAATGACCGCCTGGCTTCCTACTTGGACAAAGTTCGGGCTCTGGAAGAATCAAAC
TATGAGCTGGAAGGCAAAATCAAGGAGTGGTATGAAAAGCATGGCAACTCACATCAGGGGGAGCCTCGTGACTAC
AGCAAATACTACAAAACCATCGATGACCTTAAAAATCAGATTCTCAACCTAACAACTGATAATGCCAACATCCTG
CTTCAGATCGACAATGCCAGGCTGGCAGCTGATGACTTCAGGCTGAAGTATGAGAATGAGGTAGCTCTGCGCCAG
AGCGTGGAGGCTGACATCAACGGCCTGCGTAGGGTGCTGGATGAGCTGACCCTGACCAAGGCTGACCTGGAGATG
CAAATTGAGAGCCTGACTGAAGAGCTGGCCTATCTGAAGAAGAACCACGAGGAGGAAATGAAAGACCTTCGAAAT
GTGTCCACTGGTGATGTGAATGTGGAAATGAATGCTGCCCCGGGTGTTGATCTGACTCAACTTCTGAATAACATG
AGAAGCCAATATGAACAACTTGCTGAACAAAACCGCAAAGATGCTGAAGCCTGGTTCAATGAAAAGAGCAAGGAA
CTGACTACAGAAATTGATAATAACATTGAACAGATATCCAGCTATAAATCTGAGATTACTGAATTGAGACGTAAT
GTACAAGCTCTGGAGATAGAACTACAGTCCCAACTGGCCTTGAAACAATCCCTGGAAGCCTCCTTGGCAGAAACA
GAAGGTCGCTACTGTGTGCAGCTCTCACAGATTCAGGCCCAGATATCCGCTCTGGAAGAACAGTTGCAACAGATT
CGAGCTGAAACCGAGTGCCAGAATACTGAATACCAACAACTCCTGGATATTAAGATCCGACTGGAGAATGAAATT
CAAACCTACCGCAGCCTGCTAGAAGGAGAGGGAAGTTCCGGAGGCGGCGGACGCGGCGGCGGAAGTTTCGGCGGC
GGCTACGGCGGCGGAAGCTCCGGCGGCGGAAGCTCCGGCGGCGGCCACGGCGGCGGCCACGGCGGCAGTTCCGGC
GGCGGCTACGGAGGCGGAAGCTCCGGCGGCGGAAGCTCCGGCGGCGGCTACGGGGGCGGAAGCTCCAGCGGCGGC
CACGGCGGCAGTTCCAGCGGCGGCTACGGTGGTGGCAGTTCCGGCGGCGGCGGCGGCGGCTACGGGGGCGGCAGC
TCCGGCGGCGGCAGCAGCTCCGGCGGCGGATACGGCGGCGGCAGCTCCAGCGGAGGCCACAAGTCCTCCTCTTCC
GGGTCCGTGGGCGAGTCTTCATCTAAGGGACCAAGATAC**TAA**CAAAACCAGAGTAATCAAGACAATTATTGAAGA
GGTGGCGCCCGACGGTAGAGTTCTTTCATCTATGGTTGAATCAGAAACCAAGAAACACTACTATTAAACTGCATC
AAGAGGAAAGAGTCTCCCTTCACACAGACCATTATTTACAGATGCATGGAAAACAAAGTCTCCAAGAAAACACTT
CTGTCTTGATGGTCTATGGAAATAGACCTTGAAAATAAGGTGTCTACAAGGTGTTTTGTGGTTTCTGTATTTCTT
CTTTTCACTTTACCAGAAAGTGTTCTTTAATGGAAAGAAAAACAACTTTCTGTTCTCATTTACTAATGAATTTCA
ATAAACTTTCTTACTGATGCAAACTATCCCAATTTGTCAGAATTTATCTTTACTTAAGTACATAATACTCT

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FIGURE 3456

CCGGACGCGAGGGGCGGGGCGAGCGCGGGACAAAGGGAAGCGAAGCCGGAGCTGCGGGCGCTTTTTCTGCCCGCG
GTGTCTCAGATTCATTCTTAAGGAACTGAGAACTTAATCTTCCAAA**ATG**TCAAAAAGACCATCTTATGCCCCACC
TCCCACCCCAGCTCCTGCAACACAAATGCCCAGCACACCAGGGTTTGTGGGATACAATCCATACAGTCATCTCGC
CTACAACAACTACAGGCTGGGAGGGAACCCGGGCACCAACAGCCGGGTCACGGCATCCTCTGGTATCACGATTCC
AAAACCCCCAAAGCCACCAGATAAGCCGCTGATGCCCTACATGAGGTACAGCAGAAAGGTCTGGGACCAAGTAAA
GGCTTCCAACCCTGACCTAAAGTTGTGGGAGATTGGCAAGATTATTGGTGGCATGTGGCGAGATCTCACTGATGA
AGAAAAACAAGAATATTTAAACGAATACGAAGCAGAAAAGATAGAGTACAATGAATCTATGAAGGCCTATCATAA
TTCCCCCGCGTACCTTGCTTACATAAATGCAAAAAGTCGTGCAGAAGCTGCTTTAGAGGAAGAAAGTCGACAGAG
ACAATCTCGCATGGAGAAAGGAGAACCGTACATGAGCATTCAGCCTGCTGAAGATCCAGATGATTATGATGATGG
CTTTTCAATGAAGCATACAGCCACCGCCCGTTTCCAGAGAAACCACCGCCTCATCAGTGAAATTCTTAGTGAGAG
TGTGGTGCCAGACGTTCGGTCAGTTGTCACAACAGCTAGAATGCAGGTCCTCAAACGGCAGGTCCAGTCCTTAAT
GGTTCATCAGCGAAAACTAGAAGCTGAACTTCTTCAAATAGAGGAACGACACCAGGAGAAGAAGAGGAAATTCCT
GGAAAGCACAGATTCATTTAACAATGAACTTAAAAGGTTGTGCGGTCTGAAAGTAGAAGTGGATATGGAGAAAAT
TGCAGCTGAGATTGCACAGGCAGAGGAACAGGCCCGCAAAAGGCAGGAGGAAAGGGAGAAGGAGGCCGCAGAGCA
AGCTGAGCGCAGTCAGAGCAGCATCGTTCCTGAGGAAGAACAAGCAGCTAACAAAGGCGAGGAGAAGAAAGACGA
CGAGAACATTCCGATGGAGACAGAGGAGACACACCTTGAAGAAACAACAGAGAGCCAACAGAATGGTGAAGAAGG
CACGTCTACTCCTGAGGACAAGGAGAGTGGGCAGGAGGGGGTCGACAGTATGGCAGAGGAAGGAACCAGTGATAG
TAACACTGGCTCGGAGAGCAACAGTGCAACAGTGGAGGAGCCACCAACAGATCCCATACCAGAAGATGAGAAAAA
AGAA**TAA**GTGTTGCCTTGTTTTGTGTGTTCTAAATACTTTTTTTAATGAAAAAATGTTTTTTGGTTTTAATGGTG
TTACGTGGTTTGTGTATTAATTTTTTTTCTTGTCCATATCACACCACCAAAGGCTTTTGGACCATTTAGCATCAT
GAGCCTAATGGCTCAGTCAGTCACCTTTCTTAAGTGTTGTGAAGATGGCTCTTTTCTTTGGATCTTGTTTCTAGC
CCTCAACTGCTGAAAGCCTCAGAATTTAGATTAATTGAGAAAACACCCACCTCTTTTAGAGAATTATCCTTTGAT
GCTGCAGAATCTACTCTTACAATGCCTTCCTACAGCTCACTGGGGTGCTTACCAAAGCCATAGCTTTAAACCTTC
CCAGTCCCCATCAGTAGCTTCCTGAAAGTCTCCTCTCTTGTTTACTTCTGCAAAGGGTAGCTTCTTAAAAACGTG
ATCATGTATGAGTATGTATTTGTTCACTTACCCTTTTTTACTTTTAATCAATGTCAGATACCAAGAGTTGTGTTA
AGCTGAGTGTAGTGTGTAACTAACTACACTTGGATCTTACTGATCCAGAAATAGTCCCCATAGTTAGAGTAGTTA
CTTATGAAGTGGTTATTAAAGTGAACACAGCACATATACATTATCTATACTGCTTTTTGTTATGATTAATACTGG
GTATGTTCTGGTAAATCCATCCTTATTGTATAGAAAAAAAATTACTTTTTTACCAGGTTTTCCAAAGACAGAATA
GATCACAAAGCTCAAGGAATTTAATATTCTTGTAATGGACTAGATAATTCAAACTGATTAGCCCATTCCAGAAGA
AAAACAGCTGGGAATTAAGTTAATCCACTTGAAATTGTTTTACAATAATCAGAACATCCAAACCTCAAGGCTCAG
GATCCCATAGACCAGAGCCCACCTTTTTGATAAACTTAGTAAAGTCTTGGAGACTAGAAGCAAGATAGTTTGTGA
CACATAAGCTTCCCAAAAACTAGAATAGATTTTTACTGAATAGTGGTATATCTGATGGTATATGTTTCTTAAAGG
TCCAAATGTAAT

FIGURE 3457

AGACAGGGGTAGTGCGAGGCCGGGCACAGCCTTCCTGTGTGGTTTTACCGCCCAGAGAGCGTC**ATG**GACCTGGGG
AAACCAATGAAAAGCGTGCTGGTGGTGGCTCTCCTTGTCATTTTCCAGGTATGCCTGTGTCAAGATGAGGTCACG
GACGATTACATCGGAGACAACACCACAGTGGACTACACTTTGTTCGAGTCTTTGTGCTCCAAGAAGGACGTGCGG
AACTTTAAAGCCTGGTTCCTCCCTATCATGTACTCCATCATTTGTTTCGTGGGCCTACTGGGCAATGGGCTGGTC
GTGTTGACCTATATCTATTTCAAGAGGCTCAAGACCATGACCGATACCTACCTGCTCAACCTGGCGGTGGCAGAC
ATCCTCTTCCTCCTGACCCTTCCCTTCTGGGCCTACAGCGCGGCCAAGTCCTGGGTCTTCGGTGTCCACTTTTGC
AAGCTCATCTTTGCCATCTACAAGATGAGCTTCTTCAGTGGCATGCTCCTACTTCTTTGCATCAGCATTGACCGC
TACGTGGCCATCGTCCAGGCTGTCTCAGCTCACCGCCACCGTGCCCGCGTCCTTCTCATCAGCAAGCTGTCCTGT
GTGGGCATCTGGATACTAGCCACAGTGCTCTCCATCCCAGAGCTCCTGTACAGTGACCTCCAGAGGAGCAGCAGT
GAGCAAGCGATGCGATGCTCTCTCATCACAGAGCATGTGGAGGCCTTTATCACCATCCAGGTGGCCCAGATGGTG
ATCGGCTTTCTGGTCCCCCTGCTGGCCATGAGCTTCTGTTACCTTGTCATCATCCGCACCCTGCTCCAGGCACGC
AACTTTGAGCGCAACAAGGCCATCAAGGTGATCATCGCTGTGGTCGTGGTCTTCATAGTCTTCCAGCTGCCCTAC
AATGGGGTGGTCCTGGCCCAGACGGTGGCCAACTTCAACATCACCAGTAGCACCTGTGAGCTCAGTAAGCAACTC
AACATCGCCTACGACGTCACCTACAGCCTGGCCTGCGTCCGCTGCTGCGTCAACCCTTTCTTGTACGCCTTCATC
GGCGTCAAGTTCCGCAACGATCTCTTCAAGCTCTTCAAGGACCTGGGCTGCCTCAGCCAGGAGCAGCTCCGGCAG
TGGTCTTCCTGTCGGCACATCCGGCGCTCCTCCATGAGTGTGGAGGCCGAGACCACCACCACCTTCTCCCCA**TAG**

GCGACTCTTCTGCCTGGACTAGAGGGACCTCTCCCAGGGTCCCTGGGGTGGGGATAGGGAGCAGATGCAATGACT
CAGGACATCCCCCCGCCAAAAGCTGCTCAGGGAAAAGCAGCTCTCCCCTCAGAGTGCAAGCCCCTGCTCCAGAAG
ATAGCTTCACCCCAATCCCAGCTACCTCAACCAATGCCAAAAAAAGACAGGGCTGATAAGCTAACACCAGACAGA
CAACACTGGGAAACAGAGGCTATTGTCCCCTAAACCAAAAACTGAAAGTGAAAGTCCAGAAACTGTTCCCACCTG
CTGGAGTGAAGGGGCCAAGGAGGGTGAGTGCAAGGGGCGTGGGAGTGGCCTGAAGAGTCCTCTGAATGAACCTTC
TGGCCTCCCACAGACTCAAATGCTCAGACCAGCTCTTCCGAAAACCAGGCCTTATCTCCAAGACCAGAGATAGTG
GGGAGACTTCTTGGCTTGGTGAGGAAAAGCGGACATCAGCTGGTCAAACAAACTCTCTGAACCCCTCCCTCCATC
GTTTTCTTCACTGTCCTCCAAGCCAGCGGGAATGGCAGCTGCCACGCCGCCCTAAAAGCACACTCATCCCCTCAC
TTGCCGCGTCGCCCTCCCAGGCTCTCAACAGGGGAGAGTGTGGTGTTTCCTGCAGGCCAGGCCAGCTGCCTCCGC
GTGATCAAAGCCACACTCTGGGCTCCAGAGTGGGGATGACATGCACTCAGCTCTTGGCTCCACTGGGATGGGAGG
AGAGGACAAGGGAAATGTCAGGGGCGGGGAGGGTGACAGTGGCCGCCCAAGGCCCACGAGCTTGTTCTTTGTTCT
TTGTCACAGGGACTGAAAACCTCTCCTCATGTTCTGCTTTCGATTCGTTAAGAGAGCAACATTTTACCCACACAC
AGATAAAGTTTTCCCTTGAGGAAACAACAGCTTTAAAAG

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FIGURE 3458

CCCCCAGCACTGCTCCAGCCCCTCTGTCACCCCGCCCTTCGGCTCCCTTCGCAGTGGTGGCCTCCTCCTTTCCAG
AGACGTCCCCCGAGAGACACGAAGCAGCAGTGAGAGCCTCATCTTCTCTGGGAACCAGGGCAGGGGGCACCAGCG
CCCTCTGCCCCCCTCAGAGGGTCTCTCCCCTCGACCCCCAAATTCCCCCAGCATCTCAATCCCTTGC**ATG**GGGAG
CAAGGCCTCGAGCCCCCATGGTTTGGGCTCCCCGCTGGTGGCTTCTCCAAGACTGGAGAAGCGGCTGGGAGGCCT
GGCCCCACAGCGGGGCAGCAGGATCTCTGTGCTGTCAGCCAGCCCAGTGTCTGATGTCAGCTATATGTTTGGAAG
CAGCCAGTCCCTCCTGCACTCCAGCAACTCCAGCCATCAGTCATCTTCCAGATCCTTGGAAAGTCCAGCCAACTC
TTCCTCCAGCCTCCACAGCCTTGGCTCAGTGTCCCTGTGTACAAGACCCAGTGACTTCCAGGCTCCCAGAAACCC
CACCCTAACCATGGGCCAACCCAGAACACCCCACTCTCCACCACTGGCCAAAGAACATGCCAGCAGCTGCCCCCC
ATCCATCACCAACTCCATGGTGGACATACCCATTGTGCTGATCAACGGCTGCCCAGAACCAGGGTCTTCTCCACC
CCAGCGGACCCCAGGACACCAGAACTCCGTTCAACCTGGAGCTGCTTCTCCCAGCAACCCCTGTCCAGCCACCAG
GAGCAACAGCCAGACCCTGTCAGATGCCCCCTTTACCACATGCCCAGAGGGTCCCGCCAGGGACATGCAGCCCAC
CATGAAGTTCGTGATGGACACATCTAAATACTGGTTTAAGCCAAACATCACCCGAGAGCAAGCAATCGAGCTGCT
GAGGAAGGAGGAGCCAGGGGCTTTTGTCATAAGGGACAGCTCTTCATACCGAGGCTCCTTCGGCCTGGCCCTGAA
GGTGCAGGAGGTTCCCGCGTCTGCTCAGAGTCGACCAGGTGAGGACAGCAATGACCTCATCCGACACTTCCTCAT
CGAGTCGTCTGCCAAAGGAGTGCATCTCAAAGGAGCAGATGAGGAGCCCTACTTTGGGAGCCTCTCTGCCTTCGT
GTGCCAGCATTCCATCATGGCCCTGGCCCTGCCCTGCAAACTCACCATCCCACAGAGAGAACTGGGAGGTGCAGA
TGGGGCCTCGGACTCTACAGACAGCCCAGCCTCCTGCCAGAAGAAATCTGCGGGCTGCCACACCCTGTACCTGAG
CTCAGTGAGCGTGGAGACCCTGACTGGAGCCCTGGCCGTGCAGAAAGCCATCTCCACCACCTTTGAGAGGGACAT
CCTCCCCACGCCCACCGTGGTCCACTTCAAAGTCACAGAGCAGGGCATCACTCTGACTGATGTCCAGAGGAAGGT
GTTTTTCCGGCGCCATTACCCACTCACCACCCTCCGCTTCTGTGGTATGGACCCTGAGCAACGGAAGTGGCAGAA
GTACTGCAAACCCTCCTGGATCTTTGGGTTTGTGGCCAAGAGCCAGACAGAGCCTCAGGAGAACGTATGCCACCT
CTTTGCGGAGTATGACATGGTCCAGCCAGCCTCGCAGGTCATCGGCCTGGTGACTGCTCTGCTGCAGGACGCAGA
AAGGATG**TAG**GGGAGAGACTGCCTGTGCACCTAACCAACACCTCCAGGGGCTCGCTAAGGAGCCCCCCTCCACCC
CCTGAATGGGTGTGGCTTGTGGCCATATTGACAGACCAATCTATGGGACTAGGGGGATTGGCATCAAGTTGACAC
CCTTGAACCTGCTATGGCCTTCAGCAGTCACCATCATCCAGACCCCCCGGGCCTCAGTTTCCTCAATCATAGAAG
AAGACCAATAGACAAGATCAGCTGTTCTTAGATGCTGGTGGGCATTTGAACATGCTCCTCCATGATTCTGAAGCA
TGCACACCTCTGAAGACCCCTGCATGAAAATAACCTCCAAGGACCCTCTGACCCCATCGACCTGGGCCCTGCCCA
CACAACAGTCTGAGCAAGAGACCTGCAGCCCCTGTTTCGTGGCAGACAGCAGGTGCCTGGCGGTGACCCACGGGG
CTCCTGGCTTGCAGCTGGTGATGGTCAAGAACTGACTACAAAACAGGAATGGATAGACTCTATTTCCTTCCATAT
CTGTTCCTCTGTTCCTTTTCCCACTTTCTGGGTGGCTTTTTGGGTCCACCCAGCCAGGATGCTGCAGGCCAAGCT
GGGTGTGGTATTTAGGGCAGCTCAGCAGGGGGAACTTGTCCCCATGGTCAGAGGAGACCCAGCTGTCCTGCACCC
CCTTGCAGATGAGTATCACCCCATCTTTTCTTTCCACTTGGTTTTTATTTTTATTTTTTTTTGAGACAGAGTCTC
ACTGTCACCCAGGCTGAACTGCAGTGGTGTGATCTAGGCTCACTGCAACCTCCACCTCCCAGGTTCAAGCAATTA
TCCTGCCTCAGGCTCCCAAGTAGCTGGGATTACAGGCATGTGCAACTCACCCAGCTAATTTTGTATTTTTAGTAG
AGACAGGGTTTCACCATGTTGGCCAGGCTGGTCTTGAACTCCTGACCGCAGGTAATCCACCTGCTTCGGCCTCCC
AAAGTGCTGGGATTACAGGCGCAAGCCACCCAGCCCAGCTTCTTTCCATTCCTTGATAGGCGAGTATTCCAAAGC
TGGTATCGTAGCTGCCCTAATGTTGCATATTAGGCGGCGGGGGCAGAGATAAGGGCCATCTCTCTGTGATTCTGC
CTCAGCTCCTGTCTTGCTGAGCCCTCCCCCAACCCACGCTCCAACACACACACACACACACACACACACACACAC
ACACACACACACACACACACACACACACGCCCCTCTACTGCTATGTGGCTTCAACCAGCCTCACAGCCACACGGG
GGAAGCAGAGAGTCAAGAATGCAAAGAGNGCCGCTTCCCTAAGAGGCTTGGAGGAGCTGGGCTCTATCCCACACC
CACCCCCACCCCACCCCCACCCAGCCTCCAGAAGCTGGAACCATTTCTCCCGCAGGCCTGAGTTCCTAAGGAAAC
CACCCTACCGGGGTGGAAGGGAGGGTCAGGGAAGAAACCCACTCTTGCTCTACGAGGAGCAAGTGCCTGCCCCCT
CCCAGCAGCCAGCCCTGCCAAAGTTGCATTATCTTTGGCCAAGGCTGGGCCTGACGGTTATGATTTCAGCCCTGG
GCCTGCAGGAGAGGCTGAGACCAGCCCACCCAGCCAGTGGTCGAGCACTGCCCCGCCGCCAAAGTCTGCAGAATG
TGAGATGAGGTTCTCAAGGTCACAGGCCCCAGTCCCAGCCTGGGGGCTGGCAGAGGCCCCCATATACTCTGCTAC
AGCTCCTATCATGAAAAATAAAATGTTTGTCTTTGC

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FIGURE 3459

AGCCCCCTGCCCCTCGCCGCCCGCCGCCTGCCTGGGCCGGGCCGAGGATGCGGCGCAGCGCCTCGGCGGCCAGGC
TTGCTCCCCTCCGGCACGCCTGCTAACTTCCCCCGCTACGTCCCCGTTCGCCCGCCGGGCCGCCCCGTCTCCCCG
CGCCCTCCGGGTCGGGTCCTCCAGGAGCGCCAGGCGCTGCCGCCGTGTGCCCTCCGCCGCTCGCCCGCGCGCCCG
CGCTCCCCGCCTGCGCCCAGCGCCCCGCGCCCGCGCCCAGTCCTCGGGCGGTC**ATG**CTGCCCCTCTGCCTCGTGG
CCGCCCTGCTGCTGGCCGCCGGGCCCGGGCCGAGCCTGGGCGACGAAGCCATCCACTGCCCGCCCTGCTCCGAGG
AGAAGCTGGCGCGCTGCCGCCCCCCCGTGGGCTGCGAGGAGCTGGTGCGAGAGCCGGGCTGCGGCTGTTGCGCCA
CTTGCGCCCTGGGCTTGGGGATGCCCTGCGGGGTGTACACCCCCCGTTGCGGCTCGGGCCTGCGCTGCTACCCGC
CCCGAGGGGTGGAGAAGCCCCTGCACACACTGATGCACGGGCAAGGCGTGTGCATGGAGCTGGCGGAGATCGAGG
CCATCCAGGAAAGCCTGCAGCCCTCTGACAAGGACGAGGGTGACCACCCCAACAACAGCTTCAGCCCCTGTAGCG
CCCATGACCGCAGGTGCCTGCAGAAGCACTTCGCCAAAATTCGAGACCGGAGCACCAGTGGGGGCAAGATGAAGG
TCAATGGGGCGCCCCGGGAGGATGCCCGGCCTGTGCCCCAGGGCTCCTGCCAGAGCGAGCTGCACCGGGCGCTGG
AGCGGCTGGCCGCTTCACAGAGCCGCACCCACGAGGACCTCTACATCATCCCCATCCCCAACTGCGACCGCAACG
GCAACTTCCACCCCAAGCAGTGTCACCCAGCTCTGGATGGGCAGCGTGGCAAGTGCTGGTGTGTGGACCGGAAGA
CGGGGGTGAAGCTTCCGGGGGGCCTGGAGCCAAAGGGGGAGCTGGACTGCCACCAGCTGGCTGACAGCTTTCGAG
AG**TGA**GGCCTGCCAGCAGGCCAGGGACTCAGCGTCCCCTGCTACTCCTGTGCTCTGGAGGCTGCAGAGCTGACCC
AGAGTGGAGTCTGAGTCTGAGTCCTGTCTCTGCCTGCGGCCCAGAAGTTTCCCTCAAATGCGCGTGTGCACGTGT
GCGTGTGCGTGCGTGTGTGTGTTTGTGAGCATGGGTGTGCCCTTGGGGTAAGCCAGAGCCTGGGGTGTTCTCT
TTGGTGTTACACAGCCCAAGAGGACTGAGACTGGCACTTAGCCCAAGAGGTCTGAGCCCTGGTGTGTTTCCAGAT
CGATCCTGGATTCACTCACTCACTCATTCCTTCACTCATCCAGCCACCTAAAAACATTTACTGACCATGTACTAC
GTGCCAGCTCTAGTTTTCAGCCTTGGGAGGTTTTATTCTGACTTCCTCTGATTTTGGCATGTGGAGACACTCCTA
TAAGGAGAGTTCAAGCCTGTGGGAGTAGAAAAATCTCATTCCCAGAGTCAGAGGAGAAGAGACATGTACCTTGAC
CATCGTCCTTCCTCTCAAGCTAGCCAGAGGGTGGGAGCCTAAGGAAGCGTGGGGTAGCAGATGGAGTAATGGTCA
CGAGGTCCAGACCCACTCCCAAAGCTCAGACTTGCCAGGCTCCCTTTCTCTTCTTCCCCAGGTCCTTCCTTTAGG
TCTGGTTGTTGCACCATCTGCTTGGTTGGCTGGCAGCTGAGAGCCCTGCTGTGGGAGAGCGAAGGGGGTCAAAGG
AAGACTTGAAGCACAGAGGGCTAGGGAGGTGGGGTACATTTCTCTGAGCAGTCAGGGTGGGAAGAAAGAATGCAA
GAGTGGACTGAATGTGCCTAATGGAGAAGACCCACGTGCTAGGGGATGAGGGGCTTCCTGGGTCCTGTTCCCTAC
CCCATTTGTGGTCACAGCCATGAAGTCACCGGGATGAACCTATCCTTCCAGTGGCTCGCTCCCTGTAGCTCTGCC
TCCCTCTCCATATCTCCTTCCCCTACACCTCCCTCCCCACACCTCCCTACTCCCCTGGGCATCTTCTGGCTTGAC
TGGATGGAAGGAGACTTAGGAACCTACCAGTTGGCCATGATGTCTTTTCTT

FIGURE 3460A

CCCTTCACGACCGTCACC**ATG**GAAGTGTCACCATTGCAGCCTGTAAATGAAAATATGCAAGTCAACAAAATAAAG
AAAAATGAAGATGCTAAGAAAAGACTGTCTGTTGAAAGAATCTATCAAAAGAAAACACAATTGGAACATATTTTG
CTCCGCCCAGACACCTACATTGGTTCTGTGGAATTAGTGACCCAGCAAATGTGGGTTTACGATGAAGATGTTGGC
ATTAACTATAGGGAAGTCACTTTTGTTCCTGGTTTGTACAAAATCTTTGATGAGATTCTAGTTAATGCTGCGGAC
AACAAACAAAGGGACCCAAAAATGTCTTGTATTAGAGTCACAATTGATCCGGAAAACAATTTAATTAGTATATGG
AATAATGGAAAAGGTATTCCTGTTGTTGAACACAAAGTTGAAAAGATGTATGTCCCAGCTCTCATATTTGGACAG
CTCCTAACTTCTAGTAACTATGATGATGATGAAAAGAAAGTGACAGGTGGTCGAAATGGCTATGGAGCCAAATTG
TGTAACATATTCAGTACCAAATTTACTGTGGAAACAGCCAGTAGAGAATACAAGAAAATGTTCAAACAGACATGG
ATGGATAATATGGGAAGAGCTGGTGAGATGGAACTCAAGCCCTTCAATGGAGAAGATTATACATGTATCACCTTT
CAGCCTGATTTGTCTAAGTTTAAAATGCAAAGCCTGGACAAAGATATTGTTGCACTAATGGTCAGAAGAGCATAT
GATATTGCTGGATCCACCAAAGATGTCAAAGTCTTTCTTAATGGAAATAAACTGCCAGTAAAAGGATTTCGTAGT
TATGTGGACATGTATTTGAAGGACAAGTTGGATGAAACTGGTAACTCCTTGAAAGTAATACATGAACAAGTAAAC
CACAGGTGGGAAGTGTGTTTAACTATGAGTGAAAAAGGCTTTCAGCAAATTAGCTTTGTCAACAGCATTGCTACA
TCCAAGGGTGGCAGACATGTTGATTATGTAGCTGATCAGATTGTGACTAAACTTGTTGATGTTGTGAAGAAGAAG
AACAAGGGTGGTGTTGCAGTAAAAGCACATCAGGTGAAAAATCACATGTGGATTTTTGTAAATGCCTTAATTGAA
AACCCAACCTTTGACTCTCAGACAAAAGAAAACATGACTTTACAACCCAAGAGCTTTGGATCAACATGCCAATTG
AGTGAAAAATTTATCAAAGCTGCCATTGGCTGTGGTATTGTAGAAAGCATACTAAACTGGGTGAAGTTTAAGGCC
CAAGTCCAGTTAAACAAGAAGTGTTCAGCTGTAAAACATAATAGAATCAAGGGAATTCCCAAACTCGATGATGCC
AATGATGCAGGGGGCCGAAACTCCACTGAGTGTACGCTTATCCTGACTGAGGGAGATTCAGCCAAAACTTTGGCT
GTTTCAGGCCTTGGTGTGGTTGGGAGAGACAAATATGGGGTTTTCCCTCTTAGAGGAAAAATACTCAATGTTCGA
GAAGCTTCTCATAAGCAGATCATGGAAAATGCTGAGATTAACAATATCATCAAGATTGTGGGTCTTCAGTACAAG
AAAAACTATGAAGATGAAGATTCATTGAAGACGCTTCGTTATGGGAAGATAATGATTATGACAGATCAGGACCAA
GATGGTTCCCACATCAAAGGCTTGCTGATTAATTTTATCCATCACAACTGGCCCTCTCTTCTGCGACATCGTTTT
CTGGAGGAATTTATCACTCCCATTGTAAAGGTATCTAAAAACAAGCAAGAAATGGCATTTTACAGCCTTCCTGAA
TTTGAAGAGTGGAAGAGTTCTACTCCAAATCATAAAAAATGGAAAGTCAAATATTACAAAGGTTTGGGCACCAGC
ACATCAAAGGAAGCTAAAGAATACTTTGCAGATATGAAAAGACATCGTATCCAGTTCAAATATTCTGGTCCTGAA
GATGATGCTGCTATCAGCCTGGCCTTTAGCAAAAAACAGATAGATGATCGAAAGGAATGGTTAACTAATTTCATG
GAGGATAGAAGACAACGAAAGTTACTTGGGCTTCCTGAGGATTACTTGTATGGACAAACTACCACATATCTGACA
TATAATGACTTCATCAACAAGGAACTTATCTTGTTCTCAAATTCTGATAACGAGAGATCTATCCCTTCTATGGTG
GATGGTTTGAAACCAGGTCAGAGAAAGGTTTTGTTTACTTGCTTCAAACGGAATGACAAGCGAGAAGTAAAGGTT
GCCCAATTAGCTGGATCAGTGGCTGAAATGTCTTCTTATCATCATGGTGAGATGTCACTAATGATGACCATTATC
AATTTGGCTCAGAATTTTGTGGGTAGCAATAATCTAAACCTCTTGCAGCCCATTGGTCAGTTTGGTACCAGGCTA
CATGGTGGCAAGGATTCTGCTAGTCCACGATACATCTTTACAATGCTCAGCTCTTTGGCTCGATTGTTATTTCCA
CCAAAAGATGATCACACGTTGAAGTTTTTATATGATGACAACCAGCGTGTTGAGCCTGAATGGTACATTCCTATT
ATTCCCATGGTGCTGATAAATGGTGCTGAAGGAATCGGTACTGGGTGGTCCTGCAAAATCCCCAACTTTGATGTG
CGTGAAATTGTAAATAACATCAGGCGTTTGATGGATGGAGAAGAACCTTTGCCAATGCTTCCAAGTTACAAGAAC
TTCAAGGGTACTATTGAAGAACTGGCTCCAAATCAATATGTGATTAGTGGTGAAGTAGCTATTCTTAATTCTACA
ACCATTGAAATCTCAGAGCTTCCCGTCAGAACATGGACCCAGACATACAAAGAACAAGTTCTAGAACCCATGTTG
AATGGCACCGAGAAGACACCTCCTCTCATAACAGACTATAGGGAATACCATACAGATACCACTGTGAAATTTGTT
GTGAAGATGACTGAAGAAAAACTGGCAGAGGCAGAGAGAGTTGGACTACACAAAGTCTTCAAACTCCAAACTAGT
CTCACATGCAACTCTATGGTGCTTTTTGACCACGTAGGCTGTTTAAAGAAATATGACACGGTGTTGGATATTCTA
AGAGACTTTTTTGAACTCAGACTTAAATATTATGGATTAAGAAAAGAATGGCTCCTAGGAATGCTTGGTGCTGAA
TCTGCTAAACTGAATAATCAGGCTCGCTTTATCTTAGAGAAAATAGATGGCAAAATAATCATTGAAAATAAGCCT
AAGAAAGAATTAATTAAAGTTCTGATTCAGAGGGGATATGATTCGGATCCTGTGAAGGCCTGGAAAGAAGCCCAG
CAAAAGGTTCCAGATGAAGAAGAAAATGAAGAGAGTGACAACGAAAAGGAAACTGAAAAGAGTGACTCCGTAACA
GATTCTGGACCAACCTTCAACTATCTTCTTGATATGCCCCTTTGGTATTTAACCAAGGAAAAGAAAGATGAACTC
TGCAGGCTAAGAAATGAAAAAGAACAAGAGCTGGACACATTAAAAAGAAAGAGTCCATCAGATTTGTGGAAAGAA
GACTTGGCTACATTTATTGAAGAATTGGAGGCTGTTGAAGCCAAGGAAAAACAAGATGAACAAGTCGGACTTCCT

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FIGURE 3460B

GGGAAAGGGGGGAAGGCCAAGGGGAAAAAAAACACAAATGGCTGAAGTTTTGCCTTCTCCGCGTGGTCAAAGAGTC
ATTCCACGAATAACCATAGAAATGAAAGCAGAGGCAGAAAAGAAAAATAAAAAGAAAATTAAGAATGAAAATACT
GAAGGAAGCCCTCAAGAAGATGGTGTGGAACTAGAAGGCCTAAAACAAAGATTAGAAAAGAAACAGAAAAGAGAA
CCAGGTACAAAGACAAAGAAACAAACTACATTGGCATTTAAGCCAATCAAAAAAGGAAAGAAGAGAAATCCCTGG
TCTGATTCAGAATCAGATAGGAGCAGTGACGAAAGTAATTTTGATGTCCCTCCACGAGAAACAGAGCCACGGAGA
GCAGCAACAAAAACAAAATTCACAATGGATTTGGATTCAGATGAAGATTTCTCAGATTTTGATGAAAAAACTGAT
GATGAAGATTTTGTCCCATCAGATGCTAGTCCACCTAAGACCAAAACTTCCCCAAAACTTAGTAACAAAGAACTG
AAACCACAGAAAAGTGTCGTGTCAGACCTTGAAGCTGATGATGTTAAGGGCAGTGTACCACTGTCTTCAAGCCCT
CCTGCTACACATTTCCCAGATGAAACTGAAATTACAAACCCAGTTCCTAAAAAGAATGTGACAGTGAAGAAGACA
GCAGCAAAAAGTCAGTCTTCCACCTCCACTACCGGTGCCAAAAAAAGGGCTGCCCCAAAAGGAACTAAAAGGGAT
CCAGCTTTGAATTCTGGTGTCTCTCAAAAGCCTGATCCTGCCAAAACCAAGAATCGCCGCAAAAGGAAGCCATCC
ACTTCTGATGATTCTGACTCTAATTTTGAGAAAATTGTTTCGAAAGCAGTCACAAGCAAGAAATCCAAGGGGGAG
AGTGATGACTTCCATATGGACTTTGACTCAGCTGTGGCTCCTCGGGCAAAATCTGTACGGGCAAAGAAACCTATA
AAGTACCTGGAAGAGTCAGATGAAGATGATCTGTTT**TAA**AATGTGAGGCGATTATTTTAAGTAATTATCTTACCA
AGCCCAAGACTGGTTTTAAAGTTACCTGAAGCTCTTAACTTCCTCCCCTCTGAATTTAGTTTGGGGAAGGTGTTT
TTAGTACAAGACATCAAAGTGAAGTAAAGCCCAAGTGTTCTTTAGCTTT

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FIGURE 3461

CCATCTGGGCCCAGGCCCCATGCCCCGAGGAGGGGTGGTCTGAAGCCCACCAGAGCCCCCTGCCAGACTGTCTGC
CTCCCTTCTGACTGTGGCCGCTTGGC**ATG**GCCAGCAACAGCAGCTCCTGCCCGACACCTGGGGGCGGGCACCTCA
ATGGGTACCCGGTGCCTCCCTACGCCTTCTTCTTCCCCCCTATGCTGGGTGGACTCTCCCCGCCAGGCGCTCTGA
CCACTCTCCAGCACCAGCTTCCAGTTAGTGGATATAGCACACCATCCCCAGCCACCATTGAGACCCAGAGCAGCA
GTTCTGAAGAGATAGTGCCCAGCCCTCCCTCGCCACCCCCTCTACCCCGCATCTACAAGCCTTGCTTTGTCTGTC
AGGACAAGTCCTCAGGCTACCACTATGGGGTCAGCGCCTGTGAGGGCTGCAAGGGCTTCTTCCGCCGCAGCATCC
AGAAGAACATGGTGTACACGTGTCACCGGGACAAGAACTGCATCATCAACAAGGTGACCCGGAACCGCTGCCAGT
ACTGCCGACTGCAGAAGTGCTTTGAAGTGGGCATGTCCAAGGAGTCTGTGAGAAACGACCGAAACAAGAAGAAGA
AGGAGGTGCCCAAGCCCGAGTGCTCTGAGAGCTACACGCTGACGCCGGAGGTGGGGGAGCTCATTGAGAAGGTGC
GCAAAGCGCACCAGGAAACCTTCCCTGCCCTCTGCCAGCTGGGCAAATACACTACGAACAACAGCTCAGAACAAC
GTGTCTCTCTGGACATTGACCTCTGGGACAAGTTCAGTGAACTCTCCACCAAGTGCATCATTAAGACTGTGGAGT
TCGCCAAGCAGCTGCCCGGCTTCACCACCCTCACCATCGCCGACCAGATCACCCTCCTCAAGGCTGCCTGCCTGG
ACATCCTGATCCTGCGGATCTGCACGCGGTACACGCCCGAGCAGGACACCATGACCTTCTCGGACGGGCTGACCC
TGAACCGGACCCAGATGCACAACGCTGGCTTCGGCCCCCTCACCGACCTGGTCTTTGCCTTCGCCAACCAGCTGC
TGCCCCTGGAGATGGATGATGCGGAGACGGGGCTGCTCAGCGCCATCTGCCTCATCTGCGGAGACCGCCAGGACC
TGGAGCAGCCGGACCGGGTGGACATGCTGCAGGAGCCGCTGCTGGAGGCGCTAAAGGTCTACGTGCGGAAGCGGA
GGCCCAGCCGCCCCCACATGTTCCCCAAGATGCTAATGAAGATTACTGACCTGCGAAGCATCAGCGCCAAGGGGG
CTGAGCGGGTGATCACGCTGAAGATGGAGATCCCGGGCTCCATGCCGCCTCTCATCCAGGAAATGTTGGAGAACT
CAGAGGGCCTGGACACTCTGAGCGGACAGCCGGGGGGTGGGGGGCGGGACGGGGGTGGCCTGGCCCCCCCGCCAG
GCAGCTGTAGCCCCAGCCTCAGCCCCAGCTCCAACAGAAGCAGCCCGGCCACCCACTCCCCG**TGA**CCGCCCACGC
CACATGGACACAGCCCTCGCCCTCCGCCCCGGCTTTTCTCTGCCTTTCTACCGACCATGTGACCCCGCACCAGCC
CTGCCCCCACCTGCCCTCCCGGGCAGTACTGGGGACCTTCCCTGGGGGACGGGGAGGGAGGAGGCAGCGACTCCT
TGGACAGAGGCCTGGGCCCTCAGTGGACTGCCTGCTCCCACAGCCTGGGCTGACGTCAGAGGCCGAGGCCAGGAA
CTGAGTGAGGCCCCTGGTCCTGGGTCTCAGGATGGGTCCTGGGGGCCTCGTGTTCATCAAGACACCCCTCTGCCC
AGCTCACCACATCTTCATCACCAGCAAACGCCAGGACTTGGCTCCCCCATCCTCAGAACTCACAAGCCATTGCTC
CCCAGCTGGGGAACCTCAACCTCCCCCCTGCCTCGGTTGGTGACAGAGGGGGTGGGACAGGGGCGGGGGGTTCCC
CCTGTACATACCCTGCCATACCAACCCCAGGTATTAATTCTCGCTGGTTTTGTTTTTATTTTAATTTTTTTGTTT
TGATTTTTTTAATAAGAATTTTCATTTTAAGCACATTTATACTGAAGGAATTTGTGCTGTGTATTGGGGGGAGCT
GGATCCAGAGCTGGAGGGGGTGGGTCCGGGGGAGGGAGTGGCTCGGAAGGGGCCCCCACTCTCCTTTCATGTCCC
TGTGCCCCCCAGTTCTCCTCCTCAGCCTTTTCCTCCTCAGTTTTCTCTTTAAAACTGTGAAGTACTAACTTTCCA
AGGCCTGCCTTCCCCTCCCTCCCACTGGAGAAGCCGCCAGCCCCTTTCTCCCTCTGCCTGACCACTGGGTGTGGA
CGGTGTGGGGCAGCCCTGAAAGGACAGGCTCCTGGCCTTGGCACTTGCCTGCACCCACCATGAGGCATGGAGCAG
GGCAGAGCAAGGGCCCCGGGACAGAGTTTTCCCAGACCTGGCTCCTCGGCAGAGCTGCCTCCCGTCAGGGCCCAC
ATCATCTAGGCTCCCCAGCCCCCACTGTGAAGGGGCTGGCCAGGGGCCCGAGCTGCCCCCACCCCCGGCCTCAGC
CACCAGCACCCCCATAGGGCCCCCAGACACCACACACATGCGCGTGCGCACACACACAAACACACACACACTGGA
CAGTAGATGGGCCGACACACACTTGGCCCGAGTTCCTCCATTTCCCTGGCCTGCCCCCCACCCCCAACCTGTCCC
ACCCCCGTGCCCCCTCCTTACCCCGCAGGACGGGCCTACAGGGGGGTCTCCCCTCACCCCTGCACCCCCAGCTGG
GGGAGCTGGCTCTGCCCCGACCTCCTTCACCAGGGGTTGGGGCCCCTTCCCCTGGAGCCCGTGGGTGCACCTGTT
ACTGTTGGGCTTTCCACTGAGATCTACTGGATAAAGAATAAAGTTCTATTTATTCT

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FIGURE 3462

GAGCGCGGCTGGAGTTTGCTGCTGCCGCTGTGCAGTTTGTTCAGGGGCTTGTGGTGGTGAGTCCGAGAGGCTGCG
TGTGAGAGACGTGAGAAGGATCCTGCACTGAGGAGGTGGAAAGAAGAGGATTGCTCGAGGAGGCCTGGGGTCTGT
GAGGCAGCGGAGCTGGGTGAAGGCTGCGGGTTCCGGCGAGGCCTGAGCTGTGCTGTCGTC**ATG**CCTCAAACCCGA
TCCCAGGCACAGGCTACAATCAGTTTTCCAAAAAGGAAGCTGTCTCGGGCATTGAACAAAGCTAAAAACTCCAGT
GATGCCAAACTAGAACCAACAAATGTCCAAACCGTAACCTGTTCTCCTCGTGTAAAAGCCCTGCCTCTCAGCCCC
AGGAAACGTCTGGGCGATGACAACCTATGCAACACTCCCCATTTACCTCCTTGTTCTCCACCAAAGCAAGGCAAG
AAAGAGAATGGTCCCCCTCACTCACATACACTTAAGGGACGAAGATTGGTATTTGACAATCAGCTGACAATTAAG
TCTCCTAGCAAAAGAGAACTAGCCAAAGTTCACCAAAACAAAATACTTTCTTCAGTTAGAAAAAGTCAAGAGATC
ACAACAAATTCTGAGCAGAGATGTCCACTGAAGAAAGAATCTGCATGTGTGAGACTATTCAAGCAAGAAGGCACT
TGCTACCAGCAAGCAAAGCTGGTCCTGAACACAGCTGTCCCAGATCGGCTGCCTGCCAGGGAAAGGGAGATGGAT
GTCATCAGGAATTTCTTGAGGGAACACATCTGTGGGAAAAAAGCTGGAAGCCTTTACCTTTCTGGTGCTCCTGGA
ACTGGAAAAACTGCCTGCTTAAGCCGGATTCTGCAAGACCTCAAGAAGGAACTGAAAGGCTTTAAAACTATCATG
CTGAATTGCATGTCCTTGAGGACTGCCCAGGCTGTATTCCCAGCTATTGCTCAGGAGATTTGTCAGGAAGAGGTA
TCCAGGCCAGCTGGGAAGGACATGATGAGGAAATTGGAAAAACATATGACTGCAGAGAAGGGCCCCATGATTGTG
TTGGTATTGGACGAGATGGATCAACTGGACAGCAAAGGCCAGGATGTATTGTACACGCTATTTGAATGGCCATGG
CTAAGCAATTCTCACTTGGTGCTGATTGGTATTGCTAATACCCTGGATCTCACAGATAGAATTCTACCTAGGCTT
CAAGCTAGAGAAAAATGTAAGCCACAGCTGTTGAACTTCCCACCTTATACCAGAAATCAGATAGTCACTATTTTG
CAAGATCGACTTAATCAGGTATCTAGAGATCAGGTTCTGGACAATGCTGCAGTTCAATTCTGTGCCCGCAAAGTC
TCTGCTGTTTCAGGAGATGTTCGCAAAGCACTGGATGTTTGCAGGAGAGCTATTGAAATTGTAGAGTCAGATGTC
AAAAGCCAGACTATTCTCAAACCACTGTCTGAATGTAAATCACCTTCTGAGCCTCTGATTCCCAAGAGGGTTGGT
CTTATTCACATATCCCAAGTCATCTCAGAAGTTGATGGTAACAGGATGACCTTGAGCCAAGAAGGAGCACAAGAT
TCCTTCCCTCTTCAGCAGAAGATCTTGGTTTGCTCTTTGATGCTCTTGATCAGGCAGTTGAAAATCAAAGAGGTC
ACTCTGGGGAAGTTATATGAAGCCTACAGTAAAGTCTGTCGCAAACAGCAGGTGGCGGCTGTGGACCAGTCAGAG
TGTTTGTCACTTTCAGGGCTCTTGGAAGCCAGGGGCATTTTAGGATTAAAGAGAAACAAGGAAACCCGTTTGACA
AAGGTGTTTTTCAAGATTGAAGAGAAAGAAATAGAACATGCTCTGAAAGATAAAGCTTTAATTGGAAATATCTTA
GCTACTGGATTGCCT**TAA**ATTCTTCTCTTACACCCCACCCGAAAGTATTCAGCTGGCATTTAGAGAGCTACAGTC
TTCATTTTAGTGCTTTACACATTCGGGCCTGAAAACAAATATGACCTTTTTTACTTGAAGCCAATGAATTTTAAT
CTATAGATTCTTTAATATTAGCACAGAATAATATCTTTGGGTCTTACTATTTTTACCCATAAAAGTGACCAGGTA
GACCCTTTTTAATTACATTCACTACTTCTACCACTTGTGTATCTCTAGCCAATGTGCTTGCAAGTGTACAGATCT
GTGTAGAGGAATGTGTGTATATTTACCTCTTCGTTTGCTCAAACATGAGTGGGTATTTTTTTGTTTGTTTTTTTT
GTTGTTGTTGTTTTTGAGGCGCGTCTCACCCTGTTGCCCAGGCTGGAGTGCAATGGCGCGTTCTCTGCTCACTAC
AGCACCCGCTTCCCAGGTTGAAGTGATTCTCTTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGTGCCCACCAC
CGCGCCCAGCTAATTTTTTAATTTTTAGTAGAGACAGGGTTTTACCATGTTGGCCAGGCTGGTCTTGAACTCCTG
ACCCTCAAGTGATCTGCCCACCTTGGCCTCCCTAAGTGCTGGGATTATAGGCGTGAGCCACCATGCTCAGCCATT
AAGGTATTTTGTTAAGAACTTTAAGTTTAGGGTAAGAAGAATGAAAATGATCCAGAAAAATGCAAGCAAGTCCAC
ATGGAGATTTGGAGGACACTGGTTAAAG

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FIGURE 3463

GGTATATGAATGACCTAAAGGTACAAATAAAGACGGAGAGAGAACAGTGCCAACTGGGAGCAGGGCAAGA**ATG**CC
AATTCCTCCTCCCCCGCCACCCCCACCTGGTCCTCCTCCACCTCCCACATTTCATCAGGCAAACACAGAGCAGCC
CAAGCTGAGTAGAGATGAGCAGCGGGGTCGAGGCGCCCTCTTACAGGACATTTGCAAAGGGACCAAGCTGAAGAA
GGTGACCAACATTAATGATCGGAGTGCTCCCATCCTCGAGACTCCTCCACCCCCACCACCTGTGATCCGAAATGG
TGCCAGGGATGCTCCCCCTCCCCCACCACCATACCGAATGCATGGGTCAGAACCCCCGAGCCGAGGAAAGCCCCC
ACCTCCACCCTCAAGGACGCCAGCTGGGCCACCCCCTCCTCCTCCACCGCCCCTGAGGAATGGCCACAGAGATTC
TATCACCACTGTCCGGTCTTTCTTGGATGATTTTGAGTCAAAGTATTCCTTCCATCCAGTAGAAGACTTTCCTGC
TCCAGAAGAATATAAACACTTTCAGAGGATATATCCCAGCAAAACAAACCGAGCTGCCCGTGGAGCCCCACCTCT
GCCACCCATTCTCAGG**TGA**AGCCTGGCTTGGTCCCGTTCCTCAGGAAAAGGATGGACCTTCTCTTCTTCTCAGAT
GGTCCCTTCCATTCCCCTGAAACCTGCATGAGAGCTCCTAACATGTTTCTCCAATGCAATCAAGCCCTAGACTCC
AAATGTCCTCCCAGCTCACCTCCATCTATGCATCTCATCTCTGGATTTGGTGATCAGACTCTATATTGACAGTAG
GATCTCAAACCCTGCATCCATCCTTCCTCCAGCAAGCCCTGCTAGCCACATGAGGAACAAGTTTCCGTGTCTTCT
GCCTTCCTCTTGGGGAAAGGTGCCTTGTTGTGATGAATTAACTCACTGTTAGGGCAGGGTGGAGAATGGTACTCC
TTCCTTCTCCTGTCCACTGTGGGGGAAGCTTGGCAGGTATATTATATTTCATCATTTAGGAGGCTGGCATGACCA
GGACTTATGGGTGGGAGGGGAGCATTTTTAGTGAAGCAAGAAAGGAGTTTGCCAAGAAGTGATCTGTTTTAAAGG
TCATATTTGGAGAAAGGGCAAGGAATTGGGTCTGCTTTATTTTTGGGGGTATTTTGTTTTTGTTCTCACCTGCTG
CCCCCCCACCCCACCACCCCAGGGATAAATTGGATATAAACACTAAATACTAATCAGTTGAACTTAACATTTAAT
AAAAAGAAAGGGTGAAATAAACTGAAGACCATTTTAGAACTAGTCAGTTCTCTGCAGCAAAGGGAACAGGAGCCA
TTTGAACCCTCTGGGACCCCTCACCCCACTGCTTCAGGGTGCTAGGCTGAGGGATGTTTTTCCTCCCCCTTACCG
CCCATGCCCTTGAAAGAAAAGTCACTTTTTGTGGAGGGCATCATTCATTCCTGATTCACAAACCCCAAAAACCTC
TGGTGGGAGATAGGAAGATAGGGCGTGGGCCTGGGCCTTAACCTCAATCTTGTGTCTGCCTCAGTCTTTTCTGAC
TGGCCCTGAAGTTGTCAGTGGCTCTTTCTGTCCTTCAGCCCCTGGAAGGTGCTCCAGGATAACAAAGAAGGGCAG
GTTGAAGCCCCTCATGGAAGGAGCTGGCTTTGTGGGGCTGCAAAGGACTTTTAAGTCCTGCCTGTACTGAAGTTC
ACAGCCCACCTGACTGAGCAGACTCTTCCTGTTCCTTTCTCTACCACCCTTGCCTTCCCAGGACTGCACGGTTTA
ACACAGCAGAGTACAGAAGGGTGAAGAAGTGAGCAGAGGCTTATGAAGATATTCAGATACTCTTCTATGCCAGGA
AGCACAAAGACTTTGTTGAGATTTGCCTCAGTTCAGTAGATCTTCCTTGGCAGCCAGCCATAGGTTGTTTCTTTG
TCTTCCGGGTCCTAAAGAGCACAGAGAAAATGGAGGTCCCCAGTCTAGGTAGGAAGCTGATTGGATGAGGACTTC
TTTTTTTCCGACAGCAGGATGGGGCTCTTGGGCTCCACACACCAGATGCTTTGGTTTTCTACAACTGTTGCTATG
TGTAGAGGGTGCTCAGAGCGTGGCATGAGAGCAAGGAGACCATGGCTACTCTTTGAAATGGATGGGGAAAATTAG
CTTAAAAATTTAATCACGAGATTGCGCCACTGCACTCCAGCCTGGGCGACAGAGCCAGACTCCGTCTC

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FIGURE 3464

GCGCGGCGGGC**ATG**GCTCGGGTGGCGTGGGGGCTGCTGTGGTTGCTGCTGGGCAGCGCCGGGGCGCAGTACGAGA
AGTACAGCTTCCGGGGCTTCCCGCCCGAGGACCTGATGCCGCTGGCCGCGGCGTACGGGCACGCTCTGGAGCAGT
ACGAGGGAGAGAGCTGGCGCGAGAGCGCGCGCTACCTGGAGGCGGCGCTGCGGCTGCACCGGCTCCTGCGCGACA
GCGAGGCCTTCTGCCACGCCAACTGCAGCGGCCCCGCGCCCGCGGCCAAGCCCGATCCCGACGGCGGCCGCGCAG
ACGAGTGGGCCTGCGAGCTGCGGCTCTTCGGCCGCGTCCTGGAGCGAGCCGCCTGCCTGCGGCGCTGCAAGCGGA
CGCTGCCCGCCTTCCAGGTGCCCTACCCGCCGCGGCAGCTGCTGCGTGACTTCCAGAGCCGCCTGCCCTACCAGT
ACCTGCACTACGCGCTGTTCAAGGCTAACCGGCTGGAGAAGGCGGTGGCGGCGGCCTACACCTTCCTCCAGAGGA
ACCCGAAGCACGAGCTGACCGCCAAGTATCTCAACTACTATCAGGGGATGCTGGACGTCGCCGACGAGTCCCTCA
CGGACCTAGAGGCCCAGCCCTACGAGGCCGTGTTCCTCCGGGCTGTGAAGCTCTACAACAGCGGGGATTTCCGCA
GCAGCACGGAGGACATGGAGCGGGCCTTGTCAGAGTACCTGGCAGTCTTTGCCCGGTGCCTGGCCGGCTGTGAAG
GGGCCCATGAGCAGGTGGACTTCAAGGACTTCTACCCGGCCATAGCAGATCTCTTTGCAGAGTCCCTGCAGTGCA
AGGTGGACTGTGAGGCCAATTTGACCCCCAATGTGGGTGGCTACTTCGTGGACAAGTTCGTGGCCACCATGTACC
ACTACCTGCAGTTTGCCTACTATAAGTTGAATGATGTGCGCCAGGCTGCCCGCAGCGCCGCCAGCTACATGCTCT
TCGACCCCAAGGACAGCGTCATGCAGCAGAACCTGGTGTATTACCGGTTCCACCGGGCTCGCTGGGGCCTGGAAG
AGGAGGACTTCCAGCCCCGGGAGGAGGCCATGCTCTACCACAACCAGACCGCCGAGCTGCGGGAGCTGCTGGAGT
TCACCCACATGTACCTGCAGTCAGATGATGAGATGGAGCTGGAGGAGACAGAACCGCCCCTGGAGCCTGAGGATG
CCCTATCTGACGCCGAGTTTGAGGGGGAGGGTGACTACGAGGAGGGCATGTATGCTGACTGGTGGCAGGAGCCGG
ATGCCAAGGGTGACGAGGCCGAGGCTGAGCCAGAGCCTGAACTCGCA**TGA**GAAGGGGACACCCCACACCGCTCAA
GCTTGGGAAGCCTGGTGCCGATGGCCCCACCCTCACCAGCCTGGGCAGCAGCAAGAACTATTTATTAAAAACTTA
AGATGGGCCAGGTGCGGTGGCTCACACCTGTAATCCCAGCATTTTGGGAGGCCAAGGTGGGTGGATCACTTGAGG
CCAGGAGTTCAAGACCAGCCTGGCCAACATGATGAGACCTCCGTCTCTACTAAAATACATAAATTAGCCGGGTGT
GGTGGCAGGCGCCTGAAATCCCAGCTACTCAAGAGGCTGAGGCAGGAGAATCGCTTGAACCTGGGAGGCAAAGGT
TGCAGTGAACTGAGATTGCGCCACCGCACTCCAGCCTGGGCGACAGAGCGAGACTCCATCTTTAAAAAAAAACAA
GACGGGCCGGCACGGTGGCTCACGCCTGTAATCCCAGCACTGAGAGGCCGATCACTTGAGGTCAGGAGTTCAAGA
CCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAAATACAAAAATTAGCCAGGCATGGTGGCACACACC
TGTAATCGTAGCTGAGGCAGGAGAATCGCCTGAACCCAGGAGGCGGAGCTTGCAGTGAGCCGAGATCGTGCCACT
GCACTCCAGCCTGGGCGACAGAGTGAGACTCCATCTCAAAAAAAAAAAAAAAAAACTTAAGATGGACACAGCTGAC
TGGACCCCCATCCTGCCTCACCCATGGGTGCTGCACCCCAGACCCATCCTGCCACTTCTATGTCTCTGGACCACA
GGATGGTGGTGGCATTGCAGGTTGGCAAGTGGGCTGATGGGGTCCGCCCTCCTCACTGCTGAGCTCCTCACCTGG
ACAGTCTCCTGGACAAGGAGTTTCCAGCTGCTGGCTGGAGTCTCAGGCCAAATTGCAGAGGGTCCTCCAGGGTCC
TGAAGAGCACTGGACTAAGAGTCTAGTGGTTCCAGGGCCCTGACCAGTAGGTGCTCAATAAATGTTTGTTGTTGA
ATG

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FIGURE 3465

AGCTATGATCGCAACACCTTGGTGGCCATCGTGGTGGGTGTGGGGCGCCTCATCACTGGC**ATG**GACCGAGGCCTC
ATGGGCATGTGTGTCAACGAGCGGCGACGCCTCATTGTGCCTCCCCACCTGGGCTATGGGAGCATCGGCCTGGCG
GGGCTCATTCCACCGGATGCCACCCTCTACTTCGATGTGGTTCTGCTGGATGTGTGGAACAAGGAAGACACCGTG
CAGGTGAGCACATTGCTGCGCCCGCCCCACTGCCCCCGCATGGTCCAGGACGGCGACTTTGTCCGCTACCACTAC
AATGGCACCCTGCTGGACGGCACCTCCTTCGACACCAGCTACAGTAAGGGCGGCACTTATGACACCTACGTCGGC
TCTGGTTGGCTGATCAAGGGCATGGACCAGGGGCTGCTGGGCATGTGTCCTGGAGAGAGAAGGAAGATTATCATC
CCTCCATTCCTGGCCTATGGCGAGAAAGGCTATGGGACAGTGATCCCCCCACAGGCCTCGCTGGTCTTTCACGTC
CTCCTGATTGACGTGCACAACCCGAAGGACGCTGTCCAGCTAGAGACGCTGGAGCTCCCCCCCGGCTGTGTCCGC
AGAGCCGGGGCCGGGGACTTCATGCGCTACCACTACAATGGCTCCTTGATGGACGGCACCCTCTTCGATTCCAGC
TACTCCCGCAACCACACCTACAATACCTATATCGGGCAGGGTTACATCATCCCCGGGATGGACCAGGGGCTGCAG
GGTGCCTGCATGGGGGAACGCCGGAGAATTACCATCCCCCCGCACCTCGCCTATGGGGAGAATGGAACTGGAGAC
AAGATCCCTGGCTCTGCCGTGCTAATCTTCAACGTCCATGTCATTGACTTCCACAACCCTGCGGATGTGGTGGAA
ATCAGGACACTGTCCCGGCCATCTGAGACCTGCAATGAGACCACCAAGCTTGGGGACTTTGTTCGATACCATTAC
AACTGTTCTTTGCTGGACGGCACCCAGCTGTTCACCTCGCATGACTACGGGGCCCCCCAGGAGGCGACTCTCGGG
GCCAACAAGGTGATCGAAGGCCTGGACACGGGCCTGCAGGGCATGTGTGTGGGAGAGAGGCGGCAGCTCATCGTG
CCCCCGCACCTGGCCCACGGGGAGAGTGGAGCCCGGGGAGTCCCAGGCAGTGCTGTGCTGCTGTTTGAGGTGGAG
CTGGTGTCCCGGGAGGATGGGCTGCCCACAGGCTACCTGTTTGTGTGGCACAAGGACCCTCCTGCCAACCTGTTT
GAAGACATGGACCTCAACAAGGATGGCGAGGTCCCTCCGGAGGAGTTCTCCACCTTCATCAAGGCTCAAGTGAGT
GAGGGCAAAGGACGCCTCATGCCTGGGCAGGACCCTGAGAAAACCATAGGAGACATGTTCCAGAACCAGGACCGC
AACCAGGACGGCAAGATCACAGTCGACGAGCTCAAGCTGAAGTCAGATGAGGACGAGGAGCGGGTCCACGAGGAG
CTC**TGA**GGGGCAGGGAGCCTGGCCAGGCCTGAGACACAGAGGCCCACTGCGAGGGGGACAGTGGCGGTGGGACTG
ACCTGCTGACAGTCACCCTCCCTCTGCTGGGATGAGGTCCAGGAGCCAACTAAAACAATGGCAGAGGAGACATCT
CTGGTGTTCCCACCACCCTAGATGAAAATCCACAGCACAGACCTCTACCGTGTTTCTCTTCCATCCCTAAACCAC
TTCCTTAAAATGTTTGGATTTGCAAAGCCAATTTGGGGCCTGTGGAGCCTGGGGTTGGATAGGGCCATGGCTGGT
CCCCCACCATACCTCCCCTCCACATCACTGACACAGCTGAGCTTGTTATCCATCTCCCCAAACTTTCTCTTTCTT
TGTACTTCTTGTCATCCCCACTCCCAGCCCCTTTTCCTCTATGTGACAGCTCCCTAGGACCCCTCTGCCTTCCTC
CCCAATCCTGACTGGCTCCTAGGGAAGGGGAAGGCTCCTGGAGGGCAGCCCTACCTCTCCCATGCCCTTTGCCCT
CCTCCCTCGCCTCCAGTGGAGGCTGAGCTGACCCTGGGCTGCTGGAGGCCAGACTGGGCTGTAGTTAGCTTTTCA
TCCCTAAAGAAGGCTCCTTTCCCTAAGGAACCATAGAAGAGAGGAAGAAAACAAAGGGCATGTGTGAGGGAAGCT
GCTTGGGTGGGTGTTAGGGCTATGAAATCTTGGATTTGGGGCTGAGGGGTGGGAGGGAGGGCAGAGCTCTGCACA
CTCAAAGGCTAAACTGGTGTCAGTCCTTTTTTCCTTTGTTCCAAATAAAAGATTAAACC

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FIGURE 3466

GGGATGGCAGAGGAGGTGAGGAGGGAGGAAGCGTCCGGAGTGGGGCGGGCCCGGACTCCGACCCCCGGGGCGCTT
CGAGCCCCCCAGCTGGTCACCGAGGCACCGCCGCTTCACCCAGGCCAGTAGCCGCCCCCTCGCGCACCCCGGCCC
CGCCTCACACGCGCGCCCGAGCGAGCCCCGGGCTCCCCTCGGGCCCAGCGTGGCGCAGGGGTCAGTGGTTCTCTC
GGGTCTCGGGACAGGTGAGCACCCTGATGAAGGCCACGGTCCTGATGCGGCAGCCTGGGCGGGTGCAGGAGATCG
TGGGCGCCCTCCGCAAGGGCGGCGGAGACCGGTTACAGGTGATTTCTGATTTTGAC**ATG**ACCTTGAGCAGGTTTG
CATATAATGGAAAGCGATGCCCTTCTTCTTACAATATTCTGGATAATAGCAAGATCATCAGTGAGGAGTGTCGGA
AAGAGCTCACAGCGCTCCTTCACCACTATTACCCAATTGAGATCGACCCACACCGGACCGTCAAGGAGAAGCTAC
CTCATATGGTGGAATGGTGGACCAAAGCACACAATCTCCTATGTCAGCAGAAGATTCAGAAGTTTCAGATAGCCC
AGGTGGTTAGAGAGTCCAATGCAATGCTCAGGGAGGGATATAAGACCTTCTTCAACACACTCTACCATAACAACA
TTCCCCTTTTCATCTTTTCTGCGGGCATTGGTGATATCCTGGAAGAAATTATCCGACAGATGAAAGTGTTCCACC
CCAACATCCACATCGTGTCTAACTACATGGATTTTAATGAAGATGGTTTTCTCCAGGGATTTAAGGGCCAGCTCA
TACACACATACAACAAGAACAGCTCTGCGTGTGAGAACTCTGGTTACTTCCAGCAACTTGAGGGCAAAACCAATG
TCATCCTGCTGGGAGACTCTATCGGGGACCTCACCATGGCCGATGGGGTTCCTGGTGTGCAGAACATTCTCAAAA
TTGGCTTCCTGAATGACAAGGTGGAGGAGCGGCGGGAGCGCTACATGGACTCCTATGACATCGTGCTGGAGAAGG
ACGAGACTCTGGATGTGGTCAACGGGCTACTGCAGCACATCCTGTGCCAGGGGGTCCAGCTGGAGATGCAAGGCC
CC**TGA**AGGCGCAGGCTCCAGCCCGGCCTGCAGGCCGTGGTGAGGAGGGGCGCCTCCCCAGAGTCTGCTCCCCCGT
GAACACAGAGCAGAGGCCAGGGTGGCCAGCAGTGGCTGGGTCCTTCCGCGCCCCTCCGTCCTCCTTTCCCTGAGC
ACCTTCATCACCAGAGGCTTGAAGGAACCCCGCCATGTGGCAGGGCACAGGCACTGTTCCTGGTGAACCTTGGAC
CACAGCATGTCAGTGCTCTAGGGATTGTCTACTCCAGGGATTTTCTTCAAAATTTTTAAACATGGGAAGTTCAAA
CAAATATAATGTGTGAAACAG

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FIGURE 3467A

CCGGATTTTGCGGGGTTCGTCGGGCCTGTGGAAGAAGCGCCGCGCACGGACTTCGGCAGAGGTAGAGCAGGTCTC
TCTGCAGCC**ATG**TCGGCCAAGGCAATTTCAGAGCAGACGGGCAAAGAACTCCTTTACAAGTTCATCTGTACCACC
TCAGCCATCCAGAATCGGTTCAAGTATGCTCGGGTCACTCCTGACACAGACTGGGCCCGCTTGCTGCAGGACCAC
CCCTGGCTGCTCAGCCAGAACTTGGTAGTCAAGCCAGACCAGCTGATCAAACGTCGTGGAAAACTTGGTCTCGTT
GGGGTCAACCTCACTCTGGATGGGGTCAAGTCCTGGCTGAAGCCACGGCTGGGACAGGAAGCCACAGTTGGCAAG
GCCACAGGCTTCCTCAAGAACTTTCTGATCGAGCCCTTCGTCCCCCACAGTCAGGCTGAGGAGTTCTATGTCTGC
ATCTATGCCACCCGAGAAGGGGACTACGTCCTGTTCCACCACGAGGGGGGTGTGGACGTGGGTGATGTGGACGCC
AAGGCCCAGAAGCTGCTTGTTGGCGTGGATGAGAAACTGAATCCTGAGGACATCAAAAAACACCTGTTGGTCCAC
GCCCCTGAAGACAAGAAAGAAATTCTGGCCAGTTTTATCTCCGGCCTCTTCAATTTCTACGAGGACTTGTACTTC
ACCTACCTCGAGATCAATCCCCTTGTAGTGACCAAAGATGGAGTCTATGTCCTTGACTTGGCGGCCAAGGTGGAC
GCCACTGCCGACTACATCTGCAAAGTGAAGTGGGGTGACATCGAGTTCCCTCCCCCCTTCGGGCGGGAGGCATAT
CCAGAGGAAGCCTACATTGCAGACCTCGATGCCAAAAGTGGGGCAAGCCTGAAGCTGACCTTGCTGAACCCCAAA
GGGAGGATCTGGACCATGGTGGCCGGGGGTGGCGCCTCTGTCGTGTACAGCGATACCATCTGTGATCTAGGGGGT
GTCAACGAGCTGGCAAACTATGGGGAGTACTCAGGCGCCCCCAGCGAGCAGCAGACCTATGACTATGCCAAGACT
ATCCTCTCCCTCATGACCCGAGAGAAGCACCCAGATGGCAAGATCCTCATCATTGGAGGCAGCATCGCAAACTTC
ACCAACGTGGCTGCCACGTTCAAGGGCATCGTGAGAGCAATTCGAGATTACCAGGGCCCCCTGAAGGAGCACGAA
GTCACAATCTTTGTCCGAAGAGGTGGCCCCAACTATCAGGAGGGCTTACGGGTGATGGGAGAAGTCGGGAAGACC
ACTGGGATCCCCATCCATGTCTTTGGCACAGAGACTCACATGACGGCCATTGTGGGCATGGCCCTGGGCCACCGG
CCCATCCCCAACCAGCCACCCACAGCGGCCCACACTGCAAACTTCCTCCTCAACGCCAGCGGGAGCACATCGACG
CCAGCCCCCAGCAGGACAGCATCTTTTTCTGAGTCCAGGGCCGATGAGGTGGCGCCTGCAAAGAAGGCCAAGCCT
GCCATGCCACAAGATTCAGTCCCAAGTCCAAGATCCCTGCAAGGAAAGAGCACCACCCTCTTCAGCCGCCACACC
AAGGCCATTGTGTGGGGCATGCAGACCCGGGCCGTGCAAGGCATGCTGGACTTTGACTATGTCTGCTCCCGAGAC
GAGCCCTCAGTGGCTGCCATGGTCTACCCTTTCACTGGGGACCACAAGCAGAAGTTTTACTGGGGGCACAAAGAG
ATCCTGATCCCTGTCTTCAAGAACATGGCTGATGCCATGAGGAAGCATCCGGAGGTAGATGTGCTCATCAACTTT
GCCTCTCTCCGCTCTGCCTATGACAGCACCATGGAGACCATGAACTATGCCCAGATCCGGACCATCGCCATCATA
GCTGAAGGCATCCCTGAGGCCCTCACGAGAAAGCTGATCAAGAAGGCGGACCAGAAGGGAGTGACCATCATCGGA
CCTGCCACTGTTGGAGGCATCAAGCCTGGGTGCTTTAAGATTGGCAACACAGGTGGGATGCTGGACAACATCCTG
GCCTCCAAACTGTACCGCCCAGGCAGCGTGGCCTATGTCTCACGTTCCGGAGGCATGTCCAACGAGCTCAACAAT
ATCATCTCTCGGACCACGGATGGCGTCTATGAGGGCGTGGCCATTGGTGGGGACAGGTACCCGGGCTCCACATTC
ATGGATCATGTGTTACGCTATCAGGACACTCCAGGAGTCAAAATGATTGTGGTTCTTGGAGAGATTGGGGGCACT
GAGGAATATAAGATTTGCCGGGGCATCAAGGAGGGCCGCCTCACTAAGCCCATCGTCTGCTGGTGCATCGGGACG
TGTGCCACCATGTTCTCCTCTGAGGTCCAGTTTGGCCATGCTGGAGCTTGTGCCAACCAGGCTTCTGAAACTGCA
GTAGCCAAGAACCAGGCTTTGAAGGAAGCAGGAGTGTTTGTGCCCCGGAGCTTTGATGAGCTTGGAGAGATCATC
CAGTCTGTATACGAAGATCTCGTGGCCAATGGAGTCATTGTACCTGCCCAGGAGGTGCCGCCCCCAACCGTGCCC
ATGGACTACTCCTGGGCCAGGGAGCTTGGTTTGATCCGCAAACCTGCCTCGTTCATGACCAGCATCTGCGATGAG
CGAGGACAGGAGCTCATCTACGCGGGCATGCCCATCACTGAGGTCTTCAAGGAAGAGATGGGCATTGGCGGGGTC
CTCGGCCTCCTCTGGTTCCAGAAAAGGTTGCCTAAGTACTCTTGCCAGTTCATTGAGATGTGTCTGATGGTGACA
GCTGATCACGGGCCAGCCGTCTCTGGAGCCCACAACACCATCATTTGTGCGCGAGCTGGGAAAGACCTGGTCTCC
AGCCTCACCTCGGGGCTGCTCACCATCGGGGATCGGTTTGGGGGTGCCTTGGATGCAGCAGCCAAGATGTTCAGT
AAAGCCTTTGACAGTGGCATTATCCCCATGGAGTTTGTGAACAAGATGAAGAAGGAAGGGAAGCTGATCATGGGC
ATTGGTCACCGAGTGAAGTCGATAAACAACCCAGACATGCGAGTGCAGATCCTCAAAGATTACGTCAGGCAGCAC
TTCCCTGCCACTCCTCTGCTCGATTATGCACTGGAAGTAGAGAAGATTACCACCTCGAAGAAGCCAAATCTTATC
CTGAATGTAGATGGTCTCATCGGAGTCGCATTTGTAGACATGCTTAGAAACTGTGGGTCCTTTACTCGGGAGGAA
GCTGATGAATATATTGACATTGGAGCCCTCAATGGCATCTTTGTGCTGGGAAGGAGTATGGGGTTCATTGGACAC
TATCTTGATCAGAAGAGGCTGAAGCAGGGGCTGTATCGTCATCCGTGGGATGATATTTCATATGTTCTTCCGGAA
CACATGAGCATG**TAA**CAGAGCCAGGAACCCTACTGCAGTAAACTGAAGACAAGATCTCTTCCCCCAAGAAAAAGT
GTACAGACAGCTGGCAGTGGAGCCTGCTTTATTTAGCAGGGGCCTGGAATGTAAACAGCCACTGGGGTACAGGCA
CCGAAGACCAACATCCACAGGCTAACACCCCTTCAGTCCACACAAAGAAGCTTCATATTTTTTTTATAAGCATAG

FIGURE 3467B

AAATAAAAACCAAGCCAATATTTGTGACTTTGCTCTGCTACCTGCTGTATTTATTATATGGAAGCATCTAAGTAC
TGTCAGGATGGGGTCTTCCTCATTGTAGGGCGTTAGGATGTTGCTTTCTTTTTCCATTAGTTAAACATTTTTTTC
TCCTTTGGAGGAAGGGAATGAAACATTTATGGCCTCAAGATACTATACATTTAAAGCACCCCAATGTCTCTCTTT
TTTTTTTTTTACTTCCCTTTCTTCTTCCTTATATAACATGAAGAACATTGTATTAATCTGATTTTTAAAGATCTT
TTTGTATGTTACGTGTTAAGGGCTTGTTTGGTATCCCACTGAAATGTTCTGTGTTGCAGACCAGAGTCTGTTTAT
GTCAGGGGGATGGGGCCATTGCATCCTTAGCCATTGTCACAAAATATGTGGAGTAGTAACTTAATATGTAAAGTT
GTAACATACATACATTTAAAATGGAAATGCAGAAAGCTGTGAAATGTCTTGTGTCTTATGTTCTCTGTATTTATG
CAGCTGATTTGTCTGTCTGTAACTGAAGTGTGGGTCCAAGGACTCCTAACTACTTTGCATCTGTAATCCACAAAG
ATTCTGGGCAGCTGCCACCTCAGTCTCTTCTCTGTATTATCATAGTCTGGTTTAAATAAACTATATAGTAACA

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FIGURE 3468

GTTACACACAGGCAGTGGTATCTGTGAGCAGCTCTGTGGACTCAAAGGTTTTCTCCCTGAGAGGCATGACCCAGG
CCAGCTGATTCATCAGAATCAGGATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACA
TCATTATGAAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGAAGCTACA
ACAACAACGTCGATCATTTGGGGATTGTACAAGTGAGACGGAGCTGCCTCCTCTGACTGCGCGGGAGGCGAAGCA
AATTCGGCGGGAGATCAGCCGAAAGAGCAAGTGGGTGGAT**ATG**CTGGGAGACTGGGAGAAATACAAAAGCAGCAG
AAAGCTCATAGATCGAGCGTACAAGGGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACAC
TGAGGAAATGAAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAGCACAT
CCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGGGATCGATACGGAACCAAGCA
GCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCA
CATCGCCGCCTTGTTCCTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGA
GAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAGCATGT
GGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAAGATCTATGTGGGCAGTGTTCCCCGTTAGG
CTGCCTCATCCGGATATTGATTGACGGGATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGA
AGGCGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAG
GTGTGGCCCGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTCAAGCA
TCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCAGCCAAACCCGAGCAAGGGTC
GTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAGACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGG
CCCACCAGCCCGGTTCCCGCGGCCCATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCC
TGGTGGGGCTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAGG
ACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACGGACCTGGACGTAGAGGGCCC
TTGGTTCCGCCATTATGATTTCAGACAGAGCTGCTGGGTCCGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTG
CTGGCAGGCTGAACACCCTGCGGAGCGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCAC
CCCCTTCAGAGCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTGGAAAG
TTCTCAGTTCCCTCCAGGCTTC**TAG**AAGCATCTGGGCCAGGGCTCATGGCTGGATAATTTCCCTAGGCTTAACAA
CCCAAGCAAGCTTCGCATCCTCGTTTTATTTTTGGTTAAACTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGA
GAGAGATTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCA
GCCCCACGACCATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTCAAACTCATGGAAGGATAAC
CACCTTCATGTTTTGAAATAAATGTTTCCTGTTGAAATG

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FIGURE 3469

CCGGCGTCCCAAGTGAGTGGAGGGGGGATCCCGACTCCAGTCCGGGGCCTTGGCCAGCGGAGCCGCGCTATTCGG
AAGCGGGAATCCCACTCAGAGCCCGGGCCTGTAGGGGCGGGGCGTCCCGGGCACCCGGGATTGGGGCGTCTCCCG
TCGTGCACCGGGGCACCGGCGACTCACCCGGAAGGAGAAGCCGTGATCTGGCTATATGGTGGGGCGCGGGCGGTG
TCGCTGTGGGGAGCTGGTGCTGTTCTCAGATGTTTCCTTCCAATGGGCTTTTGGTGTAGG**ATG**TCGGAGAACCAA
GAACAGGAGGAGGTGATTACAGTGCGTGTTCAGGACCCCCGAGTGCAGAATGAGGGCTCCTGGAACTCTTATGTG
GATTATAAGATATTCCTCCATACCAACAGCAAAGCCTTTACTGCCAAGACTTCCTGTGTGCGGCGCCGCTACCGT
GAGTTCGTGTGGCTGAGAAAGCAGCTACAGAGAAATGCTGGTTTGGTGCCTGTTCCTGAACTTCCTGGGAAGTCA
ACCTTCTTCGGCACCTCAGATGAGTTCATTGAGAAGCGACGACAAGGTCTGCAGCACTTCCTTGAAAAGGTCCTG
CAGAGTGTGGTTCTCCTGTCAGACAGCCAGTTGCACCTATTCCTGCAAAGCCAGCTCTCGGTGCCTGAGATAGAA
GCCTGTGTCCAGGGCCGAAGTACCATGACTGTGTCTGATGCCATTCTTCGATATGCTATGTCAAACTGTGGCTGG
GCCCAGGAAGAGAGGCAGAGCTCTTCTCACCTGGCTAAAGGAGACCAGCCTAAGAGTTGCTGCTTTCTTCCAAGA
TCGGGTAGGAGGAGCTCTCCCTCACCGCCTCCCAGTGAAGAAAAGGACCATTTAGAAGTGTGGGCTCCAGTTGTT
GACTCTGAGGTTCCTTCCTTGGAAAGTCCCACTCTCCCACCCCTCTCCTCACCATTATGCTGTGATTTTGGAAGA
CCCAAAGAGGGAACCTCCACTCTTCAGTCTGTGAGGAGGGCTGTGGGAGGAGATCATGCTGTGCCTTTGGACCCT
GGTCAGTTAGAAACAGTTTTGGAAAAG**TGA**GCTCTGGGTTCTGCTCTGAGATGGTCAGAGAAGATGCGGGCCAGG
AGACTTACTCAGGTGGGACTGGGCACAGGGCAGGTATGTGGGAGGCTGGGCTGCTTAGTGTCTTCTAGTCACCTC
TGCTTGGGCTGATTGACAGAGGTCAGTCATTACAGCCCCTTATGCCTCTTCCATGGGAACAAATACTGTGCAGAT
GTTTGTAAGTTAAACATAAGACACAGGGGCTGTTGCTTTTGAACAGAACCCTATATTACTCTCCTGGGATCTGAG
TTTCTGCAGGTCATTTGTATGTAGGACCAGGAGTATCTCCTCAGGTGACCAGTTTTGGGGACCCGTATGTGGCAA
ATTCTAAGCTGCCATATTGAACATCATCCCACTGGGAGTGGTTATGTTGTATCCCCATCTTGGCTGGCTTCAGTT
TTTGCTGTAGCCCTAGAGCACTTTGTTTGTGGGAGGCTGGCCTCTTGCCTACCTCCTTGCATGGACAGGGGGATG
AATATTTACTTTCCCACCTCCTTGCTTTTTCTTTCACTGATACCACTGAATGGAACTGGTGCTGTGACTCCTGCT
GCTGGGGATTTATGTCCCGAGACCTTAGCCTGGCTGAGTGGAGCCTGAGACCTGCACAACAGCTCATGGTCATGC
ATGAGAGAGAAGTGGCTGGCCACAGCCAGAGGGAACAGTAACAGCCCAGGGGCCTTTATTTTGGGAAAGGCTGTC
CCGGGCTGTTACTGTCTCTTCTGGTTATAAAGCAGACATGTGGCCATCTTTTCCGCAGGGTTAGAGTGGGCTCCT
TTCTTTTTGGAATCCTTTTCTTCTCCTTTGGTAGCAGCTCCCTGCCTCCAGGGCTTCCGCCACCAGCGTCTCTGC
TGTGTTGCGCAGTGCAGTGGGGTGCAAGGGCTTTGTTTCTGCCTGCCTGAAAGAGAGGGCTCTGGGGATGGAGAT
GAGAAACAACACGCTCTCCTTCAGACAATGAGGCATTCTGTCCTCCTGCTGCCATTCTTCATCTCCACTGAGAGC
CAGAGCTGGTAGGAGCCGAGTGCCACAGGCATTCTGCATTGCTCTACTCTTAGGTTTGTGTGTGTGATCCTTCCC
CTCCCTGTCGCCCACTCCTCCCTCCTCTGGCTATCCTACCCTGTCTGTGGGCTCTTTTACTACCAGCCTATGCTG
TGGGACTGTCATGGCATTTAGTTCAGAGTGGAGGGGCTTTGGCCTGAAATAAAATGCAAGTATTT

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FIGURE 3470

GGCTGAGGGGAGGGCCGTTGGCCGGGGCCTGCGGTACGCCGCTTCAGTGAGGGACGCCACTGCGGCCACCCGGCT
TGCTGCCTTCCTGGGCGCCACTCCCCCAGGCGACCCGACGCGACGCGCCAGCAGCGCAGCACCGATTCCTCTCGG
GCTCTTGGGCGCTGCTCTGAGCAGCGTCACCCTTTACACCAGAAAGCTGGCGGGCACT**ATG**GGGAAAAAACAAAA
CAAGAAGAAAGTGGAGGAGGTGCTAGAAGAGGAGGAAGAGGAATATGTGGTGGAAAAAGTTCTCGACCGTCGAGT
GGTAAAGGGCAAAGTGGAGTACCTCCTAAAGTGGAAGGGATTCTCAGATGAGGACAACACATGGGAGCCAGAAGA
GAACCTGGATTGCCCCGACCTCATTGCTGAGTTTCTGCAGTCACAGAAAACAGCACATGAGACAGATAAATCAGA
GGGAGGCAAGCGCAAAGCTGATTCTGATTCTGAAGATAAGGGAGAGGAGAGCAAACCAAAGAAGAAGAAAGAAGA
GTCAGAAAAGCCACGAGGCTTTGCTCGAGGTTTGGAGCCGGAGCGGATTATTGGAGCTACAGACTCCAGTGGAGA
GCTCATGTTCCTGATGAAATGGAAAAACTCTGATGAGGCTGACCTGGTCCCTGCCAAGGAAGCCAATGTCAAGTG
CCCACAGGTTGTCATATCCTTCTATGAGGAAAGGCTGACGTGGCATTCCTACCCCTCGGAGGATGATGACAAAAA
AGATGACAAGAAC**TAA**CGCTCCTGAGTACCAGCCCCTGTCACATCTGACTGTGGGTTTCAAGTGGGAAGGGAAGG
AGTTCTACTTGTCTTGACACCATAGAGGTGGCTTGAGAAGATGTCCTTTGAAGAGCCAGTATAGTTTCTGTGCCC
TGCAGCAGCCCAAGTGCTTTAAAGCCGTTTCAAGCTGTATAGTTTGCACACCCATCCCAGTGGAGGGGAAAGGGG
ATAAGTGTTTCAAGGCAACCTTTTCTGCACTTTGCTGCGAAAAGCAAAGGGCCTTCTATGAAGGACAAAACTTGC
AGAATTGGGTGTGTGGGAGAGCAAAAAAATACTGTAGATCTTCAAAGAGCATCTCCACAACCCACAGCCTTCTTC
CCAATAGTGTTAACTCTGCATTTTTACAGCGTAGCATGTGTGTAGTTTTTGGCTATTACTGGTGTATTATTTGGG
GGAGGGAGGGATGGGGAGGGGAGAAAGGGAGATGGGTAGCATCATTTTGATTAACATTTGGGGCCTGATAGGGGA
AATGGTGAAGCAATGGAAAAGAACAGACAACTAATGATTTGCTTCTATGTCCAGAATATTTTACCTTTAAAAAAA
TGTCATTGGCACCATAAATAAGGACTGTGAGAGACTGTTTAAAAGCTGTGAAAGTCTGAAACCTATAAGCCAAGG
TGTTCCCTGCCTAAACTTATTGCTGTTCCCACAAAGGACTAAGCCTGTTCATAAGTTACCAAAGTTGCCATTTTG
GAGATGGAAATTGACGAGGAGGGAAGGTCTTTTATTGGAGAGTATACAGTACAAGCAGATCATTCTGCCTTAGAG
GTGCTAATTCCCGAAATTAGAAGACCCTTTCTTTTCCAGTAACGAAGTTATAAATATCAGCTTGTTCATCCAAGC
CACTGGCTGAGGTGTTAGGAAGAGGAAGAGGGTGGTAGAGGAGGTAAGACAGTAGGGAAAGACAAGGGCCCATGC
TCTTAGTGGGGAAAACTCTTGGAGCCGTTTACTTTGAGCTTTGAACACTGAAACCATTGTTGGCAGGGTTCAGTC
ACTGACAGCACAAGTTTCACTGAATTGATCCAAGAGTTTAGTGATTTCAAAAGCCTTGGTCTCAGGAGAAGATTA
AACTTTCATATTGGGCAGTGGTTCACTTTAAAACACACACATACACACACAAAACAATTTTTTAAGAAATCCTAA
TAAGTAACATACCCAAAATGCTCTGTCTTGAGTCATGAGAACCATCAGTTCTTGATATTGTCTAGACTTGCATCT
AGAGCTACGTTGTAAAATTCTTTTAGGCATGTGTTAGATTTCTGTGTAAACTTTGTTTAAATGTAAACTTCATAC
TACATTGTCAGTTTTTGTCTTAATAAAACTATAGATTTAT

FIGURE 3471A

GGCCGGCGGTGGCGGCGGCGAGGCCGGGACTCGGGCTTAGGGCCTGCTGTGGAGGCAGCGGCGGACGCCGAGCTA
AGCAGTTTCTCTGGAAACCCCCCTGGTAAGTGTGGAGGAGGCGGGACACTCTGACCCAAGACGAAAGGCCTGTAG
CTCCAGCCAAAGAAAATAAACCTTAGGAGGGAGAAGGAAAAAAAAAATCCATCAGCTGTTCCTGAGAACAGCCTG
CATTGGAATCTACAGAGAGGACAACTAATGTGAGTGAGGAAGTGACTGTATGTGGACTGTGGAGAAAGTAAGTCA
CGTGGGCCCTTGAGGACCTGGACTGGGTTAGGAACAGTTGTACTTTCAGAGGTGAGGTGTCGAGAAGGGAAAGTG
AATGTGGTCTGGAGTGTGTCCTTGGCCTTGGCTCCACAGGGTGTGCTTTCCTCTGGGGCCGTCAGGGAGCTCATC
CCTTGTGTTCTGCCAGGGTGGGGTACGGGGTTTGACACTGAGGAGGGTAACCTGCTGGCTGGAGCGGCAGAGCAG
TGGCCTTGATTTGTCTTTTGGAAGATTTTAAAAACCAAAAAGCATAAACATTCTGGTCCTTCAGCA**ATG**CTTTCT
CTGAAGAAATACTTAACGGAAGGACTTCTCCAGTTCACCATTCTGCTGAGTTTGATTGGGGTACGGGTGGACGTG
GATACTTACCTGACCTCACAGCTTCCCCCACTCCGGGAGATCATCCTGGGGCCCAGTTCTGCCTATACTCAGACC
CAGTTCCACAACCTGAGGAATACCTTGGATGGCTATGGTATCCACCCCAAGAGCATAGACCTGGACAATTACTTC
ACTGCCCGGCGGCTCCTCAGTCAGGTGAGGGCCCTGGACAGGTTCCAGGTGCCAACCACTGAGGTAAATGCCTGG
CTGGTTCACCGAGACCCAGAGGGGTCTGTCTCTGGCAGTCAGCCCAACTCAGGCCTCGCCCTCGAGAGTTCCAGT
GGCCTCCAAGATGTGACAGGCCCAGACAACGGGGTGCGAGAAAGCGAAACGGAGCAGGGATTCGGTGAAGATTTG
GAGGATTTGGGGGCTGTAGCCCCCCCAGTCAGTGGAGACTTAACCAAAGAGGACATAGATCTGATTGACATCCTT
TGGCGACAGGATATTGATCTGGGGGCTGGGCGTGAGGTTTTTGACTATAGTCACCGCCAGAAGGAGCAGGATGTG
GAGAAGGAGCTGCGAGATGGAGGCGAGCAGGACACCTGGGCAGGCGAGGGCGCGGAAGCTCTGGCACGGAACCTG
CTAGTGGATGGAGAGACTGGGGAGAGCTTCCCTGCACAGGTGCCTAGTGGGGAGGACCAGACGGCCCTGTCCCTG
GAAGAGTGCCTTAGGCTGCTGGAAGCCACCTGCCCCTTTGGGGAGAATGCTGAGTTTCCAGCAGACATTTCCAGC
ATAACAGAAGCAGTGCCTAGTGAGAGTGAGCCCCCTGCTCTTCAAAACAACCTCTTGTCTCCTCTTCTGACCGGG
ACAGAGTCACCATTTGATTTGGAACAGCAGTGGCAAGATCTCATGTCCATCATGGAAATGCAGGCCATGGAAGTG
AACACATCAGCAAGTGAAATCCTGTACAGTGCCCCTCCTGGAGACCCACTGAGCACCAACTACAGCCTTGCCCCC
AACACTCCCATCAATCAGAATGTCAGCCTGCATCAGGCGTCCCTGGGGGGCTGCAGCCAGGACTTCTTACTCTTC
AGCCCCGAGGTGGAAAGCCTGCCTGTGGCCAGTAGCTCCACGCTGCTCCCGTTGGCCCCCAGCAATTCTACCAGC
CTCAACTCCACCTTCGGCTCCACCAACCTGACAGGGCTCTTCTTTCCACCCCAGCTCAATGGCACAGCCAATGAC
ACAGCAGGCCCAGAGCTGCCTGACCCTTTGGGGGGTCTGTTAGATGAAGCTATGTTGGATGAGATCAGCCTTATG
GACCTGGCCATTGAAGAAGGCTTTAACCCTGTGCAGGCCTCCCAGCTGGAGGAGGAATTTGACTCTGACTCAGGC
CTTTCCTTAGACTCGAGCCATAGCCCTTCTTCCCTAAGCAGCTCTGAAGGCAGTTCTTCCTCTTCTTCCTCCTCC
TCTTCCTCTTCTTCCTCTGCTTCTTCCTCTGCCTCTTCCTCCTTTTCTGAGGAAGGTGCGGTTGGCTACAGCTCT
GACTCTGAGACCCTGGATCTGGAAGAGGCCGAGGGTGCTGTGGGCTACCAGCCTGAGTATTCCAAGTTCTGCCGC
ATGAGCTACCAGGATCCAGCTCAGCTCTCATGCCTGCCCTACCTGGAGCACGTGGGCCACAACCACACATACAAC
ATGGCACCCAGTGCCCTGGACTCAGCCGACCTGCCACCACCCAGTGCCCTCAAGAAAGGCAGCAAGGAGAAGCAG
GCTGACTTCCTGGACAAGCAGATGAGCCGGGATGAGCACCGAGCCCGAGCCATGAAGATCCCTTTCACCAATGAC
AAAATCATCAACCTGCCTGTGGAGGAGTTCAATGAACTGCTGTCCAAATACCAGTTGAGTGAAGCCCAGCTGAGC
CTCATCCGAGACATCCGGCGCCGGGGCAAGAACAAGATGGCGGCGCAGAACTGCCGCAAGCGCAAGCTGGACACC
ATCCTGAATCTGGAGCGTGATGTGGAGGACCTGCAGCGTGACAAAGCCCGGCTGCTGCGGGAGAAAGTGGAGTTC
CTGCGCTCCCTGCGACAGATGAAGCAGAAGGTCCAGAGCCTGTACCAGGAGGTGTTTGGGCGGCTGCGAGATGAG
AACGGACGACCCTACTCGCCCAGTCAGTATGCGCTCCAGTACGCCGGGGACGGCAGTGTCCTCCTCATCCCCCGC
ACGATGGCCGACCAGCAGGCCCGGCGGCAGGAGAGGAAGCCAAAGGACCGGAGAAAG**TGA**GCCTGGGGAAGAAGG
GGGTTTGAAGCCCACCAAGACCGAAACTGGAGAAGGGCTGGACCTGGACCTGGACCTGGACCTACAGCGGGGACT
TAAATGCCTTCTTATCCAATATATCTTCTCAGATGGGATGACTGCGGGTCAGTGTACAGGAAGAGGCAGGCACTG
GCTGGCTCAGCTCCACTCGGGTGGAGTGGAAGTGGCCAGACCATTTAGACGGACAGGGTCCTCACCCTACCCCTT
TCCTGTGAGGCAGGGGTGGTGGTGGAGTTGCTGGAGGTAGAGGAGCTATGTGGAGCAAAGGCCGACAGAGGGGAA
GGAATGGACCTGTGAGAGGAAGGGAAGGTGGCAGAAAGTCTCATTTCAGGAAGGAGGGATAGAAGGAAGGAAGGA
AGGAACCCCCCCCCCCCCGAAAAAAAAATCAAAGCGGGAAGAAAATCAGAGGGAAGGTTAAGGTTGGCTCTGGCC
AGGATTCCAGGCAGCAGGTTGGAGTGACTGGTGGGCCTAGATCACTGGTGTGATAAACCCCAATTTTCACCCCGG
GGGGGGTGGGGTACACAGACACAGGGTGGGGGTGGGGAGGGACGGTGTTAACTCTTTCTGCTCCTTGCATTTTGA
CATCCCTGAAGGGGAGCTCTTGGATATCATTGGCCATGTTTCAATCGAATGGAGCCACTGGGCCCCAACACTGGC

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FIGURE 3471B

TTTGAGATTTAGAGTCAAAGGGTAGAGTGAACAGGAAAGGGTCACGTGGTCCCATGTTGCAACAGCCCCAACATC
ACGCATGTCATTCACTGCCTTGCCACTCCATCTCCCTCCGTGCTCCAGCCACCCCTGAGCTGAGGCTCCCATTGT
CTCCATCAGAGCCTGCATGTGTATGCCGTCCTCCCCTGGTCCGGTGTTTGTGTTCCCCACCCCTCACAGACTGCC
TGAGCTCTTCTGTAAGCTGGGGTAGGGTGATGGCAGTGCTCCGGGAACTGGGCCTGCAGCCTTCCTCTTCTGGGA
CTGCTGTGAGGCAGAGGAATGATGGAGAATCTAGTGTAGCAGCCTCCAGGCAGGATTCAGCACAACACTGGGGAG
TCACCCTTCCCTCGGGCCTCTGCCTACCAACAACTGGGCTTATCACTGGGAAAACACAAAAAATTACACAACCCA
GCAACAACAAAAGAACTAGTCCTCTTAGAATTTCTTGCGCTTTGATTTTTTTAGGGCTTGTGCCCTGTTTCACTT
ATAGGGTCTAGAATGCTTGTGTTGAGTAAAAAGGAGATGCCCAATATTCAAAGCTGCTAAATGTTCTCTTTGCCA
TAAAGACTCCGTGTAACTGTGTGAACACTTGGGATTTTTCTCCTCTGTCCCGAGGTCGTCGTCTGCTTTCTTTTT
TGGGTTTCTTTCTAGAAGATTGAGAAGTGCATATGACAGGCTGAGAGCACCTCCCCAAACACACAAGCTCTCAGC
CACAGGCAGCTTCTCCACAGCCCCAGCTTCGCACAGGCTCCTGGAGGGCTGCCTGGGGGAGGCAGACATGGGAGT
GCCAAGGTGGCCAGATGGTTCCAGGACTACAATGTCTTTATTTTTAACTGTTTGCCACTGCTGCCCTCACCCCTG
CCCGGCTCTGGAGTACCGTCTGCCCCAGACAAGTGGGAGTGAAATGGGGGTGGGGGGAAGCACTGATTCCCAGTT
AGGGGGTGCCTAACTGAGCAGTAGGGATAGAAGGTGTGAACCTGGGAGTGCTTTTATAAATTATTTTCCTTGTAG
ATTTTATTTTTAATTTATCTCTGTGACCTGCCAGGGAGAGGGGAGAGAGAGAGATGCTGTTGAGCACATGACA
AAATAAAATAAAATGGATGATTC

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FIGURE 3472

GGCGGCGAGCGGAATGCAGCGGCCCGAGGCTGGCCACGTCCGCACCCGGGGGAGGGGGCCGCGGCGGCAGGCCGG
GGGCCGGCGCCGCCTGCTCGAGCCGGGGAGCCCTCGGGGCTGCGGTTGCAGGAACCTTCCCTCTACACCATCAAG
GCTGTTTTCATCCTAGATAATGACGGGCGCCGGCTGCTGGCCAAGTATTATGATGACACATTCCCCTCC**ATG**AAG
GAGCAGATGGTTTTCGAGAAAAATGTCTTCAACAAGACCAGCCGGACTGAGAGTGAGATTGCATTTTTTGGGGGT
ATGACCATCGTCTACAAGAACAGCATTGACCTCTTCCTATACGTGGTGGGCTCATCCTACGAGAATGAGCTGATG
CTCATGTCTGTTCTCACCTGCCTGTTTGAGTCTCTGAACCACATGTTAAGGAAGAACGTGGAGAAGCGCTGGTTG
CTGGAGAACATGGACGGAGCCTTCTTGGTGCTGGACGAGATTGTGGATGGCGGTGTGATTCTGGAGAGTGACCCC
CAGCAAGTGATCCAGAAGGTGAATTTTAGGGCAGATGATGGCGGCTTGACTGAACAGAGTGTGGCCCAGGTTCTT
CAGTCTGCCAAGGAACAAATTAAATGGTCGTTATTGAAA**TGA**AGGCTGTGGATTCAAGGCTCCCTGCCCCCCAGA
TCATTTCCCCAATCCTGGCAAAAGCCCAAAGATCCCAGGGTCAGGAGAGACCCCTCTGTATCCCCAGGTCCCTCC
CAGAACTGACTCCTAAGGTCTCCAGCCAGGGCTTCTGAGATGCAAAGGTTTGGCCTCAGGAGAGTCACCTTTTCT
CACGGCCCTGGCCTTAACTCATATCTTAGGCATTCCTGGCCCCAGGGCCCTAATAAACCTGCTTTTGTCTTCTGC

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FIGURE 3473

CTGAAGCGGAAGTGGAGGAAAGATGGAGGACCATCAGCACGTGCCCATCGACATCCAGACCAGCAAGCTGCTCGA
TTGGCTGGTGGACAGAAGGCACTGCAGCCTGAAATGGCAGAGTCTGGTGCTGACGATCCGCGAGAAGATCAATGC
TGCCATCCAGGACATGCCAGAGAGCGAAGAGATCGCCCAGCTGCTGTCTGGGTCCTACATTCACTACTTTCACTG
CCTAAGAATCCTGGACCTTCTCAAAGGCACAGAGGCCTCCACGAAGAATATTTTTGGCCGATACTCTTCACAGCG
GATGAAGGATTGGCAGGAGATTATAGCTCTGTATGAGAAGGACAACACCTACTTAGGTAAAGTGGCCCGGCCTGG
GAGCCCTGGTATCCATGGGGAAGCCCACTCTCAGAGTTCTGAGATACCAGGCTTATAGGAGGCACAGTCTGTGAG
TGGGAAGAGACTGGAGTGTAGATGTTGCCCATTTGTAGGTGGTAAAATCAATTGTTTTTGATGGAATTGATTTTC
CCTGAGTGGAGTGCTGGGGGAAGGAGGAGGTCCAGGCCGGTAGTGGCCATTCGCCGTGCCTCAGCGAGCAGGTGT
GTGTGGGTCCTCCACCACTCACCTCTTGGTTAGCGGGAGTGTGCTGCCCCCACCCCCACCCCCGCACCCCCATTC
TACACAAGGCAGAAGAGGCACGGGTTTTCCTGGGAGCGAATATCAAGTGCCTGAGAGCAACTACAGGACTAACTG
TGTTTGGGTTGGGTGTAGTATAAATAATAATAATGGCTAATATTTCCTGAGCATCTACTAAATGCAAGGAATTGT
GCTTGGTGTGTCATGTGGATTCTCTCTTGCATCTTCATGATAAATGTTATTGTCGCTGTTTTACCGATGAGGGTT
GGATTAGAGGGGTTAAACAACTTGTCTTAGGCTCCACAGCTGGGAACAAGTGGGGCTGGGAAGCTGACTTCGTGC
TCTTCACCACCACAAAGG**ATG**TGTGTGCATCCTGGGGCATGCCTGCCTCATGTGGGGGTGTCCTGGGCTGAATTT
CCTGGGCACTTCTCAGTGGAACTCTCTAGCCTCCTGGTTCGGAATGTCAACTATGAGATCCCCTCACTGAAGAAG
CAGATTGCCAAGTGCCAGCAGCTGCAGCAAGAATACAGCCGCAAGGAGGAGGAGTGCCAGGCAGGGGCTGCCGAG
ATGCGGGAGCAGTTCTACCACTCCTGCAAGCAGTATGGCATCACGGGCGAAAATGTCCGAGGAGAACTGCTGGCC
CTGGTGAAGGACCTGCCGAGTCAGCTGGCTGAGATTGGGGCAGCGGCTCAGCAGTCCCTGGGGGAAGCCATTGAC
GTGTACCAGGCGTCTGTGGGGTTTGTGTGTGAGAGCCCCACAGAGCAGGTGTTGCCAATGCTGCGGTTCGTGCAG
AAGCGGGGAAACTCAACGGTGTACGAGTGGAGGACAGGGACAGAGCCCTCTGTGGTGGAACGACCCCACCTCGAG
GAGCTTCCTGAGCAGGTGGCAGAAGATGCGATTGACTGGGGCGACTTTGGGGTAGAGGCAGTGTCTGAGGGGACT
GACTCTGGCATCTCTGCCGAGGCTGCTGGAATCGACTGGGGCATCTTCCCGGAATCAGATTCAAAGGATCCTGGA
GGTGATGGGATAGACTGGGGAGACGATGCTGTTGCTTTGCAGATCACAGTGCTGGAAGCAGGAACCCAGGCTCCA
GAAGGTGTTGCCAGGGGCCCAGATGCCCTGACACTGCTTGAATACACTGAGACCCGGAATCAGTTCCTTGATGAG
CTCATGGAGCTTGAGATCTTCTTAGCCCAGAGAGCAGTGGAGTTGAGTGAGGAGGCAGATGTCCTGTCTGTGAGC
CAGTTCCAGCTGGCTCCAGCCATCCTGCAGGGCCAGACCAAAGAGAAGATGGTTACCATGGTGTCAGTGCTGGAG
GATCTGATTGGCAAGCTTACCAGTCTTCAGCTGCAACACCTGTTTATGATCCTGGCCTCACCAAGGTATGTGGAC
CGAGTGACTGAATTCCTCCAGCAAAAGCTGAAGCAGTCCCAGCTGCTGGCTTTGAAGAAAGAGCTGATGGTGCAG
AAGCAGCAGGAGGCACTTGAGGAGCAGGCGGCTCTGGAGCCTAAGCTGGACCTGCTACTGGAGAAGACCAAGGAG
CTGCAGAAGCTGATTGAAGCTGACATCTCCAAGAGGTACAGCGGGCGCCCTGTGAACCTGATGGGAACCTCTCTG
TGACACCCTCCGTGTTCTTGCCTGCCCATCTTCTCCGCTTTTGGGATGAAGATGATAGCCAGGGCTGTTGTTTTG
GGGCCCTTCAAGGCAAAAGACCAGGCTGACTGGAAGATGGAAAGCCACAGGAAGGAAGCGGCACCTGATGGTGAT
CTTGGCACTCTCCATGTTCTCTACAAGAAGCTGTGGTGATTGGCCCTGTGGTCTACCAGGCGAAAACCACAGATT
CTCCTTCTAGTTAGTATAGCGGACTTAATAAAAGAGGAAAAAAC

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FIGURE 3474

CCGAGTCTCACCCTCCCAGGCAGCTCCTACACTCAACTGCTTCTCTAGGAAAGGTCTCACCTCCAGCCTGGAGCA
GTCGGGATTACAGAAAGCCCCATCCTTGGCTTAGGGAGCGCC**ATG**ACGACTGAAATTGGTTGGTGGAAGCTGACT
TTCCTCCGGAAAAAGAAATCCACTCCCAAAGTGCTGTATGAGATCCCTGACACCTATGCCCAAACAGAGGGAGAT
GCAGAACCCCCGAGGCCTGACGCTGGAGGCCCCAACAGCGACTTTAACACCCGCCTGGAGAAGATTGTGGACAAG
AGCACAAAGGGCAAGCACGTCAAGGTCTCCAACTCAGGACGCTTCAAGGAGAAGAAGAAAGTGAGAGCCACGCTG
GCAGAGAACCCTAACCTCTTTGATGATCACGAGGAAGGACGGTCATCAAAG**TGA**AGGGCTGAGGAGGGTGCTAGC
ACCTCTTGGCTCCCTGCCATCAGCCAGATCTGAGACAGGACCTTGCCACGCTGGCCTCTTTGGCCATAGCTGAAG
CTGTGGGGCCAGTTGATACCTGCTGGCAGGAAATGGCTGTTTTTTAGGTTTGTATTTATGTGCCGCCACTTTTGT
AAGGCCTGGGAGATCCCAGGGTCCTCCACCCTCCCCCTGACCACATACAAAGGCACTCTAGTTCAAGAGTGAAAA
GTCTCACCCAGGAGGAACAGCCCTCCTTGAAGCAATGGCAGGGCCAGCAGGGAGGTGGGCATGGCAGGGAATGGA
GAGAGTGAGCCAGACAGACTTCACCTCCTTACTGGACACAGGGTCAAGGGCGAGTTTCAATTGCTGCTCCCTTTA
CTTTCTCTACCTGTGACTACTCCCTGGACCAATCCTGAGGAGGGCACATTTTCCAGAAGCCACGTGATAGGGGCT
GGTTTCTGTGGAGCCAGAGGCAGAGACACTGAACTTGAGCTCACCTCCTAACACCGGCAGTAAACTTCCTGGAAC
TTTGCCCTCAGGTGCGGAGGGGACAGAGGACCCTGGCACTCTGTTAGGGTGCTGTAGAAGACTAGATTGATGGTA
GTTTGGCCTGTTAGTTCCTGTTTTGGCCATGACTTTTGCAGATGGCAAGTCACACACCCTCAAAGGGAAGCTACA
CGGGCCAAATCGGGGGAGTGGGTGGGGAATTTTCTCCTCTCCCTTTCCTACTATAATAGTATTTAAGACATATCA
GCTCCAGAGATGAGTCCTGGAGCCTTGAATTTTGTTTAACAAAATAATTGTAGGTTTCTCTCTGTAATAACAACG
CTGGAAAGGCAGAGAACCTCTTTTATGCTCATGTCTTGCATTTATTGAGATGACTGTTTCTCATGCCTTTATGTT
CCTTCATGTAAGTAAAGTGGACCTTTGTGCTC

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FIGURE 3475

GAAGAGGGTCGGGTATCTGGGCATGCGCAGGGCCGCAGGACTCTTGGTGGGGTAGCGAGGGGGACGGTCCCACGA
CTGCTCCGAAGGGCCGGGACTCCCAGTGGGGGCGGGACCCCCGGAGTGCCCGCCTGCGGACTCCCAAGCCTGGAG
CCTGGGGAGAGGGTGGGCACCTCCGTTCCCGCACACCCGTCCATGGTGTGTGCGCCGAGCGTCCAGGAGCCACGG
CGGTGTCTTCCTTGCGCGTCTTTTACACGTGTGGGGGTAGGCTGCTCCTCGGGGCTGAGCCGTGGCCAGGGTTAT
GGAGAGGCCCGCCTCTCCCCAG**ATG**GCGTCGTCGAGCCCTGACTCCCCATGTTCCTGCGACTGCTTTGTCTCCGT
GCCCCCGGCCTCAGCCATCCCGGCTGTGATCTTTGCCAAGAACTCGGACCGACCCCGGGACGAGGTGCAGGAGGT
GGTGTTTGTCCCCGCAGGCACTCACACTCCTGGGAGCCGGCTCCAGTGCACCTACATTGAAGTGGAACAGGTGTC
GAAGACGCACGCTGTGATTCTGAGCCGTCCTTCTTGGCTATGGGGGGCTGAGATGGGCGCCAACGAGCATGGTGT
CTGCATTGGCAACGAGGCTGTGTGGACGAAGGAGCCAGTTGGGGAGGGGGAAGCCCTGCTGGGCATGGACCTACT
CAGGCTGGCTTTGGAACGGAGCAGCTCTGCCCAGGAGGCCTTGCATGTGATCACAGGGTTACTGGAGCACTATGG
GCAGGGGGGCAACTGCCTGGAGGATGCTGCGCCATTCTCCTACCATAGCACCTTCCTGCTGGCTGACCGCACTGA
GGCGTGGGTGCTGGAGACAGCTGGGAGGCTCTGGGCTGCACAGAGGATCCAGGAGGGGGCCCGCAACATCTCCAA
CCAGCTGAGCATTGGCACGGACATCTCGGCCCAACACCCGGAGCTGCGGACTCATGCCCAGGCCAAGGGCTGGTG
GGATGGGCAGGGTGCCTTTGACTTTGCTCAGATCTTCTCCCTGACCCAGCAGCCTGTGCGCATGGAGGCTGCCAA
GGCCCGCTTCCAGGCAGGGCGGGAGCTGCTGCGGCAACGGCAAGGGGGCATCACGGCAGAGGTGATGATGGGCAT
CCTCAGAGACAAGGAGAGTGGTATCTGTATGGACTCGGGAGGCTTTCGCACCACGGCCAGCATGGTGTCTGTCCT
GCCCCAGGATCCCACGCAGCCCTGCGTGCACTTTCTTACCGCCACGCCAGACCCATCCAGGTCTGTGTTCAAACC
TTTCATCTTCGGGATGGGGGTGGCCCAGGCCCCCCAGGTGCTGTCCCCCACTTTTGGAGCACAAGACCCTGTTCG
GACCCTGCCCCGATTCCAGACTCAGGTAGATCGTCGGCATACCCTCTACCGTGGACACCAGGCAGCCCTGGGGCT
GATGGAGAGAGATCAGGATCGGGGGCAGCAGCTCCAGCAGAAACAGCAGGATCTGGAGCAGGAAGGCCTCGAGGC
CACACAGGGGCTGCTGGCCGGCGAGTGGGCCCCACCCCTCTGGGAGCTGGGCAGCCTCTTCCAGGCCTTCGTGAA
GAGGGAGAGCCAGGCTTATGCG**TAA**GCTTCATAGCTTCTGCTGGCCTGGGGTGGACCCAGGACCCCTGGGGCCTG
GGTGCCCTGAGTGGTGGTAAAGTGGAGCAATCCCTTCACGCTCCTTGGCCATGTTCTGAGCGGCCAGCTTGGCCT
TTGCCTTAATAAATGTGCTTTATTTTC

FIGURE 3476

GGCTTCCGTCCATTCTTCCGGTGGAG**ATG**GCTGCGGCCGTGGCGGGGATGCTGCGAGGGGGTCTCCTGCCCCAGG
CGGGCCGGCTGCCTACCCTCCAGACTGTCCGCTATGGCTCCAAGGCTGTTACCCGCCACCGTCGTGTGATGCACT
TTCAGCGGCAGAAGCTGATGGCTGTGACTGAATATATCCCCCCGAAACCAGCCATCCACCCATCATGCCTGCCAT
CTCCTCCCAGCCCCCCACAGGAGGAGATAGGCCTCATCAGGCTTCTCCGCCGGGAGATAGCAGCAGTTTTCCAGG
ACAACCGAATGATAGCCGTCTGCCAGAATGTGGCTCTGAGTGCAGAGGACAAGCTTCTTATGCGACACCAGCTGC
GGAAACACAAGATCCTGATGAAGGTCTTCCCCAACCAGGTCCTGAAGCCCTTCCTGGAGGATTCCAAGTACCAAA
ATCTGCTGCCCCTTTTTGTGGGGCACAACATGCTGCTGGTCAGTGAAGAGCCCAAGGTCAAGGAGATGGTACGGA
TCTTAAGGACTGTGCCATTCCTGCCGCTGCTAGGTGGCTGCATTGATGACACCATCCTCAGCAGGCAGGGCTTTA
TCAACTACTCCAAGCTCCCCAGCCTGCCCCTGGTGCAGGGGGAGCTTGTAGGAGGCCTCACCTGCCTCACAGCCC
AGACCCACTCCCTGCTCCAGCACCAGCCCCTCCAGCTGACCACCCTGTTGGACCAGTACATCAGAGAGCAACGCG
AGAAGGATTCTGTCATGTCGGCCAATGGGAAGCCAGATCCTGACACTGTTCCGGACTCG**TAG**CCAGCCTGTTTAG
CCAGCCCTGCGCATAAATACACTCTGCGTTATTGGCTGTGCTCTCCTCAATGGGACATGTGGAAGAACTTGGGGT
CGGGGAGTGTGTTTGTCACTTGGTTTTCACTAGTAATGATATTGTCAGGTATAGGGCCACTTGGAGATGCAGAGG
ATTCCATTTCAGATGTCAGTCACCGGCTTCGTCCTTAGTTTTCCCAACTTGGGACGTGATAGGAGCAAAGTCTCT
CCATTCTCCAGGTCCAAGGCAGAGATCCTGAAAAGATAGGGCTATTGTCCCCTGCCTCCTTGGTCACTGCCTCTT
GCTGCACGGGCTCCTGAGCCCACCCCCTTGGGGCACAACCTGCCACTGCCACAGTAGCTCAACCAAGCAGTTGTG
CTGAGAATGGCACCTGGTGAGAGCCTGCTGTGTGCCAGGCTTTGTGCTGAGTGCTGTACATGTATTAGTTCCTTT
ACTGCTGACCACATTGTACCCATTTCACAGAGAAGGAGCAGAGAAATTAAGTGGCTTGCTCAAGGTCATGCAGTT
AGTAAGTGGCAGAACAGGGACTTGAACCAAGCCCTCTGCTCTGAAGACCGCGTCCTGAATTTCTTCACTAGAGCT
TCCTCATCAGGTTACCCAGAAGTGGGTCCCATCCACCATCCAGGTGTGCTTGGATGTTAGTTCTCCACCCTCGAG
GTGTACGCTGTGAAAAGTTTGGGAGCACTGCTTTATAATAAAATGAAATATATTCTACTTCCTTT

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FIGURE 3477A

GAGAGAAGTACACACGCACCCCCTCACTGCCTACTCCTGCTTTCGGGAGCCTGAGTCATTCCTGCCCCCTCGTAG
GGTTCCCCATTTCCCGGTGCGCGGGCACCCTGAGACAGCCTTGGGAATTCGTTCGCGTCCCCTTCCACCTGGGTC
CCCTTCCCCAGTTTGCGCCCCGTAACACTCAGCCAAGGACTTCCTGTGGGTCCCAGGTCAGGGGCCAAGGGGTCC
TGGACCGCTGCCACAGCCCCGGTGCGCCCGGGGGAGGCGCTTCCTTTTCCTGAACTCTGGGATCCTGCGGGAGGA
AGTGGGGAAGTTGGGCGGGGGTGCAGCCGAGGGCGTGCCGACTGTGGAGGGGCCGACCCTCGCGCAGCTCTGGGC
CTTCCTTGGGGAGGAGCTGGGGTGCCAGAGGCCCAGGCTGAGGAGCTTGGCGGCGAGGTATTTGGGGAAGTAAGG
CCTGGGGTGGAGAAGCGCGGAGGAATGGGCCGGGCCCGGCTGGGAAGGCAGCCCTCTCCCATCCACAGGTCTCCC
TGGGTTCTGGCAGGAGCCTGCCCCTGCTGCCGGCCTGGCTTACTTGTCCCTACTTGTCAACACCCTGGCAGCGGG
GTCTTCACCTGGTTCCAGCCCCTTTTCCCCAAGGCGGCAGAGAGGATGGGGCTGAGGAGTCTGGGAAGGGGCCAT
GGGAGTCCCTGCTGAGCTCGGGGCAGGAAGTTTCTGGGTTGCATCTTAGCCGGCCCCAGGGAGTGCAGAGCCAGG
GAGAGGGGTACCAGGGACAAACCCTAGACAGACGGCCCTGTCCACGGTTGCTCCTGCTCTCCTAGGAGGCCCCGT
GTGGGCCGCGGCCCGGCCCTCACC**ATG**GAGTCCATGTTCGAGGACGACATCAGCATCCTGACGCAGGAGGCCCTG
GGGCCTAGTGAGGTGTGGCTGGACAGTCCCGGAGACCCCTCGCTTGGGGGCGACATGTGCTCCGCCTCCCACTTT
GCCCTCATCACTGCTTACGGAGACATCAAGGAACGGCTGGGGGGCCTGGAGAGGGAGAACGCCACCCTCCGACGC
CGCCTCAAAGTCTACGAGATCAAGTACCCACTGATCAGTGACTTTGGAGAGGAGCATGGCTTTTCTCTGTATGAA
ATCAAGGATGGCTCCCTGCTGGAGGTGGAGAAGGTCAGCCTGCAGCAACGGCTCAACCAGTTCCAGCATGAGTTA
CAGAAGAACAAGGAGCAGGAAGAACAGCTTGGAGAGATGATCCAGGCCTACGAGAAACTCTGCGTGGAGAAGAGT
GACTTGGAGACAGAGCTGAGGGAGATGAGGGCCCTGGTGGAGACGCACCTGCGTCAGATCTGTGGTTTGGAGCAG
CAGCTGCGGCAACAGCAAGGCCTCCAGGATGCAGCCTTCTCCAACCTGAGCCCACCGCCAGCCCCCGCCCCTCCC
TGCACTGATTTAGACCTGCACTACCTGGCACTGAGAGGGGGATCTGGCTTGAGTCATGCAGGCTGGCCGGGCTCC
ACACCCAGTGTGAGTGACCTGGAGCGGCGGCGGCTAGAAGAGGCTTTGGAGGCCGCGCAGGGAGAGGCCCGGGGG
GCTCAGCTCCGGGAGGAGCAGCTCCAGGCCGAGTGCGAGCGGCTGCAGGGGGAGCTGAAGCAGCTGCAGGAGACC
CGGGCCCAGGATCTGGCCTCCAACCAGTCGGAGCGAGACATGGCGTGGGTGAAAAGAGTTGGGGATGATCAGGTG
AATTTGGCGCTGGCCTACACCGAGCTGACGGAGGAGCTGGGCCGGCTTCGGGAGTTGAGTTCCCTACAGGGGAGA
ATCTTGAGGACTCTGTTGCAGGAACAGGCCCGGAGTGGCGGCCAGAGGCACTCGCCGCTGTCACAACGCCACTCC
CCGGCCCCCCAGTGCCCCTCCCCCTCCCCGCCTGCCCGAGCGGCTCCCCCGTGCCCCCCGTGCCAGTCCCCCGTC
CCCCAGCGCCGCTCTCCCGTGCCCCCGTGCCCCTCGCCGCAGCAGCGCCGCTCTCCGGCCTCACCCTCCTGCCCG
TCGCCCGTCCCGCAGCGCCGCTCGCCGGTGCCGCCGTCGTGCCAGTCCCCCAGCCCGCAGCGCCGTTCCCCGGTG
CCCCCCAGCTGCCCGGCCCCGCAGCCCCGGCCACCGCCGCCGCCCCCGCCGGGCGAGAGGACGCTGGCCGAGCGC
GCCTACGCCAAGCCGCCCAGCCACCACGTGAAGGCCGGCTTCCAGGGCCGCCGCAGCTACTCTGAGCTGGCGGAG
GGCGCGGCCTACGCGGGCGCCTCCCCGCCCTGGCTGCAGGCCGAAGCGGCCACTCTCCCCAAGCCCCGGGCCTAC
GGCAGCGAGCTCTACGGCCCTGGCAGGCCCCTCAGCCCGCGGCGCGCCTTCGAGGGCATCCGGCTGCGCTTCGAG
AAGCAGCCGTCGGAGGAGGACGAGTGGGCTGTGCCCACCAGCCCGCCCAGCCCGGAGGTGGGCACCATCCGCTGC
GCCTCCTTCTGCGCGGGCTTCCCCATCCCCGAGTCGCCCGCCGCCACCGCCTACGCCCACGCCGAGCACGCGCAG
TCCTGGCCGTCCATCAACTTGCTGATGGAGACGGTGGGCTCCGACATCCGCAGCTGCCCCCTCTGCCAGCTGGGT
TTCCCTGTCGGGTACCCGGATGATGCCCTCATCAAACACATTGACTCCCACCTGGAGAACAGCAAGATC**TAG**GGC
ACCAGCCCCACCCACTGGCTGTTTCTCCGTCCTCTCCTATCACCCCCAAACACTCACTTTGAATGCTGCATGAAT
CTCGTGGGGGGTCCCTGCCCTTGCGACCCCCAGATACCTCCACTTGCTACCGAGTCAACGTGTGTGCCATCTTCC
CTGGTCCAGGCACCACTCAGCTCTGGCTCTTCCTGGGAGGTCAGCCGAGGCTCCCCCCATGCTCCTGGTTTCTGC
TTAGGAGGTGGGGACTTGGGCTGGGATGGGGACGGCATACCCCTCCCAGGCCTCTCCCTCTGCCTTTCTGTTCTT
AATCAGGGTTGGATCCAAGAAGGTGTCCAGTGCTTGGGCCTGGGGTGGGGGGAAGGTGTTAGAGGACTCCAGGAG
CTCCTGCACCCCTCCCCAAATGTCCATCTTTCTCAGACGGGGCTCTGTCTGGGGAGCACCCACAGGCTGCCTTTG
GGGTCCCAGAGCCTGCTCTGTGCACTGACCCCAGTTCCTCCATCCTGTGGCCAGCCTAGGGCTCATGGCATGGGC
CCCCACTGGGGGAGGGAGGCATCTTGTTTCTTGTGGTTCCCTGCAGGCCAGTCCTGTCCTCCTTTCCCTGTTCTG
CCCACTCTGGGGAATAGGGAGGGGAGGAGAGGAGAGGAGAGGGAGGATCCTGGAGGACTGGGAAGATCTAGCCTA
AAGAGGCTTCTCTGAGGGCCAGGGCCCTACAGCATGCCCCTACGGCCAGGGGACTGTCTGCCAGCCTCCCAGGCC
CATGCCCTCCTGGTGCCCCTGGCACTGAGGCACAGATCGTCAAGGCAGGTACCCCCTCAACCCTTCTTCCACTGG
AGCCCCTGACACCACAGGTGCCCTGGAGCCCTTGTGTGACTCAGCCTCTGTTAGCTGGGTGGGTGTCATCAGCCC

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FIGURE 3477B

CTGCCTCCCAGGCCAGAACCTGAGAACGGGCCCAGGGTGCTGTGGAGATCAACTTCAAAAGAGCTAACCCCTTCC
CACACTCCACCCACCCACCTACATTTCCTCTGTGAAATCTACCTCAGAGTTGTACCCTCAGAAGGACGGGTAAGC
AGGAGGCCAGGGGGTCCCCAGGGCTGAGGTGGGGAGCCTTCTACGGCGAAAGCCTGCCACCCCACAATGAATCCA
CCCTGCTCCACTGCGCGCCTCTCCCAGGTCTCAGCTCTGGGTGGGGAGCAGTGGCCGCTACCGACAGCGCATGTC
CCGCTCTTATCCAACTCTTCCAGGCCCCACCTCCCTGCACCCCTCCCCTCTATAGAGCAGGGGAGTGAAGGGGTA
TGTCAGGCGGGGAAGGGGCCAAGGACACGTCATTGTACCCTGAGCGTCCCCAGGGAGTGGAAATGGGGAAGGGGG
CCTGGAGAGGGGAGGCAGGGGCCCCTGTGCTCTCTGAACAAGTTGAAAGTCCAAATAAAACTTACCTGTTC

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FIGURE 3478A

CTCCCTCGCTCCCTCCCTGCGCGCCGCCTCTCACTCACAGCCTCCCTTCCTTCTTTCTCCCTCCGCCTCCCGAGC
ACCAGCGCGCTCTGAGCTGCCCCCAGGGTCCCTCCCCCGCCGCCAGCAGCCCATTTGGAGGGAGGAAGTAAGGGA
AGAGGAGAGGAAGGGGAGCCGGACCGACTACCCAGACAGAGCCGGTGAATGGGTTTGTGGTGACCCCCGCCCCCC
ACCCCACCCTCCCTTCCCACCCGACCCCCAACCCCCATCCCCAGTTCGAGCCGCCGCCCGAAAGGCCGGGCCGTC
GTCTTAGGAGGAGTCGCCGCCGCCGCCACCTCCGCC**ATG**GAGCTGATCACCATTCTCGAGAAGACCGTGTCTCCC
GATCGGCTGGAGCTGGAAGCGGCGCAGAAGTTCCTGGAGCGTGCGGCCGTGGAGAACCTGCCCACTTTCCTTGTG
GAACTGTCCAGAGTGCTGGCAAATCCAGGAAACAGTCAGGTTGCCAGAGTTGCAGCTGGTCTACAAATCAAGAAC
TCTTTGACATCTAAAGATCCAGATATCAAGGCACAATATCAGCAGAGGTGGCTTGCTATTGATGCTAATGCTCGA
CGAGAAGTCAAGAACTATGTTTTGCAGACATTGGGTACAGAAACTTACCGGCCTAGTTCTGCCTCACAGTGTGTG
GCTGGTATTGCTTGTGCAGAGATCCCAGTAAACCAGTGGCCAGAACTCATTCCTCAGCTGGTGGCCAATGTCACA
AACCCCAACAGCACAGAGCACATGAAGGAGTCGACATTGGAAGCCATCGGTTATATTTGCCAAGATATAGACCCA
GAGCAGCTACAAGATAAATCCAATGAGATTCTGACTGCCATAATCCAGGGGATGAGGAAAGAAGAGCCTAGTAAT
AATGTGAAGCTAGCTGCTACGAATGCACTCCTGAACTCATTGGAGTTCACCAAAGCAAACTTTGATAAAGAGTCT
GAAAGGCACTTTATTATGCAGGTGGTCTGTGAAGCCACACAGTGTCCAGATACGAGGGTACGAGTGGCTGCTTTA
CAGAATCTGGTGAAGATAATGTCCTTATATTATCAGTACATGGAGACATATATGGGTCCTGCTCTTTTTGCAATC
ACAATCGAAGCAATGAAAAGTGACATTGATGAGGTGGCTTTACAAGGGATAGAATTCTGGTCCAATGTCTGTGAT
GAGGAAATGGATTTGGCCATTGAAGCTTCAGAGGCAGCAGAACAAGGACGGCCCCCTGAGCACACCAGCAAGTTT
TATGCGAAGGGAGCACTACAGTATCTGGTTCCAATCCTCACACAGACACTAACTAAACAGGACGAAAATGATGAT
GACGATGACTGGAACCCCTGCAAAGCAGCAGGGGTGTGCCTCATGCTTCTGGCCACCTGCTGTGAAGATGACATT
GTCCCACATGTCCTCCCCTTCATTAAAGAACACATCAAGAACCCAGATTGGCGGTACCGGGATGCAGCAGTGATG
GCTTTTGGTTGTATCTTGGAAGGACCAGAGCCCAGTCAGCTCAAACCACTAGTTATACAGGCTATGCCCACCCTA
ATAGAATTAATGAAAGACCCCAGTGTAGTTGTTCGAGATACAGCTGCATGGACTGTAGGCAGAATTTGTGAGCTG
CTTCCTGAAGCTGCCATCAATGATGTCTACTTGGCTCCCCTGCTACAGTGTCTGATTGAGGGTCTCAGTGCTGAA
CCCAGAGTGGCTTCAAATGTGTGCTGGGCTTTCTCCAGTCTGGCTGAAGCTGCTTATGAAGCTGCAGACGTTGCT
GATGATCAGGAAGAACCAGCTACTTACTGCTTATCTTCTTCATTTGAACTCATAGTTCAGAAGCTCCTAGAGACT
ACAGACAGACCTGATGGACACCAGAACAACCTGAGGAGTTCTGCATATGAATCTCTGATGGAAATTGTGAAAAAC
AGTGCCAAGGATTGTTATCCTGCTGTCCAGAAAACGACTTTGGTCATCATGGAACGACTGCAACAGGTTCTTCAG
ATGGAGTCACATATCCAGAGCACATCCGATAGAATCCAGTTCAATGACCTTCAGTCTTTACTCTGTGCAACTCTT
CAGAATGTTCTTCGGAAAGTGCAACATCAAGATGCTTTGCAGATCTCTGATGTGGTTATGGCCTCCCTGTTAAGG
ATGTTCCAAAGCACAGCTGGGTCTGGGGGAGTACAAGAGGATGCCCTGATGGCAGTTAGCACACTGGTGGAAGTG
TTGGGTGGTGAATTCCTCAAGTACATGGAGGCCTTTAAACCCTTCCTGGGCATTGGATTAAAAAATTATGCTGAA
TACCAGGTTTGTTTGGCAGCTGTGGGCTTAGTGGGAGACTTGTGCCGTGCCCTGCAATCCAACATCATACCTTTC
TGTGACGAGGTGATGCAGCTGCTTCTGGAAAATTTGGGGAATGAGAACGTCCACAGGTCTGTGAAGCCGCAGATT
CTGTCAGTGTTTGGTGATATTGCCCTTGCTATTGGAGGAGAGTTTAAAAAATACTTAGAGGTTGTATTGAATACT
CTTCAGCAGGCCTCCCAAGCCCAGGTGGACAAGTCAGACTATGACATGGTGGATTATCTGAATGAGCTAAGGGAA
AGCTGCTTGGAAGCCTATACTGGAATCGTCCAGGGATTAAAGGGGGATCAGGAGAACGTACACCCGGATGTGATG
CTGGTACAACCCAGAGTAGAATTTATTCTGTCTTTCATTGACCACATTGCTGGAGATGAGGATCACACAGATGGA
GTAGTAGCTTGTGCTGCTGGACTAATAGGGGACTTATGTACAGCATTTGGGAAGGATGTACTGAAATTAGTAGAA
GCTAGGCCAATGATCCATGAATTGTTAACTGAAGGGCGGAGATCGAAGACTAACAAAGCAAAAACCCTTGCTACA
TGGGCAACAAAAGAACTGAGGAAACTGAAGAACCAAGCT**TGA**TCTGTTACCATTGGGATGATAACCTGAGGACCC
CCACTGGAAATCTCCCATCTTTTGAAAAACCTGGAAGTGAGGAGTGTGCACGGATGCTGAATGTTTGGGAATGAG
AGGATGAGTGAGTGAGGCTTGAAAACACACCACATTGAAAATCCTGCCACAGCAGCAGCCGCAGCCGCCAACAGC
AGCGCTGTTAGTGAGCTAAGTAAGCACTGACTTCGTAGAAAACCATAACATCGGCCATCTTGGAAAAGAGAAAAA
CAATGGAGTTACTTATTTAAAAAAAAAGAAAGAAAGTTATCTCTTCCCAGGAGAGGCTAGAAGTAGCTTTTCTGT
CTTTTGGCCAGTGCCGAGTGGAATGCCTGGTTTGGGGGAGGAGGAGGGACTGGGTTCAGCTGTGGTGCTTTGTTG
TAAAAGGCAGCCTGGCCTTTGCTACTGAGGAGAAAGATGGAGCCTGGGTCTCAAGCCCACCTTCGCTGTACCTTT
GCCACATGGTACTGTATGCTTGCCAGCTAGAAGGAGGGTCAGGGATTTTTTACAGTCTGAGAATGAGTGTGTGTG
AGTGAGGCGGTATCCACATTTTCAACTTCAAGTCATTGCAGTTTCTTTTTCCCAGAAAACAAGGGGTTAGATGTT

FIGURE 3478B

GCATTTCATAAAACTAACCGAAGTTTTGTTTACTGATGCAGCACAAGAGATGTAAAAAAAAAAAAAAAAAAAAA
AAAAAAACACACACACAGAGGAAAGACGCTCTTTAGGTTTTGTTTTGTTTTTTTTTTTTGGTTTTGTTTTTTGTT
TTTTTTACTCTAGGGAAAACACTGACGAATGGTCAGAGCTCCTATCCTGATCTTTTCATCAAGGCGCCTTTCCTA
ATAATATGGTTCAACTGTGAATGTAGAAGTGGGGGGGGAGGGGGGAGAAAAAGAAAACTCTGGCGTTAGAGGATAT
AGAAAAATATAAGTACAATTGTTACAAATAACGCAGACTTCAAAAACAAAAAAATCACAACCCAAACAAACCAAA
ATTTAAATGATCAGAATTGGCAGCACAAAGAAAACGCCCTCTCCTGACTTGTATTGTGGCAGTCTGAACGCCCCC
AGAAAATTGTGCCAAAGAGTTTAGAAAAATAAATATACAATAAAAGTAAACACATACACACAAAACAGCAAACTT
CAGGTAACTATTTTGGATTGCAAACAGGATAAATTAAATGTTCAAACAATCTGATAAAATAACCATTTGG

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FIGURE 3479

GGGGGGGTCCCTTCCGATCCTCCCTCCTGACGCCCCCCCCAGCAGCCCCCTCCCCCACCATTGAAAGCC**ATG**AAT
TTTGAATTTGAGAGGGAGATTGGGTTTATAAACAGCCAGCCGTCGCTCGCCGAGTGTCTGACTTCCTTCCCCGCT
GTCTTGGAGACATTTCAAACTTCATCAATCAAGGAGTCGACATTAATTCCTCCTCCTCCTCCTTTCGAGCAAACC
TTCCCCAGCCTCCAGCCCGGCGCCTCCACCCTTCAGAGACCCAGGAGCCAAAAGCGAGCCGAAGATGGGCCTGCT
CTGCCGCCGCCACCGCCGCCGCCACTCCCCGCTGCCCCCCCGGCCCCCGAGTTCCCTTGGATGAAAGAGAAGAAA
TCCGCCAAGAAACCCAGCCAATCCGCCACGTCTCCTTCTCCGGCCGCCTCCGCCGTTCCGGCCTCCGGGGTCGGA
TCGCCTGCAGATGGCCTGGGACTGCCGGAGGCTGGTGGCGGCGGGGCGCGCAGGCTGCGCACGGCTTACACCAAC
ACGCAGCTGCTGGAACTGGAGAAGGAATTCCACTTTAATAAGTACCTGTGCCGGCCACGCCGCGTCGAGATCGCG
GCCTTGCTGGACCTCACCGAAAGGCAGGTCAAAGTCTGGTTTCAGAACCGGCGCATGAAGCACAAGCGGCAGACG
CAGCACCGAGAGCCGCCGGATGGGGAGCCTGCCTGCCCGGGAGCCCTGGAGGACATCTGCGACCCTGCCGAGGAA
CCCGCGGCCAGCCCGGGCGGCCCCTCCGCCTCGCGGGCGGCGTGGGAAGCCTGCTGTCACCCGCCGGAGGTGGTG
CCGGGGGCCTTAAGCGCGGACCCCCGGCCTTTAGCCGTTCGCTTAGAGGGCGCAGGCGCGTCGAGTCCCGGCTGC
GCGCTGCGCGGGGCCGGCGGGCTGGAGCCCGGGCCATTGCCAGAAGACGTCTTCTCGGGGCGCCAGGATTCACCT
TTCCTTCCCGACCTCAACTTCTTCGCGGCCGACTCCTGTCTCCAGCTATCCGGAGGCCTCTCCCCTAGCCTACAG
GGTTCTCTCGACAGCCCGGTCCCTTTTTCCGAGGAAGAGCTGGATTTTTTCACCAGTACGCTCTGTGCCATCGAC
CTGCAGTTTCCC**TAA**CCTGTTTCCTCCTCCCGGTCCTTTCGACCCCCGCGCTCCTTGGCCGTCTACTGGAAAAAT
CGAGCCTCTCCCACCCTCAGTCGCATAGACTTATGTGTTTTGCTAAAATTCAGGTATTACTGAATTAGCGTTTAA
TCCACTTCCTTTCTTCTTCTTCTAAAATATTGGGCACTCGGTTATCTTTTAAAATTCACACAGAAAAATTCCGTT
TGGTAGACTCCTTCCAATGAAATCTCAGGAATAATTAAACTCTAGGGGGACTTTCTTAAAAATAACTAGAGGGAC
CTATTTTCCTCTTTTTTATGTTTTAGACTGTAGATTATTTATTAAAATTCTTTAATAATAGGAAAAGGGGAAAGT
ATTTATTGTAC

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FIGURE 3480

CATTGAATCGGCCCTAACGATTCTCGGATCGTCATTATTTGTAACCATAGAGCATGAATTACCTCTTGAGGTCAT
CAGCGAGAATTTACGACTGGTCAACAAAAGCACGTGATTCCCTAACGCCCCCCCACCCCCCTTCCAACCCCCCCC
CCCATATTTGGCCGCATACATAGCAAAACGAAGTACAGTGCATCGCTATAATTCATTAATACATCATAAATCGTG
AAGCACAGGGTTATAACGACCACGATCCACAAATCAAGCCCTCCAAAATCACCCAA**ATG**AGCTCGTACTTTGTAA
ACTCCTTCTCGGGGCGTTATCCAAATGGCCCGGACTATCAGTTGCTAAATTATGGCAGTGGCAGCTCTCTGAGCG
GCTCTTACAGGGATCCCGCTGCCATGCACACCGGCTCTTACGGCTACAATTACAATGGGATGGACCTCAGCGTCA
ACCGCTCCTCGGCCTCCTCCAGCCACTTTGGGGCGGTGGGCGAGAGCTCGCGCGCCTTCCCCGCGCCCGCCCAGG
AGCCCCGCTTCAGGCAAGCGGCTTCGAGCTGCTCCCTGTCCTCGCCCGAGTCCCTGCCCTGCACCAACGGCGACA
GCCACGGCGCCAAGCCCTCTGCTTCGTCCCCCTCCGACCAGGCGACCTCAGCCAGCTCCAGCGCCAATTTCACCG
AAATAGACGAGGCCAGCGCGTCCTCGGAGCCTGAGGAAGCGGCAAGCCAGCTAAGCAGCCCCAGCCTAGCTCGGG
CGCAGCCAGAGCCCATGGCCACCTCCACAGCCGCGCCCGAGGGGCAGACTCCGCAGATATTCCCCTGGATGAGGA
AGCTTCACATCAGCCATGATATGACCGGGCCGGACGGGAAAAGGGCCCGGACCGCGTATACCCGCTACCAGACCC
TGGAGCTGGAAAAGGAGTTCCACTTCAACCGCTACCTGACCCGGCGACGGCGCATCGAGATCGCCCACGCACTCT
GCCTGTCCGAGCGCCAGATCAAGATCTGGTTCCAGAACCGGCGCATGAAGTGGAAGAAGGACAACAAATTGAAAA
GTATGAGCCTGGCTACAGCTGGCAGCGCCTTCCAGCCC**TGA**GCCCGCCCAGAGGAGCCCAGCGGCCCAAGAGCCC
GTGCCACCCCCAGCCCTGGCCCCTCCAATCCTCCCCGCTCTGCCGCCGCCCGCTGGGGACCGGTTCCCACAAGCC
TGCCTCGCCTTGTGTTACGATATTTCGTTTGATCTTAGGTCTTCCTGTGGCTCCCTCTCTCCTGGACTGGTTATC
TTGTTATTATTGTTAATAATAATAATTATTATTATTTTCCTTCCATGCTCCCAACTCCCTTCTGCTTGTCCCAAA
TCCGCCAGTGTTTCTGAATGTTTGTGTCTGTGGTTGCAGTCTTTCCCCCAGGAAAAAAAAAAAAAGAAATTCGCA
TGTTTAATGTGAACTCTCCCCTCCCCATCTGTGTTCTAACTTATTTATAAAAAGATGATCGCTGTATTTTGAGTT
TCAGCTGGAAACTTCTGTAAGGGGCAGCAGTTGAGGTGGGGTAGTGCCGCAGTGGGGTCAAGCTGAGCTGGCTTC
GGAGATGGAGTCCCTTTTCATTCTCCTCCTCCTCCCTCCTCACTCCCTAGGCCCAAGTCTCCTAGGGGCTTGGTC
CTAGGGTGGGAAGGGGCTAGGGAGGACCAAAGGGATGGTATTGAGAAGAGAGAAAGAAGATAGTGAGATTTAAGT
TCCTGCTGCCTGGGTAGGCCCCACAAGGCCTGGTCTGGGAGTATACGGAAACAAAAATGATCCTCAGTGCAAAAT
GTCTTGTGTATTTCTCTGTGAATCCATGGGTCTGGCTAGAGGGCCCAAAGCTTGTAAATATGGGGATAGTCTGGG
TCAGACCCATCTCTCCCTTACCCATCTTGCTTCCAAGACCATTTGTAGTGAGCGAGTGGATGCTGTGCTACGTGT
GAAATCTGTCTTTGCGGGGCCTGTCTCAGTGATTCGCTTTTGGTATTTGTTTGTAGCTTTCCTGGAAGTCAAATA
AATGTTTCCCCCACTCC

FIGURE 3481

CACCACACCTAGGTCGGAGCACTGTCGTCCTTCAGGGCTCCAGCCTCTTGATATTTTTGTACTTCAGTATCAGCT
CGATAGAGCAAAAGAGAGAGAGGACGAGAGAGGGGGGTGAGGAGAAAAGAGAGAGAGCGCGAGAGGGAGAGGGAG
AGAAGGAGGGGTGGGAATTACACAAAGAGAGAACCAAAAATAATTTTGATTCCTAAGTTAATTTGCTCACTGATC
TGGGATTTTAGTCACCATGGAGGGTAAATGGACAATCTGCCCAGGACTGCAGCCCGATACTATTTTTCAAAGCCA
GAACTTACTCCATTTTCTATGCAAATGTCAGAAAAATGAAACACCCTCTCTCCCAAGTCAGAGAAGGGGAAGCAA
CGGCTCTCACGTTGGGACAATATTATCTGGAAGCTGAAGAAGAAACTGAATACTCCTTCCTTCCTCCCCACCCAT
TCCTTTAAATCCGGAGGGGGAAAAAATCCCAAGGTCTGCAAAGCTAAAACCCAATCTCGGATATACTACTAATAG
GCGCGGCGCTCGGACTATAAAACACAACAAATCATAAACCCGGCGGAGCAGCAGCGGCCGCGCGCGCCTCCCCTC
CCA**ATG**AGTTCCTATTTCGTGAACTCCACCTTCCCCGTCACTCTGGCCAGCGGGCAGGAGTCCTTCCTGGGCCAG
CTACCGCTCTATTCGTCGGGCTATGCGGACCCGCTGAGACATTACCCCGCGCCCTACGGGCCAGGGCCGGGCCAG
GACAAGGGCTTTGCCACTTCCTCCTATTACCCGCCGGCGGGCGGTGGCTACGGCCGAGCGGCGCCCTGCGACTAC
GGGCCGGCGCCGGCCTTCTACCGCGAGAAAGAGTCGGCCTGCGCACTCTCCGGCGCCGACGAGCAGCCCCCGTTC
CACCCCGAGCCGCGGAAGTCGGACTGCGCGCAGGACAAGAGCGTGTTCGGCGAGACAGAAGAGCAGAAGTGCTCC
ACTCCGGTCTACCCGTGGATGCAGCGGATGAATTCGTGCAACAGTGAG**TGA**GACTTCCCGTCGCCGTCGCCCCGG
CTCCCCTGGGCGCCCACCCCGGGACACAGAACTAGTGAGCGCCCCCTGCCCCAATCTCCCACAGGGTGCTGGGTG
GGCATCTCAGTTAGGAGATAGAAGAAGATTGGGCGCCGGCCGGGGGTCTCTCGCTGTGTCCCCTATTAGGCAGGA
GTTACAAAGTTTGCAAAGTCCCAGCCGCACTGGGAGCCATGGGGAGCAAGTGTGCTCTCCTGGGGCGCCTGGCCA
GAGCCGGGGTTCCAGGACAGGGAAGGGAGCAGGAGCCTGCAGTCACTGGCTTGGCTTTACTTTGAGCCCCCAACC
CCCCTCTCCCAGCCCTGGTAGGGTTCCCCAACCAAAGACGGCTCCATTAAAAACGGAGTGCGTCATGCAAGGGGG
TAGGGGGTGACGCTGAAGAGGAAGAGTTGAGTCTGTCTGGGACTGTGTTTCCCTGTGGGTGGGGAGCTGGGGCAA
GATGAGGCACCAGGAAAGGGGTGGTAGTCAGAGGAGGGAGGAGGAATAAGGGGAAGGAAGAGAGAGGGAGCAGGC
GGAGCGAGAGAGGGAGAAACAGGCGCGGGGTCTCAGGTTGGATTATTTGTTGGCCTTAAGTCCCAACTGATGTCC
ATTAGCCGGACTCGAAAGTGAGGAGCCGTTAATGTGGACTATGGATCGATCTACGTCATTACGGATTAACGGCCT
GGATTTATCATTGGGTTGGGGGGATGACGGGGGGTGGGAACAAGATGGATGGAAAGGGAGGGAAAGACAAGATGC
AACTAGGAAGAGACACACCTGACCAGCCCCTCCCCCCAGGCTCAGGTGGGAGTTCAAACTGCTCCTCCCCTCCCC
CATCTAGAGTCTAGACAGACGGCACAGGCCTAGGAGACTAGGAGGGAATCTGGAGGGGGCGCTGGAGGAGTGCGA
AACGGGGGAAGGGAGCCGGCAGAATAGAGGGCATCCCGGTACTGGCTGGAGTCTGTGTTCGAGGGTCGACTAGGG
GAGGGGGTCCTGGGCCCGGTGACCGCAGGCCTCAGCATCTCCACTCTGCGTAACAGGTTCCTCCTTTGGGCCCAG
CGGCCGGCGAGGCCGCCAGACATACACACGTTACCAGACGCTGGAGCTGGAGAAGGAGTTTCACTACAATCGCTA
CCTGACGCGGCGGCGGCGCATCGAGATCGCGCACGCCCTGTGCCTGACGGAGAGGCAGATCAAGATATGGTTCCA
GAACCGACGCATGAAGTGGAAAAAGGAGAGCAAACTGCTCAGCGCGTCTCAGCTCAGTGCCGAGGAGGAGGAAGA
AAAACAGGCCGAGTGAAGGTGCTGGAAAGGGAGGGAGGACGCGAGGGGAAAGGCCTGTGGGGAGCCACGGGCGTC
AGAGAGACCCGGGAAGGAAGGCTCTCGGGTGGGGGAGCCAGGAGACCTGCTCTCCGGCGCAGACAGGCGGGGCCC
AGCGCTCTCCTGGACGCCCCCGCCCGCACAGCTCCCGGCGGGTGCTCTGAGGCCTCACTACTCGAGCCCACCCAG
CATCCCGCGCGCCCTTCCTTCCCGAGGAACTCGCCTCAGCCTGATCAGGCTTCCTGGTGAGAACTGAGGAGCGGA
CTCACTTGATGTTTCCTGGAAGCAGAGCAAAATGCTCTTGTCCCTGTCGCGTCTCATTTTGTCCATGTCCCCCGT
GCACGGTTCAATGGTAGATTCGCTGTCCCCTCAGCGGGGGCCTTGAAGACTCCCTGATCCCAGACCTGTCGTCTC
TCCCACCCCCTCCCCAAAGCCACTGGAAGGAGCACATACTACCTAGAAGTAAGAAGAGGAGCCTCAGAAGAAAAC
AAAGTTCTATTTTATTAATTTTCTATGTGTTGTGTTTGTAGTCTTGTCTTAGCTCTGGACGTGAAATACTTCGAT
GATGATGATGATGATGATGATGATAATAATAATAATAATAACAACAACAACAACAATAATAAAGATGTGAAAACT
CGA

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FIGURE 3482

CTTTTTGGTGTAAATCTGGACTCTAATTCTGTAATATATCAAGGAATCTCGTAAAACCGACACTAAAACGTCCCT
GCCTACAAATCATCCGGCCAAATT**ATG**AGTTCATTGTATTATGCGAATGCTTTATTTTCTAAATATCCAGCCTCA
AGTTCGGTTTTCGCTACCGGAGCCTTCCCAGAACAAACTTCTTGTGCGTTTGCTTCCAACCCCCAGCGCCCGGGC
TATGGAGCGGGTTCGGGCGCTTCCTTCGCCGCCTCGATGCAGGGCTTGTACCCCGGCGGGGGGGGCATGGCGGGC
CAGAGCGCGGCCGGCGTCTACGCGGCCGGCTATGGGCTCGAGCCGAGTTCCTTCAACATGCACTGCGCGCCCTTT
GAGCAGAACCTCTCCGGGGTGTGTCCCGGCGACTCCGCCAAGGCGGCGGGCGCCAAGGAGCAGAGGGACTCGGAC
TTGGCGGCCGAGAGTAACTTCCGGATCTACCCCTGGATGCGAAGCTCAGGAACTGACCGCAAACGAGGCCGCCAG
ACCTACACCCGCTACCAGACCCTGGAGCTGGAGAAAGAATTTCACTACAATCGCTACCTGACGCGGCGGCGGCGC
ATCGAGATCGCGCACACGCTCTGCCTCACGGAAAGACAGATCAAGATTTGGTTTCAGAACCGGCGCATGAAGTGG
AAAAAGGAGAACAAGACCGCGGGCCCGGGGACCACCGGCCAAGACAGGGCTGAAGCAGAGGAGGAAGAGGAAGAG
TGAGGGATGGAGAAAGGGCAGAGGAAGAGACATGAGAAAGGGAGAGGAAGAGAAGCCCAGCTCTGGGAACTGAAT
CAGGAAACTCAAATCGAATAGGGAAGTAAAAAAACAAAACAAAAAACAAAAAAAACAAAAAAAAAACCCTATTTA
AATGAAAGGAGTTTAAAAACATTTTTTAAGGAGGGAGAAAGGAGAAATTTTGGTTTTTCAACACTGAAAAAATAC
TACCTATAGGAAAGTCTGTCAGGTTTGGTTTTTTTGTACAATATGAAAAGGATATTATCTACCTGTTCTGTAGCT
TTCTGGAATTTACCTCCCCTTTTCTATGTTGCTATTGTAAGGTCTTTGTAAAATCTTGCAGTTTTGTAAGCCCTC
TTTAATGCTGTCTTTGTGGACTGTGGGTCTGGACTAACCCTGTGGTTGCCTGCCCTCCTGAGCCTCCGCCTTCCC
AGCAGCGGCACCAAGGGGCCTTAGGGAGCCCCAAAACCTACCACTCGCGTGTTCCCCAAGCGCCTGGCTGCTGCT
TCTTGCTTCCCGTCCCCCAGCCCCATGCTCCCTTTTACATTCTGTGTGTATCTAAAGGATGGAAAAATAAAACGC
AATTAAAAAT

FIGURE 3483

CCGGTCCGGGTGCCACCTCTCCCTGCTTGGGCGCCGCCGCGCGAGCGCTTCCCTTCCCCCTGCAAGCGCCCGGAT
AATGTCTGAGA**ATG**TCCATTTCTGGGACGCTTAGCAGCTATTATGTCGACTCGATCATAAGTCACGAGAGTGAGG
ACGCGCCTCCAGCCAAGTTTCCTTCTGGCCAGTACGCGAGCTCGCGGCAGCCGGGCCACGCGGAGCACCTGGAGT
TCCCCTCGTGCAGCTTCCAGCCCAAAGCGCCGGTGTTCGGCGCCTCCTGGGCGCCGCTGAGCCCGCACGCGTCCG
GGAGCCTGCCGTCCGTCTACCACCCTTACATCCAGCCCCAGGGCGTCCCGCCGGCCGAGAGCAGGTACCTCCGCA
CCTGGCTGGAGCCGGCGCCGCGCGGCGAAGCGGCCCCGGGGCAGGGCCAGGCGGCGGTGAAGGCGGAGCCGCTGC
TGGGCGCGCCTGGGGAGCTGCTCAAACAGGGCACGCCCGAGTACAGTTTGGAAACTTCGGCGGGCAGGGAGGCCG
TGCTGTCTAATCAAAGACCCGGCTACGGGGACAATAAAATTTGCGAAGGAAGCGAGGACAAAGAGAGGCCGGATC
AAACCAACCCCTCCGCCAACTGGCTGCACGCTCGCTCTTCCCGGAAAAAGCGCTGTCCCTACACCAAATACCAGA
CGCTGGAGCTAGAGAAGGAGTTTCTGTTCAATATGTACCTCACCAGGGACCGTAGGCACGAAGTGGCCAGACTCC
TCAATCTGAGTGAGAGACAAGTCAAAATCTGGTTTCAGAACCGGCGGATGAAAATGAAGAAAATGAATAAGGAGC
AGGGCAAAGAG**TAA**AGATTAAAGATTACCCCCAGTCCTCCCTAGCTCTTCCCCATCTCACTCTTAGTTATGTGAC
GACTGCAAAGCCAGTGCTGTCTGGGATGTATTCAAGTGAATGGGGAAGGGAGTCTCTCTTCCAAGTCCTTTATCT
GCACCTAGAACCTCCCTCCTTTCCTTTGCCCTTACCTGTCTCTCTCTTCTCTCTAGGTGTCAGCCCTCAGACTGT
CAGGCAAGCCCGGGTTCTACCCCTAATGCAAATACCCACCAGGGAGATGTCTAGAGGCAGACTCCTGAGTGAGGA
GTTGCAGCCCAAAGGCTGCAGCATTGCCATACCATTCCCATGGAGTTGCCAACTATTCTCAGGCCAAGGGCCATG
GGGAAGATGGAGCAAACCTAGCCCCCAAGCCGGTGGGCTAGAAAGTACAAGAAAAGGCAGCACGTGGTTTTATGA
AGGTATCTTAGGTGGAGCTACTCCCCACCTCCCACCAACATATACATTTTGTTGCAGGAAATGTTTAATTCCGCA
TGATGTTTCCCTCTCCTTCCAACAAAAGAAGGTCAAACTGTGGGTCGTAGAGCCTTGACAATGTTGTCCTCCTGT
TCATCTGTGCACCACTTGACAGACTGTAGCTTCTCTTGCTCTCGACCGGCCCTGCATTCTTCCGCACCCTCCCTA
GCTCTGAAATCAACTCTCTTCGGTCGTATCCACCTTGCACCCGCAAGTCAAGCCGCCCCTTGTAGAAAAATCCCT
CCACCTTCCGTTCCCCGCTAGGTCAACCCCACTGTAGACAGGAAAGCCAGGCCAGGAGAGTCCGAATGAGAATTT
ATTGTGAATCGATTCCCAAGCTCCCTTCCGGGACAAGTGGTCTGGGACAGGGAGGAGCAACGGCCCCAGCGCGCA
ACGCTCTGCGCGTTCCTCCGAATCCCGTCGGCTTCTCGACCCACGCAGAGAAGCCCCGGGCTTGGCGGCTCTAGC
CCCAGCGCCAAAGGAGACCCGCCCCAGGGCCGGGCTTGGCCTCCTGCTTCATGGGCCTGGATGCAGATCTGCGTG
GCTGGTGCGTGCGCGCGCTTCTGGGAAACAGTCCCGCGTGCAAAGGAAAGGGGCAAAATGGCACCTAAGCATCAG
ATGGAAGCTTACTCTCTGCTTCCGTTCCTCCCCCTGCTCCCCTACTTCTCAGTCCCCTTCAATTTGTAGACTCTT
GCTCCTGCTTCTCCTGATCCTGCAAGGGGACATTCCAGTAGAAGTTTTTTGCTTTGTCGGTGGCTGTCGTGAAAT
TGTGCTTGTGTTTCGTGATTTCTTTGGGGGTGATTGTCTCGCTTGTTTTCAGTTGTCGATTATATGGGAGGGTTC
TGGGTGGGAGTGGGGAGGGCGAGGGGCCTAGAGCTCTAATTGTTTGTTTTGGAAGAAAAAAAGAAAAAGAACAAA
AAATATATATCACTCTAGAAAAT

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FIGURE 3484

ATGGGTAAGATCCGGAAGGCCCAAGGAGAAGGGCTGCCCCGCCCACTGCCCCTGCTGGTCCAGCCCAACCTCCCC
TTTGGGTACCCAGTCCACGGAGTGGAGGTGATGCCCCTGCACACGGTTCCCATCCCAGGCCTCCAGTTTGAAGGA
CCCGATGCCCCCGTCTATGAGGTCACCCTGACAGCTTCTCTGGGGACACTGAACACCCTTGCTGATGTCCCAGAC
AGTGTGGTGCAGGGCAGAGGCCAGAAGCAGCTGATCATTTCTACCAGTGACCGGAAGCTGTTGAAGTTCATTCTT
CAGCACGTGACATACACCAGCACGGGGTACCAGCACCAGAAGTACTATCCCCACATTGCCATTGACCCCATAGAG
CCACTCGAGGAGAGAACAAATCATGCTGTGCGCTTTGCACCTGTGAGTCTGGAGTCCAGGTCCTCAGTGGCCAAG
TTTCCAGTGACCATCCGCCATCCTGTCATACCCAAGCTATACGACCCTGGACCAGTGTTCTTTCAGTGTAGTCTT
AATCAGACTATTCAACTCCTCATCACCCCAGACACTGGTAGTATCTGGCACCAGGTGGGGTGGAAGACAACCCGT
GAGTATTACACCTTCATGTGGGTTACTTTGCCCATTGACCTAAACAACAAATCAGCTAAACAGCAGGAAGTCCAA
TTCAAAGCTTACTACCTGCCCAAGGATGATGAGTATTACCAGTTCTGCTATGTGGATGAGGATGGTGTGGTCCGG
GGAGCAAGTATTCCTTTCCAATTCCGTCCAGAAAATGAGGAAGACATCCTGGTTGTTACCACTCAGGGAGAGGTG
GAAGAGATTGAGCAGCACAACAAGGAGCTTTGCAAAGAAAACCAGGAGCTGAAGGACAGCTGTATCAGCCTCCAG
AAGCAGAACTCAGACATGCAGGCTGAGCTCCAAAAGAAGCAGTATCTT**TGA**

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FIGURE 3485

GGGTGCTTAGCCCCGCCCCCGTCCCACTCTGCCCTGTTGCTGTCGCGCCGCTGCTGGTTGCTGTCCCTGGACCCC
TACC**ATG**GAGGAGACCATCAAAGATCCCCCCACATCAGCTGTCTTGCTGGATCACTGTCATTTCTCTCAGGTCAT
CTTTAACAGTGTGGAGAAGTTCTACATCCCTGGAGGGGACGTCACATGTCATTATACCTTCACCCAGCATTTCAT
CCCTCGTCGAAAGGATTGGATTGGCATCTTTAGAGTGGGGTGGAAGACAACCCGTGAGTATTACACCTTCATGTG
GGTTACTTTGCCCATTGACCTAAACAACAAATCAGCTAAACAGCAGGAAGTCCAATTCAAAGCTTACTACCTGCC
CAAGGATGATGAGTATTACCAGTTCTGCTATGTGGATGAGGATGGTGTGGTCCGGGGAGCAAGTATTCCTTTCCA
ATTCCGTCCAGAAAATGAGGAAGACATCCTGGTTGTTACCACTCAGGGAGAGGTGGAAGAGATTGAGCAGCACAA
CAAGGAGCTTTGCAAAGAAAACCAGGAGCTGAAGGACAGCTGTATCAGCCTCCAGAAGCAGAACTCAGACATGCA
GGCTGAGCTCCAAAAGAAGCAGGAGGAGCTAGAAACCCTACAGAGCATCAATAAGAAGTTGGAACTGAAAGTGAA
AGAACAGAAGGACTATTGGGAGACAGAGCTGCTTCAACTGAAAGAACAAAACCAGAAGATGTCCTCAGAAAATGA
GAAGATGGGAATCAGAGTGGATCAGCTTCAGGCCCAGCTGTCAACTCAAGAGAAAGAAATGGAGAAGCTTGTTCA
GGGAGATCAAGATAAGACAGAGCAGTTAGAGCAGCTGAAAAAGGAAAATGACCACCTCTTTCTCAGTTTAACTGA
ACAGAGGAAGGACCAGAAGAAGCTCGAGCAGACAGTGGAGCAAATGAAGCAGAATGAAACTACTGCAATGAAGAA
ACAACAGGAATTAATGGATGAAAACTTTGACCTGTCAAAAAGACTGAGTGAGAACGAAATTATATGTAATGCTCT
GCAGAGACAGAAAGAGAGATTGGAAGGAGAAAATGATCTTTTGAAGAGGGAGAACAGCAGATTGCTCAGTTACAT
GGGTCTGGATTTTAATTCTTTGCCGTATCAAGTACCTACTTCAGATGAAGGAGGCGCAAGACAAAATCCAGGACT
TGCCTATGGAAACCCATATTCTGGTATCCAAGAAAGTTCTTCCCCCAGCCCGCTCTCCATCAAGAAATGCCCTAT
CTGCAAAGCAGATGATATTTGTGATCACACCTTGGAGCAACAGCAGATGCAGCCCCTTTGTTTCAATTGTCCAAT
TTGTGACAAGATCTTCCCAGCTACAGAGAAGCAGATCTTTGAAGACCACGTGTTCTGCCACTCTCTC**TGA**GTATC
CCAACCTCTTGGATGTATACAGAGATTTTATAGAATAGAACCTATAGCTTCTACCATGAGTTATATGAGTCAAGA
TCCTGCCTAACCTGAAATTATTAGGGATTTACTCAGCCCTGCTGCCGCTAACAGTGGAGTTATGTCACTGATCTG
AAGGTCACTGTTAAGGGCTTCTGCTGCCATCCTTGTGGGTTGCTACCTTTAAGTCGCATAACTCTAGCTGTATCA
TCCTCTCACCTGTCATTCTTCTGAGGGTCTCAGTACAAGGGCCCTGGGATGGAGCCAACCTGGGTATTCACAACA
GGCCTGACTTGATACTAAGTGATTAGTTTTCCAAGTTGTCCCACTGCCATTCAAAGTCAGCCCTTGAGTGTATTT
GTTCTCAGTCCTAACCCTGGGGCCAGAGATTGGTCCGAGGTTGAGAATTCCTTCCTCCTCATCCTTGGTGTTGCT
TTCTCCAAATGATTGTTTTAGACTAGCCAAAAATGCCGTGGCAAAGAGCTCAGAAATCCAATTTGGATACCAAAG
GTTTCTCATGTTAATTTCTCAGCCCCCAAAGAAGCATCTTACTCCTGAACCTTAGACAGGAAGTATTGTTTCAGT
CACAGAAAGCTTTTCTGGGTACCTCTGGTTAGCACTTTCTACTCTCTGATATTTCCTATGTACATAGCTTTTATT
GTTGTAAATCCTTTCTTAATGGTTAAATAGGATTGTTAGCAACTATGGGTTTGCAGTTTTCTGAGTAGGTGAGTT
TTGAATATGGGTAAATCAGAATAATGAGACAACTTGTTAATCTCTTTAATACTAAAAATAAATTACTCTTCTATT
TCAGGGACTTAGGTAATTTAAAATAAACCTTCAATTTATGGTCTTCTGTTTTGAAGCTCATGGGAAAATTGTGAT
CAAAAGGGCTATGGGAAGGGCAGACCCCGCCAATGATTTCTCTTCACCTGTCTTAAGATTAAATAAAAAAGAGTG
TCCTGGCAGTTATCTTGAGGTGGGGAAGGAGGTGATGAAACATTAGTTTGTGAAATCCAAGGCCCTGGCTTGCTT
TCTTTCTTTTTTTTTTTTTTTTTTTTTGAAACAGTCTCTCTCTGTCACCCAGGCTGGCGTGCAATGGCGCAGTTGA
CTCACTACAGCCTCTGCCTCCCAGGTTCAAGCGATTCTCATGCCTTAGCCTCCCAAGTAGCTGGGATTACAGGTG
TGTGCCGCAATGCCCAGCTAATTTTTGTGTTTTTAGTAGAGACAGGGTTTCACTATGTTGGCCAGGCTGGTCTCG
AACTCCTGGCCTCACGTGATCTGTCCACTTCAGCCGTCCAAAGTGCTGGGATTACAAGCGTGAGCCACTGTGCTG
GGCCCGAGGCCCTGACTTCTTGCTGTAACTTTCCATGCATTTTTTTTAAAAGGAGCAGTGTGGATTTTCGCACCC
TTTGTGAACTAAGTTCAATGCGCTCTATCCAAATTTGCCTAATTGAACTATAAGAAAGTAATAATTCCATTTTCT
ATCCCCTCAGGGACTGAACAAATGGAAATAACTCCCAGGCAGTATCAGGTGGTCACTACAGAGACTTCCACAAAA
ACTTTTGAATGATGTGAAACACGATGTCATGAATAAGGGTTGAGCCAACTATAGCTCTGTGTTCCTACTGGGCTT
TCCCTAATGTGGTTGGGAGTTATGCCCTAGACTAACTGTATTGTCCTAGTCACAGCTCCTTGCTTTGATTTCATC
CTTGATAAAATGAAGATGAAACTT

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FIGURE 3486

ACCGCCACCATGAACAAGCTTTACATCGGCAACCTCAACGAGAGCGTGACCCCCGCGGACTTGGAGAAAGTGTTT
GCGGAGCACAAGATCTCCTACAGCGGCCAGTTCTTGGTCAAANTCCTACGCCTTCGTGGACTGCCCGGACGAGCA
CTGGGCG**ATG**AAGGCCATCGAAACTTTCTCCGGGAAAGTAGAATTACAAGGAAAACGCTTAGAGATTGAACATTC
GGTGCCCAAAAAACAAAGGAGCCGGAAAATTCAAATCCGAAATATTCCACCCCAGCTCCGATGGGAAGTACTGGA
CAGCCTGCTGGCTCAGTATGGTACAGTAGAGAACTGTGAGCAAGTGAACACCGAGAGTGAGACGGCAGTGGTGAA
TGTCACCTATTCCAACCGGGAGCAGACCAGGCAAGCCATCATGAAGCTGAATGGCCACCAGTTGGAGAACCATGC
CCTGAAGGTCTCCTACATCCCCGATGAGCAGATAGCACAGGGACCTGAGAATGGGCGCCGAGGGGGCTTTGGCTC
TCGGGGTCAGCCCCGCCAGGGCTCACCTGTGGCAGCGGGGGCCCCAGCCAAGCAGCAGCAAGTGGACATCCCCCT
TCGGCTCCTGGTGCCCACCCAGTATGTGGGTGCCATTATTGGCAAGGAGGGGGCCACCATCCGCAACATCACAAA
ACAGACCCAGTCCAAGATAGACGTGCATAGGAAGGAGAACGCAGGTGCAGCTGAAAAAGCCATCAGTGTGCACTC
CACCCCTGAGGGCTGCTCCTCCGCTTGTAAGATGATCTTGGAGATTATGCATAAAGAGGCTAAGGACACCAAAAC
GGCTGACGAGGTTCCCCTGAAGATCCTGGCCCATAATAACTTTGTAGGGCGTCTCATTGGCAAGGAAGGACGGAA
CCTGAAGAAGGTAGAGCAAGATACCGAGACAAAAATCACCATCTCCTCGTTGCAAGACCTTACCCTTTACAACCC
TGAGAGGACCATCACTGTGAAGGGGGCCATCGAGAATTGTTGCAGGGCCGAGCAGGAAATAATGAAGAAAGTTCG
GGAGGCCTATGAGAATGATGTGGCTGCCATGAGCCTGCAGTCTCACCTGATCCCTGGCCTGAACCTGGCTGCTGT
AGGTCTTTTCCCAGCTTCATCCAGCGCAGTCCCGCCGCCTCCCAGCAGCGTTACTGGGGCTGCTCCCTATAGCTC
CTTTATGCAGGCTCCCGAGCAGGAGATGGTGCAGGTGTTTATCCCCGCCCAGGCAGTGGGCGCCATCATCGGCAA
GAAGGGGCAGCACATCAAACAGCTCTCCCGGTTTGCCAGCGCCTCCATCAAGATTGCACCACCCGAAACACCTGA
CTCCAAAGTTCGTATGGTTATCATCACTGGACCGCCAGAGGCCCAATTCAAGGCTCAGGGAAGAATCTATGGCAA
ACTCAAGGAGGAGAACTTCTTTGGTCCCAAGGAGGAAGTGAAGCTGGAGACCCACATACGTGTGCCAGCATCAGC
AGCTGGCCGGGTCATTGGCAAAGGTGGAAAAACGGTGAACGAGTTGCAGAATTTGACGGCAGCTGAGGTGGTAGT
ACCAAGAGACCAGACCCCTGATGAGAACGACCAGGTCATCGTGAAAATCATCGGACATTTCTATGCCAGTCAGAT
GGCTCAACGGAAGATCCGAGACATCCTGGCCCAGGTTAAGCAGCAGCATCAGAAGGGACAGAGTAACCAGGCCCA
GGCACGGAGGAAG**TGA**CCAGCCCCTCCCTGTCCCTTCGAGTCCAGGACAACAACGGGCAGAAATCGAGAGTGTGC
TCTCCCCGGCAGGCCTGAGAATGAGTGGGAATCCGGGACACCTGGGCCGGGCTGTAGATCAGGTTTGCCCACTTG
ATTGAGAAAGATGTTCCAGTGAGGAACCCTGATCTCTCAGCCCCAAACACCCACCCAATTGGCCCAACACTGTCT
GCCCCTCGGGGTGTCAGAAATTCTAGCGCAAGGCACTTTTAAACGTGGATTGTTTAAAGAAGCTCTCCAGGCCCC
ACCAAGAGGGTGGATCACACCTCAGTGGGAAGAAAAATAAAATTTCCTTCAGGTTTTAAAAACATGCAGAGAGGT
GTTTTAATCAGCCTTAAAGGATGGTTCA

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FIGURE 3487

GGGGAAGCTGAGCGCTGAGACCAAGGGCTAAAGCTGGGAGGTGAGTCTGTCACCTTGAGCCGGGCGAGCGCTGTG
GGCCAAGCAGGGGTTGCAGGGTAGTAGGAGTGCAGACTGAAAAA**ATG**CAGACCGCCGGGGCATTATTCATTTCTC
CAGCTCTGATCCGCTGTTGTACCAGGGGTCTAATCAGGCCTGTGTCTGCCTCCTTCTTGAATAGCCCAGTGAATT
CATCTAAACAGCCTTCCTACAGCAACTTCCCACTCCAGGTGGCCAGACGGGAGTTCCAGACCAGTGTTGTCTCCC
GGGACATTGACACAGCAGCCAAGTTTATTGGTGCTGGGGCAGCCACAGTTGGTGTGGCTGGTTCAGGGGCTGGCA
TTGGAACCGTGTTTGGCAGCTTGATCATTGGCTATGCCAGGAACCCGTCTCTCAAGCAGCAGCTCTTCTCCTATG
CCATTCTTGGCTTTGCCCTGTCTGAGGCCATGGGGCTTTTCTGTTTGATGGTCGCCTTCCTCATCCTCTTCGCCA
TG**TGA**GGCTCCATGGGGGGTCACCGGCCTGTTGCTACTGCAACTCCACACCATTCTTGGTGCTGGGGTGTGTTAA
GCTTTACCATTAAACACAACGTTTCTCTAAA

FIGURE 3489

GGGACGTGGAGACCCGGGGTCCCGGCAGCCGGGCGGCCCGCGGGCCCAGGGTGGGG**ATG**CACCGCCGCGGGGTGG
GAGCTGGCGCCATCGCCAAGAAGAAACTTGCAGAGGCCAAGTATAAGGAGCGAGGGACGGTCTTGGCTGAGGACC
AGCTAGCCCAGATGTCAAAGCAGTTGGACATGTTCAAGACCAACCTGGAGGAATTTGCCAGCAAACACAAGCAGG
AGATCCGGAAGAATCCTGAGTTCCGTGTGCAGTTCCAGGACATGTGTGCAACCATTGGCGTGGATCCGCTGGCCT
CTGGAAAAGGATTTTGGTCTGAGATGCTGGGCGTGGGGGACTTCTATTACGAACTAGGTGTCCAAATTATCGAAG
TGTGCCTGGCGCTGAAGCATCGGAATGGAGGTCTGATAACTTTGGAGGAACTACATCAACAGGTGTTGAAGGGAA
GGGGCAAGTTCGCCCAGGATGTCAGTCAAGATGACCTGATCAGAGCCATCAAGAAACTAAAGGCACTTGGCACTG
GCTTCGGCATCATCCCTGTGGGCGGCACTTACCTCATTCAGTCTGTTCCAGCTGAGCTCAATATGGATCACACCG
TGGTGCTGCAGCTGGCAGAGAAGAATGGCTACGTGACTGTCAGTGAGATCAAAGCCAGTCTTAAATGGGAGACCG
AGCGAGCGCGGCAAGTGCTGGAACACCTGCTGAAGGAAGGGTTGGCGTGGCTGGACTTACAGGCCCCAGGGGAGG
CCCACTACTGGCTGCCAGCTCTCTTCACTGACCTCTACTCCCAGGAGATTACAGCTGAGGAGGCCAGAGAAGCCC
TCCCC**TGA**CTGCATGTGGAAGGGCACACAGCAGCAGGCAGGGAGGAGGCGGAGGTGGCAAATAAACCTGGGCAAT
TTTGTTTATACAAAAAATAGAAAAAAA

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FIGURE 3490A

AGCAGACGGGAGTTTCTCCTCGGGGTCGGAGCAGGAGGCACGCGGAGTGTGAGGCCACGCATGAGCGGACGCTAA
CCCCCTCCCCAGCCACAAAGAGTCTACATGTCTAGGGTCTAGAC**ATG**TTCAGCTTTGTGGACCTCCGGCTCCTGC
TCCTCTTAGCGGCCACCGCCCTCCTGACGCACGGCCAAGAGGAAGGCCAAGTCGAGGGCCAAGACGAAGACATCC
CACCAATCACCTGCGTACAGAACGGCCTCAGGTACCATGACCGAGACGTGTGGAAACCCGAGCCCTGCCGGATCT
GCGTCTGCGACAACGGCAAGGTGTTGTGCGATGACGTGATCTGTGACGAGACCAAGAACTGCCCCGGCGCCGAAG
TCCCCGAGGGCGAGTGCTGTCCCGTCTGCCCCGACGGCTCAGAGTCACCCACCGACCAAGAAACCACCGGCGTCG
AGGGACCCAAGGGAGACACTGGCCCCCGAGGCCCAAGGGGACCCGCAGGCCCCCCTGGCCGAGATGGCATCCCTG
GACAGCCTGGACTTCCCGGACCCCCCGGACCCCCCGGACCTCCCGGACCCCCTGGCCTCGGAGGAAACTTTGCTC
CCCAGCTGTCTTATGGCTATGATGAGAAATCAACCGGAGGAATTTCCGTGCCTGGCCCCATGGGTCCCTCTGGTC
CTCGTGGTCTCCCTGGCCCCCCTGGTGCACCTGGTCCCCAAGGCTTCCAAGGTCCCCCTGGTGAGCCTGGCGAGC
CTGGAGCTTCAGGTCCCATGGGTCCCCGAGGTCCCCCAGGTCCCCCTGGAAAGAATGGAGATGATGGGGAAGCTG
GAAAACCTGGTCGTCCTGGTGAGCGTGGGCCTCCTGGGCCTCAGGGTGCTCGAGGATTGCCCGGAACAGCTGGCC
TCCCTGGAATGAAGGGACACAGAGGTTTCAGTGGTTTGGATGGTGCCAAGGGAGATGCTGGTCCTGCTGGTCCTA
AGGGTGAGCCTGGCAGCCCTGGTGAAAATGGAGCTCCTGGTCAGATGGGCCCCCGTGGCCTGCCTGGTGAGAGAG
GTCGCCCTGGAGCCCCTGGCCCTGCTGGTGCTCGTGGAAATGATGGTGCTACTGGTGCTGCCGGGCCCCCTGGTC
CCACCGGCCCCGCTGGTCCTCCTGGCTTCCCTGGTGCTGTTGGTGCTAAGGGTGAAGCTGGTCCCCAAGGGCCCC
GAGGCTCTGAAGGTCCCCAGGGTGTGCGTGGTGAGCCTGGCCCCCCTGGCCCTGCTGGTGCTGCTGGCCCTGCTG
GAAACCCTGGTGCTGATGGACAGCCTGGTGCTAAAGGTGCCAATGGTGCTCCTGGTATTGCTGGTGCTCCTGGCT
TCCCTGGTGCCCGAGGCCCCTCTGGACCCCAGGGCCCCGGCGGCCCTCCTGGTCCCAAGGGTAACAGCGGTGAAC
CTGGTGCTCCTGGCAGCAAAGGAGACACTGGTGCTAAGGGAGAGCCTGGCCCTGTTGGTGTTCAAGGACCCCCTG
GCCCTGCTGGAGAGGAAGGAAAGCGAGGAGCTCGAGGTGAACCCGGACCCACTGGCCTGCCCGGACCCCCTGGCG
AGCGTGGTGGACCTGGTAGCCGTGGTTTCCCTGGCGCAGATGGTGTTGCTGGTCCCAAGGGTCCCGCTGGTGAAC
GTGGTTCTCCTGGCCCTGCTGGCCCCAAAGGATCTCCTGGTGAAGCTGGTCGTCCCGGTGAAGCTGGTCTGCCTG
GTGCCAAGGGTCTGACTGGAAGCCCTGGCAGCCCTGGTCCTGATGGCAAAACTGGCCCCCCTGGTCCCGCCGGTC
AAGATGGTCGCCCCGGACCCCCAGGCCCACCTGGTGCCCGTGGTCAGGCTGGTGTGATGGGATTCCCTGGACCTA
AAGGTGCTGCTGGAGAGCCCGGCAAGGCTGGAGAGCGAGGTGTTCCCGGACCCCCTGGCGCTGTCGGTCCTGCTG
GCAAAGATGGAGAGGCTGGAGCTCAGGGACCCCCTGGCCCTGCTGGTCCCGCTGGCGAGAGAGGTGAACAAGGCC
CTGCTGGCTCCCCCGGATTCCAGGGTCTCCCTGGTCCTGCTGGTCCTCCAGGTGAAGCAGGCAAACCTGGTGAAC
AGGGTGTTCCTGGAGACCTTGGCGCCCCTGGCCCCTCTGGAGCAAGAGGCGAGAGAGGTTTCCCTGGCGAGCGTG
GTGTGCAAGGTCCCCCTGGTCCTGCTGGTCCCCGAGGGGCCAACGGTGCTCCCGGCAACGATGGTGCTAAGGGTG
ATGCTGGTGCCCCTGGAGCTCCCGGTAGCCAGGGCGCCCCTGGCCTTCAGGGAATGCCTGGTGAACGTGGTGCAG
CTGGTCTTCCAGGGCCTAAGGGTGACAGAGGTGATGCTGGTCCCAAAGGTGCTGATGGCTCTCCTGGCAAAGATG
GCGTCCGTGGTCTGACTGGCCCCATTGGTCCTCCTGGCCCTGCTGGTGCCCCTGGTGACAAGGGTGAAAGTGGTC
CCAGCGGCCCTGCTGGTCCCACTGGAGCTCGTGGTGCCCCCGGAGACCGTGGTGAGCCTGGTCCCCCCGGCCCTG
CTGGCTTTGCTGGCCCCCCTGGTGCTGACGGCCAACCTGGTGCTAAAGGCGAACCTGGTGATGCTGGTGCTAAAG
GCGATGCTGGTCCCCCTGGCCCTGCCGGACCCGCTGGACCCCCTGGCCCCATTGGTAATGTTGGTGCTCCTGGAG
CCAAAGGTGCTCGCGGCAGCGCTGGTCCCCCTGGTGCTACTGGTTTCCCTGGTGCTGCTGGCCGAGTCGGTCCTC
CTGGCCCCTCTGGAAATGCTGGACCCCCTGGCCCTCCTGGTCCTGCTGGCAAAGAAGGCGGCAAAGGTCCCCGTG
GTGAGACTGGCCCTGCTGGACGTCCTGGTGAAGTTGGTCCCCCTGGTCCCCCTGGCCCTGCTGGCGAGAAAGGAT
CCCCTGGTGCTGATGGTCCTGCTGGTGCTCCTGGTACTCCCGGGCCTCAAGGTATTGCTGGACAGCGTGGTGTGG
TCGGCCTGCCTGGTCAGAGAGGAGAGAGAGGCTTCCCTGGTCTTCCTGGCCCCTCTGGTGAACCTGGCAAACAAG
GTCCCTCTGGAGCAAGTGGTGAACGTGGTCCCCCTGGTCCCATGGGCCCCCCTGGATTGGCTGGACCCCCTGGTG
AATCTGGACGTGAGGGGGCTCCTGGTGCCGAAGGTTCCCCTGGACGAGACGGTTCTCCTGGCGCCAAGGGTGACC
GTGGTGAGACCGGCCCCGCTGGACCCCCTGGTGCTCCTGGTGCTCCTGGTGCCCCTGGCCCCGTTGGCCCTGCTG
GCAAGAGTGGTGATCGTGGTGAGACTGGTCCTGCTGGTCCCACCGGTCCTGTCGGCCCTGTTGGCGCCCGTGGCC
CCGCCGGACCCCAAGGCCCCCGTGGTGACAAGGGTGAGACAGGCGAACAGGGCGACAGAGGCATAAAGGGTCACC
GTGGCTTCTCTGGCCTCCAGGGTCCCCCTGGCCCTCCTGGCTCTCCTGGTGAACAAGGTCCCTCTGGAGCCTCTG
GTCCTGCTGGTCCCCGAGGTCCCCCTGGCTCTGCTGGTGCTCCTGGCAAAGATGGACTCAACGGTCTCCCTGGCC

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FIGURE 3490B

CCATTGGGCCCCCTGGTCCTCGCGGTCGCACTGGTGATGCTGGTCCTGTTGGTCCCCCCGGCCCTCCTGGACCTC
CTGGTCCCCCTGGTCCTCCCAGCGCTGGTTTCGACTTCAGCTTCCTGCCCCAGCCACCTCAAGAGAAGGCTCACG
ATGGTGGCCGCTACTACCGGGCTGATGATGCCAATGTGGTTCGTGACCGTGACCTCGAGGTGGACACCACCCTCA
AGAGCCTGAGCCAGCAGATCGAGAACATCCGGAGCCCAGAGGGCAGCCGCAAGAACCCCGCCCGCACCTGCCGTG
ACCTCAAGATGTGCCACTCTGACTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAAGGCTGCAACCTGGATG
CCATCAAAGTCTTCTGCAACATGGAGACTGGTGAGACCTGCGTGTACCCCACTCAGCCCAGTGTGGCCCAGAAGA
ACTGGTACATCAGCAAGAACCCCAAGGACAAGAGGCATGTCTGGTTCGGCGAGAGCATGACCGATGGATTCCAGT
TCGAGTATGGCGGCCAGGGCTCCGACCCTGCCGATGTGGCCATCCAGCTGACCTTCCTGCGCCTGATGTCCACCG
AGGCCTCCCAGAACATCACCTACCACTGCAAGAACAGCGTGGCCTACATGGACCAGCAGACTGGCAACCTCAAGA
AGGCCCTGCTCCTCCAGGGCTCCAACGAGATCGAGATCCGCGCCGAGGGCAACAGCCGCTTCACCTACAGCGTCA
CTGTCGATGGCTGCACGAGTCACACCGGAGCCTGGGGCAAGACAGTGATTGAATACAAAACCACCAAGACCTCCC
GCCTGCCCATCATCGATGTGGCCCCCTTGGACGTTGGTGCCCCAGACCAGGAATTCGGCTTCGACGTTGGCCCTG
TCTGCTTCCTGTAAACTCCCTCCATCCCAACCTGGCTCCCTCCCACCCAACCAACTTTCCCCCCAACCCGGAAAC
AGACAAGCAACCCAAACTGAACCCCCTCAAAAGCCAAAAAATGGGAGACAATTTCACATGGACTTTGGAAAATAT
TTTTTTCCTTTGCATTCATCTCTCAAACTTAGTTTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTG
CATTCAACCTTACCAAAAAAAAAAAAAAAAAAAAGAATAAATAAATAACTTTTTAAAAAAGGAAGCTTGGTCCACT
TGCTTGAAGACCCATGCGGGGGTAAGTCCCTTTCTGCCCGTTGGGCTTATGAAACCCCAATGCTGCCCTTTCTGC
TCCTTTCTCCACACCCCCCTTGGGGCCTCCCCTCCACTCCTTCCCAAATCTGTCTCCCCAGAAGACACAGGAAAC
AATGTATTGTCTGCCCAGCAATCAAAGGCAATGCTCAAACACCCAAGTGGCCCCCACCCTCAGCCCGCTCCTGCC
CGCCCAGCACCCCCAGGCCCTGGGGGACCTGGGGTTCTCAGACTGCCAAAGAAGCCTTGCCATCTGGCGCTCCCA
TGGCTCTTGCAACATCTCCCCTTCGTTTTTGAGGGGGTCATGCCGGGGGAGCCACCAGCCCCTCACTGGGTTCGG
AGGAGAGTCAGGAAGGGCCACGACAAAGCAGAAACATCGGATTTGGGGAACGCGTGTCAATCCCTTGTGCCGCAG
GGCTGGGCGGGAGAGACTGTTCTGTTCCTTGTGTAACTGTGTTGCTGAAAGACTACCTCGTTCTTGTCTTGATGT
GTCACCGGGGCAACTGCCTGGGGGCGGGGATGGGGGCAGGGTGGAAGCGGCTCCCCATTTTATACCAAAGGTGCT
ACATCTATGTGATGGGTGGGGTGGGGAGGGAATCACTGGTGCTATAGAAATTGAGATGCCCCCCCAGGCCAGCAA
ATGTTCCTTTTTGTTCAAAGTCTATTTTTATTCCTTGATATTTTTCTTTTTTTTTTTTTTTTTTGTGGATGGGG
ACTTGTGAATTTTTCTAAAGGTGCTATTTAACATGGGAGGAGAGCGTGTGCGGCTCCAGCCCAGCCCGCTGCTCA
CTTTCCACCCTCTCTCCACCTGCCTCTGGCTTCTCAGGCCTCTGCTCTCCGACCTCTCTCCTCTGAAACCCTCCT
CCACAGCTGCAGCCCATCCTCCCGGCTCCCTCCTAGTCTGTCCTGCGTCCTCTGTCCCCGGGTTTCAGAGACAAC
TTCCCAAAGCACAAAGCAGTTTTTCCCCCTAGGGGTGGGAGGAAGCAAAAGACTCTGTACCTATTTTGTATGTGT
ATAATAATTTGAGATGTTTTTAATTATTTTGATTGCTGGAATAAAGCATGTGGAAATGACCCAAACATAA

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FIGURE 3491A

CGGAAGCGCGGCGCTGCGGGCCGGGCCGCGGGGCACAGCCGGGGGCCGGCGGCGGCGCGCGGACTCCGCATCCCG
CACCCCGATGGTAGCCGAGGAGCTGGTGTAATTACTTCAAGCCTCCAGG**ATG**GCAATCCAGTTCCGTTCGCTCTT
CCCCTTGGCATTGCCTGGGATGCTGGCGCTCCTCGGCTGGTGGTGGTTTTTCTCTCGTAAAAAAGGCCATGTCAG
CAGCCATGATGAGCAGCAGGTGGAGGCTGGTGCTGTGCAGCTGAGGGCTGACCCTGCCATCAAGGAACCTCTCCC
CGTGGAAGACGTCTGTCCCAAAGTAGTGTCCACACCCCCCAGTGTCACAGAGCCTCCAGAAAAGGAACTGTCCAC
CGTGAGCAAGCTGCCTGCAGAGCCCCCAGCATTGCTCCAGACACACCCACCTTGCCGAAGATCAGAGTCCTCGGG
CATTCTTCCTAACACCACAGACATGAGATTGCGACCAGGAACACGCAGAGATGACAGTACAAAGCTGGAGCTAGC
CCTGACAGGTGGTGAAGCCAAATCGATTCCTCTAGAGTGCCCCCTTTCATCCCCAAAGGGTGTACTATTCTCCAG
CAAATCAGCTGAGGTGTGTAAGCAAGATTCCCCCTTCAGCAGGGTGCCAAGGAAGGTCCAGCCAGGCTACCCCGT
AGTCCCCGCAGAGAAGCGTAGCTCTGGGGAGAGGGCAAGAGAGACAGGTGGGGCCGAAGGGACTGGTGATGCCGT
GTTGGGGGAAAAGGTGCTTGAAGAAGCTCTGTTGTCTCGGGAGCATGTCTTGGAATTGGAGAACAGCAAGGGCCC
CAGCCTGGCCTCTTTAGAGGGGGAAGAAGATAAGGGGAAGAGCAGCTCATCCCAGGTGGTGGGGCCAGTGCAGGA
GGAAGAGTATGTAGCAGAGAAGTTGCCAAGTAGGTTCATCGAGTCGGCTCACACAGAGCTGGCAAAGGACGATGC
GGCGCCAGCACCCCCAGTCGCAGACGCCAAAGCCCAGGATAGAGGTGTCGAGGGAGAACTGGGCAATGAGGAGAG
CTTGGATAGAAATGAGGAGGGCTTGGATAGAAATGAGGAGGGCTTGGATAGAAATGAGGAGAGCTTGGATAGAAA
TGAGGAGGGCTTGGATAGAAATGAGGAGATTAAGCGGGCTGCCTTCCAGATAATCTCCCAAGTGATCTCAGAAGC
AACCGAACAGGTGCTGGCCACCACGGTTGGCAAGGTTGCAGGTCGTGTGTGTCAGGCCAGTCAGCTCCAAGGGCA
GAAGGAAGAGAGCTGTGTCCCAGTTCACCAGAAAACTGTCTTGGGCCCAGACACTGCGGAGCCTGCCACAGCAGA
GGCAGCTGTTGCCCCGCCGGATGCTGGCCTCCCCTTGCCAGGCCTACCAGCAGAGGGCTCACCACCACCAAAGAC
CTACGTGAGCTGCCTGAAGAGCCTTCTGTCCAGCCCCACCAAGGACAGTAAGCCAAATATCTCTGCACACCACAT
CTCCCTGGCCTCCTGCCTGGCACTGACCACCCCCAGTGAAGAGTTGCCGGACCGGGCAGGCATCCTGGTGGAAGA
TGCCACCTGTGTCACCTGCATGTCAGACAGCAGCCAAAGTGTCCCTTTGGTGGCTTCTCCAGGACACTGCTCAGA
TTCTTTCAGCACTTCAGGGCTTGAAGACTCTTGCACAGAGACCAGCTCGAGCCCCAGGGACAAGGCCATCACCCC
GCCACTGCCAGAAAGTACTGTGCCCTTCAGCAATGGGGTGCTGAAGGGGGAGTTGTCAGACTTGGGGGCTGAGGA
TGGATGGACCATGGATGCGGAAGCAGATCATTCAGGAGGTTCTGACAGGAACAGCATGGATTCCGTGGATAGCTG
TTGCAGTCTCAAGAAGACTGAGAGCTTCCAAAATGCCCAGGCAGGCTCCAACCCTAAGAAGGTCGACCTCATCAT
CTGGGAGATCGAGGTGCCAAAGCACTTAGTCGGTCGGCTAATTGGCAAGCAGGGGCGCTATGTGAGTTTTCTGAA
GCAAACATCTGGTGCCAAGATCTACATTTCAACCCTGCCTTACACCCAGAGCGTCCAGATCTGCCACATAGAAGG
CTCTCAACATCATGTAGACAAAGCGCTGAACTTGATTGGGAAGAAGTTCAAAGAGCTGAACCTCACCAATATCTA
CGCTCCCCCATTGCCTTCACTGGCACTGCCTTCTCTGCCGATGACATCCTGGCTCATGCTGCCTGATGGCATCAC
CGTGGAGGTCATTGTGGTCAACCAGGTCAATGCCGGGCACCTGTTCGTGCAGCAGCACACACACCCTACCTTCCA
CGCGCTGCGCAGCCTCGACCAGCAGATGTACCTCTGTTACTCTCAGCCTGGAATCCCCACCTTGCCCACCCCAGT
GGAAATAACGGTCATCTGTGCCGCCCCTGGTGCGGACGGGGCCTGGTGGCGAGCCCAAGTGGTTGCCTCCTACGA
GGAGACCAACGAAGTGGAGATTCGATACGTGGACTACGGCGGATATAAGAGGGTGAAAGTAGACGTGCTCCGGCA
AATCAGGTCTGACTTTGTCACCCTGCCGTTTCAGGGAGCAGAAGTCCTTCTGGACAGTGTGATGCCCCTGTCAGA
CGATGACCAGTTTTCACCGGAAGCAGATGCCGCCATGAGCGAGATGACGGGGAATACAGCACTGCTTGCTCAGGT
GACAAGTTACAGTCCAACTGGTCTTCCTCTGATTCAGCTGTGGAGTGTGGTTGGAGATGAAGTGGTGTTGATAAA
CCGGTCCCTGGTGGAGCGAGGCCTTGCCCAGTGGGTAGACAGCTACTACACAAGCCTT**TGA**CCCCCATGCTGCTT
CCTGAGAGTCTTTTTTTGCACTGTTGAAATTGGGCTTGGCACTCAAGTCAAAGATGAACATCGGAATAACAAACA
TTGTCCTCTCCAGAAAGTCCTTTCTTTCTCCATACTGTAGTCCTATTGAGAAGACATTTCGTCTCTGAGAAAAAA
GGATGGAACTATGGGTTCTCTTCGCAAAGCCAAAGGATAGTGTTTAACAAGCCAGCTGGCTTATGCTGGTTCTCA
GCTGTTTAAAAAAAAAAAAAAAAAGGAATAGAAACAGTTTCAACCAGATTGTCCTATTCCCCCTGTTCCATTCCC
CTCTTCTTCCTTCTATCTCCTTCCCCGGCAAAAACCAAACAAACTGGCAGACAGGCCAGGGATGTATGTTGCTTG
CTTGAGAGGGTTTCTTTTACTTCAAAATCTTTCTTCAGGGAGCAAGACATGAACTGACTAATTGGTATCCACTAC
TTGTACAGCTTACATAAATGAGTTGATGATATTTAACCAGTTTTTATAAACTTCATTTAGGTCTCTAAACACAGA
CTTTTTAAATTGCAACTGTAAATATGAAATGGTCATCACATCTGACCTTGGTCAGTGGGGAGGGGAACTGGTATC
CTGCCAAGCCTGGTTGTAATTTGTAACCATTTTCTATTTGTGCAAACTCTGTAAATATGTGTTTAAACAAATGTA
ATATTTTGTACAAGATACACTGGAGAACAAAGGGAACTCAAGATTCTTCCAGCCACATGTCACCTGTAGGTAGAA

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FIGURE 3491B

GTAAACTCTGCAGTGCAGCTTCTGCTCTTGGCCCCTCTGGCCAGGGCCCCTGTGGCTTCCTGCACACTGGACAGG
TGACTGTATGGTAGAGACTGTGATCTGGGAACTTTTTGCTGTACAAATCTGTTTAAAAAAAAAAAAAAAGTAACTC
ATTGAATTAA

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FIGURE 3492A

CAAGTGCCGTCGCCGCGCCCCTTCCCCCTCCCGCCTCCCCGGCCCCCTCCCCGGAACCGGCGGTCGAGCTACGGT
CGCGGAGCAGTGGAACCGNAGACTGCCCCGCGGAGCCGCCGGTATGAGCGCCCCTCGCCACCCCGTGTCCCAGGC
CCGGCCTTTCTGACAAGAGCTAGACTTCGGGCTCCTTGAGGATATTCAGTTTTGTATGTTTGAATATCCTCTCAC
CATGTTCAGCATAAAGTACCATTCTTAATGATTATCCTCAACAAGACAGGTGTGAGAGGGTTGCTGTTGTATTGC
AATC**ATG**GTGCAGAAATACCAGTCCCCAGTGAGGGTGTACAAATACCCCTTTGAATTAATTATGGCTGCCTATGA
AAGGAGGTTCCCTACATGTCCTTTGATTCCGATGTTCGTGGGCAGTGACACTGTGAATGAATTCAAGAGCGAAGA
TGGGGCTATTCATGTCATTGAAAGGCGCTGCAAGCTGGATGTAGATGCACCCAGACTGCTGAAGAAGATTGCAGG
AGTTGATTATGTTTATTTTGTCCAGAAAAACTCACTGAATTCTCGGGAACGTACTTTGCACATTGAGGCTTATAA
TGAAACGTTTTCCAATCGGGTCATCATTAATGAGCATTGCTGCTACACCGTTCACCCTGAAAATGAAGATTGGAC
CTGTTTTGAACAGTCTGCAAGTTTAGATATTAAATCTTTCTTTGGTTTTGAAAGTACAGTGGAAAAAATTGCAAT
GAAACAATATACCAGCAACATTAAAAAAGGAAAGGAAATCATCGAATACTACCTTCGCCAATTAGAAGAAGAAGG
CATAACCTTTGTGCCCCGTTGGAGTCCGCCTTCCATCACGACCTCTTCAGAGACATCTTCATCATCCTCCAAGAA
ACAAGCAGCGTCCATGGCCGTCGTCATCCCAGAAGCTGCCCTCAAGGAGGGGCTGAGTGGTGATGCCCTCAGCAG
CCCCAGCGCACCTGAGCCCGTGGTGGGCACCCCTGACGACAAACTAGATGCCGACTACATCAAGAGATACCTGGG
CGATTTGACTCCGCTGCAGGAGAGCTGCCTCATTAGACTTCGCCAGTGGCTCCAGGAGACCCACAAGGGCAAAAT
TCCAAAAGATGAGCATATTCTTCGGTTCCTCCGTGCACGGGATTTTAATATTGACAAAGCCAGAGAGATCATGTG
TCAGTCTTTGACGTGGAGAAAGCAGCATCAGGTAGACTACATTCTTGAAACCTGGACCCCTCCTCAGGTCCTTCA
GGATTACTACGCGGGAGGCTGGCATCATCACGACAAAGATGGGCGGCCCCTCTACGTGCTCAGGCTGGGGCAGAT
GGACACCAAAGGCTTGGTGAGAGCGCTCGGGGAGGAAGCCCTGCTGAGATACGTTCTCTCCATAAATGAAGAAGG
GCTAAGGCGATGCGAAGAGAATACAAAAGTCTTTGGTCGGCCTATCAGCTCATGGACCTGCCTGGTGGACTTGGA
AGGGCTGAACATGCGCCACTTGTGGAGACCTGGTGTGAAAGCGCTGCTGCGGATCATCGAGGTGGTGGAGGCCAA
CTACCCTGAGACACTGGGCCGCCTTCTCATCCTGCGGGCGCCCAGGGTATTTCCTGTGCTCTGGACGCTGGTTAG
TCCGTTCATTGATGACAACACCAGAAGGAAGTTCCTCATTTATGCAGGAAATGACTACCAGGGTCCTGGAGGCCT
GCTGGATTACATCGACAAAGAGATTATTCCAGATTTCCTGAGTGGGGAGTGCATGTGCGAAGTGCCAGAGGGTGG
ACTGGTCCCCAAATCTCTGTACCGGACTGCAGAGGAGCTGGAGAACGAAGACCTGAAGCTCTGGACTGAGACCAT
CTACCAGTCTGCAAGCGTCTTCAAAGGAGCCCCACATGAGATTCTCATTCAGATTGTGGATGCCTCGTCAGTCAT
CACTTGGGATTTCGACGTGTGCAAAGGGGACATTGTGTTTAACATCTATCACTCCAAGAGGTCGCCACAACCACC
CAAAAAGGACTCCCTGGGAGCCCACAGCATCACCTCTCCGGGTGGGAACAATGTGCAGCTCATAGACAAAGTCTG
GCAGCTGGGCCGCGACTACAGCATGGTGGAGTCGCCTCTGATCTGCAAAGAAGGAGAAAGCGTGCAGGGTTCCCA
TGTGACCAGGTGGCCGGGCTTCTACATCCTGCAGTGGAAATTCCACAGCATGCCTGCGTGCGCCGCCAGCAGCCT
TCCCCGGGTGGACGACGTGCTTGCGTCCCTGCAGGTCTCTTCGCACAAGTGTAAAGTGATGTACTACACCGAGGT
GATCGGCTCGGAGGATTTCAGAGGTTCCATGACGAGCCTGGAGTCCAGCCACAGCGGCTTCTCCCAGCTGAGTGC
CGCCACCACCTCCTCCAGCCAGTCCCACTCCAGCTCCATGATCTCCAGG**TAG**TGCCGCGCTGCCTGCACCTAGTG
TGCAGAGGGGACGGCCGCCCCTCCTCGGACAGCCAGCTGCACCCGCCCACCCAGCGGCGACATTGTACAGACTCC
TCTCACCTCTAGATAGCAAATAGCTCTCAGATGGTAAACGTAGTCGTTTGATCCCAAAACTACCTTGGCAGGTAG
TTTTAACTCTGATCCTAACTTAACTCAATAGCCATAGATTTTGTATACGTTGTGCACAAAATCCAACCAGAGCGC
AAGGGCTCTCTTGAAAGAAAAGTAGTTTCTGTACCAATTAAAGGATTGACGTGGTCTCAGATATTGATGCAAAAA
ATTTTTCCAACGAACTCCGCATTGTCCATTAGTGAATGAATTCCTGTGACATCCTCCAGAGATGGCCCCTCCTCA
CCTGGGACGGAAGCTGCCAGCTCGCTTCCCCCAAGCTGCCTCATGGCCCGCACGCCGCCTCACGGCCCCCATGCT
TCCCGCCAGTCAAGATGGTCTGTGGACTTAGGGCCAGCCCTTGAGGTCCTTATCCTCTGAGGATTCAGAGGTTGC
CTGCGGAGTACCTTGTCCCAGGGCCAGACACACCCACACCACCCACTGTCCTGCAGTGGGGCCGGGGGCTCAGGA
GGGGCTCTCAGGGACTCCTGGTGACTCCAGGAAAATGCTGCCATCGTTAAACATTACTTTCTCTTTCCTCCTTTT
CAAATCTTTTTGATACTTTTTAGAGCAGGATTTTTCTGTATGTGAACTTGGGTGGGGGGGTTCTTCCCGTTTCCT
TCCGTGCGTCGCCCCTCTCACCTGCAGTCAGCTCCCAGCCCAGTGTAGGCCATCTCCTCTGTGCCCTCTGGTGGC
TCATTGTCCTCAGAGCCCAGACAGTTCCAGCCACTAGGAGGCCGTCTTGGAACCAGCAAGTCGCATTTGCCACTT
GACACTGTCCATGGGGTTTTATTAGTAGCTAAGCAGCAGCTCTCGCATCCACTTCAGGGTGGCGTGTGGCATGTA
GGAGTCCTGCTTCTTTGTACATGGGAATTGTGGACTCATGCGTGTGTGTGTGTGCATGTGCTGTGTGTGTGCATG
TGTGCATGACGGTGGGGGTGCTGGGGGGACGGGGTGAGTGGAAACTTAGTTTGAGTAATGAAGGAATCTTCACAG

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FIGURE 3492B

AAGCAAATCAGAATATGGGATTTGTTTGCCTTTTACATTTTGTTTAATTCCTGATTTTAAAGCCTGCTCTATCTG
GTACAGGCCCTTATTTTTTCAGCTTTTTATGGGAAAAGCAGGTTATTTGAGAATCTGTCCAGAAGTTGCATAGGG
GATGGCCTCCACGATAAGGACATGCAACACGTGTTTCTGTGTGCAGCAGAGGCCGTGTTTTTCATGCCAAACCCC
ACGCGGCTGTCAACTGTGTGCGTGGTAGGCATGGAGATCCTGGTTGTGCCGTCTCAGCTCCGCTCTGAAGGCACT
GTGTGGGTGCTGCGTGACTGGAGAGCTGTGTGGAGGCCATGTGTGCCCCGTGCAGGGATCAGGAGGGCGGGGGAG
GGACCGAGCAGCCCTCTTGCCCGGTCGGGTCAGCCCTAGTGGCTGCCTGCACACTGTAGACGTCCCAGGGCCTGT
GCTGTGATCACCTGCCTTTGGACCACATTTGTGTTTGCTCTTAGAGATCGAGCTCCTCAGTGGTACCTGAAGCCT
TTGCTTCCGGAAAGCGCGGTAGGGTTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGG
GCTAGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGT
AGGGTTAGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTA
GGTAGGGTTCGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGCTA
GGTAGGGTTCGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGG
GTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGG
TTCGTAGGTAGGGTTCGTAGGTAGGGTTAGTAGGTAGGGTTCGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTA
GGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAG
GTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGTTAGTAGCGCGTCTGTGCTGCTTCCACCTG
GTGCTTCCTGTTCCCAAATCACAAGGGCCTGAAGGTGGTCCCTGCTTTCTCTTTCTCTTTCTCTGTGTCTCAGAT
GGCGATTTTGCTGACAGCTGCCAAGAAAATGCTTCACTCAACAGTCCTCATGTGCCCAGAGATGTTTATAGAACT
GTTTGAATTGCAGCCATCCCCTGCCCCCTCCCAGGCTGAAGATCTGTTCTTTTTAAGTTGATTCGGGAGTGGCAT
TCTTTTATACCCAAAGACTGTAGTGCATCTTGAAGAGCTCAAAGCACATGACCGCACAAATGCTTACAGGGTTTC
CTCCCGAGTAATCCAATCTCACTCCCCTTGTAAGGGAATTCTGGGGCAGCTATGGTTTGAGTATGCAGTTTGCAT
CGTGTTTCTACCTTTAGTACCTTGCCACTCTTTTAAAACGCTGCTGTCATTTCCCATTTCTTAGTACTAATGATT
CTTTGATTCTCCCTCTATTATGTCTTAATTCACTTTCCTTCCTAAATTTGTTATTTGCATATCAAATTCTGTAAA
TGTTTTGTAAACATATTACCTCACTTGGTAATACAATACTGATAGTCTTTAAAAGATTTTTTTATTGTTATCAAT
AATAAATGTGAACTATTTAAAG

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FIGURE 3493

AGGTCACCATGGCTGTTATTGGCTCCCTTGCTGTCCCCAGCTGTTCCCCAGGTCACCTCCCCACCTTGCTGCCTG
TGTCCAGAAGGCGTGCACCGGTTCCAGTGGATCAGAAACCTGGTTCCAGAATTTGGAGTCTCCAGTTCTCACGTT
AGGGTGCTTTCTTCCCCGGCAGAGTTTTTCGAGCTC**ATG**AAGGGGCAGATAAGAGTAGCCAAGAGGCGGGTCGTG
ATGGCATCCCTCTACCTGGGGACAGGTCCTTTGGAACAGGAGCTGGTGGACTGCCTGGAAAGTACTCTAGAAAAG
TCACTCCAAGCAAAGTTTCCTTCAAATCTCAAGGTCTCCATTCTCTTAGACTTCACGCGGGGCTCACGAGGCCGG
AAGAACTCCCGCACAATGCTGCTCCCACTCCTGCGGAGGTTCCCAGAGCAGGTCCGAGTCTCCCTCTTTCACACG
CCGCACCTCCGTGGGCTGCTTCGGCTCCTCATCCCTGAGCGCTTCAACGAGACCATCGGCCTCCAGCACATTAAG
GTGTACCTCTTCGACAACAGCGTCATCTTGAGCGGTGCAAACCTGAGTGACTCCTACTTCACCAACCGCCAGGAC
CGCTACGTGTTCCTGCAGGACTGTGCGGAGATTGCCGACTTCTTCACGGAGCTGGTGGACGCGGTGGGGGATGTG
TCCCTGCAGCTGCAGGGGGACGACACGGTGCAGGTGGTGGATGGGATGGTGCATCCTTACAAAGGGGACCGGGCC
GAGTACTGCAAGGCAGCCAATAAGAGGGTCATGGATGTGATCAACTCAGCCAGGACCCGCCAGCAGATGCTGCAT
GCCCAGACCTTCCACAGCAACTCTCTTTTGACCCAGGAAGATGCAGCAGCTGCTGGGGATCGCAGACCAGCCCCT
GACACCTGGATTTATCCGCTGATTCAGATGAAGCCCTTCGAGATTCAAATCGATGAGATTGTCACTGAGACCCTG
TTGACTGAGGCGGAGCGCGGGGCAAAGGTCTACCTCACCACTGGCTATTTCAACCTGACCCAGGCCTACATGGAC
CTGGTCTTGGGCACTCGGGCTGAGTACCAGATCCTGCTGGCCTCACCAGAGGTGAATGGCTTCTTTGGGGCCAAG
GGGGTGGCCGGCGCCATCCCAGCGGCCTATGTGCACATCGAGCGACAGTTCTTCAGTGAGGTGTGCAGCCTGGGA
CAGCAGGAGCGGGTCCAGCTTCAGGAGTACTGGCGGAGGGGCTGGACGTTCCACGCCAAAGGCCTCTGGCTGTAC
CTGGCAGGGAGCAGCCTGCCCTGTCTCACGCTGATTGGCTCTCCTAATTTTGGGTACAGGTCAGTTCACCGGGAC
CTGGAGGCCCAGATTGCGATCGTGACGGAGAACCAGGCCCTGCAGCAGCAGCTTCACCAGGAGCAAGAGCAGCTC
TACCTGAGGTCAGGTGTGGTGTCCTCTGCCACCTTCGAGCAGCCGAGTCGCCAGGTGAAGCTGTGGGTGAAGATG
GTGACTCCACTGATCAAGAACTTCTTC**TGA**GGACAGACAGGAATGGCCTTGATGAAGATGACAGGCATGGCCGGG
GTCAGCTCTTTCAGCCGCGCTTCAGCGATGACTCCAGTCTGGGTGTCCCAGCGAGCCCCTGCAGGGACAGTATGG
CTGAGGGTCAGGTGTGCTGCCAGTAAGTGAGGGAGGGGCTGGCAGGAAGGGTGGGGTCCTCACACTCCCCGCCCT
CTGCAGAGCTGGGCTCTACCCCAAAAGGCTTCAGGCCAGCTGCCACGGCTGGAAGCAGAGGCCTTCGTAGGTGAT
GGCCTGCATGTTGTAACTACCCCGTCCCGCTGGGCTCAAGGAACAGCTCAGCTAAAGCCCTCGGGTTCCATCCGT
TTAAATCTGTGGCATTTTCAGAGCCTCATCTGTCAGCCTTAATGTCAGTGGCAGGAAGTCATAACTCCAGCTAAA
AATTACAGAGTAAAGTTCCCTGATTCTTAATGTGTAATGTCTGCCCTATGTGTACATACACAATATAATTATACA
TCTGTGCATAT

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FIGURE 3494A

AAGGCGGCCAAGATC**ATG**ATGGGCAAGGTGGACACCTTCCTAGACTCCCTGAAGAAGTTCGACAAGGAGCACATC
CCTGAGGCCTGCCTGAAGGCCTTCAAGCCCTACCAAGGCAACCCGACGTTCGACCCCGAGTTCATCCGCTCCAAG
TCCACGGCCGCCGCCGGCCTGTGCTCCTGGTGCATCAACATCGTCCGCTTCTACGAGGTCTACTGCGACGTGGCG
CCCAAGAGGCAGGCACTGGAGGAGGCTAATGCAGAGCTGGCAGAGGCACAAGAGAAGCTGTCCCGGATCAAAAAC
AAGATTGCCGAACTTAACGCCAACCTGAGCAACCTAACCTCAGCGTTTGAAAAAGCAACAGCTGAGAAAATCAAG
TGTCAGCAAGAGGCCGATGCCACGAACAGGGTGATCTTACTGGCGAACAGGCTGGTCGGGGGATTAGCATCGGAA
AACATCCGCTGGGCTGAGTCTGTGGAGAACTTCAGGAGCCAGGGGGTCACGCTGTGTGGGGACGTCCTGCTCATC
TCTGCCTTCGTGTCCTACGTGGGCTACTTCACCAAGAAATACCGGAATGAGCTGATGGAGAAATTCTGGATCCCT
TACATACATAACTTAAAGGTCCCCATCCCGATCACGAATGGCCTGGATCCCTTGAGCCTGCTGACAGATGACGCG
GACGTGGCCACCTGGAACAACCAGGGCCTCCCCAGCGACCGCATGTCCACCGAGAATGCCACCATCCTGGGCAAC
ACCGAGCGGTGGCCGCTGATCGTGGACGCCCAGCTCCAAGGAATCAAGTGGATCAAAAACAAATACAGGAGTGAA
CTGAAAGCCATCCGCCTGGGACAGAAGAGCTACCTGGATGTCATCGAGCAGGCCATCTCGGAAGGGGACACCTTG
CTCATTGAGAACATCGGCGAAACCGTGGACCCCGTGCTGGACCCTCTACTGGGCAGGAACACGATTAAAAAGGGA
AAGTACATTAAGATCGGTGACAAGGAGGTGGAGTACCACCCCAAGTTCCGCCTGATCCTACACACCAAGTACTTC
AACCCACACTACAAGCCAGAGATGCAGGCTCAGTGCACCCTCATCAACTTCCTGGTCACCAGGGATGGACTCGAG
GACCAACTCTTGGCCGCTGTGGTGGCCAAAGAGCGCCCAGATCTGGAACAGCTGAAGGCAAACCTCACCAAGTCT
CAAAACGAATTTAAGATTGTTCTGAAAGAGCTGGAAGATTCGCTCCTGGCCCGTCTGTCGGCTGCGTCGGGGAAC
TTTCTGGGAGACACGGCCTTGGTGGAGAATCTGGAGACCACCAAGCACACAGCCAGCGAGATCGAGGAGAAGGTG
GTGGAGGCAAAAATCACAGAAGTTAAAATCAACGAAGCGAGAGAGAACTACCGCCCGGCTGCGGAGAGGGCATCT
CTGCTCTACTTCATACTGAACGATCTCAACAAAATCAACCCCGTCTACCAGTTCTCCCTCAAGGCCTTCAACGTG
GTGTTTGAGAAAGCCATCCAGAGGACCACCCCTGCCAACGAGGTGAAGCAGCGGGTGATCAACCTGACGGACGAG
ATCACCTACTCCGTCTACATGTACACGGCCCGGGGACTCTTCGAGAGGGACAAACTCATTTTCCTGGCACAAGTT
ACGTTTCAGGTCCTGTCCATGAAGAAGGAGCTGAACCCAGTGGAGCTGGATTTCCTCCTGCGGTTCCCTTTTAAG
GCCGGAGTGGTCTCACCAGTGGACTTCCTCCAGCATCAAGGCTGGGGCGGGATCAAGGCCCTCTCGGAGATGGAT
GAGTTCAAAAATCTGGACAGTGACATCGAAGGATCTGCCAAGCGCTGGAAAAAGCTGGTGGAGTCGGAAGCCCCC
GAGAAGGAGATCTTCCCCAAGGAGTGGAAGAACAAGACGGCCCTGCAGAAGCTGTGCATGGTGCGCTGCCTGCGG
CCAGATCGCATGACCTACGCTATCAAGAACTTCGTGGAGGAAAAGATGGGCAGCAAGTTCGTGGAAGGCCGGAGT
GTTGAGTTTTCTAAGTCCTACGAGGAGAGCAGCCCCTCCACGTCAATCTTCTTCATCCTCTCCCCGGGGGTTGAC
CCCTTGAAAGACGTGGAAGCCCTGGGAAAAAAACTAGGGTTTACCATAGACAATGGAAAACTCCATAATGTGTCC
CTGGGGCAGGGACAAGAGGTGGTGGCTGAGAACGCCCTGGACGTGGCTGCAGAGAAAGGACACTGGGTCATTCTG
CAGAATATCCACCTGGTGGCCCGGTGGCTGGGAACACTGGACAAGAAGCTGGAGCACTACAGCACGGGCAGCCAT
GAGGACTACCGGGTGTTCATCAGCGCGGAGCCTGCCCCCAGCCCCGAGACCCACATCATCCCCCAGGGCATTCTG
GAGAACGCCATCAAGATCACCAACGAGCCCCCCACGGGCATGCACGCCAACTTGCACAAGGCCCTGGACCTGTTC
ACCCAGGACACCCTGGAGATGTGCACCAAGGAGATGGAGTTCAAGTGCATGCTCTTCGCCCTGTGCTACTTCCAC
GCTGTGGTGGCAGAGAGGCGCAAGTTCGGCGCCCAGGGCTGGAACCGGTCGTACCCCTTCAACAACGGGGACCTC
ACCATCTCCATCAACGTGCTCTACAACTACCTGGAGGCCAACCCCAAGGTGCCCTGGGACGATCTCCGCTACCTT
TTTGGTGAAATCATGTATGGCGGCCACATCACAGATGACTGGGACCGTCGGCTGTGCAGGACCTACCTGGCTGAA
TACATCCGGACGGAGATGCTGGAGGGAGACGTCCTGCTGGCCCCCGGCTTTCAGATCCCCCCCAACCTGGACTAC
AAGGGTTACCACGAATACATCGATGAGAACCTGCCCCCTGAGAGTCCCTATCTGTATGGCCTGCACCCCAACGCA
GAGATTGGCTTTCTGACGGTCACCTCAGAGAAGCTGTTCCGCACTGTCCTGGAAATGCAGCCAAAAGAGACGGAC
TCGGGGGCAGGCACGGGAGTGTCCCGCGAGGAGAAGGTGAAGGCCGTGCTGGACGACATCCTGGAGAAGATTCCG
GAGACTTTCAACATGGCTGAGATCATGGCAAAGGCAGCGGAAAAGACCCCCTACGTGGTAGTCGCCTTTCAAGAA
TGTGAAAGAATGAACATCCTGACCAACGAAATGCGCCGTTCGCTCAAGGAGCTGAACCTGGGGCTGAAGGGAGAA
CTGACCATCACGACCGACGTGGAAGATCTGTCCACGGCTCTCTTCTATGACACCGTGCCTGATACGTGGGTGGCC
CGGGCCTACCCCTCCATGATGGGCCTGGCGGCCTGGTACGCAGACCTGCTGCTCCGCATCAGGGAACTCGAGGCC
TGGACGACAGACTTTGCCCTGCCCACCACCGTGTGGCTGGCCGGCTTCTTCAACCCCCAGTCGTTCCTCACGGCC
ATCATGCAGTCCATGGCCAGGAAGAACGAGTGGCCCCTGGACAAGATGTGTCTGTCTGTCGAGGTGACCAAGAAA
AACCGAGAGGACATGACCGCTCCTCCGCGAGAGGGCTCCTACGTGTACGGACTCTTCATGGAAGGGGCTCGCTGG

FIGURE 3494B

GACACCCAGACTGGAGTCATCGCTGAAGCGCGGCTGAAAGAGCTGACCCCGGCCATGCCTGTCATCTTCATCAAG
GCCATTCCTGTGGACCGCATGGAGACCAAGAACATCTATGAGTGTCCCGTGTACAAAACACGCATCCGCGGCCCC
ACCTATGTCTGGACCTTTAACTTGAAGACCAAAGAGAAGGCAGCGAAGTGGATCCTGGCAGCCGTGGCGCTGCTC
CTACAGGTT**TAG**CTCGCTCCTGCCTCACAGCCCACACTCCCTGGGGCTGGACCACAACTCAGCCCTTCACCTGTG
CACCTGTGACTTATTCTTTACAGGAACTGGTGGTGGTTTTTCGTTCTCTTAAATAATCAGGTGCTTTGTAACCAA
GCACATCGGAACCAGAGGGTGGAGGTTGGTGTGGAAGAGGTGGGGCAGATTAAAGCCAGTGGAGCCAC

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FIGURE 3495

AGTCGAACCACAACATTCGCCGGGCGGGCGGCGGCGGAGCGGGCGGCGGAGCGGCGGCAGCAGCGGTGAGCGCGA
GCCCCGGAGCCCCGGGCGGCCGGCCTCCCGCGCCCGCGCAGCCCCGCGTCTGCGTCCGGCCGGAGACGCCGGGCC
CCGCGCCGCGCCGCGCC**ATG**TCGGTGAACATGGACGAGCTGCGGCACCAGGTCATGATCAACCAGTTCGTGCTGG
CCGCGGGCTGCGCGGCCGACCAGGCGAAGCAGTTGCTGCAGGCGGCCCACTGGCAGTTCGAGACCGCGCTGAGCA
CGTTCTTCCAAGAAACCAACATTCCCAACAGCCACCACCACCACCAGATGATGTGCACTCCCAGCAACACCCCTG
CCACGCCGCCCAACTTCCCCGATGCGCTGGCCATGTTCTCCAAGCTCCGCGCCTCCGAGGGCCTGCAGAGCAGCA
ACAGCCCCATGACAGCCGCAGCCTGCTCCCCACCTGCAAACTTCAGCCCCTTCTGGGCCTCGTCCCCGCCCAGCC
ACCAGGCGCCCTGGATCCCGCCCTCCTCCCCCACCACCTTCCACCACCTCCACCGCCCACAGCCCACGTGGCCCC
CAGGAGCACAGCAGGGGGGCGCCCAGCAGAAAGCCATGGCGGCCATGGACGGCCAGAGA**TGA**GACTGGACGCCGC
CGGGCGCTGGGCTGGAGCTGGGGGCAGCCCAGGGTTGTGGGGACACAGGAGGGCCAGGGAGGGGGGAGCCGGGGA
GGGCAGGGGGTTTCCCGAAGATCGCACTGGAAGATTTTATAAAAGAATTTTTGTGGGTCGGGGGGACAGTAAACT
TCCTGGGCCACGTGGGTCCTTCAGGAGTTTTTCAGGCAAGTTTTTCCTCTGTTTTTAATATATAACTATAATATA
TATGAATAGATAAATATAACTAATGTGCGTGAGAATGGGCCTGGCACACCTGGGGTGCTCGGGGGTAGGGCTGCC
ATGCTGCAGAGCTGATGGAGTGATGTTGTGGGCACAAGGCATCTGTCAGCTGCCTCCTTTAACAGCCATGCCTTC
TGGAATCTGGAAGAGGACACCACTCCTGCAGTCACTGGGCAGCCACATAGCAGCTGCAGGTCCCAGGAGGGCCTG
AGGTCAAAGCTGTGGAAGGCCCTCTTGGTATCAGGGCTCTCTCCCCATGGCCTCTTCCCCACCTCTGATTGCTGG
TTGTGGCCCCATAGCTCATCACCCCTGTCTCCTGCTGAATGTGCAGGGCTGATGTGGCACTGAGGAGCTGACTTT
GGTCAAAGGCCAGGCTCTGCCCAGCAGGGGACTTGACTGCCCTGGGCGCCCTGCCCCTCCCGCTGCGTGTCCAGG
TCCAAAGTGGAGAGCCTGCCTTTGGGTTTAGTTCCCGAATCAGAATCCCATCTCACCAGGGCGAAATTTTAATTT
AAAAACTTAAAAAGAGACTTTTCT

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FIGURE 3496

CAGATGTAGTTTTTTCCGCACGTGCACGCCTTCCCTCCTCCCCGCCCTCAGGGTCCACGGCCACCATGGCATATT
AGGGGCAGCAGTGCCTGCGGCAGCATTGGCCTTTGCAGCGGCGGCAGCAGCACCAGGCTCTGCAGCGGCACCCCC
CAGCGGCTTAAGCCATGGCGCTTCCCACGGCATTCAGCAGCAGCATTGCTGTAACCGACAAAGACACCTTCGAAT
TAAGCACATTACTCGATTCCAGCAAAGCACCGCAACATGACCGAAATGAGCTTCCTGAGCAACGAGGTGTTGGTG
GGGGACTTGATGTCCCCCTTCGACCAGTCGGGTTTGGGGGCTGAAGAAAGCATAGGTCTCTTAGATGACTACGTG
GAGGTGGCCAAGCACTTCAAACCTCATGGGTTCTCCAGCGACAAGGCTAAGGCGGGCTCCTCCGAATGGCTGACT
GTGGATGGGTTGGTCAGTCCCTCCAACAACAGCAAGGAGGATGCCTTCTCTGGGACACATTGGATGTTGGAGAAA
ATGGATTTGAAGGAGTTCGACTTTGGTGCCCTGTTGGGTATAGATGACCTGGAAACCATGCCAGATGACCTTTTG
ACCACGTTGGATGACACTTGTAATCTCTTTGCCCCCCTAGTCCAGGAGACTAATAAGGTGCCCCCCCAGATGGTG
AACCCAATTGGCCATCTCCCAGAAAGTTTAACAAAACCCGACCAGGTTGCCCCCTTCACCTTCTTGCAACTTCTT
CCCCTTTCCCCAGGGGTCCAGTCCTCCACTCCAGATCATTCCTTTAGTTTAGAGCTGGGCAGTGAAGTGGATATC
ACTGAAGAAGATAGGAAGCCGGACTCCACTGCTTACGTTGCCATGATCCCTCAGTGCATAAAGGAGGAAGACACC
CCTTCAGATAATGATAGTGGCATCTGTATGAGCCCAGAGTCCTATCTGGGGTCTCCTCAGCATAGCCCCTCTACC
AGGGGCTCTCCAAATAGGAGCCTCCCATCTCCAGGTGTTCTCTGTGGGTCTGCCCACCCCAAACCTTACGATCCT
CCTGGAGAGAAGATGGTAGCAGCAAAAGTAAAGGGTGAGAAACTGGATAAGAAGCTGAAAAAAATGGAGCAAAAC
AAGACAGCAGCCACTAGGTACCGCCAGAAGAAGAGGGCGGAGCAGGAGGCTCTCACTGGCGAGTGCAAAGAGCTG
GAAAAGAAGAACGAGGCTCTAAAAGAGAGGGCAGATTCCCTGGCCAAGGAGATCCAGTACCTGAAAGATTTGATA
GAAGAGGTCCGCAAGGCAAGGGGGAAGAAAAGGGTCCCCTAGTTGAGGGTAGGTCAGGAGTGTCAACGTGCTTGT
ACATAGAGTGTCTGCTGTAGCTGTGTGTTCCAATAAATTATTTTGTAGGG

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FIGURE 3497

CGAGGATCCGCTCGGGAGCCTCCCCTGGCCAGGAGCAGGGGATTAGTCTGCCCCGCGACCGGCCCCAGCCACGAC
GCGGACATCGCCCCCTCTGTCTGGGCCGCTGTCACTCACGCGCCAAAGGGCCACGGAGAAAGAAGGGGCGGGCCG
GGGCGGGCCGGGCGAGCGGAGGCGGGGACTTGCGCCGTCCTGAGGCTGCCTCCTAGGGTCCGGCCGGCGCTGGAG
CTGCGGATTTAGATTGTCACTGCCACCTCGGTCGGTGCTTACTTCGCTGCCAGCTGGTCGTCGCC**ATG**AACCCGG
ACCTGCGCAGGGAGCGGGATTCCGCCAGCTTCAACCCGGAGCTGCTTACACACATCCTGGACGGCAGCCCCGAGA
AAACCCGGCGCCGCCGAGAGATCGAGAACATGATCCTGAACGACCCAGACTTCCAGCATGAGGACTTGAACTTCC
TCACTCGCAGCCAGCGTTATGAGGTGGCTGTCAGGAAAAGTGCCATCATGGTGAAGAAGATGAGGGAGTTTGGCA
TCGCTGACCCTGATGAAATTATGTGGTTTAAAAATTTTGTGCACCGAGGGCGGCCTGAGCCTCTGGATCTTCACT
TGGGCATGTTCCTGCCCACCTTGCTTCACCAGGCAACTGCGGAGCAGCAGGAGCGCTTCTTCATGCCCGCCTGGA
ACTTGGAGATCATTGGCACTTATGCCCAGACAGAGATGGGTCATGGAACTCACCTTCGAGGCTTGGAAACCACAG
CCACGTATGACCCTGAAACCCAGGAGTTCATTCTCAACAGTCCTACTGTGACCTCCATTAAATGGTGGCCTGGTG
GGCGTAAG**TGA**ATTTTTCAGCATTTATTGGATGTTTTGAAGTTGGAAAGACTTCAAATCATGCAATAGTTCTTGC
CCAGCTCATCACTAAGGGGAAATGCTATGGATTACATGCCTTTATCGTACCTATTCGTGAAATCGGGACCCATAA
GCCTTTGCCAGGAATTACCGTTGGTGACATCGGCCCCAAATTTGGTTATGATGAGATAGACAATGGCTACCTCAA
AATGGACAACCATCGTATTCCCAGAGAAAACATGCTGATGAAGTATGCCCAGGT

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FIGURE 3498

GCGATGATTCCCCCACAGGAGGCATCCGCTCGACGGCGGGAGATTGAGGACAAGCTGAAGCAGGAGGAGGAGACT
CTGTCCTTCATCCGAGACAGCCTGGAGAAGAGCGACCAGCTCACTAAGAACATGGTGTCTATCTTATCATCCTTT
GAGAGCCGCCTTATGAAGCTGGAGAACTCCATCATCCCTGTGCACAAGCAGACGGAGAATCTGCAGCGGCTGCAG
GAGAATGTTGAGAAGACGCTGTCCTGCCTGGACCATGTCATCAGCTACTACCATGTGGCCAGTGACACTGAGAAG
ATCATCAGAGAGGGCCCCACAGGTAGGCTGGAAGAGTACCTGGGAAGCATGGCCAAGATTCAGAAGGCAGTGGAG
TATTTCCAGGACAACAGCCCAGACAGCCCGGAACTCAACAAAGTGAAACTGCTCTTTGAGCGCGGGAAGGAGGCC
CTGGAGTCCGAATTTCGCAGCCTGATGACGCGGCACAGTAAGGTCGTCTCGCCCGTGCTCATCTTGGATCTGATC
AGTGGTGACGATGATCTGGAGGCCCAGGAGGACGTGACCCTGGAGCACCTGCCCGAGAGCGTGCTCCAGGATGTC
ATTCGCATCTCCCGCTGGCTGGTGGAATATGGCCGCAACCAAGATTTCATGAACGTCTACTACCAGATACGCTCC
AGCCAGCTGGACCGCTCCATCAAAGGACTGAAGGAGCATTTCCATAAGAGCAGTTCTTCCTCTGGGGTTCCCTAC
TCCCCTGCTATCCCCAACAAGAGGAAAGACACACCTACCAAGAAGCCAGTCAAGCGGCCAGGGACGATCCGTAAG
GCTCAGAACCTTCTGAAACAGTATTCCCAGCATGGTCTAGATGGGAAAAAGGGGGGCTCTAACCTCATTCCTCTG
GAAGGGCTTCTTCCCTGTACCCCAAGGGGCGGCCTGCCTGGCCCCTGGATAAACGCTGCTTGTGTTTGTGCGGCC
GACATCTCGCCAGGTCACGAGCATGATTTCCGAGTTAAGCACCTGTCCGAGGCCTTGAACGACAAGCACGGGCCG
CTGGCCGGGAGAGATGACATGCTGGACGTGGAGACCGATGCCTACATCCACTGCGTCAGTGCCTTCGTCAAGCTG
GCGCAGAGCGAGTACCAGCTGCTGGCCGACATCATCCCCGAGCACCACCAGAAGAAGACCTTCGACTCCCTGATA
CAGGATGCCCTGGATGGGCTGATGCTTGAAGGGGAGAACATCGTGTCTGCTGCCCGGAAGGCCATTGTGCGACAC
GACTTCTCCACGGTGCTCACCGTCTTCCCCATCCTGCGACACCTCAAGCAGACCAAGCCTGAGTTTGACCAGGTG
CTCCAGGGCACGGCTGCCAGCACAAAGAACAAGCTGCCTGGCCTCATCACATCCATGGAGACCATCGGTGCCAAA
GCGCTGGAGGACTTCGCAGACAACATCAAGAATGACCCGGACAAGGAGTACAACATGCCGAAGGACGGCACCGTA
CACGAGCTCACCAGCAATGCCATCCTCTTCCTGCAGCAGCTTTTGGACTTCCAGGAGACGGCAGGCGCCATGCTG
GCCTCCCAAGAGACCAGCTCTTCGGCCACCAGCTACAGCTCTGAGTTCAGCAAGCGGCTGCTAAGCACCTATATC
TGTAAAGTGCTGGGCAACCTGCAGTTGAACTTGCTGAGCAAGTCCAAGGTGTACGAGGACCCAGCTCTGAGCGCC
ATCTTCCTGCACAACAACTACAATTACATCCTCAAGTCCCTGGAGAAGTCTGAACTGATCCAGCTGGTGGCAGTG
ACACAGAAGACTGCTGAGCGCTCCTACCGGGAGCACATTGAGCAGCAGATCCAGACCTACCAGCGCAGCTGGTTA
AAGGTGACTGATTACATCGCAGAGAAGAATCTACCTGTGTTCCAGCCGGGAGTCAAGCTCCGGGACAAGGAGCGG
CAGATTATCAAGGAGCGTTTTAAGGGCTTCAATGATGGCCTCGAAGAACTGTGCAAAATCCAGAAGGCCTGGGCT
ATTCCAGACACAGAGCAGAGGGACAGGATTCGCCAGGCCCAGAAGACCATTGTCAAGGAGACCTACGGGGCCTTT
CTACAGAAGTTTGGCAGCGTGCCCTTCACCAAGAACCCGGAGAAGTACATCAAGTACGGGGTGGAGCAGGTGGGC
GACATGATCGATCGCCTTTTCGACACCTCTGCCTGAGCCTGCTGCTAGCCCTGCCTGGTTCCACCAGACTGGCGT
GTCATTGGACAGATAAACCAGTGTTAGCTTGCCTCTGGGCTGGGTGAGCTTGAAGTCCTCTGGGACAGAGACCTG
TCTCCACGCCTCCGGGAGCTGTGTCCCTGAGCCCCCTAGTCCTGGCTCCTGCTTTTTCCCCACAGCCCGTGTTCC
CAGCCGAACCAGCACTCTCCCGGAAGCCTGGGGTCCCTCCACACCTTGGCTTTTATGACCCTGATGGCTTCTGAA
ACAGGAAAAGAGAGAAGGAAGACAGAGGCCTGTGCCCACTGCTGCTCCATGTGTACCAAGAGCAGCAGGGCAGAA
GGGCCCTCCCTCCAGCCTAGGTCAGAGGTGGGGACAGAGAACTCCCCTACAGCCCAGAGATGTGGCAGGGCTCAG
AGAAGCAGCCAGAGCTCCTGGAGGAAAGGCAGTCGGGACTGACCCCCTCTCTTAAAACACATTCCCGCCCGCCCA
CAGGCCTGAGGTCTGGGACCTTTCCCTCCCAGGAGTCCCCTAGGTGGCTGGGGGAGGCAGGCTCACTGGCCATTT
TCCCTAGAGTCCAGCACACTGCAGGAGGCGTTCGGAGGAGGAGTTCCGCCCCACCCTCTACAGCCTTCCTCAGGC
CCCTGTCTCTGGCCCCCAGCCTCAGTGCCTCTTGGCCCAGGGCCAGGCAGTCGTGGTTGCAGAAGGAGCAATTAG
GCTGCCTGCCTGTGGGCTGGGAGACAGGGACAATGGGGAAAAGTTAAGGAGCAAAATGGGGGTTGGAAGCAAAAA
ATAGGGCCCCACCTATTTAGGACGAGATTGAAGACTGACCCTTGAGGCACACTTGCACTGGAGATGGGTTTATTT
CACGCTCTGTGCTTGTGTGCTAGCGGAGGGAGAGCTCAGGGTGGCTTAATCCAGAGGCCCTGTCATGGCCCGCCC
CCAGCCATGGGAAAGCAAACTTCATCCTAAGGTGTGCAGCCCAGGCCCTGCCCCTTTACAGTCTAGGCCGCCTGC
CATGGGGTGCAGCCTCTCCAGGGGCTGCGTCAGACTTGCACGCTGCCCACATCCAGATTCCTGCAAAGACGAATT
GGGTGCACAGCACCCCAACCACATACACGAGGAAGAAGATGCGGTCAGCAGTCTCAGGCCAGCTTCTCTGTGACC
CCTTTACTCCTCTGGAGGGCTCTGTGGGGAGAGATACAGGGAAAGGAGCTGTTCTTCAAGGTCCCCTCAACATGA
GCGGAAGAGCGAA

FIGURE 3499

CTTTGGCGCGTGAGTGACAGCGGCCCAGACAGAGGGGGCGATGTCCGCGTCGTGGCTGGGGCCGGTCGCGGGGCA
GACTAATCCCCTGCTCCTGGCCAGGGGAGGCTCCCGAGCGGATCCTCGGGAAAGGGGCTCCGAAGGTCAAGAAAC
TGCCCTGCTGGGCGTCCGGGGAGTGGGAAAATAAAGCACTTTTTGTATCCCGCCCCTCCCCCGTCACGTGACCAC
GCGAGGCGGAAAGAAGAAATCCGAGGACCGGCGACGCCTAGAACAGGAGCCC**ATG**ATGCTGCCCAAACCTGGGAC
CTATTACCTCCCCTGGGAGGTTAGTGCAGGCCAAGTTCCTGATGGGAGCACGCTGAGAACATTTGGCAGGTTGTG
CCTCTATGACATGATTCAGTCCAGAGTAACACTGATGGCTCAGCACGGATCCGATCAGCACCAGGTTCTTGTCTG
TACCAAGTTGGTGGAGCCCTTCCACGCCCAGGTGGGCTCCCTGTACATCGTCCTCGGGGAGCTCCAGCATCAGCA
GGACAGAGGCTCCGTGGTGAAGGCGCGCGTGCTGACCTGTGTGGAGGGGATGAACCTGCCCTTGTTGGAACAAGC
CATCCGGGAGCAGAGACTGTACAAGCAGGAGCGGGGCGGCAGCCAG**TAG**GAAACAGCAGCCTAGCAACACCCTCA
CCTGCTTCAGAGCCCGAACCCTCTGGAGCTGCAGGAGCCCGGGAGAGCACAGACGCCTCCCCAGCGACGGCCTTG
TCTGGAGCTCGAAAGCCGAGGGGCGGGTGATGAATCCAGCCCCTTCCCCTACTTTGGGATTGGCTCAGCAATGAG
AACCCAGAAAGCATGCCATAAATCCGACAGCCCCACCCCAGGAGACTGCAGGTGGCCGAGCTTGGGCGCCGGGGC
CGTGCTTGGTGTGGGGCCATGGAGGGTTCCAGAAGGTCCTGGTGAATAAAGGCCCAGGGGGCGTGCTCTTG

FIGURE 3500A

GCTGACCAGCCAGTGAGGACGCCCGCTGCCTCCCACCTGCCCTCCTGCCGTCTTTCGCCAGCCAAGCCCAGCCTG
AGCCAGCACTTGCCTTTACGACCATGTTCAAGGGGCTGAGCAAAGGCTCCCAGGGGAAGGGGTCCCCCAAGGGCT
CCCCCGCCAAGGGGTCCCCCAAAGGCTCCCCCAGCAGGCACAGCCGGGCTGCCACCCAGGAGCTGGCCCTTCTCA
TCTCCCGCATGCAAGCCAACGCCGACCAGGTGGAGCGGGACATCCTGGAGACGCAGAAGAGGCTGCAGCAGGACC
GGCTGAACAGTGAGCAGAGCCAGGCCCTGCAGCACCAGCAGGAGACGGGCCGCAGCCTGAAGGAGGCTGAGGTGC
TGCTCAAGGACCTCTTCCTGGACGTGGACAAGGCCCGGCGGCTCAAGCACCCGCAGGCTGAGGAGATTGAGAAGG
ACATCAAGCAGCTGCACGAGCGGGTGACCCAGGAGTGTGCGGAGTACCGTGCCCTGTACGAGAAGATGGTGCTGC
CCCCCGACGTGGGACCCAGGGTCGACTGGGCACGCGTGCTGGAGCAGAAACAGAAGCAGGTCTGCGCAGGCCAGT
ACGGGCCGGGCATGGCGGAGCTGGAGCAACAGATCGCCGAGCACAACATCCTGCAGAAGGAGATCGACGCCTATG
GGCAGCAGCTGCGGAGCCTCGTGGGGCCGGATGCAGCCACCATCCGGAGCCAATACCGAGACCTACTGAAGGCGG
CGTCGTGGCGCGGGCAGAGCCTGGGCAGCCTGTACACGCACCTCCAGGGCTGCACGCGGCAGCTGAGCGCCCTGG
CTGAGCAGCAGCGCCGCATCCTGCAGCAGGACTGGAGCGACCTCATGGCCGACCCTGCGGGCGTGCGGCGGGAGT
ACGAGCACTTCAAGCAGCACGAGCTGCTGAGCCAGGAGCAGAGCGTGAACCAGCTGGAGGACGACGGCGAGCGCA
TGGTGGAGCTGCGGCACCCCGCGGTGGGGCCCATCCAGGCCCACCAGGAGGCCCTGAAGATGGAGTGGCAGAACT
TCCTGAACCTGTGTATCTGCCAGGAGACCCAGCTGCAGCACGTGGAGGACTACCGCCGGTTCCAGGAAGAGGCCG
ACTCAGTCAGCCAGACCCTGGCGAAGCTCAACTCCAACTTGGATGCCAAGTACAGCCCTGCACCTGGGGGCCCCC
CTGGCGCCCCCACAGAGCTGCTGCAACAGCTGGAGGCAGAGGAAAAACGGCTGGCCGTCACCGAGAGGGCCACTG
GGGACCTGCAGCGGCGAAGCCGGGATGTGGCCCCTCTGCCACAGCGAAGAAACCCCCCTCAGCAGCCCCTGCACG
TGGACAGCATCTGCGACTGGGACTCAGNGNNAGTGCAGCTGCTGCAGGGTGAGCGGTATAAGCTGGTAGATAACA
CTGACCCGCACGCCTGGGTCGTGCAGGGCCCTGGCGGGGAGACCAAGCGTGCTCCCGCCGCCTGCTTCTGCATCC
CAGCACCAGACCCTGATGCTGTGGCCAGGGCCTCCCGGCTGGCCTCAGAGCTGCAGGCCCTGAAGCAGAAATTGG
CCACAGTCCAGAGCCGCCTGAAGGCCAGTGCTGTGGAGTCTCTTCGGCCCAGCCAGCAGGCTCCATCTGGCTCAG
ACCTGGCCAACCCACAGGCCCAGAAGCTCCTGACACAGATGACCCGGCTGGATGGAGACCTGGGACAGATAGAGA
GGCAGGTGCTGGCCTGGGCGCGGGCCCCGCTGAGCCGCCCCACACCCTTGGAGGACTTGGAGGGCCGCATCCACA
GCCATGAGGGCACAGCCCAGCGCCTGCAGAGCCTGGGAACGGAGAAGGAGACAGCCCAGAAGGAGTGCGAGGCGT
TTCTGTCCACGCGGCCCGTGGGCCCCGCTGCCCTGCAGCTGCCCGTAGCCCTCAACAGCGTGAAGAACAAGTTCA
GTGACGTGCAGGTTCTGTGCAGCCTCTACGGGGAGAAAGCCAAGGCTGCCCTGGATCTGGAGCGGCAGATCCAGG
ATGCGGACAGGGTCATCCGAGGCTTCGAGGCCACCCTGGTGCAGGAGGCCCCCATCCCTGCTGAACCGGGGGCTC
TGCAGGAGAGGGTCAGCGAGCTGCAGCGCCAGCGGAGGGAGCTGCTGGAACAGCAGACCTGCGTGCTGCGGCTAC
ACCGCGCGCTGAAGGCCTCGGAGCACGCATGCGCTGCCCTGCAGAACAACTTCCAGGAGTTCTGCCAAGACCTGC
CTCGCCAGCAGCGCCAGGTGCGAGCCCTCACCGACCGCTACCACGCCGTAGGGGACCAGCTGGACCTGCAGGGAG
AAGGTGGTGCAGGATGCCGCCCTCACCTACCAGCAGTTCAAGAACTGCAAGGATAACCTGAGCTCCTGGCTGGAG
CACCTGCCCCGCAGCCAGGTGCGGCCCAGCGACGGCCCCAGCCAGATCGCCTACAAGCTGCAGGCGCAGAAGAGG
CTGACGCAGGAGATCCAGAGCCGAGAGCGGGACAGGGCCACAGCATCCCACCTCTCCCAGGCCCTGCAGGCAGCG
CTCCAGGACTATGAGCTCCAGGCAGACACCTACCGCTGCTCTTTGGAGCCCACCCTGGCAGTGTCAGCCCCCAAG
AGACCCCGAGTGGCTCCCCTGCAAGAGAGCATCCAAGCCCAGGAGAAGAACCTTGCAAAGGCCTATACTGAGGTT
GCAGCAGCACAGCAGCAGCTGCTCCAGCAGCTGGAGTTTGCTAGAAAA**ATG**CTGGAGAAGAAGGAGCTCAGTGAG
GACATCCGAAGGACCCATGATGCAAAGCAGGGCTCCGAGAGCCCTGCCCAAGCAGGGAGAGAGTCAGAGGCCCTG
AAGGCCCAGCTGGAAGAGGAGAGGAAGCGGGTGGCCCGGGTGCAGCATGAGCTGGAGGCGCAGAGGAGCCAACTG
CTGCAGCTGAGGACCCAGCGGCCCTTGGAGAGGCTGGAGGAGAAGGAAGTGGTAGAGTTCTACCGGGACCCCCAG
CTGGAGGGCAGCCTGTCCAGGGTGAAGGCCCAGGTGGAGGAGGAGGGCAAGCGGCGGGCTGGCCTGCAGGCAGAC
CTGGAAGTGGCAGCCCAGAAGGTCGTGCAGCTGGAAAGCAAGAGGAAGACCATGCAGCCTCATCTGCTGACCAAG
GAGGTCACCCAGGTGGAGAGGGACCCCGGCCTGGACAGCCAGGCGGCCCAGCTCAGGATCCAGATCCAGCAGCTC
CGCGGGGAGGATGCCGTCATCTCGGCCCGGCTGGAAGGGCTGAAGAAGGAGCTACTGGCCCTTGAGAAGAGGGAG
GTGGACGTGAAGGAGAAGGTCGTGGTGAAAAGAGGTAGTCAAGGTGGAGAAGAATCTGGAAATGGTCAAGGCAGCC
CAGGCTCTGAGGCTGCAGATGGAGGAGGATGCTGCGCGGAGGAAGCAGGCGGAGGAGGCTGTGGCCAAGCTACAG
GCTCGCATCGAAGACCTGGAGCGGGCTATCAGCTCGGTGGAGCCCAAGGTCATCGTGAAGGAGGTGAAGAAGGTG
GAGCAGGACCCAGGGCTCCTCCAGGAGTCCTCCAGGCTGAGGAGCCTCCTCGAGGAGGAGAGGACCAAGAACGCG

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FIGURE 3500B

ACGCTGGCCAGGGAGCTGAGCGACCTGCACAGCAAGTACAGCGTGGTGGAGAAGCAGAGGCCCAAAGTGCAGCTC
CAGGAGCGCGTCCACGAGATCTTCCAGGTGGATCCGGAGACAGAGCAGGAGATCACTCGGCTCAAGGCCAAGCTG
CAGGAGATGGCGGGCAAGAGGAGCGGTGTGGAGAAGGAGGTGGAGAAGCTGCTGCCCGACCTGGAGGTCCTGCGG
GCCCAGAAGCCCACGGTGGAGTACAAGGAGGTGACCCAGGAGGTGGTGAGGCATGAGAGGAGCCCCGAGGTGCTG
CGTGAGATCGACCGCCTGAAGGCTCAGCTCAACGAGCTCGTCAACAGCCACGGGCGCTCCCAGGAGCAGCTCATC
CGCCTGCAGGGTGAGCGCGACGAGTGGAGGCGCGAGCGGGCCAAGGTGGAGACCAAGACGGTGAGCAAGGAGGTG
GTGCGCCACGAGAAGGACCCGGTGCTGGAGAAAGAAGCAGAGCGGCTCCGCCAGGAGGTGCGGGAGGCGGCCCAG
AAGAGGCGGGCCGCGGAGGACGCGGTGTACGAGCTGCAGAGCAAGCGCCTGCTGCTGGAGAGGAGGAAGCCCGAG
GAGAAGGTGGTGGTGCAGGAGGTGGTGGTCACCCAGAAGGACCCGAAGCTGCGCGAGGAGCACAGCCGGCTGAGC
GGGAGCCTGGATGAGGAGGTGGGCCGGCGGCGCCAGCTAGAGCTTGAGGTGCAGCAGCTGCGGGCCGGCGTGGAG
GAGCAGGAGGGCCTGCTCAGCTTCCAGGAGGACCGCAGCAAGAAGCTGGCCGTGGAGAGGGAGCTGCGGCAGCTG
ACCTTGAGGATCCAGGAGCTCGAGAAGCGGCCTCCCACGGTGCAGGAGAAGATCATCATGGAGGAAGTGGTCAAG
CTGGAGAAGGACCCGGACCTGGAGAAGTCCACGGAAGCCCTGCGGTGGGACCTGGACCAGGAGAAGACCCAGGTA
ACCGAGCTGAATCGGGAGTGCAAGAACCTGCAGGTCCAGATTGACGTCCTCCAGAAAGCCAAATCGCAGGAGAAG
ACCATCTACAAGGAAGTGATCCGGGTGCAGAAGGACCGCGTCCTGGAAGATGAGCGGGCCCGCGTGTGGGAGATG
CTCAACAGGGAGCGCACGGCCCGGCAGGCCCGGGAGGAGGAGGCACGGCGCCTGCGGGAGCGCATTGACCGGGCC
GAGACGCTGGGGAGAACCTGGTCCCGGGAGGAGTCCGAGCTGCAGAGGGCCCGGGACCAGGCCGACCAGGAGTGT
GGGCGGCTGCAGCAGGAGCTGCGGGCTCTGGAGAGGCAGAAGCAGCAGCAGACACTGCAGCTGCAGGAGGAGTCG
AAGCTGCTCAGCCAGAAGACGGAGAGCGAGCGACAGAAGGCGGCCCAGCGGGGCCAGGAGCTCTCGCGGCTGGAG
GCGGCCATCCTCCGCGAGAAGGACCAGATCTACGAGAAGGAGCGGACGCTCCGGGACCTCCACGCCAAGGTGAGC
CGGGAGGAGCTCAGCCAGGAGACCCAGACGCGAGAGACCAACCTTTCCACCAAGATCTCCATCCTGGAACCCGAG
ACGGGGAAGGACATGTCCCCATACGAGGCCTACAAGAGGGGCATCATCGACAGGGGCCAGTACTTGCAGCTGCAG
GAGCTCGAGTGTGACTGGGAGGAGGTCACCACCTCGGGGCCCTGTGGGGAGGAGTCTGTGCTCCTGGACCGCAAG
AGCGGGAAGCAGTACTCCATCGAGGCCGCCCTCCGCTGCCGGCGCATCTCTAAGGAGGAGTACCATCTGTACAAG
GACGGCCACCTGCCCATCTCCGAGTTTGCGCTGCTTGTAGCTGGGGAGACCAAGCCAAGCTCCTCACTCTCCATC
GGCTCTATCATCTCCAAGTCCCCGCTCGCCTCCCCGGCCCCCCAGAGCACCAGTTTCTTCTCTCCCAGCTTCTCT
CTCGGGCTCGGTGATGACAGCTTCCCTATCGCCGGGATCTATGACACAACCACAGACAACAAGTGCAGCATCAAG
ACGGCCGTGGCCAAGAACATGCTGGACCCCATCACTGGGCAGAAGCTACTGGAGGCCCAGGCGGCCACAGGGGGC
ATCGTGGACCTGCTCAGCCGTGAGCGCTACTCTGTGCACAAGGCGATGGAGAGGGGCCTGATCGAGAACACCTCC
ACACAGAGGCTGCTTAACGCCCAGAAGGCCTTCACCGGCATCGAGGACCCCGTCACCAAGAAGAGGCTCTCGGTG
GGCGAGGCCGTCCAGAAGGGCTGGATGCCCCGGGAGAGCGTGCTCCCACACCTGCAGGTGCAGCACCTGACCGGG
GGGCTCATCGACCCCAAGAGGACAGGCCGCATCCCCATCCAGCAGGCCCTCCTCTCCGGGATGATCAGTGAAGAG
CTGGCCCAGCTCCTGCAGGACGAGTCCAGCTACGAGAAGGATTTGACAGACCCCATCTCCAAGGAACGGCTGAGC
TACAAGGAGGCCATGGGCCGCTGCCGCAAAGACCCCCTGAGCGGCCTGCTGCTCCTGCCAGCGGCACTGGAGGGG
TACCGCTGCTACCGCTCCGCCTCCCCCACCGTCCCGCGCTCCCTTCGC**TGA**CACGGGCCAAGGAGCCAGTGGGGA
AGTGCGTGTGTTGGGCCAGGTAGGATACGTACACCTCTTGCCTCAGAGCAGCCTCATCCCAGGCAGTGGGTCTTC
CCTCTGTCCAACCACTGTTTTATTATTTTACTAACATGGTGATGGGCTCCCTCCCCTAACCTTGGTGCCTGATCC
ATCCCCAGACCAGGACAGCAGCCACTCAGTTCTTCCTCCACCTCCACCCAGTGATCCCAATAAACGAATTCTGTC
TCCCCGTG

FIGURE 3501

ATGGCTGCTGAGAAGCAGGTCCCAGGCGGCGGCGGCGGCGGCGGCAGTGGCGGCGGCGGTGGCAGTGGCGGCGGC
GGTAGCGGCGGTGGACGTGGTGCCGGAGGGGAAGAAAATAAAGAAAACGAACGCCCTTCGGCCGGATCGAAGGCA
AACAAAGAATTTGGGGATAGCCTGAGTTTGGAGATTCTTCAGATTATTAAGGAATCCCAGCAGCAGCATGGTTTA
CGGCATGGAGATTTTCAGAGGTACAGGGGCTACTGTTCCCGTAGACAAAGACGTCTTCGAAAAACACTCAACTTC
AAGATGGGTAACAGACACAAATTCACAGGGAAGAAAGTGACTGAAGAGCTTCTGACCGATAATAGATACTTGCTT
CTGGTTCTGATGGATGCTGAAAGAGCCTGGAGCTACGCCATGCAGCTGAAACAGGAAGCCAACACTGAACCCCGA
AAACGGTTTCACTTGTTATCTCGCCTACGCAAAGCCGTGAAGCATGCAGAGGAATTGGAACGCTTGTGTGAGAGC
AATCGCGTGGATGCCAAGACCAAATTAGAGGCTCAGGCTTACACAGCTTACCTCTCAGGAATGCTACGTTTTGAA
CATCAAGAATGGAAAGCTGCCATTGAGGCTTTTAACAAATGCAAAACTATCTATGAGAAGCTAGCCAGTGCTTTC
ACAGAGGAGCAGGCTGTGCTGTATAACCAACGTGTGGAAGAGATTTCACCCAACATCCGCTATTGTGCATATAAT
ATTGGGGACCAGTCAGCCATCAATGAACTCATGCAGATGAGATTGAGGTCTGGGGGCACTGAGGGTCTCTTGGCT
GAAAAATTGGAGGCTTTGATCACTCAGACTCGAGCCAAACAGGCAGCTACCATGAGTGAAGTGGAGTGGAGAGGG
AGAACGGTTCCAGTGAAGATTGACAAAGTGCGCATTTTCTTATTAGGACTGGCTGATAACGAAGCAGCTATTGTC
CAGGCTGAAAGCGAAGAAACTAAGGAGCGCCTGTTTGAATCAATGCTCAGCGAGTGTCGGGACGCCATCCAGGTG
GTTCGGGAGGAGCTCAAGCCAGATCAGAAACAGAGAGATTATATCCTTGAAGGAGAGCCAGGGAAGGTGTCTAAT
CTTCAATACTTGCATAGCTACCTGACTTACATCAAGCTATCAACGGCAATCAAGCGTAATGAGAACATGGCCAAA
GGTCTGCAGAGGGCTCTGCTGCAGCAGCAGCCAGAGGATGACAGCAAGCGCTCACCCCGGCCCCAGGACCTGATC
CGACTCTATGACATCATCTTACAGAATCTGGTGGAATTGCTCCAGCTTCCTGGTTTAGAGGAAGACAAAGCCTTC
CAGAAAGAGATAGGCCTCAAGACTCTGGTGTTCAAAGCTTACAGGTGTTTTTTCATTGCTCAGTCCTATGTGCTG
GTGAAGAAGTGGAGCGAAGCCCTTGTCCTGTATGACAGAGTCCTGAAATATGCAAATGAAGTAAATTCTGATGCT
GGCGCCTTCAAGAACAGCCTAAAGGACCTGCCTGATGTGCAAGAGCTCATCACTCAAGTGCGGTCAGAGAAGTGC
TCCCTGCAGGCCGCAGCCATCCTTGATGCAAACGACGCTCATCAAACAGAGACCTCCTCCTCCCAAGTCAAGGAC
AATAAGCCTCTGGTTGAACGGTTTGAGACATTCTGCCTGGACCCTTCCCTTGTCACCAAGCAAGCCAACCTTGTG
CACTTCCCACCAGGCTTCCAGCCCATTCCCTGCAAGCCTTTGTTCTTTGACCTGGCCCTCAACCATGTGGCTTTC
CCACCCCTTGAGGACAAGTTGGAACAGAAGACCAAGAGTGGCCTCACTGGATACATCAAGGGCATCTTTGGATTC
AGGAGC**TAA**

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FIGURE 3502

GGGACGTCAGCGGACGGGGCGCTCGCGGGCCGGGGCTGT**ATG**GGGCTCCCGCGCGGGTCGTTCTTCTGGCTGCTG
CTCCTGCTCACGGCTGCCTGCTCGGGGCTCCTCTTTGCCCTGTACTTCTCGGCGGTGCAGCGGTACCCGGGGCCA
GCGGCCGGAGCCAGGGACACCACATCATTTGAAGCATTCTTTCAATCCAAGGCATCGAATTCTTGGACAGGAAAG
GGCCAGGCCTGCCGACACCTGCTTCACCTGGCCATTCAGCGGCACCCCCACTTCCGTGGCCTGTTCAATCTCTCC
ATTCCAGTGCTGCTGTGGGGGGACCTCTTCACCCCAGCGCTCTGGGACCGCCTGAGCCAACACAAAGCCCCGTAT
GGCTGGCGGGGGCTCTCTCACCAAGTCATCGCCTCCACCCTGAGCCTTCTGAACGGCTCAGAGAGTGCCAAGCTG
TTTGCCCCGCCCAGGGACACCCCTCCAAAGTGTATCCGGTGTGCCGTGGTGGGCAACGGAGGCATTCTGAATGGG
TCCCGCCAGGGTCCCAACATCGATGCCCATGACTATGTATTCAGACTCAATGGAGCTGTGATCAAAGGCTTCGAG
CGCGATGTGGGCACCAAGACTTCCTTCTATGGTTTCACTGTGAACACGATGAAGAACTCCCTCGTCTCCTACTGG
AATCTGGGCTTCACCTCCGTGCCACAAGGACAGGACCTGCAGTATATCTTCATCCCCTCAGACATCCGCGACTAT
GTGATGCTGAGATCGGCCATTCTGGGCGTGCCTGTCCCTGAGGGCCTAGATAAAGGGGACAGGCCGCACGCCTAT
TTTGGACCAGAAGCCTCTGCCAGTAAATTCAAGCTGCTACATCCGGACTTCATCAGCTACCTGACAGAAAGGTTC
TTGAAATCAAAGTTGATTAACACACATTTTGGAGACCTATATATGCCTAGTACCGGGGCTCTCATGCTGCTGACA
GCTTTGCATACCTGTGACCAGGTCAGTGCCTATGGATTCATCACAAGCAACTACTGGAAATTTTCCGACCACTAT
TTCGAACGAAAAATGAAGCCATTGATATTTTATGCAAACCACGATCTGTCCCTGGAAGCTGCCCTGTGGAGGGAC
CTGCACAAGGCCGGCATCCTTCAGCTGTACCAGCGC**TGA**CCCCAATGCACTGAGCCCTTTGCTTCTTCAAGAGTT
GCGGCCCTGATCCTCTCAAGTGGCCAAAAGCTTTTTTAACTTTTCAATCTTCACCTTCCCTTGCCAACAGAGGGC
ACTGGGGTGAATTCAAGATTTTCATCGAGGTCTGTTCAATATAGGACACCCCAGCTTGTCCTTGGCTCATCCAAG
AACTCTTCTGTATCTAAAACAATACATCTCAATCTTGGCCAAGGGAAAATGGACTGCTTTGCTGGATTGGCACTG
AGCAACTTTAGGAAATGTCGGTGGAGTGTTCAGCAAGATCAGACAGCAGTCCAGGTCAAAGGCAAACACACACGC
TCCAGCCCAAATCCTCCTGGTGGCACATCCTACCCCAGATGCTAAAGTGATTCAAGGACTCCAGGACACCTCTTA
AGAGCCTTTCTAAGAACATGATAGGCTTACTTCTGCTCCATAATAAAGTGGGAGAAAAAAGCCAGAATATAACTT
AAGACTAGATAACTGCGTACATGATGGACCATTTTTTTTTTTTGGCTGGGTAGAGAAATCATATAAAACGCAGG
CTGTTTAGCATGGAGATGACTCTCAGAACACTGGGAGGGTCTGGCACTTGATGGGGGTTAGTTGCTTGGCAGCCT
GCCTGCCACTGAGGGAAGTCCCATTAGAGATGTATCACCACCTTGTCACCAACAGGATGATGTCACCAGGTAATA
AACCTTCATCCTCA

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FIGURE 3503

AGACAAAGGGTGTGCACTTCCTGGCCAGGAAACCTGAGCGGTGAGACTCCCAGCTGCCTACATCAAGGCCCCAGG
ACATGCAGAACCTTCCTCTAGAACCCGACCCACCACC**ATG**AGGTCCTGCCTGTGGAGATGCAGGCACCTGAGCCA
AGGCGTCCAGTGGTCCTTGCTTCTGGCTGTCCTGGTCTTCTTTCTCTTCGCCTTGCCCTCTTTTATTAAGGAGCC
TCAAACAAAGCCTTCCAGGCATCAACGCACAGAGAACATTAAAGAAAGGTCTCTACAGTCCCTGGCAAAGCCTAA
GTCCCAGGCACCCACAAGGGCAAGGAGGACAACCATCTATGCAGAGCCAGTGCCAGAGAACAATGCCCTCAACAC
ACAAACCCAGCCCAAGGCCCACACCACCGGAGACAGAGGAAAGGAGGCCAACCAGGCACCGCCGGAGGAGCAGGA
CAAGGTGCCCCACACAGCACAGAGGGCAGCATGGAAGAGCCCAGAAAAAGAGAAAACCATGGTGAACACACTGTC
ACCCAGAGGGCAAGATGCAGGGATGGCCTCTGGCAGGACAGAGGCACAATCATGGAAGAGCCAGGACACAAAGAC
GACCCAAGGAAATGGGGGCCAGACCAGGAAGCTGACGGCCTCCAGGACGGTGTCAGAGAAGCACCAGGGCAAAGC
GGCAACCACAGCCAAGACGCTCATTCCCAAAAGTCAGCACAGAATGCTGGCTCCCACAGGAGCAGTGTCAACAAG
GACGAGACAGAAAGGAGTGACCACAGCAGTCATCCCACCTAAGGAGAAGAAACCTCAGGCCACCCCACCCCCTGC
CCCTTTCCAGAGCCCCACGACGCAGAGAAACCAAAGACTGAAGGCCGCCAACTTCAAATCTGAGCCTCGGTGGGA
TTTTGAGGAAAAATACAGCTTCGAAATAGGAGGCCTTCAGACGACTTGCCCTGACTCTGTGAAGATCAAAGCCTC
CAAGTCGCTGTGGCTCCAGAAACTCTTTCTGCCCAACCTCACTCTCTTCCTGGACTCCAGACACTTCAACCAGAG
TGAGTGGGACCGCCTGGAACACTTTGCACCACCCTTTGGCTTCATGGAGCTCAACTACTCCTTGGTGCAGAAGGT
CGTGACACGCTTCCCTCCAGTGCCCCAGCAGCAGCTGCTCCTGGCCAGCCTCCCCGCTGGGAGCCTCCGGTGCAT
CACCTGTGCCGTGGTGGGCAACGGGGGCATCCTGAACAACTCCCACATGGGCCAGGAGATAGACAGTCACGACTA
CGTGTTCCGATTGAGCGGAGCTCTCATTAAAGGCTACGAACAGGATGTGGGGACTCGGACATCCTTCTACGGCTT
TACCGCCTTCTCCCTGACCCAGTCACTCCTTATATTGGGCAATCGGGGTTTCAAGAACGTGCCTCTTGGGAAGGA
CGTCCGCTACTTGCACTTCCTGGAAGGCACCCGGGACTATGAGTGGCTGGAAGCACTGCTTATGAATCAGACGGT
GATGTCAAAAAACCTTTTCTGGTTCAGGCACAGACCCCAGGAAGCTTTTCGGGAAGCCCTGCACATGGACAGGTA
CCTGTTGCTGCACCCAGACTTTCTCCGATACATGAAGAACAGGTTTCTGAGGTCTAAGACCCTGGATGGTGCCCA
CTGGAGGATATACCGCCCCACCACTGGGGCCCTCCTGCTGCTCACTGCCCTTCAGCTCTGTGACCAGGTGAGTGC
TTATGGCTTCATCACTGAGGGCCATGAGCGCTTTTCTGATCACTACTATGATACATCATGGAAGCGGCTGATCTT
TTACATAAACCATGACTTCAAGCTGGAGAGAGAAGTCTGGAAGCGGCTACACGATGAAGGGATAATCCGGCTGTA
CCAGCGTCCTGGTCCCGGAACTGCCAAAGCCAAGAAC**TGA**CCGGGGCCAGGGCTGCCATGGTCTCCTTGCCTGCT
CCAAGGCACAGGATACAGTGGGAATCTTGAGACTCTTTGGCCATTTCCCATGGCTCAGACTAAGCTCCAAGCCCT
TCAGGAGTTCCAAGGGAACACTTGAACCATGGACAAGACTCTCTCAAGATGGCAAATGGCTAATTGAGGTTCTGA
AGTTCTTCAGTACATTGCTGTAGGTCCTGAGGCCAGGGATTTTTAATTAAATGGGGTGATGGGTGGCCAATACCA
CAATTCCTGCTGAAAAACACTCTTCCAGTCCAAAAGCTTCTTGATACAGAAAAAAGAGCCTGGATTTACAGAAAC
ATATAGATCTGGTTTGAATTCCAGATCGAGTTTACAGTTGTGAAATCTTGAAGGTATTACTTAACTTCACTACAG
ATTGTCTAGAAGACCTTTCTAGGAGTTATCTGATTCTAGAAGGGTCTATACTTGTCCTTGTCTTTAAGCTATTTG
ACAACTCTACGTGTTGTAGAAAACTGATAATAATACAAATGATTGTTGTCCATGGAAAGGCAAATAAATTTTCTA
CAGTG

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FIGURE 3504

ATGGAGGCGCCGGCCGAGCTACTGGCCGCGCTGCCTGCGCTGGCCACCGCGCTGGCCCTTCTGCTCGCCTGGCTA
CTGCCTGGAGAGCCCGCGGGGCTGGGGGAGCTCGGGGAGCCTGCGGGACCGGGGGAGCCCGAAGGGCCAGGGGAT
CCCGCGGCGGCGCCAGCGGAGGCGGAGGAGCAGGCGGTGGAGGCGAGGCAGGTACGCACCGGGGCCCTCGCGGCC
CCCTCCCCACCCCCGGGGCTCCGGCTGCCGCTGCCGTTCCCCGCCGAGCCAGGGAGCGGGGCCGCGGCCTCCAGC
CCAGGCTGCCCCCAGGAAGCGCAGAACCCGCGGCCCGCAGGAAATGCAGGTAAGCTGGGCCTGGATGGAGTGAAG
ATGCAGGATAAAGCCCTCCTGGAGCACCATGTGGTCCTTTTTGATGGCAGTGTGGTCCTTTTTGATGGCAGTGTG
GTCCTTTTTGATGGCAGTGTGGTCCTTTGTGATGGCAGTGTGGGCCTCTGTGACGGCAGCGTGGGCCTCTGTGAC
GGCAGCGTGGGCCTCTGTGATGGCAGAGTGGGCCTCTGTGATGGCAGCGTGGTCCTTTGTGATGGCAGCGTGGGC
CTCTGTGACGGCAGCGTGGGCCTCTGTGACGGCAGCGTGGGCCTCTGTGATGGCAGAGCTCTTCCAGCAACCAGC
ATGACCTTCCTAGCGCAGAGAGCACACCCCCCGGCCCCTGCTCACAGCCCTCCGCGTGCAATTCCAAACTTCCCA
CAGCCCCAGGAAATGATCCTGGTCGCACCCACCATGGCACAGCTGCCTGATGGTGGGGAGGACTCAGACCATGAG
ACCCTGGAGAGATTGCCTTTGGCTGGCCGCACCTTCACGGATTCATTCAACGCTGAGCTGAAGGCCAGGGCAGGC
GCTGCCACAGGGCGTGGGCAGGCTGGACCTTCGAGGGCCTCCTCTGTCTCCCCTACCTTCTGCCCCCCCACCACT
TCCCATCACCCAGTCTGTGCCAAGGGCACTGACCCTGTCCTTGTCTTGCAGGAAGAGGAGCAGGACTTGGATGGT
GAGAAGGGGCCATCATCGGAAGGGCCTGAGGAGGAGGACGGAGAAGGCTTCTCCTTCAAATACAGCCCCGGGAAG
CTGAGGGGAAACCAGTACAAGAAGATGATGACCAAAGAGGAGCTGGAGGAGGAGCAGAGAGTTCAGAAGGAACAG
CTGGCTGCCATCTTCAAGCTCATGAAAGACAACAAGGAGACGTTTGGCGAGATGTCCGACGGCGACGTGCAGGAG
CAGCTCCGGCTCTACGACATG**TAG**

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FIGURE 3505A

GCGGCCGCTTGCCCAACCCGAGGCTCGGGAGGTGGCTGGGGAGTGAATTTTCTGGAAGGCGACTTTAAAGGCGCC
GGGACTGAGCGAAGGGCGTTTGGGTACTGCCGTCGCCGCCGCCCAGGCCGGGGAGGGGTGCGTTAGTGTCAGGAA
GCGGGCTGCGCCGAGGTCGTAGCGGAACCAGCTGGCGACCCCGCAGAATGAACCACAAGAGCAAGAAGCGCATCC
GCGAGGCCAAGCGGAGTGCGCGGCCGGAGCTCAAGGACTCGCTGGATTGGACCCGGCACAACTACTACGAGAGCT
TCTCGCTGAGCCCGGCGGCCGTGGCGGATAACGTGGAAAGGGCAGATGCTTTACAGCTGTCTGTGGAAGAATTTG
TGGAGCGGTATGAAAGACCTTACAAGCCCGTGGTTTTGTTGAATGCGCAAGAGGGCTGGTCTGCGCAGGAGAAAT
GGACTCTGGAGCGCCTAAAAAGGAAATATCGGAACCAGAAGTTCAAGTGTGGTGAGGATAACGATGGCTACTCAG
TGAAGATGAAGATGAAATACTACATCGAGTACATGGAGAGCACTCGAGATGATAGTCCCCTTTACATCTTTGACA
GCAGCTATGGTGAACACCCTAAAAGAAGGAAACTTTTGGAAGACTACAAGGTGCCAAAGTTTTTCACTGATGACC
TTTTCCAGTATGCTGGGGAGAAGCGCAGGCCCCCTTACAGGTGGTTTGTGATGGGGCCACCACGCTCCGGAACTG
GGATTCACATCGACCCTCTGGGAACCAGTGCCTGGAATGCCTTAGTTCAGGGCCACAAGCGCTGGTGCCTGTTTC
CTACCAGCACTCCCAGGGAACTCATCAAAGTGACCCGAGACGAAGGAGGGAACCAGCAAGACGAAGCTATTACCT
GGTTTAATGTTATTTATCCCCGGACACAGCTTCCAACCTGGCCACCTGAATTCAAACCCCTGGAAATCTTACAAA
AACCAGGAGAGACTGTCTTTGTACCAGGAGGCTGGTGGCATGTTGTCCTCAATCTCGACACTACTATCGCCATCA
CCCAAAATTTTGCCAGCAGCACCAACTTCCCTGTGGTATGGCACAAGACGGTAAGAGGGAGACCAAAGTTATCAA
GGAAATGGTATAGGATTTTGAAGCAAGAGCACCCCGAGTTGGCAGTCCTCGCAGACTCGGTTGACCTTCAGGAGT
CCACAGGGATAGCTTCCGACAGCTCCAGCGACTCTTCCAGCTCCTCCAGCTCCAGTTCGTCAGACTCCGACTCAG
AGTGCGAGTCTGGATCCGAGGGCGATGGGACAGTGCACCGCAGGAAGAAGAGGAGGACGTGCAGCATGGTGGGAA
ACGGGGACACCACCTCCCAGGACGACTGTGTCAGCAAAGAGCGCAGCTCCTCCAGGATTAGGGACACTTGTGGAG
GCCGGGCTCACCCCTGAGCAGATAAAGAGACTCTCCCTGAGGTGCTTTCAGCGTAAGCTTTTGGCAGCCACCCAA
CTCAGTTCTCGCATCTTCTGCTCCTACCTTCTCCTCTGTCTTCTTTGAATTTGGATATTCCTTCCCTGGTCCAAG
CTCCTATCTTCGGTCAAATGCTGTTTTTACTGCTTCCTAAGGATAGATTATCAAGAAATTTAACAGCTCGGCCAG
CTCAGTGAAACACTGAAGCTAATGGGATGTTGGGTAAGAAGGTTCTGTGCTGTCTCATTGAAAACCGAGCCAGTC
AACCACAAGGCTGGCAGGGTGTGATCCTTGTAACGTCTTGTGTCTGTTACCTCACGGATGTCGGTAAGGAGTTTC
CACAGAGCCAGCTGTGTACCACAGAGACTGAGAGTGGTGAGTGGACTTTGTGAGCCAATTATGTGTCGGAAGGAC
TTGGAGTCTGCCCTTCTTCCTGTATGTCATCATCAGCCCACAAATGCATTCAGTGGCAGTGACCCAGCACCATCA
CCATCACCCACTGCTCAGTCTGTCTTAGGATTCCTTATCTTTTTCTCCATCATCATAGAGACTGAAATTTCAGGG
GTGTTTTTGTACAGTGTATTTTTTTGTGGGGGGGTGATACATTGGGGTTTTTTGTTTGCATAGAGTGGGAACGGT
GTGCAATGTGCTCTTACCACAGAACTTAAAGTATGAATAGGCTCCATTCTTCCGCACCATGGGATCCATAAGAAG
TGCTCACTTTGCGAGGTACTCTGAGATTAGCGTTCCCCATTTGTTTGACCTACAGACGTTAAGTGGGTGACTTGT
GTTACACACGGGGAGTAAATTCAGAGATGGCACCTGTAGTCTTTGCAGTCTGTTGATACTTCTAAATAACTAACT
GGATGACTTTTTGGGGATTGACCAGCAGATGCCATCTCTTGCCCTCTTGATTCACCTGCTTGCCTTAATTTGTCC
CTAAATTCAACTAAACTTCAATAAGAGGGGTTGTCAAGGCCATGGGGCGCACTTGGAAGCACTGCCTGGGCTGGA
GCGTTGGAGGCATTGGCAGGCAGGTGGGAAGGAGCTCTCACTGCAGTGTTCACAGGCAGGGAGGCTGTGTGTGGA
TGTGTTAGAATTGTGTGCTGTTGCCTCTCAAAATATCCACTAGAAACAGGTGTAACCAGGAAAATACAGGTCTCT
GCTCACTGTTATTAACAGACTGTCATTTCCTGACATTGGGTCATGTGGCTTTACTCTAGGAGGCTGGTTCTCTAT
TTTTGTCTTAGTTCAATTTTCTGCATCCTCAAATGCCAACCCCAGTATGTGGCTGGGTAGGTAGAACTGTGCTGC
CTGCCTGCCATGGGGGCTGCTCTCCCTCCTTACCCCCACGCCCACAGCCCCCTTGGTTCTGTGGTGGGCACAGGA
TGTGTTTGGGTGTGAGTAAAGTCAAACTCTGAATGTATAATCTCTTGGTAGTAATATCTGAGTGGTGTTGCTACT
CCTGCTTTTTAAAAAGACTTTTCTTGCCATCTATAAAAAGCTTTTTTCTTTTTCCCAGCATTGCTCCTGTGCTGC
CACGCTTGCCCTTTTTCCTTACCTTCCTTTCAGTTTTCTATCAACAACTCCTCTAAACTTCAGTTTAAAATAAAA
AACAGCCCAAAAAGGCTCTTTGCCACCAGGGGGCGTGGTAGGACACGTTGCCAGTGGTCTGGATAGGGGAGCAGA
AATTTTGAATTTTAAAAATTAGCCACCAAGGCCAGGTGCAGTGGCTCACACCTGTAATCCCAGCACTTTGGGAAG
CTGAGGCAGGGGGATTGCTTGAGTCCAGGAGTTCAAGACCAGTCTGGGCAACATAGTGAGATCCCATCTCTCAAA
AAAATAATAATCTAGAAAATAAAGATTAGCCACCCAGTTTTCTTTCTCCAGATGCTAAAGTTGATTCCTGTTTGA
TAACAGTATTCCAGAAATGAGGGGAATAACATATCTGATAGGCCCAAGTCAGCTCTGGATAGTACAGTGTCTGGA
TAGTACAGATTCTGTGCTCCTGGGACATGCTTTGTTTATTCCTGCCAGGCCAGGGATTCAGCAGCCCTATTCCCC
AACCCCCGTTACTGTCTCTGTGGGCTAGCCAGGCTGTCCGTTATGTAAGCACAACAGGGGCAAGGTGGGGAAACC

FIGURE 3505B

GTGTGTGGAAAAGGAGTGGAGTGGTGGCGGGTGGCCAAGGTAGACTAGGAAGAGTGGGTACCCAGAGACCACTTG
TTCAGAAGTTAACTCCTCTTCCCATCTGGCGTGAGCTACTCCATTGAATGGTGCCAACAACAGTAAAGTGAAGGA
GATAATGTTAGATTATTTTCAGGGATGATTCTCCAAGATGACAGCAGATCTTAAAACCAAAGAGCTGGGTCCTGG
AAGAAGGGATCTTGGATTATTAACTTCTGATGGAAGGACCAGAGTGGGAGAGAGAAGAGTTGGGGACCTAGAACA
TCAGGAGGACCCTGGGTCTTTGGGGATGAGGCTTCACCATCAGCTGGAAGAATCCATGCTTCACACACATGCCTC
TGCCATTAGTGGTACTGGGATGTTTAGGGTGACATCCTTGAGGGGAGAGCCACTGAAAAGAGGGACATTCACATT
TTGCTGTATTCTTGCAGCTGTCCGTGTCTTAATAATTCAAGCGTTCAATAGGTGTTTGAGGGCCAGGCACTGCTC
TTGAGGTGCTGGAGATAACGGTGACAAGCCCAGGTCCCTGACAAGCTCCACAAGCTTAATGGACAGTGAATGTGC
GGCTGTTGCGGCTGTTCACAGGGCCGCTGGTGAGGGCAGGTAGAAGAAAGTGCAGACCTTCTTAAATGCAGGTGT
AACGGATCTACATGAAAGAGCATAATTAACACCAATGTATACTTAAGGTAGTAACAGCTTCTTCATAAAGTAGCA
AAACTAAGGATCTGTGGGAAGGTTGCTGGTGCAAATGCTTTATAAGCTTACTAGAGACTGAGCCTTGGATTTAGG
ACTTTAGACGAGTATAGGATGGAACAAAATTTTTGCAGTAAATGTAAAAAATGCTGTGTAGGAGGAAGGCGTATA
AGGATGCCCCAGCTGTAGGTTCTTTAGATTGTCTGTAGTATTTCCACGAGTAAGTTGTTTTTGATGTGTGTACTG
GTATTGCTGGTAGATTTGAAGTGGAGTCTGGCGGCTTCTTCCACACTCCCCTCCCACTAGCTTGTGTCAAGATGT
GACATCCTATGCAGCAAAACTAGGTGAGCTTGCACCCCCAGGCGGTGGCTCTCAACTTTGTCTCATTGTTCAGAA
ATTTCGGCCAGGCGCCGTAGCTCACCCCTGTAATCCCAGCACTTTGGGAGGCCATGGCAGGTGGATCACTTGAGG
TCAGGAGTTCAAGACCAGCCTGGCCAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCAGGTGT
GGTGGCACATGCCTGTAGTCCCAGCTACTTGGTCAACTCAGGCAGGAGAATCACTTGAACCCAGGAGGCAGAGGT
TGCAGTGAGCTGAGATCAAGCCACTCCAGCCTGGGTGACAGACCGAGACTCTGTCTTTAAAAAAAAAGAAATGTC
ATCTAAGCCCCAGTGAACCTCCTGGGAGGAGAGCTAGCCCTGGCCAGCTGTCTCCAAAGTGACTGGATGCTACAG
AAGAACTGGGACTGTCTTCTGCACACTCGTGCCTCCTGGAGTTGTCAGAACACTGAGCAGTCTCCTAGTTCTGCG
TCCGTCTAGCCATGGGGTCTGCCATGAAAGCCTGTGGATCTGCTATTGGGTTGGTATTTTAAACTTTCACTTGGG
TGAAACTTGTTCATCATTTTAAATAAAGCAACATGATTTGG

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FIGURE 3506

CAGCCGCCCGTTGCCAGTTCTGCGCGTGTGAGTCTCTTTCGCCTTGCTCCGGGCTTTCTTCGCTCGCAGCGCGGC
AGGGTTATCACCAGATCTGGGCTTTCCCCTTCTTGCCGTCAGGTGCTACGGCCACGTGGCCCGCGGCTTCCCGCT
CGCGCAGTCTGGCAGCCCGGAGCCTTCCGCGGTCCCCCGCCCGCCCGGGGCCCAACGACGCCCTACTGGGCGAGC
ACGATTTCCGAGGACAGGGGGTCCGGGCCCAGCGCTTTCGATTCTCGGAGGAGCCGGGTCCGGGGGCCGACGGGG
CTGTCCTGGAGGTCCACGTCCCGCAGGTGCGTGCAGCAGCACCCGCCAGGAGGCGCCTGAGGTCCTGCATCTCCA
GTATGGA**ATG**TATGTTTGGCCCTGTGCTGTGGTCCTGGCCCAGTACCTTTGGTTTCACAGAAGATCTCTGCCAGG
CAAGGCCATCTTAGAGATTGGAGCTGGAGTGAGCCTTCCAGGAATTTTGGCTGCCAAATGTGGTGCAGAAGTAAT
ACTGTCAGACAGCTCAGAACTGCCTCACTGTCTGGAAGTCTGTCGGCAAAGCTGCCAAATGAATAACCTGCCACA
TCTGCAGGTGGTAGGACTAACATGGGGTCATATATCTTGGGATCTTCTGGCTCTACCACCACAAGATATTATCCT
TGCATCTGATGTGTTCTTTGAACCAGAAGATTTTGAAGACATTTTGGCTACAATATATTTTTTGATGCACAAGAA
TCCCAAGGTCCAATTGTGGTCTACTTATCAAGTTAGGAGTGCTGACTGGTCACTTGAAGCTTTACTCTACAAATG
GGATATGAAATGTGTCCACATTCCTCTTGAGTCTTTTGATGCAGACAAAGAAGATATAGCAGAATCTACCCTTCC
AGGAAGACATACAGTTGAAATGCTGGTCATTTCCTTTGCAAAGGACAGTCTC**TGA**ATTATACCTACAACCTGTTC
TGGGACAGTATCAATACTGATGAGCAACCTGGCACACAAACTATGAGCAGACCACTTCAGCTTGAGAATGCAGTG
GGTCTGAAGATGGTCAAGTCTGTTTGCCTTAGATTTTGATGTCACCTAGACAACACTTAAACTCATATGAAACAA
AAATTAAAATACGTATTACAAGT

FIGURE 3507

CGCTAGCCTGCGGAGCCCGTCCGTGCTGTTCTGCGGCAAGGCCTTTCCCAGTGTCCCCACGCGGAAGGCAACTGC
CTGAGAGGCGCGGCGTCGCACCGCCCAGAGCTGAGGAAGCCGGCGCCAGTTCGCGGGGCTCCGGGCCGCCACTCA
GAGCT**ATG**AGCTACGGCCGCCCCCCTCCCGATGTGGAGGGTATGACCTCCCTCAAGGTGGACAACCTGACCTACC
GCACCTCGCCCGACACGCTGAGGCGCGTCTTCGAGAAGTACGGGCGCGTCGGCGACGTGTACATCCCGCGGGATC
GCTACACCAAGGAGTCCCGCGGCTTCGCCTTCGTTCGCTTTCACGACAAGCGCGACGCTGAGGACGCTATGGATG
CCATGGACGGGGCCGTGCTGGACGGCCGCGAGCTGCGGGTGCAAATGGCGCGCTACGGCCGCCCCCCGGACTCAC
ACCACAGCCGCCGGGGACCGCCACCCCGCAGGTACGGGGGCGGTGGCTACGGACGCCGGAGCCGCAGCCCTAGGC
GGCGTCGCCGCAGCCGATCCCGGAGTCGGAGCCGTTCCAGGTCTCGCAGCCGATCTCGCTACAGCCGCTCGAAGT
CTCGGTCCCGCACTCGTTCTCGATCTCGGTCGACCTCCAAGTCCAGATCCGCACGAAGGTCCAAGTCCAAGTCCT
CGTCGGTCTCCAGATCTCGTTCGCGGTCCAGGTCCCGGTCTCGGTCCAGGAGTCCTCCCCCAGTGTCCAAGAGGG
AATCCAAATCCAGGTCGCGATCGAAGAGTCCCCCCAAGTCTCCTGAAGAGGAAGGAGCGGTGTCCTCT**TAA**GAAA
ATGATGTATCGGCAAGCAGTGTAAACGGAGGACTTGGGGAAAAAGGACCACATAGTCCATCGAAGAAGAGTCCTT
GGAACAAGCAACTGGCTATTGAAAAGGTTATTTTGTAACATTTGTCTAACTTTTTACTTGTTTAAGCTTTGCCTC
AGTTGGCAAACTTCATTTTATGTGCCATTTTGTTGCTGTTATTCAAATTTCTTGTAATTTAGTGAGGTGAACGAC
TTCAGATTTCATTATTGGATTTGGATATTTGAGGTAAAATTTCATTTTGTTATATAGTGCTGACTTTTTTTGTTT
GAAATTAAACAGATTGGTAACCTAATTTGTGGCCTCCTGACTTTTAAGGAAAACGTGTGCAGCCATTACACACAG
CCTAAAGCTGTCAAGAGATTGACTCGGCATTGCCTTCATTCCTTAAAATTAAAAACCTACAAAAGTTGGTGTAAA
TTTGTATATGTTATTTACCTTCAGATCTAAATGGTAATCTGAACCCAAATTTGTATAAAGACTTTTCAGGTGAAA
AGACTTGATTTTTTGAAAGGATTGTTTATCAAACACAATTCTAATCTCTTCTCTTATGTATTTTTGTGCACTAGG
CGCAGTTGTGTAGCAGTTGAGTAATGCTGGTTAGCTGTTAAGGTGGCGTGTTGCAGTGCAGAGTGCTTGGCTGTT
TCCTGTTTTCTCCCGATTGCTCCTGTGTAAAGATGCCTTGTCGTGCAGAAACAAATGGCTGTCCAGTTTATTAAA
ATGCCTGACAACTGCACTTCCAGTCACCCGGGCCTTGCATATAAATAACGGAGCATACAGTGAGCACATCTAGCT
GATGATAAATACACCTTTTTTTCCCTCTTCCCCCTAAAAATGGTAAATCTGATCATATCTACATGTATGAACTTA
ACATGGAAAATGTTAAGGAAGCAAATGGTTGTAACTTTGTAAGTACTTATAACATGGTGTATCTTTTTGCTTATG
AATATTCTGTATTATAACCATTGTTTCTGTAGTTTAATTAAAACATTTTCTTGGTGTTAGCTTT

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FIGURE 3508

CTTGGACTTGGACCTTCGTGCGGATCTGGACTTGGAGGTCGACCGAGATCGAGAACGAGTGCGGGACCGAGACTT
CGAGCGGCTGTAGCGAGATCGGCTGCGAGACCTGGAACGGCTCCGACTCCGGGATCGGCTGCGGCGACGCCGCCT
AGGGCTGCGGGCGGGACGAGCAAGCACAGCGGGGTTAATTCCAGGCAGCGGGGCCGGCCCCGCCCGCGCGNCTNC
CCGCCCAGGCCGCCATTATCTCGCCGCCAGACGCCATTTCCCCAGTCGCGAGGCGGGGTCCTCCGCCCCGCGCCG
CCCACACCCCGGCCACTCCCGGGTCGCAGACGGCGGAAGCTCGCGGGGTGGCCGGAGGGTCGCGAGACGCGGCGT
GCACCCCCGCCCCNGNTNCCGGGCCCGCACCACGTGCTTCGCCGCGGACCTTTGTGAGGTCGCCCGGGCCTCCCG
CGCGCCCCGCCCCGCCTCCCGCGGTCCCCTCAGCCCCGTTTACCTGCGGCTCCGGCGTCCGTAGCCACCGCCCCC
GTACCTGCGGGGTGGCGGTCCCCGGCGGCTGTGGTGTGAGTCCGGGGGGCGGCCGTAGCGCGCCATTTGCACCCG
CAGCTCGCGGCCGTCCAGCACGGCCCCGTCCATGGCATCCATAGCGTCCTCAGCGTCGCGCTTGTCGTGAAAGCG
AACGAAGGCGAAGCCGCGGGACTCCTTGGTGTAGCGATCCCGCGGGATGTACACGTCGCCGACGCGCCCGTACTT
CTCGAAGACGCGCCTCAGCGTGTCGGGCGAGGTGCGGTAGGTCAGGTTGTCCACCTTGAGGGAGGTCATACCCTC
CACATCGGGAGGGGGGCGGCCGTAGCTCATAGCTCTGAGTGGCGGCCCGGAGCCCCGCGAACTGGCGCCGGCTTC
CTCAGCTCTGGGCGGTGCGACGCCGCGCCTCTCAGGCAGTTGCCTTCCGCGTGGGGACACTGGGAAAGGCCTTGC
CGCAGAACAGCACGGACGGGCTCCGCAGGCTAGCGCACCTGAGTAACAACTGGGCGGGCAGCCGGCCTCTGCGCC
CGTTTATATCGCTCCTCACAAAATGGCGCCCGCGCCACCCGGAA**ATG**AAACCTTCTGATTGGCCCACCGCGCCCC
GCTTCGTAACGACCCTGCCGCGCGCCCCGCCCCTACCCGAAGCGCCTGCGCACAGCCCGGCGGGCGGGCCAAAAA
GCGCGGAGTCACGGCTGGAGGGAGGGGGAGCGGAATTAGCGGGCAGTTGGAAAGCCCGCGAAACGCTTTTTCCGC
CTGGGAGGCCGGACGATCGCGATTGGGCAGGAGNGNAAGAGGAGGTGCTCCCCATCTGGGCCCCCACCTTTTTTT
CATGCCAATACTCCAAGTTCACGCCCCTTTTTTGCTCAGCCGTCAGCCCCGTCTCCGTC**TGA**AGAGTGCTTCTGC
CCTCATTTGCCTCTCCCTGTGACCCCGGCCCCCTCAGACTCCGCTGCGTCGTCTCTCGGCCCCGTCCAGCCGTTC
CTGACTGCTCTTCGCCGGAGTCCGCTTCCCAACCCCCTTTCGCCAGAGCCCGAGAGCTCCGTCGGCTCTGCGTCC
TGGCGGTGGGGACTCCCCGCCGAGCGCTTGCGCGTGCCAGGTCACCCGGGACTACGTTTCCCNANGCNGNGNGCC
GAGCGGCCGGCGCCGCGGCTGCGGTCAGGTGACCCGGTCGCCTGGCCGCAGTGAGTCAGGCTGGGAGGGCGGGGC
CGCGCCGGCTGCTGCGGCTGGCACTTGGCCCTTTAATCCCCTTCGTGGGCCCCTCAACCTGGAGCGGATAAATTC
TTGGCGCTTCTNCCGGGGGTTGTGCTCTTCCGTACTCGGATCGCTTCTTAGGAGTATCCTAACTGCCGGTGGGGA
GAACTTCGCCCTAAACCTGGGGTTCCGATCCAGGAACTGGAAGTTGACAGCTTGGCTGCCTGGCTCCTACATCTG
CCTTCTCCACTCACCATCTCATTTCTTTCTCCAGGATTGTCAGTGGCTTCGCCCCGAGGAGAGCTGACTGCCCTG
GGCTGCTGCCTCCGGCAGAGCTGAGCCAAAATGTCCCCGGAATCTAAAAAGCTTTTCAACATCATTATTTTAGGA
GTTGCCTTTATGTTTATGTTCACTGCCTTTCAAACTTGTGG

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FIGURE 3509A

GGAATAAGCAATTCTGTGTGGGGACTGTCCCCAGGTAACCCTGCCACAGGAAATAGCAATTCTGGGTTCAGTCAG
GGGAATGGAGACACTGTGAACTCAGCATTAAGTGCTAAACAAAATGGATCCAGCAGTGCTGTGCAAAAGGAAGGA
AGTGGAGGAAATGCTTGGGATTCAGGACCTCCTGCTGGTCCTGGAATACTCGCCTGGGGAAGGGGCAGTGGCAAC
AATGGCGTTGGTAATATCCATTCAGGAGCTTGGGGCCACCCCAGCCGAAGCACCTCTAACGGTGTGAATGGGGAA
TGGGGAAAGCCCCCAAACCAGCATTCCAACAGTGACATCAATGGGAAAGGATCAACAGGGTGGGAGAGTCCTAGT
GTCACCAGCCAGAACCCTACCGTACAGCCTGGTGGTGAACACATGAACTCCTGGGCCAAAGCGGCATCTTCTGGA
ACTACAGCAAGTGAAGGAAGTAGTGATGGTTCTGGCAACCACAATGAAGGAAGCACTGGGAGGGAAGGAACGGGA
GAAGGCCGAAGGCGAGATAAAGGGATTATAGACCAAGGGCACATCCAGTTGCCAAGGAATGATCTTGACCCAAGA
GTTCTGTCTAATACTGGTTGGGGACAGACTCCTGTAAAGCAAAACACTGCCTGGGAATTTGAAGAATCCCCTAGG
TCTGAAAGGAAAAATGACAATGGGACAGAGGCCTGGGGTTGTGCAGCTACTCAGGCTTCAAACTCAGGGGGGAAG
AACGATGGGTCCATCATGAACAGTACAAATACCTCTTCAGTATCTGGGTGGGTCAACGCGCCACCTGCCGCTGTG
CCAGCAAACACAGGTTGGGGAGACAGCAACAACAAAGCGCCAAGTGGCCCGGGGGTTTGGGGGGACTCGATAAGC
TCTACTGCTGTTAGTACTGCTGCTGCTGCCAAGAGTGGCCATGCTTGGAGTGGGGCCGCAAATCAGGAGGACAAG
TCACCCACCTGGGGTGAGCCTCCAAAGCCCAAATCCCAACACTGGGGAGATGGACAAAGATCAAATCCAGCCTGG
AGTGCAGGAGGGGGAGATTGGGCAGATTCATCGTCTGTCCTTGGACACTTGGGGGATGGGAAAAAAAATGGATCT
GGATGGGATGCTGACAGTAATAGGTCAGGGTCTGGTTGGAATGACACCACGAGATCTGGGAACAGTGGCTGGGGC
AACAGCACAAATACAAAGGCCAATCCAGGTACAAACTGGGGGGAGACTTTAAAACCTGGCCCCCAACAGAACTGG
GCTAGCAAACCCCAAGACAACAATGTGAGTAACTGGGGAGGAGCTGCTTCTGTGAAACAGACAGGAACAGGGTGG
ATCGGGGGGCCGGTACCGGTCAAACAGAAGGACAGCAGTGAAGCAACTGGCTGGGAAGAACCCTCTCCACCGTCC
ATTCGCCGCAAAATGGAAATTGATGATGGTACCTCAGCTTGGGGGGACCCAAGCAACTATAACAATAAAACTGTA
AACATGTGGGATAGAAACAACCCGGTCATCCAGAGCAGTACCACGACCAATACCACCACCACCACCACCACTACC
ACGAGCAACACCACACACAGGGTCGAGACGCCGCCCCCGCACCAGGCCGGTACTCAGCTGAATCGATCACCGTTG
CTTGGTCCAGGTAGGAAAGTTTCATCAGGCTGGGGAGAAATGCCTA**ATG**TTCACTCAAAGACTGAAAACTCTTGG
GGAGAACCATCCNTCCCCTTCTACCCTGGTGGATAATGGCACAGCAGCATGGGGGAAGCCACCCAGCAGTGGCAG
CGGGTGGGGAGATCACCCTGCAGAGCCGCCGGTGGCATTTGGAAGAGCTGGCGCACCTGTTGCTGCCTCAGCCCT
GTGCAAACCAGCTTCAAAATCTATGCAAGAAGGCTGGGGCAGTGGTGGGGATGAAATGAACCTCAGTACCAGCCA
GTGGGAGGATGAAGAAGGGGACGTGTGGAATAATGCTGCTTCCCAAGAAAGCACCTCCTCCTGCAGCTCCTGGGG
GAACGCCCCCAAAAAAGGACTTCAAAAGGGCATGAAGACGTCTGGCAAGCAGGATGAGGCCTGGATCATGAGCCG
GCTGATCAAACAACTCACAGACATGGGCTTCCCGAGAGAGCCAGCTGAGGAGGCCTTGAAGAGTAACAATATGAA
TCTTGATCAGGCCATGAGCGCTCTGCTGGAAAAGAAGGTGGACGTGGACAAGCGTGGGCTGGGAGTGACCGACCA
TAATGGAATGGCCGCCAAGCCCCTCGGCTGCCGCCCGCCAATCTCCAAAGAGTCTTCCGTGGACCGCCCCACCTT
TCTTGACAAGGATGGCGGCCTCGTGGAAGAGCCCACGCCTTCACCGTTCTTGCCTTCCCCAAGCCTGAAGCTCCC
CCTTTCACACAGTGCACTCCCCAGTCAGGCCCTGGGTGGGATTGCCTCCGGGCTGGGCATGCAAAACTTGAATTC
TTCTAGACAGATACCGAGTGGCAATCTGGGTATGTTTGGCAATAGTGGAGCAGCACAAGCCAGGACCATGCAGCA
GCCGCCACAGCCACCAGTGCAGCCTCTTAACTCTTCCCAGCCCAGTCTCCGTGCTCAAGTGCCTCAGTTTCTATC
CCCTCAGGTTCAAGCACAGCTTTTGCAGTTTGCAGCAAAAAACATTGGTCTCAACCCTGCACTATTAACCTCGCC
AATTAATCCTCAACATATGACGATGTTGAACCAGCTCTATCAGCTGCAGCTGGCATACCAACGTTTACAAATCCA
GCAGCAGATGTTACAGGCCCAGCGTAATGTGTCCGGATCCATGAGACAACAGGAGCAGCAAGTTGCGCGCACAAT
CACTAATCTGCAGCAGCAGATCCAGCAGCACCAGCGCCAGCTGGCCCAGGCCCTGCTCGTGAAGCAGCCACCACC
GCCACCGCCCCCGCCGCACCTGTCTCTGCACCCCTCTGCAGGCAAATCGGCCATGGACAGCTTCCCCTCGCACCC
ACAGACTCCCGGCCTACCTGACCTGCAGACCAAAGAGCAGCAGTCTTCACCCAACACCTTTGCTCCTTACCCTCT
CGCTGGACTGAACCCAAACATGAATGTCAACAGCATGGACATGACCGGTGGCTTGTCGGTGAAGGACCCATCCCA
GTCCCAGTCACGCCTCCCCCAGTGGACGCACCCCAACTCCATGGATAACTTGCCCAGTGCCGCTTCCCCCCTGGA
GCAGAACCCTAGCAAGCATGGTGCTATCCCTGGAGGTCTAAGCATTGGGCCTCCAGGTAAGTCCTCCATTGATGA
CTCCTATGGCCGGTACGATTTAATCCAGAACAGTGAGTCACCAGCCAGTCCTCCCGTAGCTGTTCCCCATAGCTG
GTCACGTGCCAAATCTGACAGTGATAAAATCTCAAATGGCTCTAGCATCAACTGGCCCCCAGAATTCCATCCGGG
AGTTCCATGGAAAGGACTGCAGAATATTGACCCTGAGAATGACCCTGACGTCACTCCTGGCAGTGTCCCCACTGG
GCCTACCATCAACACCACCATCCAGGATGTCAACCGCTACCTCCTCAAGAGTGGAGGTAAACTGTCAGACATCAA

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FIGURE 3509B

ATCGACGTGGTCCTCTGGCCCTACCTCCCACACGCAAGCCTCTCTGTCTCATGAACTATGGAAGGTGCCCAGAAA
CAGTACTGCACCCACGAGGCCACCTCCAGGGTTAACCAATCCCAAGCCCTCCTCCACCTGGGGTGCCAGCCCCCT
CGGCTGGACCAGCTCCTACTCCTCGGGTTCTGCCTGGAGCACCGACACCTCAGGAAGAACCAGCAGCTGGCTCGT
TCTTCGAAACCTCACTCCCCAGATTGATGGTTCTACACTGCGGACATTGTGTTTGCAACATGGGCCTCTTATCAC
ATTCCACCTGAATCTGACTCAAGGCAATGCTGTGGTCCGGTACAGCTCCAAGGAGGAGGCTGCCAAGGCCCAGAA
GTCTCTGCACATGTGCGTCCTGGGAAACACTACCATCCTGGCCGAGTTCGCTGGTGAAGAAGAAGTGAATCGCTT
CTTAGCCCAAGGCCAGGCGCTGCCACCCACTTCCAGCTGGCAGTCCAGCAGCGCGTCCAGCCAGCCGCGGCTCAG
CGCAGCGGGCAGCTCCCATGGCCTGGTACGCAGCGACGCTGGCCACTGGAACGCCCCGTGCCTGGGTGGCAAGGG
GAGCAGTGAGCTGCTGTGGGGCGGGGTGCCCCAGTACTCCAGCAGCCTGTGGGGCCCGCCCAGCGCCGACGACAG
CAGGGTGATAGGCAGCCCCACGCCGCTAACCACCCTGCTGCCTGGGGACCTGCTCAGCGGGGAGTCCCTG**TAG**GC
TCTGCCATCATCAGCACCAGGAGAGCCGACCCCTCCCGGGACCCCTCCCGGGTGGGCGGCNCCCACAGACCCGGT
NGGAACCCAGCAGCGGNNCCGCCCTTTTGAGTACCTCTGTCCAGGACTGAAGACGNAACCTTGGCCGCAGTCCTT
GCGAACTGTTCGCAAAACAGTGCGGGCNTGCGGTGGGNTCAGCGTCACATGCTAATGACAGGATGTTCCTCGTAG
CTTTTTATTTTGTGCGTCTTATGTTTGTATAGTGTGTTGTCATTTTGATTTTTTTTTTTTTTTTAAGTATAAAAG
CTGCTTAGAATAGTTCTATCATGAAGGGCACTTTTCAGATTGTGGGCTGGAAAGGGTTATTTTATCTGTGGGGGA
GGGAGGGAGACGTGAAGCCTATTTAAAATGAGCCTGTGACGATTATGCACATGACCAGAGGCGGCCGGTAATCAG
GGCAGAGTCTGGTGTGGACCGCCGGGCGCAGAGCGGCTCCGCGGCGGGAGCTGAGCGGAAGGCGCGGGCTGCGAT
CTGCTCTCTGTTCCCCTGGATCCGCCTATGCACATTACCCTTGTTTCATTACTTTTTCATGTCATTTTTTTATCC
CAAAAAATATTTTTTAAAAGTTAAAAAAAGACATATCAAACATGCAAATACTTGAATCCAGCAGGCCAATAGTGA
AATGTGAACACTTTCTAATTCTACACTTCCAGGTTGACATCAGTACACAGAAACAGGNNCTCTAGGAAAAATTTC
TAAGTTCATAGCCTACGTGTGTGTATGTGTGCGTGTTGAAACAGAAGTGTGTGTGTGTGTGCATGTGTGGCGCGT
GCTCCTGCACGGCGTGCAGTTTTCTGTGTTTGTGTGTTTGAAAGCGTGTGAGGATTTAACTGTGGGTTTTCCCTT
GTATTCAGTATACGCTTTTTTTTTGGCGCATTGGTCAAACGGTTGTTATTATTAGCTTCTAACTTTGCACTGAGT
GTCCTCGCCCTTCCTTTAGCTAATCCTATACATTACAGAGAATTCCTAGGACAGGGCTGGCGACAATTCATGTGT
AAATGTTTACTCAAGGACTCTGTGACTGCGTTTAAAAAGTACAGTGTATATCTCTGGAGAAATAACATGTATACC
TACCTTTAGCAGCTTTTTATTGTGGACTAATGCAAGAAAATTATTACCAGAGTATTGCACCATTTTTCCATTTGG
AATATAAAGTTAAAGAGAAAAAAAAAAAAAAACTGTTGTTGAACTGTGGCCATAGATACTTGTAAAGAATGGATGG
TTCCGTGGAAGGAACAGAAACAAGCACTTGGGCGTGGGTTGTGACTGCTTTTGGGGGAGCCTGGGGTTTGGGCTC
CCACCTGTTTACAGACCTTTTTTTCTCCTTCAGACTTTAAAATTTTAAAAATTTAAAAAGG

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FIGURE 3510A

AGGTGCGGCTACTCCCCCGGCCCCGGCAGACCTGCGACTGGCCCAGTCGCCCCTGGGGCCCTTTGCCACTCCCTT
GGCAAGGAGAGCCGAGACCTCAGTTCCCGGCGGCTCTTGCGGGGCACAGGTGAGCCCTGGCTGCGCGCGCGGCCC
CTCCTCCCCGGCGCCTCCCAGATGGGGGCTCCGGAGGTGGCGCCCAGGCTCTGAGCTACCCTAGGTCTGCAGACT
AGCGGGCATTGGCCAGAGAC**ATG**GCCCAGCCACTGGCCTTCATCCTCGATGTCCCTGAGACCCCAGGGGACCAGG
GCCAGGGCCCCAGCCCCTATGATGAAAGCGAAGTGCACGACTCCTTCCAGCAGCTCATCCAGGAGCAGAGCCAGT
GCACGGCCCAGGAGGGGCTGGAGCTGCAGCAGAGAGAGCGGGAGGTGACAGGAAGTAGCCAGCAGACACTCTGGC
GGCCCGAGGGCACCCAGAGCACGGCCACACTCCGCATCCTGGCCAGCATGCCCAGCCGCACCATTGGCCGCAGCC
GAGGTGCCATCATCTCCCAGTACTACAACCGCACGGTGCAGCTTCGGTGCAGGAGCAGCCGGCCCCTGCTCGGGA
ACTTTGTCCGCTCCGCCTGGCCCAGCCTCCGCCTGTACGACCTGGAGCTGGACCCCACGGCCCTGGAGGAGGAGG
AGAAGCAGAGCCTCCTGGTGAAGGAGCTCCAGAGCCTGGCAGTGGCACAGCGGGACCACATGCTTCGCGGGATGC
CCTTAAGCCTGGCTGAGAAACGCAGCCTGCGAGAGAAGAGCAGGACCCCGAGGGGGAAGTGGAGGGGCCAGCCGG
GCAGCGGCGGGGTCTGCTCCTGCTGTGGCCGGCTCAGATATGCCTGCGTGCTGGCCTTGCACAGCCTGGGCCTGG
CGCTGCTCTCCGCCCTGCAGGCCCTGATGCCGTGGCGCTACGCCCTGAAGCGCATCGGGGGCCAGTTCGGCTCCA
GCGTGCTCTCCTACTTCCTCTTTCTCAAGACCCTGCTGGCTTTCAATGCCCTCCTGCTGCTGCTGCTGGTGGCCT
TCATCATGGGCCCTCAGGTCGCCTTCCCACCCGCCCTGCCGGGCCCTGCCCCCGTCTGCACAGGCCTGGAGCTCC
TCACAGGCGCGGGTTGCTTCACCCACACCGTCATGTACTACGGCCACTACAGTAACGCCACGCTGAACCAGCCGT
GTGGCAGCCCCCTGGATGGCAGCCAGTGCACACCCAGGGTGGGTGGCCTGCCCTACAACATGCCCCTGGCCTACC
TCTCCACTGTGGGCGTGAGCTTCTTTATCACCTGCATCACCCTGGTGTACAGCATGGCTCACTCTTTCGGGGAGA
GCTACCGGGTGGGCAGCACCTCTGGCATCCACGCCATCACCGTCTTCTGCTCCTGGGACTACAAGGTGACGCAGA
AGCGGGCCTCCCGCCTCCAGCAGGACAATATTCGCACCCGGCTGAAGGAGCTGCTGGCCGAGTGGCAGCTGCGGC
ACAGCCCCAGGAGCGTGTGCGGGAGGCTGCGGCAGGCGGCTGTGCTGGGGCTTGTGTGGCTGCTGTGTCTGGGGA
CCGCGCTGGGCTGCGCCGTGGCCGTCCACGTCTTCTCGGAGTTCATGATCCAGAGTCCAGAGGCTGCTGGCCAGG
AGGCTGTGCTGCTGGTCCTGCCCCTGGTGGTTGGCCTCCTCAACCTGGGGGCCCCCTACCTGTGCCGTGTCCTGG
CCGCCCTGGAGCCGCATGACTCCCCGGTACTGGAGGTGTACGTGGCCATCTGCAGGAACCTCATCCTCAAGCTGG
CCATCCTGGGGACACTGTGCTACCACTGGCTGGGCCGCAGGGTGGGCGTCCTGCAGGGCCAGTGCTGGGAGGATT
TTGTGGGCCAGGAGCTGTACCGGTTCCTGGTGATGGACTTCGTCCTCATGTTGCTGGACACGCTTTTTGGGGAAC
TGGTGTGGAGGATTATCTCCGAGAAGAAGCTGAAGAGGAGGCGGAAGCCGGAGTTTGACATTGCCCGGAATGTCC
TGGAGCTGATTTATGGGCAGACTCTGACCTGGCTGGGGGTGCTCTTCTCGCCCCTCCTCCCCGCCGTGCAGATCA
TCAAGCTGCTGCTCGTCTTCTATGTCAAGAAGACCAGCCTTCTGGCCAACTGCCAGGCGCCGCGCCGGCCCTGGC
TGGCCTCACACATGAGCACCGTCTTCCTCACGCTGCTCTGCTTCCCCGCCTTCCTGGGCGCCGCTGTCTTCCTCT
GCTACGCCGTCTGGCAGGTGAAGCCCTNCGAGCACCTNGNCGGCCCCTTCCGGACCCTGGACANCCATGTACGNA
GGCCGGCAGGGTGNTGGGTGCGNCCACCTGGAGGCGGNCAGGCCCCAGGGTCTCCTGGCTGCCCTGGGTGCACCG
GTACC**TGA**TGGAAAACACCTTCTTTGTCTTCCTGGTGTCAGCCCTGCTGCTGGCCGTGATCTACCTCAACATCCA
GGTGGTGCGGGGCCAGCGCAAGGTCATCTGCCTGCTCAAGGAGCAGATCAGCAATGAGGGTGAGGACAAAATCTT
CTTAATCAACAAGCTTCACTCCATCTACGAGAGGAAGGAGAGGGAGGAGAGGAGCAGGGTTGGGACAACCGAGGA
GGCTGCGGCACCCCCTGCCCTGCTCACAGATGAACAGGATGCCTAGGGGGACGGCGATGGGCCTCACGGGCCCGC
CCAGCACCCTGAGACCACACTGTTGCCTCCCAGTGACCCTGCTGGGACACCAGGACAAGGAAGACAGTTTCGCCT
CTCGAAAGCCGCAGCTGCGCCTAGGCTGGAGCTGGAAGGGTGGGTGAATCCGGCTTGGGCATCCCCAATGAACTC
TGCCCTGCCTGGGACTCTATTTATTCTGATTAAAGGGGTTTTGCAAATGGGCTTGTCCCTTGGGGCTCTGTGTCT
GTGACCACACCCGGGGCCTGCTTCCCGCTGCCCTGGGGCCACCTCCAGGCGCAGGTCTGGGTCCTGGGAACCTCA
GCTGGAGTGGGGGCGCCCTCTGCTGGCCAAGCCCCAGATGGCAGGGGCTGGACCGCGCCAGGGCTTGATTCGCTT
GCTGCCTTTGACCAGCCTGAACTCGCGCCCAGGAGGGGCTTACACCTGCACAAGTGAGCCGAGCAGGCACGGATT
GTGACCAGAGCGATGCGTCAACCATTGGGTGATGCTGTAGCATCTACTGGAGCAGGAGACAAATTTAGAGAGGGA
CTTGGAGGGGAGACATATCAGTTGCAAATGAGTTGTGGGGACAGTTGCCTCCCAGGCATAGGTAACCAGCACCTG
TGCTTGGAGGCGAACAGGGCTTGGTGAGGTGGGGCTGGCCCCCTGCTTCTGGCTGCCAGCAGCTGGCTGGGGGGT
GGTGATCCTGGGTCTGACTGGGCTGAGTTTGAGGAGCCCGTGGGATACCGAAAACCGTAGGCTGTGGGGGGTGGG
CACAGGGATTCGGGGACCAGCCCGTCATGACCCCGTGCTCCAGGTCTGCAGGGACCAGCCCATGACAGCCCAGGG
CTCCAGGTCTGCGGGGACCAGCCCATCACAGCCCAGGGCTCCAGGCCTGCGGGGACCAGCCCGTCAGCCTCAGTT

FIGURE 3510B

CTCCAGGCCTGCGGGGACCAGCCCGTCATGACCCCAGTGCTCCAGGTCTGTGGGGACCAGCCCGTCAGCCTGTGC
TCCAGGCCTGCAGGAACCAGCCCGTCAGCCTCAGTGCTCCAGGCCTGCGGGGACCAGCCCGTCAGCCTGTGCTCC
AGGCCTGCGGGGACCAGCCCGTCATGACCCCAGTGCTCCAGGTCTGTGGGGACCAGCCCGTCAGCCTGTGCTCCA
GGCCTGCGGGAACCAGCCCGTCATGACCCCAGTGCTCCAGGCCTGCGGGGACCAGCCCGTCATGACCCCAGTGCT
CCAGGTCTGTGGGGACCAGCCCGTCACGGCGCAGGGTTCCAGGCTTGTGGGGACCAGCCTGTCACAGCCCAGGGC
TCCAGGCCTGCAGGAGCTGCGCTTGGGATTGGGGGAATGAACCCAGGTGGGGAAATGGTCAAAGAGCGATGGGCC
CAGAAAAGGGTCAGACCCAGATGGAGATGCCACTGGCTGCTAGCAGACCCCCACGCTGGGTCTAGCCCACCCAAT
NCCCATGGGGATGCTCCTGTGCTCTGCAGACATCTGGGTGCTGCCACAGGGGCCCGACAGAGTTGGCATCTGGGT
GGATCTGAGCCAAGTGGTGCTTCTGGGCCTCAGCAAGTAGCTGGTGCTGATTCTGGGCAGCCAACTGTGGCAGCA
TCTTCAGGTGCGAGTGCTGCTGGGTGAAGCTGCGTGGGCAGTCCAGAAAGTGACGTGACAGTCCACAGGGACCGA
CGTAGGGTTTCCAGCCCCTATCTGTGCAGATGCTGTCCTCCAAACCATCACGGTCCCTCTCTGGCTGGGGACGTG
CGCCTGCCACTGCTGGCTTGCCAGCATGATCATTGGTTGTGACCTGTTGAGCCCATCTTGCCAGCCTCACAAAGG
ACAGTACTAGCTGCTTATGACAGGAAAGTGGAAGAACTTGGCCTGGATATTTCTGGAGAATTACCGTGTGTGCTA
GTCAGTCTTTCGTGTCAACCAGGCCAGGCTGTGGGGCCCAGTGATCTCATCGAGAGGGGCCGAGGTGTTGCTGTG
ATCGTGTGCTGCTGGAATGTGGTGAACACCTACAGTCGATTTCACCTAAAGATCATCCTTGAGAATGTGGGTGGG
CCTCATCCTATCAGCTGAAAGCTTTAAGAGCAAAACCCGAGGTGTCCCAGAGAGGGAATTCTGCCTTGAGACGGC
GGCTTCCCACTCCCACTGGATGTCCAGCCCGCGGCCCCACGGCTGGGTGAGCCCGTCCTCTCCTCGTTTCTGTCT
CCGGACCCACCGTGTGGCCCCAGACCCTCCAGTGAGGACCTCCCGTATTTCTTCAGAGCAGCCCTTGCGTGCTGG
AGGCCTGGGCTTCAGTGTGTCCCTGGGTGCCCTGGGGCATGTTCTGTGACCTCCCAGCTCCTCGCCTCATGGGGC
CGCTGTATCAAGTGACACAGTTTGTGTGCTGCGTACCATGCCTGGCACCCATTTGAGGTGTTGCAAGGAGGCCAT
GTTTGCTCGATGAGAGCAGCCTAAGATCTACAAACTGTTGTTCGAGTGGATGGGAACTTGATGCTATTTTCAGGC
TGAATGACAAGACTCCGCGATGCTTCTCGGCCTGGGCTGCACAACGGAATCTACCAGGGAGGTTTTAAAAACACT
GGTACTTGCTGGAGGTGGTGGCGCCTGTCTGTAATTGCAGCTGCTCCAGAGGCTGAGGCGGAGGATTGCTTGAGC
CCAAGAGTTTCGGTTTATTTGCTTTTTCAGAG

FIGURE 3511

CCGCCAGATTTGAATCGCGGGACCCGTTGGCAGAGGTGGCGGCGGCGGC**ATG**GGTGCCCCGACGTTGCCCCCTGC
CTGGCAGCCCTTTCTCAAGGACCACCGCATCTCTACATTCAAGAACTGGCCCTTCTTGGAGGGCTGCGCCTGCAC
CCCGGAGCGGATGGCCGAGGCTGGCTTCATCCACTGCCCCACTGAGAACGAGCCAGACTTGGCCCAGTGTTTCTT
CTGCTTCAAGGAGCTGGAAGGCTGGGAGCCAGATGACGACCCCATAGAGGAACATAAAAAGCATTCGTCCGGTTG
CGCTTTCCTTTCTGTCAAGAAGCAGTTTGAAGAATTAACCCTTGGTGAATTTTTGAAACTGGACAGAGAAAGAGC
CAAGAACAAAATTGCAAAGGAAACCAACAATAAGAAGAAAGAATTTGAGGAAACTGCGGAGAAAGTGCGCCGTGC
CATCGAGCAGCTGGCTGCCATGGAT**TGA**GGCCTCTGGCCGGAGCTGCCTGGTCCCAGAGTGGCTGCACCACTTCC
AGGGTTTATTCCCTGGTGCCACCAGCCTTCCTGTGGGCCCCTTAGCAATGTCTTAGGAAAGGAGATCAACATTTT
CAAATTAGATGTTTCAACTGTGCTCTTGTTTTGTCTTGAAAGTGGCACCAGAGGTGCTTCTGCCTGTGCAGCGGG
TGCTGCTGGTAACAGTGGCTGCTTCTCTCTCTCTCTCTCTTTTTTGGGGGCTCATTTTTGCTGTTTTGATTCCCG
GGCTTACCAGGTGAGAAGTGAGGGAGGAAGAAGGCAGTGTCCCTTTTGCTAGAGCTGACAGCTTTGTTCGCGTGG
GCAGAGCCTTCCACAGTGAATGTGTCTGGACCTCATGTTGTTGAGGCTGTCACAGTCCTGAGTGTGGACTTGGCA
GGTGCCTGTTGAATCTGAGCTGCAGGTTCCTTATCTGTCACACCTGTGCCTCCTCAGAGGACAGTTTTTTTGTTG
TTGTGTTTTTTTGTTTTTTTTTTTTTGGTAGATGCATGACTTGTGTGTGATGAGAGAATGGAGACAGAGTCCCTG
GCTCCTCTACTGTTTAACAACATGGCTTTCTTATTTTGTTTGAATTGTTAATTCACAGAATAGCACAAACTACAA
TTAAAACTAAGCACAAAGCCATTCTAAGTCATTGGGGAAACGGGGTGAACTTCAGGTGGATGAGGAGACAGAATA
GAGTGATAGGAAGCGTCTGGCAGATACTCCTTTTGCCACTGCTGTGTGATTAGACAGGCCCAGTGAGCCGCGGGG
CACATGCTGGCCGCTCCTCCCTCAGAAAAAGGCAGTGGCCTAAATCCTTTTTAAATGACTTGGCTCGATGCTGTG
GGGGACTGGCTGGGCTGCTGCAGGCCGTGTGTCTGTCAGCCCAACCTTCACATCTGTCACGTTCTCCACACGGGG
GAGAGACGCAGTCCGCCCAGGTCCCCGCTTTCTTTGGAGGCAGCAGCTCCCGCAGGGCTGAAGTCTGGCGTAAGA
TGATGGATTTGATTCGCCCTCCTCCCTGTCATAGAGCTGCAGGGTGGATTGTTACAGCTTCGCTGGAAACCTCTG
GAGGTCATCTCGGCTGTTCCTGAGAAATAAAAAGCCTGTCATTTC

FIGURE 3512

GCGGCGGCGGCAGCGGCGGCGACGGCGAC**ATG**GAGAGCGGGGCCTACGGCGCGGCCAAGGCGGGCGGCTCCTTCG
ACCTGCGGCGCTTCCTGACGCAGCCGCAGGTGGTGGCGCGCGCCGTGTGCTTGGTCTTCGCCTTGATCGTGTTCT
CCTGCATCTATGGTGAGGGCTACAGCAATGCCCACGAGTCTAAGCAGATGTACTGCGTGTTCAACCGCAACGAGG
ATGCCTGCCGCTATGGCAGTGCCATCGGGGTGCTGGCCTTCCTGGCCTCGGCCTTCTTCTTGGTGGTCGACGCGT
ATTTCCCCCAGATCAGCAACGCCACTGACCGCAAGTACCTGGTCATTGGTGACCTGCTCTTCTCAGCTCTCTGGA
CCTTCCTGTNGGTTTGTTGGTTTCTGCTTCCTCACCAACCAGTGGGCAGTCACCAACCCGAAGGACGTGCTGGTG
GGGGCCGACTCTGTGAGGGCAGCCATCACCTTCAGCTTCTTTTCCATCTTCTCCTGGGTAGGATGGCCAGGGGCC
GGTTCTTGGGTCAAGGNGTGTGGAAGGGGGGGNANCCCCCANCCCACCTGTACCCTGCTGTGCTCCCCCTGCAGG
GTGTGCTGGCCTCCCTGGCCTACCAGCGCTACAAGGCTGGCGTGGACGACTTCATCCAGAATTACGTTGACCCCA
CTCCGGACCCCANACACTGCCTACGCCTCCTACCCAGGTGCATCTGTGGACAACTACCAACAGCCACCCTTCACC
CAGAACGCGGAGACCACCGAGGGCTACCAGCCGCCCCCTGTGTACTGAGCGGCGGT**TAG**CGTGGGAAGGGGGACA
GAGAGGGCCCTCCCNCTCTGCCCTGGACTTTCCCATGAGCCTCCTGGAACTGCC

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FIGURE 3513

CTTACTGCGGGACGGCCTTGGAGAGTACTCGGGTTCGTGAACTTCCCGGAGGCGCAATGAGCTGCATTAACCTGC
CCACTGTGCTGCCTGGCTCCCCCAGCAAGACCCGGGGGCAGATCCAGGTGATTCTCGGGCCGATGTTCTCAGGAA
AAAGCACAGAGTTGATGAGACGCGTCCGTCGCTTCCAGATTNGCTCAGTACAAGTGCCTGGTGATCAAGT**ATG**CC
AAAGACACTCGCTACAGCAGCAGNCTTCTGCACACATGACCGGAACACCATGGAGGCACTGCCCGCCTGCCTGCT
CCGAGACGTGGCCCAGGAGGCCCTGGGCGTGGCTGTCATAGGCATCGACGAGGGGCAGTTTTTCCCTGACATCGT
GGAGTTCTGCGAGGCCATGGCCAACGCCGGGAAGACCGTAATTGTGGCTGCACTGGATGGGACCTTCCAGAGGAA
GCCATTTGGGGCCATCCTGAACCTGGTGCCGCTGGCCGAGAGCGTGGTGAAGCTGACGGCGGTGTGCATGGAGTG
CTTCCGGGAAGCCGCCTATACCAAGAGGCTCGGCACAGAGAAGGAGGTCGAGGTGATTGGGGGAGCAGACAAGTA
CCACTCCGTGTGTCGGCTCTGCTACTTCAAGAAGGCCTCAGGCCAGCCTGCCGGGCCGGACAACAAAGAGAACTG
CCCAGTGCCAGGNAAAGCCAGGGGAAGCCGTGGCTGCCAGGAAGCTCTTTGCCCCACAGCAGATTCTGCAATGCA
GCCCTGCCAACTGAGGGACCTGCGAGGGCCGCCCGCTCCCTTCCTGCCACTGCCGCCTACTGGACGCTGCCCTGC
ATGCTGCCCAGCCACTCCAGGAGGAAGTCGGGAGGCGTNGGAGGGTGACCACACCTTGGCCTTNCTGGGAACTCT
CCTTTGTGTGGCTGCCCCACCTGCCGCATGCTCCCTCCTCTCCTACCCACTGGTCTGCTTAAAGCTTCCCTCTCA
GCTGCTGGGACGATCGCCCAGGCTGGAGCTGGCCCCGCTTGGTGGCCTGGGATCTGGCACACTCCCTCTCCTTGG
GGTGAGGGACAGAGCCCCACGCTGT**TGA**CATCAGCCTGCTTCTTCCCCTCTGCGGCTTTCACTGCTGAGTTTCTG
TTCTCCCTGGGAAGCCTGTGCCAGCACCTTTGAGCCTTGGCCCACACTGAGGCTTAGGCCTCTCTGCCTGGGATG
GGCTCCCACCCTCCCCTGAGGATGGCCTGGATTCACGCCCTCTTGTTTCCTTTTGGGCTCAAAGCCCTTCCTACC
TCTGGTGATGGTTTCCACAGGNAACAACAGCATCTTTCACCAAGATGGGTGGCACCAACCTTGCTGGGACTTGGA
TCCCAGGGGCTTATCTCTTCAAGTGTGGAGAGGGCAGGGTCCACGCCTCTGCTGTAGCTTATGAAATTAACTAAT
T

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FIGURE 3514

GGCCGGGCGCCCTCGCCGCCCTCCGGCAGCCGCGCCGCTCCCTCCGCTGCACGCCCAGGCCTGAGCAGCGAGGCC
ACCGGGCCGCGCGCTCCCAGCTTCGCTCGGACGCGGCTTCGGCCCGCAGAGGGTTCGTGGCCCGGACGCGGCGAG
AGCTGGGCCCAGGACGGTGCGTCCGGCCTCGCCCGCGGCTGCTCGCACCAACAAGTTTGAACA**ATG**ATCACCGTC
AACCCCGATGGGAAGATAATGGTCAGAAGATGCCTGGTCACCCTGAGACCCTTTCGGCTTTTTGTCCTGGGCATC
GGCTTCTTCACTCTCTGCTTCCTGATGACGTCTCTGGGAGGCCAGTTCTCGGCCCGGCGCCTGGGGGACTCGCCA
TTCACCATCCGCACAGAAGTGATGGGGGGCCCCGAGTCCCGCGGCGTCCTGCGCAAGATGAGCGACCTGCTGGAG
CTGATGGTGAAGCGCATGGACGCACTGGCCAGGCTGGAGAACAGCAGTGAGCTGCACCGGGCCGGCGGCGACCTG
CACTTTCCCGCAGACAGGATGCCCCCTGGGGCCGGCCTCATGGAGCGGATCCAGGCTATTGCCCAGAACGTCTCC
GACATCGCTGTGAAGGTGGACCAGATCCTGCGCCACAGTCTGCTCCTGCACAGCAAGGTGTCAGAAGGCCGGCGG
GACCAGTGTGAGGCACCCAGTGACCCCAAGTTCCCTGACTGCTCAGGGAAGGTGGCAGTGGATGCGTGCCCGCTG
GACCTC**TGA**CCCCTGCTACGCCTTCTTTGGGGTGGACGGCACCGAGTGCTCCTTCCTCATCTACCTCAGTGAGGT
CGAGTGGTTCTGCCCCCCGCTGCCCTGGAGGAACCAGACGGCTGCCCAGAGGGCACCCAAGCCCCTCCCCAAAGT
CCAGGCAGTTTTCCGAAGCAACCTGTCCCACCTTCTGGACCTGATGGGCAGCGGGAAGGAGTCCCTGATCTTCAT
GAAGAAGCGGACCAAGAGGCTCACAGCCCAGTGGGCGCTGGCTGCCCAGCGCCTGGCACAGAAGCTGGGGGCCAC
CCAGAGGGACCAGAAGCAGATCCTGGTCCACATCGGCTTCCTGACGGAGGAGTCCGGGGACGTGTTCAGCCCTCG
GGTCCTGA

FIGURE 3515

CAGGTGAGGCGGAACCAACCCTCCTGGCCATGGGAGGGGCCGTGGTGGACGAGGGCCCACAGGCGTCAAGGCCCT
GACGGCGGCTGGGCGTGAGGCGTGCTCTTCGGCTGTTTCGTCATCACTGGCTTCTCCTACGCCTTCCCCAAGGCC
GTCAGTGTCTTCTTCAAGGAGCTCATACAGGAGTTTGGGATCGGCTACAGCGACACAGCCTGGATCTCCTCCATC
CTGCTGGCC**ATG**CTCTACGGGACAGGTCCGCTCTGCAGTGTGTGCGTGAACCGCTTTGGCTGCCGGCCCGTCATG
CTTGTGGGGGGTCTCTTTGCGTCGCTGGGCATGGTGGCTGCGTCCTTTTGCCGGAGCATCATCCAGGTCTACCTC
ACCACTGGGGTCATCACGGGGTTGGGTTTGGCACTCAACTTCCAGCCCTCGCTCATCATGCTGAACCGCTACTTC
AGCAAGCGGCGCCCCATGGCCAACGGGCTGGCGGCAGCAGGTAGCCCTGTCTTCCTGTGTGCCCTGAGCCCGCTG
GGGCAGCTGCTGCAGGACCGCTACGGCTGGCGGGGCGGCTTCCTCATCCTGGGCGGCCTGCTGCTCAACTGCTGC
GTGTGTGCCGCACTCATGAGGCCCCTGGTGGTCACGGCCCAGCCGGCTCGGGGCAGCCGCGACCCTCCCGGCGCC
TGC**TAG**ACCTGAGCGTCTTCCGGGACCGCGGCTTTGTGCTTTACGCCGTGGCCGCCTCGGTCATGGTGCTGGGGC
TCTTCGTCCCGCCCGTGTTCGTGGTGATGACGCCAAGGACCTGGCGTGCCCGACACCAAGGCGCCTTCCTGCTCA
CCATCCTGGGCTTCATTGACATACTTACGCCCGCGCGGGCTTCGTGCGGGGCTTGGGAAGGTGCGGCCCTATCCG

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FIGURE 3516

ATTTTCCTGGGGCTCCGGGGCGCGGAGAAGCTGCATCCCAGAGGAGCGCGTCCAGGAGCGGACCCGGGAGTGTTT
CAAGAGCCAGTGACAAGGACCAGGGCCCAAGTCCCACCAGCC**ATG**CAGACCTGCCCCCTGGCATTCCCTGGCCAC
GTTTCCCAGGCCCTTGGGACCCTCCTGTTTTTGGCTGCCTCCTTGAGTGCTCAGAATGAAGGCTGGGACAGCCCC
ATCTGCACAGAGGGGGTAGTCTCTGTGTCTTGGGGCGAGAACACCGTCATGTCCTGCAACATCTCCAACGCCTTC
TCCCATGTCAACATCAAGCTGCGTGCCCACGGGCAGGAGAGCGCCATCTTCAATGAGGTGGCTCCAGGCTACTTC
TCCCGGGACGGCTGGCAGCTCCAGGTTCAGGGAGGCGTGGCACAGCTGGTGATCAAAGGCGCCCGGGACTCCCAT
GCTGGGCTGTACATGTGGCACCTCGTGGGACACCAGAGAAATAACAGACAAGTCACGCTGGAGGTTTCAGGTGCA
GAACCCCAGTCCGCCCCCGACACTGGGTTTGGCCTGTGCCAGCGGTGGTCACTGCTGTCTTCATCCTCTTGGTCG
CTCTGGTCATGTTCGCCTGGTACAGGTGCCGCTGTTCCAGCAACGCCGGGAGAAGAAGTTCTTCCTCCTAGAACC
CCAGATGAAGGTCGCAGCCCTCAGAGCGGGACGCAGCAGGGCCTGAGCAGACCTCCGCTGAACTGTGGACCCCAG
ACTCCGAGCCCACCCCAAGGCCGCTGGCACTGGTGTTCAAACCCTCACCACTTGGAGCCCTGGAGCTGCTGTCCC
CCCAACCCTTGTTTCCATATGCCGCAGACCCATAGCCGCCTGCAAGGCAGAGAGGACACAGGAGAGCCAGCCCTG
AGTGCCGACCTTGGGTGGCGGGGCATGGGTCTCTCGTCCCACCCGGAGCACCAGACACCGGCTTGCTTGGCAGGC
TGGGCTTCTGTGTCACCCACTCCTGGGTGCGTGCAGACCCTTCCCCTCCAACCCCCAGGTCTTCCAAGCTCTGCT
TCCTCAGTTTCCAAAATGGAACCAACTCACCTTCCGAGCAACCGAATTACCAGGAACGATGCCCCTCCCTCTGCC
CTCATCAAACCCACAGACCCGGACTCCCTTTCTGCCACCCCAGGCTGGTCCGGCCCCAGGTGTGGGTCCGCTCTC
TCCACTCCCAGGGCTCCGCGCCAAGTGAGGGGGCCCCTGCCGGAGCCTCAGACACACTCCAGTTCAGGGCTGTGG
GGGGCCTGGCCACATACCTGTCCCTTGGCTATGAGCAGGCTTTGGGGGCCCTTCCGCGGCAGCCCGGGGGCCGAG
GTAGGGTCGGGGGCT**TAG**AGGCTGGGATGGCTCCTGGCCCCACCGCCAGGGGGCAGCGCAGGCCGGGCTGGGAGG
CGGCGGCGGCGGCTCGGGCTGGGGGGTCAGGTGGACGCCGCCCTCCGGGGCTGGACGCGCATCCCTCAGTCCCTC
GGCCACCCGGGGGTCGCTCCCTCGTGCCCACCGCACCTGCCGAGCCTCTTTGGACCCAGATCTGTTCATGCTTTT
GTCTTCGTCACTGCGGCGGGGCCCTTTGATGTCTTCATCTGTATGGGGTGGAAAAATCACCGGGAATCCCCCTTC
AGTTCTTTGAAAAAGTTCCATGACTCGAATATCTGAAATGAAGAAAACAAACCGACTCACAAACCTCCAAGTAGC
TCCAAATGCAATTTTTAAAATGGAAAACAAAAATCTGAAAGAAACGTCTTTAGTGGCTTTAAGCCCCAAAACGTC
CCTAAGGCGTCCTCGAGATGAAGACGGGGGGGAGCCAGCCAGGTGGAGACCCGCGAGCGCGGCGGCGCCCGGTGA
CCGAGGCCTCGCACAGCCGGCCGCCCTGAGGGTCGGGCCGAGCCAGGGTCCAAGAGGGGCGCGTTTGTGTCTCGG
GTTAAAATAAGGTTCCGTCCGCGTGCTGGGTCAGA

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FIGURE 3517

GCGCGATGGGGCGGCTCCTTTAGGCAGCTGAAAGGGGATTTAGGCCCGGAAGATCCGAGTCCATCCGCGGCGGGG
AGAGGGCAAGCGGGACCGGTAGGGCATGCAGCGGCGGCGCCGATCGGACATGTCCCATCCGCCCCGTATTGAGGC
GCTGGGAGCGCGGTGCGCGACAGGAAAGCGATGGTGAAAGCGGGGCCGTGAGGTGGGCGGCAGGAACGGCCGGAC
CCGCAGTAGCGCAGCAGCGGCGCCGCCTCCCAGAGTTCAGACCCAGGAAGCGGCCGGGAGGCAGGAGCGAATCGG
GCCGCCGCCGCCATGGAGCTGAGAGTCGGGAACAGGTACCGGCTGGGCCGGAAGCATCGGCAGCGGCTCCTTCGG
AGACATCTATCTCGGTACGGACATTGCTGCAGGAGAAGAGGTTGCCATCAAGCTTGAATGTGTCAAAACCAAACA
CCCTCAGCTCCACATTGAGAGCAAAATCTACAAG**ATG**ATGCAGGGAGGAGTGGGCATCCCCACCATCAGATGGTG
CGGGGCAGAGGGGGACTACAACGTCATGGTGATGGAGCTGCTGGGGCCAAGCCTGGAGGACCTCTTCAACTTCTG
CTCCAGGAAATTCAGCCTCAAAACCGTCCTGCTGCTTGCTGACCAAATGATCAGTCGCATCGAATACATTCATTC
AAAGAACTTCATCCACCGGGATGTGAAGCCAGACAACTTCCTCATGGGCCTGGGGAAGAAGGGCAACCTGGTGTA
CATCATCGACTTCGGGCTGGCCAAGAAGTACCGGGATGCACGCACCCACCAGCACATCCCCTATCGTGAGAACAA
GAACCTCACGGGGACGGCGCGGTACGCCTCCATCAACACGCACCTTGGAATTGAACAATCCCGAAGAGATGACTT
GGAGTCTCTGGGCTACGTGCTAATGTACTTCAACCTGGGCTCTCTCCCCTGGCAGGGGCTGAAGGCTGCCACCAA
GAGACAGAAATACGAAAGGATTAGCGAGAAGAAAATGTCCACCCCCATCGAAGTGTTGTGTAAAGGCTACCCTTC
CGAATTTGCCACATACCTGAATTTCTGCCGTTCCTTGCGTTTTGACGACAAGCCTGACTACTCGTACCTGCGGCA
GCTTTTCCGGAATCTGTTCCATCGCCAGGGCTTCTCCTATGACTACGTGTTCGACTGGAACATGCTCAAATTTGG
TGCCAGCCGGGCCGCCGATGACGCCGAGCGGGAGCGCAGGGACCGAGAGGAGCGGCTGAGACACTCGCGGAACCC
GGCTACCCGCGGCCTCCCTTCCACAGCCTCCAGGCCGTCTGCGGGGGACGCAGGGAATGTGGCTCCCCCCACACC
CCTCACCCCTACCTCACACACGGCTAACACCTCCCCCCGGCCCGTCTCCGGCATGGAGAGAGAGCGGAAAGTGAG
TATGCGGCTGCACCCGGGGCCCCCGTCAACATCTCCTCGTCCGACCTCACAGGCCGACAAGATACCTCTCGCATG
TCCACCTCACAGAATAGCATTCCTTTCGAACACCACGGCAAGTAGCTGCTCGTCTCCCATCGGAAGGCAGCACTG
GATTCCTGGTCGGGTGGCTTCCAGTGGTCTTCAGTCTGTCGTGCACCGA**TGA**GAACTCTCCTTATTGCTGTGAAG
GGCAGACAATGCATGGCTGATCTACTCTGTTACCAATGGCTTTACTAGTGACACGTCCCCCGGTCTAGGATCGAA
ATGTTAACACCGGGAGCTCTCCAGGCCACTCACCCAGCGACGCTCGTGGGGGAAACATACTAAACGGACAGACTC
CAAGAGCTGCCACCGCTGGGGCTGCACTGCGGCCCCCCACGTGAACTCGGTTGTAACGGGGCTGGGAAGAAAAGC
AGAGAGAGAATTGCAGAGAATCAGACTCCTTTTCCAGGGCCTCAGCTCCCTCCAGTGGTGGCCGCCCTGTACTCC
CTGACGATTCCACTGTAACTACCAATCTTCTACTTGGTTAAGACAGTTTTGTATCATTTTGCTAAAAATTATTGG
CTTAAATCTGTGTAAAGAAAATCTGTCTTTTTATTGTTTCTTGTCTGTTTTTGCAGTCTTACAAAAAAAATGTTG
ACTAAGGAATTC

FIGURE 3518

TCGTGAGCGGGGCTTGGGAAGGTGCGGCCCTACTCCGTCTACCTCTTCAGCTTCTCCATGTTCTTCAACGGCCTC
GCGGACCTGGCGGGTTCTACGGCGGGCGACTACGGCGGCTCGTGGTCTTCTGCATCTTCTTTGGCATCTCCTACG
GCATGGTGGGGGCCCTGCAGTTCGAGGTGCTCATGGCCATCGTGGGCACCCACAAGTTCTCCAGTGCCATTGCGC
TGGTGCTGCTGATGGAGGCGGTGGCAGACTCGTCGGGCCCCCTTCGGAAGGCAAACTCCTGGATGCGACCCACGT
CTACATGTACGTGTTCATCCTGGCGGGGGCCGAGGTGCTCACCTCCTCCCTGATTTTGCTGCTGGGCAACTTCTT
CTGCATTAGGAAGAAGCCCAAAGAGCCACAGCCTGAGGTGGCGGCCGCGGAGGAGGAGAAGCTCCACAAGCCTCC
TGCAGACTCGGGGGTGGACTTGCGGGAGGTGGAGCATTTCCTGAAGGCTGAGCCTGAGAAAAACGGGGAGGTGGT
TCACACCCCGGAAACAAGTGTCTGAGTGGCTGGGCGGGGCGGCAGGCACAGGGAGGAGGTACAGAAGCCGGCAAC
CTTGCTATTTATTTTACAAACTGGACTGGCTCAGGCAGGGCACGGCTGGGCTCCAC**ATG**ACCGGCCCAGCGAGAT
CGTCGCCCGATCAGTGTTTTGAGGGGGAAGGTGGCGGGGTGGGAACCGTGTCATTCCAGAGTGGATCTGCGGTGA
AGCCAAGCCGCAAGGTTACAAGGCATCCTCACCAGGGGCCCCGCCTGCTGCTCCCAGGTGGCCTGCAGCACATAT
GCTCAAGGACCTGGAAACCCATGCTTCGAGACAACGTGACTTTAATGGGAGGGTGGGTGGCCCGCAGACAGGCTG
GCAGGGCAGGTGCTGCGTGGGCCCTCTCCAGCCCGTCCTACCCTGGGCTCACATGGGGCCTGTGCCCACCCCTCT
TGAGTGTCTTGGGGACAGCTCTTTCCACCCCTGGAAGATGGAAA**TAA**ACCTGCGTGTGGGTGGAGTGTT

FIGURE 3519

GTGAGCCGACCAGAAGGCCGTCCTCTTTGATATCTTTTGCAATTGTACCGAAAGTGACTTACTCCTCTGCCCTTC
CTGCTTCCGTCTCTTGCCGGTGCCGTGGTGTCGTCCGTGCCTGGTGAGGTTTTGTGCAGCGGTAAAGTGCTGGTG
CTTCTGGTGACCTTTGACCTGTGGGTGTCACTTCTTGTGTCTGTTTTCCCGTGTTCGTTTTTTGGGTTTAGTTGT
GCTTTTGCTTCTGCTGGCTTGCTGGACCTGGGCTGGGGTGCCAAGTGGCGCCTGCTGCGTCAGAGCTCAAGGAAT
CTGTGCCCACCACCAGCTCCTGGTCCGTAGGAGGTGAGACATGGGGTTCTGTCATGCCCCCTCCACTGAGCCTTG
CTACATCTGTGTCTAGGGCTTGGGCTGATCTAGTGGCGGGGTAGGTGAAACTGGGGTCCCTTGGGGCGCCCCACG
CTGCTTCCACACCCACCACCTCTGGCCTTGGGTGGTGGCATTACAGGGATGAGGGAGTCACTGTGGGTGGCCACA
GGGCTATGGCCAAGCGTTCCCTGGCCGTCTTCCTCTGGCCTCAGCTTTGTTCCTATAGGCTGCCCGCGCCGTGGG
CTGCAGGTCTCGCCGCCCGCTTGATCCCTGAGGTGTTTCCATGCTGCGGGTGGTGCTTCCAGGCAGAGTGGGTGG
GGGCCCACCGGCGACGCCCTTTCTTCCTTGTCCCTGCCTCACTCTGAGAGCCTTGGGGGTCTCCACCAGTGCAGA
CAAGGGCTACAGTCTCCAGGGCCGGGTCTTGTCCCTCTTCTCCGCTGGTCCACGCTGGCAGCTCTTGGCTTCGGG
CCTGCCTTCTGCCTCCCTTTGGGATCTGTGTCTTCCAGGGATCAGCTGCTTGGCTTCTGCTGGAGGTGCCTCCCT
GTGGGGCGCAGCCTGCCTCCTGCTCTCAGTTCCTCGCCAGAGGCTGCTGCCCTTCCTGGCTGGGCTCAGGAGGCT
CCTTGTAGGCATATGATGGGGAGGGGGTGCCCCTACCCACCTCCAAGAGGCTACAGCCCTGTGTCTGGCCATGTG
AGCCCTGGCCTTTCACCGGGTTGCTGGTTTCTTTTCTGTGGGGCCCAGACTTCTGTAAAGCACACAGATGTGGGT
AAGATGAAAAACTGTGGCCCAACAGGGCTTAACCCTATGGATGGTGGGATTTTTATCCAATAGTTTGGCCTGGTG
TGCCCACAGGATGGGAACAGGGAGGCACCATCAACACTTGTCATGTTAATGAGCTTTTCTTTGCTCGAGGTGTTC
AGAGACAAGTCCTGTGTCTACCTGCGTCAGCCTGAAAATGGAAATATTGGCTGTTGACTCTTGTCATTTAGTGAC
TTCATCCCCCTCCCCTCAGTCTGATCTTGTCTAAGTAGAATCCAGGCGTTAGTTGGAATCATATCATAAGTATCC
ATGAAGAAAACGTCATGATCTGCCTCGGAGTGGGGAGAAACAGGCCCTCCTTGTCCTTGTGCAGCCCCCACTTTT
GTCCTGGCTGTGGGTGGCCATCCATTTTGAGCACCTCTGCCAGGCTGCAGACCTGGAGGCGAAGGGAGTGTGGAA
GAGGAGGGTGTAAGGGTCGACGCGTGCTGAATGGGAGGTGCAGGTCCTCGGTGCGTTGGCAGAAGAGGCTTCTGG
AGTTTCGAGGCCATACCTCCTTTCAAGAGCTTTGGATTTGGGGCGACTTCCCTGGGTCTAGGGGAGTGTTCCTGT
CCCCTGTCAGGTCAGCCCTGCGGAGCCACTCCACCCCTCTTCCCCTTCCCCTGGATTTCCTGACATAGATGGTGT
GTTCATGTGCAGGTGTGAGTGTGCTGTCCTTCTGATCTCTGTTGATCCCGCTTTCCTACTGAGAGGGTGGTGGAG
AGGGTGGTGGTCTCTTCTCACCTCAGTTTTTCTGACACAGCGAATCGAGGGCTTTGGCCAAGGCCAGGTCTCTCA
AACTTGTCCGCCAAGTAAACCATGATATATGTCTTCCCTTCCACCTTAACTTTGCCCCAACTCCTCTTTTATCCT
AAC**ATG**GACGCTCAGATTTCAGAGGAATACCCAGCAGGGACAGGTCAGCTCTCACCAGGAGAG**TGA**GGCCCCTGG
CTGCTGCTCGGGGTGGCACTGGTGTTGCTGGCTCAGCTCTTGGTGCATGTTTCAGATATGTGTGTACACTTCTGA
CTGGTGATCAGGGCCCGCCCACGGCCCTGAGCGGCTGCAGCCTGCTTTGGGACGATGGTCAGGTCCCATGTTGTC
CCTGCTGCCTCCCTCTGGAGTGGCCACTTGGCCAAAGCGCCCATCCACATCTGGAAAGTCGGAGCCGCAGCCTGC
TGCACCGTTTCCGCTCTGGGATCTTGTGAGTTACTTTTTTAGGCTGTGGTTTGGTGAAAGGAACCAACACATTAA
CGATTTTTCCCCCAGAAGCCACTGAATAATTCTTTTTGGTGTATTTTTGCCTTCCTGTTGGCTGTCTGGCCTTGG
AGCAGGTCGGGAGAGTAGAGTACATAATCAGTGCCACACAGAGGCAGGGCGTGTCTGAGAGACTAATGCCTGTCC
TGCCTCTGGCCTGTGTCCTGGGTGTGTACCATACCTGCTGGGCCAGTCCCACACATTTCCACCCTGCCCCTGGAG
CAGCAGCTTTGATACCATGGGTGTCCCTTGAGTCTGAGCTAGAGTGTGTCCCCGATAAACTGTGAGACCTCCCTG
TTCTTGGTGACCCCAGTTGGGCTTTGGCCCCTCCAGCAACCTTGTGTCCCAGCCCTGCCCTTCTTCCCACCCCCT
CAATCTGCTAGTCCCTGAAGCCTTTAACCAAACGGGAGTGGGCACAGAAAGCCTTCTCCTGGCAACAGGACAAGG
GCTGCCCGCGTGTCCAGCCCTGTTGCTCTCCTGGCGCTGAGAGGTGGGTCCAAGCAGAGTTGATCAGTCCCTGCC
TGCCCTGCCTAGGTCTAGCCAGGGGAGGTTGTGTGTGTGGGAGAAGACCCCGGGATCTGCTGGGGTGGGATGGAG
GTTATTAAAGATCTAAGTGAGGAGGGGCTGGGGTTTGGATGCGGGGTGAGGCCCGAGCGCTCAACCTTCGTGTAG
GGCGGGCAGGGGCCTGACCTCTTGCAGGGCAGTGGCCTTGGTGCCCTACCCCTGCCCTGCGCAGTATTTATTGCT
AAATTATTGTCCAGGAGGGGCAGCATGTGGCCTGGCCCCCCGGGTATTTATTGCTGTACATAGTGTATGTTTGTG
ATATATAAGGTTTTCTTTATTTTGTATATGATCAATAAACCTTTTAAAGAG

FIGURE 3520

GGCTCCCAGGCCCGCCTG**ATG**CCGCTTTCCCTTTTTGGCAGGTGGCAGGATCCCATTTTCTCACTGGCGACTCCC
CTGCGTGCTGGTGAAGAAGGCAGCCACAGTCGGAAGTCGCTGTGCAGAAGCAGAGAGGAGGCCCCGCCTGGGGAC
CGGGGTGCACCGCTTAGCTCGGCCCCCATCCTAGGGGGCTGGTTTGGCAGGGGCTGCACAAAACGCACAAAAAGG
AAGCCCCTTGCACTGCTGCGGTTGTACCCTGATACGGCCTGGCCATCGAGGACACCTGCCCATCCGGCCTCTGTG
TCAAGAGGTGGCAGCCGCACCTTTCTG**TGA**GAACGGAACTCGGGTTATTTCAGCCCCGGCCTGCAGAGTGGAAGC
GCCCAGCGGCCTTTCCTCGCTCACCAGGCCAGTCTCAGGGCCTCACCGTATTTCTACTACTACTTAATGAAAAAG
TGTGAACTTTATAGAATCCTCTCTGTACTGGATGTGCGGCAGAGGGGTGGCTCCGAGCCTCGGCTCTATGCAGAC
CTTTTTATTTCTATTAAACGTTTCTGCACTGG

FIGURE 3521

GCGGGCGGCGGCGCTCGGAGTCGCCGGGAGCTGCCAGGCTGCTCCGCGCGCCGCTGCGGGGCC**ATG**ATCCGGAAC
GGGCGCGGGGCTGCAGGCGGCGCAGAGCAGCCGGGCCCGGGGGGCAGGCGCGCCGTGAGGGTGTGGTGCGATGGC
TGCTATGACATGGTGCATTACGGCCACTCCAACCAGCTGCGCCAGGCACGGGCCATGGGTGACTACCTCATCGTA
GGCGTGCACACCGATGAGGAGATCGCCAAGCACAAGGGGCCCCCGGTGTTCACTCAGGAGGAGAGATACAAGATG
GTGCAGGCCATCAAATGGGTGGACGAGGTGGTGCCAGCGGCTCCCTACGTCACTACACTAGAGACCCTGGACAAA
TACAACTGTGACTTCTGTGTTCACGGCAATGACATCACCCTGACTGTAGATGGCCGGGACACCTATGAGGAAGTA
AAGCAGGCTGGGAGGTACAGAGAATGCAAGCGCACGCAAGGGGTGTCCACCACAGACCTCGTGGGCCGCATGCTG
CTGGTAACCAAAGCCCATCACAGCAGCCAGGAGATGTCCTCTGAGTACCGGGAGTATGCAGACAGTTTTGGCAAG
TGCCCTGGTGGGCGGAACCCCTGGACCGGGGTATCCCAGTTCCTGCAGACATCTCAGAAGATCATCCAGTTTGCT
TCTGGGAAGGAGCCCCAGCCAGGGGAGACAGTCATCTATGTGGCTGGTGCCTTCGACCTGTTCCACATCGGGCAT
GTGGACTTCCTGGAGAAGGTGCACAGGCTGGCAGAGAGGCCCTACATCATCGCGGGCTTACACTTTGACCAGGAG
GTCAATCACTACAAGGGGAAGAACTACCCCATCATGAATCTGCATGAACGGACTCTGAGCGTGCTGGCCTGCCGG
TACGTGTCAGAAGTGGTGATTGGAGCCCCGTACGCGGTCACAGCAGAGCTCCTAAGTCACTTCAAGGTGGACCTG
GTGTGTCACGGCAAGACAGAAATTATCCCTGACAGGGATGGCTCCGACCCATACCAGGAGCCCAAGAGAAGGGGC
ATCTTCCGTCAGATTGACAGTGGCAGCAACCATCACCAAAGACTCATCGTCAGCGGATTATCACAAACAGAGGCG
CTAAACGAGAAGAAGGAAGCCAAGGAGCTCGCCTTCCTGGAGGTGCCAGGCAGCAGGCGCACAGCCCTGGGGAGC
GCGATGGTACTTCTAACCTGGCAGAGCCCTGCCGGCCCTCCCCCTGCTCTGCTTCTGCGCCTTCTGCGTTTGGAC
ATAGGACTCTGCAGGGCCGCCCTCTCTAACTGGCCTGGCTCTGGAAGGGCTGGTGAGGACTCTGCCTCCTTGCCT
GCCTACAAGGTGCCTGGTTTGCAGCAGGCTCTCCGCTCTTTCCAGCAAAGCTGCTCAGAGAGGGTGTCCAGCACA
GTGGAGAGGCCGGAAGTGAGACGGGCAGACGGCACCTGCAGCCTGAAACGCACCGCTCCTGCGTGCGCCCCCACC
TGGTCCCCGGATGCCCCCACCACCTGGACAGAGGCCACACTGACTGCCCACCCAGCTGTGGCGGGAGGTGCAGAG
CAGAGGGCTTTAGGGAGCAGTGACTGCGGTCACCCCTTTAGTTCTCTGGGTGTAGACCACACCACCTCCCACTGG
GCACCCCCCAACACGGTGTCCTGCCACCCAGCGCCTGGCTCCAGGAAAACACGCTTGCCTTCCTTCCCGGCAGCT
TCGCCACTCTCCTTATGGACTCTGTTCTGTTTGTACATGGCTGACGGAAATCTCTTTGGTACAACCGAA**TAA**AGC
CTGGTGGCAGTGCTGCGCGGGGCTCCCAGCC

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FIGURE 3522

AGAAGCAGAGGAGCCAGGAACCTCTCTGAAGTGACACCTCACCCCTACACACCGTCCGTTCACCCCCGTCTCTTC
CTTCTGCTTTTCGGTTTTTGGAAAGGGATCCATCTCCAGGCAGCCCACCCTGGTGGGGCTTGTTTCCTGAAACCA
TGATGTACTTTTTCATACATGAGTCTGTCCAGAGTGCTTGCTACCGTGTTCGGAGTCTCGCTGCCTCCCTCCCGC
GGGAGGTTTCTCCTCTTTTTGAAAATTCCGTCTGTGGGATTTTTAGACATTTTTCGACATCAGGGTATTTGTTCC
ACCTTGGCCAGGCCTCCTCGGAGAAGCTTGTCCCCCGTGTGGGAGGGACGGAGCCGGACTGGACATGGTCACTCA
GTACCGCCTGCAGTGTCGCCATGACTGATCATGGCTCTTGCATTTTTGGGTAAATGGAGACTTCCGGATCCTGTC
AGGGTGTCCCCCATGCCTGGAAGAGGAGCTGGTGGCTGCCAGCCCTGGGGCCCGGCACAGGCCTGGGCCTTCCCC
TTCCCTCAAGCCAGGGCTCCTCCTCCTGTCGTGGGCTCATTGTGACCACTGGCCTCTCTACAGCACGGCCTGTGG
CCTGTTCAAGGCAGAACCACGACCCTTGACTCCCGGGTGGGGAGGTGGCCAAGGATGCTGGAGCTGAATCAGACG
CTGACAGTTCTTCAGGCATTTCTATTTCACAATCGAATTGAACACATTGGCCAAATAAAGTTGAAATTTTACCAC
CTCAAAAAAAAAAAAAAAAAAATTAAAAAAAAAAAAAAAAAAAAA

FIGURE 3523

CCCCTACACACCGTCCGTTCACCCCCGTCTCTTCCTTCTGCTTTTCGGTTTTTGGAAAGGGATCCATCTCCAGGC
AGCCCACCCTGGTGGGGCTTGTTTCCTGAAACCATGATGTACTTTTTCATAC**ATG**AGTCTGTCCAGAGTGCTTGC
TACCGTGTTCGGAGTCTCGCTGCCTCCCTCCCGCGGGAGGTTTCTCCTCTTTTTGAAAATTCCGTCTGTGGGATT
TTTAGACATTTTTCGACATCAGGGGTGTCCCCCATGCCTGGAAGAGGAGCTGGTGGCTGCCAGCCCTGGGGCCCG
GCACAGGCCTGGGCCTTCCCCTTCCCTCAAGCCAGGGCTCCTCCTCCTGTCGTGGGCTCATTGTGACCACTGGCC
TCTCTACAGCACGGCCTGTGGCCTGTTCAAGGCAGAACCACGACCCTTGACTCCCGGGTGGGGAGGTGGCCAAGG
ATGCTGGAGC**TGA**ATCAGACGCTGACAGTTCTTCAGGCATTTCTATTTCACAATCGAATTGAACACATTGGCCAA
ATAAAGTTGAAATTTT

FIGURE 3524

GGAGTTTCGTCATGTTGGCCAGGCCCATTTGAGATCTTTGAAGATATCCTCAACGTGAGGCTCTGCTGCC**ATG**AA
GGTGAAGATTAAGTGCTGGAACGGCGTGGCCACTTGGCTCTGGGTGGCCAACGATGAGAACTGTGGCATCTGCAG
GATGGCATTTAACGGATGCTGCCCTGACTGCAAGGTGCCCGGCGACGACTGCCCGCTGGTGTGGGGCCAGTGCTC
CCACTGCTTCCACATGCATTGCATCCTCAAGTGGCTGCACGCACAGCAGGTGCAGCAGCACTGCCCCATGTGCCG
CCAGGAATGGAAGTTCAAGGAG**TGA**GGCCCGACCTGGCTCTCGCTGGAGGGGCATCCTGAGACTCCTTCCTCATG
CTGGCGCCGATGGCTGCTGGGACAGCGCCCCTGAGCTGCAACAAGGTGGAAACAAGGGCTGGAGCTGCGTTTGTT
TTGCCATCACTATGTTGACACTTTTATCCAATAAGTGAAAACTCATTAAACTACTCAAATCTT

FIGURE 3525

GGGGCGGCCGACGACGTTCGTCATTTAGTGCGGGAGGGATCCTGAACCGCGCGGCCGAAACCTCCGGTGTCCCGA
CCCAGGCTAAGCTTGAGC**ATG**GCTGAGCAGGAGCCCACAGCCGAGCAGCTGGCCCAGATTGCAGCGGAGAACGAG
GAGGATGAGCACTCGGTCAACTACAAGCCCCCGGCCCAGAAGAGCATCCAGGAGATCCAGGAGCTGGACAAGGAC
GACGAGAGCCTGCGAAAGTACAAGGAGGCCCTGCTGGGCCGCGTGGCCGTTTCCGCAGACCCCAACGTCCCCAAC
GTCGTGGTGACTGGCCTGACCCTGGTGTGCAGCTCGGCCCCGGGCCCCCTGGAGCTGGACCTGACGGGCGACCTG
GAGAGCTTCAAGAAGCAGTCGTTTGTGCTGAAGGAGGGTGTGGAGTACCGGATAAAAATCTCTTTCCGGGTTAAC
CGAGAGATAGTGTCCGGCATGAAGTACATCCAGCATACGTACAGGAAAGGCGTCAAGATTGACAAGACTGACTAC
ATGGTAGGCAGCTATGGGCCCCGGGCCGAGGAGTACGAGTTCCTGACCCCCGTGGAGGAGGCACCCAAGGGTATG
CTGGCCCGGGGCAGCTACAGCATCAAGTCCCGCTTCACAGACGACGACAAGACCGACCACCTGTCCTGGGAGTGG
AATCTCACCATCAAGAAGGACTGGAAGGAC**TGA**GCCCAGCCAGAGGCGGGCAGGGCAGACTGACGGACGGACGAC
GGACAGGCGGATGTGTCCCCCCCAGCCCCTCCCCTCCCCATACCAAAGTGCTGACAGGCCCTCCGTGCCCCTCCC
ACCCTGGTCCGCCTCCCTGGCCTGGCTCAACCGAGTGCCTCCGACCCCCCTCCTCAGCCCTCCCCCACCCACAGG
CCCAGCCTCCTCGGTCTCCTGTCTCGTTGCTGCTTCTGCCTGTGCTGTGGGGGAGAGAGGCCGCAGCCAGGCCTC
TGCTGCCCTTTCTGTGCCCCCCAGGTTCTATCTCCCCGTCACACCCGAGGCCTGGCTTCAGGAGGGAGCGGAGCA
GCCATTCTCCAGGCCCCGTGGTTGCCCCTGGACGTGTGCGTCTGCTGCTCCGGGGTGGAGCTGGGGTGTGGGATG
CACGGCCTCGTGGGGGCCGGGCCGTCCTCCAGCCCCGCTGCTCCCTGGCCAGCCCCCTTGTCGCTGTCGGTCCCG
TCTAACCATGATGCCTTAACATGTGGAGTGTACCGTGGGGCCTCACTAGCCTCTAACTCCCTGTGTCTGCATGAG
CATGTGGCCTCCCCGTCCCTTCCCCGGTGGCGAACCCAGTGACCCAGGGACACGTGGGGTGTGCTGCTGCTGCTC
CCCAGCCCACCAGTGCCTGGCCAGCCTGCCCCCTTCCCTGGACAGGGCTGTGGAGATGGCTCCGGCGGCTTGGGG
AAAGCCAAATTGCCAAAACTCAAGTCACCTCAGTACAATCAGGAGGCTGGGTATTGTCCTGCCTCTGCCTTTTCT
GTCTCAGCGGGCAGTGCCCAGAGCCCACACCCCCCCAAGAGCCCTCGATGGACAGCCTCACTCACCCCACCTGGG
CCCAGCCAGGAGCCCCGCCTGGCCATCAGTATTTATTGCCTCCGTCCGTGCCGTCCCTGGGCCACTGGCCTGGCG
CCTGTTCCCCCAGGCTCTCAGTGCCACCACCCCCGGCAGGCCTTCCCTGACCCAGCCAGGAACAAACAAGGGACC
AAGTGCACACATTGCTGAGAGCCGTCTCCTGTGCCTCCCCCGCCCCATCCCCGGTCTTCGTGTTGTGTCTGCCAG
GCTCAGGCAGAGGCGCCTGTCCCTGCTTCTTTTCTGACCGGGAAATAAATGCCCCTGAAGG

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FIGURE 3526

CTCCGGACAGCATGAGCGTGGGCTTCATCGGCGCTGGCCAGCTGGCTTTTGCCCTGGCCAAGGCTTTCACAGCAG
CAGGCGTCTTGGCTGCCCACAAGATAATGGCTAGCTCCCCAGACATGGACCTGGCCACAGTTTCTGCTCTCAGGA
AGATGGGGGTGAAGTTGACACCCCACAACAAGGAGACGGTGCAGCACAGTGATGTGCTCTTCCTGGCTGTGAAGC
CACACATCATCCCCTTCATCCTGGATGAAATAGGCGCCGACATTGAGGACAGACACATTGTGGTGTCCTGCGCGG
CCGGCGTCACCATCAGCTCCATTGAGAAGAAGCTGTCAGCGTTTCGGCCAGCCCCCAGGGTCATCCGCTGCATGA
CCAACACTCCAGTCGTGGTGCGGGAGGGGGCCACCGTGTATGCCACAGGACGCACGCCCAGGTGGAGGACGGGAG
GCTC**ATG**GAGCAGCTGCTGAGCAGCGTGGGCTTCTGCACGGAGGTGGAAGAGGACCTGATTGATGCCGTCACGGG
GCTCAGTGGCAGCGGCCCCGCCTACGCATTCACAGCCCTGGATGCCCTGGCTGATGGGGGTGTGAAGATGGGACT
TCCAAGGCGCCTGGCAGTCCGCCTCGGGGCCCAGGCCCTCCTGGGGGCTGCCAAGATGCTGCTGCACTCAGAACA
GCACCCAGGCCAGCTCAAGGACAACGTCAGCTCTCCTGGTGGGGCCACCATCCATGCCTTGCATGTGCTGGAGAG
TGGGGGCTTCCGCTCCCTGCTCATCAACGCTGTGGAGGCCTCCTGCATCCGCACACGGGAGCTGCAGTCCATGGC
TGACCAGGAGCAGGTGTCACCAGCCGCCATCAAGAAGACCATCCTGGACAAGGTGAAGCTGGACTCCCCTGCAGG
GACCGCTCTGTCACCTTCTGGCCACACCAAGCTGCTCCCCCGCAGCCTGGCCCCAGCGGGCAAGGAT**TGA**CACGT
CCTGCCTGACCACCATCCTGCCACCACCTTCTCTTCTCTTGTCACTAGGGGGACTAGGGGGTCCCCAAAGTGGCC
CACTTTCTGTGGCTCTGATCAGCGCAGGGGCCAGCCAGGGACATAGCCAGGGAGGGGCCACATCACTTCCCACTG
GAAATCTCTGTGGTCTGCAAGTGCTTCCCAGCCCAGAACAGGGGTGGATTCCCCAACCTCAACCTCCTTTCTTCT
CTGCTCCCAAACCATGTCAGGACCACCTTCCTCTAGAGCTCGGGAGCCCGGAGGGTCTTCACCCACTCCTACTCC
AGTATCAGCTGGCACGGGCTCCTTCCTGAGAGCAAAGGTCAAGGACCCCCTCTGTGAAGGCTCAGCAGAGGTGGG
ATCCCACGCCCCCTCCCGGCCCCTCCCTGCCCTCCATTCAGGGAGAAACCTCTCCTTCCCGTGTGAGAAGGGCCA
GAGGGTCCAGGCATCCCAAGTCCAGCGTGAAGGGCCACAGCCCCTCTTGGCTGCCAAGCACGCAGATCCCATGGA
CATTTGGGGAAAGGGCTCCTTGGGCTGCTGGTGAACTTCTGTGGCCACCACCTCCTGCTCCTGACCTCCCTGGGA
GGGTGCTATCAGTTCTGTCCTGGCCCTTTCAGTTTTATAAGTTGGTTTCCAGCCCCCAGTGTCCTGACTTCTGTC
TGCCACATGAGGAGGGAGGCCCTGCCTGTGTGGGAGGGTGGTTACTGTGGGTGGAATAGTGGAGGCCTTCAACTG
ATTAGACAAGGCCCGCCCACATCTTGGAGGGCATCTGCCTTACTGATTAAAATGTCAATGTAATCT

FIGURE 3527

GAC**ATG**GAGCTGTTCCTCGCGGGCCGCCGGGTGCTGGTCACCGGGGCAGGCAAAGGTATAGGGCGCGGCACGGTC
CAGGCGCTGCACGCGACGGGCGCGCGGGTGGTGGCTGTGAGCCGGACTCAGGCGGATCTTGACAGCCTTGTCCGC
GAGTGCCCGGGGATAGAACCCGTGTGCGTGGACCTGGGTGACTGGGAGGCCACCGAGCGGGCGCTGGGCAGCGTG
GGCCCCGTGGACCTGCTGGTGAACAACGCCGCTGTCGCCCTGCTGCAGCCCTTCCTGGAGGTCACCAAGGAGGCC
TTTGACAGATCCTTTGAGGTGAACCTGCGTGCGGTCATCCAGGTGTCGCAGATTGTGGCCAGGGGCTTAATAGCC
CGGGGAGTCCCAGGGGCCATCGTGAATGTCTCCAGCCAGTGCTCCCAGCGGGCAGTAACTAACCATAGCGTCTAC
TGCTCCACCAAGGGTGCCCTGGACATGCTGACCAAGGTGATGGCCCTAGAGCTCGGGCCCCACAAGATCCGAGTG
AATGCAGTAAACCCCACAGTGGTGATGACGTCCATGGGCCAGGCCACCTGGAGTGACCCCCACAAGGCCAAGACT
ATGCTGAACCGAATCCCACTTGGCAAGTTTGCTGAGGTAGAGCACGTGGTGAACGCCATCCTCTTTCTGCTGAGT
GACCGAAGTGGCATGACCACGGGTTCCACTTTGCCGGTGGAAGGGGGCTTCTGGGCCTGC**TGA**GCTCCCTCCACA
CACCTCAAGCCCCATGCCGTGCTCATCCTACCCCCAATCCCTCCAATAAACCTGATTCTGCTGCCC

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FIGURE 3528

TGCCCCCAGCCTGCGGCCTGACGACGTCTTCATCGCCGTCAAGACCACCCGGAAGAACCACGGGCCGCGCCTGCG
GCTGCTGCTGCGCACCTGGATCTCCCGGGCCCGCCAGCAGACGTTTATCTTCACCGACGGGGACGACCCTGAGCT
CGAGCTCCAGGGCGGCGACCGTGTCATCAACACCAACTGCTCGGCGGTGCGCACTCGTCAGGCCCTCTGCTGCAA
GATGTCCGTGGAGTATGACAAGTTCATTGAGTCCGGGCGCAAGTGGTTTTGCCACGTGGATGATGACAATTATGT
GAACGCCAGGAGCCTCCTGCACCTGCTCTCCAGCTTCTCACCCAGCCAGGACGTCTACCTGGGGCGGCCCAGCCT
GGACCACCCCATTGAGGCCACCGAGAGGGTCCAGGGTGGCAGAACTGTGACCACGGTCAAGTTCTGGTTTGCTAC
TGGTGGGGCCGGGTTCTGCCTCAGCAGAGGCCTTGCCCTCAAGATGAGCCCATGGGCCAGCCTGGGCAGCTTCAT
GAGCACAGCTGAGCAGGTGCGGCTGCCGGATGACTGCACAGTTGGCTACATCGTGGAGGGGCTCCTGGGCGCCCG
CCTGCTGCACAGCCCCCTCTTCCACTCTCACCTGGAGAACCTGCAGAGGCTGCCGCCCGACACCCTGCTCCAGCA
GGTTACCTTGAGCCATGGGGGTCCTGAGAACCCACATAACGTGGTGAACGTGGCTGGAGGCTTCAGCCTGCATCA
AGACCCCACACGGTTTAAGTCTATCCATTGTCTTCTGTACCCAGACACGGACTGGTGTCCCAGGCAGAAACAGGG
CGCCCCGACCTCTCGGTGACACCAACCACCCCGACCCAGGGCTGCCTGGCTCTGTCCCAGGCGCGGGGAACCAGA
GCCCCCTATGGGCTCAGTGGGCTCCCTCAGGTGCCACGGCCACACCAGTGAGATGCAGGCACCTGGCAGACCCTC
TGGCTAGCCTGCAGCCCCCCCTCTCCCAGCCCCTGGTGGGCTGCGGTGATGGGTGTTTTGGGAGAACGAAGACAG
CCAGGCTGATGGCCAGGGCCGCAGTGCCCCTCCCCCCGACCCAGCCCCAAGGTTGATCCCACGGGAACAGGCTTC
CACCCCAGCACTTGCGCACCTGGGAGGGAGCTGCCATCCGGGCTCCATTACCTGTTGCTGAAGGCGGGTGCTAGG
CTGGCTGGGTGTCAAGGAGCAGGCTCCAGGCCAAGGTCCTGGCCCAGCCACGGCCATTGCAAGGGCTCAGCCTGG
CAGGCTTTGTGGGGGACGCCGCCCTCTCTGCCGCAGGCTGGGTGCACGGCCGGGCACCACAGTGGGACTCAGGCC
CGGGAAGGTCATGTTCTCGACCAGAGCTTTGCTCCCAGTCCAGGCGCCTCATTCGGAGGCCTCTTGACTGGGACC
ACAGAGATGTTTTCTCCGCTCTGACTTGTGGCTCAGGACTACTTTCTGGGTCGTGCTCCTGCCCCACTGTGCCTG
GGCCCATAAACAACAGGAGCCTTTTGTTCCGCTGACCTGCCCATCCCAGCAGACCCACCTCCCCGCCTGGTGCCT
TCCATGGAGGGAAATGGGACAGGGGCCGTCATCTCCCCTCTGCCTCCTGCTTTGCTGTTGCCGAGCACGAGTAAA
GCTTTTGTTCTTACTTC

FIGURE 3529

GGAAGTGGACGGCACGCCGCGGCGGGGTGGGTGCAAG**ATG**CCGCTGCCGGTTCAGGTGTTTAACTTGCAGGGGGC
CGTGGAGCCCATGCAGATCGACGTGGACCCCCAGGAAGACCCGCAGAATGCACCTGACGTCAACTACGTGGTGGA
GAACCCCAGCCTGGATCTGGAACAGTACGCGGCCAGCTACAGCGGCCTGATGCGCATCGAACGGCTGCAGTTCAT
TGCTGATCACTGCCCCACGCTGCGGGTGGAGGCCCTGAAGATGGCCCTCTCCTTCGTGCAGAGAACCTTTAACGT
GGACATGTACGAGGAGATCCACCGCAAGCTCTCAGAGGCCACCAGGGAGCTGCAGAACGCACCCGACGCCATCCC
TGAGAGCGGCGTGGAGCCCCCAGCCCTGGACACGGCCTGGGTGGAGGCCACGCGGAAGAAGGCGCTGCTGAAGCT
GGAGAAGCTGGACACAGACCTGAAGAACTACAAGGGCAACTCCATCAAAGAGAGCATCCGGCGCGGCCACGACGA
CCTGGGCGACCACTACCTGGACTGTGGGGACCTCAGCAACGCCCTCAAGTGCTATTCCCGGGCCCGGGACTACTG
CACCAGCGCCAAACACGTCATCAACATGTGCCTCAATGTCATCAAGGTCAGCGTCTACTTGCAGAATTGGTCTCA
TGTGCTCAGCTACGTCAGCAAGGCTGAGTCCACCCCAGAGATTGCCGAGCAGCGAGGAGAGCGTGACAGCCAGAC
CCAGGCCATCCTCACCAAGCTCAAGTGTGCCGCAGGCTTGGCAGAGCTGGCCGCCAGGAAGTACAAGCAGGCTGC
CAAGTGCCTCCTGCTGGCTTCCTTTGATCACTGTGACTTCCCTGAGCTGCTGTCCCCCAGCAACGTGGCCATCTA
CGGTGGCCTGTGCGCCTTGGCTACCTTTGACCGGCAGGAGCTGCAGCGCAATGTCATCTCCAGCAGCTCCTTCAA
GTTGTTCTTGGAGCTGGAGCCACAGGTCCGAGACATCATCTTCAAATTCTACGAGTCCAAGTACGCCTCATGTCT
CAAGATGCTGGACGAGATGAAGGACAACCTGCTCCTGGACATGTATCTGGCCCCCCATGTCAGGACCCTGTACAC
CCAGATTCGCAACCGTGCCCTCATCCAGTATTTCAGCCCCTACGTGTCAGCCGACATGCATAGGATGGCGGCAGC
CTTCAATACCACGGTGGCCGCCCTGGAGGACGAGCTGACGCAGCTAATCCTGGAGGGGCTGATCAGTGCCCGTGT
GGACTCACACAGCAAGATCCTATACGCCCGGGACGTGGATCAGCGCAGCACCACCTTTGAGAAGTCTCTGTTGAT
GGGCAAGGAGTTCCAGCGCCGCGCCAAGGCCATGATGCTGCGGGCAGCTGTGCTCCGCAACCAGATCCATGTCAA
GTCCCCGCCCAGAGAAGGGAGCCAGGGGGAGCTGACTCCAGCCAACAGCCAGTCCCGGATGAGCACCAACATG**TG**
AGGGGTGAACCTTGGCCTCCAGGACATCTGCACCCCCTCCCCACCTCCACGGACCTCGGACCTCCAGGCGGCTCA
GTGCTGCCTGCGGCCCAGCTAAGGGGCCTGGCCACTGGGTGCCACCCAGCCTGTGTGCCCTCCCTGGGGCTGAGG
AGGCAGGCGGCTGCTAGTTGTGGCCCTTCCTGGAAGGAGAGGCCTGCAGGGCTCGACCCTGTGGGTTTCTGTCCC
CAGGGAGCAGACTGTGCGGCACCCAGGCCCAGTGGCACCATTTCCCAGACCCCTCCTGTTCCCGCCTCAGTCAGG
TGCAGACAAGTGGGCGGTGTCCATTAAAGAGCAGACTCAGCGTT

FIGURE 3530

AGGACGTGGAGCGCTGCCTCCGGGACACGGGTGTGCAGGGCGTCATGAGCGCAGAGGGCAACCTGCACAACCCCG
CCCTGTTCGAGGGCCGGAGCCCTGCCGTGTGGGAGCTGGCCGAGGAGTATCTGGACATCGTGCGGGAGCACCCCT
GCCCCCTGTCCTACGTCCGGGCCCACCTCTTCAAGCTGTGGCACCACACGCTGCAGGTGCACCAGGAGCTGCGAG
AGGAGCTGGCCAAGGTGAAGACCCTGGAGGGCATCGCTGCTGTGAGCCAGGAGCTGAAGCTGCGGTGTCAGGAGG
AGATATCCAGGCAGGAGGGAGCGAAGCCCACCGGCGACTTGCCCTTCCACTGGATCTGCCAGCCCTACATCCGGC
CGGGGCCCAGGGAGGGGAGCAAGGAGAAGGCAGGTGCGCGCAGCAAGCGGGCCCTGGAGGAAGAGGAGGGTGGCA
CGGAGGTCCTGTCCAAGAACAAGCAAAAGAAGCAGCTGAGGAACCCCCACAAGACCTTCGACCCCTCTCTGAAGC
CAAAAT**ATG**CAAAGTGTGACCAGTGTGGAAACCCAAAGGGCAACAGATGTGTGTTCAGCCTGTGCCGCGGCTGCT
GCAAGAAGCGAGCCTCCAAAGAGACTGCAGACTGCCCAGGTCACGGATTGCTTTTTAAAACCAAATTGGAGAAGT
CTCTGGCCTGGAAAGAGGCCCAGCCTGAGCTGCAGGAGCCTCAGCCAGCAGCACCTGGAACACCAGGTGGCTTCT
CCGAAGTCATGGGCAGTGCCCTGGCCTGAAGGCCCACAACCCCCACCCCCAGGACTGCTGCTGGAGCCTGGACAC
GTCCTACTTAAGAAAATGCCTTTTACTCAGGGAATCTCCTGCTACTTAATGTGGAAAGACACGCCCATGTCCCCC
TTCGGCCCACTCTGGGGGCCTGGAAATGCTGCAGTGGGGAGCAGGCCCCAGGCTGGACCTGCCCTGTCCTCAGCA
CGCGTGTGCAAAAGTGAACAA**TAA**ATCATTTCAAAGATGCG

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FIGURE 3531A

ACGGCAGCGGCCCCGGCCTCCCTCTCCGCCGCGCTTCAGCCTCCCGCTCCGCCGCGCTCCAGCCTCGCTCTCCGC
CGCCCGCACCGCCGCCCGCGCCCTCACCAGAGCAGCCATGGAGGAGGTGGTGATTGCCGGCATGTCCGGGAAGCT
GCCAGAGTCGGAGAACTTGCAGGAGTTCTGGGACAACCTCATCGGCGGTGTGGACATGGTCACGGACG**ATG**ACCG
TCGCTGGAAGGCGGCTCTACGGCCTGCCCCGGCGGTCCGGCAAGCTGAAGGACCTGTCTAGGTTTGATGCCTCCT
TCTTCGGAGTCCACCCCAAGCAGGCACACACGATGGACCCTCAGCTGCGGCTGCTGCTGGAAGTCACCTATGAAG
CCATCGTGGACGGAGGCATCAACCCAGATTCACTCCGAGGAACACACACTGGCGTCTGGGTGGGCGTGAGCGGCT
CTGAGACCTCGGAGGCCCTGAGCCGAGACCCCGAGACACTCGTGGGCTACAGCATGGTGGGCTGCCAGCGAGCGA
TGATGGCCAACCGGCTCTCCTTCTTCTTCGACTTCAGAGGGCCCAGCATCGCACTGGACACAGCCTGCTCCTCCA
GCCTGATGGCCCTGCAGAACGCCTACCAGGCCATCCACAGCGGGCAGTGCCCTGCCGCCATCGTGGGGGGCATCA
ATGTCCTGCTGAAGCCCAACACCTCCGTGCAGTTCTTGAGGCTGGGGATGCTCAGCCCCGAGGGCACCTGCAAGG
CCTTCGACACAGCGGGGAATGGGTACTGCCGCTCGGAGGGTGTGGTGGCCGTCCTGCTGACCAAGAAGTCCCTGG
CCCGGCGGGTGTACGCCACCATCCTGAACGCCGGCACCAATACAGATGGCTTCAAGGAGCAAGGCGTGACCTTCC
CCTCAGGGGATATCCAGGAGCAGCTCATCCGCTCGTTGTACCAGTCGGCCGGAGTGGCCCCTGAGTCATTTGAAT
ACATCGAAGCCCACGGCACAGGCACCAAGGTGGGCGACCCCCAGGAGCTGAATGGCATCACCCGAGCCCTGTGCG
CCACCCGCCAGGAGCCGCTGCTCATCGGCTCCACCAAGTCCAACATGGGGCACCCGGAGCCAGCCTCGGGGCTGG
CAGCCCTGGCCAAGGTGCTGCTGTCCCTGGAGCACGGGCTCTGGGCCCCCAACCTGCACTTCCATAGCCCCAACC
CTGAGATCCCAGCGCTGTTGGATGGGCGGCTGCAGGTGGTGGACCAGCCCCTGCCCGTCCGTGGCGGCAACGTGG
GCATCAACTCCTTTGGCTTCGGGGGCTCCAACGTGCACATCATCCTGAGGCCCAACACGCAGCCGCCCCCCGCAC
CCGCCCCACATGCCACCCTGCCCCGTCTGCTGCGGGCCAGCGGACGCACCCCTGAGGCCGTGCAGAAGCTGCTGG
AGCAGGGCCTCCGGCACAGCCAGGACCTGGCTTTCCTGAGCATGCTGAACGACATCGCGGCTGTCCCCGCCACCG
CCATGCCCTTCCGTGGCTACGCTGTGCTGGGTGGTGAGCGCGGTGGCCCAGAGGTGCAGCAGGTGCCCGCTGGCG
AGCGCCCGCTCTGGTTCATCTGCTCTGGGATGGGCACACAGTGGCGCGGGATGGGGCTGAGCCTCATGCGCCTGG
ACCGCTTCCGAGATTCCATCCTACGCTCCGATGAGGCTGTGAAGCCATTCGGCCTGAAGGTGTCACAGCTGCTGC
TGAGCACAGACGAGAGCACCTTTGATGACATCGTCCATTCGTTTGTGAGCCTGACTGCCATCCAGATAGGCCTCA
TAGACCTGCTGAGCTGCATGGGGCTGAGGCCAGATGGCATCGTCGGCCACTCCCTGGGGGAGGTGGCCTGTGGCT
ACGCCGACGGCTGCCTGTCCCAGGAGGAGGCCGTCCTCGCTGCCTACTGGAGGGGACAGTGCATCAAAGAAGCCC
ATCTCCCGCCGGGCGCCATGGCAGCCGTGGGCTTGTCCTGGGAGGAGTGTAAACAGCGCTGCCCCCCGGGCGTGG
TGCCCGCCTGCCACAACTCCAAGGACACAGTCACCATCTCGGGACCTCAGGCCCCGGTGTTTGAGTTCGTGGAGC
AGCTGAGGAAGGAGGGTGTGTTTGCCAAGGAGGTGCGGACCGGCGGTATGGCCTTCCACTCCTACTTCATGGAGG
CCATCGCACCCCCACTGCTGCAGGAGCTCAAGAAGGTGATCCGGGAGCCGAAGCCACGTTCAGCCCGCTGGCTCA
GCACCTCTATCCCCGAGGCCCAGTGGCACAGCAGCCTGGCACGCACGTCCTCCGCCGAGTACAATGTCAACAACC
TGGTGAGCCCTGTGCTGTTCCAGGAGGCCCTGTGGCACGTGCCTGAGCACGCGGTGGTGCTGGAGATCGCGCCCC
ACGCCCTGCTGCAGGCTGTCCTGAAGCGTGGCCTGAAGCCGAGCTGCACCATCATCCCCCTGATGAAGAAGGATC
ACAGGGACAACCTGGAGTTCTTCCTGGCCGGCATCGGCAGGCTGCACCTCTCAGGCATCGACGCCAACCCCAATG
CCTTGTTCCCACCTGTGGAGTTCCCAGCTCCCCGAGGAACTCCCCTCATCTCCCCACTCATCAAGTGGGACCACA
GCCTGGCCTGGGACGTGCCGGCCGCCGAGGACTTCCCCAACGGTTCAGGTTCCCCCTCAGCCGCCATCTACAACA
TCGACACCAGCTCCGAGTCTCCTGACCACTACCTGGTGGACCACACCCTCGACGGTCGCGTCCTCTTCCCCGCCA
CTGGCTACCTGAGCATAGTGTGGAAGACGCTGGCCCGCGCCCTGGGCCTGGGCGTCGAGCAGCTGCCTGTGGTGT
TTGAGGATGTGGTGCTGCACCAGGCCACCATCCTGCCCAAGACTGGGACAGTGTCCCTGGAGGTACGGCTCCTGG
AGGCCTCCCGTGCCTTCGAGGTGTCAGAGAACGGCAACCTGGTAGTGAGTGGGAAGGTGTACCAGTGGGATGACC
CTGACCCCAGGCTCTTCGACCACCCGGAAAGCCCCACCCCCAACCCCACGGAGCCCCTCTTCCTGGCCCAGGCTG
AAGTTTACAAGGAGCTGCGTCTGCGTGGCTACGACTACGGCCCTCATTTCCAGGGCATCCTGGAGGCCAGCCTGG
AAGGTGACTCGGGGAGGCTGCTGTGGAAGGATAACTGGGTGAGCTTCATGGACACCATGCTGCAGATGTCCATCC
TGGGCTCGGCCAAGCACGGCCTGTACCTGCCCACCCGTGTCACCGCCATCCACATCGACCCTGCCACCCACAGGC
AGAAGCTGTACACACTGCAGGACAAGGCCCAAGTGGCTGACGTGGTGGTGAGCAGGTGGCTGAGGGTCACAGTGG
CCGGAGGCGTCCACATCTCCGGGCTCCACACTGAGTCGGCCCCGCGGCGGCAGCAGGAGCAGCAGGTGCCCATCC
TGGAGAAGTTTTGCTTCACTCCCCACACGGAGGAGGGGTGCCTGTCTGAGCGCGCTGCCCTGCAGGAGGAGCTGC
AACTGTGCAAGGGGCTGGTGCAGGCACTGCAGACCAAGGTGACCCAGCAGGGGCTGAAGATGGTGGTGCCCGGAC

FIGURE 3531B

TGGATGGGGCCCAGATCCCCCGGGACCCCTCACAGCAGGAACTGCCCCGGCTGTTGTCGGCTGCCTGCAGGCTTC
AGCTCAACGGGAACCTGCAGCTGGAGCTGGCGCAGGTGCTGGCCCAGGAGAGGCCCAAGCTGCCAGAGGACCCTC
TGCTCAGCGGCCTCCTGGACTCCCCGGCACTCAAGGCCTGCCTGGACACTGCCGTGGAGAACATGCCCAGCCTGA
AGATGAAGGTGGTGGAGGTGCTGGCTGGCCACGGTCACCTGTATTCCCGCATCCCAGGCCTGCTCAGCCCCCATC
CCCTGCTGCAGCTGAGCTACACGGCCACCGACCGCCACCCCCAGGCCCTGGAGGCTGCCCAGGCCGAGCTGCAGC
AGCACGACGTTGCCCAGGGCCAGTGGGATCCCGCAGACCCTGCCCCCAGCGCCCTGGGCAGCGCCGACCTCCTGG
TGTGCAACTGTGCTGTGGCTGCCCTCGGGGACCCGGCCTCAGCTCTCAGCAACATGGTGGCTGCCCTGAGAGAAG
GGGGCTTTCTGCTCCTGCACACACTGCTCCGGGGGCACCCCCTCGGGGACATCGTGGCCTTCCTCACCTCCACTG
AGCCGCAGTATGGCCAGGGCATCCTGAGCCAGGACGCGTGGGAGAGCCTCTTCTCCAGGGTGTCGCTGCGCCTGG
TGGGCCTGAAGAAGTCCTTCTACGGCTCCACGCTCTTCCTGTGCCGCCGGCCCACCCCGCAGGACAGCCCCATCT
TCCTGCCGGTGGACGATACCAGCTTCCGCTGGGTGGAGTCTCTGAAGGGCATCCTGGCTGACGAAGACTCTTCCC
GGCCTGTGTGGCTGAAGGCCATCAACTGTGCCACCTCGGGCGTGGTGGGCTTGGTGAACTGTCTCCGCCGAGAGC
CCGGCGGGAACCGCCTCCGGTGTGTGCTGCTCTCCAACCTCAGCAGCACCTCCCACGTCCCGGAGGTGGACCCGG
GCTCCGCAGAACTGCAGAAGGTGTTGCAGGGAGACCTGGTGATGAACGTCTACCGCGACGGGGCCTGGGGGGCTT
TCCGCCACTTCCTGCTGGAGGAGGACAAGCCTGAGGAGCCGACGGCACATGCCTTTGTGAGCACCCTCACCCGGG
GGGACCTGTCCTCCATCCGCTGGGTCTGCTCCTCGCTGCGCCATGCCCAGCCCACCTGCCCTGGCGCCCAGCTCT
GCACGGTCTACTACGCCTCCCTCAACTTCCGCGACATCATGCTGGCCACTGGCAAGCTGTCCCCTGATGCCATCC
CAGGGAAGTGGACCTCCCAGGACAGCCTGCTAGGTATGGAGTTCTCGGGCCGAGACGCCAGCGGCAAGCGTGTGA
TGGGACTGGTGCCTGCCAAGGGCCTGGCCACCTCTGTCCTGCTGTCACCGGACTTCCTCTGGGATGTGCCTTCCA
ACTGGACGCTGGAGGAGGCGGCCTCGGTGCCTGTCGTCTACAGCACGGCCTACTACGCGCTGGTGGTGCGTGGGC
GGGTGCGCCCCGGGGAGACGCTGCTCATCCACTCGGGCTCGGGCGGCGTGGGCCAGGCCGCCATCGCCATCGCCC
TCAGTCTGGGCTGCCGCGTCTTCACCACCGTGGGGTCGGCTGAGAAGCGGGCGTACCTCCAGGCCAGGTTCCCCC
AGCTCGACAGCACCAGCTTCGCCAACTCCCGGGACACATCCTTCGAGCAGCATGTGCTGTGGCACACGGGCGGGA
AGGGCGTTGACCTGGTCTTGAACTCCTTGGCGGAAGAGAAGCTGCAGGCCAGCGTGAGGTGCTTGGCTACGCACG
GTCGCTTCCTGGAAATTGGCAAATTCGACCTTTCTCAGAACCACCCGCTCGGCATGGCTATCTTCCTGAAGAACG
TGACATTCCACGGGGTCCTACTGGATGCGTTCTTCAACGAGAGCAGTGCTGACTGGCGGGAGGTGTGGGCGCTTG
TGCAGGCCGGCATCCGGGATGGGGTGGTACGGCCCCTCAAGTGCACGGTGTTCCATGGGGCCCAGGTGGAGGACG
CCTTCCGCTACATGGCCCAAGGGAAGCACATTGGCAAAGTCGTCGTGCAGGTGCTTGCGGAGGAGCCGGAGGCAG
TGCTGAAGGGGGCCAAACCCAAGCTGATGTCGGCCATCTCCAAGACCTTCTGCCCGGCCCACAAGAGCTACATCA
TCGCTGGTGGTCTGGGTGGCTTCGGCCTGGAGTTGGCGCAGTGGCTGATACAGCGTGGGGTGCAGAAGCTCGTGT
TGACTTCTCGCTCCGGGATCCGGACAGGCTACCAGGCCAAGCAGGTCCGCCGGTGGAGGCGCCAGGGCGTACAGG
TGCAGGTGTCCACCAGCAACATCAGCTCACTGGAGGGGGCCCGGGGCCTCATTGCCGAGGCGGCGCAGCTTGGGC
CCGTGGGCGGCGTCTTCAACCTGGCCGTGGTCTTGAGAGATGGCTTGCTGGAGAACCAGACCCCAGAGTTCTTCC
AGGACGTCTGCAAGCCCAAGTACAGCGGCACCCTGAACCTGGACAGGGTGACCCGAGAGGCGTGCCCTGAGCTGG
ACTACTTTGTGGTCTTCTCCTCTGTGAGCTGCGGGCGTGGCAATGCGGGACAGAGCAACTACGGCTTTGCCAATT
CCGCCATGGAGCGTATCTGTGAGAAACGCCGGCACGAAGGCCTCCCAGGCCTGGCCGTGCAGTGGGGCGCCATCG
GCGACGTGGGCATTTTGGTGGAGACGATGAGCACCAACGACACGATCGTCAGTGGCACGCTGCCCCAGCGCATGG
CGTCCTGCCTGGAGGTGCTGGACCTCTTCCTGAACCAGCCCCACATGGTCCTGAGCAGCTTTGTGCTGGCTGAGA
AGGCTGCGGCCTATAGGGACAGGGACAGCCAGCGGGACCTGGTGGAGGCCGTGGCACACATCCTGGGCATCCGCG
ACTTGGCTGCTGTCAACCTGGACAGCTCACTGGCGGACCTGGGCCTGGACTCGCTCATGAGCGTGGAGGTGCGCC
AGACGCTGGAGCGTGAGCTCAACCTGGTGCTGTCCGTGCGCGAGGTGCGGCAACTCACGCTCCGGAAACTGCAGG
AGCTGTCCTCAAAGGCGGATGAGGCCAGCGAGCTGGCATGCCCCACGCCCAAGGAGGATGGTCTGGCCCAGCAGC
AGACTCAGCTGAACCTGCGCTCCCTGCTGGTGAACCCGGAGGGCCCCACCCTGATGCGGCTCAACTCCGTGCAGA
GCTCGGAGCGGCCCCTGTTCCTGGTGCACCCAATCGAGGGCTCCACCACCGTGTTCCACAGCCTGGCCTCCCGGC
TCAGCATCCCCACCTATGGCCTGCAGTGCACCCGAGCTGCGCCCCTTGACAGCATCCACAGCCTGGCTGCCTACT
ACATCGACTGCATCAGGCAGGTGCAGCCCGAGGGCCCCTACCGCGTGGCCGGCTACTCCTACGGGGCCTGCGTGG
CCTTTGAAATGTGCTCCCAGCTGCAGGCCCAGCAGAGCCCAGCCCCCACCCACAACAGCCTCTTCCTGTTCGACG
GCTCGCCCACCTACGTACTGGCCTACACCCAGAGCTACCGGGCAAAGCTGACCCCAGGCTGTGAGGCTGAGGCTG

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FIGURE 3531C

AGACGGAGGCCATATGCTTCTTCGTGCAGCAGTTCACGGACATGGAGCACAACAGGGTGCTGGAGGCGCTGCTGC
CGCTGAAGGGCCTAGAGGAGCGTGTGGCAGCCGCCGTGGACCTGATCATCAAGAGCCACCAGGGCCTGGACCGCC
AGGAGCTGAGCTTTGCGGCCCGGTCCTTCTACTACAAGCTGCGTGCCGCTGAGCAGTACACACCCAAGGCCAAGT
ACCATGGCAACGTGATGCTACTGCGCGCCAAGACGGGTGGCGCCTACGGCGAGGACCTGGGCGCGGACTACAACC
TCTCCCAGGTATGCGACGGGAAAGTATCCGTCCACGTCATCGAGGGTGACCACCGCACGCTGCTGGAGGGCAGCG
GCCTGGAGTCCATCATCAGCATCATCCACAGCTCCCTGGCTGAGCCACGCGTGAGCGTGCGGGAGGGC**TAG**GCCC
GTGCCCCCGCCTGCCACCGGAGGTCACTCCACCATCCCCACCCCACCCCACCCCACCCCCGCCATGCAACGGGAT
TGAAGGGTCCTGCCGGTGGGACCCTGTCCGGCCCAGTGCCACTGCCCCCCGAGGCTGCTAGATGTAGGTGTTAGG
CATGTCCCACCCACCCGCCGCCTCCCACGGCACCTCGGGGACACCAGAGCTGCCGACTTGGAGACTCCTGGTCTG
TGAAGAGCCGGTGGTGCCCGTGCCCGCAGGAACTGGGCTGGGCCTCGTGCGCCCGTGGGGTCTGCGCTTGGTCTT
TCTGTGCTTGGATTTGCATATTTATTGCATTGCTGGTAGAGACCCCCAGGCCTGTCCACCCTGCCAAGACTCCTC
AGGCAGCGTGTGGGTCCCGCACTCTGCCCCCATTTCCCCGATGTCCCCTGCGGGCGCGGGCAGCCACCCAAGCCT
GCTGGCTGCGGCCCCCTCTCGGCCAGGCATTGGCTCAGCCCGCTGAGTGGGGGGTCGTGGGCCAGTCCCCGAGGA
GCTGGGCCCCTGCACAGGCACACAGGGCCCGGCCACACCCAGCGGCCCCCCGCACAGCCACCCGTGGGGTGCTGC
CCTTATGCCCGGCGCCGGGCACCAACTCCATGTTTGGTGTTTGTCTGTGTTTGTTTTTCAAGAAATGATTCAAAT
TGCTGCTTGGATTTTGAAATTTACTGTAACTGTCAGTGTACACGTCTGGACCCCGTTTCATTTTTACACCAATTT
GGTAAAAATGCTGCTCTCAGCCTCCCACAATTAAACCGCATGTGATCTCC

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FIGURE 3532

CAGGGAGTGCCTGCAGCACCCCGGCGGGGCCACCCCAGTCTGCGTGTACACGAGGGATGAGGTGACGGGTGAAGC
TGCCCTGCGGGGCACGACGCTGCAGTCGCTGGGCCTGACCGGGGGCAGCGCCACCATCAGGTTTGTCATGAAGTG
CTACGACCCCGTGGGCAAGACCCCAGGAAGCCTGGGCTCGTCAGCGTCGGCTGGCCAGGCAGCCGCCAGCGCTCC
ACTTCCCTTGGAATCTGGGGAGCTCAGCCGCGGCGACTTGAGCCGTCCGGAGGACGCGGACACCTCAGGGCCCTG
CTGCGAGCACACTCAGGAGAAGCAGAGCACAAGGGCACCCGCAGCTGCCCCCTTTGTTCCTTTCTCGGGTGGGGG
ACAGAGACTGGGGGGCCCTCCTGGGCCCACGAGGCCTCTGACATCATCTTCAGCTAAGTTGCCGAAGTCCCTCTC
CAGCCCTGGAGGCCCCTCCAAGCCAAAGAAGTCCAAGTCGGGCCAGGATCCCCAGCAGGAGCAGGAGCAGGAGCG
GGAGCGGGATCCCCAGCAGGAGCAGGAGCGGGAGCGGCCCGTGGACCGGGAGCCCGTGGACCGGGAGCCGGTGGT
GTGCCACCCCGACCTGGAGGAGCGGCTGCAGGCCTGGCCAGCGGAGCTGCCTGATGAGTTCTTTGAGCTGACGGT
GGACGACGTGAGAAGACGCTTGGCCCAGCTCAAGAGTGAGCGGAAGCGCCTGGAAGAAGCCCCCTTGGTGACCAA
GGCCTTCAGGGAGGCGCAGATAAAGGAGAAGCTGGAGCGCTACCCAAAGGTGGCTCTGAGGGTCCTGTTCCCCGA
CCGCTACGTCCTACAGGGCTTCTTCCGCCCCAGCGAGACAGGTGGGGGACTTGCGAGACTTCGTGAGGAGCCACC
TGGGGAACCCCGAGCTGTCATTTTACCTGTTCATCACCCCTCCAAAAACAGTCCTGGACGACCACACGCAGACCC
TCTTTCAGGCGAACCTCTTCCCGGCCGCTCTGGTGCACTTGGGAGCCGAAGAGCCGGCAGGTGTCTACCTGGAGC
CTGGCCTGCTGGAGCATGCCATCTCCCCATCTGCGGCCGATGTGCTGGTGGCCAGGTACATGTCCAGGGCCGCCG
GGTCCCCTTCCCCATTGCCAGCCCCTGACCCTGCACCTAAGTCTGAGCCAGCTGCTGAGGAGGGGGCGCTGGTCC
CCCCTGAGCCCATCCCAGGGACGGCCCAGCCCGTGAAGAGGAGCCTGGGCAAGGTGCCCAAGTGGCTGAAGCTGC
CGGCCAGCAAGAGGTGAGAGCTGCCAGCCTGAGGTGCCCACTCCGCCAGCCACAGGACCACCTCCTCTGCCAGCA
GGAATAAAGACTTGTGCATCCCTC

FIGURE 3533

GGGCGCGCGTTGAGGCTGCGGTCATGGAGGGAGCAGGAGCTGGATCCGGCTTCCGGAAGGAGCTGGTGAGCAGGC
TGCTGCACCTGCACTTCAAGGATGACAAGACCAAAGGTGCGGGTGGGGGTGCGGGCGGGAGGTGGGTCCCCGTGT
CTGTCCTCAGGGACCCTTTCCTGCAACTCTGCAGGGCCAAGGCCTCGGGAGGGCGGGGGTATGTCTGGAGCACCC
AGCCAGAGCGGTGGGTGAGGGTCCCGCATAACCTCCCCCTGCCTTGCAGTGAGCGGGGACGCGCTGCAGCTC**ATG**

GTGGAGTTGCTGAAGGTCTTCGTTGTGGGTGAGCCCAGGGCCCACGCTCCCTCCGGGCACAGCATCCGGAATTTT
GCGTTTTTCCAGCGGGAAAACCAAGACGTGTTTTCCCGTTTCCCACAAGGGCCTAAACTTGGGTCTCCTGAGCCT
GTTTGTCAGGTGCTGTGGCCTGGTTCTGGGGGCTGCCCGTGGGTGTTGGGGGGGGCACCGGCCCAGGCTGAGGCC
CTCACTGGGCTCGGGTTTAAGATCCCCCCAGCATCCCCCACCTCTCGCGTTTCTCACCGCAGAAGCAGCAGTCCG
CGGCGTGCGGCAGGCCCAGGCAGAAGACGCGCTCCGTGTGGACGTGGACCAGCTGGAGAAGGTGCTTCCGCAGCT
GCTCCTGGACTTCTAGGGATCTCAGCCGTGGCTGAGGCCACCCCCAGAGGAGCCCCTGGTCCACAGAAGCAGGCC
TTGTGTTTCCAGCGGCCTCTGATAAGAGGCAGGGAAGGACCTGAAGGATTTGGAGTTGATTCAAACAAGATCTCT
GGGAGTCTCCAGCCTGTGCAGAAGGGGCAGGACTGCAGTGCACTGCGGGCCTTGGAGTGTCCAGTGGGGACACTG
GTGTGGGAAGGGGCAGCACCTGGGGAGTCCCTGCCTCTCCTCCCTGGGACAATAGTGTGCATGCCACCCGGGGTC
CTACAGGCAGGTGCTGGGAAAGGCCTGCCACCCGACATCAAAGCTGGCGTG**TGA**CCTTTCCAGCCATGCGATATT
CCCCTTGGAAGATGCTTCCCCAGGCTATAAATTTGTTCTCACAAAGCAACATCAATAAATCAAAACTGTCTCTCC
C

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FIGURE 3534

GAGGCCCCGACGCGGCTGTCGCGAGGGCGGGGGTCGGGGCTGCAGGCGGGGCAGGGCTGGGTGGGGGCGCGCGAC
GCACCTGCCTGCTTCCTGCACGGGTGGTCCCCAAGCACTGCGGGGCCCCAGCCCAAAGCGGACCTTGACTACCGC
CCAGCCCCGCGCTCCCAGGACCTCCCGCCCGCGGAGCCCACTCGGATTGCTCTCCGCCCGGGTCGGCGGAGGCCC
CGTCTCCTGTACCCGGCGCTGGGACTGCTCCGCACCGCGCGGCTCCCTTTCAGCAGCTGCGGGAGCATGCGGAGG
AGGCCCTGCCGGCCCCGCGGGTC**ATG**GAGGAGTTCCGGCGCTCCTACAGCCGCCTGTGCAGGGAGAGTGGGGCCG
AGCCCCAGGAGGCTGTCCTGCAGCAGCTGCACCAGCTTCCCAGGGGCCGGCTGGACCTGGCCACGCAAAGCCTGA
CGGTGGAGACCTGCAGGGCCCTGGGCAAGCTGCTGCCGAGGGAGACGCTGTGCACGGAGCTGGTCCTGAGTGACT
GCATGCTCAGCGAGGAAGGGGCCACACTGCTGCTCCGAGGCCTGTGTGCCAACACCGTGCTGCGCTTTCTGGACT
TAAAGGGCAACAACCTTCGGGCTGCAGGGGCCGAGGCTCTGGGAAAACTCCTCCAACAGAACAAGTCCATTCAGA
GCCTCACGCTGGAGTGGAACAGCCTGGGCACGTGGGACGATGCCTTCGCCACCTTCTGCGGGGGCCTGGCGGCCA
ACGGCGCCCTGCAGCGGCTGGACCTCCGCAACAACCAGATCAGTCACAAGGGCGCGGAGGAGCTGGCCCTAGCCC
TGAAGGGCAACACCACCCTCCAGCAGCTGGACCTGCGCTGGAATAACGTTGGCCTCCTGGGGGGCCGGGCCCTCA
TGAACTGTCTCCCCAGCAACAGAACCCTGTGGAGACTGGACCTGGCTGGGAACAACATCCCTGGAGACGTCCTCA
GAGCCGTGGAGCAAGCCATGGGCCACAGCCAGGACCGGCTCACCACCTTCCAGGAGAACCAAGCCCGCACTCACG
TCCTCAGCAAGGAGGTCCAGCACCTCCGGGAGGAGAAGTCCAAGCAGTTCCTCGACTTGATGGAGACTATTGATA
AGCAGCGAGAAGAGATGGCCAAGAGCAGCAGGGCGTCGGCAGCCCGTGTAGGGCAGCTTCAGGAAGCCCTGAATG
AGAGGCACTCCATCATCAACGCTCTCAAGGCCAAGCTGCAGATGACAGAGGCCGCCCTGGCTCTGTCGGAGCAGA
AGGCCCAGGACCTGGGGGAGCTCCTGGCCACAGCGGAGCAGGAGCAGCTGAGCCTGTCACAGAGGCAGGCCAAGG
AGCTCAAGCTGGAGCAGCAGGAAGCTGCAGAGCGGGAGTCTAAACTCCTCAGAGACTTGTCTGCTGCCAATGAAA
AGAACCTGCTTCTGCAAAACCAGGTAGACGAGTTGGAGCGGAAGTTCAGGTGTCAGCAGGAGCAGCTGTTCCAGA
CCAGGCAGGAGATGACCAGCATGTCAGCTGAGCTGAAGATGCGGGCCATCCAGGCCGAGGAGCGCCTGGACATGG
AGAAGAGAAGATGCAGACAGAGCCTGGAGGACTCCGAAAGCCTGCGCATCAAGGAGGTGGAGCATATGACCCGTC
ACCTGGAGGAGAGTGAGAAGGCCATGCAGGAGCGGGTGCAGAGGCTGGAGGCGGCGCGGCTGTCCCTGGAGGAGG
AGCTGAGCCGAGTGAAAGCAGCGGCACTCAGCGAGCGTGGCCAGGCTGAGGAGGAGCTGATCAAGGCCAAGAGCC
AGGCCCGCCTGGAGGAGCAACAGCGCCTGGCTCACCTGGAGGACAAGCTGAGACTGCTGGCGCAGGCACGGGACG
AGGCGCAGGGCGCTTGCCTACAGCAGAAGCAGGTGGTGGCCGAGGCCCAGACCCGGGTCAGCCAGCTGGGCCTGC
AAGTTGAGGGCCTGCGGCGGCGCCTGGAAGAGCTGCAGCAGGAGCTGAGCCTCAAGGACCAGGAAAGGGTGGCCG
AGGTGAGCAGGGTGCGCGTGGAGCTGCAGGAGCAGAACGGCCGGCTGCAGGCGGAGCTGGCGGCTCAGGAGGCGC
TGAGGGAGAAGGCGGCGGCCCTGGAGCGCCAGCTGAAAGTGATGGCGAGCGACCACCGAGAGGCGCTGCTGGACA
GGGAGAGCGAGAACGCGTCTCTCCGGGAGAAGCTGCGGCTCCGGGAGGCGGAGATCGCCCGCATCCGGGACGAGG
AGGCCCAGAGGGCGAGCTTCCTGCAGAACGCCGTCCTGGCTTACGTGCAGGCGTCCCCCGTGAGGACCCTGAGCC
CCCCAAAG**TGA**GACAGGCCGGGAGGACCCGGGCGCAGTAGGAGTGCATCAGGCGGCGCCCGAGATGGACCAGGGG
CTGCGTCCCGCCCGCGCCGCCTCTTTGAGACCCGGGTCGTCTGTTCCACGCGGCGGTTGCGGCGACTGTTGGTGG
TGTCGCGGCTGCGGGGGAACCCCGTGGGAGGCGCCTGGGAAGGGCTCCCTACCGGCCCCTTCTTCCCGGTCGACG
CCACGTGGGAGCACACCGGGAAGGGGTCCCGCGGGCGCGTCTCCCCCTCGCCTTTTGCGATGTCACCGTGAACGC
TGCGGCCGCCTGCGCGCGGCGGGGTTTGGAAATACAGCGCGTTTGCACTTTGTGAT

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FIGURE 3535

CCCCGCAGGCCGGGCATGGGTGGGGGCGCCGGGCCGTCACG**ATG**AGCGCCCTGGGCAGCCCGGTCCGGGCCTACG
ACTTTCTGCTCAAGTTCCTGCTGGTGGGCGACAGCGACGTGGGCAAGGGCGAGATCCTGGCGAGCCTGCAGGATG
GCGCGGCCGAGTCCCCGTACGGCCACCCGGCGGGCATCGACTACAAGACGACCACCATCCTGCTGGACGGGCGGC
GGGTGAAGCTGCAGCTCTGGGATACTTCAGGCCAGGGAAGATTTTGTACCATATTCCGCTCCTACTCCCGGGGCG
CACAGGGTGTGATCCTGGTCTATGACATTGCGAACCGCTGGTCTTTTGACGGCATTGATCGATGGATTAAGGAGA
TCGATGAGCATGCCCCCGGAGTCCCCAAGATCCTGGTGGGGAACCGCCTGCACCTGGCGTTCAAGCGGCAGGTGC
CCACGGAGCAGGCCCAGGCCTACGCCGAGCGCCTGGGCGTGACCTTCTTTGAGGTCAGCCCTCTGTGCAATTTCA
ACATCACAGAGTCGTTCACGGAGCTGGCCAGGATCGTGCTGCTGCGGCATGGGATGGACCGGCTCTGGCGGCCGA
GCAAGGTGCTGAGCTTGCAAGACCTCTGCTGCCGGGCGGTCGTGTCCTGCACGCCGGTGCACCTGGTGGACAAGC
TCCCGCTCCCCATTGCCTTAAGAAGCCACCTCAAGTCCTTCTCGATGGCCAACGGCCTGAATGCCAGGATGATGC
ACGGCGGTTCCTACTCCCTCACCACCAGCTCCACCCACAAAAGGAGCAGCCTCCGCAAAGTGAAGCTCGTCCGCC
CCCCCCAGAGCCCCCCCAAAAACTGCACCAGAAACAGCTGCAAAATTTCT**TAA**GGAAGGCACTGAAAGAAACACG
GCGGAATCTCTCCAGGAGAAGCTCGGCGTTACCCCCGGCAGCTGGTGGATGCATCTCAGATCCCGGTTCCTCTCG
GCGAATGCTGCTTGCGAATGTGTGCGACGCCTTCCGTGTGATGGAAACACACTACCCCGTCGGACTTCGAATTTC
TACGTGGATGTGCATGAAGCTCTTGTTTTCGATGTGTGTTTGTAAAGGGAAAATTAGTACTCTGCTCGACTCTTG
GTAACATGAAATTCTGAATGTTACTTTATCATGATTGCACTGCAACTTTTTCCTTAAAATAACTGCTTTTGTAAG
AACGGTGATATTGGAGTGATTAGTATAAATTCAATGGAATTTGAGAAGCAATGGCAGCGGGATAATTTAGAGTCA
CTGATATTACGAGAGGGGTCTTTTTGTAAACCTCCTTTTCAATGTCAAAGCGCCAATTTATAAAACGCTGCAGAT
GTAGAGGTTATGTGCAACTGATCTGTCCAGTTTGTGTATGAAATGGATTTGATAAAGTTTTTGCTAGTTATTTAC
TACATTTTGGGATTAATAAGTGATTTATATGCATATTTTTCTGTAAATCTACAGTTTTTTGTACAAGATATTCTA
CAAGTTATGAAGCTAAGGGAAGAAAATGCCAAAGATACCTCTAGTTATGTTGAACACAGCCAGCACAGTTTCGAC
ATGTCAAGGAAGAGCTGTTTCAGTAAAGAATGAAGTGAAAACACTTATTTAGGAAAATGTTTCTCAACAATAAAA
TGTATAGTTGTTTCTCTC

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FIGURE 3536

CTCGCCTCGCCTCGCCCCGCCCCGCCCCTCCCCGCCCTGCCTCGCCTCGTCTCGCCTCGCTTCGGTTAGATGCGC
TCGGCGCTCCATAGGCTCCCTGGTGGGGCGCGGGCGCGCGCACGGACGTCCAGCACGCACGCACGCACGTCCAGC
ACACACGCACATCCAGCACGCACGCACGTACGTCCGGCACTTCCGGCCGCGGCGGCCTCAGCGCCGGCCCGAAGG
GACCAGGCCGCCGTCCCCAGCGAGAGGCATGCAGCGCTGAGGAGCGGCGACCCAGCACGGCGGCGCCATGAACCT
CCTGCCGTGTAACCCTCACGGCAACGGGCTGCTCTACGCCGGCTTCAACCAGGACCACGGATGCTTTGCGTGTGG
GATGGAAAATGGATTCCGAGTCTATAACACTGATCCACTAAAAGAAAAAGAGAAACAAGAATTTCTAGAAGGAGG
AGTTGGCCATGTTGAA**ATG**TTATTTCGCTGCAACTATTTAGCTTTAGTTGGTGGTGGAAAAAAGCCGAAATACCC
TCCCAACAAAGTAATGATCTGGGATGACCTGAAGAAGAAGACTGTTATTGAAATAGAATTTTCTACAGAAGTCAA
GGCAGTCAAGCTGCGGCGAGATAGAATTGTGGTGGTTTTGGACTCCATGATTAAGGTGTTCACATTCACACACAA
TCCCCATCAGTTGCACGTCTTCGAAACCTGCTATAACCCCAAAGGCCTCTGTGTCCTTTGTCCCAATAGTAACAA
CTCCCTCCTGGCCTTTCCGGGCACGCACACGGGCCATGTGCAGCTTGTGGACCTGGCCAGCACGGAGAAGCCACC
CGTGGACATTCCTGCACACGAGGGTGTCCTGAGCTGCATTGCACTCAACCTGCAGGGAACAAGAATTGCAACTGC
ATCCGAGAAAGGGACGCTTATAAGAATATTTGATACTTCATCAGGGCATTTAATCCAGGAACTGCGAAGAGGATC
TCAAGCAGCCAATATTTACTGCATCAACTTCAATCAGGATGCGTCCCTCATCTGCGTATCCAGCGACCACGGCAC
AGTGCATATTTTTGCAGCTGAAGATCCAAAAAGGAATAAACAGTCCAGTTTGGCCTCAGCCAGTTTCCTTCCAAA
ATACTTCAGTTCCAAGTGGAGTTTCTCCAAGTTTCAGGTTCCCTCAGGCTCTCCGTGCATTTGTGCCTTTGGAAC
AGAGCCAAACGCCGTCATTGCAATTTGTGCAGACGGCAGCTACTACAAATTCCTGTTCAACCCCAAGGGGGAGTG
CATCCGAGATGTCTACGCGCAGTTTCTAGAGATGACCGATGACAAGCTG**TGA**CTCCAGCTGGGGGCGCCACAGCA
CCCACCACCTGCCGCCTTCAGACTCTCGGGGCTGGTGCCAGTGCCCCAGGGGCCTCCTGGGCCACGGGCTGGAGG
GGCTGCCCAGGGACCTTGGTCTCGAAGCCATACGTGGTTGTCTGCTTTCCTAAGGACTCCCATTTCCAGTATTAA
AGAGAGAATCATCATCAAGGCACCGTAGGTAACTCAGTGGCTGTGACCAGCTCGACTGGCGGCCACTGGCTGTTC
CCATGAGTTCAGCTGTGACGTTAGCTTCAGTGGCTCCGCCGCATCCTCACACTGACGGGGGCTCCATACGGACCT
GGGGACTGGGCTGAGAGGGTGGACGAGTTCAGGTTTGTTTTTGCAGCAGATTCCGTCGTTCTTACTGAGTCTGCA
GCGGGGGAGTGAACAAGTGTGCAGATGTAAGTTCTTACATGATAAGCAGATTGAATACAACACCAGCAGCTTGCC
TTAGAAAGGAGAAAGGAATTCCTTTTCCCGCCCGAACATGAAGAAAAACGACCTGACCCTGTAGAGAGAACACAG
TGTGAATGTTTCCCCTCGTGTGAGCCCAGCCTGTGGTCTTCTCCGTACCCGCAACGTGGTCATCTGTGCCCGTGA
CGTCACCTGTGCCCGTGCGTGGCGTCCCCGTCTCCGTTGGGGCCATTAGAATGAGGCAGACACCAGGCCACTCTA
GAAGCCGAGCCGTCACACCTCAGGCGTGTGCGGGGCGGGGACGGGGGGTCTCCTGGTTACATTTTGGATTAAACC
TGTTTCCCGGTTATGTGTAGGGAACAGCAGAGTGATGCACGAACTTTGAACATTCGTTATGGGGAAAACATCCTT
TAACTTCGGGGTCGTCTACCAGAGCAGGGTCTGGGAGGGTCCATGCAGTTCCCGCTGGTGTGGAGGGAAATGCCC
TGGTCTGGCCTCCGAGCCCCCAGGTCCACCGTCTCCCCTCCCCTCATTTGTAAGAATAGCTACACACTAACATTT
TGGGAAGGAGAGGCACATAACTTTTTTTAACATTTGGTAACTAGGTTATGGGCTCTACATTGTCAGCTACTTGGG
ATATATATTTAATTTTCTTAAATTCCCGTTAAACTCTATTTTATGGTTTTGATTTCAGATTGCAAACATGTAAAA
CCTGCATAGCAGCGAGTCCTCGGTTTTGCCGGTTTCTTTAGTTCTTTACTGTCACTGTCATGTAATCAGCTAATT
CTCTGTGGATGTTGCTGTAAAGTATGCATGTTCCTTTCATGTGTATTTAATCATGATGTTTAATTTTGCACACTT
ATTTGTAATGTTTCTTTTAAATAAAAGTGACTAATTTTGTTGT

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FIGURE 3537

AAAATTAATAAAAATATTTTATTGAATTTCAGGAACTTGGTACTTTTTTAAAACTTCAAATCTTTGCACACAAAT
CACCACTATACTTTCTAGAATAGTGGAAGTTAGGACTTCAAGATTGTCACTTATCTCCTTGTGTCACACAGCACA
GAAACCCCAAGTCCTCACACTGCCCCCACCCCCCTTCTGGCCATGACTACCAACTACTCTGTTATTCTAGCGGAG
GACAATGACGGAAGTGGGTAGACGACTGAAGGAGATCAGCTGTCCACCGCGTACTCTACTAAAGTGAGAGGAGGA
GCAACCGAGGATCATGCCGCACACACTCTGAGTGCACCACGTGACGTGGGTCATACGGGAGTTCCCTTTTGTTTT
CTCGTTTGGTTCAGGGCAAAGCTACTGAAATTGTTCCTAGTCCCTGAGGAGCTCAGAAGTTGGGCAAAGGTCACA
GCAGACTTCCTGAAAAGCAGACACTGAGGAACACAGTGGAGAGCGGGAGTTCACAGCGACGCAGCTGAGGACGAC
GCAGGACCTCTCCCAAAGGTGCTGCAGCTCCAGCACCAGGGGCCAGGGCTGCGGCGACAGCAGCTCAGCAACCCT
TGCTGTGCTCAAGTTCTTGGGGATTCAGAGCTAAGTTCAAAATTTAGAAACAGTGCCTTAAAGACGGGCAAGAAA
ACCCGGTGTGGGAGTCTGCTCATCTATGGTTTGTTACTGCTCTCGCTTCGATATTCTTAAATTCCTAGGTACCA**A**
TGAAAAAGCCAAGTGAACGTGGCAGAGTGAGGAGGAGACAGGAGCGTGTGCACCTTCCATCTGTGAGAGGCACAC
TTCAGTCTGGGTTCAAGATGCAGAATGGTGCCTACGGCAAAAAAAAAAAAAAAAAACACCCTCCTCCCTTCTTTAC
CATTTGAATGGACATTTTCCTTACCTGTGATCCCAACAGAAACAGATCCAGACCTATCATGTGAAGTCCACGTTC
CAGGATCAGAAGTAACCAGTTTATGGACTGAGCTTACACGGGAAAGTCTACCCCCGACTCCTTCTGGA**TAG**TAAC
ATACACAGCTGCATAAAAACGTCTCCAAGGGGACATACGATGCATTTGCTTGGTGTCCCAGCCAAGCTCCCCACC
GGCGACCTCACTGTTCCTTAGAGCTCAAGAGCTCGTCTCCTATCAATCAGAGAACCCCATCAGCTGTGACCAACA
GAGCTGGAGCCCTCTGTGGAGGGAGCTGACCCCACACACAGGACAGAGCAGAATCCTGATTATTTTACAAACTGC
AAACCTTCTGAGTAAGAAGACAAAAATATACATTCCAAGGTATCTGTAAAGTGCTTGGAAGATGCAGACAGCTGC
ACCGAGGGGCTCTGATCCATCCACACGCTGCGCTTTGCTGCGGTCACACACACGGTCTCAGTCACGTGATGGTTT
TGCTTTTATTTCTTAAACGGCTGAGTGATAATCCAGCTAGTGTGCAGTCATTTCATACCTTTCAATGGGCGTCAC
CGCAGTGACGCTGCCCCAGCCCCATGCTGAGGGCCGACACAATTCACGGAACAGATTCATCATATTTGGTCTTTA
TGTAAATAATAAATGTTTTAAAATTGCCTAAATAT

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FIGURE 3538

GTGCACATTCAGGTTCCCGAGCACAAACATCAAGATAACGTTCACTGCCCTGTCCAGCGAGAAGAGAGAGAAGCA
GGAGGCGTCTGAGTCTCCAGTGAAGGCCGTACAGCCACACATCTCGCCCCTGACCATCAACATTCCAGACACCATT
GGCCCACCTCATCAGCCCTCTGCCCTCCCCCACGGGAACCATCAGCGCTGCAAACTCCTGCCCCTCCAGCCCCCG
GGGAGCGGGGTCTTCAGGGTACAAGGTGGGCCGAGTGATGCCATCTGACCTCAATTTAATGGCTGACAACTCACA
GCCTGAAAATGAAAAGGAAGCTTCAGGTGGAGACAGCCCGAAGGATGATTCAAAGCCGCCTTACTCCTACGCGCA
GCTGATAGTTCAGGCGATTACGATGGCTCCCGACAAACAGCTCACCCTGAACGGGATTTATACACACATCACTAA
AAATTATCCCTACTACAGGACTGCGGACAAGGGCTGGCAGAATTCAATTCGCCACAATCTCTCTCTGAATCGTTA
TTTCATCAAAGTGCCGCGTTCCCAGGAAGAACCAGGCAAAGGCTCGTTCTGGAGGATAGACCCAGCCTCTGAAAG
CAAATTAATAGAACAGGCTTTTAGGAAACGACGGCCTAGGGGCGTGCCCTGCTTTAGAACCCCTCTGGGACCGCT
CTCTTCTAGGAGTGCCCCAGCCTCTCCCAATCACGCGGGAGTGCTGTCTGCTCACTCTAGTGGCGCCCAGACCCC
TGAGAGCCTGTCGAGGGAAGGTTCGCCGGCCCCCCTGGAGCCTGAGCCTGGCGCTGCACAGCCCAAACTCGCTGT
CATCCAGGAAGCCCGGTTTGCCCAGAGCGCCCCAGGGTCACCTCTGTCCAGTCAGCCAGTCTTAATCACCGTCCA
GCGGCAGCTACCACAGGCCATCAAGCCTGTCACCTACACTGTGGCCACCCCAGTGACCACCTCGACCTCCCAGCC
ACCCGTCGTGCAGACGGTTCACGTCGTCCACCAGATCCCAGCGGTGTCGGTCACCAGTGTGGCCGGACTGGCCCC
AGCGAACACGTACACTGTCTCTGGACAAGCTGTGGTCACCCCGGCAGCCGTGCTGGCCCCTCCTAAGGCAGAGGC
CCAGGAGAATGGAGACCACAGGGAAGTCAAAGTGAAAGTAGAGCCTATTCCCGCCATTGGCCACGCCACGCTCGG
CACTGCCAGCCGGATCATTCAGACGGCACAGACCACCCCGGTCCAGACGGTGACCATAGTACAACAGGCACCTCT
AGGTCAACACCAGCTACCAATAAAAACTGTAACACAAAACGGCACTCACGTGGCATCAGTCCCCACTGCGGTCCA
CGGCCAGGTGAACAATGGGCCCCTTGGCCTCAGAAGGCCCCCATGTGCCAGCTCAGACTGGAGTTGCCTCAGTTG
ACACAGCAGGCCCCATCCAGACAGACCAGCAGGTGCTTCTGGAGACAAGAGCAAAGCCTTTTCCGGCAGCCCGGA
ACCTGGGATGAGAAACGACAGGTGGAAGGTTGTCCAGAGACACCTACAGTGTGGATGCTGTTCCGAGTCAGCGTA
GGAGAAAGGCCACTGGAAACCAGAGTCACACTGCGCGTCTGTGCATCTCTGGCCTACCGCAGTGGCCCCGGCTGT
CTGCACATTTTTTGTAGACACATTAGAGTCGGTTGAGGCCACACCTGCGGCCACAGACTGCGACCGCGATTGCAG
GGAGGAGCATCTGAGGTGGTCACGGGGTTTGCCCAGCTCACACCAACTGCAGCCGCGGCGAGTCCTTTGCACATG
TTGGCAACACACGCATCCGCATCGGCCTCCCTGCCCACAAAGCGCCACAACGGTGACCAGCCGGAGCAGCCGGAG
CTGAAGCGGATCAAGACAGAAGACGGCGAGGGCATCGTCATTGCCCTGAGCGTGGACACGCCACCGGCAGCCGTA
AGGGAAAAGGGTGTCCAGAACTAGCGACCGGGAGAGCTTTTCTTTAACGATATCAACTCTGTGGTGCCAAAAGGA
GACGCGGCCTCCCGCCAGCACTCGGGGGTGCAGGGCCCTGTGGTTGGACTTCACCTCTCAGCACTGAAAACCCAA
AACCCAGCTGGCCTTAACACTCCTTAAAGACAGAAGTCACACTTGAACAAAACCCACACACAACAAAACCTGATT
TGGGAGACGGTGTCTCCACTGAGCACCTGCTGGGCTGAGCTTCTACCTACGAGTGAAACTCTGTCCTCCTGCGAG
GACCAGGCATCGCTGTGTGAGGACGGCACGGCCAGCGCCTGCTGTGAGTGGGTCTCCCAAGACTAGGCCTCAGGA
CGCGGGGGGAGCCATCCCCGCCGCCCTCACAGGACCCACCAGGCAGCGGAGACATGTGGAATTAGAGTATTTTGA
GGTGTCCTTTCTTTACAAAATAATGGGGTCTTGGGCATTTCACATCACTCCATTTCTACTGAGACTTTCAGAATC
ACACAGGCCCTTTCCGTGGATTTCATTTGGGGCAAAGAAACAACGTAGTTTTGTTTTTGTTTTCAGCCTATGGAA
TGATTTCCTTTTGTCTGTCTTGTTCAAGTTCAGACGAAGCTACTCTGGCATCTGCACATTTCCGTGTTACAGCAG
CTGCCTGATGAATTTTATCCACCTCCATTTCAGCATGTGGCTCGCGTGGACAGGTGGACGGACGCTGTGGCCGCA
TGGAACCTTGAGAACCCAGGGACGAGCCAGTGCCGGGAAGGAACTGCCGGGACTCACCGAGCTGCACTTAACTGT
TCTCTTTCTGGCTATTTTTTGTTGTTTGTTTCTTTGTGTTGACTTTGTCCCTGGCAAAATTTTCCACTCTGAGTA
AAACAAGTCTC

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FIGURE 3539

GACCCCTCCTCCTGTAGAGAGTGGTGCTGCCCTCTCGGG**ATG**TACCTGCAGGTGGAGACCCGCACCAGCTCCCGC
CTCCATCTGAAGAGGGCTCCAGGCATCCGGTCCTGGTCCCTGCTGGTTGGAATCTTGTCGATTGGCCTGGCTGCT
GCCTACTACAGCGGAGATAGCCTGGGCTGGAAGCTCTTCTACGTCACAGGCTGCCTGTTTGTGGCTGTGCAGAAC
TTGGAGGACTGGGAGGAAGCCATCTTCGACAAGAGCACAGGGAAGGTTGTTTTGAAGACGTTCAGCCTCTACAAG
AAGCTGCTGACTCTTTTCAGAGCTGGCCACGACCAGGTGGTGGTCCTGCTCCATGATGTCCGTGATGTGAGCGTG
GAGGAGGAGAAGGTCCGGTACTTCGGGAAAGGCTACATGGTGGTGCTCCGGCTTGCGACGGGCTTCTCCCACCCC
CTCACGCAGAGTGCAGTCATGGGCCACCGCAGTGATGTGGAAGCATCGCCAAGCTCATCACCAGCTTCCTGGAGC
TGCACTGCCTTGAGAGCCCCACAGAGCTGTCTCAGAGCAGCGACAGTGAGGCCGGTGACCCTGCAAGCCAGAGCT
GACAGCCCCACTGTGCCTGAGCCCGTGCACCGCCCACAGGACCCATGGCACATTCCCGGTGTGCCTGAGCCCGTG
CACCGCCCACAGGACCCGTGGCACATTCCCGGTGTGCCTGAGCCCGTGCACCGCCCACAGGACCCGTGGCACATT
CCCGGTGTGCCTGAGCCCGTGCACCGCCCACAGGACCCGTGGCACATTCCCGGTGTGCCTGAGCCCGTGCACCGC
CCACAGGACCCGTGGCCTTGGCTTCAGTTGGTGCCTCCAGCCGAGTTGGCCTATTGCCTGCTCATGCTGCTGCTT
GCACACTGCATGAAACAGCAGGCCAGACCAGGACATCCAGACTTTCTCCATCGTGAGGCCTGGGCCTGCCTTTCT
GCAGCCGGAGGTCTCGCCAGCCCTGGACTCCTGCTTTGGGCCACAGCAAGACCTCGGGCGAGTGGAGAGGCGGGG
CCAGGCCGGGCCCTTGTGGGTGCTGATGCTGCATGTTGTCCCCGACACAGCGTCCTCTCCCTGGTGGACATCCCC
AGCGGTCAGGTGCTTCCCCAAGGGCAG**TGA**GGGGTGAACATCCAGGGCCTACCTGGCTGTGCACGCTGCAGCCAC
ACTGTGGAAGCTGCCCCTCCCCGAGGACCCGCCTCCCTTGCTGATGCCAGGATCTCAGCGCATAGACCACTCTGC
CCCAGCGGTCGTCACAGAAAGGTCTCTCTGTTCCTCACACTCAGCTTCAGCATAAGCTGTGAGGCCAGAAAAAAG
GTCAGCTCTTCTAGTATCGTGCAGTGCTTAAAAACCGGGAGCTCCAGCCGGGCGCAGTGGTTCATGCCAGTAATC
CCAGCACTTTCGGAGGCCGAGGTGGGAGGATTGCTTGAGGCCAGGAGTTCAAGACCAGCCTGGGCAACACAGCAA
GATCCTGTCTTTGTAAAAAAACTAACCAAACAGGAAAAACTGGGAGATTTTCTGCAGAAATTGAGTTCCAGCCTC
TCTCGAACCTGGGAAGACCTGGCAGGAGGGGGCTGGGCTCTCGGCTACAGACTTCTCCCCACCCCGTAGGAGCTG
AACGCCAACCATCCTGACCCGCCAGTGCTCTTGGTCTCCTGAGTGTACCCAGGTCCTCCCAGGTGCGGTGTGCAC
CGAGCGCGCCTGGCCTGATGCCCTGGCCTGTGAGCTGGGGACTCCTGGGCCCTGTGAGCCCCTAGGCGCAGGCCC
AGGAATGGCTGGGTAGGACAGGGAACACCTTTGCCCCACGTCTGGCTGTGACCTCGGTGAAAGCCGACAGGAGAG
AGATGGACCCTCCTCCTCAGTAGTGGCTGCCAGTCCCTCGTTGCAGGACAGGGTCATCATAACCATAAATAACCC
TTCACGTGTC

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FIGURE 3540

TGCCTGCAGGCCTCATGGGTTTGTTTCGGGTGCTCTAGAATATTCCATCGATTGTGTAAAACACAGTGGCAAACT
CTGCGTGAGCCCTGGACACCTGTGTGGGTCGGGCTGTGCCCAGCAGGAAGAGCCACTTGCTGTCCGGGTGTTGCT
GCTGGCAACACAGTCTTACTTCTGTTTTCTGATTTTTAAAATAAGGAACGTATTTCACGTGTTTAAAGAGAAGCA
GCAGGCCCATTTGCCGCCAGTCCCCTTGGCCGGCACACGCGGGGCTGGGCCTGGCCAGTGGCTCTCCATTGCCGC
CCGCCCACTGCCCCAGTACCTAGGCCTGCAGGTCCCAATGTAGCCCCCTCCCCTCCTCCAGAGGCCCCTCCAACC
GCCCCGCTCATTTGTGATTTCAGGAGGATTTG**ATG**AAGATGTTAAAGCGAAAGTGGAGAACCTTCTCGGGATTTC
CAGCCTGGAAAAAACGGACCCTGTTAGGGAGGGGGCCGGCTCCTTCCCTGGCAGCAACATCCTTGCCCTTGTCAC
ACAAGTCAGCCTCCATCTGCGCAGCTCTGTGGATGCGCTGCTGGAGGGCAACAGGTATGTCACTGGCTGGTTCAG
CCCCTACCACCGCCAGCGGAAGCTCATCCACCCGGTCATGGTTCAGCACATCCAGCCCGCAGCGCTCAGCCTCCT
GGCACAGTGGAGCACCCTCGTGCAGGAGCTGGAGGTGCCCTGCAGCTGGCTTTCTACCCGGATGCCGTGGAGGAG
TGGCTGGAGGAAAACGTGCACCCCAGCCTGCAGCGGCTGCAAGCTCTGCTGCAGGACCTCAGCGAGGTGTCTGCC
CCCCCGCTGCCACCCACCAGCCCTGGCAGGGACGTTGCTCAGGACCCCTGAGGGGAGAGCTCATGCCAGGGGGCT
CCTGCTGGAGGCTGGGGGGGCTCTGCACTGCCAAATGGCCTGGGCAATACGGGCCCACGTGGCGTCGTGCCCTCT
GGCCCAGCAGTGTCTTGCCCACACTCAGTTCC**TGA**GGGCCCTGGGCAGCCCCTGGGGGAGAGACTAGAAAACACA
GAAGGAAGCAGCACAGGGAGACCCGCTTTGTGATCTGCATGTGTGACACTGATTCTTTGGAAATAAAGAGTGGAA
GCTG

FIGURE 3541

ATGGCCTTCCTACTGCTCCGGTTTCTCATGACCATTCTCAGAGCAGAGCCCAGAACTATTCAAACAAGCAAAGAG
AAGCTGCCAGAAGAGGCAAAAGCTCTGGGCTCCAAGTGGGCAGCTGTGGTGGACCTCTGCTCAGCTCCTGGGTGT
CAGAAGTGTAACTATTTCCTCAATGTAGGTTCACGAGAGGCATGCAGCGCTGAGGAGCGGCGACCCAGCACGGCG
CGCATGAACCTCCTGCCGTGTAACCCTCACGGCAACGGGCTGCTCTACGCCGGCTTCAACCAGGACCACGCCCGG
GGTCCCCGCTCTCAGGTCTCTCCTGGGCGCCCCTTTCCGGCCAGGCCTTCCACCCGGGACCCCGCCCCGCCCGAG
CTCCCCTCCGAAGCCCCCGCGCCCGGCCCTCGCCGCTGCTCCCAGCCCGAGCCGGCGGATTCCGAACCCGCGACG
GTGGGCCGGCCCGTGCTGCAGCGCGGGCCCGCCGAGGCGGCGCTGCTCGGCTCCGGTTTGGGCTCTCCCTGTTCC
CTGCAGCACACC**TGA**

FIGURE 3542

GCGTCGGGGGAGGACAACAAAGGGCCGCGGGCGGCGGGCAGTGGTGTCCCAGTCTCCCGGTGCTTCCCTGAGGCT
GAGGCGCCCGGCCTCCCGCCCGCCGCGCTCCAGATGAAGTGTGAGCACTGCACGCGCAAGGAATGTAGTAAGAAA
ACAAAAACTGATGACCAAGAGAATGTGTCAGCCGATGCACCGAGTCCAGCCCAGGAAAATGGAGAGAAGGGAGAA
TTCCACAAGTTGGCTGATGCCAAGATATTTTTGAGCGACTGCCTGGCATGTGACAGCTGTATGACTGCAGAGGAA
GGAGTCCAACTTTCCCAGCAAAATGCCAAGGACTTCTTCCGCGTTCTGAACCTTAACAAGAAATGTGATACCTCA
AAGCACAAAGTGCTGGTAGTGTCTGTGTGTCCTCAATCTTTGCCTTATTTTGCTGCTAAATTCAACCTCAGTGTA
ACTGATGCATCCAGAAGACTCTGTGGTTTCCTCAAAAGTCTTGGGGTGCACTATGTATTTGATACGACGATAGCT
GCGGATTTTAGTATCCTGGAGAGTCAAAAAGAATTCGTGCGTCTATCGCCAGCACAGTGAGGAGGAACGCACCCT
GCCCATGCTGACCTCTGCCTGTCCTGGCTGGGTCCGATACGCCGAGCGGGTGCTGGGTCGCCCCATCACTGCCCA
CCTCTGCACCGCCAAGTCCCCCCAGCAGGTCATGGGCTCTTTGGTGAAGGATTATTTCGCCAGACAGCAGAACCT
GTCTCCAGAGAAGATTTTCCACGTCATTGTGGCCCCTTGTTATGACAAGAAGCTGGAGGCTCTTCAGGAAAGCCT
TCCCCCTGCTTTGCATGGCTCCCGGGGCGCTGACTGCGTGTTAACATCAGAAATTAGCCAGGCGTGGTAGTGCAC
ACCTGTAATCACAGCTACTCAGGAGGCTGCGGCAAGAGAATCACTTGAACCCGGGAGGCAGAGGTTACAGCGAGA
CAAGATTGCACCACTGGACTCCAGCCTGGGCGGCGGAGGTGAAATTGCTCAAATA**ATG**GAGCAAGGTGACCTCTC
AGTGAGAGATGCTGCCGTCGACACTCTGTTTGGAGACTTGAAGGAGGACAAAGTGACGCGTCATGATGGAGCCAG
CTCAGACGGGCACCTGGCACACATCTTCAGACATGCGGCCAAGGAGCTGTTCAACGAGGATGTGGAGGAGGTCAC
TTACCGAGCCCTGAGAAACAAAGACTTCCAAGAGGTCACCCTTGAGAAGAACGGAGAGGTGGTGTTACGCTTTGC
TGCAGCCTATGGCTTTCGAAACATCCAGAACATGATCCTGAAGCTTAAGAAGGGCAAGTTCCCATTCCACTTTGT
GGAGGTCCTCGCCTGTGCTGGAGGATGCTTAAATGGCAGAGGCAAGCCCAGACTCCAGACGGACATGCGGATAAG
GCCCTGCTGCGGCAGATGGAAGGCATTTACGCTGACATCCCTGTGCGGCGTCCGGAGTCCAGTGCACACGTGCAG
GAGCTGTACCAGGAGTGGCTGGAGGGGATCAACTCCCCCAAGGCCCGAGAGGTGCTGCATACCACGTACCAGAGC
CAGGAGCGTGGCACACACAGCCTGGACATCAAGTGGTGAAGTCAGGCCAGGGCCTTCCAGCTGCTCTTGGGGCCA
GAGCCAAGAGCCTCTCAGTAGAGGGAGGGGCTGCCCTGAGTGGAGTATTAAAGACACT**TAA**GAAAACCGCTC

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FIGURE 3543

GCGGCCGCGGCGGGAAC**ATG**GAGGAGCTGCTGAGGCGCGAGCTGGGCTGCAGCTCTGTCAGGGCCACGGGCCACT
CGGGGGGCGGGTGCATCAGCCAGGGCCGGAGCTACGACACGGATCAAGGACGAGTGTTCGTGAAAGTGAACCCCA
AGGCGGAGGCCAGAAGAATGTTTGAAGGTGAGATGGCAAGTTTAACTGCCATCCTGAAAACAAACACGGTGAAAG
TGCCCAAGCCCATCAAGGTTCTGGATGCCCCAGGCGGCGGGAGCGTGCTGGTGATGGAGCACATGGACATGAGGC
ATCTGAGCAGTCATGCTGCAAAGCTTGGAGCCCAGCTGGCCGATTTACACCTTGATAACAAGAAGCTTGGAGAGA
TGCGCCTGAAGGAGGCGGGCACAGTGGGGAGAGGAGGTGGGCAGGAGGAACGGCCCTTTGTGGCCCGGTTTGGAT
TTGACGTGGTGACGTGCTGTGGATACCTCCCCCAGGTGAATGACTGGCAGGAGGACTGGGTCGTGTTCTATGCCC
GGCAGCGCATTCAGCCCCAGATGGACATGGTGGAGAAGGAGTCTGGGGACAGGGAGGCCCTCCAGCTTTGGTCTG
CTCTGCAGTTAAAGATCCCTGACCTGTTCCGTGACCTGGAGATCATCCCAGCCTTACTCCACGGGGACCTCTGGG
GTGGAAACGTAGCAGAGGATTCCTCTGGGCCGGTGATTTTTGACCCAGCTTCTTTCTACGGCCACTCGGAATATG
AGCTGGCAATAGCTGGCATGTTTGGGGGCTTTAGCAGCTCCTTTTACTCCGCCTACCACGGCAAAATCCCCAAGG
CCCCAGGATTCGAGAAGCGCCTTCAGTTGTATCAGCTCTTTCACTACTTGAACCACTGGAATCATTTTGGATCGG
GGTACAGAGGATCCTCCCTGAACATCATGAGGAATCTGGTCAAG**TGA**GCGGGCCTTACTCTGGAAGGAGGCCTCA
GAGGTTTCTCCACAGTCCTCTTCTGGGCAAATTCTTGTTTCTTCACATGCTGGACTAGCTTAAGACCAATGCAGT
AGCTTATTTCCAAGCCTTGCAAAGTATATAATATCTAAGAGGAAAGGTTTTGTCATCCCAGCGTTGTCCACTTTG
TGGGGCTTTGTAGGTAGACGGAGCCACACTACAGGCAGGGTATGAGCAGAGGGATGTATGGAGTGTGGGTGACTC
TGAGCCTCACTGCTGCTGCAAGGTGGGGAAACTGTAAGTGAACCCCTGTGGGTGCGGGGGAGGGTATCCGGTGCG
CAGGGAGGTGGCCAGCGCCCCCGGGCACTGCTGCTCATAGGTACCTTTCCACTGCCTCCTCCCTGCTCTCCTGTG
CAGGAATGTCTCTGAGCTGTTCACGTTGATGCTTCTTGGTTGGCAAGACTTGGGTGTAGACATGAAACCATCTTA
CTAAAAGCGTCTTAAAATGACCAATTCCAGAATCAAGCGTATTCCGTTTTCTTCCTGCATGATCCCTGGGCCCTC
CCGCAGGCTGAGCAAGTCTGTAAACTGATTCTGGGAGAAACCAAGCTGCTGGCCATAGGGTGTCCTTGGGTACAT
CCAGGAGTCTTCATTGCTTCTGTTATTACCCCGTCTCCTCTGCCATTTTCTACAGCTTGCTGAGTTGTCATTCCT
TTGCAACATTAAAATACATGCTGAACTC

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FIGURE 3544A

TAGCGGGCGCCTCCTTTTCATCCCTCATCCTTCATCCCTGGCTTTCGCGCTCTAGCGGAGTGGGATCTGCGAACA
CGTGAGGCGGGGGCGCGGTCCCCAGGCTGCCGAG**ATG**GCCCTGAGCGACGAACCGGCCGCGGGCGGCCCCGAGGA
GGAGGCGGAGGACGAGACACTGGCCTTTGGCGCGGCGCTGGAAGCGTTCGGCGAGAGCGCGGAGACCCGGGCGCT
GCTGGGCCGCCTGCGGGAGGTGCACGGCGGCGGCGCGGAGCGCGAGGTGGCCCTGGAGCGGTTCCGCGTAATAAT
GGACAAATACCAGGAGCAGCCTCATCTGTTGGACCCGCACCTTGAATGGATGATGAACTTGTTGTTGGACATAGT
GCAAGATCAGACATCTCCAGCTTCCCTTGTACATCTGGCTTTTAAATTTCTTTACATCATCACCAAGGTTCGAGG
CTATAAAACATTTCTTCGTTTATTTCCTCATGAAGTTGCCGATGTAGAGCCTGTTTTAGATTTGGTCACAATTCA
GAATCCCAAGGACCATGAAGCTTGGGAAACCCGCTACATGCTTTTGCTCTGGCTCTCCGTGACCTGCCTGATCCC
TTTTGATTTTTCTCGCCTTGACGGGAACCTCCTCACCCAGCCTGGGCAAGCACGAATGTCCATAATGGACCGTAT
TCTCCAAATAGCAGAGTCCTACTTGATTGTCAGTGACAAGGCCCGAGATGCAGCTGCTGTCCTTGTGTCCAGATT
TATCACACGTCCTGATGTCAAGCAAAGCAAGATGGCTGAGTTCCTGGACTGGAGCCTGTGCAATCTGGCCCGTTC
CTCCTTCCAGACCATGCAGGGGGTCATCACCATGGATGGGACGCTGCAGGCCCTGGCACAAATATTTAAACATGG
AAAACGTGAAGACTGTTTGCCCTATGCTGCCACTGTCCTCAGGTGCCTCGATGGCTGCAGACTCCCTGAGAGCAA
CCAGACCCTGCTGCGGAAGCTGGGGGTGAAGCTTGTGCAGCGACTGGGGCTGACATTCCTGAAGCCGAAGGTGGC
AGCATGGAGGTACCAGCGTGGCTGCCGATCTTTGGCTGCAAATCTGCAGCTCCTCACTCAGGGTCAGAGTGAGCA
GAAGCCACTCATCCTGACCGAAGATGACGACGAAGATGACGACGTCCCAGAGGGGGTGGAGCGTGTGATAGAGCA
GCTGCTGGTCGGGCTGAAGGACAAGGACACGGTCGTGCGGTGGTCTGCAGCCAAGGGCATCGGTAGGATGGCTGG
CAGGCTTCCCAGAGCCCTGGCGGATGATGTGGTCGGGTCTGTGCTGGACTGCTTCAGTTTCCAGGAGACTGACAA
GGCGTGGCATGGGGGATGTCTGGCGCTGGCAGAGCTGGGCAGGAGAGGCCTGTTGCTGCCGTCTCGACTCGTGGA
TGTTGTCGCCGTGATCCTGAAGGCGCTGACCTACGACGAGAAGCGGGGTGCCTGCAGCGTGGGCACCAACGTCAG
GGACGCCGCCTGCTACGTGTGCTGGGCCTTCGCGCGTGCCTATGAGCCTCAGGAGCTGAAGCCCTTTGTGACTGC
AATCTCGAGTGCACTGGTGATTGCTGCGGTGTTTGACCGAGACATAAACTGCAGAAGAGCAGCCTCTGCCGCCTT
CCAGGAGAATGTGGGGAGACAGGGCACTTTCCCTCATGGTATTGATATTTTGACCACAGCTGACTATTTTGCCGT
CGGTAACAGATCCAACTGTTTCCTGGTTATAAGTGTGTTTATTGCCGGCTTTCCTGAGTACACGCAGCCAATGAT
AGACCACCTGGTTACCATGAAGATCAGCCACTGGGATGGGGTCATCCGAGAGTTGGCTGCGAGGGCGCTGCACAA
CCTGGCCCAGCAGGCACCCGAGTTCAGCGCCACGCAAGTCTTCCCGAGGCTGCTGTCCATGACACTGAGTCCAGA
TCTTCACATGAGGCATGGGTCGATTCTCGCCTGCGCAGAAGTTGCTTACGCCTTGTACAAACTTGCAGCCCAAGA
GAACAGGCCCGTCACGGACCATCTGGACGAGCAGGCAGTGCAGGGCCTGAAGCAGATTCACCAGCAGCTCTATGA
TCGTCAGTTATACAGGGGTCTGGGAGGACAGCTCATGAGACAAGCAGTGTGTGTTTTAATAGAAAAGTTGTCACT
TTCCAAAATGCCCTTTAGAGGTGACACCGTAATTGATGGTTGGCAATGGCTGATAAATGACACTTTGAGACATCT
CCATCTCATCTCAAGTCACTCCCGCCAGCAGATGAAGGATGCAGCAGTCTCGGCCCTGGCTGCTCTATGCAGTGA
ATATTACATGAAGGAGCCGGGGGAGGCAGATCCCGCAATTCAGGAGGAGCTGATCACGCAGTACCTGGCTGAGCT
TCGGAACCCCGAGGAGATGACTCGCTGTGGCTTCTCGTTGGCCTTGGGCGCCCTTCCAGGCTTCCTTCTGAAAGG
CCGGCTCCAGCAGGTTCTCACAGGTTTAAGAGCAGTTACCCACACTTCCCCCGAGGACGTAAGTTTTGCTGAGTC
CAGGAGAGACGGCTTGAAGGCCATTGCGAGGATTTGCCAGACTGTTGGTGTGAAAGCAGGAGCCCCAGACGAAGC
TGTGTGCGGAGAGAATGTTTCCCAGATTTACTGTGCGCTGCTGGGCTGCATGGACGACTACACCACGGACAGCAG
AGGGGACGTGGGCACCTGGGTCCGCAAGGCCGCCATGACCAGTCTGATGGATCTGACACTTCTGCTGGCTCGGAG
CCAGCCTGAGCTGATCGAGGCCCATACCTGTGAGCGCATCATGTGCTGTGTGGCCCAGCAGGCCAGTGAGAAGAT
TGACCGTTTCCGTGCTCACGCCGCCAGCGTGTTCCTGACGCTCCTGCACTTTGACAGCCCTCCCATCCCCCACGT
GCCCCACCGAGGAGAACTGGAAAAGCTGTTTCCCAGGTCCGATGTGGCCTCCGTGAACTGGAGTGCACCTTCCCA
GGCCTTCCCACGCATCACCCAGCTCCTTGGGCTGCCCACCTACCGCTACCACGTCCTGCTGGGGCTAGTCGTGTC
CCTGGGCGGCTTGACGGAGTCGACGATCCGGCACTCCACCCAGAGCCTCTTTGAGTACATGAAGGGCATTCAGAG
CGACCCGCAGGCCCTGGGCAGCTTCAGCGGGACCCTTCTGCAGATCTTTGAGGACAACCTTCTGAATGAGAGGGT
GTCCGTGCCGCTGCTGAAGACGCTGGACCACGTGCTCACCCACGGCTGCTTCGACATCTTCACCACGGAGGAGGA
CCACCCCTTTGCTGTGAAGTTGCTTGCGCTCTGTAAGAAAGAAATCAAGAATTCAAAAGATATCCAGAAGCTCCT
GTCAGGCATCGCAGTGTTCTGCGGGATGGTGCAGTTCCCCGGCGACGTGAGGAGGCAGGCCCTCCTGCAGCTGTG
TCTGCTCCTCTGCCACCGTTTCCCGCTGATCCGGAAGACCACGGCCAGCCAGGTGTACGAGACATTGCTCACCTA
CAGTGACGTCGTGGGCGCGGATGTGCTGGACGAGGTGGTGACTGTGCTCAGTGACACTGCGTGGGACGCGGAGCT

FIGURE 3544B

TGCAGTGGTGAGAGAGCAGCGCAACCGTCTGTGTGACCTTCTGGGCGTACCCAGGCCCCAGCTGGTGCCCCAGCC
TGGTGCCTGC**TGA**AGCCAGTCCTGGAGCCCATACCTCACCCCTGCCTGGTGAGGATGTCTTGTTCCTGAGGGAGG
CCGGTGTGGAAAGCCTCGCACAGTGGTGCCTCCAGCTGTTGAAGGGTAGCGCTGGCCCTTGGAGGCTGGCACTAG
CTGACAGCTTTTCCTCTCTGCACCTGCGCTCTGGTGACTTGGGGTGGACGCCTCTGCCTTCACTTGAACACAAAT
GTGCTTCCTATAAAATCATGTACCAAG

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FIGURE 3545

GCCGCGGGCGGCGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATC**ATG**GCGGCTGCGCTGTTC
GTGCTGCTGGGATTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAA
GACCTTGGCTCCAAGATACTCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTG
AAGGGGGGCGTGGTGCTGAAGGAGGACGCGCTGCCCGGCCAGAAAACGGAGTTCAAGGTGGACTCCGACGACCAG
TGGGGAGAGTACTCCTGCGTCTTCCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCCAGA
GTGAAGGCTGTGAAGTCGTCAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTG
CCACCTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGC
AGGTTCTTCGTGAGTTCCTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGC
CAGTACCGGTGCAACGGCACCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTG
GCCGCCCTCTGGCCCTTCCTGGGCATCGTGGCTGAGGTGCTGGTGCTGGTCACCATCATCTTCATCTACGAGAAG
CGCCGGAAGCCCGAGGACGTCCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAG
AATGACAAAGGCAAGAACGTCCGCCAGAGGAACTCTTCC**TGA**GGCAGGTGGCCCGAGGACGCTCCCTGCTCCACG
TCTGCGCCGCCGCCGGAGTCCACTCCCAGTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCC
GTAGATTCCCATCATACACTTCCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTCAGGATTCTGTTCCTTAGGT
TTTTTTCCTTCTGAAGTGTTTCACGAGAGCCCGGGAGCTGCTGCCCTGCGGCCCCGTCTGTGGCTTTCAGCCTCT
GGGTCTGAGTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCTTGCCCTTTG
TGGAAAGTCACAGGTCACACGAGGGGCCCCGTGTCCTGCCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTT
TGTGCTTTTATGTTTAATTTTATGAGGGCCACGGGTCTGTGTTCGACTCAGCCTCAGGGACGACTCTGACCTCTT
GGCCACAGAGGACTCACTTGCCCACACCGAGGGCGACCCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTT
GTCTGTGCATCCGGGGGCAGCTCTGGAGGGGGTTTGCTGGGGAACTGGCGCCATCGCCGGGACTCCAGAACCGCA
GAAGCCTCCCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCC
ACCCACCGCCACAATAAAGATCGCCCCCACCTCCACCCTC

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FIGURE 3546

CGGGCGGCGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATC**ATG**GCGGCTGCGCTGTTCGTGC
TGCTGGGATTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAAGACC
TTGGCTCCAAGATACTCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTGAAGG
GGGGCGTGGTGCTGAAGGAGGACGCGCTGCCCGGCCAGAAAACGGAGTTCAAGGTGGACTCCGACGACCAGTGGG
GAGAGTACTCCTGCGTCTTCCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCCAGAGTGA
AGGCTGTGAAGTCGTCAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTGCCAC
CTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGCAGGT
TCTTCGTGAGTTCCTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGCCAGT
ACCGGTGCAACGGCACCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTGGCCG
CCCTCTGGCCCTTCCTGGGCATCGTGGCTGAGGTGCTGGTGCTGGTCACCATCATCTTCATCTACGAGAAGCGCC
GGAAGCCCGAGGACGTCCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAGAATG
ACAAAGGCAAGAACGTCCGCCAGAGGAACTCTTCC**TGA**GGTGGCCCGAGGACGCTCCCTGCTCCACGTCTGCGCC
GCCGCCGGAGTCCACTCCCAGTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCCGTAGATTC
CCATCATACACTTCCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTCAGGATTCTGTTCCTTAGGTTTTTTTCC
TTCTGAAGTGTTTCACGAGAGCCCGGGAGCTGCTGCCCTGCGGCCCCGTCTGTGGCTTTCAGCCTCTGGGTCTGA
GTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCTTGCCCTTTGTGGAAAGT
CACAGGTCACACGAGGGGCCCCGTGTCCTGCCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTTTGTGCTTT
TATGTTTAATTTTATGAGGGCCACGGGTCTGTGTTCGACTCAGCCTCAGGGACGACTCTGACCTCTTGGCCACAG
AGGACTCACTTGCCCACACCGAGGGCGACCCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTTGTCTGTGC
ATCCGGGGGCAGCTCTGGAGGGGGTTTGCTGGGGAACTGGCGCCATCGCCGGGACTCCAGAACCGCAGAAGCCTC
CCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCCACCCACCG
CCACAATAAAGATCGCCCCCACCTCCACCCTC

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FIGURE 3547

AGCAAACGGCCGGCGGCGGGTGCCGCGCGGGGGGCGGGCGGCGCGGAGTAGGTGGCGGCGGCC**ATG**GCCGAGGCG
TCGCCGCATCCCGGACGGTACTTCTGCCACTGCTGCTCCGTGGAGATCGTCCCGCGCCTGCCGGATTATATCTGT
CCAAGATGCGAGTCTGGTTTTATCGAGGAGCTTCCGGAAGAGACCAGGAGCACAGAAAATGGTTCTGCCCCCTCC
ACAGCTCCCACAGACCAGAGCCGGCCACCGTTGGAGCACGTGGACCAGCACCTGTTCACGCTGCCGCAGGGCTAC
GGACAGTTTGCTTTCGGCATCTTCGATGACAGCTTCGAGATCCCCACGTTCCCTCCTGGGGCGCAGGCTGACGAC
GGCAGGGACCCTGAGAGCCGGCGGGAGAGAGACCATCCGTCCCGGCACCGGTACGGCGCCCGACAGCCCCGCGCC
CGCCTCACCACGCGGCGGGCCACCGGCCGGCACGAAGGCGTCCCCACGCTGGAAGGGATCATCCAGCAGCTCGTC
AACGGCATCATCACGCCCGCCACCATCCCCAGCCTGGGCCCCTGGGGAGTCCTGCACTCAAACCCTATGGACTAC
GCCTGGGGGGCCAACGGCCTGGATGCCATCATCACACAGCTCCTCAATCAGTTTGAAAACACAGGCCCCCCACCG
GCAGATAAAGAGAAAATCCAGGCCCTCCCCACCGTCCCCGTCACTGAGGAGCACGTAGGCTCCGGGCTCGAGTGC
CCTGTGTGCAAGGACGACTACGCGCTGGGTGAGCGTGTGCGGCAGCTGCCCTGCAACCACCTGTTCCACGACGGC
TGCATCGTGCCCTGGCTGGAGCAGCACGACAGCTGCCCCGTCTGCCGAAAAAGCCTCACGGGACAGAACACGGCC
ACGAACCCCCCTGGCCTCACTGGGGTGAGCTTCTCCTCCTCGTCGTCATCGTCCTCCTCCAGCTCGCCCAGCAAC
GAGAACGCCACAAGCAACTCG**TGA**GCCCACGTCGGCCGTCGGGAAAGCACGGGGCCTTTCCCACCCACCCTCAGC
CAGCGCCACACGGCACCCACAGACTGGGTGCCCCGGCGGCGCCACGCTTGGCTGGTCAGCGCTGCAGGTCCCGCC
TGTTCCAGGGCAGGACCCGGGCCCGGCCCACCGGCCCCCTGGCTTGGGAAGGCGTGGGCCACATGGTCCCCTCTG
GGGCGTCCCCAGCCTCCCCGTCCTCTGTCTAACCTCACCCTCTAAACGTTCAGCGGTGGAAAGATTTTTATAATT
TTAAATTATTACTGCTTTGAAATAAACGGACGTTTGAGCTCACGTGGCGGCCATGCATGGTTTGTGGCGGAAGAC
GGGGCCCAGCGGCTCCCCCAGCGCTGAAGCACGGGGTTCAGCGGCTCCCCCAGTGCTGCAGGTGCCGCCAGGACG
GGCCACGTGGGCCCCCAGCCTCCCCCTCGGCCGCCTCCACGACCCGGAGTAGGGGGGCTCGGGACCATGAGGATG
ACCAGCAAAATTCAAGAACAAAACTGCTCCAACAGACTTTTTTAAAGGAAAAAATATGTGTATCTTGAAAGCTAT
TTAAAATACACTACTTACAAAGAG

FIGURE 3548

GTTCGCC**ATG**CGTCCCGGGGCGCCAGGGCCACTCTGGCCTCTGCCCTGGGGGGCCCTGGCTTGGGCCGTGGGCTT
CGTGAGCTCCATGGGCTCGGGGAACCCCGCGCCCGGTGGTGTTTGCTGGCTCCAGCAGGGCCAGGAGGCCACCTG
CAGCCTGGTGCTCCAGACTGATGTCACCCGGGCCGAGTGCTGTGCCTCCGGCAACATTGACACCGCCTGGTCCAA
CCTCACCCACCCGGGGAACAAGATCAACCTCCTCGGCTTCTTGGGCCTTGTCCACTGCCTTCCCTGCAAAGATTC
GTGCGACGGCGTGGAGTGCGGCCCGGGCAAGGCGTGCCGCATGCTGGGGGGCCGCCCGCGCTGCGAGTGCGCGCC
CGACTGCTCGGGGCTCCCGGCGCGGCTGCAGGTCTGCGGCTCAGACGGCGCCACCTACCGCGACGAGTGCGAGCT
GCGCGCCGCGCGCTGCCGCGGCCACCCGGACCTGAGCGTCATGTACCGGGGCCGCTGCCGCAAGTCCTGTGAGCA
CGTGGTGTGCCCGCGGCCACAGTCGTGCGTCGTGGACCAGACGGGCAGCGCCCACTGCGTGGTGTGTCGAGCGGC
GCCCTGCCCTGTGCCCTCCAGCCCCGGCCAGGAGCTTTGCGGCAACAACAACGTCACCTACATCTCCTCGTGCCA
CATGCGCCAGGCCACCTGCTTCCTGGGCCGCTCCATCGGCGTGCGCCACGCGGGCAGCTGCGCAGGCACCCCTGA
GGAGCCGCCAGGTGGTGAGTCTGCAGAAGAGGAAGAGAACTTCGTG**TGA**GCCTGCAGGACAGGCCTGGGCCTGGT
GCCCGAGGCCCCCCATCATCCCCTGTTATTTATTGCCACAGCAGAGTCTAATTTATATGCCACGGACACTCCTTA
GAGCCCGGATTCGGACCACTTGGGGATCCCAGAACCTCCCTGACGATATCCTGGAAGGACTGAGGAAGGGAGGCC
TGGGGGCCGGCTGGTGGGTGGGATAGACCTGCGTTCCGGACACTGAGCGCCTGATTTAGGGCCCTTCTCTAGGAT
GCCCCAGCCCCTACCCTAAGACCTATTGCCGGGGAGGATTCCACACTTCCGCTCCTTTGGGGATAAACCTATTAA
TTATTGCTACTATCAAGAGGGCTGGGCATTCTCTGCTGGTAATTCCTGAAGAGGCATGACTGCTTTTCTCAGCCC
CAAGCCTCTAGTCTGGGTGTGTACGGAGGGTCTAGCCTGGGTGTGTACGGAGGGTCTAGCCTGGGTGAGTACGGA
GGGTCTAGCCTGGGTGAGTACGGAGGGTCTAGCCTGGGTGAGTACGGAGGGTCTAGCCTGGGTGTGTATGGAGGA
TCTAGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGTGTATGGAGGGTCT
AGCCTGGGTGAGTATGGAGGGTCTAGCCTGGGTGTGTATGGAGGGTCTAGCCTGGGTGAGTATGGAGGGTCTAGC
CTGGGTGTGTACGGAGGGTCTAGTCTGAGTGCGTGTGGGGACCTCAGAACACTGTGACCTTAGCCCAGCAAGCCA
GGCCCTTCATGAAGGCCAAGAAGGCTGCCACCATTCCCTGCCAGCCCAAGAACTCCAGCTTCCCCACTGCCTCTG
TGTGCCCCTTTGCGTCCTGTGAAGGCCATTGAGAAATGCCCAGTGTGCCCCCTGGGAAAGGGCACGGCCTGTGCT
CCTGACACGGGCTGTGCTTGGCCACAGAACCACCCAGCGTCTCCCCTGCTGCTGTCCACGTCAGTTCATGAGGCA
ACGTCGCGTGGTCTCAGACGTGGAGCAGCCAGCGGCAGCTCAGAGCAGGGCACTGTGTCCGGCGGAGCCAAGTCC
ACTCTGGGGGAGCTCTGGCGGGGACCACGGGCCACTGCTCACCCACTGGCCCCGAGGGGGGTGTAGACGCCAAGA
CTCACGCATGTGTGACATCCGGAGTCCTGGAGCCGGGTGTCCCAGTGGCACCACTAGGTGCCTGCTGCCTCCACA
GTGGGGTTCACACCCAGGGCTCCTTGGTCCCCCACAACCTGCCCCGGCCAGGCCTGCAGACCCAGACTCCAGCCA
GACCTGCCTCACCCACCAATGCAGCCGGGGCTGGCGACACCAGCCAGGTGCTGGTCTTGGGCCAGTTCTCCCACG
ACGGCTCACCCTCCCCTCCATCTGCGTTGATGCTCAGAATCGCCTACCTGTGCCTGCGTGTAAACCACAGCCTCA
GACCAGCTATGGGGAGAGGACAACACGGAGGATATCCAGCTTCCCCGGTCTGGGGTGAGGAATGTGGGGAGCTTG
GGCATCCTCCTCCAGCCTCCTCCAGCCCCCAGGCAGTGCCTTACCTGTGGTGCCCAGAAAAGTGCCCCTAGGTTG
GTGGGTCTACAGGAGCCTCAGCCAGGCAGCCCACCCCACCCTGGGGCCCTGCCTCACCAAGGAAATAAAGACTCA
A

FIGURE 3549

CCCCCGCGCCGCGCAGCCCCGGCCGCCAGGCCTTAGCCCGCCCCGGCCCCCGCCAGGCCGCGTCCCCCTCCCCTC
CCCTCCCCCGCGCGCCACCCGCGCCCGCCCCCGCCCGGCACCGCGGACCCACCCGGACCTCGGCGGGGAG**ATG**GA
GGTCCTGGCGGCAGAGACCACGTCCCAGCAGGAGCGGCTGCAGGCCATCGCAGAGAAGCGGAAGCGGCAGGCGGA
GATCGAGAACAAGCGCCGGCAGCTGGAGGACGAGCGGAGGCAGCTGCAGCACCTGAAGTCCAAGGCACTGCGGGA
GCGCTGGCTGCTGGAGGGGACGCCGTCCTCGGCCTCAGAGGGGGATGAGGACCTGAGGAGGCAGATGCAGGACGA
CGAGCAGAAGACACGGCTGCTGGAGGACTCGGTGTCCAGGTTGGAGAAGGAAATTGAGGTGCTGGAGCGTGGAGA
CTCCGCCCCAGCCACTGCCAAGGAGAACGCGGCGGCCCCGAGCCCAGTCCGGGCCCCAGCCCCGAGTCCAGCCAA
GGAGGAGCGCAAGACAGAGGTGGTGATGAATTCACAGCAGACGCCGGTGGGCACGCCCAAAGACAAGCGAGTCTC
CAACACGCCCCTGAGGACGGTTGACGGCTCCCCCATGATGAAGGCAGCCATGTACTCGGTTGAGATCACTGTGGA
GAAGGACAAGGTGACAGGGGAGACCAGGGTGCTGTCCAGCACCACGCTGCTCCCTCGGCAGCCGCTCCCTCTGGG
CATCAAAGTCTACGAGGACGAGACCAAAGTGGTCCATGCTGTGGACGGCACCGCCGAGAACGGGATCCACCCCCT
GAGCTCCTCCGAGGTGGACGAACTCATCCACAAAGCGGACGAGGTCACGCTGAGCGAGGCAGGGTCCACGGCCGG
GGCGGCAGAGACCCGGGGGGCTGTGGAGGGGGCAGCCCGGACCACGCCCTCCCGGCGGGAGATCACCGGTGTGCA
GGCACAGCCAGGCGAGGCCACGTCCGGCCCGCCGGGGATCCAGCCCGGCCAGGAGCCCCCGGTCACAATGATCTT
CATGGGTTACCAGAACGTGGAGGATGAGGCCGAGACCAAGAAGGTGCTGGGCCTTCAAGATACCATCACGGCGGA
GCTGGTGGTCATCGAAGACGCGGCTGAGCCCAAGGAGCCTGCACCACCCAACGGCAGTGCTGCCGAGCCTCCCAC
GGAGGCCGCCTCCAGGGAAGAGAATCAGGCGGGGCCCGAGGCCACCACCAGCGACCCCCAGGACCTCGACATGAA
GAAGCACCGTTGTAAATGCTGCTCCATCATG**TGA**GCCGGCCCCCGAGACCCCGGCCCCCACCCCACACCACAGAC
ACCCACCAGCCCGGCCCCTCCCGGCGCCTGCCCACCCTCCACCCACAGCCTCACGGGTCCAGGACTTGGCGTGTT
GTTACATGTTCCTTCCGAGTTTTCTTTCGCTGGAAAGAGGGACAGGGGCCCCCACCCGTCACCACGCCCCAACAC
TCCCCCCGAACCAGAGCCGTGCACTTGTGCCTGGTAGGAGAGAGACAGGACAGACCCGCTTTTCCCGAGACAAGG
ACCCCCCATGTCACGGCAGCTTCACAGACGCGGCTCGCGCCCACCGGGGTCCTGGCGGGTGGGACCCGCAGCCTC
CACGCGGCCCAGGCCAGCCTGCCACCCTCTGGGCCTCCTACCTGTGCCTTTCTCTGAGGGGACACCCCGCCAGAG
AGGGCCCCGGGAGCCGGGGGTGGGTACTGAGGCCTGCTCAGGCCCTGGAAGTGAGGCTCTATGGGGTTCCCTGGC
CAAGGCGCTGGCCCCCCAATCTCAGGCAGTTGGGGTGAGGCCGTGCCTCTTTGGGGGCTAAAGGTCTTGGGTGGA
GGACAGGCCCCTCTGCTGTGCCCCTATGCCCTGTGTGGGCCCAACCAGTGGACAATGGAGTCTGGGGGAGGGGGA
ACCCCGGGGACATGCCCCCACCCGGGAGGGGCCGGTAACCCCTGGGCTATCTTCTAGACGGGGCGAACCAGGGGT
CATTGACCTGCCCCCTGCACAGGGCAGGGACCGAGTGAGCCACTCCTTGTCCCGAGCTCCCGCCCCCACTGGGCC
CTCCTTCCTCCTGGTGCTAATTTGGGGACCCCAGGGGCCGCCCCCGGCCTCTTCTCCATCCTGCTTGGACCAGGG
TCCTGGGTCTTCCCAACCATACCCCGAGATCAGGCCCCACCTGCCAGCTCTACTGGGCTTGGAGCACGTCCGGGC
AGTGGAGGGAGGGACACAGCCTGGGACAGGAAGCCTCTTGGGTTGGAGCAGGAGACCCTCATTTGCCACCCAGAC
CAATGTGAGCCTGCCCCCAGCCCCCTCTCATTGGAAGTGGCAAGGGGCTTCCCTCCTGGGGGCAGCTACACTCGT
CCCCAGAGGCACATTCGTGCACATTCTCACAGACACCGTCTCACACGTTGGCTTTGGACAACCAGGCCCCAACTT
GGTCCCTGCCCTAGGGACCTCCAGCCTGGTGCCCAGTGCTCAGGCCACCTCCTGGTCCAGTCACCACCTGCAGCC
TCGGCAGGGCAGGTACAGGGGCCACCTCAGATGGGAGCCTGGGTCCCTGCCTCCGCTCTGCCCCTGGGTGGCTGG
GAGGAGAGGCCCTCTCGGGGGTGACCTGGGCGTCAGCCGTGGAACCCCCTCCTCCTCCCTGGAGTCTGCCTGAGT
CCCTCGAGCCGCGAGCCTTCGCTGAAGTGCCCTTGCTATAACCCCCTCTGCTTCTGGTGTGTGACGAGGCCCCCG
ATGTTCTTGATTTTCCCAGAGAAGCAAATAAACAGCGTGAACAGCCCC

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FIGURE 3550

CCTCAGCCCGGCCCCAGATGCCCGTGCGGCCGACCCAGCTCCAGAAGTGAGGAAGGTGAACCGCATCCCACCTGA
TGCCTACCAGCCGTACCTGAGCCCCGGGACCCCCCAGCTAGAATTCTCAGCCTTCGGAGCATTCGGCAAGCCCAG
CAGTCTCTCCACAGCGGAGGCCAAGGCTGCGACTTCACCAAAGGCCACG**ATG**TCCCCGAGGCATCTCTCAGAATC
CTCTGGAAAACCCCTGAGCACAAAGCAAGAGGCATCGAAGCCCCCTCGGGGATGCCCGCAAGCCAACAGGGGTGT
CGTGCGGTGGGAGTACTTCCGCCTGCGTCCTCTGCGGTTCAGGGCCCCAGACGAGCCCCAGCAGGCCCAAGTCCC
CCATGTCTGGGGCTGGGAGGTGGCTGGGGCCCCTGCACTGAGGCTGCAGAAGTCCCAGTCATCTGATCTGCTGGA
AAGGGAGAGGGAGAGTGTCCTGCGCCGGGAGCAAGAGGTGGCAGAGGAGCGGAGAAATGCTCTCTTCCCAGAGGT
CTTCTCCCCAACGCCAGATGAGAACTCTGACCAGAACTCCAGGAGCTCCTCCCAGGCATCCGGCATCACGGGCAG
TTACTCGGTGTCTGAGTCTCCCTTCTTCAGCCCCATCCACCTACACTCAAACGTGGCGTGGACAGTGGAAGATCC
AGTGGACAGTGCTCCTCCCGGGCAGAGAAAGAAGGAGCAATGGTACGCTGGCATCAACCCCTCGGACGGTATCAA
CTCAGAGGTCCTGGAAGCCATACGGGTGACCCGTCACAAGAACGCCATGGCAGAGCGCTGGGAATCCCGCATCTA
CGCCAGTGAGGAGGATGAC**TGA**GCCTCGGGATGGGGCGCCCACCCCCTGCCCTGCCCTGACCCTCGTGGGAACTG
CCAAGACCATCGCCAAGCCCCCACCCTAGGAAATGGGTCCTAGGTCCAGGATCCAAGAACCACAGCTCATCTGCC
AACAATCCCACCATGGGCACATTTGGGACTGTTGGGTTTTTCGTTTCCGTTTCTATCTTCCTTTAGAAATGTTTC
TGCCTTTGGGGTCTAAAGCTTTTGGGGATGAAATGGGACCCCTGCTGATTCTTTCTGCTTCTAAGACTTTGCCAA
ATGCCCTGGGTCTAAGAAAGAAAGAGACCCGCTCCTCCACTTTCAGGTGTAATTTGCTTCCGCTAGTCTGAGGGC
AGAGGGACCGGTCAAAGAGGGTGGCACAGATCGCAGCACCTTGAGGGGCTGCGGGTCTGAGGGAGGAGACACTCA
GCTCCTCCCTCTGAGAAGTCCCAAGCTGAGAGGGGAGACCTGCCCCTTTCCAACCCTGGGAAACCATCCAGTCTG
AGGGAGGAGGCCAAACTCCCAGTGCTGGGGGTCCCTGTGCAGCCCTCAAACCCTTCACCTTGGTGCACCCAGCCA
CACCTGGTGGACACAAAGCTCTCACATCGATAGGATCCCATGAGGATGGTCCCCTTCACCTGGGAGAAAAGTGAC
CCAGTTTAGGAGCTGGAGGGGGGTCTTTGTCCCCCACCCCCAAACTGCCCTGAAATAAACCTGGAGTGAGCTGCC

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FIGURE 3551

TTGTGAGTCTATAACTCGGAGCCGTTGGGTCGGTTCCTGCTATTCCGGCGCCTCCACTCCGTCCCCCGCGGGTCT
GCTCTGTGTGCC**ATG**GACGGCATTGTCCCAGATATAGCCGTTGGTACAAAGCGGGGATCTGACGAGCTTTTCTCT
ACTTGTGTCACTAACGGACCGTTTATCATGAGCAGCAACTCGGCTTCTGCAGCAAACGGAAATGACAGCAAGAAG
TTCAAAGGTGACAGCCGAAGTGCAGGCGTCCCCTCTAGAGTGATCCACATCCGGAAGCTCCCCATCGACGTCACG
GAGGGGGAAGTCATCTCCCTGGGGCTGCCCTTTGGGAAGGTCACCAACCTCCTGATGCTGAAGGGGAAAAACCAG
GCCTTCATCGAGATGAACACGGAGGAGGCTGCCAACACCATGGTGAACTACTACACCTCGGTGACCCCTGTGCTG
CGCGGCCAGCCCATCTACATCCAGTTCTCCAACCACAAGGAGCTGAAGACCGACAGCTCTCCCAACCAGGCGCGG
GCCCAGGCGGCCCTGCAGGCGGTGAACTCGGTCCAGTCGGGGAACCTGGCCTTGGCTGCCTCGGCGGCGGCCGTG
GACGCAGGGATGGCGATGGCCGGGCAGAGCCCCGTGCTCAGGATCATCGTGGAGAACCTCTTCTACCCTGTGACC
CTGGATGTGCTGCACCAGATTTTCTCCAAGTTCGGCACAGTGTTGAAGATCATCACCTTCACCAAGAACAACCAG
TTCCAGGCCCTGCTGCAGTATGCGGACCCCGTGAGCGCCCAGCACGCCAAGCTGTCGCTGGACGGGCAGAACATC
TACAACGCCTGCTGCACGCTGCGCATCGACTTTTCCAAGCTCACCAGCCTCAACGTCAAGTACAACAATGACAAG
AGCCGTGACTACACACGCCCAGACCTGCCTTCCGGGGACAGCCAGCCCTCGCTGGACCAGACCATGGCCGCGGCC
TTCGGTGCACCTGGTATAATCTCAGCCTCTCCGTATGCAGGAGCTGGTTTCCCTCCCACCTTTGCCATTCCTCAA
GCTGCAGGCCTTTCCGTTCCGAACGTCCACGGCGCCCTGGCCCCCCTGGCCATCCCCTCGGCGGCGGCGGCAGCT
GCGGCGGCAGGTCGGATCGCCATCCCGGGCCTGGCGGGGGCAGGAAATTCTGTATTGCTGGTCAGCAACCTCAAC
CCAGAGAGAGTCACACCCCAAAGCCTCTTTATTCTTTTCGGCGTCTACGGTGACGTGCAGCGCGTGAAGATCCTG
TTCAATAAGAAGGAGAACGCCCTAGTGCAGATGGCGGACGGCAACCAGGCCCAGCTGGCCATGAGCCACCTGAAC
GGGCACAAGCTGCACGGGAAGCCCATCCGCATCACGCTCTCGAAGCACCAGAACGTGCAGCTGCCCCGCGAGGGC
CAGGAGGACCAGGGCCTGACCAAGGACTACGGCAACTCACCCCTGCACCGCTTCAAGAAGCCGGGCTCCAAGAAC
TTCCAGAACATATTCCCGCCCTCGGCCACGCTGCACCTCTCCAACATCCCGCCCTCAGTCTCCGAGGAGGATCTC
AAGGTCCTGTTTTCCAGCAATGGGGGCGTCGTCAAAGGATTCAAGTTCTTCCAGAAGGACCGCAAGATGGCACTG
ATCCAGATGGGCTCCGTGGAGGAGGCGGTCCAGGCCCTCATTGACCTGCACAACCACGACCTCGGGGAGAACCAC
CACCTGCGGGTCTCCTTCTCCAAGTCCACCATC**TAG**GGGCACAGGCCCCCACGGCCGGGCCCCCTGGCGACAACT
TCCATCATTCCAGAGAAAAGCCACTTTAAAAACAGCTGAAGTGACCTTAGCAGACCAGAGATTTTATTTTTTTAA
AGAGAAATCAGTTTACCTGTTTTTAAAAAAATTAAATCTAGTTCACCTTGCTCACCCTGCGGTGACAGGGACAGC
TCAGGCTCTTGGTGACTGTGGCAGCGGGAGTTCCCGGCCCTCCACACCCGGGGCCAGACCCTCGGGGCCATGCCT
TGGTGGGGCCTGTGTCGGGCGTGGGGCCTGCAGGTGGGCGCCCCGACCACGACTTGGCTTCCTTGTGCCTTAAAA
AACCTGCCTTCCTGCAGCCACACACCCACCCGGGGTGTCCTGGGGACCCAAGGGGTGGGGGGGTCACACCAGAGA
GAGGCAGGGGGCCTGGCCGGCTCCTGCAGGATCATGCAGCTGGGGCGCGGCGGCCGCGGCTGCGACACCCCAACC
CCAGCCCTCTAATCAAGTCACGTGATTCTCCCTTCACCCCGCCCCCAGGGCCTTCCCTTCTGCCCCCAGGCGGGC
TCCCCGCTGCTCCAGCTGCGGAGCTGGTCGACATAATCTCTGTATTATATACTTTGCAGTTGCAGACGTCTGTGC
CTAGCAATATTTCCAGTTGACCAAATATTCTAATCTTTTTTCATTTATATGCAAAAGAAATAGTTTTAAGTAACT
TTTTATAGCAAGATGATACAATGGTATGAGTGTAATCTAAACTTCCTTGTGGTATTACCTTGTATGCTGTTACTT
TTATTTTATTCCTTGTAATTAAGTCACAGGCAGGACCCAGTTTCCAGAGAGCAGGCGGGGCCGCCCAGTGGGTCA
GGCACAGGGAGCCCCGGTCCTATCTTAGAGCCCCTGAGCTTCAGGGAAGGGGCGGGCGTGTCGCCGCCTCTGGCA
TCGCCTCCGGTTGCCTTACACCACGCCTTCACCTGCAGTCGCCTAGAAAACTTGCTCTCAAACTTCAGGGTTTTT
TCTTCCTTCAAATTTTGGACCAAAGTCTCATTTCTGTGTTTTGCCTGCCTCTGATGCTGGGACCCGGAAGGCGGG
CGCTCCTCCTGTCTTCTCTGTGCTCTTTCTACCGCCCCCGCGTCCTGTCCCGGGGGCTCTCCTAGGATCCCCTTT
CCGTAAAAGCGTGTAACAAGGGTGTAAATATTTATAATTTTTTATACCTGTTGTGAGACCCGAGGGGCGGCGGCG
CGGTTTTTTATGGTGACACAAATGTATATTTTGCTAACAGCAATTCCAGGCTCAGTATTGTGACCGCGGAGCCAC
AGGGGACCCCACGCACATTCCGTTGCCTTACCCGATGGCTTGTGACGCGGAGAGAACCGATTAAAACCGTTTGAG
AAACTCCTCCCTTGTCTAGCCCTGTGTTCGCTGTGGACGCTGTAGAGGCAGGTTGGCCAGTCTGTACCTGGACTT
CGAATAAATCTTCTGTATCCTCGCTCCGTTCCGCCTT

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FIGURE 3552

GAGGAGACGCGCTTTGTGCTGGGCGCCGGCCGCGCCAGCCACGGCCTGCGGCGCCCGCGGCACC**ATG**ATCTCCAC
CAAGGAGAAGAACAAGATCCCGAAGGACAGCATGACGCTTCTGCCCTGCTTCTACTTCGTGGAGCTGCCCATAGT
GGCTTCTTCCATCGTATCCTTGTACTTCCTGGAGCTGACCGACCTCTTCAAGCCGGCCAAGGTGGGCTTCCAGTG
CTATGACCGCACTCTCTCCATGCCCTACGTGGAGACCAACGAGGAGCTCATCCCGCTGCTGATGCTGCTCAGCTT
GGCCTTCGCGGCCCCTGCCGCCTCGATCATGGTGGCCGAGGGCATGTTGTACTGTCTGCAGTCCCGGCTGTGGGG
CCGTGCCGGGGGGCCCGCCGGGGCGGAGGGCAGCATCAACGCCGGCGGCTGCAACTTCAACTCCTTCCTGCGGCG
TACGGTGCGGTTTGTGGGTGTCCACGTGTTCGGCCTGTGTGCCACAGCCCTGGTGACGGACGTGATCCAGCTGGC
CACGGGTTACCACACTCCCTTCTTCCTCACCGTCTGCAAGCCCAACTACACTCTCCTGGGCACGTCCTGCGAGGT
CAACCCCTACATCACGCAGGACATCTGCTCCGGCCACGACATCCACGCCATCCTGTCTGCACGGAAGACCTTCCC
GTCCCAGCACGCCACGCTGTCAGCCTTCGCCGCGGTCTATGTGTCGGTGAGTCCGGCCCCTCACTGCCCTTCCCA
GGCCCTCTTGCTGACCCGTGGGGAGCCCTCCCTGACCCCAACCCCCATGCCCCAGATGTACTTCAACTCGGTCAT
CTCGGACACCACCAAGCTGCTGAAGCCCATCCTGGTCTTCGCCTTTGCCATCGCCGCGGGCGTATGCGGGCTCAC
GCAGATCACGCAGTACCGCAGCCACCCTGTGGACGTGTATGCCGGCTTCCTCATCGGGGCGGGCATCGCTGCCTA
CCTGGCCTGCCACGCGGTGGGCAACTTCCAGGCCCCACCTGCAGAGAAGCCCGCGGCCCCGGCCCCCGCCAAGGA
CGCGCTGCGGGCCCTGACGCAGCGGGGCCACGACTCGGTTTATCAGCAGAATAAGTCGGTGAGCACCGACGAGCT
GGGGCCCCCAGGGCGGCTGGAGGGCGCGCCCCGGCCCGTGGCCCGCGAGAAGACCTCGCTGGGCAGCCTGAAGCG
CGCCAGCGTGGACGTGGACCTGCTGGCCCCGCGCAGCCCCATGGCCAAGGAGAACATGGTGACCTTCAGCCACAC
GCTGCCCAGGGCCAGCGCGCCCTCGCTGGACGACCCCGCGCGCCGCCACATGACCATCCACGTGCCGCTGGACGC
CTCGCGCTCCAAGCAGCTCATCAGCGAGTGGAAGCAGAAGAGCCTGGAGGGCCGCGGCCTGGGGCTGCCCGACGA
CGCCAGCCCCGGGCACCTGCGCGCGCCCGCCGAACCCATGGCGGAGGAGGAGGAAGAGGAGGAGGACGAAGAGGA
AGAGGAGGAGGAGGAAGAGGAGGAGGACGAGGGCCCGGCCCCGCCCTCGCTCTACCCCACCGTGCAGGCGCGGCC
GGGGCTGGGGCCTCGGGTCATCCTCCCACCGCGCGCGGGGCCGCCGCCGCTGGTGCACATCCCGGAGGAGGGCGC
GCAGACGGGGGCCGGCCTGTCCCCCAAAAGCGGCGCCGGGGTGCGCGCCAAGTGGCTCATGATGGCCGAGAAGAG
CGGGGCGGCAGTGGCCAACCCTCCGCGGCTGCTGCAGGTCATCGCCATGTCCAAGGCTCCGGGCGCGCCGGGCCC
CAAGGCGGCCGAGACGGCGTCGTCGTCCAGCGCCAGCTCCGACTCCTCGCAGTACCGGTCGCCGTCGGACCGCGA
CTCCGCCAGCATCGTGACCATCGACGCGCACGCGCCGCACCACCCCGTGGTGCACCTGTCGGCCGGCGGCGCGCC
CTGGGAGTGGAAGGCGGCGGGCGGCGGGGCCAAGGCGGAGGCCGACGGCGGCTACGAGCTGGGGGACCTGGCGCG
CGGCTTCCGCGGCGGGGCCAAGCCCCCGGGCGTGTCCCCCGGCTCGTCGGTCAGCGACGTGGACCAGGAGGAGCC
GCGGTTCGGGGCCGTGGCCACCGTCAACCTGGCCACGGGCGAGGGGCTGCCCCCGCTGGGCGCGGCCGATGGGGC
GCTGGGCCCGGGCAGCCGGGAGTCCACGCTGCGGCGCCACGCGGGCGGCCTGGGGCTGGCGGAGCGCGAGGCGGA
GGCGGAGGCCGAGGGCTACTTCCGCAAGATGCAGGCGCGCCGCTTCCCCGAC**TAG**CGCGGCGGGGCCGGGGGCGG
GCGGGGGGCGGGCCGAGGGCGCGGGCGGCCGC

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FIGURE 3553

ATGTGTGATTTGCGGCGGCCAGCGGCAGGTGGGATGATGGACTTGGCCTACGTCTGTGAGTGGGAGAAATGGTCC
AAGAGCACCCACTGCCCATCGGTGCCCCTGGCCTGCGCCTGGTCCTGCCGAAATCTCATCGCCTTCACCATGGAC
CTGCGCAGCGATGACCAGGACCTGACCCGCATGATCCACATCCTGGACACGGAGCACCCCTGGGACCTGCACTCG
ATCCCCTCAGAGCACCACGAGGCTATCACCTGCCTGGAGTGGGACCAGTCAGGCTCCCGGCTCCTGTCAGCAGAT
GCCGACGGGCAGATCAAGTGCTGGAGCATGGCGGACCACCTGGCTAATAGCTGGGAGAGCTCAGTGGGCAGCCTA
GTGGAGGGGGACCCCATTGTGGCCCTGTCCTGGCTGCACAATGGTGTGAAACTGGCCCTGCACGTGGAGAAGTCG
GGCGCCTCCAGCTTCGGGGAGAAGTTCTCCCGAGTCAAGTTCTCACCGTCGCTCACGCTGTTCGGCGGCAAGCCC
ATGGAGGGCTGGATCGCGGTGACGGTCAGCGGCCTGGTCACCGTGTCCCTGCTGAAGCCCAGCGGGCAGGTGCTG
ACGTCCACCGAGAGCCTGTGCCGGCTGCGCGGCCGCGTGGCCCTGGCGACATCGCCTTCACCGGCGGCGGCAACA
TCGTGGTGGCCACGGCGGACGGCAGCAGCGCGTCGCCCGTGCAGTTCTACAAGGTGTGCGTGAGCGTGGTGAGCG
AGAAGTGCCGTATCGACACGGAGATCCTGCCCTCCCTGTTC**ATG**CGCTGCACCACCGACCTCAACCGCAAGGACA
AGTTCCCCGCCATCACCCACCTCAAGTTCCTGGCCCGGGACATGTCGGAGCAGGTGCTTTTGTGCGCGTCCAGCC
AGACCAGCAGCATCGTGGAGTGCTGGTCCCTGCGCAAGGAGGGACTCCCCGTGAACAACATCTTCCAGCAGATCT
CCCCCGTGGTTGGCGACAAACAGCCCACAATTCTCAAATGGCGGATCCTATCGGCCACCAACGATCTGGACCGTG
TGTCGGCCGTGGCGCTGCCCAAGCTGCCCATCTCGCTCACCAACACCGACCTCAAGCTGAGCGTGCTCCGCCTCT
CACCTTCCATGGGCCACCCGCTGGAGGTGGGGCTGGCGCTGCGGCACCTGCTCTTCCTGCTGGAGTACTGCATGG
TGACCGGCTACGACTGGTGGGACATCCTGCTGCACGTGCAGCCCAGTATGGTACAGAGCCTGGTGGAGAAGCTGC
ACGAGGAGTACACGCGCCAGACCGCTGCCCTGCAGCAGGTCCTCTCCACCCGGATCCTGGCCATGAAGGCCTCGC
TCTGCAAGCTGTCGCCCTGCACGGTGACTCGCGTGTGCGACTACCACACCAAGCTCTTCCTCATCGCCATCAGCT
CCACCCTGAAGTCGCTGCTGCGCCCCCACTTTCTCAACACGCCTGACAAGAGCCCCGGCGACCGGCTGACCGAGA
TCTGCACCAAGATCACCGACGTCGACATTGACAAGGTCATGATCAACCTCAAGACGGAGGAATTTGTGCTGGACA
TGAACACACTGCAGGCGCTGCAGCAGCTCTTGCAGTGGGTGGGCGACTTCGTGCTGTACCTGCTGGCCAGCCTAC
CCAACCAGGGTTCCCTGCTGAGGCCGGGCCACAGCTTTCTGCGGGACGGCACCTCGCTGGGCATGCTTCGGGAAT
TGATGGTGGTCATCCGCATCTGGGGCCTTCTGAAGCCCAGCTGCCTGCCCGTGTATACGGCCACTTCGGATACCC
AGGACAGCATGTCCCTGCTCTTCCGCCTGCTCACCAAGCTCTGGATCTGCTGTCGCGATGAGGGCCCAGCGAGCG
AGCCGGACGAGGCGCTGGTGGATGAATGCTGCCTGCTGCCCAGCCAGCTGCTTATCCCCAGCCTGGACTGGCTGC
CAGCCAGCGACGGCCTGGTCAGCCGCCTGCAGCCCAAGCAGCCCCTTCGTCTGCAGTTTGGCCGGGCGCCCACGC
TGCCTGGCAGTGCTGCCACCCTGCAGCTCGACGGCCTCGCCAGGGCCCCAGGCCAGCCCAAGATCGACCACCTGC
GGAGGCTGCACCTTGGCGCTTGCCCCACGGAGGAATGCAAGGCCTGCACCAGGTGCGGCTGTGTCACCATGCTCA
AGTCGCCCAACAGAACCACGGCGGTGAAGCAGTGGGAGCAGCGCTGGATCAAGAACTGCCTGGCTGTTGAAGGCC
GTGGGCCGGACGCCTGCGTGACCAGCAGAGCTTCTGAGGAAGCCCCTGCCTTTGTCCAGCTGGGCCCGCAGTCCA
CACACCACTCTCCCAGGACCCCCAGATCCCTGGACCATCTGCATCCAAAGGACCGTCCG**TGA**

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FIGURE 3554

GAAGGCCCTGCCGGGCGGCGGCGGCGGCGACAGCGTGCGAGCCATGGTCGCGCTGGAGAACCCCGAGTGCGGCCC
GGAGGCGGCGGAGGGCACCCCGGGCGGGCGGCGGCTGCTGCCCCTTCCCAGCTGCCTGCCTGCCCTAGCCAGCTC
CCAGGTGAAGAGACTCTCGGCTTCCAGGCGGAAACAGCACTTCATCAACCAGGCAGTGCGGAACTCAGACCTCGT
GCCCAAGGCCAAGGGGCGGAAGAGCCTCCAGCGCCTGGAGAACACCCAGTACCTCCTGACCCTGCTGGAGACAGA
CGGGGGCCTGCCTGGCCTGGAGGATGGGGACTTGGCACCCCCTGCATCACCAGGCATCTTTGCCGAGGCCTGCAA
CAACGCCACCTATGTGGAGGTCTGGAACGATTTCATGAACCGCTCCGGGGAGGAGCAGGAGCGGGTTCTTCGCTA
CCTGGAGGATGAGGGCAGGAGCAAGGCGCGGAGGAGGGGCCCTGGCCGTGGGGAGGACCGGAGGAGAGAGGACCC
CGCCTATACACCCCGCGAGTGCTTCCAGCGCATCAGCCGGCGTCTGCGAGCCGTCCTCAAGCGCAGCCGCATCCC
CATGGAAACGCTGGAGACCTGGGAGGAGCGGCTGCTTCGGTTCTTCTCCGTGTCCCCCCAGGCCGTGTACACAGC
AATGCTAGACAACAGCTTCGAGAGGCTTCTGCTGCACGCTGTCTGCCAGTACATGGACCTCATCTCAGCCAGTGC
TGACCTGGAGGGGAAGCGGCAGATGAAGGTCAGTAATCGGCACCTGGATTTCCTGCCGCCGGGGCTGCTCCTGTC
CGCCTACCTGGAGCAGCACAGCTGATGGCGGCCCCGCGGAGACCCCGCTGCCACCTCGCCCAGCCATCAAGCCCT
CCGATACCTTCGGCTAAAATATCTTTCATATTTTTAGAATTTGTCCTCGGAAACCTTTTTCGCTTGGGGTGGTCT
CTCTCACTCTGCCCCCTCCTCACGCAGCTCTTGGCAGTCAACAGACGCTGGCGGCTGGGGCTGCCCATGCCATCC
CAGCTCCAAGCTTCCCACTCCAGGACTTGTGTTTGGGTGGGGAGACCTGACCTGGGCATGTTCCTGTTTCTTCAT
CGTTGAGCTTTTCTGGCCCGGTCTGAAGCTCAAGTGAGGAGGGGGAGGCTGGGTTTTTATCACTTTTAATGAATT
TGGTGTGATTTGTTGTAGATTTTTAAATTTCCCTTTTGGAGAGAAAAACCAAAAAAACTCGCCCCACTGGTAAAA
CATGGGTCTTGGTCCCAGCCCCTGCTCAGCCCCTCCCAGTTTTTAGCTTGA**ATG**AGGGTGGGGTCTCTGGGACCC
TGCCCCTCATGCCAGAAGCATCTTGTGTTGTATATGTGTGCGCGCGTGTGCCCTGAGACCCAGGACAGAAGCCAC
GGTCCTAAGAGCCGGTTTTATCCTCGTCATTCTGCGTGTCCTCCCCCACGCCACCTGTGTCGGGGCTCAGGGTCT
CCTGCTTTATATGAGCCCCCTTCCTTTCCTCCCCTCCTTTATGCTGGGGGTCCAGGACTTCCAGCCAGAAGCCTC
TGCCCTTGCACTACCTTGTCTGTCACCCCATCCCGTGTCCCCTCGTCCCCCAGCCTGACTCCTGCC**TGA**TAGCTC
CTGTGTCCCCATGCTGGTCCTCCTGGCCCAGGCTGCAGGAGCCAGGCTGGGGGGCCTCCGCACCCCCTTGCTGCG
TGTGGGTAATTGTGTTTTGGGGGAAAGTGGGGAATTTAATAAATTTCTGGTGCTC

FIGURE 3555

GGCAAG**ATG**GCGGCGCCCATGGAGGTGGCCGTGTGTACGGACTCGGCGGCCCCGATGTGGAGCTGCATCGTGTGG
GAACTTCACTCGGGCGCCAACCTGCTCACCTACCGCGGCGGCCAGGCGGGACCCCGCGGCCTGGCGCTGCTCAAT
GGCGAGTATCTGCTGGCGGCGCAGCTGGGCAAGAATTACATCAGCGCCTGGGAGCTCCAGCGGAAGGACCAGCTC
CAGCAGAAGATCATGTGCCCCGGGCCTGTCACCTGTCTGACTGCATCACCCAATGGTCTCTACGTCCTGGCAGGA
GTTGCAGAAAGCATCCACCTGTGGGAGGTCTCCACCGGGAACCTTCTGGTCATCCTGAGTCGACACTACCAGGAC
GTCTCCTGCCTTCAGTTCACAGGGGACAGCAGCCACTTCATCTCAGGGGGCAAGGACTGCCTGGTGCTGGTTTGG
AGCCTCTGCAGCGTGCTGCAGGCCGACCCCTCCAGGATTCCGGCGCCCAGGCACGTCTGGTCTCACCACGCGCTC
CCCATCACGGACCTGCACTGCGGCTTTGGGGGCCCCCTGGCCCGGGTGGCCACCTCCTCACTGGACCAGACGGTG
AAGCTATGGGAGGTCTCCTCGGGGGAGCTGCTGCTCTCCGTCCTCTTTGACGTGTCCATCATGGCAGTGACCATG
GACCTGGCTGAGCACCATATGTTCTGCGGGGGCAGTGAGGGCTCCATCTTCCAGGTCGACCTCTTCACCTGGCCC
GGACAGAGGGAGAGGAGCTTCCACCCAGAGCAGGACGCCGGGAAGGTCTTCAAAGGGCACAGGAACCAGGTGACT
TGCCTGTCAGTGTCCACTGACGGCAGCGTGCTGCTCTCAGGCTCCCACGACGAGACCGTGCGCCTCTGGGACGTG
CAGAGCAAGCAGTGCATCCGGACGGTGGCCCTCAAAGGCCCAGTCACCAATGCCGCCATCCTGCTGGCGCCCGTC
AGCATGCTGAGCTCAGACTTCAGGCCCAGCCTGCCGCTGCCCCACTTCAACAAGCACCTGCTGGGCGCCGAGCAC
GGGGACGAGCCGCGCCACGGGGGCCTCACTCTGCGCCTGGGCCTCCACCAGCAGGGCTCGGAGCCCAGCTACCTG
GACCGCACGGAGCAGCTGCAGGCCGTCCTGTGCAGCACCATGGAGAAGAGCGTGCTCGGCGGCCAGGACCAGCTG
CGCGTCCGTGTGACGGAGCTGGAGGACGAGGTGCGCAACCTGCGCAAGATCAATCGGGACCTGTTCGACTTCTCC
ACGCGCTTCATCACGCGGCCGGCCAAG**TGA**GGCCCGGAGACCCCGGCCCGAGGCGCCCAGGCCTGAGCCCCATGC
CTCCCAGCAACCAGGGCCCGCGGGTGTGGCCCCCACCAGCCCAGGCCTGGACTCTCCTCAGTTCTGTGTCGTGTT
CGGGTTTTTCCTCTGTGACTGGGCCGTCTTGGTGTCTCGTGGCACGCGTCACAGTGGTGCTAGTCTGTTTTTAAC
AAAAGAGGATGAAAAGCC

FIGURE 3556

GCTCTTGCCCGGCGTGGCGACTCGCTAGCGTCAGCAGCGCCGCAGCCGGACGAGAAAGCGGAAGATGGCGGCGGC
GGCCGGGAGGCCGTGAGGAGAGCGGCGGCTGCGAGGGCGGCCGATGGCGGCCGGGAGGCGCCCTCGGACACTTGC
GGGTCGTTAGGGCGCGACGCTGGGAGGCATGTCGGAGCACGTGGAGCCCGCAGCTCCGGGGCCCGGGCCCAACGG
CGGCGGCGGCGGCCCGGCCCCCGCGCGCGGGCCTCGCACCCCCAATCTCAACCCCAACCCCCTCATCAACGTGCG
CGACCGGCTCTTCCACGCGCTGTTCTTCAAGATGGCTGTCACCTATTCGCGGCTCTTCCCGCCCGCCTTCCGCCG
TCTCTTCGAGTTCTTCGTGCTGCTCAAGGCCCTGTTTGTGCTCTTCGTCCTGGCCTACATCCACATCGTCTTCTC
CCGCTCGCCCATCAACTGCCTGGAGCATGTGCGTGACAAGTGGCCGCGTGAGGGCATCCTGCGTGTGGAAGTGCG
GCACAACTCGAGCCGCGCGCCCGTCTTCCTACAGTTCTGTGACAGCGGCGGCCGCGGGAGCTTCCCGGGCCTGGC
CGTGGAACCAGGCAGCAACCTGGACATGGAAGATGAGGAGGAGGAAGAGCTGACCATGGAGATGTTTGGGAACAG
CTCCATCAAGTTTGAGCTGGACATCGAGCCCAAGGTGTTCAAGCCGCCGAGTAGCACAGAGGCCCTGAATGACAG
CCAGGAGTTCCCCTTCCCCGAGACGCCCACCAAAGTGTGGCCGCAGGACGAGTACATCGTGGAGTACTCACTAGA
GTATGGCTTCCTTCGCCTGTCGCAGGCCACCCGCCAGCGCCTGAGCATCCCCGTCATGGTGGTCACCCTGGGTGA
GTCTGAGCTGCTGGGCTTGGGGAGCTCCATGGCGGGGCCTCCCCTCCTCCCTCGGGTCTCCTCCTGCTGGTGCGG
GACGGGGGGCTGTGCAGGAAGCACTGGGGTCTGCCCCGCCCCAGGCACGCTTCCCAGGGCTGGGGTCCTGG**ATG**G
GTTTCCTAAGAATGGGCAGGGCCAGGAAGCAGGCCAGGCCTCAGCAATGGAGCCAGCTGGGGCAGGGCCCAGGGG
GTGGCCTGGGCGGGGCTCCCGGCTCCCTGATTCACCCACCCGCAGACCCCACGCGGGACCAGTGCTTCGGGGACC
GCTTCAGCCGCCTGCTGCTGGATGAGTTCCTGGGCTACGATGACATCCTCATGTCCAGCGTGAAGGGCCTGGCCG
AGAACGAGGAGAACAAGGGCTTCCTGCGGAATGTGGTGTCGGGCGAGCACTACCGCTTTGTGAGCATGTGGATGG
CGCGGACGTCCTACCTGGCCGCCTTCGCCATCATGGTCATCTTCACGCTGAGCGTGTCCATGCTGCTGCGGTACT
CACACCACCAGATCTTCGTCTTCATCGTGGACCTGCTGCAGATGCTGGAGATGAACATGGCCATCGCCTTCCCCG
CAGCGCCCCTGCTGACCGTCATCCTGGCCCTCGTCGGGATGGAGGCCATCATGTCGGAGTTCTTCAACGACACCA
CCACCGCCTTCTACATCATCCTCATCGTGTGGCTCGCGGACCAGTATGACGCCATCTGCTGCCACACCAGCACCA
GCAAGCGGCATTGGCTGCGGTTCTTCTATCTCTACCACTTCGCCTTCTATGCCTATCACTACCGCTTCAATGGGC
AGTATAGCAGCCTGGCCCTGGTCACCTCCTGGCTCTTCATCCAGCATTCCATGATCTACTTCTTCCACCACTACG
AGCTGCCTGCCATCCTGCAGCAGGTCCGCATCCAGGAGATGCTGCTTCAGGCGCCGCCACTGGGCCCCGGGACCC
CCACGGCGCTGCCCGATGACATGAACAACAACTCGGGCGCCCCGGCTACAGCCCCTGACTCTGCCGGCCAGCCCC
CCGCCCTGGGCCCCGTCTCGCCTGGGGCCAGCGGGAGTCCCGGGCCTGTGGCAGCGGCGCCCAGCTCCCTGGTGG
CCGCGGCAGCCTCAGTGGCAGCAGCTGCCGGTGGTGACCTGGGTTGGATGGCAGAGACCGCTGCCATCATCACAG
ACGCCTCCTTCCTGTCCGGCCTGAGCGCCTCCCTCCTGGAGCGGCGTCCAGCCAGCCCGCTGGGCCCTGCTGGGG
GCCTCCCCCACGCCCCCCAGGACAGTGTCCCCCCGAGTGACTCCGCAGCTTCTGACACAACTCCCCTGGGGGCTG
CGGTAGGCGGGCCTAGCCCGGCCTCCATGGCCCCAACGGAGGCGCCCTCGGAGGTGGGGTCC**TGA**GCCGCACAGC
TGAGCCGCCTCTGACCCCTGCTGGCTGGGCCTGACCTTCCCGAGCCCGTGGGGGTGGGGGAGGCCAGCCACCTCC
TTCCTCTGGGACTGCCCAGCCTGTGTCGGGGGCTTTCAGGGTTTCGTGGGGTTTGCCCGGAAGGCGGCTTTCCTC
CCCCTGGTGTGAGGTCGCGCCCGAGGCTTGTACCCGCTAGTGAGGTGTTTGAGCTGGTCAGCAAGGAGAGGGGGT
GGGGTTCCGCGGAAGGTTCTGGAGGGGTCTTGGTAGGTCTGCAGTGAACCGTCCTGAGGATGGAGTGGGGTCCCA
TGGTGCAGGTCTCTGAGCAAGGCGGAGGTGTGGAGGAGAGGCCGGCTTGGGGTGGGGCCTCGCGCCCTAGTGCCG
GCCGGCCTCAGCCCGGCTCTGCCTGGTGCTCCCTGCAGTGCCTTCTCCATGGCCCCGCCCTCCCCGCGTGTGCGC
CAGGCTTGGGGTCCCCGGGAGAGCAGAGCTTGCGCCTCGGGCATAGGGACGTGGGGTGCAGGCGCCAACATCAGT
GGCAGCAGCCAGGGCCGTGGTCCAGTCCCACTCGGGGATGGAGTGGGCCGGCGGCCAAACCAGTCACTCGGGGAG
GAATGCGGAGGAGCGCTCATTCCATTCTATTTAATTGCAGTGTACAAAATTGTGTTTGTATATAGAATAAACTGT
CTGTTGACAGCGGC

FIGURE 3557

ATGAGCTCCACGCAGTTCAACAAGGGCCCCTCGTACGGGCTGTCGGCCGAGGTCAAGAACCGGGCTCCCGCGAAT
CTTGGGGAGCACCCAGGTCTGAGATCTGGGGGACGAGTGACCCATTCCCCCCCCCAACATCTAGGGGTAGTTGGG
TCTGACTTCGTCCCCTCGCCATGGCCCCAGGACCCCCACGTGTCCTTACAGCTGACTTCTGCAGGGGAAACTGCC
TCTGCACGCTCTGAGGGCACCGGCCCTGCCAGCCCCAACAGCCACCTGCCCGGCGGCACTCCAGGGCCGGCAGAC
TGGAGGGAGAATTCCTGCTTCCCCGCTGGGCCATCTGCACCCTGCATTCATAGAGCCCCCCGTGCAGTGGGGTGG
GCACCCTGCCGCACCCTGCATACAGCCGGC**TAA**

FIGURE 3558

ACCAGCTCCTGTCCAAATATGACCCCCAGAAGGAGGCAGAGCTCCGCACCTGGATCGAGGGACTCACCGGCCTCT
CCATCGGCCCCGACTTCCAGAAGGGCCTGAAGGATGGAACTATCTTATGCACACTC**ATG**AACAAGCTACAGCCGG
GCTCCGTCCCCAAGATCAACCGCTCCATGCAGAACTGGCACCAGCTAGAAAACCTGTCCAACTTCATCAAGGCCA
TGGTCAGCTACGGCATGAACCCTGTGGACCTGTTCGAGGCCAACGACCTGTTTGAGAGTGGGAACATGACGCAGG
TGCAGGTGTCTCTTCTCGCCCTGGCGGGGAAGGCCAAGACTAAGGGGCTGCAGAGCGGGGTGGACATTGGCGTCA
AGTACTCGGAGAAGCAGGAGCGGAATTTCGACGATGCCACCATGAAGGCTGGCCAGTGCGTCATCGGGCTGCAGA
TGGGCACCAACAAATGCGCCAGCCAGTCGGGCATGACTGCCTACGGCACGAGAAGGCATCTCTATGACCCCAAGA
ACCATATCCTGCCCCCCATGGACCACTCGACCATCAGCCTCCAGATGGGCACGAACAAGTGTGCCAGCCAGGTGG
GCATGACGGCTCCCGGGACCCGGCGGCACATCTATGATACCAAGCTGGGAACCGACAAGTGTGACAACTCCTCCA
TGTCCCTGCAGATGGGCTACACGCAGGGCGCCAACCAGAGCGGCCAGGTCTTCGGCCTGGGCCGGCAGATATATG
ACCCCAAGTACTGCCCGCAAGGCACAGTGGCCGATGGGGCTCCCTCGGGCACCGGCGACTGCCCGGACCCGGGGG
AGGTCCCTGAATATCCCCCTTACTACCAGGAGGAGGCCGGCTAC**TGA**GGCTCCCAGCACGCTCTCTCCCCACATC
GTCTGCCCATCTGGGTTTTTGGGTTTTTCTGTGTTTTCATCTTTTTTTTTTTTTTCTTAACCCGTTCAGTGCTGC
CAGTCAACCAAGGGTCTGTGAGTGTCAGCGTGGGATCAGGCAGCAGAGCTTTTTTCCCCTTTGCCTTGATCCTTC
GCAAGGCTGAGCCACTGGGCTGTGGGGGAAGGGGTCAAGGCCATATCCCAATACGTGTAGGGCGAGGGTCCCTGC
TGGCACATTCAGGCTGTGCTGGGAAGAAGAGACCTGGGCTTGGAAGGAACCGGTCCCCGACGGTTTCTGCTTGCC
TCGCCTCTTCCCCCTTTTGTCAGCTGAGCAGTTTGTGGTTTCTATGCCCGCAAGTTTCAGGAAGTATTCACAAAA
GAAAAATACATTTTTTCCCCCAGGGGTGGGGCAAGGACAGTGGAGAGAGTGCTAGGAAATGAGTCCCCTGGGAAA
GGGGACCGGGCCGTGATGTTAAATATCTCCGGCTCCCAAGTGACTGGATTTGCCTAGGACCTTCAGACCAACAGA
CTTCAGACCCTCAGACCTGCCCCGGGGCCAGGTGGAGAAAGTGAGGGCCGTACAAGGAAGTGAAATTCTGAGTTG
TTGGGGCTAAGCCTGACCCCCTCTCCATGCTCCCCGCCCCAACCCACTCTGGCCTCAGTAGATTTTTTTTTCAGT
TGTGGTTGTTGCCCAGGCTGGAGTGCAGTGGCGCCATCTTGGCTCACTGCACCTCCACCTTCCGGGCTCAAGCGA
TTCTCCAGCCTCAGCCTCCTGAGTAGCTAGGACTGCAGGTGCTCCACCACGCCCGGCTAATTTTTGTATTTTTAG
TAGAGATGGGGTTTCCCCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCTCAGGTGTGATCCGCCCGCCTCCGC
CTCCCCAAGCGCTGAGATTACAGGTGTGAGCCACCGTGCCCAGCCCCTCAGTAGGTTTTAAGGAGCCCCCAGCCC
TCCTCCCTTCTGGGCCCGACCAGCTTATACTGCTCCATCTTCCCCGGCCACATGCCCCGCCAAGTACTGCACAGG
GACCCCCCACCCAGGGGACCTGCTCCGTGAGATAATGTGAAATACGACTGTGGACCAAACGCAATAAAACCTCTG
TTTGTACGAAG

FIGURE 3559A

CGCCTCCCCGAAGCCTTTTCCTGTTGGGGGGAGGGCCCGCCAGTGACGGCCGGGCCTGTCACGTGGGCCTGACAG
CTGGGGAGGGGGTGGCCGGCGACAATGTGGTCCCGAAGCGGCCAGCGCCGGGAGCTGCAGCGCTGAGACCCCCAG
CCCGCCCCCTCGGGCTCCCGGCCGGGGCCCCATC**ATG**TTCTCCAGGAAGAAACGAGAGCTCATGAAAACCCCTTC
CATCTCGAAAAAGAACCGCGCGGGAAGCCCCAGCCCGCAGCCCTCGGGGGAGCTGCCCAGGAAGGATGGGGCTGA
CGCGGTGTTCCCCGGACCAAGCCTGGAGCCGCCCGCTGGGTCCTCCGGCGTCAAGGCCACAGGGACCCTCAAGCG
GCCCACCAGCCTGAGCCGCCACGCCAGCGCGGCTGGCTTCCCCCTGTCGGGTGCTGCCTCCTGGACACTGGGCCG
GAGCCACCGGAGCCCACTGACAGCCGCCAGCCCGGGCGAGCTGCCCACCGAGGGTGCCGGCCCGGACGTCGTCGA
GGACATCTCCCATCTGCTGGCGGACGTGGCCCGCTTCGCTGAGGGCCTTGAGAAACTTAAGGAGTGTGTGTTGCG
TGACGACCTCCTTGAGGCCCGCCGCCCGCGGGCCCACGAGTGCCTGGGTGAGGCTCTGCGTGTCATGCATCAGAT
CATCTCCAAGTACCCGCTGCTGAACACCGTGGAGACGCTCACCGCAGCCGGCACCCTCATTGCCAAGGTCAAAGC
CTTCCATTATGAGAGCAACAATGATCTGGAGAAACAGGAGTTCGAGAAGGCCCTGGAGACGATTGCTGTGGCCTT
CAGTAGCACAGTGTCCGAGTTCCTCATGGGTGAAGTGGACAGCAGCACCCTCCTAGCAGTGCCTCCTGGGGACTC
GAGCCAGTCCATGGAAAGCCTGTATGGACCGGGCAGTGAGGGCACGCCTCCCAGCCTGGAAGACTGTGACGCCGG
CTGCCTGCCCGCCGAGGAGGTGGACGTGCTGCTACAGCGCTGTGAGGGGGGCGTGGATGCCGCACTGCTGTATGC
CAAGAACATGGCCAAGTACATGAAGGACCTCATCAGCTACCTGGAGAAGCGGACGACGCTGGAGATGGAGTTTGC
CAAGGGCCTGCAGAAGATCGCTCACAACTGCAGACAGAGCGTCATGCAGGAGCCCCACATGCCGCTCCTGTCCAT
CTACTCGCTGGCCCTGGAGCAGGACCTGGAGTTCGGCCACAGCATGGTGCAGGCGGTGGGCACCTTGCAGACCCA
GACCTTCATGCAGCCCCTGACCCTGCGGCGGCTTGAACACGAGAAGCGCAGGAAGGAGATCAAGGAGGCCTGGCA
CCGTGCCCAGAGGAAGCTGCAAGAGGCGGAGTCCAACCTGCGCAAGGCCAAGCAGGGTTACGTGCAGCGCTGCGA
GGACCACGACAAGGCTCGCTTCCTCGTGGCCAAGGCGGAGGAGGAGCAGGCTGGCAGCGCGCCGGGAGCAGGCAG
CACGGCCACCAAGACCCTGGACAAGCGGCGGCGGCTGGAGGAGGAGGCCAAGAACAAGGCGGAGGAAGCTATGGC
CACCTACCGCACCTGCGTGGCCGACGCGAAGACGCAGAAGCAGGAGCTGGAGGATACCAAGGTGACGGCGCTGCG
GCAGATCCAGGAGGTCATCCGGCAGAGCGACCAAACCATCAAGTCGGCCACGATCTCCTACTACCAGATGATGCA
TATGCAGACGGCGCCGCTGCCCGTGCACTTCCAGATGCTGTGTGAGAGCAGCAAGCTGTATGACCCAGGCCAGCA
GTACGCCTCCCACGTGCGCCAGCTGCAGCGGGACCAGGAGCCCGATGTGCACTACGACTTTGAGCCCCACGTCTC
CGCCAACGCCTGGTCCCCCGTCATGCGTGCCCGGAAGAGCAGCTTCAACGTGAGTGATGTGGCGCGGCCGGAGGC
TGCCGGGAGCCCCCCAGAAGAAGGCGGGTGCACTGAGGGCACACCTGCCAAGGACCACAGGGCCGGGCGAGGACA
CCAGGTTCACAAGTCATGGCCGCTCTCGATCTCAGACTCGGACAGTGGGCTGGACCCCGGCCCTGGCGCAGGGGA
CTTTAAGAAGTTCGAGCGGACGTCATCCAGTGGTACCATGTCGTCCACGGAGGAGCTGGTGGACCCAGACGGTGG
AGCCGGGGCTTCAGCCTTTGAGCAGGCTGACCTCAACGGCATGACCCCCGAGCTGCCGGTGGCCGTGCCCAGTGG
ACCGTTCCGCCACGAGGGGCTGTCCAAGGCGGCCCGTACTCACCGGCTCCGGAAGCTCCGCACGCCCGCCAAGTG
CCGCGAGTGCAACAGCTACGTCTACTTCCAGGGTGCTGAGTGTGAAGAGTGCTGCCTGGCCTGCCACAAGAAATG
TCTGGAGACGCTGGCCATACAGTGCGGGCACAAGAAGCTGCAAGGCCGCCTGCAGCTGTTCGGCCAGGACTTCAG
CCACGCGGCCCGCAGCGCCCCCGACGGCGTGCCCTTCATCGTCAAGAAGTGCGTCTGCGAGATCGAGCGGCGGGC
GCTGCGCACCAAGGGCATCTACCGGGTCAATGGGGTAAAGACACGCGTGGAGAAGCTGTGCCAGGCCTTCGAGAA
CGGCAAGGAGCTGGTCGAGCTGTCGCAGGCCTCGCCCCACGACATCAGCAACGTCCTCAAGCTCTACCTGCGTCA
GCTTCCCGAGCCGCTCATCTCCTTCCGCCTCTACCACGAGCTCGTAGGGCTGGCCAAGGACAGCCTGAAGGCAGA
GGCCGAGGCCAAGGCGGCGTCCCGGGGCCGGCAGGACGGCTCGGAGAGCGAGGCAGTGGCGGTGGCCCTGGCAGG
TCGGCTGCGGGAGCTCCTGCGGGACCTGCCGCCTGAGAACCGGGCCTCGCTGCAGTACCTGCTGCGTCACCTACG
CAGGATCGTGGAGGTGGAGCAGGACAACAAGATGACCCCCGGGAACCTGGGCATCGTGTTCGGGCCCACGCTGCT
TCGGCCACGGCCCACCGAGGCCACCGTGTCCCTCTCCTCCCTGGTGGATTATCCCCATCAGGCCCGCGTCATCGA
GACTCTCATCGTCCACTACGGCCTGGTCTTCGAGGAGGAGCCGGAGGAGACCCCCGGGGGCCAGGACGAGTCATC
CAACCAGCGAGCTGAGGTAGTCGTCCAGGTGCCGTACCTGGAGGCGGGCGAGGCGGTGGTCTACCCGCTGCAGGA
GGCGGCGGCGGACGGGTGCAGAGAATCCCGAGTTGTGTCCAACGATTCGGACTCGGACCTAGAGGAGGCCTCCGA
GCTGCTGTCCTCATCGGAGGCCAGTGCCCTGGGCCACCTCAGCTTCCTGGAGCAGCAGCAGAGCGAGGCCAGCCT
AGAGGTGGCTTCTGGCAGCCACAGCGGCAGTGAGGAGCAGCTGGAGGCCACAGCCCGGGAGGACGGGGACGGGGA
CGAGGACGGCCCGGCCCAGCAGCTCTCAGGATTCAACACCAACCAGTCCAACAACGTGCTGCAGGCCCCACTGCC
CCCCATGAGGCTCCGTGGCGGGCGGATGACACTGGGCTCCTGCAGGGAAAGGCAGCCGGAATTCGTG**TGA**GCTGG

FIGURE 3559B

GGTGGGGCTGGGACCACAGGTGGCTTCTCTCTTGCCTGCTCCTGTCCCTCCAGCACGTCCCCTGCACCACGGCAT
AGCTTAGGTGCGCCGTCCTGGGGTCGCTGCCGAGAGCGCCTGGACTTCGACGTCCCACCAGCGGGCGCCTCCTCC
CAGAGGCTTCCAGGAGCACGAGGGCCTTGCGGCACAGGACTGTGCCCTGTGCTGTCCCCTGCACCCCGGCTCAGC
TGAGCTGGGGAACACTGCTGTCGTGTGAAGTCACAGTGGCCTTGTTGGTGCCCACAGGGCTGTGTGGATGGAGGA
AGCTGTCCCTGCCCAGTGCATCCCCCAGGTCATCACGGGGACGCAGGAGGCAGGCCCTGCCCTGCCCTCTCCTCA
CAGGTCTGTTGCAGGGACTCCAGAAACCATTCTGGGAGCCGTGGATGGGGGCGGAGCTGGGGTTTGGTGCAGTTT
CCAGGGTGCAGTACAGCAGGGCCTGAATACTGGCCCTGGACTCCCTTTTCCAGAACACCAGGTGTGGCCACCTGG
GGCTCAGGTACACAGTGGGGTCTCTCGGAAGCCACCGTGTGGTTCTTTCACAGGCACGTTTATTTTGCTGAAATA
AAAAGTTTTTAATCGGG

FIGURE 3560

GGCGGCGGCGGCGGAGGCTGCC**ATG**GACGACGAGGAGGAGACGTACCGGCTCTGGAAAATCCGCAAGACCATCAT
GCAGCTGTGCCACGACCGTGGCTATCTGGTGACCCAGGACGAGCTTGACCAGACCCTGGAGGAGTTCAAAGCCCA
ATCTGGGGACAAGCCGAGTGAGGGGCGGCCGCGGCGCACGGACCTCACCGTGCTGGTGGCCCACAACGATGACCC
CACCGACCAGATGTTTGTGTTCTTTCCAGAGGAGCCCAAGGTGGGCATCAAGACCATCAAGGTGTACTGCCAGCG
CATGCAGGAGGAGAACATCACACGGGCTCTCATCGTGGTGCAGCAGGGCATGACACCCTCCGCCAAGCAGTCCCT
GGTCGACATGGCCCCCAAGTACATCCTGGAGCAGTTTCTGCAGCAGGAGCTGCTCATCAACATCACGGAGCACGA
GCTAGTCCCTGAGCACGTCGTCATGACCAAGGAGGAGGTGACAGAGCTGCTGGCCCGATATAAGCTCCGAGAGAA
CCAGCTGCCCAGGATCCAGGCGGGGGACCCTGTGGCGCGCTACTTTGGGATAAAGCGTGGGCAGGTGGTGAAGAT
CATCCGGCCCAGTGAGACGGCTGGCAGGTACATCACCTACCGGCTGGTGCAG**TAG**CTACCGCCTGACAGCCCCTA
GAGGCGGACACACAGCGACCCCCATCCCTGCAGGACAAACGCCCCTGCCCTGCCAGAATCCGGCCCCCACAGCTC
TCACGGCTGCTGCTCCTCTGGACTCCCCAAGGCAGGTGGCCTCCACCCACGTTCTCCCGTCCTGGGGTGAGGCTT
CCTGTGGCCCAGCCCGCCCCATTCACCTGTGGATTTGTGCGAGATGCAGCCTCAGAAGGAACAAGGCCCCCAGAG
GGAGGTCACCTGGGGGCAGCTGGTGCCGGGTCTTCACCCAGACCACGCTGGGTCCCCTCTGTTGGGGGTTTGGGG
TCCGGGTCTCCCACCAGCCACTGCTTCCTCCTGGGCCCTCGGCCTTCCACCCCTCGTCTTCCCTCCCTCGGGGGC
CCTGATGCGTGGCGGCCCCCGCCCGGCCTCGGCTCTTTACTCCATTCACAGCCATGCACGCGCTCAAGCCACCAG
GGTGCGAGATGCCAGCTCTGGAGTTCTCGGTTGTTGTAGGAGGTTGGGTGTTTTCAAATGGTAAAGATGTTTTGA
GCAAATAAATTTGCTTGATACAG

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FIGURE 3561

GGAGGCGCGGAAAGCCGACGCGCGTCCATTGGTCGGCTGGACGAGGGGAGGAGCCGCTGGCTCCCAGCCCCGCCG
CG**ATG**AGCCTCGGCCGCCTTTGCCGCCTACTGAAGCCGGCGCTGCTCTGTGGGGCTCTGGCCGCGCCTGGCCTGG
CCGGGACCATGTGCGCGTCCCGGGACGACTGGCGCTGTGCGCGCTCCATGCACGAGTTTTCCGCCAAGGACATCG
ACGGGCACATGGTTAACCTGGACAAGTACCGGGGCTTCGTGTGCATCGTCACCAACGTGGCCTCCCAGTGAGGCA
AGACCGAAGTAAACTACACTCAGCTCGTCGACCTGCACGCCCGATACGCTGAGTGTGGTTTGCGGATCCTGGCCT
TCCCGTGTAACCAGTTCGGGAAGCAGGAGCCAGGGAGTAACGAAGAGATCAAAGAGTTCGCCGCGGGCTACAACG
TCAAATTCGATATGTTCAGCAAGATCTGCGTGAACGGGGACGACGCCCACCCGCTGTGGAAGTGGATGAAGATCC
AACCCAAGGGCAAGGGCATCCTGGGAAATGCCATCAAGTGGAACTTCACCAAGTTCCTCATCGACAAGAACGGCT
GCGTGGTGAAGCGCTACGGACCCATGGAGGAGCCCCTGGTGATAGAGAAGGACCTGCCCCACTATTTC**TAG**CTCC
ACAAGTGTGTGGCCCCGCCCGAGCCCCTGCCCACGCCCTTGGAGCCTTCCACCGGCACTCATGACGGCCTGCCTG
CAAACCTGCTGGTGGGGCAGACCCGAAAATCCAGCGTGCACCCCGCCGGAGGAAGGTCCCATGGCCTGCTGGGCT
TGGCTCGGCGCCCCCACCCCTGGCTACCTTGTGGGAATAAACAGACAAATTAG

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FIGURE 3562A

GCCCGAAACCCGGAAGTGAGCGGCGGCAGCTGCGAGGCTCGGAGAAACAGGCGCCGCGGGCTCCGCGCCCGGCCG
GACCCGGGCCCGAGATCATGATGCTGCCGCCACCGCCGCCACCACGGAGCGAGAAGCCCAGATAGACGCCCCGGC
GGCCCCGGGTCCTGGAGTCCCGCCGCCTGCTGCCCGGCCGAGGACCCCACCCCGCCTGCCGCCCG**ATG**CTTGCAG
TGGGGCCCGCCATGGACAGGGATTACCCGCAGCATGAACCCCCGCCGGCGGGCAGCCTCCTGTACAGCCCGCCGC
CCCTGCAGAGCGCCATGCTGCACTGCCCCTACTGGAACACCTTCTCGCTGCCGCCATACCCTGCCTTCTCCAGCG
ACAGCCGCCCGTTCATGAGCTCCGCCTCCTTCCTCGGCAGCCAGCCCTGCCCAGACACCAGCTATGCCCCCGTGG
CCACCGCCTCCAGCTTGCCACCAAAGACCTGCGACTTTGCTCAGGACTCCTCCTATTTTGAGGACTTCTCCAACA
TCTCCATCTTCTCCTCGTCCGTGGACTCCCTGTCGGACATCGTGGACACGCCCGACTTCCTGCCGGCTGACAGCC
TCAACCAGGTGTCCACCATCTGGGACGATAACCCTGCCCCCTCCACCCACGATAAGCTGTTCCAGCTCAGCAGGC
CGTTTGCAGGCTTCGAGGACTTTCTGCCCTCCCACAGCACCCCGCTTCTCGTCAGCTACCAGGAGCAGAGTGTGC
AGAGCCAGCCAGAGGAGGAGGACGAGGCTGAGGAGGAGGAGGCGGAGGAGCTGGGGCACACAGAGACCTACGCCG
ACTACGTGCCGTCCAAGTCCAAGATCGGGAAGCAGCACCCAGACCGCGTGGTGGAGACCAGCACACTGTCCAGCG
TCCCACCCCCAGACATCACCTACACCCTGGCCCTGCCCTCGGACAGCGGGGCCCTGTCTGCCCTGCAGCTAGAGG
CCATCACCTACGCCTGCCAGCAACACGAGGTCCTGCTCCCCAGCGGGCAGCGCGCGGGCTTTCTCATCGGCGATG
GGGCCGGCGTGGGCAAAGGCCGGACGGTGGCCGGAGTCATCCTGGAGAACCACCTGCGCGGCCGGAAGAAAGCAT
TGTGGTTCAGCGTCTCCAACGACCTCAAGTACGATGCGGAGCGCGACCTGCGGGACATCGAAGCCACGGGCATCG
CGGTGCACGCGCTCAGCAAGATCAAGTACGGTGACACCACTACCTCAGAGGGCGTCCTCTTCGCCACCTACTCCG
CCCTGATTGGGGAGAGCCAGGCCGGCGGCCAGCACCGCACTCGCCTCCGGCAGATCCTGGACTGGTGTGGGGAGG
CCTTCGAGGGCGTCATCGTGTTCGACGAGTGTCACAAAGCCAAGAATGCCGGCTCCACCAAGATGGGCAAGGCTG
TGCTAGACCTGCAGAACAAGCTGCCCCTGGCCCGCGTGGTCTACGCCAGCGCCACAGGTGCCTCTGAGCCTCGGA
ACATGATCTACATGAGCCGCTTGGGTATCTGGGGCGAGGGCACACCCTTCCGGAACTTTGAGGAGTTCCTGCACG
CCATCGAGAAGAGGGGCGTTGGCGCCATGGAGATCGTGGCCATGGACATGAAGGTCAGCGGCATGTACATCGCAC
GCCAGCTCAGCTTCTCCGGCGTCACCTTCCGCATCGAGGAGATCCCGCTGGCCCCAGCCTTCGAGTGCGTCTACA
ACCGCGCGGCCCTGCTGTGGGCCGAGGCCCTGAACGTGTTCCAGCAGGCGGCCGACTGGATCGGCCTGGAGTCGC
GCAAGTCCCTGTGGGGCCAGTTCTGGTCGGCACACCAGCGCTTCTTCAAGTATCTGTGCATCGCAGCCAAGGTGC
GCCGGCTGGTGGAGCTGGCCCGAGAGGAGCTGGCGCGAGACAAGTGCGTGGTCATCGGGCTGCAGTCCACGGGCG
AGGCGCGCACGCGGGAGGTGCTGGGGGAGAACGATGGGCACCTCAACTGCTTCGTCTCGGCCGCTGAAGGCGTGT
TCCTGTCGCTAATTCAGAAGCACTTTCCGTCCACCAAGAGAAAGCGGGACAGAGGAGCGGGCAGCAAGCGGAAAC
GGCGACCTCGGGGACGCGGGGCCAAAGCCCCCCGGCTGGCGTGCGAGACAGCGGGCGTCATCCGCATCAGTGACG
ACAGCAGCACGGAGTCGGACCCTGGCCTGGACAGCGACTTCAACTCCTCCCCCGAGTCCCTGGTGGATGACGACG
TTGTCATCGTTGATGCAGTCGGGCTCCCCAGTGACGACCGGGGACCCCTGTGCCTCCTGCAGAGAGACCCGCATG
GCCCCGGGGTCCTGGAGCGGGTGGAGCGGCTGAAGCAGGATCTGCTGGACAAAGTGCGGCGGCTGGGCCGGGAAC
TGCCAGTCAACACCCTGGACGAGCTCATCGACCAGCTGGGCGGCCCCCAGCGGGTGGCGGAGATGACCGGCAGGA
AAGGCCGCGTGGTGTCCAGGCCCGACGGGACGGTGGCCTTCGAGTCGCGGGCAGAGCAGGGTCTGTCCATCGACC
ACGTGAACCTCAGGGAGAAGCAGCGCTTCATGAGCGGCGAGAAGCTCGTGGCCATCATCTCGGAGGCCTCCAGCT
CGGGTGTCTCCCTCCAAGCCGACCGCCGTGTCCAGAACCAGCGGCGCCGCGTGCACATGACCTTGGAGCTGCCGT
GGAGCGCCGACCGCGCCATCCAGCAGTTCGGCCGCACCCACCGGTCCAACCAGGTCTCCGCGCCAGAGTATGTCT
TCCTCATCTCGGAGCTGGCCGGGGAGCGCCGGTTCGCCTCCATCGTGGCCAAGCGCCTGGAGAGTCTGGGGGCCC
TGACCCACGGAGACCGCCGCGCCACGGAGTCCCGTGACCTCAGCAAGTACAACTTTGAGAACAAGTATGGCACCC
GGGCCCTGCACTGTGTCCTCACCACCATCCTGAGCCAGACTGAGAACAAAGTGCCTGTGCCCCAGGGATACCCTG
GAGGGGTCCCCACCTTCTTCCGGGACATGAAGCAGGGCCTGCTGTCTGTGGGCATTGGTGGCCGGGAGTCCCGGA
ATGGCTGCCTGGACGTGGAGAAGGACTGTTCCATCACCAAGTTCCTGAACCGCATCCTGGGGCTGGAGGTGCACA
AGCAGAACGCCCTGTTCCAGTACTTCTCAGACACCTTCGACCACCTCATCGAGATGGACAAGCGGGAGGGCAAAT
ACGACATGGGCATCCTGGACCTTGCTCCCGGTATCGAGGAGATCTACGAGGAGAGCCAGCAGGTGTTCCTGGCTC
CCGGGCACCCGCAGGACGGGCAGGTGGTCTTCTACAAGATCAGCGTGGACCGCGGCCTGAAGTGGGAGGACGCCT
TTGCCAAGTCGCTGGCGCTGACGGGCCCCTATGACGGCTTCTACCTCTCCTACAAGGTCCGCGGTAACAAGCCCA
GCTGCCTGCTGGCGGAGCAGAACCGCGGCCAGTTCTTCACGGTGTACAAGCCCAACATCGGCCGGCAGAGCCAGC
TGGAGGCCCTGGACAGCCTCCGCCGCAAGTTCCACCGGGTCACCGCGGAGGAGGCCAAGGAGCCCTGGGAGAGTG

FIGURE 3562B

GCTACGCTTTGTCGCTGACGCACTGCAGCCACAGCGCCTGGAACCGGCACTGCCGGCTGGCGCAGGAGGGTAAGG
ACTGCCTGCAGGGGCTGCGGCTGCGGCACCACTACATGCTGTGCGGCGCGCTGCTGCGCGTGTGGGGCCGCATCG
CCGCCGTCATGGCCGACGTCAGCAGCAGCAGCTACCTGCAGATCGTGCGGCTGAAGACCAAGGACAGGAAGAAGC
AAGTGGGCATCAAGATCCCCGAGGGCTGCGTGCGCCGGGTGCTGCAGGAGCTGCGGCTGATGGATGCGGACGTGA
AGCGCAGGCAGGCGCCCGCCCTGGGCTGCCCCGCCCCGCCCGCCCCGCGCCCGCTGGCGCTGCCTTGCGGCCCCG
GAGAGGTGCTGGACCTCACCTACAGCCCCCCGGCCGAGGCCTTCCCGCCGCCCCCGCACTTCTCTTTCCCGGCGC
CGCTGTCCCTGGACGCCGGCCCCGGCGTCGTGCCGCTGGGCACCCCCGACGCCCAGGCCGACCCTGCGGCCCTCG
CGCACCAGGGCTGCGACATCAACTTCAAGGAGGTGCTGGAGGACATGCTGCGCTCGCTGCACGCGGGGCCGCCCT
CCGAGGGCGCGCTGGGGGAGGGCGCGGGGGCGGGGGGCGCGGCGGGCGGTGGTCCCGAGCGGCAGAGCGTGATCC
AGTTCAGCCCACCCTTCCCCGGCGCCCAGGCTCCTCTC**TGA**CACGCCTTTAGGCGAAACATGCCCCAAGACACAG
GGACCGTTTCTCCCCTAGGAGCAGCGGTGGGGAGCAGGGCCAAGGTCCCCTGACCACTGCTCAGAGGAGCCCTAG
GCCCTGGCCGCAGTGCCTTCAGCGCCCGACCCGGGCCCCCACCTGGTCAGCCCTGGCGGGGCCCACTCAGGACAG
CTGGGGGCCGGGGCGTGGCAGGGCCCTCTCTGTGCCTCTCCTCCCAAGTAGGAAGGGGCTCCGGGTGGCTGCTCT
GGGACTGGGCACCCACAAGGGCTCAGTGGGCCCAAACCCTTGAAATCCGTGAAACCGGGTGGTCCCAAGAGCTAG
AAACTCAGGAAACCCCAGGTGCTCAGGGCCCCGCGTCTCGGGGGCTCCGTGGGGCAGACCCCTGCTAATATATGC
AATTCTCCCTCCCCCAGCCCTTCCCTGACCCCTAAGTTATTGCCCGCTCACCTCTCCCAGGCCCCAGGCCGCGGA
GCTGGCAGGGTGGCGCCTGCGGTTTCTATGTATTTATAGCAAGTTCTGATGTACATATGTAAAGGACTTTTTTAA
AT

FIGURE 3563

CCCAGGGTCCCCGAGGACGAAGTTGACCCTGACCGGGCCGTCTCCCAGTTCTGAGGCCCGGGTCCCACTGGAACT
CGCGTCTGAGCCGCCGTCCCGGACCCCCGGTGCCCGCCGGTCCGCAGACCCTGCACCGGGCTTGGACTCGCAGCC
GGGACTGACGTGTAGAACAATCGTTTCTGTTGGAAGAAGGGTTTTTCCCTTCCTTTTGGGGTTTTTGTTGCCTTT
TTTTTTTCTTTTTTCTTTGTAAAATTTTGGAGAAGGGAAGTCGGAACACAAGGAAGGACCGCTCACCCGCGGACT
CAGGGCTGGCGGCGGGACTCCAGGACCCTGGGTCCAGC**ATG**GAGGTGGTGGACCCGCAGCAGCTGGGCATGTTCA
CGGAGGGCGAGCTGATGTCGGTGGGTATGGACACGTTCATCCACCGCATCGACTCCACCGAGGTCATCTACCAGC
CGCGCCGCAAGCGGGCCAAGCTCATCGGCAAGTACCTGATGGGGGACCTGCTGGGGGAAGGCTCTTACGGCAAGG
TGAAGGAGGTGCTGGACTCGGAGACGCTGTGCAGGAGGGCCGTCAAGATCCTCAAGAAGAAGAAGTTGCGAAGGA
TCCCCAACGGGGAGGCCAACGTGAAGAAGGAAATTCAACTACTGAGGAGGTTACGGCACAAAAATGTCATCCAGC
TGGTGGATGTGTTATACAACGAAGAGAAGCAGAAAATATATATGGTGATGGAGTACTGCGTGTGTGGCATGCAGG
AAATGCTGGACAGCGTGCCGGAGAAGCGTTTCCCAGTGTGCCAGGCCCACGGGTACTTCTGTCAGCTGATTGACG
GCCTGGAGTACCTGCATAGCCAGGGCATTGTGCACAAGGACATCAAGCCGGGGAACCTGCTGCTCACCACCGGTG
GCACCCTCAAAATCTCCGACCTGGGCGTGGCCGAGGCACTGCACCCGTTCGCGGCGGACGACACCTGCCGGACCA
GCCAGGGCTCCCCGGCTTTCCAGCCGCCCGAGATTGCCAACGGCCTGGACACCTTCTCCGGCTTCAAGGTGGACA
TCTGGTCGGCTGGGGTCACCCTCTACAACATCACCACGGGTCTGTACCCCTTCGAAGGGGACAACATCTACAAGT
TGTTTGAGAACATCGGGAAGGGGAGCTACGCCATCCCGGGCGACTGTGGCCCCCCGCTCTCTGACCTGCTGAAAG
GGATGCTTGAGTACGAACCGGCCAAGAGGTTCTCCATCCGGCAGATCCGGCAGCACAGCTGGTTCCGGAAGAAAC
ATCCTCCGGCTGAAGCACCAGTGCCCATCCCACCGAGCCCAGACACCAAGGACCGGTGGCGCAGCATGACTGTGG
TGCCGTACTTGGAGGACCTGCACGGCGCGGACGAGGACGAGGACCTCTTCGACATCGAGGATGACATCATCTACA
CTCAGGACTTCACGGTGCCCGGACAGGTCCCAGAAGAGGAGGCCAGTCACAATGGACAGCGCCGGGGCCTCCCCA
AGGCCGTGTGTATGAACGGCACAGAGGCGGCGCAGCTGAGCACCAAATCCAGGGCGGAGGGCCGGGCCCCCAACC
CTGCCCGCAAGGCCTGCTCCGCCAGCAGCAAGATCCGCCGGCTGTCGGCCTGCAAGCAGCAG**TGA**GGCTGGCCGC
CTGCAGCCCGTGTCCAGGAGCCCCGCCAGGTGCCCGCGCCAGGCCCTCAGTCTTCCTGCCGGTTCCGCCCGCCCT
CCCGGAGAGGTGGCCGCCATGCTTCTGTGCCGACCACGCCCCAGGACCTCCGGAGCGCCCTGCAGGGCCGGGCAG
GGGGACAGCAGGGACCGGGCGCAGCCCTCCCCCCTCGGCCGCCCGGCAGTGCACGCGGCTTGTTGACTTCGCAGC
CCCGGGCGGAGCCTTCCCGGGCGGGCGTGGGAGGAGGGAGGCGGCCTCCATGCACTTTATGTGGAGACTACTGGC
CCCGCCCGTGGCCTCGTGCTCCGCAGGGCGCCCAGCGCCGTCCGGCGGCCCCGCCGCAGACCAGCTGGCGGGTGT
GGAGACCAGGCTCCTGACCCCGCCATGCATGCAGCGCCACCTGGAAGCCGCGCGGCCGCTTTGGTTTTTGTTTG
GTTGGTTCCATTTTCTTTTTTTCTTTTTTTTTTTAAGAAAAAATAAAAGGTGGATTTG

FIGURE 3564

GTCCTCCTCGCCCTCCAGGCCGCCCGCGCCGCGCCGGAGTCCGCTGTCCGCCAGCTACCCGCTTCCTGCCGCCCG
CCGCTGCC**ATG**CTGCCCGCCGCGCTGCTCCGCCGCCCGGGACTTGGCCGCCTCGTCCGCCACGCCCGTGCCTATG
CCGAGGCCGCCGCCGCCCCGGCTGCCGCCTCTGGCCCCAACCAGATGTCCTTCACCTTCGCCTCTCCCACGCAGG
TGTTCTTCAACGGTGCCAACGTCCGGCAGGTGGACGTGCCCACGCTGACCGGAGCCTTCGGCATCCTGGCGGCCC
ACGTGCCCACGCTGCAGGTCCTGCGGCCGGGGCTGGTCGTGGTGCATGCAGAGGACGGCACCACCTCCAAATACT
TTGTGAGCAGCGGTTCCATCGCAGTGAACGCCGACTCTTCGGTGCAGTTGTTGGCCGAAGAGGCCGTGACGCTGG
ACATGTTGGACCTGGGGGCAGCCAAGGCAAACTTGGAGAAGGCCCAGGCGGAGCTGGTGGGGACAGCTGACGAGG
CCACGCGGGCAGAGATCCAGATCCGAATCGAGGCCAACGAGGCCCTGGTGAAGGCCCTGGAG**TAG**GCGGTGCGTA
CCCGGTGTCCCGAGGCCCGGCCAGGGGCTGGGCAGGGATGCCAGGTGGGCCCAGCCAGCTCCTGGGGTCCCGGCC
ACCTGGGGAAGCCGCGCCTGCCAAGGAGGCCACCAGAGGGCAGTGCAGGCTTCTGCCTGGGCCCCAGGCCCTGCC
TGTGTTGAAAGCTCTGGGGACTGGGCCAGGGAAGCTCCTCCTCAGCTTTGAGCTGTGGCTGCCACCCATGGGGCT
CTCCTTCCGCCTCTCAAGATCCCCCCAGCCTGACGGGCCGCTTACCATCCCCTCTGCCCTGCAGAGCCAGCCGCC
AAGGTTGACCTCAGCTTCGGAGCCACCTCTGGATGAACTGCCCCCAGCCCCCGCCCCATTAAAGACCCGGAAGCC
TG

FIGURE 3565

CAGCAGCGGGCGGCCGCGGCGTGACATCGGCACCATCCTGCAGATCCTGAACGACCTCCTGAGCGCCACCCGGCA
CTACCAGGGCATGCCCCCTTCGCTGGCCCAGCTCCGCTGCCACGCCCAGTGCTCCCCGGCCTCACCGGCCCCCGA
CCTGGCCCCCAGAACTACCTCCTGCGAGAAGCTCACGGCTGCCCCCTCAGCCTCCCTGCTGCAGGGCCAGAGCCA
GATCCGCATGTGCAAGCCCCCGGGGGACCGGCTTCGGCAGACAGAAAACCGCGCCACGCGCTGCAAGGTGGAACG
GCTGCAGCTGCTTCTGCAGCAGAAACGGCTCCGTAGAAAGGCCCGGCGGGACGCGCGGGGTCCGTACCACTGGTC
ACCCAGCCGCAAGGCCGGCCGCAGCGACAGCAGTAGCAGCGGGGGCGGCGGCAGCCCCAGCGAGGCCTCCGGCTT
GGGCCTCGACTTCGAGGACTCCGTGTGGAAGCCAGAAGTCAACCCTGACATCAAGTCAGAGTTCGTGGTGGCTTA
GGATCTTCGGATCGGCCACCCTCGCCCCTCGCACCCCAGCCCAGGGCGGCGGGGACTCCGAGAGCCCCGGAGAGA
ACGTGGCCCAGCCCTGGAGGGCAGGCGGCCACTCCCCCAGCCAGAAGTCTTTTTTTCTTTTCTTCTTTTTTATTA
TTTTTTTCTTTTTTTAAAAAGTTCTGACCGTGGTTTCCTGGACTCTTC**ATG**GGCTTTGCTTCCTACCTCCTTCAC
CCTTCACTCCTGCCCTCCTCTTCCTCCTCCTCCTCCTCCTCCGTCTGTCTCCTTTCACCTCTGCGCCAGGTCGGT
CCTCCCTGCCAACCTTCCCCAGCTCCAATATGTAGCAGTCTCTCTGGATGGCGGAGAGTGAAGGAGACGGAGAAA
CGCGCCCCATCCCTTCCGCCGCCTCCTTTCCCCCCCGACCCTATTCAGGTTTTAAGTCAAAAATGTCGATATGTC
ATTATGCACTTTACAGATGAGGGGAGGGGCCGCAGTGCGCAGAACCCACCCCACCCCCCAGTGCAGACTTCGGGG
TCTCCACCCCAGGCCAGCAGCGCCCACTGGGCTACAGCAAGCCAACAGGTCACAGAAGCCAACGAGGGGACTGTT
TCTCTTCCACTCCTATCCTCTTTTCTTGATCTTTTTTTTGCATTTTCCTTCATTTCTTTAACAAGGAGAGCAAAG
CTGTTT**TAG**CAGAGGCTGGGGCTGAGGTCCCCATGGGGTTTGGGTGCAGGGGCATGGCACCCTTTCCTGTCGGGA
AGGGAGAGGGGAACTACCCCCCCAGCCTGCCCTCCGCCCCGCCCCAGCCGGCGGACTGTGCTGTTTCCTCCGCCC
CCACTCCCGTGTTTTCTGACCTCCTGCCTGAGTTTGGGGTATTTATAGACTATTAATTTTCTGACTGAGCCAATA
GTGGTTGGGGAACTCTTGAAAAAGGGGAGAGAATGGCTGGGTGCTGGGGAGTTCCCCCCTCCGAGCCCTCCTTCC
CGGCCCAACCTGAGGGATGTGGATTTGGGACTGTCTGGGGGCCCCTCCTGCAGCGAGGATGGGAGGGGGTGCTGA
GCTGTGAATCCCCTGGGCAGGGGGCGACAACTCCGTGTAGCATTAACCCCCGTGGCGGGGTCCGCTGCTGGTCTA
ATTTGGACCCCCTGCCTCTCAGTGCCCCTGCCCTAGGGGTGTCTGTCTCCAGAGGGGAGGGACAAATCCCCTACT
GGGGCCATTTCAATGGGGTAGTTTTTGGATTTTTTTCCCCACTCACTTTTTATTTTTTAATGATAATGGAGATGT
CTGGACCCTTCCTCACCCCACCTGTCGGTCTTGTCCTGGCTCTGCCTGTCCCCCACCGTTGTTCTCGTAGGTGAA
CCCCAGGTCCTCAACTCCCCCCCTTTATGTGTTGAAAGTTAATGGTTTCAGATGTGAACATCACGTGTTATAACT
GTAGCGCTGTAAATTTTTTTGTGGGAGGGTGGGCAGGGAGGGGTCCCAGAGGGTAGAGCTCAAGGATTTTGGGTT
TTGTTTTGTTTTCATTTTTCCAAAAAAAAAAGAAAAAAAAATAGAAAAAAAAGGAGTAAAAGGGGCGGGTTTGTT
TTTTGAAGAACTGTCTTGGATACCTATTTAAATGTGTGTTCTGTTTTGTTTTTTAACGATTTTTAAATAACGTCT
GTGCCTCCACTGGTTGAGGGTGGAACCTCCAGGCAGGAACCGGCTCGCCACCCTCTGCCCGGTAAGGGCTGCCCA
AGAAAGCATTACCCGCCCTCGGGGGGTCGGGCTGTGGGGGTCCCGGCACCTGGCGTGAGTTTCATGTATGAAAAC
ATAAAATTGAAAAAAAAAAAAAAACCTACACGAGCACCGTGATTTCAAGTAATAAACAGAAAATGAAACAC

FIGURE 3566

GAGGCTCGGGTCGTTGTGGTGCGCTGTCTTCCCGCTTGCGTCAGGGACCTGCCCGACTCAGTGGCCGCC**ATG**GCA
TCAGATGAAGGCAAACTTTTTGTTGGAGGGCTGAGTTTTGACACCAATGAGCAGTCGCTGGAGCAGGTCTTCTCA
AAGTACGGACAGATCTCTGAAGTGGTGGTTGTGAAAGACAGGGAGACCCAGAGATCTCGGGGATTTGGGTTTGTC
ACCTTTGAGAACATTGACGACGCTAAGGATGCCATGATGGCCATGAATGGGAAGTCTGTAGATGGACGGCAGATC
CGAGTAGACCAGGCAGGCAAGTCGTCAGACAACCGATCCCGTGGGTACCGTGGTGGCTCTGCCGGGGGCCGGGGC
TTCTTCCGTGGGGGCCGAGGACGGGGCCGTGGGTTCTCTAGAGGAGGAGGGGACCGAGGCTATGGGGGGAACCGG
TTCGAGTCCAGGAGTGGGGGCTACGGAGGCTCCAGAGACTACTATAGCAGCCGGAGTCAGAGTGGTGGCTACAGT
GACCGGAGCTCGGGCGGGTCCTACAGAGACAGTTATGACAGTTACGCTACACACAACGAG**TAA**AAACCCTTCCTG
CTCAAGATCGTCCTTCCAATGGCTGTGTGTTTAAAGATTGTGGGAGCTTCGCTGAACGTTAATGTGTAGTAAATG
CACCTCCTTGTATTCCCACTTTCGTAGTCATTTCGGTTCTGATCTTGTCAAACCCAGCCTGACCGCTTCTGACGC
CGGGATGGCCTCGTTACTAGACTTTTCTTTTTAAGGAAGTGCTGTTTTTTTTTGAGGGTTTTCAAAACATTTTGA
AAAGCATTTACTTTTTTGACCACGAGCCATGAGTTTTCAAAAAAATCGGGGGTTGTGTGGGTTTTTGGTTTTTGT
TTTAGTTTTTGGTTGCGTTGCCTTTTTTTTTTTAGTGGGGTTGGCCCCATGAAGTGGGTGCCCCACTCACTTCTC
TGAGATCGAACGGACTGTGAATCCGCTCTTTGTCGGAAGCTGAGCAAGCTGTGGCTTTTTTCCAACTCCGTGTGA
CGTTTCTGAGTGTAGTGTGGTAGGACCCCGGCGGGTGTGGCAGCAACTGCCCTGGAGCCCCAGCCCCTGCGTCCA
TCTGTGCTGTGCGCCCCACAGTAGACGTGCAGACGTCCCTGAGAGGTTCTTGAAGATGTTTATTTATATTGTCCT
TTTTTACTGGAAGACGTACGCATACTCCATCGATGTTGTATTTGCAGTGGCTGAGGAATTCTTGTACGCAGTTTT
CTTTGGCTTTACGAAGCCGATTAAAAGACCGTGTGAAATG

FIGURE 3567A

GCGGTGGCGGAGGCGGACACATTGGCGTGAGACCTGGGAGTACGTTGTGCCAAATCATTGCCACTTGCCACATGA
GTGTAA**ATG**ATGGCGGATGCCAAGTATGTCCTCTGCCGATGGGAAAAGCGATTATGGCCTGCGAAGGTTTTGGCC
CGAACCGCGACTTCAACAAAAAATAAGAGAAGAAAGGAATATTTTCTAGCTGTGCAAATCCTCTCTCTAGAGGAA
AAAATTAAGGTGAAAAGCACTGAAGTTGAGATCCTAGAGAAGTCTCAAATTGAAGCCATTGCTTCCTCGTTAGCC
TCACAGAATGAGGTTCCTGCGGCACCCCTGGAAGAACTGGCCTACAGACGGTCGCTTCGCGTGGCTCTGGACGTT
CTGAGCGAGGGCTCGATTTGGAGTCAAGAAAGCTCTGCAGGGACAGGTAGAGCTGACCGGTCTCTGCGAGGGAAG
CCCATGGAGCATGTCTCCTCGCCCTGTGATTCGAACTCCTCATCTCTTCCCCGCGGAGACGTGTTGGGCAGTTCC
AGACCTCACAGGAGGAGGCCATGTGTGCAACAAAGCCTGTCAAGTTCGTTCACTTGTGAAAAGGACCCCGAGTGC
AAAGTGGACCACAAGAAGGGGCTCAGGAAAAGTGAAAACCCAAGAGGCCCGTTGGTCCTCCCAGCTGGAGGTGGT
GCCCAAGATGAGAGTGGGTCCAGAATCCACCACAAAAATTGGACTCTTGCAAGTAAGAGGGGAGGAAACTCAGCG
CAGAAGGCTAGCTTGTGCCTGAATGGATCTTCCCTTTCAGAGGACGACACGGAGAGAGACATGGGGAGCAAAGGA
GGCAGCTGGGCAGCCCCGTCCTTGCCCTCCGGGGTCAGGGAGGACGATCCCTGTGCCAACGCTGAGGGACACGAC
CCCGGTCTGCCGTTGGGCAGCCTCACTGCGCCCCCAGCCCCTGAGCCCTCGGCCTGCTCAGAGCCTGGAGAATGC
CCTGCGAAAAAGAGGCCGCGCCTGGATGGCAGCCAAAGGCCGCCTGCCGTGCAGCTGGAGCCCATGGCAGCAGGG
GCCGCACCATCCCCCGGGCCGGGGCCAGGGCCCAGAGAGTCTGTGACCCCGCGCAGCACCGCCAGGCTGGGCCCG
CCTCCCTCCCACGCCTCTGCGGATGCAACCAGATGTCTTCCTTGCCCGGATTCCCAGAAGCTGGAGAAAGAGTGC
CAGTCTTCCGAAGAGTCCATGGGGTCTAATTCCATGCGTTCTATCCTGGAGGAAGACGAGGAAGACGAGGAGCCA
CCAAGAGTCCTTTTATACCACGAACCACGTTCGTTTGAAGTAGGAATGCTAGTCTGGCATAAACATAAAAAATAC
CCCTTCTGGCCAGCAGTGGTCAAAAGCGTCAGGCAGAGAGATAAGAAAGCAAGTGTGCTATACATCGAAGGACAC
ATGAACCCGAAAATGAAAGGTTTCACAGTGTCTCTTAAAAGTTTAAAGCACTTTGATTGTAAAGAGAAACAGACG
CTTCTGAATCAAGCCAGGGAGGACTTCAACCAGGACATCGGCTGGTGTGTCTCCCTCATCACCGACTACAGGGTC
CGGTTAGGCTGCGGGTCTTTTGCTGGCTCTTTCCTGGAATATTACGCGGCTGATATAAGCTATCCTGTCCGAAAA
TCCATCCAGCAGGACGTCTTGGGGACCAAGCTTCCTCAACTGAGCAAGGGGAGCCCCGAGGAGCCCGTGGTGGGG
TGCCCCCTGGGGCAGAGGCAGCCCTGCCGGAAAATGCTCCCCGACCGCTCGCGGGCCGCCCGGGACCGGGCCAAC
CAGAAGCTGGTGGAGTACATTGTGAAGGCCAAGGGCGCGGAGAGCCACCTGCGGGCCATCCTAAAGAGCAGGAAG
CCATCTCGCTGGCTGCAGACCTTCCTGAGCTCCAGCCAGTACGTGACCTGTGTGGAGACCTACCTGGAGGATGAG
GGGCAGCTGGACCTGGTGGTGAAGTACCTGCAGGGCGTCTACCAGGAGGTGGGGGCCAAGGTGCTCCAGCGCACC
AACGGCGACCGGATCCGGTTCATTCTGGACGTGCTTCTGCCCGAGGCCATCATCTGTGCGATCTCTGCGGTGGAC
GAGGTGGACTACAAGACGGCTGAGGAGAAGTACATCAAGGGGCCTTCGCTGAGCTACCGGGAAAAAGAAATATTT
GACAACCAGCTCCTTGAAGAGCGGAACCGGCGCCGTCGG**TGA**GGGAGCAGCCGGCTGTGCTGTCAGCGGGGCCTG
GCGGTGGAAGCGCCTCCAGTGTGCATGAGCGTGTCTGAAGATGGGGGGCTCAGGGGGCACGTTTGCGTTTGGACC
TGTCTGTGCGTTCTCCTGCGTGGCAGTCCTGATTTCCATGCTTCTGGAGAATCCATTTCGTTAACACTGAAAGCC
AGTTCTCTTTTCCTGGCAGTTTTTTTCATTTTATTTTTGGCATTTTTTACAAGATACCGTTCGGGAAAGGCTTTT
GAAAGGACGGAAGCGTATTCACTGTGCGCCAGTACTCCTGGCTGTGCTGTGGTTTCTCCCGACGTGCACATCGAT
CTCGTATGTGTGGCATCTGATATTAAACGGGAGGTTTTAAGAAGCGTCTGCCGTGATCATGGAGCTTCGGAAGCG
GGAATGGTTCTTCCGGGTTTGCTGTTTTGTCTGTTTCCCCCTTGTGTGGTTTCCGCCTGCGACAGTTCCAGAATT
TGCTCTCCCACTCAGTGTGCTCTGCAGCTGTGAGGAAACAGCCTTCGTTAGAGGCGGGAGCAGAGACGAGCCGCT
GCTCTGTGTCGTGTTTGCTGTGGCCGCAGGGAGAGGAGCAGGACACGCACCTTTCCAGGGGCCTCTGTGTCCCGC
ACTGTGTGTGAGTGGACCGCAGCGCGCAGCCACATGCCCTGGCTGCCATGGGCCAGACCGCCTCCACCTCCCCCG
CCCGCCTGGCCTGTCCTGAGTGCATTTCCCTGCACTGTGTCGTCACTGCACAGCCAGTCACCGCGGTCTCAGTCA
TCGGCGCGGATGGCTATGCTGGGGTCCCAGGGTGGCCGCAGCAGTCAGGGTCACTGTGGGAGCCCTGGGGTGGAG
TGACAAACCGCATTGTCCTGTGCCCGCCATGGCAGAAGCGCAGCCTTTGTATGGAGGCCCAACCGCGCTCCCGTC
TGGAGAAGCGGCTTCCGGGGTGTGGCTGCCGGGTCGGCTCTGGTCCACAGCACGGTGCCGGGGCTGCAGGTTGTT
GAGGGCTGTGACTCCGTGGGGCTCAGCCAGGCTCCAGCAGGGTCAGACGTGCTGTTAAGAGCAAAGCCACAGACG
ATGACTTGTCCATTCTCAGTGGATGCTCCAGGCTGTGCCTACACAGCAGTGCTGGTGACATGTCCAGGGTTCCAG
GGCCCGGTGGCCTGGGAGCTGCTTTCTCCCCACTGGCTGGGCTGCATCTGGCCCTGGCTGGAGGCCTTGCTTTGA
GGGGCTGTGACCCTCTTCCCCCAGGCCCTCCCCAGCCGACGACAGCCACCGGAGAGGAGATCGGAACACGATTGT
CTCAGATGCAGGGCGCTGTGCGGGACGAAGCCGCAAGGACTCTCGTATCGGGCCCTTGGGACTCGGGAGGTGCCA

FIGURE 3567B

GAGGCGGCGGCTGCTCTGGACCTCGGTGTTCACTGACCTTTGTTTCACTTGCCTCTGCTCGACTCCGAGAGCAGG
AAACCCGGCCGTGGCCTGGCAGCTCCGCCTCCCATGCCCGCACGCTGGGGTCTGTCTTGTCTGGAGCAGTGGGGC
ACACCCCGGAGGAGGCGGGGGTCAGGGCTGTCGGCCTTGGCCCCCTGCTGGTCGCTGTTTCGGGGACTCGGGGCG
GCCAGTACCACCGCCTGAGGCGGGGCTCAGCAGCGTTGCATGTACGGGCCTCGTACTGCCTCATGGAAAATCCTC
CGGAGCCGCCCTCCATTGTGGGTTCCTGAGAGTAGGACACATTGCCATGGTTTTGTGGGAATCACGCGCCCCTGA
TGGAACTTTTCTGCTGTTGTGAAGTACTTTTATCCATTTGCTTCTCTGCTGACCTTGCCAAGTTGTTCGAGGTGG
AATTAAACACCTCCCAGACC

FIGURE 3568

CTGCGCGCTGCGGTCCACTCACACACAGTGCGGGACACAGAGGCCCCTGGAAAGAGCACACTGAGTGGGAGAGCA
AATTCTGGAACTGTCGCAGGCGGAAACCACACAAGGGGGAAACAGACAAAACAGCAAACCCGGAAGAACCATTCC
CGCTTCCGAAGCTCCATGATCACGGCAGACGCTTCTTAAAACCTCCCGTTTAATATCAGATGCCACACATACGAG
ATCGATGTGCACGTCGGGAGAAACCACAGCACAGCCAGGAGTACTGGCGCACAGTGAATACGCTTCCGTCCTTTC
AAAAGCCTTTCCCGAACGGTATCTTGTAAAAAATGCCAAAAATAAAATGAAAAAAACTGCCAGGAAAAGAGAACT
GGCTTTCAGTGTTAACGAAATGGATTCTCCAGAAGCATGGAAATCAGGACTGCCACGCAGGAGAACGCACAGACA
GGTCCAAACGCAAACGTGCCCCCTGAGCCCCCCATCTTCAGACACGCTCATGCACACTGGAGGCGCTTCCACCGC
CAGGCCCCGCTGACAGCACAGCCGGCTGCTCCCTCACTGGCTTGTTATTTTGAGCATGTCCCCGGCGTGATGAAA
TCACGGCCTGTGTGCTCAGCCCAAGTAACTTCTCCATCAGCACCAGCACCATTCTCACAGGTCACGGGAGGCTTT
CATGGCAACTGGAAGCTGTGATGAACTCCTAACGGGTTTTGATGTCGGCAACCCAGACTCAAAAAAAAAAATCAG
GATGAAAGATTTCCACAGATGGGCGTGGAGCGGTGAAGAGGCTTCTGAGACGGAGGGAGAGGACAAACCAGCAGG
CTGGGTCCAGGTGTCCTGGCTCCGACCTTACCCCCTCCCCGGACCTCACTTATTCTTACGGCAAGCATGACGGGG
GAACC**ATG**AAGATCCAGCAGGAAAACACCCAGTTTCTGTATCCAAAGGCCTTTCCTGTTTTGGTAAGCCAGCTGG
GCCAACACTCCCTAAACAAGGCCAAATTCCACCTTTGTGCAGCTCTGCGGGGGTGGCCTGCCAATGCCACCGAGG
CCCCACACCTCCTCCCTGGCCTCTCCAGGGGCCCCTCCTGCCCTGCCCAGGGAGGACATGGGGCTGGTGAGGGAG
TTCAGTGTCTTCACCAGGAGTCTCCTGTGACTGTGGGCCCGGGAGACGTCGGTGGCTGCGCAAGCCACCCTGGCC
GGAGACCCTGTCCT**TGA**CTCTAGTTGAGTCTTCAGCCTGTCACTGCCCCGTGGGCCCCGCCTGGCTCCCAGCAAG
GCCTGGCCGCATGCCCAGAGACAGGATTAGGCGCTCTGGGGGCCAAACATCCAAGGGCAGCTAAGCACACGGATG
TGAGAGAAACATCTTGATCACAGCATTCTTCTGGCTGCTGGAAAGCACCGGGCCGTGCTGCTGCTTAATCTTGCT
GTATTTCTCACACAGCCATGGGGCTGTGGAAAGAGGGGAGGAAAGTGCAAAAAGCAAACATCAGCCCCTGCAAAA
AGAGATTAAGAACAGACACGGCCCAGGCACGTGCCCGTGGCCCCGTGCTGCCCACAGCGACCAGCTGGGAGACCC
GGGCACAGCCTTCCTGGGGGGCAGGAGTGACCCACAGGGTGAGTTCAGCGTATGTGATCAGCTCACCACCCAGCA
CCTGGGCCACCTCATGAGGGAGAGGGGCTGCGGCAGCCTGGAGTCAAACTGCCTGTGGGTGTGGAAATAGAAACT
GCAAGGCAGAGACGCAAGTGGCTGGAGATAGCGCCGGGAGCGGCCTACCGGTAGCTCAGCGAAGGCCCCTTGATG
TACTTCTCCTCAGCCGTCTTGTAGTCCACCTCGTCCACCGCAGAGATCGCACAGATGATGGCCTGTGAGAGGGCA
CGGGGCTCAATAGCAGCAGGCACTGCCCAACTGGCCCCAAGTGGCCTGCGGTTAAGAAGGCCGCAGGGAGCCTGG
GTCACCAGGTTCCAGCCTCCAGACATGGTCTAGCTCATGGTTCAGAAGGTGCAAACCTAGTCCATGAATCCCTGC
TTGTAATGATGTTTCTTAATTAAATCAGTACTATCTTTCGGACTAGACACAATAGCTCAGATCACTAAAAGCAGA
GAAGAAAAGGCAAGACCCAAACCCACAAGAGCATTTCTCAAAAATTTTAAGTTTTTTTTTTGGTGGCGGTTTTTT
CTGGTACAGAGTCTCGCCCTGTCGCCCAGGCTGGAGCGCAATGGCATAATCTCAGCTCACTGCAACCTCTGCCTC
CCGGGTTCAGGTGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTATAGGTACGCGCCACCACGCCCAGCTA
ATTTTTGTATTTTTAGTAGAAACGGGGTTTCACCATGTTGGCCAGGCTGGTCTCAAGCTCCTGGCCTCATGATCC
ACCTGCCTCGGCCTCCCAAAGTGCTGGAATTACCGATGCGAGCCACCACACCCGGCCTTAAGTTTATTGTTATAA
AAAAAAAAGAGTATCCTGAATACACAATACATACCTGACATTAAGAAATCATCCCTATTTTTTACTTTTGTGATT
ATGGTAAACACATTTTTAACAGAGTCCATTCGGTTCAGAGCAGAGTCTCTCCCACTCGGCCCTGTGGACGTCGGG
GCCAGACTGTTCTCTGAGGTGGGGCTGTCCTAGGCGCTGCAGGGTGCTGAGCAGCGTCCCTGCCCCAACCC

FIGURE 3569

CCAAG**ATG**GCGGTGCTGTCAGCTCCTGGCCTGCGCGGCTTCCGGATCCTTGGTCTGCGCTCCAGCGTGGGCCCGG
CTGTGCAGGCACGAGGTGTCCATCAGAGCGTGGCCACCGATGGCCCAAGCAGCACCCAGCCTGCCCTGCCAAAGG
CCAGAGCCGTGGCTCCCAAACCCAGCAGCCGGGGCGAGTATGTGGTGGCCAAGCTGGATGACCTCGTCAACTGGG
CCCGCCGGAGTTCTCTGTGGCCCATGACCTTCGGCCTGGCCTGCTGCGCCGTGGAGATGATGCACATGGCAGCAC
CCCGCTACGACATGGACCGCTTTGGCGTGGTCTTCCGCGCCAGCCCGCGCCAGTCCGACGTCATGATCGTGGCCG
GCACACTCACCAACAAGATGGCCCCAGCGCTTCGCAAGGTCTACGACCAGATGCCGGAGCCGCGCTACGTGGTCT
CCATGGGGAGCTGCGCCAACGGAGGAGGCTACTACCACTATTCCTACTCGGTGGTGAGGGGCTGCGACCGCATCG
TGCCCGTGGACATCTACATCCCAGGCTGCCCACCTACGGCCGAGGCCCTGCTCTACGGCATCCTGCAGCTGCAGA
GGAAGATCAAGCGGGAGCGGAGGCTGCAGATCTGGTACCGCAGG**TAG**CGCCGCCGCCGCCGCCGCCGGAGCCTGT
CGCCGTCCTGTCCCCAGCCTGCTTGTGTCCCGTGAGGTTGTCAATAAACCTGCCCTCGGGCTGCCGCC

FIGURE 3570

CCCCGGCCCACAAGCCCCTGCAGGGAGCGGGCCCGGGCGGCGCGCGATCGAGGTCGGGTCGCCGTCCAGCCTGCA
GC**ATG**AGCGCCCCCAGCGCGACCCCCATCTTCGCGCCCGGCGAGAACTGCAGCCCCGCGTGGGGGGCGGCGCCCG
CGGCCTACGACGCAGCGGACACGCACCTGCGCATCCTGGGCAAGCCGGTGATGGAGCGCTGGGAGACCCCCTATA
TGCACGCGCTGGCCGCCGCCGCCTCCTCCAAAGGGGGCCGGGTCCTGGAGGTGGGCTTTGGCATGGCCATCGCAG
CGTCAAAGGTGCAGGAGGCGCCCATTGATGAGCATTGGATCATCGAGTGCAATGACGGCGTCTTCCAGCGGCTCC
GGGACTGGGCCCCACGGCAGACACACAAGGTCATCCCCTTGAAAGGCCTGTGGGAGGATGTGGCACCCACCCTGC
CTGACGGTCACTTTGATGGGATCCTGTACGACACGTACCCACTCTCGGAGGAGACCTGGCACACACACCAGTTCA
ACTTCATCAAGAACCACGCCTTTCGCCTGCTGAAGCCGGGGGGGCGTCCTCACCTACTGCAACCTCACCTCCTGGG
GGGAGCTGATGAAGTCCAAGTACTCAGACATCACCATCATGTTTGAGGAGACGCAGGTGCCCGCGCTGCTGGAGG
CCGGCTTCCGGAGGGAGAACATCCGTACGGAGGTGATGGCGCTGGTCCCACCGGCCGACTGCCGCTACTACGCCT
TCCCACAGATGATCACGCCCCTGGTGACCAAAGGC**TGA**GCCCCCACCCCGGCCCGGCCACACCCATGCCCTCCTC
CGTGCCTTCCTGGCCGGGAGTCCAGGGTGTCGCACCAGCCCTGGGCTGATCCCAGCTGTGTGTCACCAGAAGCTT
TCCCGGCTTCTCTGTGAGGGGTCCCACCAGCCCAGGGCTGATCCCAGCTGTGTGTCACCAGCAGCTTTCCCAGCT
TCTCTGTGAGGGTCACTGCTGCCCACTGCAGGGTCCCTGAGGTGAAGTAAACGCCGGCGCTGGGCTTGGCCAGTC
GGCAGTGA

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FIGURE 3571

ATGGCCTGGGCGCTCGAGGTGACCCCTCTGAGCCTCTGTCCTCTCCCCAGTAGGCCAGGCATGGGCCCTATCCCT
GACACCTGGTCTACCACCCAGGCGCCTAGCACCCAGCGGCTACTCAACAGGATGTGGCGACCCCGGCCGCGCTGT
GTCAGCTTCCCAGAATCCAAGTCAGAGGCGCTCAAGCCAGACTTTAAGATGACTTCACAAGGCCAGGGAGGGCAC
ACTGGAGACTCGGGCCTTCCTGATCTCGCGTGCTCTGAGCGCTCCAGGCCACCTGCTGGTGCCAACCCTCTAACC
CTCCTGACAGGCTGCAGAGAGGGAGCTGATGCCAGAATGAGGGGGAACCCCCGGAGCTTCTCGCATCGGGTGGGA
CCGGCATCCGAGGCAGAGCTGTCATCGTGGGCACTGGGAAGTAGCCTGCAGTGTCAGCACAGACCGGCGCTCACC
AACGACACGGCACGGAGGCTTTCTAGGGAGCAGTCCCCCCAGGACAGCAATACGTTCAGGCGACAGCGACACAGG
GCAGCAACAGCGGTAACCCTGTCTGCTGGCACTGAGGGCCTCATCAGACCCCTGCAGGCCTGCAACCACAGCCAA
AATCAGTGTGCCTTCTCCAAAGCCACCTTC**TGA**

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FIGURE 3572

GGAAGCTCTTCGTGGGCGGTCTTGACTGGAGCACGACCCAAGAGACTCTGCGCAGCTACTTTTCCCAATATGGAG
AAGTCGTAGATTGTGTTATC**ATG**AAAGATAAAACCACCAACCAGTCTCGAGGCTTTGGGTTTGTCAAATTTAAAG
ACCCAAACTGTGTGGGGACGGTGCTGGCCAGCAGACCGCACACGCTAGATGGCCGAAACATCGACCCCAAGCCAT
GCACACCCCGGGGGGATGCAGCCGGAGAGAACACGGCCGAAGGAAGGATGGCAGAAAGGACCCAGGAGCGATAACA
GTAAATCAAATAAGATATTTGTCGGTGGAATTCCTCACAATTGTGGTGAGACAGAGCTCAGGGAATACTTCAAGA
AGTTCGGAGTGGTCACGGAGGTAGTCATGATCTATGACGCCGAGAAGCAGAGGCCCCGAGGTTTTGGATTTATTA
CTTTCGAGGACGAACAATCAGTGGACCAGGCTGTCAACATGCATTTTCACGACATCATGGGCAAAAAAGTGGAAG
TTAAACGAGCTGAGCCTCGGGACAGCAAGAGCCAAGCGCCGGGACAGCCAGGTGCCAGCCAGTGGGGGAGCCGGG
TTGTGCCCAACGCTGCCAATGGCTGGGCAGGCCAGCCCCCGCCCACGTGGCAGCAAGGATATGGCCCGCAAGGAA
TGTGGGTGCCGGCAGGACAGGCGATTGGTGGCTATGGACCGCCCCCTGCAGGAAGAGGAGCCCCCCCGCCACCCC
CACCGTTCACCTCCTACATCGTGTCCACCCCTCCTGGAGGCTTTCCCCCTCCCCAGGGCTTCCCTCAGGGCTACG
GTGCCCCGCCACAGTTCAGTTTTGGCTACGGGCCTCCACCTCCACCGCCAGATCAGTTTGCCCCTCCGGGGGTTC
CTCCTCCACCAGCCACTCCCGGGGCAGCACCTCTGGCTTTCCCACCGCCTCCGTCTCAGGCTGCCCCGGACATGA
GCAAGCCCCCGACAGCTCAGCCAGACTTCCCCTATGGTCAGTATGGCCTGGGTTCCTATTCTCCAGCCCCGCCGG
GCTGCGGCCCACACTTTGTTTACAGTCTTATGGTCAGGCTGAGCAGTGATGTGGCC**TAG**CAGGTTACGGGCAGGA
CTTGAGTGGCTTCGGACAGGGCTTCTCAGACCCCAGCCAGCAGCCTCCTTCCTACGGGGGTCCCTCCGTGCCAGG
GTCGGGGGGCCCCCCCCGCCGGCGGCAGCGGCTTTGGACGAGGGCAGAACCACAACGTGCAAGGGTTCCACCCCTA
CCGACGCTAGCCCGCGGCGCCGCGACGTCTGCACGGCCCAGACCCAGGATTCCAAACTTGTGAACTCGTGACAAT
CACAAACTTGGCGGCAAAGTGGCGACTCAACCTTGGGGGGGGGGGCGGGGGGAGGGCGCGAGGCTTTTGGAGCGG
CTGTGGGTGTCGTCTGGACTGAGGTTTTTAAATATTTCTTTCTCTAACCCATCAGCACAATAAAAAAAAGTCACT
GGTTCAACAACAGGGTTTAAAAAAAATGTCTTCAGCTTTAATTCAAAACTTCAGGTTTCTTTTTCTTCCTTTTTT
TTGGAAATTATTTTCCTGAGCCTTTTGTTTTACGGTATATTGTAAACTTTTATGTTAAAGAAAAAATATACATTT
ACAAATTGTGAGATTTTTAAGAGAAATTTTCTACGATGTATACTGGCTTATTTTTTAATTTAAAACGGGGTTTCC
GTCGGCACTGGTGGAGGGGGTGCGCTGTTAGTCCCCTCGCTCCTGGCTTTGGGGGTTGGGACTTGGTGGTCCAGA
AACTCTGGGAGCTTCTAGAAGAAATCTACTGAGTGTATTTCTGTTTTTTGTTTAATTCCTTGCTTTTGTCGACTG
ACCTGCTTGGTAGTGTCTGAGGTGAACTGTGGGGGTTGCGCACAGCCAGCCGCGTGGATCCCACGCAGCGCTGAA
CCGAACCGAGTAGGAAGCCTTTCTCCCCAGGCACGTGGCTTCAGGGCGTTTCCCATTGACCAGTTTGACCCTGGT
TTGAATAAAGAGAAGTGCGTTTGGATTAG

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FIGURE 3573

CTGCGCAGGCGCGGACCAAAGCGATCTCTTCTGAGGATCCGGCAAG**ATG**GCAGAAGTAGAGCAGAAGAAGAAGCG
GACCTTCCGCAAGTTCACCTACCGCGGCGTGGACCTCGACCAGCTGCTGGACATGTCCTACGAGCAGCTGATGCA
GCTGTACAGTGCGCGCCAGCGGCGGCGGCTGAACCGGGGCCTGCGGCGGAAGCAGCACTCCCTGCTGAAGCGCCT
GCGCAAGGCCAAGAAGGAGGCGCCGCCCATGGAGAAGCCGGAAGTGGTGAAGACGCACCTGCGGGACATGATCAT
CCTACCCGAGATGGTGGGCAGCATGGTGGGCGTCTACAACGGCAAGACCTTCAACCAGGTGGAGATCAAGCCCGA
GATGATCGGCCACTACCTGGGCGAGTTCTCCATCACCTACAAGCCCGTAAAGCATGGCCGGCCCGGCATCGGGGC
CACCCACTCCTCCCGCTTCATCCCTCTCAAG**TAA**TGGCTCAGCTAATAAAGGCGCACATGACTCC

FIGURE 3574A

GGGTTTGGGGAGCAGGAGGCAGACATGTGTTGCTTTGCACGTCATCTGGTCCTTCCACCTGGCTGGGCATGGGAT
GGTGACCTCAGCTGGAACATGGGGCTCGAGCCAGACCCCAGGGTCTCCCTGCGTGTAGCCCCCAACCCCAAGCCT
GATCCCCACTGGAGACCTGAACAGCCTTGGACATCATCGGATCAGGGTGGGAGGTGCCAGCCTCTGCCACCTGAC
TTCCAGTCCCTGTGCCCCTCCCACCCTGCCCTTGGGCACTCCTGCCCTGCAGGTTCCTCAGAGGGGCAACCCAAA
GCCAGAGAGGGGCGGGTCTTGTCGGGCCTCCAGCCTGGACTTCCCAGCCCCTCTGGGGCAGCATCTGGGTGCCAG
ACCTCGGTTCCTAGGGCCTCGTTTCTCCCTCTGGGAACAGCCAAATGGTGGTCCCTGAGACTCAGGACAGACCAA
GAAGGAGCCGGATGACATGGCAAGCCACACACTGCGTCCCCTGAGCAGGACGGGACAGCCCGACTCCATCCTCCC
ACCTGCGACTGAGCCCCCACCCCTACTCCTGTCCCAGCCGTGCCCCTGGTGACATTTGGGTGGGAGGGGAGGGGA
TGAGGGGGCACCTGGGGGTCAGAGAACAAATGACGGGTGAATACATGTGTGTGGCCAGGTGGAGGAGGGAGGGGA
GGAGCAGGTGGGCTGGACAGGGCCGGTGTGAGGAAGGGGCTCAGGCTGGCAGGGGGAGGTGGCAGAGGGATGGGC
TGCCATTGGTGCGTCTGAGACAAAGGCGGAGGGAGGAGGCGAGCGCTGATGGGAAAGGAACAAAGAGGGAAGGGG
GGCGTGAAGGGGGGCTCCGGCGGGAGGGCCGAGCCGAGGGAGGAGGCGCCGGCCAGCTGGACAGAGGGAGGAGGC
CAGGCCAGAGCCAGAAGACGGCCAGAGGCACAAAGAAGCCAGCGCGCTGGCAGAGTCAAGGGATGGGGCAGGGGC
TGCCGGGGCCAGCAGGGACCAGCTGAAGGCTGCGCAGGGGGTGCGGGCCACACAGGTAGCCACCCTGAGCTCAGC
CACCGATGGAGGGTCGTGGGGCTGCTGCGGTGATGGCGGTGGGCTTGGGTCCATCTGTCCTGCCGTTTCTGCACA
GCTTAGGTGTCACCCACTGGCCTTCGTGGTGTTTTCATTGTCCATCGGCAGGGACAGCTGGTGGTCTGTCCGCCC
CGCGTGTCTGGCTGTCAGCCTCTGGGCAGGCTTGCTTTTATGGGGGAGGGTCCTGTCTGTCTGTCTGTCGCCCTC
TCTGGCTGTGAGCCTGGGGGTGCTGGGCTGGCCAGTCGGCTTGCTGGGTTAGGCTGTCCCAGCTGTCTGTGTGTT
TGTCCGGCTGTCAGGATGTGTCCTGGGGGCTGGGAAGGAGAGGCCGACCCATCGTCTGTCGGTCGACTGGTCAGT
TGGACGTTCAGCTGTCTGTACGTCTGTCTGCTGGCCCCTCTGTCTCCCCTTGGGGCCACCTCTCACTCCACCTGC
CCCTCTGCGCCCCGGATTGCCTGGCCACCACCACGTGGGCCTGTACTTGTCCACACCAGTGACTCCTGCCTGAGA
CCCCCCCCAACCCAGGATCAGGCAGGACGGCTGGGGCTTAGGTCAGGGGCCGTCTGTCCGGAAGGCATCACCGCG
CCCTCCCCAGACCATCAGCTGAACCCTCTGACCCTGTGATCCCAGACGCTGCAGGAGCTGAAG**ATG**GCGAGCTCC
GTGGCGCCCTACGAGCAGCTGGTGAGGCAGGTGGAGGCCTTGAAGGCTGAGAACAGCCACCTGAGGCAGGAGCTA
AGGGACAACTCCAGCCACCTGTCCAAGCTGGAGACAGAGACGTCGGGCATGAAGGAGGTCCTGAAGCACCTACAG
GGAAAACTGGAGCAGGAGGCCCGAGTGCTGGTGTCCTCGGGGCAGACGGAGGTGCTGGAGCAGCTGAAGGCCCTA
CAGATGGACATCACCAGCCTGTACAACCTCAAGTTCCAGCCGCCCACCCTGGGCCCGGAGCCTGCCGCCCGGACC
CCCGAGGGCAGCCCAGTACACGGCTCCGGGCCCTCCAAGGACAGCTTTGGGGAGCTGAGCCGGGCCACCATCCGG
CTGCTGGAGGAACTGGACCGGGAACGGTGTTTCCTGCTGAATGAGATTGAGAAGGAGGAGAAGGAGAAGCTCTGG
TACTACTCTCAGCTGCAGGGCCTGTCCAAGCGCCTGGACGAGCTGCCGCACGTGGAGACGCAGTTCTCGATGCAG
ATGGACCTGATCCGGCAGCAGCTTGAGTTCGAGGCCCAGCACATCCGCTCGCTGATGGAGGAGCGCTTCGGCACC
TCGGACGAGATGGTGCAGCGGGCACAGATCCGCGCCTCGCGCCTGGAGCAGATTGACAAGGAGCTGCTGGAGGCG
CAGGACCGAGTGCAGCAGACGGAGCCCCAGGCCTTGCTGGCGGTGAAGTCGGTGCCGGTGGACGAGGACCCCGAG
ACAGAGGTCCCCACACACCCTGAGGATGGCACCCCTCAGCCGGGCAACAGCAAGGTGGAGGTGGTCTTCTGGCTG
TTGTCCATGTTGGCGACGCGCGACCAGGAGGATACAGCGCGCACGCTGCTGGCCATGTCCAGCTCGCCCGAGAGC
TGCGTGGCCATGCGCCGCTCGGGCTGTCTGCCTCTGCTGCTGCAAATCCTCCACGGCACCGAGGCCGCGGCCGGG
GGTCGCGCCGGGGCCCCAGGGGCACCGGGCGCCAAGGACGCACGCATGCGCGCCAACGCGGCGCTGCACAACATC
GTCTTCTCGCAGCCGGACCAGGGCCTGGCGCGCAAGGAGATGCGCGTCCTGCACGTGCTGGAGCAGATCCGGGCC
TACTGCGAGACCTGCTGGGACTGGCTGCAGGCCCGAGACGGCGGGCCCGAGGGAGGTGGCGCCGGCAGCGCCCCG
ATCCCCATCGAGCCGCAGATCTGCCAGGCCACCTGTGCTGTTATGAAGCTGTCCTTTGATGAGGAGTACCGCCGT
GCCATGAACGAGCTAGGTGGGCTGCAGGCCGTGGCAGAGCTGCTGCAGGTTGACTATGAGATGCACAAGATGACC
CGGGACCCGCTGAACCTGGCGCTGCGCCGCTACGCGGGCATGACCCTCACCAACCTCACCTTTGGGGACGTTGCC
AACAAGGCCACCCTGTGTGCGCGCCGCGGCTGCATGGAGGCCATCGTGGCCCAGCTGGCCTCCGACAGTGAGGAG
CTCCACCAGGTGGTGTCCAGCATCCTTCGGAACTTGTCCTGGAGGGCCGACATCAACAGCAAGAAGGTGCTGAGG
GAGGCGGGCAGCGTGACTGCCCTGGTGCAGTGTGTCCTGCGGGCCACCAAGGAGTCCACCCTGAAGAGCGTGCTG
AGCGCCCTGTGGAATCTGTCTGCACACAGCACAGAGAACAAGGCGGCCATCTGCCAGGTGGATGGCGCCCTGGGC
TTCCTGGTGAGCACCCTGACCTACAAGTGTCAGAGCAACTCGCTGGCCATCATCGAGAGCGGCGGCGGCATCCTC
CGCAATGTGTCCAGCCTCGTCGCCACCCGTGAGGACTACAGGCAGGTGCTCCGGGATCACAACTGTCTGCAGACG

FIGURE 3574B

CTGCTGCAGCATCTGACTTCGCACAGCCTGACCATCGTGAGCAACGCGTGCGGCACGCTCTGGAACCTGTCGGCC
CGCAGCGCCCGTGACCAGGAGCTGCTGTGGGACCTGGGCGCCGTGGGCATGCTGCGTAATCTGGTGCACTCCAAG
CACAAGATGATCGCCATGGGCAGCGCCGCCGCCCTGCGCAACCTGCTGGCCCATCGGCCCGCCAAGCACCAGGCG
GCCGCCACCGCCGTGTCCCCAGGCAGCTGCGTGCCCAGCCTGTACGTGCGCAAGCAGCGGGCGCTGGAGGCCGAG
CTGGACGCACGGCACCTCGCGCAGGCGCTGGAGCACCTGGAGAAGCAGGGCCCGCCGGCAGCCGAGGCCGCCACT
AAGAAGCCGCTGCCGCCCCTGCGACACCTGGACGGCCTGGCCCAAGACTATGCTTCCGATTCGGGCTGCTTTGAC
GACGACGATGCACCGTCATCCCTGGCTGCGGCCGCGGCCACCGGGGAGCCAGCCAGCCCTGCCGCGCTGTCCCTC
TTCCTGGGCAGCCCCTTCCTGCAGGGGCAGGCGCTGGCTCGCACCCCGCCCACCCGCCGAGGCGGCAAGGAGGCA
GAGAAGGACACCAGTGGGGAGGCAGCCGTGGCGGCCAAGGCCAAGGCCAAGCTGGCGCTTGCAGTGGCGCGCATC
GACCAGCTGGTGGAGGACATCTCCGCCCTGCACACCTCGTCCGACGATAGCTTCAGCCTCAGCTCTGGAGACCCG
GGACAGGAGGCGCCACGGGAGGGCCGCGCCCAGTCCTGCTCGCCATGCCGCGGCCCGGAGGGCGGGCGGCGAGAG
GCAGGAAGCCGGGCGCACCCGCTGCTGCGGCTCAAGGCGGCCCACGCCAGCCTCTCCAACGACAGCCTCAACAGC
GGCAGTGCCAGCGACGGGTACTGCCCACGCGAACATATGCTGCCCTGCCCGCTGGCCGCACTGGCTTCGCGCCGC
GAGGACCCCAGGTGTGGGCAGCCTCGGCCCAGCCGGCTTGACCTTGACCTGCCCGGCTGCCAGGCCGAGCCCCCG
GCCCGCGAGGCCACCTCCGCCGACGCCCGCGTGCGCACCATCAAGCTGTCGCCTACCTATCAGCACGTGCCACTG
CTTGAGGGTGCCTCAAGGGCGGGTGCAGAGCCCCTCGCGGGGCCTGGAATCTCTCCAGGGGCCCGGAAGCAGGCC
TGGCTGCCGGCAGACCACCTGAGCAAGGTTCCCGAGAAGCTGGCGGCTGCCCCGCTGTCTGTGGCCAGCAAGGCA
CTGCAGAAACTGGCGGCGCAAGAGGGGCCACTCTCGCTGTCCCGATGCAGCTCCCTTTCCTCGCTGTCCTCGGCC
GGCCGCCCAGGCCCCAGCGAGGGTGGTGACCTGGATGACAGTGACTCCTCCCTGGAGGGGCTGGAGGAGGCCGGC
CCCAGCGAGGCTGAGCTGGACAGCACGTGGCGGGCGCCCGGGGCCACCTCGCTGCCCGTAGCCATTCCGGCTCCC
CGGCGTAACCGAGGCCGGGGCCTGGGGGTGGAAGACGCCACGCCGTCCAGCTCGTCGGAGAACTACGTGCAGGAG
ACACCGCTTGTGCTGAGCCGCTGCAGCTCTGTGAGCTCGCTGGGCAGCTTCGAGAGCCCGTCCATCGCCAGCTCC
ATCCCCAGTGAACCTTGCAGCGGGCAGGGCAGCGGCACCATCAGCCCTAGCGAGCTGCCCGACAGCCCCGGACAG
ACCATGCCTCCCAGCCGGAGCAAGACGCCACCGCTGGCGCCCGCGCCACAGGGTCCCCCCGAGGCCACCCAGTTC
AGCCTGCAGTGGGAGAGCTACGTGAAGCGCTTCCTGGACATCGCCGACTGCCGGGAGCGCTGCCGGCTGCCATCT
GAGCTGGACGCAGGCAGCGTGCGCTTTACCGTGGAGAAGCCAGACGAGAACTTCTCGTGCGCCTCCAGCCTCAGC
GCGCTGGCCTTGCACGAGCACTACGTGCAGCAGGACGTGGAGCTGCGGCTGCTGCCCTCGGCCTGCCCCGAGCGC
GGCGGGGGCGCCGGGGGCGCCGGCCTCCACTTTGCAGGGCACCGGCGGCGGGAGGAGGGGCCGGCGCCCACGGGT
TCTCGCCCTCGCGGCGCCGCGGACCAGGAGCTGGAACTGCTGCGGGAGTGCCTGGGAGCCGCCGTGCCTGCCCGG
CTGCGCAAGGTGGCCTCCGCGCTGGTGCCAGGTCGCCGCGCACTCCCCGTGCCCGTCTACATGTTGGTGCCCGCC
CCGGCCCCGGCCCAGGAGGACGACTCCTGCACTGACTCCGCGGAGGGCACGCCGGTCAACTTCTCTAGCGCCGCC
TCGCTCAGCGACGAGACGCTGCAGGGACCCCCCAGGGACCAGCCCGGGGGACCAGCGGGCAGGCAAAGACCCACC
GGCCGCCCCACCTCTGCCAGACAGGCCATGGGGCACCGGCACAAGGCGGGAGGCGCCGGCCGCAGCGCGGAGCAG
TCTCGGGGCGCGGGCAAGAACAGAGCAGGGCTGGAGCTGCCCCTGGGCCGGCCCCCGAGCGCCCCCGCAGACAAG
GACGGCTCAAAGCCCGGCCGGACCCGCGGGGACGGGGCGCTCCAGTCGCTGTGCCTCACGACGCCCACTGAGGAG
GCCGTGTACTGCTTCTACGGCAACGACTCGGACGAGGAGCCCCCGGCGGCCGCGCCCACGCCAACCCACCGGCGC
ACATCGGCCATCCCTCGCGCTTTTACGCGGGAGCGTCCGCAGGGCCGGAAGGAGGCCCCTGCCCCGTCCAAGGCT
GCACCAGCTGCCCCGCCGCCCGCCCGGACCCAGCCCAGCCTCATTGCTGACGAGACCCCGCCCTGCTACTCCCTG
AGCTCCTCCGCCAGCTCCCTCAGCGAGCCCGAGCCCTCGGAGCCGCCGGCCGTCCATCCACGAGGCCGGGAGCCC
GCGGTCACCAAGGACCCGGGCCCAGGAGGCGGACGCGACAGCTCGCCCAGCCCGCGGGCCGCGGAGGAGCTTCTG
CAGCGGTGCATCAGCTCGGCCCTGCCCAGGCGCCGGCCCCCCGTGTCTGGCCTGCGGCGCCGCAAGCCCCGAGCC
ACCCGGCTGGATGAGCGGCCCGCAGAGGGGTCCCGGGAACGCGGCGAGGAGGCAGCGGGCTCGGACCGGGCCTCC
GACCTGGATAGCGTGGAGTGGCGCGCCATCCAGGAGGGCGCCAATTCAATTGTCACGTGGCTGCACCAGGCAGCA
GCTGCCACGCGGGAGGCCTCGTCCGAGTCCGACTCCATCCTGTCCTTCGTATCCGGGCTGTCAGTGGGATCCACC
CTACAGCCCCCCAAGCACAGGAAGGGACGACAGGCGGAGGGAGAAATGGGCAGTGCCCGGCGGCCAGAGAAAAGG
GGCGCAGCCTCAGTCAAGACCAGCGGGAGCCCCCGTTCCCCTGCAGGCCCCGAGAAGCCACGTGGCACACAGAAG
ACCACGCCCGGGGTGCCAGCTGTGCTCCGGGGACGAACAGTGATCTACGTCCCCAGCCCGGCACCCCGTGCCCAG
CCCAAAGGGACCCCCGGCCCCCGCGCCACACCGCGGAAGGTGGCGCCCCCTTGCCTGGCACAGCCCGCGGCTCCA

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FIGURE 3574C

GCCAAAGTCCCGAGCCCCGGGCAGCAGCGGTCGCGGAGCCTACACCGGCCTGCCAAGACCTCGGAGCTGGCGACG
CTGAGCCAGCCCCCCAGAAGCGCCACACCGCCCGCCCGCCTCGCCAAGACCCCCTCCTCCAGCTCCTCCCAGACC
TCGCCCGCCTCCCAGCCCCTGCCCAGAAAGCGCCCCCCGGTCACCCAGGCTGCTGGGGCCCTGCCCGGCCCCGGA
GCCTCCCCGGTGCCCAAAACGCCGGCGCGCACCCTTCTGGCGAAGCAGCACAAGACGCAGAGATCGCCCGTGCGG
ATCCCGTTCATGCAGAGGCCGGCCCGGCGTGGGCCGCCACCGCTGGCTCGGGCAGTCCCGGAGCCGGGCCCCAGG
GGCCGGGCGGGGACCGAGGCGGGCCCGGGGGCGCGCGGGGGCCGCCTGGGCCTGGTGCGTGTGGCCTCAGCCCTC
TCCAGCGGCAGCGAGTCCTCCGACCGCTCGGGCTTCCGGCGACAGCTAACCTTCATCAAGGAGTCGCCGGGCTTG
CGGCGCCGCCGCTCCGAGCTGTCCTCGGCCGAGTCCGCGGCCTCTGCCCCCCAGGGCGCCTCGCCCCGCCGCGGC
CGGCCCGCGCTGCCCGCCGTCTTCCTCTGCTCCTCGCGCTGCGAAGAGCTCCGAGCGGCACCCCGGCAGGGCCCG
GCCCCGGCCCGGCAGCGGCCCCCCGCGGCCCGACCCAGCCCTGGCGAGCGCCCTGCCCGGCGCACCACCTCCGAG
AGCCCGTCCCGCCTGCCTGTGCGCGCGCCCGCCGCCCGGCCGGAGACTGTCAAGCGCTACGCGTCGCTGCCGCAC
ATCAGCGTGGCCCGCAGGCCCGACGGCGCCGTCCCCGCGGCCCCTGCCTCAGCCGACGCCGCGCGCCGCAGCAGC
GACGGGGAGCCCCGGCCGCTCCCCAGGGTGGCCGCGCCGGGCACGACCTGGCGGCGCATCCGAGATGAGGACGTG
CCCCACATCCTGCGCAGCACGCTTCCCGCCACGGCCCTGCCACTGCGGGGCTCCACGCCCGAGGACGCCCCGGCC
GGGCCCCCGCCGCGCAAGACCAGCGACGCCGTGGTCCAGACCGAGGAGGTCGCCGCCCCCAAGACCAACTCCAGC
ACGTCCCCGAGCCTGGAGACCAGGGAGCCCCCCGGGGCCCCCGCCGGCGGCCAGCTCTCCCTCCTCGGCAGCGAC
GTGGACGGTCCCAGCCTCGCCAAGGCTCCCATCTCCGCACCCTTCGTGCACGAGGGCCTGGGGGTCGCCGTGGGG
GGCTTCCCCGCCAGCCGGCACGGCTCCCCCAGCCGCTCGGCCCGAGTACCCCCCTTCAACTATGTGCCCAGCCCC
ATGGTGGTCGCAGCCACCACCGACTCGGCCGCGGAGAAAGCCCCGGCCACTGCCTCCGCCACCCTCCTGGAA**TAG**

TGGCCTAGGCCGGCCTTCTGGAACGTTCTCTCCCGGCCCTGCGGCGCGGTCTGGCTGCCCCATGGGCCTGCGCTG
TAGACGTCCCCCATAGGTCGCCCCAGGGCCTCTGCCCACCCGAGCCCCACCACTCTCAGAACCCCCGCCCAGCGC
ACGGCGACCTCGCGCCTCACCGGAAGACCTTGCCTCTGTGCCGCGGAGGTCCAGGAGGAAACGGGGCGGCCGCTA
GGCCTCAAGTCCCGACCGTGGAGCGCTGGCAAGGGCGTCCTGGCCCAGCCCTGAGCGCGCGGCCCTTCCCCTGTC
GGAAGCCGTTGCTTGACCCCGGGCGAGGGAGGCGGTAGCCTCCGGGTCCGGGTCTGGGTCTGGGTCCGCTGCTTC
GCAGGGACAGCGCTGGGGAGGTGACGGCGCCCGCCGCAGGTGGGGCGAGGCTGGGGGAGGGCGGCGCCGCGGCGG
GCCTGCCAGCTGGGGGCCTTTGCGGCGCGCAGGGGCGAAGCCTGTAATCACTGCAGCCGCCGGTAATTCGCTAAT
GAGGGCTTTGCAGGGATTGTTTTCATTCTCAGCCCCAGCTGTGGGAGTGCGGGTGGGGGTGTGGCCGAGCCCCGG
CAGGAAGCCCCGCCCAGACGGTGTTCAGGGAACCCGGAGCCCAAGCGCTCCGGCGGAGCCCAAAAGGGTGGGGGT
GGGAGGGGCAGAGGCCAACGGATCCCCCTGCCTGTCGCACCCCTTGGCGGGAGACGGGAAGGCAGCGGGCTGCGT
ACGATGGGACCCTGGTGCAGACGCCGGGCCGGCTGACATTTGGACCCCATCCCAGAGGAGATGCTGGCTACCAGC
TGGGGCGACCCCAAGGGTCGCTGGAGTCAGTATCGGCCCGGCGCAGCCGCGGCGGGCGAGGCCAATGGAAAGGAG
ACTGAGGGGAGTCCCGGCAGTGAGCCCGAGGCCCTGGGACCTGGAGCCCGCGCTGGCCTCTCCCCAGCGGAGCCT
GCACGTTACGGAGACCATCACATGTGGGCGTGGTCAGTGCCCAGGACCGCACCGCTGCTCATCTTGTCCCTTTTC
AATTCCCTTCTGGTTCATGATGCATAAAGCGCTAGGCCCTAGAACTCCAGAAACAGCACAGCTGGGGCGGGGACC
CAGCCTTGCCCTCCACCCGAGGCTCTGGGACAAGGCGGGAGGTTCGGGGGCCTTCCGGCAGGTGAACGCAGGGCT
GGAGAGTATTTGGTGCCAGATGAGGTGAAAGCTTATAGAAGGGCCTGAGGGGCTCGGCTGCCTCATCCCCTGGCG
GGGGAGGCTGGGAGCTGGGCCTCCTGCGTGGGGTGGGACTCGCAGGGGCCGGGTCTCCGTGACTGGGGCAACGCC
TCGTCCTGCAGAGGGAGCCGACGACCTCTTTTCTGCAGAAAAGCTCCAGCAGGCGCTGCCTTCACCCACGGATCT
GCCCAGGCTGAAGGCACACGCTCAATGCCCCACGTGCCTTCTCCAGGAGGAACGAAGCAGGGTTTGAGGGTTGGG
TGGATGGAGCTCAGAAGGAAACCCCAGCCCCACCACGGATGACACCATCCCTCCCGTCCCATCCCCAGCATGGGC
AAGGCCAGCCTTTCTGGCAGAAGGAGCTGTCCTCAACTCAGGGCCGCTGTGAGCAAAGCTGACCCCAGCCCCCAC
CCCCAGTTAACACTGCTGCTTCTCTGAATGCATGTCACGCTGCACCCCATGCTCCGGGCCCACACCCTGCAGGAC
AAGGAGCTCCAGACAGGACGTCCATAAGTCACCGAGGTGTGCCACCCAGCAGGTGCTGGAGGTGCCCAATGCTCC
CTCCTAGGACCTCGCAGCCAGGCAAGGCTGTCAGGTTGTTTTGGGGGAAGAGGGGGTCATGGATGGCTGAGCAGA
GAGCGGGGAAAATGCAGGCTGAGTGGGGCGACCTCCTGCCTGCCAGGAGCCCCCTTTCAGGACACAGCGGGGGTC
TCACACTTGCTGTCCCCATCCATGGCCCGAGGGGGAACCTGGTGGTCTCTTCTGAGCTTTTGGACTTGGGGATGC
CAAACACGTGCTCACCCTCACACTCGCCCCGGCCCGCTGCGCCCCTAATTGCCAAAGGGTAGGGAAATGGCGAAG
CCAGCCACCAGGTCGCTGGTGACAGGGCCAGGGTTATGCAGGAAGGTGGTGCGGCATTGCCTTCCACATATGTAA

FIGURE 3574D

GTCTCTGGGCGGCGCCCTCCCAGCTCCCTGCCTCTGTTTCCCCATGTGGGCCGTGGGGAACTCCCAGAGCTACCT
CTTGGGGGAGCGTGGTGGCAGCGATGATGGGGAGACGCCTGGAAGCTCACAGAACTTGGGTCTGGCTGGCTCCTG
CCCGTGACGCCTTGCCCAGCAGCAAGGTGCGCAACATGGCTGCCAGCCCCGCCTCCCACCCCCACCCCGAGTCCT
GAGCTCACTTTCGCCTTCTCCATCCCCTGCCGTGGGGGCCACAGCCACACCTCACCGCCCAGTCCAGCTGTCTCC
AGAAGGGGACAGGCAGTCCGCGGTCTCTGGACAATCAACTCAAGGTACGCCCACTGCAAGGCCTCCCTCCCACCG
CGGCCCCTGCCTGGCCACCTGGCCTCTCTGCACCAGGGTGACAAGGGGTCCTCGTCTGCCCCCCAATGCTCCAGG
GCCAGTCCTAAGGAGCTGAGGGTCTGAGGACGCAGGGAGGGTGGAGGTGTCCTGAGGCTGATGGACAGTGACCGC
CACTGGCCCCCAACATGACCACACGTGGGTGCTGAACTCGGGGCGCCGTGCCCACCGGCATGGTCCTCCCGAGCT
CCGACAGCATTACCTCACCCGGCCCCATCTGTTGCCCCGGTCCAGCCCTGATGGCGCGCGCCTGGTCTGTCTGAT
TCCCCTAGCCGCCACCCCACGTTTCTGTACCGGGTCTCTGCAGTGTTAAACGGACGTGTAAATAGTGGTAAATAG
TGAAAGCCTGTCCTTCCCTAAATGTAAAGCCATCTGTCCGGCGTAAGGACGACACCGTCAGCTGTCCGACTCGCA
CACATTTAATAAACTGAGCTCTTGC

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FIGURE 3575

CGCGGGGAAACTGAGGCAGAGAG**ATG**GGCTCCAAGGCAAAGAAGCGCGTGCTGCTGCCCACCCGCCCAGCGCCCC
CCACGGTGGAGCAGATCCTGGAGGATGTGCGGGGTGCGCCGGCAGAGGATCCAGTGTTCACCATCCTGGCCCCGG
AAGGTAGGGGGAGCCCGGTCCCGGGGAAAAGCGGACCTGAGACCCCGGCAGCAAGGGGACGGGAGAGAAGCACAC
CCCTAACTCCTGACCCCACGCCCTGGGAACCCCCGCAACATGGGCACGGTCCGTATCCTCTCCGAGTCTCCCTCT
ACTCCTCCGTAGAGTGGGACCGATTTTCAGAGGGTTCTTCTGACAGGGGTGGAGGCCGGGCGCTGTGGTTCAGGC
CTGTAAGCCCAGCACTTTCGGAGGATGAGGCGGGAGGATCGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGCCAA
CATGG**TGA**AACCCCGTCTCTGCTAAAAATGAAAAAACAAAAC

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FIGURE 3577

GCGGGCCGAGGAGCCGGGCGCA**ATG**GAGCGGAAGAGGTGGGAGTGCCCGGCGCTCCCGCAGGGCTGGGAGAGGGA
AGAAGTGCCCAGAAGGTCGGGGCTGTCGGCCGGCCACAGGGATGTCTTTTACTATAGCCCGAGCGGGAAGAAGTT
CCGCAGCAAGCCGCAGCTGGCGCGCTACCTGGGCGGCTCCATGGACCTGAGCACCTTCGACTTCCGCACGGGCAA
GATGCTGATGAGCAAGATGAACAAGAGCCGCCAGCGCGTGCGCTACGACTCCTCCAACCAGGTCAAGGGCAAGCC
CGACCTGAACACGGCGCTGCCCGTGCGCCAGACGGCGTCCATCTTCAAGCAGCCGGTGACCAAGATTACCAACCA
CCCCAGCAACAAGGTCAAGAGCGACCCGCAGAAGGCGGTGGACCAGCCGCGCCAGCTCTTCTGGGAGAAGAAGCT
GAGCGGCCTGAACGCCTTCGACATTGCTGAGGAGCTGGTCAAGACCATGGACCTCCCCAAGGGCCTGCAGGGGGT
GGGACCTGGCTGCACGGATGAGACGCTGCTGTCGGCCATCGCCAGCGCCCTGCACACTAGCACCATGCCCATCAC
GGGACAGCTCTCGGCCGCCGTGGAGAAGAACCCCGGCGTATGGCTCAACACCACGCAGCCCCTGTGCAAAGCCTT
CATGGTGACCGACGAGGACATCAGGAAGCAGGAAGAGCTGGTGCAGCAGGTGCGGAAGCGGCTGGAGGAGGCGCT
GATGGCCGACATGCTGGCGCACGTGGAGGAGCTGGCCCGTGACGGGGAGGCGCCGCTGGACAAGGCCTGCGCTGA
GGACGACGACGAGGAAGACGAGGAGGAGGAGGAGGAGGAGCCCGACCCGGACCCGGAGATGGAGCACGTC**TAG**GG
CAGGTGCTGCGGGGCCACGGGGGCTCCCTGGAGTCGGGTCCTGGCAGTGGGGACTGCCTGGTGAACACAGATGTG
CTTGGGATGACGGGTGCCTCCCAAGAGCTTCCCATCTCCCTAGAAGAGCCCAAGCGTCCCCGTCCCGTGGAGTCG
CTAAAGCCAGCCCTCCCTGTCCTTTCCAGAGGCCCTGCCGAGAGCCCGTGCTGCCTGCTGGAGCCGCCTGCAGAC
GCGGTCCTCGGCCCCACGTGAACCAGGCTCGGCGGCGAAGCCCAGCCTTGGAGACACCCAGGAGGAAGGCCGTGC
TCCTGGCTCCCTCCTCGGCCCGTCCCCACTTCCCGGGGCCTCGGGGCACACAGCTGGGGCTGCCCCCACCCGAAA
GACCCTCCACGCTCGTCCTCTACAGAGTCCGGCTTCGGGAAGTGCCGGGTGCTCCTGGGCCCTGCCTGGCTCCCT
ACGACCTTTGGGCTCGAGGCCAGCTCCTCCCCATGCCCGCTGTCCCAGCTCCTTGAGACTGGAGAGCAGCCAGCA
GGTGCCCGGCAGCTCGGCGCCACGGCTTGCTGACAGCTGGGAGGGTTTCTCGGTCTGGAGGCGTAGTTTTGAAAC
TCACATCACCCACTGTGCAGCGTGAGGACGGGACTCTGGTCTGCTGTGGGGGGCATGCAGGACGGCGCCACTCTC
TGCCCTGCCATGCGGCTGGTGGTGCCACAGAGCCTCACCGTGCCTGAGTGGCATGCCCAGGAGGCCGCTCTCCTT
CAGTAAATGTAACACAGTCGAGGCACGTCATCGGGCAGCCTTCCCTGTGTGCCAACGCCAGCCTTCGCTTCTGAA
AACCAAACTCCAGCCGCTGCCAGTCGGGACTTGGTCGCCCGGCGCTGCCAGAATGCTCCACTGCCAGCCGGCCCC
CCTGCCTCGGTTTCCCTTCTGTTTAGTGGCGACACAGGCACCCAGCTTTGGGGTGGTGCTGACGCTCCCAGGGGT
GCCAGGAGCCACTGGGACAGGGTGAGGCTCCCAGACGCTCCTCGAGGTGCCCAGCTCTCCAGGGAGCTTCTGGCC
CAAGGCCGTCTGAGGGATCTGCTCCTTAACCCCCCAGTGCCTTGGCGAGGGCAGGTTCCAAGCCACAGACGCCTG
CCCCGAGTGGACTCTGCGGCCAGTCCCTGGTGCCCTCCTGGCCCTGCTGCCCAGTGAGGGCTCCTACGGGTGGGT
TCATTGGCCTGGGCCCAGCGAGCCCCCACCTGCATTGACCTTAGGCCCATAGAGAGGGCCTGTCCCGGTGCTGCC
CCAGCCAGGATCTGGTCGCTGCCCCAGGGGGACTGATGGGCAGAGTCGCCCCTGTGGCTGGACTGTGACCATCCC
TGATGGGGCCTGACCGCGGGAGCTGAGGAAGCGCCGCTCCACCGTCTGCCCTCCAAGGACCCGCATGGAGGCAGT
GGGCTGGCAGCTTCCTGCTGCTCCCTGTCAGAGTCAAAGCACAAATCCTCAGGACGGGCTCAAGGGCCAGGGCAG
CCGAGGGAAGCTCCAGGTGGGGACCACGTCTTCCTGAGGTTGGTGCCCACTGGCTGGGACCCTTTGCAGTGGGGT
GGCCTCCCCTCTGTCTGCCTGGTGGAGGGAGCCGTGGGCGTGGGGACGTGACTGAATAAAGCCACCATGGGTGGA
TGTGCTTGG

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FIGURE 3578

AGTGTAGCCGGGTCAGCTGGACAGGGTCATCCTGAGGGTGCGACTCCGCCGCG**ATG**GTGACCCGGTTCCTGGGCC
CACGCTACCGGGAGCTGGTCAAGAACTGGGTCCCGACGGCCTACACATGGGGCGCTGTGGGCGCCGTGGGGCTGG
TGTGGGCCACCGATTGGCGGCTGATCCTGGACTGGGTACCTTACATCAATGGCAAGTTTAAGAAGGATAAT**TAA**T
TACACAAACCCTTCACAGACTGCTCTGGTGCCTGGTGGTGCTAGCTCCTCCCACCTCAGCACCTGCTGCATCTGG
AGCAGCCCAAGCCTCAGGATGGACAAGAGGAAACCCACAGCTCAGCTTCAGGCTTCTTATGTTTCTGAAAACAGC
TTGGATATTTTAATGCACGTTGCATTAAACCTCACTGAAACCTGCTCCGTGCCCGGATGTTGATCATGCTGGTGG
CTTGGTTACTGTGACTGTAGCTGGAGTGGCACAGGTGACCCAGGCGTCCTTTCAGCTCCAGAATGTTGCAAGTCT
AGGAGAGTGTTCCAATGGCTGACAGAAACTGCCTATTTGAAATGGCTCATAAGTAGTATCTGCAGTGTGTTCATC
CGTTGCTGCCTTAACAAGTCACCCACACGTAGTGGCTTAAAGCAACGAACATTCACTCTCTCACAGTCTGTGTCA
GTCGGGGATTTGGGAGTGATGTATCTGGGTGGTTGTGGCCCAGAGTCTCTCATGAGGTTGCAGTTAAGACATCAG
CCAAGGCCACTTCGTCTGAGGAAGGCTCAACTGGGGCTGGAGCCACTTCCAAGCCAGTGCCCTCACGTGGCTGTC
GGTGACAGCCACAGTTCCTTCCCATGGGGGCCCCTACACGAAGCTGCTTGAGCATCCTCACGGCATGGCCTCTGC
CTTCCCCAGAGCAGGTGAACCAAGGGAGAGGAAGGAGCAAGCCACAGTGCTTCTATGAGCCACCCTGAGAAGTCT
CACGTGATCACTTCCGCCACAGCCTGTTTATCAAAAGCAAGCCCCCCAGGCCCAGCCCACGTGCAGAGGGAGGAG
AATGAGGTTCTGTGTTTTGAAGGGAAGAATATCAGAATTGGTAGACATTTCAAACTGTCACATTAGGGATACAAA
AATGAACAGGCTGGGAGTGGTGGCTCAGCCTACAATCCCAACACTTTGGGAGGCTGAGGAAGGGGCATCACTTGA
ACCAGGAGTTCAGTACTAACCTGGGCAACAAAGAGGCCCCTGTCTCTGATAAAAAGAAAAAAAATGAAAAAATAA
AAATGAACAGGTATAAAAAG

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FIGURE 3579A

GCCTGAGGTGCCCGCCCTGGCCCCAGGAGA**ATG**AACCAGCCGCAGAGGATGGCGCCTGTGGGCACAGACAAGGAG
CTCAGTGACCTCCTGGACTTCAGCATGATGTTCCCGCTGCCTGTCACCAACGGGAAGGGCCGGCCCGCCTCCCTG
GCCGGGGCGCAGTTCGGAGGTTCAGGTCTTGAGGACCGGCCCAGCTCAGGCTCCTGGGGCAGCGGCGACCAGAGC
AGCTCCTCCTTTGACCCCAGCCGGACCTTCAGCGAGGGCACCCACTTCACTGAGTCGCACAGCAGCCTCTCTTCA
TCCACATTCCTGGGACCGGGACTCGGAGGCAAGAGCGGTGAGCGGGGCGCCTATGCCTCCTTCGGGAGAGACGCA
GGCGTGGGCGGCCTGACTCAGGCTGGCTTCCTGTCAGGCGAGCTGGCCCTCAACAGCCCCGGGCCCCTGTCCCCT
TCGGGCATGAAGGGGACCTCCCAGTACTACCCCTCCTACTCCGGCAGCTCCCGGCGGAGAGCGGCAGACGGCAGC
CTAGACACGCAGCCCAAGAAGGTCCGGAAGGTCCCGCCGGGTCTTCCATCCTCGGTGTACCCACCCAGCTCAGGT
GAGGACTACGGCAGGGATGCCACCGCCTACCCGTCCGCCAAGACCCCCAGCAGCACCTATCCCGCCCCCTTCTAC
GTGGCAGATGGCAGCCTGCACCCCTCAGCCGAGCTCTGGAGTCCCCCGGGCCAGGCGGGCTTCGGGCCCATGCTG
GGTGGGGGCTCATCCCCGCTGCCCCTCCCGCCCGGTAGCGGCCCGGTGGGCAGCAGTGGAAGCAGCAGCACGTTT
GGTGGCCTGCACCAGCACGAGCGTATGGGCTACCAGCTGCATGGAGCAGAGGTGAACGGTGGGCTCCCATCTGCA
TCCTCCTTCTCCTCAGCCCCCGGAGCCACGTACGGCGGCGTCTCCAGCCACACGCCGCCTGTCAGCGGGGCCGAC
AGCCTCCTGGGCTCCCGAGGGACCACAGCTGGCAGCTCCGGGGATGCCCTCGGCAAAGCACTGGCCTCGATCTAC
TCCCCGGATCACTCAAGCAATAACTTCTCGTCCAGCCCTTCTACCCCCGTGGGCTCCCCCCAGGGCCTGGCAGGA
ACGTCACAGTGGCCTCGAGCAGGAGCCCCCGGTGCCTTATCGCCCAGCTACGACGGGGGTCTCCACGGCCTGCAG
AGTAAGATAGAAGACCACCTGGACGAGGCCATCCACGTGCTCCGCAGCCACGCCGTGGGCACAGCCGGCGACATG
CACACGCTGCTGCCTGGCCACGGGGCGCTGGCCTCAGGTTTCACCGGCCCCATGTCACTGGGCGGGCGGCACGCA
GGCCTGGTTGGAGGCAGCCACCCCGAGGACGGCCTCGCAGGCAGCACCAGCCTCATGCACAACCACGCGGCCCTC
CCCAGCCAGCCAGGCACCCTCCCTGACCTGTCTCGGCCTCCCGACTCCTACAGTGGGCTAGGGCGAGCAGGTGCC
ACGGCGGCCGCCAGCGAGATCAAGCGGGAGGAGAAGGAGGACGAGGAGAACACGTCAGCGGCTGACCACTCGGAG
GAGGAGAAGAAGGAGCTGAAGGCCCCCCGGGCCCGGACCAGCCCAGACGAGGACGAGGACGACCTTCTCCCCCCA
GAGCAGAAGGCCGAGCGGGAGAAGGAGCGCCGGGTGGCCAATAACGCCCGGGAGCGGCTGCGGGTCCGTGACATC
AACGAGGCCTTTAAGGAGCTGGGGCGCATGTGCCAACTGCACCTCAACAGCGAGAAGCCCCAGACCAAACTGCTC
ATCCTGCACCAGGCTGTCTCGGTCATCCTGAACTTGGAGCAGCAAGTGCGAGAGCGGAACCTGAATCCCAAAGCA
GCCTGTTTGAAACGGCGAGAAGAGGAAAAGGTGTCAGGTGTGGTTGGAGACCCCCAGATGGTGCTTTCAGCTCCC
CACCCAGGCCTGAGCGAAGCCCACAACCCCGCCGGGCACATG**TGA**AAGGTATGCCTCCGTGGGACGAGCCACCCG
CTTTCAGCCCTGTGCTCTGGCCCCAGAACGGCCACTCGAGACCCCGGGCTTCATCCACATCCACACCTCACACAC
CTGTTGTCAGCATCGAGCCAACACCAACCTGACAAGGTTCGGAGTGATGGGGGCGGCCAAGGTGACACTGGGTCC
AGGAGCTCCCTGGGGCCCTGGCCTACCACTCACTGGCCTCGCTCCCCCTGTCCCCGAATCTCAGCCACCGTGTCA
CTCTGTGACCTGTCCCATGGATCCTGAAACTGCATCTTGGCCCTGTTGCCTGGGCTGACAGGAGCATTTTTTTTT
TTTCCAGTAAACAAAACCTGAAAGCAAGCAACAAAACATACACTTTGTCAGAGAAGAAAAAAATGCCTTAACTAT
AAAAAGCGGAGAAATGGAAACATATCACTCAAGGGGGATGCTGTGGAAACCTGGCTTATTCTTCTAAAGCCACCA
GCAAATTGTGCCTAAGCGAAATATTTTTTTTAAGGAAAATAAAAACATTAGTTACAAGATTTTTTTTTTCTTAAT
GTAGATGAAAATTAGCAAGGATGCTGCCTTTGGTCTCTGGTTTTTTTAAGCTTTTTTTGCATATGTTTTGTAAGC
AACAAATTTTTTTGTATAAAAGTCCCGTGTCTCTCGCTATTTCTGCTGCTGTTCCTAGACTGAGCATTGCATTTC
TTGATCAACCAGATGATTAAACGTTGTATTAAAAAGACCCCGTGTAAACCTGAGCCCCCCCGTCCCCCCCCCCCC
CCGGAAGCCACTGCACACAGACAGAACGGGGACAGGCGGCGGGTCTTTTGTTTTTTTGATGTTGGGGGTTCTCTT
GGTTTTGTCATGTGGAAAGTGATGCGTGGGCGTTCCCTGATGAAGGCACCTTGGGGCTTCCCTGCCGCATCCTCT
CCCCTCAGGAAGGGGACTGACCTGGGCTTGGGGGAAGGGACGTCAGCAAGGTGGCTCTGACCCTCCCAGGTGACT
CTGCCAAGCAGCTGTGGCCCCCAGGGCTACCCTACACAACGCCCTCCCCAGGCCCCCCTAAGCTGCTCTCCCTTG
GAACCTGCACAGCTCTCTGAAATGGGGCATTTTGTTGGGACCAGTGACCCCTGGCATGGGGACCACACCCTGGAG
CCCGGTGCTGGGGACCTCCTGGACACCCTGTCCTTCACTCCTTTGCCCCAGGGACCCAGGCTCATGCTCTGAACT
CTGGCTGAGAGGATGCTGCTCAGGAGCCAGCACAGGACACCCCCCACCCCACCCCACCATGTCCCCATTACACCA
GAGGGCCATCGTGACGTAGACAGGATGCCAGGGGCCTGGCCAGCCTCCCCCAATGCTGGGGAGCATCCCTGGGCC
TGGGGCCACACCTGCTGCCCTCCCTCTGTGTGGTCCAAGGGCAAGAGTGGCTGGAGCCGGGGGACTGTGCTGGTC
TGAGCCCCACGAAGGCCTTGGGCTGTGCGTCCGACCCTGCTGCAGAACCAGCAGGGTGTCCCCTCGGGCCCATCT
GTGTCCCATGTCCCAGCACCCAGGCCTCTCTCCAGGTCTCCTTTTCTGGTCTTTTGCCATGAGGGTAACCAGCTC

FIGURE 3579B

TTCCCAGCTGGCTGGGGACTGTCTTGGGTTTAAAACTGCAAGTCTCCTACCCTGGGATCCCATCCAGTTCCACAC
GAACTAGGGCAGTGGTCACTGTGGCACCCAGGTGTGGGCCTGGCTAGCTGGGGGCCTTCATGTGCCCTTCATGCC
CCTCCCTGCATTGAGGCCTTGTGGACCCCTGGGCTGGCTGTGTTCATCCCCGCTGCAGGTCGGGCGTCTCCCCCC
GTGCCACTCCTGAGACTCCCACCGTTACCCCCAGGAGATCCTGGACTGCCTGACTCCCCTCCCCAGACTGGCTTG
GGAGCCTGGGCCCCATGGTAGATGCAAGGGAAACCTCAAGGCCAGCTCAATGCCTGGTATCTGCCCCCAGTCCAG
GCCAGGCGGAGGGGAGGGGCTGTCCGGCTGCCTCTCCCTTCTCGGTGGCTTCCCCTACGCCCTGGGAGTTTGATC
TCTTAAGGGAACTTGCCTCTCCCTCTTGTTTTGCTCCTGGCCCTGCCCCTAGGTCTGGGTGGGCAGTGGCCCCAT
AGCCTCTGGAACTGTGCGTTCTGCATAGAATTCAAACGAGATTCACCCAGCGCGAGGAGGAAGAAACAGCAGTTC
CTGGGAACCACAATTATGGGGGGTGGGGGGTGTGATCTGAGTGCCTCAAGATGGTTTTCAAAAAAATTTTTTTAA
AGAAAATAATTGTATACGTGTCAACACAGCTGGCTGGATGATTGGGACTTTAAAACGACCCTCTTTCAGGTGGAT
TCAGAGACCTGTCCTGTATATAACAGCACTGTAGCAATAAACGTGACATTTTATAACG

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FIGURE 3580A

GCGGGCGGCGGCGACCGCGGCGCCAGTGAGGGGGCCCTGGGGCCCGGGCGGCTCCGGGCCGGGGCCCCGCCGCGG
GACGGACC**ATG**CTACGCTCCACTGGCTTCTTCCGGGCCATTGACTGCCCCTATTGGTCTGGGGCGCCCGGGGGGC
CCTGCCGGCGGCCCTACTGCCACTTCCGGCACCGCGGGGCCCGGGGCTCCGGCGCGCCCGGTGACGGCGGAGAGG
CGCCCCCCGCAGCAGGGCTGGGTTACGACCCCTACAACCCTGAGCTGCCCAAGCCCCCCGCGCAGAGGGAGAATG
GCACCCTGGGCCTGGGGGAGGAGCCGCGCCCGGATGTGCTGGAGTTGGAGCTGGTCAACCAGGCCATCGAGGCCG
TGCGCAGTGAGGTGGAGCTGGAGCAGCGGCGCTACCGGGAGCTGCTGGAGACGACCCGTGAGCACCGCTCCGCCG
AGGCCCCCGCCCTGGCGCCCCGCGGCCCCAACGCCAGCCCCACTGTGGGCCCGGACGAGGATGCCTTCCCACTGG
CCTTCGACTACAGCCCCGGCAGCCACGGCCTATTAAGCCCTGATGCCGGCTACCAGCCCACCCCACTGGCCGCCC
CTGCCGAGCCGGGCAGCAAGTACTCGCTGGCGTCCCTGGACAGGGGTCAGGGCAGAGGTGGAGGGGGTGGCGGTG
CCCTGGAATACGTCCCCAAGGCTGTGAGCCAGCCCCGGCGGCACAGCCGCCCCGTTCCCAGTGGCAAGTACGTGG
TGGACAACTCCAGGCCACCCACAGACCTGGAGTATGACCCTCTCTCCAACTACTCGGCCCGGCACCTCAGCAGGG
CCAGCTCCCGGGATGAGCGGGCCGCCAAGCGGCCCCGGGGCTCCCGCGGCAGTGAGCCCTACACACCTGCTCCCA
AGAAGCTCTGTGACCCCTTTGGCAGTTGCGATGCAAGGTTCTCAGACTCAGAAGATGAGGCCGCCACGGTCCCAG
GTAACGAGCCCACCACGGCCAGCACCCCCAAAGCCAGGGCCGACCCTGAGATCAAGGCCACCGGGCAGCCACCCT
CCAAAGAGGGCCTGGAGGCCGAGGGGGGCGGCCTGCGGGAGACCAAGGAGACGGCCGTGCAGTGCGACGTGGGGG
ACCTCCAGCCGCCCCCAGCCAAGCCCGCCTCCCCAGCCCAGGTCCAGTCCTCACAGGATGGGGGCTGCCCCAAGG
AGGGAAAACCCAAGAAGAAAAAAACCGGGGCCCCACCTGCCCCCAGCTGCAAAGACGGGGCCCAGGGGAAGGACA
AGACCAAGGACAAGGGCCGAGGGCGGCCTGTGGAGAAGCCCCGTGCGGACAAGAAGGGCCCGCAGGCCAGCAGCC
CCCGGCGCAAGGCAGAGCGGCCGGAAGGGACCAAGAAGAAGCCATCTTCGGCCACTCCTGTGGCCACCTCAGGGA
AAGGGAGGCCTGACCGGCCAGCGCGGCGGCCGAGCCCCACAAGCGGGGACTCCCGACCGGCGGCCGGCAGAGGCC
CACCCCGCCCCCTCCAGCTGCCCGACAGGAAGAGCACCAAGGCCCCGTCGGGGAAGCTAGTGGAGCGGAAAGCCC
GCTCACTAGACGAGGGCGCCTCCCAGGACGCCCCCAAGCTGAAGAAGCGGGCCCTGAGCCACGCCGACCTCTTTG
GGGACGAGAGTGAGGACGAGGCCGCAGGGCCAGGGGTGCCGAGCGTGTGGCCCTCTGCCCTCCCCAGCCTCAGCT
CGGACTCAGACTCCGACTCAGACTCCAGCCTGGGCTTCCCGGAGGCGCAGGGGCCGCCCAAGCGGCTCAAGGCCT
CCCCGCCCCCCTCCCCCGCCCCATCCTCCTCCTCCTCCTCCTCCTCCACCTCCAGCGCGGGGGCGGATGTGG
ACTACTCGGCCCTGGAGAAGGAGGTGGACTTTGACTCCGACCCCATGGAGGAGTGCCTGCGGATCTTCAACGAGT
CCACCAGCGTCAAGACGGAGGACAGAGGCCGGCTGGCCCGGCAGCCCCCCAAGGAAGAGAAGAGTGAGGAGAAGG
GGCTTTCGGGTCTGACCACTCTGTTCCCCGGGCAGAAGAGGAGGATCTCCCACCTTTCCAAGCAAGGCCAGGAGG
TGGAGCCCCCGAGGAGGGGTCCCGCGGTGCCCCCGGCCCGGCCCCCGACGGCGCAGGAGGTGTGCTACCTGCGGG
CCCAGCAGGCGCAGAGGGCATCGGCGAGCTTGCTGCAGGCCCCCGCCAGGCTGGCAGAGAAGTCGCCCTCCGTCC
ACATTTCCGCCCCTGGCGAGAAGAGGAGGATCGCCCACATCCCCAACCCCCGCCTGGCTGCAGCCCCCACAGGTG
CCAAGAGGACCCTTGCGGCCAGCGGCAGCCAGTCCTCCAACGGCCCTGAGCCAGGTGGCCAGCAGCTGAAAACAC
GCACATTGTCGGGGATGGCGTCCAAGACTACCACCACCATCATCCCTAAGCGAATCGCCCACAGTCCATCCTTAC
AGAGTTTAAAGAAACCCATTATCCCCAAAGAGTTTGGGGGCAAAGTCCCCACCGTCATCCGCCAGCGCTATCTCA
ACCTGTTCATCGAGGAGTGTCTCAAGTTCTGTACCTCCAACCAGGAGGCCATAGAGAAGGCACTGAACGAGGAGA
AGGTGGCCTATGACCGCAGCCCCAGCAAGAACATCTACCTGAATGTGGCCGTGAACACCCTCAAGAAGCTCAGGG
GCCTGGCCCCCAGCGCTGTGCCCGGCCTCAGCAAAACCAGTGGCCGCAGGGTTGTGTCCCACGAGGTGGTGTTGG
GGGGCAGGTTGGCCGCCAAGACCAGCTTCTCGCTCAGCCGTCCAAGCAGCCCCCGGGTGGAGGACCTGAAAGGGG
CTGCCCTGTACAGCCGCCTCAGGGAGTACCTGCTCACCCAGGACCAGCTCAAGGAGAACGGCTACCCCTTCCCGC
ACCCAGAGCGGCCCGGGGGCGCAATCATCTTCACAGCTGAGGAGAAGAGGCCCAAGGACTCTTCCTGCAGGACCT
GCTGCCGCTGTGGCACCGAGTACCTCGTGTCCTCTTCAGGCCGCTGCATCCGGGACGAGGAGTGTTATTACCACT
GGGGACGGCTGCGCCGGAACCGGGTGGCCGGAGGCTGGGAGACCCAGTACATGTGCTGCTCGGCTGCCGCCGGCT
CTGTCGGCTGCCAAGTCGCAAAGCAACACGTGCAGGATGGCCGGAAGGAGCGCCTTGAGGGCTTCGTGAAGACCT
TTGAGAAAGAGCTCTCAGGAGACACCCACCCGGGGATCTACGCCCTGGACTGCGAGATGTCCTACACCACATATG
GCCTGGAGCTGACGCGCGTCACGGTGGTCGACACGGACGTGCACGTGGTTTATGACACCTTCGTGAAGCCTGACA
ACGAGATCGTGGACTACAACACCAGGTTTTCGGGGGTGACGGAGGCTGACCTTGCCGACACAAGTGTCACGCTGC
GTGACGTCCAGGCCGTTCTGCTGAGCATGTTCAGCGCTGACACCATCCTCATCGGACACAGCCTGGAGAGCGACC
TCCTGGCCCTGAAGGTCATCCACAGCACCGTGGTGGACACGTCTGTGCTCTTCCCCCACCGCCTGGGCCTCCCCT

FIGURE 3580B

ACAAGCGGTCCCTGCGGAACCTCATGGCCGACTACCTCAGACAGATCATCCAGGACAATGTGGATGGGCACAGCT
CCAGCGAGGACGCCGGCGCCTGCATGCACCTGGTGATCTGGAAGGTTCGAGAAGACGCCAAGACCAAGCGA**TGA**C
GCCTGCCCGCCTCCCACCCGCCTCTCCTGCCGTCCCGCTGGTCCTTAGCCCCATGCCTCTTCCAAAACAGTGCAA
TAAATCTCCGGTAACCCGTCCACCTGGCCGAGGCAGCCCAGAGCAGCGGGATGAGCTGGCGGCCAGAGAACGCCC
AGCCCAGCCCACCCCCGCTCACGTCCTGCCGCACCCCTCCGCCGGTCCCCACCCTCTGCCCCCCAGCCCTCTGGC
GTCTCTAGAAACTGCTGCTGATGGAGACCAGGACAGAGCCCGCCCCCACCCGGCCCGCAGCCCCTCCTGCCCCTC
CTGCCAGGCCCTCCCTCCCGGGTGGTGGCCGGCACCTCTGCTCCTCACGTGGGTCGCGGGGCGGGCTTGTCCCAG
GTTTGTTTGAGACAGTCTTTTTTTATTTTGTATTGTTATTTTTATTATTTTTAATTTAAACCTGATGACTTGCAC
AGCATCTTTCCCACCGGGAAGAGCGGGCCTGCTGCCTTCCCTCCTGCGGGGTGGGGGTGGGACAGACCCCAGTGG
GGGCCAGGGCCACACTCAGCGCAGTGTGGGCTGGACCCGCCTCTGTGCTCCAGGGGCTGGCCGGTCTTCGGGGGC
GCCGGCTTCCACCACTCGCCGCCCCACCCCTGCACTCCGTGACCTCTGAGAACCCAGCTGGCCCCTCGTTAGCCC
CAGGGTCTGCCGTCTAGAGGGAGCCCACCGGCCTCCGGACACTGTCTTCCCGCTAGAGCCCCGTCCTCCTCTGCG
GGGCTCTCCGGACCCCCTTCCCCCTCACCTCCAGGCAGGGACAGAATAAATGTTTGTATGGATTTT

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FIGURE 3581

ATGTCGGCGGCCGTGGCGTGCGTGGATTACTTCGCCGCCGACGTGCTCATGGCCATCTCTTCGGGCGCCGTGGTG
CACCGCGGGCGGCCCGGCCCCGAGGGCGCGGGCCCCGCCGCCGGCCTGG**ATG**TGCGCGCGGCGCGCCGCGAGGCC
GCCTCACCCCGGGACCCCGGGGCCACCCCCGCCGCCCCCCGCCGCTTCTGGCCCGGGCCCCGGCGCCGCCGCGGC
GCCCCACCTGCTGGCCGCCAGCATCCTGGCCGACCTGCGCGGCGGACCCGGAGCCGCCCCGGGGGGCGCCTCGCC
CGCCTCCTCCTCCTCAGCCGCCTCGTCCCCGTCCTCGGGCCGCGCCCCCGGCGCCGCGCCCTCCGCCGCCGCCAA
GAGCCACCGCTGTCCCTTCCCGGACTGCGCCAAAGCCTACTACAAGTCCTCGCACCTAAAGTCGCACCTGCGGAC
GCACACAGGGGAACGCCCTTTTGCTTGTGACTGGCAGGGCTGCGACAAGAAGTTCGCCCGCTCCGACGAGCTGGC
CCGCCACCACCGGACGCACACGGGCGAGAAGCGCTTCTCCTGCCCTCTGTGCTCCAAGCGCTTCACCCGCAGTGA
CCACCTGGCCAAGCACGCCCGCCGCCACCCCGGCTTCCACCCGGACCTGCTCCGGCGCCCTGGTGCCCGCAGTAC
CTCCCCCAGCGACTCGCTGCCCTGCAGCCTGGCCGGGAGCCCTGCGCCCAGCCCCGCGCCCAGCCCAGCCCCCGC
AGGCCTG**TAG**GGCCCTCGTGCAGCCCACCCTGACCGCCAGGATGCTTCTGCCATCCAGGGGTGTAGTGAGGACCC
ACGGGGAGCCTGGGCCCCTTCCAGCCGTGGGCAAACCCTGAAGACACCCCTGCCCCCCTCCAGAGAGTGAGGAGG
GGGCCTGAGACTGGACCTGGGTCTGCCTGACCTCAGAGTGTCCAGGGGCTTGGAGAGACCTGCGCCCACCCCTCC
ACTCTCCCAGGAGTCGCTGATCACTGGGACCTGGTTCCAGCCGTTTGCAGGGGAGGCGGCTCCGAGAGGCGTGTG
CTTTCCGTGGGTGGCGCCCCTCCCCCGCCCTGCCTGGCCTCATCCTTGTATTTAATTAATTAAACAAGCCCCTTT
TTAAACCCT

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FIGURE 3582

GGCTGCTGTCTGGGGCGGTAGCTGGGGGGGCGCTCTCCCCCCTGCCCGCGACTCGGAGCACCCCCACCCCTCCCC
TGCCGGGCCAGGCCGGGCGGCGTTGTTGGCGGGGGCCCCGGTGGAGGCCCGGCCTGGGCGGCGCCCGCCATGAAT
GGGCTGTCGCTGAGTGAGCTCTGCTGCCTCTTCTGCTGCCCGCCCTGCCCCGGCCGCATCGCTGCCAAGCTCGCC
TTCCTGCCGCCGGAGGCCACCTACTCCCTGGTGCCTGAGCCCGAGCCGGGGCCTGGTGGGGCCGGGGCCGCCCCC
TTGGGGACCCTGAGAGCCTCCTCGGGCGCACCCGGGCGCTGGAAGCTGCACCTGACGGAGCGTGCCGACTTCCAG
TACAGCCAGCGCGAGCTGGACACCATCGAGGTCTTCCCCACCAAGAGCGCCCGCGGCAACCGCGTCTCCTGCATG
TATGTTCGCTGCGTGCCTGGTGCCAGGTACACGGTCCTCTTCTCGCACGGCAATGCCGTGGACCTGGGCCAGATG
AGCAGCTTCTACATTGGCCTGGGCTCCCGCCTCCACTGCAACATCTTCTCCTACGACTACTCCGGCTACGGTGCC
AGCTCGGGCAGGCCTTCCGAGAGGAACCTCTATGCCGACATCGACGCCGCCTGGCAGGCCCTGCGCACCAGGTAC
GGCATCAGCCCGGACAGCATCATCCTGTACGGGCAGAGCATCGGCACGGTGCCCACCGTGGACCTGGCCTCGCGC
TACGAGTGTGCCGCGGTGGTGCTGCACTCGCCGCTCACCTCGGGCATGCGCGTCGCCTTCCCCGACACCAAGAAG
ACCTACTGCTTCGACGCCTTCCCTAAGTGAGCGGCCCGGGCGGGGACGGGGGCGGGGCGGGGCCCGGGCCGGGCG
CGAAGTCTCACCGGCTCCACGACCCTCCCGCAGCATCGAGAAGGTGTCCAAGATCACGTCTCCCGTGCTCATCAT
CCACGGCACGGAGGACGAGGTGATCGACTTCTCGCACGGGCTGGCGCTCTACGAGCGCTGCCCCAAGGCGGTGGA
GCCGCTGTGGGTGGAGGGCGCCGGGCACAACGACATCGAGCTCTACAGCCAGTACCTGGAGCGCCTGCGTCGCTT
CATCTCCCAGGAGCTGCCCAGCCAGCGCGCCTAGCGGCGGCCCCAACCGGCCGGACCTCAGCAATAAGGCGGCCC
CCGGACCTCACCCCGCGCCGGCCCCCACCCAGGGGCTGCATGTGGACCCCCCGGGCGGCCCAGGGGACCCCGCCC
CGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACGCACTCCTTTCCTTTTGGAAGCAAGAAGAAAATA
CGTGAAAACGGAAATTAAAGATTTAAAATTTT

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FIGURE 3583

AGACTTGGCGAAGCGCTGCGCTCGCGCCCGGATCCCTCAGGCGGCTGCAGGCTTCAGCCTGCGCTGGTTGGTGAA
ACAGAGATGTCAGAAAAGGAGAACAACTTCCCGCCACTGCCCAAGTTCATCCCTGTGAAGCCCTGCTTCTACCAG
AACTTCTCCGACGAGATCCCAGTGGAGCACCAGGTCCTGGTGAAGAGGATCTACCGGCTGTGGATGTTTTACTGC
GCCACCCTCGGCGTCAACCTCATTGCCTGCCTGGCCTGGTGGATCGGCGGAGGCTCGGGGACCAACTTCGGCCTG
GCCTTCGTGTGGCTGCTCCTGTTCACGCCTTGCGGCTACGTGTGCTGGTTCCGGCCTGTCTACAAGGCCTTCCGA
GCCGACAGCTCCTTTAATTTCATGGCGTTTTTCTTCATCTTCGGAGCCCAGTTTGTCCTGACCGTCATCCAGGCG
ATTGGCTTCTCCGGCTGGGGCGCGTGCGGCTGGCTGTCGGCAATTGGATTCTTCCAGTACAGCCCGGGCGCTGCC
GTGGTCATGCTGCTTCCAGCCATCATGTTCTCCGTGTCGGCTGCCATGATGGCCATCGCGATCATGAAGGTGCAC
AGGATCTACCGAGGGGCTGGCGGAAGCTTCCAGAAGGCACAGACGGAGTGGAACACGGGCACTTGGCGGAACCCA
CCGTCGAGGGAGGCCCAGTACAACAACTTCTCAGGCAACAGCCTGCCCGAGTACCCCACTGTGCCCAGCTACCCG
GGCAGTGGCCAGTGGCCTTAGAGGGAGCCTGCCCTGCCCCCACCGCCCACCACCTCCTCCCCTTCATTCCTGCTG
CTACCCCTGGTCCCGAGGGCTGGGAGTACCTGGGGCCCCATCCCCCCAGCTGGGATGGTGGAAGCCGGTGGTGGC
CACGGACCGCCCCCCTCCTGCCAGGGCCACAGAACCCGTGTTCATCTCATCCGAGAGCGGAGTTCCTCACAAGCA
CTCCCCAGCAGCCCTTGGCCTCTGCCGTCCACAGGACGCCCTCTTGCTCCCGGAAACGTGTGGTCACCCGCCGTC
CACTGCACGGCTGGTACGGCCTTGTCTTCAGGTCTCGAGGCCTGACTCCGGGGGACAGGTGGCAGCAGGTCGGCC
GCCCTCCCGTCCTCCCAGAGCTGCTGGCGCTGAGGTCAGAGCGGGTCTGATGGGGAGCTCCGTCTCACCGGCCAC
CCGCCGTCACCATGGCAGATGCCCTTGGCCGGAACTAATAAGAGGCGTCGGGGCCAGCTTCCGGTCCCCTGCAGT
GATAGAGGGCTTGGTGCCTAGCTGAGTCCTCGCTGTCCCCGCCATCCCCTGATCTGTGCGGCTCCAGCCTCGCCC
CCTCCCCACGTGCACCATACCTGGGGAGTTCCTGGTCCAGGGTATCCTGGGGCCACCCTCCCTGCCTCCAAAACA
GGGATCCCTGGCAGGCTGTCTTTCCACGCCCCTGAGTTCAGAGTCGGGGACCCAGGCCAGGTCGGGAGCACAGCC
GCTCCCCAAACCCAGCAAACCGGCAGAGAGCCGGTTTCCCAGCAGCCGGAGCCCTGCAGGAGAGGCCTTTGTGTT
TTGTTTTGTTTTGTTTTTTCTCTTTTGAGACAAGAGTTTCACTCTGTCGCCCAGGCTGGAGTGCAGTGGTGTGAT
CTCGGCTCACTGCAACCTCTGCCTCCCGTGTTCAAGCAGTTCTCCTGCCTCAGCCTCCCAAATAGCTGGGATTAC
AGTTGCCTGCCACCACGCCCAGCTAATTTTTATATTTTTAGTACAGATGGGGTTTCACCATGTTGGCCAGGCTGG
TCTCGAACTCCTGACCTCAAGTGATCCACCCGCCTTGGCCTCCCAAAGTGCTGGGATAATAGGTGTCAGCCACCG
CGCCCAGCCTGGAGTGGCCTTTTATGAGAGGGGACCCGTCAAATCTGTGCCTTATGGAGGGGTCCGGCAGCGGCC
ACAATTGTCTTGTCCCCTCACCCCCCAACTCCCCCTGGAACACCTCTCCCAGGCAAGACATTTTCACAGCACCAT
TCACAACGGTTGGGCCAAAAAGAAACTTTTCCTTCATCATTTCCTGCACTCGCTGACCACAACTTTGGACACCCC
AGGCTGCCACCCCTCCCCACCCGTTCACCCCCAGGATGCTGTTGCTGTAGGACGCCTGCTGCCCTGGAGCCCTCC
CCAGGATGTGAGCCAGTCCCCTCGCTGGTACGGAATGCCGCTGGGTGCCCGGAGGCGGCCATGGTGTCTCGATGG
ACGGCAGCCAGGATGGAGCACCCATGGGTCTCACGGCCATGCTTCAGGGTCTTCAGGTCCTGCCCCCGGCCAGTC
TGCCAAGAGGCACCCCCTTCCCCAGCCTCTCGCCTGCACTGATGCAGACAAAATCTCACCTGGCAGGCCCAACCC
CCCCCCACCCCTCCCCCGCCGTGTGTGGCCCCTCGCCGCATCGTTGGGGTTTTGTTATGTGAAAATATCCTGGAA
ATAAATACATGTTTCTGCACTTAG

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FIGURE 3584

CAGCAGAATGTCTCCTGCCCCCGAGAGCGACCCCGAGGCCACTGAGAAGAGCAGCGCGGCCTGGCCGGCCCGAAC
GCCTGCGTCTCAGTAGCTGGGAGCCACGGGCCCACGCCCGCCCACCGGCCGCAGTGATGTTCTAGCCACAGAGGA
GCCAAGACCTCAGGTTTCCAGAGACTTGGGATTTGCACGGCAGCAGAGTCACCGTGGAGAGGCCAGGGTATCACA
AACTT**ATG**GATTTTGACAAGAAAGGAGGGAAAGGGGAGACGGAGGAGGGCCGGAGAATGTCCAAGGCCGGCGGGG
GCCGGAGCAGCCACGGCATCCGGAGCTCGGGGACCAGCTCGGGGGTCCTGATGGTGGGCCCCAACTTCCGCGTCG
GCAAGAAGATCGGCTGCGGCAACTTCGGGGAGCTCCGCCTAGGAAAGAATCTCTATACAAATGAATACGTGGCTA
TCAAATTGGAGCCGATCAAGTCCCGGGCCCCGCAGCTGCACCTGGAGTACCGGTTCTACAAGCAGCTCAGCGCCA
CAGAGGGCGTCCCTCAGGTCTACTACTTCGGTCCGTGCGGGAAGTACAACGCCATGGTGCTGGAGCTGCTGGGGC
CCAGCCTGGAGGACCTGTTCGACCTGTGCGACCGGACCTTCACGCTCAAGACGGTGCTGATGATCGCCATCCAGC
TGATCACGCGCATGGAGTATGTGCACACCAAGAGCCTAATCTACCGGGACGTGAAGCCCGAGAACTTCCTGGTGG
GCCGCCCGGGGACCAAGCGGCAGCATGCCATCCACATCATCGACTTCGGGCTGGCCAAGGAGTACATCGACCCCG
AGACCAAGAAGCACATCCCGTACCGCGAGCACAAGAGCCTGACGGGCACGGCGCGCTACATGAGCATCAACACGC
ACCTGGGCAAGGAGCAGAGCCGCCGCGACGACCTGGAGGCGCTGGGCCACATGTTCATGTACTTCCTGCGCGGCA
GCCTCCCCTGGCAGGGGCTCAAGGCCGACACGCTCAAGGAGCGGTACCAGAAGATCGGGGACACCAAACGCGCCA
CGCCCATCGAGGTGCTCTGCGAGAACTTCCCAGAGGAGATGGCCACGTACCTGCGCTATGTGCGGCGCCTGGACT
TCTTCGAGAAGCCCGACTATGACTACCTGCGGAAGCTCTTCACCGACCTCTTCGACCGCAGTGGCTTCGTGTTCG
ACTATGAGTACGACTGGGCCGGGAAGCCCCTGCCGACCCCCATCGGCACCGTCCACACCGACCTGCCCTCCCAGC
CTCAGCTCCGGGACAAAACCCAGCCGCACAGCAAAAACCAGGCGTTGAACTCCACCAACGGGGAGCTGAATGCGG
ACGACCCCACGGCCGGCCACTCCAACGCCCCGATCACAGCGCCTGCAGAGGTGGAGGTGGCCGATGAAACCAAAT
GCTGCTGTTTCTTCAAGAGGAGAAAGAGAAAATCGCTGCAGCGACACAAG**TGA**CCCTGGGCGCGTGCAGCCCCCT
GAATCTTCTCCGTGCAGCCCCTTGGGGCGCGACCTTGTGCGAGGCCCTCGGGGCCCACCCACAGCGGCCCAGGGC
CAGACCCTGGCTGGAAGCCAGAACGCAGACTGCAGGGGCCGCGCCTGGCTCAGGCGGCCCCACCCCCGGGACGTG
GGGTCACTTCCTTCATGTAAGACTTTGGCCGAAATTTCTACACCTGTGTCTAGTCCTCCCCTCCAAGAGCATTAA
CTATTTAAAACAAGGAAAAGAGGAAAAAAAAAACAGAGGCCCGCCCTACCCCACTCCTGCCCCTCCGTTTCTTTG
CTGAAGTGAGTAGTGTGATCCTGGAGGCCCCCCGGCCTGGCCCCGCCCCGCCAGCCGCCCCCGTTAGCGTCATAA
AGTCCAGCTTGTCTCCCTCGATCCAAAGGCCGTTTTCTCGAGGGGAGGGCAGGCCCGGCCTGGAGGGGTGCTGTG
GAGCTGTCTTGCCCAGGCCCTCCTGGGAGGGGGACAGGCATTGTTGCCAGGGGTGAGGCCGTGCCCCAGGCCTCC
CCGAAACCAAAGGGGAAGGCAGGGGTGGGGCCGTGGCTGAAGCCGGCTCCCCAACCAAAATGCTGCACCAAAGCT
CGGGCGCCGCGGGCACGGCTGCTGCAGTCTCTTCCCAGCCTGGCCCTGGCAAGGGGCGGGTGGGCGCTGCCAGGC
GGGTGCTTCTCGACGCACTTGCTCCCGGAGGCTGCGCCCCGGCGCCTGGAACCCGAGGTGGGAGGACCGGTTGGT
GTCACCCTGCTCGGCCCTCAGCCCTGCCGCGTGGGGCGCGTGGGCACGGAGCTTCCTGCCTCTCTGCTCCGACAC
CCGGCAAGCAGCCGGAGACAAAACGCCTTAAAGCCCCCGGCCCAGCCCTGCAGGTATATTGCAGGGGCCTGGGGG
CGGCCCTGGACTGGCGGGCGGTTCCCCAGTGGGGTGCCCTGGAGGCTGCCGGGCAGAGTGGAGCAGCTTGGGGCC
GTGCCCAGGGCGGTGGCTGTGAGTCTAGTTTTTGCTTTACCAAGTGTACAGAAATGGCATTTACGTTTCTCTGAT
GCTCCCTTGAAGCCATAGAATTTAGGGGCTTTTTTAAAAAAATAAAAGAAAAATGAAACC

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FIGURE 3585

ATGGCGGCGGGTGGGAGCGGCGGGCGTGCGTCGTGCCCGCCGGGGGTCGGGGTCGGCCCGGGCACGGGGGGCAGT
CCCGGGCCCAGCGCCAACGCCGCCGCCACCCCGGCCCCCGGCAACGCGGCCGCCGCCGCCGCCGCCGCCGCC
GCCGCCGCCGCCCCTGGGCCGACGCCGCCCGCCCCGCCGGGCCCCGGGACAGACGCGCAGGCCGCGGGCGCGGAG
CGGGCGGAGGAGGCGGCGGGCCCGGGGGCGGCGGCGCTGCAGCGCGAGGCCGCGTACAACTGGCAGGCCAGCAAG
CCCACCGTGCAGGAGCGCTTCGCCTTCCTCTTCAACAACGAGGTGCTGTGCGACGTGCACTTCCTGGTGGGCAAG
GGGCTCAGCTCGCAGCGCATCCCCGCGCACAGGTTCGTGCTGGCCGTGGGCAGCGCCGTCTTTGATGCCATGTTC
AACGGGGGAATGGCCACAACATCCACGGAGATTGAGCTGCCCGACGTGGAACCCGCTGCCTTCCTCGCACTGCTC
AAGTTTCTCTACTCGGACGAGGTGCAGATTGGCCCGGAGACGGTGATGACCACGCTATACACCGCCAAGAAGTAC
GCGGTGCCAGCGCTCGAGGCCCATTGCGTGGAGTTCCTGAAGAAGAACCTGCGAGCCGACAACGCCTTCATGCTG
CTCACGCAGGCGCGACTCTTCGATGAACCGCAGCTGGCCAGCCTGTGCCTGGAGAACATCGACAAAAACACTGCA
GACGCCATCACCGCGGAGGGCTTCACCGACATTGACCTGGACACGCTGGTGGCTGTCCTGGAGCGCGACACACTG
GGCATCCGTGAGGTGCGGCTGTTCAATGCCGTTGTCCGCTGGTCCGAGGCCGAGTGTCAGCGGCAGCAGCTGCAG
GTGACGCCAGAGAACAGGCGGAAGGTTCTGGGCAAGGCCCTGGGCCTCATTCGCTTCCCGCTCATGACCATCGAG
GAGTTCGCTGCAGGTCCCGCACAGTCGGGCATCCTGGTGGACCGCGAGGTGGTCAGCCTCTTCCTGCACTTCACC
GTCAACCCCAAGCCACGAGTGGAGTTCATTGACCGGCCCCGCTGCTGCCTGCGTGGGAAGGAGTGCAGCATCAAC
CGCTTCCAGCAGGTGGAGAGTCGCTGGGGCTACAGCGGGACCAGTGACCGCATCAGGTTCTCAGTCAACAAGCGC
ATCTTCGTGGTGGGATTTGGGCTGTATGGATCCATCCACGGGCCCACCGACTACCAAGTGAACATCCAGATTATT
CACACCGATAGCAACACCGTCTTGGGCCAGAACGACACGGGCTTCAGCTGCGACGGCTCAGCCAGCACCTTCCGC
GTCATGTTCAAGGAGCCGGTGGAGGTGCTGCCCAACGTCAACTACACGGCCTGTGCCACGCTCAAGGGCCCAGAC
TCCCACTACGGCACCAAAGGCCTGCGCAAGGTGACACACGAGTCGCCCACCACGGGCGCCAAGACCTGCTTCACC
TTTTGCTACGCGGCCGGGAACAACAATGGCACATCCGTGGAGGACGGCCAGATCCCCGAGGTCATCTTCTACACC
TAGGCTGCCCGACACCGACACCGCCCTCCCTCCGTGGGGATAGCCGCAGCCCCAGGCCATCATCTGCTGCTGGGG
CCCCCCCACCACGCGGTGCCAGGCCCAGTGTCCCCCAGGCCGTCTGTCCACTCCATGCCACCTTTCTCAGCATCA
GGACGGGGTTGCCCTGTGTTCACCACGAGTGTGGCTGCTGGATCAGGGCAGCCGGGGAGGTGGCCAGGCCAGTGG
CCAGGCCCTGTGGAGACAATCCCTCAGGACTAGGGACAGGGCTGTGCCGGCCTGGGCCAGGGCCCACGGACCCGC
AGCTCAGGGCGCCTGCCCACGTCGTCTGCCGGCGGTGCGCCGCGGGCGTCCCTCGCGTCTCTTCACTGCACATTG
CAATGCATTTGCGATTCCCATTTCTCTGCTAGGAGCCAGCCTGGGTGGCGCTGCTCCCAGAGCCGTGGGTCCCAG
ACCTTGCGTTCCTTTTGTTCCTGTCCGTTTATCAGGACACGGGCCCCACCTGTCACGTGCCCGAGGCCACCCAAG
CCCAGCCTGCGGGGCGTTCCCACTGCCTGGATGCCGGCTTGAGTTCTGCGCACGCAGGATTCAGTGTGGGGACGG
CCCCTGCCGGATAGGCCTAGCCCTGGCCCAGGTGGTGAGCGGTTTGCAGTGTCCGTTCTCATCCACCTGATGGGC
CCAGATAAAGGCCCCCGCTGTCCAGCCTCCCTGGACGGCCCTCGCGGTCCCTGCAGCCCAAGATGGGACTCAGAC
CCTGTGCCCCAGAGCTCCCCTGCCGCAGAATGGGGCCCCAGCCGGCCCCGACCGGGTCCAGGAGCACTGCTCGCC
TGTACATACTGTTGCCCTAGCCCACCTGGTGCCGTGGGAGCCACCCCCAGGTGCTGGGGGCACAGCCCCTCCCCA
CTCCGGCCACGCCCCCACCCACCCCGCGTGTTTCTGCCCTGTGACTCCTGGAACCTGCGTCCTCCCCAAAGCCAT
GGGAGGGGTGTCCTCCTCAGACCATGCCCCCAGATGATTTTTTTAAATAAAGAAACAAATGCACCTGC

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FIGURE 3586

GCTGGCGGGGCCCGGACAGAAG**ATG**GTGCAGAAGAAACCAGCCGAACTTCAGGGTTTCCACCGTTCGTTCAAGGG
GCAGAACCCCTTCGAGCTGGCCTTCTCCCTAGACCAGCCCGACCACGGAGACTCTGACTTTGGCCTGCAGTGCTC
AGCCCGCCCTGACATGCCCGCCAGCCAGCCCATTGACATCCCGGACGCCAAGAAGAGGGGCAAGAAGAAGAAGCG
CGGCCGGGCCACCGACAGCTTCTCGGGCAGGTTTGAAGACGTCTACCAGCTGCAGGAAGATGTGCTGGGGGAGGG
CGCTCATGCCCGAGTGCAGACCTGCATCAACCTGATCACCAGCCAGGAGTACGCCGTCAAGATCATTGAGAAGCA
GCCAGGCCACATTCGGAGCAGGGTTTTCAGGGAGGTGGAGATGCTGTACCAGTGCCAGGGACACAGGAACGTCCT
AGAGCTGATTGAGTTCTTCGAGGAGGAGGACCGCTTCTACCTGGTGTTTGAGAAGATGCGGGGAGGCTCCATCCT
GAGCCACATCCACAAGCGCCGGCACTTCAACGAGCTGGAGGCCAGCGTGGTGGTGCAGGACGTGGCCAGCGCCTT
GGACTTTCTGCATAACAAAGGCATCGCCCACAGGGACCTAAAGCCGGAAAACATCCTCTGTGAGCACCCCAACCA
GGTCTCCCCCGTGAAGATCTGTGACTTCGACCTGGGCAGCGGCATCAAACTCAACGGGGACTGCTCCCCTATCTC
CACCCCGGAGCTGCTCACTCCGTGCGGCTCGGCGGAGTACATGGCCCCGGAGGTAGTGGAGGCCTTCAGCGAGGA
GGCTAGCATCTACGACAAGCGCTGCGACCTGTGGAGCCTGGGCGTCATCTTGTATATCCTACTCAGCGGCTACCC
GCCCTTCGTGGGCCGCTGTGGCAGCGACTGCGGCTGGGACCGCGGCGAGGCCTGCCCTGCCTGCCAGAACATGCT
GTTTGAGAGCATCCAGGAGGGCAAGTACGAGTTCCCCGACAAGGACTGGGCCCACATCTCCTGCGCTGCCAAAGA
CCTCATCTCCAAGCTGCTGGTCCGTGACGCCAAGCAGAGGCTGAGTGCCGCCCAAGTCCTGCAGCACCCCTGGGT
TCAGGGGTGCGCCCCGGAGAACACCTTGCCCACTCCCATGGTCCTGCAGAGGTGGGACAGTCACTTCCTCCTCCC
TCCCCACCCCTGTCGCATCCACGTGCGACCTGGAGGACTGGTCAGAACCGTTACTGTGAATGAG**TGA**AGATCCTG
GAGGACCCTGGGCCCCAGGCCAGCTCCCATCGCTGGGGGACGGTGAACGGCCATGTGTTAATGTTACGATGTTTT
TAAAAGACAAAAAAAAAAAAAAAAACCTCAAAAGTTTTTTTAAAGTGGGGGAAAAACATCCAAGCACTTTAATTCC
AATGTACCAGGTGAACTGACGGAGCTCAGAAGTTTTCCTTTACACCAACTGTCAATGCCGGAATTTTGTATTCTG
TTTTGTAAAGATTTAATAAAAGTCAAAAAACTTGC

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FIGURE 3587

GGAATTCTGAGAGCTGATTCCTGCCTTGTCTTCTCCACTGTTCCTGGAGGAATCCGAGAAGAGCAGAGCGGAGGG
AGCCCCAGACACGGTCCGCGGGAGAGCTGTGGGGCTTGGTGAGTGTTTCGTGGCCTCTCGGGTTGGTCAGCACCC
CCAGCCAGCTGGCCCAGGACCCCTCTACAGAAGTCCAGGAGAGCAGGCGTCACCAAG**ATG**TCCAACCCCTTCCTG
AAGCAAGTCTTCAACAAGGACAAGACATTCCGCCCCAAGCGCAAGTTTGAGCCAGGCACCCAGCGCTTCGAGCTG
CACAAGAAGGCGCAGGCGTCGCTGAACGCCGGGCTGGACCTGCGGCTGGCCGTGCAGTTGCCCCCGGGCGAGGAC
CTGAACGACTGGGTGGCTGTTCACGTGGTGGACTTCTTTAACCGCGTCAACCTCATCTACGGCACCATCAGCGAC
GGCTGCACGGAGCAGTCCTGCCCCGTCATGTCGGGGGGCCCCAAGTATGAGTACCGCTGGCAGGATGAGCATAAG
TTCCGGAAGCCCACGGCACTCTCCGCGCCCAGGTACATGGACCTGCTGATGGACTGGATCGAGGCGCAGATCAAC
AACGAGGACCTCTTCCCCACCAACGTTGGCACTCCGTTTCCCAAGAACTTCCTGCAGACGGTGCGGAAGATCCTG
TCGCGGCTGTTCCGCGTGTTCGTGCACGTCTACATCCACCACTTTGACCGCATCGCGCAGATGGGCTCCGAGGCC
CACGTGAACACCTGCTACAAGCACTTCTACTATTTCGTCAAGGAGTTCGGCCTCATCGACACCAAGGAGCTGGAG
CCACTGAAAGAAATGACCGCCCGGATGTGCCAC**TGA**GAGCCCCGCGGGTCTCCCGGTGCCCGAACCGCCGCTGGG
GCCTCGGAGACTTGGAGGAGGACGCTCTGGAACCATCATCCCGCTTCTCTCCGGCCTGAGCATCTCAGGGAGACC
AGGGGCCGAGCCGCTGAGCAGGTGTTGGTCCTCAGGAGCTCCAACCCCGGACGGCAGATGCCTTCCTCAGTCTCG
AGCCTCAGTCTCCCGTCTGGGACTAAAACGTGAACTCTGTAATTCTATGTGTTACTAGCAACCGGAAAAGCCCAC
TGTGTTTTTAAACCACTTCCACTTTCCAGGAGGCTGGATGGCTTCCAGGGTCACTCCTTGCCCTGGGTGGCTCCC
AGGCTCCTGGAACTTCTGCCTCCACCTCGCTGGGGAGCCCCCAGGGCTGCTGTGGCCACAGCCCTGCCTGGGCCT
GTCTCTCAAGGGCACCCAGCTTGCTCGGCCTCCTACATGTCTCCCGTTGGGGAGGCAAGAGGCTGAGGGGCTTCC
GAGCCCCTGAGAGCGGACATCTCCTCCCGCAGGCCTTTACTCCGCACTCCCCACTGGCAGCCGCTGGTGTCTCTT
CACACAGAGGCACAACCTGGACCCAGGCAGCCTCTTTCCTCCCTCCCCAATCTCTTCCATTTTTCTACAGATTTT
TTTTTTTTTGGTCATACTAGAGACAGGGGTCTCGCTGAACTCCTGGCCTCCAGTGATCCTCCATCCTCGGCCTCC
CAAAGTGCTGGAATCACAGGGGTGAGCCACCGCACCCAGCCCTCTCTCTTCCTCAATGCACTCTGCTTCTTCCGT
TCTTCCGAAACATTCAGCTGACTGTATCCAGGGCTTCCTGGACTCCTGGGACCCCACGTCCTGCACCCCGGCTTC
TGACTCATTTCCTAAGGGCCCCTTTGTGTATCATAAAGGGTTTGATTTTTATAGTCACATTTACAACCATCTTGA
GATTTTTATTTTTTTTGAACGGAGTCTCCCACTGTCGCCCAGACTGGAGTCCAGTGGCACAATCTCGGCTCACTG
CATCCTCCACCTCCTGGGTTCAAGTGATTCTCCTGCTTCAGCCTCCCAAGTAGCTGGGATTACAGGTGTGCGCCA
CCACGCCCAGGAAATTATTGTAGTTTTAGTAGAGACAAGATTTCACCATGTTGGCCAGGCTGGTCTCAAACTCCT
GACTTCAGGTGATCCGCCTACCTTGGCCTCCAAAAGTGCTGGGATTACAGGCATGAGCTACTGCACCCGGCCTAA
CCAGGCTGGAGTGCAGTGGTGGGATCTCGGCTCACTGCAAGCTCCGCCTCCCAGATTCACGCCATTCTCCTGCCT
CAGCCTCCCCAGCAGCTGGGACTACAGGCACCCACCGTCACACCCGGCTAATTTTTTTGTATTTTAGTAGAGACA
GGGTTTCACCGTGTTAGCCAGGATGGTCTTGATCTCCTGACCTTGTGATCCACCAGCCTCAGCCTCCCAAAGTGC
TGGGATTACAGGCGTGAGCCACTGTGCCCGGCCAAGAATTTTTTTATCGATAACATAGTGAGCTCTCTGCCTCTT
CGGAACGATGTCCACTTTGCTTATGATCAACCCAAGCAGGACTCTTCTCTCCCTGGACGCCTCTCCCCTGGTCTG
GAATCTTCCAGTTCTGCCAGAATTGGCCTTTCCCAGATGCTGCAAACTTCCAGTTGAACCCCTTTTTCTGTGTGG
CCCCTGGGGCTGCGAGACCAAAATCCATGAGTTCTGTGTACCCTAGACCTTTGGAAGGTGAGAGCAGGGCCCTGA
GAAAAGGCAGCCACCTCCTCTCCCTGGCTGAACCCCTGCCACCCTACTCCTCACCAGAATTGTCAGTGGCCTTTC
ACCACAGTGGTCCTTCCTGCCTGAGCCCTGCACTGTCCCAGACCACACAGAAGTCTGGTCACCTCTGGGCGCCTG
GGATGGTCACCGAAGAGAAGCACGCTGTCCCCGTCTCTCCTGGCTTCTGCCAGAAAATCGAACAAGTGCAATTAA
CACACTGTTACTGCCGAAGCCTGAAACTCCCAGGACTTGTCCTTGATCCTTCCAGAAACCACCAGGTCCGGCACT
TGGAGCCCCCCGGAGAGGGACCTCCCAGCCGAGCCCTCAAAGAACTCCATGAAATCAGGAACTGCTTGATGAAAT
GTATCTCCTTGTACCTGGAAGATGAAGCCCAAACACCCACACCTCTGTCTCCCCCAGGGCTCGGGATGTCTCCAG
CAGCCCGGCCACGCAGCTTCCCAGGTGGGCTCGGGGAGGTGGGAGCAGGGACCATCTCTGTCCCCTCCACCCTCA
CTCCATCCACCTCGGAGACCACCCTCCCCCAGCCAGATACGGAATAAAACTACAGACGCAGACGTCGG

FIGURE 3588A

GGGGCCCGGAGCGGGATCGCGGCACCTGCCGAGCGGGTCGCCGCCTCTGCCGCGGTCCTTGGACCCCGCCGCCGC
CCTGGCCTGGGAGCTTGCCCCGCCGCAGCGGCCGGCAGCGCGGCGCTCCGCGGGCGGCAGGCACGGGCCCCGGGC
CCCCTCACGGCGCCCAGCCGCGGGCCTCCCGAGGCAAAAGCCCGTGGGCCGCCGCG**ATG**GCCCTCAAGATGGTGA
AGGGCAGCATCGACCGCATGTTCGACAAGAATCTGCAGGACTTGGTCCGCGGCATCCGTAACCACAAGGAGGACG
AGGCAAAATACATATCTCAGTGCATTGATGAGATCAAGCAGGAGCTGAAGCAGGACAACATAGCGGTGAAGGCGA
ACGCGGTCTGCAAGCTGACGTATTTACAGATGTTGGGATACGACATCAGCTGGGCCGCCTTCAACATCATAGAAG
TGATGAGTGCCTCCAAGTTCACCTTCAAGCGAATTGGCTACCTCGCTGCTTCCCAGAGCTTTCACGAAGGCACCG
ACGTCATCATGCTGACCACCAATCAGATCCGTAAGGACTTGAGCAGCCCCAGCCAGTACGACACAGGTGTTGCAC
TGACGGGTCTGTCCTGCTTCGTCACCCCAGACCTTGCCAGAGACCTGGCAAATGACATCATGACACTGATGTCAC
ACACCAAGCCCTACATCAGGAAGAAGGCTGTGCTGATCGAGCCCCTCACCAATCTCATCCACAGCACGTCTGCCA
TGTCTCTCCTCTATGAATGTGTGAACACCGTGATTGCAGTGCTCATCTCGCTGTCCTCCGGCATGCCCAACCACA
GCGCCAGCATCCAGCTTTGTGTTCAGAAATTAAGGATATTGATCGAGGACTCCGATCAGAACTTGAAGTACCTGG
GGCTGCTGGCAATGTCCAAGATCCTGAAGACCCACCCCAAGTCCGTGCAGTCCCACAAGGACCTCATCCTGCAGT
GCCTGGACGACAAGGACGAGTCCATCCGGCTGCGGGCCCTGGACCTGCTCTATGGGATGGTGTCCAAGAAGAACC
TGATGGAGATCGTGAAGAAGCTGATGACCCACGTAGACAAGGCAGAGGGTACCACCTACCGTGACGAGCTGCTCA
CCAAGATCATTGACATCTGCAGCCAGTCCAACTACCAGTACATCACCAACTTCGAGTGGTACATCAGCATCCTGG
TGGAGCTGACCCGGCTGGAGGGCACACGGCACGGCCACCTCATCGCCGCCCAAATGCTGGACGTGGCCATCCGCG
TGAAGGCCATCCGCAAGTTCGCCGTGTCCCAGATGTCTGCGCTGCTTGACAGTGCACACCTGCTGGCCAGCAGCA
CCCAGCGGAACGGGATCTGTGAGGTGCTGTACGCTGCCGCCTGGATCTGCGGGGAGTTCTCAGAGCATCTGCAGG
AACCACACCACACTTTGGAGGCCATGCTGCGGCCCAGAGTCACCACGCTGCCAGGCCACATCCAGGCCGTGTATG
TGCAGAACGTGGTCAAGCTCTACGCCTCCATCCTGCAGCAGAAGGAGCAGGCCGGGGAGGCAGAGGGCGCTCAGG
CCGTCACCCAGCTCATGGTGGACCGGCTGCCCCAGTTTGTGCAGAGCGCAGACCTGGAGGTGCAGGAGCGGGCGT
CCTGCATCCTGCAGCTGGTCAAGCACATCCAGAAGCTTCAGGCCAAGGACGTGCCTGTGGCAGAGGAGGTCAGCG
CTCTCTTTGCTGGGGAGCTGAACCCAGTGGCCCCCAAGGCCCAGAAGAAGGTTCCAGTCCCCGAAGGCCTGGACC
TGGACGCCTGGATCAATGAGCCACTCTCGGACAGCGAGTCAGAGGACGAGAGGCCCAGGGCCGTCTTCCACGAGG
AGGAGCAGCGGCGTCCCAAGCACCGGCCGTCGGAGGCGGACGAGGAAGAGCTGGCTCGGCGCCGAGAGGCCCGGA
AGCAGGAGCAGGCCAACAACCCCTTCTACATCAAGAGCTCGCCATCGCCACAGAAGCGGTACCAGGACACCCCGG
GCGTGGAGCACATTCCCGTGGTGCAGATTGACCTCTCCGTCCCCTTGAAGGTTCCAGGGCTGCCTATGTCAGATC
AGTATGTGAAGCTGGAGGAGGAGCGGCGGCACCGGCAGAAGCTGGAGAAGGACAAGAGGAGGAAAAAGAGGAAGG
AGAAGGAGAAGAAGGGCAAGCGCCGCCACAGCTCGCTGCCCACGGAGAGCGACGAGGACATCGCCCCTGCCCAGC
AGGTGGACATCGTCACAGAGGAGATGCCTGAGAATGCTCTGCCCAGCGACGAGGATGACAAAGACCCCAACGACC
CCTACAGGGCTCTGGATATTGACCTGGATAAGCCCTTAGCCGACAGCGAGAAACTGCCTATTCAGAAACACAGAA
ACACCGAGACCTCAAAATCCCCTGAGAAGGACGTTCCCATGGTAGAAAAGAAGAGCAAGAAACCCAAGAAGAAAG
AGAAAAAACACAAAGAGAAAGAGAGAGACAAGGAGAAGAAGAAGGAGAAGGAGAAGAAGGCTGAGGACCTGGACT
TCTGGCTGTCTACCACCCCACCGCCTGCCCCCGCCCCCGCCCCCGCCCCCGTTCCATCCACGGACGAGTGTGAGG
ACGCCAAGACGGAGGCGCAGGGCGAGGAGGACGATGCCGAGGGGCAAGACCAGGACAAGAAATCTCCCAAGCCTA
AGAAGAAGAAGCACAGGAAGGAGAAGGAGGAGCGGACCAAAGGCAAGAAGAAGTCCAAGAAGCAGCCTCCAGGCA
GCGAGGAGGCAGCGGGGGAGCCGGTGCAGAATGGCGCGCCAGAGGAGGAGCAGCTCCCGCCTGAGTCCAGCTACT
CCCTCCTCGCTGAAAATTCCTATGTTAAAATGACCTGTGACATCCGGGGCAGTCTGCAGGAGGACAGCCAGGTCA
CTGTGGCCATCGTGCTGGAGAACAGGAGCAGCAGCATCCTCAAGGGCATGGAGCTCAGCGTGCTGGACTCACTCA
ATGCCAGGATGGCCCGGCCGCAGGGCTCCTCCGTCCACGATGGCGTCCCCGTGCCTTTCCAGCTGCCCCCAGGCG
TCTCCAACGAAGCCCAGTATGTGTTCACCATCCAGAGCATCGTCATGGCGCAGAAGCTCAAGGGGACCCTGTCCT
TCATTGCCAAGAATGACGAGGGTGCGACCCACGAGAAGCTGGACTTCAGGCTGCACTTCAGCTGCAGCTCCTACT
TGATCACCACTCCCTGCTACAGTGACGCCTTTGCTAAGTTGCTGGAGTCTGGGGACTTGAGCATGAGCTCAATCA
AAGTCGATGGCATTCGGATGTCCTTCCAGAATCTTCTGGCGAAGATCTGTTTTCACCACCATTTTTCCGTTGTGG
AGCGAGTGGACTCCTGCGCCTCCATGTACAGCCGCTCCATCCAGGGCCACCATGTCTGCCTCCTGGTGAAAAAGG
GTGAGAACTCTGTCTCAGTCGACGGGAAGTGCAGTGACTCCACGCTACTGAGCAACTTGTTAGAAGAGATGAAGG
CGACGCTGGCCAAGTGT**TGA**GAGCTGCCTGCGAGCCCCGCACCACCCCGCGGAGCACGTACCCAGGGACCGCAGC

FIGURE 3588B

CCTGACGTGTCTCGCCTCTCCTCAGTCGTGTGTACTGTACCCAAGCCTGAGTGTTAATTTAACTCTATGTTGTCC
GCCGTGTAGACATCCGAGGTCATTTGTTGCGTTGAATTATCTGACCATCCTTTTTTACTGTGACTCTTCCCATTC
TCTTTGGCAAGAAGTCCCCTTCTCGCCCCCAAACCAGCAAGGGACTCCCCCACCTGGGTCTGTGCCCTGCCCCGC
GCTGGGGGCCGAGTCCTTGAATGTGGCTTCAGGGGCTCCTGTCCTGGGCCAGGGCCTGATGGGCACCACGTGAGG
GGCACTTGGTGGACAGGGCGGGGCTGACGTGGCCTCCTCTGGGGTCGCCTGCTTTTGACCCAAAGGTCCTGACGG
TTGCGTCCGGGGGAGGGGAAGGAAGGGCCGCTGTCGCCAAGGTTTTCTCTCCCAGAACCCACAGTGGGAAAGCGG
TCTTGCCAGGCGTTGTCCATTGTCAGTGTGCTCGTGGGCTGGTGACTGGGTCTTGGGATCCCAGGCCACGCGCCA
GCCAGGCTGTGGGCAGGGCGGGGCCAGGGACGCCAAAGAGAGGTTGCAGTCAGAACCGTGGACGGGGTGGGTTGA
GGCCTCTCTGCCACCCGTCTTCCTGGTCAGCAGAAGTGCATCTCGGCTTGGGTTTGGGGTGGTCCGCATCCCCTG
CTTGCCACTATGCGCACCAAGGTTTCCCCACATCCTTCCCAGCACCCTTAGGAAGGCCCAGGCAGGGCCTGGAAG
CAGCGGACCTGGGCTGTTCTGTGTTGAAGGAGTGTGCCCAGTGCCCTTGGGCAGGACCTGTGAGAGCCACCTCAC
AGGCAGAGCCCCCACCAGGCAGGGCAAGGAGACTCCGCTCACTCCCCACGGCCAGCGTGGGCACAGGACTGACCC
TTCTTCAGAGATAATGACATTTTATCTTCTCCTTTTGATGAAAACTGTCACTTTAGCATGTAATCCATTACAGAA
TCCCATGCAGTGATTCCAGGATTTGAAATTGTATGATGTGTTACATAAGAATTTATTTGCTATCGACATTCCCGT
ATAAAGAGAGAGACATATCACGCTGCTGTCATGATTTTGTGTCAAGATGATCCAATAAAGTTGTAAAACAGG

FIGURE 3589A

GCGGCCGTCCACTGGACTCCTGCGCCATATCCTGCAGCAGGTCTACAACCACTCGGTGACCGACCCCGAGAAGCT
CAACAACTACGAGCCCTTCTCCCCCGAGGTGTACGGGGAGACCTCCTTCGACCTGGTGGCCCAGATGATTGATGA
GATCAAGATGACCGACGACGACCTGTTTGTGGACTTGGGGAGCGGTGTGGGCCAGGTCGTGCTCCAGGTTGCTGC
TGCCACCAACTGCAAACATCACTATGGCGTCGAGAAAGCAGACATCCCGGCCAAGTATGCGGAGACCATGGACCG
CGAGTTCAGGAAGTGGATGAAATGGTATGGAAAAAAGCATGCAGAATACACATTGGAGAGAGGCGATTTCCTCTC
AGAAGAGTGGAGGGAGCGAATCGCCAACACGAGTGTTATATTTGTGAATAATTTTGCCTTTGGTCCTGAGGTGGA
TCACCAGCTGAAGGAGCGGTTTGCAAACATGAAGGAAGGTGGCAGAATCGTGTCCTCGAAACCCTTTGCACCTCT
GAACTTCAGAATAAACAGTAGAAACTTGAGTGACATCGGCACCATCATGCGCGTGGTGGAGCTCTCGCCCCTGAA
GGGCTCGGTGTCGTGGACGGGGAAGCCAGTCTCCTACTACCTGCACACTATCGACCGCACCATACTTGAAAACTA
TTTTTCTAGTCTGAAAAACCCAAAACTCAGGGAGGAACAGGAGGCAGCCCGGCGCCGCCAGCAGCGCGAGAGCAA
GAGCAACGCGGCCACGCCCACTAAGGGCCCAGAGGGCAAGGTGGCCGGCCCCGCCGACGCCCCCATGGACTCTGG
TGCTGAGGAAGAGAAGGCGGGAGCAGCCACCGTGAAGAAGCCGTCTCCCTCCAAAGCCCGCAAGAAGAAGCTAAA
CAAGAAGGGGAGGAAGATGGCTGGCCGCAAGCGCGGGCGCCCCAAGAAGATGAACACTGCGAACCCCGAGCGGAA
GCCCAAGAAGAACCAAACTGCACTGGATGCCCTGCACGCTCAGACCGTGTCTCAGACGGCGGCCTCCTCACCCCA
GGATGCCTACAGATCCCCTCACAGCCCGTTCTACCAGCTACCTCCGAGCGTGCAGCGGCACTCCCCCAACCCGCT
GCTGGTGGCGCCCACCCCGCCCGCGCTGCAGAAGCTTCTAGAGTCCTTCAAGATCCAGTACCTGCAGTTCCTGGC
ATACACAAAGACCCCCCAGTACAAGGCCAGCCTGCAGGAGCTGCTGGGCCAGGAGAAGGAGAAGAACGCCCAGCT
CCTGGGTGCGGCTCAGCAGCTCCTCAGCCACTGCCAGGCCCAGAAGGAGGAGATCAGGAGGCTGTTTCAGCAAAA
ATTGGATGAGCTGGGTGTGAAGGCGCTGACCTACAACGACCTGATTCAAGCGCAGAAGGAGATCTCCGCCCATAA
CCAGCAGCTGCGGGAGCAGTCGGAGCAGCTGGAGCAGGACAACCGCGCGCTCCGCGGCCAGAGCTTGCAGCTGCT
CAAGGCTCGCTGCGAGGAGCTGCAGCTGGACTGGGCCACGCTGTCGCTGGAGAAGCTGTTGAAGGAGAAGCAGGC
CCTGAAGAGCCAGATCTCGGAGAAGCAGAGGCACTGCCTGGAGCTGCAGATCAGCATTGTGGAGCTAGAGAAGAG
CCAGCGGCAGCAGGAGCTCCTGCAGCTCAAGTCCTGTGTGCCGCCTGACGACGCCCTGTCCCTGCACCTGCGTGG
GAAGGGCGCCCTGGGCCGCGAGCTGGAGCCTGACGCCAGCCGGCTGCACCTGGAGCTGGACTGCACCAAGTTCTC
GCTGCCTCACTTGAGCAGCATGAGCCCGGAGCTCTCCATGAACGGCCAGGCTGCTGGCTATGAGCTCTGCGGTGT
GCTGAGCCGGCCTTCGTCGAAGCAGAACACGCCCCAGTACCTGGCCTCACCCCTGGACCAGGAGGTGGTGCCCTG
TACCCCTAGCCACGTCGGCCGGCCGCGCCTGGAGAAGCTGTCTGGCCTAGCCGCACCCGACTACACTAGGCTGTC
CCCGGCCAAGATTGTGCTGAGGCGGCACCTGAGCCAGGACCACACGGTGCCCGGCAGGCCGGCTGCCAGTGAGCT
GCATTCGAGAGCTGAGCACACCAAGGAGAACGGCCTTCCCTACCAGAGCCCCAGCGTGCCTGGCAGCATGAAGCT
GAGCCCTCAGGACCCGCGGCCCCTGTCCCCTGGGGCCTTGCAGCTTGCTGGAGAGAAGAGCAGTGAGAAGGGCCT
GAGAGAGCGCGCCTACGGCAGCAGCGGGGAGCTCATCACCAGCCTGCCCATCAGCATCCCGCTCAGCACCGTGCA
GCCCAACAAGCTCCCGGTCAGCATTCCCCTGGCCAGCGTGGTGCTGCCCAGCCGCGCCGAGAGGGCGAGGAGCAC
CCCCAGTCCCGTGCTGCAGCCCCGTGACCCCTCGTCCACACTTGAAAAGCAGATTGGTGCTAATGCCCACGGTGC
TGGGAGCAGAAGCCTTGCCCTGGCCCCCGCAGGCTTCTCCTACGCTGGCTCGGTGGCCATCAGCGGGGCCTTGGC
GGGCAGCCCGGCCTCTCTCACACCTGGAGCCGAGCCGGCCACCTTGGATGAGTCCTCCAGCTCTGGGAGCCTTTT
TGCCACCGTGGGGTCCCGCAGCTCCACGCCACAGCACCCCCTGCTGCTGGCACAGCCCCGGAACTCGCTTCCTGC
CTCTCCCGCCCACCAGCTCTCCTCCAGTCCCCGGCTTGGTGGGGCCGCCCAGGGCCCGTTGCCCGAGGCCAGCAA
GGGAGACCTGCCCTCCGATTCCGGCTTCTCAGATCCTGAGAGTGAAGCCAAGAGGAGGATTGTGTTCACCATCAC
CACTGGTGCGGGCAGTGCCAAGCAGTCGCCCTCCAGCAAGCACAGCCCCCTGACCGCCAGCGCCCGTGGGGACTG
TGTGCCGAGCCACGGGCAGGACAGTCGCAGGCGCGGCCGGCGGAAGCGAGCATCTGCGGGGACGCCCAGCTTGAG
CGCAGGCGTGTCCCCCAAGCGCCGAGCCCTGCCGTCCGTCGCTGGCCTTTTCACACAGCCTTCGGGGTCTCCCCT
CAACCTCAACTCCATGGTCAGTAACATCAACCAGCCCCTGGAGATTACAGCCATCTCGTCCCCGGAGACCTCCCT
GAAGAGCTCCCCTGTGCCCTACCAGGACCACGACCAGCCCCCCGTGCTCAAGAAGGAGCGGCCTCTGAGCCAGAC
CAATGGGGCACACTACTCCCCACTCACCTCAGACGAGGAGCCAGGCTCTGAGGACGAGCCCAGCAGTGCTCGAAT
TGAGAGAAAAATTGCAACAATCTCCTTAGAAAGCAAATCTCCCCCGAAAACCTTGGAAAATGGTGGTGGCTTGGC
GGGAAGGAAGCCCGCGCCCGCCGGCGAGCCAGTCAATAGCAGCAAGTGGAAGTCCACCTTCTCGCCCATCTCCGA
CATCGGCCTGGCCAAGTCGGCGGACAGCCCGCTGCAGGCCAGCTCCGCCCTCAGCCAGAACTCCCTGTTCACGTT
CCGGCCCGCCCTGGAGGAGCCCTCTGCCGATGCCAAGCTGGCCGCTCACCCCAGGAAAGGCTTTCCCGGCTCCCT

FIGURE 3589B

GTCGGGGGCTGACGGACTCAGCCCGGGCACCAACCCTGCCAACGGCTGCACCTTCGGCGGGGGCCTGGCCGCGGA
CCTGAGTTTACACAGCTTCAGTGATGGTGCTTCTCTTCCCCACAAGGGCCCCGAGGCGGCCGGCCTGAGCTCCCC
GCTGAGCTTCCCCTCGCAGCGCGGCAAGGAGGGCTCGGACGCCAACCCTTTCCTGAGCAAGAGGCAGCTGGACGG
CCTGGCTGGGCTGAAGGGCGAGGGCAGCCGCGGCAAGGAGGCAGGGGAGGGCGGCCTACCGCTGTGCGGGCCCAC
GGACAAGACCCCACTGCTGAGCGGCAAGGCCGCCAAGGCCCGGGACCGCGAGGTCGACCTCAAGAATGGCCACAA
CCTCTTCATCTCTGCGGCGGCCGTGCCTCCCGGAAGCCTCCTCAGCGGCCCCGGCCTGGCCCCGGCGGCGTCCTC
CGCAGGCGGCGCGGCGTCCTCCGCCCAGACGCACCGGTCCTTCCTGGGCCCCTTCCCGCCGGGACCGCAGTTCGC
GCTCGGCCCCATGTCCCTGCAGGCCAACCTCGGCTCCGTGGCCGGCTCCTCCGTGCTGCAGTCGCTGTTCAGCTC
TGTGCCGGCCGCCGCAGGCCTGGTGCACGTGTCGTCCGCTGCCACCAGACTGACCAACTCGCACGCCATGGGCAG
CTTTTCCGGGGTGGCAGGCGGCACAGTTGGAGGTAAC**TAG**GATTTCTACCTCAACCGCGAGACCTATGCAAGGAC
GGTGTGGACCAACTCGCGCCCGCGGCATGGTGCCCGCCGGCCTGCCGGGCTCCCACCCCTGGACGGCAGAGGCAA
GGACGGACGGGAGCTCCACTGTGAATCGGCGGCACGCGCCGCAGGAGGCTGGGACTGGTCCAGTTTGTACTGTCG
ATAGTTTTAGATAAAGTATTTATCATTTTTTAAAAAGTATAAACAATTCTGACTTATTTTATTCCATCTAAGTGG
TAAAAGGCAACTTATTGAGAAATATAAATATCTATATATGAGAGCTCTATATAAAGACACGTGTCTGCAGGGCGG
GCCCGCCAGCGGATTCGCCACAGCCTGCCCCGGTGCTATCTCGTCCCCAGGCCCGCGCCTGCCTCCACCCGCTTG
GTGCTGACTAGACGCTGACAACGCCGAACCCCGTTCTCGGAAACGCCGCCCGGCCGGCTCCCCCGACGCGCTGCT
CCCGTACCAAAGGCAGGCCCGTCGCCACCACATTCCTCGGAGGCCTCCCCGCGGCCTGAGCCCCTTCCTGAGCGC
CCTGGCGCCTGCCCTGAGCTCTTCACCTTTACCCCGGCACTGTGAACCCCCAGACTGTTCACCCTCCGGGGCGTG
GGTTGCGCCCTTGCATGTGAAGGGGCCTGCGCGGTGACGCAGCTGGCCATGTGCTGCGCGATGGTGCTGTGAGGA
CGGCGCGGGCACGTTGAACAAGTGCATTTACTTTTGTATTTCTCGGCTGTCCATGGCTCGCAGCATGCCCTGCGA
TGCGGGGCAGGCCTGTCGTGGGTCCCTTGGTGTTTCTGTACAGGAGAGAGTCACACTAATGAGTGGCAGTATTTT
ATAGAGATGTGATGAGAATTTATAAATTTCATAGATTTGACAGCTTTTATTTTTAGATGGTATAATGCACAGTGA
AGAGGAAAGAAAAGCGAGGGGAAAAAACCTTATTTATTCAAACAGTGCACAAAATGGCCCCAGCGTCAGCCCCGA
CCCTAGACCCCTCAGTTGCAGCTCCCAGCAGCCCAGACAGAGCTGCCGGCGCCCCTGCCTGCCCCACATCCCTTC
CTGTCAGGGCCACGCCTGGCACCCATCCCTTGGAGCCTGTGCTGGTTCTCCCAGCTGCTGTGGGTGTGCTGGGGC
CAGGGTGCACTGCTGAAACCTGGCCTCTCTGGCCCTAGGCCCCAGGGTGACGTCGGCCCCCCACTCTGCAGCCTT
GGCGGGTGCCTGGGACTGGGTGTGGAAGGAGAGGAGCTGAGGCCGGGGTGTAGCAGGCAGGCAGGGCCACTCCAG
TGCTTCTGGAGCCCTGAGCAGTCAGGGCCTGGGTTGTCTGAGCAGTGGTGGCTCTGTGCCCTCCCTGGAGGATGG
GATCTGGGA

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FIGURE 3590

GACATTTTTGGCGCCGGCCCCAGCCTGAGCGGGGACGGCGGCCGGGAGGGCGCGGCCCGGGTTCCCGTTCCCCGC
GGAGCC**ATG**CGGTACAACGAGAAGGAGCTGCAGGCTCTGTCCCGGCAGCCGGCCGAGATGGCGGCCGAGCTGGGC
ATGAGGGGCCCCAAGAAGGGCAGCGTGCTGAAGCGGCGGCTGGTGAAGCTGGTGGTGAATTTCCTCTTCTACTTT
CGGACAGACGAGGCCGAGCCCGTCGGAGCCCTGCTGCTGGAGCGCTGCAGAGTCGTCCGGGAAGAGCCCGGCACC
TTCTCCATCAGCTTCATTGAGGACCCTGAGAGGAAGTATCACTTTGAGTGCAGCAGCGAGGAGCAGTGTCAGGAG
TGGATGGAGGCTCTGCGTCGGGCCAGCTACGAGTTCATGCGGAGAAGCCTCATCTTCTACAGGAACGAAATCCGG
AAGGTGACGGGCAAGGACCCCCTGGAACAGTTCGGCATATCCGAGGAGGCCAGGTTCCAGCTGAGTGGCTTGCAG
GCG**TGA**GCGCAGGGCACGGTGGTCAGCGTGCAGCGGGACGGGACTGGCCCTGCCCAGCCATGAATCGCTTGGCCA
TGCCTGGATCTGTTTTGTTTTGGTTTTTGGTTTTTGGGTCAGGGTTTCACTGTGTTGCCCAGGCTAGAGTGCAGT
GGTGCCACAGCTCACTGTGACCTTGACCTTCTGGACTCAAGTGATCCTCCTGCCTCAGCTTCCCAAGTAGCGGGG
ATCACAGGCATGAGCCGCCACACCCGGCCATCACACCTGGATTTTCAGTGGGAGGTTTTTGGTTTGGAGACATCC
AAAGCCTGAAGCCAGGTGGGTGTGGGCAGGGGCTGCATTTTATGAAACTGCCCAGCAAGCTGCGCTCCCTGGGGC
CCCAGGATCCACCTAACTGGCCTGGCACCTGGTGCCACGTGCTGCTGCCGCCAGGATATGCGCCTTCCCACAGGT
GCCCTGCCTGAGTTGTGTGCATCCAGGGGCCTGGTGAGCCCCCAGGCTGGTGGCATGGCCCCCCTGCCCCGTGCT
GAATGAATGTACAGAGCCAGACAAAGCTGTGAATGGCCTAGGGGCTGAGTCCCACACCAGCTGTGAATTCTCCTG
CAGACAGGAGGGCCCTGGCTGTGCACCTGGGGAAGTGGTTGCCCTGGGGCCAGGGTGCTTGTTCTGTTCAAATAA
AGGTACCTCTTTTCC

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FIGURE 3591

ATGGACTTCCAGCATCGCCCCGGGGGCAAGACCGGGAGCGGGGGCGTGGCCTCCTCCTCCGAGAGCAACCGTGAC
CGCAGGGAGCGCCTCCGGCAGCTGGCCCTGGAGACCATCGACATCAACAAGGACCCGTACTTCATGAAGAACCAC
CTGGGCTCCTATGAATGCAAACTCTGCCTGACACTTCACAACAATGAGGGGAGCTACCTGGCACATACGCAGGGG
AAGAAGCACCAGACCAACCTGGCCCGGCGAGCAGCCAAGGAGGCCAAGGAGGCCCCTGCCCAGCCCGCGCCTGAG
AAGGTCAAGGTGGAGGTGAAGAAGTTTGTGAAGATCGGCCGCCCGGGCTACAAAGTGACCAAGCAGAGAGACTCG
GAGATGGGCCAGCAGAGCCTCCTCTTCCAGATTGACTACCCTGAGATCGCCGAGGGCATCATGCCACGTCACCGC
TTCATGTCTGCGTACGAGCAGAGGATCGAGCCTCCGGACCGGCGCTGGCAGTACCTGCTCATGGCCGCCGAGCCC
TACGAGACCATTGCCTTCAAGGTGCCGAGCAGAGAGATCGACAAGGCGGAGGGCAAGTTCTGGACACACTGGAAC
CGGGAGACCAAGCAGTTCTTCCTCCAGTTCCACTTTAAGATGGAGAAGCCCCCGGCTCCACCCAGCCTCCCTGCT
GGCCCCCCTGGGGTGAAGCGGCCTCCACCCCCGCTGATGAACGGTCTGCCCCCTCGGCCACCGCTGCCTGAGTCT
TTGCCACCGCCCCCGCCAGGAGGCCTGCCTCTGCCACCCATGCCCCCCACAGGGCCTGCGCCCTCAGGGCCCCCG
GGACCACCCCAGCTACCCCCGCCAGCTCCAGGGGTCCACCCCCCGGCCCCAGTGGTGCATCCCCCTGCATCTGGG
GTCCATCCCCCAGCTCCTGGCGTCCACCCCCCAGCTCCTGGCGTCCATCCCCCAGCCCCTGGGGTCCACCCACCA
ACCTCTGGGGTCCACCCCCCAGCTCCTGGAGTCCACCCTCCAGCCCCCGGGGGTTCACCCACCAGCCCCCGGAGTC
CACCCACCAGCCCCTGGGGTTCACCCACCAGCCCCAGGGGTCCATCCTCCCCCATCAGCGGGGGTTCACCCCCAG
GCCCCGGGGGTGCACCCAGCAGCCCCCGCCGTTCACCCTCAGGCCCCAGGGGTGCACCCACCAGCCCCAGGGATG
CACCCTCAGGCCCCGGGGGTCCACCCCCAACCTCCCGGGGTCCATCCGTCGGCTCCTGGGGTCCACCCTCAGCCT
CCGGGAGTTCACCCCTCAAATCCTGGGGTGCACCCCCCAACTCCCATGCCCCCAATGCTGAGGCCCCCACTTCCC
TCCGAAGGCCCAGGGAACATACCTCCCCCTCCCCCAACCAAC**TGA**

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FIGURE 3592

TGCGAACGGCGAGCAGCGGCGGCGGCGCGGAGAGACGCAGCGGAGGTTTTCCTGGTTTCGGACCCCAGCGGCCGG
ATGGTGAAATCCTCCCTGCAGCGGATCCTCAATAGCCACTGCTTCGCCAGAGAGAAGGAAGGGGATAAACCCAGC
GCCACCATCCACGCCAGCCGCACCATGCCGCTCCTAAGCCTGCACAGCCGCGGCGGCAGCAGCAGTGAGAGTTCC
AGGGTCTCCCTCCACTGCTGTAGTAACCCGGGTCCGGGGCCTCGGTGGTGCTCC**TGA**TGCCCCTCACCCACCCCT
GAAGATCCCAGGTGGGCGAGGGAATAGTCAGAGGGATCACAATCTTTCAGCTAACTTATTCTACTCCGATGATCG
GCTGAATGTAACAGAGGAACTAACGTCCAACGACAAGACGAGGATTCTCAACGTCCAGTCCAGGCTCACAGACGC
CAAACGCATTAACTGGCGAACAGTGCTGAGTGGCGGCAGCCTCTACATCGAGATCCCGGGCGGCGCGCTGCCCGA
GGGGAGCAAGGACAGCTTTGCAGTTCTCCTGGAGTTCGCTGAGGAGCAGCTGCGAGCCGACCATGTCTTCATTTG
CTTCCACAAGAACCGCGAGGACAGAGCCGCCTTGCTCCGAACCTTCAGCTTTTTGGGCTTTGAGATTGTGAGACC
GGGGCATCCCCTTGTCCCCAAGAGACCCGACGCTTGCTTCATGGCCTACACGTTCGAGAGAGAGTCTTCGGGAGA
GGAGGAGGAGTAGGGCCGCCTCGGGGCTGGGCATCCGGCCCCTGGGGCCACCCCTTGTCAGCCGGGTGGGTAGGA
ACCGTAGACTCGCTCATCTCGCCTGGGTTTGTCCGCATGTTGTAATCGTGCAAATAAACGCTCACTCCGAATTAG
CGGTGTATTTCTTGAAGTTTAATATTGTGTTTGTGATACTGAAGTATTTGCTTTAATTCTAAATAAAAATTTATA
TTTTACTTTTT

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FIGURE 3593

CGCGACAAG**ATG**GCGGATAAGGAGAAGAAGAAAAAGGAGAGCATCTTGGACTTGTCCAAGTACATCGACAAGACG
ATCCGGGTAAAGTTCCAGGGAGGCCGCGAAGCCAGTGGAATCCTGAAGGGCTTCGACCCACTCCTCAACCTTGTG
CTGGACGGCACCATTGAGTACATGCGAGACCCTGACGACCAGTACAAGCTCACGGAGGACACCCGGCAGCTGGGC
CTCGTGGTGTGCCGGGGCACGTCCGTGGTGCTAATCTGCCCGCAGGACGGCATGGAGGCCATCCCCAACCCCTTC
ATCCAGCAGCAGGACGCC**TAG**CCTGGCCGGGGGCGCGGGGGGTGCAGGGCAGGCCCGAGCAGCTCGGTTTCCCGC
GGACTTGGCTGCTGCTCCCACCGCAGTACCGCCTCCTGGAACGGAAGCATTTTCCTTTTTGTATAGGTTGAATTT
TTGTTTTCTTAATAAAATTGCAAACCTC

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FIGURE 3594

GCCGTTGGTTGCGGCGGGCACCGGCCGACATGGCGGCAGCGGTGGCGGCTGCGCTGGCGCGGCTTTTGGCGGCCT
TTCTGCTCCTCGCGGCCCAGGTGGCCTGTGAGTACGGCATGGTGCACGTGGTCTCCCAGGCCGGGGGCCCCGAAG
GCAAAGACTACTGCATCCTCTACAACCCGCAGTGGGCCCATCTTCCGCACGACCTCAGCAAGGCATCTTTCCTGC
AGCTGCGCAACTGGACGGCCTCCCTGCTCTGCTCCGCAGCCGACCTCCCCGCCCGTGGCTTCAGCAACCAGATCC
CGCTGGTGGCGCGGGGGAACTGCACCTTCTATGAGAAAGTGAGGCTGGCCCAGGGCAGCGGAGCACGCGGGCTGC
TCATCGTCAGCAGGGAGAGGCTGGTCCCCCCGGGGGGTAATAAGACGCAGTATGATGAGATTGGCATTCCCGTGG
CCCTGCTCAGCTACAAAGACATGCTGGACATCTTCACGCGTTTCGGCCGCACGGTGAGGGCGGCGCTGTATGCGC
CTAAGGAGCCGGTGCTGGACTACAACATGGTCATCATCTTCATCATGGCTGTGGGCACCGTCGCCATCGGCGGCT
ACTGGGCCGGGAGTCGGGACGTGAAGAAAAGGTACATGAAGCACAAGCGCGACGATGGGCCCGAGAAGCAGGAGG
ACGAGGCGGTGGACGTGACGCCGGTGATGACCTGCGTGTTTGTGGTGATGTGCTGCTCCATGCTGGTGCTGCTCT
ACTATTTCTACGATCTCCTCGTGTACGTGGTCATCGGGATCTTCTGCCTGGCCTCCGCCACCGGCCTCTACAGCT
GCCTGGCGCCCTGTGTGCGGCGGCTGCCTTCGGCAAGTGCAGGATCCCCAACAACAGCCTGCCCTACTTCCACAA
GCGCCCGCAGGCCCGTATGCTGCTCCTGGCGCTCTTCTGCGTGGCCGTCAGCGTGGTGTGGGGCGTCTTCCGCAA
CGAGGACCAGTGGGCCTGGGTCCTCCAGGATGCCCTGGGCATCGCCTTCTGCCTCTACATGCTGAAGACCATCCG
TCTGCCCACCTTCAAGGCCTGCACGCTGCTGCTGCTGGTGCTGTTCCTCTACGACATCTTCTTCGTGTTCATCAC
GCCCTTCCTGACCAAGAGTGGGAGCAGCATCATGGTGGAGGTGGCCACTGGGCCCTCGGACTCAGCCACCCGTGA
GAAGCTGCCCATGGTCCTGAAGGTGCCCAGGCTGAACTCCTCACCTCTGGCCCTGTGTGACCGGCCCTTCTCCCT
CCTGGGTTTCGGAGACATTTTGGTGCCAGGGCTGCTGGTGGCCTACTGCCACAGGTTTGACATCCAGGTACAGTC
CTCCAGGGTATACTTCGTGGCCTGCACCATCGCCTATGGCGTTGGCCTCCTTGTGACATTCGTGGCACTGGCCCT
GATGCAGCGTGGCCAGCCCGCTCTCCTCTACCTGGTGCCCTGCACGCTGGTGACGAGCTGCGCTGTGGCGCTCTG
GCGCCGGGAGCTGGGCGTGTTCTGGACGGGCAGCGGCTTTGCGAAAGTCCTACCTCCATCTCCGTGGGCCCCAGC
ACCAGCCGACGGCCCGCAGCCTCCCAAAGACTCTGCCACGCCACTCTCCCCGCAGCCGCCCAGCGAAGAACCAGC
CACATCCCCCTGGCCTGCTGAGCAGTCCCCAAAATCACGCACGTCCGAGGAGATGGGGGCTGGAGCCCCCATGCG
GGAGCCTGGGAGCCCAGCTGAATCCGAGGGCCGGGACCAGGCCCAGCCGTCCCCGGTAACCCAGCCTGGCGCCTC
GGCCTAGGGGAGGGGTGAGACGCTCGCTGCCGTGCCCGCCACACCAAGATGTTGGGGCTGCCTGGCGCCCACTGG
AGACAGACAGACAGACGCCTGTCCCCCGGGACCGAGGCCTGTGCCGTCCCCACCCGCCCCAACATGGTGCTCATC
CTTGCCGAGACCCCTGCGGTCTGTGCCCGCGCCCAGCCCAGCTGCCCCGGCTGCACGCCTGCTGCTCCCAGCTCG
CCCGGCTGCCACAAGCTCTCTGCGGGTCCATCCTCCCCACCGGGGTCCGTCCTCGCAGGCCCTGCCCGGCCTCTC
TGCAGACCCTCAAGCGTCGTCTGCATGAGTGAGCAGGCGTGGGTGGACTCTGGCCGCGGCCACACTTGGTGCTCA
CCAGCTGCTTCGGCCTTCAGGTGACCTCCCTCCCCACGGCATCCTGCTCTCCGGGTGGAAGAGCAGCTTTCTGTC
TCCCAGAAGGCATCGCTTTTCCCTCTTGAGCAGATCGGAGCCCCTGGGAGGTTTGGAAGCTGCCTCCAAGCCTAG
GACACGGACCAGTGGCCGGGGCGGCCTCTGGCCCCTGACGCTGGCTGAGACAGGCCCGTGGGGCGGGGTTTTGGG
GCGTGAACAAGGCTGGCAGTAAGTGGACAAGCTGCTCCCCTGGCTAAGGCCCTGCCCTGCCCTCAGCCAGAGGTG
CCTGGCCATGCCTGCACACTCCTCCCCATTTTAATAAATGGTCGCAACTTCTAGAAGTCCTGCTGGTGCCACCTG
GTGGGGTGGACGTCTCTCAGACTGCCCTTCTGACAAGCAGGGGTGGGCGCCAGGCAGGCTGGGTCAGGCCCTCAG
GGGTCCCTGGAGCCCTGGGAGGGAGGGACTGGGTCGTGGGAGGTCCTGGTAGCTCCCGGCACCCAACCTCGCTTC
CCGTGTGGGCCCCGTGTTGCTTTTCTGCTGAGAGGGGCTTGGGCCTCGGTTCTCCCTGTGGCAGCGGCATTGGTG
CCTGGGTTCTTAACCCTCTGGACCCAGCAGCTAGGAGCTTCTGGAACCCACGAGGACATCTGCCACTGGCATGGT
CTACTCACTGATGGGGTCCTCCTGACTCCAGGGCAGAGACGTCCGTGCGGGAACTGACCGAGGCGTGGCCCCAGG
CCCCGGCATCCTCCCCTCGCTGCACGTGGTCACTTCCGAAGCAGCGCTCCCTGTGGCCGCAGAGACAGAGCCCGC
ACCCTGGCTGTCTGTGGTGCCTGGGCCCCAGCTCCCGCCCGCCACCCGCCCTGTTGAGTGCGGCCTCCAGACTCG
AGTCCAGAATCTGTTTCTGTCAAGTCAGTCGTCCCCAGCTGCACACGGGGACTGCTGAGCGCTGCGCTCTCACGG
GTCTGTTCCGGACAGAGGGTGGCAGGGGTGAGCCCTGATCCCTTACAAAAAATACCAGCTTCCCAGGGAGTAATG
GCGCCTTCACTGAAGCCATTTTGTACATGGGGACGGGGTGGGGACGTCTCTTTTTTGGTGTTGGACGTTTGACCA
GTGGGGAGGGGTTCAGAGGCGGCGGTCCTGTCCTTGGCTCCGTCTGTCCGTGTGGCCTTGCTGCCATTCCGTCTG
ATCATTAAACACAGCTTTTGATAC

FIGURE 3595

ACCCCCAAGGAAAAAGGTCACTGGCTAGTGTAGCTAGTGTAAACAGGACCCAGGCGATGCATGGGACCCTGCCCT
TTTTTTTCTAGTGAGCCTCCGACGCTGTTGCACAAGCTGACTCTTCGTCACGTGATGCGACCGGGCTCCGCCCCG
GCGGCAACACGCTGTATAGACGCGCCGGGTGCCTCGTGCGCATGCGCGGCAGGCCCTTCGGGACGAGCTGGAGGC
AGAGCGTGAGTACAAAGTGATCGGCCTCGGCCGCACGTAGTAGCCCCCCTACTCCCCGGCCAAGTCAGGGCCTCC
CTCTTCCCGCGGAGTCGCAACCACGGGTAGCTCGTGTAGGTAACGGCAGGTCCAGGCCTCCGCATGAGCGGAGGG
CCCCCCGCGCGACCTTGAATGGCCCGGGCGCGCGCGGTCGTGTGGGAGTTGTAGTCCTCCGTCCCCGTCCGCGCG
GACTCCGTTTCCCGTGGTGCCCCGGGCGGCCCGCTTCCGGCGCAGTTAGTTACGAGTCGGCGCACGCGGCCTCGG
TCCGGTTGACTTTGCGGAGCC**ATG**GAGGGCGGCTTCGGCTCCGATTTCGGGGGCTCCGGCAGCGGGAAGCTGGAC
CCAGGGCTCATAATGGAGCAGGTGAAAGTGCAGATCGCCGTGGCCAACGCGCAGGAGCTGCTGCAGAGGATGACG
GACAAGTGTTTCCGGAAGTGTATAGGGAAACCTGGGGGCTCCCTGGACAACTCCGAGCAGAAGTGCATCGCCATG
TGCATGGACCGCTACATGGACGCCTGGAACACCGTGTCTCGCGCCTACAACTCGCGGCTGCAGCGGGAACGAGCC
AACATG**TGA**CCGGCGAGCGCGGGCCACCCCACCCTGTTCATTTCCATAAACGTGCTTTGAGAGGCGGGGTCCGCA
TGTACGTACTGCCTGCCCGGGGCTTAGGAGGGTGGCACCGGTGCTGGGACACACGGGACTGTGTCCTCGCCACCC
CCCGCCCTGCCCCCTGCCAGCCAGTGCAGCTTGGATCTCGGGGGTGTGGGGCCCTGTGCCTTCCTGAAGTGCTGG
CAGCCCAGTGGCACCTCCTTCAGGCCTTTGGGGTATTCCCCTAGTGTGCCCAAGTCAGCCTCATATTCTGGGCGG
ACAGCTTGTCTGGACTTCGGAGTTGGGGGTGGTCAGACACCACAGGAGCTGTCACCTCCTGCGGATGGGCAAATA
AATTGGTGGAGGACGGAGAGAAACCTCTTTATTTCCCTCCTGAGGGGTCTCTGGGAAGAGGTGACGCGTGTCCCT
GGAACCCCAGCTCGGAGGGTCTCAGCCTCCCCTGGGTTGGGAGAAGTCCATCTTTCCCCTTAGTGCCACCGGGCT
GCTGAGTCACGAGGAATGTGTTGCTGCTGCCACCCCTGCCCCAAAGGCTAAGGGGGACAGCCTTCCCCTTGTCAG
GGCTTGCTTTGACCCTGCTTCGTTCCACCCCGGGTCCTGGTGGAGCACCAGGCAGGTGGTCCTCGCTGTGACACT
GAGGTGCTGAGCCAGTGAGCTAGGGTGGAGGGGCTGTGTTTATTGGAACAAAGGGTGGTACCAAAATGCATCCCC
ATGACCCACAGCCCCCCCACACCCGTCCTTGGGTAGGGTACGGTGGGGTGGGGTGTTGGGTGGCCTGCTGCTCCT
GTTGCTTTCACGTAGAGTCTCGGCCTGGGCAGTCACGTGGTGGTCACTCCTGGATGTGCTGTCCTATCCAGCCTC
TCACAGCTGCCACCCGGGTATAGACACCTGGGAAGTGGGGCCGGCCACAGCCATAGCCCCAGCTAGTGACCCCAG
TTAGCACCCACCGTCCAGAGGGCTCCCTGCAGGCCAGGGGTCCCCCAGCGTCACCCTGTTGGGGAGAGAAGAAAG
GGGGTTCAGAGGCCGGTACCTCCCCTACAGCAGCCCTTGGGTCATTGGCCCCTCTAGGAGTGACCCTAGTGACTT
CCCCTGGGAGCCGCATTTTCACTATCTGGAAAATGGGCTCAATGCAAAGGTGGCAGACATTTATGGACACCCGCC
ACGTGGTCCCGGAGTGGAACGGTGCCTCCCACTGCAGCCTCTGCCTGCTCTGCCGCCGAGGCCCGGGGATGGGAT
GCGGTGGGTTGCCCAATAAACGGCTGTGGAGTGGAAATTCCTCCAGAGCCAAAAAGGC

FIGURE 3596

TTTTAATGGATATTTATTTTTTTACATTGGTCAGTACACAGGTCAGGAGCTCACGCCAGGGCCTTGAGGACAGGC
TGACCCTCCTCCCCGGGGTGGCGTGGGGCTGGGGCACCCTCCGACGGCAGAGCCTCCTTCAGAAAGTGCAGCTCA
AGTCTTAAAGACACCAAAACTGAGCCATGGGCACGCGCCGTCTCCGGGCC**ATG**GCGTTCACTGCAGGGCGGGGGC
GGCACCGCTCCCCTGTGACTGCATCCCGCCTCCCTGGGGACCTGCCTGTGGCAGGAAGGAATGGGGGGCCCCAGC
CCCAGGCCGGGAAGGAGCCAGCGGCCGACAAAGCAGAAACACCCGCTGCTCCACGTAGCCCCTGCTCGCTGTCCT
TGCTCTCAGAAGTCCCGGTCCCATGTAGA**TAG**AGGGGGGCGCATCTTACCAAAGCATTTCCTCCTGGAGGCTACG
CCGCTGTGCTCCCAGTCAGGCGGCTGGTAGGGAGCTTTGCCTGCCCCGGGGATACCCTCTGCCAGCCGCTGGAAG
TGGGAATGCTGGCGACAGACTGTGTCCTCTTTCCCACCTTCATAGCAGGAATCACCCGGACCCGACTGGCTGGGC
TTCGTGCTAGCGAGGGTTCTGGGGGTGGGTCTTGGTGATCTTGTCCTATGGGGAGTCTGCAGTGGTCTCAGCCAC
ATCCTATGTATTTTGGCTCTGGAGGAGCAAAGCTGTATCCTGGAGTTGGTCTGTGATTTGCCGACAGCCTTGCAG
GCTGGGCTCAGGGACAAAGTCCCCCCCAAAACCCGCAGGTCCTCATGTCCAGACGCTGCCCAGTCCTGTCCTGAA
AACAGCACGCCCCAGGCCCACAGAACCCCCCACCCTACATTTGCCTTGGGTGGAGCTGGGGGTGGTCCTAGGACT
GCGGGTGCCCTTAGCTGAAGGGGGTGGGGAGAAGCGTGGACTGGGCAGCCTGTGGGTAATTGGAGGTTCATTGAG
AATTGAGTCTTTGGAAACACTAAGAAAATCAAATTTTTAAAAGTTATTTATGGCCTGGGAAACAATTTGCATTTG
TCCCCAAATACGCTTAGCTGTGTGCCGCTTAGAACGATGCGAAACCATCCCTCTGTGTAAGCCCGTGCCGTGTGA
CTCGAAGCCTAGCGCCCTCCCTGCGAAGCATCAGACGCCACCCAGCCCTGGGGGGAGGCCCACGCCTGCTGGACC
AACGCGGGTTCTGGGGTGCACAGCGCCAGGTTAACGCTGAAGCCTGCCCCGCTGAGCCCAGGAGCCGGGAGGCCT
GCGGGCTGACCCAGAATCCGATCATGCACCTGTCCTCATGCCAGCGGCTTTGGCTGGGGTTGGTCTGAAGCCTGC
ACGCGGCAGTTCTTTGTTAAAGATCTGAGGGACTCCTCAGTCCTGGGGCGTCGCCGCCTGCAGCCTCTTCCAAGC
CCTGCGTCCAGCGAGCGTCACAGCACAACCTGCAAAAACGGAGCTGGGCTGCAGCTGGGGCTGGCATGGACTTTC
ATTTCAGAGATTCGGTTTTTAAGAAGATGCATGCCTAATGTGTTCTTTTTTTTTTCCAATGATTTGTAATATACA
TTTTATGACTGGAAACTTTTTTGTACAACACTCCAATAAACATTTTGATTTT

FIGURE 3597

AGCTCTGACCAGAACGACAAGGCGGCCAGTGCGGCTCGCGAGGAGCTGAAGGAGGCCCGC**ATG**CGCCTGGAGTCC
CTCAGCTACCAGCTCTCCGCCTCACTTCGCTGCCACTTCGCCGCTGCCCCGGAGACTTTTCAATCCCACCCCACT
CCTCATCTCACCATTTGGTCAAATTGGAAGCCCAGGGCCAGGACCCGGAGGTTTAGAAGATGCTTGGGCTTGGAG
GGAGGAGGGCCGGCGAGGCTAGCGAGGGGACAGGAGACGGCCCTGCTGCGGACGGAGCGCGGAAACTGCGTAGGA
ATTCAGTGGTGGTGGGTTTTTTTAAGGCTTTCTACAAAACCAAATTCAGAATCCAGGCGTCGACCTGGTGGGGCC
CGGGGCCAAGCCTGCATTCTGGCTGCCCAGCTTCGGACAGCGGGAACTCCTCAGGCAGCCACGCAGCGGGTGTGG
GCCAGCATGGGGATGGCGTGGCCCCCAGGGCGGGTTTTCACTCCGCTGCCTGGGCTTCCAGATTCCCGTTCTGGC
AGCGCACCGGCCGGGTTTCTCGGACCGTTGACTTTATTTGGGGGAGTTTTCCCGCAGTTCAGTTCC**TGA**CTGTGC
AAGGCCAACAGGGCAGGGGAGGGGAAGACCTGGGGAAGGAAGAATGAGGACAGTCCCGTCGTAAGACCTGTCACA
ACAATA

FIGURE 3598

CGTCGGACTACCGTTGGTTTCCGCAACTTCCTGGATTATCCTCGCCAAGGACTTTGCAATATATTTTTCCGCCTT
TTCTGGAAGGATTTCGCTGCTTCCCGAAGGTCTTGGACGAGCGCTCTAGCTCTGTGGGAAGGTTTTGGGCTCTCT
GGCTCGGATTTTGCAATTTCTCCCTGGGGACTGCCGTGGAGCCGCATCCACTGTGGATTATAATTGCAAC**ATG**AC
GCTGGAAGAGCTCGTGGCGTGCGACAACGCGGCGCAGAAGATGCAGACGGTGACCGCCGCGGTGGAGGAGCTTTT
GGTGGCCGCTCAGCGCCAGGATCGCCTCACAGTGGGGGTGTACGAGTCGGCCAAGTTGATGAATGTGGACCCAGA
CAGCGTGGTCCTCTGCCTCTTGGCCATTGACGAGGAGGAGGAGGATGACATCGCCCTGCAAATCCACTTCACGCT
CATCCAGTCCTTCTGCTGTGACAACGACATCAACATCGTGCGGGTGTCGGGCATGCAGCGCCTGGCGCAGCTCCT
GGGAGAGCCGGCCGAGACCCAGGGCACCACCGAGGCCCGAGACCTGCATTGTCTCCTGGTCACGAACCCTCACAC
GGACGCCTGGAAGAGCCACGGCTTGGTGGAGGTGGCCAGCTACTGCGAAGAAAGCCGGGGCAACAACCAGTGGGT
CCCCTACATCTCTCTTCAGGAACGC**TGA**GGCCCTTCCCAGCAGCAGAATCTGTTGAGTTGCTGCCACAAACAAAA
AATACAATAAATATTTGAACCCCCTCCCCCCCAGCACAACCCCCCCAAAACAACCCAACCCACGAGGACCATCGG
GGGCAGAGTCGTTGGAGACTGAAGAGGAAGAGGAGGAGGAGAAGGGGAGTGAGCGGCCGCCCCCAGGGCGGAGAT
CCAGGAGCTGGCGGCCGCCGATCCGATGGAGAAGGGGGGACCCAGGCCAGCAGGAGACAGGACCCCCGAAGCTGA
GGCCTTGGGATGGAGCAGAAGCCGGAGTGGCGGGGCACGCTGCCGCCTTCCCCATCACGGAGGGTCCAGACTGTC
CACTCGGGGGTGGAGTGAGACTGACTGCAAGCCCCACCCTCCTTGAGACTGGAGCTGGCGTCTGCATACGAGAGA
CTTGGTTGAACTTGGTTGGTCCTTGTCTGCACCCTCGACAAGACCACACTTTGGGACTTGGGAGCTGGGGCTGAA
GTTGCTCTGTACCCATGAACTCCCAGTTTGCGAATTATAGAGACAATCTATTTTGTTACTTGCACTTGTTATTCG
AACCACTGAGAGCGAGATGGGAAGCATAGATATCTATATTTTTATTTCTACTATGAGGGCCTTGTAATAAATTTC
TAAAGCCTC

FIGURE 3599

CATGTTTTTGGATTTTTTTTTTTTTTCTTTTTTTGAGATGGAGTTTCATTCTTGTTACCCAGGCTGGAGTGCAGC
TGC**ATG**ATTTCAGCTCACCGCAACCTCTGCCTCCCCGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAGCT
GAGACTACAGGCGTGTGCCACTACGCCCGGCTAATTGTTGTATTTTTAGTAGAGACGGGGTTTCACCGTATTGGC
CAGGCCGCTCTCAAACTCCTGACCTCGGGATCCGCCCACCTCGGCCTCCCAAAGTGCTGGGATTACAGGCATGAG
CCACCGCGCCCAGTGTGTTTTAAGCATGAGGCATCCGCGTGGCTGGGAGAGGCTTTGACCATCCTTGGCTCTTCC
AGGTTGTCCTACCCTCTGGCATCCACCATAGACGTTTTTCAAACAGAAAATGCAGGCTGGGGAGCCGCGGCAGGG
CGGGTGGGGCTACCCTGTGCTGCTGTGTGTACAAAATTGTTCCATGATCTTGGAGTGACTCTGAAGGACTCTGGG
AGG**TGA**GACGTTGTCCCGGAGATCAAAACGTCCGCTCAAAACGTTACCCTGTCGCTCGAACCCGATCTTTTTGCT
TTTCCACCCCCGTGCAACCCAGGACGGCTGTCTGAGGCCGGGAGATGCCTTAGACGCAGGATGGGCCACTCCTCC
CAGCGGCAAGTGGAAATCGAAGATGTCATGGGGTCGGGGGGAGGCTTCTGAAAGATGACTGCGTCCTCCTCTGCG
GCACGGACGGGAGCAGGTGCAGCCACATCTTCCAGGGCCTGCCGGCATCACCTGCGGCCACACCTGAGATGGACC
CCACGCAGCCCTGATCGCAGGAGGCCTGGCCGCCCCGACCCCCTCCACGGGGCTGGCCTAGAAGCAAGTAGTAGA
ATAAAACTAGCCTAGTCCTGTCCCTCCGGCCCCAGTGGAGACAGGCGTCTAAGAACCCGTGCCGAGAGGGTTCCT
GGACGGCCGCCCAGGTCCTCCGTGCAGGCCCGTGAGGCGGGGATCCCTGCTTGGCTCACTTCCTGAGCTGGTGAC
TGCCAGGGTTCCCACCTCGCCAAGGCTAGAGGGCTCCGGGTGTGTGTGCAGGTGTCGGGGGAGTGACCTCCACTC
CTCAACCTCGGGCAGCTCCCACAGGCCACAGCCGGGCTCCCCACCCCCGGCACCCAGCTCTCTACGGCAGGTCCG
GGAGGGCTGGGGCTTCGGGGAGCCCTACCCGCCAAACCTGCTGTTGGCCCGGGAGAGCCCCAGAGGCTCCCGGAG
ACTGCAGCCTCCTGTGGTTGGGCTGGGAGCCGGCAGGGTTTGGGGTGTGGGCGTCCCCACCACGCATAGCAGGAA
TGGCAGGAAGGGACAAAAGCCTGTTCCAGAGACCCTGGGAGGACCCCAGGCAGGGAGAGCCCGCCTGCCTCCACC
CTTTCCAACAAGCCATCTTGGTAACTGGGAACAAACACACCCCACCCCGTTTTTCCTTAAAAGAGGCCTTAATCC
CCGAGCCCCCGCTGCCAGGGCAGAGGGAGGAGGGGGCACAGCTGTGCCAAGCCCGGCCCCACTGGTGTGTCCTCA
CAATGTGACCCCAGAAATGCCAGCAGGGAACGGAGGCTGCTGCAGAGACGCAGCCCCAGGCAGCCGGGGCTCCTA
GGCTGGTGCAGATGGTGGGGTTAAACGGGCTGAGCGTTCCAGGTAAACTGAGGCTCGGGGAGGGGAAGGACAGGC
TGGCCTCTCCTTCACTGTCCACAGGGCCTTGGGTTCCCTGAGCTGTCCAGACCCCACCATCTCCCGGACCCCAGG
GAGGTGGCCATTGCCAGAAGCCTGTGGGTTTCTTTCTAGCTTGGGGGATTAAAAAAAAAATTCTCCACTTTTTTT
TTTCTTGAGTAGACTTCAGTGACCACACTGTGGAAAATACCTTTGCAGACGTGGCACCCGAGTGCACACACCGAC
CGCCACATGTGCTTTTCTGCCGGGAATCCCTGGGGTGAACGCATGTTTTATGGGCGTTTCCAGGAGCGCGCGTGC
ACCTCCAGACGGGGAGCTGGCGGGCGGGGGTGGCAGCAGCAGCTCTAGCCTTGGGGGGACAAGCCTCTCTCAGCT
ACGCCAGGGGAAAAGAGAGTTAAGGACACTCACCCCCACCCACGCACACACACAAGGCAGCGTCGGGTGGGAGAG
AGAAGGCCGTTTCTCCTTCTGTAGCCTGGGTCTCCCACGGGCCTTCCCCGCTGCTGAGCGAGACACCAGTAGCCA
GGTGAAGGGCCACAGCGGGCCAGGCCCCGACCCTGTTGTGACCCACCTGGGCACCTTCCCGGACCAGCTCCGCCT
CCCCTGCCCTCCTCTCTCCAGGAAGGAGCCAGAACCCTCACCCCTCTCCCACCCTCCCCAGGGGTAACCCCAGGC
CAAGCACAGATAGCTCAGCTGCGACCTCTGGCCTCTGGGGACATAAACGGGGCGGCTGGGCCAGGGCGGAAGGTG
CTCCTGTTTCCCTCCTTCTGCGTGGTCCCTTTGACGGGCCGGCCACCGTGTCCGAGGCGCAACGCTAGGCCTCCA
GGCCACGCATCCATCTCCAAGTTAACAGCCCGTCCTGCCCAAGTTCTGGGGCAGGTAGGAGAGGGCCGTCACACA
CCTGTCCGCCCGTGAGTGACCCGGGGGGGCTTCCGGGTGGAGGTGGAGCCACCACGCCCTTCCTCAAGGGGTCAC
TTATTAAAAAGTCCACGGCCTGAGGCCAGGCCCTCTGCACAGAAGCCATATGCC

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FIGURE 3600

GGGCAGGGGCGTGGGCGGGGCGTGGACCAGCCGCGCCGAGCGGGGCCTCTCCGGGCCGCGTCTGTGGGGTCGAGA
CTGCGCGGCCGTTGGGCGTGCAGCGGCGCCAGTCGGCGGACGAGGGGCCCCCGGGAGTTGCTGGACTGAGACATG
AGCCTCCAACTGTGTGGTTGGGCTCGGTAGCACATCGTGGGACTTGGGTGTGCGCCCACAGATGGTTTGGCCCTG
CAGTGACCAGAGCAGCCCAAGCCGCCACC**ATG**GTGAAATTGCTAGTGGCCAAAATCCTGTGCATGGTGGGCGTGT
TCTTCTTCATGCTGCTCGGCTCCCTGCTCCCCGTGAAGATCATCGAGACAGATTTTGAGAAGGCCCATCGCTCGA
AAAAGATCCTCTCTCTCTGCAACACCTTTGGAGGAGGGGTGTTTCTGGCCACGTGCTTCAACGCTCTGCTGCCCG
CTGTGAGGGAAAAGCTCCAGAAGGTCCTGAGCCTCGGCCACATCAGCACCGACTACCCGCTGGCCGAAACCATCC
TCCTGCTGGGCTTCTTCATGACCGTCTTCCTGGAGCAGCTGATCCTGACCTTCCGCAAGGAGAAGCCGTCCTTCA
TCGACCTGGAGACCTTCAACGCCGGATCGGACGTGGGCAGCGACTCGGAGTATGAGAGCCCCTTCATGGGGGGCG
CGCGGGGCCACGCGCTGTACGTGGAGCCCCACGGCCACGGCCCCAGCCTGAGCGTGCAGGGCCTCTCGCGCGCCA
GCCCCGTGCGCCTGCTCAGCCTGGCCTTCGCGCTGTCGGCCCACTCGGTCTTTGAGGGCCTGGCCCTGGGCCTGC
AGGAGGAGGGGGAGAAAGTGGTGAGCCTGTTCGTGGGGGTGGCCGTCCACGAGACACTGGTGGCCGTGGCCCTGG
GCATCAGCATGGCCCGGAGTGCCATGCCCCTGCGGGACGCGGCCAAGCTGGCGGTCACCGTAAGCGCCATGATCC
CCCTGGGCATCGGCCTGGGCCTGGGCATTGAGAGCGCCCAGGGCGTGCCGGGCAGCGTGGCGTCCGTGCTGCTGC
AGGGCCTGGCGGGCGGCACCTTCCTCTTCATCACCTTCCTGGAGATCCTGGCCAAGGAGCTGGAGGAGAAGAGTG
ACCGTCTGCTCAAGGTCCTCTTCCTGGTGCTGGGCTACACCGTCCTGGCCGGGATGGTCTTCCTCAAGTGG**TGA**G
CGGCCTCGCCATTGTCCCTGCCGCCGGAGCCCGCCGGGAGCCCCGGGCCGGACACAGGCCGCGTCCCCCGGCCGC
GCGTCCCCCAAGAGCGAGCACTGTGGCCCTGGGCCACCACCTGTGCACAAGGGGCCTCCCGGGACCAGGCTGTGC
CCCCGATCCTACACCCTGAGCCTCAGAGCACTGCTACTTTTTAAAATACTTCTTTCTCTTAAAAGTCTTTACC

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FIGURE 3601

GGCGTCGCGCCCTGGGGCCGGGGCCGGGCGGCACCGCGGTGCGCAAGCGCAACCGTCGGTGGGTCGGGGATCGGT
CGCCTGAGAGGTATCACCTCTTCTGGGCTCAAG**ATG**GACAACAAGAAGCGCCTGGCCTACGCCATCATCCAGTTC
CTGCATGACCAGCTCCGGCACGGGGGCCTCTCGTCCGATGCTCAGGAGAGCTTGGAAGTCGCCATCCAGTGCCTG
GAGACTGCGTTTGGGGTGACGGTAGAAGACAGTGACCTTGCGCTCCCTCAGACTCTGCCGGAGATATTTGAAGCG
GCTGCCACGGGCAAGGAGATGCCGCAGGACCTGAGGAGCCCCGCGCGAACCCCGCCTTCCGAGGAGGACTCAGCA
GAGGCAGAGCGCCTCAAAACCGAAGGAAACGAGCAGATGAAAGTGGAAAACTTTGAAGCTGCCGTGCATTTCTAC
GGAAAAGCCATCGAGCTCAACCCAGCCAACGCCGTCTATTTCTGCAACAGAGCCGCAGCCTACAGCAAACTCGGC
AACTACGCAGGCGCGGTGCAGGACTGTGAGCGGGCCATCTGCATTGACCCGGCCTACAGCAAGGCCTACGGCAGG
ATGGGCCTGGCGCTCTCCAGCCTCAACAAGCACGTGGAGGCCGTGGCTTACTACAAGAAGGCTCTGGAGCTGGAC
CCCGACAACGAGACATACAAGTCCAACCTCAAGATAGCGGAGCTGAAGCTGCGGGAGGCCCCCAGCCCCACGGGA
GGCGTGGGCAGCTTCGACATCGCCGGCCTGCTGAACAACCCTGGCTTCATGAGCATGGCTTCGAACCTAATGAAC
AATCCCCAGATTCAGCAGCTCATGTCCGGCATGATTTCGGGTGGCAACAACCCCTTGGGAACTCCCGGCACCAGC
CCCTCGCAGAACGACCTGGCCAGCCTCATCCAGGCGGGCCAGCAGTTTGCCCAGCAGATGCAGCAGCAGAACCCA
GAGTTGATAGAGCAGCTCAGGAGCCAGATCCGGAGTCGGACGCCCAGCGCCAGCAACGACGACCAGCAGGAG**TGA**

CGCTGCCTGCTCCCGGTGTGACCGCGTCCTTCCCTGGCCGACCCGAAGGAAGCCTTCTGGTTGTCTGCCACTTCC
TCCTGTTGGACTGCCTGAGAGAGGGGAAGAGAGAGACCTCGGACCTGCATGTCAAGATGGATTTTCCCCTTTTAT
CTCTGCCCTCCTCCACTCCCTTTTTGTAACTCCCTTACAGCCCCCAGACCCTTCTTGAAACGAGAGCCAGCAAGC
TGAGCACAGACCAGCAGCGACCTCCCTTCCAGCCCCCAGAAAGCTCGGTCACTTGAGTGTTTTCTAGAATCCTGG
GGTGCTCCCGGGCCGCTCTCAGAGAAGTGGCAGGTTTCACGTTCAGCCGTGTGGCGGATCGTGTGGCTTCCAAAG
CCTTTTACAGCCCCCGCCCCCCATCCCGTGGTCTGTCTGCAGGAACTCTCCCGTCTGTGAGAAGCCTCTTTCCGA
GTCGACCTCCCGGCCACCCCGGCCCTGTGCCTGCTCGGAAGAGCTCACTGCCAGCTGCGGCCTGGGCACCGCGGG
CCATGTGTGTTTGCATGAGGAACTCTTTAGTGGCAGACACCTAAGAGACGGCTGCGGTCACCCCACGCCTCCGCG
GCTCAGGAGCCGTCCTGGGTGCATAGGACCAGTTTCTGTGACTTTTCTCCAGTTGGGCATGTTGACAGACATGTT
TCCCCTCCTCCCACCCTCATTTTCTGGTCCTCGCGACTGAGAGCCAGGGGCGACATCATGACCTTCTGTCCCGGC
CGCCTTAGCCCCGGGCACAGGGAAGGCAGCTGGGCCGTTTCTGTCTGTGTCCCATCCTGCTGTCCTTCTGTCCTG
GATGTTTCATGGGCCCGGGGCCCCCCAGGGAAGCTTACCCCTCCTGTGCTGGGTGGAGGCCACGGGACACCTCAG
GTGCCACCCACCTTGGCCCTAAAACAGCCACCAGGAAAGCAGCCGGAGAGCCGGACAGCAGGCAGCCTGTCTGGG
TTCCTGAGGCCTGGGGGTGGCAGACGAGCCCACGGCGCCGTGGTCCCAGCAGCAGGGTTGTCAGTCGGAGCATCC
TGGGGCTCCCTGGCTCCTGGCCGTCTGTGAGGTAGGCGCAGTACCGTGTATCGTAGGTAGCAGTAGGAACGGGGG
CCGCCGCGGCCCTGCAGCCGCTCATGGCGGTGAGGTGTGTGCCAAGCCCACCCGGGGTGCAGGGCGTGACGTGTG
GGGAATAAATAGGCGTTGTGACCTCT

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FIGURE 3602

GTGGCGGCGGTTGGGCCGAGGCAGGCGGCCTCAGTGGCCGAGGTGGCTGGACGCGTAGCAGGTGGAAGGAGGGAG
GGAGCCGCAGGCGCAGACCCACCCGCC**ATG**AAGCCCCCCGCAGCCTGTGCAGGAGACATGGCGGACGCAGCATCT
CCGTGCTCTGTGGTAAACGACCTGCGGTGGGACCTGAGTGCCCAGCAGATAGAGGAGCGCACCAGGGAGCTCATC
GAGCAGACCAAGCGCGTGTATGACCAGGTTGGCACCCAGGAGTTTGAGGACGTGTCCTACGAGAGCACGCTCAAG
GCGCTGGCCGATGTGGAGGTCACCTACACAGTTCAGAGGAATATCCTTGACTTCCCCCAGCATGTTTCCCCCTCC
AAGGACATCCGGACAGCCAGCACAGAGGCCGACAAGAAGCTCTCTGAGTTCGACGTGGAGATGAGCATGAGGGAG
GACGTGTACCAGAGGATCGTGTGGCTCCAGGAGAAAGTTCAGAAGGACTCACTGAGGCCCGAGGCTGCGCGGTAC
CTGGAGCGGCTAATCAAGCTGGGCCGGAGAAATGGGCTTCACCTCCCCAGAGAGACTCAGGAAAACATCAAACGC
ATCAAGAAGAAGCTGAGCCTTCTGTGCATCGACTTCAACAAGAACCTGAACGAGGACACGACCTTCCTGCCCTTC
ACGCTCCAGGAGCTAGGAGGGCTCCCCGAGGACTTTCTGAACTCCCTGGAGAAGATGGAGGACGGCAAGTTGAAG
GTCACCCTCAAGTACCCCCATTACTTCCCCCTCCTGAAGAAATGCCACGTGCCTGAGACCAGGAGGAAAGTGGAG
GAGGCCTTCAACTGCCGGTGCAAGGAGGAGAACTGCGCTATCCTCAAGGAGCTGGTGACGCTGCGGGCCCAGAAG
TCCCGCCTGCTGGGGTTCCACACGCACGCCGACTATGTCCTGGAGATGAACATGGCCAAGACCAGCCAGACCGTG
GCCACCTTCCTAGATGAGCTGGCGCAGAAGCTGAAGCCCCTGGGGGAGCAGGAGCGTGCGGTGATTCTGGAGCTG
AAGCGTGCGGAGTGCGAGCGCCGGGGCCTGCCCTTCGACGGCCGCATCCGTGCCTGGGACATGCGCTACTACATG
AACCAGGTGGAGGAGACGCGCTACTGCGTGGACCAGAACCTGCTCAAGGAGTACTTCCCCGTGCAGGTGGTCACG
CACGGGCTGCTGGGCATCTACCAGGAGCTCCTGGGGCTGGCCTTCCACCACGAGGAGGGCGCCAGTGCCTGGCAT
GAGGACGTGCGGCTCTACACCGCGAGGGACGCGGCCTCGGGGGAGGTGGTCGGCAAGTTCTACCTGGACCTGTAC
CCGCGGGAAGGAAAGTACGGGCACGCGGCCTGCTTTGGCCTGCAGCCCGGCTGCCTGCGGCAGGATGGGAGCCGC
CAGATCGCCATCGCGGCCATGGTGGCCAACTTCACCAAGCCCACAGCCGACGCGCCCTCGCTGCTGCAGCATGAC
GAGGTGGAGACCTACTTCCATGAGTTTGGCCACGTGATGCACCAGCTCTGCTCCCAGGCGGAGTTCGCCATGTTC
AGCGGGACCCACGTGGAGCGGGACTTTGTGGAGGCGCCGTCGCAGATGCTGGAGAACTGGGTGTGGGAGCAGGAG
CCGCTGCTGCGGATGTCGCGGCACTACCGCACAGGCAGCGCCGTGCCCCGGGAGCTCCTGGAGAAGCTCATTGAG
TCCCGGCAGGCCAACACAGGCCTCTTCAACCTGCGCCAGATCGTCCTCGCCAAGGTGGACCAGGCCCTGCACACG
CAGACGGACGCAGACCCCGCCGAGGAGTATGCGCGGCTCTGCCAGGAGATCCTCGGGGTCCCGGCCACGCCAGGA
ACCAACATGCCTGCAACCTTCGGCCATCTGGCAGGTGGCTACGACGCCCAGTACTACGGGTACCTGTGGAGCGAG
GTGTATTCCATGGACATGTTCCACACGCGCTTCAAGCAGGAGGGTGTCCTGAACAGCAAGGTTGGCATGGATTAC
AGAAGCTGCATCCTGAGACCCGGCGGTTCCGAGGATGCCAGCGCCATGCTGAGGCGCTTCCTGGGCCGTGACCCC
AAGCAGGACGCCTTCCTCCTGAGCAAGGGGCTGCAGGTCGGGGGCTGCGAGCCCGAGCCGCAGGTCTGC**TGA**GGC
CTGGCACTGCGACTGCCCAGTCTGGCCTGCGCTCCCGCCGCCCTGGTGCCTTAGCCCCCGGCACAGGATGGGGCA
GGCTCTGGCACAGTGCCTGGGACTGGCAGGGTGGCTGAGCGGCTGTCTTGCCTCTTGTCATTGTCTGTCCCCACC
CGGTCGTGGCCCACCCGGCTAGAGACGGCGTCCTCAAGGCATCTGGAGGGCTTTCGTGGCTGCCAGGGCCTGGTC
TTTGTTGCACTAACACGTCTCCTCTCTGGGAAACGTCCCTTGTCAGGAGACGGCTCTTCTTTGAAATGAGGTCAT
TAAAAGGAAAC

FIGURE 3603A

TCTAATCAGGCCCCTGGGACGGGACGCCTCTGTCCTAGCCGTGAGTGCCCCGCCTGCCCCTAGCGGTCCCTGGCG
TCCCGGTTCCTGTCGCGCTCACCTGCGCCGGTAGCGAAGAAATCGCCCCGGGACATGGACTCAGTGGTCTTTGAG
GATGTGGCTGTGGACTTCACCCTGGAGGAGTGGGCTTTGCTGGATTCTGCTCAGAGGGACCTCTACAGAGATGTG
ATGCTGGAGACCTTTCAGAACCTGGCCTCAGTAGATGATGAAACTCAATTTAAGGCCAGTGGGTCAGTTTCTCAG
CAGGATATTTATGGAGAGAAAATACCCAAGGAATCTAAAATAGCCACGTTCACCAGAAATGTTTCCTGGGCCTCT
GTTTTAGGAAAAATTTGGGACAGTCTTAGCATCGAAGATCAAACCACAAACCAGGGGAGAAATCTCAGTAGAAAT
CATGGGTTGGAGAGACTCTGTGAAAGTAATGATCAATGTGGAGAAGCCCTCAGCCAGATTCCACATCTTAATCTG
TACAAGAAAATTCCACCTGGAGTAAAACAGTATGAATACAACACGTACGGAAAAGTCTTCATGCATCGCCGCACA
TCCCTCAAGAGTCCCATCACAGTTCACACTGGACACAAACCATATCAGTGCCAGGAATGTGGGCAGGCCTACAGT
TGTCGTTCACACCTAAGA**ATG**CATGTGAGAACCCACAATGGAGAGAGACCCTATGTGTGTAAATTATGTGGGAAA
ACCTTTCCTCGTACTTCCTCCCTCAATCGGCATGTAAGGATTCACACTGCTGAGAAAACCTACGAATGTAAGCAA
TGTGGGAAAGCCTTTATTGACTTCTCAAGTCTTACTAGTCATCTCAGAAGTCACACCGGAGAGAAGCCATATAAG
TGTAAGGAATGTGGGAAAGCTTTCAGTTATTCCTCAACGTTTCGAAGACACACAATAACACACACTGGCGAGAAG
CCATATAAATGTAAGGAATGTGCGGAAGCCTTTAGTTATTCCTCAACTTTTCGAAGACATATGATTTCACACACT
GGAGAGAAGCCACATAAATGTAAAGAATGTGGGGAGGCCTTCAGTTATTCTTCGGCTTTTCGAAGACACATGATA
ACACACACTGGAGAGAAACCCTACGAATGCAAACAATGTGGGAAAACCTTCATTTATCTCCAGTCCTTTCGAAGA
CATGAAAGGATTCACACTGGAGAGAAACCCTACGAATGCAAACAGTGTGGGAAGACCTTCATTTATCCCCAGTCC
TTTCGAAGACATGAAAGGACTCATGGTGGAGAGAAACCCTATGAATGCAACCAGTGCGGGAAAGCATTCAGTCAC
CCCTCCTCCTTTCGAGGACACATGAGGGTGCACACTGGAGAGAAACCCTATGAGTGCAAGCAATGTGGGAAAACT
TTCAATTGGCCCATATCTTTACGAAAACATATGAGAACACATACTAGAGAGAAACCCTATGAATGTAAGCAGTGT
GGGAAAGCCTTCAGCTTGTCTGCTTGCTTTCGAGAACATGTGAGAATGCACCCTGAAGACAAATCCTATGAATGC
AAGCTATGTGGGAAAGCTTTCTATTGCCACATATCCTTACAAAAACATATGAGAAGACATACCGCAGAGAAACTC
TATAAATGCAAGCAGTGTGGGAAAGCTTTCAGTTGGCCTGAACTTTTGCAACAACATGTGAGAACGCACACTGTA
GAGAAGCCCTATGAATGTAAGGAATGTGGGAAGGTCTTCAAATGGCCATCATCTTTACCAATACATATGAGACTG
CACACTGGAGAGAAACCTTATCAATGTAAGCATTGTGGGAAAGCATTCAATTGTTCCTCATCCTTAAGGCGACAT
GTGAGAATACACACTACAGAAAAACAGTATAAGTGTAATGTAGGACATCCTCCTGCAAATGAATTCATGTGCAGT
GCTTCAGAAAAGTCACACCAGGAGAGAGATCTGATCAAAGTTGTAAATATGGTGTTGCCTTTA**TGA**GTTCCTTAT
CCTGAAAGTGGACACTCAAGGAGTGTGTCTGTAGTTCATTTGCAAATAAACATTTAGTTGAAAAATAATTCTCCA
AATACTCTCAGCTATCCTACATGAATTTGAACAGGTAGTTTCTTACGATTCAGTAAATAAAACTTTCATCTTAGA
GTGTTTTGGACTCATGGATGATTTGAAGTGTATTTTTAATATGCAAGTAGGTTCAAGTTTTATTTAATTTCTTAA
ATTGTAACTGACTTAGTGTGACAGGTATTGGATATTACGTATCTATTATATTTTCCACCTTTTTTACTGGGAGTA
TTTTTATTGTTTGGCCAGAGGAGCCTTATTCCATTTTTTAAGAAGTAGTTGGCAGAATTTTGTAATTATGCAAAG
TTGTTTAAGGAGTATAGCCTCAAATGAATTGTAATTTTTAATGTTTGCCCATTGCTGTTTGTCTTTGCTTGTGAT
TGTGAATTGGACAGTAGGCTTTGACTTGTGATGTGACGGAGAAATCCAGAGTTGCAGATAGTTCTTCTGCATTGT
TGTCAGTGTGGGTAGTGTTAGGAACTTCATTTGCTGGAATGCATTTCCTTTATGGTTCCATGTCCAAATTTACCA
ATAGCAATAACTTGAATGAAATTTAGAATGAAGAAGAAGTAAGTCATCGCTGAGCTTTTGGGGTCACATTAAATG
GAGATGGACAGATGCATAGGGGCTTTGTGAACATCAACCTTCAGCTTATTTTCCAGATTCTTATTCCTGCCAATC
AAGAGTACCATCAAAAGAAACACTTAAGTGCTTGATTTCCACTGTGTCAGAGGTGTAGTCTTCCTCAGACATCTC
CATTAACTTGATATTAGGGATATTCCTGTGTGGTCAGTCACCTAGAGTCTGGATTTTTCTCAAAACCCTGCATGA
CCTCTTGACCACTGATTCAGACTGTCTTGTTTGGCAGTCTCTGAGCTTCTGATTCTCCCGTTCTGTAGATCTTAA
CATATTTGCATGGGGTCTAATTTATATAGTGAACACCTTGTTATCTTAATACTTCCAGTGGCTCTGTGATCCTGA
TTCCACCACGAAAGCCACAGTGTTGCAGTCAAAGAAGAAAAACAACACATGGGACTTTGTACCCTATTGCATTTT
TAAGTGTGCCTGCCGAGTCCTATGTGAGAACAAATACCTTCCTCATATATTAGATTTAGGGAGATTTCTGTTACT
CAGAACTAAATGCAGTTTCTTGATATAGGTTAAATTATTAGGTTTGATTATGTATCATTAAAAATAATGTGGATT
TTGTTTCAAGGAAAACCTTCTGTAGATATTTCTTAGAAATATCCTGTTTAGCTGGGCACAGTAGCTCATGCCTGT
AATCCCTGCACTTTGGGAGGCTTGAGGTCAGGAGTTTGAGACCAGCCTGGTTAACATGGTGAAACCCTGTCTCTA
CTAAAAACACAAAAATTAGCCAGGCATGGTGGTGAGTACCTGTAACCCCAGCTACTTGGGAGGCTGAGACAGGAG
AAGTGCTTGAACCTAGGAGGCGGAGGTTGCAGTGAGCCAAGATCACACCACTGCACTCCAGCCTGGGAGACGGGG

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FIGURE 3603B

AAAGACTCCATCACACAAGCAAG

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FIGURE 3604

GCAAGGTCACGTCCTGTCCCCACCTTTCGCCCCTCACCCTAGCTCCCCCAACGCCAAAGACAAGGTTAAGAAAGT
GATATCGCGAAATAGTTTTTTAAAGCATTTTATTGCATTTTATGACTTGGAGTTTATGTGAAACCTCAACGGTAT
TAGCCGAACAGCCTGCCGCACCTTCCGGGAGTTCCAGAGTGGGCCTACAACTCCCACAGGGCTCCGCGAGCGCCG
GACGGACGGACTACAATTCCCGACAGGCAGCGCGGCTGGCGGGGCGGTTCGCCGCGGTGCCCACAGGACCTCAGG
GCGAGTGCGGGCTGCCCCGCGCGGCGCCCGCAGGACCCCGGCGGCTACCCATGCCGAGGTGAGTCCGCGGGAGCC
GCCGCCGCCGCCGTCCCGTCCCAGCTGCCGCCCCGCGCGGCCCCGCCGCCGGCCAGGATGCTGGAGGAAGCGGGC
GAGGTGCTGGAGAAC**ATG**CTGAAGGCGTCTTGTCTGCCGCTCGGCTTCATCGTCTTCCTGCCCGCTGTGCTGCTG
CTGGTGGCGCCGCCGCTGCCTGCCGCCGACGCCGCGCACGAGTTCACCGTGTACCGCATGCAGCAGTACGACCTG
CAGGGCCAGCCCTACGGCACACGGAATGCAGTGCTGAACACGGAGGCGCGCACGATGGCGGCGGAGGTGCTGAGC
CGCCGCTGCGTGCTCATGCGGCTACTGGACTTCTCCTACGAGCAGTACCAGAAGGCCCTGCGGCAGTCGGCGGGC
GCCGTGGTCATCATCCTGCCCAGGGCCATGGCCGCCGTGCCCCAGGACGTCGTCCGGCAATTCATGGAGATCGAG
CCGGAGATGCTGGCCATGGAGACCGCCGTCCCCGTGTACTTTGCCGTGGAGGACGAGGCCCTGCTGTCTATCTAC
AAGCAGACCCAGGCTGCCTCCGCCTCCCAGGGCTCCGCCTCTGCTGCTGAAGTACTGCTGCGCACGGCCACTGCC
AACGGCTTCCAGATGGTCACCAGCGGGGTACAGAGCAAGGCCGTGAGTGACTGGCTGATTGCCAGCGTGGAGGGG
CGGCTGACGGGGCTGGGCGGAGAGGACCTTCCCACCATCGTCATCGTGGCCCACTACGACGCCTTTGGAGTGGCC
CCCTGGCTGTCGCTGGGCGCGGACTCCAACGGGAGCGGCGTCTCTGTGCTGCTGGAGCTGGCACGCCTCTTCTCC
CGGCTCTACACCTACAAGCGCACGCACGCCGCCTACAACCTCCTGTTCTTTGCGTCTGGAGGAGGCAAGTTTAAC
TACCAGGGAACCAAGCGCTGGCTGGAAGACAACCTGGACCACACAGACTCCAGCCTGCTTCAGGACAATGTGGCC
TTCGTGCTGTGCCTGGACACCGTGGGCCGGGGCAGCAGCCTGCACCTGCACGTGTCCAAGCCGCCTCGGGAGGGC
ACCCTGCAGCACGCCTTCCTGCGGGAGCTGGAGACGGTGGCCGCGCACCAGTTCCCTGAGGTACGGTTCTCCATG
GTGCACAAGCGGATCAACCTGGCGGAGGACGTGCTGGCCTGGGAGCACGAGCGCTTCGCCATCCGCCGACTGCCC
GCCTTCACGCTGTCCCACCTGGAGAGCCACCGTGACGGCCAGCGCAGCAGCATCATGGACGTGCGGTCCCGGGTG
GATTCTAAGACCCTGACCCGTAACACGAGGATCATTGCAGAGGCCCTGACTCGAGTCATCTACAACCTGACAGAG
AAGGGGACACCCCCAGACATGCCGGTGTTCACAGAGCAGATGCAGATCCAGCAGGAGCAGCTGGACTCGGTGATG
GACTGGCTCACCAACCAGCCGCGGGCCGCGCAGCTGGTGGACAAGGACAGCACCTTCCTCAGCACGCTGGAGCAC
CACCTGAGCCGCTACCTGAAGGACGTGAAGCAGCACCACGTCAAGGCTGACAAGCGGGACCCAGAGTTTGTCTTC
TACGACCAGCTGAAGCAAGTGATGAATGCGTACAGAGTCAAGCCGGCCGTCTTTGACCTGCTCCTGGCTGTTGGC
ATTGCTGCCTACCTCGGCATGGCCTACGTGGCTGTCCAGCACTTCAGCCTCCTCTACAAGACCGTCCAGAGGCTG
CTCGTGAAGGCCAAGACACAG**TGA**CACAGCCACCCCCACAGCCGGAGCCCCCGCCGCTCCACAGTCCCTGGGGCC
GAGCACGAGTCGTCATGATGGATGCACTGACTGACCGTCTGGGGCTCAGGCTGGTGTGGGATGCAGCCGGCCGAT
GAGAAAATAAAGCCATATTGAATGATC

FIGURE 3605

GCAAGGTCACGTCCTGTCCCCACCTTTCGCCCCTCACCCTAGCTCCCCCAACGCCAAAGACAAGGTTAAGAAAGT
GATATCGCGAAATAGTTTTTTAAAGCATTTTATTGCATTTTATGACTTGGAGTTTATGTGAAACCTCAACGGTAT
TAGCCGAACAGCCTGCCGCACCTTCCGGGAGTTCCAGAGTGGGCCTACAACTCCCACAGGGCTCCGCGAGCGCCG
GACGGACGGACTACAATTCCCGACAGGCAGCGCGGCTGGCGGGGCGGTTCGCCGCGGTGCCCACAGGACCTCAGG
GCGAGTGCGGGCTGCCCCGCGCGGCGCCCGCAGGACCCCGGCGGCTACCCATGCCGAGGTGAGTCCGCGGGAGCC
GCCGCCGCCGCCGTCCCGTCCCAGCTGCCGCCCCGCGCGGCCCCGCCGCCGGCCAGGATGCTGGAGGAAGCGGGC
GAGGTGCTGGAGAAC**ATG**CTGAAGGCGTCTTGTCTGCCGCTCGGCTTCATCGTCTTCCTGCCCGCTGTGCTGCTG
CTGGTGGCGCCGCCGCTGCCTGCCGCCGACGCCGCGCACGAGTTCACCGTGTACCGCATGCAGCAGTACGACCTG
CAGGGCCAGCCCTACGGCACACGGAATGCAGTGCTGAACACGGAGGCGCGCACGATGGCGGCGGAGGTGCTGAGC
CGCCGCTGCGTGCTCATGCGGCTACTGGACTTCTCCTACGAGCAGTACCAGAAGGCCCTGCGGCAGTCGGCGGGC
GCCGTGGTCATCATCCTGCCCAGGGCCATGGCCGCCGTGCCCCAGGACGTCGTCCGGCAATTCATGGAGATCGAG
CCGGAGATGCTGGCCATGGAGACCGCCGTCCCCGTGTACTTTGCCGTGGAGGACGAGGCCCTGCTGTCTATCTAC
AAGCAGACCCAGGCTGCCTCCGCCTCCCAGGGCTCCGCCTCTGCTGCTGAAGTACTGCTGCGCACGGCCACTGCC
AACGGCTTCCAGATGGTCACCAGCGGGGTACAGAGCAAGGCCGTGAGTGACTGGCTGATTGCCAGCGTGGAGGGG
CGGCTGACGGGGCTGGGCGGAGAGGACCTTCCCACCATCGTCATCGTGGCCCACTACGACGCCTTTGGAGTGGCC
CCCTGGCTGTCGCTGGGCGCGGACTCCAACGGGAGCGGCGTCTCTGTGCTGCTGGAGCTGGCACGCCTCTTCTCC
CGGCTCTACACCTACAAGCGCACGCACGCCGCCTACAACCTCCTGTTCTTTGCGTCTGGAGGAGGCAAGTTTAAC
TACCAGGGAACCAAGCGCTGGCTGGAAGACAACCTGGACCACACAGACTCCAGCCTGCTTCAGGACAATGTGGCC
TTCGTGCTGTGCCTGGACACCGTGGGCCGGGGCAGCAGCCTGCACCTGCACGTGTCCAAGCCGCCTCGGGAGGGC
ACCCTGCAGCACGCCTTCCTGCGGGAGCTGGAGACGGTGGCCGCGCACCAGTTCCCTGAGGTACGGTTCTCCATG
GTGCACAAGCGGATCAACCTGGCGGAGGACGTGCTGGCCTGGGAGCACGAGCGCTTCGCCATCCGCCGACTGCCC
GCCTTCACGCTGTCCCACCTGGAGAGCCACCGTGACGGCCAGCGCAGCAGCATCATGGACGTGCGGTCCCGGGTG
GATTCTAAGACCCTGACCCGTAACACGAGGATCATTGCAGAGGCCCTGACTCGAGTCATCTACAACCTGACAGAG
AAGGGGACACCCCCAGACATGCCGGTGTTCACAGAGCAGATGCAGATCCAGCAGGAGCAGCTGGACTCGGTGATG
GACTGGCTCACCAACCAGCCGCGGGCCGCGCAGCTGGTGGACAAGGACAGCACCTTCCTCAGCACGCTGGAGCAC
CACCTGAGCCGCTACCTGAAGGACGTGAAGCAGCACCACGTCAAGGCTGACAAGCGGGACCCAGAGTTTGTCTTC
TACGACCAGCTGAAGCAAGTGATGAATGCGTACAGAGTCAAGCCGGCCGTCTTTGACCTGCTCCTGGCTGTTGGC
ATTGCTGCCTACCTCGGCATGGCCTACGTGGCTGTCCAGCACTTCAGCCTCCTCTACAAGACCGTCCAGAGGCTG
CTCGTGAAGGCCAAGACACAG**TGA**CACAGCCACCCCCACAGCCGGAGCCCCCGCCGCTCCACAGTCCCTGGGGCC
GAGCACGAGTCGTCATGATGGATGCACTGACTGACCGTCTGGGGCTCAGGCTGGTGTGGGATGCAGCCGGCCGAT
GAGAAAATAAAGCCATATTGAATGATC

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FIGURE 3606

GGCCGCCCGGCGCCCCCAGCAGCCCGAGCCGGGGCGCACAGCCGGGGCGCAGCCCGCGCCCCCCGCCGCGATTGA
C**ATG**ATGTTTCCACAAAGCAGGCATTCGGGCTCCTCGCACCTACCCCAGCAACTCAAATTCACCACCTCGGACTC
CTGCGACCGCATCAAAGACGAATTTCAGCTACTGCAAGCTCAGTACCACAGCCTCAAGCTCGAATGTGACAAGTT
GGCCAGTGAGAAGTCAGAGATGCAGCGTCACTATGTGATGTACTACGAGATGTCCTACGGCTTGAACATCGAGAT
GCACAAACAGGCTGAGATCGTCAAAAGGCTGAACGGGATTTGTGCCCAGGTCCTGCCCTACCTCTCCCAAGAGCA
CCAGCAGCAGGTCTTGGGAGCCATTGAGAGGGCCAAGCAGGTCACCGCTCCCGAGCTGAACTCTATCATCCGACA
GCAGCTCCAAGCCCACCAGCTGTCCCAGCTGCAGGCCCTGGCCCTGCCCTTGACCCCACTACCCGTGGGGCTGCA
GCCGCCTTCGCTGCCGGCGGTCAGCGCAGGCACCGGCCTCCTCTCGCTGTCCGCGCTGGGTTCCCAGGCCCACCT
CTCCAAGGAAGACAAGAACGGGCACGATGGTGACACCCACCAGGAGGATGATGGCGAGAAGTCGGAT**TAG**CAGGG
GGCCGGGACAGGGAGGTTGGGAGGGGGGACAGAGGGGAGACAGAGGCACGGAGAGAAAGGAATGTTTAGCACAAG
ACACAGCGGAGCTCGGGATTGGCTAAACTCCCATAGTATTTATGGTGGCCGCCGGCGGGGGCCCCAGCCCAGCTT
GCAGGCCACCTCTAGCTTTCTTCCTACCCCATTCCCGGCTTCCCTCCTCCTCCCCTGCAGCCTGGTTAGGTGGAT
ACCTGCCCTGACATGTGAGGCAAGCTAAGGCCTGGAGGGTCAGATGGGAGACCAGGTCCCAAGGGAGCAAGACCT
CGCGAAGCGCAGCAGCCCCGGCCCTTCCCCCGTTTTGAACATGTGTAACCGACAGTCTGCCTGGGCCACAGCCCT
CTCACCCTGGTACTGCATGCACGCAATGCTAGCTGCCCCTTTCCCGTCCTGGGCACCCCGAGTCTCCCCCGACCC
CGGGTCCCAGGTATGCTCCCACCTCCACCTGCCCCACTCACCACCTCTGCTAGTTCCAGACACCTCCACGCCCAC
CTGGTCCTCTCCCATCGCCCACAAAAGGGGGGGCACGAGGGACGAGCTTAGCTGAGCTGGGAGGAGCAGGGTGAG
GGTGGGCGACCCAGGATTCCCCCTCCCCTTCCCAAATAAAGATGAGGGTACT

FIGURE 3607

AATGACTCAGTAAGTTCAGCGCGCCCGCTCCGGCCGGCCCTGCGCCTCCCGCCGCGCCCGGGATGTATTCGTCCC
CGCTCTGCCTCACCCAGGATGAGTTCCACCCGTTCATCGAGGCCCTGCTGCCTCACGTCCGCGCCTTCGCCTACA
CCTGGTTCAACCTGCAGGCGCGGAAGCGCAAGTACTTCAAGAAGCACGAGAAGCGGATGTCGAAGGACGAGGAGC
GTGCGGTCAAGGACGAGCTGCTGGGCGAGAAGCCCGAGGTCAAGCAGAAGTGGGCGTCGCGGCTGCTGGCCAAGC
TGCGCAAGGACATCCGGCCCGAGTGCCGCGAGGACTTCGTGCTGAGCATCACCGGCAAGAAGGCGCCGGGCTGCG
TGCTCTCCAACCCCGACCAGAAGGGCAAGATGCGGCGCATCGACTGTCTCCGGCAGGCGGACAAGGTGTGGCGGC
TGGACCTGGTCATGGTCATCCTGTTCAAGGGCATCCCGCTGGAGAGCACCGACGGCGAGCGCCTGGTCAAGGCTG
CGCAGTGCGGTCACCCGGTCCTGTGCGTGCAGCCGCACCACATTGGCGTGGCCGTCAAGGAGCTGGACCTCTACC
TGGCCTACTTCGTGCGTGAGCGAGATGCAGAGCAAAGCGGCAGTCCCCGGACAGGGATGGGCTCTGACCAGGAGG
ACAGCAAGCCCATCACGCTGGACACGACCGACTTCCAGGAGAGCTTTGTCACCTCCGGCGTGTTCAGCGTCACTG
AGCTCATCCAAGTGTCCCGGACACCCGTGGTGACTGGAACAGGACCCAACTTCTCCCTGGGGGAGCTGCAGGGGC
ACCTGGCATACGACCTGAACCCAGCCAGCACTGGCCTCAGAAGAACGCTGCCCAGCACCTCCTCCAGTGGGAGCA
AGCGGCACAAATCGGGCTCGATGGAGGAAGACGTGGACACGAGCCCTGGCGGCGATTACTACACTTCGCCCAGCT
CGCCCACGAGTAGCAGCCGCAACTGGACGGAGGACATGGAAGGAGGCATCTCGTCCCCGGTGAAGAAGACAGAGA
TGGACAAGTCACCATTCAACAGCCCGTCCCCCCAGGACTCTCCCCGCCTCTCCAGCTTCACCCAGCACCACCGGC
CCGTCATCGCCGTGCACAGCGGGATCGCCCGGAGCCCACACCCGTCCTCCGCTCTGCATTTCCCTACGACGTCCA
TCCTACCCCAGACGGCCTCCACCTACTTCCCCCACACGGCCATCCGCTACCCACCTCATCTCAACCCCCAGGACC
CGCTCAAAGATCTTGTCTCGCTGGCCTGCGACCCAGCCAGCCAGCAACCTGGACCGTCCTGGTATCTGGGATAGC
AAAGGTCTTCTTCCCTCGCCCCTTCTCCATCGTCCCAGGAATCCCAGGGGGCAGCACAGCCGGCCCCCGGCCCAC
GTTTTCGGTGGAAAATTAGAGTGAACAAGAACACCCCTGCCGACTCCCAGCCCGGCCAAAAAGACAAAACACATA
GACGCACACACTCAGGAGGAAAAGAAAAAACAAAGGCAGAAGAAGAAGAAGAAGAAATAAAAACCCACCCAAGCA
AGAAGACAAAAGGTAAAGACGCAACGTTTCCAACTCTCGGGACGCCAAGGCCGCAGGACTGGAGGGCCAGGCCCC
GCCACCCCCACGGGAGACCCGGGACAGGGCGTCTTCCTAAGTTATTCATCTCCTCTCCGCCTGCTGCTCGGGAAG
GACAGACGCCGGCCGCCCGCCCGCGCCCCGGAGGCCCTGGCTCTGTCCGGAGACCAGGTGAGCACAGCCTGGAGC
CTGTGCCCAGGGCCGACAGGCGCGACACCCAGCAAGGCCACCTCTCCCCGGGCCCCCGCGCCTCTGCCGGACACG
GACCGGCCCCTCAGCCCCCACCGAGGACGCAGCCACTGGGGGGAAAGGGAGACACAGCGGACCCCGGCCGGGCAG
CGGAGACCGCAGAGGCGGGCAGGGTGGGGCAGGCGAGTGGTGTCGCGGGGGTGCGTGGCGCTTGCGAGCCCTGGC
CAGGGGAGGAAGTGAGGCCCAGGCACCTGCTGCCCCTCGAGGGGGCCCTGCCTGCCGCGGGGCCTCCCCACAAGC
CCCTCCCAAAGCGCCGGCCGACTCGCTGTCTCGCTGGGGACTCTTTCAGCCCTCGCGCCCGCCCGTTTGGGAGGA
GAAGTCTCTATGCAATTGGCCCCGGCCCCTCCACCCCCCACCCCCGGCATAGGAGGCCCCCCCACCTCGCCCGGC
TCACACCCCCCACTTCCTCTTTAAA

FIGURE 3608

ATGGACCAGGACTATGAGCGGCGCCTGCTTCGCCAGATCGTCATCCAGAATGAGAACACGATGCCACGCGTCACA
GAGATGCGGCGGACCCTGACGCCTGCCAGCTCCCCAGTGTCCTCGCCCAGCAAGCACGGAGACCGCTTCATCCCC
TCCAGAGCCGGAGCCAACTGGAGCGTGAACTTCCACAGGATTAACGAGAATGAGAAGTCTCCCAGTCAGAACCGG
AAAGCCAAGGACGCCACCTCAGACAACGGCAAAGACGGCCTGGCCTACTCTGCCCTGCTCAAGAATGAGCTGCTG
GGTGCCGGCATCGAGAAGGTGCAGGACCCGCAGACTGAGGACCGCAGGCTGCAGCCCTCCACGCCTGAGAAGAAG
GGTCTGTTCACGTATTCCCTTAGCACCAAGCGCTCCAGCCCCGATGACGGCAACGATGTGTCTCCCTACTCCCTG
TCTCCCGTCAGCAACAAGAGCCAGAAGCTGCTCCGGTCCCCCCGGAAACCCACCCGCAAGATCTCCAAGATCCCC
TTCAAGGTGCTGGACGCGCCCGAGCTGCAGGACGACTTCTACCTCAATCTGGTGGACTGGTCGTCCCTCAATGTG
CTCAGCGTGGGGCTAGGCACCTGCGTGTACCTGTGGAGTGCCTGTACCAGCCAGGTGACGCGGCTCTGTGACCTC
TCAGTGGAAGGGGACTCAGTGACCTCCGTGGGCTGGTCTGAGCGGGGGAACCTGGTGGCGGTGGGCACACACAAG
GGCTTCGTGCAGATCTGGGACGCAGCCGCAGGGAAGAAGCTGTCCATGTTGGAGGGCCACACGGCACGCGTCGGG
GCGCTGGCCTGGAATGCTGAGCAGCTGTCGTCCGGGAGCCGCGACCGCATGATCCTGCAGAGGGACATCCGCACC
CCGCCACTGCAGTCGGAGCGGCGGCTGCAGGGCCACCGGCAGGAGGTGTGCGGGCTCAAGTGGTCCACAGACCAC
CAGCTCCTCGCCTCGGGGGGCAACGACAACAAGCTGCTGGTCTGGAATCACTCGAGCCTGAGCCCCGTGCAGCAG
TACACGGAGCACCTGGCGGCCGTGAAGGCCATCGCCTGGTCCCCACATCAGCACGGGCTGCTGGCCTCGGGGGGC
GGCACAGCTGACCGCTGTATCCGCTTCTGGAACACGCTGACAGGACAACCACTGCAGTGTATCGACACGGGCTCC
CAAGTGTGCAATCTGGCCTGGTCCAAGCACGCCAACGAGCTGGTGAGCACGCACGGCTACTCACAGAACCAGATC
CTTGTCTGGAAGTACCCCTCCCTGACCCAGGTGGCCAAGCTGACCGGGCACTCCTACCGCGTGCTGTACCTGGCA
ATGTCCCCTGATGGGGAGGCCATCGTCACTGGTGCTGGAGACGAGACCCTGAGGTTCTGGAACGTCTTTAGCAAA
ACCCGTTCGACAAAGGTAAAGTGGGAGTCTGTGTCTGTGCTCAACCTCTTCACCAGGATCCGG**TAA**

FIGURE 3609

CTGGGCTCAAGTGATCCTCCTGTCTTAGCCTTCCAAAGTGCTGGGATTACAGGTGTGGGCCACCATGCCCAGCCA
CCATCTTGGTTTAATTTCTTTCCTTGGAAATGGAGCAAAGGGCTTTCACTCTTCTTTTTCATGGCTGCATAGTAT
TCCATAATTGTTTAAACAATTGATAATAGACACTGTATCGGGGTGACTGGTATACCCCCAAAATCACATCTGCCC
AGAGCCTCAGGACATGGCCTTGTTTGGAA**ATG**GTTTTAGCAGATGCAGCTAAGATGAGGTCACCCCGTGTTAGGA
TGGCCCCGAATCCAGTGCCTGGCACCCTTATAAGGAGAGGGAAACTTGGACGCAGACAGGAAGGCCGGGTGAAGA
CAGAAGCAGAGACCGGGGGCCAAGGAGTGCCTGGGGTTGCCCAGAGCCACCACGGGCTGCAAGAGGTGTGGGACA
GACTCTCTCAGCCACAGAAGGGCCCAGCCCCGCACAGGCCTGGATTTCAGAGGGCGAACATTTCTGTGGCCGAAG
CTCCCAGTGCGTTTGCAGTCCTTGGAGACGGCCGCAGACACATTTGTTCTTGGCCTGTCTCCAGGTCTGTAGACC
CCACAGTGAGCGGCCACTGGCCGGAGGGGAACAGGAAGAGCTGGAGGGGACGTCACACACATGAGCCTTTTAGGA
ATAACGAG**TGA**CACGTGCAAGACCCCAAACCAAACACCATGTAACCTGACACCCAGGGAGGGAGGGAGGGAGGGG
CTGGGAGGGGCTCACCTGTAGGGAGGGGCTCACCTGTACAGCGGTGCTGGGAAGCTGGCCTCGAGGGTCCCCGAG
GGGATACAGGGCCGTGCAGCCTCTTGCCTGAGGGTTTGCATGTCTGCCTGGATCCCCCGGGCTCCTGCCAGAAGG
CCTCTGAGGCCACCGTTGACAGCATAAAGGCCACCCAGTGTCTCGGCAACCACGCTGACCACTCCCTCCTCCCAG
CTGCGGGGTGAGGTGGCCTCGAGGGAAGGGCTGGAGAGTCGTTCTGAGTATTTAACAACTGGGGGTGACACAGTG
TGGGTGGGCAAGGCCAGGGCCACTGCCAGGTGGGGTCCGTGGCCCTGAGCCCCCAGCTCTATGCACCCCCCACCT
GGGGTCTGGCTTCTCCATCTCCACACCCCCTTGAGGGGCTTCTGTCTCCCCCTGCCCCTTCGATCGCAGGAGGCA
GTGCCTGGCCGGGGTCGCAGGCACCTGTCACCCCAGCTCCTCACTCCTCACCCACTCACATCCAGTCCGTTTGTA
AAATACACCCAGGATGAGACCTGCACGCAGTGGCTCACAGCAGCACGATTTGTGACAGCCCGAGGCGGAGAACAC
CGAACACCCAGTGAAGGTGAGGGGATCAGCACGGCGCCGCCACCGTGCTGGAACGAGACTCAGCCACAAGGAGGT
GCGAAGCTCTGACCCAGGCCACAGTGCGGATGCACCTTGAGGATGTCACGCTCAGTGAGAGACACCAGACACAGA
AGGGTACGCTGTGATCCCACTTCTATGAAATGTCCAGGACAGACCAATCCACAGAATCAGGGAGAGGATTCGTGG
GTGCCGGGACTGGGGAGGGGGACCTGGGGGTGACTAGGTGACATAATGGGGACAGGGCTGCCTTCTGGGTGATGA
GAATGTTCTGGAATCAGATGGGATGGCTGCACGGCGTGGTGAAGGTACTGAACGCCACCTCACTGTAAGACGGTA
GATTTTGTATTTTACCACAATAAACAAAACAAAACAAAACC

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FIGURE 3610

TTTCCCGAGATCACCAAG**ATG**CTGGGCGCCGAGTGGAGCAAGCTGCAGCCAACGGAAAAGCAGCGGTACCTGGAT
GAGGCCGAGAGAGAGAAGCAGCAGTACATGAAGGAGCTGCGGGCGTACCAGCAGTCTGAAGCCTATAAGATGTGC
ACGGAGAAGATCCAGGAGAAGAAGATCAAGAAAGAAGACTCGAGCTCTGGGCTCATGAACACTCTCCTGAATGGA
CACAAGGGTGGGGACTGCGATGGCTTCTCCACCTTCGATGTTCCCATCTTCACTGAAGAGTTCTTGGACCAAAAC
AAAGCGCGTGAGGCGGAGCTTCGGCGCTTGCGGAAGATGAATGTGGCCTTCGAGGAGCAGAACGCGGTACTGCAG
AGGCACACGCAGAGCATGAGCAGCGCGCGCGAGCGTCTGGAGCAGGAGCTGGCGCTGGAGGAGCGGAGGACGCTG
GCGCTGCAGCAGCAGCTCCAGGCCGTGCGCCAGGCGCTCACCGCCAGCTTCGCCTCACTGCCGGTGCCGGGCACG
GGCGAAACGCCCACGCTGGGCACTCTGGACTTCTACATGGCCCGGCTTCACGGAGCCATCGAGCGCGACCCCGCC
CAGCACGAGAAGCTCATCGTCCGCATCAAGGAAATCCTGGCCCAGGTCGCCAGCGAGCACCTG**TGA**GGAGTGGGC
GGGCCCACGATGCAGAGGAGAAGCTGTGGGCGCGGCCCTGCCACACCCCACCCCGTGGACGAGAGGCTGGGGGTC
CACCCTTTGGGGCCTGGTCCCATCCTGCACCTTGGGGGCTCCAGCCCCCCTAAAATTAAATTTCTGCAGCATCCC
TTTAGCTTTCAATCTCCCCAGCCCCCTGAACCCGGAAAAAGCACTCGCTGCGCGATACACCCAGAAGAACCTCAC
AGCCGAGGGTGCCCCTCCTCGGAGGACAGCCACGCGCTACACTGGCTCTCCGGGCCACCCCCAGGACACAGGGCA
GACGAAACCCACCCCCAGCACACGGCAGGACCCCCCAAATTACTCACTACGGGGGGCTGTGCCATAGGCCACACA
GGAAGCTGCCTTGTGGGGACTTACCTGGGGTGTCCCCCGCATGCCTGTACCCCAGATGGGTGGGGGCCGGCTTTG
CCCATCCTGCTCTCCTCCAGCCGAGGGACCCTGGTGGGGGTGGCTCCTTCTCACTGCTGGATCCGGACTTTTTAA
ATAAAAACAAGTAAAATTTGTGTTTTAA

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FIGURE 3611

AGCGCCACCAGGACGTGCTGCGGCAGAAGCTGTACAAACTGAAGCAGGAGCAGGGCGTGGAGAGCGAGCCGCTGT
TCCCCATCCTCAAGCAGGAGCCCCAGTCCCCCAGCCGCAGCCTGGAGCCTGAGGACGCGGCGCCCACCCCGCCCG
GGCCCTCCTCGGAGGGCGGCCCCGCGGAGGCCGAGGTGGACGGCGCGACCCCGACAGAGGGCGACGGCGACGGGG
ACGGTGAGGGCGAGGGCGAGGGCGAGGCGGTGCTC**ATG**GAGGAGGACCTGATCCAGCAGAGCCTGGACGACTACG
ACGCCGGCAGGTACAGCCCGCGGCTGCTCACGGCGCACGAGCTGCCACTGGACGCGCACGTGCTGGAACCGGATG
AGGACCTGCAGCGCCTGCAGCTCTCGCGCCAGCAGCTCCAGGTCACGGGAGACGCCAGCGAGAGCGCCGAGGACA
TCTTCTTCCGGCGGGCCAAGGAGGGCATGGGCCAGGACGAGGCGCAGTTCAGCGTGGAGATGCCACTCACCGGCA
AGGCCTACCTGTGGGCCGACAAGTACCGGCCACGCAAGCCGCGCTTCTTCAACCGCGTGCACACGGGCTTCGAGT
GGAACAAGTACAACCAGACGCACTACGACTTTGACAACCCACCGCCCAAGATCGTGCAGGGATACAAGTTCAACA
TCTTCTACCCCGACCTCATCGACAAGCGCTCCACGCCCGAGTACTTCCTGGAGGCCTGCGCCGACAACAAGGATT
TCGCCATCCTGCGCTTCCACGCGGGGCCGCCCTACGAGGACATCGCTTTCAAGATCGTCAACCGCGAGTGGGAAT
ACTCGCACCGCCACGGCTTCCGCTGCCAGTTTGCCAACGGCATCTTCCAGCTGTGGTTTCACTTCAAGCGCTACC
GCTATCGGCGG**TGA**CGGCCCTGGGGAACGGCAGGCAGGTGTCCTCGGGGGCACAGTAAAGGGGCTTCGGTGAAGC
TGGTGGTCACTCCGGGGCCGCTGTCTGGGCTGCAGGGCCGCGGGTTCACGTCCCACCTCAGGCCGCATCTTTCTT
TCGCCAGGCCTCAGTTTCCTCCTATATAAAAGGGGGGTCACCATTGAGCCTGCCATGGTGAGCTGAGGAGACACT
GGGACAGGCTGGCCTAGGGTCCTGATGCAACGGAGGGGGCGCTAGGGGCATCTTTCGAGCACGAGGGTGGCCAGC
AGCCGCCAGCTGACCTCACCGTCCAGGCGGACACTCTCCACCGCCCCTCAGCCAGGCTGGGTGGGGCCCACAGGG
CCTGCCCCAAGTGGCGGCCACACAGGGTGTTGTGGAGATGGGCCAGAGGGGCCTGGGCTTGGCGGTGCCAGGCTC
GTGAGAAGCAGGAAACTCAAGGCCAGCCCTGCCACATCACGGGGCACCCACTGGGCGTGAGGCAGAGCCCGCGGC
TGTGGGGCAGCTCCAGCCCTGCCCACAGGCCACCCTCGCCCGCACAGGCAGCACTGAGGCCGGGACCCTGCTGGC
GCCCGATCCGCCACTGCAGAAGAGACCCTCTGTGGACACCCACACTCTGCAGGGACTGGCCCCCAACTCACCCCG
TGCTGGCTGGTGGGGTCCATTTCCCCGCAGCGGGTATGGAGGATGCGTCGAGGTCCCTGTCTCTGTCAAGGTCGT
GGGAACCAAAAGTCACTGAGCCGTCCTCCCCCCACCTCTGAGCACAGGGCCTGGAGGGCAGGGGCTCCCCGAAGG
CTGGGGGTTGGAGAAGGGTGAGGGGCTTCCCCCAGGGATCCCCCCACCTGGCCTGCTCACGGGGCCTTGGAGCAT
GAGACCAGTGACCCCGAGTTTTGCCCATATCAGGACAGTGGCTCCTTCTCACTCCCCTTTCTCAGGCCAGGAGGG
CCGAGGGCCACACGGGTGCCACAGCCCAGGTCGGAGTGGCCCAGCCGGCAGGCTTGTTCTTCAGCATCCGACGGG
AACATCTCCAACAGAAGCAAAACGGAAAGTGCCTCCCGGACCCCCAGAGGGCCACCCAACCTCACCAGTCACCAG
CCCCAGACCACCCACAGCCCCTCCCAGACACCCCGCCTCATCTGGAAATAGTTCCGTTTGTTTCTCTAAAAAGAC
TTGTAGGTGGGAAAAAAAATCTTTTGTTCTCATGGAATTGGCCTATTGGCAAGATCGCATGTTTTTTTAATAAAC
GTTGTATTTTAGAATAA

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FIGURE 3612A

GCGGCGGTCGCAGCTCGGGTCCCCCTCGGGCGCCCCCGCCGCCGTCCGCGCGCGGCC**ATG**GAGCTGGAGGTACCG
GACGAGGCGGAGAGCGCTGAGGCGGGGGCCGTGCCCTCGGAGGCGGCGTGGGCGGCAGAGAGCGGGGCGGCGGCA
GGTTTGGCTCAGAAGAAGGCGGCCCCAACAGAGGTTCTGTCCATGACGGCACAGCCGGGCCCTGGCCATGGGAAG
AAGTTGGGCCATCGAGGTGTGGACGCATCCGGCGAAACCACCTACAAGAAGACCACCTCCTCCACCCTGAAGGGT
GCCATCCAGCTGGGCATCGGCTACACCGTGGGCCACCTGAGCTCCAAGCCCGAACGCGACGTGCTCATGCAGGAC
TTCTACGTGGTGGAGAGCATCTTCTTCCCCAGCGAAGGCAGCAACCTCACCCCCGCCCACCACTTCCAGGACTTC
CGCTTCAAGACCTATGCACCTGTCGCCTTCCGCTACTTCCGGGAGCTCTTTGGGATCCGGCCAGATGATTACTTG
TACTCCCTGTGCAATGAGCCGCTGATCGAGCTGTCCAACCCGGGCGCCAGTGGCTCCCTCTTCTACGTCACCAGC
GACGACGAGTTCATCATCAAGACCGTCATGCACAAGGAGGCCGAGTTCCTGCAGAAGCTGCTCCCTGGCTACTAC
ATGAACCTCAACCAGAACCCGCGGACGCTGCTGCCCAAGTTCTATGGGCTGTACTGCGTGCAGTCGGGGGGCAAG
AACATCCGCGTCGTGGTCATGAACAACATCCTGCCCCGCGTGGTCAAGATGCACCTCAAGTTCGACCTCAAGGGC
TCCACCTACAAGCGGCGCGCCAGCAAGAAGGAGAAGGAGAAGAGCTTCCCCACCTACAAGGACCTGGACTTCATG
CAGGACATGCCCGAGGGGCTCCTGCTGGACGCCGACACCTTCAGCGCCCTGGTCAAGACGCTGCAGCGGGACTGC
CTGGTCCTGGAAAGTTTCAAGATCATGGACTACAGCCTGCTGCTGGGCGTGCACAACATCGACCAGCACGAGCGC
GAGCGGCAGGCGCAGGGCGCCCAGAGCACCTCAGATGAGAAGCGGCCTGTGGGCCAGAAGGCGCTCTACTCCACG
GCCATGGAGTCCATCCAGGGTGGCGCCGCGCGCGGGGAGGCCATCGAATCGGATGACACGATGGGCGGGATCCCC
GCTGTGAACGGCCGCGGGGAGCGGCTGCTGCTGCACATTGGCATCATCGACATCCTGCAGTCCTACAGGTTCATC
AAGAAACTGGAGCACACCTGGAAGGCCCTCGTCCACGATGGGGACACGGTGTCCGTCCACCGCCCCAGCTTCTAT
GCCGAGCGCTTTTTCAAGTTCATGAGCAACACGGTCTTTCGGAAGAACTCCTCCCTGAAGTCCTCGCCCTCCAAG
AAGGGGCGCGGCGGAGCCTTGCTAGCTGTGAAACCGCTGGGGCCCACCGCTGCCTTCTCGGCCAGCCAGATCCCT
AGCGAGCGGGAGGAGGCCCAGTACGACCTGCGGGGGGCCCGCAGCTACCCCACGCTGGAGGACGAAGGCCGGCCC
GACCTCCTGCCCTGCACGCCACCTTCTTTCGAAGAAGCCACTACAGCCTCCATTGCCACGACTCTGTCATCCACA
TCCCTCTCCATTCCTGAGCGGTCCCCCTCGGAGACGTCGGAGCAGCCGCGGTACAGGCGGCGCACACAGTCGTCT
GGACAGGATGGCAGGCCGCAGGAGGAGCCACCCGCGGAAGAGGATCTGCAGCAGATTACAGTGCAGGTGGAGCCT
GCGTGCAGCGTGGAGATTGTGGTCCCCAAAGAGGAGGACGCAGGGGTGGAGGCTTCCCCGGCCGGTGCCTCTGCT
GCTGTTGAAGTAGAAACTGCCAGCCAGGCCTCAGACGAGGAGGGCGCACCTGCCAGCCAGGCCTCGGACGAGGAG
GACGCGCCCGCCACCGACATCTACTTTCCCACCGATGAGAGGAGCTGGGTGTACTCCCCGCTCCACTATAGCGCC
CAGGCCCCCCCGGCCTCCGACGGCGAGAGCGACACA**TAA**TTTCTATGCAGCCCCCGACCCAGAGCCGAGCTCCAC
TTCTGCTCCGGCTGCCCCCGAAGGCGCTGCCCACCCCGCTGAGGCCCAGAGCTCGGGAGATGCCCGCCTCGCCGC
CCCACCGGACCTCGTCCTCCCCCTGCACGGATGCCGACGGCCGGGCCCCTCCCCGACAAGCCTCCCAGGGCCCCG
GCACCCCGGTCGGCAGCCTGCCCCTGTGAGACCCACCCTCCCGAGCGGCCAATCGCATTTGAGTCCTTATTTGGC
ACAGAGACGGAAGCACGTGTGTGCCGTTTTAGGAAAAGAACAAAAAAGACACAAACAAACCAACCAGAGGGAGAA
GAGCCCCTGCCCACTGCACTCTTTGGTTCTCTGCTGTGCCTGCCTGTGTCCTGAGGAAGAAGCCAGGCTGTTCGC
GGTGGCCTCTGGGGACCTGAGCCCCGGGGGCCCCATCGGCCTGCAGAGGGGACGGCTGGGGTCCCGAGCAACTCT
GCCTCCATCCACGTGGGAAGCGGACCCTCCTGCCCTCAGCTTGGGTTTGGGGGCCTCAGTGCAGGACATCTGGCC
TGAACATCGACTGTGGGGACAGCCCTCGCCCTGCCAAGCACTGCGGCCACTCAGCAGCTATGTTCCCGCCGCAGT
GGGGCCCTGACGCCCACCTCCCAGGTGCCCCTCGAGCAAAAACCTCTGGCGCCTCCAATCCAGACCCACCACAGC
TGGAGGGCCAGGCCTCCTCTTCCCCAGGCTGCCACCCACGCTGGCGGAGCTCAGGGCTGGGGACTTGTCCTTCTC
TTCCAACGTAGGCCACTCAGCAACTGGCATGGAGGGCCCAGGCAACGGAGACGTTTTCTCCATGGCAGGACAGAG
CGGGAGGCCGGGCCTTGGGCCACAGGAGACCAGCTCAGGGCGGAAGGTCAGGCTCCCCGCCCCCTCCACGTGGAG
ACATGGCCTAGGGGGCCAGGCCCGGCTCCACAGGAGTCTCCTTCAGGACTGGTGTGGATGTCCGCCGCCTCTTTC
TTGTTTAAGTGATGTGATGTCTCCGAGGAGGGGAGAGAAGACTTTGTTTCCGACTCATCACCCTCCAAGAGGGCA
GCGCTCCCAGTGGTGGGACTCAGCCCAGACTGCCCTGGGGCAGCTTCCTGGGCCCGCTGCGCTCAGAGGGTGCTG
GTTGGAGGCCAGAGCTCGGCAGAGTCACCCACCCTGCCCTTCCCCAGGACCCCTGAGAGGGGCTTATTGGTGATG
GCTGTGGGAATCCCCCACTTCCAAGATGTGCCCAGGATGTGAGGAGCTGGAGTGGAAGCTGCACCTTTGGGAAGA
ATTCCTCTCCAGACCTGGCAGAGCCTGGTGTGGGGTCTGAGACGGCCGGAGAACCTCCCAGGCAGGGCTCTGTGT
TTTGTCTGTTACAACCTCCGTATGACGCCACGCCACCCGCTGTTCACGTCCCGTCGGCCTCCTGCACAGCCCACA
CGCTGCGCCCGGAAGGCCCCTGCTGTGGAGAAGCCGGACCCATCCCCGAGGTCCCCAGCGAGGACACACACTCCA

FIGURE 3612B

CGAGAGCAGCCCCTCCACTCTGCCCAGGAGAGGGGCCGACCCTCCTCGGGAACCGGCCAGCCGCGTGGCTCCCAG
CATCCATCAGGACAAGCCCACGTGGGGTCCTCCCTGCGTGCTCAGAGGGTCTGTCCAGCCCTGGGAAGCGACCTT
GGCCTCAGTTCACAGCCTGGTGCTCATCTGCTGGCACCGGGCATCCACCCATCAGCCCCCGCCCTGTCCCTCCGA
AGGACACCCAGCAGGCACCCCCCGGGGAGGCAGGGGCAGAGGTCAGAAGGGGTGTCTGGGACCTGGATGGCCAGC
AGGGACAGGGGCATTGTCATCTCAAAGGCCCAACCCCCAGAGGCCACACCAGTCCTCCCAGGGAGTCCTCGAGTC
GCCCTGCCCAGAGCCCTGGCACCAGAGACGCCAAGAGCCTGTGGGGTGACTCGGAGCAGCAGGTGTGGCCCCGGG
CGGGCGGCACCGCGTCCAGGGCAGCCTCCCTCCGCTGAGTGACACGGGACACCAGTGCCCGGCCGACGCGCCTTT
GCAGGAGAAATGTGCAAACCTCTGTGGATACCATTTCATTTCCATTCTTGTGTTGTCTCCAAGGCCCTTTTGGAG
ATATACTTGGTGTTGGTTGTGTTTTTTGGTTCCTTTTCAGAGAACTGTAAACCGAGGCTGACGTGCTCCACTGAC
TGTGCCGAGGGGCGGGGGCAGGAGGACGGCAAGACCTATTTATAATATTTAGCGAACTCGGTCTCCCTCAGATCC
CCCGCGAGGGAGGCTGCTGGACCCACCCCGCTGTCCCCCATGATAGAAGTCTGTAAATACCTTGGTGACCAATGC
CCACTTCCCCTCCTGGGTCACCTCTGATGGCTGCTGTCCACTGAGAACGTGGGCAGTGTCCAAATTCCTGTACTG
TAAAGACTAAAAGGCGTTTGCTCTGAGACTGACAAGGCGGAAACTTCCATGTGTCTCCTGCCAGGCTCTGTCCCC
CTACGCCATCCCGACACGTCCCCGTTCCCCCGAAACCTGGCTCAGTGCAATACTCCCATTGCCATGGGGTCCTTC
ACCATGGTACTGTCTCCACAGCCCTCAGTCCCCACCCCAGGAGAGGCGCCTGCCACCTCCTCCTCATCTCCGGTG
GTTCAATCGCTCCGCCTGTCCCCAACCCAGTCCCATTTTTATGGCCAAACTGATTCTGAAACAAAATGAAACTGC
AAACCTCGTGTGTCTTAACTCCCCCCAGGGATGCCACTCCATTCCTCCGCCCCGTGGTCTGGTGCGTGACAATCC
AAAGCGCCGAGACGAGGGTGCTGTGTCCCTCAAACCCAGAGTGGTGGGCGCCTCTGAAACCATACAGCCACTCCT
GGCCCCAAACACTGGTTTGCATCCCAGGTTCCTCGCCCACCTACCCCCGCCACACCCCGTCTTTTTAGAGATCTC
TCTAATAAATCGGGTAATAAGC

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FIGURE 3613

GGAGCGGGCGCCGGGACCGGGAATCCCCGAGCTGCGCCTTCTGGGGACGCGGCCCGGGCTACGTCGGGGCCGTCC
GTGGGGAGCGGGGTCCTGGAGGCTGCGCGGGGCTGAGGCGGCCTCGATTTGGGAACTGCCTGAAGATGCCGGCCT
AAGCCTGGAGTCCAGGC**ATG**GACTTCCCCACAATTTCCCGATCCCCTTCGGGGCCTCCAGCCATGGACTTGGAGG
GGCCCAGGGACATTCTTGTGCCTTCGGAGGACCTCACCCCTGACAGCCAGTGGGACCCTATGCCAGGAGGCCCCG
GCAGCCTCAGTCGGATGGAACTTGATGAGTCAAGCCTTCAGGAGCTGGTGCAGCAGTTTGAAGCTCTGCCAGGCG
ATCTGGTGGGCCCATCCCCAGGTGGAGCCCCCTGTCCCCTACACATTGCCACAGGCCATGGCCTGGCCTCCCAGG
AGATTGCTGATGCCCACGGGCTCCTGTCTGCCGAAGCTGGCCGGGATGACCTGCTGGGCCTCTTGCACTGCGAGG
AATGCCCGCCTTCCCAGACTGGTCCTGAAGAGCCTCTAGAGCCTGCCCCCCGACTGTTGCAGCCCCCTGAGGACC
CAGATGAGGATTCTGACTCCCCAGAATGGGTGGAGGGGGCCTCTGCTGAGCAGGAGGGCAGCAGGAGCTCAAGCA
GTTCCCCGGAACCCTGGCTGGAGACGGTGCCTCTAGTCACACCTGAAGAGCCACCCGCTGGTGCCCAGAGCCCCG
AGACCCTGGCTTCCTACCCTGCCCCCCAGGAGGTGCCTGGTCCCTGTGACCATGAAGACCTCCTGGACGGTGTCA
TATTTGGGGCCAGGTACCTGGGGTCCACCCAGCTGGTGTCGGAACGGAACCCGCCCACCAGCACGCGCATGGCCC
AGGCCCGGGAGGCCATGGACCGCGTCAAGGCCCCCGATGGGGAGACCCAGCCCATGACGGAGGTGGACCTGTTCG
TCTCCACCAAGAGGATCAAGGTCTTGACAGCGGACTCCCAGGAGGCCATGATGGACCACGCCCTGCATACCATCT
CCTACACAGCCGACATCGGCTGCGTGCTGGTGCTGATGGCGCGGCGGCGGCTGGCACGGAGGCCGGCACCCCAGG
ACCACGGCCGCCGCCTCTACAAGATGCTCTGCCACGTATTCTACGCGGAGGACGCCCAGCTCATCGCCCAGGCCA
TTGGCCAGGCCTTCGCCGCCGCCTACAGCCAGTTCCTACGGGAAAGCGGTATTGACCCCAGCCAGGTGGGCGTGC
ACCCGAGCCCAGGCGCCTGCCACCTCCATAATGGGGACCTGGACCACTTCTCCAACAGTGACAACTGCCGGGAGG
TGCACCTCGAGAAGCGGCGAGGGGAGGGCCTGGGCGTGGCCCTGGTGGAGTCGGGCTGGGGCTCCCTGCTGCCCA
CAGCCGTCATCGCCAACCTGCTGCACGGGGGGCCTGCTGAGCGCTCGGGGGCCCTCAGCATCGGGGACCGCCTGA
CCGCCATCAACGGGACCAGCCTGGTGGGGCTGCCCCTGGCTGCGTGCCAGGCCGCTGTCCGCGAGACGAAGTCGC
AGACGTCGGTGACACTCAGCATCGTCCACTGCCCTCCCGTCACCACCGCCATCATCCACCGGCCCCACGCCCGCG
AGCAGCTGGGCTTCTGCGTGGAGGACGGCATCATCTGCAGCCTCCTCCGTGGTGGCATCGCCGAGCGTGGGGGCA
TCCGCGTCGGCCACCGCATCATTGAGATCAATGGGCAGAGTGTGGTGGCCACGCCACACGCCCGCATCATCGAGC
TGCTCACCGAGGCCTATGGCGAGGTGCATATCAAGACGATGCCAGCTGCCACATATCGCCTCCTTACAGGCCAGG
AGCAGCCCGTGTACCTG**TGA**CCACCTCATCCCTTGCCTGCCACTGTGCCTTCGCCTCCATGGCCCCGGAGCCCCA
TCCTGGGCCTGCCCTGGCTGGCCAGGACCCCAGCGGTTCTTGGTCCTGTATGATTTCCTAATATAAAAACAGTAA

FIGURE 3614

GCACTTGCAAGCTGCCCGCAATACGTC**ATG**GCGACCAAACGCCTTTTCGGGGCTACCCGGACGTGGGCCGGCTGG
GGGGCCTGGGAGCTCCTAAACCCCGCCACTTCCGGAAGACTCCTGGCCCGGGATTATGCCAAGAAACCAGTTATG
AAGGGGGCCAAATCGGGAAAAGGTGCAGTGACCAGCGAGGCCCTCAAGGACCCCGACGTATGCACAGATCCTGTC
CAGCTCACCACATATGCCATGGGCGTCAACATCTACAAGGAAGGGCAGGATGTACCCCTGAAACCGGATGCTGAG
TACCCTGAATGGCTGTTCGAGATGAACTTGGGTCCCCCAAAGACCCTGGAGGAGCTGGACCCCGAGAGCCGGGAG
TACTGGCGGCGGCTGCGGAAACAGAACATCTGGCGCCACAACCGGCTGAGCAAGAACAAGAGGTTG**TAG**CATGGA
GGGCCCGGCATCGCTGACCCCCACGCCGAGGGCTTGCCGTTTTCCCGGAGGACGTGGACTTTTGTGAGACAAGAG
GCGGCTCCCCAGCCTGGGTTTCCATGTGACCCCACAGTGGGGCTGGACCAGGGCCCTGGAGGCCAATAAAGAGCT
TTCTGGGTAGACCCTATTTCCCCTTGGTATTGTCTGGTGTCGGCCTGGCGGGAAGTGGGTCCCTCAGACCCCAGG
GATCCCAGCCTCCACCCCAGCCAGTGGTGGGCCGTCTGCAGGTCCCCTGTGCCTCCGGCCCTTGGTGGGCTTCTC
TCCCCAACTCCTGGAATTCCTGACACTGCTCACGAGGCCCCGGCCCCAAATCTCAAGTTGCTGGGTGAGGGGGTT
GTCCTAGCTAAGCCACTCTTGGTTGCAAGGGACTCAAACCTAACTATCTCAAGCCATCAGAGTCAGAAAAGAGGC
TTTATGAGCTTCAAGAA

FIGURE 3615

GTTGCCATTAGGGGACTCCTGAGGTCCTATCTCCAGGCTGCGGTGACTGCACTTTCCCTGGAGTGGAAGCTGCTG
GAAGGCGGACCGGCCGCC**ATG**TCCACGTTCAGGCAGGAGGACGTGGAGGACCATTATGAGATGGGGGAGGAGCTG
GGCAGCGGCCAGTTTGCGATCGTGCGGAAGTGCCGGCAGAAGGGCACGGGCAAGGAGTACGCAGCCAAGTTCATC
AAGAAGCGCCGCCTGTCATCCAGCCGGCGTGGGGTGAGCCGGGAGGAGATCGAGCGGGAGGTGAACATCCTGCGG
GAGATCCGGCACCCCAACATCATCACCCTGCACGACATCTTCGAGAACAAGACGGACGTGGTCCTCATCCTGGAG
CTGGTCTCTGGCGGGGAGCTCTTTGACTTCCTGGCGGAGAAGGAGTCGCTGACGGAGGACGAGGCCACCCAGTTC
CTCAAGCAGATCCTGGACGGCGTTCACTACCTGCACTCTAAGCGCATCGCACACTTTGACCTGAAGCCGGAAAAC
ATCATGCTGCTGGACAAGAACGTGCCCAACCCACGAATCAAGCTCATCGACTTCGGCATCGCGCACAAGATCGAG
GCGGGGAACGAGTTCAAGAACATCTTCGGCACCCCGGAGTTTGTGGCCCCAGAGATTGTGAACTATGAGCCGCTG
GGCCTGGAGGCGGACATGTGGAGCATCGGTGTCATCACCTATATCCTCCTGAGCGGTGCATCCCCGTTCCTGGGC
GAGACCAAGCAGGAGACGCTCACCAACATCTCAGCCGTGAACTACGACTTCGACGAGGAGTACTTCAGCAACACC
AGCGAGCTGGCCAAGGACTTCATTCGCCGGCTGCTCGTCAAAGATCCCAAGCGGAGAATGACCATTGCCCAGAGC
CTGGAACATTCCTGGATTAAGGCGATCCGGCGGCGGAACGTGCGTGGTGAGGACAGCGGCCGCAAGCCCGAGCGG
CGGCGCCTGAAGACCACGCGTCTGAAGGAGTACACCATCAAGTCGCACTCCAGCTTGCCGCCCAACAACAGCTAC
GCCGACTTCGAGCGCTTCTCCAAGGTGCTGGAGGAGGCGGCGGCGCCGAGGAGGGCCTGCGCGAGCTGCAGCGCA
GCCGGCGGCTCTGCCACGAGGACGTGGAGGCGCTGGCCGCCATCTACGAGGAGAAGGAGGCCTGGTACCGCGAGG
AGAGCGACAGCCTGGGCCAGGACCTGCGGAGGCTACGGCAGGAGCTGCTCAAGACCGAGGCGCTCAAGCGGCAGG
CGCAGGAGGAGGCCAAGGGCGCGCTGCTGGGGACCAGCGGCCTCAAGCGCCGCTTCAGCCGCCTGGAGAACCGCT
ACGAGGCGCTGGCCAAGCAAG**TAG**CCTCCGAGATGCGCTTCGTGCAGGACCTCGTGCGCGCCCTGGAGCAGGAGA
AGCTGCAGGGCGTGGAGTGCGGGCTGCGCTAGGCGCAGTGGGGTGGGCCAGGCCCCAGGACAGCCGGAGCTCGGC
CTGCGGTGGGGGCGCTTCCTGTGGACGCTGCGCCTCCCATCGCCCGGGTGCCTGTCCTTGCCCAGCGCCACCAGG
CTGGAGGCGGAGTGGGAGGAGCTGGAGCCAGGCCCGTAAGTTCGCAGGCAGGGGTGGGTGTGGGACGGGGCTGCT
TCTCTACACAGCCTCCACGCTGGCCTTCACCTTCACCCCTGCATCGTCGGTGACCCTGGGACCCTCCAGGCAGCG
TGGCCTGTGGCACCGTGAGGGTTGGGACCCACCGAGGCGCAGAGGCGGCCCGAATGCAGCCCTGGTTCAGGCCCG
GAGGAGGGTTTGCGGGTAGTTGCACGGACAATTCGGCGGGGTGCTGCCTGTTGCTGCCATTAGCCCAGGAGGAGG
TCGTGGGACGGGGAGGGTGGGATGGACGGCGGACAGGCAGTCCCCACGCTGCTGGGTGGCGCCGGGCTTGGTGGG
GTCTTCCACTGTGTGCCCTTCTCGCCGAGGCCGGTCCCCCGGGTGTGGGGTGCCCTGCTGCGGACTCCTCCGCGA
GCCCCATCGTCGCGCCTGTGGACGCCTAGGCAAGAGCGGCCCTCTGCAGCCAAGAGAAATAAAATACTGGCTTCC
AGAT

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FIGURE 3616

ACGGTAGACCAGATCCGCGCCATC**ATG**GACAAGAAGGCCAACATCCGCAACATGTCTGTCATCGCCCACGTGGAC
CATGGCAAGTCCACGCTGACAGACTCCCTGGTGTGCAAGGCGGGCATCATCGCCTCGGCCCGGGCCGGGGAGACA
CGCTTCACTGATACCCGGAAGGACGAGCAGGAGCGTTGCATCACCATCAAGTCAACTGCCATCTCCCTCTTCTAC
GAGCTCTCGGAGAATGACTTGAACTTCATCAAGCAGAGCAAGGACGGTGCCGGCTTCCTCATCAACCTCATTGAC
TCCCCCGGGCATGTCGACTTCTCCTCGGAGGTGACTGCTGCCCTCCGAGTCACCGATGGCGCATTGGTGGTGGTG
GACTGCGTGTCAGGCGTGTGCGTGCAGACGGAGACAGTGCTGCGGCAGGCCATTGCCGAGCGCATCAAGCCTGTG
CTGATGATGAACAAGATGGACCGCGCCCTGCTGGAGCTGCAGCTGGAGCCCGAGGAGCTCTACCAGACTTTCCAG
CGCATCGTGGAGAACGTGAACGTCATCATCTCCACCTACGGCGAGGGCGAGAGCGGCCCCATGGGCAACATCATG
ATCGATCCTGTCCTCGGTACCGTGGGCTTTGGGTCTGGCCTCCACGGGTGGGCCTTCACCCTGAAGCAGTTTGCC
GAGATGTATGTGGCCAAGTTCGCCGCCAAGGGGGAGGGCCAGTTGGGGCCTGCCGAGCGGGCCAAGAAAGTAGAG
GACATGATGAAGAAGCTGTGGGGTGACAGGTACTTTGACCCAGCCAACGGCAAGTTCAGCAAGTCAGCCACCAGC
CCCGAAGGGAAGAAGCTGCCACGCACCTTCTGCCAGCTGATCCTGGACCCCATCTTCAAGGTGTTTGATGCGATC
ATGAATTTCAAGAAAGAGGAGACAGCAAAACTGATAGAGAAACTGGACATCAAACTGGACAGCGAGGACAAGGAC
AAAGAAGGCAAACCCCTGCTGAAGGCTGTGATGCGCCGCTGGCTGCCTGCCGGAGACGCCTTGTTGCAGATGATC
ACCATCCACCTGCCCTCCCCTGTGACGGCCCAGAAGTACCGCTGCGAGCTCCTGTACGAGGGGCCCCCGGACGAC
GAGGCTGCCATGGGCATTAAAAGCTGTGACCCCAAAGGCCCTCTTATGATGTATATTTCCAAAATGGTGCCAACC
TCCGACAAAGGTCGGTTCTACGCCTTTGGACGAGTCTTCTCGGGGCTGGTCTCCACTGGCCTGAAGGTCAGGATC
ATGGGGCCCAACTATACCCCTGGGAAGAAGGAGGACCTCTACCTGAAGCCAATCCAGAGAACAATCTTGATGATG
GGCCGCTACGTGGAGCCCATCGAGGATGTGCCTTGTGGGAACATTGTGGGCCTCGTGGGCGTGGACCAGTTCCTG
GTGAAGACGGGCACCATCACCACCTTCGAGCACGCGCACAACATGCGGGTGATGAAGTTCAGCGTCAGCCCTGTT
GTCAGAGTGGCCGTGGAGGCCAAGAACCCGGCTGACCTGCCCAAGCTGGTGGAGGGGCTGAAGCGGCTGGCCAAG
TCCGACCCCATGGTGCAGTGCATCATCGAGGAGTCGGGAGAGCATATCATCGCGGGCGCCGGCGAGCTGCACCTG
GAGATCTGCCTGAAGGACCTGGAGGAGGACCACGCCTGCATCCCCATCAAGAAATCTGACCCGGTCGTCTCGTAC
CGCGAGACGGTCAGTGAAGAGTCGAACGTGCTCTGCCTCTCCAAGTCCCCCAACAAGCACAACCGGCTGTACATG
AAGGCGCGGCCCTTCCCCGACGGCCTGGCCGAGGACATCGATAAAGGCGAGGTGTCCGCCCGTCAGGAGCTCAAG
CAGCGGGCGCGCTACCTGGCCGAGAAGTACGAGTGGGACGTGGCTGAGGCCCGCAAGATCTGGTGCTTTGGGCCC
GACGGCACCGGCCCCAACATCCTCACCGACATCACCAAGGGTGTGCAGTACCTCAACGAGATCAAGGACAGTGTG
GTGGCCGGCTTCCAGTGGGCCACCAAGGAGGGCGCACTGTGTGAGGAGAACATGCGGGGTGTGCGCTTCGACGTC
CACGACGTCACCCTGCACGCCGACGCCATCCACCGCGGAGGGGGCCAGATCATCCCCACAGCACGGCGCTGCCTC
TATGCCAGTGTGCTGACCGCCCAGCCACGCCTCATGGAGCCCATCTACCTTGTGGAGATCCAGTGTCCAGAGCAG
GTGGTCGGTGGCATCTACGGGGTTTTGAACAGGAAGCGGGGCCACGTGTTCGAGGAGTCCCAGGTGGCCGGCACC
CCCATGTTTGTGGTCAAGGCCTATCTGCCCGTCAACGAGTCCTTTGGCTTCACCGCTGACCTGAGGTCCAACACG
GGCGGCCAGGCGTTCCCCCAGTGTGTGTTTGACCACTGGCAGATCCTGCCCGGAGACCCCTTCGACAACAGCAGC
CGCCCCAGCCAGGTGGTGGCGGAGACCCGCAAGCGCAAGGGCCTGAAAGAAGGCATCCCTGCCCTGGACAACTTC
CTGGACAAATTG**TAG**GCGGCCCTTCCTGCAGCGCCTGCCGCCCCGGGGACTCGCAGCACCCACAGCACCACGTCC
TCGAATTCTCAGACGACACCTGGAGACTGTCCCGACACAGCGACGCTCCCCTGAGAGGTTTCTGGGGCCCGCTGC
GTGCCATCACTCAACCATAACACTTGATGCCGTTTCTTTCAATATTTATTTCCAGAGTCCGGAGGCAGCAGACAC
GCCCTCTTAGTAGGGACTTAATGGGCCGGTCGGGGAGGGGGAGGCGGGATGGGACACCCAACACTTTTTCCATTT
CTTCAGAGGGAAACTCAGATGTCCAAACTAATTTTAACAAACGCATTAAGAGGTTTATTTGGGTACATGGCCCGC
AGTGGCTTTTGCCCCAGAAAGGGGAAAGGAACACGCGGGTAGATGATTTCTAGCAGGCAGGAAGTCCTGTGCGGT
GTCACCATGAGCACCTCCAGCTGTACTAGTGCCATTGGAATAATAAATTTGATAAGGTG

FIGURE 3617

AAC**ATG**GTGATGAGTTTTCGAGTCTCCGACCTTCAGATGCTCCTGGGTTTCGTGGGCCGGAGTAAGAGTGGACTG
AAGCACGAGCTCGTCACCAGGGCCCTCCAGCTGGTGCAGTTTGACTGTAGCCCTGAGCTGTTCAAGAAGATCAAG
GAGCTGTACGAGACCCGCTACGCCAAGAAGAACTCGGAGCCTGCCCCACAGCCGCACCGGCCCCTGGACCCCCTG
ACCATGCACTCCACCTACGACCGGGCCGGCGCTGTGCCCAGGACTCCGCTGGCAGGCCCCAATATTGACTACCCC
GTGCTCTACGGAAAGTACTTAAACGGACTGGGACGGTTGCCCGCCAAGACCCTCAAGCCAGAAGTCCGCCTGGTG
AAGCTGCCGTTCTTTAATATGCTGGATGAGCTGCTGAAGCCCACCGAATTAGTCCCACAGAACAACGAGAAGCTT
CAGGAGAGCCCGTGCATCTTCGCATTGACGCCAAGACAGGTGGAGTTGATCCGGAACTCCAGGGAACTGCAGCCC
GGAGTTAAAGCCGTGCAGGTCGTCCTGAGAATCTGTTACTCAGACACCAGCTGCCCTCAGGAGGACCAGTACCCG
CCCAACATCGCTGTGAAGGTCAACCACAGCTACTGCTCCGTCCCGGGCTACTACCCCTCCAATAAGCCCGGGGTG
GAGCCCAAGAGGCCGTGCCGCCCCATCAACCTCACCCACCTCATGTACCTGTCCTCGGCCACCAACCGCATCACT
GTCACCTGGGGGAACTACGGCAAGAGCTACTCGGTGGCCCTGTACCTGGTGCGGCAGCTGACCTCATCGGAGCTG
CTGCAGAGGCTGAAGACCATTGGGGTAAAGCACCCGGAGCTGTGCAAGGCACTGGTCAAGGAGAAGCTGCGCCTT
GATCCTGACAGCGAGATCGCCACCACCGGTGTGCGGGTGTCCCTCATCTGTCCGCTGGTGAAGATGCGGCTCTCC
GTGCCCTGCCGGGCAGAGACCTGTGCCCACCTGCAGTGCTTCGACGCCGTCTTCTACCTGCAGATGAACGAGAAG
AAGCCCACCTGGATGTGCCCCGTGTGCGACAAGCCAGCCCCCTACGACCAGCTCATCATCGACGGGCTCCTCTCG
AAGATCCTGAGCGAGTGTGAGGACGCCGACGAGATCGAGTACCTGGTGGACGGCTCGTGGTGCCCGATCCGCGCC
GAAAAGGAGCGCAGCTGCAGCCCGCAGGGCGCCATCCTCGTGCTGGGCCCCTCGGACGCCAATGGGCTCCTGCCC
GCCCCCAGCGTCAACGGGAGCGGTGCCCTGGGCAGCACGGGTGGCGGCGGCCCGGTGGGCAGCATGGAGAATGGG
AAGCCGGGCGCCGATGTGGTGGACCTCACGCTGGACAGCTCATCGTCCTCGGAGGATGAGGAGGAGGAGGAAGAG
GAGGAGGAAGACGAGGACGAAGAGGGGCCCCGGCCCAAGCGCCGCTGCCCCTTCCAGAAGGGCCTGGTGCCGGCC
TGC**TGA**

FIGURE 3618

CCCCTGCCTCTCGGACTCGGGCTGCGGCGTCAGCCTTCTTCGGGCCTCGGCAGCGGTAGCGGCTCGCTCGCCTCA
GCCCCAGCGCCCCTCGGCTACCCTCGGCCCAGGCCCGCAGCGCCGCCCGCCCTCGGCCGCCCCGACGCCGGCCTG
GGCCGCGGCCGCAGCCCCGGGCTCGCGTAGGCGCCGACCGCTCCCGGCCCGCCCCCTATGGGCCCCGGCTAGAGG
CGCCGCCGCCGCCGGCCCGCGGAGCCCCG**ATG**CTGGCCCGGAGGAAGCCGGTGCTGCCGGCGCTCACCATCAACC
CTACCATCGCCGAGGGCCCATCCCCTACCAGCGAGGGCGCCTCCGAGGCAAACCTGGTGGACCTGCAGAAGAAGC
TGGAGGAGCTGGAACTTGACGAGCAGCAGAAGAAGCGGCTGGAAGCCTTTCTCACCCAGAAAGCCAAGGTCGGCG
AACTCAAAGACGATGACTTCGAAAGGATCTCAGAGCTGGGCGCGGGCAACGGCGGGGTGGTCACCAAAGTCCAGC
ACAGACCCTCGGGCCTCATCATGGCCAGGAAGCTGATCCACCTTGAGATCAAGCCGGCCATCCGGAACCAGATCA
TCCGCGAGCTGCAGGTCCTGCACGAATGCAACTCGCCGTACATCGTGGGCTTCTACGGGGCCTTCTACAGTGACG
GGGAGATCAGCATTTGCATGGAACACATGGACGGCGGCTCCCTGGACCAGGTGCTGAAAGAGGCCAAGAGGATTC
CCGAGGAGATCCTGGGGAAAGTCAGCATCGCGGTTCTCCGGGGCTTGGCGTACCTCCGAGAGAAGCACCAGATCA
TGCACCGAGATGTGAAGCCCTCCAACATCCTCGTGAACTCTAGAGGGGAGATCAAGCTGTGTGACTTCGGGGTGA
GCGGCCAGCTCATCGACTCCATGGCCAACTCCTTCGTGGGCACGCGCTCCTACATGGCTCCGGAGCGGTTGCAGG
GCACACATTACTCGGTGCAGTCGGACATCTGGAGCATGGGCCTGTCCCTGGTGGAGCTGGCCGTCGGAAGGTACC
CCATCCCCCCGCCCGACGCCAAAGAGCTGGAGGCCATCTTTGGCCGGCCCGTGGTCGACGGGGAAGAAGGAGAGC
CTCACAGCATCTCGCCTCGGCCGAGGCCCCCCGGGCGCCCCGTCAGCGGTCACGGGATGGATAGCCGGCCTGCCA
TGGCCATCTTTGAACTCCTGGACTATATTGTGAACGAGCCACCTCCTAAGCTGCCCAACGGTGTGTTCACCCCCG
ACTTCCAGGAGTTTGTCAATAAATGCCTCATCAAGAACCCAGCGGAGCGGGCGGACCTGAAGATGCTCACAAACC
ACACCTTCATCAAGCGGTCCGAGGTGGAAGAAGTGGATTTTGCCGGCTGGTTGTGTAAAACCTGCGGTGAACCAG
CCCGGCACACCCACGCGCACCGCCGTGTGACAGTGGCCGGGCTCCCTCGGTCCCGCTGG**TGA**CCTGCCCACCGTC
CCTGTCCATGCCCCGCCCTTCCAGCTGAGGACCGTGGCGCCTCCACCCACCCTCCTGCCTCACCCTGCGGAGAGC
ACCGTGGCGGGGCGACAGCGCATGCAGGAACGGGGGTCTCCTCTCCTGCCGTCCTGGCCGGGGTGCCTCTGGGGA
CGGGCGACGCTGCTGTGTGTGGTCTCAGAGGCTCTGCTTCCTTAGGTTACAAAACAAAACAGGGAGAGAAAAAGC

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FIGURE 3619

GCTTCCGGCGGAAGCGGCCTCAACAAGGGAAACTTTATTGTTCCCGTGGGGCAGTCGAGG**ATG**TCGGTGAATTAC
GCGGCGGGGCTGTCGCCGTACGCGGACAAGGGCAAGTGCGGCCTCCCGGAGATCTTCGACCCCCCGGAGGAGCTG
GAGCGGAAGGTGTGGGAACTGGCGAGGCTGGTCTGGCAGTCTTCCAGTGTGGTGTTCCACACGGGTGCCGGCATC
AGCACTGCCTCTGGCATCCCCGACTTCAGGGGTCCCCACGGAGTCTGGACCATGGAGGAGCGAGGTCTGGCCCCC
AAGTTCGACACCACCTTTGAGAGCGCGCGGCCCACGCAGACCCACATGGCGCTGGTGCAGCTGGAGCGCGTGGGC
CTCCTCCGCTTCCTGGTCAGCCAGAACGTGGACGGGCTCCATGTGCGCTCAGGCTTCCCCAGGGACAAACTGGCA
GAGCTCCACGGGAACATGTTTGTGGAAGAATGTGCCAAGTGTAAGACGCAGTACGTCCGAGACACAGTCGTGGGC
ACCATGGGCCTGAAGGCCACGGGCCGGCTCTGCACCGTGGCTAAGGCAAGGGGGCTGCGAGCCTGCAGGGGAGAG
CTGAGGGACACCATCCTAGACTGGGAGGACTCCCTGCCCGACCGGGACCTGGCACTCGCCGATGAGGCCAGCAGG
AACGCCGACCTGTCCATCACGCTGGGTACATCGCTGCAGATCCGGCCCAGCGGGAACCTGCCGCTGGCTACCAAG
CGCCGGGGAGGCCGCCTGGTCATCGTCAACCTGCAGCCCACCAAGCACGACCGCCATGCTGACCTCCGCATCCAT
GGCTACGTTGACGAGGTCATGACCCGGCTCATGAAGCACCTGGGGCTGGAGATCCCCGCCTGGGACGGCCCCCGT
GTGCTGGAGAGGGCGCTGCCACCCCTGCCCCGCCCGCCCACCCCCAAGCTGGAGCCCAAGGAGGAATCTCCCACC
CGGATCAACGGCTCTATCCCCGCCGGCCCCAAGCAGGAGCCCTGCGCCCAGCACAACGGCTCAGAGCCCGCCAGC
CCCAAACGGGAGCGGCCCACCAGCCCTGCCCCCCACAGACCCCCCAAAAGGGTGAAGGCCAAGGCGGTCCCCAGC
TGACCAGGGTGCTTGGGGAGGGTGGGGCTTTTTGTAGAAACTGTGGATTCTTTTTCTCTCGTGGTCTCACTTTGT
TACTTGTTTCTGTCCCCGGGAGCCTCAGGGCTCTGAGAGCTGTGCTCCAGGCCAGGGGTTACACCTGCCCTCCGT
GGTCCCTCCCTGGGCTCCAGGGGCCTCTGGTGCGGTTCCGGGAAGAAGCCACACCCCAGAGGTGACAGCTGAGCC
CCTGCCACACCCCAGCCTCTGACTTGCTGTGTTGTCCAGAGGTGAGGCTGGGCCCTCCCTGGTCTCCAGCTTAAA
CAGGAGTGAACTCCCTCTGTCCCCAGGGCCTCCCTTCTGGGCCCCCTACAGCCCACCCTACCCCTCCTCCATGGG
CCCTGCAGGAGGGGAGACCCACCTTGAAGTGGGGGATCAGTAGAGGCTTGCACTGCCTTTGGGGCTGGAGGGAGA
CGTGGGTCCACCAGGCTTCTGGAAAAGTCCTCAATGCAATAAAAACAATTTCTTTCTTGCA

FIGURE 3620

CCGCAGCC**ATG**ACCCCGCAGCTTCTCCTGGCCCTTGTCCTCTGGGCCAGCTGCCCGCCCTGCAGTGGAAGGAAAG
GGCCCCCAGCAGCTCTGACACTGCCCCGGGTGCAATGCCGAGCCTCTCGGTACCCGATCGCCGTGGATTGCTCCT
GGACCCTGCCGCCTGCTCCAAACTCCACCAGCCCCGTGTCCTTCATTGCCACGTACAGGCTCGGCATGGCTGCCC
GGGGCCACAGCTGGCCCTGCCTGCAGCAGACGCCAACGTCCACCAGCTGCACCATCACGGATGTCCAGCTGTTCT
CCATGGCTCCCTACGTGCTCAATGTCACCGCCGTCCACCCCTGGGGCTCCAGCAGCAGCTTCGTGCCTTTCATAA
CAGAGCACATCATCAAGCCCGACCCTCCAGAAGGCGTGCGCCTAAGCCCCCTCGCTGAGCGCCAGCTACAGGTGC
AGTGGGAGCCTCCCGGGTCCTGGCCCTTCCCAGAGATCTTCTCACTGAAGTACTGGATCCGTTACAAGCGTCAGG
GAGCTGCGCGCTTCCACCGGGTGGGGCCCATTGAAGCCACGTCCTTCATCCTCAGGGCTGTGCGGCCCCGAGCCA
GGTACTACGTCCAAGTGGCGGCTCAGGACCTCACAGACTACGGGGAACTGAGTGACTGGAGTCTCCCCGCCACTG
CCACAATGAGCCTGGGCAAG**TAG**CAAGGGCTTCCCGCTGCCTCCAGACAGCACCTGGGTCCTCGCCACCCTAAGC
CCCGGGACACCTGTTGGAGGGCGGATGGGATCTGCCTAGCCTGGGCTGGAGTCCTTGCTTTGCTGCTGCTGAGCT
GCCGGGCAACCTCAGATGACCGACTTTTCCCTTTGAGCCTCAGTTTCTCTAGCTGAGAAATGGAGATGTACTACT
CTCTCCTTTACCTTTACCTTTACCACAGTGCAGGGCTGACTGAACTGTCACTGTGAGATATTTTTTATTGTTTAA
TTAGAAAAGAATTGTTGTTGGGCTGGGCGCAGTGGATCGCACCTGTAATCCCAGTCACTGGGAAGCCGACGTGGG
AGGGTAGCTTGAGGCCAGGAGCTCGAAACCAGTCCGGGCCACACAGCAAGACCCCATCTCTAAAAAATTAATATA
AATATAAAATAAA

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FIGURE 3621

AAGCCGGAGTCTAGAGCTCCGGGCGCGGGGAGGCGCGGCC**ATG**GCAGCTCCGGAGCCGCTGTCCCCGGCGGGCGG
TGCGGGCGAGGAGGCGCCGGAGGAGGACGAGGACGAAGCGGAGGCCGAGGACCCTGAGCGGCCGAATGCGGGAGC
GGGCGGTGGACGCAGTGGCGGCGGCGGCAGTAGCGTCAGCGGAGGAGGCGGCGGCGGCGGGGCCGGGGCGGGGGG
CTGCGGCGGGCCCGGGGGCGCGCTCACCAGGCGCGCGGTCACACTGCGGGTGCTCCTCAAAGACGCGCTGCTGGA
GCCTGGCGCCGGGGTGCTGTCCATCTACTACCTGGGGAAGAAGTTCCTGGGCGACCTGCAGCCAGACGGAAGGAT
CATGTGGCAGGAGACCGGGCAGACCTTCAACTCACCCAGCGCCTGGGCCACCCACTGCAAGAAGCTGGTGAACCC
TGCCAAGAAGTCGGGCTGTGGCTGGGCCTCTGTCAAGTACAAAGGCCAGAAACTGGACAAGTACAAGGCCACCTG
GCTCCGGCTGCACCAGCTGCACACGCCTGCCACGGCTGCTGATGAGAGCCCAGCCAGTGAAGGGGAGGAGGAGGA
GTTGCTGATGGAAGAGGAGGAGGAGGACGTTCTGGCAGGGGTCTCAGCAGAGGACAAGAGTCGGAGACCACTGGG
GAAGAGCCCTTCAGAGCCTGCCCACCCGGAGGCCACAACCCCAGGGAAGCGGGTGGACAGCAAGATCCGGGTTCC
GGTCCGCTACTGCATGCTGGGCAGCCGCGACTTGGCCAGGAACCCCCACACCCTGGTGGAAGTAACATCCTTTGC
AGCCATCAACAAGTTCCAGCCGTTCAACGTGGCTGTTTCTAGCAACGTGCTGTTCCTGCTGGACTTCCACAGTCA
CCTGACACGGAGTGAGGTCGTGGGTTACCTGGGGGGCCGCTGGGACGTCAACAGCCAGATGCTGACGGTGCTCAG
AGCCTTCCCTTGTCGGAGCCGGCTCGGGGACGCAGAGACTGCAGCTGCCATCGAAGAGGAGATCTACCAGAGCCT
GTTCCTGCGGGGCCTGTCCCTGGTGGGCTGGTACCACAGCCACCCACACAGCCCGGCGCTGCCATCTCTGCAGGA
CATCGACGCACAGATGGACTACCAGCTGCGGCTGCAGGGCTCCAGCAATGGCTTCCAGCCCTGCCTCGCCCTGCT
CTGCTCCCCTTACTATTCTGGCAACCCAGGCCCCGAGTCCAAGATCTCACCTTTCTGGGTGATGCCTCCTCCCGA
GCAAAGGCCCAGTGACTATGGCATCCCCATGGATGTGGAGATGGCCTACGTCCAGGACAGCTTCCTGACCAATGA
CATCCTTCACGAGATGATGCTGCTGGTGGAGTTCTACAAGGGTTCCCCTGACCTCGTGAGGCTCCAGGAACCCTG
GAGCCAGGAGCACACCTACCTCGACAAGCTTAAGATCTCCTTGGCCAGCAGGACGCCCAAGGACCAGAGCCTGTG
TCACGTCCTGGAACAGGTGTGCGGCGTCCTCAAGCAGGGGAGC**TGA**GCCTTCCAGGGCAGGGTGGGCTCCAGTTG
TCTTGAGGGTCCGGATGGGCTCAGGTAATAAAGAAACGGAAGCAGCAGCC

FIGURE 3622

GTGCGGTTGCCATGTAATATCCTGGCCGCGCGGGCGCGCGAGCGGCTGAGGCGGCGCCGGGGCGGGCGCGGAGCT
GGCAAGCGGGTGGCGGAGGCGGCGCCGACGGGGACTGCTGAGGCGCGCAGAGGGTCGGCGGCGCCCGGGAGCCTG
TCGCTGGCGCGGTCCGGGCGGGAGGCTCGGCGGCGGGCGGCAGC**ATG**TCGGTGGCGGGGCTGAAGAAGCAGTTCT
ACAAGGCGAGCCAGCTGGTCAGTGAGAAGGTCGGAGGGGCCGAGGGGACCAAGCTGGATGATGACTTCAAAGAGA
TGGAGAAGAAGGTGGATGTCACCAGCAAGGCGGTGACAGAAGTGCTGGCCAGGACCATCGAGTACCTGCAGCCCA
ACCCAGCCTCGCGGGCTAAGCTGACCATGCTCAACACGGTGTCCAAGATCCGGGGCCAGGTGAAGAACCCCGGCT
ACCCGCAGTCGGAGGGGCTTCTGGGCGAGTGCATGATCCGCCACGGGAAGGAGCTGGGCGGCGAGTCCAACTTTG
GTGACGCATTGCTGGATGCCGGCGAGTCCATGAAGCGCCTGGCAGAGGTGAAGGACTCCCTGGACATCGAGGTCA
AGCAGAACTTCATTGACCCCCTCCAGAACCTGTGCGAGAAAGACCTGAAGGAGATCCAGCACCACCTGAAGAAAC
TGGAGGGCCGCCGCCTGGACTTTGACTACAAGAAGAAGCGGCAGGGCAAGATCCCCGATGAGGAGCTACGCCAGG
CGCTGGAGAAGTTCGAGGAGTCCAAGGAGGTGGCAGAAACCAGCATGCACAACCTCCTGGAGACTGACATCGAGC
AGGTGAGTCAGCTCTCGGCCCTGGTGGATGCACAGCTGGACTACCACCGGCAGGCCGTGCAGATCCTGGACGAGC
TGGCGGAGAAGCTCAAGCGCAGGATGCGGGAAGCTTCCTCACGCCCTAAGCGGGAGTATAAGCCCAAGCCCCGGG
AGCCCTTTGACCTTGGAGAGCCTGAGCAGTCCAACGGGGGCTTCCCCTGCACCACAGCCCCCAAGATCGCAGCTT
CATCGTCTTTCCGATCTTCCGACAAGCCCATCCGGACCCCTAGCCGGAGCATGCCGCCCCTGGACCAGCCGAGCT
GCAAGGCGCTGTACGACTTCGAGCCCGAGAACGACGGGGAGCTGGGCTTCCATGAGGGCGACGTCATCACGCTGA
CCAACCAGATCGATGAGAACTGGTACGAGGGCATGCTGGACGGCCAGTCGGGCTTCTTCCCGCTCAGCTACGTGG
AGGTGCTTGTGCCCCTGCCGCAG**TGA**CTCACCCGTGTCCCCGCCCCGCCCCTCCGTCCACACTGGCCGGCACCCC
CTGCTGGGTCTCCTGCATTCCACGGAGCCCCTGCTGCCAGGGCGGTGTCTGAGCCTGCCGGCGCCACCTGGGCCC
CGGCCCTTGAGGTACTCCCTGAGCAGGACCCCACACTTGGGTGGGGGGGCTTATCTGGGTGGGTGGGGATGCCTG
TTTACACTAGCGCTGACTCCCAACGGTGACGGCTCCCTTCCCCACTCCATGGCGCCAGCCTCCTCCCCCGCTCCC
CAACTTCTCGCCCAGCTGGCCGAGGCGGGGCAACACTAAGGTGCTCTTAGAAACACTAATGTTCCTCTGGGGCAG
CCCCCACCTCCGTCCTGACCCGACGGGGGCCCGGCCCACTGCCTACCCTCGAGTCCCGCAGCCTTAACAGGATGG
GATCGAGGGTCCCCATGGGGTGGCTCAGAGATAGGACCCTGGTTTTAAATCCCTCCCAGCCTGGTGCTGGTGATG
GGCCCTGGCCCTACTCCAGGGCCAATGCACCCCCGCCTCACACACGCACTCCTTCTCCTCAAGGCCAGGGCAGAG
GGCCTCACCGCCTCCCGGGCCTGCTGTCAGCTTGCAGCCCGGGGACAGAGGCCAGCTGGGATCTGCCTGAGGACA
GAGAACATGGTCTCCTGCAGGGCCCTGCCTCCCAAGCCCCGCCCTCAGAAAGCCAAGTACCTTTTCAGCTTTTTA
ACTGCCCCCATCCCAACCCAGGGAGGCCTGTGTCACTCTGGCACAAGCTGCCACCACCAGCCACCCACACCCACC
CCAGCACACCTCACACGGGACCACAGCCGCGCTGCCGAGGGCCAAGCACAAAGGTTCCAGTGAGCGCATGTCCCA
GCCCCTGGTGGCCAGGCTCCCCTTGCTGAGCCGCTGCCACTTCACCCTGTGGGAAGTGGCCCCAGCCATCTCCTC
TAGACCAAGGCAGGCAGCCCCGACATCTGCTTCCTCTATCGCCCAATGCAAAATCGATGAAATGGGGAGTTCTCT
GGGCCAGGCCACATTCACATTCCCCTCCCCCTGTGGTCCAGTGAAGCCTCCGGACCCCAGGCTCTGCTCTGCCCT
GCCCTGCACCCCCCTCGTCAGAAGTACATGAGGGGCGCAGAGATGAGCACACAGCTTTGGGCACGGTCCAGGGCA
AACTGAAATGTACGCCTGAATTTTGTAAACAGAAGTATTAAATGTCTCTTTCTAC

FIGURE 3623

GGAGTGCGGGGCGCCCGGCGCCAGGGGAGCCGCCACAGCC**ATG**GATTGCAAAGATAGACCAGCTTTTCCAGTTAA
GAAGTTAATACAAGCCCGTCTGCCGTTTAAGCGCCTGAATCTTGTCCCAAAGGGGAAAGCCGATGACATGTCAGA
CGATCAGGGTACTTCTGTGCAAAGTAAAAGCCCCGATTTAGAGGCCTCTTTGGACACCTTGGAAAACAACTGTCA
TGTGGGTTCTGACATAGACTTTAGACCGAAACTTGTCAACGGGAAGGGTCCCTTAGATAACTTTTTAAGAAATAG
AATCGAAACCAGTATTGGCCAGAGCACAGTCATCATTGATTTGACAGAGGACTCGAATGAGCAGCCAGACAGTCT
TGTGGACCACAATAAACTAAATTCTGAAGCCTCTCCCTCCAGGGAGGCAATAAATGGCCAGCGAGAAGACACTGG
GGATCAGCAGGGGTTGTTGAAGGCCATTCAGAACGACAAGTTGGCATTTCCTGGAGAGACCCTTTCAGACATTCC
TTGCAAAACAGAGGAGGAGGGTGTTGGCTGTGGAGGTGCAGGGAGGAGAGGCGACTCCCAGGAATGTTCGCCACG
GAGCTGCCCGGAGCTGACGAGTGGCCCGAGAATGTGCCCCAGAAAGGAGCAGGACAGTTGGAGTGAAGCTGGGGG
CATCCTGTTCAAAGGGAAGGTGCCTATGGTGGTCTTGCAGGACATCTTGGCTGTGAGACCACCGCAAATCAAGTC
CCTTCCAGCCACACCCCAAGGCAAGAACATGACCCCTGAGAGTGAGGTGCTGGAATCTTTCCCCGAAGAAGACTC
TGTACTCAGCCATTCGTCCCTGAGCTCTCCCTCTTCCACCAGCTCGCCCGAGGGGCCGCCTGCTCCCCCAAAGCA
GCACAGCAGTACCAGTCCCTTCCCCACCTCCACGCCCCTCCGCAGAATAACTAAGAAATTCGTCAAAGGCTCTAC
AGAGAAGAACAAGCTCAGACTGCAAAGAGATCAGGAGCGTCTGGGCAAGCAGCTCAAGTTACGTGCAGAAAGGGA
AGAAAAGGAGAAGCTGAAAGAGGAGGCCAAGCGGGCCAAGGAGGAGGCCAAGAAGAAGAAGGAGGAAGAGAAGGA
GCTTAAGGAAAAGGAGAGGCGGGAGAAGCGGGAGAAGGATGAGAAGGAGAAGGCGGAGAAGCAGCGGCTCAAGGA
GGAGCGGCGCAAGGAGAGACAGGAAGCCCTGGAGGCTAAACTTGAGGAAAAAAGGAAAAAGGAAGAAGAGAAACG
GTTAAGAGAAGAAGAGAAGCGCATTAAAGCAGAGAAGGCCGAAATCACGAGGTTCTTCCAGAAACCAAAGACTCC
ACAGGCCCCCAAGACCCTGGCCGGCTCCTGTGGGAAGTTTGCCCCCTTTGAAATTAAAGAGCACATGGTCCTGGC
CCCTCGGCGTCGGACCGCTTTCCATCCAGACCTCTGCAGTCAGCTGGACCAGCTCCTCCAGCAGCAGAGCGGCGA
GTTCTCCTTCTTGAAAGACCTCAAAGGCCGGCAGCCCCTGAGGTCCGGACCCACGCACGTTTCCACCCGGAATGC
AGATATTTTTAACAGTGATGTCGTCATCGTGGAGCGTGGGAAGGGCGACGGTGTTCCCGAGAGGAGGAAGTTTGG
CAGGATGAAGCTCCTGCAGTTCTGTGAGAACCACCGGCCTGCCTACTGGGGTACCTGGAATAAGAAGACGGCACT
CATCCGCGCGCGAGACCCCTGGGCCCAGGACACGAAGCTCCTGGACTATGAGGTGGACAGTGATGAGGAGTGGGA
AGAAGAGGAGCCTGGGGAGTCCCTGTCCCACAGTGAGGGGGATGATGATGACGACATGGGAGAGGATGAAGATGA
GGACGATGGTTTCTTTGTGCCCCATGGGTACCTGTCTGAGGACGAAGGTGTGACAGAGGAGTGTGCCGACCCTGA
GAACCATAAGGTCCGCCAGAAACTGAAGGCCAAGGAGTGGGACGAGTTCCTGGCTAAGGGGAAGCGCTTTCGCGT
CCTGCAACCTGTGAAGATCGGCTGCGTGTGGGCGGCTGACAGAGACTGCGCAGGCGATGACCTGAAGGTACTGCA
GCAGTTCGCAGCCTGCTTCCTGGAGACCCTGCCGGCCCAGGAGGAGCAGACGCCCAAGGCCTCCAAGCGGGAGAG
GAGAGACGAGCAGATCCTGGCCCAGCTGCTGCCGCTCCTGCACGGCAATGTGAACGGGAGCAAGGTCATCATCCG
GGAGTTCCAGGAGCACTGCCGCCGGGGACTGCTCAGCAACCACACCGGCAGCCCGCGGAGCCCCTCCACCACCTA
CCTGCACACCCCCACCCCCAGCGAGGATGCCGCCATCCCCTCTAAGTCCCGGCTCAAGCGGCTCATTTCCGAGAA
CTCAGTGTATGAGAAGCGGCCTGACTTCAGGATGTGCTGGTACGTGCACCCGCAGGTGCTACAGAGCTTCCAGCA
GGAGCACCTGCCCGTGCCGTGCCAGTGGAGCTATGTGACATCGGTGCCCTCGGCCCCCAAAGAGGACAGTGGCAG
CGTCCCCTCCACGGGGCCCAGCCAGGGCACTCCCATCTCGCTGAAGAGGAAGTCAGCGGGCAGCATGTGCATCAC
CCAATTCATGAAGAAGCGCAGGCACGACGGCCAGATTGGTGCTGAAGACATGGACGGCTTCCAGGCAGACACGGA
GGAGGAGGAAGAGGAGGAGGGCGACTGTATGATCGTGGATGTCCCGGATGCTGCGGAGGTCCAAGCCCCGTGTGG
AGCCGCTTCCGGAGCTGGGGGTGGTGTGGGGGTGGACACCGGCAAGGCCACCCTGACCTCGAGCCCACTGGGTGC
ATCC**TGA**GAGCAGGGGTGACGTATGTAGAATGCTTAGGGTGTCCTCCCCACAGAGCAGATACTTGAACCGACTCA
ATTCCTGTGTAAAGAGCACTTTGTCCTGCTTCACGGACCTCCCCAAAGTGTGCAGAGTTCTATATAGGATGCTGG
ATTAGTTCCTTTGATATTTGTAAAAATTCCCCCAAGAGCCGCATATGAATCTGCCCTTTAATAAAGCATTATTGA
GATTGCTGGCCTATTGGGGAAGCCTGCGGGCACAGGA

FIGURE 3624

TTTTCTTCCGGTGGCTGGTCTCCGGCGGCCCCGTCCCCGACTGGGCCCCGTGCCCCCCCGCCCCCGCGGCCCCCC
GCCGCCGGGCCAGCCGCCACC**ATG**AAGAAATTCTTTCAGGAGTTCAAGGCCGACATCAAGTTCAAGAGCGCGGGA
CCCGGTCAGAAGCTCAAAGAGTCCGTGGGGGAAAAGGCCCACAAAGAGAAGCCCAACCAGCCAGCCCCCAGGCCG
CCCCGCCAGGGACCCACCAATGAGGCACAGATGGCAGCCGCTGCCGCCCTAGCCCGGCTGGAGCAGAAGCAGTCC
CGGGCCTGGGGCCCCACATCGCAGGACACCATCCGAAACCAGGTGAGAAAGGAACTTCAAGCCGAAGCCACCGTC
AGCGGGAGCCCCGAGGCCCCAGGGACCAACGTGGTATCTGAGCCCAGAGAGGAAGGCTCTGCCCACCTGGCTGTG
CCTGGCGTGTACTTCACCTGTCCGCTCACTGGGGCCACCCTGAGGAAGGACCAGCGGGACGCCTGCATCAAGGAG
GCCATTCTCTTGCACTTCTCCACCGACCCAGTGGCCGCCTCCATCATGAAGATCTACACGTTCAACAAAGACCAG
GACCGGGTGAAGCTGGGTGTGGACACCATTGCCAAGTACCTGGACAACATCCACCTGCACCCCGAGGAGGAGAAG
TACCGGAAGATCAAGCTGCAGAACAAGGTGTTTCAGGAGCGCATTAACTGCCTGGAAGGGACCCACGAGTTTTTT
GAGGCCATTGGGTTCCAGAAGGTGTTGCTTCCCGCCCAGGATCAGGAGGACCCCGAGGAGTTCTACGTGCTGAGC
GAGACCACCTTGGCCCAGCCCCAGAGCCTGGAGAGGCACAAGGAACAGCTGCTGGCTGCGGAGCCCGTGCGCGCC
AAGCTGGACAGGCAGCGCCGCGTCTTCCAGCCCTCGCCCCTGGCCTCGCAGTTCGAACTGCCTGGGGACTTCTTC
AACCTCACAGCAGAGGAGATCAAGCGGGAGCAGAGGCTCAGGTCCGAGGCGGTGGAGCGGCTGAGCGTGCTGCGG
ACCAAGGCCATGCGGGAGAAGGAGGAGCAGCGGGGGCTGCGCAAGTACAACTACACGCTGCTGCGCGTGCGCCTC
CCCGATGGCTGCCTCCTGCAGGGCACTTTCTACGCTCGGGAGCGGCTGGGGGCGGTGTACGGGTTCGTCCGGGAG
GCCCTGCAGAGCGACTGGCTGCCTTTTGAGCTGCTGGCCTCGGGAGGGCAGAAGCTGTCCGAGGACGAGAACCTG
GCCTTGAACGAGTGCGGGCTGGTGCCCTCTGCCCTCCTGACCTTCTCGTGGGACATGGCTGTGCTGGAGGACATC
AAGGCCGCGGGGGCCGAGCCGGACTCCATCCTGAAACCCGAGCTCCTGTCAGCCATCGAGAAGCTCTTG**TGA**AAT
AAAAGCAGGGTTGGCCTCAGCCCTGTGGGTCTGTCTCATGCTCTCCCTGTTCCTCTCCCCGCCACCCCAGGGCCT
CCAAGCCACCTCTGGAAATACTTGGCTCTGCCCCATGGGCACGGGAGGGGCGCCAGCCGTGGAGCTGTGGAATTG
GGCCCCGTGGCAGAGCCCCCATCCCTTGGGGGCTGTGGGGATGCGCCCAAGCCCCCGAGGGAGAGGCCTGGGGAC
ACCAAC

FIGURE 3625

CGCCGCTGCAGCCGCTTTCCGCGGCCTGGGCCTCTCGCCGTCAGC**ATG**CCACACGCCTTCAAGCCCGGGGACTTG
GTGTTCGCTAAGATGAAGGGCTACCCTCACTGGCCTGCCAGGATCGACGACATCGCGGATGGCGCCGTGAAGCCC
CCACCCAACAAGTACCCCATCTTTTTCTTTGGCACACACGAAACAGCCTTCCTGGGACCCAAGGACCTGTTCCCC
TACGACAAATGTAAAGACAAGTACGGGAAGCCCAACAAGAGGAAAGGCTTCAATGAAGGGCTGTGGGAGATCCAG
AACAACCCCCACGCCAGCTACAGCGCCCCTCCGCCAGTGAGCTCCTCCGACAGCGAGGCCCCCGAGGCCAACCCC
GCCGACGGCAGTGACGCTGACGAGGACGATGAGGACCGGGGGGTCATGGCCGTCACAGCGGTAACCGCCACAGCT
GCCAGCGACAGGATGGAGAGCGACTCAGACTCAGACAAGAGTAGCGACAACAGTGGCCTGAAGAGGAAGACGCCT
GCGCTAAAGATGTCGGTCTCGAAACGAGCCCGAAAGGCCTCCAGCGACCTGGATCAGGCCAGCGTGTCCCCATCC
GAAGAGGAGAACTCGGAAAGCTCATCTGAGTCGGAGAAGACCAGCGACCAGGACTTCACACCTGAGAAGAAAGCA
GCGGTCCGGGCGCCACGGAGGGGCCCTCTGGGGGGACGGAAAAAAAAGAAGGCGCCATCAGCCTCCGACTCCGAC
TCCAAGGCCGATTCGGACGGGGCCAAGCCTGAGCCGGTGGCCATGGCGCGGTCGGCGTCCTCCTCCTCCTCTTCC
TCCTCCTCCTCCGACTCCGATGTGTCTGTGAAGAAGCCTCCGAGGGGCAGGAAGCCAGCGGAGAAGCCTCTCCCG
AAGCCGCGAGGGCGGAAACCGAAGCCTGAACGGCCTCCGTCCAGCTCCAGCAGTGACAGTGACAGCGACGAGGTG
GACCGCATCAGTGAGTGGAAGCGGCGGGACGAGGCGCGGAGGCGCGAGCTGGAGGCCCGGCGGCGGCGAGAGCAG
GAGGAGGAGCTGCGGCGCCTGCGGGAGCAGGAGAAGGAGGAGAAGGAGCGGAGGCGCGAGCGGGCCGACCGCGGG
GAGGCTGAGCGGGGCAGCGGCGGCAGCAGCGGGGACGAGCTCAGGGAGGACGATGAGCCCGTCAAGAAGCGGGGA
CGCAAGGGCCGGGGCCGGGGTCCCCCGTCCTCCTCTGACTCCGAGCCCGAGGCCGAGCTGGAGAGAGAGGCCAAG
AAATCAGCGAAGAAGCCGCAGTCCTCAAGCACAGAGCCCGCCAGGAAACCTGGCCAGAAGGAGAAGAGAGTGCGG
CCCGAGGAGAAGCAACAAGCCAAGCCCGTGAAGGTGGAGCGGACCCGGAAGCGGTCCGAGGGCTTCTCGATGGAC
AGGAAGGTAGAGAAGAAGAAAGAGCCCTCCGTGGAGGAGAAGCTGCAGAAGCTGCACAGTGAGATCAAGTTTGCC
CTAAAGGTCGACAGCCCGGACGTGAAGAGGTGCCTGAATGCCCTAGAGGAGCTGGGAACCCTGCAGGTGACCTCT
CAGATCCTCCAGAAGAACACAGACGTGGTGGCCACCTTGAAGAAGATTCGCCGTTACAAAGCGAACAAGGACGTA
ATGGAGAAGGCAGCAGAAGTCTATACCCGGCTCAAGTCGCGGGTCCTCGGCCCAAAGATCGAGGCGGTGCAGAAA
GTGAACAAGGCTGGGATGGAGAAGGAGAAGGCCGAGGAGAAGCTGGCCGGGGAGGAGCTGGCCGGGGAGGAGCTG
GCCGGGGAGGAGGCCCCCCAGGAGAAGGCGGAGGACAAGCCCAGCACCGATCTCTCAGCCCCAGTGAATGGCGAG
GCCACATCACAGAAGGGGGAGAGCGCAGAGGACAAGGAGCACGAGGAGGGTCGGGACTCGGAGGAGGGGCCAAGG
TGTGGCTCCTCTGAAGACCTGCACGACAGCGTACGGGAGGGTCCCGACCTGGACAGGCCTGGGAGCGACCGGCAG
GAGCGCGAGAGGGCACGGGGGGACTCGGAGGCCCTGGACGAGGAGAGC**TGA**GCCGCGGGCAGCCAGGCCCAGCCC
CCGCCCGAGCTCAGGCTGCCCCTCTCCTTCCCCGGCTCGCAGGAGAGCAGAGCAGAGAACTGTGGGGAACGCTGT
GCTGTTTGTATTTGTTCCCTTGGGTTTTTTTTTCCTGCCTAATTTCTGTGATTTCCAACCAACATGAAATGACTA
TAAATGGTTTTTTAATG

FIGURE 3626

CCCCGGCCCCGGCTCCGGCGCTGCTCCCACCGCCGCGGCAACGGCCCCGGCCCACGGAGGCGGCTGGACGGACCC
CCGACGGTTGGACGTACGGACTCTGCTTCGAGAGTAGGCCATGGACACCTTCAGCACCAAGAGCCTGGCTCTGCA
GGCGCAGAAGAAGCTCCTGAGTAAGATGGCGTCCAAGGCAGTGGTGGCCGTGCTGGTGGATGACACCAGCAGTGA
GGTGCTGGATGAGCTGTACCGCGCCACCAGGGAGTTCACGCGCAGCCGCAAGGAGGCCCAGAAGATGCTCAAGAA
CCTGGTCAAGGTGGCCCTGAAGCTGGGACTGCTGCTGCGTGGGGACCAGCTGGGCGGTGAGGAGCTGGCGCTGCT
GCGGCGCTTCCGCCACCGGGCGCGCTGCCTGGCCATGACGGCCGTCAGCTTCCACCAGGTGGACTTCACCTTCGA
CCGGCGCGTGCTGGCCGCCGGGCTGCTCGAGTGCCGCGACCTGCTGCACCAGGCCGTGGGTCCCCACCTGACCGC
CAAGTCCCACGGCCGCATCAACCACGTGTTCGGCCACCTAGCCGACTGCGACTTCCTGGCTGCGCTCTACGGCCC
CGCCGAGCCCTACCGCTCCCACCTGCGCAGGATCTGCGAGGGCCTGGGCCGGATGCTGGACGAGGGCAGCCTCTG
AACCCCGGCGCCGCCCAACCGCGCCCCTCGCGCCTTTTGGGGCTCTCCTGCTGGGCGCGGGTGGGGTTTGTGGGT
TTTTTTCCACCTCTTTTCTCCCAATCGGACTCCGGCCAAACTCCCCTAGACAGATGGGTGACCTGTCTCCTTTGA
GAGGATGCTGAGGCATCTGTAGCAGCTGTTTCAAACACCAATGTCACCTCTCCTCCTGGCCCCCGCCCAATGGGG
AGAGGAATTTGGGGCCCTACTCTGGGGACCACCTTTCACCCGTTTGTACTTTCTGGGCCACGCCGACCCCTGGGT
CGCTTGATGTAAAAGCCAAAAGCTGCTGCCTCCCACTTGGATCATGTCGCCTGGGATTTTCATCCCTCGCACAAG
GACTACGGGTTCACACGGTGAACTGGGGGAAGGGAAGTGTTAGGGGGCAAGTCGCGGCACCCCCCCTTCCATAAA
CTCACGTCCTAACCCCCAGGACCTCAGAAGATGATCTGATTTGGAAATAGGATCATTACAGATGGAATTAGTTCA
GATGATCTCATCTTGGAGTAGGGTGGGCCCCAATTCAAGGACTGGGGTCCTTAAAAAAAGGGGGCCTGGGGCAGG
GCGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGAGAGGCTGAGGCGGGCGGATCACGAGGTCAGGAGATCGAG
ACCATCCTGGCTAACACGGTGAAACCCCATCTCTACTGAAAATACAAAAAATTAGCTGGGCATGGTGGCACATGC
CTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGATAATCACTTGAACCAGGAGGAGGAGGTTGCAGTGAGCCGA
GATTGTGCCACTGCACTCCAGCCTGGGTGACAGAGCAAGACTCTGTCTCAAAAAAAGAAGCGGGGGAGTGGGGGA
TTGAGGCCACGTGCAGTGGCTCACTACTCTAATTCCAGCACTTTGGGAGGCCGAGGCAGGAAGATTGCTTGAACT
CAGAAGTTCAAGACCAGTCTGGGCAACATGGTGAGACCCTCGTCTCTACAAAAAAAAAATTATCGTGGTGGGCCG
GGCGTGGTGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACAAGGTCAAGAGATCGA
GACCATCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCGGGCATGGTGTTGCGTGC
CTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTGGGAGGCGCAGGTTGCAGGGAGGCG
GAGGTTGCAGTGAGCCGAGATTGCACCACTGCACTTCAGCCTGGTGACAGAGCGAGACTCGTCTCAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAGTGACTGTGGTGGTGCACACGTATAATCCCAGCTACTTGAGAGATGACGAGGGAAGA
TCACTTGAGCCCAGGAGTTAAGAGGCTGCAGTGACCGATGATCATGCCACTGCACTCCAGCTTGGGTGAGAGTGG
GACTCTGTCTT

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FIGURE 3627

GTCTACCCGCCCCTGCCCTGAGGACCCTAGTCCAAC**ATG**GCGGCGCCCAGCGGAGGGTGGAACGGCGTCGGCGCG
AGCTTGTGGGCCGCGCTGCTCCTAGGGGCCGTGGCGCTGAGGCCGGCGGAGGCGGTGTCCGAGCCCACGACGGTG
GCGTTTGACGTGCGGCCCGGCGGCGTCGTGCATTCCTTCTCCCATAACGTGGGCCCGGGGGGACAAATATACGTGT
ATGTTCACTTACGCCTCTCAAGGAGGGACCAATGAGCAATGGCAGATGAGTCTGGGGACCAGCGAAGACCACCAG
CACTTCACCTGCACCATCTGGAGGCCCCAGGGGAAGTCCTATCTGTACTTCACACAGTTCAAGGCAGAGGTGCGG
GGCGCTGAGATTGAGTACGCCATGGCCTACTCTAAAGCCGCATTTGAAAGGGAAAGTGATGTCCCTCTGAAAACT
GAGGAATTTGAAGTGACCAAAACAGCAGTGGCTCACAGGCCCGGGGCATTCAAAGCTGAGCTGTCCAAGCTGGTG
ATTGTGGCCAAGGCATCGCGCACTGAGCTG**TGA**CCAGCAGCCCTGTTGCGGGTGGCACCTTCTCATCTCCGGTGA
AGCTGAAGGGGCCCTCCTGGCTCCCAACAGCTTCTCAGTTCCCACTTCCTGCTGAGCTCTTCTGGACTCAGGATC
GCAGATCCGGGGCACAAAGAGGGTGGGGAACATGGGGGCTATGCTGGGGAAAGCAGCCATGCTCCCCCCGACCTC
CAGCCGAGCATCCTTCATGAGCCTGCAGAACTGCTTTCCTATGTTTACCCAGGGGACCTCCTTTCAGATGAACTG
GGAAGAGATGAAATGTTTTTTCATATTTAAATAAATAAGAACATTAAAAAGC

FIGURE 3628A

AAGGTGCCTGAGCCGGCGGGTCCCCTGTGTCCGCCGCGGCTGTCGTCCCCCGCTCCCGCCACTTCCGGGGTCGCA
GTCCCGGGCATGGAGCCGCGACCGTGAGGCGCCGCTGGACCCGGGACGACCTGCCCAGTCCGGCCGCCGCCCCAC
GTCCCGGTCTGTGTCCCACGCCTGCAGCTGGAATGGAGGCTCTCTGGACCCTTTAGAAGGCACCCCTGCCCTCCT
GAGGTCAGCTGAGCGGTTAATGCGGAAGGTTAAGAAACTGCGCCTGGACAAGGAGAACACCGGAAGTTGGAGAAG
CTTCTCGCTGAATTCCGAGGGGGCTGAGAGG**ATG**GCCACCACCGGGACCCCAACGGCCGACCGAGGCGACGCAGC
CGCCACAGATGACCCGGCCGCCCGCTTCCAGGTGCAGAAGCACTCGTGGGACGGGCTCCGGAGCATCATCCACGG
CAGCCGCAAGTACTCGGGCCTCATTGTCAACAAGGCGCCCCACGACTTCCAGTTTGTGCAGAAGACGGATGAGTC
TGGGCCCCACTCCCACCGCCTCTACTACCTGGGAATGCCATATGGCAGCCGAGAGAACTCCCTCCTCTACTCTGA
GATTCCCAAGAAGGTCCGGAAAGAGGCTCTGCTGCTCCTGTCCTGGAAGCAGATGCTGGATCATTTCCAGGCCAC
GCCCCACCATGGGGTCTACTCTCGGGAGGAGGAGCTGCTGAGGGAGCGGAAACGCCTGGGGGTCTTCGGCATCAC
CTCCTACGACTTCCACAGCGAGAGTGGCCTCTTCCTCTTCCAGGCCAGCAACAGCCTCTTCCACTGCCGCGACGG
CGGCAAGAACGGCTTCATGGTGTCCCCTATGAAACCGCTGGAAATCAAGACCCAGTGCTCAGGGCCCCGGATGGA
CCCCAAAATCTGCCCTGCCGACCCTGCCTTCTTCTCCTTCATCAATAACAGCGACCTGTGGGTGGCCAACATCGA
GACAGGCGAGGAGCGGCGGCTGACCTTCTGCCACCAAGGTTTATCCAATGTCCTGGATGACCCCAAGTCTGCGGG
TGTGGCCACCTTCGTCATACAGGAAGAGTTCGACCGCTTCACTGGGTACTGGTGGTGCCCCACAGCCTCCTGGGA
AGGTTCAGAGGGCCTCAAGACGCTGCGAATCCTGTATGAGGAAGTCGATGAGTCCGAGGTGGAGGTCATTCACGT
CCCCTCTCCTGCGCTAGAAGAAAGGAAGACGGACTCGTATCGGTACCCCAGGACAGGCAGCAAGAATCCCAAGAT
TGCCTTGAAACTGGCTGAGTTCCAGACTGACAGCCAGGGCAAGATCGTCTCGACCCAGGAGAAGGAGCTGGTGCA
GCCCTTCAGCTCGCTGTTCCCGAAGGTGGAGTACATCGCCAGGGCCGGGTGGACCCGGGATGGCAAATACGCCTG
GGCCATGTTCCTGGACCGGCCCCAGCAGTGGCTCCAGCTCGTCCTCCTCCCCCCGGCCCTGTTCATCCCGAGCAC
AGAGAATGAGGAGCAGCGGCTAGCCTCTGCCAGAGCTGTCCCCAGGAATGTCCAGCCGTATGTGGTGTACGAGGA
GGTCACCAACGTCTGGATCAATGTTCATGACATCTTCTATCCCTTCCCCCAATCAGAGGGAGAGGACGAGCTCTG
CTTTCTCCGCGCCAATGAATGCAAGACCGGCTTCTGCCATTTGTACAAAGTCACCGCCGTTTTAAAATCCCAGGG
CTACGATTGGAGTGAGCCCTTCAGCCCCGGGGAAGATGAATTTAAGTGCCCCATTAAGGAAGAGATTGCTCTGAC
CAGCGGTGAATGGGAGGTTTTGGCGAGGCACGGCTCCAAGATCTGGGTCAATGAGGAGACCAAGCTGGTGTACTT
CCAGGGCACCAAGGACACGCCGCTGGAGCACCACCTCTACGTGGTCAGCTATGAGGCGGCCGGCGAGATCGTACG
CCTCACCACGCCCGGCTTCTCCCATAGCTGCTCCATGAGCCAGAACTTCGACATGTTCGTCAGCCACTACAGCAG
CGTGAGCACGCCGCCCTGCGTGCACGTCTACAAGCTGAGCGGCCCCGACGACGACCCCCTGCACAAGCAGCCCCG
CTTCTGGGCTAGCATGATGGAGGCAGCCAGCTGCCCCCCGGATTATGTTCCTCCAGAGATCTTCCATTTCCACAC
GCGCTCGGATGTGCGGCTCTACGGCATGATCTACAAGCCCCACGCCTTGCAGCCAGGGAAGAAGCACCCCACCGT
CCTCTTTGTATATGGAGGCCCCCAGGTGCAGCTGGTGAATAACTCCTTCAAAGGCATCAAGTACTTGCGGCTCAA
CACACTGGCCTCCCTGGGCTACGCCGTGGTTGTGATTGACGGCAGGGGCTCCTGTCAGCGAGGGCTTCGGTTCGA
AGGGGCCCTGAAAAACCAAATGGGCCAGGTGGAGATCGAGGACCAGGTGGAGGGCCTGCAGTTCGTGGCCGAGAA
GTATGGCTTCATCGACCTGAGCCGAGTTGCCATCCATGGCTGGTCCTACGGGGGCTTCCTCTCGCTCATGGGGCT
AATCCACAAGCCCCAGGTGTTCAAGGTGGCCATCGCGGGTGCCCCGGTCACCGTCTGGATGGCCTACGACACAGG
GTACACTGAGCGCTACATGGACGTCCCTGAGAACAACCAGCACGGCTATGAGGCGGGTTCCGTGGCCCTGCACGT
GGAGAAGCTGCCCAATGAGCCCAACCGCTTGCTTATCCTCCACGGCTTCCTGGACGAAAACGTGCACTTTTTCCA
CACAAACTTCCTCGTCTCCCAACTGATCCGAGCAGGGAAACCTTACCAGCTCCAGATCTACCCCAACGAGAGACA
CAGTATTCGCTGCCCCGAGTCGGGCGAGCACTATGAAGTCACGTTGCTGCACTTTCTACAGGAATACCTC**TGA**GC
CTGCCCACCGGGAGCCGCCACATCACAGCACAAGTGGCTGCAGCCTCCGCGGGGAACCAGGCGGGAGGGACTGAG
TGGCCCGCGGGCCCCAGTGAGGCACTTTGTCCCGCCCAGCGCTGGCCAGCCCCGAGGAGCCGCTGCCTTCACCGC
CCCGACGCCTTTTATCCTTTTTTAAACGCTCTTGGGTTTTATGTCCGCTGCTTCTTGGTTGCCGAGACAGAGAGA
TGGTGGTCTCGGGCCAGCCCCTCCTCTCCCCGCCTTCTGGGAGGAGGAGGTCACACGCTGATGGGCACTGGAGAG
GCCAGAAGAGACTCAGAGGAGCGGGCTGCCTTCCGCCTGGGGCTCCCTGTGACCTCTCAGTCCCCTGGCCCGGCC
AGCCACCGTCCCCAGCACCCAAGCATGCAATTGCCTGTCCCCCCCGGCCAGCCTCCCCAACTTGATGTTTGTGTT
TTGTTTGGGGGGATATTTTTCATAATTATTTAAAAGACAGGCCGGGCGCGGTGGCTCACGTCTGTAATCCCAGCA
CTTTGGGAGGCTGAGGCGGGCGGATCACCTGAGGTTGGGAGTTCAAGACCAGCCTGGCCAACATGGGGAAACCCC
GTCTCTACTAAAAATACAAAAAATTAGCCGGGTGTGGTGGCGCGTGCCTATAATCCCAGCTACTCGGGAGGCTGA

FIGURE 3628B

GGCAGGAGAATCGCTTGAACCCGGGAGGTGGAGGTTGCGGTGAGCCAAGATCGCACCATTGCACTCCAGCCTGGG
CAACAAGAGCGAAACTCTGTCTCAAAATAAATAAAAAATAAAAGACAGAAAGCAAGGGGTGCCTAAATCTAGACT
TGGGGTCCACACCGGGCAGCGGGGTTGCAACCCAGCACCTGGTAGGCTCCATTTCTTCCCAAGCCCGAGCAGAGG
GTCATGCGGGCCCCACAGGAGAAGCGGCCAGGGCCCGCGGGGGGCACCACCTGTGGACAGCCCTCCTGTCCCCAA
GCTTTCAGGCAGGCACTGAAACGCACCGAACTTCCACGCTCTGCTGGTCAGTGGCGGCTGTCCCCTCCCCAGCCC
AGCCGCCCAGCCACATGTGTCTGCCTGACCCGTACACACCAGGGGTTCCGGGGTTGGGAGCTGAACCATCCCCAC
CTCAGGGTTATATTTCCCTCTCCCCTTCCCTCCCCGCCAAGAGCTCTGCCAGGGGCGGGCAAAAAAAAAAAGTAAA
AAGAAAAGAAAAAAAAAAAAAA

FIGURE 3629A

GGGGGACGGTGAAGGTTGCCTCCCGCCCGTCCGGGCTCTGATCCTCCGTCTCCCCGTCCCCCGGCGGCCGGCCCA
TGGCCTGGCGGAGGCCCGAACC**ATG**GACCTCCGCACCGCCGTGTACAACGCCGCCCGTGATGGCAAGCTGCAGCT
GCTCCAGAAGCTGCTCAGCGGCCGGAGCCGGGAGGAACTGGACGAGCTGACGGGCGAGGTGGCCGGCGGGGGAAC
GCCGCTACTCATCGCCGCCCGCTACGGCCACCTGGACGTGGTGGAGTACCTGGTGGACCGGTGCGGCGCGAGCGT
GGAGGCCGGTGGCTCGGTGCACTTCGATGGCGAGACCATCGAGGGCGCGCCGCCGCTGTGGGCCGCCTCCGCAGC
CGGCCACCTGGACGTGGTGCGGAGCCTGCTGCGCCGCGGGGCCTCGGTGAACCGCACCACGCGCACCAACTCCAC
GCCTCTCCGCGCCGCCTGCTTCGACGGCCACCTGGAGGTGGTGCGCTACCTGGTCGGCGAGCACCAGGCCGACCT
GGAGGTGGCCAACCGGCACGGCCACACGTGCCTCATGATCTCGTGCTACAAGGGCCACCGTGAGATCGCCCGCTA
CCTGCTGGAGCAGGGCGCCCAGGTGAACCGGCGCAGCGCCAAGGGCAACACGGCCCTGCATGACTGCGCCGAGTC
CGGCAGCCTGGAGATCCTGCAGCTGCTGCTGGGGTGCAAGGCCCGCATGGAACGTGACGGCTACGGCATGACCCC
GCTGCTCGCGGCCAGCGTGACGGGCCACACCAACATCGTGGAGTACCTCATCCAGGAGCAGCCCGGCCAGGAGCA
GGTCGCAGGGGGAGAGGCTCAGCCTGGGCTGCCCCAAGAAGACCCCTCCACCAGCCAGGGGTGTGCGCAGCCTCA
GGGGGCTCCGTGCTGCAGCTCCTCCCCAGAGGAACCACTGAACGGGGAATCTTACGAAAGCTGCTGTCCCACCAG
CCGGGAAGCTGCCGTGGAAGCCTTGGAATTGCTGGGAGCTACGTATGTGGATAAGAAACGAGATCTGCTTGGGGC
CCTTAAACACTGGAGGCGGGCCATGGAGCTGCGTCACCAGGGGGGCGAGTACCTGCCCAAACCGGAGCCCCCACA
GCTGGTCCTGGCCTATGACTATTCCAGGGAGGTCAACACCACCGAGGAGCTGGAGGCGCTGATCACCGACCCGGA
TGAGATGCGCATGCAGGCCCTGTTGATCCGGGAGCGCATCCTCGGTCCCTCGCACCCGGACACTTCCTATTACAT
CCGTTACAGGGGTGCCGTGTACGCCGACTCGGGCAATTTCGAGCGCTGCATCCGCTTGTGGAAGTACGCCCTGGA
CATGCAACAGAGCAACCTGGAGCCTCTGAGCCCCATGACCGCCAGCAGCTTCCTCTCCTTCGCGGAACTCTTCTC
CTACGTGCTTCAGGACCGGGCCGCCAAAGGCAGCCTGGGCACCCAGATCGGCTTTGCAGACCTCATGGGGGTTCT
CACCAAAGGGGTCCGGGAAGTGGAACGGGCCCTGCAGCTGCCCAGGGAGCCCGGAGACTCAGCCCAGTTCACCAA
GGCGCTGGCCATCATCCTCCACCTGCTCTACCTGCTGGAGAAAGTGGAGTGCACCCCCAGCCAGGAGCACCTGAA
GCACCAGACCGTCTACCGCCTGCTCAAGTGCGCGCCCAGGGGCAAGAACGGCTTCACCCCTCTGCACATGGCTGT
GGACAAGGACACCACAAACGTGGGCCGCTATCCCGTGGGCAGATTCCCCTCCCTGCACGTGGTCAAAGTGCTGCT
CGACTGCGGGGCCGACCCGGACAGCAGGGATTTTGACAACAACACCCCGCTACACATAGCAGCCCAGAACAACTG
CCCGGCCATCATGAATGCCCTGATCGAAGCAGGGGCCCACATGGACGCCACCAATGCCTTCAAGAAGACGGCCTA
CGAGCTGCTGGACGAGAAGCTGCTGGCCAGGGGTACCATGCAGCCCTTCAACTACGTGACCCTGCAGTGCCTTGC
GGCCCGGGCCCTGGATAAGAACAAGATCCCTTACAAGGGCTTCATCCCGGAAGATCTGGAGGCGTTCATCGAACT
GCAC**TGA**CCTGCCCAGAACGCCTGCACCCTCACCTCTCCCCTCTCCTGCTGAGATGGGGGAAATCCGGCTGCGGC
ATAGCAGATGCTCGTTCTTGCCTCCTTCAGGCACCAATCAGGAGAAGGGTTCTGCCTCCCATCCCCTCTACCTGC
AGACAGGGTCGGAGGTGTTAGCGAGCCTTTGGTGCTAGAAGCCTGCGGGGTCATGTGCTAAGAGGACAGTCTTTC
TCCGGGAGCCCGCTCACTCATTCTGAGTTAGGAAAAGACACAAGACCTTCCCCACATCCTGTCTGCCTGGGTTAG
GGAGGCCTTTGCCTTGTTACCTAGAGGCGGAGGGACTGAAGCCATTGCGTTCCTTCCCTGCTAGAAACACAGGAA
GAAGTTGAGGACTGTCTGCCTTCCCTCGTCCCTTTACCTGGCCAGATAACTCCAGCCGCTGAATACAGTGTTAGG
ACTGGGGGCTCCTGAGATGAGAGTTTGAGATTCAGGGAATGAGACCACCTCTCATTTCTTCCAGCATGATCGCGC
CCTGCTCCCGTGCCACCGTAGTCCCTGGCAGACAGGCAGGGCTCTGCCCAGGGCAGCCTGCCACTTGCATAGCTT
TCGGTTGGTTTGGTGTTCTGTTTATTTAATAAGTGGGCAGGTTGCAAGCGTTGCACAGAAATTCTGAGATTTTAC
TGCCTTTTTTTTTTTTTTTAAGAAAGTTGTTTGTTGGACTCCATAAGTGAATTTCAAGCAGTGAGGATTTTGTGG
TGCCTGAGATGGCCGAGGGCACAGGGAGTGAGCTGTATGTGTGAGGAATTTGGTGAGCGAGATAAAAGTCCACGG
TGTCAACCCCTAAAACATGGGTGACCGTACATTTTTATACATCTCCACTCTACGGCCTTTTACAGGCTTTCCGAT
TTTACAGGCCTTTCCAAGTTTCCATTCTCCTTAGAGAGAGAACTGTGCTTCCAAACAGAAATCAGGAGTGACCAC
AAAGCCTGAAAACACTTTGCCACCCAGCAAAGAACTGGCACAATTGGTTTGGGTCTGCATTGCCATAGTGCCCGA
GTTAAAACTGCAGGCCACTCTGCCTTGCAGTGGCCTCTGATTTCATTGTGGGTGCATCCACAGGTGGCCCGAGCT
GTTCTTTCAGCTGCTCCAAGGATTGAGACCCAAGTCATCATGAAAAAGGCCCAAGTACAGTCTTAATGCGATAAA
TCCACTAGCTAAGACGTCGAGTGCCAAGACCAGCCTTCCAGCCGAGGTTTGGACAAAGTCTCAGGTTCCCGTGAC
TCAGGGTAAGGTGCTGGGGCTGCCAGAGGACCTGCCCCAGCAAGATTTTTGTCAAGAGCGAGACTCCATCAGCCC
AGGCAGACGGGAGCAGGTTCTTGGCCAGCGTAGACAGCAGCAAACAGCAGCAGGGAAGCCATTCTCACTGCATCC
TCCCTGCAGTAGCCACGGCCAGGCCCTTAGGAGGAGCAGTGACCGGGGGTGTCCAGAAATATCCTGTCCCTGGAT

FIGURE 3629B

GGAAACTAGGTCTCGTTTGGATTTTTTTTTTTTTTTGCCGTGTTAGGAAATTATTTATTAATTTACAAGACAGGT
TTTAACTCAGCCGAGGTGGGAAATGGTGTCCCTGTCCCTCCCAAAGCACAGAGCACAGAAATGAGGCCGTTTACA
TGGCGAGTCTCCGTGCTGGTGTTTAAGTCATTAAAAAGATACTCAAAGAG

FIGURE 3630

ATGCAACCTCCACTGGCCTCCCTGATACCCCCGCAGCTCCAGAAACCAGCACCAACTACCCAGTGGAGTGCACCG
AGGGGTCTGCAGGCCCCCAGTCTCTCCCCTTGCCTATTCTGGAGCCGGTCAAAAACCCCTGCTCTGTCAAAGACC
AGACGCCACTCCAACTTTCTGTAGAAGATACCACCTCTCCAAATACCAAGCCGTGCCCACCTACTCCCACCACCC
CAGAAACATCCCCTCCTCCTCCTCCTCCTCCTCCTTCATCTACTCCTTGTTCAGCTCACCTGACCCCCTCCTCCC
TGTTCCCTTCCTCCCTGGAATCATCATCGGAACAGAAATTCTATAACTTTGTGATCCTCCACGCCAGGGCAGACG
AACACATCGCCCTGCGGGTTCGGGAGAAGCTGGAGGCCCTTGGCGTGCCCGACGGGGCCACCTTCTGCGAGGATT
TCCAGGTGCCGGGGCGCGGGGAGCTGAGCTGCCTGCAGGACGCCATAGACCACTCAGCTTTCATCATCCTACTTC
TCACCTCCAACTTCGACTGTCGCCTGAGCCTGCACCAGGTGAACCAAGCC**ATG**ATGAGCAACCTCACGCGACAGG
GGTCGCCAGACTGTGTCATCCCCTTCCTGCCCCTGGAGAGCTCCCCGGCCCAGCTCAGCTCCGACACGGCCAGCC
TGCTCTCCGGGCTGGTGCGGCTGGACGAACACTCCCAGATCTTCGCCAGGAAGGTGGCCAACACCTTCAAGCCCC
ACAGGCTTCAGGCCCGAAAGGCCATGTGGAGGAAGGAACAGGACACCCGAGCCCTGCGGGAACAGAGCCAACACC
TGGACGGTGAGCGGATGCAGGCGGCGGCACTGAACGCAGCCTACTCAGCCTACCTCCAGAGCTACTTGTCCTACC
AGGCACAGATGGAGCAGCTCCAGGTGGCTTTTGGGAGCCACATGTCATTTGGGACTGGGGCGCCCTATGGGGCTC
GAATGCCCTTTGGGGGCCAGGTGCCCCTGGGAGCCCCGCCACCCTTTCCCACTTGGCCGGGGTGCCCGCAGCCGC
CACCCCTGCACGCATGGCAGGCTGGCACCCCCCCACCGCCCTCCCCACAGCCAGCAGCCTTTCCACAGTCACTGC
CCTTCCCGCAGTCCCCAGCCTTCCCTACGGCCTCACCCGCACCCCCTCAGAGCCCAGGGCTGCAACCCCTCATTA
TCCACCACGCACAGATGGTACAGCTGGGGCTGAACAACCACATGTGGAACCAGAGAGGGTCCCAGGCGCCCGAGG
ACAAGACGCAGGAGGCAGAA**TGA**CCGCGTGTCCTTGCCTGACCACCTGGGGAACACCCCTGGACCCAGGCATCGG
CCAGGACCCCATAGAGCACCCCGGTCTGCCCTGTGCCCTGTGGACAGTGGAAGATGAGGTCATCTGCCACTTTCA
GGACATTGTCCGGGAGCCCTTCATTTAGGACAAAACGGGCGCGATGATGCCCTGGCTTTCAGGGTGGTCAGAACT
GGATACGGTGTTTACAATTCCAATCTCTCTATTTCTGGGTGAAGGGTCTTGGTGGTGGGGGTATTGCTACGGTCT
TTTAATTATAATAAATATTTATTGAATGCT

FIGURE 3631

TTCCAAGCTGGTTTTGAAGTCGCGGCAGCTGTTCCTGGGACGTCCGGTTGACCGCGCGTCTGCTGCAGAGACCATGTCTGCCGACGGGGCAGAGGCTGATGGCAGCACCCAGGTGACAGTGGAAGAACCGGTACAGCAGCCCAGTGTGGTGGACCGTGTGGCCAGCATGCCTCTGATCAGCTCCACCTGCGACATGGTGTCCGCAGCCTATGCCTCCACCAAGGAGAGCTACCCGCACATCAAGACTGTCTGCGACGCAGCAGAGAAGGGAGTGAGGACCCTCACGGCGGCTGCTGTCAGCGGGGCTCAGCCGATCCTCTCCAAGCTGGAGCCCCAGATTGCATCAGCCAGCGAATACGCCCACAGGGGGCTGGACAAGTTGGAGGAGAACCTCCCCATCCTGCAGCAGCCCACGGAGAAGGTCCTGGCGGACACCAAGGAGCTTGTGTCGTCTAAGGTGTCGGGGGCCCAAGAGATGGTGTCTAGCGCCAAGGACACGGTGGCCACCCAATTGTCGGAGGCGGTGGACGCGACCCGCGGTGCTGTGCAGAGCGGCGTGGACAAGACAAAGTCCGTAGTGACCGGCGGCGTCCAATCGGTCATGGGCTCCCGCTTGGGCCAGATGGTGTTGAGTGGGGTCGACACGGTGCTGGGGAAGTCGGAGGAGTGGGCGGACAACCACCTGCCCCTTACGGATGCCGAACTGGCCCGCATCGCCACATCCCTGGATGGCTTTGACGTCGCGTCCGTGCAGCAGCAGCGGCAGGAACAGAGCTACTTCGTACGTCTGGGCTCCCTGTCGGAGAGGCTGCGGCAGCACGCCTATGAGCACTCGCTGGGCAAGCTTCGAGCCACCAAGCAGAGGGCACAGGAGGCTCTGCTGCAGCTGTCGCAGGTCCTAAGCCTGATGGAAACTGTCAAGCAAGGCGTTGATCAGAAGCTGGTGGAAGGCCAGGAGAAGCTGCACCAGATGTGGCTCAGCTGGAACCAGAAGCAGCTCCAGGGCCCCGAGAAGGAGCCGCCCAAGCCAGAGCAGGTCGAGTCCCGGGCGCTCACCATGTTCCGGGACATTGCCCAGCAACTGCAGGCCACCTGTACCTCCCTGGGGTCCAGCATTCAGGGCCTCCCCACCAATGTGAAGGACCAGGTGCAGCAGGCCCGCCGCCAGGTGGAGGACCTCCAGGCCACGTTTTCCAGCATCCACTCCTTCCAGGACCTGTCCAGCAGCATTCTGGCCCAGAGCCGTGAGCGTGTCGCCAGCGCCCGCGAGGCCCTGGACCACATGGTGGAATATGTGGCCCAGAACACACCTGTCACGTGGCTCGTGGGACCCTTTGCCCCTGGAATCACTGAGAAAGCCCCGGAGGAGAAGAAGTAGGGGGAGAGGAGAGGACTCAGCGGGCCCCGTCTCTATAATGCAGCTGTGCTCTGGAGTCCTCAACCCGGGGCTCATTTCAAACTTATTTTCTAGCCACTCCTCCCAGCTCTTCTGTGCTGTCCACTTGGGAAGCTAAGGCTCTCAAAACGGGCATCACCCAGTTGACCCATCTCTCAGCCTCTCTGAGCTTGGAAGAAGCCTGTTCTGAGCCTCACCCTATCAGTCAGTAGAGAGAGATGTCCAGAAAAAATATCTTTCAGGAAAGTTCTCCCCTGCAGAATTTTTTTTCCTTGTTAAATATCAGGAATATAGGCCGGGTGCGGTGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCTGAGGCGGGCGGAACACCTGAGGTCAGGTGTTCGAGACCAGCCAGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAAAAAAATGAGCCGGGCATGGTAGCAGGTGTCTGTTATCCCAGTTAGGAGGCTGAGGCAAGAGAATCTCTTGAACCTGAGAGGCGGAGGTTGCAGTGAGCCAAGATCGCGCCATTGCACTCCAGCCTGGGGGACAAGAGTGAGACTTAGTCTCA

FIGURE 3632A

CGACTCCTTAGAGCATGGCATGGCTCAGAGGTGCTGGTAAAACTGATGGGGGTTTTTGCTGTCCCTCCCCTCAGC
GCCGACACCATGTGGATCCAGGTTCGGACCATGGACGGGAGGCAGACCCACACGGTGGACTCGCTGTCCAGGCTG
ACCAAGGTGGAGGAGCTGAGGCGGAAGATCCAGGAGCTGTTCCACGTGGAGCCAGGCCTGCAGAGGCTGTTCTAC
AGGGGCAAACAGATGGAGGACGGCCATACCCTCTTCGACTACGAGGTCCGCCTGAATGACACCATCCAGCTCCTG
GTCCGCCAGAGCCTCGTGCTCCCCCACAGCACCAAGGAGCGGGACTCCGAGCTCTCCGACACCGACTCCGGCTGC
TGCCTGGGCCAGAGTGAGTCAGACAAGTCCTCCACCCACGGTGAGGCGGCCGCCGAGACTGACAGCAGGCCAGCC
GATGAGGACATGTGGGATGAGACGGAATTGGGGCTGTACAAGGTCAATGAGTACGTCGATGCTCGGGACACGAAC
ATGGGGGCGTGGTTTGAGGCGCAGGTGGTCAGGGTGACGCGGAAGGCCCCCTCCCGGGACGAGCCCTGCAGCTCC
ACGTCCAGGCCGGCGCTGGAGGAGGACGTCATTTACCACGTGAAATACGACGACTACCCGGAGAACGGCGTGGTC
CAGATGAACTCCAGGGACGTCCGAGCGCGCGCCCGCACCATCATCAAGTGGCAGGACCTGGAGGTGGGCCAGGTG
GTCATGCTCAACTACAACCCCGACAACCCCAAGGAGCGGGGCTTCTGGTACGACGCGGAGATCTCCAGGAAGCGC
GAGACCAGGACGGCGCGGGAACTCTACGCCAACGTGGTGCTGGGGGATGATTCTCTGAACGACTGTCGGATCATC
TTCGTGGACGAAGTCTTCAAGATTGAGCGGCCGGGTGAAGGGAGCCCCATGGTTGACAACCCCATGAGACGGAAG
AGCGGGCCGTCCTGCAAGCACTGCAAGGACGACGTGAACAGACTCTGCCGGGTCTGCGCCTGCCACCTGTGCGGG
GGCCGGCAGGACCCCGACAAGCAGCTCATGTGCGATGAGTGCGACATGGCCTTCCACATCTACTGCCTGGACCCG
CCCCTCAGCAGTGTTCCCAGCGAGGACGAGTGGTACTGCCCTGAGTGCCGGAATGATGCCAGCGAGGTGGTACTG
GCGGGAGAGCGGCTGAGAGAGAGCAAGAAGAAGGCGAAGATGGCCTCGGCCACATCGTCCTCACAGCGGGACTGG
GGCAAGGGCATGGCCTGTGTGGGCCGCACCAAGGAATGTACCATCGTCCCGTCCAACCACTACGGACCCATCCCG
GGGATCCCCGTGGGCACCATGTGGCGGTTCCGAGTCCAGGTCAGCGAGTCGGGTGTCCATCGGCCCCACGTGGCT
GGCATACACGGCCGGAGCAACGACGGAGCGTACTCCCTAGTCCTGGCGGGGGGCTATGAGGATGATGTGGACCAT
GGGAATTTTTTCACATACACGGGTAGTGGTGGTCGAGATCTTTCCGGCAACAAGAGGACCGCGGAACAGTCTTGT
GATCAGAAACTCACCAACACCAACAGGGCGCTGGCTCTCAACTGCTTTGCTCCCATCAATGACCAAGAAGGGGCC
GAGGCCAAGGACTGGCGGTCGGGGAAGCCGGTCAGGGTGGTGCGCAATGTCAAGGGTGGCAAGAATAGCAAGTAC
GCCCCCGCTGAGGGCAACCGCTACGATGGCATCTACAAGGTTGTGAAATACTGGCCCGAGAAGGGGAAGTCCGGG
TTTCTCGTGTGGCGCTACCTTCTGCGGAGGGACGATGATGAGCCTGGCCCTTGGACGAAGGAGGGGAAGGACCGG
ATCAAGAAGCTGGGGCTGACCATGCAGTATCCAGAAGGCTACCTGGAAGCCCTGGCCAACCGAGAGCGAGAGAAG
GAGAACAGCAAGAGGGAGGAGGAGGAGCAGCAGGAGGGGGGCTTCGCGTCCCCCAGGACGGGCAAGGGCAAGTGG
AAGCGGAAGTCGGCAGGAGGTGGCCCGAGCAGGGGCCGGGTCCCCGCGCCGGACATCCAAGAAAACCAAGGTGGA
GCCCTACAGTCTCACGGCCCAGCAGAGCAGCCTCATCAGAGAGGACAAGAGCAACGCCAAGCTGTGGAATGAGGT
CCTGGCGTCACTCAAGGACCGGCCGGCGAGCGGCAGCCCGTTCCAGTTGTTCCTGAGTAAAGTGGAGGAGACGTT
CCAGTGTATCTGCTGTCAGGAGCTGGTGTTCCGGCCCATCACGACCGTGTGCCAGCACAACGTGTGCAAGGACTG
CCTGGACAGATCCTTTCGGGCACAGGTGTTCAGCTGCCCTGCCTGCCGCTACGACCTGGGCCGCAGCTATGCCAT
GCAGGTGAACCAGCCTCTGCAGACCGTCCTCAACCAGCTCTTCCCCGGCTACGGCAATGGCCGGTGATCTCCAAG
CACTTCTCGACAGGCGTTTTGCTGAAAACGTGTCGGAGGGCTCGTTCATCGGCACTGATTTTGTTCTTAGTGGGC
TTAACTTAAACAGGTAGTGTTTCCTCCGTTCCCTAAAAAGGTTTGTCTTCCTTTTTTTTTTTATTTTTATTTTTC
AAATCTATACATTTTCAGGAATTTATGTATTCTGGCTAAAAGTTGGACTTCTCAGTATTGTGTTTAGTTCTTTGA
AAACATAAAAGCCTGCAATTTCTCGACAAAACAACACAAGATTTTTTAAAGATGGAATCAGAAACTACGTGGTGT
GGAGGCTGTTGATGTTTCTGGTGTCAAGTTCTCAGAAGTTGCTGCCACCAACTCTTTAAGAAGGCGACAGGATCA
GTCCTTCTCTCGGGTTCTGGCCCCCAAGGTCAGAGCAAGCATCTTCCTGACAGCATTTTGTCATCTAAAGTCCAG
TGACATGGTTCCCCGTGGTGGCCCGTGGCAGCCCGTGGCATGGCGTGGCTCAGCTGTCTGTTGAAGTTGTTGCAA
GGAAAAGAGGAAACATCTCGGGCCTAGTTCAAACCTTTGCCTCAAAGCCATCCCCCACCAGACTGCTTAGCGTCT
GAGATCCGCGTGAAAAGTCCTCTGCCCACGAGAGCAGGGAGTTGGGGCCACGCAGAAATGGCCTCAAGGGGACTC
TGCTCCACGTGGGGCCAGGCGTGTGACTGACGCTGTCCGACGAAGGCGGCCACGGACGGACGCCAGCACACGAAG
TCACGTGCAAGTGCCTTTGATTCGTTCCTTCTTTCTAAAGACGACAGTCTTTGTTGTTAGCACTGAATTATTGAA
AATGTCAACCAGATTCTAGAAACTGCGGTCATCCAGTTCTTCCTGACACCGGATGGGTGCTTGGGAACCGTTTGA
GCCTTATAGATCATTTACATTCAATTTTTTTAACTCAGCAAGTGAGAACTTACAAGAGGGTTTTTTTAAAATTTT
TTTTTCTCTTAATGAACACATTTTCTAAATGAATTTTTTTTGTAGTTACTGTATATGTACCAAGAAAGATATAAC
GTTAGGGTTTGGTTGTTTTTGTTTTTGTATTTTTTTTCTTTTGAAAGGGTTTGTTAATTTTTCTAATTTTACCAA

FIGURE 3632B

AGTTTGCAGCCTATACCTCAATAAAACAGGGATATTTTAAATCACATACCTGCAGACAAACTGGAGCAATGTTAT
TTTTAAAGGGTTTTTTTCACCTCCTTATTCTTAGATTATTAATGTATTAGGGAAGAATGAGACAATTTTGTGTAG
GCTTTTTCTAAAGTCCAGTACTTTGTCCAGATTTTAGATTCTCAGAATAAATGTTTTTCACAGAT

FIGURE 3633A

GTCGCCAGCAACCGAGCGGGGCCCGGCCCGAGCGGGGCCTGGGGGTGCGACGCCGAGGGCGGGGGGAGAGCGCGCC
GCTGCTCCCGGACCGGGCCGCGCACGCCGCCTCAGGAACCATCACTGTTGCTGGAGGCACCTGACAAATCCTAGC
GAATTTTTGGAGCATCTCCACCCAGGAACCTCGCCATCCAGAAGTGTGCTTCCCGCACAGCTGCAGCC**ATG**GGGT
CTGAGGACCACGGCGCCCAGAACCCCAGCTGTAAAATCATGACGTTTCGCCCAACCATGGAAGAATTTAAAGACT
TCAACAAATACGTGGCCTACATAGAGTCGCAGGGAGCCCACCGGGCGGGCCTGGCCAAGATCATCCCCCCGAAGG
AGTGGAAGCCGCGGCAGACGTATGATGACATCGACGACGTGGTGATCCCGGCGCCCATCCAGCAGGTGGTGACGG
GCCAGTCGGGCCTCTTCACGCAGTACAATATCCAGAAGAAGGCCATGACAGTGGGCGAGTACCGCCGCCTGGCCA
ACAGCGAGAAGTACTGTACCCCGCGGCACCAGGACTTTGATGACCTTGAACGCAAATACTGGAAGAACCTCACCT
TTGTCTCCCCGATCTACGGGGCTGACATCAGCGGCTCTTTGTATGATGACGACGTGGCCCAGTGGAACATCGGGA
GCCTCCGGACCATCCTGGACATGGTGGAGCGCGAGTGCGGCACCATCATCGAGGGCGTGAACACGCCCTACCTGT
ACTTCGGCATGTGGAAGACCACCTTCGCCTGGCACACCGAGGACATGGACCTGTACAGCATCAACTACCTGCACT
TTGGGGAGCCTAAGTCCTGGTACGCCATCCCACCAGAGCACGGCAAGCGCCTGGAGCGGCTGGCCATCGGCTTCT
TCCCCGGGAGCTCGCAGGGCTGCGACGCCTTCCTGCGGCATAAGATGACCCTCATCTCGCCCATCATCCTGAAGA
AGTACGGGATCCCCTTCAGCCGGATCACGCAGGAGGCCGGGGAATTCATGATCACATTTCCCTACGGCTACCACG
CCGGCTTCAATCACGGGTTCAACTGCGCAGAATCTACCAACTTCGCCACCCTGCGGTGGATTGACTACGGCAAAG
TGGCCACTCAGTGCACGTGCCGGAAGGACATGGTCAAGATCTCCATGGACGTGTTCGTGCGCATCCTGCAGCCCG
AGCGCTACGAGCTGTGGAAGCAGGGCAAGGACCTCACGGTGCTGGACCACACGCGGCCCACGGCGCTCACCAGCC
CCGAGCTGAGCTCCTGGAGTGCATCCCGGGCCTCGCTGAAGGCCAAGCTCCTCCGCAGGTCTCACCGGAAACGGA
GCCAGCCCAAGAAGCCGAAGCCCGAAGACCCCAAGTTCCCTGGGGAGGGTACGGCTGGGGCAGCGCTCCTAGAGG
AGGCTGGGGGCAGCGTGAAGGAGGAGGCTGGGCCGGAGGTTGACCCCGAGGAGGAGGAGGAGGAGCCGCAGCCAC
TGCCACACGGCCGGGAGGCCGAGGGCGCAGAAGAGGACGGGAGGGGCAAGCTGCGGCCAACCAAGGCCAAGAGCG
AGCGGAAGAAGAAGAGCTTCGGCCTGCTGCCCCCACAGCTGCCGCCCCCGCCTGCTCACTTCCCCTCAGAGGAGG
CGCTGTGGCTGCCATCCCCACTGGAGCCCCCGGTGCTGGGCCCAGGCCCTGCAGCCATGGAGGAGAGCCCCCTGC
CGGCACCCCTTAATGTCGTGCCCCCTGAGGTGCCCAGTGAGGAGCTAGAGGCCAAGCCTCGGCCCATCATCCCCA
TGCTGTACGTGGTGCCGCGGCCGGGCAAGGCAGCCTTCAACCAGGAGCACGTGTCCTGCCAGCAGGCCTTTGAGC
ACTTTGCCCAGAAGGGTCCGACCTGGAAGGAACCAGTTTCCCCCATGGAGCTGACGGGGCCAGAGGACGGTGCAG
CCAGCAGTGGGGCAGGTCGCATGGAGACCAAAGCCCGGGCCGGAGAGGGGCAGGCACCGTCCACATTTTCCAAAT
TGAAGATGGAGATCAAGAAGAGCCGGCGCCATCCCCTGGGCCGGCCGCCCACCCGGTCCCCACTGTCGGTGGTGA
AGCAGGAGGCCTCAAGTGACGAGGAGGCATCCCCTTTCTCCGGGGAGGAAGATGTGAGTGACCCGGACGCCTTGA
GGCCGCTGCTGTCTCTGCAGTGGAAGAACAGGGCGGCCAGCTTCCAGGCCGAGAGGAAGTTCAACGCAGCGGCTG
CGCGCACGGAGCCCTACTGCGCCATCTGCACGCTCTTCTACCCCTACTGCCAGGCCCTACAGACTGAGAAGGAGG
CACCCATAGCCTCCCTCGGAAAGGGCTGCCCGGCCACATTACCCTCCAAAAGCCGTCAGAAGACCCGACCGCTCA
TCCCTGAGATGTGCTTCACCTCTGGCGGTGAGAACACGGAGCCGCTGCCTGCCAACTCCTACATCGGCGACGACG
GGACCAGCCCCCTGATCGCCTGCGGCAAGTGCTGCCTGCAGGTCCATGCCAGTTGCTATGGCATCCGTCCCGAGC
TGGTCAATGAAGGCTGGACGTGTTCCCGGTGCGCGGCCCACGCCTGGACTGCGGAGTGCTGCCTGTGCAACCTGC
GAGGAGGTGCGCTGCAGATGACCACCGATAGGAGGTGGATCCACGTGATCTGTGCCATCGCAGTCCCCGAGGCGC
GCTTCCTGAACGTGATTGAGCGCCACCCTGTGGACATCAGCGCCATCCCCGAGCAGCGGTGGAAGCTGAAATGCG
TGTACTGCCGGAAGCGGATGAAGAAGGTGTCAGGTGCCTGTATCCAGTGCTCCTACGAGCACTGCTCCACGTCCT
TCCACGTGACCTGCGCCCACGCCGCAGGCGTGCTCATGGAGCCGGACGACTGGCCCTATGTGGTCTCCATCACCT
GCCTCAAGCACAAGTCGGGGGGTCACGCTGTCCAACTCCTGAGGGCCGTGTCCCTAGGCCAGGTGGTCATCACCA
AGAACCGCAACGGGCTGTACTACCGCTGTCGCGTCATCGGTGCCGCCTCGCAGACCTGCTACGAAGTGAACTTCG
ACGATGGCTCCTACAGCGACAACCTGTACCCTGAGAGCATCACGAGTAGGGACTGTGTCCAGCTGGGACCCCCTT
CCGAGGGGGAGCTGGTGGAGCTCCGGTGGACTGACGGCAACCTCTACAAGGCCAAGTTCATCTCCTCCGTCACCA
GCCACATCTACCAGGTGGAGTTTGAGGACGGGTCCCAGCTGACGGTGAAGCGTGGGGACATCTTCACCCTGGAGG
AGGAGCTGCCCAAGAGGGTCCGCTCTCGGCTGTCACTGAGCACGGGGGCACCGCAGGAGCCCGCCTTCTCGGGGG
AGGAGGCCAAGGCCGCCAAGCGCCCGCGTGTGGGCACCCCGCTTGCCACGGAGGACTCCGGGCGGAGCCAGGACT
ACGTGGCCTTCGTGGAGAGCCTCCTGCAGGTGCAGGGCCGGCCCGGAGCCCCCTTC**TAG**GACAGCTGGCCGCTCA
GGCGACCCTCAGCCCGGCGGGGAGGCCATGGCATGCCCCGGGCGTTCGCTTGCTGTGAATTCCTGTCCTCGTGTC

FIGURE 3633B

CCCGACCCCCGAGAGGCCACCTCCAAGCCGCGGGTGCCCCCTAGGGCGACAGGAGCCAGCGGGACGCCGCACGCG
GCCCCAGACTCAGGGAGCAGGGCCAGGCGGGCTCGGGGGCCGGCCAGGGGAGCACCCCACTCAACTACTCAGAAT
TTTAAACCATGTAAGCTCTCTTCTTCTCGAAAAGGTGCTACTGCAATGCCCTACTGAGCAACCTTTGAGATTGTC
ACTTCTGTACATAAACCACCTTTGTGAGGCTCTTTCTATAAATACATATTGTTTAAAAAAAAGCAAGAAAAAAAG
GAAAACAAAGGAAAATATCCCCAAAGTTGTTTTCTAGATTTGTGGCTTTAAGAAAAACAAAACAAAACAAACACA
TTGTTTTTCTCAGAACCAGGATTCTCTGAGAGGTCAGAGCATCTCGCTGTTTTTTTGTTGTTGTTTTAAAATATT
ATGATTTGGCTACAGACCAGGCAGGGAAAGAGACCCGGTAATTGGAGGGTGAGCCTCGGGGGGGGGGCAGGACGC
CCCGGTTTCGGCACAGCCCGGTCACTCACGGCCTCGCTCTCGCCTCACCCCGGCTCCTGGGCTTTGATGGTCTGG
TGCCAGTGCCTGTGCCCACTCTGTGCCTGCTGGGAGGAGGCCCAGGCTCTCTGGTGGCCGCCCCTGTGCACCTGG
CCAGGGGAAGCCCGGGGGTCTGGGGCCTCCCTCCGTCTGCGCCCACCTTTGCAGAATAAACTCTCTCCTGGGGTT
TGTCTATCTTTGTTTCTCTCACCTGAGAGAAACGCAGGTGTTCCAGAGGCTTCCTTGCAGACAAAGCACCCCTGC
ACCTCCTATGGCTCAGGATGAGGGAGGCCCCCAGGCCCTTCTGGTTGGTAGTGAGTGTGGACAGCTTCCCAGCTC
TTCGGGTACAACCCTGAGCAGGTCGGGGGACACAGGGCCGAGGCAGGCCTTCGGGGCCCCTTTCGCCTGCTTCCG
GGCAGGGACGAGGCCTGGTGTCCTCGCTCCACCCACCCACGCTGCTGTCACCTGAGGGGAATCTGCTTCTTAGGA
GTGGGTTGAGCTGATAGAGAAAAAACGGCCTTCAGCCCAGGCTGGGAAGCGCCTTCTCCAGGTGCCTCTCCCTCA
CCAGCTCTGCACCCCTCTGGGGAGCCTTCCCCACCTTAGCTGTCTCCTGCCCCAGGGAGGGATGGAGGAGATAAT
TTGCTTATATTAAAAACAAAAAATGGCTGAGGCAGGAGTTTGGGACCAGCCTGGGCTATATAGCAAGACCCCATC
ACTACAAATTTTTTACAAATTAGCTAGGTGTGGTGGTGCGCACCTGTGGTCCCAGCTACTCGGGAGGCTGTGGTG
GGAGGATTGCTTGAGTCCAGGAGGTTGAGGCTGCAGTCAGCTCAGATTGCACCACTGCACTCCAGCCTGGGCAAC
AGAGCGAGACCCTGTCTCCAAAAAAAAAAAAAAGCAATGTTTATATTATAAAAGAGTGTCCTAACAGTCCCCGGG
CTAGAGAGGACTAAGGAAAACAGAGAGAGTGTTACGCAGGAGCAAGCCTTTCATTTCCTTGGTGGGGGAGGGGGG
CGGTTGCCCTGGAGAGGGCCGGGGTCGGGGAGGTTGGGGGGTGTCAGCCAAAACGTGGAGGTGTCCCTCTGCACG
CAGCCCTCGCCCGGCGTGGCGCTGACACTGTATTCTTATGTTGTTTGAAAATGCTATTTATATTGTAAAGAAGCG
GGCGGGTGCCCCTGCTGCCCTTGTCCCTTGGGGGTCACACCCATCCCCTGGTGGGCTCCTGGGCGGCCTGCGCAG
ATGGGCCACAGAAGGGCAGGCCGGAGCTGCACACTCTCCCCACGAAGGTATCTCTGTGTCTTACTCTGTGCAAAG
ACGCGGCAAAACCCAGTGCCCTGGTTTTTCCCCACCCGAGATGAAGGATACGCTGTATTTTTTGCCTAATGTCCC
TGCCTCTAGGTTCATAATGAATTAAAGGTTCATGAACGCTGC

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FIGURE 3634A

GGCGCACGCTGGCGGTGGCAGCGGTGGCAGCGGTGCCGGCGGCCCCGCGGGCCGGGGGCTGAGCGGCGCCCGCTG
GGGTCGCTCGGGCTCCGCAGGCCACGAGAAGCTGCCGGTGCACGTAGAAGACGCCCTCACCTATCTGGACCAGGT
GAAGATCCGCTTTGGCAGCGACCCTGCCACCTACAACGGCTTCCTGGAGATC**ATG**AAGGAGTTCAAAAGCCAGAG
CATCGATACTCCTGGAGTCATCAGACGTGTCTCGCAGCTCTTCCACGAGCACCCTGACCTCATTGTTGGATTCAA
CGCTTTTCTTCCCCTCGGATATAGAATAGACATTCCCAAGAATGGCAAGTTAAACATACAGTCGCCTCTGACAAG
CCAGGAGAATTCGCACAACCACGGGGACGGTGCAGAGGACTTCAAGCAGCAGGTGCCGTATAAAGAGGACAAACC
CCAGGTGCCCCTGGAGTCCGATTCCGTGGAATTCAACAACGCCATCAGCTATGTGAATAAGATTAAAACCCGCTT
CCTAGACCACCCAGAAATCTACAGGTCATTCCTGGAGATCCTGCACACGTACCAGAAGGAGCAGCTGAACACGAG
GGGCCGGCCATTCCGAGGCATGTCTGAAGAGGAGGTGTTCACCGAGGTGGCCAACCTCTTCCGGGGCCAGGAGGA
CCTGCTCTCAGAGTTTGGACAGTTCCTGCCCGAAGCCAAGCGGTCTCTGTTCACAGGAAACGGGCCGTGCGAGAT
GCACAGCGTGCAGAAGAACGAGCACGACAAGACCCCGGAGCACAGCAGGAAGCGCTCCCGGCCCTCGCTCCTCCG
CCCCGTGTCTGCACCCGCCAAGAAAAAAATGAAACTTCGTGGTACCAAAGACCTGTCCATCGCTGCAGTGGGGAA
GTACGGGACTCTGCAGGAATTTTCTTTCTTTGACAAGGTCCGCCGGGTGCTGAAGAGCCAGGAGGTGTATGAAAA
CTTCCTCCGCTGCATCGCACTCTTCAACCAGGAGCTGGTGTCTGGCTCTGAGCTCCTGCAGCTCGTCAGCCCATT
TCTGGGGAAATTTCCAGAACTCTTTGCACAGTTCAAGTCCTTCCTGGGGGTAAAAGAGCTGTCCTTCGCGCCACC
CATGAGCGACAGATCCGGGGACGGGATAAGCCGGGAAATTGATTATGCATCCTGCAAGCGCATAGGATCCAGCTA
CCGGGCACTCCCCAAAACCTACCAGCAGCCCAAGTGCAGTGGGAGGACAGCCATCTGCAAGGAGGTACTGAACGA
CACCTGGGTCTCCTTCCCTTCCTGGTCTGAGGACTCCACGTTCGTCAGCTCCAAGAAGACACCGTACGAGGAGCA
GCTTCACCGCTGTGAGGACGAGCGCTTCGAGTTAGACGTTGTCCTGGAGACGAACCTGGCCACAATCCGTGTGTT
GGAAAGTGTGCAGAAGAAGCTATCTCGGATGGCGCCGGAAGACCAGGAGAAGTTCCGGCTGGACGACTCCCTGGG
AGGCACGTCGGAGGTGATCCAGCGCCGTGCCATTTATCGCATCTATGGCGACAAGGCCCCGGAGATCATCGAGAG
CCTCAAGAAGAACCCTGTCACCGCTGTCCCCGTTGTCCTGAAAAGACTGAAGGCCAAGGAAGAGGAGTGGCGGGA
GGCCCAGCAGGGCTTCAACAAGATCTGGCGGGAGCAGTATGAGAAGGCGTACCTCAAGTCCCTTGACCACCAGGC
TGTGAACTTCAAGCAGAACGACACCAAGGCCCTGCGCTCCAAGAGCTTGCTCAACGAGATCGAGAGCGTCTACGA
CGAGCACCAGGAGCAGCACTCGGAGGGCCGCAGTGCCCCCTCTAGCGAGCCGCACCTCATCTTTGTGTACGAGGA
CCGGCAGATCCTGGAGGACGCAGCAGCGCTCATCAGCTACTACGTGAAGCGGCAGCCGGCCATCCAGAAGGAGGA
CCAGGGCACCATCCACCAGCTGCTGCACCAGTTCGTGCCCAGCCTCTTCTTCTCTCAGCAGCTGGACCTGGGCGC
CTCCGAGGAGTCAGCTGATGAGGACCGGGACAGCCCCCAGGGGCAGACCACAGACCCCAGTGAGCGGAAGAAGCC
GGCGCCAGGACCCCACAGTAGCCCCCCAGAGGAGAAGGGGGCCTTCGGGGATGCCCCGGCCACTGAGCAGCCACC
CCTGCCGCCCCCAGCCCCGCACAAGCCCCTGGACGATGTCTACAGCCTATTTTTTGCCAACAACAACTGGTACTT
CTTCCTGCGCCTGCACCAGACCCTGTGCTCCAGGCTGCTGAAGATCTACCGCCAGGCGCAGAAGCAGCTTCTGGA
GTATCGGACCGAGAAGGAGCGGGAGAAGCTGCTGTGTGAGGGCCGCAGGGAGAAGGGCAGCGACCCCGCCATGGA
GCTGCGGCTGAAGCAGCCCAGTGAAGTGGAGCTGGAGGAGTACTACCCGGCCTTCCTGGACATGGTGCGGAGCCT
GCTGGAGGGCAGCATCGACCCCACGCAGTACGAGGACACCCTACGCGAGATGTTCACCATCCATGCCTACGTGGG
CTTCACCATGGACAAGCTGGTGCAGAACATTGCGCGGCAGCTGCACCACCTCGTGAGCGATGACGTCTGCCTGAA
GGTGGTGGAGCTCTACCTGAACGAGAAGAAGCGGGGTGCCGCTGGTGGGAACCTGTCCTCCCGCTGCGTCCGCGC
TGCTAGGGAGACCAGCTACCAGTGGAAGGCTGAGCGCTGCATGGCCGACGAGAACTGCTTCAAGGTGATGTTCCT
GCAGCGCAAAGGGCAGGTGATCATGACCATCGAGCTCCTGGACACCGAGGAGGCCCAGACGGAGGACCCTGTGGA
GGTCCAGCACCTGGCTCGGTACGTGGAGCAGTATGTGGGGACCGAGGGCGCGTCCAGCTCGCCCACTGAGGGCTT
CCTCCTGAAACCTGTGTTCCTGCAGAGGAACCTCAAGAAGTTCCGCCGCCGGTGGCAGAGCGAGCAGGCGCGGGC
CCTGCGCGGTGAGGCCAGGAGCTCCTGGAAGCGGCTGGTGGGCGTGGAGAGCGCCTGCGACGTGGACTGCCGCTT
CAAGCTCAGCACTCACAAGATGGTGTTCATCGTGAACTCCGAGGACTACATGTACCGTCGCGGGACCCTCTGCCG
GGCCAAGCAGGTGCAGCCCCTGGTCCTGCTCCGCCACCACCAGCACTTTGAGGAGTGGCACAGCCGCTGGCTGGA
GGACAATGTGACGGTGGAGGCGGCTAGCCTGGTGCAGGACTGGCTGATGGGTGAGGAGGACGAGGACATGGTACC
CTGCAAGACGCTGTGTGAGACAGTGCACGTGCACGGCCTGCCCGTGACCCGCTACCGCGTGCAGTACAGCCGCCG
CCCGGCCTCGCCC**TGA**CCCGCCCTCATGGGCACCGGGCAGGCGCCTCACAGAGCACAGACGTGCCCTCGGCCTTG
GTCGTGTCGGGGCCGTTTTCTTGAACGACGTGAGAGGCATCTCCCAGCCCCTCTGCTGCCGGACAGCGCACTCCA
GGGCAGGACGCCGCCCCCGTGGCTCCCGGTCTCCTGTGGGCCTGCTGTGTGCCAAACCTGAGCTACCTGCACCCG

FIGURE 3634B

AGCCCTGGGGCTCAGCCCCACCACAGGGGCGGGTGGACGTGCTGGCCGAGGAACAAGCAATCATGTTTGCGTCCC
CGTCCGTCACATGTGCCAAATCCCTGGCAGGCAGATGGCTCCTGCCCCATATTCTTGCCGTGTCTTGGAAAAGTC
ACAGGTGACAGCCCTCCTGAGGCCCACACTTTGGAGGGGGTCCATGTCCAAGAGACCCTGACAAGGAAGGAGTTG
AGCCCTGGGTAGGCTTGCTTGAAAAGTGAGTCCTTCCAGAATATTCTCAGAGCTGCCAGAAACATCATCTGAGGG
TTTGGGCATCAGCTCTGCCTGGCTGGTGTTCAGGCCCTCAGTCACTTTGGAAGTGAGAAGAACCCTTCAGCCAAA
CCTTTGGGATCCCATTTTGAAGTCCAGAGCTGGAGCAGGCGGGCAGTGCCCTGGGAGACCCCGCTCTGGATAAGA
CACCCAACCCCAACTCCAGCAGCTGGACTCTGGGCCCACAAGGGGAGGGACCCCAGCCAGTATTCCCTCAGAGCC
GGCACGACCCTGCTGTGGGGCGGCGGGCCCAGTCGTGTTCCTGCAGTGGGCACCCTAGGCGTATGTGTATACACG
CACAGATATTTATTCCTTTCGCTTTTAGTGGTTGTTATTTCTGTAGCAGCCAAGTCCTGCGGCTCCCTGGGGCTG
AGATCTCCCTTTGTGGAACTCCGAGAGCCGCCCTGACAGTCCCAGCCGCCACCCAAGGAGCCCCATCCGCCCACC
CACCCTGGGACCCACGCGGCCACTCCAGGGATCATTGTTGTCCTTTTGTGAGGGGCTGAGGCGACTGTCCCATGG
AGGCATCCAAGGCTTTCTGTGCCAAGAATCCCAAGTGACTGGGGCTGGGGACCACTTCTCCAGGCCTCTCTCCCC
GACCATGAGAGCCCCTGGCCCTGGCCCCTGCACACCAGTAGGCCCAGAATAACCGCCACCCTTGCCATCCTGCAA
CAGCTGGACTCAAGTTTCCAGGAAGTGGAGATGTGTTTCTAGAAGTTTCCTGTGGAACCTGGAGGCTCCTGATGC
CTTTGACTCCAGGCTGGGCGATTCCGATGCTGACCCGTCCTCCTGGGCTCCCCACCCCCGCTCCCCAAGTGTCAC
ACAGGCACTTTGTACACATCCTGGTTTTCTAAGAAGGGAACTTGCCATCAAGATTCCTGTACCAGGCCCACGGCC
GTCTCGGGCAGAGCCACCTGGGCCCCGGGTGCAGCCGGAGACCCCGCCGAGCCCCTCCTCCCAGTATTCCCATCC
CCGCATGCTTCTAGGGAGCGCCTCTTTTCCGTTCTTGAGGAATTTCTGTTCTGGGGCTTGTCCTTCCTTTGCAGC
TGTTTTGAATGTAGTTTTCCTTTTCTATTTATTTGCACATTAAAGTTAATAATTGAATATTGA

FIGURE 3635A

CTCCCACGGGCTGGCTGGCAAGCGGCCCTGGTGGGTCTGCGGGGGCAGGGGCAGCCTTCCTGGTTTATCTCTACC
GGCGCGATCTGCTCGTCCGCCTCGGCTCCAGAAGCTGGGGCTCAGGGTCCGGCGAGGCAGGAAGCCTGAGGCCAC
AGCCCAGAGCAGCCTGAGTGCAGTC**ATG**TGGGGGCGACTGCTCCTGTGGCCCCTGGTGCTGGGGTTCAGCCTGTC
TGGCGGCACCCAGACCCCCAGCGTCTACGACGAGAGCGGGAGCACCGGAGGTGGTGATGACAGCACGCCCTCAAT
CCTGCCTGCCCCCCGCGGCTACCCAGGCCAAGTCTGTGCCAATGACAGTGACACCCTGGAGCTCCCGGACAGCTC
ACGGGCACTGCTTCTGGGCTGGGTGCCCACCAGGCTGGTGCCCGCCCTCTATGGGCTGGTCCTGGTGGTGGGGCT
GCCGGCCAATGGGCTGGCGCTGTGGGTGCTGGCCACGCAGGCACCTCGGCTGCCCTCCACCATGCTGCTGATGAA
CCTCGCGGCTGCTGACCTCCTGCTGGCCCTGGCGCTGCCCCCGCGGATCGCCTACCACCTGCGTGGCCAGCGCTG
GCCCTTCGGGGAGGCCGCCTGCCGCCTGGCCACGGCCGCACTCTATGGTCACATGTATGGCTCAGTGCTGCTGCT
GGCCGCCGTCAGCCTGGATCGCTACCTGGCCCTGGTGCACCCGCTGCGGGCCCGCGCCCTGCGTGGCCGGCGCCT
GGCCCTTGGACTCTGCATGGCTGCTTGGCTCATGGCGGCCGCCCTGGCACTGCCCCTGACACTGCAGCGGCAGAC
CTTCCGGCTGGCGCGCTCCGATCGCGTGCTCTGCCATGACGCGCTGCCCCTGGACGCACAGGCCTCCCACTGGCA
ACCGGCCTTCACCTGCCTGGCGCTGTTGGGCTGTTTCCTGCCCCTGCTGGCCATGCTGCTGTGCTACGGGGCCAC
CCTGCACACGCTGGCGGCCAGCGGCCGGCGCTACGGCCACGCGCTGAGGCTGACCGCAGTGGTGCTGGCCTCCGC
CGTGGCCTTCTTCGTGCCCAGCAACCTGCTGCTGCTGCTGCATTACTCGGACCCGAGCCCCAGCGCCTGGGGCAA
CCTCTATGGTGCCTACGTGCCCAGCCTGGCGCTGAGCACCCTCAACAGCTGCGTGGATCCCTTCATCTACTACTA
CGTGTCGGCCGAGTTCAGGGACAAGGTGCGGGCAGGGCTCTTCCAACGGTCGCCGGGGGACACCGTGGCCTCCAA
GGCCTCTGCGGAAGGGGGCAGCCGGGGCATGGGCACCCACTCCTCTTTGCTCCAG**TGA**CACAAAGTGGGGAAGGC
TGTACTGGGTCGAACAGGGTCCCTTCCCCCACTTCACGTCCTTCCTGGGACCTCAGAATGTGACCTTATTTGGAA
ATAGGGTTGTTACAACTGTCACTAGCGGAGGTCACTTTGGAGAAGGGTGGGCCTTACATCCAGTGTGGGTGGTGT
CCTCATAAGATAAGGAGAGGCCAGGCCTGGTGGCTCACGCCTGTAATCCCAGCACTTTAAGAGGCCAAGGCGGAT
GGATCACTTGAGCCCAGGAGTTCAACACCAGCCTGAGCAACATGGTAAAACCCCATCTCTACCAAAAATACAAAA
ATTAGCTGGGCTTGGTGGCTGGCGCCTGTAATCCCAGCTACTCAGGAGACTGAGGCAGAAGGATCGCTTGAACCT
GGGAGGCAGAGGTTGCAGTGAGCCGAGATTGCGCCACTGGACTCCAGCCTGCGTGACAGAGAGCCTGTCTCTAAA
TTAATTAATTAATTAATTTAATTCAATTTTAAAAAGACGAAAAGTGACGGCCAGGTGCAGTGGCTCACGCCTATA
ATCTCAGCACTCTGGGAGGCCAAGATGGAGGATTGCTTGAAGCCAGGAGTTTGGGACCAGCCTGGGCAACATAGG
GGGATCCCATCTCTACACACAAAAAAATTTTTTAATGAACCAGGCATTGTGGCATGCGCCTATAGTCCCAGCCAC
TCAAGAGGCACAGGCGGGAGGATCACTTGAGCCTGGGAGGTTGTGGTTGCAGTGAGCTATGATTGTACCACTGCA
CTCCAGCCTGGGCAACAGAGCAAGACCTTGTCTCAAAAATAAACAAACTAAAATTAAAAAAAGAAGACGAGAGAT
AGTGGGTGTGGTGGCTCACACCTGCAATCCCAGCACTTTGGAAGGCCGAGGTGGGCAGATCATCTGAGGCCAGGA
GTTCAAGACCAGCCTGGCTAACATGGTGAAATCCTATCTCTACCAAAAATACAAAAATTAGCCAGGCGTGGTGGT
GGGCACCTGTACTGGGGAGGTGCCCACCCAGCTACTGGGGAGGCTGAGTCAGGAGAATCGCTTGAACCTGGGAGG
CGGAGGTTGCGGTCAGCTGAGATGGTGCCACTGCACTCCAGCCTGGGCGAAAGAGCGACTCTGTCTCCAAAAAAA
AGAGAAGAGGAGAGGACACAGAGACACACAGAGAAGAAAGCCATGTGGCGGCAGAGGCAGAGATGGGAGTGATGC
GGACGGACACAAACTAAGGGATGCCACGATGCCAAGCACAGCCAACAGCCACCAGCAGCCAGGAGACAGGCCTGG
GACGGGCTCTCCCTCACAGCCTCCAGAGGGAACCAGCCCTGCCACCACCTTGACCCTGGACTTCTGGCCTGCAGA
ACTGTGAGACAATAAACTCTCATTGTTTTAAGCTGCCTGGCATGTGGCACTTTGTCAGGGCAGCCCAGGAATCTG
AAACAGGATCAAACTCTGCTTCCTGGGCCCTGCCAGCATCTCTGGCTCGGCTTTCTGGGCTGGATGCAGCCCACG
ACGCACTGGTGTCTGAGATGGGGCTGGAGCTGGGGCTGGGGCTGCATTCCCTGGAGACTCACTGCAAGTTCCTGC
CCAGGAGGCTGAGGGCACCCCATCCTCAGTGCCCAATGCTGTGGCCCCACCAGGCCCAGAGCCTGGTTGGCCATT
CTCATGCCCACCAGCTTCTGGCTTTGGGATGTCTCTTGAGCAACCAGAATAGCACCCCCAACTCTGCTCCCCAAA
ACCCATCACTAGCACGGCTCAGCCTCCTGCTATCCCCTGACTGCTGGGGACCCTCGCCTTCCCTCCTCTCACCTG
CAGGCTGATCCTTCTTTTCACTTTCTGTCAATGTCACCAGGGATAAGGTGGGACAATGGGGGGTGGGGGTGGACA
GTGTGTGCTGGGGGGTTCGGGTGCTGCAGACCTGGAACTCCCTTCTGCCAGGATGTTGGCAGCCGGTTGTAAGCC
TTGCACGGGACAGACCACACCCACCGCAACCTCATCCCCTCAGCACTAACCACATCCACTCTCAACCCCGTCCCC
TTCGCACTGACCACACCCACCCCGTTCGGCCCCGCCCCCCGCACTGAACACACCCGCCCTCAACCCCGCACCCTC
CGCACTCACCTCCCCCTCGCCGCTCGACCCCGCCCTCACCACACTGACCACCCTCAACCCATTGCGCCCAGTCCC
CACCACAGTGACCACACCCTCACTGGCTCGGCCCTGCCCCCAGTATACTGACCATTCCCCAGCCACTTCCCTTCC

FIGURE 3635B

GCACTTACCACTCCCCCAGCCACGCCCCTCCCCGCTGACCGCTCCTCCAGCCCCGCCTCCCCCGTACAGGCAGAG
CGCCCGCCCACCTCTATGCTGCGTTCTCCTGACTTTACGTTGGCCCCTCCTCTGCCAAGCCCCCAGGGGAGCCCT
CCCTGGCGTCCGAGGGTGGGAGTCGGGGTGTGGCAGGCCGCGGTGGGGGGCGGCAGTGGCTCCGCGCACTCACCC
GGGCCCCGGGCAGGGGCGCGCTCCACTTCGTTGCACGCGGGTCCGGCGCACAGTTCCCGGGCGAGTGGGCTGTGG
GTGCTGACGTTGTAGAAGCGAGTGGCCTCGAAGGCTACGGGACGAGGGTGGCGGGTGACCAAGTGCAGGCGCGAC
GGGTCAGGGACCGGGCCGGGCCGGGGGTGCGGGCGCGCGGGCCTACCGGGTTCGTAGTAGTCGTACACGGAGACT
GGCAGCGCCGACGTCCTGCCCACCACGCACTCCCGGAGAGCACGGAACCGCACGCACGTCAGGCACCGGCTGGGG
ATCTGTGGGGCAGCGGCGGGCGCAGGCTCGACCCGGGCCAGGAGGCCCGGGGCGCTGAGCTCAGGCCCAGAACTG
GCTGATTTCAGGGATACCCAGGACGCGTGAAACACAGAAGAAACGTGATCCCATTTTCTTTTTTTCTTTTACTTT
TCTTTTTTTTTTTTTTTCCTGAGACAGAGTCTCGCGCTGTTGCCCAGGCTGGAGTGCAGTGGCGTGATCTCGGCT
CACTGCAAGCTCGGCCTCCTGGGTTCAAATGATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGATAACAGGCGCC
CACCACCGCACCCTGCTAATTTTTTGTATTTTTGATCAAGACGGAGTTTCACCATGTTGGCCAGGCTGGTCTCCA
ACTCCTGCCCTCAAGTGATCCGCCTCGGTCCCATTTTTTATTCTTTGGGTCCTTCCATCCCACTGGGAAAACGTC
TCAGGTGGCCTCTGAAACACCACTCCTTTTTGTGTGTGTGCACGCATGGCTGAGCATGTGTGGGTGGGAGTCAGC
ACATTCACGATACTGTGCAATCATCACCTCTGTCTAGTTACAGAACGGTTTCTTTCTCCCCCAAAGAAACCCCAT
CGCCATCAGCACTCACTCCCCACTCCCCCAGCCCCTGGCAACCACAAATCTTTCCAACTCTACGGATTTGCCTGT
TCTGGGCATTTCATGTCAATGGAATCATGTACTCTGTG

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FIGURE 3636

GCGAGACCAAGTGCGAGGGGAGGACAGGCGAAGCGCGCGTCTGGGGCCGCGCTCTCCACACTTAGCCGGCGCTGC
CTCACGCCTCGCAGCCACCCCTCCTGCGTCTCCACAAATGGTCCGACCCGCAAGCAAGGGGGCGGGTCCGGCTTT
GAAAAGCCGGCGGGTCGGGCCTTGAGGTGGAAGGCGGGAAA**ATG**GCGGATTCCTCGGGGCGAGGCGCTGGGAAGC
CTGCAACCGGCCCCACAAATTCTAGCAGTGCCAAGAAGAAGGATAAAAGAGTTCAAGGTGGAAGAGTGATTGAGT
CCCGGTATCTGCAGTATGAAAAGAAGACAACCCAAAAGGCTCCTGCAGGAGATGGGTCACAGACCCGAGGGAAGA
TGTCTGAAGGTGGAAGGAAATCCAGCCTGCTCCAGAAAAGCAAAGCAGATAGCAGTGGGGTCGGAAAGGGTGACC
TGCAGTCCACGTTGCTGGAAGGGCATGGCACAGCTCCACCTGACCTGGATCTCTCTGCTATTAATGACAAAAGCA
TCGTCAAAAAGACGCCACAGTTAGCAAAAACAATATCAAAGAAACCTGAGTCAACATCATTTTCTGCCCCTCGGA
AAAAGAGCCCGGATTTATCTGAAGCAATGGAAATGATGGAGTCTCAGACACTACTGCTGACGCTACTATCCGTAA
AGATGGAGAACAATCTTGCTGAGTTTGAAAGAAGGGCAGAAAAGAATTTATTAATAATGTGTAAGGAGAAGGAGA
AGCTACAGAAAAAGGCCCACGAGCTGAAGCGCAGGCTTCTCCTCTCTCAGAGGAAGCGGGAGCTGGCAGATGTCC
TGGATGCCCAGATCGAGATGCTCAGCCCCTTCGAGGCAGTGGCCACACGCTTCAAGGAGCAATACAGGACATTCG
CCACGGCCCTGGACACTACCAGGCACGAGCTGCCCGTGAGGTCCATCCACCTGGAGGGAGATGGGCAGCAGCTCT
TAGACGCCCTGCAGCATGAACTGGTGACCACTCAGCGCCTCCTGGGAGAACTTGATGTTGGTGATTCGGAAGAAA
ATGTGCAGGTGCTGGACTTACTGAGCGAACTCAAGGACGTGACGGCGAAAAAGGACCTTGAGCTCCGAAGGAGCT
TTGCCCAGGTGCTGGAACTCTCCGCAGAGGCAAGCAAAGAGGCAGCCTTGGCAAACCAGGAAGTCTGGGAAGAGA
CCCAGGGCATGGCGCCCCCCAGCCGGTGGTATTTCAATCAAGACAGTGCCTGCAGAGAATCTGGGGGAGCACCCA
AGAACACGCCCCTGTCTGAGGACGACAACCCGGGTGCCTCGTCAGCCCCCGCTCAGGCCACGTTCATCAGCCCAA
GCGAAGATTTTTCTTCAAGCAGCCAGGCAGAAGTCCCGCCCTCTCTCTCTCGTTCAGGGAGGGACTTGTCA**TGA**C
TCATGGTTACATTCAGGATACTTGAGCACTTTATATACTACCGTAGCACTGTAGCTATTTTTTATGTGATAATCT
TGTTTGATAAAAAAGTAAACCTGTTTTGCAATTGAAGCCTCCATTTTCTATGAAGGGGCCAGTTGG

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FIGURE 3637A

ATGAGTGTGAAAGAGGCAGGCAGCTCGGGCCGCCGGGAGCAGGCGGCCTACCACCTGCACATCTACCCCCAGCTG
TCCACCACCGAGAGCCAGGCCTCGTGCCGCGTGACTGCCACCAAGGACAGCACCACCTCGGACGTCATCAAGGAC
GCCATTGCCAGCCTGCGGCTGGACGGCACCAAATGTTATGTGCTGGTGGAGGTCAAAGAGTCGGGAGGCGAGGAA
TGGGTGCTGGACGCCAACGACTCGCCTGTGCACCGGGTGCTGCTATGGCCCCGGCGGGCACAGGACGAGCACCCT
CAGGAGGATGGCTACTACTTCCTGCTGCAGGAGCGCAACGCAGATGGAACCATCAAGTACGTGCATATGCAGCTG
GTGGCGCAGGCCACAGCCACCCGGCGCCTAGTGGAGCGTGGCCTCCTGCCACGGCAGCAGGCGGACTTTGATGAC
CTGTGTAACCTCCCCGAGCTAACCGAGGGCAACCTCCTGAAGAACCTCAAGCACCGCTTCCTGCAACAAAAGATC
TACACGTACGCGGGGAGCATCCTGGTGGCCATCAACCCCTTTAAGTTCCTGCCCATCTACAACCCCAAGTACGTG
AAGATGTATGAGAACCAGCAGCTGGGCAAGCTGGAGCCACACGTCTTCGCGCTGGCCGACGTGGCCTACTACACC
ATGCTCAGGAAGCGCGTGAACCAGTGCATCGTGATCTCGGGTGAGAGCGGCTCCGGCAAGACCCAGAGCACCAAC
TTCCTCATCCACTGCCTCACCGCCCTCAGCCAGAAGGGCTACGCCAGCGGCGTCGAGAGGACCATCCTGGGTGCT
GGCCCTGTGCTGGAGGCTTTTGGAAATGCCAAGACAGCCCACAACAACAACTCCAGCCGGTTTGGGAAATTCATC
CAAGTCAGCTACCTAGAGAGTGGCATCGTGAGAGGAGCTGTCGTCGAGAAATATCTGCTTGAAAAGTCTCGCCTG
GTGTCTCAGGAGAAGGATGAGAGGAACTACCATGTGTTTTATTATTTGTTACTTGGGGTCAGCGAGGAAGAGCGC
CAAGAATTTCAGCTCAAGCAGCCTGAAGATTATTTCTACCTCAACCAGCATAACTTGAAGATTGAAGATGGGGAG
GACCTGAAGCATGACTTTGAGAGGCTCAAGCAGGCCATGGAGATGGTGGGCTTCCTCCCCGCCACCAAGAAGCAG
ATTTTTGCCGTCCTCTCGGCCATCCTGTACCTGGGCAACGTCACTTATAAGAAGAGAGCTACAGGCCGAGAGGAA
GGGTTGGAGGTCGGGCCACCCGAGGTGCTGGACACCCTGTCGCAGCTTCTGAAGGTGAAGCGAGAAATCTTGGTG
GAGGTTCTGACCAAAAGAAAAACGGTGACCGTCAACGACAAGCTTATCCTTCCCTACAGCCTCAGCGAGGCCATC
ACTGCCCGCGACTCCATGGCCAAGTCTCTGTACAGCGCCCTGTTCGACTGGATTGTGCTGCGGATCAACCACGCA
CTCCTCAACAAGAAGGACGTGGAAGAGGCAGTCTCGTGCCTGTCCATTGGGGTCCTGGACATCTTCGGGTTTGAA
GACTTCGAGAGGAACAGCTTTGAGCAGTTCTGCATCAACTACGCCAATGAGCAGCTGCAGTATTACTTCAACCAG
CACATCTTCAAGCTGGAGCAGGAGGAATATCAGGGCGAGGGGATCACGTGGCACAACATCGGCTACACAGACAAT
GTCGGCTGCATCCATCTCATCAGCAAGAAACCCACGGGCCTCTTCTACCTGCTGGACGAGGAGAGCAACTTCCCC
CACGCCACGAGCCAGACCCTGCTGGCCAAGTTCAAACAGCAACATGAGGACAATAAGTACTTCCTGGGCACCCCG
GTCATGGAGCCAGCTTTCATCATCCAGCACTTCGCAGGGAAGGTGAAATATCAGATCAAGGACTTCCGGGAGAAG
AACATGGACTACATGCGGCCAGACATCGTGGCCCTGCTGCGGGGCAGTGACAGCTCCTACGTGCGGGAGCTCATC
GGCATGGACCCCGTGGCCGTGTTCCGCTGGGCCGTGCTCCGGGCTGCTATCCGGGCCATGGCAGTGCTTCGGGAG
GCCGGACGCCTGCGGGCCGAGAGGGCCGAAAAGGCTGCAGGTATGAGCAGCCCTGGTGCCCAAAGTCACCCAGAA
GAGCTGCCAAGAGGAGCCAGCACCCCTTCGGAAAAACTTTACCGCGATTTGCATAACCAAATGATCAAGAGCATC
AAAGGATTGCCCTGGCAGGGCGAGGACCCCCGTAGCCTTCTCCAGTCCCTCAGTCGGCTCCAGAAACCCCGCGCC
TTCATCCTGAAAAGTAAAGGTATCAAACAAAAGCAGATCATTCCAAAGAACCTACTGGACTCCAAGTCCCTGAAA
CTCATCATCAGCATGACTCTGCACGACCGCACCACCAAGTCCCTACTGCACCTGCACAAGAAGAAAAAGCCACCA
AGCATCAGCGCCCAGTTCCAGACATCCCTTAACAAGCTCTTGGAGGCACTGGGGAAGGCGGAGCCCTTCTTTATC
CGCTGCATCCGTTCCAATGCTGAAAAGAAAGAGCTGTGCTTTGACGACGAGCTGGTCCTGCAGCAGCTGCGCTAC
ACCGGCATGCTGGAGACCGTGCGCATCCGGAGGTCAGGGTACAGCGCCAAGTACACGTTCCAGGATTTCACCGAG
CAGTTCCAGGTGCTCCTGCCCAAGGATGCCCAGCCCTGCAGGGAGGTCATCTCCACCCTCCTGGAGAAAATGAAG
ATAGACAAGAGGAACTACCAGATCGGGAAGACCAAGGTCTTCCTGAAGGAGACGGAGCGGCAAGCCCTGCAGGAG
ACGCTGCACCGGGAGGTGGTGCGGAAAATCCTGCTGCTGCAGAGCTGGTTCCGGATGGTGCTGGAGCGTCGGCAC
TTCCTGCAGATGAAGCGGGCCGCCGTCACCATCCAGGCCTGCTGGCGGTCCTACCGGGTCCGGAGGGCGCTGGAG
AGGACGCAGGCTGCCGTGTACCTCCAGGCCTCATGGAGGGGCTACTGGCAGCGGAAGCTCTACCGGCACCAGAAA
CAGAGCATCATCCGCCTGCAGAGCCTGTGTCGGGGGCACCTGCAGCGCAAGAGCTTCAGCCAGATGATCTCGGAG
AAGCAGAAGGCAGAAGAGAAGGAGAGGGAAGCCCTGGAAGCCGCAAGAGCAGGTGCTGAGGAGGGCGGACAGGGT
CAGGCGGCTGGAGGGCAGCAGGTAGCTGAGCAGGGGCCGGAGCCAGCGGAGGATGGCGGGCACCTGGCATCGGAG
CCTGAGGTGCAGCCAAGTGACAGGTCCCCCCTAGAGCACTCCTCACCTGAGAAGGAGGCCCCAAGCCCAGAGAAG
ACTCTCCCACCCCAGAAAACCGTGGCGGCTGAAAGTCACGAGAAAGTCCCCAGCAGCCGGGAGAAGCGTGAGTCG
CGTCGGCAAAGAGGGCTGGAGCACGTCAAGTTCCAGAACAAACACATCCAGTCCTGCAAGGAGGAGAGTGCCCTC
AGAGAACCTTCCAGAAGGGTCACCCAGGAGCAAGGGGTGAGTCTCCTGGAAGACAAAAAGGAGAGCAGAGAAGAT

FIGURE 3637B

GAAACCCTTCTAGTCGTAGAGACGGAGGCTGAGAACACATCTCAAAAGCAGCCCACAGAGCAACCCCAGGCCATG
GCAGTTGGCAAGGTCTCTGAAGAAACTGAGAAGACGCTGCCCAGTGGGAGCCCCAGGCCTGGCCAGTTGGAGCGG
CCGACCAGCCTGGCCCTGGACAGCAGGGTCAGCCCACCGGCCCCTGGCAGCGCCCCCGAGACCCCCGAGGACAAG
AGCAAACCATGTGGCAGCCCAAGGGTTCAGGAAAAGCCCGACAGCCCCGGAGGCTCCACGCAGATCCAGCGGTAC
CTGGACGCCGAGCGGCTGGCCAGCGCCGTGGAACTGTGGCGGGGCAAGAAGCTGGTGGCCGCCGCCAGCCCTAGT
GCCATGCTCAGCCAGTCCCTGGACCTCAGCGACAGACACCGGGCCACAGGGGCCGCCCTCACGCCCACAGAGGAG
AGGCGCACCTCCTTCTCCACGAGCGACGTCTCCAAGCTCCTCCCGTCCCTGGCCAAGGCTCAGCCTGCAGCAGAA
ACCACGGACGGAGAGCGAAGTGCGAAAAAGCCAGCTGTCCAGAAGAAGAAGCCAGGCGACGCATCCTCCCTCCCA
GACGCAGGGCTGTCCCCGGGCTCTCAGGTCGACTCTAAATCCACGTTTAAGAGGCTTTTTCTGCATAAAACCAAG
GATAAAAAATACAGCCTGGAGGGCGCAGAGGAGCTGGAGAATGCAGTGTCCGGGCACGTGGTGCTGGAAGCCACC
ACCATGAAGAAGGGCCTGGAAGCCCCCTCCGGACAGCAGCATCGCCACGCTGCAGGTGAGAAGCGCACCAAGGAA
CCAGGAGGCAAAGGGAAGAAGAACCGAAATGTCAAGATTGGGAAGATCACAGTGTCAGAGAAGTGGCGGGAATCG
GTGTTCCGCCAGATCACCAACGCCAATGAGCTCAAGTACCTGGACGAGTTCCTGCTCAACAAGATAAATGACCTC
CGTTCCCAGAAGACGCCCATTGAGAGCTTGTTTATCGAAGCCACCGAGAAGTTCAGGAGCAACATCAAAACGATG
TACTCTGTCCCGAACGGGAAGATCCACGTGGGCTACAAGGATCTGATGGAGAACTACCAGATCGTCGTCAGCAAC
CTGGCCACTGAGCGTGGCCAGAAGGACACCAACCTGGTCCTCAACCTCTTCCAGTCACTGCTAGATGAGTTCACC
CGTGGCTACACCAAGAACGACTTCGAGCCAGTGAAGCAGAGCAAAGCTCAGAAGAAGAAGCGGAAGCAGGAGCGT
GCTGTCCAGGAGCACAACGGGCACGTGTTCGCCAGCTACCAGGTTAGCATCCCGCAGTCGTGCGAGCAGTGCCTC
TCCTATATCTGGCTCATGGACAAGGCCCTGCTCTGCAGCGTGTGCAAGATGACCTGCCACAAGAAGTGCGTGCAC
AAGATTCAGAGCCACTGCTCCTACACCTACGGGAGGAAGGGCGAGCCAGGCGTTGAGCCTGGCCACTTCGGCGTG
TGCGTAGACAGCCTGACCAGCGACAAGGCCTCGGTGCCCATCGTGCTGGAGAAGCTCCTGGAACACGTGGAGATG
CACGGCCTGTACACCGAGGGCCTCTACCGCAAGTCGGGTGCTGCCAACCGCACTCGGGAGCTCCGGCAGGCGCTG
CAGACAGACCCCGCAGCAGTCAAGCTGGAGAACTTCCCCATCCACGCCATCACAGGGGTGCTGAAGCAGTGGCTG
CGGGAGCTGCCCGAGCCCCTCATGACCTTCGCACAGTACGGCGACTTCCTCCGAGCCGTCGAGCTGCCGGAGAAG
CAGGAGCAGCTGGCTGCCATCTATGCCGTCCTGGAGCACCTTCCAGAAGCCAACCACAACTCCCTGGAGAGACTC
ATCTTCCACCTTGTCAAGGTGGCCCTGCTCGAGGATGTCAACCGCATGTCACCTGGGGCGCTGGCCATTATCTTC
GCACCCTGCCTCCTGCGCTGCCCTGACAACTCGGACCCGCTGACCAGCATGAAGGACGTCCTCAAGATCACCACG
TGCGTGGAGATGCTGATCAAGGAGCAGATGAGGAAATACAAAGTGAAGATGGAGGAGATCAGCCAACTGGAGGCT
GCAGAGAGTATCGCCTTCCGCAGGCTTTCGCTCCTGCGACAAAATGCTCCATGGCCTCTCAAACTGGGGTTTTCG
TCTCCCTATGAGGGGGTCCTGAACAAGAGCCCCAAGACCCGGGACATCCAGGAGGAGGAGCTGGAGGTGCTGCTG
GAGGAGGAGGCAGCCGGCGGCGATGAGGACCGGGAAAAGGAGATTCTCATTGAACGGATCCAGTCCATCAAGGAG
GAGAAGGAGGACATCACCTACCGGCTGCCGGAGCTGGACCCAAGGGGCTCGGACGAGGAGAACCTGGACTCGGAG
ACGTCGGCCAGCACCGAGAGCCTGCTGGAGGAGCGGGCCGGGCGGGGGGCCTCGGAAGGGCCCCCTGCGCCTGCT
CTCCCTTGCCCCGGCGCGCCCACCCCGAGCCCCCTCCCCACCGTGGCCGCCCCTCCACGACGAAGGCCGTCGTCC
TTCGTAACGGTCAGAGTGAAGACCCCCCGGCGGACCCCCATCATGCCCACGGCCAACATCAAGCTCCCACCAGGC
CTGCCCTCCCACCTGCCTCGCTGGGCACCGGGTGCCCGGGAGGCGGCTGCCCCAGTGCGGCGCCGGGAGCCACCT
GCCCGCCGCCCGGACCAGATACATTCCGTGTACATCACGCCCGGGGCAGACCTGCCAGTGCAGGGCGCCCTGGAG
CCCCTAGAAGAGGATGGCCAGCCACCTGGGGCCAAGCGGAGGTACTCGGATCCCCCAACGTACTGCCTGCCCCCC
GCCTCGGGCCAGACCAATGGC**TGA**GAGCCACAGCTGACAAAGTCTGCATGTCCGAGGACGGCCCCTGCACTGGAG
CTGGGCGCCAGAGCTGCAGAGCTAGTGTTCGGCCCTCAGAGAAGGATCCAGAATCAAAAGCTCAAGAGTGACGTG
AGGTGGGCACCGGCCCCAAGTGCAGAGTCAAGGCAGGGAGAGGCCGGCTGGAGCCAGGCCCCCTCGCACGCAGCC
CCCAAATCATGGACGCACCTGTGGGGAGCACCACATCTCCACCTGCGGCCTCACATCTCCCCACTCCCCTTTTTG
TACGTTTAACTGTTTCTTTGTACGTGGTTTACGTAACTTTAAACTGTAACAGCCTTAATGGAAGACCAAATGGTT
TTTTATATGTGTATGTACAAAGTTTTCTATTAACGCTGCCCGTCTCCCTTATAACCTGGACGTGAGCTGTCAGAG
CAGAAGCCACTAGGCCACTGCGCGTCTGAGGCTCAGACCCTGCTGTGGTTGGCTTGGGGTGGCCAATGGGCTGGG
ACCCTCCATGAGAGTTTTGGACACTTGGGTCACCTGACCCGTGCCTCTCTGACACATGTCTCCGGGGGGCAGCCA
CCTGGCCAATGTGCATTTTTGCACATGCTGGAACCTTCCATGGGGGTCTGGGCTATTGGCTGGAGCCAGGACATG
AGTCAGGGGCACCATGGACCTCACGTGCCAGGGAGACTTGAATGTGGCTGTCACTCTTCCGGACGCCAAGGGCTG

FIGURE 3637C

CAGGAGGCTGCTTTTGGCACTACCCACCCCGTGTGACAGAATAGGAGCCAGCGACTCAGGACTGCTCACGGGTCA
GGAGGGCAACGCCTGAAGTCAGACCTCCCTATAGGTCAACAGGGACAACCTGGGGATCTCTGGAGCAGGGCCCTC
CTCTCTCAGGCTTGGCCCACTCCCCCAGACACCTGGACACGTGGCCACAAATCTGGGACAAGGGGCCCCCGCACA
GCATGAAATAAAAAGTGCCTGAGAAGTGTG

FIGURE 3638

CGCGCAACTTGCGGCCAAACTTTCCCCCCGGCCTCCCGCGCTCGGATGGCGGCCCGCTGAGTTGGCCGCAGCCCC
CGGGCGAGCGGCGGCCAGGCCAGAGGACGCCCCCTGCGCGGCTCGGGCCGGGCCATGGCCCGCGCGCCCCCGCCG
GGGCCCCAGGGCGGCGGGACGCGAGTCCTCTGGGCCCCCGGCCCGCGCCTCTAGCGTGCCCCTCCCGGCCCCGGG
CCCGGCCCCGCGCACGCGTGGGAAAGTTGGCCTGGAACCGGCCCGACCAGTTCCGCCCGGGCGCGAGGACCGGCC
GCAGGAAGTTGCTGCAAAACTTTTTTGGGGGGTGCAGCCCGTGCCCCCCGCGCGCCGGGGCCGAATGCGCGCCGC
GTAGGGTCCCCCGGGCCGAGAGGGGTGCCCGGAGGGAAGAGCGCGGTGGGGGCGCCCCGGCCCCGCTGCCCTGGG
GCT**ATG**GCCATGGTGACCGGCGGCTGGGGCGGCCCCGGCGGCGACACGAACGGCGTGGACAAGGCGGGCGGCTAC
CCGCGCGCGGCCGAGGACGACTCGGCCTCGCCCCCCGGTGCCGCCAGCGACGCCGAGCCGGGCGACGAGGAGCGG
CCGGGGCTGCAGGTGGACTGCGTGGTGTGCGGGGACAAGTCGAGCGGCAAGCATTACGGTGTCTTCACCTGCGAG
GGCTGCAAGAGCTTTTTCAAGCGAAGCATCCGCCGCAACCTCAGCTACACCTGCCGGTCCAACCGTGACTGCCAG
ATCGACCAGCACCACCGGAACCAGTGCCAGTACTGCCGTCTCAAGAAGTGCTTCCGGGTGGGCATGAGGAAGGAG
GCGGTGCAGCGCGGCCGCATCCCGCACTCGCTGCCTGGTGCCGTGGCCGCCTCCTCGGGCAGCCCCCCGGGCTCG
GCGCTGGCGGCAGTGGCGAGCGGCGGAGACCTCTTCCCGGGGCAGCCGGTGTCCGAACTGATCGCGCAGCTGCTG
CGCGCTGAGCCCTACCCTGCGGCGGCCGGACGCTTCGGCGCAGGGGGCGGCGCGGCGGGCGCGGTGCTGGGCATC
GACAACGTGTGCGAGCTGGCGGCGCGGCTGCTCTTCAGCACCGTGGAGTGGGCGCGCCACGCGCCCTTCTTCCCC
GAGCTGCCGGTGGCCGACCAGGTGGCGCTGCTGCGCCTGAGCTGGAGCGAGCTCTTCGTGCTGAACGCGGCGCAG
GCGGCGCTGCCCCTGCACACGGCGCCGCTACTGGCCGCCGCCGGCCTCCACGCCGCGCCTATGGCCGCCGAGCGC
GCCGTGGCTTTCATGGACCAGGTGCGCGCCTTCCAGGAGCAGGTGGACAAGCTGGGCCGCCTGCAGGTCGACTCG
GCCGAGTATGGCTGCCTCAAGGCCATCGCGCTCTTCACGCCCGACGCCTGTGGCCTCTCAGACCCGGCCCACGTT
GAGAGCCTGCAGGAGAAGGCGCAGGTGGCCCTCACCGAGTATGTGCGGGCGCAGTACCCGTCCCAGCCCCAGCGC
TTCGGGCGCCTGCTGCTGCGGCTCCCCGCCCTGCGCGCGGTCCCTGCCTCCCTCATCTCCCAGCTGTTCTTCATG
CGCCTGGTGGGGAAGACGCCCATTGAGACACTGATCAGAGACATGCTGCTGTCGGGGAGTACCTTCAACTGGCCC
TACGGCTCGGGCCAG**TGA**CCATGACGGGGCCACGTGTGCTGTGGCCAGGCCTGCAGACAGACCTCAAGGGACAGG
GAATGCTGAGGCCTCGAGGGGCCTCCCGGGGCCCAGGACTCTGGCTTCTCTCCTCAGACTTCTATTTTTTAAAGA
CTGTGAAATGTTTGTCTTTTCTGTTTTTTAAATGATCATGAAACCAAAAAGAGACTGATCATCCAGGCCTCAGCC
TCATCCTCCCCAGGACCCCTGTCCAGGATGGAGGGTCCAATCCTAGGACAGCCTTGTTCCTCAGCACCCCTAGCA
TGAACTTGTGGGATGGTGGGGTTGGCTTCCCTGGCATGATGGACAAAGGCCTGGCGTCGGCCAGAGGGGCTGCTC
CAGTGGGCAGGGGTAGCTAGCGTGTGCCAGGCAGATCCTCTGGACACGTAACCTATGTCAGACACTACATGATGA
CTCAAGGCCAATAATAAAGACATTTCCTACCTG

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FIGURE 3639

GGGGCTGCGCCGTACAACTTCCGGCTGTAAAGATGGCGGCTTCCTAGTGAGTCGGCGGCTGATTTAGAAGGAGGT
TCAGGCTACGGTGAGCCGAAGCCACACAGGAGCC**ATG**GAAGTGGCAGAGCCCAGCAGCCCCACTGAAGAGGAGGA
GGAGGAAGAGGAGCACTCGGCAGAGCCTCGGCCCCGCACTCGCTCCAATCCTGAAGGGGCTGAGGACCGGGCAGT
AGGGGCACAGGCCAGCGTGGGCAGCCGCAGCGAGGGTGAGGGTGAGGCCGCCAGTGCTGATGATGGGAGCCTCAA
CACTTCAGGAGCCGGCCCTAAGTCCTGGCAGGTGCCCCCGCCAGCCCCTGAGGTCCAAATTCGGACACCAAGGGT
CAACTGTCCAGAGAAAGTGATTATCTGCCTGGACCTGTCAGAGGAAATGTCACTGCCAAAGCTGGAGTCGTTCAA
CGGCTCCAAAACCAACGCCCTCAATGTCTCCCAGAAGATGATTGAGATGTTCGTGCGGACAAAACACAAGATCGA
CAAAAGCCACGAGTTTGCACTGGTGGTGGTGAACGATGACACGGCCTGGCTGTCTGGCCTGACCTCCGACCCCCG
CGAGCTCTGTAGCTGCCTCTATGATCTGGAGACGGCCTCCTGTTCCACCTTCAATCTGGAAGGACTTTTCAGCCT
CATCCAGCAGAAAACTGAGCTTCCGGTCACAGAGAACGTGCAGACGATTCCCCCGCCATATGTGGTCCGCACCAT
CCTTGTCTACAGCCGTCCACCTTGCCAGCCCCAGTTCTCCTTGACGGAGCCCATGAAGAAAATGTTCCAGTGCCC
ATATTTCTTCTTTGACGTTGTTTACATCCACAATGGCACTGAGGAGAAGGAGGAGGAGATGAGTTGGAAGGATAT
GTTTGCCTTCATGGGCAGCCTGGATACCAAGGGTACCAGCTACAAGTATGAGGTGGCACTGGCTGGGCCAGCCCT
GGAGTTGCACAACTGCATGGCGAAACTGTTGGCCCACCCCCTGCAGCGGCCTTGCCAGAGCCATGCTTCCTACAG
CCTGCTGGAGGAGGAGGATGAAGCCATTGAGGTTGAGGCCACTGTC**TGA**ACCATCCCTGTACATCTGCACCTTCT
TGTGCAAGGAAGTCCTTGGCCTAAAGCCTTGGTTCTCAAACTGGGTTCCTTGGGACCTCCGGGGTGGGGGGGTTC
CAGGAGGCACGTAGGGTACCTTGCAGGGTCCTAGGAGGGAAACCCAGGATTCCAGGAGGGATCCCAGGAACTGTG
GGCACCCATTTTCTGTGTCTCCCAGCCCATTTCCACTCCTAGTTTGTCATGGATAATTTTTGTTCTTCCCTGTGT
GATTTTTGCCATCAAAATAAAAATTTGAGACTCGTTAA

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FIGURE 3640

AAAGGGCCGGCTGTTTCGGCGGCCGCGGGATGCCCCTGCGCTGACCGCCAGGGGCAGGTGCCCGCCCGCGTAGAC
GCACCCGGCCTGACCCCGCGCCACCATGTAAACGGCGCCAGCAGGCGGACGCTGGCTTCTCCGCCTGGGACCCCT
CCGCCCCGACCCGGGCCCCGCGGCCCTCGATGAGGACACACC**ATG**CTGACCGGGGTGACCGACGGTATCTTCTGT
TGCCTGCTGGGCACGCCCCCCAACGCCGTGGGGCCACTGGAGAGCGTCGAGTCCAGCGATGGCTACACCTTTGTA
GAGGTCAAGCCCGGCCGCGTGCTGCGGGTGAAGCATGCAGGACCCGCCCCAGCCGCTGCCCCACCTCCACCATCA
TCCGCATCCTCGGATGCAGCCCAGGGGGACCTCTCCGGCTTGGTCCGCTGTCAGCGCCGGATCACCGTGTACCGC
AATGGGCGGTTGCTGGTGGAAAACCTGGGCCGAGCCCCTCGAGCCGACCTCCTACACGGGCAGAATGGCTCTGGG
GAGCCGCCGGCCGCCCTGGAGGTGGAGCTGGCAGATCCGGCGGGCAGCGATGGCCGCTTGGCCCCCGGCAGCGCA
GGCAGCGGCAGCGGCAGTGGCAGTGGTGGGCGGCGGCGGCGAGCCAGGCGCCCCAAGAGGACCATCCATATTGAC
TGTGAGAAGCGCATCACTAGCTGCAAAGGCGCCCAGGCCGACGTGGTGCTCTTTTTCATCCATGGTGTCGGCGGT
TCCCTGGCCATCTGGAAGGAGCAGCTGGACTTCTTTGTGCGCCTAGGCTATGAGGTGGTGGCTCCTGACCTGGCC
GGCCACGGGGCCAGCTCTGCGCCCCAGGTGGCCGCAGCCTACACCTTCTATGCGCTGGCTGAGGACATGCGAGCA
ATCTTCAAGCGCTATGCCAAGAAGCGAAATGTGCTCATTGGCCATTCCTACGGTGTCTCTTTCTGCACATTCCTG
GCACATGAGTACCCAGACCTAGTGCACAAGGTGATCATGATCAATGGCGGGGGCCCTACGGCGCTGGAGCCCAGC
TTCTGCTCAATCTTCAACATGCCCACCTGCGTCCTGCACTGCTTGTCGCCCTGCCTGGCCTGGAGCTTCCTCAAG
GCCGGCTTCGCCCGCCAAGGAGCCAAGGAGAAGCAGCTGTTAAAGGAGGGCAACGCTTTCAACGTGTCATCCTTC
GTACTCCGGGCCATGATGAGCGGCCAGTACTGGCCCGAGGGCGACGAGGTCTACCACGCCGAGCTCACCGTGCCC
GTCCTGCTTGTCCACGGCATGCACGATAAGTTTGTGCCGGTGGAGGAAGACCAGCGCATGGCCGAGATCCTGCTC
CTGGCATTCCTGAAGCTCATCGACGAGGGCAGCCACATGGTGATGCTGGAATGCCCTGAGACGGTCAACACGCTG
CTCCACGAATTCCTGCTCTGGGAGCCCGAGCCCTCGCCCAAGGCTCTACCGGAGCCACTGCCGGCGCCTCCAGAA
GACAAGAAG**TAG**CCGCTGGGCCGGCGGGGCATCGCTTGGTGAGCACAGCCGCAGCAGGAGGAGGCCCGAGCCTGC
GCCAGGTCTGCAGCGCAGACCACCTGGGCGGGCCGTTCGCTCCGGTGGGCGGGGCCAGGTCAGGGAGACGCCCCC
AGGCTGCCTGGGCGGGGCGTGGCATCCGAGGGAGCCCAGCGGACATTCCGCTCTCCGCTTCCGTCCCGCGGGGCC
CATCGGCGTTTTGGGGCCGCAGCCGGGACCCTCACGGAAGATGACCTTGTACAGAAGCTCTCCCTCACCTTCCCC
CCAACGCCACGGCCAAGGCAGGCCCCCCACCCCGCTGTCTTCCGTGTCAGCCGTGCTTGATCCTGGGACCCACGA
GCCCCACAGGGACCCTCGAGGCCCCATCCCGTTATCCGAGACCCTTCCTACCCCCCATTCCTCGGCGCTGGGAGC
TATTTTTGCCCAAGGGGGGGGGATGGGGGGGCTGGCGCCACCGAACCTGCACATCTCAACTTGTAACTCAATAAA
CAGAAGTGACAATCGG

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FIGURE 3641

GCGGCTCTGGGCTCCGGAATCGCCCGCAGCCGGTACTGCGGGACCCACTGCGGATATGGCTGTCTTGGCTGGATC
CCTGTTGGGCCCCACGAGTAGGTCGGCAGCGTTGCTGGGTGGCAGGTGGCTCCAGCCCCGGGCCTGGCTGGGGTT
CCCAGACGCCTGGGGCCTCCCCACCCCGCAGCAGGCCCGGGGCAAGGCTCGCGGGAATGAGTATCAGCCGAGCAA
CATCAAACGCAAGAACAAGCACGGCTGGGTCCGGCGCCTGAGCACGCCGGCCGGCGTGCAGGTCATCCTTCGCCG
AATGCTCAAGGGCCGCAAGTCGCTGAGCCATTGAGGATCGCGACGCAGTCGGCGGGACCCTCATGGAAGCATCGC
CCTCGCCTCGGACCTTGCCTGGCGCTATTTTTGCAGGGAGCTGGGGAGCAGGAACGCCTCGGACCTGAGTGCTCT
CCATATTGTGGGGTTGAAGTCTGGATGGGAGCTTGCCAAGTCCCTTTTTAGGCTTTTTAATTAGGAAGCATTTCG
AACCTGCGCAACAGACCAAAGAACAGTACAAAGAACATCCGTGTACCCAGTACCCTGACTACCGACTACCTACAA
CCCGTCCCTGCCCCATCCTGAGTTCTTTTGAAGCTGATCTCAGGCATCGGATTATTTCTTCTGTAAATATTTCAG
AATGTATCTCTCCAAGATGAGAGCTCATTAAAAGACAATTACAAAGCTTATCACATCCAAAAGAATTATCAATAA
TTTTGAAATATTATTAAACGTGTAATAAATGTTCAAAGTTCCACTTGC

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FIGURE 3642

GGGAGGTGGTGGCGCCATCAGTGTGGGCTGTGCCGTGGCTGGAAGTTACTGTGAGGCGGCGGCTAAGAAGGCGGC
TCTGGTGGCGGCGGTGGAGGCTGAGGCGGCGGCCGAGGCGGCGACGGAGGAAACAGAAG**ATG**GCAGATTTTTTGA
AAGGACTGCCTGTCTACAACAAAAGCAATTTTAGTCGATTTCACGCGGACTCCGTGTGCAAAGCCTCGAACCGAC
GGCCCTCAGTCTACCTGCCTACCCGCGAGTACCCGTCTGAACAGATCATCGTGACAGAAAAGACAAACATCCTCC
TGCGCTACCTGCATCAGCAATGGGACAAAAAGAACGCTGCCAAGAAGAGAGACCAGGAGCAAGTGGAGCTGGAAG
GCGAGAGCTCCGCACCTCCCCGCAAGGTGGCGCGGACCGACAGCCCAGACATGCACGAGGACACT**TAA**GACTCTC
AACTCCACAGGCGCCTCCTGCCAGGTCTGCTCCTCGGTCGCCCACCCGCCTGCCCGCCATGTGTAAGCACCCCGC
CCGCCCGCCTCCCTGCCGGCCCATCCACACCCTGCGTCCACACCACTTCCAACCTCATAGGAGCCGATGTATTTA
TTTTCCTTGAGTTTTTATTTATGCTGTAACCTGTATCAAGCGTTGGTTAAAGGGGACATCAGACCCAGTAGTGTG
ATGTTGGTAGATGCTTTTTAAAAAAAACAACATTGTCCCCCCGACCCCCGCCTTCCATCGGGCCAGTTCCCCGAT
TCCTGCCCCCAGTTCTCCAGAGAACCAGAGTGTGTCTGTGAGAGTCTCTAGCGGGGGCTTTACTGTGGCCGGGCG
ACAGGGGCGGGCCCGGGGTGGCCTGACCTACCAGGACAGCCGAGTGGCCTTCTCCCCCCCAACACCGGTCCAGGC
CATTGAGACTCGGTCTTGTCCCACGCTTCGCCCGGAACTTTCCCATGCCCAGGCCTCACTCAGCGTGCACGCACG
TTGGGGAGAAGTCGGCCCTTGGGATCTTTCTCTTGAGTCATTTTATTTTTATCATGGACTAGTGCGTGCTCCGTG
TCCACCCCAATAAAAGGGTCTTTCCTA

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FIGURE 3643

GGTGAGCAGGGACGGTGCACCGGACGGCGGGATCGAGCAA**ATG**GGTCTGGCCATGGAGCACGGAGGGTCCTACGC
TCGGGCGGGGGGCAGCTCTCGGGGCTGCTGGTATTACCTGCGCTACTTCTTCCTCTTCGTCTCCCTCATCCAATT
CCTCATCATCCTGGGGCTCGTGCTCTTCATGGTCTATGGCAACGTGCACGTGAGCACAGAGTCCAACCTGCAGGC
CACCGAGCGCCGAGCCGAGGGCCTATACAGTCAGCTCCTAGGGCTCACGGCCTCCCAGTCCAACTTGACCAAGGA
GCTCAACTTCACCACCCGCGCCAAGGATGCCATCATGCAGATGTGGCTGAATGCTCGCCGCGACCTGGACCGCAT
CAATGCCAGCTTCCGCCAGTGCCAGGGTGACCGGGTCATCTACACGAACAATCAGAGGTACATGGCTGCCATCAT
CTTGAGTGAGAAGCAATGCAGAGATCAATTCAAGGACATGAACAAGAGCTGCGATGCCTTGCTCTTCATGCTGAA
TCAGAAGGTGAAGACGCTGGAGGTGGAGATAGCCAAGGAGAAGACCATTTGCACTAAGGATAAGGAAAGCGTGCT
GCTGAACAAACGCGTGGCGGAGGAACAGCTGGTTGAATGCGTGAAAACCCGGGAGCTGCAGCACCAAGAGCGCCA
GCTGGCCAAGGAGCAACTGCAAAAGGTGCAAGCCCTCTGCCTGCCCCTGGACAAGGACAAGTTTGAGATGGACCT
TCGTAACCTGTGGAGGGACTCCATTATCCCACGCAGCCTGGACAACCTGGGTTACAACCTCTACCATCCCCTGGG
CTCGGAATTGGCCTCCATCCGCAGAGCCTGCGACCACATGCCCAGCCTCATGAGCTCCAAGGTGGAGGAGCTGGC
CCGGAGCCTCCGGGCGGATATCGAACGCGTGGCCCGCGAGAACTCAGACCTCCAACGCCAGAAGCTGGAAGCCCA
GCAGGGCCTGCGGGCCAGTCAGGAGGCGAAACAGAAGGTGGAGAAGGAGGCTCAGGCCCGGGAGGCCAAGCTCCA
AGCTGAATGCTCCCGGCAGACCCAGCTAGCGCTGGAGGAGAAGGCGGTGCTGCGGAAGGAACGAGACAACCTGGC
CAAGGAGCTGGAAGAGAAGAAGAGGGAGGCGGAGCAGCTCAGGATGGAGCTGGCCATCAGAAACTCAGCCCTGGA
CACCTGCATCAAGACCAAGTCGCAGCCGATGATGCCAGTGTCAAGGCCCATGGGCCCTGTCCCCAACCCCCAGCC
CATCGACCCAGCTAGCCTGGAGGAGTTCAAGAGGAAGATCCTGGAGTCCCAGAGGCCCCCTGCAGGCATCCCTGT
AGCCCCATCCAGTGGC**TGA**GGAGGCTCCAGGCCTGAGGACCAAGGGATGGCCCGACTCGGCGGTTTGCGGAGGAT
GCAGGGATATGCTCACAGCGCCCGACACAACCCCCTCCCGCCGCCCCCAACCACCCAGGGCCACCATCAGACAAC
TCCCTGCATGCAAACCCCTAGTACCCTCTCACACCCGCACCCGCGCCTCACGATCCCTCACCCAGAGCACACGGC
CGCGGAGATGACGTCACGCAAGCAACGGCGCTGACGTCACATATCACCGTGGTGATGGCGTCACGTGGCCATGTA
GACGTCACGAAGAGATATAGCGATGGCGTCGTGCAGATGCAGCACGTCGCACACAGACATGGGGAACTTGGCATG
ACGTCACACCGAGATGCAGCAACGACGTCACGGGCCATGTCGACGTCACACATATTAATGTCACACAGACGCGGC
GATGGCATCACACAGACGGTGATGATGTCACACACAGACACAGTGACAACACACACCATGACAACGACACCTATA
GATATGGCACCAACATCACATGCACGCATGCCCTTTCACACACACTTTCTACCCAATTCTCACCTAGTGTCACGT
TCCCCCGACCCTGGCACACGGGCCAAGGTACCCACAGGATCCCATCCCCTCCCGCACAGCCCTGGGCCCCAGCAC
CTCCCCTCCTCCAGCCTCCTGGCCTCCCAGCCACTTCCTCACCCCCAGTGCCTGGACCCGGAGGTGAGAACAGGA
AGCCATTCACCTCCGCTCCTTGAGCGTGAGTGTTTCCAGGACCCCCTCGGGGCCCTGAGCCGGGGGTGAGGGTCA
CCTGTTGTCGGGAGGGGAGCCACTCCTTCTCCCCCAACTCCCAGCCCTGCCTGTGGCCCGTTGAAATGTTGGTGG
CACTTAATAAATATTAGTAAATCCTT

FIGURE 3644

ATGGCATCTACTTCGTATGACTATTGCAGAGTGCCCATGGAAGACGGGGATAAGCGCTGTAAGCTTCTGCTGGGG
ATAGGAATTCTGGTGCTCCTGATCATCGTGATTCTGGGGGTGCCCTTGATTATCTTCACCATCAAGGCCAACAGC
GAGGCCTGCCGGGACGGCCTTCGGGCAGTGATGGAGTGTCGCAATGTCACCCATCTCCTGCAACAAGAGCTGACC
GAGGCCCAGAAGGGCTTTCAGGATGTGGAGGCCCAGGCCGCCACCTGCAACCACACTGTGATGGCCCTAATGGCT
TCCCTGGATGCAGAGAAGGCCCAAGGACAAAAGAAAGTGGAGGAGCTTGAGGGAGAGATCACTACATTAAACCAT
AAGCTTCAGGACGCGTCTGCAGAGGTGGAGCGACTGAGAAGAGAAAACCAGGTCTTAAGCGTGAGAATCGCGGAC
AAGAAGTACTACCCCAGCTCCCAGGACTCCAGCTCCGCTGCGGCGCCCCAGCTGCTGATTGTGCTGCTGGGCCTC
AGCGCTCTGCTGCAG**TGA**GATCCCAGGAAGCTGGCACATCTTGGAAGGTCCGTCCTGCTCGGCTTTTCGCTTGAA
CATTCCCTTGATCTCATCAGTTCTGAGCGGGTCATGGGGCAACACGGTTAGCGGGGAGAGCACGGGGTAGCCGGA
GAAGGGCCTCTGGAGCAGGTCTGGAGGGGCCATGGGGAAGTCCTGGGTGTGGGGACACAGTCGGGTTGACCCAGG
GCTGTCTCCCTCCAGAGCCTCCCTCCGGACAATGAGTCCCCCCTCTTGTCTCCCACCCTGAGATTGGGCATGGGG
TGCGGTGTGGGGGGCATGTGCTGCCTGTTGTTATGGGTTTTTTTTGCGGGGGGGGTTGCTTTTTTCTGGGGTCTT
TGAGCTCCAAAAAATAAACACTTCCTTTGAGGGAGAGC

FIGURE 3645

TTCCGGCGGAAGTTGCTGGGCGCGGAAAGCCGGCAAGACCTTTTTTTCCGCCATCATCGCTCACGCGCGCAACCC
TGGCGACGCGTGGTGGCGAGGCTCCGCCTCCCCACGCCATTGGCCAGCAGCTCCTCGGGCACGCGTATACTGCGC
TTCCGGGCAATCTCCGCCCCCCCCCCCCGCATGGCCTTCTGGGAGTTGTAGTTCGGTCGCGAGCGCTGCCGTCGG
GAGGCGCTCCGAGGTTCGAGGCTGTGCCCCGCGACCCCGCCTTCGGCGCTCGGCTCGCAGG**ATG**GATCCCGTACC
CGGGACAGACTCGGCGCCGCTGGCTGGCCTGGCCTGGTCGTCGGCCTCTGCACCCCCGCCGCGGGGGTTCAGCGC
GATCTCCTGCACCGTCGAGGGGGCACCCGCCAGCTTTGGCAAGAGCTTCGCGCAGAAATCTGGCTACTTCCTGTG
CCTTAGTTCTCTGGGCAGCCTAGAGAACCCGCAGGAGAACGTGGTGGCCGATATCCAGATCGTGGTGGACAAGAG
CCCCCTGCCGCTGGGCTTCTCCCCCGTCTGCGACCCCATGGATTCCAAGGCCTCTGTGTCCAAGAAGAAACGCAT
GTGTGTGAAGCTGTTGCCCCTGGGAGCCACGGACACGGCTGTGTTTGATGTCCGGCTGAGTGGGAAGACCAAGAC
AGTGCCTGGATACCTTCGAATAGGGGACATGGGCGGCTTTGCCATCTGGTGCAAGAAGGCCAAGGCCCCGAGGCC
AGTGCCCAAGCCCCGAGGTCTCAGCCGGGACATGCAGGGCCTCTCTCTGGATGCAGCCAGCCAGCCAAGTAAGGG
CGGCCTCCTGGAGCGGACAGCGTCAAGGCTGGGCTCTCGGGCATCCACTCTGCGGAGGAATGACTCCATCTACGA
GGCCTCCAGCCTCTATGGCATCTCAGCCATGGATGGGGTTCCCTTCACACTCCACCCACGATTTGAGGGCAAGAG
CTGCAGCCCCCTGGCCTTCTCTGCTTTTGGGGACCTGACCATCAAGTCTCTGGCGGACATTGAGGAGGAGTATAA
CTACGGCTTCGTGGTGGAGAAGACCGCGGCTGCCCGCCTGCCCCCCAGCGTCTCA**TAG**TCCCTCACCCTTCCGCG
GAAAGAGCCCCCTTACTCCACCTCCCCGCCAGCCTGGGGCCACCCCCCCTCACTGCATCCTGGGGCCACCCCCAC
TCACTGCATCCTGGGAACCTTCGCCCTGCAAGGCGTTTGCTATCTTCAGCCACTGGGCGGAGCTGCAGCCCTGGA
GGAGGGGGCGGGTCGAGGCTGCGTGGTGATGGGGTCTCCGCCCCCACGCCCTGCCGGGCAGGGCTGGAGCTGGAC
AGAAGCCAGTGCCTTTAAGTCATTTGTGTCAAAACCCTCTGGGGTCCGGAGGCTGTGCGGGTGTCCTCCTGGCAA
TAAACACTACCCGGTTCTCGCC

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FIGURE 3646

GCCGGAGTTCGTGGGGCTGTGGCTGGGCCTGGCCAAGGCGGGC**ATG**GAGGCCGCGCTGCTCAACGTGAACCTGCG
GCGCGAGCCCCTGGCCTTCTGCCTGGGCACCTCGGGCGCTAAGGCCCTGATCTTTGGAGGAGAAATGGTGGCGGC
GGTGGCCGAAGTGAGCGGGCATCTGGGGAAAAGTTTGATCAAGTTCTGCTCTGGAGACTTGGGGCCCGAGGGCAT
CTTGCCGGACACCCACCTCCTGGACCCGCTGCTGAAGGAGGCCTCTACTGCCCCCTTGGCACAGATCCCCAGCAA
GGGCATGGACGATCGTCTTTTCTACATCTACACGTCGGGGACCACCGGGCTGCCCAAGGCTGCCATTGTCGTGCA
CAGCAGGTACTACCGCATGGCAGCCTTCGGCCACCACGCCTACCGCATGCAGGCGGCTGACGTGCTCTATGACTG
CCTGCCCCTGTACCACTCGGCAGGAAACATCATCGGCGTGGGGCAGTGTCTCATCTATGGGCTGACAGTCGTCCT
CCGCAAGAAATTCTCGGCCAGCCGCTTCTGGGACGACTGCATCAAGTACAACTGTACCTGGCACGGCCCATCCTG
GACTGAGAAACTGGAACCTCAGAGGAACCCGTGCCTCTCTGCTGCCTTGGTGCCCCTGTGTCTGCCTCCTCTCCC
TGCTTTTCAGCCTCTGTCTCCTTCCATCCCTGTCCCTGTCTGGCCT**TAA**CTCTTCCCTCTTTTTCTTTTCTTTCT
TTCTTTCTTTTTTTTTTAAGATAGAGTCTCACTCTGCTGCCCGGGCTAGAGTGCAGTGGTGGGATCTCGGCTCAC
TGCAACCTCTGCCTCCTGGGGTTCAAGTGATCCTCCCACCTCAGCCTCCTGAGTAGCTGGGATTACAGGCACCCG
CCACCACGTCCAGCTAATTTTTATATTTTTAGTAGAGACGGGGTTTCACCATGTTGGTCAGGTTGGTCTTGAACT
CCTGACCTCAGGTGATCCGCTGGCCTCGGCCTCCCAGAGTGCTGGGATTATAGGCGTGAGCCTCTGGCCCGGCCT
TTCCTTTTTCCTCTCCTCTCCTGCCGAGAGTGGAACACGCGTGTCCTGGGAGCTGCATCTTGTGTAGGGTCCAGC
TGCTTTTGGGGACTGCAGGAATCATCTCCCCTGGGCCCTGGACTCGGACTGGGGCCTCCCCACCTCCCTCTCGGC
TGTGCCTTACGGAGCCCCGATCCAGGCCTCCTGTGGCTGTTGGGTTCCAGATGCTGCAGCTCCATGTGACTTCCA
AGCAGGCCCTCCGCCCTCCCTGCTGAATGGAGGAGCCGGGGGTCCCCCAGGCCAACTGGAAAATCTCCCAGGCTA
GGCCAATTGCCTTTTGCACTTCCCCGTTCCTGTCACATTTCCCCAGCCCCACCTTCCCCTCCTGATGCCCTGAAA
GCTTCCGGAATTGACTGTGACCACTTGGATGTCACCACTGTCAGCCCCTGCCTTGATGTCCCCATTTAGCCATCT
CCATGGAGCTCCTGCTGGAGGGCCCTGAACCCTGCACTGCGTGGCTGCCCAGCCAGCTGCCTCCTGTCCTGGGAG
GAGGCCTCCTGGGTGTCCTCATCTGGTGTGTCTACTGGAGGGTCCCACAGGAGAGGCAGCAGAGGGGTCAGGGGA
GGTCTCCTGCCGGGGGTTGGCCTCTCAAGCCTCAGGGGTTCTAGCCTGTTGAATATACCCCACCTGGTGGTGGCC
CCTCCGATGTCCCCACTGATGGCTCTGACACCGTGTTGGTGGCGATGTCCCAGACAATCCCACCAGGACGGCCCA
GACATCCCTACTGGCTTCGCTGGTGGCTCATCTCGAACATCCACGCCAGCCTTTCTGGGGCCGGCCACCCAGGCC
GCCTGTCCGTCTGTCCTCCCTCCAGCAGCACCCCCTGGCCCCTGGAGTGGTGGGGCCATGGCAAGAGACACCGTG
GCGTCTCATGTGAACTTTCCTGGGCACTGTGGTTTTATTTCCTAATTGATTTAAGAAATAAACCTGAAGACCGTC

FIGURE 3647

CCGCCGCCGCCCTCGCC**ATG**GCCGCGCCGGCCCCGGGCCTCATCTCGGTGTTCTCGAGTTCCCAGGAGCTGGGTG
CGGCGCTAGCGCAGCTGGTGGCCCAGCGCGCAGCATGCTGCCTGGCAGGGGCCCGCGCCCGTTTCGCGCTCGGCC
TGTCGGGCGGGAGCCTCGTCTCGATGCTAGCCCGCGAGCTACCCGCCGCCGTCGCCCCTGCCGGGCCAGCTAGCT
TAGCGCGCTGGACGCTGGGCTTCTGCGACGAGCGCCTCGTGCCCTTCGATCACGCCGAGAGCACGTACGGCCTCT
ACCGGACGCATCTTCTCTCCAGACTGCCGATCCCAGAAAGCCAGGTGATCACCATTAACCCCGAGCTGCCTGTGG
AGGAGGCGGCTGAGGACTACGCCAAGAAGCTGAGACAGGCATTCCAAGGGGACTCCATCCCGGTTTTCGACCTGC
TGATCCTGGGGGTGGGCCCCGATGGTCACACCTGCTCACTCTTCCCAGACCACCCCCTCCTACAGGAGCGGGAGA
AGATTGTGGCTCCCATCAGTGACTCCCCGAAGCCACCGCCACAGCGTGTGACCCTCACACTACCTGTCCTGAATG
CAGCACGAACTGTCATCTTTGTGGCAACTGGAGAAGGCAAGGCAGCTGTTCTGAAGCGCATTTTGGAGGACCAGG
AGGAAAACCCGCTGCCCGCCGCCCTGGTCCAGCCCCACACCGGGAAACTGTGCTGGTTCTTGGACGAGGCGGCCG
CCCGCCTCCTGACCGTGCCCTTCGAGAAGCATTCCACTTTG**TAG**CTGGCCAGAGGGACGCCGCAGCTGGGACCAG
GCACGCGGCCCATGGGGCTGGGCCCCTGCTGGCCGCCACTCTCCGGGCTCTCCTTTCAAAAAGCCACGTCGTGCT
GCTGCTGGAAGCCAACAGCCTCCGGCCAGCAGCCCTACCCGGGGCTCAACACACAGGCTGTGGCTCTGGACATCC
GGATATTAAAAGGAGCGTTGCTGG

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FIGURE 3648

CCCCTTTAAGGCGCGGCCAGAGTCCTCCCGCAGAAAAACGACTTAAAGGAGACGCGTGGCGCG**ATG**GCGGCGGCC
CCACGCGCGGGCCGGCGGCGCGGGCAGCCGCTCCTGGCGCTGCTGCTTCTGCTGCTGGCGCCACTGCCGCCGGGG
GCCCCGCCGGGCGCCGACGCCTACTTCCCCGAGGAGCGCTGGAGCCCGGAGTCGCCCCTGCAGGCGCCGCGCGTG
CTCATCGCGCTGTTGGCGCGAAACGCGGCCCACGCGTTGCCCACCACGCTGGGCGCACTCGAGCGGCTGCGGCAC
CCGCGGGAGCGCACGGCGCTATGGGTGGCTACGGACCACAACATGGATAACACGTCAACTGTGCTGCGGGAGTGG
CTGGTGGCCGTGAAGAGTTTGTACCATTCCGTGGAGTGGCGGCCAGCAGAGGAGCCCAGGTCCTACCCGGACGAG
GAAGGCCCGAAACACTGGTCTGACTCACGCTACGAGCATGTCATGAAGTTGCGCCAGGCAGCCCTGAAATCAGCT
CGAGACATGTGGGCTGATTACATCCTGTTTGTAGATGCGGACAACCTGATCCTCAACCCTGACACACTGAGCCTG
CTCATCGCTGAGAACAAGACGGTGGTCGCCCCCATGCTGGATTCCCGGGCTGCGTACTCCAACTTCTGGTGTGGA
ATGACTTCCCAGGGCTACTACAAGCGCACACCTGCCTACATCCCTATCCGCAAGCGAGACCGCCGGGGCTGCTTT
GCAGTTCCCATGGTGCACTCGACCTTCCTGATCGACCTGCGGAAGGCGGCGTCCAGGAACCTGGCCTTCTACCCA
CCTCACCCTGACTACACCTGGTCCTTTGACGACATCATCGTCTTTGCCTTCTCCTGCAAGCAGGCAGAGGTTCAG
ATGTATGTGTGCAACAAGGAGGAGTACGGATTCTTGCCAGTGCCATTGCGCGCCCACAGCACCCTCCAGGATGAG
GCCGAGAGCTTCATGCATGTGCAGCTGGAGGTCATGGTGAAGCACCCGCCCGCAGAGCCCTCCCGCTTCATCTCG
GCTCCCACCAAGACACCGGACAAGATGGGCTTCGACGAGGTCTTCATGATCAACCTGAGGCGGCGGCAGGACCGG
CGGGAGCGCATGCTGCGGGCGCTGCAGGCACAGGAGATCGAGTGCCGGCTGGTGGAGGCCGTGGACGGCAAAGCC
ATGAACACCAGCCAGGTGGAGGCGCTGGGGATCCAGATGCTGCCTGGCTACCGGGACCCCTACCACGGCCGGCCC
CTCACCAAGGGTGAGCTGGGCTGCTTCCTGAGCCACTACAACATCTGGAAGGAGGTGGTGGACCGGGGGCTGCAG
AAATCGCTTGTGTTTGAGGATGACCTGCGTTTTGAGATCTTCTTCAAGAGACGTCTGATGAACCTCATGCGGGAT
GTGGAGCGGGAGGGCCTGGACTGGGACCTCATCTATGTGGGCCGGAAGCGGATGCAGGTGGAGCACCCCGAGAAG
GCTGTGCCTCGCGTGAGGAACCTGGTGGAGGCCGACTATTCCTACTGGACAGTGCTGCCCGGGATGAACTCTGAG
GGG**TAG**CAGCCAGAAAGCCAAAGCAGCCATCGGTGGCCCAGGCTCCACGTGCTTACTGAGGACATCAGGTCCACC
TCTGGACCCCTTGGCAGGCCACAGAGGGCTCTCGTGTGGGGTGGTGTCCAGCCA

FIGURE 3649

AAG**ATG**GCGGCGGTGGCTGGATCTGGGGCTGCCGCGGCTCCGAGCTCACTGCTCCTCGTGGTGGGCAGCGAGTTC
GGGAGCCCGGGGCTCCTCACCTACGTCCTGGAGGAGCTCGAAAGAGGCATCCGGTCTTGGGATGTCGATCCTGGC
GTCTGCAACCTTGATGAACAGCTCAAGGTCTTTGTGTCCCGACACTCTGCCACCTTCTCCAGCATTGTGAAAGGC
CAGCGGAGCCTGCACCACCGTGGAGACAACCTGGAGACCCTGGTCCTCCTGAACCCATCAGACAAGTCCCTGTAT
GATGAGCTCCGGAACCTTCTGTTGGACCCTGCCTCTCACAAGCTACTGGTGTTGGCTGGGCCCTGCCTGGAGGAG
ACGGGGGAGCTGCTGCTACAGACAGGGGGCTTCTCGCCTCACCACTTCCTCCAGGTCCTGAAGGACAGAGAGATC
CGGGACATCCTGGCCACCACGCCCCCACCTGTGCAGCCGCCCATACTCACCATCACCTGCCCCACCTTCGGTGAC
TGGGCTCAGCTGGCACCCGCTGTGCCTGGCCTTCAGGGGGCGCTCCGGCTCCAGCTGCGGCTGAACCCCCCGGCG
CAGCTGCCCAACTCTGAGGGCCTGTGCGAATTCCTGGAGTACGTGGCTGAGTCTCTGGAGCCACCGTCCCCCTTC
GAGCTGCTGGAGCCCCCGACCTCCGGGGGCTTCCTCAGGCTGGGCCGGCCCTGCTGCTACATCTTCCCTGGAGGC
CTCGGGGATGCCGCCTTCTTCGCCGTCAATGGCTTCACTGTGCTGGTCAACGGTGGCTCAAACCCCAAGTCCAGT
TTCTGGAAGCTGGTGCGGCACCTGGACCGCGTGGATGCCGTGCTGGTGACCCACCCTGGCGCCGACAGCCTCCCC
GGCCTCAACAGCCTGCTGCGGCGCAAACTGGCGGAGCGCTCCGAGGTGGCTGCTGGTGGGGGCTCCTGGGACGAC
AGGCTGCGCAGGCTCATCTCCCCCAACCTGGGGGTCGTGTTCTTCAACGCCTGCGAGGCCGCGTCGCGGCTGGCG
CGCGGCGAGGATGAGGCGGAGCTGGCGCTGAGCCTCCTGGCGCAGCTGGGCATCACGCCTCTGCCACTCAGCCGC
GGCCCCGTGCCAGCCAAACCCACCGTGCTCTTCGAGAAGATGGGCGTGGGCCGGCTGGACATGTATGTGCTGCAC
CCGCCCTCCGCCGGCGCCGAGCGCACGCTGGCCTCTGTGTGCGCCCTGCTGGTGTGGCACCCCGCCGGCCCCGGC
GAGAAGGTGGTGCGCGTGCTGTTCCCCGGTTGCACCCCGCCCGCCTGCCTCCTGGACGGCCTGGTCCGCCTGCAG
CACTTGAGGTTCCTGCGAGAGCCCGTGGTGACGCCCCAGGACCTGGAGGGGCCGGGGCGAGCCGAGAGCAAAGAG
AGCGTGGGCTCCCGGGACAGCTCGAAGAGAGAGGGCCTCCTGGCCACCCACCCTAGACCTGGCCAGGAGCGCCCT
GGGGTGGCCCGCAAGGAGCCAGCACGGGCTGAGGCCCCACGCAAGACTGAGAAAGAAGCCAAGACCCCCCGGGAG
TTGAAGAAAGACCCCAAACCGAGTGTCTCCCGGACCCAGCCGCGGGAGGTGCGCCGGGCAGCCTCTTCTGTGCCC
AACCTCAAGAAGACGAATGCCCAGGCGGCACCCAAGCCCCGCAAAGCGCCCAGCACGTCCCACTCTGGCTTCCCG
CCGGTGGCAAATGGACCCCGCAGCCCGCCCAGCCTCCGATGTGGAGAAGCCAGCCCCCCCCAGTGCAGCCTGCGGC
TCTCCGGCCTCCCAGCTGGTGGCCACGCCCAGCCTGGAGCTGGGGCCGATCCCAGCCGGGGAGGAGAAGGCACTG
GAGCTGCCTTTGGCCGCCAGCTCAATCCCAAGGCCACGCACACCCTCCCCTGAGTCCCACCGGAGCCCCGCAGAG
GGCAGCGAGCGGCTGTCGCTGAGCCCACTGCGGGGCGGGGAGGCCGGGCCAGACGCCTCACCCACAGTGACCACA
CCCACGGTGACCACGCCCTCACTACCCGCAGAGGTGGGCTCCCCGCACTCGACCGAGGTGGACGAGTCCCTGTCG
GTGTCCTTTGAGCAGGTGCTGCCGCCATCCGCCCCCACCAGTGAGGCTGGGCTGAGCCTCCCGCTGCGTGGCCCC
CGGGCGCGGCGCTCGGCTTCCCCACACGATGTGGACCTGTGCCTGGTGTCACCCTGTGAATTTGAGCATCGCAAG
GCGGTGCCAATGGCACCGGCACCTGCGTCCCCCGGCAGCTCGAATGACAGCAGTGCCCGGTCACAGGAACGGGCA
GGTGGGCTGGGGGCCGAGGAGACGCCACCCACATCGGTCAGCGAGTCCCTGCCCACCCTGTCTGACTCGGATCCC
GTGCCCCTGGCCCCCGGTGCGGCAGACTCAGACGAAGACACAGAGGGCTTTGGAGTCCCTCGCCACGACCCTTTG
CCTGACCCCCTCAAGGTCCCCCCACCACTGCCTGACCCATCCAGCATCTGCATGGTGGACCCCGAGATGCTGCCC
CCCAAGACAGCACGGCAAACGGAGAACGTCAGCCGCACCCGGAAGCCCCTGGCCCGCCCCAACTCACGCGCTGCC
GCCCCCAAAGCCACTCCAGTGGCTGCTGCCAAAACCAAGGGGCTTGCTGGTGGGGACCGTGCCAGCCGACCACTC
AGTGCCCGGAGTGAGCCCAGTGAGAAGGGAGGCCGGGCACCCCTGTCCAGAAAGTCCTCAACCCCCAAGACTGCC
ACTCGAGGCCCGTCGGGGTCAGCCAGCAGCCGGCCCGGGGGTGTCAGCCACCCCACCCAAGTCCCCGGTCTACCTG
GACCTGGCCTACCTGCCCAGCGGGAGCAGCGCCCACCTGGTGGATGAGGAGTTCTTCCAGCGCGTGCGCGCGCTC
TGCTACGTCATCAGTGGCCAGGACCAGCGCAAGGAGGAAGGCATGCGGGCCGTCCTGGACGCGCTACTGGCCAGC
AAGCAGCATTGGGACCGTGACCTGCAGGTGACCCTGATCCCCACTTTCGACTCGGTGGCCATGCATACGTGGTAC
GCAGAGACGCACGCCCGGCACCAGGCGCTGGGCATCACGGTGTTGGGCAGCAACAGCATGGTGTCCATGCAGGAT
GACGCCTTCCCGGCCTGCAAGGTGGAGTTC**TAG**CCCCATCGCCGACACGCCCCCCACTCAGCCCAGCCCGCCTGT
CCCTAGATTCAGCCACATCAGAAATAAACTGTGACTACACTTG

FIGURE 3650

CGCGCCGCAGCCGCGGAGGGAGGGGCGGGGCGGGCTCCGGTGTCAGCGACCAAGCCGCAGGTGGCGGCGAGCGCG
GGGCTCGGCCCGAGCTCAGGAGATGGGGAAACTGAGGCACGGAGCTGGACAGTGACTCAGACACCAGACAGGCAC
TGGACGGGGCCTGCAGGGGTCTCCACAGAGACCATCAGG**ATG**TCGTATTTTGGGGAGCATTTTTGGGGCGAGAAA
AATCATGGCTTTGAGGTCCTGTACCACAGCGTGAAGCAGGGGCCCATCTCCACCAAGGAGCTGGCGGACTTCATC
CGGGAGAGGGCCACCATCGAGGAGACCTACTCGAAGGCGATGGCGAAACTCTCCAAGCTGGCCAGCAACGGGACC
CCCATGGGGACCTTCGCCCCGCTCTGGGAGGTCTTCCGCGTCTCCTCGGACAAGCTGGCGCTGTGCCACCTGGAA
CTGACACGGAAGTTACAGGATCTCATCAAGGACGTTCTCCGCTACGGCGAGGAACAGCTCAAGACCCACAAGAAG
TGCAAGGAGGAAGTGGTGAGCACCTTGGATGCTGTGCAGGTACTCTCGGGCGTCAGCCAGCTCCTGCCCAAGTCC
CGCGAGAACTACCTGAACCGTTGCATGGACCAGGAGCGGCTGCGGAGGGAGAGTACCAGCCAGAAGGAGATGGAC
AAGGCGGAGACTAAAACCAAGAAGGCGGCAGAGAGCCTGCGGCGCTCAGTGGAAAAATACAACTCAGCCCGAGCT
GACTTTGAGCAGAAGATGCTGGACTCAGCCCTGCGCTTCCAAGCCATGGAGGAGACACACCTGAGGCACATGAAG
GCACTGCTGGGCTCATATGCTCACTCGGTGGAGGACACGCACGTGCAGATTGGGCAGGTGCATGAGGAATTTAAG
CAGAACATCGAGAACGTCAGCGTGGAGATGCTACTCAGGAAGTTTGCAGAGAGTAAGGGCACAGGCCGGGAGAAG
CCTGGACCTCTGGACTTCGAGGCATACAGTGCGGCTGCCCTGCAGGAAGCGATGAAACGTTTGCGGGGAGCCAAG
GCCTTTCGCCTTCCAGGACTAAGCCGGCGGGAGCGGGAGCCAGAGCCACCTGCAGCTGTAGATTTCCTGGAGCCC
GATTCAGGGACATGTCCAGAGGTGGATGAAGAAGGTTTCACTGTCCGGCCTGATGTGACCCAGAACAGCACGGCC
GAGCCCTCCCGTTTCTCGTCCAGCGACTCCGACTTCGACGATGAAGAGCCCCGCAAGTTCTATGTGCACATCAAG
CCTGCCCCGGCCCGGGCTCCAGCCTGCAGCCCCGAGGCAGCAGCGGCACAGCTCAGGGCCACCGCGGGCAGCCTC
ATCCTTCCTCCTGGCCCAGGGGGCACCATGAAACGCCATTCTTCACGGGACGCTGCTGGGAAACCCCAGAGACCT
CGGTCTGCCCCCAGAACCAGCAGCTGTGCAGAGAGATTGCAGTCAGAGGAGCAGGTGTCCAAGAACCTCTTTGGG
CCGCCCCTGGAGTCAGCCTTTGACCACGAAGATTTTACAGGCTCTAGCAGCCTGGGCTTCACCTCCAGCCCCTCC
CCTTTCTCCTCCTCGTCGCCCGAAAACGTGGAGGATTCCGGCCTGGACTCTCCGTCCCACGCGGCACCTGGCCCC
TCCCCAGATTCCTGGGTCCCCCGCCCAGGCACCCCGCAGAGCCCGCCCAGCTGTAGGGCGCCACCCCCAGAGGCC
AGGGGTATCCGGGCACCGCCTCTGCCAGACTCGCCGCAGCCCCTCGCCTCGTCTCCAGGCCCCTGGGGGCTGGAG
GCCTTGGCCGGAGGAGACCTGATGCCTGCACCTGCTGACCCCACAGCCAGGGAGGGCCTGGCAGCCCCACCCAGG
AGACTTCGCTCTAGGAAGGTGTCCTGCCCTCTCACACGTAGCAATGGGGACCTGTCTCGTTCCCTGAGCCCCTCC
CCACTGGGCTCTTCAGCCGCCAGCACTGCCTTGGAACGGCCCAGCTTCTTATCCCAGACAGGACACGGAGTCTCC
CGGGGTCCGAGCCCTGTGGTCCTGGGCTCCCAGGATGCCCTGCCCATAGCCACAGCCTTCACAGAGTATGTCCAC
GCCTACTTCCGTGGCCACAGCCCCAGCTGCCTGGCTCGAGTAACTGGGGAGCTGACCATGACCTTCCCTGCTGGC
ATCGTGCGTGTGTTCAGCGGGACCCCACCACCACCTGTCCTCAGCTTCCGGCTTGTACACACAACCGCTATTGAG
CACTTCCAGCCCAACGCCGATCTGCTGTTCAGTGACCCCTCCCAGAGTGACCCTGAGACCAAAGACTTCTGGCTC
AACATGGCAGCTCTGACCGAAGCCCTGCAGCGCCAGGCAGAGCAGAACCCCACTGCCTCCTACTACAACGTGGTG
CTGCTGCGATACCAGTTCTCCCGCCCGGGTCCCCAGTCTGTGCCTCTGCAGCTCAGTGCCCACTGGCAGTGTGGA
GCCACCCTCACCCAGGTCTCAGTGGAGTACGGCTACCGGCCCGGTGCCACGGCTGTGCCCACACCACTCACGAAC
GTCCAGATCCTGCTGCCTGTGGGGGAGCCTGTGACCAACGTCCGCTTGCAGCCGGCTGCCACCTGGAACCTGGAG
GAGAAGCGGCTCACTTGGAGGCTTCCAGATGTGTCCGAGGCAGGCGGTTCTGGCCGCCTCTCTGCCAGCTGGGAG
CCGCTCTCAGGGCCCAGCACACCCAGCCCCGTGGCTGCACAGTTCACCAGCGAGGGGACCACTCTGTCGGGCGTG
GACTTGGAACTGGTGGGCAGCGGTTACCGCATGTCGCTGGTGAAGAGGAGGTTTGCCACAGGGATGTACCTGGTG
AGCTGC**TGA**ACCCGCAAATGCTGCTGCCCCAGCTCTACACTGCGCCCTGGTGCTGGCTGACCACCCCCTGCCCTC
CTGCCGGACCCTGGGGCCTCCCACCCCAGCCTCCCTGAGGCCCATACTCCACGGAGAGGAGCCCCATGCCCAGCC
TGGCTGAGCCCGAGATTCGCTCCTCCCCCTCATGCCAACCCCACACAGGTCCCGGCCTTTTAATGTTCTTTGAAT
AAACACTTTATTTTCTAATAAAATAAAAAAGGAAACCT

FIGURE 3651

CTTTTGCGGGTGGCGGCGAACGCGGAGAGCACGCC**ATG**AAGGCCTCGGGCACGCTACGAGAGTACAAGGTAGTGG
GTCGCTGCCTGCCCACCCCCAAATGCCACACGCCGCCCCTCTACCGCATGCGAATCTTTGCGCCTAATCATGTCG
TCGCCAAGTCCCGCTTCTGGTACTTTGTATCTCAGTTAAAGAAGATGAAGAAGTCTTCAGGGGAGATTGTCTACT
GTGGGCAGGTGTTTGAGAAGTCCCCCCTGCGGGTGAAGAACTTCGGGATCTGGCTGCGCTATGACTCCCGGAGCG
GCACCCACAACATGTACCGGGAATACCGGGACCTGACCACCGCAGGCGCTGTCACCCAGTGCTACCGAGACATGG
GTGCCCGGCACCGCGCCCGAGCCCACTCCATTCAGATCATGAAGGTGGAGGAGATCGCGGCCAGCAAGTGCCGCC
GGCCGGCTGTCAAGCAGTTCCACGACTCCAAGATCAAGTTCCCGCTGCCCCACCGGGTCCTGCGCCGTCAGCACA
AGCCACGCTTCACCACCAAGAGGCCCAACACCTTCTTC**TAG**GTGCAGGGCCCTCGTCCGGGTGTGCCCCAAATAA
ACTCAGGAACGCCCCGGT

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FIGURE 3652

CGGCGCTGGGGTAAGAAGCCTGCTGAGGG**ATG**CCCAAGAAGTTCCAGGGTGAGAACACCAAGTCGGCAGCGGCCC
GGGCACGTAGGGCAGAGGCCAAGGCGGCCGCTGATGCCAAGAAGCAGAAGGAGCTGGAGGATGCCTACTGGAAGG
ACGACGACAAACACGTCATGAGGAAGGAGCAGCGCAAGGAGGAGAAGGAGAAGCGGCGCCTCGACCAGCTGGAAC
GTAAGAAGGAGACGCAGCGCCTACTGGAGGAGGAGGACTCCAAGCTCAAGGGCGGCAAGGCGCCGCGGGTGGCCA
CGTCCAGCAAGGTCACCCGGGCCCAGATCGAGGACACGCTGCGCCGAGACCATCAGCTCAGGGAGGCCCCGGACA
CAGCCGAGAAAGCCAAGAGCCATCTGGAGGTGCCGCTGGAGGAGAACGTGAACCGCCGCGTGCTGGAGGAGGGCA
GCGTGGAGGCGCGCACCATCGAGGACGCCATTGCAGTGCTCAGCGTGGCGGAGGAGGCGGCCGACCGGCACCCAG
AAAGACGCATGCGGGCAGCCTTCACAGCCTTTGAGGAAGCCCAGCTGCCGCGGCTCAAACAAGAGAACCCCAACA
TGCGGCTGTCGCAGCTGAAACAGCTGCTCAAGAAGGAGTGGCTCCGCTCTCCTGACAACCCCATGAACCAGCGGG
CCGTGCCCTTCAATGCCCCCAAG**TGA**GCCCAGAACTTGGGGAGCCAGTTCACCCACGGGTGGTCCAGGTCACGAC
TCTGCACGCCCTTAGGCCAGGTCAGCTGCGAGGGTCACAGAGCGTTCCGGGGGCCAAGGCGCCGGGCCCCGGGGC
CATGCTCTTATCACCAGCCACCCGTCCTCCCGCCAGAGGGTCCCTGCCCCGAGTGACACCCCATCCCCTCCCATC
CCCCGGCGCGTGTGTGTAGAGCCTCAGGGCTGAGTGCCCAATAAAGGTGGCGGCAAGGCT

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FIGURE 3653

GGGATTTTCTGCTCCGGTTGGTGAGCGCGCCTGCGCGTTGACGGCGATTTTGCGTTCTGAGGCTGCAGCGTCGGC
ATCTTGAGCTGCCGGTTCGCGAGTTCGAGGCCAGGTTCCGCCTGTCGTGGGTTCGCACCCCGGACGCG**ATG**CTAT
TCGACAAGGTGAAAGCGTTCTCGGTGCAGTTGGACGGCGCGACCGCGGGCGTCGAGCCCGTGTTTAGCGGCGGCC
AGGCCGTGGCGGGCCGGGTGCTGCTGGAGCTGTCAAGCGCCGCGCGTGTGGGTGCCCTGAGGCTGCGCGCGCGGG
GCCGCGCCCACGTGCACTGGACCGAGTCGCGCAGCGCGGGCTCGAGCACGGCTTACACGCAGAGCTACAGTGAAC
GCGTGGAGGTCGTGAGCCACCGCGCCACGCTCCTGGCGCCAGATACCGGGGAGACCACGACGCTGCCTCCTGGGC
GCCATGAGTTCCTGTTCAGCTTCCAGCTGCCCCCGACCCTGGTGACATCCTTCGAGGGCAAACACGGTAGTGTCC
GCTACTGTATCAAGGCCACCCTGCACCGGCCCTGGGTCCCAGCACGCCGGGCAAGGAAGGTGTTCACTGTCATCG
AGCCTGTGGACATCAACACGCCAGCCCTGCTGGCACCTCAAGCGGGGGCTCGGGAAAAGGTTGCCCGATCCTGGT
ACTGTAACCGTGGCCTAGTCTCCCTTTCGGCCAAGATCGACCGCAAGGGCTACACCCCAGGAGAGGTCATCCCTG
TCTTTGCCGAGATCGACAACGGCTCCACACGTCCTGTGCTGCCTCGGGCAGCCGTGGTGCAGACACAGACGTTCA
TGGCCCGAGGCGCCCGAAAGCAGAAACGGGCAGTGGTGGCCAGCCTCGCGGGCGAGCCGGTGGGCCCCGGGCAGC
GGGCGCTGTGGCAGGGCCGGGCACTGCGGATCCCCCCAGTGGGTCCTTCCATCCTGCACTGCCGCGTTCTACACG
TGGACTACGCACTCAAGGTCTGTGTGGATATCCCAGGAACGTCCAAGCTGCTGCTGGAGCTGCCACTGGTGATCG
GCACCATTCCCTTGCACCCTTTTGGCAGCCGTTCCTCCAGCGTGGGCAGCCACGCCAGCTTCCTGCTGGACTGGA
GGCTGGGGGCCTTGCCGGAGCGGCCTGAGGCTCCTCCTGAGTACTCGGAGGTGGTAGCCGACACTGAGGAGGCAG
CCTTGGGGCAGAGCCCCTTCCCGCTTCCGCAGGACCCCGACATGAGCCTTGAAGGCCCGTTCTTCGCCTACATCC
AAGAGTTCCGCTACCGCCCGCCACCCCTGTACTCTGAGGAGGATCCAAACCCACTCTTGGGGGACATGAGGCCGC
GCTGCATGACTTGC**TGA**ACGGCACAGGGACCCCTCGAGGAACAAGGTTGCACACCAGCTTTCAGCCACCATGACT
GTGGGGAGTGGCTGGACCAAGGGCTGACCTCCCCGACTGCATCAAAGTTGGGGAACCAAGTCTCAGAGTGAGGCG
GGGGCCTTTCGGATATCACATGGGACAGAGGAAGAGCCCGGCTGGAATCTGACTTACCTGGACCGCTGTCCTTGT
GAGGCATTGAATGCCCAGTGCAGTATCCGAGAGACTGTTTAATAACCTGTCTTCCCAGCCAATTGGTGGTGCTGG
AATCCCCTAGGAGCCTTCAGTCTGGGAGAAACAGAGCCAGACATAGACAGTTCCAGCATCACAGAACCAGAAGAA
GAGACCTGCAACTGTGAGAGTCCAGACAGGAAGCAGAGAAGGCGTCCTTGCGGAAAGGGCATTTTAGCTGAGGCT
TTGGAGTACGAATAGGAGCTCAGCAGGCAGACGAATGAGGAATAAAGGTCAGAGAAGGTCAGAGCTGAGTGACGT
TTGGAATCCACCCCGTTTATTGTAGAACTGGGGGTTCAGAGGGCAGGTGCCTCAGAGTTGAGGCCACACAGTGAG
GTCTGGTGGGTGAAAGGACCCAGGAACGAGGCGTTCAGGAAAGCAGGTTGTCAGAGCTATGTGGAGTCTGTGGGT
GGCAGGGGCAGCCGCTCCAGCCTTTGAAGACTTTGAAAGCCAGAGATTCCTGGCGCAGGCTTGGACTTCCTGGGA
GCTCCTCCAAGTACCCAGGGGCATCAGAGCTGCCTGGGTGTTACATGGCCCAGGGAACCCAGGTTCAGGGTAGGA
CAGGCAAGACCAGATACCCAATGTGCAAAGTGAAAACACTGGGCTCCCTGTTAAACGATGAAGAATTCAAGACAG
TGACAGCATTACGTCACCCCTGGGGACAGAGGTCAGCCTAAGGTGACACACGGGGACTACTGTGCTTCCGGAGGC
TCCCTGTGTCCTGGAGGAGAAAAGCATTAGAGGGGGCAGCTGGACAAGCTCCCAACTGCAGAGTCCCAGCCCTGG
CTGGGGCAGGGCCCCGGCCTGGGACTCAGCATTTCTGATATGCCTTAAGAATTCATTCTGTTTTGTACAATTATT
TTTTAAAAGTAAACGTGTGGAGAAAG

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FIGURE 3654

CCTGAAGGCTGTGGGACCCATGATCCTGGTTAGATTCTCCTTCTGCTTGTCCCTGGCTGTGCTGCCTCAGGCACA
TTACTTAACCTTTCTGGGCCTCTGCCACCTCATCTGTAAAATGGGCATGATGGTGAAGCCAGGTTGCCAGATAAA
ATATAGGCTACTCAGCTAAATGTGAAGTTCAGATCAATATTGAATTTGGTTTTACTGTAAGTATATCCCATGCAA
CATTTGGGATATACTTATACTAAAAAAAAATTATTCATTGATGCTATGGTTTGAATGGTCCCCCAAAGTTCATAT
GTTTGAAACTTAATCCTCAAAGCAGTCCTTTCAACCTTGTCAACCTGTCGGCGCGGCCTCTGGTGCAGTGGCGGC
GGCTCCTGTTCCTGCCGCAGCTCTCTCCCCTTCTTACCTCCCCACCAGATCCCGGAGATCGCCCGCCATGGCTTT
ACTTACTGCGGCCGCCCGGCTCTTGGGAACCAAGAATGCATCTTGTCTTGTTCTTGCAGCCCAGCATGCCAGTGC
TTCCTCCATGAATTTGAAAGACATATTGGCTGACCTCATACCTAAGGAGCAGGCCAGAATTAAGACCTTCAGGCA
GCAACATGGCAAGAAGGTGGTGGGCCAAATCACTGTGGACATGATGTATGGTGGCATGAGAGGCATGAAGGGATT
GGTCTATGAAACATCAGTTCTTGATCCTGATGAGGGCATCCGTTTCTGAGGCTTTAGTATCCCTGAATGCCAGAA
ACTGCTACCCAAGGCTAAGGGTGGGGAAGAACCCCTGCCTGAGGGCTTATTTTGGCTGCTGGTAACTGGATGTAT
CCCAACAGAGGAACAGGTATCTTGGCTCTCAAAAGAGTGGGCAAAGAGGGCAGCTCTGCCTTCCC**ATG**TGGTCAC
CATGCTGGACAACTTTCCCACCAATCTACACCCCATGTCTCAGCTCAGTGCAGCTGTTACAGCCCTCAACAGTGA
AAGTAACTTTGCCCAAGCATATGCACGGGGTATCAGCCGAACCCAAGTACTGGGAGTTGATTTATGAAGACTCTG
TGGATCTAATCACAAAGCTACCTTGTGTCGCAGCAAAGATCTACCGAAATCTCTATGGAGAAGGCAGTGGTATTG
GGGCCATTGACTCTAACCTGGACTGGTCTCACAGTTTCACCAACATGTTAGGCTATACTGATCATCAGTTCCCTG
AGCTCATGCACCTGTACCTCACTATCCACAGTGACCATGAGGGCGGCAATGTAAGTGCCCATACCAGCCACTTGG
TGGGCAGTGGCCTTTCAGACCCTTACCTGTCCTTTGCAGCAGCCATGAACGGGCTGGCAGGGCCTCTCCATGGAC
TGGCAAATCAGGAAGTGCTTGTCTGGCTAACACAGCTGCAGAAGGAAGTTGGCAAAGATGTGTCAGATGAGAAGT
TA**TGA**GACTACATCTGGAACACACTCAACTCAGGACGGGCTGTTCCAGGCTATGGCCATGCAGTACTAAGGAAGA
CTGATCCACGATATACCTGTCAGCGAGAGTTTGCTCTGAAACACCTGCCTAATGACCCCATGTTTAAGTTGGTTG
CTCAGCTATGCAAGATTGTGCCCAATGTCCTCTTAGAGCAGGGTAAGGCCAAGAATCCTTGGCCCAATGTAGATG
CTCACAGTGGGGTGCTGCTCCAGTATTATGGCATGATGGAGATGAATTACTACACAGTCCTGTTTGGGGTGTCAC
GAGCATTGGGTGTACTGGCACAGCTCATCTGGAGCCGAGCCTTAGGCTTCCCTCTAGAAAGGCCCAAGTCCATGA
GCACAGAGGGTCTGATGAAGTTTGTGGACTCTAAGTCAGGGTAAAACTGGAGACTGGGGGAAAGTGACTACCAGA
AAGTGAGGAAGCCTAAATAAAAAGTATACTTTTGTTTCAGGGGGCCTTTAAAGACTTAAGATTAAATTATATCTG
AGGCACTGATAATATGTTTGAGGTTAAAATATAAATTAAGACTTTAAAAGATGAAAAATGGTCCCTTCTTCCCTA
ATCAGCTCCTTTCCCCTGCCTGGTATGAGTTGCCCATCACAGGCATGGTCCTGGAGGATGACCAGGACTAATGCA
TGTGGTATGAGTAGGTTTGGCCCCCTCACTATCTCTAGAGTGAGAATCTGGCTCCTGTTTCCATGGCTCAAAGCC
GGTTGCAGAGAATCTGCAGTCACTTCGGAGCTTTAGCTTCTTCTCTGCCAAGCCCTCAATAAGCCAGCAAACCAG
GACTCTGCCCCTTCTGTTTCCATAGGAATCATGTTGGATAGTCAGCTGTACCAAGCCCCTTGGCCTTCCCATGCA
CACAAACACCTCCTAGCAAGACCTGTTGGTTAGCTGGACATGCTTTGGCAATTTTTTTATACTGCCAAGTGACCA
TAAAGGCATGGCATTTGTTGTGACTGGCACCCAATGTTTGATTTTTTTTTTAAACTATCCAATTAAAATTAAGGT
CTGGGAGTGTTCTGTTTCCCATTACTTTAATACTCACCCCCCTCCCAGACTTTCTACACCTGTTTCACCTCAGGC
TGAGGATGTTCTGGACCTCCCCCTCTTAGTCCCTACTAGAGACCTCTCAACAGATCTGTGGGCCCAGTCATTGGG
TTTTATCAGTGCTTAATGTGAACTAAGTTTTTTACTTCCAACAGAATACAAGCCACTACCTTCTGACCTCCCCAC
CCCCCACCAACCCCCAGCTTTTAATATGCTGTGGGGCATAGAACAGGGACTCCGGAATGACCAGCATGATATTTT
CAGAGTCTTGTCCCTGGGGTATTAGCACCTCTTTTTGAACAGAGAATTGATTCAAGATTGGACATGGTCTCCTCT
GATTATCAGGTACTGGGGCTGAGGGCATTAAAAATAGTAAGCCTCCTTCCTCGTCCCCTGCCTCAAGAAATTGCC
TCCTTATTTATCAACATCTTTTTCCTCCCTTTCCCTGAGAGCTCACAGTACAATGTTTGTTTCAGAAGCCCCATT
TGCACAGGTTTTCAGCAACTCAGAATGCTCTACTTCTTTTTCTTTGAGAAAGGATTGAGATACGCTCCTGCTGTG
CCCCCATCTTTCCTCCAAACTCCTGCCTGTGTTTGTGTGGATACCCAGTCCCAGAACCACACTGTTGAGTTGGAC
ACACTGTAAACCCCTGGCTAACTGTCAAGTCATGATGCAGACTTCAGGTTGTTCTGTATAAAATGCAAAATAAAT
GTTTTAATTAAC

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FIGURE 3655A

TGGGCACTGAGCACATTCGGTTATTTCCAGAAACGCTCCGCGGTCTTGGGGATCAGCCTCAGTTGTGCCAGTGCG
GCCGTAGAGAGTGTTCGGCCATTTCCGAAAGCGCTCGGGCGTCTCTAAGCCCAGCCGAGCCCAGTCTCGGATCCC
TCGCCGACCCGATTGCACTCGGCTACCTCTGGAAACGCTCGGCTGTCTCGGGGGCACCCTCTAGTCCACCAGTCC
CGCGGGATTACGTTCGGCTACTTCCGGAAACACTCGGGTGCCCCCTTACCTCAGGCTCCGCCTCGGCCTCGGTTC
ATCCGCCCGGCTCGAATGCGCTCGGGCATTTCCGCCGGGGGCGGGCCAGGCCGCTCGGAACCGTGGCGGCGGCGG
AGGCGGGGATCCCGCGGCTGCGGCGACGGTGGCCGCGGTGGAGCCACGGGGCGGGCTTGGCTTGGTGTGACGGCG
GCTGCGGCGGCGGTGGCGGCCGCGACCAGGTCGGCGTCCTCAGCTGGCCGAGCATGGTGGCAGCCTGCACCCTTG
GCTCCCTTGTCTGGTGCAGCCAGCAGAGCCGCCAGCCTTGGGCGCCCATGGCCCTCCGTGTGAGGGCGTGAGCGG
CCTGCCCCAGCCTCACCTGCTGATGGAGGACTCAATGGCCCAGTGACCTGACACCACACCACCAACTCCCTCCCA
CCAGCTGACGAATGGTGGACCCAGTGACGAGTGGCCCTTGTAAGGGTCATGGAATAATTTGAAGCGAGGCATGAG
CGGCCCCTGTGGTCGCCTGTGACTGCTGGAGATAGAGGTCCCAGCACCCCAAGCCAACCCAGCGGACCCTCCCAG
CCCTGCTTCAACCAATGGGGCCAGTGGGGCTCCAAGCAGCCACCTAACCATCCAGACCCCACCCCACTCACGCGG
CC**ATG**GCGGGCCCTGAGGGCTTCCAGTACCGCGCTCTGTACCCGTTCCGCCGGGAGCGGCCGGAGGACCTGGAGC
TGCTGCCCGGCGACGTGCTGGTAGTGAGCCGGGCGGCCTTGCAGGCGCTGGGCGTGGCCGAGGGTGGCGAGCGCT
GCCCACAGAGCGTGGGCTGGATGCCCGGCCTCAACGAGCGCACACGGCAGCGAGGTGACTTCCCTGGCACCTATG
TGGAGTTCCTGGGGCCCGTGGCCCTGGCCCGGCCCGGCCCTCGCCCACGGGGCCCCCGCCCACTGCCCGCCAGGC
CCCGTGATGGGGCCCCTGAGCCAGGCCTCACACTCCCCGACTTGCCCGAGCAGTTCTCCCCACCTGATGTGGCTC
CCCCTCTTCTGGTGAAGCTTGTGGAGGCCATTGAAAGGACAGGGCTGGACAGCGAATCTCACTACCGCCCGGAGC
TGCCCGCACCGCGTACAGACTGGTCCCTGAGCGACGTGGATCAGTGGGACACGGCAGCCCTGGCTGACGGCATTA
AGAGCTTCCTGCTGGCACTGCCCGCGCCGCTCGTGACCCCCGAGGCCTCGGCCGAGGCGCGCCGGGCCCTGCGGG
AGGCCGCGGGGCCCGTGGGGCCGGCGCTGGAGCCACCGACGCTGCCGCTGCACCGCGCGCTCACGCTGCGCTTCC
TGCTCCAGCACCTGGGCCGCGTGGCCAGCCGCGCCCCGGCCCTGGGTCCCGCGGTCCGGGCCCTGGGCGCCACCT
TTGGGCCGCTGCTGCTGCGCGCGCCGCCGCCGCCGTCCTCGCCGCCGCCAGGGGGCGCTCCCGACGGGAGTGAGC
CCAGCCCTGACTTCCCGGCGCTGCTGGTGGAGAAGCTGCTTCAGGAACACTTGGAAGAGCAGGAGGTTGCGCCCC
CAGCGCTGCCGCCTAAACCCCCCAAGGCAAAGCCGGCCTCCACAGTCCTGGCCAATGGAGGGAGCCCACCCTCCC
TGCAGGATGCTGAGTGGTACTGGGGGGACATTTCAAGGGAGGAGGTGAACGAGAAACTCCGGGACACTCCCGATG
GCACCTTCCTAGTCCGAGATGCTTCTAGCAAGATCCAGGGCGAGTACACGCTGACCCTCAGGAAAGGCGGGAACA
ATAAGCTGATCAAGGTCTTCCACCGAGATGGGCACTATGGCTTCTCAGAGCCACTCACCTTCTGCTCCGTTGTGG
ACCTCATCAATCACTACCGCCACGAGTCTCTGGCCCAGTACAATGCCAAGCTGGACACACGGCTCCTCTACCCTG
TGTCCAAATACCAGCAGGACCAGATTGTCAAGGAGGACAGCGTGGAGGCAGTGGGCGCCCAGCTTAAGGTCTATC
ACCAGCAGTACCAGGACAAGAGCCGCGAGTATGACCAGCTTTATGAAGAGTACACACGGACCTCCCAGGAGCTGC
AGATGAAGCGTACTGCAATTGAGGCCTTCAATGAGACTATCAAGATCTTTGAAGAGCAGGGCCAGACTCAAGAGA
AATGCAGCAAGGAATACCTGGAGCGCTTCCGGCGTGAGGGCAACGAGAAAGAGATGCAAAGGATCCTGCTGAACT
CCGAGCGGCTCAAGTCCCGCATTGCCGAGATCCATGAGAGCCGCACGAAGCTGGAGCAGCAGCTGCGGGCCCAGG
CCTCGGACAACAGAGAGATCGACAAGCGCATGAACAGCCTCAAGCCGGACCTCATGCAGCTGCGCAAGATCCGAG
ACCAGTACCTCGTGTGGCTCACCCAGAAAGGCGCCCGGCAGAAGAAAATCAACGAGTGGCTGGGGATTAAAAATG
AGACTGAGGACCAGTACGCACTCATGGAGGACGAGGACGATCTCCCGCACCACGAGGAACGCACTTGGTACGTGG
GCAAGATCAACCGCACGCAGGCAGAGGAGATGCTGAGTGGCAAGCGGGATGGCACCTTCCTCATCCGCGAGAGCA
GCCAGCGGGGCTGCTACGCCTGCTCCGTGGTAGTGGACGGCGACACCAAGCACTGCGTCATCTACCGCACGGCCA
CCGGCTTCGGCTTCGCGGAGCCCTACAACCTGTACGGGTCGCTGAAGGAGCTGGTGCTGCACTACCAGCACGCCT
CGCTGGTGCAGCACAACGACGCGCTCACCGTCACCCTGGCGCACCCAGTGCGCGCCCCGGGCCCCGGCCCGCCGC
CTGCCGCCCGC**TGA**GCACCGAGGACCCGCCCCAAGCAGAGCCGCCCCTGGGCCCGTCTGCGCCGGAGGCTGCGGC
GGCGGGAGCCACGGACCAGACCAGCCACATCCAGGGGTCCTCATTTCTCCGGCTCTGGCTCTTGTTTGGGGTTCT
CTCACCCTCTTTCTCTTTCCTTCCCTCCCCCATTCTCCAGATCTCCCTCTGTCTCCTTTTCTCTGTCTTTCTTGG
CCCCTGTCTCTCTCCATGTTGGGGGTCCTAACTCCCCCACCCCATATCTACGTGTCCTCCGGGCATTGCCCTCTC
CATGGCTCTGGTCACCCTGACCCTCTGCCCTGCCCACCGCAGGTCCCCCGGGGTCCCGGAAGCCCCTTCTGGCTG
CACCTGCCATGTTTACAGAGGGCCCCTGGGCTGCGCGGCCCCAGCCTGGGCACCCTGATTTTTAAGCCATAGACC
TGGGGTCAGGGCAGGAAGGAACTTCACTCTGCTGCTTCCGAGAACCTCGGCCGTGACATTCGGGGCCGGGCGGGA

FIGURE 3655B

CCCGCCCCACAGACTCCAACTTCCCCTCCAAACCCCGAAGTGAAACCCGCCACCGGGTTACCCCCACAAGGGGGC
CGCTGCGAGAAGTTCACCCACCCCCGAAAAAATAATTAAACTCGCAGGCCAGGCACGGTGGCTCATGCCTGTAAT
CCCAGCACTTTGGGAGGCCAAGACGGGCGGATCTTTTGAGGTCGGGAGTTGGAGGCCAGCCTGGCCAAAATGGCA
AAACCCCGCATCTACTAAAATACAAAAATTAGCCGGGCGTGGTGGCGGCCGCCTGTAATCCCAGCTACTTGGGAG
GCTGAGGCGTGAGAATCTCTTGAACCCAGGAGATGGAGGTTGCAGTGAGCAGAGATCGTGCCACTGCACTCCAGC
CTGGGTAACAGAGGGAGACTCCTCCGTCTCAAAAAAATAAATAAATAAACTTGTGAGCTGGCCCCAACCCCTCCT
AGGAATCACAGCTCCCCGTACTGGTGCCGCCGCAGTGGCCAAGTTGCGACACTGCCCACGGCCCCTCCCTCTGAT
GCAGATTCAGGGCTTCTCTTCGATCATGTTGGGTTTTGATTCTGTTTTTCCTTGACTGCAAAACCCTCTTTCCTC
TCCTCTTTTGGGACAAGAGCCCTGGTTTTCTACGCTGCCCTTGGCCACCACACTGCCTGCCCCACGAGCTGGGAG
GCAGGTTTTGTACGGTACGTTGTTATTGATATGATATAAAACATCAAACGTC

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FIGURE 3656

GGACCGCCGCCTGGTTAAAGGCGCTTATTTCCCAGGCAGCCGCTGCAGTCGCCACACCTTTGCCCCTGCTGCGATGACCCTGTCGCCACTTCTGCTGTTCCTGCCACCGCTGCTGCTGCTGCTGGACGTCCCCACGGCGGCGGTGCAGGCGTCCCCTCTGCAAGCGTTAGACTTCTTTGGGAATGGGCCACCAGTTAACTACAAGACAGGCAATCTATACCTGCGGGGGCCCCTGAAGAAGTCCAATGCACCGCTTGTCAATGTGACCCTCTACTATGAAGCACTGTGCGGTGGCTGCCGAGCCTTCCTGATCCGGGAGCTCTTCCCAACATGGCTGTTGGTCATGGAGATCCTCAATGTCACGCTGGTGCCCTACGGAAACGCACAGGAACAAAATGTCAGTGGCAGGTGGGAGTTCAAGTGCCAGCATGGAGAAGAGGAGTGCAAATTCAACAAGGTGGAGGCCTGCGTGTTGGATGAACTTGACATGGAGCTAGCCTTCCTGACCATTGTCTGCATGGAAGAGTTTGAGGACATGGAGAGAAGTCTGCCACTATGCCTGCAGCTCTACGCCCCAGGGCTGTCGCCAGACACTATCATGGAGTGTGCAATGGGGGACCGCGGCATGCAGCTCATGCACGCCAACGCCCAGCGGACAGATGCTCTCCAGCCACCACACGAGTATGTGCCCTGGGTCACCGTCAATGGGAAACCCTTGGAAGATCAGACCCAGCTCCTTACCCTTGTCTGCCAGTTGTACCAGGGCAAGAAGCCGGATGTCTGCCCTTCCTCAACCAGCTCCCTCAGGAGTGTTTGCTTCAAGTGATGGCCGGTGAGCTGCGGAGAGCTCATGGAAGGCGAGTGGGAACCCGGCTGCCTGCCTTTTTTTCTGATCCAGACCCTCGGCACCTGCTACTTACCAACTGGAAAATTTTATGCATCCCATGAAGCCCAGATACACAAAATTCCACCCCATTGATCAAGAATCCTGCTCCACTAAGAATGGTGCTAAAGTAAAACTAGTTTAAT

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FIGURE 3657

CGAAAGCAGAGCGGCGCGCCGGTTCCTTGGTTCCTGAGGGCG**ATG**GCGCGGGGTGGCTGGCGCCGGCTACGCCGC
CTGTTATCCGCGGGGCAGCTTCTATTCCAGGGCCGCGCGCTGCTCGTCACTAACACGCTGGGCTGCGGCGCGCTC
ATGGCGGCCGGTGATGGCGTGCGCCAGTCCTGGGAGATCCGCGCCCGGCCCGGCCAGGTTTTCGACCCACGGCGC
TCCGCGAGCATGTTTGCGGTGGGCTGCAGCATGGGTCCCTTCCTGCACTACTGGTACTTGTCGCTGGACCGCCTA
TTCCCTGCGTCTGGCCTCCGAGGCTTCCCAAATGTCCTCAAGAAGGTCCTCGTGGATCAGCTGGTAGCCTCTCCA
TTGCTGGGCGTCTGGGAATTCTACAAGGCAGACTGGTGCGTGTGGCCTGCTGCGCAGTTCGTGAACTTCCTCTTC
GTGCCCCCCCAATTTCGAGTCACCTACATCAACGGCCTGACGCTGGGCTGGGACACGTACCTGTCCTACTTGAAG
TACCGGAGCCCAGTTCCTCTGACACCCCCAGGCTGTGTGGCCCTGGACACCCGAGCAGAC**TGA**ACTGTCTGCTTC
CTGGACCAGATGCAAGACTGTCTCCTGGCGGACCACCCCCTCTGACAGAAGGGGAATGGGCTCCTGCAGCAAGCT
CGGGTCTTGAGCCACGTCCCAGCACCACTTCAGCTCCGGAGCATTGGGCTGAGCCGCCCTTTCCAAGCTCACTTC
TGGGACTGAGTTTCCTCAACCGGAACACACCCATGAAGATGGATGATCATCCCCTAGCCCTTCTCAGCAGGAACC
TCATGCGACCTGTGACCAAGATGTCCCATCCTCAGCACAGGGCCCACTCTGCCAACCAGTCTCAAGCACCAGCCC
CTCAACACTGCCATCCACCTGGCTCTGGGCCAAGCCACCAATCCAGAGCTCCCTCAGGTCCTGGGACTAAGGCGG
GGACATGACTGATCCCCTCAGAGCAGGCTCAGGCCTGGAGTCGGCCCCCAAAAGTTTCACATAGGGCCAGGCAGC
CTCTGTGTTTCTTTCCCTGGTCCTGAACTGTGGAAATGCCATTAAACTCTCTCTATAATGTAACTGAAACTGCTG
GCTGGGCGCAGTGGCTCCCACCTGTAATCTCAGCCCTTCCCGAGGCTGAGGTGGAAGGATTGCTCGAGGCCAGGT
GTTCGAGACCAGCCTGGGCAACATAGCAAGACCCTGTCTCTATTTATATTGAAAAATAAAAATAACAAAAG

FIGURE 3658A

GCACAGCCATCTGTGGTGACTAGGAGGTCCCCAAGCCGAGGACACCCATCAAGGACCTTTAGAGTGGCCTCAGAC
CAAGGTCACCAATCA**ATG**GCTAACTGGGGGTCCCAAAACCTAGCCCAGCCATCTATGGACAGTGGGGAGCCCTCA
AGCCTAGCCCAGCCATCTCAAGCCCCTGGGGTAACCTCAAATCTGGCCCAGCCATCTCAAGCCTTTGGGGTGTCT
CCAAGTCCAGACTACCCATCTCAGTCTGTTGGGGAGTACCCAATGCTGGCTCAGCCATTTCAGCCCACTGAGGTG
TCCCCAAGTCCAACCTACCCATCTCAGGCCATTAGGGAGTACCCAACCCTGGCCCACCCATATCAGCTCACTGAG
GTGTCCCCAAGTGCAGCCTACTCATATCAGCCCACTGAGGTGTCCCCAAACCCAGGCTACCTATCTATGGCCATT
GAGATGTCCCCAAGCCCAGAATACCCATCTGTGGCCACTGAGGTGTCCCCAAGCCCAACCTACCCATATCAGCCC
ACTGAGATATCCCCAAGCTCAGGCTACCTATCTGTGGCCACTGAGGTGTCCCCAAGCCCAGGCTACCCATCTCAG
CTCACTGAGGTGTCCCCAAGCTCAGGCTACCTATCTGTGGCCACTGAAGTGTCCCCAAGCCCAGACTACTCATCT
CAGCCTACTGAGATGTCCCCAAGCTCAGGCTACCTATCTATGGCCACTGAGGTGTCCCCAAGCCCAGGCTACCCA
TTTCAGCCCACTGAGGTGTCCCCAAGCCCAGACTATCCATGTGTGGCCACTGGGGAGTCCCCTAGCCTTGCCCAG
CCATCTCAGCCCACTGAGGTGTCCCCAAGCTCAGCCTACCCATCTGTGGTCACTGGGGAGTCTCCAAGCCTGGCC
CAGTCATATCAGCGCACTGAGGTGTTCCCAAGCCCAGCCTACCCATTTATGGCCACTGAGGTGTCCCCAAGCCCA
GGCGACCCATCTGTGGTCACTGGGGAGTCCCCAAGCCCAGCCTACCCATCTCAGCCCACTGAGATGTCCCCAAGC
CCAGCCTACCCATCTCAGCCCACTGGGGAGTCTCCAAGCCTGACCCAGCCATCTCTGACCATCAGAGTGTCCCCA
AGCCTAGCCATGTCATCTCAGACTATTGGAGTGTCCCCAAGCCTAGCCATGCCATCTCAGACCATTGGAGTGTCC
CCAAGCCTAGCCATGCCATTTCACACCATTGGAGTGTCCCCAACCCTAGCTCACCCATCTATGGCCATTCGGGAG
TCTCCAAGCCTGGCCCAGCCTCCTCAGTCCACTGGGGAATCCCCAAGCTTGACCTGGCCATCTCAGGCCACTGGG
GTGTCCCCAAGTGTAGCCCACCAATCTGTGGCCAGTAGGGTTTCCTCAAGCCTAGCCCAGCCATCTCAAGCCAGT
GGGATGTCCCCTAGACAAGATTACCCACCAGTGGCCTCCAGGGTGTCCCCAAACCAAGCTCACGCATCTATAACC
AGCAGGATGTCCCCTAGCAGAGCTCATGCATCTATGACCTGTATGGTGTCCCCAAGCCAGGTTCATCGATCTATG
CCCAGTGAGGTGTCCCCAAGCCTTGCCCAGCTATCTCAGGCCACCACTGCAGTGCCCTTAAGACCAGCTCATCAA
CCTATGGCCTGTGGTGTATCCCCAAGCCTAGCCCAGCCGTCTCAAGCCACAGGGATGTCTTCAAGGCTAGCCCAC
CAACCTATGACCTGTGTGGTGTCCTTAAGCCCAGCCCAGCCATCTCAAGCCATTGGTGTGTCCCCAAGCCTAGCC
CACCCATCAGGACCCCATGGGTTGTCTCCAAGTCTAGCTCACCCATATGTGGCCAGTGGGGCGGGCTCCAGCCTA
GCCCACCCATCTCAGACCACTGCAGTATCCCCAAGGCAAGCCCAACCATCTGTGGCCTCCAGTCCAGGCAAGACA
AATTCATCCTGTACCCTAGCCTCCAGCCTAGCCGAGCCAGCTATAGCCCCCAGCCTATTCCCACCATCTGTGGCC
CACACGGAAGCCCTAAGCCTGGCTCAGTCACCCCCGGACACTAGGTTGGCCCCAAGCCGATCCCAGCCATCTGTG
GTCAGTGGTACATGTCATGGCCTCAATGAGCCATGCTGGGGGTCTAGGCTGGATTCAAATCTGCAGTGTTCAAGG
GTGGACTCAGTAGCCCCGTGTCTGTGTCACCCATCAGCGTTTGTTTCAGTTAGCCTGGGTGGACCATATCCCTCT
GTGGCTGGAAATATGGACCAGGGTCTGAACCAGCCATCCCTGGGTACTGGGGTGAACCTATGTGAAGAACCTCTG
ATGGTTAGTGAGATGGTATCCAGCCCCCCGGACTTCAAGTTCAACGACGTGTCCCTTGGGTTCCATCATCCACCC
AGGGTTGGTGGGAGGCATGTGTGTCCACCCTCTGTGGTTAGTGTTTCAACACCAAATCTCTCTCATGCTGATGAG
GAGGCCTGTTGTGTAGGCCAG**TGA**ATCACGCCTCTGTTCAGGGGTGTGGCTGTAAGCCATCCCCAGGAGCCTTTG
GCTGATGCTATGTTCCCCAGTGGGTCTCAGGGGACCACATCTCCTGGCCTAGCTGGGAATCTCCCCTGGAGAACC
ATAGCAACTGGCATGGGCCAAAGTCAATGTCAGGTGGCCAATGGCATGGCTTCCCTTGCATCCCAGGTCTTAGAG
GCAGGTGGCCCTTTGACACATCCCTCTGGAACCACAGGGATGGCCCCCAGCCCCTCTCTGGCTTCAGTGCCCAAC
AGACTGGCCGTGACTCAGTCTAATCTTTCCCTGAACAGCATGGACCCCAGCAGCTCCCAGATCAGTGTGGTTATT
CCAAAAAACATAGACTGCTGGCACCCTTCTGAGGCATCCATGGTCCCACCCAGTTACCAGCAGAGAGATGTGATT
CCGCAGGACTCTCTGAAGAGCAGGGCTGGTCGTGGTGCGGCAGGAGGTTTTGTAGCCAGTAGAATGAGCACGGGC
GCAGTCCCAGGCACTCTGCCTGGTGGCATAACCTCCAGCCTTCCCCCGGGCTCCACCATCCGAGGCATGGGTCAC
AGCCTTCCCGCAGGCTCTGTGTCCAGTTGGGTGGCTCCCAGTCTGATGGCAGACAGAAAGAAGCCAAGTCTATCT
GTAAGACCCTCCGCTAGCTTAGCTGCTCCAAACTTGCTCCCAGGTTCAGTAGTGAGTCGGGTGAGCCCAGTTGTC
CCCCTGGTTCTGTGCCAATGATGGGGGCCTCTAGTGTGGCTCAGAGCTGCTCCAAGGGGCCCATGGTGATTGACA
TCACTGCCCCTCCTTACCTCAAAGCCTGGCTGGGGAGAGGTCTTTAGCCCCCTTGCAGATGCCCCACACCACCAG
TCTGGCTCCAGGTCACTCCTCAGCCCCGGCAGCTAGTGGCACAGTGAGGAGTCTACACCGAGTGCCCACGGTTCT
ATCAAGAGCCTTACAATTGAGCCAAGATGCTAGGATAATGCCATCTGGGGTCACAGGGGACCAAGCCAAGCTAGG
AGAATTGGATGAGGCTGTGTTCCAAGTGTCAGGATCAAGTGGATCCAATGACCTATTCAGCAAAGCCAGGGTCAC

FIGURE 3658B

TGGTGCAACCCAGTGGATGTACTCCAGTCCTCTGGGAGCTGATGGGGGCCATGATCATAGGTCCCTGTCTGAGAA
AGGGTCTCTTCCCCAAGGGAGGTGGCTCCCAGCCATGCTAGTGGCATGGTCCCTGTCCCTTTCCAGGCCCCGGGT
TTAGCCACTAAGTCCCCCTCAGTTTATCAACAGGGGTCTGTCACTCACGTCATACCCCCAAATCACTCTCAGGGT
ACAGTGGCTTCTAATGTAGTCTCAGGATCACCCCAGCTGGCCCGTGGCAGTACTGAGGCTTTCAGATTGCTTTCA
GTGTCTGTGGGCAGGATGGGGAATCCTAGTCTTCTTCAGAGGTCAGGGACCACCAGCATGGTCTCACATGTGCCA
CTATATCCGTCCTCGGCTAGAAGGGCATTGTCCAGTCCCTTCCAGACAGAAGCTGTCCCCAATCCACTCCAGAAA
ACAGTGTCTGGAAACATGGCTCCGAGCAGCCGCTGGGACGCCATGGGCCCTAAAAATTCCTACAGATCCGTGCAT
GGTAGGATTGTTCCAGAACTGCTAGAAAGTTCTGTGGCCAGGGTTAGGCCCTTACAGTATGTGCAAAGACAACCA
TCCCAGGCCTCAGCCCGAAGTGGTGCAAACCCCACCCACAGGCCCTCTGCAGAGGTAAGGCCCGTCATCCGCACT
GGGGAGATGACACACTCCTCGGTCATTCCTCCGCTGGCCCCGGGAGTTCGGAGGGTGTCTCTAGGCTATGAGTCT
TCCCCAAGTGGTTCCCTGCCACCCCTTTTTAACCAGGAGTCACCGTGGAGACGGCAGGACTCCTATAGCCCCCAG
AATCCTGCCGTTAGTCACAAGGCATCCCTGAACTCCACTATACTCCAGGGCCCCGCGGACGCTGGTGTGGTTGGT
GGCCAATCGTGGAACCGCGCATGGGAGCCAGCCAGGGGTGCTGCGTCCTGGGACACCTGGCGCAACAAGGCGGTG
GTGCCTCCCAGGCGGTCCGGGGAGCCAATGGTGTCCATGCAGGCTGCAGAGGAGATCCGCATCCTCGCAGTGATC
ACTATCCAGGCGGGCGTCCGTGGCTACCTGGCGCGTCGCAGGATCCGGCTGTGGCACCGGGGGGCCATGGTCATC
CAAGCTACTTGGCGCGGCTACCGTGTGCGGCGGAACCTGGCACACCTCTGCAGAGCCACCACGACCATCCAGTCT
GCCTGGCGCGGCTACAGCACCCGCCGGGACCAAGCCCGGCACTGGCAGATGCTCCACCCCGTCACGTGGGTGGAG
CTGGGCAGCCGGGCCGGGGTCATGTCTGACCGAAGCTGGTTCCAGGATGGCAGAGCCAGGACAGTATCTGACCAT
CGCTGCTTCCAGTCCTGCCAGGCACACGCTTGCAGCGTCTGCCACTCCCTGAGCTCCAGGATCGGGAGCCCGCCC
AGCGTGGTGATGCTAGTGGGCTCCAGCCCTCGCACCTGTCATACCTGTGGACGCACACAGCCCACCCGTGTGGTG
CAGGGCATGGGCCAGGGCACTGAGGGCCCCGGGGCAGTGTCTTGGGCCTCCGCCTACCAGCTGGCTGCCCTGAGT
CCCAGGCAGCCGCATCGCCAGGACAAAGCGGCCACAGCCATCCAGTCCGCCTGGAGGGGCTTTAAGATCCGCCAG
CAGATGAGGCAGCAGCAAATGGCAGCGAAGATAGTTCAAGCCACCTGGCGAGGCCACCATACCCGGAGCTGTCTG
AAGAACACAGAGGCGCTCTTGGGACCAGCAGACCCCTCGGCCAGCTCACGGCACATGCATTGGCCTGGCATCTAG
GACCCTGGCTCCCTGCAGTGGGGACTTCGTGGGAGGCACTCATGGCTCTCTGGGTCTAATGAATAAAGTCCTCCA
CAGCCT

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FIGURE 3659A

GCTAGGTTTAGCTTCAGGGGCAGCCCAGGGCAGTGTTGCTGCATATTGCATGGATGAAAGGCTGAAGGCTGCCTC
CTCTTGCAGGCTGGCTTCTGAGATTGCACCTTCTTCTCCTGCTACTCCTCCAAATCTATGACCCTTCAAGGCAGA
GCTGACCTGTCCGGTAATCAAGGCAATGCAGCCGGCCGCCTAGCTACAGTTCACGAGCCAGTTGTCACCCAGTGG
GCGGTGCATCCTCCAGCCCCCGCTCACCCCAGTCTCCTGGACAAAATGGAGAAAGCGCCTCCACAGCCCCAGCAC
GAGGGCCTCAAGTCCAAGGAGCATCTTCCGCAACAGCCTGCCGAAGGCAAGACGGCGTCCCGCCGCGTCCCACGC
CTCCGGGCTGTGGTCGAGAGCCAGGCCTTCAAGAACATCCTGGTAGACGAGATGGACATGATGCACGCCCGTGCA
GCCACGCTCATCCAAGCCAACTGGAGGGGCTATTGGCTCCGGCAGAAGCTGATTTCCCAGATGATGGCGGCCAAG
GCCATCCAGGAGGCCTGGCGGCGCTTCAACAAGAGACACATCCTTCACTCCAGCAAGTCGTTGGTAAAGAAAACG
AGGGCGGAGGAGGGGGACATACCTTATCACGCCCCACAGCAGGTGCGCTTCCAGCATCCGGAAGAGAACCGCCTT
CTGTCCCCGCCCATCATGGTGAACAAGGAGACCCAGTTCCCTTCCTGTGACAATCTGGTCCTCTGCAGACCCCAG
TCGTCCCCCCTCCTGCAGCCCCCAGCAGCTCAGGGTACCCCAGAGCCCTGTGTGCAGGGTCCTCATGCTGCCAGA
GTCCGGGGGCTGGCCTTCCTGCCACACCAGACGGTCACCATCAGATTTCCCTGCCCAGTGAGTCTGGACGCAAAA
TGCCAGCCATGCCTGCTGACCAGAACCATCAGAAGCACCTGCCTCGTCCACATAGAGGGTGACTCAGTGAAGACC
AAACGTGTAAGTGCCCGGACCAACAAAGCCAGGGCTCCGGAGACACCATTGTCCAGAAGGTATGACCAGGCAGTT
ACGAGACCATCCAGAGCCCAAACCCAGGGCCCTGTGAAAGCAGAGACCCCCAAAGCCCCCTTCCAGATATGTCCA
GGGCCCATGATCACCAAGACTCTACTCCAGACATATCCAGTGGTCTCCGTGACCCTGCCACAGACATATCCAGCG
TCCACGATGACCACCACCCCACCCAAGACTAGCCCAGTTCCCAAAGTAACAATAATCAAGACCCCAGCCCAGATG
TATCCGGGGCCCACAGTGACCAAAACTGCACCTCACACATGCCCCATGCCCACAATGACCAAGATCCAGGTACAC
CCCACAGCCTCCAGAACTGGCACCCCACGGCAGACATGCCCTGCGACCATCACGGCAAAGAACCGACCTCAGGTT
TCCCTTCTGGCTTCCATCATGAAGAGCCTGCCCCAGGTATGCCCGGGGCCTGCGATGGCAAAGACCCCACCCCAG
ATGCACCCGGTCACCACCCCAGCCAAAAACCCATTGCAAACATGTCTGTCAGCCACAATGTCCAAGACTTCATCC
CAGAGGAGCCCAGTTGGGGTGACCAAGCCCTCACCCCAGACCCGCCTGCCAGCCATGATAACCAAGACCCCAGCC
CAGTTACGCTCGGTGGCCACCATCCTCAAGACTCTGTGTCTGGCCTCTCCAACAGTGGCAAATGTCAAGGCTCCA
CCCCAAGTGGCGGTAGCAGCCGGAACTCCCAACACCTCAGGCTCCATCCATGAGAACCCACCCAAGGCCAAGGCC
ACCGTGAATGTGAAGCAGGCTGCAAAGGTGGTGAAAGCCTCATCCCCCTCCTATTTGGCTGAGGGGAAGATCAGG
TGCCTGGCTCAACCACATCCGGGAACTGGGGTCCCCAGGGCTGCAGCTGAGCTTCCTTTGGAAGCCGAGAAAATC
AAGACTGGCACCCAGAAACAGGCGAAAACAGACATGGCATTTAAGACCAGTGTGGCAGTGGAAATGGCTGGGGCT
CCATCCTGGACAAAAGTTGCTGAGGAAGGGGACAAGCCACCTCACGTGTATGTGCCTGTAGACATGGCTGTCACC
CTGCCCCGGGGACAGCTGGCTGCCCCACTGACCAATGCCTCATCCCAGAGACATCCACCCTGCCTGTCCCAGAGA
CCACTGGCCGCCCCGCTGACCAAGGCCTCATCTCAGGGACATCTGCCCACTGAGCTGACCAAGACCCCATCCCTG
GCCCATCTGGACACCTGTCTGAGCAAGATGCATTCCCAGACACATCTGGCCACAGGTGCCGTGAAGGTCCAGTCC
CAAGCGCCTCTAGCCACCTGTCTGACCAAGACGCAGTCCCGGGGGCAGCCGATCACAGACATAACCACGTGCCTC
ATCCCAGCGCACCAGGCTGCTGATCTCAGCAGCAACACCCACTCCCAGGTGCTCCTAACAGGGTCCAAGGTGTCC
AACCACGCCTGCCAGCGCCTCGGTGGCCTCAGCGCCCCACCCTGGGCCAAGCCAGAGGACAGACAGACCCAGCCA
CAGCCCCACGGACACGTGCCGGGGAAGACCACTCAGGGGGGACCATGCCCGGCAGCCTGTGAGGTCCAGGGTATG
CTGGTGCCGCCGATGGCACCCACCGGCCATTCCACATGCAACGTTGAGTCCTGGGGAGACAACGGAGCCACACGT
GCCCAGCCATCAATGCCCGGCCAGGCGGTGCCCTGCCAGGAGGACACGGGCCCCGCGGACGCTGGTGTGGTTGGT
GGCCAATCGTGGAACCGCGCATGGGAGCCAGCCAGGGGTGCTGCGTCCTGGGACACCTGGCGCAACAAGGCGGTG
GTGCCTCCCAGGCGGTCCGGGGAGCCAATGGTGTCCATGCAGGCTGCAGAGGAGATCCGCATCCTCGCAGTGATC
ACTATCCAGGCGGGCGTCCGTGGCTACCTGGCGCGTCGCAGGATCCGGCTGTGGCACCGGGGGGCCATGGTCATC
CAAGCTACTTGGCGCGGCTACCGTGTGCGGCGGAACCTGGCACACCTCTGCAGAGCCACCACGACCATCCAGTCT
GCCTGGCGCGGCTACAGCACCCGCCGGGACCAAGCCCGGCACTGGCAGATGCTCCACCCCGTCACGTGGGTGGAG
CTGGGCAGCCGGGCCGGGGTCATGTCTGACCGAAGCTGGTTCCAGGATGGCAGAGCCAGGACAGTATCTGACCAT
CGCTGCTTCCAGTCCTGCCAGGCACACGCTTGCAGCGTCTGCCACTCCCTGAGCTCCAGGATCGGGAGCCCGCCC
AGCGTGGTGATGCTAGTGGGCTCCAGCCCTCGCACCTGTCATACCTGTGGACGCACACAGCCCACCCGTGTGGTG
CAGGGCATGGGCCAGGGCACTGAGGGCCCCGGGGCAGTGTCTTGGGCCTCCGCCTACCAGCTGGCTGCCCTGAGT
CCCAGGCAGCCGCATCGCCAGGACAAAGCGGCCACAGCCATCCAGTCCGCCTGGAGGGGCTTTAAGATCCGCCAG
CAGATGAGGCAGCAGCAAATGGCAGCGAAGATAGTTCAAGCCACCTGGCGAGGCCACCATACCCGGAGCTGTCTG

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FIGURE 3659B

AAGAACACAGAGGCGCTCTTGGGACCAGCAGACCCCTCGGCCAGCTCACGGCACATGCATTGGCCTGGCATC**TAG**

GACCCTGGCTCCCTGCAGTGGGGACTTCGTGGGAGGCACTCATGGCTCTCTGGGTCTAATGAATAAAGTCCTCCA
CAGCCT

FIGURE 3660

ATGTGCCCAGAAGGATGTCAGTACACGGGGAGGGGCCACACGCTGAGGACCCCGCAGCTAGGCGAGGCAGGAGGC
CTCCACCAGCCTCCAGGCCTCTGCCCGCGCCGTTCCCTCCGCCTGGAATGCGCCTCCCGCCCCAACCCAACCCTG
TGTTTACTGCGACTTCCCTCCCTTCGGCCTGGCCCTGACCCCTCCGGGGCAGGGCGTGTCCGTGTCTGGCTGCTA
GCACCACCCTGCCCTCAGTCTGTCAGCGGGGAAATGGCTCAGTACCTGGAAAAGCCACGAGTATGTGGTCGGATG
CAGGCAAAACCCACACATCATGACACTGCCCTGAGAAGTGGGATAACGTCCCTCACCACTCGTGGAGCTGCTGCT
GAGATAAAGGTGAAAATGCAGAGTCCCGGACCAAGCCCTAGTGTTGCCCCAACCTCATCTGCAACTTTCATTGCC
TTGGGGACTTTCAGGATTAAGCGATTCCTGGACAAGAAACAAAAGCAAAATCGTCCCATTCCCCAGTGGATTTGG
ATGAAAACTGGAAATAAAATCAGGTACAACTCCAAAAGGACACTGGAGAAGAACCAAGCTGGGTCTATAAGGAAT
TGCACA**TGA**

FIGURE 3661

CAGCGGCGGCGGCGGAAGTGGCCGGCGAGCCCGGTCCCCGCCGGCACC**ATG**CTTCCCTTGTCACTGCTGAAGACG
GCTCAGAATCACCCCATGTTGGTGGAGCTGAAAAATGGGGAGACGTACAATGGACACCTGGTGAGCTGCGACAAC
TGGATGAACATTAACCTGCGAGAAGTCATCTGCACGTCCAGGGACGGGGACAAGTTCTGGCGGATGCCCGAGTGC
TACATCCGCGGCAGCACCATCAAGTACCTGCGCATCCCCGACGAGATCATCGACATGGTCAAGGAGGAGGTGGTG
GCCAAGGGCCGCGGCCGCGGAGGCCTGCAGCAGCAGAAGCAGCAGAAAGGCCGCGGCATGGGCGGCGCTGGCCGA
GGTGTGTTTGGTGGCCGGGGCCGAGGTGGGATCCCGGGCACAGGCAGAGGCCAGCCAGAGAAGAAGCCTGGCAGA
CAGGCGGGCAAACAG**TGA**GCGCCCACCCAGACCGGCTGCTGCGCCCCCTCCTGCCAGGGTGGCGATTCCGCTCCA
CAGTCTCGGACGGATCTGCTCAGAAAGGAAGAGGCAGGCGCCAGGGGGAACCCCCTTCGTGTTTTGTGACCCTCC
CTTTTAGGTGAAGCCCCTTTTTCTTGCTAAAACCGGCAATTCTCCGGTTAGAAATGTTACTTGGTGTTTTTTGGT
TTTGTGAAACGGCCGTCCCAAAACTGGCTGGATTCCTAGAAGAGTCTGTGTTGAAGGCATCTTTCAAGCCCTCGC
TCTGGTTCTCAGGGCAGCATTTTCCAGGCGGGTTTGTTTTGCATTTCTTGGAGCCTCTCCGAGCAGCAACCAGAC
GGGAGATTTTTATTTTAAGCTGTTCATGCTGGGACTGACAGCCTGCAGGGTTTCCTTGGGCGCGGCCCCAAAATT
GCCTTCAAAACAAACCCGGGACGGTTGAAAGCCTTCGAACCGTGCAGGGGATGCCTCGGGCCCTGGCCCTTCGCT
TCCTCTCTTGTGTTATGGAAATAAAAACAAATAAAACTACA

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FIGURE 3662

GCAACCTGCACAGCC**ATG**CCCGGGCAAGAACTCAGGACGGTGAATGGCTCTCAGATGCTCCTGGTGTTGCTGGTG
CTCTCGTGGCTGCCGCATGGGGGCGCCCTGTCTCTGGCCGAGGCGAGCCGCGCAAGTTTCCCGGGACCCTCAGAG
TTGCACTCCGAAGACTCCAGATTCCGAGAGTTGCGGAAACGCTACGAGGACCTGCTAACCAGGCTGCGGGCCAAC
CAGAGCTGGGAAGATTCGAACACCGACCTCGTCCCGGCCCCTGCAGTCCGGATACTCACGCCAGAAGTGCGGCTG
GGATCCGGCGGCCACCTGCACCTGCGTATCTCTCGGGCCGCCCTTCCCGAGGGGCTCCCCGAGGCCTCCCGCCTT
CACCGGGCTCTGTTCCGGCTGTCCCCGACGGCGTCAAGGTCGTGGGACGTGACACGACCGCTGCGGCGTCAGCTC
AGCCTTGCAAGACCCCAGGCGCCCGCGCTGCACCTGCGACTGTCGCCGCCGCCGTCGCAGTCGGACCAACTGCTG
GCAGAATCTTCGTCCGCACGGCCCCAGCTGGAGTTGCACTTGCGGCCGCAAGCCGCCAGGGGGCGCCGCAGAGCG
CGTGCGCGCAACGGGGACCACTGTCCGCTCGGGCCCGGGCGTTGCTGCCGTCTGCACACGGTCCGCGCGTCGCTG
GAAGACCTGGGCTGGGCCGATTGGGTGCTGTCGCCACGGGAGGTGCAAGTGACCATGTGCATCGGCGCGTGCCCG
AGCCAGTTCCGGGCGGCAAACATGCACGCGCAGATCAAGACGAGCCTGCACCGCCTGAAGCCCGACACGGTGCCA
GCGCCCTGCTGCGTGCCCGCCAGCTACAATCCCATGGTGCTCATTCAAAAGACCGACACCGGGGTGTCGCTCCAG
ACCTATGATGACTTGTTAGCCAAAGACTGCCACTGCATA**TGA**GCAGTCCTGGTCCTTCCACTGTGCACCTGCGCG
GAGGACGCGACCTCAGTTGTCCTGCCCTGTGGAATGGGCTCAAGGTTCCTGAGACACCCGATTCCTGCCCAAACA
GCTGTATTTATATAAGTCTGTTATTTATTATTAATTTATTGGGGTGACCTTCTTGGGGACTCGGGGGCTGGTCTG
ATGGAACTGTGTATTTATTTAAAACTCTGGTGATAAAAATAAAGCTGTCTGAACTGTT

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FIGURE 3663

GAGGAAAAAAAGCCACCCTGCGGCCGGGGCCGGAGCTGGAGCCGCCGCTGCCGCCGCCGCCGCGGCCGTCTGGAG
CTCCCCCGCGCGGACGATGCCTGCCGTGCCCGCCTGGGGCTCGGGGCGGTGAGGCCCGGGGCGCGGGGTAGCTAT
GGCGACGGCAAGCGCGGCCCGCGGCGCCGCCTGACAGGTGTGGGCCCCGGCGGCGGCGGCGTGGAGCAGC**ATG**TA
CGCCAAGGGGGGCAAGGGTTCGGCCGTGCCCTCCGACAGCCAGGCCCGCGAGAAGTTGGCGCTGTACGTTTATGA
GTACCTGCTGCACATCGGTGCCCAGAAGTCAGCCCAGACCTTCCTGTCTGAGATCCGATGGGAGAAGAACATCAC
GCTGGGGGAGCCCCCTGGGTTCCTGCACTCCTGGTGGTGCGTCTTCTGGGACCTGTACTGCGCGGCGCCTGACAG
AAGAGAGGCCTGCGAGCACTCCGGCGAGGCCAAGGCCTTCCAGGACTATAGTGCTGCAGCCGCCCCCAGCCCCGT
TATGGGGAGTATGGCCCCAGGTGACACAATGGCCGCAGGCTCCATGGCGGCTGGCTTCTTCCAGGGCCCCCCCGG
CTCCCAGCCGTCCCCCCACAACCCCAACGCCCCCATGATGGGGCCTCACGGTCAGCCCTTCATGTCACCGCGCTT
CCCAGGGGGCCCCCGGCCCACCCTGCGGATGCCGAGTCAGCCTCCCGCAGGCCTCCCTGGCTCCCAGCCCCTCCT
CCCTGGCGCCATGGAGCCCTCCCCACGAGCCCAGGGGCATCCGAGCATGGGCGGCCCAATGCAGAGGGTGACGCC
TCCTCGTGGCATGGCCAGCGTGGGGCCCCAGAGCTATGGAGGTGGCATGCGACCCCCACCCAACTCCCTCGCCGG
CCCAGGCCTGCCTGCCATGAACATGGGCCCAGGAGTTCGTGGCCCGTGGGCCAGCCCCAGTGGAAACTCGATCCC
CTACTCCTCCTCATCCCCCGGCAGCTACACCGGACCCCCAGGAGGAGGTGGGCCCCCTGGAACACCCATCATGCC
TAGCCCTGGAGATTCCACCAACTCCAGCGAAAACATGTACACTATCATGAACCCCATCGGGCAGGGCGCCGGCAG
GGCTAATTTCCCGCTCGGCCCTGGCCCGGAGGGCCCCATGGCCGCCATGAGCGCGATGGAGCCTCACCACGTGAA
CGGATCCCTGGGCTCGGGCGACATGGACGGGTTGCCGAAGAGTTCCCCCGGCGCCGTGGCCGGCCTGAGCAACGC
CCCGGGCACCCCGCGGGACGACGGCGAGATGGCGGCCGCCGGGACCTTCCTGCACCCGTTCCCGAGCGAAAGCTA
CTCGCCAGGGATGACCATGAGCGTG**TGA**TGGGGCGGCAGCCCCGGGCCTCTCTGCGGGCCTAGGCTTCTGCCCAG
CGCCCCTGCTCAGGGCGAGGGGCTGAGGTCACACCTCGGGCACCTGGACTCCTGGCCAATCAAGGCTTGCCCAGC
TGGGAGGCCCCACACGAAAGACTCTTACCATTTTATTAAAAACGCAAGGACCTCAGAGACGTTCTTTTCTGTATG
GACCCTTCCTGCCATTTGTATTTTGTCCCAGAGAGAAAGGCTCTTTGGGGGGCCCCTCTCCCCAGGACGTCAGGG
GGTGGGGCCCATAAATAAATGGAAGCTGGTTTTGGTTTTTGGT

FIGURE 3664

GACTTTGTCCCCCGAGATGGATGGGGGCGGACATGGGGAGCCAGGGGATGGGACTGCCTGGTAGGTGCTGCTGCC
CACGAAGGGGGAGTAGGTGGCAGTGTGGCTCCGAGGAGATTCTGGCTTTGGAGTTCTGGTCCTCTGCCTGTTTCC
CCTGCAGTGTCTCTGACCCAGACCCCCTACCTACCCCCCCGGAGGCCCAGCTTCCCTGCCCAGCTCCACCCCCTG
GCTTGTGGCTGGGCTCATGTGTAGCCTCATTGTCCTCTTGTAAAGGGGGGATAGGCAGCCATGAGCCCCTGGGGG
CTGCGGAGCGAGCGAGGTGAACCTATACGCGCCGCGCTCGTGGACGCCTGGCCACTTCCGCCAGGCGGGGACCCG
ATGGCCACGGTGGCTCTGGGTTGTCGGGCCTCGAACCGGGTCTCCAGACGTTGGGCCCCTCCCTCCCAGCGCGGG
AGAGGCGGGGAAGGGGGCGGGGCGGGGGAGGGGCCGCAGCGCTTTTCTCCGGAGGTCGCGCGCCCGAGAGCCCGC
GCTGTCCGCCGCCGCTGCCTGAGTCGACTCTGCGCCGCCCGCCGCG**ATG**GAGGCCGCCGCCCAGTTCTTCGTCGA
GAGCCCGGACGTGGTCTACGGCCCCGAGGCCATCGAGGCGCAATACGAGTACCGGACGACGCGCGTCAGCCGCGA
GGGTGGCGTTCTCAAGGTGCACCCCACGTCCACGCGCTTCACCTTCCGGACCGCCCGGCAGGTGCCCCGGCTCGG
GGTCATGCTTGTCGGCTGGGGCGGGAACAACGGCTCCACACTCACCGCCGCGGTGCTGGCCAATCGACTGCGTTT
GTCCTGGCCCACGCGCAGCGGCCGCAAGGAGGCCAACTACTACGGCTCGCTGACTCAGGCGGGCACCGTGAGCCT
GGGCCTGGACGCCGAGGGCCAGGAGGTGTTCGTACCCTTCAGCGCGGTGCTGCCCATGGTGGCGCCCAACGACCT
CGTGTTCGATGGCTGGGACATCTCGTCGCTGAACCTGGCCGAGGCGATGCGGCGCGCGAAGGTGCTGGACTGGGG
GCTGCAGGAGCAACTGTGGCCGCACATGGAGGCCCTGCGGCCCCGGCCTTCTGTTTACATCCCCGAATTCATCGC
GGCCAACCAGAGCGCGCGCGCGGACAACCTCATCCCAGGCTCGCGTGCGCAGCAGCTGGAGCAGATCCGCAGGGA
CATCCGAGACTTCCGGTCTAGCGCGGGGCTGGACAAAGTCATAGTGCTGTGGACGGCGAACACGGAGCGCTTCTG
TGAGGTGATTCCAGGCCTCAACGACACAGCCGAGAACCTGCTGCGCACCATTGAGCTCGGTCTGGAGGTGTCGCC
CTCCACGCTCTTCGCCGTGGCCAGCATCCTGGAGGGCTGTGCCTTCCTCAATGGGTCTCCGCAGAACACCCTGGT
GCCCGGAGCTCTTGAGCTCGCGTGGCAGCACCGGGTTTTTGTGGGCGGAGATGACTTCAAGTCAGGCCAGACCAA
AGTCAAGTCCGTGCTTGTGGACTTCCTCATTGGCTCCGGCCTCAAGACCATGTCCATCGTGAGTTACAACCACCT
GGGCAACAACGATGGGGAGAACCTATCGGCGCCATTGCAGTTCCGCTCTAAGGAGGTGTCCAAGAGCAACGTGGT
GGACGACATGGTGCAGAGCAACCCAGTGCTCTATACGCCCGGCGAAGAGCCTGACCACTGCGTGGTCATCAAGTA
TGTGCCGTACGTGGGTGACAGCAAGCGCGCGCTGGATGAGTATACCTCGGAGCTGATGCTGGGCGGAACCAACAC
ACTGGTGCTGCACAACACGTGTGAGGACTCGCTGCTGGCCGCACCCATCATGCTGGACCTAGCGCTGCTGACCGA
GCTGTGCCAGCGCGTGAGCTTCTGCACTGACATGGACCCCGAGCCGCAGACCTTCCACCCCGTGCTGTCCCTGCT
CAGCTTCCTCTTCAAGGCGCCACTAGTGCCGCCCGGCAGCCCGGTGGTCAATGCGCTTTTCCGCCAGCGCAGCTG
CATCGAGAACATCCTCAGGGCCTGCGTGGGGCTCCCGCCACAGAACCACATGCTCCTGGAACACAAAATGGAGCG
CCCAGGGCCCAGCCTCAAGCGAGTTGGACCCGTGGCTGCCACCTACCCTATGTTGAACAAGAAAGGACCGGTACC
CGCTGCCACCAATGGCTGCACCGGTGATGCCAATGGGCATCTGCAAGAGGAGCCCCCAATGCCCACCACC**TGA**GG
CCCCGGTCACACAGTTTCTCGGCTCTTCCTCCCCGCTGCCCCCCACGACCCTACCTTGAAGGCCCCCACAAATAA
AGGCGCTGCCACTCAGCCCTCCTTCCACCTGGGGTTCTTGGGGCCTGTGACCTGA

FIGURE 3665

GATGGTCGCAAG**ATG**GCGGCGCTGAAGGAGGATAGGAGCTACGGGCTGTCGTGCGGGCGGGTTAGCGACGGCAGC
AAGGTGTCGGTGTTCCACGTGAAGCTCACCGACAGTGCCCTGAGGGCCTTCGAGAGCTACCGCGCCAGACAGGAT
TCTGTTTCACTGAGGCCATCTATCCGATTTCAAGGAAGCCAAGGGCACATCTCCATCCCCCAGCCTGACTGCCCC
GCAGAGGCGCGGACGTTCTCCTTCTACCTCTCCAACATCGGCCGCGACAACCCCCAGGGCAGCTTCGACTGCATC
CAGCAGTATGTCTCCAGTCATGGGGAAGTTCACCTGGACTGCCTGGGCAGCATACAGGACAAGATCACGGTGTGT
GCCACCGACGACTCCTACCAGAAGGCGCGGCAGAGCATGGCCCAGGCGGAGGAGGAGACGCGGAGCCGAAGTGCC
ATTGTCATCAAGGCTGGAGGCCGCTACCTGGGCAAGAAGGTTCAGTTTCGGAAACCAGCCCCAGGTGCAACAGAC
GCGGTGCCCTCCCGGAAGCGGGCAACCCCCATCAACTTGGCGAGTGCCATCAGGAAGAGTGGTGCCAGTGCCGTG
AGTGGGGGCAGCGGGGTGTCCCAGAGGCCCTTCCGTGACCGAGTGCTGCACCTCCTGGCACTACGGCCCTACCGC
AAGGCTGAGCTGCTGCTGCGACTGCAGAAGGACGGCCTGACGCAGGCGGACAAGGACGCGCTGGATGGCCTCCTC
CAGCAGGTGGCCAACATGAGTGCTAAGGACGGCACGTGTACACTGCAGGACTGCATGTACAAGGATGTGCAGAAG
GACTGGCCTGGCTACTCGGAGGGGGACCAGCAGCTGCTGAAGCGGGTGCTCGTCCGGAAGCTGTGCCAGCCACAG
AGCACTGGCAGCCTCCTTGGAGACCCTGCTGCCTCCAGCCCCCCAGGCGAGCGTGGGCGCTCGGCCTCGCCCCCA
CAGAAGCGGCTGCAGCCTCCTGATTTCATCGACCCCCTAGCCAACAAGAAACCCCGGATATCGCACTTCACTCAG
AGAGCTCAGCCTGCCGTCAACGGGAAGCTGGGCGTGCCCAATGGCCGTGAGGCCTTGCTGCCCACCCCGGGCCCA
CCAGCCAGCACGGACACCCTCAGCTCCAGCACTCACCTGCCCCCGCGGCTGGAGCCCCCGAGGGCCCACGACCCC
CTGGCCGATGTCAGCAATGACCTGGGCCACAGCGGCCGAGACTGTGAGCACGGAGAGGCGGCTGCCCCAGCCCCC
ACTGTGCGCCTCGGCCTGCCCCTGCTGACGGACTGTGCCCAGCCCAGCAGGCCACACGGCAGCCCCTCGCGCAGC
AAGCCCAAGAAGAAGTCCAAGAAGCACAAAGACAAGGAGAGGGCGGCTGAGGACAAGCCCCGGGCCCAGCTTCCA
GACTGTGCACCTGCCACCCATGCCACCCCCGGAGCCCCAGCAGACACCCCAGGTTTAAACGGAACCTGCAGCGTT
TCCAGTGTTCCCACGTCCACGTCGGAGACGCCTGACTACTTGCTGAAGTACGCAGCCATCTCCTCTTCGGAGCAG
CGCCAGAGCTACAAGAACGACTTCAATGCCGAGTACAGCGAGTACCGCGACCTGCACGCCCGCATTGAGCGCATC
ACGCGGCGGTTCACCCAGCTCGACGCCCAGCTCCGGCAGCTCTCCCAGGGCTCCGAGGAGTATGAGACTACTCGA
GGGCAGATTTTGCAGGAATATCGAAAAATCAAAAAGACCAACACCAACTACAGCCAGGAGAAGCACCGCTGCGAG
TACCTGCACAGCAAGCTGGCCCACATCAAGAGGCTCATCGCCGAGTACGACCAGCGGCAGCTGCAGGCTTGGCCC
TAGCCGCCCTCCCCGATGGCGGGGATCTGGGAGGGTCGGGGGAGCAAAAGGCGGTGAGAGAGGATTTATTTAAAA
AAATAAACCCGAGGAAGATGCTCATCTGAGCCAGCACCGCCGGCTTTCAGGGCAGCCCCTGCAGACGTCTGGCCC
TGGCGGGTGGCTGCAAGCCCACCTCGGCCCTCCCTGCGCTTCCTGAGCAGTCCCTGCTTATGATGGGCTCCCCAG
GAAGCCCACTGCCTCCTCCCTGGCTGCAGCCTCCGGGGTTCAGCCTCCTGTCTCGCCAGAAGACTCCTAGGCCCT
TGGGGTGGCGCGCCTGCCTTTTCTAGTTTTATACAAAGACAGCCACTTTTAGCTACTGCTAATGAGACTTGAGTC
TATTTTTGTACAAAAGAGAAGCAAAATCTTTTTTCTAAACCTGTGCCTCCCTCTCCTCGGACACCCAGGGTCTAG
CCGCTGCCCTGGGTCCTGCCTGCAGTATTACAGAGGTCGTCGAAAGGTGCAGCTGCGTTCTGAGGGCGTGGGGAA
TGGGCAGGTGGCCTCTGCTGGTCTCTGGCTCTACGTTTAGGCACCCCTTTCCCCAGCCTCTCCTCCTTGGGCAGG
GTCTCTGCTCCAGCAAGCAAACAGGGTGGCCCAGGTGGCTATTTTGAGAACTCCAGCTGGTGCCCCCAGACAGCT
GCTCAGAGCCAAGGGGGCAGAGGGCTTTCAGCGCCCCCAGGCCTGCCCTGCTATTTCAGGCCCTCAGCTGTCGGG
GGCCACTGTGTTTCTGTGCTCCAAGTTGAGACTCGGCCGCAGCGGCGTCAGACTTTTCTTTGCGATGTCCTCGGT
TTCCCATTTGTTGCTGCTGCTGCTCATTCCACACTGTTGAGACCTTGTGGTCTCGATGCTGCTGGCCTCCCTCCG
TCCCTCTGTCCACTTGTGGGTCCTGGGGTC

FIGURE 3666

GGGTGAGGAGGAAGAGGAGGAGGAAGAGGAGGAAGAGGATGACCTGAGTGAGCTGCCACCGCTGGAGGACATGGG
ACAACCCCCGGCGGAGGAGGCTGAGCAGCCTGGGGCCCTGGCCCGAGAGTTCCTTGCTGCCATGGAGCCCGAGCC
CGCCCCAGCCCCGGCCCCAGAAGAGTGGCTGGACATTCTGGGGAACGGGCTGTTGAGGAAGAAGACGCTGGTCCC
AGGGCCGCCAGGTTCGAGCCGCCCGGTCAAGGGCCAGGTGGTCACCGTACATCTGCAGACGTCGCTGGAGAATGG
CACACGGGTGCAGGAGGAGCCGGAGCTGGTGTTCACTCTGGGTGACTGTGACGTCATCCAGGCCCTGGATCTCAG
TGTCCCACTCATGGACGTGGGGGAGACGGCCATGGTCACTGCTGACTCCAAGTACTGCTACGGCCCCCAAGGCAG
CAGGAGCCCATACATCCCCCCGCACGCGGCCCTGTGCCTGGAGGTGACCCTGAAGACGGCTGTGGACGGGCCTGA
CCTGGAGATGCTCACGGGGCAGGAGCGCGTGGCCCTGGCCAACCGGAAGCGGGAGTGCGGCAACGCCCACTACCA
GCGGGCGGACTTCGTCCTGGCCGCCAACTCCTACGACCTCGCCATCAAGGCTATCACCTCCAGCGCCAAAGTGGA
CATGACGTTCGAGGAGGAGGCACAGCTCCTGCAGTTGAAGGTGAAGTGTCTGAACAACCTGGCGGCCTCGCAGCT
GAAGCTCGACCACTACCGCGCAGCCCTGCGCTCCTGCAGCCTTGTGCTGGAGCACCAGCCAGACAACATCAAGGC
TCTCTTCCGCAAGGGCAAGGTGCTGGCCCAGCAGGGGGAGTACAGTGAGGCCATCCCCATCCTGAGGGCAGCCCT
GAAGCTGGAACCTTCCAACAAGACGATCCACGCAGAGCTCTCAAAGCTGGTGAAGAAGCATGCGGCGCAGCGGAG
CACGGAGACCGCCTTGTACCGGAAAATGCTGGGCAACCCCAGCCGGCTGCCTGCTAAGTGCCCTGGCAAGGGTGC
CTGGTCCATCCCATGGAAGTGGCTGTTTGGGGCGACTGCTGTTGCCTTGGGGGGTGTGGCACTCTCTGTGGTCAT
CGCTGCCAGGAACTGACCACCTAGGTGGCTGCCACCCCCTCTGCACACCATGGACCCTGCCCTGCGCTCCCCAAC
TCCCCCAGGCTCCCTGTCCACTGCCCTCCCTGGTCTGGCCCCCTCCTCCGGGTTAGGGGAGCAAGGATTGGGGGT
CGTGCAGCCCAGCCAGCAGGAGGGACTGAGGCCCTCTAGGAGGAAAGCCCAGAGGGAGGGGGCCCTCATTCCTTC
AGACCCAGTTTTCCCCCACCCTCCTTACCCCGCTGGGCTAGGTCTCCGCCAGGGCTGGCCTCAGTTTCTCCTCAA
CAGGCCTGGGGGCAGCCCTTCCCCTGCCTAGTCCCCGCCTGAGTGCCAGCCCCCCACCCCGCCTGCCGCCCCCTG
TCCAGGTTCCCTCCCCGCCACAGTGAAATAAAGCATCCCACCCTGC

FIGURE 3667

ACGCACGCAAGCGGCTCCAGGGTACGTCCCCGCCACGCGCGCTCGCAGGATCGGTGCGTGGTGACGTTTCGCCGG
CGCGGGCGCCATCCCGGAAGCGCGAGCAAGGCCGCCAGATGTGCAGGCAGCGGAGGAGGAGAAAGAG**ATG**GACCT
CCCGGACTCGGCCTCGAGGGTCTTCTGCGGCCGCATCCTGAGCATGGTGAACACAGATGATGTCAACGCCATCAT
CCTGGCCCAGAAGAACATGCTGGACCGCTTTGAGAAGACCAATGAGATGCTGCTCAACTTCAACAACCTGTCCAG
TGCCCGCCTGCAGCAGATGAGCGAACGCTTCCTGCACCACACGAGGACCCTAGTAGAGATGAAACGGGACCTGGA
CAGCATCTTCCGCCGTATCAGGACGCTGAAAGGGAAACTGGCCAGGCAGCACCCAGAGGCCTTCAGCCATATCCC
AGAGGCATCCTTCCTGGAGGAAGAGGATGAAGACCCCATCCCACCCAGCACCACGACCACCATTGCCACCTCAGA
ACAGAGCACGGGCTCATGTGACACCAGCCCCGACACCGTCTCGCCCTCCCTGAGCCCCGGCTTCGAGGACCTGTC
CCATGTCCAGCCTGGCTCCCCAGCCATCAACGGCCGCAGCCAGACAGATGACGAGGAGATGACGGGCGAA**TAG**CC
CTGCTGCCCGGTGCCTTGAGGGGGTCTCAGGGCAGCAGCATACAAGGTGGCAGCGGGTAACCCTGCCTTGTTCTG
TCATCCAGGGCTCCTTTGCTGCCCCGTTCTGTCACCCAGGGCTCCTAGGGGGACAAGGCTCTCTCCCGAGGGGTG
TGGAATTCCTGGGGGGGTCTTTAATTCTGGCTCCTTCCTTCCTCAGAACATCTCTATTCTGCAAGACCCCTCTGC
CATGCCAGGGCACGCCCATTCCAGCTGGAGTCGTGGGGCTGGGCACAGGGGAATTTTTCCAGAGCTGAGCCTGAC
GTCTGCTCTGAAGAATGCTTAGAAGGTTCCCAGACACCAGAGCCAGATGTCCCCCACCACCGGTCAGGACCTCCT
TGAGGTGCACAAGCACGGTCTCCTCTGAGTTCACCCCAGCCCACCCCCGCACCCACTAATTCTGCTTTTCCTGCC
CCTTGCTCCGTAAAAGTATCAAATACTTTCTCCTTGGTATCTCAAGGAGGTTTCTGAGATAGGTAGAAGTCTTGA
GACGGAGGCTGGCCATCCATTCAGCCCTGAGCGTGCTGAGTTCTGTGTTTCTCTGAATAGAGGTGTGGAACCTGA
GGGGCCAGCAGGCCTCTCTGAAGGCCTCCATGGAGCAAACGGAGCCACCTCGGGAAAGAGTTTAATGGAATATTT
TTGTACCCGATGTTTACAGATGCTGTTGGGAAGTTATCAATAAAAAGACACCATTACTAAAAAGGG

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FIGURE 3668

TTCTTTTTCTTCAGCGAGGCGGCCGAGCTGACGCAAAC**ATG**CAGATCTTTGTGAAGACCCTCACTGGCAAAACCA
TCACCCTTGAGGTCGAGCCCAGTGACACCATTGAGAATGTCAAAGCCAAAATTCAAGACAAGGAGGGTATCCCAC
CTGACCAGCAGCGTCTGATATTTGCCGGCAAACAGCTGGAGGATGGCCGCACTCTCTCAGACTACAACATCCAGA
AAGAGTCCACCCTGCACCTGGTGTTGCGCCTGCGAGGTGGCATTATTGAGCCTTCTCTCCGCCAGCTTGCCCAGA
AATACAACTGCGACAAGATGATCTGCCGCAAGTGCTATGCTCGCCTTCACCCTCGTGCTGTCAACTGCCGCAAGA
AGAAGTGTGGTCACACCAACAACCTGCGTCCCAAGAAGAAGGTCAAA**TAA**GGTGGTTCTTTCCTTGAAGGGCAGC
CTCCTGCCCAGGCCCCGTGGCCCTGGAGCCTCAATAAAGTGTCCCTTTCATTGACTGGAGCAGCA

FIGURE 3669

AGTC**ATG**ATCACCGAGACCGCGGCGGAGCCTACGGTCCCTGCAGTGCCTGCTGCTGAGGAGGCCACCGAAGCTCG
GGGACGCGAGGAGCCGGCGTGGCCCTGGAAAGACGCCCCGATCCGGACGCTGGTGCAGCGCATCCACCAGCTGCA
GGCTGAGCGCGCGCAGGGCTTCCGCCGACTGGAGGAGTGGTTGGCGCCGGTGCAGGGCCTGAGAGCCTGGGGGCG
CGGCCTCAGGGTCCCCACATGCCGCAGAGGCCACCGCCAGTACCTGCGCAGCGGCCCTGACTACGACTTCGCGCG
CTACCGGAGCACAGTGCACGGGGTGACCCAGGCCTTCGCCGCCGCCTCGCGGGAGGTGCTGGCGGTGGAAGCAGA
GCTGGGCGGGCCTCGCAGGCAGCCGCTGCTCGCCGGCCACGTGCGCAGCCTGCAGGAGCTGGAGCAGACGCGGCT
GGGCACGGTGGCCCTGCTGCAGTTGATGGAGACGCCAGAGCTGGCGGGGCAGGAGGACGCTGTACGGATGCAGCA
GCTGAAAATGAAGGTAATTAAAACCATGGAGGCGATCAGCGAGGTTCTCCAGGACCTTAGGTTTGATGCGGAATC
TGCCGAG**TGA**TGGCGGCTCCCCAGGGATGCGCCGAGGGAGATGGGAAACGGGGCGGATGGCGCCCAGCCCAGCCC
TAACTGCCAGCTGGCTGGGGTTGCGCCCCACTGCGCTGCTGACCTTCCTGCAGTTCCAGACACCTCCCACAATAA
AGAGCTCCTCCTCTGT

FIGURE 3670

ATCCTCCGTGCCCGGCCTGAGCTGGAGTCCCCCGCGCCCCCCGCGTTCCGCCCGGCC**ATG**GCTGCGGTGGCGCTG
ATGCCACCGCCGCTGCTGCTGCTGCTGCTGTTGGCGTCGCCGCCCGCCGCCTCCGCGCCGTCCGCCCGCGATCCC
TTCGCCCCCCAGCTCGGGGACACGCAGAACTGCCAGCTGCGGTGCCGCGACCGCGACCTCGGCCCGCAGCCCTCG
CAGGCGGGGCTGGAGGGCGCCTCCGAGTCTCCCTATGACAGAGCCGTTCTGATCAGCGCTTGCGAGCGTGGCTGC
CGCCTCTTCTCCATCTGCCGATTTGTGGCCAGAAGCTCCAAGCCCAATGCCACCCAAACTGAGTGTGAAGCAGCC
TGCGTGGAAGCCTATGTGAAGGAGGCAGAGCAGCAGGCCTGTAGCCACGGCTGCTGGAGCCAGCCCGCGGAGCCT
GAGCCGGAGCAGAAGAGAAAGGTCCTGGAGGCTCCAAGTGGGGCCCTCTCCCTCTTGGACTTGTTTTCCACCCTC
TGCAATGACCTTGTCAACTCAGCCCAGGGATTTGTCTCCTCCACCTGGACATACTACTTGCAGACTGACAATGGG
AAAGTGGTGGTGTTTCAGACTCAGCCCATAGTGGAGAGCCTCGGCTTCCAGGGGGGCCGTCTGCAGCGCGTGGAG
GTGACCTGGCGAGGCTCCCACCCTGAAGCCCTGGAGGTGCACGTGGACCCTGTAGGCCCCCTGGACAAGGTGAGG
AAGGCCAAGATCCGAGTCAAGACCAGCAGCAAGGCCAAGGTGGAGTCTGAAGAGCCACAGGACAATGACTTCCTC
AGTTGCATGTCCCGGCGCTCGGGTCTGCCTCGCTGGATCCTGGCCTGCTGCCTCTTCCTCTCCGTGCTGGTGATG
CTGTGGCTGAGCTGCTCCACCCTGGTGACCGCGCCTGGCCAGCACCTCAAGTTCCAGCCTCTGACCCTGGAGCAG
CACAAGGGCTTCATGATGGAGCCCGATTGGCCCCTGTACCCGCCGCCGTCCCACGCCTGTGAGGACAGCCTACCA
CCCTACAAGCTGAAGCTGGACCTGACCAAGCTG**TAG**GCCTCCACTGGCCCCATCACTGCCAACTGCAGGGGGCCC
CTCGGGCCTCACTTGCCCTGAGCCCAGGAGTCCAAGGGCAGGGTGGGTCCAGCCTTGAGCCCCTCCACCCCCAAA
TCCTTCCTCTCCTCCCAGTCCCACCCCTTGCCCCACGGAGTCCTGGGGACGCAGTGCCCCAGCTGGGAAGAGGGC
GGGATCGGGCACTGGTTCCTCCTTGTCCCCGCTTTCTTGGGGGCTTGCTACTTTTTGTCTTCTATTGTGTGGCTT
TCTGAGTATTTGAACCCCAGTCCTGTGTCACCTTCCTTTTTCCTTCTATGTCCCCTCTCTGCGGGGGGGGCGCTG
AGGCTGAGGGGGAGCTGCGTCTTGCTAGGGCTTCCCCCTTCTCCCCATCCCGGTCTCCAGAGACCCAGCTTCTGA
GAGACAGGGTGTGGGCATCTCCATGCCCCTATAAAGCGTGCCTGGGGCTTGTCTGGGGCTGG

FIGURE 3671

CAGCACGGCCGACAAGAACGGGGCCCTCAAGTGCACCTTCTCGGCACCCAGCCACAGCACCAGCCTCCTGCAGGG
CCTGGCCACCCTCCGCGCTCAGGGCCAGCTCCTCGATGTTGTGCTGACTATTAACAGAGAGGCCTTTCCTGCACA
CAAGGTCGTCCTGGCTGCCTGCAGCGACTACTTCAGGGCC**ATG**TTCACCGGCGGCATGCGGGAGGCAAGCCAGGA
CGTCATCGAGCTGAAGGGCGTGTCGGCCCGTGGCCTGCGGCACATCATCGACTTCGCCTACAGCGCCGAGGTGAC
ACTGGACCTGGACTGCGTGCAGGACGTGCTGGGCGCGGCCGTGTTCTTGCAGATGCTGCCCGTGGTGGAGCTGTG
CGAGGAGTTCCTGAAGGCGGCCATGAGCGTGGAGACCTGCCTCAACATCGGCCAGATGGCCACCACCTTCAGCCT
GGCCTCGCTGCGAGAGTCGGTGGATGCCTTCACCTTCCGGCACTTCCTGCAGATCGCCGAGGAGGAGGATTTCCT
GCGCCTGCCACTGGAGCGCCTGGTCTTCTTCCTGCAGAGCAACCGGCTGCAGAGCTGTGCCGAGATCGACCTGTT
CCGCGCGGCCGTCCGCTGGCTGCAGCATGACCCGGCCCGGCGGCCGCGCGCCAGCCACGTGCTCTGCCACATTCG
CTTCCCGCTCATGCAGTCGTCCGAGCTGGTGGACAGCGTGCAGACGCTGGACATCATGGTGGAGGACGTGCTGTG
CCGCCAGTATCTGCTGGAGGCCTTCAACTACCAGGTGCTGCCCTTCCGGCAGCACGAGATGCAGTCTCCGCGCAC
CGCCGTGCGCTCGGATGTGCCCTCGCTCGTCACCTTCGGCGGCACGCCCTACACCGACAGCGACCGCTCGGTCAG
CAGCAAGGTCTACCAGCTGCCTGAGCCGGGAGCCCGCCACTTCCGCGAGCTCACGGAGATGGAGGTAGGCTGCAG
CCACACGTGCGTGGCCGTGCTGGACAATTTTGTGTACGTGGCCGGGGGGCAGCACCTGCAGTACCGCAGCGGCGA
GGGCGCAGTGGACGCCTGCTACCGCTACGACCCCCACCTGAATCGCTGGCTGCGCCTGCAGGCCATGCAGGAAAG
CCGCATCCAGTTCCAGCTGAACGTGCTGTGCGGCATGGTGTACGCCACGGGCGGCCGCAACCGAGCCGGCAGCCT
GGCCTCCGTGGAGCGGTACTGCCCCCGGCGCAATGAGTGGGGCTACGCCTGCTCGCTGAAGCGCCGTACCTGGGG
CCATGCTGGGGCCGCCTCAGGGGGCCGCCTCTACATCTCGGGTGGCTACGGGATCTCAGTGGAGGACAAGAAGGC
CCTGCACTGCTACGACCCCGTGGCCGACCAGTGGGAGTTCAAGGCGCCCATGAGCGAACCCCGCGTGCTACACGC
CATGGTGGGTGCCGGCGGCCGCATCTATGCCCTCGGGGGCCGCATGGACCACGTGGACCGCTGCTTCGACGTGCT
GGCTGTGGAGTACTATGTGCCGGAGACGGACCAGTGGACCAGCGTGAGCCCCATGCGGGCCGGCCAGTCAGAGGC
CGGCTGCTGCCTGCTGGAGAGGAAGATCTACATCGTCGGGGGCTACAACTGGCGTCTCAACAACGTCACGGGCAT
CGTACAGGTGTACAACACGGACACCGACGAGTGGGAGCGGGACCTGCACTTCCCGGAGTCCTTCGCAGGCATAGC
CTGCGCCCCCGTCCTGCTGCCCCGGGCCGGGACCAGGAGG**TAG**CCCCCAAGACCCCCGGGACCCTGGCCTGACCG
CATGTTGTCTCCAAGTGGGGCTTGGCGAATGCACGTCTGCCTGAGAACCCCAGTGCCCCCCTTCGCCCGGGCTGC
CCTTGAGGGGCCTGCTGCGTTGATAAGCCCCCCTCCCAGGGGTCCCTCCCTCCCTCCTTCCCAAAGCAGATCCTG
GCTGCGAGTCCATCCGAGGGAGCCTGCCGGCAAAGCGTCTGACATGTGGTGGCAGCAAATTCGTCCCCGGGGTGG
TTTCCTCGCCTGGCCCCCGAGTCCCCACGGGCTGGCGGGTGGAATCCCAGGTCTCCAGGGGGTCCCTGTGCAGCT
CCATCTCACTTCTCTACTGCCTCCCAGCCCCACGGTTTCAGGCATTCAGATGTGAGCTCATCAACATTGAACCCA
AAGTCGGTGGTATATGACTCACCCTCCTTCCAAGTCTCCTGCGCGCGTGTTTTTAAAATAAACTCACCCGAAACG
TCCGTAACACACGGACCTCCAGGAGCAGTGAGAGGTGGCTTAGAAGCCCCTGGTTTGGGGTGGGTGGAGGAGGAG
GGCACGTGTCTGCCTCCCCTGGGGTGCCCTCCTTCCCCCATCCCAAGCTGCTGAGGGGAGGCCCTGGTCATGCCT
CAGTTCCTGCCTTCATCTGCTTTCCGGAGGAAAAACCATATCAACTCCTAGAAACGCTCCTTAGGGGCTTGGGAC
CTTCCATTTGGCACTGAGCATCTTGTGGGGCCTTAACTGGCTGAGACATCCCGGCCCTCTACATTTGCCCTGTTG
GCCAGGCAGTCCCCTTCCCGCAATTGGAGGGCGACGCTAACTTCAGAATCCCATAGTGGCGCTTGCCGCAGGTCT
GGTGGGGTGTCTTTTTTCTCCTCCCTCCTTTCCACCCCTCCGCGCCCTGCCACTCCCTGGCCTGCCCTGTTTTTG
GGTCAACATTGCTACGGAGCCAGCAGTGAGGCCTTTCCCTTCAAGGGCTCTGTGGTATCTCTGGCCACATTTGTT
CTAATGTCTGAACCTCTAAATCTTTTCTTTTTGATTGGTTTTACTGTTTTTAAGAAGCCAGCACTGCTGTCTCAT
AGATGGGATTTGTACTCTTGGGGCAACTTAAAGTGTCTCTCTCGCTGCTAACAGACGATTGATGTCTTGTCTCTG
TGACCCACTCACCATGTAAAGAATTAACCTCCTATCTTAGCAGACATCGTCTCCTAATATTTCCCTTTATTTAAT
AAAAATGTTATGGTG

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FIGURE 3672

CCAGCCGGCGCTTGCGCGGTGGCACGGGCGAGTGGGGGGGCGAGGAGGTGGAGGAGGAGGAGGAGGAGGAGG
TGGCGGCGAGAAG**ATG**GCGACTTCGAACAATCCGCGGAAATTCAGCGAGAAGATCGCGCTGCACAATCAGAAGCA
GGCGGAGGAGACGGCGGCCTTCGAGGAGGTCATGAAGGACCTGAGCCTGACGCGGGCCGCGCGGCTCCAGCTCCA
GAAATCCCAGTACCTGCAACTGGGCCCCAGCCGAGGCCAGTACTATGGCGGGTCCCTGCCCAACGTGAACCAGAT
CGGGAGTGGCACCATGGACCTGCCCTTCCAGACCCCCTTCCAATCCTCGGGCCTGGACACCAGCCGGACCACCCG
GCACCATGGGCTGGTGGACAGGGTGTACCGGGAGCGTGGCCGGCTCGGCTCCCCACACCGCCGGCCCCTGTCAGT
GGACAAACACGGACGGCAGGCCGACAGCTGCCCCTATGGCACCATGTACCTCTCACCACCCGCGGACACCAGCTG
GAGAAGGACCAATTCTGACTCCGCCCTGCACCAGAGCACAATGACGCCCACGCAGCCAGAATCCTTTAGCAGTGG
GTCCCAGGACGTGCACCAGAAAAGAGTCTTACTGTTAACAGTCCCAGGAATGGAAGAGACCACATCAGAGGCAGA
CAAAAACCTTTCCAAGCAAGCATGGGACACCAAGAAGACGGGGTCCAGGCCCAAGTCCTGTGAGGTCCCCGGAAT
CAACATCTTCCCGTCTGCCGACCAGGAAAACACTACAGCCCTGATCCCCGCCACCCACAACACAGGGGGGTCCCT
GCCCGACCTGACCAACATCCACTTCCCCTCCCCGCTCCCGACCCCGCTGGACCCCGAGGAGCCCACCTTCCCTGC
ACTGAGCAGCTCCAGCAGCACCGGCAACCTCGCGGCCAACCTGACGCACCTGGGCATCGGTGGCGCCGGCCAGGG
AATGAGCACACCTGGCTCCTCTCCACAGCACCGCCCAGCTGGCGTCAGCCCCCTGTCCCTGAGCACAGAGGCAAG
GCGTCAGCAGGCATCGCCCACCCTGTCCCCGCTGTCACCCATCACTCAGGCTGTAGCCATGGACGCCCTGTCTCT
GGAGCAGCAGCTGCCCTACGCCTTCTTCACCCAGGCGGGCTCCCAGCAGCCACCGCCGCAGCCCCAGCCCCCGCC
GCCTCCTCCACCCGCGTCCCAGCAGCCACCACCCCCGCCACCCCCACAGGCGCCCGTCCGCCTGCCCCCTGGTGG
CCCCCTGTTGCCCAGCGCCAGCCTGACTCGTGGGCCACAGCCGCCCCCGCTTGCAGTCACGGTACCGTCCTCTCT
CCCCCAGTCCCCCCCAGAGAACCCTGGCCAGCCATCGATGGGGATCGACATCGCCTCGGCGCCGGCTCTGCAGCA
GTACCGCACTAGCGCCGGCTCCCCGGCCAACCAGTCTCCCACCTCGCCAGTCTCCAATCAAGGCTTCTCCCCAGG
GAGCTCCCCGCAACTGGAGCAGTTCAACATGATGGAGAACGCCATCAGCTCCAGCAGCCTGTACAGCCCGGGCTC
CACACTCAACTACTCGCAGGCGGCCATGATGGGCCTCACGGGCAGCCACGGGAGCCTGCCGGACTCGCAGCAACT
GGGATACGCCAGCCACAGTGGCATCCCCAACATCATCCTCACAGTGACAGGAGAGTCCCCCCCCAGCCTCTCTAA
AGAACTGACCAGCCACCGAGGACACCTTCCGGATGGACCGCCTGTGAGCGGGCACGCCGGCACCCTGCCGCTCAG
CCGTCCCGACGGCGCCTCCCCAGCCCGGGGACGGCCGTGCTCCGTCCCTCGCCAACGGCCGAGCTTG**TGA**TTCTG
AGCTTGCAATGCCGCCAAGCGCCCCCCGCCAGCCCGCCCCCGGTTGTCCACCTCCCGCGAAGCCCAATCGCGAGG
CCGCGAGCCGGGCCGTCCACCCACCCGCCCGCCCAGGGCTGGGCTGGGATCGGAGGCCGTGAGCCTCCCGCCCCT
GCAGACCCTCCCTGCACTGGCTCCCTCGCCCCCAGCCCCGGGGCCTGAGCCGTCCCCTGTAAGATGCGGGAAGTG
TCAGCTCCCGGCGTGGCGGGCAGGCTCAGGGGAGGGGCGCGCATGGTCCGCCAGGGCTGTGGGCCGTGGCGCATT
TTCCGACTGTTTGTCCAGCTCTCACTGCCTTCCTTGGTTCCCGGTCCCCCAGCCCATCCGCCATCCCCAGCCCGT
GGTCAGGTAGAGAGTGAGCCCCACGCCGCCCCAGGGAGGAGGCGCCAGAGCGCGGGGCAGACGCAAAGTGAAATA
AACACTATTTTGACGGC

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FIGURE 3673

CACCCAGCTCCCCGCCACCGCC**ATG**GTCCCCGACACCGCCTGCGTTCTTCTGCTCACCCTGGCTGCCCTCGGCGC
GTCCGGACAGGGCCAGAGCCCGTTGGGCTCAGACCTGGGCCCGCAGATGCTTCGGGAACTGCAGGAAACCAACGC
GGCGCTGCAGGACGTGCGGGAGCTGCTGCGGCAGCAGGTCAGGGAGATCACGTTCCTGAAAAACACGGTGATGGA
GTGTGACGCGTGCGGGATGCAGCAGTCAGTACGCACCGGCCTACCCAGCGTGCGGCCCCTGCTCCACTGCGCGCC
CGGCTTCTGCTTCCCCGGCGTGGCCTGCATCCAGACGGAGAGCGGCGCGCGCTGCGGCCCCTGCCCCGCGGGCTT
CACGGGCAACGGCTCGCACTGCACCGACGTCAACGAGTGCAACGCCCACCCCTGCTTCCCCCGAGTCCGCTGTAT
CAACACCAGCCCGGGGTTCCGCTGCGAGGCTTGCCCGCCGGGGTACAGCGGCCCCACCCACCAGGGCGTGGGGCT
GGCTTTCGCCAAGGCCAACAAGCAGGTTTGCACGGACATCAACGAGTGTGAGACCGGGCAACATAACTGCGTCCC
CAACTCCGTGTGCATCAACACCCGGGGCTCCTTCCAGTGCGGCCCGTGCCAGCCCGGCTTCGTGGGCGACCAGGC
GTCCGGCTGCCAGCGGCGCGCACAGCGCTTCTGCCCCGACGGCTCGCCCAGCGAGTGCCACGAGCATGCAGACTG
CGTCCTAGAGCGCGATGGCTCGCGGTCGTGCGTGGCTGGGCCGGCAACGGGATCCTCTGTGGTCGCGACACTGAC
C**TAG**ACGGCTTCCCGGACGAGAAGCTGCGCTGCCCGGAGCGCCAGTGCCGTAAGGACAACTGCGTGACTGTGCCC
AACTCAGGGCAGGAGGATGTGGACCGCGATGGCATCGGAGACGCCTGCGATCCGGATGCCGACGGGGACGGGGTC
CCCAATGAAAAGGACAACTGCCCGCTGGTGCGGAACCCAGACCAGCGCAACACGGACGAGGACAAGTGGGGCGAT
GCGTGCGACAACTGCCGGTCCCAGAAGAACGACGACCAAAAGGACACAGACCAGGACGGCCGGGGCGATGCGTGC
GACGACGACATCGACGGCGACCGGATCCGCAACCAGGCCGACAACTGCCCTAGGGTACCCAACTCAGACCAGAAG
GACAGTGATGGCGATGGTATAGGGGATGCCTGTGACAACTGTCCCCAGAAGAGCAACCCGGATCAGGCGGATGTG
GACCACGACTTTGTGGGAGATGCTTGTGACAGCGATCAAGACCAGGATGGAGACGGACATCAGGACTCTCGGGAC
AACTGTCCCACGGTGCCTAACAGTGCCCAGGAGGACTCAGACCACGATGGCCAGGGTGATGCCTGCGACGACGAC
GACGACAATGACGGAGTCCCTGACAGTCGGGACAACTGCCGCCTGGTGCCTAACCCCGGCCAGGAGGACGCGGAC
AGGGACGGCGTGGGCGACGTGTGCCAGGACGACTTTGATGCAGACAAGGTGGTAGACAAGATCGACGTGTGTCCG
GAGAACGCTGAAGTCACGCTCACCGACTTCAGGGCCTTCCAGACAGTCGTGCTGGACCCGGAGGGTGACGCGCAG
ATTGACCCCAACTGGGTGGTGCTCAACCAGGGAAGGGAGATCGTGCAGACAATGAACAGCGACCCAGGCCTGGCT
GTGGGTTACACTGCCTTCAATGGCGTGGACTTCGAGGGCACGTTCCATGTGAACACGGTCACGGATGACGACTAT
GCGGGCTTCATCTTTGGCTACCAGGACAGCTCCAGCTTCTACGTGGTCATGTGGAAGCAGATGGAGCAAACGTAT
TGGCAGGCGAACCCCTTCCGTGCTGTGGCCGAGCCTGGCATCCAACTCAAGGCTGTGAAGTCTTCCACAGGCCCC
GGGGAACAGCTGCGGAACGCTCTGTGGCATACAGGAGACACAGAGTCCCAGGTGCGGCTGCTGTGGAAGGACCCG
CGAAACGTGGGTTGGAAGGACAAGAAGTCCTATCGTTGGTTCCTGCAGCACCGGCCCCAAGTGGGCTACATCAGG
GTGCGATTCTATGAGGGCCCTGAGCTGGTGGCCGACAGCAACGTGGTCTTGGACACAACCATGCGGGGTGGCCGC
CTGGGGGTCTTCTGCTTCTCCCAGGAGAACATCATCTGGGCCAACCTGCGTTACCGCTGCAATGACACCATCCCA
GAGGACTATGAGACCCATCAGCTGCGGCAAGCCTAGGGACCAGGGTGAGGACCCGCCGGATGACAGCCACCCTCA
CCGCGGCTGGATGGGGGCTCTGCACCCAGCCCCAAGGGGTGGCCGTCCTGAGGGGGAAGTGAGAAGGGCTCAGAG
AGGACAAAATAAAGTGTGTGTGCAGGG

FIGURE 3674A

AGCGGCTGGCGGCTTCGAGGGGAGCTGAGGCGCGGAGGGGCTCGGCGGCAGCGGCGGCGGCTCGGCACTGTTACC
TCTCGGTCCGGCTGGCGCCGGGGCGCGCGGTTTGGTCCTTTCCGGGCGCGCGGGGGCGACAGCGGCAGCGACCCG
AGGCCTGCGGCCTAGGCCTCAGCGCGGCGGCGGGCTCGAGTGCAGCGCGGAACCGGCCCGAGGGCCCTACCCGGA
GGCACC**ATG**AGCGTGGAGGCGTACGGGCCCAGCTCGCAGACTCTCACTTTCCTGGACACGGAGGAGGCCGAGCTG
CTTGGCGCCGACACACAGGGCTCCGAGTTCGAGTTCACCGACTTTACTCTTCCTAGCCAGACGCAGACGCCCCCC
GGCGGCCCCGGCGGCCCGGGCGGTGGCGGCGCGGGAGGCCCGGGCGGCGCGGGCGCGGGCGCTGCGGCGGGACAG
CTCGACGCGCAGGTTGGGCCCGAAGGCATCCTGCAGAACGGGGCTGTGGACGACAGTGTAGCCAAGACCAGCCAG
TTGTTGGCTGAGTTGAACTTCGAGGAAGATGAAGAAGACACCTATTACACGAAGGACCTCCCCATACACGCCTGC
AGTTACTGTGGAATACACGATCCTGCCTGCGTGGTTTACTGTAATACCAGCAAGAAGTGGTTCTGCAACGGACGT
GGAAATACTTCTGGCAGCCACATTGTAAATCACCTTGTGAGGGCAAAATGCAAAGAGGTGACCCTGCACAAGGAC
GGGCCCCTGGGGGAGACAGTCCTGGAGTGCTACAACTGCGGCTGTCGCAACGTCTTCCTCCTCGGCTTCATCCCG
GCCAAAGCTGACTCAGTGGTGGTGCTGCTGTGCAGGCAGCCCTGTGCCAGCCAGAGCAGCCTCAAGGACATCAAC
TGGGACAGCTCGCAGTGGCAGCCGCTGATCCAGGACCGCTGCTTCCTGTCCTGGCTGGTCAAGATCCCCTCCGAG
CAGGAGCAGCTGCGGGCACGCCAGATCACGGCACAGCAGATCAACAAGCTGGAGGAGCTGTGGAAGGAAAACCCT
TCTGCCACGCTGGAGGACCTGGAGAAGCCGGGGGTGGACGAGGAGCCGCAGCATGTCCTCCTGCGGTACGAGGAC
GCCTACCAGTACCAGAACATATTCGGGCCCCTGGTCAAGCTGGAGGCCGACTACGACAAGAAGCTGAAGGAGTCC
CAGACTCAAGATAACATCACTGTCAGGTGGGACCTGGGCCTTAACAAGAAGAGAATCGCCTACTTCACTTTGCCC
AAGACTGACTCTGGTAATGAGGATTTAGTCATAATTTGGTTAAGAGACATGCGGCTCATGCAGGGGGATGAGATA
TGCCTGCGGTACAAAGGGGACCTTGCGCCCCTGTGGAAAGGGATCGGCCACGTCATCAAGGTCCCTGATAATTAT
GGCGATGAGATCGCCATTGAGCTGCGGAGCAGCGTGGGTGCACCTGTGGAGGTGACTCACAACTTCCAGGTGGAT
TTTGTGTGGAAGTCGACCTCCTTTGACAGGATGCAGAGCGCATTGAAAACGTTTGCCGTGGATGAGACCTCGGTG
TCTGGCTACATCTACCACAAGCTGTTGGGCCACGAGGTGGAGGACGTAATCATCAAGTGCCAGCTGCCCAAGCGC
TTCACGGCGCAGGGCCTCCCCGACCTCAACCACTCCCAGGTTTATGCCGTGAAGACTGTGCTGCAAAGACCACTG
AGCCTGATCCAGGGCCCGCCAGGCACGGGGAAGACGGTGACGTCGGCCACCATCGTCTACCACCTGGCCCGGCAA
GGCAACGGGCCGGTGCTGGTGTGTGCTCCGAGCAACATCGCCGTGGACCAGCTAACGGAGAAGATCCACCAGACG
GGGCTAAAGGTCGTGCGCCTCTGCGCCAAGAGCCGTGAGGCCATCGACTCCCCGGTGTCTTTTCTGGCCCTGCAC
AACCAGATCAGGAACATGGACAGCATGCCTGAGCTGCAGAAGCTGCAGCAGCTGAAAGACGAGACTGGGGAGCTG
TCGTCTGCCGACGAGAAGCGGTACCGGGCCTTGAAGCGCACCGCAGAGAGAGAGCTGCTGATGAACGCAGATGTC
ATCTGCTGCACATGTGTGGGCGCCGGTGACCCGAGGCTGGCCAAGATGCAGTTCCGCTCCATTTTAATCGACGAA
AGCACCCAGGCCACCGAGCCGGAGTGCATGGTTCCCGTGGTCCTCGGGGCCAAGCAGCTGATCCTTGTAGGCGAC
CACTGCCAGCTGGGCCCAGTGGTGATGTGCAAGAAGGCGGCCAAGGCCGGGCTGTCACAGTCGCTCTTCGAGCGC
CTGGTGGTGCTGGGCATCCGGCCCATCCGCCTGCAGGTCCAGTACCGGATGCACCCTGCACTCAGCGCCTTCCCA
TCCAACATCTTCTACGAGGGCTCCCTCCAGAATGGTGTCACTGCAGCGGATCGTGTGAAGAAGGGATTTGACTTC
CAGTGGCCCCAACCCGATAAACCGATGTTCTTCTACGTGACCCAGGGCCAAGAGGAGATTGCCAGCTCGGGCACC
TCCTACCTGAACAGGACCGAGGCTGCGAACGTGGAGAAGATCACCACGAAGTTGCTGAAGGCAGGCGCCAAGCCG
GACCAGATTGGCATCATCACGCCCTACGAGGGCCAGCGCTCCTACCTGGTGCAGTACATGCAGTTCAGCGGCTCC
CTGCACACCAAGCTCTACCAGGAGGTGGAGATCGCCAGTGTGGACGCCTTTCAGGGACGCGAGAAGGACTTCATC
ATCCTGTCCTGTGTGCGGGCCAACGAGCACCAAGGCATTGGCTTTTTAAATGACCCCAGGCGTCTGAACGTGGCC
CTGACCAGAGCAAGGTATGGCGTCATCATTGTGGGCAACCCGAAGGCACTATCAAAGCAGCCGCTCTGGAACCAC
CTGCTGAACTACTATAAGGAGCAGAAGGTGCTGGTGGAGGGGCCGCTCAACAACCTGCGTGAGAGCCTCATGCAG
TTCAGCAAGCCACGGAAGCTGGTCAACACTATCAACCCGGGAGCCCGCTTCATGACCACAGCCATGTATGATGCC
CGGGAGGCCATCATCCCAGGCTCCGTCTATGATCGGAGCAGCCAGGGCCGGCCTTCCAGCATGTACTTCCAGACC
CATGACCAGATTGGCATGATCAGTGCCGGCCCTAGCCACGTGGCTGCCATGAACATTCCCATCCCCTTCAACCTG
GTCATGCCACCCATGCCACCGCCTGGCTATTTTGGACAAGCCAACGGGCCTGCTGCAGGGCGAGGCACCCCGAAA
GGCAAGACTGGTCGTGGGGGACGCCAGAAGAACCGCTTTGGGCTTCCTGGACCCAGCCAGACTAACCTCCCCAAC
AGCCAAGCCAGCCAGGATGTGGCGTCACAGCCCTTCTCTCAGGGCGCCCTGACGCAGGGCTACATCTCCATGAGC
CAGCCTTCCCAGATGAGCCAGCCCGGCCTCTCCCAGCCGGAGCTGTCCCAGGACAGTTACCTTGGTGACGAGTTT
AAATCACAAATCGACGTGGCGCTCTCACAGGACTCCACGTACCAGGGAGAGCGGGCTTACCAGCATGGCGGGGTG

FIGURE 3674B

ACGGGGCTGTCCCAGTAT**TAA**AAGGTGGCGGCGGAAGAGCTAAGCAACGTGGCTTAGTCCATCAGCATCTTATTC
TGGGTAATAAAAAATAAAAATAAACGGATACCTGTTTTCCACTGCTAAAACTGAAGCACCACTGTGTGAGCAACA
GGAAGGGAGAGCGCACGAGGGAGAGGAGCCGAGGCCGAGCGCCCCCTGCTGGCCCGCGGCGGCGAGGAGCAGAGG
GAGCGGAGGAGGGGCCGGCCCGCGGGAGCCGCGGCCACCAGGAGGCCCCGCTCCGTCCCATCGGGGCTGCGGCCA
GGGCGGAGGGAGGAAGACCCTCATCTCAGAGTAGCCCTTTCCTCTGTTCTTTTATTTCTTTTTCTCTTTGATTGA
AAGGGGACTACGTCTTAGCAGGAAAAAAAACTTCGCATTTCTGTGCCCGAGCAGGCTCCTTGCAAAGACAGCAGC
GTGCGGGGCAGAGCCCCGGGAGGGCGCGTCTGTCCACGCCTACCGGACGCGCCGAGGTCGCGCTGCCTGTGTTCT
CCGAGGGCCTTCATTTAAAGAAAATAAGGGTGTTTTGGGTTTTTCTCTTTGTTTTTTTCAAGATTCTTTTAAAGG
AGTACTGAAGAATACTTTCCTAAGTTTGTCTGTAAAATCTTAGCGGTGGACCTGGGAGATTTGAGAAGCTTCCAG
AAACAGTTTAAACAAGCCAGCGCTACTGGAGAAGAGGAGCAACACCTGTGCCGCGGCCGGAGGAGTTTTGTTGTT
GGTTTTAGCTTCCAGTGGCTTCTTTCTGCGGGGCATCAGGCTGCTGGGGTAGCCGCCCGCCGAGCCTGGAAGCTG
CTCGTTCTCCGCTGGACTCAGAAGCCAAGCTGCTTCCCGCCTAGACTCGGCGCAGGGCCCCGCACCGGTGAGGAA
GGTGCTTTTGGCCCCATTGCGAGGGGCCTTGGCCAGGACTGGCCCTGTGGCCAGGAGGCGAGAAGGTGGCTGTTC
CCGGATTGACGGCTTTTTCCCGGGGGCCTTTGGAAGATTTGGTGGAAGGACAAGAGGGCCTGTCCCTGTCCCCGT
CCCCAGGAGGTACCGACAGTCCCTGTGCTGGTTAGACACGGAGCGCTGCACACCGAAAGCCCAAATTGGGAGCTC
TGCCTGCCGGCAACTTTGCTGATGGGGTGATTGCTGCTTCTGGGGGGTAAGGAAACAAGTTACAGAAATTACCGC
GTTCTGTGTGAAGGGACTGAGGGTGTGGTGTCATTGGCAGAGGGTCATTTTAGGAGAGCTGCCCCAGCCCCTCGA
ACGCCTGGCTTGGGGTGTCATTCTGCCTGGCGGCCAGGCCTCCAGCTTCCCCTGCCCCGGGCCTGGGGCTGTCAC
TGGCCCTGATCCGAACACCTCCAGATTCCGGCTTCTACATGGGACAGACGGGGACGCACAGGCCACCTTCCTTCT
GGCAGGGACTCTTATTTATTCCCATTGCTCTAGGGCTTTCGGTTTCCCCTTCTTCCGGTAGGCCGCGTAGAGGCA
TGCACCGGGTAGGTTTCCGCGGTGACCCCGCGGCGGCCTGAGGGACGCTCCCTGCCCCATCCCGGCTGTTGGGCT
GGGCCGCTTTGCCTCTGCTTCGCCCTGTGCTGTGTTCTCCAGCTTTGTAGCAGCAGCCTTGACAAACCCAGGCGC
ACTGTACCAAGGCAATGTAACTTTTGATTTTCGGTCAATTTAAGTTCTTTTGTCACCAAATATTAATAAACAGTT
TTGACTTC

FIGURE 3675

ACGCGGGGCGCGCGGCTCCGTCGGCTACCGCGGGCGGGCGCAGGCGACGGGCACGGCGGGCGAGCGGGCGGT**ATG**

GCGGCGGCGGGGCCCGCGGCGGGGCCGACGGGGCCCGAGCCCATGCCGAGCTACGCGCAGCTAGTGCAGCGCGGC
TGGGGCAGCGCGCTGGCGGCGGCGCGGGGCTGCACGGACTGCGGCTGGGGGCTGGCGCGTCGCGGCCTGGCTGAG
CACGCGCACCTGGCGCCGCCCGAGCTGCTGCTGCTGGCGCTCGGCGCGCTGGGCTGGACCGCCCTGCGCTCCGCG
GCCACTGCGCGCCTCTTTCGGCCCCTGGCGAAGCGGTGCTGCCTCCAGCCCAGAGATGCCGCCAAGATGCCCGAG
AGCGCTTGGAAGTTTCTCTTCTACCTGGGCAGCTGGAGCTACAGTGCCTACCTGCTGTTTGGCACCGACTACCCC
TTCTTCCATGACCCACCATCTGTCTTCTACGACTGGACGCCGGGCATGGCAGTGCCACGGGACATTGCAGCCGCC
TACCTGCTCCAGGGAAGCTTCTATGGCCACTCCATCTACGCTACGCTATACATGGACACCTGGCGCAAGGACTCG
GTGGTCATGCTGCTCCACCACGTGGTCACTCTCATCCTCATCGTCTCCTCCTACGCCTTCCGGTACCACAATGTG
GGCATCCTTGTGCTCTTCCTGCACGATATCAGTGACGTGCAGCTTGAGTTCACCAAGCTCAACATTTACTTCAAG
TCCCGCGGCGGCTCCTACCATCGGCTGCATGCCTTGGCAGCAGACTTGGGCTGCCTCAGCTTCGGCTTCAGCTGG
TTCTGGTTCCGCCTCTACTGGTTCCCGCTCAAGGTCCTGTATGCCACCAGTCACTGCAGTCTGCGCACGGTGCCT
GACATCCCCTTCTACTTCTTCTTCAATGCGCTCCTGCTGCTGCTCACCCTTATGAACCTCTACTGGTTCCTGTAC
ATCGTGGCGTTTGCAGCCAAGGTGTTGACAGGCCAGGTGCACGAGCTGAAGGACCTGCGGGAGTATGACACAGCC
GAGGCCCAGAGCCTGAAGCCCAGCAAAGCCGAGAAGCCACTGAGGAACGGCCTGGTGAAGGACAAGCGCTTC**TGA**

ACCCCTCGGCCCCGCCCCCGTGGACCCGGCCCCACCCCGAATACCCCGGCCACGCTCCCCGTCCTTGGCCGCCCC
TCCACCCCCTCCAACTCTGCTCCTCTAGGGCCGCCGCCACCTCCCCTGGGACCCCGCCCCCTCATCCTGCCTCCA
GTTCCCGGCCACGCCCCCCAGGACCCCTGCCCCTCCGGGGACACCGGCCCCGCCCTCAGCCCACTGGTCCCGGGC
CGCCGCGGACCCTGCGCACTCTCTGGTCATCGCCTGGGAGGAAGATGCCACCGCCGCAGCAAGGTCCCTGCGGCC
ACCACCTCCTCCTCCTCCTGGCCCTGCTGCTGCCCTCGCTGCCCCTGACCCGCGCCCCCGTGCCCCCAGGCCCAG
CCGCCGCCCTGCTCCAGGCTCTAGGACTGCGCGATGAGCCCCAGGGTGCCCCCAGGCTCCGGCCGGTTCCCCCGG
TCATGTGGCGCCTGTTTCGACGCCGGGACCCCCAGGAGACCAGGTCTGGCTCGCGGCGGACGTCCCCAGGGGTCA
CCCTGCAACCGTGCCACGTGGAGGAGCTGGGGGTCGCCGGAAACATCGTGCGCCACATCCCGGACCGCGGTGCGC
CCACCCGGGCCTCGGAGCCTGCCTCGGCCGCGGGGCATTGCCCTGAGTGGACAGTCGTCTTCGACCTGTCGGCTG
TGGAACCCGCTGAGCGCCCGAGCCGGGCCCGCCTGGAGCTGCGTTTCGCGGCGGCGGCGGCGGCAGCCCCGGAGG
GCGGCTGGGAGCTGAGCGTGGCGCAAGCGGGCCAGGGCGCGGGCGCGGACCCCGGGCCGGTGCTGCTCCGCCAGT
TGGTGCCCGCCCTGGGGCCGCCAGTGCGCGCGGAGCTGCTGGGCGCCGCTTGGGCTCGCAACGCCTCATGGCCGC
GCAGCCTCCGCCTGGCGCTGGCGCTACGCCCCCGGGCCCCTGCCGCCTGCGCGCGCCTGGCCGAGGCCTCGCTGC
TGCTGGTGACCCTCGACCCGCGCCTGTGCCACCCCCTGGCCCGGCCGCGGCGCGACGCCGAACCCGTGTTGGGCG
GCGGCCCCGGGGGCGCTTGTCGCGCGCGGCGGCTGTACGTGAGCTTCCGCGAGGTGGGCTGGCACCGCTGGGTCA
TCGCGCCGCGCGGCTTCCTGGCCAACTACTGCCAGGGTCAGTGCGCGCTGCCCGTCGCGCTGTCGGGGTCCGGGG
GGCCGCCGGCGCTCAACCACGCTGTGCTGCGCGCGCTCATGCACGCGGCCGCCCCGGGAGCCGCCGACCTGCCCT
GCTGCGTGCCCGCGCGCCTGTCGCCCATCTCCGTGCTCTTCTTTGACAACAGCGACAACGTGGTGCTGCGGCAGT
ATGAGGACATGGTGGTGGACGAGTGCGGCTGCCGCTAACCCGGGGCGGGCAGGGACGCGGGCCCAACAATAAATG
CCGCGTGGTCTGCTC

FIGURE 3676

GGAAGAGGAGCTGGTGAGAAGACAGCGAA**ATG**GCGCCTCCGGCCCCCGGCCCGGCCTCCGGCGGCTCCGGGGAGG
TAGACGAGCTGTTCGACGTAAAGAACGCCTTCTACATCGGCAGCTACCAGCAGTGCATAAACGAGGCGCAGCGGG
TGAAGCTATCAAGCCCAGAGAGAGACGTGGAGAGGGACGTCTTCCTGTATAGAGCGTACCTGGCGCAGAGGAAGT
TCGGTGTGGTCCTGGATGAGATCAAGCCCTCCTCGGCCCCTGAGCTCCAGGCCGTGCGCATGTTTGCTGACTACC
TCGCCCACGAGAGTCGGAGGGACAGCATCGTGGCCGAGCTGGACCGAGAGATGAGCAGGAGCGTGGACGTGACCA
ACACCACCTTCCTGCTCATGGCCGCCTCCATCTATCTCCACGACCAGAACCCGGATGCCGCCCTGCGTGCGCTGC
ACCAGGGGGACAGCCTGGAGTGCACAGCCATGACAGTGCAGATCCTGCTGAAGCTGGACCGCCTGGACCTCGCCC
GGAAGGAGCTGAAGAGAATGCAGGACCTGGACGAGGATGCCACCCTCACCCAGCTCGCCACTGCCTGGGTCAGCC
TGGCCACGGGTGGTGAGAAGCTGCAGGATGCCTACTACATCTTCCAGGAGATGGCTGACAAGTGCTCGCCCACCC
TGCTGCTGCTCAATGGGCAGGCGGCCTGCCACATGGCCCAGGGCCGCTGGGAGGCCGCTGAGGGCCTGCTGCAGG
AGGCGCTAGACAAGGATAGTGGCTACCCAGAGACGCTGGTCAACCTCATCGTCCTGTCCCAGCACCTGGGCAAGC
CCCCTGAGGTGACAAACCGATACCTGTCCCAGCTGAAGGATGCCCACAGGTCCCATCCCTTCATCAAGGAGTACC
AGGCCAAGGAGAACGACTTTGACAGGCTGGTGCTACAGTACGCTCCCAGCGCC**TGA**GGCTGGCCCAGAGCTGTCA
GGACCATGAAGCCAGGACAGAGGCCAGGAGCCAGCCCTGCAGCCCTCCCCACCCGGCATCCACCTGCATCCCCTC
TGGGGGCAGGAGCCCACCCCCAGCACCCCCATCTGTTAATAAATATCTCAACTCC

FIGURE 3677

ACAAGCGGCCACAAGG**ATG**GCAGGCTTCGCGGAGCTCGGGCTGTCATCGTGGCTCGTGGAACAATGTCGGCAGCT
GGGTTTGAAGCAGCCCACGCCCGTGCAGCTCGGCTGCATCCCCGCCATCCTGGAGGGTCGAGACTGCTTGGGCTG
TGCTAAGACAGGCAGTGGGAAGACAGCAGCGTTTGTCCTTCCCATCTTGCAGAAGCTGTCTGAGGATCCCTATGG
CATCTTCTGCCTCGTCCTGACACCCACCAGGGAGCTGGCCTACCAGATCGCAGAGCAGTTCCGGGTCCTGGGGAA
GCCTCTAGGGCTGAAAGACTGCATCATCGTCGGTGGCATGGACATGGTGGCCCAGGCGCTGGAGCTCTCTCGGAA
ACCACACGTGGTCATCGCCACGCCGGGGCGCCTGGCAGATCACCTGCGCAGCTCCAACACTTTTAGTATAAAGAA
GATCCGCTTCCTGGTGATGGATGAGGCAGACCGGCTGCTGGAACAGGGCTGCACTGACTTCACCGTGGACCTGGA
GGCCATCCTGGCGGCTGTGCCGGCCCGCAGGCAGACACTGCTGTTCAGCGCCACGCTGACCGACACACTCCGGGA
GCTGCAGGGTCTGGCCACCAACCAGCCCTTCTTCTGGGAAGCACAGGCCCCGGTGAGCACCGTGGAGCAGCTGGA
CCAGCGCTACCTGCTGGTGCCTGAGAAGGTCAAGGACGCCTACCTGGTCCACCTGATCCAGCGCTTCCAGGATGA
GCACGAGGACTGGTCCATTATCATCTTCACCAACACGTGCAAGACCTGCCAGATTCTGTGCATGATGCTGCGCAA
ATTCAGCTTCCCCACCGTGGCTCTGCACTCCATGATGAAGCAGAAAGAACGCTTTGCCGCCCTAGCCAAGTTCAA
GTCCAGCATCTACCGGATCCTGATCGCAACAGACGTGGCCTCCCGGGGCCTGGACATCCCTACGGTACAGGTGGT
CATCAACCACAACACCCCCGGGCTCCCCAAGATCTACATCCACCGAGTCGGCCGGACGGCCCGTGCAGGGCGGCA
GGGTCAGGCCATCACGCTGGTGACACAGTACGACATCCACCTGGTGCACGCCATCGAGGAGCAGATCAAGAAGAA
GCTGGAGGAGTTCTCCGTGGAAGAGGCCGAGGTGCTACAGATCCTCACACAGGTCAACGTGGTGCGAAGAGAGTG
TGAGATCAAACTGGAGGCGGCCCACTTTGACGAAAAGAAGGAGATCAACAAACGGAAGCAGCTGATCCTGGAGGG
GAAGGACCCTGACCTGGAGGCCAAGCGCAAGGCTGAGCTGGCCAAGATCAAGCAGAAGAACCGGCGCTTCAAGGA
GAAGGTGGAGGAGACGCTGAAGCGACAGAAGGCTGGCAGGGCTGGCCACAAGGGGCGTCCACCCAGGACACCGTC
TGGGTCCCACTCAGGCCCAGTCCCCTCCCAGGGCCTGGTC**TGA**GCCCCACACGGCCATCTGCCCAGTCCTTGACT
CGTCCATGGAGCTGAGGGTCGGAGGAACCTTCCTTGGGGGCAGCAGCCCTTCCCGGGGGCCTACCCAGTGCCCCA
CAGCAGAACCCGTGGGCGCTCGTGTTGTGCGGGCCCTGCTCCTCTGCCCCGAAACCACTGGCTGGTCCCTTCCCT
GAGCCCTGGCCAAGATTCAGGCTGCAGGGGAAGAAAGAACATGACCGGGAGGTTGTGACCCCAACCCAAGGTCAC
CCCCCAGGGGTGCCGCATACAGGAGGTGCTTAATAAACGGGTCTTTTGACTTCCTC

FIGURE 3678

GGCGCATGACTAGTTGGGGCCAAACCAGTGCTCCTGCCACCTCTCTGGCTGCCCCCTAGAGCCTGCCCATCCCAG
CCTGACCA**ATG**TCCACAGCCAGGGAGCAGCCAATCTTCAGCACACGGGCGCACGTGTTCCAAATTGACCCAGCCA
CCAAGCGAAACTGGATCCCAGCGGGCAAGCACGCACTCACTGTCTCCTATTTCTACGATGCCACCCGCAATGTGT
ACCGCATCATCAGCATCGGAGGCGCCAAGGCCATCATCAACAGCACTGTCACTCCCAACATGACCTTCACCAAAA
CTTCCCAGAAGTTCGGGCAGTGGGCCGACAGTCGCGCCAACACAGTCTACGGCCTGGGCTTTGCCTCTGAACAGC
ATCTGACACAGTTTGCCGAGAAGTTCCAGGAAGTGAAGGAAGCAGCCAGGCTGGCCAGGGAGAAATCTCAGGATG
GCGGGGAGCTCACCAGTCCAGCCCTGGGGCTCGCCTCCCACCAGGTGCCCCCGAGCCCTCTCGTCAGTGCCAACG
GCCCCGGCGAGGAAAAACTGTTCCGCAGCCAGAGCGCTGATGCCCCCGGCCCCACAGAGCGCGAGCGGCTAAAGA
AGATGTTGTCTGAGGGCTCCGTGGGCGAGGTACAGTGGGAGGCCGAGTTTTTCGCACTGCAGGACAGCAACAACA
AGCTGGCAGGCGCCCTGCGAGAGGCCAACGCCGCCGCAGCCCAGTGGAGGCAGCAGCTGGAGGCTCAGCGTGCAG
AGGCCGAGCGGCTGCGGCAGCGGGTGGCTGAGCTGGAGGCTCAGGCAGCTTCAGAGGTGACCCCCACCGGTGAGA
AGGAGGGGCTGGGCCAGGGCCAGTCGCTGGAACAGCTGGAAGCTCTGGTGCAAACCAAGGACCAGGAGATTCAGA
CCCTGAAGAGTCAGACTGGGGGGCCCCGCGAGGCCCTGGAGGCTGCCGAGCGTGAGGAGACTCAGCAGAAGGTGC
AGACCCGCAATGCGGAGTTGGAGCACCAGCTGCGGGCGATGGAGCGCAGCCTGGAGGAGGCACGGGCAGAGCGGG
AGCGGGCGCGGGCTGAGGTGGGCCGGGCAGCGCAGCTGCTGGACGTCAGCCTGTTTGAGCTGAGTGAGCTGCGTG
AGGGCCTGGCCCGCCTGGCTGAGGCTGCGCCC**TGA**GCCGGGGCTGGTTTTCTATGAACGATTCCGGCCTGGGATG
CGGGCCAGGCTGCAGGCGGCATAGTTGGGCCCATTCGTCCTGGAAAGGGACTGGGGGGTCCCAACTTAGCCCTGG
GTGGGCCGGGCCGGGCTGGGCTGGGGTGGGCCCCAGTCGGCTCTGGTTGTTGGCAGCTTTGGGGCTGTTTTTGAG
CTTCTCATTGTGTAGAATTTCTAGATCCCCCGATTACATTTCTAAGCGTG

FIGURE 3679A

GGTTCATTTGCATGTCCCCGCCTCGCGCGGCGGCGGCGGCGGGTGAGGAGCCTGAGGCGGCGGCGGGGGTGGCTC
CGCGCGCGGTGGTCTCGGGGGCAAAATAAC**ATG**GCAGCCAGACGAATTACACAGGAGACTTTTGATGCTGTATTA
CAAGAAAAAGCCAAACGATATCACATGGATGCCAGTGGTGAGGCTGTAAGCGAAACTCTTCAGTTTAAAGCTCAA
GATCTCTTAAGGGCAGTCCCAAGATCCAGAGCAGAGATGTATGATGACGTCCACAGCGATGGCAGATACTCCCTC
AGTGGATCTGTAGCTCACTCTAGAGATGCCGGAAGAGAAGGCCTGAGAAGTGACGTATTTCCAGGGCCTTCCTTC
AGATCAAGCAACCCTTCCATCAGTGATGACAGCTACTTTCGCAAAGAATGTGGCCGGGATCTGGAATTTTCTCAC
TCTGATTCTCGGGACCAGGTCATTGGCCACCGGAAATTGGGGCATTTCCGTTCTCAGGACTGGAAATTTGCGCTC
CGTGGTTCTTGGGAACAAGACTTTGGCCATCCAGTTTCTCAAGAGTCCTCTTGGTCACAGGAGTATAGTTTTGGT
CCCTCTGCAGTTTTGGGGGACTTTGGATCTTCCAGGCTGATTGAGAAAGAGTGTTTGGAGAAGGAGAGTCGGGAT
TATGACGTGGACCATCCTGGGGAGGCTGACTCTGTGCTTAGGGGCGGCAGTCAAGTCCAGGCCAGAGGTCGAGCT
CTAAACATCGTTGACCAGGAAGGTTCCCTCCTAGGAAAGGGGGAGACTCAGGGCCTGCTCACAGCTAAGGGGGGT
GTTGGGAAACTTGTCACATTGAGAAATGTGAGCACAAAAAAAATACCCACCGTGAATCGTATTACTCCCAAAACT
CAGGGCACTAACCAAATCCAGAAAAACACTCCAAGTCCTGATGTGACCCTGGGGACAAACCCAGGGACAGAAGAT
ATCCAGTTCCCCATTCAGAAGATCCCTCTGGGGCTGGATCTGAAGAATCTTCGGCTCCCCAGAAGAAAGATGAGC
TTTGACATCATAGATAAGTCTGATGTTTTTTCAAGATTTGGGATAGAAATAATCAAATGGGCAGGATTCCACACC
ATAAAAGATGATATTAAATTTTCCCAACTTTTCCAGACTCTCTTTGAACTTGAAACAGAAACCTGTGCTAAAATG
CTTGCCTCATTCAAATGTTCCTTAAAACCAGAGCACAGAGATTTTTGCTTTTTTACTATCAAATTTTTAAAGCAC
TCTGCTTTGAAAACACCCAGAGTTGATAATGAGTTTTTAAACATGCTTTTAGACAAAGGTGCTGTGAAGACCAAA
AATTGCTTTTTTGAAATCATAAAGCCTTTTGACAAGTACATAATGAGACTTCAAGACCGGCTTCTGAAGAGTGTC
ACACCTTTGCTTATGGCCTGCAATGCCTACGAGCTAAGTGTCAAGATGAAGACCCTCAGTAACCCCCTGGACTTG
GCTCTTGCCCTAGAAACCACCAACTCTCTCTGCCGGAAGTCTTTGGCCCTTTTGGGACAGACATTTTCCTTGGCC
TCTTCTTTCCGGCAGGAGAAAATCTTAGAAGCTGTCGGCCTGCAAGATATAGCTCCCTCACCTGCTGCGTTTCCA
AACTTCGAAGACTCCACTTTGTTTGGGCGAGAGTACATAGACCACCTGAAGGCCTGGCTAGTCAGCAGCGGATGT
CCCCTCCAGGTTAAGAAAGCCGAACCAGAGCCGATGCGAGAGGAGGAGAAAATGATTCCTCCTACGAAACCTGAA
ATTCAGGCCAAGGCTCCAAGTAGTCTGAGTGATGCTGTCCCCCAGCGAGCAGATCACAGGGTAGTGGGCACCATC
GACCAGCTTGTGAAACGTGTCATCGAAGGCAGCCTGTCTCCCAAAGAGAGAACTCTTCTCAAAGAGGACCCTGCT
TACTGGTTTTTGTCTGATGAAAATAGTCTGGAGTATAAATATTACAAGCTGAAGTTGGCAGAAATGCAGCGGATG
AGCGAGAACTTGCGAGGAGCCGACCAGAAGCCGACCTCAGCAGACTGTGCAGTGAGGGCCATGCTGTACTCCCGG
GCTGTCCGCAACCTCAAGAAGAAACTCCTTCCGTGGCAGCGGCGGGGGCTCCTCCGTGCTCAAGGGCTCCGGGGC
TGGAAGGCGAGGAGAGCGACCACCGGGACCCAGACCCTCCTATCCTCAGGCACCAGGCTGAAACACCACGGCCGG
CAGGCTCCAGGCCTCTCACAGGCAAAACCATCCCTGCCAGACAGAAATGATGCTGCCAAGGACTGCCCGCCAGAC
CCAGTTGGACCTTCTCCTCAGGACCCCAGCTTAGAAGCCTCAGGCCCATCCCCCAAGCCAGCAGGAGTGGACATC
TCTGAAGCACCTCAGACCTCTTCTCCCTGCCCATCTGCTGACATTGACATGAAGACAATGGAGACTGCAGAGAAA
CTGGCTAGATTTGTTGCTCAGGTGGGACCAGAGATCGAACAATTCAGCATAGAAAACAGCACCGATAACCCTGAC
CTGTGGTTTCTACATGACCAAAATAGTTCTGCTTTCAAATTCTATCGAAAGAAAGTGTTTGAACTATGTCCATCA
ATTTGTTTCACGTCATCTCCGCACAACCTTCACACTGGTGGTGGTGACACCACGGGTTCTCAGGAGAGCCCCGTG
GACCTCATGGAAGGGGAAGCAGAGTTTGAAGACGAGCCCCCTCCGCGGGAGGCTGAGCTGGAGAGCCCAGAGGTG
ATGCCTGAGGAGGAGGACGAGGACGATGAGGATGGGGGAGAGGAGGCCCCCGCTCCTGGAGGGGCGGGCAAGTCT
GAGGGCAGCACCCCTGCCGACGGCCTTCCCGGCGAGGCTGCCGAGGACGACCTGGCTGGAGCACCTGCCTTGTCA
CAGGCCTCCTCAGGTACCTGCTTCCCTCGGAAGAGGATCAGCAGCAAGTCATTGAAGGTTGGCATGATTCCAGCT
CCCAAGAGAGTGTGTCTCATCCAGGAGCCAAAAGTCCATGAACCAGTTCGAATTGCCTATGACAGGCCTCGGGGT
CGTCCCATGTCCAAAAAGAAGAAACCCAAGGACTTGGACTTCGCCCAGCAGAAGCTGACCGATAAGAACCTGGGC
TTCCAGATGCTGCAGAAGATGGGCTGGAAGGAGGGCCATGGCCTGGGCTCCCTCGGAAAGGGCATCAGGGAGCCG
GTCAGCGTGGGAACCCCCTCGGAAGGGGAAGGGTTGGGTGCTGACGGGCAGGAGCACAAAGAAGACACATTCGAT
GTGTTCCGACAGAGGATGATGCAGATGTACAGACACAAGCGGGCCAACAAA**TAG**ATCAAAACCACTGATGTGAAA
GATAAGCCTTGAAGCAGCAATTGCCCTTAAAACATCATCCCTGCCCTGGATCGGCCTGGAGCCAGTGCCCAAGTA
CGGTTTGGTGTGTACATGAAAACAAACGTCTCTGCAGTCTCTGGGGCGGAGGTTTCGCTGGCTTTTCTTTCTCTC
AAAGAAAAAAACATGCACCATTTTCAATGTGCTTTTGCCTCTCCTCTCTGTTCACATGCTTTTAGCAGCAAGTCC

FIGURE 3679B

CCTCCAAATCTGTCTTGGTTCCCCTTCAGAAGGTGGCGCTGCCCCCGAAAGGCACCTCAGCCTGTGAGTGCTGAG
GAACCAGCTCCTCTGGCTGATTTTCCAGTTGGACTGGCCATTGCTCTCCAGAAGTGCTCTGTTAGCAAACGTGAT
GTGGAAACGATCACAGATGGTGTTTTCTCGTTGTTCGCCAGAATTTATACGGGGGAGACAAATTCCCGGTAATTA
CCAAGTCTGCACTCGGGTACCAAAGCTCTGAAGCTCTCTGAACAGTTGCCATACTTGAGTTGATGAATGTGTTAT
TCATGGTGTCTCATCTCATCAATGCATCTTGAGAGACTTAATGAAATTTTAGCAACAGTATAGAATAGCTCTATC
GGGTGGGGAGTAATCATTAAACAGATGAAATCGGCCCCAGATTTAC

FIGURE 3680

GCAAAACATTTCCCTGCTGGGGGCGGCGACCACCGTGAGCGTCCCGGAAGGGGCGGCAAAGACGCCTCCGTCGCG
CACGAGGTGGCCTCGTTGGCTTTACCTTGGTTCGCGGTCGTCCTTGGTTATCGTGAGCGTCCGCGAGTCTCTGGG
AGGCCAAGCCTAGGGGCGCCACAGCGCCTGCGCGCGTACGGCGGCCGGAAGGGGCTAGAGGCGGCTCCCTGGGTG
ACAACCGCGCGCCCCACCTTTCCCCACGTGGCCGCGAAGACCGGCTCAGGAGCATCTATCGGCTGCACGCCAACA
TCAACACAGGCGAAG**ATG**GTCTCCAAGCGCATTGCCCAGGAGACCTTTGATGCAGCTGTGCGCGAGAACATCGAG
GAGTTTGCGATGGGGCCAGAGGAGGCAGTGAAAGAGGCCGTGGAGCAGTTTGAATCGCAAGGGGTTGATCTGAGC
AACATTGTAAAGACGGCACCTAAAGTCTCTGCAGACGGATCCCAGGAGCCCACACATGACATCCTGCAGATGCTC
AGTGACCTCCAGGAGTCTGTGGCCAGCTCTCGCCCCCAGGAGGTGTCAGCATACCTCACCCGCTTCTGCGACCAG
TGCAAACAGGACAAGGCCTGCCGCTTCCTCGCGGCCCAGAAGGGGGCCTACCCCATCATCTTCACTGCCTGGAAG
CTGGCCACTGCAGGTGACCAGGGCCTTCTGCTCCAGTCCCTCAATGCCCTGTCGGTGCTGACTGATGGACAGCCA
GACCTCCTGGATGCCCAGGGCCTGCAGCTCCTAGTGGCCACGCTGACCCAGAATGCTGATGAGGCTGACCTGACC
TGCTCTGGGATCCGCTGTGTGCGTCACGCTTGCCTGAAACATGAACAGAATCGGCAAGACCTGGTGAAAGCTGGC
GTGCTGCCTCTGCTGACTGGTGCCATCACCCATCATGGCCACCACACTGACGTGGTCAGGGAAGCCTGCTGGGCC
CTGCGTGTCATGACCTTCGATGACGACATCCGTGTGCCCTTTGGCCATGCCCACAACCATGCCAAGATGATTGTG
CAGGAGAACAAAGGCTTGAAGGTGCTCATCGAAGCCACCAAAGCGTTCCTGGATAACCCTGGCATCCTGAGCGAG
CTCTGTGGAACCCTGTCCCGCCTGGCCATTCGCAACGAGTTCTGCCAGGAGGTCGTCGACCTCGGGGGCCTGAGC
ATTCTGGTGTCCCTGCTAGCCGACTGCAATGACCACCAGATGAGGGACCAGAGCGGCGTTCAGGAGCTCGTGAAG
CAAGTGCTGAGCACCCTGCGAGCCATCGCAGGCAACGACGACGTGAAAGATGCTATTGTCCGTGCTGGTGGGACG
GAGTCCATCGTGGCTGCTATGACCCAGCATCTGACCAGCCCCCAGGTGTGTGAGCAGAGCTGCGCGGCCCTGTGC
TTCCTGGCCCTGCGTAAGCCCGACAACAGCCGCATCATCGTGGAGGGTGGCGGGGCTGTGGCAGCACTGCAGGCC
ATGAAGGCACACCCGCAGAAGGCCGGCGTGCAGAAACAGGCTTGCATGCTGATCCGAAACCTGGTGGCCCACGGC
CAGGCCTTCTCGAAGCCCATCCTGGACCTGGGGGCTGAGGCACTCATCATGCAGGCCCGATCTGCCCACCGTGAC
TGTGAGGACGTGGCCAAGGCCGCCCTGCGGGACCTGGGTTGTCATGTCGAGCTCCGAGAGCTGTGGACAGGCCAG
AGGGGCAACCTGGCGCCA**TGA**CCCCAGGCCCAGTCTGGGCCGTGACTCTGGGTGAGTCGTGTGACTCAGGAATGG
GGGTAGATCCATGTCCTCCACTGTCCCCCATTAGTTCTGTCCCCTTCACAATGAGAAGTGTTTTCTGGCAGGCCC
TAGGTAAAGGGTCGGGGGAGGGGGGAGCCTTGTAGGGAGGCCTCTACACAGAAGAAAGCAGCCCCCATGTCCCAG
CCACTTCTGGGTCCCAGCCAGCAGCACGGATGTTACTGTCCTGCTCCTTCCCCCAGCCCCACGCCCTACCAGAGG
GGGCAAAGGGCACGTCCCATCACTCACTGCCCTGTCTGAAATGTGGCAGCCACTGTGGGCCAGGCTCAGGGCAGG
GCAGGCGATTCCAGTGGGGTTGGGCCCCCTGGCGCCTGCTGCTTACTGCAGTTTCATGCAGGCCTCTGCTCCTTG
TCTTTCTTACCTGTAAAATGGGTCTCAGATGCTCCGCCCTGCTTGGCCCCAGCTTGTCTGTCTCTGGGTCCTGGG
CCAGCCAGGATACCTGATAATAAAAGATCATTGGGTG

FIGURE 3681

GGCCGGTGGGTGAGTGCACCGCGTTCTCGCACGCGTC**ATG**GCGGTCCTCGGAGTACAGCTGGTGGTGACCCTGCT
CACTGCCACCCTCATGCACAGGCTGGCGCCACACTGCTCCTTCGCGCGCTGGCTGCTCTGTAACGGCAGTTTGTT
CCGATACAAGCACCCGTCTGAGGAGGAGCTTCGGGCCCTGGCGGGGAAGCCGAGGCCCAGAGGCAGGAAAGAGCG
GTGGGCCAATGGCCTTAGTGAGGAGAAGCCACTGTCTGTGCCCCGAGATGCCCCGTTCCAGCTGGAGACCTGCCC
CCTCACGACCGTGGATGCCCTGGTCCTGCGCTTCTTCCTGGAGTACCAGTGGTTTGTGGACTTTGCTGTGTACTC
GGGCGGCGTGTACCTCTTCACAGAGGCCTACTACTACATGCTGGGACCAGCCAAGGAGACTAACATTGCTGTGTT
CTGGTGCCTGCTCACGGTGACCTTCTCCATCAAGATGTTCCTGACAGTGACACGGCTGTACTTCAGCGCCGAGGA
GGGGGGTGAGCGCTCTGTCTGCCTCACCTTTGCCTTCCTCTTCCTGCTGCTGGCCATGCTGGTGCAAGTGGTGCG
GGAGGAGACCCTCGAGCTGGGCCTGGAGCCTGGTCTGGCCAGCATGACCCAGAACTTAGAGCCACTTCTGAAGAA
GCAGGGCTGGGACTGGGCGCTTCCTGTGGCCAAGCTGGCTATCCGCGTGGGACTGGCAGTGGTGGGCTCTGTGCT
GGGTGCCTTCCTCACCTTCCCAGGCCTGCGGCTGGCCCAGACCCACCGGGACGCACTGACCATGTCGGAGGACAG
ACCCATGCTGCAGTTCCTCCTGCACACCAGCTTCCTGTCTCCCCTGTTCATCCTGTGGCTCTGGACAAAGCCCAT
TGCACGGGACTTCCTGCACCAGCCGCCGTTTGGGGAGACGCGTTTCTCCCTGCTGTCCGATTCTGCCTTCGACTC
TGGGCGCCTCTGGTTGCTGGTGGTGCTGTGCCTGCTGCGGCTGGCGGTGACCCGGCCCCACCTGCAGGCCTACCT
GTGCCTGGCCAAGGCCCGGGTGGAGCAGCTGCGAAGGGAGGCTGGCCGCATCGAAGCCCGTGAAATCCAGCAGAG
GGTGGTCCGAGTCTACTGCTATGTGACCGTGGTGAGCTTGCAGTACCTGACGCCGCTCATCCTCACCCTCAACTG
CACACTTCTGCTCAAGACGCTGGGAGGCTATTCCTGGGGCCTGGGCCCAGCTCCTCTACTATCCCCCGACCCATC
CTCAGCCAGCGCTGCCCCCATCGGCTCTGGGGAGGACGAAGTCCAGCAGACTGCAGCGCGGATTGCCGGGGCTCT
GGGTGGCCTGCTTACTCCCCTCTTCCTCCGTGGCGTCCTGGCCTACCTCATCTGGTGGACGGCTGCCTGCCAGCT
GCTCGCCAGCCTTTTCGGCCTCTACTTCCACCAGCACTTGGCAGGCTCC**TAG**CTGCCTGCAGACCCTCCTGGGGC
CCTGAGGTCTGTTCCTGGGGCAGCGGGACACTAGCCTGCCCCCTCTGTTTGCGCCCCCGTGTCCCCAGCTGCAAG
GTGGGGCCGGACTCCCCGGCGTTCCCTTCACCACAGTGCCTGACCCGCGGCCCCCCTTGGACGCCGAGTTTCTGC
CTCAGAACTGTCTCTCCTGGGCCCAGCAGCATGAGGGTCCCGAGGCCATTGTCTCCGAAGCGTATGTGCCAGGTT
TGAGTGGCAAGGGTGATGCTGGCTGCTCTTCTGAACAAATAAAGGAGCATGCCGATTTTT

FIGURE 3682

GGTCGCTATGGAGGAGCCGGAGATGCAGCTCAAGGGGAAGAAAGTCACGGACAAGTTCACTGAGAGCGTCTACGT
CCTGGCCAACGAGCCATCCGTGGCCCTGTACCGGCTGCAGGAGCATGTGCGTCGCTCCCTCCCCGAGCTGGCCCA
GCACAAGGCAGACATGCAGCGTTGGGAGGAGCAGAGCCAGGGAGCCATCTACACTGTGGAGTACGCCTGCAGCGC
CGTGAAGAACCTGGTGGACAGCAGCGTCTACTTCCGCAGCGTGGAGGGTCTGCTCAAACAGGCCATCAGCATCCG
GGACCATATGAATGCCAGTGCCCAGGGCCACAGCCCGGAGGAACCACCCCCGCCCTCCTCAGCCTGATCCTGGAA
GAGACTCGGGGCCCCCCAGCCTCCGCCAACCCAGACAAAGATCATTCCACTCAGCCTGGGACG**ATG**GGGAGGAAA
AAAATCCAGATCTCCCGCATCCTGGACCAAAGGAATCGGCAGGTGACGTTCACCAAGCGGAAGTTCGGGCTGATG
AAGAAGGCCTATGAGCTGAGCGTGCTCTGTGACTGTGAGATAGCCCTCATCATCTTCAACAGCGCCAACCGCCTC
TTCCAGTATGCCAGCACGGACATGGACCGTGTGCTGCTGAAGTACACAGAGTACAGCGAGCCCCACGAGAGCCGC
ACCAACACTGACATCCTCGAGACGCTGAAGCGGAGGGGCATTGGCCTCGATGGGCCAGAGCTGGAGCCGGATGAA
GGGCCTGAGGAGCCAGGAGAGAAGTTTCGGAGGCTGGCAGGCGAAGGGGGTGATCCGGCCTTGCCCCGACCCCGG
CTGTATCCTGCAGCTCCTGCTATGCCCAGCCCAGATGTGGTATACGGGGCCTTACCGCCACCAGGCTGTGACCCC
AGTGGGCTTGGGGAAGCACTGCCCGCCCAGAGCCGCCCATCTCCCTTCCGACCAGCAGCCCCCAAAGCCGGGCCC
CCAGGCCTGGTGCACCCTCTCTTCTCACCAAGCCACCTCACCAGCAAGACACCACCCCCACTGTACCTGCCGACG
GAAGGGCGGAGGTCAGACCTGCCTGGTGGCCTGGCTGGGCCCCGAGGGGGACTAAACACCTCCAGAAGCCTCTAC
AGTGGCCTGCAGAACCCCTGCTCCACTGCAACTCCCGGACCCCCACTGGGGAGCTTCCCCTTCCTCCCCGGAGGC
CCCCCAGTGGGGGCCGAAGCCTGGGCGAGGAGGGTCCCCCAACCCGCGGCGCCTCCCCGCCGACCCCCCCAGTCA
GCATCAAGTCTGAGCGCCTCTCTCCGGCCCCCGGGGGCCCCGGCGACTTTCCTAAGACCTTCCCCTATCCCTTGC
TCCTCGCCCGGTCCCTGGCAGAGCCTCTGCGGCCTGGGCCCGCCCTGCGCCGGCTGCCCTTGGCCGACGGCTGGC
CCCGGTAGGAGATCACCCGGTGGCACCAGCCCAGAGCGCTCGCCAGGTACGGCGAGGGCACGTGGGGACCCCACC
TCCCTCCAGGCCTCTTCAGAGAAGACCCAACAG**TGA**CGCCCCCCTCCGCGGTGGGGGCTTGGAGGTGGGCGGCTG
GACTCAATCCACCCTGGGGGGCTCCTTTCCTTCTTCCTATTTGTGTGTATATCCACAAATAAAACGCGCGTGGCG
TCCGTGGACC

FIGURE 3683

ACGCAGGGAAGGAGGCACACCCGGGGGTGGCGCAGTGAGGAGGGGGCGCGACGGCCAGGAGGCTGGTGGAGCGAC
ACCCAGGCAGGAGAGGGGGAAGAACTCTCTCCCTTTCTGAACCCCCTTTTCCTTGAGAGACGAGTTGGGGGAGTC
CTCCACGCATTACCCACTCGGGCCGCAAAAACTCCCTTCTTTAGCCCTCTGCCCCCGCCCTTGCTTATAAGCCTT
TGAGACCGCAGAAGGGACCTTGTTGTGGAACGGGACGGCCAAGAGGAAGCCAGATCGCTGAGGGTCCGGTCTCCA
GTTTGCCTCCTGCTATATCCATTGGAAGAGAAAAGTTTGTGACTTGGGCCCCCAAGTTTTGAGAGAACTGGGCTT
TCGGCGCGGGGGGACAGAGGAGGCTCGTGGGGAGCTTTCCCC**ATG**GAGCTTACCCAGCCTGCAGAAGACCTCATC
CAGACCCAGCAGACCCCTGCCTCAGAACTTGGGGACCCTGAAGACCCCGGAGAGGAGGCTGCAGATGGCTCAGAC
ACTGTGGTCCTCAGTCTCTTTCCCTGCACCCCTGAGCCTGTGAATCCTGAACCGGATGCCAGTGTTTCCTCTCCA
CAGGCAGGCAGCTCCCTGAAGCACTCCACCACTCTCACCAACCGGCAGCGAGGGAACGAGGTGTCAGCTCTGCCG
GCCACCCTAGACTCCCTGTCCATCCACCAGCTCGCAGCACAGGGGGAGCTGGACCAGCTGAAGGAGCATTTGCGG
AAAGGTGACAACCTCGTCAACAAGCCAGACGAGCGCGGCTTCACCCCCCTCATCTGGGCCTCCGCCTTTGGAGAG
ATTGAGACCGTTCGCTTCCTGCTGGAGTGGGGTGCCGACCCCCACATCCTGGCAAAAGAGCGAGAGAGCGCCCTG
TCGCTGGCCAGCACAGGCGGCTACACAGACATTGTGGGGCTGCTGCTGGAGCGTGACGTGGACATCAACATCTAT
GATTGGAATGGAGGGACGCCACTGCTGTACGCTGTGCGCGGGAACCACGTGAAATGCGTTGAGGCCTTGCTGGCC
CGAGGCGCTGACCTCACCACCGAAGCCGACTCTGGCTACACCCCGATGGACCTTGCCGTGGCCCTGGGATACCGG
AAAGTGCAACAGGTGATCGAGAACCACATCCTCAAGCTCTTCCAGAGCAACCTGGTGCCCGCTGACCCTGAG**TGA**

AGGCCGCCTGCCGGGGACTCAGACACTCAGGGAACAAAATGGTCAGCCAGAGCTGGGGAAACCCAGAACTGACTT
CAAAGGCAGCTTCTGGACAGGTGGTGGGAGGGGACCCTTCCCAAGAGGAACCAATAAACCTTCTGTGCAG

FIGURE 3684

CACGCGGTTCCGGGTCCCAAGATTTGGCTCCAAGAGCTATTCGCAGAGAAACAGCCTCGCACAAAAAGCCACCGC
CCCCGAAACCCGCGGGAAATCTGTTTCCTGTGAAAGGCCTGGCCTCCGGGCATTGGCGGTTTCCCTGATCCTCTC
TCCCAAATTTTCCGGCAGGGGATTGATCGAGGCGACATTTAGGACTGGGGTGGGCGAGGGAGTGGCGGTTCTCGT
CCCAAGTTACAGGTGAGGACGTTCAGGCCAAGGCGTAGCCAAGATCGCGCCGCCCTGTAGCTTGAGGAGGCGCCG
GGATTCGAACCAAGGCTGTGCCCAATCCTAAGCCCTGCGAGGTCTTGTGGAACCGAC**ATG**ACCCACTCTTTGGTT
TGTCCAGAGACAGTGAGCAGGGTGAGTTCAGTGCTGAATCGCAACACTCGGCAGTTTGGAAAAAAACATCTTTTC
GACCAGGATGAGGAGACATGTTGGAACTCAGACCAGGGCCCCTCCCAGTGGGTGACGCTGGAGTTTCCCCAGCTC
ATCCGTGTCTCCCAGCTGCAGATCCAGTTTCAGGGTGGCTTCTCCAGTCGCCGGGGCTGCCTGGAAGGTTCACAG
GGCACTCAGGCTCTCCACAAGATTGTAGATTTCTACCCTGAGGACAACAACTCGCTTCAGACTTTCCCCATACCA
GCTGCTGAAGTGGACCGGCTGAAGGTGACGTTTGAGGATGCCACTGACTTTTTTGGCCGTGTGGTCATCTACCAC
CTGCGGGTGCTTGGGGAGAAGGTG**TGA**GACCTCTAGGGGCTGTCTCCTCCAGGAAGCCCTCCGGGAAGCACAGCA
AAGTCCCTCATTCTGCACAGAAGGTTTATTGGTTCCTCTTGGGAAGGGTCCCCTCCCACCACCTGTCCAGAAGCT
GCCTTTGAAGTCAGTTCTGGGTTTCCCCAGCTCTGGCTGACCATTTTGTTCCCTGAGTGTCTGAGTCCCCGGCAG
GCGGCCTTCACTCAGGGTCAGCGGGCACCAGGTTGCTCTGGAAGAGCTTGAGGATGTGGTTCTCGATCACCTGTT
GCACTGAGATGGGGCAGGGAAAAGGTGGGCTGTGAGCTTGAATCGGGAGTGGGGTGGAGGCACAGGCCAACCTGC
GCTCTCCCCTTAGGGGACAAACAGGGACCCTTGCAGAGACCTGCATTACAGAGCAAAGCTGGGAGAACCGAGGAC
TCACCCCAGGAACCTCAACTTCCCCTAAGTTTGTAAAAATGCACTTTTGTAGCTTTTCAGAATTAATATAAAAAT
ATTTCCTACC

4236/5332

FIGURE 3685

GTCTCAAG**ATG**GACAACCGGGATGTTGCAGGAAAGGCTAACCGGTGGTTTGGGGTTGCTCCCCCTAAATCTGGAA
AAATGAACATGAACATCCTTCACCAGGAAGAGCTCATCGCTCAGAAGAAACGGGAAATTGAAGCCAAAATGGAAC
AGAAAGCCAAGCAGAATCAGGTGGCCAGCCCTCAGCCCCCACATCCTGGCGAAATCACAAATGCACACAACTCTT
CCTGCATTTCCAACAAGTTTGCCAACGATGGTAGCTTCTTGCAGCAGTTTCTGAAGTTGCAGAAGGCACAGACCA
GCACAGACGCCCCGACCAGTGCGCCCAGCGCCCCTCCCAGCACACCCACCCCCAGCGCTGGGAAGAGGTCCCTGC
TCATCAGCAGGCGGACAGGCCTGGGGCTGGCCAGCCTGCCGGGCCCTGTGAAGAGCTACTCCCACGCCAAGCAGC
TGCCCGTGGCGCACCGCCCGAGTGTCTTCCAGTCCCCTGACGAGGACGAGGAGGAGGACTATGAGCAGTGGCTGG
AGATCAAAGTTTCACCCCCAGAGGGAGCCGAGACTCGGAAAGTGATAGAGAAATTGGCCCGCTTTGTGGCAGAAG
GAGGCCCCGAGTTAGAAAAAGTAGCTATGGAGGACTACAAGGATAACCCAGCATTTGCATTTTTGCACGATAAGA
ATAGCAGGGAATTCCTCTACTACAGGAAGAAGGTGGCTGAGATAAGAAAGGAAGCACAGAAGTCGCAGGCAGCCT
CTCAGAAAGTTTCACCCCCAGAGGACGAAGAGGTCAAGAACCTTGCAGAAAAGTTGGCCAGGTTCATAGCGGACG
GGGGTCCCGAGGTGGAAACCATTGCCCTCCAGAACAACCGTGAGAACCAGGCATTCAGCTTTCTGTATGAGCCCA
ATAGCCAAGGGTACAAGTACTACCGACAGAAGCTGGAGGAGTTCCGGAAAGCCAAGGCCAGCTCCACAGGCAGCT
TCACAGCACCTGATCCCGGCCTGAAGCGCAAGTCCCCTCCTGAGGCCCTGTCAGGGTCCTTACCCCCAGCCACCA
CCTGCCCCGCCTCGTCCACGCCTGCGCCCACTATCATCCCTGCTCCAGCTGCCCCCGGGAAGCCAGCCTCCGCAG
CCACCGTGAAGAGGAAGCGGAAGAGCCGGTGGGGGCCTGAAGAGGATAAGGTAGAGCTCCCACCTGCTGAACTGG
TGCAGAGGGACGTGGATGCCTCTCCCTCGCCTCTGTCAGTTCAGGACCTCAAGGGGCTCGGCTATGAGAAGGGGA
AGCCTGTGGGTCTAGTGGGCGTCACAGAGCTTTCAGACGCCCAGAAGAAGCAGCTGAAGGAGCAGCAGGAGATGC
AGCAGATGTACGACATGATCATGCAGCACAAGCGGGCCATGCAGGACATGCAGCTGCTGTGGGAGAAGGCAGTCC
AACAGCACCAGCACGGCTATGACAGTGATGAGGAGGTGGACAGCGAGCTGGGCACCTGGGAGCACCAGCTGCGGC
GCATGGAGATGGATAAGACCAGGGAATGGGCCGAGCAGCTGACAAAGATGGGCCGGGGCAAGCACTTCATCGGAG
ACTTCCTGCCTCCAGACGAGCTGGAAAAGTTTATGGAGACCTTCAAGGCCCTGAAGGAGGGCCGTGAGCCTGACT
ACTCAGAGTACAAGGAGTTCAAGCTGACTGTGGAGAACATCGGCTACCAGATGCTGATGAAGATGGGCTGGAAGG
AGGGCGAGGGGCTGGGCTCAGAGGGCCAGGGCATCAAGAACCCAGTGAACAAGGGCACCACCACAGTGGACGGCG
CTGGCTTCGGCATTGACCGGCCGGCGGAGCTCTCCAAGGAGGACGACGAGTATGAGGCGTTCCGCAAGAGGATGA
TGCTGGCCTACCGCTTCCGGCCCAACCCCCTGAACAATCCCAGACGGCCTTACTAC**TGA**GTGTTCTGGAAATACA
TACTTTCTGAATGACCAACCGTCCCTGGACTGTGGAATGTTCCGGCCTGCATTTCTGCCCACCCCTTCCGTTGTC
ACGAGTGCCGTGCCGTGTAATAAAGTCCCAGTGCTCATCCACC

FIGURE 3686A

GCGGCTTGTTGTTGTGGAGGCCAAA**ATG**GCGGCTCAGGCGGCGGCAGCGGCCCAGGCGGCGGCGGCCCAGGCTGC
GCAGGCCGAGGCGGCCGACTCGTGGTACCTGGCGCTTCTGGGCTTCGCTGAGCACTTCCGCACTTCCAGCCCGCC
CAAAATCCGCCTGTGCGTGCACTGCCTGCAGGCCGTGTTCCCCTTCAAGCCGCCGCAGCGCATCGAGGCCCGTAC
ACACCTGCAGCTGGGCTCCGTTCTCTATCACCACACCAAGAACAGCGAGCAGGCGCGCAGCCACCTGGAGAAGGC
GTGGTTGATATCACAGCAAATCCCGCAGTTCGAAGATGTTAAATTTGAAGCAGCAAGTCTGTTGTCTGAATTGTA
CTGTCAAGAGAATTCCGTTGATGCAGCAAAGCCGCTGCTGCGGAAGGCGATCCAGATCTCACAGCAGACCCCATA
TTGGCACTGCCGCCTGCTCTTCCAGCTCGCTCAACTGCACACGCTTGAGAAGGACCTGGTGTCGGCCTGTGACCT
CCTGGGTGTAGGGGCCGAGTACGCCCGGGTGGTGGGATCTGAATACACACGGGCGCTGTTCCTCCTCAGCAAGGG
GATGCTGCTGCTGATGGAGCGAAAGCTGCAGGAGGTGCACCCGCTGCTGACCCTCTGCGGGCAGATCGTGGAGAA
CTGGCAGGGGAACCCCATCCAGAAGGAGTCGCTGCGTGTCTTCTTCCTGGTGCTCCAGGTCACCCACTATCTGGA
TGCCGGGCAGGTGAAGAGCGTGAAGCCGTGTCTGAAGCAGCTGCAGCAGTGCATCCAGACCATCTCCACACTGCA
CGATGATGAGATCCTGCCCAGCAACCCCGCTGACCTCTTCCACTGGCTGCCCAAGGAGCACATGTGTGTGCTTGT
CTACCTGGTGACTGTGATGCACTCCATGCAGGCCGGCTACCTGGAGAAGGCGCAGAAGTACACGGACAAGGCCCT
CATGCAGCTGGAGAAGCTCAAGATGCTGGACTGCAGCCCCATCCTGTCATCCTTCCAAGTGATCCTGCTGGAGCA
CATCATCATGTGCCGCCTTGTCACGGGTCACAAGGCCACGGCGCTGCAGGAGATCTCCCAGGTCTGCCAGCTGTG
CCAGCAGTCCCCCCGGCTCTTCTCCAACCATGCAGCACAGCTGCACACATTGCTGGGCCTGTACTGTGTCTCTGT
CAACTGCATGGACAACGCGGAAGCCCAGTTCACCACGGCCCTGCGGCTCACCAACCACCAGGAGCTGTGGGCCTT
CATCGTCACCAACCTGGCGAGTGTGTATATACGGGAAGGAAATAGACACCAAGAGGTACTCTACAGTCTGCTGGA
GAGGATCAACCCGGACCACAGCTTCCCTGTCAGCTCGCACTGCCTCCGAGCAGCCGCCTTCTATGTGCGTGGGCT
CTTCTCCTTCTTCCAGGGACGCTACAACGAGGCCAAGCGATTTCTGCGGGAAACTCTGAAGATGTCCAATGCTGA
GGACCTGAACCGGCTCACAGCCTGCTCCCTCGTGCTTCTGGGCCACATCTTCTATGTGCTGGGAAACCACAGGGA
GAGTAACAACATGGTGGTGCCTGCCATGCAGCTCGCCAGCAAGATCCCGGACATGTCGGTACAGCTGTGGTCGTC
AGCACTGCTGAGAGACCTGAATAAAGCCTGTGGGAACGCCATGGATGCCCATGAAGCCGCCCAGATGCACCAGAA
CTTCTCGCAGCAGCTGCTCCAGGACCACATTGAGGCCTGCAGCCTCCCCGAACACAACCTCATCACGTGGACAGA
CGGTCCACCCCCCGTGCAGTTCCAAGCTCAGAATGGACCCAACACCAGCCTGGCCAGCCTCCTG**TGA**GGCCTTGA
TGGGGCCATCCAGCTCCGCAGGGCCTGCGCGTCTCCGGCTTCCACCCAGACGGCACTCAAGCCTGCCCCCGAGGC
GTGCTTCCTTCCTGATTGTCTCTAGAGCTTCCAAGTCCTGGGAATGTGCGGGGCCAGTCCCTGCCCTCCCAGGAG
GGGTGGTAGCCGTTCCCACCTCGCAGCAGGACCCCCAGTGCAGAGGCTCACAGGTGGCACACAGGCGCTGTCTCT
CCAGAGCCATCCTTCAGAGTGGACCTCAGTGCCAGTCCTGCCTCAGCATCTGGGTCACGTCGGCCAGGAGTAGGG
TGCAGGCCTCCAGCAGGTCCTAATCCTGTGTGCCAGGGCAGGCAGTGCCCCAGGGGCACCACGCCTGACTCTCCA
TCACCCAGGCCTTGATGCCGAGCGGGAGTAGAGTGTTTCCTCTGCTCAAGGCAATTTCCAGAGCCCGGATGCCAG
TTTCTGGCCTGAATTTGGAGGGAAGAAGTAATGGCGCTAGTGTGGGACGAAGCACAGATCCCAGCACTTTTCCCA
GCTTTCTCTCCAGCATCAGTCCCTGCAGCAGCTGGGGCCTCTGGTCAGGAACCCTCAGGGACCCAGGAACTCAGC
TTCCAAACATCTGCACCTTGACCGGACTCGCCATCCCGCCGTGGGGGTGCAGGTGATTGTAAACACGGGTGTGCA
TGTGGATGCACACGGGTGTGCGGTGAAGATCTGTGGAGATGGAGCTGGGAGCTGAGGCTCCTGTTGCACCAGCCA
CCTTCCCCCATCTTGTGGCTGCTGAGGGGCAGGAAGCGGGGGAGTGGGCTCGTCTCCTAAATTTAAGATCACCTC
CTCAGCTAGCTTAGAGTGCGTGGCACGGGCCCCCCGCCCCCGAGATCTGGAGCCCAGGGACTTTCTTCCTGGCAG
ATCTGTGGCCTTCCCTGCTCAGCCTCTTGGTCCCCCCACTCCCTCCACCGCCTCACCTTCCCTGCTGGGTCTCTG
GGGCACAGTGTGAAACCCGCACCCTAGCCAGGCCCCAGGGAGCCTCCGCTGGGCCCAGACAGCAGCGTTTGGTTT
TATCCACTTTTCTTGGATAATCAGGAGGTGCCCCAGTGGTCACAGTGTGGCATTCCGAGTTGGGGCGGGTGGTCG
GGTCAAGATAGCAGCAGCAGGTGTCAGGGCTCAAGACACCACCCCCTCCAGCTTCTGGGGCCCAGGAGCCTCTCC
CTGCTACAGGGGGTGGGGGTCCTGCTCAGCAGGGTAGGTGGTGGTTTTAGGTCTTGTCACCCTCACTCAGTGGAA
CTGCCTCTGGGAGCTTTGGCGTCTGTGACTAAAGGGACGCTGGATTGCTCAGGTCAGCTGCTTGGGGCTCCCAGG
CTGGGTGTGCCTTAGCCACAGGCAGGGCTGTCAATAACCCCCTTCCTCACTGGCCACCACCTGACATCAGCACCA
GTGACAGGCTGGTCAGAGGGCGGGGCTGGTGAGGGTTTGTCCTAAGAGGACCACCGCCATCTCTGGGTCTCCAGG
GGGAGAGCCTGGCCCTGTCCTTTGCTACCCAGGGCTGCCCCCAGGCCCATGAAGCCAATAGGAGAGCGTGTGGCA
CTGGCCCACAAACTGTCCCTGTCCTGTCTTCCTCCCGAGCCATGGCCTCTGCTAGCTCCACCTTGAAGGAGCCCC
CCACATCCTCCCCTACATCCCAGAGATGCCACCACTTGTGTCTCCACAATGTGCTCCTGCCCACCCGGGTTCCGC

FIGURE 3686B

ACTGTCCGACCCCTGCACACCACTCATGTCACCACGGCGTGCATCATGTTCATCCCCATCTATTTATTTAAGCCT
TTCTTTGCTTGTAGGGCATTTTGTATGTAGAGCAGTTGAAAACAGAACCTCAGAACTTAACATCTGTCCTGATGT
TAAAGTGCTTTTCATGACCACCCTGTTATCTATGTATATGTAAAGTTAAGGATGAGATCTTAAGTTTACAATTAA
AAACTCAGTACTCAATATTTAATATTCTACTCGAGCTTTATGGAAGCCAAATCATGTGCATGTGTGTGTGTGCGT
GTGTGCAAGCTTTGAACCTCCTTCCACAGCCGCATCTTCTCATGACACAAAGCTTTTGATAAGTACTTTCCTGTG
GGTCGCTCAGCGCCTCATAGCATCTCATTCAATTGCAAGAATAGAGGCCAGACACGGTGGCGCATGCCTGTAGTC
CCAGCTAACTGGGAGGCTGAGGCAGGAGGATCACTTGAGCCCAGGAGATTGAGGCTGCAGTGAGCATGATCGCGA
CACTGCACTCCAGCCTGGGTGACGGTGAGACTTTGTCTC

FIGURE 3687

GGAGATTGTTGCCAGGGCTCTGGTGAGTTCAGA**ATG**ACCGAAGAAGCATGCCGAACACGGAGTCAGAAACGAGCG
CTTGAACGGGACCCAACAGAGGACGATGTGGAGAGCAAGAAAATAAAAATGGAGAGAGGATTGTTGGCTTCAGAT
TTAAACACTGACGGAGACATGAGGGTGACACCTGAGCCGGGAGCAGGTCCAACCCAAGGATTGCTGAGGGCAACA
GAGGCCACGGCCATGGCCATGGGCAGAGGCGAAGGGCTGGTGGGCGATGGGCCCGTGGACATGCGCACCTCACAC
AGTGACATGAAGTCCGAGAGGAGACCCCCCTCACCTGACGTGATTGTGCTCTCCGACAACGAGCAGCCCTCGAGC
CCGAGAGTGAATGGGCTGACCACGGTGGCCTTGAAGGAGACTAGCACCGAGGCCCTCATGAAAAGCAGTCCTGAA
GAACGAGAAAGGATGATCAAGCAGCTGAAGGAAGAATTGAGGTTAGAAGAAGCAAAACTCGTGTTGTTGAAAAAG
TTGCGGCAGAGTCAAATACAAAAGGAAGCCACCGCCCAGAAGCCCACAGGTTCTGTTGGGAGCACCGTGACCACC
CCTCCCCCGCTTGTTCGGGGCACTCAGAACATTCCTGCTGGCAAGCCATCACTCCAGACCTCTTCAGCTCGGATG
CCCGGCAGTGTCATACCCCCGCCCCTGGTCCGAGGTGGGCAGCAGGCGTCCTCGAAGCTGGGGCCACAGGCGAGC
TCACAGGTCGTCATGCCCCCACTCGTCAGGGGGGCTCAGCAAATCCACAGCATTAGGCAACATTCCAGCACAGGG
CCACCGCCCCTCCTCCTGGCCCCCCGGGCGTCGGTGCCCAGTGTGCAGATTCAGGGACAGAGGATCATCCAGCAG
GGCCTCATCCGCGTCGCCAATGTTCCCAACACCAGCCTGCTCGTCAACATCCCACAGCCCACCCCAGCATCACTG
AAGGGGACAACAGCCACCTCCGCTCAGGCCAACTCCACCCCCACTAGTGTGGCCTCTGTGGTCACCTCTGCCGAG
TCTCCAGCAAGCCGACAGGCGGCCGCCAAGCTGGCGCTGCGCAAACAGCTGGAGAAGACGCTACTCGAGATCCCC
CCACCCAAGCCCCCAGCCCCAGAGATGAACTTCCTGCCCAGCGCCGCCAACAACGAGTTCATCTACCTGGTCGGC
CTGGAGGAGGTGGTGCAGAACCTACTGGAGACACAAGCAGGCAGGATGTCGGCCGCCACTGTGCTGTCCCGGGAG
CCCTACATGTGTGCACAGTGCAAGACGGACTTCACGTGCCGCTGGCGGGAGGAGAAGAGCGGCGCCATCATGTGT
GAGAACTGCATGACAACCAACCAGAAGAAGGCGCTCAAGGTGGAGCACACCAGCCGGCTGAAGGCCGCCTTTGTG
AAGGCGCTGCAGCAGGAACAGGAGATTGAGCAGCGGCTCCTGCAGCAGGGCACGGCCCCTGCACAGGCCAAGGCC
GAGCCCACCGCTGCCCCACACCCCGTGCTGAAGCAGGTCATAAAACCCCGGCGTAAGTTGGCGTTCCGCTCAGGA
GAGGCCCGCGACTGGAGTAACGGGGCTGTGCTACAGGCCTCCAGCCAGCTGTCCCGGGGTTCGGCCACGACGCCC
CGAGGTGTCCTGCACACGTTCAGTCCGTCACCCAAACTGCAGAACTCAGCCTCGGCCACAGCCCTGGTCAGCAGG
ACCGGCAGACATTCTGAGAGAACCGTGAGCGCCGGCAAGGGCAGCGCCACCTCCAACTGGAAGAAGACGCCCCTC
AGCACAGGCGGGACCCTTGCGTTTGTCAGCCCAAGCCTGGCGGTGCACAAGAGCTCCTCGGCCGTGGACCGCCAG
CGAGAGTACCTCCTGGACATGATCCCACCCCGCTCCATCCCCCAGTCAGCCACGTGGAAA**TAG**TGCGAGCCAGGC
CCCGTGGAAGACGGGCTCCCTCCTCCCCCACCTGGCCCCTGGTCTAGAAGGACCCACTGCACCACCCTCCGCTGG
CTCGGGAAGACACCGTGCCCGCCCCAAGAGCAAGCACCGGCCATGCTGCAGAGGCAAGACCTCAATTCTTGGCTG
CAAAGTTTCATCAGGGCTAGGGGGCTGGTGCCGCCTCATAGGCAGACGAGGATCATCGCTGGGGGACCTTTCCCG
TGGGCTTTCTTCCTTTCTCTCTTTGCCTTTAGTTTGCCCGACACCAGCAGAAAAGTGGACCTTGGGGGCTGGTTC
TGCTCCTGGCCCCCTTGTTCAGCCCCTGCCGGCACACGGGCGGCTCACCCTGGACACTGTGATGCGCATGGGCAA
GGCCAGCGCCCGGGGCTTCTGAACCGAGCGGGGTGTTTCATTTTTTTGCTTTTCCCTGTCTTAGGCTCCCAGTCT
TTGACTGCCTTCCCATGGCGATCTATAAGTTGAAAGATTTTTTTTTTTTTTAATCACCTCATGATGATGGAGTTA
AAAGTAAACCGTGCAGACCCTGGGGTCCCTGTTGTACGCTGCATCATCCCGCTGGCCCTGTGCCCTGGAGGGTGG
GCGGCTCATGGTGCCACAGCCCCTGGCAGGGACGGCCGGCCCGCCCCCGTGACTGACTGACAGATGCAGGGATGG
CCGAGGCAGCCCTCGCTCCAGCTGAACGCCTCCATTGCTGCTTGTTCTGGAGACCCCCGCCCCCGCACCTTCCAG
ACTTAGCAGAAGAACAAACTGAAGAACAGACCCAGCCAGAGAAGCAGGGATTCCAGAAGCTGCCCATTAAGGGAG
AAGGAGAGGATCCGGTCGGCAGCAGCCCTGAGCAGAAAGCTGGAGGGGGGACTGTCGCGGGGTTTTTCTGTTGTG
GTTTATTTTATTAAATTTTTTCCTTTTTTCTATTCATTTCGATGGACGCAATCTTAAGCCACCCTGGCCTTGCTC
CTGGGAGGTGAGCGTGCACAGGTGTGTGCAGGTCAGGAGGTGCCGTCCAGGTGTGCGGCGAGCCGCTGCGCACAG
ATGTCAGGATTTCCGTTTGGGTCTAGTTTAGAACCTGTCCTTAAACCTAGGGGTTGCTGTCAGGATTTGCTTTCA
GACTTTTTTTTTTTTTGTAATTCCCTTTAGAGTCTACAAAAATGTTTTTAAAAGGATCAGGTCTGCTTTTAGTTT
CATTTTTGTTTCTTTCCCGTCCCACTCTTTAAAAACTGGTTCCGTGAGGAAAGGCAGAAGCCGTTCCGTGTCTCT
TGCAGGCTGGGCCGGCTTCATGCCAGTGCGAGGGCGTCCCGTGCCCACGTACATACGTATGTCTCCATGAGTTCT
GGGCTCCACTGGTTCCAATTGAGCTCCAGCCCTGGTTTTCCTACCCATGCAGTTAGGGACTTTAATTTAATTTTT
TTTTTGTAGGGCCACCGCCTTCAAACACAACTGCTACAACATTCTAATAAAGGCTCATTTAACCCCC

FIGURE 3688

TGCGAGT**ATG**GCGGCGTCAAAGGTGAAGCAGGACATGCCTCCGCCGGGGGGCTATGGGCCCATCGACTACAAACG
GAACTTGCCGCGTCGAGGACTGTCGGGCTACAGCATGCTGGCCATAGGGATTGGAACCCTGATCTACGGGCACTG
GAGCATAATGAAGTGGAACCGTGAGCGCAGGCGCCTACAAATCGAGGACTTCGAGGCTCGCATCGCGCTGTTGCC
ACTGTTACAGGCAGAAACCGACCGGAGGACCTTGCAGATGCTTCGGGAGAACCTGGAGGAGGAGGCCATCATCAT
GAAGGACGTGCCCGACTGGAAGGTGGGGGAGTCTGTGTTCCACACAACCCGCTGGGTGCCCCCCTTGATCGGGGA
GCTGTACGGGCTGCGCACCACAGAGGAGGCTCTCCATGCCAGCCACGGCTTCATGTGGTACACG**TAG**GCCCTGTG
CCCTCCGGCCACCTGGATCCCTGCCCCTCCCCACTGGGACGGAATAAATGCTCTGCAGACCTGG

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FIGURE 3689

AGGAAATCGGGGCTCGGCCCCGCCGGCGCGCGACCCCATCCCCATCCCGGTCCCTGCAGAGCGATCCCCGGGCCC
AGAT**ATG**GACGCAGCAGAGCCGGGACTCCCCCCAGGTCCTGAGGGCAGGAAGAGGTACAGTGACATCTTCCGGAG
CCTGGACAACCTCGAAATCTCACTGGGGAACGTGACCCTTGAGATGCTGGCTGGAGACCCTCTACTCTCAGAAGA
CCCAGAACCTGACAAGACCCCTACAGCCACTGTTACCAACGAAGCCAGCTGTTGGAGCGGCCCCTCCCCAGAGGG
TCCTGTACCCCTCACAGGGGAGGAACTGGACTTGCGGCTCATTCGGACAAAGGGGGGTGTGGACGCAGCCCTGGA
ATATGCCAAGACCTGGAGCCGCTATGCCAAGGAACTGCTTGCCTGGACTGAAAAGAGAGCCAGCTATGAGCTGGA
GTTTGCTAAGAGCACCATGAAGATCGCTGAAGCTGGCAAGGTGTCCATTCAACAGCAGAGCCACATGCCTCTGCA
GTACATCTACACCCTGTTTCTGGAGCACGATCTCAGCCTGGGAACCCTGGCCATGGAGACAGTGGCCCAGCAGAA
AAGAGACTACTACCAGCCCCTCGCCGCCAAACGGACTGAGATTGAGAAGTGGCGGAAGGAGTTCAAGGAGCAGTG
GATGAAGGAGCAGAAGCGGATGAATGAGGCGGTGCAGGCACTGCGGCGCGCCCAGCTGCAGTATGTGCAACGCAG
CGAGGACCTGCGGGCACGCTCCCAGGGGTCCCCTGAGGACTCGGCCCCCCAGGCCTCGCCGGGACCTAGCAAGCA
GCAGGAGCGGCGGCGGCGCTCGCGAGAGGAGGCCCAGGCCAAGGCGCAGGAGGCCGAGGCGCTGTACCAGGCCTG
TGTCCGCGAGGCCAACGCGCGGCAGCAGGACCTGGAGATCGCCAAGCAGCGAATCGTGTCGCACGTGCGCAAGCT
GGTGTTTCAGGGGGATGAAGTGCTGAGGCGGGTGACGCTGAGTCTCTTCGGGCTGCGGGGGGCGCAGGCAGAGCG
TGGCCCCCGCGCCTTCGCCGCCCTGGCCGAGTGCTGTGCGCCCTTTGAGCCGGGCCAGCGCTACCAGGAGTTTGT
ACGGGCGCTGCGGCCCGAGGCCCCGCCGCCCCCGCCGCCCGCCTTCTCCTTCCAGGAGTTCCTTCCCTCCTTGAA
CAGCTCCCCTCTGGACATCAGAAAGAAGCTCTCTGGGCCTCTTCCTCCAAGGCTGGATGAGAATTCAGCTGAGCC
AGGCCCTTGGGAGGATCCGGGCACAGGCTGGCGCTGGCAAGGGACTCCAGGCCCCACTCCGGGCAGCGATGTGGA
CAGCGTGGGTGGCGGCAGCGAGTCTCGGTCCCTGGACTCACCCACTTCCAGCCCAGGCGCTGGCACGAGGCAGCT
GGTGAAGGCTTCGTCCACAGGCACTGAGTCCTCAGATGACTTTGAGGAGCGAGACCCTGACCTGGGAGACGGGCT
GGAGAATGGGCTGGGCAGCCCCTTCGGGAAGTGGACACTGTCCAGCGCGGCTCAGACCCACCAGCTGCGGCGACT
GCGGGGCCCAGCCAAGTGCCGCGAGTGCGAAGCCTTCATGGTCAGCGGGACGGAGTGTGAGGAGTGCTTTCTGAC
CTGCCACAAGCGCTGCCTGGAGACTCTCCTGATCCTCTGTGGACACAGGCGGCTCCCAGCCCGGACACCCCTTTT
TGGGGTTGACTTCCTGCAGCTACCCAGGGACTTCCCGGAGGAGGTACCCTTTGTGGTCACGAAGTGCACGGCTGA
GATAGAACACCGTGCCCTGGATGTGCAGGGCATTTACCGGGTCAGCGGGTCCCGGGTCCGTGTGGAGCGGCTGTG
CCAGGCTTTCGAGAATGGCCGAGCGTTGGTGGAGCTGTCGGGGAACTCGCCTCATGACGTCTCGAGTGTCCTCAA
GCGATTTCTTCAGGAGCTCACCGAGCCCGTGATCCCCTTCCACCTCTACGACGCCTTCATCTCTCTGGCTAAGAC
CTTGCATGCAGACCCTGGGGACGACCCTGGGACCCCCAGCCCCAGCCCTGAGGTTATCCGCTCGCTGAAGACCCT
CTTGGTACAGCTGCCTGACTCTAACTACAACACCCTGCGGCACCTGGTGGCCCATCTGTTCAGGGTGGCTGCACG
ATTTATGGAAAACAAGATGTCTGCCAACAACCTGGGCATTGTGTTTGGGCCGACACTGCTGCGGCCGCCGGACGG
CCCGCGGGCAGCCAGCGCCATCCCTGTCACCTGCCTGCTGGACTCTGGGCATCAGGCCCAGCTTGTGGAGTTCCT
CATCGTGCACTACGAGCAGATCTTTGGGATGGATGAGCTCCCCCAGGCCACTGAGCCCCCGCCCCAAGACTCCAG
CCCAGCCCCTGGGCCCCTCACAACCAGCTCCCAACCGCCACCCCCGCACCTTGACCCAGACTCCCAGCCCCCAGT
CCTAGCCTCAGACCCCGGCCCAGACCCCCAGCACCACAGTACCCTGGAGCAGCATCCCACGGCCACACCTACCGA
GATTCCAACTCCACAGAGTGACCAGAGAGAGGACGTGGCTGAAGACACCAAAGATGGGGGAGGGGAAGTGTCCAG
CCAAGGCCCAGAGGACTCACTCCTGGGGACACAGTCTCGTGGCCACTTCAGCCGCCAGCCAGTGAAGTATCCCCG
GGGCGGTGTGAGGCCTGTAACCCACCAGCTGTCCAGTCTGGCCCTGGTGGCTTCCAAGCTGTGCGAGGAGACCCC
CATCACATCAGTGCCCAGAGGGAGTTTGCGGGGGCGGGGGCCCAGCCCTGCAGCTGCCTCCCCTGAGGGCAGCCC
CCTGCGCCGCACCCCGCTGCCCAAGCATTTTGAGATTACCCAGGAGACAGCCCGGCTACTCTCGAAATTGGACAG
CGAGGCTGTGCCCAGGGCCACCTGCTGCCCGGACGTCCAGCCTGAGGAAGCCGAGGACCATCTC**TGA**CCACCCTG
GCACCTTAAATAAGGAAGAGGCCCAGATTGTGAAGACGGACCCATATATCCCTACCTCCCACCACCTAGTGGCCA
AACACCCCGCCAGGAGTTCAATGCTGGGAGAGGTCCAGAGGGTTCCTATAAGGAAAAACTATTTAATACATGACC
TAGGGGAGGCCTAAAACCCTTTTGGGGATAATGTCCCAGAGTCCCCCCACTAGACACAGGTCACTGCCAAGCATC
AGGGCCACTCGGGCTCAGAGGTCACTCAGGGTCAATACTCAGGGTCAGTGCAGGTTATGAGATCCTTGGGGTCCA
CCCTAGTCTCTGACACCTGGGACAGGGGTGCTTTTGCTACTTTGGTTGTGGTCACTCCCCCACACCTGCCTGCCT
CCTTCACGGACTCGAAGTGACCTTCCTGGAGGAGGTGGGCAGCTCAGACTCCACATGCTGGTGGTGCCTGAGGTC
TGATGGCCTCTAATAAACTGTGTCCTATA

FIGURE 3690

ATGGAGAAGTGGGAGGAGCTGAACAGCCATCAGCCAGGAGAGGAGTACGACCCCAGCAAAGCGACCTTTGTGAAG
GTGGTGCCAACCCCCAACAATGGCTCCACGGAGCTCGTGGCCCTGCACCGCAATGAGGGCGAAGACGGGCTTGAG
GTGCTGTCCTTCGAATTCCAGAAGATCAAGTATTCCTACGATGCCCTGGAGAAGAAGCAGTTTCTCCCCGTGGCC
TTTCCTGTGGGAAACGCCTTCTCATACTATCAGAGCAACAGAGGCTTCCAGGAAGACTCAGAGATCCGAGCAGCT
GAGAAGAAATTTGGGAGCAACAAGGCCGAGATGGTGGTGCCTGACTTCTCGGAGCTTTTCAAGGAGAGAGCCACA
GCCCCCTTCTTTGTATTTCAGGTGTTCTGTGTGGGGCTCTGGTGCCTGGATGAGTACTGGTACTACAGCGTCTTT
ACGCTATCCATGCTGGTGGCGTTCGAGGCCTCGCTGGTGCAGCAGCAGATGCGGAACATGTCGGAGATCCGGAAG
ATGGGCAACAAGCCCCACATGATCCAGGTCTACCGAAGCCGCAAGTGGAGGCCCATTGCCAGTGATGAGATCGTA
CCAGGGGACATCGTCTCCATCGGCCGCTCCCCACAGGAGAACCTGGTGCCATGTGACGTGCTTCTGCTGCGAGGC
CGCTGCATCGTAGACGAGGCCATGCTCACGGGGGAGTCCGTGCCACAGATGAAGGAGCCCATCGAAGACCTCAGC
CCAGACCGGGTGCTGGACCTCCAGGCTGATTCCCGGCTGCACGTCATCTTCGGGGGCACCAAGGTGGTGCAGCAC
ATCCCCCCACAGAAAGCCACCACGGGCCTGAAGCCGGTTGACAGCGGGTGCGTGGCCTACGTCCTGCGGACCGGA
TTCAACACATCCCAGGGCAAGCTGCTGCGCACCATCCTCTTCGGGGTCAAGAGGGTGACTGCGAACAACCTGGAG
ACCTTCATCTTCATCCTCTTCCTCCTGGTGTTTGCCATCGCTGCAGCTGCCTATGTATGGATTGAAGGTACCAAG
GACCCCAGCCGGAACCGCTACAAGCTGTTTCTGGAGTGCACCCTGATCCTCACCTCGGTCGTGCCTCCTGAGCTG
CCCATCGAGCTGTCCCTGGCCGTCAACACCTCCCTCATCGCCCTGGCCAAGCTCTACATGTACTGCACAGAGCCC
TTCCGGATCCCCTTTGCTGGCAAGGTCGAGGTGTGCTGCTTTGACAAGACGGGGACGTTGACCAGTGACAGCCTG
GTGGTGCGCGGTGTGGCCGGGCTGAGAGACGGGAAGGAGGTGACCCCAGTGTCCAGCATCCCTGTAGAAACACAC
CGGGCCCTGGCCTCGTGCCACTCGCTCATGCAGCTGGACGACGGCACCCTCGTGGGTGACCCTCTAGAGAAGGCC
ATGCTGACGGCCGTGGACTGGACGCTGACCAAAGATGAGAAAGTATTCCCCCGAAGTATTAAAACTCAGGGGCTG
AAAATTCACCAGCGCTTTCATTTTGCCAGTGCCCTGAAGCGAATGTCCGTGCTTGCCTCGTATGAGAAGCTGGGC
TCCACCGACCTCTGCTACATCGCGGCCGTGAAGGGGGCCCCCGAAACTCTGCACTCCATGTTCTCCCAGTGCCCG
CCCGACTACCACCACATCCACACCGAGATCTCCCGGGAAGGAGCCCGCGTCCTGGCGCTGGGGTACAAGGAGCTG
GGACACCTCACTCACCAGCAGGCCCGGGAGGTCAAGCGGGAGGCCCTGGAGTGCAGCCTCAAGTTCGTCGGCTTC
ATTGTGGTCTCCTGCCCGCTCAAGGCTGACTCCAAGGCCGTGATCCGGGAGATCCAGAATGCGTCCCACCGGGTG
GTCATGATCACGGGAGACAACCCGCTCACTGCATGCCACGTGGCCCAGGAGCTGCACTTCATTGAAAAGGCCCAC
ACGCTGATCCTGCAGCCTCCCTCCGAGAAAGGCCGGCAGTGCGAGTGGCGCTCCATTGACGGCAGCATCGTGCTG
CCCCTGGCCCGGGGCTCCCCAAAGGCACTGGCCCTGGAGTACGCACTGTGCCTCACAGGCGACGGCTTGGCCCAC
CTGCAGGCCACCGACCCCCAGCAGCTGCTCCGCCTCATCCCCCATGTGCAGGTGTTCGCCCGTGTGGCTCCCAAG
CAGAAGGAGTTTGTCATCACCAGCCTGAAGGAGCTGGGCTACGTGACCCTCATGTGTGGGGATGGCACCAACGAC
GTGGGCGCCCTGAAGCATGCTGACGTGGGTGTGGCGCTCTTGGCCAATGCCCCTGAGCGGGTTGTCGAGCGGCGA
CGGCGGCCCCGGGACAGCCCAACCCTGAGCAACAGTGGCATCAGAGCCACCTCCAGGACAGCCAAGCAGCGGTCG
GGGCTCCCTCCCTCCGAGGAGCAGCCAACCTCCCAGAGGGACCGCCTGAGCCAGGTGCTGCGAGACCTCGAGGAC
GAGAGTACGCCCATTGTGAAACTGGGGGATGCCAGCATCGCAGCACCCTTCACCTCCAAGCTCTCATCCATCCAG
TGCAGTCTGCCACGTGATCAAGCAGGGCCGCTGCACGCTGGTGACCACGCTACAGATGTTCAAGATCCTGGCGCT
CAATGCCCTCATCCTGGCCTACAGCCAGAGCGTCCTCTACCTGGAGGGAGTCAAGTTCAGTGACTTCCAGGCCAC
CCTACAGGGGCTGCTGCTGGCCGGCTGCTTCCTCTTCATCTCCCGTTCCAAGCCCCTCAAGACCCTCTCCCGAGA
ACGGCCCCTGCCCAACATCTTCAACCTGTACACCATCCTCACCGTCATGCTCCAGTTCTTTGTGCACTTCCTGAG
CCTTGTCTACCTGTACCGTGAGGCCCAGGCCCGGAGCCCCGAGAAGCAGGAGCAGTTCGTGGACTTGTACAAGGA
GTTTGAGCCAAGCCTGGTCAACAGCACCGTCTACATCATGGCCATGGCCATGCAGATGGCCACCTTCGCCATCAA
TTACAAAGGCCCGCCCTTCATGGAGAGCCTGCCCGAGAACAAGCCCCTGGTGTGGAGTCTGGCAGTTTCACTCCT
GGCCATCATTGGCCTGCTCCTCGGCTCCTCGCCCGACTTCAACAGCCAGTTTGGCCTCGTGGACATCCCTGTGGA
GTTCAAGCTGGTCATTGCCCAGGTCCTGCTCCTGGACTTCTGCCTGGCGCTCCTGGCCGACCGCGTCCTGCAGTT
CTTCCTGGGGACCCCGAAGCTGAAAGTGCCTTCCTGAGATGGCAGTGCTGGTACCCACTGCCCACCCTGGCTGCC
GCTGGGCGGGAACCCCAACAGGGCCCCGGGAGGGAACCCTGCCCCCAACCCCCCACAGCAAGGCTGTACAGTCTC
GCCCTTGGAAGACTGAGCTGGGACCCCCACAGCCATCCGCTGGCTTGGCCAGCAGAACCAGCCCCAAGCCAGCAC
CTTTGGTAAATAAAGCAGCATCTGAGATTTTAAA

FIGURE 3691

CCCCTCTAGCCTAGGCGAGGACTTCTACCGCGAGGCCATCGAGCACTGCCGCAGTTACAACGCGCGCCTGTGCGC
CGAGCGCAGCCTGCGACTGCCCTTCCTCGACTCGCAGACCGGCGTGGCCCAGAACAACTGCTACATCTGG**ATG**GA
GAAGACCCACCGCGGGCCGGGTTTGGCCCCGGGACAGATTTACACGTACCCCGCCCGCTGTTGGAGGAAGAAACG
GAGACTCAACATCCTGGAGGACCCCAGACTCAGGCCCTGCGAGTACAAGATCGACTGTGAAGCACCCCTGAAGAA
GGAGGGTGGCCTCCCGGAAGGGCCGGTCCTCGAGGCTCTACTGTGTGCAGAGACGGGGGAGAAGAAGATTGAGCT
GAAGGAGGAGGAGACCATTATGGACTGTCAGAAACAGCAGTTGCTGGAGTTTCCGCATGACCTCGAGGTGGAAGA
CTTGGAGGATGACATTCCCAGGAGGAAGAACAGGGCCAAAGGAAAGGCATATGGCATCGGGGGTCTCCGGAAACG
CCAGGACACCGCTTCCCTGGAGGACCGAGACAAGCCGTATGTCTGTGATAAGTTTTACAAAGAATTGGCCTGGGT
CCCTGAGGCACAAAGGAAACACACAGCCAAGAAGGCGCCCGACGGCACTGTCATCCCCAACGGCTACTGTGACTT
CTGCCTGGGGGGCTCCAAGAAGACGGGGTGTCCCGAGGACCTCATCTCCTGTGCGGACTGTGGGCGATCAGGACA
CCCCTCGTGTTTACAATTCACGGTGAACATGACGGCAGCCGTGCGGACCTACCGCTGGCAGTGCATCGAGTGCAA
ATCCTGCAGCCTGTGCGGAACCTCCGAGAACGACGGTGCCAGCTGGGCGGGTCTCACCCCCCAGGACCAGCTGCT
GTTTTGTGATGACTGCGATCGGGGTTACCACATGTACTGCCTGAGTCCCCCCATGGCGGAGCCCCCGGAAGGGAG
CTGGAGCTGTCACCTCTGTCTCCGGCACCTGAAGGAAAAGGCTTCTGCTTACATCACCCTCACC**TAG**GCCGGCTC
GGCTCGCCGCGACTCTGGGGTGGTGCTCGCCTACCTGCCTCTCCGAGCTCCTCAATTCTCCCCCACCCTGAACAT
CCCGCAGGGGGAGGGGGAGAGGGGGAAGCCGAGAGGGGGCTGGGCCACCCCCTCCCCTCTGTGCAAGTGGAATGT
CTGCCCTGTGGGTGGGTGGGCCCGGCCAGGGCCTCTCCCTCCCTCCCTCCCTCTCTGTCCCTTGGCAAATGGACA
CCAGGGGCTTCTCCCCTCAAAGCCATACCCCGCCTCTGGGCGGGCATGGGGGGTGGTGGGTGCCAGCCAGGGGCA
TGGACAGAGCCTTTTTCTAAAGAAAAAGACAAAAAGTT

FIGURE 3692

GCCTCAAGCCGACGCAGCGGCCTACTCTCGCACTGCAGACGGGGAAACTGAGGCCTGAGGCGGCCGGGGTGGGGC
AGACCTCCCGGCGAGCCCGAGCCCCCGCCCCCGGCTAGCCCCGCCCTGGCCCGTAAGAAGCACCCGGGGCGCGAG
GCGAAGGCGCACAGCGCGGGGCCAGGCTGGGTCCAGCAGCGCG**ATG**GCAGCTCAGCGGCTGGGCAAGCGCGTGCT
GAGCAAGCTGCAGTCTCCATCGCGGGCCCGCGGGCCAGGGGGCAGTCCCGGGGGGCTGCAGAAGCGGCACGCGCG
CGTCACCGTCAAGTATGACCGGCGGGAGCTGCAGCGGCGGCTGGACGTGGAGAAGTGGATCGACGGGCGCCTGGA
GGAGCTGTACCGCGGCATGGAGGCAGACATGCCCGATGAGATCAACATTGATGAATTGTTGGAGTTAGAGAGTGA
AGAGGAGAGAAGCCGGAAAATCCAGGGACTCCTGAAGTCATGTGGGAAACCTGTCGAGGACTTCATCCAGGAGCT
GCTGGCAAAGCTTCAAGGCCTCCACAGGCAGCCCGGCCTCCGCCAGCCAAGCCCCTCCCACGACGGCAGCCTCAG
CCCCCTCCAGGACCGGGCCCGGACTGCTCACCCC**TGA**CCCTCTTGCACTCTCCCTGCCCCCCGGACGCCGCCCAG
CTTGCTTGTGTATAAGTTGTATTTAATGGTTCTGTAACAATAA

FIGURE 3693

GTTGGGAGGTGTAGCGCGGCTCTGAACGCGCTGAGGGCCGTTGAGTGTCGCAGGCGGCGAGGGCGCGAGTGAGGA
GCAGACCCAGGCATCGCGCGCCGAGAAGGCCGGGCGTCCCCACACTGAAGGTCCGGAAAGGCGACTTCCGGGGGC
TTTGGCACCTGGCGGACCCTCCCGGAGCGTCGGCACCTGAACGCGAGGCGCTCCATTGCGCGTGCGCGTTGAGGG
GCTTCCCGCACCTGATCGCGAGACCCCAACGGCTGGTGGCGTCGCCTGCGCGTCTCGGCTGAGCTGGCC**ATG**GCG
CAGCTGTGCGGGCTGAGGCGGAGCCGGGCGTTTCTCGCCCTGCTGGGATCGCTGCTCCTCTCTGGGGTCCTGGCG
GCCGACCGAGAACGCAGCATCCACGACTTCTGCCTGGTGTCGAAGGTGGTGGGCAGATGCCGGGCCTCCATGCCT
AGGTGGTGGTACAATGTCACTGACGGATCCTGCCAGCTGTTTGTGTATGGGGGCTGTGACGGAAACAGCAATAAT
TACCTGACCAAGGAGGAGTGCCTCAAGAAATGTGCCACTGTCACAGAGAATGCCACGGGTGACCTGGCCACCAGC
AGGAATGCAGCGGATTCCTCTGTCCCAAGTGCTCCCAGAAGGCAGGATTCTGAAGACCACTCCAGCGATATGTTC
AACTATGAAGAATACTGCACCGCCAACGCAGTCACTGGGCCTTGCCGTGCATCCTTCCCACGCTGGTACTTTGAC
GTGGAGAGGAACTCCTGCAATAACTTCATCTATGGAGGCTGCCGGGGCAATAAGAACAGCTACCGCTCTGAGGAG
GCCTGCATGCTCCGCTGCTTCCGCCAGCAGGAGAATCCTCCCCTGCCCCTTGGCTCAAAGGTGGTGGTTCTGGCG
GGGCTGTTCGTGATGGTGTTGATCCTCTTCCTGGGAGCCTCCATGGTCTACCTGATCCGGGTGGCACGGAGGAAC
CAGGAGCGTGCCCTGCGCACCGTCTGGAGCTCCGGAGATGACAAGGAGCAGCTGGTGAAGAACACATATGTCCTG
TGACCGCCCTGTCGCCAAGAGGACTGGGGAAGGGAGGGGAGACTATGTGTGAGCTTTTTTTAAATAGAGGGATTG
ACTCGGATTTGAGTGATCATTAGGGCTGAGGTCTGTTTCTCTGGGAGGTAGGACGGCTGCTTCCTGGTCTGGCAG
GGATGGGTTTGCTTTGGAAATCCTCTAGGAGGCTCCTCCTCGCATGGCCTGCAGTCTGGCAGCAGCCCCGAGTTG
TTTCCTCGCTGATCGATTTCTTTCCTCCAGGTAGAGTTTTCTTTGCTTATGTTGAATTCCATTGCCTCTTTTCTC
ATCACAGAAGTGATGTTGGAATCGTTTCTTTTGTTTGTCTGATTTATGGTTTTTTTAAGTATAAACAAAAGTTTT
TTATTAGCATTCTGAAAGAAGGAAAGTAAAATGTACAAGTTTAATAAAAAGGGGCCTTCCCCTTTAGAATAAATT
TCAGCATGTGCTTTC

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FIGURE 3694

ATTCCTCCAACGGGCAGGTCTCAGCGCTCCTCCCCCTGCTCCGCTCCTCTGCAGGGCCCAGGCGCCCTTGGCCTT
AGGACCCAACTTCTCTTACCGCC**ATG**GAGTTCGACCTGGGAGCAGCCCTGGAGCCCACCTCCCAGAAGCCCGGTG
TGGGGGCGGGCCACGGGGGAGATCCCAAGCTCAGTCCCCACAAAGTTCAGGGCCGGTCGGAGGCAGGGGCAGGTC
CGGGTCCAAAGCAAGGACACCACAGCTCTTCCGACTCCAGCAGCAGCTCCAGCGATTCGGACACGGATGTGAAGT
CCCACGCTGCTGGCTCCAAGCAGCACGAGAGCATCCCGGGCAAGGCCAAGAAGCCCAAAGTGAAGAAGAAGGAGA
AGGGCAAGAAGGAGAAGGGCAAGAAGAAGGAGGCTCCCCAC**TGA**AGGGCCCTGGACAGGGCTCATTAAACCTTCC
TCTCTGCCTTC

FIGURE 3695

TGCCAGTCCATCTGACATCAAAGCCAGTGTCTCTAATGGTGACACCACCCTCCTCTGCAGCAGGAGGCAGAGCTG
TGGGATGA**ATG**AGGTTCGCCAGGTCTCCCTTACCTATCCTGGGTCCCCAGCTCCTTCTCACTCTCTTCCCTTGCA
GCCTCGAAGCGGAGGATCCCTGTGTCCCAGCCGGGCATGGCGACCCCCACCAGCTTTTCGATGACACAAGTTCAG
CCCAGAGCCGGGGCTATGGGGCCCAGCGGGCACCTGGTGGCCTGAGTTATCCTGCAGCCTCTCCCACGCCCCATG
CAGCCTTCCTGGCTGACCCGGTGTCCAACATGGCCATGGCCTATGGGAGCAGCCTGGCCGCGCAGGGCAAGGAGC
TGGTGGATAAGAACATCGACCGCTTCATCCCCATCACCAAGCTCAAGTATTACTTTGCTGTGGACACCATGTATG
TGGGCAGAAAGCTGGGCCTGCTGTTCTTCCCCTACCTACACCAGGACTGGGAAGTGCAGTACCAACAGGACACCC
CGGTGGCCCCCCGCTTTGACGTCAATGCCCCGGACCTCTACATTCCAGCAATGGCTTTCATCACCTACGTTTTGG
TGGCTGGTCTTGCGCTGGGGACCCAGGATAGGTTCTCCCCAGACCTCCTGGGGCTGCAAGCGAGCTCAGCCCTGG
CCTGGCTGACCCTGGAGGTGCTGGCCATCCTGCTCAGCCTCTATCTGGTCACTGTCAACACCGACCTCACCACCA
TCGACCTGGTGGCCTTCTTGGGCTACAAATATGTCGGGATGATTGGCGGGGTCCTCATGGGCCTGCTCTTCGGGA
AGATTGGCTACTACCTGGTGCTGGGCTGGTGCTGCGTAGCCATCTTTGTGTTCATGATCCGGACGCTGCGGCTGA
AGATCTTGGCAGACGCAGCAGCTGAGGGGGTCCCGGTGCGTGGGGCCCGGAACCAGCTGCGCATGTACCTGACCA
TGGCGGTGGCGGCGGCGCAGCCTATGCTCATGTACTGGCTCACCTTCCACCTGGTGCGG**TGA**GCGCGCCCGCTGA
ACCTCCCGCTGCTGCTGCTGCTGCTGGGGGCCACTGTGGCCGCCGAACTCATCTCCTGCCTGCAGGCCCCAAGGT
CCACCCTGTCTGGCCACAGGCACCGCCTCCATCCCATGTCCCGCCCAGCCCCGCCCCCAACCCAAGGTGCTGAGA
GATCTCCAGCTGCACAGGCCACCGCCCCAGGGCGTGGCCGCTGTTACAGAAACAATAAACCCTGATGGGCATGG

FIGURE 3696

TGCCGCGCCTGTAGCACTCCCGGAACTGGAACTAGGTGCCAGACGGTCCGGAGGCGGGGGCCACGTCAGCGGGGC
CACCCAGGGCTCGCGGGGTCCCGGTGGGTGCC**ATG**CGGAGGGGCGCGCTTCTGGCGGGCGCCTTGGCCGCGTACG
CCGCGTACCTGGTGCTGGGCGCGCTGTTGGTGGCGCGGCTGGAGGGGCCGCACGAAGCCAGGCTCCGAGCCGAGC
TGGAGACGCTGCGGGCGCAGCTGCTTCAGCGCAGCCCGTGTGTGGCTGCCCCCGCCCTGGACGCCTTCGTGGAGC
GAGTGCTGGCGGCCGGACGGCTGGGGCGGGTCGTGCTTGCTAACGCTTCGGGGTCCGCCAACGCCTCGGACCCCG
CCTGGGACTTCGCCTCTGCTCTCTTCTTCGCCAGCACGCTGATCACCACCGTGGGCTATGGGTACACAACGCCAC
TGACTGATGCGGGCAAGGCCTTCTCCATCGCCTTTGCGCTCCTGGGCGTGCCGACCACCATGCTGCTGCTGACCG
CCTCAGCCCAGCGCCTGTCACTGCTGCTGACTCACGTGCCCCTGTCTTGGCTGAGCATGCGTTGGGGCTGGGACC
CCCGGCGGGCGGCCTGCTGGCACTTGGTGGCCCTGTTGGGGGTCGTAGTGACCGTCTGCTTTCTGGTGCCGGCTG
TGATCTTTGCCCACCTCGAGGAGGCCTGGAGCTTCTTGGATGCCTTCTACTTCTGCTTTATCTCTCTGTCCACCA
TCGGCCTGGGCGACTACGTGCCCGGGGAGGCCCCTGGCCAGCCCTACCGGGCCCTCTACAAGGTGCTGGTCACAG
TCTACCTCTTCCTGGGCCTGGTGGCCATGGTGCTGGTGCTGCAGACCTTCCGCCACGTGTCCGACCTCCACGGCC
TCACGGAGCTCATCCTGCTGCCCCCTCCGTGCCCTGCCAGTTTCAATGCGGATGAGGACGATCGGGTGGACATCC
TGGGCCCCCAGCCGGAGTCGCACCAGCAACTCTCTGCCAGCTCCCACACCGACTACGCTTCCATCCCCAGG**TAG**C
TGGGGCAGCCTCTGCCAGGCTTGGGTGTGCCTGGCCTGGGACTGAGGGGTCCAGGCGACCAGAGCTGGCTGTACA
GGAATGTCCACGAGCACAGCAGGTGATCTTGAGGCCTTGCCGTCCACCGTCTCTCCTTTGTTTCCCAGCATCTGG
CTGGGATGTGAAGGGCAGCACTCCCTGTCCCCATGTCCCGGGCTCCACTGGGCACCAACATAACCTTGTTCTCTG
TCCTTTCTCTCATCCTCTTTACACTGTGTCTCTCTGGCTCTCTGGCATTCTCGCTGCCTCTGTCTTTCCCTCTTG
CTGTCTCTGTTTCTCATTCTCTTTCATGTTCCGTCTGTGTCTCTCAATTAACCACTCGTCAACTGCTGATTCTAC
TGGGCTGTGGGCTCAGACCTCATTTCAGGCACCAGATTGGTCGCTACACCCTGGACAAGTGACTGCCCGTCTCTG
AGCCTTGATTTCCTCAGCTGCCAAATGGGAAGAATAGAAGAATTTGCCCCTAAACCCCTCCTGTGTGCTGGCCCT
GTGCTAGACAGTGCTGGAGACATAGTTGGGGGTGGAGAACTGCCCTTATGGAGCTTGCAGTCCAGTGAGGTGGAC
AGACCTGTCCCCAGACAGTGATGGCCCAAAATGGTCAGGACTTTAATGGAGGAGGTGAGGTGTTGAAAGCACAGG
CAGAGTGGTCAGGGCTGAAGTCGGAGAAGCATAGGGACTAGGCCCAATCCAGCCTGGAAAGTCAGGGAGGACTTC
CTAGAGGAAGGGACATCGAACTAAGACCTGAACTATGAGAAATAGGCAGGAAGAAGTTGTACCTGACTCATTTTT
CTCAGGTGTCTCCAGGGAGCAGGACCCATGGAGGGACCCCTGGTGTAGGCCTGGGCGATAGACTCTTCCTCAGCA
GCCTGGCAGGCAGGAAACAGACATAGGACCCCAGCCCAGATCTGAATGGCATGGGAGGTGCTGCCCTTAACCATG
ACACCATTGTAAGAGCTGTCCACATTTGTATGTTGTGCCCTGGAATCAGCCTGGTTGAGCTCAAATCCCAACTTA
GCCACGTCTGGCCTGTGTCCTTGGGCAGTCACACTACCTCTCTGATTTTGTTTCCTTATCTGTAAAATGGTGATC
ATCATAATACAACTTCAAAAGGATTTCAGGCTGAGTGTGGTGGCTCACGCCTATACACCCAGCACTTTGGAAGGC
TGAGGAAGGAGGATCGCTTGAGGCCAGGAGTTTGAGACTAGCCTAGGCAACACAGTGAGGCCTTATCTCAACAAC
AACCACAAAATCTAAAAATTAGCTGGGTGTGGTGGTGCATGCCTGTGATCCTGGCTACTTCAGAGGCTGAGGTGG
AAGGATCACTTGAGGCCAGGAGTTTGAGGCTGCAGTGAGTTATGATGGCACTGCTGCACTCCAGCCTGCGGGACA
GAGTGAGACCCTGTCTGAAAGAAAGAGAGAAAGAAAGAAAGAAAGAGAGAGAAAGAAAGAAAGAAAGGGAA
AGATGGAAGGAAGGAAGGAAAAAGAAAGAGAAAGAGAGAGAGAGAGAAAGAAAAAGAAAGAAAAGTAAGAAAGAA
AAAAGAAAAAGAAAGAAAAGTAAGAAAG

FIGURE 3697

CGGGGCGGCAGGCTTCTCGAGCTCCGGGCCCGCGGCAACCTCGGGCGCTGTTCTGCAGGCCGCGACCGGC**ATG**TA
CGAGCAACTCAAGGGCGAGTGGAACCGTAAAAGCCCCAATCTTAGCAAGTGCGGGGAAGAGCTGGGTCGACTCAA
GCTAGTTCTTCTGGAGCTCAACTTCTTGCCAACCACAGGGACCAAGCTGACCAAACAGCAGCTAATTCTGGCCCG
TGACATACTGGAGATCGGGGCCCAATGGAGCATCCTACGCAAGGACATCCCCTCCTTCGAGCGCTACATGGCCCA
GCTCAAATGCTACTACTTTGATTACAAGGAGCAGCTCCCCGAGTCAGCCTATATGCACCAGCTCTTGGGCCTCAA
CCTCCTCTTCCTGCTGTCCCAGAACCGGGTGGCTGAGTTCCACACGGAGTTGGAGCGGCTGCCTGCCAAGGACAT
ACAGACCAATGTCTACATCAAGCACCCAGTGTCCCTGGAGCAATACCTGATGGAGGGCAGCTACAACAAAGTGTT
CCTGGCCAAGGGTAACATCCCCGCCGAGAGCTACACCTTCTTCATTGACATCCTGCTCGACACTATCAGGGATGA
GATCGCTGGGTGCATCGAGAAGGCCTACGAGAAAATCCTTTTCACTGAGGCCACCCGGATCCTCTTCTTCAACAC
ACCCAAAAAGATGACAGACTACGCCAAGAAGCGAGGGTGGGTCCTGGGCCCCAACAACTACTACAGTTTTGCCAG
CCAGCAGCAGAAGCCGGAAGACACCACCATTCCCTCCACAGAACTGGCCAAACAGGTCATCGAGTATGCCCGGCA
GCTGGAGATGATCGTC**TGA**GCCCCCCGGGCACTGGGTGGGGCAGGGCACGAGTTATTTAAAACAGTTACACTGCA
GGGTTTCGCCCAATAAAGGTGGACTGAC

FIGURE 3698

CCTGCAGGTAC**ATG**GTGCGGGTCCGAGCTGTGGTGATGGCCCGAGATGACTCCAGTGGGGGCTGGCTGCCTGTGG
GGGGCGGGGGCCTCAGCCAGACAACCTTGGAGTGTACACTGAAGCCAGGCTTGGTTTACAACAAGGTGAATCCCA
TCTTTCACCACTGGAGCCTGGGTGACTGCAAGTTTGGACTGACGTTTCAGAGCCCTGCAGAGGCTGATGAGTTCC
AGAAGAGCCTGCTGGCTGCGCTGGCCGCACTGGGTCGAGGCTCACTCACCCCCTCCTCCTCCTCCTCCTCCTCCT
CTCCTTCCCAGGATACTGCAGAGACCCCCTGCCCTCTGACGCTCTCCCAGTACTTCAGGCATATGCTGTGCCCT**T**
GACAGTGGCCCTAACCGCATCCTTATGAATAGGTACTCTTAGGATCCCCGTTTTACAGAGGAGGAAACTGAGGCT
CAAAGAGTCCCACGTGGACAGCGACTCCTCCTCCAGTCACAGCCGCCAGGAGACTCCTCCCAGCGCCGCTGCGGC
CCCCATCATCACGATGGAGTCAGCTTCAGGCTTCGGGCCGACCACGCCCCCCCAGCGCCGCCGCTCCTCCGCTCA
G

FIGURE 3699

GGAAGCGTGGGAGGGGGCCGCGGTGGCCCAGGACCTGCTGGCTCTGGGGTATGGAGGTGTCCCGGGGGCGGCGTC
GCGGGGCGCCTCATGCCCAGACTTCAGGGGGCTGTGCGTGCGGCTGGCGGCGGAGCTGGCGACGCTGGGCGCCCT
CGAGCAGCAGCGAGAGGCGGGCGCGGAGGTGCTGAGCGCCGGCGACGGCCCTGGCGCGGAGGAGGACTTTCTGCG
GCAGCTCGGCAGCCTGCTGCGGGAGCTGCACTGCCCGGATCGCGCGCTCTGCGGCGGGGATGGCGCGGCTGCGCT
TCGGGAACCCGGTGCCGGACTGCGCCTGCTGCTAGAGACACAGTTTCACCATGTTGGCCAGGCTGGTCTCCATCT
CCTGACCTCGTGATCCGCCCGCCTCTGCCTCCCAAAGTGCTGGGATTACAGGCTTTCTCTGCTCAGAGCTCCAAG
CCACCCGCCTCCTGTGCCTCCGCTCTCTGCTGGATCCGAGTCCTAGGCCACCCCTTGGTGAAGGGGTAGTGGAGG
GAGCCGGC**ATG**GTCCAAGAACTGGACCTTACCCTCCAAGCCCTGGGGCTGCCCAGACCTGCACCAGGGACCCCCG
CCAGCCAGCTGCTGCAGGAGTTGCATGCTAAGATCTCAGAGCTGCAGCCTTCTCTGCCCCCAGGGTCCCTGCAGC
CCCTCCTCAGCTGCTCGCTAGATGCACCCAGATGGGAAGCGTTGGAGTCTCTGTCCCAAAGCCTCAGAGATCAGT
ACCGCTGCCGCCGCTGCCTCCTCCTCAAGCGCCTTGACCTCACTACATCTGCTTTCCACTGGAGTGACCGGGCAG
AGGCCCAAGGAGAGGCCATGAGGGCAGTGCTGATCCCAATTCGAGAGGTTCTGACCCCAGAATCGGACATCTCCA
TTGCACACGTTCTGGCTGCCCGAGCCGACCTGTCTTGTCTCGTCCCAGCCACCAGCGTGGCTGTCCGCAGAGGGA
CCTGCTGTGCCATCAACAAGGTGCTTATGGGCAACGTTCCAGACCGGGGGGGCCGCCCAAATGAGCTGGAGCCTC
CCATGCCCACCTGGAGGAGCCGAAGAGAGGATGGAGGCCCCCAGTGTTGGGGTCGCAAGAAGAAGAAGAAGAAG**T**
AAAGGGGGACTGGTGGTCGGGGGCGGGGGGTCCTCCATGAGATGCTAATGCTATCGGTAATCTCTGGGGAGTCCG
TTTAAGGCTTTCCTTGGTATTTGGCACCCAAGCCCCCCATCTCCTATTCCTGAGTCCCCAAATGCCCTGCTCCCA
TTCACGTCAATACCAAGAACCATGTTCTCCAGAGAATAAATTTAATTTATGAC

FIGURE 3700A

TCTACCTCGCGGGTGCCTCTGGTGTCTCCAGAGGTCTCCGACCCCAGCCCGCCCCCAGCCCTCCCGCCCAGCCCG
CAGCCCCCTCCCTCTGTTCCCCGACCTCAGACCCTGGGCTTCCGACCTCGACATC**ATG**GGTGACGCAGAAGGCGA
AGACGAGGTCCAGTTCCTGCGGACGGACGATGAGGTGGTCCTGCAGTGCAGCGCTACCGTGCTCAAGGAGCAGCT
CAAGCTCTGCCTGGCCGCCGAGGGCTTCGGCAACCGCCTGTGCTTCCTGGAGCCCACTAGCAACGCGCAGAATGT
GCCCCCCGATCTGGCCATCTGTTGCTTCGTCCTGGAGCAGTCCCTGTCTGTGCGAGCCCTGCAGGAGATGCTGGC
TAACACGGTGGAGGCTGGCGTGGAGTCATCCCAGGGCGGGGGACACAGGACGCTCCTGTATGGCCATGCCATCCT
GCTCCGGCATGCACACAGCCGCATGTATCTGAGCTGCCTCACCACCTCCCGCTCCATGACTGACAAGCTGGCCTT
CGATGTGGGACTGCAGGAGGACGCAACAGGAGAGGCTTGCTGGTGGACCATGCACCCAGCCTCCAAGCAGAGGTC
TGAAGGAGAAAAGGTCCGCGTTGGGGATGACATCATCCTTGTCAGTGTCTCCTCCGAGCGCTACCTGCACCTGTC
GACCGCCAGTGGGGAGCTCCAGGTTGACGCTTCCTTCATGCAGACACTATGGAACATGAACCCCATCTGCTCCCG
CTGCGAAGAGGGCTTCGTGACGGGAGGTCACGTCCTCCGCCTCTTTCATGGACATATGGATGAGTGTCTGACCAT
TTCCCCTGCTGACAGTGATGACCAGCGCAGACTTGTCTACTATGAGGGGGGAGCTGTGTGCACTCATGCCCGCTC
CCTCTGGAGGCTGGAGCCACTGAGAATCAGCTGGAGTGGGAGCCACCTGCGCTGGGGCCAGCCACTCCGAGTCCG
GCATGTCACTACCGGGCAGTACCTAGCGCTCACCGAGGACCAGGGCCTGGTGGTGGTTGACGCCAGCAAGGCTCA
CACCAAGGCTACCTCCTTCTGCTTCCGCATCTCCAAGGAGAAGCTGGATGTGGCCCCCAAGCGGGATGTGGAGGG
CATGGGCCCCCCTGAGATCAAGTACGGGGAGTCACTGTGCTTCGTGCAGCATGTGGCCTCAGGACTGTGGCTCAC
CTATGCTGCTCCAGACCCCAAGGCCCTGCGGCTCGGCGTGCTCAAGAAGAAGGCCATGCTGCACCAGGAGGGCCA
CATGGACGACGCACTGTCGCTGACCCGCTGCCAGCAGGAGGAGTCCCAGGCCGCCCGCATGATCCACAGCACCAA
TGGCCTATACAACCAGTTCATCAAGAGCCTGGACAGCTTCAGCGGGAAGCCACGGGGCTCGGGGCCACCCGCTGG
CACGGCGCTGCCCATCGAGGGCGTTATCCTGAGCCTGCAGGACCTCATCATCTACTTCGAGCCTCCCTCCGAGGA
CTTGCAGCACGAGGAGAAGCAGAGCAAGCTGCGAAGCCTGCGCAACCGCCAGAGCCTCTTCCAGGAGGAGGGGAT
GCTCTCCATGGTCCTGAATTGCATAGACCGCCTAAATGTCTACACCACTGCTGCCCACTTTGCTGAGTTTGCAGG
GGAGGAGGCAGCCGAGTCCTGGAAAGAGATTGTGAATCTTCTCTATGAACTCCTAGCTTCTCTAATCCGTGGCAA
TCGTAGCAACTGTGCCCTCTTCTCCACAAACTTGGACTGGCTGGTCAGCAAGCTGGATCGGCTGGAGGCCTCGTC
TGGCATCCTGGAGGTCCTGTACTGTGTCCTCATTGAGAGTCCAGAGGTTCTGAACATCATCCAGGAGAATCACAT
CAAGTCCATCATCTCCCTCCTGGACAAGCATGGGAGGAACCACAAGGTCCTGGACGTGCTATGCTCCCTGTGTGT
GTGTAATGGTGTGGCTGTACGCTCCAACCAAGATCTTATTACTGAGAACTTGCTGCCTGGCCGTGAGCTTCTGCT
GCAGACAAACCTCATCAACTATGTCACCAGCATCCGCCCCAACATCTTTGTGGGCCGAGCGGAAGGCACCACGCA
GTACAGCAAATGGTACTTTGAGGTGATGGTGGACGAGGTGACTCCATTTCTGACAGCTCAGGCCACCCACTTGCG
GGTGGGCTGGGCCCTCACCGAGGGCTACACCCCCTACCCTGGGGCCGGCGAGGGCTGGGGCGGCAACGGGGTCGG
CGATGACCTCTATTCCTACGGCTTTGATGGACTGCATCTCTGGACAGGACACGTGGCACGCCCAGTGACTTCCCC
AGGGCAGCACCTCCTGGCCCCTGAAGACGTGATCAGCTGCTGCCTGGACCTCAGCGTGCCGTCCATCTCCTTCCG
CATCAACGGCTGCCCCGTGCAGGGTGTCTTTGAGTCCTTCAACCTGGACGGGCTCTTCTTCCCTGTTGTCAGCTT
CTCGGCTGGTGTCAAGGTGCGGTTCCTCCTTGGTGGCCGCCATGGTGAATTCAAGTTCCTGCCCCCACCTGGCTA
TGCTCCATGCCATGAGGCTGTGCTCCCTCGAGAGCGACTCCATCTTGAACCCATCAAGGAGTATCGACGGGAGGG
GCCCCGGGGGCCTCACCTGGTGGGCCCCAGTCGCTGCCTCTCACACACCGACTTCGTGCCCTGCCCTGTGGACAC
TGTCCAGATTGTCCTGCCGCCCCATCTGGAGCGCATTCGGGAGAAGCTGGCGGAGAACATCCACGAGCTCTGGGC
GCTAACCCGCATCGAGCAGGGCTGGACCTACGGCCCGGTTCGGGATGACAACAAGAGGCTGCACCCGTGTCTTGT
GGACTTCCACAGCCTTCCAGAGCCTGAGAGGAACTACAACCTGCAGATGTCTGGGGAGACGCTCAAGACTCTGCT
GGCTCTGGGCTGCCACGTGGGCATGGCGGATGAGAAGGCGGAGGACAACCTGAAGAAGACAAAACTCCCCAAGAC
GTATATGATGAGCAATGGGTACAAGCCGGCTCCGCTGGACCTGAGCCACGTGCGGCTGACGCCGGCGCAGACGAC
ACTGGTGGACCGTCTGGCAGAAAATGGGCACAACGTGTGGGCCCGAGACCGCGTGGGCCAGGGCTGGAGCTACAG
CGCAGTGCAGGACATCCCAGCGCGCCGAAACCCTCGGCTGGTGCCCTACCGCCTGCTGGATGAAGCCACCAAGCG
CAGCAACCGGGACAGCCTCTGCCAGGCCGTGCGCACCCTCCTGGGCTACGGCTACAACATCGAGCCTCCTGACCA
GGAGCCCAGTCAGGTGGAGAACCAGTCTCGTTGTGACCGGGTGCGCATCTTCCGGGCAGAGAAATCCTATACAGT
GCAGAGCGGCCGCTGGTACTTCGAGTTTGAAGCAGTCACCACAGGCGAGATGCGCGTGGGCTGGGCGAGGCCCGA
GCTGAGGCCTGATGTAGAGCTGGGAGCTGACGAGCTGGCCTATGTCTTCAATGGGCACCGCGGCCAGCGCTGGCA
CTTGGGCAGTGAACCATTTGGGCGCCCCTGGCAGCCGGGCGATGTCGTTGGCTGTATGATCGACCTCACAGAGAA

FIGURE 3700B

CACCATTATCTTCACCCTCAATGGCGAGGTCCTCATGTCTGACTCAGGCTCCGAAACAGCCTTCCGGGAGATTGA
GATTGGGGACGGCTTCCTGCCCGTCTGCAGCTTGGGACCTGGCCAGGTGGGTCATCTGAACCTGGGCCAGGACGT
GAGCTCTCTGAGGTTCTTTGCCATCTGTGGCCTCCAGGAAGGCTTCGAGCCATTTGCCATCAACATGCAGCGCCC
AGTCACCACCTGGTTCAGCAAAGGCCTGCCCCAGTTTGAGCCAGTGCCCCTTGAACACCCTCACTATGAGGTATC
CCGAGTGGACGGCACTGTGGACACGCCCCCCTGCCTGCGCCTGACCCACCGCACCTGGGGCTCCCAGAACAGCCT
GGTGGAGATGCTTTTCCTGCGGCTGAGCCTCCCAGTCCAGTTCCACCAGCACTTCCGCTGCACTGCAGGGGCCAC
CCCGCTGGCACCTCCTGGCCTGCAGCCCCCCGCCGAGGACGAGGCCCGGGCGGCGGAACCCGACCCTGACTACGA
AAACCTGCGCCGCTCAGCTGGGGGCTGGAGCGAGGCAGAGAACGGCAAAGAAGGGACTGCGAAGGAGGGCGCCCC
CGGGGGCACCCCGCAGGCGGGGGGAGAGGCGCAGCCCGCCAGGGCGGAGAATGAGAAGGATGCCACCACCGAGAA
GAACAAGAAGAGAGGCTTCTTATTCAAGGCCAAGAAGGTCGCCATGATGACCCAGCCACCGGCCACCCCCACGCT
GCCCCGACTCCCTCACGACGTGGTGCCTGCAGACAACCGCGATGACCCCGAGATCATCCTCAACACCACCACGTA
CTATTACTCCGTGAGGGTCTTTGCTGGACAGGAGCCCAGCTGCGTGTGGGCGGGCTGGGTCACCCCTGACTACCA
TCAGCACGACATGAGCTTCGACCTCAGCAAGGTCCGGGTCGTGACGGTGACCATGGGGGATGAACAAGGCAACGT
CCACAGCAGCCTCAAGTGTAGCAACTGCTACATGGTGTGGGGCGGAGACTTTGTGAGTCCCGGGCAGCAGGGCCG
GATCAGCCACACGGACCTTGTCATTGGGTGCCTGGTGGACTTGGCCACTGGCTTAATGACCTTTACAGCCAATGG
CAAAGAGAGCAACACCTTTTTCCAGGTGGAACCCAACACTAAGCTATTTCCTGCCGTCTTCGTCCTGCCCACCCA
CCAGAACGTCATCCAGTTTGAGCTGGGGAAGCAGAAGAACATCATGCCGTTGTCAGCCGCCATGTTCCAAAGCGA
GCGCAAGAACCCGGCCCCGCAGTGCCCACCGCGGCTGGAGATGCAGATGCTGATGCCAGTGTCCTGGAGCCGCAT
GCCCAACCACTTCCTGCAGGTGGAGACGAGGCGTGCCGGCGAGCGGCTGGGCTGGGCCGTGCAGTGCCAGGAGCC
GCTGACCATGATGGCGCTGCACATCCCCGAGGAGAACCGGTGCATGGACATCCTGGAGCTGTCGGAGCGCCTGGA
CCTGCAGCGCTTCCACTCGCACACCCTGCGCCTCTACCGCGCTGTGTGCGCCCTGGGCAACAATCGCGTGGCGCA
CGCTCTGTGCAGCCACGTAGACCAAGCTCAGCTGCTGCACGCCCTGGAGGACGCGCACCTGCCAGGCCCACTGCG
CGCAGGCTACTATGACCTCCTCATCAGCATCCACCTCGAAAGTGCCTGCCGCAGCCGCCGCTCCATGCTCTCTGA
ATACATCGTGCCCCTCACGCCTGAGACCCGCGCCATCACGCTCTTCCCTCCTGGAAGGAGCACAGAAAATGGTCA
CCCCCGGCATGGCCTGCCGGGAGTTGGAGTCACCACTTCGCTGAGGCCCCCGCATCATTTCTCGCCCCCCTGTTT
CGTGGCCGCTCTGCCAGCTGCTGGGGCAGCAGAGGCCCCGGCCCGCCTCAGCCCTGCCATCCCGCTGGAGGCCCT
GCGGGACAAGGCACTGAGGATGCTGGGGGAGGCGGTGCGCGACGGTGGGCAGCACGCTCGCGACCCCGTCGGGGG
CTCCGTGGAGTTCCAGTTTGTGCCTGTGCTCAAGCTCGTGTCCACCCTGCTGGTGATGGGCATCTTTGGCGATGA
GGATGTGAAACAGATCTTGAAGATGATTGAGCCTGAGGTCTTCACTGAGGAAGAAGAGGAGGAGGACGAGGAGGA
AGAGGGTGAAGAGGAAGATGAGGAGGAGAAGGAGGAGGATGAGGAGGAAACAGCACAGGAAAAGGAAGATGAGGA
AAAAGAGGAAGAGGAGGCAGCAGAAGGGGAGAAAGAAGAAGGCTTGGAGGAAGGGCTGCTCCAGATGAAGTTGCC
AGAGTCTGTGAAGTTACAGATGTGCCACCTGCTGGAGTATTTCTGTGACCAAGAGCTGCAGCACCGTGTGGAGTC
CCTGGCAGCCTTTGCGGAGCGCTATGTGGACAAGCTCCAGGCCAACCAGCGGAGCCGCTATGGCCTCCTCATAAA
AGCCTTCAGCATGACCGCAGCAGAGACTGCAAGACGTACCCGCGAGTTCCGCTCCCCACCCCAGGAACAGATCAA
TATGCTATTGCAATTCAAAGATGGTACAGATGAGGAAGACTGTCCTCTCCCTGAAGAGATTCGACAGGATTTGCT
TGACTTTCATCAAGACCTGCTGGCACACTGTGGAATTCAGCTAGATGGAGAGGAGGAGGAACCAGAGGAAGAGAC
CACCCTGGGCAGCCGCCTCATGAGCCTGTTGGAGAAAGTGCGGCTGGTGAAGAAGAAGGAAGAGAAACCTGAGGA
GGAGCGGTCAGCAGAGGAGAGCAAACCCCGGTCCCTGCAGGAGCTGGTGTCCCACATGGTGGTGCGCTGGGCCCA
AGAGGACTTCGTGCAGAGCCCCGAGCTGGTGCGGGCCATGTTCAGCCTCCTGCACCGGCAGTACGACGGGCTGGG
TGAGCTGCTGCGTGCCCTGCCGCGGGCGTACACCATCTCACCGTCCTCCGTGGAAGACACCATGAGCCTGCTCGA
GTGCCTCGGCCAGATCCGCTCGCTGCTCATCGTGCAGATGGGCCCCCAGGAGGAGAACCTCATGATCCAGAGCAT
CGGGAACATCATGAACAACAAAGTCTTCTACCAACACCCGAACCTGATGAGGGCGCTGGGCATGCACGAGACGGT
CATGGAGGTCATGGTCAACGTCCTCGGGGGCGGCGAGTCCAAGGAGATCCGCTTCCCCAAGATGGTGACAAGCTG
CTGCCGCTTCCTCTGCTATTTCTGCCGAATCAGCCGGCAGAACCAGCGCTCCATGTTTGACCACCTGAGCTACCT
GCTGGAGAACAGTGGCATCGGCCTGGGCATGCAGGGCTCCACGCCCCTGGACGTGGCTGCTGCCTCCGTCATTGA
CAACAATGAGCTGGCCTTGGCATTGCAGGAGCAGGACCTGGAAAAGGTTGTGTCCTACCTGGCAGGCTGTGGCCT
CCAGAGCTGCCCCATGCTTGTGGCCAAAGGGTACCCAGACATTGGCTGGAACCCCTGTGGTGGAGAGCGCTACCT
GGACTTCCTGCGCTTTGCTGTCTTCGTCAACGGCGAGAGCGTGGAGGAGAACGCCAATGTGGTGGTGCGGCTGCT

FIGURE 3700C

CATCCGGAAGCCTGAGTGCTTCGGACCCGCCCTGCGGGGTGAGGGTGGCTCAGGGCTGCTGGCTGCCATCGAAGA
GGCCATCCGCATCTCCGAGGACCCTGCGAGGGATGGCCCAGGCATCCGCAGGGACCGGCGGCGCGAGCACTTTGG
TGAGGAACCGCCTGAAGAAAACCGGGTGCACCTGGGACACGCCATCATGTCCTTCTATGCCGCCTTGATCGACCT
GCTCGGACGCTGTGCACCAGAGATGCATCTAATCCAAGCCGGCAAGGGTGAGGCCCTGCGGATCCGCGCCATCCT
CCGCTCCCTTGTGCCCTTGGAGGACCTTGTGGGCATCATCAGCCTCCCACTGCAGATTCCCACCCTGGGCAAAGA
TGGGGCTCTGGTGCAGCCAAAGATGTCAGCATCCTTCGTGCCGGACCACAAGGCGTCCATGGTGCTCTTCCTGGA
CCGTGTGTATGGCATCGAGAACCAGGACTTCTTGCTGCACGTGCTGGACGTGGGGTTCCTGCCCGACATGAGGGC
AGCCGCCTCGCTGGACACGGCCACTTTCAGCACCACCGAGATGGCGCTGGCGCTGAACCGCTACCTGTGCCTGGC
CGTGCTGCCGCTCATCACCAAGTGTGCGCCGCTCTTTGCGGGCACAGAACACCGCGCCATCATGGTGGACTCTAT
GCTGCATACCGTGTACCGCCTGTCTCGGGGTCGTTCGCTCACCAAGGCGCAGCGTGACGTCATCGAGGACTGCCT
CATGTCGCTCTGCAGGTACATCCGCCCGTCGATGCTGCAGCACCTGTTGCGCCGCCTGGTGTTCGACGTGCCCAT
CCTCAACGAGTTCGCCAAGATGCCACTCAAGCTCCTCACCAACCACTATGAGCGCTGTTGGAAGTACTACTGCCT
ACCCACGGGCTGGGCCAACTTCGGGGTCACCTCAGAGGAGGAGCTGCACCTCACACGGAAACTCTTCTGGGGCAT
CTTTGACTCTCTGGCCCATAAGAAATACGACCCGGAGCTGTACCGCATGGCCATGCCTTGTCTGTGCGCCATTGC
CGGGGCTCTGCCCCCCGACTATGTGGATGCCTCATACTCATCTAAGGCAGAGAAAAAGGCCACAGTGGATGCTGA
AGGCAACTTTGATCCCCGGCCTGTGGAGACCCTCAATGTGATCATCCCGGAGAAGCTGGACTCCTTCATTAACAA
GTTTGCGGAGTACACACACGAGAAGTGGGCCTTCGACAAGATCCAGAACAACTGGTCCTATGGAGAGAACATAGA
CGAGGAGCTGAAGACCCACCCCATGCTGAGGCCCTACAAGACCTTTTCAGAGAAGGACAAAGAGATTTACCGCTG
GCCCATCAAGGAGTCCCTGAAGGCCATGATTGCCTGGGAATGGACGATAGAGAAGGCCAGGGAGGGTGAGGAGGA
GAAGACGGAAAAGAAAAAAACGCGGAAGATATCACAAAGTGCCCAGACCTATGATCCTCGAGAAGGCTACAACCC
TCAGCCCCCCGACCTTAGTGCTGTTACCCTGTCCCGGGAGCTGCAGGCCATGGCAGAACAACTGGCAGAAAATTA
CCACAACACGTGGGGACGGAAGAAGAAGCAGGAGCTGGAAGCCAAAGGCGGTGGGACCCACCCCCTGCTGGTCCC
CTACGACACGCTCACGGCCAAGGAGAAGGCACGAGATCGAGAGAAGGCCCAGGAGCTACTGAAATTCCTGCAGAT
GAATGGCTACGCGGTTACAAGAGGCCTTAAGGACATGGAACTGGACTCGTCTTCCATTGAAAAGCGGTTTGCCTT
TGGCTTCCTGCAGCAGCTGCTGCGCTGGATGGACATTTCTCAGGAGTTCATTGCCCACCTGGAGGCTGTGGTCAG
CAGTGGGCGAGTGGAAAAGTCCCCACATGAACAGGAGATTAAATTCTTTGCCAAGATCCTGCTCCCTTTGATCAA
CCAGTACTTCACCAACCACTGCCTCTATTTCTTGTCCACTCCGGCTAAAGTGCTGGGCAGCGGTGGCCACGCCTC
TAACAAGGAGAAGGAAATGATCACCAGCCTCTTCTGCAAACTTGCTGCTCTCGTCCGCCACCGAGTCTCTCTCTT
TGGGACAGACGCCCCAGCTGTGGTCAACTGTCTTCACATCCTGGCCCGCTCCCTGGATGCCAGGACAGTGATGAA
GTCAGGCCCTGAGATCGTGAAGGCTGGCCTCCGCTCCTTCTTCGAGAGTGCCTCGGAGGACATCGAGAAGATGGT
GGAGAACCTGCGGCTGGGCAAGGTGTCGCAGGCGCGCACCCAGGTGAAAGGCGTGGGCCAGAACCTCACCTACAC
CACTGTGGCACTGCTGCCGGTCCTCACCACCCTCTTCCAGCACATCGCCCAGCACCAGTTCGGAGATGACGTCAT
CCTGGACGACGTCCAGGTCTCTTGCTACCGAACGCTGTGCAGTATCTACTCCCTGGGAACCACCAAGAACACTTA
TGTGGAAAAGCTTCGGCCAGCCCTCGGGGAGTGCCTGGCCCGTCTGGCAGCAGCCATGCCGGTGGCGTTCCTGGA
GCCGCAGCTGAACGAGTACAACGCCTGCTCCGTGTACACCACCAAGTCTCCGCGGGAGCGGGCCATCCTGGGGCT
CCCCAACAGTGTGGAGGAGATGTGTCCCGACATCCCGGTGCTGGAGCGGCTCATGGCAGACATTGGGGGGCTGGC
CGAGTCAGGTGCCCGCTACACAGAGATGCCGCATGTCATCGAGATCACGCTGCCCATGCTATGCAGCTACCTGCC
CCGATGGTGGGAGCGCGGGCCCGAGGCACCCCCTTCCGCCCTGCCCGCCGGCGCCCCCCCACCCTGCACAGCTGT
CACCTCTGACCACCTCAACTCCCTGCTGGGGAATATCCTGAGAATCATCGTCAACAACCTGGGCATTGACGAGGC
CTCCTGGATGAAGCGGCTGGCTGTGTTCGCACAGCCCATTGTGAGCCGTGCACGGCCGGAGCTCCTGCAGTCCCA
CTTCATCCCAACTATCGGGCGGCTGCGCAAGAGGGCAGGGAAGGTGGTGTCCGAGGAGGAGCAGCTGCGCCTGGA
GGCCAAGGCGGAGGCCCAGGAGGGCGAGCTGCTGGTGCGGGACGAGTTCTCTGTGCTCTGCCGGGACCTCTACGC
CCTGTATCCGCTGCTCATCCGCTACGTGGACAACAACAGGGCGCAGTGGCTGACGGAGCCGAATCCCAGCGCGGA
GGAGCTGTTCAGGATGGTGGGCGAGATCTTCATCTACTGGTCCAAGTCCCACAACTTCAAGCGCGAGGAGCAGAA
CTTTGTGGTCCAGAATGAGATCAACAACATGTCCTTCCTGACTGCTGACAACAAAAGCAAAATGGCTAAGGCGGG
AGATATACAGTCCGGTGGCTCGGACCAGGAACGCACCAAGAAGAAGCGCCGGGGGGACCGGTACTCTGTGCAGAC
GTCACTGATCGTGGCCACACTGAAGAAGATGCTGCCCATCGGCCTGAATATGTGTGCGCCCACCGACCAAGACCT
CATCACGCTGGCCAAGACCCGTTACGCCCTGAAAGACACAGATGAGGAGGTCCGGGAATTTCTGCACAACAACCT

FIGURE 3700D

TCACCTTCAGGGAAAGGTCGAAGGCTCCCCGTCTCTGCGCTGGCAGATGGCTCTGTACCGGGGCGTCCCGGGTCG
CGAGGAGGACGCCGATGACCCCGAGAAAATCGTGCGCAGAGTCCAGGAAGTGTCAGCCGTGCTCTACTACCTGGA
CCAGACCGAGCACCCTTACAAGTCTAAGAAGGCCGTGTGGCACAAGCTTTTGTCCAAACAGCGCCGGCGGGCAGT
CGTGGCCTGTTTCCGTATGACGCCCCTGTACAACCTGCCCACGCACCGGGCATGTAACATGTTCCTGGAGAGCTA
CAAGGCTGCATGGATCCTGACTGAAGACCACAGTTTTGAGGACCGCATGATAGATGACCTTTCAAAAGCTGGGGA
GCAGGAGGAGGAGGAGGAAGAGGTGGAAGAGAAGAAGCCAGACCCCCTGCACCAGTTGGTCCTGCACTTCAGCCG
CACTGCCCTGACGGAAAAGAGCAAACTGGATGAGGATTACCTGTACATGGCCTATGCTGATATCATGGCAAAGAG
CTGCCACCTGGAGGAGGGAGGGGAGAACGGTGAAGCTGAAGAGGAGGTTGAGGTCTCCTTTGAGGAGAAACAGAT
GGAGAAGCAGAGGCTCTTGTACCAGCAAGCACGGCTGCACACCCGGGGGGCGGCCGAGATGGTGCTGCAGATGAT
CAGTGCCTGCAAAGGAGAGACAGGTGCCATGGTGTCCTCCACCCTGAAGCTGGGCATCTCCATCCTCAATGGAGG
CAATGCTGAGGTCCAGCAGAAAATGCTGGATTATCTTAAGGACAAGAAGGAAGTTGGCTTCTTCCAGAGTATCCA
GGCACTGATGCAAACATGCAGCGTCCTGGATCTCAATGCCTTTGAGAGACAGAACAAGGCCGAGGGGCTGGGCAT
GGTGAATGAGGATGGCACTGTCATCAATCGCCAGAACGGAGAGAAGGTCATGGCGGATGATGAATTCACACAAGA
CCTGTTCCGATTCCTACAATTGCTCTGTGAGGGGCACAATAATGATTTCCAGAACTACCTACGGACACAGACAGG
GAACACGACCACTATTAACATCATCATTTGCACTGTGGACTACCTCCTGCGGCTGCAGGAATCCATCAGCGACTT
CTACTGGTACTACTCGGGCAAGGATGTCATTGAAGAGCAGGGCAAGAGGAACTTCTCCAAAGCCATGTCGGTGGC
TAAGCAGGTGTTCAACAGCCTCACTGAGTACATCCAGGGTCCCTGCACCGGGAACCAGCAGAGCCTGGCGCACAG
TCGCCTATGGGACGCAGTGGTGGGATTCCTGCACGTGTTCGCCCACATGATGATGAAGCTCGCTCAGGACTCAAG
CCAGATCGAGCTGCTGAAGGAGCTGCTGGATCTGCAGAAGGACATGGTGGTGATGTTGCTGTCGCTACTAGAAGG
GAACGTGGTGAACGGCATGATCGCCCGGCAGATGGTGGACATGCTCGTGGAATCCTCATCCAATGTGGAGATGAT
CCTCAAGTTCTTCGACATGTTCCTGAAACTCAAGGACATTGTGGGCTCTGAAGCCTTCCAGGACTACGTAACGGA
TCCCCGTGGCCTCATCTCCAAGAAGGACTTCCAGAAGGCCATGGACAGCCAGAAGCAGTTCAGCGGTCCAGAAAT
CCAGTTCCTGCTTTCGTGCTCCGAAGCGGATGAGAACGAAATGATCAACTGCGAAGAGTTCGCCAACCGCTTCCA
GGAGCCAGCACGCGACATCGGCTTCAACGTGGCGGTGCTGCTGACCAACCTGTCGGAGCATGTGCCGCATGACCC
TCGCCTGCACAACTTCCTGGAGCTGGCCGAGAGCATCCTTGAGTACTTCCGCCCCTACCTGGGCCGCATCGAGAT
CATGGGCGCGTCACGCCGCATCGAGCGCATCTACTTCGAGATCTCAGAGACCAACCGCGCCCAGTGGGAGATGCC
CCAGGTGAAGGAGTCCAAGCGCCAGTTCATCTTCGACGTGGTGAACGAGGGCGGCGAGGCTGAGAAGATGGAGCT
CTTCGTGAGTTTCTGCGAGGACACCATCTTCGAGATGCAGATCGCCGCGCAGATCTCGGAGCCCGAGGGCGAGCC
GGAGACCGACGAGGACGAGGGCGCGGGCGCGGCGGAGGCGGGCGCGGAAGGCGCGGAGGAGGGCGCGGCGGGGCT
CGAGGGCACGGCGGCCACGGCGGCGGCGGGGGCGACGGCGCGGGTTGTGGCGGCCGCAGGCCGGGCCCTGCGAGG
CCTCAGCTACCGCAGCCTGCGGCGGCGCGTGCGGCGGCTGCGGCGGCTTACGGCCCGCGAGGCGGCCACCGCAGT
GGCGGCGCTGCTCTGGGCAGCAGTGACGCGCGCTGGGGCCGCTGGCGCGGGGGCGGCGGCGGGCGCGCTGGGCCT
GCTCTGGGGCTCGCTGTTCGGCGGCGGCCTGGTGGAGGGCGCCAAGAAGGTGACGGTGACCGAGCTCCTGGCAGG
CATGCCCGACCCCACCAGCGACGAGGTGCACGGCGAGCAGCCGGCCGGGCCGGGCGGAGACGCAGACGGCGAGGG
TGCCAGCGAGGGCGCTGGAGACGCCGCGGAGGGCGCTGGAGACGAGGAGGAGGCGGTGCACGAGGCCGGGCCGGG
CGGTGCCGACGGGGCGGTGGCCGTGACCGATGGGGGCCCCTTCCGGCCCGAAGGGGCTGGCGGTCTCGGGGACAT
GGGGGACACGACGCCTGCGGAACCGCCCACACCCGAGGGCTCTCCCATCCTCAAGAGGAAATTGGGGGTGGATGG
AGTGGAGGAGGAGCTCCCGCCAGAGCCAGAGCCCGAGCCGGAACCAGAGCTGGAGCCGGAGAAAGCCGATGCCGA
GAATGGGGAGAAGGAAGAAGTTCCCGAGCCCACACCAGAGCCCCCCAAGAAGCAAGCACCTCCCTCACCCCCTCC
AAAGAAGGAGGAAGCTGGAGGCGAATTCTGGGGAGAACTGGAGGTGCAGAGGGTGAAGTTCCTGAACTACCTGTC
CCGGAACTTTTACACCCTGCGGTTCCTTGCCCTCTTCTTGGCATTTGCCATCAACTTCATCTTGCTGTTTTATAA
GGTCTCAGACTCTCCACCAGGGGAGGACGACATGGAAGGCTCAGCTGCTGGGGATGTGTCAGGTGCAGGCTCTGG
TGGCAGCTCTGGCTGGGGCTTGGGGGCCGGAGAGGAGGCAGAGGGCGATGAGGATGAGAACATGGTGTACTACTT
CCTGGAGGAAAGCACAGGCTACATGGAACCCGCCCTGCGGTGTCTGAGCCTCCTGCATACACTGGTGGCCTTTCT
CTGCATCATTGGCTATAATTGTCTCAAGGTGCCCCTGGTAATCTTTAAGCGGGAGAAGGAGCTGGCCCGGAAGCT
GGAGTTTGATGGCCTGTACATCACGGAGCAGCCTGAGGACGATGACGTGAAGGGGCAGTGGGACCGACTGGTGCT
CAACACGCCGTCTTTCCCTAGCAACTACTGGGACAAGTTTGTCAAGCGCAAGGTCCTGGACAAACATGGGGACAT
CTACGGGCGGGAGCGGATTGCTGAGCTACTGGGCATGGACCTGGCCACACTAGAGATCACAGCCCACAATGAGCG

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FIGURE 3700E

CAAGCCCAACCCGCCGCCAGGGCTGCTGACCTGGCTCATGTCCATCGATGTCAAGTACCAGATCTGGAAGTTCGG
GGTCATCTTCACAGACAACTCCTTCCTGTACCTGGGCTGGTATATGGTGATGTCCCTCTTGGGACACTACAACAA
CTTCTTCTTTGCTGCCCATCTCCTGGACATCGCCATGGGGGTCAAGACGCTGCGCACCATCCTGTCCTCTGTCAC
CCACAATGGGAAACAGCTGGTGATGACCGTGGGCCTTCTGGCGGTGGTCGTCTACCTGTACACCGTGGTGGCCTT
CAACTTCTTCCGCAAGTTCTACAACAAGAGCGAGGATGAGGATGAACCTGACATGAAGTGTGATGACATGATGAC
GTGTTACCTGTTTCACATGTACGTGGGTGTCCGGGCTGGCGGAGGCATTGGGGACGAGATCGAGGACCCCGCGGG
TGACGAATACGAGCTCTACAGGGTGGTCTTCGACATCACCTTCTTCTTCTTCGTCATCGTCATCCTGTTGGCCAT
CATCCAGGGTCTGATCATCGACGCTTTTGGTGAGCTCCGAGACCAACAAGAGCAAGTGAAGGAGGATATGGAGAC
CAAGTGCTTCATCTGTGGAATCGGCAGTGACTACTTTGATACGACACCGCATGGCTTCGAGACTCACACGCTGGA
GGAGCACAACCTGGCCAATTACATGTTTTTCCTGATGTATTTGATAAACAAGGATGAGACAGAACACACGGGTCA
GGAGTCTTATGTCTGGAAGATGTACCAAGAGAGATGTTGGGATTTCTTCCCAGCTGGTGATTGTTTCCGTAAGCA
GTATGAGGACCAGCTTAGC**TGA**CACACCCCCAGCTGGCCCTCCACCCCCACCTCAAGTGCCTTATTCTCACAGCA
AGCCCCTTAGTCCCCAAGCCCCTCCCCCTAAGGCAGCTGGGGGAGAGGTGACCTAGTAC

FIGURE 3701

GGAAAGCGTGGCGGCTGCTGCTAGAGCCTTTCCCTTTACCGCACCCAAGGAGCTGGAGCGACAACAACGACGTCG
TTTCCGTTTCCACCACCTCTTCCTGTTCCCGTCCTTGAGGACGCCGTGCCGGGTCAGTGTTAGCCTCCAGCCCTG
GTTGTGGAAGGCGACAGAAGTC**ATG**GCGATGTTTGAGCAGATGAGAGCCAACGTGGGCAAGTTGCTCAAGGGTAT
CGACAGGTACAATCCTGAGAACCTGGCCACCCTGGAGCGCTATGTAGAGACGCAGGCCAAGGAAAATGCCTATGA
TCTGGAAGCCAACCTGGCTGTCCTGAAGCTGTACCAGTTCAACCCAGCCTTCTTTCAGACCACGGTCACCGCCCA
GATCCTGCTGAAGGCCCTCACCAACTTGCCGCACACAGACTTCACCCTGTGCAAGTGCATGATCGACCAGGCACA
TCAAGAAGAACGGCCAATCCGACAGATTTTGTACCTCGGGGACCTGCTGGAGACCTGCCATTTCCAGGCCTTCTG
GCAAGCCCTGGATGAAAACATGGACCTCTTGGAAGGTATAACTGGCTTTGAAGACTCTGTCCGAAAGTTTATCTG
CCATGTTGTGGGTATCACTTACCAGCACATTGACCGCTGGCTGCTGGCCGAGATGCTCGGGGATCTGTCGGACAG
CCAGCTAAAGGTGTGGATGAGCAAATACGGCTGGAGTGCCGACGAGTCGGGGGCAGATCTTCATCTGTAGCCAAGA
AGAGAGCATTAAACCCAAGAACATTGTGGAGAAGATTGACTTTGACAGTGTGTCCAGCATCATGGCCTCCTCCCA
G**TAA**CTTCAGGTGTTTAATAAAGATGTGTTGACTCAG

FIGURE 3702

AGAGGGGCGGGAGCTGAGGCGGGAGCGGACAGGCTGGTGGGCGAGCGAGAGGCGGCGGAATGGTGGACTACCACG
CGGCGAACCAGTCGTACCAGTACGGCCCCAGCAGCGCGGGCAATGGCGCTGGCGGCGGGGGCAGCATGGGCGACT
ACATGGCCCAGGAGGACGACTGGGACCGGGACCTGCTGCTGGACCCGGCCTGGGAGAAGCAGCAGCGCAAGACCT
TCACGGCATGGTGCAACTCCCACCTGCGGAAGGCAGGCACACAGATCGAGAACATTGATGAGGACTTCCGAGACG
GGCTCAAGCTCATGCTGCTCCTGGAGGTCATATCAGGGGAGCGGTTACCTAAGCCGGAGCGGGGGAAGATGAGAG
TGCACAAAATCAACAATGTGAACAAAGCGCTGGACTTTATTGCCAGCAAAGGCGTCAAGCTGGTCTCCATCGGGG
CAGAAGAGATTGTGGACGGCAACGCAAAGATGACCCTGGGAATGATCTGGACCATCATCCTTAGGTTCGCCATCC
AGGACATCTCCGTGGAAGAGACCTCGGCCAAGGAAGGGCTCCTTCTCTGGTGCCAGAGAAAGACAGCCCCGTATA
AGAACGTCAATGTGCAGAACTTCCACATCAGCTGGAAGGATGGTCTTGCCTTCAATGCCCTGATCCACCGGCACA
GACCAGAGCTGATTGAGTATGACAAGCTGAGGAAGGACGACCCTGTCACCAACCTGAACAATGCCTTCGAAGTGG
CTGAGAAATACCTCGACATCCCCAAGATGCTGGATGCAGAGGACATCGTGAACACGGCCCGGCCCGACGAGAAGG
CCATAATGACCTATGTGTCCAGCTTCTACCATGCCTTTTCAGGAGCGCAGAAGGCTGAAACTGCCGCCAACCGGA
TCTGTAAGGTGCTGGCTGTCAACCAAGAGAACGAGCACCTGATGGAGGACTACGAGAAGCTGGCCAGCGACCTCC
TGGAGTGGATCCGGCGCACCATCCCCTGGCTGGAGGACCGTGTGCCCCAAAAGACTATCCAGGAGATGCAGCAGA
AGCTGGAGGACTTCCGCGACTACCGGCGTGTGCACAAGCCGCCCAAGGTGCAGGAGAAGTGCCAGCTGGAGATCA
ACTTCAACACGCTGCAGACCAAGCTGCGCCTCAGCAACCGGCCCGCCTTCATGCCCTCCGAGGGCAAGATGGTCT
CGGACATCAACAATGGCTGGCAGCACTTGGAGCAGGCTGAGAAGGGCTACGAGGAGTGGCTGCTGAATGAGATCC
GCAGGCTGGAGCGGCTCGACCACCTGGCAGAGAAGTTCCGGCAGAAGGCCTCCATCCACGAGGCCTGGACTGACG
GGAAGGAAGCCATGCTGAAGCACCGGGACTACGAGACGGCCACACTATCGGACATCAAAGCCCTCATTCGCAAGC
ACGAGGCCTTCGAGAGCGACCTGGCTGCGCACCAGGACCGCGTGGAGCAGATCGCCGCCATTGCCCAGGAGCTCA
ACGAGCTGGATTACTACGACTCCCACAATGTCAACACCCGGTGCCAGAAGATCTGTGACCAGTGGGACGCCCTCG
GCTCTCTGACACATAGTCGCAGGGAAGCCCTGGAGAAAACAGAGAAGCAGCTGGAGGCCATCGACCAGCTGCACC
TGGAATACGCCAAGCGCGCGGCCCCCTTCAACAACTGGATGGAGAGCGCCATGGAGGACCTCCAGGACATGTTCA
TCGTCCATACCATCGAGGAGATTGAGGGCCTGATCTCAGCCCATGACCAGTTCAAGTCCACCCTGCCGGACGCCG
ATAGGGAGCGCGAGGCCATCCTGGCCATCCACAAGGAGGCCCAGAGGATCGCTGAGAGCAACCACATCAAGCTGT
CGGGCAGCAACCCCTACACCACCGTCACCCCGCAAATCATCAACTCCAAGTGGGAGAAGGTGCAGCAGCTGGTGC
CAAAACGGGACCATGCCCTCCTGGAGGAGCAGAGCAAGCAGCAGTCCAACGAGCACCTGCGCCGCCAGTTCGCCA
GCCAGGCCAATGTTGTGGGGCCCTGGATCCAGACCAAGATGGAGGAGATCGGGCGCATCTCCATTGAGATGAACG
GGACCCTGGAGGACCAGCTGAGCCACCTGAAGCAGTATGAACGCAGCATCGTGGACTACAAGCCCAACCTGGACC
TGCTGGAGCAGCAGCACCAGCTCATCCAGGAGGCCCTCATCTTCGACAACAAGCACACCAACTATACCATGGAGC
ACATCCGCGTGGGCTGGGAGCAGCTGCTCACCACCATTGCCCGCACCATCAACGAGGTGGAGAACCAGATCCTCA
CCCGCGACGCCAAGGGCATCAGCCAGGAGCAGATGCAGGAGTTCCGGGCGTCCTTCAACCACTTCGACAAGGATC
ATGGCGGGGCGCTGGGGCCCGAGGAGTTCAAGGCCTGCCTCATCAGCCTGGGCTACGACGTGGAGAACGACCGGC
AGGGTGAGGCCGAGTTCAACCGCATCATGAGCCTGGTCGACCCCAACCATAGCGGCCTTGTGACCTTCCAAGCCT
TCATCGACTTCATGTCGCGGGAGACCACCGACACGGACACGGCTGACCAGGTCATCGCTTCCTTCAAGGTCTTAG
CAGGGGACAAGAACTTCATCACAGCTGAGGAGCTGCGGAGAGAGCTGCCCCCCGACCAGGCCGAGTACTGCATCG
CCCGCATGGCGCCATACCAGGGCCCTGACGCCGTGCCCGGTGCCCTCGACTACAAGTCCTTCTCCACGGCCTTGT
ATGGCGAGAGCGACCTGTGAGGCCCCAGAGACCTGACCCAACACCCCCGACGGCCTCCAGGAGGGGCCTGGGCAG
CCCCACAGTCCCATTCCTCCACTCTGTATCTATGCAAAGCACTCTCTGCAGTCCTCCGGGGTGGGTGGGTGGGCA

FIGURE 3703

GCCCCGCGAGGATGAGCCCAGGGCTCCACGGTCCCTACCTAGACCCCACGCGATTCCTCACCTGAGACCCCGTCC
CACACAGCCCCAGCTGGGGCAAACAGCCCCCTCCCCACTTCCCATCTGTAATTTGCAGGGAGATCGACGACGTGA
TCAGCGCAGACCTGCAGTCTCTCCAGGTGGGGACTGTTCCTGGAGGGGCGGC**ATG**GGGCGGGGATCTTGGCCAGC
GCTAAACTTCCGCCATGCGGCAGGGCCCCTACCTGCCCCTGGAGCTGGGGTTGGAGCAGCTGTTTCAGGAGCTGG
CTGGAGAGCCAGGGCCCATACCTCCACCCCCAGAGAGATCGGGCTCAGGACCTGTGAGCAGCTGCTGCAGTGTTT
CGGGCATGGGCAAAGCCTGGCCTTACACCACTTCCAGCAGCTCTGGGGCTACCTCCTGGAGTGGCAGGCCATATT
TAACAAGTTCGATGAGGACACCTCTGGAACCATGAACTCCTACGAGCTGAGGCTGGCACTGAATGCAGCAGGCTT
CCACCTGAACAACCAGCTGACCCAGACCCTCACCAGCCGCTACCGGGATAGCCGTCTGCGTGTGGACTTCGAGCG
GTTCGTGTCCTGTGTGGCCCACCTCACCTGCATCTTCTGCCACTGCAGCCAGCACCTGGATGGGGGTGAGGGGGT
CATCTGCCTGACCCACAGACAGTGGATGGAGGTGGCCACCTTCTCC**TAG**GATCTCCGGATGGGCGCACCTGCTGC
TCAGGGCAGGGTTGCTGAGCAAGACCACCTCCCTAGGCCTTGCCTGGCATGGGTGCCACTCTCTCTGGCATCCAC
CTGTCTGGGGCTAGTCTCTGGCCCTCACTGCTCACGGCCGGGTGACCACTCTGGCCTGCGTACTCCTCACTCAGA
AACAAGAACAGCGACAGCCCTTCTCGAGCAGATGACACGAGCTAGTCCACGTTGACAGCTTAAGACAGTGCTAGC
TCTGCCCTGGCTCTCCTAGAAGGTGGAGGACAGACACAGGAGAAATAAAAAAAGATGATGCTGCAGGAATCCTTC
TTAAAAATATTACATGTTTTATTATCCTGTCCCCAGAGGGTGGTTTATCCAGAAACCAAGAAAAAAAATCAATCA
GAATAAACTCAAAAAAAAAAAGGTAGGGGGAGCAAAACCATCAACCACCAGGCAGCCAGGCCATCAGCCCACCTCC
ACCTCTGGAGGGTCCCCAGAGACCCACGCCCGACGCAGACCCGGAGGAGCATCAGCAAGGGGCCCGGGCAGAGAA
TCGGCTATGTCTTCATTATGAGAGCAGGAGAGACGGCAGAGATATGTTGCTAGGTGAATATATATTTATATAATA
AATCCGTAAGTTAATAAAGTAAATAGTAATTCTCTGAAA

FIGURE 3704

ATGGCTCTGTACCTCTCCTGTGCTGGGAGCCATCTGGTGACCATGATGCCCTGCCCTGGCCCACGCCACTCAGAG
TCTGGATGGAGCAGTATTTCCCCCAAAGGACTCTGGAGCCATTGGAGGAAATGGGAGAAACAGAACTACCTGTCC
CGGAACTTTTATCCACTGCGGTTCCTTGCCCTCTTCTATGCATTTGCCATCAACTTCATCTTGCTATTTTATAAG
GTCTCAGACTCTCCACCAGGGGAGGACGACATGGAAGGCTCAGCTGCTGGGGATGTGTCAGGTGCAGGCTCTGGT
GGCAGCTCTGGCTGGGGCTTGGGGGCCGGAGAGGAGGCAGAGGGCGATGAGGATGAGAACATGGTGTACTACTTC
CTGGAGGAAAGCACAGGCTACATGGAACCCGCCCTGCGGTGTCTGAGCCTCCTGCATACACTGGTGGCCTTTCTC
TGCATCATTGGCTATAATTGTCTCAAGGTGCCCCTGGTAATCTTTAAGCGGGAGAAGGAGCTGGCCCGGAAGCTG
GAGTTTGATGGCCTGTACATCACGGAGCAGCCTGAGGACGATGACGTGAAGGGGCAGTGGGACCGACTGGTGCTC
AACACGCCG**TAA**

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FIGURE 3705

ATCTCCCACTCCTGCAGCTCTTCTCACAGGACCAGCCACTAGCGCAGCCTCGAGCG**ATG**GCCTATGTCCCCGCAC
CGGGCTACCAGCCCACCTACAACCCGACGCTGCCTTACTACCAGCCCATCCCGGGCGGGCTCAACGTGGGAATGT
CTGTTTACATCCAAGGAGTGGCCAGCGAGCACATGAAGCGGTTCTTCGTGAACTTTGTGGTTGGGCAGGATCCGG
GCTCAGACGTCGCCTTCCACTTCAATCCGCGGTTTGACGGCTGGGACAAGGTGGTCTTCAACACGTTGCAGGGCG
GGAAGTGGGGCAGCGAGGAGAGGAAGAGGAGCATGCCCTTCAAAAAGGGTGCCGCCTTTGAGCTGGTCTTCATAG
TCCTGGCTGAGCACTACAAGGTGGTGGTAAATGGAAATCCCTTCTATGAGTACGGGCACCGGCTTCCCCTACAGA
TGGTCACCCACCTGCAAGTGGATGGGGATCTGCAACTTCAATCAATCAACTTCATCGGAGGCCAGCCCCTCCGGC
CCCAGGGACCCCCGATGATGCCACCTTACCCTGGTCCCGGACATTGCCATCAACAGCTGAACAGCCTGCCCACCA
TGGAAGGACCCCCAACCTTCAACCCGCCTGTGCCATATTTCGGGAGGCTGCAAGGAGGGCTCACAGCTCGAAGAA
CCATCATCATCAAGGGCTATGTGCCTCCCACAGGCAAGAGCTTTGCTATCAACTTCAAGGTGGGCTCCTCAGGGG
ACATAGCTCTGCACATTAATCCCCGCATGGGCAACGGTACCGTGGTCCGGAACAGCCTTCTGAATGGCTCGTGGG
GATCCGAGGAGAAGAAGATCACCCACAACCCATTTGGTCCCGGACAGTTCTTTGATCTGTCCATTCGCTGTGGCT
TGGATCGCTTCAAGGTTTACGCCAATGGCCAGCACCTCTTTGACTTTGCCCATCGCCTCTCGGCCTTCCAGAGGG
TGGACACATTGGAAATCCAGGGTGATGTCACCTTGTCCTATGTCCAGATC**TAA**TCTATTCCTGGGGCCATAACTC
ATGGGAAAACAGAATTATCCCCTAGGACTCCTTTCTAAGCCCCTAATAAAATGTCTGAGGGTGTCTC

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FIGURE 3706

GAACGCAGTAGACGAAGGCGGCGGCG**ATG**GCGGCGGGGATAGTGGCTTCTCGCAGACTCCGCGACCTACTGACCC
GGCGACTGACAGGCTCCAACTACCCGGGACTCAGTATTAGCCTTCGCCTCACTGGCTCCTCTGCACAAGAGGAGG
CTTCCGGAGTAGCCCTCGGTGAAGCCCCAGACCACAGCTATGAGTCCCTTCGTGTGACGTCTGCGCAGAAACATG
TTCTGCATGTCCAGCTCAACCGGCCCAACAAGAGGAATGCCATGAACAAGGTCTTCTGGAGAGAGATGGTAGAGT
GCTTCAACAAGATTTCGAGAGACGCTGACTGTCGGGCGGTGGTGATCTCTGGTGCAGGAAAAATGTTCACTGCAG
GTATTGACCTGATGGACATGGCTTCGGACATCCTGCAGCCCAAAGGAGATGATGTGGCCCGGATCAGCTGGTACC
TCCGTGACATCATCACTCGATACCAGGAGACCTTCAACGTCATCGAGAGGTGCCCCAAGCCCGTGATTGCTGCCG
TCCATGGGGGCTGCATTGGCGGAGGTGTGGACCTTGTCACCGCCTGTGACATCCGGTACTGTGCCCAGGATGCTT
TCTTCCAGGTGAAGGAGGTGGACGTGGGTTTGGCTGCCGATGTAGGAACACTGCAGCGCCTGCCCAAGGTCATCG
GGAACCAGAGCCTGGTCAACGAGCTGGCCTTCACCGCCCGCAAGATGATGGCTGACGAGGCCCTGGGCAGTGGGC
TGGTCAGCCGGGTGTTCCCAGACAAAGAGGTCATGCTGGATGCTGCCTTAGCGCTGGCGGCCGAGATTTCCAGCA
AGAGCCCCGTGGCGGTGCAGAGCACCAAGGTCAACCTGCTGTATTCCCGCGACCATTCGGTGGCCGAGAGCCTCA
ACTACGTGGCGTCCTGGAACATGAGCATGCTGCAGACCCAAGACCTCGTGAAGTCGGTCCAGGCCACGACTGAGA
ACAAGGAACTGAAAACCGTCACCTTCTCCAAGCTC**TGA**GAGCCCTCGCGTCCCAGGCCCCAGCCAGGGGGCCGGC
CTTGTCCCGCCTCATCCACAGAAAGGGAGGATGGGCGATGACAGTTGTTTCTATGCCTTCTGACCCAGTTTCCCA
GTTTATAACTTTATGACAATGAGTTTCTCAAGCCCAAGGCCTTATCTTCACCCCACAAACAATAAAGCAAA

FIGURE 3707

GGACGAGCAGCGGAGGCGGTCGGGAGCG**ATG**GTGAAGATGGCGGCGGCGGGCGGCGGAGGCGGCGGTGGCCGCTA
CTACGGCGGCGGCAGTGAGGGCGGCCGGGCCCCTAAGCGGCTCAAGACTGACAACGCCGGCGACCAGCACGGAGG
CGGCGGCGGTGGCGGTGGAGGAGCCGGGGCGGCGGGCGGCGGCGGCGGTGGGGAGAACTACGATGACCCGCACAA
AACCCCTGCCTCCCCAGTTGTCCACATCAGGGGCCTGATTGACGGTGTGGTGGAAGCAGACCTTGTGGAGGCCTT
GCAGGAGTTTGGACCCATCAGCTATGTGGTGGTAATGCCTAAAAAGAGACAAGCACTGGTGGAGTTTGAAGATGT
GTTGGGGGCTTGCAACGCAGTGAACTACGCAGCCGACAACCAAATATACATTGCTGGTCACCCAGCTTTTGTCAA
CTACTCTACCAGCCAGAAGATCTCCCGCCCTGGGGACTCGGATGACTCCCGGAGCGTGAACAGTGTGCTTCTCTT
TACCATCCTGAACCCCATTTATTCGATCACCACGGATGTTCTTTACACTATCTGTAATCCTTGTGGCCCTGTCCA
GAGAATTGTCATTTTCAGGAAGAATGGAGTTCAGGCGATGGTGGAATTTGACTCAGTTCAAAGTGCCCAGCGGGC
CAAGGCCTCTCTCAATGGGGCTGATATCTATTCTGGCTGTTGCACTCTGAAGATCGAATACGCAAAGCCTACACG
CTTGAATGTGTTCAAGAATGATCAGGATACTTGGGACTACACAAACCCCAATCTCAGTGGACAAGGTGACCCTGG
CAGCAACCCCAACAAACGCCAGAGGCAGCCCCCTCTCCTGGGAGATCACCCCGCAGAATATGGAGGGCCCCACGG
TGGGTACCACAGCCATTACCATGATGAGGGCTACGGGCCCCCCCCACCTCACTACGAAGGGAGAAGGATGGGTCC
ACCAGTGGGGGGTCACCGTCGGGGCCCAAGTCGCTACGGCCCCCAGTATGGGCACCCCCCACCCCCTCCCCCACC
ACCCGAGTATGGCCCTCACGCCGACAGCCCTGTGCTCATGGTCTATGGCTTGGATCAATCTAAGATGAACTGTGA
CCGAGTCTTCAATGTCTTCTGCTTATATGGCAATGTGGAGAAGGTGAAATTCATGAAAAGCAAGCCGGGGGCCGC
CATGGTGGAGATGGCTGATGGCTACGCTGTAGACCGGGCCATTACCCACCTCAACAACAACTTCATGTTTGGGCA
GAAGCTGAATGTCTGTGTCTCCAAGCAGCCAGCCATCATGCCTGGTCAGTCATACGGGTTGGAAGACGGGTCTTG
CAGTTACAAAGACTTCAGTGAATCCCGGAACAATCGGTTCTCCACCCCAGAGCAGGCAGCCAAGAACCGCATCCA
GCACCCCAGCAACGTGCTGCACTTCTTCAACGCCCCGCTGGAGGTGACCGAGGAGAACTTCTTTGAGATCTGCGA
TGAGCTGGGAGTGAAGCGGCCATCTTCTGTGAAAGTATTCTCAGGCAAAAGTGAGCGCAGCTCCTCTGGACTGCT
GGAGTGGGAATCCAAGAGCGATGCCCTGGAGACTCTGGGCTTCCTGAACCATTACCAGATGAAAAACCCAAATGG
TCCATACCCTTACACTCTGAAGTTGTGTTTCTCCACTGCTCAGCACGCCTCC**TAA**TTAGGTGCCTAGGAAGAGTC
CCATCTGAGCAGGAAGACATTTCTCTTTCCTTTATGCCATTTTTTGTTTTTGTTATTTGCAAAAGATCTTGTATT
CCTTTTTTTTTTTTTTTTTTTTTTTTTTTAAATGCTAGGTTTGTAGAGGCTTACTTAACCTTAATGGAAACGCTGG
AAATCTGCAGGGGGAGGGAGAGGGGAACTGTTATCTCCCAAGATTAACCTTCACTTTTAAAAAATTATTGTACAT
GTGATTTTTTTTTTTCCTGTTCATACATTTGTGCTGCCCATGTACTCTTGGCACATTTCAATAAAATTGTTTGGA
AAATAAACACAGC

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FIGURE 3708

AGAGCCCCGCCCCCGCCTTGCGGAGCCGCATCCACGAGCGCCTTGCGCACCTCCACGCTGCCTGCGCCCCGCGCC
GCAAGGTGGCGCTCCTCTTGGAGGTGTGCAGAGATGTCTATGCGGGCCTGGCTCGAGGCGAGAACCAAGATCCCC
TGGGGGCCGACGCCTTCCTGCCGGCGCTGACCGAGGAACTCATCTGGAGCCCGGACATTGGGGACACGCAGCTGG
ACGTAGAGTTTCTT**ATG**GAGCTCTTAGATCCAGATGAGCTGCGGGGAGAGGCTGGGTACTACCTGACCACGTGGT
TTGGGGCGCTGCACCACATTGCCCACTACCAGCCCGAAACAGACCGCGCTCCCCGGGGGCTCAGCTCCGAGGCCC
GCGCCTCCCTGCACCAGTGGCACCGCAGGCGGACGCTGCACAGAAAGGATCATCCCAGAGCCCAGGTGACTGCCC
ATCTGGCTGCAAGTAGAAGGGAGGGTGAGACCTGGTGCCCTTCTGACCCAGCTCCCACCTCTCCCCACAGGCCAA
CCTGCCCTTTAAGGAGCCATGGGCAGAAGAGACTG**TGA**CAGGGACCAGTGACAACTAGGGGTTTCACACCCCTCC
GTTCATGCCTGTAATCCCAACATTTTGGGAGGCCAAGGTGGGAGGATTGCTTGAGCCCAGGAGTTTGAGACCAGC
CTGGGCAAAACAGTGGGACCCCCATCTACCAAAAAAAAAAAAAAAC

FIGURE 3709

GTGTTGTACGAAAGCGCGTCTGCGGCCGCAATGTCTGCTGAGAGTTGTAGTTCTGTGCCCTATCACGGCCACTCC
CATTTCTGGTGCCGTCACGGGACAGAGCAGTCGGTGACAGGACAGAGCAGTCGGTGACGGGACACAGTGGTTGGT
GACGGGACAGAGCGGTCGGTGACAGCCTCAAGGGCTTCAGCACCGCGCCC**ATG**GCAGAGCCAGACCCCTCTCACC
CTCTGGAGACCCAGGCAGGGAAGGTGCAGGAGGCTCAGGACTCAGATTCAGACTCTGAGGGAGGAGCCGCTGGTG
GAGAAGCAGACATGGACTTCCTGCGGAACTTATTCTCCCAGACGCTCAGCCTGGGCAGCCAGAAGGAGCGTCTGC
TGGACGAGCTGACCTTGGAAGGGGTGGCCCGGTACATGCAGAGCGAACGCTGTCGCAGAGTCATCTGTTTGGTGG
GAGCTGGAATCTCCACATCCGCAGGCATCCCCGACTTTCGCTCTCCATCCACCGGCCTCTATGACAACCTAGAGA
AGTACCATCTTCCCTACCCAGAGGCCATCTTTGAGATCAGCTATTTCAAGAAACATCCGGAACCCTTCTTCGCCC
TCGCCAAGGAACTCTATCCTGGGCAGTTCAAGCCAACCATCTGTCACTACTTCATGCGCCTGCTGAAGGACAAGG
GGCTACTCCTGCGCTGCTACACGCAGAACATAGATACCCTGGAGCGAATAGCCGGGCTGGAACAGGAGGACTTGG
TGGAGGCGCACGGCACCTTCTACACATCACACTGCGTCAGCGCCAGCTGCCGGCACGAATACCCGCTAAGCTGGA
TGAAAGAGAAGATCTTCTCTGAGGTGACGCCCAAGTGTGAAGACTGTCAGAGCCTGGTGAAGCCTGATATCGTCT
TTTTTGGTGAGAGCCTCCCAGCGCGTTTCTTCTCCTGTATGCAGTCAGACTTCCTGAAGGTGGACCTCCTCCTGG
TCATGGGTACCTCCTTGCAGGTGCAGCCCTTTGCCTCCCTCATCAGCAAGGCACCCCTCTCCACCCCTCGCCTGC
TCATCAACAAGGAGAAAGCTGGCCAGTCGGACCCTTTCCTGGGGATGATTATGGGCCTCGGAGGAGGCATGGACT
TTGACTCCAAGAAGGCCTACAGGGACGTGGCCTGGCTGGGTGAATGCGACCAGGGCTGCCTGGCCCTTGCTGAGC
TCCTTGGATGGAAGAAGGAGCTGGAGGACCTTGTCCGGAGGGAGCACGCCAGCATAGATGCCCAGTCGGGGGCGG
GGGTCCCCAACCCCAGCACTTCAGCTTCCCCCAAGAAGTCCCCGCCACCTGCCAAGGACGAGGCCAGGACAACAG
AGAGGGAGAAACCCCAG**TGA**CAGCTGCATCTCCCAGGCGGGATGCCGAGCTCCTCAGGGACAGCTGAGCCCCAAC
CGGGCCTGGCCCCCTCTTAACCAGCAGTTCTTGTCTGGGGAGCTCAGAACATCCCCCAATCTCTTACAGCTCCCT
CCCCAAAACTGGGGTCCCAGCAACCCTGGCCCCCAACCCCAGCAAATCTCTAACACCTCCTAGAGGCCAAGGCTT
AAACAGGCATCTCTACCAGCCCCACTGTCTCTAACCACTCCTGGGCTAAGGAGTAACCTCCCTCATCTCTAACTG
CCCCCACGGGGCCAGGGCTACCCCAGAACTTTTAACTCTTCCAGGACAGGGAGCTTCGGGCCCCCACTCTGTCTC
CTGCCCCCGGGGGCCTGTGGCTAAGTAAACCATACCTAACCTACCCCAGTGTGGGTGTGGGCCTCTGAATATAAC
CCACACCCAGCGTAGGGGGAGTCTGAGCCGGGAGGGCTCCCGAGTCTCTGCCTTCAGCTCCCAAAGTGGGTGGTG
GGCCCCCTTCACGTGGGACCCACTTCCCATGCTGGATGGGCAGAAGACATTGCTTATTGGAGACAAATTAAAAAC
AAAAACAACTAAC

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FIGURE 3710

ATGGCTGGGGTCGCGTGCTTGGGAAAAGCTGCCGACGCAGATGAATGGTGCGACAGCGGCCTGGGCTCCCTGGGT
CCGGACGCAGCGGCCCCCGGAGGACCTGGGTTGGGCGCGGAGTTGGGCCCGGGGCTGTCGTGGGCTCCCCTCGTC
TTCGGCTACGTCACTGAGGATGGGGACACGGCACTGCACTTGGCTGTGATTCATCAGCATGAACCCTTCCTGGAT
TTTCTTCTAGGCTTCTCGGCCGGCACTGAGTACATGGACCTGCAGAATGACCTAGGCCAGACAGCCCTGCACCTG
GCAGCCATCCTGGGGGGAGACATCCACGGTGGAGAAGCTGTACGCAGCAGGCGCCGGGCTGTGTGTGGCGGAGCGT
AGGGGCCACACGGCGCTGCACCTGGCCTGCCGTGTGGGGGCACACGCCTGTGCCCGTGCCCTGCTTCAGCCCCGC
CCCCGGCGCCCCAGGGAAGCCCCCGACACCTACCTCGCTCAGGGCCCTGACCGTACTCCCGACACCAACCATACC
CCTGTCGCCTTGTACCCCGATTCCGACTTGGAGAAGGAAGAAGAGGAGAGTGAGGAGGACTGGAAGCTGCAGCTG
GAGGCTGAAAACTACGAGGGCCACACCCCACTCCACGTGGCCGTTATCCACAAAGATGTGGAGATGGTCCGGCTG
CTCCGAGATGCTGGAGCTGACCTTGACAAACCGGAGCCCACGTGCGGCCGGAGCCCCCTTCATTTGGCAGTGGAG
GCCCAGGCAGCCGATGTGCTGGAGCTTCTCCTGAGGGCAGGCGCGAACCCTGCTGCCCGCATGTACGGTGGCCGC
ACCCCACTCGGCAGTGCCATGCTCCGGCCCAACCCCATCCTCGCCCGCCTCCTCCGTGCACACGGAGCCCCTGAG
CCCGAGGGCGAGGACGAGAAATCCGGCCCCTGCAGCAGCAGTAGCGACAGCGACAGCGGAGACGAGGGCGTGAGT
CAGGAGGAGAGACAGGGCAGCCCAGCTGGGGGGTCAGGA**TAG**

FIGURE 3711

TGAAGAGGCGGGACACAGACGACGATTGGGCGACGAAGGACTCTATCGCGGTCAACTTTCCTCAGGATCTGATTG
GCTCGTCACGGTCAGGTTCGCTGCCTTGCAATTGGTCTAAACGCGGAGTGGGCGGGACGAAGTGCCGCCTTGTTC
CCGGTCCAAG**ATG**GCTGCGTCCATGGCGCGGCGCTTGTGGCCTTTGCTGACTCGTCGGGGGTTCCGGCCCCGGGG
AGGCTGCATCTCCAACGATAGTCCAAGGAGAAGTTTCACTACAGAGAAACGAAACCGGAACCTCCTGTACGAGTA
TGCGCGCGAGGGCTACAGCGCACTCCCTCAGCTGGACATAGAGCGGTTCTGCGCATGCCCAGAAGAGGCCGCACA
CGCCCTGGAGCTCCGCAAGGGGGAGCTGCGCTCGGCGGACCTGCCCGCGATCATCTCGACATGGCAGGAGCTGAG
GCAGCTGCAGGAGCAGATCCGGAGCCTGGAGGAAGAGAAGGCAGCTGTGACTGAGGCAGTGCGGGCCCTGCTGGC
AAACCAGGACAGTGGTGAAGTGCAGCAGGACCCCAAGTACCAGGGTCTGCGGGCACGTGGCCGGGAGATCCGGAA
GGAGCTTGTTCACCTGTACCCCAGGGAGGCCCAGCTTGAGGAGCAGTTCTACCTGCAGGCGCTGAAGCTGCCCAA
CCAGACCCACCCAGACGTGCCCGTCGGGGATGAGAGCCAGGCTCGAGTGCTCCACATGGTCGGAGACAAGCCAGT
TTTCTCCTTCCAACCTCGGGGCCACCTGGAAATTGGCGAGAAACTCGACATCATCCGTCAGAAGCGCCTGTCCCA
CGTGTCTGGCCACCGGTCCTATTACCTGCGCGGGGCTGGAGCCCTCCTGCAGCACGGCCTGGTCAACTTCACATT
CAACAAGCTTCTCCGCCGGGGCTTCACCCCCATGACGGTGCCAGACCTTCTCCGCGGAGCAGTGTTTGAAGGCTG
TGGGATGACACCAAATGCCAACCCATCCCAAATTTACAACATCGACCCTGCCCGCTTCAAAGATCTCAACCTGGC
TGGAACAGCGGAGGTGGGGCTTGCAGGCTACTTCATGGACCACACCGTGGCCTTCAGGGACCTGCCAGTCAGGAT
GGTTTGCTCCAGCACCTGCTACCGGGCAGAGACAAACACGGGACAGGAACCCCGGGGGCTGTATCGAGTACACCA
CTTCACCAAGGTGGAGATGTTTGGGGTGACAGGCCCTGGGCTGGAGCAGAGCTCACAGCTGCTGGAGGAGTTCCT
GTCCCTTCAGATGGAGATCTTGACAGAGCTGGGCTTGCACTTCCGGGTCCTGGATATGCCCACCCAAGAACTGGG
CCTCCCCGCCTACCGCAAGTTTGACATTGAGGCCTGGATGCCAGGCCGAGGCCGCTTTGGAGAGGTCACCAGTGC
TTCCAACTGCACAGACTTCCAGAGCCGCCGCCTCCACATCATGTTCCAGACCGAGGCTGGGGAGCTGCAGTTTGC
CCACACGGTGAACGCCACCGCCTGTGCTGTCCCCCGCCTTCTCATCGCGCTCCTGGAGAGTAACCAGCAGAAGGA
CGGCTCAGTGCTCGTGCCCCCTGCCCTCCAGTCCTACCTCGGCACTGATCGGATCACAGCCCCTACCCACGTGCC
TCTCCAGTACATCGGCCCCAACCAGCCCCGGAAGCCTGGGCTGCCTGGCCAGCCTGCTGTAAGC**TAA**GAACCCAC
CCACAGCAGCCCTCGGGGGTGTCACTGCTTCCTGGAGTTCAGGAGACCCCGGACACCTGGGACCTGTGTTGCTGA
GCCCGTCCTGACATCTGTGTTCTTCCTGTCAGCTCCACGCCCGGGCCCCTGGACCACGGGGTCCACCTCTCCTCT
GTCCTTGCTGCCTCAGAGTCAGTCACTGACCCTGTTATCATTGAGGGTCCCAGTGGGAAGCAGGACGTCTGGGCT
TTACGGTTCTAGGGACAGGAGAAGCAGAGGAAGAGGCTTCCATCCCTCCTTCCTTCTTTCCTCCTACAGTGCTGA
GCAAAAAGTCCCCAATAAATGGTCAGGAC

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FIGURE 3712

AGCTGGATTCAGCGTGTCCGCGACCTCACCTTTAGGTCCTGTGAGGTCGGTGGAATCCTGGGGTCCTCCAAATCT
ACCAGGCCATCTCCCCAGTTTCCCAGTTCTTCCTGCGTGCGGGCGAGAGTGGTTGGGCCCTCGGGAACCCACTCA
GAGCGAGGCTAAATTTACGGAGGGACTTTCTGTTAGCAGCATGAGGGCCTGTGGTTAGACCTATAGAGGTATTTC
CTTTGATTTAAGCCAGAAAGTCCTGAGAGCGGATCGGGGAGCATTTGCGGATCGGTCACTTTTTCCTCCTTTCTG
AGTCTCTTATCCCCTACCACAGGGACGGCCCAGGTGGCAGG**ATG**TCCTGGTCTGGCCTTCTCCATGGCCTCAACA
CGTCCCTAACTTGTGGCCCAGCTCTGGTTCCCCGGCTCTGGGCTACCTGCTCCATGGCTACCCTGAACCAGATGC
ACCGCCTGGGGCCCCCCAAGCGGCCGCCTCGGAAGCTGGGCCCCACGGAAGGCCGGCCGCAGCTGAAGGGTGTGG
TCCTGTGCACGTTTACCCGCAAGCCGAAGAAGCCCAACTCAGCCAATCGCAAGTGCTGTCGAGTGCGGCTCAGCA
CTGGCCGCGAGGCCGTCTGCTTCATCCCTGGGGAGGGCCACACCCTGCAGGAGCACCAGATTGTCCTTGTGGAGG
GCGGCCGCACCCAGGACCTGCCAGGCGTCAAGCTCACCGTTGTGCGTGGCAAGTACGACTGTGGCCACGTGCAGA
AGAAG**TGA**CGGCTGGGGGCACAGTGGGCTGGGCGCCCCTGCAGAACATGAACCTTCCGCTCCTGGCTGCCACAGG
GTCCTCCGATGCTGGCCTTTGCGCCTCTAGAGGCAGCCACTCATGGATTCAAGTCCTGGCTCCGCCTCTTCCATC
AGGACCACTATTAAGCCATAGGAGTCCTGGGGGTGCAAAGGGTGCCCCTCTGTCAACACCCTTGGCTCCTGTGTT
TAGAGGGGTGGCCTGAAGGACCTTTTCTGCTGGGACAAGACACTGTACTGCCCTCTGCTGGGAAGGGGTTTTAAT
AAACAGACCCTGGCGCTTGTGATGT

FIGURE 3713

AGCCGCCACGCCCCGGGAGAGGACCGACCGCCCAGACCGCCGGTCCCGGGGCCCCCTGGGCCACGCCGATCACGG
GGAGCCCCTCGACTGCCTCCCAGAACAAAGTGGGAAAGGGAAGCTTAGCCCGCCGCTGCCGCCTCCGAGCAGCCC
GCCAGGACTCTGGCTACTGGAG**ATG**GGCGCCCGGCTATCGCGGCGACGGCTGCCGGCGGACCCATCCCTGGCCCT
GGACGCGCTGCCCCCGGAGCTGCTGGTGCAGGTGCTGAGCCACGTGCCGCCACGCTCCTTGGTCACGCGATGCCG
CCCAGTGTGCCGCGCCTGGCGCGACATAGTGGACGGGCCCACTGTGTGGCTGCTGCAGCTGGCCCGCGACCGCAG
CGCCGAGGGCCGCGCACTCTACGCAGTGGCTCAACGCTGCCTGCCCAGCAACGAAGACAAGGAGGAGTTCCCGCT
GTGCGCCCTGGCGCGCTACTGTCTGCGCGCGCCCTTCGGCCGCAATCTCATCTTCAACTCCTGCGGAGAGCAGGG
CTTCAGAGGCTGGGAGGTGGAGCATGGCGGGAACGGCTGGGCCATAGAAAAGAACCTAACACCGGTGCCTGGGGC
TCCTTCGCAGACCTGCTTCGTGACCTCTTTCGAATGGTGCTCCAAGAGGCAGCTTGTGGACCTGGTGATGGAAGG
GGTGTGGCAGGAGCTGCTGGACAGCGCCCAGATTGAGATCTGTGTGGCTGACTGGTGGGGCGCTCGAGAGAACTG
CGGCTGCGTCTACCAGCTCCGGGTCCGCCTTCTGGATGTGTATGAAAAGGAAGTGGTCAAGTTCTCAGCCTCACC
TGACCCGGTCCTTCAGTGGACTGAGAGGGGCTGCCGACAGGTCTCCCACGTCTTCACCAACTTTGGCAAGGGCAT
CCGCTACGTATCTTTTGAGCAGTACGGGAGAGACGTGAGTTCCTGGGTGGGGCACTATGGCGCCCTTGTGACCCA
CTCCAGTGTGAGGGTCAGGATCCGTCTGTCC**TAG**CGACTGGACTACTGCCTGACGTTGTCAGTCAAGACCAGCCT
TGCAGCCAGGTGCAGTGGCTCACACCTGTGGAATCCCAGCACTTCAGGAGGCCGAGGTGGGAGGATCACTGGAGC
TCGGGAGTTCAAGACCAGCCTGGGCAACATAGTGAAACCGTCTCCACAAATAATTTTTAAAAAATTAGCCAGGCA
TGGTGGTGCCGCCTGTAGTCCCAGCTACTCAGGAGGCTTGGGTGGGAGGATTGCCTGAGACCAGGAGGTTGAGGC
TGCAGTGAGCCGTGATTTCACCACCACTCCAGCCTGGGTGAGAAAGCAAGACCCTATATCAATGAAAAAAAAAAA
AAAAAAGACCAGCTTTGCAGCCAGAAGCCAGAGGATACCCAGGGACAGTAGGGCTCCCAGGTGGCTGGTTCTCAG
CACACCTTCCATGAATCTGCTTGCTGCTGCTTCAGTGTGGTGGCCATCATGCTGTGTGACAAACCAGGCTGTTCA
CAGCTTCCTCAGCCCCCCAGAAGGGGAGTGTCAGGAAGAGACATTTAGTTCATTTGCCTGCAAATTTTCTTCTCC
TGCAAGGATCTCGGTGGACTCAGTCACAAAACAAAGGCTAAACCAGGATTTATAAGAGAGGGCTTATAAATCCCT
CTGCCGACGCAGGGAGCAGAGACTTGCCGGCATGTTTTGGGGGTAATGATCGTGGGCAGGGAGCAGAGGTCCGCT
GAGGCAGTCTGTCCTTGAGACTAACAAAGTCATCTGCTGTTTGGGGAAATCTCTGGTGTTGGGAACAGGCCCCCA
AATCTGGCCATAAACTGGCCCCAAAACTGGCCATAAACAAAATATCTGCAGCACTGTGACATGTTTGTGATGGCC
ATGACCCCCACCCTGAAGGTTGTGGGTTTACTGGAACGAGGGCGAGGAACACCTGGCCCACCCAGGGCGGAAAAC
CGCTTAAAGGGGTTCCTGAACCACAAACCATAGCATAAGTGATCTGTGCCTTAACGACATGTTCCTGCTGCAGAT
AACTAGCCAGACCCATCCCTTTATTTCAGCCCATCCCTTTATTTCCTGTAAGAAATGTTTTTAGTTAATCTATAA
TCTATAGAAATAATGCTTATCACTGGCTTGCTGTCAATAAATATGTGGGTAAATCTCTGTTCAAGGCTCTCAGCT
CTGAAGGCCGTGAGACCCCTGATTTCCCACTCCACACC

FIGURE 3714

GGGGAGCTTGCGGCACAGCTAGGGCATCCCGGCGAGGAGCGCCGCCAGGCCCCGGGCCACAGCCGGGCCTGGCGG
GGGGACC**ATG**GGCGCCTCGGTCTCCAGGGGCCGGGCCGCCCGGGTCCCCGCGCCGGAGCCGGAACCCGAAGAGGC
GCTGGACCTGAGCCAACTACCCCCAGAGCTGCTTCTGGTGGTGCTGAGCCACGTCCCCCCGCGCACGCTGCTCGG
GCGCTGCCGCCAAGTGTGCCGGGGCTGGCGAGCCCTGGTGGACGGCCAGGCCCTGTGGCTGCTGATCCTGGCCCG
CGACCACGGCGCCACCGGCCGCGCGCTGCTGCACCTCGCCCGCAGCTGCCAGTCTCCCGCCCGTAACGCCAGGCC
TTGCCCCCTGGGCCGCTTCTGCGCGCGCAGACCCATCGGACGCAACCTTATTCGCAACCCCTGCGGCCAAGAAGG
CCTCCGAAAGTGGATGGTGCAACACGGTGGGGACGGCTGGGTGGTGGAGGAAAACAGGACAACCGTGCCTGGGGC
CCCTTCTCAGACGTGCTTCGTGACTTCATTCAGCTGGTGTTGCAAGAAGCAGGTCTTGGACCTAGAGGAGGAGGG
TCTGTGGCCAGAACTGCTGGATAGTGGCAGGATTGAGATTTGTGTCTCTGACTGGTGGGGAGCCCGACACGACAG
CGGCTGTATGTACAGACTCCTCGTCCAACTTCTAGACGCCAACCAGACTGTTCTAGATAAATTCTCTGCTGTGCC
TGATCCCATCCCGCAGTGGAACAACAATGCCTGCCTTCACGTCACCCACGTGTTCTCCAACATCAAGATGGGCGT
CCGCTTTGTGTCTTTCGAACACCGGGGCCAGGACACACAGTTCTGGGCTGGCCACTATGGAGCCCGTGTGACCAA
CTCCAGTGTGATCGTGCGAGTCCGTCTGTCC**TAG**TCCAGCACTACCCTTCTTGCAAGACAGCCTGACTGTGCCTT
CCAGGGCCTGGGACCATTGGCTGGGACCCCTCATTAACCAACCAAGCACTTGTACCTCCCTGGCATACTGAGAAT
TCCTGGGTCCAATCAAAGGCCCTGACGGGCCCTGTCTTCAGGTTCTAGAAACTACCAGAAGAAGCTTCTTCCATC
TTATCTACCTACTGCAGCTGCTGCTTTGCGGGGGGGCCCTACTGTACTGAGGGGAAACCCACAAGTGAGCATGGG
GGAATGCCCATCCTGGAGAAGAATTCTTGCCCTCCCCTCTCTTCTCCTCCCAACCAAAACCCTCCGATCCAGCCC
CAGGCCCCTCTGTACCATCCCCTCCCCTCCGCACCACTGACCTCTTGTCTCCTGTTGTTTCTGCCACAGGGACTT
CCTTGGTCCCTTCAGGGAAGCCCTCAACTCATCTCTGAACTTAGAATCTCATCCTTAGGGCTCAGAGAGTCCCAG
CCCTAAGGGTGTGAACCTCACCTCCTGGGGCTTCCGAGCTACAGGGCTGGGACCAGGTCATGCAGCTGAAAGTCT
ACGTTAAAAAAAAAAAGTTTGGGCCAGGCACAGTGGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGCA
GGCGGATCACCTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATCCA
AAAAATTAGCCGGGCTTGGTGGTGTGCACCTGTAATTCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCTTGA
GCCCGGGAGGCAGAGGCTGCAGTGAACCAAGATCATGCCACTGCACTCCAGCCTGGGCAACACAGCGAGACTCCG
TCTCAAAAAGAAAAAGTTTGGATCAGGCAGGGTGGCTCACACCTGTAATCCCTGCACTTTGGGAGGCCAAGGTGG
GAGGATCAGTTGAGCCCCAGAGTTCAAGACCAGCCTGGGCAATGTAGTAAGACCCCCATCGCTACAAAAAATACA
AAAGTTAGCCAGGTACAGTAGTACACACCTGTAGTCCAAGCTACTTGGGAGGCTGAAGTGGGAGGATCATTTGTG
CCCAGGTTGAGGCTATAGTGAGCCATGATCATACCACTGCACTCCAGCCTGGGTGACAGAGCGAGACCCTGTCTC
AAAAAAAAAAAAGAATTTGGAGATGGTTCTGCCCACTCTGGTTTCTCTGAAAAAACGAGGTAATTCCCTGAGCCC
AACCCTGATCCTCAAGGACCTGTAATTGTGTGGTATTTAAAATTAAAATAACATTATTTTTATTTTGACTTTTTT
TCAAACAGTAAGAATAATATATCAGCAGCATGTATCTGCCAATCATATGTAATAAATTTCTTATTTTGCC

FIGURE 3715A

GGGGATTCAACATGGCGGCGGGAGTGTCCGCGGTGGTGGCGGTGCAAGAGAGCTGAGGGAGGCGCGAGGGCGCGG
AGTTCCAGGTCGAGCAGTTAGGCCGCGAGCGACTGCGGCGCCGAGCCGATGAGTAACCCGAAGCCCCTAGAGGAG
TGGTCACCTGCCTGAGGGCACTTCTGTCCCACCAGCATCAGACCAGGCCGCACCGAGTCCCCGGCACC**ATG**TTTG
GGAAGAGGAAGAAGCGGGTGGAGATCTCCGCGCCGTCCAACTTCGAGCACCGCGTGCACACGGGCTTCGACCAGC
ACGAGCAGAAGTTCACGGGGCTGCCCCGCCAGTGGCAGAGCCTGATCGAGGAGTCGGCTCGCCGGCCCAAGCCCC
TCGTCGACCCCGCCTGCATCACCTCCATCCAGCCCGGGGCCCCCAAGACCATCGTGCGGGGCAGCAAAGGTGCCA
AAGATGGGGCCCTCACGCTGCTGCTGGACGAGTTTGAGAACATGTCGGTGACACGCTCCAACTCCCTGCGGAGAG
ACAGCCCGCCGCCGCCCGCCCGTGCCCGCCAGGAAAATGGGATGCCAGAGGAGCCGGCCACCACGGCCAGAGGGG
GCCCAGGGAAGGCAGGCAGCCGAGGCCGGTTCGCCGGTCACAGCGAGGCGGGTGGCGGCAGTGGTGACAGGCGAC
GGGCGGGGCCAGAGAAGAGGCCCAAGTCTTCCAGGGAGGGCTCAGGGGGTCCCCAGGAGTCCTCCCGGGACAAAC
GCCCCCTCTCCGGGCCTGATGTCGGCACCCCCCAGCCTGCTGGTCTGGCCAGTGGGGCGAAACTGGCAGCTGGCC
GGCCCTTTAACACCTACCCGAGGGCTGACACGGACCACCCATCCCGGGGTGCCCAGGGGGAGCCTCATGACGTGG
CCCCTAACGGGCCATCAGCGGGGGGCCTGGCCATCCCCCAGTCCTCCTCCTCCTCCTCCCGGCCTCCCACCCGAG
CCCGAGGTGCCCCCAGCCCTGGAGTGCTGGGACCCCACGCCTCAGAGCCCCAGCTGGCCCCTCCAGCCTGCACCC
CCGCCGCCCCTGCTGTTCCTGGGCCCCCTGGCCCCCGCTCACCACAGCGGGAGCCACAGCGAGTATCCCATGAGC
AGTTCCGGGCTGCCCTGCAGCTGGTGGTGGACCCAGGCGACCCCCGCTCCTACCTGGACAACTTCATCAAGATTG
GCGAGGGCTCCACGGGCATCGTGTGCATCGCCACCGTGCGCAGCTCGGGCAAGCTGGTGGCCGTCAAGAAGATGG
ACCTGCGCAAGCAGCAGAGGCGCGAGCTGCTCTTCAACGAGGTGGTAATCATGAGGGACTACCAGCACGAGAATG
TGGTGGAGATGTACAACAGCTACCTGGTGGGGGACGAGCTCTGGGTGGTCATGGAGTTCCTGGAAGGAGGCGCCC
TCACCGACATCGTCACCCACACCAGGATGAACGAGGAGCAGATCGCGGCCGTGTGCCTTGCAGTGCTGCAGGCCC
TGTCGGTGCTCCACGCCCAGGGCGTCATCCACCGGGACATCAAGAGCGACTCGATCCTGCTGACCCATGATGGCA
GGGTGAAGCTGTCAGACTTTGGGTTCTGCGCCCAGGTGAGCAAGGAAGTGCCCCGAAGGAAGTCGCTGGTCGGCA
CGCCCTACTGGATGGCCCCAGAGCTCATCTCCCGCCTTCCCTACGGGCCAGAGGTAGACATCTGGTCGCTGGGGA
TAATGGTGATTGAGATGGTGGACGGAGAGCCCCCCTACTTCAACGAGCCACCCCTCAAAGCCATGAAGATGATTC
GGGACAACCTGCCACCCCGACTGAAGAACCTGCACAAGGTGTCGCCATCCCTGAAGGGCTTCCTGGACCGCCTGC
TGGTGCGAGACCCTGCCCAGCGGGCCACGGCAGCCGAGCTGCTGAAGCACCCATTCCTGGCCAAGGCAGGGCCGC
CTGCCAGCATCGTGCCCCTCATGCGCCAGAACCGCACCAGA**TGA**GGCCCAGCGCCCTTCCCCTCAACCAAAGAGC
CCCCCGGGTCACCCCCGCCCCACTGAGGCCAGTAGGGGGCCAGGCCTCCCACTCCTCCCAGCCCGGGAGATGCTC
CGCGTGGCACCACCCTCCTTGCTGGGGGTAGATGAGACCCTACTACTGAACTCCAGTTTTGATCTCGTGACTTTT
AGAAAAACACAGGGACTCGTGGGAGCAAGCGAGGCTCCCAGGACCCCCACCCTCTGGGACAGGCCCTCCCCCATG
TTCTTCTGTCTCCAGGAAGGGCAGCGGCCCTCCCATCACTGGAAGTCTGCAGTGGGGGTCGCTGGGGGTGGAGAG
AACACTAAGAGGTGAACATGTATGAGTGTGTGCACGCGTGTGAGTGTGCATGTGTGTGTGTGCAAAGGTCCAGCC
ACCCCGTCCTCCAGCCTGCAAGGGGTGTCTGGCGCCTTGCCTGACACCCAGCCCCCTCTCCCCCTGAGCCATTGT
GGGGGTCGATCATGAATGTCCGAAGAGTGGCCTTTTCCCGTAGCCCTGCGCCCCCTTTCTGTGGCTGGATGGGGA
GACAGGTCAGGGCCCCCCACCCTCTCCAGCCCCTGCAGCAAATGACTACTGCACCTGGACAGCCTCCTCTTTTCT
AGAAGTCTATTTATATTGTCATTTTATAACACTCTAGCCCCTGCCCTTATTGGGGGACAGATGGTCCCTGTCCTG
CGGGGTGGCCCTGGCAGAACCACTGCCTGAAGAACCAGGTTCCTGCCCGGTCAGCGCAGCCCCAGCCCGCCCACC
CCTGCCTCGAGTTAGTTTTACAATTAAAACATTGTCTTGTTTTGTGTCTGTGTGCGATGTGTGGGGGGCAGGGGG
CCCTGCCCGGCTGTCTTGGGTGGGAATTTGCAGGGAGAGGGTCTGGATCTGGGAGCAAACCACGATTCCAGCCAA
GGCAGGGCAAGGGTGGGGTGGGGAGTGGGGAGTTCAGGTCATAGCAGCCAGTAAGCTCCCCCAGCCTGCCACTCC
CCAGAATGGGGCAGGATTGTCCCCACCCCTGGAAGCAGCCAGTTTGCCACAGTCCATGTGCAGACTGATCCCAGT
TTGCCAAATCTGCAATTTCCTGGAACCTTTTAAAGGCTGTCTTGAGCGCGTTTGGTGAGTAGGAGCTAACCCAAG
TTAGTAAATTGAAGGCCATTTGGCAAATTGGTCAGTGGGCAGATGGGCTTTTGGGGATTGACTGAGGCTGACTGG
CCTGGAGCTGCTGGCTTCGGAGAGACACCCTGTGAAGTGTGTCCTTCCACGCAGGAGCCCAGAGCCGAGCCCACG
CTGGGGGGAATCTGACTGGCATGGAGGTGGCCATGCCACCATCGCTGCTGCAGCTGCATCCTGGCACTTTGCGCC
TCAGGCCCTGTTGGGCTCCACTTTCTGCATCCTCCCCAGCCCCCAGGGAGGCAGTGGAGTGGGGAGAGAGCCAGG
AGTGAGCCTCCGTCCCCAAAGCCAGCCAGGCGTCATCAGCACCAGAGACCTCAGCCTGGTCCTCTCGGGAAGTGA
GTGGCCAGGGCAGAGATTCCAGGTTAGTCCACGCCTCCCACCCTTCACAGGTCCTGACCCCAAGAATCAGAGCAC

FIGURE 3715B

TGTGTGTGTGGCAGGGCCTATGCCAAGTGCAAACACAGCCTAGATGGATCATCACAGAGTGAAACCCAGCGGTGC
AAGCAGCTGTGCTCTCTGCGATGTATTGGAGGCTTAGGTGAGGTGGATGCCTTTCTGGAAAAAAAAAAAATGCTA
ACATTGGCAAAAGAAGAAATAGAAAACAAGACCAAAATAACTGTCTCCTCACTGCACACACACTCCAGAATAAAT
AAAAGGTTTCAGGCTTGAATGCACTTTCAAATGAGATTTTTTTTTTTTTTTTGAGACGGAGTATCGCTCTGTCGC
CCAGGCTGGAGTGCAGTGGCACGATCTTGGCTCACTGCAACTTCTGCCTCCTGGGTTCAAGCGATTCTCCTGCCT
CAGCCTCCCAAGTAGCTGGGATTACAGGCGCTTGCCACCACGCCAGGCTAATTTTTTGTATTTTGAGTAGAGACT
GGATTTCGCCATCTTGGCCAGACTGGTCTTGAACTCCTGACCTCGTGATCCACCCACCTCAGCCTCCCAAAGTGC
TGGGATTACAGGCATGAGCCACCATGCCTGGCCTCAAATGAGGTTTACCAGACTTTGAAGGAGCAGGTAATTCCT
TCTACCTTGTGAACAAGTTGTTCCAGAAAGATAGCAGCTCAGGAGGCCTCTGTGACCATGGTTCCAGACCCAGAT
AAGGACGGCAAAGAACAGAGCATCTCAGAAACGCAAGGCTCACAGCCAGGGTGCCCGGCGACCCCACGGGCACTG
AGAACAGCTAGCTCTAGGAGCTCCACTCTCCTGCTGAAGAAACCACGGGCTCAGAGACGGGGAGCTCCCTCGCCC
AGCCACATCTGTGACCCCACGGTAACTCTGCTGGTTTTGGTGCCTTCAGTCACTCACTGCAGGTTTGTTTTGTTT
TGTTTTGTTTTGAGTTTTTTTGTTTTTTGTTTTTTGTTTTTAGAGACAAGATGTTGCTATGTTGCCTAGGCTGGT
TTCGAACTCCTGGCCTCAAGGGATCCTCCCTCCTTGGCCCCGCAAAGTGCTGGGATTACAGGCGTGAGCCACCGT
GCCCAGCCCGCTCACTGCAGTTTGAAGGCATGGCTTTGGGTGGCGTGGGGTGAAAGCTGCCCGAGGCCCCGTTCC
TCCCCACGTGGCTGCCTCCTGCCAGAGCCAGTCAGGAAAACAGACCCCAACTAGAGTTGTTTCAAATGGCAGGGA
TTTGGTACCGGTGGTTGGATCATGACAAAGCTCTGAGAAGGCTGGAGGAGCCACAGAGTGCCAAGTGCCCAGCAA
TCATTAGAGGAAGGAGGCTGCTGCCACCTGTGTGGCTAGAGGAACAGAGGGGCCAATGGCATTCCCCAAACCCCA
CTCTCGCCTCTGTCTGGCCAGAGCAGAATGGCTTCTTCCAGCTTCCCACCCTGGACTCCCACCCAGGAGCCTCCT
CCTGGCAGACCCTTCCTGACCCCACCGGCCCGGGGGGTCTACAGATCCATGTTTCAGGCGTCCGCCTGGAGCGGA
ACAGGGGAGTGCTTAGGACAAGGGTGGTGCCAGAGGATCCACTCTGCCCACATTTAGTTGACCAGCTGAGGCACT
CCACGGGAATGAATGACTCTCGACAGGTGCCGGAGGTGAGGAGGGGCCCGGAGGCCCAGGAGGGGCACAGGGATG
GATTCGTCCGCCTGGGGGCTGGAGGTGTGTTTACAGAGCCCCAAAATAAACAATGCAACCAGGTCAGACCAGCGG
TTCTCACAGTGTGGTTCCCAGACCAGCAGCATCACTGGGAGCTTACTGGACACGCAAATAAATCCCTGTGTGCCA
CCCCAGCTGCATCAGATGCTGGTGGGGCCCAGTGATCTGTATTTAACACACCCTCCGGGGGATGCCGGTGCCCAC
TCACGTTTGAGAACCCCTGCGATCCACGACTGCCCTCCCGTGTAAAAGGCCCACCTCTGTGGGACTCCAAGTCAT
CAGCACCCTAGGGTCCTTCCGTCTTTTTCCTTCCTCCTGGGACACCTGCCTCTCCCATGTCGTATTAGAGAATTC
CTTATGCTCCCAAGTGGGCACGGGGAGAGGAAGGCACTCCTCTTTAAGGACCGACCCAGAGGTTTTGCCATTGCT
TCACTGGCCAGAGCTTAGTCACGCAGCCTCACCCAGAGGCAAGGGAGGTTGGAAAATGTAGTGTTTGTGTGTGTC
TAACACAAATTCTATTACCATGCAGTCAGGATTCTCCACTCTTGCTCTTTCATTAGATTTGCTGGGCTTCACCCT
GGACTTTCTGATTTAGTGACAGAACAGAGAACCCAGAGGCAGACCCAGATGTGTACAAGGGCTTCATATACAATC
AGGAGATTTAATAATCATGCTAGGGGCCGGGTGCAGTGGCTCACGCCTGTAATCCCAAGCACTTTGGGGAGCCGA
GGCAGGCAGATCACTTGAGGTCAGGAGTTTGAGACCAGCCTGGGCAACAAAGTGAGACCCTGTCTCTACTAAAAA
TAACAAAAATTAGCCGGGCGTGGTGGTGGGCGCCTGTAATCCCAGCTCCTCGGGTGGCTGAGGCATGAGAATCAC
TTGAACCCAGGAGGCAGAGGTTTCAGTGAGCTGAGATCACATCACTGCACTCCAGCCTGGGTGACAGAGTGAGAT
TCTGTC

FIGURE 3716

ATGTCCCCGCTGCGCCCGCTGCTGCTGGCCCTGGCCCTTGCCTCCGTGCCTTGCGCCCAGGGCGCCTGCCCCGCC
TCCGCCGACCTCAAGCACTCGGACGGGACGCGCACTTGCGCCAAGCTCTATGACAAGAGCGACCCCTACTATGAG
AACTGCTGCGGGGGCGCCGAGCTGTCGCTGGAGTCGGGCGCAGACCTGCCCTACCTGCCCTCCAACTGGGCCAAC
ACCGCCTCCTCACTTGTGGTGGCCCCGCGCTGCGAGCTCACCGTGTGGTCCCGGCAAGGCAAGGCGGGCAAGACG
CACAAGTTCTCTGCCGGCACCTACCCGCGCCTGGAGGAGTACCGCCGGGGCATCTTAGGAGACTGGTCCAACGCT
ATCTCCGCGCTCTACTGCAGGTGCCCGGCCGCCCAAAGCTCCGAGCCCACCCCAGGCCCAGGCCCCAGCTCCGCA
TAA

FIGURE 3717

GTTGGATGAAACCTTCCTCCTACTGCACAGCCCGCCCCCCTACAGCCCCGGTCCCCACGCCTAGAAGACAGCGGA
ACTAAGAAAAGAAGAGGCCTGTGGACAGAACAATC**ATG**TCTGACTCCCTGGTGGTGTGCGAGGTAGACCCAGAGC
TAACAGAAAAGCTGAGGAAATTCCGCTTCCGAAAAGAGACAGACAATGCAGCCATCATAATGAAGGTGGACAAAG
ACCGGCAGATGGTGGTGCTGGAGGAAGAATTTCAGAACATTTCCCCAGAGGAGCTCAAAATGGAGTTGCCGGAGA
GACAGCCCAGGTTCGTGGTTTACAGCTACAAGTACGTGCATGACGATGGCCGAGTGTCCTACCCTTTGTGTTTCA
TCTTCTCCAGCCCTGTGGGCTGCAAGCCGGAACAACAGATGATGTATGCAGGGAGTAAAAACAGGCTGGTGCAGA
CAGCAGAGCTCACAAAGGTGTTCGAAATCCGCACCACTGATGACCTCACTGAGGCCTGGCTCCAAGAAAAGTTGT
CTTTCTTTCGT**TGA**TCTCTGGGCTGGGGACTGAATTCCTGATGTCTGAGTCCTCAAGGTGACTGGGGACTTGGAA
CCCCTAGGACCTGAACAACCAAGACTTTAAATAAATTTTAAAATGCAAAAACTCGG

FIGURE 3718

GGCGGCGGTGGTCGGTGCGGGAGGAGGGAGGGGAGCTTGCGGGCCCGAGAGGGGGCGACGGCGGCGGCGGTGGCC
TGAGGAGGCCCGAGCGGCGGCGGTGGCGGCGAAGGCCGAGGCGTCTAGGTGTTTTTGGAAGAGCTGAGGCCAGAG
CCGGGACCATGTGACGGCGCTGGCCCTCGCCACCGCCGTCCCCCGACCCTGGCCCCAGGCCCGGCACC**ATG**ATGT
TCCGAGACCAGGTGGGCATCCTCGCTGGCTGGTTCAAAGGCTGGAATGAGTGTGAGCAGACAGTGGCCCTCCTGT
CACTTCTGAAACGGGTCACCCGTACCCAGGCCCGCTTCCTGCAGCTCTGCCTGGAGCACTCACTGGCGGACTGCA
ATGACATCCACCTGCTGGAGTCGGAGGCCAACAGTGCTGCCATCGTCAGCCAGTGGCAGCAGGAGTCCAAAGAGA
AGGTGGTGTCCCTCCTGCTGTCCCACCTTCCCCTGCTTCAGCCAGGCAACACAGAGGCCAAGTCGGAGTACATGA
GGCTACTGCAGAAAGTGCTGGCCTACTCAATCGAGAGCAATGCTTTCATCGAGGAGAGTCGCCAGCTGCTTTCCT
ATGCCCTCATCCACCCAGCCACCACACTGGAGGACCGCAACGCACTGGCCCTCTGGCTGAGCCACCTGGAAGAGC
GGTTGGCTAGTGGCTTCCGCTCCCGGCCAGAGCCCTCCTACCATTCACGTCAAGGCTCAGATGAGTGGGGGGGCC
CTGCAGAGCTAGGCCCTGGGGAGGCAGGGCCAGGCTGGCAGGACAAGCCACCCCGGGAAAATGGACACGTGCCCT
TCCACCCATCCAGCTCAGTGCCGCCAGCCATCAACAGTATTGGGAGCAATGCAAACACAGGTCTCCCCTGCCAAA
TCCACCCTAGCCCACTGAAGCGCTCCATGTCACTCATCCCTACAAGCCCCCAGGTCCCTGGTGAGTGGCCGAGTC
CAGAGGAGCTTGGGGCCCGGGCTGCTTTTACCACGCCCGATCACGCACCTCTCTCGCCCCAGAGCAGCGTGGCCT
CCTCTGGCAGTGAGCAGACAGAGGAGCAGGGCTCCAGCCGGAACACCTTCCAGGAGGATGGCAGTGGCATGAAAG
ATGTGCCCTCATGGCTCAAGAGCCTCCGTTTGCACAAGTATGCAGCCCTCTTCTCACAGAATCAGCTT**TGA**GTAA
CTGTACAGTTTTTCTCGCTGTTGGAGAAGACTTATTTGTTGGAGTTTCACTTGTTTAATGGTCTGGGCTTATTTT
GGAAAAAAAAAAAACAAACAAAAAAAACGAATTCTGACCTT

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FIGURE 3719

AGTTGGTGGAACCGGAGCTTCGAGTCCGTCCCCGGTGCTGCCTGCGCGTTCACCTGAGTCTCGCTGGAGCTCTTC
TCGCCCGCCCACCTCATCTCAACCCACTTTCCGCGGGGAGCGGCGCCAAGCTGGGCCTTCCTCGGATCAGGCGTC
CCCTGAAGTCGGCACGCCCCTCTGCGTCCCCCTTCGGTCCCGCTAGGACCCCGTCCGGGCTGCCGTCGCCTCGTC
GCT**ATG**GCGCCCACCATCCAGACCCAGGCCCAGCGGGAGGATGGCCACAGGCCCAATTCCCACCGGACTCTGCCT
GAGAGGTCTGGAGTGGTCTGCCGAGTCAAGTACTGCAATAGCCTCCCTGATATCCCCTTCGACCCCAAGTTCATC
ACCTACCCCTTCGACCAGAACAGGTTCGTCCAGTACAAAGCCACTTCCTTGGAGAAACAGCACAAACATGACCTC
CTGACTGAGCCAGACCTGGGGGTCACCATCGATCTCATCAATCCTGACACCTACCGCATCGACCCCAATGTTCTT
CTAGATCCAGCTGATGAGAAACTTTTGGAAGAGGAGATTCAGGCCCCCACCAGCTCCAAGAGATCCCAGCAGCAC
GCGAAGGTGGTGCCATGGATGCGAAAGACAGAGTACATCTCCACTGAGTTCAACCGTTATGGCATCTCCAATGAG
AAGCCTGAGGTCAAGATTGGGGTTTCTGTGAAGCAGCAGTTTACCGAGGAAGAAATATACAAAGACAGGGATAGC
CAGATCACAGCCATTGAGAAGACTTTTGAGGATGCCCAGAAATCAATCTCACAGCATTACAGCAAACCCCGAGTC
ACACCGGTGGAGGTCATGCCTGTCTTCCCAGACTTTAAGATGTGGATCAATCCATGTGCTCAGGTGATCTTTGAC
TCAGACCCAGCCCCCAAGGACACGAGTGGTGCAGCTGCGTTGGAGATGATGTCTCAGGCCATGATTAGGGGCATG
ATGGATGAGGAAGGGAACCAGTTTGTGGCCTATTTCCTGCCTGTAGAAGAGACGTTGAAGAAACGAAAGCGGGAC
CAGGAGGAGGAGATGGACTATGCACCAGATGATGTGTATGACTACAAAATTGCTCGGGAGTACAACTGGAACGTG
AAGAACAAAGCTAGCAAGGGCTATGAGGAAAACTACTTCTTCATCTTCCGAGAGGGTGACGGGGTTTACTACAAT
GAGTTGGAAACCAGGGTCCGCCTTAGTAAGCGCCGGGCCAAGGCTGGGGTTCAGTCAGGCACCAACGCCCTGCTT
GTGGTCAAACATCGGGACATGAATGAGAAGGAACTGGAAGCTCAGGAGGCACGGAAGGCCCAGCTAGAAAACCAC
GAACCGGAGGAGGAAGAGGAAGAGGAGATGGAGACAGAAGAGAAAGAAGCTGGGGGCTCAGATGAGGAGCAGGAG
AAGGGCAGCAGCAGTGAGAAGGAGGGCAGTGAAGATGAGCACTCGGGCAGCGAGAGTGAACGGGAGGAAGGTGAC
AGGGACGAGGCCAGTGACAAGAGTGGCAGTGGTGAGGACGAGAGCAGCGAGGATGAGGCCCGGGCTGCCCGTGAC
AAAGAGGAGATCTTTGGCAGTGATGCTGATTCTGAGGACGATGCCGACTCTGATGATGAGGACAGAGGACAGGCC
CAAGGTGGCAGTGACAATGATTCAGACAGCGGCAGCAATGGGGGTGGCCAGCGGAGCCGGAGCCACAGCCGCAGC
GCCAGTCCCTTCCCCAGTGGCAGCGAGCACTCGGCCCAGGAGGATGGCAGTGAAGCTGCAGCTTCTGATTCCAGT
GAAGCTGATAGTGACAGTGAC**TGA**GTCCCAGGGCATTCAGGGCTGGTTCAGACACCATTATTGTGAGCAGCAAAG
CACTTTTCTAGTGGTCTGTTTGTGAGCCTTTCACTTGTTTGTTCCCCACCCCCAAACCTTTGCTGTTAATAAAGT
CAACTTCTCTTTA

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FIGURE 3720

GGGGTTTACTACAATGAGTTGGAAACCAGGGTCCGCCTTAGTAAGCGCCGGGCCAAGGCTGGGGTTCAGTCAGGC
ACCAACGCCCTGCTTGTGGTCAAACATCGGGAC**ATG**AATGAGAAGGAACTGGAAGCTCAGGAGGCACGGAAGGCC
CAGCTAGAAAACCACGAACCGGAGGAGGAAGAGGAAGAGGAGATGGAGACAGAAGAGAAAGAAGCTGGGGGCTCA
GATGAGGAGCAGGAGAAGGGCAGCAGCAGTGAGAAGGAGGGCAGTGAAGATGAGCACTCGGGCAGCGAGAGTGAA
CGGGAGGAAGGTGACAGGGACGAGGCCAGTGACAAGAGTGGCAGTGGTGAGGACGAGAGCAGCGAGGATGAGGCC
CGGGCTGCCCGTGACAAAGAGGAGATCTTTGGCAGTGATGCTGATTCTGAGGACGATGCCGACTCTGATGATGAG
GACAGAGGACAGGCCCAAGGTGGCAGTGACAATGATTCAGACAGCGGCAGCAATGGGGGTGGCCAGCGGAGCCGG
AGCCACAGCCGCAGCGCCAGTCCCTTCCCCAGTGGCAGCGAGCACTCGGCCCAGGAGGATGGCAGTGAAGCTGCA
GCTTCTGATTCCAGTGAAGCTGATAGTGACAGTGAC**TGA**GTCCCAGGGCATTCAGGGCTGGTTCAGACACCATTA
TTGTGAGCAGCAAAGCACTTTTCTAGTGGTCTGTTTGTGAGCCTTTCACTTGTTTGTTCCCCACCCCCAAACCTT
TGCTGTTAATAAAGTCAACTTCTCTTT

FIGURE 3721

AGGCCCAGCGGGAGGATGGCCACAGGTCTGGAGTGGTCTGCCGAGTCAAGTACTGCAATAGCCTCCCTGATATCC
CCTTCGACCCCAAGTTCATCACCTACCCCTTCGACCAGAACAGGTTCGTCCAGTACAAAGCCACTTCCTTGGAGA
AACAGCACAAACATGACCTCCTGACTGAGCCAGACCTGGGGGTCACCATCGATCTCATCAATCCTGACACCTACC
GCATCGACCCCAATGTTCTTCTAGATCCAGCTGATGAGAAACTTTTGGAAGAGGAGATTCAGGCCCCCACCAGCT
CCAAGAGATCCCAGCAGCACGCGAAGGTGGTGCCATGG**ATG**CGAAAGACAGAGTACATCTCCACTGAGTTCAACC
GTTATGGCATCTCCAATGAGAAGCCTGAGGTCAAGATTGGGGTTTCTGTGAAGCAGCAGTTTACCGAGGAAGAAA
TATACAAAGACAGGGATAGCCAGATCACAGCCATTGAGAAGACTTTTGAGGATGCCCAGAAATCAATCTCACAGC
ATTACAGCAAACCCCGAGTCACACCGGTGGAGGTCATGCCTGTCTTCCCAGACTTTAAGATGTGGATCAATCCAT
GTGCTCAGGTGATCTTTGACTCAGACCCAGCCCCCAAGGACACGAGTGGTGCAGCTGCGTTGGAGATGATGTCTC
AGGCCATGATTAGGGGCATGATGGATGAGGAAGGGAACCAGTTTGTGGCCTATTTCCTGCCTGTAGAAGAGACGT
TGAAGAAACGAAAGCGGGACCAGGAGGAGGAGATGGACTATGCACCAGATGATGTGTATGACTACAAAATTGCTC
GGGAGTACAACTGGAACGTGAAGAACAAAGCTAGCAAGGGCTATGAGGAAAAC**TAA**TACTTCATCTTC

FIGURE 3722

GTCGTAACGCACTTCCGGCGGTCTACGCGAGGAAGATGGCTGCATCCCAGCAGCAAGCTTCAGCGGCTTCCTCAG
CTGCTGGTGTATCGGGTCCTAGTTCGGCTGGCGGCCCGGGTCCCCAGCAGCAGCCGCAACCGCCAGCACAACTGG
TGGGCCCTGCCCAGAGCGGCCTCCTGCAGCAACAGCAACAGGACTTCGATCCTGTGCAGCGTTATAAGATGCTCA
TCCCGCAGCTGAAGGAGAGTCTACAGACCTTGATGAAGGTTGCGGCCCAAAACTTGATTCAGAACACTAACATCG
ACAATGGACAAAAGAGCAGTGATGGACCCATACAGCGCTTTGACAAGTGCCTGGAAGAGTTCTATGCACTCTGTG
ACCAGCTGGAGCTGTGCCTGCGCCTGGCGCATGAGTGCCTGTCACAGAGTTGTGACAGTGCCAAGCACTCTCCAA
CGTTGGTGCCCACAGCCACCAAGCCCGACGCAGTGCAGCCTGACAGCCTCCCCTACCCACAGTACCTGGCGGTCA
TCAAAGCCCAGATTTCCTGTGCCAAGGACATTCACACCGCCCTGCTGGACTGTGCCAACAAGGTCACGGGCAAGA
CACCCGCACCACCTGCTGGCCCTGGGGGCACTCTGTGAAGTGGGGGACAGGGAGTGGGGCAGGCAGTGGTTGGTG
GGTGGTGTGCAAAGGGAATGAAGAGCGTCCTGGGCCTAAACACAGCAGCCTCCTCTCTTCCTGCCTGAGCACCGC
AGCGGGAGCCAGCAGGGGGCAGCAGAGGCCAACAGGGAGCTCGCAGGCCGGGCCCCTGCGTCCCTGCCCCTTCTT
CCTGCTCCCCCTCCTAGCCTAGGGTAGACTTTGAACTGTGTGTGTTGATGACTTCTCTGTTCCACAGGCCCTCCC
CCATTCTTGCCTGGGTGTGGAGCCCTGGCTGTCCCCTCTCCCTCAGTCCTTCCTGACTGTCTCCAGCTGGGAGGT
GGTCTCTGTGTGCCACTCCTCTGTGTCTCTATTACAGTTGTGTCTCTCTCATCCTGTCTCTTTTTCCCTTGTTTC
TCTGTTCCTGTTAATGTGTTTCTCCCCATGGTCCTATTTCTCTCACTCTGACCTCTCTCTCTTAGTCCCCTTTAG
CTGTCTTCTATCCCCAGCTCCTAACTGGGACTCTGTGTCTATGCAGGGGGCCAGCACCCCTGGGTTATCTGGGGC
TAAGGGAAGGGACTTCATTTCCAGGGGCCACAGCCAAGCCCAGAGTCCCCCAGCGGCTCGCATGTCAGCCCAGAC
CCCAGGGTCCTTGGCCTAGGAGAGGAGCAGTGGAGGGGCCCAGGCTCTGAGCTCCACAGGTCTGAGCTGGGAGCA
ACTCAGGCCCCCACCCAAGCCTGCGTCAGCGGAACTTGAGTGAGGGGCGTTGTGCAATTTGTGGCAAGGCTGGCC
CAGCTGGATGCCTGGGTCCCAGTATTTTTAGCCCCAAAGGAGAAGTGAAAAGGCCCCAGCCGGGGTGAATCATCA
GTCCTGGGGAAGAACCCAGGCGCCTGAGCCCCAGCTCCGGGAAGCAGGCACTGGGGAGGGGGCTTCAAGGAGGGA
GTGCCCCCTCAGACTCCCTGCTTCCCTGGAAGCTTCAGGAAGCTCAGCCTCAGCCTTCAGGCCTGAGCAAGTGCA
GGGCGGAGCTACCAGCCCAGGCTCAGATGTTGGGGTGTGAAAGCCTCAAGTGACTCAGCCTGGTTGGAGAACTGC
CCCACCCAGTATCTTCTGTGCCATGGTTCCCACATTCGCACTCCATGGCCTCCTGTCCTGGACCCCACGTCTGCA
AGGAAACCCTAGGACCATGGATACCTCTGTGATTCACGCTGAGCCCAAGTCCCCACACTGGAAAACTGGGAAATG
GCCAGCTGTGTGTCCCAGGAAATTCCTCCCCTTATTCTTCCTTGAAGTGCCCGAGCATGTAGGGCAAGAAGGAAG
GCTGAAGCGCTGTCCCTAGGAGGAATTTCTCCTTCAGGGAAGCCTCAGTTTTGCCCATTTATCTAATTGAATCAG
TTTTTTACCCAATCCCCCGATTTTGTAGGATAATCTCCCTTATCTAAAGTCAACTGATTATGGACTTTAATCACA
TCTACAAAACACTTCCATGGCGACAGCTAGATGAGTGTTTGAATAACTGGGACTGTAGCCCGTCCAAGTTGACAC
ATAAAACTGACCATCGGGCCGGGGGCGGTGGCTCACGCCTGTAATCCCAACACTTTGGGAGCCCGAGGCGGGCGG
ATCACAAGGTCAGGAGTTCGAGACCAGCCTGGCCAACACGGTGAAACCCCGACTCTACTAAAAATACAAAAAATT
AGCTGGGTGTGGTGGCACACACCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGTTTGAACCTGGG
AGGCAGAGGTTGCAGTGAGCCAAGATCACACTATTGCACTCCAGCCTGGGCGACAGGGCAAGACTCTGTCTCAAA
AAAAATAAAAAACTGACCATCTAGTCCTTGTCATCTGGGCACCCTCACACATCTCCTTAACCACACTTAATCTCC
AAATAAGTACGATAACATAGTCATAGTCCCACCCAACATGATGCAGTTATCTTGCATACAACTGAAGACAACTAA
CCCTTTCCCCAACAGAGCCCACCAGCAGTGGTGGAGATGTCGGTCCATGAGCGCACACACAAGACTGAGGGACTG
TCGGCCCTCCCAGGTGGTGTCAACACAACATCACACACAGGTGGGGGGGCCTGATAGCCCAGCACCCATGATACA
GGGCCTACCAATGCTTAAAACCACACCCAGGGAGCCCACAGAGGCACTCAGTGGGTGGTGGGGTGATGGATACAC
ATCTATCAGGCACAGGGCGGAGGTGGGCACCACTGAGTTGCACTCAGCAAACACATTGGGTATCTTGTGCCCAAG
GCCTGTATTTGTGGAGCTGATGTTCTAGTGAGAGACAGTAAATGTGACAAAAGTAAAATATATCAGATGGTGAGA
AAACAGAAAAATGAGATCAGAAGTGGAGATGTTGGGGCCAGGCACAGTGGCCCAGGCCTGTAATCCCATCACTTT
GGGAGGTGCAGGCAGGCAGATGGCTTGAGCCCAGGAATTCAAGACCAGTCCGAGCAACATAGCAAAAGCCCTTAT
CTGCAAAAAATTCAAAAATTAGCCAGGTGTGGTGGTGCGTGCCCAGGTTCCCAGGTACTCGGAGGCTGAGAGGTG
GGAGGATGCCTTGAGCTTGAGAGGTTGAAGCTGCAGTGAGCTGTGATCGCACCACTGCACTCCAGCTTGGTTCAT
GGAGACCCTGTTTTTTTAAAAAAAGAAGTGGAGGTGTTTACACCAGCAAAATACTCATTTTTTAAGTGTAATTAA
GTTGAAGATCAAAAAATGGAAATGTATAATTAAATCATACTTAGCAAATCTAACACATGAAATGTAACATCTGCA
TATGGAGAATCGTGTTACTTTATTGAAAAACATTAAAAGTTTGAGAACTT

FIGURE 3723

AGCCTGACTTCAGCGCTCCCACTCTCGGCCGACACCCCTCATGGCCAACCGTTACACC**ATG**GATCTGACTGCCAT
CTACGAGAGCCTCCTGTCGCTGAGCCCTGACGTGCCCGTGCCATCCGACCATGGAGGGACTGAGTCCAGCCCAGG
CTGGGGCTCCTCGGGACCCTGGAGCCTGAGCCCCTCCGACTCCAGCCCGTCTGGGGTCACCTCCCGCCTGCCTGG
CCGCTCCACCAGCCTAGTGGAGGGCCGCAGCTGTGGCTGGGTGCCCCCACCCCCTGGCTTCGCACCGCTGGCTCC
CCGCCTGGGCCCTGAGCTGTCACCCTCACCCACTTCGCCCACTGCAACCTCCACCACCCCCTCGCGCTACAAGAC
TGAGCTATGTCGGACCTTCTCAGAGAGTGGGCGCTGCCGCTACGGGGCCAAGTGCCAGTTTGCCCATGGCCTGGG
CGAGCTGCGCCAGGCCAATCGCCACCCCAAATACAAGACGGAACTCTGTCACAAGTTCTACCTCCAGGGCCGCTG
CCCCTACGGCTCTCGCTGCCACTTCATCCACAACCCTAGCGAAGACCTGGCGGCCCCGGGCCACCCTCCTGTGCT
TCGCCAGAGCATCAGCTTCTCCGGCCTGCCCTCTGGCCGCCGGACCTCACCACCACCACCAGGCCTGGCCGGCCC
TTCCCTGTCCTCCAGCTCCTTCTCGCCCTCCAGCTCCCCACCACCACCTGGGGACCTTCCACTGTCACCCTCTGC
CTTCTCTGCTGCCCCTGGCACCCCCCTGGCTCGAAGAGACCCCACCCCAGTCTGTTGCCCCTCCTGCCGAAGGGC
CACTCCTATCAGCGTCTGGGGGGCCCTTGGGTGGCCTGGTTCGGACCCCCTCTGTACAGTCCCTGGGATCCGACCC
TGATGAATATGCCAGCAGCGGCAGCAGCCTGGGGGGGCTCTGACTCTCCCGTCTTCGAGGCGGGAGTTTTTGCACC
ACCCCAGCCCGTGGCAGCCCCCCGGCGACTCCCCATCTTCAATCGCATCTCTGTTTCTGAG**TGA**CAAAGTGACTG
CCCGGTCAGATCAGCTGGATCTCAGCGGGGAGCCACGTCTCTTGCACTGTGGTCTCTGCATGGACCCCAGGGCTG
TGGGGACTTGGGGGACAGTAATCAAGTAATCCCCTTTTCCAGAATGCATTAACCCACTCCCCTGACCTCACGCTG
GGGCAGGTCCCCAAGTGTGCAAGCTCAGTATTCATGATGGTGGGGGATGGAGTGTCTTCCGAGGTTCTTGGGGGA
AAAAAAATTGTAGCATATTTAAGGGAGGCAATGAACCCTCTCCCCCACCTCTTCCCTGCCCAAATCTGTCTCCTA
GAATCTTATGTGCTGTGAATAATAGGCCTTCACTGCCCCTCCAGTTTTTATAGACCTGAGGTTCCAGTGTCTCCT
GGTAACTGGAACCTCTCCTGAGGGGGAATCCTGGTGCTCAAATTACCCTCCAAAAGCAAGTAGCCAAAGCCGTTG
CCAAACCCCACCCATAAATCAATGGGCCCTTTATTTATGACGACTTTATTTATTCTAATATGATTTTATAGTATT
TATATATATTGGGTCGTCTGCTTCCCTTGTATTTTTCTTCCTTTTTTTGTAATATTGAAAACGACGATATAATTA
TTATAAGTAGACTATAATATATTTAGTAATATATATTATTACCTTAAAAGTCTATTTTTGTGTTTTGGGCATTTT
TAAATAAACAATCTGAGTGT

FIGURE 3724

GAATTAGGGGAACTCAGAAATCCATCCCCCACCCCACGGCCCTACCTAGAAGACTTAGGAATGTGGGTCCCCAGC
GCCGCCATCTGAGACTCCAGAGTCGAGGCTCCTAGCATCCCCTACGTAGAACACTGAGAAATTCCGACTGCGGGA
CCCCAGTCTCCGAGAGACCCCAGATTCTATTCCTGGAGCCTGAGAGCCCGAAGTTCACGCCCCTGAGTCTGGGCT
CCGCACCTCCCTGGGGACCGCGTCGGGGTCGCGCAGGAGCCGGGCTGCCTCGAGCCGGGGCTGGAGGCTCCCCGG
GAGGACTCTGCTGGGCCGCTCAGCC**ATG**CCTGAGGGAGCCCAAGGACTGAGCCTCTCCAAACCTAGCCCAAGCCT
CGGGTGTGGCCGAAGAGGTGAAGTGTGTGACTGTGGCACCGTGTGTGAGACTCGGACAGCTCCTGCAGCCCCCAC
CATGGCCTCCCCCCGAGGTTCTGGGAGCTCCACATCCCTGAGCACAGTGGGCTCTGAGGGGGATCCAGCCCCTGG
GCCCACTCCAGCCTGCTCAGCCTCCAGGCCAGAGCCCCTTCCAGGGCCTCCCATCCGCCTACATCTCTCTCCGGT
GGGGATCCCAGGTTCAGCCAGACCCTCAAGGCTGGAGCGTGTGGCCCGGGAGATCGTGGAGACAGAACGGGCCTA
TGTCAGGGACCTCCGCAGCATCGTGGAGGACTACCTGGGCCCTCTGCTGGACGGCGGGGTCCTGGGGCTGAGCGT
GGAGCAGGTGGGCACGCTGTTTGCCAACATTGAGGACATCTACGAGTTCAGCAGCGAGCTCCTGGAGGACTTGGA
GAACAGCAGCAGCGCCGGGGGTATTGCCGAGTGCTTCGTGCAGAGGAGCGAGGATTTTGACATCTACACATTGTA
CTGCATGAACTACCCGAGCTCCCTGGCCCTGCTCCGGGAGCTGTCGTTGTCTCCGCCAGCAGCCCTGTGGCTGCA
GGAGCGCCAGGCCCAGCTTCGCCACTCGCTGCCCCTGCAGAGCTTCCTGCTGAAACCTGTCCAGCGCATTCTCAA
GTACCATCTGCTGCTGCAGGAACTAGGGAAGCACTGGGCGGAGGGCCCAGGCACTGGGGGTCGCGAGATGGTGGA
GGAAGCTATTGTGTCCATGACAGCGGTTGCCTGGTACATCAACGACATGAAGCGCAAGCAGGAGCATGCAGCGCG
CCTCCAGGAAGTGCAGCGGCGGCTGGGTGGCTGGACCGGACCAGAGCTCAGTGCTTTTGGGGAACTGGTGTTGGA
GGGCGCGTTCCGAGGAGGCGGAGGGGGTGGCCCCCGGCTACGAGGGGGTGAGCGGCTGCTCTTCCTGTTCTCTCG
GATGCTGCTGGTGGCCAAGCGCAGGGGGCTGGAGTACACCTACAAAGGCCACATCTTCTGCTGCAACCTGAGCGT
GAGCGAGAGTCCCCGAGACCCTCTAGGGTTCAAGGTGTCTGATCTGACCATTCCCAAGCACAGACACCTGCTCCA
GGCCAAGAACCAAGAAGAGAAGAGGCTGTGGATTCACTGTCTCCAGCGCCTCTTCTTTGAGAACCACCCTGCCTC
CATCCCTGCCAAGGCAAAGCAAGTTCTCCTTGAAAACAGCCTGCATTGTGCCCCCAAAAGTAAGCCTGTCCTAGA
GCCCCTGACACCCCCACTTGGGTCTCCTCGACCTCGAGATGCTAGAAGTTTTACCCCTGGGCGAAGGAACACAGC
TCCATCTCCTGGGCCCTCTGTGATTCGCCGAGGCCGCAGGCAGTCTGAGCCGGTGAAGGACCCTTATGTCATGTT
CCCACAGAACGCTAAGCCTGGATTCAAGCACGCTGGCAGCGAAGGGGAACTCTACCCTCCAGAATCTCAGCCACC
AGTTTCAGGCTCTGCACCCCCTGAGGACCTGGAGGATGCTGGACCCCCAACACTGGACCCCTCTGGGACCTCAAT
CACTGAAGAAATCCTGGAACTGCTGAATCAGCGAGGCCTTCGAGATCCAGGGGAATCTATGGGCCTTCACAGGGC
CCAGGGGGCTCCTGATGCCCCCTTCCACATG**TGA**GCCAGGACATGAGGCTTCCCTGAAGCAAGGATTTCAGCCAG
ATGCCATAGACCCTCAGAACTTGACCTGGAAGTCCAGACACTGAACGCAGGCCTCAAAACTGCTGCGGCCTTCCA
ACTCCTGGTATCTGCATCGGCGAATGGCCCTTCTTGCCTTGATCCACAGGGATGGGGAAGGGAGGAATGTCATTA
ATGTTTTGTTAATACTGATTCTTTCATGC

FIGURE 3725

GGTGGCCCCTAGCTTTCCTTTTCCGGTTGCGGCGCCGCGCGGTGAGGTTGTCTAGTCCACGCTCGGAGCC**ATG**CC
GTCCAAGGGCCCGCTGCAGTCTGTGCAGGTCTTCGGACGCAAGAAGACAGCGACAGCTGTGGCGCACTGCAAACG
CGGCAATGGTCTCATCAAGGTGAACGGGCGGCCCCTGGAGATGATTGAGCCGCGCACGCTACAGTACAAGCTGCT
GGAGCCAGTTCTGCTTCTCGGCAAGGAGCGATTTGCTGGTGTAGACATCCGTGTCCGTGTAAAGGGTGGTGGTCA
CGTGGCCCAGATTTATGCTATCCGTCAGTCCATCTCCAAAGCCCTGGTGGCCTATTACCAGAAATATGTGGATGA
GGCTTCCAAGAAGGAGATCAAAGACATCCTCATCCAGTATGACCGGACCCTGCTGGTAGCTGACCCTCGTCGCTG
CGAGTCCAAAAAGTTTGGAGGCCCTGGTGCCCGCGCTCGCTACCAGAAATCCTACCGA**TAA**GCCCATCGTGACTC
AAAACTCACTTGTATAATAAACAGTTTTTGAGGGATTTTAAAGTTTCAAAAAAAAAAAAAAAAAAAA

FIGURE 3726A

AGAGAACAGATTCGGAAACTGGGGAGGTCTAGCATGTGGCGTAGGAGGGGGTCCTCACTCCGCTTCGCGATTGCC
AAAACGAGCCTGCCGGAAGCGCCCTAAGGGGTTTTCTTCTCCCAGGGAACCAGCGGGGAAACTGAGGCTCGGGGT
GGAGCGCAGGATTGTGGGACGCGCCAAGGCTGCTGTCTTTCCCAGCAGCAGCGGAAG**ATG**TCGGACAGCGAGGAC
AGCAACTTTTCCGAGGAGGAGGACAGCGAGCGCAGCAGTGACGGCGAGGAGGCCGAGGTAGACGAAGAGCGGCGG
AGTGCAGCGGGCAGTGAGAAAGAAGAAGAGCCTGAGGACGAAGAGGAGGAGGAAGAGGAGGAGGAATACGATGAG
GAAGAGGAGGAAGAAGATGATGACCGACCCCCCAAGAAACCCCGCCATGGAGGCTTCATTCTGGACGAGGCTGAT
GTTGACGATGAGTATGAGGACGAGGACCAGTGGGAGGATGGAGCAGAGGACATTCTAGAGAAAGAAGAGATTGAA
GCCTCCAATATCGATAATGTTGTCCTGGATGAAGATCGTTCTGGGGCTCGCCGCCTGCAAAACCTCTGGAGGGAC
CAGCGAGAAGAAGAACTGGGCGAGTATTACATGAAGAAATACGCCAAGTCATCTGTGGGAGAGACGGTGTATGGA
GGATCTGATGAGCTCTCAGACGACATCACCCAGCAGCAGCTGCTCCCAGGAGTCAAGGATCCCAATCTGTGGACT
GTCAAATGTAAGATTGGGGAGGAACGGGCCACGGCCATTTCCTTGATGCGCAAGTTCATTGCCTACCAGTTCACA
GACACGCCCCTGCAGATCAAGTCAGTAGTGGCACCAGAGCATGTGAAGGGCTACATCTACGTGGAGGCCTACAAG
CAGACCCACGTGAAGCAGGCCATTGAGGGGGTGGGCAACCTGCGGCTTGGCTACTGGAACCAGCAGATGGTGCCC
ATCAAGGAGATGACAGACGTGCTCAAAGTGGTGAAGGAGGTGGCCAACCTGAAACCAAAGTCCTGGGTCCGCCTC
AAGCGGGGCATCTACAAGGATGACATTGCTCAGGTGGACTACGTGGAGCCCAGCCAGAACACCATCTCCCTGAAG
ATGATCCCACGCATCGACTACGATCGCATCAAGGCCCGCATGAGCTTGAAAGACTGGTTTGCCAAAAGGAAGAAG
TTTAAGCGGCCTCCACAGAGGCTGTTTGATGCTGAGAAGATCAGGTCCCTGGGGGGTGATGTTGCCTCTGATGGT
GACTTCCTCATCTTTGAGGGGAACCGTTACAGCCGGAAGGGCTTTCTGTTCAAGAGCTTCGCCATGTCTGCTGTG
ATCACGGAGGGTGTGAAGCCAACACTCTCTGAGCTGGAAAAGTTTGAGGACCAGCCAGAGGGCATTGACCTGGAG
GTGGTGACTGAGAGCACAGGGAAGGAGCGGGAGCACAACTTCCAACCTGGGGACAACGTGGAGGTCTGTGAGGGT
GAGCTCATCAACCTGCAGGGCAAGATCCTCAGCGTGGATGGCAACAAGATCACCATCATGCCCAAGCATGAGGAC
CTCAAGGACATGTTGGAGTTCCCAGCCCAGGAACTTAGAAAATACTTCAAGATGGGGGACCACGTGAAGGTGATT
GCTGGCCGATTCGAGGGCGACACAGGCCTCATTGTGCGGGTGGAGGAGAATTTCGTTATCCTGTTCTCTGACCTC
ACCATGCATGAGCTGAAGGTGCTCCCCCGGGACCTGCAGCTCTGCTCAGAGACAGCATCAGGTGTGGATGTTGGG
GGCCAGCATGAATGGGGCGAGCTGGTGCAGCTGGATCCCCAGACTGTGGGTGTCATCGTGCGACTAGAACGGGAG
ACCTTCCAGGTGCTGAACATGTACGGGAAGGTGGTGACTGTCAGACATCAGGCTGTGACCCGGAAGAAGGACAAC
CGCTTTGCTGTGGCCTTGGACTCAGAGCAGAACAACATCCATGTGAAAGACATCGTTAAGGTCATTGATGGCCCC
CACTCAGGCCGAGAAGGGGAGATTCGCCATCTCTTCCGAAGCTTCGCCTTCCTACATTGCAAGAAACTGGTGGAG
AACGGGGGCATGTTTGTCTGCAAGACCCGCCACCTGGTGCTGGCTGGGGGCTCAAAGCCCCGTGATGTGACCAAC
TTCACCGTGGGTGGCTTTGCGCCTATGAGTCCCCGGATCAGCAGCCCCATGCACCCCAGTGCTGGAGGTCAGCGT
GGCGGCTTTGGTAGCCCAGGTGGCGGCAGTGGTGGCATGAGCAGGGGCCGGGGCCGGAGGGACAACGAACTCATC
GGCCAGACCGTGCGCATCTCCCAGGGGCCCTACAAAGGCTACATCGGTGTGGTGAAAGATGCCACAGAGTCCACG
GCCCGTGTGGAGCTGCACTCCACCTGCCAGACCATCTCTGTGGACCGTCAGCGGCTCACCACGGTGGGCTCACGG
CGCCCGGGCGGCATGACCTCGACCTATGGGAGGACGCCCATGTATGGCTCCCAGACGCCCATGTATGGCTCTGGC
TCCCGAACACCCATGTACGGCTCACAGACACCCCTCCAGGATGGTAGCCGCACCCCACACTACGGCTCACAGACG
CCCCTGCATGATGGCAGCCGCACTCCTGCCCAGAGTGGGGCCTGGGACCCCAACAACCCCAACACGCCGTCACGG
GCTGAGGAAGAATATGAGTATGCTTTCGATGATGAGCCCACCCCGTCCCCGCAGGCCTATGGGGGAACCCCCAAT
CCCCAAACACCTGGCTACCCAGACCCCTCGTCCCCACAGGTCAACCCACAATACAACCCGCAGACGCCAGGGACG
CCGGCCATGTACAACACAGACCAGTTCTCTCCCTATGCTGCCCCCTCCCCACAAGGTTCCTACCAGCCCAGCCCC
AGCCCCCAGAGCTACCACCAGGTGGCGCCAAGCCCAGCAGGCTACCAGAATACCCACTCCCCAGCCAGCTACCAC
CCTACACCGTCGCCCATGGCCTATCAGGCTAGCCCCAGCCCGAGCCCCGTTGGCTACAGTCCTATGACACCTGGA
GCTCCCTCCCCTGGTGGCTACAACCCACACACGCCAGGCTCAGGCATCGAGCAGAACTCCAGCGACTGGGTAACC
ACTGACATTCAGGTGAAGGTGCGGGACACCTACCTGGATACACAGGTGGTGGGACAGACAGGTGTCATCCGCAGT
GTCACGGGGGGCATGTGCTCTGTGTACCTGAAGGACAGTGAGAAGGTTGTCAGCATTTCCAGTGAGCACCTGGAG
CCTATCACCCCCACCAAGAACAACAAGGTGAAAGTGATCCTGGGCGAGGATCGGGAAGCCACGGGCGTCCTACTG
AGCATTGATGGTGAGGATGGCATTGTCCGTATGGACCTTGATGAGCAGCTCAAGATCCTCAACCTCCGCTTCCTG
GGGAAGCTCCTGGAAGCC**TGA**AGCAGGCAGGGCCGGTGGACTTCGTCGGATGAAGAGTGATCCTCCTTCCTTCCC
TGGCCCTTGGCTGTGACACAAGATCCTCCTGCAGGGCTAGGCGGATTGTTCTGGATTTCCTTTTGTTTTTCCTTT

FIGURE 3726B

TAGTTTTCCATCTTTTCCCTCCCTGGTGCTCATTGGAATCTGAGTAGAGTCTGGGGGGAGGGTCCCCACCTTCCTG
TACCTCCTCCCCACAGCTTGCTTTTGTTGTACCGTCTTTCAATAAAAAGAAGCTGTTTGGTCT

FIGURE 3727

CTCAGAGGCTGGAGGGATCCTCCGTATGCTGAACGCTGGTCCCCTGGGCCCCCTTTATTTCTTTCTCTATACTTT
GTTTCTGTGTCTTTTTCTCTTCCAAAGTCTCTCGTTCCACCTAACGAGAAACACCCACAGGTGTGGAGGGGCAAC
CCATCCCTTCAGACAATTGGGAGGTGAGGGCCGATTGCCTTACACGGTGAGACAAGCGGCCTGACTCGTGACTAT
TTTTTTGGACAAATCAGGCAGCCACTGACTCCCTTCATT**ATG**GCCTCAGCTTTATCTCTGGGCAATAAGTGTGAT
CCCTTCCTTCGCTGCGTCCTTTGCAGGGGCGGTGGCGCTCTGCAAGGCCCAAGGGGGCGTGGTCCAGATGACTTT
GAATCCCAGTTGTCGCCCCCAGGGTCAGCCAGGAGACTAGTCAGAAGCAAACGCGCCTGCGGCAATCCGCCCGAT
GCCTTTGGTCTCTCTCGGGCTTCCGTCCACCCGCCCCTCCCCCGCGTTTCCATTGGCTGTAGCTCCGGCCCGGGG
CGGGCGAAGAGGGAGCGAGTGGGCGGGGCCGCGTGGCGTCAGCGCAAGATGGCGGCCTCGGCAGCGGTGTTCTCG
CGCTTGCGAAGCGGGCTCCGGCTCGGCTCGCGGGGACTGTGCACGAGGTTGGCGACGCCGCCCCGCCGGGCCCCA
GATCAGGCCGCAGAGATCGGGAGCCGCGGGAGCACTAAGGCGCAAGGGCCACAGCAGCAGCCGGGCTCAGAGGGT
CCCAGCTATGCCAAAAAAGTTGCGCTCTGGCTTGCTGGGCTGCTTGGAGCTGGTGGGACTGTGAGCGTCGTCTAT
ATCTTTGGAAACAACCCGGTGGACGAAAATGGTGCCAAGATTCCTGATGAGTTCGACAATGATCCAATTCTGGTA
CAGCAGTTGCGCCGGACATACAAATATTTCAAAGATTATAGACAGATGATCATCGAGCCCACCAGCCCTTGCCTT
CTCCCAGACCCTCTGCAGGAACCGTACTACCAGCCACCCTACACGCTCGTTTTGGAGCTCACCGGCGTCCTCTTG
CATCCTGAGTGGTCGCTGGCCACTGGCTGGAGGTTTAAGAAGCGCCCAGGCATCGAGACCTTGTTCCAGCAGCTT
GCCCCTTTATATGAAATTGTCATCTTTACGTCAGAGACTGGCATGACTGCGTTTCCACTCATTGATAGTGTGGAC
CCCCATGGCTTCATCTCCTACCGCCTATTCCGGGACGCCACAAGATACATGGATGGACACCATGTAAAGGATATT
TCATGTCTGAATCGGGACCCAGCTCGAGTAGTAGTTGTGGACTGCAAGAAGGAAGCCTTCCGCCTGCAGCCCTAT
AACGGCGTTGCCCTGCGGCCCTGGGACGGCAACTCTGATGACCGGGTCTTGTTGGATCTGTCTGCCTTCCTCAAG
ACCATTGCACTGAATGGTGTGGAGGACGTGCGAACCGTGCTGGAGCACTATGCCCTGGAGGATGACCCGCTGGCG
GCTTTCAAACAGCGGCAAAGCCGGCTAGAGCAGGAGGAGCAGCAGCGCCTGGCCGAGCTCTCCAAGTCCAACAAG
CAGAACCTCTTCCTTGGCTCCCTCACCAGCCGCTTGTGGCCTCGCTCCAAACAGCCC**TGA**ACTCTGGGCCTCCTC
AAACTCAGTGCCTGGGTCCAGGGCCCCAGTGCTTCCAGACCAAGACTTGGGCCACCACTTGTCCAATAAAGTACA
TCCCAGACGCCACACCTGCTGTGTCCCGAGAGTCTCCAGATGGGGGCATCAGGGTGAGGTCCGGGACTCTTGGGT
CATCGTCCCACAGTGGCTGATCGGCTGCCAAGCACAGTGGGGGTGCTTTGTTGGATCAGAGCAGATTTTTCACCC
TGGTCTCGGAATCTAAAAACCCTCGCTGTGTCTTCCTGTGTGTTGCGTGATCTGTGAAAAATACATCTCCCTCTG
ACCACAGACTCCTCATCTGTGGAGAAGGGAAGAGAGGATGGCACTTGGCTTTAAAGACAGGTAGCTGCCAGGCTA
CTGTGGAGAGAATGTGTTATGGGCCTAGTGGGCCTCTGGTGGACCAGAGATTACCCCTCTCAACAGGCCAGCTGC
TGGTTGGCTCCAGCCAGTGTGGCCCTGGGGTAAAGGGGGCCTGGAGTTGCTTGACACGCCAGTTGTTCAAA

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FIGURE 3728

GAAGGCC**ATG**GTCTCCCCACGGATGTCCGGGCTCCTCTCCCAGACTGTGATCCTAGCGCTCATTTTCCTCCCCCA
GACACGGCCCGCTGGCGTCTTCGAGCTGCAGATCCACTCTTTCGGGCCGGGTCCAGGCCCTGGGGCCCCGCGGTC
CCCCTGCAGCGCCCGGCTCCCCTGCCGCCTCTTCTTCAGAGTCTGCCTGAAGCCTGGGCTCTCAGAGGAGGCCGC
CGAGTCCCCGTGCGCCCTGGGCGCGGCGCTGAGTGCGCGCGGACCGGTCTACACCGAGCAGCCCGGAGCGCCCGC
GCCTGATCTCCCACTGCCCGACGGCCTCTTGCAGGTGCCCTTCCGGGACGCCTGGCCTGGCACCTTCTCTTTCAT
CATCGAAACCTGGAGAGAGGAGTTAGGAGACCAGATTGGAGGGCCCGCCTGGAGCCTGCTGGCGCGCGTGGCTGG
CAGGCGGCGCTTGGCAGCCGGAGGCCCGTGGGCCCGGGACATTCAGCGCGCAGGCGCCTGGGAGCTGCGCTTCTC
GTACCGCGCGCGCTGCGAGCCGCCTGCCGTCGGGACCGCGTGCACGCGCCTCTGCCGTCCGCGCAGCGCCCCCTC
GCGGTGCGGTCCGGGACTGCGCCCCTGCGCACCGCTCGAGGACGAATGTGAGGCGCCGCTGGTGTGCCGAGCAGG
CTGCAGCCCTGAGCATGGCTTCTGTGAACAGCCCGGTGAATGCCGATGCCTAGAGGGCTGGACTGGACCCCTCTG
CACGGTCCCTGTCTCCACCAGCAGCTGCCTCAGCCCCAGGGGCCCGTCCTCTGCTACCACCGGATGCCTTGTCCC
TGGGCCTGGGCCCTGTGACGGGAACCCGTGTGCCAATGGAGGCAGCTGTAGTGAGACACCCAGGTCCTTTGAATG
CACCTGCCCGCGTGGGTTCTACGGGCTGCGGTGTGAGGTGAGCGGGGTGACATGTGCAGATGGACCCTGCTTCAA
CGGCGGCTTGTGTGTCGGGGGTGCAGACCCTGACTCTGCCTACATCTGCCACTGCCCACCCGGTTTCCAAGGCTC
CAACTGTGAGAAGAGGGTGGACCGGTGCAGCCTGCAGCCATGCCGCAATGGCGGACTCTGCCTGGACCTGGGCCA
CGCCCTGCGCTGCCGCTGCCGCGCCGGCTTCGCGGGTCCTCGCTGCGAGCACGACCTGGACGACTGCGCGGGCCG
CG©CTGCGCTAACGGCGGCACGTGTGTGGAGGGCGGCGGCGCGCACCGCTGCTCCTGCGCGCTGGGCTTCGGCGG
CCGCGACTGCCGCGAGCGCGCGGACCCGTGCGCCGCGCGCCCCTGTGCTCACGGCGGCCGCTGCTACGCCCACTT
CTCCGGCCTCGTCTGCGCTTGCGCTCCCGGCTACATGGGAGCGCGGTGTGAGTTCCCAGTGCACCCCGACGGCGC
AAGCGCCTTGCCCGCGGCCCCGCCGGGCCTCAGGCCCGGGGACCCTCAGCGCTACCTTTTGCCTCCGGCTCTGGG
ACTGCTCGTGGCCGCGGGCGTGGCCGGCGCTGCGCTCTTGCTGGTCCACGTGCGCCGCCGTGGCCACTCCCAGGA
TGCTGGGTCTCGCTTGCTGGCTGGGACCCCGGAGCCGTCAGTCCACGCACTCCCGGATGCACTCAACAACCTAAG
GACGCAGGAGGGTTCCGGGGATGGTCCGAGCTCGTCCGTAGATTGGAATCGCCCTGAAGATGTAGACCCTCAAGG
GATTTATGTCATATCTGCTCCTTCCATCTACGCTCGGGAGGTAGCGACGCCCCTTTTCCCCCCGCTACACACTGG
GCGCGCTGGGCAGAGGCAGCACCTGCTTTTTCCCTACCCTTCCTCGATTCTGTCCGTGAAA**TGA**ATTGGGTAGAG
TCTCTGGAAGGTTTTAAGCCCATTTTCAGTTCTAACTTACTTTCATCCTATTTTGCATCCCTCTTATCGTTTTGA
GCTACCTGCCATCTTCTCTTT

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FIGURE 3729

CGCATACAGCAGTGCAGTGCCGTTATTCCAGTCTCCGTAGAAACGCTGGGACT**ATG**GCGGAGCCGACTGGGCTGT
TGGAGATGTCCGAGCTCCCCGGAGATAGCAGTGTCCCACAGGTGGGCACCGCGAGTGGCGTCAGCGACGTACTGC
GGGGGGCAGTCGGCGGCGGGGTTCGGGTGCAGGAGGCTCGGGAAGGCCCAGTGGCCGAAGCTGCGCGGTCCATGG
CGCGGATGCCGGGCCCTGTGCCCGGGCCCATCCCCAGCAGCGTCCCGGGCCTGGCCTCCGCGCCAGACCCCCATC
AGCAGCTCGCTTTCTTAGAAATTAACCGGCAGCTGTTGTTCCGCGAGTATCTGGATGGTAGCTCCATGATTCCGG
TCAGATTACTACGGGATTTCGAGGAACGCCGCAGGCTGTTTGTGGAAGGCTGCAAGGCGAGGGAAGCAGCCTTTG
ACGCGGATCCCCCGCAGATGGACTTCGCTGCTGTCGCGTTTACGGTAGCGCTGACTGCCTCCGAGGCCCTCAGTC
CTCTGGCCGAC**TGA**GTCGGCTGTGATGATGACATTGGTGGCAAGGAATAGCCAAGTGACCCTTTTGGGATCAAAA
GAACAGGCAGGCTGTGCCAGTTTAGTTAACTCAGTCATTAGGGGGAATGCAAACTGGAAGGGAATACGGCAATGT
GCAATTGAAGGAGGAAGCACACTCCGAAATGGAAACAGACAAGACTGTTGAATCTTGTTTTCTTTCTTCTTTTTT
AGTATTATTTAAATAGAGAAGGGAGTCTCGCATCCCTAGGCTGGTCCCGAACGCTTGGACCCGAGCGATCCTCCC
GCTTCGGCCTCCCAAAGTGCTGGGATTACTTTACAGGCGTGAGCCACCGCGCCCGGCCGAATCTTGTTTTCAAAC
AGGTCCCAAGACACTTCTGACTTAGCACTTTGTTAGCAATGCATTTTCCTGCATTTGTGAAGAATCCTTCATGAC
TTTCACCATAAAGGATGGTTTTGCAAAGATATGAGAAAAAAAAAAATGCCAATAACAGAACCCATAGAAATGAACC
TAAGTGATGAAAGAAAACAAAGAAATAGAGTTGTCAGGAATCCAGGTGTACCTGAGTTACTAGGATTGGAAGGCT
ATTGAGAGGACTTTGAAATTTCACAATTTGTGGTCATGTCAACAAATCCTAGTGTAAGATTCATATTTGTGTTTT
CTGAGGTACTTTAGATGAACAGTAAATATTCAATAGAAAAAACCACGTATTATATGATCAGTGTTTTCAAGTCTA
TGTGAAATTGGGTAGGTGTGGAATAAACTTGTTTTTTGTTAA

FIGURE 3730

GGGATGGGGGCGGAGTCCAGGGCGTGGGGGGGCCGGTTTGTTGTGGTCGCCATTTTGCTGGTTGCATTACTGGGT
AATCGGGGCCCTGGCTTGCCGCGTCCGCCGGATACCCTCAGCCAGTGGGCAGGTCTGAGCTCGGGCTCCCCGAGC
AGTTTGAGTCCCCTTGCCCGCTCCTTCAGGTCTCAGCGGCGGTGGCAGCCGAGGTGCAGGATGCAAGAAGGCGCC
CCCCGGCCGGGCTCCCGCTCCAGGCCTCGCTCCCCTGCGGCCCTCTGAGCCCACC**ATG**GCCGTCCCACCGGGCCA
TGGTCCCTTCTCTGGCTTCCCAGGGCCCCAGGAGCACACGCAGGTATTGCCTGATGTGCGGCTACTGCCTCGGAG
GCTGCCCCTGGCCTTCCGGGATGCAACCTCAGCCCCGCTGCGTAAGCTCTCTGTGGACCTCATCAAGACCTACAA
GCACATCAATGAGGTATACTATGCGAAGAAGAAGCGGCGGGCCCAGCAGGCGCCACCCCAGGATTCGAGCAACAA
GAAGGAGAAGAAGGTCCTGAACCATGGTTATGATGACGACAACCATGACTACATCGTGCGCAGTGGCGAGCGCTG
GCTGGAGCGCTACGAAATTGACTCGCTCATTGGCAAAGGCTCCTTTGGCCAGGTGGTGAAAGCCTATGATCATCA
GACCCAGGAGCTTGTGGCCATCAAGATCATCAAGAACAAAAAGGCTTTCCTGAACCAGGCCCAGATTGAGCTGCG
GCTGCTGGAGCTGATGAACCAGCATGACACGGAGATGAAGTACTATATAGTACACCTGAAGCGGCACTTCATGTT
CCGGAACCACCTGTGCCTGGTATTTGAGCTGCTGTCCTACAACCTGTACGACCTCCTGCGCAACACCCACTTCCG
CGGCGTCTCGCTGAACCTGACCCGGAAGCTGGCGCAGCAGCTCTGCACGGCACTGCTCTTTCTGGCCACGCCTGA
GCTCAGCATCATTCACTGCGACCTCAAGCCCGAAAACATCTTGCTGTGCAACCCCAAGCGCAGCGCCATCAAGAT
TGTGGACTTCGGCAGCTCCTGCCAGCTTGGCCAGAGGATCTACCAGTATATCCAGAGCCGCTTCTACCGCTCACC
TGAGGTGCTCCTGGGCACACCCTACGACCTGGCCATTGACATGTGGTCCCTGGGCTGCATCCTTGTGGAGATGCA
CACCGGAGAGCCCCTCTTCAGTGGCTCCAATGAGGTCGACCAGATGAACCGCATTGTGGAGGTGCTGGGCATCCC
ACCGGCCGCCATGCTGGACCAGGCGCCCAAGGCTCGCAAGTACTTTGAACGGCTGCCTGGGGGTGGCTGGACCCT
ACGAAGGACGAAAGAACTCAGGAAGGATTACCAGGGCCCCGGGACACGGCGGCTGCAGGAGGTGCTGGGCGTGCA
GACGGGCGGGCCCGGGGGCCGGCGGGCGGGGGAGCCGGGCCACAGCCCCGCCGACTACCTCCGCTTCCAGGACCT
GGTGCTGCGCATGCTGGAGTATGAGCCCGCCGCCCGCATCAGCCCCCTGGGGGCTCTGCAGCACGGCTTCTTCCG
CCGCACGGCCGACGAGGCCACCAACACGGGCCCGGCAGGCAGCAGTGCCTCCACCTCGCCCGCGCCCCTCGACAC
CTGCCCCTCTTCCAGCACCGCCAGCTCCATCTCCAGTTCTGGAGGCTCCAGTGGCTCCTCCAGTGACAACCGGAC
CTACCGCTACAGCAACCGATATTGTGGGGGCCCTGGGCCCCCTATCACAGACTGTGAGATGAACAGCCCCCAGGT
CCCACCCTCCCAGCCGCTGCGGCCCTGGGCAGGGGGTGATGTGCCCCACAAGACACATCAAGCCCCTGCCTCTGC
CTCGTCACTGCCTGGGACCGGGGCCCAGTTACCCCCCCAGCCCCGATACCTTGGTCGTCCCCCATCACCAACCTC
ACCACCACCCCCGGAGCTGATGGATGTGAGCCTGGTGGGCGGCCCTGCTGACTGCTCCCCACCTCACCCAGCGCC
TGCCCCCCAGCACCCGGCTGCCTCAGCCCTCCGGACTCGGATGACTGGAGGTCGTCCACCCCTCCCGCCTCCTGA
TGACCCTGCCACTCTGGGGCCTCACCTGGGCCTCCGTGGTGTACCCCAGAGCACAGCAGCCAGCTCG**TGA**CCCTG
CCCCCTCCCTGGGGCCCCTCCTGAAGCCATACCCTCCCCCATCTGGGGGCCCTGGGCTCCCATCCTCATCTCTCT
CCTTGACTGGAATTGCTGCTACCCAGCTGGGGTGGGTGAGGCCTGCACTGATTGGGGCCTGGGGCAGGGGGGTCA
AGGAGAGGGTTTTGGCCGCTCCCTCCCCACTAAGGACTGGACCCTTGGGCCCCTCTCCCCCTTTTTTTCTATTTA
TTGTACCAAAGACAGTGGTGGTCCGGTGGAGGGAAGACCCCCCCTCACCCCAGGACCCTAGGAGGGGGTGGGGGC
AGGTAGGGGGAGATGGCCTTGCTCCTCCTCGCTGTACCCCCAGTAAAGAGCTTTCTCACA

FIGURE 3731

CGGACTCCGGAGCCGCACAAACCAGGGCTCGCC**ATG**AAGCCAGGATTCAGTCCCCGTGGGGGTGGCTTTGGCGGC
CGAGGGGGCTTTGGTGACCGTGGTGGTCGTGGAGGCCGAGGGGGCTTTGGCGGGGGCCGAGGTCGAGGCGGAGGC
TTTAGAGGTCGTGGACGAGGAGGAGGTGGAGGCGGCGGCGGCGGTGGAGGAGGAGGAAGAGGTGGTGGAGGCTTC
CATTCTGGTGGCAACCGGGGTCGTGGTCGGGGAGGAAAAAGAGGAAACCAGTCGGGGAAGAATGTGATGGTGGAG
CCGCATCGGCATGAGGGTGTCTTCATTTGTCGAGGAAAGGAAGATGCACTGGTCACCAAGAACCTGGTCCCTGGG
GAATCAGTTTATGGAGAGAAGAGAGTCTCGATTTCGGAAGGAGATGACAAAATTGAGTACCGAGCCTGGAACCCC
TTCCGCTCCAAGCTAGCAGCAGCAATCCTGGGTGGTGTGGACCAGATCCACATCAAACCGGGGGCTAAGGTTCTC
TACCTCGGGGCTGCCTCGGGCACCACGGTCTCCCATGTCTCTGACATCGTTGGTCCGGATGGTCTAGTCTATGCA
GTCGAGTTCTCCCACCGCTCTGGCCGTGACCTCATTAACTTGGCCAAGAAGAGGACCAACATCATTCCTGTGATC
GAGGATGCTCGACACCCACACAAATACCGCATGCTCATCGCAATGGTGGATGTGATCTTTGCTGATGTGGCCCAG
CCAGACCAGACCCGGATTGTGGCCCTGAATGCCCACACCTTCCTGCGTAATGGAGGACACTTTGTGATTTCCATT
AAGGCCAACTGCATTGACTCCACAGCCTCAGCCGAGGCCGTGTTTGCCTCCGAAGTGAAAAAGATGCAACAGGAG
AACATGAAGCCGCAGGAGCAGTTGACCCTTGAGCCATATGAAAGAGACCATGCCGTGGTCGTGGGAGTGTACAGG
CCACCCCCCAAGGTGAAGAAC**TGA**AGTTCAGCGCTGTCAGGATTGCGAGAGATGTGTGTTGATACTGTTGCACGT
GTGTTTTTCTATTAAAAGACTCATCCGTC

FIGURE 3732

CAACGGGGGCATCCACTACATCACCCTTGATGGCCGTGTCTACGACCTGCATGGCTCCTGCTCCTATGTCTTGGC
CCAAGTCTGCCACCCAAAGCCTGGGGACGAGGACTTTTCCATCGTGCTTGAGAAGAATGCAGCTGGAGATCTCCA
ACGCCTCCTGGTTACTGTGGCTGGCCAGGTTGTGAGCCTAGCTCAGGGGCAGCAGGTCACCGTGGACGGCGAGGC
TGTGGCCCTGCCTGTGGCTGTGGGCCGCGTGCGGGTGACCGCCGAGGGCCGAAAC**ATG**GTTCTGCAGACGACCAA
GGGGCTGCGGCTTCTCTTTGATGGCGATGCCCACCTCCTCATGTCCATCCCCAGCCCCTTCCGTGGACGGCTCTG
TGGCCTCTGTGGGAACTTCAATGGCAACTGGAGTGACGACTTTGTCCTGCCCAATGGCTCAGCAGCGTCCAGTGT
GGAGACCTTCGGGGCTGCATGGCGGGCGCCCGGCTCCTCCAAGGGCTGTGGCGAGGGCTGCGGGCCCCAAGGCTG
CCCAGTGTGCTTGGCAGAGGAGACTGCACCCTATGAGAGCAACGAGGCCTGCGGGCAGCTCCGGAACCCCCAGGG
CCCCTTCGCGACCTGCCAGGCGGTGCTGAGTCCCTCTGAGTACTTCCGCCAATGCGTATACGACCTGTGCGCGCA
AAAGGGTGACAAAGCCTTCCTGTGCCGCAGCCTGGCAGCCTACACGGCGGCCTGTCAGGCAGCTGGCGTGGCCGT
GAAGCCCTGGAGGACAGACAGCTTCTGCCCGCTCCATTGCCCCGCCCACAGCCACTACTCCATCTGCACTCGCAC
CTGCCAGGGATCCTGTGCGGCTCTCTCCGGCCTCACGGGCTGCACCACCCGCTGTTTTGAGGGCTGTGAGTGCGA
CGACCGCTTCCTGCTTTCCCAGGGTGTCTGCATCCCTGTCCAAGATTGTGGCTGCACCCATAATGGCCGATACTT
GCCGGTAAACTCCTCCCTGCTGACCTCAGACTGCAGCGAGCGCTGTTCCTGTTCCTCAAGCTCTGGCCTGACATG
CCAGGCAGCTGGCTGCCCACCAGGCCGTGTATGTGAGGTCAAGGCTGAAGCCCGGAACTGCTGGGCCACCCGTGG
TCTCTGTGTCCTGTCTGTGGGTGCCAACCTCACCACCTTTGATGGGGCCCGTGGTGCCACCACCTCTCCTGGTGT
CTATGAGCTCTCTTCCCGCTGCCCAGGACTACAGAATACCATCCCCTGGTACCGTGTAGTTGCCGAAGTCCAGAT
CTGCCATGGCAAAACGGAGGCTGTGGGCCAGGTCCACATCTTCTTCCAGGATGGGATGGTGACGTTGACTCCAAA
CAAGGGTGTGTGGGTGAATGGTCTCCGAGTGGATCTCCCAGCTGAGAAGTTAGCATCTGTGTCCGTGAGTCGTAC
ACCTGATGGCTCCCTGCTAGTCCGCCAGAAGGCAGGGGTCCAGGTGTGGCTTGGAGCCAATGGGAAGGTGGCTGT
GATTGTCAGCAATGACCATGCTGGGAAACTGTGTGGGGCCTGTGGAAACTTTGACGGGGACCAGACCAATGATTG
GCATGACTCCCAGGAGAAGCCAGCGATGGAGAAATGGAGAGCGCAGGACTTCTCCCCATGTTATGGC**TGA**TCAGT
CATCCACCAGGAACGAAGATTTCCTGAAGAAGACCTGGTCCCTCTGGAGGTTGCAGTGGCTGAAGGATGCATCAT
GTGCTCCTACCCTGCTCTACCGCTTTTCTGGGTCACAGAGGCCAAATGTGAGAGCATTGAATAAATATCTTAAGC
T

FIGURE 3733

GTCAACTTAGTGTACAATGCTGTCAGATGAACCTTACCCTTGTAAGGCTTGTAACTTGGTTCCTCCCTTTCTTAA
GCCCTTATTGGCTATCTTTCTTCTTTTAATATTTAAAGTTTTTAATCTTTAAATTTTTAATTTTTAAACCATGCT
TGTTTAACCTGCTGGTAAAATTCACGTCTTTCAGACTGTAATGCTTTCATGCCAAGTAAATGGTCTTGCCAGGCT
TCCAGCCTGTTTCAGAGACCACTAGCCCAGAGCCGTATCAGCCCCTTCAGCAAGCCATAAGAAATTTCTACTCCT
CCTGGAAATAGATGTAGAGACTATGTCCATGCTTAGCAGGAAGTAGTTCCAGAAGAGACCTTTGCTCCTTAAGAA
TAAGGAGAATGAGGACTGCGAAGGAGAACGCAGCAAGCCCAGGCGGCGGTGGAAAGGCTGGAGGACACACCTAAA
C**ATG**TGGAATCCCAATGCCGGGCAGCCAGGGCCAAATCCATATCCCCCCAATATTGGGTGCCCTGGAGGTTCCAA
TCCTGCCCACCCACCACCTATTAATCCACCCTTTCCCCCAGGCCCCTGTCCTCCTCCCCCAGGAGCTCCCCATGG
CAATCCAGCTTTCCCCCCAGGTGGGCCCCCTCATCCTGTGCCACAGCCAGGGTATCCAGGATGCCAACCGTTGGG
TCCCTACCCTCCTCCATACCCACCGCCTGCCCCTGGAATCCCTCCTGTGAATCCCTTGGCTCCTGGCATGGTTGG
ACCAGCAGTGATAGTGGACAAGAAGATGCAGAAGAAAATGAAGAAAGCTCATAAAAAGATGCACAAGCACCAAAA
GCACCACAAGTACCACAAGCATGACAAGCATTCCTCCTCTTCCTCCTCCTCTTCCAGCAGTGATTCTGAC**TGA**AT
ACAGGCCCTGGACCCTTCCCTCAAGTCCCACCAGTTCTGCTCTCCCATCAAGCTTCAGATGCCACGTTGTACTGG
GGGAATGTAGCCCTTGTGCTCCCCACCCCCTACCTCCACCTGAGCCTCACCCTGCTGTTGAGCCCTGAGTGGCTA
GGGGAAATAGGAAGAGGATTGCCATGGCCTGGCCATCTTGTTGCTGCTTGGAGAGATCATATAGCTAATGAATTA
GGCAGGGGAGCTATTTTTTGAAGATGATGAACTAAATGTTGAAGACAAGTTTGAGATCTGTAAAATGTGATTTTT
TACTTCCACTTATAATACTTGTGATTGGGGAGGTTTGTGGAAATTCAATTATGATGAAAAACCTCTATCTTTTTT
GTAATGTTGGCATACTTGGGGGATTTAGTGGCAAATACATTCCCCAGCAGGCCTTTTGTTGGTTGCACTAACTGC
AAGGTTGCTGGGAAGTAGAGTCCATTTGGTTGATGAGCTTTGACTGCGGTTTTGGAACCTTACCTCTCCTCCTTA
GCCCAATATGCTGTCTCGGGTCCTATTCAAATAAAGTTATTTCTCCTGGTCT

FIGURE 3734

GGCTTGGTCACT**ATG**GAGGAGATAGGCATCTTGGTGGAGAAGGCTCAGGATGAGATCCCAGCACTGTCCGTGTCC
CGGCCCCAGACCGGCCTGTCCTTCCTGGGCCCTGAGCCTGAGGACCTGGAGGACCTGTACAGCCGCTACAAGAAG
CTGCAGCAAGAGCTGGAGTTCCTGGAGGTGCAGGAGGAATACATCAAAGATGAGCAAAAGAACCTGAAAAAGGAA
TTTCTCCATGCCCAGGAGGAGGTGAAGCGAATCCAAAGCATCCCGCTGGTCATCGGACAATTTCTGGAGGCTGTG
GATCAGAATACAGCCATCGTGGGCTCTACCACAGGCTCCAACTATTATGTGCGCATCCTGAGCACCATCGATCGG
GAGCTGCTCAAGCCCAACGCCTCAGTGGCCCTCCACAAGCACAGCAATGCACTGGTGGACGTGCTGCCCCCCGAA
GCCGACAGCAGCATCATGATGCTCACCTCAGACCAGAAGCCAGATGTGATGTACGCGGACATCGGAGGCATGGAC
ATCCAGAAGCAGGAGGTGCGGGAGGCCGTGGAGCTCCCGCTCACGCATTTCGAGCTCTACAAGCAGATCGGCATC
GATCCCCCCCGAGGCGTCCTCATGTATGGCCCACCTGGCTGTGGGAAGACCATGTTGGCAAAGGCGGTGGCACAT
CACACAACAGCTGCATTCATCCGGGTCGTGGGCTCGGAGTTTGTACAGAAGTATCTGGGTGAGGGCCCCCGCATG
GTCCGGGATGTGTTCCGCCTGGCCAAGGAGAATGCACCTGCCATCATCTTCATAGACGAGATTGATGCCATCGCC
ACCAAGAGATTCGATGCTCAGACAGGGGCCGACAGGGAGGTTCAGAGGATCCTGCTGGAGCTGCTGAATCAGATG
GATGGATTTGATCAGAATGTCAATGTCAAGGTAATCATGGCCACAAACAGAGCAGACACCCTGGATCCGGCCCTG
CTACGGCCAGGACGGCTGGACCGTAAAATTGAATTTCCACTTCCTGACCGCCGCCAGAAGAGATTGATTTTCTCC
ACTATCACTAGCAAGATGAACCTCTCTGAGGAGGTTGACTTGGAAGACTATGTGGCCCGGCCAGATAAGATTTCA
GGAGCTGATATTAACTCCATCTGTCAGGAGAGTGGAATGTTGGCTGTCCGTGAAAACCGCTACATTGTCCTGGCC
AAGGACTTCGAGAAAGCATACAAGACTGTCATCAAGAAGGACGAGCAGGAGCATGAGTTTTACAAG**TGA**CCCTTC
CCTTCCCTCCACCACACCACTCAGGGGCTGGGGCTTCTCTCGCACCCCCAGCACCTCTGTCCCAAAACCTCATTC
CCTTTTTTCTTTACCCAGGATTGGTTTCTTCAATAAATAGATAAGATCGAATCC

FIGURE 3735

GTTTTTTTTCTTGCTCCTGCGGAGGGCGCCCCAGCCATGGCCCTCAGGAGCTCCCTAGACCCCGCAGGGACTGCC
CTCCATCCCGGCCGCCGGGGCCCGCCCTCTGCATCCCGCGGGCAGCCTGTGTGAAGCGGCCTCCCGCAGCCCCCG
GCCCCTCCCCC**ATG**GAGGAGGAGGAGGGGGCGGTGGCCAAGGAGTGGGGCACGACCCCCGCGGGGCCCGTCTGGA
CCGCGGTGTTCGACTACGAGGCGGCGGGCGACGAGGAGCTGACCCTGCGGAGGGGCGATCGCGTCCAGGTGCTTT
CCCAAGACTGTGCGGTGTCCGGCGACGAGGGCTGGTGGACCGGGCAGCTCCCCAGCGGCCGCGTGGGCGTCTTCC
CCAGCAACTACGTGGCCCCCGGCGCCCCCGCTGCACCCGCGGGCCTCCAGCTGCCCCAGGAGATCCCCTTCCACG
AGCTGCAGCTAGAGGAGATCATCGGTGTGGGGGGCTTTGGCAAGGTCTATCGGGCCCTGTGGCGTGGCGAGGAGG
TGGCAGTCAAGGCCGCCCGGCTGGACCCTGAGAAGGACCCGGCAGTGACAGCGGAGCAGGTGTGCCAGGAAGCCC
GGCTCTTTGGAGCCCTGCAGCACCCCAACATAATTGCCCTTAGGGGCGCCTGCCTCAACCCCCCACACCTCTGCC
TAGTGATGGAGTATGCCCGGGGTGGTGCACTGAGCAGGGTGCTGGCAGGTCGCCGGGTGCCACCTCACGTGCTGG
TCAACTGGGCTGTGCAGGTGGCCCGGGGCATGAACTACCTACACAATGATGCCCCTGTGCCCATCATCCACCGGG
ACCTCAAGTCCATCAACATCCTGATCCTGGAGGCCATCGAGAACCACAACCTCGCAGACACGGTGCTCAAGATCA
CGGACTTCGGCCTCGCCCGCGAGTGGCACAAGACCACCAAGATGAGCGCTGCGGGGACCTACGCCTGGATGGCGC
CGGAGGTTATCCGTCTCTCCCTCTTCTCCAAAAGCAGTGATGTCTGGAGCTTCGGGGTGCTGCTGTGGGAGCTGC
TGACGGGGGAGGTCCCCTACCGTGAGATCGACGCCTTGGCCGTGGCGTATGGCGTGGCTATGAATAAGCTGACGC
TGCCCATTCCCTCCACGTGCCCCGAGCCCTTTGCCCGCCTCCTGGAGGAATGCTGGGACCCAGACCCCCACGGGC
GGCCAGATTTCGGTAGCATCTTGAAGCGGCTTGAAGTCATCGAACAGTCAGCCCTGTTCCAGATGCCACTGGAGT
CCTTCCACTCGCTGCAGGAAGACTGGAAGCTGGAGATTCAGCACATGTTTGATGACCTTCGGACCAAGGAGAAGG
AGCTTCGGAGCCGTGAGGAGGAGCTGCTGCGGGCGGCACAGGAGCAGCGCTTCCAGGAGGAGCAGCTGCGGCGGC
GGGAGCAGGAGCTGGCAGAACGTGAGATGGACATCGTGGAACGGGAGCTGCACCTGCTCATGTGCCAGCTGAGCC
AGGAGAAGCCCCGGGTCCGCAAGCGCAAGGGCAACTTCAAGCGCAGCCGCCTGCTCAAGCTGCGGGAAGGCGGCA
GCCACATCAGCCTGCCCTCTGGCTTTGAGCATAAGATCACAGTCCAGGCCTCTCCAACTCTGGATAAGCGGAAAG
GATCCGATGGGGCCAGCCCCCCTGCAAGCCCCAGCATCATCCCCCGGCTGAGGGCCATTCGCCTGACTCCCGTGG
ACTGTGGTGGCAGCAGCAGTGGCAGCAGCAGTGGAGGAAGTGGGACATGGAGCCGCGGTGGGCCCCCAAAGAAGG
AAGAACTGGTCGGGGGCAAGAAGAAGGGACGAACGTGGGGGCCCAGCTCCACCCTGCAGAAGGAGCGGGTGGGAG
GAGAGGAGAGGCTGAAGGGGCTGGGGGAAGGAAGCAAACAGTGGTCATCAAGTGCCCCCAACCTGGGCAAGTCCC
CCAAACACACACCCAGTCGCCGCTGGCTTCGCCAGCCTCAA**TGA**GATGGAGGAGTTCGCGGAGGCAGAGGATGGA
GGCAGCAGCGTGCCCCCTTCCCCCTACTCGACCCCGTCCTACCTCTCAGTGCCACTGCCTGCCGAGCCCTCCCCG
GGGGCGCGGGCGCCGTGGGAGCCGACGCCGTCCGCGCCCCCCGCTCGGTGGGGACACGGCGCCCGGCGGCGCTGC
GACCTGGCGCTGCTAGGCTGCGCCACGCTGCTGGGGGCTGTGGGCCTGGGCGCCGACGTGGCCGAGGCGCGCGCG
GCCGACGGTGAGGAGCAGCGGCGCTGGCTCGACGGCCTCTTCTTTCCCCGCGCCGGCCGCTTCCCGCGGGGCCTC
AGCCCACCCGCGCGTCCCCACGGCCGCCGCGAAGACGTGGGCCCCGGCCTGGGCCTGGCGCCCTCGGCCACCCTC
GTGTCGCTGTCGTCCGTGTCCGACTGCAACTCCACGCGTTCACTGCTGCGCTCTGACAGTGACGAGGCCGCACCG
GCCGCGCCCTCCCCACCACCCTCCCCGCCCGCGCCCACACCCACGCCCTCGCCCAGCACCAACCCCCTGGTGGAC
CTGGAGCTGGAGAGCTTCAAGAAGGACCCCCGCCAGTCGCTCACGCCCACCCACGTCACGGCTGCATGCGCTGTG
AGCCGCGGGCACCGGCGGACGCCATCGGATGGGGCGCTGGGGCAGCGGGGGCCGCCCGAGCCCGCGGGCCATGGC
CCTGGCCCTCGTGACCTTCTGGACTTCCCCCGCCTGCCCGACCCCCAGGCCCTGTTCCCAGCCCGCCGCCGGCCC
CCTGAGTTCCCAGGCCGCCCCACCACCCTGACCTTTGCCCCGAGACCTCGGCCGGCTGCCAGTCGCCCCCGCTTG
GACCCCTGGAAACTGGTCTCCTTCGGCCGGACACTCACCATCTCGCCTCCCAGCAGGCCAGACACTCCGGAGAGC
CCTGGGCCCCCCCAGCGTGCAGCCCACACTGCTGGACATGGACATGGAGGGGCAGAACCAAGACAGCACAGTGCCC
CTGTGCGGGGCCCACGGCTCCCACTAAGGCCTGCCCACCACCGCCCGCCTGGGCAGCCATGAATGTAGCGCCCCA
GGCCCTGCCCCAGCCCGCCATGCCACAAGGTGGGGGAGGCCCTGGGCAGGATGTTCACTCTATTTATT

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FIGURE 3736

AACACCCTCCTGGAGG**ATG**CTGGTGAGAGGCAGGGACCAGGGGTCCGGCTCCCGGCTCGGGCCTATCGTTAGGCG
CTGGGCCCCCAGGCCCTCTCCTTTGCAGAGTCTCGCTGCCTCCCTCGACGCAGAGCCTTCAAGCGCCGCAGTCCC
CGACGGCTTCCCCGCGGGCCCCACTGTCTCCCCAAGACGCCTGGCGAGGCCGCCGGGGCTGGAGGAGGCGCTGAG
CGCGCTGGGGCTGCAGGGAGAACGCGAGTACGCCGGGGACATCTTCGCCGAAGTCATGGAGTACCTGGGTCTGGC
TGGTGACACACTTTATCTGGCGGTTCACCTGCTTGATTCCTACCTGAGCGCTGGCCGCGTGCGTCTACATCGCCT
GCAGCTGCTGGGCGTGGCTTGCCTGTTTGTGGCGTGCAAAATGGAAGAGTGCGTGCTTCCCGAGGAAACTGAGGT
CCGGAACTTGGGGCCTTTCCAGGGCAGGGAG**TAA**AGAGCCCGGATCCAAGACTCCTTCACCTCCCCCCGCATCCC
CCATCTGCAGCCCGCCTTCCTCTGCCTCCTGAGCGCGGACTCCTTCTCACGGGCGGAGCTGCTGCGCGCCGAGCG
TCGCATCCTGAGCCGCCTGGATTTCCGGCTGCACCACCCCGGCCCGCTGCTGTGCCTCGGGCTGCTGGCCGCGCT
GGCAGGGAGCAGCCCCCAGGTGATGTTACTTGCCACCTACTTCCTGGAGCTGTCTTTGCTGGAGGCCGAGGCGGC
GGGATGGGAGCCGGGTCGTCGTGCGGCTGCGGCTCTGAGCCTGGCGCACCGCTTGCTCGACGGGGCGGGCTCCAG
GCTCCAGCCAGAACTTTACAGGTGTAGTCTTGGCGGAGGAAGTGTATGGGGTCACCGCAGCTTCAGGGACTTACC
TTCCTGGTCATTTTTACGGTCTCGGAGAATGAGAGACAATTATTGAGGAGGAGGTGGCACCTAGACTTGCTTTTT
CTGGGTGTGGGAGAGAATGGGGTGGGAGGACCCCATTAGTCCAGATCTGGGGTCTCTTAACCTTGCCCCAGAGTG
GAAGATAGTCTCCCAGGCCCAGAAGATGCTCCTATTGCCTTCCAGGGCTGAGAACGAAGGATCACCCAGGCCTCG
AGTCCTCCATCTCTGTATCTGGTGGTGGATGGGGTGTTCCTTTAGCTGCTAGGGCCGCTAACCATGCTACCAGGT
GGCAGGGCGAACCATGGTTTCCCTCAGCCTGTGCACCCAGCATAGAGAGGATGGCTGCCCATCCTCAGCTCCCCT
CCTTGCTTCCTCGAGTGTTCTGACTCCGCACTAGCCGCGCCCTGTAGGAAGAATAGGGTGTCCACCTCTCCCCGG
TGCTCGCCTAGTCACTCCAGTTGAAGACGGGACGCGTGCCCGATCTCAAGAGAGCCCCCGACCCGTCCGTGGGGA
ACCACATCGACGCTTCTTCTCAGCCTCCAGTCTCCAGTTCCAAGGATGGGTCATCTCCAACCCCTTGCCCTGCCT
CAGTTTCTCCATCTCCCTGCTGCAGCCCCGAGGAACTGGGCACCCTCGAGCCGTGCATGGCCCGCGCTGCGCTCC
GAGGTCCCGCGCCGGGTCGCGCCGCAGTCTTCCTCAAGTATGCGCGGCCCCAGCGCCAGGGGACCAGCCTTGCCG
CCGCCTGCCTGCTCCGCCGCCTCCAGTCTGAGCCTCCCTGAGTACTGGGACTCAGTCACAAAAAAATCAACAACA
AAAAACAAAACCCTCCCAGTGTGTGTCCGTCTCTCATCTCAATAAAAGAATTTATTTT

FIGURE 3737

ACTGTGCCCTGTCCACGGTGCCTCCTGCATGTCCTGCTGCCCTGAGCTGTCCCGAGCTAGGTGACAGCGTACCAC
GCTGCCACC**ATG**AATGAGGTGTCTGTCATCAAAGAAGGCTGGCTCCACAAGCGTGGTGAATACATCAAGACCTGG
AGGCCACGGTACTTCCTGCTGAAGAGCGACGGCTCCTTCATTGGGTACAAGGAGAGGCCCGAGGCCCCTGATCAG
ACTCTACCCCCCTTAAACAACTTCTCCGTAGCAGAATGCCAGCTGATGAAGACCGAGAGGCCGCGACCCAACACC
TTTGTCATACGCTGCCTGCAGTGGACCACAGTCATCGAGAGGACCTTCCACGTGGATTCTCCAGACGAGAGGGAG
GAGTGGATGCGGGCCATCCAGATGGTCGCCAACAGCCTCAAGCAGCGGGCCCCAGGCGAGGACCCCATGGACTAC
AAGTGTGGCTCCCCCAGTGACTCCTCCACGACTGAGGAGATGGAAGTGGCGGTCAGCAAGGCACGGGCTAAAGTG
ACCATGAATGACTTCGACTATCTCAAACTCCTTGGCAAGGGAACCTTTGGCAAAGTCATCCTGGTGCGGGAGAAG
GCCACTGGCCGCTACTACGCCATGAAGATCCTGCGGAAGGAAGTCATCATTGCCAAGGATGAAGTCGCTCACACA
GTCACCGAGAGCCGGGTCCTCCAGAACACCAGGCACCCGTTCCTCACTGCGCTGAAGTATGCCTTCCAGACCCAC
GACCGCCTGTGCTTTGTGATGGAGTATGCCAACGGGGGTGAGCTGTTCTTCCACCTGTCCCGGGAGCGTGTCTTC
ACAGAGGAGCGGGCCCGGTTTTATGGTGCAGAGATTGTCTCGGCTCTTGAGTACTTGCACTCGCGGGACGTGGTA
TACCGCGACATCAAGCTGGAAAACCTCATGCTGGACAAAGATGGCCACATCAAGATCACTGACTTTGGCCTCTGC
AAAGAGGGCATCAGTGACGGGGCCACCATGAAAACCTTCTGTGGGACCCCGGAGTACCTGGCGCCTGAGGTGCTG
GAGGACAATGACTATGGCCGGGCCGTGGACTGGTGGGGGCTGGGTGTGGTCATGTACGAGATGATGTGCGGCCGC
CTGCCCTTCTACAACCAGGACCACGAGCGCCTCTTCGAGCTCATCCTCATGGAAGAGATCCGCTTCCCGCGCACG
CTCAGCCCCGAGGCCAAGTCCCTGCTTGCTGGGCTGCTTAAGAAGGACCCCAAGCAGAGGCTTGGTGGGGGGCCC
AGCGATGCCAAGGAGGTCATGGAGCACAGGTTCTTCCTCAGCATCAACTGGCAGGACGTGGTCCAGAAGAAGCTC
CTGCCACCCTTCAAACCTCAGGTCACGTCCGAGGTCGACACAAGGTACTTCGATGATGAATTTACCGCCCAGTCC
ATCACAATCACACCCCCTGACCGCTATGACAGCCTGGGCTTACTGGAGCTGGACCAGCGGACCCACTTCCCCCAG
TTCTCCTACTCGGCCAGCATCCGCGAG**TGA**GCAGTCTGCCCACGCAGAGGACGCACGCTCGCTGCCATCACCGCT
GGGTGGTTTTTTCCCCCT

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FIGURE 3738

CTCTTTATAATTTAGTTTCCATAGAAGTTATATGTGCATTTAAAAAAATTCAATGCTGGAGCGACCGTGTCTGGG
GAGCCGAGCCCCGCTTCTCGCTGCGGTGAGCCCGGACTGGGGCACGCACTGCGCAGACTCCCCGCTGCAGTGGGC
GGAGCTCCCACAGGCCCCGCCCCCTCCTCCCACCCTCGTTCAGCCTGTCCAGACAGAAGCTGGGGCCCAGCGGAG
GTAGCAGCAGACGCCTGAGAGCGAGGCCGAGGCCCCTCAGGGTTTGGAGACCCTGACACACCCACCTTCTCACCT
GGGCTCTGCGTATCCCCCAGCCTTGAGGGAAGATGAAGCCTAAACTGATGTACCAGGAGCTGAAGGTGCCTGCAG
AGGAGCCCGCCAATGAGCTGCCCATGAATGAGATTGAGGCGTGGAAGGCTGCGGAAAAGAAAGCCCGCTGGGTCC
TGCTGGTCCTCATTCTGGCGGTTGTGGGCTTCGGAGCCCTG**ATG**ACTCAGCTGTTTCTATGGGAATACGGCGACT
TGCATCTCTTTGGGCCCAACCAGCGCCCAGCCCCCTGCTATGACCCTTGCGAAGCAGTGCTGGTGGAAAGCATTC
CTGAGGGCCTGGACTTCCCCAATGCCTCCACGGGGAACCCTTCCACCAGCCAGGCCTGGCTGGGCCTGCTCGCCG
GTGCGCACAGCAGCCTGGACATCGCCTCCTTCTACTGGACCCTCACCAACAATGACACCCACACGCAGGAGCCCT
CTGCCCAGCAGGGTGAGGAGGTCCTCCGGCAGCTGCAGACCCTGGCACCAAAGGGCGTGAACGTCCGCATCGCTG
TGAGCAAGCCCAGCGGGCCCCAGCCACAGGCGGACCTGCAGGCTCTGCTGCAGAGCGGTGCCCAGGTCCGCATGG
TGGACATGCAGAAGCTGACCCATGGCGTCCTGCATACCAAGTTCTGGGTGGTGGACCAGACCCACTTCTACCTGG
GCAGTGCCAACATGGACTGGCGTTCACTGACCCAGGTCAAGGAGCTGGGCGTGGTCATGTACAACTGCAGCTGCC
TGGCTCGAGACCTGACCAAGATCTTTGAGGCCTACTGGTTCCTGGGCCAGGCAGGCAGCTCCATCCCATCAACTT
GGCCCCGGTTCTATGACACCCGCTACAACCAAGAGACACCAATGGAGATCTGCCTCAATGGAACCCCTGCTCTGG
CCTACCTGGCGAGTGCGCCCCCACCCCTGTGTCCAAGTGGCCGCACTCCAGACCTGAAGGCTCTACTCAACGTGG
TGGACAATGCCCGGAGTTTCATCTACGTCGCTGTCATGAACTACCTGCCCACTCTGGAGTTCTCCCACCCTCACA
GGTTCTGGCCTGCCATTGACGATGGGCTGCGGCGGGCCACCTACGAGCGTGGCGTCAAGGTGCGCCTGCTCATCA
GCTGCTGGGGACACTCGGAGCCATCCATGCGGGCCTTCCTGCTCTCTCTGGCTGCCCTGCGTGACAACCATACCC
ACTCTGACATCCAGGTGAAACTCTTTGTGGTCCCCGCGGATGAGGCCCAGGCTCGAATCCCATATGCCCGTGTCA
ACCACAACAAGTACATGGTGACTGAACGCGCCACCTACATCGGAACCTCCAACTGGTCTGGCAACTACTTCACGG
AGACGGCGGGCACCTCGCTGCTGGTGACGCAGAATGGGAGGGGCGGCCTGCGGAGCCAGCTGGAGGCCATTTTCC
TGAGGGACTGGGACTCCCCTTACAGCCATGACCTTGACACCTCAGCTGACAGCGTGGGCAACGCCTGCCGCCTGC
TC**TGA**GGCCCGATCCAGTGGGCAGGCCAAGGCCTGCTGGGCCCCCGCGGACCCAGGTGCTCTGGGTCACGGTCCC
TGTCCCCGCGCCCCCGCTTCTGTCTGCCCCATTGTGGCTCCTCAGGCTCTCTCCCCTGCTCTCCCACCTCTACCT
CCACCCCCACCGGCCTGACGCTGTGGCCCCGGGACCCAGCAGAGCTGGGGGAGGGATCAGCCCCCAAAGAAATGG
GGGTGCATGCTGGGCCTGGCCCCCTGGCCCACCCCCACTTTCCAGGGCAAAAAGGGCCCAGGGTTATAATAAGTA
AATAACTTGTCTGT

FIGURE 3739

AGAACTGCGTCTCGCGACCCAGGCGCGGGTTTCCAGAGGACAGCCAACAAGCGATGCTGCCGCCGCCGTTTCCTG
ATTGGTTGTGGGTGGCTACCTCTTCGTTCTGATTGGCCGCTAGTGAGCAAG**ATG**CTGAGCAAGGGTCTGAAGCGG
AAACGGGAGGAGGAGGAGGAGAAGGAACCTCTGGCAGTCGACTCCTGGTGGCTAGATCCTGGCCACACAGCGGTG
GCACAGGCACCCCCGGCCGTGGCCTCTAGCTCCCTCTTTGACCTCTCAGTGCTCAAGCTCCACCACAGCCTGCAG
CAGAGTGAGCCGGACCTGCGGCACCTGGTGCTGGTCGTGAACACTCTGCGGCGCATCCAGGCGTCCATGGCACCC
GCGGCTGCCCTGCCACCTGTGCCTAGCCCACCTGCAGCCCCCAGTGTGGCTGACAACTTACTGGCAAGCTCGGAC
GCTGCCCTTTCAGCCTCCATGGCCAGCCTCCTGGAGGACCTCAGCCACATTGAGGGCCTGAGTCAGGCTCCCCAA
CCCTTGGCAGACGAGGGGCCACCAGGCCGTAGCATCGGGGGAGCAGCGCCCAGCCTGGGTGCCTTGGACCTGCTG
GGCCCAGCCACTGGCTGTCTACTGGACGATGGGCTTGAGGGCCTGTTTGAGGATATTGACACCTCTATGTATGAC
AATGAACTTTGGGCACCAGCCTCTGAGGGCCTCAAACCAGGCCCTGAGGATGGGCCGGGCAAGGAGGAAGCTCCG
GAGCTGGACGAGGCCGAATTGGACTACCTCATGGATGTGCTGGTGGGCACACAGGCACTGGAGCGACCGCCGGGG
CCAGGGCGC**TGA**GCCCTCGTGCTGGAATGGTTGTCTGGTATCTGAACTGAGCCTGCTGGCTGGACCAACTGTCCT
CGAAAAGACACAGCTGGCTTCCCTAGTACAGAGAACAGGGCTTGGGCCACTTTGGAGAGACAGAATCTAGTCCTG
GGCAACTTCACATCCGTCCTCCTGTCTCAGGGCTGGCAGGGGGAGCCTGGAATTACCCCCTAGTGATGGAATGAC
AGGGTCTGGTGGGGACTGAATTCCCTGGCCCTGGGGTCATAGCTTGGGCTGTTCCTTCTCTGATACGGGAAGAGA
CCCCAATCAGATTTTTCAAATTAAAGCCAGTCCTGGG

FIGURE 3740

GGGCAGAGAGCACCGCCCAGCAGCCAGTGGGTTCCCGCGCGTGCCGAGACTCTGAGGCCTTGCACCCCCACGATC
CCGTACG**ATG**GCCGTCAAGAAGATCGCGATCTTCGGCGCCACTGGCCAGACCGGGCTCACCACCCTGGCGCAGGC
GGTGCAAGCAGGTTACGAAGTGACAGTGCTGGTGCGGGACTCCTCCAGGCTGCCATCAGAGGGGCCCCGGCCGGC
CCACGTGGTAGTGGGAGATGTTCTGCAGGCAGCCGATGTGGACAAGACCGTGGCTGGGCAGGACGCTGTCATCGT
GCTGCTGGGCACCCGCAATGACCTCAGTCCCACGACAGTGATGTCCGAGGGCGCCCGGAACATTGTGGCAGCCAT
GAAGGCTCATGGTGTGGACAAGGTCGTGGCCTGCACCTCGGCTTTCCTGCTCTGGGACCCTACCAAGGTGCCCCC
ACGACTGCAGGCTGTGACTGATGACCACATCCGGATGCACAAGGTGCTGCGGGAATCAGGCCTGAAGTACGTGGC
TGTGATGCCGCCACACATAGGAGACCAGCCACTAACTGGGGCGTACACAGTGACCCTGGATGGACGAGGGCCCTC
AAGGGTCATCTCCAAACATGACCTGGGCCATTTCATGCTGCGCTGCCTCACCACCGATGAGTACGACGGACACAG
CACCTACCCCTCCCACCAGTACCAG**TAG**CACTCTGTCCCCATCTGGGAGGGTGGCATTCTGGGACATGAGGAGCA
AAGGAAGGGGGCAATAAATGTTGAGCCAAGAGCTTCAAATTACTCTAG

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FIGURE 3741

GCACACCCGGAAGTGGGTGCGGGCCAGCCGGCTCGCCCGGGGGCCATGGCAGCAGCGGCTACTGCAGCCGAGGGG
GTCCCCAGTCGGGGGCCTCCCGGGGAAGTCATTCATCTGAATGTGGGAGGCAAGAGATTCAGTACCTCTCGCCAG
ACTCTCACCTGGATCCCAGACTCCTTCTTCTCCAGTCTTCTGAGCGGACGCATCTCGACGCTGAAAG**ATG**AGACC
GGAGCAATCTTCATCGATCAGGGACCATTACAGTCTTCGCCCACCCGTCACTCTACGTCTTGCGCATCACAAAGA
GTTGGATCCCAGGGGTGTCCACGGTTCCAGCCTCCTCCATGAAGCCCAGTTCTATGGGCTCACTCCTCTGGTTCG
TCGCCTGCAGCTTCGAGAGGAGTTGGATCGATCTTCTTGTGGAAACGTCCTCTTCAATGGTTACCTGCCGCCACC
AGTGTTCCCAGTGAAGCGGCGGAACCGGCACAGCCTAGTGGGGCCTCAGCAGCTAGGAGGACGGCCAGCCCCTGT
CCGACGGAGCAACACGATGCCCCCCAACCTTGGCAATGCAGGGCTGCTGGGCCGAATGCTGGATGAGAAAACCCC
TCCCTCACCCTCAGGACAACCTGAGGAGCCGGGGATGGTGCGCCTGGTGTGTGGACACCATAATTGGATCGCTGT
GGCCTATACCCAGTTTCTAGTCTGCTACAGGTTGAAGGAAGCCTCTGGCTGGCAGCTGGTGTTTTCCAGCCCCCG
CCTGGACTGGCCCATCGAACGACTGGCGCTCACAGCCCGGGTGCATGGTGGGGCTTTGGGTGAACATGACAAGAT
GGTGGCAGCAGCCACCGGCAGCGAGATCCTGCTATGGGCTCTGCAGGCGGAAGGCGGTGGCTCCGAGATAGGGGT
CTTTCATCTGGGGGTGCCTGTGGAGGCCTTGTTCTTCGTCGGGAACCAGCTCATTGCTACAAGCCACACAGGGCG
CATCGGGGTGTGGAATGCCGTCACCAAGCACTGGCAGGTCCAGGAGGTGCAGCCCATCACCAGTTATGACGCGGC
AGGCTCCTTCCTCCTCCTGGGCTGCAACAACGGCTCCATTTACTACGTGGATGTGCAGAAGTTCCCCTTGCGCAT
GAAAGACAACGACCTCCTTGTCAGCGAGCTCTATCGGGACCCAGCGGAGGATGGGGTCACCGCCCTCAGTGTCTA
CCTCACCCCCAAGACCAGTGACAGTGGGAACTGGATCGAGATCGCCTATGGCACCAGCTCAGGGGGCGTGCGGGT
CATCGTGCAGCACCCGGAGACTGTGGGCTCGGGGCCTCAGCTCTTCCAGACCTTCACTGTGCACCGCAGCCCTGT
CACCAAGATCATGCTGTCGGAGAAGCACCTCATCTCAGTCTGTGCCGACAACAACCACGTGCGGACATGGTCTGT
GACTCGCTTCCGCGGCATGATTTCCACCCAGCCCGGCTCCACCCCACTCGCTTCCTTTAAGATCCTGGCTCTGGA
GTCGGCAGATGGGCATGGCGGCTGCAGTGCTGGCAATGACATTGGCCCCTACGGTGAGCGGGACGACCAGCAAGT
GTTCATCCAGAAGGTGGTGCCCAGTGCCAGCCAGCTCTTCGTGCGTCTCTCATCTACTGGGCAGCGGGTGTGCTC
CGTGCGCTCCGTGGACGGCTCACCCACGACAGCCTTCACAGTGCTGGAGTGCGAGGGCTCCCGGCGGCTCGGCTC
TCGGCCCCGGCGCTACCTGCTCACTGGCCAGGCCAACGGCAGCTTGGCCATGTGGGACCTAACCACCGCCATGGA
CGGCCTCGGCCAGGCCCCTGCAGGTGGCCTGACGGAGCAAGAGCTGATGGAACAGCTGGAACACTGTGAGCTGGC
CCCGCCGGCTCCTTCAGCTCCCTCATGGGGCTGTCTCCCCAGCCCCTCACCCCGCATCTCCCTCACCAGCCTCCA
CTCAGCCTCCAGCAACACCTCCTTGTCTGGCCACCGTGGGAGCCCAAGCCCCCCGCAGGCTGAGGCCCGGCGCCG
TGGTGGGGGCAGCTTTGTGGAACGCTGCCAGGAACTGGTGCGGAGTGGGCCAGACCTCCGACGGCCACCCACACC
AGCCCCGTGGCCCTCCAGCGGTCTCGGCACTCCCCTCACACCTCCCAAGATGAAGCTCAATGAAACTTCCTTT**TG**
AACAACGCAGCTGCCATGATGCCTTGGGATGCCCTGGTCCTGGGGGACTCAGGTGCCTCCCTGATTCCTGTGGGA
ACCCCGGGTTCAGGGCCAGGGCCTCCTTGGAATAAATGGTTATTGTTACTAGGTCCCCACCTTCCCTCTTTTCTG
GAAGCCAAAGTCACCCTCCCCAATAAAGTCCTCACTGCC

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FIGURE 3742A

CGTTGCTGTTTGTCGCTGCTGCCCGGGCCAGACGTCTAGGAGGAGCCGCTGCATCCGAGTCCCTGGCTGTCTCCG
AAGCCTTCTGCAGGGTCCGAAGCTGCCAGCCCAAAAAGTGTGCAGGCCCCCAGCGGTGCCTGAACCCAGTGCCTG
CAGTGCCCAGTCCCAGCCCCAGCGTGAGGAAGAGACAGGTGTCCCTCAACTGGCAGCCACTGACGCTCCAGGAGG
CCAGAGCTCTACTGAAGCGGCGGCGGCCCCGGGGGGCCAGGGGGCCGGGGACTACTGAGAAGGAGGCCCCCACAGC
GTGCCCCCGCTGGCAAGGCCCCGGTCCTGTGTCCCTTGATCTGTCACAATGGCGGTGTGTGCGTGAAGCCTGACC
GCTGCCTCTGTCCCCCGGACTTCGCTGGCAAGTTCTGCCAGTTGCACTCCTCGGGCGCCCGGCCCCCGGCCCCGG
CTGTACCAGGCCTCACCCGCTCCGTGTACACT**ATG**CCACTGGCCAACCACCGCGACGACGAGCACGGCGTGGCAT
CTATGGTGAGCGTCCACGTGGAGCACCCGCAGGAGGCGTCGGTGGTGGTGCACCAGGTGGAGCGTGTGTCTGGCC
CTTGGGAGGAGGCGGACGCTGAGGCGGTGGCGCGGGCGGAAGCGGCGGCGCGGGCGGAGGCGGCAGCGCCCTACA
CGGTGTTGGCACAGAGCGCGCCGCGGGAGGACGGCTACTCAGATGCCTCGGGCTTCGGTTACTGCTTTCGGGAGC
TGCGCGGAGGCGAATGCGCGTCCCCGCTGCCCGGGCTCCGGACGCAGGAGGTCTGCTGCCGAGGGGCCGGCTTGG
CCTGGGGCGTTCACGACTGTCAGCTGTGCTCCGAGCGCCTGGGGAACTCCGAAAGAGTGAGCGCCCCAGATGGAC
CTTGTCCAACCGGCTTTGAAAGAGTTAATGGGTCCTGCGAAGATGTGGATGAGTGCGCGACTGGCGGGCGCTGCC
AGCACGGCGAGTGTGCAAACACGCGCGGCGGGTACACGTGTGTGTGCCCCGACGGCTTTCTGCTCGACTCGTCCC
GCAGCAGCTGCATCTCCCAACACGTGATCTCAGAGGCCAAAGGGCCCTGCTTCCGCGTGCTCCGCGACGGCGGCT
GTTCGCTGCCCATTCTGCGGAACATCACTAAACAGATCTGCTGCTGCAGCCGCGTAGGCAAGGCCTGGGGCCGGG
GCTGCCAGCTCTGCCCACCCTTCGGCTCAGAGGGTTTCCGGGAGATCTGCCCGGCTGGTCCTGGTTACCACTACT
CGGCCTCCGACCTCCGCTACAACACCAGACCCCTGGGCCAGGAGCCACCCCGAGTGTCACTCAGCCAGCCTCGTA
CCCTGCCAGCCACCTCTCGGCCATCTGCAGGCTTTCTGCCCACCCATCGCCTGGAGCCCCGGCCTGAACCCCGGC
CCGATCCCCGGCCCGGCCCTGAGCTTCCCTTGCCCAGCATCCCTGCCTGGACTGGTCCTGAGATTCCTGAATCAG
GTCCCTCCTCCGGCATGTGTCAGCGCAACCCCCAGGTCTGCGGCCCAGGACGCTGCATTTCCCGGCCCAGCGGCT
ACACCTGCGCTTGCGACTCTGGCTTCCGGCTCAGCCCCCAGGGCACCCGATGCATTGATGTGGACGAATGTCGCC
GCGTGCCCCCGCCCTGTGCTCCCGGGCGCTGCGAGAACTCACCAGGCAGCTTCCGCTGCGTGTGCGGCCCGGGCT
TCCGAGCCGGCCCACGGGCTGCGGAATGCCTGGATGTGGACGAGTGCCACCGCGTGCCGCCGCCGTGTGACCTCG
GGCGCTGCGAGAACACGCCAGGCAGCTTCCTGTGCGTGTGCCCCGCCGGGTACCAGGCTGCACCGCACGGAGCCA
GCTGCCAGGATGTGGATGAATGCACCCAGAGCCCAGGCCTGTGTGGCCGAGGGGCCTGCAAGAACCTGCCTGGCT
CTTTCCGCTGTGTTTGCCCGGCTGGCTTCCGGGGCTCGGCGTGTGAAGAGGATGTGGATGAGTGTGCCCAGGAGC
CGCCGCCCTGTGGGCCCGGCCGCTGTGACAACACGGCAGGCTCCTTTCACTGTGCCTGCCCTGCTGGCTTCCGCT
CCCGAGGGCCCGGGGCCCCCTGCCAAGATGTGGATGAGTGTGCCCGAAGCCCCCCACCCTGCACCTACGGCCGGT
GTGAGAACACAGAAGGCAGCTTCCAGTGTGTCTGCCCCATGGGCTTCCAACCCAACACTGCTGGCTCCGAGTGCG
AGGATGTGGATGAGTGTGAGAACCACCTCGCATGCCCTGGGCAGGAGTGTGTGAACTCGCCCGGCTCCTTCCAGT
GCAGGACCTGTCCTTCTGGCCACCACCTGCACCGTGGCAGATGCACTGATGTGGACGAATGCAGTTCGGGTGCCC
CTCCCTGTGGTCCCCACGGCCACTGCACTAACACCGAAGGCTCCTTCCGCTGCAGCTGCGCGCCAGGCTACCGGG
CGCCGTCGGGTCGGCCCGGGCCCTGCGCAGACGTGAACGAGTGCCTGGAGGGCGATTTCTGCTTCCCTCACGGCG
AGTGCCTCAACACTGACGGCTCCTTTGCCTGTACTTGTGCCCCTGGCTACCGACCCGGACCCCGCGGAGCCTCTT
GCCTCGACGTTGACGAGTGCAGCGAGGAGGACCTTTGCCAGAGCGGCATCTGTACCAACACCGACGGCTCCTTCG
AGTGCATCTGTCCTCCGGGACACCGCGCTGGCCCGGACCTCGCCTCCTGCCTCGACGTGGACGAATGTCGCGAGC
GAGGCCCAGCCCTGTGCGGGTCGCAGCGCTGTGAGAACTCTCCCGGCTCCTACCGCTGTGTCCGGGACTGCGATC
CTGGGTACCACGCGGGCCCCGAGGGCACCTGTGACGATGTGGATGAGTGCCAAGAATATGGTCCCGAGATTTGTG
GAGCCCAGCGTTGTGAGAACACCCCTGGCTCCTACCGCTGCACACCAGCCTGTGACCCTGGCTATCAGCCCACGC
CAGGGGGCGGATGCCAGGATGTGAACGAGTGTGAAACACTACAGGGTGTATGTGGAGCTGCCCTGTGTGAAAATG
TCGAAGGCTCCTTCCTCTGTGTCTGCCCCAACAGCCCGGAAGAGTTTGACCCCATGACTGGACGCTGTGTTCCCC
CACGAACTTCTGCTGGCACGTTCCCAGGCTCGCAGCCCCAGGCACCTGCTAGCCCCGTTCTGCCCGCCAGGCCAC
CTCCGCCACCCCTGCCCCGCCGACCCAGCACACCTAGGCAGGGCCCTGTGGGGAGTGGGCGCCGGGAGTGCTACT
TTGACACAGCGGCCCCGGATGCATGTGACAACATCCTGGCTCGGAATGTGACATGGCAGGAGTGCTGCTGTACTG
TGGGTGAGGGCTGGGGCAGCGGCTGCCGCATCCAGCAGTGCCCGGGCACCGAGACAGCTGAGTACCAGTCATTGT
GCCCTCACGGCCGGGGCTACCTGGCGCCCAGTGGAGACCTGAGCCTCCGGAGAGACGTGGACGAATGTCAGCTCT
TCCGAGACCAGGTGTGCAAGAGTGGCGTGTGTGTGAACACGGCCCCGGGCTACTCATGCTATTGCAGCAACGGCT

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FIGURE 3742B

ACTACTACCACACACAGCGGCTGGAGTGCATCGACAATGACGAGTGCGCCGATGAGGAACCGGCCTGTGAGGGCG
GCCGCTGTGTCAACACTGTGGGCTCTTATCACTGTACCTGCGAGCCCCCACTGGTGCTGGATGGCTCGCAGCGCC
GCTGCGTCTCCAACGAGAGCCAGAGCCTCGATGACAATCTGGGAGTGTGCTGGCAGGAAGTGGGGGCTGACCTCG
TGTGCAGCCACCCTCGGCTGGACCGTCAGGCCACCTACACAGAGTGCTGCTGCCTGTATGGAGAGGCCTGGGGCA
TGGACTGCGCCCTCTGCCCTGCGCAGGACTCAGATGACTTCGAGGCCCTGTGCAATGTGCTACGCCCCCCCGCAT
ATAGCCCCCCGCGACCAGGTGGCTTTGGACTCCCCTACGAGTACGGCCCAGACTTAGGTCCACCTTACCAGGGCC
TCCCATATGGGCCTGAGTTGTACCCACCACCTGCGCTACCCTACGACCCCTACCCACCGCCACCTGGGCCCTTCG
CCCGCCGGGAGGCTCCTTATGGGGCACCCCGCTTCGACATGCCAGACTTTGAGGACGATGGTGGCCCCTATGGCG
AATCTGAGGCTCCTGCGCCACCTGGCCCGGGCACCCGCTGGCCCTATCGGTCCCGGGACACCCGCCGCTCCTTCC
CAGAGCCCGAGGAGCCTCCTGAAGGTGGAAGCTATGCTGGTTCCCTGGCTGAGCCCTACGAGGAGCTGGAGGCGG
AGGAGTGCGGGATCCTGGACGGCTGCACCAACGGCCGCTGCGTGCGCGTCCCCGAAGGCTTCACCTGCCGTTGCT
TCGACGGCTACCGCCTGGACATGACCCGCATGGCCTGCGTTGACATCAACGAGTGTGATGAGGCCGAGGCTGCCT
CCCCGCTGTGCGTCAACGCGCGTTGCCTCAACACGGATGGCTCCTTCCGCTGCATCTGCCGCCCGGGATTCGCAC
CCACGCACCAGCCGCACCACTGTGCGCCCGCACGGCCCCGGGCC**TGA**GCCCTGGCACCCGCTGGCCGCCCACCCG
CGCCCGCCACTCGGGGCCCCTGCCGCGCATCCTGCAGCCCGCTTATGCGTATGTGCACGGGGCCGCCCGCCTGGA
CCTGGAGAAGGGACCTACGGACGCCTGGAAGCTGCGACGCCCTGCACTGCTCCCGCCTCCACCAGCGCCTCCCAC
TGATGTCGTGGTCCCGGGCCTGGCCCAGGGGCCCCTTTACATGCCCTCTCCCTTTTATAAAATTTTCCATTAAAA
ACCACCTATTTTCT

FIGURE 3743

GCTCGCGCGCGTGCATCCCGCACCATCCCCCGGCCCCGGGCCCTGGCCGGCGTCAGACCGAGCTGCCGCCGCCAC
CACCGCAGCAGCAGCAGTCGGGGAGCCAGGCCCAGCCAGGGCCGCGGGAGGCGGGGGCGCCCGGGCCCTGG**ATG**T
CCCGCAGCGCGGCGGCCAGCGGCGGACCCCGGAGGCCTGAGCGGCACCTGCCCCCAGCCCCCTGTGGGGCCCCGG
GGCCCCCAGAAACCTGCAGGACGGAGCCAGACGGGGCGGGCACCATGAACAAGTTACGGCAGAGCCTGCGGCGGA
GGAAGCCAGCCTACGTGCCCGAGGCGTCGCGCCCGCACCAGTGGCAGGCAGACGAGGACGCGGTGCGGAAGGGCA
CGTGCAGCTTCCCGGTCAGGTACCTGGGTCACGTGGAGGTAGAGGAGTCCCGGGGAATGCACGTGTGTGAAGATG
CGGTGAAGAAGCTGAAGGCGATGGGCCGAAAGTCCGTGAAGTCTGTCCTGTGGGTGTCAGCCGATGGGCTCCGAG
TGGTGGACGACAAAACCAAGGATCTTCTGGTCGACCAGACCATCGAAAAGGTCTCCTTTTGTGCTCCTGACCGCA
ACCTGGACAAGGCTTTCTCCTATATCTGTCGTGACGGGACTACCCGCCGCTGGATCTGCCACTGTTTTCTGGCAC
TGAAGGACTCCGGCGAGAGGCTGAGCCACGCTGTGGGCTGTGCTTTTGCCGCCTGCCTGGAGCGAAAACAGCGAC
GGGAGAAGGAATGTGGGGTCACGGCCGCCTTCGATGCCAGCCGCACCAGCTTCGCCCGCGAGGGCTCCTTCCGCC
TGTCTGGGGGTGGGCGGCCTGCTGAGCGAGAGGCCCCGGACAAGAAGAAAGCAGAGGCAGCAGCTGCCCCCACTG
TGGCTCCTGGCCCTGCCCAGCCTGGGCACGTGTCCCCGACACCAGCCACCACATCCCCTGGTGAGAAGGGTGAGG
CAGGCACCCCTGTGGCTGCAGGCACCACTGCGGCCGCCATCCCCCGGCGCCATGCACCCCTGGAGCAGCTGGTTC
GCCAGGGCTCCTTCCGTGGGTTCCCAGCACTCAGCCAGAAGAACTCGCCTTTCAAACGGCAGCTGAGCCTACGGC
TGAATGAGCTGCCATCCACGCTGCAGCGCCGCACTGACTTCCAGGTGAAGGGCACAGTGCCTGAGATGGAGCCTC
CTGGTGCCGGCGACAGTGACAGCATCAACGCTCTGTGCACACAGATCAGTTCATCTTTTGCCAGTGCTGGAGCGC
CAGCACCAGGGCCACCACCTGCCACAACAGGGACTTCTGCCTGGGGTGAGCCCTCCGTGCCCCCTGCAGCTGCCT
TCCAGCCTGGGCACAAGCGGACACCTTCAGAGGCTGAGCGATGGCTGGAGGAGGTGTCACAGGTGGCCAAGGCCC
AGCAGCAGCAGCAGCAGCAACAGCAACAGCAGCAGCAGCAGCAGCAACAGCAGCAAGCAGCCTCAGTGGCCC
CAGTGCCCACCATGCCTCCTGCCCTGCAGCCTTTCCCCGCCCCCGTGGGGCCCTTTGACGCTGCACCTGCCCAAG
TGGCCGTGTTCCTGCCACCCCCACACATGCAGCCCCCTTTTGTGCCCGCCTACCCGGGCTTGGGCTACCCACCGA
TGCCCCGGGTGCCCGTGGTGGGCATCACACCCTCACAGATGGTGGCAAACGCCTTCTGCTCAGCCGCCCAGCTCC
AGCCTCAGCCTGCCACTCTGCTTGGGAAAGCTGGGGCCTTCCCGCCCCCTGCCATACCCAGTGCCCCTGGGAGCC
AGGCCCGCCCTCGCCCCAATGGGGCCCCCTGGCCCCCTGAGCCAGCGCCTGCCCCAGCTCCAGAGTTGGACCCCT
TTGAGGCCCAGTGGGCGGCATTAGAAGGCAAAGCCACTGTAGAGAAACCCTCCAACCCCTTTTCTGGCGACCTGC
AAAAGACATTCGAGATTGAACTG**TAG**

FIGURE 3744

TCTGAGCATCCGAAGCGCGGCCAGGTATGCATCTAGGGCACCGGGGTCCTGGTGGCGCGCCAGTGGGCCCCCTCC
CTCCACCCCTGTGACTAAACCACCCTCCCTACACGGTTGAATGACAAGTTCAACCTTCCCTAAAACCCCCGGTGA
CGAGTCCAGCCGCGCGCCCATTCTTCACGCAGGGGCGGGACGGACTTTCAAAGACTTGGAGTTCCCACGGGTGTG
GGTTCGAGACCTTCCTCTGCCAGTTCCCAGCTCCGCTACCCTGAGCAAATGACTTACGCTCCATTGGATTTTCCG
CA**ATG**TGGCTGAAGGTGGGGGGCCTACTTCGGGGGACCGGTGGACAGCTGGGCCAGACTGTTGGTTGGCCTTGTG
GGGCCCTGGGGCCTGGGCCCCACCGCTGGGGACCATGTGGAGGTTCTTGGGCCCAAAAGTTTTACCAGGATGGGC
CTGGGAGAGGCCTGGGTGAGGAGGACATTCGCAGGGCACGGGAGGCCCGTCCCAGGAAGACACCCCGGCCCCAGC
TGAGTGACCGCTCTCGAGAACGCAAGGTGCCTGCCTCCCGCATCAGCCGCTTGGCCAACTTTGGGGGACTGGCTG
TGGGCTTGGGGCTAGGAGTACTGGCCGAGATGGCTAAGAAGTCCATGCCAGGAGGTCGTCTGCAGTCAGAGGGTG
GTTCTGGGCTGGACTCCAGCCCCTTCCTGTCGGAGGCCAATGCCGAGCGGATTGTGCAGACCTTATGTACAGTTC
GAGGGGCCGCCCTCAAGGTTGGCCAGATGCTCAGCATCCAGGGTACAGCA**TGA**CCCTCGACTCCTGACCCCTGAC
CTCCCTTCTACCCCAGCCCTACCCACCAACAGGCCCCAACTTCAGATACTCACACGGGGTCCCTCCTCACCTCTT
CGCTTACTTCCCCCCTGGTTCCACTGTCTCCCAAGACAACAGCTTCATCAGCCCTCAGCTGCAGCACATCTTTGA
GCGGGTCCGCCAGAGCGCCGACTTCATGCCCCGCTGGCAGATGCTGGTGAGTGCCCAGTGGGGGAGGGCGGTGAG
GGAGGCAGGCTCCATCTCCTCTGACCTGCCTGACCTTCCTGGCTTCACTGCCCCACTCCCTGCCTCTGAGCCTCA
CTTTCCCCATCTGTAAAATGGGAATCACCAGAGTACACACCTCCTAGCATTGCTGTGGTGATTAAAACAGGGAAC
AGCAGCCTGACCTCTCTGTGCTTCAGTTCCCTTCCCTGGGAAATGGCGATAGTGACAGCCACACCCACATCATAG
GGTCACATAAATCAGTTTACACTGAGCACTGAGAACGGCCCCTGATTCACTGTGAGCAACATGCAGGTGTTAGCT
GTGATTATTACTGTTTTTTTAATTAAAGGAGATCGTGTCTGTAATAGGTTGGCACGGCGCCTGGCACCAAGTAAG
TGCCCAGGACATGAGCTGTTCTAATAACTGGGTAAGGCATGGAATCCAGGATTCCGCCACCCACCTGCTCTCCCA
TCCCTGTTCTGCTTATTCGCCATGCGGCCCCAGGCAGGTACTGCCTCTCTCTGGGCCACTCTGAATAGGACCTGG
CCCACAGGAAGCCCATTGTAAATTTTAGCTCTTCTTGATCACAGTAACTGTGAGTTAATAATAACATATAAGAGC
ATAATAAAGGATGGTTGGCCACGTGTAATGGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGCGGTGGGAGG
ATCATTTGAGCTCAGGACTTCCAGACCACCCTGGGCAACATAGTGAGACCTTGTCTCTACTAAACATAATAACAG
TAATAATTAGCTGGGCACAGTGGCACATATCTGTAGTCCCAGCTATTCAGGAGGCAGGAGGATGGCTTGAGCTCG
GGAGGTTGATGCTGCAGTGAGCCGTGAGAGTGCCACTACACTCCAGCCTGGGCTACAGAACAAGACCCTGTCTC

FIGURE 3745

ATGAGGCGCTGCCCGTGCCGTGGGAGCCTGAACGAGGCGGAGGCCGGGGCGCTGCCCGCGGCGGCCCGCATGGGA
CTGGAGGCGCCGCGAGGAGGGCGGCGGCGGCAGCCGGGACAGCAGCGACCTGGGCCCGGCGCAGGGGCCCCGGCG
GGGCGGCCGGAGGGGGGCGGGCCCTGGGCCCGGACAGAGGGGTCCAGCCTCCACAGCGAGCCTGAGAGGGCCGGC
CTCGGGCCTGCGCCGGGGACAGAGAGTCCGCAGGCAGAATTCTGGACAGACGGACAGACTGAGCCCGCGGCAGCT
GGCCTTGGAGTAGAGACCGAGAGGCCCAAGCAAAAGACGGAGCCAGACAGGTCCAGCCTCCGGACGCATCTAGAA
TGGAGCTGGTCAGAGCTGGAGACGACTTGTCTTTGGACGGAGACCGGGACAGATGGCCTTTGGACTGATCCGCAC
AGGTCCGACCTCCAGTTTCAGCCCGAGGAGGCCAGCCCCTGGACACAGCCAGGGGTTCATGGGCCCTGGACAGAG
CTGGAAACGCATGGGTCACAGACTCAGCCAGAGAGGGTCAAGTCCTGGGCTGATAACCTCTGGACCCACCAGAAC
AGTTCCAGCCTCCAGACTCACCCAGAAGGAGCCTGTCCCTCAAAAGAGCCAAGTGCTGATGGCTCCTGGAAAGAA
TTGTATACTGATGGCTCCAGGACACAACAGGATATTGAAGGTCCCTGGACAGAGCCATATACTGATGGCTCCCAG
AAAAAACAGGATACTGAAGCAGCCAGGAAACAGCCTGGCACTGGTGGTTTCCAAATACAACAGGATACTGATGGC
TCCTGGACACAACCTAGCACTGACGGTTCCCAGACAGCACCTGGGACAGACTGCCTCTTGGGAGAGCCTGAGGAT
GGCCCATTAGAGGAACCAGAGCCTGGAGAATTGCTGACTCACCTGTACTCTCACCTGAAGTGTAGCCCCCTGTGC
CCTGTGCCCCGCCTCATCATTACCCCTGAGACCCCTGAGCCTGAGGCCCAGCCAGTGGGACCCCCCTCCCGGGTT
GAGGGGGGCAGCGGCGGCTTCTCCTCTGCCTCTTCTTTCGACGAGTCTGAGGATGACGTGGTGGCCGGGGGCGGA
GGTGCCAGCGATCCCGAGGACAGGTCTGGGAGCAAACCCTGGAAGAAGCTGAAGACAGTTCTGAAGTATTCACCC
TTTGTGGTCTCCTTCCGAAAACACTACCCTTGGGTCCAGCTTTCTGGACATGCTGGGAACTTCCAGGCAGGAGAG
GATGGTCGGATTCTGAAACGTTTCTGTCAGTGTGAGCAGCGCAGCCTGGAGCAGCTGATGAAAGACCCGCTGCGA
CCTTTCGTGCCTGCCTACTATGGCATGGTGCTGCAGGATGGCCAGACCTTCAACCAGATGGAAGACCTCCTGGCT
GACTTTGAGGGCCCCTCCATTATGGACTGCAAGATGGGCAGCAGGACCTATCTGGAAGAGGAGCTAGTGAAGGCA
CGGGAACGTCCCCGTCCCCGGAAGGACATGTATGAGAAGATGGTGGCTGTGGACCCTGGGGCCCCTACCCCTGAG
GAGCATGCCCAGGGTGCAGTCACCAAGCCCCGCTACATGCAGTGGAGGGAAACCATGAGCTCCACCTCTACCCTG
GGCTTCCGGATCGAGGGCATCAAGAAGGCAGATGGGACCTGTAACACCAACTTCAAGAAGACGCAGGCACTGGAG
CAGGTGACAAAAGTGCTGGAGGACTTCGTGGATGGAGACCACGTCATCCTGCAAAAGTACGTGGCATGCCTAGAA
GAACTTCGTGAAGCTCTGGAGATCTCCCCCTTCTTCAAGACCCACGAGGTGGTAGGCAGCTCCCTCCTCTTCGTG
CACGACCACACCGGCCTGGCCAAGGTCTGGATGATAGACTTCGGCAAGACGGTGGCCTTGCCCGACCACCAGACG
CTCAGCCACAGGCTGCCCTGGGCTGAGGGCAACCGTGAGGACGGCTACCTCTGGGGCCTGGACAACATGATCTGC
CTCCTGCAGGGGCTGGCACAGAGC**TGA**

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FIGURE 3746

GTGGTTATCGCGGCGCCCACCGGCCTCTGATCTCTGAGTCTTCTCCAACCCACAGACGTTTTTTGTTGCTCTGGT
TCCAGGACCTTCTCCACAACTAGGCCATTTTCCCTGCCAGGTGTCCTTTTTGACCTCTTGACCTCTGACTCAAAG
GTCAGCTCAAAGGTTCCGAACTCGGGCCTGGGATGTGAGGGGGTACTGAACCTAAGTTCTCCGAATCTTTAGCCC
TGGGTCCCTAAGTCGCATCCTTAAGGCACCTCACTCTAGATCTGAGCCTTCATATCCCAAACTCACTCATGAGTT
TCCACATCCAGCCCCAAAGAATGAGTTAACTCCTACTAACTCTCCACCTAAGACTCCCGAGGTAACCCAACCGGT
ACCACAGATCCGGTTCCGGATTTAAGGACCCCACCCTGTTAACCGTCAGGTGCCTTATGACTTGAGTCAGCCTCG
CAATTCCTGCTCCCGTGGTTTCAAATATTAGCCCTGGTCCTTTCACACCCACTGCTCAGTCCCCAGATTCTGGAA
CTCAGCTCTTAAACCTTTAAAATCTCCATCCCTGAGACCGTTCTCCGTTGGAGGATCCTTCCCTCCCCGCTTTCT
GAACCTCTCAACACCTCCTGTAGACCCCAAA**ATG**ACTTCTCCATGCTCTCCTCCCCTAAAACCACCAATTTCTCC
TCCAAAAACCCCTGTACCCCAAGCCAGCAGCATTCCATCTCCTCCTCTACCCCCAAGTCCCCTGGACTTTTCAGC
TTTACCATCCCCTCCCTGGAGTCAGCAGACCCCTGTTCCCCCACCGCTCCCACTGCCTCCTCCACCCGCTGCCAC
AGGGCCTGCTCCCCGTCATGTCTTCGGCCTGGAGAAGAGCCAGCTCCTGAAGGAGGCCTTTGATAAGGCCGGCCC
GGTCCCCAAGGGCAGAGAAGATGTGAAGAGGCTTCTGAAACTACACAAGGACCGGTTCCGAGGTGACCTGCGGTG
GATCCTCTTCTGTGCAGACCTGCCGTCCCTCATCCAAGAAGGCCCTCAATGCGGGCTGGTGGCCTTGTGGATGGC
AGGTACTCTCCTGTCGCCCCCCAGTGGCGTCCCCCTGGAGAGACTCATACGGGTGGCCACGGAAAGAGGCTACAC
GGCCCAGGGAGAGATGTTCTCAGCACCAGCTACGACGAGGACTTCAACCATGAGCCGTGTCAGAGGAAGGGCCAC
AAGGCACACTGGGCGG**TGA**GTGCAGGGGTCCTGCTGGGTGTTCGGGCTGTGCCCAGTCTCGGCTACACTGAGGAC
CCTGAGCTGCCGGGCCTGTTCCACCCAGTGCTGGGCACGCCCTGCCAACCACCATCCCTGCCAGAGGAGGGCTCC
CCGGGAGCTGTCTACCTGCTGTCCAAGCAGGGCAAGAGTTGGCACTATCAGCTGTGGGACTACGACCAGGTCCGG
GAGAGCAACCTGCAGCTGACGGACTTCTCGCCCTCACGGGCCACTGACGGCCGGGTGTACGTGGTGCCCGTGGGT
GGGGTACGGGCTGGCCTCTGTGGCCAGGCCCTGCTCCTCACACCACAGGACTGCAGCCATTAGCTGCGGCTGCGG
TCTCAGGCTGCAGCCTAGCTCGTTTTAAAGCCCATCTGGGAGCAGTTACCTGTGCCAGCCCCTCTACCTGTGTTA
GCAGATCTGGCAACCCTGTAAGGGGGGTGCTAGATGGACCCGATTTGACAGATGGCAAGACTGAGGCCTGGAGAA
GTGGAATCACTGGCCTGAGGTCACATGACTAGCACATGGCAAGATGGAGTCTCGTTCTGTCGTCCAGGCTGGAGT
GCGGTGGCGTGATCTCAGCTCACTCCAGCCTCCACTTCCCAGGTTCAAGTGATTCTCCTGCCTCAGCCCCCCAAG
TAACTGGGATTACAGGCATGCACCACCATGCCTGGCTAATTTTTTGTATTTTTAGTAGAGACGGGGCTTTGCCAT
GTTGGCCAGGCTGGTCTCGAACTCCTGACCTTGAGTAATCCACCCGCCTCGGCCTCCCAAAGTGCTGGGATTACA
GGTGTGAGCCACTGAGCCCGGCCACAGTGCAGTATTTCTAACCAGTGATCAGGGTAAAGAGGATGCGTGTCCACC
ATCCCAGCCCTGATCAGCCTGTCTGTGCATCCCCCATCCCAGCCAGGGCTTGGAGCAGCCTTGCTCACCACTGTG
TCCCCTGCATTGTAACACATCCAGGCACAAGAATAGCCGCCCAGTGACTGCCAAGTGAGTGAACCAGCCTGCTTG
GAGCCTGCCTCTTTCCCAAACTGCTCATTATCCTGTTACCCCACCCAGCCCACGTGTCCAAATACACTCCAGATG
CAAAATAAAAAGCTCTACGACA

FIGURE 3747

CCTGACTTCCTTTTCGGAGGAAGATCCTTGAGCAGCCGACGTTGGGACAAAGGATTTGGAGAAACCCAGGGCTAA
AGTCACGTTTTTCCTCCTTTAAGACTTACCTCAACACTTCACTCC**ATG**GCAGTTCCCGAGACCCGCCCTAACCAC
ACTATTTATATCAACAACCTCAATGAGAAGATCAAGAAGGATGAGCTAAAAAAAGTCCCTGTACGCCATCTTCTCC
CAGTTTGGCCAGATCCTGGATATCCTGGTATCACGGAGCCTGAAGATGAGGGGCCAGGCCTTTGTCATCTTCAAG
GAGGTCAGCAGCGCCACCAACGCCCTGCGCTCCATGCAGGGTTTCCCTTTCTATGACAAACCTATGCGTATCCAG
TATGCCAAGACCGACTCAGATATCATTGCCAAGATGAAAGGCACCTTCGTGGAGCGGGACCGCAAGCGGGAGAAG
AGGAAGCCCAAGAGCCAGGAGACCCCGGCCACCAAGAAGGCTGTGCAAGGCGGGGGAGCCACCCCCGTGGTGGGG
GCTGTCCAGGGGCCTGTCCCGGGCATGCCGCCGATGACTCAGGCGCCCCGCATTATGCACCACATGCCGGGCCAG
CCGCCCTACATGCCGCCCCCTGGTATGATCCCCCCGCCAGGCCTTGCACCTGGCCAGATCCCACCAGGGGCCATG
CCCCCGCAGCAGCTTATGCCAGGACAGATGCCCCCTGCCCAGCCTCTTTCTGAGAATCCACCGAATCACATCTTG
TTCCTCACCAACCTGCCAGAGGAGACCAACGAGCTCATGCTGTCCATGCTTTTCAATCAGTTCCCTGGCTTCAAG
GAGGTCCGTCTGGTACCCGGGCGGCATGACATCGCCTTCGTGGAGTTTGACAATGAGGTACAGGCAGGGGCAGCT
CGCGATGCCCTGCAGGGCTTTAAGATCACGCAGAACAACGCCATGAAGATCTCCTTTGCCAAGAAG**TAG**CACCTT
TTCCCCCCATGCCTGCCCCTTCCCCTGTTCTGGGGCCACCCCTTTCCCCCTTGGCTCAGCCCCCTGAAGGTAAGT
CCCCCCTTGGGGGCCTTCTTGGAGCCGTGTGTGAGTGAGTGGTCGCCACACAGCATTGTACCCAGAGTCTGTCCC
CAGACATTGCACCTGGCGCTGTTAGGCCGGAATTAAAGTGGCTTTTTGAGGTTTGGTTTTTCAC

FIGURE 3748A

GTGTGAGTCCCATGTGCTTGGTGGGAGGCGCTGTGTGAGAATGTACAGGGCAGGAGGAAACATAGCAGGGCTGGG
GTGCAGAGGAGGCCCAGAGCAGTGCACTCCAGTCTGCAGGTACTGCACTGGGCACTGGGGAGACCAACCTGGCCC
CAGGGGCTTCCCTGTGGCTGCCTTCCAGGGCAGTACTAGGTAAACAGGTGCCTGTGCTGATGCCATGTTGCTAGG
AGTGGAACGGACAATCAGCCGGAGTACTCAAGGTGACCCTTGGTCTCTGAATCCTGAATAACAAAGAGGGTCAGA
AGGAAGAGTGTCCCAGGCCAGTGCTGAGGCCTTGTGGTGGCGATGAGCTCAGCCTGTTGAGGCATGGAGCAGAGT
GATGGGAGAGGCACATGAGGTTGGGGGCCTTTGAGGCTGTGGTTGGGAATTTGTATTTTCTCAGGATGGAGTGAA
GACCTGGAGAGGAGGGGCTCTGGCTGCTGTGTGGGGATGAATTGTGGGAAGAGGGTGCAGCACTGGACCCCTTCC
CTGCCACCCATCCACGTGCATCATCAGTGTAATCTCTGATTGGATTCCTAATTGGGGAGGTCTTGCCCATCTCTA
GTCAGTAACTCACTGTTTCTAAGCCTCCTGGACCATGGCCCAATTCTTCTCCCAGTGAGGTGGTTGCTCAGAGTG
CCGACCCTTCCATAGGGAGTGAGCAGTGCAAAGAAGGTGCCCCCTCCTGAACCTTGAAGTGTAGCCATTAGGGTT
TTCCCTGGGGGGCCTTCTCACTAATTGTACTCTGGTGCTGCCAGAGAGAAGGTTGTCAGCTTCCCACTGCTAGGT
GGCAGTAGATGGTGGCAGCCCTCTCTTTCCAGGGCAAGGTCTGGTGGATGAGGTGCACATGGTTAATGCAGAGCA
GCTTAACATCCACCACAGAGGGTGAGCCCTGGGATAATGTGTTGGGAGGCGTCCTGGGGAGGGTGAGGATTGAAG
CAGCCCAGTCTGCTGTGGCGTGCGTGCTTGGCAAGCATCCTGTTGTGGCAGTGGCCACTGATGTTTGATCGTGAA
TGTTTATCTTGGGACTGTCTTGCTGGGCCGGGCCCATAGGTGTAGCTGAGCATTCGTGGGGAATGGACGCCAGCA
GAGTTGTACCAGGGCAGAGAGGTCAGGGCAGAGAGGTCAAGACAGATGGTCCGGGCTGGGGAGAAGTTGAAGGGT
CCTTGTGCCAGTCCTCCCCTTTTTGTGTGCTACCTCATCTTGCCACTGCAGTGACTTTGGGCAGAGGGTGGGACA
GGGACCTTTTAAAATTTTTAAATGGCATTTCAGCCTGTGCTCCAGTTCTCCATGTGGCAGGCACTGTGCTGGCTG
TCTTCCCAGACACTTGTTATCTTGTTCACTTGTTCCACAACAACCTGTGAAATAGCTGTGAGCTCCATTGGATCC
ATGGATGAGGAACCTGAGACCAGGAAGTCACCTGCCTGATGCCACAGCTCATGTGGCAGCACTGAGACTTGAACC
AGGGAATTGTGTCTGCAGAAGTGGCTGGGCCATTTCCTTTACCTCTCAGCCACCTTTCTGCCAGCTCCCTGATGA
CAAACATCCCGGGGCCCTGGCCACAGCATTGTAGGGCTGGGTCAGGGGAGTGGCAACTGTCAGGCAGAGGAAAGA
ACCCTGTAGACAGAGAAACCAAGCCCTGCAATGAGTCCTGTTAGATCTCCAGGAGTTGGGGCTCCAGAACCTCCC
AAGTTATGTTCTCAGAGAGATTAATTGCTACCGCTGTAAACAGCAGTGTTTATTACCCCTGCTGTACACATCAGG
CAGTTGAGGCCCATTCAGGTGTTGGAACTGGCTAGGGTTACCCAGCAAATTATCCTTGGAGTTGGAATTAGGTCT
TTCTATTCAGACTGTAGCTTTTGGCTCCTGTTCGGAGGTCTATGGGACAGATAATTTAGTGGGGATTCTTTGTAG
TCCAGGGCAGCAGTTCTTAACATTGCTGCATGGTAGAATTACCTGGGAAGCTTTACCAATTTCAGGCCCTTCCTT
AGGCCAGGTACTTCAGAACCTCAGAGCTCCCCAGGGGGCTCCACTCCACAGCCAAGGGTAAGAATTCCTGGTCTA
GGGCTGTGAGGCCACCTCCTTGCACACCTGAAAATGTTTAAATTGGTATTATTCTACTGAAATGGCTGAGGTGGG
GTTTGGGGTATCTTGAAACAAATCAAACTCTGTTACTAATTGAGCCCTAGCTGGGTGCCAGGCCCCAGGTATGTG
TGTTGGGAGGGAGTGGGCTCTTGAGGCCCAGGAGCTGAGGTTTCTGATAGACTTGGGGATGGGATTTTGGCTGAA
AAAGAAAGTCTTTTGGGGCAGGAGCTTGGAACCCTTGACCCAAGGAGTCATGGGGAAGATGGGGCAAGGAGGGGT
GGGAAAATAGGTAATTCATGGCTGCTTCTCTAAG**ATG**TGCCTGCCTAGCCCCAGTAAACCTACCTCCCTCCATCC
CTGCCAGGCCATGGTGGCGTGTTACCCAGGCAACGGGCTCGGGTACGTAAGGCACGTTGACAATCCCCACGGCGA
TGGGCGCTGCATCACCTGTATCTATTACCTGAATCAGAACTGGGACGTTAAGGTAGGGGTGAGGGTGAGGGTGAG
GGTGGCGCTGGGGCTAGGGCTGGGGCGGGGGTGGCGTGCGTCCACTCCATTTTCCACTCTCAGCCCAGATTCTGG
CATTCTCCTGTTTCTCTTCTCAACACACAGCGGGCAGTGCGATCTGCCGGCTCTTCCTGGGAAATGGCACCTCCT
CCTCTCTAGCGGACTGTGTGGTGGGAACTCCCCTCTTTCCGGGAATGGTGCTGTCTGCCCAGCCCCACCCGGCCT
TGTAATGAACACTTTCCCCCTTTTCCTGTCTTTAGTAGCTTCCTGCCCATCTCCATGG**TGA**TGCAGTCTCTGGGT
TGTCATTCACTTTGAGAGCCCGAGGGGTGGGAGGGAGTGATGCAGGCAGACGCTGCGCCTCCTAGTGGGCTCCCG
GGGCACCGTGGGAGGCAGCGGCTCCTGGCCGTACCAGCTAGCCTCATCCTTTGGCCTGCCCCCAGGTGCATGGCG
GCCTGCTGCAGATCTTCCCTGAGGGCCGGCCCGTGGTAGCCAACATCGAGCCACTCTTTGACCGGTTGCTCATTT
TCTGGTCTGACCGGCGGAACCCCCACGAGGTGAAGCCAGCCTATGCCACCAGGTACGCCATCACTGTCTGGTATT
TTGATGCCAAGGAGCGGGCAGCAGCCAAAGACAAGTATCAGCTAGCATCAGGACAGAAAGGTGTCCAAGTACCTG
TATCACAGCCGCCTACGCCCACCTAGTGGCCAGTCCCAGAGCCGCATGGCAGACAGCTTAAATGACTTCAGGAGA
GCCCTGGGCCTGTGCTGGCTGCTCCTTCCCTGCCACCGCTGCTGCTTCTGACTTTGCCTCTGTCCTGCCTGGTGT
GGAGGGCTCTGTCTGTTGCTGAGGACCAAGGAGGAGAAGAGACCTTTGCTGCCCCATCATGGGGGCTGGGGTTGT
CACCTGGACAGGGGGCAGCCGTGGAGGCCACCGTTACCAACTGAAGCTGGGGGCCTGGGTCCTACCCTGTCTGGT

FIGURE 3748B

CATGACCCCATTAGGTATGGAGAGCTGGGAGGAGGCATTGTCACTTCCCACCAGGATGCAGGACTTGGGGTTGAG
GTGAGTCATGGCCTCTTGCTGGCAATGGGGTGGGAGGAGTACCCCCAAGTCCTCTCACTCCTCCAGCCTGGAATG
TGAAGTGACTCCCCAACCCCTTTGGCCATGGCAGGCACCTTTTGGACTGGGCTGCCACTGCTTGGGCAGAGTAAA
AGGTGCCAGGAGGAGCATGGGTGTGGAAGTCCTGTCAGCCAAGAAATAAAAGTTTACCTCAGAGCTGCA

FIGURE 3749A

GAGTGGAGTTCTGGAGGAATGTTTACCAGACACAGAGCCCAGAGGGACAGCGCCCAGAGCCCGGATAGAGAGACA
CGGCCTCACTGGCTCAGGACAGGGGGCACAGCCACCAGGGTCCCCTTCCCCCTCCTCAGCTCCCTCCCTGGCCCC
TTTAAGAAAGAGCTGATCCTCTCCTCTCTTGAGTTAACCCCTGATTGTCCAGGTGGCCCCTGGGCTCTGGCCCTG
GTGGGCGGAGGCAAAGGGGGAGCCAGGGGCGGAGAAAGGGTTGCCCAAGTCTGGGAGTGAGGGAAGGAGGCAGGG
GTGCTGAGAAGGCGGCTGCTGGGCAGAGCCGGTGGCAAGGGCCTCCCCTGCCGCTGTGCCAGGCAGGCAGTGCCA
AATCCGGGGAGCCTGGAGCTGGGGGGAGGGCCGGGGACAGCCCGGCCCTGCCCCCTCCCCCGCTGGGAGCCCAAC
AACTTCTGAGGAAAGTTTGGCACCC**ATG**GCGTGGCGGTGCCCCAGGATGGGCAGGGTCCCGCTGGCCTGGTGCTT
GGCGCTGTGCGGCTGGGCGTGCATGGCCCCCAGGGGCACGCAGGCTGAAGAAAGTCCCTTCGTGGGCAACCCAGG
GAATATCACAGGTGCCCGGGGACTCACGGGCACCCTTCGGTGTCAGCTCCAGGTTCAGGGAGAGCCCCCCGAGGT
ACATTGGCTTCGGGATGGACAGATCCTGGAGCTCGCGGACAGCACCCAGACCCAGGTGCCCCTGGGTGAGGATGA
ACAGGATGACTGGATAGTGGTCAGCCAGCTCAGAATCACCTCCCTGCAGCTTTCCGACACGGGACAGTACCAGTG
TTTGGTGTTTCTGGGACATCAGACCTTCGTGTCCCAGCCTGGCTATGTTGGGCTGGAGGGCTTGCCTTACTTCCT
GGAGGAGCCCGAAGACAGGACTGTGGCCGCCAACACCCCCTTCAACCTGAGCTGCCAAGCTCAGGGACCCCCAGA
GCCCGTGGACCTACTCTGGCTCCAGGATGCTGTCCCCCTGGCCACGGCTCCAGGTCACGGCCCCCAGCGCAGCCT
GCATGTTCCAGGGCTGAACAAGACATCCTCTTTCTCCTGCGAAGCCCATAACGCCAAGGGGGTCACCACATCCCG
CACAGCCACCATCACAGTGCTCCCCCAGCAGCCCCGTAACCTCCACCTGGTCTCCCGCCAACCCACGGAGCTGGA
GGTGGCTTGGACTCCAGGCCTGAGCGGCATCTACCCCCTGACCCACTGCACCCTGCAGGCTGTGCTGTCAAACGA
TGGGATGGGCATCCAGGCGGGAGAACCAGACCCCCCAGAGGAGCCCCTCACCTCGCAAGCATCCGTGCCCCCCCA
TCAGCTTCGGCTAGGCAGCCTCCATCCTCACACCCCTTATCACATCCGCGTGGCATGCACCAGCAGCCAGGGCCC
CTCATCCTGGACCCACTGGCTTCCTGTGGAGACGCCGGAGGGAGTGCCCCTGGGCCCCCCTGAGAACATTAGTGC
TACGCGGAATGGGAGCCAGGCCTTCGTGCATTGGCAAGAGCCCCGGGCGCCCCTGCAGGGTACCCTGTTAGGGTA
CCGGCTGGCGTATCAAGGCCAGGACACCCCAGAGGTGCTAATGGACATAGGGCTAAGGCAAGAGGTGACCCTGGA
GCTGCAGGGGGACGGGTCTGTGTCCAATCTGACAGTGTGTGTGGCAGCCTACACTGCTGCTGGGGATGGACCCTG
GAGCCTCCCAGTACCCCTGGAGGCCTGGCGCCCAGGGCAAGCACAGCCAGTCCACCAGCTGGTGAAGGAACCTTC
AACTCCTGCCTTCTCGTGGCCCTGGTGGTATGTACTGCTAGGAGCAGTCGTGGCCGCTGCCTGTGTCCTCATCTT
GGCTCTCTTCCTTGTCCACCGGCGAAAGAAGGAGACCCGTTATGGAGAAGTGTTTGAACCAACAGTGGAAAGAGG
TGAACTGGTAGTCAGGTACCGCGTGCGCAAGTCCTACAGTCGTCGGACCACTGAAGCTACCTTGAACAGCCTGGG
CATCAGTGAAGAGCTGAAGGAGAAGCTGCGGGATGTGATGGTGGACCGGCACAAGGTGGCCCTGGGGAAGACTCT
GGGAGAGGGAGAGTTTGGAGCTGTGATGGAAGGCCAGCTCAACCAGGACGACTCCATCCTCAAGGTGGCTGTGAA
GACGATGAAGATTGCCATCTGCACGAGGTCAGAGCTGGAGGATTTCCTGAGTGAAGCGGTCTGCATGAAGGAATT
TGACCATCCCAACGTCATGAGGCTCATCGGTGTCTGTTTCCAGGGTTCTGAACGAGAGAGCTTCCCAGCACCTGT
GGTCATCTTACCTTTCATGAAACATGGAGACCTACACAGCTTCCTCCTCTATTCCCGGCTCGGGGACCAGCCAGT
GTACCTGCCCACTCAGATGCTAGTGAAGTTCATGGCAGACATCGCCAGTGGCATGGAGTATCTGAGTACCAAGAG
ATTCATACACCGGGACCTGGCGGCCAGGAACTGCATGCTGAATGAGAACATGTCCGTGTGTGTGGCGGACTTCGG
GCTCTCCAAGAAGATCTACAATGGGGACTACTACCGCCAGGGACGTATCGCCAAGATGCCAGTCAAGTGGATTGC
CATTGAGAGTCTAGCTGACCGTGTCTACACCAGCAAGAGCGATGTGTGGTCCTTCGGGGTGACAATGTGGGAGAT
TGCCACAAGAGGCCAAACCCCATATCCGGGCGTGGAGAACAGCGAGATTTATGACTATCTGCGCCAGGGAAATCG
CCTGAAGCAGCCTGCGGACTGTCTGGATGGACTGTATGCCTTGATGTCGCGGTGCTGGGAGCTAAATCCCCAGGA
CCGGCCAAGTTTTACAGAGCTGCGGGAAGATTTGGAGAACACACTGAAGGCCTTGCCTCCTGCCCAGGAGCCTGA
CGAAATCCTCTATGTCAACATGGATGAGGGTGGAGGTTATCCTGAACCCCCTGGAGCTGCAGGAGGAGCTGACCC
CCCAACCCAGCCAGACCCTAAGGATTCCTGTAGCTGCCTCACTGCGGCTGAGGTCCATCCTGCTGGACGCTATGT
CCTCTGCCCTTCCACAACCCCTAGCCCCGCTCAGCCTGCTGATAGGGGCTCCCCAGCAGCCCCAGGGCAGGAGGA
TGGTGCC**TGA**GACAACCCTCCACCTGGTACTCCCTCTCAGGATCCAAGCTAAGCACTGCCACTGGGGAAAACTCC
ACCTTCCCACTTTCCCACCCCACGCCTTATCCCCACTTGCAGCCCTGTCTTCCTACCTATCCCACCTCCATCCCA
GACAGGTCCCTCCCCTTCTCTGTGCAGTAGCATCACCTTGAAAGCAGTAGCATCACCATCTGTAAAAGGAAGGGG
TTGGATTGCAATATCTGAAGCCCTCCCAGGTGTTAACATTCCAAGACTCTAGAGTCCAAGGTTTAAAGAGTCTAG
ATTCAAAGGTTCTAGGTTTCAAAGATGCTGTGAGTCTTTGGTTCTAAGGACCTGAAATTCCAAAGTCTCTAATTC
TATTAAAGTGCTAAGGTTCTAAGGCCTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGCGATAGAGTCTCAC

FIGURE 3749B

TGTGTCACCCAGGCTGGAGTGCAGTGGTGCAATCTCGCCTCACTGCAACCTTCACCTACCGAGTTCAAGTGATTT
TCCTGCCTTGGCCTCCCAAGTAGCTGGGATTACAGGTGTGTGCCACCACACCCGGCTAATTTTTATATTTTTAGT
AGAGACAGGGTTTCACCATGTTGGCCAGGCTGGTCTAAAACTCCTGACCTCAAGTGATCTGCCCACCTCAGCCTC
CCAAAGTGCTGAGATTACAGGCATGAGCCACTGCACTCAACCTTAAGACCTACTGTTCTAAAGCTCTGACATTAT
GTGGTTTTAGATTTTCTGGTTCTAACATTTTTGATAAAGCCTCAAGGTTTTAGGTTCTAAAGTTCTAAGATTCTG
ATTTTAGGAGCTAAGGCTCTATGAGTCTAGATGTTTATTCTTCTAGAGTTCAGAGTCCTTAAAATGTAAGATTAT
AGATTCTAAAGATTCTATAGTTCTAGACATGGAGGTTCTAAGGCCTAGGATTCTAAAATGTGATGTTCTAAGGCT
CTGAGAGTCTAGATTCTCTGGCTGTAAGGCTCTAGATCATAAGGCTTCAAAATGTTATCTTCTCAAGTTCTAAGA
TTCTAATGATGATCAATTATAGTTTCTGAGGCTTTATGATAATAGATTCTCTTGTATAAGATCCTAGATCCTAAG
GGTCGAAAGCTCTAGAATCTGCAATTCAAAAGTTCCAAGAGTCTAAAGATGGAGTTTCTAAGGTCCGGTGTTCTA
AGATGTGATATTCTAAGACTTACTCTAAGATCTTAGATTCTCTGTGTCTAAGATTCTAGATCAGATGCTCCAAGA
TTCTAGATGATTAAATAAGATTCTAACGGTCTGTTCTGTTTCAAGGCACTCTAGATTCCATTGGTCCAAGATTCC
GGATCCTAAGCATCTAAGTTATAAGACTCTCACACTCAGTTGTGACTAACTAGACACCAAAGTTCTAATAATTTC
TAATGTTGGACACCTTTAGGTTCTTTGCTGCATTCTGCCTCTCTAGGACCATGGTTAAGAGTCCAAGAATCCACA
TTTCTAAAATCTTATAGTTCTAGGCACTGTAGTTCTAAGACTCAAATGTTCTAAGTTTCTAAGATTCTAAAGGTC
CACAGGTCTAGACTATTAGGTGCAATTTCAAGGTTCTAACCCTATACTGTAGTATTCTTTGGGGTGCCCCTCTCC
TTCTTAGCTATCATTGCTTCCTCCTCCCCAACTGTGGGGGTGTGCCCCCTTCAAGCCTGTGCAATGCATTAGGGA
TGCCTCCTTTCCCGCAGGGGATGGACGATCTCCCACCTTTCGGGCCATGTTGCCCCCGTGAGCCAATCCCTCACC
TTCTGAGTACAGAGTGTGGACTCTGGTGCCTCCAGAGGGGCTCAGGTCACATAAAACTTTGTATATCAACGA

FIGURE 3750

CGGACGAGGCACGAGTGAGGGGGGAGGCGGTGGCGGCGGCCATTTTGAGCCGCTGCCGCCATTGGAGTGGGCCCC
CCCCCTTTCCCCCTTCGCCTCCTGACAGGAAAGGTTTAAGGGGGACAGAGCCCTGGGAGGCCGGGCCGGGCTCGG
GGGCCACCCCGGGGGCCCGGGCC**ATG**GATGTGCGCCGTCTGAAGGTGAACGAACTTCGCGAGGAGCTGCAGCGCC
GCGGCCTGGACACTCGAGGCCTCAAGGCCGAGCTTGCTGAGCGGCTGCAGGCGGCGTTGGAGGCCGAGGAGCCTG
ACGACGAGCGGGAGCTCGACGCCGACGACGAACCGGGGCGACCCGGGCACATCAACGAGGAGGTCGAGACCGAGG
GGGGCTCCGAGCTGGAGGGGACCGCGCAGCCACCGCCGCCCGGGCTGCAGCCGCACGCGGAGCCCGGCGGCTACT
CGGGGCCGGACGGACATTATGCCATGGACAATATTACCAGGCAGAACCAATTCTACGATACCCAAGTCATCAAAC
AAGAAAACGAGTCAGGCTACGAGAGGAGACCACTGGAAATGGAGCAGCAGCAGGCCTATCGTCCAGAAATGAAGA
CAGAGATGAAGCAAGGAGCACCCACCAGCTTCCTCCCGCCTGAAGCTTCTCAACTCAAGCCAGACAGGCAGCAAT
TCCAGAGTCGAAAGAGGCCTTATGAAGAAAACCGGGGACGGGGGTACTTTGAGCACCGAGAGGATAGGAGGGGCC
GCTCTCCTCAGCCTCCTGCTGAAGAGGATGAAGATGACTTTGATGATACCCTTGTTGCTATTGACACCTATAACT
GCGACCTCCACTTCAAGGTGGCCCGAGATCGGAGTAGTGGCTATCCGCTCACAATTGAGGGCTTTGCATACCTGT
GGTCAGGAGCCCGTGCCAGCTATGGGGTCAGAAGGGGCCGTGTATGCTTCGAGATGAAGATCAATGAGGAAATCT
CCGTGAAGCACCTTCCGTCTACAGAGCCTGACCCCCACGTGGTCCGTATCGGCTGGTCCCTGGACTCCTGCAGCA
CCCAGCTAGGCGAAGAGCCTTTCTCCTATGGCTATGGAGGCACTGGGAAGAAGTCCACCAATAGCCGGTTTGAAA
ACTACGGAGACAAGTTTGCAGAGAACGATGTGATTGGCTGCTTTGCGGATTTTGAATGTGGAAATGACGTGGAAC
TGTCTTTTACCAAGAATGGAAAGTGGATGGGCATTGCTTTCCGAATCCAGAAGGAAGCCTTGGGGGGTCAGGCCC
TCTATCCTCATGTCCTGGTGAAGAATTGCGCAGTGGAGTTCAACTTCGGACAGAGAGCAGAGCCCTACTGTTCTG
TCCTCCCGGGGGTTTACCTTCATCCAGCACCTTCCCCTTAGTGAGCGTATCCGGGGCACCGTTGGACCAAAGAGCA
AGGCAGAATGTGAGATTCTGATGATGGTGGGCCTGCCTGCTGCTGGCAAGACCACATGGGCCATCAAACATGCAG
CCTCCAACCCTTCCAAGAAGTACAACATCCTGGGTACCAATGCCATCATGGATAAGATGCGGGTGATGGGCCTAC
GCCGGCAGCGGAACTATGCTGGCCGCTGGGATGTCCTGATCCAGCAGGCCACCCAGTGCCTCAACCGCCTCATCC
AGATTGCTGCCCGCAAGAAACGCAACTATATCCTAGATCAGACAAATGTTTATGGGTCAGCCCAGAGACGAAAAA
TGAGACCATTTGAAGGCTTCCAGCGCAAAGCTATTGTAATTTGTCCCACTGACGAGGACCTAAAAGACCGAACAA
TAAAGCGAACCGACGAGGAAGGGAAGGATGTCCCAGATCATGCGGTCTTAGAAATGAAAGCCAACTTCACGTTGC
CAGATGTTGGGGACTTCCTGGATGAGGTTCTGTTCATTGAGCTGCAGCGGGAGGAAGCGGACAAGCTAGTGAGGC
AGTACAACGAGGAAGGCCGCAAGGCTGGGCCACCCCCTGAAAAGCGCTTTGACAACCGAGGTGGTGGTGGCTTCC
GGGGCCGCGGGGGGTGGTGGTGGCTTCCAGCGCTATGAAAACCGAGGACCCCCTGGAGGCAACCGTGGCGGCTTCC
AGAACCGAGGGGGAGGCAGCGGTGGAGGAGGCAACTACCGAGGAGGTTTCAACCGCAGCGGAGGTGGTGGCTATA
GCCAGAACCGCTGGGGTAACAACAACCGGGATAACAACAACTCCAACAACAGAGGCAGCTACAACCGGGCTCCCC
AGCAACAGCCGCCACCACAGCAGCCTCCGCCACCACAGCCACCACCCCAGCAGCCACCGCCACCACCCAGCTACA
GCCCTGCTCGGAACCCCCCAGGGGCCAGCACCTACAATAAGAACAGCAACATCCCTGGCTCAAGCGCCAATACCA
GCACCCCCACCGTCAGCAGCTACAGCCCTCCACAGCCGAGTTACAGCCAGCCACCCTACAACCAGGGAGGTTACA
GCCAGGGCTACACAGCCCCACCGCCTCCACCTCCACCACCACCTGCCTACAACTATGGGAGCTACGGCGGTTACA
ACCCGGCCCCCTATACCCCACCGCCACCCCCCACTGCACAGACCTACCCTCAGCCCAGCTATAACCAGTATCAGC
AGTATGCCCAGCAGTGGAACCAGTACTATCAGAACCAGGGCCAGTGGCCGCCATACTACGGGAACTACGACTACG
GGAGCTACTCCGGGAACACACAGGGTGGCACAAGTACACAG**TAG**CCAGTGTGACCCAGAGGCTCCCGGAGGCCCC
TGCCGGCTTCCTCCACCAGCGCCTGCCTCGGCCCCTCCTCTGCCCCCGCCAGATCCCGTGGTGCTGGGGATGGGG
TCATCCCAGGGCTGCCTCCCTCCAGCCCACTGCCTCCCCTCTGAGGGGCTTCCTTCCCCTCCATAGGGCCAGGCA
TTTTTTTCTGGATTCAAACAGGCAACAATGACCTTTTATTTTCTGTTTGTCCCCACCTCCCCAGCCTTCCACCTC
CTGTTCTTCCTACCTTCTTCCTTTTTGACTAAATAATCCCCACCTCCCTTGATCATACAGTGAGGCTACAGTGAC
TGAGGGGAGAATCCCCTCCTGTTCACTCTCCCAACCCTGCTCCAGCCCCTCAGCTTCCCAGACCCTCATGCAGTT
GGTTGTAAATTCTCCCAGGAGCTGTTTTACTGTCTACTTTTCAGGATTAAAAAAAAAATCAAAACTTAAAAAAAA
AAAAGTTTAAAAAGCAAAATGGGGAGGGGGAGGAAGCAGTGACTTTTTTTTGGTAATTATGCGCTTTTTTTTAAT
TTTTAGAATTTGTCTTTTTACTGTGGGTGGGCTGTTGATATTTCATCAAGATAAGCATTTCTTTCCTGAGTTCAG
GTGACTGAGGAAGAGCCACAAAACAAAACACAACAAAACCAAACC

FIGURE 3751

GCCTGGGCGCAGCGGTGCACCCGGACCCGGAACATTCTCAGGCGAAAGTGTCTCTTGCGTGCGTGGGCCGGAGGT
TAGTGTGCGGGGCCCGCCGGGCGGTTGAAAAGTCCGAGAGAATCAGG**ATG**GAGGCCGTGGCGACGGCGACGGCGG
CGAAGGAACCCGATAAGGGCTGCATAGAGCCTGGACCTGGGCACTGGGGTGAGCTGAGCCGGACACCAGTCCCAT
CTAAACCCCAGGACAAAGTGGAAGCAGCTGAGGCAACACCAGTGGCCCTGGACAGTGACACCTCCGGGGCTGAAA
ATGCAGCAGTGAGTGCTATGCTGCACGCTGTAGCCGCCAGCCGCCTGCCTGTTTGCAGCCAGCAGCAGGGTGAAC
CCGACTTGACAGAGCATGAGAAAGTGGCCATCCTGGCCCAGCTGTACCACGAGAAGCCACTGGTGTTCCTGGAGC
GCTTCCGCACAGGCCTCCGTGAGGAGCATCTGGCCTGCTTTGGCCACGTGCGTGGCGACCACCGTGCAGACTTCT
ACTGTGCTGAGGTGGCCCGGCAGGGCACTGCCCGGCCCCGCACCCTGCGTACCCGCCTGCGTAACCGGCGCTATG
CTGCCCTGCGAGAGCTGATCCAAGGGGGCGAGTACTTCAGTGATGAGCAGATGCGGTTCCGGGCCCCCCTGCTAT
ATGAGCAGTACATCGGGCAGTATCTCACCCAGGAGGAGCTCAGTGCCCGCACCCCAACCCACCAGCCCCCCAAGC
CCGGGTCCCCCGGGAGACCTGCTTGCCCGCTCTCCAACTTGCTGCTCCAGTCCTACGAGGAGCGGGAGCTACAGC
AGCGTCTGCTCCAACAGCAGGAGGAGGAGGAGGCCTGCTTGGAGGAAGAGGAAGAGGAGGAGGACAGTGACGAGG
AAGACCAGAGGTCAGGCAAGGACTCGGAGGCCTGGGTTCCCGACTCGGAGGAGAGGCTGATCCTGCGAGAGGAGT
TCACCAGCCGCATGCACCAGCGCTTCCTAGATGGCAAGGACGGGGACTTTGACTACAGCACAGTAGACGACAACC
CCGACTTCGACAACCTCGACATCGTGGCACGGGATGAGGAGGAGAGGTACTTTGATGAGGAAGAACCTGAGGATG
CGCCCAGCCCAGAGCTGGATGGGGAC**TGA**TGGCCGCCACCCTTCCCACCGCCTGCCCCATCCCCATCCCCAACAA
GGCAGCTGATTCCAGGCCTGCTCAGTGACCCTTTCTCTAGGGGGACATCAGGGCAGTGCCCCACAACCCACACAC
ACCACCATCTCACTGGGTCTAGTCTCATCTCAGACAACCCCCACCCCCACTGTTTCTGGGGTTCCCTTTCTCATC
TCTCCCACCCTGTCTCCTGCCTCTGTCTTTCTTGGTGTCTGTCTGGGCTTCTTTCTGTCTCTTTCTGTCTTTCTG
TCTCTCTCCCTACCCCCGCTCCCTCTTTCCAGTGCTCTGGCTGGCTGTCTCTCCCTTTCTCCCCCTCTCTCTCTG
CCTTAGGCTCTGTCTCCACCGCAGGGCCCAAGGTGAAAGTCCTCCCCTTGCCGGAGGCCAGCTGGCAGGGCCTTT
CGTGGCTGGAAGTGGCCAGTTTGGTTCCGGTGCTGACCCCTAGGCCCCAGCGCAGCTGCCTCCCGTGCTGTCTGT
CTCCCCCTCTCTGTTTATGTCTGCGCTGTGTCTCACACTCAGAGCCTCCTTGCTTCTGTTAGGTTCCCATCTCTC
CTTCTGCCTCACTCTGGGCCTCTTCTTTCTACTTGTACATTTCCACCTCTCTAGGCCTCTGCTCTCACTGTCCCT
CTCTGTCTGTCTCTCAGCCTTTATCTCTGGGTTTTGATCCCCCACTCCAGGCTCTGGGCCCCTTCTTCCCCCTTC
CCTCAAACCTGGCTGCTATAGGCAGCAGAACCCTGACCACTGAGTAATACAGCCCCAGGGGAGGGAGGAGACCCC
AGGCAGGGAGGATGGGGGCAGCTCTCTTCTCTCCCCAGGACCCAGGCTGTGGATCACGGGGCCTGCCAGCTTGAG
TGTAGAGGGAGGGGGGACTCTACCCTTCTCAGCCCCACCAGCCCCCCTCTGCCCAACCACAATTTTCCCTTCCTC
CGCCTTCCTCTCCCTCTCCTGTTTACACTCCCCAAATGCGCACAGGCTGTTATCATGGGTCCTGAGTCATCCCAC
ACACAGCCTGCCCCAGCGTCCCTGCCCCCAGCTGGCCGCAGGGCCCGCCCCATGGAGCCCCCTGCCGCCCTGGGC
TAATGGGAGCCAGATGGCCGCCTGGTGACTCAGCCACCGGGCCTGTGGGAACCCAGGCGTCCCGCCTTCCCATGC
CCCCACACCCGGCTCCTGCTCCCCCAGCAGACACACACAGGAGGGCCTGGCCACTGTTGAGGGGGCACACAGGGC
AAGGGTCACCAAGTCGGGGCCTAGGGACTCCTCATGCCTCTGAGATGGAATGGTGGTATCCTGCCGTGGCCAAGC
CTGAAGGACCCTCAAAACTGCCTCCTGGAGTCCACGGTTCCTGACCTCCGAGCCTCAGCTATGCCCTCTGGGTCA
ACCAGAATTAGAGCCAGACAGGGAAAGTGAGAGCTGGATGGAGGCAGACAAGATGCTCAGAGCGACTATTAAAGA
ACGAAAGCCTCTGCTACGGAGCGCTTCTGTCCTCTGTCAGGCCCGAGCGAAGTGCCTGACACCGGGTTGGATCCT
CAGATGGCCCCATGAACTAGTGAAGTGGGTCAAAGGAGGCCTGGAAAGATGTTGCTTCCTCAAGGCCACTCGGCC
ATCAGAGGCAGAAATGAAACAGGAACCCAGGCCTAGAATCACAAAGGTCCTAGAAACCACTTGGCTGTCTGGCCT
CTCAGGTGTCAGGGCCATCCAGAGTGAGACAGCATTGGAGGGACAAGTGTGCATGCAGATGTCCTCAGACGGGAA
GGTTTGAGAAGGGTCAGATGGTAGGCGGGCCTAACAAGGGCTCCGTGCTAGCCACTGTCCCGCACACAGACAGGA
TCAGGTCATCTTGATATGGAGATCAGTCCCCAAATCACTGAATTGTCCCAGCAGTGCTATGCCCTAGGTACTACC
AATATCACTCCTCTATTTCCCAGAGGAGGAAGCAGCAGCTAGACTCCAGGACCTTGGGGTCATATCTCTCAGAAA
GCCAAGAGTGCAGGATGAGAGCTGTCTGTCTCTTACCTGCCTGTATTTGTGCCCCATTTTTAAAGAGCAGAGGGC
CTGGGCCACAGGAAAGGTATCAGCCCTTGGTGATAGGCACATTTTTTACCAGTCTATCATTTGGTCATTAAATTT
GTTTACAATATACTTTGCTAT

FIGURE 3752

ACCTCCCTCCGCGGAGCAGCCAGACAGCGAGGGCCCCGGCCGGGGGCAGGGGGGACGCCCCGTCCGGGGCACCCC
CCCGGCTCTGAGCCGCCCGCGGGGCCGGCCTCGGCCCGGAGCGGAGGAAGGAGTCGCCGAGGAGCAGCCTGAGGC
CCCAGAGTCTGAGACGAGCCGCCGCCGCCCCCGCCACTGCGGGGAGGAGGGGGAGGAGGAGCGGGAGGAGGGACG
AGCTGGTCGGGAGAAGAGGAAAAAAACTTTTGAGACTTTTCCGTTGCCGCTGGGAGCCGGAGGCGCGGGGACCTC
TTGGCGCGACGCTGCCCCGCGAGGAGGCAGGACTTGGGGACCCCAGACCGCCTCCCTTTGCCGCCGGGGACGCTT
GCTCCCTCCCTGCCCCCTACACGGCGTCCCTCAGGCGCCCCCATTCCGGACCAGCCCTCGGGAGTCGCCGACCCG
GCCTCCCGCAAAGACTTTTCCCCAGACCTCGGGCGCACCCCCTGCACGCCGCCTTCATCCCCGGCCTGTCTCCTG
AGCCCCCGCGCATCCTAGACCCTTTCTCCTCCAGGAGACGGATCTCTCTCCGACCTGCCACAGATCCCCTATTCA
AGACCACCCACCTTCTGGTACCAGATCGCGCCCATCTAGGTTATTTCCGTGGGATACTGAGACACCCCCGGTCCA
AGCCTCCCCTCCACCACTGCGCCCTTCTCCCTGAGGACCTCAGCTTTCCCTCGAGGCCCTCCTACCTTTTGCCGG
GAGACCCCCAGCCCCTGCAGGGGCGGGGCCTCCCCACCACACCAGCCCTGTTCGCGCTCTCGGCAGTGCCGGGGG
GCGCCGCCTCCCCC**ATG**CCGCCCTCCGGGCTGCGGCTGCTGCCGCTGCTGCTACCGCTGCTGTGGCTACTGGTGC
TGACGCCTGGCCGGCCGGCCGCGGGACTATCCACCTGCAAGACTATCGACATGGAGCTGGTGAAGCGGAAGCGCA
TCGAGGCCATCCGCGGCCAGATCCTGTCCAAGCTGCGGCTCGCCAGCCCCCCGAGCCAGGGGGAGGTGCCGCCCG
GCCCGCTGCCCGAGGCCGTGCTCGCCCTGTACAACAGCACCCGCGACCGGGTGGCCGGGGAGAGTGCAGAACCGG
AGCCCGAGCCTGAGGCCGACTACTACGCCAAGGAGGTCACCCGCGTGCTAATGGTGGAAACCCACAACGAAATCT
ATGACAAGTTCAAGCAGAGTACACACAGCATATATATGTTCTTCAACACATCAGAGCTCCGAGAAGCGGTACCTG
AACCCGTGTTGCTCTCCCGGGCAGAGCTGCGTCTGCTGAGGCTCAAGTTAAAAGTGGAGCAGCACGTGGAGCTGT
ACCAGAAATACAGCAACAATTCCTGGCGATACCTCAGCAACCGGCTGCTGGCACCCAGCGACTCGCCAGAGTGGT
TATCTTTTGATGTCACCGGAGTTGTGCGGCAGTGGTTGAGCCGTGGAGGGGAAATTGAGGGCTTTCGCCTTAGCG
CCCACTGCTCCTGTGACAGCAGGGATAACACACTGCAAGTGGACATCAACGGGTTCACTACCGGCCGCCGAGGTG
ACCTGGCCACCATTCATGGCATGAACCGGCCTTTCCTGCTTCTCATGGCCACCCCGCTGGAGAGGGCCCAGCATC
TGCAAAGCTCCCGGCACCGCCGAGCCCTGGACACCAACTATTGCTTCAGCTCCACGGAGAAGAACTGCTGCGTGC
GGCAGCTGTACATTGACTTCCGCAAGGACCTCGGCTGGAAGTGGATCCACGAGCCCAAGGGCTACCATGCCAACT
TCTGCCTCGGGCCCTGCCCCTACATTTGGAGCCTGGACACGCAGTACAGCAAGGTCCTGGCCCTGTACAACCAGC
ATAACCCGGGCGCCTCGGCGGCGCCGTGCTGCGTGCCGCAGGCGCTGGAGCCGCTGCCCATCGTGTACTACGTGG
GCCGCAAGCCCAAGGTGGAGCAGCTGTCCAACATGATCGTGCGCTCCTGCAAGTGCAGC**TGA**GGTCCCGCCCCGC
CCCGCCCCGCCCCGGCAGGCCCGGCCCCACCCCGCCCCGCCCCCGCTGCCTTGCCCATGGGGGCTGTATTTAAGG
ACACCCGTGCCCCAAGCCCACCTGGGGCCCCATTAAAGATGGAGAGAGGACTGCGGATCTCTGTGTCATTGGGCG
CCTGCCTGGGGTCTCCATCCCTGACGTTCCCCCACTCCCACTCCCTCTCTCTCCCTCTCTGCCTCCTCCTGCCTG
TCTGCACTATTCCTTTGCCCGGCATCAAGGCACAGGGGACCAGTGGGGAACACTACTGTAGTTAGATCTATTTAT
TGAGCACCTTGGGCACTGTTGAAGTGCCTTACATTAATGAACTCATTCAGTCACCATAGCAACACTCTGAGATGC
AGGGACTCTGATAACACCCATTTTAAAGGTGAGGAAACAAGCCCAGAGAGGTTAAGGGAGGAGTTCCTGCCCACC
AGGAACCTGCTTTAGTGGGGGATAGTGAAGAAGACAATAAAAGATAGTAGTTCAGGCCAGGCGGGGTGGCTCACG
CCTGTAATCCTAGCACTTTTGGGAGGCAGAGATGGGAGGATTACTTGAATCCAGGCATTTGAGACCAGCCTGGGT
AACATAGTGAGACCCTATCTCTACAAAACACTTTTAAAAAATGTACACCTGTGGTCCCAGCTACTCTGGAGGCTA
AGGTGGGAGGATCACTTGATCCTGGGAGGTCAAGGCTGCAG

FIGURE 3753

CCTCCCACCTCCCTCCGCGGAGCAGCCAGACAGCGAGGGCCCCGGCCGGGGGCAGGGGGGACGCCCCGTCCGGGG
CACCCCCCCCGGCTCTGAGCCGCCCGCGGGGCCGGCCTCGGCCCGGAGCGGAGGAAGGAGTCGCCGAGGAGGGACG
AGCTGGTCGGGAGAAGAGGAAAAAAACTTTTGAGACTTTTCCGTTGCCGCTGGGAGCCGGAGGCGCGGGGACCTC
TTGGCGCGACGCTGCCCCGCGAGGAGGCAGGACTTGGGGACCCCAGACCGCCTCCCTTTGCCGCCGGGGACGCTT
GCTCCCTCCCTGCCCCCTACACGGCGTCCCTCAGGCGCCCCCATTCCGGACCAGCCCTCGGGAGTCGCCGACCCG
GCCTCCCGCAAAGACTTTTCCCCAGACCTCGGGCGCACCCCCTGCACGCCGCCTTCATCCCCGGCCTGTCTCCTG
AGCCCCCGCGCATCCTAGACCCTTTCTCCTCCAGGAGACGGATCTCTCTCCGACCTGCCACAGATCCCCTATTCA
AGACCACCCACCTTCTGGTACCAGATCGCGCCCATCTAGGTTATTTCCGTGGGATACTGAGACACCCCCGGTCCA
AGCCTCCCCTCCACCACTGCGCCCTTCTCCCTGAGGACCTCAGCTTTCCCTCGAGGCCCTCCTACCTTTTGCCGG
GAGACCCCCAGCCCCTGCAGG**ATGTCC**CACCTCCCTCCGCGGAGCAGCCAGACAGCGAGGGCCCCGGCCGGGGGC
AGGGGGGACGCCCCGTCCGGGGCACCCCCCCGGCTCTGAGCCGCCCGCGGGGCCGGCCTCGGCCCGGAGCGGAGG
AAGGAGTCGCCGAGGAGGGACGAGCTGGTCGGGAGAAGAGGAAAAAAACTTTTGAGACTTTTCCGTTGCCGCTGG
GAGCCGGAGGCGCGGGGACCTCTTGGCGCGACGCTGCCCCGCGAGGAGGCAGGACTTGGGGACCCCAGACCGCCT
CCCTTTGCCGCCGGGGACGCTTGCTCCCTCCCTGCCCCCTACACGGCGTCCCTCAGGCGCCCCCATTCCGGACCA
GCCCTCGGGAGTCGCCGACCCGGCCTCCCGCAAAGACTTTTCCCCAGACCTCGGGCGCACCCCCTGCACGCCGCC
TTCATCCCCGGCCTGTCTCCTGAGCCCCCGCGCATCCTAGACCCTTTCTCCTCCAGGAGACGGATCTCTCTCCGA
CCTGCCACAGATCCCCTATTCAAGACCACCCACCTTCTGGTACCAGATCGCGCCCATCTAGGTTATTTCCGTGGG
ATACTGAGACACCCCCGGTCCAAGCCTCCCCTCCACCACTGCGCCCTTCTCCCTGAGGACCTCAGCTTTCCCTCG
AGGCCCTCCTACCTTTTGCCGGGAGACCCCCAGCCCCTGCAGGG

FIGURE 3754

CAGCCGCACGTGGGCTCGGCGCG**ATG**GAGGAGGAGACGCATACTGACGCCAAAATCCGTGCTGAAAATGGAACAG
GGTCCAGCCCTCGGGGTCCTGGCTGCAGCCTCCGGCACTTTGCCTGCGAACAGAACCTGCTGTCGCGGCCAGATG
GCTCTGCTTCCTTCCTGCAAGGTGACACCTCTGTCCTGGCGGGTGTGTACGGGCCGGCCGAGGTGAAGGTCAGCA
AAGAGATTTTCAACAAGGCCACACTCGAAGTGATCCTGAGGCCGAAGATTGGGCTGCCTGGTGTTGCAGAGAAGA
GCCGGGAGCGGCTGATCAGGAACACGTGCGAGGCGGTGGTGCTGGGCACGTTGCACCCCCGCACCTCCATCACCG
TGGTGCTGCAGGTTGTCAGCGATGCCGGCTCTCTCCTGGCCTGTTGTCTGAATGCCGCCTGCATGGCATTGGTGG
ATGCAGGTGTGCCCATGCGGGCTCTCTTCTGTGGGGTCGCCTGCGCCCTGGACTCTGATGGGACCCTCGTGCTGG
ATCCTACATCCAAGCAAGAAAAGGAGGCCCGGGCAGTCCTGACCTTTGCCCTGGACAGCGTGGAACGGAAGCTGC
TGATGTCCAGCACCAAGGGGCTCTACTCAGACACTGAGCTCCAGCAGTGCCTGGCTGCGGCCCAGGCCGCTTCGC
AACACGTCTTCCGTTTCTACCGGGAATCGCTGCAGAGGCGTTACTCCAAGAGC**TGA**GGCAAGCTGGGGCAAGGGG
CCGCTCCCATTGCCTCCACCCACTCACCCCCTACAGCCTGAAGCAAACCAGCAGCCCAGCCTTGCCTCTCTGACC
CATGGGCTCCTTGAGCCTGCAGCTCTGTAACCACAGGGCTCCTGTGGGGAGGCCTTGGCCTGTGACAGCCCCCAG
GCCTGGGGGCACAGATCCCCCCAGCAAGGATAACATTCAAAGGAGCTCACATTTATGGAATGGATGAATCAATAA
ATTAATTCACTTT

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FIGURE 3755

AGCAAGATGGCGGCTCCCTGGGCGTCCCTGCGCCTGGTCGCCCCCATGTGGAATGGGCGTATCAGGGGCATCCAT
CGCCTGGGTGCGGCAGTGGCCCCAGAGGGCAATCAGAAGAAGAAAAGGACAATACTCCAGTTCCTGACCAACTAT
TTCTACGATGTGGAGGCTCTGAGGGATTACTTGCTCCAAAGGGAGATGTACAAGGTGCATGAGAAAAATCGATCT
TACACCTGGCTGGAGAAGCAACATGGTCCATACGGCGCAGGTGCCTTTTTCATCCTGAAGCAGGGAGGCGCAGTC
AAGTTTCGAGACAAGGAGTGGATCAGGCCAGATAAGTATGGCCATTTCTCTCAGGAGTTCTGGAATTTCTGTGAA
GTGCCTGTCGAAGCTGTGGATGCCGGTGACTGTGACATCAACTACGAGGGCCTGGATAACCTCCTCCGCCTGAAG
GAGCTCCAGTCCTTGTCGCTGCAGCGCTGCTGCCACGTGGACGACTGGTGTCTCAGCCGCCTCTACCCACTGGCC
GACTCGTTGCAGGAGCTCTCGCTGGCCGGTTGCCCCCGCATCTCCGAACGGGGCCTCGCCTGCCTCCACCACCTC
CAGAACCTCCGCAGGCTGGACATCTCGGACCTCCCTGCCGTGTCCAACCCTGGCCTCACTCAGATATTGGTGGAG
GAGATGCTGCCCAATTGCGAGGTTGTGGGAGTCGACTGGGCTGAGGGCCTGAAGTCAGGGCCGGAGGAGCAGCCT
CGGGACACAGCCAGCCCTGTCCCTGCCTAGCCTTTAGCCCTGTCCCCACTCACGTGGCTTCTCAGCGGGCTGCAT
GGAATGTCTGGTAGCTCACCACACTTCTGGCTTCCATTTGTCTTCACTCAACGTCAGGGTGGGGGAGTGGTGCTG
GCCAATCACAGGAGAGAGCGTGAGTTCCCAGTATTTATTCCTGGCTGCCCTTGGCTAAAGGTCACAGCTCCTGTC
ACCCTGTCAGGCAGCCCTTTCCATGCCCCTGTTCAGGCCTGGGGAGGTAAAGGCTCAGGCTGTTAGTAGCCGCAG
AGAGCCACACTCACCTTGTCAGGAGACTCTTCTCAAACTGTCCTTATGTGAGTGCACTGCCATTTCTTGCAGGGA
CCCTGACTGACACAGGGGCTACTACTGACACTTTACAGGGATGGTTCTCCCCCGTGCAGGGCCGCTGTGCCCACT
GCAGGACATGCAGCATCCTTCGCCCCACTCCACTCACTAAAGGCCAGCGCACCCCAGGCCCCATAGTATTGCTGG
TTATGGATTTATTGACTTTATGTTCCAAATTCAGCTTTTTCAGTTGGCTGTTTTTTGAAAGGGGATAAGCTTTGT
CAGTAGAGGGCACCAAACAGGCATTATAGGAGGAAAGGCGCCTCCTTCGTGGTTCTTGTTGGTTGTGCTTCTGCC
TCTGGACGCCGCAGTGCATGTGGCTTCCCCAGCACCCAGCTCCTGAAGCACCAGGCGGTCAGCAGCTGCCCTTGG
CACCCTCCAGCCCTCAGAAGTTGCGTAGGAGACACAGCGCCTCCACTGAGGCACCTCTCTGGGAATAACGTTCCC
CAGCACCCCAAATGGATTTCCAGTCAATTCAGAAGCATTTTACCAGTGAAGCCCTCATTATTCCAGTTCACTGTT
AAAGCCAGTAATTCTCTATATTAAACTTTCCCTGTTCAAGTT

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FIGURE 3756

GGAGGCTGCAACGCCGATCGGAGGAGGCAGGAACCGGAGCTCTAGCAGTAGCTGGGTGGGCACC**ATG**GCTGGGAT
CACCACCATCGAGGCGGTGAAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGATGCAGAGGAGCGAGCTGA
GCGCCTCCAGCGAGAAGTTGAGGGAGAAAGGTGGGCCCGGGAACAGGCTGAGGCTGAGGTGGCCTCCTTGAACGT
GGGATCCAGCTGGTTGAAGAGGAGCTGGACCGTGCTCAGGAGCACCTGGCTACTGCCCTGCAAAAGCTGGAAGAA
GCGGAAAAAGCTGCTGATGAGAGTGAGAGAGGTAAGAAGGTTATTGAAAACCGGGCCT**TAA**AAGATGAAGAAAAG
ATGGAACTCCAGGAAATCCAACTCAGAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTG
GCTCGTAAGTTGGTGATCATTGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGGCAGAATCCCTACTC
TCAAAAAGAAGACAAATATGAGGAAGAGATCAAGATTCTTACTGATAAAATAAAGGAGGCGGAGACCCATGCTGA
GTTTGCTGAGAGATCGGTAGCCAAGCTGGAAAAGACAATTGATGACTTGGAAGATAAACTGAAATGCACCAAAGG
GGAGCACCTCTGTACACAAAGGATGCTGGACCAGACTCTTTCTCCTTTCGCCGCCCCCTCCTTCCGCCGCCCGCT
CCTTCCCTGTATCTTTTAAAGTTTCTTTCCCTACCCTGTCCCCATTTTCTGGTAAGGTTTCTAGGAGGTCTGTTA
GGTGTACATCCTACAGCTTATTGGCTTAATATGTACTCTCCTTTGATGTGGTCTACTTGGGGCCGATTGGGAGAA
AGAGAAATCAATAGTGCAACTGTTTTGATAATGAATATTGACAAGTGTCTTTTTGAAATAAAGAACCAGTCC

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FIGURE 3757

CC**ATG**GGGTCCCCTTCAGCCTGTCCATACAGAGTGTGCATTCCCTGGCAGGGGCTCCTGCTCACAGCCTCGCTTT
TAACCTTCTGGAACCTGCCAAACAGTGCCCAGACCAATATTGATGTCGTGCCGTTCAATGTCGCAGAAGGGAAGG
AGGTCCTTCTAGTAGTCCATAATGAGTCCCAGAATCTTTATGGCTACAACTGGTACAAAGGGGAAAGGGTGCATG
CCAACTATCGAATTATAGGATATGTAAAAAATATAAGTCAAGAAAATGCCCCAGGGCCCGCACACAACGGTCGAG
AGACAATATACCCCAATGGAACCCTGCTGATCCAGAACGTCACCCACAATGACGCAGGATTCTATACCCTACACG
TTATAAAAGAAAATCTTGTGAATGAAGAAGTAACCAGACAATTCTACGTATTCTCGGAGCCACCCAAGCCCTCCA
TCACCAGCAACAACTTCAATCCGGTGGAGAACAAAGATATTGTGGTTTTAACCTGTCAACCTGAGACTCAGAACA
CAACCTACCTGTGGTGGGTAAACAATCAGAGCCTCCTGGTCAGTCCCAGGCTGCTGCTCTCCACTGACAACAGGA
CCCTCGTTCTACTCAGCGCCACAAAGAATGACATAGGACCCTATGAATGTGAAATACAGAACCCAGTGGGTGCCA
GCCGCAGTGACCCAGTCACCCTGAATGTCCGCTATGAGTCAGTACAAGCAAGTTCACCTGACCTCTCAGCTGGGA
CCGCTGTCAGCATCATGATTGGAGTACTGGCTGGGATGGCTCTGATA**TAG**CAGCCTTGGTGTAGTTTCTGCATTT
CGGGAAGAGTGTTTTTATTATCCACCTGCAGACTGGACTGGATTCTTCTAGCTCCTTCAATCCCATTTTCTCCTG
TGGCATCACTAAGTATAAGACCTGCTCTCTTCCTGAAGACCTATAAGCTGGAGGTGGACAACTCAATGTAAATTT
CAAGGAAAAACCCTCATGCCTGAGATGTGGGCCACTCAGAGCTAACCAAAATGTTCAACACCATAACTAGAGACA
CTCAAATTGCCAACCAGGACAAGAAGTTGATGACTTCATGCTGTGGACAGTTTTTCCCAAGATGTCCCAAGCCTC
ATCGTGACGAGGCTCTTATCCCACTCCATTTTTCCCTGCTCATGCCTGCCTCTTTAATTTGGTAAGATAATGCTG
TAACTAGAATTTCACAATCAGCGCCTTGTGCAGGTAATTTGACAGAGTGTTGGATGTGTCATGTCATCATGTCAA
ACCCAAATATTTGACCTAAGGGATCCTTTATTCTGCCCAGTGGCTAACTTTAACAACATCCCTAATACAACTGTT
TATTCAAATGCACGGTGGTCCCTGTTAGAGTTAGACCTCTAGACTCACCTGTTCTCACGCCCTGTTTTAATTTAA
CCCAGCTATGGGATGCCAGATAACAGAATTGCTGCCTACTAGCTGAACAGGGAGGAGTTTGTGCAGTTGCTGACA
CTTCTTGTTGCACATAAATAAATACAGTGGGTACTATAGAGACTCAGTTGCAAAAATTAACAAATATGCTGCTTG
ATTAAAATGGGTAGGCTTCTCATGTGGCTCATTCTTTAATCTATTCTCTTTTATTTGGTTTGGTTCATGGGGTCT
CTGCCTATGGATCATACTTCAAACTCTTGGTGTGATCCTCCTGATTGTCACAATATTAGTTACCCTGGTGTGCTG
TATTCTCTAAAACCTTTAAATGTTTGCATGCAGCCATTCGTCAAATGTCAAATATTCTCTCTTTGGCTGGAATGA
CAAAAACTCAAATAAATGTATGATTAGGAGGACATCATAACCTATGAATGATGGAAGTCCAAAATGATGGTAACT
GACAGTAGTGTTAATGCCTTATGTTTAGTCAAACTCTCATTTAGGTGACAGCCTGGTGACTCCAGAATGGAGCCA
GTCATGCTAAATGCCATATACTCACACTGAAACATGAGGAAGCAGGTAGATCCCAGAACAGACAAAATTTTCCTA
AAAACATGAGAGTCCAGGCTGTCTGAGTCAGCACAGTAAGAAAGTCCTTTCTGCTTTAACTCTTAGAAAAAAGTA
ATATGAAGTATTCTGAAATTAACCAATCAGTTTATTTAAATCAATTTATTTATATTCTTCTGTTCCTGGATTCCC
ATTTTACAAAACCCACTGTTCTACTGTTGTATTGCCCAGTAGGAGCTATCACTATATTTTGCAGAATGGAAACTG
CCCTGACTCATGAATCACAAATAAAAGCCAATTGTATCT

FIGURE 3758

CTCAGGGCAGAGGGAGGAAGGACAGCAGACCAGACAGTCACAGCAGCCTTGACAAAACGTTCCTGGAACTCAAGC
TCTTCTCCACAGAGGAGGACAGAGCAGACAGCAGAGACC**ATG**GAGTCTCCCTCGGCCCCTCCCCACAGATGGTGC
ATCCCCTGGCAGAGGCTCCTGCTCACAGCCTCACTTCTAACCTTCTGGAACCCGCCCACCACTGCCAAGCTCACT
ATTGAATCCACGCCGTTCAATGTCGCAGAGGGGAAGGAGGTGCTTCTACTTGTCCACAATCTGCCCCAGCATCTT
TTTGGCTACAGCTGGTACAAAGGTGAAAGAGTGGATGGCAACCGTCAAATTATAGGATATGTAATAGGAACTCAA
CAAGCTACCCCAGGGCCCGCATACAGTGGTCGAGAGATAATATACCCCAATGCATCCCTGCTGATCCAGAACATC
ATCCAGAATGACACAGGATTCTACACCCTACACGTCATAAAGTCAGATCTTGTGAATGAAGAAGCAACTGGCCAG
TTCCGGGTATACCCGGAGCTGCCCAAGCCCTCCATCTCCAGCAACAACTCCAAACCCGTGGAGGACAAGGATGCT
GTGGCCTTCACCTGTGAACCTGAGACTCAGGACGCAACCTACCTGTGGTGGGTAAACAATCAGAGCCTCCCGGTC
AGTCCCAGGCTGCAGCTGTCCAATGGCAACAGGACCCTCACTCTATTCAATGTCACAAGAAATGACACAGCAAGC
TACAAATGTGAAACCCAGAACCCAGTGAGTGCCAGGCGCAGTGATTCAGTCATCCTGAATGTCCTCTATGGCCCG
GATGCCCCCACCATTTCCCCTCTAAACACATCTTACAGATCAGGGGAAAATCTGAACCTCTCCTGCCACGCAGCC
TCTAACCCACCTGCACAGTACTCTTGGTTTGTCAATGGGACTTTCCAGCAATCCACCCAAGAGCTCTTTATCCCC
AACATCACTGTGAATAATAGTGGATCCTATACGTGCCAAGCCCATAACTCAGACACTGGCCTCAATAGGACCACA
GTCACGACGATCACAGTCTATGCAGAGCCACCCAAACCCTTCATCACCAGCAACAACTCCAACCCCGTGGAGGAT
GAGGATGCTGTAGCCTTAACCTGTGAACCTGAGATTCAGAACACAACCTACCTGTGGTGGGTAAATAATCAGAGC
CTCCCGGTCAGTCCCAGGCTGCAGCTGTCCAATGACAACAGGACCCTCACTCTACTCAGTGTCACAAGGAATGAT
GTAGGACCCTATGAGTGTGGAATCCAGAACAAATTAAGTGTTGACCACAGCGACCCAGTCATCCTGAATGTCCTC
TATGGCCCAGACGACCCCACCATTTCCCCCTCATACACCTATTACCGTCCAGGGGTGAACCTCAGCCTCTCCTGC
CATGCAGCCTCTAACCCACCTGCACAGTATTCTTGGCTGATTGATGGGAACATCCAGCAACACACACAAGAGCTC
TTTATCTCCAACATCACTGAGAAGAACAGCGGACTCTATACCTGCCAGGCCAATAACTCAGCCAGTGGCCACAGC
AGGACTACAGTCAAGACAATCACAGTCTCTGCGGAGCTGCCCAAGCCCTCCATCTCCAGCAACAACTCCAAACCC
GTGGAGGACAAGGATGCTGTGGCCTTCACCTGTGAACCTGAGGCTCAGAACACAACCTACCTGTGGTGGGTAAAT
GGTCAGAGCCTCCCAGTCAGTCCCAGGCTGCAGCTGTCCAATGGCAACAGGACCCTCACTCTATTCAATGTCACA
AGAAATGACGCAAGAGCCTATGTATGTGGAATCCAGAACTCAGTGAGTGCAAACCGCAGTGACCCAGTCACCCTG
GATGTCCTCTATGGGCCGGACACCCCCATCATTTCCCCCCCAGACTCGTCTTACCTTTCGGGAGCGAACCTCAAC
CTCTCCTGCCACTCGGCCTCTAACCCATCCCCGCAGTATTCTTGGCGTATCAATGGGATACCGCAGCAACACACA
CAAGTTCTCTTTATCGCCAAAATCACGCCAAATAATAACGGGACCTATGCCTGTTTTGTCTCTAACTTGGCTACT
GGCCGCAATAATTCCATAGTCAAGAGCATCACAGTCTCTGCATCTGGAACTTCTCCTGGTCTCTCAGCTGGGGCC
ACTGTCGGCATCATGATTGGAGTGCTGGTTGGGGTTGCTCTGATA**TAG**CAGCCCTGGTGTAGTTTCTTCATTTCA
GGAAGACTG

FIGURE 3759

ACAGCAGGGCCAACAGTCACAGCAGCCCTGACCAGAGCATTCCTGGAGCTCAAGCTCCTCTACAAAGAGGTGGAC
AGAGAAGACAGCAGAGACC**ATG**GGACCCCCCTCAGCCCCTCCCTGCAGATTGCATGTCCCCTGGAAGGAGGTCCT
GCTCACAGCCTCACTTCTAACCTTCTGGAACCCACCCACCACTGCCAAGCTCACTATTGAATCCACGCCGTTCAA
TGTCGCAGAGGGGAAGGAGGTTCTTCTACTCGCCCACAACCTGCCCCAGAATCGTATTGGTTACAGCTGGTACAA
AGGCGAAAGAGTGGATGGCAACAGTCTAATTGTAGGATATGTAATAGGAACTCAACAAGCTACCCCAGGGCCCGC
ATACAGTGGTCGAGAGACAATATACCCCAATGCATCCCTGCTGATCCAGAACGTCACCCAGAATGACACAGGATT
CTATACCCTACAAGTCATAAAGTCAGATCTTGTGAATGAAGAAGCAACCGGACAGTTCCATGTATACCCGGAGCT
GCCCAAGCCCTCCATCTCCAGCAACAACTCCAACCCCGTGGAGGACAAGGATGCTGTGGCCTTCACCTGTGAACC
TGAGGTTCAGAACACAACCTACCTGTGGTGGGTAAATGGTCAGAGCCTCCCGGTCAGTCCCAGGCTGCAGCTGTC
CAATGGCAACATGACCCTCACTCTACTCAGCGTCAAAAGGAACGATGCAGGATCCTATGAATGTGAAATACAGAA
CCCAGCGAGTGCCAACCGCAGTGACCCAGTCACCCTGAATGTCCTCTATGGCCCAGATGGCCCCACCATTTCCCC
CTCAAAGGCCAATTACCGTCCAGGGGAAAATCTGAACCTCTCCTGCCACGCAGCCTCTAACCCACCTGCACAGTA
CTCTTGGTTTATCAATGGGACGTTCCAGCAATCCACACAAGAGCTCTTTATCCCCAACATCACTGTGAATAATAG
CGGATCCTATATGTGCCAAGCCCATAACTCAGCCACTGGCCTCAATAGGACCACAGTCACGATGATCACAGTCTC
TGGAAGTGCTCCTGTCCTCTCAGCTGTGGCCACCGTCGGCATCACGATTGGAGTGCTGGCCAGGGTGGCTCTGAT
A**TAG**CAGCCCTGGTGTATTTTCGATATTTCAGGAAGACTGGCAGATTGGACCAGACCCTGAATTC

FIGURE 3760

ATGTCTAAGTCAGAGTGTCCCGAAGAGCCTGAACAGCTGAGGAAGCTCTTCATTGGAGGATTGAGCTTTGAAACA
ACTGATAAGAGCCTGAGAAGCCATTTTGAGCAATGGAGAATGCTCACGGACTGTGTGGTGGATAGAAGAGTTGTG
GAACCAAAGAGAGCTGTCTCAAGAGAAGATTCTCAAAGACCAGAACATCACCTAAGAGATTATTTTGAACAGTAT
GGAAAAATTGAAGTGACTGAAATCATGACTGACCGAGGCAGTGGCAAGAAAAGGGGCTTTGCCTTTCTAACCTTT
GATGACCGTGACTCCGTGGGTGGCTATGGCGGTTCCAGTAGCAGCAGTAGCTATGGCAGTGGCAGAAGATTT**TAA**

FIGURE 3761

GTACTTTCGCCATCATAGTATTCTCCACCACTGTTCCTTCCAGCCACGAACGACGCAAACGAAGCCAAGTTCCCC
CAGCTCCGAACAGGAGCTCTCTATCCTCTCTCTATTACACTCCGGGAGAAGGAAACGCGGGAGGAAACCCAGGCC
TCCACGCGCGACCCCTTGGCCCTCCCCTTTACCTCTCCACCCCTCACTAGACACCCTCCCCTCTAGGCGGGGACG
AACTTTCGCCCTGAGAGAGGCGGAGCCTCAGCGTCTACCCTCGCTCTCGCGAGCTTTCGGAACTCTCGCGAGACC
CTACGCCCGACTTGTGCGCCCGGGAAACCCCGTCGTTCCCTTTCCCCTGGCTGGCAGCGCGGAGGCCGCACG**ATG**

CCTGGAGTTACTGTAAAAGACGTGAACCAGCAGGAGTTCGTCAGAGCTCTGGCAGCCTTCCTCAAAAAGTCCGGG
AAGCTGAAAGTCCCCGAATGGGTGGATACCGTCAAGCTGGCCAAGCACAAAGAGCTTGCTCCCTACGATGAGAAC
TGGTTCTACACGCGAGCTGCTTCCACAGCGCGGCACCTGTACCTCCGGGGTGGCGCTGGGGTTGGCTCCATGACC
AAGATCTATGGGGGACGTCAGAGAAACGGCGTCATGCCCAGCCACTTCAGCCGAGGCTCCAAGAGTGTGGCCCGC
CGGGTCCTCCAAGCCCTGGAGGGGCTGAAAATGGTGGAAAAGGACCAAGATGGCGGCCGCAAACTGACACCTCAG
GGACAAAGAGATCTGGACAGAATCGCCGGACAGGTGGCAGCTGCCAACAAGAAGCAT**TAG**AACAAACCATGCTGG
GTTAATAAATTGCCTCATTCGTAAAAAAAAAAAAAAAAAAAA

FIGURE 3762

TGCTGCAACTCAAACTAACCAACCCACTGGGAGAAG**ATG**CCTGGGGGTCCAGGAGTCCTCCAAGCTCTGCCTGCC
ACCATCTTCCTCCTCTTCCTGCTGTCTGCTGTCTACCTGGGCCCTGGGTGCCAGGCCCTGTGGATGCACAAGGTC
CCAGCATCATTGATGGTGAGCCTGGGGGAAGACGCCCACTTCCAATGCCCGCACAATAGCAGCAACAACGCCAAC
GTCACCTGGTGGCGCGTCCTCCATGGCAACTACACGTGGCCCCCTGAGTTCTTGGGCCCGGGCGAGGACCCCAAT
GGTACGCTGATCATCCAGAATGTGAACAAGAGCCATGGGGGCATATACGTGTGCCGGGTCCAGGAGGGCAACGAG
TCATACCAGCAGTCCTGCGGCACCTACCTCCGCGTGCGCCAGCCGCCCCCCAGGCCCTTCCTGGACATGGGGGAG
GGCACCAAGAACCGAATCATCACAGCCGAGGGGATCATCCTCCTGTTCTGCGCGGTGGTGCCTGGGACGCTGCTG
CTGTTCAGGAAACGATGGCAGAACGAGAAGCTCGGGTTGGATGCCGGGGATGAATATGAAGATGAAAACCTTTAT
GAAGGCCTGAACCTGGACGACTGCTCCATGTATGAGGACATCTCCCGGGGCCTCCAGGGCACCTACCAGGATGTG
GGCAGCCTCAACATAGGAGATGTCCAGCTGGAGAAGCCG**TGA**CACCCCTACTCCTGCCAGGCTGCCCCCGCCTGC
TGTGCACCCAGCTCCAGTGTCTCAGCTCACTTCCCTGGGACATTCTCCTTTCAGCCCTTCTGGGGGCTTCCTTAG
TCATATTCCCCCAGTGGGGGGTGGGAGGGTAACCTCACTCTTCTCCAGGCCAGGCCTCCTTGGACTCCCCTGGGG
GTGTCCCACTCTTCTTCCCTCTAAACTGCCCCACCTCCTAACCTAATCCCCCCGCCCCGCTGCCTTTCCCAGGCT
CCCCTCACCCCAGCGGGTAATGAGCCCTTAATCGCTGCCTCTAGGGGAGCTGATTGTAGCAGCCTCGTTAGTGTC
ACCCCCTCCTCCCTGATCTGTCAGGGCCACTTAGTGATAATAAATTCTTCCCAACTGC

FIGURE 3763

GGGCGCCCCGCCGGTCACCTCCGCGCGGACACCAGCCCTGCAGAGCCCAGGGAG**ATG**GAAGACTTCGCCCGAGGG
GCGGCCTCCCCAGGCCCCTCCCGGCCTGGCCTGGTTCCCGTCAGCATCATCGGGGCTGAGGATGAGGATTTTGAG
AACGAGCTGGAGACAAACTCAGAAGAGCAAAACAGCCAGTTCCAGAGCCTGGAGCAGGTGAAGCGGCGCCCAGCC
CACCTCATGGCCCTCCTGCAGCACGTGGCCCTGCAGTTTGAGCCAGGACCCCTGCTTTGCTGTCTGCATGCCGAC
ATGCTGGGCTCACTGGGCCCCAAGGAGGCCAAGAAGGCCTTCCTGGACTTCTACCACAGCTTCCTGGAGAAGACA
GCGGTTCTCCGGGTGCCGGTCCCTCCCAACGTCGCCTTTGAACTTGACCGCACTAGGGCTGACCTCATCTCCGAG
GATGTCCAGCGGCGGTTCGTGCAGGAGGTGGTGCAAAGCCAGCAGGTAGCCGTGGGCCGGCAGCTGGAGGACTTC
CGTTCCAAGCGGCTCATGGGCATGACGCCCTGGGAGCAGGAGCTGGCCCAGCTGGAGGCTTGGGTTGGGCGGGAC
CGAGCCAGCTACGAGGCCCGGGAGCGGCACGTGGCGGAGCGGCTGCTCATGCACCTGGAGGAGATGCAACATACC
ATCTCTACCGACGAAGAAAAGAGTGCTGCCGTGGTCAACGCCATTGGCCTGTACATGCGCCACCTTGGGGTGCGG
ACCAAGAGTGGAGACAAGAAGTCGGGGAGGAACTTCTTCCGGAAAAAGGTGATGGGGAACCGGCGGTCGGACGAG
CCTGCCAAGACCAAGAAGGGGCTGAGCAGCATCCTGGATGCCGCCCGCTGGAACCGGGGAGAGCCCCAGGTTCCA
GATTTTCGACACCTCAAAGCAGAGGTTGATGCCGAGAAGCCAGGTGCTACAGACCGGAAGGGAGGCGTGGGGATG
CCCTCTCGGGACCGGAATATCGGGGCTCCTGGGCAGGACACCCCTGGAGTCTCTCTGCACCCTCTGTCCCTGGAC
AGCCCAGACCGGGAACCAGGTGCTGACGCCCCCCTGGAGCTGGGGGACTCATCCCCGCAGGGCCCAATGAGCCTG
GAGTCCTTGGCGCCCCCAGAGAGTACCGACGAGGGGGCCGAAACCGAGAGCCCCGAGCCTGGAGATGAGGGGGAG
CCGGGGCGGTCGGGACTGGAGCTTGAACCAGAAGAGCCTCCCGGCTGGCGGGAACTCGTCCCCCCAGACACCCTG
CACAGCCTGCCCAAGAGCCAGGTGAAGCGGCAGGAGGTCATCAGCGAGCTGCTGGTGACAGAGGCGGCCCACGTG
CGCATGCTGCGGGTGCTGCACGACCTCTTCTTCCAGCCCATGGCAGAATGCCTGTTCTTCCCCTTGGAGGAGCTG
CAGAACATCTTCCCCAGCCTGGACGAGCTCATCGAGGTGCATTCCCTGTTCCTCGATCGCCTGATGAAGCGGAGG
CAGGAGAGTGGCTACCTCATCGAGGAGATCGGAGACGTGCTGCTGGCCCGGTTTGATGGTGCTGAGGGCTCCTGG
TTCCAGAAAATCTCCTCCCGCTTCTGCAGCCGCCAGTCATTTGCCTTAGAGCAGCTCAAAGCCAAGCAACGCAAG
GACCCTCGGTTCTGTGCCTTCGTGCAGGAAGCTGAGAGCCGCCCGCGGTGCCGCCGCCTGCAGCTGAAGGACATG
ATCCCCACGGAGATGCAGCGGCTGACCAAGTACCCCCTGCTCCTGCAGAGCATCGGGCAGAACACAGAAGAGCCC
ACAGAACGGGAGAAAGTGGAGCTGGCAGCCGAGTGCTGCCGGGAAATTCTACACCACGTCAACCAAGCCGTGCGT
GACATGGAGGACCTGCTGAGGCTCAAGGACTATCAGCGGCGCCTGGACTTGTCCCACCTTCGGCAGAGCAGCGAC
CCTATGCTGAGCGAGTTCAAGAACCTGGACATCACCAAGAAGAAATTGGTCCACGAGGGCCCACTGACGTGGCGG
GTGACTAAGGACAAGGCAGTGGAGGTGCATGTGCTGCTGCTGGACGACCTGCTGCTGCTGCTCCAGCGCCAGGAC
GAGCGGCTGCTGCTCAAGTCCCATAGCCGGACACTGACGCCCACGCCCGATGGCAAGACCATGCTGCGGCCCGTG
CTGCGGCTCACCTCCGCCATGACCCGCGAGGTGGCCACCGATCACAAAGCCTTCTACGTCCTTTTTACCTGGGAC
CAGGAGGCCCAGATATACGAGCTGGTGGCACAGACTGTGTCGGAGCGGAAAAACTGGTGTGCTCTCATCACTGAG
ACTGCCGGATCCCTGAAAGTCCCTGCCCCTGCCTCTCGCCCTAAGCCCCGGCCCAGCCCGAGCAGCACCCGAGAA
CCCCTCCTCAGCAGCTCTGAGAACGGCAATGGTGGCCGAGAGACGTCTCCAGCTGATGCCCGGACCGAGAGAATC
CTCAGTGACCTCCTGCCCTTCTGCAGACCAGGCCCCGAGGGCCAGCTCGCTGCCACGGCCCTTCGGAAAGTGCTG
TCCCTGAAGCAGCTTCTGTTTCCGGCGGAGGAAGACAATGGGGCGGGGCCTCCTCGAGATGGGGATGGGGTCCCA
GGGGGCGGCCCCCTGAGCCCAGCACGGACCCAGGAAATCCAGGAGAACCTGCTCAGCTTGGAGGAGACCATGAAG
CAGCTGGAGGAGTTGGAGGAGGAATTTTGCCGCCTGAGACCCCTCCTGTCTCAGCTTGGGGGGAACTCTGTCCCC
CAGCCTGGCTGCACT**TGA**GGTTCCCGCCCAGGAAGGCCTTTTGCAAGAAGGAGAGGAATGGGGGAGAGGACGTGA
GGGACCACCCCCACCCACACAGCTGCCGCAGCATCTCACACCCCGAGGGCCTGAGGAGAGGGAGCTGTGGGCCAC
GCCTGGGAGGGGCCCAGCTGGGGTTACTGGCCCCGCATGAGCCTCGGCCATCTCTCCCTCCTGCCCTCTGCTTGG
GGGACTCAGGGCTCCATTCTGGAGGGCACCACGGTGACCCGGGCCATCTCAGTATTGCCTGTGGGGGCCACCCCT
CCACCCCCACCCCCAAGTGCCTTCGCTCTGTTTTTATACCCTGAATTGGAGGTTTATTTTTTAATATATATTATC
TAAGAAG

FIGURE 3764

AGCAGCTCTACCCCTCACGACGCAGAC**ATG**GCAGCGCAGAAGGACCAGCAGAAAGATGCCGAGGCGGAAGGGCTG
AGCGGCACGACCCTGCTGCCGAAGCTGATTCCCTCCGGTGCAGGCCGGGAGTGGCTGGAGCGGCGCCGCGCGACC
ATCCGGCCCTGGAGCACCTTCGTGGACCAGCAGCGCTTCTCACGGCCCCGCAACCTGGGAGAGCTGTGCCAGCGC
CTCGTACGCAACGTGGAGTACTACCAGAGCAACTATGTGTTCGTGTTCCTGGGCCTCATCCTGTACTGTGTGGTG
ACGTCCCCTATGTTGCTGGTGGCTCTGGCTGTCTTTTTCGGCGCCTGTTACATTCTCTATCTGCGCACCTTGGAG
TCCAAGCTTGTGCTCTTTGGCCGAGAGGTGAGCCCAGCGCATCAGTATGCTCTGGCTGGAGGCATCTCCTTCCCC
TTCTTCTGGCTGGCTGGTGCGGGCTCGGCCGTCTTCTGGGTGCTGGGAGCCACCCTGGTGGTCATCGGCTCCCAC
GCTGCCTTCCACCAGATTGAGGCTGTGGACGGGGAGGAGCTGCAGATGGAACCCGTG**TGA**GGTGTCTTCTGGGAC
CTGCCGGCCTCCCGGGCCAGCTGCCCCACCCCTGCCCATGCCTGTCCTGCACGGCTCTGCTGCTCGGGCCCACAG
CGCCGTCCCATCACAAGCCCGGGGAGGGATCCCGCCTTTGAAAATAAAGCTGTTATGGGTGTCATTCAGG

FIGURE 3765

GGAGCAGGCGAGAGGCGACGGCGAGAGCTAGAGCGGGCGCAGCGTTAGGGTGGCCGTGCAAGGGGAGCCGTGGCC
CGGGCCCGGGGCGTGCGAGACGGCGGAAGCAGCCCAGGGCCTTGCTGCCGCCATGACTGAGGAATCAGAGGAGAC
AGTCCTGTACATTGAGCACCGCTATGTCTGCTCTGAGTGCAACCAGCTGTATGGATCACTGGAAGAGGTGCTTAT
GCACCAAAACTCCCACGTGCCCCAGCAGCACTTTGAGCTGGTGGGCGTGGCTGATCCCGGAGTCACTGTGGCCAC
AGACACAGCTTCAGGCACGGGCCTCTATCAGACCCTTGTGCAGGAGAGCCAGTACCAGTGCCTGGAGTGTGGTCA
ACTGCTGATGTCACCCAGCCAGCTCCTGGAGCACCAGGAGCTGCACCTGAAGATGATGGCACCCCAGGAGGCAGT
GCCAGCTGAGCCATCACCTAAGGCACCACCCCTGAGCTCCAGCACCATCCACTACGAGTGTGTGGATTGCAAGGC
TCTCTTTGCCAGCCAGGAGCTCTGGCTGAACCACCGGCAGACGCACCTCCGGGCCACACCCACCAAGGCTCCTGC
CCCTGTTGTCCTGGGGTCCCCAGTTGTTCTAGGGCCTCCTGTGGGCCAGGCCCGAGTGGCTGTGGAGCACTCATA
CCGAAAGGCAGAAGAGGGTGGGGAAGGGGCGACTGTCCCATCTGCCGCTGCCACCACCACTGAGGTAGTGACTGA
GGTGGAGCTGCTCCTCTACAAGTGCTCTGAGTGCTCCCAGCTCTTCCAGCTGCCGGCGGATTTCCTGGAGCACCA
GGCCACTCACTTCCCTGCTCCTGTACCCGAGTCTCAGGAGCCTGCCTTACAGCAGGAGGTGCAGGCCTCGTCACC
TGCAGAGGTGCCTGTGTCTCAGCCTGACCCCTTGCCAGCTTCTGACCACAGTTACGAGCTGCGCAATGGTGAAGC
CATTGGGCGGGATCGCCGGGGGCGCAGGGCCCGGAGGAACAACAGTGGAGAAGCAGGCGGGGCAGCCACACAGGA
GCTCTTCTGCTCAGCCTGTGACCAGCTCTTTCTCTCACCCCACCAGCTACAGCAGCACCTGCGGAGTCACCGGGA
GGGCGTCTTTAAGTGCCCCCTGTGCAGTCGTGTCTTCCCTAGCCCTTCCAGTCTGGACCAGCACCTTGGAGACCA
TAGCAGCGAGTCACACTTCCTGTGTGTAGACTGTGGCCTGGCCTTCGGCACAGAGGCCCTCCTCCTGGCCCACCG
GCGAGCCCACACCCCGAATCCTCTGCATTCATGTCCATGTGGGAAGACCTTTGTCAACCTTACCAAGTTCCTTTA
TCACCGGCGTACTCATGGGGTAGGGGGTGTCCCTCTGCCCACAACACCAGTCCCACCAGAGGAACCTGTCATTGG
TTTCCCTGAGCCAGCCCCAGCAGAGACTGGAGAGCCAGAGGCCCCTGAGCCCCCTGTGTCTGAGGAGACCTCAGC
AGGGCCCGCTGCCCCAGGCACCTACCGCTGCCTCCTGTGCAGCCGTGAATTTGGAAAGGCCTTGCAGCTGACCCG
GCACCAACGTTTTGTGCATCGGCTGGAGCGGCGCCATAAATGCAGCATTTGTGGCAAG**ATG**TTCAAGAAGAAGTC
TCACGTGCGTAACCACCTGCGCACACACACAGGGGAGCGGCCCTTCCCCTGCCCTGACTGCTCCAAGCCCTTCAA
CTCACCTGCCAACCTGGCCCGCCACCGGCTCACACACACAGGAGAGCGGCCCTACCGGTGTGGGGACTGTGGCAA
GGCTTTCACGCAAAGCTCCACACTGAGGCAGCACCGCTTGGTGCATGCCCAGCACTTCCCCTACCGCTGCCAGGA
ATGTGGGGTGCGTTTTCACCGTCCTTACCGCCTGCTCATGCACCGCTACCATCACACAGGTGAATACCCCTACAA
GTGTCGCGAGTGCCCCCGCTCCTTCTTGCTGCGTCGGCTGCTGGAGGTGCACCAGCTCGTGGTCCATGCCGGGCG
CCAGCCCCACCGCTGCCCATCCTGTGGGGCTGCCTTCCCCTCCTCACTGCGGCTCCGGGAGCACCGCTGTGCAGC
CGCTGCTGCCCAGGCCCCACGGCGCTTTGAGTGTGGCACCTGTGGCAAGAAAGTGGGCTCAGCTGCTCGACTGCA
GGCACACGAGGCGGCCCATGCAGCTGCTGGGCCTGGAGAGGTCCTGGCTAAGGAGCCCCCTGCCCCTCGAGCCCC
ACGGGCCACTCGTGCACCAGTTGCCTCTCCAGCAGCCCTTGGAAGCACTGCTACAGCATCCCCTGCGGCCCCTGC
CCGCCGCCGGGGTCTAGAGTGCAGCGAGTGCAAGAAGCTGTTCAGCACAGAGACGTCACTGCAGGTGCACCGGCG
CATCCACACAGGTGAGCGGCCATACCCATGTCCAGACTGTGGCAAAGCGTTCCGTCAGAGTACCCACCTGAAAGA
CCACCGGCGCCTGCACACAGGTGAGCGGCCCTTTGCCTGTGAAGTGTGTGGCAAGGCCTTTGCCATCTCCATGCG
CCTGGCAGAACATCGCCGCATCCACACAGGCGAACGACCCTACTCCTGCCCTGACTGTGGCAAGAGCTACCGCTC
CTTCTCCAACCTCTGGAAGCACCGCAAGACCCATCAGCAGCAGCATCAGGCAGCTGTGCGGCAGCAGCTGGCAGA
GGCGGAGGCTGCCGTTGGCCTGGCCGTCATGGAGACTGCTGTGGAGGCGCTACCCCTGGTGGAAGCCATTGAGAT
CTACCCTCTGGCCGAGGCTGAGGGGGTCCAGATCAGTGGC**TGA**CTCTGCCCGACTTCCTCTTTGGCACCTCCATT
CCCTGTTGCTGAAGGCCCTCCAGCATCCCCTTAAGCATCTGTACATACTGTGTCCCTTCCTCTTCCCATCCCCAC
CACCTTGTAAGTTCTAAATTGGATTTATTCTCTCGTGAGGGGGGTGCTCTGGGGTCCTTGACACACATAAAGGTG
CCCCCCCACCTTCCACCTCTTAGCACTGGTGACCCCAAAAATGAAACCATCAATAAAGACTGAGTTGCC

FIGURE 3766

GCGCGAGTTGGGGGAAGGAGGAGGGGCGAGGTGACGCAGGCGTAATAATAGAGAAGGTGCCAGAAAGATCCAAAA
CAAGTGGCTGCGGCCGTCGCCCAGGAGTCATCGGACGCCAGAATCTGGCCGGGTTCTGAGCTTGTTCCGCCTCCC
TCCCCCGGGA**ATG**GCGCTATCCGGGTCGACCCCGGCCCCGTGCTGGGAGGAGGATGAGTGCCTGGACTACTACGG
GATGCTGTCGCTTCACCGTATGTTCGAGGTGGTGGGCGGGCAACTGACCGAGTGCGAGCTGGAGCTCCTGGCCTT
TCTGCTGGATGAGGCTCCTGGCGCCGCCGGAGGCTTAGCCCGGGCCCGCAGCGGCCTAGAGCTCCTGCTGGAGCT
GGAGCGCCGCGGGCAGTGCGACGAGAGCAACCTGCGGCTGCTGGGGCAACTCCTGCGCGTGCTGGCCCGCCACGA
CCTGCTGCCGCACCTGGCGCGCAAGCGGCGCCGGCCAGTGTCTCCAGAACGCTATAGCTATGGCACCTCCAGCTC
TTCAAAGAGGACAGAGGGTAGCTGCCGTCGCCGTCGGCAGTCAAGCAGTTCTGCAAATTCTCAGCAGGGTCAGTG
GGAGACAGGCTCCCCCCCAACCAAGCGGCAGCGGCGGAGTCGGGGCCGGCCCAGTGGTGGTGCCAGACGGCGGCG
GAGAGGGGCCCCAGCCGCACCCCAGCAGCAGTCAGAGCCCGCCAGACCTTCCTCTGAAGGCAAAGTGACCTGTGA
CATCCGGCTCCGGGTTCGAGCAGAGTACTGCGAGCATGGGCCAGCCTTGGAGCAGGGCGTGGCATCCCGGCGGCC
CCAGGCGCTGGCGCGGCAGCTGGACGTGTTTGGGCAGGCCACCGCAGTGCTGCGCTCAAGGGACCTGGGCTCTGT
GGTTTGTGACATCAAGTTCTCAGAGCTCTCCTATCTGGACGCCTTCTGGGGCGACTACCTGAGTGGCGCCCTGCT
GCAGGCCCTGCGGGGCGTGTTCCTGACTGAGGCCCTGCGAGAGGCTGTGGGCCGGGAGGCTGTTCGCCTGCTGGT
CAGTGTGGATGAGGCTGACTATGAGGCTGGCCGGCGCCGCCTGTTGCTGATGGAGGAGGAAGGGGGGCGGCGCCC
GACAGAGGCCTCC**TGA**TCCAGGACTGGCAGGATTGATCCCACCTCCAAGTCTCCGGGCCACCTTCTCCTGGGAGG
ACGACCATCTCTACCCCTAGAGGACTGTCACTCTAGCATCTTTGAGGACTGCGACAGGACCGGGACAGCAGGCCC
CTTGACAGCCCCTCCCACAGGATGTGGGCTCTGAGGCCTAAACCATTTCCAGCTGAGTTTCCTTCCCAGACTCCT
CCTACCCCCAGGTGTGCCCCCTTAGCCTCCGGAGGCGGGGGCTGGGCCTGTATCTCAGAAGGGAGGGGCACAGCT
ACACACTCACCAAAGGCCCCCCTGCACATTGTATCTCTGATCTTGGGCTGTCTGCACTGTCACAGGTGCACACAC
TCGCTCATGCTCACACTGCCCCTGCTGAGATCTTCCCTGGGCCTCTGCCCTGGCCTGCTTCCCAGCACACACTTC
TTTGGCCTAAGGGCTTCTCTCTCAGGACCTCTAATTTGACCACAACCAACCTGGGCTTCAGCCACATCAGTGGGC
ACTGGAGCTGGGGTGCACATGGGGCCTGCTCACCTTGCCCACACATCTCCAGCCAGCCAGGGCCCTGCCCAGCTT
CAATTTACAGACCTGACTCTCCTCACCTTCCCCCCTGCTGTCCAGAGCTGAACATAGACTTGCACTTGGATGTCA
CCTGGAGTGTCACATGGGAGTGTTATGGCAGCATCATACCAAGGCCTACTGTTGCACATGGGGCCAAAACCAGTA
AACAGCCACCTTCTTGGAAAGGGAATGCAAAGGCTTTGGGGGTGATGGAAAAGACCTTTTACAAATGATACCAAT
TAAACTGCCCTGGAAAGGGCATAGGTGGG

FIGURE 3767A

GTCTGTGTCAAGAGCGGCAGGGGCTGCAGGAGATAAGAGAAACGGGCTGCCGTGGGGTGTGTGTAGGCTTCAGAG
ACATGGGATCACGGAAGACTGAAGCAGAAACAGTGGATTAAGACTTCCTGAGCGATAGCTGGCACTGCCTTCCCC
ACAATGGCAGAGGTGGTGGCTGAGGTGGCCGAGATGCCAACACAGATGTCACCAGGGGCAGTGGAGATGTCAACA
CCTATGTCGGCAGAGATGATGGAGATGTCAACAGAAGTGACTGAGATGACACCTGGGGAGGCCCTTGCCTCATCC
CTCTTCTTCCAGCATCACCAGTTCATGTGCTCTGAGTGTGGCAGCCTCTATAACACACTGGAGGAAGTCCTCTCA
CACCAGGAGCAGCACATGCTTGCTGTCTCAGAGGAGGAGGCACTGACCACACAGAATGTTGGCCTGGAGCCGGAG
CTGGTGCCGGGTGCTGAGGGGCCCTTCCAGTGTGGTGAATGCAGCCAGCTCATCCTCTCCCCTGGGGAGCTCCTG
GCCCACCAGGATGCCCACCTCCGAGAGTCTGCAAACCAGATCCAATACCAGTGCTGGGACTGCCAGGAGCTGTTC
CCCTCGCCCGAGCTGTGGGTGGCTCATCGAAAGGCCCAGCACCTTTCTGCTACGGTAGCTGAGCCACCAGTGCCA
CCTCCTTTGCCTCCCCCAACACCACTGCCTCCACCTTCTCCCCCATCCGAAGTCAAGATGGAGCCCTATGAGTGT
CCTGAGTGCTCTACCCTCTGCGCCACCCCTGAGGAGTTCTTGGAGCATCAGGGCACCCACTTTGACTCCCTAGAG
AAAGAGGAGCGCAATGGGTTGGAGGAGGAGGAAGAGGACGATGAGGAGGATGAAGAAGATGATGAAGAGATGGAG
GATGAGGAGGCCATGGCAGAGGTCGGTGATGATGCTGTGGGAGGTGACGAGTCCACAGCTGGCTGGGCTCAGGGC
TGCGGGGACTGTCCCCAGCACCAGCCCTCAGCAGGGGCTCGCCGGCAACACCGGCGGACGGCTCACAGCCCGGCA
TCTGCCACCCACCCCTTCCACTGCAGCCAGTGTCAGCGCAGTTTCAGCTCCGCCAACCGGCTGCAGGCTCATGGG
CGGGCCCATGTTGGTGGCACACATGAGTGTACAACCTGCTCCAAGGTCTTCAAGAAAGCAGCATCGCTTGAGCAG
CACTTGCGGCTGCATCGCGGGGAAGCCCGCTACCTCTGTGTAGACTGTGGCCGCGGCTTTGGCACAGAACTCACG
TTGGTGGCTCACCGGCGGGCCCACACTGCCAACCCATTGCATCGCTGTCGTTGCGGCAAGACGTTCAGCAACATG
ACCAAGTTCCTCTACCACCGGCGCACTCACGCCGGCAAAAGCGGGGCACCTCCCACAGGAGCAACAGCTCCCCCA
GCTCCAGCGGAGCCCACCCCTCCACCACCACCCCCTGCCCCACCTGCCCAGCTGCCCTGCCCACAGTGCTCCAAG
TCCTTTGCCTCAGCTTCCCGGCTGTCCCGGCACCGGCGTGCAGTACACGGGCCCCCTGAACGGCGTCACCGCTGT
GGGGTTTGTGGCAAGGGCTTCAAGAAGCTGATCCACGTGCGCAACCACCTGCGGACACACACGGGTGAGAGGCCC
TTCCAGTGCCACTCATGTGGCAAGACCTTTGCTTCTTTGGCCAACCTCAGCCGCCACCAGCTGACCCATACGGGT
GCACGTCCCTACCAATGCCTGGACTGTGGCAAGCGCTTCACACAGAGCTCCAACCTGCAGCAGCACCGGCGGTTG
CACTTGCGGCCAGTCGCCTTTGCCCGCGCCCCCCGCCTCCCCATCACTGGTCTCTACAACAAGAGTCCCTACTAC
TGCGGGACTTGTGGCCGCTGGTTCCGCGCCATGGCGGGCTTGCGACTGCATCAGCGGGTCCATGCCCGAGCTCGG
ACTTTGACGCTACAGCCTCCCAGATCACCATCTCCTGCCCCACCCCCACCTCCAGAGCCTCAACAGACTATCATG
TGCACAGAGCTGGGGGAGACCATCGCCATCATTGAGACATCCCAGCCACTGGCGCTTGAGGACACCCTGCAGCTG
TGCCAGGCTGCACTGGGGGCCAGTGAAGCAGGCGGGCTCTTGCAGTTGGACACGGCCTTCGTGTGACGCAGCTGA
AAAGCAACAACAAAAGGGTTTGGTTGCAACAGCCAGTGTGGGTACCTCTGGGGAGAGAGGACCTCCTCTGACAAA
CTGGTCTGGTACCCACCATGTGCCAGGATCCACCCTGGCCTCTTTTTACCCACTGACTCCCCAGAACAACCCTTC
CAGGCTTCTCTTGTCATCTTTCTCTGCCTGAGGGGAAACTGAAGCTCTGAAATGCGATGTGATCTGTACCAGGTC
ACCCAGCTATGCTGCAAAGTGGGTTGGCCAAGGCCCTTTGCACTGCATCACCCTGGTGCCCAGCAACATCAGGTA
ACCTTCACTGAGCACCAAGCTTATGCCAGGTCTGTGCTGGCCACTCTCATATACCTCTTCAGATCCTCTGCTTGT
ACCCCCAGCCCTTGCCTTCCCTGGATTTTGGGCACCCAGGACTTTGCTCTGCCTGGTGGAGGGTACTTGATTTCT
CTGGGCTTCCTTCATCTCAATTCTGACAGTGTGGAAGGAAATCTGTAGGTACCCAGGTCCTCAGCTCCAGACTGG
GTGATGCTGGAGACCCAGGAGCAAGTCAGCACAGGCTCTGCCCACAGGAGGCATGCACAATCTGGTAGGAGAAAC
GCACAAGTACAGATAGCTTGCTCTCTGAGTGTGTCTCATTGATTCATTCAGCCTGTGTGTCCTAAAGCCTCCCTT
CTCCCATACTGGGTGATGCTGGGGGCAGAGATGAGTCAGGCCTAAGGCTTCTCTGGGCTGTGATGGGGATGTGCA
GGGACAGTGGGATCCCAGGAAACAGACCTCCATGGTGGGAGATCAGGAGTTAAGGACTTCCTAGAGAAGGTAGTC
CCTGAAGGAAAAGTAGGAATCTGGCAGTGAAAGAGGAAAAGAACATTCCAGGCAGACAGCACTGCAAGAGGGTGA
GCTCTTGGTGTATTTGGAGACCATCCAGTTATTCATCTGACTGCCTACCTGAGGCAAGCACCACACTTACCACTG
TATGTGTACTATGATCCCAACAGGCTTGTGACATAGATTTCATATTATCCCTGTTGTATAGATTTTTAAAACTGG
TGGCTGGGCGTGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCACGAGGTCAGGA
GATCGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCAGGAGTGGTGG
CGGGCGCCTGTGGTGGCCAGCTACTCAGGAGGCTGAGGCAGGAGAATGGCGTGAACCCGGGAGGCGGAGCTTGCA
GTGAGCCGAGATCGCGCCACTGCACTCCAGCCTGGGCGACAGAGTGAGACTCCCTCTCAAAAGAAAATAAAAATA
AAAATAAACTGGCCAGGTGCGGTGGCTCACGCTTGCAATCCCAGTGCTTTGGGAGACTGAGGCAGGAGGATCACT

FIGURE 3767B

TAAGGCCAGGAGTTCGAGACCAGCCTGGGCAACAGCAAGACCTCATCTCTACAAAACTTAAAAGTTAGCCAGGCC
TGGTGGCACATGCCTGTAATCCGAGTGCTTTGGGAGGCTGAGGCAGGAGGATCACTCGAGCTCAAGAATTCAAGA
CCTGGGCAAGAGAGAGAGACTTTGTCTCTATTAAAAATAAAAATGATTGGCCGAGCATGGTGGTGCACACCAGTA
TTCCCAGCTACTCTGGAGGCTGAGGCGGAGGCAGGATTGCTTGATATGAGGGAGATTGAGGCTGCAGTGAGCTGT
GTTCACACCACTGCACTCCAGTCTGGGCAACAGTGCAAGACCCTGTCACTT

FIGURE 3768

TCTGAGAGGCGAGGCCGGGTGAGGCGGCGAGGGCGGCCCGACGGGCGCGGGACGGGACGGGGCAGCGAGGGCGCC
GGGAGCCGCGGCCCGGAATCGGGGCGCTTCGCCCCGGGCCCCCCAGC**ATG**AAGACCCCGGCGGACACAGGGTTTG
CCTTCCCGGATTGGGCCTACAAGCCAGAGTCGTCCCCTGGCTCAAGGCAGATCCAGCTGTGGCACTTTATCCTGG
AGCTGCTGCGGAAGGAGGAGTACCAGGGCGTCATTGCCTGGCAGGGGGACTACGGGGAATTCGTCATCAAAGACC
CTGATGAGGTGGCCCGGCTGTGGGGCGTTCGCAAGTGCAAGCCCCAGATGAATTACGACAAGCTGAGCCGGGCCC
TGCGCTATTACTATAACAAGCGCATTCTGCACAAGACCAAGGGGAAACGGTTCACCTACAAGTTCAATTTCAACA
AACTGGTGCTGGTCAATTACCCATTCATTGATGTGGGGTTGGCTGGGGGTGCAGTGCCCCAGAGTGCCCCGCCAG
TGCCGTCGGGTGGTAGCCACTTCCGCTTCCCTCCCTCAACGCCCTCCGAGGTGCTGTCCCCCACCGAGGACCCCC
GCTCACCACCAGCCTGCTCTTCATCTTCATCTTCCCTCTTCTCGGCTGTGGTGGCCCGCCGCCTGGGCCGAGGCT
CAGTCAGTGACTGTAGTGATGGCACGTCAGAGCTGGAGGAACCGCTGGGAGAGGATCCCCGCGCCCGACCACCCG
GCCCTCCGGATCTGGGTGCCTTCCGAGGGCCCCCGCTGGCCCGCCTGCCCCATGACCCTGGTGTCTTCCGAGTCT
ATCCCCGGCCTCGGGGTGGCCCTGAACCCCTCAGCCCCTTCCCTGTGTCGCCTCTGGCCGGTCCTGGATCCCTGC
TGCCCCCTCAGCTCTCCCCGGCTCTGCCCATGACGCCCACCCACCTGGCCTACACTCCCTCGCCCACGCTGAGCC
CGATGTACCCCAGTGGTGGCGGGGGGCCCAGCGGCTCAGGGGGAGGCTCCCACTTCTCCTTCAGCCCTGAGGACA
TGAAACGGTACCTGCAGGCCCACACCCAAAGCGTCTACAACTACCACCTCAGCCCCCGCGCCTTCCTGCACTACC
CTGGGCTGGTGGTGCCCCAGCCCCAGCGCCCTGACAAGTGCCCGCTGCCGCCCATGGCACCCGAGACCCCACCGG
TCCCCTCCTCGGCCTCGTCATCCTCTTCTTCTTCTTCCTCCCCATTCAAGTTTAAGCTCCAGCCGCCCCCACTCG
GACGCCGGCAGCGGGCAGCTGGGGAGAAGGCCGTAGCCGGTGCTGACAAGAGCGGTGGCAGTGCAGGCGGGCTGG
CTGAGGGGGCAGGGGCGCTAGCCCCACCGCCCCCGCCACCACAGATCAAGGTGGAGCCCATCTCGGAAGGCGAGT
CGGAGGAGGTAGAGGTGACTGACATCAGTGATGAGGATGAGGAAGACGGGGAGGTGTTCAAGACGCCCCGTGCCC
CACCTGCACCCCCTAAGCCTGAGCCCGGCGAGGCACCCGGGGCATCCCAGTGCATGCCCCTCAAGCTACGCTTTA
AGCGGCGCTGGAGTGAAGACTGTCGCCTCGAAGGGGGTGGGGGCCCCGCTGGGGGCTTTGAGGATGAGGGTGAGG
ACAAGAAGGTGCGTGGGGAGGGGCCTGGGGAGGCTGGGGGGCCCCTCACCCCAAGGCGGGTGAGCTCTGACCTCC
AGCATGCCACGGCCCAGCTCTCCCTGGAGCACCGAGACTCC**TGA**GGGCTGTGGGCAGGGGACCTGTGTGCCCCGC
ACCCCCCATGCTTCTTTTGCTGCCTTAAGCCCCCTATGCCCTGGAGGTGAGGGCAGCTCTCTTGTCTCTTCCCTG
CCTCCTCCCTTTTCCCTCCCCACATTTTGTATAAAACTTTAATTTCTTTTTTTTAAAAATGGTGGGGGTGGGTGG
GTGCCCAGGGCTAGGGGCTATTCCCTGTCTCTGTGGGTTTCTAAGCTCTGGGCAAAGTGGTGGTAGGGGGAGGGA
GGGGGAAGTTAAGGGGGTCACCTCCATTCTGGGGAATTTATATTTGAATTGAGGCTTTGGCCTTAACACCCAGGA
ACTTTTCTATTACAATCGCTTAGGAAGTAAAGCCTTGTCTCCCTCCCTGTTCTCTGCCTCTTGTACCCCTCTGAC
CCACCCGCTCTGCCCCACTCCCAGCCCTCCTCAGCCCCAGCCCTGCCTGCCCTGCCCCTCCAGGGGGCCATGAGT
GCCTAGGTTTCTCATACCCCACAAGGTCACAGCAGGGGAGGGAGGGACAATTTTATAATGAACCAAAAATTCCAT
GTGTTGGGGGGTGGGGGGCGGAGGAGGGTGAGGGGTGCCGCCCATGGGCCACAAATCTCTACAAGTGCCTGCTAT
CCCTCTCCCACTCCCCACCCCAGCACCGGTCCAACCCCTTCATCCCCAGCTGCTCCTAGGACTGGCCCATGGGCA
GGCGGGTGGGGGGGATGGGAAGGGGGTGCCCTGAAACCAAACTGGAAGCCCCCTCTGCCTCCCAGCTGGGGCCTCT
GGGGTGGGGTGGGGGGCTGTGGTCAAGCCTTATTCTGTATTGGGGACTGAGGGTGGGGGGGAGTAGAGGGGCCGCT
GGAGAATGTATTCAAAACAATAAAACTTTGGACCTTTGGA

FIGURE 3769A

GGAGGTGCGAGCCCCTGCCGGGTCCCCCCTGCGCCGGACC**ATG**TATTCGGCCCACAGGCCCCTGATGCCCGCGTC
CAGCGCGGCCTCCCGTGGCCTCGGCATGTTCGTGTGGACGAATGTGGAACCTCGCTCTGTGGCTGTGTTCCCTTG
GCACTCCTTAGTCCCCTTCCTGGCACCCAGCCAGCCTGACCCCTCCGTGCAGCCGAGCGAGGCCCAGCAACCTGC
CAGCCACCCAGTGGCCTCCAACCAGAGCAAAGAACCTGCTGAGTCGGCAGCTGTTGCTCATGAACGGCCACCAGG
TGGGACAGGGAGTGCTGACCCTGAGCGGCCCCCTGGAGCCACATGCCCTGAGAGCCCAGGACCCGGACCCCCACA
CCCTTTGGGGGTGGTGGAATCTGGTAAGGGTCCGCCTCCCACCACGGAGGAGGAGGCCTCCGGCCCCCCAGGAGA
GCCCCGGCTGGACAGTGAGACAGAGAGTGACCATGATGATGCCTTCCTCTCCATCATGTCTCCTGAGATCCAGTT
GCCTCTACCGCCCGGAAAACGTCGGACCCAGTCCCTCAGTGCCCTACCCAAGGAACGGGACTCATCTTCTGAGAA
GGATGGACGCAGCCCCAACAAGCGGGAGAAGGACCACATCCGGCGGCCCATGAATGCCTTCATGATCTTCAGCAA
GCGGCACCGGGCCCTGGTCCACCAGCGTCATCCCAACCAGGACAACCGGACCGTCAGCAAGATCCTGGGCGAGTG
GTGGTATGCCCTGGGGCCCAAGGAGAAGCAGAAGTACCACGACCTGGCCTTCCAGGTGAAGGAGGCCCACTTCAA
GGCCCACCCAGATTGGAAGTGGTGCAACAAGGACCGAAAGAAGTCCAGCTCAGAGGCCAAGCCCACGAGCCTGGG
GCTGGCAGGAGGGCACAAGGAGACGCGGGAGCGGAGCATGTCGGAGACGGGCACTGCTGCTGCCCCTGGGGTGTC
CTCTGAGCTCCTGTCCGTTGCAGCCCAGACACTCCTGAGCTCAGACACCAAGGCTCCGGGGAGCAGCTCCTGTGG
GGCAGAACGGCTACACACAGTTGGGGGACCTGGCTCAGCCCGGCCCCGAGCTTTCTCCCACAGCGGGGTACACAG
CCTGGACGGCGGAGAAGTAGACAGTCAGGCGCTACAGGAACTGACGCAGATGGTGTCTGGCCCTGCATCGTACTC
TGGCCCAAAGCCTTCTACCCAGTATGGAGCTCCAGGACCCTTTGCAGCCCCTGGTGAGGGAGGTGCCTTGGCGGC
CACTGGGCGGCCCCCGCTGCTGCCCACCCGAGCTTCTCGTTCTCAGCGTGCGGCCAGTGAGGACATGACGAGTGA
TGAGGAGCGCATGGTCATCTGTGAGGAGGAAGGGGATGATGATGTCATTGCTGACGATGGCTTCGGCACCACTGA
CATTGATCTCAAGTGCAAGGAGCGGGTGACCGACAGCGAGAGTGGGGACAGCTCTGGGGAGGACCCAGAGGGCAA
CAAGGGCTTTGGTCGGAAGGTGTTTTCACCTGTGATCCGTTCCTCCTTTACCCACTGCCGCCCCCCACTGGACCC
TGAGCCCCCAGGGCCCCCGGATCCTCCTGTAGCCTTTGGCAAAGGCTATGGTTCCGCCCCATCCTCCTCTGCGTC
CTCGCCTGCTTCCTCCTCAGCCTCGGCAGCCACCTCCTTCTCACTGGGCTCAGGAACCTTCAAGGCCCAGGAGTC
TGGTCAGGGCAGCACAGCGGGCCCCCTACGGCCCCCACCCCCTGGGGCTGGGGGTCCAGCGACACCTTCCAAGGC
AACCCGGTTCCTCCCAATGGATCCTGCCACCTTCCGGCGCAAGAGACCCGAAAGTGTGGGTGGCCTGGAGCCACC
AGGCCCCTCAGTCATCGCGGCCCCTCCCAGCGGAGGAGGAAACATCCTGCAGACACTGGTGCTGCCCCCAAACAA
GGAGGAGCAAGAGGGCGGCGGAGCCAGAGTGCCCTCCGCCCCCGCCCCATCACTGGCCTATGGGGCCCCAGCAGC
TCCCCTGTCCCGTCCTGCCGCCACCATGGTCACCAATGTGGTGCGGCCTGTCAGCAGCACTCCTGTGCCCATCGC
CTCTAAGCCCTTCCCCACCTCTGGCCGGGCTGAGGCGTCTCCAAATGACACAGCAGGTGCCAGGACTGAAATGGG
CACTGGGTCTCGGGTGCCTGGGGGCTCCCCGCTGGGTGTCAGCTTAGTGTATTCGGACAAGAAGTCGGCAGCAGC
CACCTCACCAGCCCCACACTTGGTGGCTGGACCCCTGCTGGGCACTGTGGGGAAGGCGCCTGCCACTGTCACTAA
CCTACTGGTGGGCACCCCGGGGTATGGGGCCCCTGCGCCCCCTGCTGTCCAGTTCATTGCCCAGGGGGCCCCTGG
TGGTGGGACCACTGCGGGCTCAGGAGCAGGTGCTGGGAGTGGCCCCAATGGGCCAGTACCCCTGGGCATCCTGCA
ACCAGGTGCCCTGGGCAAGGCTGGGGGAATCACCCAGGTACAGTACATCCTGCCCACGCTGCCCCAGCAGCTTCA
GGTGGCACCTGCCCCAGCACCAGCCCCTGGGACCAAGGCAGCGGCTCCCAGCGGCCCTGCACCCACCACCAGCAT
CCGTTTCACCCTCCCACCGGGCACTTCCACCAACGGCAAAGTCCTGGCTGCCACTGCACCCACTCCTGGCATCCC
CATCCTGCAGTCTGTACCCTCCGCCCCACCCCCCAAAGCCCAGTCAGTTTCTCCCGTGCAGGCCCCGCCCCCGGG
TGGCTCAGCCCAGCTGCTGCCTGGGAAGGTCCTAGTGCCTCTGGCCGCCCCTAGCATGTCAGTGCGGGGTGGAGG
GGCCGGCCAGCCACTGCCACTGGTGAGCCCGCCCTTCTCAGTACCTGTGCAGAATGGTGCCCAGCCCCCCAGCAA
GATCATCCAGCTGACCCCGGTGCCTGTGAGCACACCCAGCGGCCTGGTGCCGCCCCTGAGCCCAGCCACACTCCC
TGGACCCACCTCTCAGCCTCAGAAGGTCCTGTTGCCCTCCTCCACCAGAATCACCTATGTGCAGTCAGCGGGCGG
GCACGCGCTGCCCCTGGGTACCAGCCCTGCGTCCAGCCAGGCTGGAACAGTCACCTCGTACGGGCCCACGAGCTC
TGTAGCTCTAGGCTTCACCTCGCTGGGGCCCAGCGGCCCCGCCTTCGTGCAGCCCCTGCTCTCAGCAGGCCAAGC
CCCACTGCTGGCTCCCGGTCAGGTGGGCGTGTCACCTGTGCCCAGTCCCCAGCTGCCGCCTGCCTGTGCAGCCCC
CGGAGGTCCTGTCATAACAGCATTTTACTCTGGCAGCCCTGCACCCACCTCCTCAGCACCCCTGGCCCAGCCATC
CCAGGCCCCCCCAAGCCTGGTCTACACTGTGGCCACCAGCACAACCCCACCTGCAGCCACCATTCTGCCCAAGGG
CCCGCCAGCCCCTGCCACTGCCACCCCAGCCCCGACTAGCCCTTTCCCCAGCGCCACAGCAGGTTCCATGACCTA
CAGCTTAGTGGCCCCCAAGGCCCAGCGGCCCAGCCCGAAGGCCCCCCAGAAAGTGAAGGCAGCCATCGCCAGCAT

FIGURE 3769B

TCCCGTGGGGTCCTTTGAGGCAGGTGCCTCTGGGCGGCCTGGCCCTGCACCCCGGCAGCCTCTGGAGCCTGGCCC
AGTCCGAGAGCCAACTGCCCCAGAGTCTGAGCTTGAGGGGCAGCCCACACCACCAGCCCCTCCACCCCTGCCAGA
GACCTGGACTCCCACGGCCCGGAGCAGCCCCCCACTGCCCCCACCTGCTGAGGAGCGGACCAGCGCCAAGGGCCC
TGAGACCATGGCCAGCAAATTCCCCAGCTCATCTTCAGACTGGCGCGTCCCTGGGCAGGGCCTGGAGAATCGTGG
GGAGCCTCCCACTCCTCCCAGCCCGGCCCCAGCTCCAGCTGTAGCCCCTGGTGGCAGCAGCGAGAGCAGCAGTGG
GCGGGCAGCCGGGGACACCCCGGAGCGCAAGGAGGCGGCTGGTACTGGCAAGAAGGTGAAGGTGCGGCCCCCGCC
CCTGAAGAAGACCTTTGACTCTGTGGACAACAGGGTCCTGTCAGAAGTGGACTTCGAAGAGCGCTTTGCTGAGTT
GCCTGAGTTTCGGCCTGAGGAGGTGCTGCCCTCCCCCACCCTGCAGTCTCTGGCCACCTCACCCCGGGCCATCCT
GGGCTCTTACCGCAAGAAGAGGAAGAACTCCACGGACCTGGATTCAGCACCCGAGGACCCCACCTCGCCCAAGCG
CAAGATGAGAAGACGCTCCAGCTGCAGCTCGGAGCCCAACACCCCCAAGAGTGCCAAGTGCGAGGGGGACATCTT
CACCTTTGACCGTACAGGTACAGAAGCCGAGGACGTGCTTGGGGAGCTAGAGTATGACAAGGTGCCATACTCCTC
CCTGCGGCGCACCCTGGACCAGCGCCGGGCCCTGGTCATGCAGCTCTTTCAGGACCATGGCTTCTTCCCGTCAGC
CCAGGCCACAGCCGCCTTCCAGGCCCGCTATGCAGACATCTTTCCCTCCAAGGTTTGTCTGCAGTTGAAGATCCG
TGAGGTGCGCCAGAAGATCATGCAGGCTGCCACTCCCACGGAGCAGCCCCCTGGAGCTGAGGCTCCTCTCCCTGT
ACCGCCCCCCACTGGCACCGCTGCTGCCCCTGCCCCCACTCCCAGCCCCGCAGGGGGCCCTGACCCCACCTCACC
CAGCTCGGACTCTGGCACGGCCCAGGCTGCCCCGCCACTGCCTCCACCCCCAGAGTCGGGGCCTGGACAGCCTGG
CTGGGAGGGGGCTCCCCAGCCCTCCCCCCCACCCCCAGGTCCCTCCACAGCTGCCACAGGCAGG**TGA**GGGACCCC
TGAGAAGATGCCAGGACTTATAGTACCCCCTCAGGACATGGACAGTATGTGGGGGCAGGAAGGTTATCTCCTCCC
GGGTAAAGCCATTTCGTCCTCTCCAGTTTGGGGCGGAATGAGGCCTGCTCCTCTTGTAAATACCCCCTTCCCTCG
AAGCTCCCTCCCGGTGCTGGGGGGCAGCTGAGGGGCTGCAGGGGCAGTCTCCCTCCTCCAAGCCCCTGTACATAA
CCTGGAGCGTGTGACCTTCAGAGCTTTTCACTTTATGCAAAATGGCTCCTGTGAGGGCTGCAAGCTGGAGGGTGG
TGCAGGCCTTGGGCCACAGGGAGGCGCCTGTGGAATAGGGGGAGTTCATGCACCCCTTTTTTCCCCAGAGGGGCT
GGACTCAGGTTAGTTTGGGGGTGGGGGCTCCTGCACTTTGCCACAGGCACGGGGAGGGTTTTCTCCTCACCCCCT
CTGCCCTCCCAACTTGGGTTGTACTTTCTAAGAAGGTGATTCCCCCTGCCCTTGCCCCCTTCCCCAGAACAAAAC
ATGTTGATCATGTGCAATATTTCTTACTGTGCCGAGAAGCCGCAATGAGCGAGATTAAAGCTGTTTAACACAC

FIGURE 3770

GCGCGGCCTGGGAGTCAGCGGCCCGAGCGGGAAGCGCCGGGCGAGCCCACTGTGCGGCCGTCGTGGGGGAAGCGA
AGGTTCCTGATTCCACCTACCTCCTAAGTGAAGGCTTCCGTCCCTGGAGAGGAGGCGGCGCCCTGTATCGGCCTT
CGTCCTCCGCGGGTGTGCTAGCGTTGGGACGGTCCTTTGTTGCCGCGAGGGGTAGGAGTGGGCGTGGCGGAGCCA
GCTCCGTTCGGAACACTCCCGGGCCGACCCGACTCGCTCATCCTGCAGGAGCTGCGGCGCCAAG**ATG**AGTGGAGA
GGAGAACCCAGCCAGCAAGCCCACGCCGGTGCAGGACGTACAGGGCGACGGGCGCTGGATGTCCCTGCACCATCG
GTTCGTGGCTGACAGCAAAGATAAGGAACCCGAAGTCGTCTTCATCGGGGACTCCTTGGTCCAGCTCATGCACCA
GTGCGAGATCTGGCGCGAGCTCTTCTCTCCTCTGCATGCACTTAACTTTGGCATTGGTGGTGACGGCACACAGCA
TGTACTGTGGCGGCTGGAGAATGGGGAGCTGGAACACATCCGGCCCAAGATTGTGGTGGTCTGGGTGGGCACCAA
CAACCACGGACACACAGCAGAGCAGGTGACTGGTGGCATCAAGGCCATTGTGCAACTGGTGAATGAGCGACAGCC
CCAGGCCCGGGTTGTGGTGCTGGGCCTGCTTCCGCGAGGCCAACATCCCAACCCACTTCGGGAGAAGAACCGACA
GGTGAACGAGCTGGTACGGGCGGCACTGGCTGGCCACCCTCGGGCCCACTTCCTAGATGCCGACCCTGGCTTTGT
GCACTCAGATGGCACCATCAGCCATCATGACATGTATGATTACCTGCATCTGAGCCGCCTGGGCTACACACCTGT
TTGCCGGGCTCTGCACTCCCTGCTTCTGCGTCTGCTGGCCCAAGACCAGGGCCAAGGTGCTCCCCTGCTGGAGCC
CGCACCC**TAA**GCATCCTGCTGCCTTCCCACAACATTAAACTCTCCTTCCTCAG

FIGURE 3771A

GTGATGGCATCTCACACTGCAACCGCACGTGCTTGGAGGACTGTGGCCATGGTGTGTGCAGTGGCCCCCCGGACT
TTACCTGCGTGTGTGACCTAGGCTGGACATCAGACCTGCCCCCTCCCACACCCGCCCCGGGTCCGCCAGCCCCCC
GCTGCTCCCGGGACTGTGGCTGCAGCTTCCACAGCCACTGCCGCAAGCGGGGCCCTGGCTTCTGCGACGAGTGCC
AGGACTGGACATGGGGGGAGCACTGCGAACGATGCCGGCCCGGCAGCTTCGGCAACGCCACAGGCTCTAGGGGCT
GCCGGCCCTGCCAGTGCAACGGGCACGGGGACCCACGCCGTGGCCACTGCGACAACCTCAGTGGGCTCTGCTTCT
GCCAGGACCACACCGAGGGTGCCCACTGCCAGCTCTGCTCCCCAGGCTATTATGGGGATCCCCGGGCCGGTGGTT
CCTGCTTTCGGGAGTGTGGGGGTCGCGCCCTCCTCACCAACGTGTCCTCAGTGGCACTGGGCTCACGCCGGGTCG
GGGGGCTGCTGCCTCCAGGTGGCGGGGCTGCAAGAGCCGGGCCTGGCCTGTCCTACTGTGTGTGGGTTGTCTCGG
CCACTGAGGAGCTACAGCCCTGTGCTCCCGGGACCCTCTGTCCCCCACTCACCCTCACCTTCTCCCCCGACAGCA
GCACCCCCTGCACGCTGAGCTACGTCCTGGCGTTTGATGGATTCCCACGCTTCCTGGACACTGGTGTTGTCCAGT
CGGACCGCAGCCTCATAGCTGCCTTCTGCGGCCAGCGACGGGACAGGCCCCTCACTGTTCAGGCCCTGTCTGGGC
TGCTCGTGCTGCACTGGGAGGCCAATGGCTCCTCATCCTGGGGCTTCAATGCTTCGGTGGGCTCTGCCCGCTGTG
GGTCAGGGGGCCCCGGGAGCTGTCCCGTCCCCCAGGAATGCGTGCCCCAGGACGGTGCTGCAGGTGCGGGGCTCT
GCCGATGTCCTCAGGGCTGGGCTGGCCCACACTGCCGC**ATG**GCTCTGTGTCCTGAGAACTGCAATGCCCACACTG
GGGCAGGAACTTGTAACCAGAGCCTGGGTGTGTGCATCTGTGCCGAGGGCTTCGGGGGCCCCGACTGCGCCACCA
AGCTGGATGGCGGGCAGCTGGTCTGGGAGACCCTCATGGACAGCCGCCTCTCAGCCGACACTGCCAGCCGCTTCC
TGCACCGCCTGGGCCACACCATGGTGGATGGACCCGATGCCACCTTGTGGATGTTTGGGGGCCTGGGCCTGCCCC
AGGGGCTGCTGGGAAACCTGTACAGGTACTCAGTGAGTGAGCGGCGGTGGACACAGATGCTGGCGGGAGCCGAGG
ACGGGGGCCCAGGCCCATCGCCCCGCTCCTTCCATGCAGCCGCATATGTGCCCGCTGGCCGTGGTGCCATGTATC
TGCTGGGGGGACTTACCGCTGGAGGCGTCACCCGTGATTTCTGGGTCCTCAACCTCACCACCCTGCAATGGCGGC
AGGAGAAGGCCCCCCAGACCGTGGAGCTGCCAGCCGTTGCTGGTCACACCCTTACTGCCCGCCGAGGCCTGTCTC
TGCTCCTGGTGGGCGGTTACTCCCCGGAAAATGGCTTCAACCAGCAGCTGCTGGAGTACCAGCTGGCAACCGGCA
CCTGGGTGTCAGGAGCCCAGAGTGGGACACCCCCCACAGGTCTCTATGGTCACTCTGCTGTCTACCACGAGGCCA
CCGACTCCCTCTACGTGTTTGGGGGGTTCCGATTCCATGTGGAGCTGGCGGCCCCATCCCCCGAGCTCTACTCCC
TGCACTGTCCTGACCGCACCTGGAGTCTGCTGGCCCCTTCTCAGGGGGCAAAGCGAGATCGTATGAGGAATGTGC
GTGGCTCATCTCGGGGTCTGGGCCAAGTTCCTGGGGAGCAGCCTGGGTCATGGGGGTTCCGGGAAGTCAGGAAGA
AGATGGCTCTGTGGGCTGCTCTTGCTGGTACAGGAGGTTTCCTGGAGGAAATCTCACCTCACCTGAAGGAGCCCC
GCCCCCGGCTTTTCCACGCCTCAGCCCTGTTAGGGGACACCATGGTGGTTCTTGGGGGGCGCTCGGACCCTGACG
AGTTCAGCAGCGACGTTCTGCTCTACCAGGTCAACTGCAATGCCTGGCTTCTGCCCGACCTCACCCGCTCGGCCT
CTGTGGGGCCCCCAATGGAGGAGTCTGTGGCCCATGCTGTGGCAGCAGTCGGGAGCCGCCTGTATATCTCTGGGG
GTTTCGGGGGAGTGGCCCTGGGCCGCCTGCTGGCACTGACCCTGCCCCCTGACCCCTGCCGCCTGCTGTCCTCAC
CTGAAGCTTGTAACCAGTCTGGGGCCTGCACCTGGTGCCATGGGGCCTGCTTGTCCGGGGATCAGGCCCACAGGC
TGGGCTGCGGGGGCTCCCCCTGCTCCCCAATGCCTCGCTCCCCGGAGGAATGTCGACGTCTCCGGACCTGCAGTG
AGTGCCTGGCCCGCCATCCTCGGACCCTGCAACCTGGAGATGGAGAGGCGTCCACCCCCCGCTGTAAGTGGTGTA
CCAACTGCCCCGAAGGTGCTTGCATTGGACGCAATGGGTCCTGCACCTCTGAGAATGACTGTCGGATCAACCAGC
GAGAGGTCTTCTGGGCAGGGAACTGCTCCGAGGCTGCGTGCGGGGCTGCTGACTGCGAGCAGTGCACGCGGGAGG
GCAAGTGCATGTGGACGCGGCAGTTCAAGAGGACAGGGGAGACCCGCCGCATCCTCTCCGTGCAGCCCACCTATG
ACTGGACGTGCTTCAGCCACTCTCTGCTGAATGTGTCCCCCATGCCGGTGGAATCATCACCCCCACTGCCCTGCC
CCACCCCTTGTCACCTCCTACCCAACTGTACCTCCTGCCTGGACTCTAAGGGAGCAGATGGGGGCTGGCAGCACT
GTGTTTGGAGCAGCAGCCTGCAGCAGTGTCTGAGCCCTTCCTACCTGCCCCTGCGATGTATGGCCGGAGGCTGTG
GGCGGCTGCTCCGGGGACCTGAGAGCTGCTCCCTGGGCTGTGCTCAGGCAACTCAGTGCGCCTTGTGCCTGCGGC
GCCCCCATTGCGGCTGGTGTGCCTGGGGGGGCCAGGATGGGGGTGGCCGCTGCATGGAGGGTGGACTCAGCGGCC
CCCGTGATGGGCTGACATGTGGGCGTCCGGGGGCCTCCTGGGCCTTCCTGTCCTGCCCCCCTGAGGACGAGTGTG
CAAACGGGCACCACGACTGCAACGAGACGCAGAATTGCCACGACCAGCCCCACGGCTATGAGTGCAGCTGCAAGA
CCGGCTATACCATGGACAACATGACAGGGCTGTGCCGCCCTGTGTGCGCCCAGGGCTGCGTGAACGGCTCATGTG
TGGAGCCCGACCACTGCCGCTGCCACTTTGGCTTTGTGGGCCGCAACTGCTCCACGGAATGCCGCTGCAACCGCC
ACAGTGAATGCGCTGGTGTTGGGGCGCGTGACCACTGCTTGCTCTGCCGCAACCACACCAAGGGCAGCCACTGTG
AGCAGTGCCTCCCGCTGTTTGTGGGTTCAGCTGTCGGAGGCGGGACCTGCCGGCCCTGCCACGCCTTTTGTCGTG

FIGURE 3771B

GAAATAGCCACATCTGCATCTCCAGGAAGGAGTTACAAATGTCCAAGGGAGAGCCAAAGAAGTACTCACTGGACC
CAGAGGAGATTGAAAACTGGGTGACAGAGGGTCCTAGTGAAGACGAGGCCGTGTGCGTGAACTGCCAGAATAACA
GCTATGGGGAGAAATGCGAGAGCTGCCTGCAGGGCTACTTCCTCCTGGACGGGAAGTGCACCAAATGCCAGTGTA
ATGGCCACGCGGACACATGTAACGAGCAGGATGGGACGGGCTGTCCATGTCAGAATAACACAGAGACGGGCACAT
GCCAGGGCAGCTCCCCCAGTGACCGTCGAGACTGCTACAAGTACCAGGTGCGCCAAGTGCCGGGAATCATTTCAC
GGGAGTCCGCTGGGCGGCCAGCAGTGCTACCGCCTCATCTCGGTGGAGCAGGAGTGCTGCCTGGACCCCACGTCC
CAGACCAACTGCTTCCA**TGA**GCCCAAACGCCGGGCGCTAGGCCCCGGCCGCACTGTCCTCTTTGGCGTGCAGCCC
AAATTCACCAACGTGGACATCCGCCTGACGCTGGACGTGACCTTCGGGGCCGTGGACCTCTATGTCTCCACCTCC
TATGACACCTTCGTGGTCCGTGTGGCCCCTGACACTGGCGTCCATACTGTACACATCCAGCCACCCCCAGCCCCA
CCACCTCCACCACCCCCTGCAGATGGTGGGCCCCGGGGGGCTGGGGATCCAGGAGGAGCAGGGGCCAGCAGTGGG
CCGGGCGCCCCAGCAGAGCCACGGGTACGGGAGGTATGGCCGCGGGGCCTGATTACCTACGTGACGGTGACGGAG
CCGTCGGCAGTGCTGGTGGTCCGCGGCGTGCGGGACCGGCTGGTCATCACCTACCCACACGAGCACCATGCCCTC
AAGTCGAGCCGCTTCTACCTGCTGCTGCTGGGCGTGGGAGACCCAAGTGGGCCCGGCGCCAACGGCTCAGCCGAC
TCGCAGGGCCTGCTCTTCTTCCGGCAGGACCAGGCCCACATTGACCTGTTTGTCTTCTTCTCCGTCTTCTTCTCC
TGCTTCTTCCTCTTCCTCTCACTCTGTGTGCTCCTCTGGAAGGCCAAGCAGGCTCTGGACCAGCGGCAGGAGCAG
CGCCGGCACTTGCAGGAGATGACCAAGATGGCCAGCCGCCCCTTCGCCAAGGTCACCGTCTGCTTCCCACCTGAC
CCTACTGCCCCGGCCTCCGCCTGGAAGCCGGCTGGGCTCCCACCTCCCGCCTTCCGCCGCTCTGAGCCCTTCCTG
GCACCCCTGCTGCTGACAGGGGCCGGTGGGCCCTGGGGACCCATGGGAGGGGGCTGCTGCCCACCAGCCATCCCC
GCCACCACTGCTGGGCTGCGAGCTGGGCCCATCACTCTCGAGCCCACAGAAGATGGCATGGCTGGCGTGGCCACA
CTGCTGCTCCAGCTGCCTGGCGGGCCCCATGCACCCAACGGCGCCTGCCTGGGGTCAGCCCTCGTCACACTGCGG
CACAGGCTGCACGAGTACTGTGGGGGTGGTGGGGGTGCTGGGGGCAGTGGGCATGGGACTGGTGCGGGCCGGAAG
GGACTGTTGAGCCAGGACAACCTCACCAGCATGTCCCTCTGACATGCCCAGGGTTCTCATCCACAGCAGCTGGGT
CACCTGATAGGGCCGCCCTGGACTTGGGGTCCCTCCACCTGGGGGCCCCTGGACACTGTCTACTTGGAGACCACT
GGCCCCCTTCCCCCAGGGTTGCCCAGATGGGGCCTCCTTTGTTCTGCATTCAGCAGCTATTTATCGAGTACCTAC
TCTGTCAGGCACTGTCATAGGCGTGGGGCAAAGCAGGAACCAAGAGACGAGGTTCCCTGATCTCATGGGACTTAG
GTTCTGGTGAAGGGAGACAATCAGTGCACATGCACACACCCCACACGCATACACACATGAACACATGCACATGTG
CACACACAAGTAAGATGGCTTCAGAGAGGGAGAAGCACTGTGAGGCCTCCAGAGGATGTGGCAGTGAGGGACGAT
GGGGTGAAGTCAGCTGGGCATTCAAAGAAGCTAGACTGAGAACGCCTGAGAAGAACCAGCTACGGGAAGAGCTTT
GGGAAGCAAAGGCAGAGGCCCTGGGGTGGGAGCAGGCTTGTTTTATTGGAAGGACCAGAAAACTGGTAAGTGTGA
CCCAGATCAAGTGTGAGGAGATGAGGCTGGGGATAGTCAGGGGCTGGATCACCCAGGGCCTTGTGGGCCCCACAT
AGGGTTTTGGGTTTTATTCTCAGGGCAATGGGAAGCTGTTGGATGGTTTGATGAAGGGGAGTGACAGGATCCGAT
GTACCTATTTAAGAATTTAAGAGGGTCGGGTGCGGTGGCTCATGCCTATAATCCTAGCACTTTGAGAGGCCAAGG
TGGGCTGATCACAAGGTCAAGAGTTCGTGACCAGCCTGGCCAATATGGTGAAACCCCATGTCTACTAAAAATACA
AAAATTAGCTGGGCATGGTGGCACACACTTGTAGTCCGAGCTACTCGGGAGGCTGAGGCAGAAGAATCGCTTGAA
CCCAGGAGGCGGAGGTTGCAGTGAGCTCAGATTGCGTCACTGCACTCCAACCTGGGTGACAGAGCGAGACTCCAC
CTC

FIGURE 3772A

CTTCTTGTAAGAGAGTGCTAGGCACATAGCCTCCTCCTATTCCTAATCCTCCCACCAAAGAAAGAGGCACAGAGT
TCATTACTTAGTGGGGGCCAGCTGTGATCGGCCAACTGCCAGCTGCCTTAAAAAGGAAGACCAGTGATGCTAGGA
TGGAGTGAAACCCAAGAGGAAGTGCCATCATGAGGAATCAATGAGAGATCTGTGAAGAGAGAGGGCTGGGTGGGA
GCCCAGAAGGATAGAACCTGGAAGATCAATATCTCCCGTGAGGGAAATAACA**ATG**GAGCCAGGTTCTAAGTCAGT
GTCTAGGTCAGACTGGCAACCTGAACCACACCAGAGGCCTATAACCCCGCTAGAGCCTGGGCCAGAAAAGACACC
CATAGCCCAGCCAGAATCGAAGACTCTGCAGGGATCCAATACCCAACAGAAGCCTGCTTCAAACCAAAGACCCCT
CACCCAGCAGGAGACCCCTGCACAACATGATGCTGAATCCCAGAAGGAACCTAGAGCCCAACAAAAATCTGCTTC
ACAAGAGGAATTTCTTGCCCCACAGAAGCCCGCACCACAGCAATCACCTTACATCCAAAGGGTGCTGCTCACTCA
ACAGGAAGCTGCCTCCCAGCAGGGACCTGGGCTAGGAAAAGAATCTATAACTCAACAGGAGCCAGCATTGAGACA
AAGACATGTAGCCCAGCCAGGGCCTGGGCCAGGAGAGCCACCTCCAGCTCAACAAGAAGCTGAATCAACACCTGC
GGCCCAGGCTAAACCTGGAGCCAAAAGGGAGCCATCTGCCCCGACTGAATCTACGTCCCAAGAGACACCTGAACA
GTCAGACAAGCAAACAACGCCAGTCCAGGGAGCCAAATCCAAGCAGGGATCTTTGACAGAGCTGGGATTTCTAAC
AAAACTTCAGGAACTATCCATACAGCGATCAGCCCTAGAGTGGAAGGCACTTTCTGAGTGGGTCACAGATTCTGA
GTCAGAATCAGATGTGGGATCATCTTCAGACACAGATTCTCCAGCCACGATGGGTGGAATGGTGGCCCAGGGAGT
GAAGCTAGGCTTCAAAGGAAAATCTGGTTATAAAGTGATGTCAGGATACAGTGGGACGTCGCCACATGAGAAAAC
CAGTGCTCGGAATCACAGACACTACCAGGATACAGCCTCAAGGCTCATCCACAACATGGACCTGCGCACAATGAC
ACAGTCGCTGGTGACTCTGGCGGAGGACAACATAGCCTTCTTCTCGAGCCAGGGTCCTGGGGAAACGGCCCAGCG
GCTGTCAGGCGTTTTTGCCGGTGTACGGGAGCAGGCGCTGGGGCTGGAGCCGGCCCTGGGCCGCCTGCTGGGTGT
GGCGCACCTCTTTGACCTGGACCCAGAGACACCGGCCAACGGGTACCGCAGCCTAGTGCACACAGCCCGCTGCTG
CCTGGCGCACCTCCTGCACAAATCCCGCTATGTGGCCTCCAACCGCCGCAGCATCTTCTTCCGCACCAGCCACAA
CCTGGCCGAGCTGGAGGCCTACCTGGCTGCCCTCACCCAGCTCCGCGCTCTGGTCTACTACGCCCAGCGCCTGCT
GGTTACCAATCGGCCGGGGGTACTCTTCTTTGAGGGCGACGAGGGGCTCACCGCCGACTTCCTCCGGGAGTATGT
CACGCTGCATAAGGGATGCTTCTATGGCCGCTGCCTGGGCTTCCAGTTCACGCCTGCCATCCGGCCATTCCTGCA
GACCATCTCCATTGGGCTGGTGTCCTTCGGGGAGCACTACAAACGCAACGAGACAGGCCTCAGTGTGGCCGCCAG
CTCTCTCTTCACCAGCGGCCGCTTTGCCATCGACCCCGAGCTGCGTGGGGCTGAGTTTGAGCGGATCACACAGAA
CCTGGACGTGCACTTCTGGAAAGCCTTCTGGAACATCACCGAGATGGAAGTGCTATCGTCTCTGGCCAACATGGC
ATCGGCCACCGTGAGGGTAAGCCGCCTGCTCAGCCTGCCACCCGAAGCCTTTGAGATGCCACTGACTGCCGACCC
CACGCTCACGGTCACCATCTCACCCCCACTGGCCCACACAGGCCCTGGGCCCGTCCTCGTCAGGCTCATCTCCTA
TGACCTGCGTGAAGGACAGGACAGTGAGGAGCTCAGCAGCCTGATAAAGTCCAACGGCCAACGGAGCCTGGAGCT
GTGGCCGCGCCCCCAGCAGGCACCCCGCTCGCGGTCCCTGATAGTGCACTTCCACGGCGGTGGCTTTGTGGCCCA
GACCTCCAGATCCCACGAGCCCTACCTCAAGAGCTGGGCCCAGGAGCTGGGCGCCCCCATCATCTCCATCGACTA
CTCCCTGGCCCCTGAGGCCCCCTTCCCCCGTGCGCTGGAGGAGTGCTTCTTCGCCTACTGCTGGGCCATCAAGCA
CTGCGCCCTCCTTGGCTCAACAGGGGAACGAATCTGCCTTGCGGGGGACAGTGCAGGCGGGAACCTCTGCTTCAC
CGTGGCTCTTCGGGCAGCAGCCTACGGGGTGCGGGTGCCAGATGGCATCATGGCAGCCTACCCGGCCACAATGCT
GCAGCCTGCCGCCTCTCCCTCCCGCCTGCTGAGCCTCATGGACCCCTTGCTGCCCCTCAGTGTGCTCTCCAAGTG
TGTCAGCGCCTATGCTGGTGCAAAGACGGAGGACCACTCCAACTCAGACCAGAAAGCCCTCGGCATGATGGGGCT
GGTGCGGCGGGACACAGCCCTGCTCCTCCGAGACTTCCGCCTGGGTGCCTCCTCATGGCTCAACTCCTTCCTGGA
GTTAAGTGGGCGCAAGTCCCAGAAGATGTCGGAGCCCATAGCAGAGCCGATGCGCCGCAGTGTGTCTGAAGCAGC
ACTGGCCCAGCCCCAGGGCCCACTGGGCACGGATTCCCTCAAGAACCTGACCCTGAGGGACTTGAGCCTGAGGGG
AAACTCCGAGACGTCGTCGGACACCCCCGAGATGTCGCTGTCAGCTGAGACACTTAGCCCCTCCACACCCTCCGA
TGTCAACTTCTTATTACCACCTGAGGATGCAGGGGAAGAGGCTGAGGCCAAAAATGAGCTGAGCCCCATGGACAG
AGGCCTGGGCGTCCGTGCCGCCTTCCCCGAGGGTTTCCACCCCCGACGCTCCAGCCAGGGTGCCACACAGATGCC
CCTCTACTCCTCACCCATAGTCAAGAACCCCTTCATGTCGCCGCTGCTGGCACCCGACAGCATGCTCAAGAGCCT
GCCACCTGTGCACATCGTGGCGTGCGCGCTGGACCCCATGCTGGACGACTCGGTCATGCTCGCGCGGCGACTGCG
CAACCTGGGCCAGCCGGTGACGCTGCGCGTGGTGGAGGACCTGCCGCACGGCTTCCTGACCCTAGCGGCGCTGTG
CCGCGAGACGCGCCAGGCCGCAGAGCTGTGCGTGGAGCGCATCCGCCTCGTCCTCACTCCTCCCGCCGGAGCCGG
GCCGAGCGGGGAGACGGGGGCTGCGGGGGTAGACGGGGGCTGCGGGGGGCGACAC**TAA**AAGCCTGTTGTTCCCAT
CTGCGCCGGCCTCCGTCATGAATGCCTTCCGGGCCGGGCGGAAGGGGACGCGGGCTGTGCCTTACTTAAGTCGGG

FIGURE 3772B

GGTGGCAAGGGGGCGGGGCGGGGGCCCGAAAGCTGAGACCCTCGCCACGGGGAGGGGGACGCGCACACACACCGG
TCACCGAGACGGCTGGACCTGCACGCCACCGCTGCCTTTTGCTGCTGCTGCTGCGGCGACCGCCGCAGGGACGGG
GACTGGCCCTCCCTTGCAGGTCGGTTTGGTTTGTTGTAAATAAAAGTATTTAATTA

FIGURE 3773

CTCGCCCTCAAATGGGAACGCTGGCCTGGGACTAAAGCATAGACCACCAGGCTGAGTATCCTGACCTGAGTCATC
CCCAGGGATCAGGAGCCTCCAGCAGGGAACCTTCCATTATATTCTTCAAGCAACTTACAGCTGCACCGACAGTTG
CG**ATG**AAAGTTCTAATCTCTTCCCTCCTCCTGTTGCTGCCACTAATGCTGATGTCCATGGTCTCTAGCAGCCTGA
ATCCAGGGGTCGCCAGAGGCCACAGGGACCGAGGCCAGGCTTCTAGGAGATGGCTCCAGGAAGGCGGCCAAGAAT
GTGAGTGCAAAGATTGGTTCCTGAGAGCCCCGAGAAGAAAATTCATGACAGTGTCTGGGCTGCCAAAGAAGCAGT
GCCCCTGTGATCATTTCAAGGGCAATGTGAAGAAAACAAGACACCAAAGGCACCACAGAAAGCCAAACAAGCATT
CCAGAGCCTGCCAGCAATTTCTCAAACAATGTCAGCTAAGAAGCTTTGCTCTGCCTTTG**TAG**GAGCTCTGAGCGC
CCACTCTTCCAATTAAACATTCTCAGCCAAGAAGACAGTGAGCACACCTACCAGACACTCTTCTTCTCCCACCTC
ACTCTCCCACTGTACCCACCCCTAAATCATTCCAGTGCTCTCAAAAAGCATGTTTTTCAAGATCATTTTGTTTGT
TGCTCTCTCTAGTGTCTTCTTCTCTCGTCAGTCTTAGCCTGTGCCCTCCCCTTACCCAGGCTTAGGCTTAATTAC
CTGAAAGATTCCAGGAAACTGTAGCTTCCTAGCTAGTGTCATTTAACCTTAAATGCAATCAGGAAAGTAGCAAAC
AGAAGTCAATAAATATTTTTAAATGTCACAGATCAAAATTGTTTCCTTCAAATGGGGTCTGCCAATTCACAACCA
GATGACCCATTTTACCCTATTCACTGCAGACTGAATCCAGATTCTACACATACTTATCCCCACCAAGACCCTCAC
TCTGTCTCCATTGGCCTACTTGTTCATCTTTCACTCATTCGACAAATCTTTCTGAGGTAAGAGCGAGGTGGGACA
AAAAAAAAAAAGCATACCAATGAACCAGACACGGTCTTATTAAAGATAATATAGGTTTAAAAAAAAAA

FIGURE 3774

AAACAGCAGAGGTGACAGAGCAGCCGTGCTCGAAGCGTTCCTGGAGCCCAAGCTCTCCTCCACAGGTGAAGACAG
GGCCAGCAGGAGACACC**ATG**GGGCACCTCTCAGCCCCACTTCACAGAGTGCGTGTACCCTGGCAGGGGCTTCTGC
TCACAGCCTCACTTCTAACCTTCTGGAACCCGCCCACCACTGCCCAGCTCACTACTGAATCCATGCCATTCAATG
TTGCAGAGGGGAAGGAGGTTCTTCTCCTTGTCCACAATCTGCCCCAGCAACTTTTTGGCTACAGCTGGTACAAAG
GGGAAAGAGTGGATGGCAACCGTCAAATTGTAGGATATGCAATAGGAACTCAACAAGCTACCCCAGGGCCCGCAA
ACAGCGGTCGAGAGACAATATACCCCAATGCATCCCTGCTGATCCAGAACGTCACCCAGAATGACACAGGATTCT
ACACCCTACAAGTCATAAAGTCAGATCTTGTGAATGAAGAAGCAACTGGACAGTTCCATGTATACCCGGAGCTGC
CCAAGCCCTCCATCTCCAGCAACAACTCCAACCCTGTGGAGGACAAGGATGCTGTGGCCTTCACCTGTGAACCTG
AGACTCAGGACACAACCTACCTGTGGTGGATAAACAATCAGAGCCTCCCGGTCAGTCCCAGGCTGCAGCTGTCCA
ATGGCAACAGGACCCTCACTCTACTCAGTGTCACAAGGAATGACACAGGACCCTATGAGTGTGAAATACAGAACC
CAGTGAGTGCGAACCGCAGTGACCCAGTCACCTTGAATGTCACCTATGGCCCGGACACCCCCACCATTTCCCCTT
CAGACACCTATTACCGTCCAGGGGCAAACCTCAGCCTCTCCTGCTATGCAGCCTCTAACCCACCTGCACAGTACT
CCTGGCTTATCAATGGAACATTCCAGCAAAGCACACAAGAGCTCTTTATCCCTAACATCACTGTGAATAATAGTG
GATCCTATACCTGCCACGCCAATAACTCAGTCACTGGCTGCAACAGGACCACAGTCAAGACGATCATAGTCACTG
AGCTAAGTCCAGTAGTAGCAAAGCCCCAAATCAAAGCCAGCAAGACCACAGTCACAGGAGATAAGGACTCTGTGA
ACCTGACCTGCTCCACAAATGACACTGGAATCTCCATCCGTTGGTTCTTCAAAAACCAGAGTCTCCCGTCCTCGG
AGAGGATGAAGCTGTCCCAGGGCAACACCACCCTCAGCATAAACCCTGTCAAGAGGGAGGATGCTGGGACGTATT
GGTGTGAGGTCTTCAACCCAATCAGTAAGAACCAAAGCGACCCCATCATGCTGAACGTAAACTATAATGCTCTAC
CACAAGAAAATGGCCTCTCACCTGGGGCCATTGCTGGCATTGTGATTGGAGTAGTGGCCCTGGTTGCTCTGATAG
CAGTAGCCCTGGCATGTTTTCTGCATTTCGGGAAGACCGGCAGGGCAAGCGACCAGCGTGATCTCACAGAGCACA
AACCCTCAGTCTCCAACCACACTCAGGACCACTCCAATGACCCACCTAACAAGATGAATGAAGTTACTTATTCTA
CCCTGAACTTTGAAGCCCAGCAACCCACACAACCAACTTCAGCCTCCCCATCCCTAACAGCCACAGAAATAATTT
ATTCAGAAGTAAAAAAGCAG**TAA**TGAAACCTGTCCTGCTCACTGCAGTGCTGATGTATTTCAAGTCTCTCACCCT
CATCACTAGGAGATTCCTTTCCCCTGTAGGGGTAGAGGGGTGGGGACAGAAACAACTTTCTCCTACTCTTCCTTC
CTAATAGGCATCTCCAGGCTGCCTGGTCACTGCCCCTCTCTCAGTGTCAATAGATGAAAGTACATTGGGAGTCTG
TAGGAAACCCAACCTTCTTGTCATTGAAATTTGGCAAAGCTGACTTTGGGAAAGAGGGACCAGAACTTCCCCTCC
CTTCCCCTTTTCCCAACCTGGACTTGTTTTAAACTTGCCTGTTCAGAGCACTCATTCCTTCCCACCCCCAGTCCT
GTCCTATCACTCTAATTCGGATTTGCCATAGCCTTGAGGTTATGTCCTTTTCCATTAAGTACATGTGCCAGGAAA
CAAGAGAGAGAGAAAGTAAAGGCAGTAATGCCTTCTCCTATTTCTCCAAAGCCTTGTGTGAACTCACCAAACACA
AGAAAATCAAATATATAACCAATAGTGAAATGCCACACCTTTGTCCACTGTCAGGGTTGTCTACCTGTAGGATCA
GGGTCTAAGCACCTTGGTGCTTAGCTAGAATACCACCTAATCCTTCTGGCAAGCCTGTCTTCAGAGAACCCACTA
GAAGCAACTAGGAAAATCACTTGCCAAAATCCAAGGCAATTCCTGATGGAAAATGCAAAAGCACATATATGTTTT
AATATCTTTATGGGCTCTGTTCAAGGCAGTGCTGAGAGGGAGGGGTTATAGCTTCAGGAGGGAACCAGCTTCTGA
TAAACACAATCTGCTAGGAACTTGGGAAAGGAATCAGAGAGCTGCCCTTCAGCGATTATTTAAATTATTGTTAAA
GAATACACAATTTGGGGTATTGGGATTTTTCTCCTTTTCTCTGAGACATTCCACCATTTTAATTTTTGTAACTGC
TTATTTATGTGAAAAGGGTTATTTTTACTTAGCTTAGCTATGTCAGCCAATCCGATTGCCTTAGGTGAAAGAAAC
CACCGAAATCCCTCAGGTCCCTTGGTCAGGAGCCTCTCAAGATTTTTTTTGTCAGAGGCTCCAAATAGAAAATAA
GAAAAGGTTTTCTTCATTCATGGCTAGAGCTAGATTTAACTCAGTTTCTAGGCACCTCAGACCAATCATCAACTA
CCATTCTATTCCATGTTTGCACCTGTGCATTTTCTGTTTGCCCCCATTCACTTTGTCAGGAAACCTTGGCCTCTG
CTAAGGTGTATTTGGTCCTTGAGAAGTGGGAGCACCCTACAGGGACACTATCACTCATGCTGGTGGCATTGTTTA
CAGCTAGAAAGCTGCACTGGTGCTAATGCCCCTTGGGGAAATGGGGCTGTGAGGAGGAGGATTATAACTTAGGCC
TAGCCTCTTTTAACAGCCTCTGAAATTTATCTTTTCTTCTATGGGGTCTATAAATGTATCTTATAATAAAAAGGA
AGGACAGGAGGAAGACAGGCAAATGTACTTCTCACCCAGTCTTCTACACAGATGGAATCTCTTTGGGGCTAAGAG
AAAGGTTTTATTCTATATTGCTTACCTGATCTCATGTTAGGCCTAAGAGGCTTTCTCCAGGAGGATTAGCTTGGA
GTTCTCTATACTCAGGTACCTCTTTCAGGGTTTTCTAACCCTGACACGGACTGTGCATACTTTCCCTCATCCATG
CTGTGCTGTGTTATTTAATTTTTCCTGGCTAAGATCATGTCTGAATTATGTATGAAAATTATTCTATGTTTTTAT
AATAAAAATAATATATCAGACATCG

FIGURE 3775

TTTGAGCCATTTCTGCGTCTTGCAGGACATTTTGAACGAACCCCCTTTGCTTGAGGCTCGCAACCACCCGATGAT
CGATGATCGTCTCAGGGGAAAAGAAGCCTTGGCGAAGAGCAGAGGTTTAGAGGCACAATTCTGCTTTCCCTGGAA
CTGTGTCATTCAGGACTCTGCAAATTCCCTAAAGTAGGAGGAAAA**ATG**ACCATGTCCAAGGAGGCAGTGACCTTC
AAGGATGTGGCAGTGGTCTTCACTGAGGAGGAGCTGGGGCTGCTGGACCTTGCCCAGAGGAAGCTGTATCGAGAT
GTGATGCTGGAGAACTTCAGGAACCTGCTGTCAGTGGGGCATCAACCATTCCACCGAGATACTTTCCACTTTCTA
AGGGAGGAAAAGTTTTGGATGATGGATATAGCAACCCAAAGGGAAGGGAATTCAGGAGGCAAGATCCAACCTGAG
ATGAAGACTTTTCCAGAAGCAGGACCACATGAAGGGTGGTCCTGCCAGCAGATCTGGGAAGAAATTGCAAGTGAT
TTAACCAGGCCTCAAGACTCTACCATAAAGAGCTCTCAGTTCTTTGAACAGGGTGATGCCCACTCCCAGGTTGAG
GAAGGACTATCTATAATGCACACAGGACAGAAACCTTCCAATTGTGGGAAGTGTAAACAATCCTTCAGTGATATG
TCCATCTTTGATCTTCCTCAGCAAATACGCTCAGCAGAGAAGTCTCATTCCTGTGATGAGTGTGGAAAAAGCTTC
TGTTACATCTCAGCGCTTCATATTCATCAGAGAGTCCACCTGGGAGAGAAACTCTTTAAGTGTGACGTGTGTGGT
AAGGAATTCAGTCAGAGTTTACATCTGCAAACTCATCAGAGAGTCCATACTGGAGAGAAACCTTTCAAATGTGAA
CAATGTGGGAGAGGCTTCAGATGTAGATCAGCACTTACAGTTCATTGCAAATTACACATGGGAGAGAAACATTAT
AATTGTGAGGCATGTGGGAGGGCCTTCATTCATGATTTCCAGCTTCAGAAACATCAGAGAATTCACACAGGGGAG
AAGCCATTCAAATGTGAGATATGTAGTGTGAGCTTCCGTCTTAGGTCAAGTCTTAATAGGCATTGTGTGGTCCAC
ACAGGAAAGAAACCAAACAGCACTGGGGAATATGGAAAAGGCTTCATTCGTAGGCTGGATTTGTGTAAGCATCAG
ACGATCCACACAGGAGAGAAACCATATAATTGTAAAGAATGTGGGAAGAGCTTCAGACGGTCCTCCTATCTTTTG
ATCCATCAGCGAGTCCACACTGGAGAAAAGCCATACAAATGTGACAAGTGTGGGAAGAGCTACATTACTAAGTCA
GGTCTTGACTTGCACCATAGAGCCCACACAGGAGAGAGACCTTATAACTGTGATGACTGTGGGAAGAGCTTTAGA
CAGGCCTCAAGTATTTTGAATCATAAGAGACTCCATTGCCGAAAAAAACCATTCAAATGTGAGGATTGTGGAAAG
AAGCTTGTATACCGGTCATACCGTAAAGACCAACAAAAAAACCACAGTGGAGAAAATCCATCCAAATGTGAAGAC
TGTGGGAAGCGCTACAAGAGGCGCTTGAATCTTGATATAATTTTATCATTATTTTTAAATGACACG**TAA**GTGTTG
TACATATTTATGGGGTACAGTGTGATATTTAAATATATGTATATGATGTATAATGATCAAATCAGTGTAATTAGC
ACATTTATCACCTCAATTATCTCTTTTTTGTGTTGAGAAAATTAAAAATTCATTGTTCCAGCAGTTTGAAAATAA
ATTGTTGTCGATGATAGTCACCTTTAGTGCTGCAGAACAGCAGAACTTCTTCCTCTTATCTACCTGTACTTTTGC
ATCCATTAGCCAACCTTTGGCCATCCCACCTATCCCTTACCCTTCCCTGCCTCTAGAGCCACTGTTCTCACTACT
TCTAAGAAATCAGCTTTTTAAGCTTCCCCATGTGAT

FIGURE 3776

GAGCCTGCGGTTGCTACATAACCGCGTAGTTTGAGCCATTTCTGCGTCTGGCGGGTCCTTCTGAACTTGTCACCT
TCGCTTGGGGTCGCAACGACCCGATGATCGATGATCCAAGCAAGGGAAAAGAAGCCTTGGCGGAGAGCGGAGGCA
CAATTCCACCTTCCTTTGTGCTCCATTACTCAAGACACTGAAGACTCCAAAAAGTAGTAGGAAAA**ATG**ACCACAT
TCAAGGAGGCAGTGACCTTCAAGGATGTGGCTGTGTTCTTCACTGAGGAGGAACTGGGGCTACTGGACCCTGCCC
AGAGGAAGCTGTACCAAGACGTGATGCTTGAGAACTTCACGAACCTGCTGTCAGTGGGGCATCAACCATTCCACC
CTTTCCACTTCCTAAGGGAAGAAAAGTTTTGGATGATGGAGACAGCAACCCAAAGAGAAGGAAATTCAGGCGGCA
AGACTATTGCGGAAGCAGGACCACATGAAGACTGCCCTTGCCAGCAAATCTGGGAACAAACTGCAAGTGACTTAA
CCCAGTCTCAAGACTCCATCATAAATAATTCTCACTTCTTTGAACAAGGTGATGTCCCCTCCCAGGTTGAGGCAG
GACTATCTATAATTCATACAGGACAGAAACCTTCACAGAATGGGAAGTGTAAACAGTCCTTCAGTGATGTTGCCA
TCTTTGATCCTCCTCAGCAGTTCCACTCAGGAGAGAAGTCTCATACATGCAATGAGTGTGGAAAAAGCTTCTGTT
ACATCTCAGCTCTTCGTATTCACCAGAGAGTTCACTTGAGAGAGAAACTCTCTAAGTGTGACATGCGTGGTAAGG
AATTCAGTCAGAGCTCATGTCTGCAAACTCGTGAGAGAGTCCACACTGGAGAGAAACCATTCAAATGTGAGCAAT
GTGGGAAAGGCTTCAGATGTAGAGCGATACTTCAAGTTCACTGCAAATTACACACAGGAGAGAAACCTTATATTT
GTGAGAAATGTGGGAGGGCCTTCATTCACGATTTCCAGCTTCAGAAACATCAGATAATTCATACTGGGGAGAAGC
CGTTCAAATGTGAAATATGTGGTAAGAGCTTCTGCCTTAGGTCAAGTCTTAATAGGCATTGCATGGTCCACACAG
CAGAGAAACTGTACAAATCTGAGGAGTGTGGAAAAGGCTTCACTGATAGCCTAGATTTGCATAAGCATCAGATAA
TTCACACAGGACAGAAACCGTACAATTGTAAAGAATGTGGGAAGAGCTTCAGATGGTCCTCATATCTTTTGATCC
ATCAGCGAATCCACAGTGGAGAAAAACCATACAGATGTGAGGAGTGTGGGAAGGGCTACATTAGTAAGTCAGGTC
TTAACTTGCACCAGAGGGTCCATACTGGAGAGAGACCTTATAATTGTAAGGAATGTGGGAAGAGCTTTAGCCGGG
CTTCAAGTATTTTGAATCATAAGAAACTCCACTGCCGGAAAAAACCCTTCAAATGTGAGGATTGTGGAAAGAGGC
TTGTACACCGGTCTTTCTGTAAAGACCAACAAGGAGACCACAATGGAGAAAACTCATCCAAATGTGAGGACTGTG
GGAAGCGCTACAAGAGGCGCTTGAATCTGGATATAATTTTATCATTATTTTTAAATGATATG**TAA**GTTGTACATA
TATATGGGATATGGTATGAAATTTTAATATGTGTATATAATACGTAATGATCAAATTGATGTAATTAGTGTATTA
CCTTAAACAATTAACATTTCTTTGTTTTGGGAAAATTCAAAATCCATTGTTCTAGCGATTTGAAAAGAAACAATA
AATTATTGTTGATTATAGTC

FIGURE 3777

TTTTTTTTTTGGCCAAACTCTCATGGCTTTTTTCTCCTTCCCTCATGTTTTCTCCTTCCCTCTTAAGACTTGGCA
CTTCTCCAGAAGGAGGAGGACAAA**ATG**ACGAAGTCTAAGGAGGCAGTGACATTCAAGGACGTGGCTGTGGTCTTC
TCTGAGGAGGAGCTGCAACTGCTGGACCTTGCCCAGAGGAAGCTGTACCGAGATGTGATGCTGGAGAACTTCAGG
AATGTGGTCTCAGTGGGGCATCAGTCCACACCAGATGGCCTACCACAGTTAGAGAGAGAAGAAAAGCTGTGGATG
ATGAAGATGGCAACCCAGAGAGATAACTCCTCAGGAGCCAAGAATCTAAAAGAGATGGAGACTCTTCAAGAAGTA
GGATTAAGGTACCTGCCTCATGAAGAGCTTTTCTGCTCCCAGATCTGGCAACAGATTACAAGAGAGTTAATCAAG
TATCAAGATTCTGTGGTAAATATTCAAAGAACAGGCTGCCAGTTGGAAAAACGAGATGATTTGCACTATAAAGAT
GAGGGATTCAGTAATCAGAGTTCCCATCTTCAAGTTCACAGAGTCCACACTGGTGAAAAACCCTACAAAGGAGAA
CATTGTGTGAAAAGTTTCAGCTGGAGCTCTCATCTTCAAATTAACCAAAGGGCTCATGCAGGAGAGAAGCCCTAC
AAATGTGAAAAATGTGATAATGCCTTCCGTCGGTTTTCAAGTCTTCAAGCCCATCAGAGAGTCCACAGTAGAGCA
AAATCATACACAAATGATGCAAGTTACAGGAGTTTTAGTCAGAGGTCACATCTTCCCCATCATCAGAGAGTTCCC
ACTGGAGAGAATCCATACAAATATGAAGAGTGTGGGAGGAATGTTGGGAAAAGCTCACATTGTCAAGCTCCTCTG
ATAGTTCATACGGGAGAGAAACCCTATAAATGTGAGGAGTGTGGGGTGGGCTTCAGTCAGAGATCATATCTTCAA
GTTCATCTGAAAGTTCACACTGGAAAGAAACCATATAAGTGTGAAGAGTGTGGGAAGAGCTTCAGTTGGCGTTCA
CGACTGCAGGCTCATGAGCGAATCCACACTGGCGAGAAACCATACAAATGCAATGCATGTGGCAAGAGCTTTAGT
TACAGCTCACACCTTAATATTCATTGTAGAATCCACACAGGAGAGAAACCCTATAAGTGTGAGGAGTGTGGGAAA
GGTTTCAGTGTGGGTTCACACCTTCAGGCCCATCAGATAAGCCACACTGGAGAGAAGCCATACAAATGTGAGGAG
TGTGGGAAAGGCTTCTGCCGGGCCTCAAATCTGCTGGACCATCAAAGAGGCCATACTGGAGAGAAACCGTATCAG
TGTGATGCATGTGGTAAGGGCTTCAGTCGTAGCTCAGATTTTAACATTCATTTTAGAGTCCATACAGGGGAAAAA
CCCTATAAATGTGAGGAGTGTGGCAAGGGCTTCAGCCAGGCCTCAAATCTTCTGGCCCATCAAAGAGGCCACACT
GGAGAGAAACCCTACAAATGTGGTACATGTGGGAAGGGCTTCAGTCGGAGCTCAGATCTTAATGTACACTGTAGA
ATCCACACAGGAGAGAAACCCTATAAATGCGAGAGGTGTGGTAAGGCCTTCAGTCAGTTCTCCAGCCTTCAGGTG
CATCAGAGAGTTCACACTGGAGAGAAACCATATCAGTGTGCAGAGTGTGGGAAGGGCTTCAGTGTAGGTTCACAG
CTTCAAGCCCATCAGAGGTGCCACACTGGAGAGAAACCCTATCAATGTGAGGAGTGTGGGAAGGGCTTCTGTCGG
GCCTCCAATTTTCTGGCACATCGTGGAGTCCACACAGGAGAAAAACCATACCGATGTGATGTGTGTGGTAAGCGC
TTCAGACAGAGATCCTACCTTCAAGCCCACCAGAGGGTCCACACAGGAGAGAGACCATACAAATGTGAGGAATGT
GGGAAAGTCTTCAGCTGGAGCTCATACCTTCAAGCCCATCAAAGAGTTCACACCGGAGAAAAACCATACAAATGT
GAGGAGTGTGGGAAGGGCTTCAGTTGGAGCTCAAGTCTTATCATTCATCAGCGAGTCCATGCTGATGATGAGGGT
GACAAGGACTTTCCTTCATCAGAGGATTCACACAGGAAAACTCGA**TAA**AATATGTTTTACTATCTCAGATGGGTG
CTGAAATATTTTAATAATCAGAGCTATCATAGACAAAACATTTGTTTTATAGAGTCAGTAGTTCAGCCAAGTGAT
TGGGAGACCACACAGCAGAGAAGCCTCACAAGAGTGGAGACATATGGACTGCATTCAGAACATTGACCATTAGCT
GATACATGCAGACAAGAGGATCAGGAAGGATGAGTCTGATCTGGAGTAAATCAGAAGTACTAAGATAGAAATGCT
GAATTC

FIGURE 3778

ATGGCCCGGGTGCCATTGACATTCAGCGATGTTGCCATAGACTTCTCTCAGGAGGAGTGGGAATATTTAAACTCG
GATCAGAGGGATTTGTACAGAGATGTGATGTTGGAGAATTATACTAACTTGGTCTCATTGGACTTTAATTTCACA
ACTGAAAGCAACAAGTTATCTTCAGAAAAAAGAAATTATGAAGTAAATGCGTACCATCAGGAGACATGGAAAAGA
AATAAAACCTTCAACCTTATGAGGTTTATTTTCAGAACTGACCCACAGTACACAATTGAATTTGGGAGACAACAG
AGACCTAAAGTGGGATGTTTTAGTCAAATGATATTCAAAAAACATAAATCCCTTCCTCTACATAAGAGAAATAAC
ACAAGAGAGAAATCATATGAGTGTAAGGAATATAAGAAGGGCTTTAGAAAATATTTGCACCTTACTGAACATCTG
AGAGACCATACTGGTGTGATACCCTATGAATGTAATGAATGTGGAAAAGCATTTGTAGTTTTCCAGCATTTTATT
AGACATCGAAAAATCCACACTGATTTGAAACCCTATGAATGCAATGGATGTGAGAAGGCCTTTAGGTTTTATTCA
CAGCTTATTCAGCATCAGATAATTCATACTGGTATGAAACCCTATGAATGTAAGCAATGCGGGAAGGCTTTTAGA
CGTCATTCTCACCTTACAGAACATCAGAAAATTCATGTTGGCTTGAAACCCTTTGAATGTAAGGAATGTGGGGAA
ACGTTTAGATTATATCGACATATGTGTCTGCATCAGAAAATTCATCATGGTGTGAAACCCTACAAATGTAAAGAA
TGTGGAAAGGCTTTTGGTCATCGTTCAAGTCTTTACCAACATAAGAAAATTCATTCTGGTGAGAAACCATATAAA
TGTGAACAATGTGAAAAGGCCTTTGTTCGCAGCTATCTACTTGTTGAACATCAAAGAAGTCATACTGGTGAGAAA
CCTCATGAATGCATGGAATGTGGAAAGGCTTTTGGTAAGGGCTCAAGCCTTCTTAAACATAAGAGAATTCATAGT
AGTGAGAAACTCTATGATTGTAAGGATTGTGGAAAGGCCTTTTGTAGAGGCTCTCAACTTACACAGCATCAGAGA
ATTCATACTGGTGAGAAGCCACATGAATGTAAAGAATGTGGGAAGACTTTTAAGCTTCATTCATATCTTATTCAA
CATCAGATAATTCATACTGATTTGAAGCCATATGAATGTAAGCAATGTGGGAAAGCCTTCAGTCGTGTTGGAGAC
CTTAAGACACATCAATCAATTCATGCTGGGGAGAAACCCTATGAATGTAAGGAATGTGGAAAAACCTTTAGACTT
AATTCTCAACTAATTTATCATCAGACAATTCATACTGGTTTGAAACCCTATGTATGTAAAGAATGTAAGAAGGCC
TTTCGTTCTATCTCAGGTCTTTCTCAACATAAGAGAATTCATACTGGTGAAAAACCCTATGAATGTAAAGAATGT
GATAAGGCCTTTAATCGCAGTGATCGACTTACTCAACATGAGACAATTCATACTGGTGTGAAACCACAGAAATGC
AAAGAATGTGGTAAGGCCTTTAGTCATTGCTATCAACTTAGTCAACATCAAAGATTTCACCATGATCTTATCCAG
AATGAACTATCTGAAATTCAAATGGATGAGTGGTTATGGGAAGCTTTTCTGAATTCATTCCTCAAAACGGTTGTG
CCTCTCCTAAGAATTCACCAGTAG

FIGURE 3779

GTCCTTCGGTGTCTGGGTGTGGTGAGTAGAGGTGTGTGTCACAAAGTACAGACCATTGTGTGTGACAAAGCCCAT
CGTGTGTCTGTGTGTGTCTTTATCCACGTGGATGGACGTCTCTTTCTTGCTCTGCCCCAAGACACACCCTAGCCC
CTCCTTATTCTCAAAAGGGGGAGCTGGGGAGCCTCCCCCTACCCTGGGGCCTCCCCTGCCCCTCCCCGCCCTGCC
TGGCCGTCACCACTCCCCAGAGGGCACAGGGCTCTGCTGTGCCTCAGAGCAAAAGTCCCAGAGCCAGCAGAGCAG
GCTGACGACCTGCAAGCCACAGTGGCTGCCCTGTGCGTGCTGCGAGGTGGGGGACCCTGGGCAGGAAGCTGGCTG
AGCCCCAAGACCCCGGGGGCC**ATG**GGCGGGGATCTGGTGCTTGGCCTGGGGGCCTTGAGACGCCGAAAGCGCTTG
CTGGAGCAGGAGAAGTCTCTGGCCGGCTGGGCACTGGTGCTGGCAGGAACTGGCATTGGACTCATGGTGCTGCAT
GCAGAGATGCTGTGGTTCGGGGGGTGCTCGTGGGCGCTCTACCTGTTCCTGGTTAAATGCACGATCAGCATTTCC
ACCTTCTTACTCCTCTGCCTCATCGTGGCCTTTCATGCCAAAGAGGTCCAGCTGTTCATGACCGACAACGGGCTG
CGGGACTGGCGCGTGGCGCTGACCGGGCGGCAGGCGGCGCAGATCGTGCTGGAGCTGGTGGTGTGTGGGCTGCAC
CCGGCGCCCGTGCGGGGCCCGCCGTGCGTGCAGGATTTAGGGGCGCCGCTGACCTCCCCGCAGCCCTGGCCGGGA
TTCCTGGGCCAAGGGGAAGCGCTGCTGTCCCTGGCCATGCTGCTGCGTCTCTACCTGGTGCCCCGCGCCGTGCTC
CTGCGCAGCGGCGTCCTGCTCAACGCTTCCTACCGCAGCATCGGCGCTCTCAATCAAGTCCGCTTCCGCCACTGG
TTCGTGGCCAAGCTTTACATGAACACGCACCCTGGCCGCCTGCTGCTCGGCCTCACGCTTGGCCTCTGGCTGACC
ACCGCCTGGGTGCTGTCCGTGGCCGAGAGGCAGGCTGTTAATGCCACTGGGCACCTTTCAGACACACTTTGGCTG
ATCCCCATCACATTCCTGACCATCGGCTATGGTGACGTGGTGCCGGGCACCATGTGGGGCAAGATCGTCTGCCTG
TGCACTGGAGTCATGGGTGTCTGCTGCACAGCCCTGCTGGTGGCCGTGGTGGCCCGGAAGCTGGAGTTTAACAAG
GCAGAGAAGCACGTGCACAACTTCATGATGGATATCCAGTATACCAAAGAGATGAAGGAGTCCGCTGCCCGAGTG
CTACAAGAAGCCTGGATGTTCTACAAACATACTCGCAGGAAGGAGTCTCATGCTGCCCGCAGGCATCAGCGCAAG
CTGCTGGCCGCCATCAACGCGTTCCGCCAGGTGCGGCTGAAACACCGGAAGCTCCGGGAACAAGTGAACTCCATG
GTGGACATCTCCAAGATGCACATGATCCTGTATGACCTGCAGCAGAATCTGAGCAGCTCACACCGGGCCCTGGAG
AAACAGATTGACACGCTGGCGGGGAAGCTGGATGCCCTGACTGAGCTGCTTAGCACTGCCCTGGGGCCGAGGCAG
CTTCCAGAACCCAGCCAGCAGTCCAAG**TAG**CTGGACCCACGAGGAGGAACCAGGCTACTTTCCCCAGTACTGAGG
TGGTGGACATCGTCTCTGCCACTCCTGACCCAGCCCTGAACAAAGCACCTCAAGTGCAAGGACCAAAGGGGGCCC
TGGCTTGGAGTGGGTTGGCTTGCTGATGGCTGCTGGAGGGGACGCTGGCTAAAGTGGGTAGGCCTTGGCCCACCT
GAGGCCCCAGGTGGGAACATGGTCACCCCCACTCTGCATACCCTCATCAAAAACACTCTCACTATGCTGCTATGG
ACGACCTCCAGCTCTCAGTTACAAGTGCAGGCGACTGGAGGCAGGACTCCTGGGTCCCTGGGAAAGAGGGTACTA
GGGGCCCGGATCCAGGATTCTGGGAGGCTTCAGTTACCGCTGGCCGAGCTGAAGAACTGGGTATGAGGCTGGGGC
GGGGCTGGAGGTGGCGCCCCCTGGTGGGACAACAAAGAGGACACCATTTTTCCAGAGCTGCAGAGAGCACCTGGT
GGGGAGGAAGAAGTGTAACTCACCAGCCTCTGCTCTTATCTTTGTAATAAATGTTAAAGCCAG

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FIGURE 3780

ATGGCTGCAATTGATGAGGAAGGAGGGAGAGAGATAGGAGATGAAGTCAATATATTGGTGAAGGAACAGACACAG
TTAGGGGTCAAGACTCTCATGAGGTTACTCAAGGAACCAGAGAAAGAACGGGACTCAGACTCAGATTTCTCCCCT
CTTCAGCAGACTGAGGGATGCCAGCGAAGAGACAAGCACTTCCGTCATGCAGAAAACCCCCATCATCCTCTCAAA
ACCTCCAGCAGAGCGGCCCCCTCTGGAGAAGCCCATCGTTCTCATGAAGCCACGGGAGGAGGGGAAGGGGCCTGTG
GCCGTGACAGGTGCCTCTACCCCTGAGGGCACCGCCCCACCACCCCCTGCAGCCCCTGCGCCACCCAAGGGGGAG
AAGGAGGGGCAGAGACCCACACAGCCTGTGTACCAGATCCAGAACCGGGGCATGGGCACTGCCGCACCAGCAGCC
ATGGACCCTGTCGTGGGTCAGGCCAAACTACTGCCCCCAGAGCGCATGAAGCACAGCATCAAGTTGGTGGATGAC
CAGATGAATTGGTGTGACAGTGCCATCGAGTACCTGTTGGATCAGACTGATGTGTTGGTGGTTGGTGTCCTGGGC
CTCCAGGGGACAGGCAAGTCCATGGTCATGTCATTGTTGTCAGCCAACACTCCAGAGGAGGACCAGAGGACTTAT
GTTTTCCGGGCCCAGAGCGCTGAAATGAAGGAACGAGGGGGCAACCAGACCAGTGGCATCGACTTCTTTATTACC
CAAGAACGGATTGTTTTCCTGGACACACAGCCCATCCTGAGCCCTTCTATCCTAGACCATCTCATCAATAATGAC
CGCAAACTGCCTCCAGAGTACAACCTTCCCCACACTTACGTTGAAATGCAGTCACTCCAGATTGCTGCCTTCCTT
TTCACGGTCTGCCATGTGGTGATTGTTGTCCAGGACTGGTTCACAGACCTCAGTCTCTACAGGCTGTGGGACCTG
GGGTGCAAGTGCAAGAGCAACAGCCACTCACCCCAAACCCCAAGGTTCCTGCAGACAGCAGAGATGGTGAAGCCC
TCCACCCCATCCCCCAGCCACGAGTCCAGCAGCTCATCGGGCTCCGATGAAGGCACCGAGTACTACCCCCACCTA
GTCTTCTTGCAGAACAAAGCTCGCCGAGAGGACTTCTGTCCTCGGAAGCTGCGGCAGATGCACCTGATGATTGAC
CAGCTCATGGCCCACTCCCACCTGCGTTACAAGGGAACTCTGTCCATGTTACAATGCAATGTCTTCCCGGGGCTT
CCACCTGACTTCCTGGACTCTGAGGTCAACTTATTCCTGGTACCCTTCATGGACAGTGAAGCAGAGAGTGAAAAC
CCACCAAGAGCAGGACCTGGTTCCAGCCCACTCTTCTCCCTGCTGCCTGGGTATCGTGGCCACCCCAGTTTCCAG
TCCTTGGTGAGCAAGCTCCGGAGCCAAGTGATGTCCATGGCCCGGCCACAGCTGTCACACACGATCCTCACCGAG
AAGAACTGGTTCCACTACGCTGCCCGGATCTGGGATGGGGTGAGAAAGTCCTCTGCTCTGGCAGAGTACAGCCGC
CTGCTGGCC**TGA**

FIGURE 3781

CAGTATCCCTCCTGACAAAACTAACAAAAATCCTGTTAGCCAAATAATCAGCCACATTCATATTTACCGTCAAAG
TTTTTATCCTCATTTTACAGCAGTGGAGAGCGATTGCCCCGGGTCCCACGTTAGGAAGAGAGAGAACTGGGATTT
GCACCCAGGCAATCTGGGGACAGAGCTGTGATCACAACTCCATGAGTCAGGGCCGAGCCAGCCCCTTCACCACCA
GCCGGCCGCGCCCCGGGAAGGGAAGTTTGTGGCGGAGGAGGTTCGTACGGGAGGAGGGGGAGGCGCCCACGCATC
TGGGGCTGACTCGCTCTTTCGCAAAACGTCTGGGAGGAGTCCCTGGGGCCACAAAACTGCCTCCTTCCTGAGGCC
AGAAGGAGAGAAGACGTGCAGGGACCCCGCGCACAGGAGCTGCCCTCGCGAC**ATG**GGTCACCCGCCGCTGCTGCC
GCTGCTGCTGCTGCTCCACACCTGCGTCCCAGCCTCTTGGGGCCTGCGGTGCATGCAGTGTAAGACCAACGGGGA
TTGCCGTGTGGAAGAGTGCGCCCTGGGACAGGACCTCTGCAGGACCACGATCGTGCGCTTGTGGGAAGAAGGAGA
AGAGCTGGAGCTGGTGGAGAAAAGCTGTACCCACTCAGAGAAGACCAACAGGACCCTGAGCTATCGGACTGGCTT
GAAGATCACCAGCCTTACCGAGGTTGTGTGTGGGTTAGACTTGTGCAACCAGGGCAACTCTGGCCGGGCTGTCAC
CTATTCCCGAAGCCGTTACCTCGAATGCATTTCCTGTGGCTCATCAGACATGAGCTGTGAGAGGGGCCGGCACCA
GAGCCTGCAGTGCCGCAGCCCTGAAGAACAGTGCCTGGATGTGGTGACCCACTGGATCCAGGAAGGTGAAGAAGG
GCGTCCAAAGGATGACCGCCACCTCCGTGGCTGTGGCTACCTTCCCGGCTGCCCGGGCTCCAATGGTTTCCACAA
CAACGACACCTTCCACTTCCTGAAATGCTGCAACACCACCAAATGCAACGAGGGCCCAATCCTGGAGCTTGAAAA
TCTGCCGCAGAATGGCCGCCAGTGTTACAGCTGCAAGGGGAACAGCACCCATGGATGCTCCTCTGAAGAGACTTT
CCTCATTGACTGCCGAGGCCCCATGAATCAATGTCTGGTAGCCACCGGCACTCACGAACCGAAAAACCAAAGCTA
TATGGTAAGAGGCTGTGCAACCGCCTCAATGTGCCAACATGCCCACCTGGGTGACGCCTTCAGCATGAACCACAT
TGATGTCTCCTGCTGTACTAAAAGTGGCTGTAACCACCCAGACCTGGATGTCCAGTACCGCAGTGGGGCTGCTCC
TCAGCCTGGCCCTGCCCATCTCAGCCTCACCATCACCCTGCTAATGACTGCCAGACTGTGGGGAGGCACTCTCCT
CTGGACC**TAA**ACCTGAAATCCCCCTCTCTGCCCTGGCTGGATCCGGGGGACCCCTTTGCCCTTCCCTCGGCTCCC
AGCCCTACAGACTTGCTGTGTGACCTCAGGCCAGTGTGCCGACCTCTCTGGGCCTCAGTTTTCCCAGCTATGAAA
ACAGCTATCTCACAAAGTTGTGTGAAGCAGAAGAGAAAAGCTGGAGGAAGGCCGTGGGCCAATGGGAGAGCTCTT
GTTATTATTAATATTGTTGCCGCTGTTGTGTTGTTGTTATTAATTAATATTCATATTATTTATTTTATACTTACA
TAAAGATTTTGTACCAGTGG

FIGURE 3782

CTGCCCCGCACACGCACGCGCGAACCCTTCAGCTTCTTGTTCCTTTGGGCCGCGGGCTGTACCAAGTAAACCCAG
GCAGCGAGGGGCAAAGCACGGCGCCCCCCGCGCGGGTCTCGTCGACGGCCCGACGCGCATAGCCCCTCTTCCCAC
AGCGCTACAGGACTAGTCCGTCTCGCCGCGCAAGCGCCCTAGGCTCTTCACGCCCCCTGCGCGCTGTCCTACCCT
ACTTGCGACGCAGGCGCAGAGGCTGGGCGTGCAGCCGCCGCCGCAGAGCCGGAGCGGGGGCCGCCGGCGCCGCAT
CCCTCTCTACCTGCCAACATCCTGTATTAGAGAACTTGTGGCCGGAGGTGTGGCTGTGGAGAGCTGGCCGGGGAG
GGACGCTGCTCAGCTGCTGCTCTGCTCCTGTCTCCTGTCCCCTCCCCCGGTC**ATG**ACAGAGACCCGTGAGCCAGC
TGAGACTGGGGGCTACGCCAGCTTGGAAGAAGATGATGAAGACCTTTCCCCAGGCCCCGAGCATTCCTCTGATTC
AGAATACACTCTCTCAGAGCCGGACTCCGAAGAGGAAGAAGATGAGGAGGAGGAGGAAGAGGAGACCACTGACGA
TCCTGAATATGATCCTGGCTACAAGGTGAAGCAGCGCCTTGGCGGGGGCCGTGGTGGCCCATCCCGCCGGGCCCC
CCGTGCAGCCCAGCCCCCGGCCCAGCCTTGCCAGCTCTGTGGCCGCTCACCCCTTGGGGAGGCCCCACCGGGAAC
CCCACCCTGCCGGCTCTGCTGCCCTGCTACAGCCCCCCAGGAAGCACCAGCCCCTGAAGGCAGGGCCCTCGGGGA
GGAAGAGGAGGAACCACCTCGGGCTGGGGAGGGCCGACCAGCTGGGCGGGAGGAGGAGGAGGAAGAGGAGGAGGA
GGGAACCTACCACTGTACGGAATGTGAGGATTCCTTCGACAACCTGGGGGAGCTGCACGGGCACTTCATGCTGCA
TGCCCGGGGTGAGGTG**TAG**GCAGAGCCCCCATACGGGGAGCTTGGCAGAAGGGGTGGGGTGGGAGGAGGGGGCTG
AGGAAATTGGGGTTGTGACAGTGGTCATGGGGGATGGGGTACTGCCGGTCTGTGTTGTCTTAGAAGTAGATGTGT
GATGGCCAGAATAAAAGCCAAAATCTGT

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FIGURE 3783

ACTTTAGCCAGCGCAGGGCGCACCCCGCCCCCTCCCACTCTCCCTGCCCCTCGGACCCCATACTCTACCTCATCC
TTCTGGCCAGGCGAAGCCCACGACGTTGAC**ATG**CCGGAGATCCGCCTCCGCCATGTCGTGTCCTGCAGCAGCCAG
GACTCGACTCACTGTGCAGAAAATCTTCTCAAGGCAGACACTTACCGAAAATGGCGGGCAGCCAAGGCAGGCGAG
AAGACCATCTCTGTGGTCCTACAGTTGGAGAAGGAGGAGCAGATACACAGTGTGGACATTGGGAATGATGGCTCA
GCTTTCGTGGAGGTGCTGGTGGGCAGTTCAGCTGGAGGCGCTGGGGAGCAAGACTATGAGGTCCTTCTGGTCACC
TCATCTTTCATGTCCCCTTCCGAGAGCCGCAGTGGCTCAAACCCCAACCGCGTTCGCATGTTTGGGCCTGACAAG
CTGGTCCGGGCAGCCGCCGAGAAGCGCTGGGACCGGGTCAAAATTGTTTGCAGCCAGCCCTACAGCAAGGACTCC
CCCTTTGGCTTGAGTTTTGTACGGTTTCATAGCCCCCCAGACAAAGATGAGGCAGAGGCCCCGTCCCAGAAGGTG
ACAGTGACCAAGCTTGGCCAGTTCCGTGTGAAGGAGGAGGATGAGAGCGCCAACTCTCTGAGGCCGGGGGCTCTC
TTCTTCAGCCGGATCAACAAGACATCCCCAGTCACAGCCAGCGACCCAGCAGGACCTAGCTATGCAGCTGCTACC
CTCCAGGCTTCTAGTGCTGCCTCCTCAGCCTCTCCAGTCTCCAGGGCCATAGGCAGCACCTCCAAGCCCCAGGAG
TCTCCCAAAGGGAAGAGGAAGTTGGATTTGAACCAAGAAGAAAAGAAGACCCCCAGCAAACCACCAGCCCAGCTG
TCGCCATCTGTTCCCAAGAGACCTAAATTGCCAGCTCCAACTCGTACCCCAGCCACAGCCCCAGTCCCTGCCCGA
GCACAGGGGGCAGTGACAGGCAAACCCCGAGGAGAAGGCACCGAGCCCAGACGACCCCGAGCTGGCCCAGAGGAG
CTGGGGAAGATCCTTCAGGGTGTGGTAGTGGTGCTGAGTGGCTTCCAGAACCCCTTCCGCTCCGAGCTGCGAGAT
AAGGCCCTAGAGCTTGGGGCCAAGTATCGGCCAGACTGGACCCGGGACAGCACGCACCTCATCTGTGCCTTTGCC
AACACCCCCAAGTACAGCCAGGTCCTAGGCCTGGGAGGCCGCATCGTGCGTAAGGAGTGGGTGCTGGACTGTCAC
CGCATGCGTCGGCGGCTGCCCTCCCAGAGGTACCTCATGGCAGGGCCAGGTTCCAGCAGTGAGGAGGATGAGGCC
TCTCACAGCGGTGGCAGCGGAGATGAAGCCCCCAAGCTTCCTCAGAAGCAACCCCAGACCAAAACCAAGCCCACT
CAGGCAGCTGGACCCAGCTCACCCCAGAAGCCCCCAACCCCTGAAGAGACCAAAGCAGCCTCACCAGTGCTCCAG
GAAGATATAGACATTGAGGGGGTACAGTCAGAAGGACAGGACAATGGGGCGGAAGATTCTGGGGACACAGAGGAT
GAGCTGAGGAGGGTGGCAGAGCAGAAGGAACACAGACTGCCCCCTGGCCAGGAGGAGAATGGGGAAGACCCGTAT
GCAGGCTCCACGGATGAGAACACGGACAGTGAGGAACACCAGGAGCCTCCTGATCTGCCAGTCCCTGAGCTCCCA
GATTTCTTCCAGGGCAAGCACTTCTTTCTTTACGGGGAGTTCCCTGGGGACGAGCGGCGGAAACTCATCCGATAC
GTCACAGCCTTCAATGGGGAGCTCGAGGACAATATGAGTGACCGGGTTCAGTTTGTGATCACAGCACAGGAATGG
GATCCCAGCTTTGAGGAGGCCCTGATGGACAACCCCTCCCTGGCATTCGTTCGTCCCCGATGGATCTACAGTTGC
AATGAGAAGCAGAAGTTACTTCCTCACCAGCTCTATGGGGTGGTGCCGCAAGCC**TGA**AGTATGTGCTATACACAC
ACACACACACACACACACACACACACACACACACGATGCATTTAATAAAGATGAGTTGGTTCTC

FIGURE 3784

GGCTGGCGCACCCAGCCCCTCCTTCCATTCCTTCTTCCCCCTCTCTGCAGCCTCTGCCAGCCCGCACTGCGCATG
CTTTCTGACGCCCCCTTTGGTCCAGCGTGGGAGGAGGGGATGGAAATGAGGTTGGGCTAAGCAGCTTGCGCGCGC
TCCCTTGCCTGCCCTCCCCCGACGCCGGACGCGCGCCGGGCGGGGCAGCTCCGCTGGTCCGAGGGCAGTGCAGCA
GCGGCGACAGCGGCTGCGGCCGTGGCCGTGGCGGGAGGAGCCGGAAGCCCCGCCCCCGGGGAGGGGCCGTCCTGC
AGGTCCCCCCTCTATCCTCCACGGCCCCATCCAAGCCAGGGATGAAATTTAACGGCAAGAAGGGCGCAGTTGACG
CGGCGTCAATGAACTGAGACTAAGTCAAAAGCCGGGCCCTCCAACCCTATCCCCATCAGCCTGGTCATCACCGGC
GTCACCCCCGCCCCGCGCCCTGCCCCTAGGTTCCTGTGCCAGCAAG**ATG**CTGGAGCGAGGCGCGGAGTCCGCGGC
CGGGGCTACCGATCCTAGTCCCACTGGCAAGGAACCAGTGACCAAAGAAGCTCCCCACCAGGGCCCACCGCAGAA
GCCCAGCCAGTCAGCTCCAGGGCCCACCGCGTCCGCGGGCTCGCCTCCCCGGCCTCGCCGGCGGCCCCCGCCCCA
GCGCCCGCACCGCTGCCCCGACTGTGACAAGGCCTTCTCGTACCCGTCCAAGCTGGCCACGCACCGCTTAGCACA
CGGAGGCGCCCGACCCCACCCATGCCCAGACTGCCCCAAGGCCTTCTCCTACCCCTCCAAGCTGGCAGCCCACCG
CCTCACGCACAGCGGCGCCCGCCCGCACCCGTGCCCACACTGCCCGAAGTCCTTTGGCCACCGCTCCAAGCTGGC
GGCTCACCTCTGGACCCACGCACCCACCCGCCCCTACCCGTGCCCCGACTGCCCCAAGTCCTTCTGCTACCCTTC
CAAGCTGGCGGCCCACCGCCACACGCACCACGCCACCGACGCCCGCCCCTATCCTTGCCCGCATTGCCCCAAGGC
TTTCTCATTTCCCTCCAAGCTGGCCGCCCATCGCCTATGTCACGACCCCCCAACCGCGCCCGGCAGCCAGGCGAC
TGCCTGGCACCGATGCTCCAGCTGCGGCCAGGCCTTTGGCCAGAGACGCTTACTGCTCCTTCATCAACGCAGCCA
CCACCAGGTGGAGCACAAGGGGGAGAGAGAC**TGA**GCCCTCCCTTGGCTCACTGTCCCCTTCTGCCGCCAGCCCTA
GCCAGTAAGAGGTGGGATTTCTAAGACCGACTGTATGAGCTCGCCTCTTCCAGATAGCTGGCAGAGGGCAGGGCA
AGGGATTGGCCATTTATACTGGGCTCGAGCTCAGAAGCCCGAGGAACTCTTTGCTCCCCTGCTTTGGGGAGATCT
CAAACCATGGACGTGGAGCTGTGGTTTGACAGCGCTGGCTCTGCTTCTCCCCACACACTTACATGGCAAAGGTAA
AAAGTCTGCTACTATCGTGGGTTGATGAGGATTGTGGGCAAACAGGCTCTCTTGTTAAAAGTTTAAACTGGTGTC
TCCACTTTGGCCATATGACGGTATCTAAGAAATTGAAAATACATACATGCTTGTCTCAACTCTTCCACTTGTAGG
AATTTATTCTATAAACTCATGAATGTG

FIGURE 3785

CCACGCCTGCATCTTGCGGAAAGCGGGGTGGAGGTTTAGGGCTGGACTCTTGGGTCCTTTAAAGGTGAGTGGTCT
GGGGGCCTCTGGGCTTGGGGCCAGACCCCTGGGTCCTCTATGAAAGAACGTGCTGGGGACCCTGATTTTGGGATG
TTAGGAAGTTGGAACTCTTTTGTTCTGATAGGGGAAGGTAGTGGGGCTCCGGACTCCCGACTCCCGGGGAAAGAG
TGGGCTGGGGTTTCTGCTTCTGGATCTTAGGAAGAGGATAGGGTCAGTCTGGACTACTTGGCCTCCAGTGGGTGG
AAGTCCGGTTCTGCGCCCTCACCTGGGTCCCCCGTTCCCAG**ATG**TTCGAGCCTGTGAGCTGCACCTTCACGTACC
TGCTGGGTGACAGAGAGTCCCGGGAGGCCGTTCTGATCGACCCAGTCCTGGAAACAGCGCCTCGGGATGCCCAGC
TGATCAAGGAGCTGGGGCTGCGGCTGCTCTATGCTGTGAATACCCACTGCCACGCGGACCACATTACAGGCTCGG
GGCTGCTCCGTTCCCTCCTCCCTGGCTGCCAGTCTGTCATCTCCCGCCTTAGTGGGGCCCAGGCTGACTTACACA
TTGAGGATGGAGACTCCATCCGCTTCGGGCGCTTCGCGTTGGAGACCAGGGCCAGCCCTGGCCACACCCCAGGCT
GTGTCACCTTCGTCCTGAATGACCACAGCATGGCCTTCACTGGAGATGCCCTGTTGATCCGTGGGTGTGGGCGGA
CAGACTTCCAGCAAGGCTGTGCCAAGACCTTGTACCACTCGGTCCATGAAAAGATCTTCACACTTCCAGGAGACT
GTCTGATCTACCCTGCTCACGATTACCATGGGTTCACAGTGTCCACCGTGGAGGAGGAGAGGACTCTGAACCCTC
GGCTCACCCTCAGCTGTGAGGAGTTTGTCAAAATCATGGGCAACCTGAACTTGCCTAAACCTCAGCAGATAGACT
TTGCTGTTCCAGCCAACATGCGCTGTGGGGTGCAGACACCCACTGCC**TGA**TCTCACTTCTGTCAGATGCTCCCAT
CCACTATTAATGCACTAGGTGGGAGGAGAGGGCGGCAATGACACTGCACCTCTCCTTTCCCACCGCATTCCCTGG
AGCTCCCTAAATAAAACTTTTTTTAACGTG

FIGURE 3786

GGCAGCCGAGAGCCGGGGGTTGAGCCGGAAGAAGGAGGAGGCCCTTCAGGCCCTGTCACAGGAACGGAGCCGGCT
GCTCGAGCTCAATTGCCTTCAGGGAACACCTGGCGGGGACTTCTCTGAGCCCAACCCGGCCCTCACTAAGCTGCT
GTTCACCCAGAAGACAGACCGCCAGCTGCTGGTGCTCCAGGATGCCGTGGCCCACTCCGCTGCCACCCCTACTTC
TTCCTGCCTCTTTTCTGTCCACAGCTCCCTGCAGAATCCCTGGAGGCCTCAGCTCTCCCGCCAGCAGTGGGGGAC
TCCGGCAGATACCCCCTCTACCAGCTGCTGAACTGTGGCCGTGGGAATAGCTGTGGGGCCATCCATCCAGACATT
GCCCAC**ATG**GAGCGGCTCCTGCAGCAGGCCATGGCGGAGAGGGAGCGGCTGCTCAAGGCCCGGGAAGGAACAAGA
AGGGGCACGGAAGGTTCCTCAGGCCCTGCTGTTCCTGCCATCACGGCCCCACCCACCCCACCCCACCCTCCAGGC
CCGCGAATCTTGGATCTCCGGCAGCATCTGGAGGGATGGGGCCACAACCCGGAAAACTGCCCACATGTGCAGGTG
TCTGGGTGCTGCTGCCGTGGACCCCTGGTGAAGATGGGCGGCCGCATCAAGACCTGGAGGAAGCGATGGTTCTGC
TTTGACCGCCAAGCCCGCCGCTTGGCCTACTATGCGGACAAGGAAGAGACCAAGCTCAAAGGTGTCATCTACTTC
CAGGCCATTGAGGAAGTCTATTATGACCACTTACGCTGTGCCTTCAAGAGCCCCAACCCCCGCCTGACCTTCTGC
GTCAAAACCTACGAACGCCTTTTCTACATGGTGGCTCCGAGCCCCGAAGCCATGCGCATTTGGATGGACGTCATC
GTGACCGCCGCTGACGAAAACCACGCCCCC**TGA**GTGGCCCCGCCCTCTTGGGGGGAAGTCCCTTCGAGGCTCCGC
CGGCGCGGGGCGCGGGGGCGTTCCTAGGCCCCGCCCACTGCCGGAAAACTTGGACGCACCGCTTTGGAACTCTCC
CGGGAATTCCGCAGGCGCGGCAGTTCAGCTGGCCTGAGCTGCTGCGTTCTGGGTTGCAGGTGCCTTGCCCCCGAC
GGGATCGCCGGCCCCTAAGGCCCTGCCCGGGGCAGGAGGAAGATTGCAGGGGCGGGAAGAAACTATTTATTGGTG
CTCCTGTGATACCGAATTAAATACGGAGGA

FIGURE 3787

GGTTACTCATCCTGGGCTCAGGTAAGAGGGCCCGAGCTCGGAGGCGGCACATCCAGGGGGGACGCCAAGGGAGCA
GGACGGAGCC**ATG**GACCCCGCCAGGAAAGCAGGTGCCCAGGCCATGATCTGGACTGCAGGCTGGCTGCTGCTGCT
GCTGCTTCGCGGAGGAGCGCAGGCCCTGGAGTGCTACAGCTGCGTGCAGAAAGCAGATGACGGATGCTCCCCGAA
CAAGATGAAGACAGTGAAGTGCGCGCCGGGCGTGGACGTCTGCACCGAGGCCGTGGGGGCGGTGGAGACCATCCA
CGGACAATTCTCGCTGGCAGTGCGGGGTTGCGGTTCGGGACTCCCCGGCAAGAATGACCGCGGCCTGGATCTTCA
CGGGCTTCTGGCGTTCATCCAGCTGCAGCAATGCGCTCAGGATCGCTGCAACGCCAAGCTCAACCTCACCTCGCG
GGCGCTCGACCCGGCAGGTAATGAGAGTGCATACCCGCCCAACGGCGTGGAGTGCTACAGCTGTGTGGGCCTGAG
CCGGGAGGCGTGCCAGGGTACATCGCCGCCGGTCGTGAGCTGCTACAACGCCAGCGATCATGTCTACAAGGGCTG
CTTCGACGGCAACGTCACCTTGACGGCAGCTAATGTGACTGTGTCCTTGCCTGTCCGGGGCTGTGTCCAGGATGA
ATTCTGCACTCGGGATGGAGTAACAGGCCCAGGGTTCACGCTCAGTGGCTCCTGTTGCCAGGGGTCCCGCTGTAA
CTCTGACCTCCGCAACAAGACCTACTTCTCCCCTCGAATCCCACCCCTTGTCCGGCTGCCCCCTCCAGAGCCCAC
GACTGTGGCCTCAACCACATCTGTCACCACTTCTACCTCGGCCCCAGTGAGACCCACATCCACCACCAAACCCAT
GCCAGCGCCAACCAGTCAGACTCCGAGACAGGGAGTAGAACACGAGGCCTCCCGGGATGAGGAGCCCAGGTTGAC
TGGAGGCGCCGCTGGCCACCAGGACCGCAGCAATTCAGGGCAGTATCCTGCAAAAGGGGGGCCCCAGCAGCCCCA
TAATAAAGGCTGTGTGGCTCCCACAGCTGGATTGGCAGCCCTTCTGTTGGCCGTGGCTGCTGGTGTCCTACTG**TG**
AGCTTCTCCACCTGGAAATTTCCCTCTCACCTACTTCTCTGGCCCTGGGTACCCCTCTTCTCATCACTTCCTGTT
CCCACCACTGGACTGGGCTGGCCCAGCCCCTGTTTTTCCAACATTCCCCAGTATCCCCAGCTTCTGCTGCGCTGG
TTTGCGGCTTTGGGAAATAAAATACCGTTGTATATATTCTGCCAGGGGTGTTCTAGCTTTTTGAGGACAGCTCCT
GTATCCTTCTCATCCTTGTCTCTCCGCTTGTCCTCTTGTGATGTTAGGACAGAGTGAGAGAAGTCAGCTGTCACG
GGGAAGGTGAGAGAGAGGATGCTAAGCTTCCTACTCACTTTCTCCTAGCCAGCCTGGACTTTGGAGCGTGGGGTG
GGTGGGACAATGGCTCCCCACTCTAAGCACTGCCTCCCCTACTCCCCGCATCTTTGGGGAATCGGTTCCCCATAT
GTCTTCCTTACTAGACTGTGAGCTCCTCGAGGGCAGGGACCGTGCCTTATGTCTGTGTGTGATCAGTTTCTGGCA
CATAAATGCCTCAATAAAGATTTAATTACTTTGTATAGTG

FIGURE 3788

CAGGTGGGAGGTTAGTGTGGCCCGGGCGTCCGCTCCTCAGCGGATGTGGCAGCCCCGAGCC**ATG**GCTCTCGCCGT
CCGAGTCGTTTATTGTGGCGCTTGAGGCTACAAGTCCAAGTATCTTCAGCTCAAGAAGAAGTTAGAAGATGAGTT
CCCCGGCCGCCTGGACATCTGCGGCGAGGGAACTCCCCAGGCCACCGGGTTCTTTGAAGTGATGGTAGCCGGGAA
GTTGATTCACTCTAAGAAGAAAGGCGATGGCTACGTGGACACAGAAAGCAAGTTTCTGAAGTTGGTGGCCGCCAT
CAAAGCCGCCTTGGCTCAGGGC**TAA**TGCGCCCTGAAGGCAGAGTCCAGGGACCTTGACCCAGCCCCTCTCAGCAG
ACGCTTCATGATAGGAAGGACTGAAAAGTCTTGTGGACACCTGGTCTTTCCCTGATGTTCTCGTGGCTGCTGTTG
GGGGCAGAGATTGACGCCCCCGGTCTTTGCCTCTGAGCGGGAGAGTCTGTGTGTATGTGTCTTCCCCGGAATCCA
CACCACCCCACCCTCCTCCTGTCCCGTGGTTTCATCATATCTCTTTGCATACCCCATGTCTTCCCCAGTTGTCCC
CTGGAGTTTGGGGGGACATCCCGCCTCAGGCATCCTTCTCAAGGGGAAGCCAAGAGAGGCATCAGGATGGGTGGG
TTTCTGATTGTGGCAACGTTTGCAACCGTTCACGATTCAATAAATATTGGATGAATTTAAC

FIGURE 3789

TGACAAG**ATG**GCGGCAGGAGGCAGTGGCGTTGGTGGGAAGCGCAGCTCGAAAAGCGATGCCGATTCTGGTTTCCT
GGGGCTGCGGCCCACTTCGGTGGACCCAGCGCTGAGGCGGCGGCGGCGAGGCCCAAGAAATAAGAAGCGGGGCTG
GCGGCGGCTTGCTCAGGAGCCGCTGGGGCTGGAGGTTGACCAGTTCCTGGAAGACGTGCGGCTACAGGAGCGCAC
GAGCGGTGGCTTGTTGTCAGAGGCCCCAAATGAAAAACTCTTCTTCGTGGACACTGGCTCCAAGGAAAAAGGGCT
GACAAAGAAGAGAACCAAAGTCCAGAAGAAGTCACTGCTTCTCAAGAAACCCCTTCGGGTTGACCTCATCCTCGA
GAACACATCCAAAGTCCCTGCCCCCAAAGACGTCCTCGCCCACCAGGTCCCCAACGCCAAGAAGCTCAGGCGGAA
GGAGCAGCTATGGGAGAAGCTGGCCAAGCAGGGCGAGCTGCCCCGGGAGGTGCGCAGGGCCCAGGCCCGGCTCCT
CAACCCTTCTGCAACAAGGGCCAAGCCCGGGCCCCAGGACACCGTAGAGCGGCCCTTCTACGACCTCTGGGCCTC
AGACAACCCCCTGGACAGGCCGTTGGTTGGCCAGGATGAGTTTTTCCTGGAGCAGACCAAGAAGAAAGGAGTGAA
GCGGCCAGCACGCCTGCACACCAAGCCGTCCCAGGCACCCGCCGTGGAGGTGGCGCCTGCCGGAGCTTCCTACAA
TCCATCCTTTGAAGACCACCAGACCCTGCTCTCAGCGGCCCACGAGGTGGAGTTGCAGCGGCAGAAGGAGGCGGA
GAAGCTGGAGCGGCAGCTGGCCCTGCCCGCCACGGAGCAGGCCGCCACCCAGGAGTCCACATTCCAGGAGCTGTG
CGAGGGGCTGCTGGAGGAGTCGGATGGTGAGGGGGAGCCAGGCCAGGGCGAGGGGCCGGAGGCTGGGGATGCCGA
GGTCTGTCCCACGCCCGCCCGCCTGGCCACCACAGAGAAGAAGACGGAGCAGCAGCGGCGGCGGGAGAAGGCTGT
GCACAGGCTGCGGGTACAGCAGGCCGCGTTGCGGGCCGCCCGGCTCCGGCACCAGGAGCTGTTCCGGCTGCGCGG
GATCAAGGCCCAGGTGGCCCTGAGGCTGGCGGAGCTGGCGCGGCGGCAGAGGCGGCGGCAGGCGCGGCGGGAGGC
TGAGGCTGACAAGCCCCGAAGGCTGGGGCGGCTCAAGTACCAGGCACCTGACATCGACGTGCAGCTGAGCTCGGA
GCTGACAGACTCGCTCAGGACCCTGAAGCCCGAGGGCAACATCCTTCGAGACCGGTTCAAGAGCTTCCAGAGGAG
GAATATGATCGAGCCTCGAGAGAGAGCCAAGTTCAAACGCAAGTACAAGGTGAAGCTGGTGGAGAAGCGGGCGTT
CCGTGAGATCCAGTTG**TAG**CTGCCATCAGATGCCGGAGACTCGCCCTTCAATAAAAAATCTCTTCTAGCTG

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FIGURE 3790

CGTCTCTCCGTGAACCCCGTGAGCGGTGTGCAGCCACC**ATG**TTCAGCTGGCTGAAGCGGGGCGGGGCACGGGGCC
AGCAGCCCGAGGCCATCCGCACGGTGACCTCGGCCCTCAAGGAGCTGTACCGCACGAAGCTGCTGCCGCTGGAGG
AGCACTACCGCTTTGGGGCCTTCCACTCGCCGGCCCTGGAGGACGCAGACTTCGACGGCAAGCCCATGGTGCTGG
TGGCCGGCCAGTACAGCACGGGCAAGACCAGCTTCATCCAGTACCTGCTGGAGCAGGAGGTGCCCGGCTCCCGCG
TGGGGCCTGAGCCCACCACCGACTGCTTTGTGGCCGTCATGCACGGGGACACTGAGGGCACCGTGCCCGGCAACG
CCCTCGTCGTGGACCCGGACAAGCCCTTCCGCAAACTCAACCCTTTCGGAAACACCTTCCTCAACAGGTTCATGT
GTGCCCAGCTCCCTAATCAGGTCCTGGAGAGCATCAGCATCATCGACACCCCGGGTATCCTGTCGGGTGCCAAGC
AGAGAGTGAGCCGCGGCTACGACTTCCCGGCCGTGCTGCGCTGGTTCGCGGAGCGCGTGGACCTCATCATCCTGC
TCTTTGATGCGCACAAGCTGGAGATCTCGGACGAGTTCTCAGAGGCCATCGGCGCGTTGCGGGGCCATGAGGACA
AGATCCGCGTGGTGCTCAACAAGGCCGACATGGTGGAGACGCAGCAGCTGATGCGCGTCTACGGCGCGCTCATGT
GGGCGCTGGGCAAGGTGGTGGGCACGCCCGAGGTGCTGCGCGTCTACATCGGCTCCTTCTGGTCCCAGCCCCTCC
TCGTGCCCGACAACCGGCGCCTCTTCGAGCTGGAGGAGCAGGACCTCTTCCGCGACATCCAGGGCCTGCCCCGGC
ACGCAGCCTTGCGCAAGCTCAACGACCTGGTGAAGAGGGCCCGGCTGGTGCGAGTTCACGCTTACATCATCAGCT
ACCTGAAGAAGGAGATGCCCTCTGTGTTTGGGAAGGAGAACAAGAAGAAGCAGCTGATCCTCAAACTGCCCGTCA
TCTTTGCGAAGATTCAGCTGGAACATCACATCTCCCCTGGGGACTTTCCTGATTGCCAGAAAATGCAGGAGCTGC
TGATGGCGCACGACTTCACCAAGTTTCACTCGCTGAAGCCGAAGCTGCTAGAGGCACTGGACGAGATGCTGACGC
ACGACATCGCCAAGCTCATGCCCCTGCTGCGGCAGGAGGAGCTGGAGAGCACCGAGGTGGGCGTGCAGGGGGGCG
CTTTTGAGGGCACCCACATGGGCCCGTTTGTGGAGCGGGGACCTGACGAGGCCATGGAGGACGGCGAGGAGGGCT
CGGACGACGAGGCCGAGTGGGTGGTGACCAAGGACAAGTCCAAATACGACGAGATCTTCTACAACCTGGCGCCTG
CCGACGGCAAGCTGAGCGGCTCCAAGGCCAAGACCTGGATGGTGGGGACCAAGCTCCCCAACTCAGTGCTGGGGC
GCATCTGGAAGCTCAGCGATGTGGACCGCGACGGCATGCTGGATGATGAGGAGTTCGCGCTGGCCAGCCACCTCA
TCGAGGCCAAGCTGGAAGGCCACGGGCTGCCCGCCAACCTGCCCCGTCGCCTGGTGCCACCCTCCAAGCGACGCC
ACAAGGGCTCCGCCGAG**TGA**GCCGGCCCCCCTCCCATGGCCCTGCTGTGGCTCCCCAGCTCCAGTCGGCTGCACG
CACACCCCTGCTCCGGCTCACACACGCCCTGCCTGCCCTCCCTGCCCAGCTGTAAGGACCGGGGGTCTCCCTCCT
CACTACCGCCAGACACCCCGGTGGAAGCATTTAGAGGGGACCACGGGAGGGACAAGGCTTCTCTGTCCGCCCTTC
ACACCTCCAGCCTCACGTTCACTTAGGCACATCACACACACACTGGCACACGCAGGCATCCATCCATCCGTCATT
CATTCAAATATTTATTGAGCACCTACTATGTGCCCAGCCCTGTTCTAGGCACTGGGCATTACCATAGAGAACAAA
ATAGACAAATACATCTGCCCTCATGGAAGGTGACGTTCCCAGGAGAGGGCACCTACACAGTCACGCAAACACACA
CTAATTCCTGGCAGGGCCCCCAGCCCCTCCCCTGGCTGAGCAGCCCTGTGGCTGAAATGACTAGCAGATAAACAG

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FIGURE 3791A

CTCGTAGCTCCACTCTGCAGCCTCAAACTCCTGGGCTCCAGTGATCCTCTCACCTCAGCCTCCCAAGTAGCTAAG
ACCACAGGCACATGCTGCCACCCCTGACTAATTTTTCTTTTTTAAAATTTTTTTCTCACTGCGTTGCCCAGGCTG
GTCTCAAACTCTTTGGCTCAAGCCATCCATCCTCCTACCTCAGCCTCCCAAAGTGCTGAGATTACAAGCGTGAAC
CACCATGCCAGGAGGGAATGTTCTTTCTTGAACGTGGCTGCCCTGTCACCTCAGCATTCTTTGCGGCAGCTGTGG
CCTAAGCGTAGCCCCTTGCTAACCTCAGCTCTTTCCTTCCCACCTTTCCCGGCCTGCAGCTCCATGTGCAAGAAG
CTTCCGGCAACCACCTGAACCCAGAGCCCAACCAGCCGGCCCCCAGTGTGGACCTAGACTTCCTGGAAGATGACA
TCCTGGGCTCTCCTGCGACAGGGGGCGGCGGCGGGGGCAGTGGGGGCGCTGACCAGCCCTGTGACATCCTCCAGC
AGAGCCTCCAAGAGGCCAACATCACGGAGCAGACGCTGGAGGCCGAGGCTGAGCTGGACCTGGGTCCCTTCCAGC
TGCCCACCCTGCAGCCTGCGGATGGCGGGGCAGGCCCGACGGGCGCTGGAGGGGCAGCGGCCGTGGCTGCGGGGC
CCCAAGCCCTCTTCCCAGGCAGCACCGACCTGCTGGGGCTGCAGGGCCCGCCTACCGTGCTGACCCACCAGGCCC
TGGTGCCGCCCCAGGACGTGGTCAACAAGGCCCTGAGTGTGCAGCCCTTCCTGCAGCCTGTGGGCCTGGGCAATG
TGACACTGCAGCCCATCCCGGGCCTCCAAGGCCTGCCCAATGGCAGCCCTGGGGGTGCCACGGCGGCCACACTGG
GCCTGGCGCCCATCCAGGTGGTGGGCCAGCCCGTC**ATG**GCGCTCAACACGCCCACCTCCCAGCTCCTGGCCAAGC
AGGTGCCCGTCAGCGGCTACCTGGCCTCGGCGGCTGGCCCCTCGGAGCCCGTGACGCTGGCGTCGGCCGGTGTCT
CGCCACAGGGGGCTGGCCTGGTCATCCAGAAGAACCTCTCGGCCGCTGTGGCCACCACGCTCAATGGGAACTCTG
TGTTCGGAGGCGCGGGGGCCGCCTCGGCTCCCACCGGGACGCCCTCGGGACAGCCGCTGGCGGTGGCCCCAGGCC
TCGGCTCGTCGCCACTGGTCCCGGCGCCCAACGTGATCCTGCATCGCACACCCACGCCCATCCAGCCCAAGCCCG
CGGGGGTGCTGCCGCCCAAGCTCTACCAGCTGACGCCCAAGCCGTTTGCGCCCGCGGGCGCCACGCTCACCATCC
AGGGCGAGCCGGGGGCGCTCCCGCAGCAGCCCAAGGCCCCGCAGAACCTGACGTTCATGGCGGCGGGGAAGGCGG
GCCAGAACGTGGTGCTGTCGGGCTTCCCCGCGCCTGCGCTGCAAGCGAACGTCTTCAAGCAGCCACCGGCCACCA
CCACCGGAGCGGCCCCGCCGCAGCCCCCCGGGGCCCTGAGCAAACCCATGAGCGTCCACCTCCTGAACCAAGGCA
GCAGCATCGTCATCCCCGCCCAGCACATGCTGCCGGGCCAGAACCAGTTCCTACTGCCTGGCGCCCCGGCGGTCC
AGCTCCCGCAGCAGCTCTCAGCCCTGCCGGCCAACGTGGGCGGGCAGATCCTGGCGGCCGCTGCCCCCCACACAG
GTGGACAGCTCATCGCGAACCCCATCCTCACAAACCAGAACCTGGCGGGCCCACTGAGCCTGGGCCCCGTGTTGG
CCCCCCACTCCGGGGCCCACAGCGCGCACATCCTCTCCGCCGCTCCCATCCAGGTGGGCCAGCCTGCGCTCTTCC
AGATGCCCGTGTCGCTGGCGGCGGGCAGCCTGCCCACGCAGAGCCAGCCAGCGCCCGCCGGGCCGGCCGCCACCA
CTGTCCTCCAGGGGGTCACCCTGCCCCCCAGCGCCGTGGCCATGCTCAACACCCCCGACGGCCTGGTGCAGCCGG
CCACCCCTGCCGCTGCCACCGGGGAGGCCGCGCCTGTCCTCACGGTGCAGCCTGCCCCCCAGGCGCCCCCCGCGG
TCAGCACACCCCTGCCCCTGGGCCTCCAGCAGCCGCAGGCGCAGCAGCCCCCGCAGGCCCCCACCCCACAGGCCG
CCGCCCCGCCTCAGGCCACCACCCCCCAGCCCAGCCCTGGCCTGGCGTCTAGCCCGGAGAAGATCGTCCTGGGGC
AGCCGCCCTCTGCCACCCCCACGGCCATCCTCACTCAGGACTCCCTGCAGATGTTCCTGCCCCAGGAGAGGAGCC
AGCAGCCCCTCTCCGCAGAGGGCCCCCACCTCTCCGTGCCTGCCTCGGTCATAGTCAGCGCCCCGCCTCCCGCCC
AAGACCCAGCCCCAGCCACCCCCGTCGCCAAAGGAGCTGGCCTCGGCCCTCAGGCCCCCGACAGCCAGGCTTCCC
CGGCTCCGGCCCCCCAGATCCCGGCAGCGGCTCCGCTGAAGGGCCCAGGCCCCTCTTCGTCCCCGTCACTACCTC
ACCAGGCCCCTCTGGGGGACAGCCCCCACCTGCCCTCCCCACACCCCACCCGGCCCCCTTCCCGCCCACCCTCCC
GGCCACAGAGTGTGTCCCGCCCTCCCTCAGAGCCACCCTTGCACCCTTGCCCCCCACCCCAGGCCCCCCCAACTC
TGCCTGGCATCTTTGTCATCCAAAACCAGCTAGGCGTTCCCCCGCCTGCCAGCAACCCGGCCCCTACTGCCCCAG
GCCCGCCGCAGCCGCCTCTCCGCCCCCAGTCCCAGCCGCCTGAGGGACCGCTGCCCCCAGCCCCCCACCTCCCTC
CATCCTCCACCTCCTCTGCTGTGGCCTCCTCCTCTGAGACGTCCTCCAGGTTGCCAGCCCCTACGCCATCCGACT
TCCAGCTCCAGTTCCCACCCAGCCAGGGGCCCCACAAGTCCCCCACTCCCCCTCCAACCCTCCACCTGGTCCCTG
AGCCGGCAGCACCCCCCCCACCGCCTCCTCGGACCTTCCAGATGGTGACCACCCCCTTCCCAGCGCTGCCCCAGC
CGAAGGCTCTTCTCGAGAGATTTCACCAGGTGCCGTCCGGAATCATCCTCCAGAACAAGGCTGGGGGGGCCCCTG
CCGCCCCGCAGACCTCCACCAGCCTGGGGCCCCTCACCAGCCCCGCTGCGTCTGTGCTGGTCAGTGGGCAGGCCC
CATCTGGGACCCCCACTGCCCCCAGCCACGCCCCCGCCCCGGCACCCATGGCCGCCACAGGCCTCCCTCCTCTGC
TTCCAGCCGAGAACAAGGCTTTTGCCAGCAACCTCCCGACCCTGAATGTGGCCAAGGCCGCTTCCTCCGGGCCAG
GGAAGCCCTCCGGGCTGCAGTATGAGAGCAAACTGAGTGGCCTGAAGAAGCCCCCCACGCTTCAGCCCAGCAAGG
AAGCCTGTTTCCTGGAGCATTTGCACAAACACCAGGGCTCCGTCCTGCACCCCGACTACAAGACGGCCTTCCCCT
CCTTTGAGGACGCCCTGCATCGCCTCCTGCCCTACCATGTCTACCAGGGCGCCCTCCCCTCCCCCAGTGACTACC

FIGURE 3791B

ACAAAGTGGACGAGGAGTTTGAGACGGTCTCCACGCAGCTGCTGAAACGCACCCAGGCCATGCTCAATAAATATC
GGCTCCTGCTCCTGGAGGAGTCCCGGAGGGTGAGCCCCTCAGCGGAGATGGTAATGATCGACCGAATGTTCATTC
AGGAGGAGAAGACCACCCTTGCCTTGGATAAACAGCTGGCCAAGGAGAAGCCGGACGAGTACGTGTCTTCCTCCC
GCTCGCTCGGCCTCCCCATCGCAGCCTCTTCCGAGGGTCATCGGCTTCCCGGCCACGGCCCCCTGTCGTCTTCAG
CTCCCGGGGCCTCCACCCAGCCCCCTCCACACCTGCCCACCAAGCTTGTGATCCGGCACGGCGGGGCAGGCGGCT
CCCCTTCGGTCACCTGGGCCCGGGCGTCCTCCTCCCTGTCCTCCTCTTCCTCCTCCTCCTCTGCCGCCTCCTCCT
TGGACGCCGACGAGGACGGCCCCATGCCCTCCCGCAACCGCCCGCCCATCAAGACCTACGAGGCCCGGAGCCGCA
TCGGGCTCAAGCTCAAGATCAAGCAGGAAGCCGGGCTCAGCAAGGTCGTGCACAACACGGCCCTGGACCCCGTGC
ACCAGCCCCCGCCACCCCCCGCTACCCTCAAGGTGGCCGAGCCCCCGCCACGGCCGCCACCACCACCGCCGCCCA
CGGGCCAGATGAACGGCACGGTGGACCACCCGCCGCCTGCCGCCCCCGAGCGCAAGCCCCTGGGCACCGCCCCGC
ACTGCCCGCGCCTGCCACTGCGCAAGACCTACCGCGAGAACGTGGGGGGCCCTGGCGCGCCGGAGGGGACGCCCG
CAGGCAGGGCACGGGGAGGCAGCCCGGCGCCGCTGCCCGCCAAAGTGGACGAGGCCACCAGCGGGCTCATCCGCG
AGCTGGCGGCCGTGGAGGACGAGCTGTACCAGCGTATGCTGAAGGGCCCCCCGCCAGAGCCCGCAGCCAGCGCCG
CCCAAGGCACCGGGGACCCCGACTGGGAGGCGCCCGGGCTGCCCCCTGCCAAGCGGCGCAAGTCCGAGTCGCCCG
ACGTGGACCAGGCCAGCTTCTCCAGCGACAGCCCGCAGGATGACACGCTCACCGAGCACCTGCAGAGCGCCATCG
ACAGCATCCTGAACCTGCAGCAGGCCCCCGGCCGGACGCCCGCGCCCTCGTACCCCCACGCTGCCTCGGCCGGCA
CCCCCGCATCCCCGCCGCCCCTGCACAGGCCCGAGGCCTACCCACCCTCCAGTCACAACGGTGGCCTCGGCGCCA
GGACGTTGACCAGA**TAA**CACCGGGCCGCCTCCCCTTCCCCGTCCCCTCCTCCCGAAGACGCCGGGACAGTCGGGT
GTCCGCCCTCAGCCTCCTGGGGACTCGAGCCGGGGATCCCCTGACGGTTTTTCTTGCCTAAGTTATTTGAGTCAC
AAAGGCCTCCTTCCCTGCCGCCTGCTTCAGCTGGGTTGCTGGGGGGTGGGCGTGGATTTAGGGAGGGGGCTGTGA
TGTAAAACGTCTCCCCTGCCAAAGGAGGGGCAAAGTGCTGTGTCAGTTCCTGTTTCTTCCCATTTCCTGGCACAC
TCTGCCCCCTCTGTCCGGGGGACACGCGCATGTGTTTGCCAGGGATGGGGCCACCGGGTTGATGCCAACGCTCCGG
GTGCCTGTCTTGTCTGTGTGGCTTCTCAGATGGTGGAGGGTGCTGGGAGCTGGCAGGGTCCTTCCAGACAGTCTC
AGCCTCTCCCCGCCGCCCCCAACAGGCTGTCAAACAAAACCGGAGAGGGGGTGGGGGAGCCAGCCTCCCAGCGTG
CTGTGCCCGCAGGCACCCGTGTGACATCCGCACGTCCAGCTCCGTGACCTGTGTGTGTGTGTGTGTGCACAAGTG
AGTGAGAGATTTCGAACGCCCACCCCTCGACTTTGAAATCTGAGCAAAACAAGAAACTGGGGTCTTCCTCTCCCC
CGAACCTCTCCCCAGCTAGTCTTCCCTCTGTTCTTCCTGCCTCCAGCCGCCCGCGCCAGATTTTGAAATCTCGGA
GACAAAACTAGTACTGTAAGATAAATTTTTTTGTACTGTATTTATTGTGTATAACGATTTTTTTAAAGGAGAAT

FIGURE 3792

GCGGCTGAGTCTTCCCAGGGTCAGGGTCAGGCGCTTTGCTGAGTCCCTTTGTGGCCGCC**ATG**GACAATTCCGGGA
AGGAAGCGGAGGCGATGGCGCTGTTGGCCGAGGCGGAGCGCAAAGTGAAGAACTCGCAGTCCTTCTTCTCTGGCC
TCTTTGGAGGCTCATCCAAAATAGAGGAAGCATGCGAAATCTACGCCAGAGCAGCAAACATGTTCAAAATGGCCA
AAAACTGGAGTGCTGCTGGAAACGCGTTCTGCCAGGCTGCACAGCTGCACCTGCAGCTCCAGAGCAAGCACGACG
CAGCCACCTGCTTTGTGGACGCTGGCAACGCATTCAAGAAAGCCGACCCCCAAGAGGCCATTAACTGTTTGATGC
GAGCAATCGAGATCTACACAGACATGGGCCGATTCACGATTGCGGCCAAGCACCACATCTCCATTGCTGAGATCT
ATGAGACAGAGTTGGTGGACATCGAGAAGGCCATTGCCCACTACGAGCAGTCTGCAGACTACTACAAAGGCGAGG
AGTCCAACAGCTCAGCCAACAAGTGTCTGCTGAAGGTGGCTGGTTACGCTGCGCTGCTGGAGCAGTATCAGAAGG
CCATTGACATCTACGAACAGGTGGGGACCAATGCCATGGACAGCCCCCTCCTCAAGTACAGCGCCAAAGACTACT
TCTTCAAGGCGGCCCTCTGCCACTTCTGCATCGACATGCTCAACGCCAAGCTGGCTGTCCAAAAGTATGAGGAGC
TGTTCCCAGCTTTCTCTGATTCCCGGGAATGCAAGTTGATGAAAAAATTGCTAGAGGCCCACGAGGAGCAGAATG
TGGACAGCTACACCGAGTCGGTGAAGGAATACGACTCCATCTCCCGGCTGGACCAGTGGCTCACCACCATGCTGC
TGCGCATCAAGAAGACCATCCAGGGCGATGAGGAGGACCTGCGC**TAA**GCCCCACCCAGCCCCCCAGTGCCCGTCT
TCCTGTCCCATCTGCTCAGAGAGAGCCAAGCTCTAAAGCACATGTAGCCGCTGAGACCTGCTGTTTCTGCTGGGG
GCAGGCTCCTCTTCCCCCAGCCCCGGGAGCCTCCCCCAGCTTCCTGCAGCCCCGACCTCTCAGGTTAGACCCTGG
GCCCTGGAGCTTAGGGGATTCTCCCCACCCCAGCCCCACACCTGCTCCTTCCCTAATGCTTTGAGGTTTTCTTGG
TTGGAAGCTGCAGCTGGCCCAAGAAAGAAAATAAAAAACAACACTTTTGC

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FIGURE 3793

CGGGGGCTGCGGAGAGGGTGCTTAACTGAGGGGC**ATG**ATGGGGGAGGCGGCCGTGGCCGCGGGGCCTTGTCCGTT
GCGCGAGGACAGCTTCACGCGCTTCTCGTCGCAGAGCAATGTGTACGGGCTGGCAGGCGGCGCCGGCGGGCGCGG
GGAGCTGCTGGCCGCCACCCTTAAAGGCAAGGTGCTCGGCTTCCGCTACCAAGACCTCCGACAGAAAATCCGGCC
AGTGGCCAAGGAGCTGCAGTTCAACTACATTCCCGTGGATGCGGAGATTGTCTCCATCGACACTTTCAACAAGTC
ACCCCCCAAGCGGGGTCTGGTTGTGGGGATCACGTTCATCAAGGATTCAGGGGACAAGGGCAGCCCCTTCCTGAA
CATTTACTGCGACTACGAGCCCGGCTCTGAGTACAACCTTGACTCTATTGCCCAGAGCTGCCTGAACCTGGAGCT
CCAGTTCACTCCGTTCCAGCTGTGCCATGCGGAGGTCCAGGTCGGGGATCAACTTGAGACTGTGTTTCTCTTGAG
TGGGAACGACCCGGCCATTCATCTCTACAAGGAGAACGAGGGGCTGCATCAGTTTGAGGAACAGCCCGTGGAAAA
CCTCTTCCCAGAGCTGACGAACCTGACCAGTAGCGTCCTCTGGCTGGACGTCCACAACTTCCCCGGCACGTCCCG
GCGCCTCTCAGCTCTGGGCTGTCAGAGTGGTTATGTCCGTGTCGCCCACGTGGACCAGCGGAGTCGAGAGGTTCT
GCAGATGTGGTCGGTCCTGCAGGACGGTCCCATCTCCCGAGTGATTGTGTTCAGCCTCTCGGCCGCCAAGGAGAC
CAAGGACAGGCCACTACAAGATGAGTACAGCGTGCTCGTGGCCAGCATGTTGGAGCCAGCAGTGGTGTATCGGGA
CCTGCTGAACCGGGGTCTTGAAGACCAGCTTCTCCTGCCCGGCAGTGACCAGTTTGACAGCGTCCTCTGCAGCCT
GGTCACCGATGTGGATTTGGATGGGCGGCCAGAAGTCCTGGTGGCCACCTATGGACAGGAACTGCTGTGTTATAA
GTACCGGGGCCCAGAGTCGGGGCTTCCTGAGGCCCAGCACGGGTTCCATCTGCTGTGGCAGCGGAGCTTCTCCAG
TCCCCTGCTGGCCATGGCTCACGTGGACCTGACCGGGGATGGGCTGCAGGAGCTTGCCGTGGTCTCCCTGAAGGG
CGTGCACATCCTGCAGCACAGCCTGATTCAGGCCTCAGAGCTGGTCTTGACCCGGCTTCGACATCAAGTGGAGCA
GAGGAGACGTCGGCTACAGGGGTTGGAGGACGGGGCAGGTGCAGGGCCTGCTGAGAATGCAGCCTCT**TAA**GCACC
CATGCACCCACTCTTCCCAGACCTGGGGCGACTCATGGCGTGCTCACCTCCAGCCGCTGGTGGGGGGTGTCCTGA
AGGACAGGATGCTCTCCCCAGACCTCCCCAGGGTGGTGAAGCTGTGCCCTGGGGCCCCAGCTAACCCACTCCTCT
CTCTGTACGTCAATGTCCCTATTTGAAAGCAGGGATGATCCCATTCCACCCTGTCCACTCTGGATGAGAATTGGC
CACCTGATGGTTATTTATACGTCCAGAAGAACATC

FIGURE 3794

GGGGCGGGGGCCGGGGTCCATGCGCGGAGTCCCCACCCGGCCCGGCGCCTGCCGCTGACGGCGGCGGGGGTGGGG
GGGCGCGCGCCTGGCCTCCTGCCCACCCCCTGGCGTCAACACCGCGGGCCGTCAGGGGCTGCGGCCCCGGGCTGC
GCCCTCCCCCGCGGCCAGGCTCTGGAGGGACCCAGGAGCTGCCGCCGGCCTCAGCCC**ATG**GCCCGGAGGTATGAT
GAGCTGCCGCACTACCCAGGCATCGTGGATGGCCCCGCAGCCCTGGCTAGCTTCCCAGAGACAGTGCCCGCAGTA
CCAGGGCCCTATGGCCCGCACCGGCCTCCCCAGCCCCTGCCCCCAGGCTTGGACAGCGACGGCCTGAAGAGGGAG
AAGGATGAGATCTATGGACACCCGCTCTTCCCCCTCTTGGCCCTGGTCTTTGAGAAATGTGAACTGGCTACATGC
TCTCCCCGTGACGGGGCCGGAGCTGGGCTGGGGACACCCCCTGGAGGTGACGTCTGCTCCTCTGATTCCTTCAAC
GAGGACATCGCTGCCTTTGCCAAGCAGGTTCGCTCTGAGAGGCCCCTCTTCTCCTCCAACCCAGAACTGGACAAT
CTGATGATCCAGGCCATCCAGGTGCTGCGGTTCCACCTGCTGGAGCTGGAGAAGGTCCACGACCTGTGCGACAAC
TTCTGTCACCGCTACATCACCTGCCTCAAGGGAAAGATGCCCATCGACCTGGTCATCGAGGATCGGGACGGCGGC
TGCAGGGAGGACTTCGAGGACTACCCAGCCTCCTGCCCCAGCCTCCCAGACCAGAATAATATGTGGATTCGAGAC
CATGAGGATAGTGGGTCTGTACATTTGGGGACCCCAGGTCCATCCAGTGGGGGCCTGGCCTCCCAGAGTGGGGAC
AACTCCAGTGACCAAGGAGACGGGCTGGACACCAGCGTGGCCTCTCCCAGTTCTGGTGGAGAAGATGAGGACTTG
GACCAGGAGCGACGGCGAAACAAGAAGAGGGGGATCTTCCCCAAGGTGGCCACCAACATCATGCGAGCCTGGTTG
TTCCAGCACCTCTCGAGACGCTCAGAAGCGCCGGTTCTCCCAGACGTCTGCCTGGGCCTGGGCTCCCCATCCCCC
GGACCCCGGTGGGCCAGACCTTGGGGTTCAGACTGCGGCCGGCCAGGCAGGCAGAGTGACTCTTGCTGGTGGCTG
CAGCACCCGTACCCCTCGGAGGAGCAGAAGAAACAGCTGGCGCAGGACACGGGGCTCACCATCCTGCAAGTCAAC
AACTGGTTCATTAACGCCCGGAGACGCATCGTGCAACCTATGATCGATCAATCCAACCGCACAGGGCAGGGTGCA
GCCTTCAGCCCAGAGGGCCAGCCCATCGGGGGCTATACCGAGACGCAGCCACACGTGGCCGTCCGGCCTCCGGGA
TCAGTGGGGATGAGTTTGAACTTGGAAGGAGAATGGCATTATCTA**TAG**AGGCTGATGCAGGAGAGACCCAGCCTC
CGGCTGTGACCCCCAGCCTCACACCTGCCTCTGGTTCCCGCCTGGTCCTCCAGCTTCAGGACCCCACCTCCAAAG
GCCCCTCTGCTCAATGCCTACCTCCCTAGGGCCCTGCTGGGACATGGGGGCCTGAGTGCCCATCCAAGGGCTCTC
AAGGACACCGGCAAGGCCTCCAGGCCCTGAGCCCCACTTCTGCCTTCACCTCTGCCTGGGACCCGAGCTGGGCTC
CTGGGCCTTGGTCCCCAGAAGATGGCGGCTAGGGCCTCGCCGCCAGGACAGAGAAGGGACGGGGTGGCTGGGCAG
TCAGGGAAGGAGGGTCGCCCGGATCCGACATTTTGGAGAGATTCCTTCACTCTCCTGTCCCCCCTACCTCCCTTC
TCTAATTTCTTCTTTTTTTTAATGATAAAGTCTTAAAAACACGG

FIGURE 3795A

GAATCCAGGGCCTGAAAACCCAGAATGAACTTGTGTCCATCCCAGAGATCACTGCAGATGTCATGAGGTACCCTT
TGTGTCACCAGCTCAAGCAGGCCTCTGGCCACTTTATCATCTGTGGTGGTCCTGTGCCGTGACCAGGAGGAAAAA
TTAGCTCTTTGAAGAGAAAGTAGTTCTCTATTGCAGGCACTGGCCTCTTAAATTGTTGCAGGTGGGGAATGGATG
AGAATATTTGTTTTGGGTGATCAGAACTGAGACTCCTATTGTGGATTAGTAAC**ATG**CCTCCTCCTAGAACAAGGG
AGGGCAGGGATCGCCGAGACCACCACCGGGCTCCCAGCGAGGAAGAGGCCTTGGAGAAATGGGACTGGAATTGTC
CAGAGACGCGTCGCCTCTTGGAAGATGCCTTCTTCCGTGAAGAGGATTACATCCGTCAGGGTTCTGAGGAATGTC
AGAAGTTTTGGACCTTCTTTGAACGCCTGCAGAGATTCCAGAATCTCAAGACCTCCAGGAAGGAGGAGAAAGACC
CTGGACAGCCCAAGCACAGCATCCCAGCGCTGGCCGACCTACCTCGCACTTACGACCCACGTTACCGCATCAACC
TCTCTGTTCTTGGCCCTGCCACGCGGGGCTCTCAGGGACTGGGCAGGCACTTGCCCGCGGAGAGAGTGGCTGAGT
TCCGCCGAGCCCTGTTGCACTACCTGGACTTTGGCCAGAAGCAGGCATTTGGGCGTCTGGCCAAGCTGCAGCGTG
AGCGGGCAGCCCTCCCCATCGCCCAGTATGGGAACCGCATCCTGCAGACGCTGAAGGAGCACCAGGTGGTGGTAG
TGGCCGGTGACACCGGCTGTGGCAAGTCCACTCAGGTGCCCCAGTACCTGCTGGCTGCTGGCTTCAGTCATGTGG
CGTGCACCCAGCCCCGGCGGATCGCCTGCATCTCACTGGCCAAGCGTGTGGGCTTTGAGAGCCTCAGTCAGTATG
GCTCACAGGTCGGCTACCAGATCCGCTTTGAGAGCACACGTTCGGCGGCCACCAAGATTGTATTCCTGACAGTGG
GGCTGCTCCTGCGACAAATCCAGCGGGAACCCAGCCTGCCCCAGTATGAGGTCCTGATTGTGGATGAAGTCCATG
AGCGGCATCTCCACAACGATTTCCTCCTGGGCGTCCTCCAGCGCCTGTTGCCCACGCGGCCTGACCTCAAGGTCA
TCCTCATGTCGGCCACCATCAACATCTCGCTCTTCTCCAGCTATTTCAGCAATGCCCCTGTGGTACAGGTGCCTG
GGAGGCTGTTCCCCATCACGGTATTTGATGTGGCACCCCCTGGAGTCCGGAAATGCATCCTCTCCACCAACATTG
CTGAGACCTCAGTCACCATTGACGGGATCCGCTTCGTAGTAGATTCCGGAAAGGTGAAGGAGATGAGCTACGATC
CGCAGGCCAAGCTGCAACGGCTGCAGGAGTTCTGGATTAGTCAGGCCAGCGCAGAGCAGCGGAAGGGCCGGGCGG
GCCGCACGGGCCCCGGAGTCTGCTTCCGCCTCTATGCCGAATCGGACTATGATGCCTTCGCCCCCTACCCCGTCC
CAGAAATTCGGAGGGTGGCCCTGGACTCGTTGGTGCTGCAGATGAAGAGCATGAGTGTGGGGGACCCCCGAACCT
TCCCCTTCATCGAGCCCCCACCACCAGCCAGCCTGGAAACCGCCATCCTCTACCTCCGGGACCAGGGGGCCCTGG
ACAGCTCAGAGGCCCTCACACCCATTGGGTCCCTGCTAGCCCAGCTGCCTGTGGACGTTGTGATTGGGAAGATGC
TGATCCTGGGCTCCATGTTCAGCCTGGTGGAGCCTGTGCTCACCATCGCAGCCGCACTTAGCGTCCAGTCGCCCT
TCACCCGCAGCGCCCAGAGCAGCCCAGAGTGCTGCACCCCACCTGCGTCTTCGCTGGCAGCCCCGAGGTGCTGCA
CGCACAGGAGCTGGAGGCCAGCAACTGCGACGGAAGCCGAGACGACAAGGACAAGA**TGA**GCAGCAAACACCAGCT
CCTCAGCTTCGTGTCCCTGCTGGAGACCAACAAGCCGTACCTGGTGAACTGCGTCCGCATCCCTGCCCTCCAGTC
CCTCCTGCTTTTTAGCCGGTCTTTGGACACCAATGGTGACTGCTCCCGCCTGGTGGCCGATGGCTGGCTGGAGCT
GCAGCTAGCAGACAGTGAAAGTGCCATCCGACTCCTGGCGGCTTCCCTGCGGCTCCGTGCCCGCTGGGAAAGTGC
CCTGGACCGGCAGCTGGCGCACCAGGCCCAGCAGCAGCTGGAGGAGGAGGAGGAGGATACGCCAGTCAGCCCCAA
GGAGGTGGCCACCCTGAGCAAGGAACTCCTGCAATTCACGGCATCCAAGATTCCTTACAGCCTCCGGCGGCTCAC
AGGGCTAGAAGTCCAGAACATGTATGTGGGACCCCAGACCATCCCAGCCACCCCCCATCTTCCTGGCCTCTTTGG
CAGCTCCACCCTGTCCCCCCACCCCACAAAGGGGGGCTACGCAGTCACTGACTTCCTCACCTACAACTGCCTCAC
GAATGACACAGACCTGTACAGCGACTGTCTCCGAACCTTCTGGACCTGCCCCCACTGTGGCCTGCATGCGCCCCT
CACGCCCCTGGAGCGCATCGCCCATGAGAACACCTGCCCCCAGGCCCCACAGGATGGGCCCCCAGGGGCTGAGGA
AGCTGCCCTCGAAACCCTCCAGAAGACATCTGTCCTGCAGAGGCCCTACCACTGCGAGGCCTGCGGGAAGGACTT
CCTCTTTACACCCACAGAGGTGCTGCGCCACCGGAAGCAGCACGTGTGAGCTGGGCCAGGAGCCCTGCCCACCTC
CGTGCAGCTGACCTGCCCTCCAGCCCAGGACTAGGGGCAGGACTCTTGCCTGAACCCCCAGCCTGGGCTTAGCCC
TGTGGTCCTGTCCCAGTGCAGAGGGCCTGGAGCACGGATTGTGAATAAAGCCTCACATGCTGATACACACTGTTA
GGCCTGCACCTGCCCATCCAGAAAGCAGCAGCTGCCTTGTTAGTCCTCCCCAGGGTCTAGCTTTCCTTCTTCCTG
CTGCAGGGTGCTGCCTGAGGGGTCCTGGGTAGGAGGGGCGTTAGAGCCAGCAGGGACCTCCCATGTCTCCAGATT
CCAGGTGCAGGTTCTTAGCACCTCCGCAGCCGCTCTCTCTTGAGTCCATCCTCAGTCTCTCCTACCCCTTGAAGT
AGGGGGACCCTGAATTTGCCCATCCACCTGGGTCACTTTGAGAGTTGTGCAGGGGGGCTGGGAGCACTGGTGTTC
ACGTGGGACCACAGGCTGCACCATAAGACCCACTCACAATAAAAAAATAAAAGGCCGAGCCGGGCATGGTTGCTC
ACTCCCGTAATAAAAAAATAAAAGAACAGGCTGGGATTACAGGCGTGAGCCACTGCACCCGGCCGTGACCAACAT
TCTTAATCTGTCCTCTAGTGCTGGCCACTCTAAAACTTCACAAGAATGTGCTGTCTGTGTCTAGCTTCTTTTACC
CAACATGAGGTTGCATGGGCTTGGTTCATTCATTCTGTTCCATGAATTCATCACAATATATCCATTCTTTTGTCC

FIGURE 3795B

AGGGACATTTGGCTTCCAGAAACCTACCCCTAACACCAGCCCTTCCCTCCCTCTGCAGAACAAAGGCCCCATCAG
AGGGGACGTGCTGGGTGTCAGCGTCAGCTTCTGGGAGGAGGAAGGTCAGAGCTAAGGCCTGAAGGATGATGAGGT
ATCAGGTGGGTGGAGGGGAGACGCTCAGGAGGTGGGAAAGGCGGAGGTGCACAGGCTTGGTTCCAGGTACAAATA
ACGTTACTAGGAGCACACAGTACCTGGATTTTGATGAATACATTGTACATTTCTGTCCTGTATGTATCCAGGGTT
ATAGGACGTGATTATAGGACACGCATATATGTTTGGTTTTAGTGGACTCTTAAAAATTGTTTTCCAGGGGCCGGG
CACAGTGGCTTACGCCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGCAGATCACCTGAGGTCAGGAGTTCAA
GATCAGCCTGACCAACATGGAGAAACCCCGTCTCTATTGGGAGGCCGAGGCGGGAGGATCACAAAGTCAGGAGAT
CGAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAAAATTAGCTGGGCGTGGTGGCG
GGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATGGAGTGAACCCGGGAGGCAGAGCTTGCAGTG
AGCCAAGATCGTGCCACTGCACTCCAGCCTGGTTGACAGAGCAAGACTCCGTCTCAAAAAAG

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FIGURE 3796

GACTCCTTCAATTATACCACCCCTGATTATGGGCACTATGATGACAAGGATACCCTGGACCTCAACACCCCTGTG
GATAAAACTTCTAACACGCTGCGTGTTCCAGACATCCTGGCCTTGGTCATCTTTGCAGTCGTCTTCCTGGTGGGA
GTGCTGGGCAATGCCCTGGTGGTCTGGGTGACGGCATTCGAGGCCAAGCGGACCATCAATGCCATCTGGTTCCTC
AACTTGGCGGTAGCCGACTTCCTCTCCTGCCTGGCGCTGCCCATCTTGTTCACGTCCATTGTACAGCATCACCAC
TGGCCCTTTGGCGGGGCCGCCTGCAGCATCCTGCCCTCCCTCATCCTGCTCAAC**ATG**TACGCCAGCATCCTGCTC
CTGGCCACCATCAGCGCCGACCGCTTTCTGCTGGTGTTTAAACCCATCTGGTGCCAGAACTTCCGAGGGGCTGGC
TTGGCCTGGATCGCCTGTGCCGTGGCTTGGGGTTTAGCCCTGCTGCTGACCATACCCTCCTTCCTGTACCGGGTG
GTCCGGGAGGAGTACTTTCCACCAAAGGTGTTGTGTGGCGTGGACTACAGCCACGACAAACGGCGGGAGCGAGCC
GTGGCCATCGTCCGGCTGGTCCTGGGCTTCCTGTGGCCTCTACTCACGCTCACGATTTGTTACACTTTCATCCTG
CTCCGGACGTGGAGCCGCAGGGCCACGCGGTCCACCAAGACACTCAAGGTGGTGGTGGCAGTGGTGGCCAGTTTC
TTTATCTTCTGGTTGCCCTACCAGGTGACGGGGATAATGATGTCCTTCCTGGAGCCATCGTCACCCACCTTCCTG
CTGCTGAAGAAGCTGGACTCCCTGTGTGTCTCCTTTGCCTACATCAACTGCTGCATCAACCCCATCATCTACGTG
GTGGCCGGCCAGGGCTTCCAGGGCCGACTGCGGAAATCCCTCCCCAGCCTCCTCCGGAACGTGTTGACTGAAGAG
TCCGTGGTTAGGGAGAGCAAGTCATTCACGCGCTCCACAGTGGACACTATGGCCCAGAAGACCCAGGCAGTG**TAG**

GCGACAGCCTCATGGGCCACTGTGGCCCGATGTCCCCTTCCTTCCCGGCCATTCTCCCTCTTGTTTTCACTTCAC
TTTTCGTGGGATGGTGTTACCTTAGCTAACTAACTCTCCTCCATGTTGCCTGTCTTTCCCAGACTTGTCCCTCCT
TTTCCAGCGGGACTCTTCTCATCCTTCCTCATTTGCAAGGTGAACACTTCCTTCTAGGGAGCACCCTCCCACCCC
CCACCCCCCCCACACACACCATCTTTCCATCCCAGGCTTTTGAAAAACAAACAGAAACCCGTGTATCTGGGATAT
TTCCATATGGCAATAGGTGTGAACAGGGAACTCAGAATACAGACAAGTAGAAAGATTCTCGCTTAAAAAAAATGT
ATTTATTTTATGGCAAGTTGGAAAATATGTAACTGGAATCTCAAAAGTTCTTTGGGACAAAACAGAAGTCCATGG
AGTTATCTAAGCTCTTGTAAGTGAGTTAATTTAAAAAAGAAAATTAGGCTGAGAGCAGTGGCTCACGCCTGTAAT
CCCAGAACTTTGGGAGGCTAAGGTGGGTGGATCACCTGAGGTCAAGAGTTCCAGACCAGGCTGGCCAGCATGGTG
AAACCCCGTCTGTACTAAAAATACAAAAAATTAACTGGGCATGGTAGTGGGTGCCTGTAATCCCAGCTACTTGGG
AGGCTGAGGTGGGAGAATTGCTCGAACTTGGAGGTGGAGGTTGTGGTGAGCCATGATCGCACCACTGCACTCTAG
CCTGGGTGACCGAGGGAGGCTCTGTCTCAAAAGCAAAGCAAAAACAAAAACAAAAACACCTAAAAAACCTGCAGT
TTTGTTTGTACTTTGTTTTTAAATTATGCTTTCTATTTTGAGATCATTGCAAACTCAACACAATTGTAAGTAATG
ATACAGAGGGATCTTGTGTACCCTTCACCCAGCCTCCCCCAATGGCAACATCTTGCAAAACTACAATGTAGTCTC
ATAACCAGGATATTGACATTGATACAGTGAAGATACAGGACATTCTCATCACCACAGGGATCCCCAGGATGCCCA
CTTCCCTCCACCCCCACACCCCAGCCGTGTCCCTAACCCCTGGCAACCAGGAATCCACTCTCCATTTCTATAATG
TTGTCATTTCAAGAATGTTATTCAATGGAATCATATAGTATGTAACCTGTTTTGAGCTTAAAAAAAAAGTATACA
TGACTTTAATGAGGAAAATAAAAATGAATATTG

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FIGURE 3797

TTGGCTTGAGCGGGACCGGAGCTGAGGCAGGAAGAGCCGGCGCC**ATG**GTGGAGAAGGAGGAGGCTGGCGGCGGCA
TTAGCGAGGAGGAGGCGGCACAGTATGACCGGCAGATCCGCCTGTGGGGACTGGAGGCCCAGAAACGGCTGCGGG
CCTCTCGGGTGCTTCTTGTCGGCTTGAAAGGACTTGGGGCTGAAATTGCCAAGAATCTCATCTTGGCAGGAGTGA
AAGGACTGACCATGCTGGATCACGAACAGGTAACTCCAGAAGATCCCGGAGCTCAGTTCTTGATTCGTACTGGGT
CTGTTGGCCGAAATAGGGCTGAAGCCTCTTTGGAGCGAGCTCAGAATCTCAACCCCATGGTGGATGTGAAGGTGG
ACACTGAGGATATAGAGAAGAAACCAGAGTCATTTTTCACTCAATTCGATGCTGTGTGTCTGACTTGCTGCTCCA
GGGATGTCATAGTTAAAGTTGACCAGATCTGTCACAAAAATAGCATCAAGTTCTTTACAGGAGATGTTTTTGGCT
ACCATGGATACACATTTGCCAATCTAGGAGAGCATGAGTTTGTAGAGGAGAAAACTAAAGTTGCCAAAGTTAGCC
AAGGAGTAGAAGATGGGCCCGACACCAAGAGAGCAAAACTTGATTCTTCTGAGACAACGATGGTCAAAAAGAAGG
TGGTCTTCTGCCCTGTTAAAGAAGCCCTGGAGGTGGACTGGAGCAGTGAGAAAGCAAAGGCTGCTCTGAAGCGCA
CGACCTCCGACTACTTTCTCCTTCAAGTGCTCTTAAAGTTCCGTACAGATAAAGGAAGAGATCCCAGTTCTGATA
CATATGAGGAAGATTCTGAGTTGTTGCTCCAGATACGAAATGATGTGCTTGACTCACTGGGTATTAGTCCTGACC
TGCTTCCTGAGGACTTTGTCAGGTACTGCTTCTCCGAGATGGCCCCAGTGTGTGCGGTGGTTGGAGGGATTTTGG
CACAGGAAATTGTGAAGGCCCTGTCTCAGCGGGACCCTCCTCACAACAACTTCTTCTTCTTCGATGGCATGAAGG
GGAATGGGATTGTGGAGTGCCTTGGCCCCAAG**TGA**ACTCAAGATTTGGCAGCCCCAGAGATGCCAACTGCAGCAT
GCCCACCTGTATTCCCTGTCCCCTTCCTTCATGAAGGCATCTCCAGGCAAGGAAAACTGAAGTCATTGGCCCGAT
ACAAAACATTTCCTGCAACGAAGGAGGTGGTGCCGACGTGCTGCTTCCCATCACCAGCAGCTGCTCGACAAGGGG
CGCAGGGTGGCTGTCTTTGTTCCAGCACTGTTCAGGCTGCCTGTCATCCCGGGCCTGCCAGCTCCCCTGAGTGAT
GAGCACTTCCAAGCACCCCTCTGCCCTTTCTCTGTCCTTATGCTGTCCCGGCCTCGCCAGCCCTCTGGGGCATTG
TGGGAGATGCCTGCCAGGAATGAGCAAGCTCTGTTGCTCGGGAGCCTCTTGTCACCTTCTTGGACTTATTCCCCA
CCTGATACCTTATAGAGAAAAGTGTGAATTCAGGTGGAGAGTAGGCCCAGGCCCCATGAGGCACCAGTGGAAGCA
CAGCTCCAAGTTCAGACAGGTGCCCTTAGAGAGGAAAACCATGACAGGCAAATGCATTTCCTCTGGAGTTTGAGA
CCCTGACAAACAACAGGTGGCATCTGGTGTGCTGTTCTTGAGTTTTCGTTTAGGATTAGTTGAGTTCCAGCTGGG
TTTTGGGAGAAAGGAGATGCTACCAAGTCTTGGATGTTAGGGCGAGACCCTGCAAGTTGAGTATTAGAGAGCTTG
TCTTTCAAGGCAGGTTCCTGGGGCTTCAGGGCTAGGAGGGAGGAGCCTGCCCTTTTAACAGAACCCCAGTCACAT
GCGGCTCAAGTCACTCAGAGGCTGTTGCATTTCAGGGCTATGTTGGTCCTTTGTTTACCTCCTAAACCACAGCTG
TTTGTGTTTCACATATGTTGTGAATTTTCCTTGGTTCTTTTTAAAGGAATGATAATAAAGTTACTTGCTTTAGGA
TTTGCTTGTTTTTCTTCCACTTCAGAAGCTTCTGAGAGGGAATGGGATGATCCTACCAGTTGCCTTTTCAGACCT
GAGGCTCTA

FIGURE 3798A

CTCTATGGGAGGAGACCACCCGGAGGATGAAGAGGATTTCTACGAGGAAGAGATGGACTATGGAGAGAGTGAGGA
GCCAATGGGAGACGACGACTATGACGAGTACTCCAAGGAGCTGAACCAGTACCGCCGCTCCAAGGACAGCCGAGG
CCGAGGGCTAAGTCGAGGCCGTGGCAGGGGCTCCCGAGGTCGAGGGAAAGGAATGGGTCGGGGCCGAGGCCGAGG
TGGCAGCCGAGGAGGGATGAACAAGGGCGGAATGAACGATGACGAAGACTTCTATGACGAGGACATGGGCGACGG
TGGTGGTGGAAGCTACCGGAGTCGTGACCATGACAAGCCCCACCAGCAGTCGGACAAGAAAGGCAAAGTCATTTG
CAAGTACTTCGTGGAAGGGCGCTGCACCTGGGGAGACCACTGTAATTTTAGCCATGACATCGAACTCCCAAAGAA
GCGAGAACTGTGCAAGTTTTACATCACTGGATTTTGCGCCAGAGCTGAGAACTGCCCTTATATGCACGGTGATTT
CCCGTGTAAGCTGTACCACACCACTGGGAACTGCATCAATGGTGACGACTGCATGTTTTCCCACGACCCTCTGAC
CGAAGAGACGAGGGAGCTCTTGGATAAGATGTTGGCCGATGATGCAGAAGCAGGTGCCGAGGATGAGAAGGAGGT
GGAGGAACTGAAGAAGCAGGGCATCAACCCCCTGCCCAAACCGCCCCCTGGTGTGGGCCTCCTGCCCACCCCTCC
TCGGCCCCCTGGCCCGCAGGCTCCAACCTCTCCCAACGGCAGGCCCATGCAGGGTGGCCCCCCGCCCCCGCCCCC
TCCCCCTCCCCCACCGCCCGGGCCCCCTCAGATGCCCATGCCGGTGCATGAGCCACTGTCCCCGCAGCAGCTGCA
GCAGCAGGACATGTACAACAAGAAGATCCCCTCCTTGTTTGAGATCGTGGTGCGGCCCACGGGACAGCTGGCTGA
GAAGCTGGGTGTGAGGTTCCCTGGACCCGGTGGACCCCCAGGGCCAATGGGCCCTGGGCCCAACATGGGACCCCC
AGGGCCAATGGGCGGTCCAATGCATCCTGACATGCACCCCGACATGCACCCGGACATGCACCCTGACATGCACGC
AGACATGCACGCAGACATGCCGATGGGCCCTGGCATGAATCCTGGCCCACCCATGGGCCCTGGCGGCCCTCCAAT
GATGCCCTACGGCCCTGGAGACTCCCCACATTCTGGAATGATGCCCCCTATCCCGCCAGCCCAGAACTTCTATGA
AAACTTCTACCAGCAGCAGGAGGGCATGGAGATGGAGCCCGGACTCCTGGGGGATGCAGAGGACTACGGGCACTA
CGAAGAGCTGCCAGGGGAGCCTGGGGAGCACCTCTTCCCTGAGCACCCTCTGGAGCCCGACAGCTTCTCTGAGGG
AGGGCCCCCAGGCCGGCCGAAGCCAGGCGCCGGTGTCCCTGACTTCCTGCCCTCAGCCCAGAGGGCCCTGTACCT
GAGGATCCAGCAGAAGCAGCAGGAGGAGGAGGAGAGAGCGAGGAGGCTGGCTGAGAGCAGCAAGCAGGACCGGGA
GAATGAGGAAGGTGACACCGGAAACTGGTACTCAAGTGATGAGGATGAGGGTGGAAGCAGTGTCACCTCCATCCT
GAAGACCTTGAGGCAGCAGACGTCCAGCCGACCCCCGGCTTCAGTTGGGGAGCTGAGCAGCAGTGGGCTGGGGGA
CCCCCGCCTCCAGAAGGGACACCCCACAGGAAGCCGGCTGGCTGACCCTCGCCTCAGCCGGGACCCCAGACTCAC
CCGCCATGTGGAGGCTTCTGGCGGGTCTGGCCCAGGTGATTCGGGACCCTCCGATCCTCGGCTGGCTCGCGCCCT
GCCCACCTCCAAGCCCGAAGGCAGCCTTCATTCCAGCCCTGTGGGCCCCAGCAGTTCCAAGGGGTCTGGGCCGCC
CCCAACGGAGGAGGAGGAAGGGGAGCGGGCCCTGCGGGAGAAGGCCGTGAACATTCCCCTGGACCCACTCCCCGG
GCACCCTCTGCGGGACCCACGGTCACAGCTGCAGCAGTTCAGCCACATCAAGAAGGACGTGACCCTGAGCAAGCC
CAGCTTCGCCCGCACCGTGCTCTGGAATCCCGAGGACCTGATCCCCCTACCCATCCCCAAGCAGGACGCAGTGCC
CCCCGTGCCCGCGGCCCTGCAATCCATGCCCACCCTGGACCCCCGGCTGCACCGCGCTGCCACGGCAGGGCCCCC
CAACGCCCGGCAGCGCCCGGGCGCCTCCACGGATTCCAGCACACAGGGCGCCAACCTCCCCGACTTTGAACTTCT
GTCTCGCATCCTCAAGACAGTCAATGCCACCGGCTCCTCGGCCGCCCCCGGTTCCAGCGACAAACCCAGTGACCC
CCGGGTGCGGAAGGCCCCCACCGACCCTCGGCTGCAGAAACCCACAGACTCTACGGCCTCCTCCCGGGCTGCCAA
GCCCGGCCCTGCTGAGGCGCCCTCTCCCACCGCCAGCCCGAGTGGGGATGCCTCCCCACCAGCCACCGCTCCCTA
CGACCCCCGCGTGCTGGCGGCCGGTGGACTGGGCCAGGGCGGAGGGGGCGGGCAGAGCAGTGTGCTGAGCGGTAT
CAGCCTCTACGACCCGAGGACTCCCAACGCGGGGGGCAAAGCCACAGAGCCGGCTGCTGACACGGGTGCCCAGCC
CAAGGGTGCTGAGGGCAATGGCAAGAGCTCGGCCTCCAAGGCTAAGGAGCCCCCGTTCGTCCGCAAGTCTGCCCT
GGAACAGCCAGAGACAGGGAAGGCCGGTGCTGATGGGGGCACCCCCACGGACAGATACAACAGCTACAACCGGCC
CCGGCCCAAGGCTGCTGCAGCCCCCGCTGCCACCACCGCCACCCCACCCCCCGAGGGTGCCCCACCCCAGCCCGG
GGTGCACAACCTGCCCGTGCCCACCCTCTTCGGGACGGTGAAGCAGACACCCAAGACGGGCTCAGGAAGCCCATT
TGCTGGGAACAGTCCGGCCCGCGAGGGTGAGCAGGATGCGGCATCCCTGAAGGATGTTTTTAAAGGCTTCGACCC
CACGGCCTCCCCCTTTTGCCAGTAGTGTCCAGCCAGAGCTGCGGCTCCAGCCACCCTTCCTAGGGTGGCATTCAG
GGCAGCACCCAGGGTAGGGAACTTGGGGGCAAGGGGAGGCAGGCTGGGTGTTCCTTTTTTCTTTTCTTTTTCTTT
TGCTTTCCGTCTCTTTTATTTTTTTTTAAAGTAGTACTTTCTTTGAGATTTGTAAATTGTATATAACCATCTTAA
GTTCTGGTCAGTGTGGCGGGCTCAGGGGCTCCTGCTGAGCAAACCGACTCATGCCCGCAAACCTGTGAACTTTCG
CCAGTGCCTGGCCTCAGACTCTGTGGGCTCTGCGTGGCCGGGCCTTGCTGGAGGCCCAGTGGGTTTTCTGGGCAA
AGCATGGCCCCTTTTCCCCAGGACAAAGGGAACAGTTGGTGTCTGGGAAGGTATTGAACGCTCCTCACCCTGTGC
CCGAAGAGACCCGGAACCAAGACCATGGCAGGGCCTGCGTGGAAGCAGGTCCAGGCGTTTCTAGAACCCTAGGGT

FIGURE 3798B

GCACCATCACTGTCTTTTCAGTGCAGGCTGTAACAACCCACTCAGGAGACAGTGAGAGTGAAAAGGTATTAAGGA
AAAAGCCCCCAGCGGCACTATGGGGGCTCCCTGGCGCATGCCTGCTCCTGTCCCTGGATTACCACACGTGCCCTC
CCTGCCACCCTCCGTCTAGAGCAAGCGGATGCCCCCCAGCCTGCAGCAGAAGCCTCCACAGTGAGAACTGGACCC
AAAGGTAGTGGGGGCCGGTGTGGGGCAGAGTCCTGAAGAGCCACCTCTAGGAGGCAGCCCCTAGGAGCACGCACG
TTCTGTCAGTATTACCCCACCTGTCCTATCAGGTGGGCCACACCCTGCTTGCCCACACCAGGGTCTGTCCTGGTC
CTCAAGCCACGCACCCGCTATGCCTGCACTGCAGCCCAGCCCCGGACAGCTCCAGGATCCGTGCAGTGGCTGCGC
CGCCAGGCCCCAACAATGGGGACCCTGGGGTGGCTCCTGGCCAAGTGTTCTCTGTTTTCCTCGCACCTCCTTACA
CTGTGTGACCTGCAGGGCATGAGGTATTGATGTGTTCGGGTTTCCTTTCCCAAGCCAGCAGATGCAGGTGTTCCA
AGGTGTGTTGCTCTGTGGGATTTGTGGACACTTAAGAAACGGACTGAGTGGGAACCCTGCAGCCAGGGGATGGGG
AGCCTCTGCTCCCCCCATGCTCCCACCCTGGCTGAGGGCCAGCCTCATCTGCAGAGCCCTGGAGGAGGCCCACCT
ATGGACACAGCCCGAGAGATGGGCGCAAGGGGTGCTGGGGGAGGCCTGCTATCCTGCCTCTGGGCCACTTGAGGG
GCCTCAGGAAGTGTGTGCTTGTGGCTGCATCTGCCCGTCTCCCTGGCCCACCATGTGGCTGCAGGCCAAGCTCTT
CATTGCTGACCATGAAGAGACCTAGTTACCTGCCAAGGGATTCCCCTTCCCTCCTCCTCAGGGTGGGGTGAACAA
GGCTCCTATCCCACCCCACCCCAAAAAGAGAAAAATGAAAAACTCATAGTTTGGAGCCAGGAGGCAGGGTGTCCT
ACAGGGCTGCACAGCCCTGAGGGGTCAGTGCTGGGATCTGGTTGGTTGGTTTGTCTTTTTGTCTTTTTTTTTTTT
TTTTTTTTTACACAATCATTAATGAGATTTGTCTTCAGCCACCAGTGTTGGCCTTGAAGCAGAGGGCACAGCCCT
TGGTGTTTGTAAAATAAGTATGAATACACAGTGTGGCAGTGTTGTGGTTTTTGTTGTTGTTTTTCCTCTCCTTTT
GAGAATTTTCTTTTGTAAAAGAAAAATATTTTTTAAACCGAAATCTGTGGATGAAATAGAAGCTGGAGCCCTCCT
CTTGGAATATTCAGCCTAAGAACCTCATAGGACTATGAATTCACCCGAAATTCTCATTTGCCATCAGGCCGAGCT
TTTAAAGAAAAATTGTTCTCTAACCAGGATTGTAACAAAAGTGTAAATACTGTTTCAGAGTTGAGAGTTGGTGGT
GCAAATATGTATATAATGAACTGTATTTTTACAATGATCGCCGCATGACTATTTCACACCCTTTTTATACTCCAT
ATCTGTCTTCCAGAAACGTCACCTGCCTTTCTCCTGTGGTCTCTTAATCCAGTAATTGTATTACTGCCATTAAAG
GATGCAGTTATTTT

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FIGURE 3799

AGTGCGAATC**ATG**GGAGGCGGCTGGTGGTGGGCTCGGGCCGCTCGCCTTGCCCGTCTTCGCTTCCGGAGGTCGCT
ACTGCCGCCTCAGCGGCCCCGGAGCGGGGGCGCCCGGGGGTCCTTCGCCCCCGGCCACGGTCCCCGCGCCGGGGC
TTCGCCGCCCCCCAGTGTCCGAGCTGGATCGTGCGGACGCCTGGCTCCTCCGAAAAGCGCACGAGACAGCCTTCCT
CTCCTGGTTCCGCAATGGCCTCCTGGCATCGGGCATCGGGGTCATCTCCTTCATGCAGAGTGACATGGGTCGGGA
AGCAGCATATGGCTTCTTCCTGCTGGGCGGCCTGTGCGTGGTGTGGGGCAGCGCCTCGTACGCCGTGGGCCTGGC
GGCGCTGCGAGGACCCATGCAGCTGACGCTGGGGGGCGCGGCCGTGGGCGCGGGCGCCGTGCTGGCCGCCAGCCT
GCTCTGGGCGTGCGCCGTGGGCCTCTACATGGGGCAGCTGGAGCTGGACGTGGAGCTGGTGCCCGAGGACGACGG
GACGGCCTCCGCGGAAGGCCCTGATGAGGCGGGTCGGCCGCCACCCGAG**TGA**GCGACACGGCCGTGGGGCCTGGC
AGGCGCTGGACAGCGCCCGAGGACTGGGACATTAAACCTGACCTCCCCTCCTCCAAAAAAAAAAAAAAAAAAACAA
AAAAAAAAAAAAAAAAAAAAAAAAAAACAAACAAACAAAAA

FIGURE 3800A

GGGGGCCAGGAAGCCCCAGGCACACAGTGCCGCCCTTCAGCGGGGGCCTGGGACACAGAGAAATCAACGACCGGG
AGCAGAAGTTGCATGCCCTTAAGGAGGTATTAAAGAAATTTCCAAAGGAAAACCACGAAGTCTTCAAGTATGTCA
TCTCTCACCTAAACAAGGTCAGCCACAACAACAAGGTGAATCTC**ATG**ACCAGCGAGAACCTCTCCATCTGCTTCT
GGCCCACCTTGATGAGACCTGATTTCAGCACTATGGACGCCCTCACAGCCACGCGCACCTACCAGACAATCATTG
AACTCTTTATCCAGCAGTGCCCCTTCTTCTTCTACAATCGGCCCATCACCGAGCCCCCCGGCGCCAGGCCCAGCT
CCCCCTCTGCCGTGGCTTCCACCGTCCCCTTCCTCACTTCCACGCCTGTCACAAGTCAGCCGTCGCCCCCACAGT
CGCCTCCACCCACCCCCCAGTCCCCAATGCAGCCACTGCTTCCCTCCCAGCTTCAAGCCGAACACACGCTG**TGA**G
CCACCAAGACCTGGGGCGACAGGAGAACCGGTCCTCTCTCTGACGGGGTGGCATTTGGCCTTGAACAAAACCAAG
TCCACTGGGGACAGAGGCAGGGGCAAGTGGCTCTCCCCATTACCTTCTCAAGACCTCAGTGGGAGCACCAGCCAA
TGGTACCATCGGCTGGGCTGCCAGGTACCCTGGGCCTGGCGCTGCAGACCTGAGCTGGCTTGGACCCATTTGAGG
ACTGAACTAGGCAGGCAATGGCTCCAGTGCCCTCCCTCTGTTCCCTGGACCACCACCCCACGTAGCTGCTCACAC
CAGCCTCCGGGTGCCTCCCTCTGCTTGTACAGAGCCCATGGTCGGGACAGTGCCCTGGCCTTTGCCGGGGAGGAG
GATGCTCTGAGATTCAGGGTGGGGCTGGCAACCCCTGAAGAGAACACTTCCTGTTGGTCTGTCTCTTCCCACCTT
CCATCTGCACACACCCCCAAGGTAAGGGTACAGCCCGGCTGGCGGCCTCCTTGGGAACGTGTAGGCCACGGCTCT
GCCACCACTAGGTACCTGCTGAGGGCGCTGGCTCTGCAGATCAGAACAACGGAGGATAGCTTTGTGCCTGGACCC
AGAGAGTGTGGGACTCCCCGCTTCATCCCCACCGTCCCACTCCACAGCCTTCCCGAAACATTCCCTGGCAAACAA
AGGAACACTAGGAGAAAAAATGGAAAAACCCTTCCAGTAATTAAAAAGGAAGAAACCACAGAAAGAAAACTACAG
ACCTCAAGATTCCACTCTGTGCCCGCCTCTGCCGGGAGGGAGGGAGGCACACAGGTGGAGCTGACCCTCGTCTTT
GTGGCAGCAAAACCAGGATGCCTGGAGCTGTGGCCTGAGGGCCTGCTGGGGTCCCACTCACCCACTTAGGTCTAG
TCGCTAGATCCCCCGTTTTCCCAAGAAGAGGGTTCGAGCCCTTGGTGGGGACAGCTGGGGAGATGGCAGTGCAGG
CTGGAACCTGGGCTGCCCCAGAACACAGTCCATTACGATAGAAACACTAGGCACCCCCCAGGCGAGAGCTAGTGG
GGTGCAGAGGGCCCCATGCCAGACAGCCCTTGGGGCTCGTTGCACTTTAAGAAATAGGATCTGTGGTGTATTCCA
GGGGGCCTGATGGACACCTTTCCCGGGCGTCTGCAGCTGCCCTGCCCGTGCCCGCCTGCAGTGGTTGGAGACGGG
AGTGGCCCTTCGGCTCCCGAGCTCCCTCTGGGGACGGCTGGCTCACTGTCTCCAGTTCTCAATGGCCAACGAAGG
TGCTTGGAAACACCTAACCTTGCAAGTTTTACCGCCTTTTGAGGAACACAAATCGGAGAACAAACCCAGGGTTCA
GGCGTGTTTTCTGTGAATGTTGGATGATGAATTTTTGTCTCTTCTGGTGGAGCTGTGCCTGGCCCTGTAGGCCCA
GGGTTGGCTGGAAGGTGACATCTGTGTTTCGTTTTAGCTGAGGTTGGCAGAAACGTTCCCAAACTCCCCCAGCCC
TGGACCCCAGCAGATGAGGAAACGGCCCCATTTACTGACCCCGCCCCCTTTTCGAGGTTATGCTCACCTGGTCAG
CTCCTCACGTAATTGGGGGTGGAGGGAAAGCATGGTGGTGCCCTGGGCCGTCCCTGTGTGAACGCAGGCAAAAGC
AGCCCAGTCCCCCTCACTGCTTGAGCTAACACTGCCACCTCTTTTGTGTGAGCACAAAAGCCACGTCCCAAGCCA
CCTGGCCCGATTCCACAGATGTATGTGCGGCCAGTGACTTCCCCAGGAGTGTGGAGGGGGTGGTGAGGAGGAGCA
CCTGGGCTCTCTACCCCTCTCCTCACAGAAGTACCTGAAACTAGGTCTGGGGCACTCCCAATGCAGCGCCTTGTC
AGCCAAGGTGGGCAGGCAGGGACTGTGGCAGCTTATGTCCAAAGGGAGCCCCCATGCACAGGAAGCCACAGGGTT
CCTCTTGTTTCCCCCGCTAACTTCAGCCTCTCATCTGCTGCTCCGGGCTGAGGGACTAGAGGACATCTCGGTCGT
TTGAGGGGCATGGCCAGTCGTGGCAGGCCGGCCTTCAGCGTCCGGTCAGGGAAGCGTGCAGCCCAAATGGGCACT
TGCATGGGAGCCACAGAGGAGCGTCCCTGGGGATTGTTGGGACCATGCTGCCCCCACTCCCGCTTTTGTTGGGGC
TCTAAGTTCTGGAAGGTGTGTGCACAGAGGGTGCTCATGGGACTCGCATGCAGCTCTCAGCACTGGGTGGGAGGG
CGTTGGCTTGTCCAGAATGGGGACGTGGGGCAGCCACCCCTGCCCAGCGAGAGCGCAGACACCGTGTGAGGGGAC
AGCAGCCCTTGGTGCAAAGCCAGAGACTGATCCTGGCTCTGACGGCTGAAGAGGGAAGACCCAAGGCTGGGTGGC
GTGGCTCGTGAATCCACTTAGAATTCTTGGCTTGTGTCGCATACTGGGTGTCACGGCACACATTTACTCTGCATT
GTCCCCGTCTTTCCCATCGCCTAGCGTTTGGGGAGGAACAGGGAGAGAGCTTCGGGGCGTCTGTCTCCGTGCTCT
CCTGCCTCCACCGCCTTGGTTTTGCTTCCTGCTGGAGGCAGGGCACCTGCTGCGACCCAGATTCTTCTGCAGGAT
GTGTCTGTCTTTGTCACGGTGGACAGAGGGTGACATCATAGGAGCAGCTCGCTGGCCAGAAGGGGATGGGGGCAT
CCCTGTGCCTCACTCAGCTCCTGCTGCTCTTAGGGAAAGGAGGCCTGGGTCAAGCCAGCATCCCCTTGGTAAAGA
CCCCCGCAGGCCACCAGGCATTCTGGACACGCACACACACACACACACACACACACACACACACAAAACTTCACAGC
AGGCCAGCTGCAGTGACTTGTCATCAAGAGTCACCTCAGCTGCGCCCCCCTCCCATCCTTTCCTATGAGAAGCCA
CTGCTTTGGGGGCGCCGGCTAGAAAAAGTAGGGTGCGGTGGCCAGGAGGGCCCCTGCCGCGCGGGGGGCTGGGTC
TGGTTGAGTCGCTGCTTTCCCGAGGGCAGCGCAGGGATCCGGGGAAGCTGCGGCAGGGAGCGGGCGCCGGCTTCG

FIGURE 3800B

TGGCTCTGAGGTGTAACGGGGGTGGGCTCCCTCCCTCGGAGGACATCGTCTGTGTCCAGGTCAGAAAGTGGCCCA
GGAAGGGGGCAGTTTCTGTCGCGGGTCCGGTGGGGGCGCGGCCGC

FIGURE 3801

TGCACCCTGAGCCGGAGCTGCCCAGTCGCCGCGGGACCGGGGCCGCTGGGGTCTGGACGGGGGTCGCC**ATG**ATCC
GCTTTATCCTCATCCAGAACCGGGCAGGCAAGACGCGCCTGGCCAAGTGGTACATGCAGTTTGATGATGATGAGA
AACAGAAGCTGATCGAGGAGGTGCATGCCGTGGTCACCGTCCGAGACGCCAAACACACCAACTTTGTGGAGTTCC
GGAACTTTAAGATCATTTACCGCCGCTATGCTGGCCTCTACTTCTGCATCTGTGTGGATGTCAATGACAACAACC
TGGCTTACCTGGAGGCCATTCACAACTTCGTGGAGGTCTTAAACGAATATTTCCACAATGTCTGTGAACTGGACC
TGGTGTTCAACTTCTACAAGGTTTACACGGTCGTGGACGAGATGTTCCTGGCTGGCGAAATCCGAGAGACCAGCC
AGACGAAGGTGCTGAAACAGCTGCTGATGCTACAGTCCCTGGAG**TGA**GGGCAGGCGAGCCCCACCCCGGCCCCGG
CCCCTCCTGGACTCGCCTGCTCGCTTCCCCTTCCCAGGCCCGTGGCCAACCCAGCAGTCCTTCCCTCAGCTGCCT
AGGAGGAAGGGACCCAGCTGGGTCTGGGCCACAAGGGAGGAGACTGCACCCCACTGCCTCTGGGCCCTGGCTGTG
GGCAGAGGCCACCGTGTGTGTCCCGAGTAACCGTGCCGTTGTCGTGTGATGCCATAAGCGTCTGTGCGTGGAGTC
CCCAATAAACCTGTGGTCCTGCCTGGC

FIGURE 3802

GGCACGCCCGGGAGGCTTTCTCTGGCTGGTAACCGCTACTCCCGGACACCAGACCACCGCCTTCCGTACACAGGG
GCCCGCATCCCACCCTCCCGGACCTAAGAGCCTGGGTCCCCTGTTTCCGGAGGTCCGCTTCCCGGCCCCCAGATT
CTGGCATCCCAGCCCTCAGTGTCCAAGACCCAGGCAGCCCGGGTCCCCGCCTCCCGGATCCAGGCGTCCGGGATC
TGCGCCACCAGAACCTAGCCTCCTGCAGACCTCCGCCATCTGGGGGCACTCAACCTCCTGGAGCCAAGGGCCCCA
CGTCCCACCCAGAGAAACTCTCGTATTCCCAGCTCCTAGGGCCAAGGAACCCGGGCGCTCCGAACTCCCAGCTTT
CGGACATCTGGCACACGGGGCAGAGCAGAGAAGCCTCAGCGCCCAGCCTGGGGAATTTAAACACTCCAGCTTCCA
AGAGCCAAGGAACTTCAGTGCTGTGAACTCACAACTCTAAGGAGCCCTCCAAAGTTCCAGTCTCCAGGTGCTGTT
ACTCAACTCAGTCCTAGGAACGTCGGGTCCTGGGAAGGAGCCCAAGCGCTCCCAGCCAGCTTCCAGGCGCTAAGA
AACCCCGGTGCTTCCCATC**ATG**GTGGCCGATCCTCCTCGAGACTCCAAGGGGCTCGCAGCGGCGGAGCCCACCGC
CAACGGGGGCCTGGCGCTGGCCTCCATCGAGGACCAAGGCGCGGCAGCAGGCGGCTACTGCGGTTCCCGGGACCA
GGTGCGCCGCTGCCTTCGAGCCAACCTGCTTGTGCTGCTGACAGTGGTGGCCGTGGTGGCCGGCGTGGCGCTGGG
ACTGGGGGTGTCGGGGGCCGGGGGTGCGCTGGCGTTGGGCCCGGAGCGCTTGAGCGCCTTCGTCTTCCCGGGCGA
GCTGCTGCTGCGTCTGCTGCGGATGATCATCTTGCCGCTGGTGGTGTGCAGCTTGATCGGCGGCGCCGCCAGCCT
GGACCCCGGCGCGCTCGGCCGTCTGGGCGCCTGGGCGCTGCTCTTTTTCCTGGTCACCACGCTGCTGGCGTCGGC
GCTCGGAGTGGGCTTGGCGCTGGCTCTGCAGCCGGGCGCCGCCTCCGCCGCCATCAACGCCTCCGTGGGAGCCGC
GGGCAGTGCCGAAAATGCCCCCAGCAAGGAGGTGCTCGATTCGTTCCTGGATCTTGCGAGAAATATCTTCCCTTC
CAACCTGGTGTCAGCAGCCTTTCGCTCATACTCTACCACCTATGAAGAGAGGAATATCACCGGAACCAGGGTGAA
GGTGCCCGTGGGGCAGGAGGTGGAGGGGATGAACATCCTGGGCTTGGTAGTGTTTGCCATCGTCTTTGGTGTGGC
GCTGCGGAAGCTGGGGCCTGAAGGGGAGCTGCTTATCCGCTTCTTCAACTCCTTCAATGAGGCCACCATGGTTCT
GGTCTCCTGGATCATGTGGTACGCCCCTGTGGGCATCATGTTCCTGGTGGCTGGCAAGATCGTGGAGATGGAGGA
TGTGGGTTTACTCTTTGCCCGCCTTGGCAAGTACATTCTGTGCTGCCTGCTGGGTCACGCCATCCATGGGCTCCT
GGTACTGCCCCTCATCTACTTCCTCTTCACCCGCAAAAACCCCTACCGCTTCCTGTGGGGCATCGTGACGCCGCT
GGCCACTGCCTTTGGGACCTCTTCCAGTTCCGCCACGCTGCCGCTGATGATGAAGTGCGTGGAGGAGAATAATGG
CGTGGCCAAGCACATCAGCCGTTTCATCCTGCCCATCGGCGCCACCGTCAACATGGACGGTGCCGCGCTCTTCCA
GTGCGTGGCCGCAGTGTTCATTGCACAGCTCAGCCAGCAGTCCTTGGACTTCGTAAAGATCATCACCATCCTGGT
CACGGCCACAGCGTCCAGCGTGGGGGCAGCGGGCATCCCTGCTGGAGGTGTCCTCACTCTGGCCATCATCCTCGA
AGCAGTCAACCTCCCGGTCGACCATATCTCCTTGATCCTGGCTGTGGACTGGCTAGTCGACCGGTCCTGTACCGT
CCTCAATGTAGAAGGTGACGCTCTGGGGGCAGGACTCCTCCAAAATTACGTGGACCGTACGGAGTCGAGAAGCAC
AGAGCCTGAGTTGATACAAGTGAAGAGTGAGCTGCCCCTGGATCCGCTGCCAGTCCCCACTGAGGAAGGAAACCC
CCTCCTCAAACACTATCGGGGGCCCGCAGGGGATGCCACGGTCGCCTCTGAGAAGGAATCAGTCATG**TAA**ACCCC
GGGAGGGACCTTCCCTGCCCTGCTGGGGGTGCTCTTTGGACACTGGATTATGAGGAATGGATAAATGGATGAGCT
AGGGCTCTGGGGGTCTGCCTGCACACTCTGGGGAGCCAGGGGCCCCAGCACCCTCCAGGACAGGAGATCTGGGAT
GCCTGGCTGCTGGAGTACATGTGTTCACAAGGGTTACTCCTCAAAACCCCCAGTTCTCACTCATGTCCCCAACTC
AAGGCTAGAAAACAGCAAGATGGAGAAATAATGTTCTGCTGCGTCCCCACCGTGACCTGCCTGGCCTCCCCTGTC
TCAGGGAGCAGGTCACAGGTCACCATGGGGAATTCTAGCCCCCACTGGGGGGATGTTACAACACCATGCTGGTTA
TTTTGGCGGCTGTAGTTGTGGGGGGATGTGTGTGTGCACGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT
GTTCTGTGACCTCCTGTCCCCATGGTACGTCCCACCCTGTCCCCAGATCCCCTATTCCCTCCACAATAACAGAAA
CACTCCCAGGGACTCTGGGGAGAGGCTGAGGACAAATACCTGCTGTCACTCCAGAGGACATTTTTTTTAGCAATA
AAATTGAGTGTCAACTATTT

FIGURE 3803

ATGATGGAGGAGCGAGCGGCCGCCGCGGTCGCCGCCGCCGCCTCCTCCTGCCGTCCGCTCGGCTCAGGCGCGGGC
CCTGGCCCCACTGGGGCGGCCCCGGTCTCCGCCCCTGCCCCCGGGCCGGGCCCGGCAGGTAAGGGAGGCGGCGGC
GGAGGCAGCCCCGGGCCCACGGCGGGCCCGGAGCCCCTGAGCCTGCCGGGGATCCTGCACTTTATCCAGCACGAG
TGGGCGCGCTTCGAAGCCGAGAAAGCCCGCTGGGAGGCCGAGCGCGCCGAGTTACAGGCTCAGGTGGCCTTCCTT
CAGGGAGAGAGGAAAGGGCAGGAGAATCTAAAGACGGACCTGGTGCGGCGGATCAAGATGCTAGAGTATGCGCTG
AAGCAGGAAAGGGCCAAATATCATAAACTGAAGTTTGGGACAGACCTGAACCAGGGGGAGAAGAAAGCAGATGTG
TCAGAACAAGTCTCCAATGGCCCCGTGGAATCGGTCACCCTGGAGAACAGCCCGTTGGTGTGGAAGGAGGGGCGG
CAGCTTCTCCGACAGTACCTGGAAGAGGTGGGCTACACAGACACCATCCTCGACATGCGGTCCAAGCGCGTCCGT
TCCCTGCTGGGCCGCTCGCTGGAGCTCAACGGGGCAGTGGAGCCGAGTGAAGGGGCCCCCAGGGCTCCACCAGGC
CCTGCAGGGCTCAGTGGTGGGGAGTCGCTGCTGGTGAAACAGATCGAGGAGCAGATAAAGAGGAACGCGGCAGGC
AAAGATGGCAAAGAGCGCTTGGGCGGCTCAGTGCTGGGGCAGATCCCCTTCCTGCAGAACTGCGAGGACGAAGAC
AGCGACGAGGACGATGAGCTGGACAGCGTGCAGCACAAGAAGCAGCGTGTGAAGCTCCCATCCAAGGCTCTGGTG
CCCGAAATGGAAGACGAGGATGAGGAAGACGACTCTGAGGATGCTATCAATGAGTTTGATTTCCTGGGCTCAGGA
GAGGATGGGGAAGGGGCTCCAGACCCTCGGCGGTGCACTGTGGATGGGAGCCCCCATGAGCTGGAAAGCCGTCGG
GTCAAACTCCAAGGCATTCTGGCTGACCTGCGGGATGTGGATGGGCTGCCCCCAAAAGTGACTGGCCCGCCTCCT
GGCACACCCCAGCCCCGGCCACATGAAGACGTCTTCATCATGGACACTATCGGGGGCGGGGAGGTGAGCCTGGGG
GACTTGGCAGATCTCACCGTCACCAACGACAACGACCTCAGCTGCGATCTGTCTGACAGCAAAGATGCTTTTAAG
AAGACGTGGAACCCCAAGTTCACCCTGCGCTCGCACTACGACGGCATTCGTTCCCTGGCCTTCCACCACAGCCAG
TCGGCTCTGCTCACCGCCTCCGAGGACGGCACGCTCAAGCTCTGGAACCTGCAGAAGGCGGTCACGGCCAAGAAG
AATGCGGCGCTAGATGTGGAACCTATACATGCTTTCCGGGCTCACAGGGGCCCAGTGTTGGCTGTGGCTATGGGC
AGCAACAGTGAATACTGCTACAGTGGCGGGGCAGATGCCTGCATCCATAGTTGGAAGATTCCAGACCTCAGCATG
GATCCCTATGATGGCTACGACCCAAGCGTGCTGAGCCACGTCCTGGAGGGCCACGGGGACGCCGTGTGGGGCCTG
GCCTTCAGTCCCACCTCCCAGCGCCTGGCCTCCTGTTCTGCTGATGGCACCGTCCGCATCTGGGACCCCAGCAGC
AGCAGCCCGGCCTGCCTCTGCACCTTCCCCACAGCCAGCGAGCACGGGGTCCCCACCTCAGTGGCCTTCACCAGC
ACCGAGCCTGCCCACATCGTGGCCTCCTTCCGCTCTGGCGACACCGTCTTGTATGACATGGAGGTTGGCAGTGCC
CTCCTCACGCTGGAGTCCCGGGGCAGCAGCGGTCCAACCCAGATCAACCAAGTGGTGAGTCATCCAAACCAGCCT
CTCACCATCACCGCCCACGACGACAGGGGCATCCGCTTCCTGGACAATCGGACAGGTAAGCCGGTGCACTCCATG
GTTGCACACCTGGACGCAGTCACCTGCCTAGCCGTGGACCCCAACGGCGCATTCCTGATGTCAGGAAGCCATGAC
TGCTCCCTGCGTCTCTGGAGCCTGGACAACAAAACGTGCGTGCAGGAGATCACGGCCCACCGCAAGAAGCACGAG
GAGGCCATCCACGCTGTTGCCTGCCACCCCAGCAAGGCCCTCATTGCCAGTGCTGGCGCTGATGCCCTGGCCAAG
GTCTTCGTATGATGCCCACCTGGCCCTGCCCTGGCCGCCACGCTGGCTGGGGTGTAGGGCCGGGCAGGTGGGGCT
GAGGGGACTCCCAGCCTCGCTGGAGGTGCAGAGGCCTGGCCTCTGTCTGTTTGCCATGGAGCCTGGTGGTGCTAA
CGGCCCTTTCCCCAGGAATCCCTCCCCAACGGCTGCCTTCCCCAAGCATCCAGCCTGGGGATGGGCCCCTTTCAG
GAATCACCCCCGAGGATGGCCTCGGGGTTTCCCCCTGTGCCCTGACAGCCGCTCCTGGTATCAGAGCTGCTTTCC
AGAGGGCAGCACAGCCAGGGCCGGGTGTCTTTAGGGATCAGTTTTTCCAAGACTCCAGAAGGTGCCAGGTTCTCC
CCTTGAGCTCCTGCTCCCCCATCCCCCATCCTCCCAGACCTGGGCAGGAGCTGTGCTGGGAGAAAGGGTGGCAGC
CGGGAGCCTCAGAGCTGAGCCCCGGCCTGGCTGCCCCTCCCCTCCGGCCCTCTCCACTGCTTTCCAGACACTAAC
CAAGGCTTCCAGGCCAGGGATTGCCCAACACTCCTAGGGCAGCCCTCCCAGCGCCCCATGGGGTCGCCCATGGGT
AGAGACGGCTTTCTTGTGCCCCTCCCTGGGGCATGGAGGGTGGAGTGGGCCTCGGGTCCCCCTGAACTCCCTGTA
TATCTGTATAAATAACGGGATTTTCATGGCGCCGCCCCACCCGCATTATCACTGTGTGATGGTCTCAGTCAGTCT
CCTCCCTGTCTCCACTCTTTCCCTCTATTTATTTCACTCTCTTGTTTGGTTCTACCCTGCACCCTCGGTCCCCTT
CCAGGTTCCTGTTTATAAGCCCCAACCCCTCTGTCCCCATCTTGTATGTGAAAACTTGTCTCAATAAACCCTTTG
GAGT

FIGURE 3804

CCGGGTGGGCTCCAGGCGGCCGGTCCCCGGCCTCCCCCC**ATG**GCCACCGCCCCCTCTTATCCCGCCGGGCTCCCT
GGCTCTCCCGGGCCGGGGTCTCCTCCGCCCCCCGGCGGCCTAGAGCTGCAGTCGCCGCCACCGCTACTGCCCCAG
ATCCCGGCCCCGGGTTCCGGGGTCTCCTTTCACATCCAGATCGGGCTGACCCGCGAGTTCGTGCTGTTGCCCGCC
GCCTCCGAGCTGGCTCATGTGAAGCAGCTGGCCTGTTCCATCGTGGACCAGAAGTTCCCTGAGTGTGGCTTCTAC
GGCCTTTACGACAAGATCCTGCTTTTCAAACATGACCCCACGTCGGCCAACCTCCTGCAGCTGGTGCGCTCGTCC
GGAGACATCCAGGAGGGCGACCTGGTGGAGGTGGTGCTGTCGGCCTCGGCCACCTTCGAGGACTTCCAGATCCGC
CCGCACGCCCTCACGGTGCACTCCTATCGGGCGCCTGCCTTCTGTGATCACTGCGGGGAGATGCTCTTCGGCCTA
GTGCGCCAGGGCCTCAAGTGCGATGGCTGCGGGCTGAACTACCACAAGCGCTGTGCCTTCAGCATCCCCAACAAC
TGTAGTGGGGCCCGCAAACGGCGCCTGTCATCCACGTCTCTGGCCAGTGGCCACTCGGTGCGCCTCGGCACCTCC
GAGTCCCTGCCCTGCACGGCTGAAGAGCTGAGCCGTAGCACCACCGAACTCCTGCCTCGCCGTCCCCCGTCATCC
TCTTCCTCCTCTTCTGCCTCATCGTATACGGGCCGCCCCATTGAGCTGGACAAGATGCTGCTCTCCAAGGTCAAG
GTGCCGCACACCTTCCTCATCCACAGCTATACACGGCCCACCGTTTGCCAGGCTTGCAAGAAACTCCTCAAGGGC
CTCTTCCGGCAGGGCCTGCAATGCAAAGACTGCAAGTTTAACTGTCACAAACGCTGCGCCACCCGCGTCCCTAAT
GACTGCCTGGGGGAGGCCCTTATCAATGGAGATGTGCCGATGGAGGAGGCCACCGATTTCAGCGAGGCTGACAAG
AGCGCCCTCATGGATGAGTCAGAGGACTCCGGTGTCATCCCTGGCTCCCACTCAGAGAATGCGCTCCACGCCAGT
GAGGAGGAGGAAGGCGAGGGAGGCAAGGCCCAGAGCTCCCTGGGGTACATCCCCCTAATGAGGGTGGTGCAATCG
GTGCGACACACGACGCGGAAATCCAGCACCACGCTGCGGGAGGGTTGGGTGGTTCATTACAGCAACAAGGACACG
CTGAGAAAGCGGCACTATTGGCGCCTGGACTGCAAGTGTATCACGCTCTTCCAGAACAACACGACCAACAGATAC
TATAAGGAAATTCCGCTGTCAGAAATCCTCACGGTGGAGTCCGCCCAGAACTTCAGCCTTGTGCCGCCGGGCACC
AACCCACACTGCTTTGAGATCGTCACTGCCAATGCCACCTACTTCGTGGGCGAGATGCCTGGCGGGACTCCGGGT
GGGCCAAGTGGGCAGGGGGCTGAGGCCGCCCGGGGCTGGGAGACAGCCATCCGCCAGGCCCTGATGCCCGTCATC
CTTCAGGACGCACCCAGCGCCCCAGGCCACGCGCCCCACAGACAAGCTTCTCTGAGCATCTCTGTGTCCAACAGT
CAGATCCAAGAGAATGTGGACATTGCCACTGTCTACCAGATCTTCCCTGACGAAGTGCTGGGCTCAGGGCAGTTT
GGAGTGGTCTATGGAGGAAAACACCGGAAGACAGGCCGGGACGTGGCAGTTAAGGTCATTGACAAACTGCGCTTC
CCTACCAAGCAGGAGAGCCAGCTCCGGAATGAAGTGGCCATTCTGCAGAGCCTGCGGCATCCCGGGATCGTGAAC
CTGGAGTGCATGTTCGAGACGCCTGAGAAAGTGTTTGTGGTGATGGAGAAGCTGCATGGGGACATGTTGGAGATG
ATCCTGTCCAGTGAGAAGGGCCGGCTGCCTGAGCGCCTCACCAAGTTCCTCATCACCCAGATCCTGGTGGCTTTG
AGACACCTTCACTTCAAGAACATTGTCCACTGTGACTTGAAACCAGAAAACGTGTTGCTGGCATCAGCAGACCCA
TTTCCTCAGGTGAAGCTGTGTGACTTTGGCTTTGCTCGCATCATCGGCGAGAAGTCGTTCCGCCGCTCAGTGGTG
GGCACGCCGGCCTACCTGGCACCCGAGGTGCTGCTCAACCAGGGCTACAACCGCTCGCTGGACATGTGGTCAGTG
GGCGTGATCATGTACGTCAGCCTCAGCGGCACCTTCCCTTTCAACGAGGATGAGGACATCAATGACCAGATCCAG
AACGCCGCCTTCATGTACCCGGCCAGCCCCTGGAGCCACATCTCAGCTGGAGCCATTGACCTCATCAACAACCTG
CTGCAGGTGAAGATGCGCAAACGCTACAGCGTGGACAAATCTCTCAGCCACCCCTGGTTACAGGAGTACCAGACG
TGGCTGGACCTCCGAGAGCTGGAGGGGAAGATGGGAGAGCGATACATCACGCATGAGAGTGACGACGTGCGCTGG
GAGCAGTTTGCAGCAGAGCATCCGCTGCCTGGGTCTGGGCTGCCCACGGACAGGGATCTCGGTGGGGCCTGTCCA
CCACAGGACCACGACATGCAGGGGCTGGCGGAGCGCATCAGTGTTCTC**TGA**GGTCCTGTGCCCTCGTCCAGCTGC
TGCCCTCCACAGCGGTTCTTCACAGGATCCCAGCAATGAACTGTTCTAGGGAAAGTGGCTTCCTGCCCAAACTGG
ATGGGACACGTGGGGAGTGGGGTGGGGGGAGCTATTTCCAAGGCCCCTCCCTGTTTCCCCAGCAATTAAAACGGA
CTCATCTCTGGCCCCATGGCCTTGATCTCAGCACACGGCACTCTCGAATCATTACTCTGTTGTACCAACATGGAG
TTCATCTGGAAGGAGGACTGCCTGAAAAGAGGAAGGATGG

FIGURE 3805

GGGGACGAGAGATTCGCGGGCCCGTAGGTGTGGAGCGGGGCGCGGAGGGATCCGTGGGAGCCGCAGTGCGGCGGC
GCGCGGGCCGGGTGGGGCGGGGCCGAGCGAGGCGGGGCGCGCGCGGCGGCCGTTGAGGGACCGTTGGGGCGGGAG
GCGGCGGCGGCGGCGGCGCGCGCTGCGGGCAGTGAGTGTGGAGGCGCGGACGCGCGGCGGAGCTGGAACTGCTGC
AGCTGCTGCCGCCGCCGGAGGAACCTTGATCCCCGTGCTCCGGACACCCCGGGCCTCGCC**ATG**GCTGACCAGCTG
ACTGAGGAGCAGATTGCAGAGTTCAAGGAGGCCTTCTCCCTCTTTGACAAGGATGGAGATGGCACTATCACCACC
AAGGAGTTGGGGACAGTGATGAGATCCCTGGGACAGAACCCCACTGAAGCAGAGCTGCAGGATATGATCAATGAG
GTGGATGCAGATGGGAACGGGACCATTGACTTCCCGGAGTTCCTGACCATGATGGCCAGAAAGATGAAGGACACA
GACAGTGAGGAGGAGATCCGAGAGGCGTTCCGTGTCTTTGACAAGGATGGGAATGGCTACATCAGCGCCGCAGAG
CTGCGTCACGTAATGACGAACCTGGGGGGAGAAGCTGACCGATGAGGAGGTGGATGAGATGATCAGGGAGGCTGAC
ATCGATGGAGATGGCCAGGTCAATTATGAAGAGTTTGTACAGATGATGACTGCAAAG**TGA**AGGCCCCCCGGGCAG
CTGGCGATGCCCGTTCTCTTGATCTCTCTCTTCTCGCGCGCGCACTCTCTCTTCAACACTCCCCTGCGTACCCCG
GTTCTAGCAAACACCAATTGATTGACTGAGAATCTGATAAAGCAACAAAAGATTTGTCCCAAGCTGCATGATTGC
TCTTTCTCCTTCTTCCCTGAGTCTCTCTCCATGCCCCTCATCTCTTCCTTTTGCCCTCGCCTCTTCCATCCATGT
CTTCCAAGGCCTGATGCATTCATAAGTTGAAGCCCTCCCCAGATCCCCTTGGGGAGCCTCTGCCCTCCTCCAGCC
CGGATGGCTCTCCTCCATTTTGGTTTGTTTCCTCTTGTTTGTCATCTTATTTTGGGTGCTGGGGTGGCTGCCAGC
CCTGTCCCGGGACCTGCTGGGAGGGACAAGAGGCCCTCCCCCAGGCAGAAGAGCATGCCCTTTGCCGTTGCATGC
AACCAGCCCTGTGATTCCACGTGCAGATCCCAGCAGCCTGTTGGGGCAGGGGTGCCAAGAGAGGCATTCCAGAAG
GACTGAGGGGGCGTTGAGGAATTGTGGCGTTGACTGGATGTGGCCCAGGAGGGGGTCGAGGGGGCCAACTCACAG
AAGGGGACTGACAGTGGGCAACACTCACATCCCACTGGCTGCTGTTCTGAAACCATCTGATTGGCTTTCTGAGGT
TTGGCTGGGTGGGGACTGCTCATTTGGCCACTCTGCAAATTGGACTTGCCCGCGTTCCTGAAGCGCTCTCGAGCT
GTTCTGTAAATACCTGGTGCTAACATCCCATGCCGCTCCCTCCTCACGATGCACCCACCGCCCTGAGGGCCCGTC
CTAGGAATGGATGTGGGGATGGTCGCTTTGTAATGTGCTGGTTCTCTTTTTTTTTCTTTCCCCTCTATGGCCCTT
AAGACTTTCATTTTGTTCAGAACCATGCTGGGCTAGCTAAAGGGTGGGGAGAGGGAAGATGGGCCCCACCACGCT
CTCAAGAGAACGCACCTGCAATAAAACAGTCTTGTCGGCCAGCTGCCCAGGGGACGGCAGCTACAGCAGCCTCTG
CGTCCTGGTCCGCCAGCACCTCCCGCTTCTCCGTGGTGACTTGGCGCCGCTTCCTCACATCTGTGCTCCGTGCCC
TCTTCCCTGCCTCTTCCCTCGCCCACCTGCCTGCCCCCATACTCCCCCAGCGGAGAGCATGATCCGTGCCCTTGC
TTCTGACTTTCGCCTCTGGGACAAGTAAGTCAATGTGGGCAGTTCAGTCGTCTGGGTTTTTTCCCCTTTTCTGTT
CATTTCATCTGGCTCCCCCCACCACCTCCCCACCCCACCCCCCACCCCCTGCTTCCCCTCACTGCCCAGGTCGAT
CAAGTGGCTTTTCCTGGGACCTGCCCAGCTTTGAGAATCTCTTCTCATCCACCCTCTGGCACCCAGCCTCTGAGG
GAAGGAGGGATGGGGCATAGTGGGAGACCCAGCCAAGAGCTGAGGGTAAGGGCAGGTAGGCGTGAGGCTGTGGAC
ATTTTCGGAATGTTTTGGTTTTGTTTTTTTTAAACCGGGCAATATTGTGTTCAGTTCAAGCTGTGAAGAAAAATA
TATATCAATGTTTTCCAATAAAATACAGTGACTACCTG

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FIGURE 3806

GAGCCTACCAAACCTTTGGTTCGCAGGGCTGGAGCTAAGTCTCGCTCCAGGAGAAAGAAGCAGAAGAAGAACTCC
AGGCAGGAAGCAGTGCCCTGGAAAAAACCCAAAGGCATCAATTCCAACAGCACAGCTAACTTGGAGGATCCTGAG
GTGGGTGATGCTGAAAGC**ATG**GCGATCTCAGAGCCGATCAAGGGCAGCAGAAAGCCCTGTGTGAATAAGGAGGAG
TTGGCTTTGAAGAAGCCCATGGCGAAATGTGCCTGGAAGGGTCCCAGAGAGCCACCTCAGGATGCCCGGGCAGAA
GCCGAGAGCCCAGGAGGCGCCTCTGAGTCAGACCAAGATGGTGGCCATGAAAGCCCACCAAAGAAGAAGGCCGTG
GCCTGGGTGTCTGCCAAGAACCCCGCTCCCATGAGGAAGAAGAAGAAGGTGAGCTTGGGCCCTGTCTCCTACGTC
TTGGTTGACTCAGAAGATGGCAGGAAGAAGCCGGTGATGCCAAAGAAAGGGCCAGGCTCAAGAAGGGAGGCATCA
GATCAGAAGGCCCCTCGGGGCCAGCAGCCTGCCGAGGCAACAGCCTCAACCTCTAGGGGTCCGAAGGCCAAGCCA
GAAGGCTCTCCTCGGCGTGCCACCAATGAATCCAGAAAGGTT**TGA**TCTGGGGGACCACCCATACTGAGGAGTTGA
AAGAACAAGGAAGAAGTACCAAGTCAACCAAGTTCTCTCTTGTCACTGAATAAGACTTTGGACTCTCTTAGGGCC
CCTGTTGATAGAGATCTGGCCCTGAGGTAAACGATAGGTGAGGTCTTGGGTGGGAGGGAGTTGGGGAAGGGAGGT
GGATCTCTATGCCCTTTTCTCTACCAGGCCTGCCGTTTCACCGCCTTCTCTACTCACCTTCTCTTCGGAGGCAGG
AGAGTTGGTAAGAGGATTGGGAAAATTCTAGAACATTCATTCCCCTTTATGCATGAGCAGGGTCACTGTTACACT
CATCCATGTTCAGCTTTTCTCCCCCACGCCTTGCTCCCTCCTCGGAATGGTCAGCGACCTCTGCAGGCCCTGGCA
TTTGGAAGAGCTGGGTGGCCCTGCCATATTCTTCCTCCCGCCTTCCTCTCGTGTAACCAGCGGGGTAAGTTAAGC
CAGGACCTTCGCTGCAAACCTGGTTTTATTGCTCCTTCAGTCTCCAGCTTCCATCCTCCAGTTATCTAGCCAGGA
GGTCCCAAGAGTTAGTTTTAGGGAAAAAGAATGTCTGCCTAGACCTCAAAGTCTTTGAGTTTTAGAGTCTGTTAG
TAAAAATGGCACTTTGATTCCCATTTGGGATGAGCCCTCTCAGGAATCCTGTGGGGAAGGGGGGTGATTATAGGG
AAGGACGCAGGCATTCCTAGGTCCCCAGCTCTAATTCCATCCATCTACCCAACTGTCACCATCTTTGCACCAAAC
TGTCACCATCTTTGCAGCAGAAGGTCACTACTCACATTATAGTAAGAGGGGAAAAAAATCTTTTAAAACTTGGCT
GTTGGCCGGGCACGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGCAGGTCGATCACGAGGTCAG
GCGTTTAAGACCAGCTTGACCAACATGGTGAAACCCCATCTCTACAAAAATTAGCTGGGCGTGGTGGCGCGCGCC
TGTAATCCCAGCTACTCAGGAGGCTGAGGCAGATGAATTGCTTGAATCCAGGAGGCAGAGGTTGCAATGAGCCGA
GATTGTGCCACGGCACTCCAGCCTGGGCAGCAGAGTGAGACTCTCTCTCAAAAAAACAAAACTTGGCTGTTAATG
TCTGCCCTCTGAATTCAGACACACTATATTAGACCAGACCACCATGTGTCATTGTGTGTGTGTGTGTGTTT
GCGTGCGCATGTGTAGAGGAGAGAGCAGGGTCCCTGAGATAATGGTTTCCAAACTGTATCGTAGCCGTCCACAAA
GATGTAATCCAAATCTATTTTTCTCACGTGTTTAAAAAACTGAAAAGTGACTACTCAGATATGTTGGAAGTCACA
TCGAAGACTATCAGAATATTACCTTGTGTTCATAGGTTAACTTGTTTTTGTACACGTCTTAGTTATTTCAGGCAT
CTCTTTGCTTAAAATTGAGTTTCTTGTAAATGTGACTGATGAGCGAGGTTAGAAGTGGAAGAAATTCCTGTGCAT
GTTCTATAATCTGACACCCTGAAAGCAAGTTTCCTTTCGTCATTCACATGCTCTTGTTCTGCCGTGACTGTTCAG
GTGTATGGTAGTAAGTAAATGTATTAACATGGTGAACAGTAGTAATATTCTATCATAGAGTATTAGCCCTTGCAA
GTTTTCAGGGCGTCTTTTCCGACTTCAGTTTTTGTGATAAAGAATGTGAACAGTTGTTAGATGTTCTCAGTGATT
CAACTTTAAAACAAATTTCTCGTGATGATTCATTTCAAAATCCTGAGTGAGTCTGACTGAAAAATACGAGAGAAA
AGAGAGTGGTTTCCGTTTGCAGCTACACAGCTGTGTGCATCGACGTTCTCCTGGGGGTGTGTGCCAAGCGAAACCC
AGGGGTGAATTGGATTCTTGAAGAGACCAAAGCCTGTAACTGTCCAGCTTCTAATTTCAAAACGGGTCCATTAGG
GCTTCGTTGTGTTAACAAGTTGACACCATGACTAGTAAATGTAAACGTGTATGTATAAAATAAAGTTTAGCAAAT
TAAGTGTCCTGTT

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FIGURE 3807

AGTCTTCCAGAGTCTGGGAGTGTAAGATGAGACGGGGGAAGGTGGGCCTCATTCTGGCGGAGGGCGAGGAGGAAC
TTCCTGCCCGCGCGCTCCACGGTGCAGAGCTCTAAGCGCGCGGGCTGGCAGGCTGCGGCGCGTCAAGGTCAGCCT
GGAGCTGGGTGGCGGCCTGCCTGGGGGCGGGGGACCCTACTGGAGGCCCGGGCTGGGGCCTCCCAGCGCCTCGGC
CATATTGAATAGCTTCGACTGGACCGTCTTTGTCTGCGAAGTCCTGTCCCAAGTTCCAGCCGCGTCCCTGGGGCC
TGGGGCAGGAAGAGTCGCTGGCAGCCCGCGCGCCCCAACTTGGAGCTGGGACACCACGTTTCCAGCTTGGAGTGG
GCCTTGAGCCTTGGGACTGACCTCGCCCCCGGCTCACGTAGGCATCCTGGAAATTGATTCCCCCAAGTCCTTGGT
GGGGGAGCCGGACTTGGTCAAGACTGTACTTGTTGCAGGCGAAGAGATTGGAGGCGTTTGGCTCGTCCCTGGCTA
GGGAGGTGAGACTCTCCGGTCAGCGTTGCTGGAACTCCCCCCATCCAGTCCCTCCCTCAAGACTAAGGGCTACAG
TAGTTTGTTGGGGCTCATTGCCCCCTCACCCCAGATATCACCCTGGAGATCTTAAAGACTCTCGAGAAAAGCCAC
GTGGGGGGCTGGTTCCCCTGGGGCTTCCTGCCGTCCCCCGACTGCCTCATTCTTTGGAGCGTCCCCGATGTCTGC
AAAGATGTGGATTTGGACGTCCTCGTGGAAGCCCTAAAGCCCGTGGGGACATTTAAGAAGATCGGCAAGGTGTTC
CGCAAGGAGGAGGACTCCACGGTGGGG**ATG**CTGCAGATCGGGGAGGACGTCGACTATTTGCTCATCCCCCGGGAG
GTCAGGCTGGCTGGGGGCGTCTGGAGAGTCATCTCTAAGCCCGCCACCAAGGAAGCAGAATTTCGGGAGCGGCTG
ACCCAGTTCCTGGAAGAAGAGGGCCGCACCCTGGAGGACGTGGCCCGCATCATGGAGAAGAGCACCCCGCACCCG
CCCCAGCCCCCCAAAAAGCCCAAGGAGCCCCGAGTGAGGAGGAGAGTGCAGCAGATGGTGACTCCTCCGCCCCGG
CTGGTCGTGGGCACGTACGACAGCAGCAACGCCAGCGACAGCGAGTTCAGCGACTTCGAGACCTCCAGAGACAAG
AGCCGCCAGGGCCCGCGGCGGGGCAAGAAGGTGCGCAAAATGCCCGTCAGCTACCTGGGCAGCAAGTTCCTGGGA
AGCGACCTGGAGAGTGAGGATGATGAGGAACTGGTCGAGGCCTTCCTCCGGCGACAGGAGAAGCAGCCCAGCGCG
CCGCCTGCCCGCCGCCGCGTCAACCTGCCAGTGCCCATGTTTGAGGACAACCTGGGGCCTCAGCTGTCCAAAGCG
GACAGGTGGCGGGAGTATGTCAGCCAGGTGTCCTGGGGGAAGCTGAAGCGGAGGGTGAAGGGTTGGGCGCCGAGG
GCGGGCCCCGGGGTGGGCGAGGCCCGGCTGGCCTCCACCGCAGTGGAGAGCGCAGGGGTATCATCGGCGCCAGAG
GGCACCAGCCCGGGGGATCGCTTGGGAAACGCGGGAGATGTTTGTGTGCCCCAGGCTTCCCCTAGGCGATGGAGG
CCCAAGATCAACTGGGCCTCCTTTCGGCGCCGCAGGAAGGAGCAGACAGCACCCACAGGTCAGGGGGCAGACATC
GAGGCTGATCAGGGGGGAGAGGCTGCAGATAGTCAAAGGGAAGAGGCCATAGCTGACCAGCGGGAAGGGGCTGCA
GGTAATCAGAGGGCAGGGGCCCCAGCTGACCAGGGGGCAGAGGCTGCAGATAATCAGAGGGAAGAGGCTGCAGAT
AATCAGAGGGCAGGGGCCCCAGCTGAGGAGGGGGCAGAGGCTGCAGATAACCAGAGGGAAGAGGCTGCAGATAAT
CAGAGGGCAGAGGCCCCAGCTGACCAGAGGTCACAGGGCACAGATAACCACAGGGAAGAGGCTGCAGATAATCAG
AGGGCGGAGGCCCCAGCTGACCAGGGGTCAGAGGTTACAGATAATCAAAGGGAAGAGGCCGTACATGACCAGAGG
GAAAGGGCCCCAGCTGTCCAGGGTGCAGATAATCAGAGGGCACAGGCCCGGGCTGGCCAGAGGGCAGAGGCTGCA
CATAATCAGAGGGCAGGGGCCCCAGGTATCCAGGAAGCTGAAGTCTCAGCTGCCCAAGGGACCACAGGAACAGCT
CCAGGAGCCAGGGCCCGGAAACAGGTCAAGACAGTGAGGTTCCAGACCCCTGGACGCTTTTCGTGGTTTTGCAAG
CGCCGGAGAGCCTTCTGGCACACTCCCCGGTTGCCAACCCTGCCCAAGAGAGTCCCCAGGGCAGGAGAGGCCAGG
AACCTCAGGGTGCTGAGGGCCGAGGCCAGAGCAGAAGCTGAGCAGGGAGAGCAAGAAGACCAGCTG**TGA**GGTGAG
GGCTAGAGACAGCCCACGGGCCCTCCCTCCAAGTGTGGGAGGGAGAGATGCTCTGCCTCTGAACTTCAAAGTGGA
GGTGGAGTGCTGGCCACGTCTCCACCTAACAACCCTCTTTATTCTCTTGTTAAAGTTTTGTTCATGCTTTGATTT
TTTTTTAAATTTTTTAGAGACAGGGTCTCACTCTGTTGCCCAGGCTGGAGTGCAGTGGCATGATCATAACTCACT
GCAGCCTCAAACTTCTGGCCTCAAGTGATCCTCCTGCCTCGGCCTCCCAAAATGCTGGGATTACAGATGTGAGCC
ACCACACACACCATCTGATTAAAAAAAAAAAATACTGATTCCTTGTAGCAACCC

FIGURE 3808

CGCGACGGTTCGGCCGGGTGCCGCTGGCGGCCGTTGCCAGGGTAGGGGTCGCTTTGCGGC**ATG**GCGATGGCGGAG
GGCGAGAGGACTGAGTGTGCTGAGCCCCCCCGGGACGAACCCCCGGCTGATGGAGCTCTGAAGCGGGCAGAGGAG
CTCAAGACTCAGGCCAATGACTACTTCAAAGCCAAGGACTACGAGAACGCCATCAAGTTCTACAGCCAGGCCATC
GAGCTGAACCCCAGCAATGCCATCTACTATGGCAACCGCAGCCTGGCCTACCTGCGCACTGAGTGCTATGGCTAC
GCGCTGGGAGACGCCACGCGGGCCATTGAGCTGGACAAGAAGTACATCAAGGGTTATTACCGCCGGGCTGCCAGC
AACATGGCACTGGGCAAGTTCCGGGCCGCGCTGCGAGACTACGAGACGGTGGTCAAGGTGAAGCCCCATGACAAG
GATGCCAAAATGAAATACCAGGAGTGCAACAAGATCGTGAAGCAGAAGGCCTTTGAGCGGGCCATCGCGGGCGAC
GAGCACAAGCGCTCCGTGGTGGACTCGCTGGACATCGAGAGCATGACCATTGAGGATGAGTACAGCGGACCCAAG
CTTGAAGACGGCAAAGTGACAATCAGTTTCATGAAGGAGCTCATGCAGTGGTACAAGGACCAGAAGAAACTGCAC
CGGAAATGTGCCTACCAGATTCTGGTACAGGTCAAAGAGGTCCTCTCCAAGCTGAGCACGCTCGTGGAAACCACA
CTCAAAGAGACAGAGAAGATTACAGTATGTGGGGACACCCATGGCCAGTTCTATGACCTCCTCAACATATTCGAG
CTCAACGGTTTACCCTCGGAGACCAACCCCTATATATTTAATGGTGACTTTGTGGACCGAGGCTCCTTCTCTGTA
GAAGTGATCCTCACCCTTTTCGGCTTCAAGCTCCTGTACCCAGATCACTTTCACCTCCTTCGAGGCAACCACGAG
ACAGACAACATGAACCAGATCTACGGTTTCGAGGGTGAGGTGAAGGCCAAGTACACAGCCCAGATGTACGAGCTC
TTTAGCGAGGTGTTCGAGTGGCTCCCGTTGGCCCAGTGCATCAACGGCAAAGTGCTGATCATGCACGGAGGCCTG
TTCAGTGAAGACGGTGTCACCCTGGATGACATCCGGAAAATTGAGCGGAATCGACAACCCCCAGATTCAGGGCCC
ATGTGTGACCTGCTCTGGTCAGATCCACAGCCACAGAACGGGCGCTCGATCAGCAAGCGGGGCGTGAGCTGTCAG
TTTGGGCCTGACGTCACCAAGGCCTTCTTGGAAGAGAACAACCTGGACTATATCATCCGCAGCCACGAAGTCAAG
GCCGAGGGCTACGAGGTGGCTCACGGAGGCCGCTGTGTCACCGTCTTCTCTGCCCCCAACTACTGCGACCAGATG
GGGAACAAAGCCTCCTACATCCACCTCCAGGGCTCTGACCTACGGCCTCAGTTCCACCAGTTCACAGCAGTGCCT
CATCCCAACGTCAAGCCCATGGCCTATGCCAACACGCTGCTGCAGCTAGGAATGATG**TGA**GGTGACGGGCGGGGC
GGCCTGCATCCCAGGGCCCCTCCAATCCCACCGGACCCAGGCCCTGGGCTAGGGGCAGAGCAGGCCCCGCCCCAG
GGCAATGTTGGACCCCCTTTTACTTTGTAAAGTTTGTATTTATTCCCCTTTAGGTTTGCAGAGGGGGTAGGGGCA
GAGTCAGGGGCTGGCCAGAGGGTCTGCTCCCTGGACAGAGAGGAAGGAGGTGGAGCAGCTGGGGCTGGGGGCACA
GCCTGGGCATTCTGTGGGGAGGCCGTCCTCGGGGTGGGGTGGGGCCGAGTGGCTGCCCTGCCCCCCTCATTTGCA
TGGCTCCTCCCCCACTCAAGCAATAGGGCCCCGCCATAGGAAGACCCCCAGAGAGAGGGTCAGCAGGGGGGCCCC
GCCTGCGCCTCCCCTCCTATAGCCCCATGGTGGGGCTAGGCTGGGGCTCACCCCCCTCCCCAGCTATTTTATGTC
TGTAATTAAATATGTTAAAATAAAGTCATTATCGG

FIGURE 3809

CCGCCGCAGCCGCCGCAGCAGCAGCAGCCGCCGCCCCAGGCCCCCCCCATGGAGCCCGAGGCCCCGGATTCCCGC
AAGAGGCCCCTCGAAACGCCCCCCGAGGTGGTCTGCACCAAGCGCAGCAACACGGGAGAGGAAGGCGAATACTTC
CTGAAGGTGCTGATCCCCAGCTACGCGGCGGGCTCCATCATTGGCAAGGGCGGGCAGACCATCGTGCAGCTGCAG
AAGGAGACCGGAGCCACCATCAAGCTCTCCAAGTCCAAAGACTTCTACCCCGGAACCACAGAGCGGGTATGCCTA
GTACAGGGCACGGCAGAGGCCTTGAATGCTGTGCACAGCTTTATTGCCGAGAAGGTCCGAGAAATCCCACAAGCG
ATGACCAAGCCTGAGGTGGTCAACATCCTTCAACCCCAAACCACGATGAACCCCGACAGAGCCAAGCAGGCCAAG
CTGATCGTCCCCAACAGCACGGCGGGCCTGATCATCGGCAAGGGAGGCGCCACGGTGAAAGCCGTGATGGAACAG
TCAGGAGCATGGGTGCAGCTGTCCCAGAAGCCGGAGGGCATCAACCTGCAGGAGCGCGTGGTGACGGTCAGCGGC
GAGCCCGAGCAGGTGCACAAGGCCGTGAGCGCCATCGTGCAGAAGGTACAAGAAGACCCCCAGAGCAGCAGCTGC
CTCAACATCAGCTACGCCAACGTGGCAGGCCCCGTGGCCAACTCCAACCCCACCGGCTCTCCGTACGCCAGCCCC
GCGGATGTGCTGCCAGCCGCGGCCGCAGCGTCGGCCGCCGCCGCCTCCGGCCTGCTGGGCCCCGCCGGGCTGGCT
GGCGTGGGGGCCTTTCCCGCCGCGCTGCCCGCCTTCTCAGGCACCGACCTGCTGGCCATCAGCACGGCGCTTAAC
ACGCTGGCAAGTTACGGCTACAACACCAACTCCCTGGGCCTGGGCCTCAACTCGGCCGCAGCTTCCGGCGTCCTG
GCCGCCGTGGCCGCCGGGGCCAACCCAGCAGCCGCCGCCGCCGCCAACCTCCTGGCATCCTACGCGGGCGAGGCC
GGGGCCGGGCCAGCCGGAGGGGCCGCCCCGCCGCCGCCCCCGCCTCCCGGAGCCCTGGGGTCCTTTGCGTTGGCC
GCAGCCGCCAACGGCTACCTCGGGGCCGGGGCGGGCGGCGGGGCGGGCGGAGGGGGCGGCCCGCTGGTGGCCGCT
GCAGCCGCGGCCGGGGCGGCCGGGGGCTTCCTGACGGCGGAGAAGCTGGCGGCTGAGAGTGCCAAGGAGCTGGTG
GAGATTGCGGTGCCTGAGAACCTGGTGGGAGCCATCCTGGGGAAGGGGGGCAAGACGTTGGTGGAGTACCAGGAG
CTGACGGGCGCTCGCATCCAGATCTCCAAGAAGGGCGAGTTCCTGCCAGGCACGCGGAACCGGCGGGTCACCATC
ACGGGCAGCCCCGCGGCCACGCAAGCCGCTCAATACCTCATCAGTCAGCGGGTCACCTACGAGCAGGGAGTGAGG
GCCTCAAACCCCCAGAAAGTGGGATGAGGCCTGTGGTGTGTGCTCCCACCCTTTTCTCTCCTCCCATCTCCTCCT
CTTCCCTCTCCTCCTCCCCCCCAACTCCTGACCTCAGCTTGGTGTAGTCCTGCTCCTCTTGGGATGGGGCTGGGG
TAGGCCCGACTGCACCCTCCCCTTCTGGTAGTCATAGGCAGGATTGAGTGACGGTTGGGAAGGGGGCTCAGAAGC
CCCCTCCCCAGCCCGGAACTGACCCCTCCTTCCTCCCTCCCTGTGCTTGGCTGGGCCTGACCCTTCCTGTCCCAG
GGCCCAGGTCTGTGTGATATCTGTATATATTGCATTTTGTTGATTTTAATAGAAAAC

FIGURE 3810

ATGAGGATGGCAGTTGGGGCGTCCAGGCTGCTGACTGAGTGCCCGCCTGTCGGTACAGCCAGCCAGGCCTTCGAC
AAGCACCTGCCTGGAAACCGGGCTCGCTGTCCTGAAAGCCTGGACTGGATGTCACGATGGGGAGAACGGGATCGC
GATACCCAAGCTGGGGCACAGGCGAGCCAGGGACACTGGTTTACTGGGGTGATAACACCCAGCCCTGCTATCGCG
ATCCGTTTGCACTGTGAGACGCCGCCCGCCTCCTGCCCACCACCTCCAGAAGCTCCTGGCTGGGGTGCACTGCCG
TCTCCTCCCACTCCCCACATTGCCATGCCTGGGCCACGCCCACCCCACCCACTCACCCACCCCCAGTGTCCGTTG
TGTGACCTACGCTCAGAAAGGGCCGTCCAGGAACCGCTGCTCCTCCTGCGCGATCAGGAAGCCGCCAGCCGGCTC
CACCGCCGCAGCCTCTCGCCGGGATCTGCACTGGCCTTCGGGCTGCCTCTCGCCCAGCTTACTTCGCTGCCACCC
TTCGACATGTGGAAGGACTACTTCAACCTGAGCCAGGTGGTGTGGGCGCTGATCGCAAGTCGGGGTCAAAGGCTG
GAGACCCAAGAGATTGAGGAGCCAAGTCCCGGGCCTCCGCTGGGGCAGGATCAGGGGCTGGGGGCGCCAGGGGCC
AACGGGGGCCTGGGGACCCTGTGCAACTTCTGCAAGCACAACGGGGAGTCCCGCCACGTCTACTCCTCACACCAG
CTGAAGACACCGGATGGCGTGGTGGTGTGTCCCATCCTGAGGCACTACGTGTGTCCCGTGTGCGGGGCCACCGGT
GACCAGGCCCATACGCTCAAGTACTGCCCGCTTAACGGTGGCCAGCAGTCCCTCTACCGCCGCAGCGGGCGCAAC
TCGGCCGGACGCAGGGTCAAGCGC**TGA**

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FIGURE 3811

GTGGGACTTCAGCGAGGCCGTGTGTCGCGGCTGCGTGAACTTCGAGGGCGCGGACCGCATCGAACTGCTCATCGA
TGCCGCCCGCCAGCTCAAGCGCAGCCACGTGCTCCCCGAGGGCCGCTCGCCCGGGCCCCCGGCCCTTAAGCACCC
GGCCACCAAGGACCTGGCGGCGGCAGCCGCACAGGGGCCCCAGCTGCCGCCCCCGCAGGCCCAGCCCCAGCCGTC
AGGGACCGGCGGCGGCGTGTCGGGCCAGGACCGCTATGACAGGGCCACATCATCAGGCCGCCTCCCCCTGCCCTC
GCCCGCCCTGGAGTACACTCTGGGGTCCCGCCTGGCCAATGGGCTGGGCCGTGAGGAGGCCGTGGCTGAGGGGGC
GCGAAGGGCCTTGCTTGGCTCC**ATG**CCTGGCTTGATGCCCCCTGGGCTGCTGGCAGCTGCAGTGTCTGGCCTGGG
AAGCCGAGGCCTGACGCTGGCACCCGGCTTGAGTCCTGCCCGTCCCCTCTTCGGCTCCGATTTCGAGAAAGAGAA
GCAGCAGAGGAATGCGGACTGTCTGGCAGAACTGAACGAGGCCATGCGAGGCCGGGCAGAGGAATGGCACGGGCG
CCCCAAAGCAGTGCGGGAACAGCTACTGGCGCTGTCCGCCTGCGCCCCGTTCAATGTGCGCTTCAAGAAGGATCA
CGGGCTGGTGGGGCGAGTGTTCGCCTTCGATGCTACTGCCCGTCCTCCAGGATACGAGTTCGAGCTGAAGCTCTT
CACCGAATACCCCTGTGGTTCCGGCAATGTGTACGCCGGCGTCCTGGCAGTGGCTCGCCAGATGTTCCACGATGC
TCTGCGGGAGCCGGGCAAGGCACTGGCTTCTTCGGGCTTCAAGTACCTCGAATATGAACGCCGGCATGGATCAGG
AGAATGGCGGCAGCTGGGCGAGCTGCTTACCGACGGCGTCCGCAGCTTCCGCGAGCCAGCTCCCGCGGAGGCCCT
GCCCCAGCAGTACCCAGAGCCGGCCCCTGCGGCTCTCTGTGGCCCACCCCCGCGAGCCCCATCCCGGAACCTGGC
GCCCACGCCGCGCCGTCGCAAGGCATCCCCCGAGCCGGAGGGCGAGGCGGCTGGGAAGATGACCACCGAGGAGCA
GCAGCAACGGCACTGGGTGGCACCCGGCGGCCCGTACTCCGCTGAGACCCCTGGTGTGCCCTCGCCCATTGCCGC
CCTGAAGAATGTGGCCGAAGCCCTGGGCCACTCACCCAAGGACCCTGGCGGAGGCGGGGGGCCTGTGCGTGCAGG
GGGCGCCAGCCCTGCAGCCTCCTCCACGGCCCAGCCGCCAACCCAGCATCGCCTTGTGGCCCGCAACGGCGAAGC
AGAAGTCAGTCCCACAGCGGGGGCCGAAGCTGTCAGCGGGGGTGGCAGCGGCACTGGGGCGACCCCTGGGGCCCC
CCTGTGCTGTACCCTGTGCAGGGAGCGGCTAGAAGACACCCACTTCGTCCAGTGCCCCTCGGTGCCCGGACACAA
GTTCTGCTTTCCCTGCTCCCGGGAGTTCATCAAGGCGCAGGGCCCGGCCGGGGAGGTGTACTGCCCGAGCGGAGA
CAAGTGCCCGCTGGTCGGCTCCTCCGTGCCCTGGGCCTTCATGCAGGGCGAGATCGCCACCATCCTTGCTGGAGA
CATCAAAGTTAAGAAAGAACGGGACCCC**TAG**GCTACCACTGCCTCCAGGCTACTGCCCTCTGCCCCTTTGCCACC
CACCGCTGCCGCGGATAAATTATTCCCTCCCCGACCCAGCCCAGTGCCACCTCTATCTGTGTACATACTCCCTTC
TTCCACCCAGATGGGTCCCCTGGGGTAGATGCATTGTGGGTGGGGGGAGAAAGCTTGTGGCTCCTGTCCGAGGGG
GTGTTTGGGGTCCCTTGGCCCCTCCAGTTTCCCTCTGTCCTCCTTGGCTTGGCTTTGCTGCTGCTTGTAGTTGGG
GGAGAGGTGCCCCCCTCCTCCTTGAGAAGGGACCTCCTGAAAACTCGCTCTTTATAAACGAGGCAAAAGCATTTA
ATTCCCACCCCCCCACCCCCCGCTCCCTTCTGCTCCTTCAATAAACCGAAAGATGGGTT

FIGURE 3812

ATGCTGGGCTCAGTGAAGATGGAGGCCCATGACCTGGCCGAGTGGAGCTACTACCCGGAGGCGGGCGAGGTCTAC
TCGCCGGTGACCCCAGTGCCCACCATGGCCCCCCTCAACTCCTACATGACCCTGAATCCTCTAAGCTCTCCCTAT
CCCCCTGGGGGGCTCCCTGCCTCCCCACTGCCCTCAGGACCCCTGGCACCCCCAGCACCTGCAGCCCCCCTGGGG
CCCACTTTCCCAGGCCTGGGTGTCAGCGGTGGCAGCAGCAGCTCCGGGTACGGGGCCCCGGGTCCTGGGCTGGTG
CACGGGAAGGAGATGCCGAAGGGGTATCGGCGGCCCCTGGCACACGCCAAGCCACCGTATTCCTATATCTCACTC
ATCACCATGGCCATCCAGCAGGCGCCGGGCAAGATGCTGACCTTGAGTGAAATCTACCAGTGGATCATGGACCTC
TTCCCTTACTACCGGGAGAATCAGCAGCGCTGGCAGAACTCCATTCGCCACTCGCTGTCTTTCAACGACTGCTTC
GTCAAGGTGGCGCGTTCCCCAGACAAGCCTGGCAAGGGCTCCTACTGGGCCCTACACCCCAGCTCAGGGAACATG
TTTGAGAATGGCTGCTACCTGCGCCGCCAGAAACGCTTCAAGCTGGAGGAGAAGGTGAAAAAAGGGGGCAGCGGG
GCTGCCACCACCACCAGGAACGGGACAGGGTCTGCTGCCTCGACCACCACCCCCGCGGCCACAGTCACCTCCCCG
CCCCAGCCCCCGCCTCCAGCCCCTGAGCCTGAGGCCCAGGGCGGGGAAGATGTGGGGGCTCTGGACTGTGGCTCA
CCCGCTTCCTCCACACCCTATTTCACTGGCCTGGAGCTCCCAGGGGAGCTGAAGCTGGACGCGCCCTACAACTTC
AACCACCCTTTCTCCATCAACAACCTAATGTCAGAACAGACACCAGCACCTCCCAAACTGGACGTGGGGTTTGGG
GGCTACGGGGCTGAAGGTGGGGAGCCTGGAGTCTACTACCAGGGCCTCTATTCCCGCTCTTTGCTTAATGCATCC
TAG

FIGURE 3813A

TAGGAAGAGGCACTGCTGAGGGGGCGCGAGGGGAACGGAGGCCAGAGCTGCGCTGACAGCAGCCATGGCGAGCGG
CAGTGGAGACAGCGTCACCCGTCGGAGCGTGGCATCACAGTTTTTCACTCAAGAGGAGGGGCCGGGCATCGATGG
CATGACCACCTCAGAGAGGGTGGTGGATCTTCTGAACCAGGCGGCGCTGATCACCAATGACTCAAAGATCACAGT
GCTCAAACAGGTCCAGGAGCTGATCATCAACAAAGACCCCACACTACTGGACAACTTCCTGGATGAGATCATCGC
ATTCCAAGCAGACAAGTCAATCGAAGTGCGAAAATTTGTCATCGGCTTCATCGAGGAGGCATGCAAGCGAGACAT
TGAGTTGCTGCTGAAACTCATTGCAAACCTCAACATGCTCTTGAGGGACGAGAATGTGAACGTGGTGAAGAAGGC
TATCCTCACC**ATG**ACCCAGCTCTACAAGGTGGCCCTGCAGTGGATGGTAAAGTCACGGGTCATTAGCGAGCTACA
GGAGGCCTGCTGGGACATGGTATCTGCCATGGCGGGGGACATCATCCTGCTATTGGACTCTGACAATGACGGCAT
CCGCACCCACGCCATCAAGTTTGTGGAGGGCCTCATTGTCACCCTGTCACCCCGCATGGCTGACTCAGAGATACC
CCGACGCCAGGAGCATGATATCAGCCTGGACCGCATCCCTCGTGACCACCCCTACATCCAGTACAACGTGCTATG
GGAAGAGGGCAAGGCAGCCTTGGAGCAGCTGCTTAAGTTCATGGTGCACCCTGCCATCTCCTCCATCAACCTGAC
CACAGCGCTGGGCTCCCTTGCCAATATCGCCCGCCAGAGACCCATGTTCATGTCTGAGGTGATCCAGGCCTATGA
AACTCTGCATGCCAACCTGCCCCCGACGCTGGCCAAATCGCAGGTGAGCAGTGTGCGTAAGAATCTGAAGCTGCA
CCTGTTGAGTGTGCTGAAGCACCCGGCTTCCTTGGAGTTCCAGGCCCAGATCACCACCCTGCTGGTGGACCTGGG
CACACCTCAGGCCGAGATCGCCCGCAACATGCCGAGCAGCAAGGACACCCGCAAGCGGCCCCGCGATGACTCGGA
CTCCACACTCAAGAAGATGAAGCTGGAGCCCAACCTGGGGGAGGACGATGAGGACAAAGACTTGGAGCCAGGCCC
GTCGGGGACCTCGAAGGCCTCAGCGCAGATCTCCGGCCAGTCAGACACGGACATCACAGCTGAGTTCCTGCAGCC
TCTGCTGACGCCTGATAATGTGGCTAATCTGGTCCTCATCAGCATGGTGTACCTACCCGAGGCCATGCCAGCCTC
CTTCCAGGCCATCTACACCCCCGTGGAGTCAGCAGGCACGGAAGCCCAGATCAAGCACCTGGCTCGGCTCATGGC
CACACAGATGACAGCTGCCGGACTGGGACCAGGTGTAGAGCAGACCAAACAGTGCAAGGAGGAGCCCAAGGAGGA
GAAGGTGGTGAAGACAGAGAGCGTCCTGATCAAGCGGCGCCTGTCAGCCCAGGGCCAAGCCATCTCGGTGGTGGG
TTCCCTGAGCTCCATGTCCCCCCTGGAGGAAGAGGCACCGCAGGCCAAGAGGAGGCCAGAGCCCATTATCCCTGT
CACTCAGCCCCGGCTGGCAGGCGCTGGTGGGCGCAAGAAAATTTTCCGTCTCAGCGACGTGCTGAAGCCCCTTAC
CGATGCCCAGGTGGAAGCCATGAAGCTGGGCGCTGTGAAGCGGATCCTGCGGGCTGAGAAGGCTGTGGCCTGCAG
CGGGGCAGCCCAGGTCCGCATAAAGATCCTGGCCAGCCTGGTGACACAGTTCAACTCGGGCCTGAAGGCGGAGGT
CCTGTCCTTCATCCTGGAGGATGTGCGGGCCCGCCTGGACCTGGCCTTCGCCTGGCTCTACCAGGAGTACAACGC
CTACCTGGCCGCAGGTGCCTCGGGCTCCCTGGACAAGTATGAGGACTGCCTCATCCGCCTGTTGTCTGGCCTGCA
GGAGAAACCAGACCAGAAGGATGGGATCTTCACCAAGGTTGTGCTGGAGGCGCCACTCATCACAGAGAGTGCCCT
GGAGGTGGTCCGCAAGTACTGCGAGGATGAGAGTCGCACCTATCTGGGCATGTCCACACTTCGAGACCTGATCTT
CAAGCGCCCGTCCCGCCAGTTCCAGTACCTGCATGTCCTCCTCGACCTCAGCTCCCATGAGAAGGACAAGGTGCG
CTCCCAGGCCCTGCTGTTCATCAAACGCATGTATGAGAAGGAGCAGCTGCGGGAGTATGTGGAGAAATTTGCCCT
CAACTACCTGCAGCTCCTGGTGCACCCCAACCCACCGTCTGTGCTGTTTGGAGCTGACAAGGACACAGAGGTGGC
AGCACCCTGGACGGAGGAGACAGTGAAGCAGTGTCTGTACCTCTACCTGGCCCTCCTGCCTCAGAACCACAAGCT
GATCCACGAACTGGCGGCCGTGTACACTGAAGCCATCGCCGACATCAAGCGGACGGTGCTGAGGGTCATTGAGCA
GCCGATCCGAGGAATGGGCATGAACTCCCCGGAGCTGCTCCTGCTGGTGGAAAATTGTCCCAAGGGAGCAGAGAC
ACTGGTCACGAGATGTCTGCACAGCCTCACAGACAAAGTCCCACCCTCCCCAGAGCTGGTGAAGCGGGTCCGGGA
TCTCTACCACAAGCGACTGCCAGACGTCCGCTTCCTCATCCCGGTGCTCAATGGGCTGGAGAAGAAAGAGGTGAT
CCAGGCCCTGCCTAAACTCATCAAACTCAACCCCATCGTGGTGAAGGAAGTCTTCAACCGCCTGCTGGGCACCCA
GCATGGTGAGGGAAACTCAGCCTTGTCCCCGCTGAACCCTGGAGAGCTCCTGATCGCATTACACAACATTGACTC
CGTGAAGTGCGACATGAAATCCATCATCAAAGCCACCAACCTGTGCTTTGCGGAGCGGAACGTGTACACGTCAGA
GGTGCTGGCCGTGGTGATGCAGCAGCTGATGGAGCAGAGCCCCCTGCCCATGCTGCTCATGAGGACCGTCATCCA
GTCCCTGACCATGTACCCCCGCCTGGGGGGCTTCGTCATGAACATCCTGTCCCGCCTCATCATGAAGCAGGTGTG
GAAGTACCCCAAGGTGTGGGAGGGCTTCATCAAGTGCTGCCAGCGCACAAAGCCCCAGAGCTTCCAGGTCATCCT
GCAGCTGCCGCCCCAGCAGCTGGGAGCCGTCTTTGACAAGTGCCCAGAGCTCCGGGAGCCCCTGCTGGCCCATGT
CCGCTCCTTCACCCCCCACCAGCAAGCTCACATCCCTAACTCCATCATGACCATCTTGGAGGCCAGCGGCAAGCA
GGAGCCAGAGGCCAAGGAGGCGCCTGCGGGGCCCTTGGAGGAGGATGATCTGGAGCCCCTGACCTTGGCCCCGGC
CCCAGCACCCCGGCCCCCTCAGGACCTCATCGGCCTGCGACTGGCCCAGGAGAAGGCCTTAAAGCGGCAGCTGGA
GGAGGAACAGAAGCTGAAGCCGGGAGGAGTGGGAGCCCCCTCCTCTTCCTCCCCCTCTCCCTCTCCGTCGGCCCG

FIGURE 3813B

GCCAGGCCCGCCCCCGTCTGAGGAAGCCATGGATTTCCGGGAGGAGGGGCCTGAGTGCGAGACCCCGGGCATCTT
CATCAGCATGGATGACGACTCGGGGCTGACCGAGGCCGCGCTGTTGGACTCTAGTCTCGAGGGCCCCCTACCCAA
GGAGACGGCAGCGGGCGGGCTGACCTTGAAGGAGGAGCGGAGCCCCCAGACCCTCGCACCTGTTGGAGAAGATGC
TATGAAGACTCCCAGCCCGGCTGCCGAGGACGCCAGGGAACCCGAGGCCAAGGGGAACAGC**TGA**CGGGGCTCGAG
GGGGAAAGGGGGTGGGACAGGGACTCGGGGCTGGGGGACGGGGCGGGGCTTGACCTGCGGGTGCTTTGCCTTAAA
AAGAAATAAA

FIGURE 3814

GGAGACCGCGTCTGCTTCAACTTGGGCCGTGAGCTCTATTTCTACCCAGGCTGCTGTCGTCGTGGGAGCCAACGG
TCCATTGACCTCAACAAGCCAATTGACAAGCGGATCTACAAGGGCACCCAGCCCACCTGCCACGATTTCAACCAG
TTCACTGCTGCCACCGAGACCATCTCGCTGCTGGTGGGCTTCTCAGCGGGTCAAGTGCAGTACCTGGATCTCATC
AAAAAGGACACCAGCAAGCTGTTCAATGAGGAGCGGTTGATCGACAAGACCAAGGTGACATATCTGAAGTGGCTG
CCTGAGTCGGAGAGCCTGTTCCTGGCATCACACGCCAGTGGCCACCTGTACCTGTACAACGTCAGCCACCCCTGC
GCCTCGGCCCCGCCCCAGTACAGCCTGCTGAAGCAGGGCGAGGGCTTCTCTGTCTATGCTGCCAAGAGCAAGGCA
CCCCGCAACCCGCTGGCCAAGTGGGCGGTGGGTGAGGGGCCCCTCAACGAGTTCGCCTTCTCGCCCGATGGCCGG
CACCTGGCCTGTGTGAGCCAGGATGGCTGCCTGCGCGTCTTCCACTTCGACTCC**ATG**CTCCTGCGTGGGCTCATG
AAGAGCTACTTTGGGGGCCTGCTGTGTGTGTGCTGGAGCCCTGACGGCCGCTACGTGGTGACGGGTGGCGAAGAT
GACCTGGTCACCGTGTGGTCCTTCACCGAGGGCCGCGTGGTGGCTCGAGGCCATGGCCACAAGTCCTGGGTCAAC
GCTGTGGCCTTTGACCCCTACACCACAAGGGCAGAGGAGGCGGCGACAGCAGCCGGTGCTGATGGGGAGCGGAGC
GGCGAAGAGGAGGAGGAGGAGCCCGAGGCTGCGGGCACAGGCTCGGCCGGGGGCGCCCCGCTCTCTCCACTGCCC
AAGGCTGGCTCCATTACTTACCGCTTTGGCTCGGCGGGCCAGGACACGCAGTTCTGCCTGTGGGACCTCACTGAA
GACGTGCTCTACCCGCACCCCCCCCTGGCCCGCACCCGCACCCTCCCTGGCACACCTGGCACCACGCCACCGGCC
GCCAGCAGCTCGAGGGGTGGCGAGCCTGGCCCAGGCCCCCTGCCTCGCTCGCTGTCCCGCTCCAACAGTCTCCCG
CACCCAGCTGGCGGGGGCAAGGCGGGCGGCCCGGGTGTGGCGGCAGAGCCTGGCACACCATTCAGCATTGGCCGC
TTCGCCACGCTCACACTGCAGGAGCGGCGGGACCGGGGGGGCAGAGAAGGAGCACAAGCGCTACCACAGCCTGGGC
AACATCAGCCGGGGTGGCAGTGGCGGCAGTGGCAGTGGTGGGGAGAAGCCCAGCGGCCCTGTTCCCCGCAGCCGC
CTGGACCCCGCCAAGGTGCTGGGCACTGCGCTGTGCCCGCGCATCCACGAGGTGCCCCTGCTGGAGCCCCTTGTG
TGCAAGAAGATCGCCCAGGAGCGGCTCACAGTCCTCCTGTTCCTGGAGGACTGCATCATCACTGCCTGCCAGGAG
GGCCTCATCTGCACCTGGGCCCGGCCGGGCAAGGCGTTCACAGACGAGGAGACCGAGGCCCAGACAGGGGAAGGA
AGTTGGCCCAGGTCACCCAGCAAGTCAGTGGTAGAGGGCATCTCCTCCCAACCAGGCAACTCCCCGAGTGGCACA
GTGGTG**TGA**AGCCATGGATATCGGGCCCCCCCAACCCCATGCCCCCAGCCTCCTAGCCATAACCCTCCCTGCTGA
CCTCACAGATCAACGTATTAACAAGACTAACCATGATGGATGGACTGCTCCAGTCCCCCCACCTGCACAAAATTT
GGGGGCCCCCCAGACTGGCCCGGACACGGGCGATGTAATAGCCCTTGTGGCCTCAGCCTTGTCCCCCACCCACTG
CCAAGTACAATGACCTCTTCCTCTGAAACATCAGTGTTACCCTCATCCCTGTCCCCAGCATGTGACTGGTCACTC
CTGGGGAGAGACTCCCCGCCCCTGCCACAAGAGCCCCAGGTCTGCAGTGTGCCCCTCAGTTGAGTGGGCAGGGCC
GGGGGTGGTCCAGCCCTCGCCCGGCCCCCACCCCAGCTGCCCTTGCTATTGTCTGTGCTTTTGAAGAGTGTTAAA
TTATGGAAGCCCCTCAGGTTCCTCCCTGTCCCGCAGGACCTCTTATTTATACTAAAGTTCCCTGTTTTCTCAGCG
GGTCTGTCCCCTTCGGAGGAGATGATGTAGAGGACCTGTGTGTGTACTCTGTGGTTCTAGGCAGTCCGCTTTCCC
CAGAGGAGGAGTGCAGGCCTGCTCCCAGCCCAGCGCCTCCCACCCCTTTTCATAGCAGGAAAAGCCGGAGCCCAG
GGAGGGAACGGACCTGCGAGTCACACAACTGGTGACCCACACCAGCGGCTGGAGCAGGACCCTCTTGGGGAGAAG
AGCATCCTGCCCGCAGCCAGGGCCCCTCATCAAAGTCCTCGGTGTTTTTTAAATTATCAGAACTGCCCAGGACCA
CGTTTCCCAGGCCCTGCCCAGCTGGGACTCCTCGGTCCTTGCCTCCTAGTTTCTCAGGCCTGGCCCTCTCAAGGC
CCAGGCACCCCAGGCCGGTTGGAGGCCCCGACTTCCACTCTGGAGAACCGTCCACCCTGGAAAGAAGAGCTCAGA
TTCCTCTTGGCTCTCGGAGCCGCAGGGAGTGTGTCTTCCCGCGCCACCCTCCACCCCCCGAAATGTTTCTGTTTC
TAATCCCAGCCTGGGCAGGAATGTGGCTCCCCGGCCAGGGGCCAAGGAGCTATTTTGGGGTCTCGTTTGCCCAGG
GAGGGCTTGGCTCCACCACTTTCCTCCCCCAGCCTTTGGGCAGCAGGTCACCCCTGTTCAGGCTCTGAGGGTGCC
CCCTCCTGGTCCTGTCCTCACCACCCCTTCCCCACCTCCTGGG

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FIGURE 3815

CAGGGAGGGCTTGGCTCCACCACTTTCCTCCCCCAGCCTTTGGGCAGCAGGTCACCCCTGTTCAGGCTCTGAGGG
TGCCCCCTCCTGGTCCTGTCCTCACCACCCCTTCCCCACCTCCTGGGAAAAAAAAAAAAAAAAAAAAAAAAAGCT
GGTATAAAGCAGAGAGCCTGAGGGCTAAATTTAACTGTCCGAGTCGGAATCCATCTCTGAGTCACCCAAGAAGCT
GCCCTGGCCTCCCGTCCCCTTCCCAGGCCTCAACCCCTTTCTCCCACCCAGCCCCAACCCCCAGCCCTCACCCCC
TAGCCCCCAGTTCTGGAGCTTGTCGGGAGCAAGGGGGTGGTTGCTACTGGGTCACTCAGCCTCAATTGGCCCTGT
TTCAGCAATGGGCAGGTTCTTCTTGAAATTCATCACACCTGTGGCTTCCTCTGTGCTCTACCTTTTTATTGGGGT
GACAGTGTGACAGCTGAGATTCTCCATGCATTCCCCCTACTCTAGCACTGAAGGGTTCTGAAGGGCCCTGGAAGG
AGGGAGCTTGGGGGGCTGGCTTGTGAGGGGTTAAGGCTGGGAGGCGGGAGGGGGGCTGGACCAAGGGGTGGGGAG
AAGGGGAGGAGGCCTCGGCCGGCCGCAGAGAGAAGTGGCCAGAGAGGCCCAGGGGACAGCCAGGGACAGGCAGAC
ATGCAGCCAGGGCTCCAGGGCCTGGACAGGGGCTGCCAGGCCCTGTGACAGGAGGACCCCGAGCCCCCGGCCCGG
GGAGGGGCCATGGTGCTGCCTGTCCAAC**ATG**TCAGCCGAGGTGCGGCTGAGGCGGCTCCAGCAGCTGGTGTTGGA
CCCGGGCTTCCTGGGGCTGGAGCCCCTGCTCGACCTTCTCCTGGGCGTCCACCAGGAGCTGGGCGCCTCCGAACT
GGCCCAGGACAAGTACGTGGCCGACTTCTTGCAGTGGGCGGAGCCCATCGTGGTGAGGCTTAAGGAGGTCCGACT
GCAGAGGGACGACTTCGAGATTCTGAAGGTGATCGGACGCGGGGCGTTCAGCGAGGTAGCGGTAGTGAAGATGAA
GCAGACGGGCCAGGTGTATGCCATGAAGATCATGAACAAGTGGGACATGCTGAAGAGGGGCGAGGTGTCGTGCTT
CCGTGAGGAGAGGGACGTGTTGGTGAATGGGGACCGGCGGTGGATCACGCAGCTGCACTTCGCCTTCCAGGATGA
GAACTACCTGTACCTGGTCATGGAGTATTACGTGGGCGGGGACCTGCTGACACTGCTGAGCAAGTTTGGGGAGCG
GATTCCGGCCGAGATGGCGCGCTTCTACCTGGCGGAGATTGTCATGGCCATAGACTCGGTGCACCGGCTTGGCTA
CGTGCACAGGGACATCAAACCCGACAACATCCTGCTGGACCGCTGTGGCCACATCCGCCTGGCCGACTTCGGCTC
TTGCCTCAAGCTGCGGGCAGATGGAACGGTGCGGTCGCTGGTGGCTGTGGGCACCCCAGACTACCTGTCCCCCGA
GATCCTGCAGGCTGTGGGCGGTGGGCCTGGGACAGGCAGCTACGGGCCCGAGTGTGACTGGTGGGCGCTGGGTGT
ATTCGCCTATGAAATGTTCTATGGGCAGACGCCCTTCTACGCGGATTCCACGGCGGAGACCTATGGCAAGATCGT
CCACTACAAGGAGCACCTCTCTCTGCCGCTGGTGGACGAAGGGGTCCCTGAGGAGGCTCGAGACTTCATTCAGCG
GTTGCTGTGTCCCCCGGAGACACGGCTGGGCCGGGGTGGAGCAGGCGACTTCCGGACACATCCCTTCTTCTTTGG
CCTCGACTGGGATGGTCTCCGGGACAGCGTGCCCCCCTTTACACCGGATTTCGAAGGTGCCACCGACACATGCAA
CTTCGACTTGGTGGAGGACGGGCTCACTGCCATGGTGAGCGGGGGCGGGGAGACACTGTCGGACATTCGGGAAGG
TGCGCCGCTAGGGGTCCACCTGCCTTTTGTGGGCTACTCCTACTCCTGCATGGCCCTCAGGGACAGTGAGGTCCC
AGGCCCCACACCCATGGAACTGGAGGCCGAGCAGCTGCTTGAGCCACACGTGCAAGCGCCCAGCCTGGAGCCCTC
GGTGTCCCCACAGGATGAAACAGCTGAAGTGGCAGTTCCAGCGGCTGTCCCTGCGGCAGAGGCTGAGGCCGAGGT
GACGCTGCGGGAGCTCCAGGAAGCCCTGGAGGAGGAGGTGCTCACCCGGCAGAGCCTGAGCCGGGAGATGGAGGC
CATCCGCACGGACAACCAGAACTTCGCCAGTCAACTACGCGAGGCAGAGGCTCGGAACCGGGACCTAGAGGCACA
CGTCCGGCAGTTGCAGGAGCGGATGGAGTTGCTGCAGGCAGAGGGAGCCACAGCTGTCACGGGGGTCCCCAGTCC
CCGGGCCACGGATCCACCTTCCCATCTAGATGGCCCCCCGGCCGTGGCTGTGGGCCAGTGCCCGCTGGTGGGGCC
AGGCCCCATGCACCGCCGCCACCTGCTGCTCCCTGCCAGGGTCCCTAGGCCTGGCCTATCGGAGGCGCTTTCCCT
GCTCCTGTTCGCCGTTGTTCTGTCTCGTGCCGCCGCCCTGGGCTGCATTGGGTTGGTGGCCCACGCCGGCCAACT
CACCGCAGTCTGGCGCCGCCCAGGAGCCGCCCGCGCTCCC**TGA**ACCCTAGAACTGTCTTCGACTCCGGGGCCCCG
TTGGAAGACTGAGTGCCCGGGGCACGGCACAGAAGCCGCGCCCACCGCCTGCCAGTTCACAACCGCTCCGAGCGT
GGGTCTCCGCCCAGCTCCAGTCCTGTGATCCGGGCCCGCCCCCTAGCGGCCGGGGAGGGAGGGGCCGGGTCCGCG
GCCGGCGAACGGGGCTCGAAGGGTCCTTGTAGCCGGGAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGC
TGCTGCTGCTGCTGCTGCTGCTGCTGGGGGGGATCACAGACCATTTCTTTCTTTCGGCCAGGCTGAGGCCCTGACG
TGGATGGGCAAACTGCAGGCCTGGGAAGGCAGCAAGCCGGGCCGTCCGTGTTCCATCCTCCACGCACCCCCACCT
ATCGTTGGTTCGCAAAGTGCAAAGCTTTCTTGTGCATGACGCCCTGCTCTGGGGAGCGTCTGGCGCGATCTCTGC
CTGCTTACTCGGGAAATTTGCTTTTGCCAAACCCGCTTTTTCGGGGATCCCGCGCCCCCCTCCTCACTTGCGCTG
CTCTCGGAGCCCCAGCCGGCTCCGCCCGCTTCGGCGGTTTGGATATTTATTGACCTCGTCCTCCGACTCGCTGAC
AGGCTACAGGACCCCCAACAACCCCAATCCACGTTTTGGATGCACTGAGACCCCGACATTCCTCGGTATTTATTG
TCTGTCCCCACCTAGGACCCCCACCCCCGACCCTCGCGAATAAAAGGCCCTCCATCTGCCC

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FIGURE 3816

CGGGAGTGAACGGAGAGCGTAGTGACCATC**ATG**AGCCTCCTCAACAAGCCCAAGAGTGAGATGACCCCAGAGGAG
CTGCAGAAGCGAGAGGAGGAGGAATTTAACACCGGTCCACTCTCTGTGCTCACACAGTCAGTCAAGAACAATACC
CAAGTGCTCATCAACTGCCGCAACAATAAGAAACTCCTGGGCCGCGTGAAGGCCTTCGATAGGCACTGCAACATG
GTGCTGGAGAACGTGAAGGAGATGTGGACTGAGGTACCCAAGAGTGGCAAGGGCAAGAAGAAGTCCAAGCCAGTC
AACAAAGACCGCTACATCTCCAAGATGTTCCTGCGCGGGGACTCAGTCATCGTGGTCCTGCGGAACCCGCTCATC
GCCGGCAAG**TAG**GGGCCGCCTGTCTGTTGACAGAACTCACTCCTCTGTCCTATGAAGACCGCTGCCATTGGTGTT
GAGAATAATAAAGCTCTGTGTTTTTTTCT

FIGURE 3817

GGCAGCGGTGGCAGGGGCTGCAGGAGCAAGTGACCAGGAGCAGGACTGGGGACAGGCCTGATCGCCCCTGCACGA
ACCAGACCCTTCGCCGCCCTCACG**ATG**ACTACCTCTCCGATCCTGCAGCTGCTGCTGCGGCTCTCACTGTGCGGG
CTGCTGCTCCAGAGGGCGGAGACAGGCTCTAAGGGGCAGACGGCGGGGGAGCTGTACCAGCGCTGGGAACGGTAC
CGCAGGGAGTGCCAGGAGACCTTGGCAGCCGCGGAACCGCCTTCAGGCCTCGCCTGTAACGGGTCCTTCGATATG
TACGTCTGCTGGGACTATGCTGCACCCAATGCCACTGCCCGTGCGTCCTGCCCCTGGTACCTGCCCTGGCACCAC
CATGTGGCTGCAGGTTTCGTCCTCCGCCAGTGTGGCAGTGATGGCCAATGGGGACTTTGGAGAGACCATACACAA
TGTGAGAACCCAGAGAAGAATGAGGCCTTTCTGGACCAAAGGCTCATCTTGGAGCGGTTGCAGGTCATGTACACT
GTCGGCTACTCCCTGTCTCTCGCCACACTGCTGCTAGCCCTGCTCATCTTGAGTTTGTTCAGGCGGCTACATTGC
ACTAGAAACTATATCCACATCAACCTGTTCACGTCTTTCATGCTGCGAGCTGCGGCCATTCTCAGCCGAGACCGT
CTGCTACCTCGACCTGGCCCCTACCTTGGGGACCAGGCCCTTGCGCTGTGGAACCAGGCCCTCGCTGCCTGCCGC
ACGGCCCAGATCGTGACCCAGTACTGCGTGGGTGCCAACTACACGTGGCTGCTGGTGGAGGGCGTCTACCTGCAC
AGTCTCCTGGTGCTCGTGGGAGGCTCCGAGGAGGGCCACTTCCGCTACTACCTGCTCCTCGGCTGGGGGGCCCCC
GCGCTTTTCGTCATTCCCTGGGTGATCGTCAGGTACCTGTACGAGAACACGCAGTGCTGGGAGCGCAACGAAGTC
AAGGCCATTTGGTGGATTATACGGACCCCCATCCTCATGACCATCTTGATTAATTTCCTCATTTTTATCCGCATT
CTTGGCATTCTCCTGTCCAAGCTGAGGACACGGCAAATGCGCTGCCGGGATTACCGGCTGAGGCTGGCTCGCTCC
ACGCTGACGCTGGTGCCCCTGCTGGGTGTCCACGAGGTGGTGTTTGCTCCCGTGACAGAGGAACAGGCCCGGGGC
GCCCTGCGCTTCGCCAAGCTCGGCTTTGAGATCTTCCTCAGCTCCTTCCAGGGCTTCCTGGTCAGCGTCCTCTAC
TGCTTCATCAACAAGGAGGTGCAGTCGGAGATCCGCCGTGGCTGGCACCACTGCCGCCTGCGCCGCAGCCTGGGC
GAGGAGCAACGCCAGCTCCCGGAGCGCGCCTTCCGGGCCCTGCCCTCCGGCTCCGGCCCGGGCGAGGTCCCCACC
AGCCGCGGCTTGTCCTCGGGGACCCTCCCAGGGCCTGGGAATGAGGCCAGCCGGGAGTTGGAAAGTTACTGC**TAG**

GGGGCGGGATCCCCGTGTCTGTTCAGTTAGCATGGATTTATTGAGTGCCAACTGCGTGCCAGGCCCAGTACGGAG
GACGCTGGGGAAATGGTGAAGGAAACAGAAAAAAGGTCCCTGCCCTTCTGGAGATGACAACTGAGTGGGGAAAAC
AGACCGTGAACACAAAACATCAAGTTCCACACACGCTATGGAATGGTTATGAAGGGAAGCGAGAAGGGGGCCTAG
GGTGGTCTGGGAGGCGTCTCCAAGGAGGTGACACTTAAGCCATCCCCGAAAGAGGTGAAAGAGATCACTTTGGGG
AGAGCTGGAGAACAGGATTCTAGGCGGAAGCGATAGCATAGGCAAAGGCCCTTGGGCAGGAAGGCGCTCAGCCTT
GGCTGGAGTAGAATTAAGTCAGAGCCAACAGGTGGGGAGAGACAGAGAAGTGGGCAGGGGCACCCAAGTTGGGAT
TTCATTTCAGGTGCATTGGAGATTCTTAGGAGTGTCTCTTGGGGGTAATATTTTATTTTTTAAAAAATGAGGAT

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FIGURE 3818

AGACCCAGGAAGGCGGGAGGGACCCCTTGGGCACTGGAGCTCCTGGGTGGCCCTGCAGCCGGCACTCCCCCGTCT
TCCAGATGACAATTTGTCGGGCACGAGCGGTATGGAAGTGGACGACCGCGTGTCGGCGCTGGAGCAGCGGCTGCA
GTTACAGGAAGACGAGCTGGCGGTCCTAAAGGCGGCGCTGGCGGATGCTCTGCGTCGCCTGCGGGCATGCGAAGA
ACAGGGAGCGGCGCTACGCGCGCGGGGGCACCCCCAAGGGCCGGGCGCCTCCGCGCTTAGGCACCACTGCCTCGGG
TATCCCCGTTAGACTGGAGGGGTGGGATGGGGAGGACCGGGGCCTGGTCCTTATACTCACCCTCTTCTGTCCCCT
AACCCCATCCCTCCAGTGTGTCAGCTCTTGAAAGGCCTTCCCACCAGGACGCCCCTTA**ATG**GCTCGGGACCCCCG
CGGCGCGTGGGTGGCTATGCCACGTCCCCATCCTCTCCCAAGAAGGAGGCGACCTCCGGGCGCAGGTAAGGCACA
AGGCCGGGACCCCCAGCCTCTTCCAAGACCTCGTGGGAGACAGAGGTGGTTTGTTTGCCTGAGCTCCAGCAGCAG
AGGGTGCAGGGAGAATCTCGCTTGCTCACGGCACTCGCCTGCTGGCCTAGAAGGCTCTGCCCCCACCTGTGTGCT
CTCTTTTAGCAGTGTCCGCCGCTACTTGTCACCAGAGCGCCTCGCCTCGGTGCGCCGTGAGGACCCCCGCAGCCG
GACCACATCCTCCAGCAGCAACTGTAGCGCCAAAAAGGAAGGG**TAA**GGACTGGGGCGGCGTCAAGCCGCAGAAAG
AGATAGGGAGGAAATGGTCGAGAAATGTAGTCATGCCCCAGGCCACGAGGTCGTAACCTAGAGTGGGGCCAGCTA
GTTCAAAAGCGGGGACGGTGCCAGAGCCTTGGAGGGACCAATCTTGAGGTGGCACGGTAACAGTGGAAGGTCTGG
GAGGGCGGAGTCAATATTGAGGGGCGTGGCCAGAGTTTTTAGAAGCTGGACGGTCAGGTCTACTGGGTGAGGAAG
TCAGGGAGGAGCTTGGCTTATGGGCGTGGTTATTAAGGTACAGGAGAGGCCCCGTTGAGTTTCAGGGATGAAGTC
AAGGCAGCAGCCACAGAGTTTCTACAAGGAAAGAGGGAGTCTGAGGAATTTAAGGGTGCAGCCACAGTGTTCGCC
TGGGCGAAATTAAAATCTGGGGTACGGAGTAACAGAGGCTGAGACCAGGTGGAGGCATTCCAGATTCCAGAAGCT
TTGACATCAAAATCGGGGGGCACTGCCAGGTTGAAAAGGGCGTGGCTTAAAGGTTGGGCGGGGCCGTAGGGGCGT
GGTCAAATGCCAAGAGGTGCAGCCAACTTGGAGGCCTCGAAGGTATTCACATAAGGAATACGTGAAAATGGACGT
AATCAGAATGCCTGGCGGGCCGGAGAAGGAGCGTTGGCGGGAGGTAGCAGTCAATTCTCAAGCAACTGAGTCAAC
TCAGGGACAGGGTTAGAAGGGAGGCTCAGAATGACAGGCGTGGTCAACTCCAGAGGCGGGGCCATACTGAAGATC
TGGACAGAGTCAAAAACTAAGGCTATATAATTCTAGCAGTTTGGGAGGCGGAGGCGGGAATCATCGCTTGAGCTC
AGGAGTTCGAGACCAGGCTGGGCAAAATAGCGAGCCCTCGTCTTTACTAAAAATGAAAATAAATTAGGCCTGGCG
CGGTGGCTCACGCCTGTAATCCCAGCACTTCGGGAGGCCTAGGCGGGTGGATCACAAGGTCAAGAGATCGAGACC
ATCCTGGCCAACATGGTGAAACCCCCTGTCTATTAATAATACAAAAATGGGCGTGGTGGCGCGTGCCTGTAGTCC
CAGCTACTCGGGAGGCTGAGGCAGGAGAATCACTTCAACCCGGGAGGCGGAGGTTGCAGTGAGCTGAGATCGCGC
CACTGCACTCCAGCCTGCTGACAGAGCAAGACTCCGTTAAACAAACAAACAAAAAACAAAAAACA

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FIGURE 3819

CCACCCCCGGCCCCGAAGCTCCGCCACCCGCCGCCATGAGTAGCTTTGGAGCTGGCAAAACCAAAGAAGTTATCT
TCAGTGTGGAGGATGGCTCCGTGAAAATGTTCCTGAGGGGCCGCCCTGTGCCCATGATGATCCCAGACGAGCTGG
CACCCACCTACAGCCTGGACACACGCTCGGAGCTGCCTTCTTGCCGGCTCAAGCTGGAGTGGGTCTATGGCTACC
GTGGCCGAGACTGCCGGGCCAACCTTTATTTGCTGCCCACCGGGGAGATAGTGTACTTTGTGGCCTCCGTAGCCG
TGCTATACAGCGTGGAGGAGCAGAGGCAGCGACACTACCTGGGACACAACGATGACATCAAATGCTTGGCCATCC
ACCCAGATATGGTCACCATCGCCACGGGACAGGTGGCGGGAACCACTAAGGAAGGGAAGCCGCTGCCGCCCCACG
TGCGCATCTGGGACTCAGTTTCCCTCTCCACCTTACACGTGCTGGGCTTGGGGGTGTTTGACAGAGCCGTGTGCT
GTGTGGGCTTCTCCAAATCTAATGGAGGCAACCTGCTGTGTGCAGTGGATGAATCCAATGATCACATGCTCTCGG
TGTGGGACTGGGCCAAGGAGACCAAGGTGGTGGATGTCAAGTGCTCCAATGAGGCTGTATTGGTGGCCACCTTCC
ACCCCACGGACCCCACTGTGCTTATCACCTGCGGGAAATCTCACATCTACTTCTGGACCTTGGAGGGGGGCAGCT
TGAGCAAGCGGCAAGGCCTCTTTGAGAAACATGAGAAACCGAAGTATGTGCTGTGTGTGACCTTTTTGGAAGGTG
GCGACGTGGTCACGGGGGACTCTGGGGGGAACCTCTATGTTTGGGGCAAAGGTGGGAACCGTATCACACAGGCGG
TGCTGGGCGCCCACGACGGCGGCGTGTTTGGGCTCTGCGCCCTGCGGGACGGGACGCTGGTGTCTGGAGGGGGCC
GTGATCGGCGGGTGGTCCTCTGGGGTTCTGACTACAGCAAGCTGCAGGAAGTGGAGGTCCCTGAGGACTTTGGCC
CTGTGCGCACCGTGGCAGAGGGCCACGGAGACACACTGTACGTGGGGACCACCCGCAATTCCATCCTGCAGGGCT
CCGTGCACACAGGCTTCTCACTGCTGGTCCAGGGCCATGTGGAAGAGCTGTGGGGCCTGGCCACACACCCCAGTC
GGGCCCAGTTTGTGACCTGCGGGCAGGATAAGCTGGTGCATCTATGGAGCTCAGATTCCCACCAGCCCCTGTGGA
GCAGGATCATCGAGGACCCTGCCCGCTCAGCCGGCTTCCACCCCAGTGGCTCTGTCCTGGCTGTGGGTACAGTGA
CTGGCAGATGGCTGCTGCTGGACACGGAGACCCATGACCTGGTGGCTATCCACACAGACGGCAATGAACAGATCT
CAGTGGTCAGCTTCTCCCCAGACGGGGCGTACCTGGCCGTGGGCTCCCACGACAACTTGGTGTACGTGTACACGG
TGGACCAGGGCGGCCGCAAGGTCAGCCGCCTGGGCAAGTGCTCGGGCCATTCCAGTTTTATCACCCACCTGGATT
GGGCCCAGGACAGCAGCTGCTTTGTCACCAACTCCGGGGACTATGAGATTCTGTACTGGGACCCGGCTACCTGTA
AGCAGATCACCAGTGCGGATGCTGTGAGGAACATGGAATGGGCCACAGCTACTTGTGTCCTAGGGTTTGGGGTGT
TTGGGATCTGGTCTGAGGGGGCGGACGGCACTGATATCAACGCTGTGGCCCGCTCTCATGATGGGAAGTTGCTGG
CTTCAGCTGATGACTTTGGCAAAGTTCACCTGTTTAGCTACCCCTGCTGTCAGCCTCGAGCCCTCAGCCACAAGT
ACGGTGGACACAGCAGCCATGTGACAAATGTGGCCTTCTTGTGGGATGACAGCATGGCCCTGACCACAGGGGGCA
AGGACACCAGTGTGCTACAGTGGCGGGTGGTCTGATGCGGCCAGGGAAGAGTCAGGTGTCAGGGCAGGAATTCTA
TTTTCGGGAGATGTCTATTGCCGAGTAGAGTAATATATACCCAGAGTATGTCTATAGCAGAGGGGGTTATGGGGG
CGGGAGGGTAGACTGACATACAGAAGTCTCTATTTATCCGGGTGGGAAGAGGGAGTCACATCGCTTTGGGGATCC
ATTGGTGTTTGGTTTGGGGTGTTTTTTAAGTTTTTTCTTTTATATCATCCAGAAATAAAGACACGTACACT

FIGURE 3820

GTTGAGGCGCCCCGCCCAGTCAGCAAGGTTGCGCGTGCCCTGTGAGACCGCCAAGATGGTGGTGGGCGCGTTCCC
TATGGCGAAGCTGCTATACTTGGGCATCCGGCAGGTCAGCAAGCCGCTTGCCAACCGTATTAAGGAGGCCGCCCG
CCGAAGCGAGTTCTTCAAGACCTATATCTGCCTCCCGCCGGCTCAACTGTATCACTGGGTGGAGATGCGGACCAA
GATGCGCATCATGGGCTTCCGGGGCACGGTCATCAAGCCGCTGAACGAGGAGGCGGCAGCTGAGCTGGGCGCAGA
GCTGCTGGGCGAAGCCACCATCTTCATCGTGGGCGGCGGCTGCCTAGTGCTGGAGTACTGGCGCCACCAGGCGCA
GCAGCGCCACAAGGAGGAGGAGCAGCGTGCTGCCTGGAACGCGCTGCGGGACGAGGTGGGCCACCTGGCGCTGGC
GCTGGAAGCGCTGCAGGCGCAGGTGCAGGCGGCGCCGCCACAGGGCGCCCTGGAGGAACTGCGCACAGAGCTGCA
AGAGGTGCGCGCCCAGCTCTGCAATCCCGGCCGGTCCGCTTCCCACGCAGTGCCTGCGTCCAAGAAATAGGAGCT
TGCTGGATGGAACCTGAATTTGGACATGGCCTATGTACCTAACGTGGCCTTCTTCCCGCACCACCCTTGCCTGCG
CTGGCCCAGTGGAAACCACCAGGATCTTGATGCAACTTGGCATTTGGTTACCCCTGCTGATAAGAGCAGCCGTTA
CCTGCCACTGGGACCAGCAGGTGAAGCGTTGCAACATAGCCCCCTCCATCATCCTTCACCTCCTATCCCCCACTC
CAAACCAGGACGACCTGCAAGGTCCCAGCCAGCAGGACACCGTGGGCACTCTGGCAAATGAAAAAATGGAACCTG
GTCTTGAGCTGAATCAATGTGTTATTGTTACCCCCACCCCCGGTTTACCTGATCAGTGTTAACCTTTACTGGGAC
ACTCATCTGTTACACTGGAACACCTTCTTCTTTTTGTCAATCGGCACAGACCACTGTAAGGAAATGCAGTGTGTT
GCAGTGGCCTTTTCTCCCCCTCACCTTCTAAGGTCAGCTCTAGCTGAGCATCAGTGCTCTCTTAAGGAGGAAAAA
AACGGTGCGGCTGGGAGCGGTGGCTCACGCCTGTAATCCTAGCACCTTGGGAGGCCGAGGCGGGCGGATCACTTG
AGGTCAGGAGTTCCAGACCAGCCTGGCCAACATGGTGAAACTCCGTCTCTACTAAAAATACAAAAATTAGCCGGG
TGTGGTGGGGTGCGCTTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCTTGAACCCATGAGGTGGA
GGTTGCGGTGAGCCAAGATGGCACCATTGCACCCTAGCCTGGGCAACAGAGCAAGACACCGTCTTAAAACCAAAA
GTTAACCGGGCGTGGTGGTGGGTGCCTGTAATCCTAGCTACTTGGGAGGCTGAGGCAGGAGAATTGCTTGAACTT
GGGAGGTGGAGGCCAAGATTGTACCACTGTATTCCAGCCCGGGTGACAGAGCAAGACTGTGTCTC

FIGURE 3821

GTGCCCTGTGAGACCGCCAAG**ATG**GTGGTGGGCGCGTTCCCTATGGCGAAGCTGCTATACTTGGGCATCCGGCAG
GTCAGCAAGCCGCTTGCCAACCGTATTAAGGAGGCCGCCCGCCGAAGCGAGTTCTTCAAGACCTATATCTGCCTC
CCGCCGGCTCAACTGTACCACTGGCTGGAGATGCGGACCAAAATGCGCATCATGGGTTTCAATGCCGCTGCCATC
AAGCCGCTGAACGAGGGTGCAGCCGCCGAGCTGGGCGCGGAGCTGCTGGGCGAGGGCATCATCTTCATCACCGCC
TGCAGCTGCCTGATGCTGGAGTATTGGCGCCACCAGTTGCAGCAGCGCCGCAAGGAAAAGGAGCGACGTGTTGCC
AGGGAGGCGCTGCGGGGCGAGGTGGGCCACTTGGGGCTGGCGCTCGAGGAGTTGCAGGCGCAGGTGCAGGCGACG
TCGACGCAGCTCGCCCTGGAGGAGCTGCGCGCTCAGCTGCAGGAGGTGCGAGCCCACCTCTGCCTCCGAGACCCG
CCGCCTGCACCCCCAGTTGCGCCGGCGTCCGAGAAA**TAG**GAGGTCTCGGGGCCCTGGTCTTGGAGGTGACTGCTG
TCTGGACTGCGAAGTCTCTGTCTTGGCCTATTCTCCGCACTGTCCCATCCTGGACCGGCCCAGCTGACACCACCC
AGTCCTTCGGGGGCGCCGGAGAGATCCTGG

FIGURE 3822

GCATCCCCTTTCTGCTGCAGGAACCTCTCATCAGACCGCCTGAGGGAAGCGGCGCCCGGAGACCCGCCCCGGCCC
GGTCCACATTCTCCCCAGGAAGCCGGACTCTATGGGGCGGGACCCTGGGGGAGCCTGAGCCGAGCCCGGAGCCAG
CCCCGAACCCCTGAACCTCCAGCCAGGGGCGCCCCGGGAGCAGCCAGCCCGTGGGCGAGCCGCCCGCCCGCCGAG
CAGCC**ATG**AGCGAGACGGTCATCTGTTCCAGCCGGGCCACTGTGATGCTTTATGATGATGGCAACAAGCGATGGC
TCCCTGCTGGCACGGGTCCCCAGGCCTTCAGCCGCGTCCAGATCTACCACAACCCCACGGCCAATTCCTTTCGCG
TCGTGGGCCGGAAGATGCAGCCCGACCAGCAGGTGGTCATCAACTGTGCCATCGTCCGGGGTGTCAAGTATAACC
AGGCCACCCCCAACTTCCATCAGTGGCGCGACGCTCGCCAGGTCTGGGGCCTCAACTTCGGCAGCAAGGAGGATG
CGGCCCAGTTTGCCGCCGGCATGGCCAGTGCCCTAGAGGCGTTGGAAGGAGGTGGGCCCCCTCCACCCCCAGCAC
TTCCCACCTGGTCGGTCCCGAACGGCCCCTCCCCGGAGGAGGTGGAGCAGCAGAAAAGGCAGCAGCCCGGCCCGT
CGGAGCACATAGAGCGCCGGGTCTCCAATGCAGGAGGCCCACCTGCTCCCCCCGCTGGGGGTCCACCCCCACCAC
CAGGACCTCCCCCTCCTCCAGGTCCCCCCCCACCCCCAGGTTTGCCCCCTTCGGGGGTCCCAGCTGCAGCGCACG
GAGCAGGGGGAGGACCACCCCCTGCACCCCCTCTCCCGGCAGCACAGGGCCCTGGTGGTGGGGGAGCTGGGGCCC
CAGGCCTGGCCGCAGCTATTGCTGGAGCCAAACTCAGGAAAGTCAGCAAGCAGGAGGAGGCCTCAGGGGGGCCCA
CAGCCCCCAAAGCTGAGAGTGGTCGAAGCGGAGGTGGGGGACTCATGGAAGAGATGAACGCCATGCTGGCCCGGA
GAAGGAAAGCCACGCAAGTTGGGGAGAAAACCCCCAAGGATGAATCTGCCAATCAGGAGGAGCCAGAGGCCAGAG
TCCCGGCCCAGAGTGAATCTGTGCGGAGACCCTGGGAGAAGAACAGCACAACCTTGCCAAGGATGAAGTCGTCTT
CTTCGGTGACCACTTCCGAGACCCAACCCTGCACGCCCAGCTCCAGTGATTACTCGGACCTACAGAGGGTGAAAC
AGGAGCTTCTGGAAGAGGTGAAGAAGGAATTGCAGAAAGTGAAAGAGGAAATCATTGAAGCCTTCGTCCAGGAGC
TGAGGAAGCGGGGTTCTCCC**TGA**CCACAGGGACCCAGAAGACCCGCTTCTCCTTTCCGCACACCCGGCCTGTCAC
CCTGCTTTCCCTGCCTCTACTTGACTTGGAATTGGCTGAAGACTACACAGGAATGCATCGTTCCCACTCCCCATC
CCACTTGGAAAACTCCAAGGGGGTGTGGCTTCCCTGCTCACACCCACACTGGCTGCTGATTGGCTGGGGAGGCCC
CCGCCCTTTTCTCCCTTTGGTCCTTCCCCTCTGCCATCCCCTTGGGGCCGGTCCCTCTGCTGGGGATGCACCAAT
GAACCCCACAGGAAGGGGGAAGGAAGGAGGGAATTTCACATTCCCTTGTTCTAGATTCACTTTAACGCTTAATGC
CTTCAAAGTTTTGGTTTTTTTAAGAAAAAAAAATATATATATATTTGGGTTTTGGGGGAAAAGGGAAATTTTTTT
TTCTCTTTGGTTTTGATAAAATGGGATGTGGGAGTTTTTAAATGCTATAGCCCTGGGCTTGCCCCATTTGGGGCA
GCTATTTAAGGGGAGGGGATGTCTCACCGGGCTGGGGGTGAGATATCCCCCCACCCCAGGGACTCCCCTTCCCTC
TGGCTCCTTCCCCTTTTCTATGAGGAAATAAGATGCTGTAACTTTTTGGAACCTCAGTTTTTTGATTTTTTATTT
GGGTAGGTTTTGGGGTCCAGGCCATTTTTTTTACCCCTTGGAGGAAATAAGATGAGGGAGAAAGGAGAAGGGGAG
GAAACTTCTCCCCTCCCACCTTCACCTTTAGCTTCTTGAAAATGGGCCCCTGCAGAATAAATCTGCCAGTTTTTA
T

FIGURE 3823

CGAGCCGAGCACCAGGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCTGGAGCAGCCCGGGAGGAGGAGGCGGC
GAGAATGGCAGCGGCGTCGTGGGCGCGGCGGAGATGAGCGCCCGCGACCCCGGGCCCAGGGCGGCACAGCCGGAG
TGGGCGGGGGTCCCGATGCAGGCCCGAGGGGGGCC**ATG**GGGCAGGTCCTGCCGGTCTTCGCCCACTGCAAAGAAG
CTCCGTCTACAGCCTCCTCAACTCCTGATTCCACAGAAGGAGGGAACGACGACTCTGATTTTCGAGAGCTGCACA
CAGCCCGGGAATTCTCAGAGGAGGACGAGGAGGAGACCACGTCGCAGGACTGGGGCACCCCCCGGGAGCTGACCT
TCTCCTACATCGCCTTTGATGGTGTAGTGGGCTCCGGGGGCCGCAGGGATTCAACTGCCCGCCGCCCCCGCCCCC
AGGGCCGCTCAGTCTCGGAACCACGAGACCAGCACCCTCAGCCCAGCCTGGGCGACAGCTTGGAGAGCATCCCCA
GCCTGAGCCAATCCCCGGAGCCTGGACGACGGGGTGATCCTGACACCGCGCCTCCATCCGAGCGCCCTCTGGAAG
ACCTGAGGCTTCGGTTGGACCATCTGGGCTGGGTGGCCCGGGGAACGGGATCCGGGGAGGACTCTTCCACCAGCA
GCTCCACCCCGCTGGAAGACGAAGAACCCCAAGAACCCAACAGATTGGAGACAGGAGAAGCTGGGGAAGAACTGG
ACCTACGACTCCGACTTGCTCAGCCCTCATCGCCCGAGGTCTTGACTCCCCAGCTCAGTCCGGGCTCTGGGACAC
CCCAGGCCGGTACTCCGTCCCCATCCCGATCGCGAGATTCGAACTCTGGGCCCGAAGAGCCATTGCTGGAAGAGG
AAGAAAAGCAGTGGGGGCCACTGGAGCGAGAGCCAGTAAGGGGACAGTGCCTCGATAGCACGGACCAATTAGAAT
TCACGGTGGAGCCACGCCTTCTAGGAACAGCTATGGAATGGTTAAAGACATCATTGCTTTTGGCTGTTTACAAGA
CGGTTCCAATTTTGGAATTGTCCCCACCTCTGTGGACAGCCATTGGCTGGGTCCAAAGGGGCCCCACCCCCCCTA
CTCCTGTCCTCCGGGTTCTACTGAAGTGGGCAAAATCCCCGAGAAGCAGCGGTGTCCCCAGCCTCTCACTCGGAG
CCGATATGGGGAGTAAAGTGGCGGACCTGCTGTACTGGAAGGACACGAGGACGTCAGGAGTGGTCTTCACAGGCC
TGATGGTCTCCCTCCTCTGCCTCCTGCACTTTAGCATCGTGTCCGTGGCCGCGCACTTGGCTCTGTTGCTGCTCT
GCGGCACCATCTCTCTCAGGGTTTACCGCAAAGTGCTGCAGGCCGTGCACCGGGGGGATGGAGCCAACCCTTTCC
AGGCCTACCTGGATGTGGACCTCACCCTGACTCGGGAGCAGACGGAACGTTTGTCCCACCAGATCACCTCCCGCG
TGGTCTCGGCGGCCACGCAGCTGCGGCACTTCTTCCTGGTAGAAGACCTCGTGGATTCCCTCAAGCTGGCCCTCC
TCTTCTACATCTTGACCTTCGTGGGTGCCATCTTCAATGGTTTGACTCTTCTCATTCTGGGAGTGATTGGTCTAT
TCACCATCCCCCTGCTGTACCGGCAGCACCAGGCTCAGATCGACCAATATGTGGGGTTGGTGACCAATCAGTTGA
GCCACATCAAAGCTAAGATCCGAGCTAAAATCCCAGGGACCGGAGCCCTGGCCTCTGCAGCAGCCGCAGTCTCCG
GATCCAAAGCCAAAGCCGAA**TGA**GAACGGTGTCTCTGCCCGCAGGACGCCTGCCCCCAGCCCCCGCAGCCCTCTG
GCCCCCTCCATCTCTTGTCCGTTCCCACCCACCCCCCTCCTCGGCCCGAGCCTTTTCCCGGTGGGTGTCAGGATC
ACTCCCACTAGGGACTCTGCGCTAATTACCTGAGCGACCAGGACTACATTTCCCAAGAGGCTCTGCTCCAGGAGT
CCAGGAAAGACGAGGCACCTTGGCCGCGGGGCCTGCTGGGACTTGTAGTTGCCTAGACAGGGCACCACCCTGCAC
TTCCGGACCCGCCGCTGGAGGCGCCGTGAGGCGTTGGTGTCTCCTGGATGCTACTAGCCCCAACGCCGGGGCTTT
GCATGGGGCCCAGGGGAGGCCTGAGCTTGGATTTACACTGTAATAAAGACTCCTGTTGGAAAACCCGAGGCCTCT
TGTGCTTCCAGAACCCTCCAGTTGTTCACCTTTCTGCACTGAAAGGCACTTAAGTGACACTCCAGGAGAACCTTC
CCCATCTCTGGAGAAGGAGCTCCCTCTGCCATCTGTGTAGGTTATGAAATGATTGAGGGGAGGCCGGGCGCAGTG
GCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGAGGGCGGATCACTTGAGACCAGAAGTTCAAGACCAGC
CTGGCCAACATGGTGAAACCTCATCTCTACTAAAAATACAAAATTTAGCCGGGTGTGGTGGTGCATGCCTGTAAT
CACAGCTACTCGGGAGGCTGAGGCATGAGAGTCGCTTGAATCTGGGAGATGGAGGTTGTAGTGAGCCAAGATTGC
GCCACTGCACTCCAGCCTCGGCGACAGAGCGAGATTCTGTCTCAAAAAAAAAAAAAAAGAAAGAAATGATTGAGGG
GAAGATGCTGACAGACCACCCATTCCAGGGTTAGCCAAGCCTTGGCAGCCACTTCCCATGCCTGTGCTCAAGGCA
GACATCACTAATGGATCCCACACCCTGCCTACTGTGCAGCCACCTCAACTGAGCCCAAACCCACGTGTCCAACGG
CCTCTGGATGCCCCTTCCACCCTAAATCTAACCAA

FIGURE 3824A

CATTCATAAGACTCAGAGCTACGGCCACGGCAGGGACACGCGGAACCAAGACTTGGAAACTTGATTGTTGTGGTT
CTTCTTGGGGGTTATGAAATTTCATTAATCTTTTTTTTTCCGGGGAGAAAGTTTTTGGAAAGATTCTTCCAGATA
TTTCTTCATTTTCTTTTGGAGGACCGACTTACTTTTTTTGGTCTTCTTTATTACTCCCCTCCCCCCGTGGGACCC
GCCGGACGCGTGGAGGAGACCGTAGCTGAAGCTGATTCTGTACAGCGGGACAGCGCTTTCTGCCCCTGGGGGAGC
AACCCCTCCCTCGCCCCTGGGTCCTACGGAGCCTGCACTTTCAAGAGGTACAGCGGCATCCTGTGGGGGCCTGGG
CACCGCAGGAAGACTGCACAGAAACTTTGCCATTGTTGGAACGGGACGTTGCTCCTTCCCCGAGCTTCCCCGGAC
AGCGTACTTTGAGGACTCGCTCAGCTCACCGGGGACTCCCACGGCTCACCCCGGACTTGCACCTTACTTCCCCAA
CCCGGCCATAGCCTTGGCTTCCCGGCGACCTCAGCGTGGTCACAGGGGCCCCCCTGTGCCCAGGGAA**ATG**TTTCA
GGCTTTCCCCGGAGACTACGACTCCGGCTCCCGGTGCAGCTCCTCACCCTCTGCCGAGTCTCAATATCTGTCTTC
GGTGGACTCCTTCGGCAGTCCACCCACCGCCGCCGCCTCCCAGGAGTGCGCCGGTCTCGGGGAAATGCCCGGTTC
CTTCGTGCCCACGGTCACCGCGATCACAACCAGCCAGGACCTCCAGTGGCTTGTGCAACCCACCCTCATCTCTTC
CATGGCCCAGTCCCAGGGGCAGCCACTGGCCTCCCAGCCCCCGGTCGTCGACCCCTACGACATGCCGGGAACCAG
CTACTCCACACCAGGCATGAGTGGCTACAGCAGTGGCGGAGCGAGTGGCAGTGGTGGGCCTTCCACCAGCGGAAC
TACCAGTGGGCCTGGGCCTGCCCGCCCAGCCCGAGCCCGGCCTAGGAGACCCCGAGAGGAGACGCTCACCCCAGA
GGAAGAGGAGAAGCGAAGGGTGCGCCGGGAACGAAATAAACTAGCAGCAGCTAAATGCAGGAACCGGCGGAGGGA
GCTGACCGACCGACTCCAGGCGGAGACAGATCAGTTGGAGGAAGAAAAAGCAGAGCTGGAGTCGGAGATCGCCGA
GCTCCAAAAGGAGAAGGAACGTCTGGAGTTTGTGCTGGTGGCCCACAAACCGGGCTGCAAGATCCCCTACGAAGA
GGGGCCCGGGCCGGGCCCGCTGGCGGAGGTGAGAGATTTGCCGGGCTCAGCACCGGCTAAGGAAGATGGCTTCAG
CTGGCTGCTGCCGCCCCCGCCACCACCGCCCCTGCCCTTCCAGACCAGCCAAGACGCACCCCCCAACCTGACGGC
TTCTCTCTTTACACACAGTGAAGTTCAAGTCCTCGGCGACCCCTTCCCCGTTGTTAACCCTTCGTACACTTCTTC
GTTTGTCCTCACCTGCCCGGAGGTCTCCGCGTTCGCCGGCGCCCAACGCACCAGCGGCAGTGACCAGCCTTCCGA
TCCCCTGAACTCGCCCTCCCTCCTCGCTCTG**TGA**ACTCTTTAGACACACAAAACAAACAAACACATGGGGGAGAG
AGACTTGGAAGAGGAGGAGGAGGAGGAGAAGGAGGAGAGAGAGGGGAAGAGACAAAGTGGGTGTGTGGCCTCCCT
GGCTCCTCCGTCTGACCCTCTGCGGCCACTGCGCCACTGCCATCGGACAGGAGGATTCCTTGTGTTTTGTCCTGC
CTCTTGTTTCTGTGCCCCGGCGAGGCCGGAGAGCTGGTGACTTTGGGGACAGGGGGTGGGAAGGGGATGGACACC
CCCAGCTGACTGTTGGCTCTCTGACGTCAACCCAAGCTCTGGGGATGGGTGGGGAGGGGGGCGGGTGACGCCCAC
CTTCGGGCAGTCCTGTGTGAGGATTAAGGGACGGGGGTGGGAGGTAGGCTGTGGGGTGGGCTGGAGTCCTCTCCA
GAGAGGCTCAACAAGGAAAAATGCCACTCCCTACCCAATGTCTCCCACACCCACCCTTTTTTTGGGGTGCCTAGG
TTGGTTTCCCCTGCACTCCCGACCTTAGCTTATTGATCCCACATTTCCATGGTGTGAGATCCTCTTTACTCTGGG
CAGAAGTGAGCCCCCCCCTTAAAGGGAATTCGATGCCCCCCTAGAATAATCTCATCCCCCCACCCGACTTCTTTT
GAAATGTGAACGTCCTTCCTTGACTGTCTAGCCACTCCCTCCCAGAAAAACTGGCTCTGATTGGAATTTCTGGCC
TCCTAAGGCTCCCCACCCCGAAATCAGCCCCCAGCCTTGTTTCTGATGACAGTGTTATCCCAAGACCCTGCCCCC
TGCCAGCCGACCCTCCTGGCCTTCCTCGTTGGGCCGCTCTGATTTCAGGCAGCAGGGGCTGCTGTGATGCCGTCC
TGCTGGAGTGATTTATACTGTGAAATGAGTTGGCCAGATTGTGGGGTGCAGCTGGGTGGGGCAGCACACCTCTGG
GGGGATAATGTCCCCACTCCCGAAAGCCTTTCCTCGGTCTCCCTTCCGTCCATCCCCCTTCTTCCTCCCCTCAAC
AGTGAGTTAGACTCAAGGGGGTGACAGAACCGAGAAGGGGGTGACAGTCCTCCATCCACGTGGCCTCTCTCTCTC
TCCTCAGGACCCTCAGCCCTGGCCTTTTTCTTTAAGGTCCCCCGACCAATCCCCAGCCTAGGACGCCAACTTCTC
CCACCCCTTGGCCCCTCACATCCTCTCCAGGAAGGGAGTGAGGGGCTGTGACATTTTTCCGGAGAAGATTTCAGA
GCTGAGGCTTTGGTACCCCCAAACCCCCAATATTTTTGGACTGGCAGACTCAAGGGGCTGGAATCTCATGATTCC
ATGCCCGAGTCCGCCCATCCCTGACCATGGTTTTGGCTCTCCCACCCCGCCGTTCCCTGCGCTTCATCTCATGAG
GATTTCTTTATGAGGCAAATTTATATTTTTTAATATCGGGGGGTGGACCACGCCGCCCTCCATCCGTGCTGCATG
AAAAACATTCCACGTGCCCCTTGTCGCGCGTCTCCCATCCTGATCCCAGACCCATTCCTTAGCTATTTATCCCTT
TCCTGGTTTCCGAAAGGCAATTATATCTATTATGTATAAGTAAATATATTATATATGGATGTGTGTGTGTGCGTG
CGCGTGAGTGTGTGAGCGCTTCTGCAGCCTCGGCCTAGGTCACGTTGGCCCTCAAAGCGAGCCGTTGAATTGGAA
ACTGCTTCTAGAAACTCTGGCTCAGCCTGTCTCGGGCTGACCCTTTTCTGATCGTCTCGGCCCCTCTGATTGTTC
CCGATGGTCTCTCTCCCTCTGTCTTTTCTCCTCCGCCTGTGTCCATCTGACCGTTTTCACTTGTCTCCTTTCTGA
CTGTCCCTGCCAATGCTCCAGCTGTCGTCTGACTCTGGGTTCGTTGGGGACATGAGATTTTATTTTTTGTGAGTG
AGACTGAGGGATCGTAGATTTTTACAATCTGTATCTTTGACAATTCTGGGTGCGAGTGTGAGAGTGTGAGCAGGG

FIGURE 3824B

CTTGCTCCTGCCAACCACAATTCAATGAATCCCCGACCCCCCTACCCCATGCTGTACTTGTGGTTCTCTTTTTGT
ATTTTGCATCTGACCCCGGGGGGGCTGGGACAGATTGGCAATGGGCCGTCCCCTCTCCCCTTGGTTCTGCACTGTT
GCCAATAAAAAGCTCTTAAAAACGC

FIGURE 3825

AAGTGCTGCGAGCCCTGGGCCACGCTGGCCGTGCTGGCAGTGGGCCGCCTCGATCCCTCTGCAGTCTTTCCCTTG
AGGCTCCAAGACCAGCAGGTGAGGCCTCGCGGCGCTGAAACCGTGAGGCCCGGACCACAGGCTCCAG**ATG**GACCC
TGGGAAGGACAAAGAGGGGGTGCCCCAGCCCTCAGGGCCGCCAGCAAGGAAGAAATTTGTGATACCCCTCGACGA
GGATGAGGTCCCTCCTGGAGTGGCCAAGCCCTTATTCCGATCTACACAGAGCCTTCCCACTGTGGACACCTCGGC
CCAGGCGGCCCCTCAGACCTACGCCGAATATGCCATCTCACAGCCTCTGGAAGGGGCTGGGGCCACGTGCCCCAC
AGGGTCAGAGCCCCTGGCAGGAGAGACGCCCAACCAGGCCCTGAAACCCGGGGCAAAATCCAACAGCATCATTGT
GAGCCCTCGGCAGAGGGGCAATCCCGTACTGAAGTTCGTGCGCAATGTGCCCTGGGAATTTGGCGACGTAATTCC
CGACTATGTGCTGGGCCAGAGCACCTGTGCCCTGTTCCTCAGCCTCCGCTACCACAACCTGCACCCAGACTACAT
CCATGGGCGGCTGCAGAGCCTGGGGAAGAACTTCGCCTTGCGGGTCCTGCTTGTCCAGGTGGATGTGAAAGATCC
CCAGCAGGCCCTCAAGGAGCTGGCTAAGATGTGTATCCTGGCCGACTGCACATTGATCCTCGCCTGGAGCCCCGA
GGAAGCTGGGCGGTACCTGGAGACCTACAAGGCCTATGAGCAGAAACCAGCGGACCTCCTGATGGAGAAGCTAGA
GCAGGACTTCGTCTCCCGGGTGACTGAATGTCTGACCACCGTGAAGTCAGTCAACAAAACGGACAGTCAGACCCT
CCTGACCACATTTGGATCTCTGGAACAGCTCATCGCCGCATCAAGAGAAGATCTGGCCTTATGCCCAGGCCTGGG
CCCTCAGAAAGCCCGGAGGCTGTTTGATGTCCTGCACGAGCCCTTCTTGAAAGTACCC**TGA**TGACCCCAGCTGCC
AAGGAAACCCCCAGTGTAATAATAAATCGTCCTCCCAGGCCAGGCTC

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FIGURE 3826

AAGTTCTGAACTTGTGAGGCATCTGGGCCTCCCCAGAAGACATTTAACACAGAAAGCACAGCCCTACTAACTAGT
ATTCTTACCTGTCTCTTCAAGAATTTCAGACCAATCGACCGTCCTGTCTCTTTAAGGCTTAGGAAGAGCAGTGTG
GCTGCCCCTTTAAGGAGGCGTTGCAACAAACCATATTGGACAGACGATGGGGGCGACCCATCGGGACCCGACGGG
CCTCTGACTCCAGCAATACAGCGAATCAGCGGCTTTCGGGAATACATTTTTCGGAAAAAGACTTCTTCCTCGGTT
TTCTGCTCTGCACACGTTGAAATTTTCCCCAGTTTTTCCTGCAGATCGGGAGTCGAGCAATGCCTACCCCCGCGC
TCCCGCACCAGTTGGGCGCTCCCGGATGATGCCCTACCCCTTTGGATCCACGTGGTCTGCAACCTGGTGCGAGCA
GCCCGGGCTACAGGGTTGCCTGAGGTGTGGGTCCCAGG**ATG**GAGGAGCCCCAGGCCGGCGATGCTGCTCGGTTCT
CTTGTCCCCCCAACTTTACCGCGAAGCCCCCAGCCTCAGAGTCCCCTCGTTTCTCCTTGGAGGCGCTGACGGGTC
CAGATACGGAGCTGTGGCTTATTCAGGCCCCTGCAGACTTTGCCCCAGAATGCTTCAATGGGCGGCATGTGCCTC
TCTCTGGCTCCCAGATCGTCAAGGGCAAATTGGCAGGCAAGCGGCACCGCTATCGAGTCCTCAGCAGCTGTCCCC
AAGCTGGAGAAGCGACCCTGCTGGCCCCCTCAACGGAGGCAGGAGGTGGACTCACCTGTGCCTCAGCCCCCCAGG
GCACCCTAAGGATCCTTGAGGGTCCCCAGCAATCCCTGTCAGGGAGCCCTCTGCAGCCCATCCCAGCAAGTCCCC
CACCACAGATCCCTCCTGGCCTGAGGCCTCGGTTCTGTGCCTTTGGGGGCAACCCACCAGTCACAGGGCCTAGGT
CAGCCTTGGCCCCCAACCTGCTCACCTCAGGGAAGAAGAAAAAGGAGATGCAGGTGACAGAGGCCCCAGTCACTC
AGGAGGCAGTGAATGGGCACGGGGCCCTGGAGGTGGACATGGCTTTGGGGTCGCCAGAAATGGATGTGCGGAAGA
AGAAGAAGAAAAAAAATCAGCAGCTGAAAGAACCAGAGGCAGCAGGGCCTGTGGGGACAGAGCCCACAGTGGAGA
CACTGGAGCCTCTGGGAGTGCTGTTCCCGTCCACCACCAAGAAGAGGAAGAAGCCCAAAGGGAAAGAAACCTTCG
AGCCAGAAGACAAGACAGTGAAGCAGGAACAGATTAACACTGAGCCTCTAGAAGACACAGTCCTGTCCCCGACCA
AAAAGAGAAAGAGGCAAAAGGGGACGGAAGGGATGGAGCCAGAGGAGGGGGTGACAGTTGAGTCTCAGCCACAGG
TGAAGGTGGAGCCACTGGAGGAAGCCATCCCTCTGCCCCCTACGAAGAAGAGGAAAAAAGAAAAGGGACAGATGG
CAATGATGGAGCCAGGGACGGAGGCGATGGAGCCAGTGGAGCCGGAGATGAAGCCTCTGGAGTCCCCAGGGGGGA
CCATGGCGCCTCAACAGCCAGAAGGAGCGAAGCCTCAGGCCCAGGCAGCTCTGGCAGCTCCCAAAAAGAAGACGA
AGAAAGAAAAACAGCAAGATGCCACAGTGGAGCCAGAGACAGAGGTGGTGGGGCCTGAGCTGCCGGATGACCTTG
AGCCTCAGGCAGCTCCCACATCCACCAAGAAGAAGAAGAAGAAAGAGAGAGGTCACACAGTGACTGAGCCAA
TTCAGCCACTAGAGCCTGAACTGCCAGGGGAGGGACAGCCTGAAGCCAGGGCAACTCCGGGATCCACCAAGAAGA
GGAAGAAGCAGAGTCAGGAAAGCCGGATGCCAGAGACAGTGCCCCAAGAGGAGATGCCAGGGCCGCCACTGAATT
CAGAGTCTGGGGAGGAGGCTCCCACAGGCCGGGACAAGAAGCGGAAGCAGCAGCAGCAGCCTGTG**TAG**TCTG
CCCCCGGGAAACTGAGGAACTAAAGAAAGCTGAAGGTGCCCACCTGGGCCACCAGAAGGTGACACCCCCAGAATC
CCTCCCCAGAGACTGCACCAGCGCAGCCAGCAGGAGCCTGGCCTGGGAGGACGATTTATTATTACACTGGGGGTT
TCCTTGGCAGCTGGGGTCATCAGGGTACTTTCAAGAAGGGCTCGTGCAGGACATCAAACAGCCTCCGGGCCTGGA
TGGGAGGGAGAAAAAAATGAGGAACCAGTCATTAAAGGAGCTGTTTCCTGGGTAAATCTAGAGTGGGGTTTTGGT
TCTTTATTTTCCCCTATACCCTCAAGCATTTATCCATTGAGTTACAAACAATCCAGTTACAATCTTTTTAAGTTA
TTATTATTATTATTATTTTTTTTTTTTTTGAGATGGAGTCTCGCTCTGTCGCCCAGGTTGGAGTGCAGTGGCGCA
ATCTCGGCTCACTGCAAGCTCCGCCTCCCGGGTTCACGCCATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGACT
ACAGGCCCCTGCCCAGCTAATTTTTTGTATTTTTTTTTAGTAGAGATGGGGTTTCACCACGTTAGCCAGGATGGT
CTCGATCTCCTGACCTCCTGATGCGCCTGCCTCAGCCTCCCAGTGCTGGGATTATAGGTGTGAGCCACTGCGCCT
GGCTAAGTTATTATTATTTTTTTGAGACAGTCTCCTGGTGTCACCCAGGCTGGAGTGCAGTGGTGTGATCTTGGC
TCACTGCAACCTCCGCCTCCTGGGTTCCAACGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGCCTAAAGGTGC
CCACCACTATACCCGGCTAATTTTTGTATTTTTAGTAGAGACAGGGGTTTCACCATATTGGCCAGGCTGGTCTCG
AACTCCTGACCTCGTGATCCACCTGCCTTGACCTCCCAAAGTGCTAGGATAACAGGTGTGAGCCACCGCACCCTG
CCAAGTTATTTTAAAATGTACCATTATTATTGACTATAGTCACCTGGTTGTGTTATCAAATAGTATGTCTTATTC
ATTCTTTCTTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGGTACCCATTAACCTTCCCCATCTCCCTGCCAGC
CCCTAACTACCCTCCCCAGCCTCCAGGAACTATCCATCCACTCTTATCTCCATGAGTTCAATTGTTTTGATTTTT
AGATACACAAATAAATAAGAACATGCAATGTTTGTCTTTCTGTGCCTGGCTTATTTCACTT

FIGURE 3827

GGCTGGAGTGCAGTGGTGCAGTGGTGCAATCTCGGCTCACTGCAACCTCCGCCTCCTGGGTTCAAGCGATTCCTG
TGCCTCAGCCTTCCGAGTAGCTGGGATTACAGGCATGTGCCACCACGCCCAGCTAATTTTTTTTTTTTTTTTTT
TTTTTTGTATTTTTAGTAGAGACAGGGTTTTACCATGTTGGCCAGGCTGGTCTCAAACTCCTGATCTCAAGAGAT
CTGCCTGCCTCGGCCTCCCAAAGTTCTGGGATTACAGGTGTGAGCCACTCGACTCAGCCAATAATGCATATTTTT
ATTTCCACCTGCTTTACTGTCAGAATGAGTAAGACAGAGAAGAAATCATTAAACACCAGGATTCTACTTCCTGCT
GGAGTTTTCTGCCTGAGATGTTAGGAGAGGAAACTCTCAGGATCTCAGAAAATCACATCTATCACGGTTGGTAGA
AGTAGATTCTAGAGTCAGCCAGAACTGAGTTCAAGTCCCAACTGCATGGCTTTGGGCAACTGACTTGTCCTCTCT
GAGGCCCAGATTCCCTTTCGGTAATGTGGAGATGGCAGTGTATCTACCTCACAAAGCAGTGGTGAGATTACAATA
AGGTAGGCATGTAAAGCGCCAGGCACATACTAACTGCTCAATAAATGGGAGGCATCATAATTGTATATTATTCAC
AGCCCAAGGAAAGTGTAGCCCAGAGAGGGCAAGGAACTTCCCTGAGGTCACACAGAAAATC**ATG**TGCTGGTTGTA
TGCCCTGGAAGTTGTGGAGAGGGAGTGTTGGGTGTCTCCTGGGGACCTGTCCTCTGATGGGCTCTTGTTCCGGCT
AGGACCCCCCAAACCCCCCACCGAGCTGGAGCCTGAGCCGGAGATAGAGGGGCTGCTGACACCAGTGCTGGAGGC
TGGCGATGTGGATGAAGGCCCTGTAGCAAGGCCTCTCAGCCCCACGAGGCTGCAGCCAGCACTGCCACCGGAGGC
ACAGTCGGTGCCCGAGCTGGAGGAGGTGGCACGGGTGTTGGCGGAAATTCCCCGGCCCCTCAAACGCAGGGGCTC
CATGGAGCAGGCCCCTGCTGTGGCCCTGCCCCCTACCCACAAGAAACAGTACCAGCAGATCATCAGCCGCCTCTT
CCATCGTCATGGGGGGCCAGGGCCCGGGGGGCCGGAGCCAGAGCTGTCCCCCATCACTGAGGGATCTGAGGCCAG
GGCAGGGCCCCCTGCTCCTGCCCCACCAGCTCCCATTCCACCCCCGGCCCCGTCCCAGAGCAGCCCACCAGAGCA
GCCGCAGAGCATGGAGATGCGCTCTGTGCTGCGGAAGGCGGGCTCCCCGCGCAAGGCCCGCCGCGCGCGCCTCAA
CCCTCTGGTGCTCCTCCTGGACGCGGCGCTGACCGGGGAGCTGGAGGTGGTGCAGCAGGCGGTGAAGGAGATGAA
CGACCCGAGCCAGCCCAACGAGGAGGGCATCACTGCCTTGCACAACGCCATCTGCGGCGCCAACTACTCTATCGT
GGATTTCCTCATCACCGCGGGTGCCAATGTCAACTCCCCCGACAGCCACGGCTGGACACCCTTGCACTGCGCGGC
GTCGTGCAACGACACAGTCATCTGCATGGCGCTGGTGCAGCACGGCGCTGCAATCTTCGCCACCACGCTCAGCGA
CGGCGCCACCGCCTTCGAGAAGTGCGACCCTTACCGCGAGGGTTATGCTGACTGCGCCACCTACCTGGCAGACGT
CGAGCAGAGTATGGGGCTGATGAACAGCGGGGCAGTGTACGCTCTCTGGGACTACAGCGCCGAGTTCGGGGACGA
GCTGTCCTTCCGCGAGGGCGAGTCGGTCACCGTGCTGCGGAGGGACGGGCCGGAGGAGACCGACTGGTGGTGGGC
CGCGCTGCACGGCCAGGAGGGCTACGTGCCGCGGAACTACTTCGGGCTGTTCCCCAGGGTGAAGCCTCAAAGGAG
TAAAGTC**TAG**CAGGATAGAAGGAGGTTTCTGAGGCTGACAGAAACAAGCATTCCTGCCTTCCCTCCAGACCTCTC
CCTCTGTTTTTTGCTGCCTTTATCTGCACCCCTCACCCTGCTGGTGGTGGTCCTTGCCACCGGTTCTCTGTTCTC
CTGGAAGTCCAGGGAAGAAGGAGGGCCCCAGCCTTAAATTTAGTAATCTGCCTTAGCCTTGGGAGGTCTGGGAAG
GGCTGGAAATCACTGGGGACAGGAAACCACTTCCTTTTGCCAAATCAGATCCCGTCCAAAGTGCCTCCCATGCCT
ACCACCATCATCACATCCCCCAGCAAGCCAGCCACCTGCCCAGCCGGGCCTGGGATGGGCCACCACACCACTGGA
TATTCCTGGGAGTCACTGCTGACACCATCTCTCCCAGCAGTCTTGGGGTCTGGGTGGGAAACATTGGTCTCTACC
AGGATCCCTGCCCCACCTCTCCCCAATTAAGTGCCTTCACACAGCACTGGTTTAATGTTTATAAACAAAATAGAG
AAACTTTCCTTATAAATAAAAGTAGTTTGCACAGAAA

FIGURE 3828

GCTCAACGTGGACGGGCTCCTGGTCTACTTCCCGTACGACTACATCTACCCCGAGCAGTTCTCCTACATGCGGGA
GCTCAAACGCACGCTGGACGCCAAGGGTCATGGAGTCCTGGAGATGCCCTCAGGCACCGGGAAGACAGTATCCCT
GTTGGCCCTGATCATGGCATACCAGAGAGCATATCCGCTGGAGGTGACCAAACTCATCTACTGCTCAAGAACTGT
GCCAGAGATTGAGAAGGTGATTGAAGAGCTTCGAAAGTTGCTCAACTTCTATGAGAAGCAGGAGGGCGAGAAGCT
GCCGTTTCTGGGACTGGCTCTGAGCTCCCGCAAAAACTTGTGTATTCACCCTGAGGTGACACCCCTGCGCTTTGG
GAAGGACGTCGATGGGAAATGCCACAGCCTCACAGCCTCCTATGTGCGGGCGCAGTACCAGCATGACACCAGCCT
GCCCCACTGCCGATTCTATGAGGAATTTGATGCCCATGGGCGTGAGGTGCCCCTCCCCGCTGGCATCTACAACCT
GGATGACCTGAAGGCCCTGGGGCGGCGCCAGGGCTGGTGCCCATACTTCCTTGCTCGATACTCAATCCTGCATGC
CAATGTGGTGGTTTATAGCTACCACTACCTCCTGGACCCCAAGATTGCAGACCTGGTGTCCAAGGAACTGGCCCG
CAAGGCCGTCGTGGTCTTCGACGAGGCCCACAACATTGACAACGTCTGCATCGACTCCATGAGCGTCAACCTCAC
CCGCCGGACCCTTGACCGGTGCCAGGGCAACCTGGAGACCCTGCAGAAGACGGTGCTCAGGATCAAAGAGACAGA
CGAGCAGCGCCTGCGGGACGAGTACCGGCGTCTGGTGGAGGGGCTGCGGGAGGCCAGCGCCGCCCGGGAGACGGA
CGCCCACCTGGCCAACCCCGTGCTGCCCGACGAAGTGCTGCAGGAGGCAGTGCCTGGCTCCATCCGCACGGCCGA
GCATTTCCTGGGCTTCCTGAGGCGGCTGCTGGAGTACGTGAAGTGGCGGCTGCGTGTGCAGCATGTGGTGCAGGA
GAGCCCGCCCGCCTTCCTGAGCGGCCTGGCCCAGCGCGTGTGCATCCAGCGCAAGCCCCTCAGATTCTGTGCTGA
ACGCCTCCGGTCCCTGCTGCATACTCTGGAGATCACCGACCTTGCTGACTTCTCCCCGCTCACCCTCCTTGCTAA
CTTTGCCACCCTTGTCAGCACCTACGCCAAAGGCTTCACCATCATCATCGAGCCCTTTGACGACAGAACCCCGAC
CATTGCCAACCCCATCCTGCACTTCAGCTGCATGGACGCCTCGCTGGCCATCAAACCCGTATTTGAGCGTTTCCA
GTCTGTCATCATCACATCTGGGACACTGTCCCCGCTGGACATCTACCCCAAGATCCTGGACTTCCACCCCGTCAC
CATGGCAACCTTCACCATGACGCTGGCACGGGTCTGCCTCTGCCCTATGATCATCGGCCGTGGCAATGACCAGGT
GGCCATCAGCTCCAAATTTGAGACCCGGGAGGATATTGCTGTGATCCGGAACTATGGGAACCTCCTGCTGGAGAT
GTCCGCTGTGGTCCCTGATGGCATCGTGGCCTTCTTCACCAGCTACCAGTACATGGAGAGCACCGTGGCCTCCTG
GTATGAGCAGGGGATCCTTGAGAACATCCAGAGGAACAAGCTGCTCTTTATTGAGACCCAGGATGGTGCCGAAAC
CAGTGTCGCCCTGGAGAAGTACCAGGAGGCCTGCGAGAATGGCCGCGGGGCCATCCTGCTGTCAGTGGCCCGGGG
CAAAGTGTCCGAGGGAATCGACTTTGTGCACCACTACGGGCGGGCCGTCATCATGTTTGGCGTCCCCTACGTCTA
CACACAGAGCCGCATTCTCAAGGCGCGGCTGGAATACCTGCGGGACCAGTTCCAGATTCGTGAGAATGACTTTCT
TACCTTCGATGCCATGCGCCACGCGGCCCAGTGTGTGGGTCGGGCCATCAGGGGCAAGACGGACTACGGCCTCAT
GGTCTTTGCCGACAAGCGGTTTGCCCGTGGGGACAAGCGGGGGAAGCTGCCCCGCTGGATCCAGGAGCACCTCAC
AGATGCCAACCTCAACCTGACCGTGGACGAGGGTGTCCAGGTGGCCAAGTACTTCCTGCGGCAGATGGCACAGCC
CTTCCACCGGGAGGATCAGCTGGGCCTGTCCCTGCTCAGCCTGGAGCAGCTAGAATCAGAGGAGACGCTGAAGAG
GATAGAGCAGATTGCTCAGCAGCTCTGAGTGGGGCGGGTGGGGCCATAAACGGTTCCTGGTGA

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FIGURE 3829

TGTCACCTCCAGGATACAGACAGCCCCCCTTCAGCCCAGCCCAGCCAGGTCTCCTACACCGCCACC**ATG**CCATTC
GGTAACACCCACAACAAGTTCAAGCTGAATTACAAGCCTGAGGAGGAGTACCCCGACCTCAGCAAACATAACAAC
CACATGGCCAAGGTACTGACCCTTGAACTCTACAAGAAGCTGCGGGACAAGGAGACTCCATCTGGCTTCACTGTA
GACGATGTCATCCAGACAGGAGTGGACAACCCAGGTCACCCCTTCATCATGACCGTGGGCTGCGTGGCTGGTGAT
GAGGAGTCCTACGAAGTTTTCAAGGAACTCTTTGACCCCATCATCTCGGATCGCCACGGGGGCTACAAACCCACT
GACAAGCACAAGACTGACCTCAACCATGAAAACCTCAAGGGTGGAGACGACCTGGACCCTAACTACGTGCTCAGC
AGCCGCGTCCGCACTGGCCGCAGCATCAAGGGCTACACGTTGCCCCCACACTGCTCCCGTGGCGAGCGCCGGGCG
GTGGAGAAGCTCTCTGTGGAAGCTCTCAACAGCCTGACGGGCGAGTTCAAAGGGAAGTACTACCCTCTGAAGAGC
ATGACGGAGAAGGAGCAGCAGCAGCTCATCGATGACCACTTCCTGTTCGACAAGCCCGTGTCCCCGCTGCTGCTG
GCCTCAGGCATGGCCCGCGACTGGCCCGACGCCCGTGGCATCTGGCACAATGACAACAAGAGCTTCCTGGTGTGG
GTGAACGAGGAGGATCACCTCCGGGTCATCTCCATGGAGAAGGGGGGCAACATGAAGGAGGTTTTCCGCCGCTTC
TGCGTAGGGCTGCAGAAGATTGAGGAGATCTTTAAGAAAGCTGGCCACCCCTTCATGTGGAACCAGCACCTGGGC
TACGTGCTCACCTGCCCATCCAACCTGGGCACTGGGCTGCGTGGAGGCGTGCATGTGAAGCTGGCGCACCTGAGC
AAGCACCCCAAGTTCGAGGAGATCCTCACCCGCCTGCGTCTGCAGAAGAGGGGTACAGGTGGCGTGGACACAGCT
GCCGTGGGCTCAGTATTTGACGTGTCCAACGCTGATCGGCTGGGCTCGTCCGAAGTAGAACAGGTGCAGCTGGTG
GTGGATGGTGTGAAGCTCATGGTGGAAATGGAGAAGAAGTTGGAGAAAGGCCAGTCCATTGACGACATGATCCCC
GCCCAGAAG**TAG**GCGCCTGCCCACCTGCCACCGACTGCTGGAACCCAGCCAGTGGGAGGGCCTGGCCCACCAGAG
TCCTGCTCCCTCACTCCTCGCCCCGCCCCCTGTCCCAGAGTCCCACCTGGGGGCTCTCTCCACCCTTCTCAGAGT
TCCAGTTTCAACCAGAGTTCCAACCAATGGGCTCCATCCTCTGGATTCTGGCCAATGAAATATCTCCCTGGCAGG
GTCCTCTTCTTTTCCCAGAGCTCCACCCCAACCAGGAGCTCTAGTTAATGGAGAGCTCCCAGCACACTCGGAGCT
TGTGCTTTGTCTCCACGCAAAGCGATAAATAAAAGCATTGGTGGCCTT

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FIGURE 3830A

CGCCTCCCTCCGCCGCCGCTTGGGCCGGCTCCGCGCCCCCTCCGCGGCCCCCGCCCGCCCGCCTGCCCGCCGCCC
CCATGGCGCCCCGGGGTCCCCGCTGCACGGGGCCACTAGGACCCTCGGCGTCCCTTCCCCTCCCCCGCCCTGCCCC
CTCTCCCGCCGCGCGGACCCGGGCGTTCTCGGCGCCCAGCTTTTGAGCTCGCGTCCCCAGGCCGGCGGGGGGGGA
GGGGAAGAGAGGGGACCCTGGGACCCCCGCCCCCCCCACCCGGCCGCCCCTGCCCCCCGGGACCCGGAGAAG**ATG**

TCTTCGCGGACGGTGCTGGCCCCGGGCAACGATCGGAACTCGGACACGCATGGCACCTTGGGCAGTGGCCGCTCC
TCGGACAAAGGCCCGTCCTGGTCCAGCCGCTCACTGGGTGCCCGTTGCCGGAACTCCATCGCCTCCTGTCCCGAG
GAGCAGCCCCACGTGGGCAACTACCGCCTGCTGAGGACCATTGGGAAGGGCAACTTTGCCAAAGTCAAGCTGGCT
CGGCACATCCTCACTGGTCGGGAGGTTGCCATCAAGATTATCGACAAAACCCAGCTGAATCCCAGCAGCCTGCAG
AAGCTGTTCCGAGAAGTCCGCATCATGAAGGGCCTAAACCACCCCAACATCGTGAAGCTCTTTGAGGTGATTGAG
ACTGAGAAGACGCTGTACCTGGTGATGGAGTACGCAAGTGCTGGAGAAGTGTTTGACTACCTCGTGTCGCATGGC
CGCATGAAGGAGAAGGAAGCTCGAGCCAAGTTCCGACAGATTGTTTCGGCTGTGCACTATTGTCACCAGAAAAAT
ATTGTACACAGGGACCTGAAGGCTGAGAACCTCTTGCTGGATGCCGAGGCCAACATCAAGATTGCTGACTTTGGC
TTCAGCAACGAGTTCACGCTGGGATCGAAGCTGGACACGTTCTGCGGGAGCCCCCCATATGCCGCCCCGGAGCTG
TTTCAGGGCAAGAAGTACGACGGGCCGGAGGTGGACATCTGGAGCCTGGGAGTCATCCTGTACACCCTCGTCAGC
GGCTCCCTGCCCTTCGACGGGCACAACCTCAAGGAGCTGCGGGAGCGAGTACTCAGAGGGAAGTACCGGGTCCCT
TTCTACATGTCAACAGACTGTGAGAGCATCCTGCGGAGATTTTTGGTGCTGAACCCAGCTAAACGCTGTACTCTC
GAGCAAATCATGAAAGACAAATGGATCAACATCGGCTATGAGGGTGAGGAGTTGAAGCCATACACAGAGCCCGAG
GAGGACTTCGGGGACACCAAGAGAATTGAGGTGATGGTGGGTATGGGCTACACACGGGAAGAAATCAAAGAGTCC
TTGACCAGCCAGAAGTACAACGAAGTGACCGCCACCTACCTCCTGCTGGGCAGGAAGACTGAGGAGGGTGGGGAC
CGGGGCGCCCCAGGGCTGGCCCTGGCACGGGTGCGGGCGCCCAGCGACACCACCAACGGAACAAGTTCCAGCAAA
GGCACCAGCCACAGCAAAGGGCAGCGGAGTTCCTCTTCCACCTACCACCGCCAGCGCAGGCATAGCGATTTCTGT
GGCCCATCCCCTGCACCCCTGCACCCCAAACGCAGCCCGACGAGCACGGGGGAGGCGGAGCTGAAGGAGGAGCGG
CTGCCAGGCCGGAAGGCGAGCTGCAGCACCGCGGGGAGTGGGAGTCGAGGGCTGCCCCCCTCCAGCCCCATGGTC
AGCAGCGCCCACAACCCCAACAAGGCAGAGATCCCAGAGCGGCGGAAGGACAGCACGAGCACCCCCAACAACCTC
CCTCCTAGCATGATGACCCGCAGAAACACCTACGTTTGCACAGAACGCCCGGGGGCTGAGCGCCCGTCACTGTTG
CCAAATGGGAAAGAAAACAGCTCAGGCACCCCACGGGTGCCCCCTGCCTCCCCCTCCAGTCACAGCCTGGCACCC
CCATCAGGGGAGCGGAGCCGCCTGGCACGTGGTTCCACCATCCGCAGCACCTTCCATGGTGGCCAGGTCCGGGAC
CGGCGGGCAGGGGGTGGGGGTGGTGGGGGTGTGCAGAATGGGCCCCCTGCCTCTCCCACACTGGCCCATGAGGCT
GCACCCCTGCCCGCCGGGCGGCCCCGCCCCACCACCAACCTCTTCACCAAGCTGACCTCCAAACTGACCCGAAGG
GTTACCCTCGATCCCTCTAAACGGCAGAACTCTAACCGCTGTGTTTCGGGCGCCTCTCTGCCCCAGGGATCCAAG
ATCAGGTCGCAGACGAACCTGAGAGAATCGGGGGACCTGAGGTCACAAGTTGCCATCTACCTTGGGATCAAACGG
AAACCGCCCCCCGGCTGCTCCGATTCCCCTGGAGTG**TGA**AGCTGACCAGCTCGCGCCCTCCTGAGGCCCTGATGG
CAGCTCTGCGCCAGGCCACAGCAGCCGCCCGCTGCCGCTGCCGCCAGCCACAGCCGTTCCTGCTGGCCTGCCTGC
ACGGGGGTGCGGGCGGGCCCGAGCCCCTGTCCCACTTCGAAGTGGAGGTCTGCCAGCTGCCCCGGCCAGGCTTGC
GGGGAGTTCTCTTCCGCCGTGTGGCGGGCACCGCCCTGGCCTTCCGCACCCTCGTCACCCGCATCTCCAACGACC
TCGAGCTCTGAGCCACCACGGTCCCAGGGCCCTTACTCTTCCTCTCCCTTGTCGCCTTCACTTCTACAGGAGGGG
AAGGGGCCAGGGAGGGGATTCTCCCTTTATCATCACCTCAGTTTCCCTGAATTATATTTGGGGGCAAAGATTGTC
CCCTCTGCTGTTCTCTGGGGCCGCTCAGCACAGAAGAAGGATGAGGGGGCTCAGCGGGGGGAGCTGGCACCTTCC
TGGAGCCTCCAGCCAGTCCTGTCCTCCCTCGCCCTACCAAGAGGGCACCTGAGGAGACTTTGGGGACAGGGCAGG
GGCAGGGAGGGAAACTGAGGAAATCTTCCATTCCTCCCAACAGCTCAAAATTAGGCCTTGGGCAGGGGCAGGGAG
AGCTGCTGAGCCTAAAGACTGGAGAATCTGGGGGACTGGGAGTGGGGGTCAGAGAGGCAGATTCCTTCCCCTCCC
GTCCCCTCACGCTCAAACCCCCACTTCCTGCCCCAGGCTGGCGCGGGGCACTTTGTACAAATCCTTGTAAATACC
CCACACCCTCCCCTCTGCAAAGGTCTCTTGAGGAGCTGCCGCTGTCACCTACGGTTTTTAAGTTATTACACCCCG
ACCCTCCTCCTGTCAGCCCCCTCACCTGCAGCCTGTTGCCCAATAAATTTAAGAGAGTCCCCCCCTCCCCAATGC
TGACCCTAGGATTTTCCTTCCCTGCCCTCACCTGCAAATGAGTTAAAGAAGAGGCGTGGGAATCCAGGCAGTGGT
TTTTCCTTTCGGAGCCTCGGTTTTCTCATCTGCAGAATGGGAGCGGTGGGGGTGGGAAGGTAAGGATGGTCGTGG
AAGAAGGCAGGATGGAACTCGGCCTCATCCCCGAGGCCCCAGTTCCTATATCGGGCCCCCCATTCATCCACTCAC
ACTCCCAGCCACCATGTTACACTGGACTCTAAGCCACTTCTTACTCCAGTAGTAAATTTATTCAATAAACAATCA

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FIGURE 3830B

TTGA

FIGURE 3831

GGAGGGGGC**ATG**GCGGATACTGTGTTGTTTGAGTTTCTTCACACGGAGATGGTGGCTGAGCTGTGGGCTCACGAC
CCCGACCCCGGCCCGGGGGTGAGCGCCGGGCTCCGTGGGGAGGAAGCGGGGGCCACCAAGGGACAGAAGATGAGC
CTGTCGGTCCTGGAGGGTATGGGGTTCCGTGTGGGCCAGGCTCTAGGCGAGAGGCTGCCCCGGGAGACGCTGGCC
TTCAGGGAGGAGCTGGATGTCCTCAAGTTCTTGTGCAAAGACCTGTGGGTGGCGGTGTTCCAGAAGCAGATGGAC
AGCCTGCGCACCAATCACCAGGGGACCTACGTCCTGCAAGACAACAGCTTCCCCCTCCTCCTCCCGATGGCCTCT
GGCCTGCAGTATCTGGAGGAAGCACCCAAGTTCCTGGCCTTCACCTGCGGCCTCCTGCGCGGCGCCCTCTATACC
CTGGGCATTGAGAGCGTGGTCACCGCCTCCGTGGCAGCCCTGCCCGTCTGTAAGTTCCAGGTGGTGATTCCGAAA
TCC**TAA**GCCTGCCTCGCACCTGCTGAGCCGCACTGCTGCCCCTGGCCTCACCGGCCTCAGGAGACGGTGGGGCCG
CTGCATTTCGGGGTGGTCTTGGGAATCCCAGGCCCTAGGGGTCACATTTGCTCAGGAAGTGGGTATCAAATTGAG
GTGGGGGTGTCAGAGGAGGCAAAGGGGTCCCAGCTGCGGTCAGGACTGTGGTGGGATTCCCGCCTCGGCAGCGTC
ACTGCCCAGTAGCTGCTCAATAAAGGCTGTGTGTGTGGAATCTG

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FIGURE 3832

CGCCGTCAGGGCCCCAGCAGGGCGGCTCGGTCCCCTCCCATGAGCCCCGCCCTGGTAGGCGGAGCCACGGGCCCG
GCCAGCACGTGTAAGAGTTCGCGGCGGGTCGCCGCAGTCACTCACCTGAGCGCGCACGGTCCGCGCGTCCTCCGC
TCGTGCGTCCTCCGCCCGCCCGCCTGCCTGCCTGCCCGCCCGCTCGCTCGCCCGGCCCGCGACTC**ATG**TCCCGCC
GCAAGGCCGGCAGCGCGCCCCGCCGAGTAGAGCCCGCGCCCGCCGCCAACCCAGACGACGAGATGGAAATGCAGG
ACCTCGTCATCGAACTCAAGCCCGAGCCAGACGCGCAGCCCCAACAGGCCCCAAGGCTGGGGCCCTTCTCCCCGA
AGGAGGTGTCCTCGGCGGGGCGGTTCGGCGGCGAACCCCACCACTCCCCTGGCCCCATGCCCGCCGGGGCCGCCC
TCCTCGCCCTCGGCCCGCGGAACCCGTGGACCCTGTGGACGCCGTTGACCCCGAACTATCCCGACCGCCAGCCCT
GGACCGACAAACACCCAGATCTGTTGACCTGCGGCCGCTGCCTGCAGACCTTCCCGTTGGAGGCCATCACTGCCT
TCATGGACCACAAGAAGCTGGGCTGTCAGCTCTTCAGAGGCCCCAGCCGCGGCCAGGGCTCAGAACGAGAGGAGC
TGAAGGCCTTGAGCTGCCTGCGCTGTGGCAAACAGTTCACAGTGGCCTGGAAGCTGCTGCGTCACGCCCAGTGGG
ACCACGGACTGTCCATCTACCAGACAGAATCAGAGGCCCCGGAGGCCCCGCTCCTGGGCCTGGCCGAGGTGGCTG
CAGCCGTGTCGGCAGTGGTGGGGCCAGCAGCTGAGGCCAAGAGCCCCCGTGCAAGTGGCAGCGGCCTCACCCGGC
GGAGCCCCACCTGTCCTGTGTGCAAGAAGACCCTCAGCTCCTTCAGCAACCTCAAAGTGCACATGCGCTCACACA
CAGGCGAGCGGCCCTATGCTTGCGACCAGTGTCCCTACGCCTGCGCCCAGAGCAGCAAGCTCAACCGCCACAAGA
AGACCCACCGGCAGGTGCCGCCCCAGAGCCCCCTCATGGCCGACACCAGCCAGGAGCAGGCCTCTGCAGCCCCTC
CGGAGCCGGCTGTCCATGCTGCTGCCCCCACCAGCACCCTTCCATGCAGCGGTGGTGAGGGGGCTGGAGCCGCCG
CCACAGCAGGTGTCCAGGAACCCGGGGCTCCTGGCAGTGGGGCTCAAGCCGGCCCTGGTGGAGACACTTGGGGAG
CCATCACCACGGAACAAAGAACTGACCCTGCAAACAGCCAGAAGGCATCACCCAAAAAGATGCCCAAGTCAGGGG
GCAAGAGCCGCGGGCCCGGGGGCAGCTGTGAGTTCTGCGGGAAGCATTTTACCAACAGCAGCAACCTGACGGTGC
ACCGGCGCTCACACACCGGGGAGCGCCCCTACACCTGTGAGTTCTGCAACTACGCCTGCGCCCAGAGCAGTAAGC
TCAACCGCCACCGCCGCATGCACGGCATGACGCCTGGCAGCACCCGCTTCGAGTGCCCCCACTGCCATGTGCCCT
TCGGCCTGCGAGCCACCCTGGACAAACACCTGCGGCAGAAGCACCCTGAGGCGGCCGGCGAGGCC**TGA**GCCCAGG
AAAGCCCCCCTCACTGTCCCTGGTACCGCTGCCAACACCCATTGACCTCCTCGTTTTTGCCCGCCTTCTCCAAGT
AAATTTTCCCTTTTATTT

FIGURE 3833

GCGGCCTTTCATTTCCGCTTCCGGTGCGGGCCGCGCGCGAGCGCAGCGGTGGGAGGCGGCGACCAGCCGGTTGAG
GCCCCAGGCTTGGCCTCACCACA**ATG**TGGCACGAGGCTCGGAAGCATGAGCGGAAGCTTCGAGGCATGATGGTCG
ACTACAAGAAGAGGGCGGAGCGGAGACGGGAGTATTATGAAAAGATCAAGAAGGACCCAGCCCAGTTCCTGCAGG
TACATGGCCGAGCTTGCAAGGTGCACCTGGATTCTGCAGTCGCCCTGGCCGCTGAGAGCCCTGTTAATATGATGC
CCTGGCAGGGGGACACCAACAACATGATTGACCGATTCGATGTCCGTGCCCACCTGGACCACATCCCCGACTACA
CCCCCCCTCTGCTCACCACCATCTCCCCAGAACAGGAGTCGGACGAACGGAAGTGTAACTACGAGCGCTACAGAG
GCCTGGTGCAGAACGACTTTGCCGGCATCTCAGAGGAGCAGTGCCTGTACCAGATCTACATTGATGAGTTGTACG
GAGGCCTCCAGAGACCCAGCGAAGATGAGAAGAAGAAGCTGGCAGAGAAGAAGGCTTCCATCGGTTATACCTACG
AGGACAGCACGGTGGCCAAGGTAGAGAAGGCGGCAGAAAAGCCAGAGGAGGAGGAGTCAGCGGCCGAGGAGGAGA
GCAACTCGGACGAAGATGAGGTCATCCCCGACATCGACGTGGAGGTGGACGTGGATGAATTGAACCAGGAGCAGG
TGGCAGATCTCAACAAACAGGCCACGACTTATGGCATGGCCGACGGTGACTTCGTCAGGATGCTCCGGAAAGACA
AGGAGGAGGCAGAGGCCATCAAGCATGCCAAGGCTCTTGAGGAGGAGAAGGCCATGTACTCGGGACGCCGCTCTC
GACGCCAGCGGAGAGAGTTTCGGGAGAAGCGGCTGAGGGGTCGCAAGATCAGCCCACCCAGCTATGCCCGCCGAG
ACAGCCCCACCTATGACCCCTATAAGCGGTCACCCTCGGAGTCCAGCTCAGAGTCCCGCTCCCGCTCCCGCTCCC
CGACCCCGGGCCGCGAGGAGAAGATCACGTTCATCACCAGTTTTGGGGGCAGCGATGAGGAGGCAGCCGCAGCCG
CTGCTGCCGCAGCAGCATCAGGAGTCACCACAGGGAAGCCCCCCGCACCTCCCCAGCCTGGCGGCCCCGCCCCGG
GACGTAATGCCAGCGCCCGCCGCCGCTCCTCCTCCTCCTCCTCCTCTTCTGCCTCGAGGACCTCCAGCTCCC
GCTCCAGCTCTCGCTCCAGCTCCCGCTCTCGCCGTGGTGGGGGCTACTACCGTTCCGGCCGCCACGCCCGCTCCC
GGTCCCGCTCCTGGTCCCGCTCCCGCTCCCGCTCCCGGCGCTATTCCCGGTCCCGTAGCCGTGGCCGGCGGCACT
CAGGTGGGGGCTCCCGAGACGGACACCGGTACTCCCGCTCGCCCGCCCGGCGTGGTGGTTACGGGCCCCGGCGCA
GAAGCAGGAGCCGCTCCCACTCAGGGGACCGCTACAGGCGGGGCGGCCGGGGCCTCAGGCACCACAGCAGTAGCC
GCAGCCGCAGCAGCTGGTCCCTCAGCCCGTCCCGCAGTCGCAGCCTGACTCGCAGCCGCAGCCATAGCCCCAGCC
CCAGCCAGAGCCGCAGCCGCAGCCGCAGCCGCAGCCAGAGCCCCTCGCCATCACCCGCAAGAGAGAAGCTGACCA
GGCCGGCCGCGTCCCCTGCTGTGGGCGAGAAGCTGAAAAAGACCGAACCTGCCGCTGGTAAAGAGACAGGAGCTG
CCAAACCCAAGCTGACGCCTCAGGAGAAGCTGAAACTGAGGATGCAGAAGGCGCTGAACAGGCAGTTCAAGGCGG
ATAAGAAGGCGGCACAAGAAAAGATGATCCAGCAGGAGCATGAGCGGCAGGAGCGGGAAGACGAGCTTCGAGCCA
TGGCCCGCAAGATCCGCATGAAGGAGCGGGAACGCCGAGAGAAGGAGAGAGAAGAGTGGGAACGCCAGTACAGCC
GGCAGAGCCGCTCACCCTCCCCCCGATACAGTCGAGAATACAGCTCTTCTCGAAGGCGCTCAAGGTCCCGATCCC
GAAGCCCCCATTACCGACAT**TAG**GCAGAAGAGTGGGGGGTGGGGAGGACAAGGGGGTGGGTAAGGGGCTCAAGCT
GTGATGCTGCTGGTTTTATCTCTAGTGAAATAAAGTCAAAAGTTATTTAATTCCCGTCA

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FIGURE 3834

CCCGCCCGGCCCGGCCCCGCGCCCCGCGCAGCCCCGGGCGCCGCGCGTCCTGCCCGGCCTGCGGCCCCAGCCCTT
GCGCCGCTCGTCCGACCCGCGATCGTCCACCAGACCGTGCCTCCCGGCCGCCCGGCCGGCCCGCGTGC**ATG**CTTC
GGTCTGGGCCAGCCTCTGGGCCGTCCGTCCCCACTGGCCGGGCCATGCCGAGTCGCCGCGTCGCCAGACCGCCGG
CTGCGCCGGAGCTGGGGGCCTTAGGGTCCCCCGACCTCTCCTCACTCTCGCTCGCCGTTTCCAGGAGCACAGGTG
AAGAGATCATCGACGAGTACATCAAGGAGAACGGCTTCGGCCTGGACGGGGGACAGCCGGGCCCGGGCGAGGGGC
TGCCACGCCTGGTGTCTCGCGGGGCTGCGTCCCTGAGCACGGTCACCCTGGGCCCTGTGGCGCCCCCAGCCACGC
CGCCGCCTTGGGGCTGCCCCCTGGGCCGACTAGTGTCCCCAGCGCCGGGCCCGGGCCCGCAGCCGCACCTGGTCA
TCACGGAGCAGCCCAAGCAGCGCGGCATGCGCTTCCGCTACGAGTGCGAGGGCCGCTCGGCCGGCAGCATCCTTG
GGGAGAGCAGCACCGAGGCCAGCAAGACGCTGCCCGCCATCGAGCTCCGGGATTGTGGAGGGCTGCGGGAGGTGG
AGGTGACTGCCTGCCTGGTGTGGAAGGACTGGCCTCACCGAGTCCACCCCCACAGCCTCGTGGGGAAAGACTGCA
CCGACGGCATCTGCAGGGTGCGGCTCCGGCCTCACGTCAGCCCCCGGCACAGTTTTAACAACCTGGGCATCCAGT
GTGTGAGGAAGAAGGAGATTGAGGCTGCCATTGAGCGGAAGATTCAACTGGGCATTGACCCCTACAACGCTGGGT
CCCTGAAGAACCATCAGGAAGTAGACATGAATGTGGTGAGGATCTGCTTCCAGGCCTCATATCGGGACCAGCAGG
GACAGATGCGCCGGATGGATCCTGTGCTTTCCGAGCCCGTCTATGACAAGAAATCCACAAACACATCAGAGCTGC
GGATTTGCCGAATTAACAAGGAAAGCGGGCCGTGCACCGGTGGCGAGGAGCTCTACTTGCTCTGCGACAAGGTGC
AGAAAGAGGACATATCAGTGGTGTTCAGCAGGGCCTCCTGGGAAGGTCGGGCTGACTTCTCCCAGGCCGACGTGC
ACCGCCAGATTGCCATTGTGTTCAAGACGCCGCCCTACGAGGACCTGGAGATTGTCGAGCCCGTGACAGTCAACG
TCTTCCTGCAGCGGCTCACCGATGGGGTCTGCAGCGAGCCATTGCCTTTCACGTACCTGCCTCGCGACCATGACA
GCTACGGCGTGGACAAGAAGCGGAAACGGGGGATGCCCGACGTCCTTGGGGAGCTGAACAGCTCTGACCCCCATG
GCATCGAGAGCAAACGGCGGAAGAAAAAGCCGGCCATCCTGGACCACTTCCTGCCCAACCACGGCTCAGGCCCGT
TCCTCCCGCCGTCAGCCCTGCTGCCAGACCCTGACTTCTTCTCTGGCACCGTGTCCCTGCCCGGCCTGGAGCCCC
CTGGCGGGCCTGACCTCCTGGACGATGGCTTTGCCTACGACCCTACGGCCCCCACACTCTTCACCATGCTGGACC
TGCTGCCCCCGGCACCGCCACACGCTAGCGCTGTTGTGTGCAGCGGAGGTGCCGGGGCCGTGGTTGGGGAGACCC
CCGGCCCTGAACCACTGACACTGGACTCGTACCAGGCCCCGGGCCCCGGGGATGGAGGCACCGCCAGCCTTGTGG
GCAGCAACATGTTCCCCAATCATTACCGCGAGGCGGCCTTTGGGGGCGGCCTCCTATCCCCGGGGCCTGAAGCCA
CG**TAG**CCCCGCGATGCCAGAGGAGGGGCACTGGGTGGGGAGGGAGGTGGAGGAGCCGTGCAATCCCAACCAGGAT
GTCTAGCACCCCCATCCCCTTGGCCCTTCCTCATGCTTCTGAAGTGGACATATTCAGCCTTGGCGAGAAGCTCCG
TTGCACGGGTTTCCCCTTGAGCCCATTTTACAGATGAGGAAACTGAGTCCGGAGAGGAAAAGGGACATGGCTCCC
GTGCACTAGCTTGTTACAGCTGCCTCTGTCCCCACATGTGGGGGCACCTTCTCCAGTAGGATTCGGAAAAGATTG
TACATATGGGAGGAGGGGGCAGATTCCTGGCCCTCCCTCCCCAGACTTGAAGGTGGGGGGTAGGTTGGTTGTTCA
GAGTCTTCCCAATAAAGATGAGTTTTTGAGCCTC

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FIGURE 3835

ACCCGGAGCGGGAAG**ATG**GCGGCGGCGCAGGAGGCGGACGGGGCCCGCAGCGCCGTGGTGGCGGCCGGGGGAGGC
AGCTCCGGTCAGGTGACCAGCAATGGCAGCATCGGGAGGGACCCGCCAGCGGAGACCCAGCCTCAGAACCCACCG
GCCCAGCCGGCACCCAATGCCTGGCAGGTCATCAAAGGTGTGCTGTTTAGGATCTTCATCATCTGGGCCATCAGC
AGTTGGTTCCGCCGAGGGCCGGCCCCTCAGGACCAGGCGGGCCCCGGAGGAGCTCCACGCGTCGCCAGCCGCAAC
CTGTTCCCCAAAGACACTTTAATGAACCTGCATGTGTACATCTCAGAGCACGAGCACTTTACAGACTTCAACGCC
ACGTCGGCACTCTTCTGGGAACAGCACGATCTTGTGTATGGCGACTGGACTAGCGGCGAGAACTCAGACGGCTGC
TACGAGCACTTTGCTGAGCTCGATATCCCACAGAGCGTCCAGCAGAACGGCTCCATCTACATCCACGTTTACTTC
ACCAAGAGTGGCTTCCACCCAGACCCCCGGCAGAAGGCCCTGTACCGCCGGCTTGCCACAGTCCACATGTCCCGG
ATGATCAACAAATACAAGCGCAGACGATTTCAGAAAACCAAGAACCTGCTGACAGGAGAGACAGAAGCGGACCCA
GAAATGATCAAGAGGGCTGAGGACTATGGGCCTGTGGAGGTGATCTCCCATTGGCACCCCAACATCACCATCAAC
ATCGTGGACGACCACACGCCGTGGGTGAAGGGCAGTGTGCCCCCTCCCCTGGATCAATATGTGAAGTTCGACGCC
GTGAGCGGTGACTACTATCCCATCATCTACTTCAATGACTACTGGAACCTGCAGAAGGACTACTACCCCATCAAC
GAGAGCCTGGCCAGCCTGCCGCTCCGCGTCTCCTTCTGCCCACTCTCGCTTTGGCGCTGGCAGCTCTATGCTGCC
CAGAGCACCAAGTCGCCCTGGAACTTCCTGGGTGATGAGTTGTACGAGCAGTCAGATGAGGAGCAGGACTCGGTG
AAGGTGGCCCTGCTGGAGACCAACCCCTACCTGCTGGCGCTCACCATCATCGTGTCTATCGTTCACAGTGTCTTC
GAGTTCCTGGCCTTCAAGAATGATATCCAGTTCTGGAACAGCCGGCAGTCCCTGGAGGGCCTGTCCGTGCGCTCC
GTCTTCTTCGGCGTTTTCCAGTCATTCGTGGTCCTCCTCTACATCCTGGACAACGAGACCAACTTCGTGGTCCAG
GTCAGCGTCTTCATTGGGGTCCTCATCGACCTCTGGAAGATCACCAAGGTCATGGACGTCCGGCTGGACCGAGAG
CACAGGGTGGCAGGAATCTTCCCCCGCCTATCCTTCAAGGACAAGTCCACGTATATCGAGTCCTCGACCAAAGTG
TATGATGATATGGCATTCCGGTACCTGTCCTGGATCCTCTTCCCGCTCCTGGGCTGCTATGCCGTCTACAGTCTT
CTGTACCTGGAGCACAAGGGCTGGTACTCCTGGGTGCTCAGCATGCTCTACGGCTTCCTGCTGACCTTCGGCTTC
ATCACCATGACGCCCCAGCTCTTCATCAACTACAAGCTCAAGTCTGTGGCCCACCTTCCCTGGCGCATGCTCACC
TACAAGGCCCTCAACACATTCATCGACGACCTGTTCGCCTTTGTCATCAAGATGCCCGTTATGTACCGGATCGGC
TGCCTGCGGGACGATGTGGTTTTCTTCATCTACCTCTACCAACGGTGGATCTACCGCGTCGACCCCACCCGAGTC
AACGAGTTTGGCATGAGTGGAGAAGACCCCACAGCTGCCGCCCCCGTGGCCGAGGTTCCCACAGCAGCAGGGGCC
CTCACGCCCACACCTGCACCCACCACGACCACCGCCACCAGGGAGGAGGCCTCCACGTCCCTGCCCACCAAGCCC
ACCCAGGGGGCCAGCTCTGCCAGCGAGCCCCAGGAAGCCCCTCCAAAGCCAGCAGAGGACAAGAAAAAGGAT**TAG**

TCGAGACTGGTCCTCACCTGCTCCGGCTCCTGGCGACCACTACCCCTGCGTCCCGGCCCCCTCGCCTCCCCTCCC
TGTCGCCCTTTCCCTGGACAGATCAGGCCGGGGCGGTGGGAGGCCCGCCTCAGGTCAGGGCCCAGCGTGTGATGT
AGGGGCCGGGGCAGGCCAGGGTTTGTTTGTGGAGGCGCTGTCTGTCCCTCTGTCCCTCTGTGTTTCCAGCCATCT
CGCCCTGCCAGCCCAGCACCACTGGGAATCATGGTGAAGCTGATGCAGCGTTGCCGAGGGGGTGGGTTGGGCGGG
GGTGGGGCCGGGCCCCCCTACGGGATGCCCACGGCCGTTCATCATCTTGTCCCTCGTCCCCCTACCACACTCCCC
CTCCTAGACCGCCGCCCTTTAACACAGTCTGGATTTAATAAATTCATATGGGTGTTTAACTTAAACTC

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FIGURE 3836

CAGCGGAGGTGAAGGACGTCCTTCCCCAGGAGCCGACTGGCCAATCACAGGCAGGAAG**ATG**AAGGTTCTGTGGGC
TGCGTTGCTGGTCACATTCCTGGCAGGATGCCAGGCCAAGGTGGAGCAAGCGGTGGAGACAGAGCCGGAGCCCGA
GCTGCGCCAGCAGACCGAGTGGCAGAGCGGCCAGCGCTGGGAACTGGCACTGGGTCGCTTTTGGGATTACCTGCG
CTGGGTGCAGACACTGTCTGAGCAGGTGCAGGAGGAGCTGCTCAGCTCCCAGGTCACCCAGGAACTGAGGGCGCT
GATGGACGAGACCATGAAGGAGTTGAAGGCCTACAAATCGGAACTGGAGGAACAACTGACCCCGGTGGCGGAGGA
GACGCGGGCACGGCTGTCCAAGGAGCTGCAGGCGGCGCAGGCCCGGCTGGGCGCGGACATGGAGGACGTGTGCGG
CCGCCTGGTGCAGTACCGCGGCGAGGTGCAGGCCATGCTCGGCCAGAGCACCGAGGAGCTGCGGGTGCGCCTCGC
CTCCCACCTGCGCAAGCTGCGTAAGCGGCTCCTCCGCGATGCCGATGACCTGCAGAAGCGCCTGGCAGTGTACCA
GGCCGGGGCCCGCGAGGGCGCCGAGCGCGGCCTCAGCGCCATCCGCGAGCGCCTGGGGCCCCTGGTGGAACAGGG
CCGCGTGCGGGCCGCCACTGTGGGCTCCCTGGCCGGCCAGCCGCTACAGGAGCGGGCCCAGGCCTGGGGCGAGCG
GCTGCGCGCGCGGATGGAGGAGATGGGCAGCCGGACCCGCGACCGCCTGGACGAGGTGAAGGAGCAGGTGGCGGA
GGTGCGCGCCAAGCTGGAGGAGCAGGCCCAGCAGATACGCCTGCAGGCCGAGGCCTTCCAGGCCCGCCTCAAGAG
CTGGTTCGAGCCCCTGGTGGAAGACATGCAGCGCCAGTGGGCCGGGCTGGTGGAGAAGGTGCAGGCTGCCGTGGG
CACCAGCGCCGCCCCTGTGCCCAGCGACAATCAC**TGA**ACGCCGAAGCCTGCAGCCATGCGACCCCACGCCACCCC
GTGCCTCCTGCCTCCGCGCAGCCTGCAGCGGGAGACCCTGTCCCCGCCCCAGCCGTCCTCCTGGGGTGGACCCTA
GTTTAATAAAGATTCACCAAGTTTCACGC

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FIGURE 3837

GGCGGCGGCAGCGGGTTCGGTTGCGCGTGGCGCACGGGGTGGGAGCGGAGCCCAGGCCGGGAGCAGGCGCCGCCG
CCAGCGACC**ATG**GGGAACGTGTTGGCTGCCAGCTCGCCGCCCGCAGGGCCGCCACCGCCGCCTGCGCCGGCCCTC
GTGGGGCTGCCGCCACCTCCGCCCTCGCCGCCGGGCTTCACGCTGCCGCCGCTGGGAGGCAGCCTGGGCGCCGGC
ACCAGTACGAGTCGAAGTTCGGAACGGACCCCCGGGGCTGCAACCGCCAGCGCCTCAGGGGCCGCCGAGGATGGG
GCCTGCGGCTGCCTGCCCAACCCGGGCACATTCGAGGAGTGCCACCGGAAGTGCAAGGAGCTGTTTCCCATTCAG
ATGGAGGGTGTCAAGCTCACAGTCAACAAAGGGTTGAGTAACCATTTTCAGGTCAACCACACAGTAGCCCTCAGC
ACAATCGGGGAGTCCAACTACCACTTCGGGGTCACATATGTGGGGACAAAGCAGCTGAGTCCCACAGAGGCGTTC
CCTGTACTGGTGGGTGACATGGACAACAGTGGCAGTCTCAACGCTCAGGTCATTCACCAGCTGGGCCCCGGTCTC
AGGTCCAAGATGGCCATCCAGACCCAGCAGTCGAAGTTTGTGAACTGGCAGGTGGACGGGGAGTATCGGGGCTCT
GACTTCACAGCAGCCGTCACCCTGGGGAACCCAGACGTCCTCGTGGGTTCAGGAATCCTCGTAGCCCACTACCTC
CAGAGCATCACGCCTTGCCTGGCCCTGGGTGGAGAGCTGGTCTACCACCGGCGGCCTGGAGAGGAGGGCACTGTC
ATGTCTCTAGCTGGGAAATACACATTGAACAACTGGTTGGCAACGGTAACGTTGGGCCAGGCGGGCATGCACGCA
ACATACTACCACAAAGCCAGTGACCAGCTGCAGGTGGGTGTGGAGTTTGAGGCCAGCACAAGGATGCAGGACACC
AGCGTCTCCTTCGGGTACCAGCTGGACCTGCCCAAGGCCAACCTCCTCTTCAAAGGCTCTGTGGATAGCAACTGG
ATCGTGGGTGCCACGCTGGAGAAGAAGCTCCCACCCCTGCCCCTGACACTGGCCCTTGGGGCCTTCCTGAATCAC
CGCAAGAACAAGTTTCAGTGTGGCTTTGGCCTCACCATCGGC**TGA**GCCCTCCTGGCCCCCGCCTTCCACGCCCTT
CCGATTCCACCTCCACCTCCACCTCCCCCTGCCACAGAGGGGAGACCTGAGCCCCCCTCCCTTCCCTCCCCCCTT
GGGGGTCGGGGGGGGACATTGGAAAGGAGGGACCCCGCCACCCCAGCAGCTGAGGAGGGGATTCTGGAACTGAATG
GCGCTTCGGGATTCTGAGTAGCAGGGGCAGCATGCCCAGTGGGCCTGGGGTCCCGGGAGGGATTCCGGAATTGAG
GGGCACGCAGGATTCTGAGCACCAGGGGCAGAGGCGGCCAGACAACCTCAGGGAGGAGTGTCCTGGCGTCCCCAT
CCTCCAAAGGGCCTGGGCCCGCCCCGAGGGGGCAGCGAGAGGAGCTTCCCCATCCCCGGTCAGTCCACCCTGCCC
CGTCCACTTTCCCATCTCCTCGGTATAAATCATGTTTATAAGTTATGGAAGAACCGGGACATTTTACAGAAAAAA
AACAAAAAACAACAAAAAATATACGTGGG

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FIGURE 3838

GAGCAGAACAGGGAGGCTAGAGCGCAGCGGGAACCGGCCCGGAGCCGGAGCCGGAGCCCCACAGGCACCTACTAA
ACCGCCCAGCCGATCGGCCCCCACAGAGTGGCCCGCGGGCCTCCGGCCGGGCCCAGTCCCCTCCCGGGCCCTCCA
TGGCCCGGGCCGCTGCCCTCCTGCCGTCGAGATCGCCGCCGACGCCGCTGCTGTGGCCGCTGCTGCTGCTGCTGC
TCCTGGAAACCGGAGCCCAGGATGTGCGAGTTCAAGTGCTACCCGAGGTGCGAGGCCAGCTCGGGGGCACCGTGG
AGCTGCCGTGCCACCTGCTGCCACCTGTTCCTGGACTGTACATCTCCCTGGTGACCTGGCAGCGCCCAGATGCAC
CTGCGAACCACCAGAATGTGGCCGCCTTCCACCCTAAGATGGGTCCCAGCTTCCCCAGCCCGAAGCCTGGCAGCG
AGCGGCTGTCCTTCGTCTCTGCCAAGCAGAGCACTGGGCAAGACACAGAGGCAGAGCTCCAGGACGCCACGCTGG
CCCTCCACGGGCTCACGGTGGAGGACGAGGGCAACTACACTTGCGAGTTTGCCACCTTCCCCAAGGGGTCCGTCC
GAGGGATGACCTGGCTCAGAGTCATAGCCAAGCCCAAGAACCAAGCTGAGGCCCAGAAGGTCACGTTCAGCCAGG
ACCCTACGACAGTGGCCCTCTGCATCTCCAAAGAGGGCCGCCCACCTGCCCGGATCTCCTGGCTCTCATCCCTGG
ACTGGGAAGCCAAAGAGACTCAGGTGTCAGGGACCCTGGCCGGAACTGTCACTGTCACCAGCCGCTTCACCTTGG
TGCCCTCGGGCCGAGCAGATGGTGTCACGGTCACCTGCAAAGTGGAGCATGAGAGCTTCGAGGAACCAGCCCTGA
TACCTGTGACCCTCTCTGTACGCTACCCTCCTGAAGTGTCCATCTCCGGCTATGATGACAACTGGTACCTCGGCC
GTACTGATGCCACCCTGAGCTGTGACGTCCGCAGCAACCCAGAGCCCACGGGCTATGACTGGAGCACGACCTCAG
GCACCTTCCCGACCTCCGCAGTGGCCCAGGGCTCCCAGCTGGTCATCCACGCAGTGGACAGTCTGTTCAATACCA
CCTTCGTCTGCACAGTCACCAATGCCGTGGGCATGGGCCGCGCTGAGCAGGTCATCTTTGTCCGAGAAACCCCCA
GGGCCTCGCCCCGAGATGTGGGCCCGCTGGTGTGGGGGGCCGTGGGGGGGACACTGCTGGTGCTGCTGCTTCTGG
CTGGGGGGTCCTTGGCCTTCATCCTGCTGAGGGTGAGGAGGAGGAGGAAGAGCCCTGGAGGAGCAGGAGGAGGAG
CCAGTGGCGACGGGGGATTCTACGATCCGAAAGCTCAGGTGTTGGGAAATGGGGACCCCGTCTTCTGGACACCAG
TAGTCCCTGGTCCCATGGAACCAGATGGCAAGGATGAGGAGGAGGAGGAGGAGGAAGAGAAGGCAGAGAAAGGCC
TCATGTTGCCTCCACCCCCAGCACTCGAGGATGACATGGAGTCCCAGCTGGACGGCTCCCTCATCTCACGGCGGG
CAGTTTATGTGTGACCTGGACACAGACAGAGACAGAGCCAGGCCCGGCCCTCCCGCCCCCGACCTGACCACGCCG
GCCTAGGGTTCCAGACTGGTTGGACTTGTTCGTCTGGACGACACTGGAGTGGAACACTGCCTCCCACTTTCTTGG
GACTTGGAGGGAGGTGGAACAGCACACTGGACTTCTCCCGTCTCTAGGGCTGCATGGGGAGCCCGGGGAGCTGAG
TAGTGGGGATCCAGAGAGGACCCCCGCCCCCAGAGACTTGGTTTTGGCTCCAGCCTTCCCCTGGCCCCGTGACAC
TCAGGAGTTAATAAATGCCTTGGAGGAAAAC

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FIGURE 3839

AGTCTCCGCCGCCGCCGTGAACATGGAGCCCCCGGACGCACCGGCCCAGGCGCGCGGGGCCCCGCGGCTGCTGTT
GCTCGCAGTCCTGCTGGCGGCGCACCCAGATGCCCAGGCGGAGGTGCGCTTGTCTGTACCCCCGCTGGTGGAGGT
GATGCGAGGAAAGTCTGTCATTCTGGACTGCACCCCTACGGGAACCCACGACCATTATATGCTGGAATGGTTCCT
TACCGACCGCTCGGGAGCTCGCCCCCGCCTAGCCTCGGCTGAGATGCAGGGCTCTGAGCTCCAGGTCACAATGCA
CGACACCCGGGGCCGCAGTCCCCCATACCAGCTGGACTCCCAGGGGCGCCTGGTGCTGGCTGAGGCCCAGGTGGG
CGACGAGCGAGACTACGTGTGCGTGGTGAGGGCAGGGGCGGCAGGCACTGCTGAGGCCACTGCGCGGCTCAACGT
GTTTGCAAAGCCAGAGGCCACTGAGGTCTCCCCCAACAAAGGGACACTGTCTGTGATGGAGGACTCTGCCCAGGA
GATCGCCACCTGCAACAGCCGGAACGGGAACCCGGCCCCCAAGATCACGTGGTATCGCAACGGGCAGCGCCTGGA
GGTGCCCGTAGAGATGAACCCAGAGGGCTACATGACCAGCCGCACGGTCCGGGAGGCCTCGGGCCTGCTCTCCCT
CACCAGCACCCTCTACCTGCGGCTCCGCAAGGATGACCGAGACGCCAGCTTCCACTGCGCCGCCCACTACAGCCT
GCCCGAGGGCCGCCACGGCCGCCTGGACAGCCCCACCTTCCACCTCACCCTGCACTATCCCACGGAGCACGTGCA
GTTCTGGGTGGGCAGCCCGTCCACCCCAGCAGGCTGGGTACGCGAGGGTGACACTGTCCAGCTGCTCTGCCGGGG
GGACGGCAGCCCCAGCCCGGAGTATACGCTTTTCCGCCTTCAGGATGAGCAGGAGGAAGTGCTGAATGTGAATCT
CGAGGGGAACTTGACCCTGGAGGGAGTGACCCGGGGCCAGAGCGGGACCTATGGCTGCAGAGTGGAGGATTACGA
CGCGGCAGATGACGTGCAGCTCTCCAAGACGCTGGAGCTGCGCGTGGCCTATCTGGACCCCCTGGAGCTCAGCGA
GGGGAAGGTGCTTTCCTTACCTCTAAACAGCAGTGCAGTCGTGAACTGCTCCGTGCACGGCCTGCCCACCCCTGC
CCTACGCTGGACCAAGGACTCCACTCCCCTGGGCGATGGCCCCATGCTGTCGCTCAGTTCTATCACCTTCGATTC
CAATGGCACCTACGTATGTGAGGCCTCCCTGCCCACAGTCCCGGTCCTCAGCCGCACCCAGAACTTCACGCTGCT
GGTCCAAGGCTCGCCAGAGCTAAAGACAGCGGAAATAGAGCCCAAGGCAGATGGCAGCTGGAGGGAAGGAGACGA
AGTCACACTCATCTGCTCTGCCCGCGGCCATCCAGACCCCAAACTCAGCTGGAGCCAATTGGGGGGCAGCCCCGC
AGAGCCAATCCCCGGACGGCAGGGTTGGGTGAGCAGCTCTCTGACCCTGAAAGTGACCAGCGCCCTGAGCCGCGA
TGGCATCTCCTGTGAAGCCTCCAACCCCCACGGGAACAAGCGCCATGTCTTCCACTTCGGCACCGGTGACCCCCA
GACCTCCCAGGCTGGAGTGGCCGTCATGGCCGTGGCCGTCAGCGTGGGCCTCCTGCTCCTCGTCGTTGCTGTCTT
CTACTGCGTGAGACGCAAAGGGGGCCCCTGCTGCCGCCAGCGGCGGGAGAAGGGGGCTCCGCCGCCAGGGGAGCC
AGGGCTGAGCCACTCGGGGTCGGAGCAACCAGAGCAGACCGGCCTTCTCATGGGAGGTGCCTCCGGAGGAGCCAG
GGGTGGCAGCGGGGGCTTCGGAGACGAGTGCTGAGCCAAGAACCTCCTAGAGGCTGTCCCTGGACCTGGAGCTGC
AGGCATCAGAGAACCAGCCCTGCTCACGCCATGCCCGCCCCCGCCTTCCCTCTTCCCTCTTCCCTCTCCCTGCCC
AGCCCTCCCTTCCTTCCTCTGCCGGCAAGGCAGGGACCCACAGTGGCTGCCTGCCTCCGGGAGGGAAGGAGAGGG
AGGGTGGGTGGGTGGGAGGGGGCCTTCCTCCAGGGAATGTGACTCTCCCAGGCCCCAGAATAGCTCCTGGACCCA
AGCCCAAGGCCCAGCCTGGGACAAGGCTCCGAGGGTCGGCTGGCCGGAGCTATTTTTACCTCCCGCCTCCCCTGC
TGGTCCCCCCACCTGACGTCTTGCTGCAGAGTCTGACACTGGATTCCCCCCCCTCACCCCGCCCCTGGTCCCACT
CCTGCCCCCGCCCTACCTCCGCCCCACCCCATCATCTGTGGACACTGGAGTCTGGAATAAATGCTGTTTGTCACA
TC

FIGURE 3840

ACTCTGGGCGAGGCCGCCCCTATCCCAGCCGCACCGGTCCTTCCCGGCACACGCGAGGCTCCC**ATG**GCTCTGGCG
GTGGCCCCGTGGGGGCGACAGTGGGAAGAGGCCCGCGCCCTGGGCCGGGCAGTCAGGATGCTGCAGCGCCTAGAA
GAGCAATGCGTCGACCCCCGGCTGTCCGTGAGTCCCCCTTCGCTGCGGGACCTGCTGCCCCGCACAGCGCAGCTG
CTTCGAGAGGTGGCCCATTCTCGGCGGGCGGCCGGCGGAGGCGGCCCCGGGGGTCCCGGCGGCTCTGGGGACTTT
CTACTCATCTACCTGGCCAATCTGGAGGCCAAGAGCAGGCAGGTGGCCGCGCTGCTGCCTCCCCGGGGCCGAAGG
AGTGCCAACGACGAGCTCTTCCGGGCGGGCTCCAGACTCAGGCGACAGCTGGCCAAGCTGGCCATCATCTTCAGC
CACATGCACGCAGAGCTGCACGCACTCTTCCCCGGGGGAAAGTACTGTGGACACATGTACCAGCTCACCAAGGCC
CCCGCCCACACCTTCTGGAGGGAAAGTTGCGGAGCCCGGTGTGTGCTGCCCTGGGCTGAGTTTGAGTCCCTCCTG
GGCACCTGCCACCCTGTGGAACCAGGCTGCACAGCCCTGGCCTTGCGCACCACCATTGACCTCACCTGCAGCGGG
CACGTGTCCATCTTCGAGTTCGACGTCTTCACCAGGCTCTTTCAGCCATGGCCAACACTCCTCAAGAACTGGCAG
CTCCTGGCAGTCAACCACCCAGGCTACATGGCCTTCCTCACCTATGATGAGGTCCAAGAGCGTCTGCAGGCCTGC
AGGGACAAGCCAGGCAGTTACATCTTCCGGCCCAGCTGTACTCGCCTGGGGCAGTGGGCCATCGGCTATGTGAGC
TCAGATGGCAGCATCCTGCAGACCATCCCTGCCAACAAACCCCTGTCCCAGGTGCTCCTGGAGGGACAGAAGGAC
GGCTTCTACCTCTACCCAGATGGAAAGACCCACAACCCAGACCTGACTGAGCTCGGCCAGGCAGAACCCCAGCAG
CGCATCCACGTGTCAGAGGAGCAGCTGCAGCTCTACTGGGCCATGGACTCCACATTTGAGCTCTGCAAGATCTGT
GCTGAGAGCAACAAGGATGTGAAGATTGAGCCGTGCGGGCACCTGCTCTGCAGCTGCTGCCTGGCTGCCTGGCAG
CACTCGGACAGCCAGACCTGCCCCTTCTGCCGCTGCGAGATCAAGGGCTGGGAGGCCGTGAGTATCTACCAGTTC
CACGGTCAGGCTACTGCTGAGGACTCAGGGAACAGCAGTGACCAGGAAGGCAGGGAGTTGGAGCTGGGGCAGGTG
CCCCTTTCGGCTCCTCCATTGCCCCCACGGCCAGATCTGCCCCCCAGGAAGCCCAGAAATGCCCAGCCGAAAGTG
AGACTCCTAAAGGGGAACTCCCCTCCAGCTGCGCTGGGACCCCAGGACCCTGCCCCGGCC**TGA**AGGCCAGGGCAC
CCAGATGTGCTGCTCAAGGGAGCCCCAAGGGCTGGAAGGGGGTTGTGAAACCGAAATAAACTGCCAAGCCTGGTC
TGTCCTCCA

FIGURE 3841

GCCCCGTATGCCCCGCGGGCGCATGTGACGAGGGGCCCGTGGACTGCGCACCCGGCCCAAGGCCACTGGACTCCC
GGGCGCCGCGCTGCCGCTCCGCAAGCGCCCGCTGCGCCGCCCTTCCCCGGAGCCCGCCGCTCCCCGCGGGCGCTG
CGGGCCTTGTCGTCCCCCTGGACCCTCTGCGCGGCGGCTGCGACCTGCCGGCGGTCCCCGGGCCCCCCCACGGCC
TGGCCCGCCGGAGGCGCTTTACTACCCCGGAGCCTTACTGCCTTTGTACCCCACTCGGGCC**ATG**GGCTCCCCGTT
TCCTCTGGTGAACCTGCCTACACCCCTATACCCCATGATGTGCCCCATGGAACACCCCCTTTCTGCTGACATCGC
CATGGCCACCCGTGCAGATGAGGACGGAGACACGCCTCTCCATATTGCTGTGGTGCAGGGTAACCTGCCAGCTGT
GCACCGGCTGGTCAACCTCTTCCAGCAGGGGGGCCGGGAGCTCGACATCTACAACAACCTACGGCAGACACCGCT
CCACCTGGCTGTGATCACCACATTACCGTCTGTGGTCCGGCTCCTGGTGACAGCTGGTGCCAGCCCCATGGCGCT
GGACCGCCATGGCCAGACGGCCGCTCACCTGGCGTGCGAGCACCGCAGCCCGACCTGCCTGCGAGCCCTGCTGGA
CAGCGCAGCTCCGGGCACGTTGGACCTGGAGGCCCGCAATTATGACGGGCTCACCGCCCTGCACGTGGCAGTGAA
CACCGAGTGCCAAGAAACCGTGCAGCTCTTGCTAGAGCGCGGTGCCGACATCGACGCAGTGGACATTAAGAGCGG
CCGCTCCCCGCTCATCCACGCCGTGGAAAACAACAGCCTTAGCATGGTGCAGCTGCTGCTGCAGCACGGCGCCAA
CGTGAACGCGCAAATGTACTCCGGCAGCTCCGCCCTGCACTCAGCGTCCGGCCGCCGGCTCCTCCCGCTGGTGCG
CACGCTGGTCCGCAGCGGCGCTGACAGCAGCCTCAAGAACTGCCACAACGACACGCCGCTCATGGTGGCGCGCAG
CCGCAGGGTCATCGACATCCTGAGGGGGAAGGCCACCCGGCCTGCTTCCACCTCCCAGCCAGACCCCTCCCCTGA
CCGGAGCGCCAACACCTCCCCCGAGAGCAGCAGCCGCCTCAGCTCCAATGGTCTTCTCTCCGCATCACCATCCTC
CTCACCCTCCCAGTCTCCCCCCAGGGACCCCCCTGGATTCCCCATGGCTCCTCCCAATTTCTTCCTTCCTTCCCC
ATCTCCACCCGCCTTCCTGCCCTTTGCTGGGGTCCTCCGAGGCCCTGGCCGGCCGGTGCCCCCCTCCCCAGCTCC
AGGAGGCAGC**TGA**GGGGGATGGGGGGGCAGATCTTGGACTCATGAGGAGGGGCCCCCCTGCCCTGTGGGGTCAAC
CCTTCTGGAAACTGTGAAGATCTCACTCTGCCCCCCCCCATCTTCGGGACCAGGATTTGCACAGAAGCACATGCA
CCTACCCATACACCCCCTCTTCTGAGCACAGATGTTCCCCCATCTCGCTCCCTCCCAGGACTCTGACCCCAGCAT
TCTCAGGCACCAGTCCCTGTCCGGAATGCCACCCACATCTTCCATTTCCATGTCCCCTCCCAGAGCTGGTGGACC
CAGGGAACAGCCACTCCCCTCCACTCTCTACCAGATAACTGAGGAGGGGAGAGGTGGGCCGTAACGGGCACGGAT
CACGATGTAAATTATTAAGCATTTTGGTTGGATTTCTTTTGTAATAAACTATTTTTGTACCAT

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FIGURE 3842

GCCAACTCCCCTCCGCTCCAGTCACTTGTCTGGAGCTTGAAGAAGTGGGTATTCCCCTTCCCACCCCAGGCACTG
GAGGAGCGGCCCCCCGGGGATTCCAGGACCTGAGCTCCGGGAGCTGGACTCGCAGCGACCGCGGCAGAGCGAGCG
GGCGCCGGGAAGCGAGGAGACGCCCGCGGGAGGCCCAGCTGCTCGGAGCAACTGGC**ATG**GCCCGAGCCATGGCCG
CCGCGTGGCCGCTGCTGCTGGTGGCGCTACTGGTGCTGTCCTGGCCACCCCCAGGAACCGGGGACGTCGTCGTGC
AGGCGCCCACCCAGGTGCCCGGCTTCTTGGGCGACTCCGTGACGCTGCCCTGCTACCTACAGGTGCCCAACATGG
AGGTGACGCATGTGTCACAGCTGACTTGGGCGCGGCATGGTGAATCTGGCAGCATGGCCGTCTTCCACCAAACGC
AGGGCCCCAGCTATTCGGAGTCCAAACGGCTGGAATTCGTGGCAGCCAGACTGGGCGCGGAGCTGCGGAATGCCT
CGCTGAGGATGTTCGGGTTGCGCGTAGAGGATGAAGGCAACTACACCTGCCTGTTCGTCACGTTCCCGCAGGGCA
GCAGGAGCGTGGATATCTGGCTCCGAGTGCTTGCCAAGCCCCAGAACACAGCTGAGGTTCAGAAGGTCCAGCTCA
CTGGAGAGCCAGTGCCCATGGCCCGCTGCGTCTCCACAGGGGGTCGCCCGCCAGCCCAAATCACCTGGCACTCAG
ACCTGGGCGGGATGCCCAATACGAGCCAGGTGCCAGGGTTCCTGTCTGGCACAGTCACTGTCACCAGCCTCTGGA
TATTGGTGCCCTCAAGCCAGGTGGACGGCAAGAATGTGACCTGCAAGGTGGAGCACGAGAGCTTTGAGAAGCCTC
AGCTGCTGACTGTGAACCTCACCGTGTACTACCCCCCAGAGGTATCCATCTCTGGCTATGATAACAACTGGTACC
TTGGCCAGAATGAGGCCACCCTGACCTGCGATGCTCGCAGCAACCCAGAGCCCACAGGCTATAATTGGAGCACGA
CCATGGGTCCCCTGCCACCCTTTGCTGTGGCCCAGGGCGCCCAGCTCCTGATCCGTCCTGTGGACAAACCAATCA
ACACAACTTTAATCTGCAACGTCACCAATGCCCTAGGAGCTCGCCAGGCAGAACTGACCGTCCAGGTCAAAGAGG
GACCTCCCAGTGAGCACTCAGGCATATCCCGTAACGCCATCATCTTCCTGGTTCTGGGAATCCTGGTTTTTCTGA
TCCTGCTGGGGATCGGGATTTATTTCTATTGGTCCAAATGTTCCCGTGAGGTCCTTTGGCACTGTCATCTGTGTC
CCTCGAGTACAGAGCATGCCAGCGCCTCAGCTAATGGGCATGTCTCCTATTCAGCTGTGAGCAGAGAGAACAGCT
CTTCCCAGGATCCACAGACAGAGGGCACAAGG**TGA**CAGCGTCGGGACTGAGAGGGGAGAGAGACTGGAGCTGGCA
AGGACGTGGGCCTCCAGAGTTGGACCCGACCCCAATGGATGAAGACCCCCTCCAAAGAGACCAGCCTCCCTCCCT
GTGCCAGACCTCAAAACGACGGGGGCAGGTGCAAGTTCATAGGTCTCCAAGACCACCCTCCTTTCATTTGCTAGA
AGGACTCACTAGACTCAGGAAAGCTGTTAGGCTCACAGTTACAGTTTATTACAGTAAAAGGACAGAGATTAAGAT
CAGCAAAGGGAGGAGGTGCACAGCACACGTTCCACGACAGATGAGGCGACGGCTTCCATCTGCCCTCTCCCAGTG
GAGCCATATAGGCAGCACCTGATTCTCACAGCAACATGTGACAACATGCAAGAAGTACTGCCAATACTGCCAACC
AGAGCAGCTCACTCGAGATCTTTGTGTCCAGAGTTTTTTGTTTGTCTTGAGACAGGGTCTGGCTCTGTTGGCAGA
CTAGAGTACAGTGGTGAGATCACAGTTCATTGCAGCCTTGACTTCTCAACGCCAAGTCATCCTCCCACCTCAGCC
TCCTGAGTAGCTATGACTACAGGTATGTGCCACCACGTCTGGCTAATCTTTTTATTATTTGTAAAGTCGAGGTTT
CCCTGTGTTGCCCAGGCTGGTCTTGAACTCTTGGCTCCAAGTGATACTTCTGCCTTGGCCTCCCAAAGTGCTGAA
TTAAGCAGCTCACCATCCACACGGCTGACCTCATACATCAAGCCAATACCGTGTGGCCCAAGACCCCCACCATAA
ATCACATCATTAGCATGAACCACCCAGAGTGGCCCAAGACTCCCAGATCAGCTACCAGGCAGGATATTCCAAGGG
CTTAGAGATGAATGCCCAGGAGCTGAGGATAAAGGGCCCGATCTTTCTTTGGGCAAGGTTAAGCCTTTACTGCAT
AGCAGACCACACAGAAGGGTGTGGGCCACCAGAGAATTTTGGTAAAAATTTGGCCTCTGGCCTTGAGCTTCTAAA
TCTCTGTATCCGTCAGATCTCTGTGGTTACAAGAAACAGCCACTGACCCTGGTCACCAGAGGCTGCAATTCAGGC
CGCAAGCAGCTGCCTGGGGGGTGTCCAAGGAGCAGAGAAAACTACTAGATGTGAACTTGAAGAAGGTTGTCAGCT
GCAGCCACTTTCTGCCAGCATCTGCAGCCACTTTCTGCCAGCATCTGCAGCCAGCAAGCTGGGACTGGCAGGAAA
TAACCCACAAAAGAAGCAAATGCAATTTCCAACACAAGGGGGAAGGGATGCAGGGGGAGGCAGCGCTGCAGTTGC
TCAGGACACGCTCCTATAGGACCAAGATGGATGCGACCCAAGACCCAGGAGGCCCAGCTGCTCAGTGCAACTGAC
AAGTTAAAAAGGTCTATGATCTTGAGGGCAGACAGCAGAATTCCTCTTATAAAGAAAACTGTTTGGGAAAATACG
TTGAGGGAGAGAAGACCTTGGGCCAAGATGCTAAATGGGAATGCAAAGCTTGAGCTGCTCTGCAAGAGAAAATAA
GCAGGACAGAGGATTTGCTCTGGACAGAGATGGAAGAGCCGGGAACAGAGAAGTGTGGGGAAGAGATAGGAACCA
GCAGGATGGCAGGGGCAAAGGGCTCAAGGGTGAGGAGGCCAGTGGGACCCCACAGAGTTGGGGAGATAAAGGAAC
ATTGGTTGCTTTGGTGGCACGTAAGCTCCTTGTCTGTCTCCAGCACCCAGAATCTCATTAAAGCTTATTTATTGT
ACCTCC

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FIGURE 3843

GGGCAAAGGTGCATGGGAGAAGACCCGGCTGGCCCTGGAGGCCGAGGTGTCCGAGCTGCGGGCAGAACTGAGCAG
CCTGCAGACTGCACGTCAGGAGGGTGAGCAGCGGAGGCGCCGCCTGGAGTTACAGCTGCAGGAGGTGCAGGGCCG
GGCTGGTGATGGGGAGAGGGCACGAGCGGAGGCTGCTGAGAAGCTGCAGCGAGCCCAGGCTGAACTGGAGAATGT
GTCTGGGGCGCTGAACGAGGCTGAGTCCAAAACCATCCGTCTTAGCAAGGAGCTGAGCAGCACAGAAGCCCAGCT
GCACGATGCCCAGGAGCTGCTGCAGGAGGAGACCAGGGCGAAATTGGCCTTGGGGTCCCGGGTGCGAGCC**ATG**GA
GGCTGAGGCAGCCGGGCTGCGTGAGCAGCTGGAGGAGGAGGCAGCTGCCAGGGAACGGGCGGGCCGTGAACTGCA
GACTGCCCAGGCCCAGCTTTCCGAGTGGCGGCGGCGCCAGGAGGAGGAGGCAGGGGCACTGGAGGCAGGGGAGGA
GGCACGGCGCCGGGCAGCCCGGGAGGCCGAGGCCCTGACCCAGCGCCTGGCAGAAAAGACAGAGACCGTGGATCG
GCTGGAGCGGGGCCGCCGCCGGCTGCAGCAGGAGCTGGACGACGCCACCCTGTCCCCAGATGCACTAACAGATGG
GGCCCAGCCCCCTTCCTCCCTGGACCCCACGGGCCCCTGTCCCAGGAACCCCGCCCTC**TGA**CTTCTTGCCCTTTG
GAAATGGTGCAGCACTCTGGCATTTATCACCCCCACCTGGGTCCCCTGCAACCTCCCATCAAAGGATGACCCCTA
AACACAGAGGAGCGGGGCAGGCAGGGAGGCAAGGACTGGAGCTACCTTGCTTGTTGGGGGACTGGGTACAGTTGG
CAAGCTGTGTTTCCATCAGCTCCCTGTCCTCCTTTCTTCCCTCGTTATTGATCTATAGACATTAGGAAGGGAGTG
AGACGGCTCCTCCACCATCCTCAGCCAGTGCAACCCATTCCCTCTGCTTCTCTCTCTCTCTCTCTCCCTCC
CTCTCCTTCCCTACCCTCTCACCATCTTTCTTGGCCTCTCTGAGGGTCTCTCTGTGCATCTTTTTAGGAATCTCG
CTCTCACTCTCTACGTAGCCACTCTCCTTCCCCCATTTCTGCGTCCACCCCTGAACTCCTGAGCGACAGAAGCCC
CAGGCCTCCACCAGCCTTGAACCCTTGCAAAGGGGCAGGACAAGGGGACCCCTCTCACTCCTGCTGCTGCCCATG
CTCTGCCCTCCCTTCTGGTTGCTCTGAGGGTTCGGAGCTTCCCTCTGGGACTAAAGGAGTGTCCTTTACCCTCCC
AGCCTCCAGGCTCTGGCAGAAATAAACTCCAACCCGACTGG

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FIGURE 3844

CCGAGGGTCAGGCTGCAGAAGCCCAGAATCCCACCCCAGTCCCCAAGTACAGAGGTCGCTGTCAAGATGGAGTTT
CCAACCCAGTAAATCCAAGGGCCAGACCGTGACCTCATAAAGCATGATCTCCTTCTGTCCAGACTGTGGCAAAAG
TATCCAAGCGGCATTCAAATTCTGCCCCTACTGTGGAAATTCTTTGCCTGTAGAGGAGCATGTAGGGTCCCAGAC
CTTTGTCAATCCACATGTGTCATCCTTCCAAGGCTCAAAGAGAGGGCTGAACTCCAGTTTTGAAACCTCTCCTAA
GAAAGTGAAATGGTCCAGCACCGTCACCTCTCCCCGATTATCCCTCTTCTCAGATGGTGACAGTTCTGAGTCTGA
AGATACTCTGAGTTCCTCTGAGAGATCCAAAGGCTCCGGGAGCAGACCCCCAACCCCCAAAAGCAGCCCTCAGAA
GACCAGGAAGAGCCCTCAGGTGACCAGGGGTAGCCCTCAGAAGACCAGCTGTAGCCCTCAGAAGACCAGGCAGAG
CCCTCAGACGCTGAAGCGGAGCCGAGTGACCACCTCACTTGAAGCTTTGCCCACAGGGACAGTGCTGACAGACAA
GAGTGGGCGACAGTGGAAGCTGAAGTCCTTCCAGACCAGGGACAACCAGGGCATTCTCTATGAAGCTGCACCCAC
CTCCACCCTCACCTGTGACTCAGGACCACAGAAGCAAAAGTTCTCACTCAAACTGGATGCCAAGGATGGGCGCTT
GTTCAATGAGCAGAACTTCTTCCAGCGGGCCGCCAAGCCTCTGCAAGTCAACAAGTGGAAGAAGCTGTACTCGAC
CCCACTGCTGGCCATCCCTACCTGCATGGGTTTCGGTGTTCACCAGGACAAATACAGGTTCTTGGTGTTACCCAG
CCTGGGGAGGAGCCTTCAGTCGGCCCTGGATGTCAGCCCAAAGCATGTGCTGTCAGAGAGGTCTGTGCTGCAGGT
GGCCTGCCGGCTGCTGGATGCCCTGGAGTTCCTCCATGAGAATGAGTATGTTCATGGAAATGTGACAGCTGAAAA
TATCTTTGTGGATCCAGAGGACCAGAGTCAGGTGACTTTGGCAGGCTATGGCTTCGCCTTCCGCTATTGCCCAAG
TGGCAAACACGTGGCCTACGTGGAAGGCAGCAGGAGCCCTCACGAGGGGGACCTTGAGTTCATTAGCATGGACCT
GCACAAGGGATGCGGGCCCTCCCGCCGCAGCGACCTCCAGAGCCTGGGCTACTGCATGCTGAAGTGGCTCTACGG
GTTTCTGCCATGGACAAATTGCCTTCCCAACACTGAGGACATCATGAAGCAAAAACAGAAGTTTGTTGATAAGCC
GGGGCCCTTCGTGGGACCCTGCGGTCACTGGATCAGGCCCTCAGAGACCCTGCAGAAGTACCTGAAGGTGGTGAT
GGCCCTCACGTATGAGGAGAAGCCGCCCTACGCCATGCTGAGGAACAACCTAGAAGCTTTGCTGCAGGATCTGCG
TGTGTCTCCATATGACCCCATTGGCCTCCCGATGGTGCCCTAGGTGGAATCCAGAACTTTCCATTTGCAGTGTGC
AACAGAAAAAAAAAAAATGAAGTAATGTGACTCAAGGCCTGCTGTTTAATCACAGATAAGCTTCTAGAACAAGCCC
TGGAATGTGCATTCCTGCCACTGGTTTCAGGATACTCATCAGTCCTGATTAGCCTCCCGGAGGGCCCCAGTTTCC
CTCCCGTGAATGTGAAGTTCCCCATCTTGGTGGCCTGCCCTTCAGCCAGTGTCCTAGCAAAGCTGGATGGGGTTG
GGCCGGCCCACAGGGGGGACCCCTCCTACCCTTGACACCTCTGTGCTTTGGTAATAAATTGTTTTACCAGAG

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FIGURE 3845

TCATTCCCTGTCCTCGGATCACAGTCTCTTCTCACTACAGTGTCGCCGCCTCTGCCTGCGTAGCCCCGGCCATGG
CTCTGTAGCCTCGACCCCTTTGTGCCCCCGGCCCGTCTCCGCGCTCACCACGCCTGCGCTCTCCGCTCCCACCTT
CTTTCTTCAGCCGAGGCCGCCGCCGCCTCTCCTTGCTGCAGCCATGGAGTCTTCCACTTTCGCCTTGGTGCCTGT
CTTCGCCCACCTGAGCATCCTCCAGAGCCTCGTGCCAGCTGCTGGTGCAGCCTCTCCTGTTGCCATCAGTGCCCA
GCACCTGTGCTACAGCC**ATG**TCACTCCTGGCGACCCTGGGGCTGGAGCTGGACAGGGCCCTGCTCCCAGCTAGTG
GGCTGGGATGGCTCGTAGACTATGGGAAACTCCCCCCGGCCCCTGCCCCCCTGGCTCCCTATGAGGTCCTTGGGG
GAGCCCTGGAGGGCGGGCTTCCAGTGGGGGGAGAGCCCCTGGCAGGTGATGGCTTCTCTGACTGGATGACTGAGC
GAGTTGATTTCACAGCTCTCCTCCCTCTGGAGCCTCCCTTACCCCCCGGCACCCTCCCCCAACCTTCCCCAACCC
CACCTGACCTGGAAGCTATGGCCTCCCTCCTCAAGAAGGAGCTGGAACAGATGGAAGACTTCTTCCTAGATGCCC
CGCCCCTCCCACCACCCTCCCCGCCGCCACTACCACCACCACCACTACCACCAGCCCCCTCCCTCCCCCTGTCCC
TCCCCTCCTTTGACCTCCCCCAGCCCCCTGTCTTGGATACTCTGGACTTGCTGGCCATCTACTGCCGCAACGAGG
CCGGGCAGGAGGAAGTGGGGATGCCGCCTCTGCCCCCGCCACAGCAGCCCCCTCCTCCTTCTCCACCTCAACCTT
CTCGCCTGGCCCCCTACCCACATCCTGCCACCACCCGAGGGGACCGCAAGCAAAAGAAGAGAGACCAGAACAAGT
CGGCGGCTCTGAGGTACCGCCAGCGGAAGCGGGCAGAGGGTGAGGCCCTGGAGGGCGAGTGCCAGGGGCTGGAGG
CACGGAATCGCGAGCTGAAGGAACGGGCAGAGTCCGTGGAGCGCGAGATCCAGTACGTCAAGGACCTGCTCATCG
AGGTTTACAAGGCCCGGAGCCAGAGGACCCGTAGCTGC**TAG**AAGGGCAGGGGTGTGGCTTCTGGGGGCTGGTCTT
CAGCTCTGGCGCCTTCATCCCCCTGCCTCTACCTTCATTCCAAACCCCTCTCGGCCGGGTGCAGTGGCTTATGCT
TGTAATCCCAGCACTTTGGGAGGCCAAGGCAGGAGGATCGTTTGAGGCCAGGAGGTCAATACCAGCCTGGGCAAC
ATAGTAAGACCCTGTCTCTATTAAAAAAAAAAAATCAACCCTTCTTCCCCACCAAACCACCCAACTCCTCTCTAC
TCTTATCCTTTTATCCTCTGTCTCTGCTTATCACCTCTCTTGCGTATTTCTGGATCTCCTTCCCTCCTTTCTCGT
CCAAATCATGAAATGTTTGGCCTTAGTCAATGTCTATGCCCGTCACATAACAGCCGAGGCACCGAGGCCCACAGG
GAAGCAGCTGGGAGCTTGGAAACCTGGTCTCTTGAATTTCAAACCTGGTTTCTTACAGGTGGTTGTCTGGGGTGG
GTGGAGTGGCGACAGGATAGAGCTGAAGGACTATGCAAATGAGGAAGTAAGTCAGGGCGGGCTTTGAGAAGGGGA
CCCATATCCTACAGGCAAAAAGCAGGCTAGGTGACCTTGGGACACTACGCTAAGGGAGGGAGGCTAAAGGCGGCC
AGGTTTGCAGTGCGGGAAGATGAGCAGGCCAGTGGGAGGAGGGGCAGGGCAGGGCTGTAGTTGGTGACTGGGTGT
TCATTTTAGCTCTAAGAAAAAAAAATCAGTGTTTCGTGAAGGTGTTGGAGAGGGGCTGTGTCTGGGTGAGGGATGG
CGGGGTACTGATTTTTTTGGGAGGTTATGAGCAAAAATAAAACGAAACATTTCCTCTG

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FIGURE 3846

GCGACCGTGATTCCCCGCTCGCGACTCCCCACCCCCCAGGGCTCCCTAAAGAGGGCCACGAGCTGCGAAAGGGCG
GGAAAGGCAGTTGGAGAAGAGGTAAGCGGTTACTCACTCCATGGCTGCAGCAAGGAGAGGCGGCGGCGGCCTCGG
CTGAAGAAAGAAGGTGGGAGCGGAGAGCGCAGGCGTGAAACCCACCTTGTCCCATCCACATCAGGACATCCCAGC
TGGAGTTCAACCTTCATCCCTTCTGTGGCAGTTAGGAGACTGAATCAAGGTCCAGAGAAGGTGGAGGAATCCTGA
TACTGAGCGGAAGAAAATACACAGATGTGCTTCCTTCCCAGTCCTGACAAATGGCCTTTCCTTAAGTTCCTCATT
AATTCATATGAAGACAACACATTTGGTGACTAAATTTGGAATCAGAGGCTTTTAAAGCCTCCCAGCTGCTCTGAC
CCCAATATCAGGAACTTGGCATCTCTGATCTAACAAGGGCACCACTAACAAGGACAAAGCCACCATCATTCACCT
TGATTCCGCACATGCCCAACGATGACTTCTGTCCTGGGCTAACCATCAAGGCCATGGGTGCTGAGAGAGCCCCCC
AGAGGCAGCCATGCACCCTGCACCTCCTCGTCCTCGTCCCCATCCTCCTCAGCCTGGTGGCCTCCCAGGACTGGA
AGGCTGAACGCAGCCAAGACCCCTTCGAGAAATGCATGCAGGATCCTGACTATGAGCAGCTGCTCAAGGTGGTGA
CCTGGGGGCTCAATCGGACCCTGAAGCCCCAGAGGGTGATTGTGGTTGGCGCTGGTGTGGCCGGGCTGGTGGCCG
CCAAGGTGCTCAGCGATGCTGGACACAAGGTCACCATCCTGGAGGCAGATAACAGGATCGGGGGCCGCATCTTCA
CCTACCGGGACCAGAACACGGGCTGGATTGGGGAGCTGGGAGCCATGCGCATGCCCAGCTCTCACAGGATCCTCC
ACAAGCTCTGCCAGGGCCTGGGGCTCAACCTGACCAAGTTCACCCAGTACGACAAGAACACGTGGACGGAGGTGC
ACGAAGTGAAGCTGCGCAACTATGTGGTGGAGAAGGTGCCCGAGAAGCTGGGCTACGCCTTGCGTCCCCAGGAAA
AGGGCCACTCGCCCGAAGACATCTACCAGATGGCTCTCAACCAGGCCCTCAAAGACCTCAAGGCACTGGGCTGCA
GAAAGGCGATGAAGAAGTTTGAAAGGCACACGCTCTTGGAATATCTTCTCGGGGAGGGGAACCTGAGCCGGCCGG
CCGTGCAGCTTCTGGGAGACGTGATGTCCGAGGATGGCTTCTTCTATCTCAGCTTCGCCGAGGCCCTCCGCGCAN
CAGCTGCCTCAGCGACAGACTCCAGTACAGCCGCATCGTGGGTGGCTGGGACCTG**ATG**CCGCGCGCGCTGCTGAG
CTCGCTGTCCGGGCTTGTGCTGTTGAACGCGCCCGTGGTGGCGATGACCCAGGGACCGCACGATGTGCACGTGCA
GATCGAGACCTCTCCCCCGGCGCGGAATCTGAAGGTGCTGAAGGCCGACGTGGTGCTGCTGACGGCGAGCGGACC
GGCGGTGAAGCGCATCACCTTCTCGCCGCCGCTGCCCCGCCACATGCAGGAGGCGCTGCGGAGGCTGCACTACGT
GCCGGCCACCAAGGTGTTCCTAAGCTTCCGCAGGCCCTTCTGGCGCGAGGAGCACATTGAAGGCGGCCACTCAAA
CACCGATCGCCCGTCGCGCATGATTTTCTACCCGCCGCCGCGCGAGGGCGCGCTGCTGCTGGCCTCGTACACGTG
GTCGGACGCGGCGGCAGCGTTCGCCGGCTTGAGCCGGGAAGAGGCGTTGCGCTTGGCGCTCGACGACGTGGCGGC
ATTGCACGGGCCTGTCGTGCGCCAGCTCTGGGACGGCACCGGCGTCGTCAAGCGTTGGGCGGAGGACCAGCACAG
CCAGGGTGGCTTTGTGGTACAGCCGCCGGCGCTCTGGCAAACCGAAAAGGATGACTGGACGGTCCCTTATGGCCG
CATCTACTTTGCCGGCGAGCACACCGCCTACCCGCACGGCTGGGTGGAGACGGCGGTCAAGTCGGCGCTGCGCGC
CGCCATCAAGATCAACAGCCGGAAGGGGCCTGCATCGGACACGGCCAGCCCCGAGGGGCACGCATCTGACATGGA
GGGGCAGGGGCATGTGCATGGGGTGGCCAGCAGCCCCTCGCATGACCTGGCAAAGGAAGAAGGCAGCCACCCTCC
AGTCCAAGGCCAGTTATCTCTCCAAAACACGACCCACACGAGGACCTCGCAT**TAA**AGTATTTTCGGAAA

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FIGURE 3847

GAAGAGGTAAGCGGTTACTCACTCCATGGCTGCAGCAAGGAGAGGCGGCGGCGGCCTCGGCTGAAGAAAGAAGAA
ATCTTCCCAAGGCTGCAGACACCGACGGATTTGCTTTGGGAGCCAGAGTAGCTGCCGCCACCAGAGTCCGGAGCC
ATGAGCGGGTTTAATTTTGGAGGCACTGGGGCCCCTACAGGCGGGTTCACGTTTGGCACTGCAAAGACGGCAACA
ACCACACCTGCTACAGGGTTTTCTTTCTCCACCTCTGGCACTGGAGGGTTTAATTTTGGGGCTCCCTTCCAACCA
GCCACAAGTACCCCTTCCACCGGCCTGTTCTCACTTGCCACCCAGACTCCGGCCACACAGACGACAGGCTTCACT
TTTGGAACAGCGACTCTTGCTTCGGGGGGAACTGGATTTTCTTTGGGGATCGGTGCTTCAAAGCTCAACTTGAGC
AACACAGCTGCCACCCCAGCCATGGCAAACCCCAGCGGCTTTGGGCTGGGCAGCAGCAACCTCACTAATGCCATA
TCGAGCACCGTCACCTCCAGCCAGGGCACAGCACCCACCGGCTTTGTGTTTGGCCCCTCCACCACCTCTGTGGCT
CCAGCTACCACATCTGGAGGCTTCTCATTCACTGGTGGAAGCACGGCCCAACCCTCCGGTTTCAACATTGGCTCA
GCAGGGAATTCAGCCCAGCCCACGGCACCTGCCACGTTGCCCTTCACTCCGGCCACGCCAGCAGCCACCACAGCA
GGTGCCACACAGCCAGCTGCTCCCACACCCACAGCCACCATCACCAGCACTGGGCCCAGCCTCTTTGCGTCAATA
GCAACTGCTCCAACCTCATCTGCCACCACTGGACTCTCCCTCTGTACCCCTGTGACCACAGCGGGCGCCCCCACT
GCTGGGACACAGGGCTTCAGCTTAAAGGCACCTGGAGCAGCTTCCGGCACCTCCACAACAACATCCACCGCTGCC
ACCGCCACCGCCACCACCACCAGCAGCAGCAGCACCACCGGCTTTGCCTTGAATTTAAAACCACTGGCGCCAGCC
GGGATCCCCAGCAATACAGCAGCTGCCGTGACCGCTCCACCTGGCCCTGGCGCAGCTGCAGGGGCGGCTGCCAGC
TCCGCCATGACCTACGCGCAGCTGGAGAGCCTGATCAACAAATGGAGCCTGGAGCTAGAGGACCAGGAGCGGCAC
TTCCTCCAGCAGGCCACCCAGGTCAACGCCTGGGACCGCACGCTGATCGAGAATGGAGAAAAGATCACCAGCCTG
CACCGCGAGGTGGAGAAGGTGAAGCTGGACCAGAAGAGGCTGGACCAGGAGCTCGACTTCATCCTGTCCCAGCAG
AAGGAGCTGGAAGACCTGCTGAGCCCACTGGAGGAGTTGGTCAAGGAGCAGAGCGGGACCATCTACCTGCAGCAC
GCGGATGAGGAGCGTGAGAAAACCTACAAGCTGGCTGAGAACATCGATGCACAGCTCAAGCGCATGGCCCAGGAT
CTCAAGGACATCATCGAGCACCTGAACACGTCCGGGGCCCCCGCCGACACCAGTGACCCACTGCAGCAGATCTGC
AAGATCCTCAATGCGCACATGGACTCACTGCAGTGGATCGACCAGAACTCGGCCCTGCTGCAGAGGAAGGTGGAG
GAGGTGACCAAGGTGTGCGAGGGCCGGCGCAAGGAGCAGGAGCGCAGCTTCCGGATCACCTTTGAC**TGA**GCGACA
GCAGCCCTGGGGCCCGCAGGTCCCTAGGGAGTTCATGAGGGGAATGCGCCCTGTTGTCTGTAGTTTGGGGTTGTG
GCAAGATACTTGTTTGTTTGTTTCTTTCTTTCACA

FIGURE 3848

GTGGAATAACCCCCTTCTGAAAAATGGTTTCACCCGCTCCGTCTCTAGAACGGGTCGGGCCGCTACCACTGTCCG
GCCCGGAGGGGAACTGTTTTCTCCGGAAGTGACAACACGCTGACTAGGAAAAGGAGGAGGCGGGGCAGTGGGGCC
TTCGGCGGCGACT**ATG**GAAGGAGCCGGCTACAGGGTGGTGTTTGAGAAGGGCGGAGTGTACCTGCACACCAGCGC
TAAGAAGTATCAGGACCGAGACTCTCTCATCGCTGGTGTCATCCGTGTCGTGGAAAAGGACAATGACGTCCTCCT
GCACTGGGCTCCTGTAGAGGAGGCTGGAGATTCCACCCAAATCCTCTTCTCCAAGAAGGACTCCAGTGGGGGTGA
CTCATGTGCTTCTGAGGAGGAACCAACCTTTGACCCCGGCTATGAACCTGACTGGGCTGTCATCAGCACTGTGCG
GCCACAGCCCTGCCACTCAGAGCCCACGAGAGGTGCAGAGCCCAGCTGCCCCCAGGGCTCCTGGGCCTTCTCAGT
GAGTCTGGGGGAGCTAAAGTCCATCCGCCGCTCCAAGCCAGGCCTCAGCTGGGCCTACCTGGTTCTGGTGACCCA
GGCTGGAGGTTCCCTGCCCGCACTGCACTTCCACCGCGGGGGCACCCGCGCCCTGCTCCGCGTCCTCAGCCGCTA
CCTGCTGTTGGCCAGCTCCCCGCAGGACTCCCGCCTCTACCTTGTCTTCCCCCACGACTCCTCTGCTCTCTCCAA
CTCCTTCCACCACCTGCAGCTCTTTGACCAGGACAGCTCCAATGTGGTGTCACGCTTCCTCCAGATCCCTACTCC
ACCAACTTCAGCAGCTTCTCCCGAG**TGA**CCAACTTCTTCCGGGGTGCCCTGCAGCCACAGCCTGAGGGAGCCGCC
TCCGACCTTCCCCCGCCACCCGACGATGAGCCCGAGCCTGGATTCGAGGTCATTTCCTGTGTGGAGCTGGGGCCT
CGGCCAACCGTGGAGCGGGGCCCTCCAGTTACAGAGGAGGAGTGGGCACGCCACGTGGGCCCTGAAGGTCGCCTG
CAGCAGGTCCCTGAGCTGAAGAACCGGATCTTCTCGGGGGGTCTGAGCCCCAGCCTGCGGCGCGAGGCCTGGAAG
TTCCTCCTAGGGTACCTCAGCTGGGAAGGCACAGCTGAGGAGCACAAGGCCCACATACGCAAGAAAACGGATGAG
TATTTCCGCATGAAGCTGCAGTGGAAATCTGTGAGCCCTGAGCAGGAGCGGAGAAACTCACTTCTGCATGGATAC
CGCAGCCTCATCG

FIGURE 3849

CCGGTCAGCTAAGGCCATGTTAATACGGGGCTGTCCCATCTCTCTGCGGGGCGCGACAGCTGGAAGAGCCGAACG
GATAAGAGAAGAGGAGAGCGCGGATGGCGTCGGGGCGCCCCGAGGAGCTATGCTGCCCATGGTCGAGGAGCCCTG
GCGGAGGCAGCGCGCCGTTGCCTCCACGACATCGCACTGGCCCACAGGGCTGCCACTGCTGCTCGGCCTCCTGCG
CCCCCACCAGCACCACAGCCACCCAGTCCCACACCCAGCCCACCCCGGCCTACCCTGGCCAGAGAGGACAACGAG
GAGGACGAGGATGAGCCCACAGAGACAGAGACCTCCGGGGAGCAGCTGGGCATTAGTGATAATGGAGGGCTCTTT
GTG**ATG**GATGAGGACGCCACCCTCCAGGACCTTCCCCCCTTCTGTGAGTCAGACCCCGAGAGTACAGATGATGGC
AGCCTGAGCGAGGAGACCCCCGCCGGCCCCCCCACCTGCTCAGTGCCCCCAGCCTCAGCCCTACCCACACAGCAG
TACGCCAAGTCCCTGCCTGTGTCTGTGCCCGTCTGGGGCTTCAAGGAGAAGAGGACAGAGGCGCGGTCATCAGAT
GAGGAGAATGGGCCGCCCTCTTCGCCCGACCTGGACCGCATCGCGGCGAGCATGCGCGCGCTGGTGCTGCGAGAG
GCCGAGGACACCCAGGTCTTCGGGGACCTGCCACGGCCGCGGCTTAACACCAGCGACTTCCAGAAGCTGAAGCGG
AAATAT**TGA**AGTCCAGGGAGGGAGCGCCCCGGGCCGCGTCCGCCCCGTCCCACACTACGCCCCCGCCCCACTCCC
GGGGCCTGCTAATCTGAGGCCGATCCGGGACCGGCCTCCTTGCGTCTCCCATTCCCAAGATTGTCCCGCCTCTGC
CAATCCCCGCCGTCCTTCCAGCCCACGACCTGCCGCGCCGAGGAGCGGCATCTGTCCCGTTTCCCGATTGGGTCT
GTCGTCTCTCTCCGCCTAGCGACAGATTCCTTCTATTAAGGGATTGGCTCGCTGAGTTCTAAGCTCTAAATGGGT
CAACTCCTTTGTTTTCCGCCTAGCGACAAGGGATTTGCTCGCACGGCATTGGCTCCATCCCCTAGTCGCTGGACA
GCTCTTTTTTTGATTGGCTCAAATCCTGTAAAGGGCTTGACCAGTCTCTACATAGTCACCGTCCGCTTTTCCTGA
GTTCTCCCTCCCAATTGGCTCCAGCTTCCTGGGGGCGTGGCCAAGCCCTCCTCTTCCCAGAATTGGCCCGGGGCC
TTCAATTTACGTTCTTTACACTACGGGGACTGGGGTCGTCTTTGCCCACGTCCCGACAACTTGTTCCCTGACCCC
CTCAGGGATGGCCCCAAACTGTCCCTGCCTCTGGCACCCCCTTTCATTGGTTCCATCCATCCCCACAACAGCCTG
CCAATCGAAGCCCGTCCCTGCATCCAGGATGGTACCAGCTCCCGCCCCTCGCCCCCCACCTCCACAGGTGCCTTA
AAGGGCCCTCGTCCACCCAAGGTGGGGGGCAGGGGCCCTCACTCTCCGGCCCTGGTGTGGGGGAGAGAGTGAGGG
GTTGGGGGATCGGCAGTTGGGAGGGGCGCTCTGAGATTAAAGAGTTTTACCTCTGAGAT

FIGURE 3850

GCCGGGTTGCAGGCGGGGCACCTCGGGCAGGACCTCCCTGGTCGGAAGTGGCCGTGAGCCCAAGCCGCGGTCCCG
GGCCGGCACCCAGGATGGGCGAGGTGGAGGCCCCGGGCCGCTTGTGGCTCGAGAGCCCCCTGGGGGAGCGCCCCC
CATCTTCCTGCCCTCGGACGGGCAAGCCCTGGTCCTGGGCAGGGGACCCCTGACCCAGGTTACGGACCGGAAGTG
CTCCAGAACTCAAGCCTGAAGCAGGCCACACTCCCCAGAAATGAGGGACCCAATCACACAAGG**ATG**CAAATCCTG
ACTCCACCCCTCCAATCCTCAGTGGAGCTGGTCGCAGATCCTGAGACCCGGACAGTGGCAGTGAAACAGCTGGGA
GTTAACCCCTCAACTACCGGGACCCAGGAGTTGAAGCCGGGGTTGGAGGGCTCTCTGGGGGTGGGGGACACACTG
TATTTGGTCAATGGCCTCCACCCACTGACCCTGCGCTGGGAAGAGACCCGCACACCAGAATCCCAGCCAGATACT
CCGCCTGGCACCCCTCTGGTGTCCCAAGATGAGAAGAGAGATGCTGAGCTGCCGAAGAAGCGTATGCGGAAGTCA
AACCCCGGCTGGGAGAACTTGGAGAAGTTGCTAGTGTTCACCGCAGCTGGGGTGAAACCCCAGGGCAAGGTGGCT
GGCTTTGATCTGGACGGGACGCTCATCACCACACGCTCTGGGAAGGTCTTTCCCACTGGCCCCAGTGACTGGAGG
ATCTTGTACCCAGAGATTCCCCGTAAGCTCCGAGAGCTGGAAGCCGAGGGCTACAAGCTGGTGATCTTCACCAAC
CAGATGAGCATCGGGCGCGGGAAGCTGCCAGCCGAGGAGTTCAAGGCCAAGGTGGAGGCTGTGGTGGAGAAGCTG
GGGGTCCCCTTCCAGGTGCTGGTGGCCACGCACGCAGGCTTGTACCGGAAGCCGGTGACGGGCATGTGGGACCAT
CTGCAGGAGCAGGCCAACGACGGCACGCCCATATCCATCGGGGACAGCATCTTTGTGGGAGACGCAGCCGGACGC
CCGGCCAACTGGGCCCCGGGGCGGAAGAAGAAAGACTTCTCCTGCGCCGATCGCCTGTTTGCCCTCAACCTTGGC
CTGCCCTTCGCCACGCCTGAGGAGTTCTTTCTCAAGTGGCCAGCAGCCGGCTTCGAGCTCCCAGCCTTTGATCCG
AGGACTGTCTCCCGCTCAGGGCCTCTCTGCCTCCCCGAGTCCAGGGCCCTCCTGAGCGCCAGCCCGGAGGTGGTT
GTCGCAGTGGGATTCCCTGGGGCCGGGAAGTCCACCTTTCTCAAGAAGCACCTCGTGTCGGCCGGATATGTCCAC
GTGAACAGGGACACGCTAGGCTCCTGGCAGCGCTGTGTGACCACGTGTGAGACAGCCCTGAAGCAAGGGAAACGG
GTCGCCATCGACAACACAAACCCAGACGCCGCGAGCCGCGCCAGGTACGTCCAGTGTGCCCGAGCCGCGGGCGTC
CCCTGCCGCTGCTTCCTCTTCACCGCCACTCTGGAGCAGGCGCGCCACAACAACCGGTTTCGAGAGATGACGGAC
TCCTCTCATATCCCCGTGTCAGACATGGTCATGTATGGCTACAGGAAGCAGTTCGAGGCCCCAACGCTGGCTGAA
GGCTTCTCTGCCATCCTGGAGATCCCGTTCCGGCTATGGGTGGAGCCGAGGCTGGGGCGGCTGTACTGCCAGTTC
TCCGAGGGC**TGA**GCCCCGCCCAGCTCCCCTCCACAATAAACGCTGTTTCTCCTTG

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FIGURE 3851

ATGGTCCGTCCGCGCCGTGCCCCGTACCGCTCCGGCGCCGGGGGCCCCCTCGGGGGTCGCGGCCGCCCTCCGCGG
CCCCTCGTGGTGCGCGCCGTCCGCTCGCGCTCCTGGCCTGCCAGCCCCCGAGGCCCGCAGCCTCCGCGGATCCGG
GCCCGCTCGGCCCCTCCCATGGAAGGTGCTCGGGTCTTCGGGGCACTGGGTCCCATCGGTCCCTCCTCACCTGGG
CTCACCCTCGGGGGTCTGGCCGTGAGCGAGCACCGGCTCAGCAACAAGCTGCTGGCTTGGAGCGGCAAGCGCAGA
CCCTACTCTGACTCCACTGCAAAGCTGAAGCGGACCCTGCCCTGCCAAGCCTACGTGAACCAAGGCGAGAACCTG
GAGACCGACCAGTGGCCGCAGAAGCTGATCATGCAGCTGATCCCTCAGCAGCTGCTGACCACCCTGGGCCCCCTG
TTCCGGAACTCCCAGTTGGCACAGTTCCACTTCACCAACAGAGACTGCGACTCGCTCAAGGGGCTCTGCCGCATC
ATGGGCAACGGCTTCGCGGGCTGCATGCTGTTCCCCCACATCTCCCCCTGTGAGGTGCGCGTGCTCATGCTCCTG
TACTCGTCCAAGAAGAAGATCTTCATGGGCCTCATCCCCTACGACCAGAGCGGCTTCGTCAGTGCCATCCGGCAG
GTCATCACCACCCGCAAGCAGGCAGTGGGACCTGGTGGTGTCAACTCAGGCCCAGTCCAGATCGTCAACAACAAG
TTTCTGGCATGGAGTGGTGTCATGGAGTGGCAGGAGCCCAGGCCTGAGCCCAACAGTCGGTCCAAGAGGTGGCTG
CCATCCCACGTCTACGTGAACCAGGGGGAGATCCTGAGGACCGAGCAGTGGCCAAGGAAGCTGTACATGCAGCTC
ATCCCGCAGCAGCTGCTGACCACCCTAGTGCCGCTGTTCCGGAACTCGCGCCTGGTCCAGTTCCACTTCACCAAG
GACCTGGAGACACTGAAGAGCCTGTGCCGGATCATGGACAATGGCTTCGCCGGCTGCGTGCACTTTTCCTACAAA
GCATCGTGTGAGATCCGCGTGCTTATGCTCCTGTACTCTTCAGAGAAGAAAATCTTCATTGGCCTCATCCCCCAT
GACCAGGGCAACTTTGTCAACGGCATCCGGCGTGTCATTGCCAACCAGCAGCAGGTCCTGCAGCGGAACCTGGAG
CAGGAGCAACAGCAACGAGGGATGGGGGGG**TAG**TGGTTACCCCGGGCTGGGCCCCTCCAGGAGTCACAGATGAGG
CCCCCGCAGAGACTGGTGACACGCTTCTGAGCAGGGGCCCCTGGGGACTTCAACTGCCCAGCAACATGGAGGATG
GTGTCCTGAGGCCTCCAAGGACGGTCCCCACCCCTCTACGTTTCCCCAATAAAGCCTTTTAAAAACC

FIGURE 3852

ACAAGCTCCCGGGAAACCAGGAGTGACAAGGGCGCCTGTCCCTGAGGAGTGGAGAGCGCGGAGTTGGTGCTGAGT
CAGCCCTGATGTGGCAGAGGAGGAGCAGGCCCCCGCAGAACCAGGGCTCTTCAGTGTCTCCAGGTCCTTGGTGAA
GTGGAACTGGACCAGGCGCGAGTTCCGGAACAGCGGCACTAGGGTGGTCTGCGGGGAAGCGAGGGGACCCCCAGC
TCTGGCTTCTCCCACCACGGCCTCCCGGCTCCCAGCCCGCTGAGTCCCCCGGGCCCAGGACCAAACTGAGACTCC
CCTGTCCTCCCTACCTCAGGAAACGTCATCTCCACCGCTCAACCAGCCCAACCCTGGAGTGCTGTGGAAGCCGCT
CTCAGATCCCTTGGCAGCCCCCCAGGTGCAGGTCGTGGCTGCCCCTGCCCCGCTCAGTCCCTGCACAGCCACCAG
CTGGCTGCCTGGGACCCCTTGAAGCCAAGCCTGAGGAGCTACCCACCACACCTGCTTCAGCACCCTCAGCTCCGC
TCCCTCACAGCCAGCTCAGGCCACCTGGGGAGGCGCTCTTGCCCCCAGCCCCGCCCTCTGGAAGAGCTACTGCGT
GCAGGCTCCAGCACCCGGCCCCAGCCCCTCACCAGCAGCTGCTGCGGGATGAGCTGCATGTACAGCTTCCTTGGC
CACTGCTCGGTCCTCCTGTGGGGCACAAAGGGACGAGGGTCAGGAAGCCCCAGCTCCCCTGGATGCTGCCTCCAC
CCCCCAGCCCAGCACTCACAGGATCTCCCCCTGGTTCACGTAGACGTGGGATGGCAGCCACCTCTTGGACCGACT
GTTGGGCTCAGGCCTGGGCTTTTGGGGGAGAGGCAAAGAGGAGCCCTCAGGGCTGGAGACCCCCAATGCCAGTGT
CCCCTCCCAGCCACAGTCCGTGAGGATCTGGGGGTCCCAAGTCCCTGGGCTGCCGAGTGCTCACCTCCTGCCACT
CCATGACACCACTCCATGCCAGAAACTTGTTGTTGACGATCTGGACTGGGCCTGAGTTGACACCACCAGGTCCCA
CTGCCTGTTGGAAGGGAACGGGGTGGGAAGAGGGGCCCAGGCTCCTGGGAAACCTGTCTGTCTGTCCTGGGGCCT
GCCATCCCTCCCTCCGAGCCTTGGCCTGTTAGCCCCAGCTGGGTCCATTCTCTAGTCCCAGGGGAACAGGCCCTG
CCCCTCATCTGCTCACAGCCCCCC**ATG**GCTCCCCAGTGGCCTGAGACAGGTCCCGGCCCTCACCTGGTGCACAGG
ACCTGCAGAGTCTGCCTCAACTGGCAAGGCATGACCAGGACACGTGGTTACCAGGCAGGGCCTTCCAGCCGCAGG
ACGATCCCAACCCCTGCCCAGCTCCCCGCTCCGCTGGCTTCCCTGCCGCCGCGCCAAGACCCACCCTCCAGCCCT
GCAGAGCCGCCCAGTGGCCGCTTTTCCATGGAGCCCTGGTGGGAACCCGCCCGGCATCCTCCGGGCTCCCCTGCA
GCTCCTTGCTCCAGCCATCGCATCACACTCCGCCCACACCAAGTCTGGCTGCCCAACCAGGGCAGTGGGGTC**TAA**

TCCCCCTCTGTCCCCAGAGGGGCTGTGCTTGGCTGGCACACCTGCTTGCGGGTGGTGATGACCTGCCGGATGGCA
CTGACGAAGCCGCTCTGGTCGTAGGGGATGAGGCCCATGAAGATCTTCTTCTTGGACGAGTACAGGAGCATGAGC
ACGCGCACCTCACAGGGGGAGATGTGGGGGAACAGCATGCAGCCCGCCTGCGGGGGCCGCGGGTCAGGACCCTGT
GGTCACTGCCCGGGGCCACTGTGCCCCCACCACCCTGGACCGCCCCACCTGTAGGGGATGAAGGGAGATCATCGG
TGGACAGAGGCCCCCACAGTCAAGGCCATGGCCATAGGTGAGGGGCCTCTGAGAGCCCGTGCAGCGCCCATCGGC
ATCCCCCGACCCTGCCATGGCTGAGGTCAGAGTGGCACCCGGCACCCAGGCTGCGGTGAGAATGCCAAGAAGGCA
CTACCTCCCACCCACATCACCCCCTGCCGCCAGCCCTCCTGACTGCCTGATGGGGTGACTTGGCCTGGGGGTTAA
GAGCACAGGCAGCGCCCCACCGTTCTGCTGCCTCCTAGCTGTGTGACCTAACACCAGCCACCTCCTGCTTCTGGG
CCTCCATCATCTGTAAAACCGGGTAATAGTGCACACAGTTGGTGCCACATAAAGGCTCAACAGATAAA

FIGURE 3853

GGCTGCGGCTGCAGTGGTGGTGGCGGGTACCGCACGGGGT**ATG**GTCCCCGGGTCCGAGGGCCCGGCCCGCGCCGG
GAGCGTGGTGGCCGACGTGGTGTTTGTGATTGAGGGTACGGCCAACCTGGGACCCTACTTCGAGGGGCTCCGCAA
GCACTACCTGCTCCCGGCCATCGAGTATTTTAATGGTGGTCCTCCTGCTGAGACGGACTTCGGGGGAGACTATGG
GGGGACCCAGTACAGCCTCGTGGTGTTCAACACAGTGGACTGCGCTCCCGAGTCCTACGTACAATGTCACGCTCC
CACCAGCAGCGCCTATGAGTTTGTCACCTGGCTCGATGGCATTAAGTTCATGGGCGGGGGTGGTGAGAGCTGCAG
CCTCATCGCGGAAGGACTCAGCACAGCCTTGCAGCTGTTTGATGACTTCAAGAAGATGCGCGAGCAGATTGGCCA
GACGCACCGGGTCTGCCTCCTCATCTGCAACTCACCCCCATACTTGTTGCCTGCTGTTGAGAGCACCACGTACTC
TGGATGCACAACTGAGAATCTTGTGCAGCAGATTGGGGAGCGGGGGATCCACTTCTCCATTGTGTCTCCCCGGAA
GCTGCCTGCGCTTCGGCTTCTGTTTGAGAAGGCAGCCCCCCCGGCCTTGCTGGAGCCGCTGCAGCCTCCGACAGA
TGTGAGCCAGGACCCGAGGCACATGGTGCTGGTTCGGGGACTCGTGCTGCCTGTTGGGGGTGGCTCAGCCCCAGG
CCCCCTCCAGTCAAAGCAGCCAGTCCCCCTGCCTCCCGCCGCACCCTCAGGTGCCACTCTCTCAGCAGCCCCCCA
GCAGCCTCTGCCCCCCGTCCCCCCGCAGTACCAGGTTCCCGGGAACCTGAGTGCAGCTCAGGTGGCCGCGCAGAA
TGCAGTGGAGGCTGCCAAGAACCAGAAGGCTGGGCTGGGCCCTCGCTTCTCGCCCATCACCCCTCTCCAACAAGC
TGCTCCCGGAGTGGGTCCCCCCTTCAGCCAGGCCCCAGCTCCCCAACTACCCCCAGGACCCCCTGGCGCCCCCAA
GCCACCACCTGCTTCCCAGCCCAGTCTGGTCTCCACTGTGGCCCCTGGCTCCGGCCTGGCTCCCACGGCACAGCC
CGGGGCACCGTCCATGGCAGGCACTGTGGCCCCAGGAGGGGTGAGCGGCCCTTCCCCAGCCCAGCTGGGAGCCCC
AGCCCTCGGTGGGCAGCAGTCAGTCTCCAATAAGCTTCTGGCCTGGAGCGGGGTCCTGGAGTGGCAAGAGAAACC
CAAACCTGCCTCAGTGGATGCCAACACCAAGCTGACGCGGTCACTGCCCTGCCAGGTCTACGTGAATCATGGCGA
GAACCTGAAGACGGAGCAGTGGCCCCAGAAGCTGATCATGCAGCTCATCCCCCAGCAGCTGCTGACCACCCTGGG
CCCTTTGTTCCGGAACTCAAGGATGGTCCAGTTCCATTTCACCAACAAGGACCTGGAGTCTCTCAAAGGCCTCTA
CCGCATCATGGGCAACGGCTTCGCGGGCTGCGTGCACTTCCCCCACACGGCGCCCTGTGAGGTGCGCGTGCTCAT
GCTCCTGTACTCGTCCAAGAAGAAGATCTTCATGGGCCTCATCCCCTACGACCAGAGCGGCTTCGTCAACGGCAT
CCGGCAGGTCATCACCAACCACAAGCAGGTCCAGCAGCAGAAGCTGGAGCAGCAGCAGCGAGGAATGGGGGGACA
GCAGGCACCCCCAGGGCTGGGGCCCATTCTGGAGGACCAAGCCAGGCCCTCACAGAATCTGCTCCAGCTCCGCCC
ACCGCAGCCCCAGCCTCAGGGTACCGTAGGGGCCTCTGGGGCCACGGGGCAGCCCCAGCCCCAAGGTACTGCCCA
GCCCCCGCCAGGTGCCCCTCAAGGCCCTCCTGGAGCAGCTTCTGGCCCACCCCCTCCTGGACCCATCCTTCGGCC
CCAGAACCCTGGGGCCAACCCTCAGCTGCGAAGCCTCCTCCTCAACCCACCACCGCCGCAGACTGGGGTGCCCCC
ACCCCAGGCCTCCCTCCACCACCTGCCCAGTCCTGGCCCGCACAACTTCCCCCTCGGGCTCCACTGCCAGGTAAG
GGGACCCGGGGGAGGGCAGAGGTCTGGACTGAGTGTCCCAGCAGCTCCTGGGCTAGAGCACCAAGACCGAGTGCT
CCTGGGAAGTAAAGACATAGGATCCAAGAATGAGGGTTCCCCCAGCCGGGCCTGCAGCCCAGCGTCATGGAGGAC
GACATCCTCATGGATCTCATCTGAATCCCCAACACCCAATAAAGTTCCTTTT**TAA**CAC

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FIGURE 3854

AGGGTTTGAGGGTCTGTTTGAGTTGGGTGAAGAAGGCGGGAAGTTAATCCTCTTCCAATCAGCTCCCCATCTCGC
CCTCTGGCGGCTCCGGACCACAGGCCGAGTTACTCTGATTACCGCCATGCTCCAAGACCCGCACTGACAGTCCCC
ACGTGAGGGACCGCGGTGGGAGTCCTAA**ATG**GGGGAGGAGGGGACGGGCGGCACTGTGCATCTGCTGTGCCTCGC
GGCCTCCAGCGGGGTCCCCCTATTCTGCAGGAGCAGTCGCGGCGGCGCCCCCGCCCGTCAGCAGCTCCCGTTCTC
TGTCATCGGTTCCCTCAATGGAGTCCACATGTTTGGGCAGAATCTGGAGGTGCAGCTGAGCTCTGCGAGGACCGA
GAACACGACTGTGGTGTGGAAAAGCTTCCATGACAGCATCACCCTCATTGTTCTGTCATCTGAGGTGGGCATCTC
TGAGCTGAGGCTGGAGAGACTACTCCAAATGGTGTTTGGAGCCATGGTCCTTCTTGTGGGACTTGAAGAACTGAC
CAATATCCGCAACGTGGAGAGACTGAAGAAGGACTTGAGGGCCAGTTATTGCCTCATCGACAGCTTCCTGGGGGA
CTCGGAGCTCATCGGGGACCTGACCCAGTGTGTGGACTGCGTGATTCCTCCAGAGGGGTCCCTCTTGCAGGAAGC
CCTCTCCGGGTTCGCTGAGGCCGCGGGCACGACCTTCGTCAGTCTGGTGGTGTCCGGCCGGGTGGTGGCAGCAAC
AGAGGGTTGGTGGCGGCTGGGGACGCCCGAGGCCGTGCTGCTCCCCTGGCTGGTGGGGTCCCTGCCGCCGCAGAC
CGCTCGCGACTACCCGGTGTACCTGCCGCACGGGAGCCCCACGGTCCCACACCGGCTCCTGACCCTGACTCTGCT
GCCGAGCCTGGAGCTGTGTCTACTCTGCGGGCCGAGCCCACCCCTCAGCCAGTTGTATCCACAGCTTCTGGAGCG
CTGGTGGCAGCCACTGCTGGACCCGTTGCGGGCCTGTCTGCCGTTGGGACCCCGGGCGCTGCCCAGTGGCTTCCC
CCTTCACACAGACATCCTCGGGCTGCTGCTCCTCCACCTGGAACTGAAGCGCTGCCTCTTCACCGTGGAGCCCTT
GGGGGATAAAGAGCCTTCACCAGAACAGCGCCGGCGCCTCCTCCGAAACTTCTATACCCTGGTCACCTCCACGCA
CTTCCCACCAGAGCCAGGGCCACCAGAGAAGACAGAAGATGAGGTCTACCAGGCCCAGCTGCCCAGAGCTTGCTA
CCTGGTGTTGGGGACTGAGGAACCAGGCACAGGAGTGCGTCTGGTGGCCTTGCAGCTGGGGCTTCGGCGGCTGCT
GCTGCTGCTGTCTCCCCAGAGTCCCACCCATGGGCTGCGAAGCCTGGCCACCCACACTCTGCATGCCCTCACCCC
ACTTCTT**TGA**CTACCTAGCAGTGGGTGATGGACACAGACATGGGGCTGTTAGCGTCTCTCTGTTTATTCGCTCAC
AATAATACACAGCCCCTGGATGGGGAGGGGGTAGGAGGGGCTACAACAGGGTGGGGTGGGAGGGGAGGAGACATC
CACTTCCCTGGCCCCTCTCCCCTCTGTGCTTGGGGGGGAAAGGGAGGGAGGGGGACTCCCCCTAACCCCCCAGAA
TGTAAACAGCAGCAGATGAACAAAAATAAAAATACAAAAGGCCGGAGGAAAGTCCCAGGCATCCCCC

FIGURE 3855

CGCCCGGTCCCCGCTTGCCAGCCCCCGCTGCTCTGTGCCCTGTCCGGCCAGGCCTGGAGCCGACACCACCGCCAT
C**ATG**CCGGCCGTGTCCAAGGGCGATGGGATGCGGGGGCTCGCGGTGTTCATCTCCGACATCCGGAACTGTAAGAG
CAAAGAGGCGGAAATTAAGAGAATCAACAAGGAACTGGCCAACATCCGCTCCAAGTTCAAAGGAGACAAAGCCTT
GGATGGCTACAGTAAGAAAAAATATGTGTGTAAACTGCTTTTCATCTTCCTGCTTGGCCATGACATTGACTTTGG
GCACATGGAGGCTGTGAATCTGTTGAGTTCCAATAAATACACAGAGAAGCAAATAGGTTACCTGTTCATTTCTGT
GCTGGTGAACTCGAACTCGGAGCTGATCCGCCTCATCAACAACGCCATCAAGAATGACCTGGCCAGCCGCAACCC
CACCTTCATGTGCCTGGCCCTGCACTGCATCGCCAACGTGGGCAGCCGGGAGATGGGCGAGGCCTTTGCCGCTGA
CATCCCCCGCATCCTGGTGGCCGGGGACAGCATGGACAGTGTCAAGCAGAGTGCGGCCCTGTGCCTCCTTCGACT
GTACAAGGCCTCGCCTGACCTGGTGCCCATGGGCGAGTGGACGGCGCGTGTGGTACACCTGCTCAATGACCAGCA
CATGGGTGTGGTCACGGCCGCCGTCAGCCTCATCACCTGTCTCTGCAAGAAGAACCCAGATGACTTCAAGACGTG
CGTCTCTCTGGCTGTGTCGCGCCTGAGCCGGATCGTCTCCTCTGCCTCCACCGACCTCCAGGACTACACCTACTA
CTTCGTCCCAGCACCCTGGCTCTCGGTGAAGCTCCTGCGGCTGCTGCAGTGCTACCCGCCTCCAGAGGATGCGGC
TGTGAAGGGGCGGCTGGTGGAATGTCTGGAGACTGTGCTCAACAAGGCCCAGGAGCCCCCCAAATCCAAGAAGGT
GCAGCATTCCAACGCCAAGAACGCCATCCTCTTCGAGACCATCAGCCTCATCATCCACTATGACAGTGAGCCCAA
CCTCCTGGTTCGGGCCTGCAACCAGCTGGGCCAGTTCCTGCAGCACCGGGAGACCAACCTGCGCTACCTGGCCCT
GGAGAGCATGTGCACGCTGGCCAGCTCCGAGTTCTCCCATGAAGCCGTCAAGACGCACATTGACACCGTCATCAA
TGCCCTCAAGACGGAGCGGGACGTCAGCGTGCGGCAGCGGGCGGCTGACCTCCTCTACGCCATGTGTGACCGGAG
CAATGCCAAGCAGATCGTGTCGGAGATGCTGCGGTACCTGGAGACGGCAGACTACGCCATCCGCGAGGAGATCGT
CCTGAAGGTGGCCATCCTGGCCGAGAAGTACGCCGTGGACTACAGCTGGTACGTGGACACCATCCTCAACCTCAT
CCGCATTGCGGGCGACTACGTGAGTGAGGAGGTGTGGTACCGTGTGCTACAGATCGTCACCAACCGTGATGACGT
CCAGGGCTATGCCGCCAAGACCGTCTTTGAGGCGCTCCAGGCCCCTGCCTGTCACGAGAACATGGTGAAGGTTGG
CGGCTACATCCTTGGGGAGTTTGGGAACCTGATTGCTGGGGACCCCCGCTCCAGCCCCCCAGTGCAGTTCTCCCT
GCTCCACTCCAAGTTCCATCTGTGCAGCGTGGCCACGCGGGCGCTGCTGCTGTCCACCTACATCAAGTTCATCAA
CCTCTTCCCCGAGACCAAGGCCACCATCCAGGGCGTCCTGCGGGCCGGCTCCCAGCTGCGCAATGCTGACGTGGA
GCTGCAGCAGCGAGCCGTGGAGTACCTCACCCTCAGCTCAGTGGCCAGCACCGACGTCCTGGCCACGGTGCTGGA
GGAGATGCCGCCCTTCCCCGAGCGCGAGTCGTCCATCCTGGCCAAGCTGAAACGCAAGAAGGGGCCAGGGGCCGG
CAGCGCCCTGGACGATGGCCGGAGGGACCCCAGCAGCAACGACATCAACGGGGGCATGGAGCCCACCCCCAGCAC
TGTGTCGACGCCCTCGCCCTCCGCCGACCTCCTGGGGCTGCGGGCAGCCCCTCCCCCGGCAGCACCCCCGGCTTC
TGCAGGAGCAGGGAACCTTCTGGTGGACGTCTTCGATGGCCCGGCCGCCCAGCCCAGCCTGGGGCCCACCCCCGA
GGAGGCCTTCCTCAGCGAGCTGGAGCCGCCTGCCCCCGAGAGCCCCATGGCTTTGCTGGCTGACCCAGCTCCAGC
TGCTGACCCAGGTCCTGAGGACATCGGCCCTCCCATTCCGGAAGCCGATGAGTTGCTGAATAAGTTTGTGTGTAA
GAACAACGGGGTCCTGTTCGAGAACCAGCTGCTGCAGATCGGAGTCAAGTCAGAGTTCCGACAGAACCTGGGCCG
CATGTATCTCTTCTATGGCAACAAGACCTCGGTGCAGTTCCAGAATTTCTCACCCACTGTGGTTCACCCGGGAGA
CCTCCAGACTCAGCTGGCTGTGCAGACCAAGCGCGTGGCGGCGCAGGTGGACGGCGGCGCGCAGGTGCAGCAGGT
GCTCAATATCGAGTGCCTGCGGGACTTCCTGACGCCCCCGCTGCTGTCCGTGCGCTTCCGGTACGGTGGCGCCCC
CCAGGCCCTCACCCTGAAGCTCCCAGTGACCATCAACAAGTTCTTCCAGCCCACCGAGATGGCGGCCCAGGATTT
CTTCCAGCGCTGGAAGCAGCTGAGCCTCCCTCAACAGGAGGCGCAGAAAATCTTCAAAGCCAACCACCCCATGGA
CGCAGAAGTTACTAAGGCCAAGCTTCTGGGGGTTTGGCTCTGCTCTCCTGGACAATGTGGACCCCAACCCTGAGAA
CTTCGTGGGGGCGGGGATCATCCAGACTAAAGCCCTGCAGGTGGGCTGTCTGCTTCGGCTGGAGCCCAATGCCCA
GGCCCAGATGTACCGGCTGACCCTGCGCACCAGCAAGGAGCCCGTCTCCCGTCACCTGTGTGAGCTGCTGGCACA
GCAGTTC**TGA**GCCCTGGACTCTGCCCCGGGGGATGTGGCCGGCACTGGGCAGCCCCTTGGACTGAGGCAGTTTTG
GTGGATGGGGGACCTCCACTGGTGACAGAGAAGACACCAGGGTTTGGGGGATGCCTGGGACTTTCCTCCGGCCTT
TTGTATTTTTATTTTTGTTCATCTGCTGCTGTTTACATTCTGGGGGGTTAGGGGGAGTCCCCCTCCCTCCCTTTC
CCCCCCAAGCACAGAGGGGAGAGGGGCCAGGGAAGTGGATGTCTCCTCCCCTCCCACCCCACCCTGTTGTAGCCC
CTCCTACCCCCTCCCCATCCAGGGGCTGTGTATTATTGTGAGCGAATAAACAGAGAGACGCT

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FIGURE 3856

ACCCCCACACC**ATG**GCGAGCGTGGTGGTGAAGACGATCTGGCAGTCCAAAGAGATCCATGAGGCCGGGGACACCC
CCACGGGGGTGGAGAGCTGCTCCCAGCTAGTCCCAGAGGCTCCCCGGAGGGTGACCAGCCGGGCCAAGGGGATCC
CGAAGAAAAAGAAGGCCGTGTCGTTCCACGGGGTGGAGCCCCAGATGTCCCATCAGCCCATGCACTGGTGCCTGA
ACCTCAAACGGTCCTCGGCCTGCACCAACGTGTCACTGCTCAACCTGGCCGCCATGGAGCCCACTGACTCCACGG
GGACAGACTCCACAGTGGAAGACCTCAGCGGCCAACTCACACTGGCTGGGCCCCCTGCCTCCCCTACCCTACCCT
GGGATCCGGATGACGCAGACATCACGGAAATCCTGAGTGGGGTCAACAGTGGATTGGTCCGCGCCAAAGACTCCA
TCACCAGCTTGAAGGAAAAGACCAACCGGGTTAACCAGCACGTGCAGTCTCTGCAGAGCGAGTGTTCTGTGCTGA
GCGAGAATCTGGAGAGAAGGCGGCAAGAGGCAGAAGAGTTGGAGGGGTACTGCATTCAACTCAAGGAGAACTGCT
GGAAGGTGACCCGGTCTGTGGAAGATGCTGAAATCAAAACCAACGTCTTGAAGCAGAATTCTGCCCTGCTGGAGG
AGAAGCTGCGCTACCTCCAGCAGCAGCTGCAGGATGAGACGCCGCGACGGCAGGAGGCCGAGCTGCAGGAGCCGG
AGGAGAAGCAGGAGCCGGAGGAGAAGCAGGAGCCGGAGGAGAAGCAGAAGCCGGAGGCTGGCCTCTCCTGGAACA
GCCTGGGCCCCGCCGCCACGTCCCAGGGCTGCCCCGGCCCGCCAGGGAGTCCCGACAAACCCTCGCGGCCACACG
GCCTGGTCCCCGCAGGCTGGGGAATGGGGCCTCGGGCTGGCGAGGGCCCCTACGTGAGCGAGCAGGAATTGCAGA
AGCTGTTCACCGGCATCGAAGAGCTGAGGAGAGAGGTGTCCTCACTGACCGCCCGGTGGCATCAGGAGGAGGGGG
CGGTGCAGGAAGCCCTGCGGCTGCTCGGGGGCCTGGGCGGCAGGGTCGACGGCTTCCTAGGCCAGTGGGAGCGGG
CACAGCGCGAACAGGCACAGACGGCGCGGGACTTGCAGGAGCTGCGAGGTCGGGCGGATGAGCTGTGCACCATGG
TGGAGCGGTCAGCAGTGTCTGTGGCTTCACTGAGGAGCGAACTGGAGGGGCTGGGCCCACTGAAACCCATTCTGG
AGGAGTTCGGGCGGCAATTTCAGAACTCTCGAAGAGGGCCTGACCTCTCCATGAACCTGGATCGGTCCCACCAAG
GCAACTGTGCCCGCTGTGCCAGCCAGGGGTCGCAGTTGTCTACGGAGTCCCTGCAGCAGCTGCTGGACCGAGCAC
TGACCTCACTAGTGGACGAGGTGAAGCAGAGGGGCCTGACTCCTGCCTGTCCCAGCTGTCAGAGGCTACACAAGA
AGATTCTGGAGCTGGAGCGCCAGGCCTTAGCCAAACACGTCAGGGCAGAGGCCCTGAGCTCCACCCTTCGGCTGG
CCCAAGACGAGGCCCTGCGGGCCAAGAACCTACTGCTGACAGACAAGATGAAGCCAGAGGAGAAGATGGCCACTC
TGGACCATCTACACTTGAAGATGTGCTCCCTCCACGATCATCTCAGCAACCTGCCACTTGAGGGGTCCACGGGAA
CAATGGGGGGAGGCAGCAGTGCAGGAACCCCCCCAAAACAGGGGGGCTCAGCCCCTGAACAA**TAA**ATGGCCTCTC
ATGCTAGCATGA

FIGURE 3857

AGGCGCAGACGGGGAAGCGGAGCCAACATGCCAGTGGCCCGGAGCTGGGTTTGTCACAAAACTTATGTGACCCCG
CGGAGACCCTTCGAGAAATCTCGTCTCGACCAAGAGCTGAAGCTGATCGGCAACGTCCTGCTGCGGCGGCTGCTC
CGCATTGGGGTGCTGGATGAGGGCAAGACGAAGCTGGATTACATCCTGGGCCTGAAGATAGAGGATTTCTTAGAG
AGACGCCTACAGACCCAGGTCTTCAAGCTGGGCTTGGCCAAGTCCATCCACCACGCTGGCGTACTGATCCGCCAG
CGCCGTGTCAGGGTCCGCAATCAGGTGGCGAACATCCCGTCCTTCATTGTCCGCCTGGATTCCCAGAAGCGCATC
GACTTGTCTCTGCGCTCTCCCTATGGGGTGGCCGCCCCGGCCGCGTGAAGAGGAAGAACGCCAAGAAGGGCCAGG
GTGAGGGTGGGGCTGGAGACGACGAGGAGGAGGATTAAGTCCACCTGTCCCTCCTGGGCTGCTGGATTGTCTCGT
TTTCCTGCCAAATAAACAGGATCAGCACTTTAC

FIGURE 3858

GGCAGCCGAGGCCGCGAACTGCATC**ATG**GAGAATTTTGTAGCCACCTTGGCTAATGGGATGAGCCTCCAGCCGCC
TCTTGAAGAAGTGTCCTGTGGCCAGGCGGAAAGCAGTGAGAAGCCCAACGCTGAGGACATGACATCCAAAGATTA
CTACTTTGACTCCTACGCACACTTTGGCATCCACGAGGAGATGCTGAAGGACGAGGTGCGCACCCTCACTTACCG
CAACTCCATGTTTCATAACCGGCACCTCTTCAAGGACAAGGTGGTGCTGGACGTCGGCTCGGGCACCGGCATCCT
CTGCATGTTTGCTGCCAAGGCCGGGGCCCGCAAGGTCATCGGGATCGAGTGTTCCAGTATCTCTGATTATGCGGT
GAAGATCGTCAAAGCCAACAAGTTAGACCACGTGGTGACCATCATCAAGGGGAAGGTGGAGGAGGTGGAGCTCCC
AGTGGAGAAGGTGGACATCATCATCAGCGAGTGGATGGGCTACTGCCTCTTCTACGAGTCCATGCTCAACACCGT
GCTCTATGCCCGGGACAAGTGGGCGCCCGATGGCCTCATCTTCCCAGACCGGGCCACGCTGTATGTGACGGCCAT
CGAGGACCGGCAGTACAAAGACTACAAGATCCACTGGTGGGAGAACGTGTATGGCTTCGACATGTCTTGCATCAA
AGATGTGGCCATTAAGGAGCCCCTAGTGGATGTCGTGGACCCCAAACAGCTGGTCACCAACGCCTGCCTCATAAA
GGAGGTGGACATCTATACCGTCAAGGTGGAAGACCTGACCTTCACCTCCCCGTTCTGCCTGCAAGTGAAGCGGAA
TGACTACGTGCACGCCCTGGTGGCCTACTTCAACATCGAGTTCACACGCTGCCACAAGAGGACCGGCTTCTCCAC
CAGCCCCGAGTCCCCGTACACGCACTGGAAGCAGACGGTGTTCTACATGGAGGACTACCTGACCGTGAAGACGGG
CGAGGAGATCTTCGGCACCATCGGCATGCGGCCCAACGCCAAGAACAACCGGGACCTGGACTTCACCATCGACCT
GGACTTCAAGGGCCAGCTGTGCGAGCTGTCCTGCTCCACCGACTACCGGATGCGC**TGA**GGCCCGGCTCTCCCGCC
CTGCACGAGCCCAGGGGCTGAGCGTTCCTAGGCGGTTTCGGGGCTCCCCCTTCCTCTCCCTCCCTCCCGCAGAAG
GGGGTTTTAGGGGCCTGGGCTGGGGGGATGGGGAGGGCACATCGTGACTGTGTTTTTCATAACTTATGTTTTTAT
ATGGTTGCATTTACGCCAATAAATCCTCAGCTGGG

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FIGURE 3859

AAGTAAGTATCCCCACTTTCAGGGTAGCATCCTCTTTCCCTAGTTATTTCAGTGCAGAATCGATTCACGTGTAAG
CCTCTACCTCCTGCACTTACCCCAATGTAGACCCCCTTCCACAGTCCCCCTACAGAAGATCTCCCAAAACATTTC
CAACACAGAACTTCCATTCAATTCCCCTCCGACTGCCCGCCTCCCTCCTCCAGGACAGAGCACGCCCCAGGTTTC
GAGACTGAACTACCCCCATCTACGGAGTCCACCCCTCCCTCTCTAGAACCCCCTCAGTGTAGACGCCTCCTCTTT
TCCTCTTTCCTCCCTACTTTTTCTAGTTTTTCTGCAGCCGACCTCCAGCGTCGGCCACTGTAGCTCCTTCCTTGC
TCCACTTTCCCCAGAGTACACAGCCTGCCTTTCCACTCTCCGTGCAGACCCATCCTCTTTCCCGCTCCTCGCTCT
CGGACGCCACCAACGCTCTCCCGGGCTCTTCCGCGTTACCTACGATGGAAGGTCGGGGCGTGCGGGCAGCTGGAA
CCCACCCCTGTCTTGGAGCTCCGGGTAGCTCTCAAACTCGAGGCTGCGCACCCCCTTTCCCGTCAGCTGAGCTCT
AGAGCGCTGGGGCTTTCTTTTTGATCGACTTCTTGAAATAAAACCAACTTTATCATTCTTTGGGTAACAGACCCA
AAAGCCG**ATG**GGACGGCCCGCTGGGCTGTTCCCGCCCCTATGCCCTTTTTTGGGTTTCCGGCCAGAGGCATGCTG
GGAGCGTCACATGCAAATTGAGCGTGCACCCAGCGTTCCGCCCTTTCTACGCTGGGCCGGTTATCGACCCGGCCC
AGTGCGCAGGCGCGGGAAAGTTGAACTAATAAAGTTTGTACGAGTTCAGTGGAGGAGACCGCAAGTTGAGTGGAG
GAGGCGGCGGTGGGGCCCCGGACCAGGTGCCTCCATGGCAGGCTCTGAAGAGCTGGGGCTCCGGGAAGACACGCT
GAGGGTCCTAGCTGCCTTCCTTAGGCGTGGTGAGGCTGCCGGGTCTCCTGTTCCAACTCCACCTAGAAGCCCTGC
CCAAGAAGAGCCAACAGACTTCCTGAGCCGCCTTCGAAGATGTCTTCCCTGCTCCCTGGGGCGAGGAGCAGCCCC
CTCTGAGTCCCCTCGGCCTTGCTCTCTGCCCATCCGCCCCTGCTATGGTTTAGAGCCTGGCCCAGCTACTCCAGA
CTTCTATGCTTTGGTGGCCCAGCGGCTGGAACAGCTGGTCCAAGAGCAGCTGAAATCTCCGCCCAGCCCAGAATT
ACAGGGTCCCCCATCGACAGAGAAGGAAGCCATACTGCGGAGGCTGGTGGCCCTGCTGGAGGAGGAGGCAGAAGT
CATTAACCAGAAGCTGGCCTCGGACCCCGCCCTGCGCAGCAAGCTGGTCCGCCTGTCCTCCGACTCTTTCGCCCG
CCTGGTGGAGCTGTTCTGTAGCCGGGATGACAGCTCTCGCCCAAGCCGAGCATGCCCCGGGCCCCCGCCTCCTTC
CCCGGAGCCCCTGGCCCGCCTGGCCCTAGCCATGGAGCTGAGCCGGCGCGTGGCCGGGCTGGGGGGCACCCTGGC
CGGACTCAGCGTGGAGCACGTGCACAGCTTCACGCCCTGGATCCAGGCCCACGGGGGCTGGGAGGGCATCCTGGC
TGTTTCACCCGTGGACTTGAACTTGCCATTGGAC**TGA**

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FIGURE 3860

GGTTCCAGCTGCCCGCACGCCCCGACCTTCCATCGTAGGCCGGACC**ATG**GGAACCCCAAAGCCACGGATCCTGCC
CTGGCTGGTGTCGCAGCTGGACCTGGGGCAACTGGAGGGCGTGGCCTGGGTGAACAAGAGCCGCACGCGCTTCCG
CATCCCTTGGAAGCACGGCCTACGGCAGGATGCACAGCAGGAGGATTTCGGAATCTTCCAGGCCTGGGCCGAGGC
CACTGGTGCATATGTTCCCGGGAGGGATAAGCCAGACCTGCCAACCTGGAAGAGGAATTTCCGCTCTGCCCTCAA
CCGCAAAGAAGGGTTGCGTTTAGCAGAGGACCGGAGCAAGGACCCTCACGACCCACATAAAATCTACGAGTTTGT
GAACTCAGGAGTTGGGGACTTTTCCCAGCCAGACACCTCTCCGGACACCAATGGTGGAGGCAGTACTTCTGATAC
CCAGGAAGACATTCTGGATGAGTTACTGGGTAACATGGTGTTGGCCCCACTCCCAGATCCGGGACCCCCAAGCCT
GGCTGTAGCCCCTGAGCCCTGCCCTCAGCCCCTGCGGAGCCCCAGCTTGGACAATCCCACTCCCTTCCCAAACCT
GGGGCCCTCTGAGAACCCACTGAAGCGGCTGTTGGTGCCGGGGGAAGAGTGGGAGTTCGAGGTGACAGCCTTCTA
CCGGGGCCGCCAAGTCTTCCAGCAGACCATCTCCTGCCCGGAGGGCCTGCGGCTGGTGGGGTCCGAAGTGGGAGA
CAGGACGCTGCCTGGATGGCCAGTCACACTGCCAGACCCTGGCATGTCCCTGACAGACAGGGGAGTGATGAGCTA
CGTGAGGCATGTGCTGAGCTGCCTGGGTGGGGGACTGGCTCTCTGGCGGGCCGGGCAGTGGCTCTGGGCCCAGCG
GCTGGGGCACTGCCACACATACTGGGCAGTGAGCGAGGAGCTGCTCCCCAACAGCGGGCATGGGCCTGATGGCGA
GGTCCCCAAGGACAAGGAAGGAGGCGTGTTTGACCTGGGGCCCTTCATTGTAGATCTGATTACCTTCACGGAAGG
AAGCGGACGCTCACCACGCTATGCCCTCTGGTTCTGTGTGGGGGAGTCATGGCCCCAGGACCAGCCGTGGACCAA
GAGGCTCGTGATGGTCAAGGTTGTGCCCACGTGCCTCAGGGCCTTGGTAGAAATGGCCCGGGTAGGGGGTGCCTC
CTCCCTGGAGAATACTGTGGACCTGCACATTTCCAACAGCCACCCACTCTCCCTCACCTCCGACCAGTACAAGGC
CTACCTGCAGGACTTGGTGGAGGGCATGGATTTCCAGGGCCCTGGGGAGAGC**TGA**GCCCTCGCTCCTCATGGTGT
GCCTCCAACCCCCCTGTTCCCCACCACCTCAACCAATAAACTGGTTCCTGCTATGA

FIGURE 3861A

CTGGGGTGTCTGTGCTGGGTCCAGCGCCCACCCAAGCACAGGGTGGAGTGGGAGGAGGTGGAGGAGAGGAGGGGT
GCCAGAGGGGATGCTGAGGGAGATAGTGTGGGGCCCTTGAGGTCTTC**ATG**TCTATCCTCTACTTCCATCCTTTCT
CCCGGGACCTCCACTCCAAACTCTCCCCCCTGGACCCCCAGGTGACCATGGAGGAAGAAGATGAGTCTCGAGGGA
AGACAGAGGAGTCGGGGGAGGATCGGGGCGATGGTCCGCCAGACAGAGACCCCACGCTTTCTCCTTCTGCCTTTA
TCCTGCGAGCCATCCAGCAGGCTGTGGGAAGCTCCCTGCAGGGGGACCTGCCCAATGATAAAGATGGCTCTCGGT
GTCATGGCCTTCGATGGCGGCGCTGCCGGAGTCCACGGTCAGAGCCCCGTTCCCAGGAATCAGGGGGCACTGACA
CGGCTACTGTGTTGGACATGGCCACGGACAGCTTCCTCGCAGGGCTGGTGAGTGTCCTGGATCCCCCGGATACCT
GGGTTCCCAGCCGCCTGGACCTGCGGCCTGGCGAAAGTGAGGACATGCTGGAGCTGGTGGCTGAGGTCCGAATCG
GGGACAGAGATCCCATCCCTCTGCCTGTGCCCAGCCTGCTGCCCCGTCTCAGGGCCTGGAGGACGGGCAAAACGG
TTTCTCCACAGTCGAACTCCTCTAGGCCCACCTGTGCCCGTCACCTCACCTTGGGCACGGGAGACGGGGGCCCTG
CCCCACCCCCTGCCCCCTCCTCTGCATCCTCCTCCCCTTCCCCTTCTCCCTCATCTTCCTCCCCTTCCCCTCCCC
CACCCCCACCGCCCCCTGCACCCCCAGCCCCACCTGCCCCCCGATTCGATATCTATGACCCCTTCCACCCCACCG
ACGAGGCCTACTCTCCACCGCCTGCTCCGGAGCAAAAGTACGACCCTTTTGAGCCCACCGGCTCCAACCCCAGCT
CATCAGCGGGGACCCCCTCACCTGAGGAGGAAGAGGAGGAGGAAGAGGAAGAAGAAGAGGAAGAGGAAGACGAGG
AGGAGGAGGAAGGCCTGTCCCAGAGCATCAGCCGCATCTCGGAGACCCTGGCGGGCATCTACGATGACAACAGCC
TGAGCCAGGACTTCCCAGGTGACGAGAGCCCCCGCCCGGACGCGCAGCCCACACAGCCGACTCCCGCCCCTGGAA
CGCCGCCCCAGGTGGACTCCACCCGGGCTGATGGAGCCATGCGCCGGCGGGTCTTCGTGGTGGGGACCGAGGCAG
AGGCTTGTCGGGAAGGCAAGGTCTCGGTGGAGGTGGTGACCGCTGGTGGAGCCGCCCTCCCGCCGCCCCTGCTGC
CGCCCGGCGACTCGGAGATCGAGGAAGGGGAGATCGTCCAGCCGGAGGAGGAGCCCAGGCTGGCGCTGTCCCTCT
TCCGCCCCGGCGGCCGGGCCGCCCGGCCTACACCGGCCGCCTCGGCCACCCCCACGGCCCAGCCCCTTCCTCAGC
CTCCCGCTCCGCGGGCCCCCGAGGGGGACGACTTCTTGTCCCTGCATGCGGAGTCGGACGGCGAGGGCGCCCTGC
AGGTGGACCTAGGGGAGCCGGCTCCCGCGCCGCCCGCCGCCGACTCGCGCTGGGGCGGCCTGGACCTGCGCCGCA
AGATCCTGACCCAACGGCGGGAGCGCTACCGCCAGCGCTCGCCCTCCCCGGCGCCCGCGCCCGCCCCGGCCGCCG
CTGCTGGTCCGCCCACGCGCAAGAAGTCCAGGCGGGAACGCAAGCGCAGCGGCGAGGCCAAGGAGGCCGCCTCGT
CCTCGTCGGGCACCCAGCCAGCGCCGCCCGCCCCGGCCTCGCCCTGGGACTCCAAGAAGCACCGCTCGCGGGACC
GCAAGCCCGGCTCCCACGCCTCGTCGTCCGCCCGCCGCCGCTCCCGCTCCCGCTCCCGCTCCCGCTCCACCCGCC
GCCGCTCGCGCAGCACCGACCGCCGCCGCGGGGGCAGCCGCAGGTCGCGGTCCCGGGAGAAGCGGCGACGGCGGC
GGCGCTCCGCCTCCCCGCCCCCGGCCACTTCCTCATCGTCGTCCTCGAGGCGCGAGCGGCACCGCGGGAAACACC
GGGACGGTGGCGGCAGCAAGAAGAAGAAGAAGCGGTCGCGGTCCCGGGGTGAGAAGCGGTCTGGGGATGGCAGCG
AGAAGGCCCCGGCGCCCGCCCCGCCGCCCTCTGGCTCCACCTCGTGTGGTGACCGCGACAGCCGCCGCCGGGGGG
CCGTGCCACCCTCCATCCAGGACCTCACGGACCACGACCTCTTCGCCATCAAGCGGACCATCACGGTGGGCCGGC
TTGACAAGTCCGACCCCCGAGGACCCTCTCCTGCTCCGGCCTCCTCACCTAAGCGGGAGGTCCTGTACGACTCCG
AGGGACTGAGCGGCGAGGAGCGGGGCGGCAAGAGCAGCCAGAAGGATCGGCGCCGCTCGGGGGCCGCCTCCTCCT
CCTCCTCTTCCCGGGAGAAGGGGTCTCGTCGGAAGGCGCTGGACGGGGGTGACCGGGATCGGGACAGGGACAGAG
ATAGGGACAGGGACAGGTCATCCAAGAAGGCCCGGCCCCCCAAGGAGTCGGCGCCTTCCTCAGGGCCCCCGCCAA
AGCCACCAGTCAGCAGCGGCTCAGGCTCTTCATCCTCGTCGTCCTCCTGTTCTTCCCGGAAGGTGAAGCTGCAGT
CCAAGGTGGCGGTGCTGATCCGCGAGGGTGTCAGCAGCACCACCCCGGCCAAGGATGCCGCGTCAGCCGGCCTGG
GCTCCATTGGCGTCAAATTCAGCCGTGACCGCGAGAGTCGCTCCCCCTTCCTCAAACCTGACGAGCGGGCCCCCA
CTGAGATGGCCAAAGCAGCTCCGGGCAGCACCAAGCCCAAAAAGACCAAGGTCAAGGCCAAGGCAGGGGCCAAGA
AAACCAAGGGGACCAAGGGAAAGACCAAGCCATCCAAGACCAGGAAAAAGGTCCGCAGTGGAGGTGGCAGCGGGG
GCAGTGGTGGCCAGGTGTCGCTGAAGAAGTCCAAGGCGGATAGCTGCAGCCAGGCGGCAGGCACCAAGGGGGCGG
AGGAGACTTCCTGGTCCGGGGAGGAGCGGGCAGCCAAGGTTCCTAGCACCCCGCCCCCCAAGGCAGCCCCACCAC
CCCCTGCCCTCACTCCGGACTCGCAGACCGTGGACAGCAGCTGCAAGACACCTGAGGTCTCCTTCCTGCCCGAGG
AGGCCACTGAGGAGGCTGGGGTCCGAGGTGGGGCGGAGGAGGAGGAGGAGGAAGAAGAAGAGGAGGAGGAAGAGG
AAGAGGAGGAGGAGCAGCAGCCTGCTACCACCACGGCCACCAGCACTGCTGCAGCCGCCCCAAGCACTGCCCCCA
GCGCGGGGTCCACAGCCGGTGACTCGGGGGCGGAGGACGGGCCAGCTTCCCGTGTCTCCCAGCTGCCCACGTTGC
CCCCGCCCATGCCCTGGAATCTGCCAGCTGGTGTGGACTGCACCACCAGCGGCGTCCTGGCCTTGACTGCACTTC
TCTTCAAGATGGAAGAAGCCAACCTGGCGAGCCGAGCGAAGGCCCAGGAGCTGATCCAGGCCACCAACCAGATCC

FIGURE 3861B

TCAGCCACAGAAAGCCACCCTCAAGTCTGGGGATGACCCCAGCTCCTGTGCCCACCTCTTTGGGTCTGCCCCCTG
GCCCCTCCAGCTACCTGCTTCCTGGCAGCCTCCCTCTGGGGGGCTGCGGTTCGACCCCCCCCCACCCCCACCGGGC
TGGCTGCCACGTCTGACAAGAGAGAGGGCAGCAGCAGCTCTGAGGGCCGTGGGGACACAGATAAGTATCTGAAGA
AGCTGCACACGCAGGAGCGGGCGGTGGAGGAGGTGAAGCTGGCCATCAAGCCATACTATCAGAAGAAGGACATCA
CCAAGGAGGAGTACAAGGACATCCTGAGGAAGGCCGTCCACAAGATCTGCCACAGCAAAAGTGGGGAAATCAACC
CAGTGAAGGTGAGCAACCTGGTGCGGGCCTACGTCCAGCGCTACCGCTACTTCCGCAAGCACGGTCGCAAGCCAG
GGGACCCCCCAGGGCCCCCACGGCCGCCCAAGGAGCCAGGGCCCCCAGACAAGGGTGGCCCGGGCCTGCCCCTGC
CCCCTCTC**TGA**GAGCCCTGGCCAGCTCTTCGCCCCTCACCTCTTTGAAACTCTGGACGTATTTATGGCTCCACCT
CCCCACCTCCCTCCCCCGTCAGTGGGATGACTGGGGGAGGGTTGCTGCAGGGAAGAGGAGAGCCCCCTGCCCTGC
CCTGCCCCGTGTCCACCTCCCTTGCCCCCAAGCCTGTCCCCAGTGCCCCTCCCTTCTGTTTGTGCCCCTCTCCCC
AATTTCATTAAAGATTTCATGAAACATT

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FIGURE 3862

GGCTCCCCCGCAGGCGGTAGCGAAGGCAGCAGCAGCGGTGGCGAC**ATG**AGCAGCGGGGCGGCGTCCGGGACAGGG
CGGGGGCGGCCCCGGGGCGGGGGACCTGGGCCCGGGGACCCCCCGCCCAGCGAGACACACAAGCTGGTGGTCGTG
GGCGGCGGCGGCGTGGGCAAGAGCGCGCTGACCATCCAGTTCATCCAGTCCTACTTCGTGTCTGACTACGACCCC
ACTATTGAGGACTCCTACACGAAGATCTGCAGTGTGGATGGCATCCCAGCCCGGCTGGACATCCTGGACACCGCG
GGCCAGGAAGAGTTCGGGGCCATGAGAGAGCAGTACATGCGTGCTGGCCACGGCTTCCTGCTGGTGTTCGCCATT
AACGACCGGCAGAGTTTCAACGAGGTGGGCAAGCTCTTCACGCAGATTCTGCGGGTCAAGGACCGCGACGACTTC
CCCGTTGTGTTGGTCGGGAACAAGGCAGATCTGGAGTCACAGCGCCAGGTCCCCCGATCAGAAGCCTCTGCCTTC
GGCGCCTCCCACCACGTGGCCTACTTTGAGGCCTCGGCCAAACTGCGTCTCAACGTGGACGAGGCTTTTGAGCAG
CTGGTGCGGGCTGTCCGGAAATACCAGGAACAAGAGCTCCCACCGAGCCCTCCCAGTGCCCCCAGGAAGAAGGGC
GGGGGCTGCCCCTGCGTCCTCCTG**TAG**CCCAGGCAAGAGAGAAGCAACCACCACAAGCTCTCGGGACTAGCTGCC
TTCGCACCTTGCTGTGTGACCTGAGGCCCTCACTGAGCCTCAATTTCCTCATCTGGGTCTCCCAGGACACATCAC
ATACCCACCCTTACTTCCTGGCCTCTTCTGGGCTACTGCCACTGTGTGCCTTCTGCCAACGCCTCCTGTCCCCAC
CTAAGCCTGGTGGGGGTGAGGGGCTCCGGGTCACTGCTGTATATAACTCCCCTCCCCCAGAAAAATAAATGTCAC
TGCCAACGTC

FIGURE 3863A

GTGGTT**ATG**GAGCAGCTGCCGGGGGTGCCACCAGGCCCCCCCCACCCCGTTCGACCGCCACCCCCGCCTCCACCA
CCCATGCCCCTGCAGCTCGAGGCCCACCTCCGCAGCCATGGCCTGGAGCCCGCGGCCCCCAGCCCCCGCCTGCGA
CCCGAGGAGAGCCTGGATCCGCCAGGCGCCATGCAGGAATTGCTCGGGGCTCTGGAGCCGCTGCCCCCGGCGCCT
GGGGATACTGGCGTAGGCCCACCAAACTCGGAGGGCAAGGATCCCGCAGGCGCCTACCGCAGCCCCAGCCCGCAA
GGCACCAAGGCGCCGCGTTTCGTGCCGCTCACCTCCATCTGCTTCCCTGACTCCTTGCTCCAAGACGAGGAGCGC
AGCTTCTTCCCCACCATGGAGGAGATGTTCGGTGGAGGGGCCGCGGACGACTACGGCAAGGCCGGGCCACCTGAG
GACGAGGGGGACCCCAAGGCTGGCGCTGGGCCACCCCCCGGCCCCCCTGCTTATGATCCCTATGGGCCCTACTGT
CCTGGCCGGGCGTCGGGAGCCGGGCCCGAGACACCGGGCCTGGGCCTGGACCCCAACAAACCGCCTGAACTGCCC
TCCACGGTCAACGCCGAGCCGCTGGGCCTGATCCAGAGTGGCCCCCACCAGGCGGCGCCACCACCCCCGCCTCCG
CCACCGCCGCCTCCCGCGCCGGCCTCCGAACCCAAGGGTGGCCTCACCTCGCCCATCTTCTGCTCTACCAAGCCA
AAGAAGCTGCTCAAGACATCCTCCTTCCACCTGCTGCGGCGCCGCGACCCACCCTTCCAGACCCCCAAGAAGCTG
TACGCCCAGGAGTACGAGTTCGAGGCGGACGAGGACAAGGCCGATGTTCCCGCCGACATCCGCCTCAACCCCCGG
CGCTTGCCTGACCTGGTCTCCAGCTGCCGCTCCCGTCCGGCCCTCTCGCCACTGGGGGACATCGACTTCTGCCCA
CCCAACCCAGGACCCGATGGCCCCCGGCGCCGTGGCCGCAAGCCCACGAAGGCGAAACGTGATGGGCCACCCCGG
CCACGGGGGAGGCCCCGGATCCGCCCCCTGGAGGTCCCGACCACTGCGGGGCCCGCCTCGGCCTCCACGCCCACC
GATGGCGCCAAGAAACCCCGGGGCCGGGGCCGAGGCCGGGGTCGAAAGGCTGAGGAGGCAGGGGGCACCCGGTTG
GAGCCCCTGAAGCCACTTAAGATCAAGCTGTCTGTGCCCAAGGCTGGCGAGGGTCTGGGAACCTCATCGGGTGAT
GCCATATCAGGCACTGACCACAACAGCCTGGACTCGAGCCTGACTCGGGAGAAGATCGAGGCCAAGATTAAGGAG
GTGGAGGAGAAGCAGCCGGAGATGAAGTCGGGTTTCATGGCCTCCTTCTTGGACTTCCTCAAGTCAGGCAAGCGC
CACCCACCACTCTACCAGGCGGGCCTGACGCCTCCGCTCAGCCCTCCCAAGAGTGTGCCACCCTCTGTGCCAGCC
CGAGGCCTGCAGCCCCAGCCCCCTGCCACCCCTGCTGTGCCACATCCCCCACCTTCCGGAGCCTTTGGGCTTGGG
GGCGCCCTGGAGGCTGCAGAGAGTGAGGGTCTGGGGCTTGGCTGCCCTTCACCCTGCAAGCGGCTTGATGAGGAG
CTGAAGCGGAACCTCGAGACGCTGCCCTCCTTCTCCTCGGATGAGGAAGACTCTGTCGCCAAGAACCGAGACCTG
CAGGAGAGCATCTCCTCCGCCATCTCTGCCCTCGATGACCCACCCCTTGCTGGGCCAAAAGACACTTCCACCCCA
GATGGGCCGCCCTTGGCCCCCGCGGCTGCAGTTCCAGGGCCACCCCCTCTTCCGGGGCTCCCCAGTGCCAACAGC
AATGGCACTCCCGAGCCCCCGCTGCTGGAGGAGAAACCCCCACCCACTCCACCTCCTGCCCCGACTCCTCAGCCT
CAGCCTCCGCCACCCCCTCCGCCGCCACAGCCAGCCCTGCCCTCGCCACCCCCGCTGGTGGCCCCCACGCCCAGC
TCACCACCGCCACCGCCGCTGCCGCCGCCACCTCCACCAGCCATGCCCTCGCCTCCACCACCACCCCCACCAGCC
GCTGCCCCACTGGCTGCTCCTCCTGAGGAGCCCGCCGCCCCGTCTCCCGAAGACCCCGAGCTGCCGGACACCCGG
CCCCTGCATCTGGCCAAAAAGCAGGAGACGGCGGCAGTGTGTGGGGAGACGGACGAGGAGGCCGGCGAGAGTGGC
GGAGAGGGCATCTTCCGGGAACGGGACGAGTTCGTCATCCGTGCTGAGGACATCCCTTCCCTCAAGCTGGCGTTG
CAGACGGGGCGTGAACCCCCACCCATCTGGCGAGTCCAGAAGGCCCTTCTGCAGAAATTCACTCCGGAGATCAAG
GACGGCCAGAGGCAGTTTTGTGCCACCAGTAATTATTTGGGGTATTTTGGGGATGCAAAAAATCGGTACCAGCGC
CTCTATGTAAAGTTCCTGGAAAATGTCAATAAGAAGGACTACGTGAGGGTCTGTGCTCGGAAACCCTGGCATCGG
CCCCCAGTGCCAGTCAGACGCTCTGGGCAGGCCAAGAACCCCGTATCTGCTGGGGGTAGCTCTGCACCTCCCCCT
AAGGCCCCAGCACCACCTCCCAAGCCTGAGACCCCTGAAAAGACGACATCTGAGAAGCCCCCAGAGCAGACTCCT
GAGACGGCCATGCCTGAGCCCCCTGCCCCCGAGAAGCCCTCCCTCCTGCGGCCTGTTGAGAAGGAAAAGGAGAAG
GAGAAGGTGACACGTGGAGAGCGGCCATTGCGGGGTGAGCGGGCCACCAGCGGACGGCAGACACGGCCAGAGCGG
AGTCTCGCCACGGGACAACCTGCCACATCCCGGCTGCCCAAAGCCCGGCCTACCAAGGTGAAGGCTGAACCGCCC
CCTAAGAAGAGGAAGAAATGGCTGAAGGAGGCAGGCGGCAACGCTACAGCAGGCGGGGGCCCACCAGGCAGCTCC
TCGGACTCGGAGTCCTCCCCTGGAGCCCCCAGCGAGGACGAGCGGGCAGTACCTGGGCGTCTGCTCAAAACCAGG
GCGATGCGGGAGATGTACCGGAGCTACGTGGAGATGTTGGTGAGCACAGCACTTGACCCAGACATGATCCAGGCC
CTGGAGGACACGCATGACGAGCTGTACCTGCCCCCCATGCGGAAGATAGACGGCCTGCTGAATGAGCACAAGAAG
AAAGTCCTGAAGCGGCTGTCGCTAAGCCCAGCCCTGCAGGATGCTCTGCACACGTTCCCACAGCTGCAAGTGGAG
CAGAGTGGGGAGGGCTCTCCGGAAGAGGGGGCTGTGCGGCTGCGGCCTGCTGGGGAACCCTACAACCGCAAGACG
CTCAGCAAGCTCAAGAGGAGCGTGGTCAGAGCCCAGGAGTTCAAGGTTGAGCTGGAAAAGTCGGGATACTATACA
CTCTACCATTCGCTCCACCACTATAAATACCACACCTTCCTGCGCTGCCGGGACCAGACCCTGGCCATCGAGGGC
GGCGCCGAGGACCTGGGCCAGGAGGAGGTGGTCCAGCAGTGCATGCGGAACCAGCCGTGGCTGGAACAGCTCTTT

FIGURE 3863B

GACTCCTTCAGTGACCTGCTGGCCCAAGCACAGGCCCACAGCCGCTGCGGG**TGA**CCCCGCCCCAGCTTGTGAGGG
GGGCGCCTCCTCCATGAACCGAGAATTGGGACAGAACCGTGTCCTCAGGAGCTAACACCTGGGCTCCATCGCCGG
GGAAAGGGGGTCATGGGTCAGGGTGTGTCTGTGCTGCCCCCTCCAGGGCAGGGTTCAAAGTCCGACTCCCCCCCT
CTCCCAAGCCCCCTCCACTCCCTCCCCATTCCTCCCACTGTTCGGTGTACAGAGAAATTATTTATATATATGTAT
AAATGTCTATTTAGTAACGGTTTCCCTCTCCCCTTGCCCCGACCCCCCCTCCACAGCCACAGCCCCCGCCCCCTC
CACCTTGTACATAATGTATAGGAAAAGTCTATGTATGGCTGGGGGGGGTGGGGTGGCTTCAGAGAGCTGGGGGAC
CCCTTCCCCCCAAGTCCCCCCTGCAGGCCAAGATCTTTGCTAAAGGCCATTCCCTCCGCAGGGCATTTGGCGTCG
GGTGGGAGGGGAAAACGCATCTTGTTAATTATTTTTAATCTTATTTATTGTACATACCTGGGGCAGGGGCTTGGG
GAGGTGGAGGGGGGAGAAGGGTCCCCTCTCTCTGCCCCTCCCACTCCTTTTCTACGGCGATTTGTCTGTGTCTGG
CCCCCACCCACTGCCCATCCCCCATTGTTGTCTGGATGTGGTTCTATTTTTTATCGGTCTCCTTTCCCCTCCTCC
CCGTTCTCGCCCCCGCCCCACCCCCTGCTCCCACTACCCTTTGTCTCTTGCTCTTTCTTGGGCTTCTGTACAACT
CAACTTGTATACACTGTGTACACACAACCAGCCAAACGAAAACCCAACGGCAAACACTTT

FIGURE 3864

GAAGCGACCGAGGGACTGGGAGTCGTTAGTGAGAGTTTCACTCTTGTTGCCTAGGCTGGAGTGCAATGGTGCGAT
CTTGGCTCATCACGACCTTCGCCTCCCAGGTTCAAGTGATTGTCCCATTTCAGCCTCCCGAGTAGCTGGGATTAC
AGGATGACGCGGCATGGCAAGAACTGCACCGCAGGGGCCGTCTACACCTACCACGAGAAGAAGAAGGACACAGCG
GCCTCGGGCTATGGGACCCAGAACATTCGACTGAGCCGGGATGCCGTGAAGGACTTCGACTGCTGTTGTCTCTCC
CTGCAGCCTTGCCACGATCCTGTTGTCACCCCAGATGGCTACCTGTATGAGCGTGAGGCCATCCTGGAGTACATT
CTGCACCAGAAGAAGGAGATTGCCCGGCAGATGAAGGCCTACGAGAAGCAGCGGGGCACCCGGCGCGAGGAGCAG
AAGGAGCTTCAGCGGGCGGCCTCGCAGGACCATGTGCGGGGCTTCCTGGAGAAGGAGTCGGCTATCGTGAGCCGG
CCCCTCAACCCTTTCACAGCCAAGGCCCTCTCGGGCACCAGCCCAGATGATGTCCAACCTGGGCCCAGTGTGGGT
CCTCCAAGTAAGGACAAGGACAAAGTGCTGCCCAGCTTCTGGATCCCGTCGCTGACGCCCGAAGCCAAGGCCACC
AAGCTGGAGAAGCCGTCCCGCACGGTGACCTGCCCCATGTCAGGGAAGCCCCTGCGCATGTCGGACCTGACGCCC
GTGCACTTCACACCGCTAGACAGCTCCGTGGACCGCGTGGGGCTCATCACCCGCAGCGAGCGCTACGTGTGTGCC
GTGACCCGCGACAGCCTGAGCAACGCCACCCCCTGCGCTGTGCTGCGGCCCTCTGGGGCTGTGGTCACCCTCGAA
TGCGTGGAGAAGCTGATTCGGAAGGACATGGTGGACCCTGTGACTGGAGACAAACTCACAGACCGCGACATCATC
GTGCTGCAGCGGGGCGGTACCGGCTTCGCGGGCTCCGGAGTGAAGCTGCAAGCGGAGAAATCACGGCCGGTGATG
CAGGCCTGAGTGTGTGCGGGAGACCAAATAAACCGGCTTGGGTGCGC

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FIGURE 3865

GAAGGATATTAAAGAGCACCTGCAGGAATTTTTTAAGGGGATGCCGGGGGAAGGGCTTGAAGGAGGAACTAAGGA
GGCTTCCAGAAGATTTTGATTAACAGCGAGCGCTAGGGAAGGCCACGGGGATACAGAGGGGTAGGAGGAGGATCC
AGAGACCTCCAAGTTGTGGACTCCGGAGGCATCGAGTTCCTTTCCCAGTTTTGTCAAGAATTCCCTGAGCGGCAG
ACACCCTCAAAGTAAAAAACGGGAACCACAGAGAAGGAAAAAGAAGAACCACAAGCGTTTTGAGAAACAAACAGG
CTGGGCCTAGGGCCTGGGGTGTGCCCTGCAACTGGGGGGTGGGGCTGGATGTTCTTGGAGTCAGGGAGCAGCAGC
CTCCCACAGGATGTGAGAGAGGAACTGGGGTCTCCAGTCACGGGAGCCAGGAGCCGGCCAGGGCCGCAGGCAGGA
AGCGGAGCGAGGCTGAAGGGAACTTCGTCCTCTCAGC**ATG**GGGGTCCCGCGGCCTCAGCCCTGGGCGCTGGGGCT
CCTGCTCTTTCTCCTTCCTGGGAGCCTGGGCGCAGAAAGCCACCTCTCCCTCCTGTACCACCTTACCGCGGTGTC
CTCGCCTGCCCCGGGGACTCCTGCCTTCTGGGTGTCCGGCTGGCTGGGCCCGCAGCAGTACCTGAGCTACAATAG
CCTGCGGGGCGAGGCGGAGCCCTGTGGAGCTTGGGTCTGGGAAAACCAGGTGTCCTGGTATTGGGAGAAAGAGAC
CACAGATCTGAGGATCAAGGAGAAGCTCTTTCTGGAAGCTTTCAAAGCTTTGGGGGGAAAAGGTCCCTACACTCT
GCAGGGCCTGCTGGGCTGTGAACTGGGCCCTGACAACACCTCGGTGCCCACCGCCAAGTTCGCCCTGAACGGCGA
GGAGTTCATGAATTTCGACCTCAAGCAGGGCACCTGGGGTGGGGACTGGCCCGAGGCCCTGGCTATCAGTCAGCG
GTGGCAGCAGCAGGACAAGGCGGCCAACAAGGAGCTCACCTTCCTGCTATTCTCCTGCCCGCACCGCCTGCGGGA
GCACCTGGAGAGGGGCCGCGGAAACCTGGAGTGGAAGGAGCCCCCCTCCATGCGCCTGAAGGCCCGACCCAGCAG
CCCTGGCTTTTCCGTGCTTACCTGCAGCGCCTTCTCCTTCTACCCTCCGGAGCTGCAACTTCGGTTCCTGCGGAA
TGGGCTGGCCGCTGGCACCGGCCAGGGTGACTTCGGCCCCAACAGTGACGGATCCTTCCACGCCTCGTCGTCACT
AACAGTCAAAAGTGGCGATGAGCACCACTACTGCTGCATTGTGCAGCACGCGGGGCTGGCGCAGCCCCTCAGGGT
GGAGCTGGAATCTCCAGCCAAGTCCTCCGTGCTCGTGGTGGGAATCGTCATCGGTGTCTTGCTACTCACGGCAGC
GGCTGTAGGAGGAGCTCTGTTGTGGAGAAGGATGAGGAGTGGGCTGCCAGCCCCTTGGATCTCCCTTCGTGGAGA
CGACACCGGGGTCCTCCTGCCCACCCCAGGGGAGGCCCAGGATGCTGATTTGAAGGATGTAAATGTGATTCCAGC
CACCGCC**TGA**CCATCCGCCATTCCGACTGCTAAAAGCGAATGTAGTCAGGCCCCTTTCATGCTGTGAGACCTCCT
GGAACACTGGCATCTCTGAGCCTCCAGAAGGGGTTCTGGGCCTAGTTGTCCTCCCTCTGGAGCCCCGTCCTGTGG
TCTGCCTCAGTTTCCCCTCCTAATACATATGGCTGTTTTCCACCTCGATAATATAACACGAGTTTGGGCCC

FIGURE 3866

TTTCTTTTTTTCAGGCGGCCGGGAAG**ATG**GCGGACATTCAGACTGAGCGTGCCTACCAAAAGCAGCCGACCATCT
TTCAAAACAAGAAGAGGGTCCTGCTGGGAGAAACTGGCAAGGAGAAGCTCCCGCGGTACTACAAGAACATCGGTC
TGGGCTTCAAGACACCCAAGGAGGCTATTGAGGGCACCTACATTGACAAGAAATGCCCCTTCACTGGTAATGTGT
CCATTCGAGGGCGGATCCTCTCTGGCGTGGTGACCAAGATGAAGATGCAGAGGACCATTGTCATCCGCCGAGACT
ATCTGCACTACATCCGCAAGTACAACCGCTTCGAGAAGCGCCACAAGAACATGTCTGTACACCTGTCCCCCTGCT
TCAGGGACGTCCAGATCGGTGACATCGTCACAGTGGGCGAGTGCCGGCCTCTGAGCAAGACAGTGCGCTTCAACG
TGCTCAAGGTCACCAAGGCTGCCGGCACCAAGAAGCAGTTCCAGAAGTTC**TGA**GGCTGGACATCGGCCCGCTCCC
CACAATGAAATAAAGTTATTTTCTCATTCCCAGGCCAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 3867

CTTTTCCAAGCGGCTGCCGAAG**ATG**GCGGAGGTGCAGGTCCTGGTGCTTGATGGTCGAGGCCATCTCCTGGGCCG
CCTGGCGGCCATCGTGGCTAAACAGGTACTGCTGGGCCGGAAGGTGGTGGTCGTACGCTGTGAAGGCATCAACAT
TTCTGGCAATTTCTACAGAAACAAGTTGAAGTACCTGGCTTTCCTCCGCAAGCGGATGAACACCAACCCTTCCCG
AGGCCCCTACCACTTCCGGGCCCCCAGCCGCATCTTCTGGCGGACCGTGCGAGGTATGCTGCCCCACAAAACCAA
GCGAGGCCAGGCCGCTCTGGACCGTCTCAAGGTGTTTGACGGCATCCCACCGCCCTACGACAAGAAAAAGCGGAT
GGTGGTTCCTGCTGCCCTCAAGGTCGTGCGTCTGAAGCCTACAAGAAAGTTTGCCTATCTGGGGCGCCTGGCTCA
CGAGGTTGGCTGGAAGTACCAGGCAGTGACAGCCACCCTGGAGGAGAAGAGGAAAGAGAAAGCCAAGATCCACTA
CCGGAAGAAGAAACAGCTCATGAGGCTACGGAAACAGGCCGAGAAGAACGTGGAGAAGAAAATTGACAAATACAC
AGAGGTCCTCAAGACCCACGGACTCCTGGTC**TGA**GCCCAATAAAGACTGTTAATTCCTCATGCGTTGCCTGCCCT
TCCTCCATTGTTGCCCTGGAATGTACGGGACCCAGGGGCAGCAGCAGTCCAGGTGCCACAGGCAGCCCTGGGACA
TAGGAAGCTGGGAGCAAGGAAAGGGTCTTAGTCACTGCCTCCCGAAGTTGCTTGAAAGCACTCGGAGAATTGTGC
AGGTGTCATTTATCTATGACCAATAGGAAGAGCAACCAGTTACTATGAGTGAAAGGGAGCCAGAAGACTGATTGG
AGGGCCCTATCTTGTGAGTGGGGCATCTGTTGGACTTTCCACCTGGTCATATACTCTGCAGCTGTTAGAATGTGC
AAGCACTTGGGGACAGCATGAGCTTGCTGTTGTACACAGGGTATTTCTAGAAGCAGAAATAGACTGGGAAGATGC
ACAACCAAGGGGTTACAGGCATCGCCCATGCTCCTCACCTGTATTTTGTAATCAGAAATAAATTGCTTTTAAAG

FIGURE 3868

GTCTCTGGCTGTCACCCGGCTTGGCCCCTTCCACACCCAACTGGGGCAAGCCTGACCCGGCGACAGGAGGCATGA
GGGGCCCCCGGCCGAA**ATG**ACAGTGCTGGCGCCAGCCTGGAGCCCAACAACCTATCTCCTCCTGCTGCTGCTGCT
GAGCTCGGGACTCAGTGGGACCCAGGACTGCTCCTTCCAACACAGCCCCATCTCCTCCGACTTCGCTGTCAAAAT
CCGTGAGCTGTCTGACTACCTGCTTCAAGATTACCCAGTCACCGTGGCCTCCAACCTGCAGGACGAGGAGCTCTG
CGGGGGCCTCTGGCGGCTGGTCCTGGCACAGCGCTGGATGGAGCGGCTCAAGACTGTCGCTGGGTCCAAGATGCA
AGGCTTGCTGGAGCGCGTGAACACGGAGATACACTTTGTCACCAAATGTGCCTTTCAGCCCCCCCCCAGCTGTCT
TCGCTTCGTCCAGACCAACATCTCCCGCCTCCTGCAGGAGACCTCCGAGCAGCTGGTGGCGCTGAAGCCCTGGAT
CACTCGCCAGAACTTCTCCCGGTGCCTGGAGCTGCAGTGTCAGCCCGACTCCTCAACCCTGCCACCCCCATGGAG
TCCCCGGCCCCTGGAGGCCACAGCCCCGACAGCCCCGCAGCCCCCTCTGCTCCTCCTACTGCTGCTGCCCGTGGG
CCTCCTGCTGCTGGCCGCTGCCTGGTGCCTGCACTGGCAGAGGACGCGGCGGAGGACACCCCGCCCTGGGGAGCA
GGTGCCCCCCGTCCCCAGTCCCCAGGACCTGCTGCTTGTGGAGCAC**TGA**CCTGGCCAAGGCCTCATCCTGCGGAG
CCTTAAACAACGCAGTGAGACAGACATCTATCATCCCATTTTACAGGGGAGGATACTGAGGCACACAGAGGGGAG
TCACCAGCCAGAGGATGCATAGCCTGGACACAGAGGAAGTTGGCTAGAGGCCGGTCCCTTCCTTGGGCCCCTCTC
ATTCCCTCCCCAGAATGGAGGCAACGCCAGAATCCAGCACCGGCCCCATTTACCCAACTCTGTACAAAGCCCTTG
TCCCCATGAAATTGTATATAAATCATCCTTTTCTACCA

FIGURE 3869

CGCAGTCTTCGCGGAAAGCGTTCGGGGTAGGCGATGGCTGCGACGCGTGCAGGGCCCCGCGCCCGCGAGATCTTC
ACCTCGCTGGAGTACGGACCGGTGCCGGAGAGCCACGCATGCGCACTGGCCTGGCTGGACACCCAGGACCGGTGC
TTGGGCCACTATGTGAATGGGAAGTGGTTAAAGCCTGAACACAGAAATTCAGTGCCTTGCCAGGATCCCATCACA
GGCTGGCCGAGGTGATCCAGAAGCACCAGCGGCTGCTGTGGACCCTGGAATCCCTGGTGACTGGGCGGGCTGTTC
GAGAGGTTCGAGACGGGGACGTCCAGCTGGCCCAGCAGCTGCTCCACTACCATGCAATCCAGGCATCCACCCAGG
AGGAGGCACTGGCAGGCTGGGAGCCC**ATG**GGAGTAATTGGCCTCATCCTGCCACCCACATTCTCCTTCCTTGAGA
TGATGTGGAGGATTTGCCCTGCCCTGGCTGTGGGCTGCACCGTGGTGGCCCTCGTGCCCCCGGCCTCCCCGGCGC
CCCTCCTCCTGGCCCAGCTGGCGGGGGAGCTGGGCCCCTTCCCGGGAATCCTGAATGTCCTCAGTGGCCCTGCGT
CCCTGGTGCCCATCCTGGCCTCCCAGCCTGGAATCCGGAAGGTGGCCTTCTGCGGAGCCCCGGAGGAAGGGCGTG
CCCTTCGACGGAGCCTGGCGGGAGAGTGTGCGGAGCTGGGCCTGGCGCTGGGGACGGAGTCGCTGCTGCTGCTGA
CGGACACGGCGGACGTAGACTCGGCCGTGGAGGGTGTCGTGGACGCCGCCTGGTCCGACCGCGGCCCGGGTGGCC
TCAGGCTCCTCATCCAGGAGTCTGTGTGGGATGAAGCCATGAGACGGCTGCAGGAGCGGATGGGGCGGCTTCGGA
GTGGCCGAGGGCTGGATGGGGCCGTGGACATGGGGGCCCGGGGGGCTGCCGCATGTGACCTGGTCCAGCGCTTTG
TGCGTGAGGCCCAGAGCCAGGGTGCACAGGTGTTCCAGGCTGGTGATGTGCCTTCGGAACGCCCATTCTATCCCC
CAACCTTGGTCTCCAACCTGCCCCCAGCCTCCCCATGTGCCCAGGTGGAGGTGCCGTGGCCTGTGGTCGTGGCCT
CCCCCTTCCGCACAGCCAAGGAGGCACTGTTGGTGGCCAACGGGACGCCCCGCGGGGGCAGCGCCAGTGTGTGGA
GCGAGAGGCTGGGGCAGGCGCTGGAGCTGGGCTATGGGCTCCAGGTGGGCACTGTCTGGATCAACGCCCACGGCC
TCAGAGACCCTTCGGTGCCCACAGGCGGCTGCAAGGAGAGTGGGTGTTCCTGGCACGGGGGCCCAGACGGGCTGT
ATGAGTATCTGCGGCCCTCAGGGACCCCTGCCCGGCTGTCCTGCCTCTCCAAGAACCTGAACTATGACACCTTTG
GCCTCGCTGTTCCCTCAACCCTGCCGGCTGGGCCTGAAATAGGGCCCAGCCCAGCACCCCCCTATGGGCTCTTCG
TTGGGGGCCGTTTCCAGGCTCCTGGGGCCCGAAGCTCCAGGCCCATCCGGGATTCGTCTGGCAACCTCCATGGCT
ACGTGGCTGAGGGTGGAGCCAAGGACATCCGAGGTGCTGTGGAGGCCGCTCACCAGGCTTTCCCTGGCTGGGCGG
GCCAGTCCCCAGGAGCCCGGGCAGCCCTGCTGTGGGCCCTGGCGGCTGCACTGGAGCGCCGGAAGTCTACCCTGG
CCTCGAGGCTGGAGAGGCAGGGAGCGGAGCTCAAGGCTGCGGAGGCGGAGGTGGAGCTGAGCGCAAGACGACTTC
GGGCGTGGGGGGCCCGGGTGCAGGCCCAAGGCCACACCCTGCAGGTAGCCGGGCTGAGAGGCCCTGTGCTGCGCC
TGCGGGAGCCGCTGGGTGTGCTGGCTGTGGTGTGTCCGGACGAGTGGCCCCTGCTTGCCTTCGTGTCCCTGCTGG
CTCCCGCCCTGGCCTACGGCAACACTGTGGTCATGGTGCCCAGTGCGGCCTGTCCTCTGCTGGCCCTGGAGGTCT
GCCAGGACATGGCCACCGTGTTCCCAGCAGGCCTGGCCAACGTGGTGACAGGAGACCGGGACCATCTGACCCGCT
GCCTGGCCTTGCACCAAGACGTCCAGGCCATGTGGTATTTCGGATCAGCCCAGGGTTCCCAGTTTGTCGAGTGGG
CCTCGGCAGGAAACCTCAAACCGGTGTGGGCGAGCAGGGGCTGCCCGCGGGCCTGGGACCAGGAGGCCGAGGGGG
CAGGCCCAGAGCTGGGGCTGCGAGTGGCGCGGACCAAGGCCCTGTGGCTGCCTATGGGGGAC**TGA**TGCCTGAGCG
CCACCTACTGCATTTTGGACACCTCACACCAAGGGGAGATGCACCCCACAGACACCTGGGACTTTCCCCTTCTGG
TTCCTGTGTCTCCCAATAAACTCTCTGACCAACCCTAGCTGTGCTTCTGCGAGAAGAAAGGGTGTAGCAACTTCT
GGCAGATATGAGGCTTTTTTCTTTTTTTTTTTTTTTTTGAGACAACGTCTGGCTCTGTCACCCAGGCTGGAGCG
CAGTGGCACAATCTCGGCCCACTGCAGCCTCGACCTCTGGGGCTCAAGGGATCCTCATGCCTCAGCCTCATATGT
AGCTGGGGCCACAGACATGCACCACCACACCTGGCTCGAGGCCATTTTAGTTCTGAGGTTGAGCAGCTCAGGAGC
CGGCTCCAGCACGGTGCTGTGTTTGTGAAACAGAGAAAGGGGACCCCCGAGGACCCCAGACAGGGCCTTAGGACT
CTCATATCTTCTTGTCTTCTCCATCTGGTGGCTCTTGCTCTCTGGTTTTCTCTACCTTTTCATGGCCCCAGAATC
CATATGCAGTAAAGGAACTCTCTGGAATAAAATTAAAGTCCTCCT

FIGURE 3870

ACAGTTCGGCACGTAGGACGGAGGGTAGTGCGTCTAGAGACACATATTCCCCACGGATTTGACGATGGTGTTCGG
TCTTGAATGGAAATGTAGTCTTAGGCCAGTCTTAGGTTTTTGAACAGGATAGTAGGTATCCGGAGTCGATTGAGG
GCCAGAGCAGGCACTGGGGTTCGGATCCTGGGCAAAGTTTCCCACGTTGAGGGTCTCGAGGACGCCTAGATCTCT
TTCCCAGGGCC**ATG**GCGAACCCGAAGCTGCTGGGAATGGGGCTAAGCGAGGCGGAGGCGATCGGTGCTGATTCGG
CGCGATTTGAGGAGCTGCTGCTGCAGGCCTCGAAGGAGCTCCAGCAAGCCCAGACAACCAGACCAGAATCGACAC
AAATCCAGCCTCAGCCTGGTTTCTGCATAAAGACCAACTCCTCGGAAGGGAAGGTTTTCATCAACATCTGCCACT
CCCCCTCTATCCCTCCTCCCGCCGACGTGACCGAGGAGGAGCTGCTTCAGATGCTAGAGGAGGACCAAGCTGGGT
TTCGCATCCCCATGAGTCTGGGAGAGCCTCATGCAGAACTGGATGCAAAAGGCCAGGGATGTACCGCCTACGACG
TAGCTGTCAACAGCGACTTCTACCGGAGGATGCAGAACAGCGATTTCTTGCGGGAGCTCGTGATCACCATCGCCA
GGGAGGGCCTTGAGGACAAATACAACTTGCAGCTGAATCCGGAATGGCGCATGATGAAGAACCGGCCATTCATGG
GCTCCATCTCGCAGCAGAACATCCGCTCGGAGCAGCGTCCTCGGATCCAGGAGCTGGGGGACCTGTACACGCCCG
CCCCCGGGAGAGCTGAGTCAGGGCCTGAAAAGCCTCACCTGAACCTGTGGCTGGAAGCCCCCGACCTCCTCTTGG
CCGAAGTTGACCTCCCCAAACTGGATGGAGCCCTGGGGCTGTCGCTGGAGATCGGGGAGAACCGCCTGGTGATGG
GGGGCCCCCAGCAGCTGTATCATCTAGACGCTTATATCCCGCTGCAGATCAACTCTCATGAGAGCAAGGCAGCCT
TCCACCGGAAGAGAAAGCAATTAATGGTGGCCATGCCGCTTCTGCCGGTGCCTTCT**TGA**TCAGGGTGTCTCCTTG
TGCTTCTGAGATGTGGAGAAGAGGCTGCTGGCTTCCCTAAAAGTTGAAATAAAAGATTTTTGCCTTT

FIGURE 3871

CCCACTTTTCCCAAACAAAGCTCCCGGCAACTTTCTCCCTCGCAGCGCCCCGCCCGCCCGCGGCTCCCCAGCCCC
AGGCCGGGAGGCCCAG**ATG**GGGGAACCCCGGGCTGGGGCCGCCCTGGACGATGGCAGCGGCTGGACGGGCAGTGA
GGAAGGCAGTGAGGAGGGTACCGGCGGCAGTGAGGGGGCTGGGGGTGACGGGGGCCCGGATGCAGAGGGGGTGTG
GAGCCCAGACATTGAGCAGAGCTTCCAGGAGGCCCTGGCCATCTATCCACCCTGCGGCCGCCGGAAAATAATTTT
GTCTGATGAAGGCAAGATGTATGGTCGGAATGAACTGATCGCCCGCTACATCAAGCTGAGAACGGGGAAGACCCG
AACTCGAAAACAGGTTTCTAGTCACATCCAGGTTTTGGCCCGAAGGAAATCAAGGGAAATCCAGTCCAAGTTGAA
GGACCAGGTTTCCAAGGACAAGGCTTTCCAGACAATGGCAACCATGTCCTCTGCCCAGCTCATCTCCGCGCCTTC
TCTGCAGGCCAAACTGGGTCCCACTGGTCCTCAGGCCTCTGAGCTTTTCCAGTTTTGGTCTGGAGGATCTGGGCC
CCCCTGGAATGTTCCAGATGTGAAGCCATTCTCACAGACACCGTTCACCTTGTCACTGACTCCCCCATCTACTGA
CCTCCCAGGGTACGAGCCCCCCCAAGCCCTCTCACCCCTGCCCCCACCTACCCCATCGCCCCCAGCCTGGCAGGC
TCGGGGCCTGGGCACCGCCCGGTTGCAGCTGGTAGAGTTCTCAGCCTTCGTGGAACCGCCAGATGCAGTTGATTC
TTACCAGAGGCACCTGTTCGTGCACATCAGCCAGCACTGCCCCAGCCCCGGAGCGCCGCCGCTCGAGAGTGTGGA
CGTCCGGCAGATCTACGACAAATTCCCTGAGAAAAAGGGTGGCCTCCGAGAGCTATATGATCGTGGCCCCCCCCA
TGCCTTCTTCCTGGTCAAGTTCTGGGCGGACCTGAACTGGGGCCCAAGTGGTGAGGAGGCAGGGGCCGGTGGCAG
CATCAGCAGTGGTGGCTTCTACGGAGTGAGCAGCCAGTATGAGAGCCTGGAACACATGACCCTCACCTGTTCCTC
CAAGGTCTGCTCTTTTGGCAAGCAGGTGGTGGAGAAGGTGGAGACGGAACGGGCCCAGCTGGAGGACGGCAGATT
TGTGTACCGCCTGCTGCGCTCGCCCATGTGCGAGTACCTGGTGAATTTCTTGCACAAGTTGCGGCAGCTGCCTGA
GCGATACATGATGAACAGCGTCCTGGAAAACTTCACCATCCTCCAGGTGGTGACAAACAGAGACACCCAGGAACT
GCTGCTCTGCACCGCCTATGTCTTCGAGGTCTCCACCAGCGAGCGTGGGGCCCAGCATCACATTTACCGCCTGGT
CAGGGAC**TGA**AGGGGGACCCCAAAACTGGCTCACCCCCCAGAACACCCTCCTCCCAGGGAGGGTCCTCCAGCTCA
CCTCATGCTTCTTATTTGGGGAGAGGGCTGTGATGTAAAGGGGTTGACCTCAGAGGCCTAAGCAACTGGGGCCAT
CCCCCCCATTAGAGGGGCCCCCAAAACTTGGTTGGAGAGCTGAACAGGCTGGGACTGAGGAAAGGATAAACCCCG
ATATTGGGACCTCACAGTGGGTGTCTGAAAGGACAGATCACTCCGGAGTATCAGGGATTGTGGGGACAGGAGTGA
GACAACCCCCCAGGTACAGCACTGGCTTTTCTTTTCAGCCCCTGACAGGCCACCCCCACTCCTCTGCATGTCTTG
GAGAGCGCTAGTTACACATTGGCTTGTCCCCTTTACTTTTTCCCAGCCACCCCTCCCCCTGAAATTTCTGCCCCT
CTCTACCACCCTCACTCCATGACCTGTGAGATCACAAAGTGAAGATGAACCCTTTCTGTGCAGGAGCAGAGCCAG
GTGGGCCCTGGACATTTTTTTTTTTTTTAATATAACGAGATATTTATAAGTGGGTGCTAGGGTCTTGACTTTATC
TCCGCTGCACAAGCAGTGTGTTGAACTTTCTAATCTCATCCCTCTCCTAAGTGAGCCCTGAGCTAGACGGTTTCC
TTCCTCCCCTCTCAAAGTTTGTTTGTTTGTGTTCTGACAGAGGATAAAGCTATTTTACC

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FIGURE 3872

GTCTCCCCCACTGTCAGCACCTCTTCTGTGTGGTGAGTGGACCGCTTACCCCACTAGGTGAAG**ATG**TCAGCCCAG
GAGAGCTGCCTCAGCCTCATCAAGTACTTCCTCTTCGTTTTCAACCTCTTCTTCTTCGTCCTCGGCAGCCTGATC
TTCTGCTTCGGCATCTGGATCCTCATTGACAAGACCAGCTTCGTGTCCTTTGTGGGCTTGGCCTTCGTGCCTCTG
CAGATCTGGTCCAAAGTCCTGGCCATCTCAGGAATCTTCACCATGGGCATCGCCCTCCTGGGTTGTGTGGGGGCC
CTCAAGGAGCTCCGCTGCCTCCTGGGCCTGTATTTTGGGATGCTGCTGCTCCTGTTTGCCACACAGATCACCCTG
GGAATCCTCATCTCCACTCAGCGGGCCCAGCTGGAGCGAAGCTTGCGGGACGTCGTAGAGAAAACCATCCAAAAG
TACGGCACCAACCCCGAGGAGACCGCGGCCGAGGAGAGCTGGGACTATGTGCAGTTCCAGCTGCGCTGCTGCGGC
TGGCACTACCCGCAGGACTGGTTCCAAGTCCTCATCCTGAGAGGTAACGGGTCGGAGGCGCACCGCGTGCCCTGC
TCCTGCTACAACTTGTCGGCGACCAACGACTCCACAATCCTAGATAAGGTGATCTTGCCCCAGCTCAGCAGGCTT
GGACACCTGGCGCGGTCCAGACACAGTGCAGACATCTGCGCTGTCCCTGCAGAGAGCCACATCTACCGCGAGGGC
TGCGCGCAGGGCCTCCAGAAGTGGCTGCACAACAACCTTATTTCCATAGTGGGCATTTGCCTGGGCGTCGGCCTA
CTCGAGCTCGGGTTCATGACGCTCTCGATATTCCTGTGCAGAAACCTGGACCACGTCTACAACCGGCTCGCTCGA
TACCGT**TAG**GCCCCGCCCTCCCCAAAGTCCCGCCCCGCCCCCGTCACGTGCGCTGGGCACTTCCCTGCTGCCTGT
AAATATTTGTTTAATCCCCAGTTCGCCTGGAGCCCTCCGCCTTCACATTCCCCTGGGGACCCACGTGGCTGCGTG
CCCCTGCTGCTGTCACCTCTCCCACGGGACCTGGGGCTTTCGTCCACAGCTTCCTGTCCCCATCTGTCGGCCTAC

FIGURE 3873A

GAGGGAGCGCCGGGGCCCTGGGCTGCAGGAGGTTGCGGCGGCCGCGGCAGCATGGTGGTGCCGGAGAAGGAGCAG
AGCTGGATCCCCAAGATCTTCAAGAAGAAGACCTGCACGACGTTCATAGTTGACTCCACAGATCCGGGGAGCCTG
GATTGTCACTGGGGGTCTGCACACGGGCATCGGCCGGCATGTTGGTGTGGCTGTACGGGACCATCAG**ATG**GCCAG
CACTGGGGGCACCAAGGTGGTGGCCATGGGTGTGGCCCCCTGGGGTGTGGTCCGGAATAGAGACACCCTCATCAA
CCCCAAGGGCTCGTTCCCTGCGAGGTACCGGTGGCGCGGTGACCCGGAGGACGGGGTCCAGTTTCCCCTGGACTA
CAACTACTCGGCCTTCTTCCTGGTGGACGACGGCACACACGGCTGCCTGGGGGGCGAGAACCGCTTCCGCTTGCG
CCTGGAGTCCTACATCTCACAGCAGAAGACGGGCGTGGGAGGGACTGGAATTGACATCCCTGTCCTGCTCCTCCT
GATTGATGGTGATGAGAAGATGTTGACGCGAATAGAGAACGCCACCCAGGCTCAGCTCCCATGTCTCCTCGTGGC
TGGCTCAGGGGGAGCTGCGGACTGCCTGGCGGAGACCCTGGAAGACACTCTGGCCCCAGGGAGTGGGGGAGCCAG
GCAAGGCGAAGCCCGAGATCGAATCAGGCGTTTCTTTCCCAAAGGGGACCTTGAGGTCCTGCAGGCCCAGGTGGA
GAGGATTATGACCCGGAAGGAGCTCCTGACAGTCTATTCTTCTGAGGATGGGTCTGAGGAATTCGAGACCATAGT
TTTGAAGGCCCTTGTGAAGGCCTGTGGGAGCTCGGAGGCCTCAGCCTACCTGGATGAGCTGCGTTTGGCTGTGGC
TTGGAACCGCGTGGACATTGCCCAGAGTGAACTCTTTCGGGGGGACATCCAATGGCGGTCCTTCCATCTCGAAGC
TTCCCTCATGGACGCCCTGCTGAATGACCGGCCTGAGTTCGTGCGCTTGCTCATTTCCCACGGCCTCAGCCTGGG
CCACTTCCTGACCCCGATGCGCCTGGCCCAACTCTACAGCGCGGCGCCCTCCAACTCGCTCATCCGCAACCTTTT
GGACCAGGCGTCCCACAGCGCAGGCACCAAAGCCCCAGCCCTAAAAGGGGGAGCTGCGGAGCTCCGGCCCCCTGA
CGTGGGGCATGTGCTGAGGATGCTGCTGGGGAAGATGTGCGCGCCGAGGTACCCCTCCGGGGGCGCCTGGGACCC
TCACCCAGGCCAGGGCTTCGGGGAGAGCATGTATCTGCTCTCGGACAAGGCCACCTCGCCGCTCTCGCTGGATGC
TGGCCTCGGGCAGGCCCCCTGGAGCGACCTGCTTCTTTGGGCACTGTTGCTGAACAGGGCACAGATGGCCATGTA
CTTCTGGGAGATGGGTTCCAATGCAGTTTCCTCAGCTCTTGGGGCCTGTTTGCTGCTCCGGGTGATGGCACGCCT
GGAGCCTGACGCTGAGGAGGCAGCACGGAGGAAAGACCTGGCGTTCAAGTTTGAGGGGATGGGCGTTGACCTCTT
TGGCGAGTGCTATCGCAGCAGTGAGGTGAGGGCTGCCCGCCTCCTCCTCCGTCGCTGCCCGCTCTGGGGGGATGC
CACTTGCCTCCAGCTGGCCATGCAAGCTGACGCCCGTGCCTTCTTTGCCCAGGATGGGGTACAGTCTCTGCTGAC
ACAGAAGTGGTGGGGAGATATGGCCAGCACTACACCCATCTGGGCCCTGGTTCTCGCCTTCTTTTGCCCTCCACT
CATCTACACCCGCCTCATCACCTTCAGGAAATCAGAAGAGGAGCCCACACGGGAGGAGCTAGAGTTTGACATGGA
TAGTGTCATTAATGGGGAAGGGCCTGTCGGGACGGCGGACCCAGCCGAGAAGACGCCGCTGGGGGTCCCGCGCCA
GTCGGGCCGTCCGGGTTGCTGCGGGGGCCGCTGCGGGGGGCGCCGGTGCCTACGCCGCTGGTTCCACTTCTGGGG
CGCGCCGGTGACCATCTTCATGGGCAACGTGGTCAGCTACCTGCTGTTCCTGCTGCTTTTCTCGCGGGTGCTGCT
CGTGGATTTCCAGCCGGCGCCGCCCGGCTCCCTGGAGCTGCTGCTCTATTTCTGGGCTTTCACGCTGCTGTGCGA
GGAACTGCGCCAGGGCCTGAGCGGAGGCGGGGGCAGCCTCGCCAGCGGGGGCCCCGGGCCTGGCCATGCCTCACT
GAGCCAGCGCCTGCGCCTCTACCTCGCCGACAGCTGGAACCAGTGCGACCTAGTGGCTCTCACCTGCTTCCTCCT
GGGCGTGGGCTGCCGGCTGACCCCGGGTTTGTACCACCTGGGCCGCACTGTCCTCTGCATCGACTTCATGGTTTT
CACGGTGCGGCTGCTTCACATCTTCACGGTCAACAAACAGCTGGGGCCCAAGATCGTCATCGTGAGCAAGATGAT
GAAGGACGTGTTCTTCTTCCTCTTCTTCCTCGGCGTGTGGCTGGTAGCCTATGGCGTGGCCACGGAGGGGCTCCT
GAGGCCACGGGACAGTGACTTCCCAAGTATCCTGCGCCGCGTCTTCTACCGTCCCTACCTGCAGATCTTCGGGCA
GATTCCCCAGGAGGACATGGACGTGGCCCTCATGGAGCACAGCAACTGCTCGTCGGAGCCCGGCTTCTGGGCACA
CCCTCCTGGGGCCCAGGCGGGCACCTGCGTCTCCCAGTATGCCAACTGGCTGGTGGTGCTGCTCCTCGTCATCTT
CCTGCTCGTGGCCAACATCCTGCTGGTCAACTTGCTCATTGCCATGTTCAGTTACACATTCGGCAAAGTACAGGG
CAACAGCGATCTCTACTGGAAGGCGCAGCGTTACCGCCTCATCCGGGAATTCCACTCTCGGCCCGCGCTGGCCCC
GCCCTTTATCGTCATCTCCCACTTGCGCCTCCTGCTCAGGCAATTGTGCAGGCGACCCCGGAGCCCCCAGCCGTC
CTCCCCGGCCCTCGAGCATTTCCGGGTTTACCTTTCTAAGGAAGCCGAGCGGAAGCTGCTAACGTGGGAATCGGT
GCATAAGGAGAACTTTCTGCTGGCACGCGCTAGGGACAAGCGGGAGAGCGACTCCGAGCGTCTGAAGCGCACGTC
CCAGAAGGTGGACTTGGCACTGAAACAGCTGGGACACATCCGCGAGTACGAACAGCGCCTGAAAGTGCTGGAGCG
GGAGGTCCAGCAGTGTAGCCGCGTCCTGGGGTGGGTGGCCGAGGCCCTGAGCCGCTCTGCCTTGCTGCCCCCAGG
TGGGCCGCCACCCCCTGACCTGCCTGGGTCCAAAGAC**TGA**GCCCTGCTGGCGGACTTCAAGGAGAAGCCCCCACA
GGGGATTTTGCTCCTAGAGTAAGGCTCATCTGGGCCTCGGCCCCCGCACCTGGTGGCCTTGTCCTTGAGGTGAGC
CCCATGTCCATCTGGGCCACTGTCAGGACCACCTTTGGGAGTGTCATCCTTACAAACCACAGCATGCCCGGCTCC
TCCCAGAACCAGTCCCAGCCTGGGAGGATCAAGGCCTGGATCCCGGGCCGTTATCCATCTGGAGGCTGCAGGGTC

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FIGURE 3873B

CTTGGGGTAACAGGGACCACAGACCCCTCACCACTCACAGATTCCTCACACTGGGGAAATAAAGCCATTTCAGAG
G

FIGURE 3874A

GTGGGATTTGGGGGGCGCTGGTGGGCACCCCTGGATCTGGCGGCTGCGGCCTCGCGGGGGGAGGCTGATCGGTGA
CAGGGGCAGGGGGCTATTTTGGGGGTAGAAGGCAGTGAGAGCGTGAGGGGGAGGGGGGTCCCCAGCGCCCAAGCC
GGAGCCAGAGACGCGGAGCCCGCGCGAGCGTCGGAGACAGGGCTCCAGGGCTCCGAAGCGACAGAGCCGGGCCCC
GGCCGCTGCCAGGGGCCCCGCCCGGCCCCCCCACTCCACCCCACGTCCCTCCTGCAGCCCAGCTCCGCCCGCAGC
CGCCGCGGACCAGGCAGGCCCGCACCGCCGCC**ATG**ATGTGCGAGGTGATGCCCACCATCAGCGAGGATGGCCGGC
GGGGCTCGGCGCTGGGCCCGGACGAGGCGGGCGGGGAGCTGGAGCGCCTCATGGTCACGATGCTCACGGAGCGCG
AGCGCCTGCTGGAGACGCTGCGCGAGGCACAGGACGGGTTGGCTACAGCGCAGCTGCGGCTGCGCGAGCTCGGCC
ACGAGAAGGACTCGCTGCAGCGCCAGCTCAGCATCGCGCTGCCCCAGGAGTTTGCAGCTCTGACGAAGGAGCTGA
ACTTATGTCGGGAGCAGCTGCTGGAGAGGGAGGAAGAGATTGCAGAGCTGAAGGCGGAACGGAACAACACGCGGC
TGCTCCTGGAACACCTGGAGTGCCTGGTGTCCAGGCACGAGAGGTCACTGCGCATGACCGTGGTGAAGCGCCAGG
CCCAGTCCCCGGGTGGGGTCTCCTCGGAGGTAGAAGTGCTCAAAGCTCTAAAGTCTCTCTTCGAGCACCACAAGG
CCCTGGATGAGAAGGTCCGGGAGCGGCTGCGGATGGCGCTGGAGCGCGTGGCAGTGCTCGAGGAGGAGCTGGAAC
TGAGCAATCAGGAGACTCTGAACCTTCGAGAACAGCTGTCTAGGCGGCGGTCAGGGCTGGAAGAGCCGGGCAAGG
ATGGGGATGGGCAGACTCTTGCCAATGGCCTGGGTCCTGGCGGGGATTCCAACCGGCGCACAGCAGAGCTGGAGG
AGGCCCTGGAGCGGCAGCGCGCCGAGGTGTGCCAGCTGCGGGAGCGCCTGGCGGTGCTGTGCCGTCAGATGAGCC
AGCTGGAGGAGGAGTTGGGCACCGCGCACCGTGAGCTGGGCAAGGCAGAGGAAGCCAACTCCAAGCTGCAGCGCG
ACCTCAAGGAGGCGCTGGCGCAGCGGGAAGATATGGAGGAGCGGATTACAACACTGGAGAAGCGCTACCTGAGCG
CCCAGCGGGAGGCCACGTCTCTGCACGACGCCAACGACAAACTGGAGAACGAGTTAGCTAGCAAGGAGTCGTTGT
ATCGGCAGAGTGAAGAGAAGAGCCGTCAGCTGGCCGAGTGGTTGGACGACGCCAAGCAGAAGCTGCAGCAGACGC
TGCAGAAAGCGGAGACCTTGCCCGAGATAGAGGCGCAGCTGGCGCAGCGCGTGGCGGCGCTCAACAAGGCCGAGG
AACGTCATGGGAATTTTGAGGAGCGGCTTCGGCAGCTGGAGGCCCAGCTGGAAGAGAAGAATCAAGAGCTGCAGC
GGGCCCGGCAGCGGGAGAAGATGAACGATGACCACAATAAGCGGCTGTCCGAGACGGTGGACAAGCTGCTGAGCG
AGTCCAACGAGCGCTTACAGCTTCACCTCAAGGAGCGCATGGGGGCGCTGGAGGAGAAGAACTCCCTGAGCGAGG
AGATAGCCAACATGAAGAAGCTTCAGGATGAGTTGCTGCTAAACAAGGAGCAGCTCTTGGCCGAAATGGAGCGGA
TGCAGATGGAGATCGACCAGCTGCGGGGGAGGCCACCATCCTCCTACTCCAGGTCTCTCCCTGGCAGTGCCCTGG
AGCTCCGTTACTCTCAGGCACCCACTTTACCTTCTGGTGCCCACCTGGATCCCTATGTGGCTGGCAGTGGTCGGG
CAGGCAAGAGGGGCCGCTGGTCAGGGGTCAAGGAGGAGCCCTCCAAGGATTGGGAGCGGTCTGCCCCTGCGGGCT
CCATACCACCCCCATTCCCTGGGGAACTGGACGGCTCCGATGAGGAGGAGGCAGAGGGGATGTTTGGGGCCGAGC
TGCTGTCCCCCAGTGGGCAGGCTGACGTGCAGACGCTGGCCATCATGCTTCAGGAGCAGCTGGAGGCCATCAACA
AGGAGATCAAGCTGATCCAAGAGGAGAAGGAGACAACAGAACAGAGGGCAGAGGAGCTGGAGAGTCGGGTGTCCA
GCTCTGGCTTGGACTCGTTGGGCCGCTACCGCAGCAGCTGCTCCCTGCCCCCCTCCCTCACCACCTCTACCCTTG
CCAGCCCCTCCCCTCCCAGCTCTGGCCACTCAACACCCCGCCTGGCACCCCCTAGCCCTGCCCGTGAGGGCACCG
ACAAGGCTAATCATGTCCCTAAGGAGGAAGCTGGAGCTCCACGAGGGGAGGGGCCGGCCATCCCAGGAGACACCC
CACCACCCACTCCCCGCTCTGCCCGTCTTGAGAGAATGACCCAGGCCTTGGCACTGCAGGCGGGGTCCCTGGAAG
ATGGGGGACCCCCACGGGGAAGTGAGGGCACCCCAGATTCTCTGCACAAAGCCCCCAAGAAGAAGAGCATCAAGT
CATCCATAGGCCGTCTCTTTGGCAAGAAAGAGAAGGGACGAATGGGACCCCCAGGCCGGGACAGCTCTTCTCTGG
CTGGAACACCCTCAGATGAGACACTGGCCACTGACCCTCTGGGGCTAGCCAAGCTGACAGGCCCAGGAGACAAGG
ACCGAAGGAACAAGAGGAAGCATGAACTCCTGGAGGAGGCCTGCCGCCAGGGCCTACCTTTTGCTGCCTGGGACG
GGCCCACCGTGGTGTCCTGGCTGGAGCTGTGGGTGGGCATGCCTGCCTGGTATGTGGCCGCCTGCCGGGCCAATG
TCAAGAGCGGTGCCATCATGGCCAACCTGTCAGACACGGAGATCCAGCGCGAGATCGGCATCAGCAACCCGCTGC
ACCGACTCAAGCTACGCCTCGCCATCCAGGAGATGGTCTCGCTCACCTCGCCCTCAGCCCCCGCCTCCTCCCGCA
CTTCCACAGGAAACGTGTGGATGACACACGAGGAGATGGAGTCCCTTACGGCCACGACCAAGCCCGAGACCAAGG
AGATCAGCTGGGAGCAGATCCTGGCATATGGCGACATGAACCACGAGTGGGTGGGGAACGACTGGCTGCCCAGCC
TGGGGCTGCCCCAATACCGCAGCTACTTCATGGAGTCGCTGGTGGACGCTCGAATGTTAGATCACCTTAACAAGA
AGGAGCTCCGGGGCCAACTCAAGATGGTGGACAGCTTTCACAGGGTGAGTCTACATTATGGGATTATGTGCCTGA
AACGGCTCAACTATGACCGGAAGGACCTGGAGCGGAGGCGGGAAGAAAGTCAGACCCAGATCCGAGACGTGATGG
TGTGGTCCAATGAGCGGGTCATGGGTTGGGTGTCCGGGCTGGGCCTGAAGGAATTTGCCACGAACCTCACGGAGA
GCGGGGTACACGGGGCACTGCTCGCCCTGGACGAGACCTTCGACTACTCCGACCTGGCCTTGCTCCTGCAGATCC

FIGURE 3874B

CCACGCAGAATGCACAGGCCCGGCAGCTTCTGGAGAAGGAATTCAGCAACCTTATCTCCTTAGGCACAGACAGGC
GGCTGGACGAGGACAGCGCCAAGTCTTTCAGCCGCTCCCCATCCTGGCGGAAGATGTTCCGGGAGAAGGACCTCC
GAGGCGTAACTCCCGACTCAGCTGAGATGTTGCCCCCCAACTTTCGTTCGGCTGCAGCGGGAGCCCTGGGCTCTC
CGGGGCTCCCTCTCCGCAAGCTGCAGCCAGAAGGCCAGACTTCTGGGAGTTCCCGGGCAGACGGCGTTTCGGTCC
GGACCTATTCCTGC**TAG**TGCAGGCCTCCAGGTGACCTCACTCGGACGGAAGAATCTTCCCGAGGCTGGGCTGTTC
CCTCTCCTGCCCGGACTGTGGCCTCGCCGGGGAGAGCGGGCGGGGGGAGCTCGCGCCGAGGACTGGACCATCTGTA
CAGACCAGCGGGAGTGCGCGCGCCCGCCTCGCACAGGGCCGGGGCCTGGACCAAACCACATGAACTGGACTGAGA
GGGGGAAGAAGCGGGGAGGAAGAAATCCCGCCCCAAACGTCCGCTTTCCTTTTCTCTACTTTGTAATTTATTGAT
CAGTTTCTGTTGGGAGACGGGTGTCCTTTACCCGCGGGAAGGGGGCGGGGCTTCCCTCCCGGGCCGCATGCGGGG
AGAGGCTGCTCCCTCCCCTTTTTCCTGCCCAGTCGCGGGGCCCAAGTCTTCCTTCTTCGTCCGAAAGGAGGGGAG
GGGGGACTCGCTGCTACAAGCCTCGCCCCCTGTGCCACTCAGCTCCGCCCCGCCGCGTCCGGTCGCCGGTCCCCC
GGGTCATCTGCGGGCGGGTTCCCCTCTCCCTCCCCCGTGTCTCGTGTCCCCGGGGCCTCACCGCCCCCCGTGCTG
TGGCCGTGTCCGTGCCCCGGGGGTAGGGGGCGCAGAATGGCGCTTCCCCTTCTCCTCTGGCTCCGGGGTTTGCAT
GGGAGAATCCTCTTTCCACGATGCCGCTGGGCGACGTGGCGTGGGGGCAGGGGGACGGTGGGGGAGCCCTCGCCC
CCGACTCTCGGTCGGCCTCCCCGCCCCAGGCGTCACTCAGTGATCACGGGTAAAGAGAACTGTTTC

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FIGURE 3875

CATGGCTGCGCTGGTGGAGCCGCTGGGGCTGGAGCGGGACGTGTCCCGGGCGGTTGAGCTCCTCGAGCGGCTCCA
GCGCAGCGGGGAGCTGCCGCCGCAGAAGCTGCAGGCCCTCCAGCGAGTTCTGCAGAGCCGCTTCTGCTCCGCTAT
CCGAGAGGTGTATGAGCAGCTTTATGACACGCTGGACATCACCGGCAGCGCCGAGATCCGAGCCCATGCCACAGC
CAAGGCCACAGTGGCTGCCTTCACAGCCAGCGAGGGCCACGCACATCCCAGGGTAGTGGAGCTACCCAAGACGGA
TGAGGGCCTAGGCTTCAACATCATGGGTGGCAAAGAGCAAAACTCGCCCATCTACATCTCCCGGGTCATCCCAGG
GGGTGTGGCTGACCGCCATGGAGGCCTCAAGCGTGGGGATCAACTGTTGTCGGTGAACGGTGTGAGCGTTGAGGG
TGAGCAGCATGAGAAGGCGGTGGAGCTGCTGAAGGCGGCCCAGGGCTCGGTGAAGCTGGTTGTCCGTTACACACC
GCGAGTGCTGGAGGAGATGGAGGCCCGGTTCGAGAAGATGCGCTCTGCCCGCCGGCGCCAACAGCATCAGAGCTA
CTCGTCCTTGGAGTCTCGAGGTTGAAACCACAGATCTGGACGTTCACGTGCACTCTCTTCCTGTACAGTATTTAT
TGTTCCTGGCACTTTATTTAAAGATATTTGACCCTC

FIGURE 3876

AAGTACCTATTGGATCACCAGCTGTGTGCCGGGCTTCTAGTTGAGCAACACAGAGGCAGCCTCTGCCCTCTGAGC
CTCCTGCATTCGGTCTCCTCATTGTCATTTGCTGTCTCAGGCAAGGTCAGTTTGGCTGCAAGTATCAGAAATAAA
CTTGAGCTTCCTGAAACATAAAGGGCCCTGTTGATGTAGAATCATGGGCATCCTTTGGAGTTCGGAGGTATGTGA
TGTCCGTGGACCTGAGAACCTGGTAGCTGACGCTGTTAAGAGCTGGGGCAACCAGGCCAGGCGTGGTGGCTCGCC
TGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCATGAGGTCAGGAGTTCGAGACCAGCCTGGCCAAGAT
GTTGAAACCGCATCTCTACTAAAAATACAAAAATTAACTGGGCGTGGTGGCGGGTGCCTGTAATCCCATCTACTC
GGGAGGCTGAGGCAGAGAATTGCTTAAACCTGGGAGGCAGAGGTTGCAGTGAGCCAAGATAGAGTCACTGCATTC
CATCCAGCCTGGGTGCCAGAGCAAGACTCTGTCTCAAAAAAAAAAACAAAAAACAAAAAAACTGGGGCGACCCAC
CTGTGATGTGTGACAGCCCACAGCTTGCTTCTGCCTCGTTTGCCTCCATGCAGCTAGGTCGGTCCCATGCCTCTT
TGCACTGGCCCAGCGCAGCAGGCCACAGGCCCCAGCTTTACACTCAGTCCTGGATGAGTCTCTTGTTTCGGGGTG
GGCACATTTGATTGACTCAGTGTTGGGCCTGGGGTCCTGTTGCTCAGGCATGCTTATTGAGGACTGAATCCTGCA
AAGCTGAGTGACAGTTGTCAGAGAAGATGATGGTCCCTGGGCAGACACCCAGGCAGTAGTAGCCACTTGGGGCTC
CTGTCCTGCCTCCCAGCCCTGTGTCCTGGCTCTGGACTCGCCTGTGCTAGGGAGACCACGCTCTCAGCTGCTGAG
CCTCGGAGCTTACCAGGCATGTTCTTACCTTACTCTGGTCTCTCTGGGGTGGAGTGGGTTCTTATAGCTCTGCTG
TTTCCTGTTGGGGCGGGAAAATGCTAGAATCTCAGTCTTTCCAGAATCTCAGAATCTTCTAGTTCAATTGCCATT
CAAACTTTTTGTTGGTGTTAGCCAATAACATCTTGACTCGGTGCACCCGCAGAAATACTGTAACCTAAAGTTTGA
GGAAACAGTTTTTTCTATGTAGTAAGTATATAGTTGTATTCTGCTGTTTTGTTTCTTAAGATGTTGGTTGCAACC
CATCAGATTGATGATGGGACTCATTTCTGGGTCATGACCTGAATATAGGAAAGGCTAGTCTAGCTGCCCTGTGCC
TGTGACATGGCAGGTGCCTGGTCCGCTGCCTGCTTCTATAAGAATGTCTCCCTGCAGCCTCTTTTCTATACAGAA
CTCAGCCCTGCCTCACGGAAGCTTTTCCAGGCAGTGCGAGATAGAGGAGCGCTTGAGAAGGCAGGTTTTGCAGCA
GACGGCAGTGACAGCCCAGTTCTGCACCTTCTTTGCTGAGTCACTGTGGGCCAGTGACTTGATCTGAGATTGTTT
CCCCATCAGAACCATGAGGTTATCATCTGTGCCTTGGGGCTGTTCATCTATCTATTCACTTGACACACACACATC
CACCTTTCTATACCAGCTGCAGCGCCACCTGCTGGTACCGTGAGCAAGAGCTGGGCATGCCCACGGTTCCGGTGC
CCTGCAGTCTGGTGGGAGAGGCAGGTAGGGGTCGACTCAGGTAGCAAACCTGAAACTCCAGGGGAAGGAAGCGTT
TCTGCAACTGTGAGTACATAGGACTGTGAGGAGAGACTTCCCGAGAAAGGATGTTCGGGCTAGCGTTAAGGGTGA
GCGTGAGTTCACCAGAGAAGGAAGGGGAGACCAGTCCAGGGCAAGGAGAATGCACAGACACTGGCAGGAAGGTGA
GCGTGGGGACACTGGGAAAGGCCTGGGACACGCAGCCAAGAGCCGCGGCTCAGACGCTAGCAGGGCCCGCTCTTG
CTGCCTCTACCACCAGTTGACGAGGAGTTTGGACCTTAGGCTGGGGGACGCCAGCAAAGGCTTCTAAGCAGATCA
CATTTTTGGGTGGAAAGATCATTGGCTTCGGGTTTCTGTGAGGGCGAGGATGATTGGAAGGGAGGGTTTTGAGGA
GGCTGTGAAGTGCGCTATGGTTAAGATGATGCGCTTTGGGGCCAGACATGGGTTCCAGTAACGGCTGTTGCCTAG
CGAACGCTTTGTGTGAGTTAATTAGAGAAGACGTGGCTGTCTTGTGATGGGAGTGCGCGGGATGAACTGCACGGG
GGGACCCGGCCCTGTGAACACTAAGCCAGGGGCTGCCTTCCTGCCCTTTGCTCTTGGAGTCGGCTCATTTCTGCT
CCTCCGGGCCCTGTCCCTGCCCAGATTCACCCTCTGTCCGTCTGCCCTGCCCCAGGAGGAGGCCTCGGTGGTACC
AGAAGAGGAGGGGCTGATGTGAACATCCGGCATTCAGGCCGCGATGACACCTCCCGCTACGATGAGAGGCCCGGC
CCCTCCCCGCTTCCGCACAGGGACCGGGACCGGGACCGTGAGCGGGAGCGCAGAGAGCGGAGCCGGGAGCGAGAC
AAGGAGCGAGAACGGCGACGCTCCCGCTCCCGGGACCGGCGGAGGCGCTCACGGAGTCGCGACAAGGAGGAGCGG
AGGCGCTCCAGGGAGCGGAGCAAGGACAAGGACCGGGACCGGAAGCGGCGAAGCAGCCGGAGTCGGGAGCGGGCC
CGGCGGGAGCGGGAGCGCAAGGAGGAGCTGCGTGGCGGCGGTGGCGAC**ATG**GCGGAGCCCTCCGAGGCGGGTGAC
GCGCCCCCTGATGATGGGCCTCCAGGGGAGCTCGGGCCTGACGGCCCTGACGGTCCAGAGGAAAAGGGCCGGGAT
CGTGACCGGGAGCGACGGCGGAGCCACCGGAGCGAGCGCGAGCGGCGCCGGGACCGGGATCGTGACCGTGACCGT
GACCGCGAGCACAAACGGGGGGAGCGGGGCAGTGAGCGGGGCAGGGATGAGGCCCGAGGTGGGGGCGGTGGCCAG
GACAACGGGCTGGAGGGTCTGGGCAACGACAGCCGAGACATGTACATGGAGTCTGAGGGCGGCGACGGCTACCTG
GCTCCGGAGAATGGGTATTTGATGGAGGCTGCGCCGGAG**TGA**AGAGGTCGTCCTCTCCATCTGCTGTGTTTGGAC
GCGTTCCTGCCCAGCCCCTTGCTGTCATCCCCTCCCCCAACCTTGGCCACTTGAGTTTGTCCTCCAAGGGTAGGT
GTCTCATTTGTTCTGGCCCCTTGGATTTAAAAATAAAATTAATTTCCTGTT

FIGURE 3877

GTTGGTGAGCATC**ATG**GCAACCGTTACAGCCACAACCAAAGTCCCGGAGATCCGTGATGTAACAAGGATTGAGCG
AATCGGTGCCCACTCCCACATCCGGGGACTGGGGCTGGACGATGCCTTGGAGCCTCGGCAGGCTTCGCAAGGCAT
GGTGGGTCAGCTGGCGGCACGGCGGGCGGCTGGCGTGGTGCTGGAGATGATCCGGGAAGGGAAGATTGCCGGTCG
GGCAGTCCTTATTGCTGGCCAGCCGGGCACGGGGAAGACGGCCATCGCCATGGGCATGGCGCAGGCCCTGGGCCC
TGACACGCCATTCACAGCCATCGCCGGCAGTGAAATCTTCTCCCTGGAGATGAGCAAGACCGAGGCGCTGACGCA
GGCCTTCCGGCGGTCCATCGGCGTTCGCATCAAGGAGGAGACGGAGATCATCGAAGGGGAGGTGGTGGAGATCCA
GATTGATCGACCAGCAACAGGGACGGGCTCCAAGGTGGGCAAACTGACCCTCAAGACCACAGAGATGGAGACCAT
CTACGACCTGGGCACCAAGATGATTGAGTCCCTGACCAAGGACAAGGTCCAGGCCGGGGACGTGATCACCATCGA
CAAGGCGACGGGCAAGATCTCCAAGCTGGGCCGCTCCTTCACACGCGCCCGCGACTACGACGCTATGGGCTCCCA
GACCAAGTTCGTGCAGTGCCCAGATGGGGAGCTCCAGAAACGCAAGGAGGTGGTGCACACCGTGTCCCTGCACGA
GATCGACGTCATCAACTCTCGCACCCAGGGCTTCCTGGCGCTCTTCTCAGGTGACACAGGGGAGATCAAGTCAGA
AGTCCGTGAGCAGATCAATGCCAAGGTGGCTGAGTGGCGCGAGGAGGGCAAGGCGGAGATCATCCCTGGAGTGCT
GTTCATCGACGAGGTCCACATGCTGGACATCGAGAGCTTCTCCTTCCTCAACCGGGCCCTGGAGAGTGACATGGC
GCCTGTCCTGATCATGGCCACCAACCGTGGCATCACGCGAATCCGGGGCACCAGCTACCAGAGCCCTCACGGCAT
CCCCATAGACCTGCTGGACCGGCTGCTTATCGTCTCCACCACCCCCTACAGCGAGAAAGACACGAAGCAGATCCT
CCGCATCCGGTGCGAGGAAGAAGATGTGGAGATGAGTGAGGACGCCTACACGGTGCTGACCCGCATCGGGCTGGA
GACGTCACTGCGCTACGCCATCCAGCTCATCACAGCTGCCAGCTTGGTGTGCCGGAAACGCAAGGGTACAGAAGT
GCAGGTGGATGACATCAAGCGGGTCTACTCACTCTTCCTGGACGAGTCCCGCTCCACGCAGTACATGAAGGAGTA
CCAGGACGCCTTCCTCTTCAACGAACTCAAAGGCGAGACCATGGACACCTCC**TGA**GTTGGATGTCATCCCCCGAC
CCCACCCTGTTTTCCACCAGAGTTCTGACACTGTGACTCTGTATAAAATGGTTGGGAAGCTGC

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FIGURE 3878

CGCTTCGGGGCAGGGGTGCGGTCTTGCAATAGGAAGCCGAGCGTCTTGCAAGCTTCCCGTCGGGCACCAGCTACT
CGGCCCCGCACCCTACCTGGTGCATTCCCTAGACACCTCCGGGGTCCCTACCTGGAGATCCCCGGAGCCCCCCTT
CCTGCGCCAGCC**ATG**CCTTTAAACCGCACTTTGTCCATGTCCTCACTGCCAGGACTGGAGGACTGGGAGGATGAA
TTCGACCTGGAGAACGCAGTGCTCTTCGAAGTGGCCTGGGAGGTGGCTAACAAGGTGGGTGGCATCTACACGGTG
CTGCAGACGAAGGCGAAGGTGACAGGGGACGAATGGGGCGACAACTACTTCCTGGTGGGGCCGTACACGGAGCAG
GGCGTGAGGACCCAGGTGGAACTGCTGGAGGCCCCCACCCCGGCCCTGAAGAGGACACTGGATTCCATGAACAGC
AAGGGCTGCAAGGTGTATTTCGGGCGCTGGCTGATCGAGGGAGGCCCTCTGGTGGTGCTCCTGGACGTGGGTGCC
TCAGCTTGGGCCCTGGAGCGCTGGAAGGGAGAGCTCTGGGATACCTGCAACATCGGAGTGCCGTGGTACGACCGC
GAGGCCAACGACGCTGTCCTCTTTGGCTTTCTGACCACCTGGTTCCTGGGTGAGTTCCTGGCACAGAGTGAGGAG
AAGCCACATGTGGTTGCTCACTTCCATGAGTGGTTGGCAGGCGTTGGACTCTGCCTGTGTCGTGCCCGGCGACTG
CCTGTAGCAACCATCTTCACCACCCATGCCACGCTGCTGGGGCGCTACCTGTGTGCCGGTGCCGTGGACTTCTAC
AACAACCTGGAGAACTTCAACGTGGACAAGGAAGCAGGGGAGAGGCAGATCTACCACCGATACTGCATGGAAAGG
GCGGCAGCCCACTGCGCTCACGTCTTCACTACTGTGTCCCAGATCACCGCCATCGAGGCACAGCACTTGCTCAAG
AGGAAACCAGATATTGTGACCCCCAATGGGCTGAATGTGAAGAAGTTTTCTGCCATGCATGAGTTCCAGAACCTC
CATGCTCAGAGCAAGGCTCGAATCCAGGAGTTTGTGCGGGGCCATTTTTATGGGCATCTGGACTTCAACTTGGAC
AAGACCTTATACTTCTTTATCGCCGGCCGCTATGAGTTCTCCAACAAGGGTGCTGACGTCTTCCTGGAGGCATTG
GCTCGGCTCAACTATCTGCTCAGAGTGAACGGCAGCGAGCAGACAGTGGTTGCCTTCTTCATCATGCCAGCGCGG
ACCAACAATTTCAACGTGGAAACCCTCAAAGGCCAAGCTGTGCGCAAACAGCTTTGGGACACGGCCAACACGGTG
AAGGAAAAGTTCGGGAGGAAGCTTTATGAATCCTTACTGGTTGGGAGCCTTCCCGACATGAACAAGATGCTGGAT
AAGGAAGACTTCACTATGATGAAGAGAGCCATCTTTGCAACGCAGCGGCAGTCTTTCCCCCCTGTGTGCACCCAC
AATATGCTGGATGACTCCTCAGACCCCATCCTGACCACCATCCGCCGAATCGGCCTCTTCAATAGCAGTGCCGAC
AGGGTGAAGGTGATTTTCCACCCGGAGTTCCTCTCCTCCACAAGCCCCCTGCTCCCTGTGGACTATGAGGAGTTT
GTCCGTGGCTGTCACCTTGGAGTCTTCCCCTCCTACTATGAGCCTTGGGGCTACACACCGGCTGAGTGCACGGTT
ATGGGAATCCCCAGTATCTCCACCAATCTCTCCGGCTTCGGCTGCTTCATGGAGGAACACATCGCAGACCCCTCA
GCTTACGGTATCTACATTCTTGACCGGCGGTTCCGCAGCCTGGATGATTCCTGCTCGCAGCTCACCTCCTTCCTC
TACAGTTTCTGTCAGCAGAGCCGGCGGCAGCGTATCATCCAGCGGAACCGCACGGAGCGCCTCTCCGACCTTCTG
GACTGGAAATACCTAGGCCGGTACTATATGTCTGCGCGCCACATGGCGCTGTCCAAGGCCTTTCCAGAGCACTTC
ACCTACGAGCCCAACGAGGCGGATGCAGGCCCAGGGGTACCGCTACCCACGGCCAGCCTCGGTGCCACCGTCGCC
CTCGCTGTCACGACACTCCAGCCCGCACCAGAG**TGA**GGACGAGGAGGATCCCCGGAACGGGCCGCTGGAGGAAGA
CGGCGAGCGCTACGATGAGGACGAGGAGGCCGCCAAGGACCGGCGCAACATCCGTGCACCAGAGTGGCCGCGCCG
AGCGTCCTGCACCTCCTCCACCAGCGGCAGCAAGCGCAACTCTGTGGACACGGCCACCTCCAGCTCACTCAGCAC
CCCGAGCGAGCCCCTCAGCCCCACCAGCTCCCTGGGCGAGGAGCGTAACTAAGTCCGCCCCACCACACTCCCCGC
CTGTCCTGCCTCTCTGCTCCAGAGAGAGGATGCAGAGGGGTGCTGCTCCTAAACCCCCGCTCCAGATCTGCACTG
GGTGTGGCCCCGCAGTGCCCCCACCCAGTCCGCCAAACACTCCACCCCCTCCAGCTCCAGTTTCCAAGTTCCTGC
ACTCCAGAATCCACAAAGCCGTGCCTTTCTCTGGCTCCAGAATATGCATAATCAGCGCCCTGGAGTCCCCTGGGC
CTGGACCGCTTCCCAGAGGCCAGGAATCTGCCATTACTCTGCGGTGGTGCCAGAGGTTTTAGGAAACCTGGCATG
GTGCTTTCAGGTCTGGGGCTTTTAGAGCCCCCCGTGTGGCTTACAAATTCTACAGCATACAGAGCAGGCCACGCT
CAGGCCCGGCATGCGGGCCACCAAGTTCTGGAAACCACGTGGTGTCCCTGCGAATGGGGCGATCAAGTCCAGAGC
CGGGGCACTTTCAGAGTTTGAAGGTAACTGAGAGCAGATGGTCCTCCATTTCAACTCCAGAAGTGGGGCTCTGGG
AGGGATGTTCTAGCCCTCCCTGGCATGTCAGAGCCAGGCTCTGCCTGGAGGATCCCTCCATCCGGCTCCTGTCAT
CCCCTACACTTTGGCCAAGCAAGAGGTGGTAGAACCACTTGGCTGCTCATTCCTTCTGGAGGACACACAGTCTCA
GTCCAGATGCCTTCCTGTCTTTCTGGCCCTTTCTGGACCAGATCCTACTCTTCCTTTCTAAATCTGAGATCTCCC
TCCAGGGAATCCGCCTGCAGAGGACAGAGCTGGCTGTCTTCCCCCACCCCTAACCTGGCTTATTCCCAACTGCTC
TGCCCACTGTGAAACCACTAGGTTCTAGGTCCTGGCTTCTAGATCTGGAACCTTACCACGTTACTGCATACTGAT
CCCTTTCCCATGATCCAGAACTGAGGTCACTGGGTTCTAGAACCCCCACATTTACCTCGAGGCTCTTCCATCCCC
AAACTGTGCCCTGCCTTCAGCTTTGGTGAAAGGGAGGGCCCCTCATGTGTGCTGTGCTGTGTCTGCACCGCTTGG
TTTGCAGTTGAGAGGGGAGGGCAGGAGGGGTGTGATTGGAGTGTGTCCGGAGATGAGATGAAAAAAATACATCTA
TATTTAAG

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FIGURE 3879

ACCATAAAAGAAGCCGCCCTAGCCACGTCCCCTCGCAGTTCGGCGGTCCCGCGGGTCTGTCTCTTGCTTCAACAG
TGTTTGGACGGAACAGATCCGGGGACTCTCTTCCAGCCTCCGACCGCCCTCCGATTTCCTCTCCGCTTGCAACCT
CCGGGACCATCTTCTCGGCCATCTCCTGCTTCTGGGACCTGCCAGCACCGTTTTTGTGGTTAGCTCCTTCTTGCC
AACCAACC**ATG**AGCTCCCAGATTCGTCAGAATTATTCCACCGACGTGGAGGCAGCCGTCAACAGCCTGGTCAATT
TGTACCTGCAGGCCTCCTACACCTACCTCTCTCTGGGCTTCTATTTCGACCGCGATGATGTGGCTCTGGAAGGCG
TGAGCCACTTCTTCCGCGAATTGGCCGAGGAGAAGCGCGAGGGCTACGAGCGTCTCCTGAAGATGCAAAACCAGC
GTGGCGGCCGCGCTCTCTTCCAGGACATCAAGAAGCCAGCTGAAGATGAGTGGGGTAAAACCCCAGACGCCATGA
AAGCTGCCATGGCCCTGGAGAAAAAGCTGAACCAGGCCCTTTTGGATCTTCATGCCCTGGGTTCTGCCCGCACGG
ACCCCCATCTCTGTGACTTCCTGGAGACTCACTTCCTAGATGAGGAAGTGAAGCTTATCAAGAAGATGGGTGACC
ACCTGACCAACCTCCACAGGCTGGGTGGCCCGGAGGCTGGGCTGGGCGAGTATCTCTTCGAAAGGCTCACTCTCA
AGCACGAC**TAA**GAGCCTTCTGAGCCCAGCGACTTCTGAAGGGCCCCTTGCAAAGTAATAGGGCTTCTGCCTAAGC
CTCTCCCTCCAGCCAATAGGCAGCTTTCTTAACTATCCTAACAAGCCTTGGACCAAATGGAAATAAAGCTTTTTG
ATGC

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FIGURE 3880

ATGGACGGGTCCGGGGAGCAGCCCAGAGGCGGGGGGCCCACCAGCTCTGAGCAGATCATGAAGACAGGGGCCCTT
TTGCTTCAGGGTTTCATCCAGGATCGAGCAGGGCGAATGGGGGGGGAGGCACCCGAGCTGGCCCTGGACCCGGTG
CCTCAGGATGCGTCCACCAAGAAGCTGAGCGAGTGTCTCAAGCGCATCGGGGACGAACTGGACAGTAACATGGAG
CTGCAGAGGATGATTGCCGCCGTGGACACAGACTCCCCCCGAGAGGTCTTTTTCCGAGTGGCAGCTGACATGTTT
TCTGACGGCAACTTCAACTGGGGCCGGGTTGTCGCCCTTTTCTACTTTGCCAGCAAACTGGTGCTCAAGGCCCTG
TGCACCAAGGTGCCGGAACTGATCAGAACCATCATGGGCTGGACATTGGACTTCCTCCGGGAGCGGCTGTTGGGC
TGGATCCAAGACCAGGGTGGTTGGGTGAGACTCCTCAAGCCTCCTCACCCCCACCACCGCGCCCTCACCACCGCC
CCTGCCCCACCGTCCCTGCCCCCCGCCACTCCTCTGGGACCCTGGGCCTTCTGGAGCAGGTCACAGTGGTGCCCT
CTCCCCATCTTCAGATCATCAGATGTGGTCTATAATGCGTTTTCCTTACGTGTC**TGA**

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FIGURE 3881

ATAAGTGGGCGTGGTCTAGGGGGGAAGTCACCAAGAACGCACCGGAGGTCCTTGCCCGCCCTGGAAAACGCCCTC
TGCGGTGAAGGAGAGACCACACTGCC**ATG**CCTCCCTCTGGGCCCCGAGGAACCCTCCTTCTGTTGCCGCTGCTGC
TGCTGCTCCTGCTTCGCGCCGTGCTGGCTGTCCCCCTGGAGCGAGGGGCGCCCAACAAGGAGGAGACCCCTGCGA
CTGAGAGTCCCGACACAGGCCTGTACTACCACCGGTACCTCCAGGAGGTCATCGATGTACTGGAGACGGATGGGC
ATTTCCGAGAGAAGCTGCAGGCTGCCAATGCGGAGGACATCAAGAGCGGGAAGCTGAGCCGAGAGCTGGACTTTG
TCAGCCACCACGTCCGCACCAAGCTGGATGAGCTCAAGCGACAGGAGGTGTCACGGCTGCGGATGCTGCTCAAGG
CCAAGATGGACGCCGAGCAGGATCCCAATGTACAGGTGGATCATCTGAATCTCCTGAAACAGTTTGAACACCTGG
ACCCTCAGAACCAGCATACATTCGAGGCCCGCGACCTGGAGCTGCTGATCCAGACGGCCACCCGGGACCTTGCCC
AGTACGACGCAGCCCATCATGAAGAGTTCAAGCGCTACGAGATGCTTAAGGAACACGAGAGACGGCGTTATCTGG
AGTCACTGGGAGAGGAGCAGAGAAAGGAGGCGGAGAGGAAGCTGGAAGAGCAACAGCGCCGGCACCGCGAGCACC
CTAAAGTCAACGTGCCTGGCAGCCAAGCCCAGTTGAAGGAGGTGTGGGAGGAGCTGGATGGACTGGACCCCAACA
GGTTTAACCCCAAGACCTTCTTCATACTGCATGATATCAACAGTGATGGTGTCCTGGATGAGCAGGAGCTGGAGG
CACTCTTCACCAAGGAGCTGGAGAAAGTGTACGACCCAAAGAATGAGGAGGACGACATGCGGGAGATGGAGGAGG
AGCGACTGCGCATGCGGGAGCATGTGATGAAGAATGTGGACACCAACCAGGACCGCCTCGTGACCCTGGAGGAGT
TCCTCGCATCCACTCAGAGGAAGGAGTTTGGGGACACCGGGGAGGGCTGGGAGACAGTGGAGATGCACCCTGCCT
ACACCGAGGAAGAGCTGAGGCGCTTTGAAGAGGAGCTGGCTGCCCGGGAGGCAGAGCTGAATGCCAAGGCCCAGC
GCCTCAGCCAGGAGACAGAGGCTCTAGGGCGGTCCCAGGGCCGCCTGGAGGCCCAGAAGAGAGAGCTGCAGCAGG
CTGTGCTGCACATGGAGCAGCGGAAGCAGCAGCAGCAGCAGCAGCAAGGCCACAAGGCCCCGGCTGCCCACCCTG
AGGGGCAGCTCAAGTTCCACCCAGACACAGACGATGTACCTGTCCCAGCTCCAGCCGGTGACCAGAAGGAGGTGG
ACACTTCAGAAAAGAAACTTCTCGAGCGGCTCCCTGAGGTTGAGGTGCCCCAGCATCTG**TGA**TCCTCCGGGACCC
CAGCCCTCAGGATTCCTGATGCTCCAAGGCGACTGATGGGCGCTGGATGAAGTGGCACAGTCAGCTTCCCTGGGG
GCTGGTGTCATGTTGGGCTCCTGGGGCGGGGGCACGGCCTGGCATTTCACGCATTGCTGCCACCCCAGGTCCACC
TGTCTCCACTTTCACAGCCTCCAAGTCTGTGGCTCTTCCCTTCTGTCCTCCGAGGGGCTTGCCTTCTCTCGTGTC
CAGTGAGGTGCTCAGTGATCGGCTTAACTTAGAGAAGCCCGCCCCCTCCCCTTCTCCGTCTGTCCCAAGAGGGTC
TGCTCTGAGCCTGCGTTCCTAGGTGGCTCGGCCTCAGCTGCCTGGGTTGTGGCCGCCCTAGCATCCTGTATGCCC
ACAGCTACTGGAATCCCCGCTGCTGCTCCGGGCCAAGCTTCTGGTTGATTAATGAGGGCATGGGGTGGTCCCTCA
AGACCTTCCCCTACCTTTTGTGGAACCAGTGATGCCTCAAAGACAGTGTCCCCTCCACAGCTGGGTGCCAGGGGC
AGGGGATCCTCAGTATAGCCGGTGAACCCTGATACCAGGAGCCTGGGCCTCCCTGAACCCCTGGCTTCCAGCCAT
CTCATCGCCAGCCTCCTCCTGGACCTCTTGGCCCCCAGCCCCTTCCCCACACAGCCCCAGAAGGGTCCCAGAGCT
GACCCCACTCCAGGACCTAGGCCCAGCCCCTCAGCCTCATCTGGAGCCCCTGAAGACCAGTCCCACCCACCTTTC
TGGCCTCATCTGACACTGCTCCGCATCCTGCTGTGTGTCCTGTTCCATGTTCCGGTTCCATCCAAATACACTTTC
TGGAAC

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FIGURE 3882

CCCAGTTGTTGATCTTATGCAAGACGCTGCACGACCCCGCGCCCGCTTGTCGCCACGGCACTTGAGGCAGCCGGA
GATACTCTGAGTTACTCGGAGCCCGACGCCTGAGGGTGAGATGAACGCGCTGGCCTCCCTAACCGTCCGGACCTG
TGATCGCTTCTGGCAGACCGAACCGGCGCTCCTGCCCCCGGGGTGACGCGCAGCTCCCAGCCGCCCAGACAC**ATG**

GCCCCAGGCCAAGCACCCCATCAGGCTACCCCGTGGAGGGATGCCCACCCTTTCTTCCTCCTGTCCCCAGTGATG
GGCCTCCTCAGCCGCGCCTGGAGCCGCCTGAGGGGCCTGGGACCTCTAGAGCCCTGGCTGGTGGAAGCAGTAAAA
GGAGCAGCTCTGGTAGAAGCTGGCCTGGAGGGAGAAGCTAGGACTCCTCTGGCAATCCCCCATACCCCTTGGGGC
AGACGCCCTGAAGAGGAGGCTGAAGACAGTGGAGGCCCTGGAGAGGACAGAGAAACACTGGGGCTGAAAACCAGC
AGTTCCCTTCCTGAAGCCTGGGGACTTTTGGATGATGATGATGGCATGTATGGTGAGCGAGAGGCAACCAGTGTC
CCTAGAGGGCAGGGAAGTCAATTTGCAGATGGCCAGCGTGCTCCCCTGTCTCCCAGCCTTCTGATAAGGACACTG
CAAGGTTCTGATAAGAACCCAGGGGAGGAGAAAGCCGAGGAAGAGGGAGTTGCTGAAGAGGAGGGAGTTAACAAG
TTCTCTTATCCACCATCACACCGGGAGTGTTGTCCAGCCGTGGAGGAGGAGGACGATGAAGAAGCTGTAAAGAAA
GAAGCTCACAGAACCTCTACTTCTGCCTTGTCTCCAGGATCCAAGCCCAGCACTTGGGTGTCTTGCCCAGGGGAG
GAAGAGAATCAAGCCACGGAGGATAAAAGAACAGAAAGAAGTAAAGGAGCCAGGAAGACCTCCGTGTCCCCCCGA
TCTTCAGGCTCCGACCCCAGGTCCTGGGAGTATCGTTCAGGAGAGGCGTCCGAGGAGAAGGAGGAAAAGGCACAC
AAAGAAACTGGGAAAGGAGAAGCTGCCCCAGGGCCGCAATCCTCAGCCCCAGCCCAGAGGCCCCAGCTCAAGTCC
TGGTGGTGCCAACCCAGTGATGAAGAGGAGGGTGAGGTCAAGGCTTTGGGGGCAGCTGAGAAGGATGGAGAAGCT
GAGTGTCCTCCCTGCATCCCCCCACCAAGTGCCTTCCTGAAGGCCTGGGTGTATTGGCCAGGAGAGGACACAGAG
GAAGAGGAAGATGAGGAAGAAGATGAGGACAGTGACTCTGGATCAGATGAGGAAGAGGGAGAAGCTGAGGCTTCC
TCTTCCACTCCTGCTACAGGTGTCTTCTTGAAGTCCTGGGTCTATCAGCCAGGAGAGGACACAGAGGAGGAGGAA
GATGAGGACAGTGATACAGGATCAGCCGAGGATGAAAGAGAAGCTGAGACTTCTGCTTCCACACCCCCTGCAAGT
GCTTTCTTGAAGGCCTGGGTGTATCGGCCAGGAGAGGACACGGAGGAGGAGGAAGATGAGGATGTGGATAGTGAG
GATAAGGAAGATGATTCAGAAGCAGCCTTGGGAGAAGCTGAGTCAGACCCACATCCCTCCCACCCGGACCAGAGG
GCCCACTTCAGGGGCTGGGGATATCGACCTGGAAAAGAGACAGAGGAAGAGGAAGCTGCTGAGGACTGGGGAGAA
GCTGAGCCCTGCCCCTTCCGAGTGGCCATCTATGTACCTGGAGAGAAGCCACCGCCTCCCTGGGCTCCTCCTAGG
CTGCCCCTCCGACTGCAAAGGCGGCTCAAGCGCCCAGAAACCCCTACTCATGATCCGGACCCTGAGACTCCCCTA
AAGGCCAGAAAGGTGCGCTTCTCCGAGAAGGTCACTGTCCATTTCCTGGCTGTCTGGGCAGGGCCGGCCCAGGCC
GCCCGCCAGGGCCCCTGGGAGCAGCTTGCTCGGGATCGCAGCCGCTTCGCACGCCGCATCACCCAGGCCCAGGAG
GAGCTGAGCCCCTGCCTCACCCCTGCTGCCCGGGCCAGAGCCTGGGCACGCCTCAGGAACCCACCTTTAGCCCCC
ATCCCTGCCCTCACCCAGACCTTGCCTTCCTCCTCTGTCCCTTCGTCCCCAGTCCAGACCACGCCCTTGAGCCAA
GCTGTGGCCACACCTTCCCGCTCGTCTGCTGCTGCAGCGGCTGCCCTGGACCTCAGTGGGAGGCGTGGC**TGA**GAC
CAACTGGTTTGCCTATAATTTATTAACTATTTATTTTTTCTAAGTGTGGGTTTATATAAGGAATAAAGCCTTTTG
ATTTGT

FIGURE 3883

AAACTGGGAGAGGGAGGAAGGGAGAAAGTGAGAAGGGAAATCGGAAAGAGAAAAGGGAGGAAACGGCAGAGCCAG
AGAGAAAGAGGAAGAGACTGAGTGTGAAGGAGAGAGGACACAGGGGATGACTGAGAGACAGAGAGAGAGAGAGAG
AGAGAATGAGACAGAGACTTAAGGAAGAGACCCTGTGAGTCTGACAATAAAAGATTTGGACAGAAACAGAAAGAT
TGGAGAGAGAGAGAGAGGGAGAGAATGAGTGAGAGAGAGACTGGAAGAGACAGAGATCAGAGGGAGACACAGAAA
GTGAGAGTGGGGAGAGAGGTAGTGTAAAAGGAAGAGAGAGAGAGAGAGACCGTAAGAGACAGGAGACAAAGAGAC
AAAAAGTGTGAGTGAGCAGGTGAGGAGAGAGATTGAGAACTATGAGAGACAGCAGCTAAGAGACAAAGGAGGCGG
GAGACTGCCTAGGTGCCGCAGCACCCACACCGTCCTCTTGCCCCCCCCGTCACTGGGACCCCAGAGCTGGCCCTTG
ATGGAGGGGAGCCGACCTCGCAGCAGCCTGAGCCTGGCCAGCAGCGCCTCCACCATCTCCTCGCTCAGCAGCCTG
AGCCCCAAGAAGCCCACCCGGGCAGTAAACAAGATCCACGCCTTTGGGAAGAGAGGCAATGCGCTCAGGAGGGAT
CCCAACCTTCCCGTGCACATCCGAGGCTGGCTTCATAAGCAGGACAGCTCGGGGCTCCGTCTCTGGAAACGCCGC
TGGTTCGTCCTCTCCGGCCATTGCCTCTTTTATTACAAGGACAGCCGCGAGGAGAGTGTCCTAGGCAGCGTCCTG
CTCCCCAGCTACAATATTAGACCAGATGGGCCGGGAGCCCCCCGAGGGCGGCGCTTCACCTTCACCGCAGAGCAC
CCGGGCATGAGGACCTACGTTTTGGCCGCTGACACCTTAGAAGACCTGCGGGGCTGGCTACGGGCGCTGGGCCGG
GCCTCCCGTGCGGAGGGGGACGACTATGGGCAACCCAGGTCACCTGCACGACCCCAGCCCGGGGAGGGCCCCGGC
GGCCCCGGTGGTCCCCCGGAGGTGAGCAGAGGGGAAGAGGGGCGCATCTCAGAATCACCGGAAGTGACTCGACTC
TCCAGAGGTCGTGGTAGACCCAGGCTGCTCACTCCCAGCCCCACAACCGACCTCCACTCTGGACTCCAGATGCGG
AGGGCGAGGAGCCCCGACCTGTTCACCCCCCTCTCTCGCCCTCCCTCGCCTCTGAGCCTCCCCCGTCCCCGTTCT
GCCCCTGCGCGGCGACCCCCTGCCCCCTCAGGAGACACAGCACCCCCTGCCCGACCTCACACCCCGTTGAGTCGC
ATTGATGTCCGACCTCCTCTGGATTGGGGCCCCCAACGCCAGACCCTCTCCCGACCCCCTACTCCCCGCCGAGGA
CCTCCCTCTGAGGCTGGGGGAGGAAAGCCCCCCAGGAGTCCCCAGCACTGGAGTCAGGAGCCCAGAACACAGGCA
CACTCTGGCTCCCCCACTTATCTCCAGCTCCCCCCGCGGCCCCCTGGGACCCGGGCCTCCATGGTTTTATTGCCG
GGTCCTCCCCTGGAGTCAACTTTCCACCAAAGCTTGGAGACAGATACGCTGCTGACCAAGTTGTGCGGGCAGGAC
CGGCTTCTGCGGAGGCTGCAGGAGGAGATAGACCAGAAGCAGGAGGAGAAGGAGCAACTAGAAGCAGCTCTGGAG
TTGACCCGGCAACAGCTGGGCCAAGCCACCAGGGAGGCTGGGGCTCCCGGGAGGGCCTGGGGTCGCCAGCGCCTC
TTGCAGGACCGGCTGGTCAGTGTGAGGGCCACCCTCTGTCACTTGACTCAGGAGCGAGAGAGGGTTTGGGACACG
TACAGTGGCCTGGAGCAGGAGCTGGGCACCTTAAGAGAGACGCTGGAGTACCTGCTGCACCTTGGTTCTCCCCAG
GACAGAGTGTCTGCTCAGCAGCAGCTGTGGATGGTGGAAGACACGCTGGCAGGTCTGGGTGGCCCCCAGAAACCG
CCCCCACACACTGAGCCTGACTCCCCATCTCCCGTGCTCCAGGGCGAGGAGTCCTCAGAGAGGGAGAGCCTGCCA
GAGTCCTTGGAACTGAGCTCCCCTAGGTCCCCCGAGACTGACTGGGGGCGGCCTCCTGGAGGCGACAAAGACCTC
GCCAGCCCTCACTTAGGTCTTGGGTCTCCGAGGGTCTCCCGGGCTTCCAGCCCTGAGGGTCGCCACCTCCCTTCC
CCACAGCTAGGAACCAAGGCCCCGGTGGCCCGGCCCCGGATGAGTGCCCAGGAGCAGCTGGAGCGGATGCGCAGA
AACCAGGAATGTGGACGGCCCTTCCCTCGCCCGACCTCCCCCCGGCTTCTCACCCTGGGAAGGACACTGTCCCCA
GCCAGACGCCAGCCTGACGTGGAGCAAAGGCCTGTCGTAGGACACTCGGGAGCCCAGAAATGGCTCAGAAGCTCT
GGGTCCTGGAGTAGTCCAAGGAACACCACCCCTTACTTGCCGACTTCCGAAGGTCACCGGGAGCGGGTTCTCAGC
CTCTCCCAAGCCCTGGCTACTGAGGCGTCGCAGTGGCACAGAATGATGACAGGTGGAAATTTGGACTCCCAGGGA
GACCCTCTTCCCGGTGTGCCGCTGCCTCCTTCGGACCCCACGCGCCAGGAGACCCCTCCCCCCAGATCTCCCCCG
GTGGCTAATTCGGGTTCCACGGGGTTCTCTCGCCGAGGGAGTGGGCGTGGAGGAGGTCCCACCCCCTGGGGGCCC
GCGTGGGATGCCGGGATCGCCCCTCCGGTCCTGCCACAAGACGAGGGGGCATGGCCTCTGCGAGTCACTCTGCTA
CAATCCAGCTTC**TAA**TCCGCCCAAAAGCGGCAGCCAATCGGAGCGCGAGGACGTGGTCTGGAGGTACCGCCGGAG
ATCTGGGACCACTCAGGGCATCAGGGGGCGTGGTCTGGTCCCCATTGCGGGCCCGGGAGGGGAATGGTTTCTATG
GCCAAAGTTTGGTTTTCTCAACACTGTCTAAATTTGGATTAAAACTTTGAACTTTT

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FIGURE 3884

ATGGCCGCAGCCGCTCTGGGGCAGATCTGGGCACGAAAGCTTCTCTCTGTCCCTTGGCTTCTGTGTGGTCCCAGA
AGATATGCCTCCTCCAGTTTCAAGGCTGCAGACCTGCAGCTGGAAATGACACAGAAGCCTCATAAGAAGCCTGGC
CCCGGCGAGCCCCTGGTGTTTGGGAAGACATTTACCGACCACATGCTGATGGTGGAATGGAATGACAAGGGCTGG
GGCCAGCCCCGAATCCAGCCCTTCCAGAACCTCACGCTGCACCCAGCCTCCTCCAGCCTCCACTACTCCCTGCAG
CTGTTTGAGGGCATGAAGGCGTTCAAAGGCAAAGACCAGCAGGTGCGCCTCTTCCGCCCCTGGCTCAACATGGAC
CGGATGCTGCGCTCAGCCATGCGCCTGTGCCTGCCGAGTTTCGACAAGCTGGAGTTGCTGGAGTGCATCCGCCGG
CTCATCGAAGTGGACAAGGACTGGGTCCCCGATGCCGCCGGCACCAGCCTCTATGTGCGGCCTGTGCTCATTGGG
AACGAGCCCTCGCTGGGTGTCAGCCAGCCCACGCGCGCGCTCCTGTTCGTCATTCTCTGCCCAGTGGGTGCCTAC
TTCCCTGGAGGCTCCGTGACCCCGGTCTCCCTCCTGGCCGACCCAGCCTTCATCCGGGCCTGGGTGGGCGGGGTC
GGCAACTACAAGTTAGGTGGGAATTATGGGCCCACCGTGTTAGTGCAACAGGAGGCACTCAAGCGGGGCTGTGAA
CAGGTCCTCTGGCTGTATGGGCCCGACCACCAGCTCACCGAGGTGGGAACCATGAACATCTTTGTCTACTGGACC
CACGAAGATGGGGTGCTGGAGCTGGTGACGCCCCCGCTGAATGGTGTTATCCTGCCTGGAGTGGTCAGACAGAGT
CTACTGGACATGGCTCAGACCTGGGGTGAGTTCCGGGTGGTGGAGCGCACGATCACCATGAAGCAGTTGCTGCGG
GCCCTGGAGGAGGGCCGCGTGCGGGAAGTCTTTGGCTCGGGCACCGCTTGCCAGGTCTGCCCAGTGCACCGAATC
CTGTACAAAGACAGGAACCTCCACATTCCCACCATGGAAAATGGGCCTGAGCTGATCCTCCGCTTCCAGAAGGAG
CTGAAGGAGATCCAGTACGGAATCAGAGCCCACGAGTGGATGTTCCCGGTGTGAAGCTGCAGGCTGTGCTCCAGA
TCCACCGACCCGTAGCATCTCGTCACGCCAGCACTCGCCTCCCTACCAATGACTCACCTGAAGTGCAATACGAAA
TAAAAGGCCAGCGGGCGGCGTCTGGGTCTCTGGCGCCCCCATGTGGTTGCGACACTCCCAAAGCCGTAAGGGCCG
ACCCAGGCATCTTGGCCCCCAGCCCCTCGTCGCGGGTTCAGGTCCGCCCATTACTCCTTGTCGTGCGGTCAAGGA
TACACCTTGGCCCCGATTCCGGATCTCTCCGTTCTCAGGCCAGACCCCTGGTGCTGCCGTTGATTTTTTTTCTC
TGTCTTTGCTGCAATTTTGAAATAAAATGCCAAAGAACACA

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FIGURE 3885

CCATCTTTAGGACCGCGGCCCCTTTAAGCGGCGCCCCTTTTCCCCCCATCACCCCCCTCGCCATCAGGCAGCACG
AGCAGAGCCATGTGCTTCCCCCTCCCGCCTGCCTCATTGGCCCAAACTGGGTCACGGTCCCGCCCCCCAGTACCG
CCTCCCATTGGGCAAATGTAGGTCAGTGTCCCGCCTCCCACCGAAAGGCAAGGCAACTTCACGCGCTGAGCCCCT
CACGCGCCCTCCTGGGCCCTGGCGGACCCAGAGGCCCCATTGGCTGTGCGTCTCAAGGTGTCGGAGACGATTGGT
CCGTGTTTGCAGCCGGAGGGAGGCACGCGGCTGGGTTGCATGCCCATAGAGGCTGGCGGGGCTGGACGCGCCGGG
CGGGGACCCGGAGGAGGGGCGCGCGCTGTGGCGTCGGGTGTTTTGGTTTGGATTTTTTTTTCCGCGAAAGAAGTT
TGCTTTGGCCACGCCTCAAGGCGGCCGCCTCCTCCTGCCCCCTCCTCCGCCCCTCCGCGCACACCTCTCGGTGCA
GATTGCAAAGCGCCTTCCGTTGCGAGAGCTGCAGATTTTGCAAGAGCCAGGCTCGCCCACCTTGTAGAAGGAGCG
CCTTGAGTCCCCTCTCACCCTCGGTTGCAAAGAGCCGACCGCTTGATCTGGACACCCCCTCGCCCAGATTGCATG
ATCTCCCGGGACCCTCTTGAGTTGCACGTTTCTGCACCGAGGACCTCAAATCCCCGTCGCTCCTAGGATTTGCAG
CGTTCTGGATACTGGAGGGTTGCAGGCTACACTCGCCCGCCCCTGGGCAGACACTCGTCCAAACCACTGGAGTGT
GCTGGTGACTGGCAGGCCAGCCCTTCGCCTCTCCATGAACCCGTGAGCCTGGGGGCAGGTGCCAGGCG**ATG**GCGC
GGCCTGTGAGCGACAGGACCCCGGCCCCTCTGCTGCTGGGCGGCCCGGCCGGGACACCCCCTGGCGGGGGAGCGC
TGCTTGGGTTGCGGAGCCTTCTGCAGGGGACCAGCAAGCCCAAAGAGCCGGCCAGCTGTCTCCTGAAGGAAAAGG
AGCGCAAGGCGGCCCTGCCTGCAGCCACAACCCCTGGGCCAGGCCTGGAGACTGCGGGCCCGGCGGATGCCCCGG
CTGGGGCAGTGGTGGGCGGAGGGTCCCCGCGGGGGCGCCCGGGGCCGGTGCCCGCCCCGGGTCTGTTGGCGCCAC
TGCTGTGGGAGCGCACGCTGCCGTTCGGCGATGTGGAGTACGTAGACCTGGACGCCTTCCTGCTGGAGCACGGGC
TCCCGCCCAGCCCGCCGCCCCCCGGTGGCCCGTCGCCGGAGCCGTCGCCCGCGCGGACGCCCGCACCCTCCCCAG
GGCCGGGTTCGTGCGGCTCGGCTTCCCCCCGCTCCTCTCCTGGGCACGCCCCCGCCCGGGCTGCCCTCGGGACCG
CCAGCGGCCACCGCGCAGGCCTGACCTCTCGGGACACACCCAGCCCTGTGGACCCAGACACCGTGGAGGTGTTGA
TGACCTTTGAACCCGACCCAGCTGATCTTGCCCTATCAAGCATTCCTGGCCACGAGACCTTTGACCCTCGAAGAC
ATCGCTTCTCAGAAGAGGAACTTAAGCCCCAGCCAATCATGAAGAAGGCAAGAAAAATCCAGGTGCCGGAGGAGC
AGAAGGATGAGAAATACTGGAGCCGGCGGTACAAGAACAACGAGGCAGCCAAGCGGTCCCGTGACGCCCGGCGGC
TCAAGGAGAACCAGATATCGGTGCGGGCGGCCTTCCTGGAGAAGGAGAACGCCCTGCTGCGGCAGGAAGTTGTGG
CCGTGCGCCAGGAGCTGTCCCACTACCGCGCCGTGCTGTCCCGATACCAGGCCCAGCACGGGGCCCTG**TGA**GGCT
GCCCCACATCCCCACCTGGCGGAGCTCTCCTCCGCCTTGCTGAGACTTACGCCCTGTTCCCTTCCTGCCCTGTGG
CCCACGGGCCGGCCAGCTGGGTGCCCCAGGGACGTGATAATGCAGATAAATACATTTATATTTTTAAGAAAAAGC
GAGCCTCCCCCCTCCCTTGCGGGGGCGGGGAGGGTTCTCTGTGTGTGTCCCCGGCACGTCAGGGACCCTATCCTC
CCACCGCCTCCGTTAACACGATCCTGAATAAATCTTGAGAACCCCAGAGCCAGCTGTTGTGGAAGAAGAGGGCAG
CTCCCTGGCATACTGGCTGCAGCCCGTGGGCAGCTCCGGGCTGTCGTCCATAGAGGGCAGGCGCTGCTGGAAGTG
CTGGAGTCTGAGTCCTCCCGCGGGCTGTCGGATGGAGGAAGGGCAGAAGGTCTGAGAGGAATGAAGCGACTGCCT
TTATTGCATAGACCTTTTCAATTGCTTTTTAGATTGGGGACGGAGGACGCGCATGAGACGAACAGGGGATATGAA
TTTCCCCGCCCCCACCCGCGGGGAGAGGAACATTAGTGCAAATCCTAGCGCCGGCCCCGGGGAACCTGCCCCTCC
TGGGCTGATTGGCCAGCTAAATGGAGGCACCGGAGTGGATGGGGCGAGGCTGCGGGCCCTGACCGGCCGACTCAC
TGAGGCCTACCCCAGCCAGTACATTCCAGGTCCTGTCATTGGGCGACGCGTAAAATAGACTCCGCCCTCAGCCAT
CCTGGCCGGGTAGGAGCAGGTGGCAAGCGTCAGGACTGAGCCCTGCCCCGTAA

FIGURE 3886

GGGGAACAAAGGTGAGCGAAAGGAGGAGGCAGAATCCGGGCAGAGGGCAGGGAGAGGGCCTGTGGGGAAGGGACC
TCAGTCCTGCTCCCACCCGCTCCCTGGAGAGCAGGCGGCCAGACACCCAGAGGCCAGACCAGGAGCTGACCGGGA
GCTGGGGCCACGGGCCTAGGAGCACCCTGGTCAGGGCTAAGGCC**ATG**GCCCCGCCCCCACCGCCACTGGCTGCCA
GCACCCCGCTCCTCCATGGCGAGTTTGGCTCCTACCCAGCCCGAGGCCCACGCTTTGCCCTCACCCTTACATCGC
AGGCCCTGCACATACAGCGGCTGCGCCCCAAACCTGAAGCCAGGCCCCGGGGTGGCCTGGTCCCGTTGGCCGAGG
TCTCAGGCTGCTGCACCCTGCGAAGCCGCAGCCCCTCAGACTCAGCGGCCTACTTCTGCATCTACACCTACCCTC
GGGGCCGGCGCGGGGCCCGGCGCAGAGCCACTCGCACCTTCCGGGCAGATGGGGCCGCCACCTACGAAGAGAACC
GTGCCGAGGCCCAGCGCTGGGCCACTGCCCTCACCTGTCTGCTCCGAGGACTGCCACTGCCCGGGGATGGGGAGA
TCACCCCTGACCTGCTACCTCGGCCGCCCCGGTTGCTTCTATTGGTCAATCCCTTTGGGGGTCGGGGCCTGGCCT
GGCAGTGGTGTAAGAACCACGTGCTTCCCATGATCTCTGAAGCTGGGCTGTCCTTCAACCTCATCCAGACAGAAC
GACAGAACCACGCCCGGGAGCTGGTCCAGGGGCTGAGCCTGAGTGAGTGGGATGGCATCGTCACGGTCTCGGGAG
ACGGGCTGCTCCATGAGGTGCTGAACGGGCTCCTAGATCGCCCTGACTGGGAGGAAGCTGTGAAGATGCCTGTGG
GCATCCTCCCCTGCGGCTCGGGCAACGCGCTGGCCGGAGCAGTGAACCAGCACGGGGGATTTGAGCCAGCCCTGG
GCCTCGACCTGTTGCTCAACTGCTCACTGTTGCTGTGCCGGGGTGGTGGCCACCCACTGGACCTGCTCTCCGTGA
CGCTGGCCTCGGGCTCCCGCTGTTTCTCCTTCCTGTCTGTGGCCTGGGGCTTCGTGTCAGATGTGGATATCCAGA
GCGAGCGCTTCAGGGCCTTGGGCAGTGCCCGCTTCACACTGGGCACGGTGCTGGGCCTCGCCACACTGCACACCT
ACCGCGGACGCCTCTCCTACCTCCCCGCCACTGTGGAACCTGCCTCGCCCACCCCTGCCCATAGCCTGCCTCGTG
CCAAGTCGGAGCTGACCCTAACCCCAGACCCAGCCCCGCCCATGGCCCACTCACCCCTGCATCGTTCTGTGTCTG
ACCTGCCTCTTCCCCTGCCCCAGCCTGCCCTGGCCTCTCCTGGCTCGCCAGAACCCCTGCCCATCCTGTCCCTCA
ACGGTGGGGGCCCAGAGCTGGCTGGGGACTGGGGTGGGGCTGGGGATGCTCCGCTGTCCCCGGACCCACTGCTGT
CTTCACCTCCTGGCTCTCCCAAGGCAGCTCTACACTCACCCGTCTCCGAAGGGGCCCCCGTAATTCCCCCATCCT
CTGGGCTCCCACTTCCCACCCCTGATGCCCGGGTAGGGGCCTCCACCTGCGGCCCGCCCGACCACCTGCTGCCTC
CGCTGGGCACCCCGCTGCCCCCAGACTGGGTGACGCTGGAGGGGGACTTTGTGCTCATGTTGGCCATCTCGCCCA
GCCACCTAGGCGCTGACCTGGTGGCAGCTCCGCATGCGCGCTTCGACGACGGCCTGGTGCACCTGTGCTGGGTGC
GTAGCGGCATCTCGCGGGCTGCGCTGCTGCGCCTTTTCTTGGCCATGGAGCGTGGTAGCCACTTCAGCCTGGGCT
GTCCGCAGCTGGGCTACGCCGCGGCCCGTGCCTTCCGCCTAGAGCCGCTCACACCACGCGGCGTGCTCACAGTGG
ACGGGGAGCAGGTGGAGTATGGGCCGCTACAGGCACAGATGCACCCTGGCATCGGTACACTGCTCACTGGGCCTC
CTGGCTGCCCGGGGCGGGAGCCC**TGA**AACTAAACAAGCTTGGTACCCGCCGGGGGCGGGGCCTACATTCCAATGG
GGCGGAGCCTGAGCTAGGGGGTGTGGCCTGGCTGCTAGAGTTGTGGTGGCAGGGGCCCTGGCCCCGTCTCAGGAT
TGCGCTCGCTTTCATGGGACCAGACGTGATGCTGGAAGGTGGGCGTCGTCACGGTTAAAGAGAAATGGGCTCGTC
CCGAGGGTAGTGCCTGATCAATGAGGGCGGGGCCTGGCGTCTGATCTGGGGCCGCCCTTACGGGGCAGGGCTCAG
TCCTGACGCTTGCCACCTGCTCCTACCCGGCCAGGATGGCTGAGGGCGGAGTCTATTTTACGCGTCGCCCAATGA
CAGGACCTGGAATGTACTGGCTGGGGTAGGCCTCAGTGAGTCGGCCGGTCAGGGCCCGCAGCCTCGCCCCATCCA
CTCCGGTGCCTCCATTTAGCTGGCCAATCAGCCCAGGAGGGGCAGGTTCCCCGGGGCCGGCGCTAGGATTTGCAC
TAATGTTCCTCTCCCCGCGGGTGGGGGCGGGGAAATTCATATCCCCTGTTCGTCTCATGCGCGTCCTCCGTCCCC
AATCTAAAAAGCAATTGAAAAGGTCTATGCAATAAAGGCAGTCGCTTCATTCCTCTC

FIGURE 3888

TGTCAGAACAGTGTGGCAGGGGCTGCTGCAGGGAGCCATTTGGACATCTGCAGGGCCCCGCCGGAGGCCTCGGAT
GGCCACGTAGGGTCTGCCTATCAGGAGAACCCCCAGATGATCACAGTCCCCAGAGACAGCCAGACCCCCGGGGAC
CCAGCCTCTCACAGTCAGTCCTCCCACCCGAGTGACCCCG**ATG**GCGGCCTCCCAGCTGGCGGCGCTGGAAGGAGT
GGACTCCGGTCCCAGGGTGCCCGGGGCCAGCCCCGGCTTTCTATATTCCGAGGGCCAGCGGCTGGCACTGGAGGC
TCTGTTGAGCAAGGGCGCGGAGGCGTTCCAGACCTGCGTGCAGCGCGAGGAGCTGTGGCCCTTCCTCAGTGCGGA
TGAGGTTCAGGGCTTGGCAGCGGCAGCTGAAGACTGGACAGTGGCCAAGCAGGAGCCCAGCGGGATGGCAGAGGG
AGCCACCACCACCGATGTGGACGCGGGCAGCCTGAGCTACTGGCCTGGGCAGTCGGAGCAGCCGGCGCCCGTCCT
GCGGCTGGGCTGGCCAGTGGACTCTGCGTGGAAAGGCATCACCCGGGCGCAGCTGTACACCCAGCCTCCTGGAGA
GGGTCAGCCGCCCCTCAAGGAGCTGGTGCGGCTGGAGATCCAGGCTGCCCACAAGCTGGTGGCCGTGGTCATGGA
CGTCTTCACTGACCCAGACCTGCTTTTGGACTTGGTGGATGCTGCCACGCGCCGCTGGGTACCTGTCTACCTGCT
CCTGGACCGCCAGCAGCTGCCTGCCTTCCTGGAACTGGCCCAGCAGCTGGGGGTGAACCCCTGGAACACGGAGAA
CGTGGATGTCCGTGTCGTGCGGGGCTGCAGCTTCCAGAGCCGCTGGCGACGGCAGGTGAGCGGCACCGTGCGGGA
GAAGTTTGTGCTGCTGGACGGCGAGAGGGTCATCTCAGGATCCTACAGCTTCACGTGGAGTGACGCACGCCTGCA
CCGAGGCCTGGTGACCCTGCTGACTGGTGAAATTGTTGACGCCTTCAGCCTTGAGTTCCGGACGCTGTACGCGGC
CTCCTGCCCGCTCCCACCTGCGCCCCCCCAGAAACCCTCGGTCATAGGTGGCCTGCAGCGGGGCCGCAGCCCGCA
CCGCGTGTCCCGCCGCCGCTCCGTGGCCCCCGCGTCGCCTCCGCCGCCTGACGGCCCGCTGGCCCACCGCCTGGC
CGCCTGCCGCGTCTCCCCTGCTACCCCGGGGCCGGCACTCAGTGACATTCTAAGGAGTGTGCAGCGCGCCCGGAC
CCCCAGCGGCCCCCCGGCCCGGCCCAGCCGCTCCATGTGGGACCTAAGCCGCCTGTCCCAGCTGTCTGGCTCCAG
TGATGGGGACAACGAGCTCAAGAAATCCTGGGGCTCCAAGGACACTCCAGCCAAGGCTCTGATGAGGCAGCGGGG
CACTGGAGGAGGCCCCTGGGGGGAAGTGGACTCCCGACCTCCGTGGGGCGGTGCCCTGCCCCTGCCCCCCGCCCA
CCGCCTCCGCTATCTGTCCCCAGCCCGAAGGCGGTTCGGTGGGGATGCTACATTCAAACTTCAAGAGCCCAGAGG
CGTCAGGCCGTCAGACTGGGCCCCCCGGGCAGGACTTGGGGGGCAACCC**TGA**ACAGGAGCCCAAGCCAAATCTGC
TGGCCCACCCAAGGAGCAGTGCCGGACAACTGTCGGCTCAGAGCCCTCTGCCTCAATGCCCTGCCTTGGACAAGG
CTTCTGGCCTCGGCGTCTGTCAAGCAGAAGGGATGTTTGTCACTTGTTCTGCAACTTGGGCCGGGAGTGGTGGCT
CATGCCTGTAATCCCTGCACTTTGGGAGGCTAAGGTGGGAGGGTTGCTTAAGGCCAGGAGTTGGAGACCAGCCTG
GGCAACATAGTGAGACCCCATCTCTACAATTAAAAAAACAAATTAGTTGGG

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FIGURE 3889

AGACGCTGTCGCTGCGCACACCTGGCCTCTGTGCCGCCTGCTCCCTGCTCGTCCTCCCCTCCCCACCCTCACCCA
CCTGCC**ATG**GACGGGCCCGCCGAGCCCCAGATCCCGGGCTTGTGGGACACCTATGAAGATGACATCTCGGAAATC
AGCCAGAAGTTGCCAGGTGAATACTTCCGGTACAAGGGCGTCCCCTTCCCCGTCGGCCTGTACTCGCTCGAGAGC
ATCAGCTTGGCGGAGAACACCCAAGATGTGCGGGACGACGACATCTTTATCATCACCTACCCCAAGTCAGGCACG
ACCTGGATGATCGAGATCATCTGCTTAATCCTGAAGGAAGGGGATCCATCCTGGATCCGCTCCGTGCCCATCTGG
GAGCGGGCACCCTGGTGTGAGACCATTGTGGGTGCCTTCAGCCTCCCGGACCAGTACAGCCCCCGCCTCATGAGC
TCCCATCTTCCCATCCAGATCTTCACCAAGGCCTTCTTCAGCTCCAAGGCCAAGGTGATCTACATGGGCCGCAAC
CCCCGGGACGTTGTGGTCTCCCTCTATCATTACTCCAAGATCGCCGGGCAGTTAAAGGACCCGGGCACACCCGAC
CAGTTCCTGAGGGACTTCCTCAAAGGCGAAGTGCAGTTTGGCTCCTGGTTCGACCACATTAAGGGCTGGCTTCGG
ATGAAGGGCAAAGACAACTTCCTATTTATCACCTACGAGGAGCTGCAGCAGGACTTACAGGGCTCCGTGGAGCGC
ATCTGTGGGTTCCTGGGCCGTCCGCTGGGCAAGGAGGCACTGGGCTCCGTCGTGGCACACTCAACCTTCAGCGCC
ATGAAGGCCAACACCATGTCCAACTACACGCTGCTGCCTCCCAGCCTGCTGGACCACCGTCGCGGGGCCTTCCTC
CGGAAAGGGGTCTGCGGCGACTGGAAGAACCACTTCACGGTGGCCCAGAGCGAAGCCTTCGATCGTGCCTACCGC
AAGCAGATGCGGGGGATGCCGACCTTCCCCTGGGATGAAGACCCGGAGGAGGACGGCAGCCCAGATCCTGAGCCC
AGCCCTGAGCCTGAGCCCAAGCCCAGCCTTGAGCCCAACACCAGCCTGGAGCGTGAGCCCAGACCCAACTCCAGC
CCCAGCCCCAGCCCCGGCCAGGCCTCTGAGACCCCGCACCCACGACCCTCA**TAA**TAAACACGTCGATTCTGTC

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FIGURE 3890

GCAGAGGTGGCTGTACCGCGTGGCTCCGCCTCCGCGCGACACTTTTCCGGGGCTTCTCATTGGAGAGCAAGCCTG
TCAAGTGCTTTCTGTTGTTTCGGAGGCGGGGCCTGCTGCCCTGCCTGCACTCCGATTGGCCCCGCGGGCCGTCTA
CCTCTGGCCGGACATACCTACACCGGCTTTTTGTACGACTGTTGGCCCTGGAGAACGATCCTTTGGTGGCGAGGG
CGGGGAGGACGAAAGCGCCCACTGTGGATTGGACAGTGTCAAAAAGAGGGGCGGTCCCTACTGAAGGGGCGGTTG
GGCGACGAAGGGAAGAGTCTTTTCAGCGCTGAGGACTGGCGCTGAGGAGGCGGCGGTGGCTCCCGGGGCGTTTGA
GCGGGCTCACCCGAGCCCGCGGGCCAACGCGGATCCAGGCCCGACTGGCGGGACCGCCCCGGATTCCCCGCGGGC
CTTCCTAGCCGCC**ATG**GAGGACGGCGTCTATGAACCCCCAGACCTGACTCCGGAGGAGCGGATGGAGCTGGAGAA
CATCCGGCGGCGGAAGCAGGAGCTGCTGGTGGAGATTCAGCGCCTGCGGGAGGAGCTCAGTGAAGCCATGAGCGA
GGTGGAGGGGCTGGAGGCCAATGAGGGCAGTAAGACCTTGCAACGGAACCGGAAGATGGCAATGGGCAGGAAGAA
GTTCAACATGGACCCCAAGAAGGGGATCCAGTTCTTGGTGGAGAATGAACTGCTGCAGAACACACCCGAGGAGAT
CGCCCGCTTCCTGTACAAGGGCGAGGGGCTGAACAAGACAGCCATCGGGGACTACCTGGGGGAGAGGGAAGAACT
GAACCTGGCAGTGCTCCATGCTTTTGTGGATCTGCATGAGTTCACCGACCTCAATCTGGTGCAGGCCCTCAGGCA
GTTTCTATGGAGCTTTCGCCTACCCGGAGAGGCCCAGAAAATTGACCGGATGATGGAGGCCTTCGCCCAGCGATA
CTGCCTGTGCAACCCTGGGGTTTTCCAGTCCACAGACACGTGCTATGTGCTGTCCTTCGCCGTCATCATGCTCAA
CACCAGTCTCCACAATCCCAATGTCCGGGACAAGCCGGGCCTGGAGCGCTTTGTGGCCATGAACCGGGGCATCAA
CGAGGGCGGGGACCTGCCTGAGGAGCTGCTCAGGAACCTGTACGACAGCATCCGAAATGAGCCCTTCAAGATTCC
TGAGGATGACGGGAATGACCTGACCCACACCTTCTTCAACCCGGACCGGGAGGGCTGGCTCCTGAAGCTGGGAGG
GGGCCGGGTGAAGACGTGGAAGCGGCGCTGGTTTATCCTCACAGACAACTGCCTCTACTACTTTGAGTACACCAC
GGACAAGGAGCCCCGAGGAATCATCCCCCTGGAGAATCTGAGCATCCGAGAGGTGGACGACCCCCGGAAACCGAA
CTGCTTTGAACTTTACATCCCCAACAACAAGGGGCAGCTCATCAAAGCCTGCAAAACTGAGGCGGACGGCCGAGT
GGTGGAGGGAAACCACATGGTGTACCGGATCTCGGCCCCCACGCAGGAGGAGAAGGACGAGTGGATCAAGTCCAT
CCAGGCGGCTGTGAGTGTGGACCCCTTCTATGAGATGCTGGCAGCGAGAAAGAAGCGGATTTCAGTCAAGAAGAA
GCAGGAGCAGCCC**TGA**CCCCCTGCCCCCAACTCCATTATTTATTACGGAGCTGCCCCGCCTGGGTGGCCGGACCC
CTGGGCCTTGGGGCTGTGGATCCTGGTTCCCTGTTTGGAAAATTCACCACCTCTAGCTCCTCACTGTTCTTTGTA
ATTAACACGCTGTTGGTAATCTTATTAATTATTTAACCACTTGG

FIGURE 3891

GAGGGTTCGAAG**ATG**GCGGCGCGCAAGGGTCGGCGGCGCACGTGTGAAACCGGGGAACCCATGGAAGCCGAGTCC
GGCGACACAAGTTCCGAGGGCCCGGCCCAGGTCTACCTGCCCGGCCGGGGGCCGCCGCTACGCGAAGGGGAGGAG
CTGGTCATGGACGAGGAGGCCTATGTGCTCTACCACCGAGCGCAGACTGGCGCCCCCTGTCTCAGCTTTGACATA
GTCCGGGATCACCTGGGAGACAACCGGACAGAGCTTCCTCTTACACTTTACTTGTGTGCTGGGACCCAGGCTGAG
AGCGCCCAGAGCAACAGACTGATGATGCTTCGGATGCACAATCTGCATGGGACAAAGCCCCCACCCTCAGAGGGC
AGTGATGAAGAAGAAGAGGAGGAAGATGAAGAGGATGAAGAAGAGCGGAAACCTCAGCTGGAGCTGGCCATGGTG
CCCCACTATGGTGGCATCAACCGAGTTCGGGTGTCATGGCTGGGTGAAGAGCCTGTGGCTGGGGTGTGGTCAGAG
AAGGGCCAGGTGGAGGTGTTTGCGCTGCGGCGGCTTCTGCAGGTGGTGGAGGAGCCCCAGGCCCTGGCAGCCTTC
CTCCGGGATGAGCAGGCCCAAATGAAGCCCATCTTCTCCTTCGCTGGACACATGGGCGAGGGCTTTGCCCTTGAC
TGGTCCCCCCGGGTGACCGGTCGCCTGCTGACCGGTGACTGTCAAAAGAACATCCACCTCTGGACACCTACGGAC
GGCGGCTCCTGGCACGTGGACCAGCGGCCATTCGTGGGCCACACACGCTCTGTGGAGGACCTGCAGTGGTCACCG
ACTGAGAACACGGTGTTTGCCTCCTGCTCAGCTGACGCCTCCATCCGCATCTGGGACATCCGGGCAGCCCCCAGC
AAGGCCTGCATGCTCACCACAGCCACCGCCCATGATGGGGACGTCAATGTCATCAGCTGGAGCCGCCGGGAGCCC
TTCCTGCTCAGTGGCGGGGATGATGGGGCCCTCAAGATCTGGGACCTTCGGCAGTTCAAGTCTGGTTCCCCAGTG
GCCACCTTCAAGCAGCACGTGGCCCCCGTGACCTCCGTCGAGTGGCACCCCCAGGACAGCGGGGTCTTTGCAGCC
TCGGGTGCAGACCACCAGATCACACAGTGGGACCTGGCAGTGGAGCGGGACCCTGAGGCGGGCGACGTGGAGGCC
GACCCCGGACTGGCCGACCTCCCGCAGCAGCTGCTGTTCGTGCACCAGGGCGAGACCGAGCTGAAGGAGCTGCAC
TGGCACCCGCAGTGCCCAGGGCTCCTGGTCAGCACGGCGCTGTCAGGCTTCACCATCTTCCGCACCATCAGCGTC
TGAGGCGTCCCACTGGCTCTGATCTTGCTTCCTGCTTGGAAACTGAAGTCGAATTGGGCTCCCCTGGAAGGGGTT
CATTCAGGTCTGTTGACTGAGACTGGCCGGCCTGTGGGCTGCCGTGATGGATTCTGTTTGACGTATTGTTCTCTA
GAAGGCCTGGCTCTGATCCAGTGACCCCTCTCACCAAAGAACTCGGTTTAACCAGGGCTCTGTAAGACCACTCCC
ACCCAGAGACTTGTGTGGCCTGGTGTGGCCTGTGTGTCGGATTCCTTCCTGTCAGCTGTGACCCATTTGACCTGT
GTCCCCAGAACCCAGTTTTTTGTTTGTTTGTTTGAGACGGAGTCTTGGTCTGTCGCCCAGGCTGGAGTGCAGTAG
CACGATCTTGGCTCACTGCAACCTCCGCCTCCTGGGTTAAAGTGATTCTCTCAGCTCAGTCTCCCAGGTAGCTGG
GATTACAGGCATGTGCCACCACACCCCGTTAATTTTTGTATTTTTAGTAGAGACGGGGTTTCACCATGTTGGCCA
GGCTGGTCTCAAATTCTTGATCTCAAGTGATCTGTCCGCCCCGGCCTCCCAGAGTGCTGGGTTGGGATTACAGGC
GTGAGCCACCGCGTCCGGCTCAGGACCCAGTTTTGGCTGCTGGTTCCCAGCAGGGGACTCGGGGGATATACAGTG
GCTGCACCAAATTGGAGGTGTGGGTTCCTCCAACACAATTTGCTTCTGCCCGTTGTCTTCCTGCCAGCTGGGTTT
GGCCAGGATTTCTCCGTGTGGGGGCTACATGCGACCCTCTCCCCTCCTCCCTGACTTTAGAGGCTGGTGCTGTGT
CGGGAGGAAGGTCAGGGCTCCTGAGCAGCAATAAAGGACCAGGAAGAGGCCTGAGGTGTA

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FIGURE 3892

GTCCCCTCCCCGGAGCGGAGCGCACCTAGGGTCCCTCTTCCGTCCCCCCAGCCCAGCTACCCGTTCAGACCAGCA
GCCTCGGGGGGCACCCCCCCCGCCAGCCTGCCTCCCTCCCGCTCAGCCCTGCCAGGGTTCCCCAGCC**ATG**AATCTC
TTCCGATTCCTGGGAGACCTCTCCCACCTCCTCGCCATCATCTTGCTACTGCTCAAAATCTGGAAGTCCCGCTCG
TGCGCCGGAATTTCAGGGAAGAGCCAGGTCCTGTTTGCTGTGGTGTTCACTGCCCGATATCTGGACCTCTTCACC
AACTACATCTCACTCTACAACACGTGTATGAAGGTGGTCTACATAGCCTGCTCCTTCACCACGGTCTGGTTGATT
TATAGCAAGTTCAAAGCTACTTACGATGGGAACCATGACACGTTCAGAGTGGAGTTCCTGGTCGTTCCCACAGCC
ATTCTGGCGTTCCTGGTCAATCATGACTTCACCCCTCTGGAGATCCTCTGGACCTTCTCCATCTACCTGGAGTCA
GTGGCCATCTTGCCGCAGCTGTTCATGGTGAGCAAGACCGGCGAGGCGGAGACCATCACCAGCCACTACTTGTTT
GCGCTAGGCGTTTACCGCACGCTCTATCTCTTCAACTGGATCTGGCGCTACCATTTCGAGGGCTTCTTCGACCTC
ATCGCCATTGTGGCAGGCCTGGTCCAGACAGTCCTCTACTGCGATTTCTTCTACCTCTATATCACCAAAGTCCTA
AAGGGGAAGAAGTTGAGTTTGCCGGCA**TAG**CCCCGGTCCTCTCCATCTCTCTCCTCGGCAGCAGCGGGAGGCAGA
GGAAGGCGGCAGAAGATGAAGAGCTTTCCCATCCAGGGGTGACTTTTTTAAGAACCCACCTCTTGTGCTCCCCAT
CCCGCCTCCTGCCGGGTTTCAGGGGGACAGTGGAGGATCCAGGTCTTGGGGAGCTCAGGACTTGGGCTGTTTGTA
GTTTTTTGCCTTTTAGACAAGAAAAAAAAATCTTTCCACTCTTTAGTTTTTGATTCTGATGACTCGTTTTTCTTC
TACTCTGTGGCCCCAATTTTTATAAAGTG

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FIGURE 3893

GCCGAACCTCGGGAGCCCAGGACGCCCTCCTGCACATGCGCAGGAGGCTCA**ATG**ACAGTCGAGCTTTGGCTAAGG
CTCCGGGGAAAGGGTCTAGCCATGCTGCATGTGACCCGGGGGGTCTGGGGGTCCAGGGTCCGAGTATGGCCACTG
TTGCCCGCGCTCCTCGGGCCCCCCCGGGCCCTCTCATCGCTGGCAGCCAAAATGGGGGAGTATCGCAAGATGTGG
AACCCCAGGGAGCCCCGCGACTGGGCCCAGCAGTACCGCGAGCGCTTCATTCCCTTCTCCAAGGAGCAGCTGCTC
CGCCTCCTAATACAGGAATTCCACTCGAGTCCGGCAGAGAAGGCGGCTTTGGAGGCGTTCTCGGCCCACGTGGAC
TTCTGCACCCTGTTCCACTACCACCAAATCCTGGCCCGGCTGCAGGCCTTATATGACCCCATCAACCCTGACAGG
GAGACCCTCGATCAGCCATCACTAACGGATCCCCAGCGTCTGTCTAATGAGCAGGAGGTGCTTCGGGCTCTGGAG
CCCCTGCTGGCCCAGGCCAACTTCTCCCCGCTGTCTGAGGACACCCTGGCCTACGCGCTGGTGGTCCACCACCCT
CAGGATGAGGTCCAGGTGACAGTAAATTTGGATCAGTATGTCTACATTCACTTCTGGGCCCTGGGCCAGCGAGTC
GGGCAGATGCCCCTGAAGTCCAGCGTGGGCTCCAGGCGTGGCTTCTTCACCAAGCTGCCCCCTGCGGAGAGGAGA
TACTTTAAGCGGGTGGTCCTGGCAGCCCGGACCAAACGGGGACACCTGGTACTGAAGAGTTTCAAGGACACGCCG
CTGGAAGGCCTGGAGCAGCTGCTGCCGGAGCTGAAGGTGCGCACGCCCACCCTGCAGCGCGCCCTGCTCAACCTC
ATGCTGGTAGTCTCCGGCGTGGCGATCTTCGTCAACGTGGGCATGGTGGTGCTAACCGACCTCAAGGTGGCCACC
TCCCTGCTGCTGCTGCTCTTCGCCATCTTCATGGGCCTGCGGGCCTCCAAGATGTTCGGGCAGCGGCGCAGCGCG
CAGGCGTTGGAGCTGGCGCACATGCTGTACTATCGCAGTACGTCCAACAACTCGGAGCTGCTCAGCGCCCTGGCC
CTGCGCGCGCAGGACGAGCACACCAAGGAGGCGCTGCTGGCTCACAGCTTCCTGGCCCGGCGGCCAGGGGGCACT
CAAGGCTCGCCCGAAGAGACCTCCAGGTGGCTCCGGTCGGAGGTGGAGAACTGGCTCCTAGCCAAGTCAGGCTGT
GAGGTGACCTTCAACGGAACTCGGGCCCTGGCGCATCTGCAGGCCCTGACCCCCAGCATGGGATTGTACCCACCC
CCGGGTTTCCCCAAACTAGACCCAGTGGCTCCGATCACTTCCGAGCCCCCGCAAGCCACGCCCAGCAGTAACATC
TCC**TGA**GTAGAACCTACCTCCCTGCCCAGTCAGCAGGCTAGGAACTAAGCCCCGCCTCCTTCACGACAGGCTGTC
AATTACGGTTATTATACTTTTCACTCCAACTTCCAATAACTGACAGGTGATTATTTTTGCTGCACTGTGTGCTTA
AGCAAAGCAGCCAATCAAAGCAGCTAGCAGTTGTTAAGTCTTCCCCGCCCCTTCGATGAACAGCCAATCAAAGCG
ATTTAGCTCTGCTTCTGTTCCATTTCTTAGTCCCACCCTCACCATAAACATCCAAGTGTGGTTTGGCTGAGGAGC
TGAGGGTGTCTGCCAATCACAGCTGCTCAGCTCTGGCTTCTGTAAACCGCCAGGTAGAAGAGTTAAAGCTGCGCC
CTCCCGAGACTATATATCATTGTCTTTTTCAGCCCGCTCCGGGCAAACTGCCCATCATGTGCACCAAGGCCGTTA
GCCCTGCCTCCTGGCAAACGTCCAGTGACAGCTGCTGGGTTCCATCAACTTTGGGCAGCCGGTTGTCGCTGCAGG
GAAGGAACCAATAAGAATTTCTAAAGGAAACCTGATCTTGCTATCAATTGCTGCTGCTTAAATGGCAGGCCAACT
GGTCAGCTGCTGATCAGGGTGTCTAGGCTGAAGGAGTTGGAGACCTTGTGCTAGGTAGGTGAACCAGAAACCACC
CTCGCCACCAAGACTCGCTCCCAACCTGGCTCCCGGCAACCTCAGGTGCCTTCCTCGCCCAGGTCTTTCACCCTT
TCTACAGAAACTACCTCGGTCTGGATCTCCCCACCACCAGCAGCCTGTGCAATATTTATTGGTCTATCAATTTCT
CCCGTCTCCTGTCCCAAAGTAATAAATCATGTTTAATAAGTCTG

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FIGURE 3894

GAAGGAGGCCCAGACAGTGAGGGCAGGAGGGAGAGAAGAGACGCAGAAGGAGAGCGAGCGAGAGAGAAAGGGTTC
TGGATTGGAGGGGAGAGCAAGGGAGGGAGGAAGGCGGTGAGAGAGGCGGGGGCCTCGGGAGGGTGAAAGGAGGGA
GGAGAAGGGCGGGGCACGGAGGCCCGAGCGAGGGACAAGACTCCGACTCCAGCTCTGACTTTTTTCGCGGCTCTC
GGCTTCCACTGCAGCC**ATG**TCACTCCTCTTGCTGGTGGTCTCAGCCCTTCACATCCTCATTCTTATACTGCTTTT
CGTGGCCACTTTGGACAAGTCCTGGTGGACTCTCCCTGGGAAAGAGTCCCTGAATCTCTGGTACGACTGCACGTG
GAACAACGACACCAAAACATGGGCCTGCAGTAATGTCAGCGAGAATGGCTGGCTGAAGGCGGTGCAGGTCCTCAT
GGTGCTCTCCCTCATTCTCTGCTGTCTCTCCTTCATCCTGTTCATGTTCCAGCTCTACACCATGCGACGAGGAGG
TCTCTTCTATGCCACCGGCCTCTGCCAGCTTTGCACCAGCGTGGCGGTGTTTACTGGCGCCTTGATCTATGCCAT
TCACGCCGAGGAGATCCTGGAGAAGCACCCGCGAGGGGGCAGCTTCGGATACTGCTTCGCCCTGGCCTGGGTGGC
CTTCCCCCTCGCCCTGGTCAGCGGCATCATCTACATCCACCTACGGAAGCGGGAG**TGA**GCGCCCCGCCTCGCTCG
GCTGCCCCCGCCCCTTCCCGGCCCCCCTCGCCGCGCGTCCTCCAAAAAATAAAACCTTAACCGCGG

FIGURE 3895A

GTTCTCAACTTCTTTTGAAATAATGTTCATAGAGAAGGAGGGCTGTCTGAGATTCGAGGGAAACAAGCTCTCAGG
ACTTCCGGTCGCCATGATGGCTGTGGGCGGTAAACGCGGTTAGTGCAAGCATCTGGGCCATCTTCAATGGTAAAA
AAGATACAGTAAAGACATAAATACCACATTTGACAAATGGAAAAAAAGGAGTGTCCAGAAAAGAGTAGCAGCAGT
GAGGAAGAGCTGCCGAGACGGGTATACAGGGAGCTACCCTGTGTTTCTGAGACCCTTTGTGACATCTCACATTTT
TTCCAAGAAG**ATG**ATGAGACAGAGGCAGAGCCATTATTGTTCCGTGCTGTTCCTGAGTGTCAACTATCTGGGGGG
GACATTCCCAGGAGACATTTGCTCAGAAGAGAATCAAATAGTTTCCTCTTATGCTTCTAAAGTCTGTTTTGAGAT
CGAAGAAGATTATAAAAATCGTCAGTTTCTGGGGCCTGAAGGAAATGTGGATGTTGAGTTGATTGATAAGAGCAC
AAACAGATACAGCGTTTGGTTCCCCACTGCTGGCTGGTATCTGTGGTCAGCCACAGGCCTCGGCTTCCTGGTAAG
GGATGAGGTCACAGTGACGATTGCGTTTGGTTCCTGGAGTCAGCACCTGGCCCTGGACCTGCAGCACCATGAACA
GTGGCTGGTGGGCGGCCCCTTGTTTGATGTCACTGCAGAGCCAGAGGAGGCTGTCGCCGAAATCCACCTCCCCCA
CTTCATCTCCCTCCAAGGTGAGGTGGACGTCTCCTGGTTTCTCGTTGCCCATTTTAAGAATGAAGGGATGGTCCT
GGAGCATCCAGCCCGGGTGGAGCCTTTCTATGCTGTCCTGGAAAGCCCCAGCTTCTCTCTGATGGGCATCCTGCT
GCGGATCGCCAGTGGGACTCGCCTCTCCATCCCCATCACTTCCAACACATTGATCTATTATCACCCCCACCCCGA
AGATATTAAGTTCCACTTGTACCTTGTCCCCAGCGACGCCTTGCTAACAAAGGCGATAGATGATGAGGAAGATCG
CTTCCATGGTGTGCGCCTGCAGACTTCGCCCCCAATGGAACCCCTGAACTTTGGTTCCAGTTATATTGTGTCTAA
TTCTGCTAACCTGAAAGTAATGCCCAAGGAGTTGAAATTGTCCTACAGGAGCCCTGGAGAAATTCAGCACTTCTC
AAAATTCTATGCTGGGCAGATGAAGGAACCCATTCAACTTGAGATTACTGAAAAAAGACATGGGACTTTGGTGTG
GGATACTGAGGTGAAGCCAGTGGATCTCCAGCTTGTAGCTGCATCAGCCCCTCCTCCTTTCTCAGGTGCAGCCTT
TGTGAAGGAGAACCACCGGCAACTCCAAGCCAGGATGGGGGACCTGAAAGGGGTGCTCGATGATCTCCAAGACAA
TGAGGTTCTTACTGAGAATGAGAAGGAGCTGGTGGAGCAGGAAAAGACACGGCAGAGCAAGAATGAGGCCTTGCT
GAGCATGGTGGAGAAGAAAGGGGACCTGGCCCTGGACGTGCTCTTCAGAAGCATTAGTGAAAGGGACCCTTACCT
CGTGTCCTATCTTAGACAGCAGAATTTG**TAA**AATGAGTCAGTTAGGTAGTCTGGAAGAGAGAATCCAGCGTTCTC
ATTGGAAATGGATAAACAGAAATGTGATCATTGATTTCAGTGTTCAAGACAGAAGAAGACTGGGTAACATCTATC
ACACAGGCTTTCAGGACAGACTTGTAACCTGGCATGTACCTATTGACTGTATCCTCATGCATTTTCCTCAAGAAT
GTCTGAAGAAGGTAGTAATATTCCTTTTAAATTTTTTCCAACCATTGCTTGATATATCACTATTTTATCCATTGA
CATGATTCTTGAAGACCCAGGATAAAGGACATCCGGATAGGTGTGTTTATGAAGGATGGGGCCTGGAAAGGCAAC
TTTTCCTGATTAATGTGAAAAATAATTCCTATGGACACTCCGTTTGAAGTATCACCTTCTCATAACTAAAAGCAG
AAAAGCTAACAAAAGCTTCTCAGCTGAGGACACTCAAGGCATACATGATGACAGTCTTTTTTTTTTTGTATGTT
AGGACTTTAACACTTTATCTATGGCTACTGTTATTAGAACAATGTAAATGTATTTGCTGAAAGAGAGCACAAAAA
TGGGAGAAAATGCAAACATGAGCAGAAAATATTTTCCCACTGGTGTGTAGCCTGCTACAAGGAGTTGTTGGGTTA
AATGTTCATGGTCAACTCCAAGGAATACTGAGATGAAATGTGGTAAATCAACTCCACAGAACCACCAAAAAGAAA
ATGAGGGTAATTCAGCTTATTCTGAGACAGACATTCCTGGCAATGTACCATACAAAAAATAAGCCAACTCTGACA
TTTGGATTCTACCATAGACTCTGTCATTTTGTAGCCATTTCAGCTGTCTTTTGATTAATGTTTTCGTGGCACACA
TATTTCCATCCTTTTATGTTTAATCTGTTTAAAACAAGTTCCTAGTAGACACCATCTGGTTGAGTCAGTTTTTTT
TATGGTGTATTTTGAACCCATTCTGATAGTCTCTTTTAACTGGAAGATTTCAATTACTTACGTTAATGTAATTAT
TAATATGTTAGGATTTATCCTCAGTCAGCCAGTTTGTTATGTCTTTTCTATTCTACTGTTATCACATTTGTACCA
CTTAAAGTGGAATCTAGGCACTTTATCACCATTTAGATCCTATTACCTTTTCTCATCTAGGATATAGTTATCTTC
TACATAATCTTTCTGTATCTTAAAACCCATCAATAAATTATTATATATTTTCTACTTTTAATCACTCAGAAGATT
TAAAAAACTCATGAGAAGAGTAATCTGTTATGTTTTTCCAGATATTTACCATTTCTGTTGCTCTTCCTTCATTAT
TTTCCAAATTTCGTTCTGCAAATTTCCACTTCCTCTGATAGACGTTTTTTAGTTCTTTTAGAGTGGTTCTGATAG
GTACAGATTCTCTTATTTTTTGCTTCCTCTGAGGACATCTTTTTCTCACCTTCATTCTCAGTGATGTTTTTTGCT
TGTAGTATTTTTAGTTGACATTGTTTTCTGTTCAGCAGTTTCCTTTTAGCTTCCGTATTTCCTGATGAGAAATCT
GCAGTCATTCAAATTGTTGTTTCCCTGTATGTAGTGTGTCATTTTTCTGTCAGATTTCAAGGTATTTATCTTTAG
TTTTTAGCCATTTCATTATGTTGGGGATGAGTTTCCTTGTTTTATTCCCTTTGGAATTTGCTCCAATTCATAAAT
TTGCAGTTTTATGTCTTTTACCAAACTTAGAGGTTTTCAGCCTAATTTCTAAAAATACTTTTTATTAGCCTGATT
TTCATCTTTATAGGAAATAGTTTAAGTGATGACAAGTTCCAATAGCTTATATGCCCAGAAGGCCTTCAAAATAAG
AATTTTGAAAGAATACAGAAAACAAACTTTTATATCCTTCTCATGTCTTCTACTGTAAAATTCATATGCTTTGCT
ACTCTAAACCTAGTTTGAAATCAACAGTCTTGAGAATAGATGAAAATTTTGATGAATAGTGGAATTCTTTTAAAT

FIGURE 3895B

GGAAACCTCTTACATGTGATTTTCCTTGCCATCTAGAAATAAACCATAGTATTTATGTTGAATCAATCAATATTA
TATTTTGTTTTTTTCCTCCTCTTCTGAGACTCTTATTGTGGAAATGTTAGACTTTTATGTTTTCCTAAATGTCCC
TGATATTCTACTTATTTAGAACATCTTTTCATTTTTTCCATTATTCTGATTGGGTAATTTTAATTTGTCTATTTT
CAAATTTGCTGGAGTGTTCACCTGTTGTTATCTGTGTCGTCCCACTGAGTGCATTCACCACCTTTTAAATTTTGG
TCACTGTATGTATCAGTTCTAAAATTTCCATTTTGTTCTCTATATTTTAAATTTCTTGCCTTATATTCTATTTTC
CTGCAAATGTGTCAGCATTTGCTTGTTTGAGCTTTTTTTTTTTTCAAGACAGGGTCTCAACTCTGTTACCCAGGCT
GGAGTGCAGTGGTGCGATCTCAGCTCACTGCAACCTCTGCCTCCTGGTTCAAGCGATTATTGTGCCTCAGCCTCC
AGAGTAGCTGGGATTACAGGCATGCACCACCACAGCCCAGCTAATTTTTTGTATTTTTAGTAGAGACAGAGTTTT
GCTATGTTGGCCAGGCTGGTTTTGAACTCCTGGCCTCAAGTGATCCACCCACCTCAGCCTCCCAAAGTGCTGGGA
TTACAGGCCACTACACCTGGCACATTTGAGTATTTTTTTTTTTTTTTTTTTTTTTGAGATGGAGTCTCGCTCT
GTCATCTAGGCTGGAGTGCAGTGGTGTGATCTCAGCTCACTGCAGCCTCTGTCTCCCGGGCTCAAGCGATTCTCT
TGCCTCAGCCTCCTGAGTAGCTAGGACTACAGGTGCATGCCAACACGCCCGGCTAATTTTTTTTTAAAAATATTT
TTAGTAGAGACAGGGTTTCACCATTTTGGCCAGGATGGTCTTGATCTCCTGACCTCATGATCCACCCGCCTCGGC
CTTCCAAAGTGCTGGGATTACAGGCATGAGCCACCGTGCCTGGCCTCATTTGAGTATTTTTATAATGTCTCTTTT
AAAGTCTTTGTCAGATAATTTCACTGTACATGTTATTCAGTGTTTGGTGTCCACTGAGTTGTCATTTGCCAGACA
AGTGGAGATTTTTGCAGCTCATCCTTGTATTCTCAGTAGTTCCGATATGTACCCTCGAAATGTGAATGTTATCTT
ATGAGACTCTGTTTTATTTGTATCCAACAGAAGATGTTTATTATTTATTTGGCTTTCTGTGAACTGAGGTCTTAA
TATCAGCTCATTTTAAAAGTCTTTGCAGTGGTATTCGGATCTATCCTGTGTGTGCCTATGAGATTGGGTGCAGTG
TATCCTGTTAGCTCCATTCTCAGGGCGTTTGAATGTGAATTAGGACCAGCGCAATGAATGCTCAAGTTGGGGTTG
GGCGTTAGAATTCATAAAAGTCTTTATATGCTCAG

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FIGURE 3896

GACGTCTGCGCGCGAATGCCGTGGCGCGAACTTGGGACTGCAGAGGCGCGCCTGGCGGATCTGAGTGTGTTGCCC
GGGCAGCGGCGCGCGGGACCAACGCAAGGAGCAGCTGACAGACGAAGAAAAGTGCTGGACAGGAAGGGAGAATTC
TGACGCCAAC**ATG**CAGCGAAGTATCATGTCATTTTTCCACCCCAAGAAAGAGGGTAAAGCAAAGAAGCCTGAGAA
GGAGGCATCCAATAGCAGCAGAGAGACGGAGCCCCCTCCAAAGGCGGCACTGAAGGAGTGGAATGGAGTGGTGTC
CGAGAGTGACTCTCCGGTGAAGAGGCCAGGGAGGAAGGCGGCCCGGGTCCTGGGCAGCGAAGGGGAAGAGGAGGA
TGAAGCCCTTAGCCCTGCTAAAGGCCAGAAGCCTGCCCTGGACTGCTCACAGGTCTCCCCGCCCCGTCCTGCCAC
ATCTCCTGAGAACAATGCTTCCCTCTCTGACACCTCTCCCATGGACAGTTCCCCATCAGGGATTCCGAAGCGTCG
CACAGCTCGGAAGCAGCTCCCGAAACGGACCATTCAGGAAGTCCTGGAAGAGCAGAGTGAGGACGAGGACAGAGA
AGCCAAGAGGAAGAAGGAGGAGGAAGAAGAGGAGACCCCGAAAGAAAGCCTCACAGAGGCTGAAGTGGCCACAGA
GAAGGAAGGAGAAGACGGGGACCAGCCCACCACGCCTCCCAAGCCCCTAAAGACCTCCAAAGCAGAGACCCCGAC
GGAAAGCGTTTCAGAGCCTGAGGTGGCCACGAAGCAGGAACTGCAGGAGGAGGAAGAGCAGACCAAGCCTCCCCG
CAGAGCTCCCAAGACGCTCAGCAGCTTCTTCACCCCCCGGAAGCCAGCAGTCAAAAAAGAAGTGAAGGAAGAGGA
GCCAGGGGCTCCAGGAAAGGAGGGAGCTGCTGAGGGACCCCTGGATCCATCTGGTTACAATCCTGCCAAGAACAA
CTATCATCCCGTGGAAGATGCCTGCTGGAAACCGGGCCAGAAGGTTCCTTACCTGGCTGTGGCCCGGACGTTTGA
GAAGATCGAGGAGGTGTCTGCTCGGCTCCGGATGGTGGAGACGCTGAGCAACTTGCTGCGCTCCGTGGTGGCCCT
GTCGCCTCCAGACCTCCTCCCTGTCCTCTACCTCAGCCTCAACCACCTTGGGCCACCCCAGCAGGGCCTGGAGCT
TGGCGTGGGTGATGGTGTCCTTCTCAAGGCAGTGGCCCAGGCCACAGGTCGGCAGCTGGAGTCCGTCCGGGCTGA
GGCAGCCGAGAAAGGCGACGTGGGGCTGGTGGCCGAGAACAGCCGCAGCACCCAGAGGCTCATGCTGCCACCACC
TCCGCTCACTGCCTCCGGGGTCTTCAGCAAGTTCCGCGACATCGCCAGGCTCACTGGCAGTGCTTCCACAGCCAA
GAAGATAGACATCATCAAAGGCCTCTTTGTGGCCTGCCGCCACTCAGAAGCCCGGTTCATCGCTAGGTCCCTGAG
CGGACGGCTGCGCCTTGGGCTGGCAGAGCAGTCGGTGCTGGCTGCCCTCTCCCAGGCAGTGAGCCTCACGCCCCC
GGGCCAAGAATTCCCACCAGCCATGGTGGATGCTGGGAAGGGCAAGACAGCAGAGGCCAGAAAGACGTGGCTGGA
GGAGCAAGGCATGATCCTGAAGCAGACGTTCTGCGAGGTTCCCGACCTGGACCGAATTATCCCCGTGCTGCTGGA
GCACGGCCTGGAACGTCTCCCGGAGCACTGCAAGCTGAGCCCAGGGATTCCCCTGAAACCAATGTTGGCCCATCC
CACCCGGGGCATCAGCGAGGTCCTGAAACGCTTTGAGGAGGCAGCTTTCACCTGCGAATACAAATATGACGGGCA
GAGGGCACAGATCCACGCCCTGGAAGGCGGGGAGGTGAAGATCTTCAGCAGGAATCAGGAAGACAACACTGGGAA
GTACCCGGACATCATCAGCCGCATCCCCAAGATTAAACTCCCATCGGTCACATCCTTCATCCTGGACACCGAAGC
CGTGGCTTGGGACCGGGAAAAGAAGCAGATCCAGCCATTCCAAGTGCTCACCACCCGCAAACGCAAGGAGGTGGA
TGCGTCTGAGATCCAGGTGCAGGTGTGTTTGTACGCCTTCGACCTCATCTACCTCAATGGAGAGTCCCTGGTACG
TGAGCCCCTTTCCCGGCGCCGGCAGCTGCTCCGGGAGAACTTTGTGGAGACAGAGGGCGAGTTTGTCTTCGCCAC
CTCCCTGGACACCAAGGACATCGAGCAGATCGCCGAGTTCCTGGAGCAGTCAGTGAAAGACTCCTGCGAGGGGCT
GATGGTGAAGACCCTGGATGTTGATGCCACCTACGAGATCGCCAAGAGATCGCACAACTGGCTCAAGCTGAAGAA
GGACTACCTTGATGGCGTGGGTGACACCCTGGACCTGGTGGTGATCGGCGCCTACCTGGGCCGGGGGAAGCGGGC
CGGCCGGTACGGGGGCTTCCTGCTGGCCTCCTACGACGAGGACAGTGAGGAGCTGCAGGCCATATGCAAGCTTGG
AACTGGCTTCAGTGACGAGGAGCTGGAGGAGCATCACCAGAGCCTCAAGGCCCTGGTGCTGCCCAGCCCACGCCC
TTACGTGCGGATAGATGGCGCTGTGATTCCCGACCACTGGCTGGACCCCAGCGCTGTGTGGGAGGTGAAGTGCGC
TGACCTCTCCCTCTCTCCCATCTACCCTGCTGCGCGGGGCCTGGTGGATAGTGACAAGGGCATCTCCCTTCGCTT
CCCTCGGTTTATTCGAGTCCGTGAAGACAAGCAGCCGGAGCAGGCCACCACCAGTGCTCAGGTGGCCTGTTTGTA
CCGGAAGCAAAGTCAGATTCAGAACCAACAAGGCGAGGACTCAGGCTCTGACCCTGAAGATACCTAC**TAA**GCCCT
CGCCCTCCTAGGGCCTGGGTACAGGGCATGAGTTGGACGGACCCCAGGGTTATTATTGCCTTTGCTTTTTAGCAA
ATCTGCTGTGGCAGGCTGTGGATTTTGAGAGTCAGGGGAGGGGTGTGTGTGTGAGGGGGTGGCTTACTCCGGAGT
CTGGGATTCATCCCGTCATTTCTTTCAATAAATAATTATCGGATAGCT

FIGURE 3897

CAAGCAGGGCCTACAAGCCGAGGAGGGCTGTTTAAAGGCGCAGGGGCCATTTTACCCTCCAGGTTGGCCCTGCTC
AGGACCAGGAGGAAACACCTCCAGCCCGCGACCTCCTCCCACAGGGGGAAAAGGAAAGCAGGAGGACCACAGAAG
CTTTGGCACCGAGGATCCCCGCAGTCTTCACCCGCGGAGATTCCGGCTGAAGGAGCTGTCCAGCGACTACACCGC
TAAGCGCAGGGAGCCCAAGCCTCCGCACCGGATTCCGGAGCCCAAGCCTCCGCACCGGATTCCGGAGCACAAGCT
CCACCGCGCATGCGCACACGCCCCAGACCCAGGCTCAGGAGGACTGAGAATTTTCTGACCGCAGTGCACC**ATG**GG
AAGCTCTGAAGTTTCCATAATTCCTGGGCTCCAGAAAGAAGAAAAGGCGGCCGTGGAGAGACGAAGACTTCATGT
GCTGAAAGCTCTGAAGAAGCTAAGGATTGAGGCTGATGAGGCCCCAGTTGTTGCTGTGCTGGGCTCAGGCGGAGG
ACTGCGGGCTCACATTGCCTGCCTTGGGGTCCTGAGTGAGATGAAAGAACAGGGCCTGTTGGATGCCGTCACGTA
CCTCGCAGGGGTCTCTGGATCCACTTGGGCAATATCTTCTCTCTACACCAATGATGGTGACATGGAAGCTCTCGA
GGCTGACCTGAAACATCGATTTACCCGACAGGAGTGGGACTTGGCTAAGAGCCTACAGAAAACCATCCAAGCAGC
GAGGTCTGAGAATTACTCTCTGACCGACTTCTGGGCCTACATGGTTATCTCTAAGCAAACCAGAGAACTGCCGGA
GTCTCATTTGTCCAATATGAAGAAGCCCGTGGAAGAAGGGACACTACCCTACCCGATATTTGCAGCCATTGACAA
TGACCTGCAACCTTCCTGGCAGGAGGCAAGAGCACCAGAGACCTGGTTCGAGTTCACCCCTCACCACGCTGGCTT
CCCTGCACTGGGGGCCTTTGTTTCCATAACCCACTTCGGAAGCAAATTCAAGAAGGGAAGACTGGTCAGAACTCA
CCCTGAGAGAGACCTGACTTTCCTGAGAGGTTTATGGGGAAGTGCTCTTGGTAACACTGAAGTCATTAGGGAATA
CATTTTTGACCAGTTAAGGAATCTGACCCTGAAAGGTTTATGGAGAAGGGCTGTTGCTAATGCTAAAAGCATTGG
ACACCTTATTTTTGCCCGATTACTGAGGCTGCAAGAAAGTTCACAAGGGGAACATCCTCCCCCAGAAGATGAAGG
CGGTGAGCCTGAACACACCTGGCTGACTGAGATGCTCGAGAATTGGACCAGGACCTCCCTGGAAAAGCAGGAGCA
GCCCCATGAGGACCCCGAAAGGAAAGGCTCACTCAGTAACTTGATGGATTTTGTGAAGAAAACAGGCATTTGCGC
TTCAAAGTGGGAATGGGGGACCACTCACAACTTCCTGTACAAACACGGTGGCATCCGGGACAAGATAATGAGCAG
CCGGAAGCACCTCCACCTGGTGGATGCTGGTTTAGCCATCAACACTCCCTTCCCACTCGTGCTGCCCCCGACGCG
GGAGGTTCACCTCATCCTCTCCTTCGACTTCAGTGCCGGAGATCCTTTCGAGACCATCCGGGCTACCACTGACTA
CTGCCGCCGCCACAAGATCCCCTTTCCCCAAGTAGAAGAGGCTGAGCTGGATTTGTGGTCCAAGGCCCCCGCCAG
CTGCTACATCCTGAAAGGAGAAACTGGACCAGTGGTGATGCATTTTCCCCTGTTCAACATAGATGCCTGTGGAGG
TGATATTGAGGCATGGAGTGACACATACGACACATTCAAGCTTGCTGACACCTACACTCTAGATGTGGTGGTGCT
ACTCTTGGCATTAGCCAAGAAGAATGTCAGGGAAAACAAGAAGAAGATCCTTAGAGAGTTGATGAACGTGGCCGG
GCTCTACTACCCGAAGGATAGTGCCCGAAGTTGCTGCTTGGCA**TAG**ATGAGCCTCAGCTTCCAGGGCACTGTGGG
CCTGTTGGTCTACTAGGGCCCTGATGTCCACCTGGCCTTCCTGTTCTTCACTCCCTTCAGCCACACGCTTCATGG
CCTTGAGTTCACCTTGGCTGTCCTAACAGGGCCAATCACCAGTGACCAGCTAGACTGTGATTTTGATAGCGTCAT
TCAGAAGAAGGCGTCCAAGGAGCTGAAGGTGGTGAAATTTGTCCTGCAGGTCCCTCGGGAGATCCTGGAGCTGGA
GCATGAGTGTCTGACAATCAGAAGCATCATGTCCAATGTCCAGATGGCCAGAATGAATGTGATAGTTCAGACCAA
TGCCTTCCACTGCTCCTTTATGACTGCACTTCTAGCCAGTAGCTCTGCACAAGTTAGCTCTGTAGAAGTAAGAAC
TTGGGCTTAAATCATGGGCTATCTCTCCACAGCCAAGTGGAGCTCTGAGAATACAACAAGTGCTCAATAAATGCT
TGCTGATTGACTGATG

FIGURE 3898

GACCGTGGATCGGCTGGAGCGGGGCCGCCGCCGGCTGCAGCAGGAGCTGGACGACGCCACC**ATG**GACCTGGAGCA
GCAGCGGCAGCTTGTGAGCACCCTGGAGAAGAAGCAGCGCAAGTTTGACCAGCTTCTGGCAGAGGAGAAGGCAGC
TGTACTTCGGGCAGTGGAGGAACGTGAGCGGGCCGAGGCAGAGGGCCGGGAGCGTGAGGCTCGGGCCCTGTCACT
GACACGGGCACTGGAGGAGGAGCAGGAGGCACGTGAGGAGCTGGAGCGGCAGAACCGGGCCCTGCGGGCTGAGCT
GGAGGCACTGCTGAGCAGCAAGGATGACGTCGGCAAGAGCGTGCATGAGCTGGAACGAGCCTGCCGGGTAGCAGA
ACAGGCAGCCAATGATCTGCGAGCACAGGTGACAGAACTGGAGGATGAGCTGACAGCGGCCGAGGATGCCAAGCT
GCGTCTGGAGGTGACTGTGCAGGCTCTCAAGACTCAGCATGAGCGTGACCTGCAGGGCCGTGATGAGGCTGGTGA
AGAGAGGCGGAGGCAGCTGGCCAAGCAGCTGAGAGATGCAGAGGTGGAGCGGGATGAGGAGCGGAAGCAGCGCAC
TCTGGCCGTGGCTGCCCGCAAGAAGCTGGAGGGAGAGCTGGAGGAGCTGAAGGCTCAGATGGCCTCTGCCGGCCA
GGGCAAGGAGGAGGCGGTGAAGCAGCTTCGCAAGATGCAGGCCCAGATGAAGGAGCTATGGCGGGAGGTGGAGGA
GACACGCACCTCCCGGGAGGAGATCTTCTCCCAGAATCGGGAAAGTGAAAAGCGCCTCAAGGGCCTGGAGGCTGA
GGTGCTGCGGCTGCAGGAGGAACTGGCCGCCTCGGACCGTGCTCGGCGGCAGGCCCAGCAGGACCGGGATGAGAT
GGCAGATGAGGTGGCCAATGGTAACCTTAGCAAGGCAGCCATTCTGGAGGAGAAGCGTCAGCTGGAGGGGCGCCT
GGGGCAGTTGGAGGAAGAGCTGGAGGAGGAGCAGAGCAACTCGGAGCTGCTCAATGACCGCTACCGCAAGCTGCT
CCTGCAGGTAGAGTCACTGACCACAGAGCTGTCAGCTGAGCGCAGTTTCTCAGCCAAGGCAGAGAGCGGGCGGCA
GCAGCTGGAACGGCAGATCCAGGAGCTACGGGGACGCCTGGGTGAGGAGGATGCTGGGGCCCGTGCCCGCCACAA
GATGACCATTGCTGCCCTTGAGTCTAAGTTGGCCCAGGCTGAGGAGCAGCTAGAGCAAGAGACCAGAGAGCGCAT
CCTCTCTGGAAAGCTGGTGCGCAGAGCTGAGAAGCGGCTTAAAGAGGTGGTGCTCCAGGTGGAGGAGGAGCGGAG
GGTGGCTGACCAGCTCCGGGACCAGCTGGAGAAGGGAAACCTTCGAGTCAAGCAGCTGAAGCGGCAGCTGGAGGA
GGCCGAGGAGGAGGCATCCCGGGCTCAGGCCGGCCGCCGGAGGCTGCAGCGTGAGCTGGAAGATGTCACAGAGTC
GGCCGAGTCCATGAACCGTGAAGTGACCACACTGAGGAACCGGCTTCGACGCGGCCCCCTCACCTTCACCACCCG
CACGGTGCGCCAGGTCTTCCGACTAGAGGAGGGCGTGGCATCCGACGAGGAGGCAGAGGAAGCACAGCCTGGGTC
TGGGCCATCCCCGGAGCCTGAGGGGTCCCCACCAGCCCACCCCCAG**TGA**CCCTACCCTGTCCCCAGATGCACTAA
CAGATGGGGCCCAGCCCCCTTCCTCCCTGGACCCCACGGGCCCCTGTCCCAGGAACCCCGCCCTCTGACTTCTTG
CCCTTTGGAAATGGTGCAGCACTCTGGCATTTATCACCCCCACCTGGGTCCCCTGCAACCTCCCATCAAAGGATG
ACCCCTAAACACAGAGGAGCGGGGCAGGCAGGGAGGCAATGACTGGAGCTACCTTGCTTGTTGGGGGACTGGGTA
CAGTTGGCAAGCTGTGTTTCCATCAGCTCCCTGTCCTCCTTTCTTCCCTCGTTATTGATCTATAGACATTAGGAA
GGGAGTGAGACGGCTCCTCCACCATCCTCAGCCAGTGCAACCCATTCCCTCTGCTTCTCTCTCTCTCTCTCTC
TCCCTCCCTCTCCTTCCCTACCCTCTCACCATCTTTCTTGGCCTCTCTGAGGGTCTCTCTGTGCATCTTTTTAGG
AATCTCGCTCTCACTCTCTACGTAGCCACTCTCCTTCCCCCATTTCTGCGTCCACCCCTGAACTCCTGAGCGACA
GAAGCCCCAGGCCTCCACCAGCCTTGAACCCTTGCAAAGGGGCAGGACAAGGGGACCCCTCTCACTCCTGCTGCT
GCCCATGCTCTGCCCTCCCTTCTGGTTGCTCTGAGGGTTCGGAGCTTCCCTCTGGGACTAAAGGAGTGTCCTTTA
CCCTCCCAGCCTCCAGGCTCTGGCAGAAATAAACTCCAACCCGACTGG

FIGURE 3899

AAGAAGTGGCGAAGTTACTTTTGAGGGTATTTGAGTAGCGGCGGTGTGTCAGGGGCTAAAGAGGAGGACGAAGAA
AAGCAGAGCAAGGGAACCCAGGGCAACAGGAGTAGTTCACTCCGCGAGAGGCCGTCCACGAGACCCCCGCGCGCA
GCCATGAGCCCCGCCCCCCGCTGTTGCTTGGAGAGGGGCGGGACCTGGAGAGAGGCTGCTCCGTGACCCCACC**AT**
GTCCTCTCCTACCACGAGTTCCCTGGATACCCCCCTGCCTGGAAATGGCCCCCCTCAGCCTGGCGCCCCTTCTTC
TTCACCCACTGTAAAGGAGGAGGGTCCGGAGCCGTGGCCCGGGGGTCCGGACCCTGATGTCCCAGGCACTGATGA
GGCCAGCTCAGCCTGCAGCACAGACTGGGTCATCCCAGATCCCGAAGAGGAACCAGAGCGCAAGCGAAAGAAGGG
CCCAGCCCCGAAGATGCTGGGCCACGAGCTTTGCCGTGTCTGTGGGGACAAGGCCTCCGGCTTCCACTACAACGT
GCTCAGCTGCGAAGGCTGCAAGGGCTTCTTCCGGCGCAGTGTGGTCCGTGGTGGGGCCAGGCGCTATGCCTGCCG
GGGTGGCGGAACCTGCCAGATGGACGCTTTCATGCGGCGCAAGTGCCAGCAGTGCCGGCTGCGCAAGTGCAAGGA
GGCAGGGATGAGGGAGCAGTGCGTCCTTTCTGAAGAACAGATCCGGAAGAAGAAGATTCGGAAACAGCAGCAGGA
GTCACAGTCACAGTCGCAGTCACCTGTGGGGCCGCAGGGCAGCAGCAGCTCAGCCTCTGGGCCTGGGGCTTCCCC
TGGTGGATCTGAGGCAGGCAGCCAGGGCTCCGGGGAAGGCGAGGGTGTCCAGCTAACAGCGGCTCAAGAACTAAT
GATCCAGCAGTTGGTGGCGGCCCAACTGCAGTGCAACAAACGCTCCTTCTCCGACCAGCCCAAAGTCACGCCCTG
GCCCCTGGGCGCAGACCCCCAGTCCCGAGATGCCCGCCAGCAACGCTTTGCCCACTTCACGGAGCTGGCCATCAT
CTCAGTCCAGGAGATCGTGGACTTCGCTAAGCAAGTGCCTGGTTTCCTGCAGCTGGGCCGGGAGGACCAGATCGC
CCTCCTGAAGGCATCCACTATCGAGATCATGCTGCTAGAGACAGCCAGGCGCTACAACCACGAGACAGAGTGTAT
CACCTTCTTGAAGGACTTCACCTACAGCAAGGACGACTTCCACCGTGCAGGCCTGCAGGTGGAGTTCATCAACCC
CATCTTCGAGTTCTCGCGGGCCATGCGGCGGCTGGGCCTGGACGACGCTGAGTACGCCCTGCTCATCGCCATCAA
CATCTTCTCGGCCGACCGGCCCAACGTGCAGGAGCCGGGCCGCGTGGAGGCGTTGCAGCAGCCCTACGTGGAGGC
GCTGCTGTCCTACACGCGCATCAAGAGGCCGCAGGACCAGCTGCGCTTCCCGCGCATGCTCATGAAGCTGGTGAG
CCTGCGCACGCTGAGCTCTGTGCACTCGGAGCAGGTCTTCGCCTTGCGGCTCCAGGACAAGAAGCTGCCGCCTCT
GCTGTCGGAGATCTGGGACGTCCACGAG**TGA**GGGGCTGGCCACCCAGCCCCACAGCCTTGCCTGACCACCCTCCA
GCAGATAGACGCCGGCACCCCTTCCTCTTCCTAGGGTGGAAGGGGCCCTGGGCCGAGCCTGTAGACCTATCGGCT
CTCATCCCTTGGGATAAGCCCCAGTCCAGGTCCAGGAGGCTCCCTCCCTGCCCAGCGAGTCTTCCAGAAGGGGTG
AAAGGGTTGCAGGTCCCGACCACTGACCCTTCCCGGCTGCCCTCCCTCCCCAGCTTACACCTCAAGCCCAGCACG
CAGTGCACCTTGAACAGAGGGAGGGGAGGACCCATGGCTCTCCCCCCTAGCCCGGGAGACCAGGGCCTTCCTCTT
CCTCTGCTTTTATTTAATAAAAACTAAAAACAGAAA

FIGURE 3900

AGTCAGGGGTCACGGCGGCGTAGGCTGTGGCGGGAAACGCTGTTTGAAGCGGGATGGATGGCAAGCGGCGGCCAG
GCCCAGGGCCCGGGGTGCCCCCAAAGCGGGCCCGTGGGGGCCTCTGGGATGATGATGATGCACCTCGGCCATCCC
AATTCGAGGAGGACCTGGCACTGATGGAGGAGATGGAGGCAGAACACAGGCTGCAGGAGCAGGAGGAGGAGGAGC
TGCAGTCAGTCCTGGAGGGGGTTGCAGACGGGCAGGTCCCACCATCAGCCATAGATCCTCGCTGGCTTCGGCCCA
CACCACCAGCGCTGGACCCCCAGACAGAGCCCCTCATCTTCCAACAGTTGGAGATTGACCATTATGTGGGCCCAG
CGCAGCCTGTGCCTGGGGGGCCCCCACCATCCCGCGGCTCCGTGCCTGTGCTCCGCGCCTTCGGGGTCACCGATG
AGGGGTTCTCTGTCTGCTGCCACATCCACGGCTTCGCTCCCTACTTCTACACCCCAGCGCCCCCTGGTTTCGGGC
CCGAGCACATGGGTGACCTGCAACGGGAGCTGAACTTGGCCATCAGCCGGGACAGTCGCGGGGGGAGGGAGCTGA
CTGGGCCGGCCGTGCTGGCTGTGGAACTGTGCTCCCGAGAGAGCATGTTTGGGTACCACGGGCACGGCCCCTCCC
CGTTCCTGCGCATCACCGTGGCGCTGCCGCGCCTCGTGGCCCCGGCCCGCCGTCTCCTGGAACAGGGCATCCGTG
TGGCAGGCCTGGGCACGCCCAGCTTCGCGCCCTACGAGGCCAACGTCGACTTTGAGATCCGGTTCATGGTGGACA
CGGACATCGTCGGCTGCAACTGGCTGGAGCTCCCAGCTGGGAAATACGCCCTGAGGCTGAAGGAGAAGGCTACGC
AGTGCCAGCTGGAGGCGGACGTGCTGTGGTCTGACGTGGTCAGTCACCCACCGGAAGGGCCATGGCAGCGCATTG
CGCCCTTGCGCGTGCTCAGCTTCGATATCGAGTGCGCCGGCCGCAAAGGCATCTTCCCTGAGCCTGAGCGGGACC
CTGTCATCCAGATCTGCTCGCTGGGCCTGCGCTGGGGGGAGCCGGAGCCCTTCCTACGCCTGGCGCTCACCCTGC
GGCCCTGTGCCCCCATCCTGGGTGCCAAGGTGCAGAGCTACGAGAAGGAGGAGGACCTGCTGCAGGCCTGGTCCA
CCTTCATCCGTATCATGGACCCCGACGTGATCACCGGTTACAACATCCAGAACTTCGACCTTCCGTACCTCATCT
CTCGGGCCCAGACCCTCAAGGTACAAACATTCCCTTTCCTGGGCCGTGTGGCCGGCCTTTGCTCCAACATCCGGG
ACTCTTCATTCCAGTCCAAGCAGACGGGCCGGCGGGACACCAAGGTTGTCAGCATGGTGGGCCGCGTGCAGATGG
ACATGCTGCAGGTGCTGCTGCGGGAGTACAAGCTCCGCTCCTACACGCTCAATGCCGTGAGCTTCCACTTCCTGG
GCGAGCAGAAGGAGGACGTGCAGCACAGCATCATCACCGACCTGCAGAATGGGAACGACCAGACCCGCCGCCGCC
TGGCTGTGTACTGCCTGAAGGATGCCTACCTGCCACTGCGGCTGCTGGAGCGGCTCATGGTGCTGGTGAACGCCG
TGGAGATGGCGAGGGTCACTGGCGTGCCCCTCAGCTACCTGCTCAGTCGTGGCCAGCAGGTCAAGGTCGTATCCC
AGCTGTTGCGGCAGGCCATGCACGAGGGGCTGCTGATGCCCGTGGTGAAGTCAGAGGGCGGCGAGGACTACACGG
GAGCCACTGTCATCGAGCCCCTCAAAGGGTACTACGACGTCCCCATCGCCACCCTGGACTTCTCCTCGCTGTACC
CGTCCATCATGATGGCCCACAACCTGTGTTACACCACGCTCCTTCGGCCCGGGACTGCACAGAAACTGGGCCTGA
CTGAGGATCAGTTCATCAGGACCCCCACCGGGGACGAGTTTGTGAAGACCTCAGTGCGGAAGGGGCTGCTGCCCC
AGATCCTGGAGAACCTGCTCAGTGCCCGGAAGAGGGCCAAGGCCGAGCTGGCCAAGGAGACAGACCCCCTCCGGC
GCCAGGTCCTGGATGGACGGCAGCTGGCGCTGAAGGTGAGCGCCAACTCCGTATACGGCTTCACTGGCGCCCAGG
TGGGCAAGTTGCCGTGCCTGGAGATCTCACAGAGCGTCACGGGGTTCGGACGTCAGATGATCGAGAAAACCAAGC
AGCTGGTGGAGTCTAAGTACACAGTGGAGAATGGCTACAGCACCAGTGCCAAGGTGGTGTATGGTGACACTGACT
CCGTCATGTGCCGATTCGGCGTGTCCTCGGTGGCTGAGGCGATGGCCCTGGGGCGGGAGGCCGCGGACTGGGTGT
CAGGTCACTTCCCGTCGCCCATCCGGCTGGAGTTTGAGAAGGTCTACTTCCCATACCTGCTTATCAGCAAGAAGC
GCTACGCGGGCCTGCTCTTCTCCTCCCGGCCCGACGCCCACGACCGCATGGACTGCAAGGGCCTGGAGGCCGTGC
GCAGGGACAACTGCCCCCTCGTGGCCAACCTGGTCACTGCCTCACTGCGCCGCCTGCTCATCGACCGAGACCCTG
AGGGCGCGGTGGCTCACGCACAGGACGTCATCTCGGACCTGCTGTGCAACCGCATCGATATCTCCCAGCTGGTCA
TCACCAAGGAGCTGACCCGCGCGGCCTCCGACTATGCCGGCAAGCAGGCCCACGTGGAGCTGGCCGAGAGGATGA
GGAAGCGGGACCCCGGGAGTGCGCCCAGCCTGGGCGACCGCGTCCCCTACGTGATCATCAGTGCCGCCAAGGGTG
TGGCCGCCTACATGAAGTCGGAGGACCCGCTGTTCGTGCTGGAGCACAGCCTGCCCATTGACACGCAGTACTACC
TGGAGCAGCAGCTGGCCAAGCCCCTCCTGCGCATCTTCGAGCCCATCCTGGGCGAGGGCCGTGCCGAGGCTGTGC
TACTGCGGGGGGACCACACGCGCTGCAAGACGGTGCTCACGGGCAAGGTGGGCGGCCTCCTGGCCTTCGCCAAAC
GCCGCAACTGCTGCATTGGCTGCCGCACAGTGCTCAGCCACCAGGGAGCCGTGTGTGAGTTCTGCCAGCCCCGGG
AGTCTGAGCTGTATCAGAAGGAGGTATCCCATCTGAATGCCCTGGAGGAGCGCTTCTCGCGCCTCTGGACGCAGT
GCCAGCGCTGCCAGGGCAGCCTGCACGAGGACGTCATCTGCACCAGCCGGGACTGCCCCATCTTCTACATGCGCA
AGAAGGTGCGGAAGGACCTGGAAGACCAGGAGCAGCTCCTGCGGCGCTTCGGACCCCCTGGACCTGAGGCCTGGT
GACCTTGCAAGCATCCCATGGGGCGGGGGCGGGACCAGGGAGAATTAATAAAGTTCTGGACTTTTGCT

FIGURE 3901

GCCTCCTTCCGTCTGTAACTCACCTAAAGACCCAAGACCTGCGACATCCGTAGACCGCGCCCGCTATGCACAGCT
AAAGAGCACTCACCCCTCGCGCACCAGTCCCGGCCCGGCAGCCGCTGCCCCGGGCTCGACTGGGCGCTGCTACCG
CCATCAGCAAGAGCAGGAGCAGCCGGGTTGCCCCAGCGCTGGCTGCCGCCATCTCGGCTTCTTCCCACCAGCGAA
GGGACGGCTGTGAGCCAAGAGCCGCGGAGCACGCCGGGAGGAACAGGCCGCATCCTGACGCCCGTGCGCCTGCGC
TGGGCCCCGGCACCTGCGCACTGGCACCCGTCCGCACCTGGGGCCTGACGTCAGCAGG**ATG**GGGCCGCCCCTTTG
GCCTGATCTCCAGGAGCCGCCCCCTCCAGGGACGTCATCACAAATCAGGAGCCCGCTCTTGTGTGACGTCATAAA
GCCCGCTCCGCATCATGACGTCACAGTGCGCGTAGTCCCGCCCCCTCGCTTTCTCCCTCTGCTCCTCCGTCCGCT
CCCGTCGGACGGGGACATTGCAATGAGGCGGGATCGCGGCCCTAAGCCGGCCCTGGGTGGAGCTGGCGAGGTGGA
ACCAGGTGGGATGGCAGCCTCTCCCACGGGCCGTCCCAGACGGCTCCAACGCTACCTCCAGAGCGGCGAATTCGA
CCAGTTTCGGGACTTCCCCATCTTTGAGAGCAACTTCGTACAGTTCTGCCCCGACATCTATCCTGCCCCGACCTC
TGACCTCTGGCCCCAGGTGACTCGGTTGGGAGAAGTTGCCAACGAGGTCACCATGGGGGTGGCAGCCTCCAGTCC
AGCCCTGGAGCTCCCGGACCTATTGCTTCTGGCCGGCCCTGCCAAGGAGAACGGACACCTGCAACTCTTCGGGCT
GTTCCCCTTGAAGTTCGTCCAGCTCTTTGTCCACGACAAAAGCCGGTGTCAGCTCGAGGTCAAGTTGAACACCAG
CCGCACCTTCTACTTGCAGCTGCGGGGCCCCACTCAAGACCCGAGACCGAGAGTTCGGCCAGTGGGTGCGGCTGCT
CTACCGCCTGCGCTTCCTCTCTGCTTCTGCTGTGCCCTTCACGCAGGAG**TAA**GAGCCCCAAGGCGTGGAAGCCAG
ACTTGACCCCAAGACCTCTGAACTCTGGGGACTCTGAGTCTTCCAGCATCCTTCAAGGTCACCGAATGACCAGAG
ATCAAAGTACCTTGCCTCAGGGCCGGGCAGATGAGATATTAAAGTTAATAAAGGTCAGTCCATTAAGAACCAA

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FIGURE 3902

GCCGTCCCTTCGCTGGTGGGAAGAAGCCGAG**ATG**GCGGCAGCCAGCGCTGGGGCAACCCGGCTGCTCCTGCTCTT
GCTGATGGCGGTAGCAGCGCCCAGTCGAGCCCGGGGCAGCGGCTGCCGGGCCGGGACTGGTGCGCGAGGGGCTGG
GGCGGAAGGTCGAGAGGGCGAGGCCTGTGGCACGGTGGGGCTGCTGCTGGAGCACTCATTTGAGATCGATGACAG
TGCCAACTTCCGGAAGCGGGGCTCACTGCTCTGGAACCAGCAGGATGGTACCTTGTCCCTGTCACAGCGGCAGCT
CAGCGAGGAGGAGCGGGGCCGACTCCGGGATGTGGCAGCCCTGAATGGCCTGTACCGGGTCCGGATCCCAAGGCG
ACCCGGGGCCCTGGATGGCCTGGAAGCTGGTGGCTATGTCTCCTCCTTTGTCCCTGCGTGCTCCCTGGTGGAGTC
GCACCTGTCGGACCAGCTGACCCTGCACGTGGATGTGGCCGGCAACGTGGTGGGCGTGTCGGTGGTGACGCACCC
CGGGGGCTGCCGGGGCCATGAGGTGGAGGACGTGGACCTGGAGCTGTTCAACACCTCGGTGCAGCTGCAGCCGCC
CACCACAGCCCCAGCCCTGAGACGGCGGCCTTCATTGAGCGCCTGGAGATGGAACAGGCCCAGAAGGCCAAGAAC
CCCCAGGAGCAGAAGTCCTTCTTCGCCAAATACTGGATGTACATCATTCCCGTCGTCCTGTTCCTCA**TGA**TGTCA
GGAGCGCCAGACACCGGGGGCCAGGGTGGGGGTGGGGGTGGGGGTGGTGGTGGGGGTAGTGGCCGGTGAGGGCCC
AGGCTGGTCAGCGTCCCGTCTTGCACACCCAGGGGCCTCCCTTTCTGCTGGAGTCCCCTGTGTCCTCAGCCATCC
CAAGAAGGGTTTGCTGGTCCCTCCTTTCCCCCCGTCCCACGAGGCCACCTGGGCCAGCCCCTTGTCCTCTGCCTT
CTGCTGGCAGAGGAGCAGCTGGACTGGGGCCTTTGGCACAGCAGCCGGTGTCTCCTGCGCCCGCCTCCCCCATGG
CCCCATGCAGCCCCAGGGGCTTCCCCCCTGCCCATGGAGTAGAGCCCGAGATCCTGGCCACTATGCCAGTTCTGA
CCTCGCATCCCCCTACCCCGAGCCCATGCAGTCTGGGAACATGCCGCCTTCTCTCCAGCCTCTGTGCCTTTGTTC
CAGGTGGTCTCACCCTCCTGTCCCTGGCTGGGCTAGGTGGTCCTGTCCAGGCTCCTGCAGCGCCCCCCTCACTTT
GACACTGGACTAGGATGCAGCCTCCCTTCTGTGTCCCCTTGAGGGTACCCTGGGTCCCCTCATCAGGGGCAGAGG
CATGAAAGAGTCGGGGGCTGGATGGCCGGGGGCTTCTGGGCCCGACGCCTAGTGCAGCCCCTGGGGTCGTGGTTTG
ACATTTGTCTGCCTGGTGCAAACAAGGAATCCTTGCCTTTAAGGTGACAGGCCCTCCACAGGCTTCCAGACTTGA
AGGAAAAGGTTTAAGAAAGAAAACAAAACCAACAGTTAGTGGAGTCAAAGCCCAGACACTGTAAATAGAACCCCC
TCCACCACCCCCCGCCGCCCAGCATCCTACCTGGACTGCGGTGCTACGAGGGCCTGCGGGCCTTTGCTGTGTGCC
ACCCTCCCTGTAAGTCTATTTAAAAACATCGACGATACATTGAAATGTGTGAACGTTTTGAAAAGCTACAGCTTC
CAGCAGCCAAAAGCAACTGTTGTTTTGGCAAGACGGTCCTGATGTACAAGCTTGATTGAAATTCACTGCTCACTT
GATACGTTATTCAGAAACCCAAGGAATGGCTGTCCCCATCCTCATGTGGCTGTGTGGAGCTCAGCTGTGTTGTGT
GGCAGTTTATTAAACTGTCCCCCAGATCGACACGC

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FIGURE 3903

CTTCAGGGCCACGCGGCCCGGGCGTTCCGTGTGGAGCAGGAGTCCCGCGGGGCCCCACGGGAGTCGTAGTCCGGC
GCGCGGGGATCACCGGGAGCTGTAGTCCGTCCCGCCTGCCCAGTCAGCGCGGTGTTGCCCGCCCCGCACTCGGAG
CCCAGAGCCGCCGCCCAGGAAGGGGATGCGGAAACCCCTGGCTCGGTGGAGCGGAGAGGCAGGCGGGCAGGAGCC
GAGGACGGC**ATG**TCCCAGGCCCCGGGAGCACAGCCGAGCCCACCCACCGTGTACCACGAACGGCAGCGCCTGGAG
CTGTGTGCTGTCCACGCCCTCAACAACGTTCTGCAGCAGCAGCTCTTTAGCCAGGAGGCTGCCGATGAGATCTGC
AAGAGGTTGGCCCCAGACTCCCGGCTGAACCCTCATCGCAGCCTCCTGGGCACCGGCAACTATGATGTCAATGTG
ATCATGGCCGCTCTGCAGGGGCTGGGCCTGGCCGCCGTGTGGTGGGACAGGAGGAGGCCCCTGTCCCAGCTGGCC
CTGCCCCAGGTACTGGGGCTGATCCTGAACCTGCCCTCGCCCGTGTCGCTGGGGCTGCTGTCACTGCCGCTGCGC
CGGCGGCACTGGGTGGCCCTGCGCCAGGTGGACGGTGTCTACTACAACCTGGACTCCAAGCTGCGGGCGCCCGAG
GCCCTGGGGGATGAGGACGGAGTCAGGGCCTTCCTGGCGGCTGCGCTGGCCCAGGGCCTGTGCGAGGTGCTGCTG
GTAGTGACCAAGGAGGTGGAGGAGAAGGGCAGCTGGCTGCGGACAGAC**TGA**CCATGGCTGACCATCGGCGCCCAC
AGCGCAGTCCCTGCGCATCCCCCTCCGGCTGCGCACACTGCATGCCTGGGAAAGGCCAGCACTTCATGGACCCTG
GGGAGGCCCCGCCCCCTCCCCACACCCCTGCTCCCCACTGCCGCTGCTGCCTCAATAAATCTGCTGATTTGC

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FIGURE 3904

ATGGGGGTGGGGGGATGCGGGCTGGCAGCGGGAGAGCTGGGGACAGATGCGGAGCCCTCCCTTCACCTGCCCACA
CCTGTCACCTCCACGGTTGCCTTGTCTGCCACCTTACCTCTCTCTCCCTCAGATTCTCCCATGAGTCTGACTCAA
GTCTCTGAAGCTGCTGTGAGGCCCCCACAGGGCCTGGACAGGCCTCTCCCCCTTCTCTCCCCCACCCACAGCCCC
CCAGCGTCCACGCGGAGCATGAACATTGAGGATGGCGCGTGCCCGCGGCTCCCCGTGCCCCCCGCTGCCGCCCGC
AACCAGGCCAGCCGGGTGATCTGCACACGGAGAGACCTGGCCGAGGTCCCAGCCAGCATCCCGGTCAACACGCGG
TACCTGAACCTGCAAGAGAACGGCATCCAGGGTGGGAGGACTTGGCTGCTCCCATCTGACCATCCTGAGAGCCAG
ATTCAGGGAAGAAAAGGGACCTCTCAGGGGAGCAGTCCCTTCCTGGTGGCTGTGGGGCAAGGGCCAGCGAAGGGG
TCCAGAAACGGGTTCTTGCACCGCCCCCTGCCCCACCCAGAGACATGGATGGAGGGTGTGTTCGTCCAGTCCACG
AGAGTGGATGCTTCTGGGTCACTGCGTGCTGAGCGCCGAGCAGCCTCAGGCTGTCCGCCTGTGGCCACGCTGTTG
TCACGGTCCTCTGTCCAGAGGCACCAAGGAGACTTGGAAAACACTGTGGGCTGGAGCCCCAGGTGCACGCTCCCC
GGGACCGGCAGCCCTGCTGAGTCACTTGACTTCACCGAGCCTTGGTCTCCTGTCTCTGAAATGACGTGTGATGCT
CACCTCCAGGGCTGCCGGGGGAGTCAGCAGGAGCCTGGGGTGCCGCAGAGGCTCCGGGAGCTGCAGGCAGGAGCG
ATCAGTGATGACCGGGACCTCCTCCTCCTGTTACTATTATTGATGTTATTATTATTAATAGAAATAGCAACCGAG
TGCCTGCTTTATCAATCACCAGCATTTCCCAGGGAGGTGATAAGCTGCGTTTGGGCATGGTACAAGTTTCTCAAC
GCCAACGATAACGATAACAATGAGAATGACGACGTGCTGAGCACCCCTGAACACTGGGACCTCATCTCCTCTCCC
TCACCCTCTGAAGTGCTTTTCATCATCCTCCTCGTGGTGATCCGGACGGACACGTTCAAGCACCTGCGGCACCTG
GAGATTCTGCAGCTGAGCAAGAACCTGGTGCGCAAGATCGAGGTGGGCGCCTTCAACGGGCTGCCCAGCCTCAAC
ACGCTGGAGCTTTTTGACAACCGGCTGACCACGGTGCCCACGCAGGCCTTCGAGTACCTGTCCAAGCTGCGGGAG
CTCTGGCTGCGGAACAACCCCATCGAGAGCATCCCCTCCTACGCCTTCAACCGCGTGCCCTCGCTGCGGCGCCTG
GACCTGGGCGAGCTCAAGCGGCTGGAATACATCTCGGAGGCGGCCTTCGAGGGGCTGGTCAACCTGCGCTACCTC
AACCTGGGCATGTGCAACCTCAAGGACATCCCCAACCTGACGGCCCTGGTGCGCCTGGAGGAGCTGGAGCTGTCG
GGCAACCGGCTGGACCTGATCCGCCCGGGCTCCTTCCAGGGTCTCACCAGCCTGCGCAAGCTGTGGCTCATGCAC
GCCCAGGTAGCCACCATCGAGCGCAACGCCTTCGACGACCTCAAGTCGCTGGAGGAGCTCAACCTGTCCCACAAC
AACCTGATGTCGCTGCCCCACGACCTCTTCACGCCCCTGCACCGCCTCGAGCGCGTGCACCTCAACCACAACCCC
TGGCATTGCAACTGCGACGTGCTCTGGCTGAGCTGGTGGCTCAAGGAGACGGTGCCCAGCAACACGACGTGCTGC
GCCCGCTGTCATGCGCCCGCCGGCCTCAAGGGGCGCTACATTGGGGAGCTGGACCAGTCGCATTTCACCTGCTAT
GCGCCCGTCATCGTGGAGCCGCCCACGGACCTCAACGTCACCGAGGGCATGGCTGCCGAGCTCAAATGCCGCACG
GGCACCTCCATGACCTCCGTCAACTGGCTGACGCCCAACGGCACCCTCATGACCCACGGCTCCTACCGCGTGCGC
ATCTCCGTCCTGCATGACGGCACGCTTAACTTCACCAACGTCACCGTGCAGGACACGGGCCAGTACACTGGTGGT
GTTGGAGGGGGCAGTGGCGGCTACACCTACTTCACCACGGTGACCGTGGAGACCCTGGAGACGCAGCCCGGAGAG
GAGGCCCTGCAGCCGCGGGGGACGGAGAAGGAACCGCCAGGGCCCACGACAGACGGTGTCTGGGGTGGGGGCCGG
CCTGGGGACGCGGCCGGCCCTGCCTCGTCTTCTACCACGGCACCCGCCCCGCGCTCCTCGCGGCCCACGGAGAAG
GCGTTCACGGTGCCCATCACGGATGTGACGGAGAACGCCCTCAAGGACCTGGACGACGTCATGAAGACCACCAAA
ATCATCATCGGCTGCTTCGTGGCCATCACGTTCATGGCCGCGGTGATGCTCGTGGCCTTCTACAAGCTGCGCAAG
CAGCACCAGCTCCACAAGCACCACGGGCCCACGCGCACCGTGGAGATCATCAACGTGGAGGACGAGCTGCCCGCC
GCCTCGGCCGTGTCCGTGGCCGCCGCGGCCGCCGTGGCCAGTGGGGGTGGTGTGGGCGGGGACAGCCACCTGGCC
CTGCCCGCCCTGGAGCGAGACCACCTCAACCACCACCACTACGTGGCTGCCGCCTTCAAGGCGCACTACAGCAGC
AACCCCAGCGGCGGGGGCTGCGGGGGCAAAGGCCCGCCTGGCCTCAACTCCATCCACGAACCTCTGCTCTTCAAG
AGCGGCTCCAAGGAGAACGTGCAAGAGACGCAGATCTGA

FIGURE 3905

GACCAACGGACCGGACAGAGACGAGGAGAGGAACAGGAAGAGAGAAGCTGGGAGAATCGGGAACCTGGGGGCTAG
TGACCTGCACACAGGGCAGGGGCACTCGGCAGTTCCCAGAGGCCACCCCTCCCACCCCAGACATCCAGACATCTG
GAACTTTGGGTGCCAAGAGTCCAGCTTA**ATG**CAGGCAGCCTGGCTTTTGGGGGCTTTGGTGGTCCCCCAGCTCTT
GGGCTTTGGCCATGGGGCTCGGGGAGCAGAGAGGGAGTGGGAGGGAGGCTGGGGAGGTGCCCAGGAGGAGGAGCG
GGAGAGGGAGGCCCTGATGCTGAAGCATCTGCAGGAAGCCCTAGGACTGCCTGCTGGGAGGGGGGATGAGAATCC
TGCCGGAACTGTTGAGGGAAAAGAGGACTGGGAGATGGAGGAGGACCAGGGGGAGGAAGAGGAGGAGGAAGCAAC
GCCAACCCCATCCTCCGGCCCCAGCCCCTCTCCCACCCCTGAGGACATCGTCACTTACATCCTGGGCCGCCTGGC
CGGCCTGGACGCAGGCCTGCACCAGCTGCACGTCCGTCTGCACGCGTTGGACACCCGCGTGGTCGAGCTGACCCA
GGGGCTGCGGCAGCTGCGGAACGCGGCAGGCGACACCCGCGATGCCGTGCAAGCCCTGCAGGAGGCGCAGGGTCG
CGCCGAGCGCGAGCACGGCCGCTTGGAGGGCTGCCTGAAGGGGCTGCGCCTGGGCCACAAGTGCTTCCTGCTCTC
GCGCGACTTCGAAGCTCAGGCGGCGGCGCAGGCGCGGTGCACGGCGCGGGGCGGGAGCCTGGCGCAGCCGGCAGA
CCGCCAGCAGATGGAGGCGCTCACTCGGTACCTGCGCGCGGCGCTCGCTCCCTACAACTGGCCCGTGTGGCTGGG
CGTGCACGATCGGCGCGCCGAGGGCCTCTACCTCTTCGAAAACGGCCAGCGCGTGTCCTTCTTCGCCTGGCATCG
CTCACCCCGCCCCGAGCTCGGCGCCCAGCCCAGCGCCTCGCCGCATCCGCTCAGCCCGGACCAGCCCAACGGTGG
CACGCTCGAGAACTGCGTGGCGCAGGCCTCTGACGACGGCTCCTGGTGGGACCACGACTGCCAGCGGCGTCTCTA
CTACGTCTGCGAGTTCCCCTTC**TAG**CGGGGCCGGTACCCCGCCTCCCTGCCCATCCCACCACCCGGCCTTTCCCT
GCGCCGTGCCCACCCTCCTCCGGAATCTCCCTTCCCTTCCTGGCCACGAATGGCAGCGTCCTCCCCGACCCCCAG
TCTGGGCGCTTCTGGGAGGGCTCTTGCGGTGCCGGCACTCCTCCTTGTTAGTGTCTTTCCTTGAAGGGGCGGGCA
CCAGGCTAGGTCCGGTGCCAATAAATCCTTGTGGAATCTG

FIGURE 3906

CACTCATTAAGAACAGAGGAGGCTGCCTGTTACTCCTGGTGTTGCATCCCTCCAGACACTCTGCTGTTTCCTGCC
TAGGCGTGGCTGCAGCCATGGCTAGGAAAGCGCTGCCACCCACCCACCTGGGCCAGAGCTGGTTCTGCTCCTGCT
GCAGGGACACTGAGCTGGCTATCTCGGCGCTTCGGGCAAGAACTGCAACAGGCTCTCCTGGGTCCTGCAGGTGTA
CAGCCGGGCCCCTGCCTTGTGCCTCAGCTCTCGAGAGCTGCTGCTGCCGGGTGACCTGATCCAACCTGATAAGGT
GCCATCTTCAGCTACCACTGCAAGGCCCTGAGGGCAACAGCAGCACGGCACTGCCCACCCGGCTGCTGATGGCCT
GGTGCCAGCTGGGAGTCCTCCCGGCACTTCGAGGCCACTGAGCCACCCTTCCAGCCCCAGCCCACCATGGACAGG
GGTATCCAGCTTCCTCCTCAACCTCGTCCTCTGCCCCTGAGCCAGTGACGCCCAAGGACATGCCTGTTACCCAGG
TCCTGTACCAGCACTAGCTGGTCAAGGGC**ATG**ACAGTGCTGGAGGCCGTCTTGGAGATCCAGGCCATCACTGGCA
GCAGGCTGCTCTCCATGGTGCCAGGGCCCGCCAGGCCACCAGGCTCATGCTGGGACCCAACCCAGTGCACAAGGA
CTTGGCTGCTGAGCCACACACCCAGGAGAAGGTGGATAAGTGGGCTACCAAGGGCTTCCTGCAGGCTAGGGGAGG
AGCCACCCCCGCTTCCCTATTGTGACCAGGCCTATGGGGAGGAGCTGTCCATACGCCACCGTGAGACCTGGGCCT
GGCTCTCAAGGACAGACACCGCCTGGCCTGGTGCTCCAGGGGTGAAGCAGGCCAGAATCCTGGGGGAGCTGCTCC
TGGTT**TGA**GCTGCATTCAGGAAGTGCGGGACATGGTAGGGGAGGCAAAAAGCCTTGGGCACTACCCTCCCTGTGG
AGCTGTTCGGTGTCCGTCGAGCTAGCCACACCCTGACACCATGTTCAAGGGTACCGGAAGAGAAGGGTGTCTGCC
CCCAACCTCCCCTGTGGGTGTCACTGGCCAGATGTCATGAGGGAAGCAGGCCTTGTGAGTGGACACTGACCATGA
GTCCCTGGGGGGGAGTGATCCCCCAGGCATCGTGTGCCATGTTGCACTTCTGCCCAGGCAGCAGGGTGGGTGGGTA
CCATGGGTGCCCACCCCTCCACCACATGGGGCCCCAAAGCACTGCAGGCCAAGCAGGGCAACCCCACACCCTTGA
CATAAAAGCATCTTGAAGCTTTT

FIGURE 3907

TCCTCCACCTGCTGGCCCCTGGACACCTCTGTCACC**ATG**TGGTTCCTGGTTCTGTGCCTCGCCCTGTCCCTGGGG
GGGACTGGTGCTGCGCCCCCGATTCAGTCCCGGATTGTGGGAGGCTGGGAGTGTGAGCAGCATTCCCAGCCCTGG
CAGGCGGCTCTGTACCATTTCAGCACTTTCCAGTGTGGGGGCATCCTGGTGCACCGCCAGTGGGTGCTCACAGCT
GCTCATTGCATCAGCGACAATTACCAGCTCTGGCTGGGTCGCCACAACTTGTTTGACGACGAAAACACAGCCCAG
TTTGTTCATGTCAGTGAGAGCTTCCCACACCCTGGCTTCAACATGAGCCTCCTGGAGAACCACACCCGCCAAGCA
GACGAGGACTACAGCCACGACCTCATGCTGCTCCGCCTGACAGAGCCTGCTGATACCATCACAGATGCTGTGAAG
GTCGTGGAGTTGCCCACCGAGGAACCCGAAGTGGGGAGCACCTGTTTGGCTTCCGGCTGGGGCAGCATCGAACCA
GAGAATTTCTCATTTCCAGATGATCTCCAGTGTGTGGACCTCAAAATCCTGCCTAATGATGAGTGCAAAAAAGCC
CACGTCCAGAAGGTGACAGACTTCATGCTGTGTGTCGGACACCTGGAAGGTGGCAAAGACACCTGTGTGGGTGAT
TCAGGGGGCCCGCTGATGTGTGATGGTGTGCTCCAAGGTGTCACATCATGGGGCTACGTCCCTTGTGGCACCCCC
AATAAGCCTTCTGTCGCCGTCAGAGTGCTGTCTTATGTGAAGTGGATCGAGGACACCATAGCGGAGAACTCC**TGA**
ACGCCCAGCCCTGTCCCCTACCCCCAGTAAAATCAAATGTGCATCC

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FIGURE 3908

GGGCACC**ATG**GCAAGATCCCTTCTCCTGCCCCTGCAGATCTTACTGCTATCCTTAGCCTTGGAAACTGCAGGAGA
AGAAGCCCAGGGTGACAAGATTATTGATGGCGCCCCATGTGCAAGAGGCTCCCACCCATGGCAGGTGGCCCTGCT
CAGTGGCAATCAGCTCCACTGCGGAGGCGTCCTGGTCAATGAGCGCTGGGTGCTCACTGCCGCCCACTGCAAGAT
GAATGAGTACACCGTGCACCTGGGCAGTGATACGCTGGGCGACAGGAGAGCTCAGAGGATCAAGGCCTCGAAGTC
ATTCCGCCACCCCGGCTACTCCACACAGACCCATGTTAATGACCTCATGCTCGTGAAGCTCAATAGCCAGGCCAG
GCTGTCATCCATGGTGAAGAAAGTCAGGCTGCCCTCCCGCTGCGAACCCCCTGGAACCACCTGTACTGTCTCCGG
CTGGGGCACTACCACGAGCCCAGATGTGACCTTTCCCTCTGACCTCATGTGCGTGGATGTCAAGCTCATCTCCCC
CCAGGACTGCACGAAGGTTTACAAGGACTTACTGGAAAATTCCATGCTGTGCGCTGGCATCCCCGACTCCAAGAA
AAACGCCTGCAATGGTGACTCAGGGGGACCGTTGGTGTGCAGAGGTACCCTGCAAGGTCTGGTGTCCTGGGGAAC
TTTCCCTTGCGGCCAACCCAATGACCCAGGAGTCTACACTCAAGTGTGCAAGTTCACCAAGTGGATAAATGACAC
CATGAAAAAGCATCGC**TAA**CGCCACACTGAGTTAATTAACTGTGTGCTTCCAACAGAAAATGCACAGGAGTGAGG
ACGCCGATGACCTATGAAGTCAAATTTGACTTTACCTTTCCTCAAAGATATATTTAAACCAACCTCATGCCCTGT
TGATAAACCAATCAAATTGGTAAAGACCTAAAACCAAAACAAATAAAGAAACACAAAACCCTCA

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FIGURE 3909

ACCAGCGGCAGACCACAGGCAGGGCAGAGGCACGTCTGGGTCCCCTCCCTCCTTCCTATCGGCGACTCCCAGATC
CTGGCC**ATG**AGAGCTCCGCACCTCCACCTCTCCGCCGCCTCTGGCGCCCGGGCTCTGGCGAAGCTGCTGCCGCTG
CTGATGGCGCAACTCTGGGCCGCAGAGGCGGCGCTGCTCCCCCAAAACGACACGCGCTTGGACCCCGAAGCCTAT
GGCTCCCCGTGCGCGCGCGGCTCGCAGCCCTGGCAGGTCTCGCTCTTCAACGGCCTCTCGTTCCACTGCGCGGGT
GTCCTGGTGGACCAGAGTTGGGTGCTGACGGCCGCGCACTGCGGAAACAAGCCACTGTGGGCTCGAGTAGGGGAT
GACCACCTGCTGCTTCTTCAGGGAGAGCAGCTCCGCCGGACCACTCGCTCTGTTGTCCATCCCAAGTACCACCAG
GGCTCAGGCCCCATCCTGCCAAGGCGAACGGATGAGCACGATCTCATGTTGCTGAAGCTGGCCAGGCCCGTAGTG
CTGGGGCCCCGCGTCCGGGCCCTGCAGCTTCCCTACCGCTGTGCTCAGCCCGGAGACCAGTGCCAGGTTGCTGGC
TGGGGCACCACGGCCGCCCGGAGAGTGAAGTACAACAAGGGCCTGACCTGCTCCAGCATCACTATCCTGAGCCCT
AAAGAGTGTGAGGTCTTCTACCCTGGCGTGGTCACCAACAACATGATATGTGCTGGACTGGACCGGGGCCAGGAC
CCTTGCCAGAGTGACTCTGGAGGCCCCCTGGTCTGTGACGAGACCCTCCAAGGCATCCTCTCGTGGGGTGTTTAC
CCCTGTGGCTCTGCCCAGCATCCAGCTGTCTACACCCAGATCTGCAAATACATGTCCTGGATCAATAAAGTCATA
CGCTCCAAC**TGA**TCCAGATGCTACGCTCCAGCTGATCCAGATGTTATGCTCCTGCTGATCCAGATGCCCAGAGGC
TCCATCGTCCATCCTCTTCCTCCCCAGTCGGCTGAACTCTCCCCTTGTCTGCACTGTTCAAACCTCTGCCGCCCT
CCACACCTCTAAACATCTCCCCTCTCACCTCATTCCCCCACCTATCCCCATTCTCTGCCTGTACTGAAGCTGAAA
TGCAGGAAGTGGTGGCAAAGGTTTATTCCAGAGAAGCCAGGAAGCCGGTCATCACCCAGCCTCTGAGAGCAGTTA
CTGGGGTCACCCAACCTGACTTCCTCTGCCACTCCCTGCTGTGTGACTTTGGGCAAGCCAAGTGCCCTCTCTGAA
CCTCAGTTTCCTCATCTGCAAAATGGGAACAATGACGTGCCTACCTCTTAGACATGTTGTGAGGAGACTATGATA
TAACATGTGTATGTAAATCTTCATGGTGATTGTCATGTAAGGCTTAACACAGTGGGTGGTGAGTTCTGACTAAAG
GTTACCTGTTGTCGTG

FIGURE 3910

ATGCACCGAGCAAGAATATCTCAGGCTGTGACCATCTGGAGAGGGTTACGGTTTGAGAAAAGCAGCATTGAAGTT
GACGCTGATCTTGGTAATACATTTGCAGAGCATGCTTATGGTCAGACGTGGATGATGGCGCTCATTCTGCACGAC
GATGAGGTGACCGTCACGGAGGATAAGATCAATGCTCTCATTAAAGCAGCTGGCCTGGTCAATGTCAACATCGGG
AGCCTCATCTGCAGTGTAGAGGCTGGTGGAGCTGCTCCAGCTGAGGAGAAGAAAGTGGAAGCAAAGAAAGAAGAA
TCCGAGGACGGTGATGATGACATGCGCTTTGGTCTTTTTCAC**TGA**

FIGURE 3911

CCGGCTCTGGCTGGGCCGCCCGCCTCCACAGCCGCCGCCCAGGGTTCTCCCGCCACTGCCGCCCGCACCCCCGCC
CCCGCGGGGTTAAGATCACACACGCGCCCACGCCGGCCCGCGGGGCGTGCACTTTCGCTGGGTTCCGTCCGCCGC
AGCCCAAACAGTTAACTGAACGGGGAGGGGAGGGGGCGGGGCTTACCCGGGGTCACCGCCAGGGCCCTGCTGGGT
TCCACGCCACGTTCCTGTCTCCGCAGGGCGTTCGATCCCTAGAGGGAGGAGCCTGTCCAAACGGACGCTAACGGC
CTACCTCCCCCTCAGGTGCTCTTACAGCCTGTTCCAAGTGTGGCTTAATCCGTCTCCACCACCAGATCTTTCTCC
GTGGATTCCTCTGCTAAGACCGCTGCC**ATG**CCAGTGACGGTAACCCGCACCACCATCACAACCACCACGACGTCA
TCTTCGGGCCTGGGGTCCCCCATGATCGTGGGGTCCCCTCGGGCCCTGACACAGCCCCTGGGTCTCCTTCGCCTG
CTGCAGCTGGTGTCTACCTGCGTGGCCTTCTCGCTGGTGGCTAGCGTGGGCGCCTGGACGGGGTCCATGGGCAAC
TGGTCCATGTTCACCTGGTGCTTCTGCTTCTCCGTGACCCTGATCATCCTCATCGTGGAGCTGTGCGGGCTCCAG
GCCCGCTTCCCCCTGTCTTGGCGCAACTTCCCCATCACCTTCGCCTGCTATGCGGCCCTCTTCTGCCTCTCGGCC
TCCATCATCTACCCCACCACCTATGTCCAGTTCCTGTCCCACGGCCGTTCGCGGGACCACGCCATCGCCGCCACC
TTCTTCTCCTGCATCGCGTGTGTGGCTTACGCCACCGAAGTGGCCTGGACCCGGGCCCGGCCCGGCGAGATCACT
GGCTATATGGCCACCGTACCCGGGCTGCTGAAGGTGCTGGAGACCTTCGTTGCCTGCATCATCTTCGCGTTCATC
AGCGACCCCAACCTGTACCAGCACCAGCCGGCCCTGGAGTGGTGCGTGGCGGTGTACGCCATCTGCTTCATCCTA
GCGGCCATCGCCATCCTGCTGAACCTGGGGGAGTGCACCAACGTGCTACCCATCCCCTTCCCCAGCTTCCTGTCG
GGGCTGGCCTTGCTGTCTGTCCTCCTCTATGCCACCGCCCTTGTTCTCTGGCCCCTCTACCAGTTCGATGAGAAG
TATGGCGGCCAGCCTCGGCGCTCGAGAGATGTAAGCTGCAGCCGCAGCCATGCCTACTACGTGTGTGCCTGGGAC
CGCCGACTGGCTGTGGCCATCCTGACGGCCATCAACCTACTGGCGTATGTGGCTGACCTGGTGCACTCTGCCCAC
CTGGTTTTTGTCAAGGTC**TAA**GACTCTCCCAAGAGGCTCCCGTTCCCTCTCCAACCTCTTTGTTCTTCTTGCCCG
AGTTTTCTTTATGGAGTACTTCTTTCCTCCGCCTTTCCTCTGTTTTCCTCTTCCTGTCTCCCCTCCC

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FIGURE 3912

GCCGCTGTCGCCGCCGCGGAGACAAAG**ATG**GCTGCGAGAGTCGGCGCCTTCCTCAAGAATGCCTGGGACAAGGAG
CCAGTGCTGGTCGTGTCCTTCGTCGTCGGGGGCCTCGCTGTAATTCTGCCCCCATTGAGCCCCTACTTCAAGTAC
TCCGTCATGATCAACAAGGCCACGCCCTACAACTACCCAGTGCCCGTCCGTGATGATGGGAACATGCCCGACGTG
CCCAGCCACCCCCAGGACCCTCAGGGCCCCAGCCTGGAGTGGCTGAAGAAACTG**TGA**GCACCTCCACTGACAGAG
GCGGCCCCTCCCACGGCTCCCAATAAAAATGTGAAAACC

FIGURE 3913

AGAAACAGTGGTGCGCGGAGAGGAGAGGCCTCGGG**ATG**TCTCTGGCAGATGAGCTCTTAGCTGATCTCGAAGAGG
CAGCAGAAGAGGAGGAAGGAGGAAGCTATGGGGAGGAAGAAGAGGAGCCAGCGATCGAGGATGTGCAGGAGGAGA
CACAGCTGGATCTTTCCGGGGATTCAGTCAAGACCATCGCCAAGCTATGGGATAGTAAGATGTTTGCTGAGATTA
TGATGAAGATTGAGGAGTATATCAGCAAGCAAGCCAAAGCTTCAGAAGTGATGGGACCAGTGGAGGCCGCGCCTG
AATACCGCGTCATCGTGGATGCCAACAACCTGACCGTGGAGATCGAAAACGAGCTGAACATCATCCATAAGTTCA
TCCGGGATAAGTACTCAAAGAGATTCCCTGAACTGGAGTCCTTGGTCCCCAATGCACTGGATTACATCCGCACGG
TCAAGGAGCTGGGCAACAGCCTGGACAAGTGCAAGAACAATGAGAACCTGCAGCAGATCCTCACCAATGCCACCA
TCATGGTCGTCAGCGTCACCGCCTCCACCACCCAGGGGCAGCAGCTGTCGGAGGAGGAGCTGGAGCGGCTGGAGG
AGGCCTGCGACATGGCGCTGGAGCTGAACGCCTCCAAGCACCGCATCTACGAGTATGTGGAGTCCCGGATGTCCT
TCATCGCACCCAACCTGTCCATCATTATCGGGGCATCCACGGCCGCCAAGATCATGGGTGTGGCCGGCGGCCTGA
CCAACCTCTCCAAGATGCCCGCCTGCAACATCATGCTGCTCGGGGCCCAGCGCAAGACGCTGTCGGGCTTCTCGT
CTACCTCAGTGCTGCCCCACACCGGCTACATCTACCACAGTGACATCGTGCAGTCCCTGCCACCGGATCTGCGGC
GGAAAGCGGCCCGGCTGGTGGCCGCCAAGTGCACACTGGCAGCCCGTGTGGACAGTTTCCACGAGAGCACAGAAG
GGAAGGTGGGCTACGAACTGAAGGATGAGATCGAGCGCAAATTCGACAAGTGGCAGGAGCCGCCGCCTGTGAAGC
AGGTGAAGCCGCTGCCTGCGCCCCTGGATGGACAGCGGAAGAAGCGAGGCGGCCGCAGGTACCGCAAGATGAAGG
AGCGGCTGGGGCTGACGGAGATCCGGAAGCAGGCCAACCGTATGAGCTTCGGAGAGATCGAGGAGGACGCCTACC
AGGAGGACCTGGGATTCAGCCTGGGCCACCTGGGCAAGTCGGGCAGTGGGCGTGTGCGGCAGACACAGGTAAACG
AGGCCACCAAGGCCAGGATCTCCAAGACGCTGCAGCGGACCCTGCAGAAGCAGAGCGTCGTATATGGCGGGAAGT
CCACCATCCGCGACCGCTCCTCGGGCACGGCCTCCAGCGTGGCCTTCACCCCACTCCAGGGCCTGGAGATTGTGA
ACCCACAGGCGGCAGAGAAGAAGGTGGCTGAGGCCAACCAGAAGTATTTCTCCAGCATGGCTGAGTTCCTCAAGG
TCAAGGGCGAGAAGAGTGGCCTTATGTCCACC**TGA**ATGACTGCGTGTGTCCAAGGTGGCTTCCCACTGAAGGGAC
ACAGAGGTCCAGTCCTTCTGAAGGGCTAGGATCGGGTTCTGGCAGGGAGAACCTGCCCTGCCACTGGCCCCATTG
CTGGGACTGCCCAGGGAGGAGGCCTTGGAAGAGTCCGGCCTGGCCTCCCCCAGGACCGAGATCACCGCCCAGTAT
GGGCTAGAGCAGGTCTTCATCATGCCTTGTCTTTTTTAACTGAGAAAGGAGATTTTTTGAAAAGAGTACAATTAA
AAGGACATTGTCAAG

FIGURE 3914A

AAATTCTCCCTGGGGGTAAGGTACCAGCCCTGTCCTTTATGGGCTTCTTGTTCTAAAGCATATCCGTCCCATATG
GTTGCTGCTAGTCACATGTGGTGATTAGTAACTAGTTAAAAATGAAAAATTCAGTTCCTCCATTACACTTGCCAC
ATTTCAGATGTTCAGTGGCCAACAGATATGCGCAAATAGAGTGTTTCCAGCATTGCAAAGTTCTGTTGGATAGCA
CTGTTTGCCAGATGTTCCCTTCTTTGTGGGTGAGGACTCTTTTGGTGTGACTTCCCTCTGTATTGAGGCTCTTGT
TCCTCAGTATGGGGCTGTTTCTGTCTTTACAGTAAGTGACTACTCCAGGGTTCCCTGCCCTGCACACGTAGAGTG
GGAGCGGCCCGTGGATCCCAGGGAACTGTGCTTTTCATTGTAGGCCCCCTCCCTGGAGGGGAAGAGGGCAATCTC
CGCTGGTATCTCAGAAGTCTTCTTCTGAGGCATAAGCCTCTCTTCCCAGGGCTCCCCTGGTCTCGCTGTCAGGCC
CTAAGGTATGTCTTCCCTTGGACTAAAGCTCCTTGGAACTCCCTTTTGACCTCAGTCTTCTCTGGGTTCCAGGTA
ACTTCCTTTAAAATAAAGACGCTCCTCTCTTGAAGTTTTGGGTTCCTGCCCTGATGGTCTATGTCTCCCTGACTC
TAAATTACCAATCCACTTGCTATGGGATTCCTCCATGAGTGCAGATCGGCTCCCTCACAGCTGCGGTACCTTTGC
ACCCTCTTATCTTAGTAAGATTTCTGTCTTCTCCCAGGTCTCTCTTGGGTACTGCCTTCTGCCCCCAAATCTCTA
AGCCTTCTTGGTATTAGCTTCTTTGGGTTAGGAGTGTTATTTCCTTTTGGTTTAAGGATCCTGCTCTGGAATAAA
TGTCTTGGTGGTTTGAGTCCCTTCTACTTGGCATTCAGCCCTGTCTGCATGAGCGGGTTCAGCTCTTCACAGCTT
TCGGCATCTCTGCTCGCCGTCGTTTTCCCCCACCCCCAATCTTTCTTCTCCTACCTACAGCTTACACACACACAC
ACACACACACACACACACACACACACACGCCCTTCTCTGTGAGCTGCCAGTTTCATTTGTCTCCTGACTTGTCTGAG
GGATGACCTCTCCTAGCCACCTCTGCCCAGCCCCTCTGAGTAGGAAGTGTGATTTCCAGGGCTAATGCCTCCATC
CCAGTCATCAGCTGTGTGCAGCATGACTGTCCTGCTCTGAAAAACCTTTTTGAGTGTATTCTGGGGAGAAGGTAC
TCCATGCTCTAGGAATTTTCCACTTCCTGAGTCAGAGGCACACAAAAAAGTATGTAACTTTTCTTGTTTCAACAA
ACTTATGGGGTCCCCTGTTGGCCAGACACTATGCTGGGCAGTCAAGCGAGCATCAGGAGAACTGGGGCTGGTCTC
TTGTCAGATAGCAAATGCTTCTTCTCTTTACCAGTCCCACCTACCTCACTATGCTGACTAGGTCCATGTCTCTGG
GTTTTTACCAGCCAGGGAATACGTGTTAATTCCTCTCCAATCTCTCCTAGCAGCGTCCGTCTCCAAGAGAGTATG
AAGAGAGTGCGTCTGTAGGGCAGGGAAG**ATG**GCGGACAAGCGCAAACTCCAAGGTGAGATTGATCGCTGCCTCAA
GAAGGTGTCCGAGGGCGTGGAGCAGTTTGAAGATATTTGGCAGAAGCTCCACAATGCAGCCAACGCGAACCAGAA
AGAAAAGTATGAGGCTGACCTAAAGAAGGAGATTAAGAAGCTACAACGGCTGAGGGACCAAATCAAGACATGGGT
AGCGTCCAACGAGATCAAGGACAAGAGGCAGCTTATAGACAACCGCAAGCTCATTGAGACGCAAATGGAACGGTT
CAAAGTTGTGGAACGAGAGACCAAAACCAAAGCTTACAGCAAAGAGGGCCTGGGCCTGGCCCAGAAGGTAGATCC
TGCCCAGAAGGAGAAGGAAGAGGTTGGCCAGTGGCTCACGAATACCATCGACACGCTCAACATGCAGGTGGACCA
GTTTGAGAGTGAAGTGGAGTCACTGTCAGTGCAGACACGCAAGAAGAAGGGCGACAAGGATAAGCAGGACCGGAT
TGAGGGCTTGAAGCGGCACATCGAGAAGCACCGCTACCACGTGCGCATGCTAGAGACCATCCTGCGCATGCTGGA
CAATGACTCCATCCTCGTTGACGCCATCCGCAAGATCAAGGACGACGTTGAGTACTATGTTGACTCATCCCAGGA
CCCCGACTTCGAGGAGAACGAGTTTCTCTACGATGACCTGGACCTCGAGGACATTCCACAGGCGCTGGTCGCCAC
CTCCCCTCCCAGCCACAGCCACATGGAGGATGAGATCTTCAACCAGTCCAGCAGCACGCCCACCTCAACCACCTC
CAGCTCTCCCATCCCGCCCAGCCCAGCCAACTGTACCACGGAAAACTCTGAAGATGATAAGAAGAGGGGACGTTC
CACAGACAGTGAAGTCAGCCAGTCTCCAGCCAAAAACGGCTCCAAGCCTGTCCACAGCAACCAGCACCCTCAGTC
CCCAGCTGTGCCGCCCACCTACCCCTCCGGCCCCCCGCCTGCTGCCTCTGCCTTGAGCACCACTCCTGGCAACAA
TGGGGTCCCCGCCCCCGCAGCACCCCCAAGTGCCCTGGGCCCCAAGGCCAGTCCAGCTCCCAGCCACAACTCGGG
CACCCCTGCTCCCTATGCCCAGGCTGTGGCCCCACCAGCTCCCAGTGGGCCCAGCACGACCCAGCCCCGGCCCCC
CAGCGTCCAGCCTAGCGGAGGCGGAGGCGGCGGCAGCGGAGGTGGAGGGAGCAGCAGCAGTAGTAACAGCAGTGC
CGGTGGAGGGGCTGGCAAGCAGAATGGCGCCACCAGTTACAGCTCAGTTGTGGCAGACAGCCCGGCAGAGGTGGC
TTTGAGCAGCAGTGGGGGCAACAATGCCAGCAGCCAGGCCTTGGGCCCCCCTTCCGGCCCCCACAACCCACCTCC
CAGCACCTCGAAGGAACCCAGTGCGGCAGCCCCAACGGGGGCTGGGGGCGTGGCCCCAGGCTCAGGGAACAACTC
AGGGGGACCCAGCCTCGTGGTGCCACTGCCTGTGAATCCTCCCAGCTCCCCAACGCCCAGCTTCAGTGATGCCAA
GGCAGCCGGTGCCCTGCTCAATGGGCCTCCACAGTTCAGCACCGCCCCAGAAATCAAGGCCCCTGAGCCTCTGAG
CTCCTTGAAGTCCATGGCGGAACGGGCAGCCATCAGCTCTGGCATTGAGGACCCTGTGCCAACGCTGCACCTGAC
CGAGCGAGACATCATCCTGAGCAGTACATCAGCACCTCCGGCCTCAGCCCAGCCGCCCCTGCAGCTGTCAGAGGT
GAACATACCGCTGTCGCTGGGTGTCTGTCCACTGGGCCCTGTGCCCCTCACCAAGGAGCAGCTCTATCAGCAGGC
CATGGAAGAGGCCGCCTGGCACCACATGCCTCACCCCTCTGACTCTGAGCGTATTCGGCAGTACCTCCCCCGGAA
CCCCTGTCCGACGCCCCCCTACCACCACCAGATGCCACCCCCACACTCGGACACTGTGGAATTCTACCAGCGCCT

FIGURE 3914B

GTCGACCGAGACACTCTTCTTCATCTTCTACTATCTGGAGGGCACTAAGGCACAGTATCTGGCAGCCAAGGCCCT
AAAGAAGCAGTCATGGCGATTCCACACCAAGTACATGATGTGGTTCCAGAGGCACGAGGAGCCCAAGACCATCAC
TGACGAGTTTGAGCAGGGCACCTACATCTACTTTGACTACGAGAAGTGGGGCCAGCGGAAGAAGGAAGGCTTCAC
CTTTGAGTACCGCTACCTGGAGGACCGGGACCTCCAG**TGA**CACCGGCCCCTCCCTCTACCCACCCCCTTCCCCCG
CATGCTGATCCCCCTGCCCAGGTGAGGGCCCCTGCCCTGGAAGACTGGAGGGAGGCCCCAAGCCACGGGGCATCC
CCCTCTCCCAGGAAGCAGGGAGGGGGCCGGGAGGTTTTCCTCTCAGCCCCACCCTGGGGGCCCGGGGGCGAGGGC
TGCCCCCTCCTCCCCTCCCCAGTGAGGGACATTTTTTGGTAAACCTATTTTCATTTTGGAAAATATTTATGAATA
AATAGTTTTATATG

FIGURE 3915

TGTCTGCCTGGTGGCCACTAGAGACAGCCCAGCCTGGGCC**ATG**GAAGAAAACCCGACCTTGGAATCAGAAGCCTG
GGGCTCCTCTAGGGGGTGGCTGGCCCCCCGGGAGGCCAGAGGAGGCCCATCGCTGTCTTCTGTGCTGAACGAGCT
GCCCAGTGCTGCCACCCTTCGGTACCGAGACCCTGGGGTGCTGCCTTGGGGGGCGCTGGAGGAGGAGGAGGAGGA
TGGAGGAAGGAGCAGAAAGGCCTTCACAGAAGTCACCCAGACAGAGCTGCAGGACCCTCACCCTTCCCGGGAACT
GCCCTGGCCCATGCAGGCCAGACGGGCACACAGGCAAAGAAATGCCAGCAGGGACCAGGTGGTCTATGGCTCTGG
AACTAAGACGGACCGATGGGCGCGGCTACTTCGGAGGTCCAAGGAGAAAACAAAGGAAGGCTTGCGAAGCCTGCA
GCCCTGGGCGTGGACACTGAAGAGGATCGGGGGCCAGTTTGGCGCCGGCACGGAGTCCTACTTCTCCCTGCTGCG
CTTCCTGCTCCTTCTTAACGTGCTGGCCTCTGTGCTCATGGCCTGCATGACGCTGCTGCCCACCTGGTTGGGAGG
CGCTCCCCCAGGCCCTCCCGGCCCCGACATCTCCTCGCCCTGCGGCTCCTATAACCCCCACTCCCAGGGCCTGGT
CACCTTTGCCACCCAGCTCTTCAACTTGCTCTCGGGTGAGGGTTACCTGGAATGGTCCCCTCTCTTCTATGGCTT
CTACCCGCCCCCGCCCACGCCTGGCGGTCACCTACCTGTGCTGGGCCTTTGCCGTTGGCCTCATCTGCCTCCTGCT
CATCCTGCATCGCTCGGTGTCTGGGCTGAAGCAGACACTGCTGGCGGAGTCCGAGGCTCTGACCAGCTACAGCCA
CCGGGTGTTCTCGGCCTGGGACTTCGGTCTCTGCGGGGACGTCCACGTGCGGCTGCGCCAGCGCATCATCTTGTA
CGAATTAAAGGTGGAGCTGGAGGAGACAGTGGTGCGGCGCCAGGCTGCGGTGCGGACGCTGGGCCAGCAAGCCAG
GGTTTGGTTGGTGCGGGTGCTGCTCAACCTGCTGGTGGTCGCGCTCCTGGGGGCAGCCTTCTATGGCGTCTACTG
GGCTACGGGGTGCACCGTGGAGCTGCAGGAGATGCCCCTTGTCCAGGAGTTGCCACTGCTGAAGCTTGGGGTGAA
TTACCTTCCGTCCATCTTCATCGCTGGGGTCAATTTTGTGCTGCCGCCCGTGTTCAAGCTCATTGCTCCACTGGA
GGGCTACACTCGGAGTCGCCAGATCGTTTTTATCCTGCTCAGGACCGTGTTTCTTCGCCTCGCCTCCCTGGTGGT
CCTGCTCTTCTCTCTCTGGAATCAGATCACTTGTGGGGGCGACTCCGAGGCTGAGGACTGCAAAACCTGTGGCTA
CAATTACAAACAACTTCCGTGCTGGGAGACTGTCCTGGGCCAGGAAATGTACAAACTTCTGCTCTTTGATCTGCT
GACTGTCTTGGCAGTCGCGCTGCTCATCCAGTTTCCTAGAAAGCTCCTCTGTGGCCTCTGTCCTGGGGCGCTGGG
TCGTCTGGCGGGGACCCAGGAGTTCCAGGTGCCCGACGAGGTGCTGGGGCTCATCTACGCGCAGACGGTGGTCTG
GGTGGGGAGTTTTTTCTGCCCTTTACTGCCCCTGCTTAACACGGTCAAGTTCCTGCTGCTTTTCTACCTGAAGAA
GCTTACCCTCTTCTCCACCTGCTCCCCGGCTGCCCGCACCTTCCGGGCCTCCGCGGCGAATTTCTTTTTCCCCTT
GGTCCTTCTCCTGGGTCTGGCCATCTCCAGCGTTCCCCTGCTTTACAGCATCTTCCTGATCCCGCCTTCTAAGCT
TTGTGGTCCATTCCGGGGGCAGTCGTCCATCTGGGCCCAGATCCCTGAGTCTATTTCCAGCCTCCCTGAGACCAC
CCAGAATTTCCTCTTCTTCCTGGGGACCCAGGCTTTTGCTGTGCCCCTTCTGCTGATCTCCAGCATCCTGATGGC
GTACACTGTGGCTCTGGCTAACTCCTACGGACGCCTCATCTCTGAGCTCAAACGTCAGAGACAGACGGAGGCGCA
GAATAAAGTCTTCCTGGCACGGCGCGCTGTGGCGCTGACCTCCACCAAACCGGCTCTT**TGA**CCCCCGCAGCCCAC
GTCCCGCTTTCAGACCCCAGGCCCATTGTAAGCCTAGGTCACAACATCTGTAAACTAGGAGAACTGGAGAAGACT
CCACGCCCTTCCAGCTTTGGTATCTGGAGATTTCCAGGGCCCCTCGCCGCCACGTCCTGACTCTCGGGTGATCTT
CCTTGTATCAATAAATACAGCCGAGGTTGCTG

FIGURE 3916

GTTCTCGACTATTGCCGAAGTGAGCCGAAGTTTGTGGCCCCGCTTCCGGAGAACTCAAGCTCCCGATTGTGCCCG
AAGGAACCCGAAGGGAGACCCCGCCTCATTCCTCACGGCGAGCTCCAGACCCCGCCTCCTTTCCGGAGCCCGTCT
GTTCCCCTTCGGGTCCAAAGCTTTTGGCTCCTCCTTGTTCCGAGCCCGAAGGCCCGCCCCTTCACGTACTCGGAG
CTCGGATCCCAGTGTGGACCTGGACTCGAATCCCGTTGCCGACTCGCGCTCTCGGCTTCTGCTCCGGGGCTTCTT
CCCTGCCCGCCCGGGGCCCTGACCGTGGCTTCTTCCCCGGCCTGATCTGCGCAGCCCGGCGGGCGCCCAGAAGGA
GCAGGCGGCGCGGGGGCGCGCTGGGCGGGGGAGGCGTGGCCGGAGCTGCGGCGGCAAGCGGGCTGGGACTGCTCG
GCCGCCTCCTGCCCGGCGAGCAGCTCAGACC**ATG**TCGCCTGAAGAATGGACGTATCTAGTGGTTCTTCTTATCTC
CATCCCCATCGGCTTCCTCTTTAAGAAAGCCGGTCCTGGGCTGAAGAGATGGGGAGCAGCCGCTGTGGGCCTGGG
GCTCACCCTGTTCACCTGTGGCCCCCACACTTTGCATTCTCTGGTCACCATCCTCGGGACCTGGGCCCTCATTCA
GGCCCAGCCCTGCTCCTGCCACGCCCTGGCTCTGGCCTGGACTTTCTCCTATCTCCTGTTCTTCCGAGCCCTCAG
CCTCCTGGGCCTGCCCACTCCCACGCCCTTCACCAATGCCGTCCAGCTGCTGCTGACGCTGAAGCTGGTGAGCCT
GGCCAGTGAAGTCCAGGACCTGCATCTGGCCCAGAGGAAGGAAATGGCCTCAGGCTTCAGCAAGGGGCCCACCCT
GGGGCTGCTGCCCGACGTGCCCTCCCTGATGGAGACACTCAGCTACAGCTACTGCTACGTGGGAATCATGACAGG
CCCGTTCTTCCGCTACCGCACCTACCTGGACTGGCTGGAGCAGCCCTTCCCCGGGGCAGTGCCCAGCCTGCGGCC
CCTGCTGCGCCGCGCCTGGCCGGCCCCGCTCTTCGGCCTGCTGTTCCTGCTCTCCTCTCACCTCTTCCCGCTGGA
GGCCGTGCGCGAGGACGCCTTCTACGCCCGCCCGCTGCCCGCCCGCCTCTTCTACATGATCCCCGTCTTCTTCGC
CTTCCGCATGCGCTTCTACGTGGCCTGGATTGCCGCCGAGTGCGGCTGCATTGCCGCCGGCTTTGGGGCCTACCC
CGTGGCCGCCAAAGCCCGGGCCGGAGGCGGCCCCACCCTCCAATGCCCACCCCCCAGCAGTCCGGAGAAGGCGGC
TTCCTTGGAGTATGACTATGAGACCATCCGCAACATCGACTGCTACAGCACAGATTTCTGCGTGCGGGTGCGCGA
TGGCATGCGGTACTGGAACATGACGGTGCAGTGGTGGCTGGCGCAGTATATCTACAAGAGCGCACCTGCCCGTTC
CTATGTCCTGCGGAGCGCCTGGACCATGCTGCTGAGCGCCTACTGGCACGGCCTCCACCCGGGCTACTACCTGAG
CTTCCTGACCATCCCGCTGTGCCTGGCTGCCGAGGGCCGGCTGGAGTCAGCCCTGCGGGGGCGGCTGAGCCCAGG
GGGCCAGAAGGCCTGGGACTGGGTGCACTGGTTCCTGAAGATGCGCGCCTATGACTACATGTGCATGGGCTTCGT
GCTGCTCTCCTTGGCCGACACCCTTCGGTACTGGGCCTCCATCTACTTCTGTATCCACTTCCTGGCCCTGGCAGC
CCTGGGGCTGGGGCTGGCTTTAGGTGGGGGCAGCCCCAGCCGGCGGAAGGCAGCATCCCAGCCCACCAGCCTTGC
CCCAGAGAAGCTCCGGGAGGAG**TAA**GCTGTCACGACGCTCCCTCTGCCAGCTGGTCCCGGGAATTCTGTGAACCA
GGCTGCTGTCTCCTCCCCAGAAAGAGTCCTTACCTTGGAGAGGGTCCTGGAGAGAATTTCCTCTTCCCCAGCTAA
ATACCCTGCCTGCAACTGAAGCAGACCCGGGGGGTGTCCTCCCTGCCCTCTGCCCAGAGGCCACCTCCACTCCTAC
AAAATCAAAGTATTGTCCAGACAAGAGTCACTGGCCCCTGCTCCAGCTTCTGGGTATCCAGAGAGCACTGCACTT
CCCCAAAACGGAAGGGGCCCCTGGGCAGTGGGTTTTGGGCAAATTCCCTTTCTTTGCATCCACAATGTGGGGTCG
GAGCTTGGGGGCAGGTCCTGGGAGTGGGAAGCCTCTTCCTTGTGTCTTTCGCTCCACTTTTAGCTCATCGCACCA
ATATTGCAGACTTGGAAGGAAGCATAAGCTTCCCATTTCACAAAGGGGAAACTGAGGTGCGGGTGCGCGGGCCTG
GGGACGGCCGTCCCATGGCTTCCATCTGAGCCACCTCGGGACCCCAGCGCTCCTGGCGCCCTCTTCTCATCGCTT
GGCCTATGACAGGTCACCGTGTGTAAATCTTTCCCAATAAAGTGTTGCACAAAG

FIGURE 3917

CACCTCGACTGCGAATTACTGTTTATGAGGTGACTCGCTGGTTCTATCGGTGGACAGTGGGACATTCTGAAGGGA
GGCAAGGAGGCGGACTGAGCGCTCCCAATTGGGGAGG**ATG**CTGGTGGTGGAGGTGGCGAACGGCCGCTCCCTGGT
GTGGGGAGCCGAGGCGGTGCAGGCCCTCCGGGAGCGCCTGGGTGTGGGGGGCCGCACGGTAGGCGCCCTGCCCCG
CGGGCCCCGCCAGAACTCGCGCCTGGGCCTCCCGCTGCTGCTGATGCCCGAAGAGGCGCGGCTCTTGGCCGAGAT
CGGCGCCGTGACTCTGGTCAGCGCCCCGCGTCCAGACTCTCGGCACCACAGCCTGGCCCTGACATCCTTCAAGCG
CCAGCAAGAGGAGAGCTTCCAGGAGCAGAGCGCCTTGGCAGCTGAGGCCCGGGAGACCCGTCGTCAGGAGCTCCT
GGAGAAGATTACGGAGGGCCAGGCTGCTAAGAAGCAGAAACTAGAACAGGCTTCAGGGGCCAGCTCAAGCCAGGA
GGCCGGCTCGAGCCAGGCTGCCAAAGAGGATGAGACCAGTGATGGCCAGGCTTCGGGAGAGCAGGAGGAAGCTGG
CCCCTCGTCTTCCCAAGCAGGACCCTCAAATGGGGTAGCCCCCTTGCCCAGATCTGCTCTCCTTGTCCAGCTGGC
CACTGCCAGGCCTCGACCGGTCAAGGCCAGGCCCCTGGACTGGCGTGTCCAGTCTAAAGACTGGCCCCACGCCGG
CCGCCCTGCCCACGAGCTGCGCTACAGTATCTACAGAGACCTGTGGGAGCGAGGCTTCTTCCTCAGTGCGGCTGG
CAAGTTCGGAGGTGACTTCCTGGTCTATCCTGGTGACCCCCTCCGCTTCCACGCCCATTATATCGCTCAGTGCTG
GGCCCCCGAGGACACCATCCCACTCCAAGACCTGGTTGCTGCTGGGCGCCTTGGAACCAGCGTCAGAAAGACCCT
GCTCCTCTGTTCTCCGCAGCCTGATGGTAAGGTGGTCTACACCTCCCTGCAATGGGCCAGCCTGCAG**TGA**ACTCC
AGAGACCTAGGGGATGTGGCTGTGTCGGCAGCAAGAGCCTTTCTGGATGTTCCCCAGCTCTTCTCTGGGAGTCTA
GAACATCCTCCTACCTTTCTCCGCGGTTAGTTTTTGATTCCAGGTTTTCGAACACTACATCTTTTTTATGTTCTT
CCTTGTTTCAAAGCACTTATTGGCTGTGTTTTTTGTAGTTACCTATTTTCACACTGTGAGCTTCCCGAGAATGGGG
CCTGGGTTTGATTCATCTGTTTTCTACAGGGTTTAAGTCTCAGGAGGTCTCAATAAACTTGGTATATAAATGTT

FIGURE 3918

CCCGCGCAGGCGCAGACGGGGAAGCGGAGCCAAC**ATG**CCAGTGGCCCGGAGCTGGGTTTGTCGCAAAACTTATGT
GACCCCGCGGAGACCCTTCGAGAAATCTCGTCTCGACCAAGAGCTGAAGCTGATCGGCGAGTATGGGCTCCGGAA
CAAACGTGAGGTCTGGAGGGTCAAATTTACCCTGGCCAAGATCCGCAAGGCCGCCCGGGAACTGCTGACGCTTGA
TGAGAAGGACCCACGGCGTCTGTTCGAAGGCAACGCCCTGCTGCGGCGGCTGGTCCGCATTGGGGTGCTGGATGA
GGGCAAGATGAAGCTGGATTACATCCTGGGCCTGAAGATAGAGGATTTCTTAGAGAGACGCCTGCAGACCCAGGT
CTTCAAGCTGGGCTTGGCCAAGTCCATCCACCACGCTCGCGTGCTGATCCGCCAGCGCCATATCAGGGTCCGCAA
GCAGGTGGTGAACATCCCGTCCTTCATTGTCCGCCTGGATTCCCAGAAGCACATCGACTTCTCTCTGCGCTCTCC
CTACGGGGGTGGCCGCCCGGGCCGCGTGAAGAGGAAGAATGCCAAGAAGGGCCAGGGTGGGGCTGGGGCTGGAGA
CGACGAGGAGGAGGAT**TAA**GTCCACCTGTCCCTCCTGGGCTGCTGGATTGTCTCGTTTTCCTGCCAAATAAACAG
GATCAGCGCTTTA

FIGURE 3919

CGAGGGTGTCGGCATGAGGGGGTGGAGCAAGGAGCGCGTGGCGCGGTGCGCAGTGGGTGGCTCCACCTCGACTGC
GAATTACTGTTT**ATG**AGGAGGATGCTGGTGGTGGAGGTGGCGAACGGCCGCTCCCTGGTGTGGGGAGCCGAGGCG
GTGCAGGCCCTCCGGGAGCGCCTGGGTGTGGGGGGCCGCACGGTAGGCGCCCTGCCCCGCGGGCCCCGCCAGAAC
TCGCGCCTGGGCCTCCCGCTGCTGCTGATGCCCGAAGAGGCGCGGCTCTTGGCCGAGATCGGCGCCGTGACTCTG
GTCAGCGCCCCGCGTCCAGACTCTCGGCACCACAGCCTGGCCCTGACATCCTTCAAGCGCCAGCAAGAGGAGAGC
TTCCAGGAGCAGAGCGCCTTGGCAGCTGAGGCCCGGGAGACCCGTCGTCAGGAGCTCCTGGAGAAGATTACGGAG
GGCCAGGCTGCTAAGAAGCAGAAACTAGAACAGGCTTCAGGGGCCAGCTCAAGCCAGGAGGCCGGCTCGAGCCAG
GCTGCCAAAGAGGATGAGACCAGTGATGGCCAGGCTTCGGGAGAGCAGGAGGAAGCTGGCCCCTCGTCTTCCCAA
GCAGGACCCTCAAATGGGGTAGCCCCCTTGCCCAGATCTGCTCTCCTTGTCCAGCTGGCCACTGCCAGGCCTCGA
CCGGTCAAGGCCAGGCCCCTGGACTGGCGTGTCCAGTCTAAAGACTGGCCCCACGCCGGCCGCCCTGCCCACGAG
CTGCGCTACAGTATCTACAGAGACCTGTGGGAGCGAGGCTTCTTCCTCAGTGCGGCTGGCAAGTTCGGAGGTGAC
TTCCTGGTCTATCCTGGTGACCCCCTCCGCTTCCACGCCCATTATATCGCTCAGTGCTGGGCCCCCGAGGACACC
ATCCCACTCCAAGACCTGGTTGCTGCTGGGCGCCTTGGAACCAGCGTCAGAAAGACCCTGCTCCTCTGTTCTCCG
CAGCCTGATGGTAAGGTGGTCTACACCTCCCTGCAATGGGCCAGCCTGCAG**TGA**ACTCCAGAGACCTAGGGGATG
TGGCTGTGTCGGCAGCAAGAGCCTTTCTGGATGTTCCCCAGCTCTTCTCTGGGAGTCTAGAACATCCTCCTACCT
TTCTCCGCGGTTAGTTTTTGATTCCAGGTTTTCGAACACTACATCTTTTTTATGTTCTTCCTTGTTTCAAAGCAC
TTATTGGCTGTGTTTTTGTAGTTACCTATTTTCACACTGTGAGCTTCCCGAGAATGGGGCCTGGGTTTGATTCAT
CTGTTTTCTACAGGGTTTAAGTCTCAGGAGGTCTCAATAAACTTGGTATATAAATGTT

FIGURE 3920

AGGCGCAGACGGGGAAGCGGAGCCAAC**ATG**CCAGTGGCCCGGAGCTGGGTTTGTCGCAAAACTTATGTGACCCCG
CGGAGACCCTTCGAGAAATCTCGTCTCGACCAAGAGCTGAAGCTGATCGGCGAGTATGGGCTCCGGAACAAACGT
GAGGTCTGGAGGGTCAAATTTACCCTGGCCAAGATCCGCAAGGCCGCCCGGGAACTGCTGACGCTTGATGAGAAG
GACCCACGGCGTCTGTTCGAAGGCAACGCCCTGCTGCGGCGGCTGGTCCGCATTGGGGTGCTGGATGAGGGCAAG
ATGAAGCTGGATTACATCCTGGGCCTGAAGATAGAGGATTTCTTAGAGAGACGCCTGCAGACCCAGGTCTTCAAG
CTGGGCTTGGCCAAGTCCATCCACCACGCTCGCGTGCTGATCCGCCAGCGCCATATCAGGGTCCGCAAGCAGGTG
GTGAACATCCCGTCCTTCATTGGCCGCGTGAAGAGGAAGAATGCCAAGAAGGGCCAGGGTGGGGCTGGGGCTGGA
GACGACGAGGAGGAGGAT**TAA**GTCCACCTGTCCCTCCTGGGCTGCTGGATTGTCTCG

FIGURE 3921

CC**ATG**ACGCCCGCCCTCACAGCCCTGCTCTGCCTTGGGCTGAGTCTGGGCCCCAGGACCCGCGTGCAGGCAGGGC
CCTTCCCCAAACCCACCCTCTGGGCTGAGCCAGGCTCTGTGATCAGCTGGGGGAGCCCCGTGACCATCTGGTGTC
AGGGGAGCCTGGAGGCCCAGGAGTACCAACTGGATAAAGAGGGAAGCCCAGAGCCCTTGGACAGAAATAACCCAC
TGGAACCCAAGAACAAGGCCAGATTCTCCATCCCATCCATGACACAGCACCATGCAGGGAGATACCGCTGCCACT
ATTACAGCTCTGCAGGCTGGTCAGAGCCCAGCGACCCCCTGGAGCTGGTGATGACAGGAGCCTACAGCAAACCCA
CCCTCTCAGCCCTGCCCAGCCCTGTGGTGGCCTCAGGGGGGAATATGACCCTCCGATGTGGCTCACAGAAGGGAT
ATCACCATTTTGTTCTGATGAAGGAAGGAGAACACCAGCTCCCCCGGACCCTGGACTCACAGCAGCTCCACAGTC
GGGGGTTCCAGGCCCTGTTCCCTGTGGGCCCCGTGACCCCCAGCCACAGGTGGAGGTTCACATGCTATTACTATT
ATACAAACACCCCCTGGGTGTGGTCCCACCCCAGTGACCCCCTGGAGATTCTGCCCTCAGGCGTGTCTAGGAAGC
CCTCCCTCCTGACCCTGCAGGGCCCTGTCCTGGCCCCTGGGCAGAGCCTGACCCTCCAGTGTGGCTCTGATGTCG
GCTACAACAGATTTGTTCTGTATAAGGAGGGGGAACGTGACTTCCTCCAGCGCCCTGGCCAGCAGCCCCAGGCTG
GGCTCTCCCAGGCCAACTTCACCCTGGGCCCTGTGAGCCCCTCCAATGGGGGCCAGTACAGGTGCTACGGTGCAC
ACAACCTCTCCTCCGAGTGGTCGGCCCCCAGCGACCCCCTGAACATCCTGATGGCAGGACAGATCTATGACACCG
TCTCCCTGTCAGCACAGCCGGGCCCCACAGTGGCCTCAGGAGAGAACGTGACCCTGCTGTGTCAGTCATGGTGGC
AGTTTGACACTTTCCTTCTGACCAAAGAAGGGGCAGCCCATCCCCCACTGCGTCTGAGATCAATGTACGGAGCTC
ATAAGTACCAGGCTGAATTCCCCATGAGTCCTGTGACCTCAGCCCACGCGGGGACCTACAGGTGCTACGGCTCAC
GCAGCTCCAACCCCCACCTGCTGTCTCACCCCAGTGAGCCCCTGGAGCTCGTGGTCTCAGGACACTCTGGAGGCT
CCAGCCTCCCACCCACAGGGCCGCCCTCCACACCTGGAGGTCCTGAGGACCAGCCCCTTAACCCCCCAGGGTCAG
GCCCTCAGAATGGTCTGGGAAGATACCTGGAGGTTTTGATTGGGGTCTCGGTGGCCTTCGTCCTGCTGCTCTTCC
TCCTCCTCTTCCTCCTCCTCCGACGTCAGCGTCACAGCAAACACAGGACATCTGACCAGAGAAAGACTGATTTCC
AGCGTCCTGCAGGGGCTGCGGAGACAGAGCCCAAGGACAGGGGCCTGCTGAGGAGGTCCAGCCCAGCTGCTGACG
TCCAGGAAGAAAACCTCTATGCTGCCGTGAAGGACACACAGTCTGAGGACAGGGTGGAGCTGGACAGTCAGAGCC
CACACGATGAAGACCCCCAGGCAGTGACGTATGCCCCGGTGAAACACTCCAGTCCTAGGAGAGAAATGGCCTCTC
CTCCCTCCTCACTGTCTGGGGAATTCCTGGACACAAAGGACAGACAGGTGGAAGAGGACAGGCAGATGGACACTG
AGGCTGCTGCATCTGAAGCCTCCCAGGATGTGACCTACGCCCAGCTGCACAGCTTGACCCTTAGACGGAAGGCAA
CTGAGCCTCCTCCATCCCAGGAAGGGGAACCTCCAGCTGAGCCCAGCATCTACGCCACTCTGGCCATCCAC**TAG**C
CCGGGGGGTACGCAGACCCCACACTCAGCAGAAGGAGACTCAGGACTGCTGAAGGCACGGGAGCTGCCCCCAGTG
GACACCAGTGAACCCCAGTCAGCCTGGACCCCTAACACAGACCATGAGGAGACGCTGGGAACTTGTGGGACTCAC
CTGACTCAAAGATG

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FIGURE 3922

TGCGTCTCTGCTGATCTGAGTCCACCCTGCAGCATGGACCTGCATCTTCCCTGAAGGATCTCCAGGGCTGGAGGG
ACGACTGCCAGCACCGAGGGCTCATCCATCCGCAGAGCAGGGCAGTGGGAGGAGACGCC**ATG**ACCCCCATCGTCA
CAGTCCTGATCTGTCTCGGGCTGAGTCTGGGCCCCAGGACCCACGTGCAGACAGGGACCATTCCCAAGCCCACCC
TGTGGGCTGAGCCAGACTCTGTGATCACCCAGGGGAGTCCCGTCACCCTCAGTTGTCAGGGGAGCCTTGAAGCCC
AGGAGTACCGTCTATATAGGGAGAAAAAATCAGCATCTTGGATTACACGGATACGACCAGAGCTTGTGAAGAACG
GCCAGTTCCACATCCCATCCATCACCTGGGAACACACAGGGCGATATGGCTGTCAGTATTACAGCCGCGCTCGGT
GGTCTGAGCTCAGTGACCCCCTGGTGCTGGTGATGACAGGAGCCTACCCAAAACCCACCCTCTCAGCCCAGCCCA
GCCCTGTGGTGACCTCAGGAGGAAGGGTGACCCTCCAGTGTGAGTCACAGGTGGCATTTGGCGGCTTCATTCTGT
GTAAGGAAGGAGAAGAAGAACACCCACAATGCCTGAACTCCCAGCCCCATGCCCGTGGGTCGTCCCGCGCCATCT
TCTCCGTGGGCCCCGTGAGCCCGAATCGCAGGTGGTCGCACAGGTGCTATGGTTATGACTTGAACTCTCCCTATG
TGTGGTCTTCACCCAGTGATCTCCTGGAGCTCCTGGTCCCAGGTGTTTCTAAGAAGCCATCACTCTCAGTGCAGC
CGGGTCCTGTCGTGGCCCCTGGGGAAAGCCTGACCCTCCAGTGTGTCTCTGATGTCGGCTATGACAGATTTGTTC
TGTACAAGGAGGGGGAACGTGACCTTCGCCAGCTCCCTGGCCGGCAGCCCCAGGCTGGGCTCTCCCAGGCCAACT
TCACCCTGGGCCCTGTGAGCCGCTCCTACGGGGGCCAGTACAGATGCTACGGTGCACACAACCTCTCCTCTGAGT
GCTCGGCCCCCAGCGACCCCCTGGACATCCTGATCACAGGACAGATCCGTGGCACACCCTTCATCTCAGTGCAGC
CAGGCCCCACAGTGGCCTCAGGAGAGAACGTGACCCTGCTGTGTCAGTCATGGCGGCAGTTCCACACTTTCCTTC
TGACCAAGGCGGGAGCAGCTGATGCCCCACTCCGTCTAAGATCAATACACGAATATCCTAAGTACCAGGCTGAAT
TCCCCATGAGTCCTGTGACCTCAGCCCACGCGGGGACCTACAGGTGCTACGGCTCACTCAACTCCGACCCCTACC
TGCTGTCTCACCCCAGTGAGCCCCTGGAGCTCGTGGTCTCAGGACCCTCCATGGGTTCCAGCCCCCCACCCACCG
GTCCCATCTCCACACCTGCAGGCCCTGAGGACCAGCCCCTCACCCCCACTGGGTCGGATCCCCAAAGTGGTCTGG
GAAGGCACCTGGGGGTTGTGATCGGCATCTTGGTGGCCGTCGTCCTACTGCTCCTCCTCCTCCTCCTCCTCTTCC
TCATCCTCCGACATCGACGTCAGGGCAAACACTGGACATCGAGTCCAGCCCAGCTGCCGACGCCCAGGAAGAAAA
CCTCTATGCTGCCG**TGA**AGGACACACAGCCTGAAGATGGGGTGGAGATGGACACTCGGGCTGCTGCATCTGAAGC
CCCCCAGGATGTGACCTACGCCCAGCTGCACAGCTTGACCCTCAGACGGAAGGCAACTGAGCCTCCTCCATCCCA
GGAAAGGGAACCTCCAGCTGAGCCCAGCATCTACGCCACCCTGGCCATCCACTAGCCCGGAGGGTACGCAGACTC
CACACTCAGTAGAAGGAGACTCAGGACTGCTGAAGGCACGGGAGCTGCCCCCAGTGGACACCAATGAACCCCAGT
CAGCCTGGACCCCTAACAAAGACCATGAGGAGATGCTGGGAACTTTGGGACTCACTTGATTCTGCAGTCGAAAT

FIGURE 3923

CCAGAGCCAGCCGGGTGGCACAGCGGTGTCGTGGCCGTGTTGCTGATCGCCTGGGTGGTTGTTGGCGTGTCCCTG
CAGCGAAGGATCCTGGCAGTGAAAAAGCAGTCTGGCTCCCGAGGTCCACCCCTTATACCCCAAGGTCCAGATGGC
GGCCAACGTGGGTGATCAACGTAGCACAGATTGGTCTTCTCAGTACAGCATGGTGGCTGGGGCAGGCCGAGAGAA
TGGCATGGAGACGCCGATGCACGAGAACCCGGAGTGGGAGAAGGCCCGTCAGGCCCTGGCCAGCATCAGCAAGTC
AGGAGCTGCCGGCGGCTCTGCCAAGTCCAGCAGCAATGGGCCTGTGGCCAGTGCACAGTACGTGTCCCAGGCAGA
AGCCTCAGCTTTGCAGCAGCAGCAGTACTACCAGTGGTACCAGCAGTACAACTATGCCTACCCCTACAGCTACTA
CTATCCCATGCCCCCAGTCCCCGGCATGGATGAGAGCATGTCCTACCAGGCTCCCCCTCAGCAGCTGCCGTCGGC
TCAGCCCCCTCAGCCCTCAAATCCCCCACATGGGGCTCACACGCTGAACAGTGGCCCTCAGCCTGGGACAGCTCC
AGCCACACAGCACAGCCAGGCGGGGCCCGCCACGGGCCAGGCCTATGGGCCACACACCTACACCGAACCTGCCAA
GCCCAAGAAGGGCCAACAGCTGTGGAACCGCATGAACCGCCCCTGGGACTGGAGGTCTCAAGTTCAACATCCAGA
AGCGACCCTTTGCTGTTACCACCCAGAGCTTTGGCTCCAACGCAGAGGGCCAGCACAGTGGTTTTGGCCCCCAGC
CCAACCCTGAGAAAGTTCAGAACCACAGCGGGTCCTCTGCCCGGGGGAACCTGTCTGGGAAGCCCGATGACTGGC
CCCAGGAC**ATG**AAAGAGTATGTGGAGCGCTGCTTCACCGCCTGTGAGTCGGAGGAGGACAAGGACCGCACGGAAA
AGCTGCTCAAGGAGGTGCTGCAGGCGCGGCTGCAGGACGGCTCGGCCTATACCATTGACTGGAGCCGGGAGCCCT
TGCCGGGGCTGACCCGGGAGCCTGTGGCTGAGAGCCCTAAGAAGAAGCGGTGGGAGGCCGCTAGCAGCCTTCACC
CTCCTAGAGGGGCAGGCTCGGCGACAAGGGGCGGGGGTGCCCCGTCCCAGCGAGGGACGCCCGGGGCTGGGGGTG
CCGGTCGAGCCCGGGGCAACAGCTTCACCAAGTTTGGCAACCGCAACGTCTTCATGAAGGACAACAGCTCTTCTT
CCAGCACAGACTCCCGCTCCCGCTCCTCCTCCAGGTCCCCGACGCGCCACTTCCGCAGAAGTGACTCCCACTCAG
ACTCCGACAGCTCCTACTCAGGGAATGAGTGTCACCCTGTGGGCCGCAGGAACCCGCCCCCTAAGGGCCGGGGCG
GTCGAGGGGCCCATATGGATCGGGGCCGAGGCAGGGCGCAGCGTGGGAAGAGGCACGATCTGGCGCCCACCAAGC
GCAGTCGAAAGAAGATGGCGGCGCTGGAGTGTGAGGACCCGGAGCGAGAGCTGAAGAAGCAGAAGCGGGCAGCCC
GCTTCCAGCACGGACACTCCCGCCGCCTGCGCCTCGAGCCCCTGGTGCTGCAGATGAGCAGCCTGGAGAGCAGTG
GGGCTGACCCTGACTGGCAGGAGCTGCAGATCGTGGGCACCTGCCCTGACATCACCAAGCACTACCTGCGCCTCA
CCTGTGCCCCCGACCCGTCCACCGTGCGCCCTGTGGCAGTTTTGAAAAAGTCGCTGTGCATGGTCAAGTGCCACT
GGAAAGAGAAGCAGGACTACGCGTTTGCCTGCGAGCAGATGAAGTCGATCCGGCAGGATCTGACGGTGCAGGGCA
TCCGCACCGAGTTCACGGTGGAGGTGTACGAGACCCATGCCCGGATCGCCTTGGAGAAGGGTGACCATGAAGAGT
TTAACCAGTGCCAGACGCAGCTCAAGTCGCTGTACGCCGAGAACTTGCCTGGCAATGTGGGCGAGTTTACTGCCT
ACCGAATCCTCTACTACATCTTCACCAAGAACTCGGGAGACATCACCACGGAGCTGGCATACCTCACACGAGAAC
TGAAGGCAGATCCTTGCGTGGCCCACGCCTTGGCATTAAGGACAGCCTGGGCCCTGGGCAACTACCACCGCTTTT
TCCGGCTCTACTGCCATGCACCCTGCATGTCTGGCTACCTCGTGGACAAGTTTGCAGATCGGGAGCGCAAGGTCG
CCCTCAAGGCCATGATCAAAACGTATGTGGTGCCAAGCTCCCTTCTGCCTTTGCTCTTCCCATCCTTCCGCCTCG
TCTCAAGTTGTATAAAGTTGTCTCCGTGTCCCCTCCTCCCTCTGCCCCCAGTGTTTCTTCTGATTTTTTTTTCCC
CTTTCCCTCCCTCCCTCTCCGCATTCTTCCCTTGGTTCAGCACAGGTAAAACGGTTCCCCTCCCTCCCTCTTCTG
CCATG**TAA**CTGGAGGATGTGCTATGAGTTTGCAAACAGCTGGACTGTCAGGCTGCTTTTTTTCCAGATGTTCCTC
CTCTGCCTCCCCTTCCCCTCCTCTCCCCTCCTTTTCCTTCCTTCCTTCCTTTCCTTGGAGCACTGAGCACCATTT
GGAAGCTTGAGAGAAACCAAAATTAAAGAGAGAAAGAGAGAG

FIGURE 3924

CTGGCCAGGTGGCCCTCCATGTGAGGTTGTGGTCACAGCATGGGGGCCTTGAGAGCCTGGCCAGGTGGCCCTCCA
CGTGAGGTCATGGTCACAGCATGGAGGCCTTGAGAGCCTGGCCAGGTGGCCCTCCGTGTGAGGTCATGGTCACAG
CATAGTTTGGAGCTAGGGAGGGACTGTCAGCCTGGAGGTTTGGAGACTCATTCTGGAATCTAGTGTGGGTCAAGC
CAACTTCAGGGAGAGGCTGAGCCAGGGTAGGAGTCACAGGAGCAGACGAGGATGTGGGGTGCCGTGCACAGAGCT
CCATGACCAGCTTGGGAAGTTAGAAGGAAGGGGAGGCAGGAGGCTGCTTAGTCTGCTGCCATGATGGGCCCCATG
AATGGTGGCTCTCAAGCTTCTGTGCTACACAGGGGTGTGTGGTTGGGCGAGTGTCCTTGTTAATTGATACCTAAT
TGGCCTTGGTTGGGAACATAGCCATGAGTGCCCCTCGTGGGTGGGGCGCCAGTCTGTCATTGACCTCATTGTGTC
AGCACCTTCCCCTCAAGGAGGCTGACCCTGCCCTGCCAGCTGAGACTGGGAGACGGAGTGGGCTCTGATCCCAGG
GCTTCCAGGAAAGCTCTGGCTTTGGAGCAGAAGCGGGTTCTAGGACTTAGTGCCCCTCACTCGGTGCCTGGGTTC
CTGTGTGTGTGGAAAGGGTAGGGCTGCACCCTGTGGAAGAGGGTTCAGGGAGCTCTGAGGACCTGGCTCGTGCTA
GATGCTCAGTCAGTAGTGTGTTTTAGCAGCAGCCGGAAGTGACTGCTTTCAGTGTGTAGTGGTGAGTGCTAGCTG
GCACCCCTGCGCCTGGCTTCCCAGACACTGTAACGCAGGGCAGGGGAGGCAGCGAGGGCTGGGTCCCCACGGTGG
CCCTGGCAGCCCCGCCATCCCCATCCCCTGCCACGTGCTGCTCCCTCCATCTGGTCCCTGCCCCTCAGCCAGCGG
AGGAGCCCGCTGGGCCCTTCCCTGCCCGTCCCCGCTCCTCCCTGGCCCCCGCACAGGTAAGTGAGGGTGAGGGGG
GCACAGGGGACTGGGGTCACTAACCCCCCCCCGGGCCCCCCCCGAGCCCCTGAGGTGGGGAGGCTGGGAGGCGGG
TGGGGAGCCAGCAGGCACTGTGCTGAGGAAATCCTGTGGGCACCCGAATGGGGGGGCCTCCCCGCTCGTGGGGCC
CTCCCCTGCCCTCCCGCCCGCCCGCCTCATCACCTTCTCCTCTTGTCTCCATAGCTTCCGCCCTGCGCTGCCAGT
CTCCTACCTGCAGGCCGAGCTGGCCTTCGAGGGCGAGGCCGCCTGCCGGGCCTTCCTAGAGCCCCTGGGCCTGGC
CTACACGGGCCCGGACAACTCCAGCATCGACTGCCGCCTCAGCCTGGCGCAGCTGTCAGCCTTCTGAGCACCCAG
CGAGGAGGGGCGGGGGCAGGGGCTGCAGCCCCCAGCGCTGCCTTTGCGGATTCTGTTTTTGAGCCGTGGACTTGG
GTTGTAAATTTATTTGTGGGGAGTGCGCTCCAGGAAGAGCCACCATCCCTGCCCCCGTTTTCCCACCGGGGAGTC
TGTACAGAGATTTTTCTACGTTTTTATTTTTTGCCTCAGAGGGATGGGATTGGGGAGGAGGGG**ATG**GGCAGCGGA
GGGTTGGGGGCATGGTCTGCAGGCTCATCTGTGTCCGCCTTTCACTCCACTAATGCTGTCTCAGTGTTTTCTCTC
TCTCTCTTTCGAGCTTGCACTCCGGTACCCGACCCGGCGCCCTGGCCCATCCCATGCCGGGGGGCCAGTGGAAAG
AAGACAGGCCGTCCAGCCCGTGCCCGCCTGCGGCGGGGGCACCCAGCAAGCCCGCCCACCGCCCGCTGCCTCACC
TGCTTCGCCACAGACTCTTGTTCCCAGCCCCTTGGGGCCTCCGTGTTTGGGGTGGGGGAGCTGCTTAGAGACTGT
GCCCGTCCTCGGCCCCCCACCCTGAAGTGCCAGCACCACCAGCACCAGATCCTCCGCCGCCACACCGCACTGAGG
ACACGCCGGCCGGGCCGCCTCGTCTCAAGTTGTATAAAGTTGTCTCCGTGTCCCCTCCTCCCTCTGCCCCCAGTG
TTTCTTCTGATTTTTTTTTCCCCTTTCCCTCCCTCCCTCTCCGCATTCTTCCCTTGGTTCAGCACAGGTAAAACG
GTTCCCCTCCCTCCCTGCCTTCATGGATCACCAGCTCACGTCATGTTGCCTTCTCTTTTCTTTGTGTGTGTGTTT
ATT**TAA**GTTATTTTTCTTCCTCCTCTCCCTTTTCTTTTTGGCCCTCCCTCCCTCCCTCTTCTGCCATGTAACTGG
AGGATGTGCTATGAGTTTGCAAACAGCTGGACTGTCAGGCTGCTTTTTTTCCAGATGTTCCTCCTCTGCCTCCCC
TTCCCCTCCTCTCCCCTCCTTTTCCTTCCTTCCTTCCTTTCCTTGGAGCACTGAGCACCATTTGGAAGCTTGAGA
GAAACCAAAATTAAAGAGAGAAAGAGAGAGCGTGCACGCTCCTGCTTTGTC

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FIGURE 3925

GCCTTTACGCAGCTTGCTTTCCTGGCGCTGGGGGAGGGCGCAGCCGGGAAGTCCCAGAGCAGCGGTGTCAGGCTC
TCCACCAAGGAGGGACTGGGCCAGAGTCCTCGCGAGGGCACGCGGCGTGGTCCCCAGAGCTAGGCCGGAGCGCGG
GCCGCTGACGCCACTGTCGGGTGAGGCTCGGTGCATCCATGGGGAGCCGCCCTCCGTGCGGGGCGACCTCGTCTG
CGCGGCGGGCGTGCCAGTTCCCCGCACCC**ATG**GCAGCGGCCAGAGAGCCGGAGTTGCCGCAGGAAGCCCCCGCCA
CGGAACCCGCGCCCCCGCCGGCCTGCCGCTTCTTCCTGGAAGGCCGCTGCCGCTTCGGCGCCCGCTGCCGCCAGC
CCCACCCTGGGGCGCCGGCGCCGCCTGGCCGCGAGGCGCAGCCGGAGGCCGGGGCCAAGAAGCCGCCGCTGCGCA
CAGCCGCGGACGTCATCCAGCGCATCCGCTGGGACCCGCGCCTCGACCCCGCCGACTTCTCGGTGGGCTACGTCG
ACCGCTTTCTGGGTGTGCGCGAGGAGCCCTTCAGCGCCTTTTGCTGGGACCAGCCGCTGGCGGCGCTCGGGCCGG
GCGTGCTGGCAGTGCCCCAGCACCGCGTGCGCTTCTTCCGCTTCCATGGCCGCCTTGTGTGGGACCGCGCCTCGC
GCACCGACCTCGTCTTTGGCTCTGGCTCGGCGGCGGGACGCGGGCCCACCATCCTGGACGCACCGAACACCGAGG
GCGCCCACGGGGCAGAGGGTGCCGAGTGGACACTGGCGGGGACAGGTCAGGAGGCCCAGGCTGCCCCCAAGCGAG
GGAGCACAAGGCCGCTCTGCACAGGGCACCAGGAACCAGGCGTGGAGGAACCCGGAGAGCTGGAGGCGGCCCAGG
AGAGGGCGCTGGGCACAGCTGCTGATTTGGGAACACTGGCCCCAAGAGGACGCCTCGCCGGAGTGACTGAGGAGG
CACTGAAGCCAACAGCAGCCACCAGGACCACATTGCTGGGGGGCAAGGAAGCACAGGCCCTGGGAGTCCCGGGGG
GCTCCGCTGAGACGACAGAAGCCGAGTGGGGTCCTGCGGCCTGGCCCGAGGACAAAAGGGCCCGCCTTAGTGTTG
CAGCCCCTTGCCAACCGCGCCCCACACATTTTGTGGCCCTCATGGTGACCGAGCCTGGGCTACAAGCAGAAGTGA
CCAAGGCCCAGGAATACCTGGTCCACGTGGCCCCACACTGCGCCAACTTCCTAGTGCCCTCTCAGAACCTACACC
TGACCCTGGCCCTGCTGCGACTGGCAGGCGCTGGGGAGGAGGCCGCTGCCATTGGAGCTCTGAGACGGGCCCTCT
TGGCCCCGGGGCTAAATGCACCCCCTCGGCTGAGCTTTAGAAAGCTGGTCCTCCTGGGCCCGCATGTGCTGTGTG
CCCCACCCTCTCCCACACTGGAAAGCATGGCACAAGTGCTGAGCCAGAGGCTGGAAGCCGAGGGGCTGAGTACAC
TACAGTCTCCAGGGCAGCTGCACCCCCACCTCACCGTGGCCAAGGTGCCCCATGGTTCCCAGGTCCACCTCCCCA
AGCTGGAGTTCACCCTCAGCCAGGAAGTGGGGTGCCAGCCCCTGCAGACACTCTGGCTGTGCCGTATAGGGAGGA
CAGGGGGGCCTTTCCAGCCCCTGGCTGAGATCCGCCTGGAG**TGA**CACCCCCAGACCTCTGGAGGAGACAATGGAT
GCAAACAGCCCACACAGGAAAGACAAAGCAGGAGCGTGCACGCTCTCTCTTTCTCTCTTTAATTTTGGTTTCTCT
CAAGCTTCCAAATGGTGCTCAGTGCTCCAAGGAAAGGAAGGAAGGAAGGAAAAGGAGGGGAGAGGAGGGGAAGGG
GAGGCAGAGGAGGAACATCTGGAAAAAAAGCAGCCTGACAGTCCAGCTGTTTGCAAACTCATAGCACATCCTCCA
GTTACATGGCAGAAGAGGGAGGGAGGGAGGGCC

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FIGURE 3926

GTTGATGGTGACAGCAGCAGTGACCGTAGCAGCCTAGAGGTGGCCGAATGCTTACTCTAATGGGCTGGCCCATCC
CTGAGTGTCTAGAGTTCCCAGCCCGCTTAAGGAAGGAAGGAAAACACAGGCAGCTCTAAGTGTACGACGAGGGAG
GTCTCATCGGCGGTGAGGAAGCCCAGGCGGGTCCCCTTCCCAGCTGAAAGGGGTTCGGAATTTCACTCTGTCGCC
AGGCTGGAATGCAGTAGGGCAATCTCGGCTCACTGCAACCTCCACCTCCCGAGTTCAAGTGATGCTCCTGCTTCG
GCCTCCTGAGTAGCTGGGACTACAGGGACTATGTCACCGGTGGGGCTTGCCCCAGCAAGGCCACCATCCCTGGGA
AGACGGTCATCGTGACGGGTGCCAACACAGGCATCGGGAAGCAGACCGCCTTGGAACTGGCCAGGAGAGGAGGCA
ACATCATCCTGGCCTGCCGAGAC**ATG**GAGAAGTGTGAGGCGGCAGCAAAGGACATCCGCGGGGAGACCCTCAATC
ACCATGTCAACGCCCGGCACCTGGACTTGGCTTCCCTCAAGTCTATCCGAGAGTTTGCAGCAAAGATCATTGAAG
AGGAGGAGCGAGTGGACATTCTAATCAACAACGCGGGTGTGATGCGGTGCCCCCACTGGACCACCGAGGACGGCT
TCGAGATGCAGTTTGGCGTTAACCACCTGGGTCACTTTCTCTTGACAAACTTGCTGCTGGACAAGCTGAAAGCCT
CAGCCCCTTCGCGGATCATCAACCTCTCGTCCCTGGCCCATGTTGCTGGGCACATAGACTTTGACGACTTGAACT
GGCAGACGAGGAAGTATAACACCAAAGCCGCCTACTGCCAGAGCAAGCTCGCCATCGTCCTCTTCACCAAGGAGC
TGAGCCGGCGGCTGCAAGGCTCTGGTGTGACTGTCAACGCCCTGCACCCCGGCGTGGCCAGGACAGAGCTGGGCA
GACACACGGGCATCCATGGCTCCACCTTCTCCAGCACCACACTCGGGCCCATCTTCTGGCTGCTGGTCAAGAGCC
CCGAGCTGGCCGCCCAGCCCAGCACATACCTGGCCGTGGCGGAGGAACTGGCGGATGTTTCCGGAAAGTACTTCG
ATGGACTCAAACAGAAGGCCCCGGCCCCCGAGGCTGAGGATGAGGAGGTGGCCCGGAGGCTTTGGGCTGAAAGTG
CCCGCCTGGTGGGCTTAGAGGCTCCCTCTGTGAGGGAGCAGCCCCTCCCCAGA**TAA**CCTCTGGAGCAGATTTGAA
AGCCAGGATGGCGCCTCCAGACCGAGGACAGCTGTCCGCCATGCCCGCAGCTTCCTGGCACTACCTGAGCCGGGA
GACCCAGGACTGGCGGCCGCCATGCCCGCAGTAGGTTCTAGGGGGCGGTGCTGGCCGCAGTGGACTGGCCTGCAG
GTGAGCACTGCCCTGGGCTCTGGCTGGTTCCGTCTGCTCTGCTGCCAGCAGGGGAGAGGGGCCATCTGATGCTTC
CCCTGGGAATCTAAACTGGGAATGGCCGAGGAGGAAGGGGCTCCGTGCACTTGCAGGCCACGTCAGGAGAGCCAG
CGGTGCCTGTCGGGGAGGGTTCCAAGGTGCTCCGTGAAGAGCATGGGCAAGTTGTCTGACACTTGGTGGATTCTT
GGGTCCCTGTGGGACCTTGTGCATGCATGGTCCTCTCTGAGCCTTGGTTTCTTCAGCAGTGAGATGCTCAGAATA
ACTGCTGTCTCCCATGATGGTGTGGTACAGCGAGCTGTTGTCTGGCTATGGCATGGCTGTGCCGGGGGTGTTTGC
TGAGGGCTTCCTGTGCCAGAGCCCAGCCAGAGAGCAGGTGCAGGTGTCATCCTGAGTTCAGGCTCTGCACGGCAT
GGAGTGGGAACCCCACCAGCTGCTGCTACAGGACCTGGGATTGCCTGGGACTCCCACCTTCCTATCAATTCTCAT
GGTAGTCCAAACTGCAGACTCTCAAACTTGCTCATTT

FIGURE 3927

GATCTCTTCCAA**ATG**TCCCCGCTCTCCCCAGGCTCTCCCCTCCCGCCACTTGCCAGGGCTGACCTCACCGCCATC
TTAACCGGGTGTCCACCTCTCTCTGCCTGCCTGGTGCTGGCCCCGCGTCCCCATCGCCGCGCCCGTCTGCTCCCC
TCAGAGGGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGACGTGCTGCAGAAGATCAAG
TACGCCTTCAGCCTGCTGGCCCGGCTGCGCGGCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTT
TTCGGGCCTCTGCAGATGATTGTGAACACGTCGGGGGGGCCGGAGTTCGCGAGCAGTGTGCGGCGGCCGCATCTG
ACATCGGATGCCGTGGCGCTGCTGCGGGACAACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGAC
TCGTGGACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACCCGAGTTCTTCAGCGGCTGG
GAGCCGCCGGTCACTGACCCGCAGAGCCGCGCCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGG
CGCCGGCAGGTGACCCAAGCGACACAGCAGGGCCGAGGCTGGGAAGTCCGGGGGCGCGGCCGGTCCGCCTGGCCC
CGCCTGACCCGACTGTCTTACTTCCTACAGCAAAGCGCCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAG
CCAGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGTGTAATTATGACTTCCAGGCCCGC
AACAGCAGTGAGCTGTCGGTCAAGCAGCGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTT
CGGGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCTACCCCGGACCCCGGCTGCACCAC
AGCCAAAGCCCTGCCCGCAGCCTGAACAGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCT
CTGGCTCGGCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCTCAACGGCTTGGACCCCAGCGAGAAGGA
GAAATTCTCCCAGATGCTCATCGTCAACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG
CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGGACGCCTCCGAGGTCCGCGCCTGGCT
GCAGGCCAAGGGCTT**TAG**CTCCGGGACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA
GAGGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACAGCCAGGTCACCGTGCAGCGCTCGCT
GCTGGAGGACAAAGAGAAAGTGTCAGAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT
GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGAGGCCCCGTGGGAGAACGGACTCCTC
AGACTCTCCCCAATAGCGGAAGTCGATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC
GGTGGACAGACTTAACGATCCTTGCTGCAGATCCTCCGGAGAGGATCTGGACTGGCTGGGAGTGGGGAGGGCGTG
GAGACAGTCTACGGAAAGCGCTAGCAGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC
AGCCTATAAACAGCCTCCGTGCTTAGC

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FIGURE 3928

GCGGGCGGGCGGTGCGATGTCCGGAGAGGATGGCCCGGCGGCTGGCCCGGGGGGCGGCGGCGGCGGCTGCCCGGG
AGCGGCGACGGGAGCAGCTGCGGCAGTGGGGGGCGCGGGCGGGCGCCGAGCCTGGCCCCGGAGAGCGCCGCGCCC
GCACCGTCCGCTTCGAGCGCGCCGCCGAGTTCCTGGCGGCCTGTGCGGGCGGCGACCTGGACGAGGCGCGTCTGA
TGCTGCGCGCCGCCGACCCTGGCCCCGGCGCCGAGCTCGACCTCCGCCGCGCCGCCGCCCGCCCGCGCCGTGCTG
GACTCCACCAACGCCGACGGTATCAGCGCCCTGCACCAGGCCTGCATTGATGAGAACCTGGAGGTGGTGCGCTTC
TTGGTGGAGCAGGGCGCCACTGTGAACCAGGCAGACAACGAGGGCTGGACGCCACTGCACGTGGCCGCCTCCTGT
GGCTACCTAGATATCGCCAGGTACCTCCTGAGCCACGGGGCCAACATCGCCGCCGTCAACAGTGACGGGGACCTG
CCCCTGGACCTGGCCGAGTCGGACGCC**ATG**GAGGGGCTGCTGAAGGCGGAGATCGCCCGCCGAGGTGTGGATGTG
GAGGCAGCCAAGCGGGCAGAAGAGGAATTGCTCCTTCATGACACGAGGTGCTGGCTGAATGGGGGCGCCATGCCA
GAGGCCCGGCACCCCCGCACAGGCGCCTCTGCCCTGCACGTGGCTGCTGCCAAGGGCTACATTGAGGTGATGAGG
TTGCTCCTTCAGGCTGGCTACGACCCAGAGCTCCGGGACGGGGACGGCTGGACTCCCCTGCACGCAGCGGCACAC
TGGGGCGTGGAGGATGCCTGCCGCCTGCTGGCCGAGCATGGCGGGGGCATGGACTCACTGACCCATGCGGGGCAG
CGTCCCTGTGACCTGGCCGATGAGGAAGTACTGAGCCTGTTGGAGGAACTGGCCCGGAAACAGGAGGACCTTCGG
AACCAAAAAGAAGCTTCCCAGAGCCGGGGCCAGGAGCCCCAAGCGCCCTCTAGCAGCAAACACAGAAGGAGCTCT
GTGTGTCGTCTGAGCAGTCGCGAGAAGATTTCCCTCCAGGACTTGTCCAAGGAGCGCCGGCCTGGTGGGGCTGGG
GGGCCCCCATCCAGGACGAGGATGAGGGGGAAGAAGGTCCCACCGAACCACCCCCTGCAGAACCCAGAACCCTCA
ATGGCGTCTCCTCCCCGCCGCACCCCAGCCCTAAGAGTCCCGTGCAGCTTGAAGAGGCCCCCTTCTCCAGGCGCT
TTGGCCTCC**TGA**AGACAGGGAGTTCTGGTGCCCTGGGTCCCCCTGAAAGGCGGACAGCGGAGGGAGCCCCTGGGG
CTGGGCTGCAGCGCTCGGCTTCCTCCTCCTGGCTGGAAGGGACCTCCACTCAGGCCAAGGAGCTCCGTCTTGCCA
GAATTACCCCGACCCCCTCCCCGAAGCTGCCGGAGCCCTCTGTCCTGTCTGAGGTCACCAAGCCTCCTCCTTGCT
TGGAGAACTCCTCGCCTCCCTCCAGGATTCCGGAGCCTGAATCCCCAGCGAAGCCAAACGTCCCCACAGCCTCCA
CGGCGCCCCCAGCGGACTCCCGGGACCGACGGAGGTCCTACCAGATGCCTGTGCGGGATGAGGAGTCGGAATCCC
AGAGAAAAGCTCGCTCCCGTCTCATGCGCCAGTCTCGGAGGTCCACACAGGGTGTGACTCTTACAGACCTGAAGG
AGGCAGAGAAGGCTGCAGGGAAGGCCCCAGAGTCAGAGAAGCCGGCGCAGAGCCTGGACCCTTCCCGAAGGCCCC
GCGTCCCTGGAGTGGAGAACTCTGACAGCCCTGCCCAGAGAGCAGAGGCGCCCGACGGGCAGGGTCCGGGACCGC
AGGCGGCCAGGGAGCACCGCAAGGTCGTGAAAGGAGTGGAGGGGGCCTGCGGAGGGGGAGGAGGCGGAGCCGCTG
ACCGCAGCCAGGAGTCCAGCACCCTGGAGGGCGGCCCCTCGGCCGCAGGCAGCGGTGGCAGCGGGACCTCAACCC
AGAACCTGAGCCAGAATCGGAAGAGCCAGACGGAGGCTTTAGGACGCTGTATGCAGAGCTGCGCAGGGAGAACGA
GCGGCTTCGCGAGGCCCTGACCGAGACCACGCTGCGGCTGGCGCAGCTCAAGGTGGAGCTGGAGCGGGCCACGCA
GAGGCAAGAACGCTTCGCTGAGAGGCCAGCCCTCCTGGAACTGGAGAGATTCGAGCGCAGGGCCCTGGAACGCAA
GGCCGCAGAGCTGGAGGAGGAGCTGAAGGCCCTGTCTGACCTCCGCGCTGACAACCAGCGCCTCAAGGATGAGAA
TGCAGCGTTGATCCGCGTCATCAGCAAACTCTCCAAGTGACCCGGAGGGACTTTCCCGCACCCGTATTTATACAG
CTGCTTCTGCCACACGCACCCCTTCCCCCGTGTGAACACGAGTGACAGGGCTCCGGGGGAAGTCTCAGAGAAGCC
ATAGCCCCCCTGGGACCTCCGGACTGGGAGGGGAGCAGAGTCCCCAGGAGCCGAGGGGGCCACCCGAGGCCAGGA
TGGAGGTGGGAGGCCGAGCCAAGCAGGGGGACGTTGCCAGAGGGGACCAGGGCCAGAGACGGGACCAGGAAGGAA
CTGAGGACCAAGAAGTGCAAGGATCAGTAGCCAGGACCAGAGTGGCCGCCTGGAGGTCCCCATCTCACGTGTGAT
GCCACCCCGTCACCCCTCCCCTCCTGAGCAGGGATCCAAGAATGTGCCAAGAGTCCCGCCAGCCTCAGCCAGGTG
GGCCTGTATATAGGGTCCATGTGCAATAGGGAGGGACGTCTTCTATTTTTTGCTGCCCCCTCCCCGCCCACTGTC
TGGGGCAGGGGGAGAAGGTATTTTCGAGATAAAGCACAGGCACCACAAATAAAAGTCGTGAAGTTGCCACTC

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FIGURE 3929

AAGATTCACAGCATCTCAGACACAGCCTAGGCCGCACCAGG**ATG**TCGGACACCGAGGAGCAGGAATATGAGGAGG
AGCAGCCGGAAGAGGAGGCTGCGGAGGAGGAGGAGGAAGAAGAGGAACGCCCCAAACCAAGCCGCCCCGTGGTGC
CTCCTTTGATCCCGCCAAAGATCCCAGAAGGGGAGCGCGTTGACTTCGATGACATCCACCGCAAGCGCATGGAGA
AAGACCTGCTGGAGCTGCAGACACTCATCGATGTACATTTCGAGCAGCGGAAGAAGGAGGAAGAGGAGCTGGTTG
CCTTGAAGGAGCGCATTGAGCGGCGCCGGTCAGAGAGAGCCGAGCAACAGCGCTTCAGAACTGAGAAGGAACGCG
AACGTCAGGCTAAGCTGGCGGAGGAGAAGATGAGGAAGGAAGAGGAAGAGGCCAAGAAGCGGGCAGAGGATGATG
CCAAGAAAAAGAAGGTGCTGTCCAACATGGGGGCCCATTTTGGCGGCTACCTGGTCAAGGCAGAACAGAAGCGTG
GTAAGCGGCAGACGGGGCGGGAGATGAAGGTGCGCATCCTCTCCGAGCGTAAGAAGCCTCTGGACATTGACTACA
TGGGGGAGGAACAGCTCCGGGAGAAAGCCCAGGAGCTGTCGGACTGGATCCACCAGCTGGAGTCTGAGAAGTTCG
ACCTGATGGCGAAGCTGAAACAGCAGAAATATGAGATCAACGTGCTGTACAACCGCATCAGCCACGCCCAGAAGT
TCCGTAAGGGGGCAGGGAAGGGCCGCGTTGGAGGCCGCTGGAAG**TGA**GGATGCCGCCCCGGACAGTGGCACCTGG
GAAGCCTGGGAGTGTTTGTCCCATCGGTAGCTTGAAATAAACGCTCCCCTCAGACA

FIGURE 3930

CTGAAGGTCACCCGGGCGGCCCCCTCACTGACCCTCCAAACGCCCCTGTCCTCGCCCTGCCTCCTGCCATTCCCG
GCCTGAGTCTCAGC**ATG**GCGGATGGGAGCAGCGATGCGGCTAGGGAACCTCGCCCTGCACCAGCCCCAATCAGAC
GCCGCTCCTCCAACTACCGCGCTTATGCCACGGAGCCGCACGCCAAGAAAAAATCTAAGATCTCCGCCTCGAGAA
AATTGCAGCTGAAGACTCTGCTGCTGCAGATTGCAAAGCAAGAGCTGGAGCGAGAGGCGGAGGAGCGGCGCGGAG
AGAAGGGGCGCGCTCTGAGCACCCGCTGCCAGCCGCTGGAGTTGGCCGGGCTGGGCTTCGCGGAGCTGCAGGACT
TGTGCCGACAGCTCCACGCCCGTGTGGACAAGGTGGATGAAGAGAGATACGACATAGAGGCAAAAGTCACCAAGA
ACATCACGGAGATTGCAGATCTGACTCAGAAGATCTTTGACCTTCGAGGCAAGTTTAAGCGGCCCACCCTGCGGA
GAGTGAGGATCTCTGCAGATGCCATGATGCAGGCGCTGCTGGGGGCCCGGGCTAAGGAGTCCCTGGACCTGCGGG
CCCACCTCAAGCAGGTGAAGAAGGAGGACACCGAGAAGGAAAACCGGGAGGTGGGAGACTGGCGCAAGAACATCG
ATGCACTGAGTGGAATGGAGGGCCGCAAGAAAAAGTTTGAGAGC**TGA**GCCTTCCTGCCTACTGCCCCTGCCCTGA
GGAGGGCCCTGAGGAATAAAGCTTCTCTCTGAGCTG

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FIGURE 3931

CCCAGGCACCGGTGGGCCCCGGAGCGAGCCTGCCCCGCCGGGACTCCGCGTCTGTGCGTCAGCCCCGCCCGTTGT
CCTGGCAACAACCCGTTGCCCGGGCAACCAGCTTTGCTCTCACCCCGCTTGAGAGGAGCCCGGCTGTTGCTCTGG
GCAACGCGGTCTGCTGGTTCCCACGTCTGCCTTCGCCCGCTTCCGGTTCAGACCCTGCGGAGGGGCGAGGACGAG
GCAGAAGTCAGCGGGATGCCTGTGGGGCCGTGGAGGAAGAGGGTATCCCTTTAGGATGGAACTAGGTCCTGGACA
CCCCCTCTCAAGTGCGGGGAGGCTGATACTACAACTCCCAGCATGACTCGCGGTGGCTGTCCGGTTTCTGCGCGG
CTGTTCGCGCAAAGGCCTCATGGGAGTTGGAGTTCTTTGTTGTGCGTGGGGCTCAAAGGACGTCTGGGGTGGGAA
TGGGGGACTAGGGTGCTTGAGTGTCTCTGCAGAAAAGACTCCAGGACCCCGCCACC**ATG**TTCCCGGAGCCCCCAA
CCCCGGGGCCTCCATCGCCCGACACGCCTCCCGACTCCAGTCGCATCAGCCACGGCCCAGTGCCCCCCTGGGCCC
TGGCCACCATCGTGCTGGTCTCAGGCCTCCTCATCTTCAGCTGCTGTTTCTGTCTCTACCGGAAGAGCTGTCGGA
GGCGGACAGGCAAGAAGAGCCAGGCCCAAGCCCAGGTCCACCTTCAGGAAGTGAAGGGGCTGGGCCAGAGTTACA
TAGACAAGGTGCAGCCAGAAGTAGAGGAGCTGGAGCCAGCACCATCCGGGCCAGGGCAGCAGGTGGCAGACAAGC
ATGAGCTAGGACGACTGCAGTACTCCCTGGATTATGACTTCCAGAGTGGCCAGCTGCTGGTGGGCATTCTGCAAG
CAATGGGATTGGCAGCCTTGGATCTTGGTGGCTCCTCGGACCCCTATGTGCGGGTCTACCTGCTGCCGGACAAAC
GGAGGCGGTACGAGACCAAGGTGCATCGGCAGACGCTGAACCCTCACTTTGGGGAGACCTTCGCCTTCAAGGTCC
CCTACGTGGAGCTGGGGGGCAGGGTGCTGGTCATGGCGGTGTACGACTTCGACCGCTTCTCTCGCAATGACGCCA
TCGGGGAGGTGCGGGTCCCTATGAGCTCCGTGGACCTGGGGCGGCCAGTGCAGGCCTGGCGGGAGCTGCAGGCGG
CTCCGCGGGAGGAGCAGGAGAAGCTTGGGGACATCTGCTTCTCCCTCCGCTATGTCCCCACGGCCGGGAAGCTCA
CCGTCATCGTCCTGGAGGCTAAAAACCTGAAGAAGATGGACGTAGGAGGACTGTCAGATCCATACGTCAAGGTCC
ACCTGCTGCAGGGCGGCAAAAAGGTGCGGAAGAAGAAAACCACCATCAAGAAGAACACTCTGAACCCCTATTACA
ACGAAGCTTTCAGCTTCGAGGTGCCCTGTGACCAAGTCCAGAAGGTGCAGGTGGAGCTGACCGTGCTGGACTACG
ACAAGCTGGGCAAGAACGAGGCCATCGGGAGGGTGGCCGTGGGGGCGGCCGCCGGCGGGGCTGGCCTGCGGCACT
GGGCGGACATGCTGGCCAACCCGCGGCGGCCCATTGCCCAGTGGCACTCGCTGCGGCCCCCGGACCGAGTGAGGC
TGCTGCCTGCGCCC**TGA**CTCCCACCCCAAGCCCCCGGCCAAGCCTGGACTCTAGCCCCTGACCCCAGACTCCCGA
GACCGGCCAAAGCCAAGCCAGCCCCACCCTTAAGCTTCCTCTGACGGTTACCCTCCCCCCACCTTCCACCCCAAC
CATCTGAACCATTCCTGTCTTCTCACCCCCAACGATGCCAATCACGACAACTTTCCAGCACACTCCCCCGACCCT
CGCGGACACACCCAGATGCCCCAGGGACCCCGGGAAGGGAAGGCAGCCTGGTTTCTCCTGCCCCCGGGTCCTGCC
CCCTGCTTTGACAATCAGCCATCCTCGTCTGCTCTCCTCTCTCTTCCAACACAGCCCATCCCTGCACTGCTCCTG
GGGCCAAATAAATATTCAGCAGCTC

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FIGURE 3932A

CGCCCAGCTAATTTTTGTATTTTTGGTAGAGACAGGGTTTCGCCATGTTGCCCAGGCTGGTCTTGAACTTCTGAC
CTCAAGTGATATGCCTGCCTCAGCCTCCCAAGGGGTACCTCCCCACAGTCCTGGAGCAGACTGTGGCCCCTCAGG
GCCTTGAGTGGCACGCTGGTGGGGCAGCTCTTGTCTTGGAGCCGTCAGGCACCGTGTGAAAGTTTGGAGGAGGGA
GGCAGGAGGTGAGGTTGGAAGTTGAGCAAGGTTCCAGGAGTCAGCCGGAGCTGGGGCAGCATACGGGGTTGCAAG
TGAAGCCGCTGAGAGGCAAAAGGGATGAGTGTTAGCTGCTGGGGGATTGGGAAGCGCAGGAGCTTCAGGACCAGC
TTGTCTTGGGGGTGGTAAGGAGCCTAGGATGGGATGGTTGGGTGTTAGCAGGGTGGAGGAGGCCTGGTGTGGGCC
CTTGTTTCTGCGTCACCCTGTCCTCTGCCCTTTCCCCTTCCTGGACAGGGGTCTCTGCAGTTCCCAGAAACCCAG
TGCCCGGTGCAGAGAAGAGGGTGGAGCCTTGCCGCCCCCTGCCCCCGGCCTCCGACCCGAGCCCCCACCCGCCTG
TGCTTGCCTCCCAGGTACCCCAGTGTGGCCTGCGAGATTCTGACCTCAGATGTGCCCCAGATCAATGATGCCCTG
GGTGCTGATGAGTCCCTTCTGAACCGGCTCTACGGCTTCCTGCAGAGCACCGGCAGCCTCAACCCACTGCTGGCC
AGCTTCTTCAGCAAGGTC**ATG**GGCATCCTCATCAACCGCAAGACAGACCAGCTCGTGTCCTTTCTTCGGAAGAAG
GATGACTTCGTGGACCTGCTGCTGCAGCACATTGGCACCTCGGCCATCATGGACCTCCTGCTGCGCCTGCTCACC
TGTGTGGAGCGGCCTCAGCTGAGGCAGGATGTTGTCAATTGGCTCAACGAGGAGAAGATCGTCCAGCGGCTGATT
GAGCAGATCCACCCGTCGAAGGATGAGAATCAACATTCCAACGCATCCCAGTCCCTGTGTGACATCATCCGCCTG
AGCCGGGAGCAGATGATCCAAGTCCAGGACAGCCCAGAGCCTGACCAACTGCTGGCCACCCTGGAGAAGCAGGAG
ACGATTGAGCAGCTCTTAAGCAACATGTTCGAGGGGGAGCAGAGCCAGTCTGTCATCGTCAGTGGGATCCAGGTG
CTGCTGACCCTGCTGGAGCCCAGGAGGCCGAGGTCCGAGTCCGTGACCGTGAACAGCTTCTTCAGCAGTGTGGAT
GGGCAGCTGGAGCTCCTGGCCCAGGGGGCCCTGGAAAGCACTGTGTCCAGTGTGGGCGCCTTGCACGCCCTACGC
CCGCGGCTCAGCTGCTTCCACCAGCTCCTGCTGGAGCCTCCCAAGCTGGAGCCGCTACAGATGACATGGGGCATG
CTGGCTCCGCCTCTGGGCAACACGCGGCTGCACGTGGTCAAGCTCCTGGCCAGTGCCCTGAGCGCCAATGATGCA
GCCCTGACGCACGAGCTCCTGGCACTGGACGTGCCCAACACCATGCTGGACCTCTTCTTCCATTATGTCTTCAAC
AACTTCTTGCATGCCCAAGTAGAGGGATGCGTGAGCACCATGCTGAGCTTGGGGCCACCTCCTGACAGCAGCCCT
GAGACGCCCATCCAAAACCCTGTTGTGAAACATCTGCTGCAGCAGTGCCGCCTGGTGGAGCGGATCCTGACGTCC
TGGGAGGAGAACGACCGTGTACAGTGTGCGGGAGGCCCTCGGAAAGGCTACATGGGTCACCTGACAAGAGTGGCC
GGTGCCCTGGTGCAGAACACGGAGAAGGGGCCCAATGCAGAGCAGCTGCGGCAGCTGCTGAAGGAGCTGCCCAGC
GAGCAGCAGGAGCAGTGGGAAGCCTTCGTATCGGGGCCCCTGGCGGAGACCAACAAGAAGAACATGGTGGACCTG
GTGAACACCCACCACCTACACTCCTCCAGTGACGATGAGGACGACCGGCTCAAGGAGTTCAACTTCCCTGAGGAG
GCTGTGCTGCAGCAGGCCTTCATGGACTTCCAGATGCAGCGCATGACCTCTGCCTTCATTGACCACTTCGGCTTC
AATGATGAGGAGTTTGGGGAGCAGGAGGAGAGTGTGAACGCACCTTTTGACAAGACAGCCAACATCACCTTCTCC
CTCAATGCTGACGATGAGAACCCCAACGCCAACCTACTTGAGATATGCTACAAGGACCGCATCCAGCAGTTTGAT
GATGATGAGGAAGAGGAGGACGAGGAAGAGGCCCAGGGCTCAGGGGAGTCTGATGGAGAAGATGGCGCCTGGCAG
GGCAGCCAGCTGGCCAGGGGGGCCCGTCTGGGCCAGCCACCTGGTGTCCGGAGTGGAGGCAGCACAGACAGTGAG
GACGAAGAAGAGGAGGACGAGGAGGAGGAGGAAGACGAGGAGGGCATTGGCTGTGCAGCCCGTGGAGGGGCCACC
CCTCTGTCCTACCCCAGCCCTGGCCCTCAGCCTCCAGGCCCCAGCTGGACAGCCACCTTTGACCCAGTGCCTACA
GATGCCCCGACCAGCCCCCGAGTCTCCGGGGAGGAAGAGCTGCACACTGGGCCTCCAGCCCCACAGGGGCCCCTC
AGTGTGCCCCAGGGCCTCCCCACTCAGAGCCTGGCCAGCCCTCCTGCCCGTGACGCCCTGCAGCTCAGGTCTCAG
GACCCCACACCCCCCTCAGCACCTCAGGAAGCCACAGAAGGCAGCAAAGTCACGGAGCCCTCAGCCCCTTGCCAG
GCCTTGGTTAGCATCGGGGACCTTCAGGCCACCTTCCACGGGATCCGTTCTGCCCCCAGCTCCTCGGACAGTGCA
ACCAGAGACCCCTCTACCTCTGTCCCAGCCTCCGGGGCCCACCAGCCCCCCCAGACCACAGAAGGGGAGAAGAGC
CCAGAGCCCTTGGGGCTTCCCCAAAGCCAGAGTGCCCAGGCCCTCACGCCTCCTCCGATACCCAATGGCTCTGCC
CCGGAAGGGCCTGCATCCCCAGGCTCCCAA**TAG**CTGCCTGGTGCGGCAGCGGCGGCCAAATCTTCCGTCCTCCCG
TGGATCTCCCGGGGTGGGGGCAGGGCGGGTCCCACGATGGCCCCCATTGCCCTCATCACCCTGACACCCCCACAT
TCTCTCCTCTGGACCCCCAGGAGGCTGGTGCCAGGGAGACAGGCCCAACCCACCCCCATTTGCACTGAGAAGAGA
AGTTTTGGAGCGTTGCCTCCTAGAATAAAGATACAGAGAGTCAAATAGAGAGAATGGAGAGAGAGAAACATATAT
TATATATTATATAGAGAGAGGGAGGAGAGCGAGAGAGAGTGAGGACACCGAACTGGGCTGGCGGCTCCAAAGCAC
AGCCTTCCCTGTTCCGTCCCAGCGGGAGCTGGTGTTAGGGGTCCCAAGGTTGCCACCCACGTGCCCAGCTGTCCC
ACGCTGCAGCGCAGACGGCCACGCCCACACCCGGCCTTTTAGCTCAGGTCCACCATGGGGGACGGCCCAGCGTGG
GTGGGGGTGCCAGAGGGTCCCGAGTGGGGGCCGTGCCTTTGCCCAGACCCTGCACTTTCAACCAGGCCAGTCCGG

FIGURE 3932B

CTCTGGGGAGCAGGGGCCTCCCCGGCAACAGCCCCAGGGGCCTTGAGGGTCTGAGGTCCCAGCCCTGTTGCCAAG
TGACCTTGTCCCCAGCTCCCTCCTCCCAGGCTGGTGTGAGTGTGCGTGCGTTTGTGCCGAGCTTCTATTTCATAT
TGCAAATATAAATAAAGGAAGGCAGTTTACG

FIGURE 3933

GCGGCGCCCAGCAGAGTCAGGTGCGGACGACTTTGTCTGTAGGAGCAGCGGCGGCTTGAGGACCCGGGGAGACCC
TCAAGAATCGACCCATCAGGACGCCAGAGCTGCTTCAGCGGTGACCACCTTCTCCCTCTAACACATTCTTCCCTT
CTTCACAAACGGCCC**ATG**TCAGACGAAGGCTCAAGGGGGAGCCGCCTGCCCCTGGCGCTGCCCCCGGCCTCCCAG
GGTTGCTCTTCAGGGGGCGGCGGCGGCGGCGGCGGCGGCTCCTCGGCTGGGGGCTCGGGCAATTCCCGGCCCCCA
CGCAACCTCCAAGGCTTGCTGCAGATGGCCATCACCGCGGGCTCTGAAGAGCCAGACCCTCCTCCAGAACCGATG
AGTGAGGAGAGGCGTCAGTGGCTGCAGGAGGCCATGTCGGCTGCCTTCCGAGGCCAGCGGGAGGAGGTGGAGCAG
ATGAAGAGCTGCCTCCGAGTGCTGTCACAGCCCATGCCCCCCACTGCTGGGGAGGCCGAGCAGGCGGCCGACCAG
CAAGAGCGAGAGGGGGCCCTGGAGCTGCTGGCCGACCTGTGTGAGAACATGGACAATGCCGCAGACTTCTGCCAG
CTGTCTGGCATGCACCTGCTGGTGGGCCGGTACCTGGAGGCGGGGGCTGCGGGACTGCGGTGGCGGGCGGCACAG
CTCATCGGCACGTGCAGTCAGAACGTGGCAGCCATCCAGGAGCAGGTGCTGGGCCTGGGTGCCCTGCGTAAGCTG
CTGCGGCTGCTGGACCGCGACGCCTGCGACACGGTGCGCGTCAAGGCCCTCTTCGCCATCTCCTGTCTGGTCCGA
GAGCAGGAGGCTGGGCTGCTGCAGTTCCTCCGCCTGGACGGCTTCTCTGTGTTGATGAGGGCCATGCAGCAGCAG
GTGCAGAAGCTCAAGGTCAAATCAGCATTCCTGCTGCAGAACCTGCTGGTGGGCCACCCTGAACACAAAGGGACC
CTGTGCTCCATGGGGATGGTCCAGCAGCTGGTGGCCCTGGTGCGGACAGAGCACAGCCCCTTCCACGAGCACGTG
CTTGGAGCCCTGTGCAGCCTGGTGACAGACTTTCCGCAGGGTGTGCGCGAGTGTCGGGAGCCGGAACTGGGCCTG
GAGGAGCTCCTCCGCCACCGCTGTCAGCTGCTGCAGCAGCATGAGGAGTACCAGGAGGAGCTGGAGTTCTGTGAA
AAGCTGCTACAGACCTGTTTCTCCAGCCCAGCGGACGACAGCATGGATCGG**TGA**AACCAGGTGGCTTCTTGCCCC
CTTCTCCGTGGGAACCCCAGGCCTCTTGCCTCCCTCCCCACCTACAAGGCCCTCTCCCAAGGGATCGCAGGGCCT
AGGTGCCTGGACCCAGGGTGTGCCAGCCCGTCTCTGTGCAGTCCCTGGAAGGGGCGCTGAGAAAGGCACCAGCTC
CTTGGACCCCACCTCCCATGCTCTCACTCTCATCCCCGTTCTCTTGTCCACACAGCTCTTCCAATAAAGGTGTTT
CTCTTCCTCCTTCTC

FIGURE 3934

GCCGAAGGAGGCTGTGGGAGGTGTTGGCGGCGGCGGCGCGGGCGCCTGAGGAGGAGGAGGAGAAGCGGGATGAGA
TCGTGGGGCTCACCAGCGTCCCCCATGGCTTCTGAGTAGCGTGGGAGTGGAGTCAGCACCAAGCCAGGCTCCCCG
CGCCTGCCTTGCCCTCACCTGCTCCTGCTCTCTGCCAGAGGCAGCATGGTCCGCAGGGCACCATGGGGCCCGACA
GAGTGACAGCACGAGAACTGTGCGAGAACGACGACCTGGCCACCAGCCTCGTCCTGGACCCCTACCTCGGTTTCC
GCACCCATAAGATGAACGTCAGGTCTATCGCTACCTCCGTGCCTTCCTGCCGGAAAGTGGCTTTACCATCCTGCC
CTGCACGCGCTACTCC**ATG**GAGACCAACGGGGCCAAGATCGTGTCCACTCGTGCTTGGAAAAAGAATGAGAAGCT
GGAGCTGCTGGTGGGCTGCATTGCAGAGCTGCGGGAGGCAGATGAGGGGCTGCTGAGGGCCGGTGAGAATGACTT
CAGCATCATGTACTCAACCCGCAAGCGGAGTGCTCAGCTGTGGCTGGGCCCAGCCGCCTTCATCAACCATGACTG
CAAACCCAACTGCAAGTTTGTGCCTGCAGATGGGAACGCAGCCTGCGTGAAGGTGCTCCGGGACATTGAGCCTGG
GGACGAGGTGACATGCTTCTACGGCGAGGGCTTCTTCGGCGAGAAGAATGAGCACTGTGAATGCCACACCTGTGA
GAGGAAAGGTGAAGGAGCTTTCCGAACCAGGCCTAGGGAGCCCGCGTTGCCACCACGGCCCCTGGACAAGTACCA
GCTGCGTGAGACCAAGCGGCGGCTGCAGCAAGGCCTGGACAGTGGCAGCCGACAGGGCCTGCTGGGCCCTCGGGC
CTGCGTGCACCCATCCCCGCTGCGCCGGGACCCATTCTGCGCCGCCTGCCAGCCCCTGCGCCTGCCAGCCTGCAG
CGCCCGCCCAGACACCTCACCCCTCTGGCTCCAGTGGCTGCCTCAGCCCCAGCCCCGAGTGCGGCCCCGGAAGCG
CCGACGCCCCCGGCCCCGGAGGGCCCCAGTGCTCTCCACCCACCACGCTGCCCGCGTCTCCCTGCACCGATGGGG
AGGCTGTGGCCCCCACTGCCGCCTGCGAGGAGAGGCCCTGGTGGCCCTGGGCCAGCCCCCCCACGCCCGCTGGGC
CCCTCAGCAGGACTGGCACTGGGCCCGGCGCTATGGGCTGCCTTACGTGGTGCGTGTGGACCTTCGTCGCCTGGC
CCCAGCCCCACCAGCTACCCCAGCCCCTGCTGGGACCCCAGGCCCCATCCTGATCCCGAAGCAGGCCCTCGCCTT
CGCCCCCTTCTCCCCACCCAAGCGCCTACGGCTGGTGGTCAGCCACGGCTCCATCGACCTGGATGTCGGCGGTGA
AGAGCTG**TGA**CAGGCCGGACGGGGAGGCCCAGCAGGGAGAGAGGGTCTCTCTCCTAGCTGCTACCCAGGACCTCC
AGAAGGAGCCCTTGGACCTCTGGGAGGGAGCTGACCCTTGACTCCAGCATAGCTCTGACCCTGGAATGGGGTTGG
TTTGGACACCCCCAGGGATCTGAGCCCTGACCCTTTGTGACTGCTGACCCCTGAGCCACCCCCACTCCCACAGGG
AGCCCCGGCCATTTGCTGCCCTCCCCACCCCTGCCCCAGCCTCAGGACTGCAGGAGCCATCCGCCCCCCTCAGCC
CCTTCCTCCCCAGGGAGCAAAGCCATAAGGGGCAGGGGCCACCCCACGGCATCTCCCCAGAAGTACAGGCCTCAG
GAGGAGGTGGAACTGATGTAGGGGGTGGCACTCCCCAGAGACTGCCCTCACGAGGGGACTGGGTTCGCTCTCAGC
TCTGCAGCTGTCTGCGGTGGGGGGAAGGTTGGGGGGTGTCTGGAGGCATGTTCCCCTCACCACCCCCCGTGGGTC
TCAGGGAGGCCGGGTGTGACCTCATCTTTCTCATGGTGCTATCCTGGTGCTATTGGGGTGGGGAGCTCCCTCCCC
TCCCCCACACCAGAAAGGGGTATGTTGGGGGCTTGGAAGCACTTGAACTTTTTATTTTATTAAAACCTTGTTATA
AGCAGC

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FIGURE 3935

GCGGTGCACGACGGCTCCCATTGGCTGGGGCTCGGGCGTCCTAGCCAATCCGGCCGCGGGGTGCGTTTCTCCTGA
CCCGGGTGGGACCGCACCCCGCGGACTCAGAAGCGAGCGGCACCCCGGGACCATCCCACAGCAGATCCAGTGGCC
GCCAACGTCAGGCTGGAGTTGCCTCCTTCGTGGATGTTGG**ATG**TGGAAGCCCAGGAGCCCCCCAAGGGGAAATGG
TCGACGCCGCCCTTCGACCCGCGCTTCCCCAGCCAGAACCAGATCCGTAACTGCTACCAGAACTTCCTGGACTAC
CACCGCTGCCTCAAGACCAGGACCCGCCGCGGGAAGAGCACGCAGCCCTGCGAGTACTATTTCCGCGTGTACCAC
TCGCTGTGCCCCATCAGCTGGGTGGAGAGCTGGAACGAGCAGATCAAGAACGGGATTTTCGCCGGCAAAATCTGA
CTGCCCCAGCGCGGCTTCCTCTGAAGATGCAGTGATCCTGCATCTTTTTGTCTCGCGGAGCCCCGGGTCTCGGTT
ATCCACCCCTACCTCCCAGTGTCTAAGCCACGAA**TAA**TGCCACCAGCCTTCGAGTTCCTTGTTTCCCTTGCTCTG
GTCTCCACGTGTATGATGGGGTTCTCAGGCCCAGGCTTCGACCAGAGGACCCTCTGCCACCACCGTTTCTTCCTG
TCCTTGAGCTACCTTGGTGAACTCATGACCCCAGGCCCCTGCTCCACCAGGATGTCCCCCAGGTCCTGCCAGCTG
GGAAGTGCCAGCATGAACGCCTCCAACTTCGTGGAAGCCAGGGTCCCCTGCAGCTGAGGGACGCCAAGCAGACAC
ACCTGCCCTCCCCAGCCAGCTCCTGTCTGTATGGGCGAGATGACTGAGAGCGCCCACGTCCCTAAGGCTGTCCTG
ACCCTCCATGCTGCGACAAGGACAGGGAATGGTCGGTCACTATGGGCCTGGTGTCTCCCCTCCCCCACCACCCGG
TGCTGCCCAGCTCAAGCCAGAAGCTGACTTTGGCCGCCATGGGGACATCAGGCAAGGTCTGGAGACATTTTTGGT
TGGGGCAGAGGCATGCTCCTGGCATCGAGTGGGTGGAGACCAGAGAAGCCGCTCAACATCCTGCAATGCATGGGA
CAGGCCCTGCCTAGAAACACCAGCTCAGCATGGCAGCAGTGCGGAGGCCAGGAAACCCTGATCGCCAGTTTCTAA
CGCCCTCACCATTTTTATTTTTATTTTTATTTTTTTTGAGACAGAGTTTCGCTCCTGTCACCCAGGCTGGAGTAC
AATGATGCGATCTCAGCTCACTGCAACCTCTGCCTCCCGGGTTCAAGTGATTCTCCTGCCTCAGCCTCCCGAGTA
GCTGGGATTACAGGCATGCACCACCACGCCCAGCTTATTTTGTATTTTTAGTAGAGACGGGGTTTCTCCGTGTTG
GTCAGGCTGGTCTCAAACTCCTGACCTCAGGCAATCTGCCCACCTCAGCCTCCCAAAGTGCTGGGATTACAGGCG
TGAGCCACTGCACCCGGCTCACCACTAGTTTTTAGCCCTTTTTGTTGGGGGTGGGGTGGGGGCAGAGGAGAGGCG
GATACAGAAACTTGTGAGAATGTGATGAACGCTCTGAACCCCCTATAAAAAATGTGCATGTAAATATATACTCTC
AACATTT

FIGURE 3936

CTCTTTCCGTCTCAGGTCGCCGCTGCGAAGGGAGCCGCCGCC**ATG**TCTGCGCATCTGCAATGGATGGTCGTGCGG
AACTGCTCCAGTTTCCTGATCAAGAGGAATAAGCAGACCTACAGCACTGAGCCCAATAACTTGAAGGCCCGCAAT
TCCTTCCGCTACAACGGACTGATTCACCGCAAGACTGTGGGCGTGGAGCCGGCAGCCGACGGCAAAGGTGTCGTG
GTGGTCATTAAGCGGAGATCCGGCCAGCGGAAGCCTGCCACCTCCTATGTGCGGACCACCATCAACAAGAATGCT
CGCGCCACGCTCAGCAGCATCAGACACATGATCCGCAAGAACAAGTACCGCCCCGACCTGCGCATGGCAGCCATC
CGCAGGGCCAGCGCCATCCTGCGCAGCCAGAAGCCTGTGATGGTGAAGAGGAAGCGGACCCGCCCCACCAAGAGC
TCC**TGA**GCCCCCTGCCCCCAGAGCAATAAAGTCAGCTGGCTTTCTCA

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FIGURE 3937

GGCGGACCGAAGAACGCAGGAAGGGGGCCGGGGGGACCCGCCCCCGGCCGGCCGCAGCC**ATG**AACTCCAACGTGG
AGAACCTACCCCCGCACATCATCCGCCTGGTGTACAAGGAGGTGACGACACTGACCGCAGACCCACCCGATGGCA
TCAAGGTCTTTCCCAACGAGGAGGACCTCACCGACCTCCAGGTCACCATCGAGGGCCCTGAGGGGACCCCATATG
CTGGAGGTCTGTTCCGCATGAAACTCCTGCTGGGGAAGGACTTCCCTGCCTCCCCACCCAAGGGCTACTTCCTGA
CCAAGATCTTCCACCCGAACGTGGGCGCCAATGGCGAGATCTGCGTCAACGTGCTCAAGAGGGACTGGACGGCTG
AGCTGGGCATCCGACACGTACTGCTGACCATCAAGTGCCTGCTGATCCACCCTAACCCCGAGTCTGCACTCAACG
AGGAGGCGGGCCGCCTGCTCTTGGAGAACTACGAGGAGTATGCGGCTCGGGCCCGTCTGCTCACAGAGATCCACG
GGGGCGCCGGCGGGCCCAGCGGCAGGGCCGAAGCCGGTCGGGCCCTGGCCAGTGGCACTGAAGCTTCCTCCACCG
ACCCTGGGGCCCCAGGGGGCCCGGGAGGGGCTGAGGGTCCCATGGCCAAGAAGCATGCTGGCGAGCGCGATAAGA
AGCTGGCGGCCAAGAAAAAGACGGACAAGAAGCGGGCGCTGCGGCGGCTG**TAG**TGGGCTCTCTTCCTCCTTCCAC
CGTGACCCCAACCTCTCCTGTCCCCTCCCTCCAACTCTGTCTCTAAGTTATTTAAATTATGGCTGGGGTCGGGGA
GGGTACAGGGGGCACTGGGACCTGGATTTGTTTTTCTAAATAAAGTTGGAAAAGCA

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FIGURE 3938

AATTCTTTCATTTCAGAGTTGAGCAAACTGTGTCTCAAGGAGGTGTGCGCTGCAGGTAGCTGATGTGGCCAGGAT
TTGAACCCACATTTTATATTCTTTGCCATTAGATTCCATTTTTCTTATCTCTTATTTCTCAGCGCCAGGTCTCTT
TTTGTTTCTGGGCCTCTTTCTTCCTTGGCCTCCTGCCTCCCTGTCTTCCCATGTTCTTGTATCTGCTGCTGCCTG
TGTTTTTCTCATTGTGTCTCTGCCTAGCTCCCTCTGCCCAGGTTTCTATGTGTCTCTTTCTGTCAGAACTGTCTT
CTATTTCTTCTCAGTCCCCTTCTCTGCATTTGTTACATCATCTCTTCATCTTAATGTATTAGGCTGGGGCTGTTT
TGGGACTCCAGAGAGTTACTTTTTAACTAGCTACATCTGTCTTCAGGTGCCTGGCTTTCTGGCCTGAGGTGGAAG
CAGAGGCCAGCCTCTCTCCGTCATCCCTATCTCCCCTGGGCTTACATCATGGCGGGGCTTTGAAAATCTCCCTCT
GTGGCTTCTTGGAGCCGCATAG**ATG**GGTGATCAGAGCTGGCTCTGGAACCAGGCTGCTCCAGGAGTAAGGAGCCC
AGTCTTTGCATGCAGTGTTGAAAAAGGTAATGTCCCTCTTGTGCTGAGCGAGCACCTGGCACACAGCAGGGACCC
AGGCAGTGGGGCTGTTAGGTTCCTTATCTCTCCTGAGCCTTGGGCTTCCGCTATCCTTGGGACGTCTGGTCTTCT
GGCTTCCCCGGTTCTTCCTGCCGCCCTGGATGCGGTGACCTGCCAGCACCTGCCGCAGCCTTCGTCCGGGAGTCG
CCCCATCTCTCCACGCATCGGGGCCCTGTGCCCCTTGCTGCTGCAGCCGGGCACCATGTCGACCTCGTCCTTGAG
GCGCCAGATGAAGAACATCGTCCACAACTACTCAGAGGCGGAGATCAAGGTTCGAGAGGCCACGAGCAATGACCC
CTGGGGCCCATCCAGCTCCCTCATGTCAGAGATTGCCGACCTCACCTACAACGTTGTCGCCTTCTCGGAGATCAT
GAGCATGATCTGGAAGCGGCTCAATGACCATGGCAAGAACTGGCGTCACGTTTACAAGGCCATGACGCTGATGGA
GTACCTCATCAAGACCGGCTCGGAGCGCGTGTCGCAGCAGTGCAAGGAGAACATGTACGCCGTGCAGACGCTGAA
GGACTTCCAGTACGTGGACCGCGACGGCAAGGACCAGGGCGTGAACGTGCGTGAGAAAGCTAAGCAGCTGGTGGC
CCTGCTGCGCGACGAGGACCGGCTGCGGGAAGAGCGGGCGCACGCGCTCAAGACCAAGGAAAAGCTGGCACAGAC
CGCCACGGCCTCATCAGCAGCTGTGGGCTCAGGCCCCCCTCCCGAGGCGGAGCAGGCGTGGCCGCAGAGCAGCGG
GGAGGAGGAGCTGCAGCTCCAGCTGGCCCTGGCCATGAGCAAGGAGGAGGCCGACCAGCCCCCGTCCTGCGGCCC
CGAGGACGACGCCCAGCTCCAGCTGGCCCTTAGTTTGAGCCGAGAAGAGCATGATAAGGAGGAGCGGATCCGTCG
CGGGGATGACCTGCGGCTGCAGATGGCAATCGAGGAGAGCAAGAGGGAGACTGGGGGCAAGGAGGAGTCGTCCCT
CATGGACCTTGCTGACGTCTTCACGGCCCCAGCTCCTGCCCCGACCACAGACCCCTGGGGGGGCCCAGCACCCAT
GGCTGCTGCCGTCCCCACGGCTGCCCCCACCTCGGACCCCTGGGGCGGCCCCCCTGTCCCTCCAGCTGCTGATCC
CTGGGGAGGTCCAGCCCCCACGCCGGCCTCTGGGGACCCCTGGAGGCCTGCTGCCCCTGCAGGACCCTCAGTTGA
CCCTTGGGGTGGGACCCCAGCCCCTGCAGCTGGGGAGGGGCCCACGCCTGATCCATGGGGAAGTTCCGATGGTGG
GGTCCCGGTCAGTGGGCCCTCAGCCTCCGATCCCTGGACACCGGCCCCGGCCTTCTCAGATCCCTGGGGAGGGTC
ACCTGCCAAGCCCAGCACCAATGGCACAACAGCAGCCGGGGGATTCGACACGGAGCCCGACGAGTTCTCTGACTT
TGACCGACTCCGCACGGCACTGCCGACCTCCGGGAGCAGCGCAGGAGAGCTGGAGCTGCTGGCAGGAGAGGTGCC
GGCCCGAAGCCCTGGGGCGTTTGACATGAGTGGGGTCAGGGGATCTCTGGCTGAGGCTGTGGGCAGCCCCCCACC
TGCAGCCACACCAACTCCCACGCCCCCCACCCGGAAGACGCCGGAGTCATTCCTGGGGCCCAATGCAGCCCTCGT
CGACCTGGACTCGCTGGTGAGCCGGCCGGGCCCCACGCCGCCTGGAGCCAAGGCCTCCAACCCCTTCCTGCCAGG
CGGAGGCCCAGCCACTGGCCCTTCCGTCACCAACCCCTTCCAGCCCGCGCCTCCCGCGACGCTCACCCTGAACCA
GCTCCGTCTCAGTCCTGTGCCTCCCGTCCCTGGAGCGCCACCCACGTACATCTCTCCCCTTGGCGGGGGCCCTGG
CCTGCCCCCCATGATGCCCCCGGGCCCCCCGGCCCCCAACACTAATCCCTTCCTCCTA**TAA**TCCAGGGCGGAAGG
GGGCCTGGCTCCATCCGGCTGCCCCATTCCGGCTCCCTGGGAGATCAGTGTTGTGAGTGCATGTGAAATGG

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FIGURE 3939

GAGGCGAAAGCTGCACAGGGCCCTACGCGGCCGCCTCAGC**ATG**TCGGACTTCGACGAGTTCGAGCGGCAGCTCAA
CGAGAATAAACAAGAGCGGGACAAGGAGAACCGGCATCGGAAGCGCAGCCACAGCCGCTCTCGGAGCCGGGACCG
CAAACGCCGGAGCCGGAGCCGCGACCGGCGCAACCGGGACCAGCGGAGCGCCTCCCGGGACAGGCGACGACGCAG
CAAACCTTTGACCAGAGGCGCTAAAGAGGAGCACGGTGGACTGATTCGTTCCCCCCGCCACGAGAAGAAGAAGAA
GGTCCGTAAATACTGGGACGTGCCACCCCCAGGCTTTGAGCACATCACCCCAATGCAGTACAAGGCCATGCAAGC
TGCGGGTCAGATTCCAGCCACTGCTCTTCTCCCCACCATGACCCCTGACGGTCTGGCTGTGACCCCAACGCCGGT
GCCCGTGGTCGGGAGCCAGATGACCAGACAAGCCCGGCGCCTCTACGTGGGCAACATCCCCTTTGGCATCACTGA
GGAGGCCATGATGGATTTCTTCAACGCCCAGATGCGCCTGGGGGGGCTGACCCAGGCCCCTGGCAACCCAGTGTT
GGCTGTGCAGATTAACCAGGACAAGAATTTTGCCTTTTTGGAGTTCCGCTCAGTGGACGAGACTACCCAGGCTAT
GGCCTTTGATGGCATCATCTTCCAGGGCCAGTCACTAAAGATCCGCAGGCCTCACGACTACCAGCCGCTTCCTGG
CATGTCAGAGAACCCCTCCGTCTATGTGCCTGGGGTTGTGTCCACTGTGGTCCCCGACTCTGCCCACAAGCTGTT
CATCGGGGGCTTACCCAACTACCTGAACGATGACCAGGTCAAAGAGCTGCTGACATCCTTTGGGCCCCTCAAGGC
CTTCAACCTGGTCAAGGACAGTGCCACGGGGCTCTCCAAGGGCTACGCCTTCTGTGAGTACGTGGACATCAACGT
CACGGATCAGGCCATTGCGGGGCTGAACGGCATGCAGCTGGGGGATAAGAAGCTGCTGGTCCAGAGGGCGAGTGT
GGGAGCCAAGAATGCCACGCTGGTGAGCCCCCCGAGCACCATCAATCAGACGCCTGTGACCCTGCAAGTGCCGGG
CTTGATGAGCTCCCAGGTGCAGATGGGCGGCCACCCGACTGAGGTCCTGTGCCTCATGAACATGGTGCTGCCTGA
GGAGCTGCTGGACGACGAGGAGTATGAGGAGATCGTGGAGGACGTGCGGGACGAGTGCAGCAAGTACGGGCTTGT
CAAGTCCATCGAGATCCCCCGGCCTGTGGACGGCGTCGAGGTGCCCGGCTGCGGAAAGATCTTTGTGGAGTTCAC
CTCTGTGTTTGACTGCCAGAAAGCCATGCAGGGCCTGACGGGCCGCAAGTTCGCCAACAGAGTGGTTGTCACAAA
ATACTGTGACCCCGACTCTTATCACCGCCGGGACTTCTGG**TAG**AGGCGGCTGGGGGAGGGTGGGGGCAGGGCTGG
CTGGGGGCTTCTCCCCACTCCCGCCCCCCCCTTATCCCCCTCTGAAGACGATGGGCAGAGGAGTGACAGCCGCAG
ACACACGACAGCCGGCAGCAACTGGAATGGCAGCAATTAAGGGTGGGGGGCGGGGGTTGGGGGGTTGGGGGGTTA
GGGCAGGGAGGGGACTGGGGAAGTGCGCACACAGCCCACACAGACAACACGCAC

FIGURE 3940

AACGGCGGGCCTCACCTGGACCCGGGGACTCTTCAACGAGGGGCGCTAGCCTGGCCCGACTGGGCGAGTCCCCGC
GTCCCTGCCCGTTCCGTCGCTCAGTTCCACGACACGCTCCCCTGCCGCCCCGCCTGTTCGCGGGTGGGTGGGCGC
TTCCCTCGGCTCCCCGTGACACTTTGCAGACGCTCCCCGGCGCCGGGCATGGGCGCCGCCGCCGTCGGTCCCCGA
GCCGGATTCCGCGAGCGGTGCCCCTGAGGCCCTCGGCTGCTGGGGTCCGTAGGAAGCCGCGCC**ATG**AATGACCGG
AGCAGTCGGAGGCGGACAATGAAGGACGATGAGACCTTCGAGATCTCCATTCCCTTCGATGAGGCACCCCACCTA
GACCCACAGATCTTTTACAGTCTGAGCCCCTCTCGGAGAAACTTCGAGGAGCCTCCGGAGGCTGCGTCCTCCGCC
CTGGCTCTGATGAACAGCGTCAAGACCCAGCTGCACATGGCTCTGGAGAGGAACTCCTGGCTGCAGAAGCGCATC
GAGGACCTGGAGGAAGAGAGGGACTTCCTGCGGTGCCAGCTGGACAAATTCATCTCTTCTGCTCGGATGGAGGCA
GAGGACCACTGCCGGATGAAGCCTGGGCCCAGGCGGATGGAGGGGGACAGCCGTGGTGGGGCTGGGGGCGAGGCC
TCGGACCCTGAGTCAGCAGCCTCCTCCCTCAGCGGAGCGTCCGAAGAAGGCAGCGCCAGTGAGAGGAGGCGGCAG
AAGCAGAAGGGAGGTGCTAGTCGGAGGCGCTTTGGGAAGCCCAAGGCCCGGGAGAGGCAGCGAGTGAAGGACGCC
GACGGGGTCCTCTGCCGGTACAAGAAGATCCTGGGCACCTTCCAGAAGCTCAAGAGCATGTCGCGGGCCTTCGAG
CACCACCGCGTGGACAGGAACACCGTGGCGCTGACCACGCCCATCGCCGAGCTGCTCATTGTGGCCCCCGAGAAG
CTGGCCGAGGTGGGCGAGTTCGACCCCTCCAAGGAGCGCCTGCTCGAGTACTCCCGCCGCTGCTTTCTGGCCCTG
GACGACGAGACGCTCAAGAAGGTGCAGGCGCTCAAGAAGAGCAAGCTGCTGCTGCCCATCACCTACCGCTTCAAG
CGG**TGA**TCGCACCACGCCTCCGCGCCTCCACCCGGGCCTTCCTCCCCCGTGGACCCCGGTGGATGACCTGCCCCT
CTCCCCGCCGCGCCCCTGCCCCTCCTCCTCGCTCCCTGGGTTGGGGGCTCCCTTAGCCGGGCCCCCAAGCGCGAC
GGCCCCGGACCGGCCGCGGCCCCTTCCCGAACGCCGGCACCCCCTTCCGCTTGGGCTGCCCAGCCCTGTCCTCGC
CGGGCCCCTTCCTCCTGGAAAACCAGGCAGGCGGGTGCCCCCCCCCTCGAGTGGGGGACTGTACAGACCCCGTCTC
CGCCCTGGCCCCGCGGAGGAGCTGCCCACCTGATTCCCGGACAGACCTCCCCAACTCCGCGTGAGACAGAGAATT
ATTCAGATAATTTAAATTAAAAAACGACGTGAAAATTTGGAATAAA

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FIGURE 3941

GGGCGGCGGGAGGGGCTGGACCGCGTGGAGGGCCTCAGCCAGCCCTCCGG**ATG**CTGGTGCTGCCATCCCCCTGCC
CTCAGCCTCTGGCATTTTCCTCCGTTGAGACCATGGAGGGCCCTCCCCGTCGGACTTGCCGCTCCCCAGAACCTG
GACCTTCCTCCTCCATCGGATCTCCCCAGGCTTCATCTCCTCCAAGGCCCAACCACTACCTGCTTATTGACACTC
AGGGTGTCCCCTACACAGTGCTGGTGGACGAGGAGTCACAGAGGGAGCCAGGGGCCAGTGGGGCTCCAGGCCAGA
AAAAGTGCTACAGCTGCCCCGTGTGCTCAAGGGTCTTCGAGTACATGTCCTACCTTCAGCGACACAGCATCACCC
ACTCGGAGGTAAAGCCCTTCGAGTGTGACATCTGTGGGAAGGCATTCAAGCGCGCCAGCCACTTGGCACGGCACC
ATTCCATTCACCTGGCGGGTGGTGGGCGGCCCCACGGCTGCCCGCTCTGCCCTCGCCGCTTCCGGGATGCGGGTG
AGCTGGCCCAGCACAGCCGGGTGCACTCTGGGGAACGCCCGTTTCAGTGTCCACACTGCCCTCGCCGCTTTATGG
AGCAGAACACACTGCAGAAACACACGCGGTGGAAGCATCCA**TGA**GCCGGGCTGCCGGGTGCCCCAGGTACCACAG
GACTTTGCAGGGAGCCTGGACTCCTGTCCAGA

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FIGURE 3942

GGAAGGCATTTGAGCCATTTTGGGGTGTATAGATGTAGTAAGACGATGGGTTCCGTAGTGGGGAGAGGTGACTAG
ACTTCGAGGTGCTAAGTGTAGGAACAGGATGGAAAAGCCCTAGTGAAATGTGGGGAATTGGGTTAGTGGGGCTCT
GGGGAGGTACCTAGAGAGGAAGTGAGGGAGGCCACGGAATATGAAGATGGGGAGGCCCTGCGGCATGTAGTGGGG
ACGGAGGGCCAGGAGGCCGATACGGGGGCCGGTGGGGGGGTAGGGGGCGGCAAAGGGAGGGGAAGTAAACTGAAC
TGGGGCTGGGCAACAGGAAAAAAGAAGAAACCACAGATTAGAGAAATCTCGGCGGTCAGGAGGCCCGGGGTCTAA
GATGTAAAGAGGTAAACAGATTTAGGGATTGATTGTCTGCTGGGGTGGGTTGAGAGGAGAAAAGGGAAGAAAAGT
CGGGGGACTACGTCCTCAGACCTGACCTGAGTGGTGAGAGGTGGACCCAGGAGGAGTGGCAGGTGGTGGCGGGGT
TTTGCAGAGCTCAGTTGGAGGCCCTCTCCGAGGCAGCTTGATGGAACGTGGGAGAGCCGGGCTGGAGTCACAGTT
TTTATTTTGCTAGGGAGGTAGTCAGTGGCGCACAAAGGGTAACAAGCAGTGATAGTGGGGATGCTTTCCATTTTA
GGAAACTTTTCCTAAAAGGAAGTGGCAATTTTAACTAATCTCCCCTCCGCCGCTCCCAGCTGCCGCTCCAG**ATG**C
TGCTGCTGCCGCCGCGGCCACCCCACCCTCGGTCCTCCTCTCCGGAGGCCATGGACCCACCGCCCCCCAAGGCTC
CCCCTTTCCCCAAGGCGGAAGGCCCCTCCTCCACTCCTTCCTCGGCGGCGGGGCCCCGACCCCCGCGGCTGGGCC
GCCACCTCCTCATCGACGCCAATGGGGTCCCCTACACATACACGGTGCAGCTGGAGGAGGAGCCCCGGGGCCCGC
CCCAGCGCGAGGCGCCCCCAGGAGAGCCCGGCCCTCGCAAGGGCTACAGCTGCCCGGAGTGCGCCCGTGTCTTTG
CCAGCCCTCTGCGGCTGCAGAGCCACCGCGTGTCGCACTCGGACCTCAAGCCCTTCACGTGCGGCGCCTGCGGCA
AGGCCTTCAAGCGCTCCAGCCACCTGTCGCGGCATCGCGCCACGCACCGCGCCCGCGCCGGGCCGCCGCACACCT
GCCCGCTCTGCCCACGCCGCTTCCAGGACGCCGCGGAGCTGGCGCAGCACGTGCGCCTCCAC**TAA**GCTCGAGACC
CGGCCTGTGCTGCCCTGCCCGTCTCAGGGCCACCAAGTCTGACCCACACAGCGTCACTCACTCCCACACACACCC
CCTGGCTCTGCTGAGGTTACTGCCTTACCCTGGGCCTCAGTTTCCCCACCTTCCAAAGGGAGGAGCATCATTCCT
TCCTTACCCCCTTTCTAGCTGTGTGATGTAGACCAAAGTCGTTGCCCCTCCCTGGGCCTGGGAACCAGTCGGAAC
TGGGTTCCAGTCCAGCTGTGCTGTGTGAGCCTGTGCAAGTGACATGACCTCTCTAAACCTTGGTTTTCTGCTCTC
TGGAGCGGTGAACCGGTGGTTGTCTGCGGGGAAGAGATGATAAAGAGCACGGGCACGGTCTGGTTCATTTCTGTA
TCTACCCCCCTTCCGCCCACGCCCCCGACCCTTTGCTCAATAAACATTCCGCACTCC

FIGURE 3943

ATGGAACTCAAGCTCCCTGCTTCTGTTGCTAGGCTTAGCCCAGGGTCTCCCGTCTCCCACCCGCCGGAGATGGAG
GCGAACCCAGCGGGCAGCGGCGCCGGGGGTGGCGGGAGCAGCGGCATCGGGGGCGAGGACGGGGTGCACTTCCAG
AGCTACCCCTTCGACTTCCTGGAATTCCTCAACCACCAGCGCTTCGAGCCCATGGAACTGTATGGGGAACACGCC
AAGGCGTGGGGCATCGTGGACCTCTCGGGGCACCAGCACTTGTTTGGGAACCTGAAGCGAGGAGGGCCCGCGTCC
GGGCCGGGGACCCCGCCAGGACCCCCCGCGGCGGCGGCCTGCGACCCCACCAAGGACGACAAGGGCTACTTCCGG
AGACTGAAGTACCTGATGGAGCGGCGCTTCCCCTGCGGCGTGTGCCAGAAGTCCTTCAAGCAGTCCTCGCACCTG
GTCCAGCACATGCTGGTGCACTCGGGGGAGAGGCCCTACGAATGCGGCGTCTGCGGCCGCACCTACAACCACGTT
TTCAAGAAGCCCAGTCACCTCCACCAGCACCAGATCATCCACACGGGCGAGAAGCCCTTCTCCTGCTCCGTGTGC
AGCAAAAGCTTCAACCGCAGGGAGAGTCTGAAGCGCCACGTGAAGACGCACTCGGCCGACCTCCTGCGCCTGCCC
TGCGGCATCTGCGGGAAGGCCTTCCGCGACGCCTCCTACCTCCTCAAGCACCAGGCGGCCCACGCGGGGGCGGGC
GCCGGGGGGCCTCGGCCCGTGTACCCCTGCGACCTGTGCGGCAAGTCCTACTCGGCTCCGCAGAGCCTGCTCCGC
CACAAGGCCGCCCACGCCCCGCCCGCTGCCGCTGCGGAGGCGCCCAAGGACGGGGCGGCCTCGGCCCCGCAGCCC
CCGCCCACCTTCCCCCCGGGCCCCGGGGCGGGAGGCTCGGGCGCCAGCGTCCCAGGAAAGACGTTCTGCTGCGGC
ATCTGCGGGCGCGGCTTCGGGCGCCGCGAGACCCTGAAGCGCCATGAGCGCATCCACACGGGCGAGAAGCCCCAC
CAGTGCCCCGTGTGTGGGAAGCGCTTCCGCGAATCCTTCCACTTGAGCAAGCATCACGTGGTGCACACGCGCGAG
CGGCCCTACAAGTGCGAGCTCTGCGGCAAGGTCTTCGGCTACCCGCAGAGCCTCACCCGCCACCGCCAGGTGCAC
CGGCTCCAGCTGCCCTGCGCCCTGGCCGGGGCAGCCGGCCTCCCCTCCACCCAAGGCACACCGGGGGCCTGTGGG
CCCGGGGCCTCGGGCACGTCTGCAGGGCCCACCGATGGGCTGAGCTACGCCTGCTCGGACTGCGGCGAGCACTTC
CCGGATCTCTTTCACGTCATGAGTCACAAGGAGGTCCACATGGCAGAGAAGCCATACGGCTGCGACGCCTGCGGC
AAGACCTTCGGCTTCATCGAGAACCTCATGTGGCACAAGCTGGTCCACCAGGCCGCCCCCGAGCGCCTGCTCCCG
CCCGCACCCGGCGGCCTGCAGCCCCCGGACGGCTCCAGCGGCACGGATGCGGCCAGCAGTTTCAAGCACTTCCTG
GGCCTCGTGACTCACAAGTACGTGCACCTGGTGCGACGGACCCTGGGCTGCGGCCTCTGCGGCCAGAGCTTCGCG
GGCGCCTACGACTTGCTCCTACACCGCCGCAGCCATCGGCAGAAGCGGGGTTTCCGCTGCCCGGTGTGCGGGAAG
CGCTTCTGGGAGGCGGCCCTGCTGATGCGCCACCAGCGCTGCCACACGGAACAGCGGCCGTACCGATGTGGCGTG
TGCGGCCGAGGCTTCCTGCGCTCCTGGTACCTGCGGCAGCACCGCGTGGTGCACACTGGCGAGCGGGCCTTCAAG
TGCGGCGTGTGCGCCAAGCGCTTCGCGCAGTCGTCCAGCCTGGCAGAGCACCGGCGGCTGCACGCTGTGGCCCGG
CCCCAGCGCTGCAGCGCCTGTGGCAAGACCTTCCGCTACCGCTCCAACCTGCTGGAGCACCAGCGGCTGCACCTG
GGCGAGCGCGCCTACCGCTGTGAGCACTGCGGCAAGGGCTTCTTCTACCTGAGCTCCGTGCTGCGCCACCAGCGC
GCCCATGAGCCGCCGCGGCCCGAGCTCCGCTGCCCCGCCTGCCTCAAGGCCTTCAAGGATCCCGGCTACTTCCGT
AAGCACCTGGCTGCCCACCAGGGCGGCCGGCCCTTCCGCTGCTCCTCCTGCGGCGAGGGCTTCGCCAACACCTAC
GGCCTCAAGAAACACCGCCTGGCGCACAAGGCCGAGAACCTCGGGGGGCCTGGAGCAGGGGCGGGCACCTTGGCC
GGGAAGGATGCC**TGA**

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FIGURE 3944

ATGCGGGGCTGGTCTGCACCGGCCCAGCACCTCGGCTGCGCCTGGCCGATGGCCCCCACGGGTGCGCCGGCCGCC
TGGAGGTCTGGCACGGGGGTCGCTGGGGGTCGGTGTGTGACGACGCCTGGGACCTGCGAGACGCCGCTGTGGCCT
GCCGAGAGCTGGGCTGCGGAGGGGCGCTGGCCGCCCCCGGGGGCGCCTTCTTTGGGGAGGGGTCTGGACCCATCA
TCCTGGACGACCTTCGGTGTCGGGGAAACGAGACGGCCTTACGATTCTGCCCAGCTCGGCCCTGGGGCCAGCATG
ACTGTCACCACCGCGAGGACGCCGGGGCCGTGTGTGACGGCATGCCCCTGGGCTACGTCCCTCCCACGGCCCCCA
CGGACAGCAACAACTCCACGCCCAGGGAGGCTGCCTCCAGGCCCCCGTCCACCA**TGA**CGAGCCAGGCTCCAGGGA
CGGCAGGCGTTTCACCTCCTCCAGCCTCCCCTACTGTCCTTTGGGAGCCTGGACCGGAAGCCGGGCCCCCAGGCC
TGGACTCCATCTCAGACCCCTTCAGCTGGAGCTGGATTCCTGGACTGGGGAGAGATCGGGATGCCTGGCTCCCGG
GAGAGCTGGCCACCAAGCCCTCTGCAAGTGTGACTGCCAGTGTTCTGGAGAAAACAACCACGAAGGCCCCA

FIGURE 3945

CCTTGTCGAAGGACCAAAGGCGACCGGTGCAGGTGCACGACGCCAGCTCCCTTCTGGGGGGCCGGGGCCTGGGGG
TTGCC**ATG**GCCCCCAGCCACCTGTCAGTGCGGGAGATGAGGGAAGATGAGAAGCCCCTGGTGCTGGAGATGCTGA
AGGCCGGCGTGAAGGACACGGAAAACCGCGTGGCCCTCCATGCCTTGACACGGCCGCCGGCCCTGCTCCTCCTGG
CGGCGGCCAGCAGCGGCCTGCGCTTTGTCCTGGCTTCCTTCGCCCTGGCCCTCCTCCTGCCGGTGTTCCTGGCTG
TGGCCGCCGTGAAGCTGGGCCTGCGGGCCCGATGGGGCTCGCTGCCTCCGCCGGGTGGCCTGGGGGGCCCCTGGG
TGGCCGTGCGGGGCTCCGGTGACGTGTGTGGGGTCCTGGCTCTGGCCCCTGGCACAAATGCAGGGGACGGGGCCC
GGGTCACCCGCCTGTCTGTCTCTCGCTGGCACCGCCGCCGGGGCGTGGGCAGGAGGCTGCTGGCCTTCGCGGAGG
CCCGGGCTCGGGCCTGGGCTGGGGGCATGGGGGAGCCCCGGGCCCGGCTCGTGGTCCCCGTGGCTGTGGCCGCCT
GGGGGGTGGGAGGGATGCTGGAGGGCTGTGGCTACCAGGCCGAGGGGGGCTGGGGCTGCCTGGGCTACACGCTGG
TGAGGGAATTCAGCAAAGACCTG**TGA**AGCTACAGACTGACAGCCAGGGCAGGGGAGGAGGGAGGGGCGCCAGCAC
CTGATGATCGCCTACTGTCTGCGGGTTCTTTTACCTGCTCTCCCTCAGTGAGTCCTCAACCACCCTGGGCCCAGA
AACAGAGGCCTGCCGAGGGGAGGAGCCTGGCCTCTGTCCACCCGTCAGCAGTGTGAAGTCTGTTGTGTTTGAGCT
TCTCAGAGTGGAATGACTCCTTTTCCTTCCTGGCCCTCGGGGGCCTCTCGAGGTCAGCCTCTCCAACCCCTACCT
CAGCTCCTGTCTGCACTGAGAAACCTCCCCGGGTGATGTCTGCAAAGTCTGTGCTGTCCGTGCCCCAGGCTGGGA
GAGCTATCTGGGGAGGGGGAGAGGAGGCCGAGCAGAATACACCCCAGAGTTAGGGTTTGCGACTCCGCCTCCCTG
GGACCTGGATTGGGTCAGATGCCTGTCCTTGGAGGGGACAAGGTTGACTGCTTAGGAGGCGCGACGCACAGGGCT
GCCAGGCCTGGCCCCTCTCTGGGAAGGTTGAGAGCTGAGACGGGCAGCCCTGTCCCTTCCTCCAGATCCGTCTGG
TTTTTTACACCGTTTGTTAATAAAGCCTGAAACCGC

FIGURE 3946

CCTAACGAAACGGTAACCAGCCCTGGGAAGCCCGCAAGAGGCCTCAGCGGTGGCCGTCCGAGAGCCGAGAGGTGA
GGGTGCCCCCGCCTCACCTGCAGAGGGGCCGTTCCGGGCTCGAACCCGGCACCTTCCGGAAA**ATG**GCGGCTGCCA
GGCCCAGCCTGGGCCGAGTCCTCCCAGGATCCTCTGTCCTGTTCCTGTGTGACATGCAGGAGAAGTTCCGCCACA
ACATCGCCTACTTCCCACAGATCGTCTCAGTGGCTGCCCGCATGCTCAAGGTGGCCCGGCTGCTTGAGGTGCCAG
TCATGCTGACGGAGCAGTACCCACAAGGCCTGGGCCCCACGGTGCCCGAGCTGGGGACTGAGGGCCTTCGGCCGC
TGGCCAAGACCTGCTTCAGCATGGTGCCTGCCCTGCAGCAGGAGCTGGACAGTCGGCCCCAGCTGCGCTCTGTGC
TGCTCTGTGGCATTGAGGCACAGGCCTGCATCTTGGACCCCCGTTCTTATCCGGGGTTGGCCCTGACCTCTCTCT
ACCCACAGAACACGACCCTGGACCTCCTAGACCGGGGGCTGCAGGTCCATGTGGTGGTGGACGCCTGCTCCTCAC
GCAGCCAGGTGGACCGGCTGGTGGCTCTGGCCCGCATGAGACAGAGTGGTGCCTTCCTCTCCACCAGCGAAGGGC
TCATTCTGCAGCTTGTGGGCGATGCCGTCCACCCCCAGTTCAAGGAGATCCAGAAACTCATCAAGGAGCCCGCCC
CAGACAGCGGACTGCTGGGCCTCTTCCAAGGCCAGAACTCCCTCCTCCAC**TGA**ACTCCAACCCTGCCTTGAGGGA
AGACCACCCTCCTGTCACCCGGACCTCAGTGGAAGCCCGTTCCCCCCATCCCTGGATCCCAAGAGTGGTGCGATC
CACCAGGAGTGCCGCCCCCTTGTGGGGGGGGGCAGGGTGCTGCCTTCCCATTGGACAGCTGCTCCCGGAAATGCA
AATGAGACTCCTGGAAACTGGGTGGGAATTGGCTGAGCCAAGATGGAGGCGGGGCTCGGCCCCGGGCCACTTCAC
GGGGCGGGAAGGGGAGGGGAAGAAGAGTCTCAGACTGTGGGACACGGACTCGCAGAATAAACATATATGTGGC

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FIGURE 3947

GCTGTGGCCCTGGCACCTGCCCCTGGGCTGGGACAGCCCACTGTTCCATGCTGCCCAAGAAGGCTCAGCACAGGC
ACAAACCATTGCCCGGCACTGGCCCGTGCTGCCTGAGAAGGATTGGCACGGGCACAGACCACTGCCCCCACCTGC
CCTGCGCCATCTACCCAAGAAGGCTCGGCACGGGCACCAACCACTGCCTCCAACTGCCCC**ATG**CTGCCTGAGAAG
GCACTGCACGGCCACCCCCAACTGCCCCGCACTGTCCCTACCCGGGCAGCCATGCGAGCGGCTGGAACTCTGCTG
GCCTTCTGCTGCCTGGTCTTGAGCACCACTGGGGGCCCTTCCCCAGATACTTGTTCCCAGGACCTTAACTCACGT
GTGAAGCCAGGATTTCCTAAAACAATAAAGACCAATGACCCAGGAGTCCTCCAAGCAGCCAGATACAGTGTTGAA
AAGTTCAACAACTGCACGAACGACATGTTCTTGTTCAAGGAGTCCCGCATCACAAGGGCCCTAGTTCAGATAGTG
AAAGGCCTGAAATATATGCTGGAGGTGGAAATTGGCAGAACTACCTGCAAGAAAAACCAGCACCTGCGTCTGGAT
GACTGTGACTTCCAAACCAACCACACCTTGAAGCAGACTCTGAGCTGCTACTCTGAAGTCTGGGTCGTGCCCTGG
CTCCAGCACTTCGAGGTGCCTGTTCTCCGTTGTCAC**TGA**CCCCCGCCTCTTCAGCAAGACCACAGCCATGACAAA
CACCAGGATGCATGCTCCTTGTCCCCTCCCACCCGCCTCATGACCCAGCCTCACAGACCCTCTCAGGCCTCTGAC
GAGTGAGCGGGTGAAGTGCCACTGGGTCACCGCAGGGCAGCTGGAATGGCAGCATGGTAGCACCTCCTAACAGAT
TAAATAGATCACATTTGCTTCTAAAATT

FIGURE 3948

TCGCGTTCTGGGCCCCGGAGTCCGAGACAGGCGGGGACCCCGGCAGCTCCCGGTGCTATCTCTGAGCGGGTTCCG
AGCCCCACTTCCGGGCGGTCAGAATTAGCCTCAGAGCGCCGAGCAACGACGCGCCGGGGACCTCCCGCCCATGAG
GCCGGAAGGGGCGGGGAGAACGCTGCGGAATGGTCCCTGGGCGCAACGTCATTTCCGCGTACGGGGGAGGGCGGG
CCTGGAGTCTGAGCCGGCGCCGCTCAGTGTGAGGTGGTTTCTGCGGGTGAGGCTGGCGCCCGTACC**ATG**AGCGAG
GCGGACGGGCTGCGACAGCGCCGGCCCCTGCGGCCGCAGGTCGTCACAGACGATGATGGCCAGGCCCCGGAGGCT
AAGGACGGCAGCTCCTTTAGCGGCAGAGTTTTCCGAGTGACCTTCTTGATGCTGGCTGTTTCTCTCACCGTTCCC
CTGCTTGGAGCCATGATGCTGCTGGAATCTCCTATAGATCCACAGCCTCTCAGCTTCAAAGAACCCCCGCTCTTG
CTTGGTGTTCTGCATCCAAATACGAAGCTGCGACAGGCAGAAAGGCTGTTTGAAAATCAACTTGTTGGACCGGAG
TCCATAGCACATATTGGGGATGTGATGTTTACTGGGACAGCAGATGGCCGGGTCGTAAAACTTGAAAATGGTGAA
ATAGAGACCATTGCCCGGTTTGGTTCGGGCCCTTGCAAAACCCGAGATGATGAGCCTGTGTGTGGGAGACCCCTG
GGTATCCGTGCAGGGCCCAATGGGACTCTCTTTGTGGCCGATGCATACAAGGGACTATTTGAAGTAAATCCCTGG
AAACGTGAAGTGAAACTGCTGCTGTCCTCCGAGACACCCATTGAGGGGAAGAACATGTCCTTTGTGAATGATCTT
ACAGTCACTCAGGATGGGAGGAAGATTTATTTCACCGATTCTAGCAGCAAATGGCAAAGACGAGACTACCTGCTT
CTGGTGATGGAGGGCACAGATGACGGGCGCCTGCTGGAGTATGATACTGTGACCAGGGAAGTAAAAGTTTTATTG
GACCAGCTGCGGTTCCCGAATGGAGTCCAGCTGTCTCCTGCAGAAGACTTTGTCCTGGTGGCAGAAACAACCATG
GCCAGGATACGAAGAGTCTACGTTTCTGGCCTGATGAAGGGCGGGGCTGATCTGTTTGTGGAGAACATGCCTGGA
TTTCCAGACAACATCCGGCCCAGCAGCTCTGGGGGGTACTGGGTGGGCATGTCGACCATCCGCCCTAACCCTGGG
TTTTCCATGCTGGATTTCTTATCTGAGAGACCCTGGATTAAAAGGATGATTTTTAAGCTCTTTAGTCAAGAGACG
GTGATGAAGTTTGTGCCGCGGTACAGCCTCGTCCTAGAACTCAGCGACAGCGGTGCCTTCCGGAGAAGCCTGCAT
GATCCCGATGGGCTGGTGGCCACCTACATCAGCGAGGTGCACGAACACGATGGGCACCTGTACCTGGGCTCTTTC
AGGTCCCCCTTCCTCTGCAGACTCAGCCTCCAGGCTGTT**TAG**CCCTCCCAGATAGCTGCCCCTGCCACGCAGGCC
AGGAGTCTTCACACTCAGGCACCAGGCCTGGTCCAGGAGGAGCTGTGGACACAGTCGTGGTTCAAGTGTCCACAT
GCACCTGTTAGTCCCTGAGAGGTGGTGGGAATGGCTGCTTCATTCCTCGAGGATGCCCGGGCCCCACCTGGGCTT
GTCTTTCTGTTTAGAGGGAAGTGTAACATATCTGCCATGAGGAACATAAATTCATGTAAAGCCATTTTCTCTTAA
ACAAAACAAAACTTTCTAAGTACAGTCATTCTCTAGGATTTGGGAAGCTCCTTGCACTTGGAACAGGGCTCAGGT
GGGTGGAGCAGTAAGGCACTACCCAGAGAGCTTGCTGCTGCGGCCCTGTCCTGCGGCCTCAAAGTTCTTCTTTAC
TATATATAACGTGCGGTCATACCTTTCTTCGTTGTGGTGGGGATGGAAGAGCAGAGGGAGCATGGCCCAGGGGTG
TTGAGGCCAGCGGTGAGAGCCGTGTTAGCCAAGACATGGAACTGTGTTCTCAAGGGTTATGTGGGGCGTGGGCTC
TCCATAGTGTGTATGAAAAGCTTGTTGACTCTAGCGGCTCAGAGAGGACTTTGCTGGGTTTCTTTCTGTGAATAT
CTCCGTGCTGACCATGCTGGAATTGGATGATTCTGCAATTCGGGACCTACTGCAGGGGTCCGTTTAGTAACGTCT
TGTCTGTGATCTTTGTTCTTGACCTCTAGACCCCAAGATGTGAACAGTGCACGTGTTAATGTCATCTTTGCTCAT
GTGTTATAAGCCCCAAGTTGCTGTATATTTTCACAAGTATGTCTACACACTGGTCATGATTTTGATAATAAATAA
CGATAAATCG

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FIGURE 3949

GAAAATAGTGGATGAGGCTGTGAAGCACTGCCCCACCGTGCAGCATGTCCTGGTGGCTCACAGGACAGACAACAA
GGTCCAC**ATG**GGGGATCTGGACGTCCCGCTGGAGCAGGAAATGGCCAAGGAGGACCCTGTTTGCGCCCCAGAGAG
CATGGGCAGTGAGGACATGCTCTTCATGCTGTACACCTCAGGGAGCACCGGAATGCCCAAGGGCATCGTCCATAC
CCAGGCAGGCTACCTGCTCTATGCCGCCCTGACTCACAAGCTTGTGTTTGACCACCAGCCAGGTGACATCTTTGG
CTGTGTGGCCGACATCGGTTGGATTACAGGACACAGCTACGTGGTGTATGGGCCTCTCTGCAATGGTGCCACCAG
CGTCCTTTTTGAGAGCACCCCAGTTTATCCCAATGCTGGTCGGTACTGGGAGACAGTAGAGAGGTTGAAGATCAA
TCAGTTCTATGGCGCCCCAACGGCTGTCCGGCTGTTGCTGAAATACGGTGATGCCTGGGTGAAGAAGTATGATCG
CTCCTCCCTGCGGACCCTGGGGTCAGTGGGAGAGCCCATCAACTGTGAGGCCTGGGAGTGGCTTCACAGGGTGGT
GGGGGACAGCAGGTGCACGCTGGTGGACACCTGGTGGCAGACAGAAACAGGTGGCATCTGCATCGCACCACGGCC
CTCGGAAGAAGGGGCGGAAATCCTCCCTGCCATGGCGATGAGGCCCTTCTTTGGCATCGTCCCCGTCCTCATGGA
TGAGAAGGGCAGCGTCGTGGAGGGCAGCAACGTCTCCGGGGCCCTGTGCATCTCCCAGGCCTGGCCGGGCATGGC
CAGGACCATCTATGGCGACCACCAGCGATTTGTGGACGCCTACTTCAAGGCCTACCCAGGCTATTACTTCACTGG
AGACGGGGCTTACCGAACTGAGGGCGGCTATTACCAGATCACAGGGCGGATGGATGATGTCATCAACATCAGTGG
CCACCGGCTGGGGACCGCAGAGATTGAGGACGCCATCGCCGACCACCCTGCAGTACCAGAAAGTGCTGTCATTGG
CTACCCCCACGACATCAAAGGAGAAGCTGCCTTTGCCTTCATTGTGGTGAAAGATAGTGCGGGTGACTCAGATGT
GGTGGTGCAGGAGCTCAAGTCCATGGTGGCCACCAAGATCGCCAAATATGCTGTGCCTGATGAGATCCTGGTGGT
GAAACGTCTTCCAAAAACCAGGTCTGGGAAGGTCATGCGGCGGCTCCTGAGGAAGATCATCACTAGTGAGGCCCA
GGAGCTGGGAGACACTACCACCTTGGAGGACCCCAGCATCATCGCAGAGATCCTGAGTGTCTACCAGAAGTGCAA
GGACAAGCAGGCTGCTGCTAAG**TGA**GCTGGCACCTTGTGGGGCTCTTGGGATGGGCGGGCACCCAAGCCCTGGCT
TGTCCTTCCCAGAAGGTACCCCTGAGGTTGGCGTCTTCCTACGTCCCAGAAGCAGCCCCCACCCCACACATGACC
CACACCGCCCTCACGTGAAGCTGGGCTGAGAGCCCTTTCTCCCATCCATTGGAGGTCCCAGGAGTGTCACCCATG
GAGAGGCTATGCGACATGGCTAGGGCTGGTTCTGCCATCTGAGTTTGGTTTCCTGGAATGAAAAGGCATTGCCAT
CTCCATTCCTCTGCCCTCTTGAGCCAGCACAGGAAGGTGAGGCCCTGGGATAGCGCGCCTGCTCAGATAACACAG
AGCTAGTTAGCTAGTAGCAACCGTGTTTTCTCCAGATCTGTCTAGATACAAAGGTCAGAAATCTTATTTTTATAC
TTTTATATTGTGGAAGAACAGCATGCAACACTCACATGTAGTGTGTGGATTTACTTGAACATGTTCTTTTTAACA
TGTAGTTATGAAAATCTCCTTTTTTGCCTCTACTGGTGAGGAAACATGAGGATCAGAGGCCACATTTTTAATTAT
TGTTAGTGTATTTGGAAGTCTGAATTGGAGATGTTTGTACCTCTGTCTAAACAGTTCCCTTGAGAACTTCCAAGC
CTCCGGCATCTTTTCCTGGTGAGTGTTTCTCCTGTGCTTGGTTGTGTATAATGGAGCTAACTCCTAAGCGGTGGG
GTGAATGTGGCCGCCTTAGTTCTGAAGCTACTCCAGTTATGTTCTGTTTCTTCAAGCTGTGATCCAGAAAGATTT
TTGTGCCCCCAGATGCCTCTTGATAGGAGAGGCAACATACTCCAAATAGTTGGGTTCTTCAGGGAAGCTATTAGA
AACTCAGGTGACTTGTTAGAGCACTAACTTGGTCAGAGCCAAATCCTGGCAAACGCTGCCTGACCTTCACTCTGT
GGTTGGGGCGGTGAGAACCACTGAGGTCCAATGATGAGACTTGGAGGTCTGGATCCAGTCTCTCTTTGTTTTAAT
GTGACTTAGGTGCTGTCAACATTAGCAAGATAATGGAAATCACGACGCCAGTGGGTGCTTACCTCCCTGCTAGGC
ATGCAGGGGCTGGCGGTTGGCAGGGGAAGGAGGCCCAGTGAGCCGGGTCCCTTAGGGGAGGGAGAGTTTGTCCTC
TTTGCCCCACAGTCTACCCTTCAGGGCCTTGTGGCAGTGCCAGTGTTCGGGGGGTGTCTGGGCCACTGAGTACCC
ACTCGGTCGTGGTTGTGCTGGCCTCTTGGGTGAGTGAACCTGTGAAGCCCAGGAGGTGGTGTTGGCTGCAGGGTA
CACAAATACTGAGTGGTGGTCTTTTGTTACAGGCTTAGCAACAAAGCTGTGCCCTGGGCATGGGGGGCTGTAGTG
TAGCTACAGTTGTGCGTTTGTGAAATGGCTTAGCTTTCCATGTTGCTGAGAGGAACCTGGACATGGTCCCGGGCA
TCTGAATGATCTGTAGGGGAGGGAGTTCAAATAAAGCTTTATTTTGTTCATTTTC

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FIGURE 3950

GTGGGGTCGTATCCCGCGGGTGGAGGCCGGGGTGGCGCCGGCCGGGGCGGGGGAGCCCAAAAGACCGGCTGCCGC
CTGCTCCCCGGAAAAGGGCACTCGTCTCCGTGGGTGTGGCGGAGCGCGCGGTGCATGGAATGGGCTATGTGA**ATG**

AAAAAAGGTATCCGTTATGAAACTTCCAGAAAAACGAGCTACATTTTTCAGCAGCCGCAGCACGGTCCTTGGCAA
ACAAGGATGAGAAAAATATCCAACCACGGGAGCCTGCGGGTGGCGAAGGTGGCATACCCCCTGGGGCTGTGTGTG
GGCGTGTTCATCTATGTTGCCTACATCAAGTGGCACCGGGCCACCGCCACCCAGGCCTTCTTCAGCATCACCAGG
GCAGCCCCGGGGGCCCGGTGGGGTCAGCAGGCCCACAGCCCCCTGGGGACAGCTGCAGACGGGCACGAGGTCTTC
TACGGGATCATGTTTGATGCAGGAAGCACTGGCACCCGAGTACACGTCTTCCAGTTCACCCGGCCCCCCAGAGAA
ACTCCCACGTTAACCCACGAAACCTTCAAAGCACTGAAGCCAGGTCTTTCTGCCTATGCTGATGATGTTGAAAAG
AGCGCTCAGGGAATCCGGGAACTACTGGATGTTGCTAAACAGGACATTCCGTTCGACTTCTGGAAGGCCACCCCT
CTGGTCCTCAAGGCCACAGCTGGCTTACGCCTGTTACCTGGAGAAAAGGCCCAGAAGTTACTGCAGAAGGTGAAA
AAAGTATTTAAAGCATCGCCTTTCCTTGTAGGGGATGACTGTGTTTCCATCATGAACGGAACAGATGAAGGCGTT
TCGGCGTGGATCACCATCAACTTCCTGACAGGCAGCTTGAAAACTCCAGGAGGGAGCAGCGTGGGCATGCTGGAC
TTGGGCGGAGGATCCACTCAGATCGCCTTCCTGCCACGCGTGGAGGGCACCCTGCAGGCCTCCCCACCCGGCTAC
CTGACGGCACTGCGGATGTTTAACAGGACCTACAAGCTCTATTCCTACAGCTACCTCGGGCTCGGGCTGATGTCG
GCACGCCTGGCGATCCTGGGCGGCGTGGAGGGGCAGCCTGCTAAGGATGGAAAGGAGTTGGTCAGCCCTTGCTTG
TCTCCCAGTTTCAAAGGAGAGTGGGAACACGCAGAAGTCACGTACAGGGTTTCAGGGCAGAAAGCAGCGGCAAGC
CTGCACGAGCTGTGTGCTGCCAGAGTGTCAGAGGTCCTTCAAAACAGAGTGCACAGGACGGAGGAAGTGAAGCAT
GTGGACTTCTATGCTTTCTCCTACTATTACGACCTTGCAGCTGGTGTGGGCCTCATAGATGCGGAGAAGGGAGGC
AGCCTGGTGGTGGGGGACTTCGAGATCGCAGCCAAGTACGTGTGTCGGACCCTGGAGACACAGCCGCAGAGCAGC
CCCTTCTCATGCATGGACCTCACCTACGTCAGCCTGCTACTCCAGGAGTTCGGCTTTCCCAGGAGCAAAGTGCTG
AAGCTCACTCGGAAAATTGACAATGTTGAGACCAGCTGGGCTCTGGGGGCCATTTTTCATTACATCGACTCCCTG
AACAGACAGAAGAGTCCAGCCTCA**TAG**TGGCCGAGCCATCCCTGTCCCCGTCAGCAGTGTCTGTGTGTCTGCATA
AACCCTCCTGTCCTGGACGTGACTTCATCCTGAGGAGCCACAGCACAGGCCGTGCTGGCACTTTCTGCACACTGG
CTCTGGGACTTGCAGAAGGCCTGGTGCTGCCCTGGCATCAGCCTCTTCCAGTCACATCTGGCCAGAGGGCTGTCT
GGACCTGGGCCCTGCTCAATGCCACCTGTCTGCCTGGGCTCCAAGTGGGCAGGACCAGGACAGAACCACAGGCAC
ACACTGAGGGGGCAGTGTGGCTCCCTGCCTGTCCCATCCCCATGCCCCGTCCGCGGGGCTGTGGCTGCTGCTGTG
CATGTCCCTGCGATGGGAGTCTTGTCTCCCAGCCTGTCAGTTTCCTCCCCAGGGCAGAGCTCCCCTTCCTGCAAG
AGTCTGGGAGGCGGTGCAGGCTGTCCTGGCTGCTCTGGGGAAGCCGAGGGACAGCCATAACACCCCCGGGACAGT
AGGTCTGGGCGGCACCACTGGGAACTCTGGACTTGAGTGTGTTTGCCTCTTCCTTGGGTATGAATGTGTGAGTTC
ACCCAGAGGCCTGCTCTCCTCACACATTGTGTGGTTTGGGGTTAATGATGGAGGGAGACACCTCCTCATAGACGG
CAGGTGCCCACCTTTCAGGGAGTCTCCCAGCATGGGCGGATGCCGGGCATGAGCTGCTGTAAACTATTTGTGGCT
GTGCTGCTTGAGTGACGTCTCTGTCGTGTGGGTGCCAAGTGCTTGTGTAGAAACTGTGTTCTGAGCCCCCTTTTC
TGGACACCAACTGTGTCCTGTGAATGTATCGCTACTGTGAGCTGTTCCCGCCTAGCCAGGGCCATGTCTTAGGTG
CAGCTGTGCCACGGGTCAGCTGAGCCACAGTCCCAGAACCAAGCTCTCGGTGTCTCGGGCCACCATCCGCCCACC
TCGGGCTGACCCCACCTCCTCCATGGACAGTGTGAGCCCCGGGCCGTGCATCCTGCTCAGTGTGGCGTCAGTGTC
GGGGCTGAGCCCCTTGAGCTGCTTCAGTGAATGTACAGTGCCCGGCACGAGCTGAACCTCATGTGTTCCACTCCC
AATAAAAGGTTGACAGGGGCTTCTCCTTC

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FIGURE 3951A

GAGCAGCTGCACCATCCCGGCGTTCGCGTGTGCCGCCGCTTTCCTCCTCCATCTCTTTTCCTCCGCCTCCGCCGG
CGCG**ATG**GCGAAGCCGCTGACGGACAGCGAGAAGCGGAAGCAGATCAGCGTGCGCGGCCTGGCGGGGCTAGGCGA
CGTGGCCGAGGTGCGGAAGAGCTTCAACCGGCACTTGCACTTCACGCTGGTCAAGGACCGCAATGTGGCCACGCC
CCGCGACTACTTCTTCGCGCTGGCGCACACGGTGCGCGACCACCTCGTGGGCCGCTGGATCCGCACGCAGCAGCA
CTACTACGAGCGCGACCCCAAGCGCATTTATTATCTTTCCCTGGAATTCTACATGGGTCGCACGCTGCAGAACAC
GATGGTGAACCTGGGCCTTCAGAATGCCTGCGATGAAGCCATCTATCAGTTGGGGTTAGACTTGGAGGAACTCGA
GGAGATAGAAGAAGATGCTGGCCTTGGGAATGGAGGCCTGGGGAGGCTGGCAGCGTGTTTCCTTGACTCAATGGC
TACCTTGGGCCTGGCAGCATACGGCTATGGAATCCGCTATGAATTTGGGATTTTTAACCAGAAGATTGTCAATGG
CTGGCAGGTAGAGGAGGCCGATGACTGGCTGCGCTACGGCAACCCCTGGGAGAAAGCGCGGCCTGAGTATATGCT
TCCCGTGCACTTCTACGGACGCGTGGAGCACACCCCCGACGGCGTGAAGTGGCTGGACACACAGGTGGTGCTGGC
CATGCCCTACGACACCCCAGTGCCCGGCTACAAGAACAACACCGTCAACACCATGCGGCTGTGGTCCGCCAAGGC
TCCCAACGACTTCAAGCTGCAGGACTTCAACGTGGGAGACTACATCGAGGCGGTCCTGGACCGGAACTTGGCTGA
GAACATCTCCAGGGTCCTGTATCCAAATGATAACTTCTTTGAGGGGAAGGAGCTGCGGCTGAAGCAGGAGTACTT
CGTGGTGGCCGCCACGCTCCAGGACATCATCCGCCGCTTCAAGTCGTCCAAGTTCGGCTGCCGGGACCCTGTGAG
AACCTGTTTCGAGACGTTCCCAGACAAGGTGGCCATCCAGCTGAACGACACCCACCCCGCCCTCTCCATCCCTGA
GCTCATGCGGATCCTGGTGGACGTGGAGAAGGTGGACTGGGACAAGGCCTGGGAAATCACGAAGAAGACCTGTGC
ATACACCAACCACACTGTGCTGCCTGAGGCCTTGGAGCGCTGGCCCGTGTCCATGTTTGAGAAGCTGCTGCCGCG
GCACCTGGAGATAATCTATGCCATCAACCAGCGGCACCTGGACCACGTGGCCGCGCTGTTTCCCGGCGATGTGGA
CCGCCTGCGCAGGATGTCTGTGATCGAGGAGGGGGACTGCAAGCGGATCAACATGGCCCACCTGTGTGTGATTGG
GTCCCATGCTGTCAATGGTGTGGCGAGGATCCACTCGGAGATCGTGAAACAGTCGGTCTTTAAGGATTTTTATGA
ACTGGAGCCAGAGAAGTTCCAGAATAAGACCAATGGCATCACCCCCCGCCGGTGGCTGCTGCTGTGCAACCCGGG
GCTGGCCGATACCATCGTGGAGAAAATTGGGGAGGAGTTCCTGACTGACCTGAGCCAGCTGAAGAAGCTGCTGCC
GCTGGTCAGTGACGAGGTGTTCATCAGGGACGTGGCCAAGGTCAAACAGGAGAACAAGCTCAAGTTCTCGGCCTT
CCTGGAGAAGGAGTACAAGGTGAAGATCAACCCCTCCTCCATGTTCGATGTGCATGTGAAGAGGATCCACGAGTA
CAAGCGGCAGCTGCTCAACTGCCTGCACGTCGTCACCCTGTACAATCGAATCAAGAGAGACCCGGCCAAGGCTTT
TGTGCCCAGGACTGTTATGATTGGGGGCAAGGCAGCGCCCGGTTACCACATGGCCAAGCTGATCATCAAGTTGGT
CACCTCCATCGGCGACGTCGTCAATCATGACCCAGTTGTGGGTGACAGGTTGAAAGTGATCTTCCTGGAGAACTA
CCGTGTGTCCTTGGCTGAGAAAGTGATCCCGGCCGCTGATCTGTCGCAGCAGATCTCCACTGCAGGCACCGAGGC
CTCAGGCACAGGCAACATGAAGTTCATGCTCAACGGGGCCCTCACCATCGGCACCATGGACGGCGCCAACGTGGA
GATGGCCGAGGAGGCCGGGGCCGAGAACCTCTTCATCTTCGGCCTGCGGGTGGAGGATGTCGAGGCCTTGGACCG
GAAAGGGTACAATGCCAGGGAGTACTACGACCACCTGCCCGAGCTGAAGCAGGCCGTGGACCAGATCAGCAGTGG
CTTTTTTTCTCCCAAGGAGCCAGACTGCTTCAAGGACATCGTGAACATGCTGATGCACCATGACAGGTTCAAGGT
GTTTGCAGACTATGAAGCCTACATGCAGTGCCAGGCACAGGTGGACCAGCTGTACCGGAACCCCAAGGAGTGGAC
CAAGAAGGTCATCAGGAACATCGCCTGCTCGGGCAAGTTCTCCAGTGACCGGACCATCACGGAGTATGCACGGGA
GATCTGGGGGTGTGGAGCCCTCCGACCTGCAGCTTCAGCACCTGCCCCACCCAGAGTGGGAGTCAGGTGGAGCCAC
CTGCTGGGCTCCCCCAGAACTTTGCACACATCTTGCTATGTAT**TAG**CCGATGTCTTTAGTGTTGAGCCTCTGGAT
TCTGGGGTCTGGGCCAGTGGCCATAGTGAAGCCTGGGAATGAGTGTTACTGCAGCATCTGGGCTGCCAGCCACAG
GGAAGGGCCAAGCCCCATGTAGCCCCAGTCATCCTGCCCAGCCCTGCCTCCTGGCCATGCCGGGAGGGGTCGGAT
CCTCTAGGCATCGCCTTCACAGCCCCCTGCCCCCTGCCCTCTGTCCTGGCTCTGCACCTGGTATATGGGTCATGG
ACCCAGATGGGGCTTTCCCTTTGTAGCCATCCAATGGGCATTGTGTGGGTGCTTGGAACCCGGGATGACTGAGGG
GGACACTGGAGTGGGTGCTTGTGTCTGCTGTCTCAGAGGCCTTGGTCAGGATGAAGTTGGCTGACACAGCTTAGC
TTGGTTTTGCTTATTCAAAAGAGAAAATAACTACACATGGAAATGAAACTAGCTGAAGCCTTTTCTTGTTTTAGC
AACTGAAAATTGTACTTGGTCACTTTTGTGCTTGAGGAGGCCCATTTTCTGCCTGGCAGGGGGCAGGTCTGTGCC
CTCCCGCTGACTCCTGCTGTGTCCTGAGGTGCATTTCCTGTTGTACACACAAGGGCCAGGCTCCATTCTCCCTCC
CTTTCCACCAGTGCCACAGCCTCGTCTGGAAAAAGGACCAGGGGTCCCGGAGGAACCCATTTGTGCTCTGCTTGG
ACAGCAGGCCTGGCACTGGGAGGTGGGGGTGAGCCCCTCACAGCCTTGCCCCTCCCCAAGGCTGGCAACCTGCCT
CCCATTGCCCAAGAGAGAGGGCAGGGAACAGGCTACTGTCCTTCCCTGTGGAATTGCCGAGAAATCTAGCACCTT
GCATGCTGGATCTGGGCTGCGGGGAGGCTCTTTTTCTCCCTGGCCTCCAGTGCCCACCAGGAGGATCTGCGCACG

FIGURE 3951B

GTGCACAGCCCACCAGAGCACTACAGCCTTTTATTGAGTGGGGCAAGTGCTGGGCTGTGGTCGTGCCCTGACAGC
ATCTTCCCCAGGCAGCGGCTCTGTGGAGGAGGCCATACTCCCCTAGTTGGCCACTGGGGCCACCACCCTGACCAC
CACTGTGCCCCTCATTGTTACTGCCTTGTGAGATAAAAACTGATTAAACCTTTGTGGCTGTGGTTGGC

FIGURE 3952

GCCAGGGATGCTGGGCGCGCGCTCCTTGGAACTAGAGAGGAGGTGGCCGGGGCGGGGCCGGGGGAGGGGGGTAGG
GCAGAGCCGGCGGGAGCCCGGCGCTGATTGGCCGGCCTGGCTGGCGGGCCCCCGCCGCTGGTTCGTAGCCGGCGC
AGCGGCCTGGGCTGGGATGTGAGGAGCGGCGGGTTCCGGGCTCCGGGCTCTGGGTGGCGGCGGCTGTGAGCGGCG
GCACTGCGGCGCAGGCCAGCGGGCGCCGTCGGCGGCTGGCCCTGTCGGCCGCGGG**ATG**AGGAAGCGGACCGAGCC
CGTCGCCTTGGAGCATGAGCGCTGCGCCGCCGCGGGCTCGTCCTCCTCCGGCTCGGCCGCCGCGGCGCTGGACGC
CGACTGCCGCCTGAAGCAGAACCTACGCCTGACGGGCCCGGCGGCGGCTGAGCCGCGCTGCGCAGCCGACGCGGG
AATGAAGCGGGCGCTGGGCAGGCGAAAGGGCGTGTGGTTGCGCCTGAGGAAGATACTTTTCTGTGTTTTGGGGTT
GTACATTGCCATTCCATTTCTCATCAAACTATGTCCTGGAATACAGGCCAAACTGATTTTCTTGAATTTCGTAAG
AGTTCCCTATTTCATTGATTTGAAAAAACCACAGGATCAAGGTTTGAATCACACGTGTAACTACTACCTGCAGCC
AGAGGAAGACGTGACCATTGGAGTCTGGCACACCGTCCCTGCAGTCTGGTGGAAGAACGCCCAAGGCAAAGACCA
GATGTGGTATGAGGATGCCTTGGCTTCCAGCCACCCTATCATTCTGTACCTGCATGGGAACGCAGGTACCAGAGG
AGGCGACCACCGCGTGGAGCTTTACAAGGTGCTGAGTTCCCTTGGTTACCATGTGGTCACCTTTGACTACAGAGG
TTGGGGTGACTCAGTGGGAACGCCATCTGAGCGGGGCATGACCTATGACGCACTCCACGTTTTTGACTGGATCAA
AGCAAGAAGTGGTGACAACCCCGTGTACATCTGGGGCCACTCTCTGGGCACTGGCGTGGCGACAAATCTGGTGCG
GCGCCTCTGTGAGCGAGAGACGCCTCCAGATGCCCTTATATTGGAATCTCCATTCACTAATATCCGCGAAGAAGC
TAAGAGCCATCCATTTTCAGTGATATATCGATACTTCCCTGGGTTTGACTGGTTCTTCCTTGATCCTATTACAAG
TAGTGGAATTAAATTTGCAAATGATGAAAACGTGAAGCACATCTCCTGTCCCCTGCTCATCCTGCACGCTGAGGA
CGACCCGGTGGTGCCCTTCCAGCTTGGCAGAAAGCTCTATAGCATCGCCGCACCAGCTCGAAGCTTCCGAGATTT
CAAAGTTCAGTTTGTGCCCTTTCATTCAGACCTTGGCTACAGGCACAAATACATTTACAAGAGCCCTGAGCTGCC
ACGGATACTGAGACCTCAGCAGGGCCCAGGTTCCAGCCCAGATCCCAGCATGTGGTCAGAGCTGGTG**TGA**CTGAA
GCCAACAGGTGACACGGTCATCGAAGAGCAGCAGACAAAACTAAAACTAACCCAAAGGCAGCTGAAAGTGGAGGG
CAGGTGAATTCCCAGCCCTCGCCGGATTCAACTTTTGCCAACGGTGAAGAACTGCCCTGAGCTGCAAACCTTACA
AAGTCTGTAACTCTAGATAAACCATACCATGTGCTAACTGCACTGAAATAAAACACTAACTACATTATAATGTC

FIGURE 3953

ATCCAATGGGCATTGTGTGGGTGCTTGGAACCCGGG**ATG**ACTGAGGGGGAACCCATTTGTGCTCTGCTTGGACAG
CAGGCCTGGCACTGGGAGGTGGGGGTGAGCCCCTCACAGCCTTGCCCCTCCCCAAGGCTGGCAACCTGCCTCCCA
TTGCCCAAGAGAGAGGGCAGGGAACAGGCTACTGTCCTTCCCTGTGGAATTGCCGAGAAATCTAGCACCTTGCAT
GCTGGATCTGGGCTGCGGGGAGGCTCTTTTTCTCCCTGGCCTCCAGTGCCCACCAGGAGGATCTGCGCACGGTGC
ACAGCCCACCAGAGCACTACAGCCTTTTAT**TGA**GTGGGGCAAGTGCTGGGCTGTGGTCGTGCCCTGACAGCATCT
TCCCCAGGCAGCGGCTCTGTGGAGGAGGCCATACTCCCCTAGTTGGCCACTGGGGCCACCACCCTGACCACCACT
GTGCCCCTCATTGTTACTGCCTTGTGAGATAAAAACTGATTAAACCTTTGTGGCTGTGGTTGGCTG

FIGURE 3954A

CCTGCTATGGGATGGATGAAGAAGAGAACCACTATGTCTCGCAGCTCAGGGAAGTCTACAGCAGCTGCGACACCA
CGGGGACTGGCTTTCTGGACCGCCAGGAGCTGACCCAGCTCTGCCTTAAGCTTCACCTGGAGCAGCAGCTGCCCG
TCCTCCTGCAGACGCTTCTCGGAAACGACCATTTCGCCAGGGTTAACTTTGAGGAATTTAAGGAAGGTTTTGTGG
CTGTGTTGTCTTCAAATGCTGGTGTTCGCCCCTCAGATGAAGACAGTAGTTCTTTGGAATCAGCTGCCTCCAGTG
CCATCCCTCCAAAGTATGTGAATGGTTCTAAGTGGTATGGCCGTCGGAGCCGGCCTGAGCTATGTGACGCTGCCA
CAGAAGCCAGACGCGTGCCGGAGCAGCAAACCCAGGCCAGCCTGAAAAGTCACCTCTGGCGCTCAGCGTCTCTGG
AGAGCGTGGAGAGTCCCAAGTCAGATGAAGAGGCCGAGAGCACTAAAGAAGCTCAGAATGAATTATTTGAAGCAC
AAGGACAGCTGCAGACCTGGGATTCTGAGGACTTTGGGAGCCCCCAGAAGTCCTGCAGCCCCTCCTTTGACACCC
CAGAGAGCCAGATCCGGGGCGTGTGGGAAGAGCTGGGGGTGGGCAGCAGCGGACACCTGAGCGAGCAGGAGCTGG
CTGTGGTCTGCCAGAGCGTCGGGCTCCAGGGACTCGAGAAAGAGGAACTCGAAGACCTGTTTAACAAACTGGATC
AAGACGGAGACGGCAAAGTGAGTCTTGAGGAATTCCAGCTTGGCCTCTTCAGTCATGAGCCCGCGCTACTTCTAG
AGTCTTCCACTCGGGTTAAACCGAGCAAGGCTTGGTCTCATTACCAGGTCCCAGAGGAGAGCGGCTGCCACACCA
CCACAACCTCATCCCTCGTGTCCCTGTGCTCCAGCCTGCGCCTCTTCTCCAGCATTGACGATGGTTCTGGCTTCG
CTTTTCCTGATCAGGTCCTGGCCATGTGGACCCAGGAGGGGATTCAGAATGGCAGGGAGATCTTGCAGAGCCTGG
ACTTCAGCGTGGACGAGAAGGTGAACCTTCTGGAGCTGACCTGGGCCCTTGACAACGAGCTCATGACAGTGGACA
GTGCCGTCCAGCAGGCAGCCCTGGCCTGCTACCACCAGGAGCTGAGCTACCAGCAAGGGCAGGTGGAGCAGCTGG
CAAGGGAGCGTGACAAGGCAAGGCAGGACCTGGAGAGGGCCGAGAAGAGGAACCTGGAGTTTGTGAAAGAGATGG
ACGACTGCCACTCCACCCTGGAGCAGCTCACGGAGAAGAAAATCAAGCATCTGGAGCAGGGGTACCGGGAAAGGC
TGAGCCTCCTGCGGTCTGAGGTGGAGGCGGAGCGAGAGCTGTTCTGGGAGCAGGCCCACAGGCAGAGGGCCGCGC
TGGAGTGGGACGTGGGGCGCCTGCAGGCTGAGGAGGCTGGCCTCCGCGAGAAGCTGACCCTGGCCCTGAAGGAAA
ACAGTCGCCTACAGAAGGAGATTGTGGAAGTGGTGGAAAAGCTTTCGGATTCGGAGAGGCTGGCCCTGAAGCTGC
AGAAGGACCTGGAGTTTGTGCTGAAGGACAAGCTGGAGCCACAGAGTGCAGAGCTCCTGGCCCAGGAGGAGCGGT
TCGCAGCAGTCCTGAAGGAATACGAGCTCAAGTGCCGGGACCTGCAGGACCGCAACGATGAGCTGCAAGCTGAGC
TGGAAGGCCTGTGGGCGCGGCTGCCCAAGAACCGGCACAGCCCCTCATGGAGCCCGGATGGGCGCAGACGGCAGC
TCCCTGGACTCGGCCCAGCAGGCATTTCATTCCTGGGTAATTCTGCTCCAGTGAGTATAGAAACGGAGCTGATGA
TGGAGCAGGTAAAGGAGCATTACCAAGACCTCAGGACCCAGCTGGAGACCAAGGTAAATTACTACGAAAGGGAAA
TTGCGGCACTGAAAAGGAACTTTGAGAAGGAGAGGAAGGACATGGAGCAGGCTCGCAGGCGCGAGGTCAGCGTGC
TGGAGGGTCAGAAGGCCGACCTGGAGGAGCTCCACGAGAAGTCTCAGGAGGTCATCTGGGGCCTGCAGGAGCAGC
TGCAGGACACAGCCCGCGGCCCCGAGCCTGAGCAGATGGGCCTGGCACCCTGCTGCACCCAGGCACTGTGTGGCC
TGGCCCTGCGGCATCACAGCCACCTGCAGCAGATCAGGAGAGAGGCTGAGGCGGAGCTGAGTGGAGAGCTGTCGG
GGCTGGGAGCCCTGCCCGCTCGCAGAGACCTGACCTTGGAGCTGGAGGAGCCGCCGCAGGGACCCCTGCCACGCG
GGAGCCAGAGGTCGGAGCAGCTGGAGCTGGAGAGGGCACTGAAGCTGCAGCCCTGTGCGAGCGAGAAGCGCGCCC
AGATGTGCGTATCGTTGGCCCTCGAGGAGGAGGAGTTGGAGCTTGCCCGCGGGAAGCGAGTGGACGGGCCCTCCC
TGGAAGCAGAGATGCAGGCCCTGCCGAAAGATGGGCTGGTGGCAGGAAGTGGCCAGGAGGGCACACGTGGCCTCC
TACCACTGCGTCCGGGCTGTGGGGAGCGGCCACTGGCCTGGCTGGCCCCAGGTGATGGCAGAGAGTCTGAGGAGG
CGGCAGGAGCCGGGCCTCGCCGCAGGCAAGCCCAGGACACAGAAGCTACGCAGAGCCCGGCCCCCGCCCCTGCCC
CGGCATCCCACGGCCCCTCAGAGAGGTGGTCACGCATGCAGCCCTGTGGAGTGGATGGGGATATTGTCCCAAAGG
AGCCAGAGCCTTTCGGCGCGAGCGCAGCGGGGCTGGAGCAGCCTGGAGCCCGGGAGCTGCCTCTGCTGGGAACAG
AGAGAGACGCCTCGCAAACCCAGCCACGGATGTGGGAGCCACCCCTGAGGCCGGCCGCTTCGTGCAGGGGACAGG
CTGAGAGGCTACAGGCCATTCAGGAAGAGCGAGCACGAAGCTGGAGCAGGGGCACCCAGGAGCAGGCCTCGGAGC
AGCAGGCCCGGGCCGAGGGCGCCCTGGAGCCTGGGTGTCACAAGCACAGTGTGGAGGTTGCCAGGAGAGGGTCCT
TGCCATCCCACCTCCAGCTCGCAGACCCGCAGGGTTCCTGGCAGGAGCAGCTTGCTGCCCCAGAAGAGGGGGAGA
CCAAAATAGCGCTGGAGAGAGAGAAGGATGACATGGAAACCAAACTTCTACATCTGGAAGACGTCGTCCGGGCTC
TGGAGAAACATGTAGATTTGAGAGAGAACGACAGACTGGAGTTCCATAGACTTTCTGAAGAAAACACTTTGTTGA
AAAACGATCTGGGAAGGGTTCGGCAAGAGCTTGAAGCTGCAGAAAGTACTCACGATGCACAGAGGAAGGAAATTG
AGGTTTTAAAGAAAGACAAGGAAAAGGCCTGCTCTGAGATGGAGGTGCTCAACAGACAGAATCAGAACTACAAGG
ATCAATTATCCCAGCTCAATGTCAGGGTTCTTCAACTGGGACAGGAGGCTTCTACCCACCAGGCCCAAAACGAGG
AGCATCGTGTGACCATTCAGATGTTAACACAGAGCCTGGAGGAGGTGGTTCGCAGTGGGCAGCAGCAGAGTGACC

FIGURE 3954B

AAATCCAAAAACTTAGAGTTGAACTTGAATGCCTGAATCAGGAACATCAGAGCCTGCAGCTGCCATGGTCAGAGC
TGACCCAGACCCTTGAGGAAAGTCAAGACCAGGTGCAGGGAGCTCACCTGAGGCTGAGGCAGGCCCAGGCCCAGC
ACTTGCAGGAGGTCCGGCTGGTGCCCCAGGACCGTGTGGCCGAGCTGCATCGCCTGCTCAGCCTTCAGGGAGAGC
AGGCCAGGAGGCGCCTGGATGCACAGCGGGAAGAACATGAGAAACAGCTGAAAGCCACAGAAGAGCGGGTGGAAG
AGGCGGAGATGATTCTGAAGAATATGGAAATGCTCCTCCAAGAGAAAGTGGATAAGCTGAAGGAGCAGTTTGAAA
AGAACACGAAGTCCGACCTGCTGCTGAAGGAGCTGTACGTGGAGAACGCCCACCTGGTGAGAGCACTTCAGGCCA
CCGAGGAGAAGCAGCGAGGCGCCGAGAAACAAAGCCGCCTCTTGGAAGAAAAAGTTCGCGCTCTCAACAAACTCG
TCAGTAGGATTGCCCCCGCAGCCCTCTCTGTG**TAA**AGACAGATTATTTTCTAGGATTCATTCGAAAGCACATCTT
TTAAATTAAGCCACTGTGCTGCCTTAGATTCCGTGGGTCATGAGCCATGAGTCCTGGGACATCTGAGGATTGGGA
TTCTTTGTTCACCCCGCAGATAGTTAATGAATGGTCTGCCCTGGGCAAGATGGAGGTGGGGGCTGGGGGAATATG
CATGTTGCAGAAGCCGGCGTTTTTATTAGCGGTCCTGAGTAATTTCCCTTGGCAAAATTCCCAGTTTTGCCACTC
TCTGGAGCCAGATCCTGGGAGCTGTCAGCAAGGAGCAGGTAAGTGAGCAGTTATGGACAGCACTTTCCATGTGGT
GCTTCCGACCCTGGCTGTCAGAGTGAAATGTAAAGTCAGGGCTCTGTACAGTTTTGCCATTTCACTGTTCTGCTT
TAAGCTTAGCTTATTAGAACTCTTGGTGGAGGGTGCGTACACACATTCCAGAAAAGGCTTCACTCGCTGGGAACG
TCAACCCAGCGAGAAAGGAGGGGAAGCCCCTTCTCCGGGGACCTTATCTGTGGACTCAGGAATGATGGTGTTTAT
TGCAAATGCACAATCTTTTTCCCATTGAAATGTCATCACACTGGAAATTGTACTATATGT

FIGURE 3955A

CACACTCCCCATGCTATTAATTTGTTAAAGGCTTTGGTGTTGTACAGTACTGAATAACTGCCAATGCCATCTGCC
TGTGGCCTTCTCAAGTTTGTCTGCACCTGTGGTTATCCTGACTTCAAACCCGGGGAGACAGAGGCTAGAAGAGGC
AGACAGCTCTTGTGTATTCTGTCCAGTGCAAAGAACACCTGGAACTCTGAGCCCTAACCTTAAATGCAAGACCTC
ATCTGCAGGTGTTCCTCATCCTTTTAGCCCCTCAGTGATGTAAGCAACAAACGTCACCCAGCTCCTGGGGCACAC
TTCACTCCCAGATGAGCTTGTCCTGGATTTGCAGGGAGCCTGGCTCCCTAGACCTTTTGGCCAGATCCCCACAGG
GGAATTGTGCAGGTGCGCCCTCCCCAGATCCCCAGTTGGTATTGGAATCACACCAACTGTCACACATGGGGAGGG
CAGCTGCACCCAGCCACCCTCTGACTTCTCTCCTCCCACAGATTGGCCATCTGCAAGCTTCCCTTCTCCGTGGAG
AGCAGGAAGACAGTC**ATG**GGACCTCAGGGAGCCAGGAGACAGGCTTTCTTGGCATTTGGGGATGTCACTGTGGAT
TTCACCCAGAAGGAATGGAGGCTGCTGAGCCCTGCTCAGAGGGCCCTGTACAGGGAGGTGACACTGGAGAACTAC
AGCCACCTGGTCTCACTAGGAATTCTCCATTCTAAACCAGAACTCATCAGGCGGCTAGAGCAAGGGGAAGTGCCC
TGGGGAGAAGAGAGAAGACGCCGGCCAGGCCCCTGTGCAGGAATATATGCAGAACATGTCCTGCGGCCCAAGAAT
CTTGGACTTGCACATCAGAGGCAACAGCAACTACAATTTTCTGATCAAAGCTTCCAGAGTGACACAGCTGAAGGT
CAAGAGAAAGAAAAAAGCACTAAGCCCATGGCATTTTCCAGCCCACCCCTAAGACATGCAGTAAGCTCAAGGAGG
AGGAACAGTGTAGTGGAAATAGAGTCTAGTCAAGGCCAGAGGGAAAATCCTACAGAAATAGACAAAGTATTGAAA
GGAATAGAAAATTCAAGATGGGGAGCATTCAAGTGTGCAGAGCGTGGGCAAGACTTCAGCCGGAAGATGATGGTA
ATCATACACAAAAAAGCACATTCCAGGCAGAAACTTTTTACATGCAGGGAGTGTCACCAGGGCTTTAGAGATGAG
TCAGCATTGCTCTTGCACCAGAACACACACACAGGAGAGAAGTCCTATGTGTGCAGTGTGTGTGGGCGAGGCTTC
AGCCTCAAGGCCAACCTCCTCAGACACCAGAGGACACACTCAGGAGAGAAGCCTTTTCTGTGCAAGGTGTGTGGA
CGAGGCTATACCAGTAAGTCATACCTCACTGTGCATGAGAGAACACACACAGGAGAGAAGCCTTATGAATGCCAG
GAGTGTGGGCGAAGGTTTAACGATAAGTCCTCATACAACAAGCACTTGAAGGCGCATTCAGGGGAGAAGCCTTTT
GTGTGCAAGGAGTGTGGGCGAGGCTATACTAATAAGTCATACTTCGTTGTGCACAAGAGAATACACTCAGGAGAG
AAGCCTTACAGATGCCAGGAGTGTGGCCGAGGCTTTAGCAATAAGTCACACCTTATCACACACCAGAGGACACAC
TCAGGGGAGAAGCCCTTTGCGTGCAGGCAGTGTAAGCAAAGTTTTAGCGTGAAAGGAAGTCTCCTCAGACACCAG
AGAACACACTCAGGGGAGAAGCCTTTTGTGTGCAAGGATTGTGAGCGAAGCTTTAGCCAAAAGTCAACTCTTGTC
TACCACCAGAGAACACACTCAGGGGAGAAACCTTTTGTTTGTAGAGAATGTGGGCAAGGATTTATTCAGAAGTCA
ACCCTTGTGAAACATCAGATCACACACTCAGAGGAGAAGCCTTTTGTGTGCAAGGACTGTGGACGAGGCTTTATC
CAAAAGTCAACCTTCACTTTACACCAGAGGACACACTCAGAGGAGAAGCCTTATGGATGTCGGGAGTGTGGGCGA
AGGTTTCGGGATAAGTCCTCCTATAACAAGCACCTGAGGGCACACTTGGGTGAGAAACGTTTTTTCTGCAGGGAT
TGTGGGCGAGGCTTTACCTTGAAGCCAAATCTCACCATACATCAGAGGACACACTCAGGAGAGAAGCCCTTCATG
TGCAAGCAGTGTGAGAAAAGTTTTAGTTTGAAGGCAAATCTTCTTAGACATCAGTGGACACACTCGGGGGAAAGG
CCATTTAATTGCAAGGATTGCGGGCGAGGCTTCATCCTAAAATCAACTCTCCTCTTCCACCAGAAGACACACTCA
GGGGAGAAGCCTTTCATCTGTAGTGAATGTGGGCAAGGATTTATCTGGAAGTCAAATCTTGTGAAACACCAGCTT
GCACATTCTGGCAAGCAGCCTTTTGTATGCAAGGAGTGTGGGCGAGGCTTCAACTGGAAGGGAAATCTCCTCACA
CACCAGAGGACACACTCAGGGGAGAAGCCCTTCGTGTGTAATGTGTGTGGGCAAGGCTTCAGCTGGAAGAGAAGT
CTCACCAGACACCACTGGCGGATACACTCAAAGGAGAAGCCTTTTGTTTGCCAGGAGTGTAAGCGAGGCTATACC
AGTAAGTCAGACCTCACTGTGCATGAAAGAATACACACAGGAGAGAGGCCTTATGAATGCCAAGAGTGTGGACGA
AAGTTTAGCAATAAGTCATACTACAGTAAGCACTTAAAGAGACACTTACGTGAGAAGCGTTTTTGTACAGGGAGT
GTGGGTGAGGCTTCATCT**TGA**AGTTATATCTCACCATCCATCAGAGGACACACTCAGGAGAGTAACTTTGCTTTG
TTACAAGCTTTAGTTGAGGCTGCATAACTTGTTCGTGAAGATATAACAGAGGCAGACAGAATCCAGAGGGCTACA
GAGAACCTGAATTCAACCCATGTGTCCCCAAGAGATTCAGAGAAAAGAGGTCAATGTTTAGGGAACAGAGATGCC
AGTTGAGGGGAGGGCATTACCTGGGCTATTGGGGAAATGTGGTCTCTTTCCTACTGAGCACATATTCTTGTTGTA
TTTGTGCCAGGCTGTGCTTTCTAAGGACTGCTCTTAGCCAGTGACTGCAGAGCAGGGATACCAAGGCAGGCCTGT
TACACTCTCCCCAACCTCCTTGGACTGCAAACAATCTAGGACACCTCCACCAAACCTCCTCTTGCACTTTCCCTC
TGGCTTCCCTCCCAGCCTTCCTTGGTTTGGATGTTTTGTCCCCTCCTTAATTTATGTTGAAACTCTACATAAACT
GTTTACTGTTGAAACAGTGTAAGTATTAGGAGGTGGGACCTTTGGGAAGTGATTAAGTCAAGTCACGAAGATAGA
GCTTTGCGAATGGGATCAGGTGCCCTTATGAAAAGGCTTGATAGAGGGAGTTTGTCCTGTGGCCCTTCTATTTTC
TGCTCTGTGAGGACACAATGCTCCTCCCTTCCAAAAGATGCAGCATGAAGGCATCATCTTGGAAACAGACATGAG
CCCTCAACAGACAACTGCACCTACTGATGTTTTGATGTTGAACTTCCCAGCCTCCAGAACTCTGGGAAAATAAAG

FIGURE 3955B

TCCTCTTTATAC

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FIGURE 3956

GCTTCAGGGTACAGCTCCCCCGCAGCCAGAAGCCGGGCCTGCAGCGCCTCAGCACCGCTCCGGGACACCCCACCC
GCTTCCCAGGCGTGACCTGTCAACAGCAACTTCGCGGTGTGGTGAACTCTCTGAGGAAAAACCATTTTGATTATT
ACTCTCAGACGTGCGTGGCAACAAGTGACTGAGACCTAGAAATCCAAGCGTTGGAGGTCCTGAGGCCAGCCTAAG
TCGCTTCAAA**ATG**GAACGAAGGCGTTTGTGGGGTTCCATTCAGAGCCGATACATCAGCATGAGTGTGTGGACAAG
CCCACGGAGACTTGTGGAGCTGGCAGGGCAGAGCCTGCTGAAGGATGAGGCCCTGGCCATTGCCGCCCTGGAGTT
GCTGCCCAGGGAGCTCTTCCCGCCACTCTTCATGGCAGCCTTTGACGGGAGACACAGCCAGACCCTGAAGGCAAT
GGTGCAGGCCTGGCCCTTCACCTGCCTCCCTCTGGGAGTGCTGATGAAGGGACAACATCTTCACCTGGAGACCTT
CAAAGCTGTGCTTGATGGACTTGATGTGCTCCTTGCCCAGGAGGTTCGCCCCAGGAGGTGGAAACTTCAAGTGCT
GGATTTACGGAAGAACTCTCATCAGGACTTCTGGACTGTATGGTCTGGAAACAGGGCCAGTCTGTACTCATTTCC
AGAGCCAGAAGCAGCTCAGCCCATGACAAAGAAGCGAAAAGTAGATGGTTTGAGCACAGAGGCAGAGCAGCCCTT
CATTCCAGTAGAGGTGCTCGTAGACCTGTTCCTCAAGGAAGGTGCCTGTGATGAATTGTTCTCCTACCTCATTGA
GAAAGTGAAGCGAAAGAAAAATGTACTACGCCTGTGCTGTAAGAAGCTGAAGATTTTTGCAATGCCCATGCAGGA
TATCAAGATGATCCTGAAAATGGTGCAGCTGGACTCTATTGAAGATTTGGAAGTGACTTGTACCTGGAAGCTACC
CACCTTGGCGAAATTTTCTCCTTACCTGGGCCAGATGATTAATCTGCGTAGACTCCTCCTCTCCCACATCCATGC
ATCTTCCTACATTTCCCCGGAGAAGGAAGAGCAGTATATCGCCCAGTTCACCTCTCAGTTCCTCAGTCTGCAGTG
CCTGCAGGCTCTCTATGTGGACTCTTTATTTTTCCTTAGAGGCCGCCTGGATCAGTTGCTCAGGCACGTGATGAA
CCCCTTGGAAACCCTCTCAATAACTAACTGCCGGCTTTCGGAAGGGGATGTGATGCATCTGTCCCAGAGTCCCAG
CGTCAGTCAGCTAAGTGTCCTGAGTCTAAGTGGGGTCATGCTGACCGATGTAAGTCCCGAGCCCCTCCAAGCTCT
GCTGGAGAGAGCCTCTGCCACCCTCCAGGACCTGGTCTTTGATGAGTGTGGGATCACGGATGATCAGCTCCTTGC
CCTCCTGCCTTCCCTGAGCCACTGCTCCCAGCTTACAACCTTAAGCTTCTACGGGAATTCCATCTCCATATCTGC
CTTGCAGAGTCTCCTGCAGCACCTCATCGGGCTGAGCAATCTGACCCACGTGCTGTATCCTGTCCCCCTGGAGAG
TTATGAGGACATCCATGGTACCCTCCACCTGGAGAGGCTTGCCTATCTGCATGCCAGGCTCAGGGAGTTGCTGTG
TGAGTTGGGGCGGCCCAGCATGGTCTGGCTTAGTGCCAACCCCTGTCCTCACTGTGGGGACAGAACCTTCTATGA
CCCGGAGCCCATCCTGTGCCCCTGTTTCATGCCTAAC**TAG**CTGGGTGCACATATCAAATGCTTCATTCTGCATAC
TTGGACACTAAAGCCAGGATGTGCATGCATCTTGAAGCAACAAAGCAGCCACAGTTTCAGACAAATGTTCAGTGT
GAGTGAGGAAAACATGTTCAGTGAGGAAAAAACATTCAGACAAATGTTCAGTGAGGAAAAAAAGGGGAAGTTGGG
GATAGGCAGATGTTGACTTGAGGAGTTAATGTGATCTTTGGGGAGATACATCTTATAGAGTTAGAAATAGAATCT
GAATTTCTAAAGGGAGATTCTGGCTTGGGAAGTACATGTAGGAGTTAATCCCTGTGTAGACTGTTGTAAAGAAAC
TGTTGAAAATAAAGAGAAGCAATGTGAAGCA

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FIGURE 3957

TCTTCTGAGCTGACTCAGGACCCTGCTGTGTCTGTGGCCTTGGGACAGACAGTCAGGATCACATGCCAAGGAGAC
AGCCTCAGAAGCTATT**ATG**CAAGCTGGTACCAGCAGAAGCCAGGACAGGCCCCTGTACTTGTCATCTATGGTAAA
AACAACCGGCCCTCAGGGATCCCAGACCGATTCTCTGGCTCCAGCTCAGGAAACACAGCTTCCT**TGA**CCATCACT
GGGGCTCAGGCGGAAGATGAGGCTGACTATTACTGTAACTCCCGGGACAGCAGTGGTAACCATCT

FIGURE 3958

CAGCCCAAGGCCAACCCCACTGTCACTCTGTTCCCGCCCTCCTCTGAGGAGCTCCAAGCCAACAAGGCCACACTA
GTGTGTCTGATCAGTGACTTCTACCCGGGGAGCTGTGACAGTGGCCTGGAAGGCAG**ATG**GCAGCCCCGTCAAGGCG
GGAGTGGAGACCACCAAACCCTCCAAACAGAGCAACAACAAGTACGCGGCCAGCAGCTACC**TGA**GCCTGACGCCC
GAGCAGTGGAAGTCCCACAGAAGCTACAGCTGCCAGGTCACGCATGAAGGGAGCACCGTGGAGAAGACAGTGGCC
CCTACAGAATGTTCATAG

FIGURE 3959

CAGCCCAAGGCTGCCCCCTCGGTCACTCTGTTCCCGCCCTCCTCTGAGGAGCTTCAAGCCAACAAGGCCACACTG
GTGTGTCTCATAAGTGACTTCTACCCGGGAGCCGTGACAGTGGCCTGGAAGGCAGATAGCAGCCCCGTCAAGGCG
GGAGTGGAGACCACCACACCCTCCAAACAAAGCAACAACAAGTACGCGGCCAGCAGCTATCTGAGCCTGACGCCT
GAGCAGTGGAAGTCCCACAGAAGCTACAGCTGCCAGGTCACGC**ATG**AAGGGAGCACCGTGGAGAAGACAGTGGCC
CCTACAGAATGTTCATAG

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FIGURE 3960

CAGCCCAAGGCTGCCCCCTCGGTCACTCTGTTCCCGCCCTCCTCTGAGGAGCTTCAAGCCAACAAGGCCACACTG
GTGTGTCTCATAAGTGACTTCTACCCGGGAGCCGTGACAGTGGCCTGGAAGGCAGATAGCAGCCCCGTCAAGGCG
GGAGTGGAGACCACCACACCCTCCAAACAAAGCAACAACAAGTACGCGGCCAGCAGCTACCTGAGCCTGACGCCT
GAGCAGTGGAAGTCCCACAGAAGCTACAGCTGCCAGGTCACGC**ATG**AAGGGAGCACCGTGGAGAAGACAGTGGCC
CCTACAGAATGTTCATAG

FIGURE 3961

CAGCCCAAGGCTGCCCCCTCGGTCACTCTGTTCCCACCCTCCTCTGAGGAGCTTCAAGCCAACAAGGCCACACTG
GTGTGTCTCGTAAGTGACTTCTACCCGGGAGCCGTGACAGTGGCCTGGAAGGCAG**ATG**GCAGCCCCGTCAAGGTG
GGAGTGGAGACCACCAAACCCTCCAAACAAAGCAACAACAAGTATGCGGCCAGCAGCTACC**TGA**GCCTGACGCCC
GAGCAGTGGAAGTCCCACAGAAGCTACAGCTGCCGGGTCACGCATGAAGGGAGCACCGTGGAGAAGACAGTGGCC
CCTGCAGAATGCTCTTAG

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FIGURE 3962A

GAGTGCGGGCCGGGCGGGAGTGCGGCGAGAGCCGGCTGGCTGAGCTTAGCGTCCGAGGAGGCGGCGGCGGCGGCG
GCGGCACGGCGGCGGCGGGGCTGTGGGGCGGTGCGGAAGCGAGAGGCGAGGAGCGCGCGGGCCGTGGCCAGAGTC
TGGCGGCGGCCTGGCGGAGCGGAGAGCAGCGCCCGCGCCTCGCCGTGCGGAGGAGCCCCGCACACAATAGCGGCG
CGCGCAGCCCGCGCCCTTCCCCCCGGCGCGCCCCGCCCCGCGCGCCGAGCGCCCCGCTCCGCCTCACCTGCCACC
AGGGAGTGGGCGGGCATTGTTCGCCGCCGCCGCCGCCGCGCGGGCCATGGGGGCCGCCCGGCGCCCGGGGCCGGG
CTGGCGAGGCGCCGCGCCGCCGCTGAGACGGGCCCCGCGCGCAGCCCGGCGGCGCAGGTAAGGCCGGCCGCGCCA
TGGTGGACCCGGTGGGCTTCGCGGAGGCGTGGAAGGCGCAGTTCCCGGACTCAGAGCCCCCGCGCATGGAGCTGC
GCTCAGTGGGCGACATCGAGCAGGAGCTGGAGCGCTGCAAGGCCTCCATTCGGCGCCTGGAGCAGGAGGTGAACC
AGGAGCGCTTCCGCATGATCTACCTGCAGACGTTGCTGGCCAAGGAAAAGAAGAGCTATGACCGGCAGCGATGGG
GCTTCCGGCGCGCGGCGCAGGCCCCCGACGGCGCCTCCGAGCCCCGAGCGTCCGCGTCGCGCCCGCAGCCAGCGC
CCGCCGACGGAGCCGACCCGCCGCCCGCCGAGGAGCCCGAGGCCCGGCCCGACGGCGAGGGTTCTCCGGGTAAGG
CCAGGCCCGGGACCGCCCGCAGGCCCGGGGCAGCCGCGTCGGGGGAACGGGACGACCGGGGACCCCCCGCCAGCG
TGGCGGCGCTCAGGTCCAACTTCGAGCGGATCCGCAAGGGCCATGGCCAGCCCGGGGCGGACGCCGAGAAGCCCT
TCTACGTGAACGTCGAGTTTCACCACGAGCGCGGCCTGGTGAAGGTCAACGACAAAGAGGTGTCGGACCGCATCA
GCTCCCTGGGCAGCCAGGCCATGCAGATGGAGCGCAAAAAGTCCCAGCACGGCGCGGGCTCGAGCGTGGGGGATG
CATCCAGGCCCCCTTACCGGGGACGCTCCTCGGAGAGCAGCTGCGGCGTCGACGGCGACTACGAGGACGCCGAGT
TGAACCCCCGCTTCCTGAAGGACAACCTGATCGACGCCAATGGCGGTAGCAGGCCCCCTTGGCCGCCCCTGGAGT
ACCAGCCCTACCAGAGCATCTACGTCGGGGGCATGATGGAAGGGGAGGGCAAGGGCCCGCTCCTGCGCAGCCAGA
GCACCTCTGAGCAGGAGAAGCGCCTTACCTGGCCCCGCAGGTCCTACTCCCCCCGGAGTTTTGAGGATTGCGGAG
GCGGCTATACCCCGGACTGCAGCTCCAATGAGAACCTCACCTCCAGCGAGGAGGACTTCTCCTCTGGCCAGTCCA
GCCGCGTGTCCCCAAGCCCCACCACCTACCGCATGTTCCGGGACAAAAGCCGCTCTCCCTCGCAGAACTCGCAAC
AGTCCTTCGACAGCAGCAGTCCCCCCACGCCGCAGTGCCATAAGCGGCACCGGCACTGCCCGGTTGTCGTGTCCG
AGGCCACCATCGTGGGCGTCCGCAAGACCGGGCAGATCTGGCCCAACGATGGCGAGGGCGCCTTCCATGGAGACG
CAGATGGCTCGTTCGGAACACCACCTGGATACGGCTGCGCTGCAGACCGGGCAGAGGAGCAGCGCCGGCACCAAG
ATGGGCTGCCCTACATTGATGACTCGCCCTCCTCATCGCCCCACCTCAGCAGCAAGGGCAGGGGCAGCCGGGATG
CGCTGGTCTCGGGAGCCCTGGAGTCCACTAAAGCGAGTGAGCTGGACTTGGAAAAGGGCTTGGAGATGAGAAAAT
GGGTCCTGTCGGGAATCCTGGCTAGCGAGGAGACTTACCTGAGCCACCTGGAGGCACTGCTGCTGCCCATGAAGC
CTTTGAAAGCCGCTGCCACCACCTCTCAGCCGGTGCTGACGAGTCAGCAGATCGAGACCATCTTCTTCAAAGTGC
CTGAGCTCTACGAGATCCACAAGGAGTTCTATGATGGGCTCTTCCCCCGCGTGCAGCAGTGGAGCCACCAGCAGC
GGGTGGGCGACCTCTTCCAGAAGCTGGCCAGCCAGCTGGGTGTGTACCGGGCCTTCGTGGACAACTACGGAGTTG
CCATGGAAATGGCTGAGAAGTGCTGTCAGGCCAATGCTCAGTTTGCAGAAATCTCCGAGAACCTGAGAGCCAGAA
GCAACAAAGATGCCAAGGATCCAACGACCAAGAACTCTCTGGAAACTCTGCTCTACAAGCCTGTGGACCGTGTGA
CGAGGAGCACGCTGGTCCTCCATGACTTGCTGAAGCACACTCCTGCCAGCCACCCTGACCACCCCTTGCTGCAGG
ACGCCCTCCGCATCTCACAGAACTTCCTGTCCAGCATCAATGAGGAGATCACACCCCGACGGCAGTCCATGACGG
TGAAGAAGGGAGAGCACCGGCAGCTGCTGAAGGACAGCTTCATGGTGGAGCTGGTGGAGGGGGCCCGCAAGCTGC
GCCACGTCTTCCTGTTCACCGACCTGCTTCTCTGCACCAAGCTCAAGAAGCAGAGCGGAGGCAAAACGCAGCAGT
ATGACTGCAAATGGTACATTCCGCTCACGGATCTCAGCTTCCAGATGGTGGATGAACTGGAGGCAGTGCCCAACA
TCCCCCTGGTGCCCGATGAGGAGCTGGACGCTTTGAAGATCAAGATCTCCCAGATCAAGAGTGACATCCAGAGAG
AGAAGAGGGCGAACAAGGGCAGCAAGGCTACGGAGAGGCTGAAGAAGAAGCTGTCGGAGCAGGAGTCACTGCTGC
TGCTTATGTCTCCCAGCATGGCCTTCAGGGTGCACAGCCGCAACGGCAAGAGTTACACGTTCCTGATCTCCTCTG
ACTATGAGCGTGCAGAGTGGAGGGAGAACATCCGGGAGCAGCAGAAGAAGTGTTTCAGAAGCTTCTCCCTGACAT
CCGTGGAGCTGCAGATGCTGACCAACTCGTGTGTGAAACTCCAGACTGTCCACAGCATTCCGCTGACCATCAATA
AGGAAGATGATGAGTCTCCGGGGCTCTATGGGTTTCTGAATGTCATCGTCCACTCAGCCACTGGATTTAAGCAGA
GTTCAAATCTGTACTGCACCCTGGAGGTGGATTCCTTTGGGTATTTTGTGAATAAAGCAAAGACGCGCGTCTACA
GGGACACAGCTGAGCCAAACTGGAACGAGGAATTTGAGATAGAGCTGGAGGGCTCCCAGACCCTGAGGATACTGT
GCTATGAAAAGTGTTACAACAAGACGAAGATCCCCAAGGAGGACGGCGAGAGCACGGACAGACTCATGGGGAAGG
GCCAGGTCCAGCTGGACCCGCAGGCCCTGCAGGACAGAGACTGGCAGCGCACCGTCATCGCCATGAATGGGATCG
AAGTAAAGCTCTCGGTCAAGTTCAACAGCAGGGAGTTCAGCTTGAAGAGGATGCCGTCCCGAAAACAGACAGGGG

FIGURE 3962B

TCTTCGGAGTCAAGATTGCTGTGGTCACCAAGAGAGAGAGGTCCAAGGTGCCCTACATCGTGCGCCAGTGCGTGG
AGGAGATCGAGCGCCGAGGCATGGAGGAGGTGGGCATCTACCGCGTGTCCGGTGTGGCCACGGACATCCAGGCAC
TGAAGGCAGCCTTCGACGTCAATAACAAGGACGTGTCGGTGATGATGAGCGAGATGGACGTGAACGCCATCGCAG
GCACGCTGAAGCTGTACTTCCGTGAGCTGCCCGAGCCCCTCTTCACTGACGAGTTCTACCCCAACTTCGCAGAGG
GCATCGCTCTTTCAGACCCGGTTGCAAAGGAGAGCTGCATGCTCAACCTGCTGCTGTCCCTGCCGGAGGCCAACC
TGCTCACCTTCCTTTTCCTTCTGGACCACCTGAAAAGGGTGGCAGAGAAGGAGGCAGTCAATAAGATGTCCCTGC
ACAACCTCGCCACGGTCTTTGGCCCCACGCTGCTCCGGCCCTCCGAGAAGGAGAGCAAGCTCCCTGCCAACCCCA
GCCAGCCTATCACCATGACTGACAGCTGGTCCTTGGAGGTCATGTCCCAGGTCCAGGTGCTGCTGTACTTCCTGC
AGCTGGAGGCCATCCCTGCCCCGGACAGCAAGAGACAGAGCATCCTGTTCTCCACCGAAGTC**TAA**AGGTCCCAGT
CCATCTCCTGGAGGCAGACAGATGGCCTGGAAACCTCTGGCTAATCAGGCCATCCGTAGAGCGGGAACCTTCCTG
AGGTGTCCTTGGGCCACCCCCAAGTGTTGGGCCATCTGCCAAGAGACAGCGACCCAAAGCCGAAGGACAGGTGGC
CTGGGCAGATCCCGCCCAGGTCTGGGAGCCCCAGGCTGGCCTCAGACTGTGGTTTTTTATGTGGCCACCCGAGGG
CGCCCCAAGCCAGTTCATCTCAGAGTCCAGGCCTGACCCTGGGAGACAGGGTGAAGGGAGTGATTTTTATGAACT
TAACTTAGAGTCTAAAAGATTTCTACTGGATCACTTGTCAAGAAGCGCCCTCTCTGGGGAGAAGGGAACGTGACT
GGATTCCCTCACTGTTGTATCTTGAATAAACGCTGCTGCTTCATCCTG

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FIGURE 3963

AGGGAGGCGGGGCGGAGACGGCGGCGAGGAGGAGGCCGCGGCGCGGGACGCATAGAGCTGCGGCTCGGGCGGCGC
CTCCCTGCGGCGGCCCGGCCCGGCTCCGGCCCCCGCTGGGGCAATGCTCCCCGGGGCCGCGGGATGAGCCAGCGA
TCCTGAACTGTGTTCCTGCCCACAGTGACTCGGCCGGTCCGGGC**ATG**GCAGACCCAGTGGCGGGCATCGCGGGCT
CGGCGGCCAAGAGCGTGCGGCCATTTCGCTCCAGTGAGGCCTACGTGGAGGCCATGAAGGAGGACCTGGCCGAGT
GGCTCAATGCCTTGTACGGCCTGGGTCTCCCGGGTGGTGGCGATGGCTTCCTGACAGGGCTGGCCACGGGCACGA
CCCTGTGCCAACATGCCAACGCCGTGACCGAGGCTGCCCGTGCATTGGCAGCCGCCCGCCCGGCCCGAGGTGTGG
CCTTCCAGGCGCACAGTGTAGTGCCTGGCTCCTTCATGGCGCGCGACAACGTGGCCACCTTCATCGGCTGGTGCC
GCGTGGAGCTGGGTGTGCCGGAGGTGCTCATGTTTGAGACTGAGGACCTGGTGCTGCGCAAGAACGAGAAGAGCG
TGGTGCTGTGCCTGCTGGAGGTGGCGCGGCGTGGGGCACGCCTGGGCCTGCTGGCCCCACGCCTCGTGCAGTTTG
AGCAGGAGATTGAGCGGGAGCTGCGTGCTGCACCCCCAGCCCCCAACGCCCCTGCCGCTGGGGAGGACACCACTG
AAACCGCCCCCCGCACCAGGGACTCCTGCCCGCGGCCCCCCGCATGACACCCAGCGACCTGCGCAACCTCGACGAGC
TGGTGAGGGAGATTCTGGGCCGCTGCACCTGCCCTGACCAGTTTCCCATGATCAAGGTCTCAGAGGGGAAGTACC
GTGTGGGGGACTCGAGCCTGCTCATCTTTGTGCGGGTGCTGAGGAGCCACGTGATGGTGCGAGTGGGTGGTGGCT
GGGACACGCTGGAGCATTACCTGGACAAGCACGACCCGTGCCGCTGCTCCTCCACTGCTCATCGCCCACCCCAGC
CGAGGGTCTGCACCTTTTCTCCACAGAGGGTGTCGCCCACCACCAGTCCCCGCCCTGCTAGCCCAGTCCCTGGGA
GTGAGCGCCGGGGCTCCCGGCCTGAGATGACTCCCGTTAGCTTACGAAGCACAAAGGAGGGGCCCGAGACCCCAC
CCAGGCCCCGGGATCAGCTGCCCCCCCATCCCCGCTCCCGCCGCTACTCCGGGGACAGTGACTCCTCAGCCTCCT
CCGCCCAGAGCGGCCCCCTTGGTACCCGCAGTGATGACACAGGCACTGGCCCCCGGAGGGAGCGACCCAGCCGGC
GGCTGACCACAGGCACCCCGGCCTCTCCGAGACGGCCTCCTGCCTGCGCAGCCAGTCCCGAGACCGGCTGGATCG
CGGCCGGCCCCGGGGGGCCCCAGGAGGCAGGGGAGCCCAGCTGTCGGTCCCCAGCCCTGCCCGGCGGGCCCGGAG
CCAGAGCCGCGAGGAGCAGGCTGTGCTGCTTGTGCGCAGGGATCGAGACGGGCAGCACTCATGGGTGCCAAGGGG
CAGGGGCAGTGGGGGCTCGGGCAGGAGCACCCCCCAGACTCCCCGTGCCCGCAGCCCTGCAGCACCCCGGCTTTC
CCGGGTCTCCAGCCCCAGTCCAGAGTTGGGCACCACACCGGCCAGCATCTTCCGCACACCCCTGCAGCTCGACCC
GCAGCAGGAGCAGCAGCTGTTCCGGCGCCTGGAAGAGGAGTTCCTGGCCAATGCCCGGGCCCTTGAGGCTGTTGC
TAGCG**TGA**CCCCCACTGGACCAGCCCCTGACCCAGCTCGGGCCCCCGACCCTCCAGCTCCTGACTCTGCCTATTG
TTCCTCCAGTTCCTCCTCTTCGTCCCTCAGCGTCCTGGGTGGCAAATGTGGCCAACCTGGGGACTCTGGCCGGAC
GGCCAATGGGCTGCCTGGGCCCCGAAGCCAAGCCCTTTCCAGCTCCTCCGATGAAGGCAGCCCCTGCCCTGGCAT
GGGGGGGCCACTAGATGCACCTGGGAGCCCCCTGGCTTGCACTGAACCCTCGAGGACCTGGGCACGGGGTCGGAT
GGACACACAGCCAGACCGTAAACCCTCACGTATCCCCACGCCTCGGGGCCCCCGCCGCCCCTCCGGACCCGCAGA
GCTGGGGACATGGCATGCCCTGCACTCAGTCACCCCGAGGGCTGAGCCAGATTCCTGGATGTGATGGACCAGCTC
AGCTGTCCCCAGACCCCATCCCTTCTCCTTTTCCTTTGTGGCCTTAACCCTTCTGCATCAGGGAGCCCCCTCTGC
CTCTTGAGTACCAGACCTCATGGGACCAGACCCCTTGGGACCACATGGCACAATGGGACCTCTGTTGTACATTCC
GGTTGGGGGATGAGCGTTGCTATTTAATTACTAATATTATTGAATGCCTTAGAGGAGGCCGGGCGAGCCCGGTGT
TCTGAAGACCTGTGGCCCAGCAGAGCCTCTGACAGTAAAGTTTTGCTCCAGC

FIGURE 3964A

ACCACTTGAAGAGAGGTTCCTAATACTAGACAGATGGAGAGTGGCTTGGCTGTTTCCCCCTGCATATTGGGGTTG
AAAACTTAAATGTGTAGTTCCAGTCCTTCTATGCAGAGTCTCTCCTGCCCTCCCTCCTTCCTGCAGTCTCACCAC
GCCACCACCTCCCTCGGGGGCCTCCGCGCTGAGCTTCCGGCCTCTACGCCTCGCTTCCGGTCGGCCGCCCCTTCC
TTACTTCCGGTTCTCTATGGTGCGCGGGCAAGCTTTGCTCCGCCTCCGGCAGTGGCTTACTCCCGGTGCCAGGTT
CTTGGAGCTGTGAGGAGGAACAACC**ATG**TCATCAGAATCGAGCAAAAAACGGAAGCCCAAAGTGATCCGAAGCGA
TGGAGCCCCAGCTGAAGGAAAGCGGAATCGATCTGACACCGAGCAGGAAGGTAAATACTACAGTGAGGAGGCCGA
GGTGGATCTGCGGGACCCTGGCAGAGACTATGAGTTATACAAGTACACCTGCCAGGAGCTACAGAGGCTGATGGC
TGAGATCCAAGACCTGAAGAGCAGGGGTGGCAAGGATGTGGCAATAGAAATAGAAGAACGGAGGATCCAGAGCTG
TGTGCATTTCATGACTCTAAAGAAGCTTAACCGATTAGCCCACATCAGGTTGAAGAAAGGAAGAGATCAGACCCA
CGAGGCTAAGCAGAAAGTAGATGCCTATCATCTGCAGCTCCAGAACCTGTTGTATGAGGTGATGCACCTACAGAA
GGAGATCACCAAATGTTTGGAGTTTAAGTCAAAGCATGAAGAAATTGATCTGGTCAGTTTAGAGGAGTTTTATAA
GGAGGCTCCACCAGATATCAGCAAGGCCGAAGTCACCATGGGAGACCCTCACCAGCAAACACTGGCACGTCTGGA
CTGGGAGCTGGAGCAGCGGAAAAGGCTGGCAGAGAAGTACCGAGAGTGCCTATCTAACAAGGAGAAGATTCTCAA
GGAGATTGAGGTGAAGAAGGAGTACCTGAGCAGCCTCCAGCCCCGCCTCAACAGCATCATGCAGGCTTCCCTTCC
GGTGCAGGAGTACCTGTTTATGCCATTCGACCAGGCTCACAAGCAGTATGAGACAGCCAGACACCTGCCGCCTCC
CCTCTATGTCCTCTTTGTTCAGGCCACTGCGTATGGGCAGGCCTGTGATAAGACGTTATCTGTGGCAATCGAAGG
CAGTGTGGATGAAGCCAAGGCTCTGTTCAAACCTCCAGAGGACTCCCAAGATGACGAGAGTGACTCAGATGCCGA
GGAGGAGCAGACTACGAAGCGCCGGAGACCCACACTGGGGGTTCAGTTGGACGACAAACGCAAGGAGATGCTGAA
GAGGCACCCACTGTCTGTCATGCTCGACCTGAAGTGCAAAGATGACAGTGTGCTTCACCTGACTTTCTACTACCT
CATGAACCTCAACATCATGACAGTAAAAGCCAAAGTGACAACTGCCATGGAGCTGATCACCCCCATCAGTGCAGG
TGACTTGCTGTCTCCTGACTCAGTCCTGAGTTGCTTGTATCCTGGGGATCATGGAAAGAAAACTCCGAATCCAGC
CAATCAGTATCAGTTTGATAAAGTTGGCATCCTGACTTTGAGCGACTATGTACTTGAGCTAGGTCACCCCTATTT
GTGGGTGCAGAAGCTGGGTGGCCTCCACTTCCCCAAAGAGCAGCCCCAGCAAACAGTGATTGCTGACCACTCGCT
GAGCGCCAGCCACATGGAGACCACCATGAAACTTCTGAAGACCAGGGTGCAGTCCCGCCTGGCCCTCCACAAACA
GTTTGCATCCCTAGAACATGGCATTGTGCCAGTTACCAGTGATTGCCAGTACCTCTTCCCTGCCAAGGTTGTCTC
TCGCCTGGTGAAATGGGTGACAGTTGCCCATGAGGATTACATGGAGCTGCACTTCACCAAAGACATTGTGGATGC
GGGACTGGCTGGGGACACCAATCTCTACTACATGGCGCTCATCGAAAGGGGCACAGCCAAACTGCAGGCCGCTGT
GGTGTTGAACCCTGGCTACTCCTCCATCCCACCTGTTTTCCAGCTCTGTTTGAACTGGAAAGGGGAGAAAACCAA
CAGCAACGATGACAACATTCGGGCCATGGAGGGCGAAGTCAATGTGTGCTACAAGGAGCTGTGTGGCCCTTGGCC
CAGCCACCAGCTGTTGACCAACCAGCTGCAGCGGCTGTGTGTGCTGCTGGATGTTTACCTGGAGACCGAGAGCCA
TGACGACAGTGTGGAGGGGCCCAAGGAATTTCCCCAGGAGAAGATGTGTCTGCGGCTCTTCAGGGGTCCTAGCAG
GATGAAGCCATTTAAATACAACCATCCTCAGGGATTCTTCAGCCATCGC**TGA**TCTCCCGCGCAGACCGTTGTTTC
CCCCAAGGCCTCACCCTGAGCACTGGGCTTCTGCTTTCTGCTCTGGCCCACATGTGACTCTTGATATTCTCCAAA
GACACCAGCCAATTAAAAAGCGTCACCTGACCAGTGGCCTTTGTCTGTGGTTCCTGGCAAGGTGGCTTTGCAGTC
TGGAAGGGCAGGTGGGAGCTGTGACACAGTGTGAAAAAGCATTTGTAGAGAGACTTTTTCTCAGCAGCCAATAAA
AGCAGAGTGGAAAAAGATTCCAATTCTGCAGAGAGATGCTCACCTCTTGTCTACGCACACCCTATTTGTGCTTTG
CGGGGTGAGGTCCTCATGATCTTGTATTTATTATCCCAAGTTCCTGCTGTTAAGAGGTGGTAGGAGAAGCCAAAG
GCAGCAGAGCACAAAAAGCAAAACTCTTCCCTCCCCACCCGCTCTTCCCATTAGTCCTGTCAGGGTTGCCGATGG
ACAAATTGTCTCTGATCGTTGGATGTTATAAATGTCTGACAGTGCAGTGCAAACAGAAGACAAACTCAGTTGATC
CTTGAACAACTCAGGGGTTAGGGGCACCAACACCCCCTGCCCTGCACAGTTGAAAAATCCGTGTATAACTTTTGA
CTCCCTAAAAACTTAACTAATAGCCTGCTGTTGACCAGTAGTATGCTATTAGTAGTTACTTACTGCTAACATAGT
CAGTACATATTTTCAGTATATATTTTGTATCTTATACACTGTATTCTTACAATACAGTAAACTAGAGAAAAGAAA
ATGTTATAAGGAAAGTCACAAGGGGGCCTGAGTGCAGTGGCTCACGTCTGTAATCCCAGCACTTTGGGAGGCCAA
GGCGGGTGGATCACTTGAGGTCAGGAGTTTGAGACCAGCCTGGCCGACATGGTGAAACCCTGTCTCTACTAAAAA
CATGGAAATTAGCCAAGCGTGGTGGCGCATGCCTGTAGTCCCAGTTACTCAGGAGGCTGAGGCAGAATTACTTGA
ACCCATGAGGCAGAGGTTGCAGTAAGCCAAGATCACGCTCCTGCGCTCCGGCTTGGGCGAGAGTGAGACTCCGTC
TCAAAAATAAATAAATAAGAAAGCCATAAGGAAGAAAATATATATCTACTATTAAGTAGAAGTGGATCACCATAA
AGGTCTTCACATACTGTCTCAGGGTTGAATAGTCTAAGGAAGAGGAGGGGTTGGTCTTGGTGTCTCAGGGATGGC

FIGURE 3964B

AGAGGCAGAAAAAGTGGGGGAGGTGGAGGGGGAGGCAGGCACCACTGTTATTTTTATTGAACAAAATCTGTGCAG
GGACTCATGACTGTAATCCTAGTACTTTGGAAAGCTAAGGCGGGAGGATCCCTTGAGGCCAGGAGTTCAGGTCCA
GCCTGGGCAACGTAGTGAGAGACCCTGTATCTACAAAAAATTTAAAAATCAGCCAGGTGTGGTGGTATGCACCAA
TAGTCCCAGTTACTCAGAAGGCTGAGGTGGGCGGATGACTGGAGTCCAGGAGTTCAAGGTAGCAGTGAGCTATTC
ATCGTGCCTGTACTGTACTCCAGCCTGGGAAACAATGCGAGTCCCTATCTCTAAAAAATTTTAAAAAAAGAAATC
TGCATATAATAGACCCACAGAGTCCAAACTATTGTTCAGAGATCAACTGTACTTCACAGAGAGTAATTCTAAGTC
TTACAGGATTTCATGGAGATGGCGAGAGTGGTGTTGGAGAATCAATCACATACAGAGATACAGGACAGTGAGACC
AGGTAACATTTGAGGAGAATATTTTTTTTTTATTGAGACAGGGTCTTGCTCTGTTGTCCAGGCTGGAGTGCAGTG
GCACGAACACAGCTCACTGCCGCCTCAACCTCTCCTGGGTTCAAGTGATCCTCCTGCCTCAGCCTCCCAAGTAGC
TGGGACCACAGGTGTGTGCCACCATTTCTGGCTAATTTTTAAATTTTTTGTAGAGGCGGGATCCCACTATTTTTC
CCAGGCTGGTCTCAAACTCCTGGGCTCAAATGATCCTCCCACCTCGGCCTCCCAAAGTGCTAGGATTATAGGCAT
GAGCCACCACACCCGGCCTGAGTAGAGTCTTTAAGGTAATGACAAAAGTGCCTCAAAATATAATTATTTGATTAA
GAGAAGTCTTGGGAAGATAGGTAACAACCTTTAAAATGTTCATAAAATTACATCCTTTGTAATACTCCTGCAAGT
CAAAGTAAAGGATGGCATAGACTATTCTTGGACAGTTTTGTCAAAAAGTGTATCTTGACCCCACCATCAGTACTC
CATTCTTCATTTTAAAAAATAAGATGGGCTGGGCACAGTGGCTTACGCCTTTAATATCAGTACTTTGGGAGGCTG
GTGGGCGGATCACCTGAGATCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAAT
ACAAAAATTAGCTGGGCATGGTGGTGCGCGCCTGTAATCCCAGCCACTCGGGAGGCTGAGGCAGGAGAATTGCTT
GAATCCCCGAGGCGGAGGTTGCACTGAGCCGAGATGGTGCCACTGCACCATCTGGACAACAGAGCAAGACTCCGT
CTTGG

FIGURE 3965

CCACGCTCCCATTTTACCGAGGTGGATCCTGAGGCCCAGAGTGGGCAAAGGGCTTGCCAAGGTCGCAGAGCGCGC
AGAGGATTAGAACCCTGACTTCCGTCCAGCACCTGCGGAGTTGGAGACGCCCACAGGAAACGCCCACCTGACCGG
GTGAGTGAGGGGGCGGGCGAGCCGGAGGGGTGGAGTTTATTCGCGCCCCGCCTCCGCCACCAGGGCTTGGGGGCG
GGGCCTTCCTGCAACCTTTGCGGCTCCAAC**ATG**GCTCCGCGGCTGTGCAGCATCTCTGTGACGGCGCGGCGGCTG
CTGGGGGGCCCGGGGCCTCGCGCTGGGGACGTTGCGTCTGCAGCTGCGGCGCGTTTCTATTCCAAGGACAATGAA
GGCAGCTGGTTCCGCTCCCTCTTTGTTCACAAAGTGGATCCCCGGAAGGATGCCCACTCCACCCTGCTGTCCAAG
AAGGAAACCAGCAACCTCTATAAGATCCAGTTTCACAATGTAAAGCCTGAATACCTGGATGCCTACAACAGCCTC
ACGGAGGCTGTGCTGCCCAAGCTTCACCTGGATGAGGACTACCCATGCTCACTCGTGGGCAACTGGAACACGTGG
TATGGGGAGCAGGACCAGGCAGTGCACCTGTGGCGATTCTCAGGTGGCTACCCAGCCCTCATGGACTGCATGAAC
AAGCTCAAAAACAATAAGGAGTACCTGGAGTTCCGAAGGGAGCGGAGCCAGATGCTGCTGTCCAGGAGAAACCAG
CTGCTCCTCGAGTTCAGCTTCTGGAATGAGCCACAGCCCAGAATGGGTCCCAACATCTATGAGCTGAGGACATAC
AAGCTCAAGCCAGGAACCATGATCGAGTGGGGGAACAACTGGGCTCGGGCCATCAAGTACCGGCAGGAGAACCAG
GAGGCAGTGGGCGGCTTCTTCTCACAGATAGGAGAGCTCTACGTGGTGCACCATCTCTGGGCCTATAAAGACCTG
CAGTCTCGGGAGGAGACTCGAAACGCTGCCTGGAGGAAGAGAGGCTGGGATGAAAATGTCTACTATACAGTCCCC
CTGGTGCGACACATGGAGTCTAGGATCATGATCCCCTTGAAGATCTCGCCTCTGCAG**TGA**TGCTGCCTACACCTC
CACCTCCTTCCCCTTCTCCCTCAGGCAACCCCGACAGACAGTGGCACTCCTGGTCCTGCTGTCTTGGTTTTGTCT
TGGCTCTGGGAGGACTCTGAGGGGCAGTGCTCAGTTCAGACAAGGGGGAACTGAAGGCTGACAAGTTCTGAGGAT
TACAGCTCTGCCCAGGCCCTTTCTACTTTCCCTGCCTGCCTCCCTCCCCCTGCTAGAAGTAGTTTCTGATTTCCC
TGAATGAAAGATAGTGATCTTTTAGGCCTTCATTTATCTTCTAAAATTCCTCATCTCAAGGCCACCAGTCCCCAG
TTATCACCCTTGGAAATCCTCTGTTTAGCTTAGTTGCACAAAAGGTAGTATGTCCAGTGGCTAGAGGTGGGGTGG
GAAGAGAGGAGGCCAGGCCAGGCCCTCAGGAATTCCCTGGTTTCCACTGGGCCACCCACTTGCTGGACAGTCTGA
GCCAAGTCCCTCCTGCTGGAGAAAAGCCTGGAACTGCCAAAACAAAAAAACAAATACAAACAAACCTCGTCACCA
CGGTCAGGAGGAGGTTCAGACATTCTGCCCAGAGGGGCTGGGGAAAGGGATGGGAGCCAGGAAAGATTTAGGGGC
AGGAGACAGACACGTAACAGGAACTCGGAAGGTAGAACTTAGAATTCAGAACTTGGGTTTCAATTGTAGAATTTG
GAATCTGGAATACAGAATTGGGAAGAAGAACAGAGATGACAAAAGACCACTTGAAGAGAGGTTCCTAATACTAGA
CAGATGGAGAGTGGCTTGGCTGTTTCCCCCTGCATATTGGGGTTGAAAACTTAAATGTGTAGTTCCAGTCCTTCT
ATGCAGAGTCTCTCCTGCCCTCCCTCCTTCCTGCAGGCAAATATACAAGCTAGACCCTGTTCCCTCACCCTGTAT
CCTGTCTCCCCTAATTGACATTCTATCAGCCCAACCCTCATTCTGCAGGGCCACCTGGTGTGTGGAGGTGGCGGG
AGGGGTCAGTGACTCTGGGGGTCTCCTCAGTGACCCCCATACCTCATCATGAACCCTTGGGTAGCTTGATTCTGC
CTACCATCCAGGAAAACTTGTGCTGGAATTGCTGATGGAAACAATTAAATATTTACTAT

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FIGURE 3966

GCAGCCGTCAGGGCCCGTCCCCCAACTCCCCTTTCCGCTCAGGCAGGGTCCTCGCGGCCCATGCTGGCCGCTGGG
GACCCGCGCAGCCCAGACCGTTCCCGGGCCGGGCAGCCGGCCACCATGGTGGCCCTGAGGCCTGTGCAGCAACTC
CAGGGGGGCTAAAGGGCTCAGAGTGCAGGCCGTGGGGCGCGAGGGTCCCGGGCCTGAGCCCCGCGCC**ATG**GCCGG
GGCCATCGCTTCCCGCATGAGCTTCAGCTCTCTCAAGAGGAAGCAACCCAAGACGTTCACCGTGAGGATCGTCAC
CATGGACGCCGAGATGGAGTTCAATTGCGAGATGAAGTGGAAAGGGAAGGACCTCTTTGATTTGGTGTGCCGGAC
TCTGGGGCTCCGAGAAACCTGGTTCTTTGGACTGCAGTACACAATCAAGGACACAGTGGCCTGGCTCAAAATGGA
CAAGAAGGTACTGGATCATGATGTTTCAAAGGAAGAACCAGTCACCTTTCACTTCTTGGCCAAATTTTATCCTGA
GAATGCTGAAGAGGAGCTGGTTCAGGAGATCACACAACATTTATTCTTCTTACAGGTAAAGAAGCAGATTTTAGA
TGAAAAGATCTACTGCCCTCCTGAGGCTTCTGTGCTCCTGGCTTCTTACGCCGTCCAGGCCAAGTATGGTGACTA
CGACCCCAGTGTTCACAAGCGGGGATTTTTGGCCCAAGAGGAATTGCTTCCAAAAAGGGTAATAAATCTGTATCA
GATGACTCCGGAAATGTGGGAGGAGAGAATTACTGCTTGGTACGCAGAGCACCGAGGCCGAGCCAGGGATGAAGC
TGAAATGGAATATCTGAAGATAGCTCAGGACCTGGAGATGTACGGTGTGAACTACTTTGCAATCCGGAATAAAAA
GGGCACAGAGCTGCTGCTTGGAGTGGATGCCCTGGGGCTTCACATTTATGACCCTGAGAACAGACTGACCCCCAA
GATCTCCTTCCCGTGGAATGAAATCCGAAACATCTCGTACAGTGACAAGGAGTTTACTATTAAACCACTGGATAA
GAAAATTGATGTCTTCAAGTTTAACTCCTCAAAGCTTCGTGTTAATAAGCTGATTCTCCAGCTATGTATCGGGAA
CCATGATCTATTTATGAGGAGAAGGAAAGCCGATTCTTTGGAAGTTCAGCAGATGAAAGCCCAGGCCAGGGAGGA
GAAGGCTAGAAAGCAGATGGAGCGGCAGCGCCTCGCTCGAGAGAAGCAGATGAGGGAGGAGGCTGAACGCACGAG
GGATGAGTTGGAGAGGAGGCTGCTGCAGATGAAAGAAGAAGCAACAATGGCCAACGAAGCACTGATGCGGTCTGA
GGAGACAGCTGACCTGTTGGCTGAAAAGGCCCAGATCACCGAGGAGGAGGCAAAACTTCTGGCCCAGAAGGCCGC
AGAGGCTGAGCAGGAAATGCAGCGCATCAAGGCCACAGCGATTCGCACGGAGGAGGAGAAGCGCCTGATGGAGCA
GAAGGTGCTGGAAGCCGAGGTGCTGGCACTGAAGATGGCTGAGGAGTCAGAGAGGAGGGCCAAAGAGGCAGATCA
GCTGAAGCAGGACCTGCAGGAAGCACGCGAGGCGGAGCGAAGAGCCAAGCAGAAGCTCCTGGAGATTGCCACCAA
GCCCACGTACCCGCCCATGAACCCAATTCCAGCACCGTTGCCTCCTGACATACCAAGCTTCAACCTCATTGGTGA
CAGCCTGTCTTTCGACTTCAAAGATACTGACATGAAGCGGCTTTCCATGGAGATAGAGAAAGAAAAAGTGGAATA
CATGGAAAAGAGCAAGCATCTGCAGGAGCAGCTCAATGAACTCAAGACAGAAATCGAGGCCTTGAAACTGAAAGA
GAGGGAGACAGCTCTGGATATTCTGCACAATGAGAACTCCGACAGGGGTGGCAGCAGCAAGCACAATACCATTAA
AAAGCTCACCTTGCAGAGCGCCAAGTCCCGAGTGGCCTTCTTTGAAGAGCTC**TAG**CAGGTGACCCAGCCACCCCA
GGACCTGCCACTTCTCCTGCTACCGGGACCGCGGGATGGACCAGATATCAAGAGAGCCATCCATAGGGAGCTGGC
TGGGGGTTTCCGTGGGAGCTCCAGAACTTTCCCCAGCTGAGTGAAGAGCCCAGCCCCTCTTATGTGCAATTGCCT
TGAACTACGACCCTGTAGAGATTTCTCTCATGGCGTTCTAGTTCTCTGACCTGAGTCTTTGTTTTAAGAAGTATT
TGTCT

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FIGURE 3967

GGAGCCCGGAGCTGCAGCCACCGGGGAGCCAGGTACCTTCCGCGAGACGTCGAGGGGCGAGTCCTAGTCTCTTTT
CTCCGCACTGGAAGACTTGAACACTTCCTTCTCTGGTCTCTGTCACCCAGGCTGGAGTGTAGTGGCGCAATCTCA
GCTGGCTGGAGCCTTGACCTCCTTGGGCTCAAGCTATCCTCCCACCTCAGCCTCTCAAATAGCTGGGACTACAGG
CAGCAAAGCACCTGCTCTGAGTGGCC**ATG**GGGAAGCGATACTTCTGTGACTACTGCGACCGCTCCTTCCAGGACA
ACCTCCACAACCGCAAGAAGCACCTGAACGGGCTGCAGCACCTCAAGGCCAAGAAGGTCTGGTACGACATGTTCC
GAGATGCAGCTGCCATCTTGCTGGATGAGCAGAACAAGCGGCCCTGCAGGAAGTTTCTACTGACAGGCCAGTGCG
ACTTTGGCTCCAACTGCAGATTTTCCCACATGTCAGAGCGAGACCTGCAGGAGCTGAGCATCCAGGTGGAGGAGG
AGAGGCGAGCCAGGGAGTGGCTACTAGATGCTCCTGAGCTCCCCGAGGGCCATCTGGAGGACTGGCTGGAGAAGA
GAGCCAAGCGGCTGAGCTCAGCCCCAAGTAGCAGGGCTGAACCCATCAGAACCACTGTCTTCCAGTACCCCGTGG
GCTGGCCACCAGTTCAGGAGCTGCCTCCATCCCTGCGGGCACCCCCACCTGGGGGGTGGCCTCTGCAGCCCAGAG
TCCAGTGGGGC**TGA**GCCCCTTGCCCCCGACTGACCCCCACGTGGTCACTTTTCTCATCAGTCACAATAGGAAGCC
AAGCCCGGTTCCTGCTACGCCCCATGGAGGCTCCGAGACCATCTGCCCAGCCTCACTGAGGCTCAGGACACGGCC
ACACCAAGTGCAGCCCTCGTCCTGGGTCTGCACCGGGCAGCTCTCCCCTCACTCTCCTCCACCTGCCCCCCTGCT
TCTTAAGAAGATGGGGGGAGAAAACTTCCAAATGTTTATAAAGAAAGTCTGTCACCA

FIGURE 3968

CTGTGAAGAAACATGGCGGCCGCGACGTTGACTTCGAAATTGTACTCCCTGCTGTTCCGCAGGACCTCCACCTTC
GCCCTCACCATCATCGTGGGCGTCATGTTCTTCGAGCGCGCCTTCGATCAAGGCGCGGACGCTATCTACGACCAC
ATCAACGAGGGGAAGCTGTGGAAACACATCAAGCACAAGT**ATG**AGAACAAGTAGTTCCTTGGAGGCCCCCATCCA
GGCCAGAAGGACCAGGTCCACCCAGCAGCTGTTTGCCCAGAGCTGGAGCCTCAGCTTGAAGATGATGCTCAAGGT
ACTCTTCATGGACCACCATTCGCTGTTGGCAAGAAACGGCTTTACTTACAAAACAGACTCTTTACCTTCTGCTGT
GTTTGAAGTATGTTTAGTCAGCATGCTCAGGAAA**TAA**ATGTGAATTGCCCTTG

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FIGURE 3969

CCGGAAGTGCGGGCGCTCAGGGAGCTGTCACCGTGGTCGGCGGCGGCGGCGGCGGCGGCACAGAGCCGGTGG
TGGAGCCGCCGAGGAGGGTCACGCAGCACA**ATG**CCAGCTCTGCCCCTGGACCAACTCCAGATCACCCACAAGGAC
CCGAAGACAGGAAAGCTGAGGACTTCACCAGCGCTGCACCCCGAGCAGAAGGCAGACCGGTATTTTGTGTTATAC
AAACCGCCCCCTAAAGACAACATTCCCGCCCTAGTGGAGGAGTACCTGGAACGCGCCACCTTCGTAGCCAATGAC
CTCGACTGGCTCCTGGCCTTGCCTCACGATAAATTCTGGTGCCAGGTGATCTTTGACGAGACTCTACAGAAGTGC
CTGGACTCCTACCTGCGCTATGTCCCCCGCAAATTCGACGAGGGGGTGGCCTCAGCCCCTGAGGTTGTTGACATG
CAGAAGCGCCTCCATCGAAGTGTTTTTCTCACCTTCCTCCGCATGTCCACTCACAAGGAATCCAAAGATCACTTC
ATTTCCCCTTCTGCGTTTGGAGAAATCCTCTACAATAACTTCCTCTTTGACATTCCAAAGATCCTGGACCTCTGC
GTGCTCTTTGGAAAAGGCAACTCACCACTGCTCCAGAAGATGATAGGAAACATCTTTACACAGCAGCCAAGTTAC
TACAGTGACCTGGATGAAACCCTGCCTACCATCCTTCAGGTCTTCAGCAATATCCTCCAGCACTGTGGTTTGCAA
GGGGACGGGGCCAATACCACACCCCAGAAGCTTGAGGAGAGGGGCCGATTGACCCCCAGTGACATGCCTCTCCTG
GAATTAAAGGACATTGTTCTCTACCTTTGTGATACCTGCACCACACTTTGGGCCTTTCTGGATATCTTCCCTTTG
GCTTGCCAGACCTTCCAGAAGCACGACTTTTGTTACAGACTAGCTTCCTTCTACGAAGCAGCAATTCCCGAAATG
GAGTCTGCAATTAAGAAGAGGAGGCTTGAAGATAGCAAGCTTCTTGGTGACCTGTGGCAGAGGCTCTCCCATTCC
AGGAAGAAGCTAATGGAGATTTTCCACATCATCCTGAACCAGATCTGCCTCCTTCCCATCCTAGAAAGCAGCTGT
GACAACATTCAGGGCTTCATCGAAGAGTTCCTTCAGATCTTCAGCTCCTTGCTGCAGGAGAAGAGGTTCCTCCGG
GACTATGATGCACTCTTCCCCGTGGCCGAAGACATCAGCTTGCTGCAGCAGGCCTCATCAGTCTTGGACGAGACG
CGGACTGCCTACATCCTCCAGGCAGTCGAGAGTGCATGGGAAGGGGTGGACAGACGGAAAGCCACAGATGCTAAA
GACCCATCGGTGATTGAGGAGCCTAATGGGGAGCCTAACGGGGTCACGGTGACAGCAGAGGCAGTCAGTCAAGCA
TCATCACATCCGGAGAACTCGGAGGAAGAGGAGTGCATGGGAGCAGCCGCGGCTGTGGGCCCTGCCATGTGTGGG
GTGGAACTGGACTCTCTCATCTCCCAAGTGAAGGACCTGCTGCCAGACCTTGGTGAGGGCTTCATCCTGGCCTGC
CTGGAGTACTACCACTACGACCCAGAGCAGGTGATCAACAATATCCTGGAGGAGCGGCTGGCCCCCACCCTCAGC
CAGCTGGACCGCAACCTAGACAGAGAAATGAAACCAGACCCTACACCCCTGCTGACGTCTCGCCACAACGTCTTC
CAGAATGACGAGTTTGATGTGTTCAGCAGGGACTCAGTAGACCTGAGCCGGGTGCACAAGGGCAAGAGCACCAGG
AAGGAGGAAAACACGCGGAGTTTGCTGAACGACAAGCGTGCAGTGGCGGCACAGCGGCAGCGCTACGAGCAGTAC
AGCGTGGTGGTGGAGGAGGTGCCACTGCAGCCAGGCGAGAGCCTGCCCTACCACAGTGTCTACTACGAGGATGAG
TACGATGACACATACGATGGCAACCAGGTGGGCGCCAATGATGCAGACTCTGATGACGAGCTCATCAGCCGCAGG
CCATTCACCATCCCTCAGGTGCTGAGAACCAAAGTGCCTAGAGAAGGGCAGGAGGAGGATGACGACGATGAGGAA
GACGATGCTGACGAGGAGGCTCCCAAGCCCGACCATTTTGTTCAGGACCCTGCAGTGCTGAGAGAGAAGGCAGAA
GCCAGGCGCATGGCCTTTCTCGCCAAGAAAGGGTACCGGCATGACAGCTCAACAGCAGTGGCCGGCAGCCCCCGA
GGCCATGGGCAGAGCCGCGAGACAACCCAGGAACGCAGGAAGAAGGAAGCCAACAAGGCGACAAGAGCCAACCAC
AACCGGAGAACCATGGCCGACCGCAAGAGGAGCAAAGGCATGATCCCATCC**TGA**GACCTGGTGCAGGGCCAGTGG
GGAGGCAGCGGCACCAGACTCACCAGGCCGCGCTCCCATCGCCTGGGGCCTCCTCACTAGGGGCCCCAAGTTCAA
CTCAACCCCTCAACAGCCTCAGCTTTGCAGCCCCTGAGAAGGCCGCCTCTCATCTACCAGCCAGCCATGAGCGCC
TTCCTGCAGAACACACAGTGCCTTATGCCACAGCCGAAGAATCCGTGGGGCCGGCAAGCAGGCACCTTCCCCCAG
CTGCGCTAGCGGGAAAGAGATGGGGATGGAGTCCCAAGGCAAGCGCCCCAAACCTCGGGCCACAAGACACCACTT
CCCCTTTACCCTGGACAGCAGGAAACCTGTATATTCAAAAACACAAAAAGTCCTGCTAATAAAATTTTTGACCCT
TTC

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FIGURE 3970

ATGGCTTGGGGAGTCAGTGCCAAATGGAGTAACGAGGGCATCACAAGTGTGGGTGACCCACAGTGGGAATGCCAG
AGTTGGAGCCTGAGCAGGAAAGATTGGTATGATGTGAAAGCACCTGCTATGTTCAGTATAATAACTATGGGAAAG
ACACTCATCGCCAGGACTCAAGGAATCAAAATTGCATCTGATGGCCTCAAGGGTCATGTGTTTGAAGTCTGCCAA
ATCCAGAAGAAGATGATGGAAATCATGACCCAAGAGGTGCAGACAAATGACTTGAAAGAAGTGGTCAATAAATTG
ATTCCAGACAGCACTGGAAAAGACATAGAAAAGGCTTGCCTATCTGTTTATCCTCTCCATGGTGTCTTCATTAGG
AAAGTAAAAATAAAGAAGCCCAAGTTTGAATTGGGAAAACTCATG**TAG**

FIGURE 3971A

ATGAACCTCTGAAAACTGCCGGCATCTGAGGTTTCCTCCAAGGCCCTCTGAAGTGCAGCCCATAATGAAGGTCTT
GGCGGCAGGAGTTGTGCCCCTGCTGTTGGTTCTGCACTGGAAACATGGGGCGGGGAGCCCCCTCCCCATCACCCC
TGTCAACGCCACCTGTGCCATACGCCACCCATGTCACAACAACCTCATGAACCAGATCAGGAGCCAACTGGCACA
GCTCAATGGCAGTGCCAATGCCCTCTTTATTCTCTATTACACAGCCCAGGGGGAGCCGTTCCCCAACAACCTGGA
CAAGCTATGTGGCCCCAACGTGACGGACTTCCCGCCCTTCCACGCCAACGGCACGGAGAAGGCCAAGCTGGTGGA
GCTGTACCGCATAGTCGTGTACCTTGGCACCTCCCTGGGCAACATCACCCGGGACCAGAAGATCCTCAACCCCAG
TGCCCTCAGCCTCCACAGCAAGCTCAACGCCACCGCCGACATCCTGCGAGGCCTCCTTAGCAACGTGCTGTGCCG
CCTGTGCAGCAAGTACCACGTGGGCCATGTGGACGTGACCTACGGCCCTGACACCTCGGGTAAGGATGTCTTCCA
GAAGAAGAAGCTGGGCTGTCAACTCCTGGGGAAGTATAAGCAGATCATCGCCGTGTTGGCCCAGGCCTTCTAGCA
GGAGGTCTTGAAGTGTGCTGTGAACCGAGGGATCTCAGGAGTTGGGTCCAGATGTGGGGGCCTGTCCAAGGGTGG
CTGGGGCCCAGGGCATCGCTAAACCCAAATGGGGGCTGCTGGCAGACCCCGAGGGTGCCTGGCCAGTCCACTCCA
CTCTGGGCTGGGCTGTGATGAAGCTGAGCAGAGTGGAAACTTCCATAGGGAGGGAGCTAGAAGAAGGTGCCCCTT
CCTCTGGGAGATTGTGGACTGGGGAGCGTGGGCTGGACTTCTGCCTCTACTTGTCCCTTTGGCCCCTTGCTCACT
TTGTGCAGTGAACAAACTACACAAGTCATCTACAAGAGCCCTGACCACAGGGTGAGACAGCAGGGCCCAGGGGAG
TGGACCAGCCCCCAGCAAATTATCACCATCTGTGCCTTTGCTGCCCCTTAGGTTGGGACTTAGGTGGGCCAGAGG
GGCTAGGATCCCAAAGGACTCCTTGTCCCCTAGAAGTTTGATGAGTGGAAGATAGAGAGGGGCCTCTGGGATGGA
AGGCTGTCTTCTTTTGAGGATGATCAGAGAACTTGGGCATAGGAACAATCTGGCAGAAGTTTCCAGAAGGAGGTC
ACTTGGCATTCAGGCTCTTGGGGAGGCAGAGAAGCCACCTTCAGGCCTGGGAAGGAAGACACTGGGAGGAGGAGA
GGCCTGGAAAGCTTTGGTAGGTTCTTCGTTCTCTTCCCCGTGATCTTCCCTGCAGCCTGGGATGGCCAGGGTCTG
ATGGCTGGACCTGCAGCAGGGGTTTGTGGAGGTGGGTAGGGCAGGGGCAGGTTGCTAAGTCAGGTGCAGAGGTTC
TGAGGGACCCAGGCTCTTCCTCTGGGTAAAGGTCTGTAAGAAGGGGCTGGGGTAGCTCAGAGTAGCAGCTCACAT
CTGAGGCCCTGGGAGGCCTTGTGAGGTCACACAGAGGTACTTGAGGGGGACTGGAGGCCGTCTCTGGTCCCCAGG
GCAAGGGAACAGCAGAACTTAGGGTCAGGGTCTCAGGGAACCCTGAGCTCCAAGCGTGCTGTGCGTCTGACCTGG
CATGATTTCTATTTATTATGATATCCTATTTATATTAACTTATTGGTGCTTTCAGTGGCCAAGTTAATTCCCCTT
TCCCTGGTCCCTACTCAACAAAATATGATGATGGCTCCCGACACAAGCGCCAGGGCCAGGGCTTAGCAGGGCCTG
GTCTGGAAGTCGACAATGTTACAAGTGGAATAAGCCTTACGGGTGAAGCTCAGAGAAGGGTCGGATCTGAGAGAA
TGGGGAGGCCTGAGTGGGAGTGGGGGGCCTTGCTCCACCCCCCCCCATCCCCTACTGTGACTTGCTTTAGGGTGT
CAGGGTCCAGGCTGCAGGGGCTGGGCCAATTTGTGGAGAGGCCGGGTGCCTTTCTGTCTTGATTCCAGGGGGCTG
GTTCACACTGTTCTTGGGCGCCCCAGCATTGTGTTGTGAGGCGCACTGTTCCTGGCAGATATTGTGCCCCCTGGA
GCAGTGGGCAAGACAGTCCTTGTGGCCCACCCTGTCCTTGTTTCTGTGTCCCCATGCTGCCTCTGAAATAGCGCC
CTGGAACAACCCTGCCCCTGCACCCAGCATGCTCCGACACAGCAGGGAAGCTCCTCCTGTGGCCCGGACACCCAT
AGACGGTGCGGGGGGCCTGGCTGGGCCAGACCCCAGGAAGGTGGGGTAGACTGGGGGGATCAGCTGCCCATTGCT
CCCAAGAGGAGGAGAGGGAGGCTGCAGATGCCTGGGACTCAGACCAGGAAGCTGTGGGCCCTCCTGCTCCACCCC
CATCCCACTCCCACCCATGTCTGGGCTCCCAGGCAGGGAACCCGATCTCTTCCTTTGTGCTGGGGCCAGGCGAGT
GGAGAAACGCCCTCCAGTCTGAGAGCAGGGGAGGGAAGGAGGCAGCAGAGTTGGGGCAGCTGCTCAGAGCAGTGT
TCTGGCTTCTTCTCAAACCCTGAGCGGGCTGCCGGCCTCCAAGTTCCTCCGACAAGATGATGGTACTAATTATGG
TACTTTTCACTCACTTTGCACCTTTCCCTGTCGCTCTCTAAGCACTTTACCTGGATGGCGCGTGGGCAGTGTGCA
GGCAGGTCCTGAGGCCTGGGGTTGGGGTGGAGGGTGCGGCCCGGAGTTGTCCATCTGTCCATCCCAACAGCAAGA
CGAGGATGTGGCTGTTGAGATGTGGGCCACACTCACCCTTGTCCAGGATGCAGGGACTGCCTTCTCCTTCCTGCT
TCATCCGGCTTAGCTTGGGGCTGGCTGCATTCCCCCAGGATGGGCTTCGAGAAAGACAAACTTGTCTGGAAACCA
GAGTTGCTGATTCCACCCGGGGGGCCCGGCTGACTCGCCCATCACCTCATCTCCCTGTGGACTTGGGAGCTCTGT
GCCAGGCCCACCTTGCGGCCCTGGCTCTGAGTCGCTCTCCCACCCAGCCTGGACTTGGCCCCATGGGACCCATCC
TCAGTGCTCCCTCCAGATCCCGTCCGGCAGCTTGGCGTCCACCCTGCACAGCATCACTGAATCACAGAGCCTTTG
CGTGAAACAGCTCTGCCAGGCCGGGAGCTGGGTTTCTCTTCCCTTTTTATCTGCTGGTGTGGACCACACCTGGGC
CTGGCCGGAGGAAGAGAGAGTTTACCAAGAGAGATGTCTCCGGGCCCTTATTTATTATTTAAACATTTTTTTAAA
AAGCACTGCTAGTTTACTTGTCTCTCCTCCCCATCGTCCCCATCGTCCTCCTTGTCCCTGACTTGGGGCACTTCC
ACCCTGACCCAGCCAGTCCAGCTCTGCCTTGCCGGCTCTCCAGAGTAGACATAGTGTGTGGGGTTGGAGCTCTGG
CACCCGGGGAGGTAGCATTTCCCTGCAGATGGTACAGATGTTCCTGCCTTAGAGTCATCTCTAGTTCCCCACCTC

FIGURE 3971B

AATCCCGGCATCCAGCCTTCAGTCCCGCCCACGTGCTAGCTCCGTGGGCCCACCGTGCGGCCTTAGAGGTTTCCC
TCCTTCCTTTCCACTGAAAAGCACATGGCCTTGGGTGACAAATTCCTCTTTGATGAATGTACCCTGTGGGGATGT
TTCATACTGACAGATTATTTTTATTTATTCAATGTCATATTTAAAATATTTATTTTTTATACCAAATGAATACTT
TTTTTTTTAAGAAAAAAAAAGAGAAATGAATAAAGAATCTACTCTTG

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FIGURE 3972

GCTCAGGCGGCGGGCGCGGCTGGG**ATG**GCGAAGAGCAACGGAGAGAATGGGCCGCGCGCGCCCGCGGCCGGGGAA
AGCCTGTCGGGAACCCGGGAGAGCCTGGCCCAGGGCCCCGACGCCGCAACCACCGACGAACTCAGCTCTCTCGGG
TCTGACTCGGAGGCCAACGGCTTCGCCGAGCGCCGCATCGACAAGTTCGGCTTCATCGTGGGCTCGCAGGGCGCC
GAGGGCGCGCTGGAGGAAGTACCCCTGGAGGTGCTGAGGCAGAGGGAGTCCAAGTGGCTGGACATGCTCAACAAC
TGGGACAAATGGATGGCCAAGAAGCACAAAAAGATTCGTCTGCGGTGCCAAAAGGGCATCCCGCCTTCTCTGCGG
GGCCGTGCTTGGCAGTACCTGTCAGGAGGCAAGGTGAAGTTACAGCAGAACCCTGGAAAGTTTGACGAGCTGGAC
ATGTCCCCTGGGGACCCCAAGTGGCTGGACGTGATTGAGCGTGACCTGCACCGGCAGTTCCCATTCCATGAGATG
TTTGTGTCCCGGGGGGGCCACGGCCAGCAGGACCTATTCCGTGTGCTGAAGGCCTACACGCTGTACCGGCCCGAG
GAGGGCTACTGCCAGGCCCAGGCGCCCATTGCCGCTGTCTTGCTCATGCATATGCCTGCTGAGCAAGCCTTCTGG
TGCCTGGTACAGATCTGTGAGAAGTACCTGCCCGGCTACTACAGCGAGAAACTGGAGGCGATCCAGCTGGACGGG
GAGATCCTTTTCTCGCTGTTGCAGAAGGTGTCGCCGGTGGCCCACAAGCACCTCAGCCGTCAGAAGATCGACCCG
CTCCTCTATATGACAGAATGGTTCATGTGCGCCTTCTCCCGAACCTTGCCCTGGAGCTCTGTGCTGCGTGTCTGG
GACATGTTCTTCTGTGAAGGGGTCAAGATCATCTTCCGGGTGGGGCTGGTGCTGCTGAAGCACGCGCTGGGCTCC
CCTGAGAAGGTCAAAGCCTGCCAGGGCCAGTACGAGACCATCGAGCGACTGCGGAGCCTCAGCCCCAAGATCATG
CAGGAGGCCTTTCTGGTCCAGGAGGTGGTGGAGTTGCCCGTGACAGAGCGCCAGATTGAGCGCGAACACCTCATT
CAGCTGCGGCGCTGGCAGGAGACCCGGGGTGAGCTGCAGTGCCGCTCCCCGCCCAGGCTGCATGGTGCCAAGGCT
ATCTTGGATGCAGAACCTGGTCCCCGGCCTGCCCTACAACCTTCACCATCCATCCGCCTGCCCCTAGATGCCCCC
CTCCCTGGCTCCAAAGCCAAGCCCAAGCCACCCAAGCAGGCCCAGAAGGAGCAGCGGAAACAGATGAAGGGGAGA
GGGCAGCTGGAGAAGCCCCCAGCCCCAAATCAAGCCATGGTGGTGGCCGCTGCAGGAGATGCATGTCCCCCACAG
CATGTGCCCCCGAAGGACTCAGCCCCCAAGGACTCAGCCCCTCAGGATTTGGCTCCCCAGGTCTCAGCCCACCAC
CGCTCCCAGGAGAGCTTGACGTCCCAAGAGAGTGAGGACACCTACTTG**TAA**CCCTGGCAGCTAAGGCCTCCAGGG
CGGGGTCTCCATATAACTACACGGTTCATGAACTGACATTCCACATCCTGCCCACCCTCTGAGGGCCAAGCTGCC
TGGCCACTGGGCTGGGCTGGAGTCTGGCTGGTCCAACACAGATTCTGCCTGGTCCAACACAGATTCTGCCTGAGC
CTCCTTATTTATTTTCTTTACAGTGGCACTCAGGCTGGCCCAGCCAGGGCAGGCAGAAGCTAGGGCCTGGGGGGT
GGGGCCTCCTTCAGCCCCCTCCTCCTGGGGGATGCTCCCCAGGGTTAGGGTGCTGGTGTGAGGGGAAAGGGTGGG
GTGTTCTTTGTGTAAAATAGAAACATGGTTTTGTACAGAAATAAACAGCCTTGTATAGAG

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FIGURE 3973A

GGCCGCAACTCGCTCGGCCGCCGCCATCTTGCGAGCTCGTCGTACTGACCGAGCGGGGAGGCTGTCTTGAGGCGG
CACCGCTCACCGACACCGAGGCGGACTGGCAGCCCTGAGCGTCGCAGTC**ATG**CCGGCCGGACCCGTGCAGGCGGT
GCCCCCGCCGCCGCCCGTGCCCACGGAGCCCAAACAGCCCACAGAAGAAGAAGCATCTTCAAAGGAGGATTCTGC
ACCTTCTAAGCCAGTTGTGGGGATTATTTACCCTCCTCCAGAGGTCAGAAATATTGTTGACAAGACTGCCAGCTT
TGTGGCCAGAAACGGGCCTGAATTTGAAGCTAGGATCCGACAGAACGAGATCAACAACCCCAAGTTCAACTTTCT
GAACCCCAATGACCCTTACCATGCCTACTACCGCCACAAGGTCAGCGAGTTCAAGGAAGGGAAGGCTCAGGAGCC
GTCCGCCGCCATCCCCAAGGTCATGCAGCAGCAGCAGCAGACCACCCAGCAGCAGCTGCCCCAGAAGGTCCAAGC
CCAAGTAATCCAAGAGACCATCGTGCCCAAAGAGCCTCCTCCTGAGTTTGAGTTCATTGCTGATCCTCCCTCTAT
CTCAGCCTTCGACTTGGATGTGGTGAAGCTGACGGCTCAGTTTGTGGCCAGGAATGGGCGCCAGTTTCTGACCCA
GCTGATGCAGAAAGAGCAGCGCAACTACCAGTTTGACTTTCTCCGCCCACAGCACAGCCTCTTCAACTACTTCAC
GAAGCTAGTGGAACAGTACACCAAGATCTTGATTCCACCCAAAGGTTTATTTTCAAAGCTCAAGAAAGAGGCTGA
AAACCCCCGAGAAGTTTTGGATCAGGTGTGTTACCGAGTGGAATGGGCCAAATTCCAGGAACGTGAGAGGAAGAA
GGAAGAAGAGGAGAAGGAGAAGGAGCGGGTGGCCTATGCTCAGATCGACTGGCATGATTTTGTGGTGGTGGAAAC
AGTGGACTTCCAACCCAATGAGCAAGGGAACTTCCCTCCCCCCACCACGCCAGAGGAGCTGGGGGCCCGAATCCT
CATTCAGGAGCGCTATGAAAAGTTTGGGGAGAGTGAGGAAGTTGAGATGGAGGTCGAGTCTGATGAGGAGGATGA
CAAACAGGAGAAGGCGGAGGAGCCTCCTTCCCAGCTGGACCAGGACACCCAAGTACAAGATATGGATGAGGGTTC
AGATGATGAAGAAGAAGGGCAGAAAGTGCCCCCACCCCCAGAGACACCCATGCCTCCACCTCTGCCCCCAACTCC
AGACCAAGTCATTGTCCGCAAGGATTATGATCCCAAAGCCTCCAAGCCCTTGCCTCCAGCCCCTGCTCCAGATGA
GTATCTTGTGTCCCCCATTACTGGGGAGAAGATCCCCGCCAGCAAAATGCAGGAACACATGCGCATTGGACTTCT
TGACCCTCGCTGGCTGGAGCAGCGGGATCGCTCCATCCGTGAGAAGCAGAGCGATGATGAGGTGTACGCACCAGG
TCTGGATATTGAGAGCAGCTTGAAGCAGTTGGCTGAGCGGCGTACTGACATCTTCGGTGTAGAGGAAACAGCCAT
TGGTAAGAAGATCGGTGAGGAGGAGATCCAGAAGCCAGAGGAAAAGGTGACCTGGGATGGCCACTCAGGCAGCAT
GGCCCGGACCCAGCAGGCTGCCCAGGCCAACATCACCCTCCAGGAGCAGATTGAGGCCATTCACAAGGCCAAAGG
CCTGGTGCCAGAGGATGACACTAAAGAGAAGATTGGCCCCAGCAAGCCCAATGAAATCCCTCAACAGCCACCGCC
ACCATCTTCAGCCACCAACATCCCCAGCTCGGCTCCACCCATCACTTCAGTGCCCCGACCACCCACAATGCCACC
TCCAGTTCGTACTACAGTTGTCTCCGCAGTACCCGTCATGCCCCGGCCCCCAATGGCATCTGTGGTCCGGCTGCC
CCCAGGCTCAGTGATCGCCCCCATGCCGCCCATCATCCACGCGCCCAGAATCAACGTGGTGCCCATGCCTCCCTC
GGCCCCTCCTATTATGGCCCCCCGCCCACCCCCCATGATTGTGCCAACAGCCTTTGTGCCTGCTCCACCTGTGGC
ACCTGTCCCAGCTCCAGCCCCAATGCCCCCTGTGCATCCCCCACCTCCCATGGAAGATGAGCCCACCTCCAAAAA
ACTGAAGACAGAGGACAGCCTCATGCCAGAGGAGGAGTTCCTGCGCAGAAACAAGGGTCCAGTGTCCATCAAAGT
CCAGGTGCCCAACATGCAGGATAAGACGGAATGGAAACTGAATGGGCAGGTGCTGGTCTTCACCCTCCCACTCAC
GGACCAGGTCTCTGTCATTAAGGTGAAGATTCATGAAGCCACAGGCATGCCTGCAGGGAAACAGAAGCTACAGTA
TGAGGGTATCTTCATCAAAGATTCCAACTCACTGGCTTACTACAACATGGCCAATGGCGCAGTCATCCACCTGGC
CCTCAAGGAGAGAGGCGGGAGGAAGAAG**TAG**ACAAGAGGAACCTGCTGTCAAGTCCCTGCCATTTTGCCTCTCCT
GTCTCCCACCCCCTGCCCCAGACCCAGGAGCCCCCCTGAGGCTTTGCCTTGCCTGCATATTTGTTTCGCTCTTAC
TCAGTTTGGGAATTCAAATTGTCCTGCAGAGGTTCATTCCCCTGACCCTTTCCCCACATTGGTAAGAGTAGCTGG
GTTTTCTAAGCCACTCTCTGGAATCTCTTTGTGTTAGGGTCTCGATTTGAGGACATTCATTTCTTCAGCAGCCCA
TTAGCAACTGAGAGCCCAGGGATGTCCTACAGGATAGTTTCATAGTGACAGGTGGCACTTGGCTAATAGAATATG
GCTGATATTGTCATTAATCATTTTGTACCTTGACATGGGTTGTCTAATAAAACTCGGACCCTTCTTGTGAAATCA
GTTAAATAAGACTTGTCTCGGTCACCTGTGCCCTGTCCAGACTCGAGGCAGTGGTAACACTGCACAGTGCTATGT
GGCTTCTCTTTGAGGATTTTTGGGTTTTGTAACTAAATTCTTGCTGCCCTCATACTTTTTATGTATTAGAATCAT
ATTCGTATTGCCCTTTTAAAACATTGGGATCCTCCAAAGGCCTGCCCCATGTATTTAACAGTAATACAGGAAGCA
TGGCAGGCACCATGCAAACCAAGGATGGATGGTGCAGTCCCTGTGTCAGTGGGCGGTGGTTTCCTGCTGGCCTGG
AATCACTCATCACCTGATTGATTGGCTCTGTGGTCCTGGGCAGGTGCCTCATAGGTGTGTGGATATGATGACGTT
TCTTTAAAATGTATGTATTTAACAAATACTTAATTGTATTAAGGTCATGTACCAAGGATTTGATAAAGTTTAAAT
AATTTACTCTCTACTTTTATCCATTTTATCCATTTTAACTCATGTAATCCTCATGTGAGTATTCCTGTTTAACAC
TTGAGTAAACTGAGGCACAGAGAACATAAGTTGCATGCCATAGTCACACACTGTGAAAGTGAAAAGAGAATGTGT
GCAAAACACGTCACAGTCCTGGTTTCTGAGTAAAGGCAGGCTGTTATCTTTAGAATCAAGCTATCACAGGGAGAT

FIGURE 3973B

AGGCAATGCTGTGGGTGTTGGAGGAAGGTGAGAGCCTGTTGCTAACAATTTCCTGGTTTTAAAGCTAAGGCTGAT
TTTATTGGGAAGATCTCACATGTGTGTGGCCCCTGAGAGTTCCCAGTGCCTTTTATTTGCAGTCCTTCCATTTGG
ACCTCCTAGCTGCCCCATCAGGTCATCTCCAGGGCTCAGAGGGGTGAGACCATTTCCCAAGGTCACAGAACCAGC
TCTCTAGTCACCACCCTGCCTCTCCCTCTCACCCAGAGTCAGTACCAGTTTTATGGCTTTATTACAAACTGCTGG
GTCCCTCCCATTTTCAACTTGATTGATGGGATGTCATCCCTTATCCTGTCTGACATTTGCCTCTGGCCTGGTTGC
TAGAAGTTTGCCCCAGGGGCAAGAGTTGAAATTTGGCTTCCTGAGGTGGGCTTTGTGGTTTGCGTCCCTAAAGTG
AGCCCACTACTGGTTGCTTGTCCATGGCCAACACCAGAAATCCCCTGAGCACTACCTGGGTCTCATTCCAAGAAG
GAAGAGGGTCAGGAGACCTGGGGAGTCTCATATTCCAAGTTCTTCTTTCTTTCTGGGAGCAGTGGGCAGTTCATG
GTGTTAGGGCACTCACCCCCACAGACTGGCAAACCCTGCAGGACTTCCGTGGCTGAGGCTGTGACCGGAGGCCAG
GAATGCCGTTGGGTGGATTGTGAGTGAATGGGCCCTTTGAGCTGCCCTCTAGAGAGCAAATCCAGTTTCCTGGAG
CTCCTGAATGAATATCTGTACTGGCTCGCTCAGATGCAGAAGCTCCATTGACCATGAGGCCTTGTGAACATCAGT
GGCCACAGGCCCAGTGTGCTGCTTGGCACTGCACTAGTTTAGGACCTGCAGCATGTAGGTAGCGTCCTAGTGTTT
ATAATACAAAGCTGCTCTGCACAGCTTTTCTGATTCTTCTTGCAATCTCCTGAGGATTATCTGCCCCATTTTTAA
AACGAGGTGGAATACCCAAGGTCATGTAGCCAGTGAGTGCTCTGGAAAGCCAAAGCAGCTCATCCCTTCCTGGGG
ACCACACTGCTCTGCTCCACCAGACCACACTATGAAATAGGAATAAGTGCTCCTGTTGCAGGACTGCTGGGAAAA
CAGGTGGTGTGGGACTTAAGTCACCATAATTTTGAAGACTTGCATGCAGAGGGCTCCAGGAATTGTAGACATTAA
GGAATTTCACTTTCAGTTCTACCCACTACTTAAGTACTTGTCATGTACTCTTAGAGGAGGCCAGTAATGATCAGA
ACCATTTTACTTTAAAATTAATAATATTGTATTAGAGAATATATTAAATGGTTATATTGGGTTATGTTAGGATAT
ATACTTGAATGGAAATACATGTACTATTAGCAATCATATTTCATTTATCCCTGTAATTAGACAAGAAAGCATAAT
ATAGCTCTACTCATGGGTACACATACCAGTGTATAAGATTTTTAGAAGTTTACTTTTTAAAAATAAAAGCAAAAT
GT

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FIGURE 3974

CCCTACTCCGCCTCTCGGGATCCTTTAAGAGGCGGGGCTTGGCTGCCAGCTCCGCGGCCCGGGCAAAAGGCTGGG
ACTTTACTCCGGGTGGCGGCGAGGACGAGTCTGTGCTCCATCAGCTGCCGCACCCGCCGCCTCCCGCCCCCAAAC
CCCATCCCCGCGGTTGAGCCACG**ATG**AGCGGCAGAGTCGGCGATCTGAGCCCCAGGCAGAAGGAGGCATTGGCCA
AGTTTCGGGAGAATGTCCAGGATGTGCTGCCGGCCCTGCCGAATCCAGATGACTATTTTCTCCTGCGTTGGCTCC
GAGCCAGAAGCTTCGACCTGCAGAAGTCGGAGGCCATGCTCCGGAAGCATGTGGAGTTCCGAAAGCAAAAGGACA
TTGACAACATCATTAGCTGGCAGCCTCCAGAGGTGATCCAACAGTATCTGTCAGGGGGTATGTGTGGCTATGACC
TGGATGGCTGCCCAGTCTGGTACGACATAATTGGACCTCTGGATGCCAAGGGTCTGCTGTTCTCAGCCTCCAAAC
AGGACCTGCTGAGGACCAAGATGCGGGAGTGTGAGCTGCTTCTGCAAGAGTGTGCCCACCAGACCACAAAGTTGG
GGAGGAAGGTGGAGACCATCACCATAATTTATGACTGCGAGGGGCTTGGCCTCAAGCATCTCTGGAAGCCTGCTG
TGGAGGCCTATGGAGAGTTTCTCTGCATGTTTGAGGAAAATTATCCCGAAACACTGAAGCGTCTTTTTGTTGTTA
AAGCCCCCAAACTGTTTCCTGTGGCCTATAACCTCATCAAACCCTTCCTGAGTGAGGACACTCGTAAGAAGATCA
TGGTCCTGGGAGCAAATTGGAAGGAGGTTTTACTGAAACATATCAGCCCTGACCAGGTGCCTGTGGAGTATGGGG
GCACCATGACTGACCCTGATGGAAACCCCAAGTGCAAATCCAAGATCAACTACGGGGGTGACATCCCCAGGAAGT
ATTATGTGCGAGACCAGGTGAAACAGCAGTATGAACACAGCGTGCAGATTTCCCGTGGCTCCTCCCACCAAGTGG
AGTATGAGATCCTCTTCCCTGGCTGTGTCCTCAGGTGGCAGTTTATGTCAGATGGAGCGGATGTTGGTTTTGGGA
TTTTCCTGAAGACCAAGATGGGAGAGAGGCAGCGGGCAGGGGAGATGACAGAGGTGCTGCCCAACCAGAGGTACA
ACTCCCACCTGGTCCCTGAAGATGGGACCCTCACCTGCAGTGATCCTGGCATCTATGTCCTGCGGTTTGACAACA
CCTACAGCTTCATTCATGCCAAGAAGGTCAATTTCACTGTGGAGGTCCTGCTTCCAGACAAAGCCTCAGAAGAGA
AGATGAAACAGCTGGGGGGCAGGCACCCCGAAA**TAA**CACCTTCTCCTATAGCAGGCCTGGCCCCCTCAGTGTCTCC
CTGTCAATTTCTACCCCTTGTAGCAGTCATTTTCGCACAACCCTGAAGCCCAAAGAAACTGGGCTGGAGGACAGA
CCTCAGGAGCTTTCATTTCAGTTAGGCAGAGGAAGAGCGACTGCAGTGGGTCTCCGTGTCTATCAAATACCTAAG
GAGTCCCCAGGAGCTGGCTGGCCATCGTGATAGGATCTGTCTGTCCTGTAAACTGTGCCAACTTCACCTGTCCAG
GGACAGCGAAGCTGGGGGTGGCGGGGGGCATGTACCACAGGGTGGCAGCAGGGAAAAAAATTAGAAAAGGGTGAA
AGATTGGGACTTAACACTTCAGGGAAGTCAGCTGCCGGGGAGAAACTTGCTCCTAAATGAACACATAAGTTTAGA
TCGCAATGAGGAGTAGCAGGGTAGCTGGTTGCTAGAGTTACGGTGGGGATCAGAAACTCTTCCAAACATTTTAGC
ACTGAGGCTGGGGTAGCTTTTGGCTTTTCCCAGGTCTCAGGAGGTGGCCTGAGTCAGCACACATCTTCCCACTCG
GTAGACAGGCTGGCCTCTCCCTCACTTTGAGACTTTGGCAACTCCTGGGCCACACGGCCTGCCTCTTTGATTACT
AATGATTGTCAGTGACTCAGAGCTTCCTGGGACTTCGGGTACCCACCCGCTGTTCTCCATGCAAACAAAGCGCCA
GGGAAATGACCCACAGGGATCGCAGCTGCAGGGAGGGCCAGGGAGGTTGGGGGTGGGAGTGAATGCTAAAAGCAG
ATCGTCCAGTGCCCTTTTCAGTGCTACCGGCCTCTCACCAAGCAGTCCTCCATGTGAGCAACCCCGAGACAAAAA
TGCTAAGTGGGATCAAGAGAGCAGCACTCGGAGAGGGTGTTTGCCAGTCTGAGTGTCCCGCGGTGCCCGCCAACC
CGCTTCCTGACTGACCTGAGCAAGGTCTTACTAAGCAGTCCCATCTCTGTGGGAGGCATGCAACGCGTGCAGGGA
GTTCAGGTGCCGGTCGGCGTAGCCAGGCCTGGAGGCCCCCCAGGCAGGAGGCCGCCCAAAGGCGGGGCCGGCGTC
TCGCAGACTAGGGGCTGGGGGCGGCCACAGACGGCCTCGAAACCACAGCCCTTACCCCAATCCCACGAGCCCCGC
CAACGAACCACAGGTGCTGGGCTTTAGAGAACATGGGAAGGCGGCCCCAGACCTGCGGGAACGCCTTTCCCTCAG
AGCCAGGCCCCGGCCCCGTCTGGGAAGCTCATCTTGCGAAGCTGAGGGAGCTCAGGGCAAAGGCCAGGCTAGCGC
GGACCGGAAGGGGCCGAGGCTGCACGGGCCTCTGCCAGAACGCTCAGGACATCCCGGCCTGGGTTTACAACGCTG
TTAGGAAAATTAACCAATGAATAAAGCAACGTTCAGTGCGCA

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FIGURE 3975

ATGAGGTGGGCGAGGCTTTCCGCTCTCTTGTGCCAGCGGCGGTGGTGTGGCTGAGCTATGGCGTGGCCAGCTCCT
ACGTGCTGGCGGATGCCATTGACAAAGGCAAGAAGGCTGGAGAGGTGCCCAGCCCTGAAGCAGGCCGCAGCGCCA
GGGTGACTGTGGCTGTGGTGGACACCTTTGT**ATG**GCAGGCTCTAGCCTCTGTGGCCATTCCGGGCTTCACCATCA
ACCGCGTGTGTGCTGCCTCTCTCTATGTCCTGGGCACTGCCACCCGCTGGCCCCTGGCTGTCCGCAAGTGGACCA
CCACCGCGCTTGGGCTGTTGACCATCCCCATCATTATCCACCCCAT**TGA**CAGGTCGGTGGATTTCCTCCTGGACT
CCAGCCTGCGCAAGCTCTACCCAACAGTGGGGAAGCCCAGCTCCTCCTGATCATACTCTGGTACCTGGCCTGTGC
ATCGGCCTCCTGCTTCATGTCAACCTCCTACTCCTGCCAGGGAATGTGGACACCTGGCTCCCTGGTGTCCAAAGA
CCCTGGCACCTGGGTGGGTTTGAGCTGGACAGAAGCTTAGAGACAAAGGCTTCAAGAAGCAGTGGCTGCAGGGAG
TCACAGAAGGGCAGGACCTGA

FIGURE 3976

GAGGAAGTGGAGCTCCCTGTACGCGCGGCCCTAGTCGGCTCCTCAACGTGGAGCG**ATG**GGAGGCCTTGAGAAGAA
GAAGTATGAACGAGGCTCGGCCACCAACTACATCACCCGGAACAAAGCCCGGAAGAAGCTCCAGCTGAGCTTGGC
TGACTTTAGGCGGCTGTGCATTCTGAAGGGCATTTATCCCCATGAACCCAAACACAAGAAGAAGGTTAACAAGGG
TTCTACAGCAGCCCGAACGTTTTACCTTATCAAAGACATCAGGTTTCTCCTCCACGAACCCATTGTCAACAAGTT
CCGTGAATACAAGGTGTTCGTCCGGAAGCTCCGGAAGGCTTATGGGAAGAGCGAGTGGAACACTGTAGAGCGTTT
AAAGGACAATAAGCCCAACTACAAACTCGACCACATCATCAAGGAACGGTATCCCACGTTCATCGATGCCCTGCG
GGACCTGGACGATGCCCTCTCCATGTGCTTCCTGTTTTCCACCTTCCCGCGGACTGGCAAGTGCCACGTGCAGAC
CATTCAGCTGTGCCGCCGGCTCACTGTGGAGTTCATGCACTACATTATCGCTGCCCGTGCCCTGCGCAAGGTCTT
CCTGTCCATCAAAGGCATTTACTACCAGGCCGAGGTACTGGGGCAGCCCATCGTGTGGATCACTCCCTATGCCTT
CTCCCATGACCACCCGACAGACGTGGACTACAGGGTCATGGCCACCTTCACCGAGTTCTACACCACGCTGCTGGG
CTTTGTCAACTTCCGCCTTTACCAGTTGCTCAACCTCCACTATCCCCCGAAGCTCGAGGGTCAGGCCCAAGCAGA
GGCAAAGGCCGGTGAGGGCACCTACGCGTTGGACTCCGAGAGTTGTATGGAGAAACTGGCAGCCCTCAGTGCCAG
CCTGGCCCGCGTGGTGGTGCCTGCCACAGAGGAGGAGGCCGAGGTGGATGAGTTTCCCACCGATGGGGAGATGTC
AGCGCAGGAGGAAGACCGCAGGAAGGAGCTGGAGGCGCAGGAGAAGCACAAGAAGCTTTTTGAGGGCCTGAAGTT
CTTCCTGAACCGAGAGGTGCCCCGTGAGGCCCTGGCCTTCATCATCAGGAGTTTTGGTGGGGAAGTGTCCTGGGA
CAAATCTTTGTGCATTGGGGCCACCTATGACGTCACAGACTCCCGCATCACCCATCAGATTGTCGACCGGCCTGG
GCAGCAGACCTCAGTCATTGGCAGGTGCTACGTGCAGCCCCAGTGGGTGTTTGACTCAGTGAACGCCAGGCTCCT
TCTCCCCGTGGCAGAGTACTTCTCTGGGGTGCAGCTGCCCCCACACCTTTCACCCTTTGTGACCGAGAAGGAAGG
AGATTACGTTCCACCTGAGAAGCTGAAGCTGCTGGCTCTGCAGCGGGGAGAGGACCCAGGAAACCTGAATGAGTC
AGAAGAGGAGGAGGAAGAGGACGACAACAACGAAGGTGATGGTGATGAAGAGGGAGAAAATGAGGAGGAGGAGGA
AGATGCAGAGGCTGGTTCAGAAAAGGAGGAAGAGGCCCGGCTGGCAGCCCTGGAAGAGCAGAGGATGGAGGGGAA
GAAGCCCAGGGTGATGGCAGGCACCTTGAAGCTGGAGGATAAGCAGCGGCTGGCCCAGGAGGAGGAGAGTGAGGC
CAAGCGCCTGGCCATTATGATGATGAAGAAGCGGGAGAAGTACCTGTACCAGAAGATCATGTTTGGCAAGAGGCG
AAAAATCCGAGAGGCCAACAAGCTGGCGGAGAAGCGGAAAGCCCACGATGAGGCGGTGAGGTCTGAGAAGAAGGC
CAAGAAGGCAAGGCCGGAG**TGA**GTGCCTGCGGCCCCTCACAGGGCTGAGGCCAGCCCCTAGCAGCTGGATGTGGC
AGAGGCAGGCCAGAGGACCTAAGTGTGATGGACCAGAGTCACTTCTCCTCCTCCTTTCTCCAGCCAGCCCTGACC
CCTCATGCTCTCTGGCTGGGCCAGTGGGCAGCCCTCGCTTCCCTTGGATGGAGCTGCCCTGCTGGTGCCTGGTCA
GAGAAGAGGCCTCTGTGCCCAGCCTGATTCTCTGCTCCCAGGAGCCAGTGACATGAGGTGCAGAGGCCCACCCAG
CCCCCTACCTACTGCCCCCATTCATCCTGGCTTTCCACAGCCCCCTCCCACACAGTTGGACCCGTGATTCTCAGG
GTGCTGTGATGGGGTGAGGGTAGGGGGAGCATTTGTTATTAAATGACTGGACTTTTG

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FIGURE 3977

CCGATTCTTGCTCACTGCTCACCCACCTGCTGCTGCC**ATG**AGGCACCTTGGGGCCTTCCTCTTCCTTCTGGGGGT
CCTGGGGGCCCTCACTGAGATGTGTGAAATACCAGAGATGGACAGCCATCTGGTAGAGAAGTTGGGCCAGCACCT
CTTACCTTGGATGGACCGGCTTTCCCTGGAGCACTTGAACCCCAGCATCTATGTGGGCCTACGCCTCTCCAGTCT
GCAGGCTGGGACCAAGGAAGACCTCTACCTGCACAGCCTCAAGCTTGGTTACCAGCAGTGCCTCCTAGGGTCTGC
CTTCAGCGAGGATGACGGTGACTGCCAGGGCAAGCCTTCCATGGGCCAGCTGGCCCTCTACCTGCTCGCTCTCAG
AGCCAACTGTGAGTTTGTCAGGGGCCACAAGGGGGACAGGCTGGTCTCACAGCTCAAATGGTTCCTGGAGGATGA
GAAGAGAGCCATTGGGCATGATCACAAGGGCCACCCCCACACTAGCTACTACCAGTATGGCCTGGGCATTCTGGC
CCTGTGTCTCCACCAGAAGCGGGTCCATGACAGCGTGGTGGACAAACTTCTGTATGCTGTGGAACCTTTCCACCA
GGGCCACCATTCTGTGGACACAGCAGCCATGGCAGGCTTGGCATTCACCTGTCTGAAGCGCTCAAACTTCAACCC
TGGTCGGAGACAACGGATCACCATGGCCATCAGAACAGTGCGAGAGGAGATCTTGAAGGCCCAGACCCCCGAGGG
CCACTTTGGGAATGTCTACAGCACCCCATTGGCATTACAGTTCCTCATGACTTCCCCCATGCGTGGGGCAGAACT
GGGAACAGCATGTCTCAAGGCGAGGGTTGCTTTGCTGGCCAGTCTGCAGGATGGAGCCTTCCAGAATGCTCTCAT
GATTTCCCAGCTGCTGCCCGTTCTGAACCACAAGACCTACATTGATCTGATCTTCCCAGACTGTCTGGCACCACG
AGTCATGTTGGAACCAGCTGCTGAGACCATTCCTCAGACCCAAGAGATCATCAGTGTCACGCTGCAGGTGCTTAG
TCTCTTGCCGCCGTACAGACAGTCCATCTCTGTTCTGGCCGGGTCCACCGTGGAAGATGTCCTGAAGAAGGCCCA
TGAGTTAGGAGGATTCACATATGAAACACAGGCCTCCTTGTCAGGCCCCTACTTAACCTCCGTGATGGGGAAAGC
GGCCGGAGAAAGGGAGTTCTGGCAGCTTCTCCGAGACCCCAACACCCCACTGTTGCAAGGTATTGCTGACTACAG
ACCCAAGGATGGAGAAACCATTGAGCTGAGGCTGGTTAGCTGG**TAG**CCCCTGAGCTCCCTCATCCCAGCAGCCTC
GCACACTCCCTAGGCTTCTACCCTCCCTCCTGATGTCCCTGGAACAGGAACTCGCCTGACCCTGCTGCCACCTCC
TGTGCACTTTGAGCAATGCCCCCTGGGATCACCCCAGCCACAAGCCCTTCGAGGGCCCTATACCATGGCCCACCT
TGGAGCAGAGAGCCAAGCATCTTCCCTGGGAAGTCTTTCTGGCCAAGTCTGGCCAGCCTGGCCCTGCAGGTCTCC
CATGAAGGCCACCCCATGGTCTGATGGGCATGAAGCATCTCAGACTCCTTGGCAAAAAACGGAGTCCGCAGGCCG
CAGGTGTTGTGAAGACCACTCGTTCTGTGGTTGGGGTCCTGCAAGAAGGCCTCCTCAGCCCGGGGGCTATGGCCC
TGACCCCAGCTCTCCACTCTGCTGTTAGAGTGGCAGCTCCGAGCTGGTTGTGGCACAGTAGCTGGGGAGACCTCA
GCAGGGCTGCTCAGTGCCTGCCTCTGACAAAATTAAAGCATTGATGGCCTGTGGACCTGC

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FIGURE 3978

GCTGTCTAGCAACCAGATCACC**ATG**GTCATCAATGTCTCAGTGGAGGTAGTGAACACCTTGTATGAGGATATCCA
GTACATGCAGGTACCTGTGGCTGACTCCCCTAACTCACGTCTCTGTGACTTCTTTGACCCTATTGCTGACCATAT
CCACAGCGTGGAGATGAAGCAGGGCCGTACTTTGCTGCACTGTGCTGCTGGTGTGAGCCGCTCAGCTGCCCTGTG
CCTCGCCTACCTCATGAAGTACCACGCCATGTCCCTGCTGGACGCCCACACGTGGACCAAGTCATGCCGGCCCAT
CATCCGACCCAACAGCGGCTTTTGGGAGCAGCTCATCCACTATGAGTTCCAATTGTTTGGCAAGAACACTGTGCA
CATGGTCAGTTCCCCAGTGGGAATGATCCCTGACATCTATGAGAAGGAAGTCCGTTTGATGATTCCACTG**TGA**GC
CATCCCACGAGCCCCTGCATTGGAGTCAGAGGTACAGATCTATTGTTGATCTTACACCAAGATCCAAACTTGAAC
ATTCTACTTTTGTTGATACAGAAAAAAACAGATGATGCCTTTTATGAGCACAAAAAAGAGTTGCTGTAGCTTTTA
ACTTTATAATCCATTTTTTTTAAGATTAAACTAATTGTGAGATGGTGAAGATAAATTTTCTGCCCTGTGAGTGAC
ACTGGCCAGGGGATAGGTTGAGGCAGATGGTGCCCAGAAGAAAGAGGGCAGCACCCATTGCACATGGCAGGCCTG
GAATCCTGCAGCCCTCCCCAAAAACAGATTGACCCAGGAATGAATCTGCTACAATTCCACCTCATTCTTTCACAC
CCAGAGCCAGAGCCTTAAGCATCATGGTACCTCTTGCGCTTCTTACAGTGAGTGCCAATCTACTAGATAAATGGC
CTTCAGGCAGTGCTCCAGGAATCCTGGGGGGTCCCAGGCCACCTCTGCTTCCACCTTCACTATAAGTGGCCCAGT
TCTGGTTTTCTAGATTGTACTTATGCATAAGATAGTTTTTAAAGAAAGCATTCCACTGTGTAAATTTTTTTTTGT
CTTTTTTTGAAACTGTCCTGCTCTGTCACCCATCCTAGAGTGCAGTAGTGTGATCATGGCTCACTGTAGCCACAA
CCTCTCAGGCTCAAGTGATCCTCTTACCTTAGCCTCCTGCGTGGCTGGGACTACAGATGTTTGCCACCATGCCCG
CCTCATTTTTTTTCTTTTTTTATAGAGATGAGATTTTACTATGTCGCCCAGACTGGTCTCAAACTCCTGGCCTCA
AGCAATCCTCACGCCTCAGCCTCCCAAAGTGTTGATGAGCCACTGTACCCCGATACCACTGTATAAAAAATTTAA
AAAAAATTGTGAGTGCTATTGTACATGGCAAAGTTTCAAAGAGCTCTTGGCCATCCCTCACCAAACTTTGGCAAA
AGATGGTGTTAGTCCCCTTCTCCAGGGCACATGAGAAAAACAGGCCTAACATCAGGTCTCAGCGGTTCCTCTCAC
AGGCCTTGGCTTGGAAGGCTGGAGCTTCGGACCAAGGCCCAGCCCTGTCACCTCCTCTTCATGTGATGTGGACCC
CTGGGAGCATCAGTGTCCTCATCTGTCCAATGACAGCCCTTTTCTCACAGAGTTATTGTGAAGATTCAACAATTT
CTTGGCATAGTGCCTGGCACATGGTGTGTGCTTAGCGCAAATGGCAGCTCTCATCATGAATGATAGACTCTTTCA
CCCTGCTGGTCCCAGGTCGGCACACACATCCCCATAATGGCATTTCTCCTTTCTGTGCACAGCACTTTATTGTTA
CAAAGTACTCTTCCAAAAAGTTACCCTGTGTGTAAAAAAAAAAAAAAAAAAAAA

FIGURE 3979A

CGAGACTCAGATTGTCTGAATTGAGCTATCGCAACTTAATGCTAAAAGCTCCTTAAAGCTACAGATTTATGACAT
AGTTCCTTCCAAAATATTACATCATAAATCATTGAGAAGATTAAAAAAAAACACTTGAAGAAATTGTAGTTTTAA
ACATCTCTGCATATATTTTGGATAGCTACTAGGTTACTTTAACTGTCATTAAGGAGCACAGACTTACTGAAGCTT
TACTGGACAGAATCCTGGGAAATCGATATCATTATAAGGTTATATTTCCCAGTTAGCGGGTGAAGGGCTGGAGAC
CTTATTGCAGTCATGGCTTTCACAAATTACAGCAGTCTGAATCGAGCTCAGCTAACCTTTGAATATCTGCACACA
AATTCGTAAGTATCCTCTAGGTGCCACTGAGGTAACCAGTAACTCGTTCCTTGATATTATATGGAAATCGTTTCC
CCAGAAAATTTTGCTTTTTCACTTTTTGAGATGTATCCCACTGGAGTGAAATGTGTCACTGGATATCTTGAGCTC
TGTATTGAAGAACTGAGATCAGTGAAATACTTGTTGCTAATCCAGAAGAATCTGATTTTTGTTTATTGGATCAAA
ATTTTCTAAATGCAAACTTTAGTTATTTGAAGTCAATATGTTGAGTTGTTTCATTCAAGTGTTTATAGGAATCCA
ACAAATACTGCTCTATTGGATCGCCAAATGTTGGACTATTTTAGTATCAACCGTTTCCCCTCTGTAGTGACAACG
TCCTAAACAGTTAGGTTTATAACAAGTGTTTACTTTCTAACAAGAAAACAGAAGACATTTAAATGACAACTTTCA
AGAAGAAAATTTTTATTTTTTCAGAAGTTGGCATTATCTTCCTGGCAGATTGCTCACATCCAATATTATTTGTAT
ATGCTAAACAGGAAACGGCAACTTGTTTATATCTCTATTTAGATAGTCTTTCCCCAAAATTTCCACAGAAACATA
CAGTGTTCATGGTTCTTGAGTTCATGAAGGAGTAATCTAATCACTCCAACATGGTCTGGAATGTTTCAGGTTTAA
TCCATATGCCCACTCTCTTGGAGGCTGTCCAGTAGCGTCAAAACTTTAGTGTTTTAATACATTCACCTGTTACTT
TTGAGATGAAGTTCACCTTTCTTGGATCACATGCAAAGGATGTTTAGGTCTGTGAAGAAAAGAATTTCTAGGCCG
GGTGCTGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGAACCACTCACGAATTCTTGTTTGGTGCCC
TTGCTGAACTGGTTGATAATGCAAGAGATGCTGATGCCACCAGAATAGATATTTATGCAGAAAGACGAGAGGACC
TTCGAGGAGGATTT**ATG**CTTTGCTTTTTGGATGATGGAGCAGGAATGGATCCAAGTGATGCTGCCAGTGTGATCC
AGTTTGGGAAGTCGGCCAAGCGAACACCTGAGTCTACTCAGATTGGGCAGTACGGGAATGGGTTAAAATCGGGCT
CAATGCGCATTGGGAAGGATTTTATCCTGTTCACCAAGAAGGAAGACACCATGACCTGCCTCTTCCTGTCTCGCA
CGTTTCATGAGGAAGAAGGCATTGATGAAGTGATAGTCCCACTGCCCACCTGGAATGCTCGGACCCGGGAACCTG
TCACAGACAATGTAGAGAAATTTGCCATTGAGACAGAACTCATCTATAAGTACTCTCCATTCCGCACTGAGGAGG
AAGTGATGACCCAGTTTATGAAGATTCCTGGGGACAGCGGAACATTGGTGATCATCTTCAATCTCAAACTCATGG
ATAATGGAGAGCCAGAACTAGACATAATCTCAAATCCAAGAGATATCCAGATGGCAGAGACGTCCCCAGAGGGCA
CGAAGCCAGAGCGGCGCTCGTTCCGTGCCTATGCCGCTGTGCTCTATATTGATCCCCGGATGAGGATCTTCATCC
ATGGGCACAAGGTGCAGACCAAGAGGCTCTCCTGCTGCCTGTACAAGCCCAGGATGTACAAGTACACGTCAAGCC
GTTTCAAGACCCGTGCGGAGCAGGAGGTGAAGAAAGCAGAGCACGTAGCAAGGATTGCTGAAGAGAAGGCGCGGG
AGGCAGAGAGCAAAGCTCGGACATTAGAAGTACGCCTAGGTGGAGACCTCACGCGGGACTCCAGGGTGATGTTGC
GACAGGTCCAGAACAGAGCCATCACTCTGCGCAGAGAAGCCGATGTCAAGAAGAGGATCAAGGAGGCCAAGCAGC
GAGCACTTAAAGAACCTAAGGAACTGAATTTTGTTTTTGGTGTCAACATTGAACACCGGGATCTGGATGGCATGT
TCATCTACAACTGTAGCCGACTGATCAAAATGTATGAGAAAGTGGGCCCACAGCTGGAAGGGGGCATGGCATGTG
GCGGGGTTGTTGGGGTTGTTGATGTGCCCTACCTGGTCCTGGAGCCTACACACAACAAACAGGACTTTGCTGATG
CCAAGGAGTACCGGCACCTGCTCCGAGCAATGGGGGAGCACCTGGCGCAGTATTGGAAGGATATTGCCATCGCCC
AGAGGGGAATCATCAAGTTCTGGGATGAGTTTGGCTACCTCTCTGCCAACTGGAACCAGCCCCCATCCAGTGAGC
TGCGTTACAAACGCCGGAGAGCTATGGAAATCCCCACCACCATCCAGTGCGATTTGTGTCTGAAATGGAGAACCC
TCCCCTTCCAGCTGAGTTCTGTGGAAAAAGATTACCCTGACACCTGGGTTTGCTCCATGAACCCTGATCCTGAAC
AGGACCGGTGTGAGGCTTCTGAACAAAAGCAGAAGGTTCCCCTGGGAACATTCAGAAAGGACATGAAGACGCAGG
AAGAGAAGCAGAAACAACTGACAGAGAAAATTCGCCAGCAGCAGGAGAAGCTGGAGGCCCTTCAGAAAACCACAC
CCATCCGCTCCCAAGCAGACCTGAAGAAATTGCCCTTGGAAGTGACCACCAGACCTTCCACTGAGGAACCTGTGC
GTAGACCTCAGCGTCCTCGGTCGCCCCCTTTACCTGCTGTGATCAGGAACGCCCCCAGCAGACCCCCTTCTTTGC
CAACTCCTAGACCAGCCAGCCAGCCCCGAAAGGCTCCTGTCATCAGCAGTACCCCAAAGCTCCCTGCTTTGGCAG
CCCGGGAGGAGGCCAGCACATCTAGGCTGCTCCAGCCACCTGAGGCACCCCGAAAGCCTGCCAACACTCTCGTCA
AGACTGCATCCCGACCTGCCCCTCTGGTGCAGCAACTGTCACCATCTTTACTGCCCAACTCCAAGAGCCCTCGGG
AGGTTCCTTCTCCCAAAGTCATCAAGACTCCAGTGGTGAAGAAGACAGAGTCACCCATCAAACTCTCCCCGGCTA
CCCCTAGTCGGAAGCGGAGTGTCGCAGTTTCTGATGAGGAAGAAGTTGAGGAGGAAGCTGAGAGGAGGAAGGAGA
GGTGCAAGCGGGGCAGATTTGTTGTGAAGGAGGAAAAGAAGGACTCGAATGAGCTCTCAGACAGTGCTGGGGAAG
AGGACTCGGCTGACCTCAAGAGAGCTCAGAAAGATAAAGGGCTGCACGTGGAGGTGCGTGTGAACAGGGAGTGGT

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FIGURE 3979B

ACACGGGCCGTGTCACAGCCGTGGAGGTGGGCAAGCATGTGGTGCGGTGGAAGGTGAAGTTTGACTACGTGCCCA
CAGACACGACACCAAGAGACCGCTGGGTGGAGAAAGGCAGTGAGGATGTGCGGCTGATGAAACCCCCTTCTCCGG
AACATCAGAGCCTTGATACACAACAGGAGGGCGGGGAGGAGGAGGTGGGCCCTGTGGCCCAGCAGGCCATAGCTG
TCGCAGAGCCCTCCACTTCCGAATGCCTCCGCATTGAGCCTGACACCACTGCCCTGAGCACCAATCACGAGACCA
TCGACCTGCTTGTCCAGATCCTCCGGAATTGTTTACGGTACTTCCTGCCTCCAAGTTTCCCCATCTCCAAGAAGC
AGCTGAGTGCTATGAATTCAGATGAGCTAATATCTTTTCCTCTGAAGGAGTACTTCAAGCAATATGAAGTAGGGC
TCCAAAACCTGTGCAATTCCTACCAGAGCCGTGCTGACTCCCGGGCCAAGGCCTCCGAGGAAAGCCTGCGCACCT
CCGAGAGGAAGCTCCGCGAGACGGAGGAGAAGCTGCAGAAGCTGAGGACCAACATCGTGGCACTCCTGCAAAAGG
TGCAGGAGGACATAGACATCAACACAGATGATGAGCTGGACGCCTACATTGAGGACCTCATCACCAAGGGGGACT
GAAGGCAGGAGAGAGAGCAGCTCCCCTGCCCACCTGCCCCTCAACCCTGTAGCTGCAGGGGGAGGGGACTTCATT
CATGGGTTGGTGGTCGCACCTTGGTTTGACTTACACGGGACATTTGTGTTTTTGGAGGAAAAGATACCCTGATTC
TTTGAATCTTCCTTAAGTTTATAAATATTTATTTTTTAAAAG

FIGURE 3980

TGTCTGAAAAAATCAATTGACTATTCCCTTTTCCTAAAGGGCAGAGACAGATAATCTCACTTCCAGAGAAATGAC
TTGGAGAAAAAAAAAGTGTTGGTCTTTTTGCTCTTTTGTAATTAAATCCGGATGTACCTCAAAAGACTTAAGACTG
TGGTGATAAGATGCTTTCCTCAGCAGAAAGGAGGGAAAAAAAACAACTGGAACTCAAAGCTTGAAATTCTGTGGC
AAAACATGAGATGTCCAGGATTGGAGGTTGAAAAGATTTCACTACAGTGTTCTGCAATAGTTGGAGCAGATAACT
TTCAGTGTAGCCACAGCC**ATG**GACTCCAGATTTCCAGATTTTCAAGACCTGGACCTGGAACCCGAAAGAGCTTGT
CACGATGCGGCAGGAACACTGGAGGTAGATTTTTTTTTATTTTTGAATTTTGGGACTGTTGACCTTGCTGTGAGA
AAAGAGACAACGACTGAGCAAGCACTACCACCAGCACTGTTACTGGGAATTAGAAGACCTGAGTTTCTGTCCAGA
CCCTCAGTGCAAACTGAGGATGCTCCATCCAAAGTGAATTATGTCCTGTGCCTCCTGATTGCTGAGTGTTCACCT
GGACCTTCTGACTACCTTCCCTGTGCTATTCCATCAGCCTACAGACCTGGTACCTGGATTTTTGCCCGAGATGAT
TCCTACCACCTTACTACTGACGAAGACACCCATTCCAGTGGACCACTG**TGA**CCCAGGAGGCATTCAGCCATCATG
ATGTGGCCTTTACCTCCACTCCTGTCTTGTTCTACCCAGATTCAGCACAGCCCTTTATAGTGAAGTCAGAGTCCT
CAAGCCAAATAGCTAAAGCTGTTTTATCACAACAAAGGCCTAGTTTGTTCCATGAGTGTGCATTTCATTTCTTCA
GTTAAAGCCTTCAGAGACACACAATAAATTTGGACCAGGGGATTTTTTAGTTATTAATGCTCTCTGAAGAAAGGC
AACATCTTTTTGAGAGCAGCATTGGACCACACCCCACAATCTCAAATGATTGAAATTCATGAACATCTAGGATCC
CGTGAAGGTCACTGGACCCTGTTTTTTCTACTTCAAATCCTGTAGTAGCCTACTGAATGAGAAAACATATTCTGA
CCCATTGGGATCAAATCAAAGGCACAGTGAACTCCTCATAGCATCTTCTTTGGAATTACTCAGGAACCAGAACTT
TTTACACAAATGTAAGAAATTCTACCAAGGAGTCCCCTTACCTAACAGCATCTCACAAGGCTGCACCAGATTCCA
GAAAAGGCTTCTCTTGATACATCAAGCATTTTGTGACCGACTTATTCTTAGATCATTGGTTTTCCAAAGGCTTTG
TGGCCATGAAGCCCTTTGAGTGAAAACTGTGCAGAAGCCCAGAGTAAAAGTGAAGCTGCTCTGGATGAAGTAGTG
AAGCAAGAGTAGGGGCCTGAATCCTGCTACAACTATCTTCCTTTACCACCGTGGTGACACCTAAGGGGACTTCCT
TACAACACCTTGAACTCTTCCGAACACAGTTTGAAAACCACTGCCCCAGACAGCAATATGTTTGACCTGAATGGC
ATTCCAATCTTTTCTGTACCTCCACTCAGCACAGTTCATGTTCAGTAGATGCTGAACATTCTTAGAAATACTGTG
TGTGAACTTAGAAAAGTGCAAGAAGACAGGCATGTCTTTGACCCCAGGAATGATCATTTGCTGAAGATGGTGTCA
AGTGAACCTAGATTAACAGCCCTCCACTCCAGATGGATATCCAGTGATTCCTAGAATGGGATATAGCCAGAGAAC
AATTCTATGCACCCTACACTGACAGACTCCCTTAAGCAACACCAGATGCTCTACTGGTACTTGAAGTACATGACT
TTGAAGTCTTGACCCTCCATGAATACCTGAATTATCAGCAAGCGGGTTTTGAAGCTGGTGCCTCATTGAGGCCAT
ATTAGAGCAACTTGTACATTTGACCTCTTGTTATCAGCCATGGTACTCTACTTCGTGTGCAAGAGATAACTATGA
AAGCCAAATTCAAATACTGGCAACATTTCCTAAAGGGGCTCAATATCTATCATTCGTCTTCTTTTCCAAACTACA
CATCACTGTATGACTCAACCAGTAGCAGTTATATTGCCCCTTGGTTTTTATTCAGTTTAACTACTGTTTCCAAGA
TAAATGAGCTAATAAGCTTT

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FIGURE 3981

CAGAATCCAGGGGACGGTTGCTGAGCGGGCCTGGGACAGCGGGTCGCGGCACCTCCGGCCTGCGCGTGTCTAATC
CGTCTGTCGGGTCCCGAAAGAGCTAAGCCGAGCCTGCGCCGGACGGGTGGGCTGGACTGAGAGAATTCTCTGAGC
TGGTGACAGGTGCCACAGGCACTGGGGATCTCACCAGAAAGGAACCGACGGAGCTAGGGGCCAGCGAGATGGCGG
ACGAGGCCTTAGCTGGGCTGG**ATG**AGGGAGCCCTTCGGAAGCTGCTGGAGGTCACAGCAGATCTGGCAGAGCGGC
GGCGCATCCGCTCAGCCATCCGGGAACTGCAGCGGCAGGAGCTGGAGCGCGAGGAGGAGGCCCTGGCATCCAAGC
GTTTCCGTGCCGAGCGGCAGGACAACAAGGAGAACTGGCTGCAGCTCTCAGCAGCGGGAAGCTGAGCAGCGGGCT
GCCCTGGCACGGCTGGCAGGGCAGCTGGAGTCCATGAACGATGTGGAGGAATTGACTGCACTGTTGCGAAGCGCT
GGTGAGTATGAGGAGCGCAAGCTGATCCGAGCTGCCATCCGCCGTGTACGGGCTCAGGAGATTGAGGCTGCCACC
TTGGCTGGGAGGTTGTACAGCGGGCGTCCCAACAGTGGCTCAAGAGAGGACAGCAAGGGGCTAGCGGCACACAGG
CTGGAACAGTGTGAGGTGCCAGAGCGAGAGGAACAGGAACAGCAGGCAGAGGTTTCAAAGCCAACCCCCACCCCT
GAAGGCACCAGCCAGGATGTGACCACAGTGACACTCCTGCTGCGAGCCCCACCTGGGAGCACATCCAGCTCACCT
GCCTCACCCAGCAGTTCACCCACCCCTGCCTCTCCTGAGCCTCCATTGGAGCCTGCCGAGGCCCAGTGCCTTACA
GCTGAGGTTCCAGGCAGCCCAGAGCCACCCCCCAGCCCACCCAAGACCACCAGCCCTGAGCCTCAGGAGTCTCCA
ACGCTCCCCAGCACTGAGGGCCAGGTGGTCAACAAGCTTCTGTCTGGCCCCAAAGAGACCCCTGCTGCCCAGAGC
CCCACCAGAGGCCCCTCTGACACCAAGAGAGCAGACGTGGCTGGACCCCGACCCTGCCAACGCTCCCTGTCGGTG
CTCAGCCCCCGCCAACCAGCCCAGAACCGAGAGTCCACCCCCCTTGCCAGCGGACCTTCCTCATTCCAGCGGGCT
GGCTCTGTGCGGGATCGTGTCCACAAGTTCACATCTGATTCTCCTATGGCTGCTAGGCTCCAGGATGGCACACCC
CAGGCTGCCCTAAGTCCCCTGACCCCCGCAAGGCTCCTGGGCCCCTCCCTCACCAGCACCACCCCTGCCTCCTCC
TCCAGCGGCTCCTCCTCTCGGGGCCCCAGTGATACCTCCTCCCGGTTCAGCAAGGAGCAACGAGGAGTAGCCCAG
CCCCTGGCCCAGCTTCGAAGCTGCCCCCAGGAGGAGGGCCCCAGGGGGCGGGGCTTGGCTGCTAGGCCCCTTGAA
AACAGAGCAGGGGGGCCTGTGGCACGTTCAGAGGAGCCTGGTGCCCCGCTGCCCGTGGCCGTCGGCACTGCCGAG
CCAGGGGGCAGTATGAAGACCACATTCACCATCGAGATCAAGGACGGCCGTGGCCAGGCCTCCACAGGCCGGGTG
CTGCTGCCCACAGGCAACCAGAGGGCAGAACTGACACTGGGGCTGCGGGCGCCCCCGACCCTACTCAGCACCAGT
AGTGGGGGCAAGAGCACCATCACCCGTGTCAACAGCCCTGGGACCCTGGCTCGGCTGGGCAGTGTCACTCATGTC
ACCAGCTTCAGCCATGCCCCCCCCAGTAGCCGAGGAGGCTGCAGCATCAAGATGGAAGCAGAGCCAGCAGAGCCT
CTCGCTGCAGCAGTGGAAGCGGCCAATGGGGCTGAGCAGACCCGAGTGAACAAAGCACCAGAAGGGCGGAGCCCT
CTGAGCGCTGAGGAGCTGATGACTATTGAGGATGAAGGAGTCTTGGACAAGATGCTGGATCAGAGCACGGACTTT
GAAGAGCGGAAGCTCATCCGGGCTGCACTTCGTGAGCTCCGACAAAGGAAGAGAGACCAGCGGGACAAGGAGCGG
GAACGGCGGCTGCAGGAGGCACGGGGCCGGCCAGGGGAGGGGCGCGGCAACACAGCCACTGAGACCACCACGAGG
CACAGCCAGCGGGCAGCTGATGGCTCTGCTGTCAGCACTGTTACCAAGACTGAGCGGCTCGTCCACTCCAATGAT
GGCACACGGACGGCCCGCACCACCACAGTGGAGTCGAGTTTCGTGAGGCGCTCGGAGAATGGCAGTGGCAGCACC
ATGATGCAAACCAAGACCTTCTCCTCTTCCTCCTCATCCAAGAAGATGGGCAGCATCTTCGACCGCGAGGACCAG
GCCAGCCCACGGGCCGGCAGCCTGGCGGCGCTCGAGAAACGGCAGGCCGAGAAGAAGAAAGAGCTGATGAAGGCG
CAGAGTCTGCCCAAGACCTCAGCCTCCCAGGCGCGCAAGGCCATGATTGAGAAGCTGGAGAAGGAGGGCGCGGCC
GGCAGCCCTGGCGGACCCCGCGCAGCCGTGCAGCGATCCACCAGCTTCGGGGTCCCCAACGCCAACAGCATCAAG
CAGATGCTGCTGGACTGGTGTCGAGCCAAGACTCGCGGCTACGAGCACGTCGACATCCAGAACTTCTCCTCCAGC
TGGAGTGATGGGATGGCCTTCTGTGCCCTGGTGCACAACTTCTTCCCTGAGGCCTTCGACTATGGGCAGCTTAGC
CCTCAGAACCGACGCCAGAACTTCGAGGTGGCCTTCTCATCTGCGGAGACCCATGCGGACTGCCCGCAGCTCCTG
GATACAGAGGACATGGTGCGGCTTCGAGAGCCTGACTGGAAGTGCGTGTACACGTACATCCAGGAATTCTACCGC
TGTCTGGTCCAGAAGGGGCTGGTAAAAACCAAAAAGTCC**TAA**CCCCTGCTCGGGGCCCCACGGATGCTGGTGGAC
TGTGTGCCCCTGGTGGAGGTGGACGACATGATGATCATGGGCAAGAAGCCTGACCCCAAGTGTGTCTTCACCTAT
GTGCAGTCGCTCTACAACCACCTGCGACGCCACGAACTGCGCCTGCGCGGCAAGAATGTCTAGCCTGCCCGCCCG
CATGGCCAGCCAGTGGCAAGCTGCCGCCCCCACTCTCCGGGCACCGTCTCCTGCCTGTGCGTCCGCCCACCGCTG
CCCTGTCTGTTGCGACACCCTCCCCCCCACATACACACGCAGCGTTTTGATAAATTATTGGTTTTCAACG

FIGURE 3982

CGTGGCGCAGCGACTCGGAGGTTCGCCTCCAGCTTGCGCATCATCTGCGGCCGGGTCCCG**ATG**AGCCTCCTGTTG
CCTCCGCTGGCGCTGCTGCTGCTTCTCGCGGCGCTTGTGGCCCCAGCCACAGCCGCCACTGCCTACCGGCCGGAC
TGGAACCGTCTGAGCGGCCTAACCCGCGCCCGGGTAGAGACCTGCGGGGGATGACAGCTGAACCGCCTAAAGGAG
GTGAAGGCTTTCGTCACGCAGGACATTCCATTCTATCACAACCTGGTGATGAAACACCTCCCTGGGGCCGACCCT
GAGCTCGTGCTGCTGGGCCGCCGCTACGAGGAACTAGAGCGCATCCCACTCAGTGAAATGACCCGCGAAGAGATC
AATGCGCTAGTGCAGGAGCTCGGCTTCTACCGCAAGGCGGCGCCCGACGCGCAGGTGCCCCCCGAGTACGTGTGG
GCGCCCGCGAAGCCCCCAGAGGAAACTTCGGACCACGCTGACCTG**TAG**GTCCGGGGGCGCGGCGGAGCTGGGACC
TACCTGCCTGAGTCCTGGAGACAGAATGAAGCGCTCAGCATCCCGGGAATACTTCTCTTGCTGAGAGCCGATGCC
CGTCCCCGGGCCAGCAGGGATGGGGTTGGGGAGGTTCTCCCAACCCCACTTTCTTCCTTCCCCAGCTCCACTAAA
TTCCCTCCTGCCTT

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FIGURE 3983

GAGAGGGGCGGCTCCGCGTCATGTGACTGGAGTCCGCGTAGGAGGGGTCGGAGGTCTTACCCAACAGATTGACGC
GGCGTTAGTATTGGCCGTGTACCCGAAAAACTGATTGACTGGGCTGGCGTTAACTGTGCGGAGGCAGGATTTCCC
TGGGGAAAGTCTTCACTCAGAGCTTCGCTGACAGCCAAGG**ATG**GCAAGCAAGGGGCCCTCGGCCTCTGCATCTCC
TGAGAACTCCAGTGCAGGGGGGCCCAGTGGGAGCAGCAATGGCGCTGGCGAGAGCGGAGGGCAGGACAGCACTTT
CGAGTGCAACATCTGCTTGGACACAGCCAAGGATGCCGTCATCAGCCTGTGTGGCCACCTCTTCTGTTGGCCGTG
TTTACATCAGTGGTTGGAGACCAGACCTAACAGACAGGTGTGTCCTGTTTGCAAAGCTGGCATCAGCCGAGACAA
GGTCATCCCCCTCTATGGAAGGGGCAGCACTGGGCAACAGGACCCCAGAGAGAAGACCCCTCCTCGTCCTCAAGG
ACAGAGGCCAGAGCCGGAGAATAGAGGGGGATTTCAAGGATTTGGATTTGGAGATGGTGGCTTCCAGATGTCTTT
TGGAATTGGGGCATTTCCCTTTGGGATATTTGCCACAGCATTTAATATAAATGATGGGCGGCCTCCTCCAGCTGT
CCCTGGGACACCCCAGTATGTGGACGAGCAGTTCCTGTCACGCCTCTTCCTATTTGTGGCCCTGGTGATCATGTT
CTGGCTCCTGATTGCC**TAA**TGCTGGGCTCCTGCCTACATCCGTGGCAGGGCTCTGGACTGGTGACGTGCCACCCC
AACTCCTGGTGTTTGGCTTCCTGGCTAATCTTGACTCCTGGAATCAGTGGGATCAGTAACACATCAAGGAGTCTT
GTTTCTTCATCAGAGCTTTGGAACTCGAGACCAGTTGGCGATGACCCCTGAATATCGCCACCGCTGTAAACACTC
TATAACTTCAGGCCTTGGCATTGAGTCATCTCTCATGGGTGACACCATGAAATCTTGTTTCAGCCAGTTCTGCAG
GTCCTGACTCTGCAGAGGGAAGAGGCAGAAAGAGAGAAACTGTCAGAGTATAATTTCACCTGAGTTTAATATTAC
AGAAACAAAGGGATGCACCAAATGGTATTTCTGGAAATTTTCATGTCTTTAAATACCCCTTGGTAAGTTGCTTCT
GAAGCCAGTGGGGGCTCCTCAGATAGAGAGGTTCCCCTTTCAAATCCCAGTGCCGCTCTGTTCTCTTTCCTTCCC
CTCCCACTCCCCCTCTTCTTCCTCTGTAGAGATGCAAGAAATTGCTGTCCCATAAAAATCATAATTGCAGTAGCT
AAAGCTGGGGTCACTTCGTGAATTCACCAGAGACTCAAAGATCTTTTATTGGCTCTGGGCTGTGCTCAGTGTCTT
TGGCCTCAGAGAACAACTTGAATGACTTCCTGGTTTCCTGGCATAAATTATTCCTGGTGAGACATGTGGCTTAAC
TCACAGGTTTCCCATCAGCTTTCTCCCTAAAACTATGTTCATCTGCCTCTCTCTGCCAGAGAACATACAGCCGAG
AATACTGCCGAAGCTGAGACTGACTACTGTGCATTAGGAAAGACCTGGAGTCAGGACTTTGGTGGGATTTGGAGC
TCCGAGGCAGTAATAACTGAACAAGCAGCCCTGTCCCCTAGGCTGCAGAAGCTTGAATGCATCCTCTCCCAGAAC
CTGCCACAGGAAACTGGGGGCTTTGTCAGGTCAGCCCAACTGCATGCAAAAGACCACCATCCTCAGAAGCCAAGT
TGTCTTTTATGAAGAGGCAAGGAAAGGGGAAACCCACATGTGACCCTGATTTTGGTATGGCTTGATAGAGTTCCC
TGAAAACTCCTTGTATGTGTGCTAAAACCAGGGAAGCATGTGACTGCCAAGCAGGCAACCCCTGATGATTTGTAA
AGCCAGGTGGCAGGGCCTTGGGGAGCCCCAGCACAATGATATTGTGTGGTCTTCCCTCCTGTGGAATCGAGGGGA
AATTATTCTTCCCAATACCTTGATTTGATTTTCAGTTTCATAAGCTTCTTCCTCTGAATCTTATTGAGGGACTAT
GGTACCAAGCAGGTAGGACTGTTCACCTGGTGGAACAGTTCTTGCTCTGCCTTCTAGGCTTCATCCCAGAAATCC
AGCCTCTTTCTGGAGACCCCAAAGCTGGAGGGAGATGGGCTTTCCTCTGGGCCTCTCTCCTACTTTGCCATCCAC
ACTGCTCCTGGCTAACCCCAGCAATAACCAACAAATGGTAGGAAGCCCCATCTATTGCTTTTTCTCAATTATGAC
TGCATAGTTTATGGAAACAAAGATCTTGAGGAAGATGAGGGAAGCCCTCCCCTCTTCACAGTCCCCATCTCTTCT
CCTTTGTACCTGTCAACACCAGAGTTCAGTGTTTAAACAGACAAAATATAAAGTATTGAGTAGGTGGTTCATATG
CCGAATCCACTTGGTAGGAAGAAACCACCAGCTTTATAGTGTGCCTGATAGATTTTAAACATTCCTGGGCACCCA
CTCAAGAGTGCTCTTTTTATCACCTTCTGGAAATCCGCAAAGTTGCAGGGGCCTCTGGAGTGTCTCTTCTCTAGA
GAGAATTGGTGGGACCCCCCTCAGTGCAGTGGCCCCAACTAGTGGAGGGAGAGAGGACTTAAGTCAGATGGACTC
AACAGAAATGGGTTTCCAGAAGAATAATGAAAAGTTGTGGGTAGGAAAATGAATCATTTGGACTCTTCAATGAAA
TGGAGTGAGCCCAGGAGAGCTCAGCCAACAGAGGCACTCTGGGAACCTGTTAGTAAAGCCAGGCTGGCCAAATGC
CATTTGATTTTGAACCTCGTAGGTCCCCACTCACCCTCTGCCAGGAGCTAAGTAAGGCAGGAGAGCTGACTTGGG
ACTCCTGGCTCGGCCCCAACAGGGAGCCCCCTTCCCACCATCCCTCGGCAAGCTCACCACCTCATCCTTCTGCCA
AGGCAGCTTTCCTTTCTTTTGTGTGTTTTCTGTGTTCTTAGCCTCCACCCTCCTCCTGCCACCCTTGTGGACTAG
GACCAGGTCCTGACCCCAGTCAGAAAATGATGATATGTACAGTGGCACACCTTAACCAGTCACTAATTTTCACTG
TTGTGAAAGTGATTTGATTTAGAATTAAACAAATGGTTTTACATTA

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FIGURE 3984A

CTCAAGAATGCCAGTGTGTGTGTAGCCTCCACAGAGAGGTCGTTTTCTCGGAGTCCAGAGGGGCCGCCTGAGCTT
CTGAGAACTAGGGAGGAGCCATCCCAGCCATGAGCCCCTGTGGGAATCTGCTGGGGGCCAAGTGGCCTGGAGTCC
TCAGGCTCCCGCAGCTGCTCCGGAGGGAGAGGTGAGCTCAGGGCAGCCTGCCTGCAGCCAGAGGTGCCGGGAGCC
CCGGGCCTGTCATGGTGGCCATCTACAGCCGGCCTGAGGCAGTCACAGACGGATTTGCAGCTGAGCCTGTCTATC
TGGTGTGGGAAGAAG**ATG**GGGAGTTACTTGTCAGTCCCGGCTTACTTCACCTCCAGAGACCTGTTTCGGTGTTCA
GAATGCCAGGATTCCCTCACCAACTGGTACTATGAGAAGGATGGGAAGCTCTACTGCCCCAAGGACTACTGGGGG
AAGTTTGGGGAGTTCTGTCATGGGTGCTCCCTGCTGATGACAGGGCCTTTTATGGTGGCTGGGGAGTTCAAGTAC
CACCCAGAGTGCTTTGCCTGTATGAGCTGCAAGGTGATCATTGAGGATGGGGATGCATATGCACTGGTGCAGCAT
GCCACCCTCTACTGTGGGAAGTGCCACAATGAGGTGGTGCTGGCACCCATGTTTGAGAGACTCTCCACAGAGTCT
GTTCAGGAGCAGCTGCCCTACTCTGTCACGCTCATCTCCATGCCGGCCACCACTGAAGGCAGGCGGGGCTTCTCC
GTGTCCGTGGAGAGTGCCTGCTCCAACTACGCCACCACTGTGCAAGTGAAAGAGGTCAACCGGATGCACATCAGT
CCCAACAATCGAAACGCCATCCACCCTGGGGACCGCATCCTGGAGATCAATGGGACCCCCGTCCGCACACTTCGA
GTGGAGGAGGTGGAGGATGCAATTAGCCAGACGAGCCAGACACTTCAGCTGTTGATTGAACATGACCCCGTCTCC
CAACGCCTGGACCAGCTGCGGCTGGAGGCCCGGCTCGCTCCTCACATGCAGAATGCCGGACACCCCCACGCCCTC
AGCACCCTGGACACCAAGGAGAATCTGGAGGGGACACTGAGGAGACGTTCCCTAAGGCGCAGTAACAGTATCTCC
AAGTCCCCTGGCCCCAGCTCCCCAAAGGAGCCCCTGCTGTTCAGCCGTGACATCAGCCGCTCAGAATCCCTTCGT
TGTTCCAGCAGCTATTCACAGCAGATCTTCCGGCCCTGTGACCTAATCCATGGGGAGGTCCTGGGGAAGGGCTTC
TTTGGGCAGGCTATCAAGGTGACACACAAAGCCACGGGCAAAGTGATGGTCATGAAAGAGTTAATTCGATGTGAT
GAGGAGACCCAGAAAACTTTTCTGACTGAGGTGAAAGTGATGCGCAGCCTGGACCACCCCAATGTGCTCAAGTTC
ATTGGTGTGCTGTACAAGGATAAGAAGCTGAACCTCCTGACAGAGTACATTGAGGGGGGCACACTGAAGGACTTT
CTGCGCAGTATGGATCCGTTCCCCTGGCAGCAGAAGGTCAGGTTTGCCAAAGGAATCGCCTCCGGAATGGCCTAT
TTGCACTCTATGTGCATCATCCACCGGGATCTGAACTCGCACAACTGCCTCATCAAGTTGGACAAGACTGTGGTG
GTGGCAGACTTTGGGCTGTCACGGCTCATAGTGGAAGAGAGGAAAAGGGCCCCCATGGAGAAGGCCACCACCAAG
AAACGCACCTTGCGCAAGAACGACCGCAAGAAGCGCTACACGGTGGTGGGAAACCCCTACTGGATGGCCCCTGAG
ATGCTGAACGGAAAGAGCTATGATGAGACGGTGGATATCTTCTCCTTTGGGATCGTTCTCTGTGAGATCATTGGG
CAGGTGTATGCAGATCCTGACTGCCTTCCCCGAACACTGGACTTTGGCCTCAACGTGAAGCTTTTCTGGGAGAAG
TTTGTTCCCACAGATTGTCCCCCGGCCTTCTTCCCGCTGGCCGCCATCTGCTGCAGACTGGAGCCTGAGAGCAGA
CCAGCATTCTCGAAATTGGAGGACTCCTTTGAGGCCCTCTCCCTGTACCTGGGGGAGCTGGGCATCCCGCTGCCT
GCAGAGCTGGAGGAGTTGGACCACACTGTGAGCATGCAGTACGGCCTGACCCGGGACTCACCTCCC**TAG**CCCTGG
CCCAGCCCCCTGCAGGGGGGTGTTCTACAGCCAGCATTGCCCCTCTGTGCCCCATTCCTGCTGTGAGCAGGGCCG
TCCGGGCTTCCTGTGGATTGGCGGAATGTTTAGAAGCAGAACAAGCCATTCCTATTACCTCCCCAGGAGGCAAGT
GGGCGCAGCACCAGGGAAATGTATCTCCACAGGTTCTGGGGCCTAGTTACTGTCTGTAAATCCAATACTTGCCTG
AAAGCTGTGAAGAAGAAAAAAACCCCTGGCCTTTGGGCCAGGAGGAATCTGTTACTCGAATCCACCCAGGAACTC
CCTGGCAGTGGATTGTGGGAGGCTCTTGCTTACACTAATCAGCGTGACCTGGACCTGCTGGGCAGGATCCCAGGG
TGAACCTGCCTGTGAACTCTGAAGTCACTAGTCCAGCTGGGTGCAGGAGGACTTCAAGTGTGTGGACGAAAGAAA
GACTGATGGCTCAAAGGGTGTGAAAAAGTCAGTGATGCTCCCCCTTTCTACTCCAGATCCTGTCCTTCCTGGAGC
AAGGTTGAGGGAGTAGGTTTTGAAGAGTCCCTTAATATGTGGTGGAACAGGCCAGGAGTTAGAGAAAGGGCTGGC
TTCTGTTTACCTGCTCACTGGCTCTAGCCAGCCCAGGGACCACATCAATGTGAGAGGAAGCCTCCACCTCATGTT
TTCAAACTTAATACTGGAGACTGGCTGAGAACTTACGGACAACATCCTTTCTGTCTGAAACAAACAGTCACAAGC
AAAGGAAGAGGCTGGGGGACTAGAAAGAGGCCCTGCCCTCTAGAAAGCTCAGATCTTGGCTTCTGTTACTCATAC
TCGGGTGGGCTCCTTAGTCAGATGCCTAAAACATTTTGCCTAAAGCTCGATGGGTTCTGGAGGACAGTGTGGCTT
GTCACAGGCCTAGAGTCTGAGGGAGGGGAGTGGGAGTCTCAGCAATCTCTTGGTCTTGGCTTCATGGCAACCACT
GCTCACCCTTCAACATGCCTGGTTTAGGCAGCAGCTTGGGCTGGGAAGAGGTGGTGGCAGAGTCTCAAAGCTGAG
ATGCTGAGAGAGATAGCTCCCTGAGCTGGGCCATCTGACTTCTACCTCCCATGTTTGCTCTCCCAACTCATTAGC
TCCTGGGCAGCATCCTCCTGAGCCACATGTGCAGGTACTGGAAAACCTCCATCTTGGCTCCCAGAGCTCTAGGAA
CTCTTCATCACAACTAGATTTGCCTCTTCTAAGTGTCTATGAGCTTGCACCATATTTAATAAATTGGGAATGGGT
TTGGGGTATTAATGCAATGTGTGGTGGTTGTATTGGAGCAGGGGGAATTGATAAAGGAGAGTGGTTGCTGTTAAT
ATTATCTTATCTATTGGGTGGTATGTGAAATATTGTACATAGACCTGATGAGTTGTGGGACCAGATGTCATCTCT

FIGURE 3984B

GGTCAGAGTTTACTTGCTATATAGACTGTACTTATGTGTGAAGTTTGCAAGCTTGCTTTAGGGCTGAGCCCTGGA
CTCCCAGCAGCAGCACAGTTCAGCATTGTGTGGCTGGTTGTTTCCTGGCTGTCCCCAGCAAGTGTAGGAGTGGTG
GGCCTGAACTGGGCCATTGATCAGACTAAATAAATTAAGCAGTTAACATAACTGGC

FIGURE 3985

GAGAGGCTGTTTACCAGAACAGCATAACAAGGGCAGGTCTGACTGCAAGGCTGGGACTGGGAGGCAGAGCCGCCG
CCAAGGGGGCCTCGGTTAAACACTGGTCGTTCAATCACCTGCAAGACGAAGGAGGCAAGG**ATG**CTGTTGGCCTGG
GTACAAGCATTCCTCGTCAGCAACATGCTCCTAGCAGAAGCCTATGGATCTGGAGGCTGTTTCTGGGACAACGGC
CACCTGTACCGGGAGGACCAGACCTCCCCCGCGCCGGGCCTCCGCTGCCTCAACTGGCTGGACGCGCAGAGCGGG
CTGGCCTCGGCCCCCGTGTCGGGGGCCGGCAATCACAGTTACTGCCGAAACCCGGACGAGGACCCGCGCGGGCCC
TGGTGCTACGTCAGTGGCGAGGCCGGCGTCCCTGAGAAACGGCCTTGCGAGGACCTGCGCTGTCCAGAGACCACC
TCCCAGGCCCTGCCAGCCTTCACGACAGAAATCCAGGAAGCGTCTGAAGGGCCAGGTGCAGATGAGGTGCAGGTG
TTCGCTCCTGCCAACGCCCTGCCCGCTCGGAGTGAGGCGGCAGCTGTGCAGCCAGTGATTGGGATCAGCCAGCGG
GTGCGGATGAACTCCAAGGAGAAAAAGGACCTGGGAACTCTGGGCTACGTGCTGGGCATTACCATGATGGTGATC
ATCATTGCCATCGGAGCTGGCATCATCTTGGGCTACTCCTACAAGAGGGGGAAGGATTTGAAAGAACAGCATGAT
CAGAAAGTATGTGAGAGGGAGATGCAGCGAATCACTCTGCCCTTGTCTGCCTTCACCAACCCCACCTGTGAGATT
GTGGATGAGAAGACTGTCGTGGTCCACACCAGCCAGACTCCAGTTGACCCTCAGGAGGGCACCACCCCCCTTATG
GGCCAGGCCGGGACTCCTGGGGCC**TGA**GCCCCCCCAGTGGGCAGGAGCCCATGCAGACACTGGTGCAGGACAGCC
CACCCTCCTACAGCTAGGAGGAACTACCACTTTGTGTTCTGGTTAAAACCCTACCACTCCCCCGCTTTTTTGGCG
AATCCTAGTAAGAGTGACAGAAGCAGGTGGCCCTGTGGGCTGAGGGTAAGGCTGGGTAGGGTCCTAACAGTGCTC
CTTGTCCATCCCTTGGAGCAGATTTTGTCTGTGGATGGAGACAGTGGCAGCTCCCACAGTGATGCTGCTGCTAAG
GGCTTCCAAACATTGCCTGCACCCCTGGAACTGAACCAGGGATAGACGGGGAGCTCCCCCAGGCTCCTCTGTGCT
TTACTAAGATGGCCTCAGTCTCCACTGTGGGCTTGAGTGGCATACACTGTTATTCATGGTTAAGGTAAAGCAGGT
CAAGGGATGGCATTGAAAAAATATATTTAGTTTTTAAAATATTTGGGATGGAACTCCCTACTGACCTCTGAGAAC
TGGAAACGAGTTTGTACAGAAGTCAGAACTTTGGGTTGGGAATGAGATCTAGGTTGTGGCTGCTGGTATGCTTCA
GCTTGCTGGCAATGATGTGCCTTGACAACCGTGGGCCAGGCCTGGGCCCAGGGACTCTTCCTGTTTCATAAGGAA
AGGAAGAATTGCACTGAGCATTCCACTTAGGAAGAGGATAGAGAAGGATCTGCTCCGCCTTTGGCCACAGGAGCA
GAGGCAGACCTGGGATGCCCCAGTTTCTCTTCAGGGATGGATAGTGACCTGTCTTCATTTTGCACAGGTAAGAGA
GTAGTTAGCTAACCTATGGGAATTATACTGTGGGGCCTTGTGAGCTGCTTCTAAGAGGCTAACCTGGAAACTAAG
CTCAGAGGCAAGGTAATAAAGCACTTCAGGGCTTGCTCCCCAAGTGGGCCTGATTTAGCAGGTGGTCCTGCGGGC
GTCCAGGTCAGCACCTTCCTGTAGGGCACTGGGGCTAGGGTCACAGCCCCTAACTCATAAAGCAATCAAAGAACC
ATTAGAAAGGGCTCATTAAGCCTTTTGGACACAGGACCCCAGAGAGGAAAAAGTGACTTGCCCAAGGTCGTAAGC
AAGCTACTGGCATGGCAAGAGCCCAGCTTCCTGACGGAGCGCAACATTTCTCCACTGCACTGTGCTAGCAGCTCA
GCAGGGCCTCTAACCTGTGATGTCACACTCAAGAGGCCTTGGCAGCTCCTAGCCATAGAGCTTCCTTTCCAGAAC
CCTTCCACTGCCCAATGTGGAGACGGGTTAGTGGGGCTTTCTATGGAGCCATCTGCTTTGGGGACCTAGACCTCA
GGTGGTCTCTTGGTGTTAGTGATGCTGGAGAAGAGAATATTACTGGTTTCTACTTTTCTATAAAGGCATTTCTCT
ATATACATGTTTTATATACCTCATTCTGACACCTGCATATAGTGTGGGAAATTGCTCTGCATTTGACTTAATT

FIGURE 3986A

GCTCGCGCTTTTCTCTCCTTCTCCAAGATGGCGGCGATCGGCGGCGTTGAGGCGGGATCCGGGCGAGCCGAGTGA
AGACCTGGTCCTGTAGACGGGAAGGAGCCTGGACACAGTGACACATTCTCAAAGGCCCTGCAGGACCACC**ATG**GC
TTATGATGACTCCGTGAAGAAAGAAGATTGTTTTGATGGTGATCATACCTTTGAGGACATAGGACTTGCAGCTGG
CCGAAGCCAACGAGAGAAAAAACGTTCTTACAAAGATTTTTTAAGGGAAGAGGAAGAAATTGCTGCTCAGGTCAG
GAATTCTTCCAAGAAGAAGTTGAAGGATAGTGAACTTTACTTCTTGGGGACGGACACACACAAGAAGAAGAGGAA
GCACTCCTCTGATGATTACTACTATGGAGATATTTCGTCTTTGGAATCGTCACAGAAGAAAAAGAAAAAGTCCAG
CCCACAGTCTACTGATACAGCTATGGACCTGTTGAAAGCTATCACTTCCCCACTGGCAGCAGGCTCCAAGCCCTC
CAAAAAGACTGGGGAGAAATCCTCTGGCTCTTCAAGCCATTCGGAGAGTAAAAAGGAGCACCACAGGAAGAAAGT
CAGTGGAAGCAGTGGGGAACTACCCCTAGAGGATGGTGGCTCCCACAAATCGAAAAAAATGAAACCTCTCTATGT
GAACACAGAGACACTGACCCTTCGGGAGCCTGATGGTTTAAAAATGAAACTTATTCTGTCACCAAAGGAGAAGGG
AAGCAGCTCTGTTGATGAGGAGTCTTTTCAATATCCCTCCCAACAAGCGACTGTGAAAAAATCCTCAAAGAAATC
AGCTCGGGATGAGCAGGGTGCTTTACTCCTAGGACATGAGTTACAGAGCTTTCTGAAAACAGCCCGGAAAAAGCA
CAAGTCATCCTCAGACGCACATTCATCTCCTGGCCCTGAAGGCTGTGGGTCTGACGCCTCCCAGTTCGCAGAGTC
CCACAGTGCTAACCTTGATCTTTCAGGGCTTGAACCTATTCTGGTAGAATCAGACTCATCCTCTGGTGGGGAACT
AGAGGCTGGGGAGTTAGTGATAGATGATTCTTACCGAGAAATCAAGAAGAAAAAGAAGTCAAAGAAGAGCAAAAA
GAAGAAAGACAAGGAGAAGCATAAAGAGAAGCGACACTCCAAGTCCAAGAGAAGTTTAGGACTTTCTGCCGTGCC
AGTGGGAGAGGTCACAGTGACATCTGGCCCTCCTCCCAGCATCCCATACGCTGGAGCAGCAGCACCTCCCCTGCC
ACTTCCTGGCCTCCACACAGATGGGCATAGTGAAAAAAAAAAGAAAAAAGAAGAGAAGGACAAAGAGAGAGAGAG
AGGAGAAAAGCCAAAAAAGAAGAACATGTCGGCCTACCAGGTGTTCTGTAAAGAGTATCGCGTGACCATTGTGGC
TGACCATCCAGGTATAGATTTTGGGGAACTTAGTAAAAAACTGGCTGAGGTGTGGAAGCAATTACCAGAAAAAGA
CAAACTGATTTGGAAGCAAAAAGCTCAGTATCTGCAGCACAAACAGAACAAAGCAGAAGCCACAACTGTGAAAAG
GAAAGCATCCAGCTCAGAAGGTTCCATGAAAGTCAAAGCCTCTTCTGTAGGAGTACTGTCACCCCAGAAGAAGTC
CCCACCCACCACCATGCTGTTACCAGCCTCACCAGCCAAAGCCCCTGAGACAGAGCCCATTGATGTTGCTGCTCA
TCTTCAGCTGTTGGGAGAGTCCCTAAGCCTCATTGGACACCGTCTGCAGGAAACTGAGGGTATGGTGGCTGTGTC
TGGCAGTTTGTCAGTGCTTCTGGATTCCATTATCTGTGCCCTTGGCCCCTTGGCATGTCTCACCACACAACTACC
TGAATTGAATGGCTGTCCCAAACAGGTCTTGTCAAACACATTAGACAACATTGCTTACATCATGCCGGGACTG**TG**
ACAGCAAAGAATCCTGGGACAGAAACCTTATCCTACACCATTGCTGGTTTGTGTATATATGACTGTTGCAGATTC
CTTCAGTGGCCTCTGGCTGTAGGTTTTAAATTTTTATATCTATACATACATATATACATATATATATAATGTACA
ATATATACATAGACTGTAACTACTTTGCTTTTAATAATTTTATGAAATGGCAAAGGTTTAGCCAAGAGGAAATTT
TGGCATGAATACAGGCTTGGGATTCTTTTTTCTCCTGTGGTGGATAAATCTGCCTTAAAAATCAATGTAACTTGG
GGGCTGGGGGCTTGTTCTGGGTGCCAAGCGCATCTCTTTATGGACAGCTAAAATGTGATTATTTTCCAAGCTCAG
TTGGACCTCCAGACCCATCACTGACCATTTGCCTTACCTGTCTTAGTCTGAAATGTAATAGGAAAGATAACGGGA
AGATGCCAGTTGACTGAAAATTCAAAGCCTTTCAATTTGAAGTGACCTAGGTGGGAGGTGATAAAATTTGTTCCC
TTTATAGTTATGGAAGTGGCTTAGGTGAATTGAGTAGAGGGTTCATTCCAATTCCTACTGTATAGGTGTCTGTGT
CTCAAAATTTATTGTAATCATTGGTACCATTGGTGGCCTCAACAGAGGCCAAGGAGTTCTGTGAGCCCTGGCAGC
AAAAAACACCTTGGGGGGTGAAGCTGTCAATGCCACCAGTTGGACCTCCATACATTCTGAGCTAACCCAGAATCT
TTAGTCGGCAGAATTAAGTGCTGGTGTCTTTCACTGGCAGCATGAAGTTAGCCACCAAGTCCTCACAAGCCGTGC
TGCTTAGTTGCTCGGTGGTTATGGATAAACTTTGCCCAGCATGATTTTTGGGTTCATCTTATCAGTTCCCCTGGT
GGGCAGATACACAGTGTTCTGCATTCCACATGTAAGTGAATTGCAAAAACAAAACAAAACTCACTCTCTTGTAGG
TTTATTTATGTGTGTGTGAATGTGTATTTTAATTATGTGTATTTAACTCTTTAAAATCTCTTAGATTTTAATTTA
TCCTGTAAATTTCTGTATATATAATTTAATAACAGAAGCCTCCACCAGCAACAGCATGTGGAAGATACAGATTTG
TCATTTCTCCCTTCCGCCCTCCCTTCTTTCCTTCCTTCCTTCCCTGTTTCCTTCCCTCTTTCCTTCCTTCCTCCT
GGTCTGTTCCAAAAACTCTGAATCATCTACATTTTAAGGTATTTTACCTCAAAAATGAATCATTGTGTTAGGATT
CTAATTCTTTATAAAGAACTTCATGGGCTTCAATAATGTCTAGAAAGTAAAATAAAGAGGAATGTTACCATCCCC
AGCTGCCCTTATTTCCAGAGAACCAGACGTTTGTTTCCCAGTTGGAAAGAAGACAGTTGAGCACTTCAGGATGGT
TTTTAAATTTGGTATGAGATTCTCTGCCAACACCAAGCTCTGAGTTAACTGTGCTTTCTTCTCCTGGCCCTGACA
GAGCACTACAGCATCAAAGTAAATCTTTGGGGACAGTGTAGCCCATCTGCATCCTATTTAATTTCTTCCCTTCTC
CCCACCAGTGTTGTCACAGGGCTATGTTGCTTAAAGGTAGTCTGGCTGCTGAATCCCTTTCTCAGCTCAGAGCAG

FIGURE 3986B

TTTTAAGATTTAATTGGGAATACAGAGAAACAGGATTGTTTGAGAACCAAAATCAAGAGGAACAGAAATCTTAAC
TTGATTTCATGTGTTAGAACATTGTACCATGCCTCTTCTGTATCTGTGGAAGTTTCCTGTTTGACACAGGGTATC
TAGGAGGGGCGGGGAAGACATGGATAGTATAGGAAGACATTAATCCTAGCATTGTCATTTATATACATTAATGAA
ATCCTGATGAGGACCTGCTTTTTGTTTGTTTTCCTTTGAAACCCAGCCCTATTGTATTTGTATTTAAAATTTGTA
CACATTTGTATAATAATCTGTACCTTGTGGTATTTGGTACTATTAGAGGAAAAACTTTGGATTCAGACCTTCTTG
CAGTTTTTATATCATTGTTTTATTTTGTTTTTTAAATAAATTCTAGTGGTTTGATCCAAATCCCATTACAGTTGT
ATAAAGAAATAAAATTTTGTACTTATATTATTAAAAATCACATTTTTAATATTTGT

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FIGURE 3987

GGTGGCGCTGGCGGTTGCTGTCAGCTGATTCCCGGGGTTGGTGGCAGCGGCGGTAGCAGCA**ATG**GACTTTCTCCT
GGGGAACCCGTTCAGCTCTCCAGTGGGACAGCGCATCGAGAAAGCCACAGATGGCTCCCTGCAGAGCGAGGACTG
GGCCCTCAACATGGAGATCTGCGACATCATCAACGAGACGGAGGAAGGTCCCAAAGATGCCCTCCGAGCAGTAAA
GAAGAGAATCGTGGGGAATAAGAACTTCCACGAGGTGATGCTGGCTCTCACAGTCTTAGAAACCTGTGTCAAGAA
CTGCGGGCACCGCTTCCACGTGCTGGTGGCCAGCCAGGACTTCGTGGAGAGTGTGCTGGTGAGGACCATCCTGCC
CAAGAACAACCCACCCACCATCGTGCATGACAAAGTGCTCAACCTCATCCAGTCCTGGGCTGACGCGTTCCGCAG
CTCGCCCGATCTGACAGGTGTGGTCACCATCTATGAGGACCTGCGGAGGAAAGGCCTGGAGTTCCCCATGACTGA
CCTGGACATGCTGTCACCCATCCACACACCCCAGAGGACCGTGTTCAACTCAGAGACACAATCAGGACAGGATTC
TGTGGGCACTGACTCCAGCCAGCAAGAGGACTCTGGCCAGCATGCTGCCCCTCTGCCCGCCCCGCCCATACTCTC
CGGTGACACGCCCATAGCACCAACCCCGGAACAGATTGGGAAGCTGCGCAGTGAGCTGGAGATGGTGAGTGGGAA
CGTGAGGGTGATGTCGGAGATGCTGACGGAGCTGGTGCCCACCCAGGCCGAGCCCGCAGACCTGGAGCTGCTGCA
GGAGCTCAACCGCACGTGCCGAGCCATGCAGCAGCGGGTCCTGGAGCTCATCCCTCAGATCGCCAATGAGCAGCT
GACAGAGGAGCTGCTCATCGTCAATGACAATCTCAACAATGTGTTCCTGCGCCATGAACGGTTTGAACGGTTCCG
AACAGGCCAGACCACCAAGGCCCCAAGTGAGGCCGAGCCGGCAGCTGACCTGATCGACATGGGCCCTGACCCAGC
AGCCACCGGCAACCTCTCATCCCAGCTGGCAGGAATGAACCTGGGCTCCAGCAGTGTGAGAGCTGGCCTGCAGTC
TCTGGAGGCCTCTGGTCGACTGGAAGATGAGTTTGACATGTTTGCGCTGACACGGGGCAGCTCACTGGCTGACCA
ACGGAAAGAGGTAAAATACGAAGCCCCCCAAGCAACAGACGGCCTGGCTGGAGCCCTGGACGCCCGGCAGCAGAG
CACTGGCGCGATCCCAGTCACCCAGGCCTGCCTCATGGAGGACATCGAGCAGTGGCTGTCCACTGACGTGGGTAA
TGATGCGGAAGAGCCTAAGGGGGTCACCAGCGAAGAATTTGACAAATTCCTGGAAGAACGGGCCAAAGCCGCGGA
CCGATTGCCCAACCTCTCCAGCCCCTCAGCTGAGGGGCCCCCGGGTCCCCCATCTGGCCCAGCGCCCCGGAAGAA
GACCCAGGAGAAAGATGATGACATGCTGTTTGCCTTA**TGA**GTGTGGGGTCTGGCACCCTGCAGCCCAGGTCCCCA
CTGCTCTCACACCCTTAGGCTGGGACCTCCCTCCCTCCTCTGGTGTTAAGGCTGCTTTGGGGGTGGCTTGTTACC
CCCTTTTCCTCCTCTTTGAAGACGGAGCTGCCCCAGCTGTGGCTGGGGGTGTGGAGGCAGTGGGATGAACTGGGG
GACAGGTCTGCGCTGCAGTGGGATCTGGCTGCTCTGCCTCCTTTCCCACCCCAGCTGACCATGAGACTTTGCTGA
GAAGTGGAGGCCCCAGGACAGGCTGGCTGGCTGGCTGGCTGCTTGACCCAGTGTGACTCTCCTTCACTGAGTGAT
ACCCTGCTCCGGGCCCATGCCCCAAGGAGCCCTTCAGAGCCCACACTGCCAGTCGAGGCCTGGCTGGAGGCTGGC
CACAGTGGAAATTCTGCCGAGCCTCTTGTCCCTTCCCTGCTCTGCTGCATGGGGCCCCATGGCTTTGGCTGGCCA
CTGAGGGTAGGGTGTGGAGGTGTGGAGGCCCCCTGAGGAGCTGCGGCGGCCCAGGTACGAAGCTGCAACTCTGCG
CGCAGTGGGCGAGATCTCATCAGCCCCAGGCTGCAGGTGAGGCTTCAGGGGATGCTGGGGCCCCACTGCCCCTCC
GCTGCCTTGCCCTCCATCCTTCCTCTGTTCCTTCTGGCCGGGCACCACAGCACTGGGGCTCACCTCTTGGTTGAT
CCTCTTGTACTGGGAGAGGTGCCTTTTGTATCCCCAATTAAAGGTAGAAAACCACCCTGCT

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FIGURE 3988

TCAACGCCTGCCTCCTCTCGAGCGTCCTCAGCGCAGCCGCCGCCCGCGGAGCCAGCACGAACGAGCCCAGCACCG
GCCGG**ATG**GAGCGTCCGCAACCCGACAGCATGCCCCAGGATTTGTCAGAGGCCCTGAAGGAGGCCACCAAGGAGG
TGCACACCCAGGCAGAGAATGCTGAGTTCATGAGGAACTTTCAGAAGGGCCAGGTGACCCGAGACGGCTTCAAGC
TGGTGATGGCCTCCCTGTACCACATCTATGTGGCCCTGGAGGAGGAGATTGAGCGCAACAAGGAGAGCCCAGTCT
TCGCCCCTGTCTACTTCCCAGAAGAGCTGCACCGCAAGGCTGCCCTGGAGCAGGACCTGGCCTTCTGGTACGGGC
CCCGCTGGCAGGAGGTCATCCCCTACACACCAGCCATGCAGCGCTATGTGAAGCGGCTCCACGAGGTGGGGCGCA
CAGAGCCCGAGCTGCTGGTGGCCCACGCCTACACCCGCTACCTGGGTGACCTGTCTGGGGGCCAGGTGCTCAAAA
AGATTGCCCAGAAAGCCCTGGACCTGCCCAGCTCTGGCGAGGGCCTGGCCTTCTTCACCTTCCCCAACATTGCCA
GTGCCACCAAGTTCAAGCAGCTCTACCGCTCCCGCATGAACTCCCTGGAGATGACTCCCGCAGTCAGGCAGAGGG
TGATAGAAGAGGCCAAGACTGCGTTCCTGCTCAACATCCAGCTCTTTGAGGAGTTGCAGGAGCTGCTGACCCATG
ACACCAAGGACCAGAGCCCCTCACGGGCACCAGGGCTTCGCCAGCGGGCCAGCAACAAAGTGCAAGATTCTGCCC
CCGTGGAGACTCCCAGAGGGAAGCCCCCACTCAACACCCGCTCCCAGGCTCCGCTTCTCCGATGGGTCCTTACAC
TCAGCTTTCTGGTGGCGACAGTTGCTGTAGGGCTTTATGCCATG**TGA**ATGCAGGCATGCTGGCTCCCAGGGCCAT
GAACTTTGTCCGGTGGAAGGCCTTCTTTCTAGAGAGGGAATTCTCTTGGCTGGCTTCCTTACCGTGGGCACTGAA
GGCTTTCAGGGCCTCCAGCCCTCTCACTGTGTCCCTCTCTCTGGAAAGGAGGAAGGAGCCTATGGCATCTTCCCC
AACGAAAAGCACATCCAGGCAATGGCCTAAACTTCAGAGGGGGCGAAGGGATCAGCCCTGCCCTTCAGCATCCTC
AGTTCCTGCAGCAGAGCCTGGAAGACACCCTAATGTGGCAGCTGTCTCAAACCTCCAAAAGCCCTGAGTTTCAAG
TATCCTTGTTGACACGGCCATGACCACTTTCCCCGTGGGCCATGGCAATTTTTACACAAACCTGAAAAGATGTTG
TGTCTTGTGTTTTTGTCTTATTTTTGTTGGAGCCACTCTGTTCCTGGCTCAGCCTCAAATGCAGTATTTTTGTTG
TGTTCTGTTGTTTTTATAGCAGGGTTGGGGTGGTTTTTGAGCCATGCGTGGGTGGGGAGGGAGGTGTTTAACGGC
ACTGTGGCCTTGGTCTAACTTTTGTGTGAAATAATAAACAACATTGTCTG

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FIGURE 3989

TTTTCCCGCGAAACTCGGCGGCTGAGCGTGGAGGTTCTTGTCTCCCCTGGTTTGTGAAGTGCGGAAAACCAGAGG
CGCAGTC**ATG**TCGGGATTCGACGATCCTGGCATTTTCTACAGCGACAGCTTCGGGGGCGACGCCCAGGCCGACGA
GGGGCAGGCCCGCAAATCGCAGCTGCAGAGGCGCTTCAAGGAGTTCCTGCGGCAGTACCGAGTGGGCACCGACCG
CACGGGCTTCACCTTCAAATACAGGGATGAACTCAAGCGGCATTACAACCTGGGGGAGTACTGGATTGAGGTGGA
GATGGAGGATCTGGCCAGCTTTGATGAGGACCTGGCCGACTACTTGTACAAGCAGCCAGCCGAGCACCTGCAGCT
GCTGGAGGAAGCTGCCAAGGAGGTAGCTGATGAGGTGACCCGGCCCCGGCCTTCTGGGGAGGAGGTGCTCCAGGA
CATCCAGGTCATGCTCAAGTCGGACGCCAGCCCTTCCAGCATTCGTAGCCTGAAGTCGGACATGATGTCACACCT
GGTGAAGATCCCTGGCATCATCATCGCGGCCTCTGCGGTCCGTGCCAAGGCCACCCGCATCTCTATCCAGTGCCG
CAGCTGCCGCAACACCCTCACCAACATTGCCATGCGCCCTGGCCTCGAGGGCTATGCCCTGCCCAGGAAGTGCAA
CACAGATCAGGCTGGGCGCCCCAAATGCCCATTGGACCCGTACTTCATCATGCCCGACAAATGCAAATGCGTGGA
CTTCCAGACCCTGAAGCTGCAGGAGCTGCCTGATGCAGTCCCCCACGGGGAGATGCCCAGACACATGCAGCTCTA
CTGCGACAGGTACCTGTGTGACAAGGTCGTCCCTGGGAACAGGGTTACCATCATGGGCATCTACTCCATCAAGAA
GTTTGGCCTGACTACCAGCAGGGGCCGTGACAGGGTGGGCGTGGGCATCCGAAGCTCCTACATCCGTGTCCTGGG
CATCCAGGTGGACACAGATGGCTCTGGCCGCAGCTTTGCTGGGGCCGTGAGCCCCCAGGAGGAGGAGGAGTTCCG
TCGCCTGGCTGCCCTCCCAAATGTCTATGAGGTCATCTCCAAGAGCATCGCCCCCTCCATCTTTGGGGGCACAGA
CATGAAGAAGGCCATTGCCTGCCTGCTCTTTGGGGGCTCCCGAAAGAGGCTCCCTGATGGACTTACTCGCCGAGG
AGACATCAACCTGCTGATGCTAGGGGACCCTGGGACAGCCAAGTCCCAGCTTCTGAAGTTTGTGGAGAAGTGTTC
TCCCATTGGGGTATACACGTCTGGGAAAGGCAGCAGCGCAGCTGGACTGACAGCCTCGGTGATGAGGGACCCTTC
GTCCCGGAATTTCATCATGGAGGGCGGAGCCATGGTCCTGGCCGATGGTGGGGTCGTCTGTATTGACGAGTTTGA
CAAGATGCGAGAAGATGACCGTGTGGCAATCCACGAAGCCATGGAGCAGCAGACCATCTCTATCGCCAAGGCTGG
GATCACCACCACCCTGAACTCCCGCTGCTCCGTCCTGGCTGCTGCCAACTCAGTGTTCGGCCGCTGGGATGAGAC
GAAGGGGGAGGACAACATTGACTTCATGCCCACCATCTTGTCGCGCTTCGACATGATCTTCATCGTCAAGGATGA
GCACAATGAGGAGAGGGATGTGATGCTGGCCAAGCATGTCATCACTCTGCACGTGAGCGCACTGACACAGACACA
GGCTGTGGAGGGCGAGATTGACCTGGCCAAGCTGAAGAAGTTTATTGCCTACTGCCGAGTGAAGTGTGGCCCCCG
GCTGTCAGCAGAGGCTGCAGAGAAACTGAAGAACCGCTACATCATCATGCGGAGCGGGGCCCGTCAGCACGAGAG
GGACAGTGACCGCCGCTCCAGCATCCCCATCACTGTGCGGCAGCTGGAGGCCATTGTGCGCATCGCGGAAGCCCT
CAGCAAGATGAAGCTGCAGCCCTTCGCCACAGAGGCAGATGTGGAGGAGGCCCTGCGGCTCTTCCAAGTGTCCAC
GTTGGATGCTGCCTTGTCCGGTACCCTGTCAGGGGTGGAGGGCTTCACCAGCCAGGAGGACCAGGAGATGCTGAG
CCGCATCGAGAAGCAGCTCAAGCGCCGCTTTGCCATTGGCTCCCAGGTGTCTGAGCACAGCATCATCAAGGACTT
CACCAAACAGAAATACCCGGAGCACGCCATCCACAAGGTGCTGCAGCTCATGCTGCGGCGCGGCGAGATCCAGCA
TCGCATGCAGCGCAAGGTTCTCTACCGCCTCAAG**TGA**GTCGCGCCGCCTCACTGGACTCATGGACTCGCCCACGC
CTCGCCCCTCCTGCCGCTGCCTGCCATTGACAATGTTGCTGGGACCTCTGCCTCCCCACTGCAGCCCTCGAACTT
CCCAGGCACCCTCCTTTCTGCCCCAGAGGAAGGAGCTGTAGTGTCCTGCTGCCTCTGGGCGCCCGCCTCTAGCGC
GGTTCTGGGAAGTGTGCTTTTGGCATCCGTTAATAATAAAGCCACGGTGTGTTCAGGT

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FIGURE 3990

GGAGCCCATGATTTCCTGGAAGAGCCCTAGAGCTTTGCTTTTTCTCTCCTGCAGCACTTAACCGAAACCAGTTTT
GCAATCAATTCCTGTTCAAAGGCCACCCTACTCTTCCTATCCGTCTTTCTCCAGCCCAGACACTCACAGCCCCCT
GCCAGACCAGGGGACCTCGGAGAGGCAAGGACAGAGGTTCAGGATCTTCCTCTCCCTCGGGACCCAAGGCCACAA
AGGAGAGCTCCGTGGAGAGAAGAAAATCATTTGACTCCTGGGGACACAGATTTGCTGCCACAGAGGCTG**ATG**GAC
AACCAGGCGGAGAGAGAAAGTGAGGCTGGTGTTGGTTTGCAAAGGGATGAGGATGACGCTCCTCTGTGTGAAGAC
GTGGAGCTACAAGACGGAGATCTGTCCCCCGAAGAAAAAATATTTTTGAGAGAATTTCCCAGATTGAAAGAAGAT
CTGAAAGGGAACATTGACAAGCTCCGTGCCCTCGCAGACGATATTGACAAAACCCACAAGAAATTCACCAAGGCT
AACATGGTGGCCACCTCTACTGCTGTCATCTCTGGAGTGATGAGCCTCCTGGGTTTAGCCCTTGCCCCAGCAACA
GGAGGAGGAAGCCTGCTGCTCTCCACCGCTGGTCAAGGTTTGGCAACAGCAGCTGGGGTCACCAGCATCGTGAGT
GGTACGTTGGAACGCTCCAAAAATAAAGAAGCCCAAGCACGGGCGGAAGACATACTGCCCACCTACGACCAAGAG
GACAGGGAGGATGAGGAAGAGAAGGCAGACTATGTCACAGCTGCTGGAAAGATTATCTATAATCTTAGAAACACC
TTGAAGTATGCCAAGAAAAACGTCCGTGCATTTTGGAAACTCAGAGCCAACCCACGCTTGGCCAATGCTACCAAG
CGTCTTCTGACCACTGGCCAAGTCTCCTCCCGGAGCCGCGTGCAGGTGCAAAAGGCCTTTGCGGGAACAACACTG
GCGATGACCAAAAATGCTCGCGTGCTGGGAGGTGTGATGTCCGCCTTCTCCCTTGGCTATGACTTGGCCACTCTC
TCAAAGGAATGGAAGCACCTGAAGGAAGGAGCAAGGACAAAGTTTGCGGAAGAGTTGAGAGCCAAGGCCTTGGAG
CTGGAGAGGAAACTCACAGAACTCACCCAGCTCTACAAGAGCTTGCAGCAGAAAGTGAGGTCAAGGGCCAGAGGG
GTGGGGAAGGATTTAACTGGGACCTGCGAAACCGAGGCTTACTGGAAGGAGTTAAGGGAGCATGTGTGGATGTGG
CTGTGGCTGTGTGTGTGTCTGTGTGTCTGTGTGTATGTACAGTTTACA**TGA**ATGTTCCTCAGGACATGGCATACA
ATGGCCTTGGAGGTCCAAATAATATCAAGTACATCTTGGAGATGAGGGTGCCTGTCCTGGACAGACCTCGGCATG
CCTTCTGTTTCTCCTTCAATGCTCCTTAAGGCCTATGTGCTGGGAAAAGGGTCTTCCCTGTTTGTTTGTTTGTTT
GTTTGTTTGTTTGTTTTGAGACTCCAGTCTGGGTGTCAGAATGAGACCCCATCTCAAAAAAAAAAAAAAAAAAAA
AAAAGAAGAAGAATACAGTCATGTATCTCTTGGTGACAGGGACGCATTCTGATAAATGTGTCATTAGGCAATTGC
ATTGTAGTGTGATTATCACAGATTGTACTTATACAAAACTTAGATGGCATAGCCTACTGCATACCTAGGCTATAT
GGGAGAGCCTATTGCTCCCAGGCTACGCACCTGTACAGCATGTGACTACTGAATACTATAGGCAATTGCAGCACA
ATGGGAAATATTTGTGTATCTAAACATATGTAAACAGAGAAAAAGGAAAGTAAAAATATGGCATAAAAGATAAGA
ATTGGCTCTCCTGTACAGGGCACTTACTACGAATGGAGCTTGCAGGGCTGAGAGTTGCTCCAGATGAGTCAGTGA
GTGGTGAATGAATGTGAAGGCCTAGGGCATTACTGTATACTACTGTAGGCTTTATAAACACAGCACACTTAGGGT
ACACAAAATGCATATTAAAACATTTTCTTCCTTCAGTATATTAGGCAATAGGAATTTTTCAAGTCCACTATAAAT
CTTATCAAACCATGGTTGTATATGCAGTTGACCGAAACATTGTTATTGGACACATAACTATAGTTGAAAGAATAA
GCAAAAAGTCTATCTAGGTGTGCTGTCTTGAGCAACTTTTAATTATTCTCCTGTCCTGCAATATGAGTTAATCTT
CTCTGATCGATGTAGATTCCAGGAAGGGGTGTCCAGGACAATTACCTTCCTTCTGGAGAAACTTCCCTTAATCAA
ATAAGAGAACTTCAAAGAAAATCCCTCCCTGTGCTTTGGAAGGGAAGGGAGGTGGGCAGCAGTGGGTCAGAGATA
GACCTTTGTTCTCTTATTTCTGAGGCCCTTCAGTCTCCTTTATTCAAAGCACTCAGCATGCCAAAGCACCCTATT
TTAGGGTATCTTTTTCTGAGCCCTAAACACTGTGTTGGGGATGTCAACTGTGACAGGAAAATATCTTGGGGCCCC
AGAATCACTAAGGAAAACTCAAGCTTAGGGAAACTTCTTAGGGCAAACCCACCTCCCACTCTATTCAAAGTTATC
TCTCTGCTCACTGAGATAGATACATATCTGATTGCCTCCTTTGGAAAGGCTAATCAGAAACTCAAAAGAATGCAA
CTGTTTGTGTCTCACCTATCTGTGACCTGGAAGCTCCCTCCCCACTGAACCAATGTTCTTCTTACATATATTGAT
TAATGTCTTATGTCTCCCTAAAATGTATAAAACCAAGGTATGCCCCAACCATCTTGGCCACATGTCATCAGGACT
TCCTGAGTCTGTGTCACAGTGTGTCCTCAACCTTGGCAAAATAAACTTTCTAAATTAACTGAGAC

FIGURE 3991

GGGCAGGGAGGATTTTGCTTTTGCTTTTGCTTTGAGGGAGAACTTTAGCTGACTAAAAAAACAGAAGTTTGGGGT
CATGATCACAAAGGGGCCATTCCCAAAAGATGGCAAGCCACGTATTCAGTGGAGACTAGGCCAAATTCTAAATGG
TTTTATCCATAGCAGGGGAGAATAGGAGAATGAGTTTAAGAGTTTTTCTCTTCTTTTTTCCTAGAAAGAGGTAAG
GATAATGGGAAAGGTAGAGAAGGCGGCTCCCACAGACCTTTTAAGAGAGGCAGAATCTTGAGCTTGAGGCACCTT
GAGTGCATCTCAGTTCAGCTGGTTCTGGCTGAGGCCTCCAAAGGCAAGCTCTGTGCTTTCCAGTGGTTTCTGCTG
CATTTCCAGGGATGGTGTTTAACACCGCTTCCTCCAGCTCCCTTTTCTAAGAAAGAATAAATGGAGTTCTGCTTT
TTATGAAAGGGTCTTTGGTTTTCAGTGTCAACACTGAGAATTGGGGCTCTTGCAAGCATCTGGATTTCACAGTAT
CAACCTCCCCGTCACCTTTTGAACTTTGAGACTCCGTACGGTCAACTTCACCAGAGGCAGGTTGCTCGAAGCAGC
ACTGCTTGTCTGTTCCTGACTCTGGTTCTCACTGTATTAAAAAAGAGAGTCAGAGGAGTCTGGCATTTCGTGAGT
TTGTTAGAGGATGCTGGCTGATAATTCCAGAAAACTTACTGATGCTAAATCACAGTACATGCATGATTCTTTTTC
AGCTTTACTATAGTTCATGACCTGGACTTTCTGTACTCTTGGAAGCTGGGCTCCTTAAAGGAGGCCTCTAGTGAA
CACCTTTATCTCCATGTCCCTCTTAGAGCCCAGAGAGCTGCCCATAGGCATTTTCCAGAATTCCTCATGTCACCT
AGTTCAATTTCCATTAACTCAGATCAGCCATTGTGATTCACCATTTGTCAGGCTCTCAGGTTTAACAAAACCTAC
TATCACCATCATCCTTCAACAGCCACAGTCTGAATTGAGCCAACATTTTTTTTTCTTTGAGAAAGAAGTGGACTG
GGGCACAACTTTTAGTCTGAGGGGAGCTAGTGGAAATCTAGACAATAGAAGTCATCGATAGCAGCTTTTCCTCAA
ATGTGTGACTCCTCAGGGGCTAAACTGCTCTTAGCTTAGAATTATGCTTTACTAGAGATCTAGCAGATAAGTGGG
TTAATCACTACCATCCTGTAACTAGTTATATAGCTTCCAGACATGAGGGAGACATCAAACAGGGATGGAAGCAAC
CCCAAGGATATGCAAGAAGGGCATGATGAACCCCCTTCCCTCTGGCAGGAGAACAAGGCCAACCAAGGGACAGAC
TGGAAAGCACTTAGATGTTTAAGGAGGAGAAAGGGGAAGCTTTGACCAGTCCTTGCCTTTTGCCAAGTTCAGCCA
GTTCTCCGCTGCTTGCAACCTCTAGCGCAGTAACATTTGCAGAATTGCAGATTTTCCCCCAGATACTAGGAGGAA
AGGGACTTTGGGGGGTGGGGAAGGGGTCGTGGTGTTTTAAAAGCATAAGTTACCTGTTTGCACTGTTTTAAGATA
GGAAAAAAAAAATAGTGGGCAAGGTGAACATCAGACGTAAATTTGTGTGTTTTTATTTTGTCATGCTCTTGAAAAT
GTTTGACCATTTGTAGTATACACAGTGAAACTTGATTCTCTGTTGCATAAAACACTATATTTTTTTGGAAATGTT
ACTGTCCAAAAGCCTCTTCCCTCCCTTTCCTTTTCCTATGTACTTCCTTCATACTTGCTTTACTGATCAGCCAGG
CAATAGCCATCCAAGAGCTAGAGCATGAAACAGGGCCCTTTCCAAGTAGGCTCTGGGTGTCCTAAGCCAGCGTGT
GCCCTCTGGTTTAGTGAGTGTAATAGAGTCCCTGGCACCTTTCTTTGCAAATGAGGCTAACAGACCAGACTGCAG
CAAGTTATCAGATTCCTCAATCAGATGCACTAGGAGTGAGGAGCCCAGGGATGGAGGGGGTTCCTGAAGTATTGC
AGTTGGCTGTAGTAGCTGAGTTCTTTTCCATGTTACCGAAACTGTAGCCAGTTACAGTTTACTCAGGAAAACGGT
AGATCAATTCAGCCATGGTAGTGCTGGTTGGCAGGGATTGGTAACGGAGAGAACTGCTCATCAGCCAAAACTCAA
GCCTTGCCTTTTAGGAGGCCACCAGCAGAGGGACTTGGTCCTCCTTGTCTGGTACTTGTGTACATGCCGGTGACC
TGAGGACTCCACTCACACTGGCGAGCAAAAAGGGAGCAGTGATTCTCTTTTCTCTCCCCACCCCCTGCCCTTTGT
TACCAACACCAGTTTCCCAGGGGGTACATGAGTTTCTGAATTTTTAAAAAATGTTTTTGGTTTGGTTTTTCTGGG
GACTGATAAGTGCTTTAAGCAATGTCCATACCCCGTCAAGACTCCCAGCTTAGTCATTTTCTTGTATTTTTCTGT
TCACAGTATTTGTGTGTGTGCTTGTTTTGGCAGCTCATTTTGGCTGTATTATATATTGAGTGATGAATTGATCCT
CTTTTTTCCCTAAGGGATATGAATTGTTTTTCTTGTGTTATATTCTGCTTGTGAATAGCTGGAGCAAACCTGGGG
CTGACACGCGTAAGCTAGGGCTGCAAAGCGAGAAGAGAGCCGGTGGAGTGTACTTGTCCCTGACAGGCTGACCTA
CCTGAGTCTCTGAGCTTTTCAGTCCAAATCTTTGCAAGGCTCAAA**ATG**CCACAGAACCTCTCCTCTTCTCCCCAC
TCCCCATGGCAGGGACCGGACCATCCCTACATGCAACATGCTGTTCCTCCAGCCCCTCCCATTGCCATGGCAAAA
CAGGTACCTTTGGGGCATGGGGGCATTACATGGGATGCTTGTGTAATCGACCACCTAGCCTTCTCTCTCCCCTCC
CGTCCTCCCCCAGAATCACTTCCTAGGACACCCGAGCTGCTTGCCCAGGGTCCTGTTTCCCTGCTAACTCCAGAG
AAGCATCCCAGGGCTTTG**TGA**CAGTCTCTAATTCCCTTCCCTTCTCGTTAAGAATCATATTGTATAGTAGCTTTC
AGACCATACAGTATTCATTGGGTTACTCCTATTATTATCAAGTAGCTGGAATTGTGAAGGTCGGAGTAGTTAGAT
CTTTAGCTTTTATTCCTTATTTTTTTGTATTACTCTCCATGTGTATAAATTATTGATCATGTTGCTGGCTTTTAT
AAACTCTAAGCGAAGGAGGAGCACTGCCTCAGCCTTTGCACATGGTAATGAAGCACTGTTTTTAAATAAAAGAGA
GAAACACC

FIGURE 3992

GAAGAAACATTAGAAAGAAAAAGGAAGGAAAACGGTATAAAGAGAGATCAATTACCCACCCTTAAATAGCTAGAT
TGGGGGGGGAGGGGGGTGGAAAAGAAAGCTGTGGAGGTGTGCCCCAGCACGGCTGCTTTGAAAGGTTTATCATCT
ATCCGTTTGGTTT**ATG**GAGAAAAAGAAAATGGTAACTCAGGGTAACCAGGAGCCGACAACAACTCCTGACGCAAT
GGTTCAGCCTTTTACTACCATCCCATTTCCACCACCTCCGCAGAATGGAATTCCCACAGAGTATGGGGTGCCACA
CACTCAAGACTATGCCGGCCAGACCGGTGAGCATAACCTGACACTCTACGGAAGTACGCAAGCCCACGGGGAGCA
GAGCAGCAACTCACCCAGCACACAAAATGGATCTCTTACGCAGACAGAAGGTGGAGCACAGACAGACGGCCAGCA
GTCACAGACACAAAGTAGTGAAAATTCAGAGAGTAAATCTACCCCGAAACGGCTGCATGTCTCTAATATTCCTTT
CCGCTTCCGGGACCCTGACCTCCGGCAGATGTTTGGGCAGTTTGGCAAAATCCTAGATGTAGAAATAATCTTTAA
TGAACGTGGCTCTAAGGGATTCGGGTTCGTAACTTTCGAGAATAGTGCTGATGCAGACAGGGCCAGGGAGAAATT
ACACGGCACCGTGGTAGAGGGCCGTAAAATCGAGGTGAATAATGCTACAGCACGTGTAATGACCAATAAGAAGAT
GGTCACACCATATGCAAATGGTTGGAAATTAAGCCCAGTAGTTGGAGCTGTATATGGTCCGGAGTTATATGCAGC
ATCCAGCTTTCAAGCAGATGTGTCCCTAGGCAATGATGCAGCAGTGCCCCTATCAGGAAGAGGGGGTATCAACAC
TTACATTCCTTTAATCATTCCTGGCTTCCCTTACCCTACTGCAGCCACCACGGCAGCCGCTTTCAGAGGAGCCCA
TTTGAGGGGCAGAGGGCGGACAGTATATGGTGCAGTCCGAGCGGTACCTCCAACAGCCATCCCCGCCTATCCAGG
GGTGGATATGCAGCCTACAGATATGCACAGCCTGCTACTGCAACCGCAGCCACCGCTGCTGCAGCCGCTGCAGCC
GCTTACAGTGACGGTTATGGCAGGGTGTACACAGCCGACCCCTACCATGCCCTTGCCCCTGCCGCTAGCTATGGA
GTTGGCGCTGTGGCGAGTTTATACCGAGGTGGCTACAGCCGATTTGCCCCCTACTGAAGTGACG**TGA**GACCCCTG
CAAATGGGACAGCCCCCCAGTTCATGAGGCCTGGCTATTGCAATATTTACTAGTAGAGGAACTCTATAGCAAGAT
GAAGAGGAAAAACAAACAAACAAACAAAAAAAAACACAAAAAAAGAAAGAATACTTTTTTATACCTCACTATGTT
CTTTGAATATGTATTTTTCCTTTAAATTTCTGCCTTTAATTCTTTTGTTCCAAAGATTGTGCATTTTTTTCTTTT
TTTTTTTAAACTGTGGTAAAAAAAAAAAAAATAATGCATTTCCATGTCTGTATGTCCGTGCTTAGCTTATTCTAT
CAATCACGGAAGAGGCAGTCAAGGAGGAAGGAGAGACATTAGGAGCCGATAAATGCATCTGATCAGAAATCAGCA
GACAGAATTACCAAAGTGTATCTGGTGCTGAATGACTGGGGGACAAGCAGAAGTGGAAGAGATCTTTCTGCAACA
GGATATTCTTCTAGTCTTCTGAGTTTCTGGTCTTTGACAGGCAATTCTGGTTGGCTGTGGCTGGAATCCACATGC
TGATAGATAGGAATTTGTGCTTACAAAGCAGGAGAATTAAAAAGACGCTTTCCTCTCCTC

FIGURE 3993

ATCAGACAGTAAAACAGGGGCAGAGCCTGGAATTGCACTGAGGCTTGAGTCTGACTTCTCTCCCCCACCTGCTGT
GCCCTTAAACTGCAGAGATCGGGGCGGGGGTTGGGGGGCAAGCGGCTCAGATGGGTTCAAAAAACTCCCCAGGCT
CAACTCTGGTTCTGACTGCCTGAGACATGGGCAGCTGACACAGCAGACCTTGAATCCTGAGGATGTGAGGCAGGG
TATATCTGGGAGGCCGGAGGACGTGTCTGGTTATTACACAGATGCACAGCTGGACGTGGGATCCACACAGCTCAG
AACAGTTGGATCTTGCTCAGTCTCTGTCAGAGGAAGATCCCTTGGACAAGAGGACCCTGCCTTGGTGTGAGAGTG
AGGGAAGAGGAAGCTGGAACGAGGGTTAAGGAAAACCTTCCAGTCTGGACAGTGACTGGAGAGCTCCAAGGAAAG
CCCCTCGGTAACCCAGCCGCTGGCACC**ATG**AACCCAGAGAGCAGTATCTTTATTGAGGATTACCTTAAGTATTTC
CAGGACCAAGTGAGCAGAGAGAATCTGCTACAACTGCTGACTGATGATGAAGCCTGGAATGGATTCGTGGCTGCT
GCTGAACTGCCCAGGGATGAGGCAGATGAGCTCCGTAAAGCTCTGAACAAGCTTGCAAGTCACATGGTCATGAAG
GACAAAAACCGCCACGATAAAGACCAGCAGCACAGGCAGTGGTTTTTGAAAGAGTTTCCTCGGTTGAAAAGGGAG
CTTGAGGATCACATAAGGAAGCTCCGTGCCCTTGCAGAGGAGGTTGAGCAGGTCCACAGAGGCACCACCATTGCC
AATGTGGTGTCCAACTCTGTTGGCACTACCTCTGGCATCCTGACCCTCCTCGGCCTGGGTCTGGCACCCTTCACA
GAAGGAATCAGTTTTGTGCTCTTGGACACTGGCATGGGTCTGGGAGCAGCAGCTGCTGTGGCTGGGATTACCTGC
AGTGTGGTAGAACTAGTAAACAAATTGCGGGCACGAGCCCAAGCCCGCAACTTGGACCAAAGCGGCACCAATGTA
GCAAAGGTGATGAAGGAGTTTGTGGGTGGGAACACACCCAATGTTCTTACCTTAGTTGACAATTGGTACCAAGTC
ACACAAGGGATTGGGAGGAACATCCGTGCCATCAGACGAGCCAGAGCCAACCCTCAGTTAGGAGCGTATGCCCCA
CCCCCGCATATCATTGGGCGAATCTCAGCTGAAGGCGGTGAACAGGTTGAGAGGGTTGTTGAAGGCCCCGCCCAG
GCAATGAGCAGAGGAACCATGATCGTGGGTGCAGCCACTGGAGGCATCTTGCTTCTGCTGGATGTGGTCAGCCTT
GCATATGAGTCAAAGCACTTGCTTGAGGGGGCAAAGTCAGAGTCAGCTGAGGAGCTGAAGAAGCGGGCTCAGGAG
CTGGAGGGGAAGCTCAACTTTCTCACCAAGATCCATGAGATGCTGCAGCCAGGCCAAGACCAA**TGA**CCCCAGAGC
AGTGCAGCCACCAGGGCAGAAATGCCGGGCACAGGCCAGGACAAAATGCAGACTTTTTTTTTTTTTTTTTTTT
TTTTGAGATGGAGTCTCGCTCTATCGCCCAGGATGGAGTGCAGTGGCTCAATCTCGGCTCACTGCAAACTCCGCC
TCCCGGGTTCACACCATTCTCCGGCCTCAGTCTCCCGAGTAGCTGGGACTACAGGCACCTGCCACCACGCCCGGC
TAATTTTTTTGTATTTTCACTGGAGACGGGGTTTCACTGTGTTAGCCACGATGGTCTCCATCTCCTGACCTCGTG
ATCTGCCCACCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCTGGCCAAAATGCAGACATT
TTATTAGGGGGATAAGGAGGGCAAGGTAAAGCTTATGGAACTGAGTGTTAGTGACTTTGGCATTTGTGTAGCTGA
GCACAGCAAGGGAGGGGTTAATGCAGATGGCAAGTGCACCAAGGAGAAGGCAGGAACACTGGAGCCTGCAATAAG
GGAGGAGAGAGGACTGGAGAGTGTGGGGAATGGGAAGAAGTAGTTTACTTTGGACTAAAGAATATATTGGGCGAA
GAATAGAGGGGGAGCTTGCAGGAACCAGCAATGAGAAGGCCAGGAAAAGAAAGAGCTGAAAATGGAGAAAACCAG
AGTTAGAACTGTTGGATACAGGAGAAGAAACAGCAGCTCCACTACCGACCCCCCCCCAGGTTTGATGTCCTTCCA
AGAATAAAGTCTTTCCCTGGTGATGGTCTCTCGCTCTGTCTTTCCAGCATCCACTCTCCCTTGTCCTTCTGGGGG
TGTATCACAGTCAGCCAGTGGCTTCTTCATGATGGTGGTTGGGGTGGTTGTCATGTGACGGGTCCCCTCCAGGTT
ACTAAAGGGTGCATGTCCCCTGCTTGAACCCTGAGAGGCAGGTGGTAGGCCATGGCCACAATCCCCAGCTGAGGA
GCAGGTGTCCCTGAGAACCCAAACTTCCCAGAGAGTATCTGAGAACCAACCAATGAAAACAGTCCCATCGCTCTT
AGCCGGTAAGTAAACAGTCAGAAGATTAGCATGAAAGCAGTTTAGCATTGGGAGGAAGCACAGATCTCTAGAGCT
GTCCTGTCGCTGCCCAGGATTGACCTGTGTGTAAGTCCCAATAAACTCACCTACTCACCA

FIGURE 3994

ATGAGTGCACTTTTCCTTGGTGTGGGAGTGAGGGCAGAGGAAGCTGGAGCGAGGGTGCAACAAAACGTTCCAAGT
GGGACAGATACTGGAGATCCTCAAAGTAAGCCCCTCGGTGACTGGGCTGCTGGCACCATGGACCCAGAGAGCAGT
ATCTTTATTGAGGATGCCATTAAGTATTTCAAGGAAAAAGTGAGCACACAGAATCTGCTACTCCTGCTGACTGAT
AATGAGGCCTGGAACGGATTCGTGGCTGCTGCTGAACTGCCCAGGAATGAGGCAGATGAGCTCCGTAAAGCTCTG
GACAACCTTGCAAGACAAATGATCATGAAAGACAAAAACTGGCACGATAAAGGCCAGCAGTACAGAAACTGGTTT
CTGAAAGAGTTTCCTCGGTTGAAAAGTGAGCTTGAGGATAACATAAGAAGGCTCCGTGCCCTTGCAGATGGGGTT
CAGAAGGTCCACAAAGGCACCACCATCGCCAATGTGGTGTCTGGCTCTCTCAGCATTTCCTCTGGCATCCTGACC
CTCGTCGGCATGGGTCTGGCACCCTTCACAGAGGGAGGCAGCCTTGTACTCTTGGAACCTGGGATGGAGTTGGGA
ATCACAGCCGCTTTGACCGGGATTACCAGCAGTACCATGGACTACGGAAAGAAGTGGTGGACACAAGCCCAAGCC
CACGACCTGGTCATCAAAAGCCTTGACAAATTGAAGGAGGTGAGGGAGTTTTTGGGTGAGAACATATCCAACTTT
CTTTCCTTAGCTGGCAATACTTACCAACTCACACGAGGCATTGGGAAGGACATCCGTGCCCTCAGACGAGCCAGA
GCCAATCTTCAGTCAGTACCGCATGCCTCAGCCTCACGCCCCCGGGTCACTGAGCCAATCTCAGCTGAAAGCGGT
GAACAGGTGGAGAGGGTTAATGAACCCAGCATCCTGGAAATGAGCAGAGGAGTCAAGCTCACGGATGTGGCCCCT
GTAAGCTTCTTTCTTGTGCTGGATGTAGTCTACCTCGTGTACGAATCAAAGCACTTACATGAGGGGGCAAAGTCA
GAGACAGCTGAGGAGCTGAAGAAGGTGGCTCAGGAGCTGGAGGAGAAGCTAAACATTCTCAACAATAATTATAAG
ATTCTGCAGGCGGACCAAGAACTG**TGA**

FIGURE 3995A

ATGGCACAGCAAGCTGCCGATAAGTATCTCTATGTGGATAAAAACTTCATCAACAATCCGCTGGCCCAGGCCGAC
TGGGCTGCCAAGAAGCTGGTATGGGTGCCTTCCGACAAGAGTGGCTTTGAGCCAGCCAGCCTCAAGGAGGAGGTG
GGCGAAGAGGCCATCGTGGAGCTGGTGGAGAATGGGAAGAAGGTGAAGGTGAACAAGGATGACATCCAGAAGATG
AACCCGCCCAAGTTCTCCAAGGTGGAGGACATGGCAGAGCTCACGTGCCTCAACGAAGCCTCGGTGCTGCACAAC
CTCAAGGAGCGTTACTACTCAGGGCTCATCTACACCTATTCAGGCCTGTTCTGTGTGGTCATCAATCCTTACAAG
AACCTGCCCATCTACTCTGAAGAGATTGTGGAAATGTACAAGGGCAAGAAGAGGCACGAGATGCCCCCTCACATC
TATGCCATCACAGACACCGCCTACAGGAGTATGATGCAAGACCGAGAAGATCAATCCATCTTGTGCACTGGTGAA
TCTGGAGCTGGCAAGACGGAGAACACCAAGAAGGTCATCCAGTATCTGGCGTACGTGGCGTCCTCGCACAAGAGC
AAGAAGGACCAGGGCGAGCTGGAGCGGCAGCTGCTGCAGGCCAACCCCATCCTGGAGGCCTTCGGGAACGCCAAG
ACCGTGAAGAATGACAACTCCTCCCGCTTCGGCAAATTCATTCGCATCAACTTTGATGTCAATGGCTACATTGTT
GGAGCCAACATTGAGACTTATCTTTTGGAGAAATCTCGTGCTATCCGCCAAGCCAAGGAAGAACGGACCTTCCAC
ATCTTCTATTATCTCCTGTCTGGGGCTGGAGAGCACCTGAAGACCGATCTCCTGTTGGAGCCGTACAACAAATAC
CGCTTCCTGTCCAATGGACACGTCACCATCCCCGGGCAGCAGGACAAGGACATGTTCCAGGAGACCATGGAGGCC
ATGAGGATTATGGGCATCCCAGAAGAGGAGCAAATGGGCCTGCTGCGGGTCATCTCAGGGGTTCTTCAGCTCGGC
AACATCGTCTTCAAGAAGGAGCGGAACACTGACCAGGCGTCCATGCCCGACAACACAGCTGCCCAAAAGGTGTCC
CATCTCTTGGGTATCAATGTGACCGATTTCACCAGAGGAATCCTCACCCCGCGCATCAAGGTGGGACGGGATTAC
GTCCAGAAGGCGCAGACTAAAGAGCAGGCTGACTTTGCCATCGAGGCCTTGGCCAAGGCGACCTATGAGCGGATG
TTCCGCTGGCTGGTGCTGCGCATCAACAAGGCTCTGGACAAGACCAAGAGGCAGGGCGCCTCCTTCATCGGGATC
CTGGACATTGCCGGCTTCGAGATCTTTGATCTGAACTCGTTTGAGCAGCTGTGCATCAATTACACCAATGAGAAG
CTGCAGCAGCTCTTCAACCACACCATGTTCATCCTGGAGCAGGAGGAGTACCAGCGCGAGGGCATCGAGTGGAAC
TTCATCGACTTTGGCCTCGACCTGCAGCCCTGCATCGACCTCATTGAGAAGCCAGCAGGCCCCCCGGGCATTCTG
GCCCTGCTGGACGAGGAGTGCTGGTTCCCCAAAGCCACCGACAAGAGCTTCGTGGAGAAGGTGATGCAGGAGCAG
GGCACCCACCCCAAGTTCCAGAAGCCCAAGCAGCTGAAGGACAAAGCTGATTTCTGCATTATCCACTATGCCGGC
AAGGTGGATTACAAAGCTGACGAGTGGCTGATGAAGAACATGGATCCCCTGAATGACAACATCGCCACACTGCTC
CACCAGTCCTCTGACAAGTTTGTCTCGGAGCTGTGGAAGGATGTGGACCGCATCATCGGCCTGGACCAGGTGGCC
GGCATGTCGGAGACCGCACTGCCCGGGGCCTTCAAGACGCGGAAGGGCATGTTCCGCACTGTGGGGCAGCTTTAC
AAGGAGCAGCTGGCCAAGCTGATGGCTACGCTGAGGAACACGAACCCCAACTTTGTCCGCTGCATCATCCCCAAC
CACGAGAAGAAGGCCGGCAAGCTGGACCCGCATCTCGTGCTGGACCAGCTGCGCTGCAACGGTGTTCTCGAGGGC
ATCCGTATCTGCCGCCAGGGCTTCCCCAACAGGGTGGTCTTCCAGGAGTTTCGGCAGAGATATGAGATCCTGACT
CCAAACTCCATTCCCAAGGGTTTCATGGACGGGAAGCAGGCGTGCGTGCTCATGATAAAAGCCCTGGAGCTCGAC
AGCAATCTGTACCGCATTGGCCAGAGCAAAGTCTTCTTCCGTGCCGGTGTGCTGGCCCACCTGGAGGAGGAGCGA
GACCTGAAGATCACCGACGTCATCATAGGGTTCCAGGCCTGCTGCAGGGGCTACCTGGCCAGGAAAGCATTTGCC
AAGCGGCAGCAGCAGCTTACCGCCATGAAGGTCCTCCAGCGGAACTGCGCTGCCTACCTGAAGCTGCGGAACTGG
CAGTGGTGGCGGCTCTTCACCAAGGTCAAGCCGCTGCTGCAGGTGAGCCGGCAGGAGGAGGAGATGATGGCCAAG
GAGGAGGAGCTGGTGAAGGTCAGAGAGAAGCAGCTGGCTGCGGAGAACAGGCTCACGGAGATGGAGACGCTGCAG
TCTCAGCTCATGGCAGAGAAATTGCAGCTGCAGGAGCAGCTCCAGGCAGAAACCGAGCTGTGTGCCGAGGCTGAG
GAGCTCCGGGCCCGCCTGACCGCCAAGAAGCAGGAATTAGAAGAGATCTGCCATGACCTAGAGGCCAGGGTGGAG
GAGGAGGAGGAGCGCTGCCAGCACCTGCAGGCGGAGAAGAAGAAGATGCAGCAGAACATCCAGGAGCTTGAGGAG
CAGCTGGAGGAGGAGGAGAGCGCCCGGCAGAAGCTGCAGCTGGAGAAGGTGACCACCGAGGCGAAGCTGAAAAAG
CTGGAGGAGGAGCAGATCATCCTGGAGGACCAGAACTGCAAGCTGGCCAAGGAAAAGAAACTGCTGGAAGACAGA
ATAGCTGAGTTCACCACCAACCTCACAGAAGAGGAGGAGAAATCTAAGAGCCTCGCCAAGCTCAAGAACAAGCAT
GAGGCAATGATCACTGACTTGGAAGAGCGCCTCCGCAGGGAGGAGAAGCAGCGACAGGAGCTGGAGAAGACCCGC
CGGAAGCTGGAGGGAGACTCCACAGACCTCAGCGACCAGATCGCCGAGCTCCAGGCCCAGATCGCGGAGCTCAAG
ATGCAGCTGGCCAAGAAAGAGGAGGAGCTCCAGGCCGCCCTGGCCAGAGTGGAAGAGGAAGCTGCCCAGAAGAAC
ATGGCCCTCAAGAAGATCCGGGAGCTGGAATCTCAGATCTCTGAACTCCAGGAAGACCTGGAGTCTGAGCGTGCT
TCCAGGAATAAAGCTGAGAAGCAGAAACGGGACCTTGGGGAAGAGCTAGAGGCTCTGAAAACAGAGTTGGAGGAC
ACGCTGGATTCCACAGCTGCCCAGCAGGAGCTCAGGTCAAAACGTGAGCAGGAGGTGAACATCCTGAAGAAGACC
CTGGAGGAGGAGGCCAAGACCCACGAGGCCCAGATCCAGGAGATGAGGCAGAAGCACTCACAGGCCGTGGAGGAG

FIGURE 3995B

CTGGCGGAGCAGCTGGAGCAGACGAAGCGGGTGAAAGCAAACCTCGAGAAGGCAAAGCAGACTCTGGAGAACGAG
CGGGGGGAGCTGGCCAACGAGGTGAAGGTGCTGCTGCAGGGCAAAGGGGACTCGGAGCACAAGCGCAAGAAAGTG
GAGGCGCAGCTGCAGGAGCTGCAGGTCAAGTTCAACGAGGGAGAGCGCGTGCGCACAGAGCTGGCCGACAAGGTC
ACCAAGCTGCAGGTGGAGCTGGACAACGTGACCGGGCTTCTCAGCCAGTCCGACAGCAAGTCCAGCAAGCTCACC
AAGGACTTCTCCGCGCTGGAGTCCCAGCTGCAGGACACTCAGGAGCTGCTGCAGGAGGAGAACCGGCAGAAGCTG
AGCCTGAGCACCAAGCTCAAGCAGGTGGAGGACGAGAAGAATTCCTTCCGGGAGCAGCTGGAGGAGGAGGAGGAG
GCCAAGCACAACCTGGAGAAGCAGATCGCCACCCTCCATGCCCAGGTGGCCGACATGAAAAAGAAGATGGAGGAC
AGTGTGGGGTGCCTGGAAACTGCTGAGGAGGTGAAGAGGAAGCTCCAGAAGGACCTGGAGGGCCTGAGCCAGCGG
CACGAGGAGAAGGTGGCCGCCTACGACAAGCTGGAGAAGACCAAGACGCGGCTGCAGCAGGAGCTGGACGACCTG
CTGGTGGACCTGGACCACCAGCGCCAGAGCGCGTGCAACCTGGAGAAGAAGCAGAAGAAGTTTGACCAGCTCCTG
GCGGAGGAGAAGACCATCTCTGCCAAGTATGCAGAGGAGCGCGACCGGGCTGAGGCGGAGGCCCGAGAGAAGGAG
ACCAAGGCTCTGTCGCTGGCCCGGGCCCTGGAGGAAGCCATGGAGCAGAAGGCGGAGCTGGAGCGGCTCAACAAG
CAGTTCCGCACGGAGATGGAGGACCTTATGAGCTCCAAGGATGATGTGGGCAAGAGTGTCCACGAGCTGGAGAAG
TCCAAGCGGGCCCTAGAGCAGCAGGTGGAGGAGATGAAGACGCAGCTGGAAGAGCTGGAGGACGAGCTGCAGGCC
ACCGAAGATGCCAAGCTGCGGTTGGAGGTCAACCTGCAGGCCATGAAGGCCCAGTTCGAGCGGGACCTGCAGGGC
CGGGACGAGCAGAGCGAGGAGAAGAAGAAGCAGCTGGTCAGACAGGTGCGGGAGATGGAGGCAGAGCTGGAGGAC
GAGAGGAAGCAGCGCTCGATGGCAGTGGCCGCCCGGAAGAAGCTGGAGATGGACCTGAAGGACCTGGAGGCGCAC
ATCGACTCGGCCAACAAGAACCGGGACGAAGCCATCAAACAGCTGCGGAAGCTGCAGGCCCAGATGAAGGACTGC
ATGCGCGAGCTGGATGACACCCGCGCCTCTCGTGAGGAGATCCTGGCCCAGGCCAAAGAGAACGAGAAGAAGCTG
AAGAGCATGGAGGCCGAGATGATCCAGTTGCAGGAGGAACTGGCAGCCGCGGAGCGTGCCAAGCGCCAGGCCCAG
CAGGAGCGGGATGAGCTGGCTGACGAGATCGCCAACAGCAGCGGCAAAGGAGCCCTGGCGTTAGAGGAGAAGCGG
CGTCTGGAGGCCCGCATCGCCCAGCTGGAGGAGGAGCTGGAGGAGGAGCAGGGCAACACGGAGCTGATCAACGAC
CGGCTGAAGAAGGCCAACCTGCAGATCGACCAGATCAACACCGACCTGAACCTGGAGCGCAGCCACGCCCAGAAG
AACGAGAATGCTCGGCAGCAGCTGGAACGCCAGAACAAGGAGCTTAAGGTCAAGCTGCAGGAGATGGAGGGCACT
GTCAAGTCCAAGTACAAGGCCTCCATCACCGCCCTCGAGGCCAAGATTGCACAGCTGGAGGAGCAGCTGGACAAC
GAGACCAAGGAGCGCCAGGCAGCCTGCAAACAGGTGCGTCGGACCGAGAAGAAGCTGAAGGATGTGCTGCTGCAG
GTGGATGACGAGCGGAGGAACGCCGAGCAGTACAAGGACCAGGCCGACAAGGCATCTACCCGCCTGAAGCAGCTC
AAGCGGCAGCTGGAGGAGGCCGAAGAGGAGGCCCAGCGGGCCAACGCCTCCCGCCGGAAACTGCAGCGCGAGCTG
GAGGACGCCACTGAGACGGCCGATGCCATGAACCGCGAAGTCAGCTCCCTAAAGAACAAGCTCAGGCGCGGGGAC
CTGCCGTTTGTCGTGCCCCGCCGAATGGCCCGGAAAGGCGCCGGGGATGGCTCCGACGAAGAGGTAGATGGCAAA
GCGGATGGGGCTGAGGCCAAACCTGCCGAA**TAA**

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FIGURE 3996

ATGGCTCAGCGACTTCTTCTGAGGAGGTTCCTGGCCTCTGTCATCTCCAGGAAGCCCTCTCAGGGTCAGTGGCCA
CCCCTCACTTCCAGAGCCCTGCAGACCCCACAATGCAGTCCTGGTGGCCTGACTGTAACACCCAACCCAGCCCGG
ACAATATACACCACGAGGATCTCCTTGACAACCTTTAATATCCAGGATGGACCTGACTTTCAAGACCGAGTGGTC
AACAGTGAGACACCAGTGGTTGTGGATTTCCACGCACAGTGGTGTGGACCCTGCAAGATCCTGGGGCCGAGGTTA
GAGAAGATGGTGGCCAAGCAGCACGGGAAGGTGGTGATGGCCAAGGTGGATATTGATGACCACACAGACCTCGCC
ATTGAGTATGAGGTGTCAGCGGTGCCCACTGTGCTGGCCATGAAGAATGGGGACGTGGTGGACAAGTTTGTGGGC
ATCAAGGATGAGGATCAGTTGGAGGCCTTCCTGAAGAAGCTGATTGGC**TGA**CAAGCAGGGATGAGTCCTGGTTCC
CTTGCCCGCGTGGGACCCCAATAGAACTCAGCCCTTCCATGCCAGCCCTTCCTGCTGCCTCCCTCCTGTCTGGCT
CCTGGGGCCCATGCTTAGAGCCCAGGCTCCAGCCCTGAGTGCTTCCGAGCTGGCGGACTGCCCAGGGGCCATCAG
AGGATGGTGGTGCTGCTGCTGATCCGGGGACCGCTGTCTTCCCTCCCATACGCCTTTCATCCCTCCTTCTAGGGC
CTATGG

FIGURE 3997

CCGGAGCGGCTGGGAGG**ATG**GGCCTCTCCGCTGCGGCCCCGTTGTGGGGTCCCCCGGGGCTGCTCCTGGCCATCG
CCCTGCACCCAGCGCTGTCGGTGCCCCCGCGCCGGGACTACTGCGTGCTGGGCGCTGGGCCCGCGGGCCTGCAGA
TGGCCTACTTCCTGCAGCGCGCTGGACGCGACTACGCAGTGTTCGAGCGGGCCCCGCGGCCCGGCAGCTTCTTCA
CACGCTACCCGCGGCACCGCAAGCTCATCAGCATCAACAAGCGGTACACGGGCAAGGCTAACGCCGAGTTCAACC
TCCGCCACGACTGGAACTCTCTGCTCAGCCACGACCCCCGGCTGCTCTTCAGACACTACTCGCGTGCCTACTTCC
CCGACGCCCGCGACATGGTGCGCTACCTGGGTGACTTCGCGGACACGCTGGGGCTCCGTGTCCAGTACAACACCA
CCATCGCCCACGTCACTCTGGACAAGGACCGACAGGCCTGGAATGGCCACTACTTCATCCTAACTGACCAGAAGG
GCCAGGTGCATCAGTGCAGCGTCCTCTTTGTAGCCACTGGTTTATCAGTCCCCAACCAGGTTGACTTCCCTGGCT
CCGAATATGCAGAGGGTTACGAGTCCGTGTCCGTGGACCCTGAGGACTTTGTAGGCCAGAATGTGCTGATCCTGG
GTCGTGGGAACTCGGCCTTTGAGACAGCAGAGAACATCTTGGGTGTCACAAACTTTATCCATATGCTCAGCCGCT
CCCGGGTCCGTCTGTCCTGGGCCACCCACTACGTTGGAGACCTCAGAGCCATCAACAATGGCCTGCTGGATACCT
ACCAGCTCAAGTCCCTGGACGGGCTGCTCGAGTCTGACCTGACGGATCTGGCCATCCTGAAGGACAGCAAAGGCA
AGTTCCATGTCACCCCGAAATTCTTCCTGGAAGAAGCCAACACCAACCAGAGTGCCGACTCCATCACCCTCCCCC
AGGACGACAATGACAACTTTGCCATGCGCGTGCCCTATGACCGGGTAATCCGCTGCCTGGGCTGGAACTTTGACT
TCTCCATTTTCAATAAGTCCCTCAGACTTAACTCGGGAAATGCATTCGGCAAGAAGTACCCGCTGATTCGAGCTA
GCTACGAATCCAAAGGAAGCCGGGGTCTGTTTATCCTGGGTACTGCCAGCCACTCGGTGGACTACCGGAAATCTG
CTGGGGGCTTCATCCACGGATTCCGATACACAGTGCGTGCTGTTCACCGGCTCCTGGAGCACCGCCACCACAGCG
TCACCTGGCCCGCCACTGAGCTCCCCATCACACAGCTGACCAGCTCCATCGTGCGGCGCGTGAATGAGGCTTCTG
GGCTCTACCAGATGTTCGGTGTGCTGGCCGATGTCATCCTGTTGAAGGAGAATTCCACGGCCTTTGAGTACCTGG
AGGAGTTCCCCATACAGATGCTGGCCCAGCTGGAGACACTCACAGGGAGGAAGGCAAAGCACGGGCTCTTCGTCA
TCAACATGGAATATGGCAGAAATTTCTCTGGCCCCGACAAGGACGTCTTCTTTGATGACCGGTCTGTGGGGCACA
CAGAAGATGCCTGGCAGTCTAACTTTCTTCATCCTGTCATCTACTACTATAGATACCTCCCCACCGAACAGGAGG
TGAGGTTCCGCCCTGCACACTGGCCCCTGCCTCGGCCCACGGCCATCCATCACATCGTGGAAGACTTCTTAACAG
ACTGGACTGCCCCGATCGGGCACATCCTACCTCTGAGGCGCTTCCTGGAGAACTGTTTGGACACCGATTTGCGAA
GCTTCTATGCAGAGTCCTGCTTCCTGTTCGCCCTCACGCGCCAGAAGTTGCCACCCTTTTGCCAGCAGGGGTACC
TGAGGATGCAGGGACTCGTGAGTACCGAGAGCCTTTGGCAGCACAGAGTGGAGAGCAGGCTCCTGCGGGACTATG
CCCCCACAGGCAGGCGCCTGGAGGACAGCAGCCAGCAGCTTGGCGACCAAGAGCCACTAGGTTCCCCCCTGGCTC
CAGGGCCTCTGGCTCAGTCCGTCGATAGCAACAAAGAGGAGCTC**TGA**CTGTCCCTTCCTAAGCTGTGGGCACAGT
GGCCAGGCCTCCCCACCTAGGCCCATGGTCAGTCCCTCTTTCCCCGCAACCTCACACTCCCGCCAATGCGTGATT
GCCAAAGACCACTCAGATCATGGCAGTGTCTGCAGCAAAGCCACCAGATGGCACGTGAGGGCTGAAAGTCGGGGA
TGCGGTGGTCTCCTCCCTCCTGTCAGGGGGCAGAAGGGCATCCTCTGCCAGGTGGGAGCTGCCTTCCCCAGCCCA
GTTTGTCTGCAATGGAGCTGTCGCTGAGCCCCAGGCCAGCCCAGTTCTGCCCCGTCTCAAGTGCTCCTCTTCCTT
CCAAGCCCCTCCTCAGATGGGCCTGCATCCCGCCTGTGGAGTGCTTCACAGGGGAAACCCATCCGCATCTTAAGA
GTTTGTGGCAAGCGCTTTAAAACAAAAGCTCTGATATCCTCAACAACCACAATGGGCAGGTGGGATTGTTGCCCC
AGATGACTGCTGAAGACACCAGCTGTGGGATGTCAAGTAATTCCAGGGACCCCCAGCTGGGAGTCCCCGTCTGTG
TCACTTGCCACACACTGCCTCAACCTCCCCGCCCCATTTTCAGCAGGGTTTGGGCTTAGCTACAGAGCCCAAGAG
GGTCAGCCCTGCTTATCATCATAGGCCCAGCAGGCTGATCTCGAGCAGCGATAGGACAGCTCCCTGCAAAGCCAT
CTTAGCAACTTTCTCACTGAGAAGCAGGATTCAGAGCTGCTCTCCCCAGTTGCACCCCCTGACTCATCTTCCAGC
TGGCTCTTCTCTCCCATCCTACTCCCTTCTGTCTCCCTGCCCTCTGCCATCCTGAACCATGCCTTGCTTCTAACC
TGCCTGGTCAAGTTTTGTGAAACTTATCCTGCTGTCTCGGGCTGGCACCCATATGTGCTCACCATGTGTAAGGTG
ACATTTCCAAATGCCTTTGTGTGATAATGATGATGAATTTGGTTCCTAGTCTCTTCTTCATTGCCCTTCCTCACC
AGCAATCTGCACTTTCCCATCAGGCGTCTTAGTCTCATTTGTAAGTGCATAAGATAATCACAGTGATTTTTCAAA
GCCCAGG

FIGURE 3998

GCTAACGCGGTCCCCGGCACGCACCATCTGTTGCCATCCCGGCCGGCCGAGGCCATTGCAGATTTTGGAAGATGG
CAAAGTTCATGACACCCGTGATCCAGGACAACCCCTCAGGCTGGGGTCCCTGTGCGGTTCCCGAGCAGTTTCGGG
ATATGCCCTACCAGCCGTTCAGCAAAGGAGATCGGCTAGGAAAGGTTGCAGACTGGACAGGAGCCACATACCAAG
ATAAGAGGTACACAAATAAGTACTCCTCTCAGTTTGGTGGTGGAAGTCAATATGCTTATTTCCATGAGGAGGATG
AAAGTAGCTTCCAGCTGGTGGATACAGCGCGCACACAGAAGACGGCCTACCAGCGGAATCGAATGAGATTTGCCC
AGAGGAACCTCCGCAGAGACAAAGATCGTCGGAACATGTTGCAGTTCAACCTGCAGATCCTGCCTAAGAGTGCCA
AACAGAAAGAGAGAGAACGCATTCGACTGCAGAAAAAGTTCCAGAAACAATTTGGGGTTAGGCAGAAATGGGATC
AGAAATCACAGAAACCCCGAGACTCTTCAGTTGAAGTTCGTAGTGATTGGGAAGTGAAAGAGGAAATGGATTTTC
CTCAGTTGATGAAGATGCGCTACTTGGAAGTATCAGAGCCACAGGACATTGAGTGTTGTGGGGCCCTAGAATACT
ACGACAAAGCCTTTGACCGCATCACCACGAGGAGTGAGAAGCCACTGCGGAGCATCAAGCGCATCTTCCACACTG
TCACCACCACAGACGACCCTGTCATCCGCAAGCTGGCAAAAACTCAGGGGAATGTGTTTGCCACTGATGCCATCC
TGGCCACGCTGATGAGCTGTACCCGCTCAGTGTATTCCTGGGATATTGTCGTCCAGAGAGTTGGGTCCAAACTCT
TCTTTGACAAGAGAGACAACTCTGACTTTGACCTCCTGACAGTGAGTGAGACTGCCAATGAGCCCCCTCAAGATG
AAGGTAATTCCTTCAATTCACCCCGCAACCTGGCCATGGAGGCAACCTACATCAACCACAATTTCTCCCAGCAGT
GCTTGAGAATGGGGAAGGAAAGATACAACTTCCCCAACCCAAACCCGTTTGTGGAGGACGACATGGATAAGAATG
AAATCGCCTCTGTTGCGTACCGTTACCGCAGGTGGAAGCTTGGAGATGATATTGACCTTATTGTCCGTTGTGAGC
ACGATGGCGTCATGACTGGAGCCAACGGGGAAGTGTCCTTCATCAACATCAAGACACTCAATGAGTGGGATTCCA
GGCACTGTAATGGCGTTGACTGGCGTCAGAAGCTGGACTCTCAGCGAGGGGCTGTCATTGCCACGGAGCTGAAGA
ACAACAGCTACAAGTTGGCCCGGTGGACCTGCTGTGCTTTGCTGGCTGGATCTGAGTACCTCAAGCTTGGTTATG
TGTCTCGGTACCACGTGAAAGACTCCTCACGCCACGTCATCCTAGGCACCCAGCAGTTCAAGCCTAATGAGTTTG
CCAGCCAGATCAACCTGAGCGTGGAGAATGCCTGGGGCATTTTACGCTGCGTCATTGACATCTGCATGAAGCTGG
AGGAGGGCAAATACCTCATCCTCAAGGACCCCAACAAGCAGGTCATCCGTGTCTACAGCCTCCCTGATGGCACCT
TCAGCTCTGATGAAGATGAGGAGGAAGAGGAGGAGGAAGAAGAGGAAGAAGAAGAGGAAGAAACTTAAACCAGTG
ATGTGGAGCTGGAGTTTGTCCTTCCACCGAGACTACGAGGGCCTTTGATGCTTAGTGGAATGTGTGTCTAACTTG
CTCTCTGACATTTAGCAGATGAAATAAAATATATATCTGTTTAGTCTTT

FIGURE 3999

ATCGGAGGAGAGCCGGATCGTCCTTCCTTGAACCCTCTGGGTAGGGCTGTGCTGAGGGGCTGGGCGGGGAGCACA
GGCCGTGTCCGCTCGCTTGCACCTTTTCAGACTGCCGTGTCAGGCCTCGAGCCGGGCCCACCTGGAGCCCTCCCC
TGCCCACCCGCCCCCAGCGCCCGATATCCGCCCCCGGCCCAGAAGGGCCGGGCTCGGTCATCCCCAGTCCCGTCG
CGGCCACTGACCCTTGAGATCAGCCCTCCCCTCCCCACCTTCCCGTCCCAGGCCAGCCCAGGGCCCGAAGCCCAC
CCACTCGCGTCTCTAGCAGCCGCTCTTGTCCTCTGGGTACGGCTCGCGGGAGTGTTGGTTACC**ATG**GTGAAGCTG
GCAGCCAAATGCATCCTGGCAGACCCAGCAGTGGGCAAGACCGCCCTGGCACAGATCTTCCGCAGTGATGGAGCC
CATTTCCAGAAAAGCTACACCCTGACAACAGGAATGGATTTGGTGGTGAAGACAGTGCCAGTTCCTGACACGGGA
GACAGTGTGGAACTCTTCATTTTTGACTCTGCTGGCAAGGAGCTGTTTTCGGAAATGCTGGATAAATTGTGGGAG
AGTCCCAATGTCTTATGTCTCGTCTATGATGTGACCAATGAAGAATCCTTCAACAACTGCAGCAAGTGGCTGGAG
AAGGCTCGGTCACAGGCTCCAGGCATCTCTCTCCCAGGTGTTTTAGTTGGGAACAAGACAGACCTGGCCGGCAGA
CGAGCAGTGGACTCAGCTGAGGCCCGGGCATGGGCGCTGGGCCAGGGCCTGGAATGTTTTTGAAACATCCGTGAAA
GAGATGGAAAACTTCGAAGCCCCTTTCCACTGCCTTGCCAAGCAGTTCCACCAGCTGTACCGGGAGAAGGTGGAG
GTTTTCCGGGCCCTGGCA**TGA**CGAGCTGGAGCAGATCGTGCTGCACAACCGGAGAAGACAGAATTACCTCTGCTC
TTTTAATATATAATGATGGCTTTAAATAAAATTAGGAGAAAATGTC

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FIGURE 4000

GGGGCGAGCGCCAGCGCGGCGTCCGGGGCGAGTGACACGCAGAGCTGAAGCC**ATG**GTTCATCAGGTGCTCTACCG
GGCGCTGGTCTCCACCAAGTGGCTGGCGGAGTCCATCAGGACTGGCAAGCTGGGGCCCGGCCTGCGGGTGCTGGA
CGCGTCCTGGTACTCACCAGGCACCCGAGAGGCCCGCAAGGAGTACCTCGAGCGCCACGTACCCGGCGCCTCTTT
CTTTGACATAGAAGAGTGCCGGGACACGGCGTCGCCCTACGAGATGATGCTGCCCAGCGAGGCTGGCTTCGCCGA
GTATGTGGGCCGCCTGGGCATCAGCAACCACACGCACGTGGTGGTGTATGATGGTGAACACCTGGGCAGCTTCTA
TGCTCCCCGGGTCTGGTGGATGTTCCGTGTGTTTGGCCACCGCACCGTATCAGTGCTCAATGGTGGCTTCCGGAA
CTGGCTGAAGGAGGGCCACCCGGTGACATCCGAGCCCTCACGCCCAGAACCGGCCGTCTTCAAAGCCACACTGGA
CCGCTCCCTGCTCAAGACCTACGAGCAGGTGCTGGAGAACCTTGAATCTAAGAGGTTCCAGCTGGTGGATTCAAG
GTCTCAAGGGCGGTTCCTGGGCACCGAGCCGGAGCCGGATGCAGTAGGACTGGACTCGGGCCATATCCGTGGTGC
CGTCAACATGCCTTTCATGGACTTCCTGACTGAGGATGGCTTCGAGAAGGGCCCAGAAGAGCTCCGTGCTCTGTT
CCAGACCAAGAAGGTGGATCTCTCGCAGCCTCTCATTGCCACGTGCCGCAAGGGAGTCACCGCCTGCCACGTGGC
CTTGGCTGCCTACCTCTGCGGCAAGCCTGATGTGGCCGTGTACGATGGCTCCTGGTCCGAGTGGTTTCGCCGGGC
CCCCCCAGAGAGCCGTGTGTCCCAGGGAAAGTCTGAGAAGGCC**TGA**GCCGTGACCTCTTCTGCTTACTGTAACTG
CGGCCGGTTTAGTGACCCCATGACTTACAGCCGGTTCTTACCTCTTAGGTGAAGGAGATGACATGTTTTTAGAAT
TGCTGTGCAAGGCTCACCCTCTCTCTGTCAACACTGGAATAAACTTTGCCTTTTCTG

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FIGURE 4001

GGCGGGAGGAGGGGACAGCTGCGGGCGCGGGGAGGGGGCGCCGCGCCGCGGGGGCCATGGCGGAGCCAGGAAGCC
GGGAGTCCGAGACCCGGGCCCGCAGCCCGAGTGTCGCCGCC**ATG**GCTTCGCCGCAGCTCTGCCGCGCGCTGGTGT
CGGCGCAATGGGTGGCGGAGGCGCTGCGGGCCCCGCGCGCTGGGCAGCCTCTGCAGCTGCTGGACGCCTCCTGGT
ACCTGCCGAAGCTGGGGCGCGACGCGCGACGCGAGTTCGAGGAGCGCCACATCCCGGGCGCCGCTTTCTTCGACA
TCGACCAGTGCAGCGACCGCACCTCGCCCTACGACCACATGCTGCCCGGGGCCGAGCATTTCGCGGAGTACGCAG
GCCGCCTGGGCGTGGGCGCGGCCACCCACGTCGTGATCTACGACGCCAGCGACCAGGGCCTCTACTCCGCCCCGC
GCGTCTGGTGGATGTTCCGCGCCTTCGGCCACCACGCCGTGTCACTGCTTGATGGCGGCCTCCGCCACTGGCTGC
GCCAGAACCTCCCGCTCAGCTCCGGCAAGAGCCAACCTGCTCCCGCCGAGTTCCGCGCTCAGCTCGACCCCGCCT
TCATCAAGACCTACGAGGACATCAAGGAGAACCTGGAATCCCGGCGCTTCCAGGTGGTGGACTCCCGAGCCACTG
GCAGGTTCCGCGGCACCGAGCCCGAGCCCCGAGACGGCATTGAACCTGGCCACATCCCAGGTACCGTGAACATCC
CCTTCACAGACTTCCTGAGCCAGGAGGGGCTGGAGAAGAGCCCTGAGGAGATCCGCCATCTGTTCCAGGAGAAGA
AAGTGGACCTGTCTAAGCCACTGGTGGCCACGTGTGGCTCTGGCGTCACAGCCTGCCACGTGGCACTAGGGGCCT
ACCTCTGCGGCAAGCCAGACGTGCCCATCTACGATGGCTCCTGGGTGGAGTGGTACATGCGCGCCCGGCCCGAGG
ATGTCATCTCAGAGGGCCGGGGGAAGACCCAC**TGA**AGCTGGGCAGGACACAGGCGAGCTCAGGTGATGCCGGCCA
CCAGCAATGCCTGGCCTGGTAGCTCCGCTTCTGCTTTCACCAAGAGAGTGTTTCTTCACTCAACTCAGGTGGCAT
TTGGGGTGACATCTCAAAGGCCAGGAATTCCGTTGACTTGTTGGCTGCCAGTAGGGGCGGGAGGAAAGGCGGAGG
CGAGCCCTGGAGGAGGGAGGCCACAACTCCGAGCTGCCCACCTGGTGCTGAGCTGGGGCCCCGCCTCCTTTCTGT
TTTATTTTTGAGGAAATAAAATAACCAAGTGCTAAATCTTGT

FIGURE 4002

TGGCTCACTGCAGCCTCAACCTCCTGGGCTCAGGTGACCCTCCCCGCTCAGCCTGACCTTGCCTTTAAAGGCCAC
TGCATGAGGTGGGGAAGGAGATTTGACTTCCACTTGCCTCGGTGACTTTGTCTGTTAAGCAGAACCATAATACTG
GCCCTTCCCCTCCTGTGCTTTGGGCAGTGACTCTCCCTAGCTCATTGGGAACCCTGGTTGCCCAAACAGCTCTCA
ATCCAACACTAGAGGTGTGGGGGGTCACTGTGGAATGTTGGGGGGCAGGCCCCAGTATGAGAGAAAAACCCAGAG
GGATGGTCCTGATCAGGGCTACCCATGCCCCTGAGGATGGTGGAATGAAGGCAGAGTCGGGGGCTGCATAAAGGA
AAGTCTCTTCCAGGGACCAAAGCTTGGAGAACTGAGGGTGGAAGGGGGATTAAACAGAAGTGGGTAGGGCAGAGC
CTTCTGCCTGTGGGCTGGATTTCCTCAGGCAAGAAGCCTGTGGGTAAGCTCTGTATAATGCGAGGAGGAGTCCCC
ACAAAGCAGGCTGGTCAGTGGTCACGCTAGTGTGAGTCTTTCAAACATCCCGTGTAAGTAGATACTGTCATTGCA
CAGAGGAGGAAATGGAACCTGGCCCAAGGTCTCAAGAAACAACCCAGCCGGGATTCAGACTCGGCAGCCTGCGCA
CTTAACAGCCGTGAGCAACCAGGAACTCCCCAGCCCTTTCTCTTGTGCCTTCAAGAGTGCAAGAAACTGACCACT
GCCCCTAGAGAGCTCTCTGAAGAGCATTCCCATGGCTACAGATTGGGTTTGGAGCCGCTTGGGCTCACCATGGGC
CAGCATTGTTTTGGATGGCCTGAGGGCAAGGACTGTCCCTGCTCTTCATGCATCCTGAAGATTAGCTCAGTACCT
GGCACAGAGTCGATGTTCCAGAGAGGTTTGGTGAATACAGAAGGTCCCTGTTGCATGGAATCCTGCAAAGCAATG
TTGGTGTTACCGGAACCATAGGAAACAGCTGATATCCAACCATTTTTGAACCTACACAGGTGTCAGTTTCATGTG
GTTCAGCCTAATGAGAGCACCACCTTAATCCTGTTGGGTTCTCCATCTCAGCCCCAGGGGAATGAGCAACACAGG
GGAGCTAGCTGGTGGTGCCAGACTGGGGTTCAGATCCCTGCCACATTTACATGGGCTTTGTGACACACGACGGGT
CATCTAATGTCTCTGAACTGCAGCTTCTGCCTATGTAGAATGGGAGCAGTAACACAGAGCATAAAGACATGATAG
GGGCAAGGAGAGCAAGTGTGTAAAGCACTCAGCTCCGGGTTTTCATGCACAAGTGTGCTGCACACTTGTGCCTGA
CACTTATTCAGTCGCACTAGCTCATCTATAGAATGGGAGGTGATACACGCCTAGCAGGCTTGTTGTCAAAACAAA
CTAAGCTCACTGCAGCTGGATCAGTGATGAATGTCACTGTCGTCATCATTCCCACTCCACAGCCTGAGGCCTGGC
CAAGTGCTCCTGTGATGTGCCACACCAGTCCAGCAGGCAGGGGAAACATGCTTTGCTTGGTGGGATTCAAGGTGT
AGGGATGGCCCTCCCTTTACAGTCACCACCCTGGGTTGAGAGTTTGTTCCTCCTCCTTGCTCTGGGCTGGTCTCT
ATGTGATATCTGACCAAGCCCGGTAACTGTGTCTGTTAGGTGGGATGC**ATG**ACCCATTCCAGCCTCTCCACAGAC
TCGGGAGTGCTGTCTCTATGCCAGGGTCTGAGAATAGATACCGATACATGGGTCAGCAGCTCCTGTGGGGGTGTC
ACTCCACTGCGGAGGGAAACCAAGGCAGAAGCTGGACAAGAGTCTGAATGGCTCAGATTTGAATCATTCGTTTTT
GGGGGGTTTTTTGTTTGTGTTTGTTTCTGTTGTTGTTGTTATTGTTTTGAGACGGAGTTTTGCTCTTGTTTC
CCAGCTGGAGTACAGTGGCGCAATCTCGGCTCACCACAACCTCCGCCTCCCGGGTTCAAG**TGA**TTCTCCTGCCTT
AGCCTCCCGAGTAGCTGGGATTACAGGCATGTGCCACCACGCCCGGCTAATGTTTGTATTATTAGTAGAGACGGG
GTTTCTCCATGTTGGTCAGGCTGGTCTCGAACTCCCAACCTCAGGTAATCTGCCCCCCTCGGCCTCCCAAAGTGC
TGGGATTACAGGCGTGAGCCACCGTGCCCAGCCCAAGCGTTAGTTGTGAAGGTTTATTTTGTTGCAAATCCCAGT
CCTGCATGAAAATGGGAATGTTAGTAACCCCTGCCTCAAGGTGGGGCAGTGAAAACAAAAAACACCCTGGGAGTC
TGCAGAGGTGTGGGCCTTTCCCATCCCATTCTTTCTGCTACAATCAAAATGATCGTTTAAAAATGGAAATCTAGG
TTGGGCAAGGTAACTCCTACCTATAATCCTCACACTTTGGAAGGCTGAGGTGGGAGGATCCCTTGAGCCCAGGAG
TTCAAGACCATCCTGGACATGATGGCAAGCCCCTTCTCAAT

FIGURE 4003

AGACTGCGGGCCTGCGGGGAAGGGCGAAGCGGGGCGGGACCGGGGGCGGGAGCAGCGCGGGGCGGGACCCTACCC
GCGGCCCACGCGGAGCCAGGAGGCGCGGACTACAGCTCCCGGCCTGCCCCGCGTGCGGTCCCCGCCCGCCCCCAG
CGCCCGGGAGGAGGATGCAGACGCCGCGGCCGGCG**ATG**AGGATGGAGGCCGGGGAGGCAGCGCCGCCGGCGGGGG
CGGGCGGCCGCGCCGCAGGCGGCTGGGGCAAGTGGGTGCGGCTCAACGTGGGGGGCACGGTGTTCCTGACCACCC
GGCAGACGCTGTGCCGCGAGCAGAAGTCCTTCCTCAGCCGCCTGTGCCAGGGGGAAGAGCTGCAGTCGGACCGGG
ATGAGACCGGGGCCTACCTCATTGACCGTGACCCCACCTACTTCGGGCCCATCCTGAACTTCCTCCGGCATGGCA
AGCTGGTGCTGGACAAGGACATGGCTGAGGAGGGGGTCCTGGAGGAAGCCGAGTTCTACAACATCGGCCCGCTGA
TCCGCATCATCAAAGACCGGATGGAAGAGAAGGACTACACGGTCACCCAGGTCCCACCCAAGCACGTGTACCGCG
TGCTGCAGTGCCAGGAGGAGGAGCTCACGCAAATGGTCTCCACCATGTCTGATGGCTGGCGCTTCGAGCAGCTGG
TGAACATCGGCTCCTCCTACAACTACGGCAGCGAGGACCAGGCAGAGTTCCTGTGTGTGGTGTCCAAGGAGCTCC
ACAGCACCCCAAACGGGCTGAGCTCAGAGTCCAGCCGCAAAACCAAGAGCACGGAGGAGCAGCTGGAGGAGCAGC
AGCAGCAGGAGGAGGAGGTGGAGGAGGTGGAGGTGGAACAGGTGCAGGTGGAGGCAGATGCACAGGAGAAAGGTT
CCCGTCCGCACCCTCTCAGACCTGAGGCTGAGCTTGCAGTGAGGGCTTCTCCTCGGCCCCTCGCCCGCCCCCAGA
GCTGCCATCCCTGCTGTTACAAGCCAGAGGCACCCGGATGTGAGGCCCCAGATCACCTCCAGGGACTTGGGGTTC
CCATC**TGA**AATCCTTTATTTTTGTACCATGGGGTGGGCCCCGGGCCTGAGAAGGAAGAAGCACCCTCTCCCCGGC
CTCCTCTGTCTGCACCCGTGGGGCTGTGACTTACTCCTGCCTCCAGGGGCGGGGCGGGGCCCCCCTGGGACCTCT
TAAGGCCCAAGGTGGGCCCCAGGACCTCTGGGCAGAGTGGACTGCTCATGGCAGATGTGTGGCAATGTCTGGCTG
TGTCTCTCCGGCACCTGCGTCCCCTCTCCCGGGCTCCCCTGCTGCATGGTGGATGTGCTCCTTCCTGGCCCGGTC
ACATTGCCTCCTTGAGCCTTAGTCCAGGGGGTCACTCCTCCCACCCCACCTACCTCACAGGGTTGTTGTGAGGGT
GCACAGAGGAGCAAAGTCCCTGAAGGCCCTCAGGCAGTATATAGGGGCCGCCCACCTTCAGCTGCCCTGGGATGG
GAAGGACCCAGCCCGACCCCTGGGCATAACACTGTGTTTGCAAATGGAGATTCAGGTATTGGGGATGCAGGTTGT
GGGGAGCTGGCCTGGCAGAGTAGGGGTAGTTGGCTTGGCCTTCTCTTTGGTGATCCCACCCCCAGCCATTTGCAT
TGCTGGCCCAGCGCCTGGCCTGGGGGGCGGGGAGAGGCAGCAGAAGGGGCTGGGCAGGGGCGGTGGAGGACTCAG
GAACTGCCCGGGGAGAGTGGGTATGGCGGCTGAGCCAGGGGCCCTCCTGTGTTTGACTTCCCGGGATGGGTCCTT
GCTTCTCAGCTGTGTCCGACCCCACCATGTAATAAAACCCAAAGGAACAGCCCA

FIGURE 4004

CCCTCCTCTGCTGGGCCTGGGGGTCTGGGCCAGCAACAAGTTAGTATTGCAGACATGGGCCAAGGAGCCAGAGGC
C**ATG**CAGTGGCTCAGGGTCCGTGAGTCGCCTGGGGAGGCCACAGGACACAGGGTCACCATGGGGACAGCCGCCCT
GGGTCCCGTCTGGGCAGCGCTCCTGCTCTTTCTCCTGATGTGTGAGATCCCTATGGTGGAGCTCACCTTTGACAG
AGCTGTGGCCAGCGGCTGCCAACGGTGCTGTGACTCTGAGGACCCCCTGGATCCTGCCCATGTATCCTCAGCCTC
TTCCTCCGGCCGCCCCCACGCCCTGCCTGAGATCAGACCCTACATTAATATCACCATCCTGAAGGGTGACAAAGG
GGACCCAGGCCCAATGGGCCTGCCAGGGTACATGGGCAGGGAGGGTCCCCAAGGGGAGCCTGGCCCTCAGGGCAG
CAAGGGTGACAAGGGGGAGATGGGCAGCCCCGGCGCCCCGTGCCAGAAGCGCTTCTTCGCCTTCTCAGTGGGCCG
CAAGACGGCCCTGCACAGCGGCGAGGACTTCCAGACGCTGCTCTTCGAAAGGGTCTTTGTGAACCTTGATGGGTG
CTTTGACATGGCGACCGGCCAGTTTGCTGCTCCCCTGCGTGGCATCTACTTCTTCAGCCTCAATGTGCACAGCTG
GAATTACAAGGAGACGTACGTGCACATTATGCATAACCAGAAAGAGGCTGTCATCCTGTACGCGCAGCCCAGCGA
GCGCAGCATCATGCAGAGCCAGAGTGTGATGCTGGACCTGGCCTACGGGGACCGCGTCTGGGTGCGGCTCTTCAA
GCGCCAGCGCGAGAACGCCATCTACAGCAACGACTTCGACACCTACATCACCTTCAGCGGCCACCTCATCAAGGC
CGAGGACGAC**TGA**GGGCCTCTGGGCCACCCTCCCGGCTGGAGAGCTCAGGTGCTGGTCCCGTCCCCTGCAGGGCT
CAGTTTGCACTGCTGTGAAGCAGGAAGGCCAGGGAGGTCCCCGGGGACCTGGCATTCTGGGGAGACCCTGCTTCT
ATCTTGGCTGCCATCATCCCTCCCAGCCTATTTCTGCTCCTCTCTTCTCTCTTGGACCTATTTTAAGAAGCTTGC
TAACCTAAATATTCTAGAACTTTCCCAGCCTCGTAGCCCAGCACTTCTCAAACTTGGAAATGCATGCGAATCACC
CGGGGTTCGTGTTAAATGCAGATTCTGACTCAGCAGGTCTGAGTGGGTCCAGGATTCTGTGTTTCTCATATGTTC
CTGGGTGATGCTGATGGGGTCAGTCTATGAACCACACTGGAGCAACCAGGTTCTAGGACTTTCTCAATATTCTAG
TACTTTCTGAACATTCTGGAATCCTCCCCACATTCTAGAATTCTCCCAACATTTTTTTTCTTGAGACAGAGTCT
TGCTCTGTTGCCCAGGCTAGAGTGCAGTGGTGCAATCTCAGTTCACTGCAACCTCTGCCTCCCGGGTTCAAGCGA
TTCTTCTGCCTCAGCCTCCCTAGTGGCTGGGATTACAGGCGCCTGCTACCATGCCTGGCTAATTTTTGTATTTTT
AGTAGAGATGGGGTTTCACCATATTGGCCAGGCTGGTCTTGAACTCCTGACTTCAGGTGACCCACCCGCCTCGGC
CTCTCAAAATGCTGGGATTACAGGTGTGAGCCACCGTGCCTGGCCAATTCCAACATTCTTAAATTCTCTCATCCC
TCCAGGGCTCCCCGTGCTATGTTCTCTTTACCCCTTCCCCCTCTTCTCTTGCTCAGGCCTGCACCACTGCAGCCA
CCGTTCATTTATTCATTCATTAAACACTGAGCACTCACTCTGTGCTGGGTCCCGGGAAGGGTGAGGGGGTCAGAC
ACAGGCCCTGCCCCTGCCCTCAGTGACTGGCCAGTCCAGCCCAGGCGGGGAGAGATGTGTACATAGGTTTTAAAG
CAGACCCAGAGCTCATGGGGGCCTGTGTTCTGGGTGTTCAGGTGCTGCTGGTCCTCCATTACCCACTGCTCCCCA
AGGCTGGTGGGACGGGGTCCCGGTGGCAGGGGCAGGTATCTCCTTCCCGTTCCTCATCCACCTGCCCAGTGCTCA
TCGTTACAGCAAACCCCAGGGGGCCTTGGCCAGGTCAAGGGTTCTGTGAGGAGAGGACCCAGGAGTGTGGGGGCA
TTTGGGGGGTGAAGTGGCCCCCGAAGAATGGAACCCACACCCATAGCTCTCCCCACAGCTGATACGGCATCCTGC
GAGAAGACCTGCCCTCCTCACTGGGATCCCCTTCCTGCCTCCTCCCAGGGCTCTGCCAGGGCCTTGCTCAGTCCC
TTCCACCAAAGTCATCTGAACTTCCGTTTCCCCAGGGCCTCCAGCTGCCCTCAGACACTGATGTCTGTCCCCAGG
TGCTCTCTGCCCCTCATGCCCCTCTCACCGGCCCAGTGCCCCGACTCTCCAGGCTTTATCAAGGTGCTAAGGCCC
GGGTGGGCAGCTCCTCGTCTCAGAGCCCTCCTCCGGCCTGGTGCTGCCTTTACAAACACCTGCAGGAGAAGGGCC
ACGGAAGCCCCAGGCTTTAGAGCCCTCAGCAGGTCTGGGGAGCTAGAGCAAAGGAGGGACCTCAGGCCTTCCGTT
TCTTCTTCCAGGGTGGGGTGGCCTGGTGTTCCCCTAGCCTTCCAAACCCAGGTGGCCTGCCCTTCTCCCCAGAGG
GAGGCGGCCTCCGCCCATTGGTGCTCATGCAGACTCTGGGGCTGAGGTGCCCCGGGGGGTGATCTCTGGTGCTCA
CAGCCGAGGAGCCGTGGCTCCATGGCCAGATGACGGAAACAGGGTCTGACCAAGTGCCAGGAAGACCTGTGCTAT
AAACCACCCTGCCTGATCCTGCCCCTGCCTGACCCCGCCACGCCCTGCCGTCCAGCATGATTAAAGAATGCTGTC
TCCTC

FIGURE 4005

ATCCCCACCCAAAGCCTGATGGCACCCCGGCTGGCCATGCTGTCCCCTCCCTGTGGCGTTTCTTAGCAGATGGCT
GCAGAGCTTCGTTGATGGTCTTTTCTGTACTGGAGGCCTCCTGAGGCCAGGAACGTGCAAATTTGCAGGTGCTGC
ATCCCAAGCCCCTCATGCTCCTGCCTTCCTGAGGGCCAGAGGGGAGCCCCAGGACCCATTAAGCCACCCCCGTGT
TCCTGCCGTCAGTGCCAACTGCCGC**ATG**TGGAAGCATCTACCCGTTCACTCCAGTCCCACCCCACGCCTGACTCC
CCTCTGGAAACTGCAGGCCAGATGGTTGCTGCCACAACTTGTGTACCTTCAGGGATGGGGCTCTTACTCCCTCCT
GAGGCCAGCTGCTCTAATATCGATGGTCCTGCTTGCCAGAGAGTTCCTCTACCCAGCAAAAATGAGTGTCTCAGA
AGTGTGCTCCTCTGGCCTCAGTTCTCCTCTTTTGGAACAACATAAAACAAATTTAATTTTCTACGCCTCTGGGGA
TATCTGCTCAGCCAATGGAAAATCTGGGTTCAACCAGCCCCTGCCATTTCTTAAGACTTTCTGCTGCACTCACAG
GATCCTGAGCTGCACTTACCTG**TGA**GAGTCTTCAAACTTTTAAACCTTGCCAGTCAGGACTTTTGCTATTGCAAA
TAGAAAACCCAACTCAACCTGCTTAAGCAGAAAATAAATTTATTGATTCAAGTTTGGAG

FIGURE 4006

CCATGGCTCAGCCTCTGGGTCCAGAGCCTCAGCTCCTACCTCTTCCCTCCTTGCCAGCCCCTGATGCCTGCCAGA
CTTTTGCCTCTGCTGGAGCCCCTGCCTGACCAGCTTCCCCTCCCTGTCTGGTTGGGATTTGGGGGCTGAGCTGTC
TGGGGTCCCAGGGCCAACCA**ATG**CAGTGCCGGCTCCCGCGGGGCCTGGCTGGAGCCCTCCTCACCCTCCTGTGCA
TGGGGCTCCTGTGTCTGCGGTACCACTTGAACCTGTCCCCGCAGCGGGTACAAGGGACCCCCGAGCTGAGCCAGC
CGAACCCGGGGCCCCCTAAGCTACAGCTACACGATGTCTTCATTGCAGTGAAGACGACCCGGGCTTTCCACCGCT
TGCGCCTGGAGCTGCTGCTTGACACGTGGGTTTCCAGGACCAGGGAACAGACATTTGTCTTCACCGACAGCCCAG
ACAAAGGCCTCCAGGAGAGACTGGGGTCCCACCTTGTGGTCACCAACTGCTCCGCGGAACACAGCCACCCAGCTC
TGTCCTGCAAGATGGCTGCTGAGTTCGACACCTTCTTGGCCAGTGGGCTTAGGTGGTTCTGCCATGTGGACGATG
ACAACTATGTGAACCCAAGGGCGCTGCTGCAGCTTCTGAGAGCCTTCCCGCTGGCCCGCGACGTCTATGTGGGAA
GGCCCAGCCTGAACCGGCCCATCCATGCCTCAGAGCCACAGCCCCACAACCGCACGAGGCTGGTACAGTTCTGGT
TTGCCACTGGGGGTGCTGGCTTCTGCATCAATCGCAAACTGGCTTTGAAGATGGCTCCGTGGGCCAGTGGCTCCC
GTTTCATGGACACATCTGCTCTCATCCGGCTGCCTGATGACTGCACCATGGGCTATATCATTGAGTGCAAGCTGG
GCGGCCGCCTGCAGCCCAGCCCCCTCTTTCACTCCCACCTGGAGACCCTGCAGCTGCTGAGGACTGCACAGCTCC
CAGAACAGGTCACCCTCAGCTACGGTGTCTTTGAGGGGAAACTCAACGTCATTAAGCTACAGGGCCCCTTCTCCC
CGGAGGAGGACCCCTCCAGATTTCGCTCCCTCCATTGTCTGCTCTATCCAGATACACCCTGGTGTCCCCAGCTGG
GTGCCCGA**TGA**ATCCTGAACTGCTGGGCAAAGGTTGGGCAGAGACTTCTGGGTGTGCCTTGGCTCCCAAGGTGGC
ACTGTGGGTCCCTGGCAAGTGTCTTGTGATAGGCAGTCCCTGGCAGGGCCTTCGGGTGGTTGGCAAGCCCAGGAT
CTGAGTGGCAATTGGCACTGAAGGCACCCCAGGCCCCTGGGAGGTGAGTTAGACAGCCCAGGGGACCAGGTGGAC
CAGGTGGTGGCCAGAGAGGCTCCAGGGGCTAGACTCCCTCAGGAGGCTGAATTGAAAAAGGGCAGGGGGCACTTG
AGCTGGGCTGGGGCTCAGGGGTCCTAACCCTTTAGGCAGTGACATGGCCTCTGGGTGGGGTCTGGCCGTTGGCCC
TGGCTAATGTCTCTCAGTCATTCCCCTGGGGCTCAAGCGCTGGGCCGCCCACTCCTGCCTCCCTCATCTGTGTCC
CGAGTTCCTGAAGGGACATGGGTGGAATGATGGCAGAATCCAGGGTCTGCAGCACCTGCTGTTGTTGCCAACCAG
TCTCCCAAAGCTCCTTGCTCCCCACCCCTTGCGAACAGGACCAGATTTTGTTTGGAGCCTCAGCATGCCGGGGCC
CAGATGATGGAGCATAACGGGTCCCAGCCAATTGTGATGATCCTTTTTGCTCATTTCCCAGCCTTTCTTGCTGTT
AGGGGCTACCATGGGACCAGCTCTGGCCAGAGGGAACTAAGCAAATCCAATAGAGATGTTTCTGGGGAAGGTTTT
GCAGCCCACTCCCCATCTTCCTGCTATAAATGTGGGTGTGATGGCTGGATCTGGGGCAGCCACCTTGCTACCATG
AAGGAAAGGCCAAGACAATCATCCACAGCTATTCCCTCCAGCATCTGGTTCTGTACAAAAATTAAATGCTTATTT
GTTTAAGTC

FIGURE 4007A

CCCCGTGCGCCTCTTGCCCGCAGACCCTGAGGACACGGCC**ATG**CCGGGCCGGGCGGAGGCGGGGGAGGCCGAGGA
GGAGGCCGGGGCCGGCTCGGGGTCTGAGGCGGAGGAGGACGCGCTGTGGGAGCGAATCGAGGGCGTCCGGCATCG
GCTGGCTCGCGCCCTGAACCCGGCCAAGCTCACGCCGTATCTGCGCCAGTGCCGGGTCATCGACGAGCAGGACGA
GGAGGAGGTGCTGAGCACCTACCGCTTCCCGTGCCGCGTCAACCGCACCGGGCGCCTGATGGACATCTTGCGCTG
CCGTGGCAAGAGGGGCTATGAGGCCTTCCTGGAAGCCCTGGAGTTCTACTACCCCGAACACTTCACGCTGCTCAC
GGGCCAGGAACCCGCCCAGCGCTGCTCCATGATCCTCGATGAGGAGGGGCCTGAGGGCCTGACCCAATTCTTGAT
GACAGAGGTGCGACGGCTGCGGGAAGCTCGCAAGAGCCAGCTGCAGCGGGAGCAGCAACTGCAGGCCCGGGGCCG
GGTGCTCGAGGAGGAGCGGGCAGGGCTGGAGCAGCGGCTGCGGGACCAGCAGCAGGCTCAGGAGCGCTGTCAACG
GCTGCGGGAGGACTGGGAGGCGGGCAGCCTGGAGCTGCTGCGGCTCAAGGATGAGAACTACATGATCGCCATGCG
CCTGGCACAGCTCAGTGAGGAGAAGAACTCGGCTGTACTTCGCAGCCGTGACCTGCAGCTGGCGGTGGATCAGCT
CAAGCTCAAAGTGAGTCGGCTGGAGGAAGAGTGTGCACTGCTTCGAAGGGCCAGGGGCCCGCCCCCTGGGGCAGA
GGAGAAGGAGAAGGAGAAGGAGAAGGAGAAGGAGCCAGACAATGTGGACCTTGTCTCTGAGCTGCGTGCTGAGAA
CCAGCGGCTGACGGCGTCACTGCGGGAGTTGCAGGAGGGCCTGCAGCAGGAGGCGAGCCGGCCGGGGGCCCCGGG
CTCCGAGCGCATCCTGCTGGACATCCTAGAGCATGACTGGCGGGAGGCGCAGGACAGCAGGCAGGAGCTGTGCCA
GAAGCTGCATGCCGTGCAGGGGGAGCTGCAGTGGGCCGAGGAGCTGCGCGACCAGTACCTGCAGGAGATGGAAGA
CCTGCGGCTCAAGCACCGCACGCTGCAGAAGGACTGTGACCTGTACAAGCACCGCATGGCCACTGTCCTGGCCCA
ACTGGAGGAGATTGAGAAGGAGCGAGACCAGGCCATCCAGAGCCGTGACCGGATCCAGTTGCAGTACTCACAGAG
CCTCATCGAGAAGGACCAGTACCGCAAGCAGGTGCGGGGCCTGGAGGCGGAGCGGGATGAGCTGCTGACAACGCT
CACCAGCCTGGAGGGCACCAAGGCTCTGCTGGAGGTTCAGCTGCAGCGGGCCCAGGGTGGCACCTGCCTCAAGGC
CTGTGCCTCCTCCCATTCCCTGTGCTCCAACCTCAGCAGCACTTGGAGCCTGAGCGAGTTCCCCTCCCCTCTGGG
AGGCCCAGAAGCAACTGGGGAGGCAGCTGTCATGGGGGGACCTGAGCCTCACAACTCGGAGGAAGCCACAGACAG
TGAAAAGGAGATCAATCGGCTCTCCATCCTGCCCTTCCCCCCCAGTGCCGGCTCCATCCTCCGCCGGCAGCGTGA
GGAAGACCCCGCACCCCCTAAGAGATCCTTCAGCAGCATGTCAGACATCACAGGGAGTGTGACACTTAAGCCCTG
GTCCCCTGGCCTCTCTTCGTCCTCATCCTCTGACAGCGTGTGGCCTTTGGGAAAGCCGGAAGGCCTCCTGGCTCG
GGGCTGTGGCCTGGACTTCCTCAACAGGTCTCTGGCTATTCGGGTGTCTGGCCGGAGCCCCCCAGGGGGCCCAGA
GCCGCAGGACAAGGGACCAGATGGACTGTCGTTTTATGGGGACAGATGGTCTGGGGCTGTGGTGCGCAGGGTGCT
GTCTGGGCCTGGGTCCGCCAGGATGGAACCAAGAGAGCAAAGGGTGGAAGCTGCTGGTCTGGAGGGGGCGTGCCT
GGAAGCCGAGGCCCAGCAGAGAACCTTGCTCTGGAATCAGGGGTCCACACTCCCCTCCCTGATGGACTCGAAGGC
CTGCCAGTCCTTCCACGAGGCCCTAGAAGCCTGGGCAAAGGGACCAGGTGCCGAGCCCTTCTACATTCGTGCCAA
CCTCACCTTGCCTGAGAGGGCAGATCCCCATGCCCTTTGCGTGAAAGCCCAAGAGATCCTTCGACTGGTGGACTC
GGCATACAAGCGGAGGCAGGAATGGTTCTGCACCCGGGTTGACCCCCTCACTCTGCGGGACCTGGACCGGGGCAC
CGTGCCCAATTATCAGAGAGCCCAGCAGCTCCTAGAAGTTCAGGAGAAATGCCTGCCCTCCAGCCGGCACCGAGG
CCCCCGCAGTAATCTGAAGAAGAGAGCCCTGGACCAGCTGCGGCTGGTGAGGCCCAAGCCCGTGGGGGCGCCTGC
AGGGGACTCCCCGGATCAGCTGCTGCTGGAGCCCTGTGCAGAGCCGGAGCGGAGCCTCAGACCCTACAGTTTGGT
GCGGCCGCTACTGGTGTCTGCCCTGCGGCCCGTGGTGCTGTTGCCTGAGTGCCTGGCGCCCCGGCTCATCCGTAA
CCTGCTAGACCTGCCCAGCTCCCGGCTGGACTTCCAAGTGTGCCCAGCGGAAAGCCTCTCTGGGGAGGAACTGTG
CCCATCCTCAGCGCCTGGAGCCCCCAAGGCTCAGCCTGCCACCCCTGGGCTAGGCAGCAGGATCCGGGCCATCCA
GGAGTCTGTTGGGAAGAAGCACTGCCTGCTGGAGCTGGGTGCTCGGGGTGTGCGGGAGCTGGTGCAGAACGAGAT
CTACCCCATCGTCATCCACGTGGAGGTGACTGAGAAGAATGTCCGGGAAGTCAGGGGTCTGCTGGGCCGGCCGGG
CTGGCGGGACTCAGAGCTGCTGCGGCAGTGCCGTGGCTCAGAGCAGGTGCTCTGGGGGCTGCCCTGCTCCTGGGT
GCAGGTGCCCGCCCATGAGTGGGGACACGCAGAGGAGCTGGCCAAGGTGGTGCGCGGCCGCATCCTGCAGGAGCA
GGCCCGCCTCGTGTGGGTGGAGTGCGGCAGCAGCAGAGGCTGCCCCAGCAGCAGTGAGGCC**TGA**GGCTCATCTGA
TACCTGCACCTTCTCCCCAAGCCAGCGTGGACCCTGGTGTCTATGGTGAAGCTGGGCCCTCCCACCCTGAGCCTT
CCTAGACCCTTGGACTCTCAGATGCAGGGCCCTTGGCTCTGGCCTCTCACCCCCAAGGCTGTCTCTGGCCCTGCC
GAGCCTATGGGAGTCCCGGGACAGAGTGCCCACTCCCCTCTACTTGCTGCTCTGGGCCTCCCCACCTTTCCTGGG
GTCTCCACATTCCCACTAGTGGGTCTTATGTGTGTCTGTGTCTTCTCCTTAAACACTCGCCCTGGAGTCTGTTCT
CACACCTGTGCGCAGGTTTGCACACTCAAGTTCTCATGGGCAGGCTCAGGTCTGTCCCGCTGCCCTGGGCACGAG
GTCTCCTGAGGACCTGGGCCTGTTCTGCTCCTAGGAGACCTGAGCCCGTTACCGCGTGACTCCCACCATCCAGCT

FIGURE 4007B

CGCGCTCCTCGTGGATTCAGCCATGCATGGACTGGGGTGTTCCCTGGCCCATGGTCACCTGTGCCCCTCGTGTCT
CCTCACATGGGTGTCTGTGGTTCTCTCCTGTGTAAATGTCACGCCCCACCCCTGTTTCATGTGGGCACTAACACG
TGTGCGTTCCTGGCGGGCACACTCAGGACCGTGCCTCACAGGGCCCACTCCCTGCCTATGCCTCCCTCTTGGGGG
GCCGAGGAGGGCGGCTGCTCTGTCATGAGAATGTACGGCCCGTGGATGATTAACGGGCCTTTTTCACTTAGAAGC
TGCACATTATGGAGCATTAAACACTTTTGTCAT

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FIGURE 4008

GCGACTCTCCCGGGCTGCCAGCCGGGACGCGCGGCCGCCGCTGCAGACGACGAGTCCGCCCTCGTCCCGCGC
CCCCGGGGCTCGCGGAGCCAGGTCTCCACCTCTGGGCAGGAGAGTTGCCGACCACCTCGGGGGTGCTTTCTCTGC
GCTTGAACATCTATAGCTGCTTCTGAGGGGCTGGGAGCCGGGCCCCTGGGAGAGACGAGCCATGAACCCCCCACA
GCCTCTGCATTTGGGGACCTCACCTTAGGAGAGTGCCATTTACAGCTTCCGCCAGGGCAAAGGAGCTGAGCAGCC
ATCCCAAGCCCAGCCCACCTCCCTCCCCCGGCCCCTGGTAGGCATGGACTAGCAGCTGTGAGCAGCCAGAGCTG**A**
TGCCCGGCCCCCAGGGGGGCAGAGGCGCCGCCACCATGAGCCTGGGCAAGCTCTCGCCTGTGGGCTGGGTGTCCA
GTTCACAGGGAAAGAGGCGGCTGACTGCAGACATGATCAGCCACCCACTCGGGGACTTCCGCCACACCATGCATG
TGGGCCGTGGCGGGGATGTCTTCGGGGACACGTCCTTCCTCAGCAACCACGGTGGCAGCTCCGGGAGCACCCATC
GCTCACCCCGCAGCTTCCTGGCCAAGAAGCTGCAGCTGGTGCGGAGGGTGGGGGCGCCCCCCCGGAGGATGGCAT
CTCCCCCTGCACCCTCCCCGGCTCCACCGGCCATCTCCCCCATCATCAAGAACGCCATCTCCCTGCCCCAGCTCA
ACCAGGCCGCCTACGACAGCCTCGTGGTTGGCAAGCTCAGCTTCGACAGCAGCCCCACCAGCTCCACGGACGGCC
ACTCCAGCTACGGCCTGGACTCTGGGTTCTGCACCATCTCCCGCCTGCCCCGCTCGGAAAAGCCGCATGACCGAG
ACCGGGATGGTTCCTTCCCCTCTGAGCCCGGGCTTCGCCGCTCTGACTCTCTCTTGTCCTTCCGCCTGGACCTCG
ACCTTGGGCCCTCACTCCTCAGCGAGCTGCTAGGGGTCATGAGCCTCCCAGAAGCCCCTGCAGCTGAGACTCCAG
CCCCCGCTGCAAACCCCCCAGCCCCTACTGCAAACCCCACGGGTCCTGCTGCAAACCCCCCAGCCACTACTGCAA
ACCCCCCAGCGCCTGCTGCAAACCCCTCAGCACCTGCCGCAACCCCCACGGGTCCTGCTGCAAATCCCCCAGCCC
CTGCCGCAAGCTCCACACCCCATGGACACTGTCCCAATGGGGTAACAGCTGGGTTGGGCCCAGTGGCTGAGGTGA
AGTCCAGCCCAGTGGGAGGGGGTCCCCGAGGACCTGCTGGCCCTGCCCTCGGCAGGCACTGGGGAGCAGGCTGGG
ATGGCGGCCACCACTACCCAGAGATGGATGCGCGGCAGGAGCGGGTGGAGGTGCTGCCCCAAGCCCGGGCCTCCT
GGGAGAGCCTGGACGAAGAGTGGAGGGCGCCCCAGGCAGGCAGCAGGACCCCAGTGCCCAGCACAGTGCAAGCAA
ACACCTTTGAATTTGCGGATGCTGAGGAGGATGATGAGGTCAAGGTG**TGA**GGGGCTGGGGCACGGTCCCAGGGCC
CCACCTAGGTGCAGAGCCGGCCCCTCACCTAACAGCTGGTTCCTACCAGACCGGAGAGGGGAGAAGTCATGTTGC
CCCTAAACCCCTCCCCACCTCTGCAGGACAGACATGGGAGGGAGGACAGGGAAGGCCAGGCTTGCTCTGGGACTT
TTATGCTCCCAGAGGCCCTGCCAAACTGACCACCTCCCCCGACTGCCACTCTGGACCTAATAGCTGTTCCTTAGG
CCCCACTCCATGCCACCCCCACCAGCTGGAGGACCCAGCCTCACAGTGTGTCCTTTGTGCCAGACCAAGCGGCCC
GTGGGGGGTGGGGGGCAGGGAGTGTACCACACAGGGCCATTGTCTCACCTCCCAAAGGGACCGCCTGCCCCCAGC
TCATCCCAGAGCGTCCCTGCTGCAACCCTGACAGCCGTCTCCCAGGCCGCTTCCCCAACATCCCCGCCCCAGCCT
CCCTCTTACCCCAGAAAGGTCAGGTATGACCTCCCGGGGAGGAATCCCACCTGCCTGTATACCCCAGACTTGCCT
CTGGGGCCTGATTAAATAAGGCTGTTTTGAT

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FIGURE 4009

GGGGGCCGGTGGCGG**ATG**GAGCCCGCGATGGAGCCGGAGACTCTGGAGGCGCGAATCAATAGAGCCACGAACCCC
CTGAACAAGGAGCTCGACTGGGCCAGCATCAACGGCTTCTGCGAGCAGCTCAACGAGGACTTTGAGGGGCCTCCA
CTCGCCACCCGGCTGCTGGCCCACAAGATCCAGTCCCCACAGGAGTGGGAGGCGATCCAGGCCTTGACGGTGCTG
GAAACATGCATGAAGAGCTGCGGCAAGCGGTTCCACGACGAAGTGGGCAAGTTCCGCTTTCTCAACGAGCTCATC
AAGGTCGTGTCTCCCAAGTATCTGGGCTCTCGGACATCGGAGAAGGTGAAGAACAAGATCTTGGAGCTCCTCTAC
AGCTGGACAGTGGGCCTGCCCGAGGAGGTGAAAATCGCAGAGGCCTACCAGATGCTAAAGAAGCAGGGGATTGTA
AAGTCCGACCCCAAGCTTCCAGATGACACTACCTTTCCCCTTCCTCCTCCACGGCCGAAGAATGTGATCTTTGAA
GATGAGGAGAAATCCAAGATGCTGGCCCGCCTGCTGAAGAGCTCCCATCCCGAAGACCTCCGCGCAGCCAATAAG
CTCATCAAAGAGATGGTGCAGGAGGACCAGAAGCGGATGGAGAAGATCTCGAAGAGGGTGAATGCCATCGAGGAG
GTGAACAACAATGTGAAACTGCTCACGGAGATGGTGATGAGCCACAGCCAGGGCGGCGCAGCAGCTGGCAGCAGC
GAGGACCTCATGAAGGAACTGTACCAGCGCTGTGAGCGGATGCGGCCCACGCTCTTCCGACTGGCGAGTGACACA
GAGGACAATGATGAGGCCTTAGCGGAGATCCTGCAGGCCAATGACAACCTCACCCAGGTGATCAACCTGTATAAG
CAGCTGGTGCGGGGTGAGGAGGTCAACGGTGATGCCACAGCCGGCTCCATCCCTGGGAGCACCTCGGCCCTGCTG
GATCTCTCAGGCCTGGATCTCCCGCCTGCGGGCACCACCTACCCAGCTATGCCCACCCGCCCTGGCGAGCAGGCC
AGCCCTGAGCAGCCCAGTGCCTCAGTTTCCCTGCTTGACGACGAGCTCATGTCTCTGGGCCTCAGTGACCCCACA
CCCCCTTCAGGCCCAAGCCTGGATGGTACCGGATGGAACAGCTTCCAGTCGTCGGATGCCACTGAGCCCCCAGCC
CCTGCTCTGGCCCAGGCCCCCAGTATGGAAAGCCGACCCCCAGCGCAGACATCCCTGCCAGCAAGCAGCGGTCTG
GACGACCTAGACCTCCTGGGGAAGACCCTCCTGCAGCAGTCGCTGCCCCCGGAATCCCAGCAAGTGCGGTGGGAG
AAGCAGCAGCCAACCCCCCGGCTCACACTCCGGGACCTGCAGAATAAGAGCAGCAGCTGCAGCTCCCCCAGCTCC
AGCGCCACCAGCCTTCTCCACACCGTGTCCCCAGAGCCCCCCAGGCCTCCGCAGCAGCCCGTACCAACCGAGCTC
TCACTGGCCAGCATCACTGTGCCCCTGGAGTCCATCAAACCCAGCAACATCCTGCCCGTGACTGTGTATGACCAG
CACGGCTTCCGCATCCTCTTCCATTTTGCCCGGGACCCACTGCCAGGGCGCTCCGACGTGCTGGTGGTGGTGGTT
TCCATGCTGAGCACCGCCCCCCAGCCCATCCGCAACATCGTGTTCCAGTCAGCTGTCCCCAAGGTTATGAAGGTG
AAGCTGCAGCCACCCTCGGGCACGGAGCTGCCAGCTTTTAACCCCATCGTCCACCCCTCAGCAATCACCCAGGTC
CTGCTGCTTGCCAACCCCCAGAAGGAGAAGGTTCGCCTCCGCTACAAGCTCACCTTCACCATGGGTGACCAGACC
TACAACGAGATGGGGGATGTGGACCAGTTCCCCCCACCTGAAACCTGGGGTAGCCTC**TAG**AACAGAGGGGCTGGG
GAGAGGAAGGGGCAGAGGGACCGGTCACTGTCCAGCCTGGAGGGAGGCATTGGTGGCCAAGGACACCCTTTGTTG
CCCATGGCCATTCACCCCCAGGCCTGGTGCTTCTCCCCACACCCCTGTAGGCCTCAAGTGACTCTTCCCCCTCCT
GCTCCGGCCCCGCCCCTGCTGAGCCAAACCCAGTAGGAGGCTGGGCCTGGGTTTGTGCCGCTGGGGTCTCCATCA
CCGGGACCTGGAGAGGGAGGGGCTGTGTAGCCTTGGAAGAACTTGGGTCATGGGGAGGAAGCACAGCTGTTGGGG
AAGGGCCAGGACCTCAGGCCCAGCCCCAACCCCAGCTGGGGTGGGGTCTTCCCCACCTGTCTCTTATGCCTTATG
GGAAGGCCCAGCCATAACTCGGGGGCCATGCTGGAGCTGGGGACCAGCTTAGGCCTCCTCCATAGGAACCCAGTG
ACTGGGGGGGTGACGCCTACACCCCCAGCTATTTGCACTCTGGTGTGTGGTTTGACTCTGCTTTTCTTCCGGATTG
GCCCTGTGGTCACAGCCTCAGGGGGCCAGGCTGGGGGAACCTCACCTGGCCCGTACTCCTGGGGGGTTTCCCTTTG
CCATTGGGCCCCCTGAGGGACTGTGGGGGCTCAAGGGTAATGCCAGAGGCCCATGGCCCCAGCGAGGGGCTGTGG
GGCACCTAGAGTTCTCGGTGTGTCTCCTTCATTCATTGGCCTCTGCTGGGGCCTCCTATGGGTGTCTTACGTCTG
TCCATCCATCTGTCCGTGGTCAGAAGTGGGGTCAGTGTGTGAGTGAGAGCAGGAGTATTTATGAAAATAAAACGT
CGTTTTTCCTGG

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FIGURE 4010

CAGGTAGAACAGCGGCTGGAGCCGGCCAAGCGGGCAGCCCACAACATCCACAAGCGGCTGCAGGCCTGTCTGCAG
GGCCAGAGCGGGGCAGACATGGACAAGCGGGTGAAGAAGCTTCCCCTCATGGCTCTGTCCACCACG**ATG**GCTGAG
AGCTTCAAGGAGCTGGACCCTGATTCCAGCATGGGGAAGGCCTTGGAGATGAGCTGTGCCATCCAGAATCAGCTG
GCCCGCATCCTGGCCGAGTTTGAGATGACCCTGGAGAGGGACGTCCTGCAGCCACTCAGCAGGCTGAGTGAGGAG
GAGCTGCCAGCCATCCTCAAACACAAGAAAAGCCTCCAGAAGCTCGTGTCCGACTGGAACACACTCAAGAGCAGG
CTCAGTCAGGCAACCAAGAATTCAGGCAGCAGTCAAGGCCTAGGAGGCAGCCCGGGTAGTCACAGCCATACGACC
ATGGCCAACAAGGTGGAGACGCTGAAGGAGGAGGAGGAGGAGCTGAAGAGGAAAGTGGAGCAATGCAGGGACGAG
TACTTGGCTGACCTGTACCACTTTGTTACCAAGGAGGACTCCTATGCCAACTACTTCATTCGTCTCCTGGAGATT
CAGGCCGATTACCATCGCAGGTCACTGAGCTCGCTGGACACAGCCCTGGCTGAGCTGAGGGAGAACCACGGCCAA
GCAGACCACTCCCCTTCGATGACAGCCACCCACTTCCCCAGGGTGTATGGGGTGTCGCTGGCAACCCACCTGCAA
GAGCTGGGCCGGGAGATTGCCCTGCCCATCGAGGCCTGCGTCATGATGCTGCTTTCTGAGGGCATGAAGGAAGAG
GGTCTCTTCCGTCTGGCTGCTGGGGCCTCGGTGCTGAAGCGTCTCAAGCAGACAATGGCCTCGGACCCCCACAGC
CTGGAGGAGTTCTGCTCCGACCCGCACGCTGTGGCAGGTGCCCTCAAGTCCTATCTGCGGGAGCTGCCAGAGCCT
CTGATGACCTTCGACCTCTATGATGACTGGATGAGGGCAGCCAGCCTGAAGGAGCCAGGGGCCCGGCTGCAGGCC
CTCCAAGAGGTGTGCAGCCGCCTACCCCCCGAGAACCTCAGCAACCTCAGGTACCTGATGAAGTTCCTGGCACGG
CTGGCCGAGGAGCAGGAGGTGAACAAGATGACACCCAGCAACATCGCCATAGTCCTGGGACCCAACTTGCTGTGG
CCACCTGAGAAAGAAGGGGACCAGGCCCAGCTGGATGCAGCCTCCGTGTCTTCCATCCAGGTGGTGGGCGTCGTC
GAGGCGCTGATCCAGAGCGCAGACACCCTCTTCCCTGGAGACATCAACTTCAACGTGTCAGGCCTCTTCTCAGCT
GTTACCCTCCAGGACACAGTCAGTGACAGGCTGGCCTCTGAGGAACTTCCGTCCACTGCCGTGCCCACCCCAGCC
ACCACCCCGGCTCCGGCTCCGGCTCCAGCTCCAGCTCCGGCCCCAGCCTTGGCTTCAGCAGCTACCAAGGAAAGG
ACAGAGTCTGAGGTGCCTCCCAGACCAGCCTCCCCCAAGGTCACCAGGAGTCCCCCGGAGACAGCTGCCCCAGTG
GAGGACATGGCTCGGAGGACCAAGCGCCCGGCGCCAGCCCGGCCCACCATGCCGCCCCCCCAGGTCTCCGGCTCC
CGCTCCTCCCCTCCAGCCCCGCCCTTGCCCCCTGGCTCTGGCAGCCCTGGGACCCCCCAAGCCCTGCCCCGACGT
CTGGTTGGCAGCAGCCTCCGAGCCCCCACAGTGCCACCCCCGTTACCCCCCACACCCCCTCAGCCTGCCCGGCGC
CAAAGCCGGCGTTCACCAGCCTCCCCCAGCCCGGCCTCCCCAGGTCCAGCCTCCCCCAGCCCAGTCTCTTTGAGT
AACCCTGCACAGGTGGACCTGGGGGCTGCCACAGCAGAGGGAGGAGCCCCTGAGGCTATCAGTGGGGTCCCCACT
CCCCCAGCTATCCCCCCTCAGCCCCGCCCCAGGAGCCTTGCCTCAGAGACCAAC**TGA**GTGGCTGGTTTCTCCCTA
AGCAGCCCTCAGCACCCCCTCCCTCCCCACCTGGCCCTCCCAGGACAGCTCTCGCCCCCCACAAAGGGGCATGGG
CCTCCAGCCTTTGCCCACAAGTGCCTCAGTGCCCACTGGGTCGGCCCCCATGGCCAGGAGGGCTCAGGACAATCC
TCTATTTCCTGACCTTTTCCTCGTCCACCCTGGGCTTGGGGACCCCCCCACCGGACTCTCCACTCTCCGGCAGGT
CCTAGGGGAGCCACCGGAAGGAAGGAGAGGTTTGCCTGCTCCTACGGGACTGATTCTTCTCTTGCCGACATGTTT
TTTGTAAGGCTGGTAAATAAATTATTTTGGAC

FIGURE 4011

GCCGTGCCCGCGGAGAGAGCGCGGCGCGGGAGGCCGGCGGCCGGCCGGCTGC**ATG**GCGCGCTGCGAGAGGCTGCG
CGGAGCGGCCCTGCGCGACGTGCTGGGCCGGGCGCAGGGGGTCCTGTTCGACTGTGACGGGGTGCTGTGGAACGG
CGAGCGCGCCGTGCCGGGCGCCCCGGAGCTGCTGGAGCGGCTGGCGCGGGCCGGCAAGGCGGCTCTGTTTGTGAG
CAACAACAGCCGGCGCGCGCGGCCCGAGCTGGCCCTGCGCTTCGCGCGCCTCGGCTTCGGGGGGCTGCGCGCCGA
GCAGCTCTTCAGCTCCGCGCTGTGCGCCGCGCGCCTGCTGCGCCAGCGCCTGCCCGGGCCTCCGGACGCGCCGGG
CGCCGTGTTCGTGCTGGGCGGCGAGGGGCTGCGCGCCGAGCTGCGCGCCGCGGGGCTGCGCCTGGCCGGGGACCC
GAGCGCGGGGGACGGCGCGGCCCCGCGCGTGCGCGCCGTGCTTGTGGGCTACGACGAGCACTTCTCCTTCGCCAA
GCTGAGGGAGGCGTGCGCGCACCTGCGCGACCCCGAGTGCCTACTCGTGGCCACCGACCGTGACCCATGGCACCC
GCTGAGCGACGGCAGCCGGACCCCTGGCACCGGGAGCCTGGCCGCTGCAGTGGAGACAGCCTCGGGACGCCAGGC
CCTGGTGGTGGGCAAGCCCAGCCCCTACATGTTCGAGTGCATCACGGAGAACTTCAGCATCGACCCCGCACGCAC
GCTTATGGTGGGTGACCGCCTGGAGACCGACATCCTCTTTGGCCACCGCTGCGGCATGACCACTGTGCTCACGCT
CACAGGAGTCTCCCGCCTAGAAGAGGCCCAGGCCTACCTAGCGGCCGGCCAGCACGACCTCGTGCCCCATTACTA
TGTGGAGAGCATCGCAGACTTGACAGAGGGGTTGGAGGAC**TGA**GCCCACTGCACCTGCAGCCACAGGCCCACCCC
TCCCCACTCCCTGATCCCGTAGGTGGAGGCGATGGGTCACGAGCCATGTTAAGCACAACCGGCTCCTTGGTCCAG
TTCTGCACCGGGGTGGGGCTGGGACCCGGGGAAGGTTTGAGGGCCCTTGCAACCCCCTCCCAGCAGTGGCTGGGC
ACTCTTTGCTGCCCCAGAAGCTGGTCCCCTATGGATTCATCTTGGCCTGACCCAGCCAGGTGGCCTTATTTCTTC
CCTGTCACCTCCCCTCCTTGAAATCTGGGCCCTGGTGCCTGCTGAAGATTCCCTCTATCCCTGAGTACTTAGTCT
TCTCCCCCTTCCCTGGGGCTTCTAGAGCTCTCTCTGCCCCTCAGGTCCTGGCCCTTGGGTCCTTGTCAACCAGAG
GTCTAGGGAACCACAACCCTTATTGTCCTGGGTGGACCAATCCAAAGGCTAAGTGATAGTGACTCATCAATGTTG
GGTCCTGTGGGGTACCAGTTTAGGTTCCTAAGTAATAGTGACCCTTTCACGTCCTGGAGCCCGAGTGGACCAATC
GGAAGCCTAAGTGACGATGACCCTCGCATGTCCTAGGTCCCTGGGTGGACCCATCAGGACCCCAAGTGATAGTGA
CCCAGTGGTCTTTTAGATCCTCAGTAGAACAGTCCAGAAGCCTGAGAGACAGTGGCCCCTTGATAATCTGGGTCT
CACGGGACCAGCTAGGGGTCCAGGTTTCAGTCAGTAAATAAGAGTGGTCCACGTCCTAAAGACACCTCTCCTTTA
CAAAGACTTGTGATGCTCTGGGGCTTCTGTGGCCAAGCCCCACCCTTTCCTGGTCATGGTACCCGTACAGCGTTG
ATGGCCACAGCTCGAAGGGGGGCTTTCGTGTCCCCCTGTGCGGTCAGTGTTTTCAGTACCACCTCTCTCCCGTGC
CCACTTGGCTATTTACTTATTTATTTATTGTGTGCCAGTGATGGTGGGTGGGGGCTGGGCCTTCCCCGCCACCTC
CACCCCTGTTGTGACCTGTCCTTCCGTACTTAATAAAGTGCGCGTGGGAGTGTT

FIGURE 4012

ATCTCTCTCGGGTGGAGTCTTCTGACAGCTGGTGCGCCTGCCCGGGAACATCCTCCTGGACTCAATC**ATG**GCTTG
TGGTCTGGTCGCCAGCAACCTGAATCTCAAACCTGGAGAGTGCCTTCGAGTGCGAGGCGAGGTGGCTCCTGACGC
TAAGAGCTTCGTGCTGAACCTGGGCAAAGACAGCAACAACCTGTGCCTGCACTTCAACCCTCGCTTCAACGCCCA
CGGCGACGCCAACACCATCGTGTGCAACAGCAAGGACGGCGGGGCCTGGGGGACCGAGCAGCGGGAGGCTGTCTT
TCCCTTCCAGCCTGGAAGTGTTGCAGAGGTGTGCATCACCTTCGACCAGGCCAACCTGACCGTCAAGCTGCCAGA
TGGATACGAATTCAAGTTCCCCAACCGCCTCAACCTGGAGGCCATCAACTACATGGCAGCTGACGGTGACTTCAA
GATCAAATGTGTGGCCTTTGAC**TGA**AATCAGCCAGCCCATGGCCCCCAATAAAGGCAGCTGCCTCTGCTCCC

FIGURE 4013

CTTCAGGGAGAGGAAGCCGGCGGCCTCACTGCT**ATG**GGCCGCAACAAGAAGAAGAAGCGAGATGGTGACGACCGG
CGGCCGAGGCTCGTTCTTAGCTTCGACGAGGAGAAGAGGCGGGAGTACCTGACAGGCTTCCACAAGCGGAAGGTC
GAGCGAAAGAAGGCAGCCATTGAGGAGATTAAGCAGCGGCTGAAAGAGGAGCAGAGGAAGCTTCGGGAGGAGCGC
CACCAGGAATACTTGAAGATGCTGGCAGAGAGAGAAGAGGCTCTGGAGGAGGCAGATGAGCTGGACCGGTTGGTG
ACAGCAAAGACGGAGTCGGTGCAGTATGACCACCCCAACCACACAGTCACCGTGACCACCATCAGTGACCTGGAC
CTCTCGGGGGCCCGGCTGCTCGGGCTGACCCCACCTGAGGGAGGGGCTGGAGACAGGTCTGAGGAGGAGGCGTCA
TCCACGGAGAAACCAACCAAAGCCTTGCCCAGGAAGTCCAGAGACCCCCTGCTCTCTCAGCGGATCTCCTCCCTC
ACAGCATCACTACATGCACACAGCCGCAAAAAGGTCAAGAGGAAACATCCCCGACGGGCCCAGGACTCCAAAAAG
CCCCCAAGGGCCCCTCGTACCAGCAAGGCCCAGCGCCGCCGTCTCACAGGCAAAGCACGGCACAGCGGGGAG**TGA**

GACCGAGAACGAAGCGGTGCCCCAGTCTAGGCTGCGGGGACCTGTCCTTGCTCAGCTTGGCTGTCCCTGTAGCCC
AGCCTGCACCTAGGTGTGCCTACCGCATGTTGCCGCTGCTGTTTCTGCTGGGACGTCTGACTCCAGTTCCTTCTC
CCCTCTCCAGTGACAAGGTCATTTACAACTTACATTTACAATTTATAGTGTTTACCAGTATTAAATTCTCAGCCA
CTC

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FIGURE 4014

AAGGGGCCGGGGCAGCGTCGGGGAAAGGAAGGGCCGGAGGCGCGGCGGCGGGCGGCCGAGAGGGGCGGCGGCGGC
GGCGGCGGCGGGGTTCCCGCGCCGCGGAGCCCGGCCCGAGAGCCGCGTCCACGTTCCTGCCTCCTGCTCCCGCCG
CCCTGGGGCGCCGCC**ATG**ACGCCCGATCTGCTCAACTTCAAGAAGGGATGGATGTCGATCTTGGACGAGCCTGGA
GAGCCTCCCTCCCCCTCGCTCACCACCACCTCTACTTCGCAGTGGAAGAAACATTGGTTTGTGCTGACAGATTCA
AGTCTCAAATATTACAGAGACTCCACTGCTGAGGAGGCAGATGAGCTGGATGGTGAGATCGACCTGCGTTCCTGC
ACGGATGTCACTGAGTACGCGGTGCAGCGCAACTATGGCTTCCAGATCCACACCAAGGATGCTGTCTATACCTTG
TCGGCCATGACCTCAGGCATCCGGCGGAACTGGATCGAGGCTCTGAGAAAGACCGTACGTCCAACTTCAGCCCCA
GATGTCACCAAGCTCTCGGACTCTAACAAGGAGAACGCGCTGCACAGCTACAGCACCCAGAAGGGCCCCCTGAAG
GCAGGGGAGCAGCGGGCGGGCTCTGAGGTCATCAGCCGGGGTGGCCCTCGGAAGGCGGACGGGCAGCGTCAGGCC
TTGGACTACGTGGAGCTCTCGCCGCTGACCCAGGCTTCCCCGCAGCGGGCCCGCACCCCAGCCCGCACTCCTGAC
CGCCTGGCCAAGCAGGAGGAGCTGGAGCGGGACCTGGCCCAGCGCTCCGAGGAGCGGCGCAAGTGGTTTGAGGCC
ACAGACAGCAGGACCCCAGAGGTGCCTGCTGGTGAGGGGCCGCGCCGGGGCCTGGGTGCCCCCCTGACTGAGGAC
CAGCAAAACCGGCTTAGTGAGGAGATCGAGAAGAAGTGGCAGGAGCTGGAGAAGCTGCCCCTGCGGGAGAATAAG
CGGGTGCCCCTCACTGCCCTGCTCAACCAAAGCCGCGGAGAGCGCCGAGGGCCCCCAAGTGACGGCCACGAGGCA
CTGGAGAAGGAGGAGGCATGTGAGCGCAGCCTGGCAGAGATGGAGTCCTCGCACCAGCAGGTGATGGAGGAGCTG
CAGCGGCACCACGAGCGGGAGCTGCAGCGCCTGCAGCAGGAGAAGGAGTGGCTCCTGGCTGAGGAGACGGCAGCC
ACGGCCTCAGCCATTGAAGCCATGAAGAAGGCCTACCAGGAAGAGCTGAGCCGAGAGCTGAGCAAAACACGGAGT
CTCCAGCAGGGCCCGGATGGCCTCCGGAAGCAGCACCAGTCAGATGTGGAGGCACTGAAGCGAGAGCTGCAGGTG
CTATCGGAGCAGTACTCGCAGAAGTGCCTGGAGATTGGGGCACTCATGCGGCAGGCTGAGGAGCGCGAGCACACG
CTGCGCCGCTGCCAGCAGGAGGGCCAGGAGCTGCTGCGCCACAACCAGGAGCTGCATGGCCGCCTGTCAGAGGAG
ATAGACCAGCTGCGCGGCTTCATTGCCTCGCAGGGCATGGGCAATGGCTGCGGGCGCAGCAACGAGCGGAGTTCC
TGCGAGCTAGAGGTGCTGCTTCGCGTAAAAGAAAACGAACTCCAGTACCTAAAGAAGGAGGTGCAGTGCCTCCGG
GACGAGCTCCAGATGATGCAGAAGGACAAGCGCTTCACCTCGGGAAAGTACCAGGACGTCTATGTGGAGCTGAGC
CACATCAAGACACGGTCTGAGCGGGAGATCGAGCAGCTGAAGGAGCACCTGCGTCTTGCCATGGCCGCCCTCCAG
GAGAAGGAGTCGATGCGCAACAGCCTGGCTGAG**TAG**AGGTCCCGCCCAGCTGCAGACCCTCCAGGCTGGAGGACC
AGCCGCCCTCCTTCCCTCCTGGATGGAAGTAAAAAGCCAAGCTTTCTCCCCACCCTCTGTGGGCCACACGTGCAC
TTGCACCCACCACACACACACACACACACACACACACACACACACACAGACACACAGACACATACGCACACACGTGCAC
ACATGTACACACGGATACACACACACACACACACACTGCATATCTGAGCGCGCCCCTCGCACTGGGTCTCACCTT
GCACCTTCTTCAGGATTTTATATGTGAAGAGATTTTTATATAGATTTTTTTCCTTTTTTTTCCAAAACACTTTATA
CTTTAAAAAAAAAAAAAAAAAAGCAATTCCTGGTGGCTGTGTGCCTCCAACCCTGGTCCCCCTCTGTCTCCAGCCA
CCCTCTGCTTGGGCTTCTGAGCTGGTGGCCCTGGCCCAGAGGTCTGGCGGAGGCCCAGGCAGCAGCCATGGCGGG
GTGTCTCTACAGGGGAGAGGCGGGAGCCTGCCACCCTCTTCCTGCCCTACCTCCTACTAACACTTCCTGCCCCAT
TTGGACCCGTACCATGGGGCTCAGGACAGAGGGAGCTAGCAGCTGGCCTCCATGGCCCCACAGCCTCCTTCGAGG
CTGTGCTGGGTGCAGAACCGCCAGAGCCACCCAAAAGGTGTTTCTCTTCTGCTCCCTGAACCTCTTAACTTAATA
AAACGTTCCAGCAGCT

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FIGURE 4015

GGGAGGCAGAGGAGGCGGAGGCAGAGGCAGAGGCAGAGGCAGAGCCCGAGCCCGGTGCCGAGACCAAGCGACAGA
CCGGCGGGGCTGGGCCTCGCAAAGCCGGCTCGGCGAGCTCTCCCGACACCCGAGCCGGGGAGGAAAAGCAGCGAC
TCCTCGCTCGCATCCCCGGGAGCCGCACTCCAGACTGGCCCGGTAGTCAGGGGCTCAGGAGCAGATCCCGAGGCA
GGCTTTGCTCAGCCTCCGACGAGGGCTGGCCCTTTGGAAGGCGCCTTCAACAGCCGGACCAGACAGGCCACC**ATG**

ACCGAGAATTCCACGTCCGCCCCTGCGGCCAAGCCCAAGCGGGCCAAGGCCTCCAAGAAGTCCACAGACCACCCC
AAGTATTCAGACATGATCGTGGCTGCCATCCAGGCCGAGAAGAACCGCGCTGGCTCCTCGCGCCAGTCCATTCAG
AAGTATATCAAGAGCCACTACAAGGTGGGTGAGAACGCTGACTCGCAGATCAAGTTGTCCATCAAGCGCCTGGTC
ACCACCGGTGTCCTCAAGCAGACCAAAGGGGTGGGGGCCTCGGGGTCCTTCCGGCTAGCCAAGAGCGACGAACCC
AAGAAGTCAGTGGCCTTCAAGAAGACCAAGAAGGAAATCAAGAAGGTAGCCACGCCAAAGAAGGCATCCAAGCCC
AAGAAGGCTGCCTCCAAAGCCCCAACCAAGAAACCCAAAGCCACCCCGGTCAAGAAGGCCAAGAAGAAGCTGGCT
GCCACGCCCAAGAAAGCCAAAAAACCCAAGACTGTCAAAGCCAAGCCGGTCAAGGCATCCAAGCCCAAAAAGGCC
AAACCAGTGAAACCCAAAGCAAAGTCCAGTGCCAAGAGGGCCGGCAAGAAGAAG**TGA**CAATGAAGTCTTTTCTTG
CGGACACTCCCTCCTGTCTCCTATTTTCTGTAAATAATTTTCTCCTTTTTTCTCTCTTGATGCTCACCACCACCT
TTTGCCCCCTTCTGTTCTGACTTTATAAGAGACAGGATTTGGATTCTTCAGAAATTACAGAATAATTCATTTTTC
CTTAACCAGTTGTGCAAGGACAGCAACAACCAATCTAATGATGAGAATGTACTTATATTTTGTTTTGCTATTAAC
CTACTTACGGGGTTAGGGATTTGCGGGGGGGGCTTGTGTGTTTTGTTGGCTTGTTTGCCATGAAGGTAGATGTGG
GTGGGGAGAAGACACAAGGCAGTTTGTTCTGGCTAGATGAGAGGGAACCCAGGAATTGTGAGGTTAGCAGGAATA
TCTTTAGGGTGAGTGAGTTTTCTTTGAGTTGGGCACCCGTTGTGAGAGTTTCAGAACCTTTGGCCAGCAGGAGAG
AGGTGGTAGGGAGCAGCCAGCCGGCAAAGGAAGGAGGGGGAAAAAAACCGCCACCGGGCTGACTTCCACCTCCCA
GTGGTGAGCAGTGGGGGCCCAAACCCAGTTTCCTTCTCATTTTTGTTAGTTTGCGCTTTCGGCCTCCCTATTTTC
TTAGGGAAGGGGAGTGGGGTCCAAGTGACAGCTGGATGGGAGAAGCCATAGTTTCTCCCAGTCAGCTAGGATGTA
GCCATTGGGGGATCTTTGTGGCTTCAGCAAATTCTCTTGTTAAACCGGAGTGAAAACTTCAGGGGAAGGGTGGGG
AGTCAGCCAAGTGCCTCAGTGTGCCCTGTTGAAACTTAGGTTTTTCCACGCAATCGATGGATTGTGTCCTAGGAA
GACTTTTCTTTTCCTCTGGATTTTTGTTCCTCCTGTACAAGAGGTGTCTTTGCTTGGTTTGGTGGGGCTGCGGCC
ACTTAAAACCTCCCGATCTCTTTTTGAGTCCTTTATTATAAGTAGTTGTAGCTGCGGGAGGGGGAGGGGGAGTGG
GCGGGCAGTGGATAGTAAGACTTACTGCAGTCGATTTGGGATTTGCTAAGTAGTTTTACAGAGCTAGATCTGTGT
GCATGTGTGTGTTTGTGTATATATACATATCTAGGGCTAGTACTTAGTTTCACACCCGGGAGCTGGGAGAAAAAA
CCTGTACAGTTGTCTTTCTCTTATTTTTAATAAAATAGAAAAATCGCGCACTTGCGCGTCCCCCCCCCACCCCCT
TTTTTAAACAAGTGTTACTTGTGCCGGGAAAATTTTGCTGTCTTTGTAATTTTAAAACTTTAAAATAAATTGGAA
AAGGGAG

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FIGURE 4016

GGTTTAAGCTGGAAGGGTAGTCATTGGTTCGCCGCTCTGTCTCGGCCTGAGCCCGCCCCCGCTCGGTTGCCGTGG
TTGCGGGCCCTGCCCGCCCGCCAGCTCGCTGACAGCACGACTCAGGGCGGAGGGAAGTAGGTCCGTTGGTCGGTC
GGGAACGAGGCTCAGGCGGCCAGGCCCGCGCGGAGCCGTTGCC**ATG**GCAGCCGCCGCCGGGGACGCGGACGACGA
GCCGCGCTCAGGCCACTCGAGCTCGGAGGGCGAGTGCGCGGTGGCGCCGGAGCCGCTGACTGACGCTGAGGGCCT
CTTCTCCTTCGCTGACTTCGGGTCTGCGCTGGGCGGCGGCGGCGCGGGCCTCTCGGGCCGGGCGTCCGGCGGGGC
CCAGTCGCCGCTGCGCTACTTGCACGTCCTGTGGCAGCAGGATGCGGAGCCGCGCGACGAGCTGCGCTGCAAGAT
ACCCGCTGGCCGGCTGAGGCGCGCTGCCAGGCCCCACCGGCGGCTCGGGCCCACGGGCAAGGAGGTGCACGCTCT
GAAGAGACTGAGGGACTCGGCCAATGCCAATGATGTGGAAACAGTGCAGCAGCTGCTGGAAGATGGCGCGGATCC
CTGTGCAGCTGATGACAAGGGCCGCACAGCTCTACACTTTGCCTCATGCAATGGCAATGACCAGATTGTGCAGCT
GCTCCTGGACCATGGTGCTGATCCTAACCAGCGAGATGGGCTGGGGAACACGCCACTGCACCTGGCGGCCTGCAC
CAACCACGTTCCTGTCATCACCACACTGCTACGAGGAGGGGCCCGTGTAGATGCCCTGGACCGAGCTGGTCGCAC
ACCCCTGCACCTGGCCAAGTCAAAGCTGAATATCCTGCAGGAGGGCCATGCCCAGTGCCTAGAGGCTGTGCGTCT
GGAGGTGAAGCAGATCATCCATATGCTGAGGGAGTATCTGGAGCGCCTAGGGCAACATGAGCAGCGAGAACGCCT
GGATGACCTCTGCACCCGCCTGCAGATGACCAGTACCAAAGAGCAGGTGGATGAAGTGACTGACCTCCTGGCCAG
CTTCACCTCCCTCAGTCTGCAGATGCAGAGCATGGAGAAGAGG**TAG**CAAGAGAGGCTCCCTGCCTTCCTGCCACT
GCCCCACCCTGCCCCACTGCTGTCTCAGTACCAAGAAAAAGCCCAACATCTGGGACTTGGAGCTGCACTTGTCTG
GTGAGGACCTTGCCCTCACCCGCAGATGCCGTGGGGCAGAGATGCTCTCTCTCCACGGCCTCAGAGCCACTCCCA
GCCACAGTTTCCAGCATCTCTGTGGACAGGGACCACAGCTCCCAGCTTCTTCCAGTTCTCGCAGCACCAGACCAG
CCTCTGCAGCTGCACTTCAGCTCCGCAGACCTGCGCTATCTCAGCAGACCTCACTTGCCCCATGGCCTTCATGGC
GCGCTCCAGGCCTCAGACCCTTCTCTGTGTTCCGTCCTGGCCATGGGCTTGTTGCAGTCAGCAGGTGTGGGCTTA
GGCGGGCACCCTGTGGCCAGGGGTACTGCGTGAGGCCCTCAGTTGGTCCTGTGCCTCTCACCAGCACTTAGACAG
ACACGTCACCAGACTTTCAAGGAGATACTGCAGTGAGTTTCTCTGGTTGGAAGGGGAGGGTTGGTGAGTCCCAGA
CCTTAAAAATACAAGGTTAAGAGGGACCCCAAAGCAAAAAATTCCAACCCTTTTCCTCCCAGTCATTGAAACACC
AAAACTATTATACCGGAGGGTGTAATAGTTTTGCTGCCCAGTTGTGGTAGGCCAGTAGTGGCCTCCCAAGATGCC
CATGTCCTAATCCCAGGAACCTGTCAAAATTACCTTGTATGGCCAAAGGGGCTTTGCAGATGTAATGAAGTTAAG
GATCTTTCGCCAGGAAGATTATCCCAGCTTGTTCAGGAGGGCTTGATGTCCTCACCCGGGTCTGTATAACAGAAG
AGCAGGTGACGGGAGAGGAGGTTGGAGGTGTAGCGATGGAGCAGGAAACTGGAGTTGAGGAGGGCAGCTCAAGCC
ACAGAGTCCAGGCCACCTCAGAGCCAGGAAATGCATCCTCCCACAGAGCCCTGGAAGGCCCCAGCCCTGCTCCCA
CCTGGACTGGCTCAGTGAGGCTAATTTTATAATTCTGGCTGATTTTAGAACTCTAAGGGAATAAATTTGTGTTGT
TTTAAGTC

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FIGURE 4017

TCTTTCCGGCGGTGCTCGCAAGCGAGGCAGCCATGTCTTATCCCGCTGATGATTATGAGTCTGAGGCGGCTTATG
ACCCCTACGCTTATCCCAGCGACTATGATATGCACACAGGAGATCCAAAGCAGGACCTTGCTTATGAACGTCAGT
ATGAACAGCAAACCTATCAGGTGATCCCTGAGGTGATCAAAAACTTCATCCAGTATTTCCACAAAACTGTCTCAG
ATTTGATTGACCAGAAAGTGTATGAGCTACAGGCCAGTCGTGTCTCCAGTGATGTCATTGACCAGAAGGTGTATG
AGATCCAGGACATCTATGAGAACAGCTGGACCAAGCTGACTGAAAGATTCTTCAAGAATACACCTTGGCCCGAGG
CTGAAGCCATTGCTCCACAGGTTGGCAATGATGCTGTCTTCCTGATTTTATACAAAGAATTATACTACAGGCACA
TATATGCCAAAGTCAGTGGGGGACCTTCCTTGGAGCAGAGGTTTGAATCCTATTACAACTACTGCAATCTCTTCA
ACTACATTCTTAATGCCGATGGTCCTGCTCCCCTTGAACTACCCAACCAGTGGCTCTGGGATATTATCGATGAGT
TCATCTACCAGTTTCAGTCATTCAGTCAGTACCGCTGTAAGACTGCCAAGAAGTCAGAGGAGGAGATTGACTTTC
TTCGTTCCAATCCCAAAATCTGGAATGTTCATAGTGTCCTCAATGTCCTTCATTCCCTGGTAGACAAATCCAACA
TCAACCGACAGTTGGAGGTATACACAAGCGGAGGTGACCCTGAGAGTGTGGCTGGGGAGTATGGGCGGCACTCCC
TCTACAAAATGCTTGGTTACTTCAGCCTGGTCGGGCTTCTCCGCCTGCACTCCCTGTTAGGAGATTACTACCAGG
CCATCAAGGTGCTGGAGAACATCGAACTGAACAAGAAGAGTATGTATTCCCGTGTGCCAGAGTGCCAGGTCACCA
CATACTATTATGTTGGGTTTGCATATTTGATGATGCGTCGTTACCAGGATGCCATCCGGGTCTTCGCCAACATCC
TCCTCTACATCCAGAGGACCAAGAGCATGTTCCAGAGGACCACGTACAAGTATGAGATGATTAACAAGCAGAATG
AGCAGATGCATGCGCTGCTGGCCATTGCCCTCACGATGTACCCCATGCGTATTGATGAGAGCATTCACCTCCAGC
TGCGGGAGAAATATGGGGACAAGATGTTGCGCATGCAGAAAGGTGACCCACAAGTCTATGAAGAACTTTTCAGTT
ACTCCTGCCCCAAGTTCCTGTCGCCTGTAGTGCCCAACTATGATAATGTGCACCCCAACTACCACAAAGAGCCCT
TCCTGCAGCAGCTGAAGGTGTTTTCTGATGAAGTACAGCAGCAGGCCCAGCTTTCAACCATCCGCAGCTTCCTGA
AGCTCTACACCACCATGCCTGTGGCCAAGCTGGCTGGCTTCCTGGACCTCACAGAGCAGGAGTTCCGGATCCAGC
TTCTTGTCTTCAAACACAAGATGAAGAACCTCGTGTGGACCAGCGGTATCTCAGCCCTGGATGGTGAATTTCAGT
CAGCCTCAGAGGTTGACTTCTACATTGATAAGGACATGATCCACATCGCGGACACCAAGGTCGCCAGGCGTTATG
GGGATTTCTTCATCCGTCAGATCCACAAATTTGAGGAGCTTAATCGAACCCTGAAGAAGATGGGACAGAGACCTTG
ATGATATTCACACACATTCAGGAACCTGTTTTGATGTATTATAGGCAGGAAGTGTTTTTGCTACCGTGAAACCT
TTACCTAGATCAGCCATCAGCCTGTCAACTCAGTTAACAAGTTAAGGACCGAAGTGTTTCAAGTGGATCTCAGTA
AAGGATCTTTGGAGCCAGA

FIGURE 4018A

GGCCAAGCCGGGGCCCCGAAGCCAGAGCCGGAGCCGGGCGGGCCGCGGGGTC**ATG**GCTGGGCCGCGGGGCGCGCT
GCTGGCCTGGTGCCGCCGCCAGTGCGAGGGCTACCGCGGCGTGGAGATCCGCGACCTGAGCAGCTCCTTCCGGGA
CGGCCTGGCCTTCTGCGCCATCCTGCACCGGCACCGGCCCGACCTGCTAGATTTTGATTCGCTTTCCAAGGACAA
TGTCTTCGAGAATAACCGTTTGGCCTTTGAAGTGGCTGAGAAGGAGCTGGGGATCCCCGCTCTCCTGGACCCCAA
TGACATGGTCTCCATGAGCGTCCCTGACTGCCTCAGCATCATGACCTATGTGTCCCAGTATTACAACCACTTCTG
CAGTCCTGGCCAAGCTGGTGTCTCGCCACCCAGAAAGGGCCTTGCACCCTGTTCCCCGCCGTCTGTAGCACCCAC
TCCAGTGGAACCAGAAGATGTGGCTCAGGGCGAGGAGCTCTCCTCAGGCAGCCTGTCAGAGCAGGGCACCGGCCA
GACCCCCAGCAGCACGTGCGCAGCCTGCCAGCAGCATGTGCACTTGGTGCAGCGCTACCTGGCTGACGGCAGGCT
GTACCATCGCCACTGCTTCCGGTGTCGGCGGTGCTCCAGCACCCTGCTCCCTGGGGCTTATGAGAATGGGCCTGA
GGAGGGCACCTTTGTGTGTGCAGAACACTGTGCCAGGCTGGGCCCGGGGACACGGTCGGGGACCAGGCCTGGGCC
CTTCTCACAGCCAAAGCAGCAGCACCAGCAGCAACTCGCAGAAGATGCCAAGGATGTTCCAGGAGGCGGCCCCAG
CTCCAGTGCTCCTGCAGGGGCTGAGGCCGATGGACCCAAGGCCAGCCCTGAGGCCCGGCCGCAGATCCCTACCAA
GCCCCGGGTTCCTGGCAAACTACAGGAGCTGGCCAGCCCCCCTGCGGGCCGCCCCACCCCTGCCCCCAGGAAGGC
CTCTGAGAGCACCACCCCAGCACCCCCCACGCCCCGGCCCCGCTCCAGTCTGCAGCAGGAGAACCTGGTGGAGCA
GGCTGGCAGCAGCAGCCTGGTGAACGGGAGACTGCACGAACTGCCTGTCCCCAAGCCGAGGGGGACACCGAAGCC
GTCCGAGGGGACACCAGCCCCCAGGAAGGACCCCCCATGGATCACGCTGGTGCAGGCAGAACCAAAGAAGAAGCC
AGCCCCACTTCCCCCAAGCAGCAGCCCGGGGCCACCAAGCCAGGACAGCAGGCAGGTGGAGAATGGAGGCACCGA
GGAGGTGGCCCAGCCGAGCCCAACGGCCAGCCTGGAGTCCAAACCCTATAACCCCTTTGAGGAGGAGGAGGAGGA
CAAGGAGGAAGAGGCTCCAGCTGCACCCAGCCTGGCCACCAGCCCTGCCCTGGGCCACCCGGAGTCCACACCCAA
GTCCCTGCACCCCTGGTACGGCATCACCCCTACCAGCAGCCCCAAGACAAAGAAGCGCCCTGCCCCGCGCGCACC
CAGCGCGTCCCCACTGGCTCTCCACGCCTCCCGCCTCTCGCACTCGGAGCCGCCCTCGGCCACACCATCGCCAGC
GCTCAGCGTGGAGAGCCTGTCGTCTGAGAGCGCCAGCCAGACTGCAGGTGCAGAGCTTCTGGAGCCGCCAGCTGT
GCCCAAGAGCTCCTCAGAGCCTGCTGTCCATGCCCCTGGTACCCCTGGAAACCCTGTCAGCCTCTCTACCAACTC
CTCCCTGGCCTCCTCTGGGGAACTAGTGGAGCCTAGAGTGGAACAAATGCCTCAAGCCAGCCCTGGCCTTGCCCC
CAGGACCAGGGGCAGCTCAGGTCCCCAGCCAGCCAAGCCCTGCAGTGGCGCCACCCCAACGCCTCTCTTGTTGGT
TGGAGACAGGAGCCCGGTGCCTTCCCCTGGAAGCTCGTCCCCACAGCTGCAGGTAAAGTCCTCCTGCAAGGAGAA
TCCTTTTAACCGGAAGCCATCACCTGCAGCGTCCCCAGCCACAAAGAAGGCCACCAAGGGATCCAAGCCAGTGAG
GCCACCTGCCCCTGGACACGGCTTTCCACTCATCAAACGCAAGGTCCAGGCTGACCAGTACATCCCTGAGGAGGA
CATCCATGGAGAGATGGATACCATTGAGCGCCGGCTGGATGCCCTGGAGCACCGTGGGGTGCTGCTGGAGGAGAA
GCTGCGTGGCGGCCTGAATGAGGGCCGTGAGGATGACATGCTGGTGGACTGGTTCAAGCTCATCCACGAGAAGCA
CCTACTGGTGCGGCGAGAGTCCGAGCTCATCTATGTCTTCAAGCAGCAGAACCTGGAGCAGCGCCAGGCTGATGT
CGAGTATGAGCTCCGGTGCCTCCTCAATAAGCCAGAAAAGGACTGGACGGAGGAGGACCGGGCCCGGGAGAAGGT
GCTGATGCAGGAGCTTGTGACCCTCATTGAGCAGCGCAACGCTATCATCAACTGCCTGGATGAGGACCGGCAGAG
GGAGGAAGAGGAAGACAAGATGTTGGAAGCCATGATCAAGAAGAAAGAGTTCCAGAGGGAGGCTGAACCTGAGGG
CAAGAAGAAGGGGAAGTTCAAGACCATGAAGATGTTGAAACTGCTAGGAAACAAACGTGATGCCAAGAGCAAGTC
CCCCAGAGACAAGAGC**TAA**CAGCACGAGAAGCCAGTTGGGGACTGCCCCCTCCTGGAGCAGCTCCTGGGCTGTGC
TCTGTTTGAAGGGGGCGCCCTGCTCCCCTCAGATCAGTCAGGAGGAAGATGACTAAGGGGAGGGATCCTCTGGGT
GATGGCCTCTTCCTCCTCAGGGACCTCTGACTGCTCTGGGCCAAAGAATCTCTTGTTTCTTCTCCGAGCCCCAGG
CAGCGGTGATTCAGCCCTGCCCAACCTGATTCTGATGACTGCGGATGCTGTGACGGACCCAAGGGGCAAATAGGG
TCCCAGGGTCCAGGGAGGGGCGCCTGCTGAGCACTTCCGCCCCTCACCCTGCCCAGCCCCTGCCATGAGCTCTGG
GCTGGGTCTCCGCCTCCAGGGTTCTGCTCTTCCAGGCAGGCCAGCAAGTGGCGCTGGGCCACACTGGCTTCTTCC
TGCCCCATCCCTGGCTCTGAGTCTCTGTCTTCCTGTCCTGTGCAGGCGCCCTTGGATCTCAGTTTCCCTCACTCA
GGAACTCTGTTTCTGAAGTCTTCAGTTAAGTTTGAGTTTATGACTGAGTGGCCTGTACTGTCAGACGTGAATGGG
CCTGACGGGCAAATCCATCCCTCTCTCCCTCACAGTTCCAGGAGCGGCTTCCCTCGTCTCCCCTTACTCCACAGG
GAGCCTCCCTTGCCAGGACCAGGGCTGCGACGGCCATGCTGGGGCAGGTGAGTGCTCTGTTAGCTGCTCCCAGTG
CTGTCCCCAGGCTGCAGTTCTGGTCCCTGGTTGTCAGGTAGGAAGGGTGCACTTGAAGCAGGTGCTCATCTCGGT
TCCTTAACGTTTATAGTCTGACCCCTCACTTAGGCTTTCCTCTGCCACCCCGGTCCAGGGAAGAGGCTCGCTCCC
GCCCATGGTCATCACTGGTCTGTCTGCTCTGTTGTCTGTTCTTTCCCTGACTCCCTCCCACCGAAGGCCTGATGG

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FIGURE 4018B

CTACTCACCCCTCTGGGATGGCTATGGGAGAGGAGGAGTGATGGGGACCGCCACCTTTTCTGCAGGAAATGTGCC
CAGCAGCTCTTGGTCAAAGCACTGTTGCTATAAGCTATCTCTGGGATGCCTCTAGGCCCCCTTCCCTCTACACAC
CTCTGGGAAAAGATTACACTGTATTAACTCTCGAGGAGTTTCCTCACCAATAAACAGACAACCTCAACTGCCAGT
GCCCTGCAGCCTCGGGCCACAGCGGCAGCCTTGTTTGCCTTCCCACCTGCCTCTGCCACACCTGGTGGCTGAACA
TCTCTGGTCGCCCAGAGGCCATGTTGGGGCCATCCTCCAAGAGGGATCTCTGCCCTCACCGCCTGCCACTGGGCA
GGATCCCTTTCCTCTGCAGGGAGAGGTGGCTCCTCGGCCATGCAGCCCCTGGCAGGCTCCTTCTAAACATGCCTG
TTGACCTGGAGCTGGCGCCACCAACTCCAGGGCCTTTCCAGGGCCAGACAGGTAACACGCATGAACCCGAGTGAC
AGCTCTGACGGGCTGTTTCGGTGTCAGGAGACAAAGCTGGCAGGGGCAGGGGTGAACTGGAGGCAAGTCAAGTCA
CCTGTGGCCTGTGGGGCTGAATGTGGGCCCGGTGTTGCCAGATCCTTTGTCATAAGAAGCTAGAAATCCAGATTT
TATGTGTGTGTAATTTGTAAATGCTGAAAGCTAGCCTGAATTTTTTTTTTTTTTTTTGAGACAGAGTCTCGCTC
TGTCGCCCAGGCTGGAGTGCAGTGGCGCGATCTCAGCTCACTGCAAGCTCCGCCTCCTGGGTTCACGCCATCCTC
CTGCCTCGGCCTCCTGAGCAGCTGGGACTACAGGCGCATGCTACGACGCCTGGCTAATTTTTTGTATTTTTAGTA
GAGACGGGGTTTCACCGTGTTAACCAGGATGGTCTCGATCTCCTGACCTTGTGATCCACCCACCTTGGCCTCCCA
AAGTGCTGGGATTACAGGCGTGAGCCACCACGCCCGGCCACTAGCCTGAATTTCAATCAAGGGTTGGCTGATACT
GTGTGTCCAGGGTGGACTGGATTTGTCCTGGGGGGTTCTCTGGTTTGCTGCCTCCTGACCACATGATGGGGCCTT
CGAGGTCGAGGACAACTGTTCCCATTAGATTGCACCCTCTGCCCTCAGGTTCTTGAGGGTGTGTGGACACAGAGG
CTTTCCATGGGATGTCCCTGAGCCGGCCTTGATTGGGGCCTCACCATTTACAGGGCCGTTTTATTCTGCAAACC
GAAACTTGGGTCATGTGACCTGATGGGATTATGGGACTCCCTCCAGGTGCCCGAGACAAGGTTGATATTTCCAAA
ATATTTTGGTGATTTAGTGGGACAAGCAAATGACAGAATACCGGAGAAGGCAGGGATCGTGGGTGTCAGGAGCCA
GAGGGGAGGGGGACAGATGTGCTGTGTACAGGACAAGGTGTCAGGTGACTCCTTCCCAGCAGGGCCTCGCAGATG
CACAAGCACGGAGCTGGTGGGTTTTGCCCAAGAAAGGTCACGCGGCACATGCAGGGATTGGAACTCCCAGGCCAG
GGCTCTAGGTCGCTCCCACCTTTTCATGTTTCTTTCTGTGGCCATGGGTATAGTGGAAAGACATAAAGCTAAAGC
CAACTTTTAATCCTGAATGCACTGCTTGCCAGGTAAATGCCCTTGGTTGTGGTATCTTGTTGAGACTTAGTTTTC
ACAGAGGGATAATGAACCGTTGCAGAGGTTTATTGAGATCATTAACAGAGTGGAATTCAGCACCCGCCACAGCAG
CCAGCCATGGG

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FIGURE 4019

AGTCCTCCCATGGCTTCACAGAAGCAGATGGAGGTAGTGACCAAAGGAACTGGGTTCCGGCGCCGCCCCAAGACC
ATCACTTACACCCCGGGGACCTGCGAGCTGCTCAGAGTGATGATGAAGGAATCCAAACTGACGAACATCCAGCAG
CGCCACATCATGGACATCATGAAAAGAGGAGATGCTTTGCCCCTACAGTGCAGCCCAACATCCAGCCAGAGAGTC
TTACCTTCCAAGCAAATAGCCTCGCCCATCTACCTGCCTCCCATCCTCGCAGCCCGTCCCCACCTCCGGCCTGCC
AACATGTGTCAAGCCAATGGGGCCTACAGCCGGGAGCAGTTCAAGCCTCAAGCCACCAGGGATTTGGAGAAGGAG
AAACAAAGACTCCAAAATATCTTTGCCACAGGGAAGGACATGGAGGAACGGAAAAGAAAGGCCCCTCCTGCACGA
CAGAAGGCTCCAGCCCCTGAGCTAGACCGATTTGAAGAGCTGGTGAAGGAAATCCAGGAGAGGAAAGAATTCCTG
GCTGACATGGAGGCCCTGGGACAGGGCAAACAGTACCGAGGAATCATCCTTGCTGAAATCTCCCAGAAACTCCGG
GAAATGGAAGACATTGACCACAGAAGGAGTGAGGAACTTAGGAAGGGTCTTGCCACCACTTAATCTGTCTCCAGA
GACGGGCAGGGTAGCCCAAGCTCGACCACTGGAGTCCACTCCTCTGCCAGGCAGGGCCATCCTCAGGCCAGCCCA
TCCTACCAGCCTTCTGCCACGTCAGGTGGTGGCATAGCACTGCCCTGCAGTACCCCAAGGCATACTCAGCAGCCT
AGCCCCTGCCCCGGAATGCAGATGGAGCCTCTGAGACTCACAGCCCCGTCCGCAGAGAAGCAAAGCCCGAGCATC
CCTACTAGGACATGTGTCTAAAGGTATCCACTGGGCCTGCTTCCCACCACTTCTGACCTGTGGCCTGTTCATTTA
GTTTTCTGAATTCAGGAATGAATATGATTCCTTTCTTCCTGTTTTAGGATTTACTTATTTGATTTCTTACCGCCT
TAGGCAAGTATTCAACCACAATGATTAACTGGCCAATAAAACATATTTAACGTGGGTCATTACAAGCACCATTTT
GTTTTCAGAGGGATAAGCTTATTTGTTCAAGGCATTAGACTTTGTCAAGCCCAGATGGTTTCTAGCTACCTGTTT
GCATATTTCAAGTGGCAACGGGAACCAACCTCTTGGGCACCCCATGGCTGGCTGCTGTGGCGGGTGCTGAATTCC
ACTCTGTTAATGATCTCAATAAACCTCTGCAACGGTT

FIGURE 4020

GCGCGAGTCGTAGTGTCGCTGTTTGCGGGTCTCCGCGCGGGACCGGGGCGCAGCGGGGTCGCTGAGGCGAGGGTG
TC**ATG**TCAGACAACGAGGACAATTTTGATGGCGACGACTTTGATGATGTGGAGGAGGATGAAGGGCTAGATGACT
TGGAGAATGCCGAAGAGGAAGGCCAGGAGAATGTCGAGATCCTCCCCTCTGGGGAGCGACCGCAGGCCAACCAGA
AGCGAATCACCACACCATACATGACCAAGTACGAGCGAGCCCGCGTGCTGGGCACCCGAGCGCTCCAGATTGCGA
TGTGTGCCCCTGTGATGGTGGAGCTGGAGGGGGAGACAGATCCTCTGCTCATTGCCATGAAGGAACTCAAGGCCC
GAAAGATCCCCATCATCATTCGCCGTTACCTGCCAGATGGGAGCTATGAAGACTGGGGGGTGGACGAGCTCATCA
TCACCGAC**TGA**GCTGGAGTCATCTTCCTGCCCTTGCCCCATGCCCAATTTTCATTCTCACTTTATATGTGTAAAT
AATAAAATATTCAACTTTCC

FIGURE 4021

CCGCCAGGTGGAACGGCAGGTGGGTTCAGGTACCAGCCTGGCCGGGACCCGGCTGTGGGACCAACGCTTCCGGTG
AGCGACAGAGGCAGCTCCCCAGGGCCTGGAGACCCGTGGGGCGGACTCTGGGATCTGAGCCTATCGCCCTGGCCT
GGAGCCCCCCTTTGTACCTATTCCCCATTCCCCTACCGAGCTGGGCAGTTAGCCAGCCCACTCCAACTCTCGGAA
CC**ATG**TTTGCAGACTTGGATTATGACATCGAAGAGGATAAACTCGGAATCCCGACTGTGCCTGGGAAGGTGACCC
TGCAGAAGGATGCTCAGAACCTGATCGGGATCAGCATTGGAGGAGGGGCCCAGTACTGTCCCTGCCTCTATATCG
TCCAGGTATTTGACAACACCCCAGCAGCCTTGGACGGCACAGTGGCAGCTGGCGATGAGATCACCGGTGTCAATG
GCAGGTCAATCAAAGGGAAAACTAAGGTGGAGGTGGCGAAGATGATTCAGGAGGTGAAGGGGGAGGTGACCATCC
ACTACAACAAGCTGCAGGCGGACCCCAAGCAGGGCATGTCCCTGGACATTGTGTTGAAGAAAGTCAAGCACCGGC
TGGTGGAGAACATGAGTTCAGGGACCGCAGATGCTCTGGGCCTGAGCCGGGCCATCCTGTGCAATGATGGGCTTG
TCAAGAGGCTAGAGGAGCTGGAGCGGACCGCTGAGCTATACAAAGGGATGACGGAACACACCAAGAACCTCCTAC
GGGCCTTTTATGAGCTGTCGCAGACTCACCGGGCCTTTGGGGACGTGTTCTCCGTGATCGGGGTGCGGGAGCCCC
AGCCAGCTGCGAGCGAGGCTTTTGTGAAGTTCGCCGATGCCCACCGCAGCATCGAGAAGTTCGGCATTCGGCTTC
TGAAAACCATCAAGCCGATGCTGACGGATCTGAACACGTACCTCAACAAAGCCATCCCGGACACTCGCCTCACCA
TCAAGAAGTACCTGGACGTGAAGTTTGAGTACCTGTCGTACTGCCTGAAGGTGAAGGAGATGGATGACGAGGAAT
ACAGCTGCATTGCCCTAGGCGAGCCCCTTTACCGGGTGAGCACCGGCAACTATGAGTACCGCCTGATCCTGCGCT
GCCGCCAGGAGGCGCGCGCCCGCTTCTCCCAGATGCGCAAGGATGTGCTGGAGAAGATGGAGCTGCTGGACCAGA
AGCACGTCCAGGACATCGTGTTCCAGCTGCAGCGCCTCGTGTCCACCATGTCCAAGTACTACAACGACTGCTACG
CAGTGCTGCGGGATGCCGACGTCTTCCCCATCGAGGTAGACCTGGCGCACACCACATTGGCCTATGGCCTCAACC
AGGAGGAGTTCACAGATGGGGAGGAGGAGGAGGAGGAGGAAGACACGGCAGCTGGGGAGCCGTCCAGGGATACAC
GAGGGGCTGCTGGGCCCTTGGACAAGGGTGGAAGCTGGTGTGACTCC**TGA**GTGCCCCGCGGCTGTGGTGCCGGGG
GCAGGGTGCGTGGGAGGACGGAGCCTGGGAGCGGGGCGGGGCCGCCGCGCAAGGGGGCGACGCATAAAGGCCTGC
TGGCTTGGGGCGCCTGCCTCCCTGCTCCTCTGTCCTCGCACAGCGAACCTGGGCTCCTGCCCAGGACAGGCACCA
GGGTCATGGCCTGGGACCTGGACACTGGCCCCTCCACCCTCCCTCCCCTCCCGGCTCCCCGGCCAGAGGGAGAGC
TTGGTCTCTGGACCTGCCTTAGGAAGGAGAGGGAGGGCAGGAAGGAAAAGAAAGGACTTGGAGGTGGCAGGAGTC
CGAGCCCTGCTCCTTGTGGGCGCTCACACTGCCCCCGGAGCCTGCTGGGAGTGGGGCCAGCCGTGGACAGCTGAG
GTTGGGGTCAATGCCTCCTGGGCACCCTTGCCTCGCCCCAGACCGGCCCGTCCAGTCCCCATCACACCTCGGCGG
CCTTTATTTATTCTGTTCCCCCAGCTCGGCCACTTCTCTGAAGGAGGGCTGGGTTCTGGGCCTGTATCGAATAAA
CACAAACCTGGATGGCGCA

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FIGURE 4022

CTTACAACTCCGCGCGGCCTCGGCCCCCTGCGCCGCCCGCCCCACAACAAAACTCAGCGCAGCGCTCCCGGGCGC
CCGGTTCAGAGCGACCTGCGGCTCAGAGCGGAGGGGAGACTGACCGGAGCGCGGATCGGGACAGCGGCCGGGACA
GCGGCGAGACGCGCGTGTGTGAGCGCGCCGGACCAAGCGGGCCCAGAAGCGGGTCTGCAGCCCAGAGGGCACCTT
CTGCAAAC**ATG**TCTGTGGATCCCCTATCCAGCAAAGCTCTAAAGATCAAGCGAGAGCTGAGCGAGAACACGCCGC
ACCTGTCGGACGAGGCGCTGATGGGGCTGTCGGTGCGCGAGCTGAACCGGCATCTGCGCGGGCTCTCCGCCGAGG
AGGTGACACGGCTCAAGCAGCGGCGCCGCACACTCAAAAACCGTGGCTACGCCGCCAGCTGCCGCGTGAAGCGCG
TGTGCCAGAAGGAGGAGCTGCAGAAGCAGAAGTCGGAGCTGGAGCGCGAGGTGGACAAGCTGGCGCGCGAGAACG
CCGCCATGCGCCTGGAGCTCGACGCGCTGCGCGGCAAGTGCGAGGCGCTGCAGGGCTTCGCGCGCTCCGTGGCCG
CCGCCCGCGGGCCCGCCACGCTCGTGGCGCCGGCCAGCGTCATCACCATCGTCAAGTCCACCCCGGGCTCGGGGT
CTGGCCCCGCCCACGGCCCGGACCCCGCCCACGGCCCGGCCTCCTGCTCC**TAG**TGCCCGCCCCCGCCATGCCTCA
GCCACGCCCCTCCGGCCTCAGCTCCCTCCCCAAAGTGCCTGAGCGCCGCCTCTGTGCCCAGGTCCCATTTCTCTG
CAGCACTGGCCCCTTGGTGCACACACATTCCCTTCGTGGGCCCTGTCTTCCTCTTGCAGCCCCCCAAACTGGGAC
CGAATGACCCTGGGAAGGGGAACTTGGGTAGGTTGGGGATGGGGCAGAGGTCTGGATCTGGGATCGCCCTTGGCT
GAAAGTTTAGCCTTTTTAGATTGAGAGATACAGAGCCGGCTTAGAGAACAGCTGTTGGGGGAGAAGAGGGCACCC
CTCATCTTGGAAACTGCTCTTATTGTGCCAATATGCCCTCCAAACCCTCCCAGGATTCAAAGCTAGGTTTGGCTG
TCTGTGACTTACGGGACCGTCCTGCTGAGAAATTGCACTGAAGAGATGCCCCCACCTCTGGTTGGGCCTGGGGGT
GCCTGGCCTTCCGAAACTAAAAGAGTGGGTGGGAAGACTAGTGAAACCCAGTTCACGGATGGGGAAACAGGCCTG
AGGTCACATTTCACTTAGTGGTTGTGTTGGGACCAAAACCTGGGTGTCCTCACTGCTGCCCTGAGTCCAGCCATG
GTTTTCAGGGGGACAGTGGACAGGGACTCAGAAATGTGGTGGGAGGGCCTCCCTGGCTTGGGAGACCGCTCTCTG
CAAGGGAGGGGGAGAGAAGCAGAGGGAGAGAGAAGGTGACACGGATGGAAGAGTGGGAAGGAGCTGGCCTGGCTC
AGCCCTAGGCTGTCCCTGCAGCCAGGGTGTCCGGGGGCTGGCCAGTCAGAGAAAGGGGGCCATGGACTGCTGTGG
CAAATAGGGAGACAAGGAGACAGACCCTGCAGTCCTACTACAGTCTGGAGTGGGGTCCTAAGAAGAAGGGTCCCA
CCTCAACCCCTGTCAGTGTCCACTGTGGGGTGGGGGCTGACCCCTGCCTTTGATTGTCATTCTCCTGGGAAGCCC
AGTCTCAGTCCCTCCCCCAACACTGTCCACACTGCCCCTCCCCACTGTTTATTTATTGCACGGATCTAAGTTATT
CTCCCCAGCCAGAGCCCGAGCTCCTGCTCCCTGGGAAAAGTGGCGTATGGCCCTGAGCTGGGCTTTATATTTTAT
ATCTGCAAATAAATCACATTTTATCTTATATTTAGGGAAAGCCGGAGAGCAACAACAAAAAATGTTTAAGCCGGG
CGCGGTGGCTCACATCTGTAATCCCAGCACTTTGGGAGTCCAAGGAGGGGGATCGCTTGAGTCCAGGAGTTTGAG
ACCAGCCTGGACAACATGGTGAAACCCCATCTCTACAAAAAATACAAAAATTAGCCATGCATGGTGGCTCATGCC
TGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGGATCACTTAAGCCCAGAAGGCAGAGGTTGTAGTGAGCTGA
GATCGCACCACTGCACTCCAGCCTGGGCAACATAGCAAAATCCTGTCTCAAAAAAAAAGTTAAAAAATATTGCCC
GGCTCCTAGAATTTATTTATTTCCTGACTTACAGCAAGCGAGTTATCGTCTTCTGTATTTTGTAGACTTTCTAAA
TAAAGTCAAATTCTTTCTTTTTCCACAGAG

FIGURE 4023

CGGGACGCGCCGGCGGCGGCGGAGACTCCGGGGCTGCGGCGCCGCCCGCCCCGCCCGCAGAGTCCGGCTGCCGCG
CATCGTCCGCAGACGCCGCCACCGCCATGGGCTCCTGAGGCTAGCTTGTCACTTTCTGCAAAGGTTTCCCTCAGG
GAGCCTCCTGCTGCCAGGCACCATGACAGTGAGGGGGGATGTGCTGGCCCCGGATCCAGCGTCGCCCACGACCGC
AGCAGCCTCGCCCAGCGTCTCCGTGATCCCCGAGGGCAGCCCCACTGCC**ATG**GAGCAGCCTGTGTTCCTGATGAC
AACTGCCGCTCAGGCCATCTCTGGCTTCTTCGTGTGGACGGCCCTGCTCATCACATGCCACCAGATCTACATGCA
CCTGCGCTGCTACAGCTGCCCCAACGAGCAGCGCTACATCGTGCGCATCCTCTTCATCGTGCCCATCTACGCCTT
TGACTCCTGGCTCAGCCTCCTCTTCTTCACCAACGACCAGTACTACGTGTACTTCGGCACCGTCCGCGACTGCTA
TGAGGCCTTGGTCATCTATAATTTCCTGAGCCTGTGCTATGAGTACCTAGGAGGAGAAAGTTCCATCATGTCGGA
GATCAGAGGAAAACCCATTGAGTCCAGCTGTATGTATGGCACCTGCTGCCTCTGGGGAAAGACTTATTCCATCGG
ATTTCTGAGGTTCTGCAAACAGGCCACCCTGCAGTTCTGTGTGGTGAAGCCACTCATGGCGGTCAGCACTGTGGT
CCTCCAGGCCTTCGGCAAGTACCGGGATGGGGACTTTGACGTCACCAGTGGCTACCTCTACGTGACCATCATCTA
CAACATCTCCGTCAGCCTGGCCCTCTACGCCCTCTTCCTCTTCTACTTCGCCACCCGGGAGCTGCTCAGCCCCTA
CAGCCCCGTCCTCAAGTTCTTCATGGTCAAGTCCGTCATCTTTCTTTCCTTCTGGCAAGGCATGCTCCTGGCCAT
CCTGGAGAAGTGTGGGGCCATCCCCAAAATCCACTCGGCCCGCGTGTCGGTGGGCGAGGGCACCGTGGCTGCCGG
CTACCAGGACTTCATCATCTGTGTGGAGATGTTCTTTGCAGCCCTGGCCCTGCGGCACGCCTTCACCTACAAGGT
CTATGCTGACAAGAGGCTGGACGCACAAGGCCGCTGTGCCCCCATGAAGAGCATCTCCAGCAGCCTCAAGGAGAC
CATGAACCCGCACGACATCGTGCAGGACGCCATCCACAACTTCTCACCTGCCTACCAGCAGTACACGCAGCAGTC
CACCCTGGAGCCTGGGCCCACCTGGCGTGGTGGCGCCCACGGCCTCTCCCGCTCCCACAGCCTCAGTGGCGCCCG
CGACAACGAGAAGACTCTCCTGCTCAGCTCTGATGATGAATTC**TAG**GTGCGGGCTGCAGTGGCGGAAGTGCTGGC
GCCATAGCCACGGTCAGGCTGTGCCCCACCTCCAGCCTCACCACCAGGCCAGGAGGCAGCTGGCACAGTGCTCAC
GCCGCCTTTATTTATTGGACCAGAAACACTCACATGTCACTTCCAGAGGAACGGGGGACAGCCAGGCTCGCCCAT
GGGCCTTCAGGAATATTTATACATGGCCCAGCCTGCACTGCCCGGGCGAGGGCAGAGGACACTGGGAGCAAGGCT
TATGCCCCTGCTGCCCGTCCTGTGCTGGGGGCATGCTGGGACCAGCCGCACCCAGGCCCCAATGCTTGTGTGTGG
ACCAGCGGCTGCAGCCTTCTAGCCCCTCCTCCCCGCGAGACTCTCAGGCTGAGGTCGGCAAGCCGTGGCTCCCCC
ACACACCGTGCAATACCCTGTCTGACCTGGGCTCTTCCCGCCTGCATCCCTCCCCTGTCCACCTTTGTCCAGTGC
TAGATTCACCTCACCCCGGGCAGGAGTGGGGATGTGGGCGCTCTGTGGTCCTCCCCTCCTGACCCAGGCCTCTGT
GGCATGCTGCAAGGATCAGAGCCAGACACCAGGAGTCACAGGCCCCACCCAGGAAGGGCATTCAGGGCCCCTGGG
CACCGCTTCTGTTGAAGCAGGGGCTTCTGGGCCCCTGGGTATCCCCACCTGTCGTGGCCACACCTCTGCCTGCCT
CATGCCCCTTCCCCCTGGCCTACCAAGGACAGCCCACAGCCCGCACTGCCGGCTCACTTGGGTCCTTCCTCGATA
GCTTTGGGCAGAGCCCTTGCTTCCTGGCTGCTTCAGGGCTCAGGGGCTCCCAGCCCTCCTTCCCAGGCTGATGCT
GGGTCCTCTCTCTCTTTGGGGCTTCTCCCTCCCGTTTCAGGGGAAAGGTCTGAGTCTCCACGTTTCAGACCAGCT
TCTGGGGGAAGGCAGTCCGGCAGGGAGACCGGGAGGGGTGGCCACACAGTGGGGAGCTGGGAGGTGGGGGGAATG
GTCCCAGACTCCTCTCGGGGCCCCTATCCACACAGGGCCTGGTGTTCTACCCCATCTGGCCCCTGGCCCATCTCT
TCTGTGCCTTAGTCACATATGAAAGCGCCCCTCCCTGGCTCCCCATCTGTCCCACACGCTCCCTGGGGCTCTTAG
TTCAGCTGCTGGCACTCGCAGGATCCTGCAGTGCTGGGCCCAGAGCCCTTGGACAGGCCTCAGGAGTGGTCAGGA
CCACCAAGCCCCTCCTCTCCCCCTCCACACCTCTAGACCTGGGGCCTCCGGAACCCCCAGCAGGCTGGGCTTATA
CTAGCTCCTGACTTAGGAAGAGCCTCGTGTCACAACACGTGTCCCTACAGGCAAAGTGTCCTGGCATTTAAAACC
CAGATTATCCCTGGGTTTGGGCTGCAGTCACCTGGAGAAGCTGGTAGGGTAAGGGAGAGGGACCCTGCCGGTGTT
CACTGGGGATTCTTTCTTTTGGTCCTTCCTGGAATGAACAGGTTCCCTCCCTGCCACCTGTGAGGAGAGTTGGGG
CCCAGCCGTCTTCCTGGCCTCCTTCCTTTCCTCGTGGCAGAGGCCTGCATGTGGGTGCCAGAGGCCAGCTCTCCC
CCTCCATCTTGGGGGGGCGGAGCAGTTGGGCCCAAGCTGCCCGGGAGGGTGGGTGCAGACACAGGCTGAGGACCA
GCCCTGGCCCTGCCCCGCCATCTGCTTTCACCAAGCTGTCTCTCCACCGTGGCTTCCCTTCTCCCTCCAGGCCAA
AGTGCTGCTGATTCCCACTCCCTTGGTTTTCGCCTGCCCAGCGTTGCTGTTTGCGTGGAGGGTGGGGGGAGCTCA
GTGGCAGGGAATCAGCGGTCCGTGGGGTCGTGGGGACGGGAACATGTGCCCGACCGCTCCATCCCCTCCTCCTCC
TTAGGATGCATAACCTACCTTGTCTTTTTTTTTTTTAATTTTCTTTCCAGGTAGAGTAGCTCTTTGTACATAAAG
AATACTTGAAAAATTAATTGTATGATGTATGAGAAGACAGAGTCTCCTAGTTTTGTATCTTGTTGTATGACTGCC
ATGAGTTCCACCAGAAAGCCACTCTATTTTGGTCTCTGTGACATTTTAAATGCGTGACAGAAGTGAGCAAATAAA
GTGAGGAAGAAATCTATATATGAGATAATATAGATTGTATTG

FIGURE 4024

AGGCCGGGAGGAGGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGAGAGCCCAGAGCCAGAGCCCGGCCGGGGCCG
AGCGGAGCGCGGCGGCGGCGGCGGCGGCGGCGGCTGGGCCGGGAGAGGCTGGCGCGCCGGGCGGCTCCGCGAATC
CTCCGGCATCCGCCCCGGCGGGCCGCCCCCGCCCGCGGCAGCCCCCCGAGCAGTGGCCCGGCATCGGCGCCTTCC
CGGCGGGCAAGAGTGAGCC**ATG**GAGCTACGTGTGGGGAACAAGTACCGCCTGGGACGGAAGATCGGGAGCGGGTC
CTTCGGAGATATCTACCTGGGTGCCAACATCGCCTCTGGTGAGGAAGTCGCCATCAAGCTGGAGTGTGTGAAGAC
AAAGCACCCCCAGCTGCACATCGAGAGCAAGTTCTACAAGATGATGCAGGGTGGCGTGGGGATCCCGTCCATCAA
GTGGTGCGGAGCTGAGGGCGACTACAACGTGATGGTCATGGAGCTGCTGGGGCCTAGCCTCGAGGACCTGTTCAA
CTTCTGTTCCCGCAAATTCAGCCTCAAGACGGTGCTGCTCTTGGCCGACCAGATGATCAGCCGCATCGAGTATAT
CCACTCCAAGAACTTCATCCACCGGGACGTCAAGCCCGACAACTTCCTCATGGGGCTGGGGAAGAAGGGCAACCT
GGTCTACATCATCGACTTCGGCCTGGCCAAGAAGTACCGGGACGCCCGCACCCACCAGCACATTCCCTACCGGGA
AAACAAGAACCTGACCGGCACGGCCCGCTACGCTTCCATCAACACGCACCTGGGCATTGAGCAAAGCCGTCGAGA
TGACCTGGAGAGCCTGGGCTACGTGCTCATGTACTTCAACCTGGGCTCCCTGCCCTGGCAGGGGCTCAAAGCAGC
CACCAAGCGCCAGAAGTATGAACGGATCAGCGAGAAGAAGATGTCAACGCCCATCGAGGTCCTCTGCAAAGGCTA
TCCCTCCGAATTCTCAACATACCTCAACTTCTGCCGCTCCCTGCGGTTTGACGACAAGCCCGACTACTCTTACCT
ACGTCAGCTCTTCCGCAACCTCTTCCACCGGCAGGGCTTCTCCTATGACTACGTCTTTGACTGGAACATGCTGAA
ATTCGGTGCAGCCCGGAATCCCGAGGATGTGGACCGGGAGCGGCGAGAACACGAACGCGAGGAGAGGATGGGGCA
GCTACGGGGGTCCGCGACCCGAGCCCTGCCCCCTGGCCCACCCACGGGGGCCACTGCCAACCGGCTCCGCAGTGC
CGCCGAGCCCGTGGCTTCCACGCCAGCCTCCCGCATCCAGCCGGCTGGCAATACTTCTCCCAGAGCGATCTCGCG
GGTCGACCGGGAGAGGAAGGTGAGTATGAGGCTGCACAGGGGTGCGCCCGCCAACGTCTCCTCCTCAGACCTCAC
TGGGCGGCAAGAGGTCTCCCGGATCCCAGCCTCACAGACAAGTGTGCCATTTGACCATCTCGGGAAG**TGA**GGAGA
GCCCCCATTGGACCAGTGTTTGCTTAGTGTCTTCACTGTATTTTCTTTAAAAAAAAAAAAAAAAAAAAAAAAGGCA
AAAATAAACCACTCAAAAGAACAACAAAAAAACCCAGCAC

FIGURE 4025

GCTGACAGCTTGTGCCACC**ATG**GGCAGCAGGGCCAGGCAGGGCGCTGTCTCCCGTCGGAACAAGGAGGATCTGGC
TTCACCTGGGGTCCCTCCTGGGTGCCCGCAGCAGGGCATGGGTGGTGCTGGCGGCGCCCCCTGCTGCCCTGATTG
CTGCCTACACCGTCCTGCTGCTCCTGTTCTGCACATCCCAGGTGGCTACCTGCACCATGGCCCCTCGGGCCAGCC
TGGACCCAGTCATGGTGCTTGCTTTCTTCTTGGTCATGGGCCCCTGGGTCTGGCTAGGCAGTTGTTCTGTTTCCC
TCTTTTAAGAGTCCCAGGGGTGGGGTTGGGTGGGGAGCAGCATTGGCCGGCCGTACCCAGAGCTCTGGAATCTGT
GAAATTGTATGTCTTGTTTCACATCTCTTCTGGAAAAGGGGGCTTCCTCGAGCCAGGCTCAGCCCCG**TGA**CAGCC
CCATGACAGCGAAGGGACCTTTCTGTCCCCGCCCCTGTCCCTGTGCTGGGCCCACGTACTCACCCACGTACTGGT
AAGGATCCTCTGAGGTCTGGCTTTTCCAAAATTTGCCACTTGACCAGTGAGCGCAAGAGGCTGAGCCTCAGCTGT
GCTTTTTGTCCCTTTCAGGTGCCCGGCTCCCCTGGGCACCCAGAGCCCCCCAGATAGGCCGGTGGAGGAGGTGGA
GGAGCTGTCCCCCCAAAACTACTGGCCTGTGGTCTGGACTCCAGGGCCCCATTTCTGATGTCGCCAGGTGTGCCT
GAGCCCATCGGGGCCAGGCCTGAGGAAGTGTTTCTTGGGAGGATGGGATGACCCCCTGTTCCCAAGAGATGGCAG
CACAGTGGAGGCCATGGTGGAAAAGGCCCTGCCATGGGGTCCTTGAGGGCCAGGACAGCCTGAGGGAGGGATGGT
GGCCACTGCCCACAAGGGGCCTGGTGGGAACGGGTCCCAGGACAGACTCATAGCTAGACCCCGTTGGCGGCCTCT
GTGTTGAACCAGAACTCATTAAACACCTCCTCTTGCTTCATCCTGGTGTGCCTCTTTCATGGCAGGGCCCTCAGC
CACCCTGCTAGATGGTTAGGACCAAGGCTCTGTTCTCCTGGAAGCCAAGGTCGGCACATTGGTCTTGGGCTTCTC
TTCTCTCTGGGTTTCTTGTTCACTAAGGAGTAACACAGAGGTCAGGCAGAGAATGGGGGTCTCGCAGGCTAGGGA
CCTCAGGGAGAGGCCTCTGTTGCCCTTTTCAGCAAGGCTGGAAATGGGATATGGGCAGGGGACGTCTTCTCTGAC
TTCACCCTAGACCTTCTGGCTCCAAATGGGGCCCATGGCCTTGAGCACCTGGGACCAGCTCTTTCCACCACAGGG
CATTGGGCACTGGGCACTTTCTTATCGAGATAGTCACTCCCACGTCTGGTTCGTGATGGGCTTGGCCCTCCAGCT
CAGCACAACTGCAAGAATGGATTTTGTATTCTCTAGACGGACACTGTCCAAGATGGTAGCCATTGGCCACATGCG
ACACATTTTTAATGAATTAAAATTAATCAAGACTGGAAATGTCGGCCAGGCCTGGTGGCTCATGCCTGTAATCCC
AGCACTTTGGGAGGCCATAGAGGGCGGATGACTTGAGGTCAGGAGTTTAAGACCAGCCTGGCCAACATGGTGAAA
CCCATTTCTACTAAAAACACAAAAATTAGCTGGGCATGGTGGTGTGTTCCTGTAATCCCAGCTGCTTGGGAGGCT
GAGGCAGGAGAATCGCTTGAACCCAGGAGGCAGAGATTGGAGTGAGCTGAGATCATGCCACTGCCCTCCAGTGGC
CACCACATCCGGCAAGGCAGATGGGACCATTTCCTTCATCCAGAACGTTCTGTGGACATCACTGCTCTAGGTTCC
TCCCTTATGGAGTCTCACAAGACTGTCTAGCCAGCAAGATCTCTTTTCCAACCAGGCCAGGAGCACCTCTCCACC
CACTGCTGCTGGTCTGACCGCCTTCCTGGAAGTCCCTCTTGAGGCAGGCCCTGGAGTTAGAAGCTGGGCAGAGGC
ACCCACAGCCTTATCCTTTGCCAATCTCTGACTCAATGCCACGGCCACTGTAGTGAGCTGAACCACCTCCAGCAG
TCCCCTGGCAGAAGCACCTGGAAAACATGCAATGGGAACCTTCACCCTGAGGCCAGGCCCTTCCCATGCTACCCA
ACAGTAGACAGGACACCCTGTGTTGTTGGCTGCACCGGGGTGCTGGGATCTGTGGATCCCTGGGGCCTGGAAGCC
ACTCTCAGCACATACAGCCACTGTGTTCCGAGGTCCAGTCAGCTGGCCGGGAAGGAATTCAACACAGCCAAGGAC
AGAGGTCCATATGATGACGGGTGGATGCTCGTGTGACTTTGCTGACCTTTTATGTTTTCTATGGGCAATAAAGGC
CAAGAGAGCTC

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FIGURE 4026

GGGCGGCGGCGCGCGGGTGCGATCGCGGAGCTGTGAGGCGCAGGCAGGGCTCTGGGGCACCTAGAGACCGGGGCC
GGAGACGTGGCAGCCGCCCTGCCCGCCAGAAAGTTTCCTAGAAGTTTGCTGGGCGCGGGCGCACGACTGACTGGC
TGGACC**ATG**AACGTGTTCCGAATCCTCGGCGACCTGAGCCACCTCCTGGCCATGATCTTGCTGCTGGGGAAGATC
TGGAGGTCCAAGTGCTGCAAGGGCATCTCTGGGAAGAGCCAGATCCTGTTTGCTCTCGTCTTCACCACCAGGTAC
CTGGACCTGTTCACCAACTTCATCTCCATCTACAACACAGTAATGAAGGTGGTTTTTCTCCTCTGTGCCTATGTT
ACAGTGTACATGATATATGGGAAATTCCGTAAAACTTTTGACAGTGAGAATGACACATTCCGCCTGGAGTTTCTT
CTGGTCCCAGTCATTGGCCTTTCCTTCCTTGAAAACTACAGTTTCACTCTGCTGGAGATCCTCTGGACTTTCTCT
ATCTATCTGGAATCAGTGGCTATCCTGCCCCAGCTCTTCATGATCAGCAAGACTGGAGAGGCTGAGACCATAACT
ACTCACTACCTGTTCTTTCTGGGTCTGTACCGGGCACTCTACCTGGCTAACTGGATCAGGCGGTACCAGACTGAG
AATTTCTATGACCAAATTGCAGTCGTGTCTGGAGTAGTACAAACCATCTTCTACTGTGACTTCTTCTACTTGTAT
GTGACCAAAGTCCTTAAGGGAAAGAAGTTAAGTCTTCCAATGCCAATC**TGA**GGACCTTCAGAGACAGTCTACGCC
TTAACAAGCACATGAAGGAAACTATTTTGAATGTTCTCTTTGGCAACTTATCCATAATTTGGGATCAAATGTTAA
AACCAGAAAAGTGTTTAGTGTGGATTTCAGCAAAACCTGATCATCCCACCCAGAAGACCTTCTCATCAATAGATC
GCCCTTAAAGACCCATTGTAAGGTCATAAAAAACCTCGGCCACCTGCACAAAGATGGTGCCTCACTGCAACAAGA
AACCTTAAGGTGTCTTACCGACGAAATAAAAAACATAAATGATTGTTCTCCAAGGCCTGAGGGCAAGACTCATGA
TGAGCAAGTCAACCCCAATCTGGAACAATGTCCCTCCTCTTAGAATGTCCCAACTAAAGACCAGTTAAAATATTA
GGGTACGTTCTTGTGAATTTCCACTTTCCAGGTAGATGACCAAATTTAGGTGGTCAAGATATAAAGGTGTCAGCT
AGTTTTAAGTGTGAAACTTATTTCACTTTCACACTGCCTTCAGGCCAGAAGCAAACCAAATTTACCAGGTTTGGC
TGGAGGAGTTTTGTGACTCATCTTTTACTGGTTTGAATTTTTTCAAACCAGTGGCTGATACCTGCCTTGTACTTA
GTACCTTAATACCAATAACCTAATGGTACTTAGGCGAGTACCATTTGCACAATCACTGTTTTACTTATGAGCAGA
TACAGATATATCCAAACCCTTACCTACTAGGTATCCTGCTAGGGTTTTCAATTCCAATTCTTGTATTAAGTTTTT
TCCTTTCAGTTTTAGGTGCGAAAGTAATCAGTCAATCCAATATCCCCCATCTTTGTCTTGAAACAAAAACTGTTT
TAAGACGTCTACGTTGAATTATTCAGAGAATTAAGCAATAAAAGCTCACACCTTA

FIGURE 4027

TTTCCGCTTCCGCTCTTCCCTGGTCCAGTCCACCCTGGCGGGGTCGCAGGGTTGGGATGGCGGCTGGAGGCGATC
ATGGTTCGCCCGACAGCTACCGCTCACCTCTTGCCTCCCGCTATGCCAGCCCGGAGATGTGCTTCGTGTTTAGCG
ACAGGTATAAATTCCGGACATGGCGGCAGCTGTGGCTGTGGCTGGCGGAGGCCGAGCAGACATTGGGTTTGCCTA
TCACAGATGAACAAATCCAGGAGATGAAATCAAACCTGGAGAACATCGACTTCAAGATGGCAGCTGAGGAAGAGA
AACGTTTACGACATGATGTGATGGCTCACGTGCACACATTTGGCCACTGCTGTCCAAAAGCTGCAGGCATTATTC
ACCTTGGTGCTACTTCTTGCTATGTTGGAGACAATACTGACTTGATTATTCTTAGAAATGCACTTGACCTGCTTT
TGCCAAAGCTTGCCAGAGTGATCTCTCGGCTTGCCGACTTTGCTAAGGAACGAGCCAGTCTACCCACATTAGGTT
TCACACATTTCCAGCCTGCACAGCTGACCACAGTTGGGAAACGTTGCTGTCTTTGGATTCAGGATCTTTGCATGG
ATCTCCAGAACTTGAAGCGTGTCCGAGATGACCTGCGCTTCCGGGGAGTAAAGGGTACCACTGGCACTCAGGCCA
GTTTCCTGCAGCTCTTTGAGGGAGATGACCATAAGGTAGAGCAGCTTGACAAGATGGTGACAGAAAAGGCAGGAT
TTAAGAGAGCTTTCATCATCACAGGGCAGACATATACACGAAAAGTGGATATTGAAGTACTGTCTGTGCTGGCTA
GCTTGGGGGCATCAGTGCACAAGATTTGCACCGACATACGCCTCCTGGCAAACCTCAAGGAGATGGAGGAACCCT
TTGAAAAACAGCAGATTGGCTCAAGTGCGATGCCATATAAGCGGAATCCCATGCGTTCAGAACGTTGCTGCAGTC
TTGCCCGCCACCTGATGACCCTTGTCATGGACCCGCTACAGACAGCATCTGTCCAGTGGTTTGAACGCACACTGG
ATGATAGTGCCAACCGACGGATCTGTTTGGCCGAGGCATTTCTTACCGCAGATACTATATTGAATACGCTGCAGA
ACATTTCTGAAGGATTGGTCGTGTACCCCAAAGTAATTGAACGGCGCATTCGGCAAGAGCTGCCTTTCATGGCCA
CAGAGAACATCATCATGGCCATGGTCAAAGCTGGAGGTAGCCGCCAGGATTGCCATGAGAAAATCAGAGTGCTTT
CTCAGCAGGCAGCTTCTGTGGTTAAGCAGGAAGGGGGTGACAATGACCTCATAGAGCGTATCCAGGTTGATGCCT
ACTTCAGTCCCATTCACTCCCAGTTGGATCATTTACTGGATCCTTCTTCTTTCACTGGTCGTGCCTCCCAGCAGG
TGCAGAGATTCTTAGAAGAGGAGGTGTATCCCCTGTTAAAACCATATGAAAGCGTGATGAAGGTGAAAGCAGAAT
TATGTCTGTAGAGTTGGAAGAGAATTAAACGAAAATCATTGTTAATTGCTGAGGCATGAAAATTGTGTTACTATA
ATGCCTTATTTTACCTCGAGAATTGTTACCTTAAATTAGTACAGCACTTTCTTCTTCCCATGGTGCTTTCCTGTT
TCTCAGTCTCACATTTCTCAACAAGGCAAAAACAAAGAGCGTTGAAGTTGACTCTGCTCTTGCATAGTAAATGTA
GTTCATACTTGATCTCTGTTCTTTCAAGGCATATTTTCCAGCTGCCTCAAGTTTAGTCCTTTTCACGTGTTCATT
TGCTTGTAAAGTAGCAAGAAATTTCTGGTCCTGTCTTCTAAAAGTGAATTTGATCTAGGTCTAGCAAAATAACCT
GGACTCAGTGATTGAGTCAATGGTCAGATACCTTTTATTTCGGTTATTTTTGGCTAGTATAAGTGATGAAGTTTG
GAACTACAGTAAATACTTAAAAAA

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FIGURE 4028

GGCAGATGATTCTGGACCAGATGAAGCCTGAGGAGCCTTCCAGCTCTAAGATAGCAGGATAGGAGACTTCTAAGA
TTGGAGCTGCAGAAGACTTGCCAGCCCACCAGCACA**ATG**TCAGGAAGCCATACACCTGCCTGTGGCCCTTTCTCA
GCCCTGACTCCGAGCATATGGCCCCAGGAGATCTTGGCCAAGTACACGCAGAAGGAAGAGTCAGCAGAGCAACCA
GAGTTCTACTACGATGAGTTTGGTTTCCGTGTGTACAAGGAAGAAGGTGATGAGCCTGGCTCCAGTCTGCTGGCG
AACTCCCCTCTGATGGAGGATGCTCCACAGAGGCTGCGGTGGCAGGCCCACCTGGAGTTCACCCATAACCACGAT
GTGGGGGATCTCACCTGGGACAAGATTGCCGTCTCCCTACCCCGCTCTGAGAAGCTCCGCTCCCTGGTGCTGGCC
GGCATCCCACATGGCATGAGGCCACAGCTGTGGATGCGGCTCTCTGGGGCCCTGCAGAAGAAGAGGAACTCTGAG
CTGTCCTACCGCGAGATTGTGAAGAACAGCTCCAACGATGAGACCATCGCTGCCAAGCAGATCGAGAAGGACCTG
CTCCGCACCATGCCCAGCAACGCCTGCTTCGCCAGCATGGGTAGCATCGGGGTGCCCCGCCTGCGCAGGGTGCTC
CGGGCCCTGGCCTGGCTCTACCCAGAGATCGGCTACTGCCAGGGCACCGGCATGGTGGCCGCCTGCCTCCTGCTG
TTCCTGGAGGAGGAGGACGCCTTCTGGATGATGTCTGCCATCATCGAGGACCTGCTCCCCGCCTCCTACTTCAGC
ACCACCCTGCTGGGTGTCCAGACTGACCAGCGGGTCCTGCGCCACCTCATTGTCCAGTACCTGCCTCGCCTGGAC
AAGCTGCTCCAGGAGCATGACATTGAGCTGTCCCTGATCACACTGCACTGGTTCCTCACGGCCTTCGCCAGCGTG
GTGGACATCAAGCTGCTCCTGCGCATCTGGGACCTGTTTTTCTACGAGGGCTCCCGGGTGCTGTTCCAGCTCACG
CTGGGCATGCTGCACCTCAAGGAGGAAGAGCTGATCCAGTCAGAGAACTCGGCCTCCATCTTCAACACGCTATCG
GATATCCCGTCGCAGATGGAGGACGCGGAGCTGCTTCTGGGGGTGGCCATGCGGCTGGCCGGCTCCCTCACCGAT
GTGGCCGTGGAGACTCAGCGCCGCAAGCACCTGGCCTATCTCATTGCAGACCAGGGCCAGCTCCTGGGGGCCGGC
ACCCTCACCAACCTCTCTCAGGTTGTTCGCCGCAGGACCCAGCGGAGGAAGTCCACCATCACTGCTCTGCTCTTC
GGGGAGGATGACCTGGAGGCACTCAAGGCCAAGAACATCAAGCAGACGGAACTGGTGGCTGACCTCCGGGAAGCC
ATCCTGCGCGTGGCACGCCACTTCCAGTGCACAGACCCCAAAAACTGCAGCGTGGTGAGTCGCCAGCTCCCTGGG
CTGCTACCAAACACGGCCCTAACTCCTCCAACCCCCTTGGTGGGCCTGTGTTCACTGTGGCAGGAGCTGACTCCA
GACTATAGCATGGAGAGCCACCAGCGGGACCACGAGAACTACGTGGCGTGCTCACGCAGCCACCGGCGCCGAGCC
AAGGCCCTGCTGGACTTTGAGCGGCACGACGACGACGAGCTGGGCTTCCGCAAGAACGACATCATCACAATCGTG
TCTCAGAAGGACGAGCACTGCTGGGTGGGGGAGCTCAACGGCCTGCGAGGCTGGTTTCCAGCCAAGTTCGTGGAA
GTCCTGGATGAGCGCAGCAAAGAGTACTCCATCGCGGGGGATGACTCGGTGACGGAGGGGGTCACAGACCTCGTG
CGAGGGACCCTCTGCCCGGCCCTTAAGGCCCTGTTCGAACATGGACTGAAGAAGCCATCCCTGCTTGGGGGCGCC
TGCCACCCCTGGCTGTTTATCGAGGAGGCTGCAGGCCGGGAGGTCGAGAGAGACTTTGCCTCCGTGTATTCCCGT
CTGGTGCTCTGTAAGACCTTCAGGTTGGATGAAGATGGCAAAGTCCTGACCCCGGAGGAGCTGCTCTACCGGGCT
GTGCAGTCTGTGAACGTGACCCACGATGCAGTGCATGCACAAATGGATGTGAAGCTCCGCTCACTGATCTGCGTG
GGGCTCAAG**TGA**CAGGTGCTGCACCTGTGGCTGGAGGTGCTCTGCTCCAGCCTGCCCACCGTGGAGAAGTGGTAC
CAGCCCTGGTCCTTCCTGCGCAGCCCGGGCTGGGTCCAGATCAAGTGTGAGCTCCGAGTCCTCTGCTGCTTTGCC
TTCAGCCTCTCCCAGGACTGGGAGCTCCCTGCGAAGAGAGAGGCGCAGCAGCCCCTGAAGGAGGGCGTCCGGGAC
ATGCTGGTGAAGCACCACCTCTTCAGCTGGGATGTGGACGGGTGACCCCCTCCTCCCCAGCCCAACCTCGGGCCT
GCGTCTGAGGTGGCCCAGGACCCCAAGCTGCAGAGCCCAGGGAAGAGCAGCTCCAGAGCCCTGGCCGGGGCCGCG
GGATATCAATATCAGGCTGCCCCACTCCACGTTCCCCAGCACATCCCAGGTGGTGGGAGCAGAGGGTACCCTGCC
CCACCAGGGTCCTTAGGGATGCTCTAGGCCAAACCACAGTTTGTACCAAAAACCTTGTGAGGAGGTGGGGGAGCC
ATGTCTGTGCTCAGGAAGAGGGAAGGGGATGGGGGTGGCTAGTAGGCTCCTGGCCTCTTTGGTTTATAAATAAAC
TGTGTCTGTCTTTGAGAAAGCA

FIGURE 4029A

ACTTCTGCAATTACAGACAGTTGCACTTCAAGGGGACCCTTCTTTCACACTACATCCTTCTGTTTTTAGACTTTT
TTTGCGTTTGAAAATGTGTTTTTTGAGGTGGAATACCCAACTGACCCCTCATCTCTCCTCTCTCTCTGCTGCCCT
GCAGTGCTACAGTTGAAACTCCAGCAGCGCCGGACCCGGGAAGAACTGGTGAGCCAAGGGATC**ATG**CCGCCTTTG
AAAAGTCCAGCCGCATTTCATGAGCAGAGAAGGAGCTTGGAGCGGGCCAGGACAGAGGACTATCTCAAACGGAAG
ATTCGTTCCCGGCCGGAGAGATCGGAGCTGGTCAGGATGCACATTTTGGAAGAGACCTCGGCTGAGCCATCCCTC
CAGGCCAAGCAGCTGAAGCTGAAGAGAGCCAGACTAGCCGATGACCTCAATGAGAAGATTGCACAGAGGCCTGGC
CCCATGGAGCTGGTGGAGAAGAACATCCTTCCTGTTGAGTCCAGCCTGAAGGAAGCCATCATTGTGGGCCAGGTG
AACTATCCCAAAGTAGCAGACAGCTCTTCCTTCGATGAGGACAGCAGCGATGCCTTATCCCCCGAGCAGCCTGCC
AGCCATGAGTCCCAGGGTTCTGTGCCGTCACCCCTGGAGGCCCGAGTCAGCGAACCACTGCTCAGTGCCACCTCT
GCATCCCCCACCCAGGTTGTGTCTCAACTTCCGATGGGCCGGGATTCCAGAGAAATGCTTTTCCTGGCAGAGCAG
CCTCCTCTGCCTCCCCCACCTCTGCTGCCTCCCAGCCTCACCAATGGAACCACTATCCCCACTGCCAAGTCCACC
CCCACACTCATTAAGCAAAGCCAACCCAAGTCTGCCAGTGAGAAGTCACAGCGCAGCAAGAAGGCCAAGGAGCTG
AAGCCAAAGGTGAAGAAGCTCAAGTACCACCAGTACATCCCCCCGGACCAGAAGCAGGACAGGGGGGCACCCCCC
ATGGACTCATCCTACGCCAAGATCCTGCAGCAGCAGCAGCTCTTCCTCCAGCTGCAGATCCTCAACCAGCAGCAG
CAGCAGCACCACAACTACCAGGCCATCCTGCCTGCCCCGCCAAAGTCAGCAGGCGAGGCCCTGGGAAGCAGCGGG
ACCCCCCCAGTACGCAGCCTCTCCACTACCAATAGCAGCTCCAGCTCGGGCGCCCCTGGGCCCTGTGGGCTGGCA
CGTCAGAACAGCACCTCACTGACTGGCAAGCCGGGAGCCCTGCCGGCCAACCTGGACGACATGAAGGTGGCAGAG
CTGAAGCAGGAGCTGAAGTTGCGATCACTGCCTGTCTCGGGCACCAAAACTGAGCTGATTGAGCGCCTTCGAGCC
TATCAAGACCAAATCAGCCCTGTGCCAGGAGCCCCCAAGGCCCCTGCCGCCACCTCTATCCTGCACAAGGCTGGC
GAGGTGGTGGTAGCCTTCCCAGCGGCCCGGCTGAGCACGGGGCCAGCCCTGGTGGCAGCAGGCCTGGCTCCAGCT
GAGGTGGTGGTGGCCACGGTGGCCAGCAGTGGGGTGGTGAAGTTTGGCAGCACGGGCTCCACGCCCCCCGTGTCT
CCCACCCCCTCGGAGCGCTCACTGCTCAGCACGGGCGATGAAAACTCCACCCCCGGGGACACCTTTGGTGAGATG
GTGACATCACCTCTGACGCAGCTGACCCTGCAGGCCTCGCCACTGCAGATCCTCGTGAAGGAGGAGGGCCCCCGG
GCCGGGTCCTGTTGCCTGAGCCCTGGGGGGCGGGCGGAGCTAGAGGGGCGCGACAAGGACCAGATGCTGCAGGAG
AAAGACAAGCAGATCGAGGCGCTGACGCGCATGCTCCGGCAGAAGCAGCAGCTGGTGGAGCGGCTCAAGCTGCAG
CTGGAGCAGGAGAAGCGAGCCCAGCAGCCCGCCCCCGCCCCCGCCCCCCTCGGCACCCCCGTGAAGCAGGAGAAC
AGCTTCTCCAGCTGCCAGCTGAGCCAGCAGCCCCTGGGCCCCGCTCACCCATTCAACCCCAGCCTGGCGGCCCCA
GCCACCAACCACATAGACCCTTGTGCTGTGGCCCCGGGGCCCCCGTCCGTGGTGGTGAAGCAGGAAGCCTTGCAG
CCTGAGCCCGAGCCGGTCCCCGCCCCCCAGTTGCTTCTGGGGCCTCAGGGCCCCAGCCTCATCAAGGGGGTTGCA
CCTCCCACCCTCATCACCGACTCCACAGGGACCCACCTTGTCCTCACCGTGACCAATAAGAATGCAGACAGCCCT
GGCCTGTCCAGTGGGAGCCCCCAGCAGCCCTCGTCCCAGCCTGGCTCTCCAGCGCCTGCCCCCTCTGCCCAGATG
GACCTGGAGCACCCACTGCAGCCCCTCTTTGGGACCCCCACTTCTCTGCTGAAGAAGGAACCACCTGGCTATGAG
GAAGCCATGAGCCAGCAGCCCAAACAGCAGGAAAATGGTTCCTCAAGCCAGCAGATGGACGACCTGTTTGACATT
CTCATTCAGAGCGGAGAAATTTCAGCAGATTTCAAGGAGCCGCCATCCCTGCCAGGGAAGGAGAAGCCATCCCCG
AAGACAGTCTGTGGGTCCCCCCTGGCAGCACAGCCATCACCTTCTGCTGAGCTCCCCCAGGCTGCCCCACCTCCT
CCAGGCTCACCCTCCCTCCCTGGACGCCTGGAGGACTTCCTGGAGAGCAGCACGGGGCTGCCCCTGCTGACCAGT
GGGCATGACGGGCCAGAGCCCCTTTCCCTCATTGACGACCTCCATAGCCAGATGCTGAGCAGCACTGCCATCCTG
GACCACCCCCCGTCACCCATGGACACCTCGGAATTGCACTTTGTTCCTGAGCCCAGCAGCACCATGGGCCTGGAC
CTGGCTGATGGCCACCTGGACAGCATGGACTGGCTGGAGCTGTCGTCAGGTGGTCCCGTGCTGAGCCTAGCCCCC
CTCAGCACCACAGCCCCCAGCCTCTTCTCCACAGACTTCCTCGATGGCCATGATTTGCAGCTGCACTGGGATTCC
TGCTTG**TAG**CTCTCTGGCTCAAGACGGGGTGGGGAAGGGGCTGGGAGCCAGGGTACTCCAATGCGTGGCTCTCCT
GCGTGATTCGGCCTCTCCACATGGTTGTGAGTCTTGACAATCACAGCCCCTGCTTTTTCCCTTCCCTGGGAGGCT
AGAACAGAGAAGCCCTTACTCCTGGTTCAGTGCCACGCAGGGCAGAGGAGAGCAGCTGTCAAGAAGCAGCCCTGG
CTCTCACGCTGGGGTTTTGGACACACGGTCAGGGTCAGGGCCATTTCAGCTTGACCTCCTTTTTTGAGGTCAGGG
GGCACTGTCTGTCTGGCTACAATTTGGCTAAGGTAGGTGAAGCCTGGCCAGGCGGGAGGCTTCTCTTCTGACCCA
GGGCTGAGACAGGTTAAGGGGTGAATCTCCTTCCTTTCTCTCCCTGCTTTGCTGTGAAGGGAGAAATTAGCCTGG
GCCTCTACCCCCTATTCCCTGTGTCTGCCAACCCCAGGATCCCAGGGCTCCCTGCCATTTTAGTGTCTTGGTGTA
GTGTAACCATTTAGTGGTTGGTGGCAACAATTTTATGTACAGGTGTATATACCTCTATATTATATATCGACATAC

FIGURE 4029B

ATATATATTTTTGGGGGGGGGCGGACAGGAGATGGGTGCAACTCCCTCCCATCCTACTCTCACAGAAGGGCCTGG
ATGCAAGGTTACCCTTGAGCTGTGTGCCACAGTCTGGTGCCCAGTCTGGCATGCAGCTACCCAGGCCCACCCATC
ACGTGTGATTGACATGTAGGTACCCTGCCACGGCCTATGCCCCACCTGCCCTGCTTCCTGGCTCCTTATCAGTGC
CATGAGGGCAGAGGTGCTACCTGGCCTTCCTGCCAGGAGCTCTCCACCCACTCACATTCCGTCCCCGCCGCCTCA
CTGCAGCCAGCGTGGCCCTAGGACAGGAGGAGCTTCGGGCCCAGCTTCACCCTGCGGTGGGGCTGAGGGGTGGCC
ATCTCCTGCCCTGGGGCCACTGGCTTCACATTCTGGGCTGACTCATAGGGGAGTAGGGGTGGAGTCACCAAAACC
AGTGCTGGGACAAAGATGGGGAAGGTGTGTGAACTTTTTAAAATAAACACAAAAACACAG

FIGURE 4030

GGGTGGGAGGAGCCAGCGGCCGGGGAGGTTCTAGTCTGTTCTGTCTTGCGGCAGCCGCCCCCTTCTGCGCGGTCA
CGCCGAGCCAGCGCCTGGGCCTGGAACCGGGCCGTAGCCCCCCCAGTTTCGCCCACCACCTCCCTACC**ATG**GACC
CCCGCAAAGTGAACGAGCTTCGGGCCTTTGTGAAAATGTGTAAGCAGGATCCGAGCGTTCTGCACACCGAGGAAA
TGCGCTTCCTGAGGGAGTGGGTGGAGAGCATGGGTGGTAAAGTACCACCTGCTACTCAGAAAGCTAAATCAGAAG
AAAATACCAAGGAAGAAAAACCTGATAGTAAGAAGGTGGAGGAAGACTTAAAGGCAGACGAACCATCAAGTGAGG
AAAGTGATCTAGAAATTGATAAAGAAGGTGTGATTGAACCAGACACTGATGCTCCTCAAGAAATGGGAGATGAAA
ATGCGGAGATAACGGAGGAGATGATGGATCAGGCAAATGATAAAAAAGTGGCTGCTATTGAAGCCCTAAATGATG
GTGAACTCCAGAAAGCCATTGACTTATTCACAGATGCCATCAAGCTGAATCCTCGCTTGGCCATTTTGTATGCCA
AGAGGGCCAGTGTCTTCGTCAAATTACAGAAGCCAAATGCTGCCATCCGAGACTGTGACAGAGCCATTGAAATAA
ATCCTGATTCAGCTCAGCCTTACAAGTGGCGGGGGAAAGCACACAGACTTCTAGGCCACTGGGAAGAAGCAGCCC
ATGATCTTGCCCTTGCCTGTAAATTGGATTATGATGAAGATGCTAGTGCAATGCTGAAAGAAGTTCAACCTAGGG
CACAGAAAATTGCAGAACATCGGAGAAAGTATGAGCGAAAACGTGAAGAGCGAGAGATCAAAGAAAGAATAGAAC
GAGTTAAGAAGGCTCGAGAAGAGCATGAGAGAGCCCAGAGGGAGGAAGAAGCCAGACGACAGTCAGGAGCTCAGT
ATGGCTCTTTTCCAGGTGGCTTTCCTGGGGGAATGCCTGGTAATTTTCCCGGAGGAATGCCTGGAATGGGAGGGG
GCATGCCTGGAATGGCTGGAATGCCTGGACTCAATGAAATTCTTAGTGATCCAGAGGTTCTTGCAGCCATGCAGG
ATCCAGAAGTTATGGTGGCTTTCCAGGATGTGGCTCAGAACCCAGCAAATATGTCAAAATACCAGAGCAACCCAA
AGGTTATGAATCTCATCAGTAAATTGTCAGCCAAATTTGGAGGTCAAGCG**TAA**TGTCCTTCTGATAAATAAAGCC
CTTGCTGAAGGAAAAGCAACCTAGATCACCTTATGGATGTCGCAATAATACAAACCAGTGTACCTCTGACCTTCT
CATCAAGAGAGCTGGGGTGCTTTGAAGATAATCCCTACCCCTCTCCCCCAAATGCAGCTGAAGCATTTTACAGTG
GTTTGCCATTAGGGTATTCATTCAGATAATGTTTTCCTACTAGGAATTACAAACTTTAAACACTTTTTAAATCTT
CAAAATATTTAAAACAAATTTAAAGGGCCTGTTAATTCTTATATTTTTCTTTACTAATCATTTTGGATTTTTTTC
TTTGAATTATTGGCAGGGAATATACTTATGTATGGAAGATTACTGCTCTGAGTGAAATAAAAGTTATTAGTGCGA
GGCAAACATAACTCATTTGAGGATAAAGTTTGTGTTGGATATGTGGTTCCTGATGCATTTTGACTTGTCTTTTTA
AATGCTTTATCTTTTTCTTTAAAGATTTATTTCAATAAAACTAATTGGGACCACCCGTATTTCAGTAGGACCTGG
GTAGGGATTGGAAGTACTTGGCAGGGCAGCAGCAATCTTGCTGTGTTTGATATAACATGCATCCTTGGGCAGGTT
GCCCTTAAATCTTACACTGTGGTGAAGGGATGTTTTTTTTGTAATGCTGCAGTAGAGTTGGAGTACTTAGTTCTC
TTGTTGTCCAGTATATCTAATAAGTGTTTTTCATATTATTTCCACGTAAGGGAAATAAGGTAGTACTTTTCTTTT
TATATTTCTATGCTTAAAATTCTCTTTCCTAGTCAAAAATTGCCCAAATCTGTGTTTGCTTTCTGCTTGCTACAT
TTGTCTCCCTTACTTTTCTTGAGCTAAAGACAGGCTTTTTCCACCGGCATCATCACTGCTATCATCATTAACAGC
GTAATTATACAAGCATATTTAATGCTGAGTTTAATTTAATATGTAATACATATGGTAATTGTAGGGTAATACCCA
CAACAACTGTAGTTTCTTACTTGGCCAAGAGAATGCTTATTTAAGTGTTAGACTTCCATTCTGGCAAAATCTTGC
CTTATCAGAAGACATTGGAAAGAGGGATTCCCTTTGGTGTTTGGTCTTCTACTTAGAAAAACCTATTGCAGTTAG
TTTATCTTGTAGTATTCATCTTTGTATTCTGAAGATAAGGTTTGAATTAAATTGATACACACAGAGGGGAACCGA
TTTTTTTTATCCAATGTGAATTATAAATGAGATAATCCACAGTTATTCATTGTGGAGTTGTTGAGACTATGAAAG
ACTCATTGTCTTTGTATTCAGCTCTTAAATAGTGTAACTATATCCCCACCTCTGCTTGCTTTCTTTCCCTCCCCT
CCAATGATAAAGAAAATGATAAATTTTCTGTTGTGCATTCAATTCTTATTTTAAATAAGACTAAGTATAGGCATT
GTACCTGACATTGCTACGTTTCTACCAGTGTTTCAATTTAAAGTGCTAGTGTTTAAAAACATTTTCAAGGGATAA
GGCCTTCTGTACTTTGCTTATTTGAAGAATCAGTGGTAGGAGCAGTGAAGTAAATTCTATGGAGTACATTTCTAA
AATACCACATTTCTGAAATCATAAATAAGTTTATTCAGGTTCTAACCCTTTGCTGTACACAAGCAGACAGAAATG
CATCTGTTACATAAATGAGAAAAAGCTATTATGCTGATGGAGCATGCTTTTTAAATCCTTTAAAAACACTCACCA
TATAAACTTGCATTTGAGCTTGTGTGTTCTTTTGTTAATGTGTAGAGTTCTCCTTTCTCGAAATTGCCAGTGTGT
ACTTGGCTTAACTCAAGAACAGTTTCTTCTGGATTCCTTATTTGATTTATTTAACCTAATTATATTCTAATATTG
CAAATATTACCATAAGTGGGTAAAAGTAAAATTCCTCTTCTG

FIGURE 4031

GGTTTCCTGGCGACGCGGCCCTGCAGGCGGTTGCGTTCCCCGTCGTTACCCTCTTTCTCTTCCCGACGCGTGAGT
TAGGCCGTA**ATG**CCTTGGCTGCTCTCAGCCCCCAAGCTGGTTCCCGCTGTAGCAAACGTCCGCGGCCTCTCAGGA
TGTATGTTGTGTTCACAGCGAAGGTACTCCCTTCAGCCTGTCCCAGAAAGGAGGATTCCAAACCGATACTTAGGC
CAGCCCAGCCCCTTTACACACCCACACCTCCTCAGACCAGGGGAGGTAACTCCAGGACTATCTCAGGTGGAATAT
GCACTTCGCAGACACAAACTAATGTCTCTGATCCAGAAGGAAGCTCAAGGGCAGAGTGGGACAGACCAGACAGTG
GTTGTGCTCTCCAACCCTACATACTACATGAGCAACGATATTCCCTATACTTTCCACCAAGACAACAATTTCCTG
TACCTATGTGGATTCCAAGAGCCTGATAGCATTCTTGTCCTTCAGAGCCTCCCTGGCAAACAATTACCATCACAC
AAAGCCATACTTTTTGTGCCTCGGCGAGATCCCAGTCGAGAACTTTGGGATGGTCCGCGATCTGGCACTGATGGA
GCAATAGCTCTAACTGGAGTAGACGAAGCCTATACGCTAGAAGAATTTCAACATCTTCTACCAAAAATGAAAGCT
GAGACGAACATGGTTTGGTATGACTGGATGAGGCCCTCACATGCACAGCTTCACTCTGACTATATGCAGCCCCTG
ACTGAGGCCAAAGCCAAGAGCAAGAACAAGGTTCGGGGTGTTCAGCAGCTGATACAGCGCCTCCGGCTGATCAAG
TCTCCTGCAGAAATTGAACGAATGCAGATTGCTGGGAAGCTGACATCACAGGCTTTCATAGAAACCATGTTCACC
AGTAAAGCCCCTGTGGAAGAAGCCTTTCTTTATGCTAAGTTTGAATTTGAATGCCGGGCTCGTGGCGCAGACATT
TTAGCCTATCCACCTGTGGTGGCTGGTGGTAATCGGTCAAACACTTTGCACTATGTGAAAAATAATCAACTCATC
AAGGATGGGGAAATGGTGCTTCTGGATGGAGGTTGTGAGTCTTCCTGCTATGTGAGTGACATCACACGTACGTGG
CCAGTCAATGGCAGGTTCACCGCACCTCAGGCAGAACTCTATGAAGCCGTTCTAGAGATCCAAAGAGATTGTTTG
GCCCTCTGCTTCCCTGGGACAAGCTTGGAGAACATCTACAGCATGATGCTGACCCTGATAGGACAGAAGCTTAAA
GACTTGGGGATCATGAAGAACATTAAGGAAAATAATGCCTTCAAGGCTGCTCGAAAATACTGTCCTCATCATGTT
GGCCACTACCTCGGGATGGATGTCCATGACACTCCAGACATGCCCCGTTCCCTCCCTCTGCAGCCTGGGATGGTA
ATCACAATTGAGCCCGGCATTTATATTCCAGAGGATGACAAAGATGCCCCAGAGAAGTTTCGGGGTCTTGGTGTA
CGAATTGAGGATGATGTAGTGGTGACTCAGGACTCACCTCTCATCCTTTCTGCAGACTGTCCCAAAGAGATGAAT
GACATTGAACAGATATGCAGCCAGGCTTCT**TGA**CCTTCACTGCGGCCCACATGCACCTCAGGTTCAAAATGGGTG
TCTTCTGGCAGCCCTGCACGTGTGCTTTCTGAGTGTCTCTGTGTGTGCATTAATATATGCATTCCATTTGGGAGC
ATAGCAGCTGTGTGAATGTATGTAATTGTGTGTGGGGGGTTTTTTGTTTTAAGTAGTTAGAAGTCTGGGAAAATG
AATTTTTGAATAGTATGTTACTGCAGCTTTGGTAACATTAATTCTATAGAATTAATGATCAGAGCAAGTTTAATT
TTTAAACATAAAGGTCTTGGTTACACATGTCCATGCATTCCAGTTAACACATTTAAACATATAGAAAATTCACTT
CTTCTTTCAAGTCCTTCCCTTTCTATACTTTTGCTGAGATCAACCCAATATCATAAGAAGTTTGTGTGATGCCTG
TATTTTTAGCTAATTACCAAGGTCTCTGCCTATGCAAAAATTCATCTTTCGGTGATTGTGGGCGGCCAATACATA
CCTTCTGTAACTCCTCCCTACCTATTCTAGATCCTGCATATCTACTGGAGCCATATGAGCCCTCAGGGGCACTGG
TGTCCTGCAGTCTTACTAGTCAGCCACAGTCCAGGTTCCAGCAACACTAGCTACCTACCAAACAAAACACTTCTG
AGCTTTTCTTGCCATTTGGTTGCCTGGGACCTGGAAAGTGTTTAGATTCTTGATAAAGATGGAAATGGAAGAGAA
AGAAAATTATATATGTATATACTAAAGATCCAGACATCAGGGCTGGGCACAGCGGTTCCGCCTGTAATCCCAGCA
CTTTGGGAGGTCCAGGCAGGTGGATCTCTTGAGACCAGGAGGTCAAGACCAGCCTGGCCAACGTGGTGAAACACT
GTCTCTACTAAAAATACAAAAATGAGCTGGGTGTGATGATACATGCCTGTAATCCTGGCTACTTGGGAGGCTGAG
GCATGAGAATTGCTTGAACCTGGGAGGTGGAGGTTGCAGTGAGCTGAGCTCATGCGACTGCACTCCAGCCTGGGT
GACTGAGCAAGACTCTGCCTCAAAAAAACAAATAAATAAATAAAATCCTGACATCCTGCCATCTTTTCTCTTCAA
TTTAAAGTTGATTTCTTAATGATGACTTCAAAAATTAATAAAAAGAAAAGAAAAAAATGATTTCT

FIGURE 4032

CCAAA**ATG**GCGGCAGCGATGGATGTGGATACCCCGAGCGGCACCAACAGCGGCGCGGGCAAGAAGCGCTTTGAAG
TGAAAAAGTGGAATGCAGTAGCCCTCTGGGCCTGGGATATTGTGGTTGATAACTGTGCCATCTGCAGGAACCACA
TTATGGATCTTTGCATAGAATGTCAAGCTAACCAGGCGTCCGCTACTTCAGAAGAGTGTACTGTCGCATGGGGAG
TCTGTAACCATGCTTTTCACTTCCACTGCATCTCTCGCTGGCTCAAAACACGACAGGTGTGTCCATTGGACAACA
GAGAGTGGGAATTCCAAAAGTATGGGCAC**TAG**GAAAAGACTTCTTCCATCAAGCTTAATTGTTTTGTTATTCATT
TAATGACTTTCCCTGCTGTTACCTAATTACAAATTGGATGGAACTGTGTTTTTTTCTGCTTTGTTTTTTCAGTTT
GCTGTTTCTGTAGCCATATTGTATTCTGTGTCAAATAAAGTCCAGTTGGATTCTGG

FIGURE 4033

GCTCTTTCTCAGTGACCGGGTTCTAGGCTTAGGCGCAGACGGGTTAGGGGAGCCAAC**ATG**CCAGTGGCCCGGAGC
TGGGTTTGTCGCAAAACTTACGTGACCCCGCGGAGATCCTTTGAGAAATCTCGTCTCGACCAAGAGCTGAAGCTG
ATCGAAGAGTATGGGCTCCGGAATAAACGTGAGGTCTGGAGGGTCAAATTTACCCTGGCCAAGATAGAGGATTTC
TTAGAGAGACGCCTACAGACCCAGGTCTTCAAGCTGGGCTTGGCCAAGTCCATCCACCACGCTCGCGTGCTGATC
CGCCAGCGCCATTTCAGGGTCCGCAAGCAGGTGGTGAACATCCCGTCCTTCATTGTCCGCCTGGATTCCCAGAAG
CACATCGACTTCTCTCTGTGCTCTCCCTATGGGGGTGGCCGCCCGGGCCGCGTGAAGAGGAAGAATGCCAAGAAG
GGCCAGGGTGGGGCTGGGGCTGGAGACCACAAGGAGGAGGAT**TAA**GCCCACCTGTCCCTCCTGGGCTGCTGCATT
GTCTAGTTTTCCTGCCAAATAAACAGGATCAGCGCTTTAAAAAAAAAAAAA

FIGURE 4034A

CTTGTTTGTGTGCTAGGCTGGGGGGGAGAGAGGGCGAGAGAGAGCGGGCGAGAGTGGGCAAGCAGGACGCCGGGC
TGAGTGCTAACTGCGGGAGCCAGAGAGTGCGGAGGGGAGTCGGGTCGGAGAGAGGCGGCAGGGGCCGAGACAGTG
GCAGGGGGCCCGGGGCGCACGGGCTGAGGCGACCCCCAGCCCCCTCCCGTCCGCACACACCCCCACCGCGGTCCA
GCAGCCGGGCCGGCGTCGACGCCTAGGGGGGACCATTACATAACCCCGCGCCCCGCGGCGTCTTCTCCCGCCGCC
GCGGGCGGCCCCGAACGGAGCCCCGGGGGGCGGGCGCTCCCAGCACCTGGCCGCCGGCGGTGGGGGCCGTAGCAG
CGGCCGTATTTATTTATTTTCCGCGGGAAAGGAAGGCGAAGGAGGGGAGCGCGGCGCGAGGAGGGGCCGCCTGCG
CCGCCGCCGGAGCGGGGCCTCCTCGGTGGGCTCCGCGTCGGCGCGGGCGTGCGGGCGGCGCTGCTCGGCCCGGCC
CCCTCGGCCCTCTGGTCCGGCCAGCTCCGCTCCCGGCGTCCTTGCCGCGCCTCCGCCGGCCGCCGCGCGATGTGA
GGCGGCGGCGCCAGCCTGGCTCTCGGCTCGGGCGAGTTCTCTGCGGCCATTAGGGGCCGGTGCGGCGGCGGCGGC
GCGGAGCGCGGCGGCAGGAGGAGGGTTCGGAGGGTGGGGGCGCAGGCCCGGGAGGGGGCACCGGGAGGAGGTGAG
TGTCTCTTGTCGCCTCCTCCTCTCCCCCCTTTTCGCCCCCGCCTCCTTGTGGCGATGAGAAGGAGGAGGACAGCG
CCGAGGAGGAAGAGGTTGATGGCGGCGGCGGAGCTCCGAGAGACCTCGGCTGGGCAGGGGCCGGCCGTGGCGGGC
CGGGGACTGCGCCTCTAGAGCCGCGAGTTCTCGGGAATTCGCCGCAGCGGACGCGCTCGGCGAATTTGTGCTCTT
GTGCCCTCCTCCGGGCTTGGGCCCAGGCCCGGCCCCTCGCACTTGCCCTTACCTTTTCTATCGAGTCCGCATCCC
TCTCCAGCCACTGCGACCCGGCGAAGAGAAAAAGGAACTTCCCCCACCCCCTCGGGTGCCGTCGGAGCCCCCCAG
CCCACCCCTGGGTGCGGCGCGGGGACCCCGGGCCGAAGAAGAGATTTCCTGAGGATTCTGGTTTTCCTCGCTTGT
ATCTCCGAAAGAATTAAAA**ATG**GCCGAGAATGTGGTGGAACCGGGGCCGCCTTCAGCCAAGCGGCCTAAACTCTC
ATCTCCGGCCCTCTCGGCGTCCGCCAGCGATGGCACAGATTTTGGCTCTCTATTTGACTTGGAGCACGACTTACC
AGATGAATTAATCAACTCTACAGAATTGGGACTAACCAATGGTGGTGATATTAATCAGCTTCAGACAAGTCTTGG
CATGGTACAAGATGCAGCTTCTAAACATAAACAGCTGTCAGAATTGCTGCGATCTGGTAGTTCCCCTAACCTCAA
TATGGGAGTTGGTGGCCCAGGTCAAGTCATGGCCAGCCAGGCCCAACAGAGCAGTCCTGGATTAGGTTTGATAAA
TAGCATGGTCAAAAGCCCAATGACACAGGCAGGCTTGACTTCTCCCAACATGGGGATGGGCACTAGTGGACCAAA
TCAGGGTCCTACGCAGTCAACAGGTATGATGAACAGTCCAGTAAATCAGCCTGCCATGGGAATGAACACAGGGAT
GAATGCGGGCATGAATCCTGGAATGTTGGCTGCAGGCAATGGACAAGGGATAATGCCTAATCAAGTCATGAACGG
TTCAATTGGAGCAGGCCGAGGGCGACAGAATATGCAGTACCCAAACCCAGGCATGGGAAGTGCTGGCAACTTACT
GACTGAGCCTCTTCAGCAGGGCTCTCCCCAGATGGGAGGACAAACAGGATTGAGAGGCCCCCAGCCTCTTAAGAT
GGGAATGATGAACAACCCCAATCCTTATGGTTCACCATATACTCAGAATCCTGGACAGCAGATTGGAGCCAGTGG
CCTTGGTCTCCAGATTCAGACAAAAACTGTACTATCAAATAACTTATCTCCATTTGCTATGGACAAAAAGGCAGT
TCCTGGTGGAGGAATGCCCAACATGGGTCAACAGCCAGCCCCGCAGGTCCAGCAGCCAGGCCTGGTGACTCCAGT
TGCCCAAGGGATGGGTTCTGGAGCACATACAGCTGATCCAGAGAAGCGCAAGCTCATCCAGCAGCAGCTTGTTCT
CCTTTTGCATGCTCACAAGTGCCAGCGCCGGGAACAGGCCAATGGGGAAGTGAGGCAGTGCAACCTTCCCCACTG
TCGCACAATGAAGAATGTCCTAAACCACATGACACACTGCCAGTCAGGCAAGTCTTGCCAAGTGGCACACTGTGC
ATCTTCTCGACAAATCATTTCACACTGGAAGAATTGTACAAGACATGATTGTCCTGTGTGTCTCCCCCTCAAAAA
TGCTGGTGATAAGAGAAATCAACAGCCAATTTTGACTGGAGCACCCGTTGGACTTGGAAATCCTAGCTCTCTAGG
GGTGGGTCAACAGTCTGCCCCCAACCTAAGCACTGTTAGTCAGATTGATCCCAGCTCCATAGAAAGAGCCTATGC
AGCTCTTGGACTACCCTATCAAGTAAATCAGATGCCGACACAACCCCAGGTGCAAGCAAAGAACCAGCAGAATCA
GCAGCCTGGGCAGTCTCCCCAAGGCATGCGGCCCATGAGCAACATGAGTGCTAGTCCTATGGGAGTAAATGGAGG
TGTAGGAGTTCAAACGCCGAGTCTTCTTTCTGACTCAATGTTGCATTCAGCCATAAATTCTCAAAACCCAATGAT
GAGTGAAAATGCCAGTGTGCCCTCCCTGGGTCCTATGCCAACAGCAGCTCAACCATCCACTACTGGAATTCGGAA
ACAGTGGCACGAAGATATTACTCAGGATCTTCGAAATCATCTTGTTCACAAACTCGTCCAAGCCATATTTCCTAC
GCCGGATCCTGCTGCTTTAAAAGACAGACGGATGGAAAACCTAGTTGCATATGCTCGGAAAGTTGAAGGGGACAT
GTATGAATCTGCAAACAATCGAGCGGAATACTACCACCTTCTAGCTGAGAAAATCTATAAGATCCAGAAAGAACT
AGAAGAAAAACGAAGGACCAGACTACAGAAGCAGAACATGCTACCAAATGCTGCAGGCATGGTTCCAGTTTCCAT
GAATCCAGGGCCTAACATGGGACAGCCGCAACCAGGAATGACTTCTAATGGCCCTCTACCTGACCCAAGTATGAT
CCGTGGCAGTGTGCCAAACCAGATGATGCCTCGAATAACTCCACAATCTGGTTTGAATCAATTTGGCCAGATGAG
CATGGCCCAGCCCCCTATTGTACCCCGGCAAACCCCTCCTCTTCAGCACCATGGACAGTTGGCTCAACCTGGAGC
TCTCAACCCGCCTATGGGCTATGGGCCTCGTATGCAACAGCCTTCCAACCAGGGCCAGTTCCTTCCTCAGACTCA
GTTCCCATCACAGGGAATGAATGTAACAAATATCCCTTTGGCTCCGTCCAGCGGTCAAGCTCCAGTGTCTCAAGC

FIGURE 4034B

ACAAATGTCTAGTTCTTCCTGCCCGGTGAACTCTCCTATAATGCCTCCAGGGTCTCAGGGGAGCCACATTCACTG
TCCCCAGCTTCCTCAACCAGCTCTTCATCAGAATTCACCCTCGCCTGTACCTAGTCGTACCCCCACCCCTCACCA
TACTCCCCCAAGCATAGGGGCTCAGCAGCCACCAGCAACAACAATTCCAGCCCCTGTTCCTACACCTCCTGCCAT
GCCACCTGGGCCACAGTCCCAGGCTCTACATCCCCCTCCAAGGCAGACACCTACACCACCAACAACACAACTTCC
CCAACAAGTGCAGCCTTCACTTCCTGCTGCACCTTCTGCTGACCAGCCCCAGCAGCAGCCTCGCTCACAGCAGAG
CACAGCAGCGTCTGTTCCTACCCCAACAGCACCGCTGCTTCCTCCGCAGCCTGCAACTCCACTTTCCCAGCCAGC
TGTAAGCATTGAAGGACAGGTATCAAATCCTCCATCTACTAGTAGCACAGAAGTGAATTCTCAGGCCATTGCTGA
GAAGCAGCCTTCCCAGGAAGTGAAGATGGAGGCCAAAATGGAAGTGGATCAACCAGAACCAGCAGATACTCAGCC
GGAGGATATTTCAGAGTCTAAAGTGGAAGACTGTAAAATGGAATCTACCGAAACAGAAGAGAGAAGCACTGAGTT
AAAAACTGAAATAAAAGAGGAGGAAGACCAGCCAAGTACTTCAGCTACCCAGTCATCTCCGGCTCCAGGACAGTC
AAAGAAAAAGATTTTCAAACCAGAAGAACTACGACAGGCACTGATGCCAACTTTGGAGGCACTTTACCGTCAGGA
TCCAGAATCCCTTCCCTTTCGTCAACCTGTGGACCCTCAGCTTTTAGGAATCCCTGATTACTTTGATATTGTGAA
GAGCCCCATGGATCTTTCTACCATTAAGAGGAAGTTAGACACTGGACAGTATCAGGAGCCCTGGCAGTATGTCGA
TGATATTTGGCTTATGTTCAATAATGCCTGGTTATATAACCGGAAAACATCACGGGTATACAAATACTGCTCCAA
GCTCTCTGAGGTCTTTGAACAAGAAATTGACCCAGTGATGCAAAGCCTTGGATACTGTTGTGGCAGAAAGTTGGA
GTTCTCTCCACAGACACTGTGTTGCTACGGCAAACAGTTGTGCACAATACCTCGTGATGCCACTTATTACAGTTA
CCAGAACAGGTATCATTTCTGTGAGAAGTGTTTCAATGAGATCCAAGGGGAGAGCGTTTCTTTGGGGGATGACCC
TTCCCAGCCTCAAACTACAATAAATAAAGAACAATTTTCCAAGAGAAAAAATGACACACTGGATCCTGAACTGTT
TGTTGAATGTACAGAGTGCGGAAGAAAGATGCATCAGATCTGTGTCCTTCACCATGAGATCATCTGGCCTGCTGG
ATTCGTCTGTGATGGCTGTTTAAAGAAAAGTGCACGAACTAGGAAAGAAAATAAGTTTTCTGCTAAAAGGTTGCC
ATCTACCAGACTTGGCACCTTTCTAGAGAATCGTGTGAATGACTTTCTGAGGCGACAGAATCACCCTGAGTCAGG
AGAGGTCACTGTTAGAGTAGTTCATGCTTCTGACAAAACCGTGGAAGTAAAACCAGGCATGAAAGCAAGGTTTGT
GGACAGTGGAGAGATGGCAGAATCCTTTCCATACCGAACCAAAGCCCTCTTTGCCTTTGAAGAAATTGATGGTGT
TGACCTGTGCTTCTTTGGCATGCATGTTCAAGAGTATGGCTCTGACTGCCCTCCACCCAACCAGAGGAGAGTATA
CATATCTTACCTCGATAGTGTTCATTTCTTCCGTCCTAAATGCTTGAGGACTGCAGTCTATCATGAAATCCTAAT
TGGATATTTAGAATATGTCAAGAAATTAGGTTACACAACAGGGCATATTTGGGCATGTCCACCAAGTGAGGGAGA
TGATTATATCTTCCATTGCCATCCTCCTGACCAGAAGATACCCAAGCCCAAGCGACTGCAGGAATGGTACAAAAA
AATGCTTGACAAGGCTGTATCAGAGCGTATTGTCCATGACTACAAGGATATTTTTAAACAAGCTACTGAAGATAG
ATTAACAAGTGCAAAGGAATTGCCTTATTTCGAGGGTGATTTCTGGCCCAATGTTCTGGAAGAAAGCATTAAGGA
ACTGGAACAGGAGGAAGAAGAGAGAAAACGAGAGGAAAACACCAGCAATGAAAGCACAGATGTGACCAAGGGAGA
CAGCAAAAATGCTAAAAAGAAGAATAATAAGAAAACCAGCAAAAATAAGAGCAGCCTGAGTAGGGGCAACAAGAA
GAAACCCGGGATGCCCAATGTATCTAACGACCTCTCACAGAAACTATATGCCACCATGGAGAAGCATAAAGAGGT
CTTCTTTGTGATCCGCCTCATTGCTGGCCCTGCTGCCAACTCCCTGCCTCCCATTGTTGATCCTGATCCTCTCAT
CCCCTGCGATCTGATGGATGGTCGGGATGCGTTTCTCACGCTGGCAAGGGACAAGCACCTGGAGTTCTCTTCACT
CCGAAGAGCCCAGTGGTCCACCATGTGCATGCTGGTGGAGCTGCACACGCAGAGCCAGGACCGCTTTGTCTACAC
CTGCAATGAATGCAAGCACCATGTGGAGACACGCTGGCACTGTACTGTCTGTGAGGATTATGACTTGTGTATCAC
CTGCTATAACACTAAAAACCATGACCACAAAATGGAGAAACTAGGCCTTGGCTTAGATGATGAGAGCAACAACCA
GCAGGCTGCAGCCACCCAGAGCCCAGGCGATTCTCGCCGCCTGAGTATCCAGCGCTGCATCCAGTCTCTGGTCCA
TGCTTGCCAGTGTCGGAATGCCAATTGCTCACTGCCATCCTGCCAGAAGATGAAGCGGGTTGTGCAGCATACCAA
GGGTTGCAAACGGAAAACCAATGGCGGGTGCCCCATCTGCAAGCAGCTCATTGCCCTCTGCTGCTACCATGCCAA
GCACTGCCAGGAGAACAAATGCCCGGTGCCGTTCTGCCTAAACATCAAGCAGAAGCTCCGGCAGCAACAGCTGCA
GCACCGACTACAGCAGGCCCAAATGCTTCGCAGGAGGATGGCCAGCATGCAGCGGACTGGTGTGGTTGGGCAGCA
ACAGGGCCTCCCTTCCCCCACTCCTGCCACTCCAACGACACCAACTGGCCAACAGCCAACCACCCCGCAGACGCC
CCAGCCCACTTCTCAGCCTCAGCCTACCCCTCCCAATAGCATGCCACCCTACTTGCCCAGGACTCAAGCTGCTGG
CCCTGTGTCCCAGGGTAAGGCAGCAGGCCAGGTGACCCCTCCAACCCCTCCTCAGACTGCTCAGCCACCCCTTCC
AGGGCCCCCACCTGCAGCAGTGGAAATGGCAATGCAGATTCAGAGAGCAGCGGAGACGCAGCGCCAGATGGCCCA
CGTGCAAATTTTTCAAAGGCCAATCCAACACCAGATGCCCCCGATGACTCCCATGGCCCCCATGGGTATGAACCC
ACCTCCCATGACCAGAGGTCCCAGTGGGCATTTGGAGCCAGGGATGGGACCGACAGGGATGCAGCAACAGCCACC

FIGURE 4034C

CTGGAGCCAAGGAGGATTGCCTCAGCCCCAGCAACTACAGTCTGGGATGCCAAGGCCAGCCATGATGTCAGTGGC
CCAGCATGGTCAACCTTTGAACATGGCTCCACAACCAGGATTGGGCCAGGTAGGTATCAGCCCACTCAAACCAGG
CACTGTGTCTCAACAAGCCTTACAAAACCTTTTGCGGACTCTCAGGTCTCCCAGCTCTCCCCTGCAGCAGCAACA
GGTGCTTAGTATCCTTCACGCCAACCCCCAGCTGTTGGCTGCATTCATCAAGCAGCGGGCTGCCAAGTATGCCAA
CTCTAATCCACAACCCATCCCTGGGCAGCCTGGCATGCCCCAGGGGCAGCCAGGGCTACAGCCACCTACCATGCC
AGGTCAGCAGGGGGTCCACTCCAATCCAGCCATGCAGAACATGAATCCAATGCAGGCGGGCGTTCAGAGGGCTGG
CCTGCCCCAGCAGCAACCACAGCAGCAACTCCAGCCACCCATGGGAGGGATGAGCCCCCAGGCTCAGCAGATGAA
CATGAACCACAACACCATGCCTTCACAATTCCGAGACATCTTGAGACGACAGCAAATGATGCAACAGCAGCAGCA
ACAGGGAGCAGGGCCAGGAATAGGCCCTGGAATGGCCAACCATAACCAGTTCCAGCAACCCCAAGGAGTTGGCTA
CCCACCACAGCAGCAGCAGCGGATGCAGCATCACATGCAACAGATGCAACAAGGAAATATGGGACAGATAGGCCA
GCTTCCCCAGGCCTTGGGAGCAGAGGCAGGTGCCAGTCTACAGGCCTATCAGCAGCGACTCCTTCAGCAACAGAT
GGGGTCCCCTGTTCAGCCCAACCCCATGAGCCCCCAGCAGCATATGCTCCCAAATCAGGCCCAGTCCCCACACCT
ACAAGGCCAGCAGATCCCTAATTCTCTCTCCAATCAAGTGCGCTCTCCCCAGCCTGTCCCTTCTCCACGGCCACA
GTCCCAGCCCCCCCACTCCAGTCCTTCCCCAAGGATGCAGCCTCAGCCTTCTCCACACCACGTTTCCCCACAGAC
AAGTTCCCCACATCCTGGACTGGTAGCTGCCCAGGCCAACCCCATGGAACAAGGGCATTTTGCCAGCCCGGACCA
GAATTCAATGCTTTCTCAGCTTGCTAGCAATCCAGGCATGGCAAACCTCCATGGTGCAAGCGCCACGGACCTGGG
ACTCAGCACCGATAACTCAGACTTGAATTCAAACCTCTCACAGAGTACACTAGACATACACTAGAGACACCTTGT
AGTATTTTGGGAGCAAAAAAATTATTTTCTCTTAACAAGACTTTTTGTACTGAAAACAATTTTTTTGAATCTTTC
GTAGCCTAAAAGACAATTTTCCTTGGAACACATAAGAACTGTGCAGTAGCCGTTTGTGGTTTAAAGCAAACATGC
AAGATGAACCTGAGGGATGATAGAATACAAAGAATATATTTTTGTTATGGCTGGTTACCACCAGCCTTTCTTCCC
CTTTGTGTGTGTGGTTCAAGTGTGCACTGGGAGGAGGCTGAGGCCTGTGAAGCCAAACAATATGCTCCTGCCTTG
CACCTCCAATAGGTTTTATTATTTTTTTTAAATTAATGAACATATGTAATATTAATAGTTATTATTTACTGGTGC
AGATGGTTGACATTTTTCCCTATTTTCCTCACTTTATGGAAGAGTTAAAACATTTCTAAACCAGAGGACAAAAGG
GGTTAATGTTACTTTAAAATTACATTCTATATATATATAAATATATATAAATATATATTAAAATACCAGTTTTTT
TTCTCTGGGTGCAAAGATGTTCATTCTTTTAAAAAATGTTTAAAAAAAA

FIGURE 4035

GGCAGGCCAATATGGCTTCCTGCACCTGGTGACGCTTGGCGAAACTGAGGTCTCATGGAGAAGCCCCGGAGTATT
GAGGAGACCCCATCTTCAGAACCAATGGAGGAAGAGGAAGATGACGACTTGGAGCTGTTTGGTGGCTATGATAGT
TTCCGGAGTTATAACAGCAGTGTGGGCAGTGAGAGCAGCTCCTATCTGGAGGAGTCAAGTGAAGCAGAAAATGAG
GATCGGGAAGCAGGGGAACTGCCGACCTCCCCGCTGCATTTGCTCAGCCCTGGGACTCCTCGCTCCTTGGATGGC
AGTGGTTCTGAGCCAGCTGTCTGTGAGATGTGTGGTATCGTGGGTACAAGGGAAGCCTTCTTCTCCAAGACCAAG
AGGTTCTGCAGCGTCTCCTGCTCCAGGAGCTACTCCTCCAACTCCAAGAAAGCCAGTATCTTGGCTAGGTTACAG
GGAAAACCACCGACCAAAAAAGCCAAAGTCCTGCACAAGGCTGCCTGGTCTGCCAAAATTGGAGCCTTCCTCCAC
TCTCAAGGGACAGGACAGCTGGCAGATGGGACACCAACAGGACAAGACGCTCTGGTCTTGGGCTTCGACTGGGGG
AAGTTCCTGAAGGATCACAGTTACAAGGCTGCTCCCGTCAGCTGTTTCAAGCACGGTATCGGGTGCTGCTTCGGT
ATGAAGGCTTTGAAAATGACGCCAGCCATGACTTCTGGTGCAACCTGGGAACAGTGGATGTCCACCCCATTGGCT
GGTGTGCCATCAACAGCAAGATCCTAGTGCCTCCACAGCCATCCATGCCAAGTTCACCGACTGGAAGGGCTACCT
C**ATG**AAACGGCTGGTGGGCTCCAGGACGCTTCCCGTGGATTTCCACATCAAGATGGTGGAGAGCATGAAGTACCC
CTTTAGGCAGGGCATGCGGCTGGAAGTGGTGGACAAGTCCCAGGTGTCACGCACTCGCATGGCTGTGGTGGACAC
AGTAATCGGGGGTCGCCTACGGCTCCTCTACGAGGATGGTGACAGTGACGACGACTTCTGGTGCCACATGTGGAG
CCCCCTGATCCACCCAGTGGGTTGGTCACGACGTGTGGGCCACGGCATCAAGATGTCAGAGAGGCGAAGTGACAT
GGCCCATCACCCCACCTTCCGGAAGATCTACTGTGATGCCGTTCCTTACCTCTTCAAGAAGGTACGAGCAGTCTA
CACAGAAGGCGGTTGGTTTGAGGAAGGGATGAAGCTGGAGGCCATTGACCCCCTGAATCTGGGCAACATCTGCGT
GGCAACTGTCTGTAAGGTTCTCCTGGATGGATACCTGATGATCTGTGTGGACGGGGGGCCCTCCACAGATGGCTT
GGACTGGTTCTGCTACCATGCCTCTTCCCACGCCATCTTCCCGGCCACCTTCTGTCAGAAGAATGACATTGAGCT
CACACCGCCAAAAGGTTATGAGGCACAGACTTTCAACTGGGAGAACTACTTGGAGAAGACCAAGTCGAAAGCCGC
TCCATCGAGACTCTTTAACATGGATTGCCCAAACCATGGCTTCAAGGTGGGCATGAAGCTGGAGGCCGTGGACCT
GATGGAGCCCCGGCTCATCTGTGTGGCCACGGTGAAACGAGTGGTGCATCGGCTCCTCAGCATCCACTTTGACGG
CTGGGACAGCGAGTACGACCAGTGGGTGGACTGCGAGTCCCCAGACATCTACCCCGTCGGCTGGTGTGAGCTCAC
CGGCTACCAGCTCCAGCCTCCTGTGGCCGCAGAACCGGCCACACCGCTGAAGGCCAAAGAGGCCACAAAGAAGAA
AAAGAAACAGTTTGGGAAGAAAAGGAAAAGAATCCCGCCCACTAAGACGCGACCCCTCAGACAGGGGTCCAAGAA
GCCCCTGCTGGAGGACGACCCTCAGGGTGCCAGGAAGATCTCGTCGGAGCCTGTTCCTGGCGAGATCATTGCTGT
GCGTGTGAAGGAAGAGCATCTAGACGTGGCCTCGCCCGACAAGGCTTCAAGTCCAGAGCTGCCTGTCTCCGTCGA
GAACATCAAGCAGGAAACAGACGAC**TGA**GCCTTCCTGCCTCCAGCCTGGCTTCTAGCTGGAAGCCAGCCCAGCGT
TTCTCTACCACCACCACCATGCCTCCACCTGACTTTGGCTTGGAGACTGATCCTCTCTGTGTAAATTCTGCCCGG
TGCTGTGAAGGCTGGACGGTGGAGGACCTGCTGGGGTCTCCTGGGACCCGCCTGTTGCTTCTGCCCTCCCCTGTG
GAAAGGTCTATATGACGGGCCGCCTGAGGCCCCAGAACTCGTCTGTGAACCACCTTTTCCAGCCAGAGTTCCCAA
AGCTGGAACGCTAGCTGCCTGCTCTTCCTTAAGATGGCCTCCCCCCGACCCGCCACGGCCCTCAGTTGCCAGGGA
TGGGGCCACCACTGTCACACTGTGGAATACAAGACAGTGAACTCTGTCTGCCTGAACGAGCCATGTAAATTAAGT
TCTAGAGCAGCTCTCTGAGCAGGATAAGGTCCCCTGACAGTGAGTTGTGTGGTGGGGGCAGCCTCTGCCTCAAAA
ATTCACCAAGCAGAATGCCTCTCAGCCTCATGTGTTGGTCCTCTGCTCCTCCTAGCTCCCCAGGGATGTTGGGGA
CCCAGCTTGTCTCGGCAGCTAAGAAGCAGTGACCAGGATGTGGATTTTGGCGACCTGTGTGGTGGCCTTGAGCTG
CTTTCTGTGTTTGTGAGGACTGACTCCCATTTCCTAAAGGAAATGCCCCCGGGGAGGACATTGGGAGGAAGATGG
CCTGAGTGTGCACTTTGGCTCTGCTACCTGCTCCTGAAGCCCCGCTAAAAATAATTCATCCAAGATTCCTTTGTA
GTTAAAGGGTCCAGTTCTGACTGGAGCCTCTAGAGAGCTGGGCTTGTATGTTCTTTTGGCCTTTTGTTCCTACCT
AAATGAAGAAACCATGCCTGGAGGGGCCGTGAACACAGAACCCTCAAGACAAGGATGACAGAGCTGGAGGACACA
TCTAGCTGCCATTGCAACCTCACTGGGCTCCCCAGACTCTGTGTGTGAGAAATTAAACCCCCTGCTTGCTTG

FIGURE 4036

ATGGCCTCGGAAGACATTGCCAAGCTGGCAGAGACACTTGCCAAGACTCAGGTGGCCGGGGGACAGCTGAGTTTC
AAAGGCAAGAGCCTCAAACTCAACACTGCAGAAGATGCTAAAGATGTGATTAAAGAGATTGAAGACTTTGACAGC
TTGGAGGCTCTGCGTCTGGAAGGCAACACAGTGGGCGTGGAAGCAGCCAGGGTCATCGCCAAGGCCTTAGAGAAG
AAGTCGGAGTTGAAGCGCTGCCACTGGAGTGACATGTTCACGGGAAGGCTGCGGACCGAGATCCCACCAGCCCTG
ATCTCACTAGGGGAAGGACTCATCACAGCTGGGGCTCAGCTGGTGGAGCTGGACTTAAGCGACAACGCATTCGGG
CCCGACGGTGTGCAAGGCTTCGAGGCCCTGCTCAAGAGCTCAGCCTGCTTCACCCTGCAGGAACTCAAGCTCAAC
AACTGTGGCATGGGCATTGGCGGCGGCAAGATCCTGGCTGCAGCTCTGACCGAATGTCACCGGAAATCCAGTGCC
CAAGGCAAGCCTCTGGCCCTGAAGGTCTTTGTGGCTGGCAGAAACCGTCTGGAGAATGATGGCGCCACTGCCTTG
GCAGAAGCTTTTAGGGTCATCGGGACCCTGGAGGAGGTCCACATGCCACAGAATGGGATCAACCACCCTGGCATC
ACTGCCCTGGCCCAGGCTTTCGCTGTCAACCCCCTGCTGCGGGTCATCAACCTGAATGACAACACCTTCACTGAG
AAGGGCGCCGTGGCCATGGCCGAGACCTTGAAGACCTTGCGGCAGGTGGAGGTGATTAATTTTGGGGACTGCCTG
GTGCGCTCCAAGGGTGCAGTTGCCATTGCAGATGCCATCCGCGGCGGCCTGCCCAAGCTAAAGGAGCTGAACTTG
TCATTCTGTGAAATCAAGAGGGATGCTGCCCTGGCTGTTGCTGAGGCCATGGCAGACAAAGCTGAGCTGGAGAAG
CTGGACCTGAATGGCAACACCCTGGGAGAAGAAGGCTGTGAACAGCTTCAGGAGGTGCTGGAGGGCTTCAACATG
GCCAAGGTGCTGGCGTCCCTCAGTGATGACGAGGACGAGGAGGAGGAGGAGGAAGGAGAAGAGGAAGAAGAGGAA
GCAGAAGAAGAGGAGGAGGAAGATGAGGAAGAGGAGGAAGAAGAGGAGGAGGAGGAGGAAGAAGAGCCTCAGCAG
CGAGGGCAGGGAGAGAAGTCAGCCACGCCCTCACGGAAGATTCTGGACCCTAACACTGGGGAGCCAGCTCCCGTG
CTGTCCTCCCCACCTCCTGCAGACGTCTCCACCTTCCTGGCTTTTCCCTCTCCAGAGAAGCTGCTGCGCCTAGGG
CCCAAGAGCTCCGTGCTGATAGCCCAGCAGACTGACACGTCTGACCCCGAGAAGGTGGTCTCTGCCTTCCTAAAG
GTGTCATCTGTGTTCAAGGACGAAGCTACTGTGAGGATGGCAGTGCAGGATGCAGTAGATGCCCTGATGCAGAAG
GCTTTCAACTCCTCGTCCTTCAACTCCAACACCTTCCTCACCAGGCTGCTCGTGCACATGGGTCTGCTCAAGAGT
GAAGACAAGGTCAAGGCCATTGCCAACCTGTACGGCCCCCTGATGGCGCTGAACCACATGGTGCAGCAGGACTAT
TTCCCCAAGGCCCTTGCACCCCTGCTGCTGGCGTTCGTGACCAAGCCCAACAGCGCCCTGGAATCCTGCTCCTTC
GCCCGCCACAGTCTGCTGCAGACGCTGTACAAGGTC**TAG**

FIGURE 4037

AGCAGAGGTCACCTCCTGACATGCGCTCTGGGAAAGGTGGCAGAGGGCAGGACACCATGAGCTCAGGATCTGTGT
GAGGTGTGGGAGGTGGGAAGGGTGAGGGTCTGGGGGGAATGCGGAGAAAAGGGAGGCTTGACCCCGGGCACC**ATG**G
GCCACTCCAGGATGGGACACGGCCCCTCTTTCTTGGGGACCCAGTATGTCCTCTCCTCTAGACCCAGACATACAG
TTATAACCGTCTGTCCTAGCCCCTCCCTAATCCCTGGCCCTCCCAGCTGTCTGGGACTTCAGTGGACCCCCAGCC
CCTGCCCCCACTCACCAAGGCCTCGCTCGTCCCTCTCGTCTGACATGTCTGTGTGCACCCCCCTCCTCTCCACCC
TACCTTCCATCAACCAGGGCAGATCCACCGTGCCCTGGTTCCCCAGACATTCCAGAATGCCCCACATCATTGGCA
CAGGAGTGGGGCAGCCCCGGAAGGAACCAGGGATTAGGCTG**TAG**GGGGGTGAGAAGGAGAGAAGGGACCACCCCA
TTCTTCTCAAGCAAGGATTGCCAGCGCGCGCTGACACAGTGATGGGCTGCCCAGGGCTGGAGGGGACGCTGTTCC
TCCCGCCGCCACTGCCCAACCTTTCCTGATAATCGTGGCATGCGCCCTTTCCTCTTCCCTGCCCCACCCCCTGGC
CGCAGCAGGCCAGCACTGCAGAGTTTGGGTGCTGGTGGTGTGGCTGTAGGGGAGGGGAGACCACACCCAAGGTGG
GGGCTGTGGCCATGTGTGGCCGTGATGTCGATGATACTCGTTTTCCCTGATCCGTGGTGTTGCAGTCCGTTGTCA
CCAGCCTTGTTTCTAGTGTGTATATATGTCGCCCCCGTGATGCATATATACACAGGTATTAAATATATCGCTCTA
TATAATATTATATATGTGTGTGGTATCCAAGGAATCACTTTTATGAGGGCTAAAGATAAAGAATTTGGCCAGAAA
ATGCAGCCATCCTTGTGTGATTAGGAGGGTTTCAGGGGCCACTGGACTATTTGCAAGGTGACAGGGACTGGAGCC
ATGGCTCAGAGGTGATTCGGGCAGCCAGGGACAGGAGCCACCCTCCCCAGGCCCAACTCTGCTAGCTTCCCAGAC
CACCCCCATCGAGTGCGGAGAGAGTGGGAGTGCTCAGGGAAAGAAGGTGATTTGTATTTGTCTCCCCGCTGAAAA
GAACAGGATTCAAGTCCAGAGTTTTCATCTTCAGCCTGTGATCTGTCCAGGGACCCTTGGGATCTGGGGCTTCCT
GGCCTGGCCAGAGCTGGAGCCCCCACAGGGTAAGGAAGAGAGAGTGGGAGGCAGAGTGTGATGGGGAGGAGGGAC
AGGAAGACCCTTTTAATGATGAGGGTAACTATTTCAGTTGTGAGCCTTCTAGGGCCCCAGGCTGGGAGGCTCAGA
GGACTGAATCTGGGACCTGTGTTCCCCCCGGCAGGCAGGGACAAGATGGCATGGCAAGCATGGGGGCGGGGTGGG
TGGGGAGGGATGCTGCATTTCTCAGCTGGGCAGTAATCAATTTAATGGTCCTTTAAAATGTCTGTGTATTAAAAA
TTTAAGAATACCACACTTTAATATTAAATATTCATAAGGTCTAGTATCTTGATAATAATGTAGATGTTTTAATAA
CAATTTTTGTCCTTCTTAAAATAAAATGAAAGAAACTTG

FIGURE 4038

GGGAGGCGAGGTGCGCGAGCCGAGTCCGGGGCACG**ATG**TCCGACGCGGGCGGCGGAAAGAAGCCGCCTGTGGACC
CGCAGGCAGGACCCGGTCCGGGGCCGGGGCGCGCAGCTGGGGAAAGGGGCCTGTCGGGGTCCTTCCCCCTGGTCC
TGAAGAAGCTGATGGAGAACCCCCCGCGCGAGGCGCGCCTCGATAAGGAAAAGGGGAAGGAAAAGCTGGAGGAGG
ACGAGGCCGCAGCCGCCAGCACCATGGCTGTCTCAGCCTCCCTCATGCCACCCATCTGGGACAAGACCATCCCAT
ATGATGGCGAATCTTTCCACCTGGAGTACATGGACCTGGATGAGTTCCTGCTGGAGAATGGCATCCCCGCCAGCC
CCACCCACCTGGCCCACAACCTGCTGCTGCCTGTAGCAGAGCTAGAAGGGAAGGAGTCTGCCAGCTCTTCCACAG
CATCCCCACCATCCTCCTCCACTGCCATCTTTCAGCCCTCTGAAACCGTGTCCAGCACAGAATCTTCCCTGGAGA
AGGAGAGGGAGACTCCCAGTCCCATCGACCCCAATTGTGTGGAAGTGGATGTGAACTTCAATCCGGACCCCGCCG
ACCTGGTGCTCTCCAGTGTGCCAGGCGGGGAGCTCTTCAACCCTCGGAAGCACAAGTTTGCTGAGGAGGACCTGA
AGCCCCAGCCTATGATCAAAAAGGCCAAGAAGGTCTTTGTCCCCGACGAGCAGAAGGATGAAAAGTACTGGACAA
GACGCAAGAAGAACAACGTGGCAGCTAAACGGTCACGGGATGCCCGGCGCCTGAAAGAGAATCAGATCACCATCC
GGGCAGCCTTCCTGGAGAAGGAGAACACAGCCCTGCGGACGGAGGTGGCCGAGCTACGCAAGGAGGTGGGCAAGT
GCAAGACCATCGTGTCCAAGTATGAGACCAAATACGGGCCCTTG**TAA**CCCGTGCCCCCCGCCCGGGCGGGGTACT
GCCTGCACCTCAGACCTCTGCCTG

FIGURE 4039

AAAGCTCTGGGTGTGCGGCAGTACCATGTGGCCTCAGTCCTGTGCCAACGGGCCAAGGTGGCG**ATG**AGCCACTTT
GAGCCCAACGAGTACATCCATTATGACCTGCTAGAGAAGAACATTAACATTGTTCGCAAACGACTGAACCGGCCG
CTGACACTCTCGGAGAAGATTGTGTATGGACACCTGGATGACCCCGCCAGCCAGGAAATTGAGCGAGGCAAGTCG
TACCTGCGGCTGCGGCCGGACCGTGTGGCCATGCAGGATGCGACGGCCCAGATGGCCATGCTCCAGTTCATCAGC
AGCGGGCTGTCCAAGGTGGCTGTGCCATCCACCATCCACTGTGACCATCTGATTGAAGCCCAGGTTGGGGGCGAG
AAAGACCTGCGCCGGGCCAAGGACATCAACCAGGAAGTTTATAATTTCCTGGCAACTGCAGGTGCCAAATATGGC
GTGGGCTTCTGGAAGCCTGGATCTGGAATCATTCACCAGATTATTCTGGAAAACTATGCGTACCCTGGTGTTCTT
CTGATTGGCACTGACTCCCACACCCCCAATGGTGGCGGCCTTGGGGGCATCTGCATTGGAGTTGGGGGTGCCGAT
GCTGTGGATGTCATGGCTGGGATCCCCTGGGAGCTGAAGTGCCCCAAGGTGATTGGCGTGAAGCTGACGGGCTCT
CTCTCCGGTTGGTCCTCACCCAAAGATGTGATCCTGAAGGTGGCAGGCATCCTCACGGTGAAAGGTGGCACAGGT
GCAATCGTGGAATACCACGGGCCTGGTGTAGACTCCATCTCCTGCACTGGCATGGCGACAATCTGCAACATGGGT
GCAGAAATTGGGGCCACCACTTCCGTGTTCCCTTACAACCACAGGATGAAGAAGTACCTGAGCAAGACCGGCCGG
GAAGACATTGCCAATCTAGCTGATGAATTCAAGGATCACTTGGTGCCTGACCCTGGCTGCCATTATGACCAACTA
ATTGAAATTAACCTCAGTGAGCTGAAGCCACACATCAATGGGCCCTTCACCCCTGACCTGGCTCACCCTGTGGCA
GAAGTGGGCAAGGTGGCAGAGAAGGAAGGATGGCCTCTGGACATCCGAGTGGGTCTAATTGGTAGCTGCACCAAT
TCAAGCTATGAAGATATGGGGCGCTCAGCAGCTGTGGCCAAGCAGGCACTGGCCCATGGCCTCAAGTGCAAGTCC
CAGTTCACCATCACTCCAGGTTCCGAGCAGATCCGCGCCACCATTGAGCGGGACGGCTATGCACAGATCTTGAGG
GATCTGGGTGGCATTGTCCTGGCCAATGCTTGTGGCCCCTGCATTGGCCAGTGGGACAGGAAGGACATCAAGAAG
GGGGAGAAGAACACAATCGTCACCTCCTACAACAGGAACTTCACGGGCCGCAACGACGCAAACCCCGAGACCCAT
GCCTTTGTCACGTCCCCAGAGATTGTCACAGCCCTGGCCATTGCGGGAACCCTCAAGTTCAACCCAGAGACCGAC
TACCTGACGGGCACGGATGGCAAGAAGTTCAGGCTGGAGGCTCCGGATGCAGATGAGCTTCCCAAAGGGGAGTTT
GACCCAGGGCAGGACACCTACCAGCACCCACCCAAGGACAGCAGCGGGCAGCATGTGGACGTGAGCCCCACCAGC
CAGCGCCTGCAGCTCCTGGAGCCTTTTGACAAGTGGGATGGCAAGGACCTGGAGGACCTGCAGATCCTCATCAAG
GTCAAAGGGAAGTGTACCACTGACCACATCTCAGCTGCTGGCCCCTGGCTCAAGTTCCGTGGGCACTTGGATAAC
ATCTCCAACAACCTGCTCATTGGTGCCATCAACATTGAAAACGGCAAGGCCAACTCCGTGCGCAATGCCGTCACT
CAGGAGTTTGGCCCCGTCCCTGACACTGCCCGCTACTACAAGAAACATGGCATCAGGTGGGTGGTGATCGGAGAC
GAGAACTACGGCGAGGGCTCGAGCCGGGAGCATGCAGCTCTGGAGCCTCGCCACCTTGGGGGCCGGGCCATCATC
ACCAAGAGCTTTGCCAGGATCCACGAGACCAACCTGAAGAAACAGGGCCTGCTGCCTCTGACCTTCGCTGACCCG
GCTGACTACAACAAGATTCACCCTGTGGACAAGCTGACCATTCAGGGCCTGAAGGACTTCACCCCTGGCAAGCCC
CTGAAGTGCATCATCAAGCACCCCAACGGGACCCAGGAGACCATCCTCCTGAACCACACCTTCAACGAGACGCAG
ATTGAGTGGTTCCGCGCTGGCAGTGCCCTCAACAGAATGAAGGAACTGCAACAG**TGA**GGGCAGTGCCTCCCCGCC
CCGCCGCTGGCGTCAAGTTCAGCTCCACGTGTGCCATCAGTGGATCCGATCCGTCCAGCCATGGCTTCCTATTCC
AAG

FIGURE 4040A

GTGATACGAGCGGCGGCACGTGGCGCGGGTGCGGGGCGTGGAGTGGCGTGGCGTGGAGTGGCGTGGCGTGGCGGG
GTCTCGCGGCGCGGGCGCGCACCCGGAGCTGTGGACGGAGAGTGCCTCCCTCTGGCCTCAGTTTCCTCATGTTGT
AGTAGCGGAGCATGGCCCGGACCGGGCCCCCGAGACCGCCCCGTGCAACCTCACCGCCAGCCTGGGGGCCTCAGC
GACTGGGACGGGACCAAGGGGCTCGGGGATTCTCCCTGCCCCCGGCCCTGGTGCGTGACTGACCCTCCTGTTCCC
AGAGCCCCCAGCGCAGGCCGGGATGTTCGTCCTGGTGGAAATGGTGGACACCGTCCGGATCCCCCCTTGGCAGTT
TGAGAGGAAGCTCAACGACTCCATTGCCGAGGAGCTGAACAAGAAGTTGGCCAACAAGGTCGTGTACAACGTGGG
ACTCTGCATTTGTCTGTTTGATATCACCAAACTGGAGGATGCCTATGTATTCCCTGGGGATGGCGCATCACACAC
CAAAGTCCATTTTCGCTGCGTGGTGTTTCATCCATTCCTAGATGAGATTCTCATTGGGAAGATCAAAGGCTGCAG
CCCAGAAGGAGTGCACGTCTCTCTAGGCTTCTTCGATGACATTCTCATCCCCCCAGAGTCACTGCAGCAGCCAGC
CAAGTTCGACGAAGCGGAGCAGGTGTGGGTGTGGGAGTACGAGACGGAGGAAGGAGCACACGACCTCTACATGGA
CACCGGCGAGGAGATCCGCTTCCGGGTGGTGGACGAGAGCTTTGTTGACACGTCCCCCACAGGGCCCAGCTCAGC
AGATGCCACCACTTCCAGTGAGGAGCTGCCAAAGAAGGAGGCTCCGTACACGCTTGTGGGATCCATCAGTGAGCC
AGGCCTGGGCCTTCTCTCCTGGTGGACCAGCAACTAGCCCTGGGGCTGGACAGTGGACCCTACCAGCCTGCGGGA
AGGTGGTATGGCCGGCTGTGAAGACAACAGCAGCTGAGGCCGATGCTAAGGAGATAGTGTCTCGAGCTGGACAGT
GAGGCAAGGCCAGGAGTGCCCACCAGCTTGCCCCGCTCCTCCACCATCTAGGCCCTGCTCCTCCTTCACTGCAGT
GATGGATCCATCTGTGGCTGTGGCTGTTGGGCCTCCACTGACCTTGACTGAAAAGACCCTTCCTGGACCCTGGAC
TTGACAACAAACGGCACAGACACCAATCACTCACAGAACAGTCACTGGTTTTGGATTCTTGTTTTCCTTGCAAGA
ACAAAAGGTTCTCTAGAATCCTTCAGCCACCAATGAAATGATCAGGCAGGAGAAAAACTTTAGATGGGAGTCTTG
TCATCAAAAATAAATACAGTTGCATGGAGCTGCTTAAGATCTGAACCAAACTCAAAATAGGAAGACGGGGGCTAA
AAAGTTATTTTAAGAACCCCCCCACCACAACCACAGTCACTCCGTGGGCTAAGCGGGGAGCAGGAAGCATGTCTG
GTCACACCATCTTGGAATAGGAAGCC**ATG**GCTGGACGGATCGGATCCACTGATGGCACACGTGGAGCTGAACTTG
ACGCCAGCGGCGGGGCGGGGAGGCACTGCCCTCACTGTTGCAGTTCCTTCATTCTGTTGAGGGCACTGCCAGCGC
GGAACCACTCAATCTGCGTCTCGTTGAAGGTGTGGTTCAGGAGGATGGTCTCCTGGGTCCCGTTGGGGTGCTTGA
TGATGCACTTCAGGGGCTGCAAGGAGAAGGTGGGTGTGGGTGGAAGTGGTGGGTACTGTGTGCCCTTGGCCCCGC
AGGGGGGTCAGGGAGACAGGGCACTGCCTGGGGACCTAAGAGGTCAGCAGGCAAACCAAATCCTAGGCCAGTCTG
TGCCTGATGGCCCAGGTCAGACCCAGGTGGCACCTACAGGGGATTCCTGGGGCCCAGAGGGTCCTGCAGTGGGTG
GGCTGTCCCCTGAGTGCCAGGTCCTGGTGAGTAAAGGGAGGTTGGGGAGGTGTGAGGGCCCCGGGTTGACTCCAA
CCCCCAACTCTGAGAAGCCACTTTGCTTTCTCTGTGGGGCCACCTGGAGAACTGGGGGCCTTTCCAGCTGGAATG
AAGCCTCCTGGGAGAAGCTACCCTGGGGCCAGTGCAGGAGGGGAAACAAGGTGGCTGCCCCTCACCCCACCACCT
CAGGGGGACCCGGGCCCCTAACCTTGCCAGGGGTGAAGTCCTTCAGGCCC**TGA**ATGGTCAGCTTGTCCACAGGGT
GAATCTTGTTGTAGTCAGCCGGGTCAGCGAAGGTCAGAGGCAGCAGGCCCTGTTTCTTCAGGTTGGTCTCTGGAA
AGCAGGCGGCATTCGGTCATCGGGGGCCTGACTAGCCTGGAGAGCTTCATTTTCTGAACCCATCTGGGGCTCTGG
GAGATGCCCCTAATCCTGCTGCCTGGGACAATGCCCGGGCAGTGACTATGGGGCCCTGGTCTGCTCCCTTTCACT
AGGGGTGCCCCTAGCAAGTGTGCGCTGGTGCTGAGGTCTGCGAGGCCTTCCTGCTGCACATTCATGATCAGAAAG
AACCCCCTGGCACATGTCCTAGATCTCAGCGGCTCAGATCTACAAGCCTGGAAGCAGGGCCTGCGGGAAGCCGGG
AAGCTGAGCGTCGGATGTGCACTGTGTGAGCCTAAGAAGGGGCAAGAGGCTGACGGGCCTGTGGGCTGCAGTGGA
CACAGCCTAGAACCAGGCCCAACTCAGCCACGGGCAGGGAGAGTGACCTTGATCACTAGGGATGGGATGAGGATG
GCCTGGGTACAGACTCCAGCTCACCGTGGATCCTGGCAAAGCTCTTGGTGATGATGGCCCGGCCCCCAAGGTGGC
GAGGCTCCAGAGCTGCATGCTCCCGGCTCGAGCCCTCGCCGTAGTTCTCGTCTCCGATCACCACCCACCTGATGC
CATGTTTCTGTCAGGCAAGCGGGGGTAAGGTTATAAGGCAGAGGAGGGCACCGTCCTCACCTGTCTGGCCCTACC
TGCCTGGCCTCACCCACCTGGCGCCTGGGCATCCTGAGGCTCCCGGTAAAGGGGCTGGAGGGGCCCTTCCTCGCC
TGCTGCCTAAGGGCAAGTGAAGCCTGCGTGAATGAGACCCAAACGAGGCCCCGAGGGGACAGAGGCACGTGGTTG
TTTGCAGTGGCAAAGAAGACAGAAGCCACCCATTGGTGCTTGGCAGAGGCAGGTGTGTGTGGAGGGAGGTTGGGT
GAGACAGGGACGGCCTCCGGGCCCCACACAAGATGCATCTGTGAAGCTCAAGGCGCCCCCTTCCTGGGAGCACCC
TCTGCCCCACCCAGCCACCAGGGGGTGCCAGAGTCCTTTCACCCGGCTGGGCCAGGACTTGGGTTCAGCCCTGGT
TCTGTTTGTTTCTCAAAGCAGAAAAAGTCCAATCACCTCAGACCCTCTCTGCCTGCTCACTGTGAGGCCCCGTGT
AGCCCCCTCTCTGAGCTTTTGGCCTCTGACTTCCTGAGTCGGCCCCCTTCCTTGTCTTTGTCTAGGGCCAGATAT
CCTAAGATATCTCTCACTAACTCCTCCTGGTGCAGGGACCCGGCTGTACCACCGGACCTGGGCCTCATGCCTTCT

FIGURE 4040B

CAGCCACAGGGAGGGGCTGCAGGCCTCTCCTCCCTTCCACAGCAGTCCCCTTTGGGCTTGGTCGGCCTCCTTCCC
AGTTTCCACTCCCCTAATGTCCTCCCTGCACCTGCCTTGCAGGCCCCTTCAGGAGTGACCACTGGCATTGCCCCT
ATCAACTCTGACCCACCTTGTAGTAGCGGGCAGTGTCAGGGACGGGGCCAAACTCCTGAGTGACGGCATTGCGCA
CGGAGTTGGCCTTGCCGTTTTCAATGTTGATGGCACCAATGAGCAGGTTGTTGGAGATGTTATCCAAGTGCCCAC
GGAACTTGAGCCAGGGGCCAGCAGCTGAGATGTGGTCAGTGGTACACTTCCCTTTGACCTTGGGTGGTAAGTAGA
GAGGACAGAGGTCAGGGCATGGCCCTGGAGGGGTGGATGACAAGCCCTCCAGAGGCAGGCAGCAGGCCCCGGGGC
CCAGGAGGGGTGACAGAGGGGTGAGAGGCAGGCAAGTCTTCAGACACGTGTTCTGTGGTCCTGGTGCTTCCACCC
TAAGGCCACATGGGCTCAGGCCAGGCCTTCATCCCCTCAAAGGCCTCTGGCTGCTCAGTCTCCCTTATGGGGCAG
AGGCCGCCCAAAGTTGGGACAGGTCAATGTTCGCTCACCCTTCAGGCCTCAGCTGCAAGATCAGCCACAGACCTC
ATGCTGGACACAGGAGCCCAGGACATGCCTGGGTCCTGGCTGATGACTGATTAGTCTCTTCTGTCACAGGGGTGC
CTGGAGACCCCTTAATAAGCAGCATAAATAAATATCTGACACAGATTGGAGGCCTCTGGCCACACC

FIGURE 4041

AGCC**ATG**GCAGTCACCGCCCAGGCAGCCCGCAGGAAGGAGCGCGTCCTCTGCCTGTTTGACGTGGACGGGACCCT
CACGCCGGCTCGCCAGAAAATTGACCCTGAGGTGGCCGCCTTCCTGCAGAAGCTACGAAGTAGAGTGCAGATCGG
TGTGGTGGGCGGCTCTGACTACTGTAAGATCGCTGAGCAGCTGGGTGACGGGGATGAAGTCATTGAGAAGTTTGA
TTATGTGTTTGCCGAGAACGGGACGGTGCAGTATAAGCACGGACGACTGCTCTCCAAGCAGACCATCCAGAACCA
CCTGGGGGGAGGAGCTGCTGCAGGACTTGATCAACTTCTGCCTCAGCTACATGGCCCTGCTCAGGCTGCCCAAGAA
GCGTGGAACCTTCATCGAGTTCCGGAATGGCATGCTGAACATCTCGCCCATCGGCCGGAGCTGCACCCTGGAGGA
GAGGATCGAGTTCTCCGAACTGGACAAGAAAGAGAAGATCCGGGAGAAGTTCGTGGAAGCCCTGAAAACAGAGTT
TGCTGGCAAAGGGCTGAGGTTCTCTCGAGGAGGCATGATCAGCTTTGACGTCTTCCCCGAGGGCTGGGACAAGCG
CTACTGCCTGGATAGCCTGGACCAGGACAGCTTCGACACCATCCACTTCTTTGGGAACGAGACTAGCCCTGGTGG
GAACGACTTTGAGATCTTTGCCGACCCCCGGACTGTTGGCCACAGCGTGGTGTCTCCTCAGGACACGGTGCAGCG
ATGCCGGGAGATTTTCTTCCCAGAGACAGCTCATGAGGCG**TGA**CCGGGGCCCACATCTGTGTGTCGTGACTTCTG
AAGAGTTTGGCCTAGGCCTAAAGAGAGGTCCTGGTGTTGGATAGATGCCAGGGCCCCTCCTCTGGCCCAGGACGC
CTGCTGCAAGCCCACCCAGATGGGGCCAGAGTCTGTGTGGACAACCGTCCCCAGCCAGTCTGCTCCTAGTGGCAC
TGGCTTCGTCCTCCCAGGGCCCAGAGTGTTCCCCATGCTCCACCTGGTGGCCCAGGCCACAGCTGCTGCTTGTAT
TTCGGTACAGAAGAGGTTTCTTTCTGCACCAGGAGGAGGCGTGCTCAAGTATCGGTACGAGATCTAGCCTGCCCT
GCCTGCCTGCCCTGGGCGATGAGGTACGGTGGGGAAGGTGCCTATTTTAGAGAACTTTGTCACAGTATTAAAGTT
CCC

FIGURE 4042

CCGGTAGCGGGTGTGGGGGCGCGAGCAGCGCAGGGCGGCCTCTCCCCCACCCCTCAGCCCGGGCCCGGGCTCGGT
CCCCCCCTCTCCCTCCGCTTCGCACTCCCGTCGGGTACGGGAAGGTCCAAGCCGCTGCCGGGTGCCCGAGGGCCG
TCGTGGCCGCCGTCGCCACGGGTCCCA**ATG**GAGCCGCCGAATCTCTATCCGGTGAAGCTCTACGTGTACGACCTG
TCCAAAGGCCTGGCCCGGCGGCTCAGCCCCATCATGCTGGGGAAACAACTGGAAGGCATCTGGCACACATCCATA
GTTGTGCACAAGGATGAGTTCTTCTTCGGCAGTGGTGGTATCTCCAGCTGCCCCCCGGGAGGGACATTGCTTGGG
CCTCCAGACTCTGTGGTTGATGTGGGGAGTACAGAAGTCACAGAAGAAATCTTTCTGGAGTACCTCTCCTCCCTG
GGGGAGTCCCTGTTCCGAGGTGAGGCCTACAACCTCTTTGAACACAATTGTAACACCTTCAGCAACGAAGTGGCA
CAGTTCCTGACTGGGCGGAAGATTCCTTCTTACATCACAGACCTGCCCTCTGAAGTTCTCTCCACGCCCTTTGGA
CAGGCACTTCGGCCCCTCCTGGACTCCATTCAGATCCAGCCTCCAGGAGGGAGCTCCGTGGGCAGACCCAACGGC
CAGAGC**TAA**CAGGACTGCCTGGGACCGCCCTGCCTCACCAGGGCTTTTCCTTTTTAAACAAAACAAACCCTACCA
GATTTCTATTTTATAATTTTACATCAGAGCTAACAACCAGGGGACGGCTTTTTAAATTTCCCAGGGAAGGAGACC
GTCAGGCCGCATGTAGACAATGCTGCTAAGAAACAGAACAAAATGCCACCCCTTCTAATAGTATTATACTAATTT
ATTAAGGCTGTCTTGTCTGTGCGTTCACTTCGGATGCTGTTTCCTAAGCGTCCTCCACACTGGAGAAAGGGAGGG
GCTTTGTTTAAACAGAAAGCGAGTCACAGTTTGCGGGAGCCCCAACCTAGAACTCTTTCCAGAGAACACTCACGC
TCTACCCAAGTTGCCAACACCTGTGGGACCCAGGTGAGTTTTAGAACATCCGTGACCCAGAAAGTTACTCTAGTG
TTAAATGAACCAAAGGATTTGGTGTACATGGGACCGGTTTCAGGATGACTAACCTAACCTAAGTGAACTCTTTAG
CCACAACCCTCACCTTCCCTCCCTTACCCCAAGCAAGGCCAGTGCTGGAGCAGCCATTGCCTCCGGATCAAGGGA
GTAACAGCAAGTATCAGGCCGGAGAAAACAGGATAAAGCCATTCCTCCTTCCACCTAGATGGATTGCCAATCTTC
TGCCATCAATTTTGGGAAACCTGCCTTTGTGCCCCCGAGGCTGCCTTTCCTCAGCATAGCTGACTTGTCATAGTG
GATGAGGTCTGGGCTGGAGCAGTAGAAGCCAAGGCCTTTTTTCTGCAAGTAATGATGTAGGTTATTTGCAGTCTC
TGTAACCACCATCCAGGCCAGTACGCAGTATTTAGCTGGGGACCAAGGGATGGGATTCCCTACTCTAAGAAAATA
CCTTTATTTTAATTATTATTATTTTTTGAGACGGAGTCTCGCTCTACCACCCAGGCTGGTGTGCAGTGGCATGAT
CTCGGCTCACAGAATCGCTTGAACCCGGGAGGCAGAGATTGCGATGAGCCGAGATCGTACCAGTGCACTCCAGCC
TGGGCGACAGAGTGAGACTCCATCTCAAAAAAATAAAATAATGAAGTGGAATCAAGGTGGCAAGAAAATTTAGAA
TCGTTTCTGATAGGGACTTTCCCTTATCCTAAATGTGTTTTGAAGGCACACGTTATTTCCATTGTCATTCTGACT
TTAGAAAGGCAGGTTGGGGCATGAGTGGGCATTTTCCTAATGACTTGCTGCTAGGAGGTTATAGGCAGGGAACAG
TCTGGGAGTC

FIGURE 4043

GCGGGCCGTTATCCATTTGTGTTGTTCGCCAGCTAGGCCTGGCCTCGTCCCGCTTCGCTCGGTCGGTCTCGCGCG
CCCCCATAGCCTTGCTAGAGGGTTAGCGTTAGCCTTAAGTGTGCGAATCCGAGGAGCAGCGACAGACTCGAGACC
ACGCTCCTTCCTCGGGAAGGAGGCGGCACCTCGCGTTTGAGGCCCGCCTGCGTTTGAGGCCCGCCTGCGCTTGCG
GCCCGCCTGCGCTTGAGGCCTGTCTGCGTTTGAGATCTCATTGGGCGTGATTGAGGAATTTGGGGAGGTTTTTGG
GCGGTATTGAGGACGAGGGGGTCCGTTAGTCAGCATAGAATCCTGGAGCGGGAATCCCTCACCGTCTAAATGGCG
TCGGGGGCGGGACCTCCGGGATCTGGCTTCCGCGGGCCGCCGCCGGCCCTGAAACGTGAGGGATAGCTGAGATGA
GGCAGCTACTGGGATGGCCCCCATGCGCATTTACATGCAGTCCGACTGCCGAGCTTTCGAGGCAGCAGGATTTAC
CGTCCACATTCCTCACTACTAACCAAGCTTTTAGAACAGATCTCACAAGAACCTAGAGGTCGGTATTTTTTCGAT
TTAAATTTGCCTGTTACTGACGTTAACGTCTTTCGCCTAGTGAGCAGTAGCCAAC**ATG**TCAGGGTGGGAGTCATA
TTACAAAACCGAGGGCGATGAAGAAGCAGAGGAAGAACAAGAAGAGAACCTTGAAGCAAGTGGAGACTATAAATA
TTCAGGAAGAGATAGTTTGATTTTTTTGGTTGATGCCTCCAAGGCTATGTTTGAATCTCAGAGTGAAGATGAGTT
GACACCTTTTGACATGAGCATCCAGTGTATCCAAAGTGTGTACATCAGTAAGATCATAAGCAGTGATCGAGATCT
CTTGGCTGTGGTGTTCTATGGTACCGAGAAAGACAAAAATTCAGTGAATTTTAAAAATATTTACGTCTTACAGGA
GCTGGATAATCCAGGTGCAAAACGAATTCTAGAGCTTGACCAGTTTAAGGGGCAGCAGGGACAAAAACGTTTCCA
AGACATGATGGGCCACGGATCTGACTACTCACTCAGTGAAGTGCTGTGGGTCTGTGCCAACCTCTTTAGTGATGT
CCAATTCAAGATGAGTCATAAGAGGATCATGCTGTTCACCAATGAAGACAACCCCCATGGCAATGACAGTGCCAA
AGCCAGCCGGGCCAGGACCAAAGCCGGTGATCTCCGAGATACAGGCATCTTCCTTGACTTGATGCACCTGAAGAA
ACCTGGGGGCTTTGACATATCCTTGTTCTACAGAGATATCATCAGCATAGCAGAGGATGAGGACCTCAGGGTTCA
CTTTGAGGAATCCAGCAAGCTAGAAGACCTGTTGCGGAAGGTTCGCGCCAAGGAGACCAGGAAGCGAGCACTCAG
CAGGTTAAAGCTGAAGCTCAACAAAGATATAGTGATCTCTGTGGGCATTTATAATCTGGTCCAGAAGGCTCTCAA
GCCTCCTCCAATAAAGCTCTATCGGGAAACAAATGAACCAGTGAAAACCAAGACCCGGACCTTTAATACAAGTAC
AGGCGGTTTGCTTCTGCCTAGCGATACCAAGAGGTCTCAGATCTATGGGAGTCGTCAGATTATACTGGAGAAAGA
GGAAACAGAAGAGCTAAAACGGTTTGATGATCCAGGTTTGATGCTCATGGGTTTCAAGCCGTTGGTACTGCTGAA
GAAACACCATTACCTGAGGCCCTCCCTGTTCGTGTACCCAGAGGAGTCGCTGGTGATTGGGAGCTCAACCCTGTT
CAGTGCTCTGCTCATCAAGTGTCTGGAGAAGGAGGTTGCAGCATTGTGCAGATACACACCCCGCAGGAACATCCC
TCCTTATTTTGTGGCTTTGGTGCCACAGGAAGAAGAGTTGGATGACCAGAAAATTCAGGTGACTCCTCCAGGCTT
CCAGCTGGTCTTTTTACCCTTTGCTGATGATAAAAGGAAGATGCCCTTTACTGAAAAAATCATGGCAACTCCAGA
GCAGGTGGGCAAGATGAAGGCTATCGTTGAGAAGCTTCGCTTCACATACAGAAGTGACAGCTTTGAGAACCCCGT
GCTGCAGCAGCACTTCAGGAACCTGGAGGCCTTGGCCTTGGATTTGATGGAGCCGGAACAAGCAGTGGACCTGAC
ATTGCCCAAGGTTGAAGCAATGAATAAAAGACTGGGCTCCTTGGTGGATGAGTTTAAGGAGCTTGTTTACCCACC
AGATTACAATCCTGAAGGGAAAGTTACCAAGAGAAAACACGATAATGAAGGTTCTGGAAGCAAAAGGCCCAAGGT
GGAGTATTCAGAAGAGGAGCTGAAGACCCACATCAGCAAGGGTACGCTGGGCAAGTTCACTGTGCCCATGCTGAA
AGAGGCCTGCCGGGCTTACGGGCTGAAGAGTGGGCTGAAGAAGCAGGAGCTGCTGGAAGCCCTCACCAAGCACTT
CCAGGAC**TGA**CCAGAGGCCGCGCGTCCAGCTGCCCTTCCGCAGTGTGGCCAGGCTGCCTGGCCTTGTCCTCAGCC
AGTTAAAATGTGTTTCTCCTGAGCTAGGAAGAGTCTACCCGACATAAGTCGAGGGACTTTATGTTTTTGAGGCTT
TCTGTTGCCATGGTGATGGTGTAGCCCTCCCACTTTGCTGTTCCTTACTTTACTGCCTGAATAAAGAGCCCTAAG
TTTGTACT

FIGURE 4044

ATCCGTGTCCTTGCGGTGCTGGGCAGCAGACCGTCCAAACCGACACGCGTGGTATCCTCGCGGTGTCCGGCAAGA
GACTACCAAGACAGACGCT**ATG**ACTGAGGCTGATGTGAATCCAAAGGCCTATCCCCTTGCCGATGCCCACCTCAC
CAAGAAGCTACTGGACCTCGTTCAGCAGTCATGTAACTATAAGCAGCTTCGGAAAGGAGCCAATGAGGCCACCAA
AACCCTCAACAGGGGCATCTCTGAGTTCATCGTGATGGCTGCAGACGCCGAGCCACTGGAGATCATTCTGCACCT
GCCGCTGCTGTGTGAAGACAAGAATGTGCCCTACGTGTTTGTGCGCTCCAAGCAGGCCCTGGGGAGAGCCTGTGG
GGTCTCCAGGCCTGTCATCGCCTGTTCTGTCACCATCAAAGAAGGCTCGCAGCTGAAACAGCAGATCCAATCCAT
TCAGCAGTCCATTGAAAGGCTCTTAGTC**TAA**ACCTGTGGCCTCTGCCACGTGCTCCCTGCCAGCTTCCCCCCTGA
GGTTGTGTATCATATTATCTGTGTTAGCATGTAGTATTTTCAGCTACTCTCTATTGTTATAAAATGTAGTACTAA
ATCTGGTTTCTGGATTTTTGTGTTGTTTTTGTTCTGTTTTACAGGGTTGCTATCCCCCTTCCTTTCCTCCCTCCC
TCTGCCATCCTTCATCCTTTTATCCTCCCTTTTTGGAACAAGTGTTCAGAGCAGACAGAAGCAGGGTGGTGGCAC
CGTTGAAAGGCAGAAAGAGCCAGGAGAAAGCTGATGGAGCCAGGACAGAGATCTGGTTCCAGCTTTCAGCCACTA
GCTTCCTGTTGTGTGCGGGGTGTGGTGGAATTAAACAGCATTCATTGTGTGTCCCTGTGCCTGGCACACAGAATC
ATTCATACGTGTTCAAGTGATCAAGGGGTTTCATTTGCTCTTGGGGGATTAGGTATCATTTGGGGAGGAAGCATG
TGTTCTGTGAGGTTGTTCGGCTATGTCCAAGTGTCGTTTACTAATGTACCCCTGCTGTTTGCTTTTGGTAATGTG
ATGTTGATGTTCTCCCCCTACCCACAACCATGCCCTTGAGGGTAGCAGGGCAGCAGCATACCAAAGAGATGTGCT
GCAGGACTCCGGAGGCAGCCTGGGTGGGTGAGCCATGGGGCAGTTGACCTGGGTCTTGAAAGAGTCGGGAGTGAC
AAGCTCAGAGAGCATGAACTGATGCTGGCATGAAGGATTCCAGGAAGATCATGGAGACCTGGCTGGTAGCTGTAA
CAGAGATGGTGGAGTCCAAGGAAACAGCCTGTCTCTGGTGAATGGGACTTTCTTTGGTGGACACTTGGCACCAGC
TCTGAGAGCCCTTCCCCTGTGTCCTGCCACCATGTGGGTCAGATGTACTCTCTGTCACATGAGGAGAGTGCTAGT
TCATGTGTTCTCCATTCTTGTGAGCATCCTAATAAATCTGTTCCATTTTG

FIGURE 4045

AGTTGCTTTGCTGTTAGCCTGTTGGACCTTCGAGCCTAGCTGCTCGCACAGGACTCGGCCACCTGCCCTTCCTGC
ACCGACTGGCCAGCTCAAGAGGTTTGGAT**ATG**GACCTTCTTCAATTCCTGGCCTTCCTCTTTGTCCTGCTTTTGT
CTGGGATGGGAGCCACAGGCACCTTGAGGACCTCCCTGGACCCAAGCCTGGAGATCTACAAGAAGATGTTTGAGG
TGAAGCGGCGGGAGCAGCTGTTGGCACTGAAGAACCTGGCACAGCTGAACGACATCCACCAGCAGTACAAGATCC
TTGATGTCATGCTCAAGGGGCTCTTTAAGGTGCTGGAGGACTCCCGGACAGTGCTCACCGCTGCTGATGTGCTCC
CAGATGGGCCCTTCCCCCAGGACGAGAAGCTGAAGGATGCTTTCTCCCACGTGGTGGAGAACACGGCCTTCTTCG
GCGATGTGGTGCTGCGCTTCCCGAGGATTGTGCACTATTACTTTGACCACAACTCCAACTGGAACCTCCTCATCC
GCTGGGGTATCAGTTTCTGCAACCAGACAGGCGTCTTCAACCAGGGGCCCCACTCGCCCATCCTCAGCCTGATGG
CCCAGGAGCTGGGGATCAGTGAGAAAGACTCCAACTTCCAGAACCCATTTAAAATCGACCGCACAGAGTTCATTC
CCAGCACTGACCCTTTCCAGAAGGCCCTGAGAGAAGAAGAGAAACGCCGAAAGAAAGAGGAGAAGCGGAAGGAGA
TCCGAAAAGGCCCAAGGATCTCCAGATCCCAGTCTGAGTTA**TAG**CCCTGGAGCAGCTCAGGGCTCAGGGGGCCAC
AAGGAGGCAGGTCGGGAGGAAGAAGAGGTGGAGGTGTGGTTGTGGTGGAGAGCACCAGCTAGCCCCTTCCAGAAG
GGGAGGCCACATTTGCCCGGCCCCCTGGAGCTGGGTCTGAGCCCCAGCTGAAGGGACTGAGCCTCAGATGGCTGG
ATTTTCTCTCAGGGGCCTCCTGCTGAAGGGGCCTTCAGAGGATTTTATGCTGGAAATATGACCCTGTGCAGACTG
CTGGGGGAGGCAGGAGGATGCCTGCCTGGACCCTGTTGGTGGCTGAAGACCTCTGGCCAGCTGGCTTCCGCCCTT
GGTGGGGAAGCAGCAGAACTAGGTTCTGAGCCACGGGTCAGGGTGCCACCCTGCTGCTGGCCCCACTGTGTCACA
GAGCTGCCTGGCACAGGTCCCAGCCCCTCTGCAGAGACACAATAAAAGCCAGCAGACCCTTTG

FIGURE 4046A

CCGTCGGTGAGGCGGTGCCGGGCGGGGGTTGTCGGGTGTCATGGGCGGTGGCGACGGCACCGCCCCCGCGTCTCC
CTGAGCGGGACGGCAGGGGGGGCTTCTGCGCTGAGCCGGGCG**ATG**GACGACAGCGGCGAGCTGGGTGGTCTGGAG
ACCATGGAGACCCTCACGGAGCTGGGCGACGAGCTGACCCTGGGAGACATCGACGAGATGCTGCAATTTGTCAGT
AATCAAGTGGGAGAGTTCCCTGACTTGTTTTCAGAACAGCTGTGTAGCTCCTTTCCTGGCAGTGGTGGTAGTGGT
AGCAGCAGCGGCAGCAGTGGCAGCAGCAGCAGCAGCAGCAATGGCAGGGGCAGCAGCAGCGGAGCTGTGGACCCT
TCAGTGCAACGGTCATTCACCCAGGTCACATTACCTTCCTTCTCTCCCTCGGCGGCCTCCCCACAGGCTCCAACT
CTGCAAGTCAAGGTTTCTCCCACCTCAGTTCCCACCACACCCAGGGCAACTCCTATTCTTCAGCCCCGCCCCCAG
CCCCAGCCTCAACCTCAAACTCAGCTGCAACAACAGACGGTAATGATCACGCCAACATTCAGCACCACTCCGCAG
ACGAGGATCATCCAGCAGCCTTTGATATACCAGAATGCAGCTACTAGCTTTCAAGTCCTTCAGCCTCAAGTCCAA
AGCCTGGTGACATCCTCCCAGGTACAGCCGGTCACCATTCAGCAGCAGGTGCAGACAGTACAGGCCCAGCGGGTG
CTGACACAAACGGCCAATGGCACGCTGCAGACCCTTGCCCCGGCTACGGTGCAGACAGTTGCTGCGCCACAGGTG
CAGCAGGTCCCGGTCCTGGTCCAGCCTCAGATCATCAAGACAGATTCCCTTGTTTTGACCACACTGAAGACAGAT
GGCAGCCCTGTTATGGCTGCGGTCCAGAACCCGGCCCTCACCGCCCTCACCACCCCTATCCAGACGGCTGCCCTT
CAAGTACCAACCCTGGTGGGCAGCAGTGGGACCATTCTGACCACAATGCCTGTAATGATGGGGCAAGAGAAAGTG
CCCATTAAGCAGGTACCTGGGGGAGTCAAGCAGCTTGAGCCCCCCAAAGAAGGAGAAAGGCGGACAACCCATAAT
ATCATTGAGAAACGATATCGCTCCTCCATCAATGACAAAATCATCGAATTGAAAGACCTGGTCATGGGGACAGAC
GCCAAGATGCACAAGTCTGGCGTTCTGAGGAAGGCCATTGATTACATCAAATACTTGCAGCAGGTCAATCATAAA
CTGCGCCAGGAGAACATGGTGCTGAAGCTGGCAAATCAAAAGAACAAGCTTCTAAAGGGCATCGACCTAGGCAGT
CTGGTGGACAATGAGGTGGACCTGAAGATCGAGGACTTTAATCAGAATGTCCTTCTGATGTCCCCCCCAGCCTCT
GACTCAGGGTCCCAGGCTGGCTTCTCTCCCTACTCCATTGACTCTGAGCCAGGAAGCCCTCTATTGGATGATGCA
AAGGTCAAAGATGAGCCAGACTCTCCTCCTGTGGCGCTGGGCATGGTAGACCGCTCACGGATTCTTCTGTGTGTC
CTCACCTTCCTGTGCCTCTCCTTTAACCCCCTGACTTCCCTGCTGCAGTGGGGAGGGGCCCACGACTCTGACCAG
CACCCACACTCAGGCTCTGGCCGCAGTGTCCTGTCATTCGAGTCAGGTTCTGGGGGCTGGTTTGACTGGATGATG
CCTACTCTTCTCTTATGGCTGGTAAATGGTGTGATTGTCCTGAGCGTCTTTGTGAAGCTGCTGGTTCATGGGGAG
CCAGTGATCCGGCCACACTCGCGCTCCTCGGTCACCTTCTGGAGGCACCGGAAACAGGCAGATCTGGATCTCGCC
AGAGGAGATTTTGCAGCTGCTGCCGGCAACCTACAAACCTGCCTGGCAGTTTTGGGCCGGGCACTGCCCACCTCC
CGCCTGGACCTGGCCTGCAGCCTCTCCTGGAACGTGATCCGCTACAGCCTGCAGAAGCTACGCCTGGTGCGCTGG
CTGCTCAAGAAAGTCTTCCAGTGCCGGCGGGCCACGCCAGCCACTGAGGCAGGCTTTGAAGACGAAGCTAAGACC
AGCGCCCGGGATGCGGCTCTGGCCTATCACCGGCTGCACCAGCTGCACATCACAGGGAAGCTTCCTGCAGGATCC
GCCTGTTCCGATGTACACATGGCGTTGTGTGCCGTGAACCTGGCTGAATGTGCAGAGGAGAAGATCCCACCGAGC
ACACTGGTTGAGATCCATCTGACTGCTGCCATGGGGCTCAAGACCCGGTGTGGAGGCAAGCTGGGCTTCCTGGCC
AGCTACTTCCTCAGCCGAGCCCAGAGCCTGTGTGGCCCCGAGCACAGTGCTGTTCCTGACTCCCTGCGCTGGCTC
TGCCACCCCCTGGGCCAGAAGTTTTTCATGGAGCGGAGCTGGTCTGTGAAGTCAGCTGCCAAGGAGAGTCTATAC
TGTGCCCAGAGGAACCCAGCTGACCCCATTGCGCAGGTCCACCAGGCCTTCTGCAAGAACCTGCTGGAGCGAGCT
ATAGAGTCCTTGGTGAAACCTCAGGCCAAGAAGAAGGCTGGAGACCAGGAAGAAGAGAGCTGTGAATTCTCCAGT
GCTCTGGAGTACTTGAAATTACTTCATTCTTTTGTGGACTCTGTGGGGGTTATGAGCCCCCCACTCTCCAGGAGC
TCCGTGCTCAAGTCCGCCCTGGGTCCAGACATCATCTGTCGGTGGTGGACGTCTGCAATCACTGTGGCCATCAGC
TGGCTCCAGGGAGACGATGCAGCTGTGCGCTCTCATTTTACCAAAGTGGAACGCATCCCCAAGGCCCTGGAAGTG
ACAGAGAGCCCCCTGGTGAAGGCCATCTTCCATGCCTGCAGAGCCATGCATGCCTCACTCCCTGGGAAAGCAGAT
GGGCAGCAGAGTTCCTTCTGCCATTGCGAGAGGGCCAGTGGCCACCTATGGAGCAGCCTCAACGTCAGTGGGGCC
ACCTCTGACCCTGCCCTCAACCACGTGGTCCAGCTGCTCACCTGTGACCTGCTACTGTCGCTACGGACAGCGCTC
TGGCAAAAACAGGCCAGTGCCAGCCAGGCTGTGGGGGAGACCTACCACGCGTCAGGCGCTGAACTGGCGGGCTTC
CAACGGGACCTGGGCAGCCTGCGCAGGCTGGCACACAGCTTCCGCCCAGCATACCGCAAGGTGTTCCTGCATGAA
GCCACCGTGCGCCTGATGGCAGGAGCCAGCCCCACCCGCACCCACCAGCTGCTGGAACACAGCCTGCGGCGGCGC
ACCACGCAGAGCACCAAGCACGGAGAGGTGGATGCCTGGCCCGGCCAGCGAGAGCGGGCCACCGCCATCCTGCTG
GCCTGCCGCCACCTGCCCCTCTCCTTCCTCTCCTCCCCGGGCCAGCGGGCAGTGCTGCTGGCCGAAGCTGCCCGC
ACCCTGGAGAAGGTGGGCGACCGGCGCTCCTGCAACGACTGCCAGCAGATGATTGTTAAGCTGGGTGGTGGCACT
GCCATTGCCGCCTCC**TGA**CCACCAGGCTCAGCCCACCCCTCCACCTCTCTCTCGATTTCTCTCTCTCCCCCTCAG

FIGURE 4046B

CATCTTCCCGCTGAGAGTGGTGGGGAAGAGCCTTGTCTTCTTAGCTGTCACCTGCCGAGGCTTCTGGGCCACTCA
GGCCAGTGCACCCCTGGGCAGAGCCCCTTAAAGCTGCTGTCACTAGATGCCCATGGTCCAGGGCCTGGTGGGCGT
GAGAGGATAGGTGGCAGGGCAGAAACTGGGCAGCCCTGACTTGATAGCAGCAGGGGGAGCTCCCAAGCTGCCAAG
CCCCTGCCTCCAGCCTTCCTGAGTTTCTCTCTCCTGAACCCTACTCTCTCCTTTTTGCTTCCTCAGTTTTTATCA
GGCTTTCTCTGGGGGACAGCAGTCTCTGAGCACCAGGGAGCAGTTGCCCTCAGGCCTGTGCCCAGCATGCCCTCC
CCTTTTTATACGAATGTTTTCTACCAGTGTGCTTGGGTTTGCCATGATGCGAGGCTGAGTTGCTGTAGCGTCTTG
ATTCTCTCCCTGGGTCTGCGTTCCCTCCCCTGGGCCTGACTGAGCCTGCTCATTGTTTTTCCCTTTATTACACAG
GACAGCCAGGGGAGGAGGGGGGCCCAGCCCTGGGAGGCTGGTGGGAGGCAGGGGGCAGGCCTGCGGATGCATGAA
ATAATGTTGGCATTATTTTTTAATTTTTTAAAAAATAAATGGTATCTTA

FIGURE 4047

GCACCGCAGGAGCAACGGTTGGTCCTGCGGCTGTG**ATG**TCGGTGTTGAGGCCCCTGGACAAGCTGCCCGGCCTGA
ACACGGCCACCATCTTGCTGGTGGGCACGGAGGATGCTCTTCTGCAGCAGCTGGCGGACTCGATGCTCAAAGAGG
ACTGCGCCTCCGAGCTGAAGGTCCACTTGGCAAAGTCCCTCCCTTTGCCCTCCAGTGTGAATCGGCCCCGAATTG
ACCTGATCGTGTTTGTGGTTAATCTTCACAGCAAATACAGTCTCCAGAACACAGAGGAGTCCCTGCGCCATGTGG
ATGCCAGCTTCTTCTTGGGGAAGGTGTGTTTCCTCGCCACAGGTGCTGGGCGGGAGAGCCACTGCAGCATTCACC
GGCACACCGTGGTGAAGCTGGCCCACACCTATCAAAGCCCCCTGCTCTACTGTGACCTGGAGGTGGAAGGCTTTA
GGGCCACCATGGCGCAGCGCCTGGTGCGCGTGCTGCAGATCTGTGCTGGCCACGTGCCCGGTGTCTCAGCTCTGA
ACCTGCTGTCCCTGCTGAGAAGCTCTGAGGCCCCTCCCTGGAGGACCTG**TGA**GGGTGGCTGGCCCCTGGGCTGC
CCCTTCTCATGGCTTCGTGCTGACTCCATAAACATTCTCTGTTGAGGATGTCCAGTCAGGGCTTGACAGGCCCAG
GCTCAGCCCGCCGTGGCTGGGAAGGTTCCCTGCAGTGCCAGTGCTGCAGCAGGGAGAGCTGGGCAGAAGCAGCGA
GGGGGCCCAGCTGGCGAGACTGTAGCCCCCTCCCACTCCCACACTCACTCTTGCAGAGCCTGTGTCTTTAAGCAG
CTGGCGTGTTACATCTCCATTTAAGGTTTCCTTTGAACAAAAGGTCTGTGGCTAAAAAAAGTTTAAAAATC

FIGURE 4048A

GATTCGAGTCAGAAGCGGCGGCAGGTCTGAACGCTTCGGTAGGATAAGTGCGGTGGGAGGGGGCTCTGCGGTTTT
GGGGAGCCCAGGGCGGGAACCCGGACCCGGCTGGAAGTCCGGAGCCTGGCCGCAGCCCCGCCCCTCCGCTCTTTC
TTGGTGACCTTAAGCCAGTGGCTGCCTTTTTCTGAGCCCGGGCGGGGCCGAAGGCGGCCCGTAGGCCCTCGGGAC
TCCCAGCACTGCAGAGGGTGTGAGGTCTGACATCCAAGACACGTTGTTTCGTATTTCTGAAGGAAGAACTGAAGC
TCCGGGAAGTGATGGCTGGGGATGGGGCGGGCAACTTGGGGACCGAGTGTACGATCCACGCCTAAGGTTGAGGGC
GGCCGAGCTAGCCAGGCAGCCGTGACCCCAGTGCTTTTCAGACGTTTCTTAGCTTCCAGAGCCCAACACATACAG
CTGATACACGCAGACCAGATCTGGTCAGGTCCTCGGAAGCTGAGTCCAGAGCG**ATG**CTGCTGAAGACAGTGCTCT
TGCTGGGACATGTGGCCCAGGTGCTGATGCTGGACAATGGGCTCCTGCAGACACCACCCATGGGCTGGCTGGCCT
GGGAACGCTTCCGCTGCAACATTAACTGTGATGAGGACCCAAAGAACTGCATAAGTGAACAGCTCTTCATGGAGA
TGGCTGACCGGATGGCACAGGATGGATGGCGGGACATGGGCTACACATACCTCAACATTGATGACTGCTGGATCG
GTGGTCGCGATGCCAGTGGCCGCCTGATGCCGGATCCCAAGCGCTTCCCTCATGGCATTCCTTTCCTGGCTGACT
ACGTTCACTCCCTGGGCCTGAAGTTGGGTATCTACGCGGACATGGGCAACTTCACCTGCATGGGTTACCCAGGCA
CCACACTGGACAAGGTGGTCCAGGATGCTCAGACCTTCGCCGAGTGGAAGGTAGACATGCTCAAGCTGGATGGCT
GCTTCTCCACCCCCGAGGAGCGGGCCCAGGGGTACCCCAAGATGGCTGCTGCCCTGAATGCCACAGGCCGCCCCA
TCGCCTTCTCCTGCAGCTGGCCAGCCTATGAAGGCGGCCTCCCCCCAAGGGTGAACTACAGTCTGCTGGCGGACA
TCTGCAACCTCTGGCGTAACTATGATGACATCCAGGACTCCTGGTGGAGCGTGCTCTCCATCCTGAATTGGTTCG
TGGAGCACCAGGACATACTGCAGCCAGTGGCCGGCCCTGGGCACTGGAATGACCCTGACATGCTGCTCATTGGGA
ACTTTGGTCTCAGCTTAGAGCAATCCCGGGCCCAGATGGCCCTGTGGACGGTGCTGGCAGCCCCCCTCTTGATGT
CCACAGACCTGCGTACCATCTCCGCCCAGAACATGGACATTCTGCAGAATCCACTCATGATCAAAATCAACCAGG
ATCCCTTAGGCATCCAGGGACGCAGGATTCACAAGGAAAAATCTCTCATCGAAGTGTACATGCGGCCTCTGTCCA
ACAAGGCTAGCGCCTTAGTCTTCTTCAGCTGCAGGACCGATATGCCTTATCGCTACCACTCCTCCCTTGGCCAGC
TGAACTTCACCGGGTCTGTGATATATGAGGCCCAGGACGTCTACTCAGGTGACATCATCAGTGGCCTCCGAGATG
AAACCAACTTCACAGTGATCATCAACCCTTCAGGGGTAGTGATGTGGTACCTGTATCCCATCAAGAACCTGGAGA
TGTCCCAGCAG**TGA**GGAGCTGGGACATGTGACAGGCTGTGGTGGCACCACTGAGCCTAGACCATGGAGCCTTGGC
ATGCCCAGGGCAAGTGGGGAGGTTCTCTGCTCCCCAGGCCTGCTCGGTGACTGACCCCATCATACCCAAAGTGCA
ATCTCACGGCCAGGTTCTATGCCCTGTCCAAGCGTAAACCCTCTTGGAAACTTCTTTTGGGGCAATTTTCCTGTG
GCCTTCCTGGCCTCTACTTCCATGTGCGCAGCCCCACAGACGTTGCTGAGCAACTCGCCAGCCTCCTGAGCTCCA
TGCCCATCAGGACTCTAGCCTCTGACCTTGCTGTTGACTCTGAAATCAGGATTTGGAAGTTTTCGAATTAGGAGT
AGAGAGATCTGACCTCTTGCCAGGAATGCCCATGGATCATGTGATTGGCTTTTCTACCCATAGAGGGCCTTGCAG
CCTGATACCACCTGGGAGTGAGGGTCACAAAGGAGACCTTGGCTCCCTCAGGTCACCAATAAACCTGTTCTTTAA
TCAAGTAGTTGTAATATGGACCTGGGGTACCTTTAGTTAGGGACTCTGGTGGCACTACACGGGGTGCTGGATTCA
AATCTCACCTCTATGGATGATGTCTGGCATCGTCTGGCCCCTCCTTTTCCAAAGTGACCAGAAGATTGTACTTCC
TAGAGATGCCAGACTTGCCTCACACCCAGGAGCTGCCCCTGCTGTGCCTGGTATGCTGGCAGTGGTGATGGTGAC
AACACAATGAGGCCAAGTAGCAATGCTCCCAGGTCCTGCAGCTTGTGCTCTGCCCAGCAGTGCCCCTGGCCCAGC
ACCTCAGCCTGCTCTTCTCTCTGGTGGCTCCACCCCAACCCCTACTTCTTTTCCTTTATTTCTCTCCCAACCTGG
CTGCAAAGGAGGTTCATATTCCCCAGATGTGTCCACAAACCTGTCCAGGAGTTGTGTCTTAAAATTGATTTCCTG
TCCCTCTTCCTAAGGACAGGGGTAACAGTCAAAGTGAAGGAATGATGGGTTCTTGCCTGTCTTGCTTTGGTCCGT
ATTTCCCAAGCCCTCCTCTTTTAGCCAAGGCTACAGGGCACTTGTCTTCCCTGGTGGCTCTCCCCTTTGGAGAGA
GCTAGTGGCAGAGCAACCTAGCTAGGTCCTCCTTGGGCTTTGAATGCAGGAGCACCCAGTGCCCCAGGCCTTGCA
CTGTGCTGCCCAAGGAGTATTTTCTGGGTGGATCTCCCATACTCCTCAGGGTTCTGAGGTCCTTGTATTTAGGGT
ATGGTGTAAAAACTTACATATGCACATTTTGTTACATCATTTAAGATGATTGAAGCTTTACTGGTTAAGTATAGG
GTCACCAGAGAAAGTTCCTTTCCCCAGTTGATGTCTTGAGGCTGTTGAGAAACTTAGGACAGAAGCCTACCTCAT
CCCAGGCCTGCCCCTCCGTGCATAGCTCTGCCTTTGGGTCTTGTTCATAGTGCTGTTCAGGCAAAATGGAATAGT
CTCAGGTGGGAACACCTTCTCTTGCTAGCTCCAGGAAGGCTTTGTGGGAAATGAGTTGAGACCATGGACTTGGGA
GTTGGGGGCCAGAGTTGAGCCTGGACTTGACCAATTAATTCCCTTACCTTTCAGCCCAAGATAGCTACATGTCTT
TACTTGCTGTATAAGTTTTCCTTTTGTCCTGGGGGTGCCTGATTGATCCTATCTCTTCACCCTTCATTCTTTCAA
CAAACATGCCATCTATCTCCCAGGACATTTATTCCCTTCTATTCAAGGCCAGTTAGGAATGCAATTATTTTTTTT
TTTCAGTTAAATACAGACTTGTTTGGACGCAAGGTACCCTTTCTCTTTTTAAAAACTTTTTATCATGAAAACTTT

FIGURE 4048B

CAAATACAAAAATAAAATGGTAGAGTGAACCTCCATG

FIGURE 4049A

CACCGCCGCCGCGCCCCATTGGGCCGGGTGCTGGGGCATCCCGGGCGCTGGGTGCCCCGAGCGGCTACGACGAGT
CCCAGGTGGGGCCGGGCTCCAGGCCCGCGGGGGAGCGGAGCCGTGCGCCGCAGGCGGGCTCCGTGACGCCGGGTG
GGGAACGCCGGGCCGGTGGCGGGACTTCCGCCACGGGACTCGGAAGGGGCCGCGCCGCCGCTGCTGGGAGTTGTA
GTCCGGCCGTGGTTGGGGGAGCCGCGGCTCATGCGCGGTGCACAGAGGCTTGTTTCACATCTGTAACAACAGGAG
GAGGCCCAGCCTCGTGATGAGGAATAGCAAGGAGAGAATTCAGCTCCAGTTCAAAAGCCTACAAAATCTGAGACT
GTCATTGCTTTTATAAGGATTCCAGCTTTCCCTCCTGGCCAGAAATGTTCAGCCTGGACTCATTCAGAAAAGATC
GGGCCCAGCACAGGCAGCGTCAGTGCAAACTTCCCCCACCCCGCCTTCCACCCATGTGTGTCAACCCTACCCCAG
GAGGGACCATCTCTCGAGGCTGAACGTTAACATTTCCAAC**ATG**GCAGCTTCTAGGGACCTATTAAAAGAGTTCCC
ACAGCCCAAAAATCTTCTCAACAGTGTGATTGGAAGAGCCCTCGGCATCTCACATGCAAAAGACAAACTAGTCTA
CGTGCACACAAATGGACCGAAGAAAAAGAAAGTCACACTGCACATAAAATGGCCCAAGAGCGTGGAGGTAGAAGG
CTATGGCAGCAAGAAGATCGATGCTGAGCGGCAGGCTGCAGCTGCAGCCTGCCAGCTGTTCAAGGGTTGGGGTCT
GCTAGGTCCCCGGAATGAGTTGTTTGACGCAGCCAAATACCGAGTGCTAGCTGATCGCTTTGGCTCCCCTGCCGA
CAGCTGGTGGCGTCCGGAACCCACCATGCCCCCTACTTCCTGGCGGCAGCTGAATCCAGAGAGTATTCGACCAGG
GGGACCTGGGGGCCTATCCCGCTCTTTAGGCCGGGAAGAAGAGGAGGACGAGGAGGAAGAGCTAGAAGAAGGGAC
CATAGATGTTACCGACTTCTTGTCCATGACCCAGCAGGATTCCCACGCTCCACTCAGGGACTCAAGGGGGAGTTC
CTTTGAGATGACAGATGACGACAGTGCCATTAGGGCTCTGACCCAGTTTCCACTTCCCAAGAACCTTCTGGCCAA
GGTGATTCAGATTGCAACGTCATCCTCCACAGCTAAGAACCTCATGCAGTTCCATACTGTGGGCACCAAGACCAA
GCTGTCTACACTCACCCTGCTCTGGCCCTGCCCCATGACCTTTGTTGCCAAAGGGCGCCGCAAAGCAGAGGCTGA
GAATAAGGCGGCAGCCTTGGCCTGCAAGAAACTGAAGAGCCTGGGCCTGGTGGACAGGAACAACGAACCGCTTAC
ACACGCCATGTATAACCTGGCCTCTTTGCGTGAGCTGGGTGAGACCCAGCGCCGACCATGCACCATCCAGGTGCC
CGAGCCCATCCTCCGCAAGATAGAGACCTTCCTGAACCATTACCCTGTGGAGAGTTCATGGATCGCCCCAGAACT
CCGGCTGCAGAGTGATGACATCTTGCCCTTGGGCAAGGACTCAGGGCCTCTGAGTGACCCTATCACAGGCAAGCC
CTATGTGCCCCTGTTGGAAGCAGAGGAGGTACGTCTCAGCCAGAGTCTGCTAGAACTGTGGCGGCGGCGAGGGCC
GGTCTGGCAGGAGGCCCCCCAGCTACCTGTGGACCCACATCGGGACACCATCCTCAACGCCATTGAGCAGCACCC
GGTGGTGGTCATCTCTGGGGACACGGGCTGTGGGAAGACCACGCGCATCCCCCAGCTGTTGCTGGAGCGCTATGT
GACCGAGGGCCGAGGTGCCCGCTGCAATGTTATCATCACCCAACCTCGCCGCATCTCTGCTGTGTCTGTGGCACA
GCGGGTCAGCCACGAACTGGGCCCCTCCCTGCGCCGGAATGTGGGCTTCCAGGTGCGGTTGGAAAGTAAGCCCCC
ATCCCGAGGCGGGGCCCTGCTCTTCTGCACTGTGGGTATCCTGCTGCGTAAGCTGCAGAGCAACCCCAGCCTGGA
GGGCGTGAGCCACGTCATCGTGGATGAGGTGCATGAGCGGGACGTGAACACAGACTTTCTGCTGATCCTGCTCAA
GGGCCTGCAGCGGCTCAACCCGGCCCTGCGGCTGGTGCTCATGAGTGCCACAGGGGACAATGAGCGCTTCTCCCG
ATACTTTGGTGGCTGCCCCGTCATCAAGGTGCCTGGCTTCATGTACCCAGTCAAGGAGCACTACCTAGAGGACAT
CCTGGCCAAGTTGGGCAAGCACCAGTACCTGCACCGGCACCGGCACCATGAGTCTGAGGATGAATGCGCACTCGA
TTTGGACCTTGTGACTGATCTGGTTCTGCACATCGATGCTCGCGGGGAACCAGGTGGGATCCTGTGCTTCCTGCC
TGGGTGGCAGGAGATCAAAGGAGTGCAGCAGCGCCTCCAGGAGGCCCTGGGCATGCACGAGAGCAAGTACCTCAT
CCTGCCAGTGCACTCCAACATCCCCATGATGGATCAGAAGGCCATATTCCAGCAGCCTCCAGTTGGGGTGCGCAA
GATTGTCTTGGCCACCAACATTGCTGAGACTTCCATCACAATCAATGACATCGTGCATGTGGTGGACAGTGGGCT
GCACAAGGAAGAACGCTATGACCTGAAGACCAAGGTGTCCTGCCTGGAGACAGTGTGGGTATCAAGAGCCAATGT
GATCCAGCGCCGGGGCCGGGCGGGCCGCTGCCAGTCCGGCTTTGCCTACCACTTGTTCCCTCGAAGCCGGCTGGA
GAAAATGGTCCCTTTCCAAGTGCCAGAGATCCTGCGCACACCTCTTGAGAACCTGGTGCTGCAAGCGAAAATCCA
CATGCCTGAGAAGACGGCGGTGGAGTTCCTGTCCAAGGCTGTGGACAGTCCAAACATCAAGGCAGTGGACGAGGC
TGTGATCTTGCTCCAGGAGATCGGGGTGCTGGACCAGCGGGAGTACCTGACTACCCTGGGGCAGCGCCTGGCTCA
CATCTCCACCGACCCCCGGTTGGCCAAGGCCATTGTGTTGGCTGCCATCTTCCGTTGCCTGCACCCACTACTGGT
GGTCGTTTCCTGCCTCACCCGGGACCCCTTCAGCAGCAGCCTACAGAACCGGGCAGAGGTGGACAAGGTGAAAGC
ACTGTTGAGCCATGACAGCGGCAGTGACCACCTGGCCTTTGTGCGGGCTGTCGCCGGCTGGGAGGAGGTGCTGCG
TTGGCAGGACCGCAGCTCCCGGGAGAATTACCTGGAGGAAAACCTGCTGTACGCACCCAGCCTGCGCTTCATCCA
CGGACTCATCAAGCAGTTCTCAGAGAACATTTATGAGGCCTTCCTGGTGGGGAAGCCCTCGGACTGCACCCTGGC
CTCCGCCCAGTGCAACGAGTACAGTGAGGAGGAGGAGCTGGTGAAGGGCGTGCTGATGGCCGGCCTCTACCCCAA
CCTCATCCAGGTGAGGCAGGGCAAGGTCACCCGGCAGGGGAAGTTCAAGCCCAACAGCGTCACATATAGGACCAA

FIGURE 4049B

ATCAGGCAACATCCTGCTGCACAAGTCGACCATTAACAGGGAGGCCACACGGTTACGGAGCCGATGGCTGACGTA
TTTCATGGCAGTCAAGTCCAATGGCAGCGTCTTCGTCCGGGACTCCTCTCAGGTGCACCCGCTAGCTGTGCTGCT
GCTGACCGACGGGGACGTGCACATCCGTGATGACGGGCGCCGGGCCACCATCTCACTGAGCGACAGTGACCTGCT
GCGGCTGGAGGGTGACTCGCGTACCGTGCGGCTGCTGAAGGAGCTGCGGCGGGCCCTGGGCCGCATGGTGGAGCG
GAGCCTGCGCAGCGAGCTGGCTGCACTTCCCCCCAGCGTACAGGAGGAGCACGGGCAGCTGCTTGCGCTACTGGC
AGAGCTGCTGCGAGGACCCTGTGGCAGCTTTGATGTGCGCAAGACAGCTGACGAC**TGA**GCCCTGCTTCTGCTGGG
GCTGTGTACAGAGTGCAAATGTTTATTTAAAATAAAGTTCTATTTATCCCTTGTG

FIGURE 4050

CGTGCGTGCGCGCGCAGATGTGGGCCCCGCGGGAGCAGCTACTGGGCTGGACTGCGGAAGCTCTGCCTGCCAAGG
ATTCTGCCTGGCCCTGGGAAGAGAAGCCTAGATATCTGGTTCCAGTGGCAGATGGGGCACTGGCCAGAGGGGTTA
GGAGGATTTGGACTCTCCTTGGGAGTCGCTGTGATACGGCCTTCAATTATAGTTGTCTTTCCTTCTTGGATTTCC
ACCACTTCCCTGAAACCACGAGCTGGAAGCTGAGACCAGCTGGTCACTGCTGGGCCTGCTAGGAGCCCACACGGA
AGCTGCCCACAGCCAGACACCAGAGCCTCAAAGGCCGCCATCTTGAAAAACCAACCCTGACCTCCACA**ATG**ATTG
ATTTTCAAATGTTGAACCAGCTTTGCAGAACTATAATAAACCCAAGTGTGATACCCTGTCTCAAGTATTGTGGTG
ATCAAATAGGACCAGTGACTTTCGAGGATGTGGCTGTGCTTTTCACTGAGGCAGAGTGGAAGAGACTGAGCCTTG
AGCAGAGGAACCTATACAAAGAAGTGATGCTGGAAAATCTCAGGAATCTGGTCTCATTGGAATCAAAGCCAGAAG
TCCATACCTGCCCTTCTTGCCCTCTGGCCTTTGGCAGTCAGCAGTTCCTCAGCCAAGATGAGCTACACAATCATC
CTATTCCAGGTTTCCATGCAGGAAATCAACTCCACCCAGGAAATCCCTGCCCAGAGGATCAGCCACAGTCACAAC
ATCCTTCTGATAAAAATCACAGGGGGGCTGAAGCAGAAGATCAACGAGTGGAAGGAGGCGTCAGACCCTTGTTTT
GGAGTACAAATGAAAGGGGGGCTTTAGTGGGTTTCTCTAGCCTGTTCCAGAGACCACCAATAAGCTCTTGGGGAG
GCAACAGAATATTAGAGATACAGCTCAGTCCAGCCCAGAATGCAAGCTCTGAGGAAGTAGACAGAATTTCCAAGA
GGGCAGAAACCCCAGGGTTTGGAGCAGTCACGTTTGGGGAGTGTGCACTAGCTTTTAACCAGAAGTCAAACCTGT
TCAGACAGAAGGCAGTCACAGCAGAAAAATCTTCAGACAAAAGGCAGTCACAGGTGTGCAGGGAGTGTGGGCGAG
GCTTTAGCAGGAAGTCACAGCTCATCATACACCAGAGGACACACACAGGAGAAAAGCCTTATGTCTGCGGAGAGT
GTGGGCGAGGCTTTATAGTTGAGTCAGTCCTCCGCAACCACCTGAGTACACACTCCGGGGAGAAACCTTATGTGT
GCAGCCATTGTGGGCGAGGCTTTAGCTGCAAGCCATACCTCATCAGACATCAGAGGACACACACAAGGGAGAAAT
CGTTTATGTGCACAGTGTGTGGGCGAGGCTTTCGTGAAAAGTCAGAGCTCATTAAGCACCAGAGGTGTCAAGTGA
CGGTCCCCTTGGAGGAATGGTCTTTGCATCTGACTACTTCCTTCTGCAACTGTGTTCTTCCATTAGCTTCCATGA
CACTCTCCTGCTTTATTTTTTTCTACATCTCTAGCCTTTGCTGTTTCCTCTCCTACCCCACCTTTAGATTTTACT
CAGAGTTCAGTCTCCAGCCCTACAATCTGAGGGACACCTTTACCAGGTCCCCTTCC**TAA**CCCTCCAGTCCCAAAT
CCAAGATTCTTTAACCACACTCTAAAAGTTCTTCAGACTCAGGACTTAAACATAGCCACGCCACCTTGGCCTTCA
ATGACAGGGATCTAGCAATGCTGCATCATCAGCCTTCCAATACCAGGTTTAAGGGTATTTTAAACACAGCTCCTC
TTAAATCCTCCAATCTCAGTACCCAGTGTTTTAGCCATGCTCGGGTGGCTAAATTACATCCAGGAATGGTGCCAG
GGCCTTTAGCCATTTGTCTCTCCTCACACTCCAGGGCCCATATGGCCCAGGTTCTGACAGTTTGCCTTACTCCCT
TGGGCTGGGGCTAGCCCTACCTGATACCCTGTGTCAATGAGTGTACCTTGGAGAGCTATCCACTCAGGCCCCAGT
GCCTCTATTTGCTAAGGGACTCTGCCACAGAAAAGAAGGGGAGAGATGTTCATGTAACCTCAAAATACTTAGGCT
TGGTTTTGATGCTAGAGAGGAAAAAGGACTTGGAGAGAGAGAAGGAATGGCTGGTCCAGAGGCTTTTGTCCACTC
CCTCTCACTGGAAGTGGTTGATCTCCAGGGAATCCCCAAGGTTAGCCTGCTTAGGGGAAGGGCTAGGGGTACCTG
GAATGTAGGATCTCCCCCATGCCTGGCCTACCACCCTAATGTGTCTGGAATTGGTGGGTTCTTGGTCTTGCTGAC
TTCAAGAATGAAGCCGTGGACCCTCACGGTGAGTGTTACAATTCTTAAA

4650/5332

FIGURE 4051

AAGGTGAACCCGCAGCCGGACTTCTGCTGCACTGGGGCTCCGA**ATG**ACCCAGAATCTGGGGAGTGAGATGGCCTC
AATCTTGCGAAGCCCTCAGGCTCTCCAGCTCACTCTAGCCCTGATCAAGCCTGACGCAGTCGCCCATCCACTGAT
TCTGGAGGCTGTTCATCAGCAGATTCTAAGCAACAAGTTCCTGATTGTACGAATGAGAGAACTACTGTGGAGAAA
GGAAGATTGCCAGAGGTTTTACCGAGAGCATGAAGGGCGTTTTTTCTATCAGAGGCTGGTGGAGTTCATGGCCAG
CGGGCCAATCCGAGCCTACATCCTTGCCCACAAGGATGCCATCCAGCTCTGGAGGACGCTCATGGGACCCACCAG
AGTGTTCCGAGCACGCCATGTGGCCCCAGATTCTATCCGTGGGAGTTTCGGCCTCACTGACACCCGCAACACCAC
CCATGGTTCGGACTCTGTGGTTTCAGCCAGCAGAGAGATTGCAGCCTTCTTCCCTGACTTCAGTGAACAGCGCTG
GTATGAGGAGGAAGAGCCCCAGTTGCGCTGTGGCCCTGTGTGCTATAGCCCAGAGGGAGGTGTCCACTATGTAGC
TGGAACAGGAGGCCTAGGACCAGCC**TGA**TGCAGGTCTATGAAGACCAGTGGTAGTGCCCAGACTTCTCCTAGACA
TCTAGTCTAAAACATTCTCCTA

FIGURE 4052A

ATGCCTGCTCTGGGCCCAGCTCTTCTCCAGGCTCTCTGGGCCGGGTGGGTCCTCACCCTCCAGCCCCTTCCACCA
ACTGCATTCACTCCCAATGGCACGTATCTGCAGCACCTGGCAAGGGACCCCACCTCAGGCACCCTCTACCTGGGG
GCTACCAACTTCCTGTTCCAGCTGAGCCCTGGGCTGCAGCTGGAGGCCACAGTGTCCACCGGCCCTGTGCTAGAC
AGCAGGGACTGCCTGCCACCTGTGATGCCTGATGAGTGCCCCCAGGCCCAGCCTACCAACAACCCGAATCAGCTG
CTCCTGGTGAGCCCAGGGGCCCTGGTGGTATGCGGGAGCGTGCACCAGGGGGTCTGTGAACAGCGGCGCCTGGGG
CAGCTCGAGCAGCTGCTGCTGCGGCCAGAGCGGCCTGGGGACACACAATATGTGGCTGCCAATGATCCTGCGGTC
AGCACGGTGGGGCTGGTAGCCCAGGGCTTGGCAGGGGAGCCCCTCCTGTTTGTGGGGCGAGGATACACCAGCAGG
GGTGTGGGGGGTGGCATTCCACCCATCACAACCCGGGCCCTGTGGCCGCCCGACCCCCAAGCTGCCTTCTCCTAT
GAGGAGACAGCCAAGCTGGCAGTGGGCCGCCTCTCCGAGTACAGCCACCACTTCGTGAGTGCCTTTGCACGTGGG
GCCAGCGCCTACTTCCTGTTCCTGCGGCGGGACCTGCAGGCTCAGTCTAGAGCTTTTCGTGCCTATGTATCTCGA
GTGTGTCTCCGGGACCAGCACTACTACTCCTATGTGGAGTTGCCTCTGGCCTGCGAAGGTGGCCGCTACGGGCTG
ATCCAGGCTGCAGCTGTGGCCACGTCCAGGGAGGTGGCGCATGGGGAGGTGCTCTTTGCAGCTTTCTCCTCGGCT
GCACCCCCCACTGTGGGCCGGCCCCCATCGGCGGCTGCTGGGGCATCTGGAGCCTCTGCCCTCTGTGCCTTCCCC
CTGGATGAGGTGGACCGGCTTGCTAATCGCACGCGAGATGCCTGCTACACCCGGGAGGGTCGTGCTGAGGATGGG
ACCGAGGTGGCCTACATCGAGTATGATGTCAATTCTGACTGTGCACAGCTGCCAGTGGACACCCTGGATGCTTAT
CCCTGTGGCTCAGACCACACGCCCAGCCCCATGGCCAGCCGGGTCCCGCTGGAAGCCACACCAATTCTGGAGTGG
CCAGGGATTCAGCTAACAGCTGTGGCAGTCACCATGGAAGATGGACACACCATCGCTTTCCTGGGTGATAGTCAA
GGGCAGCTGCACAGGGTCTACTTGGGCCCAGGGAGCGATGGCCACCCATACTCCACACAGAGCATCCAGCAGGGG
TCTGCAGTGAGCAGAGACCTCACCTTTGATGGGACCTTTGAGCACCTGTATGTCATGACCCAGAGCACACTTCTG
AAGGTTCCTGTGGCTTCCTGTGCTCAGCACCTGGACTGTGCATCTTGCCTTGCTCACAGGGACCCATACTGTGGG
TGGTGCGTGCTCCTTGGCAGGTGCAGTCGCCGTTCTGAGTGCTCGAGGGGCCAGGGCCCAGAGCAGTGGCTATGG
AGCTTCCAGCCTGAGCTGGGCTGTCTGCAAGTGGCAGCCATGAGTCCTGCCAACATCAGCCGAGAGGAGACGAGG
GAGGTTTTCCTATCAGTGCCAGACCTGCCACCCCTGTGGCCAGGGGAGTCATATTCCTGCCACTTTGGGGAACAT
CAGAGTCCTGCCCTGCTGACTGGTTCTGGTGTGATGTGCCCCTCCCCAGACCCTAGTGAGGCCCCAGTGCTGCCG
AGAGGAGCCGACTACGTATCCGTGAGCGTGGAGCTCAGATTTGGCGCTGTTGTGATCGCCAAAACTTCCCTCTCT
TTCTATGACTGTGTGGCGGTCACTGAACTCCGCCCATCTGCGCAGTGCCAGGCCTGTGTGAGCAGCCGCTGGGGG
TGTAACTGGTGTGTCTGGCAGCACCTGTGCACCCACAAGGCCTCGTGTGATGCTGGGCCCATGGTTGCAAGCCAT
CAGAGCCCGCTTGTCTCCCCAGACCCTCCTGCAAGAGGTGGACCCAGCCCCTCCCCACCCACAGCCCCCAAAGCC
CTGGCCACCCCTGCTCCTGACACCCTTCCCGTGGAGCCTGGGGCTCCCTCCACAGCCACAGCTTCGGACATCTCA
CCTGGGGCTAGTCCTTCCCTGCTCAGCCCCTGGGGGCCATGGGCAGGTTCTGGCTCCATATCTTCCCCTGGCTCC
ACAGGGTCGCCTCTCCATGAGGAGCCCTCCCCTCCCAGCCCCCAAAATGGACCTGGAACCGCTGTCCCTGCCCCC
ACTGACTTCAGACCCTCAGCCACACCTGAGGACCTCTTGGCCTCCCCGCTGTCACCGTCAGAGGTAGCAGCAGTG
CCCCCTGCAGACCCTGGCCCCGAGGCTCTTCATCCCACAGTGCCCCTGGACCTGCCCCCTGCCACTGTTCCTGCC
ACCACTTTCCCAGGGGCCATGGGCTCCGTGAAGCCCGCCCTGGACTGGCTCACGAGAGAAGGCGGCGAGCTGCCC
GAGGCGGACGAGTGGACGGGGGGTGACGCACCCGCCTTCTCCACTTCCACCCTCCTCTCAGGTGATGGAGACTCA
GCAGAGCTTGAGGGCCCTCCCGCCCCCCTCATCCTCCCGTCCAGCCTCGACTACCAGTATGACACCCCCGGGCTC
TGGGAGCTGGAAGAGGCGACCTTGGGGGCAAGCTCCTGCCCCTGTGTGGAGAGCGTTCAGGGCTCCACGTTGATG
CCGGTCCATGTGGAGCGGGAAATCCGGCTGCTAGGCAGGAACCTGCACCTTTTCCAGGATGGCCCAGGAGACAAT
GAGTGTGTGATGGAGCTGGAGGGCCTCGAGGTGGTGGTTGAGGCCCGGGTCGAGTGTGAGCCACCTCCAGATACC
CAGTGCCATGTCACCTGCCAGCAGCACCAGCTCAGCTATGAGGCTCTGCAGCCGGAGCTCCGTGTGGGGCTGTTT
CTGCGTCGGGCCGGCCGTCTGCGTGTGGACAGTGCTGAGGGGCTGCATGTGGTACTGTATGACTGTTCCGTGGGA
CATGGAGACTGCAGCCGCTGCCAAACTGCCATGCCCCAGTATGGCTGTGTGTGGTGTGAGGGGGAGCGTCCACGT
TGTGTGACCCGGGAGGCCTGTGGTGAGGCTGAGGCTGTGGCCACCCAGTGCCCAGCGCCCCTCATCCACTCGGTG
GAGCCACTGACTGGGCCTGTAGACGGAGGCACCCGTGTCACCATCAGGGGCTCCAACCTGGGCCAGCATGTGCAG
GATGTGCTGGGCATGGTCACGGTGGCTGGAGTGCCCTGTGCTGTGGATGCCCAGGAGTACGAGGTCTCCAGCAGC
CTCGTGTGCATCACCGGGGCCAGTGGGGAGGAGGTGGCCGGCGCCACAGCGGTGGAGGTGCCGGGAAGAGGACGT
GGTGTCTCAGAACACGACTTTGCCTACCAGGATCCGAAGGTCCATTCCATCTTCCCGGCCCGCGGCCCCAGAGCT
GGGGGCACCCGTCTCACCCTGAATGGCTCCAAGCTCCTGACTGGGCGGCTGGAGGACATCCGAGTGGTGGTTGGA

FIGURE 4052B

GACCAGCCTTGTCACTTGCTGCCGGAGCAGCAGTCAGAACAACTGCGGTGTGAGACCAGCCCACGCCCCACGCCT
GCCACGCTCCCTGTGGCTGTGTGGTTTGGGGCCACGGAGCGGAGGCTTCAACGCGGACAGTTCAAGTATACCTTG
GACCCCAACATCACCTCTGCTGGCCCCACCAAGAGCTTCCTCAGTGGAGGACGTGAGATATGCGTCCGTGGCCAG
AATCTGGACGTGGTACAGACGCCAAGAATCCGGGTGACCGTGGTCTCGAGAATGCTGCAGCCCAGCCAGGGGCTT
GGACGGAGGCGTCGCGTGGTCCCGGAGACGGCATGTTCCCTTGGACCCTCCTGCAGTAGCCAGCAATTTGAGGAG
CCGTGCCATGTCAACTCCTCCCAGCTCATCACGTGCCGCACACCTGCCCTCCCAGGCCTGCCTGAGGACCCCTGG
GTCCGGGTGGAATTTATCCTTGACAACCTGGTCTTTGACTTTGCAACACTGAACCCCACACCTTTCTCCTATGAG
GCCGACCCCACCCTGCAGCCACTCAACCCTGAGGACCCCACCATGCCATTCCGGCACAAGCCTGGGAGTGTGTTC
TCCGTGGAGGGGGAGAACCTGGACCTTGCAATGTCCAAGGAGGAGGTGGTGGCTATGATAGGGGATGGCCCCTGT
GTGGTGAAGACGCTGACGCGGCACCACCTGTACTGCGAGCCCCCCGTGGAGCAGCCCCTGCCACGGCACCATGCC
CTCCGAGAGGCACCTGACTCTTTGCCTGAGTTCACGGTGCAGATGGGGAACTTGCGCTTCTCCCTGGGTCACGTG
CAGTATGACGGCGAGAGCCCTGGGGCTTTTCCTGTGGCAGCCCAGGTGGGCTTGGGGGTGGGCACCTCTCTTCTG
GCTCTGGGTGTCATCATCATTGTCCTCATGTACAGGAGGAAGAGCAAGCAGGCCCTGAGGGACTATAAGAAGGTT
CAGATCCAGCTGGAGAATCTGGAGAGCAGTGTGCGGGACCGCTGCAAGAAGGAATTCACAGACCTCATGACTGAG
ATGACCGATCTCACCAGTGACCTCCTGGGCAGCGGCATCCCCTTCCTCGACTACAAGGTGTATGCGGAGAGGATC
TTCTTCCCTGGGCACCGCGAGTCGCCCTTGCACCGGGACCTGGGTGTGCCTGAGAGCAGACGGCCCACTGTGGAG
CAAGGGCTGGGGCAGCTCTCTAACCTGCTCAACAGCAAGCTCTTCCTCACCAAGTTCATCCACACGCTGGAGAGC
CAGCGCACCTTTTCAGCTCGGGACCGTGCCTACGTGGCATCTCTGCTCACCGTGGCACTGCATGGGAAGCTTGAG
TATTTCACTGACATCCTCCGCACTCTGCTCAGTGACCTGGTTGCCCAGTATGTGGCCAAGAACCCCAAGCTGATG
CTGCGCAGGACAGAGACTGTGGTGGAGAAGCTGCTCACCAACTGGATGTCCATCTGTCTGTATACCTTCGTGAGG
GACTCCGTAGGGGAGCCTCTGTACATGCTCTTTCGAGGGATTAAGCACCAAGTGGATAAGGGGCCAGTGGACAGT
GTGACAGGCAAGGCCAAATACACCTTGAACGACAACCGCCTGCTCAGAGAGGATGTGGAGTACCGTCCCCTGACC
TTGAATGCACTATTGGCTGTGGGGCCTGGGGCAGGAGAGGCCCAGGGCGTGCCCGTGAAGGTCCTAGACTGTGAC
ACCATCTCCCAGGCAAAGGAGAAGATGCTGGACCAGCTTTATAAAGGAGTGCCTCTCACCCAGCGGCCAGACCCT
CGCACCCTTGATGTTGAGTGGCGGTCTGGGGTGGCCGGGCACCTCATTCTTTCTGACGAGGATGTCACTTCTGAG
GTCCAGGGTCTGTGGAGGCGCCTGAACACACTGCAGCATTACAAGGTCCCAGATGGAGCAACTGTGGCCCTCGTC
CCCTGCCTCACCAAGCATGTGCTCCGGGAAAACCAGGATTATGTCCCTGGAGAGCGGACCCCAATGCTGGAGGAT
GTAGATGAGGGGGGCATCCGGCCCTGGCACCTGGTGAAGCCAAGTGATGAGCCGGAGCCGCCCAGGCCTCGGAGG
GGCAGCCTTCGGGGCGGGGAGCGTGAGCGCGCCAAGGCCATCCCTGAGATCTACCTGACCCGCCTGCTGTCCATG
AAGGGCACCCTGCAGAAGTTCGTGGATGACCTGTTCCAGGTGATTCTCAGCACCAGCCGCCCCGTGCCGCTCGCT
GTGAAGTACTTCTTTGACCTGCTGGATGAGCAGGCCCAGCAGCATGGCATCTCCGACCAGGACACCATCCACATC
TGGAAGACCAACAGCTTGCCTCTGAGGTTCTGGATCAATATAATAAAAAACCCGCAGTTTGTGTTCGACGTGCAA
ACATCTGATAACATGGATGCGGTGCTCCTTGTCATTGCACAGACCTTCATGGACGCCTGCACCCTGGCCGACCAC
AAGCTGGGCCGGGACTCCCCGATCAACAAACTTCTGTATGCACGGGACATTCCCCGGTACAAGCGGATGGTGGAA
AGGTACTATGCAGACATCAGACAGACTGTCCCAGCCAGCGACCAAGAGATGAACTCTGTCCTGGCTGAACTGTCC
TGGAACTACTCCGGAGACCTCGGGGCGCGAGTGGCCCTGCATGAACTCTACAAGTACATCAACAAGTACTATGAC
CAGATCATCACTGCCCTGGAGGAGGATGGCACGGCCCAGAAGATGCAGCTGGGCTATCGGCTCCAGCAGATTGCA
GCTGCTGTGGAAAACAAGGTCACAGATCTA**TAG**GAACCCAGGAGCCACGGCCTGCTGTTGCTTCAGCCTGGCCTG
GGCAGCCCTGGAAGCTCGGAGGAGAGGCCACCTTCTTAGGTGCCTGTAGTGACTGACAAGCAGAGTTAGTGGAAG
GTGACTCCCAGTCTCCTGGTGGCTCTGGCCTCGGCCCTGCTGGATCCACCTCCTAGACCCGGGGCCTCAAGGCTC
ATGGGGTAGTACCCAGCCTGCTCCCCGAGTCCAGCGACCCTGT

FIGURE 4053

AGACGATTGGTCGGGCCACGCCAGCCCAGGCCCAAGCCAGCCCGGAGAGAAAAGACCTGAGGAGGTGGCCCTGGG
GCTGCACCACCGCCTCCCAGCACTGGGAAGAGCCCTGGGGCACAGCATTCAGCAACGAGCGACCTCCACAGCCAA
GACTTGGTGGGACAGATATGAAGAGTTTGTTGGACTCAACGAGGTTCGAGAGGCCCAGGGAAAGGTGACAGAGGC
TGAGAAAGTGTTC**ATG**GTGGCTCGAGGGCTTGTCCGAGAGGCTCGGGAGGACTTGGAAGTTCACCAGGCCAAGCT
GAAGGAGGTGAGGGACCGCTTGGACCGTGTCTCCAGGGAGGACAGTCAGTACTTGGAACTGGCTACTCTCGAGCA
CAGGATGCTGCAGGAGGAGAAGAGGCTTCGCACAGCCTATCTGCGTGCAGAAGACTCTGAGCGAGAGAAGTTCTC
CCTCTTCTCTGCAGCTGTGCGGGAAAGTCATGAGAAGGAGCGCACAAGGGCTGAGAGGACCAAGAACTGGTCCCT
CATTGGCTCAGTCCTGGGGGCCCTGATTGGTGTGGCTGGCTCCACCTATGTGAACCGTGTGCGACTACAGGAGCT
GAAGGCTTTACTCCTGGAGGCGCAGAAGGGGCCTGTGAGTCTCCAAGAGGCCATTCGAGAACAGGCGTCTAGCTA
CTCCCGCCAGCAGAGGGACCTCCACAATCTCATGGTGGACTTGAGGGGCCTGGTACATGCTGCTGGGCCAGGGCA
GGACTCTGGGTCACAGGCAGGTAGTCCCCCGACCAGAGACAGAGATGTAGATGTCCTTTCAGCTGCCTTGAAAGA
GCAGCTTAGTCATTCCAGGCAAGTCCATTCATGTCTAGAAGGCTTACGAGAGCAGCTTGATGGCCTAGAAAAGAC
TTGTAGCCAAATGGCTGGGGTGGTTCAGCTTGTAAAGTCTGCAGCACACCCAGGCCTGGTGGAACCAGCAGACGG
GGCTATGCCCAGCTTCTTGCTGGAGCAGGGGAGCATGATCTTGGCACTGTCAGACACGGAGCAGAGACTAGAAGC
CCAAGTCAACAGGAACACCATCTATAGCACCCTGGTCACCTGTGTGACATTTGTGGCCACACTGCCTGTGCTCTA
CATGCTATTCAAAGCCAGC**TAA**CCCCTGGCCCCTCCTCCAGAGGGTCTGAGGCAATAGCTGTGAATGTGGATTTA
AGTAGAGAATCGTAGCAATGAAGCGAGCCTTTGGGGGCATGTACAACCTCAATCTGAAGGAGCAGTATCTGTGTG
GCTCACCAGCAGGCATGCTTCGCTTTGTAGACAAGGTTCATTTACATTAATTATCAAAACTTTGTGCTAATGTCC
AATTAAAATATCCTGAGTTTTATTATTT

FIGURE 4054

TCCGGTGGCAGGGTCTGGGGAAGCGGCGGCAGGCGCC**ATG**TCCGGCCGCGAAGGTGGCAAGAAGAAGCCACTGAA
ACAGCCCAAGAAGCAGGCCAAGGAGATGGACGAGGAAGATAAGGCTTTCAAGCAGAAACAAAAAGAGGAGCAGAA
GAAACTCGAGGAGCTAAAAGCGAAGGCCGCGGGGAAGGGGCCCTTGGCCACAGGTGGAATTAAGAAATCTGGCAA
AAAG**TAA**GCTGTTCCTTGTGCCTGAGGAGATGGTGACCCTTTATTTCATCTGTATTTAAACCTCTCTATTCCCTG
CCATAACATCTTTTGCCACGTATAGCTGGAATTAAGTGTTGTCTTGGAGCTGTTGTACATTTAAGAATAAACTTT
TGTAAAAA

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FIGURE 4055

GCGCTGTCGGATACTTGGGGTGAGCGGAAAGC**ATG**GCGGGGACCTCCGCGCCAGGCAGCAAGAGGCGGAGCGAGC
CCCCGGCGCCTCGCCCCGGCCCGCCGCCGGGCACCGGGCACCCCCCGAGCAAGCGGGCCCGGGGCTTCTCCGCAG
CCGCTGCCCCGGACCCTGACGACCCGTTCGGCGCGCATGGGGACTTCACTGCCGACGACCTGGAGGAGCTTGACA
CCCTCGCGTCACAGGCCCTGAGCCAATGTCCGGCCGCGGCTCGGGACGTGTCCAGTGATCATAAGGTCCACAGAT
TATTAGATGGCATGTCAAAAAATCCTTCAGGGAAAAACAGAGAAACTGTTCCAATTAAAGATAATTTCGAATTAG
AGGTACTTCAGGCACAATACAAAGAACTTAAAGAAAAGATGAAAGTAATGGAAGAAGAAGTTCTCATTAAGAATG
GAGAAATTAAAATTTTGCGAGACTCACTACATCAGACGGAATCCGTTCTAGAGGAACAGAGAAGATCACATTTTC
TTCTTGAGCAAGAGAAAACCCAAGCACTCAGTGACAAGGAAAAGGAATTCTCCAAAAAGCTCCAATCATTGCAGT
CTGAACTCCAGTTTAAAGATGCAGAGATGAATGAATTAAGGACAAAGCTCCAGACCAGTGAACGAGCAAATAAAC
TGGCTGCTCCCTCTGTTTCCCATGTCAGTCCTAGGAAAAACCCTTCTGTGGTTATAAAGCCAGAAGCATGTTCTC
CACAATTTGGAAAAACATCTTTTCCTACAAAGGAGTCTTTTAGTGCTAACATGTCCCTTCCCCACCCCTGCCAGA
CGGAGTCAGGATACAAGCCTCTGGTGGGCAGAGAGGATAGTAAGCCCCACAGTCTGAGAGGTGACTCCATAAAAC
AAGAAGAGGCCCAGAAAAGCTTTGTTGACAGCTGGAGACAGAGATCAAACACTCAAGGTTCCATTTTGATAAACC
TGCTCCTGAAGCAGCCTTTGATCCCAGGGTCATCCCTAAGCCTTTGCCACCTCCTGAGTAGTAGTTCTGAGTCTC
CTGCTGGCACCCCCCTGCAGCCACCAGGGTTTGGCAGTACCTTGGCTGGAATGTCAGGCCTCAGGACCACAGGTT
CTTATGATGGGTCATTTTCCCTCTCAGCCCTGAGAGAAGCACAGAACCTGGCATTCACTGGACTGAATCTGGTTG
CCCGGAATGAGTGCTCACGTGATGGAGACCCAGCAGAGGGAGGCAGAAGGGCCTTCCCACTCTGCCAGCTTCCTG
GAGCCGTGCATTTCCTCCCCCTTGTACAGTTCTTCATCGGCTTACACTGCCAGGCCCTGCAGGACTTGGCAGCTG
CTAAGAGAAGCGGAGCACCTGGGGACTCACCGACACATTCCTCCTGCGTGAGCTCTGGGGTAGAGACCAACCCTG
AGGACTCAGTGTGCATCCTGGAAGGCTTCTCTGTGACTGCACTTAGCATTCTTCAGCACCTGGTGTGCCACAGCG
GAGCAGTCGTCTCCCTATTACTGTCAGGAGTGGGGGCAGATTCTGCTGCTGGGGAAGGAAACAGGAGCCTGGTTC
ACAGGCTTAGTGATGGAGATATGACCTCAGCCCTAAGGGGGGTTGCTGATGACCAAGGACAGCACCCACTGTTGA
AGATGCTTCTTCACCTGTTGGCTTTCTCTTCTGCAGCAACAGGTCACCTTCAAGCCAGTGTCCTGACCCAGTGCC
TTAAGGTTTTGGTGAAATTAGCCGAAAACACTTCCTGTGATTTCTTGCCCAGGTTCCAGTGTGTGTTCCAAGTGC
TGCCAAAGTGCCTCAGCCCAGAGACACCCCTGCCTAGCGTGCTGCTGGCTGTTGAGCTCCTCTCCCTGCTGGCGG
ACCACGACCAGCTGGCACCTCAGCTCTGTTCCCACTCAGAAGGCTGCCTCCTGCTGCTGCTGTACATGTACATCA
CATCACGGCCTGACAGAGTGGCCTTGGAGACACAATGGCTCCAGCTGGAACAAGAGGTGGTGTGGCTCCTGGCTA
AGCTTGGTGTGCAGAGCCCCTTGCCCCCAGTCACTGGCTCCAACTGCCAGTGTAATGTGGAGGTGGTCAGAGCGC
TCACGGTGATGTTGCACAGACAGTGGCTGACAGTGCGGAGGGCAGGGGGACCCCCAAGGACCGACCAGCAGAGGC
GGACAGTGCGCTGTCTGCGGGACACGGTGCTGCTGCTGCACGGCCTATCGCAGAAGGACAAGCTCTTCATGATGC
ACTGCGTGGAGGTCCTGCATCAGTTTGACCAGGTGATGCCGGGGGTCAGCATGCTCATCCGAGGGCTTCCTGATG
TGACGGACTGTGAAGAGGCAGCCCTGGATGACCTCTGTGCCGCGGAAACCGATGTGGAAGACCCCGAGGTGGAGT
GTGGC**TGA**GGCCCTGAGTGTCCAGCCACATGGTGGCACCAGCACCACTCCTTTCCTTACCACATCAACTGATTAA
AGCAGTGACCAGCAGGAACTGCCCAGAGAACTGG

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FIGURE 4056

TGAAAGGGCCGCAGCAGGGGCTCCCAGCAGTGTGTAAGACCGGGAGCTGGTCTGGCACCACTGCCCTGGTCCTTC
CAGCTGCCTGTCACTGGTATGATGGCCCCGGTGCATTGTGCCACCAGCAGGCCACAGCTGTGGATCTTGGAAGGC
CTCTGGGGTCCCCCGGGAGCAGGGGAGTGGGTGTGGGGGGGAACGGATGGTGGTGAGAGGGACAGACCAGGCAGG
CCCTGCCCCCGGGGCCC**ATG**CAGACCCTCATCTTTTTCGACATGGAGGCCACTGGCTTGCCCTTCTCCCAGCCCA
AGGTCACGGAGCTGTGCCTGCTGGCTGTCCACAGATGTGCCCTGGAGAGCCCCCCCACCTCTCAGGGGCCACCTC
CCACAGTTCCTCCACCACCGCGTGTGGTAGACAAGCTCTCCCTGTGTGTGGCTCCGGGGAAGGCCTGCAGCCCTG
CAGCCAGCGAGATCACAGGTCTGAGCACAGCTGTGCTGGCAGCGCATGGGCGTCAATGTTTTGATGACAACCTGG
CCAACCTGCTCCTAGCCTTCCTGCGGCGCCAGCCACAGCCCTGGTGCCTGGTGGCACACAATGGTGACCGCTACG
ACTTCCCCCTGCTCCAAGCAGAGCTGGCTATGCTGGGCCTCACCAGTGCTCTGGATGGTGCCTTCTGTGTGGATA
GCATCACTGCGCTGAAGGCCCTGGAGCGAGCAAGCAGCCCCTCAGAACACGGCCCAAGGAAGAGCTACAGCCTAG
GCAGCATCTACACTCGCCTGTATGGGCAGTCCCCTCCAGACTCGCACACGGCTGAGGGTGATGTCCTGGCCCTGC
TCAGCATCTGTCAGTGGAGACCACAGGCCCTGCTGCGGTGGGTGGATGCTCACGCCAGGCCTTTCGGCACCATCA
GGCCCATGTATGGGGTCACAGCCTCTGCTAGGACCAAGCCAAGACCATCTGCTGTCACAACCACTGCACACCTGG
CCACAACCAGGAACACTAGTCCCAGCCTTGGAGAGAGCAGGGGTACCAAGGATCTTCCTCCAGTGAAGGACCCTG
GAGCCCTATCCAGGGAGGGGCTGCTGGCCCCACTGGGTCTGCTGGCCATCCTGACCTTGGCAGTAGCCACACTGT
ATGGACTATCCCTGGCCACACCTGGGGAG**TAG**GCCAAGAAGGAAAATCTGACGAATAAAGACCCCCGCTGCCCCA
T

FIGURE 4057

CAGCGTGCCTGCCAGTGTAGAGCCGGTGGAGCAGCTGGGCTCGGCGCTGAGGTTTCGCCCTGGCTACAACGACCC
C**ATG**TCAGGGTTCGGAGCGACCTTGGCCGTTGGCCTGACCATCTTTGTGCTGTCTGTCGTCACTATCATCATCTG
CTTCACCTGCTCCTGCTGCTGCCTTTACAAGACGTGCCGCCGACCACGTCCCTCCAAGTGTGCCGCCCAGCTACC
CTGGACCAAGCTACCAGGGCTACCACACCATGCCGCCTCAGCCAGGGATGCCAGCAGCACCCTACCCAATGCAGT
ACCCACCACCTTACCCAGCCCAGCCCATGGGCCCACCGGCCTACCACGAGACCCTGGCTGGAGGAGCAGCCGCGC
CCTACCCCGCCAGCCAGCCTCCTTACAACCCGGCCTACATGGATGCCCCGAAGGCGGCCCTCTGAGCATTCCCTG
GCCTCTCTGGCTGCCACTTGGTTATGTTGTGTGTGTGCGTGAGTGGTGTGCAGGCGCGGTTCCTTACGCCCCATG
TGTGCTGTGTGTGTCCAGGCACGGTTCCTTACGCCCCATGTGTGCTGTGTGTGTCCTGCCTGTATATGTGGCTTC
CTCTGATGCTGACAAGGTGGGGAACAATCCTTGCCAGAGTGGGCTGGGACCAGACTTTGTTCTCTTCCTCACC**TG**
AAATTATGCTTCCTAAAATCTCAAGCCAAACTCAAAGAATGGGGTGGTGGGGGGCACCCTGTGAGGTGGCCCCTG
AGAGGTGGGGGCCTCTCCAGGGCACATCTGGAGTTCTTCTCCAGCTTACCCTAGGGTGACCAAGTAGGGCCTGTC
ACACCAGGGTGGCGCAGCTTTCTGTGTGATGCAGATGTGTCCTGGTTTCGGCAGCGTAGCCAGCTGCTGCTTGAG
GCCATGGCTCGTCCCCGGAGTTGGGGGTACCCGTTGCAGAGCCAGGGACATGATGCAGGCGAAGCTTGGGATCTG
GCCAAGTTGGACTTTGATCCTTTGGGCAGATGTCCCATTGCTCCCTGGAGCCTGTCATGCCTGTTGGGGATCAGG
CAGCCTCCTGATGCCAGAACACCTCAGGCAGAGCCCTACTCAGCTGTACCTGTCTGCCTGGACTGTCCCCTGTCC
CCGCATCTCCCCTGGGACCAGCTGGAGGGCCACATGCACACACAGCCTAGCTGCCCCCAGGGAGCTCTGCTGCCC
TTGCTGGCCCTGCCCTTCCCACAGGTGAGCAGGGCTCCTGTCCACCAGCACACTCAGTTCTCTTCCCTGCAGTGT
TTTCATTTTATTTTAGCCAAACATTTTGCCTGTTTTCTGTTTCAAACATGATAGTTGATATGAGACTGAAACCCC
TGGGTTGTGGAGGGAAATTGGCTCAGAGATGGACAACCTGGCAACTGTGAGTCCCTGCTTCCCGACACCAGCCTC
ATGGAATATGCAACAACTCCTGTACCCCAGTCCACGGTGTTCTGGCAGCAGGGACACCTGGGCCAATGGGCCATC
TGGACCAAAGGTGGGGTGTGGGGCCCTGGATGGCAGCTCTGGCCCAGACATGAATACCTCGTGTTCCTCCTCCCT
CTATTACTGTTTCACCAGAGCTGTCTTAGCTCAAATCTGTTGTGTTTCTGAGTCTAGGGTCTGTACACTTGTTTA
TAATAAATGCAATCGTTTGG

FIGURE 4058

CTCTAGCTCGAGCAGCAGGAGCAGCCCGCACCGGACAACTTGCGAGCCATGGGGCTGGCGGATGCGTCGGGACCG
AGGGACACACAGGCACTGCTGTCTGCAACACAAGCA**ATG**GACCTGCGGAGGCGAGACTACCACATGGAACGGCCG
CTGCTGAACCAGGAGCATTTGGAGGAGCTGGGGCGCTGGGGCTCAGCACCTAGGACCCACCAGTGGCGGACCTGG
TTGCAGTGCTCCCGTGCTCGGGCCTATGCCCTTCTGCTCCAACACCTCCCGGTTTTGGTCTGGTTACCCCGGTAT
CCTGTGCGTGACTGGCTCCTGGGTGACCTGTTATCCGGCCTGAGTGTGGCCATCATGCAGCTTCCGCAGGGCTTG
GCCTACGCCCTCCTGGCTGGATTGCCCCCCGTGTTTGGCCTCTATAGCTCCTTCTACCCTGTCTTCATCTACTTC
CTGTTTGGCACTTCCCGGCACATCTCCGTGGGGACCTTTGCTGTCATGTCTGTGATGGTGGGCAGTGTGACAGAA
TCCCTGGCCCCGCAGGCCTTGAACGACTCCATGATCAATGAGACAGCCAGAGATGCTGCCCGGGTACAGGTGGCC
TCCACACTCAGTGTCCTGGTTGGCCTCTTCCAGGTGGGGCTGGGCCTGATCCACTTCGGCTTCGTGGTCACCTAC
CTGTCAGAACCTCTTGTCCGAGGCTATACCACAGCTGCAGCTGTGCAGGTCTTCGTCTCACAGCTCAAGTATGTG
TTTGGCCTCCATCTGAGCAGCCACTCTGGGCCACTGTCCCTCATCTATACAGTGCTGGAGGTCTGCTGGAAGCTG
CCCCAGAGCAAGGTTGGCACCGTGGTCACTGCAGCTGTGGCTGGGGTGGTGCTCGTGGTGGTGAAGCTGTTGAAT
GACAAGCTGCAGCAGCAGCTGCCCATGCCGATACCCGGGGAGCTGCTCACGCTCATCGGGGCCACAGGCATCTCC
TATGGCATGGGTCTAAAGCACAGATTTGAGGTAGATGTCGTGGGCAACATCCCTGCAGGGCTGGTGCCCCCAGTG
GCCCCCAACACCCAGCTGTTCTCAAAGCTCGTGGGCAGCGCCTTCACCATCGCTGTGGTTGGGTTTGCCATTGCC
ATCTCACTGGGGAAGATCTTCGCCCTGAGGCACGGCTACCGGGTGGACAGCAACCAGGAGCTGGTGGCCCTGGGC
CTCAGTAACCTTATCGGAGGCATCTTCCAGTGCTTCCCCGTGAGTTGCTCTATGTCTCGGAGCCTGGTACAGGAG
AGCACCGGGGGCAACTCGCAGGTTGCTGGAGCCATCTCTTCCCTTTTCATCCTCCTCATCATTGTCAAACTTGGG
GAACTCTTCCATGACCTGCCCAAGGCGGTCCTGGCAGCCATCATCATTGTGAACCTGAAGGGCATGCTGAGGCAG
CTCAGCGACATGCGCTCCCTCTGGAAGGCCAATCGGGCGGATCTGCTTATCTGGCTGGTGACCTTCACGGCCACC
ATCTTGCTGAACCTGGACCTTGGCTTGGTGGTTGCGGTCATCTTCTCCCTGCTGCTCGTGGTGGTCCGGACACAG
ATGCCCCACTACTCTGTCCTGGGGCAGGTGCCAGACACGGATATTTACAGAGATGTGGCAGAGTACTCAGAGGCC
AAGGAAGTCCGGGGGGGTGAAGGTCTTCCGCTCCTCGGCCACCGTGTACTTTGCCAATGCTGAGTTCTACAGTGAT
GCGCTGAAGCAGAGGTGTGGTGTGGATGTCGACTTCCTCATCTCCCAGAAGAAGAAACTGCTCAAGAAGCAGGAG
CAGCTGAAGCTGAAGCAACTGCAGAAAGAGGAGAAGCTTCGGAAACAGGCTGCCTCCCCCAAGGGCGCCTCAGTT
TCCATTAATGTCAACACCAGCCTTGAAGACATGAGGAGCAACAACGTTGAGGACTGCAAGATGATGCAGGTGAGC
TCAGGAGATAAGATGGAAGATGCAACAGCCAATGGTCAAGAAGACTCCAAGGCCCCAGATGGGTCCACACTGAAG
GCCCTGGGCCTGCCTCAGCCAGACTTCCACAGCCTCATCCTGGACCTGGGTGCCCTCTCCTTTGTGGACACTGTG
TGCCTCAAGAGCCTGAAGAATATTTTCCATGACTTCCGGGAGATTGAGGTGGAGGTGTACATGGCGGCCTGCCAC
AGCCCTGTGGTCAGCCAGCTTGAGGCTGGGCACTTCTTCGATGCATCCATCACCAAGAAGCATCTCTTTGCCTCT
GTCCATGATGCTGTCACCTTTGCCCTCCAACACCCGAGGCCTGTCCCCGACAGCCCTGTTTCGGTCACCAGACTC
TGAACATGCTACATCCTGCCCAAGACTGCACCTCTGGAGGTGCAGGGCACCCTTGAGAAGCCCCTCACCCCTAGG
CCGCCTCCAGGTGCTACCCAGGAGTCCCCTCCATGTACACACACACAACTCAGGGAAGGAGGTCCTGGGACTCCA
AGTTCAGCGCTCCAGGTCTGGGACAGGGCCTGCATGCAGTCAGGCTGGCAGTGGCGCGGTACAGGGAGGGAACTG
GTGCATATTTTAGCCTCAGGAATAAAGATTTGTCTGCTC

FIGURE 4059

TACTGACTTTCAGCACCAACTTGTGGTCCCAGGTAAGTTTCCACGCTGGTACTTTAGCCCTGGGCTCGAACCTGC
GGACACGCTGTGGCTGCAACTCCCCGCCCGCCAGACCTCAGTACGCAGCGCGGCTGGTGAGAAACATAATGCACT
CTGACTTCCACGCGTGGAATGGGGAGATGGACTGCACGGCGGGCGGACCTGCTCGGGCTGATGGACGGCAGGTGG
ACTGATGTGCGCAGGGACTGGCGGCAGCGCGGTCAGAGCCAGTCAGCCAAAGCCAGGCCAGCACAATAGACTGTC
CCGGTTCCCGCCAGGAGGCGGCCGAGCACCAACTGTACGGTACTGCGCCTGCGCCGCGACCGCCAACGCGCCCAG
TCTACGCTTGCGCGGCGCAACAGGGCCGACTGCAGCTGGAAG**ATG**GCGGCGTCCGTGGTCTGTCGGGCCGCTACC
GCCGGGGCACAAGTGCTATTGCGCGCCCGCCGCTCGCCGGCCCTGCTGCGGACGCCAGCCTTGCGGAGTACGGCA
ACCTTCGCTCAGGCGCTCCAGTTCGTGCCGGAGACGCAGGTTAGCCTGCTGGACAACGGCCTGCGTGTGGCCTCC
GAGCAGTCCTCTCAGCCCACTTGCACGGTGGGAGTGTGGATTGATGTTGGCAGCCGTTTTGAGACTGAGAAGAAT
AATGGGGCAGGCTACTTTTTGGAGCATCTGGCTTTCAAGGGAACAAAGAATCGGCCTGGCAGTGCCCTGGAGAAG
GAGGTGGAGAGCATGGGGGCCCATCTTAATGCCTACAGCACCCGGGAGCACACAGCTTACTACATCAAGGCGCTG
TCCAAGGATCTGCCGAAAGCTGTGGAGCTCCTGGGTGACATTGTGCAGAACTGTAGTCTGGAAGACTCACAGATT
GAGAAGGAACGTGATGTGATCCTGCGGGAGATGCAGGAGAATGATGCATCTATGCGAGATGTGGTCTTTAACTAC
CTGCATGCCACAGCATTCCAGGGCACACCTCTAGCCCAGGCTGTGGAGGGGCCCAGTGAGAATGTCAGGAAGCTG
TCTCGTGCAGACTTGACCGAGTACCTCAGCACACATTACAAGGCCCCTCGAATGGTGCTGGCAGCAGCTGGAGGA
GTGGAGCACCAGCAACTGTTAGACCTCGCCCAGAAGCACCTCGGTGGCATCCCATGGACATATGCAGAGGACGCT
GTGCCCACTCTTACTCCATGCCGCTTCACTGGCAGTGAGATCCGCCACCGTGATGATGCTCTACCTTTTGCCCAC
GTGGCCATTGCAGTAGAGGGTCCTGGCTGGGCCAGCCCGGACAATGTGGCCTTGCAAGTGGCCAATGCCATCATC
GGCCACTATGACTGCACTTATGGTGGTGGCGTGCACCTGTCCAGCCCACTGGCTTCAGGTGCTGTGGCCAACAAG
CTATGCCAGAGTTTCCAGACCTTCAGCATCTGCTATGCAGAGACGGGCTTGCTGGGTGCACACTTTGTCTGTGAC
CGAATGAAAATCGATGACATGATGTTCGTCCTGCAAGGGCAGTGGATGCGCCTGTGTACCAGTGCCACGGAGAGT
GAGGTGGCCCGGGGCAAAAACATCCTCAGAAATGCCCTGGTATCTCATCTAGATGGCACTACTCCTGTGTGTGAG
GACATCGGACGCAGCCTCCTGACCTATGGCCGCCGCATCCCCCTGGCTGAATGGGAAAGCCGGATTGCGGAGGTG
GATGCCAGTGTGGTACGTGAGATCTGCTCCAAGTACATCTATGACCAGTGCCCAGCAGTGGCTGGATATGGCCCC
ATTGAGCAGCTCCCAGACTACAACCGGATCCGTAGCGGCATGTTCTGGCTGCGCTTC**TAG**GCGGGAAGCCTATGT
AAGCAAGAGGGCAGGGCCGGGGTTTGTGGTCCCCCCCCCACCACAAACACAGCACTTCGGCTCCTCTAACCTGTG
CCACAGGTGACCACCAATAAAATCCTCTGCTGAGA

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FIGURE 4060A

GGGCTGGAGGGGCGCTGGGCTCGGACCTGCCAAGGCCACGGGGGAGCAAGGGACAGAGGCGGGGGTCCTAGCTGA
CGGCTTTTACTGCCTAGG**ATG**ACGCTGCGGCTTCTGGTGGCCGCGCTCTGCGCCGGGATCCTGGCAGAGGCGCCC
CGAGTGCGAGCCCAGCACAGGGAGAGAGTGACCTGCACGCGCCTTTACGCCGCTGACATTGTGTTCTTACTGGAT
GGCTCCTCATCCATTGGCCGCAGCAATTTCCGCGAGGTCCGCAGCTTTCTCGAAGGGCTGGTGCTGCCTTTCTCT
GGAGCAGCCAGTGCACAGGGTGTGCGCTTTGCCACAGTGCAGTACAGCGATGACCCACGGACAGAGTTCGGCCTG
GATGCACTTGGCTCTGGGGGTGATGTGATCCGCGCCATCCGTGAGCTTAGCTACAAGGGGGGCAACACTCGCACA
GGGGCTGCAATTCTCCATGTGGCTGACCATGTCTTCCTGCCCCAGCTGGCCCGACCTGGTGTCCCCAAGGTCTGC
ATCCTGATCACAGACGGGAAGTCCCAGGACCTGGTGGACACAGCTGCCCAAAGGCTGAAGGGGCAGGGGGTCAAG
CTATTTGCTGTGGGGATCAAGAATGCTGACCCTGAGGAGCTGAAGCGAGTTGCCTCACAGCCCACCAGTGACTTC
TTCTTCTTCGTCAATGACTTCAGCATCTTGAGGACACTACTGCCCCTCGTTTCCCGGAGAGTGTGCACGACTGCT
GGTGGCGTGCCTGTGACCCGACCTCCGGATGACTCGACCTCTGCTCCACGAGACCTGGTGCTGTCTGAGCCAAGC
AGCCAATCCTTGAGAGTACAGTGGACAGCGGCCAGTGGCCCTGTGACTGGCTACAAGGTCCAGTACACTCCTCTG
ACGGGGCTGGGACAGCCACTGCCGAGTGAGCGGCAGGAGGTGAACGTCCCAGCTGGTGAGACCAGTGTGCGGCTG
CGGGGTCTCCGGCCACTGACCGAGTACCAAGTGACTGTGATTGCCCTCTACGCCAACAGCATCGGGGAGGCTGTG
AGCGGGACAGCTCGGACCACTGCCCTAGAAGGGCCGGAACTGACCATCCAGAATACCACAGCCCACAGCCTCCTG
GTGGCCTGGCGGAGTGTGCCAGGTGCCACTGGCTACCGTGTGACATGGCGGGTCCTCAGTGGTGGGCCCACACAG
CAGCAGGAGCTGGGCCCTGGGCAGGGTTCAGTGTTGCTGCGTGACTTGGAGCCTGGCACGGACTATGAGGTGACC
GTGAGCACCCTATTTGGCCGCAGTGTGGGGCCCGCCACTTCCCTGATGGCTCGCACTGACGCTTCTGTTGAGCAG
ACCCTGCGCCCGGTCATCCTGGGCCCCACATCCATCCTCCTTTCCTGGAACTTGGTGCCTGAGGCCCGTGGCTAC
CGGTTGGAATGGCGGCGTGAGACTGGCTTGGAGCCACCGCAGAAGGTGGTACTGCCCTCTGATGTGACCCGCTAC
CAGTTGGATGGGCTGCAGCCGGGCACTGAGTACCGCCTCACACTCTACACTCTGCTGGAGGGCCACGAGGTGGCC
ACCCCTGCAACCGTGGTTCCCACTGGACCAGAGCTGCCTGTGAGCCCTGTAACAGACCTGCAAGCCACCGAGCTG
CCCGGGCAGCGGGTGCGAGTGTCCTGGAGCCCAGTCCCTGGTGCCACCCAGTACCGCATCATTGTGCGCAGCACC
CAGGGGGTTGAGCGGACCCTGGTGCTTCCTGGGAGTCAGACAGCATTCGACTTGGATGACGTTCAGGCTGGGCTT
AGCTACACTGTGCGGGTGTCTGCTCGAGTGGGTCCCCGTGAGGGCAGTGCCAGTGTCCTCACTGTCCGCCGGGAG
CCGGAAACTCCACTTGCTGTTCCAGGGCTGCGGGTTGTGGTGTCAGATGCAACGCGAGTGAGGGTGGCCTGGGGA
CCCGTCCCTGGAGCCAGTGGATTTCGGATTAGCTGGAGCACAGGCAGTGGTCCGGAGTCCAGCCAGACACTGCCC
CCAGACTCTACTGCCACAGACATCACAGGGCTGCAGCCTGGAACCACCTACCAGGTGGCTGTGTCGGTACTGCGA
GGCAGAGAGGAGGGCCCTGCTGCAGTCATCGTGGCTCGAACGGACCCACTGGGCCCAGTGAGGACGGTCCATGTG
ACTCAGGCCAGCAGCTCATCTGTCACCATTACCTGGACCAGGGTTCCTGGCGCCACAGGATACAGGGTTTCCTGG
CACTCAGCCCACGGCCCAGAGAAATCCCAGTTGGTTTCTGGGGAGGCCACGGTGGCTGAGCTGGATGGACTGGAG
CCAGATACTGAGTATACGGTGCATGTGAGGGCCCATGTGGCTGGCGTGGATGGGCCCCCTGCCTCTGTGGTTGTG
AGGACTGCCCCTGAGCCTGTGGGTCGTGTGTCGAGGCTGCAGATCCTCAATGCTTCCAGCGACGTTCTACGGATC
ACCTGGGTAGGGGTCACTGGAGCCACAGCTTACAGACTGGCCTGGGGCCGGAGTGAAGGCGGCCCCATGAGGCAC
CAGATACTCCCAGGAAACACAGACTCTGCAGAGATCCGGGGTCTCGAAGGTGGAGTCAGCTACTCAGTGCGAGTG
ACTGCACTTGTCGGGGACCGCGAGGGCACACCTGTCTCCATTGTTGTCACTACGCCGCCTGAGGCTCCGCCAGCC
CTGGGGACGCTTCACGTGGTGCAGCGCGGGGAGCACTCGCTGAGGCTGCGCTGGGAGCCGGTGCCCAGAGCGCAG
GGCTTCCTTCTGCACTGGCAACCTGAGGGTGGCCAGGAACAGTCCCGGGTCCTGGGGCCCGAGCTCAGCAGCTAT
CACCTGGACGGGCTGGAGCCAGCGACACAGTACCGCGTGAGGCTGAGTGTCCTAGGGCCGGCTGGAGAAGGGCCC
TCTGCAGAGGTGACTGCGCGCACTGAGTCACCTCGTGTTCCAAGCATTGAACTACGTGTGGTGGACACCTCGATC
GACTCGGTGACTTTGGCCTGGACTCCAGTGTCCAGGGCATCCAGCTACATCCTATCCTGGCGGCCACTCAGAGGC
CCTGGCCAGGAAGTGCCTGGGTCCCCGCAGACACTTCCAGGGATCTCAAGCTCCCAGCGGGTGACAGGGCTAGAG
CCTGGCGTCTCTTACATCTTCTCCCTGACGCCTGTCCTGGATGGTGTGCGGGGTCCTGAGGCATCTGTCACACAG
ACGCCAGTGTGCCCCCGTGGCCTGGCGGATGTGGTGTTCCTACCACATGCCACTCAAGACAATGCTCACCGTGCG
GAGGCTACGAGGAGGGTCCTGGAGCGTCTGGTGTTGGCACTTGGGCCTCTTGGGCCACAGGCAGTTCAGGTTGGC
CTGCTGTCTTACAGTCATCGGCCCTCCCCACTGTTCCCACTGAATGGCTCCCATGACCTTGGCATTATCTTGCAA
AGGATCCGTGACATGCCCTACATGGACCCAAGTGGGAACAACCTGGGCACAGCCGTGGTCACAGCTCACAGATAC
ATGTTGGCACCAGATGCTCCTGGGCGCCGCCAGCACGTACCAGGGGTGATGGTTCTGCTAGTGGATGAACCCTTG

FIGURE 4060B

AGAGGTGACATATTCAGCCCCATCCGTGAGGCCCAGGCTTCTGGGCTTAATGTGGTGATGTTGGGAATGGCTGGA
GCGGACCCAGAGCAGCTGCGTCGCTTGGCGCCGGGTATGGACTCTGTCCAGACCTTCTTCGCCGTGGATGATGGG
CCAAGCCTGGACCAGGCAGTCAGTGGTCTGGCCACAGCCCTGTGTCAGGCATCCTTCACTACTCAGCCCCGGCCA
GAGCCCTGCCCAGTGTATTGTCCAAAGGGCCAGAAGGGGGAACCTGGAGAGATGGGCCTGAGAGGACAAGTTGGG
CCTCCTGGCGACCCTGGCCTCCCGGGCAGGACCGGTGCTCCCGGCCCCCAGGGGCCCCCTGGAAGTGCCACTGCC
AAGGGCGAGAGGGGCTTCCCTGGAGCAGATGGGCGTCCAGGCAGCCCTGGCCGCGCCGGGAATCCTGGGACCCCT
GGAGCCCCTGGCCTAAAGGGCTCTCCAGGGTTGCCTGGCCCTCGTGGGGACCCGGGAGAGCGAGGACCTCGAGGC
CCAAAGGGGGAGCCGGGGGCTCCCGGACAAGTCATCGGAGGTGAAGGACCTGGGCTTCCTGGGCGGAAAGGGGAC
CCTGGACCATCGGGCCCCCCTGGACCTCGTGGACCACTGGGGGACCCAGGACCCCGTGGCCCCCCAGGGCTTCCT
GGAACAGCCATGAAGGTGACAAAGGCGATCGTGGGGAGCGGGGTCCCCCTGGACCAGGTGAAGGTGGCATTGCTC
CTGGGGAGCCTGGGCTGCCGGGTCTTCCCGGAAGCCCTGGACCCCAAGGCCCCGTTGGCCCCCCTGGAAAGAAAG
GAGAAAAAGGTGACTCTGAGGATGGAGCTCCAGGCCTCCCAGGACAACCTGGGTCTCCGGGTGAGCAGGGCCCAC
GGGGACCTCCTGGAGCTATTGGCCCCAAAGGTGACCGGGGCTTTCCAGGGCCCCTGGGTGAGGCTGGAGAGAAGG
GCGAACGTGGACCCCCAGGCCCAGCGGGATCCCGGGGGCTGCCAGGGGTTGCTGGACGTCCTGGAGCCAAGGGTC
CTGAAGGGCCACCAGGACCCACTGGCCGCCAAGGAGAGAAGGGGGAGCCTGGTCGCCCTGGGGACCCTGCAGTGG
TGGGACCTGCTGTTGCTGGACCCAAAGGAGAAAAGGGAGATGTGGGGCCCGCTGGGCCCAGAGGAGCTACCGGAG
TCCAAGGGGAACGGGGCCCACCCGGCTTGGTTCTTCCTGGAGACCCTGGCCCCAAGGGAGACCCTGGAGACCGGG
GTCCCATTGGCCTTACTGGCAGAGCAGGACCCCCAGGTGACTCAGGGCCTCCTGGAGAGAAGGGAGACCCTGGGC
GGCCTGGCCCCCCAGGACCTGTTGGCCCCCGAGGACGAGATGGTGAAGTTGGAGAGAAAGGTGACGAGGGTCCTC
CGGGTGACCCGGGTTTGCCTGGAAAAGCAGGCGAGCGTGGCCTTCGGGGGGCACCTGGAGTTCGGGGGCCTGTGG
GTGAAAAGGGAGACCAGGGAGATCCTGGAGAGGATGGACGAAATGGCAGCCCTGGATCATCTGGACCCAAGGGTG
ACCGTGGGGAGCCGGGTCCCCCAGGACCCCCGGGACGGCTGG**TAG**ACACAGGACCTGGAGCCAGAGAGAAGGGAG
AGCCTGGGGACCGCGGACAAGAGGGTCCTCGAGGGCCCAAGGGTGATCCTGGCCTCCCTGGAGCCCCTGGGGAAA
GGGGCATTGAAGGGTTTCGGGGACCCCCAGGCCCACAGGGGGACCCAGGTGTCCGAGGCCCAGCAGGAGAAAAGG
GTGACCGGGGTCCCCCTGGGCTGGATGGCCGGAGCGGACTGGATGGGAAACCAGGAGCCGCTGGGCCCTCTGGGC
CGAATGGTGCTGCAGGCAAAGCTGGGGACCCAGGGAGAGACGGGCTTCCAGGCCTCCGTGGAGAACAGGGCCTCC
CTGGCCCCTCTGGTCCCCCTGGATTACCGGGAAAGCCAGGCGAGGATGGCAAACCTGGCCTGAATGGAAAAAACG
GAGAACCTGGGGACCCTGGAGAAGACGGGAGGAAGGGAGAGAAAGGAGATTCAGGCGCCTCTGGGAGAGAAGGTC
GTGATGGCCCCAAGGGTGAGCGTGGAGCTCCTGGTATCCTTGGACCCCAGGGGCCTCCAGGCCTCCCAGGGCCAG
TGGGCCCTCCTGGCCAGGGTTTTCCTGGTGTCCCAGGAGGCACGGGCCCCAAGGGTGACCGTGGGGAGACTGGAT
CCAAAGGGGAGCAGGGCCTCCCTGGAGAGCGTGGCCTGCGAGGAGAGCCTGGAAGTGTGCCGAATGTGGATCGGT
TGCTGGAAACTGCTGGCATCAAGGCATCTGCCCTGCGGGAGATCGTGGAGACCTGGGATGAGAGCTCTGGTAGCT
TCCTGCCTGTGCCCGAACGGCGTCGAGGCCCCAAGGGGGACTCAGGCGAACAGGGCCCCCCAGGCAAGGAGGGCC
CCATCGGCTTTCCTGGAGAACGCGGGCTGAAGGGCGACCGTGGAGACCCTGGCCCTCAGGGGCCACCTGGTCTGG
CCCTTGGGGAGAGGGGCCCCCCCGGGCCTTCCGGCCTTGCCGGGGAGCCTGGAAAGCCTGGTATTCCCGGGCTCC
CAGGCAGGGCTGGGGGTGTGGGAGAGGCAGGAAGGCCAGGAGAGAGGGGAGAACGGGGAGAGAAAGGAGAACGTG
GAGAACAGGGCAGAGATGGCCCTCCTGGACTCCCTGGAACCCCTGGGCCCCCCGGACCCCCTGGCCCCAAGGTGT
CTGTGGATGAGCCAGGTCCTGGACTCTCTGGAGAACAGGGACCCCCTGGACTCAAGGGTGCTAAGGGGGAGCCGG
GCAGCAATGGTGACCAAGGTCCCAAAGGAGACAGGGGTGTGCCAGGCATCAAAGGAGACCGGGGAGAGCCTGGAC
CGAGGGGTCAGGACGGCAACCCGGGTCTACCAGGAGAGCGTGGTATGGCTGGGCCTGAAGGGAAGCCGGGTCTGC
AGGGTCCAAGAGGCCCCCCTGGCCCAGTGGGTGGTCATGGAGACCCTGGACCACCTGGTGCCCCGGGTCTTGCTG
GCCCTGCAGGACCCCAAGGACCTTCTGGCCTGAAGGGGGAGCCTGGAGAGACAGGACCTCCAGGACGGGGCCTGA
CTGGACCTACTGGAGCTGTGGGACTTCCTGGACCCCCCGGCCCTTCAGGCCTTGTGGGTCCACAGGGGTCTCCAG
GTTTGCCTGGACAAGTGGGGGAGACAGGGAAGCCGGGAGCCCCAGGTCGAGATGGTGCCAGTGGAAAAGATGGAG
ACAGAGGGAGCCCTGGTGTGCCAGGGTCACCAGGTCTGCCTGGCCCTGTCGGACCTAAAGGAGAACCTGGCCCCA
CGGGGGCCCCTGGACAGGCTGTGGTCGGGCTCCCTGGAGCAAAGGGAGAGAAGGGAGCCCCTGGAGGCCTTGCTG
GAGACCTGGTGGGTGAGCCGGGAGCCAAAGGTGACCGAGGACTGCCAGGGCCGCGAGGCGAGAAGGGTGAAGCTG
GCCGTGCAGGGGAGCCCGGAGACCCTGGGGAAGATGGTCAGAAAGGGGCTCCAGGACCCAAAGGTTTCAAGGGTG

FIGURE 4060C

ACCCAGGAGTCGGGGTCCCGGGCTCCCCTGGGCCTCCTGGCCCTCCAGGTGTGAAGGGAGATCTGGGCCTCCCTG
GCCTGCCCGGTGCTCCTGGTGTTGTTGGGTTCCCGGGTCAGACAGGCCCTCGAGGAGAGATGGGTCAGCCAGGCC
CTAGTGGAGAGCGGGGTCTGGCAGGCCCCCCAGGGAGAGAAGGAATCCCAGGACCCCTGGGGCCACCTGGACCAC
CGGGGTCAGTGGGACCACCTGGGGCCTCTGGACTCAAAGGAGACAAGGGAGACCCTGGAGTAGGGCTGCCTGGGC
CCCGAGGCGAGCGTGGGGAGCCAGGCATCCGGGGTGAAGATGGCCGCCCCGGCCAGGAGGGACCCCGAGGACTCA
CGGGGCCCCCTGGCAGCAGGGGAGAGCGTGGGGAGAAGGGTGATGTTGGGAGTGCAGGACTAAAGGGTGACAAGG
GAGACTCAGCTGTGATCCTGGGGCCTCCAGGCCCACGGGGTGCCAAGGGGGACATGGGTGAACGAGGGCCTCGGG
GCTTGGATGGTGACAAAGGACCTCGGGGAGACAATGGGGACCCTGGTGACAAGGGCAGCAAGGGAGAGCCTGGTG
ACAAGGGCTCAGCCGGGTTGCCAGGACTGCGTGGACTCCTGGGACCCCAGGGTCAACCTGGTGCAGCAGGGATCC
CTGGTGACCCGGGATCCCCAGGAAAGGATGGAGTGCCTGGTATCCGAGGAGAAAAAGGAGATGTTGGCTTCATGG
GTCCCCGGGGCCTCAAGGGTGAACGGGGAGTGAAGGGAGCCTGTGGCCTTGATGGAGAGAAGGGAGACAAGGGAG
AAGCTGGTCCCCCAGGCCGCCCCGGGCTGGCAGGACACAAAGGAGAGATGGGGGAGCCTGGTGTGCCGGGCCAGT
CGGGGGCCCCTGGCAAGGAGGGCCTGATCGGTCCCAAGGGTGACCGAGGCTTTGACGGGCAGCCAGGCCCCAAGG
GTGACCAGGGCGAGAAAGGGGAGCGGGGAACCCCAGGAATTGGGGGCTTCCCAGGCCCCAGTGGAAATGATGGCT
CTGCTGGTCCCCCAGGGCCACCTGGCAGTGTTGGTCCCAGAGGCCCCGAAGGACTTCAGGGCCAGAAGGGTGAGC
GAGGTCCCCCCGGAGAGAGAGTGGTGGGGGCTCCTGGGGTCCCTGGAGCTCCTGGCGAGAGAGGGGAGCAGGGGC
GGCCAGGGCCTGCCGGTCCTCGAGGCGAGAAGGGAGAAGCTGCACTGACGGAGGATGACATCCGGGGCTTTGTGC
GCCAAGAGATGAGTCAGCACTGTGCCTGCCAGGGCCAGTTCATCGCATCTGGATCACGACCCCTCCCTAGTTATG
CTGCAGACACTGCCGGCTCCCAGCTCCATGCTGTGCCTGTGCTCCGCGTCTCTCATGCAGAGGAGGAAGAGCGGG
TACCCCCTGAGGATGATGAGTACTCTGAATACTCCGAGTATTCTGTGGAGGAGTACCAGGACCCTGAAGCTCCTT
GGGATAGTGATGACCCCTGTTCCCTGCCACTGGATGAGGGCTCCTGCACTGCCTACACCCTGCGCTGGTACCATC
GGGCTGTGACAGGCAGCACAGAGGCCTGTCACCCTTTTGTCTATGGTGGCTGTGGAGGGAATGCCAACCGTTTTG
GGACCCGTGAGGCCTGCGAGCGCCGCTGCCCACCCCGGGTGGTCCAGAGCCAGGGGACAGGTACTGCCCAGGACT
GAGGCCCAGATAATGAGCTGAGATTCAGCATCCCCTGGAGGAGTCGGGGTCTCAGCAGAACCCCACTGTCCCTCC
CCTTGGTGCTAGAGGCTTGTGTGCACGTGAGCGTGCGTGTGCACGTCCGTTATTTCAGTGACTTGGTCCCGTGGG
TCTAGCCTTCCCCCCTGTGGACAAACCCCCATTGTGGCTCCTGCCACCCTGGCAGATGACTCACTGTGGGGGGGT
GGCTGTGGGCAGTGAGCGGATGTGACTGGCGTCTGACCCGCCCCTTGACCCAAGCCTGTGATGACATGGTGCTGA
TTCTGGGGGGCATTAAAGCTGCTGTTTTAAAAGGC

FIGURE 4061

CAGCAGAGCATCCTGGCCAGAACAAGCCAAGGAGCCAAGACGAGAGGGACACACGGACAAACAACAGACAGAAGA
CGTACTGGCCGCTGGACTCCGCTGCCTCCCCCATCTCCCCGCCATCTGCGCCCGGAGG**ATG**AGCCCAGCCTTCAG
GGCCATGGATGTGGAGCCCCGCGCCAAAGGCGTCCTTCTGGAGCCCTTTGTCCACCAGGTCGGGGGGCACTCATG
CGTGCTCCGCTTCAATGAGACAACCCTGTGCAAGCCCCTGGTCCCAAGGGAACATCAGTTCTACGAGACCCTCCC
TGCTGAGATGCGCAAATTCACTCCCCAGTACAAAGGTGTGGTATCTGTGCGCTTTGAAGAAGATGAAGACAGGAA
CTTGTGTCTAATAGCATATCCATTGAAAGGGGACCATGGAATTGTGGACATTGTAGATAATTCAGACTGTGAACC
AAAAAGTAAGCTCCTAAGGTGGACAACAAACAAAAAACATCATGTCTTAGAAACAGAAAAGACCCCTAAGGACTG
GGTGCGTCAGCACCGTAAAGAGGAGAAAATGAAGAGCCATAAGTTAGAAGAAGAATTTGAGTGGCTAAAGAAATC
TGAAGTCTTGTACTACACTGTAGAGAAGAAGGGGAATATAAGTTCCCAGCTTAAACACTATAACCCTTGGAGCAT
GAAATGTCACCAGCAACAGTTACAGAGAATGAAGGAGAATGCAAAGCATCGGAACCAGTACAAATTTATCTTACT
GGAAAACCTGACTTCCCGCTACGAGGTGCCTTGTGTCCTTGACCTCAAGATGGGCACACGACAACATGGTGATGA
TGCTTCAGAGGAGAAGGCAGCCAACCAGATCCGAAAATGTCAGCAGAGCACATCTGCAGTCATTGGTGTGCGTGT
GTGTGGCATGCAGGTGTACCAAGCAGGCAGTGGGCAGCTCATGTTCATGAACAAGTACCATGGACGGAAGCTATC
GGTGCAGGGCTTCAAGGAGGCACTTTTCCAGTTCTTCCACAATGGGCGGTACCTGCGCCGTGAACTCCTGGGCCC
TGTGCTCAAGAAGCTGACTGAGCTCAAGGCAGTGTTGGAGCGACAGGAGTCCTACCGCTTCTACTCAAGCTCCCT
GCTGGTCATTTATGATGGCAAGGAGCGGCCCGAAGTGGTCCTGGACTCAGATGCTGAGGATTTGGAGGACCTGTC
AGAGGAATCAGCTGATGAGTCTGCTGGTGCCTATGCCTACAAACCCATCGGCGCCAGCTCTGTAGATGTGCGCAT
GATCGACTTTGCACACACCACCTGCAGGCTGTATGGCGAGGACACCGTGGTGCATGAGGGCCAGGATGCTGGCTA
TATCTTCGGGCTCCAGAGCCTGATAGACATTGTCACAGAGATAAGTGAGGAGAGTGGGGAG**TGA**GCTTGCTAGCT
GCTCCAGTACTTGAGAGCGACTCTGTGTCCCAGGCACAGCTGTGCTGCGTCAGGGAGGAAGCCAGTATGCGCAGG
TGGTGGCTCCTGCAGCCTGGAGCTGATGTGCAGTGGCCTCTGTGAGCCCCAGCCTGAGCCAGTCCCAGCTGTGCT
TGGAGTCTTTATTTATTTTAACTATTTCTTCAACATTCCACATTTGATGATGATACCTCTTTCTTCCCTGAGTGT
ATATGTTCTAATACAAATCTTTTTGTT

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FIGURE 4062

GGACCGGGTGACTTTTAGAAGAATCATAGTGAAAAATAATGCAAAGAAGAGGAAGATGTTTGAATCATTTATTGA
GTCTGTGCCCCTCCTTAAATCACTAGAGGTGTCAGAACGAATGAAGATTGTGGATGTAATAGGAGAGAAGATCTA
TAAGGATGGAGAACGCATAATCACTCAGGGTGAAAAGGCTGATAGCTTTTACATCATAGAGTCTGGCGAAGTGAG
CATCTTGATTAGAAGCAGGACTAAATCAAACAAGGATGGTGGGAACCAGGAGGTCGAGATTGCCCGCTGCCATAA
GGGGCAGTACTTTGGAGAGCTTGCCCTGGTCACCAACAAACCCAGAGCTGCCTCAGCTTATGCAGTTGGAGATGT
CAAATGCTTAGTTATGGATGTACAAGCATTCGAGAGGCTTCTGGGGCCCTGCATGGACATCATGAAGAGGAACAT
CTCACACTATGAGGAACAGCTGGTGAAGATGTTTGGCTCCAGCGTGGATCTGGGCAACCTCGGGCAGTAGGTGTG
CCACACCCCAGAGCCTTCTTAGTGTGACACCAAAACCTTCTGGTCAGCCACAGAACACATACAGAAAACAGACAT
GACAGAACTGTTCCTGCCGTTGCCGCCACTGCTGCCATTGCTGTGGTTATGGGCATTTAGAAAACTTGAAAGTCA
GCACTAAAGGATGGGCAGAGGTTCAACCCACACCTCCACTTTGCTTCTGAAGGCCCATTCATTAGACCACTTGTA
AAGATTACTCCAACCCAGTTTTTATATCTTTGGTTCAAAACGGCATGTCTCTCCAACAATTTAAGTGCCTGATAC
AAAGTCCAAAGTATAAACATGCTCCTTTCCTCTCTTGCTGCTACTCTTGCTTTTGGAAGTTACCACAGGGTCTGC
AGAAACCTGTTGTATAACTGTAGACACTCTCTAATGGTTCTCAAAGGAGGAAATGTAGCCTTCAGTCTCCTCATT
TGTCCTTTGAGGAAGTCCACATTTGTTCACAGTTGCAGCCTTTGGTTTTACAGTGGGAAATGGTGGTGGATGATA
TGGACATATGTAGCCCAGTGGCATTGTACTTTCTGCTGACAGCTGCACACATTACAGCTGTCTCCAAACCCACAG
TGATGCTTAGGGAAAGACCCTGCTCAGGACCCAGCAGGTCAGCACCCCAGAGCAGACTGATAGGTCCGTGGGACC
CATGTTAGAGCAGAAAATTTGGGCTCAGCACATTTTACTGTTAGTAGAGAGCCAGGAAACGTTTTCTGGGTTGGG
GATTTTGTGGGATTTTTTAATTTTTTTAGTAGGTTTTGTTTAACCTCTGTGCAGTTTGTATGAATGAATTGCTAT
ACATTTATAAGGAGCCAGGGTCTGGAGGGTTGCTATCACTTTGTCCAGCCCAAATACCTTCCTGGGCAACTCCTA
CCATTTGTTTGCAGTTGCCTCTACTAGCTGATGGCAGTATGCTGGAAAGAGGTTGTACTATAAAGAGAGTTCTTT
CCTTCTACTCCAGAGTTGTTGTGTAGCTTTGCCATTGAACCGATCAATTTTTAAACTCTTTAAAGAAGCAGCAGC
TATTTTTTTGAAATTAAAGAAAATTCTCAGGCCAGGCTCAATGGCTCATGCCTATAATTGTAGTGCTTTGGGAGG
CTGAGCTGGGAGGATCGCTTAAGACCAGCCTAGGCAACAGAGTGAGATCCTGTCTCTACAAAAACAAAAATTTTT
TTTTTGTTTTCTTTTTGAGACGGAGTTTCGCTCTTGTTGCCCAGGCTGGAGTGCAATGGTGCGGTCTTGGCTCAC
CGCAACCTCCGCCTCCCAGATTAAAGTGATTCTCCTGCCTCAACCTCCTGAGTAGCTGGGATTAGCAGATGCGCC
ACCATGCCGGGCGAATTTTGTATTTTTAATAGAGACAGGGTTTCTCTGTGTTGGTCAGGCTGGTCTCAAACTCCC
AACCTCAGGTGATCCGCCCACCTCAGCCTCTCAGAGTGCTGGGATTACAGATGTGAGCCACTGCACCTGGCAAAA
AAAAAATTTTTTTTTAATTTGTCAGGTGTGGTGATGCATGCATGTAGTCCCAAATACTTAGGAGGCTGAGGTGGA
AGGATCACTTGAGCCCAGGAGGTCAAGGCAACAGTGAGCTGTGATCATGCCACTGCACTCCAGTCTGGGTGACAC
AGTGAGACCCTGTCTCTTAAAAAAAAAAAAAGAAAGAAAAAAAATTATTCTTTAGGTAATTTCACTTGGACATAT
TCATGTATATGGAGTTTGTCAGCTGACTCAGGCATTTACCCTAAAGATCAAATCTGTTTTCAAAAATTGGCATTG
GCCAGGCACGGTGACCCACACCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGGGT
TCAAGACCAGCCTGGCCAACATAGTGAAACCCCGTCTCTACTAAAAATACAAAAAA

FIGURE 4063

GAGATGGCGGAAGGTGGAGGCTGCCGTGAGCGACCGGATGCGGAGACTCAGAAGTCCGAGCTTGGACCCTTAATG
AGGACCACACTCCAACGCGGGGCGCAGTGGTATCTTATTGACAGCCGGTGGTTCAAGCAGTGGAAGAAGTATGTG
GGCTTTGACAGCTGGGACATGTACAATGTGGGTGAACATAACCTATTTCCTGGCCCAATAGACAACTCTGGGCTA
TTTTCAGATCCTGAGAGTCAGACCTTGAAAGAACACTTAATTGATGAATTGGACTATGTATTGGTCCCTACCGAG
GCGTGGAATAAACTACTAAACTGGTACGGCTGTGTAGAAGGCCAGCAACCCATCGTCAGAAAAGTTGTGGAGCAT
GGCCTGTTTGTCAAGCACTGCAAAGTCGAGGTGTATTTGCTGGAACTGAAGCTCTGTGAGAACAGTGACCCCACC
AATGTGCTGAGTTGCCATTTCAGCAAGGCAGACACCATTGCAACCATCGAGAAAGAGATGCGGAAGCTATTCAAC
ATCCCTGCGGAGCGTGAAACACGGCTCTGGAACAAATACATGAGCAACACCTACGAGCAGTTGAGCAAGCTAGAC
AACACTGTCCAGGATGCTGGGCTATACCAGGGTCAGGTGCTAGTAATTGAGCCTCAAAATGAAGATGGCACATGG
CCCAGGCAGACCTTGCAGTCAAAATCAAGCACTGCGCCTAGCAGAAATTTTACTACCTCTCCAAAATCATCAGCA
AGTCCCTATTCCTCAGTGTCTGCCTCTCTCATTGCAAATGGTGATAGCACTAGCACCTGTGGGATGCACAGTTCC
GGTGTCAGCAGGGGTGGATCTGGCTTTTCTGCTTCGTATAATTGTCAGGAGCCACCATCCTCTCATATACAACCT
GGGCTCTGTGGACTTGGAAACCTGGGAAACACCTGCTTCATGAACTCCGCTTTGCAGTGTTTGAGCAACACTGCA
CCACTGACTGACTACTTTCTCAAAGATGAGTATGAAGCCGAAATCAACAGAGACAACCCTCTGGGGATGAAAGGG
GAAATTGCAGAAGCCTATGCTGAACTCATTAAGCAGATGTGGTCTGGAAGGGACGCCCATGTGGCACCTCGCATG
TTCAAAACTCAAGTAGGACGTTTTGCTCCTCAATTTTCTGGCTACCAGCAACAAGATTCTCAGGAGCTGCTGGCC
TTTCTTCTAGATGGATTGCATGAAGATCTGAACCGGGTAAAGAAAAAGCCCTACTTGGAGCTGAAGGATGCCAAT
GGGCGGCCAGATGCGGTGGTGGCAAAGGAAGCCTGGGAGAATCACAGGTTGAGGAATGATTCTGTGATTGTGGAT
ACTTTCCATGGCCTCTTCAAATCTACTTTGGTTTGCCCAGAATGTGCTAAGGTTTCTGTGACCTTTGACCCATTT
TGCTATCTAACGCTGCCACTGCCCTTGAAGAAAGATCGAGTTATGGAGGTTTTCCTGGTTCCTGCTGACCCTCAC
TGCAGACCTACTCAGTACCGTGTGACTGTGCCGCTGATGGGGGCTGTGTCCGACCTGTGCGAGGCTCTCTCCAGG
CTGTCTGGCATTGCTGCAGAAAATATGGTGGTCGCAGATGTGTATAATCACCGATTCCACAAAATTTTCCAAATG
GATGAAGGTTTAAACCACATCATGCCTCGGGATGACATTTTCGTGTACGAGGTCTGCAGCACTTCCGTGGATGGC
TCGGAATGTGTCACGCTTCCAGTCTACTTCAGGGAGAGGAAGTCCAGGCCATCAAGCACTTCCTCCGCATCAGCG
CTATATGGGCAGCCACTATTGCTTTCTGTCCCCAAGCACAAGTTAACCCTTGAGTCTTTGTACCAGGCTGTTTGT
GATCGTATCAGCCGCTATGTGAAACAGCCTTTGCCTGATGAGTTTGGCAGCTCACCATTGGAGCCAGGGGCCTGC
AATGGCTCCAGGAACAGCTGTGAAGGAGAAGATGAGGAAGAAATGGAGCATCAGGAAGAAGGCAAAGAGCAGCTT
TCAGAAACAGAAGGCAGTGGGGAAGATGAGCCAGGAAATGACCCCAGTGAGACCACCCAAAAGAAGATCAAAGGC
CAGCCCTGCCCAAAAAGGCTTTTTACCTTCAGTCTTGTGAACTCCTATGGAACAGCTGACATAAATTCACTTGCA
GCTGATGGAAAACTACTTAAACTCAACTCTCGATCTACACTGGCCATGGATTGGGACAGTGAAACTCGGAGACTT
TACTATGATGAGCAAGAATCTGAGGCCTACGAGAAGCATGTGAGCATGTTGCAGCCTCAGAAGAAGAAGAAGACC
ACAGTGGCCCTGAGAGACTGCATCGAGCTCTTCACCACCATGGAGACCCTTGGGGAGCATGACCCCTGGTACTGT
CCCAACTGTAAGAAGCATCAACAGGCCACAAAAAAGTTTGACCTATGGTCCTTGCCCAAGATCCTGGTGGTCCAC
CTCAAACGTTTCTCCTACAACAGATACTGGAGGGATAAGCTCGACACAGTCGTAGAATTCCCAATCAGAGGGCTG
AACATGTCCGAGTTTGTCTGTAACCTGTCAGCAAGGCCTTATGTGTACGACCTCATTGCCGTGTCCAATCATTAT
GGAGCCATGGGGGTTGGCCACTACACTGCATATGCGAAGAACAAACTGAATGGTAAATGGTATTACTTTGATGAT
AGCAACGTGTCCCTGGCCTCTGAGGATCAGATAGTGACTAAAGCAGCTTATGTGCTATTTTACCAACGTCGAGAT
GATGAATTTTATAAGACACCTTCACTTAGCAGTTCTGGTTCCTCTGATGGAGGGACACGACCAAGCAGCTCTCAG
CAGGGCTTTGGGGATGATGAGGCTTGCAGCATGGACACCAACTAATGCTGACTCCACGATCCTGCCACCCTGTAG
CGCCAGTGTAATCCCCCAAGAGAACATCTTTGACACTCTGCAGACTGCTAGTGTTCTGTCTAAAAACCAGACAAG
GAAATACCCTTCTTTTATGAGCAGAAGGAAACAAAAAAAAAAAAAAGAAGACCGTTTACCTAGAA

FIGURE 4064

CCCTCGAGGGCCCCAGCCCTTGGAAGGGTAACCTGGACCGCTGCCGCCTGGTTGCCTGGGCCAGACCAGACATGC
CTGCTGCTCCTTCCGGCTTAGGAGGAGCACGCGTCCCGCTCGGGCGCACTCTCCAGCCTTTTCCTGGCTGAGGAG
GGGCCGAGCCCTCCGGGTAGGGCGGGGGCCGGATGAGGCGGGACCCTCAGGCCCGGAAAACTGCCTGTGCCACGT
GACCCGCCGCCGGCCAGTTAAAAGGAGGCGCCTGCTGGCCTCCCCTTACAGTGCTTGTTCGGGGCGCTCCGCTGG
CTTCTTGGACAATTGCGCCATGTGTGCTGCTCGGCTAGCGGCGGCGGCGGCGGCGGCCCAGTCGGTGTATGCCTT
CTCGGCGCGCCCGCTGGCCGGCGGGGAGCCTGTGAGCCTGGGCTCCCTGCGGGGCAAGGTACTACTTATCGAGAA
TGTGGCGTCCCTCTGAGGCACCACGGTCCGGGACTACACCCAG**ATG**AACGAGCTGCAGCGGCGCCTCGGACCCCG
GGGCCTGGTGGTGCTCGGCTTCCCGTGCAACCAGTTTGGGCATCAGGAGAACGCCAAGAACGAAGAGATTCTGAA
TTCCCTCAAGTACGTCCGGCCTGGTGGTGGGTTCGAGCCCAACTTCATGCTCTTCGAGAAGTGCGAGGTGAACGG
TGCGGGGGCGCACCCTCTCTTCGCCTTCCTGCGGGAGGCCCTGCCAGCTCCCAGCGACGACGCCACCGCGCTTAT
GACCGACCCCAAGCTCATCACCTGGTCTCCGGTGTGTCGCAACGATGTTGCCTGGAACTTTGAGAAGTTCCTGGT
GGGCCCTGACGGTGTGCCCCTACGCAGGTACAGCCGCCGCTTCCAGACCATTGACATCGAGCCTGACATCGAAGC
CCTGCTGTCTCAAGGGCCCAGCTGTGCC**TAG**GGCGCCCCTCCTACCCCGGCTGCTTGGCAGTTGCAGTGCTGCTG
TCTCGGGGGGGTTTTCATCTATGAGGGTGTTTCCTCTAAACCTACGAGGGAGGAACACCTGATCTTACAGAAAAT
ACCACCTCGAGATGGGTGCTGGTCCTGTTGATCCCAGTCTCTGCCAGACCAAGGCGAGTTTCCCCACTAATAAAG
TGCCGGGTGTCAGCA

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FIGURE 4065

AGCA**ATG**GCTGCCATCCGGAAGAAACTGGTGATTGTTGGTGATGGAGCCTGTGGAAAGACATGCTTGCTCATAGT
CTTCAGCAAGGACCAGTTCCCAGAGGTGTATGTGCCCACAGTGTTTGAGAACTATGTGGCAGATATCGAGGTGGA
TGGAAAGCAGGTAGAGTTGGCTTTGTGGGACACAGCTGGGCAGGAAGATTATGATCGCCTGAGGCCCCTCTCCTA
CCCAGATACCGATGTTATACTGATGTGTTTTTCCATCGACAGCCCTGATAGTTTAGAAAACATCCCAGAAAAGTG
GACCCCAGAAGTCAAGCATTTCTGTCCCAACGTGCCCATCATCCTGGTTGGGAATAAGAAGGATCTTCGGAATGA
TGAGCACACAAGGCGGGAGCTAGCCAAGATGAAGCAGGAGCCGGTGAAACCTGAAGAAGGCAGAGATATGGCAAA
CAGGATTGGCGCTTTTGGGTACATGGAGTGTTCAGCAAAGACCAAAGATGGAGTGAGAGAGGTTTTTGAAATGGC
TACGAGAGCTGCTCTGCAAGCTAGACGTGGGAAGAAAAAATCTGGGTGCCTTGTCTTG**TGA**AACCTTGCTGCAAG
CACAGCCCTTATGCGGTTAATTTTGAAGTGCTGTTTATTAATCTTAGTGTATGATTACTGGCCTTTTTCATTTAT
CTATAATTTACCTAAGATTACAAATCAGAAGTCATCTTGCTACCAGTATTTAGAAGCCAACTATGATTATTAACG
ATGTCCAACCCGTCTGGCCCACCAGGGTCCTTTTGACACTGCTCTAACAGCCCTCCTCTGCACTCCCACCTGACA
CACCAGGCGCTAATTCAAGGAATTTCTTAACTTCTTGCTTCTTTCTAGAAAGAGAAACAGTTGGTAACTTTTGTG
AATTAGGCTGTAACTACTTTATAACTAACATGTCCTGCCTATTATCTGTCAGCTGCAAGGTACTCTGGTGAGTCA
CCACTTCAGGGCTTTACTCCGTAACAGATTTTGTTGGCATAGCTCTGGGGGTGGGCAGTTTTTTGAAAATGGGCTC
AACCAGAAAAGCCCAAGTTCATGCAGCTGTGGCAGAGTTACAGTTCTGTGGTTTCATGTTAGTTACCTTATAGTT
ACTGTGTAATTAGTGCCACTTAATGTATGTTACCAAAAATAAATATATCTACCCCAGACTAGATGTAGTATTTTT
TGTATAATTGGATTTCCTAATACTGTCATCCTCAAAGAAAGTGTATTGGTTTTTTAAAAAAGAAAGTGTATTTGG
AAATAAAGTCAGATGGAAAATTCATTTTTTAAATTCCCGTTTTGTCACTTTTTCTGATAAAAGATGGCCATATTA
CCCCTTTTCGGCCCCATGTATCTCAGTACCCCATGGAGCTGGGCTAAGTAAATAGGAATTGGTTTCACGCCTGAG
GCAATTAGACACTTTGGAAGATGGCATAACCTGTCTCACCTGGACTTAAGCATCTGGCTCTAATTCACAGTGCTC
TTTTCTCCTCACTGTATCCAGGTTCCCTCCCAGAGGAGCCACCAGTTCTCATGGGTGGCACTCAGTCTCTCTTCT
CTCCAGCTGACTAAACTTTTTTTCTGTACCAGTTAATTTTTCCAACTACTAATAGAATAAAGGCAGTTTTCT

FIGURE 4066

TGAGCCCCAGCTAAGCGCTGCCCTTGAGTATGTGCGGAGTCACCCCTTGGACCCCATCGACACTGTGGACTTCGA
GCGGGAATGTGGCGTGGGTGTCATTGTGACCCCAGAGCAGATTGAGGAGGCTGTGGAGGCTGCTATTAACAGGCA
CCGGCCCCAGCTCCTGGTGGAACGTTACCATTTCAACATGGGGCTGCTGATGGGAGAGGCTCGGGCTGTGCTGAA
GTGGGCAGATGGCAAAATGATCAAGAATGAAGTGGACATGCAGGTCCTCCACCTTCTGGGCCCCAAGTTGGAGGC
TGATCTGGAGAAGAAGTTCAAGGTGGCAAAAGCTCGGCTAGAAGAAACAGACCGGAGGACGGCAAAGGATGTGGT
GGAGAATGGCGAGACTGCTGACCAGACCCTGTCTCTGATGGAGCAGCTCCGGGGGGAGGCCCTTAAGTTCCACAA
GCCTGGTGAGAACTACAAGACCCCAGGCTATGTGGTCACTCCACACACCATGAATCTACTAAAGCAGCACCTGGA
GATTACTGGTGGGCAGGTACGTACCCGGTTCCCGCCAGAACCCAATGGAATCCTGCATATTGGACATGCCAAAGC
CATCAATTTCAACTTTGGCTATGCCAAGGCCAACAATGGCATCTGTTTTCTGCGTTTTGATGACACCAACCCTGA
GAAGGAGGAAGCAAAGTTCTTCACGGCCATCTGTGACATGGTAGCCTGGCTAGGCTACACACCTTACAAAGTCAC
AT**ATG**CGTCTGACTATTTTGACCAGCTATATGCGTGGGCTGTGGAGCTCATCCGCAGGGGTCTGGCTTATGTGTG
CCACCAGCGAGGAGAGGAGCTCAAAGGCCATAATACTCTGCCTTCACCCTGGAGAGACCGTCCCATGGAGGAGTC
ACTGCTGCTCTTTGAGGCAATGCGCAAGGGCAAGTTTTCAGAGGGCGAGGCCACACTACGGA**TGA**AGCTGGTGAT
GGAGGATGGCAAGATGGACCCTGTAGCCTATCGAGTCAAGTATACACCACACCACCGCACAGGGGACAAATGGTG
CATCTATCCCACCTACGACTACACACACTGCCTCTGTGACTCCATCGAGCACATCACTCACTCACTCTGCACCAA
GGAATTCCAGGCCCG

FIGURE 4067A

TAAGGCGGTGGCGGCGGCGCCGGGACGGGGGAGGGGCGCGCCGGAACCGGAACCGGAACCGACCTGCGCCGGAACCGGAAC
GGAGAGCGGGTTGCCAGGGCCCGAAGAGGGCTGGCTGCGGCGGTCTCGCTCGGCTGTCCGTTCCTTGCTGGAGAA
TTTGGCCACAAAGAGTTGCCAAGATAGCTGGGCCAGGAAGAAAGCGCCGCAGCCCTGACCCAGACGCTGTTGCCG
ACCCCGGGGCACTCTGGCTGTCGACCAAGCGGCTCAAG**ATG**TCTGGCGGGGCCAGTGCCACAGGCCCAAGGAGAG
GGCCCCCAGGACTGGAGGACACCACTAGTAAGAAGAAGCAGAAGGATCGAGCAAACCAGGAGAGCAAGGATGGAG
ATCCTAGGAAAGAGACAGGGTCTCGATATGTTGCCCAGGCTGGTCTTGAACCTCTGGCCTCAGGTGATCCTTCTG
CCTCAGCCTCCCATGCAGCTGGGATCACAGGCTCACGCCACCGTACCCGGCTGTTCTTTCCTTCATCGTCAGGGT
CAGCATCCACTCCTCAAGAGGAGCAGACCAAAGAGGGAGCTTGTGAAGACCCTCATGATCTCTTGGCTACTCCCA
CTCCAGAGTTGTTGCTCGATTGGAGGCAGAGTGCAGAAGAGGTGATTGTCAAGCTTCGTGTGGGAGTAGGTCCCC
TGCAGCTGGAGGATGTAGATGCTGCTTTCACAGATACAGACTGTGTGGTGCGGTTTGCAGGTGGTCAGCAGTGGG
GTGGTGTCTTCTATGCTGAGATAAAAAGCTCTTGTGCTAAAGTGCAAACCCGCAAGGGCAGTCTCCTGCACCTGA
CACTGCCCAAAAAGGTGCCTATGCTCACGTGGCCCTCCCTCCTGGTTGAGGCTGATGAACAGCTTTGCATACCAC
CGCTGAACTCCCAAACCTGTCTCCTGGGCTCAGAGGAGAATTTAGCCCCTTTGGCAGGAGAGAAAGCAGTGCCTC
CCGGGAATGACCCAGTCTCTCCAGCCATGGTCCGGAGCAGAAACCCTGGGAAAGATGACTGTGCCAAGGAGGAGA
TGGCAGTGGCAGCAGATGCTGCAACCTTGGTGGATGAGCCCGAGTCGATGGTGAACCTGGCGTTTGTCAAGAATG
ACTCGTATGAGAAGGGCCCGGATTCAGTGGTGGTGCACGTGTACGTGAAGGAGATCTGCAGGGACACCTCAAGAG
TACTTTTCCGTGAGCAGGACTTCACGCTCATCTTCCAGACCAGGGATGGAAACTTCCTGAGGCTGCACCCGGGCT
GTGGGCCCCACACCACCTTCCGTTGGCAGGTGAAGCTCAGGAATCTGATTGAGCCAGAGCAGTGCACCTTCTGTT
TCACGGCTTCTCGCATCGACATCTGCCTTCGTAAGAGGCAGAGTCAGCGCTGGGGGGGCCTGGAGGCCCCGGCTG
CACGAGGTGCAGTGGGTGGTGCAAAGGTTGCCGTGCCGACAGGTCCAACCCCTCTGGATTCAACCCCACCAGGAG
GTGCTCCCCACCCCCTGACAGGCCAGGAGGAGGCCCGGGCTGTGGAGAAGGATAAATCCAAGGCACGATCTGAGG
ACACAGGGCTAGACAGTGTGGCAACCCGCACACCCATGGAGCATGTAACCCCAAAGCCAGAGACACACCTGGCCT
CGCCCAAGCCTACATGCATGGTGCCTCCCATGCCCCACAGCCCAGTTAGTGGAGACAGCGTGGAGGAGGAGGAAG
AGGAAGAGAAGAAGGTGTGTCTGCCAGGCTTCACTGGCCTTGTCAATTTAGGCAACACCTGCTTCATGAACAGCG
TCATTCAGTCTCTGTCCAACACTCGGGAACTCCGGGACTTCTTCCATGACCGCTCCTTTGAGGCTGAGATCAACT
ACAACAACCCACTAGGGACTGGTGGGCGTCTGGCCATTGGCTTTGCCGTGCTGCTTCGGGCGCTGTGGAAGGGCA
CCCACCATGCCTTCCAGCCTTCCAAGTTGAAGGCCATTGTGGCGAGTAAGGCCAGCCAGTTCACAGGCTATGCAC
AGCATGATGCCCAGGAGTTCATGGCTTTCCTGCTGGATGGGCTGCACGAGGACCTGAATCGCATTCAGAACAAGC
CCTACACAGAGACCGTGGATTCAGATGGGCGGCCCGATGAGGTGGTAGCTGAGGAAGCATGGCAGCGGCACAAGA
TGAGGAATGACTCTTTCATCGTGGACCTATTTCAGGGGCAGTACAAGTCGAAGCTGGTGTGCCCTGTGTGTGCCA
AGGTCTCCATCACTTTTGACCCGTTTCTTTATCTGCCGGTGCCCTTGCCACAAAAGCAAAAGGTTCTCCCTGTCT
TTTATTTTGCCCGAGAGCCCCACAGCAAGCCCATCAAGTTCCTGGTGAGCGTCAGCAAGGAGAACTCCACTGCGA
GCGAAGTATTGGACTCCCTCTCTCAGAGTGTTCATGTGAAGCCTGAGAACCTGCGTTTGGCAGAGGTAATTAAGA
ATCGTTTTCATCGTGTGTTCCTACCCTCCCACTCACTGGACACTGTGTCCCCATCTGATACGCTCCTCTGCTTTG
AGCTGCTATCCTCAGAGTTGGCTAAGGAGCGGGTAGTGGTGCTAGAGGTGCAACAGCGCCCCCAGGTGCCCAGCG
TCCCCATCTCCAAGTGTGCAGCCTGCCAGCGGAAGCAACAGTCGGAGGATGAAAAGCTGAAGCGCTGTACCCGGT
GCTACCGTGTGGGCTACTGCAACCAGCTCTGCCAGAAAACCCACTGGCCTGACCACAAGGGCCTCTGCCGACCTG
AGAACATTGGCTACCCCTTCCTGGTCAGTGTACCTGCCTCACGCCTCACTTATGCCCGCCTCGCTCAGTTGCTAG
AGGGCTATGCCCGGTACTCTGTGAGTGTATTCCAGCCACCCTTTCAGCCAGGCCGCATGGCCTTGGAGTCTCAGA
GCCCTGGCTGCACCACACTGCTCTCCACAGGTTCCCTGGAGGCTGGGGACAGCGAGAGAGACCCCATTCAGCCAC
CTGAGCTCCAGCTGGTGACCCCTATGGCTGAGGGGGACACAGGGCTTCCCCGGGTGTGGGCAGCCCCTGACCGGG
GTCCTGTGCCCAGCACCAGTGGAATTTCTTCTGAGATGCTGGCCAGTGGGCCCATTGAGGTTGGCTCCTTGCCAG
CTGGCGAGAGGGTGTCCCGACCCGAAGCTGCTGTGCCTGGGTACCAGCATCCAAGTGAAGCTATGAATGCCCACA
CACCCCAGTTCTTCATCTATAAAATTGATTCATCCAACCGAGAGCAGCGGCTAGAGGACAAAGGAGACACCCCAC
TGGAGCTGGGTGACGACTGTAGCCTGGCTCTCGTCTGGCGGAACAATGAGCGCTTGCAGGAGTTTGTGTTGGTAG
CCTCCAAGGAGCTGGAATGTGCTGAGGATCCAGGCTCTGCCGGTGAGGCTGCCCGGGCCGGCCACTTCACCCTGG
ACCAGTGCCTCAACCTCTTCACACGGCCTGAGGTGCTGGCACCCGAGGAGGCCTGGTACTGCCCACAGTGCAAAC
AGCACCGTGAGGCCTCCAAGCAGCTGTTGCTATGGCGCCTGCCAAATGTTCTCATCGTGCAGCTCAAGCGCTTCT

FIGURE 4067B

CCTTTCGTAGTTTTATCTGGCGTGACAAGATCAATGACTTGGTGGAGTTCCCTGTTAGGAACCTGGACCTGAGCA
AGTTCTGCATTGGTCAGAAAGAGGAGCAGCTGCCCAGCTACGATCTATATGCTGTCATCAACCACTATGGAGGCA
TGATTGGTGGCCACTACACTGCCTGTGCACGCCTGCCCAATGATCGTAGCAGTCAGCGCAGTGACGTGGGCTGGC
GCTTGTTTGATGACAGCACAGTGACAACGGTAGACGAGAGCCAGGTTGTGACGCGTTATGCCTATGTACTCTTCT
ACCGCCGGCGGAACTCTCCTGTGGAGAGGCCCCCCAGGGCAGGTCACTCTGAGCACCACCCAGACCTAGGCCCTG
CAGCTGAGGCTGCTGCCAGCCAGGCTTCCCGGATTTGGCAGGAGCTGGAGGCTGAGGAGGAGCCGGTGCCTGAGG
GGTCTGGGCCCCTGGGTCCCTGGGGGCCCCAAGACTGGGTGGGCCCCCTACCACGTGGCCCTACCACACCAGATG
AGGGCTGCCTCCGGTACTTTGTCCTGGGCACCGTGGCGGCTTTGGTGGCCCTCGTGCTCAACGTGTTCTATCCTC
TGGTATCCCAGAGTCGCTGGAGA**TGA**GCTCGCCTGCAGGCAGCTGCTGTGAGCTGGCCTACCTGCCTGCCCCAGG
CCATGCCTGCCTTTGTTGTGGGGAACACCTCTGGGCTTTGGGCCTCAGCTTATGCATCTGGTGGGAGAGGGTGGG
GAGGTTGTGGCCCCTGCAGGGGCAGAGTATCCTAGGGTGTGTATCCATCTGGCTGTCTGTCCATTCATCCTGCTG
CTCTGACCCTTGGCCTCAGGCTTGGCCCTGCCCAAGCTACTTCCTGTACTTAAAAGTGTTAATAAAACCAGACTA
TTCAGGCCC

FIGURE 4068A

GAAGGCAGTTTCCGGAGGGAAGGGGTAGGGTTGGGGTGGGGGCGCTCTCCGCCCGGTGTTGCGCTCCTTCCCAGA
ATCCGCTCCGGCCTTTCCTTCCTGCCGCGATTCCCAACTTTGCTCAAAGTCGCTGGACTCTAAGCTGTCGGAGGG
ACCGCTGGACAGACCTGGGAACTGACAGAGGGCCTGGAGGGAAACAGGCCAAAGACCCACAGGCAGAGTTGACAC
GGAACCCCAAAGCAAGGAGGAGGGCTCGGGCCCGAGACCGTTCACCTCCCCTTATCCCTGTTCCCCTCTTCAGGA
TGGAGCTGACCTCAAGGGAAAGAGGGAGGGGACAGCCTCTGCCCTGGGAACTTCGACTGGGCCTACTGCTAAGCG
GTGAGAGGGCCTGGTGGGGGCTGGGGGTTGTGGAATGTGATGGTAGTCCCTGGGAGTTGCCCTTGGGGCACATGA
GGTGGAGCCACTGGATAGGAACTCCACGGAACTGACTGAGCTACTGTCCCCAGTGCTGGCTGCCACACTGGCACA
GGCCCCTGCCCCCGATGNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNCACCACAGCGGCGGGCAGCCTGGTGGCAGTCAG
AGAATGGTATCCCTGCGGTCACCATCCAGCTGGACCTGGAGGCTGAGTTTCATTTCACACACCTCATTATGACCT
TCAAGACATTTCGCCCTGCTGCCATGCTGGTGGAACGCTCAGCAGACTTTGGCCGCACCTGGCATGTGTACCGAT
ATTTCTCCTATGACTGTGGGGCTGACTTCCCAGGAGTCCCACTAGCACCCCCACGGCACTGGGATGATGTAGTCT
GTGAGTCCCGCTACTCAGAGATTGAGCCATCCACTGAAGGCGAGGTCATCTATCGTGTGCTGGACCCTGCCATCC
CTATCCCAGACCCCTACAGCTCACGGATTCAGAACCTGTTGAAGATCACCAACCTACGGGTGAACCTGACTCGTC
TACACACGTTGGGAGACAACCTACTCGACCCACGGAGGGAGATCCGAGAGAAGTACTACTATGCCCTCTATGAGC
TGGTTGTACGTGGCAACTGCTTCTGCTACGGACACGCCTCAGAGTGTGCACCCGCCCCAGGGGCACCAGCCCATG
CTGAGGGCATGGTGCACGGAGCTTGCATCTGCAAACACAACACACGTGGCCTCAACTGCGAGCAGTGTCAGGATT
TCTATCGTGACCTGCCCTGGCGTCCGGCTGAGGACGGCCATAGTCATGCCTGTAGGAAGTGTGAGTGCCATGGGC
ACACCCACAGCTGCCACTTCGACATGGCCGTATACCTGGCATCTGGCAATGTGAGTGGAGGTGTGTGTG**ATG**GAT
GTCAGCATAACACAGCTGGGCGCCACTGTGAGCTCTGTCGGCCCTTCTTCTACCGTGACCCAACCAAGGACCTGC
GGGATCCGGCTGTGTGCCGCTCCTGTGATTGTGACCCCATGGGTTCTCAAGACGGTGGTCGCTGTGATTCCCATG
ATGACCCTGCACTGGGACTGGTCTCCGGCCAGTGTCGCTGCAAAGAACATGTGGTGGGCACTCGCTGCCAGCAAT
GCCGTGATGGCTTCTTTGGGCTCAGCATCAGTGACCGTCTGGGCTGCCGGCGTATGTCAATGTAATGCACGGGGC
ACAGTGCCTGGGAGCACTCCTTGTGACCCCAACAGTGGATCCTGTTACTGCAAACGTCTAGTGACTGGACGTGGA
TGTGACCGCTGCCTGCCTGGCCACTGGGGCCTGAGCCACGACCTGCTCGGCTGCCGCCCCTGTGACTGCGACGTG
GGTGGTGCTTTGGATCCCCAGTGTGATGAGGGCACAGGTCAATGCCACTGCCGCCAGCACATGGTTGGGCGACGC
TGTGAGCAGGTGCAACCTGGCTACTTCCGGCCCTTCCTGGACCACCTAATTTGGGAGGCTGAGGACACCCGAGGG
CAGGTGCTCGATGTGGTGGAGCGCCTGGTGACCCCCGGGGAAACTCCATCCTGGACTGGCTCAGGCTTCGTGCGG
CTACAGGAAGGTCAGACCCTGGAGTTCCTGGTGGCCTCTGTGCCGAAGGCTATGGACTATGACCTGCTGCTGCGC
TTAGAGCCCCAGGTCCCTGAGCAATGGGCAGAGTTGGAACTGATTGTGCAGCGTCCAGGGCCTGTGCCTGCCCAC
AGCCTGTGTGGGCATTTGGTGCCCAAGGATGATCGCATCCAAGGGACTCTGCAACCACATGCCAGGTACTTGATA
TTTCCTAATCCTGTCTGCCTTGAGCCTGGTATCTCCTACAAGCTGCATCTGAAGCTGGTACGGACAGGGGGAAGT
GCCCAGCCTGAGACTCCCTACTCTGGACCTGGCCTGCTCATTGACTCGCTGGTGCTGCTGCCCCGTGTCCTGGTG
CTAGAGATGTTTAGTGGGGGTGATGCTGCTGCCCTGGAGCGCCAGGCCACCTTTGAACGCTACCAATGCCATGAG
GAGGGTCTGGTGCCCAGCAAGACTTCTCCCTCTGAGGCCTGCGCACCCCTCCTCATCAGCCTGTCCACCCTCATC
TACAATGGTGCCCTGCCATGTCAGTGCAACCCTCAAGGTTCACTGAGTTCTGAGTGCAACCCTCATGGTGGTCAG
TGCCTGTGCAAGCCTGGAGTGGTTGGGCGCCGCTGTGACCTCTGTGCCCCTGGCTACTATGGCTTTGGCCCCACA
GGCTGTCAAGCCTGCCAGTGCAGCCACGAGGGGGCACTCAGCAGTCTCTGTGAAAAGACCAGTGGGCAATGTCTC
TGTCGAACTGGTGCCTTTGGGCTTCGCTGTGACCGCTGCCAGCGTGGCCAGTGGGGATTCCCTAGCTGCCGGCCA
TGTGTCTGCAATGGGCATGCAGATGAGTGCAACACCCACACAGGCGCTTGCCTGGGCTGCCGTGATCACACAGGG
GGTGAGCACTGTGAAAGGTGCATTGCTGGTTTCCACGGGGACCCACGGCTGCCATATGGGGGCCAGTGCCGGCCC
TGTCCCTGTCCTGAAGGCCCTGGGAGCCAACGGCACTTTGCTACTTCTTGCCACCAGGATGAATATTCCCAGCAG
ATTGTGTGCCACTGCCGGGCAGGCTATACGGGGCTGCGATGTGAAGCTTGTGCCCCTGGGCACTTTGGGGACCCA
TCAAGGCCAGGTGGCCGGTGCCAACTGTGTGAGTGCAGTGGGAACATTGACCCAATGGATCCTGATGCCTGTGAC
CCCCACACGGGGCAATGCCTGCGCTGTTTACACCACACAGAGGGTCCACACTGTGCCCACTGCAAGCCTGGCTTC
CATGGGCAGGCTGCCCGACAGAGCTGTCACCGCTGCACATGCAACCTGCTGGGCACAAATCCGCAGCAGTGCCCA
TCTCCTGACCAGTGCCACTGTGATCCAAGCAGTGGGCAGTGCCCATGCCTCCCCAATGTCCAGGGCCCTAGCTGT
GACCGCTGTGCCCCCAACTTCTGGAACCTCACCAGTGGCCATGGTTGCCAGCCTTGTGCCTGCCACCCAAGCCGG

FIGURE 4068B

GCCAGAGGCCCCACCTGCAACGAGTTCACAGGGCAGTGCCACTGCCGTGCCGGCTTTGGAGGGCGGACTTGTTCT
GAGTGCCAAGAGCTCCACTGGGGAGACCCTGGGTTGCAGTGCCATGCCTGTGATTGTGACTCTCGTGGAATAGAT
ACACCTCAGTGTCACCGCTTCACAGGTCACTGCAGCTGCCGCCCAGGGGTGTCTGGTGTGCGCTGTGACCAGTGT
GCCCGTGGCTTCTCAGGAATCTTTCCTGCCTGCCATCCCTGCCATGCATGCTTCGGGGATTGGGACCGAGTGGTG
CAGGACTTGGCAGCCCGTACACAGCGCCTAGAGCAGCGGGCGCAGGAGTTGCAACAGACGGGTGTGCTGGGTGCC
TTTGAGAGCAGCTTCTGGCACATGCAGGAGAAGCTGGGCATTGTGCAGGGCATCGTAGGTGCCCGCAACACCTCA
GCCGCCTCCACTGCACAGCTTGTGGAGGCCACAGAGGAGCTGCGGCGTGAAATTGGGGAGGCCACTGAGCACCTG
ACTCAGCTCGAGGCAGACCTGACAGATGTGCAAGATGAGAACTTCAATGCCAACCATGCACTAAGTGGTCTGGAG
CGAGATAGGCTTGCACTTAATCTCACACTGCGGCAGCTCGACCAGCATCTTGACTTGCTCAAACATTCAAACTTC
CTGGGTGCCTATGACAGCATCCGGCATGCCCATAGCCAGTCTGCAGAGGCAGAACGTCGTGCCAATACCTCAGCC
CTGGCAGTACCTAGCCCTGTGAGCAACTCGGCAAGTGCTCGGCATCGGACAGAGGCACTGATGGATGCTCAGAAG
GAGGACTTCAACAGCAAACACATGGCCAACCAGCGGGCACTTGGCAAGCTCTCTGCCCATACCCACACCCTGAGC
CTGACAGACATAAATGAGCTGGTGTGTGGGGCACCAGGGGATGCACCCTGTGCTACAAGCCCTTGTGGGGGTGCC
GGCTGTCGAGATGAGGATGGGCAGCCGCGCTGTGGGGGCCTCAGCTGCAATGGGGCAGCGGCTACAGCAGACCTA
GCACTGGGCCGGGCCCGGCACACACAGGCAGAGCTGCAGCGGGCACTGGCAGAAGGTGGTAGCATCCTCAGCAGA
GTGGCTGAGACTCGTCGGCAGGCAAGCGAGGCACAGCAGCGGGCCCAGGCAGCCCTGGACAAGGCTAATGCTTCC
AGGGGACAGGTGGAACAGGCCAACCAGGAACTTCAAGAACTTATCCAGAGTGTGAAGGACTTCCTCAACCAGGAG
GGGGCTGATCCTGATAGCATTGAAATGGTGGCCACACGGGTGCTAGAGCTCTCCATCCCAGCTTCAGCTGAGCAG
ATCCAGCACCTGGCGGGTGCGATTGCAGAGCGAGTCCGGAGCCTGGCAGATGTGGATGCGATCCTGGCACGTACT
GTAGGAGATGTGCGTCGTGCCGAGCAGCTACTGCAGGATGCACGGCGGGCAAGGAGCTGGGCTGAGGATGAGAAA
CAGAAGGCAGAGACAGTACAGGCAGCACTGGAGGAGGCCCAGCGGGCACAGGGTATTGCCCAGGGTGCCATCCGG
GGGGCAGTGGCTGACACACGGGACACAGAGCAGACCCTGTACCAGGTACAGGAGAGGATGGCAGGTGCAGAGCGG
GCACTGAGCTCTGCAGGTGAAAGGGCTCGGCAGTTGGATGCTCTCCTGGAGGCTCTGAAATTGAAACGGGCAGGA
AATAGTCTGGCAGCCTCTACAGCAGAAGAAACGGCAGGCAGTGCCCAGGGTCGTGCCCAGGAGGCTGAGCAGCTG
CTACGCGGTCCTCTGGGTGATCAGTACCAGACGGTGAAGGCCCTAGCTGAGCGCAAGGCCCAAGGTGTGCTGGCT
GCACAGGCAAGGGCAGAACAACTGCGGGATGAGGCTCGGGACCTGTTGCAAGCCGCTCAGGACAAGCTGCAGCGG
CTACAGGAATTGGAAGGCACCTATGAGGAAAATGAGCGGGCACTGGAGAGTAAGGCAGCCCAGTTGGACGGGTTG
GAGGCCAGGATGCGCAGCGTGCTTCAAGCCATCAACTTGCAGGTGCAGATCTACAACACCTGCCAG**TGA**CCCCTG
CCCAAGGCCTACCCCAGTTCCTAGCACTGCCCCACATGCATGTCTGCCTATGCACTGAAGAGCTCTTGGCCCGGC
AGGGCCCCCAATAAACCAGTGTGAACCCCC

FIGURE 4069A

AGCTCACAGGAGGCAAAGAGTCCGAAGGTGGAGCTGCACAGCCACTCAGAGGTCCCTTTCCAG**ATG**CTAGATGGC
AACAGTGGCTTGAGTTCTGAGAAGATCAGCCACAACCCCTGGAGCCTGCGTTGTCACAAGCAGCAGCTGAGCCGC
ATGCGCTCCGAGTCCAAGGACCGAAAGCTCTACAAGTTCCTCCTGCTTGAGAACGTGGTGCACCACTTCAAGTAC
CCCTGCGTGTTGGACCTGAAGATGGGCACGCGGCAGCATGGCGATGACGCGTCAGCTGAGAAGGCAGCCCGGCAG
ATGCGGAAATGCGAGCAGAGCACATCAGCCACGCTGGGCGTCAGGGTCTGCGGCATGCAGGTGTACCAGCTGGAC
ACAGGGCATTACCTCTGCAGGAACAAGTACTATGGCCGTGGGCTCTCCATTGAAGGCTTCCGCAATGCCCTCTAT
CAATATCTGCACAATGGCCTGGACCTGCGACGTGACCTGTTTGAGCCTATCCTGAGCAAACTGCGGGGCCTGAAA
GCTGTGCTGGAGCGGCAGGCCTCTTACCGCTTCTACTCCAGTTCCCTGCTTGTCATCTATGATGGCAAGGAGTGC
CGGGCTGAGTCCTGCCTGGACCGCCGGTCTGAGATGCGTCTCAAGCACCTGGACATGGTGCTCCCTGAGGTGGCG
TCATCCTGTGGCCCCAGCACCAGCCCCAGCAACACCAGCCCCGAGGCGGGTCCCTCCTCTCAGCCCAAGGTGGAT
GTCCGCATGATTGACTTTGCACACAGCACATTCAAGGGCTTCCGGGATGACCCCACCGTGCATGATGGGCCAGAC
AGAGGCTACGTGTTTGGCCTGGAGAACCTCATCAGCATCATGGAACAGATGCGGGACGAGAACCAG**TAG**GCCCTG
TTCTGGGCCCCCAGAACCCCTTCCTCTCCACTGCAGGCAGGGACCATTGTTCTGAACTTGCCGTGAGGACACACA
GACTTGCTTTTAAAGGGTTATATTTCTCTTTGGTGTAAACTAAAAGAAATGTTTTTAGCTGTAGCCTGGAATCCA
TATATATAAAGTGAAGGAGGGCAGACCACACGCCCTCTCAGCCAGGCTCCTCAGCTTTGTGGCTCTGACTGGTGT
GTCCAGGCTGCCTTAGGAAGGAAGAGGTGCCCCTGGTGGGCTTGGCAGCAGGGACAGGGTGCCCTTGGACATTGG
TTTCTCTTGTCTAGATCTTTGAGATCTGTGGCTGCAGGGCCCTGCTGATTGTAAGGTAAAGCCCTGGGCTGGTGC
AGGGCCCCTCCACGCCCACTCTTCCCTTGTTCCCCAGAAGTAGAGGGCTCTGGGTGCCCATTTCTTGGGGGCTTT
CCAGTCTTATGCTGTGGGTGTCAGCTAGCTCTTTAATAGGTGCCCTCAGGGCACCACAGGGCTGACTGCACAAAG
CTGGACCCATCCTTCGGTCTGACCTTAGCATGGGGCTAGATTAATGAAGCTGGGCTGAGGCCAACTTATGGCAGA
GGGCGGCGCCTGGGTTCCCCAGGCACCTGTTGGCACGTGACAGGTTGGCACCTGTCCTATTCCTGAAACAGCCTC
TCTCACCAAGTTCCCTTGCCTAAGAAGGCCACTCCCTCCCACCCCACTGAAGTGGGGGATAGTCGGTGTCCTAGC
AGGCCTCAGGGCCTCTGGTGGCTCTGGCCCAGACAGTATTTGCAGTTCTTGTGCTATGGGTGGGAGTCTTCTTCC
TCAAGTTTCGGCAGCTGTGCTGCTGCTGGATGGGCTGCTCCTCCCAGGGCTCAAGGGCTGTGGTCCGCTCAGGGT
CTCATTTCCCCAGGCCAAGTTCAAGGCAGCAGCCCTTTGTGAGGCGCTCTTGGCCCTGGGCCTGGAGGGAGAACT
TTAAGCTTTTTTGCTCACAGGGACGTGGTATGGGCCCTGGGTGCAGGTGCCCACATTCTGCTAATGAGAGCTTTG
TCTGATCAGTCCTGGGTCCATCAGTTTGTCCATGTGTCCGGCTGCCAGCCCGTCCCTTGGGATCCTTCCCCTGGG
GTGTAGCCTTGTTCATTAGTATATACTCATTCCTTCATGCTTTCCTCAGCAGAACACTTCCACTTCTGAGGTGAG
CTTTTGCCCCATGCCCTTCCTCCACAGGTGTTGCCTTTTTATAAAGACCTGATAGCAGAATAAATTGGTGTTTCC
CTGTTGACCCAGCACCATTTCTGTGGGCCTAGAATATGGCCCTCAACCCTTAGAGTGGGGCAGTGAGGGCTTGAG
GAGTGACCCTTCCTTTCTCATGGTTTTAGTCATTTTGGCTGCCAGCCCTTAATGGCACAGATCTGCTGCTTCTAA
CAGATGGCCAGGAGGTGACACCGATTTCAGCCATTGCCAAGGTTAGCACCCTCTCCTTTGAGCCTAGGGCCACAC
TGTTCATTGTCACTTTAGGCAAGTGCCTGTTTGGCTTTAAAGGTAAGCCTGCCAGCTGTGAGAAGCCTTGGTAAC
TGATGGACTCATTTCCTGGTCCTTAAAGATGCAGCCTCTTAAGGGCTCCTTGATGGATGCCATCTCTCCTAGCCC
CCAGCCCTGGTGCCACTGGTGGGCAGGTTCCCATTCTTTGGGGCTGGGAGGGACAGCTTGCCTGTTTCTGGTCAC
AAATTACAGTCTTCTCTCCTGTACCATTCTGTGGCTTCAGCCATGGGGGCAGTAGCCCTTCATTAGTGTAGATAG
TCATTCCCTGGTAGGGTGGAGGGTAAGACATAGGGTCTGGAACTGTTTGGGACCTTTTGGGGATGTCCTGTGCCT
CCCAGATTCCTCGATTCTGGGAGGAGAGGCTGCCGCATTCTGCTGCTCCTCACAGCGAGCAAAGCTGCACCCACT
TACATTCAGTATTTTCCTGGCACTACAAAGAGTGGGAAGGCCTGGGATTTGCTGCTGCTCCCTTAGAGCAGGGCC
CCTCTTTTCAGCACTTTGGACACCTGGAGACCCAGCCCTGTTATTTAATGGTAGTGGGCAAGTGTGTGTGCATAC
TGTCTGCCACTGCTTTCTCCCTGCCCCATGCCAGAGAGCCCTGTCCCTGCCAGGCCCAGCCTTCTTAGCCCCAAC
TTGGGAACAAAGTGCAACATGGGATCATGGGTTGGGGTGCTCAGGTGAGCCCTCTCTATAGTGCTTCCCTGGGCC
AAGCTGACACCAGCCCCTGAGGGTGGGGTGGGACGGGTGGTGCTTAAAAGAGGAAGGGGACCAGTGTAGCAACTT
GCCAGGGACCCCACCCCTCCCTCTCTGGGCCTGTGCAGTGAGCATGGGGATTCCCATCAAGGGGCCTGGCACCTG
TGCTAGTTACGTAGCCGCTGCTCACGCGCTCACTCCTGACCACATGCACGTTCCCTAGATGCAGACTGCTTTGAA
CTTTAAAGCTGTACAATTTGGTTATGTTTGTGCTGACTTAAAATATATTTTAATGAGGAAAAAATAATGGAGAAC
CCTGGGAAGGACCTGGTTCTTTTGCTTCTCGGGGAACTGTAAGCCCTCGCGTTCTGGGAATCGCTCTCTGCTGCT
CTTTCCTGGAAGCTAAGCCTGTCTCCACCGCCCGAGGCCTGCGCCGGTGGCTCCCGCCGCAGTTGCGTTTGCTTT

FIGURE 4069B

GGACCTTGCGTGCGGGGGAGGGGGTGCTCGGTCCGAGCCCGCTCCTTTCTGTACACCTAGCGCTGCCCGCCCCGC
TTGTGTCTGAGGTCGTGTATGTCAAAAATAAAGCCGCTAGAAACGG

FIGURE 4070

GGCGGCAGAGAGGAGACT**ATG**GAACGTCAGGTGCTGCTGAGCGAGCCCGAGGAGGCGGCGGCTCTGTATCGGGGC
CTTAGCCGCCAGCCCGCGCTGAGCGCCGCCTGCCTGGGCCCGGAGGTCACCACGCAGTACGGCGGCCAATACCGG
ACGGTGCACACTGAGTGGACCCAGAGGGACCTGGAACGCATGGAGAACATTCGATTCTGCCGCCAATACCTGGTG
TTCCATGACGGGGACTCAGTGGTGTTTGCAGGACCTGCAGGCAACAGTGTGGAGACCCGGGGGGGAACTGCTGAGC
AGAGAGTCTCCTTCAGGCACCATGAAAGCTGTGCTGCGCAAGGCTGGAGGCACGGGCCCTGGGGAAGAGAAGCAG
TTCCTGGAGGTCTGGGAGAAGAACCGGAAGCTCAAGAGCTTCAACCTGTCAGCGCTGGAGAAACATGGGCCTGTT
TATGAGGATGACTGCTTTGGCTGCCTGTCCTGGTCGCACTCGGAGACACACTTGTTGTATGTGGCAGAGAAGAAG
CGCCCCAAGGCCGAGTCCTTCTTTCAGACCAAAGCCTTGGACGTCAGTGCCAGCGATGATGAGATAGCCAGGCTG
AAGAAGCCAGACCAAGCCATCAAGGGGGATCAGTTTGTGTTTTATGAAGACTGGGGAGAAAACATGGTTTCCAAA
AGCATCCCTGTGCTCTGCGTGCTGGATGTCGAGAGTGGCAACATCTCTGTGCTTGAGGGGGTCCCTGAGAATGTG
TCCCCTGGACAGGCATTTTGGGCCCCTGGAGATGCTGGTGTGGTGTTTGTGGGCTGGTGGCATGAGCCCTTCCGG
TTGGGCATCCGCTTTTGCACCAATCGCAGGTCAGCCCTGTATTATGTGGACCTCATCGGGGGGGAAGTGTGAGCTC
CTCTCGGATGACTCCCTGGCTGTCTCTTCTCCCCGGCTGAGCCCAGACCAATGTCGCATTGTCTACCTGCAGTAC
CCATCTCTGATCCCCCATCACCAATGCAGCCAGCTGTGCCTGTATGACTGGTATACCAAGGTTACCTCAGTGGTG
GTAGATGTTGTGCCTCGGCAGCTGGGAGAGAACTTCTCTGGGATCTACTGCAGCCTTCTGCCTTTGGGATGCTGG
TCAGCTGACAGCCAGAGAGTGGTCTTTGACTCGGCTCAGCGCAGCCGGCAGGACCTGTTTGCTGTGGACACCCAA
GTGGGCACTGTGACCTCCCTCACAGCTGGAGGGTCAGGTGGGAGCTGGAAGTTGCTCACAATTGACCAGGACCTC
ATGGTGGCACAGTTTTCCACACCCAGCCTACCTCCAACCCTGAAAGTTGGGTTCCTGCCTTCTGCAGGGAAGGAG
CAGTCAGTGTTGTGGGTGTCCCTGGAGGAGGCCGAGCCCATTCCCGACATCCACTGGGGCATCCGGGTGCTACAG
CCACCCCCAGAGCAAGAGAATGTGCAGTATGCTGGCCTTGACTTTGAAGCAATCCTGCTGCAGCCTGGCAGCCCT
CCAGATAAGACCCAAGTGCCCATGGTGGTCATGCCCCACGGGGGGCCCCATTCATCCTTTGTCACTGCCTGGATG
CTGTTCCCAGCCATGCTTTGCAAGATGGGCTTTGCGGTACTACTAGTGAACTATCGTGGCTCCACGGGCTTTGGC
CAGGACAGCATCCTCTCCCTCCCAGGCAATGTGGGCCACCAGGATGTGAAGGATGTCCAGTTTGCAGTGGAACAG
GTGCTCCAGGAGGAACACTTTGATGCAAGCCATGTGGCCCTTATGGGTGGTTCCCATGGTGGCTTCATTTCCTGC
CACTTGATTGGTCAGTACCCAGAGACCTACAGGGCCTGCGTGGCCCGGAACCCCGTGATCAACATCGCCTCCATG
TTGGGCTCCACTGACATCCCTGACTGGTGCGTGGTGGAGGCTGGCTTTCCTTTCAGCAGTGACTGCCTGCCAGAC
CTCAGCGTGTGGGCTGAGATGCTGGACAAATCGCCCATCAGATACATCCCTCAGGTGAAGACACCACTGTTACTG
ATGTTGGGCCAGGAGGACCGGCGTGTGCCCTTCAAGCAGGGCATGGAGTATTACCGTGCCCTCAAGACCCGGAAT
GTGCCTGTTCGGCTCCTGCTCTATCCCAAAAGCACCCACGCATTATCAGAGGTGGAGGTGGAGTCAGACAGCTTC
ATGAATGCTGTGCTCTGGCTACGCACACACTTGGGCAGC**TGA**AGCCCTGCCATTCTGCATGAGCTGATCAGCCTG
TGCCACACTTCGCTCTTGAGGAGCTCAACGGTCTGGCAGGGCAGCAGGAGGCTTTCTGGGCTCTGGACTCCACGG
ATGCGTGGGCAGAGGAATGTGGGCTATGTAGTCATAATAAATTAGGAC

FIGURE 4071A

GAGCCGAGCTGGGAGATGGCGGCGGCAGCGGCGGCGCCGAGAGTGTGAGCACCGCCCGGGAGCCGCCGGCCCGGG
CGCAGCGCGACCCCGACCCCGCCCGCCCGCCTGCCCGCCATGGCAACGAGGTCAGCCTGGAGGGCGGCGCTGGC
GACGGGCCGCTGCCGCCCGGCGGCGCCGGCCCCGGCCCGGGCCCCGGCCCCGGCCCCGGCGCAGGAAAGCCGCCT
TCAGCACCGGCCGGTGGCGGACAGCTCCCCGCGGCGGGAGCAGCGCGGTCGACCGCGGTACCACCGGTCCCTGGC
CCCGGCCCCGGCCCCGGTCCCGGCCCTGGCCCGGGCAGCACTTCCCGGAGACTGGACCCCAAGGAACCCCTGGGT
AACCAGAGAGCAGCTTCCCCAACTCCGAAGCAGGCTTCTGCTACCACTCCTGGCCATGAGAGCCCCCGAGAGACA
AGGGCACAGGGACCAGCAGGCCAGGAGGCTGATGGTCCCCGCAGGACGCTGCAGGTAGACAGCAGGACACAGAGA
TCAGGGCGGTCCCCCTCAGTGTCACCGGACAGAGGCAGCACCCCCACATCACCCTACTCCGTCCCTCAGATCGCC
CCCCTTCCCAGCAGCACGCTGTGTCCCATATGCAAGACTTCGGACCTCACGTCGACCCCCAGCCAGCCAAACTTC
AACACCTGCACCCAGTGTCACAACAAGGTCTGCAACCAGTGTGGGTTCAACCCCAACCCTCATCTCACCCAGGTG
AAGGAGTGGCTCTGTCTGAACTGTCAGATGCAGAGGGCTCTGGGAATGGACATGACCACTGCACCTCGCTCCAAG
AGCCAGCAGCAGCTGCACTCCCCAGCCCTGTCTCCTGCCCACTCCCCGGCCAAACAGCCCCTGGGGAAGCCAGAC
CAAGAGAGATCTCGGGGCCCAGGAGGACCACAGCCTGGGTCCCGCCAGGCTGAGACAGCCAGGGCCACCTCAGTG
CCGGGGCCTGCCCAAGCAGCTGCCCCTCCAGAGGTGGGGAGGGTGTCTCCTCAGCCCCCTCAACCCACCAAGCCT
TCCACAGCTGAGCCCAGGCCACCTGCAGGAGAGGCCCCGGCCAAAAGTGCCACCGCAGTGCCCGCTGGGCTTGGT
GCCACTGAGCAGACCCAGGAGGGCCTCACTGGTAAGCTCTTCGGCCTTGGCGCGTCACTGCTAACCCAGGCGAGC
ACCCTCATGTCTGTGCAGCCCGAGGCTGACACCCAGGGCCAGCCTGCCCCCAGCAAGGGGACACCTAAGATCGTC
TTCAATGATGCCAGCAAGGAGGCTGGCCCAAAACCCTTGGGCTCAGGGCCCGGGCCTGGGCCAGCACCTGGAGCC
AAAACTGAGCCTGGGGCTAGAATGGGTCCTGGATCTGGACCTGGAGCCCTGCCGAAAACTGGGGGAACAACCAGT
CCAAAGCATGGCAGAGCAGAACATCAGGCAGCATCGAAGGCTGCTGCCAAGCCAAAGACCATGCCGAAGGAAAGG
GCCATCTGCCCACTGTGCCAAGCCGAGCTCAACGTGGGCAGCAAGAGCCCAGCCAACTATAACACATGCACCACC
TGCAGGCTCCAGGTGTGCAACCTGTGTGGCTTCAACCCAACACCCCACCTGGTGGAGAAAACAGAGTGGCTCTGT
CTGAACTGCCAAACCAAGCGGCTACTGGAGGGCAGCCTAGGAGAGCCGACCCCCCTGCCGCCGCCCACCTCACAG
CAGCCCCCTGTAGGGGCCCCTCACCGTGCATCTGGAACATCCCCTCTGAAGCAGAAAGGGCCACAGGGGCTGGGC
CAGCCTTCAGGCCCCCTGCCTGCCAAGGCCAGCCCTCTATCCACCAAGGCCAGCCCTCTGCCCAGCAAGGCCAGC
CCCCAGGCCAAGCCCCTCAGGGCTTCTGAACCCAGCAAGACCCCAAGCAGTGTCCAGGAAAAGAAGACCCGAGTC
CCCACTAAAGCTGAGCCCATGCCGAAGCCACCTCCAGAGACTACCCCAACCCCTGCGACTCCTAAAGTAAAGAGT
GGGGTGAGGAGGGCTGAACCTGCCACCCCTGTCGTCAAGGCTGTTCCAGAAGCCCCCAAGGGTGGGGAGGCGGAG
GACCTGGTGGGCAAGCCTTACTCTCAGGATGCGTCTCGGAGCCCACAGAGCCTCAGTGACACAGGCTATTCCTCT
GACGGCATCTCTAGCTCCCAGAGTGAGATCACAGGAGTCGTGCAGCAGGAGGTGGAACAGCTGGACAGTGCAGGG
GTGACAGGGCCACATCCACCCAGCCCCTCCGAGATCCACAAGGTGGGGAGCAGCATGCGGCCTTTGCTGCAGGCC
CAGGGCCTGGCCCCAAGTGAGCGGAGCAAGCCACTCTCCAGCGGTACTGGCGAGGAGCAGAAGCAGCGGCCCCAC
TCCTTGTCCATCACGCCTGAGGCCTTTGACTCTGATGAGGAGCTGGAGGATATCCTGGAGGAAGACGAAGACTCT
GCTGAGTGGAGGCGCCGGAGAGAGCAGCAGGACACTGCCGAGTCCTCAGACGACTTTGGCAGCCAATTGAGGCAC
GACTATGTGGAGGACAGCAGTGAGGGTGGCCTGTCCCCTCTTCCACCCCAGCCCCCAGCCCGGGCAGCAGAACTG
ACTGATGAGGATTTCATGCGACGGCAGATTCTCGAGATGAGCGCCGAGGAAGACAACCTGGAGGAGGATGACACT
GCCACCTCCGGGCGTGGCCTGGCCAAACATGGCACCCAGAAAGGTGGCCCCAGACCCAGGCCTGAGCCTAGCCAA
GAACCAGCAGCACTGCCCAAGAGGCGCCTGCCCCACAATGCCACCACGGGCTATGAGGAGCTGCTCCCTGAGGGA
GGCTCAGCAGAGGCTACCGATGGCAGTGGGACCCTGCAGGGTGGGCTCCGTCGCTTCAAGACCATTGAGCTCAAC
AGCACGGGAAGTTATGGTCATGAGTTGGACCTGGGCCAAGGCCCAGACCCCAGTCTGGACCGGGAGCCTGAGCTG
GAGATGGAGAGCCTAACGGGCTCCCCTGAGGACCGCTCCCGTGGTGAGCACTCCTCTACATTGCCTGCCTCCACA
CCCAGCTACACCTCGGGCACCTCTCCCACCTCTCTGTCCTCCCTAGAGGAGGACAGTGACAGCAGCCCCAGCCGC
AGGCAGCGTCTAGAAGAAGCAAAGCAGCAGCGCAAGGCCCGGCACCGCTCCCACGGGCCCCTGCTACCCACCATC
GAGGACTCCTCAGAGGAGGAGGAGCTGCGGGAGGAAGAGGAGCTGCTTCGTGAGCAAGAGAAGATGCGGGAGGTG
GAGCAGCAGCGCATCCGCAGCACGGCCCGCAAGACCCGGCGGGACAAGGAAGAACTGCGGGCCCAGCGGAGGCGA
GAGCGCTCCAAGACACCACCCAGTAACTTGTCACCCATCGAGGATGCCTCCCCGACGGAGGAGCTGAGGCAGGCG
GCCGAGATGGAGGAGCTACACCGCTCCTCCTGCTCTGAGTACTCACCCTCACCCTCCCTTGACTCTGAGGCTGAG
GCCTTGGATGGTGGCCCTAGCCGGCTTTACAAGTCAGGCAGTGAGTACAACCTGCCCACCTTCATGTCCCTCTAC

FIGURE 4071B

TCACCAACCGAGACACCCTCCGGCAGCTCCACCACTCCCAGTTCCGGACGGCCGCTCAAGAGCGCTGAGGAGGCT
TATGAGGAGATGATGCGCAAAGCTGAGCTGCTCCAGAGGCAGCAAGGCCAGGCAGCAGGGGCCCGGGGACCCCAT
GGCGGCCCCTCTCAGCCCACAGGCCCCCGGGGCCTGGGCTCCTTCGAATATCAAGACACTACAGACCGTGAGTAT
GGCCAGGCTGCTCAGCCTGCCGCAGAGGGCACGCCAGCCAGCCTGGGAGCAGCCGTGTACGAAGAAATCCTTCAG
ACATCACAGAGCATAGTCCGCATGCGGCAGGCCTCCTCACGAGACCTGGCTTTTGCTGAGGACAAAAAGAAGGAG
AAGCAGTTTCTAAATGCTGAGAGTGCATACATGGACCCAATGAAGCAAAATGGTGGCCCCCTTACCCCTGGTACC
AGTCCCACCCAGCTCGCTGCCCCTGTGTCCTTCTCTACCCCCACCTCCTCAGACAGCAGCGGGGGCCGAGTTATT
CCCGATGTCCGTGTCACTCAGCATTTTGCAAAGGAGACTCAGGACCCCCTCAAGCTGCACAGCTCTCCTGCCTCC
CCCAGCTCAGCCTCCAAGGAGATAGGCATGCCCTTTTCCCAGGGCCCTGGGACCCCAGCCACCACAGCTGTGGCT
CCTTGTCCAGCTGGGCTGCCACGAGGATATATGACTCCAGCCTCCCCAGCAGGCTCCGAGCGTAGTCCTTCACCA
TCTTCCACAGCCCACAGCTATGGACACAGCCCAACCACTGCAAACTATGGGTCCCAAACTGAGGATCTACCCCAG
GCCCCCAGTGGCCTTGCTGCAGCTGGACGAGCTGCTAGAGAGAAGCCCTTGAGTGCGAGTGACGGTGAGGGTGGC
ACTCCTCAGCCTTCCCGGGCATATTCCTACTTTGCAAGCTCCAGCCCACCTCTCTCCCCGTCTTCCCCCTCAGAG
AGTCCCACATTCTCCCCTGGCAAGATGGGCCCAAGGGCCACAGCAGAGTTCTCTACACAGACGCCAAGTCCAGCC
CCTGCCTCAGACATGCCACGGAGCCCTGGTGCCCCCACTCCATCACCTATGGTAGCCCAGGGTACACAAACACCA
CATCGACCCAGCACGCCTCGCCTGGTGTGGCAGGAGTCCTCTCAAGAGGCTCCCTTTATGGTCATCACGCTGGCA
TCTGACGCCTCCAGCCAGACCAGGATGGTACATGCCAGTGCCTCCACCTCCCCGCTCTGCTCACCTACTGAAACC
CAGCCCACCACCCATGGCTACAGCCAGACAACACCTCCGAGTGTGTCTCAGCTGCCCCCAGAGCCACCTGGGCCA
CCTGGCTTTCCACGGGTGCCCAGTGCTGGTGCAGATGGGCCCCTGGCACTATATGGCTGGGGTGCCCTCCCTGCT
GAGAACATCTCCCTGTGCCGGATCTCCTCTGTCCCTGGGACGTCTAGGGTTGAGCCAGGCCCCAGGACCCCTGGC
ACTGCAGTGGTAGACCTCCGTACAGCTGTCAAGCCCACTCCCATCATCCTCACTGACCAGGGCATGGACCTCACC
TCTCTTGCTGTGGAAGCGAGGAAGTATGGTCTTGCCCTGGATCCAATCCCAGGACGGCAGTCGACCGCCGTGCAG
CCCTTGGTTATCAACCTCAATGCCCAGGAGCATACCTTCCTTGCTACTGCCACCACCGTGAGCATCACCATGGCC
TCGTCTGTGTTCATGGCTCAACAAAAGCAGCCTGTGGTCTATGGAGACCCCTACCAGAGCCGCCTTGACTTTGGC
CAGGGTGGGGGTAGCCCTGTGTGCCTGGCCCAGGTCAAACAAGTAGAGCAGGCTGTCCAGACAGCCCCATACCGA
AGTGGGCCCCGGGGAAGACCCAGGGAGGCCAAGTTTGCCAGATATAACCTACCCAACCAAGTAGCTCCTCTGGCC
AGAAGAGACGTTTTGATCACTCAGATGGGCACCGCCCAGAGCATTGGCCTCAAGCCAGGCCCAGTGCCAGAGCCA
GGTGCCGAGCCCCACCGGGCCACCCCTGCAGAGCTGCGGTCACATGCTCTGCCAGGTGCCAGGAAGCCACACACA
GTGGTGGTGCAGATGGGAGAGGGCACAGCAGGCACTGTGACCACACTGCTCCCAGAGGAGCCTGCGGGTGCCCTG
GACCTTACCGGGATGAGGCCTGAGAGCCAGCTGGCATGCTGTGACATGGTCTACAAGCTCCCCTTTGGCAGCAGC
TGCACTGGCACCTTCCACCCGGCCCCCAGTGTGCCTGAGAAGAGCATGGCAGATGCTGCCCCACCTGGCCAAAGC
AGCAGCCCCTTCTATGGTCCCCGGGACCCTGAGCCTCCTGAGCCCCCAACCTACCGGGCACAGGGGGTGGTGGGG
CCTGGGCCCCATGAGGAGCAGAGGCCCTACCCACAAGGCCTGCCTGGTAGGCTGTACTCCTCCATGTCTGACACC
AATTTGGCTGAGGCTGGCCTCAACTACCATGCCCAGAGGATCGGGCAGCTCTTCCAGGGTCCTGGACGAGACTCG
GCTATGGACCTCAGCTCACTGAAGCACTCCTACAGCCTGGGCTTTGCGGATGGACGCTACCTAGGGCAGGGCTTG
CAGTATGGCTCAGTCACGGACCTGCGTCATCCTACAGACCTTTTGGCTCACCCGCTTCCCATGCGGCGCTATAGC
TCAGTGTCGAACATCTACTCAGACCACAGGTACGGCCCACGGGGAGATGCAGTTGGCTTCCAGGAGGCCAGCCTG
GCCCAGTACAGTGCCACCACAGCCCGTGAAATCAGTCGCATGTGCGCTGCCCTCAACTCCATGGACCAGTATGGT
GGGCGGCATGGCAGTGGTGGTGGTGGCCCTGACCTTGTGCAGTACCAGCCCCAGCACGGGCCCGGGCTCAGTGCT
CCACAGAGTCTGGTTCCCCTCAGACCTGGACTCCTTGGTAACCCCACCTTTCCAGAGGGCCACCCAAGTCCTGGG
AACTTGGCCCAGTATGGGCCTGCAGCAGGCCAAGGAACAGCAGTCAGACAGCTGCTGCCGTCCACAGCCACTGTA
CGTGCAGCTGATGGCATGATCTACTCGACTATCAATACCCCAATTGCTGCAACACTGCCCATCACCACCCAGCCT
GCCTCAGTCCTGCGGCCCATGGTGCGTGGTGGCATGTACAGGCCTTACGCATCTGGTGGAATCACAGCCGTGCCA
CTCACCAGTCTGACACGTGTGCCCATGATTGCCCCCCGGGTACCTCTTGGACCCACAGGGCTGTACCGCTATCCT
GCACCAAGTAGATTTCCCATTGCTTCCAGTGTTCCACCTGCAGAAGGGCCTGTCTATCTGGGGAAACCTGCTGCT
GCCAAGGCCCCTGGGGCTGGGGGCCCTTCAAGGCCAGAGATGCCAGTAGGGGCTGCACGGGAAGAGCCTCTTCCC
ACAACCACCCCTGCTGCCATCAAGGAGGCTGCAGGAGCCCCAGCTCCTGCCCCACTAGCTGGCCAGAAGCCACCA
GCAGATGCTGCTCCTGGGGGTGGCAGTGGGGCCCTCAGCCGGCCAGGGTTCGAGAAAGAGGAAGCATCACAGGAG

FIGURE 4071C

GAGAGGCAGCGGAAGCAACAGGAGCAGCTGCTCCAGCTAGAGCGGGAGCGGGTGGAGTTGGAGAAGCTGCGACAA
CTTCGGCTGCAAGAGGAGCTAGAGCGGGAACGTGTGGAGCTGCAGAGGCACCGTGAGGAGGAGCAGCTGCTGGTG
CAGCGGGAGTTGCAGGAGCTGCAGACCATCAAGCACCATGTGCTGCAGCAGCAGCAAGAGGAACGCCAGGCTCAA
TTTGCACTGCAGCGGGAACAGCTAGCGCAGCAGCGTCTGCAGCTGGAGCAGATCCAGCAGCTGCAGCAGCAGCTG
CAGCAGCAGCTAGAGGAGCAGAAGCAGCGGCAGAAGGCTCCCTTTCCTGCAGCCTGTGAGGCACCTGGCCGAGGG
CCTCCCCTAGCGGCTGCTGAGTTGGCCCAGAATGGCCAGTATTGGCCCCCCCTTACACATGCAGCCTTCATTGCC
ATGGCAGGGCCTGAAGGACTTGGGCAGCCTCGTGAGCCTGTGCTGCACCGGGGTCTCCCCAGCTCTGCCTCAGAC
ATGTCACTGCAAACGGAGGAGCAGTGGGAGGCCAGCCGTAGTGGCATCAAGAAGCGGCACTCCATGCCACGCCTG
CGGGATGCCTGTGAGCTAGAGTCTGGGACTGAGCCCTGTGTGGTCAGGAGGATTGCCGACAGCAGCGTGCAGACA
GACGATGAGGATGGGGAGAGCCGCTACCTCTTGAGTCGGCGACGCCGGGCACGGCGGAGTGCTGACTGCAGTGTG
CAGACGGACGACGAAGACAGTGCTGAGTGGGAGCAGCCAGTGCGCCGCCGCAGGTCTCGTCTTCCCCGCCACTCA
GACTCAGGCTCTGACAGCAAGCACGATGCCACTGCCTCATCATCCAGTGCTGCTGCCACTGTGAGGGCCATGAGC
AGCGTGGGCATCCAGACCATCAGTGACTGCTCCGTGCAGACGGAGCCTGACCAGCTGCCCAGGGTCTCTCCAGCC
ATCCACATCACAGCTGCCACCGATCCCAAGGTGGAGATCGTCAGGTACATATCGGCGCCAGAGAAGACTGGGCGT
GGGGAGAGCCTGGCCTGCCAGACGGAGCCAGATGGGCAGGCCCAGGGTGTAGCCGGGCCGCAGCTTGTAGGGCCA
ACTGCCATCAGCCCCTACCTGCCTGGCATCCAGATCGTCACCCCAGGGCCTCTGGGCAGATTTGAAAAAAAGAAG
CCAGATCCCCTGGAGATTGGGTACCAGGCCCACCTGCCTCCGGAGTCTCTCTCACAGCTTGTGAGCCGCCAGCCT
CCCAAGTCCCCTCAGGTCCTCTACTCACCAGTCTCACCCCTGTCCCCTCACCGGCTCCTGGACACCTCCTTTGCT
TCCAGTGAGAGGCTGAACAAAGCTCACGTGAGTCCCCAGAAGCACTTCACGGCTGACAGCGCTCTCCGCCAGCAG
ACGCTGCCTCGCCCCATGAAGACCCTGCAGCGGTCCCTGTCTGACCCTAAGCCCCTCAGCCCCACCGCCGAAGAG
TCTGCCAAAGAGAGATTCTCCCTCTACCAGCACCAGGGGGGACTGGGTAGCCAGGTGTCGGCGTTGCCACCCAAC
AGCCTGGTCCGCAAGGTGAAGCGGACACTGCCCAGCCCCCCTCCAGAGGAGGCTCACCTTCCCCTGGCTGGCCAG
GCCTCCCCACAGCTGTATGCAGCCAGCCTGCTGCAGCGAGGGCTGACGGGGCCCACCACTGTCCCTGCTACCAAG
GCCAGCCTGCTCCGGGAGCTGGACCGGGACCTGCGGCTGGTGGAGCATGAGTCCACCAAACTGCGCAAGAAGCAG
GCAGAGCTGGATGAGGAGGAGAAGGAGATTGACGCCAAGCTCAAGTACCTGGAGTTGGGTATCACACAACGCAAA
GAGTCTTTGGCCAAAGACCGGGGTGGCCGTGACTACCCACCCTTGCGTGGTCTTGGCGAGCATCGTGACTACCTA
TCGGACAGTGAGCTCAACCAGCTGCGGCTCCAGGGCTGCACCACTCCCGCTGGCCAGTTTGTGGACTTCCCTGCC
ACTGCCGCTGCTCCTGCCACCCCCTCTGGTCCCACTGCCTTCCAGCAGCCCCGCTTCCAGCCTCCAGCCCCACAG
TATTCTGCAGGCAGTGGTGGGCCAACTCAGAACGGATTCCCAGCCCACCAGGCCCCCACCTACCCTGGCCCCAGC
ACGTACCCAGCTCCTGCCTTTCCTCCTGGTGCCAGTTACCCAGCTGAGCCTGGCCTGCCAAACCAGCAGGCTTTC
CGCCCCACAGGCCACTATGCAGGCCAAACACCCATGCCAACCACACAGAGCACCCTTTTTCCAGTCCCCGCTGAT
AGCCGTGCCCCACTGCAGAAGCCACGCCAGACATCGCTAGCCGACTTGGAGCAGAAGGTGCCCACCAACTATGAG
GTGATCGCCAGCCCCGTTGTGCCCATGTCTTCAGCCCCATCTGAAACCAGCTACAGTGGCCCAGCAGTGAGCAGC
GGCTATGAGCAGGGCAAGGTCCCTGAGGTGCCCCGGGCTGGTGACCGTGGCAGTGTGAGCCAGAGCCCAGCCCCC
ACCTACCCCTCTGACTCACACTATACCAGTCTGGAGCAGAACGTTCCTCGAAACTACGTAATGATTGATGACATC
AGTGAACTGACCAAGGACAGCACCTCTACTGCTCCTGATAGCCAACGGCTGGAGCCCCTGGGGCCAGGCAGCAGT
GGGCGTCCAGGGAAGGAGCCTGGAGAACCAGGTGTCCTTGACGGGCCCACACTGCCCTGCTGCTATGCCAGAGGA
GAAGAGGAATCTGAGGAGGACTCATACGATCCCCGCGGGAAGGGTGGCCACCTCCGGAGCATGGAGAGCAATGGT
CGACCAGCCAGTACCCACTACTATGGTGACAGTGACTACAGGCATGGGGCTCGAGTAGAGAAGTATGGTCCAGGG
CCCATGGGGCCCAAGCATCCCTCCAAGAGCCTGGCTCCAGCTGCCATCTCCTCAAAGCGCAGCAAGCACCGGAAG
CAGGGCATGGAGCAAAAGATATCCAAGTTCTCGCCTATTGAAGAGGCCAAAGACGTAGAGTCAGACCTGGCGTCC
TACCCCCCACCTGCAGTCAGCAGCAGCCTGGTCTCTCGGGGCAGGAAGTTCCAGGATGAAATCACCTATGGGCTC
AAGAAGAACGTGTATGAGCAGCAAAAATACTATGGGATGTCCAGCCGGGACGCAGTGGAGGACGACCGCATTTAT
GGCGGGAGCAGCCGGTCCCGGGCACCTTCTGCATACAGTGGGGAGAAGCTGTCCAGCCACGACTTCAGTGGCTGG
GGCAAGGGGTACGAAAGGGAACGGGAGGCTGTGGAGCGACTTCAAAAAGCGGGCCCCAAGCCCTCATCCCTAAGT
ATGGCCCACAGCCGGGTACGACCCCCCATGCGGAGCCAGGCCTCTGAAGAGGAGAGCCCCGTCAGTCCTTTGGGG
AGGCCCCGCCCTGCCGGAGGGCCCCTCCCTCCCGGCGGGGATACCTGCCCACAGTTCTGCTCCAGCCACTCCATG
CCTGATGTCCAGGAACATGTCAAGGACGGACCTCGGGCCCACGCATATAAGCGTGAGGAGGGCTACATCCTGGAT

FIGURE 4071D

GATTCCCATTGCGTGGTTTCCGACAGCGAAGCGTATCACCTGGGCCAGGAGGAGACGGACTGGTTTGATAAGCCC
CGGGATGCCCGCTCTGACCGGTTCAGGCACCACGGGGGGCCATGCAGTTTCCTCCTCCTCCCAGAAGCGAGGCCCT
GCCAGGCACAGCTACCATGACTACGATGAACCCCCTGAGGAGGGCCTGTGGCCTCATGATGAGGGTGGCCCAGGC
CGCCATGCCTCAGCCAAGGAACACCGGCACGGTGACCACGGGCGGCACTCAGGCCGCCACACTGGTGAGGAGCCG
GGACGGCGTGCTGCCAAACCACACGCTCGGGACCTGGGTCGCCATGAGGCCCGGCCCCACTCTCAGCCCAGCTCT
GCTCCAGCTATGCCGAAGAAGGGTCAGCCTGGGTATCCCAGCTCTGCTGAGTACTCACAGCCATCCCGTGCTTCA
TCCGCATACCATCATGCCTCTGACAGCAAGAAGGGCTCCCGGCAAGCCCACTCCGGGCCCGCTGCACTGCAGTCA
AAGGCAGAACCCCAGGCGCAGCCGCAGCTGCAAGGTCGGCAGGCAGCTCCAGGACCACAGCAGTCACAGTCACCA
TCATCCAGGCAAATACCCTCTGGGGCAGCATCACGCCAGCCACAGACACAGCAGCAGCAGCAAGGTCTTGGGCTG
CAGCCCCCACAGCAGGCTCTGACACAGGCTCGGCTGCAGCAACAGAGCCAGCCAACCACCCGGGGCTCAGCCCCT
GCTGCCAGCCAGCCTGCAGGGAAGCCTCAGCCAGGCCCCAGCACAGCCACAGGTCCTCAACCAGCAGGACCGCCA
CGGGCAGAACAGACAAATGGCTCTAAAGGGACAGCCAAAGCACCGCAACAGGGGAGGGCTCCTCAGGCCCAGCCA
GCACCAGGACCTGGACCTGCAGGTGTGAAGGCTGGAGCCAGGCCTGGAGGAACCCCAGGGGCTCCCGCCGGCCAG
CCAGGTGCCGATGGGGAGAGCGTGTTCTCCAAGATCCTCCCTGGCGGGGCAGCCGAGCAAGCTGGCAAACTGACG
GAAGCTGTCTCTGCTTTTGGCAAAAAATTTTCCTCATTCTGG**TGA**CCATGCCCAGCATGGCTCTTGAAGAAATGA
AGAGAGGTATCATTGCTGTGGAAAAATCTCTGGAGTCAGAGGCCTGGGCGCAGCTCTGGACTCTGCGTATAACAC
ATCTACAATCTGGCAAACCCTTGGCCCAAAGACTCACCAGGTGGGACGTGGCAGGCAGGCCTCAGTTGAGGACGT
GATGTTTTCTCACAGCAGCTGCCTGGGTGAAGCATCTGCTGGACAAGTCGGACCACTGGCCAGGGGACCTTTGAT
TGTCTTTCCAGAGATGCTGCTCTCTGCAGGGCACCACCTTCAAGGCACAGCCCTTGTTGGGAGGGAGAACCCTCT
CCAGAAACCCTGCCACCATGGTGTCTTGCCGTACTTCCCACAGCCGCCTTTTTGCGGCCTGGCCGGCCAGGCTTC
CCGTGCGTTATACACAGAGTTTGGGCACACACTGCCCTCCCTCCGAGATGCCAGAAGTTTTTCCACAGCCTTGGA
GAGGGGCTTTGACTGAGGGCTGGGGGCCCTGGGCTCCGTTTCCTTCACATTCCAGCTGGCCCGGATCCCTCTGTG
GCACAGGGCCCTGCCCGTCACATGCCCTCTGGGTGACATCGGAGCAGACCTCCATGTGGCCAGGGGTTGGGAGAA
CTTTACAAACATTAGGACCTAACACTGTCTCATCGCTGAAATAAGAGGCCATAGCACCGAAAAGCAGCGTGGGCG
CCGGCTGAGGCTTCTCCCAGCCCGTGGGTGGCAGCGTGCTAGCACACTGCCACCATCTCAAAGCCATCCCCCTAG
CCATCGTGAGCATCCCAGCGGCACCGCCATTGTCTCAACCAGCCGGCTCCTCGTCTGTACACCTGGGGATTTCTT
TTGATTTCAAGAACAGCCTTAATCATTCCAGTTTGATTTACGTGTATACCTCATAAACATTTTTCTTTTGTTTCT
CTCTCCCCCTTTCTCTCTTCTCTTGGCTCACTCCCTTGCCTCTCCCCCTCCACCACCACCTTGTGACTGATGGTT
TGGTTTCCTCTCTGCTCTGCCCCTGCTCAGCACAGGGAGAATGTTGACTTAGAAGCAATAGGGGGCAGCAGGCCA
CCAAGAGCACAACCCCAGGGCGAGGTCTGGGGAGGCCTCCCAGCCCGCCTCTGTTTACTGTGCAATTCCAGTCGT
TCTTAAGCCATCACCAGTGGGTGTACTCAGAGCAGAGGGGCCAGGACTTCTGCCAGCCAAGGGAAAGGCCCAGAG
CCCTGTGCGGGGGAATGTGGCACTGTCTATCCATCCGGTGGACTGGGCAGCATTCCTCCCCAGGGCTCTTCCCTT
GGGGGCCTCCTTTCATCTGGGGCACAGCCACAAGTCTCATCTCTAACGTTCTATGCAATGAAATATAAACCCTCA
ATGACAACTGTTAATATTTAATAAATTCCATGTTATGTATAAGGAGTTAATTGCAAACATGCAATTGAGAAACTG
GATAGATACACTCATAAAACCCCCACCCCTCCCCACCCCACCCCTGCTCCCATTGTGTGTGTGAAATTCTCAGTC
TGTGGCATGTTTGACCTGTGGCAGGACTCGCTGCTGCCAGGTGAGTCACCGCCTGTCCTGCAGTGGAGCATGCAC
AGCTCGCAGCCTCTTTGCACGATTTCATCCATTTTAAATGCTTGACCCTCTTGCTTGGAGTTCTTTTTGCCTCAG
AACCTCTCCTTCAGGAGCACTTCTAGCTGACTTCTGCACAAGCTAGTGAGGACCTGCCAGAATTGTTGCCTGAGC
GTGCCAGGCTGCAGGGCAGGCAGTAAAAGGCCCCCACATACCCTGCAGTTTTCTCTGTCCAGGACAGCAGGTAAA
AAGGAATCCCCAGAGCAGACGCAATGGTAGGAGCCTGCACAGGATGTGTGTGTATGGACATTCTGAAGGTTTGCT
GTAGGATATCTGTCTGTCTGTCATTTTCCCTTCCTACCCCAACCCTGAGCCAGAGGCATCTGACAGCCCTTTCCC
AGAGGGCACCACGCAAGGGCAGAGCTGGGCGGCATCCACAGCCAGAGAGGCAGAGGCAAGAGCAGAGCCAGGCTG
TGCCCGAGGGACCCCAGCTCTTGACTGCACCTGTTTCATGCCTCTCCTCTGTGGCTAGGAGGCTCAAAGGACTGT
GAGCCAGGAGATCTGGGCTGGAGCTAGGGGGTCAATGGATGCTCAGGAAGAGCTGGGCCTTTGGCACTTGTGGTG
AGAACAGTTGACAGTGGTCATCTGGAACTGTTCATATAAACAGTGGCTTCAAGCTAAGTTTCTTGTGAAGTTTCT
CAATAGCAAATCTTACAGAAGGTCCTGTGTGACCCTCTCTGCATCTGTCCCCAGGACCTATGCTCCCTGCTCACC
CCCTTCTCCAAAGCCCAAGCGTCCCGCTGCTCATCAGCTTTTTTACCATTGAGCCAGGAGTGCGGCAGGCAGTAC
CTGCCTGACCCTTCAAGGCCTGACCTTCGTCCAGAGTGCTCTGGTTTGCACCATGCATTTCTCAGGGGTCCGCAT

FIGURE 4071E

TTCTCATGCTTTTCTATAAGATCTACACACCCCTTCAGAGAGGGCTCCTCGCTCACCTCTGGTAGCTATGGATGG
GACAGGAAGCTGCCAACCTTTGTGTTGGACTTAACACCCTTGCCTTTCTGGGACTTGGCCTCACCCCACCCATGG
AATACCTGCCTCATCCCAAAGATCAGGTATGGGCTGAATGCAGCCATCTGAGCAAGGGCTGAGGGAAGCCATCAC
CTAACACCTCTGGCCACCCAGGACCAGGTCTGTGTGGGGATGTGCCTTGGAGACCAAGGCAATAGTCCTTTCCAC
TACAGGCCAGGGGATGGGACAAGAAGTAGGGAACAGGCAGGGAAATGTTAGGAGGTCAGCCTCCAGCAGGCCTAG
TCTCAGGCTCTAAAGTACTGACTTTTCAGCAAATTTCCTTTCTGGCCAAGCCCTCTGAGTTTGAAATTCTGACAT
CTGCCACTCCTCATCCCCCACTGTACCCACAGGATACATCATCGCCCCTCTGTGAAGGTGGCTGGAGCAGGCCTC
TGGTCCATGGACTGTCCTTCCTGGCCCTTGCATGGATGCAGTTGTGACTCTGGGGACAATGCAGCCAGAAGCTGA
GGGACCAGCACTTGGTGCCTTGGAAAGTAGAGAGCAACAGACACATCTCCAAATGGGCAAGGAGTCTCTAGCATG
CAGCCCAGGCCTTCTCCATACCCCTCTCCCCAGCATCATGAGCAAGGGCATTGCCTCCTCTCTCTGCTCACTTCA
GGGCCCAGTGCACTCACTTCACAGTGACAGCCCTCCCCTACAATCCTTGGGCAGAGCATGTGGTCTGAGGGCCCA
CAGTGAAAGAACAGCAGTGGTGGCAACTATGCCTTGCCTTCTGGAGCCTGTAGGGAGTTTTCCAGGCAGGTCCTT
TGCCAGGACAGCATGGTCCTGCCCTGTTGTCCCGTCTGCTCTCCTCTTACCCACCCCCATGCTGTAAATACTTGT
CATCATGGACTCCAACAGGGTTAGAGGGACAGGCCTAATCAACTGAAACTCCTCGGAGATGCCATCTCTGTCTCC
CTGGGTGCCAGCAGCCCTGCTGCCATGTGCACTGGGGTGGCACTGGAGAGCCATGGCAGTCGTGAGATATTGTAT
GTGTATGCACATGATCATGTGTGTATGTGCGTGCGTGCGTGCGTGTGTGTGTGTGTGTGTTTCTGCCTCATTC
AGTTTCTGGGGTCAAATCAGCTCCTTCTCTCCAAGTGCACTACCCTGGAGAGTGGTGGCCACTCAATACCTTTTC
CTCTAGCTTTCATGTCTTGTTTTTGCTTTCCCCTTCCTCCTCCCTCTCTCCCTTTCTTTCCTTCTCTCCTTCTTT
ATTTGAGGGGGGAAGAGTGCTGTACAAAGTCAAACAAACAAGTTTACAGTTGTAAGTGCAATGACCCGAGTCCTC
CACATGACCTTGTGAATTGTGTGCTGTCCTTCTGTGCTCTGTGAGAACTCGTGGTACTTCAGTGTCCCTCCCCCT
GTATTGTGACAAGGTAATTCTGTGGTATCAGAATAAAAGGACTTGATATAAAC

FIGURE 4072A

GCCAGTCGGCGCCGCGCGGAGCTGGCCGCTGGATTGGCTGCAACACTCGCGTGTCAGGCGGTTGCTAGGCTCCGG
CCGCGCGCCCCGCCCTTGCGCTCAGCGCCCTCTCACCGCCCGGTACGTGCTCGCGCGAAGGCTGCGGCGCGGCGC
TCGCGCCTCTTAGGCTTGGCGGTGGCGGCGGCGGCAGCTTCGCGCCGAATCCCCGGGGAGCGGCGGTGGCGGCGT
CCTGGGGCCAGGAGGAGCGAACACCTGCCGCGGTCCTCCCGCCGGCGCTGGGCTCTGTGTGCTCCGGGATGGAGC
AGGTGTGCAGAGGGTGAGAACCCAGCTCTGGGACCAAGTCACTTGCTTCCTTACTTAGCAAGACTATCGACTTGA
GCAAACTTGGACCTGGG**ATG**AGGATGTCTGTGGGCCTCTCGCTGCTGCTGCCCCTCTCGGGGAGGACCTTTCTCC
TCCTGCTCTCTGTGGTTATGGCTCAGTCCCACTGGCCCAGTGAACCCTCAGAGGCTGTCAGGGACTGGGAAAACC
AGCTTGAGGCATCCATGCACTCAGTGCTCTCAGACCTCCACGAGGCTGTTCCCACAGTGGTTGGCATTCCTGATG
GCACGGCTGTCGTCGGGCGCTCATTTCGAGTGACCATTCCAACAGATTTGATTGCCTCCAGTGGAGATATCATCA
AGGTATCAGCGGCAGGGAAGGAGGCTTTGCCATCTTGGCTGCACTGGGACTCACAGAGCCACACCCTGGAGGGCC
TCCCCCTTGACACTGATAAGGGTGTGCATTACATTTCAGTGAGCGCTACACGGCTGGGGGCCAACGGGAGCCACA
TCCCCCAGACCTCCAGTGTGTTCTCCATCGAGGTCTACCCTGAAGACCACAGTGAGCTGCAGTCGGTGAGGACAG
CCTCCCCAGACCCTGGTGAGGTGGTATCATCTGCCTGTGCTGCGGATGAACCTGTGACTGTTTTGACGGTGATTT
TGGATGCCGACCTCACCAAGATGACCCCAAAGCAAAGGATTGACCTCCTGCACAGGATGCGGAGCTTCTCAGAAG
TAGAGCTTCACAACATGAAATTAGTGCCGGTGGTGAATAACAGACTATTTGACATGTCGGCCTTCATGGCTGGCC
CGGGAAATGCAAAAAAGGTGGTGGAGAATGGGGCCCTTCTCTCCTGGAAGCTGGGCTGCTCCCTGAACCAGAACA
GTGTGCCTGACATTCATGGTGTAGAGGCCCCTGCCAGGGAGGGCGCAATGTCTGCTCAGCTTGGCTACCCTGTGG
TGGGTTGGCACATCGCCAATAAGAAGCCCCCTCTTCCCAAACGCGTCCGGAGGCAGATCCATGCTACACCCACAC
CTGTCACTGCCATTGGGCCCCCAACCACGGCTATCCAGGAGCCCCCATCCAGGATCGTGCCAACCCCCACATCTC
CAGCCATTGCTCCTCCAACAGAGACCATGGCTCCTCCAGTCAGGGATCCTGTTCCTGGGAAACCCACGGTCACCA
TCCGGACTCGAGGCGCCATTATTCAAACCCCAACCCTAGGCCCCATCCAGCCTACTCGGGTGTCAGAAGCTGGCA
CCACAGTTCCTGGCCAGATTCGCCCAACGATGACCATTCCTGGCTATGTGGAGCCTACTGCAGTTGCTACCCCTC
CCACAACCACCACCAAGAAGCCACGAGTATCCACACCAAAACCAGCAACGCCTTCAACTGACTCCACCACCACCA
CGACTCGCAGGCCAACCAAGAAACCACGGACACCCCGGCCAGTGCCCCGGGTCACCACCAAAGTTTCCATCACCA
GATTGGAAACTGCCTCACCGCCTACTCGTATTCGCACCACCACCAGTGGAGTGCCCCGTGGCGGAGAACCCAACC
AGCGCCCAGAGCTCAAGAACCATATTGACAGGGTAGATGCCTGGGTTGGCACCTACTTTGAGGTGAAGATCCCGT
CAGACACTTTCTATGACCATGAGGACACCACCACTGACAAGCTGAAGCTGACCCTGAAACTGCGGGAGCAGCAGC
TGGTGGGCGAGAAGTCCTGGGTACAGTTCAACAGCAACAGCCAGCTCATGTATGGCCTTCCCGACAGCAGCCACG
TGGGCAAACACGAGTATTTCATGCATGCCACAGACAAGGGGGGCCTGTCGGCTGTGGATGCCTTCGAGATCCACG
TCCACAGGCGCCCCCAAGGGGATAGGGCTCCTGCAAGGTTCAAGGCCAAGTTTGTGGGTGACCCGGCACTGGTGT
TGAATGACATCCACAAGAAGATTGCCTTGGTAAAGAAACTGGCCTTCGCCTTTGGAGACCGAAACTGTAGCACCA
TCACCCTGCAGAATATCACCCGGGGCTCCATCGTGGTGGAATGGACCAACAACACACTGCCCTTGGAGCCCTGCC
CCAAGGAGCAGATCGCTGGGCTGAGCCGCCGGATCGCTGAGGATGATGGAAAACCTCGGCCTGCCTTCTCCAACG
CCCTAGAGCCTGACTTTAAGGCCACAAGCATCACTGTGACGGGCTCTGGCAGTTGTCGGCACCTACAGTTTATCC
CTGTGGTACCACCCAGGAGAGTGCCCTCAGAGGCGCCGCCCACAGAAGTGCCTGACAGGGACCCTGAGAAGAGCA
GTGAGGATGATGTCTACCTGCACACAGTCATTCCGGCCGTGGTGGTCGCAGCCATCCTGCTCATTGCTGGCATCA
TTGCCATGATCTGCTACCGCAAGAAGCGGAAGGGCAAGCTTACCCTTGAGGACCAGGCCACCTTCATCAAGAAGG
GGGTGCCTATCATCTTTGCAGACGAACTGGACGACTCCAAGCCCCCACCCTCCTCCAGCATGCCACTCATTCTGC
AGGAGGAGAAGGCTCCCCTACCCCCTCCTGAGTACCCCAACCAGAGTGTGCCCGAGACCACTCCTCTGAACCAGG
ACACCATGGGAGAGTACACGCCCCTGCGGGATGAGGATCCCAATGCGCCTCCCTACCAGCCCCCACCGCCCTTCA
CAGCACCCATGGAGGGCAAGGGCTCCCGTCCCAAGAACATGACCCCATACCGGTCACCTCCTCCCTATGTCCCAC
CT**TAA**CCCGCAAGCGCCTGGGTGGAGGCAGGGTAGGGCAGGGGCCTGGAGACGACATGGTGTTGTCTGTGGAGAC
CGGTGGCCTGCAGACCATTGCCCACCGGGAGCCGACACCTGACCTAGCACACACTGACACAGGGGCCTGGACAAG
CCCGCCCTCTCTGGTCCTCCCAAACCCCAAAGCAGCTGGAGAGACTTTGGGGACTTTTTTATTTTTATTTTTTGC
CTAACAGCTTTTGGTTTGTTCATAGAGAATTCTTCGCTTCATTTTTGATGGCTGGCTCTGAAAGCACCATGTGGA
GTGGAGGTGGAGGGAGCGAGGAACCATGAATGAACTCGCAGGCAGTGCCGGGCGGCCCCCTGGCTCTCTGCGTTT
TGCCTTTAACACTAACTGTACTGTTTTTTCTATTCACGTGTGTCTAGCTGCAGGATGTAACATGGAAAACAGTAA
CTAAAGATTAAATTCAAAGGACTTTCAGAAGTTAAGGTTAAGTTTTTACGTTTAATCTGCTGTTTACCTAAACTT

FIGURE 4072B

GTATGTATAATTTTTGGGTGGGTATGGGGAATTGCTTTGCTAAAAATAAGCTCCCAGGGTGTTTCAAACTTAGAG
AAGACCAAGGGACAGTATTTTTTATCAAAGGAATACTATTTTTTCACACTACGTCAACTTGGTTGCTCTGATACC
CCAGAGCCTGATTGGGGGCCTCCCGGCCCTGGCTCACGCCAAGTCCCTGGTGCTGGGTTTGCTCTCCCGCTGTTG
CCAGGGGCTGGAAGCTGGAGGGGTCTCTTGGGCCATGGACATCCCCACTTCCAGCCCATGTACACTAGTGGCCCA
CGACCAAGGGGTCTTCATTTCCATGAAAAAGGGACTCCAAGAGGCAGTGGTGGCTGTGGCCCCCAACTTTGGTGC
TCCAGGGTGGGCCAGCTGCTTGTGGGGGCACCTGGGAGGTCAAAGGTCTCCACCACATCAACCTATTTTGTTTTA
CCCTTTTTCTGTGCATTGTTTTTTTTTTTCCTCCTAAAAGGAATATCACGGTTTTTTGAAACACTCAGTGGGGGA
CATTTTGGTGAAGATGCAATATTTTTATGTCATGTGATGCTCTTTCCTCACTTGACCTTGGCCGCTTTGTCCTAA
CAGTCCACAGTCCTGCCCCGACCCACCCCATCCCTTTTCTCTGGCACTCCAGTCCCAGGCCTTGGGCCTGAACTA
CTGGAAAAGGTCTGGCGGCTGGGGAGGAGTGCCAGCAATAGTTCATAATAAAAATCTGTTAGCTCTCAAAGCTAA
TTTTTTACTAAAGTTTTTATACAGCCTCAAATTGTTTTATTAAAAAAAAGATTTAAAATGGTGATGCTTACAGCA
GTTTGTACGAGCTCTTAAGTGTTGATTCCATGGAACTGACGGCTTTGCTTGTTTTGATTCTTTTCCCCCTACTTT
TCCTAATGGTTTAAATTCTGGAATTACACTGGGGTTCTTTTGCCTTTTTTAGCAGAACATCCGTCCGTCCATCTG
CATCTCTGTCCCATGACTCAGGGGCGCCCACTCTGCTTCGATTCTCCTCCTGTGGAAGAAACCATTTTGAGCATG
ACTTTTCTTGATGTCTGAAGCGTTATTTTGGGTACTTTTTAGGGAGGAATGCCTTTCGCAATAATGTATCCATTC
CCTGATTGAGGGTGGGTGGGTGGACCCAGGCTCCCTTTGCACACAGAGCAGCTACTTCTAAGCCATATCGACTGT
TTTGCAGAGGATTTGTGTGTGCTGCCTCAGGAGGGGAGGGCTGGTAGGAGGGGGGGAGAGGTCTCTGTCCTACTG
CTCTCCAGAGGGCATTTCCCCTTGCGCCTTCTCCCACAGGGCCCAGCCCCTCTCCCCTGCCCCAGTCCCCAGGGG
GTACTCTGGAGTGAGCAGTGCCCCTGTGGGGGAGCCTGTAAATGCGGGCTCAGTGGACCACTGGTGACTGGGCTC
ATGCCTCCAAGTCAGAGTTTCCCTGGTGCCCCAGAGACAGGAGCACAAGTGGGATCTGACCTGGTGAGATTATTT
CTGATGACCTCATCAAAAAATAAACAATTCCCAATGTTCCAGGTGAGGGCTTTGAAAGGCCTTCCAAACAGCTCC
GTCGCCCCTAGCAACTCCACCATTGGGCACTGCCATGCAGAGACGTGGCTGGCCCAGAATGGCCTGTTGCCATAG
CAACTGGAGGCGATGGGGCAGTGAACAGAATAACAACAGCAACAATGCCTTTGCAGGCAGCCTGCTCCCCTGAGC
GCTGGGCTGGTGATGGTCGTTGGACTCTGTGAGATGGAGAGCCAATCTCACATTCAAGTGTTCACCAACCACTGA
TGTGTTTTTATTTCCTTCTATATGATTTTAAGATGTGTTTTCTGCATTCTGTAAAGAAACATATCAAACTAAATA
AAAGCAGTGTCTTTATT

FIGURE 4073

TACTCCCGGAGTCACTCATCCCTTAAGCAAGCAGGGTGGGGTTAGGTGCGCGTGCGCGGTTTTAATACTCCTCCC
CGAACTGCCAACTCTTCACGCACGCGAAGTAGGCCCCACCCTGGCTGGGTTTACGCGTGCGCACTAACGGGCCTG
GTCCCGGAAGACCACACGCGTGCGTGGTGGGGACTACGGTGACAGTACCCCGGGTGGGGCGAGGGCCAGTCATGG
CGGAGTCCTGGTCTGGGCAGGCCTTGCAGGCTCTGCCGGCCACGGTGCTGGGCGCGCTGGGCAGCGAGTTCTTGC
GGGAGTGGGAGGCGCAGGACATGCGCGTGACCCTCTTCAAGCTGCTGCTGCTGTGGTTGGTGTTAAGTCTCCTGG
GCATCCAGCTGGCGTGGGGGTTCTACGGGAATACAGTGACCGGGTTGTATCACCGTCCAGGTCTGGGTGGTCAGA
ATGGATCCACGCCTGATGGCTCCACGCATTTCCCTTCGTGGGAAATGGCAGCAAACGAACCTCTCAAAACCCACA
GAGAATAAGGGAAGGCAGCAGAGGGTCTCCAAGGGCATCACTGGGTCTGCTGGCTTCTACACTGGGTTCTGCTAC
TCCCCAGACCTCAGGGACAACTGCCGGGGGTTCAGGGTTGGTAGCAGGGAGTACCCAGTGCCTACAGGGCTGGGC
CTCTTCTGCCTCTTAAGCCTGCTCCCTCACCCAGGCACTGGGCAAGTGAAGAGTTTGCCTGTACTCTTATCTGGG
TGCCTTAAGGAGAGAGATTGTGTTCTTCCTCTCTCAGGGGTGATAACTCAGGAAGCCTCTGGGTTGGGAAGACCA
TCAGTTCTTTTGTCTTAGGTTTCTTTTCCTGTCCCTCTTCCATCCCCAAGATGTGACCCCATAAAAATTTTTCCT
GAGTTGGCCAGGCATGGTGGCTCACGCCTGTAATCCCAACACTTTGGGAGGCTGAGGCAGGCAGATCACGAGGTC
AGGAGTTCGAGACCAGCCTGACCAACATGGTGAAAACCCCATCTCTACTAAAAATACAAAAATTAGCCGGGTGTG
GTGGCACACACCAGTAATCCCAGCTACTCAGGAGGCTGAAGCAGGAGATTTGCTTGAACCTGGGAGGCAGAGGTT
GCAGTGAGCCAAGATTGCGCCGTTGTACTCCAGCCTGGGCAACAGAGCAAGACCCATCTCAAAAAAAAAATTTTT
TTCCTGAGAGGAAGCCTGAGGTTGACCAGCTCTGGGGTTTGTAAGGCAGGTCTGTTTTCTCCTAGGCCCTGAGTT
TTCTGAATCTCTGGTTTTGCTTTGTTGGCAAGGAGCCAGGGAATCCTGACCTGAGCCAGACCTTAAGCTCTATGG
TTATTTAGCTGGCCATTCAGGTATAAGGCAGGGTGGTGTACCTGCTGGCACTATCCAGATGGAGGCACCAAACAC
CCACATACCTGGCCCAACCAGACTTCTCCCGTGAGCCAGGCAAAGGAAATTGTCATCTGCCAACTGTCCTACTCA
TATTCCTCTCAGTCCTTCTTGGGGGTAAGCTGATTACCTGAAGGACAGCTGAACCCCTGGGGTAGCCTCCTATCC
ACCACTGCTTAAGTGCCTATGGGAATGTGGGTCTGCACCTTGTCCCCTCATAGGATGGTACCAAGCATTTAGTGC
ACAGTGGCCCCATCATAGCCTGCAGCCTCATCATTTCCCATCTGGACCTGGTACAAATGCACGTCACAGGCTCAG
CTCCTCCCCACTAGCATTTTCTCTACCTTCAAGAACCAGGCAGCCCTGCCATGTCACAATAGGCCAGGGGAGTTT
CCAAAGATGTGGGTGGCAAATGCCCCTATAGAAACACCAGTACCTGAAAGCACTGTAGCCCTGGACCTGCCTCCT
TCCCTCGGGGCCATACTTCTGTTTCCATCTGCTGGGCCACCAGCCACTTTAGTGACCCCTGCCTACTTCCTTCCT
GTTGGATATCATACTTCCATCTGGCTGCCTTTGCTTAAGCCATCTTTGTGGTAGAGGGGCCCTGGAATTGCAGCT
GTACTGAGGATGATGTTATTCACAGCCCCTGGCCCACCCACTAATACTACTGCACAGAGTCAGGATCTCACATTT
CACCCCAGGCTCAACTGAGGATGTGGCTTATTAAACACGGAAGTGC

FIGURE 4074

AGCCTGCCCTTGGGGCTGCCCACGCCCCCTTCAGATCCTTTGCTCCGGAGAGAGACCTGTCCGAGCAGAGGCCTG
GACTACATCTCCCGGCGTGCCTGGCAGTGTGGTGGCCTCTGTGCGCCGTCTGCACTCGTTGCAGGCGACG**ATG**CA
GAGGGCTGTAAGTGTGGTGGCCCGTCTGGGCTTTCGCCTGCAGGCATTCCCCCCGGCCTTGTGTCGTCCACTTAG
TTGCGCACAGGAGGTGCTCCGCAGGACACCGCTCTATGACTTCCACCTGGCCCACGGCGGGAAAATGGTGGCGTT
TGCGGGTTGGAGTCTGCCAGTGCAGTACCGGGACAGTCACACTGACTCGCACCTGCACACACGCCAGCACTGCTC
GCTCTTTGACGTGTCTCATATGCTGCAGACCAAGATACTTGGTAGTGACCGGGTGAAGCTGATGGAGAGTCTAGT
GGTTGGAGACATTGCAGAGCTAAGACCAAACCAGGGGACACTGTCGCTGTTTACCAACGAGGCTGGAGGCATCTT
AGATGACTTGATTGTAACCAATACTTCTGAGGGCCACCTGTATGTGGTGTCCAACGCTGGCTGCTGGGAGAAAGA
TTTGGCCCTCATGCAGGACAAGGTCAGGGAGCTTCAGAACCAGGGCAGAGATGTGGGCCTGGAGGTGTTGGATAA
TGCCCTGCTAGCTCTGCAAGGCCCCACTGCAGCCCAGGTACTACAGGCCGGCGTGGCAGATGACCTGAGGAAACT
GCCCTTCATGACCAGTGCTGTGATGGAGGTGTTTGGCGTGTCTGGCTGCCGCGTGACCCGCTGTGGCTACACAGG
AGAGGATGGTGTGGAGATCTCGGTGCCGGTAGCGGGGGCAGTTCACCTGGCAACAGCTATTCTGAAAAACCCAGA
GGTGAAGCTGGCAGGGCTGGCAGCCAGGGACAGCCTGCGCCTGGAGGCAGGCCTCTGCCTGTATGGGAATGACAT
TGATGAACACACTACACCTGTGGAGGGCAGCCTCAGTTGGACACTGGGGAAGCGCCGCCGAGCTGCTATGGACTT
CCCTGGAGCCAAGGTCATTGTTCCCCAGCTGAAGGGCAGGGTGCAGCGGAGGCGTGTGGGGTTGATGTGTGAGGG
GGCCCCCATGCGGGCACACAGTCCCATCCTGAACATGGAGGGTACCAAGATTGGTACTGTGACTAGTGGCTGCCC
CTCCCCCTCTCTGAAGAAGAATGTGGCGATGGGTTATGTGCCCTGCGAGTACAGTCGTCCAGGGACAATGCTGCT
GGTAGAGGTGCGGCGGAAGCAGCAGATGGCTGTAGTCAGCAAGATGCCCTTTGTGCCCACAAACTACTATACCCT
CAAG**TGA**AGCTGGCTCAGGGTGGGGCTGTCCCTTCCAGGAGTTTTGCCCCTACAAGGGGTTAGTCAAGAAGCTGA
GGCAGAACTCACTGGGGGTGGGCAGTTAAGGTGGAGGCTGATTCTAATTGTCTGGTTGAGGGGCCACACCACCTA
TTCCCCCCACCTAACTCATGCCATTCCAGCTTCCTTCAGGACCCTGCTTCTGAGTGACGGACCAGCTCACACAAT
GTCTTGTTTCAGTCCATGATCCCACTGACCTACTCTTGCCTGCTGGAGGGTAATGAGAAGCTTTGGTTCTGCCAT
CTCTCCCACTCTGCCAGGTGCTGGCTGTGGAGCAAAGGCTCACCTTTGTGGAGAGGATAAAACCTGCCCAACCTA
CCTCACCATGGTTTTTCACATTGCAAAGGGTAATAACATGGGCAGTGCGGACTTAGGCTACCCCCTCCAGTTTGC
TTTCCGTAAATGCAAATTGTCCTTACTGCAAGTCAGGAATGATTGCTGACTCACAGTAGGGCTGCTATGCCTGTG
TGTAAACTTGGGGATGGCTGAGGGAACATAGACTCACTCTTCCACATTCCCAAGTTGGTCTAGTGTGCTGCCCAG
TAGCAAACCATGGCAGACTCACCACCTATTCTGAGTTCCAGGGCTGCTGTAGGGCAGGGTGGGCTTCCTCCCAGA
CTTGCCTTACCCTGGGCTGATCTTTGCCCCTGGTATGCATTAATGGACTCCACTGAATCCTGAAAAAAAAATTAA
ACTTCCTTCTTACTTGCCA

FIGURE 4075A

GGATCCTCTAGGGTCCCAGCTCGCCTCG**ATG**GAGCTCCTCCCGCCGCTGCCTCAGTCCTTCCTGTTGCTGCTGCT
GTTGCCTGCCAAGCCCGCGGCGGGCGAGGACTGGCAGTGCCCGCGCACCCCCTACGCGGCCTCTCGCGACTTTGA
CGTGAAGTACGTGGTGCCCAGCTTCTCCGCCGGAGGCCTGGTACAGGCCATGGTGACCTACGAGGGCGACAGAAA
TGAGAGTGCTGTGTTTGTAGCCATACGCAATCGCCTGCATGTGCTTGGGCCTGACCTGAAGTCTGTCCAGAGCCT
GGCCACGGGCCCTGCTGGAGACCCTGGCTGCCAGACGTGTGCAGCCTGTGGCCCAGGACCCCACGGCCCTCCCGG
TGACACAGACACAAAGGTGCTGGTGCTGGATCCCGCGCTGCCTGCGCTGGTCAGTTGTGGCTCCAGCCTGCAGGG
CCGCTGCTTCCTGCATGACCTAGAGCCCCAAGGGACAGCCGTGCATCTGGCAGCGCCAGCCTGCCTCTTCTCAGC
CCACCATAACCGGCCCGATGACTGCCCCGACTGTGTGGCCAGCCCATTGGGCACCCGTGTAACTGTGGTTGAGCA
AGGCCAGGCCTCCTATTTCTACGTGGCATCCTCACTGGACGCAGCCGTGGCTGCCAGCTTCAGCCCACGCTCAGT
GTCTATCAGGCGTCTCAAGGCTGACGCCTCGGGATTCGCACCGGGCTTTGTGGCGTTGTCAGTGCTGCCCAAGCA
TCTTGTCTCCTACAGTATTGAATACGTGCACAGCTTCCACACGGGAGCCTTCGTATACTTCCTGACTGTACAGCC
GGCCAGCGTGACAGATGATCCTAGTGCCCTGCACACACGCCTGGCACGGCTTAGCGCCACTGAGCCAGAGTTGGG
TGACTATCGGGAGCTGGTCCTCGACTGCAGATTTGCTCCAAAACGCAGGCGCCGGGGGGCCCCAGAAGGCGGACA
GCCCTACCCTGTGCTGCGGGTGGCCCACTCCGCTCCAGTGGGTGCCCAACTTGCCACTGAGCTGAGCATCGCCGA
GGGCCAGGAAGTACTATTTGGGGTCTTTGTGACTGGCAAGGATGGTGGTCCTGGCGTGGGCCCCAACTCTGTCGT
CTGTGCCTTCCCCATTGACCTGCTGGACACACTAATTGATGAGGGTGTGGAGCGCTGTTGTGAATCCCCAGTCCA
TCCAGGCCTCCGGCGAGGCCTCGACTTCTTCCAGTCGCCCAGTTTTTGCCCCAACCCGCCTGGCCTGGAAGCCCT
CAGCCCCAACACCAGCTGCCGCCACTTCCCTCTGCTGGTCAGTAGCAGCTTCTCACGTGTGGACCTATTCAATGG
GCTGTTGGGACCAGTACAGGTCACTGCATTGTATGTGACACGCCTTGACAACGTCACAGTGGCACACATGGGCAC
AATGGATGGGCGTATCCTGCAGGTGGAGCTGGTCAGGTCACTAAACTACTTGCTGTATGTGTCCAACTTCTCACT
GGGTGACAGTGGGCAGCCCGTGCAGCGGGATGTCAGTCGTCTTGGGGACCACCTACTCTTTGCCTCTGGGGACCA
GGTTTTCCAGGTACCTATCCAAGGCCCTGGCTGCCGCCACTTCCTGACCTGTGGGCGTTGCCTAAGGGCATGGCA
TTTCATGGGCTGTGGCTGGTGTGGGAACATGTGCGGCCAGCAGAAGGAGTGTCCTGGCTCCTGGCAACAGGACCA
CTGCCCACCTAAGCTTACTGAGTTCCACCCCCACAGTGGACCTCTAAGGGGCAGTACAAGGCTGACCCTGTGTGG
CTCCAACTTCTACCTTCACCCTTCTGGTCTGGTGCCTGAGGGAACCCATCAGGTCACTGTGGGCCAAAGTCCCTG
CCGGCCACTGCCCAAGGACAGCTCAAAACTCAGACCAGTGCCCCGGAAAGACTTTGTAGAGGAGTTTGAGTGTGA
ACTGGAGCCCTTGGGCACCCAGGCAGTGGGGCCTACCAACGTCAGCCTCACCGTGACTAACATGCCACCGGGCAA
GCACTTCCGGGTAGACGGCACCTCCGTGCTGAGAGGCTTCTCTTTCATGGAGCCAGTGCTGATAGCAGTGCAACC
CCTCTTTGGCCCACGGGCAGGAGGCACCTGTCTCACTCTTGAAGGCCAGAGTCTGTCTGTAGGCACCAGCCGGGC
TGTGCTGGTCAATGGGACTGAGTGTCTGCTAGCACGGGTCAGTGAGGGGCAGCTTTTATGTGCCACACCCCCTGG
GGCCACGGTGGCCAGTGTCCCCCTTAGCCTGCAGGTGGGGGGTGCCCAGGTACCTGGTTCCTGGACCTTCCAGTA
CAGAGAAGACCCTGTCGTGCTAAGCATCAGCCCCAACTGTGGCTACATCAACTCCCACATCACCATCTGTGGCCA
GCATCTAACTTCAGCATGGCACTTAGTGCTGTCATTCCATGACGGGCTTAGGGCAGTGGAAAGCAGGTGTGAGAG
GCAGCTTCCAGAGCAGCAGCTGTGCCGCCTTCCTGAATATGTGGTCCGAGACCCCCAGGGATGGGTGGCAGGGAA
TCTGAGTGCCCGAGGGGATGGAGCTGCTGGCTTTACACTGCCTGGCTTTCGCTTCCTACCCCCACCCCATCCACC
CAGTGCCAACCTAGTTCCACTGAAGCCTGAGGAGCATGCCATTAAGTTTGAGTATATTGGGCTGGGCGCTGTGGC
TGACTGTGTGGGTATCAACGTGACCGTGGGTGGTGAGAGCTGCCAGCACGAGTTCCGGGGGGGACATGGTTGTCTG
CCCCCTGCCCCCATCCCTGCAGCTTGGCCAGGATGGTGCCCCATTGCAGGTCTGCGTAGATGGTGAATGTCATAT
CCTGGGTAGAGTGGTGCGGCCAGGGCCAGATGGGGTCCCACAGAGCACGCTCCTTGGTATCCTGCTGCCTTTGCT
GCTGCTTGTGGCTGCACTGGCGACTGCACTGGTCTTCAGCTACTGGTGGCGGAGGAAGCAGCTAGTTCTTCCTCC
CAACCTGAATGACCTGGCATCCCTGGACCAGACTGCTGGAGCCACACCCCTGCCTATTCTGTACTCGGGCTCTGA
CTACAGAAGTGGCCTTGCACTCCCTGCCATTGATGGTCTGGATTCCACCACTTGTGTCCATGGAGCATCCTTCTC
CGATAGTGAAGATGAATCCTGTGTGCCACTGCTGCGGAAAGAGTCCATCCAGCTAAGGGACCTGGACTCTGCGCT
CTTGGCTGAGGTCAAGGATGTGCTGATTCCCCATGAGCGGGTGGTCACCCACAGTGACCGAGTCATTGGCAAAGG
CCACTTTGGAGTTGTCTACCACGGAGAATACATAGACCAGGCCCAGAATCGAATCCAATGTGCCATCAAGTCACT
AAGTCGCATCACAGAGATGCAGCAGGTGGAGGCCTTCCTGCGAGAGGGGCTGCTCATGCGTGGCCTGAACCACCC
GAATGTGCTGGCTCTCATTGGTATCATGTTGCCACCTGAGGGCCTGCCCCATGTGCTGCTGCCCTATATGTGCCA
CGGTGACCTGCTCCAGTTCATCCGCTCACCTCAGCGGAACCCCACCGTGAAGGACCTCATCAGCTTTGGCCTGCA

FIGURE 4075B

GGTAGCCCGCAGCATGGAGTACCTGGCAGAGCAGAAGTTTGTGCACAGGGACCTGGCTGCGCGGAACTGCATGCT
GGACGAGTCATTCACAGTCAAGGTGGCTGACTTTGGTTTGGCCCGCGACATCCTGGACAGGGAGTACTATAGTGT
TCAACAGCATCGCCACGCTCGCCTACCTGTGAAGTGGATGGCGCTGGAGAGCCTGCAGACCTATAGATTTACCAC
CAAGTCTGATGTGTGGTCATTTGGTGTGCTGCTGTGGGAACTGCTGACACGGGGTGCCCCACCATACCGCCACAT
TGACCCTTTTGACCTTACCCACTTCCTGGCCCAGGGTCGGCGCCTGCCCCAGCCTGAGTATTGCCCTGATTCTCT
GTACCAAGTGATGCAGCAATGCTGGGAGGCAGACCCAGCAGTGCGACCCACCTTCAGAGTACTAGTGGGGGAGGT
GGAGCAGATAGTGTCTGCACTGCTTGGGGACCATTATGTGCAGCTGCCAGCAACCTACATGAACTTGGGCCCCAG
CACCTCGCATGAGATGAATGTGCGTCCAGAACAGCCGCAGTTCTCACCCATGCCAGGGAATGTACGCCGGCCCCG
GCCACTCTCAGAGCCTCCTCGGCCCACT**TGA**CTTAGTTCTTGGGCTGGACCTGCTTAGCTGCCTTGAGCTAACCC
CAAGCTGCCTCTGGGCCATGCCAGGCCAGAGGGCAGTGGCCCTCCACCTTGTTCCTGCCCTTTAACTTTCAGAGG
CAATAGGTAAATGGGGCCCATTAGGTCCCTCACTCCACAGAGTGAGCCAGTGAGGGCAGTCCTGCAACATGTATT
TATGGAGTGCCTGCTGTGGACCCTGTCTTCTGGGCACAGTGGACTCAGCAGTGACCACACCAACACTGACCCTTG
AACCAATAAAGGAACAAATGACTATTAAAGCAC

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FIGURE 4076

GGCCGGCGAAAGCTATCTTCCTGCACCGGCGGCCGGGTGAGGGCGGTGGGAGGGAGCGGTGCCTGCGCTGTGGCC
ATGTCTGTGTACGCAGGGGGCCGGGGCCCCGCGAAGCTGTGCCCTCAGGCCGGCCCCGGCCGGACACCCTTACCC
CTCCATGGGTCCGGCAGAGGGCAGTGACCGGCACCTTCTGTGCGTCCTGGACTCCTCTGAGAAACAGGAGAGCTC
AAAGG**ATG**GCTACTGACATGCAGAGGAAGAGAAGCAGCGAATGCCTTGATGGCACATTGACTCCTTCTGATGGAC
AGAGTATGGAGAGAGCTGAGAGCCCCACACCAGGAATGGCCCAGGGAATGGAGCCAGGTGCGGGCCAGGAGGGTG
CCATGTTCGTCCATGCCCGTTCCTACGAGGACCTGACTGAGTCAGAGGATGGGGCAGCTTCTGGGGACAGCCACA
AGGAGGGTACCAGGGGTCCCCCGCCGCTGCCTACAGACATGCGCCAGATCAGCCAGGACTTTAGCGAGCTAAGCA
CCCAGCTGACGGGTGTGGCCCGGGACCTGCAGGAGGAGATGCTGCCAGGAAGCTCTGAGGATTGGCTGGAACCCC
CAGGGGCAGTTGGGCGACCAGCCACAGAGCCCCCCAGGGAGGGCACAACCGAGGGGGATGAGGAGGATGCCACGG
AGGCATGGCGCCTGCACCAGAAGCATGTCTTTGTGCTGAGTGAGGCAGGGAAGCCTGTGTACTCCCGCTATGGGT
CTGAGGAGGCACTTTCCAGCACTATGGGTGTTATGGTGGCCCTGGTGTCCTTCCTGGAGGCAGACAAGAACGCCA
TCCGCTCCATCCATGCAGATGGCTACAAGGTAGTATTCGTGCGCCGGAGCCCGCTGGTGCTAGTGGCGGTGGCTC
GTACGCGGCAGTCGGCACAAGAGCTGGCGCAGGAGCTGCTCTACATCTACTACCAGATCCTAAGCCTTCTTACCG
GTGCGCAGCTGAGCCACATCTTCCAGCAGAAGCAGAACTATGATTTGCGGCGCCTACTCTCGGGCTCAGAGCGCA
TCACCGACAACCTGCTGCAGCTCATGGCACGAGACCCCAGCTTCCTGATGGGGGCGGCACGGTGCCTGCCCCTGG
CGGCGGCCGTGCGCGACACTGTGAGCGCCAGCCTGCAGCAGGCGCGTGCGCGCAGCCTGGTCTTCTCCATCCTGC
TGGCCCGCAACCAGCTCGTGGCACTCGTGCGCCGAAAGGACCAATTTCTGCACCCCATCGACCTGCACCTGCTCT
TCAACCTCATTAGTTCCTCCTCGTCCTTTCGCGAGGGCGAGGCCTGGACGCCCGTGTGCCTGCCCAAATTCAACG
CAGCCGGCTTCTTCCACGCACACATCTCTTACCTAGAGCCTGACACTGACCTCTGCCTGCTGCTTGTCTCCACTG
ACCGTGAGGACTTCTTTGCAGTCTCTGACTGCCGCCGCCGCTTCCAGGAGCGCCTTCGCAAGCGCGGAGCCCACC
TGGCCCTGCGAGAGGCACTGCGCACACCCTACTACAGCGTTGCCCAAGTGGGCATCCCTGACCTGCGTCACTTCC
TCTATAAGTCAAAGAGCTCGGGACTCTTCACCAGCCCTGAGATTGAGGCCCCATACACCAGTGAAGAGGAGCAGG
AGCGGCTGCTGGGCCTCTACCAGTACTTGCACAGTCGTGCCCACAATGCCTCTCGCCCACTCAAGACCATTTACT
ACACGGGCCCCAACGAGAACCTCCTGGCCTGGGTGACAGGCGCCTTTGAGCTCTACATGTGTTACAGCCCCCTGG
GGACCAAGGCGTCAGCCGTCAGTGCCATCCATAAGCTGATGCGCTGGATCCGCAAAGAGGAAGACCGCCTCTTCA
TTCTCACGCCCCTCACCTAT**TGA**TGGGAATGTGTGCGGGCTCAGCCTTCCTGGACACACTAGGTGTGGGAAGCCA
TAGGAGCCTCCAGATGGGGGCTGGCCTCTCTTGCCCAGCCAGCGGGCAGGGACTGTGGGTTGGTGAATGCATTAA
AGTGCTTTGGGG

FIGURE 4077A

AGTAAGAGTCTGCGGGACCGGCAGCTGTACTTCATCTCCCAGCGGGCCGAGCGCTGAAGGCAGCGGCGCGGCGCC
TTTGTGGTAGCAGTGGCCCCGCGCGGAGGAAGTTCCGGTGTCCGCGGCGCTGGGTCGGTGGCGGAGGCTGAGGAG
AAGGAGGAGCGGGCCGTGGAGGCTTCGCCGCCTAGGTACTGCTATAACCAGAATTTGGTAGAAAAAGGATTTACT
TGTTGGGGCCCTCTTGATAAAAAGAG**ATG**TGGGGGGATTCTCGACCTGCTAACAGAACTGGACCTTTTCGTGGGA
GCCAAGAAGAAAGGTTTGCTCCCGGGTGGAACAGGGATTATCCTCCTCCTCCCCTTAAGAGTCATGCTCAAGAGA
GACACTCTGGCAACTTTCCTGGCAGAGATTCACTTCCCTTTGATTTCCAGGGGCATTCGGGGCCTCCTTTTGCAA
ATGTAGAGGAGCATTCTTTCAGCTATGGAGCTAGAGACGGACCGCATGGTGACTATCGAGGAGGGGAGGGACCTG
GACATGATTTCAGGGGGGGAGATTTTTCGTCTTCTGATTTCCAGAGCAGAGATTCATCACAGTTGGACTTCAGGG
GTAGGGACATACATTCTGGGGATTTTCGGGATAGAGAAGGACCACCTATGGACTATAGGGGTGGAGATGGTACTT
CTATGGATTATAGAGGTAGGGAGGCACCTCATATGAACTACAGAGACAGGGATGCTCACGCTGTTGACTTCAGAG
GTAGGGATGCTCCTCCATCTGACTTCAGGGGCCGGGGCACTTATGATTTAGATTTTAGAGGCCGGGATGGATCCC
ATGCAGATTTTAGGGGAAGGGATTTATCAGATTTGGATTTTAGGGCCAGAGAACAGTCCCGTTCTGATTTTAGGA
ATAGAGATGTATCTGATTTGGACTTTAGAGACAAAGACGGAACACAAGTAGACTTTAGAGGCCGAGGTTCAGGTA
CTACTGATCTAGACTTTAGGGACAGGGATACGCCACATTCAGATTTCAGAGGTAGACACCGATCTAGGACTGATC
AGGATTTTAGGGGCAGAGAGATGGGATCTTGTATGGAATTTAAAGATAGGGAGATGCCCCCTGTGGATCCAAATA
TTTTGGATTACATTCAGCCCTCTACACAAGATAGAGAACATTCTGGTATGAATGTGAACAGGAGAGAAGAATCCA
CACATGACCATACGATAGAAAGGCCTGCTTTTGGCATTCAGAAGGGAGAATTTGAGCATTCAGAAACAAGAGAAG
GAGAAACACAAGGTGTAGCCTTTGAACATGAGTCTCCAGCAGACTTTCAGAACAGCCAAAGTCCAGTTCAAGACC
AAGATAAGTCACAGCTTTCTGGACGTGAAGAGCAGAGTTCAGATGCTGGTCTGTTTAAAGAAGAAGGCGGTCTGG
ACTTTCTTGGGCGGCAAGACACCGATTACAGAAGCATGGAGTACCGTGATGTGGATCATAGGCTGCCAGGAAGCC
AGATGTTTGGCTATGGCCAGAGCAAGTCTTTTCCAGAGGGCAAAACTGCCCGAGATGCCCAACGGGACCTTCAGG
ATCAAGATTATAGGACCGGCCCAAGTGAGGAGAAACCCAGCAGGCTTATTCGATTAAGTGGGGTACCTGAAGATG
CCACAAAAGAAGAGATTCTTAATGCTTTTCGGACTCCTGATGGCATGCCTGTAAAGAACTTGCAGTTGAAGGAGT
ATAACACAGGTTACGACTATGGCTATGTCTGCGTGGAGTTTTCACTCTTGGAAGATGCCATCGGATGCATGGAGG
CCAACCAGGGAACTCTAATGATCCAGGACAAAGAAGTTACCCTGGAGTATGTATCAAGCCTGGATTTTTGGTACT
GCAAACGATGTAAGGCAAACATTGGTGGGCACCGATCTTCCTGTTCATTCTGCAAGAACCCAAGAGAAGTGACAG
AGGCCAAGCAAGAATTAATAACCTACCCTCAGCCTCAGAAAACATCCATACCAGCACCATTGGAAAAACAGCCCA
ACCAGCCCCTAAGACCAGCTGATAAGGAACCTGAACCCAGGAAGAGGGAAGAAGGCCAAGAGTCACGCTTAGGAC
ATCAAAAGAGAGAAGCAGAAAGGTATCTGCCTCCTTCTCGAAGGGAAGGGCCAACTTTCCGAAGAGACCGAGAGA
GGGAGTCATGGTCTGGAGAGACACGCCAGGATGGAGAGAGCAAAACTATCATGCTAAAGCGTATCTATCGTTCCA
CACCACCTGAGGTGATAGTGGAAGTGCTGGAGCCCTATGTCCGCCTTACTACTGCCAACGTCCGTATCATCAAGA
ACAGAACAGGCCCTATGGGGCATACCTATGGCTTTATTGACCTCGACTCCCATGCGGAAGCTCTTCGTGTGGTGA
AGATCTTACAGAACCTTGATCCGCCATTTAGCATTGATGGGAAGATGGTAGCTGTAAACCTGGCCACTGGAAAAC
GAAGAAATGATTCTGGGGACCATTCTGACCACATGCATTACTATCAGGGTAAAAAATATTTCCGAGATAGGAGGG
GAGGTGGCAGAAATTCAGACTGGTCTTCAGATACAAATCGACAAGGACAACAGTCATCATCTGACTGCTACATAT
ATGATTCTGCTACTGGCTACTATTATGACCCCTTGGCAGGAACTTATTATGACCCCAATACCCAGCAAGAAGTCT
ATGTGCCCCAGGATCCTGGATTACCTGAGGAAGAAGAGATCAAGGAAAAAAAAACCCACCAGTCAAGGAAAGTCAA
GTAGCAAGAAGGAAATGTCTAAAAGAGATGGCAAGGAGAAAAAAGACAGAGGAGTGACGAGGTTTCAGGAAAATG
CCAGTGAAGGGAAGGCCCCTGCAGAAGACGTCTTTAAGAAGCCCCTGCCTCCTACTGTGAAGAAGGAAGAGAGTC
CCCCTCCACCTAAAGTGGTAAACCCACTGATCGGCCTCTTGGGTGAATATGGAGGAGACAGTGACTATGAGGAGG
AAGAAGAGGAGGAACAGACCCCTCCCCCACAGCCCCGCACAGCACAGCCCCAGAAGCGAGAGGAGCAAACCAAGA
AGGAGAATGAAGAAGACAAACTCACTGACTGGAATAAACTGGCTTGTCTGCTTTGCAGAAGGCAGTTTCCCAATA
AAGAAGTTCTGATCAAACACCAGCAACTGTCAGACCTGCACAAGCAAAACCTGGAAATCCACCGGAAGATAAAAC
AGTCTGAGCAGGAGCTAGCCTATCTGGAAAGGAGAGAACGAGAGGGAAAGTTTAAAGGAAGAGGAAATGATCGCA
GGGAAAAGCTCCAGTCTTTTGACTCTCCAGAAAGGAAACGGATTAAGTACTCCAGGGAAACTGACAGTGATCGTA
AACTTGTTGATAAAGAAGATATCGACACTAGCAGCAAAGGAGGCTGTGTCCAACAGGCTACTGGCTGGAGGAAAG
GGACAGGCCTGGGATATGGCCATCCTGGATTGGCTTCATCAGAGGAGGCTGAAGGCCGGATGAGGGGCCCCAGTG
TTGGAGCCTCAGGAAGAACCAGCAAAAGACAGTCCAACGAGACTTATCGAGATGCTGTTCGAAGAGTCATGTTTG

FIGURE 4077B

CTCGATATAAAGAACTCGATTAAGAAAGGAGACAAGTTCCATGGGATACAACCTCCCTCTTGTTTTGTTTGTCTC
TCCTTTTCTTTTGTTACTGTTCTTGCTGCTAGAACTTTTTTAAATAAACTTTTTTTCAATGTG

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FIGURE 4078

ACTGTGGGTAGGAGACGGCCGTCGGCGGAGGCGCCATTTTGTGTAGCCGCCGAACCTTGTTGGAGGTTCTGGGGC
GCAGAACCGCTACTGCTGCTTCGGTCTCTCCTTGGGAAAAAATAAAATTTGAACCTTTTGGAGCTGTGTGCTAAA
TCTTCAGTGGGACA**ATG**GGTTCAGACAAAAGAGTGAGTAGAACAGAGCGTAGTGGAAGATACGGTTCCATCATAG
ACAGGGATGACCGTGATGAGCGTGAATCCCGAAGCAGGCGGAGGGACTCAGATTACAAAAGATCTAGTGATGATC
GGAGGGGTGATAGATATGATGACTACCGAGACTATGACAGTCCAGAGAGAGAGCGTGAAAGAAGGAACAGTGACC
GATCCGAAGATGGCTACCATTCAGATGGTGACTATGGTGAGCACGACTATAGGCATGACATCAGTGACGAGAGGG
AGAGCAAGACCATCATGCTGCGCGGCCTTCCCATCACCATCACAGAGAGCGATATTCGAGAAATGATGGAGTCCT
TCGAAGGCCCTCAGCCTGCGGATGTGAGGCTGATGAAGAGGAAAACAGGTGTAAGCCGTGGTTTCGCCTTCGTGG
AGTTTTATCACTTGCAAGATGCTACCAGCTGGATGGAAGCCAATCAGAAAAAGTTGGTGATTCAAGGAAAGCACA
TTGCAATGCATTATAGCAATCCCAGACCTAAGTTTGAAGATTGGCTTTGTAACAAGTGCTGCCTTAACAATTTCA
GGAAAAGACTAAAATGCTTCCGATGTGGAGCAGACAAGTTTGACTCTGAACAGGAAGTGCCTCCTGGAACCACAG
AGTCGGTTCAGTCTGTGGATTACTACTGTGATACGATCATTCTTCGGAACATAGCTCCGCACACTGTGGTGGATT
CCATCATGACAGCACTGTCTCCTTACGCGTCTTTAGCTGTCAATAACATCCGCCTCATAAAAGACAAACAGACCC
AGCAGAACAGAGGCTTCGCATTTGTGCAGCTGTCCTCTGCAATGGATGCTTCTCAGCTGCTTCAGATATTACAGA
GTCTCCATCCTCCTTTGAAAATTGATGGCAAAACTATTGGGGTTGATTTTGCAAAAAGTGCCAGAAAAGACTTGG
TCCTCTCAGATGGTAACCGCGTCAGCGCCTTCTCTGTAGCTAGTACGGCTATTGCTGCTGCTCAGTGGTCATCCA
CCCAGTCTCAAAGTGGTGAAGGAGGCAGTGTTGACTACAGTTATCTGCAACCAGGTCAAGATGGCTATGCCCAAT
ATGCTCAGTATTCACAGGATTATCAGCAGTTTTATCAACAACAAGCTGGAGGATTGGAATCTGATGCATCATCTG
CATCAGGCACAGCAGTGACCACCACCTCAGCGGCTGTAGTGTCCCAGAGTCCTCAGCTGTATAATCAAACCTCCA
ATCCACCTGGCTCTCCGACTGAGGAAGCACAGCCTAGCACTAGCACAAGTACACAGGCCCCAGCCGCTTCCCCTA
CTGGTGTAGTTCCTGGTACCAAATATGCAGTACCTGACACGTCCACTTACCAGTATGATGAATCTTCAGGATATT
ACTATGATCCGACAACAGGGCTCTATTATGACCCCAACTCGCAATACTACTATAATTCCTTGACCCAGCAGTACC
TTTACTGGGATGGGGAAAAAGAGACCTACGTGCCAGCTGCAGAGTCTAGCTCCCACCAGCAGTCGGGCCTGCCTC
CTGCAAAAGAGGGGAAAGAGAAGAAGGAGAAACCCAAGAGCAAAACAGCCCAGCAGATTGCCAAAGACATGGAAC
GCTGGGCTAAGAGTTTGAATAAGCAGAAAGAAAACTTTAAAAATAGCTTTCAGCCTGTCAATTCCTTGAGGGAAG
AAGAAAGGAGAGAATCTGCTGCAGCAGACGCTGGCTTTGCTCTCTTTGAGAAGAAGGGAGCCTTAGCTGAAAGGC
AGCAGCTCATCCCAGAATTGGTGCGAAATGGAGATGAGGAGAATCCCCTCAAAAGGGGTCTGGTTGCTGCTTACA
GTGGTGACAGTGACAATGAGGAGGAGCTGGTGGAGAGACTTGAGAGTGAGGAAGAGAAGCTAGCTGACTGGAAGA
AGATGGCCTGTCTGCTCTGCCGGCGCCAGTTCCCGAACAAAGATGCCCTAGTCAGGCACCAGCAACTCTCAGACC
TTCACAAGCAAAACATGGACATCTACCGACGATCCAGGCTGAGCGAGCAGGAGCTGGAAGCCTTGGAGCTAAGGG
AGAGAGAGATGAAATACCGAGACCGAGCTGCAGAAAGACGGGAGAAGTACGGCATTCCAGAACCTCCAGAGCCCA
AGCGCAAGAAGCAGTTTGATGCCGGCACTGTGTATGTGATGTGCACATTTTCCAGTTCG**TAA**GCTGGGGCCCTGG
CTGTTTTAAGTAACTGTGTGTTTGCCACTGGCAGGAATTACGAGCAACCCACCAAAGATGGCATTGACCACAGTA
ACATTGGCAACAAGATGCTGCAGGCCATGGGCTGGCGGGAAGGCTCTGGCTTGGGACGAAAGTGTCAAGGCATTA
CGGCTCCCATTGAGGCTCAAGTTCGGCTAAAGGGAGCTGGCCTAGGAGCCAAAGCGAGCGCATATGGTTTGTCGG
GCGCCGATTCCTACAAAGATGCTGTCCGGAAAGCCATGTTTGCCCGGTTCACTGAGATGGAGTGAGAGAGAGAGA
GAGAGAGAGATGACAAGGAGCACAAGAAGTGGTCCATCTCCCGAATTCGCTGTTACCGCCTGTCTCTTTAAGGGC
ATGCCTTGTGCTGTTAATAGATCTTAGGGTGAACCACTTCATTCTGCAGGGTTCTCCCTCCCACCTTAAAGAAGT
TCCCCTTATGTGGGTTGCCTGGTGAATGGCCTTCCTTCCCGCCAGAGGGCTTGTGAACAGACCGGAGAGGACAGT
GGATTGTTTATACTCCAGTGTACATAGTGTAATGTAGCGTGTTTACATGTGTAGCCTATGTTGTGGTCCATCAGC
CCCTCACATTCCTAGGGGTTTGAGATGCTGTAGGTGGTATGTGACACCAAAGCCACCTCTGTCATTTGTTGTGAT
GTCTTTTCTTGGCAAAAGCCTTGTGTATATTTGTATATTACACATTTGTACAGAATTTTGGAAGATTTTCAGTCT
AGTTGCCAAATCTGGCTCCTTTACAAAAGAAATACCTTGAG

FIGURE 4079

GCCCAGGCCCCGCCGCTGCGGAAGAGGTTTCTAGAGAGTGGAGCCTGCTTCCTGGGCCCTAGGCCCCTCCCACAA
TGCTTGTCGCCGGTCTTCTTCTCTGGGCTTCCCTACTGACCGGGGCCTGGCCATCCTTCCCCACCCAGGACCACC
TCCCGGCCACGCCCCGGGTCCGGCTCTCATTCAAAGAGCTGAAGGCCACAGGCACCGCCCACTTCTTCAACTTCC
TGCTCAACACAACCGACTACCGAATCTTGCTCAAGGACGAGGACCACGACCGCATGTACGTGGGCAGCAAGGACT
ACGTGCTGTCCCTGGACCTGCACGACATCAACCGCGAGCCCCTCATTATACACTGGGCAGCCTCCCCACAGCGCA
TCGAGGAATGCGTGCTCTCAGGCAAGGATGTCAACGGCGAGTGTGGGAACTTCGTCAGGCTCATCCAGCCCTGGA
ACCGAACACACCTGTATGTGTGCGGGACAGGTGCCTACAACCCCATGTGCACCTATGTGAACCGCGGACGCCGCG
CCCAGGCCACACCATGGACCCAGACTCAGGCGGTCAGAGGCCGCGGCAGCAGAGCCACGGATGGTGCCCTCCGCC
CGATGCCCACAGCCCCACGCCAGGATTACATCTTCTACCTGGAGCCTGAGCGACTCGAGTCAGGGAAGGGCAAGT
GTCCGTACGATCCCAAGCTGGACACAGCATCGGCCCTCATCAATGAGGAGCTCTATGCTGGTGTGTACATCGATT
TTATGGGCACTGATGCAGCCATCTTCCGCACACTTGGAAAGCAGACAGCCATGCGCACGGATCAGTACAACTCCC
GGTGGCTGAACGACCCGTCGTTCATCCATGCTGAGCTCATTCCTGACAGTGCGGAGCGCAATGATGATAAGCTTT
ACTTCTTCTTCCGTGAGCGGTCGGCAGAGGCGCCGCAGAGCCCCGCGGTGTACGCCCGCATCGGGCGCATTTGCC
TGAACGATGACGGTGGTCACTGTTGCCTGGTCAACAAGTGGAGCACATTCCTGAAGGCGCGGCTCGTCTGCTCTG
TCCCGGGCGAGGATGGCATTGAGACTCACTTTGATGAGCTCCAGGACGTGTTTGTCCAGCAGACCCAGGACGTGA
GGAACCCTGTCATTTACGCTGTCTTTACCTCCTCTGGCTCCGTGTTCCGAGGCTCTGCCGTGTGTGTCTACTCCA
TGGCTGATATTCGCATGGTCTTCAACGGGCCCTTTGCCCACAAAGAGGGGCCCAACTACCAGTGGATGCCCTTCT
CAGGGAAGATGCCCTACCCACGGCCGGGCACGTGCCCTGGTGGAACCTTCACGCCATCTATGAAGTCCACCAAGG
ATTATCCTGATGAGGTGATCAACTTCATGCGCAGCCACCCACTCATGTACCAGGCCGTGTACCCTCTGCAGCGGC
GGCCCCTGGTAGTCCGCACAGGTGCTCCCTACCGCCTTACCACTATTGCCGTGGACCAGGTGGATGCAGCCGACG
GGCGCTATGAGGTGCTTTTCCTGGGCACAGACCGCGGGACAGTGCAGAAGGTCATTGTGCTGCCCAAGGATGACC
AGGAGTTGGAGGAGCTCATGCTGGAGGAGGTGGAGGTCTTCAAGGATCCAGCACCCGTCAAGACCATGACCATCT
CTTCTAAGAGGCAACAACTCTACGTGGCGTCAGCCGTGGGTGTCACACACCTGAGCCTGCACCGCTGCCAGGCGT
ATGGGGCTGCCTGTGCTGACTGCTGCCTTGCCCGGGACCCTTACTGTGCCTGGGATGGCCAGGCCTGCTCCCGCT
ATACAGCATCCTCCAAGAGGCGGAGCCGCCGGCAGGACGTCCGGCACGGAAACCCCATCAGGCAGTGCCGTGGGT
TCAACTCCAATGCCAACAAGAATGCCGTGGAGTCTGTGCAGTATGGCGTGGCCGGCAGCGCAGCCTTCCTTGAGT
GCCAGCCCCGCTCGCCCCAAGCCACTGTTAAGTGGCTGTTCCAGCGAGATCCTGGTGACCGGCGCCGAGAGATTC
GTGCAGAGGACCGCTTCCTGCGCACAGAGCAGGGCTTGTTGCTCCGTGCACTGCAGCTCAGCGATCGTGGCCTCT
ACTCCTGCACAGCCACTGAGAACAACTTTAAGCACGTCGTCACACGAGTGCAGCTGCATGTACTGGGCCGGGACG
CCGTCCATGCTGCCCTCTTCCCACCACTGTCCATGAGCGCCCCGCCACCCCCAGGCGCAGGCCCCCCAACGCCTC
CTTACCAGGAGTTAGCCCAGCTGCTGGCCCAGCCAGAAGTGGGCCTCATCCACCAGTACTGCCAGGGTTACTGGC
GCCATGTGCCCCCCAGCCCCAGGGAGGCTCCAGGGGCACCCCGGTCTCCTGAGCCCCAGGACCAGAAAAAGCCCC
GGAACCGCCGGCACCACCCTCCGGACACATGAGGCCAGCTGCCTGTGCCTGCCATGGGCCAGCCTAGCCCTTGTC
CCTTTTAATATAAAAGATATATATATATATATATATATATATA

FIGURE 4080

CCCGAGTGCTTCCCGCAGAGGGCTGGTGGTGGGAGCGGAGTGGGTCGGGCGGGGCCGAGCCGGGCCGTGGGCCGT
GTGGGGGCCGGGCGGCGGCCGGGCCGGCGGACGGCGGG**ATG**GGCTGCACCGTGAGCGCCGAGGACAAGGCGGCGG
CCGAGCGCTCTAAGATGATCGACAAGAACCTGCGGGAGGACGGAGAGAAGGCGGCGCGGGAGGTGAAGTTGCTGC
TGTTGGGTGCTGGGGAGTCAGGGAAGAGCACCATCGTCAAGCAGATGAAGATCATCCACGAGGATGGCTACTCCG
AGGAGGAATGCCGGCAGTACCGGGCGGTTGTCTACAGCAACACCATCCAGTCCATCATGGCCATTGTCAAAGCCA
TGGGCAACCTGCAGATCGACTTTGCCGACCCCTCCAGAGCGGACGACGCCAGGCAGCTATTTGCACTGTCCTGCA
CCGCCGAGGAGCAAGGCGTGCTCCCTGATGACCTGTCCGGCGTCATCCGGAGGCTCTGGGCTGACCATGGTGTGC
AGGCCTGCTTTGGCCGCTCAAGGGAATACCAGCTCAACGACTCAGCTGCCTACTACCTGAACGACCTGGAGCGTA
TTGCACAGAGTGACTACATCCCCACACAGCAAGATGTGCTACGGACCCGCGTAAAGACCACGGGGATCGTGGAGA
CACACTTCACCTTCAAGGACCTACACTTCAAGATGTTTGATGTGGGTGGTCAGCGGTCTGAGCGGAAGAAGTGGA
TCCACTGCTTTGAGGGCGTCACAGCCATCATCTTCTGCGTAGCCTTGAGCGCCTATGACTTGGTGCTAGCTGAGG
ACGAGGAGATGAACCGCATGCATGAGAGCATGAAGCTATTCGATAGCATCTGCAACAACAAGTGGTTCACAGACA
CGTCCATCATCCTCTTCCTCAACAAGAAGGACCTGTTTGAGGAGAAGATCACACACAGTCCCCTGACCATCTGCT
TCCCTGAGTACACAGGGGCCAACAAATATGATGAGGCAGCCAGCTACATCCAGAGTAAGTTTGAGGACCTGAATA
AGCGCAAAGACACCAAGGAGATCTACACGCACTTCACGTGCGCCACCGACACCAAGAACGTGCAGTTCGTGTTTG
ACGCCGTCACCGATGTCATCATCAAGAACAACCTGAAGGACTGCGGCCTCTTC**TGA**GGGGCAGCGGGGCCTGGCG
GGATGGGCCACCGCCGACTTTGTACCCCCCAACCCCTGAGGAAGATGGGGGCAAGAAGATCACGCTCCCCGCCTG
TTCCCCCGCCGCTTTTCTCCTCTTTCCTCTCTTTGTTCTCAGCTCCCCCTGTCCCCTCAGCTCCAGACGTAGGGG
AGGGGTTGCCACAGGCCTCCCTGTTTGAAGCCTGCCCTTGTCTGAGATGCTGGTAATGGCCATGGTACCCCCTTC
TGGGCATCTGTTCTGGTTTTTAACCATTGTCTTGTTCTGTGATGAGGGGAGGGGGGCACATGCTGAGTCTCCCAA
GGCTGCGTCTGGAGGGGCCCCTGCTTCTCCAGCCTGGACCCCCAGCTTTGCCCAACACCAGCCCCTGCCCCAGCC
CAAGTCCAAATGTTTACAGGGAGCCTCCTGCCCAGTCCCCCAACCCCAGCCGCTCGGAGGCCCCAAAGGAAAAAG
CACAAGAAGCGTGAGACGCCACCATTCCTGGAAACCACAGTCC

FIGURE 4081

TCTGTGATTGTGGCCAGGCGGGGCACCCTCGGAGGGGAGGGTTCGGAAGTGGAATGCGACCCCCCAGCCTCTTTC
CCCTAGGGGCTGTAATCTGATCCCTGGGGACTCCCCCCCTAGCCTCCCGCCCTCGCCCTCACTGCTGACTCCTCT
TCCAGATCCTGGGGCAGAGTCCAGGGCAGCTCAAGGCTCCTCCACACACACACCCGCTGAACCCTGAGCACCCTG
AGCTGCTGAGATGGGGCGGGCCGGGGCTGCCGCCGTGATCCCGGGCCTGGCCCTGCTCTGGGCAGTGGGGCTGGG
GAGTGCCGCCCCCAGCCCCCACGCCTTCGGCTCTCCTTCCAAGAGCTCCAGGCCTGGCATGGTCTCCAGACTTTC
AGCCTGGAGCGAACCTGCTGCTACCAGGCCTTGCTGGTGGATGAGGAGCGTGGACGCCTGTTTGTGGGTGCCGAG
AACCATGTGGCCTCCCTCAACCTGGACAACATCAGCAAGCGGGCCAAGAAGCTGGCCTGGCCGGCCCCTGTGGAA
TGGCGAGAGGAGTGCAACTGGGCAGGGAAGGACATTGGTACTGAGTGC**ATG**AACTTCGTGAAGTTGCTGCATGCC
TACAACCGCACCCATTTGCTGGCCTGTGGCACGGGAGCCTTCCACCCAACCTGTGCCTTTGTGGAAGTGGGCCAC
CGGGCAGAGGAGCCCGTCCTCCGGCTGGACCCAGGAAGGATAGAGGATGGCAAGGGGAAGAGTCCTTATGACCCC
AGGCATCGGGCTGCCTCCGTGCTGGTGGGGGAGGAGCTATACTCAGGGGTGGCAGCAGACCTCATGGGACGAGAC
TTTACCATCTTTCGCAGCCTAGGGCAACGTCCAAGTCTCCGAACAGAGCCACACGACTCCCGCTGGCTCAATGAG
CCCAAGTTTGTCAAGGTATTTTGGATCCCGGAGAGCGAGAACCCAGACGACGACAAAATCTACTTCTTCTTTCGT
GAGACGGCGGTAGAGGCGGCGCCGGCACTGGGACGCCTGTCCGTGTCCCGCGTTGGCCAGATCTGCCGGAACGAC
GTGGGCGGCCAGCGCAGCCTGGTCAACAAGTGGACGACGTTCCTGAAGGCGCGGCTGGTGTGCTCGGTGCCCGGC
GTCGAGGGCGACACCCACTTCGATCAGCTCCAGGATGTGTTTCTGTTGTCCTCGCGGGACCACCGGACCCCGCTG
CTCTATGCCGTCTTCTCCACGTCCAGCAGCATCTTCCAGGGCTCTGCGGTGTGCGTGTACAGCATGAACGACGTG
CGCCGGGCCTTCTTGGGACCCTTTGCACACAAGGAGGGGCCCATGCACCAGTGGGTGTCATACCAGGGTCGCGTC
CCCTACCCGCGGCCAGGCATGTGCCCCAGCAAGACCTTTGGCACCTTCAGTTCCACCAAGGACTTCCCAGACGAT
GTCATCCAGTTTGCGCGGAACCACCCCCTCATGTACAACTCTGTCCTGCCCACTGGGGGGCGCCCTCTTTTCCTA
CAAGTTGGAGCCAATTACACCTTCACTCAAATTGCCGCGGACCGGGTTGCAGCCGCTGACGGACACTATGACGTC
CTCTTCATTGGCACAGACGTTGGCACGGTGCTGAAGGTGATCTCGGTCCCCAAGGGCAGTAGGCCCAGCGCAGAG
GGGCTGCTCCTGGAGGAGCTGCACGTGTTTGAGGACTCGGCCGCTGTCACCAGCATGCAAATTTCTTCCAAGAGG
CACCAGCTGTACGTAGCCTCGCGGAGCGCGGTGGCCCAGATCGCGTTGCACCGCTGCGCTGCCCACGGCCGCGTC
TGCACCGAATGCTGTCTGGCGCGTGACCCCTACTGCGCCTGGGACGGGGTCGCGTGCACGCGCTTCCAGCCCAGT
GCCAAGAGGCGGTTCCGGCGGCAAGACGTAAGGAATGGCGACCCCAGCACGTTGTGCTCCGGAGACTCGTCTCGT
CCCGCGCTGCTGGAACACAAGGTGTTCGGCGTGGAGGGCAGCAGCGCCTTTCTGGAGTGTGAGCCCCGCTCGCTG
CAGGCGCGCGTGGAGTGGACTTTCCAGCGCGCAGGGGTGACAGCCCACACCCAGGTGCTGGCAGAGGAGCGCACC
GAGCGCACCGCCCGGGGACTACTGCTGCGCAGGCTGCGGCGCCGGGACTCGGGCGTGTACTTGTGCGCCGCCGTC
GAGCAGGGCTTTACGCAACCGCTGCGTCGCCTGTCGCTGCACGTGTTGAGTGCTACGCAGGCCGAACGACTGGCG
CGGGCCGAGGAGGCTGCGCCCGCCGCGCCGCCGGGCCCCAAACTCTGGTACCGGGACTTTCTGCAGCTGGTGGAG
CCGGGCGGAGGTGGCAGCGCGAACTCCCTGCGCATGTGCCGCCCGCAGCCTGCGCTGCAGTCACTGCCCCTGGAG
TCGCGGAGAAAGGGCCGTAACCGGAGGACCCACGCCCCTGAGCCTCGCGCTGAGCGGGGGCCGCGCAGCGCAACG
CACTGG**TGA**CCAGACTGTCCCCACGCCGGGAACCAAGCAGGAGACGACAGGCGAGAGAGGAGCCAGACAGACCCT
GAAAAGAAGGACGGGTTGGGGCCGGGCACATTGGGGGTCACCGGCCGATGGAGACACCAACCGACAGGCCCTGGC
TGAGGGCAGCTGCGCGGGCTTATTTATTAACAGGATAACCCTTGAATGTAGCAGCCCCGGGAGGGCGGCACAGGT
CGGGCGCAGGATTCAGCCGGAGGGAAGGGACGGGGAAGCCGAGCTCCAGAGCAACGACCAGGGCCGAGGAGGTGC
CTGGAGTGCCCACCCTGGGAGACAGACCCCACCTCCTTGGGTAGTGAGCAGTGAGCAGAAAGCTGTGAACAGGCT
GGGCTGCTGGAGGTGGGGCGAGGCAGGCCGACTGTACTAAAGTAACGCAATAAACGCATTATCAGCCA

FIGURE 4082

ATGCCTCGCGCCCGTAAGGGCAACACGCTCCGGAAGGGTGGTCAGCGCCGTGGAGGAGGTGCCCGGAGCAGTGCC
CAAGCTGACTCGGGTTCCAGTGACGATGAGGCAGCCAGTGAGGCCCGCAGCACCGCCAGTGAATGCCCCAGCCTT
CTCAGCACCACTGCAGAGGACAGCCTTGGGGGGGATGTCGTGGATGAGCAGGGCCAGCAGGAAGACCTTGAGGAA
AAGCTGAAGGAGTATGTGGACTGTCTCACAGACAAGAGTGCCAAGACCCGGCAGGGTGCTCTTGAGAGCCTGCGC
CTGGCCCTAGCGTCCCGCCTACTCCCCGACTTCTTGCTGGAGCGCCGCCTCACGCTAGCCGATGCCCTGGAAAAG
TGCCTCAAGAAAGGGAAGGGCGAGGAACAAGCCCTGGCTGCTGCTGTGCTAGGCCTGCTCTGCGTGCAGCTGGGC
CCTGGACCTAAGGGTGAGGAGCTGTTTCACAGCCTGCAGCCTCTGCTGGTCTCTGTGCTCAGTGACAGCACAGCT
AGCCCTGCTGCCCGGCTCCACTGTGCTTCTGCCCTTGGCCTGGGCTGCTACGTGGCTGCCGCTGACATCCAGGAC
CTGGTCTCTTGCCTTGCCTGCTTAGAAAGTGTTTTCAGCCGGTTCTATGGCTTGGGGGGCAGCTCCACAAGTCCT
GTGGTTCCTGCCAGCCTGCACGGCCTGCTCTCTGCTGCCCTGCAGGCCTGGGCATTGCTGCTCACCATCTGCCCT
AGCACCCAAATCAGCCACATCCTTGACAGGCAGCTGCCCCGGCTGCCCCAGCTCTTGTCCAGTGAAAGTGTGAAC
CTGCGGATCGCTGCCGGTGAAACCATTGCACTGCTCTTTGAGCTTGCCCGGGACCTTGAGGAGGAGTTTGTTTAC
GAGGACATGGAGGCCCTCTGCAGTGTCCTGCGCACTCTGGCCACTGACAGTAACAAGTACCGTGCCAAGGCTGAT
CGTCGGCGCCAGCGCTCTACTTTCCGCGCCGTGCTGCACTCCGTGGAGGGCGGTGAATGCGAAGAAGAGATAGTG
CGCTTCGGCTTTGAGGTGCTCTACATGGACAGCTGGGCTCGGCACCGGATCTACGCTGCCTTCAAGGAAGTGCTG
GGTTCGGGCATGCACCACCACCTCCAGAACAATGAGGTACTCCGTGACATCTTTGGCCTGGGCCCTGTGCTGTTG
CTGGATGCCACTGCCCTGAAGGCCTGCAAGGTTCCACGCTTTGAGAAGCACCTGTACAATGCTGCTGCCTTCAAA
GCCCGGACCAAGGCTCGAAGCCGTGTGCGGGACAAGCGGGCAGACATCCTG**TGA**

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FIGURE 4083

AGCCAGGGTAGAGACTGAGTCGGCGCCTGGCGGGTGTTGTGACGCGCAAACCAGGGGCGGGTTCTAAGCGGCGAC
GCGCGGGTGCTGGGAGGCCTTAGAACGCCGTGGCGTGCCGCAGGACGCGACGGCTGCAGAACATCCGCCGCACCG
CTGGGGGCCAACGTTGTCGGACCGAGGAGTCCGAGGTGGCGACTGAGTGAGATACCCAGCTGTGCGGAGCTAGGA.
CGCGGAACATCCCAGAGGCCAGCATCAACATGTTTCCATCCTTGGGGA**ATG**ACCACGCAACTGGGCCCAGCCCTG
GTGCTGGGGGTGGCCCTGTGCCTGGGTTGTGGCCAGCCCCTACCACAGGTCCCTGAACGCCCCTTCTCTGTGCTG
TGGAATGTACCCTCAGCACACTGTGAGGCCCGCTTTGGTGTGCACCTGCCACTCAATGCTCTGGGCATCATAGCC
AACCGTGGCCAGCATTTTCACGGTCAGAACATGACCATTTTCTACAAGAACCAACTCGGCCTCTATCCCTACTTT
GGACCCAGGGGCACAGCTCACAATGGGGGCATCCCCCAGGCTTTGCCCCTTGACCGCCACCTGGCACTGGCTGCC
TACCAGATCCACCACAGCCTGAGACCTGGCTTTGCTGGCCCAGCAGTGCTGGATTGGGAGGAGTGGTGTCCACTC
TGGGCTGGGAACTGGGGCCGCCGCCGAGCTTATCAGGCAGCCTCTTGGGCTTGGGCACAGCAGGTATTCCCTGAC
CTGGACCCTCAGGAGCAGCTCTACAAGGCCTATACTGGCTTTGAGCAGGCGGCCCGTGCACTGATGGAGGATACG
CTGCGGGTGGCCCAGGCACTACGGCCCCATGGACTCTGGGGCTTCTATCACTACCCAGCCTGTGGCAATGGCTGG
CATAGTATGGCTTCCAACTATACCGGCCGCTGCCATGCAGCCACCCTTGCCCGCAACACTCAACTGCATTGGCTC
TGGGCCGCCTCCAGTGCCCTCTTCCCCAGCATCTACCTCCCACCCAGGCTGCCACCTGCCCACCACCAGGCCTTT
GTCCGACATCGCCTGGAGGAGGCCTTCCGTGTGGCCCTTGTTGGGCACCGACATCCCCTGCCTGTCCTGGCCTAT
GTCCGCCTCACACACCGGAGATCTGGGAGGTTCCTGTCCCAGGATGACCTTGTGCAGTCCATTGGTGTGAGTGCA
GCACTAGGGGCAGCCGGCGTGGTGCTCTGGGGGGACCTGAGCCTCTCCAGCTCTGAGGAGGAGTGCTGGCATCTC
CATGACTACCTGGTGGACACCTTGGGCCCCTATGTGATCAATGTGACCAGGGCAGCGATGGCCTGCAGTCACCAG
CGGTGCCATGGCCACGGGCGCTGTGCCCGGCGAGATCCAGGACAGATGGAAGCCTTTCTACACCTGTGGCCAGAC
GGCAGCCTTGGAGATTGGAAGTCCTTCAGCTGCCACTGTTACTGGGGCTGGGCTGGCCCCACCTGCCAGGAGCCC
AGGCCTGGGCCTAAAGAAGCAGTA**TAA**AGCCAGGGCCCCTGCCACTGCCTCTTCTTTTCCCTGCTGCCACTTTTC
CAGTCCTGGAACTACTCTGTCCCACTCTTGCTCTATTCAGTTTACAGTCAACCCTCCCAAGCACACACCCCGCTT
CCCTTGGAATCCCTGAGGGGTAGAAGGGGCCAGAAAAAACGCTTATAAAACCAGAGGCCCTCTGAGATCATGTGA
GTCCTCCATGGCAAGGAAGCAGTTCCAGGGAGAGTCAGGTTCCAGCTAGTTAGGGCTGCCAGCCTAGGGCTTTGT
GCCTACACCTCACTAAGCCCATGGAGAGGTCACAGATGGGCCGTGCACGGGCAGATGGGCCCCAAAAAATCTTGG
CGAAGGTCGGTAAAGTGCTAAGCTGTTGTCTGCACTCTTTCATCATAAAGTCACTTTTTTCCACTGC

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FIGURE 4084

CTGGGAGGCCTTAGAACGCCGTGGCGTGCCGCAGGACGCGACGGCTGCAGAACATCCGCCGCACCGCTGGGGGCC
AACGTTGTCGGACCGAGGAGTCCGAGGTGGCGACTGAGTGAGATACCCAGCTGTGCGGAGCTAGGACGCGGAACA
TCCCAGAGGCCAGCATCAACATTGGTGGACTAGGAGGACTACTGGAAGACAGAAGGCCAGCAAGTAGATTGGGTC
GGCTGTTTTATAGACCTGGTGGTTACAGACCCCCTGTGAGGGGAGGTCCTGAGGAGGACAAATTTGTAGCCAGAG
CAGGCTGGGGCCAGGACTCCTAGGTTCTGCCCCAGCCTTAAGCAGCTCATCCATCACTCCCAGCCTCCCTCCAAT
GTGGGGTAGACACCTGGATCTATCTGCCCTGCTCTATAGGGGATGGGTCTCTTCCAGGTCACCTGTGCTATCAGG
TGAGTGTGGGACAAAGTGCAGCCCACCACTCCCCAGTTCCAGTATGCATGGTCCCCCCTGCACTCTGTCAGCCCT
TCCCTGCTCCAACCCCACCCTCCCTCCTGGCACAGCCCAGCATGGCTGTTATCTACAGGAGGAGAGCCACTGTGG
TCTGAAGAGATGCTACTGCCTGGAGACTGGGGTCTTAACCTCCAGCCTGGCACTGAGCCACCTGCAACCTAGCAG
CAGGTGACCTTGGCTCCCAGCCTGACTCAGCTGAACCTGGATCCTGTGCATAGGCAAGAGCTGACTCTGAGCCCT
GGCCCAGCCAAGCTGACCCCTACACTAGACCCTACACACCGG**ATG**GAGCTGATCCTGAGTACCAGCCCAGCTGAG
CTGACTCTGGATCCTGCGTGCCAGCCAAAGCTGCCCCTGGATTCCACATGCCAACCAGAGATGACCTTCAATCCT
GGTCCAACTGAGCTTACCCTGGATCCTGAACACCAGCCAGAGGAGACCCCAGCTCCTAGCCTGGCTGAGTTGACC
CTGGAGCCTGTGCACCGCCGACCCGAGCTCCTGGATGCTTGTGCTGACCTCATCAATGATCAGTGGCCCCGCAGC
CGCACCTCCCGCCTGCACTCCCTGGGCCAGTCCTCAGATGCCTTCCCCCTCTGCCTGATGCTGCTAAGCCCCCAC
CCCACACTTGAAGCAGCACCCGTTGTGGTGGGCCATGCCCGCCTGTCACGGGTGCTGAACCAGCCCCAGAGCCTC
TTAGTGGAGACAGTGGTGGTGGCCCGGGCCCTGAGGGGCCGTGGCTTTGGCCGCCGCCTCATGGAGGGCCTGGAG
GTCTTTGCTCGGGCCCGGGGCTTCCGCAAGCTGCATCTCACCACCCATGACCAGGTGCACTTCTATACCCACCTG
GGCTACCAGCTGGGTGAGCCTGTGCAGGGCCTGGTCTTCACCAGCAGACGGCTGCCTGCCACCCTGCTTAATGCC
TTCCCCACAGCCCCCTCTCCCCGGCCACCCAGGAAGGCCCCAAACCTGACTGCCCAAGCTGCCCCAAGGGGTCCC
AAGGGACCTCCATTGCCACCACCCCCTCCCCTACCTGAGTGCCTGACCATCTCACCCCCAGTTCCATCAGGGCCC
CCTTCAAAAAGCCTGCTGGAGACACAATATCAAAATGTGAGGGGGCGCCCCATATTCTGGATGGAAAAAGACATC
TGAGGCCATCCAGGGCAAGGAACTGTCTTTCTGGTTCAATAGACTGCCCCGACAGTCTACAAGCCTCAGCCCACT
GACCATACCTCAGCCCCTAGCCCCTGGGGGGCAGCTTTAACCTGGGCATGTTTCCTGGGTACCAGTGGGGCCAGG
AGGTGGCTCTGGCTCAGAGCCGTCAGTGTGGCTGAATAAAGGCTCTCTTGGGT

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FIGURE 4085

TTCCTCCAGGAGTCTCTGGTGCAGCTGGGGTGGAATCTGGCCAGGCCCTGCTTAGGCCCCCATCCTGGGGTCAGG
AAATTTGGAGGATAAGGCCCTTCAGCCCCAAGGTCAGCAGGGACGAGCGGGCAGACTGGCGGGTGTACAGGAGGG
CTGGGTTGACCTGTCCTTGGTCACTGAGGCCATTGGATCTTCCTCCAGTGGCTGCCAGGATTTCTGGTGGAAGAG
ACAGGAAGGCCTCCCCCCCTTGGTCGGGTCAGCCTGGGGGCTGAGGGCCTGGCTGTCAGCCACTCTTCCCAGAAC
ATATGTCATGGCCTCAGTGGCTCATGGGGAAGCAGGGGTGGGCGAGCTTAGGCTAGAGCAAGTCCTGTGGGAGAT
GGCAGAGGCCTGGTCTGAGAGGCAACTCGGATGTGCCCTCCAGTGGCCATGCTCCCCTCCATGCGTCTCCCCTGC
CCTCCTGGAGCCCTGCAGGTCAATGTTTAACAGAAACCAGAGCAGCGGTGGATTAATGCGCAAGGGCTCAGCCCC
CCAGCCCTGAGCAGTGGGGGAATCGGAGACTTTGCAACCTGTTCTCAGCTCTGCCTCCCCTGGCCAGGTTGTCCT
CGACCAGTCCCGTGCC**ATG**GCAGCCCACCTGCTTCCCATCTGCGCCCTCTTCCTGACCTTACTCGATATGGCCCA
AGGCTTTAGGGGCCCCTTGCTACCCAACCGGCCCTTCACCACCGTCTGGAATGCAAACACCCAGTGGTGCCTGGA
GAGGCACGGTGTGGACGTGGATGTCAGTGTCTTCGATGTGGTAGCCAACCCAGGGCAGACCTTCCGCGGCCCTGA
CATGACAATTTTCTATAGCTCCCAGCTGGGCACCTACCCCTACTACACGCCCACTGGGGAGCCTGTGTTTGGTGG
TCTGCCCCAGAATGCCAGCCTGATTGCCCACCTGGCCCGCACATTCCAGGACATCCTGGCTGCCATACCTGCTCC
TGACTTCTCAGGGCTGGCAGTCATCGACTGGGAGGCATGGCGCCCACGCTGGGCCTTCAACTGGGACACCAAGGA
CATTTACCGGCAGCGCTCACGGGCACTGGTACAGGCACAGCACCCTGATTGGCCAGCTCCTCAGGTGGAGGCAGT
AGCCCAGGACCAGTTCCAGGGAGCTGCACGGGCCTGGATGGCAGGCACCCTCCAGCTGGGGCGGGCACTGCGTCC
TCGCGGCCTCTGGGGCTTCTATGGCTTCCCTGACTGCTACAACTATGACTTTCTAAGCCCCAACTACACCGGCCA
GTGCCCATCAGGCATCCGTGCCCAAAATGACCAGCTAGGGTGGCTGTGGGGCCAGAGCCGTGCCCTCTATCCCAG
CATCTACATGCCCGCAGTGCTGGAGGGCACAGGGAAGTCACAGATGTATGTGCAACACCGTGTGGCCGAGGCATT
CCGTGTGGCTGTGGCTGCTGGTGACCCCAATCTGCCGGTGCTGCCCTATGTCCAGATCTTCTATGACACGACAAA
CCACTTTCTGCCCCTGGATGAGCTGGAGCACAGCCTGGGGGAGAGTGCGGCCCAGGGGGCAGCTGGAGTGGTGCT
CTGGGTGAGCTGGGAAAATACAAGAACCAAGGAATCATGTCAGGCCATCAAGGAGTATATGGACACTACACTGGG
GCCCTTCATCCTGAACGTGACCAGTGGGGCCCTTCTCTGCAGTCAAGCCCTGTGCTCCGGCCATGGCCGCTGTGT
CCGCCGCACCAGCCACCCCAAAGCCCTCCTCCTCCTTAACCCTGCCAGTTTCTCCATCCAGCTCACGCCTGGTGG
TGGGCCCCTGAGCCTGCGGGGTGCCCTCTCACTTGAAGATCAGGCACAGATGGCTGTGGAGTTCAAATGTCGATG
CTACCCTGGCTGGCAGGCACCGTGGTGTGAGCGGAAGAGCATGTGG**TGA**TTGGCCACACACTGAGTTGCACATAT
TGAGAACCTAATGCACTCTGGGTCTGGCCAGGGCTTCCTCAAATACATGCACAGTCATACAAGTCATGGTCACAG
TAAAGAGTACACTCAGCCACTGTCACAGGCATATTCCCTGCACACACATGCATACTTACAGACTGGAATAGTGGC
ATAAGGAGTTAGAACCACAGCAGACACCATTCATTCCATGTCCATATGCATCTACTTGGCAAGGTCATAGACAAT
TCCTCCAGAGACACTGAGCCAGTCTTTGAACTGCAGCAATCACAAAGGCTGACATTCACTGAGTGCCTACTCTTT
GCCAATCCCCGTGCTAAGCGTTTTATGTGGACTTATTCATTCCTCACAATGAGGCTATGAGGAAACTGAGTCACT
CACATTGAGAGTAAGCACGTTGCCCAAGGTTGCACAGCAAGAAAAGGGAGAAGTTGAGATTCAAACCCAGGCTGT
CTAGCTCCGGGGGGTACAGCCCTTGCACTCCTACTGAGTTTGTGGTAACCAGCCCTGCACGACCCCTGAATCTGCT
GAGAGGCACCAGTCCAGCAAATAAAGCAGTCATGATTTACTT

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FIGURE 4086

GAGGCGCTGAGCCGGGCCGCGCCTGGGCGAACGGCCGGAGCGGGCTGGGCTGGGCCCGGGATGGCGGTGGCCCTG
GCGCCGGTCCCGGTGGCGCCCCGCGCGAGTTCCTGAGCTGGTGCCAGGCAGGTGACACCTCCTGCAGCCCCCAGC
ATGCGGGCAGGCCCAGGCCCCACCGTTACATTGGCCCTGGTGCTGGCGGTGTCATGGGCCATGGAGCTCAAGCCC
ACAGCACCACCCATCTTCACTGGCCGGCCCTTTGTGGTAGCGTGGGACGTGCCCACACAGGACTGTGGCCCACGC
CTCAAGGTGCCACTGGACCTGAATGCCTTTGATGTGCAGGCCTCACCTAATGAGGGTTTTGTGAACCAGAATATT
ACCATCTTCTACCGCGACCGTCTAGGCCTGTATCCACGCTTCGATTCTGCCGGAAGGTCTGTGCATGGTGGTGTG
CCACAGAATGTCAGCCTTTGGGCACACCGGAAGATGCTGCAGAAACGTGTGGAGCACTACATTCGGACACAGGAG
TCTGCGGGGCTGGCGGTCATCGACTGGGAGGACTGGCGACCTGTGTGGGTGCGCAACTGGCAGGACAAAGATGTG
TATCGCCGGTTATCACGCCAGCTAGTGGCCAGTCGTCACCCTGACTGGCCTCCAGACCGCATAGTCAAACAGGCA
CAATATGAGTTTGAGTTCGCAGCACAGCAGTTCATGCTGGAGACACTGCGTTATGTCAAGGCAGTGCGGCCCCGG
CACCTCTGGGGCTTCTACCTCTTTCCTGACTGCTACAATCATGATTATGTGCAGAACTGGGAGAGCTACACAGGC
CGCTGCCCTGATGTTGAGGTGGCCCGCAATGACCAGCTGGCCTGGCTGTGGGCTGAGAGCACGGCCCTCTTCCCG
TCTGTCTACCTGGACGAGACACTTGCTTCCTCCCGCCATGGCCGCAACTTTGTGAGCTTCCGTGTTCAGGAGGCC
CTTCGTGTGGCTCGCACCCACCATGCCAACCATGCACTCCCAGTCTACGTCTTCACACGACCCACCTACAGCCGC
AGGCTCACGGGGCTTAGTGAGATGGACCTCATCTCTACCATTGGCGAGAGTGCGGCCCTGGGCGCAGCTGGTGTC
ATCCTCTGGGGTGACGCGGGGTACACCACAAGCACGGAGACCTGCCAGTACCTCAAAGATTACCTGACACGGCTG
CTGGTCCCCTACGTGGTCAATGTGTCCTGGGCCACCCAATATTGCAGCCGGGCCCAGTGCCATGGCCATGGGCGC
TGTGTGCGCCGCAACCCCAGTGCCAGTACCTTCCTGCATCTCAGCACCAACAGTTTCCGCCTAGTGCCTGGCCAT
GCACCTGGTGAACCCCAGCTGCGACCTGTGGGGGAGCTCAGTTGGGCCGACATTGACCACCTGCAGACACACTTC
CGCTGCCAGTGCTACTTGGGCTGGAGTGGTGAGCAATGCCAGTGGGACCATAGGCAGGCAGCTGGAGGTGCCAGC
GAGGCCTGGGCTGGGTCCCACCTCACCAGTCTGCTGGCTCTGGCAGCCCTGGCCTTTACCTGGACCTTG**TAG**GGG
TCTCCTGCCTAGCTGCCTAGCAAGCTGGCCTCTACCACAAGGGCTCTCTTAGGCATGTAGGACCCTGCAGGGGGT
GGACAAACTGGAGTCTGGAGTGGGCAGAGCCCCCAGGAAGCCCAGGAGGGCATCCATACCAGCTCGCACCCCCCT
GTTCTAAGGGGGAGGGGAAGTCCCTGGGAGGCCCCTTCTCTCCCTGCCAGAGGGGAAGGAGGGTACAGCTGGGCT
GGGGAGGACCTGACCCTACTCCCTTGCCCTAGATAGTTTATTATTATTATTATTTTGGGGTCTCTTTTGTAAATT
AAACATAAAACAATTGC

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FIGURE 4087

GTTTCCGTGGAGACAGCCGAGCCTGCGGAAGGCGGCGGCGGCGGCACCTGCGATCAGCGGCTGGGGCAGGTTATG
GTAGTGCGGACTGCGGTGTGAGCAGAGCGGCCACGGGGCCCGCCATGCGCCGGCGGCCCTGAC**ATG**GGCGCCAGC
GGGTCCAAAGCTCGGGGCCTGTGGCCCTTCGCCTCGGCGGCCGGAGGCGGCGGCTCAGAGGCAGCAGGAGCTGAG
CAAGCTTTGGTGCGGCCTCGGGGCCGAGCTGTGCCCCCCTTCGTATTCACGCGCCGCGGCTCTATGTTCTATGAT
GAGGATGGGGATCTGGCTCACGAGTTCTATGAGGAGACAATCGTCACCAAGAACGGGCAGAAGCGGGCCAAGCTG
AGGCGAGTGCATAAGAATCTGATTCCTCAGGGCATCGTGAAGCTGGATCACCCCCGCATCCACGTGGATTTCCCT
GTGATCCTCTATGAGGTG**TGA**CCCTGGGAGGTGGCAGACAGAAGCACCCCCTGCCCCGGCAAGAAACTCCCAGGC
TCAATCAAGGTGTGGCTTCCATTGAGGAGCCCAGGCTGGGGCCACAACCCTGAATAAACTCTGTTGGCCCATAAC
CTTCAGCTGTGAGCGGGTCGGTCCCACAGTATTGGTTGGGTGTTGGTTTGTGTGTGGACAAGAGGTGGTTGGTGG
GTGGTGAAGGCTAATGGCAGAGTTAGCACCCCACTCTCCCAAGCCACCCCTGCAAGCAGCACAGCAGGGCATATA
CCAGTCAGGAATGCCCGTTACCTGGTTCCTTGCCTGGTCTGCTTTCTTCCAAGTTTGCCTGGGGCCTAGCCCTGC
TAGAGGCTACAGCACTTTACAAGCAAGGTATGCTTTCTTCCAGCCCCTAGGCTGTGGGCACTGTATACAAGTAGG
AACTTCCTTTCCTTCACTTCCCTTTTAACCCCTAGTCAGAGCATTTCAGCCGTTTGCTACCTCGATTCCTCCTGT
GTTGGACAGAGGCTGGGGGCAGTGCCAGCCTGATTCTTCCGACCTACCTGCCATTTGTTCCCGCCTTCAGATGGA
TGGACAGTTTGCTGGCTATTGATAGGAGTGGGGACTGGGTGGGGGCTTCTCCCTCTACCCAGGGCTGGGCTGATC
CCCCTACTGCAACTAACTGTTGCCCCCCAACCCCGAACCCCCAGTTGAGGAGTTGAGAGAGTGCAGGCTGGGGTC
AGGACAGGCTGCGGATGCTTGTGCCTATGGGGAGTTACTCCAACCCACCTATTCTGTCTAATCTCCATGGCTTTG
CACCAAATCCTCCACCCCTCCAATTGGGAGGGGACTGTTCACCACCTTGTGGTAAGGGACAACACCCTAAGGCTG
GTGCCAGTAGTTATGAGTAGCCTACCACCCCCTCCCTTACAGTAACCCCCACCCCTTCAGGATCAGTCAAGGGAA
AGCACTAGAACCCCTGGGTAGGGAAAGAAAGGAGGGAAAAACCATAAAAGGAATACTTATAATGTGAAGGTTTGT
AAATAGTCCATGATGATGTCGTGGCAGAGTCTGATTTCTATATAGAGGTGACTTTTTTTTTAAGTACTGTGCAAG
CTCTGTGCTTCTATAATGTGGGAAATGGCTTGGGGAGGATGGCCCCTAGCTTAGGAAGACTGTTGTGTTATTTGT
TCAATTTCAATAAAATGATTTGTAGATCCTGC

FIGURE 4088

TCTCCTCAGCTCCTTCCCGCCGCCCAGTCTGGATCCTGGGGGAGGCGCTGAAGTCGGGGCCCGCCCTGTGGCCCC
GCCCGGCCCGCGCTTGCTAGCGCCCAAAGCCAGCGAAGCACGGGCCCAACCGGGCC**ATG**TCGGGGGAGCCTGAGC
TCATTGAGCTGCGGGAGCTGGCACCCGCTGGGCGCGCTGGGAAGGGCCGCACCCGGCTGGAGCGTGCCAACGCGC
TGCGCATCGCGCGGGGCACCGCGTGCAACCCCACACGGCAGCTGGTCCCTGGCCGTGGCCACCGCTTCCAGCCCG
CGGGGCCCGCCACGCACACGTGGTGCGACCTCTGTGGCGACTTCATCTGGGGCGTCGTGCGCAAAGGCCTGCAGT
GCGCGCATTGCAAGTTCACCTGCCACTACCGCTGCCGCGCGCTCGTCTGCCTGGACTGTTGCGGGCCCCGGGACC
TGGGCTGGGAACCCGCGGTGGAGCGGGACACGAACGTGGACGAGCCTGTGGAGTGGGAGACACCTGACCTTTCTC
AAGCTGAGATTGAGCAGAAGATCAAGGAGTACAATGCCCAGATCAACAGCAACCTCTTCATGAGCTTGAACAAGG
ACGGTTCTTACACAGGCTTCATCAAGGTTCAGCTGAAGCTGGTGCGCCCTGTCTCTGTGCCCTCCAGCAAGAAGC
CACCCTCCTTGCAGGATGCCCGGCGGGGCCCAGGACGGGGCACAAGTGTCAGGCGCCGCACTTCCTTTTACCTGC
CCAAGGATGCTGTCAAGCACCTGCATGTGCTGTCACGCACAAGGGCACGTGAAGTCATTGAGGCCCTGCTGCGAA
AGTTCTTGGTGGTGGATGACCCCCGCAAGTTTGCACTCTTTGAGCGCGCTGAGCGTCACGGCCAAGTGTACTTGC
GGAAGCTGTTGGATGATGAGCAGCCCCTGCGGCTGCGGCTCCTGGCAGGGCCCAGTGACAAGGCCCTGAGCTTTG
TCCTGAAGGAAAATGACTCTGGGGAGGTGAACTGGGACGCCTTCAGCATGCCTGAACTACATAACTTCCTACGTA
TCCTGCAGCGGGAGGAGGAGGAGCACCTCCGCCAGATCCTGCAGAAGTACTCCTATTGCCGCCAGAAGATCCAAG
AGGCCCTGCACGCCTGCCCCCTTGGG**TGA**CCTCTTGTACCCCCAGGTGGAAGGCAGACAGCAGGCAGCGCCAAGT
GCGTGCCGTGTGAGTGTGACAGGGCCAGTGGGGCCTGTGGAATGAGTGTGCATGGAGGCCCTCCTGTGCTGGGGG
AATGAGCCCAGAGAACAGCGAAGTAGCTTGCTCCCTGTGTCCACCTGTGGGTGTAGCCAGGTATGGCTCTGCACC
CCTCTGCCCTCATTACTGGGCCTTAGTGGGCCAGGGCTGCCCTGAGAAGCTGCTCCAGGCCTGCAGCAGGAGTGG
TGCAGACAGAAGTCTCCTCAATTTTTGTCTCAGAAGTGAAAATCTTGGAGACCCTGCAAACAGAACAGGGTCATG
TTTGCAGGGGTGACGGCCCTCATCTATGAGGAAAGGTTTTGGATCTTGAATGTGGTCTCAGGATATCCTTATCAG
AGCTAAGGGTGGGTGCTCAGAATAAGGCAGGCATTGAGGAAGAGTCTTGGTTTCTCTCTACAGTGCCAACTCCTC
ACACACCCTGAGGTCAGGGAGTGCTGGCTCACAGTACAGCATGTGCCTTAATGCTTCATATGAGGAGGATGTCCC
TGGGCCAGGGTCTGTGTGAATGTGGGCACTGGCCCAGGTTCATACCTTATTTGCTAATCAAAGCCAGGGTCTCTC
CCTCAGGTGTTTTTTATGAAGTGCGTGAATGTATGTAATGTGTGGTGGCCTCAGCTGAATGCCTCCTGTGGGGAA
AGGGGTTGGGGTGACAGTCATCATCAGGGCCTGGGGCCTGAGAGAATTGGCTCAATAAAGATTTCAAGATCC

FIGURE 4089

ATGGCCCTTTCTGCGGAGACCGAGTCACACATCTACCGAGCTCTGCGTACTGCTTCTGGCGCTGCCGCCCACCTT
GTGGCCCTGGGCTTTACCATCTTTGTGGCTGTGCTTGCCAGGCCTGGCTCCAGCCTGTTCTCCTGGCACCCGGTG
CTTATGTCTTTGGCTTTCTCCTTCCTGATGACCGAGGCACTACTGGTGTTTTCTCCTGAGAGTTCGCTGCTGCAC
TCCCTCTCACGGAAAGGCCGAGCACGCTGCCACTGGGTGCTGCAGCTGCTGGCCCTGCTGTGTGCACTGCTGGGC
CTCGGCCTTGTCATCCTCCACAAAGAGCAGCTTGGCAAAGCCCACCTGGTTACGCGGCATGGGCAGGCAGGGCTG
CTGGCTGTGCTGTGGGCAGGGCTGCAGTGCTCAGGTGGGGTGGGGCTGCTCTACCCCAAGCTGCTGCCCCGATGG
CCCCTGGCGAAGCTCAAGCTATACCATGCTACTTCTGGGCTGGTGGGCTACCTGCTGGGTAGTGCCAGCCTCTTG
CTGGGCATGTGCTCACTCTGGTTCACTGCCTCTGTCACTGGTGCAGCCTGGTACCTGGCTGTATTATGCCCTGTC
CTCACCAGCTTGGTCATTATGAACCAGGTGAGCAATGCCTACCTATACCGCAAGAGGATCCAACCA**TGA**

FIGURE 4090

CGCTTAGAGGACAGCCCGCTGCCGCCGGGGACGCGCAGGCGCAGCACCCCTGTTTGTCGGCCCCCCGAGAGAAGA
GGTACGGTCGAAGCCAGGAGCCAGGCCGAGCGGGAGCTGACCAGGCTTGACTCGGGTACAGAACGAGGCACCAGT
CCCCTTGCGAACCGAAGGGCCTCGCAGTGGATGGAGGAGGCCCAGCCCTGAGGTCAACGCCAACCAGGCTAGCCT
GGCACGGGGCCTACAGGGTGGGTAGGCGGGCGTGCCGCAGCCGTCCAGGGCCTTCCCTCAGGTCCCGGGCGAGGG
GCCTACGCTGCGGCCCGGCAACAAGGCCCGACTCGGCCCCTCGGGACCAGAGCCCCACCCGATCGGAAGCGGATC
CTTTACCAGGGCCATAGGCCAGTGACTAGGCCGGGCCTGGGCCTCCCATCGGGGCCGGACTAGGACGAGGCCCCG
GGGAGGCCCCTGGCCTACCAGACCCTTTTCTCAGGCCGACAGCCGCCAGGAAG**ATG**CAACGTGCCCTGCCAGGCG
CCCGCCAGCACTTGGGGGCCATTCTGGCCAGCGCCAGCGTGGTGGTGAAGGCTCTGTGTGCGGCGGTACTATTCC
TCTACCTGCTCTCCTTCGCCGTGGACACAGGCTGCCTGGCGGTCACCCCGGGCTACCTCTTTCCTCCCAACTTCT
GGATCTGGACCCTGGCCACCCATGGGCTGATGGAGCAGCATGTGTGGGACGTGGCCATCAGCCTGACAACGGTGG
TGGTGGCCGGGCGTTTGCTGGAGCCCCTCTGGGGGGCCTTGGAGCTGCTCATCTTCTTCTCAGTGGTGAATGTGT
CTGTAGGGCTGCTGGGGGCCTTCGCCTACCTCCTCACCTACATGGCTTCCTTCAACCTGGTCTACCTGTTCACTG
TCCGTATCCACGGCGCCTTGGGCTTCCTAGGTGGCGTCCTGGTGGCACTCAAGCAAACCATGGGGGACTGTGTGG
TCCTGCGAGTGCCCCAGGTGCGCGTCAGTGTGATGCCCATGCTGCTGCTGGCGCTGCTGCTCCTGCTGCGGCTCG
CCACGCTGCTCCAGAGCCCGGCGCTGGCTTCCTATGGCTTCGGGCTGCTCTCCAGTTGGGTATATCTTCGCTTCT
ACCAGCGCCATAGCCGGGGCCGAGGGGACATGGCTGACCACTTTGCTTTCGCCACTTTCTTCCCTGAGATCCTGC
AGCCTGTGGTGGGTTTGCTGGCGAACTTGGTGCACAGCCTCCTGGTGAAGGTAAAGATATGCCAGAAGACGGTGA
AGCGCTACGATGTGGGTGCCCCATCCTCCATCACCATCAGCCTGCCAGGCACAGACCCTCAAGACGCCGAGCGGA
GAAGGCAACTGGCCCTGAAGGCACTCAATGAGCGGCTGAAGAGAGTGGAAGACCAGTCCATCTGGCCCAGCATGG
ATGATGATGAAGAGGAGTCTGGGGCCAAGGTGGACAGCCCCCTGCCCTCAGACAAAGCTCCCACACCCCCAGGGA
AGGGGGCTGCCCCAGAATCCAGTCTAATCACCTTCGAGGCAGCTCCCCCGACGCTG**TAA**CTCCAGACCACCTTGA
GTGTGGCACCTCCCCTCCCAAGCCCCCCTTGACATCCTCTCAGCTACTCCAGGGCACCTGACTGCTCTGAGGAGA
GGGAAGAAGGCCTGCTGGGGCTTTCCATGGCCTTCTGCTGTTTCTCGCCAACACTACCCAGGACTCTTGCTACCT
GGTTCCAACTCCAGACAACCACTATGCCAGGCCCGGAGCCTCTGAGGCATCGGCCAGTCCAGGCCCTCATCTGAG
GTAAGAATGTACATCAGCTGGCAGCCCCAAGCAAGTGGCTGCAGGGACACTGATGCCACAGCTCCTGGGCCGGCC
CTCACATCTGAAACTGGTTGCCGAGAGCCCTGAGCCAAGGCAAGGATTTGCCAAAAATGTTCTGGGGGCCCAGCA
AATGCAGGAGCCGACCTGGGGCTGCACATCCCTGCCCATCCCCAGAAAGACTGTTCCTGTCAGGATTTGTTTCCC
TCTGCTGTGGCGGTGACTGCTTCTGGACCAGAACAGCTCCAGCTCCCAGGTATTTTCTACAGGACCACTTGAGTG
GGCAGCCAAGCCCAGGCTCGCAGTATCAATAAAGCAGTTCTCTG

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FIGURE 4091

GAGGTCACAAGCTCTGGTGCCCCAAAATGGCTCTGGTCCTCAGATATAGTTGGTTGCCACCCTGGGAGTGAGAGG
AACCAGGAAAGCAGCACCCAGGAAGGCAGGGGGCTCCCTTTATCCAAGGAGGTGGCTGTGCAGGTGGCCACCACA
GGTGGCAGGAACCACAGGCTGGGGCACTCCGGAGTCAGGAGTGAGTGGGCAGGTTGACTGGCATCAGGCAGCCTC
TCAGCCAGGGCCCTCTCCGCATCAGC**ATG**AACTCCAGGACCGCATCTGCTAGGGGCTGGTTCAGCAGCCGCCCAC
CCACCTCTGAGTCTGACCTGGAACCTGCCACAGATGGGCCAGCCTCCGAGACCACTACCCTCAGCCCAGAGGCCA
CCACCTTTAATGACACCAGAATCCCTGATGCAGCTGGTGGCACGGCCGGCGTGGGTACCATGCTTCTGTCCTTTG
GGATCATCACGGTGATAGGCCTGGCTGTGGCCTTGGTTTTGTACATCAGGAAGAAGAAGAGGCTGGAGAAGCTAC
GCCACCAGCTCATGCCCATGTACAACTTCGACCCCACGGAGGAACAAGATGAGTTGGAGCAGGAGCTGCTGGAGC
ATGGGCGGGACGCCGCCTCTGTACAGGCTGCTACTTCTGTGCAGGCCATGCAGGGCAAGACTACTCTGCCCTCCC
AGGGCCCACTGCAGAGACCCAGCCGGCTGGTGTTTACCGATGTGGCCAATGCCATCCATGTG**TGA**GTGGCCTGGG
ACAAGCCTGGACTTCTGATAGAGACCCATCACGGTGCCTACAGAGCTCCCCACTCCCTGATTGTCAAGACCTACT
CTGAAGATCTTCCCTGCCAAGACACAAGAGGGCTGAGCCAGGTCCTAGCTGTTCTCCAGACCCACCTGCTGACTT
TAGACTCTAAGAGAGGGCCCTAGCCAGGCTGGACTTCTGACCACTGACTTCTCCTGACCTGAGGGCCCTGGCACA
GAGGGCATCCCTCATGCTGAGAAGGTCAAGAGCCTCTGCTGGCTTCCTCATCCCCTGTCCAGATCCCTCACATCA
GGGTCTGCCCCGCTAATGTGGAGGAAATGAGGGAGATACGGAGTGGGAGGGATTGGGGGAGGAAAGGGGAGGTTT
CCCTCTGTTAGGGAGAGACCTGTTTTTTGGAATCTGGAGCCTCCTCTGGGGTGGGGAGAGGAAACCACCCAAGTT
ATAGGGACAGGGTAGGGCAGCATCTGTTATGGGCCCTGAGAAGCCCAGAGATGGAGCTGAAACTGTCCAGTATGC
AAGGATGCCAGGAGAAGGGCAATTCACACCCAGGGTCCATCCATACTACGGAGGGTCCAGGAGGTCTCCCAGCCA
CCCATCCTTGGCAACCAGATGTTACTGGGGCCAAGCTAGGATGGGAGCTGAGGGGGAAGGAAGTAGGGGAATGGA
AGTGGAAGGATGCAGCCCCCCCAGACCTGCCGAGAGGCCTCATGCATGTGCATGAGTGTGCCCATGGGCAGACAT
GTGCCTGTCCCAGCACAGCGGGCAGAATGAGATTGTCCACACTGGCCCCACCCTCCAAGTCGACCTCTACCCCAT
GGTATGTAGTGGAGCATCAGGGTAGGCTATCTTCTCTGCCTTCAATCTTCAGGGACTGCAGGGAAGAGGGAAGCA
CGCACAGCACGGTTCCTCTCTCCACTGCATTGTTTCACTGGGCTCACCTGCTTCTGAAAACGGCTCCCTGTCTTG
GGCTCTAATGAGGATCTGGGGTTGGGAGAGGCTGTTGGTCTGAGGGCAGTAATCACAGGCTGCAGGCTAGAGGGG
GCAGTTATGACTGCCTGAAAGTGGGTGAGGGATTGCACTTCAGAAAAACATCTAAAAAACTTAGTCTATGTTTGA
ATTCCCCACCTCCATCCCATCTATGGGAAGAGCCGTTCAGTGTTTAGAGAGTGGGGAGATGGGTCCCTGCACTTG
GCCTCTCCATAAGCCTTGGAGGGTCAGGGCTGATACCAGGGGTCCTGGCAAGCCATTGGGCAGAGACAGACCACA
AGAGCAGGGCATTTTTTTACGCTGGGCATACATATGCACACAAGCATGCACAGAGGCATGTCCCGTGCCCAGCCT
CTCCACCGTCACTGTCCGCTGCTGGCTGGAGGGGATGCAGGGGTAGTGTATGCAGACCTTCCACTGGGCAAATGC
CATGTGTCAGGAGGGAAAGGCCTAGGAAGCCCCCATGGGGAAGGTTCTGGATTTATTCCCTCCTCTAAATGCTAT
AAATACGTTAGCACTTGAGTCGACTGGAGGCTGCCAGGAATTCAGGATGCATACAGCTGTAATTTAACCCAGAGC
AGCTCCACGTGAGAGCATTAAAGATGTAATGAAGATGTTT

FIGURE 4092A

GCAGCCTTTCAGGCAGGGTGGCAACCAACTATATCTGAGGACCAGAGCCATTTTGGGGCACCAGAGCTTGTGACC
TCTCCATCTCCACCCAGCTGGGTCCAGGGGCCACTCTCAGCACTCACCTCAGCAGCTGACATCATAAAGCAGACT
TGGGAACCTGGAAGCACTCTGGAGAACCTTTCCCTGAGAC**ATG**GAGCTTTGGGGCCGAATGCTGTGGGCCCTCCT
GTCTGGCCCAGGGAGGAGGGGAAGTACCCGGGGCTGGGCCTTCAGCTCATGGCAACCCCAACCACCTCTGGCTGG
GTTATCCAGTGCCATAGAACTGGTCAGCCACTGGACTGGGGTCTTTGAGAAGAGGGGTATCCCTGAGGCCCGGGA
ATCCAGTGAGTACATCGTGGCTCATGTCCTTGGAGCCAAAACATTTCAGAGCCTGAGGCCGGCACTTTGGACCCA
GCCCTTGACCTCTCAGCAACTACAGTGTATCCGGGAGCTGAGTAGCCGTCGATTGCAGAGGATGCCGGTGCAGTA
CATCCTTGGAGAGTGGGACTTCCAGGGGCTCAGCCTAAGGATGGTGCCCCCAGTGTTTATTCCGCGGCCAGAAAC
AGAGGAACTGGTTGAGTGGGTGCTGGAAGAGGTGGCCCAGAGGTCCCATGCTGTGGGATCCCCAGGCAGCCCCCT
CATTCTGGAGGTGGGCTGCGGATCAGGAGCCATCTCCCTCAGCCTGCTGAGCCAGCTCCCCCAGAGCCGAGTCAT
TGCTGTGGATAAGCGGGAAGCTGCTATCTCTCTGACCCATGAGAATGCTCAGAGGCTTCGGTTGCAGGACAGGAT
TTGGATCATCCACCTCGACATGACCTCAGAAAGGAGCTGGACACACCTGCCCTGGGGCCCCATGGACCTGATTGT
CAGCAACCCTCCCTACGTCTTCCACCAGGACATGGAGCAGCTGGCCCCTGAGATCCGCAGCTATGAAGACCCCGC
GGCCCTGGATGGTGGGGAGGAGGGCATGGACATCATTACCCACATTCTGGCCTTGGCACCCCGGCTCCTGAAAGA
CTCTGGTAGTATCTTCTTAGAAGTGGACCCAAGGCACCCGGAGCTTGTCAGCAGCTGGCTTCAGAGCCGGCCTGA
CCTGTACCTTAATCTTGTGGCTGTGCGCAGGGACTTCTGTGGGAGGCCCCGGTTCCTGCATATCCGGAGGTCTGG
GCCA**TAG**CATGGCTGCCCTGTGGATGCCTTGTCAGTGCCGCCAGCCTGACCAGAGGGGAGGTGGATGGCACTTTC
CAGAGCCCAGGTTCTTATGGCATTTCCCAGGGTTCTGTGATTTCCCCATGCTCTGCATTTCTAGGATATTTCTAG
GACACCTGGATTGGCTCCATCACATCAGAGTGGCTGAGGGCAGTTGCTCTGTGTTGGTGAAATTGCTGTGGGGGT
ATCGGGGGATATGGCCAGTAAAGTATTGAGAGACTAACAAATGGTGACCTAATGTTTTGTCCATGACTTGCAGGT
CCCCTGACCCCCTTACTCCCAGGTAGCACTGGGGCAAGGGTTTCCTTCTGCCCCAGCAGGGCTGGCCGTCAGTCC
CCTGCTTGGTAGTGGTGTGGGGGTGCAGTGTGGAGGAAGGCACGTGAGTCCTCACTCCTGGCCTTGGATACCATG
GGTCCTGGCATAGAGCAGCTCACTCCCAGGGATTGATTAGTCCTCCACTGCCCTGGGTGCATGCGTACACAATTC
CCTGGCCAAGCCTGGCTCGAGCACAGGAAGCTCATCTGCGTTTTGGCTCAAGGATGACTGCCTGCTTTCTGGAGG
GGAGGGTCTGGAGGTCTTTGCTGCACAGTTCCTGGGTCGCACATCCACGTTCATTTAACTGAAGGCTTGAGCCAG
TGAGGGGTGTTTCCTTTTTATCCCCATAGCTTTTAGCTAAAACATCCCTCCCGAGTTGACCCCCTGGGGTTTCAA
ATAACCCATGTGTCCCTGGTTGGGGCTGGGGAGAGTGAGAAGCTGAGATACTGGGCACAGGGTTGTGGCCTCCAC
CCCAGCTCTGGTCTGTGCAGACTCATGGCCACCAGGAGGCCTGCAGATCCAGCCTTCCTGTCAACAGCGACAGGA
AATCTCTAGGTTGGTGAGTGCTGGTGATGTGAGCCTACATCAGGGTGGGTCCTAAGAAACATGGCAAACCAGGCT
GTCTCATTCCACTAGACTGCCCCCTGCCACCCTGGCACTTCCCAGGGCCTGGCAGTATGGTCTGATGGGCAGTAT
GGTCCAATAGGCAGCATCCTCTGCTGCAGCTGGGAGAGCTGAGTTCCAGGGCTGTGTCCTGCAGTGGGACCTTGG
GCAACTCCTTTCCCTATGAGAAGCTGGCTCTTCTGAGTCCAGGGCCAACGCCAACTGGCAACCTCTTTACTCTTA
GTCAAGTGGAATGTGCATGCTGGCATCTGAATGTCCATTCGCCAGGCATGGAGAGCAAGAGAAGGTATGTACTGC
CTGAGGTCACATGACAGTGACCAAGTGGAGACAGTAAGTTAGATCCCTCCCTTTGGGGAGCCTATATTGCTGGAG
TCATACCCAGCCTAAGTGTTGCCCTGCACTATGGCTGGAGGACACATTTGGTAGAGGTCACACTGCAGCTCCCAG
TGCCCCAGTGTCCTGCCCTGTGCCCAGCCCCAGCTGCATGGACTCTGAGCTGCCCCTGGCTTCCTTTAAGGAGGC
TGCTCCAGAAGGAACCTGGGTGGGGAGGGCGAAGGGGGTGCACAACCAGGGCAAGGCTCCCCACTTCCTTAGTCC
CCCATGCTCACAGACCTTTGCCTGCTAAGGTCCTCACCAGTATTGCCCTTTCTGTCTTTCTCCTTGTGCCCTTTG
GCTCTTGCTGTCTTCAGCAGCATCTCAGGGTAGCTGCCCTGACCTCGGAGCAGTCTGTCGCCCCCCTACACCTCA
GCCAGTCCTGGCTTCCCTGATGGTCTCTCCCTCCTGGCCTCAGGCCCATTCCTGAGGAAGGGCCTTGGCGAGCTT
GTGGATGTTGCACCAGAAGAGAGTGCAGTGTTGGAGAGTGACACTGTCGGGGCAGCTGGGGCCACAAGCAGGAGC
CGGCCTCGGGCACAACTTTCTGCCCAGAAAAATGTGCAGCTTGACTCTGCTGAGGAAAAGGTCCAAGCCAAGAGG
ACTGGCAGGCGGGGCCTCAAGCCTGCAGCCACTGGCTTGATTGGGCCCTGGACGTTGAGCCCAGATGTTGGAGCC
ACACCAGCCTGGATTTCAATCCCAGAATCTGCCCCTCACCAGGATGTGACCTTGGGCAGATGACTTCACCTCACT
CAGCCTTGGCTTCTAAGGCTGAGAAATGGGACTTAATGCTTTATTTTATAGGATGCATGTGAGGAGCCCATGGAA
TGTGCCTGGCTTGGCACATTGTGGCATTTTTCCTTGCCTTCCTCGGAGGGCAGACACAGGGAGGAAGGACCCAGT
GCCCTCAGGCGTCCATCTGATGCATGGGACCAACATAAGGCAGGCAGGGATACAAGGCAGTCTGGAAAGAAGGGA
AGGCAGGAGTTTCAGTCTTGGGCTCTTGACTCCTCACTGTTGTCTAGAGATGGAGCCAGCAGGCTGGTAGCCTGG

FIGURE 4092B

CAGCCTACATCTCCCCTCAGCCTCTCCTCACTATGGCCCCAGTGCCTTGAGGCCCAGGCCAGGGCAGCCAGTGGC
TCTAGCTCAGGGAAAGCCAGGCCCACCTGCCCTATCCCCTCCCTTGCTCCTGAGGCCAAAGCCAGAGACTCGAAC
AGCCTCCCCACCACCACCAGCATATGTCAAGGAGCACTTGCAGGCAGAATGGGAGGAGGACATGGAGCTGATGGA
GTCCAGGCTGTGCAAGCCCCTGAGGTCTTGAGAGATGTGCCCACTGCCCGTGCAGCCTCCTTCAGCCAGAGCCCA
GAGCATAGACAGGAGTGTAGGAGTCCCTGTTTGATGTACTCTGGGAGAGTAATTCTATCTCCTCTTCTGATAGTT
GGGGAAACTGAGGCCTTGTCTCACAGTTGGATGCTTTTCCCAGTTGTCAGTGGGTTTCTCCATGGGTCTCATACA
GCTGCCTTATTGAAATAGGCCCCGAACCCCCTAAATGCAAAAAATACTCTTTTTTGCTCCTTTACCCCCACCTGG
ACCCTGGGCTATTGGCTGCTCCCAATCCTTGCCCCAAACACTTAGCTGGCTCCCCATGACTTAAGTGTGTTCTCT
TGTGTCCTATGGAATCCAGTTCTGAAGAGGTGGGGGAGGACAACTGTGGGAAAAGCCCTGGGGGCCCCTCCCAAG
GCCCCATCAGTGCTCTGAGTAGGCTGTCATCAGAACAAAGGGCTCCACTGCTGACAAGGTTTGAGAACTGCTGGC
TTGAGGTGAGAACCCCTTTAACCTCTGCGGGACAGCATGTCTTTCCCTATCCACCTTCGATTCTTTTCTCTTTTT
TTTCTTCATTGGCTCCTTCTTAGTGGATTCTCTTCTCTACTGCCCTGGGCTTCAGCCTTTGTGCAGTACTCTCGA
TGCCCTGAACACACACCTTCCCTTTGCCCAGGCGGTGCAAACAATCCACTTCTTCAAGCTCCAACACAAATGCTG
CCTCCTTTAGGATGCCTGCTCTGTGCTCTCCCTGCCTCCCCTAGCCCATACCTCTGCTGGCACCTTCTGTACCAT
GCCTTCAGAAACCTTCTTATCCCCCTCATCTCTGGGGCCCCCTGTGGATCTGGCATACCCAAGTTCAGTAAATGT
CTATCAGTAAGCTGATGGTACATGCATTTTCTAGAATAGAGCTGGGACTTCCCATGTGGCCCACATCTGACCTGG
CAGCCCATGTATTCCGGTCATTAGGGATGGGAAGCCATGAGGACCTGGCCTTCTGCCCGACCCAGGCAGCCATTC
AAGTTGAGCAATGGCCACTTCGAAGACTCAAGTGCACCTGATCCCTGCGCAACAGCCACACCAGGAGAACAGGCT
GTCCTTGGCGGCAGTAGGAGCAGGCGCCAGGTTTCCTGGAGCTCTTGGCTTCAGCCAGCCCCCAGCCAGAGTCCT
GGCTAGGACAGTGACCTGATCTCCTCCTCATGACCTTCTGCCCTGGACAAGCCCCCTGAACTGGATTTGGGACTG
TCAAAGCAACTCTACCCCTGCTCTGGTAGGCTGAACAGTGACCCCCCAAAATGGCAGTGTCTTAATCACCTAAAC
CTTAACATGTGACTATATTACCTTCACATAGCAAAATGGACTTTGCAGATGTGATTAAGGATCTTGAGATGGAAG
GAGTATCCTGGATTTTTCAGGTAAACTGAGTATAATCACAAGGGCCTCTGTAAAGGAGGCAGGAGTGTCAGAGTG
ACGGAAGAAAATGTATGTAACAATGGAAGCAGAGGTCAGAGTGATGCAATTGCTGGAGGAAGAGCCATGAGCCGA
GGAATGCAGACAGCCTCTTCTCCTCTGGGGCCTCAAGAAGAATGCAGTCCTGCCAATACCTTGATTTTAAGCCCT
GTGAAACTGATTTCAGATTGCTGACCTCCAGAACAGTAAGATCATAAATTTGTGTTGTTTTCACATGTGTGAAAA
CACATGTGTGATAATTTGTTACAGCAGCCACGGGAAACGAATATAGATTGTGGTGCCCAAATTAGAGTGCTGCTG
TAACACACGCCTACTGATTGAAGTGGCTTTGGAATTGCAACGTGGAAATGGGCAGAGGCTGGAAGAATTTTGAGA
GTCATGATAAATTGCCTTAACCACC

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FIGURE 4093

CTGCGGCCGCCAGCTCCCGCGACCGCCTCTCCTGCCCCTCGCCGGTACCTCAGCAAGGTGCCACTAGAAGCGCCA
GGCTGGGGCCGCCTCTGAGCGCCCCGCGGGGGCC**ATG**GATGGTGAAACAGCAGAGGAGCAGGGGGGCCCTGTGCC
CCCGCCAGTTGCACCCGGCGGACCCGGCTTGGGCGGTGCTCCGGGGGGGCGGCGGGAGCCCAAGAAGTACGCAGT
GACCGACGACTACCAGTTGTCCAAGCAGGTGCTGGGCCTGGGTGTGAACGGCAAAGTGCTGGAGTGCTTCCATCG
GCGCACTGGACAGAAGTGTGCCCTGAAGCTCCTGTATGACAGCCCCAAGGCCCGGCAGGAGGTAGACCATCACTG
GCAGGCTTCTGGCGGCCCCCATATTGTCTGCATCCTGGATGTGTATGAGAACATGCACCATGGCAAGCGCTGTCT
CCTCATCATCATGGAATGCATGGAAGGTGGTGAGTTGTTCAGCAGGATTCAGGAGCGTGGCGACCAGGCTTTCAC
TGAGAGAGAAGCTGCAGAGATAATGCGGGATATTGGCACTGCCATCCAGTTTCTGCACAGCCATAACATTGCCCA
CCGAGATGTCAAGCCTGAAAACCTACTCTACACATCTAAGGAGAAAGACGCAGTGCTTAAGCTCACCGATTTTGG
CTTTGCTAAGGAGACCACCCAAAATGCCCTGCAGACACCCTGCTATACTCCCTATTATGTGGCCCCTGAGGTCCT
GGGTCCAGAGAAGTATGACAAGTCATGTGACATGTGGTCCCTGGGTGTCATCATGTACATCCTCCTTTGTGGCTT
CCCACCCTTCTACTCCAACACGGGCCAGGCCATCTCCCCGGGGATGAAGAGGAGGATTCGCCTGGGCCAGTACGG
CTTCCCCAATCCTGAGTGGTCAGAAGTCTCTGAGGATGCCAAGCAGCTGATCCGCCTCCTGTTGAAGACAGACCC
CACAGAGAGGCTGACCATCACTCAGTTCATGAACCACCCCTGGATCAACCAATCGATGGTAGTGCCACAGACCCC
ACTCCACACGGCCCGAGTGCTGCAGGAGGACAAAGACCACTGGGACGAAGTCAAGGAGGAGATGACCAGTGCCTT
GGCCACTATGCGGGTAGACTACGACCAGGTGAAGATCAAGGACCTGAAGACCTCTAACAACCGGCTCCTCAACAA
GAGGAGAAAAAAGCAGGCAGGCAGCTCCTCTGCCTCACAGGGCTGCAACAACCAG**TAG**CTCATGGGGCCTTGGAG
GAGCCTGGCCTCTCAGCCTGCATAACAGACTGAAATGTGCTCAGGCCCTGGCCAGGAGGGCCCAGGGTCATTCTT
TTAACAAAAGGATTATTTTGTTGTGTTTTAATTTGTCACTCGGAACTTCAGGATGGAGGACCCTGACCCTAAACC
TCCTTCAGATCTCTGGCCCAGGCTCAAGCCCTAGAGATGGGCAGGGCCTAGGGGCTGGGAGCTGCCTGCTGCCAT
AGCAGCACCTTTAGCTAGGTTGGCCCGAGTGAGGCCTCTGTGCTGTCCTGCCCTGGTGCATGGCCTTAGCTTTCT
AGGCCACTGGGAGTTGTGGCTGGGCTTCCCATCTTCCACAGAGACATCTCCCTGTGGGATGGGCAGATGGGCCTG
GCCTTGAGAAAGGCATTGGCCATTGGTTGCCATGGTGACCAGGGACCACGTTGCTGCCTGTGAATGCTGAGTGAG
CGAGTAAGGGAGGAGGGGCGATTGAGGGTTCACCTCTGCCTTGGGGAGGCTGATTTCTCACACACTGGCTGGCCC
TCTCATTCTCACTCCTCCTTGGGCCCTGAGGCTGCTGGATCCGGTCTGCCTGCCTCCCTGTGCAGTCCAGCCCTG
CCTTGCTGCAGCCCCAGCCCAGATGGCACTCAGCGCTCTCCCCTGAGGGAGTCCCTGGGCCTAGCCATCCCCTCA
CTATTCCCGACCCAAAGGGTGACTTTTCATCTGAACTTAAGGTGGGAGATATTTTTAACTTTTTTCCACTTTGGA
AAATGTCACTGTGACAAAAGCCAGCATACTTTCCCTGCACCCATCTGCTCACCAGATCTCAGGCAGGAAAGCCCC
TCTCTGTTGAAGTCAGGGGCTATCTTTTGGTATACTTGTGTGAAAGTGGCTGGTTGGGAGCAGAGCTAAGTGGCT
TCCCATTAACCTGAGGTCTCTTTCTTTACTCTGGGTCAGACCTGAGGTTGGGGAAGGCGACTGAGCCATGCTCAG
AATGTCTGGTCCTGGCTTGGGCCTGAGTAGGGCAGAGAGGGCCTTTCCTGGCTGATCAGAGCTTACCAGCCCCAC
CCCACCATGGTAGCCTTAGGGTGCTGAGTGCCTGATACTGCCTGACAAGTGCCTGACACGCAGCCTAGTTCCTTC
CTGGCCCCTCTCTCACTGGCTGGGAAACCCTAGACCATGTCAGATAGGACAACACTGCTGGGTTTTACATCCAGA
TAGTAATAAACACCATTTCATCATT

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FIGURE 4094

ATGCCTTCAAAGGAAAAGCAAGGGACACTCACCTTGCAAAACCATCAAAACTATTCCCACAGACGCCACATGAGC
CCCCATTTATCTGACTTAAAAGAAGCAGGGTCTGCTGGGATTCGAATCCTCTGGTTCCAGAGAGAGAAGCTCTTT
CAAAGACTGGATTCTGGCCCACAAAAGAAGGTTCCTGCTTACTGGAATCAAGAGGTCAAAGATTTTTCTGAATCA
TGCATCCACGGAGAAGAGCCCATTAGGGCTATTCCAGCAGACAGCAGTAAGGATGTCCATGAGCTTTATGTTGTT
GTTGGGAGCTGGGATTCTACTCTTCCAGAAGAATATGACCTCAAAAGGAGCCACCACAGAACGAGCTCGGCACCC
ATCTACGAATGTATTGCTAAGGATCATTGGGGATGGGGTGACCCAGAAGTGAACTGGCTCCATGATCCATTAAAC
AATCACCCTGAAATCCACAGTGCCAGTCAACTAATGGGGCTTGGAGCCATCATTAGGTCACTGGAAAATGATATC
TTCCTGGAGGTTGATACTGGCTTCACCATCCTGAGAGCAGAAGGCTTGAGGGAGGAACAGCCTCCTGGGCATGGA
GGCACCTGCCATCCCACATCAAATCACAGAGCCATGCTTAAAAGGGCCAGGTGGATGACTTATGTGGAAGAAGTG
AGCCGGGTGAGGATTTCTACTTCGAGAAACCTTGCTCGAAGCGCTTTCATCATTCTCTCCTACACAACAAACCCT
GAACTCTTAGAAGCAGCTCTTGGCACAGGAGCCTCCAACCCGTTTTTCAGCCGGCTTTCTCTACTTGTTTCTCAT
TCCATGATCACAGAAAACAGCTCCATTAAGACTCTTTTCAGGTCTACCAAAGAGCTAGTGATTGCACTCAATCGA
TGTTTCTTCGGCATTACTCAAAGTGCAGCTACACTCAGCCCACAGCTTCACATCAGATTTATCAGCAGAGAACAA
AAGAAGTACTTGAAATTGCCACTTACAACGTTTATGAGTAAACTGGAATCCAAAGTCTGGCCTCTAGCCAAGCGG
TTACGCCAGTGGCCTGACTCATATACAAAGAAGTTTGAGCACAGAATCTACCCCATCACATTTTCTGTTGGAAAC
CCTCAGGAGTGGAAGAAATTGTTCAAACCCTGTGCTGCCCAGAGACTCTTTCTTCCGATCAACCTGGAGCTCTAC
GCCTCCTACGTTTACCTGTCCATGTCTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAACTTTGCCAAATAC
TTTCTTCACCAATCTCATGAGGAGAGGGAACATGCCGAGAAACTGATGACGTTGCAGAACCAACGAGGTGGCCGA
ATCTTCCTTCAGGATATCAAGAAACCAGACTGTGACGACTGGGAGAGCGGGCTGAATGCGATGGATGACAAAAAT
GACCCCCATTTGTGTGACTTCATTGAGACACATTACCTGAATGAGCAGGTGAAAGCCATCAAAGAATTGGGTGGC
CACGTGACCAACTTGTGCAAGATGGGAGCACCCGAATCTGGCTCGGCAGAATATCTCTTTGACAAGCACACGCTG
GGAGACAGTGATAACGAAAGCTAA

FIGURE 4095

ATGATCTTTAATTTTGCCCTGAATACCTTGGTTGCAATCACTGTGCTTGTTTATCCAAACGGCATTCAGGAATAC
ATACGACAACTGCCTCCGAATTTTCCCTACAGAGATGATGTCATGAGGCCTGGAGAACCCAGGAGTTTCCAAGCT
GTGCTGCCACCCGAGCTCTGGATCCACCTGGCTGTGGTGGCCTGTGGCAATCGGCTGGAGGAGACGCTGGTCATG
CTCAAATCAGCTGTGCTTTTTAGCCACAGGAAGATCCAATTCCACATCTTCACTGAAGACTCTCTGAAGCCCGAG
TTTGATAAGCAGTTACGCCAGTGGCCTGACTCATATACAAAGAAGTTTGAGCACAGAATCTACCCCATCACATTT
TCTGTTGGAAACCCTCAGGAGTGGAAGAAATTGTTCAAACCCTGTGCTGCCCAGAGACTCTTTCTTCCGATCAAC
CTGGAGCTCTACGCCTCCTACGTTTACCTGTCCATGTCTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAAC
TTTGCCAAATACTTTCTTCACCAATCTCATGAGGAGAGGGAACATGCCGAGAAACTGATGACGTTGCAGAACCAA
CGAGGTGGCCGAATCTTCCTTCAGGATATCAAGAAACCAGACTGTGACGACTGGGAGAGCGGGCTGAATGCGATG
GATGACAAAAATGACCCCCATTTGTGTGACTTCATTGAGACACATTACCTGAATGAGCAGGTGAAAGCCATCAAA
GAATTGGGTGGCCACGTGACCAACTTGTGCAAGATGGGAGCACCCGAATCTGGCTCGGCAGAATATCTCTTTGAC
AAGCACACGCTGGGAGACAGTGATAACGAAAGC**TAA**

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FIGURE 4096

GTCCCTCACACCGAGAGTTCCTGCGCGTGGGGAGTTGGAGAGTTTGCGTGGCGGGAACGCGGCGGCAGTGAGAGC
GAGCGGCGCCGGCCCTTGCGTCCGGTGCGGCG**ATG**CTGACCCCGGCGTTCGACCTCAGCCAGGATCCGGACTTCC
TGACTATCGCCATCCGCGTGCCCTACGCCCGGGTCTCCGAGTTCGACGTCTACTTCGAGGGGTCTGACTTCAAGT
TCTACGCCAAGCCATACTTTCTCAGATTAACCCTTCCTGGAAGAATTGTAGAAAATGGAAGTGAGCAAGGGTCCT
ATGATGCAGATAAAGGAATTTTTACCATTCGCCTGCCCAAAGAAACCCCTGGCCAGCATTTTGAGGGGCTGAACA
TGTTAACTGCTCTTCTGGCACCAAGAAAATCCAGGACAGCAAAACCACTTGTGGAAGAAATAGGTGCTTCTGAGA
TTCCTGAGGAAGTAGTTGACGATGAAGAGTTTGATTGGGAAATTGAGCAGACACCCTGTGAAGAGGTATCAGAAA
GTGCTTTGAATCCGCAGTGCCACTATGGATTTGGAAACTTACGATCAGGAGTGTTGCAACGGTTACAGGATGAAC
TGAGTGATGTTATTGATATTAAGGATCCAGATTTCACCCCTGCAGCTGAACGAAGACAGAAGCGCCTGGCCGCTG
AGCTGGCCAAGTTTGATCCTGATCATTATCTAGCTGACTTTTTTGAAGATGAGGCGATTGAACAGATTTTGAAGT
ATAATCCTTGGTGGACTGACAAATATTCAAAAATGATGGCCTTTTTGGAAAAGAGTCAGGAACAAGAAAATCATG
CTACATTAGTGTCTTTTTCTGAAGAAGAGAAGTATCAGCTACGAAAATTTGTCAATAAATCTTATCTGCTGGACA
AGAGAGCCTGTCGTCAAGTGTGCTACAGTTTGATTGATATCCTTCTGGCATATTGCTATGAAACCCGTGTCACTG
AAGGAGAGAAGAATGTTGAATCTGCATGGAATATCAGGAAACTGAGTCCAACACTATGCTGGTTTGAGACTTGGA
CTAACGTTCATGATATCATGGTGTCTTTTGGAAGAAGGGTGTTGTGTTACCCACTCTATCGCCATTTCAAGCTGG
TGATGAAGGCCTACAGGGACACTATAAAGATATTGCAACTGGGTAAAAGTGCAGTTTTAAAGTGTCTCCTGGATA
TTCACAAAATTTTTCAGGAAAATGACCCAGCGTACATACTGAATGATCTCTACATCTCAGACTACTGTGTGTGGA
TTCAGAAAGTCAAATCCAAAAAGTTGGCAGCTCTTGCAGAAGCCTTAAAGGAAGTCTCCCTTACAAAGGCCCAGC
TGGGGTTAGAACTGGAAGAACTAGAAGCAGCAGCACTGCTTGTCCAGGAGGAAGAAACTGCATTAAAAGCAGCCC
ATTCAGTTTCTGGGCAGCAGACACTTTGCTCCAGCTCTGAGGCAAGTGATTCGGAGGACTCAGACAGCAGCGTGT
CATCTGGAAACGAAGACTCAGGCTCAGATTCAGAACAAGATGAACTCAAAGATAGTCCATCTGAGACAGTCAGTT
CTTTGCAAGGTCCCTTTCTTGAAGAAAGCAGTGCCTTTCTTATTGTTGATGGTGGAGTACGCAGAAACACAGCCA
TCCAGGAGTCTGATGCCAGTCAGGGAAAGCCACTTGCCTCTTCCTGGCCTCTTGGAGTGTCTGGGCCTCTGATAG
AGGAGCTTGGGGAACAACTGAAGACTACAGTTCAGGTTTCTGAACCCAAGGGCACCACTGCTGTAAACCGCAGCA
ATATTCAGGAGAGAGACGGCTGTCAGACACCAAATAAT**TGA**CTCTTAGGTGGTTTTATTCATTGTTGAGAAATAT
GGTAGATTGGGTTTCATTTACCGAATGAGAATTCTTCATTTTCACTTTGTAATTTTTCTTAGTATATAGTCAGCC
CACTGTATTTGTGTGTTCCACATCTGTGGATTCAACCAACTGCAGATCAAAAATATTGAAGAAAAAATCGCATCT
GTACCAAACATGTACAGACTTTTTTCTTGTTATTATTCTCTAAATAATACAGTATGACAACTATTTCCACAGCAT
TTACATTGTATTGGGTAATATAAGTAATCTAGTGATGATTTAAACTGTGCAGGAGGATGTGGGTAGGTTATATGC
AAATACTGCACCATTTTTTATCAGGGGCTTGAGCATCTGAGGATTTTAGTATCCTCAGGAGTCCTGGAACCAACC
CCCCACAGATACGGGGACAACTTTATGACATTGTTTTTCAACCAATGAATGTTTATACCTTTTGTTTTCCTTGCC
GCGACTGTGAAGATAAAGTTCAAAAGTATTTTTACCAAAGTGTAGCTAATATTTCAAGCTGAAAATAATAGTTCT
ACTGCCCGTGTCTCCAGAATGTAGAGCCCATCAATATTTTTATTTTAGGAGGTGTACTTGACACCCAATAAACTG
CACGTATCAAAAGTGTACAATGTGTTGGCGTATGTATACCCTGCGTAAAACTATCACCACAACTGAAGTGAGGAA
CGGACCCATCATTCCCAAGTGCCCTTGTGCCCTGTTATTAGTTTGCATGTCCTAGAATTCTATGTAAATTGAATC
ATACAATATGTATCCCTTTTTTGGTCAGGCATATTTTACTCAGTATAGTTATTTTGAGATTCATCCATGTGGTAG
CATGTGTCACGAGTTTTTGTTTTTATGTTTTTCATTGCTGAGTACTGCTTCATTGAATAGATTTGTTCATTGACC
TATCGATGGACACCTGGGTTGTTT

FIGURE 4097A

AGCGATCCGAGGCCCGGCCCCGGCCCCGCCCCGCGCCGCGCCGCGCCGCTTGCCGCCGGGCTAGCACTGACGTGT
CTCTCGGCGGAGCTGCTGTGCAGTGGAACGCGCTGGGCCGCGGGCAGCGTCGCCTCACGCGGAGCAGAGCTGAGC
TGAAGCGGGACCCGGAGCCCGAGCAGCCGCCGCC**ATG**GCAATCAAATTTCTGGAAGTCATCAAGCCCTTCTGTGT
CATCCTGCCGGAAATTCAGAAGCCAGAGAGGAAGATTCAGTTTAAGGAGAAAGTGCTGTGGACCGCTATCACCCT
CTTTATCTTCTTAGTGTGCTGCCAGATTCCCCTGTTTGGGATCATGTCTTCAGATTCAGCTGACCCTTTCTATTG
GATGAGAGTGATTCTAGCCTCTAACAGAGGCACATTGATGGAGCTAGGGATCTCTCCTATTGTCACGTCTGGCCT
TATAATGCAACTCTTGGCTGGCGCCAAGATAATTGAAGTTGGTGACACCCCAAAAGACCGAGCTCTCTTCAACGG
AGCCCAAAAGTTATTTGGCATGATCATTACTATCGGCCAGTCTATCGTGTATGTGATGACCGGGATGTATGGGGA
CCCTTCTGAAATGGGTGCTGGAATTTGCCTGCTAATCACCATTCAGCTCTTTGTTGCTGGCTTAATTGTCCTACT
TTTGGATGAACTCCTGCAAAAAGGATATGGCCTTGGCTCTGGTATTTCTCTCTTCATTGCAACTAACATCTGTGA
AACCATCGTATGGAAGGCATTCAGCCCCACTACTGTCAACACTGGCCGAGGAATGGAATTTGAAGGTGCTATCAT
CGCACTTTTCCATCTGCTGGCCACACGCACAGACAAGGTCCGAGCCCTTCGGGAGGCGTTCTACCGCCAGAATCT
TCCCAACCTCATGAATCTCATCGCCACCATCTTTGTCTTTGCAGTGGTCATCTATTTCCAGGGCTTCCGAGTGGA
CCTGCCAATCAAGTCGGCCCGCTACCGTGGCCAGTACAACACCTATCCCATCAAGCTCTTCTATACGTCCAACAT
CCCCATCATCCTGCAGTCTGCCCTGGTGTCCAACCTTTATGTCATCTCCCAAATGCTCTCAGCTCGCTTCAGTGG
CAACTTGCTGGTCAGCCTGCTGGGCACCTGGTCGGACACGTCTTCTGGGGGCCCAGCACGTGCTTATCCAGTTGG
TGGCCTTTGCTATTACCTGTCCCCTCCAGAATCTTTTGGCTCCGTGTTAGAAGACCCGGTCCATGCAGTTGTATA
CATAGTGTTCATGCTGGGCTCCTGTGCATTCTTCTCCAAAACGTGGATTGAGGTCTCAGGTTCCTCTGCCAAAGA
TGTTGCAAAGCAGCTGAAGGAGCAGCAGATGGTGATGAGAGGCCACCGAGAGACCTCCATGGTCCATGAACTCAA
CCGGTACATCCCCACAGCCGCGGCCTTTGGTGGGCTGTGCATCGGGGCCCTCTCGGTCCTGGCTGACTTCCTAGG
CGCCATTGGGTCTGGAACCGGGATCCTGCTCGCAGTCACAATCATCTACCAGTACTTTGAGATCTTCGTTAAGGA
GCAAAGCGAGGTTGGCAGCATGGGGGCCCTGCTCTTC**TGA**GCCCGTCTCCCGGACAGGTTGAGGAAGCTGCTCCA
GAAGCGCCTCGGAAGGGGAGCTCTCATCATGGCGCGTGCTGCTGCGGCATATGGACTTTTAATAATGTTTTTGAA
TTTCGTATTCTTTCATTCCACTGTGTAAAGTGCTAGACATTTTCCAATTTAAAATTTTGCTTTTTATCCTGGCAC
TGGCAAAAAGAACTGTGAAAGTGAAATTTTATTCAGCCGACTGCCAGAGAAGTGGGAATGGTATAGGATTGTCCC
CAAGTGTCCATGTAACTTTTGTTTTAACCTTTGCACCTTCTCAGTGCTGTATGCGGCTGCAGCCGTCTCACCTGT
TTCCCCACAAAGGGAATTTCTCACTCTGGTTGGAAGCACAAACACTGAAATGTCTACGTTTCATTTTGGCAGTAG
GGTGTGAAGCTGGGAGCAGATCATGTATTTCCCGGAGACGTGGGACCTTGCTGGCATGTCTCCTTCACAATCAGG
CGTGGGAATATCTGGCTTAGGACTGTTTCTCTCTAAGACACCATTGTTTTCCCTTATTTTAAAAGTGATTTTTTT
AAGGACAGAACTTCTTCCAAAAGAGAGGGATGGCTTTCCCAGAAGACACTCCTGGCCATCTGTGGATTTGTCTGT
GCACCTATTGGCTCTTCTAGCTGACTCTTCTGGTTGGGCTTAGAGTCTGCCTGTTTCTGCTAGCTCCGTGTTTAG
TCCACTTGGGTCATCAGCTCTGCCAAGCTGAGCCTGGCCAAGCTAGGTGGACAGACCCTTGCAGTGATGTCCGTT
TGTCCAGATTCTGCCAGTCATCACTGGACACGTCTCCTCGCAGCTGCCCTAGCAAGGGGAGACATTGTGGTAGCT
ATCAGACATGGACAGAAACTGACTTAGTGCTCACAAGCCCCTACACCTTCTGGGCTGAAGATCACCCAGCTGTGT
TCAGAATTTTCTTACTGTGCTTAGGACTGCACGCAAGTGAGCAGACACCACCGACTTCCTTTCTGCGTCACCAGT
GTCGTCAGCAGAGAGAGGACAGCACAGGCTCAAGGTTGGTAGTGAAGTCAGGTTCGGGGTGCATGGGCTGTGGTG
GTGTTGATCAGTTGCTCCAGTGTTTGAAATAAGAAGACTCATGTTTATGTCTGGAATAAGTTCTGTTTGTGCTGA
CAGGTGGCCTAGGTCCTGGAGATGAGCACCCTCTCTCTGGCCTTTAGGGAGTCCCCTCTTAGGACAGGCACTGCC
CAGCAGCAAGGGCAGCAGAGTTGGGTGCTAAGATCCTGAGGAGCTCGAGGTTTCGAGCTGGCTTTAGACATTGGT
GGGACCAAGGATGTTTTGCAGGATGCCCTGATCCTAAGAAGGGGGCCTGGGGGTGCGTGCAGCCTGTCGGGGAGA
CCCCACTCTGACAGTGGGCACACGGCAGCCTGCAAAGCACAGGGCCACCGCCACAGCCCGGCAGAGGGGCACACT
CTGGAGACCTTGCTGGCAGTGCTAGCCAGGAAACAGAGTGACCAAGGGACAAGAAGGGACTTGCCTAAAGCCACC
CAGCAACTCAGCAGCAGAACCAAGATGGGCCCCAGGCTCCTCCATATGGCCCAGGGCTTACCACCCTATCACACG
TGGCCTTGTCTAGACCCAGTCCTGAGCAGGGGAGAGGCTCTTGAGACCTGATGCCCTCCTACCCACATGGTTCTC
CCACTGCCCTGTCTGCTCTGCTGCTACAGAGGGGCAGGGCCTCCCCCAGCCCACGCTTAGGAATGCTTGGCCTCT
GGCAGGCAGGCAGCTGTACCCAAGCTGGTGGGCAGGGGGCTGGAAGGCACCAGGCCTCAGGAGGAGCCCCATAGT
CCCGCCTGCAGCCTGTAACCATCGGCTGGGCCCTGCAAGGCCCACACTCACGCCCTGTGGGTGATGGTCACGGTG
GGTGGGTGGGGGCTGACCCCAGCTTCCAGGGGACTGTCACTGTGGACGCCAAAATGGCATAACTGAGATAAGGTG

FIGURE 4097B

AATAAGTGACAAATAAAGCCAGTTTTTTACAAGGT

FIGURE 4098

ATGAAGATTGAGGAGGTGAAGAGCACTACGAAGACGCAGCGCATCGCCTCCCACAGCCACGTGAAAGGGCTGGGG
CTGGACGAGAGCGGCTTGGCCAAGCAGGCGGCCTCAGGGCTTGTGGGCCAGGAGAACGCGCGAGAGGTGTGGCCA
GTGGACCAGGGAGTTGGGGGCTGCAAGCAGGGCTGCTGCGGCGAGAGAGCTGCTGAAGTCGGGCCTGCAGGTGCT
CCAGGTCAGCGGGCGACTTTGGCCGCTGCAGAGACCGAGATACGCGGGGTAACAGCCCGTTCCGGAGCCGGTCAT
CAGGCGCCAAGCCCCGCTGGGCTCCTCGCAGCCGCGGGACCTTTCTCCGCCCTTCCCGAGGCTGAGTTTCCTGAA
CGGGAAGCTGCCGGCCCGCGGGGCAGCCGGGAGCAGCCAGGGCGTGAGGACGTGGGTTCCCGTCACCCCCGGCTT
GGAACAGCAGCGCCGCAACAACCGCTGGCGTTCATCGAGCCTCTCAGCAGCCCTGCGAGGCGATCCCGGGGAGAA
TCCCACGCCACAGCCGAGGAAACTGAGGCAGGCAGGGTGACACACAGCCCAGTAGTGGCGGGCGGGCGCCCAGGC
TGCCACCGCGCTGAGGACCGGCCCCTCTGCCAGCCGGGAGGCGTGGGGCAGGACAGCCGCGCTCTCGCCAGGGCC
CAGAGCCCCACTTTGCCAAGGAGCTGTCGCTGGAGCGGTGACTTTGTTCAGGGCCGAGAACCGGAGGAGGAGGCC
AGACTTGCTGCTGGGCAGCTGGCACATGGGACATGGGGTGTTATGACTCCAGCATTTATGGAGCGCCTGCTGTGT
GCTCTGCAGGTGAGCAATGTGAGGCTCAGAGAAGAGAAACAGAAAGCCCGGAGGCTTGAGTGGGTCAGACACCCA
TCAGGAGCTTGGCATGAGTATGACAGCTCCTTGACGCAAAGTCCAGGGGGCATGAGTGCTGGGGCCATTGCAGGC
ACCAGGACCCAAGCCTAG

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FIGURE 4099

AGGTAAAGGGAGAAGATGAGGAAGAGAACAATTTGGAAGTACGTGAAACCAAAATTAAGGGTAAAAGTGGGAGAT
TCTTCACAGTCAAGCTCCCAGTTGCTCTTGATCCTGGGGCCAAGATTTCAGTCATTGTGGAAACAGTCTACACCC
ATGTGCTTCATCCATATCCAACCCAGATCACCCAGTCAGAGAAACAGTTTGTGGTGTTTGAGGGGAACCATTATT
TCTACTCTCCCTATCCAACGAAGACACAAACC**ATG**CGTGTGAAGCTTGCCTCTCGAAATGTGGAGAGCTACACCA
AGCTGGGGAACCCCACGCGCTCTGAGGACCTACTGGATTATGGGCCTTTCAGAGATGTGCCTGCCTATAGTCAGG
ATACTTTTAAAGTACATTATGAGAACAACAGCCCTTTCCTGACCATCACCAGCATGACCCGAGTCATTGAAGTCT
CTCACTGGGGTAATATTGCTGTGGAAGAAAATGTGGACTTAAAGCACACAGGAGCTGTGCTTAAGGGGCCTTTCT
CACGCTATGATTACCAGAGACAGCCAGATAGTGGAATATCCTCCATCCGTTCTTTTAAGACCATCCTTCCTGCTG
CTGCCCAGGATGTTTATTACCGGGATGAGATTGGCAATGTTTCTACCAGCCACCTCCTTATTTTGGATGACTCTG
TAGAGATGGAAATCCGGCCTCGCTTCCCTCTCTTTGGCGGGTGGAAGACCCATTACATCGTTGGCTACAACCTCC
CAAGCTATGAGTACCTCTATAATTTGGGTGACCAGTATGCACTGAAGATGAGGTTTGTGGACCATGTGTTTGATG
AACAAGTGATAGATTCTCTGACTGTGAAGATCATCCTGCCTGAAGGAGCCAAGAACATTGAAATTGATAGTCCCT
ATGAAATCAGCCGTGCCCCAGATGAGCTGCACTACACCTATCTGGATACATTTGGCCGCCCTGTGATTGTTGCCT
ACAAGAAAAATCTGGTAGAACAGCACATTCAGGACATTGTGGTCCACTACACGTTCAACAAGGTGCTCATGCTGC
AGGAGCCCCTGCTGGTGGTGGCGGCCTTCTACATCCTGTTCTTCACCGTTATCATCTATGTTCGGCTGGACTTCT
CCATCACCAAGGATCCAGCCGCAGAAGCCAGGATGAAGGTAGCCTGCATCACAGAGCAGGTCTTGACCCTGGTCA
ACAAGAGAATAGGCCTTTACCGTCACTTTGACGAGACCGTCAATAGGTACAAGCAATCCCGGGACATCTCCACCC
TCAACAGTGGCAAGAAGAGCCTGGAGACTGAACACAAGGCCTTGACCAGTGAGATTGCACTGCTGCAGTCCAGGC
TGAAGACAGAGGGCTCTGATCTGTGCGACAGAGTGAGCGAAATGCAGAAGCTGGATGCACAGGTCAAGGAGCTGG
TGCTGAAGTCGGCGGTGGAGGCTGAGCGCCTGGTGGCTGGCAAGCTCAAGAAAGACACGTACATTGAGAATGAGA
AGCTCATCTCAGGAAAGCGCCAGGAGCTGGTCACCAAGATCGACCACATCCTGGATGCCCTG**TAG**CCCCTGCCCG
CATCCTCCAGGGGGCCCAGGGTGCCTGCACTTTGCTGTGGCAGGCAGATTGGGTGGTAGTGGGAGGTTGTGCATG
GAGGCCAGTGAAAGCTGACATCTGTAAAAGGCCTTCAAGGAAGAGAAACCAGGCCCTGCGTCAGGCAGTGTGAGT
TTGCCGTTTGTCCTTAACTTTCTTTTTTTTTTTTTTTAAAAAAAGAAAACTTTAAAAAAACTCCCATTAAAAACA
AAACATCTTTGTGTTTTGAACAAAGGAATTTTCAATATTTGATTGGTATTCTGTTCTGAAGTCTAGGATATTTTT
CAGCCTATAAAGCCCCCTGTTTTATGCCCTTCTAATTCTGATGTTTGGGTATTGTGTGAGTGCATGTGTTTTTTT
TTTTTTTTTTTTAAAGCGTGTGTGAACAAATGGAAATAAAGCAGGGACTGTG

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FIGURE 4100

CTGCTCTTCCCGGTC**ATG**GAGGCGCCAGCCGCCGGCTTGTTTCTGCTCCTGTTGCTTGGGACTTGGGCCCCGGCG
CCGGGCAGCGCCTCCTCCGAGGCACCGCCGCTGATCAATGAGGACGTGAAGCGCACAGTGGACCTAAGCAGCCAC
CTGGCTAAGGTGACGGCCGAGGTGGTCCTGGCGCACCTGGGCGGCGGCTCCACGTCCCGAGCTACCTCTTTCCTG
CTGGCTTTGGAGCCTGAGCTCGAGGCCCGGCTGGCGCACCTGGGCGTGCAGGTAAAGGGAGAAGATGAGGAAGAG
AACAATTTGGAAGTACGTGAAACCAAAATTAAGGGTAAAAGTGGGAGATTCTTCACAGTCAAGCTCCCAGTTGCT
CTTGATCCTGGGGCCAAGATTTCAGTCATTGTGGAAACAGTCTACACCCATGTGCTTCATCCGTATCCAACCCAG
ATCACCCAGTCAGAGAAACAGTTTGTGGTGTTTGAGGGGAACCATTATTTCTACTCTCCCTATCCAACGAAGACA
CAAACCATGCGTGTGAAGCTTGCCTCTCGAAATGTGGAGAGCTACACCAAGCTGGGGAACCCCACGCGCTCTGAG
GACCTACTGGATTATGGGCCTTTCAGAGATGTGCCTGCCTATAGTCAGGATACTTTTAAAGTACATTATGAGAAC
AACAGCCCTTTCCTGACCATCACCAGCATGACCCGAGTCATTGAAGTCTCTCACTGGGGTAATATTGCTGTGGAA
GAAAATGTGGACTTAAAGCACACAGGAGCTGTGCTTAAGGGGCCTTTCTCACGCTATGATTACCAGAGACAGCCA
GATAGTGGAATATCCTCCATCCGTTCTTTTAAGACCATCCTTCCTGCTGCTGCCCAGGATGTTTATTACCGGGAT
GAGATTGGCAATGTTTCTACCAGCCACCTCCTTATTTTGGATGACTCTGTAGAGATGGAAATCCGGCCTCGCTTC
CCTCTCTTTGGCGGGTGGAAGACCCATTACATCGTTGGCTACAACCTCCCAAGCTATGAGTACCTCTATAATTTG
GGTGACCAGTATGCACTGAAGATGAGGTTTGTGGACCATGTGTTTGATGAACAAGTGATAGATTCTCTGACTGTG
AAGATCATCCTGCCTGAAGGAGCCAAGAACATTGAAATTGATAGTCCCTATGAAATCAGCCGTGCCCCAGATGAG
CTGCACTACACCTATCTGGACACATTTGGCCGCCCTGTGATTGTTGCCTACAAGAAAAATCTGGTAGAACAGCAC
ATTCAGGACATTGTGGTCCACTACACGTTCAACAAGGTGCTCATGCTGCAGGAGCCCCTGCTGGTGGTGGCGGCC
TTCTACATCCTGTTCTTCACCGTTATCATCTATGTTCGGCTGGACTTCTCCATCACCAAGGATCCAGCCGCAGAA
GCCAGGATGAAGGTAGCCTGCATCACAGAGCAGGTCTTGACCCTGGTCAACAAGAGAATAGGCCTTTACCGTCAC
TTTGACGAGACCGTCAATAGGTACAAGCAATCCCGGGACATCTCCACCCTCAACAGTGGCAAGAAGAGCCTGGAG
ACTGAACACAAGGCCTTGACCAGTGAGATTGCACTGCTGCAGTCCAGGCTGAAGACAGAGGGCTCTGATCTGTGC
GACAGAGTGAGCGAAATGCAGAAGCTGGATGCACAGGTCAAGGAGCTGGTGCTGAAGTCGGCGGTGGAGGCTGAG
CGCCTGGTGGCTGGCAAGCTCAAGAAAGACACGTACATTGAGAATGAGAAGCTCATCTCAGGAAAGCGCCAGGAG
CTGGTCACCAAGATCGACCACATCCTGGATGCCCTG**TAG**CCCCTGCCCGCATCCTCCAGGGGGCCCAGGGTGCCT
GCACTTTGCTGTGGCAGGCAGATTGGGTGGTAGTGGGAGGTTGTGCATGGAGGCCAGTGAAAGCTGACATCTGTA
AAAGGCCTTCAAGGAAGAGAAACCAGGCCCTGCGTCAGGCAGTGTGAGTTTGCCGTTTGTCCTTAACTTTCTTTT
TTTTTTTTTTAAAAAAAGAAAACTTTAAAAAAACTCCCATTAAAAACAAAACATCTTTGTGTTTTGAACAAAGG
AATTTTCAATATTTGATTGGTATTCTGTTCTGAAGTCTAAGATATTTTTCAGCCTATAAAGCCCCCTGTTTTATG
CCCTTCTAATTCTGATGTTTGGGTATTGTGTGAGTGCATGTGTTTTTTTTTTTTTTTTTAAAGCGTGTGTGAACA
AATGGAAATAAAGCAGGGACTGTG

FIGURE 4101

TGGCAGGGCGGCGGGTGAACGTGAACGTGGGCGTGCTGGGCCACATCGACAGCGGCAAGACGGCGCTGGCGCGGG
CGCTAAGCACCACAGCCTCCACCGCCGCCTTTGACAAGCAGCCGCAGAGCCGCGAGCGCGGCATCACGCTCGATC
TGGGCTTCTCGTGCTTCTCGGTGCCGCTGCCCGCGCGCCTGCGGTCGTCTTTGCCCGAGTTCCAGGCAGCGCCCG
AGGCCGAGCCCGAGCCCGGCGAGCCACTGCTTCAGGTCACGCTGGTCGACTGCCCCGGGCACGCCTCCCTCATCC
GGACCATCATCGGCGGGGCCCAGATCATTGATCTG**ATG**ATGCTGGTCATCGATGTGACCAAGGGGATGCAGACCC
AGTCAGCGGAATGCCTTGTGATCGGCCAGATTGCCTGCCAGAAGCTGGTCGTGGTGCTGAACAAAATAGACCTCT
TACCTGAAGGAAAGAGACAGGCAGCAATTGATAAAATGACCAAGAAAATGCAGAAGACCCTAGAGAACACCAAGT
TCCGAGGTGCACCGATTATACCCGTGGCGGCCAAGCCGGGGGGGACCAGAGGCCCCCGAAACTGAAGCTCCACAGG
GCATTCCAGAGCTCATTGAGCTCCTGACGTCCCAGATTTCCATCCCAACGAGAGACCCCTCGGGACCGTTCCTCA
TGTCTGTGGACCACTGTTTCTCCATCAAAGGCCAAGGCACTGTGATGACAGGGACCATCCTTTCAGGCTCCATCA
GCCTCGGTGACAGTGTGGAGATCCCTGCCCTCAAGGTGGTGAAGAAGGTGAAGTCCATGCAGATGTTCCACATGC
CCATCACTTCAGCCATGCAAGGAGACCGGCTGGGCATCTGCGTCACCCAGTTTGACCCTAAGCTGCTGGAGCGCG
GGTTGGTGTGTGCCCCCGAGTCCCTGCACACTGTCCATGCGGCCCTCATCTCTGTGGAAAAGATACCGTATTTCC
GGGGGCCCCTGCAAACCAAGGCCAAGTTCCACATTACAGTGGGCCATGAAACAGTCATGGGCCGGTTGATGTTCT
TCAGTCCTGCTCCAGATAACTTTGACCAGGAGCCTATACTGGACTCTTTCAACTTCTCTCAAGAATACCTTTTCC
AGGAGCAGTACCTGTCCAAGGATTTGACACCAGCAGTGACAGACAATGATGAGGCCGACAAGAAGGCCGGCCAGG
CCACAGAGGGCCATTGTCCTCGGCAGCAGTGGGCCCTGGTGGAGTTTGAGAAGCCCGTCACCTGCCCTCGGCTGT
GCCTGGTGATTGGCTCCAGGCTAGATGCGGACATTCACACCAACACGTGCCGGCTAGCCTTCCATGGCATCCTGC
TCCACGGGCTAGAGGACAGGAACTACGCCGACAGCTTCCTGCCCAGGCTGAAGGTGTACAAGCTGAAGCACAAGC
ATGGCCTTGTGGAGCGGGCGATGGATGACTACAGTGTGATCGGCCGCTCCCTGTTCAAAAAGGAAACCAACATCC
AGCTCTTCGTGGGGCTCAAGGTGCACTTGTCCACTGGGGAACTGGGCATCATCGACAGTGCCTTCGGCCAGAGCG
GCAAGTTCAAGATCCACATCCCAGGTGGCCTCAGCCCCGAGTCCAAGAAGATCCTGACACCCGCCCTCAAGAAGC
GGGCCCGGGCTGGCCGTGGGGAGGCCACCAGGCAGGAGGAGAGCGCCGAGCGGAGCGAGCCCTCACAGCATGTGG
TGCTCAGCCTGACTTTCAAGCGTTATGTCTTCGACACCCACAAGCGCATGGTTCAGTCTCCC**TGA**GTGTCCGGTG
ACCTCCCCCAGGGCCTCCTTGCCCAGCCCAGTCCAGGCTGCTGTGCCAAATCCCAACCAGCCACGCCTCAGCCTC
TCCCAGTCTCTCCCTGCAGTCCTGCAGCAGCAGCCCCCACCCCCAAGCTTGGTGCTGAGCCCTGGTGAGGAGCTG
AGGGGGATGGGTTGCTGGGGCCAGGAGGGTCTCTCCTCCAGCCCCTGCACACTCCCACCCAGGACAGCCCCCAGC
CCAACTAGGAAAGGGCCATGGGCAGAGGGCTGGTAGCCAGTATCTTCCACTGCCCCATCTGTTGGCCACCTGCAG
GCCAGTCTCAACCCTCCCCCAGGTGGGCAGGCACTTGATGGCTACAAATAAATGTCCCGTGGCCCCAGCCCACTC
T

FIGURE 4102

GTGAGCGCCAGGAAGGTAGCGAGGCCAGCGTCGCCCCGGGACTCGCTGCTCAAGTCTGTCTATTGCCTGCCGCCA
CATCCATCCTAGCAGGGCCCCGTCGCCCACCAGGCGGACAAAAGCGGTCCGCTGAACACCATGCGGCCGCTCGGC
GTGCCGCCCAGGCTCTGCTGGTGAGCGCCGCCACCCCGCGCCCAGGTCCCGCGAGCCCGCCTGCCGCGCACCTCG
CCCTGCTCCCAGCTCTACTCCAGGCCCCGTCCGCCCGGGGGCGCCGCCCACCGCGCCTCGCTCGGGCCGTTGCCG
TCTGCACCCAGACCCTGAGCCGCCGCCGCCGGCCATGGAGGTGGCGCCCGAGCAGCCGCGCTGGATGGCGCACCC
GGCCGTGCTGAATGCGCAGCACCCCGACTCACACCACCCGGGCCTGGCGCACAACTACATGGAACCCGCGCAGCT
GCTGCCTCCAGACGAGGTGGACGTCTTCTTCAATCACCTCGACTCGCAGGGCAACCCCTACTATGCCAACCCCGC
TCACGCGCGGGCGCGCGTCTCCTACAGCCCCGCGCAGCCCGCCTGACCGGAGGCCAG**ATG**TGCCGCCCACACTTG
TTGCACAGCCCGGGTTTGCCCTGGCTGGACGGGGGCAAAGCAGCCCTCTCTGCCGCTGCGGCCCACCACCACAAC
CCCTGGACCGTGAGCCCCTTCTCCAAGACGCCACTGCACCCCTCAGCTGCTGGAGGCCCTGGAGGCCCACTCTCT
GTGTACCCAGGGGCTGGGGGTGGGAGCGGGGGAGGCAGCGGGAGCTCAGTGGCCTCCCTCACCCCTACAGCAGCC
CACTCTGGCTCCCACCTTTTCGGCTTCCCACCCACGCCACCCAAAGAAGTGTCTCCTGACCCTAGCACCACGGGG
GCTGCGTCTCCAGCCTCATCTTCCGCGGGGGGTAGTGCAGCCCGAGGAGAGGACAAGGACGGCGTCAAGTAGCAG
GTGTCACTGACGGAGAGCATGAAGATGGAAAGTGGCAGTCCCCTGCGCCCAGGCCTAGCTACTATGGGCACCCAG
CCTGCTACACACCACCCCATCCCCACCTACCCCTCCTATGTGCCGGCGGCTGCCCACGACTACAGCAGCGGACTC
TTCCACCCCGGAGGCTTCCTGGGGGGACCGGCCTCCAGCTTCACCCCTAAGCAGCGCAGCAAGGCTCGTTCCTGT
TCAGAAGGCCGGGAGTGTGTCAACTGTGGGGCCACAGCCACCCCTCTCTGGCGGCGGGACGGCACCGGCCACTAC
CTGTGCAATGCCTGTGGCCTCTACCACAAGATGAATGGGCAGAACCGACCACTCATCAAGCCCAAGCGAAGACTG
TCGGCCGCCAGAAGAGCCGGCACCTGTTGTGCAAATTGTCAGACGACAACCACCACCTTATGGCGCCGAAACGCC
AACGGGGACCCTGTCTGCAACGCCTGTGGCCTCTACTACAAGCTGCACAATGTTAACAGGCCACTGACCATGAAG
AAGGAAGGGATCCAGACTCGGAACCGGAAGATGTCCAACAAGTCCAAGAAGAGCAAGAAAGGGGCGGAGTGCTTC
GAGGAGCTGTCAAAGTGCATGCAGGAGAAGTCATCCCCCTTCAGTGCAGCTGCCCTGGCTGGACACATGGCACCT
GTGGGCCACCTCCCGCCCTTCAGCCACTCCGGACACATCCTGCCCACTCCGACGCCCATCCACCCCTCCTCCAGC
CTCTCCTTCGGCCACCCCCACCCGTCCAGCATGGTGACCGCCATGGGC**TAG**GGAACAGATGGACGTCGAGGACCG
GGCACTCCCGGGATGGGTGGACCAAACCCTTAGCAGCCCAGCATTTCCCGAAGGCCGACACCACTCCTGCCAGCC
CGGCTCGGCCCAGCACCCCCTCTCCTGGAGGGCGCCCAGCAGCCTGCCAGCAGTTACTGTGAATGTTCCCCACCG
CTGAGAGGCTGCCTCCGCACCTGACCGCTGCCCAGGTGGGGTTTCCTGCATGGACAGTTGTTTGGAGAACAACAA
GGACAACTTTATGTAGAGAAAAGGAGGGGACGGGACAGACGAAGGCAACCATTTTTAGAAGGAAAAAGGATTAGG
CAAAAATAATTTATTTTGCTCTTGTTTCTAACAAGGACTTGGAGACTTGGTGGTCTGAGCTGTCCCAAGTCCTCC
GGTTCTTCCTCGGGATTGGCGGGTCCACTTGCCAGGGCTCTGGGGGCAGATTTGTGGGGACCTCAGCCTGCACCC
TCTTCTCCTCTGGCTTCCCTCTCTGAAATAGCCGAACTCCAGGCTGGGCTGAGCCAAAGCCAGAGTGGCCACGGC
CCAGGGAGGGTGAGCTGGTGCCTGCTTTGACGGGCCAGGCCCTGGAGGGCAGAGACAATCACGGGCGGTCCTGCA
CAGATTCCCAGGCCAGGGCTGGGTCACAGGAAGGAAACAACATTTTCTTGAAAGGGGAAACGTCTCCCAGATCGC
TCCCTTGGCTTTGAGGCCGAAGCTGCTGTGACTGTGTCCCCTTACTGAGCGCAAGCCACAGCCTGTCTTGTCAGG
TGGACCCTGTAAATACATCCTTTTTCTGTTAACCCTTCAACCCCCTCGCCTACTACTCTGAGAC

FIGURE 4103

CTCCAGCACAGCGTTGGTGCTGCCTGGGTATCAGAAAGCAAGCTCACATTGCTCTCCAGTACGTGTAAGCCTTTT
CTTTTCAAGATGCCTGAGGAAGTGCACCATGGAGAGGAGGAGGTGGAGACTTTTGCCTTTCAGGCAGAAATTGCC
CAACTCATATCCCTCATCATCAATACCTTCTATTCCAACGAGGAGATTTTCCTTCAGGAGTTGATCTCTAATGCT
TCTGATGCCTTGGACAAGATTCGCTATGAGAGCCTGACAGACCCTTCAAAGTTGGACAGTGGTAAAGAGCTGAAA
ATTGACATCATCCCCAACCCTCAGGAACGTACCCTGGCTTTGGTAGACACAGGCATTGGCATGACCAAAGCTGAT
CTCATAAATAATTTGAGAACCATTGCCAAGTCTGGTACTAAAGCATGCATGGAGGCTCTTCAGGCTGGTGCAGAC
ATCTCCATGATTGGGCAGTTTGGTGTTGGCTTTTTTCTGCCTACCTGGTGGCAGAGAAACTGGTTGTGATCACAA
AGCACAACGATGATGAACAGTATGCTTGGGAGTCTTCTGCTGGAGGTTCCTTCACTGTGCATGCTGATCATGGTG
AGCCCATTGGCAGGGGTACCAAAGTGATCCTCCATCTTAAAGAAGATCAGACAGAGTACTTAGAAGAGAGGCGGG
TCAAAGAAGTAGTGAAGAAGCATTCTCAGTTCATAGGCTATCCCATCACCCTTTATTTGGAGAAGGAACAAGACA
AGGAAATTAGTGATGATGAGGCAGAAGAAGAGAAAGGTGAGAAAGAAGAGGAAGATAAAGATGACGAAGAAAAGC
CCAAGATCAAAGATGTGGGTTCAGATGAGGAGGATGACAGCAGTAAGGATAAGAAGAAGAAAACTAAGAAGATCA
AAGAGAAATACATTGACTAGGAAGAACTAAACAAGACCAAGCCTATTTGGACCAGAAACCATGATGACATCACCC
AAGAGGAGTATGGAGAATTCTATAAGAGCCTCACCAGTGACTGGGAAGACCACTTGGCAGTCAAGCACTTTTCTG
TAGAAGGTCAGTTGGAATTCAGGGCATTGCTATTCAGTCCTCGTCGGGCTCCCTTTGACCTTTTTGAGAACAAGA
AGAAAAAGAACAACATCAAACTGTATGTCCGCCGTGTGTTCATCATGGACAGCTGTGATGAGTTGATACCAGAGT
ATCTCAATTTTATCCATGGTGTGGTTGACTCTGAGGATCTGCCCCTGAACATCTCCCGAGAAATGCTCCAGCAGA
GCAAAATCTTGAAAGTCATTCGCAAAAACATTGTTAAGAAGTGCCTTGAGCTCTTCTCTGAGCTGGCAGAAGACA
AGGAGATTATAAGAAATTCTATGAGGCATTTTCTAAAAATCTCAAGCTTGGAATCCACGAAGACTCCACTAACCG
CCACCGCCTGTCTGAGCTGCTGCGCTGTCACACCTCCCAGTCTGGAGATGAGATGACATCTCTGTCGTAGTATGT
TTCTCAC**ATG**AAGGAGACACAGAAGTCCACCTATTACATCACTGGTGAGAGCAAAGAGCAGGTGGCCAACTCTGC
TTTTGTGGAGCGAGTGCGGAAACAGGGCTTCGAGGTGGTATATATGACTGAGCCCATTGACGAGTACTGTGTGCA
GCAGCTCAAGGAGTTTGATGGGAAAAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAGCTACCTGAGGATGAGGA
GGAGAAGAAGAAGATGGAAGAAAGCAAGGAAAAGTTTGAGAACCTCTGCAAGCTCATGAAAGAAATCTTAGATAA
GAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTGTCTTCACCCTGCTGCATTGTGACCAGCACCTACGGCTG
GACAGCCAATATGGAGCAGATCATGAAAGCCCAGGCACTTCGGGACAACTCCACCATGGGCTATATGATGGCCAA
AAAGCACCTGGAGATCAACCCCGACCACCCCATCATGGAGACGCTGCGGCAGAAGGCTGAGGCCGACAAGAATGA
TAAGGCAGTTAAGGACCTGGTGGTGCTGCTGTTTGAAACCGCCCTGCTATCTTCGGGCTTTTCCCTTGAGGATCC
CCAGACCCACTCCAACCACATCTACCACATGATCAAGCTAGGTCTAGGTACTGATGAAGATGAAGTGGCAGCAGA
GGAACCCAGTGATGCAGTTCCTGATGAGATCCCCCCTCTTGAGGGTGATGAGGATGCGTCTCGCATGGAAGAAGT
CGAT**TAG**GAGTTCATAGTTGGAAAACTTGTGCCCTTGTATAGTGTCCCCATGGCTCCCACTGCAGCCTCGAGTGC
CCCTGTCCCACCTGGCTGCTGGTGTCTAGTGTTTTTTTCCCTCTCCTGTCCTTGTGTTGAAGGCAGGAAACCAAG
GGTGTCAAGCCCCATTCCCTCTCTACTCTTGACAGCAGGATTGGATGTTGTGTATTGTGGTTTATTTTATTTTCT
TCATTTTGTTCTGAAATTAAAGAATGTAAAATAAAGAATATGCCGTTTTTATAC

FIGURE 4104

GAGCAGCAGAATTTCAACTCCAGTAGACTTGAATATGCCTCTGGGCAAAGAAGCAGAGCTAACGAGGAAAGGGAT
TTAAAGAGTTTTTCTTGGGTGTTTGTCAAACTTTTATTCCCTGTCTGTGTGCAGAGGGGATTCAACTTCAATTTT
TCTGCAGTGGCTCTGGGTCCAGCCCCTTACTTAAAGATCTGGAAAGC**ATG**AAGACTGGGCTTTTTTTCCTATGTC
TCTTGGGAACTGCAGCTGCAATCCCGACAAATGCAAGATTATTATCTGATCATTCCAAACCAACTGCTGAAACGG
TAGCACCTGACAACACTGCAATCCCCAGTTTAAGGGCTGAAGCTGAAGAAAATGAAAAAGAAACAGCAGTATCCA
CAGAAGACGATTCCCACCATAAGGCTGAAAAATCATCAGTACTAAAGTCAAAAGAGGAAAGCCATGAACAGTCAG
CAGAACAGGGCAAGAGTTCTAGCCAAGAGCTGGGATTGAAGGATCAAGAGGACAGTGATGGTCACTTAAGTGTGA
ATTTGGAGTATGCACCAACTGAAGGTACATTGGACATAAAAGAAGATATGAGTGAGCCTCAGGAGAAAAAACTCT
CAGAGAACACTGATTTTTTGGCTCCTGGTGTTAGTTCCTTCACAGATTCTAACCAACAAGAAAGTATCACAAAGA
GAGAGGAAAACCAAGAACAACCTAGAAATTATTCACATCATCAGTTGAACAGGAGCAGTAAACATAGCCAAGGCC
TAAGGGATCAAGGAAACCAAGAGCAGGATCCAAATATTTCCAATGGAGAAGAGGAAGAAGAAAAAGAGCCAGGTG
AAGTTGGTACCCACAATGATAACCAAGAAAGAAAGACAGAATTGCCCAGGGAGCATGCTAACAGCAAGCAGGAGG
AAGACAATACCCAATCTGATGATATTTTGGAAGAGTCTGATCAACCAACTCAAGTAAGCAAGATGCAGGAGGATG
AATTTGATCAGGGTAACCAAGAACAAGAAGATAACTCCAATGCAGAAATGGAAGAGGAAAATGCATCGAACGTCA
ATAAGCACATTCAAGAAACTGAATGGCAGAGTCAAGAGGGTAAAACTGGCCTAGAAGCTATCAGCAACCACAAAG
AGACAGAAGAAAAGACTGTTTCTGAGGCTCTGCTCATGGAACCTACTGATGATGGTAATACCACGCCCAGAAATC
ATGGAGTTGATGATGATGGCGATGATGATGGCGATGATGGCGGCACTGATGGCCCCAGGCACAGTGCAAGTGATG
ACTACTTCATCCCAAGCCAGGCCTTTCTGGAGGCCGAGAGAGCTCAATCCATTGCCTATCACCTCAAAATTGAGG
AGCAAAGAGAAAAAGTACATGAAAATGAAAATATAGGTACCACTGAGCCTGGAGAGCACCAAGAGGCCAAGAAAG
CAGAGAACTCATCAAATGAGGAGGAAACGTCAAGTGAAGGCAACATGAGGGTGCATGCTGTGGATTCTTGCATGA
GCTTCCAGTGTAAAAGAGGCCACATCTGTAAGGCAGACCAACAGGGAAAACCTCACTGTGTCTGCCAGGATCCAG
TGACTTGTCCTCCAACAAAACCCCTTGATCAAGTTTGTGGCACTGACAATCAGACCTATGCTAGTTCCTGTCATC
TATTCGCTACTAAATGCAGACTGGAGGGGACCAAAAAGGGGCATCAACTCCAGCTGGATTATTTTGGAGCCTGCA
AATCTATTCCTACTTGTACGGACTTTGAAGTGATTCAGTTTCCTCTACGGATGAGAGACTGGCTCAAGAATATCC
TCATGCAGCTTTATGAAGCCAACTCTGAACACGCTGGTTATCTAAATGAGAAGCAGAGAAATAAAGTCAAGAAAA
TTTACCTGGATGAAAAGAGGCTTTTGGCTGGGGACCATCCCATTGATCTTCTCTTAAGGGACTTTAAGAAAAACT
ACCACATGTATGTGTATCCTGTGCACTGGCAGTTTAGTGAACTTGACCAACACCCTATGGATAGAGTCTTGACAC
ATTCTGAACTTGCTCCTCTGCGAGCATCTCTGGTGCCCATGGAACACTGCATAACCCGTTTCTTTGAGGAGTGTG
ACCCCAACAAGGATAAGCACATCACCCTGAAGGAGTGGGGCCACTGCTTTGGAATTAAAGAAGAGGACATAGATG
AAAATCTCTTGTTT**TGA**ACGAAGATTTTAAAGAACTCAACTTTCCAGCATCCTCCTCTGTTCTAACCACTTCAGA
AATATATGCAGCTGTGATACTTGTAGATTTATATTTAGCAAAATGTTAGCATGTATGACAAGACAATGAGAGTAA
TTGCTTGACAACAACCTATGCACCAGGTATTTAACATTAACTTTGGAAACAAAAATGTACAATTAAGTAAAGTCA
ACATATGCAAAATACTGTACATTGTGAACAGAAGTTTAATTCATAGTAATTTCACTCTCTGCATTGACTTATGAG
ATAATTAATGATTAAACTATTAATGATAAAAATAATGCATTTGTATTGTTCATAATATCATGTGCACTTCAAGAA
AATGGAATGCTACTCTTTTGTGGTTTACGTGTATTATTTTCAATATCTTAATACCCTAATAAAGAGTCCATAAAA
ATCC

FIGURE 4105

AAAGCGCCATTACGCAGAGAGAAAGTTACGAGGTTCGTGGCCGCGGTTTCCCCAGGCAGCTGGCGCTGGAGGCTT
CGGCGTCACGTGCTGGTCTGGATTTTTCTCGATGCACTGGGGAAAGCGGTGGACTCTTATCGTGGGAGGGCTCTT
GATCTGTGATTTATAGATAGGCACAGCTACTCCCGTTCGGGAACCCAACGGCAGACAGGTCCTAGTGCCCATCAG
ATACCCGCGGCCGGGACTCGGAGCTGTGGGGTGTGGGGAGGCGGAGGCACCAACTAAGAGCGACCTAGCATCGCA
AAGCCGCCCTCGGGGCGCTC**ATG**GCGGGACGCCTCCTGGGAAAGGCTTTAGCCGCGGTGTCTCTCTCTCTGGCCT
TGGCCTCTGTGACTATCAGGTCCTCGCGCTGCCGCGGCATCCAGGCGTTCAGAAACTCGTTTTCATCTTCTTGGT
TTCATCTTAATACCAACGTCATGTCTGGTTCTAATGGTTCCAAAGAAAATTCTCACAATAAGGCTCGGACGTCTC
CTTACCCAGGTTCAAAAGTTGAACGAAGCCAGGTTCCTAATGAGAAAGTGGGCTGGCTTGTTGAGTGGCAAGACT
ATAAGCCTGTGGAATACACTGCAGTCTCTGTCTTGGCTGGACCCAGGTGGGCAGATCCTCAGATCAGTGAAAGTA
ATTTTTCTCCCAAGTTTAACGAAAAGGATGGGCATGTTGAGAGAAAGAGCAAGAATGGCCTGTATGAGATTGAAA
ATGGAAGACCGAGAAATCCTGCAGGACGGACTGGACTGGTGGGCCGGGGGCTTTTGGGGCGATGGGGCCCAAATC
ACGCTGCAGATCCCATTATAACCAGATGGAAAAGGGATAGCAGTGGAAATAAAATCATGCATCCTGTTTCTGGGA
AGCATATCTTACAATTTGTTGCAATAAAAAGGAAAGACTGTGGAGAATGGGCAATCCCAGGGGGGATGGTGGATC
CAGGAGAGAAGATTAGTGCCACACTGAAAAGAGAATTTGGTGAGGAAGCTCTCAACTCCTTACAGAAAACCAGTG
CTGAGAAGAGAGAAATAGAGGAAAAGTTGCACAAACTCTTCAGCCAAGACCACCTAGTGATATATAAGGGATATG
TTGATGATCCTCGAAACACTGATAATGCATGGATGGAGACAGAAGCTGTGAACTACCATGACGAAACAGGTGAGA
TAATGGATAATCTTATGCTAGAAGCTGGAGATGATGCTGGAAAAGTGAAATGGGTGGACATCAATGATAAACTGA
AGCTTTATGCCAGTCACTCTCAATTCATCAAACTTGTGGCTGAGAAACGAGATGCACACTGGAGCGAGGACTCTG
AAGCTGACTGCCATGCGTTG**TAG**CTGATGGTCTCCGTGTAAGCCAAAGGCCCACAGAGGAGCATATACTGAAAAG
AAGGCAGTATCACAGAATTTATACTATAAAAAGGGCAGGGTAGGCCACTTGGCCTATTTACTTTCAAAACAATTT
GCATTTAGAGTGTTTCGCATCAGAATAACATGAGTAAGATGAACTGGAACACAAAATTTTCAGCTCTTTGGTCAA
AAGGAATATAAGTAATCATATTTTGTATGTATTCGATTTAAGCATGGCTTAAATTAAATTTAAACAACTAATGCT
CTTTGAAGAATCATAATCAGAATAAAGATAAATTCTTGATCAGCTAT

FIGURE 4106

CCTTGCTCTCGCCCCTACTCTTTCTGGTGTTAGATCGAGCTACCCTCTAAAAGCAGTTTAGAGTGGTAAAAAAAA
AAAAAAACACACCAAACGCTCGCAGCCACAAAAGGG**ATG**AAATTTCTTCTGGACATCCTCCTGCTTCTCCCGTTA
CTGATCGTCTGCTCCCTAGAGTCCTTCGTGAAGCTTTTTATTCCTAAGAGGAGAAAATCAGTCACCGGCGAAATC
GTGCTGATTACAGGAGCTGGGCATGGAATTGGGAGACTGACTGCCTATGAATTTGCTAAACTTAAAAGCAAGCTG
GTTCTCTGGGATATAAATAAGCATGGACTGGAGGAAACAGCTGCCAAATGCAAGGGACTGGGTGCCAAGGTTCAT
ACCTTTGTGGTAGACTGCAGCAACCGAGAAGATATTTACAGCTCTGCAAAGAAGGTGAAGGCAGAAATTGGAGAT
GTTAGTATTTTAGTAAATAATGCTGGTGTAGTCTATACATCAGATTTGTTTGCTACACAAGATCCTCAGATTGAA
AAGACTTTTGAAGTTAATGTACTTGCACATTTCTGGACTACAAAGGCATTTCTTCCTGCAATGACGAAGAATAAC
CATGGCCATATTGTCACTGTGGCTTCGGCAGCTGGACATGTCTCGGTCCCCTTCTTACTGGCTTACTGTTCAAGC
AAGTTTGCTGCTGTTGGATTTCATAAAACTTTGACAGATGAACTGGCTGCCTTACAAATAACTGGAGTCAAAACA
ACATGTCTGTGTCCTAATTTCGTAAACACTGGCTTCATCAAAAATCCAAGTACAAGTTTGGGACCCACTCTGGAA
CCTGAGGAAGTGGTAAACAGGCTGATGCATGGGATTCTGACTGAGCAGAAGATGATTTTTATTCCATCTTCTATA
GCTTTTTTAACAACATTGGAAAGGATCCTTCCTGAGCGTTTCCTGGCAGTTTTAAAACAAAAAATCAGTGTTAAG
TTTGATGCAGTTATTGGATATAAAATGAAAGCGCAA**TAA**GCACCTAGTTTTCTGAAAACTGATTTACCAGGTTTA
GGTTGATGTCATCTAATAGTGCCAGAATTTTAATGTTTGAACTTCTGTTTTTTCTAATTATCCCCATTTCTTCAA
TATCATTTTTGAGGCTTTGGCAGTCTTCATTTACTACCACTTGTTCTTTAGCCAAAAGCTGATTACATATGATAT
AAACAGAGAAATACCTTTAGAGGTGACTTTAAGGAAAATGAAGAAAAAGAACCAAAATGACTTTATTAAAATAAT
TTCCAAGATTATTTGTGGCTCACCTGAAGGCTTTGCAAAATTTGTACCATAACCGTTTATTTAACATATATTTTT
ATTTTTGATTGCACTTAAATTTTGTATAATTTGTGTTTCTTTTTCTGTTCTACATAAAATCAGAAACTTCAAGCT
CTCTAAATAAAATGAAGGACTATATCTAGTGGTATTTCACAATGAATATCATGAACTCTCAATGGGTAGGTTTCA
TCCTACCCATTGCCACTCTGTTTCCTGAGAGATACCTCACATTCCAATGCCAAACATTTCTGCACAGGGAAGCTA
GAGGTGGATACACGTGTTGCAAGTATAAAAGCATCACTGGGATTTAAGGAGAATTGAGAGAATGTACCCACAAAT
GGCAGCAATAATAAATGGATCACACTTAA

FIGURE 4107A

GGCAATTTCTTTTCCTTTCTAACTGTGGCCCGCGTTGTGCTGTTGCTGGGCAGGCGTTGGGCGCCGGCGGTCTTC
GAGCGTGGGGGCCCGCTGGCTTTCCCTTCTCAGAAACTGCGCCGGGGGCGCTCGCTTGCCCCGGATTCGGACGCG
GCGCTCCCCGGGCTCGTCTGAAGTGCAGATCGCCGCAGAGGCCCCAGTGCCCGGATGTCCATCAGGATTAGCGCG
AGCCAATACGGGCCGAGCCCGGGGCTGCGCCGAGGACGCCCGGGGCTCGAGAGCAGGTAGTCCCGTAACATCGGG
GCGCCGCGCCGGGACGCGTCCCCGCCCGGCTCCGCCAAATGGTGAGCGCGGCGCTGGCAGCAGGGCCCGCGGGGT
GAAGGCGCTCATGGACGGAAGACCCCTGGCTCTATAAGCTGAATT**ATG**GCAGCCCAGTCAAGTTTGTACAATGAC
GACAGAAACCTGCTTCGAATTAGAGAGAAGGAAAGACGCAACCAGGAAGCCCACCAAGAGAAAGAGGCATTTCCT
GAAAAGATTCCCCTTTTTGGAGAGCCCTACAAGACAGCAAAAGGTGATGAGCTGTCTAGTCGAATACAGAACATG
TTGGGAAACTACGAAGAAGTGAAGGAGTTCCTTAGTACTAAGTCTCACACTCATCGCCTGGATGCTTCTGAAAAT
AGGTTGGGAAAGCCGAAATATCCTTTAATTCCTGACAAAGGGAGCAGCATTCCATCCAGCTCCTTCCACACTAGT
GTCCACCACCAGTCCATTCACACTCCTGCGTCTGGACCACTTTCTGTTGGCAACATTAGCCACAATCCAAAGATG
GCGCAGCCAAGAACTGAACCAATGCCAAGTCTCCATGCCAAAAGCTGCGGCCCACCGGACAGCCAGCACCTGACC
CAGGATCGCCTTGGTCAGGAGGGGTTCGGCTCTAGTCATCACAAGAAAGGTGACCGAAGAGCTGACGGAGACCAC
TGTGCTTCGGTGACAGATTCGGCTCCAGAGAGGGAGCTTTCTCCCTTAATCTCTTTGCCTTCCCCAGTTCCCCCT
TTGTCACCTATACATTCCAACCAGCAAACTCTTCCCCGGACGCAAGGAAGCAGCAAGGTTCATGGCAGCAGCAAT
AACAGTAAAGGCTATTGCCCAGCCAAATCTCCCAAGGACCTAGCAGTGAAAGTCCATGATAAAGAGACCCCTCAA
GACAGTTTGGTGGCCCCTGCCCAGCCGCCTTCTCAGACATTTCCACCTCCCTCCCTCCCCTCAAAAAGTGTTGCA
ATGCAGCAGAAGCCCACGGCTTATGTCCGGCCCATGGATGGTCAAGATCAGGCCCCTAGTGAATCCCCTGAACTG
AAACCACTGCCGGAGGACTATCGACAGCAGACCTTTGAAAAAACAGACTTGAAAGTGCCTGCCAAAGCCAAGCTC
ACCAAACTGAAGATGCCTTCTCAGTCAGTTGAGCAGACCTACTCCAATGAAGTCCATTGTGTTGAAGAGATTCTG
AAGGAAATGACCCATTCATGGCCGCCTCCTTTGACAGCAATACATACGCCTAGTACAGCTGAGCCATCCAAGTTT
CCTTTCCCTACAAAGGACTCTCAGCATGTCAGTTCTGTAACCCAAAACCAAAAACAATATGATACATCTTCAAAA
ACTCACTCAAATTCTCAGCAAGGAACGTCATCCATGCTCGAAGACGACCTTCAGCTCAGTGACAGTGAGGACAGT
GACAGTGAACAAACCCCAGAGAAGCCTCCCTCCTCATCTGCACCTCCAAGTGCTCCACAGTCCCTTCCAGAACCA
GTGGCATCAGCACATTCCAGCAGTGCAGAGTCAGAAAGCACCAGTGACTCAGACAGTTCCTCAGACTCAGAGAGC
GAGAGCAGTTCAAGTGACAGCGAAGAAAATGAGCCCCTAGAAACCCCAGCTCCGGAGCCTGAGCCTCCAACAACA
AACAAATGGCAGCTGGACAACTGGCTGACCAAAGTCAGCCAGCCAGCTGCGCCACCAGAGGGCCCCAGGAGCACA
GAGCCCCCACGGCGGCACCCAGAGAGTAAGGGCAGCAGCGACAGTGCCACGAGTCAGGAGCATTCTGAATCCAAA
GATCCTCCCCCTAAAAGCTCCAGCAAAGCCCCCCGGGCCCCACCCGAAGCCCCCCACCCCGGAAAGAGGAGCTGT
CAGAAGTCTCCGGCACAGCAGGAGCCCCCACAAAGGCAAACCGTTGGAACCAAACAACCCAAAAAACCTGTCAAG
GCCTCTGCCCGGGCAGGTTCACGGACCAGCCTGCAGGGGGAAAGGGAGCCAGGGCTTCTTCCCTATGGCTCCCGA
GACCAGACTTCCAAAGACAAGCCCAAGGTGAAGACGAAAGGACGGCCCCGGGCCGCAGCAAGCAACGAACCCAAG
CCAGCAGTGCCCCCCTCCAGTGAGAAGAAGAAGCACAAGAGCTCCCTCCCTGCCCCCTCTAAGGCTCTCTCAGGC
CCAGAACCCGCGAAGGACAATGTGGAGGACAGGACCCCTGAGCACTTTGCTCTTGTTCCCCTGACTGAGAGCCAG
GGCCCACCCCACAGTGGCAGCGGCAGCAGGACTAGTGGCTGCCGCCAAGCCGTGGTGGTCCAGGAGGACAGCCGC
AAAGACAGACTCCCATTGCCTTTGAGAGACACCAAGCTGCTCTCACCGCTCAGGGACACTCCTCCCCCCACAAAGC
TTGATGGTGAAGATCACCCTAGACCTGCTCTCTCGGATACCCCAGCCTCCCGGGAAGGGGAGCCGCCAGAGGAAA
GCAGAAGATAAACAGCCGCCCGCAGGGAAGAAGCACAGCTCTGAGAAGAGGAGCTCAGACAGCTCAAGCAAGTTG
GCCAAAAAGAGAAAGGGTGAAGCAGAAAGAGACTGTGATAACAAGAAAATCAGACTGGAGAAGGAAATCAAATCA
CAGTCATCTTCATCTTCATCCTCCCACAAAGAATCTTCTAAAACAAAGCCCTCCAGGCCCTCCTCACAGTCCTCA
AAGAAGGAAATGCTCCCCCCGCCACCCGTGTCCTCGTCCTCCCAGAAGCCAGCCAAGCCTGCACTTAAGAGGTCA
AGGCGGGAAGCAGACACCTGTGGCCAGGACCCTCCCAAAAGTGCCAGCAGTACCAAGAGCAACCACAAAGACTCT
TCCATTCCCAAGCAGAGAAGAGTAGAGGGGAAGGGCTCCAGAAGCTCCTCGGAGCACAAGGGTTCTTCCGGAGAT
ACTGCAAATCCTTTTCCAGTGCCTTCTTTGCCAAATGGTAACTCTAAACCAGGGAAGCCTCAAGTGAAGTTTGAC
AAACAACAAGCAGACCTTCACATGAGGGAGGCAAAAAAGATGAAGCAGAAAGCAGAGTTAATGACGGACAGGGTT
GGAAAGGCTTTTAAGTACCTGGAAGCCGTCTTGTCCTTCATTGAGTGCGGAATTGCCACAGAGTCTGAAAGCCAG
TCATCCAAGTCAGCTTACTCTGTCTACTCAGAAACTGTAGATCTCATTAAATTCATAATGTCATTAAAATCCTTC
TCAGATGCCACAGCGCCAACACAAGAGAAAATATTTGCTGTTTTATGCATGCGTTGCCAGTCCATTTTGAACATG

FIGURE 4107B

GCGATGTTTCGTTGTAAAAAAGACATAGCAATAAAGTATTCTCGTACTCTTAATAAACACTTCGAGAGTTCTTCC
AAAGTCGCCCAGGCACCTTCTCCATGCATTGCAAGCACAGGCACACCATCCCCTCTTTCCCCAATGCCTTCTCCT
GCCAGCTCCGTAGGGTCCCAGTCAAGTGCTGGCAGTGTGGGGAGCAGTGGGGTGGCTGCCACTATCAGCACCCCA
GTCACCATCCAGAATATGACATCTTCCTATGTCACCATCACATCCCATGTTCTTACCGCCTTTGACCTTTGGGAA
CAGGCCGAGGCCCTCACGAGGAAGAATAAAGAATTCTTTGCTCGGCTCAGCACAAATGTGTGCACCTTGGCCCTC
AACAGCAGTTTGGTGGACCTGGTGCACTATACACGACAGGGTTTTCAGCAGCTACAAGAATTAACCAAAACACCT
TAATGGAGCCCCAGGTTGATTCAATGCCTTGGGAACTATTTTTGCACATTGGAAGCCTCAAAAACAGTCCAGACA
TTTGTTTCATCAGGACACCAAACTCTAAAAAAGAAGCACCACGAGATGGCCAGGACATTTGTCCACTTAAACTCT
CAACAACAGTGTGATCATTGGTTGGACACTGTGGTTATGCAGAAGCAGAGATGAGGAGGCTGGCCCCAGAGATGA
TCTTGCCCTTCCTAACTAAAGGACAGAAGTGCAATTTAGCTTAAATGGGTGTATGAATGGTCTAGAAACATTTCT
ATTTTTTTTTTAAACCAGCAGGATACAAGTTGCAAATGAAATGAGGAGAAACAGTTTCAACTCTGAAAGTGAATT
TCACGTCATCTCAGTAGCCACGCTAGTCCATTCCCAGAAGGAAATTTTTTTTTTTAACAATGACTTTTGGTAAAG
GGTTTTGTGGATGATTTTTTTTCTTTTGAGTTTTGGGAGAAATATTTGTTTAGTAACTTCTAATGGCCATCTGTA
AACCATAAGTAATGAAGGACTCCACTGTGCCCCACTTTCTGCCAATGAACAGTGGCTTGATAATACCAAGTATTG
TTGTAATTTATAAAATTGAAGGCAACCCCCGCTCCTGCCGCCCCCAATCTCCCCATTGCCTAGAGCGCTGCACAT
TGACCCCAGCTCTGACTTCTCATTACTGTGCTGAAAGTCAGCCCACGTCGGAGCGGTGAGGAGGAGCCACAGCAC
ATGGGGTGCCACCTCGAGGTCTGCACAGGAGGACTTGGCGCTGCCATTTCCTACCCCTGCCATTTCCCACCCCTG
CTTCAGCGAAAGGGACTCTCTAACAGGGCAGTCACTGTTGACTCTATTCTGAATTTCCTCCCTTGGGGAAGAAGG
GAACCAACATTTATACCTGACCAGATGGCTAAAGTGCTTTTAAAGTTTTGTTTAAGTAGAGCTGGAATTTGAGGT
GCTGATCTGTGGTCTACAGTTATGTGGTAACTCATGTTGTCCAGCCAACTCAGAGTTTCGTCAGTGAACAAGAAA
CATGAAATCTGCTTCTTAGAGAGGCTATATTTTTCTGCTACAAATATTTTATATTTATAGCAAAACTAGACTTTC
AGAGTCCTTGATTGTCTAGGGGAAGTTAACTCCCTGAGAGGATGTAGAGATTTGGGGTGGTTGATTAGACTTTTG
AAAAACTCATCACCACATGCCTTCACTCCAGAGTGTTCTCAGCTAGATTTGATTTGGTTGAGGAGGAACTGTGGC
CCTCCGTAAGTTATTGCCATAGTGTATGCATTAAACCAAGTCCATTTTGAATGACCTAAAATGAAGTAACACAAT
CAGAAATCCCATGTGCCCATAAGCACAGATTTTTCTTTTTCATTGAAACTTTAAAGGTTATTATTGGAAACATTA
CTTTGAGTGCAGTGTTTTTAAAAGCCAATTCTTTTTTATCCCTTTTAGAAGTAGAATTTGCACACTTACTACAAT
TGAGGAGTGTCATCTCTATAACTTTTTCTCCGCCTTTGTCCCATTCTGCCCCTGTACATGTTTCCTACCAAGCAT
GTTTCACATTTTCCTATTAGTGGAGGAGGGAGAACCATATTTATTTATAATGAAGACATCTAAGATCCCTATGAT
GAATGCAGGAACTCTCTTGGTAGTTTGTAAATACACAAAGGGATGTGTCGAGGGATGGGAGCGATGCTTATCTCT
CACAGTGTGAGTGGTCTGTGTGAGGCTGTTCCTTCAGTTTCTTCTCCAGACTGTTCTTTGGTTGTCACTAAGTCA
GAGGTCTGGTCCCTCATGTTTAGGTGAAAGCCAGAGAATGACAGCTGTAGTCATATCTGAGCATAAGACCTTGAT
GTGTGATTCCTGATGACCGGTTTCATTTATTCATGTTATAAAGCAAAGCCCTGGTCCTTTTTAAACTACTAGTTT
TAAAAACCTGTGTTAAATGAACAGTAATTGCCTGGTAGGTTTGGTGTGTGTGTAGCATTGTGTGTCCATCTGTTA
TATGTAAAGGACAAGGCACCAGAATCAGGCTTTATTTCGATATTGAAGATGTTATTTAACATCTTTCTTTTTTCC
TTACTCCCTTAGCCATCCCCTCCCCTTTTGTCCTATCATTCCCTAGAACAAGCCACCTGTCAATTGTGAAGGGTT
GTGTTCTTTATGGCAGGTTCTATGCAGATTGTGCCAGAGCATGTGCGTGTTCTGTTGGCAAGCCACAGTGCTCCC
TTGACTGAAGACATTTCCAGGTAGATTTCTCAGCCAGCTCTAAAACAGATTGCTTTTTCAGTGGCCTTACTCTTT
GTGGGTTTTTTTTTTTTCTCTGAACTTGATATAAAGATTTTATTTGTCCCTTGAAAAAGTAACAAATGTGCATA
GATCAATTTGTACTACTTTGGTCATTGGATATTTCTGATCCTTATTGCATTGTACCTAAAGGAGAGTAACTAATG
GTAACCTTTTTAATAGAGTATGTGAAAGGTAGTGGCTGATGAATCCTTAACGTTCATAGGGTCTTTTTGCTGTTA
CGGTTGTATATAGAGGTCTGAAGGATTTTTAAAATGATTTGCACTTTTTCACTGCATGCTTACAATTCCCAAAGG
CAAAATCTGTACTGAGGTAGATCATTTGAAAGGGCTAGATTATAAAATTAAGCCTTAGAGTATGGAAAGTTCTTA
TAACAATAATAGTACACACTTCAGAGTAAGACAAATGCAAAGCATCTTAAGGAGTGAAAATAGAGTGTAAATCTT
GCCTTTGGCACTACAAGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTCTTTAGTAGGAAATGGAAGAACACTG
TTTTATTTTTTAAAGTGTTTAATGTTTCTGTCCTTTCTGTGAATTATTGAATTTAAGAGCCCTGCTAAATAATGA
AAAAACACTTTACTAAAATTTATCAAATTATACTGGGTTCGGATTGTGAAAACATTGGCCACCTAGTAGCAGTGG
TGAGGAGTGGGAGGGCCCAGCAAGCATTTATCAGAAATAGAATCACAATAGGAGGAGAATTTGACTGTCTGATAT
TATGATTTGATTACAATACTGAATGGGAAAAGTATCTAATATTTTGTAACAAAAAGACCTTCATATTATCTGTTT

FIGURE 4107C

TGACCAAAATATGTAGCTATTTCCCTTACACAGATTGGACCGCACTTATCTCCCTTGTCCTGTATCCTTTAATTT
CAGGTCTCAGGATGTTTAGAAAGCTAAAACCCCCTACCCCTTTCTGGCTGAAAACTTGCCTTATTTGGTATCTTA
CACATTAATGTTACTAGCATCAGGAGCTTACTGTTTTATTATGATTCATCTTCAGTAATTTTTAGAAGCAAGAAG
AAAGCCATTGTGTCCTCTACAATTAACAAAACTTATCTCTGATATACAAAGGGATATAAATATATACACTTAAAT
AGAGAAAAAGAGGTTGATTGAATTGTGCCTTTGAGTGAACCCAGTTTTTAAATACCGCTGTGTTTGTTTCGCCAT
GGCTTCAGGGATGCTACATGGCTCTTGCACCTTTTACTCCTCTGCTTTATGAAGTTTGAGTTGTATTTGTGCATC
TTAAAGTAGGTTGAGGCTTGAGGCTGGGCTTTCGGGTTTTTTTGTTTTTTGTTTTGTTTTGTTTTGTTTTGTTTT
CTTGTACTTAAACCTGCTTGCTTCCTACCACAGATTCTTTATTTTCCCAAACACTACAAAAAAACTTTTAAAACT
TTGCCATTTCATCTGTTTACACTCTTTGCCACTGATTAGCAGTATTTAAATCTTGCAAGAATATTTTGTGCTTTC
TTTAGAAACACAAGAGTATAGATTTTTCTCACTGAAAAGTGAGAGTTACGCATTGCAGCCATGAAGGGATGCTAG
GATCAATTATGGCAGTACCTTTTTTCCCCTCCTGTTCTTGAGCCAGTTGTCTCTTTTGTTTTGGGTCCCACTTAG
GATTAATGGATGTAAGGTATTTTCCTGTGCCTTTATTTTGTGTCATTCTATTGGAAGGAGGTGTAACGGCAGAAT
AGCATCGTGTTGGGGGTTTTCCTTCAAACACTGCAAGTGATATTGCCACCATGTGAACCTCAAATATGCAATCCA
GTTGTGTTGGTTTCTCGGTGACTTGGAGTGTTCATCTCTTCATGAATTGTGAGCACTGACCATGTTCTTCAGTTC
TTAATTATGGTGAGTTGACAAATACCAACTACTGCTTTTCTTTAGGTGGCTATAAATTTCTTACTGTCAGGAGGA
AATGACATTATATTCTGTTCCACTGAACGTCAGAGATCAGCAGGCACTGTACTGGGTAGAGAAGTGCCTATACTT
CTCTACCTAAGAGGGCAGGAGGGAAACCCTACAGCTCCTTGTGAGCCTATATATTAGTATATCGGCCTGGAGAGG
ACAAGGGAATAAGACCACTCATAGTGAGGCTGGCCAAGCTGCACTGGTCGGACCAGGCAGTGGCTGACCTAAGGA
AGACAACTTGCTTTGCTTAAAAGTAGATTTTTTAAGCAATGCTTAACACAGGCAGCATTCACCTTTGTTCAGGCC
ATCGACATGTATTGTTAAAATTACTGCATATCCCCCTCAGATATCAAGTATACACTGTTCATGTTGGGGTTGTGT
GTGTGTATGTGTGTATGTACGCACGCATGTGTCCCAAATCTTGTTTTAATTTTTTTTTTCTGAATGTGATCATGT
TTTGGATGATACCTGAGCAGGGTTGCCTTTTTTTTATTTATTACCATTATATATTATATTATATTATATTATATA
TTTTTTGCTTTCTTATAACTTTGGAGGAAAGTCAAATCTTGGTATTATTAAAATTGTTTTAAAAAGGAGTAAATT
TTCCAGTTGATAAATGAAAATCACTGGCCTATGTTTAATAAGTTTTTCTTTAATTACTGTGGAATAACGTGCCAG
CTATCATCAACACAATGATTTTGTACATAGGGTAGGGAAGCAGTGATGCTCTCAATGGGAAGATGTGCAACACAA
ATTAAGGGGAACTCCATGTATTTTACCTACTTCAGCAATGGAACTGCAACTTGGGGCTTTGTGAATAAAATTTAG
CTGCCTTGTATAGTCGTTTGAAAGAATATGTGATCTGTGAGAGAATTATAGTTTTTTTTTAGAAGAAAAATCTGC
AAAAGATCTTTCCAAAGACAATGTGCCACAGATCTTTTGTTCTCTGTAATGAGGATTAATTGCTGTTTAAACAAA
AATGTAATTGTTCATCTTTAAATTCTTTCCTTTTCATAAGAGGATCAAGCTGTAAAAAAACAAAAAAATTAATAA
AAATTTCGAGAAATC

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FIGURE 4108

CTTCGCCGCGTGG**ATG**GCCTATTACATCAATCACCCTCTCTACACTCCCCCTACCTACGGAGCTCAGCAGGTGAA
ACTGGCGCTCGCCATCTTTGTGATCTGCCAGCTCGGCAACTTCTCCATCCACATGGCCCTGCGGGACCTGCGGCC
CGCTGGGTCCAAGACGCGGAAGATCCCATACCCCACCAAGAACCCCTTCACGTGGCTCTTCCTGCTGGTGTCCTG
CCCCAACTACACCTACGAGGTGGGGTCCTGGATCGGTTTCGCCATCATGACGCAGTGTCTCCCAGTGGCCCTGTT
CTCCCTGGTGGGCTTCACCCAGATGACCATCTGGGCCAAGGGCAAGCACCGCAGCTACCTGAAGGAGTTCCGGGA
CTACCCGCCCCTGCGCATGCCCATCATCCCCTTCCTGCTC**TGA**GCGCTCACCCCTGCTGAGGCTCAGCCCCTCAA
CCCGGTGGCATTCTGGGGGAGGAGTGGGGCCCACAGCTCTCCAGCACCCGGAATAAAGCCCGCCTGCCCCAGTCG
GGA

FIGURE 4109A

GTAATATGCACGTGTCACTAGCTGAGGCCCTGGAGGTTCGGGGTGGACCACTTCAGGAGGAAGAAATATGGGCTG
TATTAAATCAAAGTGCTGAAAGTCTCCAAGAATTATTCAGAAAAGTAAGCCTAGCTGATCCTGCTGCCCTTGGCT
TCATCATTTCTCCATGGTCTCTGCTGTTGCTGCCATCTGGTAGTGTGTCATTTACAGATGAAAATATTTCCAATC
AGGATCTTCGAGCATTCACTGCACCAGAGGTTCTTCAAAATCAGTCACTAACTTCTCTCTCAGATGTTGAAAAGA
TCCACATTTATTCTCTTGGAATGACACTGTATTGGGGGGCTGATTATGAAGTGCCTCAGAGCCAACCTATTAAGC
TTGGAGATCATCTCAACAGCATACTGCTTGGAATGTGTGAGGATGTTATTTACGCTCGAGTTTCTGTTCGGACTG
TGCTGGATGCTTGCAGTGCCCACATTAGGAATAGCAATTGTGCACCCTCATTTTCCTACGTGAAACACTTGGTAA
AACTGGTTCTGGGAAATCTTTCTGGGACAGATCAGCTTTCCTGTAACAGTGAACAAAAGCCTGATCGAAGCCAGG
CTATTCGAGATCGATTGCGAGGAAAAGGATTACCAACAGGAAGAAGCTCTACTTCTGATGTACTAGACATACAAA
AGCCTCCACTCTCTCATCAGACCTTTCTTAACAAAGGGCTTAGTAAATCTATGGGATTTCTGTCCATCAAAGATA
CACAAGATGAGAATTATTTCAAGGACATTTTATCAGATAATTCTGGACGTGAAGATTCTGAAAATACATTCTCCC
CTTACCAGTTCAAAACTAGTGGCCCAGAAAAAAAACCCATCCCTGGCATTGATGTGCTTTCTAAGAAGAAGATCT
GGGCTTCATCCATGGACTTGCTTTGTACAGCTGACAGAGACTTCTCTTCAGGAGAGACTGCCACATATCGTCGTT
GTCACCCTGAGGCAGTAACAGTGCGGACTTCAACTACTCCTAGAAAAAAGGAGGCAAGATACTCAGATGGAAGTA
TAGCCTTGGATATCTTTGGCCCTCAGAAAATGGATCCAATATATCACACTCGAGAATTGCCCACCTCCTCAGCAA
TATCAAGTGCTTTGGACCGAATCCGAGAGAGACAAAAGAAACTTCAGGTTCTGAGGGAAGCCATGAATGTAGAAG
AACCAGTTCGAAGATACAAAACTTATCATGGTGATGTCTTTAGTACCTCCAGTGAAAGTCCATCTATTATTTCCT
CTGAATCAGATTTCAGACAAGTGAGAAGAAGTGAAGCCTCAAAGAGGTTTGAATCCAGCAGTGGTCTCCCAGGGG
TAGATGAAACCTTAAGTCAAGGCCAGTCACAGAGACCGAGCAGACAATATGAAACACCCTTTGAAGGCAACTTAA
TTAATCAAGAGATCATGCTAAAACGGCAAGAGGAAGAACTGATGCAGCTACAAGCCAAAATGGCCCTTAGACAGT
CTCGGTTGAGCCTATATCCAGGAGACACAATCAAAGCGTCCATGCTTGACATCACCAGGGATCCGTTAAGAGAAA
TTGCCCTAGAAACAGCCATGACTCAAAGAAAACTGAGGAATTTCTTTGGCCCTGAGTTTGTGAAAATGACAATTG
AACCATTTATATCTTTGGATTTGCCACGGTCTATTCTTACTAAGAAAGGGAAGAATGAGGATAACCGAAGGAAAG
TAAACATAATGCTTCTGAACGGGCAAAGACTGGAACTGACCTGTGATACCAAAACTATATGTAAAGATGTGTTTG
ATATGGTTGTGGCACATATTGGCTTAGTAGAGCATCATTTGTTTGCTTTAGCTACCCTCAAAGATAATGAATATT
TCTTTGTTGATCCTGACTTAAAATTAACCAAAGTGGCCCCAGAGGGATGGAAAGAAGAACCAAAGAAAAAGACCA
AAGCCACTGTTAATTTTACTTTGTTTTTCAGAATTAAATTTTTTATGGATGATGTTAGTCTAATACAACATACTC
TGACGTGTCATCAGTATTACCTTCAGCTTCGAAAAGATATTTTGGAGGAAAGGATGCACTGTGATGATGAGACTT
CCTTATTGCTGGCATCCTTGGCTCTCCAGGCTGAGTATGGAGATTATCAACCAGAGGTTCATGGTGTGTCTTACT
TTAGAATGGAGCACTATTTGCCCGCCAGAGTGATGGAGAAACTTGATTTATCCTATATCAAAGAAGAGTTACCCA
AATTGCATAATACCTATGTGGGAGCTTCTGAAAAAGAGACAGAGTTAGAATTTTTAAAGGTCTGCCAAAGACTGA
CAGAATATGGAGTTCATTTTCACCGAGTGCACCCTGAGAAGAAGTCACAAACAGGAATATTGCTTGGAGTCTGTT
CTAAAGGTGTCCTTGTGTTTGAAGTTCACAATGGAGTGCGCACATTGGTCCTTCGCTTTCCATGGAGGGAAACCA
AGAAAATATCTTTTTCTAAAAAGAAAATCACATTGCAAAATACATCAGATGGAATAAAACATGGCTTCCAGACAG
ACAACAGTAAGATATGCCAGTACCTGCTGCACCTCTGCTCTTACCAGCATAAGTTCCAGCTACAGATGAGAGCAA
GACAGAGCAACCAAGATGCCCAAGATATTGAGAGAGCTTCGTTTAGGAGCCTGAATCTCCAAGCAGAGTCTGTTA
GAGGATTTAATATGGGACGAGCAATCAGCACTGGCAGTCTGGCCAGCAGCACCCTCAACAAACTTGCTGTTCGAC
CTTTATCAGTTCAAGCTGAGATTCTGAAGAGGCTATCCTGCTCAGAGCTGTCGCTTTACCAGCCATTGCAAAACA
GTTCAAAAGAGAAGAATGACAAAGCTTCATGGGAGGAAAAGCCTAGAGAGATGAGTAAATCATACCATGATCTCA
GTCAGGCCTCTCTCTATCCACATCGGAAAAATGTCATTGTTAACATGGAACCCCCACCACAAACCGTTGCAGAGT
TGGTGGGAAAACCTTCTCACCAGATGTCAAGATCTGATGCAGAATCTTTGGCAGGAGTGACAAAACTTAATAATT
CAAAGTCTGTTGCGAGTTTAAATAGAAGTCCTGAAAGGAGGAAACATGAATCAGACTCCTCATCCATTGAAGACC
CTGGGCAAGCATATGTTCTAGGAATGACTATGCATAGTTCTGGAAACTCTTCATCCCAAGTACCCTTAAAAGAAA
ATGATGTGCTACACAAAAGATGGAGCATAGTATCTTCACCAGAAAGGGAGATCACCTTAGTGAACCTGAAAAAAG
ATGCAAAGTATGGCTTGGGATTTCAAATTATTGGTGGGGAGAAGATGGGAAGACTGGACCTAGGCATATTTATCA
GTTCAGTTGCCCCTGGAGGACCAGCTGACTTGGATGGATGCTTGAAGCCAGGAGACCGTTTGATATCTGTGAATA
GTGTGAGTCTGGAGGGAGTCAGCCACCATGCTGCAATTGAAATTTTGCAAAATGCACCTGAAGATGTGACACTTG
TTATCTCTCAGCCAAAAGAAAAGATATCCAAAGTGCCTTCTACTCCTGTGCATCTCACCAATGAGATGAAAAACT

FIGURE 4109B

ACATGAAGAAATCTTCCTACATGCAAGACAGTGCTATAGATTCTTCTTCCAAGGATCACCACTGGTCACGTGGTA
CCCTGAGGCACATCTCGGAGAACTCCTTTGGGCCATCTGGGGGCCTGCGGGAAGGAAGCCTGAGTTCTCAAGATT
CCAGGACTGAGAGTGCCAGCTTGTCTCAAAGCCAGGTCAATGGTTTCTTTGCCAGCCATTTAGGTGACCAAACCT
GGCAGGAATCACAGCATGGCAGCCCTTCCCCATCTGTAATATCCAAAGCCACCGAGAAAGAGACTTTCACTGATA
GTAACCAAAGCAAAACTAAAAAGCCAGGCATTTCTGATGTAACTGATTACTCAGACCGTGGAGATTCAGACATGG
ATGAAGCCACTTACTCCAGCAGTCAGGATCATCAAACACCAAAACAGGAATCTTCCTCTTCAGTGAATACATCCA
ACAAGATGAATTTTAAAACTTTTTCTTCATCACCTCCTAAGCCTGGAGATATCTTTGAGGTTGAACTGGCTAAAA
ATGATAACAGCTTGGGGATAAGTGTCACGGTACTGTTTGACAAGGGAGGTGTGAATACGAGTGTCAGACATGGTG
GCATTTATGTGAAAGCTGTTATTCCCCAGGGAGCAGCAGAGTCTGATGGTAGAATTCACAAAGGTGATCGCGTCC
TAGCTGTCAATGGAGTTAGTCTAGAAGGAGCCACCCATAAGCAAGCTGTGGAAACACTGAGAAATACAGGACAGG
TGGTTCATCTGTTATTAGAAAAGGGACAATCTCCAACATCTAAAGAACATGTCCCGGTAACCCCACAGTGTACCC
TTTCAGATCAGAATGCCCAAGGTCAAGGCCCAGAAAAAGTGAAGAAAACAACTCAGGTCAAAGACTACAGCTTTG
TCACTGAAGAAAATACATTTGAGGTAAAATTATTTAAAAATAGCTCAGGTCTAGGATTCAGTTTTTCTCGAGAAG
ATAATCTTATACCGGAGCAAATTAATGCCAGCATAGTAAGGGTTAAAAAGCTCTTTCCTGGACAGCCAGCAGCAG
AAAGTGGAAAAATTGATGTAGGAGATGTTATCTTGAAAGTGAATGGAGCCTCTTTGAAAGGACTATCTCAGCAGG
AAGTCATATCTGCTCTCAGGGGAACTGCTCCAGAAGTATTCTTGCTTCTCTGCAGACCTCCACCTGGTGTGCTAC
CGGAAATTGATACTGCGCTTTTGACCCCACTTCAGTCTCCAGCACAAGTACTTCCAAACAGCAGTAAAGACTCTT
CTCAGCCATCATGTGTGGAGCAAAGCACCAGCTCAGATGAAAATGAAATGTCAGACAAAAGCAAAAAACAGTGCA
AGTCCCCATCCAGAAGAGACAGTTACAGTGACAGCAGTGGGAGTGGAGAAGATGACTTAGTGACAGCTCCAGCAA
ACATATCAAATTCGACCTGGAGTTCAGCTTTGCATCAGACTCTAAGCAACATGGTATCACAGGCACAGAGTCATC
ATGAAGCACCCAAGAGTCAAGAAGATACCATTTGTACCATGTTTTACTATCCTCAGAAAATTCCCAATAAACCAG
AGTTTGAGGACAGTAATCCTTCCCCTCTACCACCGGATATGGCTCCTGGGCAGAGTTATCAACCCCAATCAGAAT
CTGCTTCCTCTAGTTCGATGGATAAGTATCATATACATCACATTTCTGAACCAACTAGACAAGAAAACTGGACAC
CTTTGAAAAATGACTTGGAAAATCACCTTGAAGACTTTGAACTGGAAGTAGAACTCCTCATTACCCTAATTAAAT
CAGAAAAAGGAAGCCTGGGTTTTACAGTAACCAAAGGCAATCAGAGAATTGGTTGTTATGTTCATGATGTCATAC
AGGATCCAGCCAAAAGTGATGGAAGGCTAAAACCTGGGGACCGGCTCATAAAGGTTAATGATACAGATGTTACTA
ATATGACTCATACAGATGCAGTTAATCTGCTCCGGGCTGCATCCAAAACAGTCAGATTAGTTATTGGACGAGTTC
TAGAATTACCCAGAATACCAATGTTGCCTCATTTGCTACCGGACATAACACTAACGTGCAACAAAGAGGAGTTGG
GTTTTTCCTTATGTGGAGGTCATGACAGCCTTTATCAAGTGGTATATATTAGTGATATTAATCCAAGGTCCGTCG
CAGCCATTGAGGGTAATCTCCAGCTATTAGATGTCATCCATTATGTGAACGGAGTCAGCACACAAGGAATGACCT
TGGAGGAAGTTAACAGAGCATTAGACATGTCACTTCCTTCATTGGTATTGAAAGCAACAAGA**TGA**TCTTCCAGTG
GTCCCCAGCTCAAAGAGGTCTGCTGTTTCAGCTCCAAAGTCAACCAAAGGCAATGGTTCCTACAGTGTGGGGTCT
TGCAGCCAGCCTGCCCTCACTCCTAATGATTCATTCTCCACGGTTGCTGGGGAAGAAATAAATGAAATATCGTAC
CCCAAAGGAAAATGTTCTACTTATCAGATAAAGGGATCACCAAACTTGACTCTGCCCAAAGAATCTTATATACAA
GAAGATGACATTTATGATGATTCCCAAGAAGCTGAAGTTATCCAGTCTCTGCTGGATGTTGTGGATGAGGAAGCC
CAGAATCTTTTAAACGAAAATAATGCAGCAGGATACTCCTGTGGTCCAGGTACATTAAAGATGAATGGGAAGTTA
TCAGAAGAGAGAACAGAAGATACAGACTGCGATGGTTCACCTTTACCTGAGTATTTTACTGAGGCCACCAAAATG
AATGGCTGTGAAGAATATTGTGAAGAAAAAGTAAAAAGTGAAAGCTTAATTCAGAAGCCACAAGAAAAGAAGACT
GATGATGATGAAATAACATGGGGAAATGATGAGTTGCCAATAGAGAGAACAAACCATGAAGATTCTGATAAAGAT
CATTCCTTTCTGACAAACGATGAGCTCGCTGTACTCCCTGTCGTCAAAGTGCTTCCCTCTGGTAAATACACGGGT
GCCAACTTAAAATCAGTCATTCGAGTCCTGCGGGGTTTGCTAGATCAAGGAATTCCTTCTAAGGAGCTGGAGAAT
CTTCAAGAATTAAAACCTTTGGATCAGTGTCTAATTGGGCAAACTAAGGAAAACAGAAGGAAGAACAGATATAAA
AATATACTTCCCTATGATGCTACAAGAGTGCCTCTTGGAGATGAAGGTGGCTATATCAATGCCAGCTTCATTAAG
ATACCAGTTGGGAAAGAAGAGTTCGTTTACATTGCCTGCCAAGGACCACTGCCTACAACTGTTGGAGACTTCTGG
CAGATGATTTGGGAGCAAAAATCCACAGTGATAGCCATGATGACTCAAGAAGTAGAAGGAGAAAAAATCAAATGC
CAGCGCTATTGGCCCAACATCCTAGGCAAAACAACAATGGTCAGCAACAGACTTCGACTGGCTCTTGTGAGAATG
CAGCAGCTGAAGGGCTTTGTGGTGAGGGCAATGACCCTTGAAGATATTCAGACCAGAGAGGTGCGCCATATTTCT
CATCTGAATTTCACTGCCTGGCCAGACCATGATACACCTTCTCAACCAGATGATCTGCTTACTTTTATCTCCTAC

FIGURE 4109C

ATGAGACACATCCACAGATCAGGCCCAATCATTACGCACTGCAGTGCTGGCATTGGACGTTCAGGGACCCTGATT
TGCATAGATGTGGTTCTGGGATTAATCAGTCAGGATCTTGATTTTGACATCTCTGATTTGGTGCGCTGCATGAGA
CTACAAAGACACGGAATGGTTCAGACAGAGGATCAATATATTTTCTGCTATCAAGTCATCCTTTATGTCCTGACA
CGTCTTCAAGCAGAAGAAGAGCAAAAACAGCAGCCTCAGCTTCTGAAGTGACATGAAAAGAGCCTCTGGATGCAT
TTCCATTTCTCTCCTTAACCTCCAGCAGACTCCTGCTCTCTATCCAAAATAAAGATCACAGAGCAGCAAGTTCAT
ACAACATGCATGTTCTCCTCTATCTTAGAGGGGTATTCTTCTTGAAAATAAAAAATATTGAAATGCTGTATTTTT
ACAGCTACTTTAACCTATGATAATTATTTACAAAATTTTAACACTAACCAAACAATGCAGATCTTAGGGATGATT
AAAGGCAGCATTTGATGATAGCAGACATTGTTACAAGGACATGGTGAGTCTATTTTTAATGCACCAATCTTGTTT
ATAGCAAAAATGTTTTCCAATATTTTAATAAAGTAGTTATTTTATAGGGGATACTTGAAACCAGTATTTAAGCTT
TAAATGACAGTAATATTGGCATAGAAAAAAGTAGCAAATGTTTACTGTATCAATTTCTAATGTTTACTATATAGA
ATTTCCTGTAATATATTTATATACTTTTTCATGAAAATGGAGTTATCAGTTATCTGTTTGTTACTGCATCATCTG
TTTGTAATCATTATCTCACTTTGTAAATAAAAACACACCTTAAAACATG

FIGURE 4110

GGAGAGCGCGCTCTGCCTGCCGCCTGCCTGCCTGCCACTGAGGGTTCCCAGCACC**ATG**AGGGCCTGGATCTTCTT
TCTCCTTTGCCTGGCCGGGAGGGCCTTGGCAGCCCCTCAGCAAGAAGCCCTGCCTGATGAGACAGAGGTGGTGGA
AGAAACTGTGGCAGAGGTGACTGAGGTATCTGTGGGAGCTAATCCTGTCCAGGTGGAAGTAGGAGAATTTGATGA
TGGTGCAGAGGAAACCGAAGAGGAGGTGGTGGCGGAAAATCCCTGCCAGAACCACCACTGCAAACACGGCAAGGT
GTGCGAGCTGGATGAGAACAACACCCCCATGTGCGTGTGCCAGGACCCCACCAGCTGCCCAGCCCCCATTGGCGA
GTTTGAGAAGGTGTGCAGCAATGACAACAAGACCTTCGACTCTTCCTGCCACTTCTTTGCCACAAAGTGCACCCT
GGAGGGCACCAAGAAGGGCCACAAGCTCCACCTGGACTACATCGGGCCTTGCAAATACATCCCCCCTTGCCTGGA
CTCTGAGCTGACCGAATTCCCCCTGCGCATGCGGGACTGGCTCAAGAACGTCCTGGTCACCCTGTATGAGAGGGA
TGAGGACAACAACCTTCTGACTGAGAAGCAGAAGCTGCGGGTGAAGAAGATCCATGAGAATGAGAAGCGCCTGGA
GGCAGGAGACCACCCCGTGGAGCTGCTGGCCCGGGACTTCGAGAAGAACTATAACATGTACATCTTCCCTGTACA
CTGGCAGTTCGGCCAGCTGGACCAGCACCCCATTGACGGGTACCTCTCCCACACCGAGCTGGCTCCACTGCGTGC
TCCCCTCATCCCCATGGAGCATTGCACCACCCGCTTTTTCGAGACCTGTGACCTGGACAATGACAAGTACATCGC
CCTGGATGAGTGGGCCGGCTGCTTCGGCATCAAGCAGAAGGATATCGACAAGGATCTTGTGATC**TAA**ATCCACTC
CTTCCACAGTACCGGATTCTCTCTTTAACCCTCCCCTTCGTGTTTCCCCCAATGTTTAAAATGTTTGGATGGTTT
GTTGTTCTGCCTGGAGACAAGGTGCTAACATAGATTTAAGTGAATACATTAACGGTGCTAAAAATGAAAATTCTA
ACCCAAGACATGACATTCTTAGCTGTAACTTAACTATTAAGGCCTTTTCCACACGCATTAATAGTCCCATTTTTC
TCTTGCCATTTGTAGCTTTGCCCATTGTCTTATTGGCACATGGGTGGACACGGATCTGCTGGGCTCTGCCTTAAA
CACACATTGCAGCTTCAACTTTTCTCTTTAGTGTTCTGTTTGAAACTAATACTTACCGAGTCAGACTTTGTGTTC
ATTTCATTTCAGGGTCTTGGCTGCCTGTGGGCTTCCCCAGGTGGCCTGGAGGTGGGCAAAGGGAAGTAACAGACA
CACGATGTTGTCAAGGATGGTTTTGGGACTAGAGGCTCAGTGGTGGGAGAGATCCCTGCAGAACCCACCAACCAG
AACGTGGTTTGCCTGAGGCTGTAACTGAGAGAAAGATTCTGGGGCTGTGTTATGAAAATATAGACATTCTCACAT
AAGCCCAGTTCATCACCATTTCCTCCTTTACCTTTCAGTGCAGTTTCTTTTCACATTAGGCTGTTGGTTCAAACT
TTTGGGAGCACGGACTGTCAGTTCTCTGGGAAGTGGTCAGCGCATCCTGCAGGGCTTCTCCTCCTCTGTCTTTTG
GAGAACCAGGGCTCTTCTCAGGGGCTCTAGGGACTGCCAGGCTGTTTCAGCCAGGAAGGCCAAAATCAAGAGTGA
GATGTAGAAAGTTGTAAAATAGAAAAAGTGGAGTTGGTGAATCGGTTGTTCTTTCCTCACATTTGGATGATTGTC
ATAAGGTTTTTAGCATGTTCCTCCTTTTCTTCACCCTCCCCTTTTTTCTTCTATTAATCAAGAGAAACTTCAAAG
TTAATGGGATGGTCGGATCTCACAGGCTGAGAACTCGTTCACCTCCAAGCATTTCATGAAAAAGCTGCTTCTTAT
TAATCATACAAACTCTCACCATGATGTGAAGAGTTTCACAAATCCTTCAAAATAAAAAGTAATGACTTAGAAACT
G

FIGURE 4111A

GGAGTTTTCCACC**ATG**ACTATTGCCCTGCTGGGTTTTGCCATATTCTTGCTCCATTGTGCGACCTGTGAGAAGCC
TCTAGAAGGGATTCTCTCCTCCTCTGCTTGGCACTTCACACACTCCCATTACAATGCCACCATCTATGAAAATTC
TTCTCCCAAGACCTATGTGGAGAGCTTCGAGAAAATGGGCATCTACCTCGCGGAGCCACAGTGGGCAGTGAGGTA
CCGGATCATCTCTGGGGATGTGGCCAATGTATTTAAAACTGAGGAGTATGTGGTGGGCAACTTCTGCTTCCTAAG
AATAAGGACAAAGAGCAGCAACACAGCTCTTCTGAACAGAGAGGTGCGAGACAGCTACACCCTCATCATCCAAGC
CACAGAGAAGACCTTGGAGTTGGAAGCTTTGACCCGTGTGGTGGTCCACATCCTGGACCAGAATGACCTGAAGCC
TCTCTTCTCTCCACCTTCGTACAGAGTCACCATCTCTGAGGACATGCCCCTGAAGAGCCCCATCTGCAAGGTGAC
TGCCACAGATGCTGATCTAGGCCAGAATGCTGAGTTCTATTATGCCTTTAACACAAGGTCAGAGATGTTTGCCAT
CCATCCCACCAGCGGTGTGGTCACTGTGGCTGGGAAGCTTAACGTCACCTGGCGAGGAAAGCATGAGCTCCAGGT
GCTAGCTGTGGACCGCATGCGGAAAATCTCTGAGGGCAATGGGTTTGGCAGCCTGGCTGCACTTGTGGTTCATGT
GGAGCCTGCCCTCAGGAAGCCCCCAGCCATTGCTTCGGTGGTGGTGACTCCACCAGACAGCAATGATGGTACCAC
CTATGCCACTGTACTGGTCGATGCAAATAGCTCAGGAGCTGAAGTGGAGTCAGTGGAAGTTGTTGGTGGTGACCC
TGGAAAGCACTTCAAAGCCATCAAGTCTTATGCCCGGAGCAATGAGTTCAGTTTGGTGTCTGTCAAAGACATCAA
CTGGATGGAGTACCTTCATGGGTTCAACCTCAGCCTCCAGGCCAGGAGTGGGAGCGGCCCTTATTTTTATTCCCA
GATCAGGGGCTTTCACCTACCACCTTCCAAACTGTCTTCCCTCAAATTCGAGAAGGCTGTTTACAGAGTGCAGCT
TAGTGAGTTTTCCCCTCCTGGCAGCCGCGTGGTGATGGTGAGAGTCACCCCAGCCTTCCCCAACCTGCAGTATGT
TCTAAAGCCATCTTCAGAGAATGTAGGATTTAAACTTAATGCTCGAACTGGGTTGATCACCACCACAAAGCTCAT
GGACTTCCACGACAGAGCCCACTATCAGCTACACATCAGAACCTCACCGGGCCAGGCCTCCACCGTGGTGGTCAT
TGACATTGTGGACTGCAACAACCATGCCCCCCTCTTCAACAGGTCTTCCTATGATGGTACCTTGGATGAGAACAT
CCCTCCAGGCACCAGTGTTTTGGCTGTGACTGCCACTGACCGGGATCATGGGGAAAATGGATATGTCACCTATTC
CATTGCTGGACCAAAAGCTTTGCCATTTTCTATTGACCCCTACCTGGGGATCATCTCCACCTCCAAACCCATGGA
CTATGAACTCATGAAAAGAATTTATACCTTCCGGGTAAGAGCATCAGACTGGGGATCCCCTTTTCGCCGGGAGAA
GGAAGTGTCCATTTTTCTTCAGCTCAGGAACTTGAATGACAACCAGCCTATGTTTGAAGAAGTCAACTGTACAGG
GTCTATCCGCCAAGACTGGCCAGTAGGGAAATCGATAATGACTATGTCAGCCATAGATGTGGATGAGCTTCAGAA
CCTAAAATACGAGATTGTATCAGGCAATGAACTAGAGTATTTTGATCTAAATCATTTCTCCGGAGTGATATCCCT
CAAACGCCCTTTTATCAATCTTACTGCTGGTCAACCCACCAGTTATTCCCTGAAGATTACAGCCTCAGATGGCAA
AAACTATGCCTCACCCACAACTTTGAATATTACTGTGGTGAAGGACCCTCATTTTGAAGTTCCTGTAACATGTGA
TAAAACAGGGGTATTGACACAATTCACAAAGACTATCCTCCACTTTATTGGGCTTCAGAACCAGGAGTCCAGTGA
TGAGGAATTCACTTCTTTAAGCACATATCAGATTAATCATTACACCCCACAGTTTGAGGACCACTTCCCCCAATC
CATTGATGTCCTTGAGAGTGTCCCTATCAACACCCCCTTGGCCCGCCTAGCAGCCACTGACCCTGATGCTGGTTT
TAATGGCAAACTGGTCTATGTGATTGCAGATGGCAATGAGGAGGGCTGCTTTGACATAGAGCTGGAGACAGGGCT
GCTCACTGTAGCTGCTCCCTTGGACTATGAAGCCACCAATTTCTACATCCTCAATGTAACAGTATATGACCTGGG
CACACCCCAGAAGTCCTCCTGGAAGCTGCTGACAGTGAATGTGAAAGACTGGAATGACAACGCACCCAGATTTCC
TCCCGGTGGGTACCAGTTAACCATCTCGGAGGACACAGAAGTTGGAACCACAATTGCAGAGCTGACAACCAAAGA
TGCTGACTCGGAAGACAATGGCAGGGTTCGCTACACCCTGCTAAGTCCCACAGAGAAGTTCTCCCTCCACCCTCT
CACTGGGGAACTGGTTGTTACAGGACACCTGGACCGCGAATCAGAGCCTCGGTACATACTCAAGGTGGAGGCCAG
GGATCAGCCCAGCAAAGGCCACCAGCTCTTCTCTGTCACTGACCTGATAATCACATTGGAGGATGTCAACGACAA
CTCTCCCCAGTGCATCACAGAACACAACAGGCTGAAGGTTCCAGAGGACCTGCCCCCCGGGACTGTCTTGACATT
TCTGGATGCCTCTGATCCTGACCTGGGCCCCGCAGGTGAAGTGCGATATGTTCTGATGGATGGCGCCCATGGGAC
CTTCCGGGTGGACCTGATGACAGGGGCGCTCATTCTGGAGAGAGAGCTGGACTTTGAGAGGCGAGCTGGGTACAA
TCTGAGCCTGTGGGCCAGTGATGGTGGGAGGCCCCTAGCCCGCAGGACTCTCTGCCATGTGGAGGTGATCGTCCT
GGATGTGAATGAGAATCTCCACCCTCCCCACTTTGCCTCCTTCGTGCACCAGGGCCAGGTGCAGGAGAACAGCCC
CTCGGGAACTCAGGTGATTGTAGTGGCTGCCCAGGACGATGACAGTGGCTTGGATGGGGAGCTCCAGTACTTCCT
GCGTGCTGGCACTGGACTCGCAGCCTTCAGCATCAACCAAGATACAGGAATGATTCAGACTCTGGCACCCCTGGA
CCGAGAATTTGCATCTTACTACTGGTTGACGGTATTAGCAGTGGACAGGGGTTCTGTGCCCCTCTCTTCTGTAAC
TGAAGTCTACATCGAGGTTACGGATGCCAATGACAACCCACCCCAGATGTCCCAAGCTGTGTTCTACCCCTCCAT
CCAGGAGGATGCTCCCGTGGGCACCTCTGTGCTTCAACTGGATGCCTGGGACCCAGACTCCAGCTCCAAAGGGAA
GCTGACCTTCAACATCACCAGTGGGAACTACATGGGATTCTTTATGATTCACCCTGTTACAGGTCTCCTATCTAC

FIGURE 4111B

AGCCCAGCAGCTGGACAGAGAGAACAAGGATGAACACATCCTGGAGGTGACTGTGCTGGACAATGGGGAACCCTC
ACTGAAGTCCACCTCCAGGGTGGTGGTAGGCATCTTGGACGTCAATGACAATCCACCTATATTCTCCCACAAGCT
CTTCAATGTCCGCCTTCCAGAGAGGCTGAGCCCTGTGTCCCCTGGGCCTGTGTACAGGCTGGTGGCTTCAGACCT
GGATGAGGGTCTTAATGGCAGAGTCACCTACAGTATCGAGGACAGCGATGAGGAGGCCTTCAGTATCGACCTGGT
CACAGGTGTGGTTTCATCCAGCAGCACTTTTACAGCTGGAGAGTACAACATCCTAACGATCAAGGCAACAGACAG
TGGGCAGCCACCACTCTCAGCCAGTGTCCGGCTACACATTGAGTGGATCCCTTGGCCCCGGCCGTCCTCCATCCC
TCTGGCCTTTGATGAGACCTACTACAGCTTTACGGTCATGGAGACGGACCCTGTGAACCACATGGTGGGGGTCAT
CAGCGTAGAGGGCAGACCCGGACTCTTCTGGTTCAACATCTCAGGTGGGGATAAGGACATGGACTTTGACATTGA
GAAGACCACAGGCAGCATCGTCATTGCCAGGCCTCTTGATACCAGGAGAAGGTCGAACTATAACTTGACTGTTGA
GGTGACAGATGGGTCCCGCACCATTGCCACACAGGTCCACATCTTCATGATTGCCAACATTAACCACCATCGGCC
CCAGTTTCTGGAAACTCGTTATGAAGTCAGAGTTCCCCAGGACACCGTGCCAGGGGTAGAGCTCCTGCGAGTCCA
GGCCATAGATCAAGACAAGGGCAAAAGCCTCATCTATACCATACATGGCAGCCAAGACCCAGGAAGTGCCAGCCT
CTTCCAGCTGGACCCAAGCAGTGGTGTCCTGGTAACGGTGGGAAAATTGGACCTCGGCTCGGGGCCCTCCCAGCA
CACACTGACAGTCATGGTCCGAGACCAGGAAATACCTATCAAGAGGAACTTCGTGTGGGTGACCATTCATGTGGA
GGATGGAAACCTCCACCCACCCCGCTTCACTCAGCTCCATTATGAGGCAAGTGTTCCTGACACCATAGCCCCCGG
CACAGAGCTGCTGCAGGTCCGAGCCATGGATGCTGACCGGGGAGTCAATGCTGAGGTCCACTACTCCCTCCTGAA
AGGGAACAGCGAAGGTTTCTTCAACATCAATGCCCTGCTAGGCATCATTACTCTAGCTCAAAAGCTTGATCAGGC
AAATCATGCCCCACATACTCTGACAGTGAAGGCAGAAGATCAAGGCTCCCCACAATGGCATGACCTGGCTACAGT
GATCATTCATGTCTATCCCTCAGATAGGAGTGCCCCCATCTTTTCAAAATCTGAGTACTTTGTAGAGATCCCTGA
ATCAATCCCTGTTGGTTCCCCAATCCTCCTTGTCTCTGCTATGAGCCCCTCTGAAGTTACCTATGAGTTAAGAGA
GGGAAATAAGGATGGAGTCTTCTCTATGAACTCATATTCTGGCCTTATTTCCACCCAGAAGAAATTGGACCATGA
GAAAATCTCGTCTTACCAGCTGAAAATCCGAGGCAGCAATATGGCAGGTGCATTTACTGATGTCATGGTGGTGGT
TGACATAATTGATGAAAATGACAATGCTCCTATGTTCTTAAAGTCAACTTTTGTGGGCCAAATTAGTGAAGCAGC
TCCACTGTATAGCATGATCATGGATAAAAACAACAACCCCTTTGTGATTCATGCCTCTGACAGTGACAAAGAAGC
TAATTCCTTGTTGGTCTATAAAATTTTGGAGCCGGAGGCCTTGAAGTTTTTCAAAATTGATCCCAGCATGGGAAC
CCTAACCATTGTATCAGAGATGGATTATGAGAGCATGCCCTCTTTCCAATTCTGTGTCTATGTCCATGACCAAGG
AAGCCCTGTATTATTTGCACCCAGACCTGCCCAAGTCATCATTCATGTCAGAGATGTGAATGATTCCCCTCCCAG
ATTCTCAGAACAGATATATGAGGTAGCAATAGTCGGGCCTATCCATCCAGGCATGGAGCTTCTCATGGTGCGGGC
CAGCGATGAAGACTCAGAAGTCAATTATAGCATCAAAACTGGCAATGCTGATGAAGCTGTTACCATCCATCCTGT
CACTGGTAGCATATCTGTGCTGAATCCTGCTTTCCTGGGACTCTCTCGGAAGCTCACCATCAGGGCTTCTGATGG
CTTGTATCAAGACACTGCGCTGGTAAAAATTTCTTTGACCCAAGTGCTTGACAAAAGCTTGCAGTTTGATCAGGA
TGTCTACTGGGCAGCTGTGAAGGAGAACTTGCAGGACAGAAAGGCACTGGTGATTCTTGGTGCCCAGGGCAATCA
TTTGAATGACACCCTTTCCTACTTTCTCTTGAATGGCACAGATATGTTTCATATGGTCCAGTCAGCAGGTGTGTT
GCAGACAAGAGGTGTGGCGTTTGACCGGGAGCAGCAGGACACTCATGAGTTGGCAGTGGAAGTGAGGGACAATCG
GACACCTCAGCGGGTGGCTCAGGGTTTGGTCAGAGTCTCTATTGAGGATGTCAATGACAATCCCCCCAAATTTAA
GCATCTGCCCTATTACACAATCATCCAAGATGGCACAGAGCCAGGGGATGTCCTCTTTCAGGTATCTGCCACTGA
TGAGGACTTGGGGACAAATGGGGCTGTTACATATGAATTTGCAGAAGATTACACATATTTCCGAATTGACCCCTA
TCTTGGGGACATATCACTCAAGAAACCCTTTGATTATCAAGCTTTAAATAAATATCACCTCAAAGTCATTGCTCG
GGATGGAGGAACGCCATCCCTCCAGAGTGAGGAAGAGGTACTTGTCACTGTGAGAAATAAATCCAACCCACTGTT
TCAGAGTCCTTATTACAAAGTCAGAGTACCTGAAAATATCACCCTCTATACCCCAATTCTCCACACCCAGGCCCG
GAGTCCAGAGGGACTCCGGCTCATCTACAACATTGTGGAGGAAGAACCCTTGATGCTGTTCACCACTGACTTCAA
GACTGGTGTCCTAACAGTAACAGGGCCTTTGGACTATGAGTCCAAGACCAAACATGTGTTCACAGTCAGAGCCAC
GGATACAGCTCTGGGGTCATTTTCTGAAGCCACAGTGGAAGTCCTAGTGGAGGATGTCAATGATAACCCTCCCAC
TTTTTCCCAATTGGTCTATACCACTTCCATCTCAGAAGGCTTGCCTGCTCAGACCCCTGTGATCCAACTGTTGGC
TTCTGACCAGGACTCAGGGCGGAACCGTGACGTCTCTTATCAGATTGTGGAGGATGGCTCAGATGTTTCCAAGTT
CTTCCAGATCAATGGGAGCACAGGGGAGATGTCCACAGTTCAAGAACTGGATTATGAAGCCCAACAACACTTTCA
TGTGAAAGTCAGGGCCATGGATAAAGGAGATCCCCCACTCACTGGTGAAACCCTTGTGGTTGTCAATGTGTCTGA
TATCAATGACAACCCCCCAGAGTTCAGACAACCTCAATATGAAGCCAATGTCAGTGAACTGGCAACCTGTGGACA

FIGURE 4111C

CCTGGTTCTTAAAGTCCAGGCTATTGACCCTGACAGCAGAGACACCTCCCGCCTGGAGTACCTGATTCTTTCTGG
CAATCAGGACAGGCACTTCTTCATTAACAGCTCATCGGGAATAATTTCTATGTTCAACCTTTGCAAAAAGCACCT
GGACTCTTCTTACAATTTGAGGGTAGGTGCTTCTGATGGAGTCTTCCGAGCAACTGTGCCTGTGTACATCAACAC
TACAAATGCCAACAAGTACAGCCCAGAGTTCCAGCAGCACCTTTATGAGGCAGAATTAGCAGAGAATGCAATGGT
TGGAACCAAGGTGATTGATTTGCTAGCCATAGACAAAGATAGTGGTCCCTATGGCACTATAGATTATACTATCAT
CAATAAACTAGCAAGTGAGAAGTTCTCCATAAACCCCAATGGCCAGATTGCCACTCTGCAGAAACTGGATCGGGA
AAATTCAACAGAGAGAGTCATTGCTATTAAGGTCATGGCTCGGGATGGAGGAGGAAGAGTAGCCTTCTGCACGGT
GAAGATCATCCTCACAGATGAAAATGACAACCCCCCACAGTTCAAAGCATCTGAGTACACAGTATCCATTCAATC
CAATGTCAGTAAAGACTCTCCGGTTATCCAGGTGTTGGCCTATGATGCAGATGAAGGTCAGAACGCAGATGTCAC
CTACTCAGTGAACCCAGAGGACCTAGTTAAAGATGTCATTGAAATTAACCCAGTCACTGGTGTGGTCAAGGTGAA
AGACAGCCTGGTGGGATTGGAAAATCAGACCCTTGACTTCTTCATCAAAGCCCAAGATGGAGGCCCTCCTCACTG
GAACTCTCTGGTGCCAGTACGACTTCAGGTGGTTCCTAAAAAAGTATCCTTACCGAAATTTTCTGAACCTTTGTA
TACTTTCTCTGCACCTGAAGACCTTCCAGAGGGGTCTGAAATTGGGATTGTTAAAGCAGTGGCAGCTCAAGATCC
AGTCATCTACAGTCTAGTGCGGGGCACTACACCTGAGAGCAACAAGGATGGTGTCTTCTCCCTAGACCCAGACAC
AGGGGTCATAAAGGTGAGGAAGCCCATGGACCACGAATCCACCAAATTGTACCAGATTGATGTGATGGCACATTG
CCTTCAGAACACTGATGTGGTGTCCTTGGTCTCTGTCAACATCCAAGTGGGAGACGTCAATGACAATAGGCCTGT
ATTTGAGGCTGATCCATATAAGGCTGTCCTCACTGAGAATATGCCAGTGGGGACCTCAGTCATTCAAGTGACTGC
CATTGACAAGGACACTGGGAGAGATGGCCAGGTGAGCTACAGGCTGTCTGCAGACCCTGGTAGCAATGTCCATGA
GCTCTTTGCCATTGACAGTGAGAGTGGTTGGATCACCACACTCCAGGAACTTGACTGTGAGACCTGCCAGACTTA
TCATTTTCATGTGGTGGCCTATGACCACGGACAGACCATCCAGCTATCCTCTCAGGCCCTGGTTCAGGTCTCCAT
TACAGATGAGAATGACAATGCTCCCCGATTTGCTTCTGAAGAGTACAGAGGATCTGTGGTTGAGAACAGTGAGCC
TGGCGAACTGGTGGCGACTCTAAAGACCCTGGATGCTGACATTTCTGAGCAGAACAGGCAGGTCACCTGCTACAT
CACAGAGGGAGACCCCCTGGGCCAGTTTGGCATCAGCCAAGTTGGAGATGAGTGGAGGATTTCCTCAAGGAAGAC
CCTGGACCGCGAGCATACAGCCAAGTACTTGCTCAGAGTCACAGCATCTGATGGCAAGTTCCAGGCTTCGGTCAC
TGTGGAGATCTTTGTCCTGGACGTCAATGATAACAGCCCACAGTGTTCACAGCTTCTCTATACTGGCAAGGTTCA
TGAAGATGTATTTCCAGGACACTTCATTTTGAAGGTTTCTGCCACAGACTTGGACACTGATACCAATGCTCAGAT
CACATATTCTCTGCATGGCCCTGGGGCGCATGAATTCAAGCTGGATCCTCATACAGGGGAGCTGACCACACTCAC
TGCCCTAGACCGAGAAAGGAAGGATGTGTTCAACCTTGTTGCCAAGGCGACGGATGGAGGTGGCCGATCGTGCCA
GGCAGACATCACCCTCCATGTGGAGGATGTGAATGACAATGCCCCGCGGTTCTTCCCCAGCCACTGTGCTGTGGC
TGTCTTCGACAACACCACAGTGAAGACCCCTGTGGCTGTAGTATTTGCCCGGGATCCCGACCAAGGCGCCAATGC
CCAGGTGGTTTACTCTCTGCCGGATTCAGCCGAAGGCCACTTTTCCATCGACGCCACCACGGGGGTGATCCGCCT
GGAAAAGCCGCTGCAGGTCAGGCCCCAGGCACCACTGGAGCTCACGGTCCGTGCCTCTGACCTGGGCACCCCAAT
ACCGCTGTCCACGCTGGGCACCGTCACAGTCTCGGTGGTGGGCCTAGAAGACTACCTGCCCGTGTTCCTGAACAC
CGAGCACAGCGTGCAGGTGCCCGAGGACGCCCCACCTGGCACGGAGGTGCTGCAGCTGGCCACCCTCACTCGCCC
GGGCGCAGAGAAGACCGGCTACCGCGTGGTCAGCGGGAACGAGCAAGGCAGGTTCCGCCTGGATGCTCGCACAGG
GATCCTGTATGTCAACGCAAGCCTGGACTTTGAGACAAGCCCCAAGTACTTCCTGTCCATTGAGTGCAGCCGGAA
GAGCTCCTCTTCCCTCAGTGACGTGACCACAGTCATGGTCAACATCACTGATGTCAATGAACACCGGCCCCAATT
CCCCCAAGATCCATATAGCACAAGGGTCTTAGAGAATGCCCTTGTGGGTGACGTCATCCTCACGGTATCAGCGAC
TGATGAAGATGGACCCCTAAATAGTGACATTACCTATAGCCTCATAGGAGGGAACCAGCTTGGGCACTTCACCAT
TCACCCCAAAAAGGGGGAGCTACAGGTGGCCAAGGCCCTGGACCGGGAACAGGCCTCTAGTTATTCCCTGAAGCT
CCGAGCCACAGACAGTGGGCAGCCTCCACTGCATGAGGACACAGACATCGCTATCCAAGTGGCTGATGTCAATGA
TAACCCACCGAGATTCTTCCAGCTCAACTACAGCACCACTGTCCAGGAGAACTCCCCCATTGGCAGCAAAGTCCT
GCAGCTGATCCTGAGTGACCCAGATTCTCCAGAGAATGGCCCCCCCTACTCGTTTCGAATCACCAAGGGGAACAA
CGGCTCTGCCTTCCGAGTGACCCCGGATGGATGGCTGGTGACTGCTGAGGGCCTAAGCAGGAGGGCTCAGGAATG
GTATCAGCTTCAGATCCAGGCGTCAGACAGTGGCATCCCTCCCCTCTCGTCTTTGACGTCTGTCCGTGTCCATGT
CACAGAGCAGAGCCACTATGCACCTTCTGCTCTCCCACTGGAGATCTTCATCACTGTTGGAGAGGATGAGTTCCA
GGGTGGCATGGTGGGTAAGATCCATGCCACAGACCGAGACCCCCAGGACACGCTGACCTATAGCCTGGCAGAAGA
GGAGACCCTGGGCAGGCACTTCTCAGTGGGTGCGCCTGATGGCAAGATTATCGCCGCCCAGGGCCTGCCTCGTGG

FIGURE 4111D

CCACTACTCGTTCAACGTCACGGTCAGCGATGGGACCTTCACCACGACTGCTGGGGTCCATGTGTACGTGTGGCA
TGTGGGGCAGGAGGCTCTGCAGCAGGCCATGTGGATGGGCTTCTACCAGCTCACCCCCGAGGAGCTGGTGAGTGA
CCACTGGCGGAACCTGCAGAGGTTCCTCAGCCATAAGCTGGACATCAAACGGGCTAACATTCACTTGGCCAGCCT
CCAGCCTGCAGAGGCCGTGGCTGGTGTGGATGTGCTCCTGGTCTTTGAGGGGCATTCTGGAACCTTCTACGAGTT
TCAGGAGCTAGCATCCATCATCACTCACTCAGCCAAGGAGATGGAGCATTCAGTGGGGGTTCAGATGCGGTCAGC
TATGCCCATGGTGCCCTGCCAGGGGCCAACCTGCCAGGGTCAAATCTGCCATAACACAGTGCATCTGGACCCCAA
GGTTGGGCCCACGTACAGCACCGCCAGGCTCAGCATCCTAACCCCGCGGCACCACCTGCAGAGGAGCTGCTCCTG
CAATGGTACTGCTACAAGGTTCAGTGGTCAGAGCTATGTGCGGTACAGGGCCCCAGCGGCTCGGAACTGGCACAT
CCATTTCTATCTGAAAACACTCCAGCCACAGGCCATTCTTCTATTCACCAATGAAACAGCGTCCGTCTCCCTGAA
GCTGGCCAGTGGAGTGCCCCAGCTGGAATACCACTGTCTGGGTGGTTTCTATGGAAACCTTTCCTCCCAGCGCCA
TGTGAATGACCACGAGTGGCACTCCATCCTGGTGGAGGAGATGGACGCTTCCATTCGCCTGATGGTTGACAGCAT
GGGCAACACCTCCCTTGTGGTCCCAGAGAACTGCCGTGGTCTGAGGCCCGAAAGGCACCTCTTGCTGGGCGGCCT
CATTCTGTTGCATTCTTCCTCGAATGTCTCCCAGGGCTTTGAAGGCTGCCTGGATGCTGTCGTGGTCAACGAAGA
GGCTCTAGATCTGCTGGCCCCTGGCAAGACGGTGGCAGGCTTGCTGGAGACACAAGCCCTCACCCAGTGCTGCCT
CCACAGTGACTACTGCAGCCAGAACACATGCCTCAATGGTGGGAAGTGCTCATGGACCCATGGGGCAGGCTATGT
CTGCAAATGTCCCCCACAGTTCTCTGGGAAGCACTGTGAACAAGGAAGGGAGAACTGTACTTTTGCACCCTGCCT
GGAAGGTGGAACTTGCATCCTCTCCCCCAAAGGAGCTTCCTGTAACTGCCCTCATCCTTACACAGGAGACAGGTG
TGAAATGGAGGCGAGGGGTTGTTCAGAAGGACACTGCCTAGTCACTCCCGAGATCCAAAGGGGGGACTGGGGGCA
GCAGGAGTTACTGATCATCACAGTGGCCGTGGCGTTCATTATCATAAGCACTGTCGGGCTTCTCTTCTACTGCCG
CCGTTGCAAGTCTCACAAGCCTGTGGCCATGGAGGACCCAGACCTCCTGGCCAGGAGTGTTGGTGTTGACACCCA
AGCCATGCCTGCCATCGAGCTCAACCCATTGAGTGCCAGCTCCTGCAACAACCTCAACCAACCGGAACCCAGCAA
GGCCTCTGTTCCAAATGAACTCGTCACATTTGGACCCAATTCTAAGCAACGGCCAGTGGTCTGCAGTGTGCCCCC
CAGACTCCCGCCAGCTGCGGTCCCTTCCCACTCTGACAATGAGCCTGTCATTAAGAGAACCTGGTCCAGCGAGGA
GATGGTGTACCCTGGCGGAGCCATGGTCTGGCCCCCTACTTACTCCAGGAACGAACGCTGGGAATACCCCCACTC
CGAAGTGACTCAGGGCCCTCTGCCGCCCTCGGCTCACCGCCACTCAACCCCAGTCGTGATGCCAGAGCCTAATGG
CCTCTATGGGGGCTTCCCCTTCCCCCTGGAGATGGAAAACAAGCGGGCACCTCTCCCACCCCGTTACAGCAACCA
GAACCTGGAAGATCTGATGCCCTCTCGGCCCCCTAGTCCCCGGGAGCGCCTGGTTGCCCCCTGTCTCAATGAGTA
CACGGCCATCAGCTACTACCACTCGCAGTTCCGGCAGGGAGGGGGAGGGCCCTGCCTGGCAGACGGGGGCTACAA
GGGGGTGGGTATGCGCCTCAGCCGAGCTGGGCCCTCTTATGCTGTCTGTGAGGTGGAGGGGGCACCTCTTGCAGG
CCAGGGCCAGCCCCGGGTGCCCCCCAACTATGAGGGCTCTGACATGGTGGAGAGTGATTATGGCAGCTGTGAGGA
GGTCATGTTC**TAG**CTTCCCATTCCCAGAGCAAGGCAGGCGGGAGGCCAAGGACTGGACTTGGCTTATTTCTTCCT
GTCTCGTAGGGGGTGAGTTGAGTGTGGCTGGGAGAGTGGGAGGGAAGCCCTCAGCCCAGGCTGTTGTCCCTTGAA
ATGTGCTCTTCCAATCCCCCACCTAGTCCCTGAGGGTGGAGGGAAGCTGAGGATAGAGCTCCAGAAACAGCACTA
GGGTCCCAGGAGAGGGGCATTTCTAGAGCAGTGACCCTGGAAAACCAGGAACAATTGACTCCCGGGGTGGGCGAG
AGACAGGAGGGCTCCCTGATCTGCCGGCTCTCAGTCCCCGGGGCAGAGCCTGATTGACTGTGCTGGCTCAACTTC
ACCAAGATGCATTCTCATACCTGCCCACAGCTCCATTTTGGAGGCAGGCAGGTTGGTGCCTGACAGACAACCACT
ACGCGGGCCGTACAGAGGAGCTCTAGAGGGCTGCGTGGCATCCTCCTAGGGGCTGAGAGGTGAGCAGCAGGGGAG
CGGGCACAGTCCCCTCTGCCCCTGCCTCAGTCGAGCACTCACTGTGTCTTTGTCAAGTGTCTGCTCCACGTCAGG
CACTGTGCTTTGCACCGGGGAGAAAATGGTGATGGAGGGCAACAAGGACTCCGAGGAGCACCACCAGGCCTCGGG
CCCCAGAGGTCCCACTCCTCAGCCTACACGCAGAGGAACGGGCCCACCTCAGAGTCACACCACTGGCTGCCAGTC
AGGGCCTGCCAGGAGTCTACACAGCTCTGAACCTTCTTTGTTAAAGAATTCAGACCTCATGGAACTCTGGGTTCT
TCATCCCAAGTTTCCCAGGCACTTTTGGCCAAAGGAAGGAAGGAACTAATTCTTCATTTTAAAAATTCTTAGGCA
CTTTTTGACCTTGCTGTCTGGATGAGTTTCCTCAATGGGATTTTTCTTCCCTAGACACAAGGAAGTCTGAACTCC
TATTTAGGGCCGGTTGGAAGCAGGGAGCTGGACCGCAGTGTCCAGGCTGGACACCTGCCATTGCCTCCTCTCCAT
TGCAGACGCCTGCCCATCAAGTATTACCTGCGGCGACTCAACCCTATGCATGGAGGGTCAATGTGGGCACATGTC
TACACATGTGGGTGCCCATGGATAGTACGTGTGTACACATGTGTAGAGTGTATGTAGCCAGGAGTGGTGGGGACC
AGAAGCCTCTGTGGCCTTTGGTGACCTCACCACTCCCTCCCACCCAGTCCCTCCCTCTGGTCCACTGCCTTTTCA
TATGTGTTGTTTCTGGAGACAGAAGTCAAAAGGAAGAGCAGTGGAGCCTTGCCCACAGGGCTGCTGCTTCATGCG

FIGURE 4111E

AGAGGGAGATGTGTGGGCGAGAGCCAATTTGTGTGAGTGGTTTGTGGCTGTGTGTGTGACTGTGAGTGTGAGTGA
CAGATACATAGTTTCATTGGTCATTTTTTTTTTAACAATAAAGTATCTTTTTTTACTGTT

FIGURE 4112

AACTTTGACTCAACTTCTCCTGCTGAAAAGAAGCTCGCTCCAGATGTCTGCATGGGTCCTCGGCACTCTTGGCTG
AGGACTCAAAGGTTTTAATCAGGATCGTCTAAAAATGTACCTCGGTGAGGAGGCACAGATTTTGCCTCCTGTTGA
CCAGCCTGGTTTCATACCGAAAAGACATTGAAGGACTGCAGAAATGTATGGGTGCACCGGGCCGAGGGAAGGGTG
GCTGAGTGAGAGGCGTATAAAATGGGGCTGTGTGCATGCAGGCCCATGTTTCAGCCTCAGCCCACGCCAGGTGAA
AGGATCAGCAATGCTCTGTTGCCATCGTGCTGGGACGACACCAGCTCTATTGCCACCGATGAGTAGCTGAGGTCA
GTGTGCACAGAGTTTGAAATTAAGTTAATAGACTTTACAGCAGCTGGTCTGACACTACGCGCAGTGCTCGGTTGT
TTACAATCAGTGGGGAAAAGGGCAGAACCAGTGCCCGGCCCCACACTGCCTCTGTGGCCTGGACTTTGAAAGGAA
CCCACTGAACACTAATTATGAGCCCTGTCTTTCCCCCAGAATGCCTCCCTGGGTTTCACAAACAGCCTTGAGGTT
GGCCCTCCTCAAGGTCAGCCTTCAGATTTGGGAGCAAACTTCAGAGAAGGCAGAGGAAGATACATTGCCTTGCTG
TGGGCTGCCTCTTCTTTCCTCTTGGTGTGCGAAGTATTTCAGAAGGCCATTGATGAATTCCCCCTCTTTAGCTGT
GTATTTGTGCACGTGTGTGTGTACGTGCGTGTGTGTGTGTGTTCCTGTGTAAGTAACAGACCAGACTCCTTTTCT
CTTCTGTCCCGTCACCAGGCTCTTGCTTCACTGCAGATACAGTTCACTCTGAAAGCTGGTTGAAGGAGAGCAGCA
AAAATGTATCAGGGGTTTTGCTTCTGTGTTTCGCCAAAGCTCATAAGGGCTGTGACCCACCCATATGGCCCCAGT
TTTTTCTGTCTCTTCTGTTCCAAAGCCAGGAGAGCTGACTTCCAGGTGAAGGGATGGGAAAAGTGGACTCTCATT
GTAGTGACTCCCAACCTACCTAATAATTTGTTAACTTAGGAATATGCTATCATTGTTGACTTGTTCTTCCTTAGG
AGAAGGACGATTTTCACCCACCCTTTCTGTTCTATGGTGGACTCTTAACAGGTGCTATGTGACCAGGAATCTAGC
CGGGAGTAGCAGAGGCCCTGTCTTCTGAAGTCTCAGGCTTAGAAGTTACCAAAGTGGGCTCAGAAACTGTCATCT
CCTGGTTCCAAGTTCGGGCTCTGGCAGCCCAGCCGCTATCTTAGCTGTCTTTCCCAGCGGTGCTAAGAGTGGTCT
CAGTGAGAAGGTAGATGCCAACTGGAGGGCCAGACCTGTGTCCTGCCCATGTCCTCCTTGGTGGACGTTTCTGTT
TACTCAGAGCTGCTAGAGACCATCCTGCCCATCCGAGTTCTGAGATTGGGACTGTGATGTTGGGACCTGAGGACT
GGATGGTAGAATACTGGGGTCCCCCAGCTCTTAGCAGGATGCAGGCTATTGCTTCCACACCCCTGGCCGTGAGAA
CGTGGTATGTAGGAGAGTTGGCTGTAGCTTTAGGATTTCTGGAAGCCAATTTGGCATGGCCTATTTGATCTCTGG
CTTGTGCTCCTGCTACACTGACAGACTGATTGCGTGGCTCTTTCAGAAGACCCAGGAAGGGCAGCTCCAGCCAGA
GGACCTTCCTGGCTATGCAGGTGCACAGCTCTTAGGCATCAAGCAAAGGGTCAGCCAGTCAGTAGTAGTGGGAGG
AAGCCCTTCCTCCTCTTATGCAAGCAGCTCGCAGCCAGCCCAGAATCTCTTATGCAGCCCAAAGGGCTTCTTGAG
GTAGAGAGCCCTCCCCAGTGTCTTCCCAGGATAAGTAGAAATATGATCACAGAGCAACGGAGCAAAGGCTTTCGG
GAGTGTGAGGCTGCATCTGCTGGAGCAAAGGGAAACCGTGGGCTTTTCCGGCCAGATACTCTTGAGCTCTGTGAC
CCTGCTCCTGTCACCCCAATTTCTCCAAGCCAGAGGTAGCTTTCTCAGAGCCCCTTGGTGGTTCTGTCCTCCAAA
TGCTGCTGTTGGGAGCGGGCTTCCAGCTCTCAGTGGGCAGTGCACCTCCTCCTAAATGCAGGCACTTGCTAGGAA
GAGTGTGAGCTGGCGTCTTCTGTTCACCCTGCCTAGCAGTTGTCACCATTCACAAGTGGCATTATTTATGTTGTG
CTGCTGTCCAGCTGCTAAGATCCCTTCATCTGCACAAGCCCTGGCTAGATATGTGTGA**ATG**TGTGGCATCATTTC
ACTTCAGCCGCCCAATTCCATCTCTCCTCTGCAGCCAGATTCACTGGCTGATGCTCACTGCTCACTGTCTATCCC
CACGAAATTTAGTTTTATCAGTAGTCTTAAAGTGTTGATCTCAAACAAGTACATTAGAAAAATCATGTTTCTTCT
CTCTCATCTTACTTTTTCTTCTCAGATTTCTCCCTTCCTAGAACATTCTCTCTGTTTAGCACTAATGTTCACCTC
GTATTTTTTGGAAGTGCAAAAATCTCAATTTGTGTCTGTTTACAGCTCTCTCTCCTCACTGCTCACAGCAAGGGG
TTCTGTATCAGTGGATTTCATTTTG**TAG**CTGCTGAGATGTTAAGGCAAGCCTCAGCATCTGCCCCTGCTGGGTGC
ACAATGCTGCTTCCTCGAAGAGAAGACACAGAGTCCAAGTGGCAGGACTTGAGGTTGGCTTCCACTCTGCCTTAG
AAGTTAATTTTCCAAAGTACATTACAAATCTCTGAGGCCATTAGGGGAAAAGGAAGGGGTGTGGTTTGTCTTTGA
AATTACGGTTAATACTTTTAGACAGTAAGTCCGGCTGGTTGCAGGGCTATTTGCCCCGACAGCATCAGCCTGTAA
CATTTCTTCTCTTTCCTTTGTGCCACTGAGTCGTTCCCTGGCCAGAGGACATAAATGGTGCTGGTAGGAGGTTAT
CAGAGTAAGGAAGGTAGCAGATATAGGTGCAGGGTGCCTGTCATTCACTGTGTTATTTGGTTTAAATCAAAGTGA
TTCTGGGGGAAGCTATGCTCTTTCAGTGGATAATAAAATTGGTAACTCTATTGTAAAACATGTCAATGGTGTGTG
AAGAAAAATCAACCAATCTGTAGGTGTTGATAACTAGACAGTACTGTGTATGTTACGTGCCTGTGTGGATGTGCA
CTTCCAGCATGGTATGTGTAGCGATGTGGATCATGCCAGAGTTCGTAGATCCTGTTTTGGGGTTTGCACATGGAT
CGTATGTTAAGCTTTTTCTTTTCAATAAATGAATTTTATTTTTATTTTTG

FIGURE 4113

CTCAGCTTCTTTGCGTAACCAATACTGGAAGGCATTTAAAGGCACCTCTGCCGCCACAGACCTTGCAGTTAACTC
CGCCCTGACCCACCCTTCCCG**ATG**CAGTCCCTGATGCAGGCTCCCCTCCTGATCGCCCTGGGCTTGCTTCTCGCG
GCCCCTGCGCAAGCCCACCTGAAAAAGCCATCCCAGCTCAGTAGCTTTTCCTGGGATAACTGTGATGAAGGGAAG
GACCCTGCGGTGATCAGAAGCCTGACTCTGGAGCCTGACCCCATCGTCGTTCCTGGAAATGTGACCCTCAGTGTC
GTGGGCAGCACCAGTGTCCCCCTGAGTTCTCCTCTGAAGGTGGATTTAGTTTTGGAGAAGGAGGTGGCTGGCCTC
TGGATCAAGATCCCATGCACAGACTACATTGGCAGCTGTACCTTTGAACACTTCTGTGATGTGCTTGACATGTTA
ATTCCTACTGGGGAGCCCTGCCCAGAGCCCCTGCGTACCTATGGGCTTCCTTGCCACTGTCCCTTCAAAGAAGGA
ACCTACTCACTGCCCAAGAGCGAATTCGTTGTGCCTGACCTGGAGCTGCCCAGTTGGCTCACCACCGGGAACTAC
CGCATAGAGAGCGTCCTGAGCAGCAGTGGGAAGCGTCTGGGCTGCATCAAGATCGCTGCCTCTCTAAAGGGCATA
TAACATGGCATCTGCCACAGCAGAATGGAGCGGTGTGAGGAAGGTCCCTTTTCCTCTGTTTTGTGTTTGCCAAGG
CCAAACTCCCACTCTCTGCCCCCCTTTAATCCCCTTTCTACAGTGAGTCCACTACCCTCACTGAAAATCATTTTG
TACCACTTACATTTTAGGCTGGGGCAAGCAGCCCTGACCTAAGGGAGAATGAGTTGGACAGTTCTTGATAGCCCA
GGGCGTCTGCTGGGCTGACCACGTTACTCATCCCCGTTAACATTCTCTCTAAAGAGCCTCGTTCATTTCCAAAGC
AGTTAAGGAATGGGAACCAGAGTGTTTTAGGACCTGAAGAATCTTTATGACTCTCTCTCTTTCACTCTTTTTTTT
TTTGTCACTAAGTTAAAAGCGAAGTGAGAGTATTAACGTTTTTGTTCTCCTCCGGCCCCCTGTTACAATGAAGGG
GCAAAAGTATTTGCTCTTAGTCTATTCCTCCCTTAACTTCTGTGACTAATTTTTATTTCCTTTCTAGATTTGCCC
AATTAATACTAGGGTGCAGTGTATCCTGGAGAGGTAGGGTGTGTGGGGGAGGAATCCCTTGGGGGAGATATTAGG
AGTGCTCTGTTGTTTACAAACTCAGGTACCCGCAGGGCCTAGCAAGAGACTTAAATGACTGATAAGAACCGTGAG
AAACATGTTGCTTCCAGGCTTGATTTCGATTTTTCGCTTTTTTTTTTTTTTGAGACAGAATCTCACTTTGTCACC
AGGCTGGAGTGCAGTGGTGCAATCTCACCTCACTGCAACCTCCGCCTCCTGGGTTCAAGCAATTCTCCTGCCTCA
GCCTCCCAAGTAGCTTGGACTACAGGCCCTGCCACCACGCCCGGCTAATTTGTGTATTTTTAGTAGAGATGGGGT
TTCACCATGTTGGCCAGGATGGTCTCGATCTCTTGACCTCGTGATCCGTCCACCTTGGCCTTGCAAAGCGCTGGA
TTACAGGCATGAGCCACTACACCCAGCCGATTTTTCCTTTTTGATTAAAGATGCTATTACAATGTAAATATTTCT
TACACAGAAAGTCACAGCACATGTGCCCATTGATACAAGGCTGCTGAGGCCTGGTCTCCAGTTGGAAATATAATT
AAGGGTGGCAAGGACTGGAGTCAGTTGGAGAGTGCATAGCCAGTCTGTGAAGACAACTGCCAGATACTGGCAATA
CTCCAGCCTGGTGACAGAGTGAGACTCTGTCTCAAAAAAAAAAGTTTCAATGTTTACTCCTAGAGAAGCCAAAAA
TCCCAGATTTGTATATGAAATCTTACCATTTTAAAAGATTGGCAGCTAATTATTTTTTTAAAAAGCTGTGCAGTG
TGATGTGTCCCAAACGGACTGGCTCATGGGTGGCCACGTCACAACCTCTGATCTCAGACCGTGCATGCCTTGTCC
TCTTAAGACAACTCCTGTGGCACCATTTCTCCCTCCACAGGGCCAAAGCCATAGTGTCCGGTCCCAAGGACAAGG
CTCTTCCAGTGCTAGGAGAGGTATGAGCAGCCTCTCACCTGTGAGCTGTGGGGATCACAAGGCTGCCTGCCTCAG
TCTTGGAGTCCTGTTGGGTGAATGAGGCAGATGGGAAAGAGCCTCACCAGCAGCTGCTTTTGGAGCAGGGGTCCA
AGGAAGAGAGGGTGGCCTCGACATCAAACTGCCTGGATTTTTCTACCACCCTGTTACATCATAACAACTTCTGAA
ACACACACCAGCCCTGAGTTCTGGGCTCATTTGAAGCCTGGAATAGCAATAAATCTTTTTAACTTGC

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FIGURE 4114

TTAGGTCCCCTCAATGGGGACACAGCTATAACTGTCCAGCTCTGTGCATCAGAGGAGGCTGAGCGGCACCAGAAG
GATATAACCAGAATTCTCCAGCAACATGAGGAGGAAAAGAAGAAATGGGCACAACAGGTGGAGAAGGAAAGGGAG
CTAGAGCTTCGAGACAGACTGGATGAGCAGCAAAGGGTCCTGGAAGGAAAGAATGAAGAGGCCCTGCAAGTCCTC
CGGGCCTCATATGAACAGGAGAAAGAAGCGCTTACCCACTCTTTCCGGGAGGCCAGTTCTACCCAGCAGGAGACC
ATAGACAGACTGACCTCACAGCTGGAGGCTTTCCAGGCCAAAATGAAGAGGGTGGAGGAGTCCATTCTGAGCCGA
AACTATAAGAAACATATCCAGGATTATGGGAGCCCCAGCCAGTTCTGGGAGCAGGAGCTGGAGAGCTTACACTTT
GTCATCGAGATGAAGAATGAGCGTATTCATGAGCTGGACAGGCGGCTGATCCTCATGGAAACAGTGAAAGAGAAA
AATCTGATATTGGAGGAAAAAATTACGACCCTGCAACAGGAAA**ATG**AGGACCTCCATGTCCGAAGCCGCAACCAG
GTGGTCCTGTCAAGGCAGCTGTCAGAAGACCTGCTTCTCACGCGTGAGGCCCTGGAGAAGGAGGTGCAGCTGCGG
CGACAGCTCCAGCAGGAGAAGGAGGAGCTGTTGTACCGGGTCCTTGGGGCCAATGCCTCGCCTGCCTTCCCTCTG
GCCCCTGTCACTCCCACTGAGGTCTCTTTCCTCGCCACATAGGGTGCAGGGCCTGGGCCCACCACGACGCCTGAA
GTCACAGCTCCTTCCAAGGTTTTTCTGGAGAAGACAGCAGGAGCCTCTCAGTTCTTTTCCAGGAAGGAACGAGGG
TGGGAGCGAGATGGAGATCCTGGGTGTGTGCCCAGTGAGCCCTGGGGCCTTGAGTTACATGGAATCACCCACAGG
GTTTTGGAGGCCCCGAGAAGCGTCTTCCCTTGAGTTGGCCAAGGGAATAAGCAAGAGGAGACATTTCCTCCCTGC
CCCAGCACTCTGTCCCAATCCGAGAAGTTCCGAGGCTTTCCCAGGGGCAGTCTGTGTCACGCTGGCCATT**TGA**CA
TAAAGGAGACAGCCCCTGGTCCCAGCTTGTCAGCTCTGCTGCCGACTTGCTGACTTATCAACTTCCTCTAGGTGT
TTCCACTCCACCCTGGCCTGCTCAGAGCCTCAGTTTACCCCTGCATTAAAATGGTGGGGGGACTGGTCAAAGGAC
TCTTATGTCACTGCAGTGTCCCATTCTAGGATTGTCTGAAGGCCAGAGTAGGGGTTGGGGGGAGTGTGGACAAAC
CCCGCAAATCAGAGTGGGGAAGGTGAGTGGTAGAGAGGGGGTCTCTGAAGGCCCTTGGGGCTGACAGGGCCAGGC
AGCCTCCCCAGCTGAGGCATCATTCCTGGGCCAGAGTCGTGTCCACCAAGGGACAGTAGCCAGAGCTCCTCTTCC
TTTACCAGGCAAGGTGCATCCCCTCAGCCCTCCTGGCCCTTCAGTCTTGGTGCCACCTGGGCACAGGGGCAAGCT
TGGTGGTTGTGAGTCCATTCATCTATCAGAGCTGGAACCTCATCCCTGCACAGATGAGGAAACCAAGGCATGGAG
CAGTTCCCAGAGTCGAATCTAGATCTCATCTGTCATCCGGGTCTTATCCTTTGCTCTGTTTTTCTCTTCAGGCTC
TGGAAAATCAGATCTGTGACTTAATCTTCCTCTCCCTGGCCCTCACCCACTTAGTTTCTTTTTCATTCCTGCTCC
CTGCCTTAACTCCTCCTCCCACTGCCCCTGATCCCAGGCCCAGGCTTTTACAACCTGGTGCTCAGCTTCCCCATC
AGTGAAAAGGGGTGGCTAGAGTAACTAACCTCAGCAGGCCGTCCAGTCCTGATAGTCTGTGGATTTCGGATCCTT
CTCAGGAAGCTTCATGTCTAATGGAGACTATAATTATAACTCCTGTTCTGCATAGAGCATTTGCATCAAAGGCTT
TCCATACCCCTCCCTCCCCTGGCCTCATAAGATCCTTGAAGCAGGTTCCTATTCCTCATTGGCAACATGGCAAA
CAGATCACAGGAGTCAAAGGGCCTTGCTCAAGGTCCCCAGCTTCAGCCCCAGGCCCTAAGCCAGCGTCAGAACAG
TCAATCTGCATTTTTCATCAGTCATTCTATAGTGACATCATCCCAGACTGCCTTCTGTATTCCCCTGTGTACAGT
CTCCTTCTGTTTCTAGGTTTAGAAGTTCAGAGGTGACTGTGTTTCTCCATTTCCACAGCCAAATGGGGGAAGAGG
TGAGGCTAGGGGAGTGCTGTGCTGATTCTCCAGCCATGGTCAGACAGGTCACCCAGGAGCCTCGAGGAAAGCCCT
GGAGGGAATCACATGTGTACTTTTTCATGAAGCTTTTTGCAAAGCACATCTGCGATACACTAGTTTATTGAACTA
ATGTCCAGGAGTAGACGTGATTGGTGGCCAAGTTATTTGGGGACACCTAAACAGATCAGTGACCTGAATGACTTC
TCAGAACCTTTAATATGCCAATGTGTGTGGCAAACTTACAAGAAGGGAGCTAAGTATCCAGCCTCTCCCAAACCT
CTTTGAACAAAGCTTCTGTCCCTCCCACACCTCTCACCTCACAGGCACATCAGGCTGCAGAATGCGCTTTAGAAA
GCATTGTTTTAGTCCAGGCACAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGGGTGGATCAC
AAGGTTGGGAGATTGAGACCATCCTGGCTAACACAGTGAAACCCTGTCTCTACTAAAAAAATACAAAAAATTAGC
TTGGCGTGGTGGTGGGCGCCTGTAGTCCCAGCAGCTTGGGAGGCTGAGGCTGGAGAATGGTGTGAACCCAGGAGG
CGGAGCTTGCAGTGAGCCAAGATCGCGCCACTGCACTCCAGCCCGGGTGACAGAGCAAGACTCCGTCTC

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FIGURE 4115

GCCACGTGTCCGGCTCGGAGCCCACGGCTGTCCTCCCGGTCCGCCCCGCGCTGCGGTTGCTGCTGGGCTAACGGG
CTCCGATCCAGCGAGCGCTGCGTCCTCGAGTCCCTGCGCCCGTGCGTCCGTCTGCGACCCGAGGCCTCCGCTGCG
CGTGGATTCTGCTGCGAACCGGAGACC**ATG**GCCAAACCAGCACAGGGTGCCAAGTACCGGGGCTCCATCCATGAC
TTCCCAGGCTTTGACCCCAACCAGGATGCCGAGGCTCTGTACACTGCCATGAAGGGCTTTGGCAGTGACAAGGAG
GCCATACTGGACATAATCACCTCACGGAGCAACAGGCAGAGGCAGGAGGTCTGCCAGAGCTACAAGTCCCTCTAC
GGCAAGGACCTCATTGCTGATTTAAAGTATGAATTGACGGGCAAGTTTGAACGGTTGATTGTGGGCCTGATGAGG
CCACCTGCCTATTGTGATGCCAAAGAAATTAAAGATGCCATCTCGGGCATTGGCACTGATGAGAAGTGCCTCATT
GAGATCTTGGCTTCCCGGACCAATGAGCAGATGCACCAGCTGGTGGCAGCATACAAAGATGCCTACGAGCGGGAC
CTGGAGGCTGACATCATCGGCGACACCTCTGGCCACTTCCAGAAGATGCTTGTGGTCCTGCTCCAGGGAACCAGG
GAGGAGGATGACGTAGTGAGCGAGGACCTGGTACAACAGGATGTCCAGGACCTATACGAGGCAGGGGAACTGAAA
TGGGGAACAGATGAAGCCCAGTTCATTTACATCTTGGGAAATCGCAGCAAGCAGCATCTTCGGTTGGTGTTCGAT
GAGTATCTGAAGACCACAGGGAAGCCGATTGAAGCCAGCATCCGAGGGGAGCTGTCTGGGGACTTTGAGAAGCTA
ATGCTGGCCGTAGTGAAGTGTATCCGGAGCACCCCGGAATATTTTGCTGAAAGGCTCTTCAAGGCTATGAAGGGC
CTGGGGACTCGGGACAACACCCTGATCCGCATCATGGTCTCCCGTAGTGAGTTGGACATGCTCGACATTCGGGAG
ATCTTCCGGACCAAGTATGAGAAGTCCCTCTACAGCATGATCAAGAATGACACCTCTGGCGAGTACAAGAAGACT
CTGCTGAAGCTGTCTGGGGGAGATGATGATGCTGCTGGCCAGTTCTTCCCGGAGGCAGCGCAGGTGGCCTATCAG
ATGTGGGAACTTAGTGCAGTGGCCCGAGTAGAGCTGAAGGGAACTGTGCGCCCAGCCAATGACTTCAACCCTGAC
GCAGATGCCAAAGCGCTGCGGAAAGCCATGAAGGGACTCGGGACTGACGAAGACACAATCATCGATATCATCACG
CACCGCAGCAATGTCCAGCGGCAGCAGATCCGGCAGACCTTCAAGTCTCACTTTGGCCGGGACTTAATGACTGAC
CTGAAGTCTGAGATCTCTGGAGACCTGGCAAGGCTGATTCTGGGGCTCATGATGCCACCGGCCCATTACGATGCC
AAGCAGTTGAAGAAGGCCATGGAGGGAGCCGGCACAGATGAAAAGGCTCTTATTGAAATCCTGGCCACTCGGACC
AATGCTGAAATCCGGGCCATCAATGAGGCCTATAAGGAGGACTATCACAAGTCCCTGGAGGATGCTCTGAGCTCA
GACACATCTGGCCACTTCAGGAGGATCCTCATTTCTCTGGCCACGGGGCATCGTGAGGAGGGAGGAGAAAACCTG
GACCAGGCACGGGAAGATGCCCAGGTGGCTGCTGAGATCTTGGAAATAGCAGACACACCTAGTGGAGACAAAACT
TCCTTGGAGACACGTTTCATGACGATCCTGTGTACCCGGAGCTATCCGCACCTCCGGAGAGTCTTCCAGGAGTTC
ATCAAGATGACCAACTATGACGTGGAGCACACCATCAAGAAGGAGATGTCTGGGGATGTCAGGGATGCATTTGTG
GCCATTGTTCAAAGTGTCAAGAACAAGCCTCTCTTCTTTGCCGACAAACTTTACAAATCCATGAAGGGTGCTGGC
ACAGATGAGAAGACTCTGACCAGGATCATGGTATCCCGCAGTGAGATTGACCTGCTCAACATCCGGAGGGAATTC
ATTGAGAAATATGACAAGTCTCTCCACCAAGCCATTGAGGGTGACACCTCCGGAGACTTCCTGAAGGCCTTGCTG
GCTCTCTGTGGTGGTGAGGAC**TAG**GGCCACAGCTTTGGCGGGCACTTCTGCCAAGAAATGGTTATCAGCACCAGC
CGCCATGGCCAAGCCTGATTGTTCCAGCTCCAGAGACTAAGGAAGGGGCAGGGGTGGGGGGAGGGGTTGGGTTGG
GCTCTTATCTTCAGTGGAGCTTAGGAAACGCTCCCACTCCCACGGGCCATCGAGGGCCCAGCACGGCTGAGCGGC
TGAAAAACCGTAGCCATAGATCCTGTCCACCTCCACTCCCCTCTGACCCTCAGGCTTTCCCAGCTTCCTCCCCTT
GCTACAGCCTCTGCCCTGGTTTGGGCTATGTCAGATCCAAAAACATCCTGAACCTCTGTCTGT

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FIGURE 4116

AGTGAGCCGAGGAGCCTTCATAGGGACAGCCGCCCCTGGTGCACACACCCTCGTATTCTCCTGCCCTTCCCCAGC
CAGGCGGGCACCACGGCAGGGGCTGAGCTACCCTC**ATG**GAAGGGAGAGGACCGTACCGGATCTACGACCCTGGGG
GCAGCGTGCCCTCAGGAGAGGCATCCGCAGCTTTTGAGCGCCTAGTGAAGGAGAATTCCCGGCTGAAGGAAAAAA
TGCAAGGGATAAAGATGTTAGGGGAGCTTTTGGAAGAGTCCCAGATGGAAGCGACCAGGCTCCGGCAGAAGGCAG
AGGAGCTAGTGAAGGACAACGAGCTGCTCCCACCACCTTCTCCCTCCTTGGGCTCCTTCGACCCCCTGGCTGAGC
TCACAGGAAAGGACTCAAATGTCACAGCATCTCCCACAGCCCCTGCATGCCCCAGTGACAAGCCAGCACCAGTCC
AGAAGCCTCCATCCAGTGGCACCTCCTCTGAATTTGAAGTGGTCACTCCTGAGGAGCAGAATTCACCAGAGAGCA
GCAGCCATGCCAATGCGATGGCGCTGGGCCCCCTGCCCCGTGAGGACGGCAACCTGATGCTGCACCTGCAGCGCC
TGGAGACCACGCTGAGTGTGTGTGCCGAGGAGCCGGACCACGGCCAGCTCTTCACCCACCTGGGCCGCATGGCCC
TGGAGTTCAACCGACTGGCATCCAAGGTGCACAAGAATGAGCAGCGCACCTCCATTCTGCAGACCCTGTGTGAGC
AGCTTCGGAAGGAGAACGAGGCTCTGAAGGCCAAGTTGGATAAGGGCCTGGAACAGCGGGATCAGGCTGCCGAGA
GGCTGCGGGAGGAAAATTTGGAGCTCAAGAAGTTGTTGATGAGCAATGGCAACAAAGAGGGTGCGTCTGGGCGGC
CAGGCTCACCGAAGATGGAAGGGACAGGCAAGAAGGCAGTGGCTGGACAGCAGCAGGCTAGTGTGACGGCAGGTA
AGGTCCCAGAGGTGGTGGCCTTGGGCGCAGCCGAGAAGAAGGTGAAGATGCTGGAGCAGCAGCGCAGTGAGCTGC
TGGAAGTGAACAAGCAGTGGGACCAGCATTTCCGGTCCATGAAGCAGCAGTATGAGCAGAAGATCACTGAGCTGC
GTCAGAAGCTGGCTGATTTGCAGAAGCAGGTGACTGACCTGGAGGCCGAGCGGGAGCAGAAGCAGCGTGACTTTG
ACCGCAAGCTCCTCCTGGCCAAGTCCAAGATTGAAATGGAGGAGACCGACAAGGAGCAGCTGACAGCAGAGGCCA
AGGAGCTGCGCCAAAAGGTCAAGTACCTGCAGGATCAGCTGAGCCCACTCACCCGACAGCGTGAGTACCAGGAAA
AGGAGATCCAGCGGCTCAACAAGGCCCTGGAGGAAGCACTGAGCATCCAAACCCCGCCATCATCTCCACCAACAG
CATTTGGGAGCCCAGAAGGAGCAGGGGCCCTCCTAAGGAAACAGGAGCTGGTCACGCAGAATGAGTTGCTGAAAC
AGCAGGTGAAGATCTTCGAGGAGGACTTCCAGAGGGAGCGCAGTGATCGTGAGCGCATGAATGAGGAGAAGGAAG
AGCTGAAGAAGCAAGTGGAGAAGCTGCAGGCCCAGGTCACCCTGTCAAATGCCCAGCTAAAAGCATTCAAAGATG
AGGAGAAGGCAAGAGAAGCCCTCAGACAGCAGAAGAGGAAAGCAAAGGCCTCAGGAGAGCGTTACCATGTGGAGC
CCCACCCAGAACATCTCTGCGGGGCCTACCCCTACGCCTACCCGCCCATGCCAGCCATGGTGCCACACCATGGCT
TCGAGGACTGGTCCCAGATCCGCTACCCCCCTCCCCCCATGGCCATGGAGCACCCGCCCCCACTCCCCAACTCGC
GCCTCTTCCATCTGCCGGAATACACCTGGCGTCTACCCTGTGGAGGGGTTCGAAATCCAAATCAGAGCTCCCAAG
TGATGGACCCTCCCACAGCCAGGCCTACAGAACCAGAGTCTCCAAAAAATGACCGTGAGGGGCCTCAG**TGA**GACC
AGATTGTGTCATTTGGCTCCACCTTCATCTTGCAGAGCCAGCTGATCTCAGATTGCCAAGAAACTAGAAGCCACT
TGCACGGTGTGGCCAGAGCCTCAGCTGGATGAGAGGCTGAGATGGGTGGCCAGCTTGTACACCAGTCCCTGAACT
GAGCTGTTTACAGGACTGGGGAGGCTCCACCCAGAAGGCTTTCATTTGTACTCTGCTGGGAGTGACTGGGAAAAA
CTCCTTCCCTGCTGCTGAGTGGAGAGAGGCCTCATCCGGCTTTGACCCACCATCCGTTGCAGAAGCCTCCAGGAG
CAGCAATCCTAAGAGTGGGAGGCAGCCAAGACCCCCTTCCTTCAAAACCTCCCGGAAGTGGTTTCAGGCCCTCTA
GTTGCCATGACCAATTTGTGTGTGTGTTTAATTTTTGCTTCAAGCTCTGTAGCAGGACCTGCCCCACGCACACCC
CTACCCCTCTGTGAGGAGCTGTGGGAAGTGTGGGTTTGTCTCCAGAACAGAAGAGAATGATGGATATTCTGGCTC
TGGGGCCCTCTCCACCACCACTCACAGTAGCCTTGCTGAAGCCATCACAGATGGGAGAAGGCCATGCCAGCCACG
TCCGCCGAGGGGCGCCAGCCTGAAGCTGCCAGGCCCTGAGGTTCAGACCCTGGACCCCATAGCTGGAGGCCTGTG
GTGCCAGAAGCCCAGATTAGGGTGGCTGTCCATCCCTGGATAGCTATTTGCACGAATCATGGACATAAATCCAAG
TTGAAGAAG

FIGURE 4117

AGCCAAAAGAGGAAGGGACCGCCTCCCACGTCCACAGGGACCTGACTTCCACCTCTCTGCCCAGATTTGCTTATG
TCACTGTCGCCCCGGGACGGGGAGGTGGGGAGCTGAGGGCAAGTCGCGCCCGCCCCTGAAATCCCAGCCGCCTAG
CGATTGGCTGCAAGGGTCTCGGCTTGGCCGCGGATTGGTCACACCCGAGGGCTTGAAAGGTGGCTGGGAGCGCCG
GACACCTCAGACGGACGGTGGCCAGGGATCAGGCAGCGGCTCAGGCGACCCTGAGTGTGCCCCCACCCCGCC**ATG**

GCCCGGCTGCTGCAGGCGTCCTGCCTGCTTTCCCTGCTCCTGGCCGGCTTCGTCTCGCAGAGCCGGGGACAAGAG
AAGTCGAAGATGGACTGCCATGGTGGCATAAGTGGCACCATTTACGAGTACGGAGCCCTCACCATTGATGGGGAG
GAGTACATCCCCTTCAAGCAGTATGCTGGCAAATACGTCCTCTTTGTCAACGTGGCCAGCTACTGAGGCCTGACG
GGCCAGTACATTGAACTGAATGCACTACAGGAAGAGCTTGCACCATTCGGTCTGGTCATTCTGGGCTTTCCCTGC
AACCAATTTGGAAAACAGGAACCAGGAGAGAACTCAGAGATCCTTCCTACCCTCAAGTATGTCCGACCAGGTGGA
GGCTTTGTCCCTAATTTCCAGCTCTTTGAGAAAGGGGATGTCAATGGAGAGAAAGAGCAGAAATTCTACACTTTC
CTAAAGAACTCCTGTCCTCCCACCTCGGAGCTCCTGGGTACATCTGACCGCCTCTTCTGGGAACCCATGAAGGTT
CACGACATCCGCTGGAACTTTGAGAAGTTCCTGGTGGGGCCAGATGGTATACCCATCATGCGCTGGCACCACCGG
ACCACGGTCAGCAACGTCAAGATGGACATCCTGTCCTACATGAGGCGGCAGGCAGCCCTGGGGGTCAAGAGGAAG
TAACTGAAGGCCGTCTCATCCCATGTCCACCATGTAGGGGAGGGACTTTGTTCAGGAAGAAATCCGTGTCTCCAA
CCACACTATCTACCCATCACAGACCCCTTTCCTATCACTCAAGGCCCCAGCCTGGCACAAATGGATGCATACAGT
TCTGTGTACTGCCAGGCATGTGGGTGTGGGTGCATGTGGGTGTTTACACACATGCCTACAGGTATGCGTGATTGT
GTGTGTGTGCATGGGTGTACAGCCACGTGTCTACCTATGTGTCTTTCTGGGAATGTGTACCATCTGTGTGCCTGC
AGCTGTGTAGTGCTGGACAGTGACAACCCTTTCTCTCCAGTTCTCCACTCCAATGATAATAGTTCACTTACACCT
AAACCCAAAGGAAAAACCAGCTCTAGGTCCAATTGTTCTGCTCTAACTGATACCTCAACCTTGGGGCCAGCATCT
CCCACTGCCTCCAAATATTAGTAACTATGACTGACGTCCCCAGAAGTTTCTGGGTCTACCACACTCCCCAACCCC
CCACTCCTACTTCCTGAAGGGCCCTCCCAAGGCTACATCCCCACCCCACAGTTCTCCCTGAGAGAGATCAACCTC
CCTGAGATCAACCAAGGCAGATGTGACAGCAAGGGCCACGGACCCCATGGCAGGGGTGGCGTCTTCATGAGGGAG
GGGCCCAAAGCCCTTGTGGGCGGACCTCCCCTGAGCCTGTCTGAGGGGCCAGCCCTTAGTGCATTCAGGCTAAGG
CCCCTGGGCAGGGATGCCACCCCTGCTCCTTCGGAGGACGTGCCCTCACCCCTCACTGGTCCACTGGCTTGAGAC
TCACCCCGTCTGCCCAGTAAAAGCCTTTCTGCAGC

FIGURE 4118

AACCAATCCTCACAACAGGACTGGGAGACAGGTGTTACCTTTCCCACTTTACAGAGAATGAAACAGAGTGGCAAA
GCCTCCGAAGGACCCTACACTTCGGACATCGCAAAGCAGGATCTGAGTCCCGGCTCCTCTGTCCAAACCTACTTG
CTAGGCTTTCTTTCCCATGTCTACTCTATAGCTGGAAAGGTCGTGGAGGACACATTTTAGGCCAACCCTCTCGGT
TTACAATCCAGAGAGGGGAGACCCTCAGAAGCCAAGCGAC**ATG**TCCACGGCTACGCGGCGAGTGTGTGGCAACGT
GGAAGGGGAGCCCGAGACGCCCTGGTCTCTCCCTTCTCTCGCAGGTTCCTTTCTCCCCGAACGCAGCCCGCAGGG
GACGCTGGAGGAGGAGCTGAGCTGGAGTTGCCGGGGCCCCGGGACCGGGCGTTCCGGGGGCGGTCCCCAGCAGCC
GCGCATTCCAGAGCCAGCAGCGCGTCCTGGCCGCTCCTGCGCTCTCCCGCCTCCCGGGGCTCGGAGGAGCCGGGG
CACGTTCCAGGAGCTGCCTAGGGCTGAGGTTCCAGGCCTGGGGGTCGCTTCCAGCTGCCAGATCCCGTGCAGTCC
TGGGGACCCTGAGAAGCACCGAGCCATCCCTGACCCAGGAACTTTCCGCAGACTCGCCGCCATCTGGGAG**TGA**AG
CAACATGGATGCAGTCAGCCAAGTCCCCATGGAAGTCGTGCTTCCCAAGCACATCCTGGATATCTGGGTTATTGT
CCTCATCATCCTGGCCACCATTGTCATCATGACCTCGTTGTTGCTGTGCCCAGCCACTGCAGTAATCATCTATCG
CATGCGGACTCATCCGATCCTTAGTGGGGCTGTTTGAGAGCCTCCCAAGAGGGCCGGGTGAGGGATGAGGACAGG
CATCCTATCCCCAGCCTCTTCCTGTCTTCAGAAAAGCAGCAGGAGGGACTTTGGGGCATGGACCTGAGTTCTGGT
TTTGATTCTGCCACGAGCCAGCTGTGTGAATTTGGTCAAGGGACCTAACTCTCTGAGTTCCAGGTTCCTTATCTT
TCAAATGGGGATGGTGATCCCTGCCCTTTCTACCTCATAGGGATGTGAGAACCACCTGACTTAGTGGATGTGAAA
GCTGTTTGTGATCAGTAAAGCTACCACAGATATAAGGGTGTTATGCTGAATCCTGAGAAGCTTTCAAGAACCAGA
GAACCTGATTGCTGATGATGGCCTTAAAGGTGGTGAGGGAGATACTGGGGGCAGAGCAGACTTTGCCAGTGCCCC
TCAGGTCAAACCAAGCCAAGAGCACCCTGTCCCCATTCCAAGGGGCCAGCAGCACTTTGGCCCAAAGTATTTTCT
TTAAGGTGCCATTCCTTCATGTTTTCTCAGTTTGGAGGGTGATGGGTAGAGCTTTCCAGAACCTTCTCCATTCCA
GAATCTCTGCCCCTGTGTAATCTGAAGGAAGGCTGTGCCATCTTTGGGCACTGCCAAGGGAGTTGGGGTGATGGG
CTTCTTTCTGCACTGGAGTCTCACATCTGTTAGCTTTGACACTCAAGCAATGTTGGAAAATGCAGGGTGACTGAG
TTCCCTGCCCAGCTTTCGGGATCTCTGGCCCCCATCCCCTTGTGTGTGTCCCTCTGCCCAGCTCCTGCTGTAATT
AGCTCCACGTGTACCCCCTTCACTCCCTCCCACCAGCTCTGCAGCCAGCCTATGGCAATTATATTTTAAGAGGTG
TTCCCAGGACTTTTGGGACCTACTAAAACAATGATGGTTATTTTAGATGTGATGATTTATATTTATGTAGAGATA
TTTCTGGACCACTCAAGCTCTTCGATACCAAAATCAGGAGCATCTTGGGATTTATTAAATTATGTAAGAAGATAG
CACAGATATCGGGATATTATTGTGTGAAAATGCTGCTTTTACTTTGATGTGATCTCATTGATGTACACAACCAAG
TTCCAATAAAGTGCTAGAATGTG

FIGURE 4119

CTCCTCCCTCCCCAAG**ATG**GCGTCCTTGCTGCAGTCGGACCGGGTTCTCTATCTAGTCCAGGGAGAAAAGAAGGT
TCGGGCCCCGCTCTCGCAACTCTACTTCTGCCGCTATTGTAGCGAACTGCGGTCGCTGGAATGTGTGTCTCACGA
GGTGGACTCCCATTATTGTCCCAGTTGTTTAGAAAATATGCCATCGGCTGAAGCCAAACTAAAAAAGAATAGATG
TGCCAATTGTTTTGACTGTCCTGGCTGCATGCACACCCTCTCTACTCGGGCCACGAGCATCTCCACACAGCTTCC
AGATGACCCAGCCAAGACCACCATGAAGAAAGCCTATTACCTGGCATGTGGATTTTGTCGCTGGACGTCTAGAGA
TGTGGGCATGGCAGACAAATCTGTAGCTAGTGGCGGTTGGCAGGAACCTGAAAATCCTCACACACAACGGATGAA
CAAATTGATTGAATATTACCAGCAGCTTGCTCAGAAAGAGAAGGTTGAGCGAGATCGCAAGAAACTGGCACGACG
TAGAAACTATATGCCTCTGGCTTTTTCGGACAAATATGGTCTTGGAACCAGGCTTCAGCGACCACGAGCTGGTGC
ATCCATCAGTACCCTTGCCGGACTTTCCCTTAAAGAAGGAGAGGATCAGAAAGAGATAAAGATTGAGCCAGCTCA
GGCTGTGGATGAAGTGGAACCTCTACCTGAAGACTATTATACAAGACCAGTAAATTTAACAGAGGTAACAACCCT
TCAGCAGCGTCTGTTACAGCCTGACTTCCAGCCAGTCTGTGCTTCACAGCTCTATCCTCGCCACAAACATCTTCT
GATCAAACGGTCCCTGCGCTGCCGTAAATGTGAACATAATTTGAGCAAGCCAGAATTTAACCCAACGTCAATCAA
ATTCAAAATCCAGCTGGTCGCTGTCAATTATATTCCAGAAGTGAGAATCATGTCAATTCCCAACCTTCGCTACAT
GAAGGAGAGCCAGGTCCTCCTGACTCTTACAAATCCAGTTGAGAACCTCACCCATGTGACTCTCTTCGAGTGTGA
GGAGGGGGACCCTGATGATATCAACAGCACTGCTAAGGTGGTGGTGCCTCCCAAAGAGCTCGTTTTAGCTGGCAA
GGATGCAGCAGCAGAGTACGATGAGTTGGCAGAACCTCAAGACTTTCAGGACGATCCTGACATTATAGCCTTCAG
AAAGGCCAACAAAGTGGGTATTTTCATCAAAGTTACACCACAGCGTGAGGAGGGTGAAGTGACCGTGTGCTTCAA
GATGAAGCATGATTTTAAAAACCTGGCAGCCCCCATTCGCCCCATTGAAGAAAGTGACCAGGGAACAGAAGTCAT
CTGGCTCACCCAGCATGTGGAACTTAGCTTGGGCCCACTTCTTCCT**TAA**AAGGTTCCACTGGAGGGCAGATCCCA
AAGGACAGTATCACCGTAAACCTGCGTTAAAATGTGGAAGCTGCTGCTTCATTAGGCCTTGTTTATAACGATGTA
CCCATGCACTACGGAATTCTATTGCTAAGAAAGTGGGAGCATAGGCAAGGCATTGGGAACACAGGGTAGCTGCTG
TTGCTCTTGCTCTCACCCCTGTTGACACCAGTAAGTCTGTGTCTCCCTCACTGAACCCTGCACGTTGAGTAACAG
CAGCATAATTCCATCCTAGGAAAGGGGATGGGTGTTCCTTGGAATGGCATTGTATTTACCACCTGAGAAACTCTG
TACTGTCTCTTGATCTGATCTCACTAAGGATCACAATGTCACAGATGAAACTTAAATGATAACCCAAAGGTAGAC
CTGCTGTTAATGATCCAGCATTGGTCACAATGTACCAACTGCTTTCTGCATTCCGTTAAATATCATCTAACAGTC
TAAAACATATCCCTTCATTGCCATAATGGCTGCCATTTTGCCATAGATTTCCATATAACTGAAAAACTGAATTGT
CACTTTATCTTTAGTATCATGATGATTGGAAAAACCTGTGAAGTTGTTAAGGCACTCTCATTTGCCCTCTTTTTC
TAAGTGAATACAGGACACGTATTAGTTGTTCTTAATTTTTTTCCCAGTAAAATATGGATCTTTTAAGAAGAATTT
GAGAAGCAAACAATTACATGTCATGTCAAGGGGGTAGCAGATTCCATTCGTTTTCAATATTGCCACAATACCCAG
GGATTAATGCTGCCACAGGGGGGCAATCTTTATTTGTCTTACTTCCTACCCCTTCCCTGTTCTGCCTCTTTAACT
CAGTTAAGTTGTTCTGTTTGGGACCTGGAAAAGAACCCAAAGAAAACCTGAGTGGACAGGTTCATTTCTGGAATG
CAGAAAACATTTTAAAGGCTAGATTTTTAGAATATTCTCAACTAGCATTCTTTCCATTGATTTGAAGGGGAAATT
AACTATTATAATCTCTTGAATCCAAAACTGGATATTAAGAACTTTCCCCCTTACTAAGTTTAAGACTTTTGTCAT
GTGGTGAGTCAAATAAGACCATTTTGATTGTAAACCATAAAATAGTTCAGCAAGTAGCCCACAGTTCTGGCCTAA
CAGCAGACTTGCTGTTTTCACTTGGTATCCTGGAGTTGGGTTGCTAACCTTAATTTCTATGATGTTTTCTAAAAT
GAAACTTGATAAAGTAGACCACCAGCTGCACCGTGTTTTCTGTAAAAGTATTGTTAGTAAGTGGCCAAGAGACTT
GAGGAAAATACAGATTTTTTGTTT

FIGURE 4120

AGCCTCGGGGCTTGACGGGATTGTGGCGGTCCTCTCTCCCAATTCGGAAGCTACAGCTACCTCCGGACGCTCTCA
AG**ATG**GCGACCTCTCTGGGTTCCAACACCTACAACAGGCAGAACTGGGAGGATGCGGACTTCCCCATTCTGTGCC
AGACATGTCTTGGAGAAAACCCATATATCCGAATGACCAAAGAAAAGTATGGGAAGGAATGCAAAATCTGTGCCA
GGCCATTCACAGTGTTTCGCTGGTGCCCTGGAGTCCGCATGCGTTTCAAGAAGACTGAAGTGTGCCAAACCTGCA
GTAAATTGAAGAATGTCTGTCAGACCTGCCTCTTAGACCTAGAGTATGGCCTGCCCATCCAGGTTCGTGACGCAG
GATTGTCTTTTAAAGATGACATGCCAAAGTCAGATGTCAACAAAGAGTACTATACACAGAATATGGAGAGAGAGA
TTTCTAACTCTGATGGAACACGGCCAGTTGGCATGCTGGGGAAAGCCACATCTACCAGTGACATGCTGCTCAAAC
TGGCCCGGACCACACCCTACTACAAAAGGAATCGACCCCACATTTGCTCCTTCTGGGTGAAAGGAGAGTGTAAGA
GAGGAGAGGAATGTCCATACAGACATGAGAAGCCTACAGATCCAGATGACCCCCTTGCTGATCAGAATATTAAAG
ACCGTTATTACGGAATCAATGATCCTGTAGCTGACAAGCTTCTAAAGCGGGCTTCAACAATGCCTCGGCTGGACC
CACCAGAGGATAAAACTATCACCACACTATATGTTGGTGGTCTAGGTGATACCATTACTGAGACAGATTTAAGAA
ATCATTTCTACCAGTTCGGAGAGATCCGGACGATCACTGTTGTGCAGAGACAGCAGTGTGCTTTCATCCAGTTTG
CCACACGGCAGGCTGCAGAAGTGGCTGCTGAGAAGTCCTTTAATAAGTTGATTGTAAATGGCCGCAGACTGAATG
TGAAATGGGGAAGATCCCAGGCAGCCAGAGGAAAAGAAAAAGAGAAAGATGGAACTACAGACTCTGGGATCAAAC
TAGAACCTGTTCCAGGATTGCCAGGAGCTCTTCCTCCTCCTCCTGCAGCAGAAGAAGAAGCCTCTGCCAACTACT
TCAACTTGCCCCCAAGTGGTCCTCCAGCTGTGGTGAACATTGCTCTGCCACCGCCCCCTGGCATTGCTCCACCCC
CACCCCCAGGTTTTGGGCCACACATGTTCCACCCAATGGGACCACCCCCTCCTTTCATGCGGGCTCCAGGACCAA
TCCACTATCCTTCTCAGGACCCTCAGAGGATGGGAGCTCATGCTGGAAAACACAGCAGCCCC**TAG**CACCTTGTCA
CCACTCTGGGGCTCTGTGGAAGAAAGGGCACTTAAAACTCCCAGTAAATCTTGGAATAAATATATTTTTCCTTCC
CTTGTAGTTTCCATGGTAGCTGAATGTGCTCAGATGTGAGCAGTCAGAGACTGACAGCCATGCTTTCCTATACTT
GTTCAAAGGATCGATGGACCGTAAATAAGCTGCCATTAACACATCTGGTTACTGCTGTAACATGACTAATAAAAC
CGAACGCCTGTTCCCCTTACCCGTGTGGGGGACACGCAGATGAGTGAATTGGAATGTCCAGCAGAGTTACCCTCC
CAATTATATGTTCATTTTGTATATTTTTTGGTCGGGGGAAAAATTGACCTGCAGTAAAAAAACCTTTGACCATTT
TTATGTCCATTGGATACTTTCCTTTTTATCATCTTAAAAAAAGATAACTAGTACTAATCATTGTAGTGGCCTAAG
TGTGATTTAACTCTTGAAGTCACACCCTCCGAAAGATGAGTAGAAACCAGCACCAGCACAGCCCAGATCTTCTCT
TTCCTCTCCTTTTCCTCATTTATTCCTAAAGGAATCTGACCATTTTACGTCTCTACGGCCCAAAAAAAGACAAAA
ATAAAAATTCCTTTTTATTCCTGTCAACTGGATGGAAACACAAATTTCATGGAGCTGTGTACCATCGAAGAAACC
TGGTGTCTGGCATGAAATTACTGTAAAGAACTTCCTGTAAAACACGTTCTTTAACAAACTGAAATGAAAAGCATT
GGAGCGTCTGAATGAAAGACGTGACCTCCTGCTGGGACTCTGATGGTCTTCAGCATTCACCTTCGTGTGTCTTCA
GTGTCTCATTGTCATCCCTGCTTCTGTTTGGTCTTAGAGTGTTTGGATATAACTGAATTGTAGATGGTAAAGGAA
ATTTGATGTGTTTTTTGTTTTTAAATAATTAAAACGGGTCAATTTTT

FIGURE 4121A

GAGAAAAGTCACATCCAGCTCCTTCATGTTGCTGCCGATGTGGGATTTTCCTGGCTTCGTCAGCCAAGCAATTGG
CTGCCTTTGCCGGAGGCTTTGAGAACCAAGGCTTGAAGGCCGGCAGGAGCATCCAGGGGGAAGCTTGGCTTCAGG
GAGGACCTAGCAGACGTTGGGCCGGAGCACTAGCCTCACGGAGAAGGATCTGAAAGAAGCCAAGGCGCGGAGCCA
GCAGATTGCAGCCCAGCTGACCACCCCTCCCAGCTCCAATTCCCGTGGCGTCCAGCTCTTCAACAGGCGCCGGCA
GAGGGTGAACGAGTTCACCTTGGAGAGCCACGGCCAGAGGGGACAGAAGCCCAGCCAGGAGTCCCTCAGAGTGCT
CCCTTCAAGCCTCCCAGGCCATGCACCGGGGCTCAGCCTGAGTTCCACCTCGCTGCCGGAGCCAGGCCCTCCACG
GCACCCCAGTCCCCAGAGCCCCGACAGAGGGGTCCCTGGCCACAGC**ATG**GAGGGGTACTCAGAGGAGGCTAGCTT
GCTGCGGCACCTGGAGAAGGTGGCCAGTGAGGAGGAAGAGGTACCACTGGTGGTTTATCTAAAGGAGAATGCAGC
ACTGCTGACAGCCAATGGGCTGCACCTGTCCCAAAACCGAGAGGCCCAGCAGTCCTCACCGGCCCCACCTCCAGC
TGAGGTCCACAGCCCAGCTGCAGATGTCAACCAAAACCTTGCCTCGCCCAGTGCCACGCTCACCACACCAACTTC
TAACAGCAGCCACAATCCGCCAGCCACCGATGTCAATCAGAACCCACCGGCAACTGTTGTCCCACAGAGCCTGCC
ACTTTCTAGCATCCAACAGAATTCCTCAGAGGCCCAACTCCCATCTAATGGCACAGGGCCTGCTTCCAAACCCAG
CACCCTGTGTGCTGATGGGCAACCCCAGGCACCGGCTGAGGAGGTGAGATGCAGCACACTCCTAATTGACAAGGT
ATCAACTCCAGCTACCACCACCAGCACCTTCTCCAGAGAAGCTACGCTCATCCCCAGCTCCAGGCCCCCAGCCTC
AGATTTCATGTCCAGCTCCCTGCTCATTGACATCCAGCCCAACACCCTAGTGGTGTCAGCAGATCAAGAGATGTC
TGGGCGAGCAGCTGCCACCACGCCCACCAAGGTCTACAGTGAGGTCCACTTCACACTGGCCAAGCCCCCATCAGT
GGTCAACAGGACGGCCAGGCCTTTTGGGATCCAGGCGCCAGGGGGCACCAGCCAGATGGAGAGGAGCCCCATGCT
AGAGAGACGACATTTTGGGGAGAAGGCCCCGGCTCCCCAGCCCCCCAGTTTGCCAGACAGGAGCCCCCGGCCACA
GAGACACATAATGTCCCGCAGCCCCATGGTGGAAAGGAGGATGATGGGGCAGCGAAGCCCGGCCTCAGAGAGACG
CCCCTTGGGGAACTTCACTGCACCCCCCACCTACACTGAGACCTTGTCCACAGCCCCTCTGGCTTCCTGGGTGAG
GTCTCCTCCCTCATATTCTGTCCTGTATCCCAGCTCCGACCCCAAGTCTTCTCATCTGAAGGGCCAGGCGGTTCC
TGCCAGCAAGACGGGCATTCTGGAGGAGTCGATGGCCCGCCGGGGCAGCCGCAAATCCATGTTTACTTTCGTGGA
GAAGCCCAAGGTGACCCCGAATCCAGACTTGCTGGATCTGGTACAGACAGCGGATGAGAAGCGGCGGCAGAGGGA
CCAGGGGGAGGTAGGCGTGGAGGAGGAGCCCTTCGCACTGGGGGCCGAGGCCTCCAACTTCCAGCAGGAGCCAGC
ACCTCGTGACAGGGCCAGCCCCGCGGCGGCGGAGGAGGTGGTACCAGAGTGGGCCTCCTGCCTCAAGTCACCCCG
CATCCAGGCCAAGCCGAAGCCCAAACCCAACCAGAACCTCTCCGAGGCCTCTGGGAAGGGAGCTGAGCTCTACGC
CCGCCGCCAGTCACGGATGGAGAAATATGTCATCGAGTCTTCAAGCCACACGCCAGAGCTGGCCCGCTGCCCATC
ACCTACCATGTCCCTGCCTTCCTCCTGGAAATACCCCACTAACGCCCCCGGGGCCTTCCGAGTGGCATCCCGAAG
CCCAGCCCGGACCCCGCCTGCCTCCCTCTACCATGGCTACCTGCCTGAGAACGGGGTCCTGCGCCCAGAGCCCAC
CAAGCAGCCGCCATACCAGCTGCGCCCCTCGCTCTTTGTCCTCTCACCTATCAAGGAGCCTGCCAAGGTCTCACC
AAGAGCTGCCTCGCCCGCCAAGCCCAGCTCCTTGGACCTGGTGCCCAACCTGCCCAAGGGGGCTCTCCCTCCATC
TCCTGCCCTGCCTCGGCCCTCGCGCTCCTCACCGGGCCTCTACACCTCCCCCGGCCAGGACAGCCTGCAGCCCAC
TGCCGTGAGCCCTCCTTACGGCGGTGACATCTCCCCCGTGTCTCCCTCCAGGGCGTGGTCTCCCCGAGCCAAGCA
GGCCCCCAGGCCCTCCTTCTCTACCCGGAACGCCGGGATCGAGGCTCAGGACCGCCGGGAGAGCCTGCCCACCTC
CCCACCCTGGACGCCGGGCGCGTCCCGGCCCCCCAGCAGCCTAGACGGCTGGGTGAGCCCGGGCCCGTGGGAGCC
AGGTCGCGGGAGCAGCATGAGCAGCCCCCCGCCGCTGCCGCCGCCACCGCCCATGTCTCCCTCGTGGAGCGAGCG
CTCGGTGTCCCCGCTGCGACCTGAGACCGAGGCGCGGCCCCCCAGCCGCCAGCTGCAGGCGCTTCTGGCGCGAAA
CATCATCAATGCGGCCCGGCGCAAGAGCGCCTCCCCGCGGTCGGCGGGCGCCGAGAACCCGCGGCCCTTCTCCCC
GCCGAGGGCGCCACCGCCCCCGCCCCCGCCCCCGCCCCCGCCCCCGCGCATGCGCTCGCCACAGCCCGCCCGCCC
CGGCTCGGCTGCTGTGCCGGGGGCAGCCTTCGCGCCCATCCCGCGGAGCCCGTTGCCCGCCGGTCCTTCGTCCTG
CACCAGTCCCCGGAGCCCGCTGCCCGCGCCTCCCAGGCCCTTCCTCTACCGCCGCTCGCCCACGGACTCCGACGT
GTCCCTCGACTCCGAGGACTCCGGGGCTAAGTCTCCAGGCATCCTGGGCTACAATATCTGTCCCCGCGGGTGGAA
TGGCAGCCTTCGGCTCAAGCGTGGCAGCCTCCCCGCCGAGGCCTCCTGCACCACC**TAG**AGCCCCACCCCCGACCC
CACCCCGGGAGGGCAGAGCCAGAAGAAGGCTCATTAGACCTGGGGGACCCAAAGGGTCTGGCCTCTTTGGGCAGC
CCCAGAGATGAGGGGTCAGCAGAGGAGAGCTCTGGGGTTGGGGATGGGTTAGGGACGCAAGCTTGAGTTCTAGCC
CTTGCTCTCATTCAGCTGTTGTGTGACCCTGGGTAAGACCCTTCCTTGTTTGACCCTCAGCTTTCCCATCTGTTT
AATGGTGGCTTTGGCCAAGGCAATCCACAAACGTCAAAATTCCCCTTCCCATCAGTACACACACCGATGCACACA
CACTCTCTCTTTCTCTCTCTCTCTCTCACACACACACACACACACACACACACACACACACACACACACACACTA

FIGURE 4121B

GTTAGTGCCTTGGATGAGGCGGGGCAGTGTGTATATGGACCCCTGGACTTGCTACCTTCAGGGTTCCATACTCGT
CCCTCCCCTCCTGGCTCTGCTGTCTGGAGTCTGGCAAGCGGGGTGTGTTCAGAAGGTCCTAGGCCTGTGTCGCAT
GTCCAGGCACTGGCCTGACCATCCGGCTCCCTGGCACCAAGTCCCAGGCAGGAGCAGCTGTTTTCCATCCCTTCC
CAGACAAGCTCTATTTTTATCACAATGACCTTTAGAGAGGTCTCCCAGGCCAGCTCAAGGTGTCCCACTATCCCC
TCTGGAGGGAAGAGGCAGGAAAATTCTCCCCGGGTCCCTGTCATGCTACTTTCTCCATCCCAGTTCAGACTGTCC
AGGACATCTTATCTGCAGCCATAAGAGAATTATAAGGCAGTGATTTCCCTTAGGCCCAGGACTTGGGCCTCCAGC
TCATCTGTTCCTTCTGGGCCCATTCATGGCAGGTTCTGGGCTCAAAGCTGAACTGGGGAGAGAAGAGATACAGAG
CTACCATGTGACTTTACCTGATTGCCCTCAGTTTGGGGTTGCTTATTGGGAAAGAGAGAGACAAAGAGTTACTTG
TTACGGGAAATATGAAAAGCATGGCCAGGATGCATAGAGGAGATTCTAGCAGGGGACAGGATTGGCTCAGATGAC
CCCTGAGGGCTCTTCCAGTCTTGAAATGCATTCCATGATATTAGGAAGTCGGGGGTGGGTGGTGGTGGTGGGCTA
GTTGGGCTTGAATTTAGGGGCCGATGAGCTTGGGTACGTGAGCAGGGTGTTAAGTTAGGGTCTGCCTGTATTTCT
GGTCCCCTTGGAAATGTCCCCTTCTTCAGTGTCAGACCTCAGTCCCAGTGTCCATATCGTGCCCAGAAAAGTAGA
CATTATCCTGCCCCATCCCTTCCCCAGTGCACTCTGACCTAGCTAGTGCCTGGTGCCCAGTGACCTGGGGGAGCC
TGGCTGCAGGCCCTCACTGGTTCCCTAAACCTTGGTGGCTGTGATTCAGGTCCCCAGGGGGGACTCAGGGAGGAA
TATGGCTGAGTTCTGTAGTTTCCAGAGTTGGCTGGTAGAGCCTTCTAGAGGTTCAGAATATTAGCTTCAGGATCA
GCTGGGGGTATGGAATTGGCTGAGGATCAAACGTATGTAGGTGAAAGGATACCAGGATGTTGCTAAAGGTGAGGG
ACAGTTTGGGTTTGGGACTTACCGGGGTGATGTTAGATCTGGAACCCCCAAGTGAGGCTGGAGGGAGTTAAGGTC
AGTATGGAAGATAGGGTTGGGACAGGGTGCTTTGGAATGAAAGAGTGACCTTAGAGGGCTCCTTGGGCCTCAGGA
ATGCTCCTGCTGCTGTGAAGATGAGAAGGTGCTCTTACTCAGTTAATGATGAGTGACTATATTTACCAAAGCCCC
TACCTGCTGCTGGGTCCCTTGTAGCACAGGAGACTGGGGCTAAGGGCCCCTCCCAGGGAAGGGACACCATCAGGC
CTCTGGCTGAGGCAGTAGCATAGAGGATCCATTTCTACCTGCATTTCCCAGAGGACTAGCAGGAGGCAGCCTTGA
GAAACCGGCAGTTCCCAAGCCAGCGCCTGGCTGTTCTCTCATTGTCACTGCCCTCTCCCCAACCTCTCCTCTAAC
CCACTAGAGATTGCCTGTGTCCTGCCTCTTGCCTCTTGTAGAATGCAGCTCTGGCCCTCAATAAATGCTTCCTGC
ATT

FIGURE 4122

CTCCGCCCCCTCCCACTCTCTCTTTCCGGTGTGGAGTCTGGAGACGACGTGCAGAA**ATG**GCACCTCGAAAGGGGA
AGGAAAAGAAGGAAGAACAGGTCATCAGCCTCGGACCTCAGGTGGCTGAAGGAGAGAATGTATTTGGTGTCTGCC
ATATCTTTGCATCCTTCAATGACACTTTTGTCCATGTCACTGATCTTTCTGGCAAGGAAACCATCTGCCGTGTGA
CTGGTGGGATGAAGGTAAAGGCAGACCGAGATGAATCCTCACCATATGCTGCTATGTTGGCTGCCCAGGATGTGG
CCCAGAGGTGCAAGGAGCTGGGTATCACCGCCCTACACATCAAACTCCGGGCCACAGGAGGAAATAGGACCAAGA
CCCCTGGACCTGGGGCCCAGTCGGCCCTCAGAGCCCTTGCCCGCTCGGGTATGAAGATCGGGCGGATTGAGGATG
TCACCCCCATCCCCTCTGACAGCACTCGCAGGAAGGGGGGTCGCCGTGGTCGCCGTCTG**TGA**ACAAGATTCCTCA
AAATATTTTCTGTTAATAAATTGCCTTCATGTAAACTGTTTCAACTCCAGCCTTCTCTCCTTCATCAGGGGCTAC
TCAGGCATTTGATTTCTTCCTCCTATTTGGCTTCTTGGGAGAAAGGAGCCTGAGGAGAGCTGAGATCCTGGTGCT
GCATTTGGGGTCTTTTCCATGCTACTTGCGGCATTAAGTTGCCTTGGTCATCTAAAGCAGACCAAGGCGTTGGAG
ACCTCGTTTTGAGTGGAGATGCTGGTTCTAAATATGGACCAATTCTTAAAGAGCCAGAGTGGGAACTGTTGATCC
AAGTGTAGCCTGAAGCGAAAGAGGAGCCTTCCAGACCCATGCCATATATAAACACACGTGGGTGTGCATTCTCCC
CCCACACCTTCTGTGCAAAGCTGGGAGCTCACTCCACTGCGTCTTGCTTTTTTTCACTTGGCAGATCTTGGAGAT
TGTTCCACATCAGTACATAAAGTACATAAAGATTGTCACCCCACAAATACACACCAAGTCCTATTTTCATCAGCG
ATAAAAAAGAAAAGTTCTTGCTTTCCGGAAGCTTGCATGCGGCTCTGAGTACCCAGTGACACCAGATGGTACTCA
GCGTTTTGCAAGGGATTACCACAAGGCCCCGTGATGGTGCCTGCCATGGTTAGGACAGGCTGGTGGCTGGGTAGG
GTTAGTGAGACCCAGTGGAGAGGATGCTGTGTGTCACAGGCTGGAGAGGTGAGACCATTGAGGTAGTCAGTTGTA
GAGGAAAGAAACCAGCAAGAGGGGAAAATCTGTTGGGATGCTGCTTTTAGCCTTTGATGGCGTGTTCCAGGCAGA
GGGAATAAGCAAATAAATGGGTCCTGAGACAAGGGGTTACTGTGATGAGGCGGCGTTGGTTACATGCCAAACCTT
GCTAGGGATTTTAATAACAACATTGAATCTTAACCTGATGAAATAACAGTACTCCTGGGGAGGCGGGAGGGATAG
CATTAGGAGATATACCTAATGCTAAATGACGAGTTAATGGGTGCAGCACACCAACATGGCACATGTATACATATG
TAACAAACCTGCACGTTGTGCACATGTACCCTAAAACTTAAAGTATAATAAAAAAAAAAAGCTTGCAAAAAAAAT
ATAACAGTACTCCTTAAATTGTTAAAAGTCATGAAAGTCAAGGACAGGAGATTAAGGAGGCGTGAAAACTAAATG
CCCATTGTGG

FIGURE 4123

ACCAAGTGGGCGGAGTGGCCTTCTGTGGACGAATCAGATTCCTCTCCAGCACCGACTTTAAGAGGCGAGCCGGGG
GGTCAGGGTCCCAG**ATG**CACAGGAGGAGAAGCAGGAGCTGTCGGGAAGATCAGAAGCCAGTCATGGATGACCAGC
GCGACCTTATCTCCAACAATGAGCAACTGCCCATGCTGGGCCGGCGCCCTGGGGCCCCGGAGAGCAAGTGCAGCC
GCGGAGCCCTGTACACAGGCTTTTCCATCCTGGTGACTCTGCTCCTCGCTGGCCAGGCCACCACCGCCTACTTCC
TGTACCAGCAGCAGGGCCGGCTGGACAAACTGACAGTCACCTCCCAGAACCTGCAGCTGGAGAACCTGCGCATGA
AGCTTCCCAAGCCTCCCAAGCCTGTGAGCAAGATGCGCATGGCCACCCCGCTGCTGATGCAGGCGCTGCCCATGG
GAGCCCTGCCCCAGGGGCCCATGCAGAATGCCACCAAGTATGGCAACATGACAGAGGACCATGTGATGCACCTGC
TCCAGAATGCTGACCCCCTGAAGGTGTACCCGCCACTGAAGGGGAGCTTCCCGGAGAACCTGAGACACCTTAAGA
ACACCATGGAGACCATAGACTGGAAGGTCTTTGAGAGCTGGATGCACCATTGGCTCCTGTTTGAAATGAGCAGGC
ACTCCTTGGAGCAAAAGCCCACTGACGCTCCACCGAAAGTACTGACCAAGTGCCAGGAAGAGGTCAGCCACATCC
CTGCTGTCCACCCGGGTTCATTCAGGCCCAAGTGCGACGAGAACGGCAACTATCTGCCACTCCAGTGCTATGGGA
GCATCGGCTACTGCTGGTGTGTCTTCCCCAACGGCACGGAGGTCCCCAACACCAGAAGCCGCGGGCACCATAACT
GCAGTGAGTCACTGGAACTGGAGGACCCGTCTTCTGGGCTGGGTGTGACCAAGCAGGATCTGGGCCCAGTCCCCA
TG**TGA**GAGCAGCAGAGGCGGTCTTCAACATCCTGCCAGCCCCACACAGCTACAGCTTTCTTGCTCCCTTCAGCCC
CCAGCCCCTCCCCCATCTCCCACCCTGTACCTCATCCCATGAGACCCTGGTGCCTGGCTCTTTCGTCACCCTTGG
ACAAGACAAACCAAGTCGGAACAGCAGATAACAATGCAGCAAGGCCCTGCTGCCCAATCTCCATCTGTCAACAGG
GGCGTGAGGTCCCAGGAAGTGGCCAAAAGCTAGACAGATCCCCGTTCCTGACATCACAGCAGCCTCCAACACAAG
GCTCCAAGACCTAGGCTCATGGACGAGATGGGAAGGCACAGGGAGAAGGGATAACCCTACACCCAGACCCCAGGC
TGGACATGCTGACTGTCCTCTCCCCTCCAGCCTTTGGCCTTGGCTTTTCTAGCCTATTTACCTGCAGGCTGAGCC
ACTCTCTTCCCTTTCCCCAGCATCACTCCCCAAGGAAGAGCCAATGTTTTCCACCCATAATCCTTTCTGCCGACC
CCTAGTTCCCTCTGCTCAGCCAAGCTTGTTATCAGCTTTCAGGGCCATGGTTCACATTAGAATAAAAGGTAGTAA
TTAG

FIGURE 4124A

TTTTTAGAAAAAAAAAATATATTTCCCTCCTGCTCCTTCTGCGTTCACAAGCTAAGTTGTTTATCTCGGCTGCGG
CGGGAACTGCGGACGGTGGCGGGCGAGCGGCTCCTCTGCCAGAGTTGATATTCACTG**ATG**GACTCCAAAGAATCA
TTAACTCCTGGTAGAGAAGAAAACCCCAGCAGTGTGCTTGCTCAGGAGAGGGGAGATGTGATGGACTTCTATAAA
ACCCTAAGAGGAGGAGCTACTGTGAAGGTTTCTGCGTCTTCACCCTCACTGGCTGTCGCTTCTCAATCAGACTCC
AAGCAGCGAAGACTTTTGGTTGATTTTCCAAAAGGCTCAGTAAGCAATGCGCAGCAGCCAGATCTGTCCAAAGCA
GTTTCACTCTCAATGGGACTGTATATGGGAGAGACAGAAACAAAAGTGATGGGAAATGACCTGGGATTCCCACAG
CAGGGCCAAATCAGCCTTTCCTCGGGGGAAACAGACTTAAAGCTTTTGGAAGAAAGCATTGCAAACCTCAATAGG
TCGACCAGTGTTCCAGAGAACCCCAAGAGTTCAGCATCCACTGCTGTGTCTGCTGCCCCCACAGAGAAGGAGTTT
CCAAAAACTCACTCTGATGTATCTTCAGAACAGCAACATTTGAAGGGCCAGACTGGCACCAACGGTGGCAATGTG
AAATTGTATACCACAGACCAAAGCACCTTTGACATTTTGCAGGATTTGGAGTTTTCTTCTGGGTCCCCAGGTAAA
GAGACGAATGAGAGTCCTTGGAGATCAGACCTGTTGATAGATGAAAACTGTTTGCTTTCTCCTCTGGCGGGAGAA
GACGATTCATTCCTTTTGGAAGGAAACTCGAATGAGGACTGCAAGCCTCTCATTTTACCGGACACTAAACCCAAA
ATTAAGGATAATGGAGATCTGGTTTTGTCAAGCCCCAGTAATGTAACACTGCCCCAAGTGAAAACAGAAAAAGAA
GATTTCATCGAACTCTGCACCCCTGGGGTAATTAAGCAAGAGAAACTGGGCACAGTTTACTGTCAGGCAAGCTTT
CCTGGAGCAAATATAATTGGTAATAAAATGTCTGCCATTTCTGTTCATGGTGTGAGTACCTCTGGAGGACAGATG
TACCACTATGACATGAATACAGCATCCCTTTCTCAACAGCAGGATCAGAAGCCTATTTTTAATGTCATTCCACCA
ATTCCCGTTGGTTCCGAAAATTGGAATAGGTGCCAAGGATCTGGAGATGACAACTTGACTTCTCTGGGGACTCTG
AACTTCCCTGGTCGAACAGTTTTTTCTAATGGCTATTCAAGCCCCAGCATGAGACCAGATGTAAGCTCTCCTCCA
TCCAGCTCCTCAACAGCAACAACAGGACCACCTCCCAAACTCTGCCTGGTGTGCTCTGATGAAGCTTCAGGATGT
CATTATGGAGTCTTAACTTGTGGAAGCTGTAAAGTTTTCTTCAAAAGAGCAGTGGAAGGACAGCACAATTACCTA
TGTGCTGGAAGGAATGATTGCATCATCGATAAAATTCGAAGAAAAAACTGCCCAGCATGCCGCTATCGAAAATGT
CTTCAGGCTGGAATGAACCTGGAAGCTCGAAAAACAAAGAAAAAAATAAAAGGAATTCAGCAGGCCACTACAGGA
GTCTCACAAGAAACCTCTGAAAATCCTGGTAACAAAACAATAGTTCCTGCAACGTTACCACAACTCACCCCTACC
CTGGTGTCACTGTTGGAGGTTATTGAACCTGAAGTGTTATATGCAGGATATGATAGCTCTGTTCCAGACTCAACT
TGGAGGATCATGACTACGCTCAACATGTTAGGAGGGCGGCAAGTGATTGCAGCAGTGAAATGGGCAAAGGCAATA
CCAGGTTTCAGGAACTTACACCTGGATGACCAAATGACCCTACTGCAGTACTCCTGGATGTTTCTTATGGCATTT
GCTCTGGGGTGGAGATCATATAGACAATCAAGTGCAAACCTGCTGTGTTTTGCTCCTGATCTGATTATTAATGAG
CAGAGAATGACTCTACCCTGCATGTACGACCAATGTAAACACATGCTGTATGTTTCCTCTGAGTTACACAGGCTT
CAGGTATCTTATGAAGAGTATCTCTGTATGAAAACCTTACTGCTTCTCTCTTCAGTTCCTAAGGACGGTCTGAAG
AGCCAAGAGCTATTTGATGAAATTAGAATGACCTACATCAAAGAGCTAGGAAAAGCCATTGTCAAGAGGGAAGGA
AACTCCAGCCAGAACTGGCAGCGGTTTTATCAACTGACAAAACTCTTGGATTCTATGCATGAAGTGGTTGAAAAT
CTCCTTAACTATTGCTTCCAAACATTTTTGGATAAGACCATGAGTATTGAATTCCCCGAGATGTTAGCTGAAATC
ATCACCAATCAGATACCAAAATATTCAAATGGAAATATCAAAAAACTTCTGTTTCATCAAAAG**TGA**CTGCCTTAA
TAAGAATGGTTGCCTTAAAGAAAGTCGAATTAATAGCTTTTATTGTATAAACTATCAGTTTGTCCTGTAGAGGTT
TTGTTGTTTTATTTTTTATTGTTTTCATCTGTTGTTTTGTTTTAAATACGCACTACATGTGGTTTATAGAGGGCC
AAGACTTGGCAACAGAAGCAGTTGAGTCGTCATCACTTTTCAGTGATGGGAGAGTAGATGGTGAAATTTATTAGT
TAATATATCCCAGAAATTAGAAACCTTAATATGTGGACGTAATCTCCACAGTCAAAGAAGGATGGCACCTAAACC
ACCAGTGCCCAAAGTCTGTGTGATGAACTTTCTCTTCATACTTTTTTTCACAGTTGGCTGGATGAAATTTTCTAG
ACTTTCTGTTGGTGTATCCCCCCCCTGTATAGTTAGGATAGCATTTTTGATTTATGCATGGAAACCTGAAAAAAA
GTTTACAAGTGTATATCAGAAAAGGGAAGTTGTGCCTTTTATAGCTATTACTGTCTGGTTTTAACAATTTCCTTT
ATATTTAGTGAACTACGCTTGCTCATTTTTTCTTACATAATTTTTTATTCAAGTTATTGTACAGCTGTTTAAGAT
GGGCAGCTAGTTCGTAGCTTTCCCAAATAAACTCTAAACATTAATCAATCATCTGTGTGAAAATGGGTTGGTGCT
TCTAACCTGATGGCACTTAGCTATCAGAAGACCACAAAAATTGACTCAAATCTCCAGTATTCTTGTCAAAAAAAA
AAAAAAAAAAGCTCATATTTTGTATATATCTGCTTCAGTGGAGAATTATATAGGTTGTGCAAATTAACAGTCCTA
ACTGGTATAGAGCACCTAGTCCAGTGACCTGCTGGGTAAACTGTGGATGATGGTTGCAAAAGACTAATTTAAAAA
ATAACTACCAAGAGGCCCTGTCTGTACCTAACGCCCTATTTTTGCAATGGCTATATGGCAAGAAAGCTGGTAAAC
TATTTGTCTTTCAGGACCTTTTGAAGTAGTTTGTATAACTTCTTAAAAGTTGTGATTCCAGATAACCAGCTGTAA
CACAGCTGAGAGACTTTTAATCAGACAAAGTAATTCCTCTCACTAAACTTTACCCAAAAACTAAATCTCTAATAT

FIGURE 4124B

GGCAAAAATGGCTAGACACCCATTTTCACATTCCCATCTGTCACCAATTGGTTAATCTTTCCTGATGGTACAGGA
AAGCTCAGCTACTGATTTTTGTGATTTAGAACTGTATGTCAGACATCCATGTTTGTAAAACTACACATCCCTAAT
GTGTGCCATAGAGTTTAACACAAGTCCTGTGAATTTCTTCACTGTTGAAAATTATTTTAAACAAAATAGAAGCTG
TAGTAGCCCTTTCTGTGTGCACCTTACCAACTTTCTGTAAACTCAAAACTTAACATATTTACTAAGCCACAAGAA
ATTTGATTTCTATTCAAGGTGGCCAAATTATTTGTGTAATAGAAAACTGAAAATCTAATATTAAAAATATGGAAC
TTCTAATATATTTTTATATTTAGTTATAGTTTCAGATATATATCATATTGGTATTCACTAATCTGGGAAGGGAAG
GGCTACTGCAGCTTTACATGCAATTTATTAAAATGATTGTAAAATAGCTTGTATAGTGTAAAATAAGAATGATTT
TTAGATGAGATTGTTTTATCATGACATGTTATATATTTTTTGTAGGGGTCAAAGAAATGCTGATGGATAACCTAT
ATGATTTATAGTTTGTACATGCATTCATACAGGCAGCGATGGTCTCAGAAACCAAACAGTTTGCTCTAGGGGAAG
AGGGAGATGGAGACTGGTCCTGTGTGCAGTGAAGGTTGCTGAGGCTCTGACCCAGTGAGATTACAGAGGAAGTTA
TCCTCTGCCTCCCATTCTGACCACCCTTCTCATTCCAACAGTGAGTCTGTCAGCGCAGGTTTAGTTTACTCAATC
TCCCCTTGCACTAAAGTATGTAAAGTATGTAAACAGGAGACAGGAAGGTGGTGCTTACATCCTTAAAGGCACCAT
CTAATAGCGGGTTACTTTCACATACAGCCCTCCCCCAGCAGTTGAATGACAACAGAAGCTTCAGAAGTTTGGCAA
TAGTTTGCATAGAGGTACCAGCAATATGTAAATAGTGCAGAATCTCATAGGTTGCCAATAATACACTAATTCCTT
TCTATCCTACAACAAGAGTTTATTTCCAAATAAAATGAGGACATGTTTTTGTTTTCTTTGAATGCTTTTTGAATG
TTATTTGTTATTTTCAGTATTTTGGAGAAATTATTTAATAAAAAAACAATCATTTGCTTTTTG

FIGURE 4125

ACTAGAAAGATGGCAGAGCAAGACAGAAGAAAGGAAAAGGGCTCAGGTTTAAGCGACTGGAATCATTCCTACATG
ATTCCTGGCGGCAGAAACGTGACAAGGTGCGTCTCAGACGACTAGAAGTGAAACCTCATGCCTTGGAATTGCCAG
ATAAACATTCCTTGGCCTTTGTTGTACGCATCGAAAGGATTGATGGCGTGAGTTTACGGGTGCAGAGAACCACTG
CAAGACTTCGCCTAAAGAAAATTTTTAGTGGTATCTTTGTAAAAGTTACCCCCTAGAATCTAAAA**ATG**CTGCATA
TAGTGGAACCTTATGTGACCTGGGGATTTCCAAATCTGAAGTCTGTCCGAGAACTCATTTTGAAACGTGGACAAG
CCAAGGTCAAGAATAAGACCATCCCTCTGACAGACAACACAGTGATTGAGGAGCACCTGGGGAAGTTTGGCTTCA
TTTGCTTGGAAGACCTCATTCATGAAATTGCCTTCCCAGGGAAGCATTTCCAGGAGATCTCATGGTTCTTGCGCC
CTTTCCACCTCTCAGTGGCCCATCATGCTACCAAAAATAAGAGTGGGCTTCCTCAAGGAGATGGGCACACCTGGC
TATCGGGG**TGA**ACGCATCAATCAGCTCATCCGTCAGCTGAACTAGACCCAGGTGACAAACTGCGGTAAATTTTTT
ATCAGTGAAGTGGAAGCATGCGTTTTGTTGTTTTGGGAATTTTTATCAAGTATCTTCAGAGAAGATTATTTCCTG
CTTTATCTTCAAAAACTGGAAAGGAAGGGTCAAAGAAAAGACAGTAGCTGGCCGGTCGTGGTGGCTCATGCCTGT
AATCCCAACACTTTGGGAGGCTGAGGCAGGCAGATCACCTGAGGTTGGGAGTTCGAGACCAGCCTGACCAACATG
GAGAAATGCCATCTCTACTAAAAATACAAAAAAAAAAAAAAAGAAAAGACAGTAGCTTATGTTCATGTCAAGCACC
TCTCATCACAGTCTAGTTCCAAGGAAAAATTCCAGCGTTTTCTACATTGGGTGCTGTGTCATCTGAAATCGGCAC
ATTCCATGGAGGAAGGAGTCCTGCTTTGTTGCATGTATCCTAGGGTTTAATGTTGGTAAATGAGTCACTCTAGCA
TTTGTAGAAGGCTCCCTGAGACTCCTACAGCAGTCGACCAAGCCCAAGGACATAATTGAATCTGGAGAGTCCTGG
GGCCTTGTTTTGATAAAGACTTGAAATACACATAGGAAGAAAGGCATAAAAATAAATGTTCACTTGTCTCTGC

FIGURE 4126

ATGGCAGCAGCGGAGGAGGAGGACGGGGGCCCCGAAGGGCCAAATCGCGAGCGGGGCGGGGCGGGCGCGACCTTC
GAATGTAATATATGTTTGGAGACTGCTCGGGAAGCTGTGGTCAGTGTGTGTGGCCACCTGTACTGTTGGCCATGT
CTTCATCAGTGGCTGGAGACACGGCCAGAACGGCAAGAGTGTCCAGTATGTAAAGCTGGGATCAGCAGAGAGAAG
GTTGTCCCGCTTTATGGGCGAGGGAGCCAGAAGCCCCAGGATCCCAGATTAAAAACTCCACCCCGCCCCCAGGGC
CAGAGACCAGCTCCGGAGAGCAGAGGGGGATTCCAGCCATTTGGTGATACCGGGGGCTTCCACTTCTCATTTGGT
GTTGGTGCTTTTCCCTTTGGCTTTTTCACCACCGTCTTCAATGCCCATGAGCCTTTCCGCCGGGGTACAGGTGTG
GATCTGGGACAGGGTCACCCAGCCTCCAGCTGGCAGGATTCCCTCTTCCTGTTTCTCGCCATCTTCTTCTTTTTT
TGGCTGCTCAGTATT**TGA**

FIGURE 4127

ATCTTTCCCAGTTGTTCCGCCCCCTACCCCCGCCTCCCGCACCGCGCCCCTCTCCGGCTGCCCTCTCCGCGTGGG
GCAAGGCTCCGAGGGCAGCATTCAGTAGCCATTTAGCTTTGGAAGGAGAGGTGATTCGAATGGCCCGGCTCCTCC
TGTCACCATGCCAGGCACTTTGGCCGCGCAGGTGCTGACCTGAACCTGGTTCATCCCTTTCTGACCAAAACTGTT
CACTCACCGTGGAAGGGACTAAGCATCCAT**ATG**GAGACGCCACCAGTCAATACAATTGGAGAAAAGGACACCTCT
CAGCCGCAACAAGAGTGGGAAAAGAACCTTCGGGAGAACCTTGATTCAGTTATTCAGATTAGGCAGCAGCCCCGA
GACCCTCCTACCGAAACGCTTGAGCTGGAAGTAAGCCCAGATCCAGCCAGCCAAATTCTAGAGCATACTCAAGGA
GCTGAAAAACTGGTTGCTGAACTTGAAGGAGACTCTCATAAGTCTCATGGATCAACCAGTCAGATGCCAGAGGCC
CTTCAAGCTTCTGATCTCTGGTACTGCCCCGATGGGAGCTTTGTCAAGAAGATCGTAATCCGTGGCCATGGCTTG
GACAAACCCAAACTAGGCTCCTGCTGCCGGGTACTGGCTTTGGGGTTTCCTTTCGGATCAGGGCCGCCAGAGGGC
TGGACAGAGCTAACTATGGGCGTAGGGCCATGGAGGGAGGAAACTTGGGGGGAGCTCATAGAGAAATGCTTGGAG
TCCATGTGTCAAGGTGAGGAAGCAGAGCTTCAGCTGCCTGGGCACTCTGGACCTCCTGTCAGGCTCACACTGGCA
TCCTTCACTCAAGGCCGAGACTCCTGGGAGCTGGAGACTAGCGAGAAGGAAGCCCTGGCCAGGGAAGAACGTGCA
AGGGGCACAGAACTATTTCGAGCTGGGAACCCTGAAGGAGCTGCCCGATGCTATGGACGGGCTCTTCGGCTGCTC
CTGACTTTACCCCCACCTGGCCCTCCAGAACGAACTGTCCTTCATGCCAATCTGGCTGCCTGTCAGTTGTTGCTA
GGGCAGCCTCAGTTGGCAGCCCAGAGCTGTGACCGGGTGTTGGAGCGGGAGCCTGGCCATTTAAAGGCCTTATAC
CGAAGGGGGGTTGCCCAGGCTGCCCTTGGGAACCTGGAAAAAGCAACTGCTGACCTCAAGAAGGTGCTGGCGATA
GATCCCAAAAACCGGGCAGCCCAGGAGGAACTGGGGAAGGTGGTCATTCAGGGGAAGAACCAGGATGCAGGGCTG
GCTCAGGGTCTGCGCAAGATGTTTGGC**TGA**TTAAAAGTTAAACCTTAAAAGAG

FIGURE 4128A

AGAAGGTAGCAGACAGACAGACGGATCTAACCTCTCTTGGATCCTCCAGCC**ATG**AGGCTGCTCTGGGGGCTGATC
TGGGCATCCAGCTTCTTCACCTTATCTCTGCAGAAGCCCAGGTTGCTCTTGTTCTCTCCTTCTGTGGTTCATCTG
GGGGTCCCCCTATCGGTGGGGGTGCAGCTCCAGGATGTGCCCCGAGGACAGGTAGTGAAAGGATCAGTGTTCCTG
AGAAACCCATCTCGTAATAATGTCCCCTGCTCCCCAAAGGTGGACTTCACCCTTAGCTCAGAAAGAGACTTCGCA
CTCCTCAGTCTCCAGGTGCCCTTGAAAGATGCGAAGAGCTGTGGCCTCCATCAACTCCTCAGAGGCCCTGAGGTC
CAGCTGGTGGCCCATTCGCCATGGCTAAAGGACTCTCTGTCCAGAACGACAAACATCCAGGGTATCAACCTGCTC
TTCTCCTCTCGCCGGGGGCACCTCTTTTTGCAGACGGACCAGCCCATTTACAACCCTGGCCAGCGGGTTCGGTAC
CGGGTCTTTGCTCTGGATCAGAAGATGCGCCCGAGCACTGACACCATCACAGTCATGGTGGAGAACTCTCACGGC
CTCCGCGTGCGGAAGAAGGAGGTGTACATGCCCTCGTCCATCTTCCAGGATGACTTTGTGATCCCAGACATCTCA
GAGCCAGGGACCTGGAAGATCTCAGCCCGATTCTCAGATGGCCTGGAATCCAACAGCAGCACCCAGTTTGAGGTG
AAGAAATATGTCCTTCCCAACTTTGAGGTGAAGATCACCCCTGGAAAGCCCTACATCCTGACGGTGCCAGGCCAT
CTTGATGAAATGCAGTTAGACATCCAGGCCAGGTACATCTATGGGAAGCCAGTGCAGGGGGTGGCATATGTGCGC
TTTGGGCTCCTAGATGAGGATGGTAAGAAGACTTTCTTTCGGGGGCTGGAGAGTCAGACCAAGCTGGTGAATGGA
CAGAGCCACATTTCCCTCTCAAAGGCAGAGTTCCAGGACGCCCTGGAGAAGCTGAATATGGGCATTACTGACCTC
CAGGGGCTGCGCCTCTACGTTGCTGCAGCCATCATTGAGTATCCAGGTGGGGAGATGGAGGAGGCAGAGCTCACA
TCCTGGTATTTTGTGTCATCTCCCTTCTCCTTGGATCTTAGCAAGACCAAGCGACACCTTGTGCCTGGGGCCCCC
TTCCTGCTGCAGGCCTTGGTCCGTGAGATGTCAGGCTCCCCAGCTTCTGGCATTCCTGTCAAAGTTTCTGCCACG
GTGTCTTCTCCTGGGTCTGTTCCTGAAGTCCAGGACATTCAGCAAAACACAGACGGGAGCGGCCAAGTCAGCATT
CCAATAATTATCCCTCAGACCATCTCAGAGCTGCAGCTCTCAGTATCTGCAGGCTCCCCACATCCAGCGATAGCC
AGGCTCACTGTGGCAGCCCCACCTTCAGGAGGCCCCGGGTTTCTGTCTATTGAGCGGCCGGATTCTCGACCTCCT
CGTGTTGGGGACACTCTGAACCTGAACTTGCGAGCCGTGGGCAGTGGGGCCACCTTTTCTCATTACTACTACATG
ATCCTATCCCGAGGGCAGATCGTGTTCATGAATCGAGAGCCCAAGAGGACCCTGACCTCGGTCTCGGTGTTTGTG
GACCATCACCTGGCACCCTCCTTCTACTTTGTGGCCTTCTACTACCATGGAGACCACCCAGTGGCCAACTCCCTG
CGAGTGGATGTCCAGGCTGGGGCCTGCGAGGGCAAGCTGGAGCTCAGCGTGGACGGTGCCAAGCAGTACCGGAAC
GGGGAGTCCGTGAAGCTCCACTTAGAAACCGACTCCCTAGCCCTGGTGGCGCTGGGAGCCTTGGACACAGCTCTG
TATGCTGCAGGCAGCAAGTCCCACAAGCCCCTCAACATGGGCAAGGTCTTTGAAGCTATGAACAGCTATGACCTC
GGCTGTGGTCCTGGGGGTGGGGACAGTGCCCTTCAGGTGTTCCAGGCAGCGGGCCTGGCCTTTTCTGATGGAGAC
CAGTGGACCTTATCCAGAAAGAGACTAAGCTGTCCCAAGGAGAAGACAACCCGGAAAAAGAGAAACGTGAACTTC
CAAAAGGCGATTAATGAGAAATTGGGTCAGTATGCTTCCCCGACAGCCAAGCGCTGCTGCCAGGATGGGGTGACA
CGTCTGCCCATGATGCGTTCCTGCGAGCAGCGGGCAGCCCGCGTGCAGCAGCCGGACTGCCGGGAGCCCTTCCTG
TCCTGCTGCCAATTTGCTGAGAGTCTGCGCAAGAAGAGCAGGGACAAGGGCCAGGCGGGCCTCCAACGAGCCCTG
GAGATCCTGCAGGAGGAGGACCTGATTGATGAGGATGACATTCCCGTGCGCAGCTTCTTCCCAGAGAACTGGCTC
TGGAGAGTGGAAACAGTGGACCGCTTTCAAATATTGACACTGTGGCTCCCCGACTCTCTGACCACGTGGGAGATC
CATGGCCTGAGCCTGTCCAAAACCAAAGGCCTATGTGTGGCCACCCCAGTCCAGCTCCGGGTGTTCCGCGAGTTC
CACCTGCACCTCCGCCTGCCCATGTCTGTCCGCCGCTTTGAGCAGCTGGAGCTGCGGCCTGTCCTCTATAACTAC
CTGGATAAAAACCTGACTGTGAGCGTCCACGTGTCCCCAGTGGAGGGGCTGTGCCTGGCTGGGGGCGGAGGGCTG
GCCCAGCAGGTGCTGGTGCCTGCGGGCTCTGCCCGGCCTGTTGCCTTCTCTGTGGTGCCCACGGCAGCCGCCGCT
GTGTCTCTGAAGGTGGTGGCTCGAGGGTCCTTCGAATTCCCTGTGGGAGATGCGGTGTCCAAGGTTCTGCAGATT
GAGAAGGAAGGGGCCATCCATAGAGAGGAGCTGGTCTATGAACTCAACCCCTTGGACCACCGAGGCCGGACCTTG
GAAATACCTGGCAACTCTGATCCCAATATGATCCCTGATGGGGACTTTAACAGCTACGTCAGGGTTACAGCCTCA
GATCCATTGGACACTTTAGGCTCTGAGGGGGCCTTGTCACCAGGAGGCGTGGCCTCCCTCTTGAGGCTTCCTCGA
GGCTGTGGGGAGCAAACCATGATCTACTTGGCTCCGACACTGGCTGCTTCCCGCTACCTGGACAAGACAGAGCAG
TGGAGCACACTGCCTCCCGAGACCAAGGACCACGCCGTGGATCTGATCCAGAAAGGCTACATGCGGATCCAGCAG
TTTCGGAAGGCGGATGGTTCCTATGCGGCTTGGTTGTCACGGGGCAGCAGCACCTGGCTCACAGCCTTTGTGTTG
AAGGTCCTGAGTTTGGCCCAGGAGCAGGTAGGAGGATCGCCTGAGAAACTGCAGGAGACATCTAACTGGCTTCTG
TCCCAGCAGCAGGCTGACGGCTCGTTCCAGGACCTCTCTCCAGTGATACATAGGAGCATGCAGGGGGGTTTGGTG
GGCAATGATGAGACTGTGGCACTCACAGCCTTTGTGACCATCGCCCTTCATCATGGGCTGGCCGTCTTCCAGGAT
GAGGGTGCAGAGCCATTGAAGCAGAGAGTGGAAGCCTCCATCTCAAAGGCAAGCTCATTTTTGGGGGAGAAAGCA

FIGURE 4128B

AGTGCTGGGCTCCTGGGTGCCCACGCAGCTGCCATCACGGCCTATGCCCTGACACTGACCAAGGCCCCTGCGGAC
CTGCGGGGTGTTGCCCACAACAACCTCATGGCAATGGCCCAGGAGACTGGAGATAACCTGTACTGGGGCTCAGTC
ACTGGTTCTCAGAGCAATGCCGTGTCGCCCACCCCGGCTCCTCGCAACCCATCCGACCCCATGCCCCAGGCCCCA
GCCCTGTGGATTGAAACCACAGCCTACGCCCTGCTGCACCTCCTGCTTCACGAGGGCAAAGCAGAGATGGCAGAC
CAGGCTGCGGCCTGGCTCACCCGTCAGGGCAGCTTCCAAGGGGGATTCCGCAGTACCCAAGACACGGTGATTGCC
CTGGATGCCCTGTCTGCCTACTGGATTGCCTCCCACACCACTGAGGAGAGGGGTCTCAATGTGACTCTCAGCTCC
ACAGGCCGGAATGGGTTCAAGTCCCACGCGCTGCAGCTGAACAACCGCCAGATTCGCGGCCTGGAGGAGGAGCTG
CAGTTTTCCTTGGGCAGCAAGATCAATGTGAAGGTGGGAGGAAACAGCAAAGGAACCCTGAAGGTCCTTCGTACC
TACAATGTCCTGGACATGAAGAACACGACCTGCCAGGACCTACAGATAGAAGTGACAGTCAAAGGCCACGTCGAG
TACACGATGGAAGCAAACGAGGACTATGAGGACTATGAGTACGATGAGCTTCCAGCCAAGGATGACCCAGATGCC
CCTCTGCAGCCCGTGACACCCCTGCAGCTGTTTGAGGGTCGGAGGAACCGCCGCAGGAGGGAGGCGCCCAAGGTG
GTGGAGGAGCAGGAGTCCAGGGTGCACTACACCGTGTGCATCTGGCGGAACGGCAAGGTGGGGCTGTCTGGCATG
GCCATCGCGGACGTCACCCTCCTGAGTGGATTCCACGCCCTGCGTGCTGACCTGGAGAAGCTGACCTCCCTCTCT
GACCGTTACGTGAGTCACTTTGAGACCGAGGGGCCCCACGTCCTGCTGTATTTTGACTCGGTCCCCACCTCCCGG
GAGTGCGTGGGCTTTGAGGCTGTGCAGGAAGTGCCGGTGGGGCTGGTGCAGCCGGCCAGCGCAACCCTGTACGAC
TACTACAACCCCGAGCGCAGATGTTCTGTGTTTTACGGGGCACCAAGTAAGAGCAGACTCTTGGCCACCTTGTGT
TCTGCTGAAGTCTGCCAGTGTGCTGAGGGGAAGTGCCCTCGCCAGCGTCGCGCCCTGGAGCGGGGTCTGCAGGAC
GAGGATGGCTACAGGATGAAGTTTGCCTGCTACTACCCCCGTGTGGAGTACGGCTTCCAGGTTAAGGTTCTCCGA
GAAGACAGCAGAGCTGCTTTCCGCCTCTTTGAGACCAAGATCACCCAAGTCCTGCACTTCACCAAGGATGTCAAG
GCCGCTGCTAATCAGATGCGCAACTTCCTGGTTCGAGCCTCCTGCCGCCTTCGCTTGGAACCTGGGAAAGAATAT
TTGATCATGGGTCTGGATGGGGCCACCTATGACCTCGAGGGACACCCCCAGTACCTGCTGGACTCGAATAGCTGG
ATCGAGGAGATGCCCTCTGAACGCCTGTGCCGGAGCACCCGCCAGCGGGCAGCCTGTGCCCAGCTCAACGACTTC
CTCCAGGAGTATGGCACTCAGGGGTGCCAGGTG**TGA**GGGCTGCCCTCCCACCTCCGCTGGGAGGAACCTGAACCT
GGGAACCATGAAGCTGGAAGCACTGCTGTGTCCGCTTTCATGAACACAGCCTGGGACCAGGGCATATTAAAGGCT
TTTGGCAGCAAAGTGTCAGTGTTGGC

FIGURE 4129

GTCCTCCAAATGCAGTGAGGTTAGGAAGGACGTCTGCGCTCAGATCAAGAATCCAGTTACCTCAAAGCTCCCCAA
CTTCCACCTCCGCAGAGCTATGACGTCATGGCAGGCACGCCAGAGGCCGAAGGATGCAAAAGTGGTTTTCTGCTT
TCGATGATGCAATCATTCAGCGACAGTGGCGGGCAAACCCCTCCCGGGGCGGGGGAGGTGTGAGCTTCACGAAGG
AGGTTGACACCAACGTGGCCACCGGCGCCCCTCCACGCCGCCAACGAGTCCCCGGGCGTGCGTGCCCTTGGAGGG
AGCCAATCCGCGGCCGGCGTGGGGCCCGGCCTGGCGGAGGTGATGCTGGAGGGACGCCCGGGGAGACCGTACGTC
ACTGCTCTGCGCCGGAAGACCCTATTTTCAGGTTCTCTTCCCTCCATTCCTACCCCTTCCCCGGTACCATAAAAT
CCCGGGATATGAGCTGGAAGAGGCATCACCTGATCCCGGAGACCTTTGGAGTTAAGAGGCGGCGGAAGCGAGGGC
CTGTGGAGTCGGATCCTCTTCGGGGTGAGCCAGGGTCGGCGCGCGCGGCTGTCTCAGAACTCATGCAGCTGTTCC
CGCGAGGCCTGTTTGAGGACGCGCTGCCGCCCATCGTGCTGAGGAGCCAGGTGTACAGCCTTGTGCCTGACAGGA
CCGTGGCCGACCGGCAGCTGAAGGAGCTTCAAGAGCAGGGGGAGATCAGAATCGTCCAGCTGGGCTTCGACTTGG
ATGCCCATGGAATTATCTTCACTGAGGACTACAGGACCAGAGTATGTGACTGTGTCCTCAAGGCCTGTGATGGCC
GACCGTATGCTGGGGCAGTGCAGAAATTTCTAGCTTCAGTACTTCCAGCCTGTGGGGACCTTAGTTTCCAGCAGG
ACCAAATGACACAGACCTTTGGCTTCAGGGACTCAGAAATCACGCATCTGGTGAATGCTGGAGTCCTCACCGTCC
GAGATGCTGGGAGCTGGTGGCTAGCTGTGCCTGGAGCTGGGAGATTCATCAAGTACTTTGTTAAAGGGCGCCAGG
CTGTCCTTAGCATGGTCCGGAAGGCAAAGTACCGGGAACTGCTCCTATCAGAGCTCCTGGGCCGGCGGGCGCCTG
TCGTGGTGCGGCTTGGCCTCACCTACCATGTGCACGACCTCATTGGGGCCCAGCTAGTGGACTGCATCTCTACCA
CTTCAGGAACCCTCCTCCGCCTGCCAGAGACATGAAGATTCTGCTCATCATTGCTCAGCTCCTCAGAGTGGGCCG
GGAGGGGACTAGAAGAGCTGCATGATGGTGGCTGAGACAGGGTCACCTTGGGAAGGCTTGGGAGCCAGGATGAGT
GTCGGGCTCTCGTGTGTGCAAAAGGTCAGATGTGACTGCTGCTGTTTGCCTGGTTTCTGACCCAGTGGTGGGGTT
TGAGCAATGCTTCTCTGCCCTTCCATGGAAAGTGGAACCAGAAATGGTGCCAAGGCTGTGGCTGTTCCCTTTCGT
GTAAAATGGTGCTGTTATTACTCTGTCTTGAAATAGGAAGGTGGGATTTCTGGGGAGGCTGGTGAAGGAGGGCAG
GGTTCTTTTCTCTACGTGTCATGTTAAAATTGCCAAATAAAGTACCTCTGCCTGTGA

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FIGURE 4130

CCCGCCACTGTCGCTGAATGATTGCATCATCGAAAGCAGAAAACCACTTTTGCATCCTTCGGCCTCTGGCGTGCC
TGCCATGACGTCATAGCTCTGCGGAGGTGGAAGTTGGGGAGCTTTGAGGACCTC**ATG**GATCCCAGGGGGACCAAG
AGAGGAGCTGAGAAGACAGAGGTAGCTGAGCCTCGGAACAAACTACCTCGTCCAGCACCTTCTCTGCCCACAGAC
CCTGCCCTCTACTCTGGGCCCTTTCCTTTCTACCGGCGCCCTTCGGAACTGGGCTGCTTCTCCCTGGATGCTCAA
CGCCAGTACCATGGAGATGCCCGAGCCCTGCGCTACTATAGCCCACCCCCCACTAACGGTCCAGGCCCCAACTTT
GACCTCAGAGACGGATACCCGGATCGATACCAGCCCCGGGACGAGGAGGTCCAGGAAAGGCTGGACCACCTGCTG
TGCTGGCTCCTGGAACACCGAGGCCGGTTGGAGGGGGGTCCAGGCTGGCTGGCAGAGGCCATAGTGACGTGGCGG
GGGCACCTGACAAAACTGCTGACGACACCGTATGAGCGGCAGGAGGGCTGGCAGCTGGCAGCCTCCCGGTTCCAG
GGAACACTATACCTGAGTGAAGTGGAGACACCGAACGCTCGGGCCCAGAGGCTTGCTCGGCCACCGCTCCTCCGG
GAGCTTATGTACATGGGATACAAATTTGAGCAGTACATGTGTGCAGACAAACCTGGAAGCTCCCCAGACCCCTCT
GGGGAGGTTAACACCAACGTGGCCTTCTGCTCTGTGCTACGCAGCCGCCTGGGAAGCCACCCTCTGCTCTTCTCA
GGGGAGGTAGACTGCACAGACCCCCAAGCCCCATCCACACAGCCCCCAACCTGCTATGTGGAGCTCAAGACCTCC
AAGGAGATGCACAGCCCTGGCCAATGGAGGAGTTTCTACAGACACAAGCTCCTGAAATGGTGGGCTCAGTCATTC
CTCCCAGGGGTCCCGAATGTTGTTGCTGGCTTCCGTAACCCAGACGGTTTTGTCTCTTCCCTCAAGACCTTTCCT
ACCATGAAGATGTTTGAATATGTCAGGAATGACCGTGACGGCTGGAATCCCTCTGTGTGCATGAACTTCTGTGCC
GCCTTCCTTAGCTTTGCCCAGAGCACGGTTGTCCAGGATGACCCCAGGCTCGTTCATCTCTTCTCTTGGGAGCCT
GGCGGCCCAGTCACCGTGTCTGTACACCAAGATGCACCTTACGCCTTCCTGCCCATATGGTATGTGGAAGCTATG
ACTCAGGACCTCCCATCACCCCCCAAGACTCCCTCTCCCAAA**TAG**TAATGCTTTAGAGGGAGGCAGTCATATCTC
TGTGTGCAGATAATAAAAGCATATTTCTAAGAGGTT

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FIGURE 4131A

CGTAGCGCCCGCAGAGCAACGCAAAGAGGAAGAACAGAGAAACGGCTATGAGAAAAAGGGCCGAAGAGTGAGAAG
CAGAGGGCCTTACCCGAGGGGGCGGCAACCGGGGGCCCCACGGTCTCCGGCCGCGCCCGCGCTGGCCGCTGATAG
CGGGCTCACAACGATGACGTAGCGAGGAGCGGAAAACGCGGTAACCAAGGCGGCCCCAGGCGCGCACTTCCGCCC
GGCCTTCCACCGGTCCAGGTCTGCCCCTCCGCAGCGATAGTTCACGCTCTCGGCGGGGCTGTACCGGAAGTTGCC
TCTACTTCCGCCCGTTCCGGGGCGGGGCTTACTTCGCAGCGACTACTTGCCGCACTTCCGGGCTGCCAGGCAGCT
GCTGTGGCTCCAGG**ATG**ATGGAGACAGAGCGACTTGTGCTACCCCCTCCAGATCCCCTGGACCTACCCCTTCGGG
CCGTGGAGCTCGGATGCACGGGGCACTGGGAGCTGCTGAACTTGCCTGGAGCTCCAGAGAGTAGCCTTCCCCATG
GCCTCCCTCCTTGTGCCCCAGATCTGCAGCAAGAAGCAGAACAGTTGTTTCTGTCATCCCCAGCCTGGCTGCCTC
TGCATGGTGTGGAGCACTCAGCCCGAAAATGGCAGAGGAAGACGGATCCCTGGTCTCTTTTGGCTGTCCTGGGAG
CCCCAGTCCCATCCGACCTACAGGCCCAAAGACACCCAACCACAGGCCAGATACTGGGTTACAAAGAGGTCTTGC
TGGAGAACACAAATCTCTCGGCTACAACCTCCTTGTCTCTTCGCCGGCCTCCAGGGCCAGCCTCCCAGTCCTTAT
GGGGAAATCCAACTCGGTATCCCTTCTGGCCAGGGGGGATGGATGAACCCACCATAACAGATCTGAACACACGGG
AGGAGGCTGAGGAGGAGATAGACTTTGAGAAAGATCTTCTTACTATTCCACCTGGTTTCAAGAAAGGCATGGACT
TTGCACCAAAAGATTGTCCAACTCCAGCTCCTGGACTACTAAGCCTTAGCTGTCTGTTGGAGCCTCTGGATTTGG
GTGGGGGTGACGAGGATGAGAATGAGGCAGTGGGACAGCCAGGAGGTCCCAGAGGGGACACTGTTTCAGCCTCTC
CCTGCAGTGCTCCCCTGGCCCGAGCAAGCAGCTTGGAAGACCTAGTGTTGAAGGAAGCGTCCACAGCTGTATCCA
CCCCAGAGGCCCCAGAGCCTCCATCTCAGGAGCAGTGGGCCATCCCTGTGGACGCCACCTCCCCTGTTGGTGATT
TCTATCGCCTCATTCCCCAGCCAGCCTTCCAGTGGGCATTTGAGCCAGATGTGTTTCAGAAACAGGCCATCCTGC
ACTTGGAACGGCATGACTCTGTCTTTGTCGCAGCTCACACATCTGCAGGAAAAACAGTTGTGGCTGAATATGCCA
TTGCCCTGGCCCAGAAACACATGACACGCACCATCTACACTTCGCCCATCAAGGCCCTGAGCAACCAGAAGTTCC
GGGACTTCCGAAACACATTCGGGGATGTGGGGCTGCTCACCGGGGATGTACAGCTGCATCCGGAGGCCTCCTGCC
TCATCATGACCACAGAGATCCTTCGCTCCATGCTGTACAGTGGCTCAGATGTTATTCGGGACCTGGAGTGGGTCA
TCTTTGATGAGGTTCACTATATCAACGATGTCGAGCGTGGGGTCGTGTGGGAGGAGGTGCTTATCATGCTACCTG
ACCACGTTTCTATCATCCTTCTGAGTGCCACCGTCCCCAACGCCCTTGAGTTTGCTGACTGGATTGGGCGGCTGA
AGCGTCGTCAGATCTATGTGATTAGCACTGTAACCCGCCCCGTGCCCCTGGAGCACTATCTTTTCACAGGGAACA
GCTCCAAGACCCAGGGGGAGCTCTTTTTGTTGCTGGACTCCCGAGGAGCCTTCCATACAAAAGGGTACTATGCAG
CTGTGGAGGCCAAGAAGGAGAGAATGAGCAAACACGCCCAGACCTTTGGGGCCAAGCAGCCCACACATCAGGGGG
GCCCTGCACAGGACCGCGGAGTGTACCTGTCCCTCCTGGCCTCCCTCCGCACACGTGCCCAGTTGCCCGTGGTGG
TGTTCACCTTCTCCCGGGGCCGCTGTGATGAGCAGGCCTCAGGCCTCACCTCCCTTGACCTCACCACCAGTTCGG
AGAAGAGCGAGATCCACCTCTTCCTGCAGCGCTGCCTTGCTCGCCTCCGTGGCTCTGACCGCCAGCTGCCCCAGG
TCCTGCACATGTCAGAGCTCCTGAATCGCGGCCTGGGTGTGCACCATAGCGGCATCCTGCCCATCCTCAAGGAGA
TCGTGGAGATGCTCTTCAGCCGTGGCCTGGTCAAGGTCTTGTTTGCCACAGAGACCTTTGCCATGGGAGTAAACA
TGCCTGCTCGTACAGTAGTGTTTGACTCCATGCGCAAACACGATGGCTCCACCTTCCGGGACCTGCTCCCTGGGG
AGTATGTGCAGATGGCAGGCCGGGCAGGGCGGAGGGGCCTGGACCCCACAGGCACCGTTATCCTGCTCTGCAAGG
GCCGAGTGCCCGAGATGGCAGACCTGCACCGCATGATGATGGGGAAGCCGTCCCAGCTGCAGTCCCAGTTCCGCC
TCACGTACACTATGATCCTCAACTTGCTGCGAGTGGATGCCCTCAGGGTGGAGGACATGATGAAGAGGAGCTTCT
CTGAGTTTCCCTCCCGCAAAGACAGCAAGGCCCATGAACAGGCCCTGGCTGAACTGACCAAGAGGCTGGGAGCTT
TGGAGGAGCCTGACATGACTGGCCAACTGGTCGACCTGCCTGAATATTACAGCTGGGGGGAGGAACTGACAGAGA
CCCAGCACATGATCCAGCGACGCATCATGGAGTCTGTGAACGGGCTGAAGTCTCTCTCAGCAGGAAGGGTGGTGG
TTGTGAAGAATCAGGAGCATCACAACGCATTGGGAGTGATCCTACAGGTCTCCTCGAACTCCACCAGCAGAGTAT
TCACAACCCTGGTCTTGTGTGATAAGCCCTTGTCCCAGGACCCACAGGACAGGGGGCCAGCCACTGCAGAGGTGC
CCTATCCAGATGACCTCGTGGGATTCAAGCTGTTCCTGCCTGAAGGGCCTTGTGACCACACCATGGTCAAGCTCC
AGCCAGGAGATATGGCTGCCATCACCACCAAGGTGCTCCGGGTGAATGGGGAGAAGATCTTGGAGGACTTCAGCA
AGAGGCAGCAGCCAAAATTCAAGAAGGATCCTCCCCTTGCAGCCGTGACCACTGCTGTCCAGGAACTGCTGCGTC
TGGCTCAGGCCCACCCAGCCGGACCTCCCACCCTCGACCCTGTCAATGACCTGCAGCTCAAAGATATGTCAGTTG
TAGAGGGTGGGCTCCGGGCCCGGAAGCTGGAGGAGCTGATCCAGGGGGCTCAGTGTGTACACAGCCCCCGTTTTC
CTGCCCAGTACCTGAAGCTGCGGGAGCGAATGCAGATACAGAAGGAGATGGAGCGGCTGCGCTTCCTACTGTCGG
ATCAGTCATTGCTGCTGCTTCCTGAGTACCATCAGCGAGTAGAGGTGCTCCGAACCCTGGGTTACGTGGACGAGG

FIGURE 4131B

TGGGCACTGTGAAGCTGGCAGGGCGGGTGGCTTGTGCCATGAGCAGCCATGAGTTGCTCCTCACTGAGCTCATGT
TTGACAATGCACTGAGCACCCTGCGGCCTGAGGAGATTGCTGCCTTGCTCTCTGGCCTGGTCTGCCAGAGCCCTG
GGGACGCTGGGGATCAGCTCCCAAACACCCTCAAGCAGGGAATAGAACGTGTCCGGGCTGTGGCCAAGCGGATTG
GTGAGGTCCAGGTGGCTTGTGGCCTGAACCAGACGGTGGAGGAATTTGTGGGGGAGCTGAATTTTGGGCTGGTTG
AGGTTGTATATGAGTGGGCCCGGGGCATGCCCTTCTCCGAGTTGGCAGGGCTCTCAGGGACCCCTGAGGGCCTGG
TGGTCCGCTGCATTCAGCGCCTGGCTGAGATGTGTCGCTCACTGCGGGGGGCAGCCCGCCTGGTAGGAGAGCCTG
TGCTGGGTGCCAAGATGGAGACAGCGGCTACCTTGCTACGGCGGGACATCGTATTTGCGGCCAGCCTCTACACCC
AG**TGA**ATGCCCCATGTAAAAACATGATGATAAAACAGCAAAGCAC

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FIGURE 4132

CGTTTTCCGCTCCTCGCTACGTCATCGTTGTGAGCCCGCTATCAGCGGCCAGCGCGGGCGCGGCCGGAGACCGTG
GGGCCCCCGGTTGCCGCCCCCTCGGGAGCCACC**ATG**TTGGTGATACCCCCCGGACTGAGCGAGGAAGAGGAGGCT
CTGCAGAAGAAATTCAACAAGCTCAAGAAAAAGAAAAAGGCATTGCTGGCTCTGAAGAAGCAAAGTAGCAGCAGC
ACAACCAGCCAAGGTGGTGTCAAACGCTCACTATCAGAGCAGCCTGTCATGGACACAGCCACAGCAACAGAGCAG
GCAAAGCAGCTGGTGAAGTCAGGAGCCATCAGTGCCATCAAGGCTGAGACCAAGAACTCAGGCTTCAAGCGTTCT
CGAACCCTTGAGGGGAAGTTAAAGGACCCCGAGAAGGGACCAGTCCCCACTTTCCAGCCGTTCCAGAGGAGCATA
TCTGCTGATGATGACCTGCAAGAGTCATCCAGACGTCCCCAGAGGAAATCTCTGTATGAGAGCTTTGTGTCTTCT
AGTGATCGACTTCGAGAACTAGGACCAGATGGAGAAGAGGCAGAGGGCCCAGGGGCTGGTGATGGTCCCCCTCGA
AGCTTTGACTGGGGCTATGAAGAACGCAGTGGTGCCCACTCCTCAGCCTCCCCTCCCCGAAGCCGCAGCCGGGAC
CGCAGCCATGAGAGGAACCGGGACAGAGACCGAGATCGGGAGCGGGATCGAGACCGGGATCGAGACAGAGACAGA
GAGCGGGACAGGGATCGGGATCGGGATCGAGATCGAGACCGGGAACGGGACAGGGATCGGGAGCGGGATCGAGAC
CGAGACCGAGAGGGTCCTTTCCGCAGGTCGGATTCATTCCCTGAACGGCGAGCCCCTAGGAAAGGGAATACTCTC
TATGTATATGGAGAAGACATGACACCCACCCTTCTCCGTGGGGCCTTCTCTCCTTTTGGAAACATCATTGACCTC
TCCATGGACCCACCCAGAAACTGTGCCTTCGTCACCTATGAAAAGATGGAGTCAGCAGATCAGGCCGTTGCTGAG
CTCAACGGGACCCAGGTGGAGTCTGTACAGCTCAAAGTCAACATAGCCCGAAAACAGCCCATGCTGGATGCCGCT
ACTGGCAAGTCTGTCTGGGGCTCCCTCGCTGTCCAGAACAGCCCTAAGGGTTGCCACCGGGACAAGAGGACCCAG
ATTGTCTACAGTGATGACGTCTACAAGGAAAACCTTGTGGATGGCTTC**TAG**GGAACAGAGCTGGATTCCTTGTGC
CTCATATGCCCCAATGCTGGTCTCAGTAAAACACTGAGGTGGAAGCTTACACATCTCCCTCAGCCTCTGGTTTTT
CAGCACTTGGGATTGGGGTTAAGCCTTTAAAAACGGCTGTCAGGTTTGATCTCAGTGTAACGACATGGCCAGTGC
CTGTTCCCCACTCCCTTGCCCCAAAAGGATCTGGAACAC

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FIGURE 4133

AGGGGAAGGGAATGTGACCAGGTCTAGGTCTGGAGTTTCAGCTTGGACACTGAGCCAAGCAGACAAGCAAAGCAA
GCCAGGACACACCATCCTGCCCCAGGCCCAGCTTCTCTCCTGCCTTCCAACGCC**ATG**GGGAGCAATCTCAGCCCC
CAACTCTGCCTGATGCCCTTTATCTTGGGCCTCTTGTCTGGAGGTGTGACCACCACTCCATGGTCTTTGGCCCAG
CCCCAGGGATCCTGCTCTCTGGAGGGGGTAGAGATCAAAGGCGGCTCCTTCCGACTTCTCCAAGAGGGCCAGGCA
CTGGAGTACGTGTGTCCTTCTGGCTTCTACCCGTACCCTGTGCAGACACGTACCTGCAGATCTACGGGGTCCTGG
AGCACCCTGAAGACTCAAGACCAAAAGACTGTCAGGAAGGCAGAGTGCAGAGCAATCCACTGTCCAAGACCACAC
GACTTCGAGAACGGGGAATACTGGCCCCGGTCTCCCTACTACAATGTGAGTGATGAGATCTCTTTCCACTGCTAT
GACGGTTACACTCTCCGGGGCTCTGCCAATCGCACCTGCCAAGTGAATGGCCGGTGGAGTGGGCAGACAGCGATC
TGTGACAACGGAGCGGGGTACTGCTCCAACCCGGGCATCCCCATTGGCACAAGGAAGGTGGGCAGCCAGTACCGC
CTTGAAGACAGCGTCACCTACCACTGCAGCCGGGGGCTTACCCTGCGTGGCTCCCAGCGGCGAACGTGTCAGGAA
GGTGGCTCTTGGAGCGGGACGGAGCCTTCCTGCCAAGACTCCTTCATGTACGACACCCCTCAAGAGGTGGCCGAA
GCTTTCCTGTCTTCCCTGACAGAGACCATAGAAGGAGTCGATGCTGAGGATGGGCACGGCCCAGGGGAACAACAG
AAGCGGAAGATCGTCCTGGACCCTTCAGGCTCCATGAACATCTACCTGGTGCTAGATGGATCAGACAGCATTGGG
GCCAGCAACTTCACAGGAGCCAAAAAGTGTCTAGTCAACTTAATTGAGAAGGTGGCAAGTTATGGTGTGAAGCCA
AGATATGGTCTAGTGACATATGCCACATACCCCAAAATTTGGGTCAAAGTGTCTGAAGCAGACAGCAGTAATGCA
GACTGGGTCACGAAGCAGCTCAATGAAATCAATTATGAAGACCACAAGTTGAAGTCAGGGACTAACACCAAGAAG
GCCCTCCAGGCAGTGTACAGCATGATGAGCTGGCCAGATGACGTCCCTCCTGAAGGCTGGAACCGCACCCGCCAT
GTCATCATCCTCATGACTGATGGATTGCACAACATGGGCGGGGACCCAATTACTGTCATTGATGAGATCCGGGAC
TTGCTATACATTGGCAAGGATCGCAAAAACCCAAGGGAGGATTATCTGGATGTCTATGTGTTTGGGGTCGGGCCT
TTGGTGAACCAAGTGAACATCAATGCTTTGGCTTCCAAGAAAGACAATGAGCAACATGTGTTCAAAGTCAAGGAT
ATGGAAAACCTGGAAGATGTTTTCTACCAAATGATCGATGAAAGCCAGTCTCTGAGTCTCTGTGGCATGGTTTGG
GAACACAGGAAGGGTACCGATTACCACAAGCAACCATGGCAGGCCAAGATCTCAGTCATTCGCCCTTCAAAGGGA
CACGAGAGCTGTATGGGGGCTGTGGTGTCTGAGTACTTTGTGCTGACAGCAGCACATTGTTTCACTGTGGATGAC
AAGGAACACTCAATCAAGGTCAGCGTAGGAGGGGAGAAGCGGGACCTGGAGATAGAAGTAGTCCTATTTCACCCC
AACTACAACATTAATGGGAAAAAAGAAGCAGGAATTCCTGAATTTTATGACTATGACGTTGCCCTGATCAAGCTC
AAGAATAAGCTGAAATATGGCCAGACTATCAGGCCCATTTGTCTCCCCTGCACCGAGGGAACAACTCGAGCTTTG
AGGCTTCCTCCAACTACCACTTGCCAGCAACAAAAGGAAGAGCTGCTCCCTGCACAGGATATCAAAGCTCTGTTT
GTGTCTGAGGAGGAGAAAAAGCTGACTCGGAAGGAGGTCTACATCAAGAATGGGGATAAGAAAGGCAGCTGTGAG
AGAGATGCTCAATATGCCCCAGGCTATGACAAAGTCAAGGACATCTCAGAGGTGGTCACCCCTCGGTTCCTTTGT
ACTGGAGGAGTGAGTCCCTATGCTGACCCCAATACTTGCAGAGGTGATTCTGGCGGCCCCTTGATAGTTCACAAG
AGAAGTCGTTTCATTCAAGTTGGTGTAATCAGCTGGGGAGTAGTGGATGTCTGCAAAAACCAGAAGCGGCAAAAG
CAGGTACCTGCTCACGCCCGAGACTTTCACATCAACCTCTTTCAAGTGCTGCCCTGGCTGAAGGAGAAACTCCAA
GATGAGGATTTGGGTTTTCTA**TAA**GGGGTTTCCTGCTGGACAGGGGCGTGGGATTGAATTAAAACAGCTGCGACA
AC

FIGURE 4134A

GCAAGCGGCG**ATG**GCGGCGGCGGCGGGAGCTGCAGCGGCGGCGGCCGCCGAGGGGGAGGCCCCCGCTGAGATGGG
GGCGCTGCTGCTGGAGAAGGAAACCAGAGGAGCCACCGAGAGAGTTCATGGCTCTTTGGGGGACACCCCTCGTAG
TGAAGAAACCCTGCCCAAGGCCACCCCCGACTCCCTGGAGCCTGCTGGCCCCTCATCTCCAGCCTCTGTCACTGT
CACTGTTGGTGATGAGGGGGCTGACACCCCTGTAGGGGCTACACCACTCATTGGGGATGAATCTGAGAATCTTGA
GGGAGATGGGGACCTCCGTGGGGGCCGGATCCTGCTGGGCCATGCCACAAAGTCATTCCCCTCTTCCCCCAGCAA
GGGGGGTTCCTGTCCTAGCCGGGCCAAGATGTCAATGACAGGGGCGGGAAAATCACCTCCATCTGTCCAGAGTTT
GGCTATGAGGCTACTGAGTATGCCAGGAGCCCAGGGAGCTGCAGCAGCAGGGTCTGAACCCCCTCCAGCCACCAC
GAGCCCAGAGGGACAGCCCAAGGTCCACCGAGCCCGCAAAACCATGTCCAAACCAGGAAATGGACAGCCCCCGGT
CCCTGAGAAGCGGCCCCCTGAAATACAGCATTTCCGCATGAGTGATGATGTCCACTCACTGGGAAAGGTGACCTC
AGATCTGGCCAAAAGGAGGAAGCTGAACTCAGGAGGTGGCCTGTCGGAGGAGTTAGGTTCTGCCCGGCGTTCAGG
AGAAGTGACCCTGACGAAAGGGGACCCCGGGTCCCTGGAGGAGTGGGAGACGGTGGTGGGTGATGACTTCAGTCT
CTACTATGATTCCTACTCTGTGGATGAGCGCGTGGACTCCGACAGCAAGTCTGAAGTTGAAGCTCTAACTGAACA
ACTAAGTGAAGAGGAGGAGGAGGAAGAGGAGGAAGAAGAAGAAGAGGAAGAGGAGGAGGAAGAGGAAGAAGAAGA
GGAAGATGAGGAGTCAGGGAATCAGTCAGATAGGAGTGGTTCCAGTGGCCGGCGCAAGGCCAAGAAGAAATGGCG
AAAAGACAGCCCATGGGTGAAGCCGTCTCGGAAACGGCGCAAGCGGGAGCCTCCGCGGGCCAAGGAGCCACGAGG
AGTGAATGGTGTGGGCTCCTCAGGCCCCAGTGAGTACATGGAGGTCCCTCTGGGGTCCCTGGAGCTGCCCAGCGA
GGGGACCCTCTCCCCCAACCACGCTGGGGTGTCCAATGACACATCTTCGCTGGAGACAGAGCGAGGGTTTGAGGA
GTTGCCCCTGTGCAGCTGCCGCATGGAGGCACCCAAGATTGACCGCATCAGCGAGAGGGCGGGGCACAAGTGCAT
GGCCACTGAGAGTGTGGACGGAGAGCTGTCAGGCTGCAATGCCGCCATCCTCAAGCGGGAGACCATGAGGCCATC
CAGCCGTGTGGCCCTGATGGTGCTCTGTGAGACCCACCGCGCCCGCATGGTCAAACACCACTGCTGCCCGGGCTG
CGGCTACTTCTGCACGGCGGGCACCTTCCTGGAGTGCCACCCTGACTTCCGTGTGGCCCACCGCTTCCACAAGGC
CTGTGTGTCTCAGCTGAATGGGATGGTCTTCTGTCCCCACTGTGGGGAGGATGCTTCTGAAGCTCAAGAGGTGAC
CATCCCCCGGGGTGACGGGGTGACCCCACCGGCCGGCACTGCAGCTCCTGCACCCCCACCCCTGTCCCAGGATGT
CCCCGGGAGAGCAGACACTTCTCAGCCCAGTGCCCGGATGCGAGGGCATGGGGAACCCCGGCGCCCGCCCTGCGA
TCCCCTGGCTGACACCATTGACAGCTCAGGGCCCTCCCTGACCCTGCCCAATGGGGGCTGCCTTTCAGCCGTGGG
GCTGCCACTGGGGCCAGGCCGGGAGGCCCTGGAAAAGGCCCTGGTCATCCAGGAGTCAGAGAGGCGGAAGAAGCT
CCGTTTCCACCCTCGGCAGTTGTACCTGTCCGTGAAGCAGGGCGAGCTGCAGAAGGTGATCCTGATGCTGTTGGA
CAACCTGGACCCCAACTTCCAGAGCGACCAGCAGAGCAAGCGCACGCCCCTGCATGCAGCCGCCCAGAAGGGCTC
CGTGGAGATCTGCCATGTGCTGCTGCAGGCTGGAGCCAACATAAATGCAGTGGACAAACAGCAGCGGACGCCACT
GATGGAGGCCGTGGTGAACAACCACCTGGAGGTAGCCCGTTACATGGTGCAGCGTGGTGGCTGTGTCTATAGCAA
GGAGGAGGACGGTTCCACCTGCCTCCACCACGCAGCCAAAATCGGGAACTTGGAGATGGTCAGCCTGCTGCTGAG
CACAGGACAGGTGGACGTCAATGCCCAGGACAGTGGGGGGTGGACGCCCATCATCTGGGCTGCAGAGCACAAGCA
CATCGAGGTGATCCGCATGCTACTGACGCGGGGCGCCGACGTCACCCTCACTGACAACGAGGAGAACATCTGCCT
GCACTGGGCCTCCTTCACGGGCAGCGCCGCCATCGCCGAAGTCCTTCTGAATGCGCGCTGTGACCTCCATGCTGT
CAACTACCATGGGGACACCCCCCTGCACATCGCAGCTCGGGAGAGCTACCATGACTGCGTGCTGTTATTCCTGTC
ACGTGGGGCCAACCCTGAGCTGCGGAACAAAGAGGGGGACACAGCATGGGACCTGACTCCCGAGCGCTCCGACGT
GTGGTTTGCGCTTCAACTCAACCGCAAGCTCCGACTTGGGGTGGGAAATCGGGCCATCCGCACAGAGAAGATCAT
CTGCCGGGACGTGGCTCGGGGCTATGAGAACGTGCCCATTCCCTGTGTCAACGGTGTGGATGGGGAGCCCTGCCC
TGAGGATTACAAGTACATCTCAGAGAACTGCGAGACGTCCACCATGAACATCGATCGCAACATCACCCACCTGCA
GCACTGCACGTGTGTGGACGACTGCTCTAGCTCCAACTGCCTGTGCGGCCAGCTCAGCATCCGGTGCTGGTATGA
CAAGGATGGGCGATTGCTCCAGGAATTTAACAAGATTGAGCCTCCGCTGATTTTCGAGTGTAACCAGGCGTGCTC
ATGCTGGAGAAACTGCAAGAACCGGGTCGTACAGAGTGGCATCAAGGTGCGGCTACAGCTCTACCGAACAGCCAA
GATGGGCTGGGGGGTCCGCGCCCTGCAGACCATCCCACAGGGGACCTTCATCTGCGAGTATGTCGGGGAGCTGAT
CTCTGATGCTGAGGCTGATGTGAGAGAGGATGATTCTTACCTCTTCGACTTAGACAACAAGGATGGAGAGGTGTA
CTGCATAGATGCCCGTTACTATGGCAACATCAGCCGCTTCATCAACCACCTGTGTGACCCCAACATCATTCCCGT
CCGGGTCTTCATGCTGCACCAAGACCTGCGATTTCCACGCATCGCCTTCTTCAGTTCCCGAGACATCCGGACTGG
GGAGGAGCTAGGGTTTGACTATGGCGACCGCTTCTGGGACATCAAAAGCAAATATTTCACCTGCCAATGTGGCTC
TGAGAAGTGCAAGCACTCAGCCGAAGCCATTGCCCTGGAGCAGAGCCGTCTGGCCCGCCTGGACCCACACCCTGA

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FIGURE 4134B

GCTGCTGCCCGAGCTCGGCTCCCTGCCCCCTGTCAACACA**TGA**GAACGGACCACACCCTCTCTCCCCAGCATGGA
TGGCCACAGCTCAGCCGCCTCCTCTGCCACCAGCTGCTCGCAGCCCATGCCTGGGGGTGCTGCCATCTTCTCTCC
CCACCACCCTTTCACACATTCCTGACCAGAGATCCCAGCCAGGCCCTGGAGGTCTGACAGCCCCTCCCTCCCAGA
GCTGGTTCCTCCCTGGGAGGGCAACTTCAGGGCTGGCCACCCCCCGTGTTCCCCATCCTCAGTTGAAGTTTGATG
AATTGAAGTCGGGCCTCTATGCCAACTGGTTCCTTTTGTTCTCAATAAATGTTGGGTTTGGTAATAAA

FIGURE 4135

ATGGGGGGAAAGCAGCGGGACGAGGATGACGAGGCCTACGGGAAGCCAGTCAAATACGACCCCTCCTTTCGAGGC
CCCATCAAGAACAGAAGCTGCACAGATGTCATCTGCTGCGTCCTCTTCCTGCTCTTCATTCTAGGTTACATCGTG
GTGGGGATTGTGGCCTGGTTGTATGGAGACCCCCGGCAAGTCCTCTACCCCAGGAACTCTACTGGGGCCTACTGT
GGCATGGGGGAGAACAAAGATAAGCCGTATCTCCTGTACTTCAACATCTTCAGCTGCATCCTGTCCAGCAACATC
ATCTCAGTTGCTGAGAACGGCCTACAGTGCCCCACACCCCAGGTGTGTGTGTCCTCCTGCCCGGAGGACCCATGG
ACTGTGGGAAAAAACGAGTTCTCACAGACTGTTGGGGAAGTCTTCTATACAAAAAACAGGAACTTTTGTCTGCCA
GGGGTACCCTGGAATATGACGGTGATCACAAGCCTGCAACAGGAACTCTGCCCCAGTTTCCTCCTCCCCTCTGCT
CCAGCTCTGGGACGCTGCTTTCCATGGACCAACATTACTCCACCGGCGCTCCCAGGGATCACCAATGACACCACC
ATACAGCAGGGGATCAGCGGTCTTATTGACAGCCTCAATGCCCGAGACATCAGTGTTAAGATCTTTGAAGATTTT
GCCCAGTCCTGGTATTGGATTCTTGTTGCCCTGGGGGTGGCTCTGGTCTTGAGCCTACTGTTTATCTTGCTTCTG
CGCCTGGTGGCTGGGCCCCTGGTGCTGGTGCTGATCCTGGGAGTGCTGGGCGTGCTGGCATATGGCATCTACTAC
TGCTGGGAGGAGTACCGAGTGCTGCGGGACAAGGGCGCCTCCATCTCCCAGCTGGGTTTCACCACCAACCTCAGT
GCCTACCAGAGCGTGCAGGAGACCTGGCTGGCCGCCCTGATCGTGTTGGCGGTGCTTGAAGCCATCCTGCTGCTG
GTGCTCATCTTCCTGCGGCAGCGGATTCGTATTGCCATCGCCCTCCTGAAGGAGGCCAGCAAGGCTGTGGGACAG
ATGATGTCTACCATGTTCTACCCACTGGTCACCTTTGTCCTCCTCCTCATCTGCATTGCCTACTGGGCCATGACT
GCTCTGTATCCTCTGCCCACGCAGCCAGCCACTCTTGGATATGTGCTCTGGGCATCCAACATCAGCTCCCCCGGC
TGTGAGAAAGTGCCAATAAATACATCATGCAACCCCACGGCCCACCTTGTGAACTCCTCGTGCCCAGGGCTGATG
TGCGTCTTCCAGGGCTACTCATCCAAAGGCCTAATCCAACGTTCTGTCTTCAATCTGCAAATCTATGGGGTCCTG
GGGCTCTTCTGGACCCTTAACTGGGTACTGGCCCTGGGCCAATGCGTCCTCGCTGGAGCCTTTGCCTCCTTCTAC
TGGGCCTTCCACAAGCCCCAGGACATCCCTACCTTCCCCTTAATCTCTGCCTTCATCCGCACACTCCGTTACCAC
ACTGGGTCATTGGCATTTGGAGCCCTCATCCTGACCCTTGTGCAGATAGCCCGGGTCATCTTGGAGTATATTGAC
CACAAGCTCAGAGGAGTGCAGAACCCTGTAGCCCGCTGCATCATGTGCTGTTTCAAGTGCTGCCTCTGGTGTCTG
GAAAAATTTATCAAGTTCCTAAACCGCAATGCATACATCATGATCGCCATCTACGGGAAGAATTTCTGTGTCTCA
GCCAAAAATGCGTTCATGCTACTCATGCGAAACATTGTCAGGGTGGTCGTCCTGGACAAAGTCACAGACCTGCTG
CTGTTCTTTGGGAAGCTGCTGGTGGTCGGAGGCGTGGGGGTCCTGTCCTTCTTTTTTTCTCCGGTCGCATCCCG
GGGCTGGGTAAAGACTTTAAGAGCCCCCACCTCAACTATTACTGGCTGCCCATCATGACCTCCATCCTGGGGGCC
TATGTCATCGCCAGCGGCTTCTTCAGCGTTTTCGGCATGTGTGTGGACACGCTCTTCCTCTGCTTCCTGGAAGAC
CTGGAGCGGAACAACGGCTCCCTGGACCGGCCCTACTACATGTCCAAGAGCCTTCTAAAGATTCTGGGCAAGAAG
AACGAGGCGCCCCCGGACAACAAGAAGAGGAAGAAGTGACAGCTCCGGCCCTGATCCAGGACTGCACCCCACCCC
CACCGTCCAGCCATCCAACCTCACTTCGCCTTACAGGTCTCCATTTTGTGGTAAAAAAAGGTTTTAGGCCAGGCG
CCGTGGCTCACGCCTGTAATCCAACACTTTGAGAGGCTGAGGCGGGCGGATCACCTGAGTCAGGAGTTCGAGACC
AGCCTGGCCAACATGGTGAAAC

FIGURE 4136

CGGGAAGCGCGGCGGGGCCTCCAGACCGGGGCGGGCTTAAGGGTGACATCTGCGCTTTAAAGGGTCCGGGTCAGC
TGACTCCCGACTCTGTGGAGTCTAGCTGCCAGGGTCGCGGCAGCTGCGGGGAGAGATGACTGGGGAGCGACCCAG
CACGGCGCTCCCGGACAGACGCTGGGGGCCGCGGATTCTGGGCTTCTGGGGAGGCTGTAGGGTTTGGGTGTTTGC
CGCGATCTTCCTGCTGCTGTCTCTGGCAGCCTCCTGGTCCAAGGCTGAGAACGACTTCGGTCTGGTGCAGCCGCT
GGTGACCATGGAGCAACTGCTGTGGGTGAGCGGGAGACAGATCGGCTCAGTGGACACCTTCCGCATCCCGCTCAT
CACAGCCACTCCGCGGGGCACTCTTCTCGCCTTTGCTGAGGCGAGGAAAATGTCCTCATCCGATGAGGGGGCCAA
GTTCATCGCCCTGCGGAGGTCCATGGACCAGGGCAGCACATGGTCTCCTACAGCGTTCATTGTCAATGATGGGGA
TGTCCCCGATGGGCTGAACCTTGGGGCAGTAGTGAGCGATGTTGAGACAGGAGTAGTATTTCTTTTCTACTCCCT
TTGTGCTCACAAGGCCGGCTGCCAGGTGGCCTCTACCATGTTGGTATGGAGCAAGGATGATGGTGTTTCCTGGAG
CACACCCCGGAATCTCTCCCTGGATATTGGCACTGAAGTGTTTGCCCCTGGACCGGGCTCTGGTATTCAGAAACA
GCGGGAGCCACGGAAGGGCCGCCTCATCGTGTGTGGCCATGGGACGCTGGAGCGGGACGGAGTCTTCTGTCTCCT
CAGCGATGATCATGGTGCCTCCTGGCGCTACGGAAGTGGGGTCAGCGGCATCCCCTACGGTCAGCCCAAGCAGGA
AAATGATTTCAATCCTGATGAATGCCAGCCCTATGAGCTCCCAGATGGCTCAGTCGTCATCAATGCCCGAAACCA
GAACAACTACCACTGCCACTGCCGAATTGTCCTCCGCAGCTATGATGCCTGTGATACACTAAGGCCCCGTGATGT
GACCTTCGACCCTGAGCTCGTGGACCCTGTGGTAGCTGCAGGAGCTGTAGTCACCAGCTCCGGCATTGTCTTCTT
CTCCAACCCAGCACATCCAGAGTTCCGAGTGAACCTGACCCTGCGATGGAGCTTCAGCAATGGTACCTCATGGCG
GAAAGAGACAGTCCAGCTATGGCCAGGCCCCAGTGGCTATTCATCCCTGGCAACCCTGGAGGGCAGCATGGATGG
AGAGGAGCAGGCCCCCCAGCTCTACGTCCTGTATGAGAAAGGCCGGAACCACTACACAGAGAGCATCTCCGTGGC
CAAAATCAGTGTCTATGGGACACTCTGAGCTGTGCCACTGCCACAGGGGTATTCTGCCTTCAGGACTCTGCCTTC
AGGAACACGGGTCTGTAGAGGGTCTGCTGGAGACGCCTGAAAGACAGTTCCATCTTCCTTTAGACTCCAGCCTTG
GCAAAATCACCTTCCCTTTACCAGGGAAATCACTTCCTTTAGGACTGAAAGCTAGGCGTCCTCTCCCACAAAAAA
GTCCTGCCCTCATCTGAGAATACTGTCTTTCCATATGGCTAAGTGTGGCCCCACCACCCTCTCTGCCCTCCCGGG
ACATTGATTGGTCCTGTCTTGGGCAGGTCTAGTGAGCTGTAGAATTGAATCAATGTGAACTCAGGGAACTGGGGA
AGGCTGAGCCTCCTCTTTGGTGTTGCGGTAAGATAACCGACAGGGCTGGTGAAAGTCCCCAGATGGCAGGATATT
TGGTTTCAGAGTAAGGACTAGGTGCACCACCATGACTGACTATCAATCAAAATGTTTGTAACTTAAAATTTTTAA
TGAAGGATAATGAATATTT

FIGURE 4137

GGTCCCAAGGCTTTCCAGAGCGAACCTGTGCGGCTGCAGGCACCGGCGTGTTGAGTTTCCGGCGTTCCGAAGGAC
TGAGCTCTTGTCGCGGATCCCGTCCGCCGTTTCCAGCCCCCAGTCTCAGAGCGGAGCCCACAGAGCAGGGCACCG
GC**ATG**GCCAAAGCCGCGGCGATCGGCATCGACCTGGGCACCACCTACTCCTGCGTGGGGGTGTTCCAACACGGCA
AGGTGGAGATCATCGCCAACGACCAGGGCAACCGCACCACCCCCAGCTACGTGGCCTTCACGGACACCGAGCGGC
TCATCGGGGATGCGGCCAAGAACCAGGTGGCGCTGAACCCGCAGAACACCGTGTTTGACGCGAAGCGGCTGATCG
GCCGCAAGTTCGGCGACCCGGTGGTGCAGTCGGACATGAAGCACTGGCCTTTCCAGGTGATCAACGACGGAGACA
AGCCCAAGGTGCAGGTGAGCTACAAGGGGGAGACCAAGGCATTCTACCCCGAGGAGATCTCGTCCATGGTGCTGA
CCAAGATGAAGGAGATCGCCGAGGCGTACCTGGGCTACCCGGTGACCAACGCGGTGATCACCGTGCCGGCCTACT
TCAACGACTCGCAGCGCCAGGCCACCAAGGATGCGGGTGTGATCGCGGGGCTCAACGTGCTGCGGATCATCAACG
AGCCCACGGCCGCCGCCATCGCCTACGGCCTGGACAGAACGGGCAAGGGGGAGCGCAACGTGCTCATCTTTGACC
TGGGCGGGGGCACCTTCGACGTGTCCATCCTGACGATCGACGACGGCATCTTCGAGGTGAAGGCCACGGCCGGGG
ACACCCACCTGGGTGGGGAGGACTTTGACAACAGGCTGGTGAACCACTTCGTGGAGGAGTTCAAGAGAAAACACA
AGAAGGACATCAGCCAGAACAAGCGAGCCGTGAGGCGGCTGCGCACCGCCTGCGAGAGGGCCAAGAGGACCCTGT
CGTCCAGCACCCAGGCCAGCCTGGAGATCGACTCCCTGTTTGAGGGCATCGACTTCTACACGTCCATCACCAGGG
CGAGGTTCGAGGAGCTGTGCTCCGACCTGTTCCGAAGCACCCTGGAGCCCGTGGAGAAGGCTCTGCGCGACGCCA
AGCTGGACAAGGCCCAGATTCACGACCTGGTCCTGGTCGGGGGCTCCACCCGCATCCCCAAGGTGCAGAAGCTGC
TGCAGGACTTCTTCAACGGGCGCGACCTGAACAAGAGCATCAACCCCGACGAGGCTGTGGCCTACGGGGCGGCGG
TGCAGGCGGCCATCCTGATGGGGGACAAGTCCGAGAACGTGCAGGACCTGCTGCTGCTGGACGTGGCTCCCCTGT
CGCTGGGGCTGGAGACGGCCGGAGGCGTGATGACTGCCCTGATCAAGCGCAACTCCACCATCCCCACCAAGCAGA
CGCAGATCTTCACCACCTACTCCGACAACCAACCCGGGGTGCTGATCCAGGTGTACGAGGGCGAGAGGGCCATGA
CGAAAGACAACAATCTGTTGGGGCGCTTCGAGCTGAGCGGCATCCCTCCGGCCCCCAGGGGCGTGCCCCAGATCG
AGGTGACCTTCGACATCGATGCCAACGGCATCCTGAACGTCACGGCCACGGACAAGAGCACCGGCAAGGCCAGCA
AGATCACCATCACCAACGACAAGGGCCGCCTGAGCAAGGAGGAGATCGAGCGCATGGTGCAGGAGGCGGAGAAGT
ACAAAGCGGAGGACGAGGTGCAGCGCGAGAGGGTGTCAGCCAAGAACGCCCTGGAGTCCTACGCCTTCAACATGA
AGAGCGCCGTGGAGGATGAGGGGCTCAAGGGCAAGATCAGCGAGGCGGACAAGAAGAAGGTTCTGGACAAGTGTC
AAGAGGTCATCTCGTGGCTGGACGCCAACACCTTGGCCGAGAAGGACGAGTTTGAGCACAAGAGGAAGGAGCTGG
AGCAGGTGTGTAACCCCATCATCAGCGGACTGTACCAGGGTGCCGGTGGTCCCGGGCCTGGGGGCTTCGGGGCTC
AGGGTCCCAAGGGAGGGTCTGGGTCAGGCCCTACCATTGAGGAGGTGGAT**TAG**GGGCCTTTGTTCTTTAGTATGT
TTGTCTTTGAGGTGGACTGTTGGGACTCAAGGACTTTGCTGCTGTTTTCCTATGTCATTTCTGCTTCAGCTCTTT
GCTGCTTCACTTCTTTGTAAAGTTAAGTTGTAACCTGATGGTAATTAGCTGGCTTCATTATTTTTGTAGTACAAC
CGATATGTTCATTAGAATTCTTTGCATTTAATGTTGATACTGTAAGGGTGTTTCGTTCCCTTTAAATGAATCAAC
ACTGCCACCTTCTGTACGAGTTTGTTTTTTTTTTTTTTTTTTTTTTTTTTGCTTGGCGAAAACACTACAAAGGC
TGGGAATGTATGTTTTTATAATTTGTTTATTTAAATATGAAAAATAAAATGTTAAACTTT

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FIGURE 4138

ACTGCGCAGGCCCAGCAAGCCCCCACAATTAAAAGCCCAGCGCCGACCCTTCCTGTCAATTAGGCGCTGAAGCGC
AGGCGGTCAGCATCGCCATGGAGACCAACACCCTTCCCACCGCCACTCCCCCTTCCTCTCAGGGTCCCTGTCCCC
TCCAGTGAATCCCAGAAGACTCTGGAGAGTTCTGAGCAGGGGGCGGCACTCTGGCCTCTGATTGGTCCAAGGAAG
GCTGGGGGGGCAGGACGGGAGGCGAAACCCCTGGAATATTCCCGACCTGGCAGCCTCATCGAGCTCGGTGATTGGC
TCAGAAGGGAAAAGGCGGGTCTCCGTGACGACTTATAAAAGCCCAGGGGCAAGCGGTCCGGATAACGGCTAGCCT
GAGGAGCTGCTGCGACAGTCCACTACCTTTTTCGAGAGTGACTCCCGTTGTCCCAAGGCTTCCCAGAGCGAACCT
GTGCGGCTGCAGGCACCGGCGCGTCGAGTTTCCGGCGTCCGGAAGGACCGAGCTCTTCTCGCGGATCCAGTGTTC
CGTTTCCAGCCCCCAATCTCAGAGCCGAGCCGACAGAGAGCAGGGAACCGGC**ATG**GCCAAAGCCGCGGCGATCGG
CATCGACCTGGGCACCACCTACTCCTGCGTGGGGGTGTTCCAACACGGCAAGGTGGAGATCATCGCCAACGACCA
GGGCAACCGCACCACCCCCAGCTACGTGGCCTTCACGGACACCGAGCGGCTCATCGGGGATGCGGCCAAGAACCA
GGTGGCGCTGAACCCGCAGAACACCGTGTTTGACGCGAAGCGGCTGATCGGCCGCAAGTTCGGCGACCCGGTGGT
GCAGTCGGACATGAAGCACTGGCCTTTCCAGGTGATCAACGACGGAGACAAGCCCAAGGTGCAGGTGAGCTACAA
GGGGGACACCAAGGCATTCTACCCCGAGGAGATCTCGTCCATGGTGCTGACCAAGATGAAGGAGATCGCCGAGGC
GTACCTGGGCTACCCGGTGACCAACGCGGTGATCACCGTGCCGGCCTACTTCAACGACTCGCAGCGCCAGGCCAC
CAAGGATGCGGGTGTGATCGCGGGGCTCAACGTGCTGCGGATCATCAACGAGCCCACGGCCGCCGCCATCGCCTA
CGGCCTGGACAGAACGGGCAAGGGGGAGCGCAACGTGCTCATCTTTGACCTGGGCGGGGGCACCTTCGACGTGTC
CATCCTGACGATCGACGACGGCATCTTCGAGGTGAAGGCCACGGCCGGGGACACCCACCTGGGTGGGGAGGACTT
TGACAACAGGCTGGTGAACCACTTCGTGGAGGAGTTCAAGAGAAAACACAAGAAGGACATCAGCCAGAACAAGCG
AGCCGTGAGGCGGCTGCGCACCGCCTGCGAGAGGGCCAAGAGGACCCTGTCGTCCAGCACCCAGGCCAGCCTGGA
GATCGACTCCCTGTTTGAGGGCATCGACTTCTACACGTCCATCACCAGGGCGAGGTTCGAGGAGCTGTGCTCCGA
CCTGTTCCGAAGCACCCTGGAGCCCGTGGAGAAGGCTCTGCGCGACGCCAAGCTGGACAAGGCCCAGATTCACGA
CCTGGTCCTGGTCGGGGGCTCCACCCGCATCCCCAAGGTGCAGAAGCTGCTGCAGGACTTCTTCAACGGGCGCGA
CCTGAACAAGAGCATCAACCCCGACGAGGCTGTGGCCTACGGGGCGGCGGTGCAGGCGGCCATCCTGATGGGGGA
CAAGTCCGAGAACGTGCAGGACCTGCTGCTGCTGGACGTGGCTCCCCTGTCGCTGGGGCTGGAGACGGCCGGAGG
CGTGATGACTGCCCTGATCAAGCGCAACTCCACCATCCCCACCAAGCAGACGCAGATCTTCACCACCTACTCCGA
CAACCAACCCGGGGTGCTGATCCAGGTGTACGAGGGCGAGAGGGCCATGACGAAAGACAACAATCTGTTGGGGCG
CTTCGAGCTGAGCGGCATCCCTCCGGCCCCCAGGGGCGTGCCCCAGATCGAGGTGACCTTCGACATCGATGCCAA
CGGCATCCTGAACGTCACGGCCACGGACAAGAGCACCGGCAAGGCCAACAAGATCACCATCACCAACGACAAGGG
CCGCCTGAGCAAGGAGGAGATCGAGCGCATGGTGCAGGAGGCGGAGAAGTACAAAGCGGAGGACGAGGTGCAGCG
CGAGAGGGTGTCAGCCAAGAACGCCCTGGAGTCCTACGCCTTCAACATGAAGAGCGCCGTGGAGGATGAGGGGCT
CAAGGGCAAGATCAGCGAGGCCGACAAGAAGAAGGTGCTGGACAAGTGTCAAGAGGTCATCTCGTGGCTGGACGC
CAACACCTTGGCCGAGAAGGACGAGTTTGAGCACAAGAGGAAGGAGCTGGAGCAGGTGTGTAACCCCATCATCAG
CGGACTGTACCAGGGTGCCGGTGGTCCCGGGCCTGGGGGCTTCGGGGCTCAGGGTCCCAAGGGAGGGTCTGGGTC
AGGCCCCACCATTGAGGAGGTAGAT**TAG**GGGCCTTTCCAAGATTGCTGTTTTTGTTTTGGAGCTTCAAGACTTTG
CATTTCCTAGTATTTCTGTTTGTCAGTTCTCAATTTCCTGTGTTTGCAATGTTGAAATTTTTTGGTGAAGTACTG
AACTTGCTTTTTTTCCGGTTTCTACATGCAGAGATGAATTTATACTGCCATCTTACGACTATTTCTTCTTTTTAA
TACACTTAACTCAGGCCATTTTTTAAGTTGGTTACTTCAAAGTAAATAAACTTTAAAATTCAAGTGA

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FIGURE 4139

GGGCCAGTTTGGAAAAAGATTACTGAGTTGGAGCCGTCTCAAATTTGCAGGGAGGGACGGGGTGGGGGGTGGGGG
GACCCCGGTTGTGCAGTTTGATATTGAGGGAGCCCCCACCTACTCGCTGGGGCTGCGTAATCTGGACGTTTCCAA
ACTGAAGCGAAGGCGTCGGGAGACTAGGCCTCAGAGAACC**ATG**GCTACTGCCAAGGGAATCGCCATAGGCATCGA
CCTGGGCACCACCTACTCCTGTGTGGGGGTGTTCCAGCACGGCAAGGTGGAGATCATCGCCAACGACCAGGGCAA
CCGCACCACCCCCAGCTACGTGGCCTTCACAGACACCGAGCGGCTCATTGGGGATGCGGCCAAGAACCAGGTAGC
AATGAATCCCCAGAACACTGTTTTTGATGCTAAACGTCTGATCGGCAGGAAATTTAATGATCCTGTTGTACAAGC
AGATATGAAACTTTGGCCTTTTCAAGTGATTAATGAAGGAGGCAAGCCCAAAGTCCTTGTGTCCTACAAAGGGGA
GAATAAAGCTTTCTACCCTGAGGAAATCTCTTCGATGGTATTGACTAAGTTGAAGGAGACTGCTGAGGCCTTTTT
GGGCCACCCTGTCACCAATGCAGTGATTACCGTGCCAGCCTATTTCAATGACTCTCAACGTCAGGCTACTAAGGA
TGCAGGTGTGATTGCTGGACTTAATGTGCTAAGAATCATCAATGAGCCCACGGCTGCTGCCATTGCCTATGGTTT
AGATAAAGGAGGTCAAGGAGAACGACATGTCCTGATTTTTGATCTGGGTGGAGGCACATTTGATGTGTCAATTCT
GACCATAGATGATGGGATTTTTGAGGTAAAGGCCACTGCTGGGGACACTCACCTGGGTGGGGAGGACTTTGACAA
CAGGCTTGTGAGCCACTTCGTGGAGGAGTTCAAGAGGAAACACAAAAAGGACATCAGCCAGAACAAGCGAGCCGT
GAGGCGGCTGCGCACCGCCTGCGAGAGGGCCAAGAGGACCCTGTCGTCCAGCACCCAGGCCAACCTAGAAATTGA
TTCACTTTATGAAGGCATTGACTTCTATACATCCATCACCAGAGCTCGATTTGAAGAGTTGTGTGCAGACCTGTT
TAGGGGTACCCTGGAGCCTGTAGAAAAAGCGCTTCGGGATGCCAAGATGGATAAGGCTAAAATCCATGACATTGT
TTTAGTAGGGGGCTCCACCCGCATCCCCAAGGTGCAGCGGCTGCTTCAGGACTACTTCAATGGACGTGATCTCAA
CAAGAGCATCAACCCTGATGAGGCCGTAGCATATGGGGCTGCGGTACAAGCAGCCATCCTGATGGGGGACAAGTC
TGAGAAGGTACAGGACCTGCTGCTGCTGGACGTGGCTCCCCTGTCCCTGGGGCTGGAGACGGCTGGGGGCGTGAT
GACTGCCCTGATAAAGCGCAACTCCACCATCCCCACCAAGCAGACACAGATTTTCACCACCTACTCTGACAACCA
ACCCGGGGTGCTGATCCAGGTGTATGAGGGCGAGAGGGCCATGACAAAGGACAACAACCTGCTGGGGCGGTTTGA
CCTGACTGGAATCCCTCCAGCACCCAGGGGAGTTCCTCAGATCGAGGTGACGTTTGACATTGATGCCAATGGTAT
TCTCAATGTCACAGCCATGGACAAGAGCACCGGCAAGGTGAACAAGATCACCATCACCAATGACAAGGGCCGCCT
GAGCAAGGAGGAGATTGAGCGCATGGTTCTGGATGCTGAGAAATATAAAGCTGAAGATGAGGTCCAGAGGGAGAA
AATTGCTGCAAAGAATGCCTTAGAATCCTATGCTTTTAACATGAAGAGTGTTGTGAGTGATGAAGGTTTGAAGGG
CAAGATTAGTGAGTCTGATAAAAATAAAATATTGGATAAATGCAACGAGCTCCTTTCGTGGCTGGAGGTCAATCA
ACTGGCAGAGAAAGATGAGTTTGATCATAAGAGAAAGGAATTGGAGCAGATGTGTAACCCTATCATCACAAAACT
CTACCAAGGAGGATGCACTGGGCCTGCCTGCGGAACAGGGTATGTGCCTGGAAGGCCTGCCACAGGCCCCACAAT
TGAAGAAGTAGAT**TAA**TTCTTTTTAGAACTGAAGCATCCTAGGATGCCTCTACATGTATTTCATTCCCCTCATCT
TCAAACATCATTATTATTCTTGACCAGACCTGAATCTAAGTTACCATCCCTTGGAAATTCTGGAGAAGGAGTCTC
ATGCACCACCTATCACACTCCCTCACATCCTGTTTCTGACTTTGGAATGGACTCAGGAAAACTAGGCCCCTCTTT
AAACCGTGTGATGTATTTGAATGTCTGTTATTTCCAGCCACCCTAACATTCTTCTTCCTGTGTGGATGCTTATTT
GTCAATCAGTAAATTTGTTCGTAAAG

FIGURE 4140

GGCTTCCTCCTCCCCTCTACTCTACCCAGCTTGCGCTCCCCAGCCGCAAGTCGGCCGCGCTTTGCCCGTCAGCGC
TTGGAGCTTTCTGCGTCGCTTCCCGCTGCGCCTGCGCGGTCCCGCCTCGCCCCACGCGCGGGCTCGCGCTTCGGT
TTCCCCAGACCTGCTCGCAGCACCCTGCTGTCTTCCCGGTCCGGCCCGCTGCCCGCGGCGCCAGCACC**ATG**CTCT
TCTATTCTTTTTTCAAGTCCCTTGTGGGCAAGGATGTGGTCGTGGAACTAAAGAATGACCTGAGCATCTGTGGAA
CCCTCCATTCTGTGGATCAGTATCTCAACATCAAACTAACTGACATCAGTGTCACAGACCCTGAGAAATACCCTC
ACATGTTATCAGTGAAGAACTGCTTCATTCGGGGCTCAGTGGTCCGATACGTGCAGCTGCCAGCAGATGAGGTCG
ACACACAGTTGCTACAGGATGCGGCAAGGAAGGAAGCCCTGCAGCAGAAACAG**TGA**TGGCTCCTCCTCCTCTTCC
CCTCCCTCTTTCATTGGTGACCCATAACCCCAAGTCCCAGCCCAGAACCCCTAACCCCCAATACTTGAAGGGGTT
TTGTTTTTTTACTAATGATGGTTTTGTGGGTTTTTTTTAAGGGATGAGTGGATGAGAGGAGTAATAGGGAACAGC
TATCCTCTCTTGAGAAGGGGAGGATAAGTAGGCTGGGAAACTTCAAAGCCTTCCCAGTCCCCAGCACCTGCCTTT
CTCACTACTTCTCTGGAGATGGTAGGAGAGTTTCCTAGGTCTTTCCAGGGCAGCATGTGATTCATTTGGGGATGG
AAGGAATCTGTCCCGCATCGGGAATAAAATTTATGATGC

FIGURE 4141A

GTCACAAAGGGGGGAACACGTGGGCGCCGGCTGCCGGGGCGGCGATCTTAGGGAACTAGGGTCACCTGGAGAGCC
GCCCACCGTCTCTGCCCGCTCGACTCCTCCGCCCGGGCCGCTCGGCCGGTCCAGCCGCGGCCGGCGCCTGGCTGT
GAGGTGGATTCCCGGCCCAGTCTGACCATCTCCCTCCAGTTTTTCCACTTCGTTCGGACCTTCTCATAACT**ATG**T
CCACCCTCTACGTCTCCCCTCACCCAGATGCCTTCCCCAGCCTCCGAGCCCTCATAGCCGCTCGCTATGGGGAGG
CTGGGGAGGGTCCCGGATGGGGAGGAGCCCACCCCCGCATCTGTCTCCAGCCACCCCCGACTAGCAGGACTCCCT
TTCCCCCACCCCGCCTGCCGGCCCTGGAGCAGGGGCCCGGTGGGCTCTGGGTGTGGGGGGCCACGGCTGTGGCCC
AGCTGCTGTGGCCAGCAGGCCTGGGGGGCCCAGGGGGCAGCCGGGCGGCTGTCCTTGTCCAACAGTGGGTCAGTT
ACGCCGACACGGAGTTAATACCAGCTGCCTGTGGAGCAACGCTGCCGGCCCTGGGACTCCGAAGCTCGGCCCAGG
ACCCCCAGGCTGTGCTGGGGGCCCTGGGCAGGGCCCTGAGCCCCTTGGAGGAGTGGCTTCGGCTGCACACCTACT
TGGCCGGGGAGGCCCCCACTCTGGCTGACCTGGCGGCTGTCACAGCCTTGCTGCTGCCTTTCCGATACGTCCTAG
ACCCACCTGCCCGCCGGATCTGGAATAATGTGACTCGCTGGTTTGTCACGTGTGTCCGGCAGCCAGAATTCCGAG
CCGTGCTAGGAGAAGTGGTTCTATACTCAGGAGCCAGGCCTCTCTCTCATCAGCCAGGCCCCGAGGCTCCTGCCC
TCCCAAAGACAGCTGCTCAGCTCAAGAAAGAGGCAAAGAAACGGGAGAAGCTAGAGAAATTCCAACAGAAGCAGA
AGATCCAACAGCAGCAGCCACCTCCAGGGGAGAAGAAACCAAAACCAGAGAAGAGGGAGAAACGGGATCCTGGGG
TCATTACCTATGACCTCCCAACCCCACCCGGGGAAAAGAAAGATGTCAGTGGCCCCATGCCCGACTCCTACAGCC
CTCGGTATGTGGAGGCTGCCTGGTACCCTTGGTGGGAGCAGCAGGGCTTCTTCAAGCCAGAGTATGGGCGTCCTA
ATGTGTCAGCAGCAAATCCCCGAGGTGTCTTCATGATGTGCATCCCACCCCCCAATGTGACAGGCTCCCTGCACC
TGGGCCATGCACTCACCAACGCCATCCAGGACTCCCTGACTCGATGGCACCGCATGCGTGGGGAGACCACCCTGT
GGAACCCTGGCTGTGACCATGCAGGTATTGCCACCCAGGTGGTGGTGGAGAAGAAGCTATGGCGTGAGCAGGGAC
TGAGCCGGCACCAGCTGGGCCGCGAGGCCTTTCTACAGGAAGTCTGGAAGTGGAAGGAGGAGAAAGGTGACCGGA
TTTACCACCAGTTGAAGAAGCTTGGCAGCTCCTTGGACTGGGATCGAGCCTGTTTCACCATGGACCCTAAACTCT
CAGCAGCTGTGACAGAGGCCTTTGTCCGGCTTCACGAGGAAGGCATCATCTATCGCAGTACCCGCCTTGTTAACT
GGTCCTGCACCCTCAACTCCGCCATCTCTGACATTGAGGTGGATAAGAAGGAGCTGACAGGTCGCACCCTGCTCT
CCGTGCCTGGCTACAAGGAGAAGGTGGAGTTCGGGGTCCTCGTGTCCTTTGCCTATAAGGTCCAAGGCTCAGATA
GCGACGAGGAGGTGGTGGTGGCAACAACTCGGATCGAGACAATGCTGGGAGATGTGGCTGTAGCTGTGCACCCCA
AAGATACCAGATACCAGCACCTGAAGGGGAAGAACGTGATCCACCCATTCCTGTCTCGGAGCCTTCCCATTGTCT
TCGATGAATTTGTGGACATGGACTTTGGCACAGGTGCTGTGAAGATCACCCCCGCACATGACCAAAATGACTATG
AAGTTGGGCAGCGGCACGGGCTGGAGGCCATCAGCATCATGGACTCCCGGGGGGCCCTCATCAATGTGCCTCCGC
CTTTCCTGGGCCTGCCCAGGTTTGAGGCCAGGAAAGCGGTGCTGGTGGCGCTGAAGGAGCGGGGACTGTTCCGTG
GCATTGAGGACAACCCCATGGTGGTGCCACTTTGCAACCGGTCGAAGGACGTGGTAGAGCCTCTGCTGCGGCCGC
AGTGGTACGTTCGCTGCGGGGAGATGGCCCAGGCTGCCAGCGCCGCTGTGACTCGGGGTGACCTCCGCATCCTGC
CTGAGGCCCATCAGCGCACATGGCATGCCTGGATGGACAACATCCGGGAGTGGTGCATTTCCAGGCAGCTGTGGT
GGGGCCATCGCATCCCAGCCTACTTTGTCACTGTCAGTGACCCAGCGGTGCCCCCTGGGGAGGACCCTGATGGGC
GGTACTGGGTGAGTGGACGCAATGAGGCGGAGGCCCGGGAGAAGGCAGCCAAGGAGTTCGGAGTGTCCCCTGACA
AGATCAGTCTCCAGCAAGATGAGGATGTATTGGATACCTGGTTCTCCTCTGGCCTCTTCCCCTTATCCATTTTGG
GCTGGCCCAACCAGTCAGAAGACCTGAGTGTGTTCTACCCCGGGACACTGCTGGAGACCGGTCATGACATCCTCT
TCTTCTGGGTGGCCCGGATGGTCATGCTGGGCCTGAAGCTCACGGGCAGGCTGCCCTTTAGAGAGGTCTACCTCC
ATGCCATCGTGCGAGATGCTCACGGCCGGAAGATGAGCAAGTCTCTAGGCAATGTCATCGATCCCCTGGATGTCA
TCTATGGAATCTCCCTGCAGGGCCTCCACAACCAGCTGCTGAACAGCAACCTGGATCCCAGCGAGGTGGAGAAGG
CCAAAGAAGGGCAGAAAGCTGACTTCCCAGCGGGGATTCCTGAATGTGGCACCGATGCTCTCCGGTTTGGATTAT
GTGCCTACATGTCCCAGGGTCGTGACATCAACCTGGATGTGAACCGGATACTGGGTTACCGCCACTTCTGCAACA
AGCTCTGGAATGCCACCAAGTTTGCCCTTCGTGGCCTTGGGAAGGGTTTTGTGCCCTCACCCACCTCCCAGCCCG
GAGGCCATGAGAGCCTGGTGGACCGCTGGATCCGCAGCCGCCTGACAGAGGCTGTGAGGCTCAGCAATCAAGGCT
TCCAGGCCTACGACTTCCCGGCCGTCACCACTGCCCAGTACAGCTTCTGGCTCTATGAGCTCTGTGATGTCTACT
TGGAGTGCCTGAAACCTGTACTGAATGGGGTGGACCAGGTGGCAGCTGAGTGTGCCCGCCAGACCCTGTACACTT
GCCTGGACGTTGGCCTGCGGCTGCTCTCACCCTTCATGCCCTTCGTGACGGAGGAGCTGTTCCAGAGGCTGCCCC
GGAGGATGCCGCAAGCTCCCCCTAGCCTCTGTGTTACCCCCTACCCGGAGCCCTCAGAGTGCTCCTGGAAGGACC
CCGAGGCAGAAGCCGCCCTTGAGCTGGCGCTAAGCATCACGCGAGCCGTGCGCTCCCTGCGGGCCGACTACAACC

FIGURE 4141B

TCACCCGGATCCGGCCTGACTGTTTCCTGGAAGTGGCGGATGAGGCCACGGGCGCCCTGGCATCGGCGGTGTCGG
GCTACGTGCAGGCCCTGGCCAGCGCAGGTGTGGTGGCTGTTCTGGCCCTGGGGGCTCCCGCCCCCCAGGGTTGCG
CTGTGGCTCTGGCTTCTGATCGCTGCTCCATCCACCTGCAGCTTCAGGGGCTGGTGGACCCTGCACGGGAGCTGG
GCAAGCTGCAAGCCAAGCGAGTTGAGGCCCAGCGGCAGGCCCAGCGTCTGCGGGAACGCCGTGCTGCCTCGGGCT
ATCCTGTCAAGGTGCCGCTCGAAGTCCAGGAGGCAGATGAAGCCAAGCTCCAACAGACAGAAGCAGAGCTCAGGA
AGGTGGATGAGGCCATCGCCCTATTCCAGAAGATGCTG**TGA**TCCACCACCCAGCTTCACCCCTCACCCCCAGCGG
CTCACCATGGGGATGGCAGCAATAAAATATTTTCCCACAAAA

FIGURE 4142

GCGGCTCTCTGATCCAGCCCGGGAGAGGACCGAGCTGGAGGAGCTGGGTGTGGGGTGCGTTGGGCTGGTGGGGAG
GCCTAGTTTGGGTGCAAGTAGGTCTGATTGAGCTTGTGTTGTGCTGAAGGGACAGCCCTGGGTCTAGGGGAGAGA
GTCCCTGAGTGTGAGACCCGCCTTCCCCGGTCCCAGCCCCTCCCAGTTCCCCCAGGGACGGCCACTTCCTGGTCC
CCGACGCAACC**ATG**GCTGAAGAACAACCGCAGGTCGAATTGTTCGTGAAGGCTGGCAGTGATGGGGCCAAGATTG
GGAACTGCCCATTCTCCCAGAGACTGTTCATGGTACTGTGGCTCAAGGGAGTCACCTTCAATGTTACCACCGTTG
ACACCAAAAGGCGGACCGAGACAGTGCAGAAGCTGTGCCCAGGGGGGCAGCTCCCATTCCTGCTGTATGGCACTG
AAGTGCACACAGACACCAACAAGATTGAGGAATTTCTGGAGGCAGTGCTGTGCCCTCCCAGGTACCCCAAGCTGG
CAGCTCTGAACCCTGAGTCCAACACAGCTGGGCTGGACATATTTGCCAAATTTTCTGCCTACATCAAGAATTCAA
ACCCAGCACTCAATGACAATCTGGAGAAGGGACTCCTGAAAGCCCTGAAGGTTTTAGACAATTACTTAACATCCC
CCCTCCCAGAAGAAGTGGATGAAACCAGTGCTGAAGATGAAGGTGTCTCTCAGAGGAAGTTTTTGGATGGCAACG
AGCTCACCCTGGCTGACTGCAACCTGTTGCCAAAGTTACACATAGTACAGGTGGTGTGTAAGAAGTACCGGGGAT
TCACCATCCCCGAGGCCTTCCGGGGAGTGCATCGGTACTTGAGCAATGCCTACGCCCGGGAAGAATTCGCTTCCA
CCTGTCCAGATGATGAGGAGATCGAGCTCGCCTATGAGCAAGTGGCAAAGGCCCTCAAA**TAA**GCCCCTCCTGGGA
CTCCCTCAACCCCCTCCATTTTCTCCACAAAGGCCCTGGTGGTTTCCACATTGCTACCCAATGGACACACTCCAA
AATGGCCAGTGGGCAGGGAATCCTGGAGCACTTGTTCCGGGATGGTGTGGTGGAAGAGGGGATGAGGGAAAGAAA
TGGGGGGCCTGGGTCAGATTTTTATTGTGGGGTGGGATGAGTAGGACAACATATTTCAGTAATAAAATACAGAAT
AAAAATCAAGTGTTTTT

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FIGURE 4143

CCGCTTAGACAATGCCCCGGAGCCGCCAGACCGTCGCGCCCCTGCCCCATCGTAGTATATGAGCTCGCCTACACA
AGGACCCCCGCTAAAAGCCAGAGCTCCCAGTCCCCGAGGCTTGAAGACGGGGACTCCCTTCTCCACCAACTCTGT
CCTCGGGGGGTGGGGCCCCAGCCGAGATCACAGCGCGACAGGAGTGGGGGTGGCCGCTGGAGACAGGTGAAGAAA
CAAGAAAACTAAGAAATCCGAGCGGTTGGAGGGGGAGTCTGTGTGGATGGG**ATG**GGGACGCCGGGGGAGGGGCTG
GGCCGCTGCTCCCATGCCCTGATCCGGGGAGTCCCAGAGAGCCTGGCGTCGGGGGAAGGTGCGGGGGCTGGCCTT
CCCGCTCTGGATCTGGCCAAAGCTCAAAGGGAGCACGGGGTGCTGGGAGGTAAACTGAGGCAACGACTGGGGCTA
CAGCTGCTAGAACTGCCACCTGAGGAGTCATTGCCGCTGGGACCGCTGCTTGGCGACACGGCCGTGATCCAAGGG
GACACGGCCCTAATCACGCGGCCCTGGAGCCCCGCTCGTAGGCCAGAGGTCGATGGAGTCCGCAAAGCCCTGCAA
GACCTGGGGCTCCGAATTGTGGAAATAGGAGACGAGAACGCGACGCTGGATGGCACTGACGTTCTCTTCACCGGC
CGGGAGTTTTTCGTAGGCCTCTCCAAATGGACCAATCACCGAGGAGCTGAGATCGTGGCGGACACGTTCCGGGAC
TTCGCCGTCTCCACTGTGCCAGTCTCGGGTCCCTCCCACCTGCGCGGTCTCTGCGGCATGGGGGGACCTCGCACT
GTTGTGGCAGGCAGCAGCGACGCTGCCCAAAAGGCTGTCCGGGCAATGGCAGTGCTGACAGATCACCCATATGCC
TCCCTGACCCTCCCAGATGACGCAGCTGCTGACTGTCTCTTTCTTCGTCCTGGGTTGCCTGGTGTGCCCCCTTTC
CTCCTGCACCGTGGAGGTGGGGATCTGCCCAACAGCCAGGAGGCACTGCAGAAGCTCTCTGATGTCACCCTGGTA
CCTGTGTCCTGCTCAGAACTGGAGAAGGCTGGCGCCGGGCTCAGCTCCCTCTGCTTGGTGCTCAGCACACGCCCC
CACAGC**TGA**GGGCCTGGCCTTGGGGTACTGCTGGCCAGGGGTAGGATAGTATAGGAAGTAGAAGGGGAAGGAGGG
TTAGATAGAGAATGCTGAATAGGCAGTAGTTGGGAGAGAGCCTCAATATTGGGGGAGGGGAGAGTGTAGGGAAAA
GGATCCACTGGGTGAATCCTCCCTCTCAGAACCAATAAAATAGAATTGACCTTTT

FIGURE 4144

GCTGGAAGAGCAGCGGCCCGAGCCGGGGCC**ATG**GCGAAGCTGCTGAGCTGCGTCCTAGGCCCCCGGCTCTACAAA
ATCTACCGGGAGAGGGACTCTGAAAGGGCCCCGGCCAGCGTCCCTGAGACGCCAACGGCAGTCACTGCCCCCCAT
TCCAGCTCCTGGGATACGTACTATCAGCCCCGTGCCCTGGAGAAACATGCTGACAGCATCCTGGCACTGGCTTCA
GTATTCTGGTCCATCTCTTATTACTCCTCTCCCTTCGCCTTCTTCTACTTGTACAGGAAAGGTTACTTGAGTTTG
TCCAAAGTGGTGCCGTTTTCTCACTATGCTGGGACATTGCTGCTACTTCTGGCAGGTGTGGCCTGCCTCCGAGGC
ATTGGCCGCTGGACCAACCCCCAGTACCGGCAGTTCATCACCATCTTGGAAGCAACACATCGGAACCAGTCTTCA
GAAAACAAGAGGCAGCTTGCCAACTACAACTTTGACTTCCGGAGCTGGCCAGTCGACTTCCACTGGGAAGAACCC
AGCAGCCGGAAGGAGTCTCGAGGGGGCCCTTCCCGCCGGGGTGTGGCCCTGCTTCGCCCAGAGCCCCTGCACCGG
GGGACAGCAGACACCCTCCTCAACCGGGTTAAGAAGCTGCCTTGTCAGATCACCAGCTACCTGGTGGCGCACACC
CTAGGGCGCCGGATGCTGTATCCAGGCTCTGTGTACCTGCTGCAGAAGGCCCTCATGCCTGTGCTGCTGCAGGGC
CAGGCCCGACTGGTGGAAGAGTGTAATGGGCGCCGGGCAAAGCTGCTGGCCTGTGATGGCAATGAGATTGACACC
ATGTTTGTGGACCGGCGGGGGACAGCTGAGCCCCAGGGACAGAAGCTGGTGATCTGCTGTGAGGGGAATGCTGGG
TTTTATGAGGTGGGCTGCGTCTCCACGCCCCTGGAAGCTGGATATTCAGTCCTGGGCTGGAATCATCCAGGCTTT
GCTGGAAGCACGGGGGTGCCATTCCCGCAGAATGAGGCTAATGCCATGGATGTGGTGGTCCAGTTTGCCATCCAC
CGCCTGGGCTTCCAGCCCCAGGACATCATCATCTACGCCTGGTCCATCGGCGGCTTCACTGCCACGTGGGCAGCC
ATGTCCTACCCAGATGTTAGTGCCATGATCCTGGATGCCTCCTTTGATGACCTGGTGCCCTTGGCCTTGAAGGTC
ATGCCAGACAGCTGGAGGGGCCTGGTGACCAGGACCGTGAGGCAGCATCTCAATCTAAACAACGCGGAGCAGCTG
TGCAGATACCAGGGTCCTGTACTGCTGATCCGGAGAACCAAGGATGAGATCATCACCACCACGGTTCCTGAGGAC
ATCATGTCCAACCGAGGCAATGACCTCCTGCTGAAGCTCCTGCAGCATCGGTATCCCCGGGTGATGGCAGAGGAG
GGTCTTCGAGTGGTGAGGCAGTGGTTGGAGGCCTCCTCACAGCTGGAGGAAGCCTCAATTTATAGCCGATGGGAG
GTGGAAGAGGACTGGTGTCTGTCTGTCCTCCGCTCCTACCAGGCAGAACACGGGCCCGACTTCCCCTGGAGCGTG
GGGGAGGACATGAGTGCAGATGGACGGCGGCAGCTGGCTTTGTTTCTGGCTCGGAAGCATCTGCACAACTTTGAG
GCCACTCACTGCACCCCACTCCCAGCCCAGAACTTCCAGATGCCCTGGCACCTC**TAG**GGACCAACTGGGACTCAT
TATGGAAGAATGGGGTGAGAGGAGACATGAGGAAAGACCCTCTTATTTGTGATTCTCTGTGTTCATGTTGCTGTT
TATAGTTTGTGGAAAGTGGGGGACCATCCCCCTTCTCACCACTGTTCCTCTTGCACGTTTCCCCTCATTCATGTG
GCTGTACTTAACCTTCTCCAACATACATCCTGCATTACATGAATGGATTATTCCTAATAATTAATAAAAAGGTAT
TTTTTCTACT

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FIGURE 4145

GGAGGAAGCGACCAGGTCCGGCACGAAGGAGGGAGAGGTGGCCTGAGGAGCGGAGGGGGGATGTGTGGATTCCGG
TGAAAGGGACCTGACAATCGCCCCCAACCCCTGACGTGAAG**ATG**AGCAGCTCAGAGGAGGTGTCCTGGATTTCCT
GGTTCTGTGGGCTCCGTGGCAATGAATTCTTCTGTGAAGTGGATGAAGACTACATCCAGGACAAATTTAATCTTA
CTGGACTCAATGAGCAGGTCCCTCACTACCGACAAGCTCTAGACATGATCTTGGACCTGGAGCCTGATGAAGAAC
TGGAAGACAACCCCAACCAGAGTGACCTGATTGAGCAGGCAGCCGAGATGCTTTATGGATTGATCCACGCCCGCT
ACATCCTTACCAACCGTGGCATCGCCCAGATGTTGGAAAAGTACCAGCAAGGAGACTTTGGTTACTGTCCTCGTG
TGTACTGTGAGAACCAGCCAATGCTTCCCATTGGCCTTTCAGACATCCCAGGTGAAGCCATGGTGAAGCTCTACT
GCCCCAAGTGCATGGATGTGTACACACCCAAGTCATCAAGACACCATCACACGGATGGCGCCTACTTCGGCACTG
GTTTCCCTCACATGCTCTTCATGGTGCATCCCGAGTACCGGCCCAAGAGACCTGCCAACCAGTTTGTGCCCAGGC
TCTACGGTTTCAAGATCCATCCGATGGCCTACCAGCTGCAGCTCCAAGCCGCCAGCAACTTCAAGAGCCCAGTCA
AGACGATTCGC**TGA**TTCCCTCCCCCACCTGTCCTGCAGTCTTTGACTTTTCCTTTCTTTTTTGCCACCCTTTCAG
GAACCCTGTATGGTTTTTAGTTTAAATTAAAGGAGTCGTTATTGTGGTGGGAATATGAAATAAAGTAGAAGAAAA
GGCC

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FIGURE 4146

GTGACGTTATTTCATTACACGGCTTCTCGGCATTCCACAGGTTTCCCTCCGCCTCCTGAGGGCCTTTCCTAACCC
ACAGAGTGGATTCCTGGCTCCAGAAAATGGGCTTGGAGCGGGGGCCACGTTGAGGAAGGCGAAGGGCATTGTGGG
GGCGTTATGTAAAAGTAGGACCCCAACCGACAGATCCTAGTGCTCGCGCCACCTGGGCGCGCGGAGCTTTGCTCG
TTTACTATTGAAAAAGTTCCAGCGCGGGAAACTGAACCCGGAGCTTTGCGCACGCCCGAGCCCTCAAGTAATGTG
GGTTGTGGTTTTTGTTGTTGTTGTCGCCACGCATGCGTCTTCGTGCCGTGTGGCTATTTGATTGTGTCAACTCTT
CTGATTAGAATGGCGCCATTTTGCGGTACGGAAGCTACACAGCAACACGTATAGGAGACTCTCCCCGAGATCTTC
TAGGGAGTGACCCATCTATTTTTGTTTGGGAAGAGGAAACTCCGAAATGGGATCGCGGAAGACTTAAAGGGCCAG
GCTGATTTTTTTTTCCTACTGGTCTCTGAGGCTGTGGTTGCTACAGGGTCACCACGAGCTTGGCTTACTTGTCTC
ATCCTTCCCTTGCCTGGTATCATTTTCTCAGTTCTCCCAAAAGCC**ATG**TCCCGGCCCTTGCTCATCACCTTCACC
CCAGCCACTGACCCCAGCGACCTCTGGAAGGATGGGCAGCAGCAGCCACAGCCCGAGAAGCCAGAGTCCACCCTG
GATGGGGCTGCAGCCCGAGCTTTCTATGAGGCCCTGATTGGGGATGAGAGCAGCGCTCCTGACTCCCAGAGATCT
CAGACTGAACCTGCCAGAGAAAGAAAGAGAAAGAAAAGAAGAATAATGAAGGCACCAGCAGCAGAAGCAGTGGCA
GAAGGAGCATCAGGAAGACATGGACAAGGGAGATCCCTTGAGGCTGAGGATAAGATGACTCACCGGATACTGAGG
GCAGCCCAGGAGGGGGACCTGCCAGAACTTAGGAGACTGCTGGAACCGCATGAGGCAGGAGGAGCTGGGGGGAAT
ATCAACGCCCGGGATGCCTTCTGGTGGACCCCACTGATGTGTGCTGCTCGAGCGGGCCAGGGGGCAGCTGTGAGC
TATCTCCTGGGCCGTGGGGCTGCCTGGGTGGGGGTCTGTGAGCTGAGTGGCAGGGATGCGGCTCAGCTCGCTGAA
GAAGCTGGCTTCCCTGAGGTAGCCCGCATGGTCAGGGAGAGCCATGGAGAGACAAGGAGCCCGGAAAACCGGTCT
CCTACTCCCTCCCTCCAGTACTGCGAGAACTGTGACACCCACTTCCAAGATTCCAACCACCGCACATCCACTGCT
CACCTGCTGTCACTGTCGCAGGGTCCTCAGCCTCCCAACCTTCCACTTGGGGTGCCCATCTCCAGCCCGGGCTTC
AAACTGCTGCTGAGGGGGGGCTGGGAGCCAGGAATGGGGCTGGGACCCCGGGGTGAGGGCCGTGCCAATCCCATC
CCCACTGTCCTCAAGAGAGACCAGGAAGGACTAGGCTACAGATCAGCACCCCAGCCCCGAGTGACACATTTCCCA
GCTTGGGATACCCGAGCTGTGGCTGGGAGGGAGAGACCCCCTCGGGTGGCCACACTGAGCTGGAGGGAGGAGAGA
AGGAGGGAGGAGAAAGACAGGGCTTGGGAGCGGGATCTAAGGACTTACATGAACCTCGAGTTC**TGA**CTTTGGTAA
AGTCTGACCCTAGTCTGCTGCTGAAGTCTGAACTTGGGCCTCTGACCTGGGCCCTTTGACTTCCCCTTCCTGGGA
TCTGCCCAGATGCAGATCCTGAAGTTTTTGGTCAATAGGCTCTGTCTTCGTGAGAGACGGGCTGAGAGTCAGAAA
TAAATCAACCATTTGTGGTTT

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FIGURE 4147

CCCAAGGCCGCGGCCCCGACGCTGGGCCCGGGAGCGGTCCCCGCGCACAGCGCCCGGACGCGTAGGTCCCGAAGT
AGGCCCGCGCTTTGCTTCGTAACTGGGGATCTCTGAGGACATCTTAGTTCTGACCTTGTGGAGGCCGCGTCTCTG
CTGCGTGTTCGCGGGCCAGTCGGGCCACTTTGTAGAAATCATAGCCCTCTAAATCAAGGGACGAACGCTGCTGGC
TGGAGTTTGCTGGACACTTTCATTCCACCTCCTAACAAAGAGAATTCCTATTCCTTGAGGTCCCTTGGGGCAGCA
GTTAAAGACTACACGATCCAGGAGCACCTAGGACCTGGGGCCACCTTCCTGCCCGCTTTATTGGATGGAGCACTG
CCTCCCCAGTTTCTGGGACACCGTGGGGTGTGGCCTTGGTGAGTGAAACTTGGGGTGCTGCCTGCTGGGAAGGAA
ATCCGGAAACGCAGAGAGGACTCTCTGGTGGTGACCCAGGCCTTGTCAGATCTGAGATTCTTGGAATCTCAGATT
GTGGGGGTGTGGATGGTGAATGAATTTGGGTATGCCCCCCTTTACCCCAGAACTGAAGAGGAAGCAAACTACTTG
CCACACTTGAGGCTGCATGACTATTCAGAGAAGGGAGGAGCCACTTCTGAATTCAGAGTAGGACTGCATCACCAG
GCAAATACCTGTTCTGAGCCAGAAAGACTCTGGCTTCTGAGGAGATCCTGAGAGTCTGAGTAGTGCCAGGAAGCA
GCCTCAGAATTTGGGGGCCCATTACACACCCCAGCC**ATG**TTCCTGCGACGGCTTGGTGGCTGGCTACCTCGCCCT
TGGGGCCGCCGGAAACCAATGAGGCCTGACCCGCCTTACCCAGAACCCAGACGGGTGGACAGCTCCTCGGAGAAT
TCAGGAAGTGACTGGGATAGTGCCCCAGAAACCATGGAAGATGTGGGGCATCCCAAGACTAAGGACTCGGGGGCA
TTGAGGGTTTCTAGGGCTGCTTCCGAACCAAGCAAGGAGGAGCCCCAAGTTGAGCAGCTAGGGAGCAAAAGAATG
GATTCCCTCAAGTGGGACCAGCCTATCTCTAGCACTCAAGAGTCTGGGAGACTGGAGGCTGGAGGGGCCAGTCCC
AAACTCAGATGGGATCATGTGGATTCAGGTGGCACCAGGAGACCAGGGGTGTCCCCTGAAGGGGGACTGAGCGTC
CCTGGGCCAGGAGCCCCATTGGAGAAACCTGGTAGGCGTGAGAAGCTGTTGGGCTGGCTGCGGGGGGAACCAGGA
GCTCCCTCCCGGTACTTGGGGGGCCCAGAAGAGTGTCTGCAGATCTCCACCAACCTGACCCTGCATCTTCTGGAG
CTGCTGGCCTCTGCCCTGCTGGCCCTGTGCTCACGACCACTGCGGGCAGCCTTGGACACACTGGGCCTGCGTGGA
CCGCTGGGCCTCTGGCTACATGGCCTACTGTCCTTCCTGGCTGCCCTGCATGGGCTCCATGCTGTTCTGAGCCTA
CTTACTGCCCACCCTTTGCACTTCGCCTGCCTCTTTGGTCTCCTGCAGGCCTTGGTGCTGGCTGTCAGCCTCCGG
GAGCCCAATGGGGATGAGGCGGCCACTGACTGGGAGAGTGAGGGGTTGGAGAGGGAAGGTGAGGAGCAGAGGGGA
GACCCGGGAAAGGGGCTG**TGA**CCGTGGGGTGGGGGCAAAGGGTGAAGAGAGTGTGGGCTTTAGGAGAAAAGTGTG
AGGCATGACCCAAATTGTAAGCATAGGGACCTCAGGGATGGGGAAGAAACCCGAGTACGAGGGTGCAGGGCCCCC
CTTCATACACAGGAGAGAACAGAACTATTTAGGGTGTTTGTGTTTATGGACAGTGAGGGCACTGCTCTTGGATTC
ACCAGCTGTTATTTTTGCTTTTACTTTTCTCCCACCTTCAGTTTTTTTTTTTTTTTCCACCTCCACTTTTTAAAA
GCAAAAAAAAAAAAAAAGTATGATGGTGGTGAATAAAGACCAAAGGGTCCTCTCTACCTTTGAAAACTCTCCTGGG
GTGGAGGAGACCAGGGCAGGATAGACAGACCTCTGCAGTAAGAGAGTGGTTGGGAAACCCAGGGTGTTCCTTGGA
TCTCAGGATCTGAGCCATCGAGGGAAGAGTGGGGCTGCTAGGCAAGTGGATTAGGGGGTCTGGATAGGGCCCCAC
AGGTGACAGGGAGCCTGCAGGGCGGATCTGGTGATCATGGGAGCCAGAGGGAGTGGGGACAGTGCAGGCAGTATT
GGCAGGAGGGCCAGTGCAGAAGGGCTGGTAGCTCAGGCAGTGTGGGGGAAGCACTGAAGCCTGTAGTCCCCACTT
GGGGGCTAGGGGTTTGCTCACTCAGCAATAAATAACTGTGTCACATCAAATCCTAAATATACCACTACAAAGTGA
GAGTTACTGCCACTCTGTTCTTACTGACACCGTCCAG

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FIGURE 4148A

TAGTGCGACGCACGCAGGCGTAGTACGGTCCCCCGGGCGACAGCGGTGGCGGCTCCTCGGGGTGCTCGGCTCCCT
CCCACCTAGGCCGGCCCCGGCCCGACTCGCCCTCAGAAACTCACTGTTTGGGGCTGCGGACTTTCTCGTCGTGCC
CCACAAAAGTAAAGCTTGGGGACCTGGGGGGAGCCGGAAGTATCGCTTCGAGATCCCCAAATACTATCGGGGAAA
CGGAAGTGGCCGTCGGTGGCAGGTTTGGGGGAGACCGGAAGTGACGAGACCTGTCGGCC**ATG**GAGCCTAATGATA
GTACCAGTACCGCTGTGGAGGAGCCTGACAGCTTGGAGGTGTTGGTGAAGACCTTGGACTCTCAAACTCGTACCT
TTATTGTGGGGGCCCAGATGAATGTAAAAGAGTTTAAGGAGCACATTGCTGCCTCTGTCAGCATCCCATCTGAAA
AACAACGGCTCATTTACCAGGGACGAGTTCTGCAAGATGATAAGAAGCTTCAGGAATACAATGTTGGGGGAAAGG
TTATCCACCTGGTGGAACGGGCTCCTCCTCAGACTCACCTCCCTTCTGGGGCATCTTCTGGGACGGGGTCTGCCT
CAGCCACTCATGGTGGGGGATCCCCCCCTGGTACTCGGGGGCCTGGGGCCTCTGTTCATGACCGGAATGCCAACA
GCTATGTCATGGTTGGAACCTTCAATCTTCCTAGTGACGGCTCTGCTGTGGATGTTCACATCAACATGGAACAGG
CCCCGATTCAGAGTGAGCCCCGGGTACGGCTGGTGATGGCTCAGCACATGATCAGGGATATACAGACCTTACTAT
CCCGGATGGAGACTCTCCCCTACCTTCAGTGTCGAGGAGGGCCCCAACCGCAGCACAGTCAGCCGCCCCCGCAGC
CACCGGCTGTGACCCCGGAGCCAGTAGCCTTGAGCTCTCAAACATCAGAACCAGTTGAAAGTGAAGCACCTCCCC
GGGAGCCCATGGAGGCAGAAGAAGTGGAGGAGCGTGCCCCAGCCCAGAACCCGGAGCTCACTCCTGGCCCAGCCC
CAGCGGGCCCAACACCTGCCCCGGAAACAAATGCACCCAACCATCCTTCCCCTGCGGAGTATGTCGAGGTGCTCC
AGGAGCTACAGCGGCTGGAGAGTCGCCTCCAGCCCTTCTTGCAGCGCTACTACGAGGTTCTGGGTGCTGCTGCCA
CCACGGACTACAATAACAATCACGAGGGCCGGGAGGAGGATCAGCGGTTGATCAACTTGGTAGGGGAGAGCCTGC
GACTGCTGGGCAACACCTTTGTTGCACTGTCTGACCTGCGCTGCAATCTGGCCTGCACGCCCCCACGACACCTGC
ATGTGGTCCGGCCTATGTCTCACTACACCACCCCCATGGTGCTCCAGCAGGCAGCCATTCCCATACAGATCAATG
TGGGAACCACTGTGACCATGACAGGAAATGGGACTCGGCCCCCCCCAACTCCCAATGCAGAGGCACCTCCCCCTG
GTCCTGGGCAGGCCTCATCCGTGGCTCCGTCTTCTACCAATGTCGAGTCCTCAGCTGAGGGGGCTCCCCCGCCAG
GTCCAGCTCCCCCGCCAGCCACCAGCCACCCGAGGGTCATCCGGATTTCCCACCAGAGTGTGGAACCCGTGGTCA
TGATGCACATGAACATTCAAGATTCTGGCACACAGCCTGGTGGTGTTCCGAGTGCTCCCACTGGCCCCCTGGGAC
CCCCTGGTCATGGCCAAACCCTGGGACAGCAGGTGCCAGGCTTCCCAACAGCTCCAACCCGGGTGGTGATTGCCC
GGCCCACTCCTCCACAGGCTCGGCCTTCCCATCCTGGAGGGCCCCCAGTCTCTGGGACACTGCAGGGCGCCGGTC
TGGGTACCAATGCCTCGTTGGCCCAGATGGTGAGCGGCCTTGTGGGGCAGCTTCTTATGCAGCCAGTCCTTGTGG
CTCAGGGGACCCCAGGTATGGCTCCACCGCCAGCCCCTGCCACTGCTTCTGCCAGTGCTGGCACCACCAACACAG
CTACCACAGCTGGCCCCGCTCCTGGGGGGCCTGCCCAGCCTCCACCCACCCCTCAACCCTCCATGGCTGATCTTC
AGTTCTCTCAGCTTCTGGGGAACCTGCTAGGGCCTGCAGGGCCAGGGGCTGGAGGGTCTGGTGTGGCTTCTCCCA
CCATCACTGTGGCGATGCCTGGTGTCCCTGCCTTTCTCCAAGGCATGACTGACTTCTTGCAGGCAACACAGACAG
CCCCTCCACCACCCCCACCTCCTCCACCCCCACCACCTGCCCCAGAGCAGCAGACCATGCCCCCACCAGGCTCCC
CTTCTGGTGGCGCAGGGAGTCCTGGAGGCCTGGGTCTTGAGAGCCTGTCACCGGAGTTTTTTACCTCAGTGGTGC
AGGGTGTGCTCAGCTCCCTGCTGGGCTCCCTGGGGGCTCGGGCTGGCAGCAGTGAAAGTATTGCTGCCTTCATAC
AACGCCTCAGTGGATCCAGCAACATCTTTGAGCCTGGAGCTGATGGGGCCCTTGGATTCTTTGGGGCCTTGCTTT
CTCTTCTGTGCCAGAACTTCTCTATGGTGGACGTAGTGATGCTTCTCCATGGGCATTTCCAGCCACTACAACGGC
TCCAGCCCCAGCTGCGATCCTTCTTCCACCAGCACTACCTGGGTGGTCAGGAGCCCACACCCAGTAACATCCGGA
TGGCAACCCACACATTGATCACGGGGCTAGAAGAGTATGTGCGGGAGAGTTTTTCCTTGGTGCAGGTTCAGCCAG
GTGTGGACATCATCCGGACAAACCTGGAATTTCTCCAAGAGCAGTTTAATAGCATTGCTGCGCATGTGCTGCATT
GCACAGATAGTGGATTTGGGGCCCGGTTGCTGGAGTTGTGTAACCAAGGCCTGTTTGAATGCCTGGCCCTAAACC
TGCACTGCTTGGGGGGACAGCAGATGGAGCTTGCTGCTGTTATCAATGGCCGAATTCGTCGTATGTCTCGTGGGG
TGAATCCCTCCTTGGTGAGCTGGCTGACCACTATGATGGGACTGAGGCTTCAGGTGGTACTGGAGCACATGCCTG
TAGGCCCTGATGCCATTCTCAGATACGTTCGCAGGGTTGGTGATCCCCCCCAGCCACTTCCTGAGGAGCCAATGG
AAGTTCAGGGAGCAGAAAGAGCTTCCCCTGAGCCTCAGCGGGAGAATGCTTCCCCAGCCCCTGGAACAACAGCAG
AAGAGGCCATGTCCCGAGGTCCACCTCCTGCTCCTGAGGGGGGCTCCCGGGATGAACAGGATGGAGCTTCAGCTG
AGACAGAACCTTGGGCAGCTGCAGTCCCCCCAGAATGGGTCCCTATTATCCAGCAGGACATTCAGAGCCAGCGGA
AGGTGAAACCGCAGCCCCCTCTGAGTGATGCCTACCTCAGTGGTATGCCTGCCAAGAGACGCAAGACGATGCAGG
GTGAGGGCCCCCAGCTGCTTCTCTCAGAGGCTGTGAGCCGGGCAGCTAAGGCAGCCGGAGCTCGGCCCCTGACGA
GCCCCGAGAGCCTGAGCCGGGACCTGGAGGCACCAGAGGTTCAGGAGAGCTACAGGCAGCAGCTCCGGTCTGATA

FIGURE 4148B

TACAAAAACGACTGCAGGAAGACCCCAACTACAGTCCCCAGCGCTTCCCCAATGCCCAGCGGGCCTTTGCTGATG
ATCCT**TAG**CTCTTTGCTCTATGGCCCTTCCTCATCAGGGGACCGTTTCCCCCCTCTTCCTTCACAGTATTTAAGA
AATAAAAGTCGGATTTTTCTGGC

FIGURE 4149A

CCCTAGGCCCGGGTCCCGGATCCCCGCGCACCCGGCCAGGCTCTGGCACGTTTTGGGGGAGGTGCCTGCAGGACC
CAACATACTCAATGAGCTTCCAGCGCA**ATG**TCCGATCGCTCGGGGCCGACTGCCAAGGGAAAGGATGGAAAGAAG
TATTCCTCGCTCAACCTGTTTGATACGTATAAGGGCAAGTCCTTAGAGATCCAGAAACCCGCTGTTGCCCCTCGC
CATGGCCTGCAGAGTCTCGGGAAAGTTGCCATTGCCCGGCGTATGCCACCTCCAGCCAACCTTCCAAGCCTGAAA
GCCGAGAACAAAGGCAATGACCCCAATGTCTCACTAGTGCCAAAAGACGGAACAGGATGGGCAAGCAAACAGGAG
CAGTCCGACCCCAAGAGTTCCGATGCCTCAACCGCTCAGCCGCCGGAATCGCAGCCACTGCCGGCTTCACAGACG
CCTGCCTCCAACCAGCCGAAACGACCCCCAGCAGCCCCCGAGAACACTCCTTTGGTTCCAAGCGGGGTAAAGTCC
TGGGCACAAGCCAGCGTCACCCATGGAGCACATGGAGATGGTGGAAGGGCATCAAGCCTACTGTCACGATTCTCT
CGAGAGGAATTTCCGACCCTGCAGGCGGCTGGCGACCAGGACAAGGCTGCCAAGGAAAGGGAGTCTGCCGAACAG
TCGTCTGGGCCCGGACCAAGCCTCCGCCCCCAAAATTCTACAACTTGGAGGGACGGAGGTGGGCGTGGCCCTGAT
GAGCTGGAGGGCCCGGACTCCAAACTTCATCATGGTCATGATCCCCGGGGTGGGCTACAGCCTTCAGGCCCACCC
CAGTTCCCTCCCTACCGCGGAATGATGCCGCCTTTCATGTATCCCCCATATCTCCCGTTCCCTCCGCCCTATGGA
CCCCAGGGGCCTTACCGATACCCCACTCCTGATGGGCCCAGCCGTTTTCCCCGTGTGGCGGGCCCCCGAGGCTCA
GGGCCACCAATGCGCTTAGTAGAGCCTGTGGGTCGTCCCTCTATTCTCAAAGAGGATAATCTCAAAGAGTTTGAT
CAGTTGGATCAGGAGAATGATGATGGTTGGGCAGGGGCCCATGAAGAGGTTGACTACACTGAAAAGCTCAAGTTC
AGCGATGAGGAAGATGGGCGAGACTCTGATGAGGAGGGAGCTGAGGGCCACAGGGATTCCCAATCAGCTTCTGGT
GAGGAACGGCCCCCTGAAGCAGATGGCAAAAAGGGCAACTCCCCCAACAGCGAACCGCCCACTCCTAAGACGGCC
TGGGCAGAAACCTCTCGGCCTCCAGAGACAGAGCCGGGACCTCCTGCCCCAAAGCCTCCCCTACCCCCACCTCAC
CGGGGCCCCGCCGGGAACTGGGGCCCCCCTGGGGACTACCCAGATCGTGGGGGTCCTCCCTGCAAGCCCCCAGCA
CCTGAAGATGAGGATGAGGCATGGCGGCAGCGACGAAAGCAGTCGTCATCTGAGATTTCCCTGGCAGTGGAGCGG
GCCCGGCGACGGCGAGAAGAAGAGGAGCGGCGCATGCAAGAAGAGCGCCGGGCAGCCTGTGCTGAGAAGCTCAAG
CGACTCGATGAAAAGTTTGGGGCACCTGACAAGCGGCTCAAAGCAGAGCCTGCTGCCCCACCTGCTGCCCCTTCT
ACCCCAGCTCCACCACCTGCAGTCCCTAAAGAACTCCCTGCACCTCCAGCTCCACCTCCAGCATCAGCCCCAACA
CCAGAGAAAGAACCTGAAGAGCCAGCACAGGCCCCTCCTGCCCAATCTACTCCTACTCCAGGTGTGGCTGCGGCT
CCCACTCTGGTGAGTGGTGGTGGCAGTACCAGTAGCACCAGCAGTGGCAGCTTCGAAGCCAGCCCAGTGGAACCA
CAACTGCCCTCAAAAGAGGGTCCTGAACCACCAGAAGAGGTTCCTCCTCCTACCACACCCCCAGTTCCAAAGGTG
GAACCCAAGGGTGATGGGATTGGTCCCACCCGCCAGCCCCCTAGTCAGGGCTTGGGCTACCCCAAATATCAGAAG
TCGTTGCCTCCTCGTTTCCAGCGGCAGCAGCAGGAGCAGCTCCTGAAGCAGCAGCAGCAGCACCAGTGGCAGCAG
CATCAACAGGGCTCTGCCCCTCCTACCCCAGTGCCCCCATCACCACCACAGCCTGTGACCCTGGGGGCTGTGCCA
GCTCCACAGGCTCCACCCCCGCCCCCCAAGGCCCTGTACCCAGGTGCTCTGGGCCGGCCCCCACCCATGCCCCCA
ATGAACTTTGATCCCCGATGGATGATGATTCCTCCTTATGTGGACCCCCGGCTCCTCCAGGGTCGTCCCCCTCTA
GACTTCTACCCTCCTGGTGTGCATCCCTCTGGCCTAGTTCCCCGAGAGCGTTCAGACAGTGGGGGCTCAAGCTCA
GAGCCATTTGACCGTCATGCACCTGCTATGTTACGGGAACGGGGCACTCCACCGGTGGATCCAAAGTTGGCCTGG
GTAGGAGATGTCTTCACCGCCACACCCGCTGAACCCCGCCCACTTACCTCACCTCTGCGCCAGGCTGCGGATGAG
GATGACAAGGGGATGAGGAGCGAGACTCCTCCAGTACCTCCCCCACCACCCTATCTGGCCAGTTATCCAGGCTTT
CCTGAGAATGGAGCCCCTGGGCCCCCAATCTCTCGCTTTCCTCTGGAGGAACCAGGGCCCCGTCCACTCCCCTGG
CCCCCAGGCAGTGATGAAGTGGCCAAGATACAAACTCCACCACCCAAGAAGGAGCCCCCTAAGGAGGAGACTGCA
CAGCTGACGGGGCCAGAAGCAGGCCGAAAGCCTGCCCGCGGAGTCGGGAGTGGAGGCCAGGGCCCCCCACCACCA
CGCAGAGAGAGTCGCACAGAGACCCGCTGGGGCCCTCGTCCAGGGAGCAGTCGTCGTGGAATCCCTCCAGAGGAG
CCAGGGGCCCCACCCCGCCGGGCTGGGCCTATAAAGAAACCTCCACCACCTACAAAAGTAGAAGAGCTGCCTCCC
AAGCCCCTCGAACAGGGGGATGAAACCCCCAAACCCCCAAAGCCAGACCCACTCAAGATAACCAAGGGGAAGCTA
GGGGGCCCCAAGGAGACCCCACCCAATGGAAATCTTTCCCCTGCCCCAAGGCTTCGGAGGGACTATTCGTATGAA
AGAGTGGGTCCTACCTCTTGCCGGGGTCGGGGCCGAGGCGAGTATTTTGCCAGAGGGAGGGGTTTTCGGGGGACC
TATGGGGGACGAGGGCGGGGAGCCCGAAGCCGGGAATTCCGCAGTTACCGAGAGTTTCGAGGAGATGATGGGCGT
GGAGGTGGGACAGGGGGACCAAACCACCCTCCTGCTCCCCGAGGCCGCACTGCCAGCGAGACACGGAGCGAGGGT
TCAGAGTATGAGGAAATCCCCAAGCGGCGCCGGCAGCGGGGCTCAGAAACAGGCAGCGAGACCCATGAGAGTGAT
CTGGCTCCTTCAGACAAGGAGGCTCCCACACCCAAGGAGGGAACACTCACCCAGGTCCCTCTCGCTCCCCCACCA
CCAGGAGCCCCACCTTCACCAGCCCCAGCCCGCTTCACTGCCCGGGGTGGGCGAGTCTTCACTCCCAGAGGGGTG

FIGURE 4149B

CCATCTCGCCGGGGCCGAGGAGGAGGGAGGCCCCCTCCTCAAGTTTGCCCAGGCTGGAGCCCTCCAGCCAAGTCT
CTGGCTCCCAAGAAACCTCCCACAGGCCCTTTGCCACCAAGTAAGGAGCCTTTGAAAGAGAAGTTGATCCCAGGG
CCTCTGTCCCCTGTGGCGCGCGGAGGCAGCAATGGAGGTAGCAATGTGGGCATGGAAGATGGGGAGCGACCCCGA
AGGAGGCGACATGGGAGGGCTCAGCAGCAGGATAAACCGCCTCGTTTCCGGAGGCTGAAGCAGGAACGGGAGAAT
GCCGCAAGGGGGTCTGAGGGCAAGCCCTCCCTAACCCTTCCAGCCTCCGCTCCTGCACCTGAGGAGGCCCTCACA
ACAGTCACAGTGGCCCCAGCACCTCGCCGGGCAGCTGCCAAGTCTCCTGATCTGTCAAACCAGAACTCAGACCAA
GCCAATGAGGAATGGGAGACTGCATCAGAGAGCAGTGACTTCACCAGTGAGCGCCGAGGGGACAAAGAGGCACCC
CCACCAGTACTGCTGACACCCAAGGCTGTGGGAACTCCTGGGGGAGGTGGAGGTGGAGCCGTACCAGGTATTTCA
GCCATGTCCCGCGGAGATCTGAGCCAGAGAGCCAAGGATTTGAGTAAACGGAGCTTCTCAAGTCAGCGGCCAGGC
ATGGAACGGCAGAATCGGCGCCCTGGCCCAGGGGGCAAGGCTGGCAGCAGTGGCAGCAGCAGTGGAGGAGGCGGT
GGGGGTCCTGGAGGAAGGACCGGGCCAGGACGAGGCGACAAGAGGAGCTGGCCCTCTCCCAAGAACCGAAGTCGT
CCTCCAGAGGAGCGTCCCCCGGGGCTTCCCCTGCCTCCCCCACCTCCCAGCAGTTCTGCTGTCTTCCGCCTGGAC
CAAGTTATCCACAGCAACCCTGCTGGCATCCAACAGGCTCTGGCCCAGCTTAGTAGCCGTCAAGGGAGTGTAACT
GCACCAGGGGGTCATCCAAGGCACAAGCCTGGGCCTCCCCAAGCCCCTCAGGGCCCCTCTCCTAGGCCCCCAACC
CGATACGAGCCCCAGAGGGTCAACAGCGGCCTCAGTTCTGACCCCCACTTTGAGGAGCCGGGGCCAATGGTGAGA
GGGGTGGGTGGGACTCCTCGGGACTCTGCCGGGGTTAGTCCCTTTCCCCCTAAACGTCGGGAGCGGCCTCCCAGA
AAACCAGAGCTGCTACAGGAGGAATCTTTGCCACCTCCTCATAGCTCTGGATTCTTGGGCTCTAAGCCTGAGGGC
CCAGGCCCTCAGGCAGAGTCCAGAGATACAGGCACAGAGGCCCTGACCCCTCACATCTGGAACCGTTTACATACT
GCCACTAGCCGAAAGAGTTACCGGCCCAGCTCCATGGAGCCTTGGATGGAGCCCCTGAGTCCTTTTGAGGATGTG
GCTGGCACAGAAATGAGTCAGTCTGACAGTGGGGTGGACCTGAGTGGGGATTCTCAGGTGTCATCAGGTCCCTGC
AGCCAGCGAAGTTCCCCTGATGGAGGACTCAAGGGGGCAGCAGAGGGACCCCCCAAGAGGCCTGGAGGCTCCTCA
CCCCTGAATGCTGTTCCTTGTGAGGGTCCACCTGGCTCTGAACCTCCTAGGAGACCACCACCTGCCCCCCCACGAT
GGGGACAGAAAGGAGCTGCCCCGGGAGCAGCCTCTGCCCCCTGGCCCCATTGGCACAGAACGATCACAGCATACA
GACCGAGGCACAGAGCCTGGCCCCATTCGGCCATCCCATCGACCTGGTCCCCCAGTCCAGTTTGGCACTAGTGAC
AAGGACTCAGACTTACGCCTAGTGGTAGGAGACAGCTTGAAAGCAGAGAAGGAGCTAACAGCATCAGTCACTGAG
GCCATTCCTGTATCACGAGACTGGGAGCTGCTTCCCAGTGCTGCTGCCTCTGCTGAGCCACAATCCAAGAACCTG
GATTCTGGGCACTGTGTCCCGGAGCCCAGCTCCTCAGGCCAGCGCCTGTATCCTGAGGTTTTCTATGGCAGTGCT
GGGCCTTCCAGTTCTCAGATCTCTGGGGGAGCCATGGACTCTCAATTACATCCAAACAGTGGAGGCTTCCGCCCT
GGGACACCCTCACTGCACCCTTACAGATCACAGCCCCTATACCTACCCCCCGGCCCAGCCCCTCCCTCAGCACTG
CTCTCTGGGGTAGCTCTCAAGGGCCAGTTTCTGGATTTCTCCACAATGCAAGCTACAGAGCTGGGGAAGTTGCCG
GCTGGAGGAGTTCTCTACCCTCCACCTTCCTTCCTCTACTCTCCGGCTTTCTGCCCCAGTCCTTTGCCTGACACA
TCGTTGCTTCAGGTACGCCAGGATCTGCCATCCCCTTCGGATTTTTATTCTACTCCTCTGCAGCCTGGTGGCCAA
AGTGGCTTTCTCCCTTCAGGGGCTCCTGCCCAGCAGATGCTTCTACCCATGGTAGACTCACAGCTGCCTGTGGTG
AACTTTGGCTCCCTGCCGCCAGCACCACCTCCTGCCCCACCTCCCCTTTCTCTGTTACCTGTGGGCCCTGCTCTG
CAGCCCCCCAGCCTGGCTGTGCGGCCCCCACCTGCTCCTGCTACTCGGGTGCTGCCTTCACCTGCCAGGCCCTTC
CCCGCTAGCTTGGGGCGAGCAGAGCTGCATCCAGTGGAACTAAAGCCGTTCCAGGATTATCAAAAACTGAGCAGC
AACCTTGGGGGACCTGGATCATCACGGACTCCCCCAACTGGAAGGTCCTTCTCTGGCCTCAATTCCCGTCTCAAG
GCCACGCCTTCCACCTACAGTGGAGTCTTCCGCACCCAGCGCGTCGACCTTTACCAGCAGGCCTCCCCACCAGAT
GCCCTGCGCTGGATACCTAAGCCTTGGGAGCGGACAGGGCTGCCACCTCGAGAAGGGCCCTCCCGACGGGCAGAG
GAGCCTGGGTCCCGAGGGGACAAGGAGCCTGGGTTGCCCCCACCCCGC**TGA**GGGAGTTCCTCTTGCCCCCTACCC
CCGGGGCTTGTATATAGATTATAAATATATAAGGGGGAAAGGGGTGGGCGGGGAGGGGTTGTGGGGCTGGGGCCT
CACTTCCCCTCCTCCCCCTTCCCCTGGTCCCCTGTCCCTGGGGCTGTTTGTTAAAAAAGAGTAATAAAAGGATTT

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FIGURE 4150

CAGTCTCA**ATG**GGGGCACTGGGGCTGGAGGGCAGGGGTGGGAGGCTCCAGGGGAGGGGTTCCCTCCTGCTAGCTG
TGGCAGGAGCCACTTCTCTGGTGACCTTGTTGCTGGCGGTGCCTATCACTGTCCTGGCTGTGCTGGCCTTAGTGC
CCCAGGATCAGGGAGGACTGGTAACGGAGACGGCCGACCCCGGGGCACAGGCCCAGCAAGGACTGGGGTTTCAGA
AGCTGCCAGAGGAGGAGCCAGAAACAGATCTCAGCCCCGGGCTCCCAGCTGCCCACCTCATAGGCGCTCCGCTGA
AGGGGCAGGGGCTAGGCTGGGAGACGACGAAGGAACAGGCGTTTCTGACGAGCGGGACGCAGTTCTCGGACGCCG
AGGGGCTGGCGCTCCCGCAGGACGGCCTCTATTACCTCTACTGTCTCGTCGGCTACCGGGGCCGGGCGCCCCCTG
GCGGCGGGGACCCCCAGGGCCGCTCGGTCACGCTGCGCAGCTCTCTGTACCGGGCGGGGGGCGCCTACGGGCCGG
GCACTCCCGAGCTGCTGCTCGAGGGCGCCGAGACGGTGACTCCAGTGCTGGACCCGGCCAGGAGACAAGGGTACG
GGCCTCTCTGGTACACGAGCGTGGGGTTCGGCGGCCTGGTGCAGCTCCGGAGGGGCGAGAGGGTGTACGTCAACA
TCAGTCACCCCGATATGGTGGACTTCGCGAGAGGGAAGACCTTCTTTGGGGCCGTGATGGTGGGG**TGA**GGGAATA
TGAGTGCGTGGTGCGAGTGCGTGAATATTGGGGGCCCGGACGCCCAGGACCCCATGGCAGTGGGAAAAATGTAGG
AGACTGTTTGGAAATTGATTTTGAACCTGATGAAAATAAAGAATGGAAAGCTTCAGTGCTGCCGATAAA

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FIGURE 4151

CCGAGCTTCTTAAACACAGGCCTTGGGCCTACGGCTCTGGGGGTACTTGGGGGGGCGGGGGCAGGTCTG**ATG**AGT
AACCCCTCCCCCCAGGTTCCAGAGGAAGAAGCCTCCACATCTGTCTGCCGGCCCAAGAGTTCCATGGCCTCCACT
TCCCGCCGCCAACGCCGAGAACGTCGCTTTCGTCGTTACTTGTCTGCAGGACGGCTGGTCCGGGCCCAGGCCCTC
CTCCAGCGACACCCAGGCCTCGATGTAGATGCTGGGCAGCCCCCACCACTGCACCGGGCCTGTGCCCGCCACGAT
GCCCCTGCCCTGTGCCTGCTGCTTCGGCTCGGGGCTGACCCTGCCCACCAGGACCGCCATGGGGACACGGCACTG
CATGCTGCTGCCCGCCAGGGCCCAGATGCCTACACCGATTTCTTCCTCCCGCTGCTAAGCCGCTGTCCCTCCGCC
ATGGGAATAAAGAATAAGGATGGGGAGACCCCTGGCCAAATTTTGGGCTGGGGACCCCCCTGGGATTCTGCTGAA
GAGGAGGAAGAAGATGATGCCTCCAAGGAGCGGGAATGGAGACAGAAGCTCCAGGGTGAGCTGGAGGACGAGTGG
CAGGAAGTCATGGGGAGGTTTGAAGGTGATGCCTCCCATGAAACCCAGGAACCTGAGTCCTTCTCAGCCTGGTCA
GATCGCCTGGCCCGGGAACATGCCCAGAAGTGCCAGCAGCAGCAGCGAGAAGCAGAGGGATCCTGTCGACCCCCA
CGTGCTGAGGGCTCCAGCCAGAGCTGGCGACAGCAGGAGGAGGAGCAGCGGCTCTTCAGGGAGCGAGCCCGGGCC
AAGGAGGAAGAGCTGCGTGAGAGCCGAGCCAGGAGGGCGCAGGAGGCTCTAGGGGACCGAGAACCCAAGCCAACC
AGGGCCGGGCCCAGGGAAGAGCACCCCAGAGGAGCGGGGAGGGGCAGCCTCTGGCGATTTGGTGATGTGCCCTGG
CCCTGCCCTGGGGGAGGGGACCCAGAGGCCATGGCTGCAGCCCTGGTGGCCAGGGGCCCCCCTTTGGAGGAACAG
GGGGCTCTGAGGAGGTACTTGAGGGTCCAGCAGGTCCGCTGGCACCCTGACCGCTTCCTGCAGCGATTCCGAAGC
CAGATTGAGACCTGGGAGCTGGGCCGTGTGATGGGAGCAGTGACAGCCCTTTCTCAGGCCCTGAATCGCCATGCA
GAGGCCCTCAAG**TGA**CCCTAGGGAAGAAGCAAGAAACTTCGGGGCTGCAGCCTCAGGATGAGGCAGAAGGAAGGG
TAAGGGAAAGGATGGGGACCACAAGGAAGAGCCAGGTGCTGCTCAGCAGAGGATATGGGTGGGAGCGAAAGTTGT
AACAAGTGGGGGTGGGGGGTGCGGGCCGCCACCACTGCTCCTTGACTCTGCCGTTTCCTAATAAGACCTGGTTCC
ACATCTC

FIGURE 4152

CAGCATCGGCCATAACAACAGAAATGGCCAGTCAGTCCCAAGGTATCCAGCAGCTTCTGCAAGCTGAGAAGCGGG
CAGCTGAGAAGGTGGCAGATGCCAGAAAGAGGAAGGCCCGGCGACTGAAGCAGGCAAAGGAGGAGGCACAGATGG
AGGTGGAGCAATACCGCAGAGAGCGAGAGCACGAATTCCAGAGCAAGCAGCAGGCGACAGGCATTTTCCAAAGGC
AAGCCTGGAGCGCACGGATCTGTATAACCGCGGAAGGCCCTGTTTCCGGTCCCTTGCGCCTGCGCTCTTGCAGCC
AAGAAGGCGGGAGGCTGGAGTAGAGGGAAGCCTGCAACCGGAAGTGAAGGCAGATTTCCCTCCTTCGTCGCTGTT
GCTGCCGCCATACGCGCTCTCCCTGTTTAGCTCTTCTGTTAGAAATAGTATCTTTGTTTTCCTTTGCTGTTCCTC
AATCCCCTACTCTTCACCCCTTGTTTTCACCTATTTTGCGAGAACCCATCCAGATCCCCCTTCCCTTCTTCCCCT
GCCGGCCCAGTT**ATG**GCAGAGAACGATGTGGACAATGAGCTCTTGGACTATGAAGATGATGAGGTGGAGACAGCA
GCTGGGGGAGATGGGGCTGAGGCCCCTGCCAAGAAGGATGTCAAGGGCTCCTATGTCTCCATCCACAGCTCTGGC
TTTCGTGACTTCCTGCTCAAGCCAGAGTTGCTCCGGGCCATTGTCGACTGTGGCTTTGAGCATCCGTCAGAAGTC
CAGCATGAGTGCATCCCTCAGGCCATTCTGGGAATGGATGTCCTGTGCCAGGCCAAGTCGGGCATGGGAAAGACA
GCAGTGTTTGTCTTGGCCACACTGCAACAGCTGGAGCCAGTTACTGGGCAGGTGTCTGTGCTGGTGATGTGTCAC
ACTCGGGAGTTGGCTTTTCAGATCAGCAAGGAATATGAGCGCTTCTCTAAATACATGCCCAATGTCAAGGTTGCT
GTTTTTTTTGGTGGTCTGTCTATCAAGAAGGATGAAGAGGTGCTGAAGAAGAACTGCCCGCATATCGTCGTGGGG
ACTCCAGGCCGTATCCTAGCCCTGGCTCGAAATAAGAGCCTCAACCTCAAACACATTAAACACTTTATTTTGGAT
GAATGTGATAAGATGCTTGAACAGCTCGACATGCGTCGGGATGTCCAGGAAATTTTTCGCATGACCCCCCACGAG
AAGCAGGTCATGATGTTCAGTGCTACCTTGAGCAAAGAGATCCGTCCAGTCTGCCGCAAGTTCATGCAAGATCCA
ATGGAGATCTTCGTGGATGATGAGACGAAGTTGACGCTGCATGGGTTGCAGCAGTACTACGTGAAACTGAAGGAC
AACGAGAAGAACCGGAAGCTCTTTGACCTTCTGGATGTCCTTGAGTTCAACCAGGTGGTGATCTTTGTGAAGTCT
GTGCAGCGGTGCATTGCCTTGGCCCAGCTACTAGTGGAGCAGAACTTCCCAGCCATTGCCATCCACCGTGGGATG
CCCCAGGAGGAGAGGCTTTCTCGGTATCAGCAGTTTAAAGATTTTCAACGACGAATTCTTGTGGCTACCAACCTA
TTTGGCCGAGGCATGGACATCGAGCGGGTGAACATTGCTTTTAATTATGACATGCCTGAGGATTCTGACACCTAC
CTGCATCGGGTGGCCAGAGCAGGCCGGTTTGGCACCAAGGGCTTGGCTATCACATTTGTGTCCGATGAGAATGAT
GCCAAGATCCTCAATGATGTGCAGGATCGCTTTGAGGTCAATATTAGTGAGCTGCCTGATGAGATAGACATCTCC
TCCTACATTGAACAGACACGG**TAG**AAGACTCGCCCATTTTGGAATGTGACCGTCTGTCCTTCAGGAGAGGACACC
AGGGTGGGGGTGAAGGAGACACTACTGCCCCCACCCCTGACAGCCCCCACCCCATGGCTTCCATCTTTTGCATCA
CCACCACTCCTGAACCCCCATTTCTGATTTGTCAGAATTTTTTTTTAACAAAACTAAAAATGAAACACATGTGTC
TGTGGTATCT

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FIGURE 4153

GGGCC**ATG**GGGCTGGGCCGGGTCCTGCTGTTTCTGGCCGTCGCCTTCCCTTTTGCACCCCCGGCAGCCGCCGCTG
AGCCCCACAGTCTTCGTTACAACCTCATGGTGCTGTCCCAGGATGGATCTGTGCAGTCAGGGTTTCTCGCTGAGG
GACATCTGGATGGTCAGCCCTTCCTGCGCTATGACAGGCAGAAACGCAGGGCAAAGCCCCAGGGACAGTGGGCAG
AAGATGTCCTGGGAGCTGAGACCTGGGACACAGAGACCGAGGACTTGACAGAGAATGGGCAAGACCTCAGGAGGA
CCCTGACTCATATCAAGGACCAGAAAGGAGGCTTGCATTCCCTCCAGGAGATTAGGGTCTGTGAGATCCATGAAG
ACAGCAGCACCAGGGGCTCCCGGCATTTCTACTACAATGGGGAGCTCTTCCTCTCCCAAAACCTGGAGACTCAAG
AATCGACAGTGCCCCAGTCCTCCAGAGCTCAGACCTTGGCTATGAACGTCACAAATTTCTGGAAGGAAGATGCCA
TGAAGACCAAGACACACTATCGCGCTATGCAGGCAGACTGCCTGCAGAAACTACAGCGATATCTGAAATCCGGGG
TGGCCATCAGGAGAACAGTGCCCCCCATGGTGAATGTCACCTGCAGCGAGGTCTCAGAGGGCAACATCACCGTGA
CATGCAGGGCTTCCAGCTTCTATCCCCGGAATATCACACTGACCTGGCGTCAGGATGGGGTATCTTTGAGCCACA
ACACCCAGCAGTGGGGGGATGTCCTGCCTGATGGGAATGGAACCTACCAGACCTGGGTGGCCACCAGGATTCGCC
AAGGAGAGGAGCAGAGGTTCACCTGCTACATGGAACACAGCGGGAATCACGGCACTCACCCTGTGCCCTCTGGGA
AGGCGCTGGTGCTTCAGAGTCAACGGACAGACTTTCCATATGTTTCTGCTGCTATGCCATGTTTTGTTATTATTA
TTATTCTCTGTGTCCCTTGTTGCAAGAAGAAAACATCAGCGGCAGAGGGTCCAGAGCTTGTGAGCCTGCAGGTCC
TGGATCAACACCCAGTTGGGACAGGAGACCACAGGGATGCAGCACAGCTGGGATTTCAGCCTCTGATGTCAGCTA
CTGGGTCCACTGGTTCCACTGAGGGCGCC**TAG**ACTCTACAGCCAGGCGGCCAGGATTCAACTCCCTGCCTGGATC
TCACCAGCACTTTCCCTCTGTTTCCTGACCTATGAAACAGAAAATAACATCACTTATTTATTGTTGTTGGATGCT
GCAAAGTGTTAGTAGGTATGAGGTGTTTGCTGCTCTGCCACGTAGAGAGCCAGCAAAGGGATCATGACCAACTCA
ACATTCCATTGGAGGCTATATGATCAAACAGCAAATTGTTTATCATGAATGCAGGATGTGGGCAAACTCACGACT
GCTCCTGCCAACAGAAGGTTTGCTGAGGGCATTCACTCCATGGTGCTCATTGGAGTTATCTACTGGGTCATCTAG
AGCCTATTGTTTGAGGAATGCAGTCTTACAAGCCTACTCTGGACCCAGCAGCTGACTCCTTCTTCCACCCCTCTT
CTTGCTATCTCCTATACCAATAAATACGAAGGGCTGTGGAAGATCAGAGCCCTTGTTCACGAGAAGCAAGAAGCC
CCCTGACCCCTTGTTCCAAATATACTCTTTTGTCTTTCTCTTTATTCCCACGTTCGCCCTTTGTTCAGTCCAATA
CAGGGTTGTGGGGCCCTTAACAGTGCCATATTAATTGGTATCATTATTTCTGTTGTTTTTGTTTTTGTTTTTGTT
TTTGTTTTTGAGACAGAGTCTCACTCTGTCACCCAGGCTGCAGTTCACTGGTGTGATCTCAGCTCACTGCAACCT
CTGCCTCCCAGGTTCAAGCACTTCTCGTACCTCAGACTCCCGATAGCTGGGATTACAGACAGGCACCACCACAC
CCAGCTAATTTTTGTATTTTTTGTAGAGACGGGGTTTCGCCAAGTTGACCAGCCCAGTTTCAAACTCCTGACCTC
AGGTGATCTGCCTGCCTTGGCATCCCAAAGTGCTGGGATTACAAGAATGAGCCACCGTGCCTGGCCTATTTTATT
ATATTGTAATATATTTTATTATATTAGCCACCATGCCTGTCCTATTTTCTTATGTTTTAATATATTTTAATATAT
TACATGTGCAGTAATTAGATTATCATGGGTGAACTTTATGAGTGAGTATCTTGGTGATGACTCCTCCTGACCAGC
CCAGGACCAGCTTTCTTGTCACCTTGAGGTCCCCTCGCCCCGTCACACCGTTATGCATTACTCTGTGTCTACTAT
TATGTGTGCATAATTTATACCGTAAATGTTTACTCTTTAAAT

FIGURE 4154

CACTGCTTGAGCCGCTGAGAGGGTGGCGACGTCGGGGCC**ATG**GGGCTGGGCCCGGTCTTCCTGCTTCTGGCTGGC
ATCTTCCCTTTTGCACCTCCGGGAGCTGCTGCTGAGCCCCACAGTCTTCGTTATAACCTCACGGTGCTGTCCTGG
GATGGATCTGTGCAGTCAGGGTTTCTTGCTGAGGTACATCTGGATGGTCAGCCCTTCCTGCGCTATGACAGGCAG
AAATGCAGGGCAAAGCCCCAGGGACAGTGGGCAGAAGATGTCCTGGGAAATAAGACATGGGACAGAGAGACCAGG
GACTTGACAGGGAACGGAAAGGACCTCAGGATGACCCTGGCTCATATCAAGGACCAGAAAGAAGGCTTGCATTCC
CTCCAGGAGATTAGGGTCTGTGAGATCCATGAAGACAACAGCACCAGGAGCTCCCAGCATTTCTACTACGATGGG
GAGCTCTTCCTCTCCCAAAACCTGGAGACTGAGGAATGGACAGTGCCCCAGTCCTCCAGAGCTCAGACCTTGGCC
ATGAACGTCAGGAATTTCTTGAAGGAAGATGCCATGAAGACCAAGACACACTATCACGCTATGCATGCAGACTGC
CTGCAGGAACTACGGCGATATCTAGAATCCGGCGTAGTCCTGAGGAGAACAGTGCCCCCCATGGTGAATGTCACC
CGCAGCGAGGCCTCAGAGGGCAACATCACCGTGACATGCAGGGCTTCCAGCTTCTATCCCCGGAATATCATACTG
ACCTGGCGTCAGGATGGGGTATCTTTGAGCCACGACACCCAGCAGTGGGGGGATGTCCTGCCTGATGGGAATGGA
ACCTACCAGACCTGGGTGGCCACCAGGATTTGCCGAGGAGAGGAGCAGAGGTTCACCTGCTACATGGAACACAGC
GGGAATCACAGCACTCACCCTGTGCCCTCTGGGAAAGTGCTGGTGCTTCAGAGTCATTGGCAGACATTCCATGTT
TCTGCTGTTGCTGCTGGCTGCTGCTATTTTTGTTATTATTATTTTCTATGTCCGTTGTTG**TAA**GAAGAAAACATC
AGCTGCAGAGGGTCCAGAGCTCGTGAGCCTGCAGGTCCTGGATCAACACCCAGTTGGGACGAGTGACCACAGGGA
TGCCACACAGCTCGGATTTCAGCCTCTGATGTCAGCTCTTGGGTCCACTGGCTCCACTGAGGGCACCTAGACTCT
ACAGCCAGGCGGCTGGAATTGAATTCCCTGCCTGGATCTCACAAGCACTTTCCCTCTTGGTGCCTCAGTTTCCTG
ACCTATGAAACAGAGAAAATAAAAGCACTTATTTATTGTTGTTGGAGGCTGCAAAATGTTAGTAGATATGAGGCA
TTTGCAGCTGTGCCATATT

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FIGURE 4155

AGACGCCGAG**ATG**CTGGTCATGGCGCCCCGAACCGTCCTCCTGCTGCTCTCGGCGGCCCTGGCCCTGACCGAGAC
CTGGGCCGGCTCCCACTCCATGAGGTATTTCGACACCGCCATGTCCCGGCCCGGCCGCGGGGAGCCCCGCTTCAT
CTCAGTGGGCTACGTGGACGACACGCAGTTCGTGAGGTTCGACAGCGACGCCGCGAGTCCGAGAGAGGAGCCGCG
GGCGCCGTGGATAGAGCAGGAGGGGCCGGAGTATTGGGACCGGAACACACAGATCTTCAAGACCAACACACAGAC
TGACCGAGAGAGCCTGCGGAACCTGCGCGGCTACTACAACCAGAGCGAGGCCGGGTCTCACACCCTCCAGAGCAT
GTACGGCTGCGACGTGGGGCCGGACGGGCGCCTCCTCCGCGGGCATAACCAGTACGCCTACGACGGCAAGGATTA
CATCGCCCTGAACGAGGACCTGCGCTCCTGGACCGCGGCGGACACCGCGGCTCAGATCACCCAGCGCAAGTGGGA
GGCGGCCCGTGTGGCGGAGCAGGACAGAGCCTACCTGGAGGGCACGTGCGTGGAGTGGCTCCGCAGATACCTGGA
GAACGGGAAGGACACGCTGGAGCGCGCGGACCCCCCAAAGACACACGTGACCCACCACCCCATCTCTGACCATGA
GGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGATGGCGAGGA
CCAAACTCAGGACACTGAGCTTGTGGAGACCAGACCAGCAGGAGATAGAACCTTCCAGAAGTGGGCAGCTGTGGT
GGTGCCTTCTGGAGAAGAGCAGAGATACACATGCCATGTACAGCATGAGGGGCTGCCGAAGCCCCTCACCCTGAG
ATGGGAGCCGTCTTCCCAGTCCACCGTCCCCATCGTGGGCATTGTTGCTGGCCTGGCTGTCCTAGCAGTTGTGGT
CATCGGAGCTGTGGTCGCTGCTGTGATGTGTAGGAGGAAGAGCTCAGGTGGAAAAGGAGGGAGCTACTCTCAGGC
TGCGTGCAGCGACAGTGCCCAGGGCTCTGATGTGTCTCTCACAGCT**TGA**AAAGCCTGAGACAGCTGTCTTGTGAG
GGACTGAGATGCAGGATTTCTTCACGCCTCCCCTTTGTGACTTCAAGAGCCTCTGGCATCTCTTTCTGCAAAGGC
ACCTGAATGTGTCTGCGTCCCTGTTAGCATAATGTGAGGAGGTGGAGAGACAGCCCACCCTTGTGTCCACTGTGA
CCCCTGTTCCCATGCTGACCTGTGTTTCCTCCCCAG

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FIGURE 4156

GCGTG**ATG**TCTCACAGAAAGTTCTCCACTCCCAGACATGGGTCCCTCGGCTTCCTGCCTTGGAAGCGCAGCAGCA
GGCATTGTGGGAAGGTGAAGAGCTTCCCTAAGGATGACCCGTCCAAGCCGGTCCACCTCACAGCCTTCCTGGGAT
ACAAGGCTGGCATGACCCACATCGTGCGGGCTCTGGAGAAGATTGACCTTAAGTTCATTGACACCCCCTCCAAGT
TTGGCCATGGCCACTTCCAGACCATGGAGGAGAAGAAAGCATTCATGGGACCACTCAAGAAAGACCGAATTGCAA
AGGAAGAAGGAGCT**TAA**TGCTGGGAACAGATATTGCAACTGGTGGGATCTCAATAAAAGTTATTTTCCA

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FIGURE 4157

ATTCTCCCCAGAGGCCGAG**ATG**CGGGTCATGGCGCCCCGAGCCCTCCTCCTGCTGCTCTCGGGAGGCCTGGCCCT
GACCGAGACCTGGGCCTGCTCCCACTCCATGAGGTATTTCGACACCGCCGTGTCCCGGCCCGGCCGCGGAGAGCC
CCGCTTCATCTCAGTGGGCTACGTGGACGACACGCAGTTCGTGCGGTTCGACAGCGACGCCGCGAGTCCGAGAGG
GGAGCCGCGGGCGCCGTGGGTGGAGCAGGAGGGGCCGGAGTATTGGGACCGGGAGACACAGAACTACAAGCGCCA
GGCACAGGCTGACCGAGTGAGCCTGCGGAACCTGCGCGGCTACTACAACCAGAGCGAGGACGGGTCTCACACCCT
CCAGAGGATGTATGGCTGCGACCTGGGGCCCGACGGGCGCCTCCTCCGCGGGTATGACCAGTCCGCCTACGACGG
CAAGGATTACATCGCCCTGAACGAGGACCTGCGCTCCTGGACCGCCGCGGACACCGCGGCTCAGATCACCCAGCG
CAAGTTGGAGGCGGCCCGTGCGGCGGAGCAGCTGAGAGCCTACCTGGAGGGCACGTGCGTGGAGTGGCTCCGCAG
ATACCTGGAGAACGGGAAGGAGACGCTGCAGCGCGCAGAACCCCCAAAGACACACGTGACCCACCACCCCCTCTC
TGACCATGAGGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGA
TGGGGAGGACCAGACCCAGGACACCGAGCTTGTGGAGACCAGGCCAGCAGGAGATGGAACCTTCCAGAAGTGGGC
AGCTGTGGTGGTGCCTTCTGGACAAGAGCAGAGATACACGTGCCATATGCAGCACGAGGGGCTGCAAGAGCCCCT
CACCCTGAGCTGGGAGCCATCTTCCCAGCCCACCATCCCCATCATGGGCATCGTTGCTGGCCTGGCTGTCCTGGT
TGTCCTAGCTGTCCTTGGAGCTGTGGTCACCGCTATGATGTGTAGGAGGAAGAGCTCAGGGCATTTTCTTCCCAC
AGGTGGAAAAGGAGGGAGCTGCTCTCAGGCTGCGTGCAGCAACAGTGCCCAGGGCTCTGATGAGTCTCTCATCAC
TTGTAAAGCC**TGA**GACAGCTGCCTGTGTGGGACTGAGATGCAGGATTTCTTCACACCTCTCCTTTGTGACTTCAA
GAGCCTCTGGCATCTCTTTCTGCAAAGGCGTCTGAATGTGTCTGCGTTCCTGTTAGCATAATGTGAGGAGGTGGA
GAGACAGCCCACCCCCGTGTCCACCGTGACCCCTGTCCCCACACTGACCTGTGTTCCCTCCCCGATCATCTTTCC
TGTTCCAGAGAGGTGGGGCTGGATGTCTCCATCTCTGTCTCAAATTCATGGTGCACTGAGCTGCAACTTCTTACT
TCCCTAATGAAGTTAAGAACCTGAATATAAATTTGTGTTCTCAAATATTTGCTATGAAGCGTTGATGGATTAATT
AAATAAGTCAATTCCTAGAAGTTGAGAGAGCAAATAAAGACCTGAGAACCTTCCAG

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FIGURE 4158

AG**ATG**ACACAAGTCACAGAAAAGTCCACAGAACACCCAGAAAAGACCACGTCAACCACAGAGAAAACCACAAGAA
CCCCAGAAAAGCCTACGCTATACTCAGAGAAGACCATATGCACCAAAGGGAAAAACACACCAGTCCCAGAAAAGC
CTACAGAAAACCTGGGGAACACCACACTGACCACTGAGACCATAAAAGCCCCAGTAAAGTCCACAGAAAACCCAG
AAAAAACAGCAGCAGTCACAAAGACTATAAAACCTTCAGTCAAGGTCACAGGAGACAAATCTCTCACTACTACCT
CTTCTCATCTAAATAAAACTGAAGTTACTCATCAGGTGCCCACTGGTTCTTTCACCCTCATTACATCTAGAACGA
AGCTGAGTTCTATCACATCAGAAGCCACAGGAAACGAGAGCCATCCATACCTCAATAAAGATGGCTCACAGAAAG
GTATCCACGCTGGACAGATGGGAGAGAATGATTCATTCCCTGCATGGGCCATAGTTATTGTGGTCCTGGTGGCTG
TGATTCTCCTCCTGGTGTTCCTTGGCCTGATCTTCTTGGTCTCCTATATGATGCGGACACGCCGCACACTAACCC
AGAACACCCAGTACAATGATGCAGAGGATGAGGGTGGCCCCAATTCCTACCCGGTCTACCTGATGGAGCAGCAGA
ATCTTGGCATGGGCCAGATCCCTTCCCCACGG**TGA**TCTTGGAGTAGGCGCCCAGCCCTGGCTCTTCCATGCTCTG
CCCCTTTCCTGGATGAGGAACCGGACTCACAATTTCTATTTCCGGGACTACAGGAAGGGCAGAGAATACTGACGG
TTACCAGTATTAACCCTTCATCTGTTCTTGAAACTGGTTGGGGAATGAGGTGATAAGCAAGGAGGGTGTAAGTTT
AGGGGACAAAGAAGAAAGAATGAATAATACGAGCAGACATTCTCTGTAGAAGGTAATGGTCTGAGAATGAAAAGG
TGTTTGATGGACATGTTGTGGGGGCACCAATGCAGAACACTGCACTGAGTCCTAAAGGAAGGACAGGAGCCTTAT
AGGCAATGCCCCAGACTGACTTGTGAGTGGGGTTTATGGGGAAAGGGAGGGACTGAGGGCAGAGTCTCTGGGTTT
CAGGACAGCATTATGTTATTTCCATTCACTATTACTTAAGAGTTTGTGTGTAAACAGGCTCATCTCTGAGTTCTC
AGGACCCTTGCCCCCACCCCCATTTTTTTAATGAAAAAAAAAAACAAAAAAAACGGATCCAAGAAGAAAAGAGAA
TTTATTTCCTTCTCCACTCTCTCCATGCCCTGGAGAAAAAAAAGTCCAGAAGAAATCATAAATATCTCTCATCTA
CATGGTTGCTTCCTCTTCCTCCCAAATCCCTTAGTTTTCCTAAATGTCTACAGTGGACGCCCTGTTGGTTTGGCT
TGCTGGGTTGTGGGTGGACACGCAAGGAGGGGATTTTTATTTGGCCAGCAGTCTCACCCACTGATCTCCACCCCA
GACCTTCCCTGATTGGTGTCTCAGCATTTATTTTCCTGTCTCTTCCACCAAAAGCCAGCTGTAGCTTTATCTCGT
AAAAGTTACCCATCTTCTCTACTGTCCCCATTCTCTCTCCTCCCACCTTCACCCCAGATTCAAGTTTTCCTCCTT
GTAGGCATTTCATCTGTGTGTGTTTTCTGGATTTTCTCTCTCTCTTCTTATGGCCATTTCACCTTATTACTGATT
GGGTAGAGGGGGAAAAGGAGAATGATGATGATAGTTTCCTTCTGTCTATTGACCTTTTTTATAATAAAGTATAAC
ATGTT

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FIGURE 4159A

ATGGACACTGTGCTGGTGCTGCTCCTGGGCCTGCAGGCCTTGGCCGGACCCAGTCCGAAGCCCCAGAAGGACTCT
GTCTCAGACTGGGCCATTGTGTTGATCACTCTCACTTTGGTGGCAGCAATTGTCAGCCTAATGTACGGTATCAAG
AAGGCCTGCCAGTTCCGGAGGGAGATGAGTCTGGGGTGTGGCTGTGGCTCTGTGACCCCTTACAGCAGCCACCAT
GAGGGGGAGGCTGCCAGCCAGCGCTACTCTTGTCAAATGAAAGCTTCTTGGGGGGCAGGTGCTACTACATTCCAA
GAATATCAGAAAACTGGGGAACTCTCAACATCCGATCACATATTTCCCCTCACTCCAGGCCTTGTTTATAGTATC
CCTTTTGATCACATTGTTCTGCATTCAGGACAAAGACCTCCAGAGCTCCCTAAATCTACAGAAATCCATGAGCAA
AAACGCCACTGCAACACCACACGCCATTCTAAGCCAACTGACAAGCCTACAGGCAACTCCAAAACTATAGACCAC
AAAAGCTCTACAGATAATCATGAGGCTCCTCCCACTTCTGAAGAAAACTCCAGCAACCAAGGGAAAGACCCAATG
ATCCGGAACCAGCGCTCTGTTGATCCTGCTGACTCCACTACCACACATAAAGAATCCGCTGGAAAAAAACATATA
ACGCCAGCACCCAAGAGCAAAATAAACTGTCGTAAGTCCACAACAGGCAAATCAACGGTAACAAGAAAATCAGAT
AAAACTGGAAGACCTTTGGAAAAGTCCATGAGTACTTTGGATAAGACAAGTACCAGCTCACATAAGACTACAACT
TCCTTCCACAACTCAGGCAATTCACAGACCAAGCAAAAAAGCACATCTTTTCCAGAAAAAATCACAGCAGCCTCA
AAAACAACATACAAGACCACAGGAACCCCAGAAGAGTCAGAAAAAACTGAAGATTCCAGAACAACAGTTGCCTCA
GACAAGCTCCTGACAAAAACTACAAAAAACATACAAGAGACCATATCAGCCAATGAGCTCACACAATCTCTAGCA
GAGCCTACAGAACATGGAGGAAGGACAGCCAATGAGAACAACACACCATCCCCAGCAGAGCCTACAGAAAATAGA
GAAAGGACAGCCAATGAGAACACCACACTATCCCCAGCAGAGCCTACAGAAAATAGAGAAAGGACAGCCAATGAG
AACACCGCACCATTCCCAGCAGGGCCTACAGAAAATAGAGAAATGACAGCCA**ATG**AGAATACCACACTATTCCCA
GCAGAGCCTACAGAACATGGAGAAAGGACAGCCAATGAGAACACCACACCATCCCCAGCAGAGCCTACAGAACAT
GGAGAAAGGACAGCCAATGAGAACACTACACCATCCCCAGCAGAGCCTACAGAACATGGAGAAAGGACCCCATTT
GCCAATGACAAAACCACATCATCCTCAGCAGAGTCTACAGAACATGGAGAAAGGACCCCACTGGCCAACGAGAAC
ACCACACCATCCCCAGCAGAGCCTACAGAAAATAGAGAAAGGACAGCCAATGAGAACACCACACCATCCCCAGCA
GGGCCTACAGAAAACAGAGAAACGACAGCCAACGAGAAGACCACACTATCCCCAG**TAG**AGCCTACAGAAAATAGA
GAAACAACAGCCAATGAGAAGACCACACCATCCCCAGCAGAGCCTACAGAAAATGGACAAAGGACCCCATTTGCC
AATGAGAAAACCACATCATCCTCAGCAGAGCCTACAGAACACGGAGAAAGGACCCCACTGGCCAATGAGAACACC
ACACCATCCCCAGCAGAGCCTACAGAAAATAGAGAAAGGACAGCCAATGAGAAGACCACACCATCCCCAGCAGAG
CCTACAGAAAATGGAGACAGGACTCCTTTGGCCAATGAGAAGACCACGCCATCTCTAGCAGAGCCTACAGAAAAT
GGACAAAGGACCCCATTTGCCAATGAGAAGACCACATCATCCTCAGCAGAGCCTACAGAACACGAAGAAAGGACT
CCACTGGCCAATGAGAACACCACACCATCCCCGGCAGAGCCTACAGAAAATAGAGAAAGGACAGCCAATGAGAAC
ACCACACCATCCCCAGCAGGGCCTACAGAAAATAGAGAAATGACAGCCAACGAGAAGACCACACTATTCCCAGCA
GAGCCTACAGAAAATAGAGAAAGGACAGCCAATGAGAAGACCACATCATCCCCAGCAGAGCCTACAGAAAATGGA
CAAAGGACCCCATTTGCCAATGAGAAAACCACATCATCCCCAGCAGAGCCTACAGAACACGGAGAAAGGACCCCA
CTGGCCAATGAGAACACCACACTATCCCCAGCAGAGCCTACAGAAAATAGAGAAAGGACAGCCAATGAGAAGACC
ACACCATTCCCAGCAGAGCCTACAGAAAATAGAGAAAGGACAGCCAATGAGAACACCACACCATCCCCAGCACAG
CCTACAGAAAATGGAGACAGGACTCCATTGGCCAATGAGAAGACCACACCATCTCTAGCAGAGCCTACAGAAAAT
GGAAAAAGGACCCCATTTGCCAATGAGAAGACCACATCATCCTCAGCAGAGCCTACAGAACACGCAGAAAGGACT
CCACTGGCCAATGAGAACACCACATCATCCCCAGCAGAGCCTACAGAAAATAGAGAAAGGACAGCCAATGAGAAG
ACCACACAATTCCCAGCAGAGCCTACAGAAAATAGAGAAAGCACAGCCAATGAGAAGACCACACCATTCCCAGCA
GAGCCTACAGAAAATAGAGAATGGACAGCCAATGAGAACACCACACTATCCCCAGCAGAGCCTACAGAACATGAA
GAAATGACCCCATTGGCCAATGAGAAGACCACACTATCCCCAGCAGAGCCTACAGAAAATGGAGAAAGGACCCCA
TTTACCAATGAGAAGACCACACCATCCTCAGCAGAGCCTACAGAACATGGAGAAAGGACCCCACTGGCCAATGAG
ATCACCACACCATCCCGAGCAGAGCCTACAGAACATGGAGAAAGGATAGCCAATGAGAAGGCCACACCATCCCCA
GCAAAGCCTACAGAACATGGAGAAACGACAGTCAATGAGGACACCACACCATCCTCAGCAGAGCCTACAGAAAAT
GGAGAAAGGACCCCACTGGCCAATGAGAACACCACAACATCCCCAACAGAGTCTACAGAACATGGAGAAAGGACA
GCCAATGAGAAGACCACACCATCCCCAGCAGAGCCTACAGAACATGGAGAAAGGACACCATCAGCCAATGAGAAG
ACCATACCATCTCCAGCAAAGCCTACAGAACACGAAGAAATGACCCCATCGGCCAATGAGAACACCACACCATCC
CCAGTAAAGCCTACAGAACATGGAGAAAAGACTACATTGGCCAATGAGAAGATCACACTATCCCCAGAAGGGCCT
ACAGAACATGGAGCAAAAACTACGTCGGCCAATGAGAAGATCACACCATCCCTAGCAAAGCCTACAGAACATGGA
GAAAGGACCACATCACCCAATGACAAGATCACCTCATCTGCAGCAGAGTCTACAGAACATAGAGATAGGGCTACA

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FIGURE 4159B

TCAGCCAAT

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FIGURE 4160

TTGGTGGATTCCTCAGTCCCTGCCGCCGCGGGGCGCCCTGGGATAGCGGCGGGGCCTCCTGAACAGATCTCGGCC
CCTTTCCAAACACTCCTG**ATG**CCTCATTTGCCTCTCGCTTCTTTTCGACCACCATTTTGGGGGCTGAGGCACTCA
CGGGGCCTCCCCAGGTTTCACTCCGTTTCTACACAGTCGGAGCCCCATGGATCTCCCATCTCCCGGAGGAACCGT
GAAGCCAAACAGAAGCGCCTGCGAGAGAAGCAGGCTACTCTGGAGGCTGAGATAGCAGGGGAGAGCAAGTCACCT
GCAGAATCCATTAAGGCCTGGAGGCCTAAGGAGTTAGTATTGTATGAAATCCCTACGAAACCCGGTGAAAAGAAA
GATGTCTCTGGGCCCCTGCCTCCTGCATACAGCCCCCGATATGTTGAGGCTGCCTGGTACCCGTGGTGGGTACGA
GAGGGCTTCTTCAAACCAGAATATCAGGCCCGGCTGCCCCAAGCTACAGGGGAGACCTTTTCCATGTGTATCCCA
CCTCCCAATGTCACTGGCTCCCTGCACATTGGCCACGCACTCACGGTGGCCATACAGGATGCCCTCGTGCGCTGG
CACCGGATGCGTGGGGATCAAGTGCTGTGGGTCCCTGGTTCAGATCATGCAGGAATTGCTACACAAGCTGTGGTG
GAGAAACAACTGTGGAAGGAACGGGGAGTGAGGAGACATGAGCTGAGCCGGGAGGCCTTCCTTAGGGAGGTGTGG
CAGTGGAAGGAGGCGAAAGGTGGAGAGATCTGTGAGCAGCTGCGAGCTCTGGGTGCCTCCCTGGACTGGGATCGA
GAGTGTTTTACCATGGATGTTGGCTCCTCAGTGGCTGTGACTGAAGCTTTTGTGCGGCTCTACAAGGCGGGGTTG
CTGTACCGGAACCATCAGCTTGTCAACTGGTCATGTGCTTTAAGATCAGCCATCTCGGACATTGAGGTGGAGAAC
CGGCCCCTGCCTGGCCACACACAGCTTCGACTGCCTGGCTGCCCCACCCCCGTGTCTTTTGGCCTCCTATTTTCT
GTTGCCTTCCCCGTGGATGGAGAGCCTGATGCAGAGGTTGTGGTAGGAACCACAAGGCCAGAGACGCTGCCTGGA
GATGTGGCTGTGGCCGTTCATCCAGACGACTCGCGATACACACATCTACACGGGCGACAGCTTCGTCACCCCTTG
ATGGGGCAGCCTCTTCCCCTCATCACAGACTATGCTGTTCAGCCACATGTGGGCACGGGGGCAGTGAAGGTGACT
CCAGCTCACAGTCCTGCCGATGCTGAGATGGGGGCCCGACATGGCTTGAGCCCCTTGAATGTCATTGCGGAGGAT
GGGACCATGACCTCCCTCTGCGGGGACTGGCTGCAGGGTCTTCACCGGTTTGTGGCCCGGGAAAAGATAATGTCT
GTGCTGAGTGAATGGGGCCTGTTCCGGGGCCTCCAGAACCACCCCATGGTACTGCCCATCTGCAGCCGTTCTGGG
GATGTGATAGAATACCTGCTGAAGAACCAGTGGTTTGTCCGCTGCCAGGAAATGGGGGCCCGAGCTGCCAAGGCT
GTGGAGTCGGGGGCCCTGGAGCTCAGTCCCTCCTTCCACCAGAAGAACTGGCAGCACTGGTTTTCCCATATTGGG
GACTGGTGTGTCTCCCGGCAGCTGTGGTGGGGCCATCAGATTCCAGCCTACCTGGTTGTAGAGGACCATGCGCAG
GGAGAAGAGGACTGTTGGGTGGTTGGGCGGTCAGAGGCTGAGGCCAGAGAGGTAGCAGCGGAACTGACAGGGAGG
CCAGGGGCAGAGCTGACCCTGGAGAGGGATCCTGATGTCCTAGACACATGGTTTTCTTCTGCCCTGTTCCCCTTT
TCTGCCCTGGGCTGGCCCCAAGAGACCCCAGACCTTGCTCGTTTCTACCCCCTGTCACTTTTGGAAACGGGCAGC
GACCTTCTGCTGTTCTGGGTGGGCCGCATGGTCATGTTGGGGACCCAGCTCACAGGGCAGCTGCCCTTCAGCAAG
GTGCTTCTTCATCCCATGGTTCGGGACAGGCAGGGCCGGAAGATGAGCAAGTCCCTGGGGAATGTGCTGGACCCA
AGAGACATCATCAGTGGGGTGGAGATGCAGGTGCTGCAGGAAAAGCTGAGAAGCGGAAATTTGGACCCTGCAGAG
CTGGCCATTGTGGCTGCAGCACAGAAAAAGGACTTTCCTCACGGGATCCCTGAGTGTGGGACAGATGCCCTGAGA
TTCACACTCTGCTCCCATGGAGTTCAGGCGGGCGACTTGCACCTGTCAGTCTCTGAGGTCCAGAGCTGCCGACAT
TTCTGCAACAAGATCTGGAATGCTCTTCGCTTTATCCTCAATGCTTTAGGGGAGAAATTTGTGCCACAGCCTGCT
GAGGAGCTGTCTCCCTCCTCCCCGATGGATGCCTGGATCCTGAGCCGCCTTGCCCTGGCTGCCCAGGAGTGTGAG
CGGGGCTTCCTCACCCGAGAGCTCTCGCTCGTCACTCATGCCCTGCACCACTTCTGGCTTCACAACCTCTGTGAC
GTCTACCTGGAGGCTGTGAAGCCCGTGCTGTGGCACTCGCCCCGCCCCCTGGGGCCCCCTCAGGTCCTGTTCTCC
TGCGCTGACCTCGGCCTCCGCCTCCTGGCCCCACTGATGCCCTTCCTGGCTGAAGAGCTCTGGCAGAGGCTGCCC
CCCAGGCCTGGTTGCCCCCCTGCCCCCAGCATCTCGGTTGCCCCCTACCCCAGCGCCTGCAGCTTGGAGCACTGG
CGCCAGCCAGAGCTGGAGCGGCGCTTCTCCCGGGTCCAAGAGGTCGTGCAGGTGCTAAGGGCTCTCCGAGCCACG
TACCAGCTCACCAAAGCCCGGCCCCGAGTGCTGCTGCAGAGCTCAGAGCCTGGGGACCAGGGCCTCTTCGAGGCC
TTCTTGGAGCCCCTGGGCACCCTGGGCTACTGTGGGGCTGTGGGCCTGTTACCCCCAGGCGCAGCAGCTCCCTCC
GGCTGGGCCCAGGCTCCACTCAGTGACACGGCTCAAGTCTACATGGAGCTGCAGGGCCTGGTGGACCCGCAGATC
CAGCTACCTCTGTTAGCCGCCCGAAGGTACAAGTTGCAGAAGCAGCTTGACAGCCTCACAGCCAGGACCCCATCA
GAAGGGGAGGCAGGGACTCAGAGGCAACAAAAGCTTTCTTCCCTCCAGCTGGAATTGTCAAAACTGGACAAGGCA
GCCTCTCACCTCCGGCAGCTGATGGATGAGCCTCCAGCCCCAGGGAGCCCGGAGCTC**TAA**CTCATCATCCCCATC
AGTTTTCCTCCCTCTCAGACCTGTCTTTGAGGACAAACAGATTTGTCAGCTGTCAGGGTGCAGTGGGACGTCAGA
GACTATGTGGTCCATCGCCTTCATTGTGTAAATGAGGACACAGACTGGCTTGGTCGCAGTGACTGTGGTGTCCTT
GAGATGCTCACATTACTGCCCGGCCTGCCTCCCACCTGGAAGTCTGGGAATGAGGAGATTGAGATAAACTTTTGA
AATCCC

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FIGURE 4161

CCCATCTTTTCCTCGCATTTTTTCACCATCTTTCCCTCAATCTCCAGGAGCCAATGCGAGACTTTGGCTCCGATT
AAGCGACGGCCCGAGACTCGGGGTGCGCGAGGAGGATCGACAGAGTGGTG**ATG**GAGAGCACCCCTTCAAGGGGAC
TGAACCGAGTACACCTACAATGCAGGAATCTGCAGGAATTCTTAGGGGGCCTGAGCCCTGGGGTATTGGACCGAT
TGTATGGGCACCCTGCCACATGTCTGGCTGTCTTCAGGGAGCTCCCATCCTTGGCTAAGAACTGGGTGATGCGGA
TGCTCTTTCTGGAGCAGCCTTTGCCACAGGCTGCTGTAGCTCTGTGGGTAAAGAAGGAATTCAGCAAGGCTCAGG
AGGAAAGTACAGGGCTGCTGAGCGGCCTCCGGATCTGGCACACACAGCTGCTCCCAGGCGGGCTCCAGGGCCTCA
TCCTCAACCCCATTTTCCGCCAGAACCTCCGCATTGCCCTTCTGGGTGGGGGGAAGGCCTGGTCTGATGACACAA
GTCAGCTGGGACCAGACAAGCATGCCCGGGACGTTCCCTCCCTTGACAAGTACGCCGAGGAGCGATGGGAGGTGG
TCTTGCACTTCATGGTGGGCTCCCCCAGTGCAGCTGTCAGCCAGGACTTGGCTCAGCTCCTCAGCCAGGCTGGGC
TCATGAAGAGTACTGAACCTGGAGAGCCGCCCTGCATTACTTCCGCTGGCTTCCAGTTCCTGTTGCTGGACACCC
CGGCTCAGCTCTGGTACTTTATGTTGCAGTATTTGCAGACAGCCCAGAGCCGGGGCATGGACCTGGTAGAGATTC
TCTCCTTCCTCTTCCAGCTCAGCTTCTCTACTCTGGGCAAGGATTACTCTGTGGAAGGTATGAGTGATTCTCTGT
TGAACTTCCTGCAACATCTGCGTGAGTTTGGGCTTGTTTTCCAGAGGAAGAGGAAATCTCGGCGTTACTACCCCA
CACGCCTGGCCATCAATCTCTCATCAGGTGTCTCTGGAGCTGGGGGCACTGTGCATCAGCCAGGTTTCATTGTCG
TGGAAACCAATTACCGACTGTATGCCTACACGGAGTCGGAGCTGCAGATTGCCCTCATTGCCCTCTTCTCTGAGA
TGCTCTATCGGTTCCCCAACATGGTGGTGGCGCAGGTGACCCGGGAGAGTGTGCAGCAGGCAATCGCCAGTGGCA
TCACAGCCCAGCAGATAATCCATTTCCTAAGGACAAGAGCCCACCCAGTGATGCTCAAACAGACACCTGTGCTGC
CCCCCACCATCACCGACCAGATCCGGCTCTGGGAGCTGGAAAGGGACAGACTCCGGTTCACTGAGGGTGTCCTGT
ATAACCAGTTCCTGTCGCAAGTGGACTTTGAGCTGCTGCTGGCCCACGCGCGGGAGCTGGGCGTGCTCGTGTTCG
AGAACTCGGCCAAGCGGCTCATGGTGGTGACCCCGGCCGGGCACAGCGACGTCAAGCGCTTTTGGAAGCGGCAGA
AACATAGCTCC**TGA**GAGCGCGGGACTTGGACACGGACCTCGGCGGGCGGGACTGGGCGGGGCGGGGCATCAGAAC
TCAGGTGTTTTTTATTTACGCGTCAGGGCTTTTCTTGTTTAATAAAGTTATGATAGCT

FIGURE 4162A

TTAGGAAGTTATTTAACTGATCTCTGCCCTAGTTTCTTCATGTGTTAAATATGGATAGTAATAGTATCTACCTTA
TGAAGTGACTGTGAAGATAAAATTATGGATTCTGTTTAAGGGTTTAGGCCAGTGTCTGGCACAGGGGAAGCATTC
TAAAAATATAGCTGATGCTGTTAAACAATGACTGTTGTTGTTGTTTTACTGTTATTATCCCCAAAGCGGCCCATT
CTGTCTGTTGCTGTCAGCTATGACTCAGTCCCCTGATTAACTTACGCACCACCCATTTTATCCCCTGCAGAGATG
CTGCCCCCACCCCCTTAGGCCCGAGGGATCAGGAGCT**ATG**GGACCAGAGGCCCTGTCATCTTTACTGCTGCTGCT
CTTGGTGGCAAGTGGAGATGCTGACATGAAGGGACATTTTGATCCTGCCAAGTGCCGCTATGCCCTGGGCATGCA
GGACCGGACCATCCCAGACAGTGACATCTCTGCTTCCAGCTCCTGGTCAGATTCCACTGCCGCCCGCCACAGCAG
GTTGGAGAGCAGTGACGGGGATGGGGCCTGGTGCCCCGCAGGGTCGGTGTTTCCCAAGGAGGAGGAGTACTTGCA
GGTGGATCTACAACGACTGCACCTGGTGGCTCTGGTGGGCACCCAGGGACGGCATGCCGGGGGCCTGGGCAAGGA
GTTCTCCCGGAGCTACCGGCTGCGTTACTCCCGGGATGGTCGCCGCTGGATGGGCTGGAAGGACCGCTGGGGTCA
GGAGGTGATCTCAGGCAATGAGGACCCTGAGGGAGTGGTGCTGAAGGACCTTGGGCCCCCCATGGTTGCCCGACT
GGTTCGCTTCTACCCCCGGGCTGACCGGGTCATGAGCGTCTGTCTGCGGGTAGAGCTCTATGGCTGCCTCTGGAG
GGATGGACTCCTGTCTTACACCGCCCCTGTGGGGCAGACAATGTATTTATCTGAGGCCGTGTACCTCAACGACTC
CACCTATGACGGACATACCGTGGGCGGACTGCAGTATGGGGGTCTGGGCCAGCTGGCAGATGGTGTGGTGGGGCT
GGATGACTTTAGGAAGAGTCAGGAGCTGCGGGTCTGGCCAGGCTATGACTATGTGGGATGGAGCAACCACAGCTT
CTCCAGTGGCTATGTGGAGATGGAGTTTGAGTTTGACCGGCTGAGGGCCTTCCAGGCTATGCAGGTCCACTGTAA
CAACATGCACACGCTGGGAGCCCGTCTGCCTGGCGGGGTGGAATGTCGCTTCCGGCGTGGCCCTGCCATGGCCTG
GGAGGGGGAGCCCATGCGCCACAACCTAGGGGGCAACCTGGGGGACCCCAGAGCCCGGGCTGTCTCAGTGCCCCT
TGGCGGCCGTGTGGCTCGCTTTCTGCAGTGCCGCTTCCTCTTTGCGGGGCCCTGGTTACTCTTCAGCGAAATCTC
CTTCATCTCTGATGTGGTGAACAATTCCTCTCCGGCACTGGGAGGCACCTTCCCGCCAGCCCCCTGGTGGCCGCC
TGGCCCACCTCCCACCAACTTCAGCAGCTTGGAGCTGGAGCCCAGAGGCCAGCAGCCCGTGGCCAAGGCCGAGGG
GAGCCCGACCGCCATCCTCATCGGCTGCCTGGTGGCCATCATCCTGCTCCTGCTGCTCATCATTGCCCTCATGCT
CTGGCGGCTGCACTGGCGCAGGCTCCTCAGCAAGGCTGAACGGAGGGTGTTGGAAGAGGAGCTGACGGTTCACCT
CTCTGTCCCTGGGGACACTATCCTCATCAACAACCGCCCAGGTCCTAGAGAGCCACCCCCGTACCAGGAGCCCCG
GCCTCGTGGGAATCCGCCCCACTCCGCTCCCTGTGTCCCCAATGGCTCTGCGTTGCTGCTCTCCAATCCAGCCTA
CCGCCTCCTTCTGGCCACTTACGCCCGTCCCCCTCGAGGCCCGGGCCCCCCCACACCCGCCTGGGCCAAACCCAC
CAACACCCAGGCCTACAGTGGGGACTATATGGAGCCTGAGAAGCCAGGCGCCCCGCTTCTGCCCCCACCTCCCCA
GAACAGCGTCCCCCATTATGCCGAGGCTGACATTGTTACCCTGCAGGGCGTCACCGGGGGCAACACCTATGCTGT
GCCTGCACTGCCCCCAGGGGCAGTCGGGGATGGGCCCCCCAGAGTGGATTTCCCTCGATCTCGACTCCGCTTCAA
GGAGAAGCTTGGCGAGGGCCAGTTTGGGGAGGTGCACCTGTGTGAGGTCGACAGCCCTCAAGATCTGGTTAGTCT
TGATTTCCCCCTTAATGTGCGTAAGGGACACCCTTTGCTGGTAGCTGTCAAGATCTTACGGCCAGATGCCACCAA
GAATGCCAGGAATGATTTCCTGAAAGAGGTGAAGATCATGTCGAGGCTCAAGGACCCAAACATCATTCGGCTGCT
GGGCGTGTGTGTGCAGGACGACCCCCTCTGCATGATTACTGACTACATGGAGAACGGCGACCTCAACCAGTTCCT
CAGTGCCCACCAGCTGGAGGACAAGGCAGCCGAGGGGGCCCCTGGGGACGGGCAGGCTGCGCAGGGGCCCACCAT
CAGCTACCCAATGCTGCTGCATGTGGCAGCCCAGATCGCCTCCGGCATGCGCTATCTGGCCACACTCAACTTTGT
ACATCGGGACCTGGCCACGCGGAACTGCCTAGTTGGGGAAAATTTCACCATCAAAATCGCAGACTTTGGCATGAG
CCGGAACCTCTATGCTGGGGACTATTACCGTGTGCAGGGCCGGGCAGTGCTGCCCATCCGCTGGATGGCCTGGGA
GTGCATCCTCATGGGGAAGTTCACGACTGCGAGTGACGTGTGGGCCTTTGGTGTGACCCTGTGGGAGGTGCTGAT
GCTCTGTAGGGCCCAGCCCTTTGGGCAGCTCACCGACGAGCAGGTCATCGAGAACGCGGGGGAGTTCTTCCGGGA
CCAGGGCCGGCAGGTGTACCTGTCCCGGCCGCCTGCCTGCCCGCAGGGCCTATATGAGCTGATGCTTCGGTGCTG
GAGCCGGGAGTCTGAGCAGCGACCACCCTTTTCCCAGCTGCATCGGTTCCTGGCAGAGGATGCACTCAACACGGT
G**TGA**ATCACACATCCAGCTGCCCCTCCCTCAGGGAGCGATCCAGGGGAAGCCAGTGACACTAAAACAAGAGGACA
CAATGGCACCTCTGCCCTTCCCCTCCCGACAGCCCATCACCTCTAATAGAGGCAGTGAGACTGCAGGTGGGCTGG
GCCCACCCAGGGAGCTGATGCCCCTTCTCCCCTTCCTGGACACACTCTCATGTCCCCTTCCTGTTCTTCCTTCCT
AGAAGCCCCTGTCGCCCACCCAGCTGGTCCTGTGGATGGGATCCTCTCCACCCTCCTCTAGCCATCCCTTGGGGA
AGGGTGGGGAGAAATATAGGATAGACACTGGACATGGCCCATTGGAGCACCTGGGCCCCACTGGACAACACTGAT
TCCTGGAGAGGTGGCTGCGCCCCCAGCTTCTCTCTCCCTGTCACACACTGGACCCCACTGGCTGAGAATCTGGGG
GTGAGGAGGACAAGAAGGAGAGGAAAATGTTTCCTTGTGCCTGCTCCTGTACTTGTCCTCAGCTTGGGCTTCTTC

FIGURE 4162B

CTCCTCCATCACCTGAAACACTGGACCTGGGGGTAGCCCCGCCCCAGCCCTCAGTCACCCCCACTTCCCACTTGC
AGTCTTGTAGCTAGAACTTCTCTAAGCCTATACGTTTCTGTGGAGTAAATATTGGGATTGGGGGGAAAGAGGGAG
CAACGGCCCATAGCCTTGGGGTTGGACATCTCTAGTGTAGCTGCCACATTGATTTTTCTATAATCACTTGGGGTT
TGTACATTTTTGGGGGGAGAGACACAGATTTTTACACTAATATATGGACCTAGCTTGAGGCAATTTTAATCCCCT
GCACTAGGCAGGTAATAATAAAGGTTGAGTTTTCCAC

FIGURE 4163

ACTTGGCCTTACACTCCGCTCGGCTCACC**ATG**TGTCACTCTCGCAGCTGCCACCCGACCATGACCATCCTGCAGG
CCCCGACCCCGGCCCCCTCCACCATCCCGGGACCCCGGCGGGGCTCCGGTCCTGAGATCTTCACCTTCGACCCTC
TCCCGGAGCCCGCAGCGGCCCCTGCCGGGCGCCCCAGCGCCTCTCGCGGGCACCGAAAGCGCAGCCGCAGGGTTC
TCTACCCTCGAGTGGTCCGGCGCCAGCTGCCAGTCGAGGAACCGAACCCAGCCAAAAGGCTTCTCTTTCTGCTGC
TCACCATCGTCTTCTGCCAGATCCTGATGGCTGAAGAGGGTGTGCCGGCGCCCCTGCCTCCAGAGGACGCCCCTA
ACGCCGCATCCCTGGCGCCCACCCCTGTGTCCCCCGTCCTCGAGCCCTTTAATCTGACTTCGGAGCCCTCGGACT
ACGCTCTGGACCTCAGCACTTTCCTCCAGCAACACCCGGCCGCCTTC**TAA**CTGTGACTCCCCGCACTCCCCAAAA
AGAATCCGAAAAACCACAAAGAAACACCAGGCGTACCTGGTGCGCGAGAGCGTATCCCCAACTGGGACTTCCGAG
GCAACTTGAACTCAGAACACTACAGCGGAGACGCCACCCGGTGCTTGAGGCGGGACCGAGGCGCACAGAGACCGA
GGCGCATAGAGACCGAGGCACAGCCCAGCTGGGGCTAGGCCCGGTGGGAAGGAGAGCGTCGTTAATTTATTTCTT
ATTGCTCCTAATTAATATTTATATGTATTTATGTACGTCCTCCTAGGTGATGGAGATGTGTACGTAATATTTATT
TTAACTTATGCAAGGGTGTGAGATGTTCCCCCTGCTGTAAATGCAGGTCTCTTGGTATTTATTGAGCTTTGTGGG
ACTGGTGGAAGCAGGACACCTGGAACTGCGGCAAAGTAGGAGAAGAAATGGGGAGGACTCGGGTGGGGGAGGACG
TCCCGGCTGGGATGAAGTCTGGTGGTGGGTCGTAAGTTTAGGAGGTGACTGCATCCTCCAGCATCTCAACTCCGT
CTGTCTACTGTGTGAGACTTCGGCGGACCATTAGGAATGAGATCCGTGAGATCCTTCCATCTTCTTGAAGTCGCC
TTTAGGGTGGCTGCGAGGTAGAGGGTTGGGGGTTGGTGGGCTGTCACGGAGCGACTGTCGAGATCGCCTAGTATG
TTCTGTGAACACAAATAAAATTGATTTACTGTCTGC

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FIGURE 4164

AGCAACGGGGTGCGGCAGGGTGGGGAACGCGGGAGCGGGGCCAGCTCCCAGGAAAGCTGGTCTGCGAGCGGCCCC
TGCCCGGCTCCCAGGTCCCTGCGCGACCCCGCCCTTCCCGAGACCCCAGCCGGGCTGCCGCCCGCGTCCCGGAAG
CTCCAGCCTGAACC**ATG**TTTTTCACTTGTGGCCCAAATGAGGCCATGGTGGTCTCCGGGTTCTGCCGAAGCCCCC
CAGTCATGGTGGCTGGAGGGCGTGTCTTTGTCCTGCCCTGCATCCAACAGATCCAGAGGATCTCTCTCAACACAC
TGACCCTCAATGTCAAGAGTGAAAAGGTTTACACTCGCCATGGGGTCCCCATCTCAGTCACTGGCATTGCCCAGG
TAAAAATCCAGGGGCAGAACAAGGAGATGTTGGCGGCCGCCTGTCAGATGTTCCTGGGGAAGACGGAGGCTGAGA
TTGCCCACATTGCCCTGGAGACGTTAGAGGGCCACCAGAGGGCCATCATGGCCCACATGACTGTGGAGGAGATCT
ATAAGGACAGGCAGAAATTCTCAGAACAGGTTTTCAAAGTGGCCTCCTCAGACCTGGTCAACATGGGCATCAGTG
TGGTTAGCTACACTCTGAAGGACATTCACGATGACCAGGACTATTTGCACTCTTTGGGGAAGGCTCGAACAGCTC
AAGTCCAAAAAGATGCACGGATTGGAGAAGCAGAGGCCAAGAGAGATGCTGGGATCCGGGAAGCTAAAGCCAAGC
AGGAAAAGGTGTCTGCTCAGTACCTGAGTGAGATCGAGATGGCCAAGGCACAGAGAGATTACGAACTGAAGAAGG
CCGCCTATGACATCGAGGTCAACACCCGCCGAGCACAGGCTGACCTGGCCTATCAGCTTCAGGTGGCCAAGACTA
AGCAGCAGATTGAGGAGCAGCGGGTGCAGGTGCAGGTGGTGGAGCGGGCCCAGCAGGTGGCAGTGCAGGAGCAGG
AGATCGCCCGGCGGGAGAAGGAGCTGGAGGCCCGGGTGCGGAAGCCAGCGGAAGCGGAGCGCTACAAGCTGGAGC
GCCTAGCCGAGGCAGAGAAGTCCCAACTAATTATGCAGGCGGAGGCAGAAGCCGCGTCTGTGCGGATGCGTGGGG
AAGCTGAGGCCTTTGCCATAGGGGCCCGAGCCCGAGCCGAGGCTGAGCAGATGGCCAAGAAGGCAGAAGCCTTCC
AGCTGTACCAAGAGGCTGCTCAGCTGGACATGCTGCTAGAGAAGCTGCCCCAGGTGGCAGAGGAGATCAGTGGTC
CCTTGACTTCAGCCAATAAGATCACACTGGTGTCCAGCGGCAGTGGGACCATGGGGGCAGCCAAAGTGACTGGGG
AAGTACTGGACATTCTAACTCGCCTGCCAGAGAGTGTGGAAAGACTCACAGGCGTGAGCATCTCCCAGGTGAATC
ACAAGCCTTTGAGAACAGCC**TGA**GCCTTCAGCCCTCACAGATGCCCAGCCTCATAGCTGAAGTTGCCTGAATGAT
CCTCCTGTTGCATGTAACCCACTGGCCTCCCTGAGCATGTCCATTGACAGTGAGGTCCCACCCCTCATCTCTCCT
TGCCAAATAGTTTGTGCCTTGTCTTGAAGGGGGTTGCTCCCCTTGCCAACCTCACACTGCTATGATTGCCAACTC
CAGCGGTCCCATGTCAGCCTTCTGATGATCCCACTCCACCCCACCTCAACTTATTTAACTTCCTAATTAAATCAG
ACTGTTTGAGCCTGTTGTCTAGAATATTTTCCTGACCAAGACTGAGGGATGGGCTGGAGGTTTTCAACTTTGCTA
CCCAAATAAATTGCTGTAAGTAAGTACT

FIGURE 4165

CGCTGCTCCAGCCTCTGGGGCGCATTCCAACCTTCCAGCCTGCGACCTGCGGAGAAAAAAAATTACTTATTTTCT
TGCCCCATACATACCTTGAGGCGAGCAAAAAAATTAAATTTTAACC**ATG**AGGGAAATCGTGCACATCCAGGCTGG
TCAGTGTGGCAACCAGATCGGTGCCAAGTTCTGGGAGGTGATCAGTGATGAACATGGCATCGACCCCACCGCTGT
CTTCCGTGGTCGGATGTCCATGAAGGAGGTCGATGAGCAGATGCTTAACGTGCAGAACAAGAACAGCAGCTACTT
TGTGGAATGGATCCCCAACAATGTCAAGACAGCCGTCTGTGACATCCCACCTCGTGGCCTCAAGATGGCAGTCAC
CTTCATTGGCAATAGCACAGCCATCCAGGAGCTCTTCAAGCGCATCTCGGAGCAGTTCACTGCCATGTTCCGCCG
GAAGGCCTTCCTCCACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCTGAGAGCAACATGAA
CGACCTCGTCTCTGAGTATCAGCAGTACCAGGATGCCACCGCAGAAGAGGAGGAGGATTTCGGTGAGGAGGCCGA
AGAGGAGGCC**TAA**GGCAGAGCCCCCATCACCTCAGGCTTCTCAGTTCCCTTAGCCGTCTTACTCAACTGCCCCTT
TCCTCTCCCTCAGAATTTGTGTTTGCTGCCTCTATCTTGTTTTTTGTTTTTTCTTCTGGGGGGGGTCTAGAACAG
TGCCTGGCACATAGTAGGCGCTCAATAAATACTTGTTTGTTGAATGTCTCCTCTCTCTTTCCACTCTGGGAAACC
TAGGTTTCTGCCATTCTGG

FIGURE 4166A

AGATC**ATG**GAGGACACCCAGGCTATTGACTGGGATGTTGAAGAAGAGGAGGAGACAGAGCAATCCAGTGAATCCT
TGAGGTGTAACGTGGAGCCAGTAGGGCGGCTACATATCTTTAGTGGTGCCCATGGACCAGAAAAAGATTTCCCAC
TACACCTCGGGAAGAATGTGGTAGGCCGAATGCCTGACTGCTCTGTGGCCCTGCCCTTTCCATCTATCTCCAAAC
AACATGCAGAGATTGAAATCTTAGCCTGGGACAAGGCACCTATCCTCCGAGACTGTGGGAGCCTTAATGGTACTC
AAATCCTGAGACCTCCTAAGGTTTTGAGCCCTGGGGTGAGTCACCGTCTGAGGGACCAGGAATTGATTCTCTTTG
CTGACTTGCTCTGCCAGTACCATCGCCTGGATGTCTCTCTGCCCTTTGTCTCCCGGGGCCCTCTGACAGTAGAAG
AGACACCCAGAGTACAGGGAGAAACTCAACCCCAGAGGCTTCTGTTGGCTGAGGACTCGGAGGAGGAAGTAGATT
TTCTTTCTGAAAGGCGTATGGTAAAAAAATCAAGGACCACATCTTCCTCTGTGATAGTTCCAGAGAGTGATGAAG
AGGGGCATTCCCCGGTCCTGGGCGGCCTTGGGCCGCCTTTTGCCTTCAATTTGAACAGTGACACAGATGTGGAAG
AAGGTCAGCAACCAGCCACAGAGGAGGCCTCCTCAGCTGCCAGAAGAGGTGCCACTGTAGAGGCAAAGCAGTCTG
AAGCTAAAGTTGTAACTGAAATCCAGCTTGAAAAGGATCAGCCTTTAGTGAAGGAGAGGGACAATGATACAAAAG
TCAAGAGGGGTGCAGGGAATGGGGTGGTTCCAGCTGGGGTGATTCTGGAGAGGAGCCAACCTCCTGGAGAGGACA
GTGACACAGATGTGGATGATGACAGCAGGCCTCCTGGAAGGCCAGCTGAGGTCCATTTGGAAAGGGCTCAGCCTT
TTGGCTTCATCGACAGCGACACTGATGCGGAAGAAGAGAGGATCCCAGCAACCCCAGTTGTCATTCCTATGAAGA
AGAGGAAGATCTTCCATGGAGTAGGTACAAGGGGCCCTGGAGCACCAGGCCTGGCCCATCTGCAGGAGAGCCAGG
CTGGTAGTGATACAGATGTGGAAGAAGGCAAGGCCCCACAGGCTGTCCCTCTGGAGAAAAGCCAAGCTTCCATGG
TTATCAACAGCGATACAGATGACGAGGAAGAAGTCTCAGCAGCGCTGACTTTGGCACATCTGAAAGAGAGCCAGC
CTGCTATATGGAACAGAGATGCAGAAGAGGACATGCCCCAACGTGTGGTCCTTCTGCAGCGAAGCCAAACCACCA
CTGAGAGAGACAGTGACACAGACGTGGAGGAGGAAGAGCTCCCAGTGGAAAATAGAGAAGCTGTCCTCAAGGATC
ACACAAAGATTAGAGCCCTTGTTAGAGCACATTCAGAAAAGGACCAACCTCCTTTTGGGGACAGTGATGACAGTG
TGGAAGCAGATAAGAGCTCACCTGGGATCCACCTGGAGAGAAGCCAAGCCTCCACCACAGTGGACATCAACACAC
AAGTGGAGAAGGAAGTCCCGCCAGGGTCAGCCATTATACATATAAAGAAGCATCAGGTGTCTGTGGAGGGGACAA
ATCAAACAGATGTGAAAGCAGTTGGGGGACCAGCAAAGCTGCTTGTGGTATCTCTAGAGGAAGCCTGGCCTCTGC
ATGGGGACTGTGAAACAGATGCAGAGGAGGGCACCGCCCTAACAGCCTCAGTAGTTGCAGATGTAAGAAAGAGCC
AGCTTCCAGCAGAAGGGGATGCTGGGGCAGAGTGGGCTGCAGCTGTTCTTAAGCAGGAGAGAGCTCATGAGGTGG
GGGCCCAGGGTGGGCCACCTGTGGCACAAGTGGAGCAGGACCTCCCTATCTCAAGAGAGAACCTCACAGATCTGG
TGGTGGACACAGACACTCTAGGGGAATCCACCCAGCCACAGAGAGAGGGAGCCCAGGTCCCCACAGGAAGGGAGA
GAGAACAACATGTGGGTGGGACCAAGGACTCTGAAGACAACTATGGTGATTCTGAAGATCTGGACCTACAAGCTA
CCCAGTGCTTTCTGGAGAATCAGGGCCTGGAAGCAGTCCAGAGCATGGAGGATGAACCTACCCAGGCCTTCATGT
TGACTCCACCCCAAGAGCTTGGCCCTTCCCATTGCAGCTTCCAGACAACAGGTACCCTAGATGAACCATGGGAGG
TCCTGGCTACACAGCCATTCTGTCTGAGAGAGTCTGAGGACTCTGAGACCCAGCCTTTTGACACGCACCTTGAGG
CCTATGGACCTTGCCTGTCTCCACCTAGGGCAATACCAGGAGACCAACATCCAGAGAGCCCAGTTCACACAGAGC
CAATGGGGATTCAAGGCAGAGGGAGGCAGACTGTGGATAAAGTCATGGGTATACCAAAAGAAACAGCAGAGAGGG
TGGGCCCTGAGAGAGGGCCATTGGAGAGAGAAACTGAGAAACTGCTACCAGAAAGACAGACAGATGTGACAGGAG
AGGAAGAATTAACCAAGGGGAAACAGGACAGAGAACAAAAACAGTTGTTAGCTAGAGACACCCAGAGACAAGAAT
CTGACAAAAATGGGGAAAGTGCAAGTCCTGAAAGAGATAGGGAGAGTTTGAAGGTAGAAATTGAGACATCTGAGG
AAATACAAGAGAAACAAGTACAGAAGCAGACCCTTCCAAGCAAAGCATTTGAGAGAGAAGTAGAGAGACCAGTAG
CAAACAGAGAGTGCGATCCAGCCGAGTTAGAAGAGAAGGTGCCCAAAGTGATCCTGGAGAGAGATACACAGAGAG
GGGAGCCAGAGGGAGGGAGCCAGGACCAGAAAGGGCAGGCCTCCAGCCCAACACCAGAGCCTGGGGTGGGGGCGG
GGGACCTTCCGGGACCTACCTCAGCCCCCGTACCTTCTGGGAGCCAGTCAGGTGGAAGGGGATCCCCAGTGAGCC
CCAGGAGGCATCAGAAAGGCCTCCTGAATTGCAAGATGCCACCTGCTGAGAAGGCTTCCAGGATCAGAGCTGCTG
AGAAGGTTTCCAGGGGCGATCAGGAATCTCCAGATGCTTGTCTGCCTCCTACAGTACCTGAAGCCCCAGCCCCAC
CCCAAAAGCCCCTTAACTCTCAGAGCCAGAAACATCTTGCACCTCCGCCCCTTCTTTCTCCCCTTTTACCTTCTA
TCAAGCCAACCGTTCGTAAGACCAGGCAAGATGGGAGTCAGGAAGCTCCAGAGGCTCCCTTGTCCTCAGAGCTGG
AGCCTTTCCACCCAAAGCCTAAAATTAGAACTCGGAAGTCCTCCAGAATGACACCCTTTCCAGCTACCTCTGCTG
CCCCTGAGCCCCACCCTTCCACCTCCACAGCCCAGCCAGTCACTCCCAAGCCCACATCTCAGGCCACTAGGAGCA
GGACAAATAGGTCCTCTGTCAAGACCCCTGAACCAGTTGTCCCCACAGCCCCTGAGCTCCAGCCTTCCACCTCCA
CAGACCAGCCTGTCACCTCTGAGCCCACATCTCAGGTTACTAGGGGAAGAAAAAGTAGATCCTCTGTCAAGACCC

FIGURE 4166B

CTGAAACAGTTGTGCCCACAGCCCTTGAGCTCCAGCCTTCCACCTCCACCGACCGACCTGTCACCTCTGAACCCA
CCTCTCAGGCTACTAGGGGAAGAAAAAATAGATCCTCTGTCAAGACCCCTGAACCAGTTGTCCCCACAGCCCCTG
AGCTCCAGCCTTCCACCTCCACAGACCAGCCTGTCACTTCTGAGCCCACATATCAGGCTACTAGGGGAAGAAAAA
ATAGATCCTCTGTCAAGACCCCTGAACCAGTTGTGCCCACAGCCCCTGAGCTCCGGCCTTCCACCTCCACAGACC
GACCTGTCACCCCCAAGCCCACATCTCGGACCACTAGGAGCAGGACAAATATGTCCTCTGTCAAGACCCCTGAAA
CAGTTGTCCCCACAGCCCCTGAGCTCCAGATTTCCACCTCCACAGACCAACCTGTCACCCCTAAGCCCACATCTC
GGACCACTAGGAGCAGGACAAATATGTCCTCTGTGAAGAACCCTGAATCAACTGTCCCTATAGCCCCTGAGCTCC
CACCTTCCACCTCCACAGAGCAGCCTGTCACCCCTGAGCCCACATCTCGGGCTACTAGGGGAAGAAAAAATAGAT
CCTCTGGCAAGACCCCTGAAACACTTGTCCCCACAGCCCCTAAGCTCGAGCCTTCCACTTCCACAGACCAACCTG
TCACTCCTGAGCCCACATCTCAGGCCACCAGGGGCAGGACAAATAGGTCCTCTGTGAAGACCCCTGAAACAGTTG
TCCCCACAGCCCCTGAGCTCCAGCCTTCCACCTCCACAGACCAGCCTGTTACCCCTGAGCCTACGTCTCAGGCTA
CTAGGGGAAGAACAGATAGATCCTCTGTCAAGACTCCTGAAACAGTTGTCCCCACAGCCCCTGAGCTACAGGCTT
CCGCCTCCACAGACCAGCCTGTCACCTCTGATCCCACATCTCGGACCACTAGGGGAAGAAAAAATCGGTCCTCTG
TCAAGACCCCTGAAACAGTTGTGCCCGCAGCCCCTGAGCTCCAGCCTCCCACCTCCACAGACCAACCTGTCACCC
CTGAGCCCACATCTCGGGCCACTAGGGGCAGGACAAATAGGTCCTCTGTCAAGACCCCTGAATCAATTGTCCCTA
TAGCCCCTGAGCTTCAGCCTTCCACCTCCAGAAACCAGCTTGTCACCCCTGAGCCCACATCTCGGGCCACTAGGT
GCAGGACAAATAGGTCCTCTGTCAAGACCCCTGAGCCAGTTGTCCCCACAGCCCCTGAGCCCCATCCTACCACCT
CCACAGACCAGCCTGTCACCCCCAAGCTCACATCTAGGGCCACTAGGAGAAAGACAAATAGGTCCTCTGTCAAGA
CTCCCAAACCAGTTGAACCAGCAGCCTCTGATCTTGAGCCTTTTACCCCCACAGACCAGTCCGTCACCCCTGAGG
CCATAGCTCAGGGTGGTCAGAGCAAAACACTGAGGTCTTCCACAGTAAGAGCTATGCCGGTTCCTACCACCCCTG
AATTCCAATCTCCTGTCACCACAGACCAGCCTATTTCCCCTGAGCCTATTACTCAACCCAGTTGCATCAAGAGGC
AGAGAGCCGCTGGGAACCCTGGCTCCCTCGCAGCTCCCATTGACCATAAGCCTTGCTCTGCACCCTTGGAACCTA
AATCCCAGGCCTCAAGGAACCAAAGATGGGGAGCAGTGAGAGCAGCTGAATCCCTTACAGCCATTCCTGAGCCTG
CCTCTCCCCAGCTTCTTGAGACACCAATTCATGCCTCCCAGATCCAAAAGGTGGAACCAGCAGGTAGATCTAGGT
TCACCCCGGAGCTCCAGCCTAAGGCCTCTCAAAGCCGCAAGAGGTCTTTAGCTACCATGGATTCACCACCACATC
AAAAACAGCCCCAAAGAGGGGAAGTCTCCCAGAAGACAGTGATTATCAAGGAAGAGGAAGAAGATACTGCAGAGA
AGCCAGGGAAGGAAGAGGATGTCGTGACTCCAAAACCAGGCAAGAGAAAGAGAGACCAGGCAGAGGAGGAGCCCA
ACAGAATACCAAGCCGCAGCCTCCGACGGACCAAACTTAACCAAGAATCAACAGCCCCCAAAGTGCTCTTCACAG
GAGTGGTGGATGCTCGGGGAGAGCGGGCTGTGCTGGCACTGGGGGGAAGTCTGGCTGGTTCAGCGGCAGAGGCTT
CCCACCTGGTCACTGATCGCATCCGCCGGACAGTCAAGTTCCTGTGTGCCCTGGGGCGGGGAATCCCCATTCTGT
CCCTGGACTGGCTGCATCAGTCCCGCAAGGCTGGTTTCTTCTTACCCCCGGATGAATATGTGGTGACCGACCCTG
AGCAAGAGAAGAACTTTGGCTTTAGCCTTCAAGACGCACTGAGCAGGGCTCGGGAGCGAAGGCTGCTAGAGGGCT
ATGAGATCTATGTGACCCCTGGAGTCCAGCCACCACCACCTCAGATGGGAGAGATTATTAGCTGCTGTGGAGGCA
CATACCTACCCAGCATGCCTCGGTCCTATAAGCCTCAGAGAGTTGTGATCACATGCCCTCAGGACTTCCCTCATT
GCTCCATTCCACTACGGGTTGGGCTGCCCCTCCTCTCGCCTGAGTTCCTGCTGACTGGAGTGCTGAAGCAGGAAG
CCAAGCCAGAGGCCTTTGTCCTCTCCCCTTTGGAGATGTCATCCACC**TGA**GAACTCCACTACCCTTTTCCCTCCC
AGACCACGAATTAGAAGATATGTGGAAGAAAGAACTCAGGGCGTTAGAAAGGATTGGGGTATATTGATACAACTT
GTCCTGGAACATGGGTGGGACCAGAAATCTTTATGAATAAATGAAAAGATAAGGGATTTGGAAGCCACAGGTTGT
TTTTTGTTTGTTTGTTTGTTTTTTTAATGGCCATTTTATTTTATTTGTATTTATAGTTTTTTATTTGTATAGATT
TAGGGGATACAAGATTTCTTACATGCATGTATTAAATGGCCATTTTAAAATTAGCTAGTTTCATGCTCAGATGTC
ATAAGTGGCAGCTATCTTTAGCCAGACTGTTGCAGTTATTGCTCGATGCCACTCATGGTGTCCTACCTCCTATTT
GGAAACCATCTCTATTTTTTTCTTACTGAGATTCTTACTTTGGGGTCAGGAACTTGAAGGGATGCTTGGAGTGAG
TAGATTTGAGGGTCCAGTTATGGAGTGCTACTAAAACATTTTCTTCTCTCCTGGCCTCTGGAAGCATCTTTAGCT
TTGACTTTGGGCAAGTCTCTGTACTTTTCTGGCCAGCTTTTCCAGGATTTATAAAATTAGAGCTTCGGCTTGACC
TCTGTGATAAATAAATATTCACTCTGTGCCTT

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FIGURE 4167

ATGGCCCCTGCACTGCTCCTGATCCCTGCTGCCCTCGCCTCTTTCATCCTGGCCTTTGGCACCGGAGTGGAGTTC
GTGCGCTTTACCTCCCTTCGGCCACTTCTTGGAGGGATCCCGGAGTCTGGTGGTCCGGATGCCCGCCAGGGATGG
CTGGCTGCCCTGCAGGACCGCAGCATCCTTGCCCCCCTGGCATGGGATCTGGGGCTCCTGCTTCTATTTGTTGGG
CAGCACAGCCTCATGGCAGCTGAAAGAGTGAAGGCATGGACATCCCGGTACTTTGGGGTCCTTCAGAGGTCACTG
TATGTGGCCTGCACTGCCCTGGCCTTGCAGCTGGTGATGCGGTACTGGGAGCCCATACCCAAAGGCCCTGTGTTG
TGGGAGGCTCGGGCTGAGCCATGGGCCACCTGGGTGCCCCTCCTCTGCTTTGTGCTCCATGTCATCTCCTGGCTC
CTCATCTTTAGCATCCTTCTCGTCTTTGACTATGCTGAGCTCATGGGCCTCAAACAGGTATACTACCATGTGCTG
GGGCTGGGCGAGCCTCTGGCCCTGAAGTCTCCCCGGGCTCTCAGACTCTTCTCCCACCTGCGCCACCCAGTGTGT
GTGGAGCTGCTGACAGTGCTGTGGGTGGTGCCTACCCTGGGCACGGACCGTCTCCTCCTTGCTTTCCTCCTTACC
CTCTACCTGGGCCTGGCTCACGGGCTTGATCAGCAAGACCTCCGCTACCTCCGGGCCCAGCTACAAAGAAAACTC
CACCTGCTCTCTCGGCCCCAGGATGGGGAGGCAGAG**TGA**GGAGCTCACTCTGGTTACAAGCCCTGTTCTTCCTCT
CCCGCTGAATTCTAAATCCTTAACATCCAGGCCCTGGCTGCTTCATGCCAGAGGCCCAAATCCATGGACTGAAGG
AGATGCCCCTTCTACTACTTGAGACTTTATTCTCTGGGTCCAGCTCCATACCCTAAATTCTGAGTTTCAGCCACT
GAACTCCAAGGTCCACTTCTCACCAGCAAGGAAGAGTGGGGTATGGAAGTCATCTGTCCCTTCACTGTTTAGAGC
ATGACACTCTCCCCCTCAACAGCCTCCTGAGAAGGAAAGGATCTGCCCTGACCACTCCCCTGGCACTGTTACTTG
CCTCTGCGCCTCAGGGGTCCCCTTCTGCACCGCTGGCTTCCACTCCAAGAAGGTGGACCAGGGTCTGCAAGTTCA
ACGGTCATAGCTGTCCCTCCAGGCCCCAACCTTGCCTCACCACTCCCGGCCCTAGTCTCTGCACCTCCTTAGGCC
CTGCCTCTGGGCTCAGACCCCAACCTAGTCAAGGGGATTCTCCTGCTCTTAACTCGATGACTTGGGGCTCCCTGC
TCTCCCGAGGAAGATGCTCTGCAGGAAAATAAAAGTCAGCCTTTTTCTAC

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FIGURE 4168A

AGACAAAGCGGTCGCCGCCCCCGCCCGGCCCCCTGGTCTCTGTCTCCGTCCCTCCTCCTTTGCTGCCTCTTTCCC
TCCTCCTCTCCCTCCCTCCTCCCCTCCCTCCAGTCTCCGGATCTCCCTCGGTCCCTCTCTCCTCCTCTTCCTCTC
TCTGGACGCCCGGCTCCTCCGCACCCCCTCCCCCGGGGGTCCCGCGGCCTGTGAGTTGACTGAGGGGCTCAGACT
TGGGGAGTGGGTGTCTCCTCGCCCCTGTCCTTGCTCCCGTCCCTGGCCCGGACCTTGGCTGTCTCCTCTTTGTGC
CGAGATTGTCAGTCTGTGCGGCTACAGCGGGGTGGAGACGGCCGGCTCTGTCACGGCTTCATGAGAGCGGGGACG
GGGCGCAGGACTTGCAGGCGCCGGGGAGAAGAGACATGGAGCCGGCCCTTGGCACTCTGGGGTCGCGTGGGGCAG
TCGGTGGGGGAGGCAGGCGGTGGTGACAGGACAGGGTGGGGGTGGACGCCAGGGTTCTGGGAACGCGCTGGCAGC
CCTGACGCCCGGGTTCCGAAAGTCTCGGGGGTGGGTATTTCCCCCGACCCGCCTCGGGGGCGGAGTGCGGGGCAG
AGGGGTGGGGGCTGGGGAGAGGCGTGGCCCGAGCGGTGCTGGAAGCGGAGCCGGGACCTTTGGGGCCCGCGCTGA
GACGCGCCCGGCTGCTGCCGCCGCCCTCCTTTCCCCTCTTCCCTGGTTTCCCTTCTCCTCTAGACCTGTTCGCTC
TCCGCCCCTCCTTGCCTCCCCAACACCCCCTCAGGTCCCGTTGCCTCCTGGTCCTTTCAGGGATTCCTGGTCCTT
CCTTCCCACACTAGCCTCCCTGGGGTATCGCTGAGGCAGCCTGGCCTGCACCCAGGTTCCCCTCACCCCTGCCAC
ATTTCTCTCTTCTCCCTCACGCCAACTTTCCTTTTCGCCCTTCTCTCTCTTTCTCACATCCTAGAGACGGTCTTT
AATACGCATTAACCCTGTGCTGCCACATCTGGCTCCTGCCCTCATTGCCTCCAATCCGGACTCTTCCTCTCACAT
CACCCCCACCACCCCCAACTTGGGCTCACAACTTCTCTTCACTTTTTCCATTTCCCCAGTTCTCTGCCTTCCGTC
TTTCCCTCTGTCCTCATCCTTAGCCCCTCTGCCCTGCTTTGTGTCCCACCTCTCCCCCTCCACTTCCTCTCCTCC
CACCCTCAGTCTCACCCCCGGGCTGTCTCACTCTCTGGAGCCTCTCCTTCCTGTTCTCTGTCCCCAGTGCTCCCT
ACCCTCACCTCAAGACGACC**ATG**GCCACCATCCCAGACTGGAAGCTACAGCTGCTAGCCCGGCGCCGGCAGGAGG
AGGCGTCCGTTCGAGGCCGAGAGAAAGCAGAACGGGAGCGCCTGTCCCAGATGCCAGCCTGGAAACGAGGGCTCC
TGGAGCGCCGCCGGGCCAAGCTTGGGCTGTCCCCTGGGGAGCCTAGCCCTGTGCTAGGGACTGTAGAGGCTGGAC
CTCCAGACCCGGATGAGTCTGCGGTCCTTCTGGAGGCCATCGGGCCAGTGCACCAGAACCGATTCATCCGGCAGG
AGCGGCAGCAGCAGCAGCAGCAACAACAACGGAGTGAAGAGCTGCTAGCAGAGAGAAAGCCTGGGCCTCTGGAGG
CCCGGGAGCGGAGACCCAGCCCTGGGGAGATGCGGGATCAGAGCCCCAAGGGAAGAGAGTCAAGAGAAGAGAGAC
TAAGTCCGAGGGAGACCAGAGAGAGGAGGCTGGGGATAGGGGGAGCCCAAGAGTTGAGCCTGAGGCCTCTGGAGG
CTCGGGACTGGAGGCAAAGCCCAGGAGAGGTGGGAGACAGGAGCTCCCGACTGTCAGAGGCATGGAAATGGAGGC
TGAGTCCTGGAGAAACTCCAGAGCGGAGTCTGAGACTAGCAGAGTCTCGAGAGCAAAGCCCCAGGAGAAAAGAGG
TGGAAAGTAGACTGAGCCCAGGGGAATCTGCCTACCAGAAGTTGGGCCTGACAGAGGCCCATAAATGGAGACCTG
ACTCCAGAGAGTCTCAGGAACAGAGTTTGGTACAACTGGAGGCAACAGAGTGGAGGCTGAGGTCAGGAGAAGAAA
GACAAGACTACTCGGAAGAATGTGGGAGAAAAGAAGAGTGGCCAGTTCCAGGGGTAGCTCCAAAAGAGACTGCAG
AGCTGTCCGAGACCCTGACAAGGAGGCCCAAGGCAACAGTTCCGCAGGAGTGGAGGCAGCAGAGCAGAGGCCTG
TGGAAGATGGCGAGAGGGGCATGAAGCCAACAGAAGGGTGGAAATGGACCCTGAACTCCGGGAAGGCTCGAGAAT
GGACACCCAGGGACATAGAGGCTCAAACTCAGAAACTAGAACCTCCAGAGTCAGCAGAGAAGCTTCTGGAATCTC
CCGGTGTGGAGGCTGGAGAAGGGGAGGCTGAGAAGGAGGAGGCGGGGGCTCAGGGCAGGCCTCTGAGAGCCCTGC
AGAACTGCTGCTCTGTGCCCTCCCCCCTCCCACCAGAGGACGCTGGGACTGGAGGCCTGAGACAGCAGGAAGAGG
AAGCAGTGGAGCTCCAGCCCCCACCACCAGCCCCTCTGTCTCCCCCACCCCCAGCCCCAACTGCCCCCCAACCTC
CTGGGGATCCCCTCATGAGCCGCCTGTTCTATGGGGTGAAGGCAGGGCCAGGGGTGGGGGCCCCCCGCCGCAGTG
GACACACCTTCACCGTCAACCCCCGGCGGTCTGTGCCCCCTGCGACCCCAGCCACCCCAACCTCTCCAGCCACAG
TTGATGCTGCAGTCCCGGGGGCTGGGAAGAAGCGGTACCCAACTGCCGAGGAGATCTTGGTTCTGGGGGGCTACC
TCCGTCTCAGCCGCAGCTGCCTTGCCAAGGGGTCCCCCGAAAGACACCACAAACAGCTTAAGATCTCCTTCAGCG
AGACAGCCCTGGAGACCACGTACCAATACCCCTCCGAGAGTTCGGTACTGGAGGAGCTGGGCCCGGAGCCTGAGG
TCCCCAGTGCCCCCAACCCTCCAGCAGCCCAACCCGACGACGAAGAGGATGAGGAAGAGCTGCTGCTGCTGCAGC
CAGAGCTCCAGGGCGGGCTGCGCACCAAGGCCCTGATTGTGGATGAGTCCTGCCGGCGG**TGA**CCATCTTCCAACA
TAGGGATATACCTCCCTCCTTCTTATAACTGAAGATCCTGGAGCCCGGAAGATTCAGGGCAGACAGACCCTGATA
ATGAGCCTGGCAGGGAAGGGCAACCAACATCTTGTAACTTGCTTTCCCCACCCTGTTTCTGGGGGCAGAGCCAAT
TGCCCAATTTCTACCCTAATCCAAAGTCCCTGGTGTGGGTGGGGTTAAACGTGCTGGTGCATCCTAGGTCATCCA
AGAGTGAGCGCCAAGTCCTGAGAAGGGGCACAGAACTCCCTGGAGGGTGGAGATGGAGCACCTGCCCCCCATGGC
AGGGTACACTCTCCCCACAGCCTTCCTCCCCACCATCCCGTGGGGACTCTCGGGATTTAAGCACTCGTCTCTCTG
GGAGGCCCAGACCCCACTCCATTTATAGGCACATCTCCTTCATTTCCTAGGTCACTGCCCCTTTGTTTACAGCTC

FIGURE 4168B

CTGCCTCCTCCCTTGACCACAGCCTGGTTTACAAATTCCATCAGCTCCCAGCCCCACCTGCCAAAGTCCCAGGTT
TACAAGCCACGCTTACTTGCTGTGTCTGCGTGGAATTCTCTCCTCTGTCCCCTCCAGTCTCCTCATTGGAGTGAC
CTGAAGGTGTGGCTTCCTCCACTTTTTCTCAGTATTACTTTGCCTTAGTTTTCCCCAAGAGGGAAGGCTGGAACT
CTTAACTCTGTACCCCTTGATAGTTATTTAATTCTGTTTCTCCTAGTGGTTCACAATTGAACTGAATTGAGATGG
TGTCGGGTGGCTAAGGAGACACCTCACCTCTCCTTCCCCATTGTGCCGCCTTTATCAATTGCCTGTTTTGTTTTG
TTTGTTTTTTAACTTTCCATAATAAAATGGAGTTCTCTTC

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FIGURE 4169

GTCGGAAGATCCTAGAGGTCCCAAGGTAGCTGACTTGCGAAGCTGAGGCTCCAGCCGAGGGCTCCAGGCCTCTGA
CCGGCCCAGCAGTGAGCGCGGCTGCCCGACGCTTCAGGGCCGGGAGCAGGGAGCGTGAGTCGCC**ATG**GCGACGCC
GGCGGGTCTGGAGCGCTGGGTTCAGGACGAGCTGCACTCGGTGTTGGGGCTGAGCGAGCGGCACGTCGCCCAGTT
TCTGATCGGTACCGCACAGCGCTGCACCTCTGCCGAGGAGTTCGTGCAGCGCCTACGAGACACTGATACCTTGGA
TCTCAGTGGGCCGGCCCGGGACTTCGCCCTGAGACTCTGGAACAAGGTACCACGAAAGGCAGTGGTAGAAAAGCC
AGCTCGGGCAGCAGAGCGAGAGGCCCGGGCCCTGCTGGAGAAGAACCGATCTTATAGGTTACTGGAAGACAGTGA
AGAGAGCAGTGAGGAGACTGTGAGTAGGGCTGGAAGCAGCCTCCAGAAGAAACGTAAAAAGCGGAAACACCTCAG
GAAGAAGCGTGAGGAAGAAGAGGAGGAAGAGGCTTCTGAGAAAGGGAAGAAGAAAACAGGGGGGAGTAAACAGCA
GACAGAGAAGCCAGAGTCGGAAGATGAGTGGGAACGGACAGAGCGTGAACGCCTTCAGGACCTGGAGGAGCGTGA
TGCCTTTGCTGAGCGGGTTCGACAGCGGGACAAGGATCGGACTCGAAATGTCCTGGAACGGTCAGACAAGAAGGC
TTATGAAGAGGCTCAGAAGCGCCTCAAGATGGCCGAGGAAGACCGGAAGGCCATGGTCCCTGAGCTGCGGAAGAA
ATCTCGCCGAGAGTACCTGGCTAAGCGGGAGCGAGAGAAGCTTGAGGACCTGGAGGCGGAGCTGGCTGATGAGGA
GTTCCTTTTTGGGGACGTGGAGCTGAGCCGGCACGAGCGGCAGGAGCTCAAATATAAGCGGCGAGTGCGGGATCT
CGCCCGGGAGTACCGGGCAGCTGGGGAGCAGGAGAAGCTGGAGGCCACCAATCGCTACCACATGCCCAAGGAAAC
CCGAGGACAGCCAGCCCGAGCTGTGGATCTAGTGGAGGAGGAATCAGGAGCCCCTGGGGAGGAGCAGCGGCGCTG
GGAGGAGGCGCGGCTTGGGGCAGCGTCCCTGAAGTTTGGGGCCCGAGATGCTGCCTCTCAGGAGCCCAAGTATCA
ACTGGTGCTGGAGGAGGAGGAGACCATTGAGTTTGTCCGGGCCACTCAGCTCCAGGGTGATGAGGAGCCGTCAGC
TCCACCCACTTCAACTCAGGCCCAGCAGAAAGAGTCCATCCAGGCCGTCCGCCGCAGCCTCCCGGTGTTCCCATT
TCGAGAGGAGCTCCTGGCTGCTATTGCAAATCACCAAGTCCTCATCATTGAAGGCGAGACAGGCTCAGGGAAGAC
CACCCAGATCCCGCAGTATCTCTTTGAGGAGGGTTATACAAACAAGGGTATGAAGATTGCCTGCACCCAACCCCG
GAGAGTGGCTGCCATGAGTGTGGCCGCCCGAGTGGCCCGGGAGATGGGTGTGAAGCTTGGGAATGAGGTTGGCTA
CAGCATCCGCTTTGAGGACTGCACATCAGAGCGAACTGTCCTCCGCTACATGACAGATGGGATGCTTCTCCGGGA
GTTCCTCTCTGAGCCTGACCTGGCGAGTTACAGCGTGGTGATGGTGGATGAGGCACACGAAAGGACCCTACACAC
AGACATTCTCTTTGGATTGATCAAGGATGTTGCTCGCTTCCGACCTGAGCTCAAGGTCCTGGTGGCTTCAGCCAC
AATGGACACTGCCCGTTTTTCCACCTTCTTTGATGACGCCCCTGTGTTTCGAATCCCCGGACGCAGGTTTCCTGT
GGACATCTTCTACACCAAGGCTCCAGAGGCTGACTACTTGGAAGCTTGTGTAGTATCTGTGTTGCAGATCCATGT
GACCCAGCCCCCTGGGGATATCCTGGTGTTCCTGACAGGACAGGAGGAGATTGAGGCTGCCTGTGAGATGCTCCA
GGATCGCTGCCGCCGCCTGGGCTCCAAAATCCGGGAGCTCCTGGTGCTGCCCATTTATGCCAATCTGCCCTCTGA
CATGCAGGCCCGTATCTTCCAGCCCACACCACCTGGGGCACGAAAGGTGGTTGTGGCAACGAACATTGCTGAGAC
ATCACTCACCATTGAGGGCATCATTTATGTGCTGGATCCAGGGTTCTGTAAGCAGAAGAGCTACAACCCCCGCAC
AGGCATGGAATCGCTCACTGTCACACCCTGCAGCAAGGCCTCAGCCAATCAGCGAGCTGGCAGGGCAGGTCGGGT
GGCTGCAGGGAAGTGCTTCCGCCTGTATACCGCCTGGGCCTATCAGCACGAGCTTGAGGAAACCACAGTGCCTGA
GATCCAGAGGACCAGCTTGGGCAATGTCGTGTTGCTGCTCAAGAGCTTAGGGATCCATGACCTAATGCACTTTGA
TTTCCTGGACCCTCCACCATATGAGACACTGCTGCTGGCTTTGGAGCAGCTGTATGCTCTGGGAGCCCTCAACCA
CCTTGGGGAGCTCACCACGTCTGGTCGAAAGATGGCAGAGCTGCCGGTGGACCCCATGCTGTCCAAAATGATCTT
AGCCTCTGAGAAGTACAGCTGTTCAGAGGAGATCCTGACAGTGGCTGCCATGCTCTCTGTCAACAACTCCATCTT
CTACCGACCAAAGGACAAGGTCGTCCATGCTGACAATGCCCGTGTCAACTTCTTTCTCCCTGGCGGTGACCACCT
GGTTCTGCTAAATGTTTACACACAGTGGGCTGAGAGTGGTTACTCTTCCCAGTGGTGCTATGAGAACTTTGTACA
GTTCAGATCGATGCGCCGAGCCCGGGATGTGCGGGAACAGCTGGAAGGGCTCTTGGAACGTGTGGAAGTTGGTCT
CAGTTCCTGCCAGGGGGACTATATCCGTGTACGCAAGGCCATCACTGCTGGTTACTTTTACCACACGGCACGGTT
GACTCGGAGTGGCTACCGCACAGTGAAACAGCAGCAGACAGTCTTCATTCATCCCAACTCCTCCCTCTTTGAGCA
ACAGCCACGCTGGCTGCTCTACCACGAACTTGTCTTGACCACCAAAGAGTTCATGAGACAGGTACTGGAGATTGA
GAGCAGTTGGCTTCTGGAGGTGGCTCCCCATTATTATAAGGCCAAGGAGCTAGAAGATCCCCATGCTAAGAAAAT
GCCCAAAAAAATAGGCAAAACACGAGAAGAGCTAGGG**TAA**GAGAAGGACGTAAACAGAACCTGACACCAGCTCCT
TTTCCTTCTATACATTATTTAATACCTATTAAATAAAATTATTTTTGGAATAAAGCTTGTGGGAACATTTGGGAT
CT

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FIGURE 4170

CTTCACGAAGCCGGCTCTGGGGCGCGCTCACCCCTGTGAGGAGGCCGGAGGTCGGACTCAGGAGGCTCCTTCTCC
ACTCCCGGAAGATCATGTACCAGCCCAGCCGGGGTGCGGCCCGGCGTCTCGGCCCTTGCCTGCGCGCCTACCAGG
CTCGACCCCAGGACCAGCTTTATCCAGGGACTCTACCATTCCCACCCCTTTGGCCCCACTCCACGACAACCACTT
CCCCATCTTCTCCTCTATTCTGGTCTCCCCTGCCCCCACGCCTTCCCACCCAGCGTCTTCCCCAGGTTCCCCCAC
TACCTCTCCCTCAGATCCAGGCCCTCAGCTCAGCATGGGTGGTTCTCCCTCCAGGAAAGGGGGAGGAGGGACCAG
GACCTGAGTTGCATAGCGGCTGCCTGGATGGGCTTAGAAGCCTTTTTGAGGGACCTCCCTGCCCCTATCCTGGGG
CTTGGATACCTTTCCAAGTCCCTGGAACTGCCCACCCTTCCCCTGCCACCCCGTCAGGAGATCCTAGT**ATG**GAGG
AACATCTGTCTGTCATGTATGAGAGACTGAGACAAGAGCTTCCCAAGCTCTTCCTTCAGTCCCACGACTACAGTC
TGTATTCCTTGGATGTGGAATTCATCAATGAGATCCTCAACATACGTACCAAGGGCCGGACATGGTACATTCTTT
CACTGACCCTCTGCCGTTTCCTGGCCTGGAATTATTTTGCACACCTTCGTTTGGAGGTTTTACAGCTGACCCGCC
ACCCTGAGAACTGGACCCTGCAAGCCCGGTGGCGGCTTGTGGGGCTGCCCGTCCACTTGCTCTTTTTGCGGTTCT
ACAAGCGTGACAAAGACGAGCATTACCGGACCTATGATGCCTACTCCACTTTCTACCTGAATTCCAGTGGCCTCA
TTTGTCGCCATCGTCTAGATAAACTGATGCCTTCACACTCACCTCCAACGCCTGTGAAGAAGCTGCTAGTGGGAG
CCCTGGTGGCCCTGGGGCTGTCAGAGCCAGAACCTGACTTAAACCTGTGTTCCAAGCCC**TGA**TCCTTGACCTTGG
AGTGGAGGCAGCACTGAAGACTGCTACGCCCAAGAGAAGGAGGTGGAGGCAGCCAAGAATCTCAGGAGCCAGCTT
CCTCTCCTCGTTTCTCTCCTTCCTTCCTTTCCATCTCATGCTGTGTAAAGCTGCTGTGTAATTTAACTTGTAAAT
AATAAAGTTTAACTGACTATATG

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FIGURE 4171

GCCTTTCCGTCAATTCCTGTCCTGGGCGTACGTCAAG**ATG**GCGGCGTCTGTATTAAACACCGTGCTGAGGCGGCT
TCCTATGCTATCTCTCTTCCGAGGTTCTCACAGAGTTCAGGTTCCCCTCCAGACTCTTTGCACCAAAGCTCCCTC
TGAGGAAGATTCTTTGTCCTCAGTTCCCATTTCTCCTTATAAGGATGAGCCCTGGAAATATCTGGAATCAGAAGA
ATACCAGGAGCGATATGGTTCTCGCCCCGTCTGGGCTGACTACCGCCGCAACCACAAGGGTGGTGTACCCCCACA
GCGGACTCGGAAGACATGTATTCGTCGGAATAAAGTTGTTGGGAATCCCTGCCCCATCTGTCGAGATCACAAGTT
GCATGTTGACTTTAGGAACGTGAAGCTCTTGGAGCAATTTGTCTGCGCCCACACGGGTATCATCTTCTATGCTCC
ATACACAGGAGTCTGTGTGAAGCAGCACAAGCGGTTGACCCAGGCCATCCAGAAAGCCAGGGATCATGGTCTCCT
CATTTACCACATCCCCCAGGTTGAACCACGGGACCTTGACTTCAGTACCTCTCATGGGGCTGTGAGTGCTACTCC
GCCAGCCCCCACCCTGGTCTCAGGTGACCCCTGGTACCCATGGTACAACTGGAAACAGCCACCGGAGAGAGAACT
GTCTCGCCTTCGCCGGCTTTACCAGGGTCATCTCCAAGAAGAGAGTGGCCCCCCACCTGAGTCAATGCCCAAGAT
GCCCCCTAGAACACCAGCGGAAGCCTCCTCCACTGGGCAGACAGGCCCTCAGAGTGCTCTG**TAG**GAGCTGTAGAC
TGGGAAGAGAGGCCAGGCGTGGTGGCTCACTCCTGTAATCCCAGCACTTTGGGAAGCCAAGGTGGGCTGATCACT
TGATCCCAGGAGTTTGAGACCAGCCTGGGCACCATGGTGAAACCTCGTCTTTACCAAAAAATACAAAAATTAGCT
GGGTGTGGTGGTGCACACCTGTAGTCTCAACTATTGGGGAGGCTAAGGTAGGATCACTTGATCCCAGGAGGCGGA
GGTTGCAGTGAGTTGCAGTCACACCCCTGCACTCCAGCCTGGGTGACAGCTAGACCCTGTCTCAAAAAAAAAAAA
AAAGACTGGGAAGAGAGCTAGAGGGACTAGGAGATAATGTGTATGTAGGTTTATGTGATGGGATATCACCCTGAA
GAGTTGTGTCTTTTGTGGCCAGTGACAAATCCAGGAAATGAATGTTGCTGATAGGGATAAATCTTGAGGCTGAGG
GCGGGTGGTACAGATGTGTATGGGAAACCCCAACCCCTATATATTGTAAATAGATGGGCTGGGCTAAACATTGTT
GCCGTTTCATACTTCTACCAACTCAGCTTTTACACAATAAAGCTCTACTGTCTCTGG

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FIGURE 4172A

AGGTTTGAATTTTCTCGGAGAAAGACAGGCCGGCCACGAGGAAAACAGAAACAAGCCGCAGCAACATCTAAGCCC
TTGAAAGGATCCTGAGAGAGGGGGGAAAGGGAAAACAGCAGCCACCAGCCCAACCACTTGTGTCTTCTGCCCCTT
CCCACCTATCTTGCCCACCCCACCAGCCCACGCTGCTTGGGACTTGAAATCTGTGGCCGAAGGACCGTCACTACA
TAACTTCAAAAATAATCAACCACCCTCCCTTCCCAAACCACCCAAATTCACTCATCCAGCGTTTACTTTTTTGAA
TCCACTCAGAACTTTTTTCTGCGACCCCCCTCCCTAAATGGAGTTGGGTGGGGGGGGAAATGAATACTGAGTTGGC
CTTTATTTTTTAAAAGACTTTTTGATCCAATGAGGCCCCCTAAATAATTGAGTTTTGGGTCCTGGTTGGTTGTTT
TATTTTTTTTCCTCCAAAATTTTACCCCCTCCCCCCTGAGCCCGAGGTGCTGACGTCGCAAAAAAATTGGATAAA
ACCACCATC**ATG**GGTTCGGGTCCCATAGACCCCAAAGAACTTCTCAAGGGCCTGGACAGCTTCCTTAACCGAGAT
GGGGAAGTCAAAAGTGTGGATGGGATTTCCAAGATCTTCAGTTTGATGAAGGAAGCACGAAAGATGGTGAGTCGA
TGCACTTACTTGAACATTCTCCTGCAGACCCGTTCACCAGAAATATTGGTCAAATTTATTGACGTTGGCGGCTAC
AAACTTCTTAACAATTGGCTGACGTATTCAAAGACAACCAACAACATTCCCCTCCTCCAGCAAATTCTACTGACC
CTGCAGCATCTACCGCTCACTGTAGACCATCTCAAGCAGAACAACACAGCTAAACTGGTGAAGCAGCTGAGCAAG
TCAAGTGAGGATGAAGAGCTCCGGAAATTGGCCTCAGTCCTTGTCAGCGACTGGATGGCTGTCATCCGCTCTCAG
AGCAGTACCCAGCCTGCTGAGAAAGATAAGAAGAAACGTAAAGATGAAGGAAAAAGTCGAACTACCCTTCCTGAG
CGACCTTTGACAGAGGTGAAGGCTGAGACCCGGGCTGAGGAGGCCCCAGAGAAGAAGAGGGAGAAGCCCAAGTCT
CTTCGCACCACAGCACCCAGTCATGCCAAGTTCCGTTCCACTGGACTAGAGCTGGAGACACCATCCTTGGTGCCT
GTGAAGAAGAATGCCAGCACAGTGGTGGTTTCTGACAAGTACAACCTTAAACCCATCCCCCTCAAACGTCAGAGC
AACGTAGCTGCTCCAGGAGATGCCACTCCCCCTGCAGAGAAGAAATACAAGCCACTCAACACAACACCTAATGCC
ACCAAAGAGATCAAAGTGAAGATCATCCCGCCACAGCCTATGGAGGGCCTGGGCTTTCTGGATGCTCTTAATTCA
GCCCCTGTTCCAGGCATCAAAATTAAGAAGAAAAAAAAAGTACTGTCACCTACGGCTGCCAAGCCAAGCCCCTTT
GAAGGGAAAACGAGCACAGAACCAAGCACAGCCAAACCTTCTTCCCCAGAACCAGCACCACCTTCTGAGGCAATG
GACGCAGACCGTCCAGGCACCCCGGTTCCCCCTGTTGAAGTCCCGGAGCTCATGGATACAGCCTCTTTGGAGCCA
GGAGCTCTGGATGCCAAGCCAGTGGAGAGTCCTGGAGATCCTAACCAACTGACCCGGAAAGGCAGGAAGAGGAAA
AGTGTGACATGGCCTGAGGAAGGCAAACTGAGAGAATATTTCTATTTTGAATTGGATGAAACTGAACGAGTAAAT
GTGAATAAGATCAAGGACTTTGGTGAGGCCGCTAAGCGAGAGATACTGTCAGACCGACATGCATTTGAGACAGCG
CGGCGTCTGAGCCATGATAACATGGAGGAGAAGGTGCCCTGGGTGTGCCCCCGGCCCCTGGTTCTGCCCTCACCT
CTTGTCACCCCTGGAAGCAATAGTCAGGAGCGATATATCCAGGCTGAGCGGGAGAAGGGAATCCTTCAGGAGCTC
TTCCTGAACAAGGAGAGTCCTCATGAGCCTGATCCTGAGCCCTACGAGCCCATACCCCCTAAACTCATCCCCCTA
GATGAGGAGTGTTCCATGGATGAGACTCCGTATGTTGAGACTCTGGAACCTGGGGGGTCAGGTGGCTCACCTGAT
GGGGCAGGAGGCTCCAAGTTGCCTCCAGTTCTGGCCAATCTTATGGGAAGCATGGGTGCTGGAAAGGGCCCCCAA
GGCCCTGGAGGAGGAGGCATTAATGTCCAAGAGATCCTCACCTCCATCATGGGTAGCCCAAACAGTCATCCTTCA
GAGGAACTACTGAAACAACCAGACTATTCGGACAAGATCAAGCAGATGCTGGTGCCACATGGACTCCTAGGCCCT
GGCCCAATAGCCAATGGTTTCCCACCAGGGGGTCCTGGGGGCCCCAAGGGCATGCAGCACTTTCCCCCTGGACCT
GGGGGACCTATGCCAGGTCCCCATGGAGGCCCTGGTGGGCCAGTGGGTCCACGTCTTCTGGGTCCTCCACCCCCT
CCCCGGGGAGGTGATCCCTTCTGGGATGGCCCGGGCGACCCTATGCGGGGTGGCCCAATGCGGGGGGGTCCAGGA
CCAGGTCCTGGACCATACCATAGAGGCCGAGGTGGCCGAGGAGGAAACGAACCTCCTCCTCCTCCTCCATTC
CGAGGCGCCAGAGGAGGTCGCTCTGGAGGAGGACCCCCAAATGGACGAGGGGGCCCTGGTGGGGGCATGGTTGGA
GGTGGTGGGCATCGTCCTCACGAAGGCCCTGGTGGGGGCATGGGCAACAGCAGTGGACATCGTCCCCACGAAGGC
CCTGGCGGTGGCATGGGAAGTGGGCATCGCCCCCATGAAGGCCCTGGTGGTAGCATGGGTGGGGGTGGAGGACAT
CGTCCCCACGAAGGCCCTGGCGGTGGCATCAGTGGTGGCAGTGGCCATCGTCCCCATGAAGGCCCTGGCGGAGGA
ATGGGTGCCGGTGGTGGACATCGCCCCCACGAAGGCCCTGGCGGAAGCATGGGTGGAAGTGGTGGACATCGTCCC
CATGAAGGCCCTGGACACGGGGGGCCCCATGGCCACCGGCCTCATGATGTCCCTGGTCACCGAGGCCATGACCAT
CGAGGGCCGCCACCTCATGAGCACCGTGGCCATGATGGTCCTGGCCACGGGGGAGGGGGCCACCGAGGGCACGAT
GGAGGCCACAGCCATGGAGGAGACATGTCAAACCGCCCTGTCTGCCGACATTTCATGATGAAGGGCAACTGCCGC
TATGAGAACAACTGTGCCTTCTACCACCCGGGTGTCAATGGGCCCCCCCTGCCC**TAG**GGACCATTTGCCTGCCCT
GTTCACACAACCCCTGTGGACTGCAGCCTCGCTCTTTCCACCCTGTTATGGCTTCTGTGAGGCCCATTTTCCCTT
TTCCCCAGCTGATGAGGAGCCGGCCCCCTCAGTTCCCACTTGCTTGGGTTCCTGGGGGTTTTCTGATCACTGGTG
CGCATTGATGTACATATTTTCCTCCAGTCTGGGGAGGAGAGAGACTGGAAACGTTCCTGGACTGCTGAAGAGGAG

FIGURE 4172B

ACCCAGTTGGCTTCACTTTTTGAGAAGATTCGCCCTGTACCCCAAACCCCTTTCCAGTATTACCCTTAATGCTTG
AGAACCTAAAGCTGGTTATCCTGGCGAACACCCCTACCCTTCTATTGCGGGTCCCCACATGCACACAGAACTCTG
ACACAGGATCAGCTGCACTTAAGAAATCATCCCAACTAAGTTCATTATTCCTCATGGGGTGGGGAGATGCTGAAA
GGGGTATTGTATATCCCACTGCACTGAGAGGGCTCAATCAGCTGGATTTGAGTTCTGGAACACACATCATCCCCA
CCCCTCCCCCAGCGTGGGCTCACCATTCTTAGTCCTTTCTCAAGTGGGACCTTCAACTTTCTGTGAACACCCAGT
CTGCGTCCTGGGTCTGCTAGGTTCGATGATGGCGAACTCGTATCTGCATCCGGTGCAAGTTTTAGCTGGCAGAGG
TGAGACCGGTGGTGCTGGTCTGCCTTTGCCAACTATAGCCAGTCTGGAGACTTGATAAAATACTTCAGTGAGACC
AGCTTCTCATCAACTTGGGCCCGGCGTGCTGGGCCTGAAAGTCACACTACATGCACTGCCTTTGGGAGTCAGCTC
ACTCCCTGCTCCCACCTGGAACCTTGCCAGCGTGAAGGAGGCTTCCAGGTACTTCACCCTGTCAACCACCTCTGA
ATCCCCACCAGGCGCCTTCCTGGGTGGATTCAACAAGATGATTTTGCCCTTTCCCAGTTCTCTCCTTCACTTTGG
CATCAGTTGTTTTCTATGAAAACAGTGGATTGGTTGGGTTTTGTGCAGGGTCTTGGGTTAGAGCCAAAATGGATT
TGAGGATGAGTATTTTTTTTTTTGGTTTTGTATATTTTGTACATTAATAATAAACAGTGGAAAGAGAAGCAGCTT

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FIGURE 4173

CGGGGGCGGGGTTGGCCGCGCCAGCTTGGAGAGCCAGCCCCATCGGGGTTCCCCGCCGCCGGAAGCGGAAATAGC
ACCGGGCGCCGCCACAGTAGCTGTAACTGCCACCGCG**ATG**CCGAAGGCGCCCAAGCAGCAGCCGCCGGAGCCCGA
GTGGATCGGGGACGGAGAGAGCACGAGCCCATCAGACAAAGTGGTGAAGAAAGGGAAGAAGGACAAGAAGATCAA
AAAAACGTTCTTTGAAGAGCTGGCAGTAGAAGATAAACAGGCTGGGGAAGAAGAGAAAGTGCTCAAGGAGAAGGA
GCAGCAGCAGCAGCAACAGCAACAGCAGCAAAAAAAAAAGCGAGATACCCGAAAAGGCAGGCGGAAGAAGGATGT
GGATGATGATGGAGAAGAGAAAGAGCTCATGGAGCGTCTTAAGAAGCTCTCAGTGCCAACCAGTGATGAGGAGGA
TGAAGTACCCGCCCCAAAACCCCGCGGAGGGAAGAAAACCAAGGGTGGTAATGTTTTTGCAGCCCTGATTCAGGA
TCAGAGTGAGGAAGAGGAGGAGGAAGAAAAACATCCTCCTAAGCCTGCCAAGCCGGAGAAGAATCGGATCAATAA
GGCCGTATCTGAGGAACAGCAGCCTGCACTCAAGGGCAAAAAGGGAAAGGAAGAGAAGTCAAAAGGGAAGGCTAA
GCCTCAAAATAAATTCGCTGCTCTGGACAATGAAGAGGAGGATAAAGAAGAAGAAATTATAAAGGAAAAGGAGCC
TCCCAAACAAGGGAAGGAGAAGGCCAAGAAGGCAGAGCAGGGTTCAGAGGAAGAAGGAGAAGGGGAAGAAGAGGA
GGAGGAAGGAGGAGAGTCTAAGGCAGATGATCCCTATGCTCATCTTAGCAAAAAGGAGAAGAAAAAGCTGAAAAA
ACAGATGGAGTATGAGCGCCAAGTGGCTTCATTAAAAGCAGCCAATGCAGCTGAAAATGACTTCTCCGTGTCCCA
GGCGGAGATGTCCTCCCGCCAAGCCATGTTAGAAAATGCATCTGACATCAAGCTGGAGAAGTTCAGCATCTCCGC
TCATGGCAAGGAGCTGTTCGTCAATGCAGACCTGTACATTGTAGCCGGCCGCCGCTACGGGCTGGTAGGACCCAA
TGGCAAGGGCAAGACCACACTCCTCAAGCACATTGCCAACCGAGCCCTGAGCATCCCTCCCAACATTGATGTGTT
GCTGTGTGAGCAGGAGGTGGTAGCAGATGAGACACCAGCAGTCCAGGCTGTTCTTCGAGCTGACACCAAGCGATT
GAAGCTGCTGGAAGAGGAGCGGCGGCTTCAGGGACAGCTGGAACAAGGGGATGACACAGCTGCTGAGAGGCTAGA
GAAGGTGTATGAGGAATTGCGGGCCACTGGGGCGGCAGCTGCAGAGGCCAAAGCACGGCGGATCCTGGCTGGCCT
GGGCTTTGACCCTGAAATGCAGAATCGACCCACACAGAAGTTCTCAGGGGGCTGGCGCATGCGTGTCTCCCTGGC
CAGGGCACTGTTCATGGAGCCCACACTGCTGATGCTGGATGAGCCCACCAACCACCTGGACCTCAACGCTGTCAT
CTGGCTTAATAACTACCTCCAGGGCTGGCGGAAGACCTTGCTGATCGTCTCCCATGACCAGGGCTTCTTGGATGA
TGTCTGCACTGATATCATCCACCTCGATGCCCAGCGGCTCCACTACTATAGGGGCAATTACATGACCTTCAAAAA
GATGTACCAGCAGAAGCAGAAAGAACTGCTGAAACAGTATGAGAAGCAAGAGAAAAAGCTGAAGGAGCTGAAGGC
AGGCGGGAAGTCCACCAAGCAGGCGGAAAAACAAACGAAGGAAGCCCTGACTCGGAAGCAGCAGAAATGCCGACG
GAAAAACCAAGATGAGGAATCCCAGGAGGCCCCTGAGCTCCTGAAGCGCCCTAAGGAGTACACTGTGCGCTTCAC
TTTTCCAGACCCCCCACCACTCAGCCCTCCAGTGCTGGGTCTGCATGGTGTGACATTCGGCTACCAGGGACAGAA
ACCACTCTTTAAGAACTTGGATTTTGGCATCGACATGGATTCAAGGATTTGCATTGTGGGCCCTAATGGTGTGGG
GAAGAGTACGCTACTCCTGCTGCTGACTGGCAAGCTGACACCGACCCATGGGGAAATGAGAAAGAACCACCGGCT
GAAAATTGGCTTCTTCAACCAGCAGTATGCAGAGCAGCTGCGCATGGAGGAGACGCCCACTGAGTACCTGCAGCG
GGGCTTCAACCTGCCCTACCAGGATGCCCGCAAGTGCCTGGGCCGCTTCGGCCTGGAGAGTCACGCCCACACCAT
CCAGATCTGCAAACTCTCTGGTGGTCAGAAGGCGCGAGTTGTGTTTGCTGAGCTGGCCTGTCGGGAACCTGATGT
CCTCATCTTGGACGAGCCAACCAATAACCTGGACATAGAGTCTATTGATGCTCTAGGGGAGGCCATCAATGAATA
CAAGGGTGCTGTGATCGTTGTCAGCCATGATGCCCGACTCATCACAGAAACCAATTGCCAGCTGTGGGTGGTGGA
GGAGCAGAGTGTTAGCCAAATCGATGGTGACTTTGAAGACTACAAGCGGGAGGTGTTGGAGGCCCTGGGTGAAGT
CATGGTCAGCCGGCCCCGAGAG**TGA**AGCTTTCCTTCCCAGAAGTCTCCCGAGAGACATATTTGTGTGGCCTAGAA
GTCCTCTGTGGTCTCCCCTCCTCTGAAGACTGCCTCTGGCCTGCAGCTGACCTGGCAACCATTCAGGCACATGAA
GGTGGAGTGTGACCTTGATGTGACCGGGATCCCACTCTGATTGCATCCATTTCTCTGAAAGACTTGTTTGTTCTG
CTTCTCTTCATATAACTGAGCTGGCCTTATCCTTGGCATCCCCCTAAACAAACAAGAGGTGACCACCTTATTGTG
AGGTTCCATCCAGCCAAGTTTATGTGGCCTATTGTCTCAGGACTCTCATCACTCAGAAGCCTGCCTCTGATTTAC
CCTACAGCTTCAGGCCCAGCTGCCCCCCAGTCTTTGGGTGGTGCTGTTCTTTTCTGGTGGATTTAATGCTGACTC
ACTGGTACAAACAGCTGTTGAAGCTCAGAGCTGGAGGTGAGCTTCTGAGGCCTTTGCCATTATCCAGCCCAAGAT
TTGGTGCCTGCAGCCTCTTGTCTGGTTGAGGACTTGGGGCAGGAAAGGAATGCTGCTGAACTTGAATTTCCCTTT
ACAAGGGGAAGAAATAAAGGAAAGGAGTTGCTGCCG

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FIGURE 4174

GGGAGCTCGGCGGAGGGCGGGCCAGGTGACTGGTCCGGGCC**ATG**CCGAGGAAGAAGCCATTCAGCGTGAAGCAGA
AGAAGAAGCAGTTGCAGGACAAACGGGAGCGGAAGAGAGGGCTTCAAGATGGGCTGCGCTCCAGTTCCAACAGCC
GCAGCGGGAGCCGGGAGCGGCGAGAGGAACAGACCGACACCTCGGACGGGGAGTCTGTGACCCATCATATCCGCA
GGCTTAACCAGCAGCCTTCTCAGGGGCTGGGTCCACGAGGCTACGACCCAAATCGATACCGACTGCATTTTGAGA
GAGACAGCAGGGAGGAGGTAGAGAGGAGAAAGAGAGCAGCCCGGGAGCAAGTTCTACAGCCGGTCAGTGCTGAGT
TGTTGGAGCTGGACATCCGGGAGGTGTATCAGCCTGGCTCAGTTCTGGACTTTCCTCGACGTCCTCCTTGGAGCT
ATGAGATGTCCAAGGAGCAACTAATGAGCCAAGAGGAACGGAGCTTCCAAGACTATCTTGGGAAGATTCATGGGG
CTTACTCCTCTGAGAAACTCAGCTACTTTGAGCACAATCTGGAGACATGGAGGCAGCTGTGGCGGGTGTTAGAGA
TGTCTGACATCGTCCTGCTTATCACTGATATCCGACATCCAGTTGTGAATTTCCCGCCAGCACTTTATGAGTATG
TGACTGGAGAACTTGGACTGGCCCTGGTGCTGGTTTTGAACAAGGTGGATCTGGCCCCGCCAGCTCTTGTGGTTG
CCTGGAAGCATTATTTCCATCAACACTATCCCCAGCTCCACGTCGTCCTTTTCACCTCTTTTCCTCGGGACCCCC
GCACCCCACAGGATCCTAGTAGTGTCTTGAAGAAGAGTCGGAGGCGGGGGAGAGGATGGACTCGGGCCCTGGGGC
CAGAGCAGTTGCTGAGAGCCTGTGAAGCCATCACTGTGGGGAAAGTGGACTTGAGCAGCTGGCGGGAGAAGATTG
CTCGGGATGTGGCTGGGGCCACCTGGGGTAATGGCTCTGGGGAGGAGGAGGAAGAGGAGGATGGCCCAGCAGTCC
TGGTGGAGCAGCAGACTGATTCAGCAATGGAGCCAACTGGCCCAACCCAAGAGCGCTACAAGGATGGGGTGGTGA
CCATCGGCTGTGTGGGTTTCCCTAATGTGGGAAAGTCCTCGCTGATCAATGGGCTGGTGGGGCGGAAAGTCGTGA
GTGTCTCCAGAACCCCGGGCCATACCCGATACTTTCAGACCTACTTTCTTACCCCCTCTGTGAAGCTCTGTGACT
GCCCAGGCCTCATCTTCCCATCTCTTCTGCCTAGGCAGTTGCAGGTTCTGGCAGGGATCTACCCTATCGCCCAGA
TCCAGGAGCCCTACACTGCTGTGGGCTACCTGGCCTCCCGAATTCCCGTGCAGGCCCTGCTCCACCTGCGCCACC
CAGAGGCTGAGGACCCCTCAGCGGAACACCCCTGGTGTGCCTGGGACATCTGTGAAGCCTGGGCAGAGAAACGTG
GTTACAAGACAGCCAAGGCGGCTCGGAATGATGTGTACAGAGCAGCCAACAGTCTCTTGCGGCTGGCAGTGGACG
GCCGCCTCAGCCTGTGTTTTCATCCCCCAGGCTACAGTGAACAGAAAGGCACCTGGGAGTCCCATCCAGAGACCA
CGGAGCTGGTGGTTTTGCAGGGCAGGGTGGGGCCAGCAGGTGACGAGGAGGAGGAGGAAGAGGAAGAGCTGAGCA
GCTCCTGTGAGGAGGAGGGAGAGGAGGACCGGGATGCGGATGAGGAGGGAGAAGGGGATGAGGAGACCCCAACCT
CGGCTCCAGGGTCCAGCCTGGCTGGCCGAAACCCTTATGCCCTGCTGGGTGAGGATGAGTGC**TGA**GTTCCTCGCC
CAGCGCCATCTTCCCTCCCAGTATCTTTGCTTTTGGACTGACCTGGGGGTATCTCCCCTCTGCCACCCCAATTGT
GAATAAAGATTGTTTGCTTTGTAGCCCCTTCCCCAGATGAACTGAGGTGAGAGCGGCTGTTCCAGGCTAACAGCT
GTGGGAGGCTTCTCTCCTCTTCTCCCTTCTTTTTT

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FIGURE 4175

GGGATC**ATG**GTAGATGGAACCCTCCTTTTACTCCTCTCGGAGGCCCTGGCCCTTACCCAGACCTGGGCGGGCTCC
CACTCCTTGAAGTATTTCCACACTTCCGTGTCCCGGCCCGGCCGCGGGGAGCCCCGCTTCATCTCTGTGGGCTAC
GTGGACGACACCCAGTTCGTGCGCTTCGACAACGACGCCGCGAGTCCGAGGATGGTGCCGCGGGCGCCGTGGATG
GAGCAGGAGGGGTCAGAGTATTGGGACCGGGAGACACGGAGCGCCAGGGACACCGCACAGATTTTCCGAGTGAAC
CTGCGGACGCTGCGCGGCTACTACAATCAGAGCGAGGCCGGGTCTCACACCCTGCAGTGGATGCATGGCTGCGAG
CTGGGGCCCGACAGGCGCTTCCTCCGCGGGTATGAACAGTTCGCCTACGACGGCAAGGATTATCTCACCCTGAAT
GAGGACCTGCGCTCCTGGACCGCGGTGGACACGGCGGCTCAGATCTCCGAGCAAAAGTCAAATGATGCCTCTGAG
GCGGAGCACCAGAGAGCCTACCTGGAAGACACATGCGTGGAGTGGCTCCACAAATACCTGGAGAAGGGGAAGGAG
ACGCTGCTTCACCTGGAGCCCCCAAAGACACACGTGACTCACCACCCCATCTCTGACCATGAGGCCACCCTGAGG
TGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCAGGATGGGGAGGGCCATACCCAGGAC
ACGGAGCTCGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAGTGGGCAGCTGTGGTGGTGCCTTCTGGA
GAGGAGCAGAGATACACGTGCCATGTGCAGCATGAGGGGCTACCCGAGCCCGTCACCCTGAGATGGAAGCCGGCT
TCCCAGCCCACCATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGATCTGTGGTCTCTGGAGCTGTG
GTTGCTGCTGTGATATGGAGGAAGAAGAGCTCAGGTGGAAAAGGAGGGAGCTACTCTAAGGCTGAGTGGAGCGAC
AGTGCCCAGGGGTCTGAGTCTCACAGCTTG**TAA**AGCCTGAGACAGCTGCCTTGTGTGCGACTGAGATGCACAGCT
GCCTTGTGTGCGACTGAGATGCAGGATTTCCTCACGCCTCCCCTATGTGTCTTAGGGGACTCTGGCTTCTCTTTT
TGCAAGGGCCTCTGAATCTGTCTGTGTCCCTGTTAGCACAATGTGAGGAGGTAGAGAAACAGTCCACCTCTGTGT
CTACCATGACCCCCTTCCTCACACTGACCTGTGTTCCTTCCCTGTTCTCTTTTCTATTAAAAATAAGAACCTGGG
CAGAGTGCGGCAGCTCATGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGAGGGCAGATCACGAGGTCAGGAGAT
CGAAACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAATTAGCTGGGCGCAGAGGCA
CGGGCCTGTAGTCCCAGCTACTCAGGAGGCGGAGGCAGGAGAATGGCGTCAACCCGGGAGGCGGAGGTTGCAGTG
AGCCAGGATTGTGCGACTGCACTCCAGCCTGGGTGACAGGGTGAAACGCCATCTCAAAAAATAAAAATTAAAAAA
TAAAAAAAGAACC

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FIGURE 4176

CCTGAGTCAGACGGGCATGGAGACGCTTCTGGAAGGAACACCGCA**ATG**GCTGCGCAGGGACAGCCCCAGGTCCAG
TTCAAACTTGTATTGGTTGGTGATGGTGGTACTGGAAAAACGACTTTCGTGAAACATCATTTGACTGGTGAATTT
GAGAAGAAGTATGTAGCCACCTTGGGTGTTGAGGTTCATCCCCTAGTGTTCCATACCAACAGAGGACCTGTTAAG
TTCAATGTATGGGACACAGCCGGCCTGGAGAAATTCAGTGGACTGAGAGATGGCTATTATATCCAAGCCCAGAGT
ACCATCATAGTGTTTGATGTAACATCGAGAGTTACTTACAAGAATGTGCCTAACTGGCATAGAGATCTGGTATGA
GTGTGTGAAAACACCCCCACTGTGTTGAGTGGCAACAAAGTGGATATTAAGGACAGGAAAGTGAAGGCGAAATCC
ATTGTCTTCCACCGAAAGAAGAATCTTCAGTACTACGACATTTCTGCCAAAAGTAACTATAACTTTGAAAAGCCC
TTCCTCTGGCTTGCTAGGAAGCTCATTGGAGACCCTAACTTGGAATTTGTTGCCATGCCTGCTCTCGCCCCACCA
GAAGTTGTCATGGACCCAGCTTTGGCAGCACAGTATGAGCACGACTTAGAGGTTGCTCAGACAACTGCTCTCCCG
GACGAGGATGATGACCTG**TGA**GAATGAAGCTGGAGCCCAGCGTCAGAAGTCTAGTTTTATAGGCAGCTGTCCTGT
GATGTCAGTTGTGCAGCGTGTGTGCCACCTCATTATTATCTAGCTAAGCGGAACATGTGCTTCATCTGTGGGATG
CTGAAGGAGATGAGTGGGCTTCGCAGTGAATGTGGCAGTTCAAAAAATACCTTCATTGTTTGGACCTGCATATTT
AGCTGTTTTGGAACACAGTTGATTCCTTGAGTTTCAAATATAGACTGCTACAGTCACATCACAATATTCAGCGGT
GAAATCTTGTTTGTTACTGTCATTCCCATTCCTTTTCGTTTAGAATCAGAATAAAGTTGTATTTCAAATATCTAA

FIGURE 4177

GGAGTCAGGAATGGAGAGAAGGGTAATGGTGTTACCTCTTATTGTGGAAACCTGTTGAGATCACAGAGAATATAC
TGACGGCATAAAAGGGCAGAACCATAGCAGGGTGCGCGCTGCTGTAGTTGCCTTCCATGGATCTATAGGAGAGCA
AGTCCTCCAGGAGAAGAAGTCCTCACCAGTGAACGGAGACCTCTCTGAACTAAGAATACC**ATG**GCCACGTCAGCC
CCACTACGGAGCCTGGAAGAGGAGGTGACCTGCTCCATCTGTCTTGATTACCTGCGGGACCCTGTGACCATTGAC
TGTGGCCACGTCTTCTGCCGCAGCTGCACCACAGACGTCCGCCCCATCTCAGGGAGCCGCCCCGTCTGCCCACTC
TGCAAGAAGCCTTTTAAGAAGGAGAACATCCGACCCGTGTGGCAACTGGCCAGCCTGGTGGAGAACATTGAGCGG
CTGAAGGTGGACAAGGGCAGGCAGCCGGGAGAGGTGACCCGGGAGCAGCAGGATGCAAAGTTGTGCGAGCGACAC
CGAGAGAAGCTGCACTACTACTGTGAGGACGACGGGAAGCTGCTGTGCGTGATGTGCCGGGAGTCCCGGGAGCAC
AGGCCCCACACGGCCGTCCTCATGGAGAAGGCCGCCCAGCCCCACAGGGAAAAAATCCTGAACCACCTGAGTACC
CTAAGGAGAGACAGAGACAAAATTCAGGGCTTCCAGGCAAAGGGAGAAGCTGATATCCTGGCCGCGCTGAAGAAG
CTCCAGGACCAGAGGCAGTACATTGTGGCTGAGTTTGAGCAGGGTCATCAGTTCCTGAGGGAGCGGGAGGAACAC
CTGCTGGAACAGCTGGCGAAGCTGGAGCAGGAGCTCACGGAGGGCAGGGAGAAGTTCAAGAGCCGGGGCGTCGGG
GAGCTTGCCCGGCTGGCCCTGGTCATCTCCGAACTGGAGGGCAAGGCGCAGCAGCCAGCTGCAGAGCTCATGCAG
GACACGAGAGACTTCCTAAACAGGTATCCACGGAAGAAGTTCTGGGTTGGGAAACCCATTGCTCGAGTGGTTAAA
AAAAAGACCGGAGAATTCTCAGATAAACTCCTCTCTCTGCAACGAGGCCTGAGGGAATTCCAGGGGAAGCTGCTG
AGAGACTTGGAATATAAGACAGTGAGCGTCACCCTGGACCCACAGTCGGCCAGTGGGTACCTGCAGCTGTCAGAG
GACTGGAAGTGCGTGACCTACACCAGCCTGTACAAGAGTGCCTACCTGCACCCCCAGCAGTTTGACTGTGAGCCT
GGGGTGCTGGGCAGCAAGGGCTTCACCTGGGGCAAGGTCTACTGGGAAGTGGAAGTGGAGAGGGAGGGCTGGTCT
GAGGATGAAGAAGAGGGGGATGAGGAGGAAGAGGGAGAAGAGGAGGAGGAGGAAGAGGAGGCCGGCTATGGGGAT
GGATATGACGACTGGGAAACGGACGAAGATGAGGAATCGTTGGGCGATGAAGAGGAAGAAGAGGAGGAGGAAGAG
GAGGAAGTTCTGGAAAGCTGCATGGTGGGGGTGGCTAGAGACTCTGTGAAGAGGAAGGGAGACCTCTCCCTGCGG
CCAGAGGATGGCGTGTGGGCGCTGCGCCTCTCCTCCTCCGGCATCTGGGCCAACACCAGCCCCGAGGCTGAGCTT
TTCCCAGCACTGCGGCCCCGGAGAGTGGGCATCGCCCTGGATTATGAAGGGGGCACCGTGACTTTCACCAACGCA
GAGTCACAGGAACTCATCTACACCTTCACTGCCACCTTCACCCGGCGCCTGGTCCCCTTCCTGTGGCTCAAGTGG
CCAGGAACACGCCTCCTGCTAAGACCC**TGA**GCCCTGACATCTGCCCCCAGCCCCAACCCTCAGATGCTTCACTTC
TTTGGAATTCCAGGACTCTCAATGGGGGGACGGGATGCCTGGCCTAAGCACCTGGAGCAGGGGACCCCATATCCA
CTGGTAGCCACCTCCCCATTGCTGTGGCCCCCTGAAATCTCACTCAGTGCTGTTGCTCCATCTACTGCCCTAATG
GGGCTCTTTTCCCACCTCCTGCTGGTTTCCCGAGGGAACTTCTGACCCTGGAGTCCATGAGGGCTCCTTTCCTTT
TTGACCACGACCTTGGCCCTAGCTCTGCACTCTCTGGAATAAGGGCCCGATGCAGCATTTTCTTGCCCAGTGTGG
CAAGACCTCAGAAAAACCAGTCAATTACGCCTAAGATCATTTTGCTGTCCTTAAACCCCCCAGGTTCCTTCTTGC
ACAAATCCACTCTGCTGCCCACCTTCCCTGGCATTTTAAACAGACCTACCCCACCCCAACTCAGAGTTAAGCATA
CATGGCAATGCTGAAAATAAACAAAATCCACTGAGGCTTCCCAGGCCATTTAAAGCCTGGAGTACCAGCGCATAT
CATCTCATGGGGTCCAGAGTGGAGTCCAGGCTTCTCTGAAACCAGGGCTGAGCATATTTCCATAGCCAAGGAGGT
GGGACTCCCTGGAGCTATCTGTGGTCTTAGGGAAGGATCCAGACATACACGGCTTTGGGGTACAAGCTGTGATCA
CTGATCAATAAATTATCTCTAGATTGGTCCTTGTGAGGGGAGTTTTAAGAATCCAGAACATCTTGCTCTTGATCA
GCACATCCAAAAACACCAAGACAAACATCCAGTGGAGCAGAACCTCTCCTGCCTCGGGAGTTCTGACCGGGTTCC
CCAGCAGGGTGTTAAGCCTCTGTCTCTGGCCCTACCAGCATCCAGGTTCCACTTTCCTAGGAGAGAGTGGAGATG
GGAAGACAGGGAAAGGAAGGCAGCAGGAGGCCACAAGCCCACCAGGTCTTCATGTCAAGAGAGGGAGTAACATGT
CTTCTCATTGCCCACGGACCCAACCTCTGTCCAGGTGCCCCTCATCATCACAGTTTAACACAAGCTCCCCTGCTC
CAGCCAAATTGATCTCCCAGTCTTGTCCTTACCCATTCCAAGTGCTCTGCCAGCCCCTGTTCATCCAAGTTTTAA
GTCCTCCACCCTGTTATAAGAGACTGTTCCAACGGCTCTGGGCCTCAGTGGTCACTTGACCACCATTGTCTCAGA
GCTGCCCACTTTGTGTGTGTCACATGCTGCCTGAGTCACATGTACATCTTATTTCTGCCTCTAGTTTTGTAAGCT
CCTGGAGGGCGGATAACATCTTATACTACTCTTGTATTCTCATGGCACCTAGTGCAGTGCTGGGCACAGAGTAGG
TGCTCAATAAAGACTTGTTGAATGA

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FIGURE 4178

GGCGTTACGCAAGGCCTGGTGTTTACCTCCCGTGGGAGCCTCCTCCCTCCCTATAAAGCCTG**ATG**TGGTGGAGAG
ATTTGACGAGACTGAGACTCTGGTTGAAGAGAGAGGCAATCCCAGGAGAGGGGCGGAAAGCGGCAAAAGTTAATG
CGGGAGTCGGAGAGAAGGGCATCTACACAGCAAGCAGCAGGGGCGGCCCGCCATCTGCGCGCTCGAAGGCGGTCA
CGGTGGTCGCGGAAGGGGCGGCGTCCAGATCCTGGCTTTCCATGGATGCGCCCGAGCTGGGCCCGGGGCTGGTGG
AGCGTCTGGAGCAGCTGGCGACGTGTCCTCTGTGCGGGGGCTCCTTCGAGGACCCGGTGCTTCTGGCGTGCGAGC
ACAGCTTCTGCCGCGCGTGTCTGGCCCGCCGCTGGGGGACTCCGCCGGCGACCGGCACCGAGGCTTCCCCCACCG
CCTGTCCCTGCTGCGGCCTGCCGTGTCCCCGCCGCAGCCTGAGGTCTAATGTGCGGCTGGCGGTGGAGGTGCGAA
TCAGCCGCGAGCTGCGAGAGAAGCTGGCTGAGCCTGGGGCCCGTGCGGGGAGACGCCGAGGGGGGCGCATCCCCA
CCATGGGCTGCCTGGACCTGCCCGGAGAGGATATGAGGAAGACATGGAGACGATTTGAAGTCCCAACATCCAAGT
CATCTAATTCAGAGGATGATCTCCCTGAAGATTATCCAGTGGTCAAAAAAATGCTTCATAGACTGACAGCCGACC
TGACCCTGGACCCTGGGACCGCACACCGCCGCCTGCTCATCTCCGCCGACCGCCGCAGCGTACAACTGGCCCCAC
CAGGGACGCCCGCGCCCCCTGACGGCCCCAAGCGCTTCAATCAGCTCCCAGCTGTGCTGGGTGCGCAGGGCTTCG
GGGCCGGCCGCCACTGCTGGGAGGTGGAGACTGCGGACGCCGCCTCCTGCAGAGACTCTTCTGGGGAGGATGCGG
ACGACGAGGAGAGCCACTATGCAGTGGGCGCGGCCGGGGAATCAGTGCAACGCAAGGGCTGCGTAAGGCTGTGCC
CTGCGGGGGCCGTGTGGGCCGTGGAGGGCCGCGGCGGCCGCCTGTGGGCCCTCACGGCACCCGAACCCACCCTGC
TGGGCGGTGTTGAGCCCCCGCCGCGGCGCATTCGCGTGGACCTGGACTGGGAGCGGGGCCGCGTGGCCTTCTACG
ACGGCCGCTCACTCGACCTGCTTTACGCCTTCCAGGCGCCTGGCCCCCTGGGGGAGCGCATCTTCCCGCTGTTCT
GCACCTGCGACCCTCGTGCTCCGCTCCGCATTGTACCAGCGGAAAGC**TGA**GTCTCGTCTCCAACTAGAAGTTTGG
CCCGGCCACTGGCCCTGCAGCTGCTTTTTGGGGGTGGAATTCCCCACTCATTTCTGGGAACACATTCACACGCCC
ATTGCAGGAGTATTAATAGCAACCCACATTTTCGCCCCAAAATAATGAGACCTCACCTGGTCTCCACGTTTCCAC
GTCCCTGCTCAAAACCAAATCCATTCCTGCCTTCTGGCTCTCAGAATCTTCTCTCCCCTACAGCTACTACAGTAC
TTCCTGACTTCTCCCATTCAAACCATTCTAGGCCTGCAATGGGGAACAGGCCCTCCCCATCAGTATTGGTAAAGT
GACCATGATTCCTACATAGAGGCTCTGCTGGTCAAATACTTGACTCCCACTCTTGCCACTCCTAGCTCCAGAAGG
GCTCAGGGCCTTCCCCACAGATCTAAGGACTGGGCTACCCTGCCTGTCCACTGAGGTTTCTCCTAAAACAAGAGG
CTTGACTCTGGTCTGGGCCCTGTGGCCCTCTGGGAAGCTTTGTACCTCTTTTGCAGGATCCGGGGGTGGGGAGGG
ACAAGCTAGTTCCCCAACCTCCTATGACTGCTTTCTATGCTCACAGCCTTTTTTCCATAAGAACCTTCTTGAAAC
TTCTCCCCGCACATACTCACGGAAAGGAACCAATGGTGCTATTTCCCCTCTCTCCTCCTCAACCTGGGAATACTT
CAGACATCTCCAAACTCATCCTTGTGTATAGTCTCACACCCTTCCCCATAAGTATAAATGGGCCCATATTTAACA
CATTTTGTGATTTTGGGTTATTTATTTTGTGCATCTGTGGCAATAAATGAGATCTCAGTGGTGGTA

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FIGURE 4179

CGGCGAGCCGGAAGTGGGGTTAGCCAGGTTATCCCCAGGGGTGGAGAAGCGGAGGCCCAGGAGGAGGGGGAATAA
AGAAGGTGGAGGATCCTGGCTACCACTCTGAATCCGATACCGCTTCTCTTAGACCTCAGCGACAGAAAAAGGGAA
GGGTGTCTCATCCCCCTTCCTCCTCTCCTCCCTGTCCTGAGCCTTAGCC**ATG**GCCGAGGCAGGGGCTGGGCTGAG
CGAGACCGTCACTGAGACAACGGTTACCGTGACAACCGAGCCCGAGAACCGGAGCCTTACCATCAAACTTCGGAA
ACGGAAGCCAGAGAAAAAGGTAGAATGGACAAGTGACACTGTGGACAATGAACACATGGGCCGCCGCTCATCCAA
ATGCTGCTGTATTTATGAGAAACCTCGGGCCTTTGGCGAGAGCTCCACGGAAAGTGATGAGGAGGAAGAAGAGGG
CTGTGGTCATACACACTGTGTACGTGGCCACCGCAAAGGACGGCGTCGTGCAACCCTAGGACCGACCCCCACCAC
CCCTCCCCAGCCTCCTGACCCTTCCCAGCCCCCTCCAGGGCCAATGCAGCAC**TAA**ATCCCTCTCTCCTCCAGCAT
TCCTGTGTCTGTCTGGCCCTAAATGTATCCATGTGGCTACTTCTCCAGCCCCCTCCTTCCCTCTCTTCTGCCTGA
TAGAGGGAAGAGGAAGAGGAGGACGAACAGAGATCCTGAAATTCTGACTTGCTGCTATTCCAGAACCCAGCCTCC
TGGGTTTCCCCAGTCCTCATTTTTCCTCCCAATACCCACCCTTCTCTCTCGAGGGATCTAGGCACCTTGGTCCCA
GTGTCTTCCTTTTGTTCTCACTGCCAAACTGCCTGTCCTGGGATCTAGTTATCTTGGCCCTGCACTCTCAAGATG
AGTAGCGAACACTTAAATTGGGTTTTCAACAGTCCCAGCTTTCACTGCCAGGGTCCCAGTCAGATTCCAGGAATT
TGCGCCCTAACTTTGCTTGCTAATCCTGGTTTAGAGCTATCCCACTAAAATATTTAATCCTAATTCTTAGTCCTT
GCCTGTGAGATATGAGGTCTTACAGGAGACCTCAGAGCTCCCAGCCCTTCTCCTCCTGCTAACCCTTCTCACACC
CTCAAGAGGAGTTAGAAAAGAGGTCCTTGTCATTCTCACCTCTTATGGAAAATGGAATAAGAAATAATCATATCC
TTTCTTCCCACCCTTCTCCTGTTATTTAGGATTTCTGACAAAGCTGGCTTGAGATTGGTCACTTAGAGCCGACTG
TCTCCTCTGCCTTTTGTTTTTCAGCTTCAGAGACAGATCCAATATAGTCCCAGGGACCTGGGTCTCTGGGAGAGG
AAGGAAGAGGGAGGGAGCAAAGAGATTGGGGTATGTCCCCTGTAGTACACTCTTACCTCTTACTTCCTAGACTTT
GATTTCTCCGGCAGCCCAGATGTTCAGTTCTCTTGGCCCCTCTCTACCCCTTACTGGGATCTGGTTTTCATTTTC
CGGTCCTTTTGCCATACACAGTTACAGAGATCAGTCAAATCCATACCACCACTGAGATCTCATTTATTGCCACAG
ATGCACAAAATAAATAACCCAAAATCAC

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FIGURE 4180

GCAGAGCTGGCGCTCTAGCCCACGGAGTTGGTTAACTCCTCTCACCGGCCCCTGGAAAGGGTTCCAAGTCCTTTA
GTACCCGACGCTGTCTGGGAATTCCGGGCGTTTCGGCTCCTTGGTCGCAGAGGCAGGAGGCACCCGACCGC**ATG**T
CTGTCATGGACCTCGCCAATACTTGCTCCAGCTTTCAGTCGGACCTGGATTTCTGTTCAGATTGCGGCTCGGTCC
TGCCTCTGCCCGGGGCTCAGGATACGGTCACCTGTATTCGCTGTGGCTTCAACATCAACGTTCGGGACTTTGAGG
GGAAGGTTGTGAAGACTTCGGTTGTGTTCCACCAACTGGGGACAGCCATGCCTATGTCGGTGGAGGAAGGGCCTG
AGTGCCAGGGACCTGTGGTTGACAGGCGCTGCCCTCGATGTGGTCATGAAGGAATGGCATACCACACCAGACAGA
TGCGTTCAGCCGATGAAGGGCAAACTGTCTTCTACACCTGTACCAACTGCAAGTTCCAGGAGAAGGAAGACTCT**T**
GACCTTTTTCCTGGGCAACTCTACAGTCCCTCCCTCCTTTCGGAAGGTGAAGGATACTGGGTTTTTAGATGCCTT
GTCCATCCTGTCTGGTTGCAATGTTTTGCTCCCAGAAGAGAATCAGATCATCATGTGGGGATTACCATTGTTCCT
GGAGTACTCCTACCCTTAGTTGAATTTCCTTATTAAAGTTATATTTTTCTATAAGACCCTGA

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FIGURE 4181

CCCCAGACGCCGAGG**ATG**GCCGTCATGGCGCCCCGAACCCTCCTCCTGCTACTCTCGGGGGCCCTGGCCCTGACC
CAGACCTGGGCGGGCTCCCACTCCATGAGGTATTTCTTCACATCCGTGTCCCGGCCCGGCCGCGGGGAGCCCCGC
TTCATCGCCGTGGGCTACGTGGACGACACGCAGTTCGTGCGGTTCGACAGCGACGCCGCGAGCCAGAGGATGGAG
CCGCGGGCGCCGTGGATAGAGCAGGAGGGGCCGGAGTATTGGGACCAGGAGACACGGAATGTGAAGGCCCAGTCA
CAGACTGACCGAGTGGACCTGGGGACCCTGCGCGGCTACTACAACCAGAGCGAGGCCGGTTCTCACACCATCCAG
ATAATGTATGGCTGCGACGTGGGGTCGGACGGGCGCTTCCTCCGCGGGTACCGGCAGGACGCCTACGACGGCAAG
GATTACATCGCCCTGAACGAGGACCTGCGCTCTTGGACCGCGGCGGACATGGCGGCTCAGATCACCAAGCGCAAG
TGGGAGGCGGCCCATGAGGCGGAGCAGTTGAGAGCCTACCTGGATGGCACGTGCGTGGAGTGGCTCCGCAGATAC
CTGGAGAACGGGAAGGAGACGCTGCAGCGCACGGACCCCCCCAAGACACATATGACCCACCACCCCATCTCTGAC
CATGAGGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGATGGG
GAGGACCAGACCCAGGACACGGAGCTCGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAGTGGGCGGCT
GTGGTGGTGCCTTCTGGAGAGGAGCAGAGATACACCTGCCATGTGCAGCATGAGGGTCTGCCCAAGCCCCTCACC
CTGAGATGGGAGCTGTCTTCCCAGCCCACCATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGAGCT
GTGATCACTGGAGCTGTGGTCGCTGCCGTGATGTGGAGGAGGAAGAGCTCAGATAGAAAAGGAGGGAGTTACACT
CAGGCTGCAAGCAGTGACAGTGCCCAGGGCTCTGATGTGTCCCTCACAGCTTGTAAAGTG**TGA**GACAGCTGCCTT
GTGTGGGACTGAGAGGCAAGAGTTGTTCCTGCCCTTCCCTTTGTGACTTGAAGAACCCTGACTTTGTTTCTGCAA
AGGCACCTGCATGTGTCTGTGTTCGTGTAGGCATAATGTGAGGAGGTGGGGAGACCACCCCACCCCCATGTCCAC
CATGACCCTCTTCCCACGCTGACCTGTGCTCCCTCCCCAATCATCTTTCCTGTTCCAGAGAGGTGGGGCTGAGGT
GTCTCCATCTCTGTCTCAACTTCATGGTGCACTGAGCTGTAACTTCTTCCTTCCCTATTAAAATTAGAACCTTAG
TATAAATTTACTTTCTCAAATTCTTGCCATGAGAGGTTGATGAGTTAATTAAAGGAGAAGATTCCTAAAATTTGA
GAGACAAAATAAATGGAAGACATGAGAAC

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FIGURE 4182

ATGGTGCTCATGGCGCCCCGAACCCTCCTCCTGCTGCTCTCAGGGGCCCTGGCCCTGACCCAGACCTGGGCGCGC
TCCCACTCCATGAGGTATTTCTACACCACCATGTCCCGGCCCGGCCGCGGGGAGCCCCGCTTCATCTCCGTCGGC
TACGTGGACGATACGCAGTTCGTGCGGTTCGACAGCGACGACGCGAGTCCGAGAGAGGAGCCGCGGGCGCCGTGG
ATGGAGCGGGAGGGGCCGGAGTATTGGGACCGGAACACACAGATCTGCAAGGCCCAAGCACGGACTGAACGAGAG
AACCTGCGGATCGCGCTCCGCTACTACAACCAGAGCGAGGGCGGTTCTCACACCATGCAGGTGATGTATGGCTGC
GACGTGGGGCCCGACGGGCGCTTCCTCTGCGGGTATGAACAGCACGCCTACGACGGCAAGGATTACATCGCTCTG
AACGAGGACCTGCGCTCCTGGACCGCGGCGGACATGGCAGCTCAGATCACCAAGCGCAAGTGGGAGGCGGCCCGT
CGGGCGGAGCAGCGGAGAGTCTACCTGGAGGGCGAGTTCGTGGAGTGGCTCCGCAGATACCTGGAGAACGGGAAG
GAGACGCTGCAGCGCGCGGACCCCCCCAAGACACATATGACCCACCACCCCATCTCTGACCATGAGGCCACCCTG
AGGTGCTGGGCCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCGGGATGGGGAGGACCAGACCCAC
ACACGGAGCTCGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAAGCCATCTTCCCAGCCCACCATCCCC
ATCGTGGGCATCGTTGCTGGCCTGGTTCTACTTGTAGCTGTGGTCACTGGAGCTGTGGTCGCTGCTGTAATGTGG
AGGAAGAAGAGCTCAGATAGAAAAGGAGGGAGCTACTCTCAGGCTGCAAGGCCATCTTCCCAGCCCACATTCCTC
ATCATGGGCATCGTTACCGTCCTGGTTGTTCTAGGTGCTGTGGTCACTGCTGTGATGTGGAAGAATAAGACCCCA
GGTAGGAAAGGGGTGGCACAGGGCTTGACCATCACATTTGTGTCAGGTGACAATAATGCCAGGATCCTCAGTATG
GGCAGCATCGCTTTGAGGTCAGTGATAGAGGGCCTGGTCCAGCTCCAGCTGCTGTGCAAGCAACTCCTCAGCTTG
GGCCAGCTCAGCTGTGTGGGGGGCTCAGGGCCCTGGTCAGAGGGAGTGGAGGAGGGAGCATCAGCCAGGGTAGAG
GGGTTGAGGCCCTTGGAACCTGTGTTGCAAGATCTCATGCCCTGCATGCTGCAAGGGTTTGCCTTCTCTGACAGA
CCATCCACTCATAAGGAGGTCAAAAACAAGTTCCACACAGCACTGAGACACAACCACCTCATTGTCCTCACCTCC
ACGGACAGAGCCCAGGACTTTGATAAGCGGGGGGCCAAACCCACCGCTGGGGTGAATCCATATAGACTAGAAAAA
ATGATGCCTAACTCTCAACAAGGTAGACGTGACTTAGTTGCCCTGGAACTTGCACAGGATGGAATAACAAGGCTG
AGGGAAGTGGGCATGGTGAAGGCCCACCAGTACCATGCTCCACAAGACAGTCCAAAGGAAACACCTTCCACCAGA
GCCTCAGAAACG**TGA**

FIGURE 4183

ATGGCGCCCCGAAGCCTCCTCCTGCTGCTCTCAGGGGCCCTGGCCCTGACCGATACTTGGGCGGGCTCCCACTCC
TTGAGGTATTTCAGCACCGCTGTGTCGCGGCCCGGCCGCGGGGAGCCCCGCTACATCGCCGTGGAGTACGTAGAC
GACACGCAATTCCTGCGGTTCGACAGCGACGCCGCGATTCCGAGGATGGAGCCGCGGGAGCCGTGGGTGGAGCAA
GAGGGGCCGCAGTATTGGGAGTGGACCACAGGGTACGCCAAGGCCAACGCACAGACTGACCGAGTGGCCCTGAGG
AACCTGCTCCGCCGCTACAACCAGAGCGAGGCTGGGTCTCACACCCTCCAGGGAATGAATGGCTGCGACATGGGG
CCCGACGGACGCCTCCTCCGCGGGTATCACCAGCACGCGTACGACGGCAAGGATTACATCTCCCTGAACGAGGAC
CTGCGCTCCTGGACCGCGGCGGACACCGTGGCTCAGATCACCCAGCGCTTCTATGAGGCAGAGGAATATGCAGAG
GAGTTCAGGACCTACCTGGAGGGCGAGTGCCTGGAGTTGCTCCGCAGATACTTGGAGAATGGGAAGGAGACGCTA
CAGCGCGCAGATCCTCCAAAGGCACACGTTGCCCACCACCCCATCTCTGACCATGAGGCCACCCTGAGGTGCTGG
GCCCTGGGCTTCTACCCTGCGGAGATCACGCTGACCTGGCAGCGGGATGGGGAGGAACAGACCCAGGACACAGAG
CTTGTGGAGACCAGGCCTGCAGGGGATGGAACCTTCCAGAAGTGGGCCGCTGTGGTGGTGCCTCCTGGAGAGGAA
CAGAGATACACATGCCATGTGCAGCACGAGGGGCTGCCCCAGCCCCTCATCCTGAGATGGGAGCAGTCTCCCCAG
CCCACCATCCCCATCGTGGGCATCGTTGCTGGCCTTGTTGTCCTTGGAGCTGTGGTCACTGGAGCTGTGGTCGCT
GCTGTGATGTGGAGGAAGAAGAGCTCAGATAGAAACAGAGGGAGCTACTCTCAGGCTGCAGTCACTGACAGTGCC
CAGGGCTCTGGGGTGTCTCTCACAGCTAATAAAGTGTGAGACAGCTTCCTTGTGTGGGACTGAGAAGCAAGATAT
CAATGTAGCAGAATTGCACTTGTGCCTCACGAACATACATAAATTTTAAAAATAAAGAATAAA .

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FIGURE 4184

GAGAGCACGACGTGCGCGCACCCTCTCCCCTTGTCCACTGCTGCCGCCTCCTTCTTCTGCCGCTCCTGGTGCTGC
TTGTGTGCTCGTTTGGAGCGGACCTGGTACCTCTTTTGTGAAGCGGCAGCTGAGGAGACTCCGGCGCTCGCC**ATG**

GCCGAAGAAAAGCCCAAGGAAGGAGTCAAGACTGAGAACAACGATCATATTAATTTGAAGGTGGCGGGGCAGGAT
GGTTCTGTGGTGCAGTTTAAGATTAAGAGGCATACACCACTTAGTAAACTAATGAAAGCCTATTGTGAACGACAG
GGATTGTCAATGAGGCAGATCAGATTCCGATTCGACGGGCAACCAATGAAACAGACACACCTGCACAGTTGGAAA
TGGAGGATGAAGATACAATTGATGTGTTCCAACAGCAGACGGGAGGTGTCTACTGAAAAGGGAACCTGCTTCTTT
ACTCCAGAACTCTGTTCTTTAAAGACCAAGATTACATTCTCAATTAGAAAACTGCAATTTGCTTCCACCACATCC
TGACTACTACCGTATAGTTTTCTCTATTCTTTCATTTCCCCCTTCCCCATTCCTTTACTGTACATAAAGTAACTG
GTATATGTGCACAAGCATATTACTTTTTTTTTTTAAAACTAAACAGCCAATGGTATGTTTTGATTGACATCAAGT
GGAGACGGGGCGGAAAAATACTGATTCTGTGAAAATACCCCCTTTCTCCATTAGTGGCATGCTCATTCAGCTCTT
ATCTTTATATTCCAGTAAGTTATTTTGCTCTCACTGTTTTAACAACAACAACAAAAAAACAACAACATAAAAATC
CTTGCATACCTTGTTCAATTGGAGAATTTTAATGTTTTTCATTTATCATTGTAAAACCAAGGACAATTTTATAAC
TTTTTTGTACTTAGCTGTTACATGCAGAGCAATCTGTCTTTAAGTAGGGATAAATTACTCTAAAACAAAAAAGAA
TCCTAGATAGTTTTCCCTTCAAGTCAAGCGTCTTGTTGTTTAAATAAACTTCTTGTTTAAAA

FIGURE 4185

ATGAAGGCCAACTACAGCGCAGAGGAGCGCTTTCTCCTGCTGGGTTTCTCCGACTGGCCTTCCCTGCAGCCGGTC
CTCTTCGCCCTTGTCCTCCTGTGCTACCTCCTGACCTTGACGGGCAACTCGGCGCTGGTGCTGCTGGCGGTGCGC
GACCCGCGCCTGCACACGCCCATGTACTACTTCCTCTGCCACCTGGCCTTGGTAGACGCGGGCTTCACTACTAGC
GTGGTGCCGCCGCTGCTGGCCAACCTGCGCGGACCAGCGCTCTGGCTGCCGCGCAGCCACTGCACGGCCCAGCTG
TGCGCATCGCTGGCTCTGGGTTCCGCCGAATGCGTCCTCCTGGCGGTGATGGCTCTGGACCGCGCGGCCGCAGTG
TGCCGCCCGCTGCGCTATGCGGGGCTCGTCTCCCCGCGCCTATGTCGCACGCTGGCCAGCGCCTCCTGGCTAAGT
GGCCTCACCAACTCGGTTGCGCAAACCGCGCTCCTGGCTGAGCGGCCGCTGTGCGCGCCCCGCCTGCTGGACCAC
TTCATCTGTGAGCTGCCGGCGTTGCTCAAGCTGGCCTGCGGAGGCGACGGAGACACTACCGAGAACCAGATGTTC
GCCGCCCGCGTGGTCATCCTGCTGCTGCCGTTTGCCGTCATCCTGGCCTCCTACGGTGCCGTGGCCCGAGCTGTC
TGTTGCATGCGGTTCAGCGGAGGCCGGAGGAGGGCGGTGGGCACGTGTGGGTCCCACCTGACAGCCGTCTGCCTG
TTCTACGGCTCGGCCATCTACACCTACCTGCAGCCCGCGCAGCGCTACAACCAGGCACGGGGCAAGTTCGTATCG
CTCTTCTACACCGTGGTCACACCTGCTCTCAACCCGCTCATCTACACCCTCAGGAATAAGAAAGTGAAGGGGGCA
GCGAGGAGGCTGCTGCGGAGTCTGGGGAGAGGCCAGGCTGGGCAG**TGA**

FIGURE 4186

GTGCAGAACCTTTGCCTCCTGGCCAGAGGGACCCTTCTGCAGGCTGATTCCAGCAGTGCCCGATGGTGGGACCCA
CACCAGACCAAGCCTTCGCCTCCCAGAGGCCTCCTGGCCCTCCTGTCATGGCCTGTGAGAGCCACACCCCTAGGC
CCCGTCTCCTAGTCTGCAGGCCGCAGGACCAGCTGCCCACGGCCCCAGGGGGCAGGGGCTGTAGATGAGGGTCTC
AGAGGTGGTGGGAGCACCCCCCCCACCCACAGTTCCTGGGCATTTCTTTAGAGCTTTAAAATGGCACCTGGAGAC
CACCAGGCGCGGCGATCAGATCGGGTGGTGTGGTGCCTCCTGGGACTGACCACTTCTTGCTCTCCGACCAGGCAG
GGGCGAGTGGCCTGGGAGGTTCCCGGACCCTCAGGGGGCCTGTGTCTCTGGGCACCGCAGCTCCGCCCCACTCCT
TCCTCCAGAACATTCCCCACTCGGGCTAGAGAATTGCGTCTGCTCCAGGAATGCATCCTAGCGTGTGTACGATCG
CGCCTGGGTGTCCTGTTCTCATGAGCAAGCGGTTTTAACCAGCAGCATAATTTATACTCATAGACAGGACTGGGG
GAAGGGCTGTTCCTGAGGCTGGGGTGCAGTGCCTTGGAAAGCACCCCTGAAACAGTGGACCTTGTATTTTTAGTG
TCCCCTGCAACCATCCTCTGACTTAGAGCAAGAATTTCCGCTGCTGCTACCCCCGAGATGGGCTTCACCAGATGT
TAATAACGTGCTTATTTTCTCTAAGTGCTATTTTGGCACCAGCGTTAGTTGCAATTTATATTCTGCAGCATTTGA
TGCTGGGAAAAGAACCCACCCTAATGGTCCCCAATTGGCAGAGCTCGGCTGTTAAGCAGCAGACCATATGCTGCC
TGCTGGAGGAGCGTGGTCAGCACTTGTCCCCGTGCCTGCGTGCGTGTGCCTGCGTGCACGTGTGCCTGCGGGTAC
CTGTGCCCTGTGTGTGCACATGTGCCTGCATGCGTGTGCCTGCGTGCACGTGTGCCTGTGTGTACATGTGCCTGC
GTGTACCTGTGCCCTGTGTGTGCACGTGTGCCTTCGTGTACCTGTGCCCTGTGTGTGCATGTGTGTGTGAGTCAC
GTCTTCCGTGTGTGTATGTGAGGGAGAGACTGTGGGGTTGGAGGGAGGGAGGAGGGGAAAGGGTATGTATCCCTT
TGTTCTTTAAAAGGGAGAGCCCCAACCTCTCTGGCTGCCCCCTCCTGCCTGTGCTCCCAGCTCACCCCACACCTA
GCTGCTATTTATTCTCCTGACCCCCTTCCCGGCCCTGCAGCCCCGTGTCCCGCAGCCTCCGCCCCGCCTCCTGCT
CCACGTCACCAGGCAACACTCGGCTCCACCAGGCTTCCGAAGGTGGCCCAGAGCAGGCACTTGAGCCTGATGACC
CAGAGCAAAGCTGCCTTTCTGGGCCTTGAGTACTCCTTTCTGCTATGGAAGGCTTTTCTTGTTTTCAACGGCCCG
TCCAGCCCAGGGGGGCTGGGTGAGGGCCGCTTCCTTCTGCAGCAGAGGGGGCGGGCTCTATCCTTGCCATCTGCT
GCCCCCAGAGGCCCTGCCAGGACATGGGCCTGAGCGGTTTCTTCTCCAAGAGGCCCTCCTGGGACCTGTCTGTGC
ACAGGGCGGGAAGACACTTGCTGCTTCGACCCAGGACGGCAGCCAGGACGGGCTGAGCTCCTCTTGCGCTGCAAA
CACACAAGGGTTGCCTGCCAGCTCAGCAGCGCCCTCCCTCAACCACACCCTGGGTCCGGACCCAGAGCCACAGGC
CGTTGGACCCAGGGGACCGGGGCTGGGCTCAGGCGTGGGCCTGGAGGGCTTGTGGAGGGGCCAGACCTAGAGCCG
TAGGGCTCCAACAGCTGAGGGCTGGGCCCCTGCCGGCCAATGAAGCTCCAGACCAGTGCTCCGGCCTTGGCGGTG
CCAGCAGTGCTCCTGCAGGGATGGAGGGTGCTGGAGGCCTGGATGCGGGGACCTTGATCCCCCAGCAGGCAGCGC
TGTGGTCCCAGCCACTCAGGAGGCTGAGGCAGGAGAATGGCATGAACCTGGGAGGCGGAGCTTGCAGTGAGCTGA
GATCGCACCACTGCATTCCAGCCTGGGCGACAGAGTGAGACTCCGTCTCAAAAAAAAAAAAAAACAAAAGAAGTTT
CTAGATCTACTGGGCATGATGAACACAAACCCCACAGACACTGAGGAACCCAGTGGTGGCAGTGACTCGGGCTCC
TCTGCTCTCTAAAGCTCCTTTGAGAAAC**ATG**GGAGGGGCCGGGCGTGGTGGTTCACGCCTGTCATCCCAGCACTT
TGGGAGGCTGGGGCAGGAGGATCGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGGCAACATAGTGAGACTGTATC
GCTACATAAAATAAAAAAAAAAAGTTAGCTGGGCATTGTACATGTGCCTGTGGTCCCAGCTACTCAGGAGGCTGAG
GCAGGAGGATTGCTTGAGCCCAGGAGTTGGATGTTGCAGTGAGCCAAGATCGCACCATTGCCCTCCACTCTGGGC
CACGGAGCAATACCCTGTCTCAGAAAACAAACAACAAAAAGCAGAAACGCTGAAGGGGTCGGTTTACGGGAAAAC
CGCCTGTCAGAACACTTGGCTACTCCTACCCCAGATCAGTGGACCTGGGAATGAGGGTTGGTCCCGGGAGGCTTT
TCTCCAAGCTGTTGCCACCAGACCCGCCATGGGAACCCTGGCCACAGAAGCCTCCCGGGGAGTGAGCCAGAGCCT
GGACCGCTGTGCTGATGTGTCTGGGGTGGAGGGAGGGTGGGGAGTGTGCAAGGGTGTGTGTGTGCCCGGGGGGTG
TTCATGGGCAAGCATGTGCGTGCCTGTGTGTGTGCGTGCCCCTCCCCTGCAGCCGTCGGTGGTATCTCCCTCCAG
CCCCTTCGCCACCTTC**TGA**GCATTGTCTGTCCACGTGAGACTGCCCAGAGACAGCAGAGCTCCACGTGGTTTTAA
GGGGAGACCTTTCCCTGGACCTGGGGGTCTCGCCGTATCTCATGACCAGGTGCTAAATGACACGACATGCATCAC
CTGCCTTTCGATGACCAACCTCCCTGTCCCCGTCCCGCTGACCTGCCCCCGTGGCGTCTCACGGTGATGCCTGCT
CCTGACATTGGTGTTCACTGTAGCAAACTACATTCTGGATGGGAATTTTCATGTACATGTGTGGCATGTGGAAAA
TTTCAAATAAAATGGACTTGATTTAG

FIGURE 4187

CGCGTCCGCCCCGCGAGCACAGAGCCTCGCCTTTGCCGATCCGCCGCCCGTCCACACCCGCCGCCAGCTCACCATG
GGATGATGATATCGCCGCGCTCGTCGTCGACAACGGCTCCGGCATGTGCAAGGCCGGCTTCGCGGGCGACGATGC
CCCCCGGGCCGTCTTCCCCTCCATCGTGGGGCGCCCCAGGCACCAGGGCGTGATGGTGGGCATGGGTCAGAAGGA
TTCCTATGTGGGCGACGAGGCCCAGAGCAAGAGAGGCATCCTCACCCTGAAGTACCCCATCGAGCACGGCATCGT
CACCAACTGGGACGACATGGAGAAAATCTGGCACCACACCTTCTACAATGAGCTGCGTGTGGCTCCCGAGGAGCA
CCCCGTGCTGCTGACCGAGGCCCCCCTGAACCCCAAGGCCAACCGCGAGAAGATGACCCAGATCATGTTTGAGAC
CTTCAACACCCCAGCCATGTACGTTGCTATCCAGGCTGTGCTATCCCTGTACGCCTCTGGCCGTACCACTGGCAT
CGTGATGGACTCCGGTGACGGGGTCACCCACACTGTGCCCATCTACGAGGGGTATGCCCTCCCCCATGCCATCCT
GCGTCTGGACCTGGCTGGCCGGGACCTGACTGACTACCTCATGAAGATCCTCACCGAGCGCGGCTACAGCTTCAC
CACCACGGCCGAGCGGGAAATCGTGCGTGACATTAAGGAGAAGCTGTGCTACGTCGCCCTGGACTTCGAGCAAGA
GATGGCCACGGCTGCTTCCAGCTCCTCCCTGGAGAAGAGCTACGAGCTGCCTGACGGCCAGGTCATCACCATTGG
CAATGAGCGGTTCCGCTGCCCTGAGGCACTCTTCCAGCCTTCCTTCCTGGGCATGGAGTCCTGTGGCATCCACGA
AACTACCTTCAACTCCATCATGAAGTGTGACGTGGACATCCGCAAAGACCTGTACGCCAACACAGTGCTGTCTGG
CGGCACCACCATGTACCCTGGCATTGCCGACAGGATGCAGAAGGAGATCACTGCCCTGGCACCCAGCACAATGAA
GATCAAGATCATTGCTCCTCCTGAGCGCAAGTACTCCGTGTGGATCGGCGGCTCCATCCTGGCCTCGCTGTCCAC
CTTCCAGCAGATGTGGATCAGCAAGCAGGAGTATGACGAGTCCGGCCCCTCCATCGTCCACCGCAAATGCTTCTAG
GGCGGACTATGACTTAGTTGCGTTACACCCTTTCTTGACAAAACCTAACTTGCGCAGAAAACAAGATGAGATTGG
CATGGCTTTATTTGTTTTTTTTGTTTTGTTTTGGTTTTTTTTTTTTTTTTGGCTTGACTCAGGATTTAAAAACTG
GAACGGTGAAGGTGACAGCAGTCGGTTGGAGCGAGCATCCCCCAAAGTTCACAATGTGGCCGAGGACTTTGATTG
CACATTGTTGTTTTTTTAATAGTCATTCCAAATATGAGATGCGTTGTTACAGGAAGTCCCTTGCCATCCTAAAAG
CCACCCCACTTCTCTCTAAGGAGAATGGCCCAGTCCTCTCCCAAGTCCACACAGGGGAGGTGATAGCATTGCTTT
CGTGTAAATTATGTAATGCAAAATTTTTTTAATCTTCGCCTTAATACTTTTTTATTTTGTTTTATTTTGAATGAT
GAGCCTTCGTGCCCCCCCTTCCCCCTTTTTTGTCCCCCAACTTGAGATGTATGAAGGCTTTTGGTCTCCCTGGGA
GTGGGTGGAGGCAGCCAGGGCTTACCTGTACACTGACTTGAGACCAGTTGAATAAAAGTGCACACCTTA

FIGURE 4188

GCGGAGGGTGCGTGCGGGCCGCGGCAGCCGAACAAAGGAGCAGGGGCGCCGCCGCAGGGACCCGCCACCCACCTC
CCGGGGCCGCGCAGCGGCCTCTCGTCTACTGCCACC**ATG**ACCGCCAACGGCACAGCCGAGGCGGTGCAGATCCAG
TTCGGCCTCATCAACTGCGGCAACAAGTACCTGACGGCCGAGGCGTTCGGGTTCAAGGTGAACGCGTCCGCCAGC
AGCCTGAAGAAGAAGCAGATCTGGACGCTGGAGCAGCCCCCTGACGAGGCGGGCAGCGCGGCCGTGTGCCTGCGC
AGCCACCTGGGCCGCTACCTGGCGGCGGACAAGGACGGCAACGTGACCTGCGAGCGCGAGGTGCCCGGTCCCGAC
TGCCGTTTCCTCATCGTGGCGCACGACGACGGTCGCTGGTCGCTGCAGTCCGAGGCGCACCGGCGCTACTTCGGC
GGCACCGAGGACCGCCTGTCCTGCTTCGCGCAGACGGTGTCCCCCGCCGAGAAGTGGAGCGTGCACATCGCCATG
CACCCTCAGGTCAACATCTACAGCGTCACCCGTAAGCGCTACGCGCACCTGAGCGCGCGGCCGGCCGACGAGATC
GCCGTGGACCGCGACGTGCCCTGGGGCGTCGACTCGCTCATCACCCTCGCCTTCCAGGACCAGCGCTACAGCGTG
CAGACCGCCGACCACCGCTTCCTGCGCCACGACGGGCGCCTGGTGGCGCGCCCCGAGCCGGCCACTGGCTACACG
CTGGAGTTCCGCTCCGGCAAGGTGGCCTTCCGCGACTGCGAGGGCCGTTACCTGGCGCCGTCGGGGCCCAGCGGC
ACGCTCAAGGCGGGCAAGGCCACCAAGGTGGGCAAGGACGAGCTCTTTGCTCTGGAGCAGAGCTGCGCCCAGGTC
GTGCTGCAGGCGGCCAACGAGAGGAACGTGTCCACGCGCCAGGGTATGGACCTGTCTGCCAATCAGGACGAGGAG
ACCGACCAGGAGACCTTCCAGCTGGAGATCGACCGCGACACCAAAAAGTGTGCCTTCCGTACCCACACGGGCAAG
TACTGGACGCTGACGGCCACCGGGGGCGTGCAGTCCACCGCCTCCAGCAAGAATGCCAGCTGCTACTTTGACATC
GAGTGGCGTGACCGGCGCATCACACTGAGGGCGTCCAATGGCAAGTTTGTGACCTCCAAGAAGAATGGGCAGCTG
GCCGCCTCGGTGGAGACAGCAGGGGACTCAGAGCTCTTCCTCATGAAGCTCATCAACCGCCCCATCATCGTGTTC
CGCGGGGAGCATGGCTTCATCGGCTGCCGCAAGGTCACGGGCACCCTGGACGCCAACCGCTCCAGCTATGACGTC
TTCCAGCTGGAGTTCAACGATGGCGCCTACAACATCAAAGACTCCACAGGCAAATACTGGACGGTGGGCAGTGAC
TCCGCGGTCACCAGCAGCGGCGACACTCCTGTGGACTTCTTCTTCGAGTTCTGCGACTATAACAAGGTGGCCATC
AAGGTGGGCGGGCGCTACCTGAAGGGCGACCACGCAGGCGTCCTGAAGGCCTCGGCGGAAACCGTGGACCCCGCC
TCGCTCTGGGAGTAC**TAG**GGCCGGCCCGTCCTTCCCCGCCCCTGCCCACATGGCGGCTCCTGCCAACCCTCCCTG
CTAACCCCTTCTCCGCCAGGTGGGCTCCAGGGCGGGAGGCAAGCCCCCTTGCCTTTCAAACTGGAAACCCCAGAG
AAAACGGTGCCCCCACCTGTCGCCCCTATGGACTCCCCACTCTCCCCTCCGCCCGGGTTCCCTACTCCCCTCGGG
TCAGCGGCTGCGGCCTGGCCCTGGGAGGGATTTCAGATGCCCCTGCCCTCTTGTCTGCCACGGGGCGAGTCTGGC
ACCTCTTTCTTCTGACCTCAGACGGCTCTGAGCCTTATTTCTCTGGAAGCGGCTAAGGGACGGTTGGGGGCTGGG
AGCCCTGGGCGTGTAGTGTAACTGGAATCTTTTGCCTCTCCCAGCCACCTCCTCCCAGCCCCCCAGGAGAGCTGG
GCACATGTCCCAAGCCTGTCAGTGGCCCTCCCTGGTGCACTGTCCCCGAAACCCCTGCTTGGGAAGGGAAGCTGT
CGGGTGGGCTAGGACTGACCCTTGTGGTGTTTTTTTGGGTGGTGGCTGGAAACAGCCCCTCTCCCACGTGGCAGA
GGCTCAGCCTGGCTCCCTTCCCTGGAGCGGCAGGGCGTGACGGCCACAGGGTCTGCCCGCTGCACGTTCTGCCAA
GGTGGTGGTGGCGGGCGGGTAGGGGTGTGGGGGCCGTCTTCCTCCTGTCTCTTTCCTTTCACCCTAGCCTGACTG
GAAGCAGAAAATGACCAAATCAGTATTTTTTTTAATGAAATATTATTGCTGGAGGCGTCCCAGGCAAGCCTGGCT
GTAGTAGCGAGTGATCTGGCGGGGGGCGTCTCAGCACCCTCCCCAGGGGGTGCATCTCAGCCCCCTCTTTCCGTC
CTTCCCGTCCAGCCCCAGCCCTGGGCCTGGGCTGCCGACACCTGGGCCAGAGCCCCTGCTGTGATTGGTGCTCCC
TGGGCCTCCCGGGTGGATGAAGCCAGGCGTCGCCCCCTCCGGGAGCCCTGGGGGTGAGCCGCCGGGGCCCCCCTGC
TGCCAGCCTCCCCCGTCCCCAACATGCATCTCACTCTGGGTGTCTTGGTCTTTTATTTTTTGTAAGTGTCATTTG
TATAACTCTAAACGCCCATGATAGTAGCTTCAAACTGGAAATAGCGAAATAAAATAACTCAGTCTGC

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FIGURE 4189

AGTCGGGAGGGGGCGCTGTGCGCAGGCGCGAGGTGACGCCGCGGCAGGGCCGGAAGGAGTGCAGCGGCTGCCACG
GAGCTCGCAGCTGCGGCTTCTGAGGAGTAAGCGGCGCGGTAGCGAAGGCCGCCGAACCTGCCTGGCTAGCCGGCG
ACTTGATTTTCAGTTCTTTTGAAACAGATGGTCACCATGTTTAGATATTAGCAGTCCCATATATGCATGTCTGCA
TTTGAAAATGGAAGAGGGAAACAACAATGAAGAGGTAATTCACTTGAACAACTTTCACTGCCATCGGGGACAAGT
TGCCTAAAATAGACTTTTTTGACTATTCTAAATTGACCCCTCTTGACCAGCGCTGCTTCATCCAAGCTGCTGACC
TCCTCATGGCCGACTTCAAAGTGCTCAGTAGTCAGGACATCAAGTGGGCCCTGCACGAGCTCAAAGGACACTATG
CAATCACCCGAAAGGCCTTGTCTGATGCCATTAAAAAATGGCAGGAGCTGTCACCAGAAACCAGTGGAAAAAGGA
AGAAGAGAAAACAAATGAACCAGTATTCTTACATTGATTTCAAGTTTGAACAAGGTGACATAAAAATAGAAAAGA
GG**ATG**TTCTTTCTTGAAAATAAGCGACGACATTGTAGGTCCTATGACCGACGTGCTCTCCTTCCAGCTGTGCAAC
AAGAGCAGGAGTTCTATGAGCAGAAAATCAAAGAGATGGCAGAGCATGAAGACTTTTTGCTTGCCCTACAGATGA
ATGAAGAACAGTATCAAAAGGATGGCCAGCTGATTGAGTGTCGCTGCTGCTATGGGGAATTTCCATTCGAGGAGC
TGACGCAGTGCGCAGATGCTCACTTGTTCTGCAAAGAGTGTCTCATCAGATATGCCCAAGAGGCAGTCTTTGGAT
CTGGAAAGTTGGAGCTCAGCTGCATGGAAGGCAGCTGCACGTGTTCGTTCCCAACCAGTGAGCTGGAGAAGGTGC
TCCCCCAGACCATCCTGTATAAGTACTATGAGCGAAAAGCCGAGGAGGAGGTTGCGGCAGCCTACGCCGACGAGC
TTGTCAGGTGCCCGTCCTGTAGCTTTCCGGCTCTGTTGGACAGTGATGTGAAGAGGTTCAGCTGTCCTAATCCTC
ACTGCCGAAAGGAAACCTGTAGGAAGTGTCAGGGACTCTGGAAAGAACATAATGGCCTCACCTGTGAAGAGCTGG
CTGAAAAAGACGACATCAAGTACCGTACCTCTATTGAAGAAAAAATGACTGCTGCCCGCATTAGAAAATGCCACA
AGTGTGGGACTGGCCTCATCAAATCTGAAGGCTGCAACCGCATGTCTTGCCGCTGTGGTGCCCAGATGTGCTACC
TCTGTCGAGTTTCTATTAATGGATATGACCATTTCTGCCAACATCCCCGCTCACCAGGAGCCCCTTGCCAGGAGT
GTTCAAGATGCTCTCTCTGGACCGATCCCACTGAAGATGATGAGAAGCTTATTGAGGAAATCCAGAAGGAGGCTG
AAGAGGAACAGAAAAGAAAGAATGGAGAGAACACCTTCAAACGCATTGGACCCCCGCTGGAGAAGCCTGTGGAGA
AGGTGCAGAGGGTGGAGGCCCTCCCGAGGCCCGTTCCGCAGAACCTGCCACAGCCACAGATGCCACCCTATGCCT
TCGCGCACCCACCCTTCCCCCTGCCTCCCGTGCGGCCTGTGTTCAACAACTTCCCACTCAACATGGGGCCTATCC
CAGCCCCGTACGTGCCCCCTCTGCCCAACGTGCGGGTCAACTATGACTTCGGTCCCATCCACATGCCCCTGGAGC
ACAACCTGCCCATGCACTTTGGCCCCCAGCCGCGGCATCGCTTC**TGA**TGGCCCCGAATCCCCATTGAGCAGCACA
AAGCCCGTTTGGGGTAGGAGTGTGGATGGAGAACCCTCCCCCAAGGCTGGTGTCTGTACCATTGCATCCTAAGTC
AGCTTGAAGGGTAGGCTGGTTTTCTTCCCACCCCTTTCCTAGAAGGGCTACTGCTCCTGGAAGAGTGGACGGATC
CATAATAAAGACGTCCCAAATGGTGGAGTTCGGAGAGAGCTGCGATGTGAACTGCCCCTCCCCTCGCATCCCCCA
GGCCACCAACGGCAGTCCTTCTGCCTTGTCCATGGCATAGGCCATAGACCAGGTCCCTGCTGCTCACACCTGGGC
CTCTCCTCGGAGCCGACCCCTGGGTAGCAAGGCAGCCGAGAGCATCTCCCTGGAGGGGCCCACGGTTGGGCCAAG
GGCAGAGGGGGCTGCACCTGCGGGCCTGGGAAGCATTGCTCAGGGTGGGGGGCTGGGACCATGGCCCGCAGAGGC
ACTGCCACAGCTGTGAGGGCCAAGATGCTGTCCCCCCATCCAAAACCCGTGCGCCACTGCAGTGAGTGTTGAGGG
CACCTCTCCTCCCCTCTTACACCTACTCAGATGAGGCAGCAGCAGACCCATCTCGCGGCGGGGGTTTTGTTCTGT
TGCCGCCTAACTTTCTCATCCTCGGTCTCTGGAAAGTCAGGCTGAGAAATCCTTTCCCAGGCCAGGCCGCTGCGG
TACACTGGATGGTTCTGAAGCTGGCCCATTGAAAGAGCCTCTTAAGGCAGCTGGGACAGAGGCCTGGTGGCCCTG
CTGGGCAGCCCAACTGCTGGGGGAGACGTTTCTGCCACCCTGGGTGATGAGCAGCTTTTCCCCCCTGGCTTTCTG
GGGGAGGAGTGGGCCTCCTTAGGGAGACAGGTGACCCTGGGTGCCACCCCTGCCCCGTGTGTGCCCCGGGTGTTC
TCAGTGGTTGCTGAAGGCAGGTAGAGGGTGCTGTCCAGTATCCCCCATGTGAAGGTCACTTCCCTTCTCATGGAG
TCAGCTGAGCATCAGCTCAGCCCTGCCATGTCCCCACTCACCCTCCTCGCCTCCTGTCCGGCCCTGGGTTTCTAG
CGGTGCCTGAGGCATCACTCTGGCCCATTGACAGATGAGAGGTCTGAAGCCTTCCTGGCCACAGGCATCACTTTC
TCCTCCTCCTCATGCCCTGCCTTGTCCTTGTCGTGTTGCCATGGGGTTCTGAGAGGCTGGGAGTTCACAGACCTC
AGACACAGCTGAGTCCGACAACCATTGGGGTGGGGCTGCATCAGTCTCCGGAGTGGCCCGCCACCTCCTGAAGCA
GGGCCTGGCCCACCCAAGGTGCCTGGGGCAGGCGGGCACCGTCATTCGCTGCCATTGGCTTCTCAGATGTATTTC
AAGGACTAAAGTGGGCTCTAAGATCTAAGATGGCCCGGCGCGGTGGCTCCCGCCTGTAATCCCAGCACTTTGGGA
GGCCGAGGCGGGCGGATGAGTTGAGGTCGGGAGTTTGAGTCCCCGTCTCTACTAAAAATACAAAATTAGCCGGAC
AAGGTGGCGCATGCCTATAATCCCAGGTACTCAGGAGGCTGAGGCAGGAGAATCACTTGAACCTGGGAGGCAGAG
GTTGCAGTGAGCCAAGATTGTGCCACTGCACTCCAGCCTGAGCAACAAAAGCAAAACTCTATCTTT

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FIGURE 4190

GTCTCTGGGCGGGCCGTGGGAGGCTCCCGAGGTGGGGGCCGGGGCGGG**ATG**GCTGCAGCGGCGGCCGGGGCCGGG
AGCGGGCCCTGGGCGGCCCAGGAGAAGCAGTTCCCGCCGGCGCTGCTGAGTTTCTTCATCTACAACCCGCGCTTC
GGGCCGCGCGAAGGACAGGAGGAAAATAAGATTTTATTTTATCATCCAAATGAGGTAGAAAAGAATGAGAAGATT
AGAAATGTCGGATTGTGTGAAGCTATTGTACAGTTTACAAGGACATTTAGCCCATCAAAACCTGCAAAATCTTTA
CATACACAGAAGAACAGACAGTTCTTCAATGAACCAGAAGAAAATTTCTGGATGGTCATGGTTGTTCGGAATCCT
ATAATTGAAAAACAGAGTAAAGATGGAAAACCAGTTATTGAATATCAAGAGGAGGAGTTGTTGGACAAGGTTTAT
AGCTCGGTGCTGCGGCAGTGCTACAGCATGTACAAGCTTTTTAATGGTACATTTCTGAAAGCCATGGAAGACGGA
GGCGTCAAGCTTCTGAAAGAAAGATTAGAGAAATTCTTCCATCGGTATTTGCAAACGCTACATTTGCAGTCATGT
GACCTACTTGACATTTTTGGTGGAATCAGCTTCTTCCCGTTGGATAAAATGACTTATTTGAAAATCCAGTCCTTT
ATTAATAGAATGGAGGAAAGCCTGAATATAGTCAAATACACTGCTTTTCTCTATAACGATCAGCTCATCTGGAGT
GGATTAGAACAAGATGACATGAGAATTTTATACAAATACCTTACCACCTCCCTTTTTCCAAGGCACATCGAACCT
GAGTTAGCAGGAAGGGATTCTCCAATAAGAGCAGAAATGCCAGGAAATCTTCAACACTATGGAAGATTTCTTACC
GGACCCTTGAACCTCAATGATCCAGATGCAAAATGCAGATTCCCCAAAATTTTTGTAAATACAGATGACACTTAT
GAAGAGCTCCATTTAATCGTTTATAAGGCCATGAGTGCGGCTGTGTGCTTTATGATCGACGCCTCTGTCCACCCA
ACGTTGGATTTTTGCCGAAGACTGGACAGCATCGTTGGGCCCCAGCTCACAGTGCTGGCCTCTGACATCTGTGAA
CAGTTTAACATCAACAAGAGGATGTCCGGGTCTGAGAAAGAACCCCAGTTTAAGTTTATCTACTTCAACCACATG
AATCTCGCCGAGAAGAGCACAGTTCACATGAGGAAAACGCCCAGCGTGTCGCTCACTTCCGTGCACCCGGATTTA
ATGAAGATTCTCGGTGACATCAACAGTGACTTTACCAGAGTGGATGAAGATGAGGAGATCATTGTGAAGGCCATG
AGTGATTACTGGGTTGTTGGAAAGAAGTCTGATCGGCGGGAGCTCTATGTTATTTTGAATCAAAAAAATGCAAAC
CTGATTGAAGTAAATGAAGAGGTCAAGAAACTTTGTGCAACGCAGTTCAACAACATCTTCTTCTTGGAT**TGA**CGG
ATGACGGCTCACCGAGAGCATATCTAAAAAACACTCTGCAAACATTTGGTCACATGCAAGTTAGTGGTCATATGA
CGGACTGCATTCAGGACAAGGGTAAAGCAATACTTGCTTTGAAGAATCACATTTCGACTCGGTCTGCTGATCTGA
GGTTTTTAGATTTTAAATATTTATGTGGAATTAATTAAAGGTAGTTGGCTATATCGCTATCATTTCATTCTTTTG
ACATTATGTGAATATTTTACTGGAAAATAAGACTAATAAATTGTTAAAAGTTTTTAAAATTCTGGTTTGGTGTTG
AGTCTCTCTCCTGCTGCCTATTTATAGATTACACTGGCCACCAGCTCCGTGACCCAGGCTGGAATGCAATGGCTC
ACTGCAGCCTCAACCTCCTGAGCTCAAGCAATCCTCCCACCTCAGCCTCCCAAGAAGCTAGAACCACATGTACAC
ACCACCACGGTCGGCTGATGTTTTAATTTTGCAGAGATGGGGGGGTCTCACTATGTTGCCCAGGCTGGTCTCGAA
CTCCCGTAATCCAGCCATGTAGGAAACCTGAGATGCAGTGGGCCAAGGGGTATGTTAAAACACTGTGACGAGTTC
AGTGCTAAGAACTGTAATGCTCAGGAAATCTTACAGCACGTGCCATCCTAAGCCTGTGTGTGTGTCCTCGTGTCT
CTCTACTTTTTCTTCTTCTTGCTGGTGATGGTCTTGCTGGATGGGGACACGGTCACATCCTCCTTGGGAGGGTCC
AGTATGAGGTGAGAGGATGACACGTCTGCCGGCTCCTTGAGCACTGTGATGTCCACCTCATAGTCATGTCTCTTG
GCCTCTTCCTCTCTCAAGATGAAGATGTTCAGCCT

FIGURE 4191

CGAGGCGGATCGGGTGTTGCATCC**ATG**GAGCGAGCTGAGAGCTCGAGTACAGAACCTGCTAAGGCCATCAAACCT
ATTGATCGGAAGTCAGTCCATCAGATTTGCTCTGGGCAGGTGGTACTGAGTCTAAGCACTGCGGTAAAGGAGTTA
GTAGAAAACAGTCTGGATGCTGGTGCCACTAATATTGATCTAAAGCTTAAGGACTATGGAGTGGATCTTATTGAA
GTTTCAGACAATGGATGTGGGGTAGAAGAAGAAAACTTCGAAGGCTTAACTCTGAAACATCACACATCTAAGATT
CAAGAGTTTGCCGACCTAACTCAGGTTGAAACTTTTGGCTTTCGGGGGGAAGCTCTGAGCTCACTTTGTGCACTG
AGCGATGTCACCATTTCTACCTGCCACGCATCGGCGAAGGTTGGAACTCGACTGATGTTTGATCACAATGGGAAA
ATTATCCAGAAAACCCCCTACCCCCGCCCCAGAGGGACCACAGTCAGCGTGCAGCAGTTATTTTCCACACTACCT
GTGCGCCATAAGGAATTTCAAAGGAATATTAAGAAGGAGTATGCCAAAATGGTCCAGGTCTTACATGCATACTGT
ATCATTTCAGCAGGCATCCGTGTAAGTTGCACCAATCAGCTTGGACAAGGAAAACGACAGCCTGTGGTATGCACA
GGTGGAAGCCCCAGCATAAAGGAAAATATCGGCTCTGTGTTTGGGCAGAAGCAGTTGCAAAGCCTCATTCCTTTT
GTTCAGCTGCCCCCTAGTGACTCCGTGTGTGAAGAGTACGGTTTGAGCTGTTCCGATGCTCTGCATAATCTTTTT
TACATCTCAGGTTTCATTTCACAATGCACGCATGGAGTTGGAAGGAGTTCAACAGACAGACAGTTTTTCTTTATC
AACCGGCGGCCTTGTGACCCAGCAAAGGTCTGCAGACTCGTGAATGAGGTCTACCACATGTATAATCGACACCAG
TATCCATTTGTTGTTCTTAACATTTCTGTTGATTCAGAATGCGTTGATATCAATGTTACTCCAGATAAAAGGCAA
ATTTTGCTACAAGAGGAAAAGCTTTTGTTGGCAGTTTTAAAGACCTCTTTGATAGGAATGTTTGATAGTGATGTC
AACAAGCTAAATGTCAGTCAGCAGCCACTGCTGGATGTTGAAGGTAACTTAATAAAAATGCATGCAGCGGATTTG
GAAAAGCCCATGGTAGAAAAGCAGGATCAATCCCCTTCATTAAGGACTGGAGAAGAAAAAAAAGACGTGTCCATT
TCCAGACTGCGAGAGGCCTTTTCTCTTCGTCACACAACAGAGAACAAGCCTCACAGCCCAAAGACTCCAGAACCA
AGAAGGAGCCCTCTAGGACAGAAAAGGGGTATGCTGTCTTCTAGCACTTCAGGTGCCATCTCTGACAAAGGCGTC
CTGAGACCTCAGAAAGAGGCAGTGAGTTCCAGTCACGGACCCAGTGACCCTACGGACAGAGCGGAGGTGGAGAAG
GACTCGGGGCACGGCAGCACTTCCGTGGATTCTGAGGGGTTCAGCATCCCAGACACGGGCAGTCACTGCAGCAGC
GAGTATGCGGCCAGCTCCCCAGGGGACAGGGGCTCGCAGGAACATGTGGACTCTCAGGAGAAAGCGCCTAAAACT
GACGACTCTTTTTCAGATGTGGACTGCCATTCAAACCAGGAAGATACCGGATGTAAATTTCGAGTTTTGCCTCAG
CCAACTAATCTCGCAACCCCAAACACAAAGCGTTTTAAAAAAGAAGAAATTCTTTCCAGTTCTGACATTTGTCAA
AAGTTAGTAAATACTCAGGACATGTCAGCCTCTCAGGTTGATGTAGCTGTGAAAATTAATAAGAAAGTTGTGCCC
CTGGACTTTTCTATGAGTTCTTTAGCTAAACGAATAAAGCAGTTACATCATGAAGCACAGCAAAGTGAAGGGGAA
CAGAATTACAGGAAGTTTAGGGCAAAGATTTGTCCTGGAGAAAATCAAGCAGCCGAAGATGAACTAAGAAAAGAG
ATAAGG**TAA**AACGATGTTTGCAGAAATGGAAATCATTGGTCAGTTTAACCTGGGATTTATAATAACCAAACTGAA
TGAGGATATCTTCATAGTGGACCAGCATGCCACGGACGAGAAGTATAACTTCGAGATGCTGCAGCAGCACACCGT
GCTCCAGGGGCAGAGGCTCATAGCACCTCAGACTCTCAACTTAACTGCTGTTAATGAAGCTGTTCTGATAGAAAA
TCTGGAAATATTTAGAAAGAATGGCTTTGATTTTGTTATCGATGAAAATGCTCCAGTCACTGAAAGGGCTAAACT
GATTTCCTTGCCAACTAGTAAAAACTGGACCTTCGGACCCCAGGACGTCGATGAACTGATCTTCATGCTGAGCGA
CAGCCCTGGGGTCATGTGCCGGCCTTCCCGAGTCAAGCAGATGTTTGCCTCCAGAGCCTGCCGGAAGTCGGTGAT
GATTGGGACTGCTCTTAACACAAGCGAGATGAAGAAACTGATCACCCACATGGGGGAGATGGACCACCCCTGGAA
CTGTCCCCATGGAAGGCCAACCATGAGACACATCGCCAACCTGGGTGTCATTTCTCAGAACTGACCGTAGTCACT
GTATGGAATAATTGGTTTTATCGCAGATTTTTATGTTTTGAAAGACAGAGTCTTCACTAACCTTTTTTGTTTTAA
AATGAACCTGCTACTTAAAAAAAATACACATCACACCCATTTAAAAGTGATCTTGAGAACCTTTTCAAACC

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FIGURE 4192

CCGAACGCCCGCAGCAGGGTCAGAAGGGAGGTGGCCGGTCTCCGTCGTGACCTCTGACGGTTTCTGAGCGTTGGC
CTTTGGCACGCGCTACCCCCTTTTGCTTTGGTTCTGCC**ATG**CCGATGTACCAGGTAAAGCCCTATCACGGGGGCG
GCGCGCCTCTCCGTGTGGAGCTTCCCACCTGCATGTACCGGCTCCCCAACGTGCACGGCAGGAGCTACGGCCCAG
CGCCGGGCGCTGGCCACGTGCAGGAAGAGTCTAACCTGTCTCTGCAAGCTCTTGAGTCCCGCCAAGATGATATTT
TAAAACGTCTGTATGAGTTGAAAGCTGCAGTTGATGGCCTCTCCAAGATGATTCAAACACCAGATGCAGACTTGG
ATGTAACCAACATAATCCAAGCGGATGAGCCCACGACTTTAACCACCAATGCGCTGGACTTGAATTCAGTGCTTG
GGAAGGATTACGGGGCGCTGAAAGACATCGTGATCAACGCAAACCCGGCCTCCCCTCCCCTCTCCCTGCTTGTGC
TGCACAGGCTGCTCTGTGAGCACTTCAGGGTCCTGTCCACGGTGCACACGCACTCCTCGGTCAAGAGCGTGCCTG
AAAACCTTCTCAAGTGCTTTGGAGAACAGAATAAAAAACAGCCCCGCCAAGACTATCAGCTGGGATTCACTTTAA
TTTGGAAGAATGTGCCGAAGACGCAGATGAAATTCAGCATCCAGACGATGTGCCCCATCGAAGGCGAAGGGAACA
TTGCACGTTTCTTGTTCTCTCTGTTTGGCCAGAAGCATAATGCTGTCAACGCAACCCTTATAGATAGCTGGGTAG
ATATTGCGATTTTTCAGTTAAAAGAGGGAAGCAGTAAAGAAAAAGCCGCTGTTTTCCGCTCCATGAACTCTGCTC
TTGGGAAGAGCCCTTGGCTCGCTGGGAATGAACTCACCGTAGCAGACGTGGTGCTGTGGTCTGTACTCCAGCAGA
TCGGAGGCTGCAGTGTGACAGTGCCAGCCAATGTGCAGAGGTGGATGAGGTCTTGTGAAAACCTGGCTCCTTTTA
ACACGGCCCTCAAGCTCCTTAAG**TGA**ATTGCCGTAACTGATTTTAAAGGGTTTAGATTTTAAGAATGGTGCTCTT
TCATGCCTATTATCAGTAAGGGGACTTGTATTAGAGTCAGAGTCTTTTTATTTAGGCCAGTTGTCAAGTGTCAAT
AAAAGCATCATGTAATTTA

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FIGURE 4193A

GTTACTTCCGGGTCGGACGGCGCTAGCTGCAGCATCGGAGTGTGGCAGTGCTGGGCTGGCCGGCGGGCTGGGCTG
CGGCCCGCGCGCGGCCGGCG**ATG**CAGGGGGGCAACTCCGGGGTCCGCAAGCGCGAAGAGGAGGGCGACGGGGCTG
GGGCTGTGGCTGCGCCGCCGGCCATCGACTTTCCCGCCGAGGGCCCGGACCCCGAATATGACGAATCTGATGTTC
CAGCAGAAATCCAGGTGTTAAAAGAACCCCTACAACAGCCAACCTTCCCTTTTGCAGTTGCAAACCAACTCTTGC
TGGTTTCTTTGCTGGAGCACTTGAGCCACGTGCATGAACCAAACCCACTTCGTTCAAGACAGGTGTTTAAGCTAC
TTTGCCAGACGTTTATCAAAATGGGGCTGCTGTCTTCTTTCACTTGTAGTGACGAGTTTAGCTCATTGAGACTAC
ATCACAACAGAGCTATTACTCACTTAATGAGGTCTGCTAAAGAGAGAGTTCGTCAGGATCCTTGTGAGGATATTT
CTCGTATCCAGAAAATCAGATCAAGGGAAGTAGCCTTGGAAGCACAAACTTCACGTTACTTAAATGAATTTGAAG
AACTTGCCATCTTAGGAAAAGGTGGATACGGAAGAGTATACAAGGTCAGGAATAAATTAGATGGTCAGTATTATG
CAATAAAAAAAATCCTGATTAAGGGTGCAACTAAAACAGTTTGCATGAAGGTCCTACGGGAAGTGAAGGTGCTGG
CAGGTCTTCAGCACCCCAATATTGTTGGCTATCACACCGCGTGGATAGAACATGTTCATGTGATTCAGCCACGAG
CAGACAGAGCTGCCATTGAGTTGCCATCTCTGGAAGTGCTCTCCGACCAGGAAGAGGACAGAGAGCAATGTGGTG
TTAAAAATGATGAAAGTAGCAGCTCATCCATTATCTTTGCTGAGCCCACCCCAGAAAAAGAAAAACGCTTTGGAG
AATCTGACACTGAAAATCAGAATAACAAGTCGGTGAAGTACACCACCAATTTAGTCATAAGAGAATCTGGTGAAC
TTGAGTCGACCCTGGAGCTCCAGGAAAATGGCTTGGCTGGTTTGTCTGCCAGTTCAATTGTGGAACAGCAGCTGC
CACTCAGGCGTAATTCCCACCTAGAGGAGAGTTTCACATCCACCGAAGAATCTTCCGAAGAAAATGTCAACTTTT
TGGGTCAGACAGAGGCACAGTACCACCTGATGCTGCACATCCAGATGCAGCTGTGTGAGCTCTCGCTGTGGGATT
GGATAGTCGAGAGAAACAAGCGGGGCCGGGAGTATGTGGACGAGTCTGCCTGTCCTTATGTTATGGCCAATGTTG
CAACAAAAATTTTTCAAGAATTGGTAGAAGGTGTGTTTTACATACATAACATGGGAATTGTGCACCGAGATCTGA
AGCCAAGAAATATTTTTCTTCATGGCCCTGATCAGCAAGTAAAAATAGGAGACTTTGGTCTGGCCTGCACAGACA
TCCTACAGAAGAACACAGACTGGACCAACAGAAACGGGAAGAGAACACCAACACATACGTCCAGAGTGGGTACTT
GTCTGTACGCTTCACCCGAACAGTTGGAAGGATCTGAGTATGATGCCAAGTCAGATATGTACAGCTTGGGTGTGG
TCCTGCTAGAGCTCTTTCAGCCGTTTGGAACAGAAATGGAGCGAGCAGAAGTTCTAACAGGTTTAAGAACTGGTC
AGTTGCCGGAATCCCTCCGTAAAAGGTGTCCAGTGCAAGCCAAGTATATCCAGCACTTAACGAGAAGGAACTCAT
CGCAGAGACCATCTGCCATTCAGCTGCTGCAGAGTGAACTTTTCCAAAATTCTGGAAATGTTAACCTCACCCTAC
AGATGAAGATAATAGAGCAAGAAAAAGAAATTGCAGAACTAAAGAAGCAGCTAAACCTCCTTTCTCAAGACAAAG
GGGTGAGGGATGACGGAAAGGATGGGGGCGTGGGA**TGA**AAGTGGACTTAACTTTTAAGGTAGTTAACTGGAATGT
AAATTTTTAATCTTTATTAGGGTATAGTTGGTACAATGCTTCGTTGTATTTAGTAAGCCTTTACAAGACTTGTTA
AAGATGTCAGAGTGCCCCAAGCTGCCGTTCCTTCCCTTCCTGCCCCACAAGCTCCTTTTCCTGAATTTCCTACCT
AAATATTAACCATATGCCTAGTCTCTGAAACTAAAAACTTGGACCTCATCCTCAATTATTTTCTCCTTTCAACTC
TGTTGACCCTCTGTCTGGTCTTCCTCTAGAAGGTACCGCAGAAATTGATGTGTGCTCCCTGCCCTCGTCACTGCC
CAAGCCCGGGCCTGCACATACTCACTGGACTGTTCCAGTTTTGACAGCTGCCAGTCTTCCTGCCCCTTTCACACT
GCAGCTGAAGTTCATTACCTGAAGGACGCCTCATCATTTCATTCCTTGGCTCCAAACCTTCTGCTGCCTCTAAGA
TAAAAGCTCAACTTCTTAACAGTGTACAGTGTGCAACTTCCAACCTTTTTATCTGTTCTCTCCACCTTCAGTTTA
GCGTCATTCCAAAACCACACCCTTGCAAAGCTTTGTACTCCGCACCCCAGATGATCTCCAGGCAGCTCAGATCTC
TTTCCTGCCTTTGCCCTGCACTGTTCCCCGGTACTTCCTCCTTTATTGTAGCACTCAGCTCCCCAGCCAATCTGT
ACATCCCTCAGAGGCAGCGATCTGATGAATTGGTTTTTGAATCCCAGAAAGGGTCTGCCATGGAGTTGGCAGTCA
TCACGGTAGATGGCGTATGATTTTGCTGAATTTTAAATAAAATGAAAACCATAAATTACATGATGCTTTTATTGA
CACTTGACAACTGGCCTAAATAAAAAGACTCTGACTCTAATACAAGTCCCCTTACTGATAATAGGCATGAAAGAG
CACCATTCTTAAAATCTAAACCCTTTAAAATCAGTTACGGCAATTCACTTAAGGAGCTTGAGGGCCGTGTTAAAA
GGAGCCAGGTTTTCACAAGACCTCATCCACCTCTGCACATTGGCTGGCACTGTCACACTGCAGCCTCCGATCTGC
TGGAGTACAGACCACAGCACCACGTCTGCTACGGTGAGTTCATTCCCAGCGAGCCAAGGGCTCTTCCCAAGAGCA
GAGTTCATGGAGCGGAAAACAGCGGCTTTTTCTTTACTGCTTCCCTCTTTTAACTGAAAAATCGCAATATCTACC
CAGCTATCTATAAGGGTTGCGTTGACAGCATTATGCTTCTGGCCAAACAGAGAGAACAAGAAACGTGCAATGTTC
CCTTCGCCTTCGATGGGGCACATCGTCTGGATGCTGAATTTCATCTGCGTCTTCGGCACTGAAAAGAAAAAACAC
GCCAGGTAGCATCACCAGAGCAGCCCTGAGGGAAGTACTCGCACAGTGGGGAAGGGGACAGTCACCAAACACCAC
AGACTGATGACATGGGAAAGGGTGTTTTCAAGAAGAACATCACATTTTCAGTCTGTCTCTAAGATGCTTACTACT
GAAAAGGGTTTAAGTGCAAACTATGTTAAAAAAGTAACCAAAGAGTCATTCCTGGTATTTGATTATGACACTTCT

FIGURE 4193B

GAAGCTAGAAGGGACCTCAGACCACCTGCTCCAATCCCTGCTGCCTAAGGTTTTGGGGGCTGAGGGCTGGAAACC
CAGGAGCTGCATCTCCCAGGCTCTTGGCCTCATAATCGCCTTCTGTGAGACTGAGGGCAATTAAGATATGAATGA
CATGAACTCGCTTATCTCCATATCAACATAAACCAGAAGAGGCATACATCTGTGGGATAGTCAATACATAACATC
CTATCTTTATATGGCCATATGAGAAGATAACTTCAGTGTCCCTATGATGGTAAGTTCTTGAATGTGAGGGCAAGA
TGGCTGTGATAGCCATGACTCCCCGCTTTGCCTGGTTGGACAGAACCCCCTTCCCCAAATGCTCACAGTCCCCCC
CTTGAGCTGTGTCTCACTCAGAGACCCTAAATTTTGCAGACGAACAAGGGCATCTTTGCGTTGCTTCATCTCTGC
TCCTCCTCTAGAACTATCCCACAGGCTTTCTAGACTTAGAATATCTGACCTGATGCAAATCGCTATGTGGCCAGT
ATGCCACAGAATGTCCTAAACCCTTGCTGCCTCTTATCAAAACCATGTTGCACATCTCATCATATAGTACAGCTA
ACCCTTGAACAGTGGGGGGGTTAGGGACACTGACCCCCGACTGCTGTGCAGTCGAAAATCCACATAAAACTTCTG
ACTCCTTCAAAACTTAAGCACTAATAGCCTACTATTCATGGGAAGCCTTACCCATCACAGTTGATTAACACGTTT
TGTATGGTCTGTATATTATATGCTATATTCTTACAATAAACTTGAGAAAATGTTAAGAAAAT

FIGURE 4194

CGGCCAGGCTGGTACAGGCGGCTGCTCGCGGAGGCACTTCTCCGAGCGTGACGTGCGGACTCCGCTCCACTGCGG
CCCGCCCGCCCGCCGGTCTAGCCGCCGCCTCCTTCGCTCCCTGAGCACGCCAGGCGAGGGTCAGCTGCCGGGGCG
ACGCGGCGCGGAGAGGGCGGGCGGGGGGGCTGTGGGAGCGCCGGTCTCTATATGGCGGCGGCTCTGTCGGGCCTG
GCTGTCCGGCTCTCGCGCTCGGCCGCCGCCCGCTCCTATGGGGTCTTCTGCAAGGGGCTGACTCGCACGCTGCTC
ATCTTCTTCGACCTGGCCTGGCGGCTGCGTATCAACTTCCCCTACCTCTACATCGTGGCTTCCATGATGCTCAAC
GTCCGCCTGCAGGTTCATATTGAGATCCATTGAAGGCCCTCCCAGACTGACGAAGGCGTGACCTCAGGCCCACCG
CATCCAAGAACACGAAGCATGAGGGACAGAAGAGGGCCCCTCGGCACCTGCCTGGCACAAGTGCAGCAGGCCGGA
GGAGGTGACTCGGACAAACTATCATGCAGCCTTAAGAAAAGAATGCCGGAGGGCCCTTGGCCTGCAGATGCACCC
TCCTGGATGAATAAGCCTGTGGTTGATGGAAATTCACAAAGTGAGGCATTATCACTGGAAATGAGAAAGGATCCG
AGCGGGGCTGGCCTCTGGCTTCACAGTGGCGGCCCAGTGCTTCCATATGTGAGAGAATCAGTAAGAAGAAATCCA
GCCTCAGCAGCCACTCCGAGCACAGCCGTGGGTTTGTTCCCTGCTCCAACAGAGTGTTTTGCTCGGGTGTCCTGC
AGTGGTGTTGAAGCTCTGGGGCGGCGAGACTGGCTGGGAGGAGGGCCCAGGGCCACTGACGGCCACAGAGGACAG
TGCCCCAAAGGAGAGCCTCGGGTGTCACGACTGCCACGCCATCAAAAAGTGCCGGAAATGGGAAGTTTTCAGGAT
GACCCACCAAGTGCTTTTCCCAAGGGTCTGGGCTCTGAGTTGGAACCCGCTTGCCTGCACTCCATCCTGTCTGCA
ACGCTGCACGTGTATCCCGAAGTGCTCCTGAGTGAGGAGACAAAACGCATTTTCCTTGACCGTTTAAAGCCCATG
TTTTCAAAGCAAACAATAGAATTCAAGAAAATGCTTAAAAGCACCTCAGATGGTCTGCAGATAACACTGGGGTTA
CTGGCTCTGCAACCTTTTGAATTAGCAAATACATTATGCCATAGTTAAGGTACAAGCAGAACAATACCAATAGAT
TAATTTTAAGAGTTGTCTTAGAATGATTTCTTTCGCATTAAGTCTGGATGCAAACTGTGCAGCCCTTAGGTTCCT
GCTGTAGTTTTGTACGACCTGGCAGACTTAAAGTAAATTGAGTTTAAATTCAAAGCCAGTTGATGCGGAAGGAAC
TTTTTTGGCATGTGTTAAATTGTGCTTTAAAAGACATATAAAGAATTGGGAAACATTTCAGGAGACGATCATAGC
CTGTATAAATACCAGATTAGAACATACGGATTTACCATGAAGTTCTGTCTTCAACATCCATTCTAAAGGGCTACT
GTCCCAAATCCTGTGTGTCCTTTTGACTTGTCTGATCACCCAATGGAAGTGGATACTTGTAAAGTCTACACCACT
GTACTTGGCGTTAAATCTTGCTGAATTCGTGGTAAGCTGTTACCATGTCTACATTTTGTAGAATGATTTTGGTCT
GCAGCAAAATTCGATTTCACTTCTCATACCCCTTTCCTTCCACTTGAAATGCAATTTAGACAGAGGCCCTGTGGT
GAAAGTTGCAATATTAAGTTTACCTTTAGAAGATCCCTTCTCAAACTCAGAACCCTAGCAGTGTTACCTTAAACA
AAAATGAGCTCGAGAAAAAAGTAGCTCAGTTACAGAGAAGCAAATCGAGTTATTTCCCACATAAAAAGTTTCCCA
GATTCTAAGAATTGCAGTATCCTGTACCCTAAAATTTTTCAAGGTGACTCCTGTTGTCGTCTGTTGATAACTTTA
ATAAAGGTCATTTAAGGACATAAGTTTTTAAAGACTCCCAAAGTGAAACTTAAACATTTTCGGGATTATCGATTG
CATATATCAGTTTATGCTGTGTGCTGAATTACTATGCCATGTGCTATTTTAGTGTTTGGGGAAAATGAAAAATAA
AATTTGTTCTTTAGCTT

FIGURE 4195

CTGCCGGGCATCGGCTTCCCGTCCGCCGCGCCCCGAGCCCGCCGCTTCCTATCTCAGCGCCCTGCCGCCGCCGCC
GCGGCCCAGCGAGCGGCCCTG**ATG**CAGGCCATCAAGTGTGTGGTGGTGGGAGACGGAGCTGTAGGTAAAACTTGC
CTACTGATCAGTTACACAACCAATGCATTTCCTGGAGAATATATCCCTACTGTCTTTGACAATTATTCTGCCAAT
GTTATGGTAGATGGAAAACCGGTGAATCTGGGCTTATGGGATACAGCTGGACAAGAAGATTATGACAGATTACGC
CCCCTATCCTATCCGCAAACAGATGTGTTCTTAATTTGCTTTTCCCTTGTGAGTCCTGCATCATTTGAAAATGTC
CGTGCAAAGTGGTATCCTGAGGTGCGGCACCACTGTCCCAACACTCCCATCATCCTAGTGGGAACTAAACTTGAT
CTTAGGGATGATAAAGACACGATCGAGAAACTGAAGGAGAAGAAGCTGACTCCCATCACCTATCCGCAGGGTCTA
GCCATGGCTAAGGAGATTGGTGCTGTAAAATACCTGGAGTGCTCGGCGCTCACACAGCGAGGCCTCAAGACAGTG
TTTGACGAAGCGATCCGAGCAGTCCTCTGCCCGCCTCCCGTGAAGAAGAGGAAGAGAAAATGCCTGCTGTTG**TAA**

ATGTCTCAGCCCCTCGTTCTTGGTCCTGTCCCTTGGAACCTTTGTACGCTTTGCTCAAAAAAAAACAAAAAAAAA
AAACAAAAAAA

FIGURE 4196

GCGTTTGCGCTTGAGCGCCGATAATTTGGTGGCGGCGTCCGGAGGGTGCTGGTTTGTTCTCGGTGAACGGCGCGC
GGGGTCTCTCCTGAGTGCGAGCTACGGGACCTTCGCC**ATG**CCGGGGATGGTACTCTTCGGCCGGCGCTGGGCCAT
CGCCAGCGACGACTTGGTCTTCCCAGGGTTCTTCGAGCTGGTCGTGCGAGTGCTGTGGTGGATTGGCATTCTGAC
GTTGTATCTCATGCACAGAGGAAAGCTGGACTGTGCTGGTGGAGCCTTGCTCAGCAGTTACTTGATCGTCCTCAT
GATTCTCCTGGCAGTTGTCATATGTACTGTGTCAGCCATCATGTGTGTCAGCATGAGAGGAACGATTTGTAACCC
TGGACCGCGGAAGTCTATGTCTAAGCTGCTTTACATCCGCCTGGCGCTGTTTTTTCCAGAGATGGTCTGGGCCTC
TCTGGGGGCTGCCTGGGTGGCAGATGGTGTTCAGTGCGACAGGACAGTTGTAAACGGCATCATCGCAACCGTCGT
GGTCAGTTGGATCATCATCGCTGCCACAGTGGTTTCCATTATCATTGTCTTTGACCCTCTTGGGGGGGAAAATGGC
TCCATATTCCTCTGCCGGCCCCAGCCACCTGGATAGTCATGATTCAAGCCAGTTACTTAATGGCCTCAAGACAGC
AGCTACAAGCGTGTGGGAAACCAGAATCAAGCTCTTGTGCTGTTGCATTGGGAAAGACGACCATACTCGGGTTGC
TTTTTCGAGTACGGCAGAGCTTTTCTCAACCTACTTTTCAGACACAGATCTGGTGCCCAGCGACATTGCGGCGGG
CCTCGCCCTGCTTCATCAGCAACAGGACAATATCAGGAACAACCAAGAGCCTGCCCAGGTGGTCTGCCATGCCCC
AGGGAGCTCCCAGGAAGCTGATCTGGATGCAGAATTAGAAAACTGCCATCATTACATGCAGTTTGCAGCAGCGGC
CTATGGGTGGCCCCTCTACATCTACAGAAACCCCCTCACGGGGCTGTGCAGGATTGGTGGTGACTGCTGCAGAAG
CAGAACCACAGACTATGACTTGGTCGGAGGCGATCAGCTCAACTGTCACTTCGGCTCCATCCTGCACACCACAGG
GCTGCAGTACAGGGACTTCATCCACGTCAGCTTCCATGACAAGGTTTACGAGCTGCCGTTTTTAGTGGCTCTGGA
TCACAGGAAAGAGTCTGTTGTGGTCGCTGTGAGGGGGACCATGTCTCTGCAGGATGTCCTTACGGACCTGTCAGC
GGAGAGTGAGGTGCTGGACGTGGAGTGTGAGGTGCAGGACCGCCTGGCACACAAGGGTATTTCTCAAGCTGCCAG
ATACGTTTACCAACGACTCATCAACGACGGGATTTTGAGCCAAGCCTTCAGCATTGCTCCTGAGTACCGGCTGGT
CATAGTGGGCCACAGCCTCGGGGGCGGGGCGGCCGCCCTGCTGGCCACCATGCTCAGAGCCGCCTACCCGCAGGT
CAGGTGCTACGCCTTCTCCCCACCCCGGGGGCTGTGGAGCAAAGCTCTGCAGGAATATTCTCAGAGCTTCATCGT
GTCACTCGTCCTGGGGAAGGATGTGATTCCCAGGCTCAGTGTGACCAACTTGGAAGATCTGAAGAGAAGAATCTT
GCGAGTGGTCGCGCACTGCAATAAACCCAAGTACAAGATCTTGCTGCACGGTTTGTGGTACGAACTGTTTGGAGG
AAACCCCAACAACTTGCCCACGGAGCTGGACGGGGGCGACCAGGAAGTCCTGACACAGCCTCTTCTGGGGGAGCA
GAGCCTACTGACGCGCTGGTCCCCGGCCTACAGCTTCTCCAGCGACTCCCCACTGGACTCTTCTCCCAAGTACCC
CCCTCTCTACCCTCCCGGCAGGATCATCCACCTGCAGGAGGAGGGCGCCTCGGGGCGGTTTGGCTGCTGCTCTGC
TGCTCACTATAGCGCCAAGTGGTCACACGAAGCGGAATTCAGCAAAATACTCATAGGTCCGAAGATGCTCACCGA
CCACATGCCAGACATCCTGATGCGGGCCTTGGACAGCGTGGTCTCCGACAGAGCGGCCTGCGTCTCCTGTCCAGC
ACAAGGGGTCTCCAGTGTGGACGTGGCC**TGA**CCAGGGCCACTGGAAACTGTCCCAGGAACGATGGACTCACGCTT
TTGTCCTTAAACTGACTTACCATCCGAGGAGTTCCCATGACGCCAAAACAGCGAATGTCCATCAACAGGAATCGG
ATGGGAACAGAATTCCATGGTCTCAATGACTTAAGTTTATGGGAAGTCATTGTGGCCATAATGGTAGCAGAAGTA
GTGAGCACGCTCAGGTGATAGGACGACTCCTGAGACCCAGCGACCGTGGAGACAGCCTCGGGAAGCCCTGGCCCG
TGGATGGATCCCTTGGCTGTCTGAGGACTGCTCCAGAAGTGCGGGAATCCAGGGCCCACCCAGAAGACCGTGAAC
AGTTCCTTAGCCTCCCACCCCCAAGGCAGCTCTTTTCATCCAACTCAGTTTACAGGCGTGGTTTGTTTTTCAAAC
TGGGCTTCCTGGATGTACAAATGGAACTGTGGTGAGGGTGCGGGCTGGGGTTTTCTCCTGGGCGTCACCAAGGGC
AGCCCTGGGCTCTGGCTGGGGATGAAGACGAAACCCGATCGGGAAAGTAAGTGGAGCCCCCGGCCCCGCCGAGCC
ACAGCCCCCCAACTGCCTATTCCCACTGCCCAGTTGTTTGTCCACATCAGGAGTTGCTGATTGAATTCTTGCTAC
TCTTCTGGCTCTGGGGTCGGCCAGTGGATTCAGGAGTTGAAACAATAAAGCGCGCGTCAC

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FIGURE 4197

GCCGCCGCCGCC**ATG**AACATTTTCCGGCTGACTGGGGACCTGTCCCACCTGGCGGCCATCGTCATCCTGCTGCTG
AAGATCTGGAAGACGCGCTCCTGCGCCGGTATTTCTGGGAAAAGCCAGCTTCTGTTTGCACTGGTCTTCACAACT
CGTTACCTGGATCTTTTTACTTCATTTATTTCATTGTATAACACATCTATGAAGGTTATCTACCTTGCCTGCTCC
TATGCCACAGTGTACCTGATCTACCTGAAATTTAAGGCAACCTACGATGGAAATCATGATACCTTCCGAGTGGAG
TTTCTGGTGGTCCCTGTGGGAGGCCTCTCATTTTTAGTTAATCACGATTTCTCTCCTCTTGAGATCCTCTGGACC
TTCTCCATCTACCTGGAGTCCGTGGCTATCCTTCCGCAGCTATTTATGATCAGCAAGACTGGGGAGGCCGAGACC
ATCACCACCCACTACCTGTTCTTCCTGGGCCTCTATCGTGCTTTGTATCTTGTCAACTGGATCTGGCGCTTCTAC
TTTGAGGGCTTCTTTGACCTCATTGCTGTGGTGGCCGGCGTAGTCCAGACCATCCTATACTGTGACTTCTTCTAC
TTGTACATTACAAAAGTACTCAAGGGAAAGAAGCTCAGTTTGCCAGCA**TAA**GTGCCAAAGACCATCACCAGCATC
TGTCCTTCAGGGTGCTCGGACAGAATTCTTACCACAGCAAAGGCATAAGATGCTTGATACGGAAAATCAGAAACT
TAACTCTTTTGTTGCAGATAGTCATCAGTGGCTCTGTAAAAACGCAGAGGAAAAGAGCCAGAAGGTTTCTGTTTA
ATGCATCTTGCCTTATCTTTTTTTATTACTGTGTACAAAGATTTTTTTACACAAAGAAACTTAATGCTGTATTAA
TAAATTCAGTGTGTAGCTTCAATTGGGATAGTTCCAAAAGTGAAGATTTTGTGAGGAATAAGTGCAAATTTTTTT
TTTATTTTAAAAAATTCTTTGAAACTCTTAAGTCTTTGTGTCTGCAATGAAATTGTACTCCTTGACAGTTGATAG
ATTATATATTCTTCCATCCCTCAAACTTGCATTCCACTATATTTATTTTTTGGCAAAAGATGAGCTGTATTTGTT
TGAAATCTGAGACACTATGTTCAATTGG

FIGURE 4198

ATTAATTACGCCAAGAAAATCACTGACGACCTCTCGGCAAGCCCCTCCCCAGCGGTGTGATCCTGGACCCAAGGG
CTTGGGTGATGCCCACACAACACTTAAGGACAGGTCTGACCCGACCCCACTACACCACACCTAGAGCCCGGTCTT
GCACGGGCAGGGTGGGGAGCCGAGTGACCTCTCCCGGCGCCCGCCCCACCTCCCGAGCTGGCTGGGCTGCCACGT
CAGGCGCAGCCGGCCACGATCCTGCCCATCCTCCTCCCGCCCGTCCCATTGATTCGCGGGTTTCCTGCAACCCCG
GGACCCCCACGGGAGATCCCGGCCGGAGAAGCGCCCCCATTCAAGCCCAGAGAGGGGCCACGCCTGTCGGACCCC
CCGTCCCACGCCAACTTTTCAGACACAGCAGGGCCCCGCGCAGCCGGGTGCGCTCCGACAGCTCAAGTTCACGCG
GGGACCGACTGCAGAGCGGGGTCCCGCGCTGCGACACCCGGCCCGGAGCCCACCCCGAGGGCCCGCAGGCCGCTG
CCCCCCGGGTCCGGGCACCCGTTAGGCCGGCCGAGGGGGTGTGTCGGGCCGGCGCAGGCCCCGCGAGCCGTGGGG
TGGCCGAGGTCGGCGGGTCCTCGGCGAGACCCGGCCCCCACGCCCGAGCCTCTCCGGGCCTTCCCCCGCCGCTCA
CCGGCGCAGGAGCGCGTCTTCCAGATCTTCAGCAGCAGG**ATG**ACGATGGCCGCCAGGTGGGACAGGTCCCCAGTC
AGCCGGAAAATGTTCATGGCGGCGGCGGCGGTGGCGGTCGGCGCAGCGCGGCGGCCCCGGGGCTGGGCGGCTCAG
GAGGCGGCGGCCCCTGAGAGGAAGCGGCGAAGATGGCGAGATCGCCCGCGACGTGGCCAGGGACGTGGCCGAACT
GCCGGCGCGCGCGCGCGCGGGGCACCCTGGGAGAGCGGGGCCAGGCCCCGCCCCTTAAAGGGGGCGCGCCCCAGC
GCAGGCTCAGCAGGTCAGCTCGCAGGGACTCCCTTGCAAGAAGACCCCGGACTCTGCCAAATTTTCCCTGCCGGG
TTTCCGGCTTCTCCTCGGGTGCCAGCAGTTTCCTTTACTTTTTTGAAA**TAA**CACTCCCTGGGGATCTTTTCTTTC
CTCCCACATATCAAAAGAGCTCTACAGGCCTATTGTATGAAAAAGTGTAAGAGAAGGCCGGGTGCGGTGGCTCAT
GCCTGAAATTCTAGCAGTTTGAGAGGCCGAAACAGGAGGATCCTTTGAGCCTAGGAGTTCGAGACCAGCCTGGGC
AACCTAATGAGAGTTCCTCCACCCCCCGTCTCTACAAAAATTTTTTAAAAAATTAGCCAGGCCTGATGGTGGGTG
CCTGTAGTACCAGCTATTTTAAAGGCTAAGGCAGGAGGATTGCTTGAGCCCAGGACATCGAGGCTGCGGTGAACC
ATGATTGTACCACTGTATTCCAGCCTGGACGACTGAGTGAGACCCTGTCTCAAACAAAACAAAACAAAACAAAAC
AAAAAAAAGTACAAGAGGAAAAAAATTGATTTCTGATTGCCTCACTCAAGATAAGGTCAACATTGAAGGTGGAGG
TGGAAGATGCAGTTTATGTAGGGGTCTGAAGATTTTACCATTCTGGGGACTGTCTTTAAGAAAGAGAATCCAAAA
TTAGGTAGAAAAGTGAACGTCTGACCGGGCGCGGTGGCTCATCCCTGTAATCCCAGCACTTAAGGAGTACGAGAC
GGGAGGATCACGAGGTCAAGAGATCGACAGCATGCTGGCCAACGTGGTGAAACCCCGTCTCTACTGAAAATACAA
AAATTAGCCGGGCGTGGTGGCACGCACCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGGAGAATCGCTTGAA
CCTGGGAGGAGAAGGTTGCAGTGAGCTGAGATGGTGCCACTGCACTCCAGCCTGGCGACAGAGCAAGACTCCATC
TC

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FIGURE 4199

AAGTCTCGTATCGCGCCCGGGAGGCGCCGGAGCCCAGCGGCTGGCGCCAGATCCAGGCTCCTGGAAGAACCATGT
CCGGCAGCTACTGGTCATGCCAGGCACACACTGCTGCCCAAGAGGAGCTGCTGTTTGAATTATCTGTGAATGTTG
GGAAGAGGAATGCCAGAGCTGCCGGCTGAAAATTACCCAACCAAGAGAAATCTGCAGG**ATG**GACTTTCTGGTCCT
CTTCTTGTTCTACCTGGCTTCGGTGCTGATGGGTCTTGTTCTTATCTGCGTCTGCTCGAAAACCCATAGCTTGAA
AGGCCTGGCCAGGGGAGGAGCACAGATATTTTCCTGTATAATTCCAGAATGTCTTCAGAGAGCCGTGCATGGATT
GCTTCATTACCTTTTCCATACGAGAAACCACACCTTCATTGTCCTGCACCTGGTCTTGCAAGGGATGGTTTATAC
TGAGTACACCTGGGAAGTATTTGGCTACTGTCAGGAGCTGGAGTTGTCCTTGCATTACCTTCTTCTGCCCTATCT
GCTGCTAGGTGTAAACCTGTTTTTTTTCACCCTGACTTGTGGAACCAATCCTGGCATTATAACAAAAGCAAATGA
ATTATTATTTCTTCATGTTTATGAATTTGATGAAGTGATGTTTCCAAAGAACGTGAGGTGCTCTACTTGTGATTT
AAGGAAACCAGCTCGATCCAAGCACTGCAGTGTGTGTAACTGGTGTGTGCACCGTTTCGACCATCACTGTGTTTG
GGTGAACAACTGCATCGGGGCCTGGAACATCAGGTACTTCCTCATCTACGTCTTGACCTTGACGGCCTCGGCTGC
CACCGTCGCCATTGTGAGCACCACTTTTCTGGTCCACTTGGTGGTGATGTCAGATTTATACCAGGAGACTTACAT
CGATGACCTTGGACACCTCCATGTTATGGACACGGTCTTTCTTATTCAGTACCTGTTCCTGACTTTTCCACGGAT
TGTCTTCATGCTGGGCTTTGTCGTGGTTCTGAGCTTCCTCCTGGGTGGCTACCTGTTGTTTGTCCTGTATCTGGC
GGCCACCAACCAGACTACTAACGAGTGGTACAGAGGTGACTGGGCCTGGTGCCAGCGTTGTCCCCTTGTGGCCTG
GCCTCCGTCAGCAGAGCCCCAAGTCCACCGGAACATTCACTCCCATGGGCTTCGGAGCAACCTTCAAGAGATCTT
TCTACCTGCCTTTCCATGTCATGAGAGGAAGAAACAAGAA**TGA**CAAGTGTATGACTGCC

FIGURE 4200

AGGGGATTTTCATCTCAACAACAGAGTGTCCTCACCCAGGCCTGCCTTCCGGCCAGTATGGGCTTGTACATCAGG
CACCTTCCTGCATGTGTGGCCTCCGGCCTGCCCTCCTCTAGCCACATTCAAGTCCTTTCTCACCAGTTTAAAAAT
TGTGAAAGTGAACTGCCACCTATTTCAGAGGAGACATGACTGCCAGAAACGAGGTCTTGGTGCGGAAGGTCTTTG
GAGTGGGAGGGCTCTCAGGTGCAGGTGGCAGGTGTTCTGCACCTTGCTAGGCCAAGGAGCCCGCAGTCAGAGAGG
CTGGGAAGTGGGAGTCAGGGGCAGGGGGCCTTCCAGCCATCTTCCCCCGTACCCCCCAGCTGAGAACAGATGGAA
ACGTGAAGACGGGTAGCTGGGGCGGCCAGGGAACCCAAGTCCGCTGGCCGAAGCCAAAGCCCGGCACCACCCCCA
ATTCTTGCTGGTGGAAAGCACCGTGAAATCAACCAGCGGCAGCTCTGAACGCGACGCACAGCCCGCGAGGGAGCC
TGGGCAAGGACGGAGCGGGCCTGCACCGGCGGTTGGGCGGGCTCCGGGGGCGGGGTCCACCTGGGACCGCGGCGC
GCCCCTCACCGCTCGCGCCGCCAGGGGGCGCCCTCCGGAGAGCGCGCCTAGGCCGCGGCCTGCGCTTGGCCCCTG
CGGGCCGCCGTCTCCGTGCCCGGCATTCGGCCGCTGTTCGGCTGCGCGGCGGCAGCTCCCGGCGGCTCCTGGCGG
CGCCGCAGTCGGACCTTCGGGCGCCTGCTGGCCGGCGGCAGCAGCGATGGCCCCCTGAGCAGGCAGGGAGCAGGC
GGCGGCAGGCGGGCAAGCGGGCGGGTGCCGCAGCCCAGGCCCGGGTCGCGCCTCTTTGTTTCCACGGGTAGCGGC
GCAGTCCCGGGCCCCGGGCGGAAGTGAGACGCGCTCGGCGCGGGGGCCGCGGCGGCCGCACC**ATG**AGCGACATCC
GCCACTCGCTGCTGCGCCGCGATGCGCTGAGCGCCGCCAAGGAGGTGTTGTACCACCTGGACATCTACTTCAGCA
GCCAGCTGCAGAGCGCGCCGCTGCCCATCGTGGACAAGGGCCCCGTGGAGCTGCTGGAGGAGTTCGTGTTCCAGG
TGCCCAAGGAGCGCAGCGCGCAGCCCAAGGAGCAAACCAAGGACTCTGTTCGGCAGATTATTTTTTCATCCCTTT
TCAGCCCTCAAGGGAACAAAGCCGATGACAGCCGGATGAGCTTGTTGGGAAAACTGGTCTCCATGGCGGTGGCTG
TGTGTCGAATCCCGGTGTTGGAGTGTGCTGCCTCCTGGCTTCAGCGGACGCCCGTGGTTTACTGTGTGAGGTTAG
CCAAGGCCCTTGTAGATGACTACTGCTGTTTGGTGCCGGGATCCATTCAGACGCTGAAGCAGATATTCAGTGCCA
GCCCGAGATTCTGCTGCCAGTTCATCACCTCCGTTACCGCGCTCTATGACCTGTCATCAGATGACCTCATTCCAC
CTATGGACTTGCTTGAAATGATTGTCACCTGGATTTTTGAGGACCCAAGGTTGATTCTCATCACTTTTTTAAATA
CTCCGATTGCGGCCAATCTGCCAATAGGATTCTTAGAGCTCACCCCGCTCGTTGGATTGATCCGCTGGTGCGTGA
AGGCACCCCTGGCTTATAAAAGGAAAAAGAAGCCCCCCTTATCCAATGGCCATGTCAGCAACAAGGTCACAAAGG
ACCCGGGCGTGGGGATGGACAGAGACTCCCACCTCTTGTACTCAAAACTCCACCTCAGCGTCCTGCAAGTGCTCA
TGACGCTGCAGCTGCACCTGACCGAGAAGAATCTGTATGGGCGCCTGGGGCTGATCCTCTTCGACCACATGGTCC
CGCTGGTAGAGGAGATCAACAGGTTGGCGGATGAACTGAACCCCCTCAACGCCTCCCAGGAGATTGAGCTCTCGC
TGGACCGGCTGGCGCAGGCTCTGCAGGTGGCCATGGCCTCAGGAGCTCTGCTGTGCACGAGAGATGACCTGAGAA
CCTTGTGCTCCAGGCTGCCCCATAATAACCTCCTCCAGCTGGTGATCTCGGGTCCCGTGCAGCAGTCGCCTCACG
CCGCGCTCCCCCCGGGGTTCTACCCCCACATCCACACGCCCCCGCTGGGCTACGGGGCTGTCCCGGCCCACCCCG
CCGCCCACCCCGCCCTGCCCACGCATCCCGGCCACACCTTCATCTCCGGCGTGACCTTTCCCTTCAGGCCCATCC
GC**TAG**GCTGGCCCGTGTGTGCCTTCTGCGCTCTCGCTGGACGAAGCCTTTCGAGATGGAAGGGGTGGCCGGACTC
CCAGAAGAGAACCTCGGGGAAGGGGTCGGGCAGCCCCTCCCCGCCGGCAGAACCGTCTTGGTGTCACGGAGTCCA
GGTGCTTCCCACCCGGTCGCATTCTTTGACATGCAGATTGGATGGTGGAGGGAAGAGTCCAGCCTCTGCCGAGAG
CCTGCTGCGTGCATTTTTAAAAGATGCCGATCCTGGGAGCCTCTGTTCTCTGCGCATTTCAGACACAGCCTGTGT
GGCGAGGAGTGTGACGGCAGGAGCCACGGGTGCAAGCCCGTGTGTCTGGCCTCTTTCCTCGTGAAGACGATGTGT
CCCCGCCAGAAAAAGTGGGCTCCTTCTGCAGCCCCGTGAGCTGAGCCCAGGCTGCGTAGTGACCACAAGCTTATG
TGCAGCACTGCTCAGGGAGGCTGTCAGGAATTCCCCTCACCTCGGAAAGGAACTTCTCAGTTTTATTGGGGGTGT
CTAAATTTCCTTTCATATGTTCAAATAAATTTTTCTAAACAGT

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FIGURE 4201

CAGAACCAAGAAGGAGCCCTCTAGGACAGAAAAGGGGTATGTCGTCTTCTAGCACTTCAGATGCCATCTCTGACA
AAGGCGTCCTGAGACCTCAGAAAGAGGCAGTGAGTTCCAGTCAGGGACCCAGTGACCCTACGGACAGAGCGGAGG
TGGAGAAGGACTCGGGGCATGGCAGCACTTCCGTGGATTCTGAGGGGTTCAGCATCCCAGACACGGGCAGTCACT
GCAGCAGCGAGTGTGTGGCCAGCACCCCAGGGGACAGGGGCTCGCAGGAACATGTGGACTCTCAGGAGAAAGCGC
CTGAAACTGACGACTCTTTTTCAGATGTGGACTGCCATTCAAACCAGGAAGATACCGGATGTAAATTTCAGGTTT
TGCCTCAGCCAACTAATCTCACATCCCCAAACACAAAAGTGTTTTAAGAAAGAAGAAATTCTTTCCAATTCTGAC
ATTCGTCAAAAGTTAGTAAATACTCAGAACGTGTCAGCTTCTCAGGTTGATGTAGCTGTGAAAATTAATAAGAAA
GTTGTGCCCCTGAACTTTTCTGAGTTCTTTAGCTAAACGAATAAAGCAGTTACATCATGAAGCACAGCAAAGTGA
AGGGGAACAGAATTACAGGAAGTTTAGGGCAAGGATTTGTCCTGGAGAAAATCAAGCAGCCGAAGATGAACTAAG
AAAAGAGATAAGGTAAAACG**ATG**TTTGCAGAAATGGAAATCATTGGTCAGTTTAACCTGGGATTTATAATAACCA
AACTGAATGAGGATATCTTCATAGTGGACCAGCATGCCACGGACGAGAAGTATAACTTCGAGATGCTGCAGCAGC
ACACCGTGCTCCAGGGGCAGAGGCTCATAGCACCTCAGACTCTCAACTTAACTGCTGTTAATGAAGCTGTTCTGA
TAGAAAATCTGGAAATATTTAGAAAGAATGGCTTCGATTTTGTTATCGATGAAAATGTCATGGATTTTTCTCAAA
ATTGTATTCTTTTAGCTCCAGTCACTGAAAGGGCTAAACTGATTTCCTTGCCAACTAGTAAAAGCTGGACCTTCG
GACCCCAGGACGTCGATGAACTGATCTTCATGCTGAGCGACAGCCCTGGGGTCATGTGCCGGCCTTCCCGAGTCA
AGCAGATGTTTGCCTCCAGAGCCTGCCGGAAGTCGGTGATGATTGGGACTGCTCTTAACACAAGCGAGATGAAGA
AACTGATCACCCACATGGGGGGAGATGGACCACCCCTGGAACTGTCCCCATGGAAGGCCAACCATGAGACACATCG
CCAACCTGGGTGTCATTTCTCAGAAC**TGA**CCGTAGTCACTGTATGGAATAATTGGTTTTATCGCAGATTTTTATG
TTTTGAAAGACAGAGTCTTCACTAACCTTTTTTGTTTTAAAATGAAACCTGCTACTTAAAAAAAATACACATCAC
ACCCATTTAAAAGTGATCTTGAGAACCTTTTCAAACCAGATGGAGCATTGCTTGCAAATTTTTTTTCTCTATGTT
TGCATGCGCTCGTGTGTGTGTGTCCAGGCAAGAACACATTTTATAAAAATAAGAACACTTGGGCTGGGCATGGTG
GCTCATGCCTGTGATCGCAGCACTTTGGGAGGCCGAGGCCGGCAGATCACCTGAGATCAGAAGTTCGAGACCAGC
CTGACCAACATGGAGAAACCCTGCCTCTACTAAAAATACAAAATTAGCCAGGTGTGCTGGCGCATGCCTGTAATC
CCCGCTACCCAGGAGGCTGAGGCAGGAGAATCGCTTGAACCCGGGAGACGGAGGTTGCAGTGAACCGAGATTGCG
CCACTGCGCTCCAGCCTGGGTGAGATAGAGCAAGACTGTGTCTCAAAAAACAAAACAAAACAAAAC

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FIGURE 4202

GTCTCTGGGCGGGCCGTGGGAGGCTCCCGAGGTGGGGGCCGGGGCGGGATGGCTGCAGCGGCGGCCGGGGCCGGG
AGCGGGCCCTGGGCGGCCCAGGAGAAGCAGTTCCCGCCGGCGCTGCTGAGTTTCTTCATCTACAACCCGCGCTTC
GGGCCGCGCGAAGGACAGGAGGAAAATAAGATTTTATTTTATCATCCAAATGAGGTAGAAAAGAATGAGAAGATT
AGAAATGTCGGATTGTGTGAAGCTATTGTACAGTTTACAAGGACATTTAGCCCATCAAAACCTGCAAAATCTTTA
CATACACAGAAGAACAGACAGTTCTTCAATGAACCAGAAGAAAATTTCTGGATGGTCATGGTTGTTCGGAATCCT
ATAATTGAAAAACAGAGTAAAGATGGAAAACCAGTTATTGAATATCAAGAGGAGGAGTTGTTGGACAAGGTTTAT
AGCTCGGTGCTGCGGCAGTGCTACAGCATGTACAAGCTTTTTAATGGTACATTTCTGAAAGCCATGGAAGACGGA
GGCGTCAAGCTTCTGAAAGAAAGATTAGAGAAATTCTTCCATCGGTATTTGCAAACGCTACATTTGCAGTCATGT
GACCTACTTGACATTTTTGGTGGAATCAGCTTCTTCCCGTTGGATAAAATGACTTATTTGAAAATCCAGTCCTTT
ATTAATAGAATGGAGGAAAGCCTGAATATAGTCAAATACACTGCTTTTCTCTATAACGATCAGCTCATCTGGAGT
GGATTAGAACAAGATGACATGAGAATTTTATACAAATACCTTACCACCTCCCTTTTCCCAAGGCACATCGAACCT
GAGTTAGCAGGAAGGGATTCTCCAATAAGAGCAGAAATGCCAGGAAATCTTCAACACTATGGAAGATTTCTTACC
GGACCCTTGAACCTCAATGATCCAGATGCAAAATGCAGATTCCCCAAAATTTTTGTAAATACAGATGACACTTAT
GAAGAGCTCCATTTAATCGTTTATAAGGCCATGAGTGCGGCTGTGTGCTTTATGATCGACGCCTCTGTCCACCCA
ACGTTGGATTTTTGCCGAAGACTGGACAGCATCGTTGGGCCCCAGCTCACAGTGCTGGCCTCTGACATCTGTGAA
CAGTTTAACATCAACAAGAGGATGTCTGGGTCTGAGAAAGAACCCCAGTTTAAGTTTATCTACTTCAACCACATG
AATCTCGCCGAGAAGAGCACAGTTCACATGAGGAAAACGCCCAGCGTGTCGCTCACTTCCGTGCACCCGGATTTA
ATGAAGATTCTCGGTGACATCAACAGTGACTTTACCAGAGTGGATGAAGATGAGGAGATCATTGTGAAGGCCATG
AGTGATTACTGGGTTGTTGGAAAGAAGTCTGATCGGCGGGAGCTCTATGTTATTTTGAATCAAAAAAATGCAAAC
CTGATTGAAGTAAATGAAGAGGTCAAGAAACTTTGTGCAACGCAGTTCAACAACATCTTCTTCTTGGATTGACGG
ATGACGGCTCACCGAGAGCATATCTAAAAAACACTCTGCAAACATTTGGTCACATGCAAGTTAGTGGTCATATGA
CGGACTGCATTCAGGACAAGGGTAAAGCAATACTTGCTTTGAAGAATCAGATTTCGACTCGGTCTGCTGATCTGA
GGTTTTTAGATTTTAAATATTTATGTGGAATTAATTAAAGGTAGTTGGCTATATCGCTATCATTTCATTCTTTTG
ACATTATTTGAATATTTTACTGGAAAATAAGACTAATAAATTGTTAAAAGTTTTTAAAATTCTGGTTTGGTGTTG
AGTCTCTCTCCTGCTGCCTATTTATAGATTACACTGGCCACCAGCTCCGTGACCCAGGCTGGAATGCAATGGCTC
ACTGCAGCCTCAACCTCCTGAGCTCAAGCAATCCTCCCACCTCAGCCTCCCAAGAAGCTAGAACCACATGTACAC
ACCACCACGGTCGGCTGATGTTTTAATTTTGCAGAGATGGGGGGGTCTCACTATGTTGCCCAGGCTGGTCTCGAA
CTCCCGTAATCCAGCCATGTAGGAAACCTGAGATGCAGTGGGCCAAGGGGTATGTTAAAACACTGTGACGAGTTC
AGTGCTAAGAACTGTAATGCTCAGGAAATCTTACAGCACGTGCCATCCTAAGCCTGTGTGTGTGTCCTCGTGTCT
CTCTACTTTTTCTTCTTCTTGCTGGTGATGGTCTTGCTGGATGGGGACACGGTCACATCCTCCTTGGGAGGGTCC
AGTATGAGGTGAGAGGATGACACGTCTGCCGGCTCCTTGAGCACTGTGATGTCCACCTCATAGTCATGTCTCTTG
GCCTCTTCCTCTCTCAAGATAAAGATGTTCAGCCT

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FIGURE 4203

GGGTTATGGTGTGTGCTCGGTGGGGCTGGAGTGGCTGGCTTACCTCCTCGTGGCTTACAGCCTGGGCGCCTCAGC
CGCCTCACTCCTGGTTCTGCTGGGCCTGTGGCTGCCACACCCGGTGCCCCTCGTGGCTGGAGAAGGGGTGCACCT
GCTGCTCACCTTCATCCTCTTTTTCTGGGCCCCTGTGCCTCAGGTCCTGCAACACAGCTGGATCCTCTGTGTGGC
AGCCGCCCTTTGGGGTGTGGGCAGCGCCCTGAACAAGACTGGACTCAGCACACTCCTGGGAATCTTGTACGAAGA
CAAGGAGAGACAGGACTTCATCTTCACCATCTACCACTGGTGGCAGGCTGTGGCCATCTTCACCGTGTACCTGGG
CTCCAGCCTGCACATGAAGGCTAAGCTGGCGGTGCTGCTGGTGACGCTGGTGGTGGCCGCGGTCTCCTACCTGCG
GATGGAGCAGAAGCTGCGGCGGGGCGTGGCCCCGCGCCAGCCCCGCATCCCGCGGCCCCAGCACAAGGTGCGCGG
TGACGGCTACTTGGAGGAGGACAACTCGGACGAGAGCGACGCGGAGGGCGAGC**ATG**GGGACGGCGCGGAGGAGGA
GGCGCCGCCCCCGGGGCCCAGGCCTGGCCCCGAGCCCGCTGGACTCGGCCGCCGGCCCTGCCCGTACGAACAGGC
GCAGGGGGGCGACGGGCCGGAGGAGCAGTGAGGGGCCGCCTGGTCCCCGGACTCAGCCTCGCTCCTCGCCGGCCT
CAGTTTACCACGTCTTAGGTCGGGGGGACCCCCTCCGAGTCTCGCGCTGTCTTCGAAGGCCCCTGTCTCCCTTCC
CCCACGTTGGGGACGCCCCTCCCAGAGCCCGGGTCACCTCCGGGCTTCCGCAGCCCCCTCCAAGGCGGAGTGGAG
CCTTGGGAACTCCCCGGCCAAGCACAGGGGTTCGAAAATACAGC**TGA**TACCCCGCGGGCCCTTAGCACGCGCCCC
AGCGCCGGAGCAGGGTCAGGGTCTTCTTGCGACCCGGCCCCGCTCCAGATCCCCCCAGCTCTCGGCCGCGGACCC
GGGCCGCGTGTGAGCGCCCTTTGCACCTCCTATCTCCAGGGTCCGCCGAGAGCCACGATTTTTTACAGAAAATGA
GCGATAAAGAGATTTTGTACTGTC

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FIGURE 4204

GGGCATCATACTGGGCCCAGAGCTGGGAAGGAGTTGCTGCCAGCACAGGGTGGGCCTGGACTCCCCTCGCCCCTA
CCCCCAGTGGTTGTGGCTGTAGCCCTAAGCCTGGAGAGCAGGACCGGCCCGGGGTGTCTGGGAGGCTGCCAGGTG
CCTCCCAGAGCTCCCAAGGGCCCCCACCTGCAAGTGCCAGCCTCAGGGCAGTGCCCAAATGAGGCCCTCTCAGCT
GCAGCCAGCGATGCCTTGGGATGCTTACCGGGAGGGAGGCGGCTTTGGGCTCCTAAGTCCTTGGGAGAGGCTGGG
AGCAGTCACTGCGCGGCTTGCGCAAGCCCATTGTCGGGTTGGGTGGCTTCCTCAGCCAGGGCTGGGAGGGACTCC
AGGATCAGGTCCTCCCTGTCTCGAGTCTCAGTGGGGTGATGGGGAGGAGACCTGGCCACCCATGGCTCAGGGGCA
GCTGAGAACAAGGACCTGCTGGAGCTGGAAGTGCTGTGGTGTTGAGGGGTGGGGTGGGCAGCTTCTCACACCTGC
CTCCTGCCTCCTTCTGTCCACCTTTCCACCACCCTGACCTGTCCCAGCCCCACACATGGTTCTGCCTGGCTGGCC
TGCCCTTGGCACCTGGCGTAGAGCACACAGAAGGCACTCAGCTAATGCTGGGCAGGCCCACTCATGGGGAGTGCG
TGGCTGTGCAGCACCAGGGAACCGGCACAGCAGCGCCGGCAGAAATCACAGCAGTAAACTTGTCCGGGTTGTATG
CATCAAGGTGGCGATGGACGTGGGTCCCCCCACTGCACTGTGGCCCTGAGCACTGTATAGCAGCCCGGCAATGGG
AGCCATTATCTTGCCCCTTTGACAGAGGAGGACACAGAGGCACAGGGAGGTGAAGTAGCTGCCCCACACTAGTGC
CTCCTCGCTCACTCACCACCCCCTGCACCACAGTGCAGCCGCTTCTCCCACCAGCTGGGGTTCCTTGGACCCCCA
AGCCTGGGAAGGGGGAGGTGAGTTTACAAAATGGAAAGCTTAAAAGGAGAAAAGTGGAACCAGAGGTTTGAGAAG
CCCTGAGTGGTAGAGTAAGGCCTCCAGCGCTGCCTCTGGGTGCAGGGCAGAGTGGCAGAGGAGAGGGGGAGAGGC
ACTGGGCACCATGGGGGCCCAGTTCCCACTTCGGGGATCTCTCTCGCAGAACCGAGGGTCCCCTTCATGGGGGTA
G**ATG**CCCAGGGCTAGCTGTTGCCACTGTCTGTGTGGACCTGAGTCCTGGACATGCCCGAGTGACTCAGGAGTGGC
TGCTTGGGCGGGCTCTGTCACCCTAGGATGTTATACATTCTGGGAACTGGACAGGAGTGGCTGCTTGGGCGGGCT
CTGGCACCCTGGGATGTTATACATTCTGGGAACTGGACAGGAGTGGCTGCTTGGGTGGGCTCTGGCACCCTGGGA
TGTTATACATTCTGGGAACTGCAATCAGCCACTAGAGAAGTCGGAGCTACAGGAAGTGACCCTGGGGTGGGACCT
GGGGACATGGCCAGGTCAGCATGGGGACACCCGGCTCCAGCAGGAGCTCTGGTCTGTCCTGGGGTCTTTGGGGGC
AGGGCTGCGGCCCTGGGCAGGCTTCCTCCAGGCGGAGGTCCTGGGGAAGTGGGGGAGCCAGGCCNAGCTGCCGCC
NTNCCCCCNACNTANTNGTNAGCATCTGATTCGTCATCTCTCA**TGA**AGGCGATTTGGTTCATAACTCTGAAACTC
TGAAAAAGGTCAAAAGAAGCAGAGAGGCCCTCGGTGGATATGCCAGCTTTTCTGCCGGTGCTTTCTCCCACTACT
CTGGGTGGTCTGCTCTCCTCTTCAAACCTCAGCTCGCAGGGAGGGCCTGAATCTGCCAGCCCCTCAGGATCTCCT
TCCCTCTGGGCCCTCCCCAGCCTTAAGGAGCCTCCCAGACAGAAGGGTGGACAGAGCCACCTGGGCAGCCCGAGA
GACACACGGGGGTCCTCCCTGTGGACAGCCCTGCCAGCTTCCGCCCAGCCCTGAGCTTCATTTGCATCTTGAGGA
GTAAGGGGTGGTGAAATGGGAATGCTGGTCTGGCTCAGCTGGTCGTGGGCATAAGTGCCCGCTGAATGGATGGCA
TCTCTCCCTCCTGTCTTATGTTCTGGGGTCCAGGTGCTTCCCAGGGCCATGCCCCTGCTGCTAATGCTTGCCCTA
ACCCTTACCCTAACCAGCGTCCAGCGTCGTCTCACCGAGCCGTAAATAAATCAACAGATTCGCA

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FIGURE 4205

CGACATCAGAG**ATG**AGGACAGCATTGCTGCTCCTTGCAGCCCTGGCTGTGGCTACAGGGCCAGCCCTTACCCTGC
GCTGCCACGTGTGCACCAGCTCCAGCAACTGCAAGCATTCTGTGGTCTGCCCGGCCAGCTCTCGCTTCTGCAAGA
CCACGAACACAGTGGAGCCTCTGAGGGGGAATCTGGTGAAGAAGGACTGTGCGGAGTCGTGCACACCCAGCTACA
CCCTGCAAGGCCAGGTCAGCAGCGGCACCAGCTCCACCCAGTGCTGCCAGGAGGACCTGTGCAATGAGAAGCTGC
ACAACGCTGCACCCACCCGCACCGCCCTCGCCCACAGTGCCCTCAGCCTGGGGCTGGCCCTGAGCCTCCTGGCCG
TCATCTTAGCCCCCAGCCTG**TGA**CCTTCCCCCCAGGGAAGGCCCCTCATGCCTTTCCTTCCCTTTCTCTGGGGAT
TCCACACCTCTCTTCCCCAGCCGCAACGGGGGTGCCAGGAGCCCCAGGCTGAGGGCTTCCCCGAAANNGTCTGGG
ACCAGGTCCAGGTGGGCATGGAATGCTGATGACTTGGAGCAGGCCCCACAGACCCCACAGAGGATGAAGCCACCC
CACAGAGGATGCAGCCCCCAGCTGCATGGAAGGTGGAGGACAGAAGCCCTGTGGATCCCCGGATTTCACACTCCT
TCTGTTTTGTTGCCGTTTATTTTTGTACTCAAATCTCTACATGGAGATAAATGATTTAAACC

FIGURE 4206

GCTCCGGGCCAGCCGCGGTCCAGAGCGCGCGAGGTTCGGGGAGCTCGGCCAGGCTGCTGGTACCTGCGTCCGCCC
GGCGAGCAGGACAGGCTGCTTTGGTTTGTGACCTCCAGGCAGGACGGCCATCCTCTCCAGA**ATG**AAGATCTTCTT
GCCAGTGCTGCTGGCTGCCCTTCTGGGTGTGGAGCGAGCCAGCTCGCTGATGTGCTTCTCCTGCTTGAACCAGAA
GAGCAATCTGTACTGCCTGAAGCCGACCATCTGCTCCGACCAGGACAACTACTGCGTGACTGTGTCTGCTAGTGC
CGGCATTGGGAATCTCGTGACATTTGGCCACAGCCTGAGCAAGACCTGTTCCCCGGCCTGCCCCATCCCAGAAGG
CGTCAATGTTGGTGTGGCTTCCATGGGCATCAGCTGCTGCCAGAGCTTTCTGTGCAATTTCAGTGCGGCCGATGG
CGGGCTGCGGGCAAGCGTCACCCTGCTGGGTGCCGGGCTGCTGCTGAGCCTGCTGCCGGCCCTGCTGCGGTTTGG
CCCC**TGA**CCGCCCAGACCCTGTCCCCCGATCCCCCAGCTCAGGAAGGAAAGCCCAGCCCTTTCTGGATCCCACAG
TGTATGGGAGCCCCTGACTCCTCACGTGCCTGATCTGTGCCCTTGGTCCCAGGTCAGGCCCACCCCCTGCACCTC
CACCTGCCCCAGCCCCTGCCTCTGCCCCAAGTGGGGCCAGCTGCCCTCACTTCTGGGGTGGATGATGTGACCTTC
CTTGGGGGACCGCGGAAGGGACGAGGGTTCCCTGGAGTCTTACGGTCCAACATCAGGACCAAGTCCCATGGACAT
GCTGACAGGGTCCCCAGGGAGACCGTGTCAGTAGGGATGTGTGCCTGGCTGTGTACGTGGGTGTGCAGTGCACGT
GAGAGCACGTGGCGGCTTCTGGGGGCCATGTTTGGGGAGGGAGGTGTGCCAGCAGCCTGGAGAGCCTCAGTCCCT
GTAGCCCCCTGCCCTGGCACAGCTGCATGCACTTCAAGGGCAGCCTTTGGGGGTTGGGGTTTCTGCCACTTCCGG
GTCTAGGCCCTGCCCCAAATCCAGCCAGTCCTGCCCCAGCCCACCCCCACATTGGAGCCCTCCTGCTGCTTTGGT
GCCTCAAATAAATACAGATGTCCCC

FIGURE 4207

TGTTGAGAGGCTGGCCTGCGGTGATGTGGCCAAAGAGGAAGAGCTGGGCTGGGGTGAGTGTTGGTCACATGGTTG
AAACTAGGTGGGGAGGGGAGTGGTCCAGGGGAGAGTCCAGGCCCAGCTCTGCTGGGACTTGCCATGGGGGTCACG
ACTCATCTGCAGGGAAGGTCTGGGCTTTATCTCTGAGCACCTCTGTGTGCTGCTCACCCTGAAGTGGGGGTGGGC
CTGTGCCTGGCCTGTCCCCTCATCCTGGGAGCTCCCAATGCCCATCTGCAAGGCTGTGGACCCCTCAGGAGTGGC
CTGGAGCCTGGCTCCCATTGCCAC**ATG**GTGGCTGTGTGTGTGGAGAGGGTTGATAGTGGAGTGGTCAGGCCCAGG
CTGCCCTGGGGGATGAAGTGCCATCCTCTGGGTGCCCTGGAGAAAGAAGAGAACTCAGTGAGCCCTGTCTGGTAC
TTTCCTGGAGGAGGGCTCCCATGCTGGCCCTCCACCCCTCTGTCCCCTGTCACCCTGAGGCCTCTGGATTTCCTC
TCTGCCCTTCCCAACCTGCCAACTTCACGGGTTTCTGGCTGGGTTCTGGGGATGGCCCCTAGGGGAGACGGGCCA
GGCACAAGCGGGGCTGTGTCAAGGTGGGTATGCAGGGGTAGCACAAGTGTGCAGAGCCTGGGGAGGCATGGGCAA
AGCATGGCAGGCGGCGGGGCAGGGGATCTTGGAAGGTCACGGGCTGGGGAGCAGTGTGGGCAGCGGCCCAGAGGT
GGGAAGGCCGTAGCT**TAG**CTGGGTGTCCCCTTTCTGTCCTCTGCAGGTGGAGCCCCCTGAGCTGCCCGCTGATCT
GCAGCACTGGATCTCCTACAACGAGGCCAGCAGCCAGCTGCTCCGCATGGAGAGTGGGCTCAGTGATGTCACCAA
GGACCAGTGACCGCCACCTTCACACCGTCTGCCCTGGCCACCATCCTGGGCCTGGGGGCTGCCCACAGATGGGCA
GTCTCAGCCATACTCTGTTCCAGCTGGAGTAGCCTCCTGACCAGCCTGGCCCACCCTGCTCCACCCACTGGGCCC
CCCCAGTTATTGATACCCCTCTGTGCTGGGCTCCACGCTAGGCAGAAGGAGGAGTGGCATTGGCATCCTGACCCA
GCTCTGCCCTCAAGGTGGGGATGGATGGGCAAAGGAGAGTCCTGCCTGGCCCTACGATGAGGCCACTCATGTGGG
CCTAGGTAGGGGAGGATGGTGCCTGGAGCAGAGGGACCCACAAGTGCCTCCCGAGCCTAGATCCTGGCTCGGACC
ACTGCAAGGGCCGAGGCAGGGCCAGACCAGAGCATCCTGGGTACAGGCCTGGGCTCTCCAGGGCCTGGGCCTGAT
TCAGGTGCAGTGGGCACTCCTGAAGGGTCAGAGCGGCATCTGCCAGGCAGCCCCTCTGGCTTCCGCTGAGGTGGT
TGCAGGCCTGGGGCAGAGCCTGGGTGGTCAGAGGCCGGGGCTAGAGGCAGATGGAAGGGAGGCATTTGCTGACAG
AGGACGGGGCACCCGGGCTCCCCACTGCAGTCGGCCTTGCCTCCTCCTCCTCCTCTACCTCCAGTCAGGCTGGAC
GGGAGGGTAGCCTTGTGGCTGAGAGGGGTCAGACTAGGTGGCACAGGGGCTCCTGGAAAGACAGCAGGCTTCCTG
CTGGGCGTTCCCTTGTTGGAGGGAATAGAGTGGGGGTGGGACTCTGCAGGGGTGTCCTTGTCCACTCGCACCCCT
CGCCGCCCACCAGGGCCATGCTCTGTGACTTGGGCTGATCCCCACCCTTTCTGGGCCTACAGCACCACAGGCCGC
TGTACCCCCTTAGAGCTGCCCCTCTCTGGCCTGGCCGGCAGGCGTCTTCTTAACTCCTTTGTCCTCTATATTCAG
CATGTTCCTTGTCAGCTGCTGGGCCGGCCCTGCCTTGCGCTAGCAGAGCCTCTCCTGGCAGCTTCTCAGGTCTCC
CTAATGGAGACACCAGCCTGAGGCTCCAGCTGATGCCCTCAGCTCCCAGAGAGGGGGTGCCCCATCTAGCTGGGT
GCAGGGGTCACTGCTTGTCAGCTCAGGGCCCTGTGCCCGCTTGCCTGTTCCCCTACATCTGTGCCTGCACATCCA
GAACTGCCTCCTTGCCGCTGCCTCCAGGAAGCCCACCTTGAGCCAGAGTCAAGGGCTGCAGCACTGCCCGATAGA
ACACGCCCGCCCTCACTGCTGTTCTTGCCTTACAGCCACCATGGGAAAGCTGCAACCTTTCTGTTTTATTTAAAG
AAAGCCCAACATTAAAGGGTTTTCATTGC

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FIGURE 4208

TTATCAGAGGTGAGCCCGTGCTCTTCAGCGGAGAAGATCCCCTACCTGGCCGCCGGCCACTTTCTGTGGGCCGTG
GGGTCCTCAAGGAGACGGCCCTTGGGCTCAGGGGCTGCGTTTCCACACGCGCCTTTCCCAGGGCTCCCGCGCCCG
TTCCTGCCTGGCCGCCGGCCGCTCCAACAGCAGCACAAGGCGGGACTCAGAACCGGCGTTCAGGGCCGCCAGCGG
CCGCGAGGCCCTGAGATGAGGCTCCAAAGACCCCGACAGGCCCCGGCGGGTGGGAGGCGCGCGCCCCGGGGCGGG
CGGGGCTCCCCCTACCGGCCAGACCCGGGGAGAGGCGCGCGGAGGCTGCGAAGGTTCCAGAAGGGCGGGGAGGGG
GCGCCGCGCGCTGACCCTCCCTGGGCACCGCTGGGGACG**ATG**GCGCTGCTCGCCTTGCTGCTGGTCGTGGCCCTA
CCGCGGGTGTGGACAGACGCCAACCTGACTGCGAGACAACGAGATCCAGAGGACTCCCAGCGAACGGACGAGGGT
GACAATAGAGTGTGGTGTCATGTTTGTGAGAGAGAAAACACTTTCGAGTGCCAGAACCCAAGGAGGTGCAAATGG
ACAGAGCCATACTGCGTTATAGCGGCCGTGAAAATATTTCCACGTTTTTTCATGGTTGCGAAGCAGTGCTCCGCT
GGTTGTGCAGCGATGGAGAGACCCAAGCCAGAGGAGAAGCGGTTTCTCCTGGAAGAGCCCATGCCCTTCTTTTAC
CTCAAGTGTTGTAAAATTCGCTACTGCAATTTAGAGGGGCCACCTATCAACTCATCAGTGTTCAAAGAATATGCT
GGGAGCATGGGTGAGAGCTGTGGTGGGCTGTGGCTGGCCATCCTCCTGCTGCTGGCCTCCATTGCAGCCGGCCTC
AGCCTGTCT**TGA**GCCACGGGACTGCCACAGACTGAGCCTTCCGGAGCATGGACTCGCTCCAGACCGTTGTCACCT
GTTGCATTAAACTTGTTTTCTGTTGATTACCTCTTGGTTTGACTTCCCAGGGTCTTGGGATGGGAGAGTGGGGAT
CAGGTGCAGTTGGCTCTTAACCCTCAAGGGTTCTTTAACTCACATTCAGAGGAAGTCCAGATCTCCTGAGTAGTG
ATTTTGGTGACAAGTTTTTCTCTTTGAAATCAAACCTTGTAACTCATTTATTGCTGATGGCCACTCTTTTCCTTG
ACTCCCCTCTGCCTCTGAGGGCTTCAGTATTGATGGGGAGGGAGGCCTAAGTACCACTCATGGAGAGTATGTGCT
GAGATGCTTCCGACCTTTCAGGTGACGCAGGAACACTGGGGGAGTCTGAATGATTGGGGTGAAGACATCCCTGGA
GTGAAGGACTCCTCAGCATGGGGGGCAGTGGGGCACACGTTAGGGCTGCCCCCATTCCAGTGGTGGAGGCGCTGT
GGATGGCTGCTTTTCCTCAACCTTTCCTACCAGATTCCAGGAGGCAGAAGATAACTAATTGTGTTGAAGAAACTT
AGACTTCACCCACCAGCTGGCACAGGTGCACAGATTCATAAATTCCCACACGTGTGTGTTCAACATCTGAAACTT
AGGCCAAGTAGAGAGCATCAGGGTAAATGGCGTTCATTTCTCTGTTAAGATGCAGCCATCCATGGGGAGCTGAGA
AATCAGACTCAAAGTTCCACCAAAAACAAATACAAGGGGACTTCAAAAGTTCACG

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FIGURE 4209

CTTTCCCGGAGGCTGGCAG**ATG**CGCGTGGTGCGGCTGCTGCGGCTCCGGGCGGCTCTGACGCTGCTCGGGGAGGT
CCCCCGCCGCCCGGCCTCCCGGGGTGTCCCGGGCTCGCGCAGGACGCAGAAGGGCAGTGGAGCCAGGTGGGAGAA
GGAGAAGCACGAAGACGGGGTGAAGTGGAGACAGCTGGAGCACAAGGGCCCGTACTTCGCACCCCCATACGAGCC
CCTTCCCGACGGAGTGCGTTTCTTCTATGAAGGAAGGCCTGTGAGATTGAGCGTGGCAGCGGAGGAGGTCGCCAC
TTTTTATGGGAGGATGTTAGATCATGAATACACAACAAAGGAGGTTTTCCGGAAGAACTTCTTCAATGACTGGCG
AAAGGAAATGGCGGTGGAAGAGAGGGAAGTCATCAAGAGCCTGGACAAGTGTGACTTCACGGAGATCCACAGATA
CTTTGTGGACAAGGCCGCAGCCCGGAAAGTCCTGAGCAGGGAGGAGAAGCAGAAGCTAAAAGAAGAGGCAGAAAA
ACTTCAGCAAGAGTTCGGCTACTGTATTTTAGATGGTCACCAAGAAAAAATAGGCAACTTCAAGATTGAGCCGCC
TGGCTTGTTCCGTGGCCGTGGCGACCATCCCAAGATGGGGATGCTGAAGAGAAGGATCACGCCAGAGGATGTGGT
TATCAACTGCAGCAGGGACTCGAAGATCCCCGAGCCGCCGGCGGGGCACCAGTGGAAGGAGGTGCGCTCCGATAA
CACCGTCACGTGGCTGGCAGCTTGGACCGAGAGCGTTCAGAACTCCATCAAGTACATCATGCTGAACCCTTGCTC
GAAGCTGAAGGGGGAGACAGCTTGGCAGAAGTTTGAAACAGCTCGACGCCTGCGGGGATTTGTGGACGAGATCCG
CTCCCAGTACCGGGCTGACTGGAAGTCTCGGGAAATGAAGACGAGACAGCGGGCGGTGGCCCTGTATTTCATCGA
TAAGCTGGCACTGAGAGCAGGAAATGAGAAGGAGGACGGTGAGGCGGCCGACACCGTGGGCTGCTGTTCCCTCCG
CGTGGAGCACGTCCAGCTGCACCCGGAGGCCGATGGCTGCCAACACGTGGTGGAATTTGACTTCCTGGGGAAGGA
CTGCATCCGCTACTACAACAGAGTGCCGGTGGAGAAGCCGGTGTACAAGAACTTACAGCTCTTTATGGAGAACAA
GGACCCCCGGGACGACCTCTTCGACAGGCTGACCACGACCAGCCTGAACAAGCACCTCCAGGAGCTGATGGACGG
GCTGACGGCCAAGGTGTTCCGGACCTACAACGCCTCCATCACTCTGCAGGAGCAGCTGCGGGCCCTGACGCGCGC
CGAGGACAGCATAGCAGCTAAGATCTTATCCTACAACCGAGCCAACCGAGTCGTGGCCATTCTCTGCAACCATCA
GCGAGCAACCCCCAGTACGTTCGAGAAGTCGATGCAGAATCTCCAGACGAAGATCCAGGCAAAGAAGGAGCAGGT
GGCTGAGGCCAGGGCAGAGCTGAGGAGGGCGAGGGCTGAGCACAAAGCCCAAGGGGATGGCAAGTCCAGGAGTGT
CCTGGAGAAGAAGAGGCGGCTCCTGGAGAAGCTGCAGGAGCAGCTGGCGCAGCTGAGTGTGCAGGCCACGGACAA
GGAGGAGAACAAGCAGGTGGCCCTGGGCACGTCCAAGCTCAACTACCTGGACCCCAGGATCAGCATTGCCTGGTG
CAAGCGGTTCAGGGTGCCAGTGGAGAAGATCTACAGCAAAACACAGCGGGAGAGGTTCGCCTGGGCTCTCGCCAT
GGCAGGAGAAGACTTTGAATTC**TAA**CGACGAGCCGTGTTGAAACTTCTTTTGTATGTGTGTGTTTTTTTCACT
ATTAAAGCAGTACTGGGGAATTTTGTACAATAAAA

FIGURE 4210

GCAGTCCAGCTGCTCTGGACGCTGAGGCCCCGGCTTCTCTTGCTGGGGTGTCGATTCGGGAGGGCTGAGGGCGCG
GCCGAGAGAACGGGGCGGTCACCGCCGCCGTGGCCCGCGCGTCCCGCGCTCTCCTTGCAGTGCAGGCCCCAGCCG
CTCTCGGGCGCGGCGTGGGGGAGGCGGCCCTGCAGGTGCGTACCCGGGGTCCGACACGTGCGGGGCTTCCTGCGA
GCTGAGTCCCCGCTGCGCGTCTTCAGGCCTTTGTAAGTTGTCAAATTTCCCACCGGCCCAGCTCATCGAGCTTCT
TCCCAGCTGTGAACAGGAGGGCCTGTTCCCTAATTCTTGCCGAAATTGTTCCAACTGCTGGTGTTCTGCAAG**ATG**

GAGCCAGGAGGAGAGCCCACAGGTGCTAAAGAGAGCAGTACCCTGATGGAGTCCCTTGCAGCTGTGAAGGCTGCT
TTCCTGGCGCAGGCCCCGAGTGGCAGCCGGTCAGCCGAGGTGCAGGCAGCTCAGAGCACGGAGCCTGCCGCAGAG
GCAGGCGCTCCCGAGGGAGAGGGCCACAGAGGGGGGCCTCCCCGGGCGTTGGGGTCTCTTGGCCTTTGTGAAAAC
CAGGAAGCCAGAGAGAGGCCCGGAGGTTCCCCTCGAGGCCCGGTCACTTCTGAGAAAACTGGAGGACAGAGTGGC
CTCGAGTCAGACGTCCCTCCGAACGCAGGCCCCGGCGCAGAGGGCGGGGGCAGCTGGAAGGGGCGGCCTTTCCCG
TGCGGCGCCTGTGGCCGCAGCTTCAAGTGCTCCTCGGACGCGGCAAAGCACCGGAGCATCCACTCGGGGGAGAAA
CCGTACGAGTGCAGCGACTGCGGGAAGGCCTTCATCCACAGCTCGCACGTGGTCCGGCACCAGCGGGCGCACAGC
GGGGAGAGGCCCTACGCGTGCGCCGAGTGCGGCAAGGCCTTCGGCCAGAGCTTCAACCTCCTCCGGCACCAGCGC
GTGCACACGGGCGAGAAGCCCTACGCGTGCGCCGACTGCGGCAAGGCCTTCGGCCAGAGGTCGGACGCCGCCAAG
CACCGCCGCACCCACACCGGGGAGAGGCTGTACGCGTGCGGCGAGTGCGGGAAGCGCTTCCTGCACAGCTCGAAC
GTGGTCCGGCACCGGCGGACCCACCACGGGGAGAACCCGTACGAGTGCCGGGAGTGCGGCCAGGCCTTCAGCCAG
AGCTCCAACCTCCTCCAGCACCAGCGCGTGCACACGGGGGAGCGGCCCTTCGCCTGCCAGGACTGCGGCCGCGCC
TTCAGCCGCAGCTCCTTCCTCCGCGAGCACCGCCGCATCCACACCGGGGAGAAGCCCCACCAGTGCGGCCACTGC
GGGCGCGCGTTCCGGGCGCTGTCGGGCTTCTTCCGGCACCAGCGACTCCACACGGGCGAGAAGCCGTTCCGCTGC
ACCGAGTGCGGCCGCGCCTTCCGCCTGAGCTTCCACCTCATCCAGCACCGGCGGGTGCATGGCGCCGAG**TGA**GCC
GGGGCTGCGGCGGAAGAGATGCCGGCGGCCTGGTGGGCGCGAGGCCGAGGCCGGGGGAGGCTCCTGTCCGCCCCG
TGCGCGGTGAGGAAGTAACAGCCGGCTGCGCGCCTGGTTCTCGGGTTGCGAAAGCCTCGCCAGGCCTGCATCCGC
CTTGGCTTGGGAGCAATCAGGAGAGACAGGGCTCGGGGAAGGCGAGCGCTGCCCGCGGGAGGCGATTCCCAGAGG
CGGGGAGGTCTCTGGGGTCTGTCCCGGGCCGGCCGCCCGCCTCTGAAACTCCCCGCCTCCCACGGTCAGCTGCTG
CGGGGCAGTGGCCGGTGATTGAATCGGTCATTCCTCCGCAACCAGGCCTCCATCAAAACCCTGCATGAGATGACG
GCCTCGGGCTTCGGGTTGGTGAAGGCGGGGTGGGGGGGCAGTTACGAAGGGGGCGCCCAGACAGGGCATGGAAGC
CTCGCGTCCTCCCCCGTACCTTGCGGGTCGGTGGTTCATCCATGTATTTCAACGCCTTTTCACAGCCGGTTCATA
TGGTCCCGACTTCTGTGTGCTTAGAAAATTATGGAACTTGGCCGGGTGCGGTGGCTCCCGCCTGTAATCCTAGCA
CTTTGGGAGGCCGAGGCGGGCGGATCACACGGTCAAGAGATCAAGACCATCCTGGCCAACATGGCAAAACCCCCA
TCTCGACTAAAAATACAAAAAATTAATTGGGCGTGGTGGCGTGCGCCTGTAATCTCAGCTACTTGGGAGCCTGGG
GCAGGAGAATCACTTGAACCTGGGAGGCGGAGGTTGCAGTGAGCGGAGATCTGGGCACTGTACTTTAGCCTGGGC
GACAGAGAGACCCATCTCAAAAAAAAAAATTGGAACCTGAGAAGGGGGTCGTGGGGTCCCCGGGGCCCACCGTCTG
CACTTGGCATCTGAAGTCGGGGTGGTCTTGTGGGACTGACCCCTTACCCTGTGGGTTCTGCACTAGCTCCGGGCA
ATTGGTGACAGAATCGAGTTAAATTGTAGGACATCGCGTTGGTGTCTGAGAGGGAGTTGGAGAGCTGGTTGGTGT
GGAGGGAAAGGCTTACACACATGTGATTTCAGAAGCGTTCTGTGGGTAGAGGAATCGTTTTCTCTTTGAGACTGT
TATGAGTATGTACAAATGTTATTTCCTGTAAAATATTTTCATTTTTTAAAATGTTATTTTCTAGAT

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FIGURE 4211

GGCCGGACACTTCCGTCCGGCGCGCGGCGTCCTCCTCCCGCTCGGAAGGTCCCAGGTGTGACACCTTCAGCAGGT
CTCAGGGAAG**ATG**GCAGCCCTAGGGGACATTCAGGAGTCCCCTTCTGTCCCGTCCCCTGTCAGTCTCTCATCACC
GGGGACACCTGGAACCCAGCACCACGAGCCTCAGCTTCACCTCCATGGGCATCAACATGGCTCCCCTGGCTCCAG
CCCTAAGGTGCTCTCCCAGCCGTCCGACCTGGATCTCCAAGACGTAGAGGAAGTGGAGATCGGCAGAGACACCTT
CTGGCCCGACTCCGAGCCCAAGCCGGAGCAGGCTCCACGCTCTCCTGGCTCTCAGGCCCCTGACGAGGGGGCGGG
CGGGGCGCTGCGCAGCCTCCTGAGGAGCCTTCCCCGCAGGGCCCGGTGCAGCGCCGGCTTCGGGCCTGAATCCAG
CGCGGAGCGGCCGGCGGGCCAGCCGCCTGGGGCCGTCCCTTGCGCCCAGCCGCGGGGCGCCTGGCGCGTGACGCT
CGTGCAGCAAGCAGCGGCCGGGCCCGAGGGTGCGCCCGAGCGGGCTGCCGAGCTGGGAGTCAACTTCGGTCGGAG
CCGGCAGGGCAGCGCGCGGGGGGCCAAGCCGCACAGGTGCGAGGCCTGCGGCAAGAGTTTCAAGTATAACTCGCT
GCTCCTGAAGCACCAGCGCATCCACACGGGCGAGAAGCCCTACGCCTGCCACGAGTGCGGCAAGCGCTTCCGCGG
CTGGTCGGGCTTCATCCAGCACCACCGCATCCACACGGGCGAGAAGCCCTACGAGTGCGGCCAGTGCGGCCGCGC
CTTCAGCCACAGCTCGCACTTCACGCAGCACCTGCGCATCCACAACGGCGAGAAGCCCTACAAGTGCGGCGAGTG
CGGCCAGGCCTTCAGCCAGAGCTCCAACCTGGTGCGCCACCAGCGGCTGCACACGGGTGAGAAGCCCTACGCCTG
CAGCCAGTGCGGCAAGGCCTTCATCTGGAGCTCCGTGCTCATCGAGCACCAGCGCATCCACACTGGCGAGAAGCC
CTACGAGTGCTCCGACTGCGGCAAAGCCTTCCGCGGCCGCTCGCACTTCTTCCGGCACCTGCGGACCCACACGGG
CGAGAAGCCCTTCGCGTGTGGCGCCTGCGGCAAGGCCTTCGGCCAGAGCTCCCAGCTCATCCAGCACCAGCGGGT
GCACTACCGCGAG**TAG**CCGGGCGGGGGCTCGGGGCTCGGCCTCCTACCTGCCCCCAACCCACCCTCCACCCCGTC
CCCCACGGTGGGCACTGCCCAGCACCGCATGCCACGTGTCCGGAATAAATTCTTTTTGATTGTTGG

FIGURE 4212A

GCCCTGACCAGCAGACACCATCCTTCCAGCCTCTCTTGGCCACCCGGACCAGCGGGCACCACCCTCCCAGCCTCA
CGCGGCCACCCTGACCAGCAGGCACCATCCTTCCAGCCTTGCTCAGTCACCCTGACCCAGAGGGCTGCCCTGACC
AGCGGGCACCATCCTCCCAGCCCCACTCAGCTGCCCTGACCAGCGGGCACCATCCTCCCAGCCTCACTCGGCCAG
CCGAGCTCTGTAGGCCTCAGAGTGCAGAGAACCTCAAATGTTGTGACTTTGCTCTGCTGCAGGGACCTGCCATGG
AGTGTCCCTTGTGCGAGCATTTTGAGAGCTATGCCAGCATCCATCCCTGCAGGTCCCATCCCTGAGCCATTTCTC
AGGAGAGCAGGAAGGGAGCAGGGAGAGGGGTGCTCCCAGCCAGCCCCGGAACCAGAGGTCTGGGGACGCAGCCGA
CCAGCCCTCCTTGTCTGGGCCTCTGTTTCCTCTTCGACACAGGGAAGCAGGGAGGGGCCGATCAGCGACTTAGGC
CTGTTGGCTGTGGTGGGGTCCACCTGCGTTTCTGGGGAGCCCACGGACCCTGGGGTGTACCTGGGTTTCATTCCC
AGTGACCTCTCCTATTGGTCCCCATTTGGGGCGCTGAGATGTGATCGTTTCTTTCCTGAGAATGAGCTGAGGTAA
AAACATGCTGGGGAGGAAGATGGGCCCTGGGGGCAGCGAGCTGCGCCTCTGCACCGGGAGAAAGGCCGTGTCCCC
AGAGCTGAGGCGGTGGTGGGCAGGGCTCCTGAGAAGCCGGGGCAGGGCAGGGTGTCTCTGAGGTCAATGAGGAAC
AGCTGAGGTCCAGGGACGCAGGAAGGATGGGGTGAACTCCGGGATGGGGCCGGCAGGGAGCCTCACGCTTACAGA
GCCTGGTGTTGGCACTCTCCTGGCTTCCTCCGCAAACCTAGCCACGTGGTCAGGGAGCCCGGGCCTAGCAGACGG
CCCCCACCTTGACAGAATCCCCAGGGTCGTGCGTGGCGGTGGGGGCGACTTCACAGCCGAGACCGGGCCTAACGC
TGCTGTCTCGCAGTCACCCCTGCAGGCCGCTCAGGGCAGGGCTCTGGCCTGACGGGGGTTCCTGGACACGCCTCT
GAGCCGGCAGCCCCTACCCGCACCCGTGCACCTTCCACGCCCGTCTCCAGCAGCCCCTGCCCCCACCCGCACCCC
TGCACCTGCCACGCCTGTCTCCGGCAGCCCCTGCCCGCACCCGCACCCCTGCACCTGCCACGCCCGTCTCCGGCA
GCACCTGCCACGCCCGTCTCCGGCAGCACCTGCCACGCCCGTCTCCGGCAGCACCTGCCACGCCCGTCTCCGGCA
GCCCCTGCCCGCACCCGCACCCCTGCACCTGCCACGCCCGTCTCCGGCAGCCCCTGCCTGCACCCGCACCCCTCA
CGGCTGTCTCCGGCAGCCCCTGCCCGCGCCCGCACCTCTGCACCTCCCACGCCCCTCTCCGGCAGCCCCTGCCCA
CACCCGCACCCCTGCACCTCCCACGCCCGTCTTGCCCTGGGGCCCAGGTGCAGGTCTGTGAGGAGGGCAGCCCCG
TGCTCCCGTGGCCACCGCTCAGCCAAATGGATTCAGCGAGGGTTTTTAGTGTTTGTGCCTGTGTCCCCGTGTGCC
TGTTTCCTGGTGAGGCTGGATGCCTGGCATGTCTGAACACTCACATTCCCCAGGCATGCATGTGCAGCCGCCGCC
GCCACCCATGTACTGTGGCGCTGACCCCTCCTGTAACAGCTGTGGTCTTGGCCTCTCGTGTTGGTGGCAGATGTC
CCATTTCCCAGTTACTTTCTGTTGTCCAAAAGTTTAACTGTCCTGCCAGCCAAAGCTGCTGAGCATTACTCTGAT
AGACCATCAGTCCTTGGTAAGTGTCCTGTGCATCTGGGATAAGCATCCGTTTGTTTTCAGCTGCGCTTTCTGTGA
CTTGCTCTGCGTGAGTCCTCGGTCCACGTGGGCCGTTGCGCTGGTTCCCAGCCTGCCCGACACACTCACTGCGAC
GCCTCCCTTGCCTACTGCTTGCTGGCTTCTGTGTTCTCTGCAGTAAACATTGATTTCTGACTCGAGTGCTGTCTT
CATTGAGCTCTCTGCACTCTGGGGATGCAGTCAGCGACCCCACGAAGGCTACCGGCTTCCTCCCAGGGAACAGTG
CAGGTGCTGCTTCCCAGGACCACAGGACCCTGGCTGGTCGCTGCCTGTGATGGGTCTCCACAAGACCACTCCCCA
TTAGCCAGACTCACAGGAGACTGACACATAAATGAGAAAGTTGTTCACTAACTCACAATGGGAGCAACCCTTTGC
AGTGCGGAAATGCTCTCAGCCTTTCTGGCCCCGGATACCTGGGAAGCTAAGGGTTCATTAGGTGGCCTAGTGCCT
GCACTCAGGATGCCCCAGAGGAGGCCCCGGGGGTTCCTGAACGCCTTCTTCAGGCCCTGTCTTCAGCCCTTCTCCA
GGCCCTCTGAGTTCCAAACAGCACTCACTTTTGTCTGGTCCTCTGTTCCCCGGCTCGCACCTCCTTCGTCAGGGC
AGTTGCTCTCAACCAGGGGTACTTCTGCCCCTGGGGCCCACTCGGCA**ATG**TCCGGGACCGTGTTGGCGGTCACAG
CTGGGCGGGGGCACCACCGGAATCTGGTGTGCAGAGGCGGGGGTCCTGCCCAGATGCCAGAGGTGCTGCAGGTGA
GAGATACAGATTTAGACCCTGTGACGACAAAGAAAAGGACGGGAAAGGTGGCTCTCAAGGCCCCAGGGAACCGCC
CAGAGACGCCTGGGGTTCCAGAAGCTGGAAAGGCATGGAGCGGTGCGGGAACAAGCCTCTGCGGTGGCTGGAGAT
GTGGGGATGGAGACTGGTCATGCCTTCACACACTTAACCAGAACCCTCCCAGCTCTCCCTCCCCTGCAACCAAGC
CAGCAAGGCGACACGGTGGCTGGCGCTGGCGAGAGGCAAGTGTGCTTGACTGCCTTTCTCCACTCTTGAGGACAA
CACCCAGAGTGGCCCCGTCTTTGCCCCACCAGCCCAGGCCTAAAGCTTCCTCATCATCCGCATCCCGGCCTGGGA
CT**TAG**GCGGACTTCTGCCAGCTGTGTCACGTGCAGGGGACTGCAGCCACTGACCCCCTCTCCCTTCTGTCCTGCT
CTTCTCTACCCCACAGCCCCAGGCAGATCTTCAGTGCATGTCAGCTCTCCTCCCTCCCTCCCTGCAGACCCCTGT
GCCCCGCAGTGCCCTGAGAATGACGTCTGAGCCCCCAGTGGAGGTGTCAAGGCTGTTCGGTCTGTCCCCATCCCG
TTCTGTCCTCCCCTTGCTCACCACACTCCCCTGCCTGGTCTTCCAAACTCGAACCCCAGGCAACTCCTTCAGGCA
TCAGACCTCTGCCCCTGCGCCCCTCCTGCCTCTCTGTGATGGGCTGGCCCTTCCCTTCTGCTGCCTCCCCTCCCT
CCTTCCTGCTCCAACCCCTATCTCTCTCTGATGCTGCCCCTTAGAGAAGCCTTCTTGGACCTTAAGCCTGGCCAC
TCCTCTAAGCCCCTCATCTCCAGGTGTGGTCTAGGAAGTGCTCTCAGCCTCTCTACTCCAGTGGCTCGGGGTCTC

FIGURE 4212B

TGACCAGCCCTCCTGCCAGGGAAGCTTTGAAGGTTCCCACAGGGACCCCTAGAGACAAGGGCACTGCCCGTCCAG
ATGGCACCCTCACCCCAACCCCAGCAGCACTGGCTGGAGCAGGCCATGCCTGTGTGGGTATCTGAACAGGCACTG
GATTCCCCGATCTCAACAAAAGAAGCCCATGGAGGCCTTTTCTAATCCACAGTCCAAGAGGACAAATCAAGACAA
CAGGCTGGGGGGGCTGGCTGTGGGCCGACTCCCACGTCTTAGGACCAGGGGCTCTGGGGCTGTTTGGGCTGGAAC
CCCTCCTCCCAGCATAACAAACACTAGCTCATTATTTACAGTGAATACCCAACAAAACCCTGCTCGAGGTGAGGA
GCGGGGACCTGCTGCTCCAACAGACCAGACTGGCTGCTGGCTCCGAGCTCATTAAATCAGCAACCTTTGCACTCC

FIGURE 4213

GATGGCGGCGGAGCAGGACCCCGAGGCGCGCGCGGGGCGGCCGCTGCTCACTGACCTCTACCAGGCCACCATGGC
GTTGGGCTATTGGCGCGCGGGCCGGGCGCGGGACGCCGCCGAGTTCGAGCTCTTCTTCCGCCGCTGCCCGTTCGG
CGGCGCCTTCGCCTTGGTAGCCGGCTTGCGCGACTGTGTGCGCTTCCTGCGCGCCTTCCGCCTGCGGGACGCCGA
CGTGCAGTTCCTGGCCTCGGTGCTGCCCCCAGACACGGATCCTGCGTTCTTCGAGCACCTTCGGGCCCTCGACTG
CTCCGAGGTGACGGTGCGAGCCCTGCCCGAGGCTCCCTCGCCTTCCCCGGAGTGCCGCTCCTGCAGGTGTCCGGG
CCGCTCCTGGTGGTGCAGCTGCTGGAGACACCGCTGCTCTGCCTGGTCAGCTACGCCAGCCTGGTGGCCACCAAC
GCAGCGCGCGTTCGCTTGATCGCAGGGCCAGAGAAGCGGCTGCTAGAGATGGGCCTGAGGCGGGCTCAGGGCCCG
ATGGGGCCTGACAGCCTCCACCTACAGCTACCTGGGCGGCTTCGACAGCAGCAGCAACGTGCTAGCGGGCCAGCT
GCGAGGTGTGCCGGTGGCCGGGACCCTGGCCCACTCCTTCGTCACTTCCTTTTCAGGCAGCGAGGTGCCCCCTGA
CCCG**ATG**TTGGCGCCAGCAGCTGGTGAGGGCCCTGGGGTGGACCTGGCGGCCAAAGCCCAGGTGTGGCTGGAGCA
GGTGTGTGCCCACCTGGGGCTGGGGGTGCAGGAGCCGCATCCAGGCGAGCGGGCAGCCTTTGTGGCCTATGCCTT
GGCTTTTCCCCGGGCCTTCCAGGGCCTCCTGGACACCTACAGCGTGTGGAGGAGTGGTCTCCCCAACTTCCTAGC
AGTCGCCCTGGCCCTGGGAGAGCTGGGCTACCGGGCAGTGGGCGTGAGGCTGGACAGTGGTGACCTGCTACAGCA
GGCTCAGGAGATCCGCAAGGTCTTCCGAGCTGCTGCAGCCCAGTTCCAGGTGCCCTGGCTGGAGTCAGTCCTCAT
CGTAGTCAGCAACAACATTGACGAGGAGGCGCTGGCCCGACTGGCCCAGGAGGGCAGTGAGGTGAATGTCATTGG
CATTGGCACCAGTGTGGTCACCTGCCCCCAACAGCCTTCCCTGGGTGGTGTCTATAAGCTGGTGGCCGTGGGGGG
CCAGCCACGAATGAAGCTGACCGAGGACCCCGAGAAGCAGACGTTGCCTGGGAGCAAGGCTGCTTTCCGGCTCCT
GGGCTCTGACGGGTCTCCACTCATGGACATGCTGCAGTTAGCAGAAGAGCCAGTGCCACAGGCTGGGCAGGAGCT
GAGGGTGTGGCCTCCAGGGGCCCAGGAGCCCTGCACCGTGAGGCCAGCCCAGGTGGAGCCACTACTGCGGCTCTG
CCTCCAGCAGGGACAGCTGTGTGAGCCGCTCCCATCCCTGGCAGAGTCTAGAGCCTTGGCCCAGCTGTCCCTGAG
CCGACTCAGCCCTGAGCACAGGCGGCTGCGGAGCCCTGCACAGTACCAGGTGGTGCTGTCCGAGAGGCTGCAGGC
CCTGGTGAACAGTCTGTGTGCGGGGCAGTCCCCC**TGA**GACTCGGAGCGGGGCTGACTGGAAACAACACGAATCAC
TCACTTTTCCCC

FIGURE 4214

CAGAAAAATGGCTACAAACTTCCTAGCACATGAGAAGATCTGGTTCGACAAGTTCAAATATGACGACGCAGAAAG
GAGATTCTACGAGCAGATGAACGGGCCTGTGGCAGGTGCCTCCCGCCAGGAGAACGGCGCCCGTGATCCTCCGTG
ACATTGCGAGAGCCAGAGAGAACATCCAGAAATCCCTGGCTGGAAGCTCAGGCCCCGGGGCCTCCAGCGGCACCA
GCGGAGACCACGGTGAGCTCGTCGTCCGGATTGCCAGTCTGGAAGTGGAGAACCAGAGTCTGCGTGGCGTGGTAC
AGGAGCTGCAGCAGGCCATCTCCAAGCTGGAGGCCCGGCTGAACGTGCTGGAGAAGAGCTCGCCTGGCCACCGGG
CCACGGCCCCACAGACCCAGTGACA**ATG**AGGAGGAGGACAAGGAGGCGGCACAGCTGCGGGAGGAGCGGCTACGG
CAGTACGCGGAGAAGAAGGCCAAGAAGCCTGCACTGGTGGCCAAGTCCTCCATCCTGCTGGATGTCAAGCCTTGG
GATGATGAGACGGACATGGCCCAGCTGGAGGCCTGTGTGCGCTCTATCCAGCTGGACGGGCTGGTCTGGGGGGCT
TCCAAGCTGGTGCCCGTGGGCTACGGTATCCGGAAGCTACAGATTCAGTGTGTGGTGGAGGACGACAAGGTGGGG
ACAGACTTGCTGGAGGAGGAGATCACCAAGTTTGAGGAGCACGTGCAGAGTGTCGATATCGCAGCTTTCAACAAG
ATCTGAAGCC**TGA**GTGTGTGTACGTGCGCGCGTGCGTGAGGCCCTGCCACGATTAAAGACTGAGAC

FIGURE 4215

CCCCGTGACCCCTCTTCAGGCACCCACCACCCTG**ATG**GTGACAGAGGGGGACAGCCAGCACCCATCTGTCCCCGT
CAGGGCTCTTGTTCTCACAGCCCCCTGGAGCATGCCCCATGCCCCAACCTTGGGCCTGGCTCCTGGCCCAGATGG
CACCTGGCCTCTTGAGTCTGCTGGGGGACCCCAAAGTTGGTGGTCCCATAGCCTGCCCTCCTGGGTCTCCACCTC
ATGCCTGGACAGGACGCTGTGGCCTGTCCGGGCCTTGGCCAGCCCTGCAGCTGCACCCCCGATCCTCATCCCTCA
CCCCATTCCCTGCCAGCATCCTAAGGCTCCTGGCGGGCATCCTCTCTGCTCAAAATTATTGACCTGTCTCCCGGC
CACACCTGCTGTGCCCTCTCAGCCAGGCCATCATCACCCCCTGTTCATTATGTCAGGCCTCATGGGAGCCTGGCC
TTCTCCAGAAGCTGGCCCCGGCGTCCTCCCAAGCTGGACCACGGCTGAA**TGA**GGAACGCGCCACTGGACACATGA
GGAAGAGGCTGCTCTGGGAGCTACTGATGCTGTGACCTCACCTCTCTGGCTTTGGGCGGCAGGTCCCTGCACCTA
GGATGCCTGCCTGGAAATGTCCTTGCATTCGTGGCCTCCTTCACAGCCTCCTCCTCAGAGAAGCCTCTGCGAGTG
CACAGGGAGTGTGTGCAGCCTTGTGAAGGGCTGGGACCACTTGCCCAGACTGGGGCCCCTCAGGCACAGGCGTGG
GGTCCTACTGACCTGTCTCCCCAGCTCCCACACAGAAAGCATCTAAAAT

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FIGURE 4216

CCTGGGCGGGCCCTGCGTCAGGTTGCAGTTTCACTTTTAGCTCTGGGCACCTCCAGCTCCTGCTCGCCGGACGGC
TCCCAGGGAGAGCAGACGCGCCAGACGCGCCACCCTCGGGGCGCCGACGGTCACGGAGC**ATG**GGGTCGGCCTTTG
AGCGGGTAGTCCGGAGAGTGGTCCAGGAGCTGGACCATGGTGGGGAGTTCATCCCTGTGACCAGCCTGCAGAGCT
CCACTGGCTTCCAGCCCTACTGCCTGGTGGTTAGGAAGCCCTCAAGCTCATGGTTCTGGAAACCCCGTTATAAGT
GTGTCAACCTGTCTATCAAGGACATCCTGGAGCCGGATGCCGCGGAACCAGACGTGCAGCGTGGCAGGAGCTTCC
ACTTCTACGATGCCATGGATGGGCAGATACAGGGCAGCGTGGAGCTGGCAGCCCCAGGACAGGCAAAGATCGCAG
GCGGGGCCGCGGTGTCTGACAGCTCCAGCACCTCAATGAATGTGTACTCGCTGAGTGTGGACCCTAACACCTGGC
AGACTCTGCTCCATGAGAGGCACCTGCGGCAGCCAGAACACAAAGTCCTGCAGCAGCTGCGCAGCCGCGGGGACA
ACGTGTACGTGGTGACTGAGGTGCTGCAGACACAGAAGGAGGTGGAAGTCACGCGCACCCACAAGCGGGAGGGCT
CGGGCCGGTTTTCCCTGCCCGGAGCCACGTGCTTGCAGGGTGAGGGCCAGGGCCATCTGAGCCAGAAGAAGACGG
TCACCATCCCCTCAGGCAGCACCCTCGCATTCCGGGTGGCCCAGCTGGTTATTGACTCTGACTTGGACGTCCTTC
TCTTCCCGGATAAGAAGCAGAGGACCTTCCAGCCACCCGCGACAGGCCACAAGCGTTCCACGAGCGAAGGCGCCT
GGCCACAGCTGCCCTCTGGCCTCTCCATGATGAGGTGCCTCCACAACTTCCTGACAGATGGGGTCCCTGCGGAGG
GGGCGTTCACTGAAGACTTCCAGGGCCTACGGGCAGAGGTGGAGACCATCTCCAAGGAACTGGAGCTTTTGGACA
GAGAGCTGTGCCAGCTGCTGCTGGAGGGCCTGGAGGGGGTGCTGCGGGACCAGCTGGCCCTGCGAGCCTTGGAGG
AGGCGCTGGAGCAGGGCCAGAGCCTTGGGCCGGTGGAGCCCCTGGACGGTCCAGCAGGTGCTGTCCTGGAGTGCC
TGGTGTTGTCCTCCGGAATGCTGGTGCCGGAACTCGCTATCCCTGTTGTCTACCTGCTGGGGGCACTGACCATGC
TGAGTGAAACGCAGCACAAGCTGCTGGCGGAGGCGCTGGAGTCGCAGACCCTGTTGGGGCCGCTCGAGCTGGTGG
GCAGCCTCTTGGAGCAGAGTGCCCCGTGGCAGGAGCGCAGCACCATGTCCCTGCCCCCCGGGCTCCTGGGGAACA
GCTGGGGCGAAGGAGCACCGGCCTGGGTCTTGCTGGACGAGTGTGGCCTAGAGCTGGGGGAGGACACTCCCCACG
TGTGCTGGGAGCCGCAGGCCCAGGGCCGCATGTGTGCACTCTACGCCTCCCTGGCACTGCTATCAGGACTGAGCC
AGGAGCCCCAC**TAG**CCTGTGCCCGGGCATGGCCTGGCAGCTCTCCAGCAGGGCAGAGTGTTTGCCCACCAGCTGC
TAGCCCTAGGAAGGCCAGGAGCCCAGTAGCCATGTGGCCAGTCTACCATGGGGCCCAGGAGTTGGGGAAACACAA
TAAAGGTGGCATACGAAGG

FIGURE 4217

CAGGTGCAACTGAC**ATG**GGTGAACCCCAGGGATCCATGCGGATTCTAGTGACAGGGGGCTCTGGGCTGGTAGGCA
AAGCCATCCAGAAGGTGGTAGCAGATGGAGCTGGACTTCCTGGAGAGGACTGGGTGTTTGTCTCCTCTAAAGACG
CCGATCTCACGGATACAGCACAGACCCGCGCCCTGTTTGAGAAGGTCCAACCCACACACGTCATCCATCTTGCTG
CAATGGTGGGGGGCCTGTTCCGGAATATCAAATACAATTTGGACTTCTGGAGGAAAAACGTGCACATGAACGACA
ACGTCCTGCACTCGGCCTTTGAGGTGGGCGCCCGCAAGGTGGTGTCCTGCCTGTCCACCTGTATCTTCCCTGACA
AGACGACCTACCCGATAGATGAGACCATGATCCACAATGGGCCTCCCCACAACAGCAATTTTGGGTACTCGTATG
CCAAGAGGATGATCGACGTGCAGAACAGGGCCTACTTCCAGCAGTACGGCTGCACCTTCACCGCTGTCATCCCCA
CCAACGTCTTCGGGCCCCACGACAACTTCAACATCGAGGATGGCCACGTGCTGCCTGGCCTCATCCACAAGGTGC
ACCTGGCCAAGAGCAGCGGCTCGGCCCTGACGGTGTGGGGTACAGGGAATCCGCGGAGGCAGTTCATATACTCGC
TGGACCTGGCCCAGCTCTTTATCTGGGTCCTGCGGGAGTACAATGAAGTGGAGCCCATCATCCTCTCCGGTGGGC
GAGGAAGA**TGA**GGTCTCCATCAAGGAGGCAGCCGAGGCGGTGGTGGAGGCCATGGACTTCCATGGGGAAGTCACC
TTTGATACAACCAAGTCGGATGGGCAGTTTAAGAAGACAGCCAGTAACAGCAAGCTGAGGACCTACCTGCCCGAC
TTCCGGTTCACACCCTTCAAGCAGGCGGTGAAGGAGACCTGTGCTTGGTTCACTGACAACTACGAGCAGGCCCGG
AAGTGAAGCTGGAAGACAGGATCAGGTGCCAGCGGACCATCGGCTGGCAGAGCCCAGCGGCCACCACCCGTCAAC
CCTGCCAGGAGCTGAGGGCACCACCCAGCAACCTGGGCCTGCATTCCATCCGCTCTGCAGCCCCAAGCATCTTTC
CAGTGGGGCCCCCATTCACGTTGGTCCTCAGGGAAACCAGGGTCCCGGGCAGGCCCGGCGCTTTGCTCCCCACAC
CAGCCCCCTGCGCGTGTCCACTCTGATCCTGCATCCCACTCCCTGGGAGCCAATAAAGTGCATTTTCACAG

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FIGURE 4218

AGCGCAGCGGCGTCCGAGGCAACAAG**ATG**GCAGCTGCGGAGCCGTCTCCGCGGCGCGTGGGCTTCGTGGGCGCGG
GCCGCATGGCGGGGGCCATCGCGCAGGGCCTCATCAGAGCAGGAAAAGTGGAAGCTCAGCACATACTGGCCAGTG
CACCAACAGACAGGAACCTATGTCACTTTCAAGCTCTGGGTTGCCGGACCACGCACTCCAACCAGGAGGTGCTGC
AGAGCTGCCTGCTCGTCATCTTTGCCACCAAGCCTCATGTGCTGCCAGCTGTCCTGGCAGAGGTGGCTCCTGTGG
TCACCACTGAACACATCTTGGTGTCCGTGGCTGCTGGGGTGTCTCTGAGCACCCTGGAGGAGCTGCTGCCCCCAA
ACACACGGGTGCTGCGGGTCTTGCCCAACCTGCCCTGTGTGGTCCAGGAAGGGGCCATAGTGATGGCGCGGGGCC
GCCACGTGGGGAGCAGCGAGACCAAGCTCCTGCAGCATCTGCTGGAGGCCTGTGGGCGGTGTGAGGAGGTGCCTG
AAGCCTACGTCGACATCCACACTGGCCTCAGTGGCAGTGGCGTGGCCTTCGTGTGTGCATTCTCCGAGGCCCTGG
CTGAAGGAGCCGTCAAGATGGGCATGCCCAGCAGCCTGGCCCACCGCATCGCTGCCCAGACCCTGCTGGGGACGG
CCAAGATGCTGCTGCACGAGGGCCAACACCCAGCCCAGCTGCGCTCAGACGTGTGCACCCCGGGTGGCACCACCA
TCTATGGACTCCACGCCCTGGAGCAGGGCGGGCTGCGAGCAGCCACCATGAGCGCCGTGGAGGCTGCCACCTGCC
GGGCCAAGGAGCTCAGCAGAAAG**TAG**GCTGGGCTCTGGCCATCCTTTCCTGCCTCTGTGCCCCTGCCTCTCCCTG
TGTCCCTTCCCCTGAGGACTGCGGCTCCCTCCCTCCTGCATGAGGGTCTCCTACTGCTCCTTCTCCCCTTGCACA
GGGAAATGCAGGGGGCAGGACTTGGGAGGTTCCAGCAGGCGGGGGAGCCCCGACCAGTGGGGACACTCCTCCCTC
CCCAGTGAGCAGAAGGCACCGTGGTGGTGGCTCTGCCCCTTGCTGCAGTGAGCCCACCTTGCTGCAACATTGGTT
CTGAGGGGCCCAAGAGATGGCGTCTTGGTCATTTGCCCGCATGGTTGGGCAGTTGGTTGAGGCCATGAACAGAAC
TTACGGTAACAGGCACGGCTGGCCCAATGCCTGGTCTGGAGCTGGAGCTTGCCTTTGGCTTTCCAGGTGGCTCCG
TGCAGCTACAGCCAGGCCGGCTGCCTCATCTCAGCTCTAGGGGGCACGAGCCATATGGGGTCTGCACAAGAGACC
CTCTCCCCTGCAGTAAAGCCAGGGGCCCTGGCCTGATGGGGCCCCCATGGGGAGCTGGAGCCTGCCCTGCAGCCT
GGAGAAGAGGGTGGCTGTGGTGGGCGTGCTCATCCCCTGCTAAGGAGCAGGAGCTGCTGGGCCAGGTCTGCGGCA
GTGCTGGGGTGGCACCAGGTGGGCAGTGGTAGGTGGGGTGGCTTGAGGTCTGGGAGGGTGGCCCTGGCCAGCCAG
GACACATGCAGACCCCTGGCTTTAGTCTGGATACAGGCTCCCTCTTTCCTCCCAATCCTAAGCTCCTGACAAGTG
GCCAGGTGGCTCTGGGCCCTCCTGCCCCGTGCCTAGGTCAGGGGTCCTGGAATACCCCGTAGCTCTGGCACCACC
ACACTGGCCTCTGATGGCAAGACTTGGCCCCTCCACCTGTCCCTAACGGACGGCAGGTCAGGAAAGCCAGGACTC
AGGGGAGAAGCAAACCCCCAGGATTGAAGGCTAGGGTTCTAGGGCCTTTGGGTGGGGAGGGCCCGGGCCGGACAG
CCTCAGCTCCGTCCCCTGCCCCACAAGATTCACCTGGGCCTCCAGTCCCACGCTGGCCCCAACTGCTGCAGCTCT
CGGCTTCCGCCCAACAGCCTCTGGAGGTGAGGCGGGAGCATGCCCTCAGCGAGGCTGGGCGGCGGGTCCTGCTGT
GCCATCTCCCTGTGCGCCTGAGCAGATCAATCCACCAGTGCAAAACAGGGCTAACGGCACCTGCAGGACAGCAGC
ACGCTCCATCCCTCATGCTCAGCTGCCTCTGCGGCCACGGACTTCTGCCCTTCATCTGCTCTCTCTTACTCTCCT
GAGCCTAGCCCGTCCGTAAGCTCCCTCCCCTGCCTGGTTCCCAGGGCAGGCTGACTCAGTTGACTGCTTGGTCCA
AGCCTGGCCCTGGCACTTGTCAGGGTCAGCCTAAGGAGATGGGAATAAAGAGGCCAGAGAGCACCAAGTGAGCTC
ATGTTTC

FIGURE 4219

TCCAGGCGCAGGCCGAGGCCTTCGCGCGCCAGATCTACGGGCCCGAGTGCACCTTCAAGGCCAGCCACGGCTGGT
TCTGGCGCTGGCAGAAGCGCCACGGCATCTCCAGCCAGCGCTTCTACGGCGAGGCCGGGCCCCCAGCCCCGAGCC
CCGCGCCCGGCCCGCCCGTCAAGGAGGAGCCCGCGCTGCCCTCCGGCGCCGGCCCCCTGCCCGACCGCGCCCCGG
CCCCGCCGCCCCCGGCCGAGGGCGGCTACGGGGACGAGCAGATTTACAGCGCCAGCGTCACCGGCCTCTACTGGA
AGCTGCTTCCGGAGCAGGCTGCGCCCCCGGGCGCAGGGGACCCCGGGGCGGGGGGCTGTGGCCGGCGCTGGCGGG
GCGACCGCGTAACGGTGCTGCTGGCCGCAAACCTGACCGGCAGCCACAAGCTGAAGCCGCTGGTCATCGGGCGGC
TGCCGGACCCGCCCAGCCTGCGCCACCACAACCAGGACAAGTTCCCGGCCTCCTACCGCTACAGCCCCGACGCCT
GGCTCAGCCGCCCGCTGCTGCGGGGCTGGTTCTTTGAGGAATTTGTCCCAGGCGTCAAACGCTACCTGCGCCGAA
GCTGCCTGCAGCAGAAGGCCGTGCTGCTGGTGGCCCACCCGCCCTGCCCAAGCCCAGCTGCCAGT**ATG**CCCGCCC
TGGACAGCGAGGATGCCCCCGTGCGGTGCAGGCCGGAGCCCCTCGGTCCCCCGGAGGAGCTGCAGACACCGGATG
GCGCTGTGCGGGTGCTGTTCCTGTCCAAAGGCAGCAGCCGGGCACATATCCCCGCACCGCTGGAGCAGGGCGTGG
TGGCCGCCTTCAAACAGCTGTACAAGCGCGAGCTGCTGCGACTGGCTGTGTCCTGCGCCAGCGGCTCCCCGCTGG
ACTTCATGCGCAGCTTCATGCTCAAGGACATGCTCTACCTGGCTGGCCTCTCCTGGGACCTGGTGCAGGCGGGCA
GCATTGAGCGCTGCTGGCTGCTGGGCCTGCGGGCTGCCTTCGAGCCCCGGCCCGGCGAGGACAGTGCTGGGCAGC
CGGCCCAGGCCGAGGAAGCCGCCGAGCACAGCAGGGTGCTCAGCGACCTCACCCACCTGGCGGCTCTGGCCTACA
AGTGCCTGGCTCCGGAGGAGGTTGCGGAGTGGCTGCACCTGGACGATGATGGGGGTCCGCCCGAGGGCTGCAGGG
AGGAGGTGGGCCCAGCCCTGCCCCCTGCAGCGCCTCCGGCCCCAGCCAGTCTGCCCTCTGCCATGGGGGGCGGAG
AGGACGAGGAGGAGGCCACCGACTATGGAGGGACCTCAGTGCCGACTGCCGGGGAGGCCGTGCGGGGGCTAGAAA
CAGCTCTGCGGTGGCTGGAGAACCAGGACCCCAGAGAGGTGGGGCCACTGAGGCTGGTGCAGTTGCGCTCACTCA
TCAGCATGGCCCGGAGGCTGGGGGGCATCGGGCATACCCCAGCAGGCCCCTATGACGGTGTG**TGA**CCAGGCCAGC
CCAGTGACCTTTCTCCTGCTGCACTTGGAGGGAGGGGACATACACACAGTCTCCCATCTCTCCTCCCCTCCCCCT
GGGGTGGCCCACCGCATGGGTACAGGGGGTTCCAGGAATCCAAATCCAGCATGGCTTGGAGGAGCTCTGTTGGTG
AGAGGTCGCCCTGCCTCACTGGCACCCTGGGGGCACAGCTGGAAGAGAGGCCTGGCCCATGCTCCTCTCAGGGCA
GGCACATGTACGGGGCATACAAGGCACAGCGCCTGTTGGAACAGGTGGCTGTGTTCCTGCTCTGGCCCCCGTGGG
GCTGGGCCTCCGCCCCTGCACCAGTCACATGCACTGGACGAGGGCCGAAACTCCTGTCTGCTATCGAGCCCTGGT
GCTATGTGGCCCCGGAGCCACAGCACAATCATCTCAGTGGCGAAGCACACCACTTGATTCTATTTTTTTTTAACA
CATTAAATCTGTTTTTAAAGAT

FIGURE 4220

CGCGTGGTGCGGCTGCTGCGGCTCCGGGCGGCTCTGACGTGCTCGGGGAGGTCCCCGCCGCCCGCCTCCCGGGATGTCCGCTCGCGCAGGACGCAGAAGGGCAGTGGAGCCAGAAACAGCCAGAAAGGCCCTTTCAGAAATGTCTGTTGCACATGCTTTCCCCTCTCAGACCCTTCAGAGACTTCCTGTTGCTCTGAGGACACTCATCCCAGCCGACCAGGCCACCAGGCCCCCAACAGCACTACCTGGCTGGGGTCACGTGCAGGTCTCCTGGCTCTGGCAGGTGGGAGAAGGAGAAGCACGAAGACGGGGTGAAGTGGAGACAGCTGGAGCACAAGGGCCCGTACTTCGCACCCCCATACGAGCCCCTTCCCGATGGAGTGCGTTTCTTCTATGAAGGAAGGCCTGTGAGATTGAGCGTGGCAGCGGAGGAGGTCGCCACTTTTTATGGGAGGATGTTAGATCATGAATACACAACAAAGGAGGTTTTCCGGAAGAACTTCTTCAATGACTGGCGAAAGG

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FIGURE 4221

GCGGACTCGGGAG**ATG**GAGGAAAAGGAGATATTACGGCGGCAGATCCGCCTACTGCAGGGTCTGATTGATGACTA
CAAAACCCTCCACGGCAATGCCCCGGCCCCTGGTACCCCAGCAGCTTCTGGGTGGCAGCCACCCACTTACCACAG
TGGCAGAGCCTTTAGTGCCCGCTACCCTCGTCCAAGCCGGAGGGGCTACTCTTCCCACCATGGGCCTTCGTGGCG
CAAGAAATACTCCCTCGTGAATCGGCCCCCGGGACCCTCAGACCCTCCTGCCGACCATGCTGTGCGGCCGTTGCA
CGGGGCCCGGGGGGGCCAGCCTCCTGTCCCGCAGCAGCATGTCCTTGAGAGACAGGTCCAGCTCAGTCAGGGTCA
GAACGTGGTCATCAAAGTTAAACCGCCATCAAAGTCTGGCTCTGCCAGTGCCTCAGGGGCCCAGCGGGGCTCTTT
GGAAGAATATGAGGACACCCCCTGGAGTGACCAAAGGCCCCGGGAAGGTGAAGGTGAGCCCCCTCGGGGACAGCT
GCAGCCCTCGAGGCCAACAAGAGCCAGGGGGACCTGCAGTGTGGAAGATCCTCTTCTGGTCTGCCAGAAGGAGCC
TGGTAAGCCCAGGATGGTGAAGTCAGTGGGCAGTGTGGGCGACAGCCCCTGGGAGCCCCGCCGGACAGTCAGTGA
GAGCGTGATTGCCGTCAAGGCGAGCTTCCCATCCTCCGCTCTGCCCCCACGCACTGGCGTGGCCCTGGGCCGGAA
GCTGGGTTCTCATTCCGTGGCCAGCTGTGCTCCACAGCTCCTTGGGGACAGGAGAGTAGATGCTGGCCACACAGA
TCAGCCAGTTCCGTCTGGCTCAGTGGGGGGTCCCGCCAGACCGGCCTCAGGACCCAGGCAGGCCCGGGAGGCCTC
GCTGGTTGTGACCTGTCGAACTAACAAGTTCCGGAAAAACAACTACAAATGGGTGGCTGCCTCCTCGAAGAGTCC
CCGGGTTGCTCGGAGGGCCCTCAGTCCCAGAGTGGCTGCAGAGAATGTGTGCAAGGCCTCTGCTGGCATGGCAAA
CAAGGTGGAGAAGCCGCAGCTCATAGCTGACCCAGAGCCCAAGCCCAGGAAGCCAGCCACGTCCTCCAAGCCAGG
GTCTGCCCCCAGCAAGTACAAGTGGAAGGCCTCCAGCCCCTCTGCCTCCTCCTCTTCCTCCTTCCGTTGGCAGTC
GGAGGCCGGCAGCAAGGACCATGCCTCCCAGCTCTCCCCAGTCCTGTCTAGGTCCCCGTCGGGGGACAGACCAGC
AGTAGGACACAGTGGCTTGAAGCCCCTCTCTGGGGAGACCCCGCTCTCGGCTTACAAAGTGAAGAGCCGCACCAA
GATCATCCGGAGACGCGGCAGCACAAGCCTTCCTGGAGACAAGAAAAGCGGCACCTCACCTGCCGCCACCGCCAA
GAGCCACCTCAGCCTCCGGCGGAGACAGGCCCTCAGGGGGAAGAGCAGCCCTGTCCTGAAGAAGACCCCCAACAA
GGGCCTGGTACAGGTCACCACGCACCGACTATGTCGCCTGCCACCGAGCCGGGCCCACCTCCCCACCAAGGAAGC
GTCCAGCCTGCATGCTGTGCGGACTGCACCCACCAGCAAGGTGATCAAGACCCGCTACCGCATTGTCAAGAAGAC
GCCGGCCTCGCCTCTCAGCGCCCCGCCCTTCCCCCTGTCTCTGCCCTCCTGGCGGGCCCGGCGGCTCTCACTATC
CAGGTCCCTGGTGCTGAACCGCCTGCGTCCAGTTGCCAGCGGGGGTGGGAAAGCCCAACCGGGCTCCCCTTGGTG
GCGGAGCAAAGGCTACCGCTGCATCGGAGGGGTCCTCTACAAAGTATCTGCCAACAAGCTCTCCAAGACCTCCGG
CCAGCCCAGTGATGCGGGCAGCAGGCCCCTCCTGCGCACAGGCCGGCTGGATCCTGCAGGCAGCTGTAGCCGTTC
CCTGGCCAGCCGGGCAGTGCAGCGCAGCCTGGCCATCATCCGGCAGGCGCGGCAGCGCAGGGAGAAGAGGAAGGA
GTACTGCATGTACTACAACCGCTTCGGCAGGTGCAACCGTGGCGAGCGCTGCCCCTACATCCACGATCCCGAGAA
GGTGGCCGTGTGCACCAGGTTTGTCCGGGGCACCTGCAAGAAAACGGATGGGACCTGCCCCTTCTCCCACCATGT
GTCCAAGGAGAAGATGCCGGTGTGCTCCTACTTCCTGAAGGGCATCTGCAGCAACAGCAACTGTCCCTATAGCCA
CGTGTACGTGTCCCGCAAGGCCGAGGTCTGCAGCGACTTCCTCAAAGGCTACTGCCCCCTGGGTGCAAAGTGCAA
GAAGAAACACACGCTGCTGTGCCCCGACTTTGCCCGCAGGGGGGCGTGTCCCCGCGGCGCCCAGTGCCAGCTGCT
CCACCGTACCCAGAAACGCCACAGTCGGCGGGCAGCCACGTCCCCCGCCCCAGGGCCCAGCGACGCAACCGCCAG
GAGCAGGGTCTCGGCCAGCCACGGGCCCAGGAAGCCTTCAGCATCCCAGCGCCCCACCAGGCAGACGCCCAGCTC
GGCTGCCCTCACTGCGGCTGCCGTGGCTGCACCTCCCCACTGCCCAGGGGGGTCAGCCTCTCCCTCATCCTCGAA
GGCTTCCTCCTCCTCCTCCTCCTCATCCCCTCCCGCTTCCTTGGACCACGAGGCACCATCTCTCCAGGAGGC
TGCCTTAGCAGCAGCGTGCTCCAACAGGCTCTGCAAGCTGCCTTCCTTCATCTCCCTGCAGTCCTCGCCGAGCCC
AGGAGCCCAGCCCAGGGTCCGGGCCCCTAGGGCCCCCCTCACCAAGGACTCAGGGAAGCCTCTGCACATCAAACC
ACGTCTG**TGA**GGACCCCAGGGACCGGCCTGCACCTACCTCAGACCCTCATCCTTGGAGAGGAAAGAGGCTCTGTC
CACCACTCTACCCCACAGGAGGGCCGCCCGCCACCAAGCCTCACCTGGGGGCCACAGGGACACTGCTCTGCCTGC
CTGGCCCTCAACCTTCCATGACCAGCGTGTGCGCAGGGCCTGGTCTTCCTCCCCCAAGCCAGGCCCCTGTCCCCA
CCCCACCACCTTCCAGGGTGCCAGGCAGGGCTGGCCTCCAGGCCTGTCCCCGACTGCCATTGGCAACAGTGGCCC
TGCAGCCCCCAGCCCTCCCCACCCAGGTTTTCGGCCCAGTGAAGAGGCCACTGGCCAGGCCTCCCAGGCAGGTGT
TTTATGTTCAGCAATAAAGGTTCTATCCGT

FIGURE 4222

GCGCACCCCGCCCCCGGCGCCATCTTCCCGACCGCGAGCCGTCCAGGTCTCAGTGCTGTGCCCCCCCCAGAGCCT
AGAGG**ATG**TTTCATGGGATCCCAGCCACGCCGGGCATAGGAGCCCCTGGGAACAAGCCGGAGCTGTATGAGGAAG
TGAAGTTGTACAAGAACGCCCGGGAGAGGGAGAAGTACGACAACATGGCAGAGCTGTTTGCGGTGGTGAAGACAA
TGCAAGCCCTGGAGAAGGCCTACATCAAGGACTGTGTCTCCCCCAGCGAGTACACTGCAGCCTGCTCCCGGCTCC
TGGTCCAATACAAAGCTGCCTTCAGGCAGGTCCAGGGCTCAGAAATCAGCTCTATTGACGAATTCTGCCGCAAGT
TCCGCCTGGACTGCCCGCTGGCCATGGAGCGGATCAAGGAGGACCGGCCCATCACCATCAAGGACGACAAGGGCA
ACCTCAACCGCTGCATCGCAGACGTGGTCTCGCTCTTCATCACGGTCATGGACAAGCTGCGTCTGGAGATCCGCG
CCATGGATGAGATCCAGCCCGACCTGCGAGAGCTGATGGAGACCATGCACCGCATGAGCCACCTCCCACCCGACT
TTGAGGGCCGCCAGACGGTCAGCCAGTGGCTGCAGACCCTGAGCGGCATGTCGGCGTCAGATGAGCTGGACGACT
CACAGGTGCGTCAGATGCTGTTCGACCTGGAGTCAGCCTACAACGCCTTCAACCGCTTCCTGCATGCC**TGA**GCCC
GGGGCACTAGCCCTTGCACAGAAGGGCAGAGTCTGAGGCGATGGCTCCTGGTCCCCTGTCCGCCACACAGGCCGT
GGTCATCCACACAACTCACTGTCTGCAGCTGCCTGTCTGGTGTCTGTCTTTGGTGTCAGAACTTTGGGGGCCGGG
CCCCTCCCCACAATAAAGATGCTCTCCGACCTTC

FIGURE 4223

AGTCTGGCCCTGGACAACCCCAGCAAAGCCGCCCTCAGCCAGCCCAGAAGCACTGGGCCTTGGCCACAGCAACAC
CCACTGAGCACGCTGGGAGCTGAGT**ATG**GCGTCCCTGGTCTCGCTGGAGCTGGGGCTGCTTCTGGCTGTGCTGGT
GGTGACGGCGACGGCGTCCCCGCCTGCTGGTCTGCTGAGCCTGCTCACCTCTGGCCAGGGCGCTCTGGATCAAGA
GGCTCTGGGCGGCCTGTTAAATACGCTGGCGGACCGTGTGCACTGCGCCAACGGGCCGTGTGGAAAGTGCCTGTC
TGTGGAGGACGCCCTGGGCCTGGGCGAGCCTGAGGGGTCAGGGCTGCCCCCGGGCCCGGTCCTGGAGGCCAGGTA
CGTCGCCCGCCTCAGTGCCGCCGCCGTCCTGTACCTCAGCAACCCCGAGGGCACCTGTGAGGACGCTCGGGCTGG
CCTCTGGGCCTCTCATGCAGACCACCTCCTGGCCCTGCTCGAGAGCCCCAAGGCCCTGACCCCGGGCCTGAGCTG
GCTGCTGCAGAGGATGCAGGCCCGGGCTGCCGGCCAGACCCCCAAGATGGCCTGCGTAGATATCCCTCAGCTGCT
GGAGGAGGCGGTGGGGGCGGGGGCTCCGGGCAGTGCTGGCGGCGTCCTGGCTGCCCTGCTGGACCATGTCAGGAG
CGGGTCTTGCTTCCACGCCTTGCCGAGCCCTCAGTACTTCGTGGACTTTGTGTTCCAGCAGCACAGCAGCGAGGT
CCCTATGACGCTGGCCGAGCTGTCAGCCTTGATGCAGCGCCTGGGGGTGGGCAGGGAGGCCCACAGTGACCACAG
TCATCGGCACAGGGGAGCCAGCAGCCGGGACCCTGTGCCCCTCATCAGCTCCAGCAACAGCTCCAGTGTGTGGGA
CACGGTATGCCTGAGTGCCAGGGACGTGATGGCTGCATATGGACTGTCGGAACAGGCTGGGGTGACCCCGGAGGC
CTGGGCCCAACTGAGCCCTGCCCTGCTCCAACAGCAGCTGAGTGGAGCCTGCACCTCCCAGTCCAGGCCCCCCGT
CCAGGACCAGCTCAGCCAGTCAGAGAGGTATCTGTACGGCTCCCTGGCCACGCTGCTCATCTGCCTCTGCGCGGT
CTTTGGCCTCCTGCTGCTGACCTGCACTGGCTGCAGGGGGGTCACCCACTACATCCTGCAGACCTTCCTGAGCCT
GGCAGTGGGTGCAGTCACTGGGGACGCTGTCCTGCATCTGACGCCCAAGGTGCTGGGGCTGCATACACACAGCGA
AGAGGGCCTCAGCCCACAGCCCACCTGGCGCCCTCCTGGCTATGCTGGCCGGGCTCTACGCCTTCTTCCTGTT**TG**
AGAACCTCTTCAATCTCCGGCAGCCCAGGGACCCGGAGGACCTGGAGGACGGGCCCTGCGGCCACAGCAGCCATA
GCCACGGGGGCCACAGCCACGGTGTGTCCCTGCAGCTGGCACCCAGCGAGCTCCGGCAGCCCAAGCCCCCCCACG
AGGGCTCCCGCGCAGACCTGGTGGCGGAGGAGAGCCCGGAGCTGCTGAACCCTGAGCCCAGGAGACTGAGCCCAG
AGTTGAGGCTACTGCCCTATATGATCACTCTGGGCGACGCCGTGCACAACTTCGCCGACGGGCTGGCCGTGGGCG
CCGCCTTCGCGTCCTCCTGGAAGACCGGGCTGGCCACCTCGCTGGCCGTGTTCTGCCACGAGTTGCCACACGAGC
TGGGGGACTTCGCCGCCTTGCTGCACGCGGGGCTGTCCGTGCGCCAAGCACTGCTGCTGAACCTGGCCTCCGCGC
TCACGGCCTTCGCTGGTCTCTACGTGGCACTCGCGGTTGGAGTCAGCGAGGAGAGCGAGGCCTGGATCCTGGCAG
TGGCCACCGGCCTGTTCCTCTACGTAGCACTCTGCGACATGCTCCCGGCGATGTTGAAAGTACGGGACCCGCGGC
CCTGGCTCCTCTTCCTGCTGCACAACGTGGGCCTGCTGGGCGGCTGGACCGTCCTGCTGCTGCTGTCCCTGTACG
AGGATGACATCACCTTCTGATACCCTGCCCTAGTCCCCCACCTTTGACTTAAGATCCCACACCTCACAAACCTAC
AGCCCAGAAACCAGAAGCCCCTATAGAGGCCCCAGTCCCAACTCCAGTAAAGACACTCTTGTCCTTGG

FIGURE 4224

CCCCGGCACCCCAGGGCAGGTGCAGACCCGCGAGTGCATCGAGGCCGTGATCCGCTTCGCCTTCGAAGAGCGGCT
CTTTCTGCTGGCGGACGAGGTGTACCAGGACAACGTGTACGCCGCGGGTTCGCAGTTCCACTCATTCAAGAAGGT
GCTC**ATG**GAGATGGGGCCGCCCTACGCCGGGCAGCAGGAGCTTGCCTCCTTCCACTCCACCTCCAAGGGCTACAT
GGGCGAGTGCGGGTTCCGCGGCGGCTATGTGGAGGTGGTGAACATGGACGCTGCAGTGCAGCAGCAGATGCTGAA
GCTGATGAGTGTGCGGCTGTGCCCGCCGGTGCCAGGACAGGCCCTGCTGGACCTGGTGGTCAGCCCGCCCGCGCC
CACCGACCCCTCCTTTGCGCAGTTCCAGGCTGAGAAGCAGGCAGTGCTGGCAGAGCTGGCGGCCAAGGCCAAGCT
CACCGAGCAGGTCTTCAATGAGGCTCCTGGCATCAGCTGCAACCCAGTGCAGGGCGCCATGTACTCCTTCCCGCG
CGTGCAGCTGCCCCCGCGGGCGGTGGAGCGCGCTCAGGAGCTGGGCCTGGCCCCCGATATGTTCTTCTGCCTGCG
CCTCCTGGAGGAGACCGGCATCTGCGTGGTGCCAGGGAGCGGCTTTGGGCAGCGGGAAGGCACCTACCACTTCCG
GATGACCATTCTGCCCCCCTTGGAGAAACTGCGGCTGCTGCTGGAGAAGCTGAGCAGGTTCCATGCCAAGTTCAC
CCTCGAGTACTCC**TGA**GCACCCCAGCTGGGGCCAGGCTGGGTCGCCCTGGACTGTGTGCTCAGGAGCCCTGGGAG
GCTCTGGAGCCCACTGTACTTGCTCTTGATGCCTGGCGGGGTGGGGTGGGGGGGGGTGCTGGGCCCCTGCCTCTCT
GCAGGTCCCTAATAAAGCTGTGTGGCAGTCTG

FIGURE 4225A

ATGGAGCGGCTGCGGGACGTGCGGGAGCGGCTGCAGGCGTGGGAGCGCGCGTTCCGACGGCAGCGCGGGCGGCGA
CCGAGCCAGGACGACGTGGAGGCGGCGCCGGAGGAGACCCGCGCGCTCTACCGGGAATACCGCACTCTGAAGCGT
ACCACGGGCCAGGCCGGCGGCGGGCTCCGCAGCTCCGAGTCGCTCCCCGCGGCGGCCGAAGAGGCGCCAGAGCCC
CGCTGCTGGGGGCCCCATGTGAATCGGGCTGCGACCAAGAGTCCACAGTCTACGCCAGGGCGGAGCCGCCAGGGC
TCGGTGCCGGACTACGGGCAGCGGCTCAAGGCCAATCTGAAAGGCACCCTGCAGGCCGGACCAGCCCTGGGCCGC
AGACCGTGGCCTCTAGGAAGAGCCTCATCTAAGGCATCCACCCCAAAGCCCCCAGGTACAGGGCCTGTCCCCTCC
TTTGCAGAAAAAGTCAGTGATGAGCCTCCACAGCTCCCTGAGCCCCAGCCAAGGCCAGGCCGGCTCCAGCATCTG
CAGGCATCCCTGAGCCAGCGGCTGGGCTCCCTAGATCCTGGCTGGTTACAGCGATGTCACAGTGAGGTCCCAGAT
TTTCTGGGGGCCCCCAAAGCCTGCAGGCCTGATCTAGGCTCAGAGGAATCACAACTTCTGATCCCTGGTGAGTCG
GCTGTCCTTGGTCCTGGTGCTGGCTCCCAGGGCCCAGAGGCTTCAGCCTTCCAAGAAGTCAGCATCCGTGTGGGG
AGCCCCCAGCCCAGCAGCAGTGGAGGCGAGAAGCGGAGATGGAACGAGGAGCCCTGGGAGAGCCCCGCACAGGTC
CAGCAGGAGAGCAGCCAAGCTGGACCCCCATCGGAGGGGGCTGGGGCTGTAGCAGTTGAGGAAGACCCTCCAGGG
GAACCTGTACAGGCACAGCCACCTCAGCCCTGCAGCAGCCCATCGAACCCCAGGTACCACGGACTCAGCCCCTCC
AGTCAAGCTAGGGCTGGGAAGGCTGAGGGCACAGCCCCCCTGCACATCTTCCCTCGGCTGGCCCGCCATGACAGG
GGCAATTACGTACGGCTCAACATGAAGCAGAAACACTACGTGCGGGGCCGGGCACTCCGTAGCAGGCTCCTCCGC
AAGCAGGCATGGAAGCAGAAGTGGCGGAAGAAAGGGGAGTGTTTTGGGGGTGGTGGTGCCACAGTCACAACCAAG
GAGTCTTGTTTCCTGAACGAGCAGTTCGATCACTGGGCAGCCCAGTGTCCCCGGCCAGCAAGTGAGGAAGACACA
GATGCTGTTGGGCCTGAGCCACTGGTTCCTTCACCACAACCTGTACCTGAGGTGCCCAGCCTGGACCCCACCGTG
CTGCCACTCTACTCCCTGGGGCCCTCAGGGCAGTTGGCAGAGACGCCGGCTGAGGTGTTCCAGGCCCTGGAGCAG
CTGGGGCACCAAGCCTTTCGCCCTGGGCAGGAGCGTGCAGTCATGCGGATCCTGTCTGGCATCTCCACGCTGCTG
GTGCTGCCTACAGGTGCCGGCAAGTCCCTGTGCTACCAGCTCCCAGCGCTGCTCTACAGCCGGCGCAGCCCCTGC
CTCACGTTGGTCGTCTCTCCCCTGCTGTCACTCATGGATGACCAGGTGTCTGGCCTGCCACCGTGTCTCAAGGCG
GCCTGCATACACTCGGGCATGACCAGGAAGCAACGGGAATCTGTCCTGCAGAAGATTCGGGCAGCCCAGGTACAC
GTGCTGATGCTGACACCTGAGGCACTGGTGGGGGCGGGAGGCCTCCCTCCAGCCGCACAGCTGCCTCCAGTTGCT
TTTGCCTGCATTGATGAGGCCCACTGCCTCTCCCAGTGGTCCCACAACTTCCGGCCCTGCTACCTGCGCGTCTGC
AAGGTGCTTCGGGAGCGCATGGGCGTGCACTGCTTCCTGGGCCTCACAGCCACAGCCACACGCCGCACTGCCAGT
GACGTGGCACAGCACCTGGCTGTGGCTGAAGAGCCTGACCTCCACGGGCCAGCCCCAGTTCCCACCAACCTGCAC
CTTTCCGTGTCCATGGACAGGGACACAGACCAGGCACTGTTGACGCTGCTGCAAGGCAAACGTTTTCAAAACCTC
GATTCCATTATCATTTACTGCAACCGGCGCGAGGACACAGAGCGGATCGCTGCGCTCCTCCGAACCTGCCTGCAC
GCAGCCTGGGTCCCAGGGTCTGGAGGTCGTGCCCCCAAAACCACAGCCGAGGCCTACCACGCGGGCATGTGCAGC
CGGGAACGGCGGCGGGTACAGCGAGCCTTCATGCAGGGCCAGTTGCGGGGTGGTGGTGGCCACGGTGGCCTTTGG
GATGGGGCTGGACCGGCCAGATGTGCGGGCTGTGCTGCATCTGGGGCTGCCCCCAAGCTTCGAGAGCTACGTGCA
GGCCGTGGGCCGGGCCGGGCGTGACGGGCAGCCTGCCCACTGCCACCTCTTCCTGCAGCCCCAGGGCGAAGACCT
GCGAGAGCTGCGCAGACATGTGCACGCCGACAGCACGGACTTCCTGGCTGTGAAGAGGCTGGTACAGCGCGTGTT
CCCAGCCTGCACCTGCACCTGCACCAGGCCGCCCTCGGAGCAGGAAGGGGCCGTGGGTGGGGAGAGGCCTGTGCC
CAAGTACCCCCCTCAAGAGGCTGAGCAGCTTAGCCACCAAGCAGCCCCAGGACCCAGAAGGGTCTGCATGGGCCA
TGAGCGGGCACTCCCAATACAGCTTACCGTACAGGCTTTGGACATGCCGGAGGAGGCCATCGAGACTTTGCTGTG
CTACCTGGAGCTGCACCCACACCACTGGCTGGAGCTGCTGGCGACCACCTATACCCATTGCCGTCTGAACTGCCC
TGGGGGCCCTGCCCAGCTCCAGGCCCTGGCCCACAGGTGTCCCCCTTTGGCTGTGTGCTTGGCCCAGCAGCTGCC
TGAGGACCCAGGGCAAGGCAGCAGCTCCGTGGAGTTTGACATGGTCAAGCTGGTGGACTCCATGGGCTGGGAGCT
GGCCTCTGTGCGGCGGGCTCTCTGCCAGCTGCAGTGGGACCACGAGCCCAGGACAGGTGTGCGGCGTGGGACAGG
GGTGCTTGTGGAGTTCAGTGAGCTGGCCTTCCACCTTCGCAGCCCGGGGGACTTGACCGCTGAGGAGAAGGACCA
GATATGTGACTTCCTCTATGGCCGTGTGCAGGCCCGGGAGCGCCAGGCCCTGGCCCGTCTGCGCAGAACCTTCCA
GGCCTTTCACAGCGTAGCCTTCCCCAGCTGCGGGCCCTGCCTGGAGCAGCAGGATGAGGAGCGCAGCACCAGGCT
CAAGGACCTGCTCGGCCGCTACTTTGAGGAAGAGGAAGGGCAGGAGCCGGGAGGCATGGAGGACGCACAGGGCCC
CGAGCCAGGGCAGGCCAGACTCCAGGATTGGGAGGACCAGGTCCGCTGCGACATCCGCCAGTTCCTGTCCCTGAG
GCCAGAGGAGAAGTTCTCCAGCAGGGCTGTGGCCCGCATCTTCCACGGCATCGGAAGCCCCTGCTACCCGGCCCA
GGTGTACGGGCAGGACCGACGCTTCTGGAGAAAATACCTGCACCTGAGCTTCCATGCCCTGGTGGGCCTGGCCAC

FIGURE 4225B

GGAAGAGCTCCTGCAGGTGGCCCGCTGA

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FIGURE 4226A

CGGGGCTGGAGGCGGTGGCTGCGGTTGCGGGACCGGCACTATGCTGGGCCTTCCTACCACTTGTGTGTGGCTTGG
TAGTGGCCTAGGGTCTCTCCTCCCTGCTGAAGTCCCTCTCCTGCAGGTGGCCGTCTGCCCGGCCCAGCACC**ATG**C
ACACGCTTGTGTTCTTGAGCACACGGCAGGTGCTGCAGTGCCAGCCAGCTGCCTGCCAGGCCCTGCCCTTGCTGC
CACGCGAACTCTTCCCCCTGCTGTTCAAGGTGGCCTTCATGGACAAGAAGACAGTGGTACTGCGCGAGTTGGTAC
ACACGTGGCCCTTCCCGCTGCTCAGTTTCCAGCAGCTGCTACAGGAGTGTGCCCACTGCAGCCGTGCCCTCCTGC
AGGAGCGGCCTAGCACTGAGAGCATGCAGGCTGTTATCCTGGGGCTGACTGCCCGGCTCCACACCTCAGAGCCTG
GGGCCAGCACACAGCCCCTCTGCAGGAAGCATGCGCTGCGGGTGCTGGACATGACGGGCCTCTTGGATGATGGTG
TGGAACAGGATCCTGGCACCATGAGCATGTGGGACTGTACTGCTGCCGTAGCTCGCACATGCATTGCCCAGCAGC
AGGGTGGGGCCGCAGAGCCTGGGCCAGCCCCCATCCCCGTGGAGGTGCGCGTGGACCTGCGGGTGAACCGGGCCT
CCTATGCGTTCCTGCGGGAGGCACTCCGAAGCAGCGTGGGCAGCCCGCTGCGGCTCTGCTGCCGGGACCTGCGAG
CTGAGGACCTGCCCATGCGCAACACTGTGGCCCTGCTGCAGCTTCTGGATGCAGGCTGCCTGCGCCGCGTGGACC
TGCGCTTCAACAATCTGGGCCTGCGCGGCCTGTCTGTGATCATCCCACACGTGGCCCGCTTCCAGCACCTGGCCA
GCCTGCGGCTCCACTATGTGCATGGGGATTCAAGGCAGCCCTCCGTGGATGGCGAGGACAACTTCCGCTACTTCC
TTGCCCAGATGGGCCGCTTCACCTGTCTGCGTGAGCTCAGCATGGGCTCCTCTCTCCTTTCAGGGAGGCTGGACC
AGCTGCTCAGCACCCTGCAGAGCCCCCTGGAGAGCCTGGAGTTGGCCTTCTGTGCTCTGCTGCCTGAGGACCTAC
GCTTCCTGGCACGGAGCCCACATGCTGCCCACCTCAAGAAGTTGGACCTGAGTGGTAACGACCTGTCTGGCAGCC
AGCTGGCACCCTTCCAGGGTCTGTTGCAGGCATCAGCAGCCACACTGTTGCATCTGGAGCTGACTGAGTGTCAGC
TCGCAGACACCCAGCTGTTGGCCACACTACCCATCCTGACTCAGTGCGCCAGTCTCCGGTACCTTGGCCTCTATG
GCAACCCACTGTCCATGGCGGGCCTCAAGGAGCTGCTGCGGGACTCAGTGGCACAGGCTGAGCTGCGTACTGTGG
TGCACCCCTTCCCTGTGGACTGCTATGAGGGCTTGCCCTGGCCGCCGCCTGCCTCTGTCCTGCTGGAGGCCTCCA
TCAATGAGGAGAAGTTTGCCCGCGTAGAAGCTGAGTTGCACCAGCTGCTTCTAGCCTCAGGCCGTGCCCATGTGC
TCTGGACCACGGACATCTACGGGCGACTGGCTGCGGACTACTTCAGCCTA**TGA**TGAAGTAGCTCTGGGTGAGACA
CAGGCCGCCCTGCAGTCTCTTTAGGTAGGCAGGGCCTTTGCTGGGACCCCTGGTGGAGGCCTTCACAAAAGCACT
GGTTACTGGTTTCCTGCTGGGTCTACCTTGCTTCTGGGCACACCTCAAGCCTCCCCTGCTTTCTGCAGTGCCCCA
CGCGGTTTTCCCTGCACTTGCTCCATAATTGGCTGATCATCTGTGGGCCCCGGGGCTGGATGTCAGGCCTCCATT
GCCCTGCTCAGTTTGGCTGCATTTGGCTGCCGTCTGGGGTCCTGGTCCTTTGTGCAAATGCTTTGGGATTCCAGT
TGTGAGCTGAGAGAGATGATGGCCTCTCTGGGCCTTTCCTCTCCCTTTACTGAGAGCTCAGTGCTTCTGGGGTTG
AAGTTGGACAGAGGCCTGCTTCAGGGAAGCTGGGAGTCCCCAGGCACTCACGCCTCTTACGTGTTCCCTACCCTG
CCACCCAGCCACCCCACTGGGCTGGGCTCGGGCTGGAGGGGGTCATCAAGGTACACATGTGCCTGGAAGTTGAAT
TTGTGGCTGTTTTTTTTTCTGTCCACGTTGGTCACCCTTATCCTTATCTCTGCTGTCACCCCCAACATGGCCACC
CGGCAACAACTGCCATCCAGCCTGTCGCCCCGCCCTTCGCGGGGCAGCCCCGTCGGCACTGCCGGCCAGTCCTTG
CTCTTCCCACCTTTCGGAGGCCCAAGATCCTACTGTGGCCGGCCAGGGCCAGCGAGGGACCCCCCCCATGCAGAG
CTGGAGGTTGGGGTGATGTCTTTTCGGAAGAGCTTCAAGGGAGGTGTTGGGGCCTCCCCGGCCACCTTCCATTGC
TACCCCAGGATTCCCGAGTGCAACGTTCCCGGCTCGCGCCCCACACACGGCTCAGCGCACACTGCGCGGCTTCCA
CCTTTACTGACGGAGCATGCGCGAGGCCGCACCGGCCAATCTCCGGCGCCCACGTCATCCGCGCGCCCGCGGCCC
TAGCAGTGGATCTCGTAGGCGACCGGCGGGGGCACGCGGAGTCCCGGCCCCGCCCCCTGTTCCGGGCCGCAGTCA
GCGGGCGCCTCCGCCGGACCCTCGGCGAAGAGCGGCTTGGAGCGGTTGATGACGAACATCTCGTGGCCGCGCTCG
TCGCGGAGCTCCTCTAGCTGTGCGAACGTACAGGGGCCGTCCAAGTAGTCGTTGACGAACAGCGCTCCCTCCCCC
GGAGGCCCCCGCGCCTTTTTTCGCCTGCGGCGCCGGCGACAGATCATGGCGACCAGGAGCAGCGCCGTGAGCGCC
AGCAGCGCGATGGCCGCCGCAATGGCCGTCTGTGTGGCCACGCCCAGGGCGCGGAAGGCCATGCTGCCCGCCTCG
GGCCGGGGCTCGCTGCCGGCGGGGCGGGCGGCCGGAGGCGGCGGTTGCGCGGGCTGCTGCGGCTGCTGCCGGGAC
GCGTTGACCAGGAGCCGGAAGGGCACGCGGGCAGCGCCGCCGGCGTTGGAGGCCTCGCACTCGTACTTACCGGCG
TGCGCCAGCGTGATGTTGCTGAGGAAGAGCATGCCGCTGCCCGTGTCGGATGCCGAGTGTCCGCCCAGGCCCAGC
AACCCGCCTTCTAGCTGGGCCTGGGCTCGCGGCCGGCCCTCGCGAGGCTGGGGCACCTTTCTCCAGGTCACCAAT
GGCTGCGGGTAGCCGGAGGCTTGGCAGGCAACCCGCAGGTCCTCACCCAGGTTGGCTGTGAGCTCCAGCGGCTGC
ACGTGGACAGAGGGCGGAATGCAGATGAGGCTGCTGTGGGATACGTCCAGGAGACTCTGGAGCGCCAGGCGCGGG
GGCTCTGCACACATGATCTTCCTGTCCCTGGAGGTGAGCAGCCGCTGGCCGCCCTCCTTGATCCAGGCACCCAGC
CAGTGCAGGGCGCAGTCACAGCGCCATGGGTTCTCTGTGGGAGAGCAGCGTTAGGCAGGTGGCTTGAGGGTGCTG

FIGURE 4226B

CTAAAACAGCCTGTGCAGTTGGGGTTTTGCAGGCCAGGACAGAGGCCTCTTTCCCACCTCCCACAGCGTTTTCAC
ACGGAGTCCAAGGCCCTGCCACCCCTTCCTTGACCCCAAGCTCCTTGGGGCGGCAGGCCCTTCACCCTCNGCCCC
CCTCCCCTTTAGCTCTGTGATGCCTGCCTGTTACAGATCACTTCTCCGTCGGTCTCTGAGAAAGCACCTGCTCCT
TAAGTCTTCCTGCAACAAGTGCCACTGTTTTTAGGAACCTGGGCGTCCACATAGACATCTCACCAGCACTGAAAC
CTCACAAGTCCTCTCAGCCTTGCCTTTGGATGCCCTCTCTTGGGAATGTCCCCAGTCCTGGTCAGCTGTCTCTCT
CCTTTGCAATTTTGTCTGCCTCCCCTCAGCCTAAAAGTGTGCAGAACCCTCAATTCTGTTAAGTCACCCTGTGGA
GTTCCTGTCTTCTGTTTTCCCCAGGCAGGGTGCCTGAGCTGTATTCCCCAGCACACCCACTCCCGCAGCCCTCCA
GTGTGGCTGCAGGCGGTGGTGCAGCCTTCCAGACTGCTGCCCAGTTGCCTGATGTCAGAGCCCCTCCACACATGA
GCCTGCTCCCTACTGCCAACACCGTGGCCCAGACAGAGACGCTTTCCGAGGAAGAGGTACCTGTGAGGCGCAGGA
CTTGCAGACTGGCCAGGGGCTGCAGGGCCTCTCGGCTGATGGTGCCCAGCTGGTTCCTGCTGAGGTCCAGCAGTG
CTAGGGAGGACAGCCCCGCTAGAGCCTGGTCCTCCAGCAGCTCAATGCTGTTTTCTTGCAGGTGAAGCTCCTGCA
GTCGCTGAAGTAAGGACAGCAGATCGTGAGGAAAAAGGGCGCCGAGGTTGGGGGCATGTCTCTCTTCTTACCAAG
CTAGACTGGGTTGCCTTTTCTAACTATTCCAGCCCTACAGGGCGAGGGGCCATAATGGAGTATCCCGCCCCTTTA
GACCCCAGGCGCTCACCGGCAGGTGCAAGAAGGTGAAATCCAGCAGCCGCGCCAGCTGGTTGCCCGCCAGGTAGA
GCACGCGCAGCTGGGCCAGGCCTACGAAGGCGCCGCTGCGCAAGCCGCGCAGCCGGTTGCTAGTGAGCGCCAGCT
CCAGCAGGCGCGGCTGCGCGCGGAAGGCGCCGGCCTCCAGGGCGCGCAGGCTGTTGTTGTGCAGGTAGAGCCGGC
GCAGAGCGGCGAGTGGCGCCAGGGCTCCCGGCTCTAGGCGGGCGATGTTGTTGTCCTGCAGGAACAGTGTCTGCA
GGCCGGGGAAAGAGGAGGCGCTTACCCCGTTGCGGGGGTCTTCCTCTCCCTGGGGGCACCCCGTCCTCCCGCAGC
TCCACACGGTGCCCACCTGCGTCCCTGGCGGGATTCCCAGCGGGACGACGCGCAACCGCAGGGCGCCACACTCCA
CCGTGGCGCTGTAGCAGCGGCAGGCTGCTGGGCAGCCGGCGGCGCGGAGCGGCAGTAGTAGCAGCAGCAGCGGCA
GCAGTGCGGGGGCCCTCAGGGCCATCTCCCGAGGCCCGGTTCCTCACCGGCCCTTCCGCGGTTCAGCCGCAGACG
CGTGCCCTCCTGAAACACAGGTTGGCAGGCCAGTCTCGGCAGTCGAGAGCCAGCCAATAGATGGAATGGAGGCCT
GCACCTGCGTCTAACTTTTGACGCTATAAATAGGTTCAAGAAACTAATAAAACGTTCTGGTTTTCTCCTTTGAC

FIGURE 4227

GCCCCCGAGGCCCGAGGGAGAGGGAAGAGCGCCGGGCCCGGGTCGCGGAGGCGGGCGCCGCCGGAACGCGAAGCG
CGGGGCTACTGCGGGCAGGCGCGAGTTCGCGCAGCACCGCCCCCGGCGTGACCTGCTGGTCGCTTCCGGCGCGGG
AGGAGA**ATG**TGGCCGCCTTGCGGGACGCTCCGGACCCTGGCCTTGGCGCGGTCGCGGGGAGCCCGGGCCTGCAGC
GGGGATGGGGGCGTTTCCTACACGCAGGGCCAGAGTCCGGAGCCGCGGACCCGCGAGTATTTCTACTACGTGGAC
CACCAGGGCCAGCTTTTCCTGGATGATTCCAAAATGAAGAATTTCATCACCTGCTTCAAAGACCCGCAGTTCCTG
GTCACCTTCTTCTCCCGCCTGAGACCCAACCGCAGCGGGCGCTACGAGGCCGCTTTCCCCTTCCTCTCGCCCTGC
GGCAGAGAGCGCAACTTCCTGCGCTGCGAGGACCGGCCGGTGGTCTTCACGCACCTGCTGACCGCGGACCACGGG
CCTCCGCGCCTCTCCTACTGCGGCGGTGGCGAGGCCCTGGCCGTGCCCTTCGAGCCGGCGCGCCTGCTGCCCCTG
GCCGCCAACGGGCGCCTGTACCACCCGGCGCCGGAGCGTGCGGGCGGCGTGGGCCTGGTGCGCTCCGCCCTGGCC
TTCGAGCTCAGCGCCTGCTTCGAGTACGGGCCCGGCGCGCCTGCGCTGCCCTCGCACGTGCGCTGGCAGGGCCGC
CGCCTCGCCCTCACCATGGACCTGGCCCCGCTGCTGCTCGCGGCTCGGTCGCCC**TGA**GCGGGGCCAAGGGAAAGG
CGGGAGGCCGCGGGCGCCTCTCGCCCCGCTCCCCCGGGACTCCACGCCCCGGAAAGCCCGCGCCACCCGCGCTCG
CGGCAGCCTAGTGCGCCTGCGCGCTCGG

FIGURE 4228

CTCCTGCGCACGCGGCCCGGTCGCTGTCGGAAGCGGCTGTGCGGGTGGCGGCCGGCGCGCGGTGGGGC**ATG**GCGG
GTTCGCGGGGTGCGGGGCGCACGGCGGCGCCGAGCGTGCGGCCGGAGAAGCGGCGGTCTGAGCCCGAACTGGAGC
CTGAGCCCGAGCCGGAGCCCCCCCTCCTCTGCACCTCTCCTCTCAGCCACAGCACCGGCAGCGATTCTGGCGTCT
CCGACAGCGAGGAGAGTGTGTTCTCAGGCCTGGAAGATTCCGGCAGTGACAGCAGTGAGGATGATGACGAAGGCG
ACGAGGAGGGAGAGGACGGAGCCCTTGATGACGAGGGCCACAGTGGGATTAAAAAGACCACTGAGGAGCAGGTGC
AGGCCAGCACTCCTTGCCCGAGGACAGAGATGGCGAGCGCCCGGATTGGGGATGAGTATGCGGAGGACAGCTCTG
ATGAGGAGGACATCCGGAACACGGTGGGCAACGTGCCCTTGGAGTGGTACGATGACTTCCCCCACGTGGGCTACG
ACCTGGATGGCAGGCGCATCTACAAGCCCCTGCGGACCCGGGATGAGCTGGACCAGTTCCTGGACAAGATGGACG
ATCCTGACTACTGGCGCACCGTGCAGGACCCGATGACAGGGCGGGACCTGAGACTGACGGATGAGCAGGTGGCCC
TGGTGCGGCGGCTGCAGAGTGGCCAGTTTGGGGATGTGGGCTTCAACCCCTATGAGCCGGCTGTCGACTTCTTCA
GCGGGGACGTCATGATCCACCCGGTGACCAACCGCCCGGCCGACAAGCGCAGCTTCATCCCCTCCCTGGTGGAGA
AGGAGAAGGTCTCTCGCATGGTGCACGCCATCAAGATGGGCTGGATCCAGCCTCGCCGGCCCCGAGACCCCACCC
CCAGCTTCTATGACCTGTGGGCCCAGGAGGACCCCAACGCCGTGCTCGGGCGCCACAAGATGCACGTACCTGCTC
CCAAGCTGGCCCTGCCAGGCCACGCCGAGTCGTACAACCCACCCCCTGAATACCTGCTCAGCGAGGAGGAGCGCT
TGGCGTGGGAACAGCAGGAGCCAGGCGAGAGGAAGCTGAGCTTTTTGCCACGCAAGTTCCCGAGCCTGCGGGCCG
TGCCTGCCTACGGACGCTTCATCCAGGAACGCTTCGAGCGCTGCCTTGACCTGTACCTGTGCCCACGGCAGCGCA
AGATGAGGGTGAATGTAGACCCTGAGGACCTCATCCCCAAGCTGCCTCGGCCGAGGGACCTGCAGCCCTTCCCCA
CGTGCCAGGCCCTGGTCTACAGGGGCCACAGTGACCTTGTCCGGTGCCTCAGTGTCTCTCCTGGGGGCCAGTGGC
TGGTTTCAGGCTCTGACGACGGCTCCCTGCGGCTCTGGGAGGTGGCCACTGCCCGCTGTGTGAGGACTGTTCCCG
TGGGGGGCGTGGTGAAGAGTGTGGCCTGGAACCCCAGCCCCGCTGTCTGCCTGGTGGCTGCAGCCGTGGAGGACT
CGGTGCTGCTGCTGAACCCAGCTCTGGGGGACCGGCTGGTGGCGGGCAGCACAGATCAGCTGTTGAGCGCCTTCG
TCCCGCCTGAGGAGCCCCCCTTGCAGCCGGCCCGCTGGCTGGAGGCCTCAGAGGAGGAGCGCCAAGTGGGCCTGC
GGCTGCGCATCTGCCACGGGAAGCCAGTGACGCAGGTGACCTGGCACGGGCGTGGGGACTACCTGGCCGTGGTGC
TGGCCACCCAAGGCCACACCCAGGTGCTGATTCACCAGCTGAGCCGTCGCCGCAGCCAGAGTCCGTTCCGCCGCA
GCCACGGACAGGTGCAGCGAGTGGCCTTCCACCCTGCCCGGCCCTTCCTGTTGGTGGCGTCCCAGCGCAGCGTCC
GCCTCTACCACCTGCTGCGCCAGGAGCTCACCAAGAAGCTGATGCCCAACTGCAAGTGGGTGTCCAGCCTGGCGG
TGCACCCTGCAGGTGACAACGTCATCTGTGGGAGCTACGATAGCAAGCTGGTGTGGTTTGACCTGGATCTTTCCA
CCAAGCCATACAGGATGCTGAGACACCACAAGAAGGCTCTGCGGGCTGTGGCCTTCCACCCGCGGTACCCACTCT
TTGCGTCAGGCTCGGACGACGGCAGTGTCATCGTCTGCCATGGCATGGTGTACAATGACCTTCTGCAGAACCCCT
TGCTGGTGCCCGTCAAGGTGCTGAAGGGACACGTGCTGACCCGAGATCTGGGAGTGCTGGACGTCATCTTCCACC
CCACCCAGCCGTGGGTCTTCTCCTCGGGGGCAGACGGGACTGTCCGCCTCTTCACC**TAG**CTGTTCTGCCTGCCTG
GGGCTGGGGTGGTCGTGCTGAAGTCAACAGAGCCTTTACCCTGTGCTGCCTGGTGCTCCCACCTTCTTGAATTGG
GGTTGCCAACAAAGCCGCCCCCACCACA

FIGURE 4229

GCCCGTTGCAAGATGGCGGCGGCCATGCTGGGCCCCGGGGCTGTGTGTGCGCAGCGGGCGGCGGCGCGGCCCGGA
AGGCTGGCGCGGCGACGGCGTTAGCCCGGCCCTCGGCCCCTCTTTGCGGCCGCTCCCTCCGCCTATTCCCTCCTT
GCTCGAG**ATG**GATCTGCCCGTGGGCCCCGGCGCGGCGGGGCCCAGCAACGTCCCGGCCTTCCTGACCAAGCTGTG
GACCCTCGTGAGCGACCCGGACACCGACGCGCTCATCTGCTGGAGCCCGAGCGGGAACAGCTTCCACGTGTTCGA
CCAGGGCCAGTTTGCCAAGGAGGTGCTGCCCAAGTACTTCAAGCACAACAACATGGCCAGCTTCGTGCGGCAGCT
CAACATGTATGGCTTCCGGAAAGTGGTCCACATCGAGCAGGGCGGCCTGGTCAAGCCAGAGAGAGACGACACGGA
GTTCCAGCACCCATGCTTCCTGCGTGGCCAGGAGCAGCTCCTTGAGAACATCAAGAGGAAAGTGACCAGTGTGTC
CACCCTGAAGAGTGAAGACATAAAGATCCGCCAGGACAGCGTCACCAAGCTGCTGACGGACGTGCAGCTGATGAA
GGGGAAGCAGGAGTGCATGGACTCCAAGCTCCTGGCCATGAAGCATGAGAATGAGGCTCTGTGGCGGGAGGTGGC
CAGCCTTCGGCAGAAGCATGCCCAGCAACAGAAAGTCGTCAACAAGCTCATTCAGTTCCTGATCTCACTGGTGCA
GTCAAACCGGATCCTGGGGGTGAAGAGAAAGATCCCCCTGATGCTGAACGACAGTGGCTCAGCACATTCCATGCC
CAAGTATAGCCGGCAGTTCTCCCTGGAGCACGTCCACGGCTCGGGCCCCTACTCGGCCCCCTCCCCAGCCTACAG
CAGCTCCAGCCTCTACGCCCCTGATGCTGTGGCCAGCTCTGGACCCATCATCTCCGACATCACCGAGCTGGCTCC
TGCCAGCCCCATGGCCTCCCCCGGCGGGAGCATAGACGAGAGGCCCCTATCCAGCAGCCCCCTGGTGCGTGTCAA
GGAGGAGCCCCCCAGCCCGCCTCAGAGCCCCCGGGTAGAGGAGGCGAGTCCCGGGCGCCCATCTTCCGTGGACAC
CCTCTTGTCCCCGACCGCCCTCATTGACTCCATCCTGCGGGAGAGTGAACCTGCCCCCGCCTCCGTCACAGCCCT
CACGGACGCCAGGGGCCACACGGACACCGAGGGCCGGCTTCCTTCCCCCCCGCCCACCTCCACCCATGAAAAGTG
CTTCAGGGTAGCCTGCCTGGACAAGAATGAGCTCAGTGACCACTTGGATGCTATGGACTCCAACCTGGATAACCT
GCAGACCATGCTGAGCAGCCACGGCTTCAGCGTGGACACCAGTGCCCTGCTGGACCTGTTCAGCCCCTCGGTGAC
CGTGCCCGACATGAGCCTGCCTGACCTTGACAGCAGCCTGGCCAGTATCCAAGAGCTCCTGTCTCCCCAGGAGCC
CCCCAGGCCTCCCGAGGCAGAGAACAGCAGCCCGGATTCAGGGAAGCAGCTGGTGCACTACACAGCGCAGCCGCT
GTTCCTGCTGGACCCCGGCTCCGTGGACACCGGGAGCAACGACCTGCCGGTGCTGTTTGAGCTGGGAGAGGGCTC
CTACTTCTCCGAAGGGGACGGCTTCGCCGAGGACCCCACCATCTCCCTGCTGACAGGCTCGGAGCCTCCCAAAGC
CAAGGACCCCACTGTCTCC**TAG**AGGCCCCGGAGGAGCTGGGCCAGCCGCCCACCCCCACCCCCAGTGCAGGGCTG
GTCTTGGGGAGGCAGGGCAGCCTCGCGGTCTTGGGCACTGGTGGGTCGGCCGCCATAGCCCCAGTAGGACAAACG
GGCTCGGGTCTGGGCAGCACCTCTGGTCAGGAGGGTCACCCTGGCCTGCCAGTCTGCCTTCCCCCAACCCCGTGT
CCTGTGGTTTGGTTGGGGCTTCACAGCCACACCTGGACTGACCCTGCAGGTTGTTCATAGTCAGAATTGTATTTT
GGATTTTTACACAACTGTCCCGTTCCCCGCTCCACAGAGATACACAGATATATACACACAGTGGATGGACGGACA
AGACAGGCAGAGATCTATAAACAGACAGGCTCT

FIGURE 4230

GTCCCTGGGCCGGACGGCGGTGTCCCGGCGTGGCGGGAAGCCGGCACTGGAGCGGGAGCGCACTGGGCGCGGGAC
CGGGAGGCGCAGGGACCGGACGGCTCCCGAGTCGCCCACCTGACGCTAGAAGAAGTCTTCACTTCCCAGGAGAGC
CAAAGCGTGTCTGGCCCTAGGTGGGAAAAGAACTGGCTGTGACCTTTGCCCTGACCTGGAAGGGCCCAGCCTTGG
GCTGA**ATG**GCAGCACCCACGCCCGCCCGTCCGGTGCTGACCCACCTGCTGGTGGCTCTCTTCGGCATGGGCTCCT
GGGCTGCGGTCAATGGGATCTGGGTGGAGCTACCTGTGGTGGTCAAAGAGCTTCCAGAGGGTTGGAGCCTCCCCT
CTTACGTCTCTGTGCTTGTGGCTCTGGGGAACCTGGGTCTGCTGGTGGTGACCCTCTGGAGGAGGCTGGCCCCAG
GAAAGGACGAGCAGGTCCCCATCCGGGTGGTGCAGGTGCTGGGCATGGTGGGCACAGCCCTGCTGGCCTCTCTGT
GGCACCATGTGGCCCCAGTGGCAGGACAGTTGCATTCTGTGGCCTTCTTAGCACTGGCCTTTGTGCTGGCACTGG
CATGCTGTGCCTCGAATGTCACTTTCCTGCCCTTCTTGAGCCACCTGCCACCTCGCTTCTTACGGTCATTCTTCC
TGGGTCAAGGCCTGAGTGCCCTGCTGCCCTGCGTGCTGGCCCTAGTGCAGGGTGTGGGCCGCCTCGAGTGCCCGC
CAGCCCCCATCAACGGCACCCCTGGCCCCCCGCTGGACTTCCTTGAGCGTTTTCCCGCCAGCACCTTCTTCTGGG
CACTGACTGCCCTTCTGGTCGCTTCAGCTGCTGCCTTCCAGGGTCTTCTGCTGCTGTTGCCGCCACCACCATCTG
TACCCACAGGGGAGTTAGGATCAGGCCTCCAGGTGGGAGCCCCAGGAGCAGAGGAAGAGGTGGAAGAGTCCTCAC
CACTGCAAGAGCCACCAAGCCAGGCAGCAGGCACCACCCCTGGTCCAGACCCTAAGGCCTATCAGCTTCTATCAG
CCCGCAGTGCCTGCCTGCTGGGCCTGTTGGCCGCCACCAACGCGCTGACCAATGGCGTGCTGCCTGCCGTGCAGA
GCTTTTCCTGCTTACCCTACGGGCGTCTGGCCTACCACCTGGCTGTGGTGCTGGGCAGTGCTGCCAATCCCCTGG
CCTGCTTCCTGGCCATGGGTGTGCTGTGCAGGTCCTTGGCAGGGCTGGGCGGCCTCTCTCTGCTGGGCGTGTTCT
GTGGGGGCTACCTGATGGCGCTGGCAGTCCTGAGCCCCTGCCCGCCCCTGGTGGGCACCTCGGCGGGGGTGGTCC
TCGTGGTGCTGTCGTGGGTGCTGTGTCTTGGCGTGTTCTCCTACGTGAAGGTGGCAGCCAGCTCCCTGCTGCATG
GCGGGGGCCGGCCGGCATTGCTGGCAGCCGGCGTGGCCATCCAGGTGGGCTCTCTGCTCGGCGCTGTTGCTATGT
TCCCCCCGACCAGCATCTATCACGTGTTCCACAGCAGAAAGGACTGTGCAGACCCCTGTGACTCC**TGA**GCCTGGG
CAGGTGGGGACCCCGCTCCCCAACACCTGTCTTTCCCTCAATGCTGCCACCATGCCTGAGTGCCTGCAGCCCAGG
AGGCCCGCACACCGGTACACTCGTGGACACCTACACACTCCATAGGAGATCCTGGCTTTCCAGGGTGGGCAAGGG
CAAGGAGCAGGCTTGGAGCCAGGGACCAGTGGGGGCTGTAGGGTAAGCCCCTGAGCCTGGGACCTACATGTGGTT
TGCGTAATAAAACATTTGTATTT

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FIGURE 4231

GCTTCCCCGAGCGCCGTCGGTGGTC**ATG**GCTGCCCCAGCCTCCCGGCAGGTCCGACGCAGAGCCCGGGCAGCGCC
GCGGCCCCGCTCGGCCGAGGATTGGTGGTGGGACCGGCTGGCGCCGAGGGGCTCGGGGTACCACCTGCTGCAGTC
CGACAGCATGCTGCTGGTGCTGTCCGAACCAGGCCCCGCCCGGCCCCGCGCACAGCGGCGCGATTCCCGCCGCAC
TCCCCGGCAGCCGCCCCGGGGCCCCAGCGCCGCGGCCAAGCCCAAGGCCGGGCTCAGGTCCGAGGCGGCGGCCGC
GCCCGCACCCGCACCGGCACCCACGCCCACGCCCGAGGAAGGGCCCGACGCGGGCTGGGGAGACCGCATTCCCTT
GGAAATCCTGGTGCAGATTTTCGGGTTGTTGGTGGCGGCGGACGGCCCCATGCCCTTCCTGGGCAGGGCTGCGCG
CGTGTGCCGCCGCTGGCAGGAGGCCGCTTCCCAACCCGCGCTCTGGCACACCGTGACCCTGTCGTCCCCGCTGGT
CGGCCGGCCTGCCAAGGGCGGGGTCAAGGCGGAGAAGAAGCTCCTTGCTTCCCTGGAGTGGCTTATGCCCAATCG
GTTTTCACAGCTCCAGAGGCTGACCCTCATCCACTGGAAGTCTCAGCTGGTAGGTGAGTGCTGTCCTCGGCTCAC
TTTCCTCAAGCTCTCCGGCTGCCACGGTGTGACTGCTGACGCTCTGGTCATGCTAGCCAAAGCCTGCTGCCAGCT
CCATAGCCTGGACCTACAGCACTCCATGGTGGAGTCCACAGCTGTGGTGAGCTTCTTGGAGGAGGCAGGGTCCCG
AATGCGCAAGTTGTGGCTGACCTACAGCTCCCAGACGACAGCCATCCTGGGCGCACTGCTGGGCAGCTGCTGCCC
CCAGCTCCAGGTCCTGGAGGTGAGCACCGGCATCAACCGTAATAGCATTCCCCTTCAGCTGCCTGTCGAGGCTCT
GCAGAAAGGCTGCCCTCAGCTCCAGGTGCTGCGGCTGTTGAACCTGATGTGGCTGCCCAAGCCTCCGGGACGAGG
GGTGGCTCCCGGACCAGGCTTCCCTAGCCTAGAGGAGCTCTGCCTGGCGAGCTCAACCTGCAACTTTGTGAGCAA
CGAGGTCCTGGGCCGCCTACTCCACGGCTCTCCCAACCTGCGCTTACTGGATCTTCGTGGCTGTGCGCGCATCAC
GCCGGCTGGCCTTCAGGATCTGCCATGTCGGGAGCTGGAGCAGCTTCATCTGGGCCTGTATGGCACGTCAGACCG
GCTGACTCTAGCCAAGGAGGGCAGCCCCTTTTTGACCCAGAAGTGGTGCCATACACTGCGAGAACTGGACTTGAG
TGGCCAGGGGTTCAGTGAGAAGGACCTGGAGCAGGCCCTGGCTGCCTTCTTAAGCACCCCTGGGGGCTCACACCC
AGCCCTGTGCTCTCTTAACCTCAGGGGCACCCGGGTCACACCAAGCACTGTCAGCTCTGTGATCAGCAGCTGCCC
GGGCCTGCTTTACCTCAACCTGGAGTCCTGCCGGTGCCTTCCCCGGGGTTTGAAGCGGGCCTACCGGGGCCTGGA
GGAAGTCCAGTGGTGTCTGGAGCAGGTGCTCACCAGCCCCTCACCCAGC**TAG**GCAGCCACAGACCTGGGACACCT
CAGCCAGCTTGCCCACCCTCCACCTTTGCCCAATTTCAGATATTTGAGCATTTTGTTAAAATAAAACATTTTTAG
G

FIGURE 4232

GAAGCTCTGGGAAGGGGATGCCCCCGAGGGTGCCAGTCCAGCTAGCTGCCCCACCCCTCAGGCCCAGCCTGGCCC
CCAAGCTCCCCACTCTGGTGCCCCGAGCAGCCCTGTGGGCAAGCAGCCGCCGCC**ATG**GCCGAGCACCTGGAGCTG
CTGGCAGAGATGCCCATGGTGGGCAGGATGAGCACACAGGAGCGGCTGAAGCATGCCCAGAAGCGGCGCGCCCAG
CAGGTGAAGATGTGGGCCCAGGCTGAGAAGGAGGCCCAGGGCAAGAAGGGTCCTGGGGAGCGTCCCCGGAAGGAG
GCAGCCAGCCAAGGGCTCCTGAAGCAGGTCCTCTTCCCTCCCAGTGTTGTCCTTCTGGAGGCCGCTGCCCGAAAT
GACCTGGAAGAAGTCCGCCAGTTCCTTGGGAGTGGGGTCAGCCCTGACTTGGCCAACGAGGACGGCCTGACGGCC
CTGCACCAGTGCTGCATTGATGATTTCCGAGAGATGGTGCAGCAGCTCCTGGAGGCTGGGGCCAACATCAATGCC
TGTGACAGTGAGTGCTGGACGCCTCTGCATGCTGCGGCCACCTGCGGCCACCTGCACCTGGTGGAGCTGCTCATC
GCCAGTGGCGCCAATCTCCTGGCGGTCAACACCGACGGGAACATGCCCTATGACCTGTGTGATGATGAGCAGACG
CTGGACTGCCTGGAGACTGCCATGGCCGACCGTGGCATCACCCAGGACAGCATCGAGGCCGCCCGGGCCGTGCCA
GAACTGCGCATGCTGGACGACATCCGGAGCCGGCTGCAGGCCGGGGCAGACCTCCATGCCCCCCTGGACCACGGG
GCCACGCTGCTGCACGTCGCAGCCGCCAACGGGTTCAGCGAGGCGGCTGCCCTGCTGCTGGAACACCGAGCCAGC
CTGAGCGCTAAGGACCAAGACGGCTGGGAGCCGCTGCACGCCGCGGCCTACTGGGGCCAGGTGCCCCTGGTGGAG
CTGCTCGTGGCGCACGGGGCCGACCTGAACGCAAAGAGGTGCGGGCCAAGCTTCTGGAAC**TGA**AACACAAGCACG
ACGCCCTCCTGCGCGCCCAGAGCCGCCAGCGCTCCTTGCTGCGCCGCCGCACCTCCAGCGCCGGCAGCCGCGGGA
AGGTGGTGAGGCGGGTGAGCCTAACCCAGCGCACCGACCTGTACCGCAAGCAGCACGCCCAGGAGGCCATCGTGT
GGCAACAGCCGCCGCCCACCAGCCCGGAGCCGCCCGAGGACAACGATGACCGCCAGACAGGCGCAGAGCTCAGGC
CGCCGCCCCCGGAGGAGGACAACCCCGAAGTGGTCAGGCCGCACAATGGCCGAGTAGGGGGCTCCCCAGTGCGGC
ATCTATACTCCAAGCGACTAGACCGGAGTGTCTCCTACCAGCTGAGCCCCCTGGACAGCACCACCCCCCACACCC
TGGTCCACGACAAGGCCCACCACACCCTGGCTGACCTGAAGCGCCAGCGAGCTGCTGCCAAGCTGCAGCGACCCC
CACCTGAGGGGCCCGAGAGCCCTGAGACAGCTGAGCCTGGCCTGCCTGGTGACACGGTGACCCCCCAGCCTGACT
GTGGCTTCAGGGCAGGCGGGGACCCACCCCTGCTCAAGCTCACAGCCCCGGCGGTGGAGGCTCCCGTGGAGAGGA
GGCCGTGCTGCCTGCTCATGTGAGGCTGTTGCTCAGCATGCAGGGGCCCTGTCTCGGGCACAGCCCAAGGCTGCC
TCCCCACGGTGCGTGCCCTGGTGCTGCGGGTGCAGCACGGAAACCCCGGCTTCTACTGTACAGGACACTGGCCCC
TCTCAGGTCAGAAGACATGCCTGGAGGGATGTCTGGCTGCAAAGACTATTTTTATCCTGCAACTCTTGATAAAGG
GCTGTTTTGCCATGG

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FIGURE 4233

GGCGCCGAGTCTGGGCGCGGGGACGCGGGGCGGCGCGAAGCGGGGCCCTCTGCCGCCCCGCGCTCCCATGTACGC
CTTTTACTCGTTGCTCATCTACATCTTCTACAGCCTCTTCCGCAGGGATGGTGGCGCCGCGGCGGCCGCGGAGCC
CGGGGACCCCGCCCAGAGAGCCCGCAAGCCCCGGGGTCGCCGGCGCCCAGACCTGCCCGCGCCAGAGCTGTGGAC
CGAGCTGACCGGCCTGGCCGCCAGCTCCGAGCCTGAGGATGGGTCGGAAGGCGCAGCCGAGGGTCGCGCGGCCGC
GGTGTCCCTGGAAGAGGCCCTACTGCGCCTCGCCGAGTTCCTCTCCGTCCAGCTGGGGGCGGAAGAGAGCTGCGG
GGGCCCGGCGGACCTGGGCCAGTCTGGCGAGGTCCCCTCACTGTTGACAGTGACCAGTCAGCTCTTGGCCCTTCT
GGCATGGCTTCGAAGCCCCAGGGGGAGGCAGGCCCTGCTCCAGGGGACTCAGCCAGCCCCTCGGGTCCGGCCCCC
CTCTCCAGATGGATCCACATCCCAAGAAGAAAGCCCTTCCCACTTCACCGCAGTCCCAGGCGAGCCACTGGGGGA
TGAGACCCAGGGACAGCAGCCCCTCCAGTTGGAGGAGGATCAGAGGGCGTGGCAGCGGCTGGAGCAGCTCATCCT
GGGACAGGAGGAGCTGAAGCAGCAGCTGGAACAGCAGGAGGAGGAGTTGGGTCGACTGCGCCTGGGCGTGGGCGA
CGGACTCAGAGAAAAGGGTTCAGCATCTGACTCTGGAGAACGAGGCCCTGAAGCAGAGCCTGAGTCTC**ATG**CGGG
ACCTCCTGCTGCACTGGGGCCCCGGGCCCCCCCATCAGGGCTCCGCAGGAGGAGGCGGAGGCATTGCTAGAGCTCC
AGGGCCGGCTTCAGGAGGCCCAAGACACCACAGAAGCCCTCCGAGCCCAGCTGGGGGTGCAGGAGGTGCAGCTGC
AGGGCCTTCAAGGGGCCCTCCAGCAGCTCCAGCAGGAGACGGAGCAGAACTGCAGGCGTGAGCTACAGCAGATGC
ATGGGCAGCTGGCAGGACTTCGGGCACGGATGGCCAGCCTGCGTCAGGGCTGCGGGGACCTCCGAGGTTTGGTCA
GCACCTTTACCCAGAGCTGTCAGGGTTCGCTGAGTGAGGCCCGGGGCCAGGTGTCCTGGGCCTTGGGGGCACTGT
CATCTGGAGGGCCTGGCACTCAGCTCCCTGAGGGGCAGCAAGGGCCCCCAGCCGGATGCCCAGGGCGGCTGCCAG
AACTCAAGGGAAATATCCGTGTGCTGTGTCGGCTGAGGCCAGGGACATCTTCTAGCCTTGTGAGTGTGGAGCCTG
GCCCAGGGGGCACCGTCACCACCTGCTACCGGGGGCGCCATCGTCGATTCCGCCTAGACTGGGTCTTCCCTCCAG
ACGCCAGCCAGGAGGAGGTCTTCAGAGAGCTGGAACCTGCGGTGCTGTCCTGCCTCCGAGGCTACAGCGTCTGCA
TCTTCACCTATGGCCAGACAGGCACCGGGAAGACCTACAGCATGGAGGGCCCTCCTGAGGACCCCGGCATAGTTC
CTAGGGCGCTGCAGTCGCTGTTCCGGGAGATGGGGGCCGGCCGGCAGCACCGGGTGACACTCAGCATGGTGGAGA
TCTACAATGAGGCTGTCAGGGACCTCCTTGCTCCAGGGCCTCCCGAGCGCCTGGCCGTGAGGCAGGGCCCAGAAG
GCCAGGGCGGGATCCAGGTGGCTGGCCTCACCCACTGGGACGTGCCCAACCTGGAGACATTGCACCAGATGCTGA
AACTGGGGAGGAGCAACCGGGCCACCGCCGCCACCGCCATGAACCAGCGCAGCTCCCGCTCGCATGCCCTGGTCA
CGCTGACGCTGCGCGCGGCGTCTCCACCGCGCGCTCCAGGCACCGCAGGCACGCTGCACCTGGTGGACCTGGCGG
GATCCGAACGCGCACGGAAGGCAGGGGCGGTCGGCCCGCCGCGGAGAGACCCAGACGGCGCCCGGCGCCTGCGGG
AGGCCCAGACCATAAACCGCTCGCTGCTGGCGCTAGGAGGCGTGATGGCCGCACTGCGGGCCCACCGGCCGCACG
TGCCCTTCCGCGACTCGCAGCTCACGCGACTGCTGCAGCCGGCGCTGGGCCCAGGCACCACCGCGGTGCTGCTGC
TGCAGGTGGGCGCCGGGGCGGGGCAGGTGTGTGCGTGCCGGTCGCCGCCCACCCGGGCCCGCCCACCCGCGCCTC
TTGCCCGCAGATCTCCACGCGGCCGGAGGATCTCGGGGAGACAGTCTGCTCCCTCAAGTTCGCCGACCGAGTGGG
TCAAGTGGAGCTGGGGCCAGCCCGGCGCCGCAGGGTCCCGCGCTCCTCCGGGACGCCTTCTTCCCTCAGCACCGA
CACTCCGCTCACCGGGACCCCCTGCACCCCTACGCCGTCCCCTGGCAGTCCTCCATGCCCCAGTCCCGACAACGG
CTCGGGCTCGGCTCTCGCGCCCGCAGAGGGCCTGCCCCTCTAGTCCTGGGTCGCGGCCCTGCCCATGGGGTCTCA
GGCCAGGTCTCTGCTGGCAGAGGCGG**TAG**TAAAGTCCCTGTACCCCGTCTCCCAGGGCACAAGCTCCCTAGCCTC
TTTGGATCCATTGCCCCTGAGCTCCCAGAGTCACCCCTCCACCTCCGCAGCCAGTGAAGTGTGTTGTGCCTGCTG
AAGTGATCACCCCCCGCCCCCAGCCCTGCATCAGGCCACAGGTCTTGGCTTTCTCCTTATCACCATTTGCTGTTA
TCACGGCACACAGCAGGGAATCCCAGGCCCCCCCGCCAAGTGGTTACCCAAGTCACCACTCCTGACCCAAAAATC
AGGCATGGCATTAAAACGTTGCAAATTCCTTTACTGTTATCCCCCCCACCACCAGGACCATGTAGGGTGCAGTCT
TTACTCCCTAACCCGTTTCCCGAAAAAGGTGCTACCTCCTTTCCAGACAGATGAGAGAGGGCAGGACTTCAGGCT
GGATCCACCACTGGGCTCTCCCTCCCCAGCCTGGAGCACGGGAGGGGAGGTGACGCCTGGTGACTGATGGATGGG
TATGGGCTGAGAAGAGGGGACTAGGAAGGGCTATTCCAGGCTCAGGCCCTGCTCCTGCAGGCTTTGCCGCTGAGT
GTAGGAAAAACAGGCATGGCAGACCAGGGTGAGGGTTGTGCCCAGCTGGGCCACGGCCATGCGTGGGGTGGCCCA
ATAAACACCGTGGACTCCC

FIGURE 4234

CGGAGCAGTGGTCGGAGATGTGGCGACCGGCTGGAGTGCAGTGTCTCAATCTTGGCTCACTGCAATCTCCGCCTA
CCAAGATCAAGCGATTCTCCTGTCTCAGCCTCCCAACTACCTGGGATTACAGGTGCAGCTCTGTCATTTCCACTC
TGCTCTGCTGCACAGAAGGCAGAAGCCCTGGCCGTCCCCTGCTGTGTTCTTCAGGAGAAACGTCAGGGGCCTTCC
TCCAAGGTTCTCCAGCCCCACACCCCTGTGGAGGAAGGTGCTCTCCACCGCGGTAGTGGGGGCGCCCCTGCTCCT
CGGAGCCCGCT**ATG**TCATGGCAGAGGCACGGGAGAAGAGGAGGATGCGGCTCGTGGTGGATGGCATGGGGCGCTT
TGGCAGACCTTGCCTCCCCAGGCCTTGGAGACCCACCCTCCTGGTGTCCTCCTCTCTTCCTAGTGGACCTCAGGC
TGCAGGTCTCTGAAGGTCGGCCTGCAGATCTCCCTGGACTACTGGTGGTGCACCAATGTTGTCCTTCGAGGGGTG
GAAGAGAACAGCCCAGGCTACTTGGAGGTGATGTCTGCGTGTCACCAGCGGGCGGC**TGA**TGCCCTGGTGGCAGGG
GCCATCAGCAACGGGGGCCTCTACGTGAAGCTGGGCCAGGGGCTGTGCTCCTTCAACCACCTGCTTCCCCCCGAG
TATACCCGGACCCTGCGCGTGCTAGAGGACAGGGCCCTCAAGCGGGGCTTCCAGGAG

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FIGURE 4235

GGCGGGCTGGTGCTGTGTCCACTGCAATGCCTCTCCTCTCCCCAGATAGCAAAAAAGCTCATCAAGGCCTTTGCT
GAGCAGATATTTTACACCGGCTTCATCCACTCGGACCCACATCCTGGCAACGTTCTGGTGCGGAAAGGCCCGGAC
GGGAAAGCGGAGCTGGTGCTGCTGGACCACGGGCTCTACCAGTTCCTGGAGGAGAAGGACCGCGCAGCCCTCTGC
CAGCTGTGGCGGGCCATCATCCTGCGGGACGACGCCGCC**ATG**AGGGCGCACGCAGCCGCACTGGGGGTGCAAGAC
TACCTCCTGTTAGCCGAGATGTTCATGCAGCGCCCCGTGCGCCTGGGGCAGCTGTGGGGTTCGCACCTACTGAGC
CGCGAAGAGGCGGCCTACATGGTGGACATGGCCCGCGAGCGCTTCGAGGCCGTCATGGCGGTGCTCAGGGAGCTG
CCGCGGCCCATGCTGCTGGTGCTGCGCAACATCAACACCGTGCGCGCTATCAACGTGGCCCTCGGCGCCCCCGTG
GACCGCTACTTCCTTATGGCTAAAAGGGCTGTCCGGGGCTGGAGCCGCCTGGCGGGCGCCACGTATCGGGGTGTC
TACGGCACCAGCCTCCTGCGCCACGCCAAGGTCGTCTGGGAGATGCTCAAGTTTGAAGTGGCGCTCAGGCTGGAG
ACCTTGGCCATGCGGCTGACCGCCCTCCTGGCTCGTGCTCTGGTCCACCTGAGCCTCGTGCCCCCAGCGGAGGAG
CTCTACCAGTACCTGGAGACC**TAG**GGTGCAGCCGCCCAGGGCCGGCGGGGCCCTTTTCACCTTGGGCTGACGGAG
GTGGCGGGGCTAGAGGTGTAGACACCCCGAGCCCCGTGGGCACTCGCACTGGGGGGCTGTGACAGCAGCTGGGCC
AGGAGGCCGTGTAATGACCACACACTCCTCTCAAGCAAAAAA

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FIGURE 4236

ATGGTCACCATGGAGCCCGGGTACCTGTTCCTGGGTTCTCGCCTGGGCAATTCCCTCCTCCTCAAGTACACGGAG
AAGCTGCAGGAGCCCCCGGCCAGTGCTGTCCGTGAGGCTGCCGACAAGGAAGAGCCTCCCTCAAAGAAGAAGCGA
GTGGATGCGACGGCCGGCTGGTCAGCTGCGGGTAAGTCGGTGCCGCAGGATGAGGTGGACGAGATTGAAGTGTAC
GGCAGCGAGGCCCAGTCGGGAACACAGCTGGCCACCTACTCCTTTGAGGTGTGTGACAGCATCCTGAACATTGGA
CCCTGTGCCAATGCCGCCGTGGGCGAACCTGCCTTCCTCTCTAAAGAGTTTCAGAACAGCCCCGAGCCGGACCTG
GAGATTGTGGTTTGCTCCGGCCACGGGAAGAACGGGGCTTTGTCGGTGCTGCAGAAGAGCATCCGGCCCCAGGTG
GTGACAACATTTGAGCTTCCCGGCTGCTATGACATGTGGACAGTCATCGCCCCGGTGCGTAAGGAGGAGGAGGAC
AATCCCAAGGGGGAGGGCACAGAGCAGGAACCCAGCACCACCCCTGAAGCAGACGACGACGGCCGCAGACACGGA
TTCCTGATTCTGAGCCGGGAAGACTCCACCATGATCCTGCAGACGGGGCAGGAGATCATGGAGCTGGACACCAGT
GGCTTCGCCACTCAGGGCCCCACGGTCTTTGCTGGGAACATCGGGGACAACCGCTACATTGTCCAAGTGTCACCA
CTGGGCATCCGCCTGCTGGAAGGAGTGAATCAGCTGCACTTCATCCCCGTGGACCTGGGCGCCCCCATCGTGCAG
TGCGCCGTGGCCGACCCCTATGTGGTCATCATGAGTGCCGAGGGCCACGTCACCATGTTCCTGCTGAAGAGTGAC
TCCTACGGTGGCCGCCACCACCGCCTGGCGCTGCACAAGCCCCCGCTGCACCATCAGTCCAAGGTGATTACGCTG
TGCCTGTACCGAGACCTCAGCGGCATGTTCACCACTGAGAGCCGCCTGGGTGGGGCCCGTGACGAGCTCGGGGGC
CGCAGTGGCCCGGAGGCCGAGGGCCTGGGCTCAGAGACTAGCCCCACAGTGGATGACGAGGAGGAGATGCTGTAT
GGGGATTCGGGCTCCCTCTTCAGCCCCAGCAAGGAGGAGGCCCGAAGAAGCAGCCAGCCCCCTGCTGACCGGGAC
CCTGCACCCTTCCGGGCAGAGCCTACCCACTGGTGCCTGCTGGTGCGGGAGAATGGCACCATGGAGATCTACCAG
CTTCCCGACTGGCGGCTGGTGTTCCTGGTGAAGAACTTCCCTGTGGGGCAGCGGGTCCTTGTGGACAGCTCCTTT
GGACAGCCCACTACACAGGGCGAGGCCCGCAGGGAGGAGGCCACGCGCCAGGGGGAGCTGCCCCTCGTCAAGGAG
GTGCTGCTGGTGGCGCTGGGCAGCCGCCAGAGCAGGCCCTACCTGCTGGTGCATGTGGACCAAGAGCTGCTTATC
TACGAGGCCTTCCCCCACGACTCTCAGCTCGGCCAGGGCAATCTCAAAGTCCGCTTTAAGAAGGTCCCTCACAAC
ATCAACTTCCGTGAGAAGAAGCCAAAGCCATCCAAGAAGAAAGCAGAAGGTGGCGGCGCAGAGGAGGGGGCTGGG
GCCCGGGGCCTCGTGGCGCGTTTCCGCTACTTCGAGGATATTTATGGCTACTCAGGGGTCTTCATCTGCGGCCCC
TCCCCTCACTGGCTCTTGGTGACCGGCCGAGGGGCTCTGCGGCTACACCCCATGGCCATCGACGGCCCGGTCGAC
TCTTTCGCTCCATTCCACAATGTCAACTGTCCCCGCGGCTTCCTGTACTTCAACAGACAGGGCGAGCTGAGGATC
AGTGTCCTGCCTGCCTACCTGTCCTATGATGCCCCATGGCCTGTCAGGAAGATCCCGCAGCGTTGCACGGCCCAC
TATGTGGCTTACCACGTGGAGTTTAAGGTGTATGCTGTGGCCACCAGCACCAACACGCCGTGTGCCCGCATCCCA
CGCATGACTGGCGAGGAGAAGGAGTTTGAGACCATCGAGAGAGATGAGCGGTACATCCACCCCCAGCAGGAGGCC
TTCTCCATCCAGCTCATCTCCCCGGTCAGCTGGGAGGCTATTCCCAATGCCAGGATCGAGCTGCAGGAGTGGGAG
CATGTGACCTGCATGAAGACAGTGTCTCTGCGCAGTGAGGAGACCGTGTCGGGCCTCAAAGGCTACGTGGCCGCC
GGGACCTGCCTCATGCAGGGGGAGGAGGTCACGTGCCGAGGGCGGATCTTGATCATGGATGTGATTGAGGTGGTG
CCCGAGCCTGGCCAGCCCTTGACCAAGAACAAGTTCAAAGTCCTTTACGAGAAGGAGCAGAAGGGGCCCGTGACC
GCCCTGTGCCACTGCAATGGCCACCTGGTGTCGGCCATCGGCCAGAAGATTTTCCTGTGGAGCCTGCGGGCCAGC
GAGCTGACGGGCATGGCCTTCATCGACACGCAGCTCTACATACACCAGATGATCAGCGTCAAGAACTTCATCCTG
GCAGCCGACGTCATGAAGAGCATTTCGCTGCTGCGCTACCAGGAGGAAAGCAAGACGCTGAGCCTGGTGTCGCGG
GATGCCAAGCCCCTGGAGGTGTACAGCGTGGACTTCATGGTGGACAATGCCCAGCTGGGTTTTCTGGTGTCTGAC
CGCGACCGCAACCTCATGGTGTACATGTACCTGCCCGAAGCCAAGGAGAGTTTCGGGGGCATGCGCCTGCTGCGT
CGGGCAGACTTCCACGTGGGTGCCCACGTGAACACGTTTTGGAGGACCCCGTGCCGGGGGGCCACTGAAGGGCTC
AGCAAAAAGTCGGTCGTGTGGGAGAATAAGCACATCACGTGGTTTGCCACCCTGGACGGCGGCATCGGGCTGCTG
CTGCCCATGCAGGAGAAGACCTACCGGCGGCTGCTGATGCTGCAGAACGCGCTGACCACCATGCTGCCACACCAC
GCCGGCCTCAACCCCCGCGCCTTCCGGATGCTGCACGTGGACCGCCGCACCCTCCAGAATGCCGTGCGCAACGTG
CTGGATGGGGAGCTGCTCAACCGCTACCTGTACCTGAGCACCATGGAGCGCAGCGAGGTAGCCAAGAAGATCGGC
ACCACACCAGACATAATCCTGGACGACTTGCTGGAGACGGACCGCGTCACCGCCCACTTCTAGCCCCGTGGATGC
CGTCACCACCAGCACACGGAACTACCTCCCACCCCCTTTTTGTACAAAACACAAGGAAAAACATTTTTTGC

FIGURE 4237

CGCTCGCTCCGGCAACTGGAGGCACGGCAGAGGAGGCAGGGCCGACGGCGGTGGGCGGTGCGTTGCGCAGGCTCG
GGCCTCCCGCTCGCCGCTGCGTTGGGACCGCGCAGCCCGGTGTGTGCAGTGGCCTCAGGGATCCGGAAAGTCTAG
GACTGAACTTCTCCTAACATCCAGTAATGGGGACCTGGAACCTGGGCGTACTAGAGTGCCGCGCGTAGGGCTCCA
GGTCGCTGGCTTCTGCGCTTTCTTCCTCTCCAAAGTTGAGTATCTCCTATCTGTGTCCTCATACATACTGCCGCC
TGAGGTGCC**ATG**GCCCCCAAGCCGGGGGCCGAGTGGAGCACAGCCCTGTCCCATCTGGTGCTGGGAGTGGTGTCT
CTGCACGCAGCCGTGAGCACAGCCGAGGCAAGTCGAGGGGCTGCTGCTGGCTTCCTGCTCCAGGTCTTGGCTGCC
ACCACCACGCTGGCCCCAGGGCTGAGCACACATGAAGACTGCCTTGCTGGAGCCTGGGTGGCCACCGTCATCGGC
CTTCCCCTTCTGGCCTTCGATTTCCACTGGGTGAATGGGGACCGCTCCTCTGCCAACCTGCTCCTGGGAGGAGGC
ATGGTGCTGGCAGTGGCTGGCGGCCACCTCGGCCCTGAGGGCCGCTCTGTGGCTGGTCAGGCAATGCTGTTGGTG
GTCGCAGTGACCATCCTCATTGTAGCTGTCTTCACGGCCAACACTTATGGGATGTGGGGGGGGGCGATGCTGGGT
GTGGCAGGCCTCCTGAGCCGGCTGGAGGAGGACAGGCTGCTGCTGCTACCGAAGGAGGATGTCTGTCGCTGGGCC
TTGGCTGTAGGCAGCTGGGCTTACTGCCGGGCCCTGCATACACAGCGCCTCCAGTGGGAG**TGA**CAGTTGGATACA
GCCAGGCAGGGTTTCTGCCCTGCCGAACACTTTCCCTCCCACCTGCCTGCTCCTGGCGCCTTCTCCCTAGGGGTA
GACTCTTCTGCCTACTGAAGTGGGTTTGCTGCACATTGACTGGTCAGGGGCAGAGTCTGGGTGCTGTCCTTTGGC
CACGTGTGGGGACTTGTCTAGACCAGAATGAAAGGGACAGGGTCCCAGACACGTTTGGGGGTCCTGATTCTGGGC
TGGACACGGTTGTGGATCCAGAGAAGAGGCCTAGTCTCCAATAAATCTTAGGAATTTTGCAGG

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FIGURE 4238

CTAATGGTCACTTG**ATG**TGCGCTGGCTGTTTTATCCACCTACTAGCAGATGCCCGGCTGAAGGAGGAGCAGGCCA
CGTGCCCCAATTGTCGTTGTGAGATCAGTAAGAGCCTCTGCTGCCGGAACCTGGCCGTGGAGAAAGCCGTGAGCG
AGCTGCCTTCAGAGTGTGGCTTCTGCCTGCGCCAGTTTCCCCGCTCCCTCCTGGAGAGGCACCAGAAAGAGGAAT
GCCAGGACAGGGTAACCCAGTGCAAGTACAAACGCATCGGCTGCCCATGGCACGGCCCCTTCCATGAGCTGACGG
TGCACGAGGCTGCGTGCGCCCACCCGACCAAGACAGGCAGTGAGCTGATGGAGATCCTGGATGGGATGGACCAGA
GCCACCGCAAGGAGATGCAGCTGTACAACAGCATCTTCAGCCTGCTCAGCTTCGAGAAGATTGGCTACACAGAGG
TCCAGTTCCGGCCGTACCGCACAGACGACTTCATCACGCGCCTGTACTATGAGACGCCCAGGTTCACAGTGCTGA
ACCAGACGTGGGTCCTGAAGGCTCGAGTCAACGACTCGGAGCGTAACCCCAACCTGTCCTGCAAGCGTACGCTCT
CCTTCCAGCTCCTCCTCAAGAGCAAGGTCACGGCACCGCTGGAGTGCTCCTTCCTGCTGCTCAAGGGCCCCTACG
ACGACGTGAGGATCAGCCCCGTCATCTACCACTTTGTCTTCACCAACGAGAGCAACGAGACGGACTACGTGCCAC
TGCCCATCATTGACTCCGTGGAGTGCAACAAGCTGCTGGCTGCCAAGAACATCAACCTGCGGCTCTTCCTGTTCC
AGATACAGAAG**TAG**GGCGGGGCCTCAGGATGTCCGAGGAGCCCACGGGCGGCATCCCAGCACCGCTGCCCTGTCC
ACCTGGCTGGCAGCTGCTTCACAGGACTATCTGATCACTTTAGCAAAGGAGGAGAACAAACGAAGCCAACACAGG
GCAAGTCTGCATGCGTGCACGACGGGGCCCCCGCCTCCGGCTCACCCCACCGACCCCTGCCTCCCCTCCTTCCGA
GGGCCGCCAGAGGCTGGGCTGACCCGAAGAGGAGACGGTGCACCAGGCGCCCCGAGGCTAAGAGACGGTGGCAGC
AAGGAGGCCGAGAGGCACAGCGACCCTGCCCCAGCCCTTCTGTGCAGTCAGGCGGCGGTGCTGCTCCATCCCTGC
GGGTTCCGGCGGGGCGCGGGGGCCTTGCTGACATCAGACGGGATATCCGAATATCTGATAGCAATTAAAAGGCAG
CCTTGTTTCGTACTTTCTGTTTTGTTCGAGGGGAAGGCATGGCTGTGAATGGACAGCGTGGGGGCTTTGGTTTGG
CCTGGGGGTCAGAGCCTGCCCCGCCCCCATCTGTGTGCCCGCACACGTCCCCCGAGGAAAGACTCAGAGACACTG
CCTCCCCCTACGCTCTGTCATGGGGTCTTGAGACTGAGGCTTGGGCAGGAAGATCCAGGTAGGGTCGGGGCTGCC
CTGGCCAACCGGCCGCTCCCAGGGAGACAGGACTCAGCCACCAGGGCTCAGCAGGCATTTTCGGAAAGCAGGGTG
AAATTGTCTCTTCCCAGGAAAAAGATTAAACTCCTTGCAGGCTCTTGGATAAGTTACAC

FIGURE 4239

ATGCAATCAGTGTGGGAAGGCCTTCAGTCAGAGCTCAAGCCTTTTCCTCCATCATCGGGTTCATACTGGAGAGAA
ACCCTATGTATGTAATGAATGCGGCAGAGCCTTTGGTTTTAACTCTCATCTTACTGAACACGTAAGGATTCACAC
AGGAGAAAAACCCT**ATG**TTTGTAATGAGTGCGGCAAAGCCTTTCGTCGGAGTTCCACTCTTGTTCAGCATCGAAG
AGTTCACACTGGGGAGAAGCCCTACCAGTGCGTTGAATGTGGGAAAGCTTTCAGCCAGAGCTCCCAGCTCACCCT
ACATCAGCGAGTTCACACTGGAGAGAAGCCCTATGACTGTGGTGACTGTGGGAAGGCCTTCAGCCGGAGGTCAAC
CCTCATTCAGCATCAGAAAGTTCACAGCGGAGAGACTCGTAAGTGCAGAAAACATGGTCCAGCCTTTGTTCATGG
CTCCAGCCTCACAGCAGATGGACAGATTCCCACTGGAGAGAAGCACGGCAGAGCCTTTAACCATGGTGCAAATCT
CATTCTGCGCTGGACAGTTCACACTGGTGAGAAATCCTTTGGATGTAATGAATATGGAAAAGCTTTCAGTCCCAC
CTCACGACCCACTGAAGATCAGA**TAA**TGCATGCTGGGGAAAAGCCCTATAAATGTCAAGAATGTGGAAACGCCTT
CAGTGGAAAGTCAACCCTTATTCAACATCAGGTAACTCACACTGGTCAGAAACCATGTCATTGCAGTGTGTATGG
GAAAGCCTTCAGCCAGAGTTCACAGCTCACACCACCTCAGCAGACTTGTGTTGGAGAGAAACCTGCTTTAAATGA
TGGCTCTAAAAGATACTTTATTCATATCAAGAAGATTTTCCAAGAAAGACATTTTTAATGTGATAAATGCAGAAG
ACAGTTTAGCAACTGTTCACTTGACATTAGAAGATAAGATGGCATAATGAAAGATATATAAGGTCTAAATATTAC
TGGCAAAGTAAAATAAATAGTTCAGATGACTACTAAAGTCAAAGTCATTAAATCTGGAAGTAAACACGAGAATTC
ATTCTGGGAAATCAGGCTGTCTGTGTAAAGGTTACTGCTGTGCTCAGGAGTTGAACCGTGTGGTGCTGTATCCGG
ATACTCATGACGAATGGATGGAGGGCGTGAAAAGTGAGCCCAGCTGGTGCTCTGGGTCTACCCTACCTGACATCC
TTCCAGTCTTATCCTTTGTTTCCTATCCAGGCCCAGGCTTGTGGCTGAGAACATCCACTTTCAGTCCCATATACC
TGCCTCCAAGTGTGGTACAGAGAACTTGGGCCTGCTGGGGGGCGCTTAGCCTTACTCTCTCCACCACCTCTCCCAC
CAACCCCCAGATGAACTGCAGGTAGACGTTTCTTCCTTGCTTGGAGCCCCAGTTTTTGCATTTCATTTTCATTAA
AATGAAAGGTGGTTTGGTTTTGGTTCTAAGGAGCTCTACAGTTTAACAGAGAGAGGGACCTTAGGGGCCAAGAAA
GCAGGGGCCTACCAAGTATCTCCACTTTTGAAAATTGTAATTACTGATAAAAAATTTTTTAAAGGCAGGTTTATT
GAAGCATAATTTATAAACAATAAAATTTACTCTTTTTAGTGT

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FIGURE 4240

GCGGCATGGGCAGTATCCGCCGCCATCCTCTTCCGTGAGGCGCGCTGAGACCCGGACCGGCCCTCCTGAGAGGAT
GCCGGTGCGGGCGCCCGCGGAGAGGGACCCGTCGCC**ATG**GGCCGTGTGATCCGTGGACAGAGGAAGGGCGCCGGG
TCTGTGTTCCGCGCGCACGTGAAGCACCGTAAAGGCGCTGCGCGCCTGCGCGCCGTGGATTTCGCTGAGCGGCAC
GGCTACATCAAGGGCATCGTCAAGGACATCATCCACGACCCGGGCCGCGGCGCGCCCCTCGCCAAGGTGGTCTTC
CGGGATCCGTATCGGTTTAAGAAGCGGACGGAGCTGTTCATTGCCGCCGAGGGCATTCACACGGGCCAGTTTGTG
TATTGCGGCAAGAAGGCCCAGCTCAACATTGGCAATGTGCTCCCTGTGGGCACCATGCCTGAGGGTACAATCGTG
TGCTGCCTGGAGGAGAAGCCTGGAGACCGTGGCAAGCTGGCCCGGGCATCAGGGAACTATGCCACCGTTATCTCC
CACAACCCTGAGACCAAGAAGACCCGTGTGAAGCTGCCCTCCGGCTCCAAGAAGGTTATCTCCTCAGCCAACAGA
GCTGTGGTTGGTGTGGTGGCTGGAGGTGGCCGAATTGACAAACCCATCTTGAAGGCTGGCCGGGCGTACCACAAA
TATAAGGCAAAGAGGAACTGCTGGCCACGAGTACGGGGTGTGGCCATGAATCCTGTGGAGCATCCTTTTGGAGGT
GGCAACCACCAGCACATCGGCAAGCCCTCCACCATCCGCAGAGATGCCCCTGCTGGCCGCAAAGTGGGTCTCATT
GCTGCCCGCCGGACTGGACGTCTCCGGGGAACCAAGACTGTGCAGGAGAAAGAGAAC**TAG**TGCTGAGGGCCTCAA
TAAAGTTTGTGTTTATGCC

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FIGURE 4241

GCGGACTCGGGTTGCCCTCGGTCCGAGTGATCCCTGGTCGCTTCCTTAGCCCTCCCGCCTTCGGCATTGGGGTCC
CCGCGTCCCCCGGGCCTCCAGGCGGGAAAGCGCGGGGGCTTTGCGGGGCCTTGAGCGCCTGGTGTGGGAGGTGGT
CGAGCCCAGCCACCCTCCCCCGCGGCGGCGCGAGGTCTCTCGGCCAGAACACGTGGATGCCCACCCACCACTGAG
CCTC**ATG**GAGGTGGTAACATTTGGCGATGTGGCTGTGCACTTCTCTCGGGAGGAGTGGCAGTGTCTGGACCCTGG
CCAGAGGGCCCTCTACAGGGAAGTGATGCTGGAGAACCACAGCAGTGTGGCTGGACTAGCAGGATTCCTGGTTTT
CAAGCCTGAGCTGATCTCTCGGCTGGAGCAGGGAGAAGAGCCATGGGTCCTCGACCTGCAGGGAGCAGAGGGGAC
AGAGGCACCAAGGACCTCCAAGACAGATTCTACGATTAGGACTGAAAATGAGCAGGCCTGTGAGGACATGGACAT
CCTAAAATCAGAATCCTATGGGACAGTGGTCAGAATCTCCCCACAGGACTTTCCTCAGAATCCTGGCTTTGGAGA
CGTTTCTGATTCTGAGGTCTGGTTAGACAGTCATCTGGGCAGTCCCGGGCTGAAAGTGACAGGCTTTACCTTCCA
AAATAACTGTTTGAATGAGGAGACTGTGGTTCCCAAGACCTTCACCAAGGACGCACCCCAGGGATGTAAGGAGCT
GGGAAGCAGCGGCCTGGATTGTCAGCCTCTTGAAAGTCAGGGAGAGAGTGCGGAAGGGATGTCCCAGAGATGCGA
GGAGTGTGGCAAAGGCATCAGAGCCACTTCAGATATCGCTCTGCATTGGGAAATTAATACACAGAAAATTAGCAG
ATGTCAAGAATGCCAAAAAAAGTTATCTGACTGCTTGCAGGGGAAACATACAAATAACTGCCATGGAGAGAAGCC
GTACGAATGTGCAGAGTGTGGGAAAGTCTTCAGGCTCTGCTCGCAGCTTAATCAGCATCAGAGAATCCACACGGG
AGAGAAACCCTTTAAATGCACTGAGTGTGGAAAAGCCTTCCGCCTGAGCTCAAAACTTATTCAGCATCAAAGAAT
CCACACTGGGGAGAAGCCCTACAGATGTGAGGAATGTGGAAAAGCTTTTGGTCAGAGCTCAAGCCTCATCCACCA
TCAGAGAATCCACACAGGAGAGAGGCCCTATGGTTGTCGTGAGTGTGGGAAAGCCTTCAGCCAGCAGTCGCAGCT
GGTTAGACACCAGAGAACTCACACTGGGGAGAGGCCCTACCCTTGCAAGGAGTGTGGGAAGGCCTTCAGCCAGAG
CTCCACCCTAGCCCAGCATCAAAGGATGCATACTGGGGAGAAAGCTCAAATTCTAAAAGCCTCAGACAGTCCAAG
CCTTGTTGCACATCAGAGAATTCACGCTGTAGAGAAACCATTTAAGTGTGATGAGTGTGGGAAAGCTTTTAGGTG
GATCTCTCGCCTGAGTCAGCATCAGCTGATTCACACTGGAGAGAAGCCTTATAAATGCAACAAGTGTACAAAAGC
CTTTGGTTGTAGTTCACGGCTTATTCGCCATCAGAGAACTCACACTGGAGAAAAACCATTTAAATGTGATGAGTG
TGGCAAAGGCTTTGTTCAGGGCTCACACCTTATTCAGCATCAGCGAATCCACACTGGAGAGAAACCCTATGTGTG
TAATGACTGTGGAAAAGCCTTCAGTCAGAGTTCCAGCCTTATTTACCATCAGAGAATCCATAAAGGAGAGAAGCC
CTACGAATGCCTCCAATGCGGAAAAGCCTTCAGTATGAGCACACAGCTTACAATACATCAAAGGGTTCACACTGG
AGAGAGGCCCTATAAATGTAATGAATGTGGGAAAGCCTTCAGTCAAAACTCAACCCTTTTCCAACACCAGATAAT
TCATGCAGGGGTGAAGCCCTATGAGTGCAGTGAGTGTGGAAAAGCCTTCAGCCGGAGCTCATATCTTATTGAACA
CCAGAGAATACACACTAGGGCCCAGTGGTTTTACGAATATGGGAATGCCCTGGAAGGGTCCACCTTTGTGAGCCG
TAAAAAGGTTAATACTATAAAGAAACTGCATCAGTGTGAAGACTGTGAGAAGATATTTAGGTGGCGTTCACACCT
AATTATACACCAGAGAATTCACACCGGGGAGAAGCCTTATAAATGCAATGACTGTGGCAAAGCTTTTAATCGTAG
CTCAAGGCTTACCCAGCATCAAAAAATTCACATGGGA**TAG**ACCACTTACATATAAATGTGTATATATGTGAATAA
ACCTATAGCCTTAACTT

FIGURE 4242

GGGCGCTTCCGGGGACCAGGCCCGCTTTTGGCTGCATCAGCCGGGGATTGCCGGCGCCAGGTGCTGGGGGCGACT
CGGACAGCGGGAGCGTGGGGTGGAGTAGGATGGAGTCTCCCTCCCGAGCTGGGGGTGTGGGCCTAGGAAAGGCTG
CTTCGCCGCTGTGTTCGGAGAGCTCTGGATACTGCGGGGCTTTTCCGCGGAGGAGCGCCCGCCGGCATCTGCATC
TGGGACCGACCTCCTGGGCTGGCTGATCAAAGAGGAAGCAGCAGCA**ATG**TCTGCTGTGGGGGCTGCAACTCCATA
CCTGCATCATCCTGGTGATAGTCACAGTGGCCGAGTGAGTTTCTTGGGGGCCCAGCTTCCTCCAGAGGTGGCAGC
AATGGCCCGGCTACTAGGGGACCTAGACAGGAGCACGTTCAGAAAGTTGCTGAAGTTTGTGGTCAGCAGCCTGCA
GGGGGAGGACTGCCGAGAGGCTGTGCAGCGTCTTGGGGTCAGCGCCAACCTGCCGGAGGAGCAGCTGGGTGCCCT
GCTGGCAGGCATGCACACACTGCTCCAGCAGGCCCTCCGTCTGCCCCCCACCAGCCTGAAGCCTGACACCTTCAG
GGACCAGCTCCAGGAGCTCTGCATCCCCCAAGACCTGGTCGGGGACTTGGCCAGCGTGGTATTTGGGAGCCAGCG
GCCCCTCCTTGATTCTGTGGCCCAGCAGCAGGGGGCCTGGCTGCCGCATGTTGCTGACTTTCGGTGGCGGGTGGA
TGTAGCAATCTCCACCAGTGCCCTGGCTCGCTCCCTGCAGCCGAGCGTCCTGATGCAGCTGAAGCTTTCAGATGG
GTCAGCATACCGCTTTGAGGTCCCCACAGCCAAGTTCCAGGAGCTGCGGTACAGCGTGGCCCTGGTCCTAAAGGA
GATGGCAGATCTGGAGAAGAGGTGTGAGCGCAGACTGCAGGAC**TGA**CCCCTCACTTGACCAGTCCCATTCAGATC
CGGCTTGGACAGGCACCTGAGATGGTGCCAAAGTGCAGCTGACTCTTCCCACGACAGCCCTGCCCTTCCCATGAG
GCAGGCTCTTCAAGCGATATCTGAAGTGGCTCTGATGCCTTTGCCACACTCCTCGCATCTCTGGGACATCCCTTC
CGCACTCTCTCCCTGACTTTCAAGAGGCTGACAATCCAGGCCGCTGCTTCCCAGCTCCTTACATCCCTGGGGTGC
GTCCTTGGTGAAGGTCTTGGGAACCACAGTCTCCTCATTCAAACAGTTATTTTGGAAGGTAAAGCCTGTCACTTT
CAGCCCGGGACTGCCCAGATGACTGTCTAACCAGACCTCAGAATCAGAAACGTCTCCAAAGCCAGGATTCTGAGG
AAAGTCCTGTGGGGAGATTCTGACCACTGTCCCATAGGATTCTGATTTTAGGATGTCCATGTCCTCACAGGCCTG
CTCATTTTCAGTCCTAATCGTAGAATCTGAAATAAACAGGAACAAAGACGTTCCTTAGGCCCTGTGCTCAGAGAA
ATGATAAGACTACAAATGCGGGGGCCAGGGCTCAAGGCTCCCAGGATAGTTGCACTGAGCACTGTGAGGCCCCAG
GTGGAAACGTGCAAGAGAAGGCAGAGCCTTTGACAGTTCTCAAAAGTGGTTTCATACTTTTTACCTTGTTCACTC
ATTCGATAGCAATGAATGTTCATTGCTGGGGCAGGGCTGGGTTCTGTGAGCAGAGAGGTCCATCCTACAGGCACT
GGTGTGGGGCACAGTCCATGCAGAGGCAAAGGAGACAAAGCAAGACCAGAAGGGTGGGAAGCTACCACGGATTGG
GCTGCGGGGTCAGGGGCTCCAGCATCCGAGCTGGCGAGGAAACAGTACAGGGTCTGAGTTCTGAATGGAGAGCAT
GGATTGTGATGAGGAAACAAGGCTGGAAGAGCTGCCAAGGGACTTACTACGTGAGCTCAGAAGAGCACTGGGCAC
CTAGGCCGTTCATGGCTACTCCCTGGGGTGGGCTTCTCTGAGCAGGACCCAGCCCCCTCAGCTGCCTCCTGGCTG
CTGCTGCCAACTTGCACCTGGCCACCTCCCCTGCTTCTCCCTGGGCTGTGCGTGGCCACCTCTAAGACCACACTG
ACTTCTTCCCTGGGGCTGCAAGTTTCTGGAGGCCCCCAGGAGGCCTTCCAGACATCTGCGTTCCTTCTGGACTCT
CCAAGTAAGCACAGGCTTCTGTCCTACTCTGTAACCCTAGAGGGCACCTCTGCTGAGGTCAGACATCTCCTTGAT
GTCTGTGATCAAACCATGACAGGATGCAACCACAACACACGGCTATGATCATGACAACCACGGTCCCCACCACGA
CACAATCACGTTCACAACCACAACCACGCAGCCACAGGGTTTCACCGTGTTGGCCAGGATGGTCTCGATCTCCTG
ACCTCGTGATCCGCCCACCTCGGCCTCCCAAATCGCTAGAATGGCCGGCGTGAGCCACCATGCCCGGCTCCACGG
CCCCTACTTTTCACAACTTTGGACTGTCCAACTTGCTTCCCGAGGCCCCTACAAGCCGGTGGCCTCTGTAGGACC
TGGTCCTGCCCTGCTGCAGGAGTGACGGTGATGACCCAGCAGCAACTGAAAGGGAGGTGAGGGGCTTCCTTTCTG
CAGCTGAGATGCACGCAGACCCATCTCCCTTGTCATGCTGGGCAGCACACCGGCTAAGCAGGGGAGCAGAGCACC
AGGCCGGGCGCCTGCCCAGCAGGAGCTGATGCCGGAGGCAGTGGGTGCCCTGGTTAGGGCTGAGGACCCCAAGAT
AGGCTGAAGTCCTAACTTGAAGCACCTCAGAATGTGACCTTGTTTGGAAACACAGTCGTTGCAGATTAATTAGTC
ACCATGAGGTCACTGGGGTGGCCCCTAACCCACCATGACTGGTGTCCTTCTAAGGAGATGGCCACATGAACACAG
ACACGCAGGGAGAAGGCAGCCGTGTGAAGGAGTCGGAGATCAGAGTGAGGGACGCATCCACAAGCCAAGGAACCC
AAGGACTGCCAGAAAACCACCAGCTGCCCGGAGAGGCAGGACAGGATCCTTCCCTAAAGCCTTCACAGGGGGGCA
CGGCCCTGCTTGCTGACCCCCCGGTTTCAGATTTCCGGCCTCCACAGCTGTGAGACAATAAATTTCTGTTGTTTT

FIGURE 4243

GCGCAGACGGGGCGGGGCAGCCCTTTGTCTGAAGGTGCTGCGGGATGCCGTTCCTTCGCGCGTGAGGCTGCGGCT
CTGACGCCCCATAGGCTCCTTCAATTTCCGTGATCCTCGGAGTCCCCAGGAGACCAGGTG**ATG**GCAGCAGCCAGA
CTCCTGCCAGTGCCGGCAGGACCCCAGGCCAAGCTGACCTTCGAGGATGTGGCTGTGCTCCTCTCCCAGGATGAA
TGGGACCGCCTGTGCCCTGCTCAGAGGGGTCTCTACAGAAATGTGATGATGGAAACCTATGGGAATGTAGTCTCA
TTGGGACTTCCAGGATCCAAGCCTGACATAATCTCCCAGCTGGAGCGAGGGGAAGATCCCTGGGTCCTGGACAGG
AAGGGGGCTAAGAAGAGCCAGGGCCTGTGGAGTGACTACTCAGATCCTGTGCCCCAGAAACCG**TGA**GATGTCTCA
ATTCCCATGCAGGCAAAGGAGGGGAGCTTCACACTCAGCAGACCTCATAGCTGTTACACCAATGGCTTCTGCTGT
GGCTATCCCATGTCCGGTGTGAGGAGACAGTGGTATGACTCATCCCTTTGTGTCCGGAATTGGTGGGTTCTTGGT
CTCACTGACGTCAAGAATGAAGCTGCGGACCCTCGTGGTACAGCCAGCTCTAATGGCTTCCATTTGGCGTTTCCA
ACCATAATAGCCTTTACCAGTCAAGGAGCCAATGTGGGGG

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FIGURE 4244

CGGTAACTACCCCGGCTGCGCACAGCTCGGCGCTCCTTCCCGCTCCCTCACACACCGGCCTCAGCCCGCACCGGC
AGTAGAAG**ATG**GTGAAAGAAACAACTTACTACGATGTTTTGGGGGTCAAACCCAATGCTACTCAGGAAGAATTGA
AAAAGGCTTATAGGAAACTGGCTTTGAAGTACCATCCTGATAAGAACCCAAATGAAGGAGAGAAGTTTAAACAGA
TTTCTCAAGCTTACGAAGTTCTCTCTGATGCAAAGAAAAGGGAATTATATGACAAAGGAGGAGAACAGGCAATTA
AAGAGGGTGGAGCAGGTGGCGGTTTTGGCTCCCCCATGGACATCTTTGATATGTTTTTTGGAGGAGGAGGAAGGA
TGCAGAGAGAAAGGAGAGGTAAAAATGTTGTACATCAGCTCTCAGTAACCCTAGAAGACTTATATAATGGTGCAA
CAAGAAAACTGGCTCTGCAAAAGAATGTGATTTGTGACAAATGTGAAGGTAGAGGAGGTAAGAAAGGAGCAGTAG
AGTGCTGTCCCAATTGCCGAGGTACTGGAATGCAAATAAGAATTCATCAGATAGGACCTGGAATGGTTCAGCAAA
TTCAGTCTGTGTGCATGGAGTGCCAGGGCCATGGGGAGCGGATCAGTCCTAAAGATAGATGTAAAAGCTGCAACG
GAAGGAAGATAGTTCGAGAGAAGAAAATTTTAGAAGTTCATATTGACAAAGGCATGAAAGATGGCCAGAAGATAA
CATTCCATGGTGAAGGAGACCAAGAACCAGGACTGGAGCCAGGCGATATTATCATTGTGTTAGATCAGAAGGACC
ATGCTGTTTTTACTCGACGAGGAGAAGACCTTTTCATGTGTATGGACATACAGCTCGTTGAAGCACTGTGTGGCT
TCCAGAAGCCAATATCTACTCTTGACAACCGAACCATCGTCATCACCTCTCATCCAGGTCAGATTGTCAAGCATG
GAGATATCAAGTGTGTACTAAATGAAGGCATGCCAATTTATCGTAGACCATATGAAAAGGGTCGCCTAATCATCG
AATTTAAGGTAAACTTTCCTGAGAATGGCTTTCTCTCTCCTGATAAACTGTCTTTGCTGGAAAAACTCCTACCCG
AGAGGAAGGAAGTGGAAGAGACTGATGAGATGGACCAAGTAGAACTGGTGGACTTTGATCCAAATCAGGAAAGAC
GGCGCCACTACAATGGAGAAGCATATGAGGATGATGAACATCATCCCAGAGGTGGTGTTCAGTGTCAGACCTCT**T**
AATGGGCCAGTGAATAACACTCACTGCTGGCATTTAATGTGCAGTAGTGAATGAGTGAAGGACTGTAATCATAAT
ATGCTCACTACTTGCTCTTGTTTTTGTTTTAATAAACTATAGTAGTGTTTTAAAAAGTTAAATGAAGAATAAACG
CAAATATAAAAGCTC

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FIGURE 4245

GAGGGAGAGCTGGGGCCTGCTCCCGGAGAGATACGGCT**ATG**TCGATCGAAATCGAATCTTCGGATGTGATCCGCC
TTATTATGCAGTACTTGAAGGAGAACAGTTTACATCGGGCGTTAGCCACCTTGCAGGAGGAGACTACTGTGTCTC
TGAATACTGTGGACAGCATTGAGAGTTTTGTGGCTGACATTAACAGTGGCCATTGGGATACTGTGTTGCAGGCTA
TACAGTCTCTGAAATTGCCAGACAAAACCCTCATTGACCTCTATGAACAGGTTGTTCTGGAATTGATAGAGCTCC
GTGAATTGGGTGCTGCCAGGTCACTTTTGAGACAGACTGATCCCATGATCATGTTAAAACAAACACAGCCAGAGC
GATATATTCATCTGGAGAACCTTTTGGCCAGGTCTTACTTTGATCCTCGTGAGGCATACCCAGATGGAAGTAGCA
AAGAAAAGAGAAGAGCAGCAATTGCCCAGGCCTTAGCTGGCGAAGTCAGTGTGGTGCCTCCATCTCGTCTCATGG
CATTGCTGGGACAGGCACTGAAGTGGCAGCAGCATCAGGGATTGCTTCCTCCTGGTATGACCATAGATTTGTTTC
GAGGCAAGGCAGCTGTCAAAGATGTGGAAGAAGAAAAGTTTCCTACACAACTGAGCAGGCATATTAAGTTTGGTC
AGAAATCACATGTGGAGTGTGCTCGATTTTCTCCAGATGGTCAGTATTTGGTCACTGGGTCTGTTGATGGATTCA
TTGAAGTATGGAACTTTACTACTGGAAAAATCAGAAAGGATCTTAAGTACCAGGCCCAAGATAACTTTATGATGA
TGGATGATGCTGTCCTCTGCATGTGTTTCAGCAGAGATACAGAAATGTTAGCAACTGGGGCCCAAGATGGAAAAA
TCAAGGTGTGGAAGATTCAGAGTGGACAATGTTTAAGGAGATTTGAGAGGGCACACAGTAAGGGTGTCACCTGTC
TAAGCTTTTCTAAGGATAGCAGTCAGATCCTTAGTGCTTCTTTTGACCAGACAATTAGAATTCATGGTTTAAAAT
CTGGGAAAACCCTGAAGGAATTTCGTGGCCATTCCTCCTTTGTTAACGAAGCAACATTTACACAAGATGGACATT
ACATTATTAGTGCATCCTCTGATGGCACTGTAAAGATCTGGAATATGAAGACCACAGAATGTTCAAATACCTTTA
AATCCCTGGGCAGCACCGCAGGGACAGATATTACCGTCAACAGTGTGATTCTACTTCCTAAAAACCCTGAGCACT
TTGTGGTGTGCAACAGATCAAACACGGTGGTCATCATGAACATGCAGGGGCAGATTGTCAGAAGCTTCAGTTCTG
GTAAAAGAGAAGGTGGGGACTTTGTTTGCTGTGCCCTCTCTCCCCGTGGTGAATGGATCTACTGTGTAGGGGAGG
ACTTTGTGCTCTACTGTTTCAGTACAGTCACTGGCAAACTGGAGAGAACTTTGACAGTGCACGAGAAGGATGTGA
TTGGTATTGCACATCACCCTCATCAGAACCTGATTGCTACCTACAGTGAAGATGGACTCCTAAAGCTCTGGAAAC
CA**TAA**TTCAACTTTTCTTTTTAAATCAGCTCGAAAGCATGTACTTAAATGAAGCATATTCATGTAATGTGCTTTT
TTTTTTTTTTGCCAGCTTTTCTAAGCAAATAGATTGTCTGAATTAGTCACAG

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FIGURE 4246A

GCGGCCCGCGGGCGGGTCGCCTCCCCTCCTGTAGCCCACACCCTTCTTAAAGCGGCGGCGGGAAG**ATG**AGGCTTC
GGGAGCCGCTCCTGAGCGGCAGCGCCGCGATGCCAGGCGCGTCCCTACAGCGGGCCTGCCGCCTGCTCGTGGCCG
TCTGCGCTCTGCACCTTGGCGTCACCCTCGTTTACTACCTGGCTGGCCGCGACCTGAGCCGCCTGCCCCAACTGG
TCGGAGTCTCCACACCGCTGCAGGGCGGCTCGAACAGTGCCGCCGCCATCGGGCAGTCCTCCGGGGAGCTCCGGA
CCGGAGGGGCCCGGCCGCCGCCTCCTCTAGGCGCCTCCTCCCAGCCGCGCCCGGGTGGCGACTCCAGCCCAGTCG
TGGATTCTGGCCCTGGCCCCGCTAGCAACTTGACCTCGGTCCCAGTGCCCCACACCACCGCACTGTCGCTGCCCG
CCTGCCCTGAGGAGTCCCCGCTGCTTGTGGGCCCCATGCTGATTGAGTTTAACATGCCTGTGGACCTGGAGCTCG
TGGCAAAGCAGAACCCAAATGTGAAGATGGGCGGCCGCTATGCCCCCAGGGACTGCGTCTCTCCTCACAAGGTGG
CCATCATCATTCCATTCCGCAACCGGCAGGAGCACCTCAAGTACTGGCTATATTATTTGCACCCAGTCCTGCAGC
GCCAGCAGCTGGACTATGGCATCTATGTTATCAACCAGGCGGGAGACACTATATTCAATCGTGCTAAGCTCCTCA
ATGTTGGCTTTCAAGAAGCCTTGAAGGACTATGACTACACCTGCTTTGTGTTTAGTGACGTGGACCTCATTCCAA
TGAATGACCATAATGCGTACAGGTGTTTTTCACAGCCACGGCACATTTCCGTTGCAATGGATAAGTTTGGATTCA
GCCTACCTTATGTTCAGTATTTTGGAGGTGTCTCTGCTCTAAGTAAACAACAGTTTCTAACCATCAATGGATTTC
CTAATAATTATTGGGGCTGGGGAGGAGAAGATGATGACATTTTTAACAGATTAGTTTTTAGAGGCATGTCTATAT
CTCGCCCAAATGCTGTGGTCGGGAGGTGTCGCATGATCCGCCACTCAAGAGACAAGAAAAATGAACCCAATCCTC
AGAGGTTTGACCGAATTGCACACACAAAGGAGAÇAATGCTCTCTGATGGTTTGAACTCACTCACCTACCAGGTGC
TGGATGTACAGAGATACCCATTGTATACCCAAATCACAGTGGACATCGGGACACCGAGC**TAG**CGTTTTGGTACAC
GGATAAGAGACCTGAAATTAGCCAGGGACCTCTGCTGTGTGTCTCTGCCAATCTGCTGGGCTGGTCCCTCTCATT
TTTACCAGTCTGAGTGACAGGTCCCCTTCGCTCATCATTCAGATGGCTTTCCAGATGACCAGGACGAGTGGGATA
TTTTGCCCCCAACTTGGCTCGGCATGTGAATTCTTAGCTCTGCAAGGTGTTTATGCCTTTGCGGGTTTCTTGATG
TGTTCGCAGTGTCACCCCAGAGTCAGAACTGTACACATCCCAAAATTTGGTGGCCGTGGAACACATTCCCGGTGA
TAGAATTGCTAAATTGTCGTGAAATAGGTTAGAATTTTTCTTTAAATTATGGTTTTCTTATTCGTGAAAATTCGG
AGAGTGCTGCTAAAATTGGATTGGTGTGATCTTTTTGGTAGTTGTAATTTAACAGAAAAACACAAAATTTCAACC
ATTCTTAATGTTACGTCCTCCCCCCACCCCCTTCTTTCAGTGGTATGCAACCACTGCAATCACTGTGCATATGTC
TTTTCTTAGCAAAAGGATTTTAAAACTTGAGCCCTGGACCTTTTGTCCTATGTGTGTGGATTCCAGGGCAACTCT
AGCATCAGAGCAAAAGCCTTGGGTTTCTCGCATTCAGTGGCCTATCTCCAGATTGTCTGATTTCTGAATGTAAAG
TTGTTGTGTTTTTTTTTAAATAGTAGTTTGTAGTATTTTAAAGAAAGAACAGATCGAGTTCTAATTATGATCTAG
CTTGATTTTGTGTTGATCCAAATTTGCATAGCTGTTTAATGTTAAGTCATGACAATTTATTTTTCTTGGCATGCT
ATGTAAACTTGAATTTCCTATGTATTTTTATTGTGGTGTTTTAAATATGGGGAGGGGTATTGAGCATTTTTTAGG
GAGAAAAATAAATATATGCTGTAGTGGCCACAAATAGGCCTATGATTTAGCTGGCAGGCCAGGTTTTCTCAAGAG
CAAAATCACCCTCTGGCCCCTTGGCAGGTAAGGCCTCCCGGTCAGCATTATCCTGCCAGACCTCGGGGAGGATAC
CTGGGAGACAGAAGCCTCTGCACCTACTGTGCAGAACTCTCCACTTCCCCAACCCTCCCCAGGTGGGCAGGGCGG
AGGGAGCCTCAGCCTCCTTAGACTGACCCCTCAGGCCCCTAGGCTGGGGGGTTGTAAATAACAGCAGTCAGGTTG
TTTACCAGCCCTTTGCACCTCCCCAGGCAGAGGGAGCCTCTGTTCTGGTGGGGGCCACCTCCCTCAGAGGCTCTG
CTAGCCACACTCCGTGGCCCACCCTTTGTTACCAGTTCTTCCTCCTTCCTCTTTTCCCCTGCCTTTCTCATTCCT
TCCTTCGTCTCCCTTTTTGTTCCTTTGCCTCTTGCCTGTCCCCTAAAACTTGACTGTGGCACTCAGGGTCAAACA
GACTATCCATTCCCCAGCATGAATGTGCCTTTTAATTAGTGATCTAGAAAGAAGTTCAGCCGAACCCACACCCCA
ACTCCCTCCCAAGAACTTCGGTGCCTAAAGCCTCCTGTTCCACCTCAGGTTTTCACAGGTGCTCCCACCCCAGTT
GAGGCTCCCACCCACAGGGCTGTCTGTCACAAACCCACCTCTGTTGGGAGCTATTGAGCCACCTGGGATGAGATG
ACACAAGGCACTCCTACCACTGAGCGCCTTTGCCAGGTCCAGCCTGGGCTCAGGTTCCAAGACTCAGCTGCCTAA
TCCCAGGGTTGAGCCTTGTGCTCGTGGCGGACCCCAAACCACTGCCCTCCTGGGTACCAGCCCTCAGTGTGGAGG
CTGAGCTGGTGCCTGGCCCCAGTCTTATCTGTGCCTTTACTGCTTTGCGCATCTCAGATGCTAACTTGGTTCTTT
TTCCAGAAGCCTTTGTATTGGTTAAAAATTATTTTCCATTGCAGAAGCAGCTGGACTATGCAAAAAGTATTTCTC
TGTCAGTTCCCCACTCTATACCAAGGATATTATTAAAACTAGAAATGACTGCATTGAGAGGGAGTTGTGGGAAAT
AAGAAGAATGAAAGCCTCTCTTTCTGTCCGCAGATCCTGACTTTTCCAAAGTGCCTTAAAAGAAATCAGACAAAT
GCCCTGAGTGGTAACTTCTGTGTTATTTTACTCTTAAAACCAAACTCTACCTTTTCTTGTTGTTTTTTTTTTTTT
TTTTTTTTTTTTTTTGGTTACCTTCTCATTCATGTCAAGTATGTGGTTCATTCTTAGAACCAAGGGAAATACTGC
TCCCCCCATTTGCTGACGTAGTGCTCTCATGGGCTCACCTGGGCCCAAGGCACAGCCAGGGCACAGTTAGGCCTG

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FIGURE 4246B

GATGTTTGCCTGGTCCGTGAGATGCCGCGGGTCCTGTTTCCTTACTGGGGATTTCAGGGCTGGGGGTTCAGGGAG
CATTTCCTTTTCCTGGGAGTTATGACCGCGAAGTTGTCATGTGCCGTGCCCTTTTCTGTTTCTGTGTATCCTATT
GCTGGTGACTCTGTGTGAACTGGCCTTTGGGAAAGATCAGAGAGGGCAGAGGTGGCACAGGACAGTAAAGGAGAT
GCTGTGCTGGCCTTCAGCCTGGACAGGGTCTCTGCTGACTGCCAGGGGCGGGGGCTCTGCATAGCCAGGATGACG
GCTTTCATGTCCCAGAGACCTGTTGTGCTGTGTATTTTGATTTCCTGTGTATGCAAATGTGTGTATTTACCATTG
TGTAGGGGGCTGTGTCTGATCTTGGTGTTCAAAACAGAACTGTATTTTTGCCTTTAAAATTAAATAATATAACGT
GAATAAATGACCCTATCTTTGT

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FIGURE 4247

TAGTCGGGCGGGGTTGTGAGACGCCGCGCTCAGCTTCCATCGCTGGGCGGTCAACAAGTGCGGGCCTGGCTCAGC
GCGGGGGGGCGCGGAGACCGCGAGGCGACCGGGAGCGGCTGGGTTCCCGGCTGCGCGCCCTTCGGCCAGGCCGGG
AGCCGCGCCAGTCGGAGCCCCCGGCCCAGCGTGGTCCGCCTCCCTCTGGGCGTCCACCTGCCCGGAGTACTGCCA
GCGGGCATGACCGACCCACCAGGGGCGCCGCCGCCGGCGCTCGCAGGCCGCGG**ATG**AAGAAGAAAACCCGGCGCC
GCTCGACCCGGAGCGAGGAGTTGACCCGGAGCGAGGAGTTGACCCTGAGTGAGGAAGCGACCTGGAGTGAAGAGG
CGACCCAGAGTGAGGAGGCGACCCAGGGCGAAGAGATGAATCGGAGCCAGGAGGTGACCCGGGACGAGGAGTCGA
CCCGGAGCGAGGAGGTGACCAGGGAGGAAATGGCGGCAGCTGGGCTCACCGTGACTGTCACCCACAGCAATGAGA
AGCACGACCTTCATGTTACCTCCCAGCAGGGCAGCAGTGAACCAGTTGTCCAAGACCTGGCCCAGGTTGTTGAAG
AGGTCATAGGGGTTCCACAGTCTTTTCAGAAACTCATATTTAAGGGAAAATCTCTGAAGGAAATGGAAACACCGT
TGTCAGCACTTGGAATACAAGATGGTTGCCGGGTCATGTTAATTGGGAAAAAGAACAGTCCACAGGAAGAGGTTG
AACTAAAGAAGTTGAAACATTTGGAGAAGTCTGTGGAGAAGATAGCTGACCAGCTGGAAGAGTTGAATAAAGAGC
TTACTGGAATCCAGCAGGGTTTTCTGCCCAAGGATTTGCAAGCTGAAGCTCTCTGCAAACTTGATAGGAGAGTAA
AAGCCACAATAGAGCAGTTTATGAAGATCTTGGAGGAGATTGACACACTGATCCTGCCAGAAAATTTCAAAGACA
GTAGATTGAAAAGGAAAGGCTTGGTAAAAAAGGTTCAGGCATTCCTAGCCGAGTGTGACACAGTGGAGCAGAACA
TCTGCCAGGAGACTGAGCGGCTGCAGTCTACAAACTTTGCCCTGGCCGAG**TGA**GGTGTAGCAGAAAAAGGCTGTG
CTGCCCTGAAGAATGGCGCCACCAGCTCTGCCGTCTCTGGAGCGGAATTTACCTGATTTCTTCAGGGCTGCTGGG
GGCAACTGGCCATTTGCCAATTTTCCTACTCTCACACTGGTTCTCAATGAAAAATAGTGTCTTTGTGATTTTGAG
TAAAGCTCCTATCTGTTTT

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FIGURE 4248

GAAGTCGAGGCGGGAGTGACTCTGCTTCCGTTTCTGGTTTTGCTCTAGTGTTTGGGTTTCTTCGCGGCTGCTCAA
G**ATG**AACCGACTCTTCGGGAAAGCGAAACCCAAGGCTCCGCCGCCCAGCCTGACTGACTGCATTGGCACGGTGGA
CAGTAGAGCAGAATCCATTGACAAGAAGATTTCTCGATTGGATGCTGAGCTAGTGAAGTATAAGGATCAGATCAA
GAAGATGAGAGAGGGTCCTGCAAAGAATATGGTCAAGCAGAAAGCCTTGCGAGTTTTAAAGCAAAAGAGGATGTA
TGAGCAGCAGCGGGACAATCTTGCCCAACAGTCATTCAACATGGAACAAGCCAATTATACCATCCAGTCTTTGAA
GGACACCAAGACCACGGTTGATGCTATGAAACTGGGAGTAAAGGAAATGAAGAAGGCATACAAGCAAGTGAAGAT
CGACCAGATTGAGGATTTACAAGACCAGCTAGAGGATATGATGGAAGATGCAAATGAAATCCAAGAAGCACTGAG
TCGCAGTTATGGCACCCCAGAACTGGATGAAGATGATTTAGAAGCAGAGTTGGATGCACTAGGTGATGAGCTTCT
GGCTGATGAAGACAGTTCTTATTTGGATGAGGCAGCATCTGCACCTGCAATTCCAGAAGGTGTTCCCACTGATAC
AAAAAACAAGGATGGAGTTCTGGTGGATGAATTTGGATTGCCACAGATCCCTGCTTCA**TAG**ATTTGCATCATTCA
AGCATATCTTGTAAAACAAACACATATTATGGGACTAGGAAATATTTATCTTTCCAAATTTGCCATAACAGATTT
AGGTTTCTTTCCTTTCTTTGAAGGAAAGTTTAATTACATTGCTCTTTTATTTTTTCCATTAAGAGACTCATTGCT
TGGGAAATGCTTTCTTCGTACTAAAATTTGATTCCTTTTTTTCTTATGAAAAACGAACTCAGTTTAAAAGTATTT
TTAGCTCGTATGACTTGTTTTCATTCATTAATAATAATTTGAAATAAAACTAAGGAAATGGAATCTTAAAAGTCT
ATGACAGTGTAACTCTACAGTCTCAAAATGACCTGATAAATTGATAAGACAAAGATGAGATTATTGGGGCTGTTC
ATATTATGATTCAGAATCATTTTCTATTGTGGTATTATAGGTTGGTTAAAGTGATGGCCTTTTTGATGGGTTTTG
TTGTGTCTTGTGAACAAGTCGTTACTGTGTCCATTATTGGAATGGAATTATCACTACTGTATCATGAGTGGGTAT
TTTGATTCTATGGTTCCCTCAGTATTACATCTTGACTTGTAATCAATTATGAATATTTCTTGATATTTAATGTAT
AGGACATTTATTTATACTCAATAAATATTTTTCAAAAGG

FIGURE 4249A

ACGTGACCTGGTGACAGTGCTGACTTGGCTGTACAGCTCGATCTAGGTTCTGCGGCACGGGATGGCGGAGGCGCC
TCCTGTCTCAGGTACTTTTAAATTCAATACAGATGCTGCTGAATTCATTCCTCAGGAGAAAAAAAATTCTGGTCT
AAATTGTGGGACTCAAAGGAGACTAGACTCTAATAGGATTGGTAGAAGAAATTACAGTTCACCACCTCCCTGTCA
CCTTTCCAGGCAGGTCCCTTATGATGAAATCTCTGCTGTTCATCAGCATAGTTATCATCCGTCAGGAAGCAAACC
TAAGAGTCAGCAGACGTCTTTCCAGTCCTCTCCTTGTAATAAATCGCCCAAGAGCCATGGCCTTCAGAATCAACC
TTGGCAGAAATTGAGGAATGAGAAGCACCATATCAGAGTCAAGAAAGCACAGAGTCTTGCTGAGCAGACCTCAGA
TACAGCTGGATTAGAGAGCTCGACCAGATCAGAGAGTGGGACAGACCTCAGAGAGCATAGTCCTTCTGAGAGTGA
GAAGGAAGTTGTGGGTGCAGATCCCAGGGGAGCAAAACCCAAAAAAGCAACACAGTTTGTATACAGCTATGGTAG
AGGACCAAAAGTCAAGGGGAAACTCAAATGTGAATGGAGTAACCGAACAACTCCAAAACCGGAGGATGCTGGACC
CGAAAGTACCAAACCTGTGGGGGTTTTCCACCCTGACTCTTCAGAGGCATCCTCTAGAAAAGGAGTATTGGATGG
GTATGGAGCCAGACGAAATGAGCAGAGAAGATACCCACAGAAAAGGCCTCCCTGGGAAGTGGAGGGGGCCAGGCC
ACGACCAGGCAGAAATCCACCAAAACAGGAGGGCCACCGACATACAAACGCAGGACACAGAAACAACATGGGCCC
CATTCCAAAGGATGACCTCAATGAAAGACCAGCAAAATCTACCTGTGACAGTGAGAACTTGGCAGTCATCAACAA
GTCTTCCAGGAGGGTTGACCAAGAGAAATGCACTGTACGGAGGCAGGATCCTCAAGTAGTATCTCCTTTCTCCCG
AGGCAAACAGAACCATGTGCTAAAGAATGTGGAAACGCACACAGGTTCTCTAATTGAACAACTAACAACAGAAAA
ATACGAGTGCATGGTGTGCTGTGAATTGGTTCGTGTCACGGCCCCAGTGTGGAGTTGTCAGAGCTGTTACCATGT
GTTTCATTTGAACTGCATAAAGAAATGGGCAAGGTCTCCAGCATCTCAAGCAGATGGCCAGAGTGGTTGGAGGTG
CCCTGCCTGTCAGAATGTTTCTGCACATGTTCCTAATACCTACACTTGTTTCTGTGGCAAGGTAAAGAATCCTGA
GTGGAGCAGAAATGAAATTCCACATAGCTGTGGTGAGGTTTGTAGAAAGAAACAGCCTGGCCAGGACTGCCCACA
TTCCTGTAACCTTCTCTGCCATCCAGGACCCTGCCCACCCTGCCCTGCCTTTATGACAAAAACATGTGAATGTGG
ACGAACCAGGCACACAGTTCGCTGTGGTCAGGCTGTCTCAGTCCACTGTTCTAACCCATGTGAGAATATTTTGAA
CTGTGGTCAGCACCAGTGTGCTGAGCTGTGCCATGGGGGTCAGTGCCAGCCTTGCCAGATCATTTTGAACCAGGT
ATGCTATTGCGGCAGCACCTCCCGAGATGTGTTATGTGGAACCGATGTAGGAAAGTCTGATGGATTTGGGGATTT
CAGCTGTTTAAAGATATGTGGCAAGGACTTGAAATGCGGTAACCATACATGTTCGCAAGTGTGCCACCCTCAGCC
CTGCCAGCAATGCCCACGGCTCCCCCAGCTGGTGCGCTGTTGCCCCTGTGGCCAAACTCCTCTCAGCCAATTGCT
AGAACTTGGAAGTAGTAGTCGGAAAACATGCATGGACCCTGTGCCTTCATGTGGAAAAGTGTGCGGCAAGCCTCT
GCCTTGTGGTTCCTTAGATTTCATTCATACCTGTGAAAAGCTCTGCCATGAAGGAGACTGTGGACCATGCTCTCG
CACATCAGTTATTTCCTGCAGATGCTCTTTCAGAACAAAGGAGCTTCCATGTACCAGTCTCAAAAGTGAAGATGC
TACATTTATGTGTGACAAGCGGTGTAACAAGAAACGGTTGTGTGGACGGCATAAATGTAATGAGATATGCTGTGT
GGATAAGGAGCACAAGTGTCCTTTGATTTGTGGGAGGAAACTCCGTTGTGGCCTTCATAGGTGTGAAGAACCTTG
TCATCGTGGAAACTGCCAGACATGCTGGCAAGCCAGTTTTGATGAATTAACCTGCCATTGTGGTGCATCAGTGAT
TTACCCTCCAGTTCCCTGTGGTACTAGGCCCCCTGAATGTACCCAAACCTGCGCTAGAGTCCATGAGTGTGACCA
TCCAGTATATCATTCTTGTCATAGTGAGGAGAAGTGTCCCCCTTGCACTTTCCTAACTCAGAAGTGGTGCATGGG
CAAGCATGAGTTTCGGAGCAACATCCCCTGTCACCTGGTTGATATCTCTTGCGGATTACCCTGCAGTGCCACGCT
ACCATGTGGGATGCACAAATGTCAGAGACTCTGTCACAAAGGGGAGTGTCTTGTGGATGAGCCCTGCAAGCAGCC
CTGCACCACCCCCAGAGCTGACTGTGGTCACCCGTGTATGGCACCCTGCCATACCAGCTCACCCTGCCCTGTGAC
TGCTTGTAAAGCTAAGGTAGAGCTACAGTGTGAATGTGGACGAAGAAAAGAGATGGTGATTTGCTCTGAAGCATC
TAGTACTTATCAAAGAATAGCTGCAATCTCCATGGCCTCTAAGATAACAGACATGCAGCTTGGAGGTTCAGTGGA
GATCAGCAAGTTAATTACCAAAAAGGAAGTTCATCAAGCCAGGCTGGAGTGTGATGAGGAGTGTTCAGCCTTGGA
AAGGAAAAAGAGATTAGCAGAGGCATTTCATATCAGTGAGGATTCTGATCCTTTCAATATACGTTCTTCAGGGTC
AAAATTCAGTGATAGTTTGAAAGAAGATGCCAGGAAGGACTTAAAGTTTGTCAGTGACGTTGAGAAGGAAATGGA
AACCCTCGTGGAGGCCGTGAATAAGGGAAAGAATAGTAAGAAAAGCCACAGCTTCCCTCCCATGAACAGAGACCA
CCGCCGGATCATCCATGACTTGGCCCAAGTTTATGGCCTGGAGAGCGTGAGCTATGACAGTGAACCGAAGCGCAA
TGTGGTGGTCACTGCCATCAGGGGGAAGTCCGTTTGTCCTCCTACCACGCTGACAGGTGTGCTTGAAAGGGAAAT
GCAGGCACGGCCTCCACCACCGATTCCTCATCACAGACATCAGTCAGACAAGAATCCTGGGAGCAGTAATTTACA
GAAAATAACCAAGGAGCCAATAATTGACTATTTTGACGTCCAGGACTAAGAAGATCATGATGCACTTAGATAAAA
GAATGATTAGGTATAGTGGAGACTTATTTGCCAGCAGATAAATCATGCCCGTTCCCCTCTGCCTGGCAGAATCAC
AGTCTCACATACTGTCTTGTACTGACACATCCAAAGCATGAGTGTGTCAGAAATCCCTTGTCTATTCCTGTCTGT

FIGURE 4249B

ATAAAGTGTTTCATTATGACCAGATCTCTGATTGTATGGTCACTAGGTATGCAATCACGCATTCAAAGAGGCTCT
TTACACCATCACTGTGATTGCTCTGAGAGTTGAGGGACTATTGGGCTTTATTTGGACAAACCAAACTTTTAGCCT
GAAACCAACTTTATGCCACTAAGTCATAGCCTCAGTTGTCCCAGTTATTTGTCCTCCTGAAAATGCCTGAAACAT
CAGACAGACATTGCTTGCTTTACCCAAACTGATCAAAATCTTTAGGAGCACAAATGAATTTTTTAGTCTGAAATA
CCAAATAATGAATTGGTATACCATATCCGGAATCACACATGTTATCTTAAACCCAGCCATCATACCTAAGTCTTT
TGCCAAAACCTCTCATAGGTATATCTAGCTGAACTTATTTTGGCATTTTCAATGTGATCAGTTCTAGACCTAGAA
GGGGGTCAGGCTGCTTTACAGAATTCTATTTCCTTAAGTCCCTGGCACTTCTCATACCACATCACTGAACCTGTT
CAGTAACAATCAGTTTGGCCGTCCCCCATGATGGTAGGAAATATAGAGAGCAAGTTCTTCTGCCAGGGTCACACT
GTGGTCTCTGAACTGACCAGTATATCCCTAACTCCTCTTTGATAGAGAAAGAGTCTCAAATGGACAACTGTCCTG
TGTTGCTTTCCCTAGGCCTTCAGCAGCCTATTGGCTCTCCCTGCCTCTGAGCTCTGGACTCTGTTTGAATATTCC
AAGTAGTATATGGACAGTCCAGGGCTTATGCCCAGCAGCCCACTGGAGGCATTCTTCAGGCTCCTTTAAGGCAGG
TGCATTGATAGTTCCATTAGTGTGACCCTTGCATTGGCACCCCTCCAGCCTGGAGGCCAGGCTTCCAGCAACTTC
CTTCTGCCCTAGAGCAAGCCATGAGCCCCAGAGCAGTAGCAGGAGACTTGAGAAGTAGAGTGACAAAAACAAGCA
CTTAATTAAATTATAAAATTTAACTTT

FIGURE 4250

TGCTCGCTGCGCCACCGCCTCCCGCCACCCCTGCCCGCCCGACAGCGCCGCCGCCTGCCCCGCC**ATG**GGTCGACA
GAAGGAGCTGGTGTCCCGCTGCGGGGAGATGCTCCACATCCGCTACCGGCTGCTCCGACAGGCGCTGGCCGAGTG
CCTGGGGACCCTCATCCTGGTGATGTTTGGCTGTGGCTCCGTGGCCCAGGTTGTGCTCAGCCGGGGCACCCACGG
TGGTTTCCTCACCATCAACCTGGCCTTTGGCTTTGCTGTCACTCTGGGCATCCTCATCGCTGGCCAGGTCTCTGG
GGCCCACCTGAACCCTGCCGTGACCTTTGCCATGTGCTTCCTGGCTCGTGAGCCCTGGATCAAGCTGCCCATCTA
CACCCTGGCACAGACGCTGGGAGCCTTCTTGGGTGCTGGAATAGTTTTTGGGCTGTATTATGATGCAATCTGGCA
CTTCGCCGACAACCAGCTTTTTGTTTCGGGCCCCAATGGCACAGCCGGCATCTTTGCTACCTACCCCTCTGGACA
CTTGGATATGATCAATGGCTTCTTTGACCAGTTCATAGGCACAGCCTCCCTTATCGTGTGTGTGCTGGCCATTGT
TGACCCCTACAACAACCCCGTCCCCCGAGGCCTGGAGGCCTTCACCGTGGGCCTGGTGGTCCTGGTCATTGGCAC
CTCCATGGGCTTCAACTCCGGCTATGCCGTCAACCCTGCCCGGGACTTTGGCCCCCGCCTTTTTACAGCCCTTGC
GGGCTGGGGCTCTGCAGTCTTCACGACCGGCCAGCATTGGTGGTGGGTGCCCATCGTGTCCCCACTCCTGGGCTC
CATTGCGGGTGTCTTCGTGTACCAGCTGATGATCGGCTGCCACCTGGAGCAGCCCCCACCCTCCAACGAGGAAGA
GAATGTGAAGCTGGCCCATGTGAAGCACAAGGAGCAGATC**TGA**GTGGGCAGGGGCCATCTCCCCACTCCGCTGCC
CTGGCCTTGAGCATCCACTGACTGTCCAAGGGCCACTCCCAAGAAGCCCCCTTCACGATCCACCCTTTCAGGCTA
AGGAGCTCCCTATCTACCCTCACCCCACGAGACAGCCCCTTCAGGATTTCCACTGGACCTTGCCCAAATAGCACC
TTAGGCCACTGCCCCTAAGCTGGGGTGGAACCGGAATTTGGGTCAATACATCCTTTTGTCTCCCAAGGGAAGAGA
ATGGGCAGCAGGTATGTGTGTGTGTGCATGTGTGTGCATGTGTGTGCATGTGTGTGCAGGGGTGTGTGTGTGTGG
GGGGGGTTCCCAGATATTCAGGGCAAGGGACCAGTCGGAAGGGATTCTGGCTATTGGGGGAGCCCAGAGACAGGG
GAAGGCAGCCTGTCCATCTGTGCATAAGGAGAGGAAAGTTCCAGGGTGTGTATGTTTCAGGGGCTTCACATGGAG
GAGCTGCAGATAGATATGTGTTTCT

FIGURE 4251A

CTGAAGTGCGGGAGAGTGCTGGACCCTGAGTGATGGGGCCGGCGCCAGCTGGAGAGCAGCTTCGCGGAGCGACTG
GAGAGCCAGAGGTGATGGAACCAGCCCTGGAAGGCACAGGCAAAGAGGGGAAGAAAGCATCCTCCAGGAAGCGTA
CATTGGCTGAACCTCCAGCGAAGGGCCTCCTGCAGCCAGTGAAGCTCAGCAGGGCAGAACTGTACAAGGAGCCTA
CCAATGAGGAGCTTAATCGCCTTCGGGAGACTGAGATCTTGTTCCACTCCAGCTTGCTTCGTTTACAGGTAGAGG
AGCTACTAAAGGAAGTAAGGCTGTCAGAGAAGAAGAAGGATCGGATTGATGCCTTCCTACGGGAGGTCAACCAGC
GGGTTGTGAGGGTGCCCTCAGTCCCTGAGACAGAGCTCACTGACCAGGCATGGCTCCCAGCTGGGGTTCGAGTGC
CCCTCCACCAAGTGCCCTATGCCGTGAAGGGCTGTTTCCGCTTCCTGCCCCCAGCCCAGGTTACTGTTGTGGGCA
GCTACCTTCTGGGCACCTGCATCCGACCAGACATCAATGTGGATGTGGCACTGACCATGCCCAGGGAAATCCTAC
AGGACAAGGACGGGCTGAACCAGCGCTACTTCCGCAAGCGTGCCCTCTACCTGGCCCACTTGGCTCACCACCTGG
CCCAGGACCCCCTCTTTGGCAGTGTTTGCTTCTCCTACACAAATGGCTGCCACCTGAAACCCTCACTGTTGCTGC
GGCCGCGTGGAAAGGATGAGCGCCTGGTCACTGTACGTCTGCATCCGTGCCCTCCACCTGACTTCTTCCGCCCGT
GCCGCTTGCTGCCAACCAAGAACAATGTGCGCTCTGCCTGGTACCGAGGGCAGAGTCCTGCAGGGGATGGTAGCC
CAGAGCCTCCTACCCCCCGCTATAACACATGGGTCCTGCAAGATACAGTTCTCGAGTCCCATTTGCAGCTGCTGT
CAACCATTCTGAGTTCAGCCCAGGGCCTGAAGGATGGCGTGGCACTTCTGAAGGTCTGGCTGCGGCAGCGGGAGC
TGGACAAGGGCCAGGGTGGGTTTACTGGGTTCCTTGTCTCCATGCTGGTTGTCTTCCTTGTGTCTACACGCAAGA
TCCATACCACCATGAGTGGCTACCAGGTCCTGAGAAGTGTCTTGCAGTTTCTGGCCACTACAGACCTGACAGTCA
ACGGGATCAGTTTATGTCTCAGCTCAGATCCCTCTTTGCCGGCCCTGGCTGACTTCCACCAGGCCTTCTCCGTTG
TCTTCCTGGATTCCTCAGGCCATCTCAACCTCTGTGCTGATGTCACTGCCTCTACTTACCACCAGGTACAGCATG
AGGCACGGCTGTCTATGATGTTGCTGGACAGCAGAGCTGACGACGGGTTCCACCTGCTGTTGATGACTCCCAAAC
CCATGATCCGGGCTTTTGACCATGTCCTGCATCTCCGTCCACTGAGTCGCCTGCAGGCAGCGTGCCACCGGCTGA
AGCTCTGGCCAGAGCTGCAGGACAATGGTGGGGACTATGTCTCAGCTGCTTTGGGCCCCCTGACCACCCTCCTGG
AGCAGGGCCTGGGGGCTCGGCTGAACCTGCTGGCTCACTCTCGACCCCCAGTCCCAGAGTGGGACATCAGCCAAG
ATCCACCAAAGCACAAAGACTCTGGGACCCTGACCCTGGGACTCCTTCTCCGGCCTGAGGGACTGACCAGCGTCC
TTGAGCTGGGTCCAGAGGCAGACCAGCCTGAGGCTGCTAAATTCCGCCAGTTCTGGGGATCCCGCTCGGAGCTTC
GGCGTTTCCAGGACGGAGCCATTCGGGAAGCTGTGGTCTGGGAGGCAGCCTCTATGTCCCAGAAGCGCCTTATTC
CCCACCAGGTGGTCACCCACCTCTTGGCACTCCATGCTGACATCCCAGAAACCTGTGTCCACTATGTGGGGGGCC
CCCTGGATGCACTTATCCAAGGCCTGAAAGAGACCTCCAGCACAGGTGAGGAGGCCCTGGTAGCGGCGGTACGTT
GCTACGACGACCTCAGTCGCCTACTGTGGGGGCTAGAGGGTCTCCCACTGACCGTGTCTGCTGTTCAGGGAGCTC
ACCCAGTGCTGCGCTACACAGAGGTGTTCCCACCAACTCCAGTCCGTCCAGCCTTCTCCTTCTATGAGACTCTGC
GGGAGCGGTCCTCACTGCTGCCCCGGCTCGATAAGCCCTGTCCGGCCTACGTGGAGCCCATGACCGTGGTTTGTC
ACCTGGAGGGCAGTGGCCAGTGGCCACAGGACGCTGAGGCCGTGCAGCGGGTCCGAGCTGCCTTCCAGCTGCGCC
TGGCAGAGCTGTTGACACAACAGCATGGTCTGCAGTGCCGTGCCACTGCCACGCACACGGATGTCCTTAAGGATG
GATTTGTGTTTCGGATTCGCGTGGCCTATCAGCGGGAGCCCCAGATCCTGAAGGAGGTGCAGAGCCCAGAGGGGA
TGATCTCGCTGAGGGACACAGCTGCCTCCCTCCGCCTTGAGAGAGACACAAGGCAGTTGCCACTGCTCACCAGTG
CCCTGCACGGACTGCAGCAGCAGCACCCAGCCTTCTCTGGTGTGGCACGGCTGGCCAAGCGGTGGGTGCGTGCCC
AGCTTCTTGGTGAGGGTTTCGCTGATGAGAGCCTGGATCTGGTGGCCGCTGCCCTTTTCCTGCACCCTGAGCCCT
TCACCCCTCCGAGTTCCCCCCAGGTTGGCTTCCTTCGATTCCTTTTCTTGGTATCAACGTTTGATTGGAAGAACA
ACCCCCTCTTTGTCAACCTCAATAATGAGCTCACTGTGGAGGAGCAGGTGGAGATCCGCAGTGGCTTCCTGGCAG
CTCGGGCACAGCTCCCCGTCATGGTCATTGTTACCCCCCAAGACCGCAAAAACTCTGTGTGGACACAGGATGGAC
CCTCAGCCCAGATCCTGCAGCAGCTTGTGGTCCTGGCAGCTGAAGCCCTGCCCATGTTAGAGAAGCAGCTCATGG
ATCCCCGGGGACCTGGGGACATCAGGACAGTGTTCCGGCCGCCCTTGGACATTTACGACGTGCTGATTCGCCTGT
CTCCTCGCCATATCCCGCGGCACCGCCAGGCTGTGGACTCGCCAGCTGCCTCCTTCTGCCGGGGCCTGCTCAGCC
AGCCGGGGCCCTCATCCCTGATGCCCGTGCTGGGCTATGATCCTCCTCAGCTCTATCTGACGCAGCTCAGGGAGG
CCTTTGGGGATCTGGCCCTTTTCTTCTATGACCAGCATGGTGGAGAGGTGATTGGTGTCCTCTGGAAGCCCACCA
GCTTCCAGCCGCAGCCCTTCAAGGCCTCCAGCACAAAGGGGCGCATGGTGATGTCTCGAGGTGGGGAGCTAGTAA
TGGTGCCCAATGTTGAAGCAATCCTGGAGGACTTTGCTGTGCTGGGTGAAGGCCTGGTGCAGACTGTGGAGGCCC
GAAGTGAGAGGTGGACTGTGTGATCCCAGCTCTGGAGCAAGCTGTAGACGGACAGCAGGACATTGGACCTCTAGA
GCAAGATGTCAGTAGGATGACCTCCACCCTCCTTGGACATGAATCCTCCATGGAGGGCCTGCTGGCTGAACATGC

FIGURE 4251B

TGAATCATCTCCAACAAAACCCAGCCCCAACTTTCTCTCTGATGCTCCAGCATTGGGGCAGGGGCATGGTGGCCC
ATGTAGTCTCCTGGGCCTCACCATCCCAGAAGAGGAGTGGGAGCCAGCTCAGAGAAGGAACTGAACCCAGGAGAT
CCATCCACCTATTAGCCCTGGGCCTGGACCTCCCTGCGATTTCCCACTCCTTTCTTAGTCTTCTTCCAGAAACAG
AGAAGGGGATGTGTGCCTGGGAGAGGCTCTGTCTCCTTCCTGCTGCCAGGACCTGTGCCTAGACTTAGCATGCCC
TTCACTGCAGTGTCAGGCCTTTAGATGGGACCCAGCGAAAATGTGGCCCTTCTGAGTCACATCACCGACACTGAG
CAGTGGAAAGGGGCTATATGTGTATGAATAGACCACATTGAAGGAGCACAATGCCCTCCTGTGTTGATGCCACTT
CCCAGGGTGGAGACAGTGGAAAAGAACCGAGGACAGGAAAGGATTGGGTAGGTGAAGGGGTCAGGGGACTGGTAG
TCACCCAATCTTGGAGAGGTGCAAAAAGCACTGGGGGCTACCCGTTAGCTGCATCTGCCCTGGCTGTTTGCCCGT
TCATGTCACAAACTGCCACTACTATGTACCTGCAGTGGGGTTGCAGAGATGGGGGAGACTCAAGTCTTACTCCCC
AGGAGCTCCCAGGGCCCAAGGAGGAGAATGCTGCCTCCTTTCAGTCTGGTCTACACCCACTTTCTGGTAGCCTCT
CTGCTTCCTGTAATTCTGGCTGTTTTTCCAGACTCAGCTCAAATAGTGCCCCTCCTTAAGCCCATCCCTCGCCCC
CAGCCTGAGGTGATCTTTCCCTCCTCTGAACTATTAGAGCAGTTACTGTCTGTTCAGTTCGTTTGGCAGGCACAC
ACAGTGGCATAAATTCTATTGTTTTGAACTCTGATTTAAAATTAAATTGCAGCTGGGCGTGGTGGCTTATGCTTG
TAATCCCAACACTTAGGGAGTCAGGAGAATCACTTGAGCTCAGGAGTTCTAGACCAATCTGGGCAACAGAGAGAC
CCCATCTCTTTTAAATAAAAAGTTAAATTGCTTAATTTCCCCCGTATTCCTGGCCTGTCTGCCCCTTTCACATAA
TTTTAACCTGGTTTCTTGTATGTAAACTCCTTGAGGGCAAGAACATGTTTGAACATAG

FIGURE 4252

ACACTCTACCACC**ATG**AATCCATTCCTGATCCTTGCCTTTGTGGGAGCTGCTGTTGCTGTCCCCTTTGACGATGA
TGACAAGATTGTTGGGGGCTACACCTGTGAGGAGAATTCTCTCCCCTACCAGGTGTCCCTGAATTCTGGCTCCCA
CTTCTGCGGTGGCTCCCTCATCAGCGAACAGTGGGTGGTATCAGCAGCTCACTGCTACAAGACCCGCATCCAGGT
GAGACTGGGAGAGCACAACATCAAAGTCCTGGAGGGGAATGAGCAGTTCATCAATGCGGCCAAGATCATCCGCCA
CCCTAAATACAACAGGGACACTCTGGACAATGACATCATGCTGATCAAACTCTCCTCACCTGCCGTCATCAATGC
CCGCGTGTCCACCATCTCTCTGCCCACCACCCCTCCAGCTGCTGGCACTGAGTGCCTCATCTCCGGCTGGGGCAA
CACTCTGAGCTTTGGTGCTGACTACCCAGACGAGCTGAAGTGCCTGGATGCTCCGGTGCTGACCCAGGCTGAGTG
TAAAGCCTCCTACCCTGGAAAGATTACCAACAGCATGTTCTGTGTGGGCTTCCTTGAGGGAGGCAAGGATTCCTG
CCAGCGTGACTCTGGTGGCCCTGTGGTCTGCAACGGACAGCTCCAAGGAGTTGTCTCCTGGGGCCATGGCTGTGC
CTGGAAGAACAGGCCTGGAGTCTACACCAAGGTCTACAACTATGTGGACTGGATTAAGGACACCATCGCTGCCAA
CAGC**TAA**AGCCCCCGGTCCCTCTGCAGTCTCTATACCAATAAAGTGGCCCTGCTCTC

FIGURE 4253

TCGTGTGTGAGGAGGACCCCGGGCGGGCCCACGGGCCGTGTGGGGCCTGGTCTGGCCCGCCGGGTGTGTGAAGAC
CGGGGCCCGGTGCTGCCCGGCCGGAGGGCGAGCGGAGGGGAGGGGCCTGGTCCGGCCCGGCCGGTGCGTGAGGAC
TGGGGCCCGGGCCCGGCGCCGCCGCCGCCGCCGCCGCCGCGCGATGGCCCAGCAGCAGATGACCAGCTCGCAGAAGG
CCCTGATGCTCGAGCTGAAATCCCTGCAGGAGGAACCGGTGGAGGGCTTCCGGATCACCCTGGTGGACGAGTCCG
ACCTCTACAACTGGGAGGTGGCCATCTTCGGACCCCCCAACACCCTCTACGAAGGCGGCTACTTCAAGGCGCATA
TTAAATTTCCTATTGACTACCCCTATTCACCACCTACCTTCAGATTCTTGACCAAAATGTGGCACCCCAACATTT
ATGAGAATGGAGATGTATGCATTTCGATTCTTCATCCGCCTGTAGATGACCCACAGAGTGGAGAACTGCCTTCTG
AAAGGTGGAATCCTACTCAGAATGTGAGGACTATCCTATTAAGTGTAATCTCACTGCTTAATGAGCCCAACACCT
TCTCCCCAGCCAATGTCGATGCTTCAGTTATGTTCAGGAAATGGAGAGACAGTAAAGGAAAAGACAAAGAATATG
CTGAAATTATTAGGAAACAAGTTTCAGCCACTAAGGCCGAAGCAGAAAAGGATGGAGTGAAGGTCCCCACAACCC
TGGCGGAATACTGCATCAAAACTAAAGTGCCTTCCAATGACAACAGCTCAGATTTGCTTTACGACGACTTGTATG
ATGACGACATTGATGATGAAGATGAGGAGGAGGAAGATGCCGACTGTTATGATGATGATGATTCTGGGAATGAGG
AGTCGTGACGTGCTCCTTCAGTGCCCCTGTACTGCCCTGCCATCTCAGGCCAAAGGGAGGGGAGCAAGTGGGGAC
CTGGCCATGGCCCCTCAGCAAAAACCTATTCACAGCGGGTGGGGAAACACACACAGCTCCTGCTGACTCCCCTTA
TGGATCTCAGTTTGCTCCTTTTTATGGACCTTTAATGGAGAGAGAGTAACCCTCCACAGAATGTCTGAATTCTTG
CATTCTTTACCCTTCCATCACTATATTGATTCTTTTTTTAAAAAATATGAACCCAAACTCCCGCCTCACTTCGTC
TCTACAGAATGTTCACAGCAAAACACGTTTGGTCTGTTTTTAGATTCTTGAAGAATTCAATAGTCTTTCAAGATG
TTTAATGTGTTTAAAGCTGGGAACCTGTTGGGAGTTCACAAGTGCTGCATATACTGGGTAGCAAAAGAAAATGGA
AAAAAACCCACAAAACAAACTTTAAAAAAAAAAAAAAACAAATTTGCCAAGGTTTAGCTGCTCATTTACATTAGT
GTGTGTGCATTCGTTCAGCCCCATGGTGGTGAATTCTGTTTCTTTCCTTTCCTAAGGCTGGGACATGGTGGGCAT
CAGGGACTTTGTGCTAAGCCTGATGAAATGTGCTCCTTCAATCTCCATGAAACCATCGTAACATGGAGGCCTCAG
CTGCTCTGAGGAGAGAAATCAGACTTTGTTTTTTGAAATCGATTGGGATCGAAAGCCTGAAATAAATATTCATAC
TTTCCAT

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FIGURE 4254A

ATTTTCTATTTTGTACATACATTATTTTGTATATACTGTATATGATGACTTCAGTGAGCAGTGACCATTGTCGAG
GTGCTCGGGAAAAACCACAGATTTCAGCAGCACAATCAACGCAACCACAGAAACAAGTGGTACAGGCAACAGCTG
AACAGATGCGTCTCGCTCAAGTGATCTTTGATAAGAATGATTCAGATTTTGAAGCTAAAGTTAAGCAGCTTATGG
AAGTGACAGGGAAAAATCAGGATGAATGCATAGTGGCCCTACATGATTGTAATGGAGATGTGAACAAAGCTATCA
ATATATTGCTGGAAGGGAATTCAGACACAACTTCATGGGAGACTGTAGGGTGTAAGAAAAAGAATTTTGCAAAAG
AAAATTCAGAAAACAAAGAGAATAGAGAGAAGAAAAGCGAGAAAGAATCGAGTCGTGGACGTGGAAACAACAACC
GGAAAGGAAGAGGCGGCAATCGTGGCAGAGAATTTAGAGGTGAAGAAAATGGAATTGATTGCAATCAAGTGGACA
AACCTTCAGATCGTGGCAAGCGAGCCCGGGGTAGAGGATTTGGACGTGGCAGAGGGAGAGGGGCAGGAAGGTTCT
CAACCCAAGGCATGGGGACATTTAATCCTGCAGACTATTCAGATTCTACATCTACAGATGTGTGTGGGACAAAGC
TAGTAGTTTGGGAAGCTGCTCAGAATGGTGCAGATGAGGGAACTGAACTGGCATCAAATACTCACAACATAGCTC
AGGATCTGTCAAACAAAAGTTCTTATGGACTCAAAGGGGCTTGGAAGAATTCTGTGGAAGAGTGGACAACAGAAG
ACTGGACTGAAGATCTTTCTGAAACAAAGGTCTTCACTGCCTCATCTGCTCCAGCAGAGAATCACATCTTACCTG
GGCAAAGCATTGATCTGGTAGCCTTGCTCCAGAAGCCTGTTCCTCACAGTCAAGCCTCAGAAGCCAACTCCTTTG
AAACTTCCCAACAGCAGGGCTTTGGCCAAGCCCTTGTCTTCACAAATTCGCAACACAACAATCAGATGGCACCAG
GGACTGGCAGCTCCACTGCCGTCAACTCCTGTTCTCCTCAGAGCCTGTCATCCGTCCTTGGCTCAGGATTTGGAG
AGCTTGCACCACCAAAAATGGCAAACATCACCAGCTCCCAGATTTTGGACCAGTTGAAAGCTCCGAGTTTGGGCC
AGTTTACCACCACCCCAAGTACACAGCAGAATAGTACAAGTCACCCTACAACTACTACTTCTTGGGACCTCAAGC
CCCCAACATCCCAGTCCTCAGTCCTCAGTCATCTTGACTTCAAATCTCAACCTGAGCCATCCCCAGTTCTTAGCC
AGTTGAGCCAGCGACAACAGCACCAGAGCCAGGCAGTCACTGTTCCTCCTCCTGGTTTGGAGTCCTTTCCTTCCC
AGGCAAAACTTCGAGAATCAACACCTGGAGACAGTCCCTCCACTGTGAACAAGCTTTTGCAGCTTCCCAGCACGA
CCATTGAAAATATCTCTGTGTCTGTCCACCAGCCACAGCCCAAACACATCAAACTTGCTAAGCGGCGGATACCCC
CAGCTTCTAAGATCCCAGCTTCTGCAGTGGAAATGCCTGGTTCAGCAGATGTCACAGGATTAAATGTGCAGTTTG
GGGCTCTGGAATTTGGGTCAGAACCTTCTCTCTCTGAATTTGGATCAGCTCCAAGCAGTGAAAATAGTAATCAGA
TTCCCATCAGCTTGTATTCGAAGTCTTTAAGTGAGCCTTTGAATACATCTTTATCAATGACCAGTGCAGTACAGA
ACTCCACATATACAACTTCCGTCATTACCTCCTGCAGTCTGACAAGCTCATCACTGAATTCTGCTAGTCCAGTAG
CAATGTCTTCCTCTTATGACCAGAGTTCTGTGCATAACAGGATCCCATACCAAAGCCCTGTGAGTTCATCAGAGT
CAGCTCCAGGAACCATCATGAATGGACATGGTGGTGGTCGAAGTCAGCAGACACTAGACACTCCAAAGACAACAG
GCCCTCCCTCTGCCCTCCCGTCTGTGAGCTCCCTGCCCAGCACCACCTCCTGCACTGCACTTCTGCCGTCCACAT
CCCAGCACACTGGCGACCTGACTAGCAGCCCTCTCTCTCAGCTTAGCAGTTCGCTCTCCAGCCACCAGAGCAGCC
TCTCTGCACATGCAGCCCTCTCCTCGAGCACGTCACACACACATGCCAGTGTGGAGAGCGCCTCTTCCCACCAGT
CCTCAGCCACCTTCTCCACGGCAGCGACCTCCGTCTCAAGTTCCGCATCCTCAGGCGCCAGCCTGTCCAGTAGCA
TGAACACCGCGAACAGCCTCTGTCTGGGTGGGACCCCCGCGAGTGCATCCAGCAGCAGTAGCAGGGCCGCGCCCT
TGGTGACCTCAGGCAAAGCACCCCCAAACTTACCTCAGGGGGTGCCTCCCCTGCTGCACAACCAGTACCTCGTAG
GTCCCGGAGGACTGCTTCCTGCCTACCCGATCTATGGCTATGACGAGCTCCAGATGCTGCAGTCACGGCTGCCAG
TGGACTACTATGGAATTCCCTTTGCTGCACCCACAGCGCTTGCCAGCCGAGATGGGAGCCTAGCTAATAATCCAT
ATCCAGGTGATGTCACAAAGTTTGGCCGTGGGGACTCTGCATCCCCTGCACCCGCTACCACACCAGCTCAGCCAC
AGCAGAGCCAATCACAGACCCACCACACAGCCCAGCAGCCCTTCGTGAATCCTGCACTGCCACCTGGCTATAGCT
ACACTGGTCTTCCCTACTACACAGGCATGCCCAGTGCCTTCCAGTATGGCCCCACCATGTTTGTCCCTCCAGCCT
CAGCCAAGCAACATGGGGTGAACCTCAGCACTCCCACACCTCCCTTCCAGCAGGCCAGTGGTTATGGCCAGCACG
GCTACAGTACAGGTTATGACGACCTGACCCAGGGGACAGCAGCAGGAGACTACTCCAAAGGTGGCTATGCTGGAT
CATCGCAGGCACCAAACAAGTCTGCAGGTTCTGGGCCTGGCAAAGGAGTATCAGTGTCTTCAAGCACCACTGGTC
TACCTGATATGACTGGTTCTGTCTACAATAAGACACAGACTTTTGACAAGCAGGGATTTCATGCAGGGACGCCTC
CACCTTTCAGCCTGCCCTCGGTCTTGGGCTCCACTGGGCCCCTGGCCTCGGGAGCGGCCCCTGGCTATGCACCCC
CACCATTCCTACACATCTTGCCAGCCCACCAGCAGCCCCACTCACAGCTGCTGCACCACCACCTTCCGCAGGATG
CACAGAGTGGCTCGGGTCAGCGCAGCCAGCCCAGCTCCCTGCAGCCCAAGTCTCAAGCCTCCAAACCTGCCTACG
GCAACTCTCCATACTGGACAAACTAAACCCAGAAGAGAGGGGTGGGCTGGGGCAAGGCTTATCCTGGGCAGGAGA
GAACACACGAGCACGTATTTGGGAGCCCAGTGCCCTTTCCTAGAATTCCCGACATGTGTCAGCCATGCCTCTGTG
GGGAGTCTGCCTCCCAGACTGGCTACTGTATGTAATGTATTTATGTATGTATTTGTAAATGTGATAGAAGTCTGG

FIGURE 4254B

GGGGGAGTTGGGGGATGGCGGCAGATGTTAGCCAGGTCTGCCCTCCCCATTCAAGCCCCTTCTCCACTGTAGCAA
AATAAGCACCCCCACCCCATCTGCCTTCAGGTCTTCTTCACAGCCTGCACTGCCCAGTGGGCCACTAGGGGCAGT
CTCTGGAAGGGCTGGTTCAAGGCTGTTTGGGTATAGGGGTCAGGTACCAATGAAGAATCACGACTTGTCTCACTC
CTTTGGAAATTGTTTTCTTTCCTGTGTAATTACTTCATACCTCTGTTTTTGAGAAACTGTTCCGTTTGTCATCTG
TCATGGTCTCCTTCCACCAAATCTTCATCTGGGAATAGCAGCGGTATCCCTCCACCCAAGTATGGCCACCTGTTT
GTCTTCATATAGAACAGGGGCTTCTGGTCTGGTCATGTCCCTAGAGACTTACTAGAGACTGGCTGACCATG

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FIGURE 4255

TGGAAATCTAAAGGGAATGGTGAAGTTGCACCGTAAGGGGAAGGTGACTGAGGAGCTGAAACTGACTGAGGGGCT
GAAGCATTTCGGACAGGAGAAAGGATCAGGAGGAGACAGAGCGGAGA**ATG**GAGCCTCAGGGCTACCCAGCGTTTG
GCTGGGATCACTCGCTTCACAAAAGGAAAAGACTTCCTCCTGTGAAGAGATCCTTAGTATACTACTTGAAGAACC
GGGAAGTCAGGCTACAGAATGAAACCAGCTACTCTCGAGTGTTGCATGGTTATGCAGCACAGCAACTTCCCAGTC
TCCTGAAGGAGAGAGAGTTTCACCTTGGGACCCTTAATAAAGTGTTTGCATCTCAGTGGTTGAATCATAGGCAAG
TGGTGTGTGGCACAAAATGCAACACGCTATTTGTCGTAGATGTCCAGACAAGCCAGATCACCAAGATCCCCATTC
TGAAAGACCGGGAGCCTGGAGGTGTGACCCAGCAGGGCTGTGGTATCCATGCCATCGAGCTGAATCCTTCTAGAA
CACTGCTAGCCACTGGAGGAGACAACCCCAACAGTCTTGCCATCTATCGACTACCTACGCTGGATCCTGTGTGTG
TAGGAGATGATGGACACAAGGACTGGATCTTTTCCATCGCATGGATCAGCGACACTATGGCAGTGTCTGGCTCAC
GTGATGGTTCTATGGGACTCTGGGAGGTGACAGATGATGTTTTGACCAAAAGTGATGCGAGACACAATGTGTCAC
GGGTCCCTGTGTATGCACACATCACTCACAAGGCCTTAAAGGACATCCCCAAAGAAGACACAAACCCTGACAACT
GCAAGGTTCGGGCTCTGGCCTTCAACAACAAGAACAAGGAACTGGGAGCAGTGTCTCTGGATGGCTACTTTCATC
TCTGGAAGGCTGAAAATACACTATCTAAGCTCCTCTCCACCAAACTGCCATATTGCCGTGAGAATGTGTGTCTGG
CTTATGGTAGTGAATGGTCAGTTTATGCAGTGGGCTCCCAAGCTCATGTCTCCTTCTTGGATCCACGGCAGCCAT
CATACAACGTCAAGTCTGTCTGTTCCAGGGAGCGAGGCAGTGGAATCCGGTCAGTGAGTTTCTACGAGCACATCA
TCACTGTGGGAACAGGGCAGGGCTCCCTGCTGTTCTATGACATCCGAGCTCAGAGATTTCTGGAAGAGAGGCTCT
CAGCTTGTTATGGGTCCAAGCCCAGACTAGCAGGGGAGAATCTGAAACTAACCACTGGCAAAGGCTGGCTGAATC
ATGATGAAACCTGGAGGAATTACTTTTCAGACATTGACTTCTTCCCCAATGCTGTTTACACCCACTGCTACGACT
CGTCTGGAACGAAACTCTTTGTGGCAGGAGGTCCCCTCCCTTCAGGGCTCCATGGAAACTATGCTGGGCTCTGGA
GT**TAA**TGACAACTCCCCAAATGCAGAGATTTACACTAACTTCCATTCTCAGTTTCCTTGTTTCTTTTGATTTTTT
TTTTCCTAATTGTGTGAGGCTCTTGTGTTTTAGTGGGAACACCAAAGTTTGCCTATAGTTTAGGCACTTAATAGG
AAGAAGCTCTGTACAGAAATCTGAAAGTTGTTTTGCTTTTTGTTTTCCCCTTTGGTAATCAAAATTTTACTATCT
TTTATTATTTCTGGCTTTTCAACCAAACATTGTTGCTAATCCCTATTTTTCTTTAAGTGACACACATTCTCCTGT
CTCTGGCTTCTTCAGGCTGAAATGACATAGCTCACCCTTACTTCACTCTTGAGAGGTAGGGCTCCTTTATAATTA
CATGGTTGCTCTCAGACTTTCTGTGAAAGTTTGGGAGCTGTGTGTGTCTGTGTGTGTGTGAGAGAGAGATCTTGT
CTGCGTGTGTGTGTGTGATCTTGTGTGCCTGTAGGTACTGTGTGTCACTGAAATTACCTGGAGTGAGGATTACTT
GTAATTAAAATATTTATAAAAGAAACAACTTTATTCACAGAGTCCAGCTTTGGGACTAGTCTGTATCTTGTTTTT
TAAGTCTAACAACACTGATAATAGGAAGTAAAAACAGAAAGGAAAAGAAATTACCACTGGGAAAATCTTTTTAGT
TAGATTGTAGGCTTCCTGGGGCCTCCCATGCCAGGACTGCAAAGTGATCCAGCCCTACCTGTCTTCCCACCTGTG
TGTCCCCCGTGTGGGAAGTTGGTGTCACTTCCCCTTCCCACCCTCACATCTGCTTAGCCAGTAGCCACACCCCTA
AAACATCAGACTCACCATCCAGGTGCAGCTCCAGAGGCTACAAAAGGCTTCATGGGACTTGAATCCCCATCCTAG
CTTCTCTCTCCTTCCCCTCAAGACCTGATCTGGTTTTAAGGGGCCTGGAGCTGGGAGTCTCAAGTCTGCTAAGAT
TCACATCCATAGCCCCCATGGCTTTGAGGAGAATCCTCTCTGCCATTCTTCCAATCTCCCCAGTGGGTTTTGCTA
TTATTTTCTAAATTGGGTTAAGTCTAAGAAGGTGGGGGTGAGCAGGGGGTTTATCTGTGTGTAGTGAGTGCTTCA
TGTGTGGAATATTCATTTTCTTACTGCAGTGGGACTTGGGGTTGAAGCCACCCCTCCTACTCTGTTGGCTTAGCC
CTGAGATGGTGACAGGCTGGCCTGCAGTCAGCATCATTGTGCATGTGACAGCATCAATGTGATTAGTAATTTGTC
TGTTCCTCCCTTGAACTGTCTGTTTAGTCTGAGGTTTTTAAACTTGCAGGCAGCTGACTGTGATGTCCACTTGTT
CCCTGATTTTTACACATCATGTCAAAGATAACAGCTGTTCCCACCCACCAGTTCCTCTAAGCACATACTCTGCTT
TTCTGTCAACATCCCATTTTGGGGAAAGGAAAAGTCATATTTATTCCTGCACCCCAGTTTTTTAACTTGTTCTCC
CAGTTGTCCCCCTCTTCTCTGGGTGTAAGAAGGGAAATTGGAAAAAAAAATTATATATATATTCTCCTTTTAATGG
TGGGGGGCTACTGGAGAGGAGAGACAGCAAGTCCACCCTAACTTGTTACACAGCACATACCACAGGTTCTGGAAT
TCTCATCTTCGAACCTAGAGAAATAGGTGCTATAAACAGGGAATTAAGCAAAATGCTGGATGCTATAGATCTTTT
AATTGTCTTAATTTTTTTTCTATTATTAAACTACAGGCTGTAGATTTCTTAGTTCTCACAGAACTTCTATCATTT
TAAACTGACTTGTATATTTAAAAAAAAAATCTTCAGTAGGATGTTTTGTACTATTGCTAGACCCTCTTCTGTAAT
GGGTAATGCGTTTGATTGTTTGAGATTTTCTGTTTTTAAAAATGTAGCACTTGACTTTTTGCCAAGGAAAAAAAT
AAAAATTATTCCAGTGC

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FIGURE 4256

ACTGGCGGTGGCTACGGTGACGGCCTGGCCCGGAGCGGGCAGAGTTGGAGGTGGTGGCGTTCGCTCTCCCTAGGG
GCTGTCGGGAGCTCAGCGGGGACCGAGCCTGGGAGGCCGGCCGGTGCCAGCACCTTTCGGCTTCTGAGACGGCGG
CAGCAGCGGCATTCAGGTTCTAA**ATG**GCTTCTAAGAAGTTGGGTGCAGATTTTCATGGGACTTTCAGTTACCTTG
ATGATGTCCCATTTAAGACAGGAGACAAATTCAAAACACCAGCTAAAGTTGGTCTACCTATTGGCTTCTCCTTGC
CTGATTGTTTGCAGGTTGTCAGAGAAGTACAGTATGACTTCTCTTTGGAAAAGAAAACCATTGAGTGGGCTGAAG
AGATTAAGAAAATCGAAGAAGCCGAGCGGGAAGCAGAGTGCAAAATTGCGGAAGCAGAAGCTAAAGTGAATTCTA
AGAGTGGCCCAGAGGGCGATAGCAAAATGAGCTTCTCCAAGACTCACAGTACAGCCACAATGCCACCTCCTATTA
ACCCCATCCTCGCCAGCTTGCAGCACAACAGCATCCTCACACCAACTCGGGTCAGCAGTAGTGCCACGAAACAGA
AAGTTCTCAGCCCACCTCACATAAAGGCGGATTTCAATCTTGCTGACTTTGAGTGTGAAGAAGACCCATTTGATA
ATCTGGAGTTAAAAACTATTGATGAGAAGGAAGAGCTGAGAAATATTCTGGTAGGAACCACTGGACCCATTATGG
CTCAGTTATTGGACAATAACTTGCCCAGGGGAGGCTCTGGGTCTGTGTTACAGGATGAGGAGGTCCTGGCATCCT
TGGAACGGGCAACCCTAGATTTCAAGCCTCTTCATAAACCCAATGGCTTTATAACCTTACCACAGTTGGGCAACT
GTGAAAAGATGTCACTGTCTTCCAAAGTGTCCCTCCCCCCTATACCTGCAGTAAGCAATATCAAATCCCTGTCTT
TCCCCAAACTTGACTCTGATGACAGCAATCAGAAGACAGCCAAGCTGGCGAGCACTTTCCATAGCACATCCTGCC
TCCGCAATGGCACGTTCCAGAATTCCCTAAAGCCTTCCACCCAAAGCAGTGCCAGTGAGCTCAATGGGCATCACA
CTCTTGGGCTTTCAGCTTTGAACTTGGACAGTGGCACAGAGATGCCAGCCCTGACATCCTCCCAGATGCCTTCCC
TCTCTGTTTTGTCTGTGTGCACAGAGGAATCATCACCTCCAAATACTGGTCCCACGGTCACCCCTCCTAATTTCT
CAGTGTCACAAGTGCCCAACATGCCCAGCTGTCCCCAGGCCTATTCTGAACTGCAGATGCTGTCCCCCAGCGAGC
GGCAGTGTGTGGAGACGGTGGTCAACATGGGCTACTCGTACGAGTGTGTCCTCAGAGCCATGAAGAAGAAAGGAG
AGAATATTGAGCAGATTCTCGACTATCTCTTTGCACATGGACAGCTTTGTGAGAAGGGCTTCGACCCTCTTTTAG
TGGAAGAGGCTCTGGAAATGCACCAGTGTTCAGAAGAAAAGATGATGGAGTTTCTTCAGTTAATGAGCAAATTTA
AGGAGATGGGCTTTGAGCTGAAAGACATTAAGGAAGTTTTGCTATTACACAACAATGACCAGGACAATGCTTTGG
AAGACCTCATGGCTCGGGCAGGAGCCAGC**TGA**GACCAGGCCCTGCCTAGGCCCTGCCGCAGAACCACCATCCCTG
GGAGGCCCTGCAGAGCCCACCTGTGGGGAAAGAGAAGGGGCAGCTTCCGGATTTTCTTTTGGGGGTTAGAAGGTC
AGGTGTGGAGACTGCTCGCCAGTCTCTGTGAGCCTAGGCCCTGAGCTGGGGAGGTGGGGAAGATTCGGGCATGTG
AGTGCCCCCAGAACTGTCCTGGCTCCTTCCGTATTAAACGCATTTGCATTTTGAGAAGTGTCCTTCCCACTTCAG
CCCTCCGGAGAGACTACCCTAGTCTTTCTGGGGTGTTTATGTCCTCAGCTGAAGCCTGGCCTAGTTGCTGAGAGG
GGCTGGGGAGATGGGGCGGGAGGGCCAGACTCAGTGCTGCTGTGGAGCTAGGTGCTTCCCCCTTCCCCTGAGACT
GGTGGACTGAACTCCAGTCAAGTTGAGTTCAAGTGAAAGATTCTTCCAGGGTTTTATTTTTTCCCCTCCTAACAA
AGTCTCATAGTGTTAACACTGGTTCTGCAATATCTCTGAGGTGCAAAGAATGCACTTTTCCCTATGGGGCCCAGA
GTTTGCCTTTTCTGCCAGGCAGTCACCATGCTTCCCTACCCCAGCCTGTTTCTTTTGGCTTGGTTTGGACCACAG
TCCTCTGCTACCCAGGGTTTTAGAGCCCCTGCTCTAGGAAACAGTTTAAGAAATCATTGGCCCCTTCCCAGCACA
TTGAATGGGTAAGCAGACAGGCCATGATTTAGTTGGCCAGCACTAACTCCACCTCTGTTCTCCTTGAACAGCTTC
CCCTCCAGCCCACTGCTTTAGGATGACACAATGAATAACACCTAGTCATAGAAATCAGTCTCTCTGGTTTGTTTT
GTATTATGTTGTACATCATTAAAGATCTAAATACAAAGGATATACAGTCTTGAATCTAAAATAATTTGCTAACTA
ACTATTTTGATTCTTCAGAGAGAACTACTAATAAAAATCTAAAAGGT

FIGURE 4257

CAAGCGTAACCAGGCTCTTCTGATTGGCCGGTGTACTTCAGTTTCCGTCCAAGGTCCGCCTCCTACCTCCTTCTG
CTTCGGTGCGTTTGCTTCTGAGGATCTCCAGTGTCACAACAAACACATGCCAGCCCTGTTTTACAGGGAGCCCTG
GAGGAGTTGGGATAGAGGCCACATTGACTGAGGGTAGTTGCCAGGGTCCTGCAGTTATACACAAAGTCCTTAGGA
TAAGACC**ATG**GCCTTGAGAGCATGTGGCTTGATCATCTTCCGAAGATGCCTCATTCCCAAAGTGGACAACAATGC
AATTGAGTTTTTACTGCTGCAGGCATCAGATGGCATTCATCACTGGACTCCTCCCAAAGGCCATGTGGAACCAGG
AGAGGATGACTTGGAAACAGCCCTGAGGGAGACCCAAGAGGAAGCAGGCATAGAAGCAGGCCAGCTGACCATTAT
TGAGGGGTTCAAAAGGGAACTCAATTATGTGGCCAGGAACAAGCCTAAAACAGTCATTTACTGGCTGGCGGAGGT
GAAGGACTATGACGTGGAGATCCGCCTCTCCCATGAGCACCAAGCCTACCGCTGGCTGGGGCTGGAGGAGGCCTG
CCAGTTGGCTCAGTTCAAGGAGATGAAGGCAGCGCTCCAAGAAGGACACCAGTTTCTTTGCTCCATAGAGGCC**TG**
AGCTGACTGGAGCAGAGTCATTTGCTTCAGCAGGATCCTTGTGGGCCTTCTAAGATGAAGCCACCCTCAGGTCCA
GGGAAGGTTGTGCTGGTATTTGGCTCATGACAGCCAAGAGCAGATTTGTGAAATCGGCTCAACTCCCAGGTGAGA
GCAAGCAAAAATCTTGGCTGGGTGGAAAGGAAGGCAAAAGAGTAAAAATTAAAAAGGCCAGGCCCAGTAAGTGTA
CCTTGTACTTTATAAATAAACCTCAAGCAGCTC

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FIGURE 4258

CAAGCGTAACCAGGCTCTTCTGATTGGCCGGTGTACTTCAGTTTCCGTCCAAGGTCCGCCTCCTACCTCCTTCTG
CTTCGGTGCGTTTGCTTCTGAGGATCTCCAGTGTCACAACAAACACATGCCAGCCCTGTTTTACAGGGAGCCCTG
GAGGAGTTGGGATAGAGGCCACATTGACTGAGGGTAGTTGCCAGGGTCCTGCAGTTATACACAAAGTCCTTAGGA
TAAGACC**ATG**GCCTTGAGAGCATGTGGCTTGATCATCTTCCGAAGATGCCTCATTCCCAAAGTGGACAACAATGC
AATTGAGTTTTTACTGCTGCAGGCATCAGATGGCATTCATCACTGGACTCCTCCCAAAGGCCATGTGGAACCAGG
AGAGGATGACTTGGAAACAGCCCTGAGGGAGACCCAAGAGGAAGCAGGCATAGAAGCAGGCCAGCTGACCATTAT
TGAGGGGTTCAAAAGGGAACTCAATTATGTGGCCAGGAACAAGCCTAAAACAGTCATTTACTGGCTGGCGGAGGT
GAAGGACTATGACGTGGAGATCCGCCTCTCCCATGAGCACCAAGCCTACCGCTGGCTGGGGCTGGAGGAGGCCTG
CCAGTTGGCTCAGTTCAAGGAGATGAAGGCAGCGCTCCAAGAAGGACACCAGTTTCTTTGCTCCATAGAGGCC**TG**
AGCTGACTGGAGCAGAGTCATTTGCTTCAGCAGGATCCTTGTGGGCCTTCTAAGATGAAGCCACCCTCAGGTCCA
GGGAAGGTTGTGCTGGTATTTGGCTCATGACAGCCAAGAGCAGATTTGTGAAATCGGCTCAACTCCCAGGTGAGA
GCAAGCAAAAATCTTGGCTGGGTGGAAAGGAAGGCAAAAGAGTAAAAATTAAAAAGGCCAGGCCCAGTAAGTGTA
CCTTGTACTTTATAAATAAACCTCAAGCAGCTC

FIGURE 4259

GCCGGAACCGGGCGGGCAGAGGGGCGCTCGTAGGGTTGGGGGACGCCTGTGGCTTGGCTGCAGCGGCCGGCAAGA
CCCTGGAAGAGACCGTGGCTATGGAAACGGCCAAGGCTGTCTTGGAATGTCCTGAGCAGCCCTCCGAGTCGAGCC
TCTGCCCCCGAGTTTCTGAGTGACCTGGGTTGATATAGATTGACCTTGTGGGCAGCGAGAGTCACAGACAAGACA
GCAAGCAGG**ATG**GAGCACTACCGGAAAGCTGGCTCTGTAGAGCTCCCAGCGCCTTCCCCAATGCCCCAGCTACCT
CCTGATACCCTTGAGATGCGGGTCCGAGATGGCAGCAAAATTCGCAACCTGCTGGGGTTGGCTCTGGGTCGGTTG
GAGGGCGGCAGTGCTCGGCATGTAGTGTTCTCAGGTTCTGGCAGGGCTGCAGGAAAGGCTGTCAGCTGCGCTGAG
ATTGTCAAGCGGCGGGTCCCAGGCCTGCACCAGCTCACCAAGCTACGTTTCCTTCAGACTGAGGACAGCTGGGTC
CCAGCCTCACCTGACACAGGGCTAGACCCCCTCACAGTGCGCCGCCATGTGCCTGCAGTGTGGGTGCTGCTCAGC
CGGGACCCCCTGGACCCCAATGAGTGTGGTTACCAACCCCCAGGAGCACCCCCTGGCCTGGGTTCCATGCCCAGC
TCCAGCTGTGGCCCTCGTTCCCGAAGAAGGGCTCGAGACACCCGATCG**TGA**AGACCTGCTGAGCCAGCCTGTTCT
CCGGGCCTGAATGTCTGGGGTGCTTGTGCCTTTTCTGAGAAGCGTTGTGACTGCTCAACATCCCCATCAAGGTTT
GAGTCCACAAAAGTGGACCTCCCTATCATGCTTCCCCTTCCCTCTAGCATGTGGGAAGGGACTGCTGTGAAGAAT
GACAGATGTGGGGCCTCTGCCAAGTTCTGCATTGCTAAATAAGGGCTTCCTCTGCCT

FIGURE 4260

TGGGTCGGTAGTAGCG**ATG**GCGGGTCTGACTGACTTGCAGCGGCTACAGGCCCGAGTGGAAGAGCTGGAGCGCTG
GGTGTACGGGCCGGGCGGGGCGCGCGGCTCACGGAAGGTGGCTGACGGCCTGGTCAAGGTGCAGGTGGCTTTGGG
GAACATTTCCAGCAAGAGGGAGAGGGTGAAGATTCTCTACAAAAAGATTGAAGATCTGATCAAGTACCTGGATCC
TGAGTACATCGACCGCATTGCCATACCTGATGCCTCTAAGCTGCAATTCATCCTAGCAGAGGAGCAGTTTATCCT
TTCCCAGGTTGCACTCCTGGAGCAGGTGAATGCCTTGGTGCCCATGCTGGACAGTGCTCACATCAAAGCCGTTCC
TGAGCATGCTGCCCGCCTGCAGCGCTTGGCCCAGATCCACATTCAGCAGCAGGCTCCATGGGGAGTGGGAGTCCG
TGATGAGGCAGGAAGTTTAGTGGAAGATGTGGGCTTTGCCCAGTTCCTTTCTGTGCTACACTTTGGCCCTACAGG
ACCAGTGTGTGGAAATCAC**TGA**GGAGTCCAAGGCTCTCCTGGAGGAATACAACAAGACTACAATGCTTCTCTCCA
AGCAATTCGTGCAGTGGGATGAGCTACTTTGCCAGCTAGAGGCCGCCACGCAAGTGAAGCCAGCAGAGGAGTGAT
AGCTGCTCCCCATCCCAAAGTGGGCCTGGGCAGTCAGGCTCCAGGGCCCTATGCCAACCTGCCTTTGTTACAAGG
CAGAGGAAGCTTTGTATTTATTGGCTTCAAGGCCCACCTCTCTCTGTACTCTGGGCTCTAAAGTTGGAGGTCAGGTT
ACCTGAGGTTTGCAATTTGCAACACCCACCCTCCCCCCAATCAGTGTTCTTATTTCAGTGACAATAAACCATAGA
GATG

FIGURE 4261

CTCCGAGGCCGTGAGCGCAAAGCCTCAGGCCCCGGCTCCCTCCTGAGCTGCGCCGTGCCAGGCCGCCCGCCGGGA
TGCAGTGGGCCGTGGGCCGGCGGTGGGCGTGGGCCGCGCTGCTCCTGGCTGTCGCAGCGGTGCTGACCCAGGTCG
TCTGGCTCTGGCTGGGTACGCAGAGCTTCGTCTTCCAGCGCGAAGAGATAGCGCAGTTGGCGCGGCAGTACGCTG
GGCTGGACCACGAGCTGGCCTTCTCTCGTCTGATCGTGGAGCTGCGGCGGCTGCACCCAGGCCACGTGCTGCCCG
ACGAGGAGCTGCAGTGGGTGTTCGTGAATGCGGGTGGCTGGATGGGCGCCATGTGCCTTCTGCACGCCTCGCTGT
CCGAGTATGTGCTGCTCTTCGGCACCGCCTTGGGCTCCCGCGGCCACTCGGGGCGCTACTGGGCTGAGATCTCGG
ATACCATCATCTCTGGCACCTTCCACCAGTGGAGAGAGGGCACCACCAAAAGTGAGGTCTTCTACCCAGGGGAGA
CGGTAGTACACGGGCCTGGTGAGGCAACAGCTGTGGAGTGGGGGCCAAACACATGGATGGTGGAGTACGGCCGGG
GCGTCATCCCATCCACCCTGGCCTTCGCGCTGGCCGACACTGTCTTCAGCACCCAGGACTTCCTCACCCTCTTCT
ATACTCTTCGCTCCTATGCTCGGGGCCTCCGGCTTGAGCTCACCACCTACCTCTTTGGCCAGGACCCTTGACCAG
CCAGGCCTGAAGGAAGACCTGCGGATAGACAGGAGCGGGCAGGCCCGCACATATCCACTTGCTGGAGCCCATGTT
TACAGACAGGGACATACACCATGCAGATCCTGAGTTCCTGCTGTATGAGCAGGGATATCCATGCTTATGTATCCA
AACACAGAGACCCATGGGAACAAATGAGACACATATAGATACTGAGACCTGTGTGTACAGTAGGACCATGCACTC
ACACCCATCTGGAGAGGGAGCCCCCGGTATACCAAGGGAGCCAGTTGTGTTCAGACACACACATCACAGCTTGAC
TCACTAACTGAGGCCTTTCCATAGCTCCACAGCTTCCCACCTCCTCCCCACCAAACCGGGGTTCTAGAGTTAAGG
ATGGGGGAGGGTATTATACTGCCTCAGTCTGACTCCTCAACCCAGCAGCAATTTGAGGGGATGAGGGGGAAGAGG
AGCTGCCTTTTGGAGGCCCCCTTCACCTGCAGCTATGATGCCCTTCCCCTTCTCCCCTGTCCTCACCATATGCCT
TATCCCCATTCTACTCCCCTGCTATGCAAGTGCCCCTGTGGCTTGTCCCCAACCCCCTCAGCAACAAAGCTCAGC
TGGGGAACGAGAGTAATTTGAAGAATGCTTGAAGTCAGCGTCTTCCATTCCAGAAAGACCCCCATTCTTCCTTTG
GGGGTATGATGTGGAAGCTGGTTTCAGCCCAGGACCCACCACTGAGGAGAGGATCTAGACAGGTGGGCCTAATTC
CAAGGGGCCCTTCCTGGCCTGGAGAAGGCCTTTTACACACACACAACACATACACACACACACACACACACACAT
ATCACAGTTTTCACACAGCCCCTGCTGCATTCTCTGTCCATCTGTCTGTTTCTATTAATAAAGATTTGTTGATCT
GTTCC

FIGURE 4262

TTTTCCAGCGGATCCCCCGGTGGCCTC**ATG**TCGCGCAGTGGAACCGATCCTCAGCAACGCCAGCAGGCGTCAGAG
GCGGACGCCGCAGCAGCAACCTTCCGGGCAAACGACCATCAGCATATCCGCTACAACCCGCTGCAGGATGAGTGG
GTGCTGGTGTCAGCTCACCGCATGAAGCGGCCCTGGCAGGGTCAAGTGGAGCCCCAGCTTCTGAAGACAGTGCCC
CGCCATGACCCTCTCAACCCTCTGTGTCCTGGGGCCATCCGAGCCAACGGAGAGGTGAATCCCCAGTACGATAGC
ACCTTCCTGTTTGACAACGACTTCCCAGCTCTGCAGCCTGATGCCCCCAGTCCAGGACCCAGTGATCATCCCCTT
TTCCAAGCAAAGTCTGCTCGAGGAGTCTGTAAGGTCATGTGCTTCCACCCCTGGTCGGATGTAACGCTGCCACTC
ATGTCGGTCCCTGAGATCCGGGCTGTTGTTGATGCATGGGCCTCAGTCACAGAGGAGCTGGGTGCCCAGTACCCT
TGGGTGCAGATCTTTGAAAACAAAGGTGCCATGATGGGCTGTTCTAACCCCCACCCCCACTGCCAGGTATGGGCC
AGCAGTTTCCTGCCAGATATTGCCCAGCGTGAGGAGCGATCTCAGCAGGCCTATAAGAGTCAGCATGGAGAGCCC
CTGCTAATGGAGTACAGCCGCCAGGAGCTACTCAGGAAGGAACGTCTGGTCCTAACCAGTGAGCACTGGTTAGTA
CTGGTCCCCTTCTGGGCAACATGGCCCTACCAGACACTGCTGCTGCCCCGTCGGCATGTGCGGCGGCTACCTGAG
CTGACCCCTGCTGAGCGTGATGATCTAGCCTCCATCATGAAGAAGCTCTTGACCAAGTATGACAACCTCTTTGAG
ACGTCCTTTCCCTACTCCATGGGCTGGCATGGGGCTCCCACAGGATCAGAGGCTGGGGCCAACTGGAACCATTGG
CAGCTGCACGCTCATTACTACCCTCCGCTCCTGCGCTCTGCCACTGTCCGGAAATTCATGGTTGGCTACGAAATG
CTTGCTCAGGCTCAGAGGGACCTCACCCCTGAGCAGGCTGCAGAGAGACTAAGGGCACTTCCTGAGGTTCATTAC
CACCTGGGGCAGAAGGACAGGGAGACAGCAACCATCGCC**TGA**CCACGCCGACCACAGGGCCTTGAATCCTTTTTT
GTTTTCAACAGTCTTGCTGAATTAAGCAGAAAGGGCCTTGAATCCTGGCCTGGAATTTGGGCAGATATAGCATTA
ATAAAACTGTGCATCTC

FIGURE 4263

CTTGCAGCTGCCCACCTCACCCTCAGCTCTGGCCTCTTACTCACCCTCTACCACAGAC**ATG**GCTCAGTCACTGGC
TCTGAGCCTCCTTATCCTGGTTCTGGCCTTTGGCATCCCCAGGACCCAAGGCAGTGATGGAGGGGCTCAGGACTG
TTGCCTCAAGTACAGCCAAAGGAAGATTCCCGCCAAGGTTGTCCGCAGCTACCGGAAGCAGGAACCAAGCTTAGG
CTGCTCCATCCCAGCTATCCTGTTCTTGCCCCGCAAGCGCTCTCAGGCAGAGCTATGTGCAGACCCAAAGGAGCT
CTGGGTGCAGCAGCTGATGCAGCATCTGGACAAGACACCATCCCCACAGAAACCAGCCCAGGGCTGCAGGAAGGA
CAGGGGGGCCTCCAAGACTGGCAAGAAAGGAAAGGGCTCCAAAGGCTGCAAGAGGACTGAGCGGTCACAGACCCC
TAAAGGGCCA**TAG**CCCAGTGAGCAGCCTGGAGCCCTGGAGACCCCACCAGCCTCACCAGCGCTTGAAGCCTGAAC
CCAAGATGCAAGAAGGAGGCTATGCTCAGGGGCCCTGGAGCAGCCACCCCATGCTGGCCTTGCCACACTCTTTCT
CCTGCTTTAACCACCCCATCTGCATTCCCAGCTCTACCCTGCATGGCTGAGCTGCCCACAGCAGGCCAGGTCCAG
AGAGACCGAGGAGGGAGAGTCTCCCAGGGAGCATGAGAGGAGGCAGCAGGACTGTCCCCTTGAAGGAGAATCATC
AGGACCCTGGACCTGATACGGCTCCCCAGTACACCCCACCTCTTCCTTGTAAATATGATTTATACCTAACTGAAT
AAAAAGCTGTTCTGTCTTCCCACCC

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FIGURE 4264

ATGACCACCTCAGCATGTTCCCACTTAAATAAAGGCATCAAGCAGGTGTACATATCCCTGCCTCAGGGTGAGAAA
GTCCGGGTCATGTATATCTGGATCGATGGTACTGGAAAAGGACTGCACTGCAAGACCTGGACCCTGGACAGTGAG
CCCAAGTGTGTGGAAGAGTTGCCTGAGGGGAATTTTGATGGCTCTATAGACCCTTTCCGTAAGGATCCTAACAAG
CTGGTATTGTGTGAAGTTTTCAAGTACAATCGAAAGCCTGCAGAGACCAATTTGAGGCACACCTGTAAACGGATA
ATCGACGTGATGAGCAACCAGCACCCCTGGTTTGGCATGGAGCAGGAATATACCCTCATGGGGACAAATGGCCAC
CCCTTTGGTTGGCCTTCCAGTGGCTTCCCGGGGCCTCAGACTCCATATTACTGCAGTGTGGGAGCAGACAGAACC
TATGGCAGGGACATCGTGGAGGCTCATTACAGCGCCTGCTTGTATGCTGGAGTCAGGATTGTGGGGACTAATGCC
AATCATGCCTCCCCACCCATTCCTGGGAACTGGAATGGTGCAGGCTGCCATACCAACTTTAGCACCAAGGCCATG
TGGGAGGAGAATGGTCTGAAATACACTGGGGAGGCCATCAAGAAATTAAGCAAGCGACACCAGTACCACATCTGT
GCCTGTGATCCCAAAGGAGGCCTGGACAAGGCCCGACACCTAACTGGATTCCATGAAACCTCCAACATCAACAAC
TTTTCTGCTGGTGTAGCCAATCGTAGCGCCAGCATATGCATTCCCTGGACTGTCGGCCAGGAGAAGAAGGGTTAC
TTTGAAGACCATCACCCCTCTGCCAACTGTGACCCCTTTTCGGTGACAGAAGCCCTCATCCGCACGTGTCTTCTC
AATGAAACTGGTGATGAGCCCTTCCAGTACAAAAAC**TAA**

FIGURE 4265

GAACATCCAGTAATGGATAAAAATGAGCTGGTTCAGAAGGCCAAACTGGCCGAGCAGGCTGAGTGGTATGATGAT
ATGGCAGCCTGCATGAAGTCTGTAACTGAGCAAGGAGCTTAATTATCCAATGAGGAGAGGAATCTTCTCTCAGTT
GCTTATAAAAATGTTGTAGGAGCCCGTAGGTCATCTTGGAGCATCGTCTCAAGTATTGAACAAAAGACAGAAGGT
GCTGAGAAAAAAACAGCAGATGGCTCAAGAATACAGAGAGAAAACTGAGACCTAGCTAAGAGATAGCTGCAATGA
TGTACTGTCCCTTTTGGAAAAGTTCTTGATCCCCAGTGCTTCACAAGCGAGAGCAAATTCTTCTATTTGAAA**ATG**

AAAGGAGATCACTACCATTACTTGGCTGAGGTTGCCGCTGGTGATGATAAGAAAGGGACTGTGGATCAGTCACAA
CAAGCACACCAAGAAGCTTTTGAAATCAGCAAAAAGGAAATGCAACCAACATATCCTATCAGACTGGGTCTGGCC
CTTAACTTCTCCGTGTTCTATTATGACGTTCTGAATTCCCCAGAGAAAGCCTGCTCTCTTGCAAAGACAGCTTTT
GATGAAGCCATTGCTGAACTTGATACATTAAGTGAAGAGTCATCCAAAGACAGCACACTAATAATGCAATTACTG
AGAGACAACTTGACATTGTGGACATCGGATACCCGAGGAGACAAAGCTGAAGCAGGAGAAGGAGGGGAAAAT**TAA**

CCGGCCTTCCAACTTTTGTCTGCCTCGTTCTAAAATTTACACAGTAGACCATTTGTCATCCATGCTGTCCCACAA
ATAGTTGTTTACAATTTATGACAGGTTTATGTTACTTCTATTTGAATTTCTATATTTCCCACGTGGTTTTTATGT
TTAATATTAGGGGAGTAGAGCCAGTTAACATTTAGGGAGTTATCTGTTTTCATCTTGAGGTGGCCAATATGGGGA
TGTGGAATTTTTATACAAGTTATTAATGTTTGGCATAGTACTTTTGGTACATTGTGGCTTTACAAGGGCCAGTGT
TAAAACTGCTTCCATGTCTAAGCAAAGAAAACTGCCTACATATTGGTTTGTCCTGGTGGGGACTAAAAGGGATCA
TTGGTTCCAGTCACAGGTGTAGTAATTGTGGGTATTTTAAGGTTTGGAGCACTTACAAGGCTGTGGTAGAAACAG
ATATCCCACAGATACCACATGTTAAACCATGTATATCTGTGGAACACTCAATCTCAATGTGCATACCCTTGACTA
TAGCTGCAGAAGTGTTCCTTTAGACAAAGCTGTGACCCATTTTACTCTGGATAAGGGCAGAAACGGTTCACATTC
CATTATTTGTAAAGTTACCTGCTGTTAGCTTTCATTATTTTTGCTACACTCATTTTATTTGTATTTAAATGTCTT
AGGCAACCTAAGAACAAATGTAAAAGTAAAGATGCAGGGAAAATGAATTGCTTGGTATTCATTACTTCATGTATA
TCAAGCACAGCAGTAAAACAAAAACCCATGTATTTAACTTTTTTTTTAGGTTTTTTGCTTTTGTGATTTTTTTTT
TTGATACTTGCCTAACATGCATGTGCTGTAAAAATAGTTAACACGGAAATAACTTGAGATGATGGCTACCTTTGT
TTAATGTCTTATGAAATTTTCATGAACAATTCAAACATAATTGTTAAGAACACGTGTATTAAATTCATGTAAATG
GAATAAAAGTTTTAAGAATGGA

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FIGURE 4266

CTGCCACTGCCACCTCGCGGATCAGGAGCCAGCGTTGTTCGCCCGACGCCTCGCTGCCGGTGGGAGGAAGCGAGA
GGGAAGCCGCTTGCGGGTTTGTCGCCGCTGCTCGCCCACCGCCTGGAAGAGCCGAGCCCCGGCCCAGTCGGTCGC
TTGCCACCGCTCGTAGCCGTTACCCGCGGGCCGCCACAGCCGCCGGCCGGGAGAGGCGCGCGCC**ATG**GCTTCTGG
AGCCGATTCAAAAGGTGATGACCTATCAACAGCCATTCTCAAACAGAAGAACCGTCCCAATCGGTTAATTGTTGA
TGAAGCCATCAATGAGGACAACAGTGTGGTGTCCTTGTCCCAGCCCAAGATGGATGAATTGCAGTTGTTCCGAGG
TGACACAGTGTTGCTGAAAGGAAAGAAGAGACGAGAAGCTGTTTGCATCGTCCTTTCTGATGATACTTGTTCTGA
TGAGAAGATTCGGATGAATAGAGTTGTTCGGAATAACCTTCGTGTACGCCTAGGGGATGTCATCAGCATCCAGCC
ATGCCCTGATGTGAAGTACGGCAAACGTATCCATGTGCTGCCCATTGATGACACAGTGGAAGGCATTACTGGTAA
TCTCTTCGAGGTATACCTTAAGCCGTACTTCCTGGAAGCGTATCGACCCATCCGGAAAGGAGACATTTTTCTTGT
CCGTGGTGGGATGCGTGCTGTGGAGTTCAAAGTGGTGGAAACAGATCCTAGCCCTTATTGCATTGTTGCTCCAGA
CACAGTGATCCACTGCGAAGGGGAGCCTATCAAACGAGAGGATGAGGAAGAGTCCTTGAATGAAGTAGGGTATGA
TGACATTGGTGGCTGCAGGAAGCAGCTAGCTCAGATAAAGGAGATGGTGGAACTGCCCCTGAGACATCCTGCCCT
CTTTAAGGCAATTGGTGTGAAGCCTCCTAGAGGAATCCTGCTTTACGGACCTCCTGGAACAGGAAAGACCCTGAT
TGCTCGAGCTGTAGCAAATGAGACTGGAGCCTTCTTCTTCTTGATCAATGGTCCTGAGATCATGAGCAAATTGGC
TGGTGAGTCTGAGAGCAACCTTCGTAAAGCCTTTGAGGAGGCTGAGAAGAATGCTCCTGCCATCATCTTCATTGA
TGAGCTAGATGCCATCGCTCCCAAAAGAGAGAAAACTCATGGCGAGGTGGAGCGGCGCATTGTATCACAGTTGTT
GACCCTCATGGATGGCCTAAAGCAGAGGGCACATGTGATTGTTATGGCAGCAACCAACAGACCCAACAGCATTGA
CCCAGCTCTACGGCGATTTGGTCGCTTTGACAGGGAGGTAGATATTGGAATTCCTGATGCTACAGGACGCTTAGA
GATTCTTCAGATCCATACCAAGAACATGAAGCTGGCAGATGATGTGGACCTGGAACAGGTAGCCAATGAGACTCA
CGGGCATGTGGGTGCTGACTTAGCAGCCCTGTGCTCAGAGGCTGCTCTGCAAGCCATCCGCAAGAAGATGGATCT
CATTGACCTAGAGGATGAGACCATTGATGCCGAGGTCATGAACTCTCTAGCAGTTACTATGGATGACTTCCGGTG
GGCCTTGAGCCAGAGTAACCCATCAGCACTGCGGGAAACCGTGGTAGAGGTGCCACAGGTAACCTGGGAAGACAT
CGGGGGCCTAGAGGATGTCAAACGTGAGCTACAGGAGCTGGTCCAGTATCCTGTGGAGCACCCAGACAAATTCCT
GAAGTTTGGCATGACACCTTCCAAGGGAGTTCTGTTCTATGGACCTCCTGGCTGTGGGAAAACTTTGTTGGCCAA
AGCCATTGCTAATGAATGCCAGGCCAACTTCATCTCCATCAAGGGTCCTGAGCTGCTCACCATGTGGTTTGGGGA
GTCTGAGGCCAATGTCAGAGAAATCTTTGACAAGGCCCGCCAAGCTGCCCCCTGTGTGCTATTCTTTGATGAGCT
GGATTCGATTGCCAAGGCTCGTGGAGGTAACATTGGAGATGGTGGTGGGGCTGCTGACCGAGTCATCAACCAGAT
CCTGACAGAAATGGATGGCATGTCCACAAAAAAAAAATGTGTTCATCATTGGCGCTACCAACCGGCCTGACATCAT
TGATCCTGCCATCCTCAGACCTGGCCGTCTTGATCAGCTCATCTACATCCCACTTCCTGATGAGAAGTCCCGTGT
TGCCATCCTCAAGGCTAACCTGCGCAAGTCCCCAGTTGCCAAGGATGTGGACTTGGAGTTCCTGGCTAAAATGAC
TAATGGCTTCTCTGGAGCTGACCTGACAGAGATTTGCCAGCGTGCTTGCAAGCTGGCCATCCGTGAATCCATCGA
GAGTGAGATTAGGCGAGAACGAGAGAGGCAGACAAACCCATCAGCCATGGAGGTAGAAGAGGATGATCCAGTGCC
TGAGATCCGTCGAGATCACTTTGAAGAAGCCATGCGCTTTGCGCGCCGTTCTGTCAGTGACAATGACATTCGGAA
GTATGAGATGTTTGCCCAGACCCTTCAGCAGAGTCGGGGCTTTGGCAGCTTCAGATTCCCTTCAGGGAACCAGGG
TGGAGCTGGCCCCAGTCAGGGCAGTGGAGGCGGCACAGGTGGCAGTGTATACACAGAAGACAATGATGATGACCT
GTATGGC**TAA**GTGGTGGTGGCCAGCGTGCAGTGAGCTGGCCTGCCTGGACCTTGTTCCCTGGGGGTGGGGGCGCT
TGCCCAGGAGAGGGACCAGGGGTGCGCCCACAGCCTGCTCCATTCTCCAGTCTGAACAGTTCAGCTACAGTCTGA
CTCTGGACAGGGGGTTTCTGTTGCAAAAATACAAAACAAAAGCGATAAAATAAAAGCGATTTTCATTTGGTAGGC
GGAGAGTGAATTACCAACAGGGAATTGGGCCTTGGGCCTATGCCATTTCTGTTGTAGTTTGGGGCAGTGCAGGGG
ACCTGTGTGGGGTGTGAACCAAGGCACTACTGCCACCTGCCACAGTAAAGCATCTGCACTTGACTCAATGCTGCC
CGAGCCCTCCCTTCCCCCTATCCAACCTGGGTAGGTGGGTAGGGGCCACAGTTGCTGGATGTTTATATAGAGAGT
AGGTTGATTTATTTTACATGCTTTTGAGTTAATGTTGGAAAACTAATCACAAGCAGTTTCTAAACCAAAAAATGA
CATGTTGTAAAAGGACAATAAACGTTGGGTCAAAATGG

4910/5332

FIGURE 4267

AGGAGGACCTGGGGGTGTGGCAGCGAGGAAGGGCCGAGCCACGGACTGTGGGGCCGAAACTCGCTCCCGCCCACC
CTTTCTCGAGGCTGTGGCCTCCGCGAGAGCCGAGCGGGCCGCACCGCCGGCCGTGCGACTGCCCCAGTCAGACAC
GACCCCGGCTTCTAGCCCGCCTAAGCCTGTTTGGGGTTGCTGACTCGTTTCCTCCCCGAGTTTCCCGCGGGAACT
AACTCTTCAAGAGGACCAACCGCAGCCCAGAGCTTCGCAGACCCGGCCAACCAGAGGCGAGGTTGAGAGCCCGGC
GGGCCGCGGGGAGAGAGCGTCCCATCTGTCCTGGAAAGCCTGGGCGGGTGGATTGGGACCCCGAGAGAAGCAGGG
GAGCTCGGCGGGGTGCAGAAGTGCCCAGGCCCCTCCCCGCTGGGGTTGGGAGCTTGGGCAGGCCAGCTTCACCCT
TCCTAAGTCCGCTTCTGGTCTCCGGGCCCAGCCTCGGCCACC**ATG**TCCCGCCAGACCACCTCTGTGGGCTCCAGC
TGCCTGGACCTGTGGAGGGAAAAGAATGACCGGCTCGTTCGACAGGCCAAGGTGGCTCAGAACTCCGGTCTGACT
CTGAGGCGACAGCAGTTGGCTCAGGATGCACTGGAAGGGCTCAGAGGGCTCCTCCATAGTCTGCAAGGGCTCCCT
GCAGCTGTTCCTGTTCTTCCCTTGGAGCTGACTGTCACCTGCAACTTCATTATCCTGAGGGCAAGCTTGGCCCAG
GGTTTCACAGAGGATCAGGCCCAGGATATCCAGCGGAGCCTAGAGAGAGTGCTGGAGACACAGGAGCAGCAGGGG
CCCAGGTTGGAACAGGGGCTCAGGGAGCTGTGGGACTCTGTCCTTCGTGCTTCCTGCCTTCTGCCGGAGCTGCTG
TCTGCCCTGCACCGCCTGGTTGGCCTGCAGGCTGCCCTCTGGTTGAGTGCTGACCGTCTTGGGGACCTGGCCTTG
TTACTAGAGACCCTGAATGGCAGCCAGAGTGGAGCCTCTAAGGATCTGCTGTTACTTCTGAAAACTTGGAGTCCC
CCAGCTGAGGAATTAGATGCTCCATTGACCCTGCAGGATGCCCAGGGATTGAAGGATGTCCTCCTGACAGCATTT
GCCTACCGCCAAGGTCTCCAGGAGCTGATCACAGGGAACCCAGACAAGGCACTAAGCAGCCTTCATGAAGCGGCC
TCAGGCCTGTGTCCACGGCCTGTGTTGGTCCAGGTGTACACAGCACTGGGGTCCTGTCACCGTAAGATGGGAAAT
CCACAGAGAGCACTGTTGTACTTGGTTGCAGCCCTGAAAGAGGGATCAGCCTGGGGTCCTCCACTTCTGGAGGCC
TCTAGGCTCTATCAGCAACTGGGGGACACAACAGCAGAGCTGGAGAGTCTGGAGCTGCTAGTTGAGGCCTTGAAT
GTCCCATGCAGTTCCAAAGCCCCGCAGTTTCTCATTGAGGTAGAATTACTACTGCCACCACCTGACCTAGCCTCA
CCCCTTCATTGTGGCACTCAGAGCCAGACCAAGCACATACTAGCAAGCAGGTGCCTACAGACGGGGAGGGCAGGA
GACGCTGCAGAGCATTACTTGGACCTGCTGGCCCTGTTGCTGGATAGCTCGGAGCCAAGGTTCTCCCCACCCCCC
TCCCCTCCAGGGCCCTGTATGCCTGAGGTGTTTTTGGAGGCAGCGGTAGCACTGATCCAGGCAGGCAGAGCCCAA
GATGCCTTGACTCTATGTGAGGAGTTGCTCAGCCGCACATCATCTCTGCTACCCAAGATGTCCCGGCTGTGGGAA
GATGCCAGAAAAGGAACCAAGGAACTGCCATACTGCCCACTCTGGGTCTCTGCCACCCACCTGCTTCAGGGCCAG
GCCTGGGTTCAACTGGGTGCCCAAAAAGTGGCAATTAGTGAATTTAGCAGGTGCCTCGAGCTGCTCTTCCGGGCC
ACACCTGAGGAAAAAGAACAAGGGGCAGCTTTCAACTGTGAGCAGGGATGTAAGTCAGATGCGGCACTGCAGCAG
CTTCGGGCAGCCGCCCTAATTAGTCGTGGACTGGAATGGGTAGCCAGCGGCCAGGATACCAAAGCCTTACAGGAC
TTCCTCCTCAGTGTGCAGATGTGCCCAGGTAATCGAGACACTTACTTTCACCTGCTTCAGACTCTGAAGAGGCTA
GATCGGAGGGATGAGGCCACTGCACTCTGGTGGAGGCTGGAGGCCCAAACTAAGGGGTCACATGAAGATGCTCTG
TGGTCTCTCCCCCTGTACCTAGAAAGCTATTTGAGCTGGATCCGTCCCTCTGATCGTGACGCCTTCCTTGAAGAA
TTTCGGACATCTCTGCCAAAGTCTTGTGACCTG**TAG**CTGCCACGTTTTGAAGAGCTTGAGCTGGGTCCCCAGTGG
GCTGTCTCTCTGTGGGGAGGGCTTTCTGCTTCACCATCATTAGGAATGTGACCATTCCTATATAATTCCTGGACT
GGTGAGATTGGTGGTAGGCCTGTGAAATTTGCCCTAGTTACTACCATTCTCGTTTTGGAGGAAACAATCTCTGCC
ACCACCAAGTCATTGACTTTGCTCGAGGCACCTTTTTTCCTGTTTCTCCTTTTCTGTTGTCGAGTAAAATTTCAT
ATTTAT

FIGURE 4268

TGGACAGTGGTGAATGGGACGTGCTGATTGCTCACTTCCTGGGTGTGGACCACTGTGGCCACAAGCATGGCCCTC
ACCACCCTGAA**ATG**GCCAAGAAACTTAGCCAGATGGACCAGGTGATCCAGGGACTTGTGGAGCGTCTGGAGAATG
ACACACTGCTGGTAGTGGCTGGGGACCATGGGATGACCACAAATGGAGACCATGGAGGGGACAGTGAGCTGGAGG
TCTCAGCTGCTCTCTTTCTGTATAGCCCCACAGCAGTCTTCCCCAGCACCCCACCAGAGGAGCCAGAGGTGATTC
CTCAAGTTAGCCTTGTGCCCACGCTGGCCCTGCTGCTGGGCCTGCCCATCCCATTTGGGAATATCGGGGAAGTGA
TGGCTGAGCTATTCTCAGGGGGTGAGGACTCCCAGCCCCACTCCTCTGCTTTAGCCCAAGCCTCAGCTCTCCATC
TCAATGCTCAGCAGGTGTCCCGATTTCTTCATACCTACTCAGCTGCTACTCAGGACCTTCAAGCTAAGGAGCTTC
ATCAGCTGCAGAACCTCTTCTCCAAGGCCTCTGCTGACTACCAGTGGCTTCTCCAGAGCCCCAAGGGGGCTGAGG
CGACACTGCCGACTGTGATTGCTGAGCTGCAGCAGTTCCTGCGGGGAGCTCGGGCCATGTGCATCGAGTCTTGGG
CTCGTTTCTCTCTGAGCTTCCTTCTCCTACATCTGCTTGCTGCTGGGATACCCGTCACCACCCCTGGTCCTTTTA
CTGTGCCATGGCAGGCAGTCTCGGCTTGGGCCCTCATGGCCACACAGACCTTCTACTCCACAGGCCACCAGCCTG
TCTTTCCAGCCATCCATTGGCATGCAGCCTTCGTGGGATTCCCAGAGGGTCATGGCTCCTGTACTTGGCTGCCTG
CTTTGCTAGTGGGAGCCAACACCTTTGCCTCCCACCTCCTCTTTGCAGTAGGTTGCCCACTGCTCCTGCTCTGGC
CTTTCCTGTGTGAGAGTCAAGGGCTGCGGAAGAGACAGCAGCCCCCAGGGAATGAAGCTGATGCCAGAGTCAGAC
CCGAGGAGGAAGAGGAGCCACTGATGGAGATGCGGCTCCGGGATGCGCCTCAGCACTTCTATGCAGCACTGCTGC
AGCTGGGCCTCAAGTACCTCTTTATCCTTGGTATTCAGATTCTGGCCTGTGCCTTGGCAGCCTCCATCCTTCGCA
GGCATCTCATGGTCTGGAAAGTGTTTGCCCCTAAGTTCATATTTGAGGCTGTGGGCTTCATTGTGAGCAGCGTGG
GACTTCTCCTGGGCATAGCTTTGGTGATGAGAGTGGATGGTGCTGTGAGCTCCTGGTTCAGGCAGCTATTTCTGG
CCCAGCAGAGG**TAG**CCTAGTCTGTGATTACTGGCACTTGGCTACAGAGAGTGCTTGAGAACAGTGTAGCCTGGCC
TGTACAGGTACTGGATGATCTGCAAGACAGGCTCAGCCATACTCTTACTATCATGCAGCCAGGGGCCGCTGACAT
CTAGGACTTCATTATTCTATAATTCAGGACCACAGTGGAGTATGATCCCTAACTCCTGATTTGGATGCATCTGAG
GGACAAGGGGGGCGGTCTCCGAAGTGGAATAAAATAGGCCGGGCGTGGTGACTTGCACCTATAATCCCAGCACTT
TGGGAGGCAGAGGTGGGAGGATTGCTTGGTCCCAGGAGTTCAAGACCAGCCTGTGGAACATAACAAGACCCCGTC
TCTACTATTTAAAAAAAAGTGTAATAAAATGATAATATAATT

FIGURE 4269

GGCTTCTGGGAGCGACCGCTCCGCTCGTCTCGTTGGTTCCGGAGGTCGCTGCGGCGGTGGGAA**ATG**CTGGCGCGC
GCGGCGCGGGGCACTGGGGCCCTTTTGCTGAGGGGCTCTCTACTGGCTTCTGGCCGCGCTCCGCGCCGCGCCTCC
TCTGGATTGCCCCGAAACACCGTGGTACTGTTCGTGCCGCAGCAGGAGGCCTGGGTGGTGGAGCGAATGGGCCGA
TTCCACCGGATCCTGGAGCCTGGTTTGAACATCCTCATCCCTGTGTTAGACCGGATCCGATATGTGCAGAGTCTC
AAGGAAATTGTCATCAACGTGCCTGAGCAGTCGGCTGTGACTCTCGACAATGTAACTCTGCAAATCGATGGAGTC
CTTTACCTGCGCATCATGGACCCTTACAAGGCAAGCTACGGTGTGGAGGACCCTGAGTATGCCGTCACCCAGCTA
GCTCAAACAACCATGAGATCAGAGCTCGGCAAACTCTCTCTGGACAAAGTCTTCCGGGAACGGGAGTCCCTGAAT
GCCAGCATTGTGGATGCCATCAACCAAGCTGCTGACTGCTGGGGTATCCGCTGCCTCCGTTATGAGATCAAGGAT
ATCCATGTGCCACCCCGGGTGAAAGAGTCTATGCAGATGCAGGTGGAGGCAGAGCGGCGGAAACGGGCCACAGTT
CTAGAGTCTGAGGGGACCCGAGAGTCGGCCATCAATGTGGCAGAAGGGAAGAAACAGGCCCAGATCCTGGCCTCC
GAAGCAGAAAAGGCTGAACAGATAAATCAGGCAGCAGGAGAGGCCAGTGCAGTTCTGGCGAAGGCCAAGGCTAAA
GCTGAAGCTATTCGAATCCTGGCTGCAGCTCTGACACAACATAATGGAGATGCAGCAGCTTCACTGACTGTGGCC
GAGCAGTATGTCAGCGCGTTCTCCAAACTGGCCAAGGACTCCAACACTATCCTACTGCCCTCCAACCCTGGCGAT
GTCACCAGCATGGTGGCTCAGGCCATGGGTGTATATGGAGCCCTCACCAAAGCCCCAGTGCCAGGGACTCCAGAC
TCACTCTCCAGTGGGAGCAGCAGAGATGTCCAGGGTACAGATGCAAGTCTTGATGAGGAACTTGATCGAGTCAAG
ATGAGT**TAG**TGGAGCTGGGCTTGGCCAGGGAGTCTGGGAACAAGGAAGCAGATTTTCCTGATTCTGGCTCTAGCT
TCCCTGCCAAGATTTTGGTTTTTATTTTTTTATTTGAACTTTAGTCGTGTAATAAACTCACCAGTGGCAAACC

FIGURE 4270

ACAGCTAGGGCTGCTCAGTAACTGCCCCAACCACTACCACGTCCCCAAGTGCAACGGGACCCACGGAACTACAGG
TGTGGGGCAGGGTGAGCGTGGAAGAAGGGACGCGGATGGGGGTGCGCTTTGCAGACGATCTGGAGACTGCTGTGT
GTTGAGGGAAGATACGAAGTCGCGGGAGCAGTTGGGGACTCAATGTGTGGGCAACAAGGGTCCTGCTGAGCTCAG
GAGCTGCACGGAATGGTGGCAGTCACCTTGCCAGTGCAGCAGGCATGGATCAGACTGCAAGCTAGGGGCACGAGG
CATCAGTTGGGAAGAGGGGACGCACAGCTAGGCTTGAGGCCTCTTCATCGGGATGTCCCCAGGCCCCCCAGCCCA
GGCCCAGCATAAAGGCCGTGTTGGGGGGCCCCCCTGACCCAAGGGGGGCTTC**ATG**CGCCACGTGCAGGCGGAGCC
GTCTCCATCCTCAGAGCCGGAGGCTGGCCCTTCACAGCCTCCAGTCAGGCAGGGGGCCCTCCAGGGTGGCCTGCT
CATGGGCTACAGCCCAGCAGGGGGGGCGACATCCCCCGGGGTCTACCAGGTATCCATCTTTTCCCCTCCGGCTGG
TACCTCTGAGCCTCATAGGGCCCTGAAACGACAAGCCCCATCCACTGAGGGTCCCCGGGAGCTGAAGAGAGGCCC
TGGGCTGGGGGCCAGAGAGGGACTACCCCCTGAAGAACCATCTACTGTGGGGCTCTTAGGCCCAGAGGGACCGGG
GCTGGGACTAGGTGTGGCCAGCCAGCATTTCTCCCACCGTGGCCTCTGTGTTGTGGAACAGAGAAGTAGTGTCAC
CTCATCTTGGACTTCGGGGGCCTGGAGTCCCCCCTGCCCCCCATCAAATGCTTCCTGCAATACTTTGCACACCAG
AGACTGGGCCTCCCCAGATCCAGGGGGACAGGGGTCCCTGGGGGAGTCCCCAGGGCCAGCCCCTCCAGGCCAGCT
GCACACACTTGACACTGATTTGCACAGTCTTGCACAAATAGGGGGTAAGAGCCCAGTGGCTGGGGTGGGCAATGG
GGGTAGCCTCTGGCCTAGGGAGTCCCCTGGCACTGCCAATGGGCACAGTCCCGAGCACACACCCCCTGGCCCTGG
ACCCCCAGGCCCCTGCCCCACCAAGCGAAGGCTGCTTCCTGCTGGAGAAGCCCCAGATGTCAGCTCTGAGGAAGA
GGGGCCAGCCCCTCGGAGGCGCCGGGGATCCCTGGGCCACCCTACTGCTGCCAACAGTTCTGATGCCAAAGCCAC
ACCCTTCTGGAGCCACCTGCTGCCTGGGCCCAAAGAGCCTGTTTTGGACCCAACAGACTGCGGTCCCATGGGGCG
GAGGCTGAAAGGAGCCCGTCGCCTGAAGCTGAGCCCCCTTCGAAGCCTCCGGAAGGGGCCAGGCCTGCTGAGCCC
CCCCAGTGCCTCCCCTGTTCCTACCCCTGCTGTCAGCCGTACCCTGCTGGGCAACTTTGAGGAATCATTGCTGCG
AGGACGTTTTGCACCATCTGGCCACATTGAGGGCTTCACAGCAGAAATTGGAGCTAGTGGGTCATACTGCCCCCA
GCACGTCACGCTGCCTGTCACTGTCACATTCTTTGATGTTTCTGAGCAAAATGCCCCGGCTCCCTTCCTGGGCAT
CGTGGATCTGAACCCCTTGGGGAGGAAGGGTTACAGCGTGCCCAAGGTGGGCACCGTCCAAGTGACCTTATTTAA
CCCCAGTCCCTTCACTTCCCCTACCCTC**TGA**CCTATCTCTGAAAGCCAAGTTATGCGTATGTGTGTGTGCACAAG
CTTGTCTTTGTGTGGTATGTGTGTGTGAGTGTGCATGTATGCACACACACAGGGGTTAACCACCCCTCACCTAGG
GCTCCAGACTCCAGTTGTCCCTCTCCTCCTACCTGTGTCTCCTTGTTTTGGGGTCCTGACTGAAGAAGGTGTCCA
GGGGGCAGAGTCAGGGCCAAGCACTGGGGTGCCTCCTCTCACCTGGCCAGACTCTGACCCACCTACCTCAGCTGG
GGTGAGGGGCACCCCTCAAACTCAGTCATGTGGTTCCAAACTACCCCATTCCCCACTCCAGACTCTGACCCAGCC
TCAGTCCTAACTCCTGGGGCTGGGCTGAGGGGAACAAGCATTTGCTGAAACTTGAAAAAACAAAGCAAATCAAAA
ACAGGAAAAAATTGTACCTGGTACTTTTTTTTAG

FIGURE 4271A

CCCAGCCTGCCGGCCGGTACTCACCGCTACCCGGAGTTCGCTCAGACGGTGAGATTTGGGGCGGGTCCGAGGCAG
CGGCGGGACGCTACCTGCGACCGGGACCATGAGGAGCTGCCAGACCCGTGGGGCCGGTAACGAGAGCAGTCGCGG
CACCTGCTGAGAGGAAAGAGGGAGCGGTCCGGCGCGGCTGGGGCGCGGCAGAGGCTTGCCCGATCCTCGGCC**ATG**

TCACTGCTCTGCGTGCGCGTTAAAAGGGCCAAATTCCAGGGTTCACCAGATAAATTTAACACATATGTGACCCTG
AAAGTACAGAATGTGAAGAGCACAACTGTAGCAGTTCGTGGTGATCAGCCTTCCTGGGAACAGGATTTCATGTTT
GAGATTAGTCGCCTGGACCTGGGTCTAAGTGTGGAGGTATGGAACAAAGGACTGATCTGGGACACCATGGTGGGG
ACTGTGTGGATTGCGCTGAAGACTATTCGTCAGTCGGATGAGGAAGGGCCTGGGGAATGGTCCACATTAGAGGCA
GAGACGTTAATGAAAGACGATGAGATCTGTGGAACTAGAAACCCAACTCCTCATAAAATTTTGCTTGATACAAGA
TTTGAGTTGCCTTTTGATATCCCAGAGGAGGAAGCCAGATATTGGACCTACAAATGGGAGCAAATCAATGCCTTG
GGAGCTGACAATGAGTATTCTAGTCAAGAAGAAAGCCAGAGGAAGCCATTGCCCACTGCTGCCGCCCAGTGTTCT
TTTGAAGACCCTGATAGTGCCGTCGATGACCGAGATAGTGACTATCGCAGTGAGACCAGCAACAGCTTCCCACCT
CCTTACCATACAGCTTCCCAGCCCAACGCTTCTGTGCACCAGTTCCCTGTGCCGGTGCGATCGCCACAGCAGCTG
CTACTTCAAGGCAGTTCCCGGGACTCTTGTAATGACTCTATGCAAAGTTATGACCTTGATTATCCAGAGCGGCGG
GCTATCAGCCCCACCAGCAGCAGTAGGTATGGCTCCTCCTGTAATGTGAGTCAAGGAAGCTCTCAGCTAAGTGAA
CTAGACCAGTATCACGAACAAGATGACGACCATCGGGAGACGGACTCGATTCATTCTTGCCACAGCTCTCACAGC
CTGTCCAGAGATGGCCAAGCAGGTTTTGGAGAACAAGAGAAACCCTTGGAGGTGACAGGTCAAGCAGAGAAGGAG
GCAGCATGTGAACCCAAGGAGATGAAAGAAGATGCCACAACCCACCCTCCCCCAGATCTGGTGCTGCAAAAAGAC
CACTTCCTAGGTCCCCAGGAGAGTTTTCCTGAGGAGAATGCATCTTCACCATTTACCCAAGCCAGAGCACATTGG
ATCCGAGCAGTTACCAAGGTTCGACTCCAGCTGCAGGAGATTCCAGATGATGGTGACCCCTCTCTGCCTCAGTGG
CTCCCGGAAGGGCCAGCCGGAGGGCTCTATGGCATTGACAGCATGCCAGATTTACGCAGAAAGAAGCCACTGCCA
CTTGTCAGTGATCTGTCACTGGTCCAGTCTCGGAAGGCAGGAATCACTTCTGCAATGGCTACACGCACTTCTCTT
AAGGACGAAGAGCTGAAATCCCACGTGTATAAGAAAACCCTGCAGGCCTTAATCTACCCCATTTCGTGCACCACT
CCTCATAACTTTGAGGTCTGGACGGCCACTACCCCAACCTACTGCTATGAGTGTGAAGGCCTGCTCTGGGGCATT
GCCCGGCAGGGCATGCGCTGCAGCGAATGTGGAGTCAAGTGCCATGAGAAGTGCCAGGATCTGCTCAATGCTGAC
TGCCTGCAGCGGGCTGCAGAAAAGAGCTGTAAACATGGAGCTGAGGACCGGACCCAGAACATTATCATGGCCATG
AAGGACCGCATGAAGATCCGAGAGCGAAATAAGCCAGAGATCTTTGAAGTTATCCGGGACGTCTTCACAGTGAAC
AAAGCTGCCCATGTGCAGCAGATGAAAACAGTGAAGCAGAGTGTACTGGATGGCACCTCCAAATGGTCAGCCAAG
ATCACCATTACTGTGGTGTGTGCCCAGGGCCTACAAGCCAAGGACAAAACAGGATCCAGTGACCCTTACGTGACT
GTGCAAGTCAGCAAAACTAAGAAGCGTACCAAGACCATTTTTGGAAACTTGAATCCTGTTTGGGAGGAGAAGTTC
CATTTTGAGTGCCACAACTCCTCTGACCGCATTAAGGTGCGTGTATGGGATGAGGATGATGACATCAAGTCAAGA
GTAAAGCAACGCCTAAAGCGAGAGTCTGATGATTTCCTTGGCCAAACCATCATTGAGGTTCGGACCCTAAGTGGC
GAGATGGACGTCTGGTACAACTTGGAGAAGAGGACAGACAAATCAGCCGTCTCAGGGGCTATCCGACTACAAATC
AGTGTGGAGATCAAGGGGGAGGAGAAAGTAGCCCCATACCACGTGCAGTATACATGTCTCCATGAGAATCTTTTC
CATTACCTCACAGACATTCAGGGCAGTGGAGGAGTCCGCATCCCTGAAGCTCGAGGAGACGATGCCTGGAAGGTG
TACTTTGATGAGACAGCCCAAGAAATTGTGGATGAATTTGCCATGCGTTATGGCATTGAGTCCATATATCAGGCC
ATGACGCACTTTGCATGTTTATCATCCAAGTACATGTGTCCTGGTGTGCCAGCAGTGATGAGCACCTTACTGGCC
AACATCAACGCCTACTATGCCCACACAACTGCCTCTACCAATGTCTCTGCATCTGATCGCTTTGCAGCCTCCAAC
TTTGGGAAAGAGAGATTTGTAAAACTGCTGGACCAGCTACACAACTCACTGAGGATCGACCTCTCTACATACAGG
AATAATTTCCCTGCTGGGAGTCCTGAACGGCTTCAGGACTTAAAATCCACAGTGGATTTGCTGACCAGCATTACT
TTCTTCAGAATGAAGGTACAAGAACTGCAAAGCCCTCCAAGAGCCAGCCAGGTGGTAAAGGATTGTGTGAAGGCC
TGTTTGAACTCCACATATGAATATATCTTCAACAACTGCCACGACTTATACAGCCGCCAGTACCAGCTGAAGCAG
GAGCTACCTCCAGAGGAACAAGGGCCCAGCATTCGGAACCTGGATTTCTGGCCCAAGCTCATCACACTCATCGTG
TCAATCATAGAGGAAGATAAGAATTCCTACACACCTGTTCTGAACCAGTTTCCTCAGGAGTTGAATGTGGGAAAA
GTCAGCGCAGAAGTGATGTGGCATTTGTTTGCCCAAGACATGAAATATGCATTGGAGGAGCATGAGAAAGACCAC
CTGTGTAAAAGTGCTGACTACATGAACCTGCACTTCAAGGTGAAGTGGCTCCACAATGAATACGTGCGGGATCTG
CCTGTCCTCCAGGGGCAGGTGCCTGAGTACCCAGCGTGGTTTGAGCAGTTCGTGCTACAATGGCTGGATGAGAAT
GAGGATGTATCCCTGGAATTCCTGCGTGGGGCCCTGGAACGAGATAAGAAGGATGGATTCCAGCAGACATCAGAG
CATGCACTCTTTTCCTGCTCTGTGGTGGATGTCTTCACACAACTCAATCAGAGCTTTGAGATCATCCGGAAGCTG

FIGURE 4271B

GAATGCCCAGACCCCAGCATCCTTGCCCACTACATGAGGAGGTTTGCTAAGACCATCGGGAAGGTGCTGATGCAG
TATGCAGACATCTTGTCAAAGGACTTCCCAGCCTATTGCACAAAGGAGAAACTGCCCTGCATCCTGATGAACAAC
GTGCAGCAACTGAGGGTCCAGCTGGAGAAAATGTTTGAGGCCATGGGAGGCAAGGAGCTGGACCTTGAAGCTGCA
GACAGTCTGAAGGAGCTGCAGGTGAAACTGAATACGGTTCTGGATGAGCTCAGCATGGTGTTTGGAAACAGTTTC
CAGGTACGGATTGATGAGTGTGTTCGACAAATGGCCGACATCCTGGGCCAGGTTCGGGGCACAGGGAATGCATCT
CCAGACGCCAGGGCCTCAGCGGCTCAGGATGCAGATAGCGTACTCCGGCCTCTCATGGACTTCCTGGATGGCAAC
CTCACCCTCTTTGCCACTGTGTGTGAGAAGACGGTTCTGAAGCGTGTACTGAAGGAGCTCTGGCGCGTGGTGATG
AACACAATGGAGAGGATGATTGTTCTGCCCCCACTCACTGACCAGACGGGCACCCAGCTGATCTTCACTGCTGCC
AAGGAGCTGAGCCATCTTTCCAAACTCAAGGATCACATGGTACGAGAGGAAACACGGAATCTCACTCCAAAGCAG
TGTGCAGTCCTTGACCTCGCCCTGGACACCATCAAGCAATACTTCCATGCAGGAGGCAATGGGCTGAAGAAAACC
TTCCTGGAGAAGAGCCCAGATCTGCAGTCTCTACGCTATGCCCTGTCTCTGTACACACAGACTACTGACACTCTC
ATCAAGACCTTTGTGCGCTCGCAGACCACCCAAGGGTCTGGTGTGGACGATCCTGTGGGAGAAGTCTCTATTCAG
GTGGACTTGTTTACACACCCTGGTACTGGGGAGCACAAGGTCACAGTGAAAGTGGTGGCTGCCAATGACCTCAAG
TGGCAGACAGCGGGTATGTTCCGGCCTTTCGTGGAGGTGACTATGGTTGGCCCACACCAAAGTGATAAGAAGAGG
AAGTTCACAACCAAATCCAAAAGCAACAACTGGGCCCCCAAGTACAATGAGACATTCCACTTCCTCCTGGGAAAT
GAGGAGGGGCCCGAGTCCTATGAGTTGCAGATATGCGTGAAGGATTACTGCTTTGCCCGGGAAGATCGCGTGCTA
GGGCTGGCTGTGATGCCTCTGAGGGATGTCACAGCCAAGGGCAGCTGTGCCTGCTGGTGCCCCTTGGGCCGGAAG
ATCCATATGGATGAGACAGGCCTGACCATTCTCCGGATTTTATCTCAGAGGAGCAATGACGAGGTGGCCCGAGAA
TTTGTGAAACTCAAATCAGAGTCTCGTTCCACGGAGGAGGGGAGC**TGA**ACACCTTCGACTCCTGTGCCAATCAGG
CAGCAGCAATTTCACAAATCAGGGCCAGTGGGAGTTAGCTGTGTAACCGGCTTAGGGTCTTTGCAGTCAAGAGGC
TGACCCCTTCAGTTAAAGATATTTAAGGAAAAATTTGGGGTGGTGATAATATGGCTTTTCACAGAAAGGGTCATG
AAGCCCTGGCCCAACAGGACTGTGGTACTAGGGGCTGGGATGTGGGGTTACCACATGGAGAGATTTTCCATTAAG
AGAGAAGGACAAACATTTCTGAGAGTGTCAGCCATTCTTGGTAGACACCTCTCCACTCCTCATCCCACCTCTACC
CATCTCCATGCCACACCTTATCCAGTTAGACACATACATACCAATCATTAGAAGAACAAGTTTAGAAGGTGTGGA
ACTTGTGCCTGGCTGGCTGGGTAGTCAGCTGAGCCTGTTGCTGAGCCCGGTGGTCTGGATTGGAGTATGGCCAGG
GCAGGAGTACACAGAATAGAATTTAGACTGTCCCTTGAGTAGAATCCACTGATTTTCTGTGGCTCCAGTGAGAAC
AAGGCTTTGAAACTGAACAAGATAACTTCTAGAAATGAACTGTACTAATCCCTTTCCCCAGATTGTATCATGAGT
AGAATCAGGTTCACGTGGTGCTTCAAAGCCCTGAGAAGAATATTTCTTTGGACCCCAGGCACTAGGGGCCACCTG
CCTGGGAGTCTCCCTGCCTCACTCCTCTAGGCAGGGGAGTGATGCTTCAGGACGTGACAGGCTGTTCTAACATGT
GTCTACCTGAGGGCTAGTTGAAGGATCCAGGAGTATTTTCTTCTTGGGTGGGCCCTGAACAAAGCCAAAAATTGT
AGAAACCAGTCTAGAAAAAGTCCTGCTCATCTGTGGCCACTGCCTTCTAGCCGTCCTCCACCTTGCAGAAAGAAT
CTAGCCTTTGGTCTCTCTCTCTCTCATCGGGGTCATTTGCTATTCCCCTCTGATATTCAACCCTATAGAAGGAGC
CTGGACTCTGATCCCTCTGTACAGGCTGGATGGAAGGGGCCCTCCACACTTCCTGGGAGGTCAGAGACAAACTGT
TTCAGAGAGTCAGATGGACTTCCCAAGACTTGTTGAGAGATGTGACATGGTTCTTGGATTTCCTCTGTAGCAGCC
TCCTGGACTTCCTGAGGACTCGACATTGTCCACAGATGTACTGGCCATTACATGAAACAAGAAACCAAGCATCTT
TGCTGTTGTTAATTATTATATGTGCCATTGTTACAGGAGATTATAGGCTAGTCTGTAATAAATTATCTTATAGC

FIGURE 4272

ACAGCTTCAAGTGAAGTTAATCTGAGGTGAAGCAAACAGAAAATTGTGGAGGTTTTGTTGGTGTGCAATGGAGGA
AC**ATG**GCTCAAGAAACTAATCACAGCCAAGTACCTATGCTTTGTTCCACTGGCTGCGGATTTTATGGAAACCCTC
GTACAAATGGCACGTGTTCAGTATGCTATAAAGAACATCTTCAAAGACTGAATAGTAGTAATGGTAGAATAAGCC
AACCTGCAACCTCTGAATCTTTACCAGTTCAATGCACAGATGGCAGTGTCCCAGAAGCCCAGTCAACATTAGACT
CTACATCTTCATCTATGCAGCCAAGCCCTGTATCAAATCAGTCACTTTTATCAGAATCTGTAGCATCTTCTCAAT
TGGACAGTACATCTGTGGACAAGCAGTACCTGAAACAGAAGATCTGCAGGCTTCAGTATCAGACATGGCACAGCA
GCCATCTGAAGAGCAAAGCAAGTCTCTTGAAAAACCAAAACAAAAAAAGAATCTCTGTTTCATGTGCAGGAAGAA
AGTGGGACTTACTAGGTTTGAATGCGGTG**TAG**AAATGTTTACTGTGGTGTACACTGTTACTCAGATCTACACAAT
TGCTCTTAAAATTACAAAGCTGATGCCGCTGAGAAAATCAGAAAAGAAAATCCAGTAGTTGTTGGCGAGAAGATC
CAAAAGATTTGAACTCCTGCTGGAATACAAAATTCTTGATCATCTGCAAACTAAAAATTGACTTGAGGTTTTTTT
TTCCCTAGTCATTGGGAAAGTAGAGCAGTGTATCTTGCATGTCATCGGATGAATAGATTTTTGTTTTGATTTTGT
TTTGAAAATGACTCTGAACATTTATTTCCATTGCAATTTCTGTGGCTGAGAAGACTTAAACTTTACAAGTATTAT
CCTTATAAGATCATTTTAATTTTAGTTGAGTGCAGAGGGCTTTTATAACAAACGTGCAGAAATTTTGGTGGACTG
TGATTTTTCCAGTATTAAATATGCATGCATTAATCTTGCAGTTTATTTTCTCATTGTGTACATATATATTGCTTT
TCTTTGCAGCACGATTTCTCTTTTGATAATGCCCTTTGGGGCACAACTAGTTATCGGTAACTGAATGTATCTTAA
TCATTATGGCTGCTTCTGTTTTTTCATTAACAAAGGTTATTCATATGTTAGCATATAGTTTCTTTGCACCCACTA
TTTATGTCTGAATCATTTGTCACGAGAGTGTGTGCTGATGAGATTCTAAGTTTGTGTGTTTAAACTTTTTTTTGA
GCGAGGGAAGAAAAAGCTGTATGCATTTCATTGCTGTCTACAGGTTTCTTTCAGATTATGTTCATGGGTTTGTGT
GTATACGATATGAAGAATGATCTGAAGTAATTGTGCTGTATTTATGTTTATTCACCAGTCTTTGATTAAATAAAA
AGGAAAACCAG

FIGURE 4273A

TCCCGTGGAACAGTGTCTCAGCTGGAACTGTCGCGGTAGAGCTTGGTCGGAGTGCAAAAGGGACAGACGCATCAG
GGGTCCAGCTCAAGGCTCCTGACAGAGGTGCCAAGCTCTCCTGATGAAATGTGTTCTGCCCCACTGGGCTCCAGG
GACAGTGTCTGGTGCTGTTGAAGCCCTTATTCGAACTTTCCAGA**ATG**GATAGTCCCCCAAAGCTGACTGGAGAGA
CCCTCATCGTTCATCACATCCCCCTGGTGCACTGCCAAGTCCCAGACAGGCAGTGCTGTGGAGGGGCAGGTGGAG
GTGGTGGGAGCACAAGACCTAATCCCTTCTGCCCACCTGAGCTGGGCATCACCCAGCCCGATCAAGACCTAGGAC
AAGCTGACTCCCTGCTATTCAGCAGCCTGCACTCTACTCCAGGAGGAACTGCACGGTCTATAGACAGCACCAAGA
GTAGGAGTCGGGATGGAAGAGGCCCTGGAGCCCCCAAACGACACAACCCCTTCTTGCTGCAGGAGGGTGTGGGTG
AGCCAGGACTTGGTGACCTGTATGATGACAGCATTGGTGACAGTGCCACCCAGCAGTCCTTCCACCTGCATGGCA
CTGGCCAGCCCAACTTTCATCTATCCTCTTTCCAGCTGCCACCATCTGGCCCCAGAGTGGGCAGGCCATGGGGGA
CAACACGCAGTCGGGCTGGAGTGGTGGAAGGGCAGGAACAGGAGCCAGTGATGACCTTGGATACTCAGCAGTGCG
GCACCAGCCACTGCTGCCGGCCAGAGCTGGAAGCAGAGACTATGGAGCTGGATGAGTGTGGGGGACCTGGTGGGA
GTGGCAGTGGGGGTGGAGCCAGCGATACCTCTGGCTTTTCCTTTGACCAGGAATGGAAGCTCAGTTCAGATGAAT
CCCCAAGGAACCCTGGATGCTCCGGCTCAGGGGACCAGCACTGCCGCTGCAGTAGCACATCCAGTCAGTCCGAGG
CAGCTGACCAGTCCATGGGCTATGTGAGCGACTCCTCCTGCAACAGTTCAGATGGTGTGCTGGTCACCTTCAGCA
CCCTCTACAACAAGATGCATGGCACCCCCCGTGCCAATCTCAACTCTGCCCCACAGTCCTGCAGCGACTCTTCCT
TCTGCAGCCACTCAGACCCTGGCGCCTTCTATCTGGATCTGCAGCCCTCCCCATTTGAGTCTAAGATGTCTTATG
AGTCCCATCACCCTGAAAGTGGAGGAAGGGAAGGGGGCTATGGTTGCCCTCATGCCTCTTCTCCTGAGCTTGATG
CCAACTGCAACTCCTACCGCCCACACTGTGAGCCGTGCCCAGCAGTGGCTGACCTCACAGCCTGCTTCCAAAGCC
AGGCCCGTCTTGTTGTGGCCACACAAAATTACTATAAACTTGTCACCTGTGACCTATCTTCCCAATCATCCCCAA
GCCCTGCTGGCTCTTCCATCACTAGCTGCTCTGAGGAACACACCAAGATAAGTCCCCCACCAGGCCCTGGCCCAG
ACCCAGGCCCCAGCCAGCCCTCTGAGTATTACCTATTCCAGAAGCCAGAAGTCCAGCCAGAGGAACAAGAAGCAG
TGAGTTCCTCCACCCAAGCAGCAGCTGCTGTGGGCCCCACTGTGCTTGAGGGACAAGTATACACGAATACTTCAC
CCCCCAACCTCAGCACTGGACGTCAGCGCTCCCGCAGCTATGATCGCAGCCTGCAGCGCAGCCCTCCTGTCCGCC
TGGGCTCGCTGGAACGTATGTTGAGTTGCCCAGTGCGCTTGAGTGAGGGCCCTGCAGCCATGGCCGGGCCTGGCT
CCCCACCCAGGAGGGTCACCTCCTTTGCCGAGCTGGCCAAGGGCCGGAAGAAAACTGGAGGCTCTGGCTCGCCCC
CACTTCGTGTGAGTGTTGGGGACTCCTCCCAGGAGTTCTCACCCATCCAAGAAGCCCAGCAAGATCGGGGGGCCC
CACTGGATGAGGGCACTTGCTGTAGCCATAGCCTGCCACCCATGCCTTTGGGGCCAGGCATGGACCTACTTGGCC
CAGACCCAAGTCCACCCTGGTCCACCCAGGTCTGTCAGGGACCCCACTCCAGTGAGATGCCTCCTGCTGGCCTCA
GAGCTACTGGGCAAGGCCCCCTGGCTCAGCTGATGGATCCAGGGCCTGCTCTCCCAGGGAGCCCAGCCAACAGCC
ATACCCAGAGGGATGCAAGAGCTAGAGCTGACGGGGGTGGCACCGAGAGCCGACCAGTCCTTCGCTACAGCAAGG
AACAGAGGCCAACCACACTGCCCATCCAGCCCTTCGTGTTCCAGCACCACTTCCCCAAGCAGCTGGCCAAGGCCC
GGGCCCTCCACAGCCTTTCCCAGCTCTACAGCCTCTCAGGCTGCAGCCGTACACAGCAGCCTGCCCCACTGGCTG
CCCCTGCTGCTCAAGTCTCAGTCCCAGCTCCCTCAGGGGAACCGCAGGCATCCACTCCCCGAGCCACTGGCAGAG
GTGCCAGGAAAGCTGGGTCTGAGCCAGAGACCTCTCGGCCATCGCCCCTGGGCAGCTACTCCCCCATCCGGAGTG
TTGGCCCCTTTGGGCCCAGCACTGACTCTTCTGCCTCCACTTCGTGCTCCCCTCCCCCAGAGCAGCCCACAGCCA
CAGAAAGCCTGCCCCCATGGAGCCACTCCTGTCCTTCTGCTGTCCGGCCTGCCACCTCCCAGCAGCCGCAGAAGG
AGGATCAGAAGATACTGACCTTGACTGAGTACCGGCTCCATGGAACAGGAAGCTTGCCGCCTCTGGGCTCCTGGC
GATCTGGCCTCAGCCGAGCAGAGAGCCTGGCCCGGGGAGGTGGTGAGGGCAGCATGGCCACCAGGCCCAGTAATG
CCAACCACCTATCCCCTCAAGCCCTCAAGTGGCGGGAATACAGGAGGAAGAACCCACTAGGGCCACCTGGTTTGT
CAGGGAGCCTAGACCGAAGATCACAAGAAGCTCGGCTGGCCCGAAGAAACCCTATCTTTGAGTTCCCTGGCTCCC
TCAGTGCTGCCAGCCATCTGAACTGCCGGCTGAATGGCCAAGCAGTGAAGCCGTTACCACTGACCTGCCCTGACT
TCCAGGACCCCTTTTCCTTGACGGAGAAGCCTCCAGCTGAGTTTTGTCTGTCCCCAGATGGCAGCTCAGAGGCCA
TTTCCATTGACCTGCTTCAGAAAAAAGGGCTGGTAAAAGCTGTTAACATCGCTGTGGACCTCATTGTGGCTCATT
TTGGCACAAGCCGGGATCCCGGGGTGAAGGCAAAGCTGGGAAACAGTTCTGTGAGCCCCAATGTGGGCCACCTGG
TTCTGAAGTACTTGTGCCCTGCCGTCCGCGCCGTGCTGGAGGATGGGCTCAAGGCCTTTGTACTGGACGTCATCA
TCGGGCAGCGTAAGAACATGCCATGGAGTGTGGTTGAGGCTTCCACACAGCTAGGCCCATCCACCAAGGTCCTGC
ATGGCCTCTACAACAAAGTCAGCCAATTCCCAGAGCTCACCAGTCATACCATGCGCTTCAACGCCTTCATCCTCG
GCCTGCTCAACATCCGGTCCCTGGAGTTCTGGTTTAATCACCTCTATAACCACGAAGACATCATCCAGACCCACT

FIGURE 4273B

ACCAGCCCTGGGGCTTCCTGAGTGCAGCTCATACCGTGTGTCCCGGCCTCTTTGAAGAGCTGCTGCTGCTGCTAC
AGCCCCTGGCCCTGCTGCCCTTCAGCCTCGACTTGCTGTTCCAGCACCGGCTGCTGCAAAGTGGGCAGCAGCAGC
GGCAGCACAAGGAACTGCTGCGGGTGTCCCAGGACCTGCTGCTGTCTGCCCACTCCACGCTGCAGCTGGCCCGGG
CCCGGGGCCAGGAGGGCCCTGGAGACGTGGACAGGGCAGCCCAAGGGGAGCGGGTGAAGGGTGTGGGTGCCTCAG
AAGGTGGAGAAGAGGAAGAGGAAGAAGAGGAGACAGAAGAGGTGGCAGAGGCAGCCGGGGGCTCAGGGCGTGCCA
GGTGGGCCCGAGGTGGGCAGGCCGGCTGGTGGTACCAGCTCATGCAGAGCTCCCAGGTCTACATCGATGGCTCCA
TTGAGGGTTCCAGGTTCCCTCGTGGTAGCAGCAACAGCAGCAGCGAGAAAAAGAAAGGGGCAGGAGGTGGGGGAC
CTCCCCAGGCTCCACCACCCCGAGAGGGAGTAGTGGAGGGGGCTGAGGCCTGCCCTGCCTCTGAGGAGGCCCTGG
GCCGGGAAAGGGGCTGGCCCTTCTGGATGGGGAGCCCCCCTGACTCTGTGCTGGCCGAGCTGAGGCGCAGTCGGG
AGAGGGAAGGGCCCGCTGCCTCGCCAGCAGAAAATGAGGAAGGGGCCTCAGAGCCTTCACCTGGAGGCATCAAGT
GGGGACACCTCTTTGGCTCCCGAAAAGCCCAGCGGGAGGCCCGGCCCACAAATAGGCTCCCCTCGGACTGGCTGA
GCCTGGACAAGTCCATGTTCCAACTAGTGGCGCAGACAGTGGGTTCCCGCCGGGAGCCAGAGCCCAAGGAGAGCC
TGCAGGAGCCACACTCCCCAGCCCTGCCCTCCAGTCCTCCGTGTGAGGTGCAGGCACTGTGCCACCACCTGGCCA
CCGGCCCTGGACAGCTGAGCTTCCACAAAGGAGACATCCTACGAGTGCTGGGGCGAGCTGGAGGAGACTGGCTGC
GCTGCAGCCGTGGCCCCGACTCTGGCCTGGTGCCCCTGGCCTACGTGACATTGACCCCAACTCCAAGTCCAACCC
CTGGAAGCAGCCAAAAC**TGA**GGCCCTGTGCATGCTGGTGGCCTCAGGGACCCTCATAACCCCCAGACTCAGAGCC
CGAGAGCCCTTCCCAAGCCATTGGCTTGGCTGCAGAGTAGACTGAGAGCTGGGGCCACGTATCCCTGTGCTGGCA
CCTGCTCCCTGTGCTCAGTATTAATTACGCCCCCTTAACTGTCCCAGTGACCTTGTCCAGACCTCCACCCAGGAG
AGGGATGGGACACAGCACTGGGCTGCCAGGATTCCCCTGGCCCGTCTGGGCCAACCCTTCCATGGGTGAAGACAA
GCAAGTCCCCCTGGAGGCGGGTGGCCCAGAAAGCCATCTACAGGGTTCCCTAGGCCAGGTGGAGATGAGGATGGG
TAACAGTATTGGGGCCAGATCCCTAAGCCCCCCAGCTGTAAATAGGCTGTGGCCAGTGCCTGGTCATCAGAAGAG
GGAGGAGGAGCCCAGGCGTCTGTTTATGTATTTATTTATTTATTTATTATACCTATTAATAAAAAAGGTGCTCAG
CCTCC

FIGURE 4274

GGGCGGCCGGCCAATGCCGGACCGCTTCGGCACCGCCCGCCCGATCCCTCCACCCGTGGGCCGGCA**ATG**GCGGGC
GCAGTTTCGCTCTTGGGTGTGGTGGGGCTGCTGCTTGTGTCTGCGCTGTCCGGGGTCCTAGGAGACCGCGCCAAT
CCCGACCTCCGGGCACACCCAGGGAACGCAGCCCACCCCGGCTCTGGAGCCACGGAACCCCGGCGGCGACCACCG
CTCAAGGATCAACGCGAGCGGACCCGGGCCGGGTCGCTGCCTCTGGGGGCGCTGTACACCGCGGCCGTCGCGGCT
TTTGTGCTGTACAAGTGTTTGCAGGGGAAAGATGAAACTGCGGTTCTCCACGAGGAGGCAAGCAAGCAGCAGCCA
CTGCAGTCAGGTGGGTTTAGCAGAAGTCTGTGCTGGGTCGGGGGAGTT**TAG**GGGACAGCAGAAGATACATAACCA
CTTCTGCCCCCTTTTTTCCCTTATCCCCAGAGCAACAGCTGGCCCAGTTGACACAACAGCTGGCCCAGACAGAGC
AGCACCTGAACAACCTGATGGCCCAGCTGGACCCCCTTTTTGAGCGGTGAGGAGAGCAATGATTCTGTGAATTTT
TGGGGAATTTGTGGCAGGAGGGAGGAATGGGGACATAGGTTGGGAGCCACTGAGTGGACATTTCTTCAGTGTGAC
TACTCTGGCTGGAGCCCAGCAGGAGCTTCTGAACATGAAGCTATGGACCATCCACGAGCTGCTGCAAGATAGCAA
GCCGGACAAGGATATGGAGGCTTCAGAACCAGGTGAAGGCTCGGGAGGCGAGTCTGCTGGAGGTGGAGACAAAGT
CTCTGAAACTGGAACATTCCTGATCTCTCCCCACACAGAGGCCAGCAGACCTCTTCCTGAGGACTTCTGTTTAAA
GGAGGACGAGGAGGAGATTGGTGACAGTCAGGCCTGGGAGGAGCCCACAAACTGGAGCACAGAGACATGGAACCT
AGCTACTTCCTGGGAGGTGGGGCGGGGACTACGGAGAAGGTGCAGCCAGGCTGTGGCAAAGGGCCCCAGTCACAG
CCTTGGCTGGGAAGGAGGGACGACAGCTGAAGGTCGACTAAAACAAAGTCTGTTTTCATG

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FIGURE 4275

AGTGTCGATCCCTCAGCCAGGGC**ATG**GAGCTCTCCTGCCCCGGTTCGCGGTGCCCGGTGCAAGAGCAGCGTGCCC
GCTGGGAGCGGAAACGCGCCTGCACCGCCCGGGAGCTGCTAGAGACCGAGCGGCGCTACCAAGAACAGCTGGGGC
TGGTGGCCACGTACTTTTTGGGGATCCTGAAAGCCAAGGGGACCCTGCGACCACCTGAGCGCCAGGCCCTGTTTG
GCTCCTGGGAGCTCATCTACGGCGCCAGCCAGGAGCTGCTTCCCTACCTGGAAGGAGGATGCTGGGGCCAAGGGC
TGGAGGGCTTCTGCCGCCACTTGGAGCTCTATAACCAATTTGCTGCCAACTCAGAGAGGTCCCAGACCACCCTGC
AGGAGCAGCTAAAGAAAAATAAAGGTTTCCGGAGGTTTGTACGGCTTCAGGAAGGCCGCCCTGAGTTTGGGGGCC
TTCAGCTCCAGGACCTGCTCCCTCTGCCTCTGCAACGGCTCCAGCAGTATGAGAATCTCGTCGTAGCTTTGGCTG
AAAACACAGGTCCCAACAGCCCTGACCATCAACAGCTCACACCTGTCCTTCCCTCA**TGA**GAAGCTACTGCTTATG
TCCACAGACCAGGAGGAGCTGTCACGCTGGTACCACAGTCTGACTTGGGCTATCAGCAGCCAGAAAAACTAGAGG
AATCTTATAGATTCCAGAACTCAGGATACCTCAGGGATAGGTCACAGCCAAGAGTACAAAGGAATCTTCAGTACT
GAACAAAACAGAACCCTTCATGATTTGACAAAGGTCACTTTCTGTTTGCCTGGACCAAGCTACTCCAGATCATCT
GACCAACTCTTAAAAATCACGGCCAGGCACAGTGGCTCATGCCTGTAATCCCAGCACTTTGGGAAGCAGAGGTGG
CAGGATCATTCCAGCCCAGGAGTTCAAGACCAGCCTGGGCAACACAGTGAGTGAGACCCTGTCTCTATTTAAGAA
AAAATAATTAAGAAATTTTATTAAAAAAGAAGAATCAGGAAACCAAGTCCAACCCAACTAAACCTCAAATGAACC
AGCCCCTAACACAGATGAGGGGATTTGGGACTGATAAGCTCTGTGCTGTGTCCATGGCCCGTCATTTATCAAGGC
TGCAGCTTTGTAAATGTGGCTATTTTTATGTTGTGTATAGTTTCTATCATTTATTTTTCCACTGGATTTGAGTAA
AGTTTTTTTTCTTTTTTTTGGGAAAGACCCTTCTGTCTCAGTTTTGCTATGAGAAAAGGGATTTTTGGGCCCTGA
ACGCGGGCATGCTGGTGGCCTCAGGAATACGAGGAAAAGAGCTGGAGCTCCCTCTATCTTCTCTGCTGTCACACT
GGAAGGCAGCCTCTTTTTGTCCTAATAAGGACAGCTCTTCAAGAAGGCCCAGTTGTCCTTAGGCACCTAGTATGG
GTGTGTACAACCAACTAGGATCGAAAAAACACACAGGAGCACTCCATCATGAAAACAGACTTTGTTTTAGTCGAC
CTTCAGCTGTCGTCCCTCCTTCCCAGCCAAGGCTGTGACTGGGGCCCTTTGCCACAGCCTGGCTGCACCTTCTCC
GTAGTCCCCGCCCCACCTCCCAGGAAGTAGCTAGGTTCCATGTCTCTGTGCTCCAGTTTGTGGGCTCCTCCCAGG
CCTGACTGTCACCAATCTCCTCCTCGTCCTCCTTTAAACAGAAGTCCTCAGGAAGAGGTCTGCTGGCCTCTGTGT
GGGGAGAGATCAGGAATGTTCCAGTTTCAGAGACTTTGTCTCCACCTCCAGCAGACTCGCCTCCCGAGCCTTCAC
CTGGTTCTGAAGCCTCCATATCCTTGTCCGGCTTGCTATCTTGCAGCAGCTCGTGGATGGTCCATAGCTTCATGT
TCAGAAGCTCCTGCTGGGCTCCAGCCAGAGTAGTCACACTGAAGAAATGTCCACTCAGTGGCTCCCAACCTATGT
CCCCATTCCTCCCTCCTGCCACAAATTCCCCAAAAATTCACAGAATCATTGCTCTCCTCACCGCTCAAAAAGGGG
GTCCAGCTGGGCCATCAGGTTGTTCAGGTGCTGCTCTGTCTGGGCCAGCTGTTGTGTCAACTGGGCCAGCTGTTG
CTCTGGGGATAAGGGAAAAAAGGGGGCAGAAGTGGTTATGTATCTTCTGCTGTCCCCTAAACTCCCCCGACCCAG
CACAGACTTCTGCTAAACCCACCTGACTGCAGTGGCTGCTGCTTGCTTGCCTCCTCGTGGAGAACCGCAGTTTCA
TCTTTCCCCTGTTGTGGAAGAAGGAAAGGGCAGTACTGAAGCAACAAGGTTCTGCTCCATCACCTCAGTCTCCAG
AGCCAGCCAAGAGAGAGTGCAATTTGAGATGGAGACAGTGATTGGGTTTTTACCTCAGAGAATCACAATCCTAGT
CTATCTAGCTCCTCACCCAGCATATGAAGCGACGTCCTATGTCCCACACATGGTCAGTTTGCTGAAACACCTCCA
GGAATGAGCAACTCCCTCCGGTTTGAAAAAAGCTCTGGTGGCTGAGTGCTGTGGCTCACACCTGTAATCCCAGCA
CTTCGGGAAGCCAAGGGCCTCCTCCCAAGGAGAACATGAGACCACTTCATATCTGGAACTCTAGAAACACTGGCT
GCAGCAATCAACCTCCTGTGCCAAGGCTGGCCCCACTCTTGTAGCATGGACACTGCTAGCTGGGTTCAAATCCCA
GCTCCAGCAGTTGCCAGCGCTGGGTGACCTCGAGCAAGTGACTACTCCTCACTGGATTGTAGGAGAACTAAATGT
GATAGTCATTATTTACAGTTCACCACACGCTCTTCACATCCGTTACCTCCCTGGATCCTCAAAATAACCTCATAA
TATTGGAAGGCC

FIGURE 4276

GCCCGTACACACCGTGTGCTGGGACACCCCACAGTCAGCCGC**ATG**GCTCCCCTGTGCCCCAGCCCCTGGCTCCCT
CTGTTGATCCCGGCCCCTGCTCCAGGCCTCACTGTGCAACTGCTGCTGTCACTGCTGCTTCTGGTGCCTGTCCAT
CCCCAGAGGTTGCCCCGGATGCAGGAGGATTCCCCCTTGGGAGGAGGCTCTTCTGGGGAAGATGACCCACTGGGC
GAGGAGGATCTGCCCAGTGAAGAGGATTCACCCAGAGAGGAGGATCCACCCGGAGAGGAGGATCTACCTGGAGAG
GAGGATCTACCTGGAGAGGAGGATCTACCTGAAGTTAAGCCTAAATCAGAAGAAGAGGGCTCCCTGAAGTTAGAG
GATCTACCTACTGTTGAGGCTCCTGGAGATCCTCAAGAACCCCAGAATAATGCCCACAGGGACAAAGAAGGGGAT
GACCAGAGTCATTGGCGCTATGGAGGCGACCCGCCCTGGCCCCGGGTGTCCCCAGCCTGCGCGGGCCGCTTCCAG
TCCCCGGTGGATATCCGCCCCCAGCTCGCCGCCTTCTGCCCGGCCCTGCGCCCCCTGGAACTCCTGGGCTTCCAG
CTCCCGCCGCTCCCAGAACTGCGCCTGCGCAACAATGGCCACAGTGTGCAACTGACCCTGCCTCCTGGGCTAGAG
ATGGCTCTGGGTCCCGGGCGGGAGTACCGGGCTCTGCAGCTGCATCTGCACTGGGGGGCTGCAGGTCGTCCGGGC
TCGGAGCACACTGTGGAAGGCCACCGTTTCCCTGCCGAGATCCACGTGGTTCACCTCAGCACCGCCTTTGCCAGA
GTTGACGAGGCCTTGGGGCGCCCGGGAGGCCTGGCCGTGTTGGCCGCCTTTCTGGAGGAGGGCCCGGAAGAAAAC
AGTGCCTATGAGCAGTTGCTGTCTCGCTTGGAAGAAATCGCTGAGGAAGGCTCAGAGACTCAGGTCCCAGGACTG
GACATATCTGCACTCCTGCCCTCTGACTTCAGCCGCTACTTCCAATATGAGGGGTCTCTGACTACACCGCCCTGT
GCCCAGGGTGTCATCTGGACTGTGTTTAACCAGACAGTGATGCTGAGTGCTAAGCAGCTCCACACCCTCTCTGAC
ACCCTGTGGGGACCTGGTGACTCTCGGCTACAGCTGAACTTCCGAGCGACGCAGCCTTTGAATGGGCGAGTGATT
GAGGCCTCCTTCCCTGCTGGAGTGGACAGCAGTCCTCGGGCTGCTGAGCCAGTCCAGCTGAATTCCTGCCTGGCT
GCTGGTGACATCCTAGCCCTGGTTTTTGGCCTCCTTTTTGCTGTCACCAGCGTCGCGTTCCTTGTGCAGATGAGA
AGGCAGCACAGAAGGGGAACCAAAGGGGGTGTGAGCTACCGCCCAGCAGAGGTAGCCGAGACTGGAGCC**TAG**AGG
CTGGATCTTGGAGAATGTGAGAAGCCAGCCAGAGGCATCTGAGGGGGAGCCGGTAACTGTCCTGTCCTGCTCATT
ATGCCACTTCCTTTTAACTGCCAAGAAATTTTTTAAAATAAATATTTATAAT

FIGURE 4277

TCCCGCTCCGTCCTCCTCGCCTGCCACCGGTGCACCCAGTCCGCTCACCCAGCCCAGTCCGTCCGGTCCTCACCG
CCTGCCGGCCGGCCCACCCCCCACCGCAGCC**ATG**GACGCCATCAAGAAGAAGATGCAGATGCTGAAGCTGGACAA
GGAGAACGCCATCGACCGCGCCGAGCAGGCCGAAGCCGACAAGAAGCAAGCTGAGGACCGCTGCAAGCAGCTGGA
GGAGGAGCAGCAGGCCCTCCAGAAGAAGCTGAAGGGGACAGAGGATGAGGTGGAAAAGTATTCTGAATCCGTGAA
GGAGGCCCAGGAGAAACTGGAGCAGGCCGAGAAGAAGGCCACTGATGCTGAGGCAGATGTGGCCTCCCTGAACCG
CCGCATTCAGCTGGTTGAGGAGGAGCTGGACCGGGCCCAGGAGCGCCTGGCTACAGCCCTGCAGAAGCTGGAGGA
GGCCGAGAAGGCGGCTGATGAGAGCGAGAGAGGAATGAAGGTCATCGAAAACCGGGCCATGAAGGATGAGGAGAA
GATGGAACTGCAGGAGATGCAGCTGAAGGAGGCCAAGCACATCGCTGAGGATTCAGACCGCAAATATGAAGAGGT
GGCCAGGAAGCTGGTGATCCTGGAAGGAGAGCTGGAGCGCTCGGAGGAGAGGGCTGAGGTGGCCGAGAGCCGAGC
CAGACAGCTGGAGGAGGAACTTCGAACCATGGACCAGGCCCTCAAGTCCCTGATGGCCTCAGAGGAGGAGTATTC
CACCAAAGAAGATAAATATGAAGAGGAGATCAAACTGTTGGAGGAGAAGCTGAAGGAGGCTGAGACCCGAGCAGA
GTTTGCCGAGAGGTCTGTGGCAAAGTTGGAGAAAACCATCGATGACCTAGAAGAGACCTTGGCCAGTGCCAAGGA
GGAGAACGTCGAGATTCACCAGACCTTGGACCAGACCCTGCTGGAACTCAACAACCTG**TGA**GGGCCAGCCCCACC
CCCAGCCAGGCTATGGTTGCCACCCCAACCCAATAAAACTGATGTTACTAGCCTCTC

FIGURE 4278A

AACTCGGGCGTCGTCCTGGCGTCCTCTCCGGATTGCGCCGCACCCTCGCTTCCTGCCAGGGAGGGGCTGCCGGGC
TTTGGCGGCTCCCGAGCATCGAGAACGGGGCCAGAGCAGCTTCCTGCCTGCCCCCCGCGACCATAGAGCGCGGGC
CCAGGGCGCCGCCCGCGGGTGGGGGACGTTCCCAGGACGGAAGTGGCCGAGAGAGTGTCGAAGGGAGGGCGAGGC
CGGAGCCCGAGGGCGACCCGAGAAGCGGCGGGGCGGCGGGCCGGCGGGCGGGGCGCAGAGCCAGGCAGCGCAGGT
ATAGCCAGGCTGGAGAAAAGAAGCTGCCACC**ATG**GTTGCACTTTCACTGAAGATCAGCATTGGGAATGTGGTGAA
GACGATGCAGTTTGAGCCGTCTACCATGGTGTACGACGCCTGCCGCATCATTCGTGAGCGGATCCCAGAGGCCCC
AGCTGGTCCTCCCAGCGACTTTGGGCTCTTTCTGTCAGATGATGACCCCAAAAAGGGTATATGGCTGGAGGCTGG
GAAAGCTTTGGACTACTACATGCTCCGAAATGGGGACACTATGGAGTACAGGAAGAAACAGAGACCCCTGAAGAT
CCGTATGCTGGATGGAACTGTGAAGACGATCATGGTGGATGACTCTAAGACTGTCACTGACATGCTCATGACCAT
CTGTGCCCGCATTGGCATCACCAATCATGATGAATATTCATTGGTTCGAGAGCTGATGGAAGAGAAAAAGGAGGA
AATAACAGGGACCTTAAGAAAGGACAAGACATTGCTGCGAGATGAAAAGAAGATGGAGAAACTAAAGCAGAAATT
GCACACAGATGATGAGTTGAACTGGCTGGACCATGGTCGGACACTGAGGGAGCAGGGTGTAGAGGAGCACGAGAC
GCTGCTGCTGCGGAGGAAGTTCTTTTACTCAGACCAGAATGTGGATTCCCGGGACCCTGTACAGCTGAACCTCCT
GTATGTGCAGGCACGAGATGACATCCTGAATGGCTCCCACCCTGTCTCCTTTGACAAGGCCTGTGAGTTTGCTGG
CTTCCAATGCCAGATCCAGTTTGGGCCCCACAATGAGCAGAAGCACAAGGCTGGCTTCCTTGACCTGAAGGACTT
CCTGCCCAAGGAGTATGTGAAGCAGAAGGGAGAGCGTAAGATCTTCCAGGCACACAAGAATTGTGGGCAGATGAG
TGAGATTGAGGCCAAGGTCCGCTACGTGAAGCTAGCCCGTTCTCTCAAGACTTACGGTGTCTCCTTCTTCCTGGT
GAAGGAAAAAATGAAAGGGAAGAACAAGCTAGTGCCCAGGCTTCTGGGCATCACCAAGGAGTGTGTGATGCGAGT
GGATGAGAAGACCAAGGAAGTGATCCAGGAGTGGAACCTCACCAACATCAAACGCTGGGCTGCGTCTCCCAAAAG
CTTCACCCTGGATTTTGGAGATTACCAAGATGGCTATTACTCAGTACAGACAACTGAAGGGGAGCAGATTGCACA
GCTCATTGCCGGCTACATCGATATCATCCTGAAGAAGAAAAAAAGCAAGGATCACTTTGGGCTGGAAGGAGATGA
GGAGTCTACTATGCTGGAGGACTCAGTGTCCCCCAAAAAGTCAACAGTCCTGCAGCAGCAATACAACCGGGTGGG
GAAAGTGGAGCATGGCTCTGTGGCCCTGCCTGCCATCATGCGCTCTGGAGCCTCTGGTCCTGAGAATTTCCAGGT
GGGCAGCATGCCCCCTGCCCAGCAGCAGATTACCAGCGGCCAGATGCACCGAGGACACATGCCTCCTCTGACTTC
AGCCCAGCAGGCACTCACTGGAACCATTAACTCCAGCATGCAGGCCGTGCAGGCTGCCCAGGCCACCCTGGATGA
CTTTGACACTCTGCCGCCTCTTGGCCAGGATGCTGCCTCTAAGGCCTGGCGTAAAAACAAGATGGATGAATCAAA
GCATGAGATCCACTCTCAGGTAGATGCCATCACAGCTGGTACTGCGTCTGTGGTGAACCTGACAGCAGGGGACCC
TGCTGAGACAGACTATACCGCAGTGGGCTGTGCAGTCACCACAATCTCCTCCAACCTGACGGAGATGTCCCGTGG
GGTGAAGCTGCTGGCTGCCTTGCTGGAGGACGAAGGCGGCAGTGGTCGGCCCCTGTTGCAGGCAGCAAAGGGCCT
TGCGGGAGCAGTGTCAGAACTGCTGCGCAGTGCCCAACCAGCCAGTGCTGAGCCCCGTCAGAACCTGCTGCAAGC
AGCTGGGAACGTGGGCCAGGCCAGTGGGGAGCTGTTGCAACAAATTGGGGAAAGTGATACTGACCCCCACTTCCA
GGATGCGCTAATGCAGCTCGCCAAAGCTGTGGCAAGTGCTGCAGCTGCCCTGGTCCTCAAGGCCAAGAGTGTGGC
CCAGCGGACAGAGGACTCGGGACTTCAGACCCAAGTTATTGCTGCAGCAACACAGTGTGCCCTATCCACTTCCCA
ACTAGTGGCCTGTACTAAGGTGGTGGCACCTACAATCAGCTCACCTGTCTGCCAAGAGCAACTGGTGGAGGCTGG
ACGACTGGTAGCCAAAGCCGTGGAGGGCTGTGTGTCTGCCTCCCAGGCAGCTACAGAGGATGGGCAACTGTTGCG
AGGGGTAGGAGCAGCAGCCACAGCTGTCACCCAGGCCCTAAATGAGCTGCTGCAGCATGTGAAAGCCCATGCCAC
AGGGGCTGGGCCTGCTGGCCGTTATGACCAGGCTACTGACACCATCCTAACCGTCACTGAGAACATCTTTAGCTC
CATGGGTGATGCTGGGGAGATGGTGCGACAGGCCCGCATCCTGGCCCAAGCCACATCTGACCTGGTCAATGCCAT
CAAGGCTGATGCTGAGGGGGAAAGTGATCTGGAGAACTCCCGCAAGCTCTTAAGTGCTGCCAAGATCCTAGCTGA
TGCCACAGCCAAGATGGTAGAGGCTGCCAAGGGAGCAGCTGCCCACCCTGACAGTGAGGAGCAGCAGCAGCGGCT
GCGGGAGGCAGCTGAGGGGCTGCGCATGGCCACCAATGCAGCTGCGCAGAATGCCATCAAGAAAAAGCTGGTGCA
GCGCCTGGAGCATGCAGCCAAGCAGGCTGCAGCCTCAGCCACACAGACCATCGCTGCAGCTCAGCACGCAGCCTC
TACCCCCAAGGCCTCTGCCGGCCCCCAGCCCCTGCTGGTGCAGAGCTGCAAGGCAGTGGCAGAGCAGATTCCACT
GCTGGTGCAGGGCGTCCGAGGAAGCCAAGCCCAGCCTGACAGCCCCAGCGCTCAGCTTGCCCTCATTGCTGCCAG
CCAGAGCTTCCTGCAGCCAGGTGGGAAGATGGTGGCAGCTGCAAAGGCCTCAGTGCCAACGATTCAGGACCAGGC
TTCAGCCATGCAGCTGAGTCAGTGTGCCAAGAACCTGGGCACCGCGCTGGCTGAACTCCGGACGGCTGCCCAGAA
GGCTCAGGAAGCATGTGGACCTTTGGAGATGGATTCTGCACTGAGTGTGGTACAGAATCTAGAGAAAGATCTACA
GGAAGTGAAGGCAGCAGCTCGAGATGGCAAGCTTAAACCCTTACCTGGGGAGACAATGGAGAAGTGTACCCAGGA

FIGURE 4278B

CCTGGGCAACAGCACCAAAGCCGTGAGCTCAGCCATCGCCCAGCTACTGGGAGAGGTTGCCCAGGGCAATGAGAA
TTATGCAGGTATTGCAGCTCGGGATGTGGCAGGTGGGCTGCGGTCACTGGCCCAGGCCGCTAGGGGAGTCGCTGC
ACTGACGTCAGATCCTGCAGTGCAGGCCATTGTACTTGATACGGCCAGTGATGTGCTGGACAAGGCCAGCAGCCT
CATTGAGGAGGCGAAAAAGGCAGCTGGCCATCCAGGGGACCCTGAGAGCCAGCAGCGGCTTGCCCAGGTGGCTAA
AGCAGTGACCCAGGCTCTGAACCGCTGTGTCAGCTGCCTACCTGGCCAGCGCGATGTGGATAATGCCCTGAGGGC
AGTTGGAGATGCCAGCAAGCGACTCCTGAGTGACTCGCTTCCTCCTAGCACTGGGACATTTCAAGAAGCTCAGAG
CCGGTTGAATGAAGCTGCTGCTGGGCTGAATCAGGCAGCCACAGAACTGGTGCAGGCCTCTCGGGGAACCCCTCA
GGACCTGGCTCGAGCCTCAGGCCGATTTGGACAGGACTTCAGCACCTTCCTGGAAGCTGGTGTGGAGATGGCAGG
CCAGGCTCCGAGCCAGGAGGACCGAGCCCAAGTTGTGTCCAACTTGAAGGGCATCTCCATGTCTTCAAGCAAACT
TCTTCTGGCTGCCAAGGCCCTGTCCACGGACCCTGCTGCCCCTAACCTCAAGAGTCAGCTGGCTGCAGCTGCCAG
GGCAGTAACTGACAGCATCAATCAGCTCATCACTATGTGCACCCAGCAGGCACCCGGCCAGAAGGAGTGTGATAA
CGCCCTGCGGGAATTGGAGACGGTCCGGGAACTCCTGGAGAACCCAGTCCAGCCCATCAATGACATGTCCTACTT
TGGTTGCCTGGACAGTGTAATGGAGAACTCAAAGGTGCTGGGCGAGGCCATGACTGGCATCTCCCAAAATGCCAA
GAACGGAAACCTGCCAGAGTTTGGAGATGCCATTTCCACAGCCTCAAAGGCACTTTGTGGCTTCACCGAGGCAGC
TGCACAGGCTGCATATCTGGTTGGTGTCTCTGACCCCAATAGCCAAGCTGGACAGCAAGGGCTAGTGGAGCCCAC
ACAGTTTGCCCGTGCAAACCAGGCAATTCAGATGGCCTGCCAGAGTTTGGGAGAGCCTGGCTGTACCCAGGCCCA
GGTGCTCTCTGCAGCCACCATTGTGGCTAAACACACCTCTGCACTGTGTAACAGCTGTCGCCTGGCTTCTGCCCG
TACCACCAATCCTACTGCCAAGCGCCAGTTTGTACAGTCAGCCAAGGAGGTGGCCAACAGCACAGCTAATCTTGT
CAAGACCATCAAGGCGCTAGATGGGGCCTTCACAGAGGAGAACCGTGCCCAGTGCCGAGCAGCAACAGCCCCTCT
GCTGGAGGCTGTGGACAATCTGAGTGCCTTTGCGTCCAACCCTGAGTTCTCCAGCATTCCTGCCCAGATCAGCCC
TGAGGGTCGGGCTGCCATGGAGCCCATTGTGATCTCTGCCAAGACAATGTTAGAGAGTGCCGGGGGACTCATCCA
GACAGCCCGGGCCCTCGCAGTCAATCCCCGGGACCCCCCGAGCTGGTCGGTGCTGGCCGGCCACTCCCGTACTGT
CTCAGACTCCATCAAGAAGCTAATTACAAGCATGAGGGACAAGGCTCCAGGGCAGCTGGAGTGTGAAACGGCCAT
TGCAGCTCTGAACAGTTGTCTACGGGACCTAGACCAGGCTTCCCTCGCTGCAGTCAGCCAGCAGCTTGCTCCCCG
TGAGGGAATCTCTCAAGAGGCCTTGCACACTCAGATGCTCACTGCAGTCCAAGAGATCTCCCATCTCATTGAGCC
GCTGGCCAATGCTGCCCGGGCTGAAGCCTCCCAGCTGGGACACAAGGTGTCCCAGATGGCGCAGTACTTTGAGCC
GCTCACCCTGGCTGCAGTGGGTGCTGCCTCCAAGACCCTGAGCCACCCGCAGCAGATGGCACTCCTGGACCAGAC
TAAAACATTGGCAGAGTCTGCCCTGCAGTTGCTATACACTGCCAAGGAGGCTGGTGGTAACCCAAAGCAAGCAGC
TCACACCCAGGAAGCCCTGGAGGAGGCTGTGCAGATGATGACCGAGGCCGTAGAGGACCTGACAACAACCCTCAA
CGAGGCAGCCAGTGCTGCTGGGGTCGTGGGTGGCATGGTGGACTCCATCACCCAGGCCATCAACCAGCTAGATGA
AGGACCAATGGGTGAACCAGAAGGTTCCTTCGTGGATTACCAAACAACTATGGTGCGGACAGCCAAGGCCATTGC
AGTGACCGTTCAGGAGATGGTTACCAAGTCAAACACCAGCCCAGAGGAGCTGGGCCCTCTTGCTAACCAGCTGAC
CAGTGACTATGGCCGTCTGGCCTCGGAGGCCAAGCCTGCAGCGGTGGCTGCTGAAAATGAAGAGATAGGTTCCCA
TATCAAACACCGGGTACAGGAGCTGGGCCATGGCTGTGCCGCTCTGGTCACCAAGGCAGGCGCCCTGCAGTGCAG
CCCCAGTGATGCCTACACCAAGAAGGAGCTCATAGAGTGTGCCCGGAGAGTCTCTGAGAAGGTCTCCCACGTCCT
GGCTGCGCTCCAGGCTGGGAATCGTGGCACCCAGGCCTGCATCACAGCAGCCAGCGCTGTGTCTGGTATCATTGC
TGACCTCGACACCACCATCATGTTCGCCACTGCTGGCACGCTCAATCGTGAGGGTACTGAAACTTTCGCTGACCA
CCGGGAGGGCATCCTGAAGACTGCGAAGGTGCTGGTGGAGGACACCAAGGTCCTGGTGCAAAACGCAGCTGGGAG
CCAGGAGAAGTTGGCGCAGGCTGCCCAGTCCTCCGTGGCGACCATCACCCGCCTCGCTGATGTGGTCAAGCTGGG
TGCAGCCAGCCTGGGAGCTGAGGACCCTGAGACCCAGGTGGTACTAATCAACGCAGTGAAAGATGTAGCCAAAGC
CCTGGGAGACCTCATCAGTGCAACGAAGGCTGCAGCTGGCAAAGTTGGAGATGACCCTGCTGTGTGGCAGCTAAA
GAACTCTGCCAAGGTGATGGTGACCAATGTGACATCATTGCTTAAGACAGTAAAAGCCGTGGAAGATGAGGCCAC
CAAAGGCACTCGGGCCCTGGAGGCAACCACAGAACACATACGGCAGGAGCTGGCGGTTTTCTGTTCCCCAGAGCC
ACCTGCCAAGACCTCTACCCCAGAAGACTTCATCCGAATGACCAAGGGTATCACCATGGCAACCGCCAAGGCCGT
TGCTGCTGGCAATTCCTGTCGCCAGGAAGATGTCATTGCCACAGCCAATCTGAGCCGCCGTGCTATTGCAGATAT
GCTTCGGGCTTGCAAGGAAGCAGCTTACCACCCAGAAGTGGCCCCTGATGTGCGGCTTCGAGCCCTGCACTATGG
CCGGGAGTGTGCCAATGGCTACCTGGAACTGCTGGACCATGTACTGCTGACCCTGCAGAAGCCAAGCCCAGAACT
GAAGCAGCAGTTGACAGGACATTCAAAGCGTGTGGCTGGTTCCGTCACTGAGCTCATCCAGGCTGCTGAAGCCAT

FIGURE 4278C

GAAGGGAACAGAATGGGTAGACCCAGAGGACCCCACAGTCATTGCTGAGAATGAGCTCCTGGGAGCTGCAGCCGC
CATTGAGGCTGCAGCCAAAAAGCTAGAGCAGCTGAAGCCCCGGGCCAAACCCAAGGAGGCAGATGAGTCCTTGAA
CTTTGAGGAGCAGATACTAGAAGCTGCCAAGTCCATTGCAGCAGCCACCAGTGCACTGGTAAAGGCTGCGTCGGC
TGCCCAGAGAGAACTAGTGGCCCAAGGGAAGGTGGGTGCCATTCCAGCCAATGCACTGGACGATGGGCAGTGGTC
CCAGGGCCTCATTTCTGCTGCCCGGATGGTGGCTGCGGCCACCAACAATCTGTGTGAGGCAGCCAATGCAGCTGT
ACAAGGCCATGCCAGCCAGGAGAAGCTCATCTCATCAGCCAAGCAGGTAGCTGCCTCCACAGCCCAGCTCCTTGT
GGCCTGCAAGGTCAAGGCTGACCAGGACTCGGAGGCAATGAAACGACTTCAGGCTGCTGGCAACGCAGTGAAGCG
AGCCTCAGATAATCTGGTGAAAGCAGCACAGAAGGCTGCAGCCTTTGAAGAGCAGGAGAATGAGACAGTGGTGGT
GAAAGAGAAGATGGTTGGCGGCATTGCCCAGATCATCGCAGCACAGGAAGAAATGCTTCGGAAGGAACGAGAGCT
GGAAGAGGCGCGGAAGAAACTGGCCCAGATCCGGCAGCAGCAGTACAAGTTTCTGCCTTCAGAGCTTCGAGATGA
GCAC**TAA**AGAAGCCTCTTCTATTTAATGCAGACCCGGCCCAGAGACTGTGCGTGCCACTACCAAAGCCTTCTGGG
CTGTCGGGGCCCAACCTGCCCAACCCCAGCACTCCCCAAAGTGCCTGCCAAACCCCAGGGCCTGGCCCCGCCCAG
TCCCGCAGTACATCCCCTGTCCCCTCCCCAACCCCAAGTGCCTTCATGCCCTAGGGCCCCCCAAGTGCCTGCCCC
TCCCCAGAGTATTAACGCTCCAAGAGTATTATTAACGCTGCTGTACCTCGATCTGAATCTGCCGGGGCCCCAGCC
CACTCCACCCTGCCAGCAGCTTCCGGCCAGTCCCCACAGCCTCATCAGCTCTCTTCACCGTTTTTTGATACTATC
TTCCCCCACCCCCAGCTACCCATAGGGGCTGCAGAGTTATAAGCCCCAAACAGGTCATGCTCCAATAAAAATGAT
TCTACCTAC

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FIGURE 4279

ATGGAGCTGGAATTGGATGCTGGTGACCAAGACCTGCTGGCCTTCCTGCTAGAGGAAAGTGGAGATTTGGGGACG
GCACCCGATGAGGCCGTGAGGGCCCCACTGGACTGGGCGCTGCCGCTTTCTGAGGTACCGAGCGACTGGGAAGTA
GATGATTTGCTGTGCTCCCTGCTGAGTCCCCCAGCGTCGTTGAACATTCTCAGCTCCTCCAACCCCTGCCTTGTC
CACCATGACCACACCTACTCCCTCCCACGGGAAACTGTCTCTATGGATCTAGAGAGTGAGAGCTGTAGAAAAGAG
GGGACCCAGATGACTCCACAGCATATGGAGGAGCTGGCAGAGCAGGAGATTGCTAGGCTAGTACTGACAGATGAG
GAGAAGAGTCTATTGGAGAAGGAGGGGCTTATTCTGCCTGAGACACTTCCTCTCACTAAGACAGAGGAACAAATT
CTGAAACGTGTGCGGAGGAAGATTCGAAATAAAAGATCTGCTCAAGAGAGCCGCAGGAAAAAGAAGGTGTATGTT
GGGGGTTTAGAGAGCAGGGTCTTGAAATACACAGCCCAGAATATGGAGCTTCAGAACAAAGTACAGCTTCTGGAG
GAACAGAATTTGTCCCTTCTAGATCAACTGAGGAAACTCCAGGCCATGGTGATTGAGATATCAAACAAAACCAGC
AGCAGCAGCACCTGCATCTTGGTCCTACTAGTCTCCTTCTGCCTCCTCCTTGTACCTGCTATGTACTCCTCTGAC
ACAAGGGGGAGCCTGCCAGCTGAGCATGGAGCCAGCTTCGTGCCCTCCCCAGTGAGGACCCTTACCAGCTGGAGC
TGCCTGCCCTGCAGTCAGAAGTGCCGAAAGACAGCACACACCAGTGGTTGGACGGCTCAGACTGTGTACTCCAGG
CCCCTGGCAACACTTCCTGCCTGCTGCATTACATGCCTCAGGCTCCCAGTGCAGAGCCTCCCCTGGAGTGGCCAT
TCCCTGACCTCTTCTCAGAGCCTCTCTGCCGAGGTCCCATCCTCCCCCTGCAGGCAAATCTCACAAGGAAGGGAG
GATGGCTTCCTACTGGTAGCCCCTCTGTCATTTTGCAGGACAGATACTCAGGCTAG

FIGURE 4280

AGACCGGAAAGGGCTCGGGTCATCCCGGCGCCCAGGGTCACCTTCCCACGGGCTGGCACCTGGGCGCGGGCGCTG
CCCCGGAGCCGGCCGGCGGGACCTGGCGCCCAATCCTGGGGGACCCGGTGCCGTGGCCCAGGGGCCGGGCCGAGG
TCCCGGGGGCGGTGCCTTGCGGGCCCGTCCCGGGGCGGTGCCTGGTGGGCTGGCCCCGCGGCTCCTCCCCTCTCT
GCGGGCCCAGTCGCCCTTTGGCCGGGCGAGCTAATCGTCGGCTCAATGACGACGAGGCCCGACCCTTCCCGTCCA
GGACCTACAGAGACAACCGAAGGAGAGCCCAAGGCGGCTTCTTTGCTGTCGCCGCCCCCACTGAAGCAAGAGCTC
CCCGGCTCCACTGAAACACCAGCTCATTTAAGCTTTCCCCAACGCCCGGCCCTCCGGGACGATACCTAACAACGA
CCGGCGCCCGCATCTGGAATAGGCTGGCGAGATACTTAGTATCCGAGGGCTCGGGACTTGGCGCCATCGAGGTCA
TGGGGACCCAGGATCCAGGGAACATGGGAACCGGCGTCCCAGCCTCGGAGCAGATAAGCTGTGCCAAAGAGGATC
CACAAGTTTATTGCCCTGAAGAGACTGGCGGCACCAAGGATGTGCAGGTTACAGACTGTAAGAGTCCCGAAGACA
GCCGACCCCCAAAAGAGACGGACTGCTGCAATCCGGAGGACTCTGGGCAGCTGATGGTTTCCTATGAGGGTAAAG
CTATGGGCTACCAGGTGCCTCCCTTTGGCTGGCGCATCTGTCTGGCTCATGAGTTTACAGAGAAGAGGAAACCCT
TTCAAGCTAACAACGTCTCCCTAAGCAACATGATAAAGCATATAGGCATGGGCTTGAGGTACCTGCAGTGGTGGT
ACCGGAAGACCCATGTGGAAAAGAAGACACCTTTCATCGACATGATCAATTCTGTACCCCTAAGACAGATTTATG
GTTGTCCCTTGGGTGGCATCGGGGGAGGCACTATTACCCGTGGCTGGAGAGGCCAGTTCTGTCGTTGGCAGCTTA
ACCCTGGAATGTATCAGCACCGGACAGTCATCGCTGACCAAGACAGCAGCCTGCCTGTAGGAGTCTTTGTGTGGG
ATGTGGAAAATGAAGGGGACGAAGCTCTAGATGTGTCCATCATGTTCTCCATGCGGAATGGACTGGGTGGTGGAG
ACGATGCCCCAGGGGTTTGTGGAATGAGCCCTTCTGTCTGGAGCGTAGCGGGGAAACTGTCCGGGGGCTGCTCCT
GCATCATCCAACCCTTCCAAACCCCTACACG**ATG**GCTGTGGCTGCACGAGTCACGGCAGCTACCACGGTAACCCA
CATCACAGCCTTTGACCCTGACAGCACGGGGCAGCAGGTGTGGCAGGATCTACTTCAGGATGGACAGCTGGACTC
TCCCACTGGCCAAAGCACCCCTACGCAGAAAGGAGTAGGCATTGCTGGAGCTGTGTGTGTTTCCAGCAAGTTGCG
ACCTCGAGGCCAGTGCCGCCTGGAGTTTTCACTGGCTTGGGACATGCCCAGGATCATGTTTGGAGCTAAAGGCCA
AGTCCACTACAGGCGGTATACAAGGTTCTTTGGCCAGGATGGAGATGCAGCACCTGCCCTCAGCCACTATGCACT
GTGCCGATACGCAGAGTGGGAAGAGAGGATCTCAGCTTGGCAGAGCCCGGTATTGGATGACAGATCACTGCCTGC
CTGGTACAAATCTGCGCTGTTCAATGAACTATACTTCCTGGCTGATGGAGGCACAGTGTGGCTGGAAGTTCTTGA
GGACTCCCTACCAGAGGAGCTGGGCAGAAACATGTGTCACCTCCGCCCCACCCTACGGGACTACGGTCGATTTGG
CTACCTTGAGGGCCAGGAGTACCGCATGTACAACACATATGATGTCCACTTTTATGCTTCCTTTGCCCTCATCAT
GCTCTGGCCCAAACTTGAGCTCAGCCTACAGTATGACATGGCTCTGGCCACTCTCAGGGAGGACCTGACACGGCG
ACGGTACCTGATGAGTGGGGTGATGGCACCTGTGAAAAGGAGGAACGTCATCCCCCATGATATTGGGGACCCAGA
TGATGAACCATGGCTCCGCGTCAATGCATATTTAATCCATGATACTGCTGATTGGAAGGACCTGAACCTGAAGTT
TGTGCTGCAGGTTTATCGGGACTATTACCTCACGGGTGATCAAAACTTCCTGAAGGACATGTGGCCTGTGTGTCT
AGCTGTGATGGAATCTGAAATGAAGTTTGACAAGGACCATGATGGACTCATTGAAAATGGAGGCTATGCAGACCA
GACCTATGATGGATGGGTGACCACAGGCCCCAGTGCTTACTGTGGAGGGCTGTGGCTGGCAGCTGTGGCTGTGAT
GGTCCAGATGGCTGCTCTGTGTGGGGCACAGGACATCCAGGATAAGTTTTCTTCTATCCTCAGCCGGGGCCAAGA
AGCCTATGAGAGACTGCTGTGGAATGGCCGCTATTACAACTATGACAGCAGCTCTCGGCCTCAGTCTCGTAGTGT
TATGTCTGACCAGTGTGCTGGACAGTGGTTCCTGAAGGCCTGTGGCCTAGGAGAAGGAGACACTGAGGTGTTTCC
TACCCAACATGTGGTCCGTGCTCTCCAAACTATCTTTGAGCTGAACGTCCAGGCCTTTGCAGGAGGGGCCATGGG
GGCTGTGAATGGGATGCAGCCCCATGGTGTCCCTGATAAATCCAGTGTGCAGTCTGATGAAGTCTGGGTGGGTGT
GGTCTACGGGCTGGCAGCTACCATGATCCAAGAGGGCCTGACTTGGGAGGGCTTCCAGACAGCTGAAGGCTGCTA
CCGTACCGTGTGGGAGCGCCTGGGTCTGGCCTTCCAGACCCCAGAGGCATACTGCCAGCAGCGAGTGTTCCGCTC
ACTGGCCTACATGCGGCCACTGAGCATATGGGCCATGCAGCTAGCCCTGCAACAGCAGCAGCACAAAAAGGCCTC
CTGGCCAAAAGTCAAACAGGGCACAGGACTAAGGACAGGGCCTATGTTTGGACCAAAGGAAGCCATGGCAAACCT
GAGCCCAGAG**TGA**GCCGTCTGAACTGTGGGAGGGAAGTGCTAACAGCCCAGCCTCCAGCCTGGCCTTTCCTCCTT
CCCCTCTGAACCTCCTGCAACCCTGAGCCATCAGGACAATCATACCCCTTCCCTTCTCTCCACCCAATTGTGCCA
GTAAATGGGGGTTGAGGGTGACCTAGGCAGCATTAGAATCACTTATTTATTTCTTTCCTCACCTGTTCCCTGACT
GCGTGAAATGTTCAGGGAGGTCAGTTGATTTCCCCAGGTACATTCATGGTGTGACAGACACATGGGTACAAATAA
AAGACCCAGAAAGCC

FIGURE 4281A

GCCAGGTCCCTGAGGGGCGGGCAGATGAGGCCTAGGGGTGCCGATCCCTAGTGTCGACTATGCGAGATCTGATTC
CGGAGCTGCCATGATTGAAGTGGTAGCAGAGCTCAGCCGGGGTCCTGTATTTTTGGCTGGGGAGGCGCTGGAGTG
TGTAGTGACCGTCACCAACCCCCTTCCGCCCACGGCCACTTCTGCATCCAGTGAGGCCCTGGCCTGGGCCAGTGC
CCAAATCCACTGCCAGTTCCATGCCAGTGAGAGTCGAGTAGCACTGCCTCCTCCTGACTCTAGTCAGCCAGATGT
CCAGCCCGACAGCCAGACTGTCTTTCTGCCACACCGAGAGGTGAGAGGGGCCAGTGTATCCTTTCTACTCCACCG
AAAATTCTATTCTGTGACCTGAGGCTTGATCCTGGAGAGTCCAAATCATACTCCTACAGTGAAGTGCTGCCCATA
GAGGGACCACCCTCCTTTCGGGGTCAGTCAGTCAAGTACGTCTACAAACTGACCATTGGCTGCCAGCGTGTCAAC
TCCCCTATCACTTTACTCAGAGTCCCTCTGAGGGTTCTTGTGCTGACTGGCCTTCAGGATGTCCGGTTTCCCCAG
GATGAGGCTGTAGCCCCATCCAGTCCATTCTTGGAGGAGGATGAAGGTGGGAAGAAAGATTCATGGCTAGCTGAG
CTGGCTGGGGAACGCCTA**ATG**GCTGCCACATCCTGCCGCAGCCTCCATCTATACAATATCAGTGATGGCCGAGGG
AAAGTTGGGACGTTTGGCATCTTCAAATCTGTGTACAGACTTGGCGAGGACGTGGTGGGGACCTTAAACTTAGGG
GAAGGAACCGTAGCTTGTTTGCAGTTTTCAGTCAGCTTACAGACCGAGGAGCGTGTACAGCCTGAGTACCAGCGG
CGACGTGGGGCAGGGGGTGTCCCCTCTGTGTCACATGTGACTCACGCCCGGCACCAGGAATCCTGCCTACATACA
ACTAGAACCAGCTTCTCCCTCCCAATCCCTCTCAGCTCCACCCCAGGCTTCTGTACAGCCATTGTGTCCTTGAAG
TGGAGATTGCATTTTGAATTTGTAACGTCCCGAGAACCAGGATTGGTACTCCTACCCCCTGTGGAACAGCCCGAA
CCTACCACCTGGACAGGACCTGAGCAAGTACCTGTAGACACCTTCAGCTGGGACCTGCCCATCAAGGTGCTGCCT
ACTAGCCCCACCCTGGCCTCATATGCTGCCCCAGGCCCCAGCACCAGCACCATAACCATC**TGA**AACTGGCCCACC
CTGGTGCTAGTTCCTTCCGGATACTGAGAACTCAGCACCTGGACTCTAATGGGACCCACTTTTTCCACCTGGGGT
CCAATGTCGTGGACAGTGAGAGTCGGGCTTTCAGCTATAGCATTAATTTATTTGTTCAGAATACATTGGCAGCTG
CTAGTGGTTTCCCTGGAAGTGGCAGCAGCAGTGAGCAGTCAGCAGATGGATGATCAGTTGAGTTTAGCTGGAGTG
GGGAGCAGGAGCCCCAGGAACAGGGGTGTTGGCTGAGCCCCATTCTGGGTCAGGCCCTCCCCCTTTGCAGGGCAG
CCGAGGGTCAGATTTTTGCACCAAGGAGAACTGGCAGGTTCCTGCCTCCTGACGTACCTCACACCCAGCCGGGAA
GTCGATGGGATGCTGGGACCTGGGGAACCAAGGATAGGGGAAGGAGTCAGCACAGTGAAAGGCTGCCTTTATCCC
TGCCCACATGTTCCCTCTCTCACAGTTTTCCCCCCACAGAGCCCCTTTCAGTGGCCCCTTGGTCCTCCTAACTAA
GCTGTCACCTACCATATGTGGGCCTTTTTGTTTTATAACAGGAGTATTTTCTCTCCAGGTCCACCCCAACCTCCC
CTGATTTATAGCCTGAAGCCTTATCTTTCACACTAGTGTTGGTCCCTTCAGGTTTGGCCCATCTTGTATTGCTCT
TCTGTTCATTCTTACATCACAGCAATCTAGTCACTCCCTGGTCATCCCTCAGTCACTCATATCAGAGTCATTCTC
TCTGGCCATCTTTGGTCACTCACGTGTCACAGCAGCCCACGCCAACAGGATGCAGACAGGTGCAATGGAAACAGT
CCTTGCGGAGCCAAGACTCACCCAGGGTAAAATATTTCCCCTCATAGTGACAGGGGGCTAGGGAAGAACGGGAAA
TGTTAGTAGGTGTAGGAGTGCTGATGAGAGGCAGAGGCTCTTCTGGTCTGGGGTGGAGACAGTAAGTACGCACTA
TCCCCGTATTTAGTTTGTCTTTCCTGTTTCACAGCTGGAGGAAGCCTGGGTATTTTGACACGGGATCATCTGTAA
GGCCCCATCCTCCCTGTGCCCTCTCTGCTGCTCCTCCATTCCTAACGCTTCACCCCACTTTACCTTGAGCTTGGA
AGTAGCACTTGCTGTAGACTCCTGGGTGCTGGAGGAGTAGAGACATCACCAAGCAGATGATCCCCCAGCCTCCTA
GGATCCCCTTGGCCTGTCCAGCCCAGAGCATCCTTAGGGCCATTGCTGCTGCACAGCCCTCTCAGACCCTTCTTG
GCCTCTGCTCAGCTACTCTGGTCTTGACTCCTTGACTTTGCTTTGCGTTGCTCCTTGAGTCTTAGTTTCTGTCTT
TCTCCCCTGGGCTCCTGTCTCACACTATCTCCCTGCCCTCTGCTCTCACAGGCTGGGGATGTTTATAAAGTGAGG
ACCCTGGCCCCCTGCTGAGTAGAGCTGGAAAAGTTGTAACTCTGTTTCCTGAGGTGAGGGCATGAAAACAAGAGG
TCTAGCTTTAACAAGCTGTGAGAGCTGATTCATGCCCCGGCACAGCTAGAGGGAGGGAGGTGGCCATGGAGGGGG
CACTGGACTGGGCACTTCCCCAGCAAGGAGGCAGGAGGGGCGAGGGCCCCCAGGTGGTCCCCAGATCTCTTCCCT
GACCTGGAGAGAAGGAAGCATTCCACCTTCCCCCTTTCTCCCCCACTGCCACCACCAGGGGTGTGTATGCTGGGA
TCCCTGCCTGGACCGGAGGGAGGCATTTCCTGGGGATGGTTAATCCTGTGCCCCAGCCAAACCCAGGAGCTGCAA
TAGGGTGCGACGGCCAGAAGCTCCAGGAGAGTGAGCAGGCACCTGGAGTGGAGACTGTGTTTCCCTCAGATCCTA
GGGCAGGGTTTCCCTAATGTATCCAAGAAATAGGGCTGCCCCTCAGAGATGGTGGGGAGGGTCTCTTTTCCTCAG
GCATTCCAGAGGTGAACTGTCCATTGCTTATCACCTTCAAACATACAGCAGATGTGGGATCACCCCACATCTGGG
GATGGTTCTTTCCCCTTTCAAAGAGGAGCATCTCTAAGTGCCCTGATGGGATGAATCACTCCAGGTTCACAGAGG
TGTCCTCTCTTTCCTCCCATATATAATGGAGTGAGGTTTTTAGGAATTTATCATTTGGCATCCTCTGAGTTTCCC
ACAGGTTCTGGAGGAGCCCAGGATGGATTATTGAGAGCATGGGCTGTAGAGACAGTCTTCTTGGATTCAGATCCT
GACTCCACTTAGCTATGTAACCTGGTCAGATTACTTCACCTCTCTGAGCCTGTTTCCTCATCTATAAATTGGGGA

FIGURE 4281B

TAGTAATGCCAACTCATTGGGCTGTTATGAGGATTACTGAGATAATGCGTGCAGTGCTCTTATCACCATCTCTGG
TGCGTAAGCGTCAGGAAATAGCAGTTGCTGTGATTGGGGCTAAAGCTCTGAGGCAAAATGGGCGACATTATTTTC
TTTGAATGACATTAAGCAGTTTGTGCATAGCTGAGGGCTTCTATTGGGGATGGCTGTCTCCTGGCATAGACCTCT
GCACCTTTCACACTCATACTCCTTGTCAGCAGTCCCCAACCTTTTTGGTACCAGGGACCGGTTTTGTGGAAAACA
ATTTTTCCACCAGTGGATGGAGGGGGATAGCAGCGGGGAGATGATTTTGGGATGAAACTGTTTCATCTCAGATCA
TCAGGCATTAGATTCTCATAAGGAGTGTGCAATCTAGATCCCTTGCATGCGGAGTTCACAGTGGGGTTTGCACTC
CTGTGAGAATCTAATGCCTCTGCTGATCTGCCAGGAGGAGGAGCTCAGGCGGTAATGCTCACTCGCCTGCCGCCC
ACCTCCTGCTTTGTGCTCCCGCTTCCTAACAGGCCACAGACTGGTACTGGCCTGTGGCCTGGGGGATGGAGACCC
CTAATCCATGTCACCTTTCCCACCTCTTTCAAAAACAGGTACCTCCAGGAACATTTTGGTTTTGGCCCTTGTATT
GACTTCTGAATGTCTAGTTTGAGAAACTGTTCCCAATAAGCCTTCTTCCCCCAGATCTGCACCCTCGCCTCTACC
CTAGGACAAGATGTCCTTTTCTCATCATCCTGCCAGGCTAACTTTAAGTCTCCTGCTTTTTCTCACTTGGATTTG
GATCCATTTCTTCCTATTTCCGCTCATGTGAACTCTCCAGTTCTCCTTTCTCACCACTCTCCTGCTAGCCATCTC
TTTGGCACTAAAGGCCCTGGTCAAATTGGATTTCTTTCATTTTTCCACACTTCAAAGACCCATGTTCTAGGTATT
CTCCATAGGGATAGTCTCTTTGGCATTTATTTGGTTTTTCTACGTTTTCAGTCCCATTTACTCCAAGACTCACTC
CCTGCCACCTAGTGCATCAGATACAGCTACTTCTGGCTGACTTTTCAAGGGGGACCACCCTACCTGTCATCTCTT
CACTGTTCAGAAATGACTGTGTCAGTGCACCTCAAACTCCCTTGCTGTCCTTTTCCAAGGAGACAGCTAAGGTGG
ATGGAGATGCAGAATGGACCTCACGTTCGCCCTAGTCAGGACTGATACCCTTTCCGTTTCAGAGGATTGCCAAGA
AAAAACTCACAGTTGAGGCAGGGTGCTCTGAGGTCGGCTGCGGTGTGGGAGGCACGGCCTGGGCCTGCTCTCTGG
GCTGGAGCAGGTGGATTCGAAGGCCTGTCTAGCACGAGGGCCCAAAGGTCTTGTCAGTGGCCAGTAGCTCTGCCG
CCTTTCCCAGAGAGGGGGTCCAGGGGACATCCTGGAAGGCTGGGCCCTGGGCCACCTTCTGCTCTTGCAAGCTAG
AGCCAGCCCAATAGGGGGCGGATGTGAGTGGGGAGCTGGGGCGCATGAAGGTGGGGGTGATGCCGAAGGGGAAGG
GATCGCCAGTGGGGATTGGTGCGTGTGCGGAAACGGGGACAGAAGTGAAGGTTCATCGCCTATAACGAAGATGAG
GTAGGCATATAGGGGCTTCTGGAAAGCTAGAGGCTGGGCTGAGCCAGGAGTCCTCTCCCAGAAGTTGGGGGGCGG
TGCAGAGGTGTGGGTCGAGCCCGCATGCGTGCCTGCTGGGGAGGGGGTGAGTGGTGAGGACCAGGCCCGCTGGGT
CCTGGGGGCGCGGTGGCTGGCGCGCAGGTCCCGGAGGGGGCGGCTGGCGCGCACTACACGCTTGGGAACAAGGAA
AACATCCGCCGGAGGCCCGGCCGGGCGGCGCTCCAGCCTCGGGGCAGGTGCGCGGAGAGGAAGTGAGAGCATTCC
GGCCCCCCCACCCCAACCCCGGCCGCTGGCCCTCTGGTGAGTCACAGCCGACCCCCGCCGCCGGAGGGAGAGGGG
AGCTGCGGGCCAGAGCCCCGGAGGGTCTGGAGGAGCCAGGAGGGTTTCTGGGAGCAGAGGGTCACTTAGTGGGCT
TCTGTCGTGGTGTCGCTACGGGCGCGAAACGGACACTGAACACAGTCTGACTGTATGGAGGCAGGTGGGGAGGGA
TCCCCTGGGAGAACTTGGCGGGCCGAGAGCAGACCCCAGGGCAAGGAGGGGCCCCCGAGGGGGAAACCGGGAGTC
GGGCAGGTGGCGTAACCCAGAAAGGGAAGGAGAGCCGGATTGATTGGGGTGAGAGAGGAAGGAAGCACGCCAAGT
TAGGCCTGGGAGAACTGAGGGACCTGAGGAGGGAGGAGGGAGACCAACACAGGGTGGGAAGGCGGAAATGGCCAA
ACCCCAGGCATCAGGTCTGTCCAGAGGCTGACGTAGACAGTGAAGGGTGAAGGGTAGGTTTTAGGAGTAGGGGGA
GTTATGATTATTTGGTTACATTTTGGGATTATTTGGTCTCACAGGTAGAAGGGAGCCTGCTGGTCTCTGTGTAAC
GGATGGCTTAAAAGCAAGGTTGTCTGCGTCTTGGATTACTGTCTGCCATTCAGCCTTTGCCAAAAAATTTGGCAC
TGATCTGCACATTTTTATAGTCATTTAAAATTGTATGACTCTGTCAAATGATTTAAGTAATTTTGGTGGATTTTT
AAAAATAAAAAAAT

FIGURE 4282

ATGGCGCTGCCATCACTTCTGCTGTTGGTGGCAGCCCTGGCAGGTGGGGTGCGTCCTCCCGGGGCGCGGAACCTG
ACGCTGGCGGTGGTGCTGCCAGAACACAACCTGAGCTATGCCTGGGCCTGGCCACGGGTGGGACCCGCTGTGGCA
CTAGCTGTGGAGGCTCTGGGCCGGGCACTGCCCGTGGACCTGCGGTTTGTCAGCTCCGAACTGGAAGGCGCCTGC
TCTGAGTACCTGGCACCGCTGAGCGCTGTGGACCTCAAGCTGTACCATGACCCCGACCTGCTGTTAGGTCCCGGT
TGCGTGTACCCTGCTGCCTCTGTGGCCCGCTTTGCCTCCCACTGGCGCCTTCCCCTGCTGACTGCGGGTGCTGTG
GCCTCTGGTTTTTCGGCTAAGAATGACCATTATCGTACCCTGGTTCGCACTGGCCCCTCTGCTCCCAAGCTGGGT
GAGTTTGTGGTGACACTACACGGGCACTTCAATTGGACTGCCCGTGCTGCCTTGCTGTACCTGGATGCTCGCACA
GATGACCGGCCTCACTACTTCACCATCGAGGGCGTCTTTGAGGCCCTGCAGGGCAGCAACCTCAGTGTGCAGCAC
CAGGTGTATGCCCGAGAGCCAGGGGGCCCCGAGCAGGCCACCCACTTCATCCGGGCCAACGGGCGCATTGTGTAT
ATCTGCGGCCCTCTGGAGATGCTGCATGAGATCCTGCTTCAGGCCCAGAGGGAGAATCTGACCAATGGGGATTAT
GTCTTCTTTTACCTGGATGTCTTTGGGGAGAGTCTCCGTGCAGGCCCCACACGTGCTACAGGCCGGCCCTGGCAG
GACAATCGCACCCGGGAACAGGCCCAGGCCCTCAGAGAGGCCTTTCAGACTGTATTGGTGATCACGTACCGAGAA
CCCCCAAATCCTGAGTATCAGGAATTCCAGAATCGTCTGCTGATAAGAGCCCGGGAAGACTTTGGTGTGGAGCTG
GGCCCTTCCCTGATGAACCTCATCGCTGGCTGCTTCTATGATGGGATCCTGCTATATGCTGAAGTCCTGAATGAG
ACAATACAGGAAGGAGGCACCCGGGAGGATGGACTTCGAATTGTGGAAAAGATGCAGGGACGAAGATATCACGGT
GTAACTGGGCTGGTTGTCATGGACAAGAACAATGACCGAGAGACTGACTTTGTCCTCTGGGCCATGGGAGACCTG
GATTCTGGGGACTTTCAGCCTGCAGCCCACTACTCGGGAGCTGAGAAGCAGATTTGGTGGACGGGACGGCCTATT
CCCTGGGTGAAGGGGGCTCCTCCCTCGGACAATCCCCCCTGTGCCTTTGACTTGGACGACCCATCCTGTGATAAA
ACTCCACTTTCAACCCTGGCAATTGTGGCTCTGGGCACAGGAATCACCTTCATCATGTTTGGTGTTTCCAGCTTC
CTAATTTTCCGAAAGCTGATGCTGGAGAAGGAGCTGGCTAGCATGTTGTGGCGTATTCGCTGGGAAGAACTGCAG
TTTGGCAACTCAGAGCGTTATCACAAAGGTGCAGGCAGTCGCCTCACACTGTCGCTGCGGGGATCCAGTTACGGC
TCGCTCATGACAGCCCATGGGAAATACCAGATCTTTGCCAACACCGGTCACTTCAAGGGAAATGTTGTCGCCATC
AAACATGTGAATAAGAAGCGCATTGAGCTGACCCGGCAGGTTCTGTTTGAACTCAAACATATGAGAGATGTTCAG
TTCAACCATCTCACTCGCTTCATTGGCGCCTGCATAGACCCTCCCAACATTTGCATTGTCACTGAATACTGTCCT
CGTGGGAGTTTACAGGATATTCTAGAAAATGACAGCATCAACTTGGACTGGATGTTTCGTTATTCACTCATTAAT
GACCTTGTTAAGGGCATGGCCTTTCTCCACAACAGCATTATTTCATCGCATGGGAGTCTCAAGTCCTCCAACTGT
GTGGTGGATAGTCGTTTTGTGCTCAAAATCACAGACTATGGCCTGGCCAGCTTCCGATCAACTGCTGAACCTGAT
GACAGCCATGCCCTCTATGCCAAGAAGCTGTGGACTGCCCCAGAACTGCTCAGTGGGAACCCCTTGCCAACCACA
GGCATGCAGAAGGCTGACGTCTATAGCTTTGGGATCATCCTGCAGGAGATAGCACTTCGCAGTGGTCCTTTCTAC
TTGGAGGGCCTGGACCTCAGCCCCAAAGAGATTGTCCAGAAGGTACGAAATGGTCAGCGGCCATATTTCCGGCCA
AGCATTGACCGGACCCAACTGAATGAAGAGCTAGTTTTGCTGATGGAGCGATGTTGGGCTCAGGACCCAGCTGAG
CGGCCAGACTTTGGACAGATTAAGGGCTTCATTCGGCGCTTTAACAAGGAGGGTGGCACCAGCATATTGGACAAC
CTCCTGCTGCGCATGGAACAGTATGCCAATAACTTGGAGAAGCTGGTGGAGGAACGCACACAGGCCTATCTGGAG
GAAAAACGCAAGGCTGAAGCTCTGCTCTACCAAATCCTACCCCATTCAGTGGCAGAGCAGTTAAAACGGGGAGAG
ACTGTACAGGCTGAGGCCTTTGACAGTGTTACCATCTACTTCAGTGACATTGTTGGCTTCACAGCATTGTCAGCA
GAGAGCACCCCCATGCAGGTAGTGACACTTCTTAATGACCTGTATACCTGCTTTGATGCCATAATTGACAACTTT
GATGTCTACAAGGTGGAGACGATTGGGGATGCTTACATGGTGGTATCTGGCCTCCCAGGCCGAAATGGTCAACGC
CATGCACCAGAAATTGCTCGTATGGCCCTAGCATTACTAGATGCAGTTTCTTCCTTTCGCATCCGCCACCGACCC
CATGACCAGCTGAGGCTACGCATAGGGGTCCATACTGGTAAGGCTGACTCTCACTCCAGCCCTAGTCTCCACCTT
TCCCAGACTCTCCCAACCTGTTTCTTCTCAAAGGGCCAGTCTGTGCTGGGGTTGTTGGCCTGAAGATGCCCCGTT
ATTGTCTTTTTGGAGACACAGTGAACACTGCTTCTCGAATGGAGTCTAATGGTCAAGCGCTGAAGATCCATGTCT
CCTCTACCACCAAGGATGCCCTAGATGAGCTAGGATGCTTCCAGCTAGAGCTTCGGGGGGGATGTGGAAATGAAGG
GAAAAGGAAAGATGCGAACATACTGGCTCTTAGGAGAGCGGAAAGGACCTCCTGGACTCCTGTAAACCCCCATTC
TTTCCAAGTCAGATAGTCTTCTGCTGCTGGTACCTGGGTGGGCAATGGCCACCATGTCTGCACACACCAGAAATG
GACATTTTCATATGCAATGGAAAACAGCCACAAAAAAACCTACCTTATATGGAAGTTGTAGCCCTCTGCAGCTCA
GCCCTGTACATATACCTGTCCCTCTCTGGCTTGGTCCCCTTCCTCCCTACTTTCTGTAAATATCTGTATCTAAAC
CAGAATATTTTGGTCAAATATAAAACAATAAT

FIGURE 4283

GTCTGAAG**ATG**GAGACCAACGAGTCTACGGAGGGATCGCGGTCGCGGTCGCGATCTTTAGACATACAGCCCAGCT
CCGAAGGACTGGGGCCCACTTCGGAACCGTTTCCTTCTTCAGATGACAGTCCCAGGTCGGCCCTGGCAGCTGCAA
CCGCAGCAGCTGCAGCGGCTGCATCAGCTGCTGCAGCTACTGCAGCCTTCACCACTGCCAAAGCAGCTGCATTAT
CTACAAAGACCCCAGCGCCCTGTTCTGAGTTCATGGAGCCGTCCTCTGACCCCAGCCTTCTTGGGGAGCCCTGTG
CGGGACCCGGCTTTACCCACAATATAGCCCATGGGAGTCTTGGCTTTGAGCCCGTCTATGTTTCCTGTATTGCTC
AGGACACTTGCACTACAACTGACCATAGTTCTAATCCTGGCCCTGTTCCAGGCTCTAGCTCTGGGCCTGTTCTTG
GTTCCAGCTCAGGTGCTGGCCATGGCTCTGGCTCTGGCTCTGGTCCTGGCTGTGGCTCTGTCCCTGGCTCTGGCT
CTGGTCCTGGTCCTGGCTCTGGTCCTGGCTCTGGTCCTGGTCATGGCTCTGGCTCTCATCCTGGTCCTGCCTCTG
GGCCTGGTCCAGACACTGGCCCTGACTCTGAGCTCAGCCCCTGTATTCCTCCAGGGTTCAGAAACCTGGTGGCAG
ATCGGGTCCCTAACTATACCTCCTGGAGTCAGCACTGCCCCTGGGAGCCCCAGAAACAACCACCTTGGGAATTTT
TGCAAGTCTTAGAACCGGGTGCCCGAGGACTATGGAAACCCCCAGACATTAAAGGGAAGCTTATGGTTTGCTATG
AAACTTTGCCGCGGGGCCAGTGCCTCCTCTACAACTGGGAGGAAGAGAGAGCCACCAACCACCTGGATCAAGTCC
CAAGCATGCAGGATGGCTCTGAGAGTTTTTTCTTCCGACACGGACACCGGGGACTGCTGACTATGCAACTAAAGT
CACCCATGCCCTCCAGCACCACCCAGAAAGACTCGTACCAGCCACCAGGAAACGTCTATTGGCCACTTCGAGGGA
AGCGTGAAGCCATGCTGGAGATGCTCCTGCAGCATCAGATCTGTAAAGAGGTGCAGGCAGAACAGGAACCCACAA
GGAAGCTCTTCGAGGTTGAGTCTGTGACACACCATGACTACCGAATGGAGCTGGCACAAGCAGGGACTCCTGCCC
CAACAAAGCCTCACGACTACCGCCAGGAGCAACCTGAGACCTTCTGGATACAGAGGGCACCACAGCTGCCGACAT
GGTGGCCATTGCCCACCCAGGTACCAGCAGCAGAAGACTATCTGACTTGGAAAGAATGGGGGTTTACAGGAGTCC
AGGAGGTCCTTTCCGCTCTCCTAAGAGCCACACCTGGTGAATACTCAGTAAACATTTGCGGAATGAATGAACACC
CTGTCTGCAGCAGGACATGGACAAATAGGCTCTGCCATCAGGAAATGGGAAGCAAGAAAACGGTAACTCAAGAGG
ACAGAGGCTGG**TGA**GGAGGTAAAGCAGGCCCAGTGAAATGGACCTGACAGCCCAAACTGTCAGAGAGGAGGAAAG
CAGGCATTTGATTTTGGTAATTGTGCCAAAGCTATGTAAGAGAATAAATGCCATTGTTTTAAGGA

FIGURE 4284

CGGGTGAGAGGTTCCCGCGGCTCAGGGAAG**ATG**GCGGCAGCCGTGGTGCTGGCTGCTGGGTTGCGCGCGGCGCGC
AGAGCCGTGGCGGCCACGGGGGTGCGCGGGGGGCAGGTCCGAGGAGCTGCAGGTGTGACTGATGGGAATGAAGTG
GCCAAGGCCCAGCAGGCAACTCCTGGGGGAGCAGCCCCAACCATCTTCTCCCGGATCCTGGACAAGAGCCTCCCA
GCTGACATTCTCTATGAGGACCAGCAGTGTCTTGTGTTCCGTGATGTGGCCCCTCAGGCTCCTGTGCACTTCCTG
GTCATTCCTAAGAAGCCCATTCCTCGGATTAGCCAGGCTGAAGAAGAAGACCAGCAGCTTCTAGGACACCTACTC
CTTGTGGCCAAGCAGACAGCAAAGGCTGAGGGCCTGGGAGATGGATACCGACTTGTGATCAACGATGGGAAGCTG
GGTGCACAATCTGTGTATCATCTGCACATTCATGTACTTGGGGGCCGGCAGCTCCAGTGGCCTCCAGGT**TGA**ACC
TGCCAACTGATTAAAGGACACCAGACTCTGGATGCTTGGATGGAAAGGGAAAAATGGACCCTGTGATGCTAATAA
AACTGTTCTCCCTT

FIGURE 4285

AAAAAGAAATCAAGAATGCAATTTTATTTACAATAGTCACGCCAAAAATACCTAGAAATAAATTTAACTGAGGAT
GTAAAAGACCTCTACAAGGAGAGTTCAATCGGTAGCGGGAGCGGAGAGCTGACCCCAGAGAGCCCTGGGCAGCCC
CACCTCCGCCGCCGGCCTAGTTACCATCACACCCCGGGAGAAGCCGCAGCTGCCGCAGCCGGCCCCAGTCACCAT
CACCGCAACTATGAGCAGCGAGGCCGAGACCCAGCAGCCGCCCGCCGCTCCCCCACGCCGCCCCCGCCCTCAGCG
CCGCCGACACCCACCCCAGCACTGCAGGCAGCGGCGCAGGAAGCGGTGGCCCGGGCGGCCTCACATCGGCGGCGC
CTGCCGGCGGGGACAAGAAGGTCATCGCAACGAAGGTTTTGGGAACAGTAAAATGGTTCAGTGTAAGGAACGGAT
ATGGTTTCATCAACAGGAATGACACCAAGGAAGATGTATTTGTACACCAGACTGCCAGAAAGAAGAATAACCCCA
GGAAGTACCTTCGCAGTGTAGGAGATGGAGAGACTGTGGAGTTTGATGTTGTTGAAGGAGAAAAGGGTGCGGAGG
CAGCAAATGTTACAGGGCCTGGTGGTGTTCCAGTTCAAGGCAGTACATATGCAGCAGACCGTAACCATTATAGAC
GCTATCCACGTCGTAGGGTCCTCCACGCAATTACCAGCAAAATTACCAGAATAGTGAGAGTGGGGAAAAGAACGA
GGGATCGGAGAGTGCTCCCGCAGGCCAAGCCCAACAACGCCGGCCCTACCGCAGGCGAAGGTTCCCACCTTACTA
C**ATG**CGGAGACCCTATGGGCGTCGACCACAGTATTCCAACCCTCCTGTGCAGGGTGAAGTGATGGAGGGTGCTGA
CAACCAGGGTGCAGGAGAACAAGGTAGACCAGTGAGGCAGAATACGTATCGGGGATATAGACCACGATTCCGCAG
GGGCCCTCCACGCCAAAGACAGCCTAGAGAGGACGGCAATGATGAAGATAAAGAAAATCAAGGAGATGAGACCCA
AGGTCAGCAGCCACCTCAACGTCGGTACCGCCGCAACTTCAATTGCCGACGCAGACACCCAGAAAACCCTAAACC
ACAAGATGGCAAAGAGACAAAAGCAGCCGATCCACCAGCTGAGAATTCGTCCACTCCTGAGGCTGAGCGGGGCAG
GACTGAG**TAA**ATGCCAGCTTACCATCTCTACCATCATCCGGTTTAGTCATCCAACAGGAAGAAATATGAAATTCC
AGCTATAAGAAATGAACAAAAGATTGGAGCTGAAGACCTTAAGTGCTTGCTTTTTGCCCGTTGACCAGATAAATA
GAACTATCTGCATTATCTATGCAGCATGGGATTTTTATTATTTTTACCTAAAGACGTCTCTTTTTGGTAATAACA
AACGTGTTTTTTAAAAAAGCCTGGTTTTTTTCAATACGCCTTTAAAGG

FIGURE 4286A

GCGGCGGCGGTAGCGGCGGCAGCGGCTGCGGCCAAGCTGGGTCCGAGCATCCCGCGGCTCTGGAGCCGCCCGGCC
CGGAC**ATG**GCGACCGTCCGGGCCTCTCTGCGAGGTGCGCTGCTCCTTCTGCTGGCCGTGGCGGGGGTCGCGGAGG
TGGCAGGGGGCCTGGCTCCGGGCAGTGCGGGTGCATTGTGTTGTAATCATTCAAAGGATAACCAAATGTGCCGTG
ATGTATGTGAACAGATTTTCTCCTCAAAAAGTGAATCCCGACTAAAACATCTGTTGCAGCGAGCCCCAGATTATT
GCCCAGAGACAATGGTTGAAATTTGGAATTGTATGAATTCATCTTTGCCAGGTGTGTTTAAGAAGTCTGATGGCT
GGGTTGGCTTAGGCTGCTGTGAACTGGCTATTGCCTTGGAGTGTCGACAGGCATGCAAGCAGGCATCTTCAAAGA
ATGATATTTCCAAAGTTTGCAGAAAAGAATATGAGAATGCTCTTTTCAGTTGCATTAGCAGAAATGAAATGGGCT
CGGTTTGTTGCAGTTATGCAGGTCATCACACAAACTGCCGAGAATACTGTCAAGCCATTTTTCGAACAGACTCTT
CTCCTGGTCCATCTCAGATAAAAGCAGTGGAAAATTATTGCGCCTCTATTAGTCCACAATTAATACATTGTGTGA
ACAATTATACTCAATCTTATCCAATGAGGAACCCAACGGATAGTTTATATTGCTGTGACAGAGCTGAAGACCATG
CTTGCCAAAATGCCTGCAAGAGAATCCTGATGTCCAAGAAAACGGAAATGGAGATTGTTGATGGTCTCATCGAGG
GTTGTAAGACCCAGCCCTTGCCTCAAGATCCTCTTTGGCAATGTTTTCTTGAAAGCTCACAATCTGTTCACCCTG
GAGTCACTGTACACCCTCCTCCCTCTACAGGCCTCGATGGGGCTAAATTGCATTGTTGTTCTAAAGCAAACACTT
CAACATGTAGGGAACTCTGCACTAAACTTTACAGCATGAGCTGGGGCAATACACAGAGTTGGCAAGAGTTTGATC
GCTTTTGTGAATATAATCCAGTGGAAGTGTCCATGTTGACCTGTTTAGCGGATGTCCGGGAACCTTGCCAGTTGG
GCTGTAGAAACCTTACTTACTGTACTAATTTTAACAACAGGCCAACAGAACTTTTCAGGAGTTGTAATGCACAGT
CAGATCAAGGAGCCATGAATGACATGAAGTTGTGGGAGAAAGGAAGCATAAAGATGCCATTTATCAATATACCTG
TTCTTGATATTAAAAAGTGCCAGCCAGAGATGTGGAAAGCAATAGCTTGTTCACTGCAGATTAAACCTTGTCATA
GTAAATCTCGGGGAAGTATTATTTGCAAATCAGATTGTGTGGAGATTCTTAAAAAATGTGGAGACCAGAACAAAT
TCCCTGAAGACCACACAGCTGAAAGTATTTGTGAGCTTCTGTCACCTACAGATGATCTGAAGAATTGTATACCTT
TGGATACATACCTCAGGCCAAGTACTTTAGGTAACATTGTAGAAGAAGTGACTCATCCCTGTAACCCAAATCCTT
GCCCTGCCAATGAGCTCTGTGAAGTAAACCGAAAAGGATGTCCATCTGGAGATCCCTGTCTTCCATACTTTTGTG
TTCAAGGTTGCAAACTGGGAGAAGCTTCTGATTTCATTGTCCGTCAAGGGACACTAATCCAGGTGCCATCATCTG
CAGGGGAAGTTGGTTGTTATAAAATCTGTTCATGTGGACAAAGTGGACTCTTAGAAAACTGTATGGAAATGCACT
GTATAGACCTCCAGAAGTCTTGTATTGTTGGAGGAAAAAGAAAAAGTCATGGAACATCCTTTAGTATTGACTGCA
ATGTCTGTTCTTGTTTTGCTGGCAATTTGGTGTGCTCTACCCGCCTTTGCCTCAGTGAGCACAGTTCAGAAGATG
ACCGTCGTACCTTCACAGGTCTGCCCTGTAACTGTGCAGATCAGTTTGTCCCTGTATGTGGGCAGAATGGGCGCA
CTTACCCCAGTGCCTGCATTGCTCGCTGTGTGGGCCTCCAAGACCATCAGTTTGAGTTTGGATCATGCATGTCAA
AGGATCCATGTAATCCTAATCCCTGCCAAAAAAACCAAAGGTGCATACCCAAACCACAGGTCTGCCTGACGACTT
TTGATAAATTTGGATGTAGCCAGTATGAGTGTGTACCAAGACAGCTCGCGTGTGACCAGGTCCAAGATCCTGTTT
GTGACACAGACCACATGGAGCACAACAATCTCTGCACTTTATACCAAAGAGGAAAAAGCCTCTCTTACAAAGGTC
CCTGCCAGCCCTTTTGCAGAGCAACCGAGCCCGTATGTGGGCACAATGGTGAGACCTACAGCAGTGTGTGTGCTG
CCTACTCGGATCGCGTGGCAGTCGATTACTATGGGGACTGCCAGGCCGTCGGAGTCCTCTCAGAGCACAGCTCCG
TCGCCGAGTGTGCTTCTGTCAAGTGTCCTTCGCTCTTGGCAGCTGGATGCAAACCCATCATCCCACCGGGTGCTT
GTTGCCCATTATGTGCTGGGATGTTAAGAGTTTTATTTGACAAAGAAAAACTGGATACTATTGCTAAGGTAACAA
ATAAAAAGCCAATAACAGTTCTGGAAATACTTCAGAAAATCCGCATGCACGTGTCTGTCCCACAGTGTGATGTGT
TTGGATACTTCAGCATTGAATCAGAAATTGTGATCCTGATCATTCCCGTCGATCACTATCCAAAAGCTCTGCAGA
TTGAAGCCTGCAATAAAGAAGCAGAGAAGATTGAGTCCCTTATCAACTCTGACAGCCCGACTTTGGCGTCCCATG
TCCCTCTCTCTGCCCTCATCATTTCCCAGGTACAGGTCTCCAGCAGTGTGCCATCGGCCGGTGTCAGGGCCAGGC
CTTCTTGCCACTCCCTCCTCCTTCCCCTCAGCTTGGGCCTTGCCTTGCACTTGCTCTGGACATATAAC**TGA**CTGC
CCACGGAAAGTGCAGAATGCTCCTCCACCTCACTCTCCTGCCTTGAAAAAGACATTCAGGACTGCTGGTTTGTAG
TTGAATATTGGCCAAGGAAAGGCACATGTCACCTCTATTCGCCACACAGTATTTTTTTTTTTAATCCGCCAATAT
TAGTAGGATTTTTGTTTTGTTTTTACAAATGTTAAAATGTGTTGTTCCAAATACTAATGAAAACAGAATGTCTCT
TCCTGGTAGACCACTGCCATATGATTTACATTTCCTCACCATAAGGGTCCCCCACTCTAAAGCAAATTTATCGCT
GGGAAATGAGATGACCACTTTTTAGAAAGATAATTCACTGTACTATCAGGTTCACAAACTTCATTTCAGAGTTCT
TTTTGAAGTATTTAAGGTTCCCGTTGCATTTGTTTTGTTTACAGATAATTACCTACTCTGGCTAGAAGCTAGGGG
TCCCAGTGAAGAGCCACTGCCATTAAAGAATATGAAACATAGATAAAACATCTTTGAAATTATGTAAATTATGTA
AATTATCAGGCAAATTTGCATTAAATTACAGAAATTTAATTCAGAACCCCAACTACTGTGTTATGCAAAAGCAAG

FIGURE 4286B

CTGATTAAATGACACTCATATAATTATATGTTGTAAGCAACAGGCTCACTGGTCACGGATTTGTGTCTGTGACTT
TTGTGAAAGGGAGAAGTGACATTGCATCAAAGCATCTTGCATTATGCAATTTTTATATTAACCAGATATATATTC
ATCGGTATTCATCCAAGTTAAATGTAGAGTTTTTAAACATCAATCTTTAAACCAATTGCTGCTACTTATATAATT
GCCAAAAAGTGAAATAATGTGTAGTTCATGTAAATAATACATTATATTTCTATTTTATTATGAAGAAGGTGAATA
GCCATATTTGTAAAATGACAATCATGTGTGTTAACCCAGTGCTTTCCATTCGTGAAAACACATTTGCTTTTTGTG
ATATGCACAATGTAGATAAGTGTTCTGTCTGACTTTCTTTTTTGATATAGAAGTATAAAGAATTGTGGTTTATAT
ATTTAAAAGTGTCAAGCTGAGTATTAAAATGTATGCATGTTGTCTAAGAAATTGAATACTTTGAATGTGTTTCAC
AGTTTGAAATAAGCTATTTGATGTAATACTTCTTGTGTGTATGCACATGAACTTAGATTTTACATGAAGTATTTT
TTCAGTATTATATGTACCCTCTGAAATACATAGGGATATGCGTATTATACCAAAATGTTGCTGAAAAATGGGCAC
TTAAAGCTTTCAGAATATGTCAGTGCTGATGTAGCATGCTTGTTGCAATTGCCTTTTTTCTGTATAAATGTCTTT
AATGCAATATACTGGAAAGCTTTTCTATTTTAATAAAAATAATTTTTATATG

FIGURE 4287

GTGGTGTCGGTGGGTCGGTTGGTTTTTGTCTCACCGTTGGTGTCCGTGCCGTTCAGTTGCCCGCC**ATG**GCTGAGC
TGGATCCGTTCGGCGCCCCTGCCGGCGCCCCTGGCGGTCCCGCGCTGGGGAACGGAGTGGCCGGCGCCGGCGAAG
AAGACCCGGCTGCGGCCTTCTTGGCGCAGCAAGAGAGCGAGATTGCGGGCATCGAGAACGACGAGGCCTTCGCCA
TCCTGGACGGCGGCGCCCCCGGGCCCCAGCCGCACGGCGAGCCGCCGGGGGGTCCGGATGCTGTTGATGGAGTAA
TGAATGGTGAATACTACCAGGAAAGTAATGGTCCAACAGACAGTTATGCAGCTATTTCACAAGTGGATCGATTGC
AGTCAGAGCCTGAAAGTATCCGTAAATGGAGAGAAGAACAAATGGAACGCTTGGAAGCCCTTGATGCCAATTCTC
GGAAGCAAGAAGCAGAGTGGAAAGAAAAGGCAATAAAGGAGCTAGAAGAATGGTATGCAAGACAGGACGAGCAGC
TACAGAAAACAAAAGCAAACAACAGGGTGGCAGATGAAGCTTTCTACAAACAACCCTTCGCTGACGTGATTGGTT
ATGTCACAAACATAAACCATCCTTGCTACAGCCTAGAACAGGCAGCAGAAGAAGCCTTTGTAAATGACATTGACG
AGTCGTCCCCAGGCACTGAGTGGGAACGGGTGGCCCGGCTGTGTGACTTTAACCCCAAGTCTAGCAAGCAGGCCA
AAGATGTCTCCCGCATGCGCTCAGTCCTCATCTCCCTCAAGCAGGCCCCGCTGGTGCAC**TGA**AGAGCCACCCTGT
GGAAACACTACATCTGCAATATCTTAATCCTACTCAGTGAAGCTCTTCACAGTCATTGGATTAATTATGTTGAGT
TCTTTTGGACCAAACCTTTTTGTCTTTAGAGTTGTTCATTGTTTGTGATTGCATGTTTCCTTCCTTCAACTGTGT
TCTCCCTGGCATTCAGAGAGGAGGGAGAGGAGGAAGAGGAAGGGGAGGGAAGCTTCCCAAGAGTAGCCTCAACCT
GTGCTTCTGTGCATTATTCTGAGAATAAATTTCTGTTTCAAACTGT

FIGURE 4288A

GGAACTCTATTTTAAGAACCTCTCAAAACGAAACAAGCAAATC**ATG**GAGAAGAATGGAAATAACCGAAAGCTGCG
GGTTTGTGTTGCTACTTGTAACCGTGCAGATTATTCTAAACTTGCCCCGATCATGTTTGGCATTAAAACCGAACC
TGAGTTCTTTGAACTTGATGTTGTGGTACTTGGCTCTCACCTGATAGATGACTATGGAAATACATATCGAATGAT
TGAACAAGATGACTTTGACATTAACACCAGGCTACACACAATTGTGAGGGGAGAAGATGAGGCAGCCATGGTGGA
GTCAGTAGGCCTGGCCCTAGTGAAGCTGCCAGATGTCCTTAATCGCCTGAAGCCTGATATCATGATTGTTCATGG
AGACAGGTTTGATGCCCTGGCTCTGGCCACATCTGCTGCCTTGATGAACATCCGAATCCTTCACATTGAAGGTGG
GGAAGTCAGTGGGACCATTGATGACTCTATCAGACATGCCATAACAAAACTGGCTCATTATCATGTGTGCTGCAC
CCGCAGTGCAGAGCAGCACCTGATATCCATGTGTGAGGACCATGATCGCATCCTTTTGGCAGGCTGCCCTTCCTA
TGACAAACTTCTCTCAGCCAAGAACAAAGACTACATGAGCATCATTCGCATGTGGCTAGGTGATGATGTAAAATC
TAAAGATTACATTGTTGCACTACAGCACCCTGTGACCACTGACATTAAGCATTCCATAAAAATGTTTGAATTAAC
ATTGGATGCACTTATCTCATTTAACAAGCGGACCCTAGTCCTGTTTCCAAATATTGACGCAGGGAGCAAAGAGAT
GGTTCGAGTGATGCGGAAGAAGGGCATTGAGCATCATCCCAACTTTCGTGCAGTTAAACACGTCCCATTTGACCA
GTTTATACAGTTGGTTGCCCATGCTGGCTGTATGATTGGGAACAGCAGCTGTGGGGTTCGAGAAGTTGGAGCTTT
TGGAACACCTGTGATCAACCTGGGAACACGTCAGATTGGAAGAGAAACAGGGGAGAATGTTCTTCATGTCCGGGA
TGCTGACACCCAAGACAAAATATTGCAAGCACTGCACCTTCAGTTTGGTAAACAGTACCCTTGTTCAAAGATATA
TGGGGATGGAAATGCTGTTCCAAGGATTTTGAAGTTTCTCAAATCTATCGATCTTCAAGAGCCACTGCAAAAGAA
ATTCTGCTTTCCTCCTGTGAAGGAGAATATCTCTCAAGATATTGACCATATTCTTGAAACTCTAAGTGCCTTGGC
CGTTGATCTTGGCGGGACGAACCTCCGAGTTGCAATAGTCAGCATGAAGGGTGAAATAGTTAAGAAGTATACTCA
GTTCAATCCTAAAACCTATGAAGAGAGGATTAATTTAATCCTACAGATGTGTGTGGAAGCTGCAGCAGAAGCTGT
AAAACTGAACTGCAGAATTTTGGGAGTAGGCATTTCCACAGGTGGCCGTGTAAATCCTCGGGAAGGAATTGTGCT
GCATTCAACCAAACTGATCCAAGAGTGGAACTCTGTGGACCTTAGGACCCCCCTTTCTGACACTTTGCATCTCCC
TGTGTGGGTAGACAATGATGGCAACTGTGCTGCCCTGGCGGAAAGGAAATTTGGCCAAGGAAAGGGACTGGAAAA
CTTTGTTACACTTATCACAGGCACAGGAATCGGTGGTGGAATTATCCATCAGCATGAATTGATCCACGGAAGCTC
CTTCTGTGCTGCAGAACTGGGCCACCTTGTTGTGTCTCTGGATGGGCCTGATTGTTCCTGTGGAAGCCATGGGTG
CATTGAAGCATACGCCTCTGGAATGGCCTTGCAGAGGGAGGCAAAAAAGCTCCATGATGAGGACCTGCTCTTGGT
GGAAGGGATGTCAGTGCCAAAAGATGAGGCTGTGGGTGCGCTCCATCTCATCCAAGCTGCGAAACTTGGCAATGC
GAAGGCCCAGAGCATCCTAAGAACAGCTGGAACAGCTTTGGGTCTTGGGGTTGTGAACATCCTCCATACCATGAA
TCCCTCCCTTGTGATCCTCTCCGGAGTCCTGGCCAGTCACTATATCCACATTGTCAAAGACGTCATTCGCCAGCA
GGCCTTGTCCTCCGTGCAGGACGTGGATGTGGTGGTTTCGGATTTGGTTGACCCCGCCCTGCTGGGTGCTGCCAG
CATGGTTCTGGACTACACAACACGCAGGATCTAC**TAG**ACCTCCAGGAACAGACATGGACCTTCTCTCCAGAGCTC
CTGAGTGGAATCAAGTTCTTGTCTTTAGGATGACCGTTTCTTAACAATCAAATCTGGTATTGAACTGCAGGTGAC
TTTGGCAGAGAAATGTTTTCACTTTTGGTCTCCTCTTCCAGAGTCACCTTTCCCCACTCCTATTTTTGTAGATGC
TATTCTTTCTGATGTCTTCTTACTAGGGGTCATTTTAGCTCAAACCCTGTAAGTTACAGTCACAATTTTCTGTGC
CAAAGCAGCTACAATAATAGAGAGGAAGCCTTCTTAGAACTCTGCTTACTAATGTATTAATACCACTGAGACCTT
CAGGCCTTGCCTGGGATATCACTTCATCCTGAAGTTTGCATTAATAATCCTTCCAGGCCGGGCACAGTGGCTCAC
GCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCGCCCTGGCTAA
CATGGTGAAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCTGGGTGTGGTGGCGGGTCCCAGC
TACTCGGGAGGCTGAGGCAGGAGAATGGCATGAACCCCAGGCTGGAGTGCAGTGGCTCAATGCAACCTCTGCCCC
CCAAGTTCAAGTGATTCTCCTGCCTCAGCCTCTTGAGTAGCTGGGATTACAGGCACATGCACCACGCCCGGCTGA
TTTTTTTTTGTATTTTTAGTAGACAGGGTTTCACCATGTTGGCCAGGCTGGTCTTGAACTCCTGACCTCAGGTGA
TCCGCCCGCCTCTGCCTCCCAAAGTGCTGGGATTACAGGTGTAAGCCATCACACCTGGCCCTAGTGACAGGTTTT
TATGGGTACTTTTAGATGATCTAAGAAATCATGTGCATATATCTTTCAGATTTCTATTTTGGGAAAATGAAGGTT
TCTACAACATATTGTTTCAGTGTTCAAATAAACTGAAGGACTCAACATTACATTTGAACTATATCCTTCCTAGTG
GGTTAGTGTGAAAAAGAGTTTGGCTGATTCCTAAAACTCTGCCAGCCCTGCAGTAATCTCCAGGGCCTGGTTATT
GTTCAGACATTCCATGGTGATTCCTGGGAAGGAAGCTTGGCTGCTCAGTTTCTGAGTCTGGGGTGAGATAATGTT
CTGGGAAGGGACATCTGTTCTTTGGTGTAATCTCTCATGGTGAAATCTGCTCTGTACATCAGACAATTGCATTGC
TACCAAGTTTCATACCAAATATTTGAAAGGATGGTATTGAATCTAAAACCAAATATTAGTTTTTATTAAACTCAT
GGGAAGGCTAATATATTCCAACGTAAATTATTACATATGGTTAAGTAATTGCATGTTAATTTATTTTAATGTAAA

FIGURE 4288B

TATTTTTGTTACTGTTCTGAGCCAAATTCTAAAGAAAAAATAAATACATTTCCTTGTTG

FIGURE 4289A

AAGCCAACATCACTTCTCAGGGGAACGATGCAACACACCTGCACGCAACAGAAGAAGTCCTCCTGTCAGGCGCCA
GAGAGGAAGAAGGGATCGTCTGTCTCGACATAATTCCATTAGTCAAGATGAAAACTATCACCATCTCCCTTACGC
ACAGCAGCAAGCAATAGAGGAGCCTCGAGCCTTCCACCCTCCGAATGTATCTCCCCGTCTGCTACATCCTGCTGC
TCATCCACCCCAGCAGAATGCAGTC**ATG**GTTGACATACATGATCAGCTCCATCAAGGAACAGTCCCTGTTTCTTA
CACAGTAACAACAGTGGCACCACATGGGATTCCACTCTGCACAGGCCAGCACATCCCTGCTTGTAGTACACAGCA
GGTCCCAGGATGCTCTGTGGTTTTCAGTGGACAGCACCTCCCTGTCTGTAGTGTGCCTCCTCCAATGCTTCAGGC
ATGTTCAGTTCAGCACTTACCAGTACCATATGCTGCATTCCCACCCCTTATTTCTAGTGATCCATTTCTTATACA
TCCTCCTCACCTTTCTCCCCATCATCCTCCTCATTTGCCACCACCAGGCCAGTTTGTCCCTTTCCAAACACAGCA
ATCACGATCGCCTCTGCAAAGGATAGAAAATGAAGTGGAACTCTTAGGAGAACATCTTCCAGTAGGAGGTTTTAC
TTACCCTCCATCAGCCCACCCCCCAACATTACCTCCATCAGCTCCCTTGCAGTTCTTAACACATGATCCTTTGCA
TCAGGAGGTGTCCTTTGGAGTACCTTATCCTCCATTTATGCCTCGGAGGCTTACAGGACGTAGTAGATACCGATC
CCAGCAGCCAATACCACCTCCCCCTTATCATCCCAGCTTACTGCCATATGTGTTATCAATGCTTCCAGTGCCACC
TGCAGTGGGCCCAACTTTCAGCTTTGAATTAGATGTAGAAGATGGAGAAGTAGAAAATTACGAGGCCCTGTTAAA
CCTGGCAGAGCGACTGGGAGAGGCAAAGCCTCGTGGACTGACTAAAGCAGATATTGAACAACTTCCTTCTTATCG
GTTCAATCCTAACAACCACCAGTCAGAACAGACTTTGTGTGTAGTATGCATGTGTGATTTTGAGTCAAGGCAGCT
ACTTAGAGTCTTACCCTGTAACCACGAGTTCCATGCCAAGTGTGTTGACAAATGGCTTAAGGCAAATCGTACTTG
CCCAATTTGCCGAGCTGATGCTTCAGAAGTGCATCGGGATTCAGAA**TGA**CCAACCTAAGAAGCACAAATTTAGTT
TGGGTGTTCCTCATCACATGTATATACGGACTATCCATTGAACTTAATCTGTGTGGCTTCCAGCCCTCCCTTTAC
CAAAAGGGTCAATGGACCTTTCTTTGCACTGTGTGACTTAATCAACTATAAAAGCTTACAATTAGTCTTCACAGT
TATGGGATTGTTATACTAACCGTGTGATTGGAACTCCAAAGACTTTTTCTTTAGCTTAATTTTGTGTGTGCACTA
ACATTCCCTGGTTTTTGTGTGATCATTCCGAGTGTTGCTGCAAGATTACAGTGGACGTGATCTTTTAGCATGTGC
TTTTATAAAAAGTGGTAGCTACAGATGATATAGCAATCTACCTTATATAGAGCCTTCAGAAACTGTGAGTGGAAA
TGAATGCGCAGCGTATGACTGTTGGTGATAAGTGTATCTGTGTGAGTGTGTGCAACTACTTGTGTGAGGGCATGG
TAGCTAACGTGTGTATGAGATCCTATATACCAGCATGTACCAAGAATGTGTGTGTAGTTTTAATTATGCTGCAAT
GTATAATCTGGTGTGTTATTTAAACAGCACTAGTACTGTACACTGGTTTTTTTCCCTTGTGTTTGCTGTTGCACA
CTGATTGCTGAGGGTGCATCAATTACAAGCATTGAATACTCCATCCCCTTCCCTCCCAGTGAATGGAATGAGAAA
AGCCTTCTTCCTTTGCTTCAGGCAGCTGTCACCTTCTCTTTATTGGTGGTCCTAAGTGGGTCACTTAAGAAAAAA
AAGTGTAACAAATTCTCGCTCCATGAACCTGGTTTTTTTTTATTCTGTTGTGGAAATTTTTAAATCTCCAACTTG
CTGTTTCCAAAAAGAAGGTGCAATATCATATATCATCAGTTAGCAATATTAGCATTTCAATCAGTGATTTGAATG
TTGATACTTTTTTTTCCTTTACATTTCCAGTAAGTTTCTTACAGAAAGTACCTGTGATTTTTTTTAATGTTTAGA
TTTGTAGTCTAGTCTATTCTGAAGATATTTGATTAATATATTTCTAAGAAGACCACTAGTCCCATGAAGTCTCAC
CTTGTTGACTTCCACCAGAACAAAACCTGTTAATTCAGCTTGACTTCTCATATGTGTTCTGTGTTCAAGCTCCTG
TGGGCAACTCAATTGTTTTAAGAAAACTCTATTTCTGTTCATATTAATTCACTTGCCAGACTCCAATTCTGAAAG
TTGTCTAGTTCTTCCTTCATCACACGTGCTTCTCATCGAAACCCTGGTTTCAGGATGGATCAAGTGCTGTTACAG
CTCATGTTCCTTAGACCTGATTTGTTTTGATATTTTACTGCCTTTCCTTTTAATTTTTGTTTGAATGAGAAAAGT
TTAATACAACAGGTGTCCAGAATACTTGCAGTATAAATGAAGATTTGGTTTTTGTATAAAAAAATAATGCTGTTA
AACAGGAGTTGACCTTCATTTAGTTGATGTAATACATAGCTGTATGGGGTTTTTTTTAGTAAGTTCTTTGAGCAT
AATTCACTTTAAAGTCATTTTTCCAGCAATGTTTAAATTACTTTCTCATTCTTTTAGTGTATTCAACATTGTCTG
CCTCTTCCTGCAGTTGATGTAATTGCTTTGTTTGCAATAGCACAAGCTGCATTATTCCAGTCAGGACTGTGATAA
CTTGCTGCCAGCCCCACTCAACTTTCAGTTGGCTCTGTGTCAGTTTTCCATTCAGTGTTAACTACTTGTTACTGC
CATGCTGCTTGCCCTCCCTTGAAGTGTCTATAAGCTCATCACAGCCTAGAGTTAAGTAAAGTCAATTCACAGAAG
CACAATTTTGCCCTTTGCGAGACATTGTTGCCTCTATCTAGTCCTACAAGTAGGGTTTTGCATACTGTGTTTGCC
CCTAGGGTTGTCAGTGCATCAGAAATACTTCTAAATAGTGGTAAAAATGCACATGGTTAATGCACATGTTACTTT
TAAATCATTAGGATATCCCTCACCTGTTCCTGATGAATAAAAAGTGTGTTAAAGACCAAAATTCTTGGCATAATA
ATCAGCTACATACAAATCACATATAGTTTAATCTTTTTTAATGAAAAAAAATCATGTTTAAAATGGCAAAAGCCC
ATCTTATACACTTTTATATAGCTGCAAAAAAATCTTAACTCAGCTGTGGGTTTTTTGTGGGTTCTTGTTTGTTTT
TTGGCATGAATTGTCATCTTTGGTGTTTTTTTAACCCCCAGCCCCTCAAAAAAATAAGGCCTCCAGGTATCAAGA
TCTCATATTAGGATTTTCTGTCCTTAATTTTTTGAGCAAAATCTGGAAAATGTGAAAGCATATTTAGATTTTATA

FIGURE 4289B

TACTATCTGAAATGTGATTTGTTAAGATTCTTAAATTTGGGCCTCTTAGAATAATTTTGAATGAGATCTACCGAC
TCACTTGTGAGAATATTTTTCACAGATTATCTTTGGGCCTTTTCATTAGAAAGCTGTTTGTTTGTCCCCCTGTTG
GTACATTTGGTTACCTCATTTTGCCGTTTCAGATTGTGAAAGCTCACAGGGGTGTTTTTTGGAATCATTTGCTGA
GTCATTTTCTCAAATCATATTCCATTGTATCAGTTAACATATAGTTTTAAATGTATGTATTATAAATATCTGTAA
CCAAATCATTTGAAGGCTTGATAAATTTTTAACAAAGTTTGTACATTTTTTATGAAAGTTACTAGTAATGCTTTA
CTAAGTAGTGCAATGAATTTTTATTTTTAATCCCTGTGCCCAATTTTGGAGTTGAGAGGGTTGTTGGTAATAAAT
GTATGATGTACACTT

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FIGURE 4290

GGTGACTGGCCCAGCCGCACCGCGTCTCCCGCCTTCTCCGCAGCCCCGCAGGCCCCGGGCCCTGTCATTCCCAGC
GCTGCCCTGTCTTGCGTTCCAGTGTTCCAGCTTCTGCGAGATGACCCTCAAGGCGAGCGAGGGCGAGAGTGGGGG
CAGCATGCACACGGCGCTCTCCGACCTCTACCTGGAGCATTTGCTGCAGAAGCGTAGTCGGCCAGAGGCTGTATC
GCATCCATTGAATACTGTGACCGAGGACATGTACACCAACGGGTCTCCTGCCCCAGGTAGCCCTGCCCAGGTCAA
GGGACAGGAGGTGCGGAAAGTGCGACTCATACAGTTTGAGAAGGTCACAGAAGAGCCCATGGGAATCACGCTGAA
GCTGAATGAAAAACAGTCCTGTACGGTGGCCAGAATTCTTCATGGTGGCATGATCCATAGACAAGGCTCCCTTCA
CGTGGGGGATGAGATCCTAGAAATCAATGGCACAAATGTGACAAATCATTCAGTGGATCAGCTGCAGAAGGCGAT
GAAAGAAACCAAAGGAATGATCTCATTAAAAGTAATTCCCAACCAGCAAAGCCGTCTTCCTGCACTACAGATGTT
CATGAGAGCGCAGTTTGACTATGATCCCAAAAAGGACAATCTGATCCCTTGCAAGGAGGCGGGACTGAAGTTTGC
TACTGGGGACATTATCCAGATTATCAACAAGGATGACAGCAATTGGTGGCAGGGACGGGTGGAAGGCTCCTCCAA
GGAGTCAGCAGGATTGATCCCTTCCCCTGAGCTGCAGGAATGGCGAGTGGCAAGTATGGCTCAGTCAGCTCCTAG
CGAAGCCCCGAGCTGCAGTCCCTTTGGGAAGAAGAAGAAGTACAAAGACAAATATCTGGCCAAGCACAGCTCGAT
TTTTGATCAGTTGGATGTTGTTTCCTACGAGGAAGTCGTTCGGCTCCCTGCATTCAAGAGGAAGACCCTGGTGCT
GATCGGAGCCAGTGGGGTGGGTCGCAGCCACATTAAGAATGCCCTGCTCAGCCAGAATCCGGAGAAGTTTGTGTA
CCCTGTCCCATATACAACACGGCCGCCAAGGAAGAGTGAGGAAGATGGGAAGGAGTACCACTTTATCTCAACGGA
GGAGATGACGAGGAACATCTCTGCCAATGAGTTCTTGGAGTTTGGCAGCTACCAAGGCAACATGTTTGGCACCAA
ATTTGAAACAGTGCACCAGATCCATAAGCAGAACAAGATTGCCATCCTTGACATTGAGCCCCAGACCCTGAAAAT
TGTTCGGACAGCAGAACTTTCGCCTTTCATTGTGTTCATTGCACCTACTGACCAGGGCACTCAGACAGAAGCCCT
GCAGCAGCTGCAGAAGGACTCTGAGGCCATCCGCAGCCAGTACGCTCACTACTTTGACCTCTCACTGGTCAATAA
TGGTGTTGATGAAACCCTTAAGAAATTACAAGAAGCCTTCGACCAAGCGTGCAGTTCTCCACAGTGGGTGCCTGT
CTCCTGGGTTTACTAAGCTTGTAGAATGGGGGAACCCACTGTATGCCCCTCTCCAGCATTTGGAATTCCACCCGC
CTTGCTTTAAGACAAACAGGGCTGCTCCAACTAGTTTTGTGTCAGCTTCCAGCTCTCTGCAGCTATCCTAATTCA
GCCAGTAAGGTTCAGTCTTCTTGCTCAGGCTCCTGAAGGGTTGATTCTCCTGATAGATGGGGCCCCACTGATCTG
GATTTGAAAAGGATTTCTAGAAATTGGGGGTAAGAAGTACTACCAAAATGTAACTGCTAATCAAGGGTGATGCAC
AGCAAAAGCAATGGACCCCATCCCTCTAAAGCCTGCCCTCCTTTGCCTTCAACTGTATATGCTGGGTATTTCATT
TGTCTTTTTATTTTGGAGAAAGCGTTTTTAACTGCAACTTTCTATAATGCCAAAATGACACATCTGTGCAATAGA
ATGATGTCTGCTCTAGGGAAACCTTCAAAAGCAATAAAAATGCTGTGTTG

FIGURE 4291

AGCAGCGCGGCCTGACGGGACCAAGGCGGCGGGAGTCTGCGGTCGTTCCCTCGGCTGTGGACCGGGCGGCACGCA
CGCGGTGCAGGGTAAC**ATG**GCGGATGCGGAAGTAATTATTTTGCCAAAGAAACATAAGAAGAAAAAGGAGCGGAA
GTCATTGCCAGAAGAAGATGTAGCCGAAATACAACACGCTGAAGAATTTCTTATCAAACCTGAATCCAAAGTTGC
TAAGTTGGACACGTCTCAGTGGCCCCTTTTGCTAAAGAATTTTGATAAGCTGAATGTAAGGACAACACACTATAC
ACCTCTTGCATGTGGTTCAAATCCTCTGAAGAGAGAGATTGGGGACTATATCAGGACAGGTTTCATTAATCTTGA
CAAGCCCTCTAACCCCTCTTCCCATGAGGTGGTAGCCTGGATTCGACGGATACTTCGGGTGGAGAAGACAGGGCA
CAGTGGTACTCTGGATCCCAAGGTGACTGGTTGTTTAATCGTGTGCATAGAACGAGCCACTCGCTTGGTGAAGTC
ACAACAGAGTGCAGGCAAAGAGTATGTGGGGATTGTCCGGCTGCACAATGCTATTGAAGGGGGGACCCAGCTTTC
TAGGGCCCTAGAAACTCTGACAGGTGCCTTATTCCAGCGACCCCCACTTATTGCTGCAGTAAAGAGGCAGCTCCG
AGTGAGGACCATCTACGAGAGCAAAATGATTGAATACGATCCTGAAAGAAGATTAGGAATCTTTTGGGTGAGTTG
TGAGGCTGGCACCTACATTCGGACATTATGTGTGCACCTTGGTTTGTTATTGGGAGTTGGTGGTCAGATGCAGGA
GCTTCGGAGGGTTCGTTCTGGAGTCATGAGTGAAAAGGACCACATGGTGACAATGCATGATGTGCTTGATGCTCA
GTGGCTGTATGATAACCACAAGGATGAGAGTTACCTGCGGCGAGTTGTTTACCCTTTGGAAAAGCTGTTGACATC
TCATAAACGGCTGGTTATGAAAGACAGTGCAGGTAAATGCCATCTGCTATGGGGCCAAGATTATGCTTCCAGGTG
TTCTTCGATA**TGA**GGACGGCATTGAGGTCAATCAGGAGATTGTGGTTATCACCACCAAAGGAGAAGCAATCTGCA
TGGCTATTGCATTAATGACCACAGCGGTCATCTCTACCTGCGACCATGGTATAGTAGCCAAGATCAAGAGAGTGA
TCATGGAGAGAGACACTTACCCTCGGAAGTGGGGTTTAGGTCCAAAGGCAAGTCAGAAGAAGCTGATGATCAAGC
AGGGCCTTCTGGACAAGCATGGGAAGCCCACAGACAGCACACCTGCCACCTGGAAGCAGGAGTATGTTGACTACA
GTGAGTCTGCCAAAAAAGAGGTGGTTGCTGAAGTGGTAAAAGCCCCGCAGGTAGTTGCCGAAGCAGCAAAAACTG
CGAAGCGGAAGCGAGAGAGTGAGAGTGAAAGTGACGAGACTCCTCCAGCAGCTCCTCAGTTGATCAAGAAGGAAA
AGAAGAAGAGTAAGAAGGACAAGAAGGCCAAAGCTGGTCTGGAGAGCGGGGCCGAGCCTGGAGATGGGGACAGTG
ATACCACCAAGAAGAAGAAGAAGAAGAAGAAAGCAAAAGAGGTAGAATTGGTTTCTGAGTAGTGAAGGCCACTTG
AAGCTGGAGGAGAAACTAAAGCCTTATTGAGAAAACATGTTATAGATCCTTTTGTTGCTGAGAGAGTGGAACATA
GGTCCTAGACAGGGTGAAGAGTTCTGGCACATTTTAGCTGCTACTTTGAGACCTCGGTGATGTTACCTGGTGTGG
TCATCCCATCTTGTCCTGTTTTAAGGATATGGGTGGTGAAAGATGAAAGAGGCAGAGTTTATCCCAATGACTTCT
CTGTTTGAGTTGGGAAGCCTCACCTTCAGACCCAGTAACTGTCCGCAGCTGTCTGCTAGTGGTTGTCTTAACATC
GTAGTCCTAGTTTGCATTTTTTAAATCCCCTCTGTTTAAAAGGTTTGTAAAACAAAAACAAAAAACTAAGTCTGC
TCAGTGAAATGCTGTAGAACCCTAAATAAGTGGTAGAAGAGTGTCACTGAATTTTGTCTCTGAATTCAGTATAAC
TGAGTTTTGTCCATGCTGGTGTCTGGGTTATAGGCCTGATGGGCCTGGTAGTTTTCCATCTTGTTCTGGCCTAGA
GGTCAGTCCTTTGCACTTCCTCAAAGCTTGTGTACAGTGCTCACCTAAATCCATCTGACTACTTGTTCCTGTGCC
CTCTTGTTTTAGGCCTCGTTTACTTTTAAAAAATGAAATTGTTCATTGCTGGGAGAAGAATGTTGTAATTTTTAC
TTATTAAAGTCAACTTGTTAAGTTTTTTATGTATTCCTGTTGGGTTTTCTTGTTGATCTCATGCTAGCAGAGCAA
AAATTGTAAAATATTTTGATTAAAAATCTAGGGACCTTTATGTCCTATTTG

FIGURE 4292

CATGGCCCTTGTGATCCAGGTGGGGAAACTAAGGCCCAGAGAAGTGAGGACCCCGCAGACTATCAATCCCAGTCT
CTTCCCCTCACTCCCTGTGAAGCTCTCCAGCATCATCGAGGTCCCATCAGCCCTTGCCCTGTTGGATGAATAGGC
ACCTCTGGAAGAGCCAACTGTGTGAGATGGTGCAGCCCAGTGGTGGCCCGGCAGCAGATCAGGACGTACTGGGCG
AAGAGTCTCCTCTGGGGAAGCCAGCCATGCTGCACCTGCCTTCAGAACAGGGCGCTCCTGAGACCCTCCAGCGCT
GCCTGGAGGAGAATCAAGAGCTCCGAGATGCCATCCGGCAGAGCAACCAGATTCTGCGGGAGCGCTGCGAGGAGC
TTCTGCATTTCCAAGCCAGCCAGAGGGAGGAGAAGGAGTTCCTCATGTGCAAGTTCCAGGAGGCCAGGAAACTGG
TGGAGAGACTCGGCCTGGAGAAGCTCGATCTGAAGAGGCAGAAGGAGCAGGCTCTGCGGGAGGTGGAGCACCTGA
AGAGATGCCAGCAGCAGATGGCTGAGGACAAGGCCTCTGTGAAAGCCCAGGTGACGTCCTTGCTCGGGGAGCTGC
AGGAGAGCCAGAGTCGCTTGGAGGCTGCCACTAAGGAATGCCAGGCTCTGGAGGGTCGGGCCCGGGCGGCCAGCG
AGCAGGCGCGGCAGCTGGAGAGTGAGCGCGAGGCGCTGCAGCAGCAGCACAGCGTGCAGGTGGACCAGCTGCGCA
TGCAGGGCCAGAGCGTGGAGGCCGCGCTCCGCATGGAGCGCCAGGCCGCCTCGGAGGAGAAGAGGAAGCTGGCCC
AGTTGCAGGTGGCCTATCACCAGCTCTTCCAAGAATACGACAACCACATCAAGAGCAGCGTGGTGGGCAGTGAGC
GGAAGCGAGGAATGCAGCTGGAAGATCTCAAACAGCAGCTCCAGCAGGCCGAGGAGGCCCTGGTGGCCAAACAGG
AGGTGATCGATAAGCTGAAGGAGGAGGCCGAGCAGCACAAGATTGTGATGGAGACCGTTCCGGTGCTGAAGGCCC
AGGCGGATATCTACAAGGCGGACTTCCAGGCTGAGAGGCAGGCCCGGGAGAAGCTGGCCGAGAAGAAGGAGCTCC
TGCAGGAGCAGCTGGAGCAGCTGCAGAGGGAGTACAGCAAACTGAAGGCCAGCTGTCAGGAGTCGGCCAGGATCG
AGGACATGAGGAAGCGGCATGTCGAGGTCTCCCAGGCCCCCTTGCCCCCCGCCCCTGCCTACCTCTCCTCTCCCC
TGGCCCTGCCCAGCCAGAGGAGGAGCCCCCCCGAGGAGCCACCTGACTTCTGCTGTCCCAAGTGCCAGTATCAGG
CCCCTGATATGGACACCCTGCAGATACATGTCATGGAGTGCATTGAGTAGGGCCGGCCAGTGCAAGGCCACTGCC
TGCCGAGGACGTGCCCGGGACCGTGCAGTCTGCGCTTTCCTCTCCCGCCTGCCTAGCCCAGGATGAAGGGCTGGG
TGGCCACAACTGGGATGCCACCTGGAGCCCCACCCAGGAGCTGGCCGCGGCACCTTACGCTTCAGCTGTTGATCC
GCTGGTCCCCTCTTTTGGGGTAGATGCGGCCCCGATCAGGCCTGACTCGCTGCTCTTTTTGTTCCCTTCTGTCTG
CTCGAACCACTTGCCTCGGGCTAATCCCTCCCTCTTCCTCCACCCGGCACTGGGGAAGTCAAGAATGGGGCCTGG
GGCTCTCAGGGAGAACTGCTTCCCCTGGCAGAGCTGGGTGGCAGCTCTTCCTCCCACCGGACACCGACCCGCCCG
CTGCTGTGCCCTGGGAGTGCTGCCCTCTTACCATGCACACGGGTGCTCTCCTTTTGGGCTGCATGCTATTCCATT
TTGCAGCCAGACCGATGTGTATTTAACCAGTCACTATTGATGGACATTTGGGTTGTTTCCCATCTTTTTGTTACC
ATAAATAATGGCATAGT

FIGURE 4293

AGGGACAGCCCAGAGGAGGCGTGGCCACGCTGCCGGCGGAAGTGGAGCCCTCCGCGAGCGCGCGAGGCCGCCGGG
GCAGGCGGGGAAACCGGACAGTAGGGGCGGGGCCGGGCCGGCGATGGGGATGCGGGAGCACTACGCGGAGCTGCA
CCCGTGCCCGCCGGAATTGGGGATGCAGAGCAGCGGCAGCGGGTATGGCAGGCAGCCGGCGGGCCGGCCTCCAGC
GCAGGTGCCCGAGAGGCAGGGGCTGGCCTGGGATGCGCGCGCACCTGCCCTCGCCCCGCCCCGCCCGCACGAGGG
GTGGTGGCCGAGGCCCCGCCCCGCACGCCTCGCCTGAGGCGGGTCCGCTCAGCCCAGGCGCCCGCCCCCGCCCCC
GCCGATTAAATGGGCCGGCGGGGCTCAGCCCCCGGAAACGGTCGTACACTTCGGGGCTGCGAGCGCGGAGGGCGA
CGACGACGAAGCGCAGACAGCGTC**ATG**GCAGAGCAGGTGGCCCTGAGCCGGACCCAGGTGTGCGGGATCCTGCGG
GAAGAGCTTTTCCAGGGCGATGCCTTCCATCAGTCGGATACACACATATTCATCATCATGGGTGCATCGGGTGAC
CTGGCCAAGAAGAAGATCTACCCCACCATCTGGTGGCTGTTCCGGGATGGCCTTCTGCCCGAAAACACCTTCATC
ATGGGCTATGCCCGTTCCCGCCTCACAGTGGCTGACATCCGCAAACAGAGTGAGCCCTTCTTCAAGGCCACCCCA
GAGGAGAAGCTCAAGCTGGAGGACTTCTTTGCCCGCAACTCCTATGTGGCTGGCCAGTACGATGATGCAGCCTCC
TACCAGCGCCTCAACAGCCACATGGATGCCCTCCACCTGGGGTCACAGGCCAACCGCCTCTTCTACCTGGCCTTG
CCCCCGACCGTCTACGAGGCCGTCACCAAGAACATTCACGAGTCCTGCATGAGCCAGATAGGCTGGAACCGCATC
ATCGTGGAGAAGCCCTTCGGGAGGGACCTGCAGAGCTCTGACCGGCTGTCCAACCACATCTCCTCCCTGTTCCGT
GAGGACCAGATCTACCGCATCGACCACTACCTGGGCAAGGAGATGGTGCAGAACCTCATGGTGCTGAGATTTGCC
AACAGGATCTTCGGCCCCATCTGGAACCGGGACAACATCGCCTGCGTTATCCTCACCTTCAAGGAGCCCTTTGGC
ACTGAGGGTCGCGGGGGCTATTTCGATGAATTTGGGATCATCCGGGACGTGATGCAGAACCACCTACTGCAGATG
CTGTGTCTGGTGGCCATGGAGAAGCCCGCCTCCACCAACTCAGATGACGTCCGTGATGAGAAGGTCAAGGTGTTG
AAATGCATCTCAGAGGTGCAGGCCAACAATGTGGTCCTGGGCCAGTACGTGGGGAACCCCGATGGAGAGGGCGAG
GCCACCAAAGGGTACCTGGACGACCCCACGGTGCCCCGCGGGTCCACCACCGCCACTTTTGCAGCCGTCGTCCTC
TATGTGGAGAATGAGAGGTGGGATGGGGTGCCCTTCATCCTGCGCTGCGGCAAGGCCCTGAACGAGCGCAAGGCC
GAGGTGAGGCTGCAGTTCCATGATGTGGCCGGCGACATCTTCCACCAGCAGTGCAAGCGCAACGAGCTGGTGATC
CGCGTGCAGCCCAACGAGGCCGTGTACACCAAGATGATGACCAAGAAGCCGGGCATGTTCTTCAACCCCGAGGAG
TCGGAGCTGGACCTGACCTACGGCAACAGATACAAGAACGTGAAGCTCCCTGACGCCTACGAGCGCCTCATCCTG
GACGTCTTCTGCGGGAGCCAGATGCACTTCGTGCGCAGCGACGAGCTCCGTGAGGCCTGGCGTATTTTCACCCCA
CTGCTGCACCAGATTGAGCTGGAGAAGCCCAAGCCCATCCCCTATATTTATGGCAGCCGAGGCCCCACGGAGGCA
GACGAGCTGATGAAGAGAGTGGGTTTCCAGTATGAGGGCACCTACAAGTGGGTGAACCCCCACAAGCTC**TGA**GCC
CTGGGCACCCACCTCCACCCCCGCCACGGCCACCCTCCTTCCCGCCGCCCGACCCCGAGTCGGGAGGACTCCGGG
ACCATTGACCTCAGCTGCACATTCCTGGCCCCGGGCTCTGGCCACCCTGGCCCGCCCCTCGCTGCTGCTACTACC
CGAGCCCAGCTACATTCCTCAGCTGCCAAGCACTCGAGACCATCCTGGCCCCTCCAGACCCTGCCTGAGCCCAGG
AGCTGAGTCACCTCCTCCACTCACTCCAGCCCAACAGAAGGAAGGAGGAGGGCGCCCATTCGTCTGTCCCAGAGC
TTATTGGCCACTGGGTCTCACTCCTGAGTGGGGCCAGGGTGGGAGGGAGGGACAAGGGGGAGGAAAGGGGCGAGC
ACCCACGTGAGAGAATCTGCCTGTGGCCTTGCCCGCCAGCCTCAGTGCCACTTGACATTCCTTGTCACCAGCAAC
ATCTCGAGCCCCCTGGATGTCCCCTGTCCCACCAACTCTGCACTCCATGGCCACCCCGTGCCACCCGTAGGCAGC
CTCTCTGCTATAAGAAAAGCAGACGCAGCAGCTGGGACCCCTCCCAACCTCAATGCCCTGCCATTAAATCCGCAA
ACAGCC

FIGURE 4294

AACCACATCTTCGTCCCAGCCCCGGAGGCTCCTGTGGGCAAGATCGTGAGCCAACGGGTTCCTGAGGCCCCTCCT
GGCCAGGCAGGGTTTCCCCGCGCGTTTCCGAGGAGCCCTGCCTGGCCGGGCGGCTGGACAAACAGGTCGTAGCAC
CGATCGCGCCCGCCCCCAGCAGGGGTCCCGCACAGGCTTGCCCCTGACCCCCACCCAAACCTGTCCTTCCGCTTT
GCCCCCAAACAGTGCACTTGCCGGCGGTCCCAACCCAGCAGGAGAAGTGGAC**ATG**AGGTTGGCAGGCCCTCTCCG
CATTGTGGTCCTAGTCGTCAGTGTGGGTGTCACATGGATCGTGGTCAGCATCCTCCTGGGTGGGCCTGGCAGTGG
CTTTCCTCGCATCCAGCAACTCTTCACCAGTCCAGAGAGCTCGGTGACTGCAGCGCCACGGGCCAGGAAGTACAA
GTGTGGCCTGCCCCAGCCGTGTCCTGAGGAGCACCTGGCCTTCCGCGTGGTCAGCGGGGCCGCCAACGTCATTGG
GCCCAAGATCTGCCTCGAGGACAAGATGCTGATGAGCAGCGTCAAGGACAACGTGGGCCGCGGGCTGAACATCGC
CCTGGTGAACGGGGTCAGCGGCGAGCTCATCGAGGCCCGGGCCTTTGACATGTGGGCCGGAGATGTCAACGACCT
GTTGAAGTTTATTCGGCCACTGCACGAAGGCACCCTGGTGTTCGTGGCATCCTACGACGACCCAGCCACCAAGAT
GAATGAAGAGACCAGAAAGCTCTTCAGTGAGCTGGGCAGCAGGAACGCCAAGGAGCTGGCCTTCCGGGACAGCTG
GGTGTTTGTCGGGGCCAAGGGTGTGCAGAACAAGAGCCCCTTTGAGCAGCACGTGAAGAACAGTAAGCACAGCAA
CAAGTACGAAGGCTGCCCCGAGGCGCTGGAGATGGAAGGCTGTATCCCGCGGAGAAGCACGGCCAGC**TAG**CACGG
CCAGTGCCAGGACCGGGCCGAGGGAGGCCAGACCAAGGGAGGCACGCGCGCTGCCGGGCGGACAGAGGCTGAGGC
TCACACCCCACACCCGGGCAGGAGCGCTCCCTGGCCCCAACACATCGGGGCTCCGAGGCAGTGACCAGAACGTGG
TCTCAAGGTGGTGGGGGCTATGGGGGCTGCAGGGGGTAGCCCTGCCGCACTTTGTCACGGGAGCCCAGGGTACCC
GCCTCCTTTTCGTAACACTGTTCCCCCCGGTCAGCCCATCTAGCCCTGTCCTCCATTCCTCACGCCATCTCCATC
CCCATCTTGAGTCCTGGAACGGCCCTGGGTGCCTGCCCCTCACTGTGCATCTCTGGGAGCAGCCCGGCAGGTTGG
GGCGTCTTCCAGAACCTCTCCCTTCTGGAGCCACTCTGCACTGCGGGCTAAACATGTTTCCAGTGTGATTCCTTC
CAGTGAGCCAAACCCGGTGGCTGCTTCATGAGCCTGACTGCCTCTCGCCTGCTCTCAGCAGGAAGGGACCCCTGG
AGCAGGCTGGCCCGGGGTGGTGAAGTAGCTGGAGCCCGATCACAGTCCCGCGGTTTGTCAGGGGGCCCACCTTCT
AGATGACCCCTTAATAAAGTGATGGCCCCAC

FIGURE 4295

GAGCTCGCGGGCGACTGCCTGCCAGGCAGACGCTGCAGCTAAGCTGCGCGGTGGCTGTGGCAGGTGAGAGCCTCC
GGAAGGGAGGCGGCCTCTGGCCCCGACCCTGCTCCGCGATCGCCCACTCGGGCGCCCGGCCGGGCCTGGCAGGGA
AGGGCCGCCGCCGCCGCCGCGCGTTTGCGAGGCCTGGCGGGGCCGCGGGGCCCAGGAATGGCGTAAGGGGCCCCC
CCAGACTCCGAGACGGCCCGAGCGGGTCGCCGGCTGTGGGACGGCGGCGTGCCCTTCCTTTCCTCCCTCCCAGGT
TCGCGCCCGAGCTCTGCTAGCCACCCGTCCGACAACTTCCGGACTCCCAGGGACAGCCCTGCCATCAAGGAAGAC
AGCACAGGACTGGGACCCACCCATGAACCCTTCTCAGGACAACCCAACAGCACCAGTGGGGATGTTCTCCTAAGC
CGCAGAGGGCCTGGGCACGCCATCCGTCCTCCAGGAAGAGCC**ATG**GTGTTAATGCAGGACAAGGGCAGCTCTCAG
CAGTGGCCTGGTCTGGGGGGCGAGGGTGGTGGCACAGGTCCCTTAAGCATGCTCAGAGCTGCCCTGCTGCTCATC
AGCCTGCCATGGGGGGCCCAAGGGACAGCCAGCACCAGCCTCAGCACTGCTGGGGGTCACACCGTGCCACCGACT
GGGGGCCGCTACTTGAGCATTGGAGATGGCTCTGTGATGGAGTTTGAGTTTCCTGAGGACAGTGAGGGCATCATC
GTGATCTCCAGCCAGTACCCAGGCCAGGCCAACAGGACGGCGCCTGGCCCCATGCTCAGGGTCACCTCCCTGGAC
ACAGAGGTGCTGACCATCAAGAACGTGAGTGCTATAACCTGGGGAGGCGGGGGTGGCTTTGTGGTGAGCATCCAC
TCAGGCCTGGCTGGGCTGGCCCCACTCCACATCCAGCTCGTGGACGCCCATGAGGCCCCGCCCACACTGATTGAG
GAGCGGAGAGACTTCTGCATCAAGGTCTCACCTGCTGAAGACACGCCTGCCACCCTCAGCGCCGACCTGGCCCAC
TTCTCGGAAAACCCAATCCTCTACCTGCTCCTGCCTCTTATCTTTGTCAACAAGTGTTCGTTTGGGTGCAAAGTG
GAACTCGAGGTTCTGAAGGGGCTCATGCAGAGCCCCCAGCCCATGCTGCTGGGCCTCCTGGGCCAGTTTCTGGTC
ATGCCCTTGTACGCTTTCCTCATGGCCAAGGTCTTCATGCTGCCCAAGGCCCTGGCTCTGGGCCTCATCATCACC
TGCTCGTCGCCTGGCGGCGGGGGGAGCTACCTCTTCAGCCTCCTTCTTGGAGGGGACGTCACCCTGGCCATCTCC
ATGACTTTCCTCTCTACGGTGGCTGCCACTGGCTTCTTGCCTCTGTCTTCGGCCATCTACAGCCGCCTGCTCAGC
ATCCATGAGACGCTCCACGTGCCCATCTCCAAGATCCTGGGGACCCTGCTGTTCATTGCCATCCCCATAGCCGTG
GGCGTGCTGATCAAGTCCAAGCTCCCCAAGTTCTCCCAGCTGCTGCTGCAGGTCGTCAAGCCCTTCAGCTTTGTG
CTCCTCCTGGGCGGCCTCTTCCTGGCCTATCGCATGGGGGTCTTCATCCTGGCAGGCATCCGGCTACCCATCGTA
CTGGTGGGTATCACGGTGCCCCTGGTTGGCCTGTTGGTGGGCTACTGCCTAGCCACGTGTCTGAAGCTGCCAGTG
GCCCAGCGGCGGACGGTCAGCATTGAGGTAGGGGTGCAGAACAGCCTGCTGGCCTTGGCCATGCTGCAGCTATCC
CTCCGCCGCCTTCAAGCTGACTATGCCTCCCAGGCCCCCTTCATTGTGGCGCTGAGCGGCACCTCCGAGATGCTG
GCCTTGGTCATTGGCCACTTCATCTACAGCAGCCTGTTCCCAGTTCCC**TGA**GGCCTCTGGGTCAAGCTTTCATCA
GCCCCAGCCCCCACACTCCACCAAAGTTCTCATGCACTATGCACTCAGAAAAATCCAGGCTTATTTTTTTTACTG
ATTTTTTATTCTCCAGCTTTCAGTGCCAAAGAGGCCATGCTGAGTTAGGTAGGTGGGCGCTGCCCAGAAAATATA
TTTCAATAAAAGAGAGAAGCAAGC

FIGURE 4296

ATGCAGCTGACGGTGAAGGCGCTGCAGGGCCGCGAGTGCAGCCTGCAGGTGCCAGAGGACGAGCTGGTGTCCACG
CTGAAGCAGCTGGTCTCCGAGAAGCTGAACGTCCCAGTGCGCCAGCAGCGGCTGCTGTTCAAGGGCAAGGCCCTG
GCAGATGGGAAACGACTCTCGGATTATAGCATCGGGCCCAACTCCAAGCTCAACCTAGTGGTCAAACCCCTGGAG
AAGGTGCTACTAGAAGAAGGCGAGGCCCAGAGGCTGGCCGACTCCCCACCCCCGCAGGTCTGGCAGCTGATCTCC
AAAGTCTTGGCCCGCCACTTCAGTGCGGCAGATGCCAGCAGGGTCCTGGAACAGCTACAGAGGGATTACGAGAGG
TCCCTGAGTCGCCTGACGCTGGACGACATCGAACGGTTGGCCAGCCGCTTCCTGCACCCTGAAGTGACTGAGACA
ATGGAGAAGGGCTTCTCCAAA**TAG**

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FIGURE 4297

CGGGACGCGG**ATG**CAGACGCAGGCGGAGGCGCTGACGGCGGGGATGGCCGGGGTGGCCACAGCTGCCGCGGGGGC
GTGGACACAGCCGCAGCTCCGGCCGGTGGAGCTCCCCCAGCGCACGCGCCAGGTCCGGGCAGAGACGCCGCGTCT
GCGCCAGGGGGTCACGAATGCGGCCGCACATATTCACCCTCAGCGTGCCTTTCCCGACCCCCTTGGAGGCGGAAA
TCGCCCATGGGTCCCTGGCACCAGATGCCGAGCCCCACCAAAGGGTGGTTGGGAAGGATCTCACAGTGAGTGGCA
GGATCCTGGTCGTCCGCTGGAAAGC**TGA**AGACTGTCGCCTGCTCCGAATTTCCGTCATCAACTTTCTTGACCAGC
TTTCCCTGGTGGTGCGGACCATGCAGCGCTTTGGGCCCCCCGTTTCCCGCTAAGCCTGGCCTGGGCAAATGGAGC
GAGGTCCCACTTTGCGTCTCCTTGTAGGCAGTGCGTCCATCCTTCCCTAGGGCAGGAATTCCCACAGTTGCTACT
TTCCTGGGAGGGCCTCATGTTTTATCTGGTTCTTAAATGTTTGTTACTACAGAAAATAAAACTG

FIGURE 4298A

AGTGTGTGGGCGGCGGCGGCGGCGGCTGCGCGCTTGGGGCCCGGGGCGCGGGGCGAGGCCGTGGGGACGTGCGAG
CGGGGCCGCGGTGGGGCTCGGGGGCGCGTCCACGTGGCCAGAGGGCGGCCACCCGGAGCCAGCGGAGGGACAGGC
CTGTCCCCAGGCGCGGCTGCCGGCC**ATG**CCCTCTGTCTGCCTCCTCCTGCTGCTCTTCCTTGCCGTGGGGGGGGC
CCTGGGCAACAGGCCCTTCCGTGCCTTCGTGGTGACAGACACCACGCTTACCCACCTGGCTGTGCACCGGGTGAC
TGGGGAGGTGTTCGTGGGCGCAGTGAACCGAGTCTTTAAGCTGGCCCCCAACCTGACTGAGCTGCGGGCCCATGT
CACGGGGCCCGTCGAGGACAACGCTCGCTGCTACCCGCCCCCCAGCATGCGCGTGTGTGCCCACCGCCTGGCCCC
CGTGGACAACATCAACAAGCTGCTGCTCATAGACTATGCGGCCCGCCGCCTGGTGGCCTGCGGCAGCATCTGGCA
GGGCATCTGCCAGTTCCTGCGTCTGGACGACCTCTTCAAGCTGGGTGAGCCGCACCACCGCAAGGAGCACTACCT
GTCGGGGGCCCAGGAGCCCGACTCCATGGCTGGTGTCATTGTGGAGCAGGGCCAGGGGCCCAGCAAGCTGTTTGT
GGGCACTGCTGTCGACGGCAAGTCGGAGTACTTCCCCACCTTGAGCTCCCGCAAGCTCATCAGTGATGAAGACAG
CGCGGACATGTTCAGTCTCGTGTACCAGGATGAGTTTGTGTCCTCCCAGATCAAGATCCCCTCAGACACGCTGTC
CTTGTACCCTGCCTTTGACATCTACTACATCTACGGCTTCGTCAGCGCCTCCTTCGTGTACTTCCTGACGCTGCA
GCTGGACACCCAGCAGACGCTGTTGGACACAGCGGGCGAGAAATTTTTCACGTCCAAGATCGTGCGCATGTGCGC
GGGAGACTCAGAGTTCTACTCATACGTGGAATTCCCCATCGGCTGCTCCTGGCGCGGCGTGGAGTACCGCTTGGT
GCAGAGCGCCCACCTGGCCAAGCCTGGCCTGCTGCTGGCCCAGGCCCTGGGCGTGCCGGCTGATGAGGACGTCCT
CTTCACCATCTTCTCTCAGGGCCAGAAGAACCGGGCCAGCCCACCCCGGCAGACCATCCTCTGCCTCTTCACCCT
CAGCAACATCAATGCCCACATCCGGCGCCGCATCCAGTCCTGCTATCGTGGGGAGGGCACTCTGGCTCTGCCCTG
GCTGCTGAACAAGGAGCTGCCCTGCATCAACACCCCCATGCAGATCAACGGCAACTTCTGTGGGCTGGTGTTGAA
CCAGCCTCTGGGAGGCCTGCATGTGATCGAGGGGCTGCCCCTGCTGGCCGACAGCACCGACGGCATGGCCAGCGT
GGCCGCCTACACCTACCGCCAGCACTCTGTGGTCTTCATTGGCACGCGCAGCGGCAGCTTGAAGAAGGTGCGGGT
CGATGGCTTCCAGGATGCCCACCTGTATGAGACAGTCCCCGTGGTGGATGGCAGCCCCATCCTCCGAGACCTGCT
CTTCAGCCCGGACCACCGGCACATCTATCTCCTGAGTGAGAAGCAGGTGAGCCAGCTCCCGGTGGAGACCTGTGA
GCAGTACCAGAGCTGCGCAGCCTGCCTGGGCTCCGGGGACCCGCACTGTGGTTGGTGTGTGCTGCGACACAGGTG
CTGCCGCGAAGGGGCCTGTCTGGGCGCCTCTGCCCCACACGGCTTTGCTGAGGAGCTGAGCAAGTGTGTCCAGGT
GCGGGTCCGGCCCAACAATGTGTCAGTGACGTCACCTGGGGTGCAGCTGACCGTCACCCTGCACAACGTGCCAGA
CCTCAGTGCGGGCGTGAGCTGCGCCTTCGAGGCGGCGGCGGAGAACGAGGCGGTCCTGCTGCCCTCCGGTGAACT
GCTCTGCCCCTCACCCTCCCTCCAGGAGCTCCGAGCTCTTACCAGGGGGCATGGGGCCACCCGCACTGTGCGGCT
GCAGCTTCTCTCCAAGGAGACAGGCGTGAGGTTTGCCGGTGCTGACTTTGTCTTCTACAACTGCAGCGTCCTCCA
GTCGTGCATGTCCTGTGTTGGCAGCCCTTACCCCTGCCACTGGTGTAAGTACCGCCACACGTGTACCAGCCGCCC
CCACGAGTGCTCCTTCCAGGAGGGCAGGGTCCACAGCCCTGAGGGCTGCCCTGAGATCCTGCCCAGTGGGGACCT
CCTGATCCCCGTTGGGGTCATGCAGCCTCTTACCTTGCGGGCTAAGAACCTACCTCAGCCGCAGTCGGGCCAGAA
GAACTATGAGTGCGTGGTGCGGGTGCAGGGGCGGCAGCAGCGGGTGCCTGCCGTGCGCTTCAACAGCAGCAGTGT
GCAGTGCCAGAACGCCTCGTACTCCTATGAAGGTGATGAGCATGGTGACACCGAGCTGGACTTCTCCGTGGTCTG
GGATGGAGACTTCCCCATAGACAAGCCTCCCAGCTTCCGAGCCCTCCTGTACAAGTGCTGGGCGCAGCGGCCCAG
CTGTGGCCTCTGCCTCAAGGCTGATCCCCGCTTCAACTGTGGCTGGTGCATCTCAGAGCACAGGTGCCAGCTGCG
GACCCACTGCCCGGCCCCGAAGACCAACTGGATGCACCTGAGCCAGAAGGGCACCCGGTGCAGCCACCCCCGCAT
CACGCAGATCCACCCTCTCGTGGGGCCCAAGGAAGGAGGCACCCGGGTCACCATCGTGGGTGACAACCTGGGCCT
CTTGTCCCGAGAGGTGGGCCTGCGGGTGGCTGGCGTGCGTTGCAACTCCATTCCGGCCGAGTACATCAGTGCTGA
GAGGATCGTGTGTGAGATGGAGGAGTCGCTGGTGCCCAGCCCGCCGCCGGGGCCCGTGGAGCTGTGTGTGGGTGA
CTGTTCAGCCGACTTCCGCACGCAGTCGGAGCAGGTCTACAGCTTTGTGACCCCAACGTTTGACCAAGTGAGTCC
CAGCCGTGGCCCGGCGTCCGGGGGCACACGGCTTACCATCTCAGGCAGCTCTCTGGATGCTGGCAGCAGGGTCAC
AGTGACTGTGAGGGACAGCGAGTGCCAGTTTGTAAGGAGAGATGCCAAGGCGATCGTGTGCATCTCACCTCTCTC
CACCCTGGGCCCCAGCCAGGCCCCCATCACACTTGCCATTGACCGGGCTAACATCTCCAGCCCCGGGCTCATCTA
CACCTACACTCAGGACCCCACCGTCACCCGCCTTGAGCCCACCTGGAGCATCATCAATGGAAGCACTGCCATCAC
TGTGAGTGGGACCCACCTGCTGACGGTCCAGGAGCCCCGGGTCCGTGCCAAGTACCGCGGCATTGAGACCACCAA
TACATGCCAAGTGATCAACGACACTGCCATGCTGTGTAAGGCCCCCGGCATCTTTCTTGGGCGGCCCCAGCCTCG
GGCGCAAGGCGAGCACCCTGATGAGTTTGGCTTCCTGCTGGACCACGTGCAAACGGCCCGCTCCCTCAACCGCTC
CTCCTTTACCTACTACCCTGATCCCAGCTTTGAGCCGCTGGGGCCCTCTGGCGTGCTGGACGTCAAACCGGGCTC

FIGURE 4298B

CCACGTGGTGCTGAAGGGCAAGAACCTGATTCCCGCGGCAGCCGGCAGCTCCCGCCTCAACTACACTGTGCTGAT
AGGAGGCCAGCCGTGTTCGCTCACTGTCTCGGACACACAACTCCTGTGCGACTCACCCAGCCAGACTGGCCGGCA
GCCTGTCATGGTGCTGGTGGGTGGCCTGGAGTTCTGGCTGGGCACCCTGCACATCTCGGCAGAGCGGGCGCTGAC
CCTACCGGCCATGATGGGGCTGGCGGCGGGGGGTGGGCTCCTGCTGCTGGCCATCACAGCCGTGCTGGTGGCGTA
CAAGCGCAAGACTCAGGACGCGGACCGTACCCTCAAGCGTCTGCAGCTGCAGATGGACAACCTGGAGTCCCGTGT
GGCCCTGGAGTGCAAGGAAGCTTTTGCAGAGCTGCAGACGGACATCAATGAGCTGACTAACCACATGGACGAGGT
GCAGATCCCCTTCCTGGACTACCGGACTTACGCCGTGCGCGTGCTCTTCCCGGGCATCGAGGCCCACCCGGTGCT
CAAGGAGCTGGATACGCCACCCAACGTGGAGAAGGCCCTGCGCCTCTTCGGGCAGCTGCTGCACAGCCGCGCGTT
CGTGCTTACCTTCATCCACACGCTGGAGGCCCAGAGCAGCTTCTCCATGCGCGACCGCGGCACCGTGGCCTCGCT
CACCATGGTGGCCCTGCAGAGCCGGCTCGACTATGCCACGGGGCTGCTCAAGCAACTGCTGGCCGACCTCATCGA
GAAGAACCTCGAGAGCAAGAACCACCCCAAGCTGCTGCTACGCAGGACAGAGTCAGTGGCTGAGAAGATGCTTAC
CAACTGGTTCACGTTCCTGCTGCATAAGTTTCTGAAGGAGTGTGCTGGGGAGCCTCTCTTCCTGCTTTACTGTGC
CATCAAGCAGCAGATGGAGAAGGGCCCCATTGATGCCATCACGGGCGAGGCACGATACTCCCTGAGCGAGGACAA
GCTCATCCGTCAGCAGATCGACTACAAGACACTGACCCTTCACTGCGTGTGTCCGGAGAACGAGGGCAGCGCCCA
GGTCCCAGTGAAGGTTCTCAACTGTGACAGCATCACCCAGGCCAAAGATAAGCTGCTGGACACTGTGTACAAGGG
CATTCCGTACTCCCAGCGTCCCAAAGCTGAGGACATGGACCTGGAGTGGCGCCAGGGCCGCATGACTCGCATCAT
CCTCCAGGATGAGGATGTCACCACCAAGATCGAGTGTGACTGGAAGAGGCTCAACTCACTGGCCCACTACCAGGT
GACAGACGGTTCCTTGGTGGCATTGGTGCCCAAACAAGTGTCTGCCTATAACATGGCCAACTCCTTCACCTTCAC
CCGCTCCCTCAGCCGCTACGAGAGCTTGCTCCGCACGGCCAGCAGCCCTGATAGCCTCCGCTCACGGGCACCCAT
GATTACGCCTGACCAGGAGACAGGCACCAAATTGTGGCACCTGGTGAAAAACCACGACCATGCCGACCATCGCGA
GGGGGACCGTGGCAGCAAGATGGTCTCCGAGATCTACCTGACACGGCTGCTGGCCACCAAGGGCACACTGCAGAA
GTTCGTGGATGACCTCTTTGAGACAGTGTTCAGCACAGCCCACCGGGGCTCGGCCCTGCCCCTGGCCATCAAGTA
CATGTTCGACTTCCTGGATGAGCAGGCGGACCAGCGCCAGATCAGCGACCCCGATGTGCGCCACACCTGGAAGAG
CAACTGCCTGCCGCTGCGCTTCTGGGTGAATGTGATCAAGAACCCGCAGTTCGTGTTCGACATCCACAAGAACAG
CATCACGGATGCCTGCCTGTCGGTGGTAGCCCAGACCTTCATGGACTCCTGCTCTACATCCGAGCACCGCCTGGG
GAAGGACTCGCCCTCCAACAAACTGCTCTACGCCAAGGACATCCCCAACTACAAGAGCTGGGTGGAGAGGTATTA
TCGAGACATTGCAAAGATGGCATCCATCAGCGACCAGGACATGGATGCCTACCTGGTGGAGCAGTCCCGCCTCCA
CGCCAGCGACTTCAGCGTCCTGAGTGCGCTCAACGAGCTGTATTTCTATGTCACCAAGTACCGCCAGGAGATTCT
CACGGCTCTGGACCGAGATGCCTCTTGTCGGAAGCATAAGTTGCGGCAGAAACTGGAACAGATCATCAGCCTCGT
GTCCAGCGACAGC**TAA**GGTGGTGGAATCGGTGAGGAGGGGGCTTCTCAGTCCTGTGCCGTCCTCCCATCCAGGGG
AGTGGCTGGCTCAAGCCTGGGTCCCCGGGCTGAGCCCTGGATTGGGTATCGTGGGGCAGGTCACCCTGGCCACGA
TGCCCCCGGCACACCCAGGCCCCCTTCATTAGTGCCTTGCTTTGGGCCCTGCAGGGGGAGGGGTGACAGGGCGAG
CCCCCACCCCAGCAGCAGCAATACCCCC

FIGURE 4299

CCGCCGCTGCCGCTGCCGCTGTCGCTGTCGCCGCCGCCGCCGCCCGCCGCCGCCGCCGCCGCCGCCGCTGCC
ATGGCTCAATACAAGGGCGCCGCGAGCGAGGCCGGCCGCGCCATGCACCTGATGAAGAAGCGGGAGAAGCAGCGC
GAGCAGATGGAGCAGATGAAGCAGCGCATCGCGGAGGAGAACATCATGAAATCCAACATTGACAAGAAGTTCTCT
GCGCACTACGACGCGGTGGAGGCAGAGCTCAAGTCCAGCACCGTGGGTCTCGTGACCCTGAATGACATGAAGGCC
AAGCAGGAGGCTCTGGTGAAGGAGCGGGAGAAGCAGCTGGCCAAGAAGGAGCAGTCCAAGGAGCTGCAGATGAAG
CTGGAGAAGCTTCGAGAGAAGGAGCGTAAGAAGGAAGCCAAGCGGAAGATCTCCAGCCTGTCCTTCACCCTGGAG
GAGGAAGAAGAGGGAGGCGAGGAGGAAGAGGAGGCGGCCATGTATGAGGAGGAGATGGAAAGGGAAGAGATCACC
ACGAAGAAGAGAAAACTGGGGAAGAACCCAGACGTTGACACAAGCTTCTTGCCTGATCGAGACCGTGAGGAGGAG
GAGAATCGGCTTCGGGAAGAGCTGCGGCAGGAGTGGGAAGCCAAGCAGGAGAAGATCAAGAGTGAGGAGATCGAG
ATCACCTTCAGCTACTGGGATGGCTCTGGGCACCGGCGGACAGTCAAGATGAGAAAGGGCAACACCATGCAGCAG
TTCCTGCAGAAGGCGCTCGAGATCCTTCGGAAAGACTTCAGTGAGCTGAGGTCCGCAGGGGTGGAGCAGCTCATG
TACATCAAGGAGGACTTGATCATCCCTCACCATCACAGCTTCTACGACTTCATCGTCACCAAGGCACGGGGGAAG
AGTGGACCACTCTTCAACTTTGATGTTCATGACGATGTGCGGTTGCTCAGTGACGCCACTGTGGAGAAGGATGAG
TCCCATGCAGGCAAGGTGGTGCTGAGGAGCTGGTACGAGAAGAACAAGCACATCTTTCCCGCCAGCCGCTGGGAA
CCCTACGACCCTGAAAAGAAGTGGGACAAGTACACGATCCGC**TGA**GCATCCAGGAGGCTGCGCGGCCCCGGCTCC
TCAGCTCCCTCAGTGTGCCCCGTGGTGTCACCGGGACTCCAGGCACCCGCTCCCCTGCGACCATGCCAGGCACGC
TGGGAGGAGGACGGCAGCTGCTCGTGTCCTGCCCCTGCCACATCAGTGACTGCTTTATTCTTTTCCAATAAAGAA
GTGCACGTGTCAGAGCTGGAGCGCCTGCATTGTGAG

FIGURE 4300

CGGCGGCGGCGGTGGCGGCGGCGACTGCTGCGGTGAAGGAGGAGGAGGAGCCGAGCGGGCGCTGGCACCGAGGCC
TGACCATGGACGAGGAATACGATGTGATCGTGCTGGGGACCGGTCTCACCGAATGCATCCTGTCGGGCATCATGT
CTGTGAACGGGAAGAAGGTGCTGCACATGGACCGGAACCCCTACTACGGGGGCGAGAGCTCCTCCATCACACCCC
TGGAGGAGCTGTATAAGCGTTTTCAGTTGCTGGAGGGGCCCCCTGAGTCGATGGGCCGAGGCCGAGACTGGAATG
TTGACCTGATTCCCAAATTCCTCATGGCTAACGGGCAGCTGGTAAAGATGCTACTGTATACAGAGGTGACTCGCT
ACCTGGACTTCAAGGTGGTGGAGGGCAGCTTTGTCTACAAGGGGGGCAAGATCTACAAAGTGCCGTCCACTGAGA
CTGAGGCCTTGGCTTCCAATCTGATGGGCATGTTTGAGAAACGGCGCTTCCGCAAGTTCCTGGTGTTTGTGGCAA
ACTTCGATGAGAATGACCCCAAGACCTTTGAGGGCGTTGACCCCCAGACTACCAGCATGCGTGACGTCTACCGGA
AGTTTGATCTGGGCCAGGATGTCATCGATTTCACTGGCCATGCCCTGGCGCTCTACCGCACTGATGACTACCTGG
ACCAGCCCTGCCTTGAGACCGTCAACCGCATCAAGTTGTACAGTGAGTCCCTGGCCCGGTATGGCAAGAGCCCAT
ATTTATACCCGCTCTACGGCTTGGGCGAGCTGCCCCAGGGTTTTGCAAGATTGAGTGCCATCTATGGGGGGACAT
ATATGCTGAACAAACCTGTGGATGACATCATCATGGAGAACGGCAAGGTGGTGGGCGTGAAGTCTGAGGGAGAGG
TGGCCCGCTGCAAGCAGCTGATCTGTGACCCCAGCTACATCCCGGACCGTGTGCGGAAGGCTGGCCAGGTTATCC
GCATCATCTGTATCCTTAGCCACCCCATCAAGAACACCAACGACGCCAACTCCTGCCAAATAATCATCCCCCAGA
ACCAGGTCAACAGGAAGTCAGACATCTACGTGTGCATGATCTCCTATGCACACAACGTGGCGGCCCAGGGCAAGT
ACATAGCTATTGCCAGCACTACTGTGGAGACCACGGACCCTGAAAAGGAGGTGGAGCCGGCTCTGGAGCTGTTGG
AGCCCATTGACCAGAAGTTTGTGGCTATCAGTGACTTGTATGAGCCCATTGATGATGGTTGTGAGAGCCAGGTGT
TCTGTTCCTGCTCCTACGATGCCACCACACACTTTGAGACAACCTGCAACGACATCAAAGACATCTACAAACGCA
TGGCTGGCACGGCCTTTGACTTTGAGAACATGAAGCGCAAACAGAACGACGTCTTTGGAGAAGCTGAGCAGTGATT
TGTGGCCGCCCCCAGCCCCTGCTGCCCCAGCCTGTGTCTGTTCTCCTCGAGGGCTCCAGCATCCTCTGCTTCCCC
CACCACGTTCCCATCACCCACCTCATTGATCCACTGACCAAATCCTTAACCCTAGCGATGGCTTGGGAGATGGGG
GGTTGGATAGCATCCTCTTTCTTGGCCCTTCCTTATCCTAGGAAAAGAGGGTTCCTCTCCTTGTGTGTGTCTCTT
CCCCCCACCCCTAATTCTTCTGCTCTGTTTGGGAAGACGTGGAGGAAAAGGTGACTTCTGCCCCCACCGCTCTTA
CCCCCACTGTAGTGGCCTTTGGAGATGCCCCCACCTCCCCCCCACCAACTCTCGCGTGTTGGAGAGAAGGGGCCC
TCCCAGCACAAAGTTGCATTCCTCCCCCCTAATTTATTCTAATTTATTAACTTTGACCCACCCTTTCTGAGCCTG
CAGCCTTCCCGTGTGGCCTGAGGGCTGTCGAGTGAGCTGCCCCAGCCCCTCCCAGCCCTTGCCCAGCCTGGGGGA
GTGGGGAAGGCTTGGGCATGGCCCCGTTGGAGGTTGATTTGCTGTTTTGTTTCTTGTCTTTGTGTTCTGTGGTAC
TTGCTGAGAGAAAAGAAAAGTGAGCCAAGCAGAAGGAGGTGGGAAAACGGACCCAAACCCCAGTGTGCCCTGCCC
CATGCCTTTCCTTTAGTGGTGGGAAACCCTTATCTTGCAAAGTGAATGTGTCCCCTTCCCCACCCTCTAGTGTAT
TTCACAGAAAACAAAACCTCCCAATAAAACGGTTGAAACCTG

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FIGURE 4301

GGCAGTGGAGGCTGAGGCT**ATG**ATGGCGGCCATGGCGACGGCTCGAGTGCGGATGGGGCCGCGGTGCGCCCAGGC
GCTCTGGCGCATGCCGTGGCTGCCGGTGTTTTTGTCGTTGGCGGCGGCGGCGGCGGCGGCAGCGGCGGAGCAGCA
GGTCCCGCTGGTGCTGTGGTCGAGTGACCGGGACTTGTGGGCTCCTGCGGCCGACACTCATGAAGGCCACATCAC
CAGCGACTTGCAGCTCTCTACCTACTTAGATCCCGCCCTGGAGCTGGGTCCCAGGAATGTGCTGCTGTTCCTGCA
GGACAAGCTGAGCATTGAGGATTTCACAGCATATGGCGGTGTGTTTGGAAACAAGCAGGACAGCGCCTTTTCTAA
CCTAGAGAATGCCCTGGACCTGGCCCCCTCCTCACTGGTGCTTCCTGCCGTCGACTGGTATGCAGTCAGCACTCT
GACCACTTACCTGCAGGAGAAGCTCGGGGCCAGCCCCTTGCATGTGGACCTGGCCACCCTGCGGGAGCTGAAGCT
CAATGCCAGCCTCCCTGCTCTGCTGCTCATTCGCCTGCCCTACACAGCCAGCTCTGGTCTGATGGCACCCAGGGA
AGTCCTCACAGGCAACGATGAGGTCATCGGGCAGGTCCTGAGCACACTCAAGTCCGAAGATGTCCCATACACAGC
GGCCCTCACAGCGGTCCGCCCTTCCAGGGTGGCCCGTGATGTAGCCGTGGTGGCCGGAGGGCTAGGTCGCCAGCT
GCTACAAAAACAGCCAGTATCACCTGTGATCCATCCTCCTGTGAGTTACAATGACACCGCTCCCCGGATCCTGTT
CTGGGCCCAAAACTTCTCTGTGGCGTACAAGGACCAGTGGGAGGACCTGACTCCCCTCACCTTTGGGGTGCAGGA
ACTCAACCTGACTGGCTCCTTCTGGAATGACTCCTTTGCCAGGCTCTCACTGACCTATGAACGACTCTTTGGTAC
CACAGTGACATTCAAGTTCATTCTGGCCAACCGCCTCTACCCAGTGTCTGCCCGGCACTGGTTTACCATGGAGCG
CCTCGAAGTCCACAGCAATGGCTCCGTCGCCTACTTCAATGCTTCCCAGGTCACAGGGCCCAGCATCTACTCCTT
CCACTGCGAGTATGTCAGCAGCCTGAGCAAGAAGGGTAGTCTCCTCGTGGCCCGCACGCAGCCCTCTCCCTGGCA
GATGATGCTTCAGGACTTCCAGATCCAGGCTTTCAACGTAATGGGGGAGCAGTTCTCCTACGCCAGCGACTGTGC
CAGCTTCTTCTCCCCCGGCATCTGGATGGGGCTGCTCACCTCCCTGTTCATGCTCTTCATCTTCACCTATGGCCT
GCACATGATCCTCAGCCTCAAGACCATGGATCGCTTTGATGACCACAAGGGCCCCACTATTTCTTTGACCCAGAT
TGTG**TGA**CCCTGTGCCAGTGGGGGGGTTGAGGGTGGGACGGTGTCCGTGTTGTTGCTTTCCCACCCTGCAGCGCA
CTGGACTGAAGAGCTTCCCTCTTCCTACTGCAGCATGAACTGCAAGCTCCCCTCAGCCCATCTTGCTCCCTCTTC
AGCCCGCTGAGGAGCTTTCTTGGGCTGCCCCCATCTCTCCCAACAAGGTGTACATATTCTGCGTAGATGCTAGAC
CAACCAGCTTCCCAGGGTTCGTCGCTGTGAGGCGTAAGGGACATGAATTCTAGGGTCTCCTTTCTCCTTATTTAT
TCTTGTGGCTACATCATCCCTGGCTGTGGATAGTGCTTTTGTGTAGCAAATGCTCCCTCCTTAAGGTTATAGGGC
TCCCTGAGTTTGGGAGTGTGGAAGTACTACTTAACTGTCTGTCCTGCTTGGCTGTCGTTATCGTTTTCTGGTGAT
GTTGTGCTAACAATAAGAAGTACACGGGTTTATTTCTGTGGCCTGAGAAGGAAGGGACCTCCACGACAGGTGGGC
TGGGTGCGATCGCCGGCTGTTTGGCATGTTCCCACCGGGAGTGCCGGGCAGGAGCATGGGGTGCTTGGTTGTTTC
CTTCCTAATAAAATAAACGCGGGTCGCCATG

FIGURE 4302

CCGGGCCGGGGTGCCAGCGCCCGCTTTCCCGTTTCCTCCCGTTCCGCAGCGCGCCCACGGCCTGTGACTTCGGAG
ACCGCTCCCCAGTGACGAGAGAGCGGGGCCGGGCGCTGCTCCGGCCTGACCTGCGAAGGGACCTCGGTCCAGTAC
CCTGTTGCGCCGCGCCCCCGTCCGTCCGTGCGCGGGCCAGTCAGGGGCCAGTGTGTCGAGGCGGTAGAGGTCGCA
GCCTAGAGGCGTTCCACAGGTCGGCCCGGGGCGCTGGGAGCCCGGCCGGCGGTCGGGTGGGGTGGCCTCTGCACG
TGAAAGTGGCCGTTCCCCGCGGTGCCGCCGCTCACCTGGACCCTGGCCAGCAGCGTCGTCATGGGCTTGGTGGGC
ACCTACAGCTGCTTCTGGACCAAGTACATGAACCACCTGACCGTGCACAACAGGGAGGTGCTGTACGAGCTCATC
GAGAAGCGAGGCCCGGCCACGCCCCTCATCACCGTGTCCAATCACCAGTCCTGCATGGACGACCCTCATCTCTGG
GGGATCCTGAAACTCCGCCACATCTGGAACCTGAAGTTGATGCGTTGGACCCCTGCAGCTGCAAGACATCTGCTT
CACCAAGGAGCTACACTCCCACTTCTTCAGCTTGGGCAAGTGTGTGCCTGTGTGCCGAGGAGCAGAATTTTTCCA
AGCAGAGAATGAGGGGAAAGGTGTTCTAGACACAGGCAGGCAC**ATG**CCAGGTGCTGGAAAAAGAAGAGAGAAAGG
AGATGGCGTCTACCAGAAGGGGATGGACTTCATTTTGGAGAAGCTCAACCATGGGGACTGGGTGCATATCTTCCC
AGAAGGGAAAGTGAACATGAGTTCCGAATTCCTGCGTTTCAAGTGGGGAATCGGGCGCCTGATTGCTGAGTGTCA
TCTCAACCCCATCATCCTGCCCCTGTGGCATGTCGGAATGAATGACGTCCTTCCTAACAGTCCGCCCTACTTCCC
CCGCTTTGGACAGAAAATCACTGTGCTGATCGGGAAGCCCTTCAGTGCCCTGCCTGTACTCGAGCGGCTCCGGGC
GGAGAACAAGTCGGCTGTGGAGATGCGGAAAGCCCTGACGGACTTCATTCAAGAGGAATTCCAGCATCTGAAGAC
TCAGGCAGAGCAGCTCCACAACCACCTCCAGCCTGGGAGA**TAG**GCCTTGCTTGCTGCCTTCTGGATTCTTGGCCC
GCACAGAGCTGGGGCTGAGGGATGGACTGATGCTTTTAGCTCAAACGTGGCTTTTAGACAGATTTGTTCATAGAC
CCTCTCAAGTGCCCTCTCCGAGCTGGTAGGCATTCCAGCTCCTCCGTGCTTCCTCAGTTACACAAAGGACCTCAG
CTGCTTCTCCCACTTGGCCAAGCAGGGAGGAAGAAGCTTAGGCAGGGCTCTCTTTCCTTCTTGCCTTCAGATGTT
CTCTCCCAGGGGCTGGCTTCAGGAGGGAGCATAGAAGGCAGGTGAGCAACCAGTTGGCTAGGGGAGCAGGGGGCC
CACCAGAGCTGTGGAGAGGGGACCCTAAGACTCCTCGGCCTGGCTCCTACCCACCGCCCTTGCCGAACCAGGAGC
TGCTCACTACCTCCTCAGGGATGGCCGTTGGCCACGTCTTCCTTCTGCCTGAGCTTCCCCCCCACCACAGGCCCT
TTCCTCAGGCAAGGTCTGGCCTCAGGTGGGCCGCAGGCGGGAAAAGCAGCCCTTGGCCAGAAGTCAAGCCCAGCC
ACGTGGAGCCTAGAGTGAGGGCCTGAGGTCTGGCTGCTTGCCCCCATGCTGGCGCCAACAACTTCTCCATCCTTT
CTGCCTCTCAACATCACTTGAATCCTAGGGCCTGGGTTTTCATGTTTTTGAAACAGAACCATAAAGCATATGTGT
TGGCTTGTT

FIGURE 4303

CTTGAACGCCTGACCTCGTATCCACCCGCCTCAGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCACGCC
CAGCCCATAATTTATTGATTTTTTAAAATTTGTCCAGCCTTCTATTACCACGTCGAATCCATTAGCTACAGCCAT
CCCATGAGAAGCTGAGTGGATTCAGCCCCACCTCCTGCTCACAGACCCTGTCCGAGCACCTCATTTGTCCCAACA
GCATTACTGCAGGACCCCCAGGACGTTGGACTGCCAGCTCCCTGGGTCTCCTCCTCTCTGGGGCAGATCCTCAGT
CCTCCCTTGACTTCACGACTGTGGCCAGATCATGTGTGGACTGTCCCTCTCTTTGGGTCTCCAGAGCGCTTGCAT
CAAACACCCCTAACTCAGAAGTGTGCAGCCACACTGGGACTCAGAACCCAACAACAGGGACAGAAGACTCACGCC
CTTGGGGTGCCCGGTCTCGTGGCATCAGGCATGACTTCCAGCTCCTGCGCCTTCCCCAGCAACTGCTGACTGGGG
ACCCAGACCGGGAGCTGAGCGACGGGCCTGGCGAGCGAAGCTCGGGGTCTCACTCAGGCACCAGCCCCTCCTTGC
CCCAGGCTTGAGTGACTCACAGCCCTATTCAGGCAGGAGCTGCTCTTCTGGGGTATCGCGATCCACTTAAGGATG
AGGCAGACTTGGTGACAAGCTGGTCTGAGCAGCGCCTCCAGAGCCAGAACTGAGCCCAGTGAGAGCGCACCCTGG
GGCAGCCTGGATTCCTGGGGGTGTCCCCGGCAGCCACACACAGCC**ATG**CACTACCCAACTGCACTCCTCTTCCTCA
TCCTGGCCAATGGGGCCCAGGCCTTTCGCATCTGCGCCTTCAATGCCCAGCGGCTGACACTGGCCAAGGTGGCCA
GGGAGCAGGTGATGGACACCTTAGTTCGGATACTGGCTCGCTGTGACATCATGGTGCTGCAGGAGGTGGTGGACT
CTTCCGGCAGCGCCATCCCGCTCCTGCTTCGAGAACTCAATCGATTTGATGGCTCTGGGCCCTACAGCACCCTGA
GCAGCCCCCAGCTGGGGCGCAGCACCTACATGGAGACGTATGTGTACTTCTATCGGTCACACAAAACACAGGTCC
TGAGTTCCTACGTGTACAACGATGAGGATGACGTCTTTGCCCGGGAGCCATTTGTGGCCCAGTTCTCTTTGCCCA
GCAATGTCCTTCCCAGCCTGGTGTTGGTCCCGCTGCACACCACTCCTAAGGCCGTAGAGAAGGAGCTGAACGCCC
TCTACGATGTGTTTCTGGAGGTCTCCCAGCACTGGCAGAGCAAGGACGTGATCCTGCTTGGGGACTTCAATGCTG
ACTGCGCTTCACTGACCAAAAAGCGCCTGGACAAGCTGGAGCTGCGGACTGAGCCAGGCTTCCACTGGGTGATTG
CCGATGGGGAGGACACCACAGTGCGGGCCAGCACCCACTGCACCTATGCCCGCGTCGTGCTGCACGGGGAGCGCT
GCCGGAGTCTGCTGCACACTGCGGCTGCCTTTGACTTCCCCACGAGCTTCCAGCTCACCGAGGAGGAGGCCCTCA
ACATCAGTGACCACTACCCCGTGGAGGTGGAGCTGAAGCTGAGCCAGGCGCACAGCGTCCAGCCTCTCAGCCTCA
CTGTTCTGTTGCTGCTATCACTCCTGTCCCCTCAGCTGTGCCCTGCTGCC**TGA**GCGTCCCCCTACCCCCCCAGGG
CCTGCTGCCTTTTGGGACTTAAACCCCAGCCTCCCCCGTCCATCCAGCCCTGGGGCTGGGGGGCTTCAACTATAG
TTGCCCTGTGACTGTAGTCCACCCCTGCCTGCCTTGTTTGATTTGGCTCTTGTTCTTTGGTTGGGCTTGTGCCTA
GATTAGGAGAGGAAGCCAGGGGCCCTGCACTCATGCCACCTGCCAGGTAGTGTAGTATCAGGAGTGGAGACAAAG
TGGGCTCTGGGTTGGGGTAGGGGAAGGGAGGGTTCAGAAAGAGGAATGAAGATGTTGTATGACAAGAAGGAAAGT
TACTGAGAACAAAAACCCAGATTGGTGAGATAGGACACTTGTGCAGCAGATATGCCAATGGGCCATGTTTATTGT
GGATTGGTAAGAATCACCAGGAAACCATTAAGCCCCAATAGCTACAAGGAGGGTGGTTAATCTGCTATATCAAAC
TCCTTCCCTGAAACCAGCAAACACCGGGAAACATTTTGGCTCATTATAATCCGGTGAACAATGCAGTCAGGCCTG
TTATAACCGCTGAGCAGCCACACTCGCACCTCCTGGGTGCTGTAGTCTGTGTTGGTACAGGCTTCTGCATGCCTG
GTAAAGGTCCAGCCAAGGCTGGTCAAGGCAACATCTCCACACAGAAAATCTGCACCAGTTATGTAAGCTAAAAAG
CTGTGTGAACCCAGGTGTCCCGGAAAGGGGCTGCAGGACACAGCAAAATGCCAGCAGCATGCCGGACCCCTCCCT
TCCATCCTCCTCTCCAAAGAAGAGAGGTCAGGAAAAACACTGGCTGGGACGCTAGAAGGGTCATGTGTTAACTAT
AATCACATTTATGGTTTGGAACCATCACCCCAAGGTAAAAAAAAAATAAAAGGTATTCCCAGGTATGTTTGGCAA
AATAAAATAAAGGTAATTAAAAACCT

FIGURE 4304

CTCTTTCCCTTCGGTGTGCCACTGAAGATCCTGGTGTCGCC**ATG**GGCCGCCGCCCCGCCCGTTGTTACCGGTATT
GTAAGAACAAGCCGTACCCAAAGTCTCGCTTCTGCCGAGGTGTCCCTGATGCCAAGATTCGCATTTTTGACCTGG
GGCGGAAAAAGGCAAAAGTGGATGAGTTTCCGCTTTGTGGCCACATGGTGTCAGATGAATATGAGCAGCTGTCCT
CTGAAGCCCTGGAGGCTGCCCGAATTTGTGCCAATAAGTACATGGTAAAAAGTTGTGGCAAAGATGGCTTCCATA
TCCGGGTGCGGCTCCACCCCTTCCACGTCATCCGCATCAACAAGATGTTGTCCTGTGCTGGGGCTGACAGGCTCC
AAACAGGCATGCGAGGTGCCTTTGGAAAGCCCCAGGGCACTGTGGCCAGGGTTCACATTGGCCAAGTTATCATGT
CCATCCGCACCAAGCTGCAGAACAAGGAGCATGTGATTGAGGCCCTGCGCAGGGCCAAGTTCAAGTTTCCTGGCC
GCCAGAAGATCCACATCTCAAAGAAGTGGGGCTTCACCAAGTTCAATGCTGATGAATTTGAAGACATGGTGGCTG
AAAAGCGGCTCATCCCAGATGGCTGTGGGGTCAAGTACATCCCCAGTCGTGGCCCTCTGGACAAGTGGCGGGCCC
TGCACTCA**TGA**GGGCTTCCAATGTGCTGCCCCCCTCTTAATACTCACCAATAAATTCTACTTCCTGTCCACCTAT
GTCTTTGTATCTACATTCTTGACGGGGAAGGAACTTCCTCTGGGAACCTTTGGGTCATTGCCCTTTCACTTCAGA
AACAGGTTGACAACTCAGCCCTGCTCATGAGGCAGCAAACCCTGCAAAGGGCTGGGACTGGTGGCCTTATGTCAG
TTGTCTACTCTGGAGCTTGACTTGGACCTCCCCAGGTCCTAGGCAGTAGGTTGAAAAACACTGAAGTGCTTTTCA
TGAAGCACAGCTGCAGCAAAGCCTTGCAATCCCAGGCTGGGGTCAGCCTACAGTTGTGTTGCTTATTACAACACA
TGCGGACCAAGAGGGGCTTGTGGGCTAGAGGCTGACCAGCAGCGTTTATTTAGCAAGGGTAGGTGTGCATCACAT
TGGGCTTGTTCTCACCCATCTGGTTTGGCCATTCCTCCTTGGTGGGAATCATCCAGGTACTGCTGAGGTCACCTG
CGATTTGCCCCATTTCCTATCTCTAGCAACCTCCTGGGCCCCATGCCCCCACCCCTTCTAGAACCTGCATTCCCA
GGGCCTTCACCACCTGACCAAAGGTCTAGGCTAACCTTTGGTCATTTGTAACAAGACCTCGGAACAGACACGTGT
GTGGCATGGTTTGGCCTGGGGATCTTAGATGTCTGACCTGAACTATTGTAGAACAGCGCTGGCTTTTGGGGGAGC
AGCAAAAATGAGAGGAGTGCTAGGTGGGTGGCCTGAGCATCTGTATCCAGGGACAGGACTCCAAAGGCTTTTGGT
CCCAGAGCTGGGGTATGTTGGCCCCAGCCCCCAGCCTGTGGCTCCCAAAAGGCCTCTGGTTTTTTGTAATCTCAG
TTTACAGCCATTTCTTAGGTTTTTAATTACCTTTATTTTATTTTGCCAAACATACCTGGGAATACCTTTTATTTT
TTTTTTACCTTGGGGTGATGGTTCCAAACCATAAATGTGATTATAGTTAACACATGACCCTTCTAGCGTCCCAGC
CAGTGTTTTTCCTGACCTCTCTTCTTTGGAGAGGAGGATGGAAGGGAGGGGTCCGGCATGCTGCTGGCATTTTGC
TGTGTCCTGCAGCCCCTTTCCGGGACACCTGGGTTCACACAGCTTTTTAGCTTACATAACTGGTGCAGATTTTCT
GTGTGGAGATGTTGCCTTGACCAGCCTTGGCTGGACCTTTACCAGGCATGCAGAAGCCTGTACCAACACAGACTA
CAGCACCCAGGAGGTGCGAGTGTGGCTGCTCAGCGGTTATAACAGGCCTGACTGCATTGTTCACCGGATTATAAT
GAGCCAAAATGTTTCCCGGTGTTTGCTGGTTTCAGGGAAGGAGTTTGATATAGCAGATTAACCACCCTCCTTGTA
GCTATTGGGGCTTAATGGTTTCCTGGTGATTCTTACCAATCCACAATAAACATGGCCCATTGGCATATCTGC

FIGURE 4305

CGGCCGGTTTTGGTAGGCCCGGGCCGCCGCCAGGCCTCCGCCTGAGCCCGCACCCGCC**ATG**GACAACTACGCAGA
TCTTTCGGATACCGAGCTGACCACCTTGCTGCGCCGGTACAACATCCCGCACGGGCCTGTAGTAGGATCAACTCG
TAGGCTTTACGAGAAGAAGATCTTCGAGTACGAGACCCAGAGGCGGCGGCTCTCGCCCCCCAGCTCGTCCGCCGC
CTCCTCTTATAGCTTCTCTGACTTGAATTCGACTAGAGGGGATGCAGATATGTATGATCTTCCCAAGAAAGAGGA
CGCTTTACTCTACCAGAGCAAGGGCTACAATGACGACTACTATGAAGAGAGCTACTTCACCACCAGGACTTATGG
GGAGCCCGAGTCTGCCGGCCCGTCCAGGGCTGTCCGCCAGTCAGTGACTTCATTCCCAGATGCTGACGCTTTCCA
TCACCAGGTGCATGATGACGATCTTTTGTCTTCTTCTGAAGAGGAGTGCAAGGATAGGGAACGCCCCATGTACGG
CCGGGACAGTGCCTACCAGAGCATCACGCACTACCGCCCTGTTTCAGCCTCCAGGAGCTCCCTGGACCTGTCCTA
TTATCCTACTTCCTCCTCCACCTCTTTTATGTCCTCCTCATCATCTTCCTCTTCATGGCTCACCCGCCGTGCCAT
CCGGCCTGAAAACCGTGCTCCTGGGGCTGGGCTGGGCCAGGATCGCCAGGTCCCGCTCTGGGGCCAGCTGCTGCT
TTTCCTGGTCTTTGTGATCGTCCTCTTCTTCATTTACCACTTCATGCAGGCTGAAGAAGGCAACCCCTTC**TAG**AG
GGAGCCATGAGGGTCTGGGCTTCAGAGCTAGGTCTTTGGGGAAGTCCTGGCTGACTGCCTTAGCAGTGGGGGTGG
GGGTGGGGGCAGGGGCAGGGGCTTTATGTGTTTTTGCTTGGGGGGCGCTGGGCCTAGCCCAGAGTAGTGCTTGCT
CCCCCTGCCTTGTCCCACCAGGGAGGCAGCAGACTCAGGCCCTCCATGGTCCTCTTTGTCATTTTGTTGACATGC
ATTCCTCCTTTTGTCATCTTGTTGGGGGGAGGGGATTAACCAAAGGCCACCCTGACTTTGTTTTTGTGGACACAC
AATAAAAGCCCCGTTTATTTGT

FIGURE 4306A

GCGATCCGGGCGCCACCCCGCGGTCATCGGTCACCGGTCGCTCTCAGGAACAGCAGCGCAACCTCTGCTCCCTGC
CTCGCCTCCCGCGCGCCTAGGTGCCTGCGACTTTAATTAAAGGGCCGTCCCCTCGCCGAGGCTGCAGCACCGCCC
CCCCGGCTTCTCGCGCCTCAAA**ATG**AGTAGCTCCCACTCTCGGGCGGGCCAGAGCGCAGCAGGCGCGGCTCCGGG
CGGCGGCGTCGACACGCGGGACGCCGAGATGCCGGCCACCGAGAAGGACCTGGCGGAGGACGCGCCGTGGAAGAA
GATCCAGCAGAACACTTTCACGCGCTGGTGCAACGAGCACCTGAAGTGCGTGAGCAAGCGCATCGCCAACCTGCA
GACGGACCTGAGCGACGGGCTGCGGCTTATCGCGCTGTTGGAGGTGCTCAGCCAGAAGAAGATGCACCGCAAGCA
CAACCAGCGGCCCACTTTCCGCCAAATGCAGCTTGAGAACGTGTCGGTGGCGCTCGAGTTCCTGGACCGCGAGAG
CATCAAACTGGTGTCCATCGACAGCAAGGCCATCGTGGACGGGAACCTGAAGCTGATCCTGGGCCTCATCTGGAC
CCTGATCCTGCACTACTCCATCTCCATGCCCATGTGGGACGAGGAGGAGGATGAGGAGGCCAAGAAGCAGACCCC
CAAGCAGAGGCTCCTGGGCTGGATCCAGAACAAGCTGCCGCAGCTGCCCATCACCAACTTCAGCCGGGACTGGCA
GAGCGGCCGGGCCCTGGGCGCCCTGGTGGACAGCTGTGCCCCGGGCCTGTGTCCTGACTGGGACTCTTGGGACGC
CAGCAAGCCCGTTACCAATGCGCGAGAGGCCATGCAGCAGGCGGATGACTGGCTGGGCATCCCCCAGGTGATCAC
CCCCGAGGAGATTGTGGACCCCAACGTGGACGAGCACTCTGTCATGACCTACCTGTCCCAGTTCCCCAAGGCCAA
GCTGAAGCCAGGGGCTCCCTTGCGGCCCAAACTGAACCCGAAGAAAGCCCGTGCCTACGGGCCAGGCATCGAGCC
CACAGGCAACATGGTGAAGAAGCGGGCAGAGTTCACTGTGGAGACCAGAAGTGCTGGCCAGGGAGAGGTGCTGGT
GTACGTGGAGGACCCGGCCGGACACCAGGAGGAGGCAAAAGTGACCGCCAATAACGACAAGAACCGCACCTTCTC
CGTCTGGTACGTCCCCGAGGTGACGGGGACTCATAAGGTTACTGTGCTCTTTGCTGGCCAGCACATCGCCAAGAG
CCCCTTCGAGGTGTACGTGGATAAGTCACAGGGTGACGCCAGCAAAGTGACAGCCCAAGGTCCCGGCCTGGAGCC
CAGTGGCAACATCGCCAACAAGACCACCTACTTTGAGATCTTTACGGCAGGAGCTGGCACGGGCGAGGTCGAGGT
TGTGATCCAGGACCCCATGGGACAGAAGGGCACGGTAGAGCCTCAGCTGGAGGCCCGGGGCGACAGCACATACCG
CTGCAGCTACCAGCCCACCATGGAGGGCGTCCACACCGTGCACGTCACGTTTGCCGGCGTGCCCATCCCTCGCAG
CCCCTACACTGTCACTGTTGGCCAAGCCTGTAACCCGAGTGCCTGCCGGGCGGTTGGCCGGGGCCTCCAGCCCAA
GGGTGTGCGGGTGAAGGAGACAGCTGACTTCAAGGTGTACACAAAGGGCGCTGGCAGTGGGGAGCTGAAGGTCAC
CGTGAAGGGCCCCAAGGGAGAGGAGCGCGTGAAGCAGAAGGACCTGGGGGATGGCGTGTATGGCTTCGAGTATTA
CCCCATGGTCCCTGGAACCTATATCGTCACCATCACGTGGGGTGGTCAGAACATCGGGCGCAGTCCCTTCGAAGT
GAAGGTGGGCACCGAGTGTGGCAATCAGAAGGTACGGGCCTGGGGCCCTGGGCTGGAGGGCGGCGTCGTTGGCAA
GTCAGCAGACTTTGTGGTGGAGGCTATCGGGGACGACGTGGGCACGCTGGGCTTCTCGGTGGAAGGGCCATCGCA
GGCTAAGATCGAATGTGACGACAAGGGCGACGGCTCCTGTGATGTGCGCTACTGGCCGCAGGAGGCTGGCGAGTA
TGCCGTTCACGTGCTGTGCAACAGCGAAGACATCCGCCTCAGCCCCTTCATGGCTGACATCCGTGACGCGCCCCA
GGACTTCCACCCAGACAGGGTGAAGGCACGTGGGCCTGGATTGGAGAAGACAGGTGTGGCCGTCAACAAGCCAGC
AGAGTTCACAGTGGATGCCAAGCACGGTGGCAAGGCCCCACTTCGGGTCCAAGTCCAGGACAATGAAGGCTGCCC
TGTGGAGGCGTTGGTCAAGGACAACGGCAATGGCACTTACAGCTGCTCCTACGTGCCCAGGAAGCCGGTGAAGCA
CACAGCCATGGTGTCCTGGGGAGGCGTCAGCATCCCCAACAGCCCCTTCAGGGTGAATGTGGGAGCTGGCAGCCA
CCCCAACAAGGTCAAAGTATACGGCCCCGGAGTAGCCAAGACAGGGCTCAAGGCCCACGAGCCCACCTACTTCAC
TGTGGACTGCGCCGAGGCTGGCCAGGGGGACGTCAGCATCGGCATCAAGTGTGCCCCTGGAGTGGTAGGCCCCGC
CGAAGCTGACATCGACTTCGACATCATCCGCAATGACAATGACACCTTCACGGTCAAGTACACGCCCCGGGGGGC
TGGCAGCTACACCATTATGGTCCTCTTTGCTGACCAGGCCACGCCCACCAGCCCCATCCGAGTCAAGGTGGAGCC
CTCTCATGACGCCAGTAAGGTGAAGGCCGAGGGCCCTGGCCTCAGTCGCACTGGTGTCGAGCTTGGCAAGCCCAC
CCACTTCACAGTAAATGCCAAAGCTGCTGGCAAAGGCAAGCTGGACGTCCAGTTCTCAGGACTCACCAAGGGGGA
TGCAGTGCGAGATGTGGACATCATCGACCACCATGACAACACCTACACAGTCAAGTACACGCCTGTCCAGCAGGG
TCCAGTAGGCGTCAATGTCACTTATGGAGGGGATCCCATCCCTAAGAGCCCTTTCTCAGTGGCAGTATCTCCAAG
CCTGGACCTCAGCAAGATCAAGGTGTCTGGCCTGGGAGAGAAGGTGGACGTTGGCAAAGACCAGGAGTTCACAGT
CAAATCAAAGGGTGCTGGTGGTCAAGGCAAAGTGGCATCCAAGATTGTGGGCCCCTCGGGTGCAGCGGTGCCCTG
CAAGGTGGAGCCAGGCCTGGGGGCTGACAACAGTGTGGTGCGCTTCCTGCCCCGTGAGGAAGGGCCCTATGAGGT
GGAGGTGACCTATGACGGCGTGCCCGTGCCTGGCAGCCCCTTTCCTCTGGAAGCTGTGGCCCCCACCAAGCCTAG
CAAGGTGAAGGCGTTTGGGCCGGGGCTGCAGGGAGGCAGTGCGGGCTCCCCCGCCCGCTTCACCATCGACACCAA
GGGCGCCGGCACAGGTGGCCTGGGCCTGACGGTGGAGGGCCCCTGTGAGGCGCAGCTCGAGTGCTTGGACAATGG
GGATGGCACATGTTCCGTGTCCTACGTGCCCACCGAGCCCGGGGACTACAACATCAACATCCTCTTCGCTGACAC

FIGURE 4306B

CCACATCCCTGGCTCCCCATTCAAGGCCCACGTGGTTCCCTGCTTTGACGCATCCAAAGTCAAGTGCTCAGGCCC
CGGGCTGGAGCGGGCCACCGCTGGGGAGGTGGGCCAATTCCAAGTGGACTGCTCGAGCGCGGGCAGCGCGGAGCT
GACCATTGAGATCTGCTCGGAGGCGGGGCTTCCGGCCGAGGTGTACATCCAGGACCACGGTGATGGCACGCACAC
CATTACCTACATTCCCCTCTGCCCCGGGGCCTACACCGTCACCATCAAGTACGGCGGCCAGCCCGTGCCCAACTT
CCCCAGCAAGCTGCAGGTGGAACCTGCGGTGGACACTTCCGGTGTCCAGTGCTATGGGCCTGGTATTGAGGGCCA
GGGTGTCTTCCGTGAGGCCACCACTGAGTTCAGTGTGGACGCCCGGGCTCTGACACAGACCGGAGGGCCGCACGT
CAAGGCCCGTGTGGCCAACCCCTCAGGCAACCTGACGGAGACCTACGTTCAGGACCGTGGCGATGGCATGTACAA
AGTGGAGTACACGCCTTACGAGGAGGGACTGCACTCCGTGGACGTGACCTATGACGGCAGTCCCGTGCCCAGCAG
CCCCTTCCAGGTGCCCGTGACCGAGGGCTGCGACCCCTCCCGGGTGCGTGTCCACGGGCCAGGCATCCAAAGTGG
CACCACCAACAAGCCCAACAAGTTCACTGTGGAGACCAGGGGAGCTGGCACGGGCGGCCTGGGCCTGGCTGTAGA
GGGCCCCTCCGAGGCCAAGATGTCCTGCATGGATAACAAGGACGGCAGCTGCTCGGTCGAGTACATCCCTTATGA
GGCTGGCACCTACAGCCTCAACGTCACCTATGGTGGCCATCAAGTGCCAGGCAGTCCTTTCAAGGTCCCTGTGCA
TGATGTGACAGATGCGTCCAAGGTCAAGTGCTCTGGGCCCGGCCTGAGCCCAGGCATGGTTCGTGCCAACCTCCC
TCAGTCCTTCCAGGTGGACACAAGCAAGGCTGGTGTGGCCCCATTGCAGGTCAAAGTGCAAGGGCCCAAAGGCCT
GGTGGAGCCAGTGGACGTGGTAGACAACGCTGATGGCACCCAGACCGTCAATTATGTGCCCAGCCGAGAAGGGCC
CTACAGCATCTCAGTACTGTATGGAGATGAAGAGGTACCCCGGAGCCCCTTCAAGGTCAAGGTGCTGCCTACTCA
TGATGCCAGCAAGGTGAAGGCCAGTGGCCCCGGGCTCAACACCACTGGCGTGCCTGCCAGCCTGCCCGTGGAGTT
CACCATCGATGCAAAGGACGCCGGGGAGGGCCTGCTGGCTGTCCAGATCACGGATCCCGAAGGCAAGCCGAAGAA
GACACACATCCAAGACAACCATGACGGCACGTATACAGTGGCCTACGTGCCAGACGTGACAGGTCGCTACACCAT
CCTCATCAAGTACGGTGGTGACGAGATCCCCTTCTCCCCGTACCGCGTGCGTGCCGTGCCCACCGGGGACGCCAG
CAAGTGCACTGTCACAGGTGCTGGCATCGGCCCCACCATTCAGATTGGGGAGGAGACGGTGATCACTGTGGACAC
TAAGGCGGCAGGCAAAGGCAAAGTGACGTGCACCGTGTGCACGCCTGATGGCTCAGAGGTGGATGTGGACGTGGT
GGAGAATGAGGACGGCACTTTCGACATCTTCTACACGGCCCCCCAGCCGGGCAAATACGTCATCTGTGTGCGCTT
TGGTGGCGAGCACGTGCCCAACAGCCCCTTCCAAGTGACGGCTCTGGCTGGGGACCAGCCCTCGGTGCAGCCCCC
TCTACGGTCTCAGCAGCTGGCCCCACAGTACACCTACGCCCAGGGCGGCCAGCAGACTTGGGCCCCGGAGAGGCC
CCTGGTGGGTGTCAATGGGCTGGATGTGACCAGCCTGAGGCCCTTTGACCTTGTCATCCCCTTCACCATCAAGAA
GGGCGAGATCACAGGGGAGGTTCGGATGCCCTCAGGCAAGGTGGCGCAGCCCACCATCACTGACAACAAAGACGG
CACCGTGACCGTGCGGTATGCACCCAGCGAGGCTGGCCTGCACGAGATGGACATCCGCTATGACAACATGCACAT
CCCAGGAAGCCCCTTGCAGTTCTATGTGGATTACGTCAACTGTGGCCATGTCACTGCCTATGGGCCTGGCCTCAC
CCATGGAGTAGTGAACAAGCCTGCCACCTTCACCGTCAACACCAAGGATGCAGGAGAGGGGGGCCTGTCTCTGGC
CATTGAGGGCCCGTCCAAAGCAGAAATCAGCTGCACTGACAACCAGGATGGGACATGCAGCGTGTCCTACCTGCC
TGTGCTGCCGGGGGACTACAGCATTCTAGTCAAGTACAATGAACAGCACGTCCCAGGCAGCCCCTTCACTGCTCG
GGTCACAGGTGACGACTCCATGCGTATGTCCCACCTAAAGGTCGGCTCTGCTGCCGACATCCCCATCAACATCTC
AGAGACGGATCTCAGCCTGCTGACGGCCACTGTGGTCCCGCCCTCGGGCCGGGAGGAGCCCTGTTTGCTGAAGCG
GCTGCGTAATGGCCACGTGGGGATTTCATTCGTGCCCAAGGAGACGGGGGAGCACCTGGTGCATGTGAAGAAAAA
TGGCCAGCACGTGGCCAGCAGCCCCATCCCGGTGGTGATCAGCCAGTCGGAAATTGGGGATGCCAGTCGTGTTCG
GGTCTCTGGTCAGGGCCTTCACGAAGGCCACACCTTTGAGCCTGCAGAGTTTATCATTGATACCCGCGATGCAGG
CTATGGTGGGCTCAGCCTGTCCATTGAGGGCCCCAGCAAGGTGGACATCAACACAGAGGACCTGGAGGACGGGAC
GTGCAGGGTCACCTACTGCCCCACAGAGCCAGGCAACTACATCATCAACATCAAGTTTGCCGACCAGCACGTGCC
TGGCAGCCCCTTCTCTGTGAAGGTGACAGGCGAGGGCCGGGTGAAAGAGAGCATCACCCGCAGGCGTCGGGCTCC
TTCAGTGGCCAACGTTGGTAGTCATTGTGACCTCAGCCTGAAAATCCCTGAAATTAGCATCCAGGATATGACAGC
CCAGGTGACCAGCCCATCGGGCAAGACCCATGAGGCCGAGATCGTGGAAGGGGAGAACCACACCTACTGCATCCG
CTTTGTTCCCGCTGAGATGGGCACACACACAGTCAGCGTGAAGTACAAGGGCCAGCACGTGCCTGGGAGCCCCTT
CCAGTTCACCGTGGGGCCCCTAGGGGAAGGGGGAGCCCACAAGGTCCGAGCTGGGGGCCCTGGCCTGGAGAGAGC
TGAAGCTGGAGTGCCAGCCGAATTCAGTATCTGGACCCGGGAAGCTGGTGCTGGAGGCCTGGCCATTGCTGTCGA
GGGCCCCAGCAAGGCTGAGATCTCTTTTGAGGACCGCAAGGACGGCTCCTGTGGTGTGGCTTATGTGGTCCAGGA
GCCAGGTGACTACGAAGTCTCAGTCAAGTTCAACGAGGAACACATTCCCGACAGCCCCTTCGTGGTGCCTGTGGC
TTCTCCGTCTGGCGACGCCCGCCGCCTCACTGTTTCTAGCCTTCAGGAGTCAGGGCTAAAGGTCAACCAGCCAGC

FIGURE 4306C

CTCTTTTGCAGTCAGCCTGAACGGGGCCAAGGGGGCGATCGATGCCAAGGTGCACAGCCCCTCAGGAGCCCTGGA
GGAGTGCTATGTCACAGAAATTGACCAAGATAAGTATGCTGTGCGCTTCATCCCTCGGGAGAATGGCGTTTACCT
GATTGACGTCAAGTTCAACGGCACCCACATCCCTGGAAGCCCCTTCAAGATCCGAGTTGGGGAGCCTGGGCATGG
AGGGGACCCAGGCTTGGTGTCTGCTTACGGAGCAGGTCTGGAAGGCGGTGTCACAGGGAACCCAGCTGAGTTCGT
CGTGAACACGAGCAATGCGGGAGCTGGTGCCCTGTCGGTGACCATTGACGGCCCCTCCAAGGTGAAGATGGATTG
CCAGGAGTGCCCTGAGGGCTACCGCGTCACCTATACCCCCATGGCACCTGGCAGCTACCTCATCTCCATCAAGTA
CGGCGGCCCCTACCACATTGGGGGCAGCCCCTTCAAGGCCAAAGTCACAGGCCCCCGTCTCGTCAGCAACCACAG
CCTCCACGAGACATCATCAGTGTTTGTAGACTCTCTGACCAAGGCCACCTGTGCCCCCCAGCATGGGGCCCCGGG
TCCTGGGCCTGCTGACGCCAGCAAGGTGGTGGCCAAGGGCCTGGGGCTGAGCAAGGCCTACGTAGGCCAGAAGAG
CAGCTTCACAGTAGACTGCAGCAAAGCAGGCAACAACATGCTGCTGGTGGGGGTTCATGGCCCAAGGACCCCCTG
CGAGGAGATCCTGGTGAAGCACGTGGGCAGCCGGCTCTACAGCGTGTCCTACCTGCTCAAGGACAAGGGGGAGTA
CACACTGGTGGTCAAATGGGGGGACGAGCACATCCCAGGCAGCCCCTACCGCGTTGTGGTGCCC**TGA**GTCTGGGG
CCCGTGCCAGCCGGCAGCCCCCAAGCCTGCCCCGCTACCCAAGCAGCCCCGCCCTCTTCCCCTCAACCCCGGCCC
AGGCCGCCCTGGCCGCCCGCCTGTCACTGCAGCCGCCCCTGCCCTGTGCCGTGCTGCGCTCACCTGCCTCCCCAG
CCAGCCGCTGACCTCTCGGCTTTCACTTGGGCAGAGGGAGCCATTTGGTGGCGCTGCTTGTCTTCTTTGGTTCTG
GGAGGGGTGAGGGATGGGGGTCCTGTACACAACCACCCACTAGTTCTCTTCTCCAGCCAAGAGGAATAAAGTTTT
GCTTCCATTC

FIGURE 4307A

CCGGAAAATGGCCGCCGCCGCCGCCGCCGCGCCGAGCGGAGGAGGAGGAGGAGGCGAGGAGGAGAGACTGCTCCA
TAAAAATACAGACTCACCAGTTCCTGCTTTGATGTGACATGTGACTCCCCAGAATACACCTTGCTTCTGTAGACC
AGCTCCAACAGGATTCC**ATG**GTAGCTGGGATGTTAGGGCTCAGGGAAGAAAAGTCAGAAGACCAGGACCTCCAGG
GCCTCAAGGACAAACCCCTCAAGTTTAAAAAGGTGAAGAAAGATAAGAAAGAAGAGAAAGAGGGCAAGCATGAGC
CCGTGCAGCCATCAGCCCACCACTCTGCTGAGCCCGCAGAGGCAGGCAAAGCAGAGACATCAGAAGGGTCAGGCT
CCGCCCCGGCTGTGCCGGAAGCTTCTGCCTCCCCCAAACAGCGGCGCTCCATCATCCGTGACCGGGGACCCATGT
ATGATGACCCCACCCTGCCTGAAGGCTGGACACGGAAGCTTAAGCAAAGGAAATCTGGCCGCTCTGCTGGGAAGT
ATGATGTGTATTTGATCAATCCCCAGGGAAAAGCCTTTCGCTCTAAAGTGGAGTTGATTGCGTACTTCGAAAAGG
TAGGCGACACATCCCTGGACCCTAATGATTTTGACTTCACGGTAACTGGGAGAGGGAGCCCCTCCCGGCGAGAGC
AGAAACCACCTAAGAAGCCCAAATCTCCCAAAGCTCCAGGAACTGGCAGAGGCCGGGGACGCCCCAAAGGGAGCG
GCACCACGAGACCCAAGGCGGCCACGTCAGAGGGTGTGCAGGTGAAAAGGGTCCTGGAGAAAAGTCCTGGGAAGC
TCCTTGTCAAGATGCCTTTTCAAACTTCGCCAGGGGGCAAGGCTGAGGGGGGTGGGGCCACCACATCCACCCAGG
TCATGGTGATCAAACGCCCCGGCAGGAAGCGAAAAGCTGAGGCCGACCCTCAGGCCATTCCCAAGAAACGGGGCC
GAAAGCCGGGGAGTGTGGTGGCAGCCGCTGCCGCCGAGGCCAAAAAGAAAGCCGTGAAGGAGTCTTCTATCCGAT
CTGTGCAGGAGACCGTACTCCCCATCAAGAAGCGCAAGACCCGGGAGACGGTCAGCATCGAGGTCAAGGAAGTGG
TGAAGCCCCTGCTGGTGTCCACCCTCGGTGAGAAGAGCGGGAAAGGACTGAAGACCTGTAAGAGCCCTGGGCGGA
AAAGCAAGGAGAGCAGCCCCAAGGGGCGCAGCAGCAGCGCCTCCTCACCCCCCAAGAAGGAGCACCACCACCATC
ACCACCACTCAGAGTCCCCAAAGGCCCCCGTGCCACTGCTCCCACCCCTGCCCCCACCTCCACCTGAGCCCGAGA
GCTCCGAGGACCCCACCAGCCCCCCTGAGCCCCAGGACTTGAGCAGCAGCGTCTGCAAAGAGGAGAAGATGCCCA
GAGGAGGCTCACTGGAGAGCGACGGCTGCCCCAAGGAGCCAGCTAAGACTCAGCCCGCGGTTGCCACCGCCGCCA
CGGCCGCAGAAAAGTACAAACACCGAGGGGAGGGAGAGCGCAAAGACATTGTTTCATCCTCCATGCCAAGGCCAA
ACAGAGAGGAGCCTGTGGACAGCCGGACGCCCGTGACCGAGAGAGTTAGC**TGA**CTTTACACGGAGCGGATTGCAA
AGCAAACCAACAAGAATAAAGGCAGCTGTTGTCTCTTCTCCTTATGGGTAGGGCTCTGACAAAGCTTCCCGATTA
ACTGAAATAAAAAATATTTTTTTTTCTTTCAGTAAACTTAGAGTTTCGTGGCTTCAGGGTGGGAGTAGTTGGAGC
ATTGGGGATGTTTTTCTTACCGACAAGCACAGTCAGGTTGAAGACCTAACCAGGGCCAGAAGTAGCTTTGCACTT
TTCTAAACTAGGCTCCTTCAACAAGGCTTGCTGCAGATACTACTGACCAGACAAGCTGTTGACCAGGCACCTCCC
CTCCCGCCCAAACCTTTCCCCCATGTGGTCGTTAGAGACAGAGCGACAGAGCAGTTGAGAGGACACTCCCGTTTT
CGGTGCCATCAGTGCCCCGTCTACAGCTCCCCCAGCTCCCCCCACCTCCCCCACTCCCAACCACGTTGGGACAGG
GAGGTGTGAGGCAGGAGAGACAGTTGGATTCTTTAGAGAAGATGGATATGACCAGTGGCTATGGCCTGTGCGATC
CCACCCGTGGTGGCTCAAGTCTGGCCCCACACCAGCCCCAATCCAAAACTGGCAAGGACGCTTCACAGGACAGGA
AAGTGGCACCTGTCTGCTCCAGCTCTGGCATGGCTAGGAGGGGGGAGTCCCTTGAACTACTGGGTGTAGACTGGC
CTGAACCACAGGAGAGGATGGCCCAGGGTGAGGTGGCATGGTCCATTCTCAAGGGACGTCCTCCAACGGGTGGCG
CTAGAGGCCATGGAGGCAGTAGGACAAGGTGCAGGCAGGCTGGCCTGGGGTCAGGCCGGGCAGAGCACAGCGGGG
TGAGAGGGATTCCTAATCACTCAGAGCAGTCTGTGACTTAGTGGACAGGGGAGGGGGCAAAGGGGGAGGAGAAGA
AAATGTTCTTCCAGTTACTTTCCAATTCTCCTTTAGGGACAGCTTAGAATTATTTGCACTATTGAGTCTTCATGT
TCCCACTTCAAAACAAACAGATGCTCTGAGAGCAAACTGGCTTGAATTGGTGACATTTAGTCCCTCAAGCCACCA
GATGTGACAGTGTTGAGAACTACCTGGATTTGTATATATACCTGCGCTTGTTTTAAAGTGGGCTCAGCACATAGG
GTTCCCACGAAGCTCCGAAACTCTAAGTGTTTGCTGCAATTTTATAAGGACTTCCTGATTGGTTTCTCTTCTCCC
CTTCCATTTCTGCCTTTTGTTCATTTCATCCTTTCACTTCTTTCCCTTCCTCCGTCCTCCTCCTTCCTAGTTCAT
CCCTTCTCTTCCAGGCAGCCGCGGTGCCCAACCACACTTGTCGGCTCCAGTCCCCAGAACTCTGCCTGCCCTTTG
TCCTCCTGCTGCCAGTACCAGCCCCACCCTGTTTTGAGCCCTGAGGAGGCCTTGGGCTCTGCTGAGTCCGACCTG
GCCTGTCTGTGAAGAGCAAGAGAGCAGCAAGGTCTTGCTCTCCTAGGTAGCCCCCTCTTCCCTGGTAAGAAAAAG
CAAAAGGCATTTCCCACCCTGAACAACGAGCCTTTTCACCCTTCTACTCTAGAGAAGTGGACTGGAGGAGCTGGG
CCCGATTTGGTAGTTGAGGAAAGCACAGAGGCCTCCTGTGGCCTGCCAGTCATCGAGTGGCCCAACAGGGGCTCC
ATGCCAGCCGACCTTGACCTCACTCAGAAGTCCAGAGTCTAGCGTAGTGCAGCAGGGCAGTAGCGGTACCAATGC
AGAACTCCCAAGACCCGAGCTGGGACCAGTACCTGGGTCCCCAGCCCTTCCTCTGCTCCCCCTTTTCCCTCGGAG
TTCTTCTTGAATGGCAATGTTTTGCTTTTGCTCGATGCAGACAGGGGGCCAGAACACCACACATTTCACTGTCTG
TCTGGTCCATAGCTGTGGTGTAGGGGCTTAGAGGCATGGGCTTGCTGTGGGTTTTTAATTGATCAGTTTTCATGT

FIGURE 4307B

GGGATCCCATCTTTTTAACCTCTGTTCAGGAAGTCCTTATCTAGCTGCATATCTTCATCATATTGGTATATCCTT
TTCTGTGTTTACAGAGATGTCTCTTATATCTAAATCTGTCCAACTGAGAAGTACCTTATCAAAGTAGCAAATGAG
ACAGCAGTCTTATGCTTCCAGAAACACCCACAGGCATGTCCCATGTGAGCTGCTGCCATGAACTGTCAAGTGTGT
GTTGTCTTGTGTATTTCAGTTATTGTCCCTGGCTTCCTTACTATGGTGTAATCATGAAGGAGTGAAACATCATAG
AAACTGTCTAGCACTTCCTTGCCAGTCTTTAGTGATCAGGAACCATAGTTGACAGTTCCAATCAGTAGCTTAAGA
AAAAACCGTGTTTGTCTCTTCTGGAATGGTTAGAAGTGAGGGAGTTTGCCCCGTTCTGTTTGTAGAGTCTCATAG
TTGGACTTTCTAGCATATATGTGTCCATTTCCTTATGCTGTAAAAGCAAGTCCTGCAACCAAACTCCCATCAGCC
CAATCCCTGATCCCTGATCCCTTCCACCTGCTCTGCTGATGACCCCCCCAGCTTCACTTCTGACTCTTCCCCAGG
AAGGGAAGGGGGGTCAGAAGAGAGGGTGAGTCCTCCAGAACTCTTCCTCCAAGGACAGAAGGCTCCTGCCCCCAT
AGTGGCCTCGAACTCCTGGCACTACCAAAGGACACTTATCCACGAGAGCGCAGCATCCGACCAGGTTGTCACTGA
GAAGATGTTTATTTTGGTCAGTTGGGTTTTTATGTATTATACTTAGTCAAATGTAATGTGGCTTCTGGAATCATT
GTCCAGAGCTGCTTCCCCGTCACCTGGGCGTCATCTGGTCCTGGTAAGAGGAGTGCGTGGCCCACCAGGCCCCCC
TGTCACCCATGACAGTTCATTCAGGGCCGATGGGGCAGTCGTGGTTGGGAACACAGCATTTCAAGCGTCACTTTA
TTTCATTCGGGCCCCACCTGCAGCTCCCTCAAAGAGGCAGTTGCCCAGCCTCTTTCCCTTCCAGTTTATTCCAGA
GCTGCCAGTGGGGCCTGAGGCTCCTTAGGGTTTTCTCTCTATTTCCCCCTTTCTTCCTCATTCCCTCGTCTTTCC
CAAAGGCATCACGAGTCAGTCGCCTTTCAGCAGGCAGCCTTGGCGGTTTATCGCCCTGGCAGGCAGGGGCCCTGC
AGCTCTCATGCTGCCCCTGCCTTGGGGTCAGGTTGACAGGAGGTTGGAGGGAAAGCCTTAAGCTGCAGGATTCTC
ACCAGCTGTGTCCGGCCCAGTTTTGGGGTGTGACCTCAATTTCAATTTTGTCTGTACTTGAACATTATGAAGATG
GGGGCCTCTTTCAGTGAATTTGTGAACAGCAGAATTGACCGACAGCTTTCCAGTACCCATGGGGCTAGGTCATTA
AGGCCACATCCACAGTCTCCCCCACCCTTGTTCCAGTTGTTAGTTACTACCTCCTCTCCTGACAATACTGTATGT
CGTCGAGCTCCCCCCAGGTCTACCCCTCCCGGCCCTGCCTGCTGGTGGGCTTGTCATAGCCAGTGGGATTGCCGG
TCTTGACAGCTCAGTGAGCTGGAGATACTTGGTCACAGCCAGGCGCTAGCACAGCTCCCTTCTGTTGATGCTGTA
TTCCCATATCAAAAGACACAGGGGACACCCAGAAACGCCACATCCCCCAATCCATCAGTGCCAAACTAGCCAACG
GCCCCAGCTTCTCAGCTCGCTGGATGGCGGAAGCTGCTACTCGTGAGCGCCAGTGCGGGTGCAGACAATCTTCTG
TTGGGTGGCATCATTCCAGGCCCGAAGCATGAACAGTGCACCTGGGACAGGGAGCAGCCCCAAATTGTCACCTGC
TTCTCTGCCCAGCTTTTCATTGCTGTGACAGTGATGGCGAAAGAGGGTAATAACCAGACACAAACTGCCAAGTTG
GGTGGAGAAAGGAGTTTCTTTAGCTGACAGAATCTCTGAATTTTAAATCACTTAGTAAGCGGCTCAAGCCCAGGA
GGGAGCAGAGGGATACGAGCGGAGTCCCCTGCGCGGGACCATCTGGAATTGGTTTAGCCCAAGTGGAGCCTGACA
GCCAGAACTCTGTGTCCCCCGTCTAACCACAGCTCCTTTTCCAGAGCATTCCAGTCAGGCTCTCTGGGCTGACTG
GGCCAGGGGAGGTTACAGGTACCAGTTCTTTAAGAAGATCTTTGGGCATATACATTTTTAGCCTGTGTCATTGCC
CCAAATGGATTCCTGTTTCAAGTTCACACCTGCAGATTCTAGGACCTGTGTCCTAGACTTCAGGGAGTCAGCTGT
TTCTAGAGTTCCTACCATGGAGTGGGTCTGGAGGACCTGCCCGGTGGGGGGGCAGAGCCCTGCTCCCTCCGGGTC
TTCCTACTCTTCTCTCTGCTCTGACGGGATTTGTTGATTCTCTCCATTTTGGTGTCTTTCTCTTTTAGATATTGT
ATCAATCTTTAGAAAAGGCATAGTCTACTTGTTATAAATCGTTAGGATACTGCCTCCCCCAGGGTCTAAAATTAC
ATATTAGAGGGGAAAAGCTGAACACTGAAGTCAGTTCTCAACAATTTAGAAGGAAAACCTAGAAAACATTTGGCA
GAAAATTACATTTCGATGTTTTTGAATGAATACGAGCAAGCTTTTACAACAGTGCTGATCTAAAAATACTTAGCA
CTTGGCCTGAGATGCCTGGTGAGCATTACAGGCAAGGGGAATCTGGAGGTAGCCGACCTGAGGACATGGCTTCTG
AACCTGTCTTTTGGGAGTGGTATGGAAGGTGGAGCGTTCACCAGTGACCTGGAAGGCCCAGCACCACCCTCCTTC
CCACTCTTCTCATCTTGACAGAGCCTGCCCCAGCGCTGACGTGTCAGGAAAACACCCAGGGAACTAGGAAGGCAC
TTCTGCCTGAGGGGCAGCCTGCCTTGCCCACTCCTGCTCTGCTCGCCTCGGATCAGCTGAGCCTTCTGAGCTGGC
CTCTCACTGCCTCCCCAAGGCCCCCTGCCTGCCCTGTCAGGAGGCAGAAGGAAGCAGGTGTGAGGGCAGTGCAAG
GAGGGAGCACAACCCCCAGCTCCCGCTCCGGGCTCCGACTTGTGCACAGGCAGAGCCCAGACCCTGGAGGAAATC
CTACCTTTGAATTCAAGAACATTTGGGGAATTTGGAAATCTCTTTGCCCCCAAACCCCCATTCTGTCCTACCTTT
AATCAGGTCCTGCTCAGCAGTGAGAGCAGATGAGGTGAAAAGGCCAAGAGGTTTGGCTCCTGCCCACTGATAGCC
CCTCTCCCCGCAGTGTTTGTGTGTCAAGTGGCAAAGCTGTTCTTCCTGGTGACCCTGATTATATCCAGTAACACA
TAGACTGTGCGCATAGGCCTGCTTTGTCTCCTCTATCCTGGGCTTTTGTTTTGCTTTTTAGTTTTGCTTTTAGTT
TTTCTGTCCCTTTTATTTAACGCACCGACTAGACACACAAAGCAGTTGAATTTTTATATATATATCTGTATATTG
CACAATTATAAACTCATTTTGCTTGTGGCTCCACACACACAAAAAAAGACCTGTTAAAATTATACCTGTTGCTTA

FIGURE 4307C

ATTACAATATTTCTGATAACCATAGCATAGGACAAGGGAAAATAAAAAAAGAAAAAAAAGAAAAAAAAACGACAA
ATCTGTCTGCTGGTCACTTCTTCTGTCCAAGCAGATTCGTGGTCTTTTCCTCGCTTCTTTCAAGGGCTTTCCTGT
GCCAGGTGAAGGAGGCTCCAGGCAGCACCCAGGTTTTGCACTCTTGTTTCTCCCGTGCTTGTGAAAGAGGTCCCA
AGGTTCTGGGTGCAGGAGCGCTCCCTTGACCTGCTGAAGTCCGGAACGTAGTCGGCACAGCCTGGTCGCCTTCCA
CCTCTGGGAGCTGGAGTCCACTGGGGTGGCCTGACTCCCCCAGTCCCCTTCCCGTGACCTGGTCAGGGTGAGCCC
ATGTGGAGTCAGCCTCGCAGGCCTCCCTGCCAGTAGGGTCCGAGTGTGTTTCATCCTTCCCACTCTGTCGAGCCT
GGGGGCTGGAGCGGAGACGGGAGGCCTGGCCTGTCTCGGAACCTGTGAGCTGCACCAGGTAGAACGCCAGGGACC
CCAGAATCATGTGCGTCAGTCCAAGGGGTCCCCTCCAGGAGTAGTGAAGACTCCAGAAATGTCCCTTTCTTCTCC
CCCATCCTACGAGTAATTGCATTTGCTTTTGTAATTCTTAATGAGCAATATCTGCTAGAGAGTTTAGCTGTAACA
GTTCTTTTTGATCATCTTTTTTTAATAATTAGAAACACCAAAAAAATCCAGAAACTTGTTCTTCCAAAGCAGAGA
GCATTATAATCACCAGGGCCAAAAGCTTCCCTCCCTGCTGTCATTGCTTCTTCTGAGGCCTGAATCCAAAAGAAA
AACAGCCATAGGCCCTTTCAGTGGCCGGGCTACCCGTGAGCCCTTCGGAGGACCAGGGCTGGGGCAGCCTCTGGG
CCCACATCCGGGGCCAGCTCCGGCGTGTGTTCAGTGTTAGCAGTGGGTCATGATGCTCTTTCCCACCCAGCCTGG
GATAGGGGCAGAGGAGGCGAGGAGGCCGTTGCCGCTGATGTTTGGCCGTGAACAGGTGGGTGTCTGCGTGCGTCC
ACGTGCGTGTTTTCTGACTGACATGAAATCGACGCCCGAGTTAGCCTCACCCGGTGACCTCTAGCCCTGCCCGGA
TGGAGCGGGGCCCACCCGGTTCAGTGTTTCTGGGGAGCTGGACAGTGGAGTGCAAAAGGCTTGCAGAACTTGAAG
CCTGCTCCTTCCCTTGCTACCACGGCCTCCTTTCCGTTTGATTTGTCACTGCTTCAATCAATAACAGCCGCTCCA
GAGTCAGTAGTCAATGAATATATGACCAAATATCACCAGGACTGTTACTCAATGTGTGCCGAGCCCTTGCCCATG
CTGGGCTCCCGTGTATCTGGACACTGTAACGTGTGCTGTGTTTGCTCCCCTTCCCCTTCCTTCTTTGCCCTTTAC
TTGTCTTTCTGGGGTTTTTCTGTTTGGGTTTGGTTTGGTTTTTATTTCTCCTTTTGTGTTCCAAACATGAGGTTC
TCTCTACTGGTCCTCTTAACTGTGGTGTTGAGGCTTATATTTGTGTAATTTTTGGTGGGTGAAAGGAATTTTGCT
AAGTAAATCTCTTCTGTGTTTGAACTGAAGTCTGTATTGTAACTATGTTTAAAGTAATTGTTCCAGAGACAAATA
TTTCTAGACACTTTTTCTTTACAAACAAAAGCATTCGGAGGGAGGGGGATGGTGACTGAGATGAGAGGGGAGAGC
TGAACAGATGACCCCTGCCCAGATCAGCCAGAAGCCACCCAAAGCAGTGGAGCCCAGGAGTCCCACTCCAAGCCA
GCAAGCCGAATAGCTGATGTGTTGCCACTTTCCAAGTCACTGCAAAACCAGGTTTTGTTCCGCCCAGTGGATTCT
TGTTTTGCTTCCCCTCCCCCCGAGATTATTACCACCATCCCGTGCTTTTAAGGAAAGGCAAGATTGATGTTTCCT
TGAGGGGAGCCAGGAGGGGATGTGTGTGTGCAGAGCTGAAGAGCTGGGGAGAATGGGGCTGGGCCCACCCAAGCA
GGAGGCTGGGACGCTCTGCTGTGGGCACAGGTCAGGCTAATGTTGGCAGATGCAGCTCTTCCTGGACAGGCCAGG
TGGTGGGCATTCTCTCTCCAAGGTGTGCCCCGTGGGCATTACTGTTTAAGACACTTCCGTCACATCCCACCCCAT
CCTCCAGGGCTCAACACTGTGACATCTCTATTCCCCACCCTCCCCTTCCCAGGGCAATAAAATGACCATGGAGGG
GGCTTGCACTCTCTTGGCTGTCACCCGATCGCCAGCAAAACTTAGATGTGAGAAAACCCCTTCCCATTCCATGGC
GAAAACATCTCCTTAGAAAAGCCATTACCCTCATTAGGCATGGTTTTGGGCTCCCAAAACACCTGACAGCCCCTC
CCTCCTCTGAGAGGCGGAGAGTGCTGACTGTAGTGACCATTGCATGCCGGGTGCAGCATCTGGAAGAGCTAGGCA
GGGTGTCTGCCCCCTCCTGAGTTGAAGTCATGCTCCCCTGTGCCAGCCCAGAGGCCGAGAGCTATGGACAGCATT
GCCAGTAACACAGGCCACCCTGTGCAGAAGGGAGCTGGCTCCAGCCTGGAAACCTGTCTGAGGTTGGGAGAGGTG
CACTTGGGGCACAGGGAGAGGCCGGGACACACTTAGCTGGAGATGTCTCTAAAAGCCCTGTATCGTATTCACCTT
CAGTTTTTGTGTTTTGGGACAATTACTTTAGAAAATAAGTAGGTCGTTTTAAAAACAAAAATTATTGATTGCTTT
TTTGTAGTGTTCAGAAAAAAGGTTCTTTGTGTATAGCCAAATGACTGAAAGCACTGATATATTTAAAAACAAAAG
GCAATTTATTAAGGAAATTTGTACCATTTCAGTAAACCTGTCTGAATGTACCTGTATACGTTTCAAAAACACCCC
CCCCCCACTGAATCCCTGTAACCTATTTATTATATAAAGAGTTTGCCTTATAAATTT

FIGURE 4308

CGCGGACCCGGCCGGCCCAGGCCCGCGCCCGCCGCGGCCCTGAGAGGCCCCGGCAGGTCCCGGCCCGGCGGCGGC
AGCC**ATG**GCCGGGGGGCCGGGCCCGGGGGAGCCCGCAGCCCCCGGCGCCCAGCACTTCTTGTACGAGGTGCCGCC
CTGGGTCATGTGCCGCTTCTACAAAGTGATGGACGCCCTGGAGCCCGCCGACTGGTGCCAGTTCGCCGCCCTGAT
CGTGCGCGACCAGACCGAGCTGCGGCTGTGCGAGCGCTCCGGGCAGCGCACGGCCAGCGTCCTGTGGCCCTGGAT
CAACCGCAACGCCCGTGTGGCCGACCTCGTGCACATCCTCACGCACCTGCAGCTGCTCCGTGCGCGGGACATCAT
CACAGCCTGGCACCCTCCCGCCCCGCTTCCGTCCCCAGGCACCACTGCCCCGAGGCCCAGCAGCATCCCTGCACC
CGCCGAGGCCGAGGCCTGGAGCCCCCGGAAGTTGCCATCCTCAGCCTCCACCTTCCTCTCCCCAGCTTTTCCAGG
CTCCCAGACCCATTCAGGGCCTGAGCTCGGCCTGGTCCCAAGCCCTGCTTCCCTGTGGCCTCCACCGCCATCTCC
AGCCCCTTCTTCTACCAAGCCAGGCCCAGAGAGCTCAGTGTCCCTCCTGCAGGGAGCCCGCCCCTTTCCGTTTTG
CTGGCCCCTCTGTGAGATTTCCCGGGGCACCCACAACTTCTCGGAGGAGCTCAAGATCGGGGAGGGTGGCTTTGG
GTGCGTGTACCGGGCGGTGATGAGGAACACGGTGTATGCTGTGAAGAGGCTGAAGGAGAACGCTGACCTGGAGTG
GACTGCAGTGAAGCAGAGCTTCCTGACCGAGGTGGAGCAGCTGTCCAGGTTTCGTCACCCAAACATTGTGGACTT
TGCTGGCTACTGTGCTCAGAACGGCTTCTACTGCCTGGTGTACGGCTTCCTGCCCAACGGCTCCCTGGAGGACCG
TCTCCACTGCCAGACCCAGGCCTGCCCACCTCTCTCCTGGCCTCAGCGACTGGACATCCTTCTGGGTACAGCCCG
GGCAATTCAGTTTCTACATCAGGACAGCCCCAGCCTCATCCATGGAGACATCAAGAGTTCCAACGTCCTTCTGGA
TGAGAGGCTGACACCCAAGCTGGGAGACTTTGGCCTGGCCCGGTTCAGCCGCTTTGCCGGGTCCAGCCCCAGCCA
GAGCAGCATGGTGGCCCGGACACAGACAGTGCGGGGCACCCTGGCCTACCTGCCCGAGGAGTACATCAAGACGGG
AAGGCTGGCTGTGGACACGGACACCTTCAGCTTTGGGGTGGTAGTGCTAGAGACCTTGGCTGGTCAGAGGGCTGT
GAAGACGCACGGTGCCAGGACCAAGTATCTGAAAGACCTGGTGGAAGAGGAGGCTGAGGAGGCTGGAGTGGCTTT
GAGAAGCACCCAGAGCACACTGCAAGCAGGTCTGGCTGCAGATGCCTGGGCTGCTCCCATCGCCATGCAGATCTA
CAAGAAGCACCTGGACCCCAGGCCCGGGCCCTGCCCACCTGAGCTGGGCCTGGGCCTGGGCCAGCTGGCCTGCTG
CTGCCTGCACCGCCGGGCCAAAAGGAGGCCTCCTATGACCCAGGTGTACGAGAGGCTAGAGAAGCTGCAGGCAGT
GGTGGCGGGGGTGCCCGGGCATTCGGAGGCCGCCAGCTGCATCCCCCCTTCCCCGCAGGAGAACTCCTACGTGTC
CAGCACTGGCAGAGCCCACAGTGGGGCTGCTCCATGGCAGCCCCTGGCAGCGCCATCAGGAGCCAGTGCCCAGGC
AGCAGAGCAGCTGCAGAGAGGCCCCAACCAGCCCGTGGAGAGTGACGAGAGCCTAGGCGGCCTCTCTGCTGCCCT
GCGCTCCTGGCACTTGACTCCAAGCTGCCCTCTGGACCCAGCACCCCTCAGGGAGGCCGGCTGTCCTCAGGGGGA
CACGGCAGGAGAATCGAGCTGGGGGAGTGGCCCAGGATCCCGGCCCACAGCCGTGGAAGGACTGGCCCTTGGCAG
CTCTGCATCATCGTCGTCAGAGCCACCGCAGATTATCATCAACCCTGCCCGACAGAAGATGGTCCAGAAGCTGGC
CCTGTACGAGGATGGGGCCCTGGACAGCCTGCAGCTGCTGTCGTCCAGCTCCCTCCCAGGCTTGGGCCTGGAACA
GGACAGGCAGGGGCCCGAAGAAAGTGATGAATTTCAGAGC**TGA**TGTGTTCACCTGGGCAGATCCCCCAAATCCGG
AAGTCAAAGTTCTCATGGTCAGAAGTTCTCATGGTGCACGAGTCCTCAGCACTCTGCCGGCAGTGGGGGTGGGGG
CCCATGCCCGCGGGGGAGAGAAGGAGGTGGCCCTGCTGTTCTAGGCTCTGTGGGCATAGGCAGGCAGAGTGGAAC
CCTGCCTCCATGCCAGCATCTGGGGGCAAGGAAGGCTGGCATCATCCAGTGAGGAGGCTGGCGCATGTTGGGAGG
CTGCTGGCTGCACAGACCCGTGAGGGGAGGAGAGGGGCTGCTGTGCAGGGGTGTGGAGTAGGGAGCTGGCTCCCC
TGAGAGCCATGCAGGGCGTCTGCAGCCCAGGCCTCTGGCAGCAGCTCTTTGCCCATCTCTTTGGACAGTGGCCAC
CCTGCACAATGGGGCCGACGAGGCCTAGGGCCCTCCTACCTGCTTACAATTTGGAAAAGTGTGGCCGGGTGCGGT
GGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGCAGGAGGATCGCTGGAGCCCAGTAGGTCAAGACCAG
CCAGGGCAACATGATGAGACCCTGTCTCTGCCAAAAAATTTTTTAAACTATTAGCCTGGCGTGGTAGCGCACGCC
TGTGGTCCCAGCTGCTGGGGAGGCTGAAGTAGGAGGATCATTTATGCTTGGGAGGTCGAGGCTGCAGTGAGTCAT
GATTGTATGACTGCACTCCAGCCTGGGTGACAGAGCAAGACCCTGTTTCAAAAAGAAAAACCCTGGGAAAAGTGA
AGTATGGCTGTAAGTCTCATGGTTCAGTCCTAGCAAGAAGCGAGAATTCTGAGATCCTCCAGAAAGTCGAGCAGC
ACCCACCTCCAACCTCGGGCCAGTGTCTTCAGGCTTTACTGGGGACCTGCGAGCTGGCCTAATGTGGTGGCCTGC
AAGCCAGGCCATCCCTGGGCGCCACAGACGAGCTCCGAGCCAGGTCAGGCTTCGGAGGCCACAAGCTCAGCCTCA
GGCCCAGGCACTGATTGTGGCAGAGGGGCCACTACCCAAGGTCTAGCTAGGCCCAAGACCTAGTTACCCAGACAG
TGAGAAGCCCCTGGAAGGCAGAAAAGTTGGGAGCATGGCAGACAGGGAAGGGAAACATTTTCAGGGAAAAGACAT
GTATCACATGTCTTCAGAAGCAAGTCAGGTTTCATGTAACCGAGTGTCCTCTTGCGTGTCCAAAAGTAGCCCAGG
GCTGTAGCACAGGCTTCACAGTGATTTTGTGTTCAGCCGTGAGTCACACTACATGCCCCCGTGAAGCTGGGCATT
GGTGACGTCCAGGTTGTCCTTGAGTAATAAAAACGTATGTT

FIGURE 4309

GAATTTCCCCCAGCGAGGCGAGTGAGGCGAAATACCCGTATGGTGATAGCTGGCCTTTTCGCGCCAATACTGAAA
AAGGCAGAACGTTCCTCCGCTGGCGCCAGCCAATCAGCAGGACTCCTGCCTTCCTTCGGGGCAAGGTCGCAGCAT
CTGCCTCGGAAATCACGAAATCACGGGGCTTCTTTCTGCTGGCTCAGCCGGGAGGCCCAGAGTGTTCTGCAGAGG
CTGCGTATTGAAGGCTGCTCTCTGAAGCTCCCTGCCCCAGGTCACGCCGCCGGTTCCAG**ATG**AATCCAGAGTGGG
GGCAGGCCTTCGTGCACGTGGCCGTGGCCGGTGGCCTCTGTGCCGTGGCTGTGTTCACGGGCATTTTCGACAGTG
TTTCCGTGCAAGTGGGCTATGAGCACTACGCCGAGGCGCCCGTGGCCGGCCTCCCTGCCTTCCTGGCCATGCCGT
TCAACTCACTCGTGAACATGGCCTACACGCTGCTGGGGCTGTCGTGGCTGCACAGGGGCGGCGCGATGGGGCTGG
GTCCCCGCTACCTGAAGGACGTGTTCGCAGCCATGGCCCTGCTCTATGGCCCCGTGCAGTGGCTGCGCCTGTGGA
CGCAGTGGCGCCGTGCCGCGGTGCTGGACCAGTGGCTCACACTGCCCATCTTTGCATGGCCCGTGGCCTGGTGCC
TCTACCTAGACCGCGGCTGGCGGCCCTGGCTGTTCCTCTCTCTTGAGTGCGTCTCCCTGGCCAGTTATGGCCTCG
CTCTGCTGCATCCCCAGGGCTTCGAGGTCGCACTGGGTGCTCACGTGGTGGCCGCTGTGGGGCAGGCGCTGCGCA
CCCACAGGCACTATGGCAGCACCACCTCGGCTACCTACTTAGCTTTGGGGGTGCTCTCTTGCCTGGGCTTTGTGG
TCCTCAAGCTGTGTGACCATCAGCTCGCACGGTGGCGTCTCTTCCAGTGCCTCACAGGCCACTTCTGGTCCAAGG
TCTGTGACGTGCTCCAGTTCCACTTTGCGTTTTTGTTTCTGACGCATTTCAACACTCACCCAAGATTCCATCCCT
CTGGCGGGAAGACGCGT**TGA**ACCCAGGGAAGAACCTGCTGAAAACCGATGACCCCCAGCATTGAAATGGACTCTG
AGATGGCAGCGTGGTGCCAGTGTCAGACATCCTGTGTGTGATGATATGCACTGATCACACAAGACTGCCCTTTCC
TGAGAAGCTGCGGGCTTCGGTGTGGAGGGGTGGAGTGCTGTGATCTCGACAACTTACTTTCAAAGACATAAAGCA
CAGATCTCCGCACAGGGGATGTGTGTGTTCCTGATGTAATTTGCATAACTTTTCTGTAGTTTGAAATGTTTCCAA
ATAAATATTGGCAAGGGGAGTGGAAATGACACCAAGAAGCCCCTCATGCTCATGGTTGGAC

FIGURE 4310A

AGGGAGGAGGCATGAGCGCCCTGCCGTTACCGCTTCTTCTGCCGTACAGTTGCCGCTTCGGGGCCTAACTCTAGC
TCTTTGAAGCGGCTCCTGTGGGAAGGAGTCATAAGGCGGGAAGTGAGGATCGGACACCGCCTTGAGTTTGGTGTG
CAGTGGAAGAACTGACCTAGGAGGAAGAGAATAGGGGGGAACGGGGAGCTAGTCTCAAGATGGCGGCTCCCACGG
CGGCAGGCGCAGCCTGAGCAGCAGAGGCGGACTAAGGGGAGAGGCGCGAGACTTCACAAGCCGTACGGCGCGAGC
CCCCAAACGGCCCTCGAGAGCTCGAGCTGGTTCCACCGGCCTCCGGCCCGCCTCCATTCGTTAGGTGTGTCGAGG
CTGTTTCGGGAGCGGCGGCTGCACTAAGGCGCTGGGCGGGGAAGCGGGACGGTCTCAAGATGGCGGCTCCCACAA
TTGTGGTCTGAGCGCCGGCGGGGCTGCGACGACCGCGGCGCTTGTGGCTCCTTTCCACCCGCCCCGGAAGCCGGC
CAGTGCTGGGGACTTGGGGGTGTGGGAACCGGGCCGGGGCTCCGCCATTTCCGGCGGGGGAGGGCTACGACTGAG
GAAGGGAGGAGAGAGAGGCGGCTCAAGATGGCGGCTCCCAGGGCCTCCCGCCCGAGCTTGTAAGCGGGAGCGCCC
GGACAAGTAGTCGGGGCGACGGGACTCAGCGGCCTCCAGCTTCTTGAGCCTAGGCGCTCGACAGTTTCGGGCGGC
TCTTGCGGAGACGGGGTGAGCGAGAAGAAAGGGAAGAGCCAAAGGGAAGGAGGGCAGTTAAGATGGCGGCCTCCA
TGGAGTCGTCTACCGCTGTGTGAGAAACCGCTTCTCCGTGAGAGCTGCCTTAGACGAAAGGGGGTGTGTGAAAGG
AATTGAGGGGCTCCCTTCCCGCTTGTTGACTTCTCCCCACCGCACCCTTTCCCGGAACT**ATG**GCTTCGGCCGTGT
CGCCCGCCAACTTGCCAGCGGTGCTTCTGCAGCCCCGCTGGAAGCGAGTGGTGGGCTGGTCGGGTCCGGTGCCAC
GGCCCCGCCACGGCCACCGCGCCGTGGCCATCAAGGAGCTCATCGTGGTGTTTGGCGGCGGCAACGAGGGAATAG
TGGACGAACTGCACGTGTACAACACGGCAACCAACCAGTGGTTCATCCCAGCCGTGAGGGGGGACATTCCCCCTG
GGTGTGCAGCCTATGGCTTCGTGTGTGACGGGACTCGCCTCCTGGTGTTTGGTGGGATGGTGGAGTATGGGAAAT
ACAGCAATGACCTCTACGAACTCCAGGCGAGCCGGTGGGAGTGGAAGAGACTCAAAGCAAAGACGCCCAAAAACG
GGCCCCCTCCGTGTCCTCGACTCGGGCACAGCTTCTCCCTTGTGGGCAACAAATGCTACCTGTTTGGGGGTCTGG
CCAATGATAGCGAGGACCCAAAGAACAACATTCCAAGGTACCTGAATGACTTATATATCCTGGAATTACGGCCAG
GCTCTGGAGTGGTAGCCTGGGACATTCCCATCACTTACGGGGTCCTACCACCACCCCGGGAGTCACATACTGCCG
TGGTCTACACCGAAAAAGACAATAAGAAGTCCAAGCTGGTGATCTACGGCGGGATGAGTGGCTGCAGGCTGGGGG
ACCTGTGGACCCTAGATATTGACACCCTGACGTGGAATAAGCCCAGTCTCAGCGGGGTGGCGCCTCTTCCTCGCA
GTCTCCACTCGGCAACCACCATCGGAAATAAAATGTACGTGTTTGGTGGCTGGGTGCCTCTCGTCATGGATGACG
TCAAAGTGGCCACACACGAGAAGGAGTGGAAGTGTACCAACACGCTGGCTTGTCTCAACCTGGATACCATGGCCT
GGGAGACCATCCTGATGGATACACTGGAGGACAACATCCCCCGTGCTCGGGCTGGCCACTGCGCAGTCGCCATCA
ACACCCGCCTGTACATTTGGAGTGGGCGTGACGGCTACCGCAAGGCCTGGAACAACCAGGTCTGCTGCAAGGACC
TCTGGTACCTAGAGACAGAAAAGCCACCACCCCCAGCCCGAGTACAACTGGTACGCGCCAACACCAACTCCCTGG
AGGTGAGCTGGGGGGCAGTGGCAACAGCCGACAGCTACCTTCTCCAGCTCCAGAAATATGACATTCCTGCCACGG
CTGCTACTGCCACCTCCCCTACACCCAATCCGGTCCCATCTGTGCCTGCCAACCCTCCCAAGAGCCCTGCCCCAG
CAGCAGCCGCACCTGCTGTGCAGCCGCTGACCCAAGTAGGCATCACGCTCCTGCCCCAGGCTGCCCCCGCACCCC
CGACCACCACCACCATCCAGGTCTTGCCAACGGTGCCTGGCAGCTCCATTTCTGTGCCCACCGCAGCCAGGACTC
AAGGTGTCCCTGCTGTTCTCAAAGTGACCGGTCCTCAGGCTACAACAGGAACTCCATTGGTCACCATGCGACCTG
CCAGCCAGGCTGGGAAAGCCCCTGTCACCGTGACCTCCCTTCCCGCCGGAGTGCGGATGGTTGTGCCAACACAGA
GTGCCCAGGGAACGGTGATTGGCAGTAGCCCACAGATGAGTGGGATGGCCGCACTGGCCGCTGCGGCCGCTGCCA
CCCAGAAGATCCCCCCTTCCTCGGCACCCACGGTGCTGAGTGTCCCAGCGGGTACCACCATCGTGAAGACCATGG
CTGTGACACCTGGCACTACCACCCTCCCAGCCACTGTGAAGGTGGCCTCCTCGCCAGTCATGGTGAGCAACCCTG
CCACTCGCATGCTGAAGACTGCAGCCGCCCAGGTGGGGACATCGGTTTCCTCCGCCACCAACACGTCTACCCGCC
CTATCATCACAGTGCACAAGTCAGGCACTGTGACAGTGGCCCAGCAAGCCCAGGTGGTGACCACAGTTGTGGGCG
GGGTCACCAAGACCATCACCCTGGTGAAGAGCCCCATCTCTGTCCCAGGAGGCAGTGCTCTGATTTCCAATCTGG
GCAAAGTGATGTCGGTGGTCCAGACCAAACCAGTTCAGACTTCAGCAGTCACAGGCCAGGCGTCCACGGGTCCTG
TGACTCAGATCATCCAGACCAAAGGGCCCCTGCCAGCGGGAACAATCCTGAAGCTGGTGACCTCAGCAGATGGCA
AGCCCACCACCATCATCACTACCACGCAGGCCAGTGGGGCGGGGACCAAGCCCACCATCCTGGGCATCAGCAGCG
TCTCCCCCAGTACCACCAAGCCCGGCACGACCACCATCATCAAAACCATCCCCATGTCGGCCATCATCACCCAGG
CGGGCGCCACGGGTGTGACCAGCAGTCCTGGCATCAAGTCCCCCATCACCATCATCACCACCAAGGTGATGACTT
CAGGAACTGGAGCACCTGCGAAAATCATCACTGCTGTCCCCAAAATTGCCACTGGCCACGGGCAGCAGGGAGTGA
CCCAGGTGGTGCTTAAGGGGGCCCCGGGACAGCCAGGCACCATCCTCCGCACTGTGCCCATGGGGGGTGTTCGCC
TGGTCACACCCGTCACCGTCTCCGCCGTCAAGCCAGCCGTCACCACGTTGGTTGTGAAAGGCACCACAGGTGTCA

FIGURE 4310B

CGACCCTAGGCACAGTGACAGGCACCGTCTCCACCAGCCTTGCCGGGGCGGGGGGCCACAGCACTAGTGCTTCCC
TGGCCACGCCCATCACCACCTTGGGCACCATTGCCACCCTCTCAAGCCAGGTGATCAACCCCACTGCCATCACTG
TGTCGGCCGCACAGACCACGCTGACAGCGGCAGGCGGGCTCACAACCCCAACCATCACCATGCAGCCCGTGTCCC
AGCCCACCCAGGTAACTCTGATCACGGCACCTAGTGGGGTGGAGGCCCAGCCTGTGCATGACCTCCCTGTGTCCA
TTCTGGCCTCCCCGACTACAGAACAGCCCACCGCCACAGTTACCATCGCCGACTCAGGCCAGGGTGATGTGCAGC
CTGGCACTGTCACCTTGGTGTGCTCCAACCCACCCTGTGAGACCCACGAGACTGGCACCACCAACACGGCCACCA
CTACTGTTGTGGCTAACCTTGGGGGACACCCCCAGCCCACCCAAGTGCAGTTCGTCTGTGACAGACAGGAGGCAG
CTGCTTCTCTTGTGACCTCGACTGTGGGCCAGCAGAATGGTAGCGTGGTCCGAGTCTGTTCGAACCCGCCCTGCG
AGACCCACGAGACGGGCACCACCAACACCGCCACCACCGCCACCTCCAACATGGCCGGGCAGCATGGCTGCTCAA
ACCCACCCTGCGAGACCCACGAGACGGGCACCACCAACACTGCCACTACAGCCATGTCGAGCGTCGGCGCCAACC
ACCAGCGAGATGCCCGTCGGGCCTGTGCAGCTGGCACCCCTGCCGTGATCCGGATCAGTGTGGCCACTGGGGCGC
TGGAGGCAGCCCAGGGCTCTAAGTCCCAGTGCCAAACCCGCCAGACCAGCGCGACCAGCACCACCATGACTGTGA
TGGCCACCGGGGCCCCGTGCTCGGCCGGCCCACTCCTTGGGCCGAGCATGGCACGGGAGCCCGGGGGCCGCAGCC
CTGCTTTTGTGCAGTTGGCCCCTCTGAGCAGCAAAGTCAGGCTGAGCAGCCCAAGCATTAAGGACCTTCCTGCGG
GGCGCCACAGCCATGCGGTCAGCACCGCTGCCATGACCCGTTCCAGCGTGGGTGCTGGGGAGCCCCGCATGGCAC
CTGTGTGCGAGAGCCTCCAGGGTGGCTCGCCCAGCACCACAGTGACTGTGACAGCCCTGGAGGCACTGCTGTGCC
CCTCGGCCACCGTGACCCAAGTCTGCTCCAACCCACCATGTGAGACCCACGAGACAGGCACCACCAACACCGCCA
CTACCTCGAATGCAGGCAGCGCCCAGAGGGTGTGCTCCAACCCGCCATGCGAGACCCACGAGACGGGCACCACCC
ACACGGCCACCACCGCTACTTCAAACGGGGGCACGGGCCAGCCCGAGGGTGGGCAGCAGCCCCCTGCTGGTCGCC
CCTGTGAGACACACCAGACCACTTCCACTGGCACCACCATGTCGGTCAGCGTGGGTGCCCTGCTTCCCGACGCCA
CTTCTTCCCACAGGACCGTGGAGTCTGGCCTAGAGGTGGCGGCGGCACCCAGCGTCACCCCCCAGGCTGGCACCG
CGCTGCTGGCTCCTTTCCCAACACAGAGGGTGTGCTCCAACCCCCCCTGTGAGACCCACGAGACGGGCACCACTC
ACACGGCCACCACTGTCACTTCCAACATGAGTTCAAACCAAGACCCCCCACCTGCTGCCAGCGATCAGGGAGAGG
TGGAGAGCACCCAGGGCGACAGCGTGAACATCACCAGCTCCAGTGCCATCACGACAACCGTGTCCTCCACACTGA
CGCGGGCTGTGACCACCGTGACGCAGTCCACACCGGTCCCGGGCCCCTCTGTGCCGCCCCCAGAGGAACTCCAGG
TGTCGCCAGGTCCTCGCCAGCAGCTGCCGCCACGGCAGCTTCTGCAGTCGGCTTCCACAGCCCTGATGGGGGAGT
CCGCCGAGGTCCTGTCAGCCTCCCAGACCCCTGAGCTCCCGGCCGCCGTGGATCTGAGCAGCACAGGGGAGCCAT
CTTCGGGCCAGGAGTCTGCCGGCTCTGCGGTGGTGGCCACTGTGGTGGTCCAGCCACCCCCACCCACACAGTCCG
AAGTAGACCAGTTATCACTTCCCCAAGAGCTAATGGCCGAGGCCCAAGCTGGCACCACCACCCTCATGGTAACGG
GGCTCACCCCCGAGGAGCTGGCAGTGACGGCTGCTGCAGAAGCAGCTGCCCAGGCCGCAGCCACGGAGGAAGCCC
AGGCCCTGGCCATCCAGGCGGTGCTCCAGGCCGCGCAGCAGGCCGTCATGGGCACCGGCGAGCCCATGGACACCT
CCGAGGCAGCAGCAACCGTGACTCAGGCGGAGCTGGGGCACCTGTCGGCCGAGGGTCAGGAGGGCCAGGCCACCA
CCATACCCATTGTGCTGACACAGCAGGAGCTGGCTGCCCTGGTGCAGCAGCAGCAGCTGCAGGAGGCCCAGGCCC
AGCAGCAGCATCACCACCTCCCCACTGAGGCCCTGGCCCCTGCCGACAGTCTCAACGACCCAGCCATTGAGAGCA
ATTGCCTCAATGAGCTGGCCGGCACGGTCCCCAGCACTGTGGCGCTGCTGCCCTCAACGGCCACTGAGAGCCTGG
CTCCATCCAACACATTTGTGGCCCCCCAGCCGGTTGTGGTGGCCAGCCCAGCCAAGCTGCAGGCTGCAGCTACCC
TGACCGAAGTGGCCAATGGCATCGAGTCCCTGGGTGTGAAGCCAGACCTGCCGCCCCCACCCAGCAAAGCCCCCA
TGAAGAAGGAAAACCAGTGGTTTGATGTGGGAGTCATTAAGGGCACCAATGTAATGGTGACACACTATTTCCTGC
CACCAGATGATGCTGTCCCATCAGACGATGATTTGGGCACCGTCCCTGACTATAACCAGCTGAAGAAGCAGGAGC
TGCAGCCAGGCACAGCCTATAAGTTTCGTGTTGCCGGAATCAATGCCTGTGGCCGGGGGCCCTTCAGCGAAATCT
CAGCCTTTAAGACGTGCCTGCCTGGTTTCCCAGGGGCCCCTTGTGCCATTAAAATCAGCAAAAGTCCGGATGGTG
CTCACCTCACCTGGGAGCCACCCTCTGTGACCTCCGGCAAGATTATCGAGTACTCCGTGTACCTGGCCATCCAGA
GCTCACAGGCTGGGGGCGAGCTCAAGAGCTCCACCCCGGCCCAGCTGGCCTTCATGCGGGTGTACTGCGGGCCCA
GCCCCTCCTGCCTGGTGCAGTCCTCCAGCCTTTCCAACGCCCACATCGACTACACCACCAAGCCCGCCATCATCT
TCCGCATCGCCGCCCGCAATGAGAAGGGCTATGGCCCGGCCACACAAGTGAGGTGGCTGCAGGAAACCAGTAAAG
ACAGCTCTGGCACCAAGCCAGCCAACAAGCGGCCCATGTCCTCTCCAGAAATGAAATCTGCTCCAAAGAAATCTA
AGGCCGATGGTCAG**TGA**GAGGAAGCTGACTAGCCCCTGGATTCTTCTCCAGACCCCCCTGCTTCAGGAACACCCG
CCAGGGCCCACCCCTCCCACCCCGTCCCAGCATTCGCACTTCACCCTCGCGAGCCGCTGTTCACTCCTCTCCCCT

FIGURE 4310C

TTCTCTTTCTCTCTGTTTTTAAAATAATCTAAAGAAAGCACATTTTACCATTGCTGTTGGGAGGAAGCAGAGGCA
GATGGGAAAGCAGAGAGAGGAGCGCGCTTCCTTTCCTCCCCGCTGCCGCCCACCCTGGGGAGAGACTTTTGCGGG
GAGGGAAGGCGGAGCTGAGGACAGCCAGCTCCGCCCTCCCAAGGCTGTGCGTTCCTGAGGGCCAGGTCGGGGGCA
GGCATGGAGGGGAGGAAAGGCGTCCCTCTTGGCCCTCCCCAGAGTGGCTTTCCTGGCACCCTGGCCTGGGTGTCT
GGTTCTGTTTTCTTTTCTTCCCCTTGTGTTTCCAGTCACCTAACTTCCCTTCCTCAGGCTCCCCCGGCCCACCCT
GCTCAGTGACCCCACAGGAAGCTTACACATTTTCTCAGAGGCCTTTGTGCTCCCACCTCTTCTACCCTCCCCCTC
TTCTTTCCCATTTTAAAAAAGAAAAGAAGGAAAAAGAAAAAAGGGGCAAGGAGCCCCGCGGCGGCCTGGGCAGCG
CCTGTGCAGACCTCCCTGCAGGCCGCACTGCCAACTGCTGCATTTGTTGTGTTTTTTAGGTTGCAATTGGTGAAG
TTCACACTTTCATTGTAATTTTAGCGTGTGGGGTTTTGTCCCTTTTTTGTTGTTGTTAGCTGTGTACAGAATGTG
TAATCTTTTTTCTTTTCTCTTTTTTTTGTTTTGTTTTGTTTTGTTTTTTGTTTTTTTACTTTTTTCTTCTTGGCTA
ATTCTTGGCAGGGATCTTTCTGGAGGAAAAGCTGGGGCCAGCCAGGGCAGGAGAGGTGTGAAATCTGCCACGAGG
GGCCTGCTGTTTGCCACCCAGCCCAACTTCCTGTTGCTGGCCCCTGCCCTCTGCCCTTTTGCCTGTCCTCAGGCC
GCTGGAACAAAGGAAGGACAGCTCATTCCTCATGGGCGATCACTCCGCATCTATAGGGTCGAGCCTAGGGGAGCT
TGAGGGAGGGCTGGGGCCTCCTTGTCCTGGATTTCCAGCTCTCCCCATGCCCCCTCCCTGAGCACCACCGGCACC
GCCTCCCAAACAGGGCTGCTGGTTTCCGCAGCCACTGCTCCACCTCCCCCAAATCGTCATGGAAAGGGTGGAGAA
TGGAGGGGAACCAGGCGTCCTTGGAGGCAGCTTGGGAGGGTGACTGTGTAGTGTCACCCACAAGGGAGGCTAGGG
CAATGGAGCAGGCCACCAGCAGCAGCTGTGCAGCATGGAACTCAGGCCAGGCTCCGAGGCTGGGGGATCTGCTTG
GAGTTTTCTGCCCCCCACCCCAAACTTCTGTCGAGGAGCAAGGCTTGCCAGCAAGTCAGAAGGATTTGAACCGAG
CAGCCAATCTTTCCAGCCCTCCCCTACCGACCTCTGCCTGGAGACGCAGCAGCCTGTGTCCTCCAGGGCCTCTGG
TTTGTTGTATTATAGTATATTTCGCTGTGGAAAATGTCACGTTTAGTCACCTTGGAGCCCACTCACCTGGTCCTG
TTGTTTTACCCCATCCCTTCTCTCGCGCGCCTATTGATTTGTTTCTGAGGAGAGTACACCGTTCACTATTGTAGA
GTAACCCCTGTGACTCAATATTACCATAGTGCGATGTCGTTTTGTGCTATTTTGAACAATTAAAAGACTTTTTTT
GAAATAA

FIGURE 4311

CGGTCCCAGCCCCGGCCGTCCCGGCGTCGCTTCGGAGCGCGGCGGCAGCTGACTGCGCCTTCACGATCCGCTGGG
ACCCGCGAGCCCCGCCGCCGTT**ATG**AACATCCGCAATGCGAGGCCAGAGGACCTAATGAACATGCAGCACTGCAA
CCTCCTCTGCCTGCCCGAGAACTACCAGATGAAATACTACTTCTACCATGGCCTTTCCTGGCCCCAGCTCTCTTA
CATTGCTGAGGACGAGAATGGGAAGATTGTGGGGTATGTCCTGGCCAAAATGGAAGAGGACCCAGATGATGTGCC
CCATGGACATATCACCTCATTGGCTGTGAAGCGTTCCCACCGGCGCCTCGGTCTGGCTCAGAAACTGATGGACCA
GGCCTCTCGAGCCATGATAGAGAACTTCAATGCCAAATATGTCTCCCTGCATGTCAGGAAGAGTAACCGGGCCGC
CCTGCACCTCTATTCCAACACCCTCAACTTTCAGATCAGTGAAGTGGAGCCCAAATACTATGCAGATGGGGAGGA
CGCCTATGCCATGAAGCGGGACCTCACTCAGATGGCCGACGAGCTGAGGCGGCACCTGGAGCTGAAAGAGAAGGG
CAGGCACGTGGTGCTGGGTGCCATCGAGAACAAGGTGGAGAGCAAAGGCAATTCACCTCCGAGCTCAGGAGAGGC
CTGTCGCGAGGAGAAGGGCCTGGCTGCCGAGGATAGTGGTGGGGACAGCAAGGACCTCAGCGAGGTCAGCGAGAC
CACAGAGAGCACAGATGTCAAGGACAGCTCAGAGGCCTCCGACTCAGCCTCC**TAG**AGCCTGCCCCATCCCCTCCT
CACCCCACGAGCTTTCACAATAAATTCGCTCCGTGGCACTG

FIGURE 4312

CGTGGGAGCAGTGGGGTTCGACGGCGCGGCCGCGAGGCCGCC**ATG**GCCGCTCACGGGAAGCTGCGGCGGGAGCGG
GGGCTGCAGGCTGAGTATGAGACGCAAGTCAAAGAGATGCGCTGGCAGCTGAGCGAGCAGCTGCGCTGCCTGGAG
CTGCAGGGCGAGCTGCGGCGGGAGTTGCTGCAGGAGCTGGCAGAGTTCATGCGGCGCCGCGCTGAGGTGGAGCTG
GAATACTCCCGGGGCCTGGAAAAGCTGGCCGAGCGCTTCTCCAGCCGTGGAGGCCGCCTGGGGAGCAGCCGGGAG
CACCAAAGCTTCCGGAAGGAGCCGTCCCTCCTGTCGCCCTTGCACTGCTGGGCGGTGCTGCTGCAGCACACGCGG
CAGCAGAGCCGGGAGAGCGCGGCCCTGAGTGAGGTGCTGGCCGGGCCCCTGGCCCAGCGCCTGAGTCACATTGCA
GAGGACGTGGGGCGCCTGGTCAAGAAGAGCAGGGATCTGGAGCAGCAGCTGCAGGATGAGCTCCTGGAGGTGGTC
TCAGAGCTCCAGACGGCCAAGAAGACGTACCAGGCATATCACATGGAGAGCGTGAATGCCGAGGCCAAGCTCCGG
GAGGCCGAGCGGCAGGAGGAGAAGCGGGCAGGCCGGAGTGTCCCCACCACCACCGCTGGTGCCACTGAGGCAGGG
CCCCTCCGCAAGAGCTCCCTCAAGAAGGGAGGGAGGCTGGTGGAGAAGCGGCAGGCCAAGTTCATGGAGCACAAA
CTCAAGTGCACAAAGGCGCGCAACGAGTACCTGCTTAGCCTGGCTAGTGTCAACGCTGCTGTCAGTAACTACTAC
CTGCATGACGTCTTGGACCTCATGGACTGCTGTGACACAGGGTTCCACCTGGCCCTGGGGCAGGTGCTCCGGAGC
TACACGGCCGCTGAGAGCCGCACCCAAGCCTCCCAAGTGCAGGGCCTGGGCAGCCTGGAAGAAGCTGTGGAGGCC
CTGGATCCTCCAGGGGACAAAGCCAAGGTTCTCGAGGTGCATGCTACCGTCTTCTGTCCCCCGCTGCGCTTTGAC
TACCACCCCCATGATGGGGATGAGGTGGCTGAGATCTGCGTTGAAATGGAGCTGCGGGACGAGATTCTGCCCAGA
GCCCAGAACATCCAGAGCCGCCTGGACCGACAGACCATTGAGACAGAGGAGGTGAACAAGACTCTGAAGGCGACA
CTGCAGGCCCTGCTGGAGGTGGTGGCCTCGGATGACGGGGATGTGCTTGATTCCTTCCAGACCAGCCCCTCCACC
GAGTCCCTCAAGTCCACCAGCTCAGACCCAGGCAGCCGGCAGGCGGGCCGGAGGCGCGGCCAGCAGCAGGAGACC
GAAACCTTCTACCTCACGAAGCTCCAGGAGTATCTGAGTGGACGGAGCATCCTCGCCAAGCTGCAGGCCAAGCAC
GAGAAGCTGCAGGAGGCCCTTCAGCGAGGTGACAAGGAGGAGCAGGAGGTGTCTTGGACCCAGTACACACAGAGA
AAATTCCAGAAGAGCCGCCAGCCCCGCCCCAGCTCCCAGTATAACCAGAGACTCTTTGGGGGAGACATGGAGAAG
TTTATCCAGAGCTCAGGCCAGCCTGTGCCCCTGGTGGTGGAGAGCTGCATTCGCTTCATCAACCTCAATGGCCTG
CAGCATGAAGGCATCTTCCGGGTATCGGGTGCCCAGCTCCGGGTCTCAGAGATCCGTGATGCCTTCGAGAGAGGG
GAGGACCCACTGGTGGAGGGCTGCACTGCCCATGACCTGGACTCGGTGGCCGGGGTGCTGAAGCTCTACTTCCGG
AGCCTGGAGCCCCCACTCTTCCCCCCAGACCTGTTCGGCGAGCTGCTGGCTTCTTCGGAGCTGGAGGCCACAGCG
GAGAGGGTGGAGCACGTGAGCCGCCTGCTGTGGCGGCTGCCCGCGCCGGTGCTGGTGGTTCTGCGCTACCTCTTC
ACCTTCCTCAACCACCTGGCCCAGTACAGCGATGAGAACATGATGGACCCCTACAACCTGGCCGTGTGCTTCGGG
CCCACGCTGCTACCGGTGCCCGCTGGGCAGGACCCGGTGGCGCTGCAGGGCCGGGTGAACCAGCTGGTGCAGACG
CTCATAGTGCAGCCCGATCGGGTCTTCCCGCCCCTGACCTCGCTGCCTGGCCCCGTCTACGAGAAGTGCATGGCA
CCGCCTTCCGCCAGCTGCCTGGGGGACGCCCAGCTGGAGAGCCTGGGGGCGGACAATGAGCCGGAGCTGGAAGCC
GAGATGCCCGCACAGGAGGATGACCTGGAGGGGGTCGTGGAGGCTGTGGCCTGCTTTGCCTACACGGGCCGCACA
GCCCAGGAGCTGAGCTTCCGGCGGGGGGACGTACTGCGGCTGCACGAGAGGGCCTCGAGCGACTGGTGGCGGGGG
GAGCACAACGGCATGCGGGGCCTCATCCCCCACAAGTATATCACGCTGCCCGCCGGGACGGAGAAGCAGGTGGTG
GGCGCAGGGCTGCAGACTGCAGGGGAGTCTGGGAGCAGTCCCGAGGGCCTCCTGGCATCGGAGCTGGTCCACCGG
CCAGAGCCATGCACCTCACCTGAGGCCATGGGACCCTCTGGACACAGACGACGCTGCTTGGTCCCAGCCTCCCCA
GAGCAACACGTGGAGGTGGATAAGGCTGTGGCACAGAACATGGACTCTGTGTTTAAGGAGCTCTTGGGAAAGACC
TCTGTCCGCCAGGGCCTTGGGCCAGCATCTACCACCTCTCCCAGTCCTGGGCCCCGAAGCCCAAAGGCCCCGCCC
AGCAGCCGCCTGGGCAGGAACAAAGGCTTCTCCCGGGGCCCTGGGGCCCCAGCCTCACCCTCAGCTTCCCACCCC
CAGGGCCTAGACACGACCCCCAAGCCACAC**TGA**GGTGCCGCTGCTGGAGATGCGTGCCCCCGGCGGCTACCCGCT
GGACCGGCCACTCTCCCCAGCCCCCTTGCTTCTCTCCAGCCCTGTCCAGCAAGTGCAGGGTGCCTGCACTTCACC
CTGTGCAGAGAGGTGGGATGGGGCCGTGCACACAGGGATGCCCGCTCCACATCCTGCCTGCCCCTCAGCCCTGGC
CCAGGCCCCTTTTGGAGGCAGCTGAGGAAGGATGCTGGGGAAAGCCCTCTTCTGCAGCTTTGTGGAAGGCTGATC
AGTGGCTGCTGGGTGGCGGGTACCCTTGCTCAGATGCCTGGCAGGGCTGGGTGGCGATTCATAAAGACCTCGTGT
TGATTCCCCG

FIGURE 4313

GATCCTGGGTTCTGTGCATCCGTCTGTCTGACCATCCCTCTCAATCTTCCCTGCCCAGGACTGGCCATACTGCCA
CCGACACGTGCACACACGCCAACAGGCATCTGCCATGCTGGCATCTCTATAAGGGCTCCAGTCCAGAGACCCTGG
GCCATTGAACTTGCTCCTCAGGCAGAGGCTGAGTCCGCACATCACCTCCAGGCCCTCAGAACACCTGCCCCAGCC
CCACC**ATG**CTCATGGCGTCCACCACTTCCGCTGTGCCTGGGCATCCCTCTCTGCCCAGCCTGCCCAGCAACAGCA
GCCAGGAGAGGCCACTGGACACCCGGGACCCGCTGCTAGCCCGGGCGGAGCTGGCGCTGCTCTCCATAGTCTTTG
TGGCTGTGGCCCTGAGCAATGGCCTGGTGCTGGCGGCCCTAGCTCGGCGGGGCCGGCGGGGCCACTGGGCACCCA
TACACGTCTTCATTGGCCACTTGTGCCTGGCCGACCTGGCCGTGGCTCTGTTCCAAGTGCTGCCCCAGCTGGCCT
GGAAGGCCACCGACCGCTTCCGTGGGCCAGATGCCCTGTGTCGGGCCGTGAAGTATCTGCAGATGGTGGGCATGT
ATGCCTCCTCCTACATGATCCTGGCCATGACGCTGGACCGCCACCGTGCCATCTGCCGTCCCATGCTGGCGTACC
GCCATGGAAGTGGGGCTCACTGGAACCGGCCGGTGCTAGTGGCTTGGGCCTTCTCGCTCCTTCTCAGCCTGCCCC
AGCTCTTCATCTTCGCCCAGCGCAACGTGGAAGGTGGCAGCGGGGTCACTGACTGCTGGGCCTGCTTTGCGGAGC
CCTGGGGCCGTCGCACCTATGTCACCTGGATTGCCCTGATGGTGTTCGTGGCACCTACCCTGGGTATCGCCGCCT
GCCAGGTGCTCATCTTCCGGGAGATTCATGCCAGTCTGGTGCCAGGGCCATCAGAGAGGCCTGGGGGGCGCCGCA
GGGGACGCCGGACAGGCAGCCCCGGTGAGGGAGCCCACGTGTCAGCAGCTGTGGCCAAGACTGTGAGGATGACGC
TAGTGATTGTGGTCGTCTATGTGCTGTGCTGGGCACCCTTCTTCCTGGTGCAGCTGTGGGCCGCGTGGGACCCGG
AGGCACCTCTGGAAGGGGCGCCCTTTGTGCTACTCATGTTGCTGGCCAGCCTCAACAGCTGCACCAACCCCTGGA
TCTATGCATCTTTCAGCAGCAGCGTGTCCTCAGAGCTGCGAAGCTTGCTCTGCTGTGCCCGGGGACGCACCCCAC
CCAGCCTGGGTCCCCAAGATGAGTCCTGCACCACCGCCAGCTCCTCCCTGGCCAAGGACACTTCATCG**TGA**GGAG
CTGTTGGGTGTCTTGCCTCTAGAGGCTTTGAGAAGCTCAGCTGCCTTCCTGGGGCTGGTCCTGGGAGCCACTGGG
AGGGGGACCCGTGGAGAATTGGCCAGAGCCTGTGGCCCCGAGGCTGGGACACTGTGTGGCCCTGGACAAGCCACA
GCCCCTGCCTGGGTCTCCACATCCCCAGCTGTATGAGGAGAGCTTCAGGCCCCAGGACTGTGGGGGCCCCTCAGG
TCAGCTCACTGAGCTGGGTGTAGGAGGGGCTGCAGCAGAGGCCTGAGGAGTGGCAGGAAAGAGGGAGCAGGTGCC
CCCAGGTGAGACAGCGGTCCCAGGGGCCTGAAAAGGAAGGACCAGGCTGGGGCCAGGGGACCTTCCTGTCTCCGC
CTTTCTAATCCCTCCCTCCTCATTCTCTCCCTAATAAAAATTGGAGCTCATTTTCCACATGGCAAGGGGTCTCCT
TGGA

FIGURE 4314A

GCGCGGTGCCGCCGGGAAAG**ATG**GTCGTGGCGCTGCGGTACGTGTGGCCTCTCCTCCTCTGCAGCCCCTGCCTGC
TTATCCAGATCCCCGAGGAATATGAAGGACACCATGTGATGGAGCCACCTGTCATCACGGAACAGTCTCCACGGC
GCCTGGTTGTCTTCCCCACAGATGACATCAGCCTCAAGTGTGAGGCCAGTGGCAAGCCCGAAGTGCAGTTCCGCT
GGACGAGGGATGGTGTCCACTTCAAACCCAAGGAAGAGCTGGGTGTGACCGTGTACCAGTCGCCCCACTCTGGCT
CCTTCACCATCACGGGCAACAACAGCAACTTTGCTCAGAGGTTCCAGGGCATCTACCGCTGCTTTGCCAGCAATA
AGCTGGGCACCGCCATGTCCCATGAGATCCGGCTCATGGCCGAGGGTGCCCCCAAGTGGCCAAAGGAGACAGTGA
AGCCCGTGGAGGTGGAGGAAGGGGAGTCAGTGGTTCTGCCTTGCAACCCTCCCCCAAGTGCAGAGCCTCTCCGGA
TCTACTGGATGAACAGCAAGATCTTGCACATCAAGCAGGACGAGCGGGTGACGATGGGCCAGAACGGCAACCTCT
ACTTTGCCAATGTGCTCACCTCCGACAACCACTCAGACTACATCTGCCACGCCCACTTCCCAGGCACCAGGACCA
TCATTCAGAAGGAACCCATTGACCTCCGGGTCAAGGCCACCAACAGCATGATTGACAGGAAGCCGCGCCTGCTCT
TCCCCACCAACTCCAGCAGCCACCTGGTGGCCTTGCAGGGGCAGCCATTGGTCCTGGAGTGCATCGCCGAGGGCT
TTCCCACGCCCACCATCAAATGGCTGCGCCCCAGTGGCCCCATGCCAGCCGACCGTGTCACCTACCAGAACCACA
ACAAGACCCTGCAGCTGCTGAAAGTGGGCGAGGAGGATGATGGCGAGTACCGCTGCCTGGCCGAGAACTCACTGG
GCAGTGCCCGGCATGCGTACTATGTCACCGTGGAGGCTGCCCCGTACTGGCTGCACAAGCCCCAGAGCCATCTAT
ATGGGCCAGGAGAGACTGCCCGCCTGGACTGCCAAGTCCAGGGCAGGCCCCAACCAGAGGTCACCTGGAGAATCA
ACGGGATCCCTGTGGAGGAGCTGGCCAAAGACCAGAAGTACCGGATTCAGCGTGGCGCCCTGATCCTGAGCAACG
TGCAGCCCAGTGACACAATGGTGACCCAATGTGAGGCCCGCAACCGGCACGGGCTCTTGCTGGCCAATGCCTACA
TCTACGTTGTCCAGCTGCCAGCCAAGATCCTGACTGCGGACAATCAGACGTACATGGCTGTCCAGGGCAGCACTG
CCTACCTTCTGTGCAAGGCCTTCGGAGCGCCTGTGCCCAGTGTTCAGTGGCTGGACGAGGATGGGACAACAGTGC
TTCAGGACGAACGCTTCTTCCCCTATGCCAATGGGACCCTGGGCATTCGAGACCTCCAGGCCAATGACACCGGAC
GCTACTTCTGCCTGGCTGCCAATGACCAAAACAATGTTACCATCATGGCTAACCTGAAGGTTAAAGATGCAACTC
AGATCACTCAGGGGCCCCGCAGCACAATCGAGAAGAAAGGTTCCAGGGTGACCTTCACGTGCCAGGCCTCCTTTG
ACCCCTCCTTGCAGCCCAGCATCACCTGGCGTGGGGACGGTCGAGACCTCCAGGAGCTTGGGGACAGTGACAAGT
ACTTCATAGAGGATGGGCGCCTGGTCATCCACAGCCTGGACTACAGCGACCAGGGCAACTACAGCTGCGTGGCCA
GTACCGAACTGGATGTGGTGGAGAGTAGGGCACAGCTCTTGGTGGTGGGGAGCCCTGGGCCGGTGCCACGGCTGG
TGCTGTCCGACCTGCACCTGCTGACGCAGAGCCAGGTGCGCGTGTCCTGGAGTCCTGCAGAAGACCACAATGCCC
CCATTGAGAAATATGACATTGAATTTGAGGACAAGGAAATGGCGCCTGAAAAATGGTACAGTCTGGGCAAGGTTC
CAGGGAACCAGACCTCTACCACCCTCAAGCTGTCGCCCTATGTCCACTACACCTTTAGGGTTACTGCCATAAACA
AATATGGCCCCGGGGAGCCCAGCCCGGTCTCTGAGACTGTGGTCACACCTGAGGCAGCCCCAGAGAAGAACCCTG
TGGATGTGAAGGGGGAAGGAAATGAGACCACCAATATGGTCATCACGTGGAAGCCGCTCCGGTGGATGGACTGGA
ACGCCCCCCAGGTTCAGTACCGCGTGCAGTGGCGCCCTCAGGGGACACGAGGGCCCTGGCAGGAGCAGATTGTCA
GCGACCCCTTCCTGGTGGTGTCCAACACGTCCACCTTCGTGCCCTATGAGATCAAAGTCCAGGCCGTCAACAGCC
AGGGCAAGGGACCAGAGCCCCAGGTCACTATCGGCTACTCTGGAGAGGACTACCCCCAGGCAATCCCTGAGCTGG
AAGGCATTGAAATCCTCAACTCAAGTGCCGTGCTGGTCAAGTGGCGGCCGGTGGACCTGGCCCAGGTCAAGGGCC
ACCTCCGCGGATACAATGTGACGTACTGGAGGGAGGGCAGTCAGAGGAAGCACAGCAAGAGACATATCCACAAAG
ACCATGTGGTGGTGCCCGCCAACACCACCAGTGTCATCCTCAGTGGCTTGCGGCCCTATAGCTCCTACCACCTGG
AGGTGCAGGCCTTTAACGGGCGAGGATCGGGGCCCGCCAGCGAGTTCACCTTCAGCACCCCAGAGGGAGTGCCTG
GCCACCCCGAGGCGTTGCACCTGGAGTGCCAGTCGAACACCAGCCTGCTGCTGCGCTGGCAGCCCCCACTCAGCC
ACAACGGCGTGCTCACCGGCTACGTGCTCTCCTACCACCCCCTGGATGAGGGGGGCAAGGGGCAACTGTCCTTCA
ACCTTCGGGACCCCGAACTTCGGACACACAACCTGACCGATCTCAGCCCCCACCTGCGGTACCGCTTCCAGCTTC
AGGCCACCACCAAAGAGGGCCCTGGTGAAGCCATCGTACGGGAAGGAGGCACTATGGCCTTGTCTGGGATCTCAG
ATTTTGGCAACATCTCAGCCACAGCGGGTGAAAACTACAGTGTCGTCTCCTGGGTCCCCAAGGAGGGCCAGTGCA
ACTTCAGGTTCCATATCTTGTTCAAAGCCTTGGGAGAAGAGAAGGGTGGGGCTTCCCTTTCGCCACAGTATGTCA
GCTACAACCAGAGCTCCTACACGCAGTGGGACCTGCAGCCTGACACTGACTACGAGATCCACTTGTTTAAGGAGA
GGATGTTCCGGCACCAAATGGCTGTGAAGACCAATGGCACAGGCCGCGTGAGGCTCCCTCCTGCTGGCTTCGCCA
CTGAGGGCTGGTTCATCGGCTTTGTGAGTGCCATCATCCTCCTGCTCCTCGTCCTGCTCATCCTCTGCTTCATCA
AGCGCAGCAAGGGCGGCAAATACTCAGTGAAGGATAAGGAGGACACCCAGGTGGACTCTGAGGCCCGACCGATGA
AAGATGAGACCTTCGGCGAGTACAGGTCCCTGGAGAGTGACAACGAGGAGAAGGCCTTTGGCAGCAGCCAGCCAT

FIGURE 4314B

CGCTCAACGGGGACATCAAGCCCCTGGGCAGTGACGACAGCCTGGCCGATTATGGGGGCAGCGTGGATGTTCAGT
TCAACGAGGATGGTTCGTTCATTGGCCAGTACAGTGGCAAGAAGGAGAAGGAGGCGGCAGGGGGCAATGACAGCT
CAGGGGCCACTTCCCCCATCAACCCTGCCGTGGCCCTAGAA**TAG**TGGAGTCCAGGACAGGAGATGCTGTGCCCCT
GGCCTTGGGATCCAGGCCCCTCCCTCTCCAGCAGGCCCATGGGAGGCTGGAGTTGGGGCAGAGGAGAACTTGCTG
CCTCGGATCCCCTTCCTACCACCCGGTCCCCACTTTATTGCCAAAACCCAGCTGCACCCCTTCCTGGGCACACGC
TGCTCTGCCCCAGCTTGGGCAGATCTCCCACATGCCAGGGGCCTTTGGGTGCTGTTTTGCCAGCCCATTTGGGCA
GAGAGGCTGTGGTTTGGGGGAGAAGAAGTAGGGGTGGCCCGAAAGGGTCTCCGAAATGCTGTCTTTCTTGCTCCC
TGACTGGGGGCAGACATGGTGGGGTCTCCTCAGGACCAGGGTTGGCACCTTCCCCCTCCCCCAGCCACTCCCCAG
CCAGCCTGGCTGGGACTGGGAACAGAACTCGGTGTCCCCACCATCTGCTGTCTTTTCTTTGCCATCTCTGCTCCA
ACCGGGATGGGAGCCGGGCAAACTGGCCGCGGGGGCAGGGGAGGCCATCTGGAGAGCCCAGAGTCCCCCCACTCC
CAGCATCGCACTCTGGCAGCACCGCCTCTTCCCGCCGCCCAGCCCACCCCATGGCCGGCTTTCAGGAGCTCCATA
CACACGCTGCCTTCGGTACCCACCACACAACATCCAAGTGGCCTCCGTCACTACCTGGCTGCGGGGCGGGCACAC
CTCCTCCCACTGCCCACTGGCCGGC

4974/5332

FIGURE 4315

TCGTGTTCATGGGAGCTCGTTTTCTTTTCCTCTAGGCAGAGAAGAGGCG**ATG**GCGGCGATGGCATCTCTCGGCGC
CCTGGCGCTGCTCCTGCTGTCCAGCCTCTCCCGCTGCTCAGCCGAGGCCTGCCTGGAGCCCCAGATCACCCCTTC
CTACTACACCACTTCTGACGCTGTCATTTCCACTGAGACCGTCTTCATTGTGGAGATCTCCCTGACATGCAAGAA
CAGGGTCCAGAACATGGCTCTCTATGCTGACGTCGGTGGAAAACAATTCCCTGTCACTCGAGGCCAGGATGTGGG
GCGTTATCAGGTGTCCTGGAGCCTGGACCACAAGAGCGCCCACGCAGGCACCTATGAGGTTAGATTCTTCGACGA
GGAGTCCTACAGCCTCCTCAGGAAGGCTCAGAGGAATAACGAGGACATTTCCATCATCCCGCCTCTGTTTACAGT
CAGCGTGGACCATCGGGGCACTTGGAACGGGCCCTGGGTGTCCACTGAGGTGCTGGCTGCGGCGATCGGCCTTGT
GATCTACTACTTGGCCTTCAGTGCGAAGAGCCACATCCAGGCC**TGA**GGGCGGCACCCCAGCCCTGCCCTTGCTTC
CTTCAATAAACATCACAGGACCTGGGACTGCACAGGA

FIGURE 4316

GGTCGCGGTCCCCCCCTCAACATGGCGGCAGCGGTGCTCTAGGCGCCGGAAGGGGGCGTGAATCGGTGCGACCGC
GCGCGTGCGCAGTACCGGGTCCGCGCCTGTCCCCGAAACTTCGCACCCCGTCGAACTCTCGCGAGAGCGGTATCT
GCGTGTCGGGACGTGCGGAGGCTCTCACTTTCCGTC**ATG**GCGCTGAAGGTAGCGACCGTCGCCGGCAGCGCCGCG
AAGGCGGTGCTCGGGCCAGCCCTTCTCTGCCGTCCCTGGGAGGTTCTAGGCGCCCACGAGGTCCCCTCGAGGAAC
ATCTTTTCAGAACAAACAATTCCTCCGTCCGCTAAGTATGGCGGGCGGCACACGGTGACCATGATCCCAGGGGAT
GGCATCGGGCCAGAGCTCATGCTGCATGTCAAGTCCGTCTTCAGGCACGCATGTGTACCAGTGGACTTTGAAGAG
GTGCACGTGAGTTCCAATGCTGATGAAGAGGACATTCGCAATGCCATCATGGCCATCCGCCGGAACCGCGTGGCC
CTGAAGGGCAACATCGAAACCAACCATAACCTGCCACCGTCGCACAAATCTCGAAACAACATCCTTCGCACCAGC
CTGGACCTCTATGCCAACGTCATCCACTGTAAGAGCCTTCCAGGCGTGGTGACCCGGCACAAGGACATAGACATC
CTCATTGTCCGGGAGAACACAGAGGGCGAGTACAGCAGCCTGGAGCATGAGAGTGTGGCGGGAGTGGTGGAGAGC
CTGAAGATCATCACCAAGGCCAAGTCCCTGCGCATTGCCGAGTATGCCTTCAAGCTGGCGCAGGAGAGCGGGCGC
AAGAAAGTGACGGCCGTGCACAAGGCCAACATCATGAAACTGGGCGATGGGCTTTTCCTCCAGTGCTGCAGGGAG
GTGGCAGCCCGCTACCCTCAGATCACCTTCGAGAACATGATTGTGGATAACACCACCATGCAGCTGGTGTCCCGG
CCCCAGCAGTTTGATGTCATGGTGATGCCCAATCTCTATGGCAACATCGTCAACAATGTCTGCGCGGGACTGGTC
GGGGGCCCAGGCCTTGTGGCTGGGGCCAACTATGGCCATGTGTACGCGGTGTTTGAAACAGCTACGAGGAACACC
GGCAAGAGTATCGCCAATAAGAACATCGCCAACCCCACGGCCACCCTGCTGGCCAGCTGCATGATGCTGGACCAC
CTCAAGCTGCACTCCTATGCCACCTCCATCCGTAAGGCTGTCCTGGCATCCATGGACAATGAGAATATGCACACT
CCGGACATCGGGGGCCAGGGCACAACATCTGAAGCCATCCAGGACGTCATCCGCCACATCCGCGTCATCAACGGC
CGGGCCGTGGAGGCC**TAG**GCTGGCCCTAGGACCTTCTTGGTTTGCTCCTTGGATTCCCCTTCCCACTCCAGCACC
CCAGCCAGCCTGGTACGCAGATCCCAGAATAAAGCACCTTCTCCCTAG

FIGURE 4317A

GCGGACGGACGCGCCTGGTGCCCCGGGGAGGGGCGCCACCGGGGGAGGAGGAGGAGGAGAAGGTGGAGAGGAAGA
GACGCCCCCTCTGCCCGAGACCTCTCAAGGCCCTGACCTCAGGGGCCAGGGCACTGACAGGACAGGAGAGCCAAG
TTCCTCCACTTGGGCTGCCCGAAGAGGCCGCGACCCTGGAGGGCCCTGAGCCCACCGCACCAGGGGCCCCAGCAC
CACCCCGGGGGGCCTAAAGCGACAGTCTCAGGGGCCATCGCAAGGTTTCCAGTTGCCTAGACAACAGGCCCAGGGT
CAGAGCAACAATCCTTCCAGCCACCTGCCTCAACTGCTGCCCCAGGCACCAGCCCCAGTCCCTACGCGGCAGCCA
GCCCAGGTGAC**ATG**CCGGTGCTCTCCAGGCCCCGGCCCTGGCGGGGGAACACGCTGAAGCGCACGGCCGTGCTCC
TGGCCCTCGCGGCCTATGGAGCCCACAAAGTCTACCCCTTGGTGCGCCAGTGCCTGGCCCCGGCCAGGGGTCTTC
AGGCGCCCGCCGGGGAGCCCACGCAGGAGGCCTCCGGGGTCGCGGCGGCCAAAGCTGGCATGAACCGGGTATTCC
TGCAGCGGCTCCTGTGGCTCCTGCGGCTGCTGTTCCCCCGGGTCCTGTGCCGGGAGACGGGGCTGCTGGCCCTGC
ACTCGGCCGCCTTGGTGAGCCGCACCTTCCTGTCGGTGTATGTGGCCCGCCTGGACGGAAGGCTGGCCCGCTGCA
TCGTCCGCAAGGACCCGCGGGCTTTTGGCTGGCAGCTGCTGCAGTGGCTCCTCATCGCCCTCCCTGCTACCTTCG
TCAACAGTGCCATCCGTTACCTGGAGGGCCAACTGGCCCTGTCGTTCCGCAGCCGTCTGGTGGCCCACGCCTACC
GCCTCTACTTCTCCCAGCAGACCTACTACCGGGTCAGCAACATGGACGGGCGGCTTCGCAACCCTGACCAGTCTC
TGACGGAGGACGTGGTGGCCTTTGCGGCCTCTGTGGCCCACCTCTACTCCAACCTGACCAAGCCACTCCTGGACG
TGGCTGTGACTTCCTACACCCTGCTTCGGGCGGCCCGCTCCCGTGGAGCCGGCACAGCCTGGCCCTCGGCCATCG
CCGGCCTCGTGGTGTTCCTCACGGCCAACGTGCTGCGGGCCTTCTCGCCCAAGTTCGGGGAGCTGGTGGCAGAGG
AGGCGCGGCGGAAGGGGGAGCTGCGCTACATGCACTCGCGTGTGGTGGCCAACTCGGAGGAGATCGCCTTCTATG
GGGGCCATGAGGTGGAGCTGGCCCTGCTACAGCGCTCCTACCAGGACCTGGCCTCGCAGATCAACCTCATCCTTC
TGGAACGCCTGTGGTATGTTATGCTGGAGCAGTTCCTCATGAAGTATGTGTGGAGCGCCTCGGGCCTGCTCATGG
TGGCTGTCCCCATCATCACTGCCACTGGCTACTCAGAGTCAGATGCAGAGGCCGTGAAGAAGGCAGCCTTGGAAA
AGAAGGAGGAGGAGCTGGTGAGCGAGCGCACAGAAGCCTTCACTATTGCCCGCAACCTCCTGACAGCGGCTGCAG
ATGCCATTGAGCGGATCATGTCGTCGTACAAGGAGGTGACGGAGCTGGCTGGCTACACAGCCCGGGTGCACGAGA
TGTTCCAGGTATTTGAAGATGTTCAGCGCTGTCACTTCAAGAGGCCCAGGGAGCTAGAGGACGCTCAGGCGGGGT
CTGGGACCATAGGCCGGTCTGGTGTCCGTGTGGAGGGCCCCCTGAAGATCCGAGGCCAGGTGGTGGATGTGGAAC
AGGGGATCATCTGCGAGAACATCCCCATCGTCACGCCCTCAGGAGAGGTGGTGGTGGCCAGCCTCAACATCAGGG
TGGAGGAAGGCATGCATCTGCTCATCACAGGCCCCAATGGCTGCGGCAAGAGCTCCCTGTTCCGGATCCTGGGTG
GGCTCTGGCCCACGTACGGTGGTGTGCTCTACAAGCCCCCACCCCAGCGCATGTTCTACATCCCGCAGAGGCCCT
ACATGTCTGTGGGCTCCCTGCGTGACCAGGTGATCTACCCGGACTCAGTGGAGGACATGCAAAGGAAGGGCTACT
CGGAGCAGGACCTGGAAGCCATCCTGGACGTCGTGCACCTGCACCACATCCTGCAGCGGGAGGGAGGTTGGGAGG
CTATGTGTGACTGGAAGGACGTCCTGTCGGGTGGCGAGAAGCAGAGAATCGGCATGGCCCGCATGTTCTACCACA
GGCCCAAGTACGCCCTCCTGGATGAATGCACCAGCGCCGTGAGCATCGACGTGGAAGGCAAGATCTTCCAGGCGG
CCAAGGACGCGGGCATTGCCCTGCTCTCCATCACCCACCGGCCCTCCCTGTGGAAATACCACACACACTTGCTAC
AGTTCGATGGGGAGGGCGGCTGGAAGTTCGAGAAGCTGGACTCAGCTGCCCGCCTGAGCCTGACGGAGGAGAAGC
AGCGGCTGGAGCAGCAGCTGGCGGGCATTCCCAAGATGCAGCGGCGCCTCCAGGAGCTCTGCCAGATCCTGGGCG
AGGCCGTGGCCCCAGCGCATGTGCCGGCACCTAGCCCGCAAGGCCCTGGTGGCCTCCAGGGTGCCTCCACC**TGA**C
ACAACCGTCCCCGGCCCCTGCCCCGCCCCCAAGCTCGGATCACATGAAGGAGACAGCAGCACCCACCCATGCACG
CACCCCGCCCCTGCATGCCTGGCCCCTCCTCCTAGAAAACCCTTCCCGCCCTCGGGAAAGTAGATGTGGAGGGTG
GCGCCCTGCGTAACCCTCGCCCTGTCCCTCCCACTCCCTGGGGGCGCTGTTCCACAGTGACTGGGCCCTGTCCAG
GGCAGTGAGTCCTCTACTTTGCTCCGTGGAGGAAGCTGGGGTACAAGGGGCCCAGTGCTGGCCACACAGCAGCGC
AGCCGAGCCCCAGGAGCCCGTCAGGCCACAGCCCCTGGCACTGCAGGTGGCCTCCCTCCAGAGACTCGAGTCCCC
ATGATTCCCTCCTCGTCAGTCTCTCAAAGACCCCATGGTCCATCCCCTGAGGGTGGTCAGCCAAGGCTCCCGTTC
CGTGGGATGCCATAAAAGCCGCCCAGTGGGACCCACAGTCACACAGAGCGCCTCACCTGCATCCTCTCCCCCACA
AGAGCCCCAAAGATCCCACGGGAGAGGGGAGAGGGACGCACAGCACTGCCTGCCAAGCGAGAATGCAGGCCCCGC
CCCCTCGGCCCCTCACCACCTCTTTCTACAGCCTAATTTATTGGATTCCCTATTCGTAGCCATCTCCGTGGCCAA
TGTGACTACCGTGCCAGCAGCGGGGGCGGCCCAGCCTCTGAGTCCCGTGGGGCCCCGGCTCCCACCGGTGCCAAA
CCCAGCCCCTGCGGCCGTCACCCCGCCAGCCTACACTGCCAGCCGCCACCGGGGCACACGGGCCTCTGCTTGCCA
GCCAGGAGTGCGGACACCATGTTCCCAGCTCAGTGCCAAAGAGGGGTCACCAGGGGGAGCTGTCTGCGGAGCCAG
CGCCTGCCCGAGAGAGACCCCACCGCCACCGTGTGCCTTTCCCGGGCCCTCAGCCCTCGGGCCGGGCACCACCCC

FIGURE 4317B

CAGTCCCCCCAGTAAA

FIGURE 4318

TTTCCGGCCGCGGTATGAGGGGCGGGGCCGGGGCTGCTGTGGGAGAGTTCTGTTGCTGCGGCGGGGCCTGCACGT
TGACTGTGGGAAACTCGGAAACAAGCTCACATCTTCCTGTGGGAAACCTTCTAGCAACAGG**ATG**AGTCTGCAGTG
GACTGCAGTTGCCACCTTCCTCTATGCGGAGGTCTTTGTTGTGTTGCTTCTCTGCATTCCCTTCATTTCTCCTAA
AAGATGGCAGAAGATTTTCAAGTCCCGGCTGGTGGAGTTGTTAGTGTCCTATGGCAACACCTTCTTTGTGGTTCT
CATTGTCATCCTTGTGCTGTTGGTCATCGATGCCGTGCGCGAAATTCGGAAGTATGATGATGTGACGGAAAAGGT
GAACCTCCAGAACAATCCCGGGGCCATGGAGCACTTCCACATGAAGCTTTTCCGTGCCCAGAGGAATCTCTACAT
TGCTGGCTTTTCCTTGCTGCTGTCCTTCCTGCTTAGACGCCTGGTGACTCTCATTTCGCAGCAGGCCACGCTGCT
GGCCTCCAATGAAGCCTTTAAAAAGCAGGCGGAGAGTGCTAGTGAGGCGGCCAAGAAGTACATGGAGGAGAATGA
CCAGCTCAAGAAGGGAGCTGCTGTTGACGGAGGCAAGTTGGATGTCGGGAATGCTGAGGTGAAGTTGGAGGAAGA
GAACAGGAGCCTGAAGGCTGACCTGCAGAAGCTAAAGGACGAGCTGGCCAGCACTAAGCAAAAACTAGAGAAAGC
TGAAAACCAGGTTCTGGCCATGCGGAAGCAGTCTGAGGGCCTCACCAAGGAGTACGACCGCTTGCTGGAGGAGCA
CGCAAAGCTGCAGGCTGCAGTAGATGGTCCCATGGACAAGAAGGAAGAG**TAA**GGGCCTCCTTCCTCCCCTGCCTG
CAGCTGGCTTCCACCTGGCACGTGCCTGCTGCTTCCTGAGAGCCCGGCCTCTCCCTCCAGTACTTCTGTTTGTGC
CCTTCTGCTTCCCCCATTCCCTTCCACAGCTCATAGCTCGTCATCTCGGCCCTTGTCCACACTCTCCAAGCACAT
TACAGGGGACCTGATTGCTACACGTTCAGAATGCGTTTGCTGTCATCCTGCTTGGCCTGGCCAGGCCTGGCACAG
CCTTGGCTTCCACGCCTGAGCGTGGAGAGCACGAGTTAGTTGTAGTCCGGCTTGCGGTGGGGCTGACTTCCTGTT
GGTTTGAGCCCCTTTTTGTTTTGCCCTCTGGGTGTTTTCTTTGGTCCCGCAGGAGGGTGGGTGGAGCAGGTGGAC
TGGAGTTTCTCTTGAGGGCAATAAAAGTTGTCATGGTG

FIGURE 4319A

TAGTCGGAGCGAGGTGGCGAGTCGCTGAGCCCGCCGCGGCCCCGAGAGCGGCTGCAGCCGCCGCCGCCGGGAAGG
AGAGGGCGAGGCGCGCCCGAGCCGCCGCCGCCGCCGCCACCGCCGCCGCCGCCACCACCGCCACCGGAGTCGCGG
GCCAGCCGGGCAGCCTCCGCGGGCCCCGGCCGGGGCGGGGGGCGCGGGCCACAGGCCCCTGCTCCGGCCGCCGCT
TGCAGACCGCGGGCGCCGATGTCGCCCGCGCCCCGCTAGGCTGAGCCTCGGGTCGGGCGAGGAGCCGCCGCAGCC
GCCGCCGCCCGAGCCGCGGGCAGGAGCCTCGGGAGCCGCCGCCGCCGCCGCCGCCCGGCCGGGCCCCGCCGC
CGCCCGCGCGCCCCCGGGCCCCCGACACACATGAGATTCTTCAGGCTCACTTTCAAGTGCTTCGTGGACTGCTTC
TGACTGCGCCGCCCGCGCCCCGCACCCCGCCGCCCGCCCGCCGCCCCGTCCCCCGGCCCGGCCGCCCCCCGGCCC
CCGGCCGGCCCGCGCCCTCGGGGCCCTCCCCGGTGCCGCCGGTGCCCCCCGCCTGACCGCCGCCCCCCGTGAGGC
GCCGCGACCCCGGCCCGGCCGTGCGGCCCGCCGAGGCC**ATG**GCGAAGAAGAGCGCCGAGAACGGCATCTATAGCG
TGTCCGGCGACGAGAAGAAGGGCCCCCTCATCGCGCCCGGGCCCGACGGGGCCCCGGCCAAGGGCGACGGCCCCG
TGGGCCTGGGGACACCCGGCGGCCGCCTGGCCGTGCCGCCGCGCGAGACCTGGACGCGCCAGATGGACTTCATCA
TGTCGTGCGTGGGCTTCGCCGTGGGCTTGGGCAACGTGTGGCGCTTCCCCTACCTGTGCTACAAGAACGGCGGAG
GTGTGTTCCTTATTCCCTACGTCCTGATCGCCCTGGTTGGAGGAATCCCCATTTTCTTCTTAGAGATCTCGCTGG
GCCAGTTCATGAAGGCCGGCAGCATCAATGTCTGGAACATCTGTCCCCTGTTCAAAGGCCTGGGCTACGCCTCCA
TGGTGATCGTCTTCTACTGCAACACCTACTACATCATGGTGCTGGCCTGGGGCTTCTATTACCTGGTCAAGTCCT
TTACCACCACGCTGCCCTGGGCCACATGTGGCCACACCTGGAACACTCCCGACTGCGTGGAGATCTTCCGCCATG
AAGACTGTGCCAATGCCAGCCTGGCCAACCTCACCTGTGACCAGCTTGCTGACCGCCGGTCCCCTGTCATCGAGT
TCTGGGAGAACAAAGTCTTGAGGCTGTCTGGGGGACTGGAGGTGCCAGGGGCCCTCAACTGGGAGGTGACCCTTT
GTCTGCTGGCCTGCTGGGTGCTGGTCTACTTCTGTGTCTGGAAGGGGGTCAAATCCACGGGAAAGATCGTGTACT
TCACTGCTACATTCCCCTACGTGGTCCTGGTCGTGCTGCTGGTGCGTGGAGTGCTGCTGCCTGGCGCCCTGGATG
GCATCATTTACTATCTCAAGCCTGACTGGTCAAAGCTGGGGTCCCCTCAGGTGTGGATAGATGCGGGGACCCAGA
TTTTCTTTTCTTACGCCATTGGCCTGGGGGCCCTCACAGCCCTGGGCAGCTACAACCGCTTCAACAACAACTGCT
ACAAGGACGCCATCATCCTGGCTCTCATCAACAGTGGGACCAGCTTCTTTGCTGGCTTCGTGGTCTTCTCCATCC
TGGGCTTCATGGCTGCAGAGCAGGGCGTGCACATCTCCAAGGTGGCAGAGTCAGGGCCGGGCCTGGCCTTCATCG
CCTACCCGCGGGCTGTCACGCTGATGCCAGTGGCCCCACTCTGGGCTGCCCTGTTCTTCTTCATGCTGTTGCTGC
TTGGTCTCGACAGCCAGGTTTGTAGGTGTGGAGGGCTTCATCACCGGCCTCCTCGACCTCCTCCCGGCCTCCTAC
TACTTCCGTTTCCAAAGGGAGATCTCTGTGGCCCTCTGTTGTGCCCTCTGCTTTGTCATCGATCTCTCCATGGTG
AC**TGA**TGGCGGGATGTACGTCTTCCAGCTGTTTGACTACTACTCGGCCAGCGGCACCACCCTGCTCTGGCAGGCC
TTTTGGGAGTGCGTGGTGGTGGCCTGGGTGTACGGAGCTGACCGCTTCATGGACGACATTGCCTGTATGATCGGG
TACCGACCTTGCCCCTGGATGAAATGGTGCTGGTCCTTCTTCACCCCGCTGGTCTGCATGGGCATCTTCATCTTC
AACGTTGTGTACTACGAGCCGCTGGTCTACAACAACACCTACGTGTACCCGTGGTGGGGTGAGGCCATGGGCTGG
GCCTTCGCCCTGTCCTCCATGCTGTGCGTGCCGCTGCACCTCCTGGGCTGCCTCCTCAGGGCCAAGGGCACCATG
GCTGAGCGCTGGCAGCACCTGACCCAGCCCATCTGGGGCCTCCACCACTTGGAGTACCGAGCTCAGGACGCAGAT
GTCAGGGGCCTGACCACCCTGACCCCAGTGTCCGAGAGCAGCAAGGTCGTCGTGGTGGAGAGTGTCATGTGACAA
CTCAGCTCACATCACCAGCTCACCTCTGGTAGCCATAGCAGCCCCTGCTTCAGCCCCACCGCACCCCTCCAGGGG
GCCTGCCTTTCCCTGACACTTTTGGGGTCTGCCTGGGGGAGGAGGGGAGAAAGCACCATGAGTGCTCACTAAAAC
AACTTTTTCCATTTTTAATAAAACGCCAAAAATATCACAACCCACCAAAAATAGATGCCTCTCCCCCTCCAGCCC
TAGCCGAGCTGGTCCTAGGCCCCGCCTAGTGCCCCACCCCCACCCACAGTGCTGCACTCCTCCTGCCCCTGCCAC
GCCCACCCCCTGCCCACCTCTCCAGGCTCTGCTCTGCAGCACACCCGTGGGTGACCCCTCACCCCAGAAGCAGCA
GTGGCAGCTTGGGAAATGTGAGGAAGGGAAGGAGGGAGAGACGGGAGGGAGGAGAGAGAGGAGAAGGGAGGCAGG
GGAGGGGCAGCAGAACCAAGGCAAATATTTCAGCTGGGCTATACCCCTCTCCCCATCCCTGTTATAGAAGCTTAG
AGAGCCAGCCAGCAATGGAACCTTCTGGTTCCTGCGCCAATCGCCACCAGTATCAATTGTGTGAGCTTGGGTGCG
AGTGCACGCGTGCGTGAGTACGGAGAGTATATATAGATCTCTATCTCTTAGCAAAGGTGAATGCCAGATGTAAAT
GGCGCCTCTGGGCAAAGGAGGCTTGTATTTTGCACATTTTATAAAAACTTGAGAGAATGAGATTTCTGCTTGTAT
ATTTCTAAAAAGAGGAAGGAGCCCAAACCATCCTCTCCTTACCACTCCCATCCCTGTGAGCCCTACCTTACCCCT
CTGCCCCTAGCCAAGGAGTGTGAATTTATAGATCTAACTTTCATAGGCAAAACAAAAGCTTCGAGCTGTTGCGTG
TGTGAGTCTGTTGTGTGGATGTGCGTGTGTGGTCCCCAGCCCCAGACTGGATTGGAAAAGTGCATGGTGGGGGCC
TCGGGGCTGTCCCCACGCTGTCCCTTTGCCACAAGTCTGTGGGGCAAGAGGCTGCAATATTCCGTCCTGGGTGTC

FIGURE 4319B

TGGGCTGCTAACCTGGCCTGCTCAGGCTTCCCACCCTGTGCGGGGCACACCCCCAGGAAGGGACCCTGGACACGG
CTCCCACGTCCAGGCTTAAGGTGGATGCACTTCCCGCACCTCCAGTCTTCTGTGTAGCAGCTTTAACCCACGTTT
GTCTGTCACGTCCAGTCCCGAGACGGCTGAGTGACCCCAAGAAAGGCTTCCCCGACACCCAGACAGAGGCTGCAG
GGCTGGGGCTGGGTGAGGGTGGCGGGCCTGCGGGGACATTCTACTGTGCTAAAAAGCCACTGCAGACATAGCAAT
AAAAACATGTCATTTTCC

FIGURE 4320

GCTTCTGCGCGCCGGGGCCGCCTCTCCTTCCGCCGGTGCCGCGGCGCCTCATGGAAGCCCCGGAGGCGGCGGAGG
GGGGCCTGCAGCGCGGGGCCCGGAGGGCAGCCGGCGCCCGAAGCCAGGGTGCACTTCCGAGTGGCGAGGTTCATC
ATGGAGGCAGGTGTCAAGCTAGGGATGCGGTCCATTCCCATTGCCACTGCTTGCACCATTTACCATAAGTTCTTT
TGCGAGACCAACCTGGACGCCTATGACCCTTACCTGATTGCCATGTCTTCAATTTACTTGGCCGGCAAAGTGGAA
GAGCAGCACCTGCGGACTCGTGACATCATCAATGTGTCCAACAGGTACTTTAACCCAAGCGGTGAGCCCCTGGAA
TTGGACTCCCGCTTCTGGGAACTCCGGGACAGCATCGTGCAGTGTGAGCTTCTCATGCTGAGAGTTCTGCGCTTC
CAGGTCTCCTTCCAGCATCCACACAAGTACCTGCTCCACTACCTGGTTTCCCTCCAGAACTGGCTGAACCGCCAC
AGCTGGCAGCGGACCCCTGTTGCCGTCACCGCCTGGGCCCTGCTGCGGGACAGCTACCATGGGGCGCTGTGCCTC
CGCTTCCAGGCCCAGCACATCGCCGTGGCGGTGCTCTACCTGGCCCTGCAGGTCTACGGAGTTGAGGTGCCCGCC
GAGGTCGAGGCTGAGAAGCCGTGGTGGCAGGTGTTTAATGACGACCTTACCAAGCCAATCATTGATAATATTGTG
TCTGATCTCATTCAGATTTATACCATGGACACAGAGATCCCC**TAA**GGTCCTGGCCCAGGCCTGCCCAAAGAGAAG
CCACATCTGCGTTTGTCCTTTGAGAGGACTTTGACTACAATACAGGCATGACATCAATGAAAGGAAAGTCATGAA
ATCGATGAGACTGAATCCCTACGGATTTCTTAAAAGCCAGATTTGTAGGGAGAATGAATGTGCAACGTGGCTGAA
ATCTATTTTGTGTAATAAAAGGTGATACAAGTC

FIGURE 4321

TCTCTCCACAAACTGCCCAGGAGTGAGTAGCTGCTTTCGGTCCGCCGGACACACCGGACAGATAGACGTGCGGAC
GGCCCACCACCCCAGCCCGCCAACTAGTCAGCCTGCGCCTGGCGCCTCCCCTCTCCAGGTCCATCCGCC**ATG**TGG
CCCCTGTGGCGCCTCGTGTCTCTGCTGGCCCTGAGCCAGGCCCTGCCCTTTGAGCAGAGAGGCTTCTGGGACTTC
ACCCTGGACGATGGGCCATTCATGATGAACGATGAGGAAGCTTCGGGCGCTGACACCTCGGGCGTCCTGGACCCG
GACTCTGTCACACCCACCTACAGCGCCATGTGTCCTTTCGGCTGCCACTGCCACCTGCGGGTGGTTCAGTGCTCC
GACCTGGGTCTGAAGTCTGTGCCCAAAGAGATCTCCCCTGACACCACGCTGCTGGACCTGCAGAACAACGACATC
TCCGAGCTCCGCAAGGATGACTTCAAGGGTCTCCAGCACCTCTACGCCCTCGTCCTGGTGAACAACAAGATCTCC
AAGATCCATGAGAAGGCCTTCAGCCCACTGCGGAAGCTGCAGAAGCTCTACATCTCCAAGAACCACCTGGTGGAG
ATCCCGCCCAACCTACCCAGCTCCCTGGTGGAGCTCCGCATCCACGACAACCGCATCCGCAAGGTGCCCAAGGGA
GTGTTCAGTGGGCTCCGGAACATGAACTGCATCGAGATGGGCGGGAACCCACTGGAGAACAGTGGCTTTGAACCT
GGAGCCTTCGATGGCCTGAAGCTCAACTACCTGCGCATCTCAGAGGCCAAGCTGACTGGCATCCCCAAAGACCTC
CCTGAGACCCTGAATGAACTCCACCTAGACCACAACAAAATCCAGGCCATCGAACTGGAGGACCTGCTTCGCTAC
TCCAAGCTGTACAGGCTGGGCCTAGGCCACAACCAGATCAGGATGATCGAGAACGGGAGCCTGAGCTTCCTGCCC
ACCCTCCGGGAGCTCCACTTGGACAACAACAAGTTGGCCAGGGTGCCCTCAGGGCTCCCAGACCTCAAGCTCCTC
CAGGTGGTCTATCTGCACTCCAACAACATCACCAAAGTGGGTGTCAACGACTTCTGTCCCATGGGCTTCGGGGTG
AAGCGGGCCTACTACAACGGCATCAGCCTCTTCAACAACCCCGTGCCCTACTGGGAGGTGCAGCCGGCCACTTTC
CGCTGCGTCACTGACCGCCTGGCCATCCAGTTTGGCAACTACAAAAAG**TAG**AGGCAGCTGCAGCCACCGCGGGGC
CTCAGTGGGGGTCTCTGGGGAACACAGCCAGACATCCTGATGGGGAGGCAGAGCCAGGAAGCTAAGCCAGGGCCC
AGCTGCGTCCAACCCAGCCCCCCACCTCGGGTCCCTGACCCCAGCTCGATGCCCCATCACCGCCTCTCCCTGGCT
CCCAAGGGTGCAGGTGGGCGCAAGGCCCGGCCCCCATCACATGTTCCCTTGGCCTCAGAGCTGCCCCTGCTCTCC
CTCCACAGCCACCCAGAGGCACCCCATGAAGCTTTTTTCTCGTTCACTCCCAAACCCAAGTGTCCAAGTCTCCAG
TCCTAGGAGAACAGTCCCTGGGTCAGCAGCCAGGAGGCGGTCCATAAGAATGGGGACAGTGGGCTCTGCCAGGGC
TGCCGCACCTGTCCAGACACACATGTTCTGTTCCTCCTCCTCATGCATTTCCAGCCTTTCAACCCTCCCCGACTC
TGCGGCTCCCCTCAGCCCCCTTGCAAGTTCATGGCCTGTCCCTCCCAGACCCCTGCTCCACTGGCCCTTCGACCA
GTCCTCCCTTCTGTTCTCTCTTTCCCCGTCCTTCCTCTCTCTCTCTCTCTCTCTTTCTGTGTGTGTGTGTGTGTG
TGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTCTTGTGCTTCCTCAGACCTTTCTCGCTTCTGAGCTTGGTGGC
CTGTTCCCTCCATCTCTCCGAACCTGGCTTCGCCTGTCCCTTTCACTCCACACCCTCTGGCCTTCTGCCTTGAGC
TGGGACTGCTTTCTGTCTGTCCGGCCTGCACCCAGCCCCTGCCCACAAAACCCCAGGGACAGCGGTCTCCCCAGC
CTGCCCTGCTCAGGCCTTGCCCCCAAACCTGTACTGTCCCGGAGGAGGTTGGGAGGTGGAGGCCCAGCATCCCGC
GCAGATGACACCATCAACCGCCAGAGTCCCAGACACCGGTTTTCCTAGAAGCCCCTCACCCCCACTGGCCCACTG
GTGGCTAGGTCTCCCCTTATCCTTCTGGTCCAGCGCAAGGAGGGGCTGCTTCTGAGGTCGGTGGCTGTCTTTCCA
TTAAAGAAACACCGTGCAACGTG

FIGURE 4322

ATGGGCGGGGCGCGGCTCGGAGCGCGAAACATGGCGGGGCAGGACGCTGGCTGCGGCCGTGGCGGCGACGACTAC
TCAGAGGACGAAGGCGACAGCAGCGTGTCCAGGGCGGCTGTGGAGGTGTTCGGGAAGCTGAAGGACCTAAACTGC
CCCTTCCTCGAGGGTCTGTATATCACAGAGCCAAAGACAATTCAGGAACTGCTGTGCAGCCCCTCAGAGTACCGC
TTGGAGATCCTAGAGTGGATGTGTACCCGGGTCTGGCCCTCACTGCAGGACAGGTTCAGCTCACTGAAAGGGGTC
CCAACAGAGGTGAAGATCCAAGAAATGACGAAGCTGGGCCACGAGCTGATGCTGTGTGCGCCAGATGACCAGGAG
CTCCTCAAGGGCTGTGCCTGCGCCCAGAAGCAGCTACACTTCATGGACCAGTTGCTCGATACCATCCGGAGCCTG
ACCATTGGGTGCTCCAGTTGCTCGAGCCTGATGGAGCACTTCGAGGACACCAGGGAGAAGAACGAGGCCTTGCTG
GGGGAGCTCTTCTCTAGCCCCCACCTGCAGATGCTCCTGAATCCAGAGTGCGACCCGTGGCCCCTGGACATGCAG
CCCCTCCTCAACAAGCAGAGTGATGACTGGCAGTGGGCCAGTGCCTCTGCCAAGTCCGAGGAGGAGGAGAAGCTG
GCGGAGCTTGCCAGGCAGCTGCAGGAGAGTGCTGCCAAGTTGCACGCGCTTAGAACGGAGTACTTTGCACAGCAT
GAGCAAGGGGCTGCTGCGGGCGCAGCCGACATCAGCACCCTAGACCAGAAGCTGCGTCTGGTCACTTCCGACTTC
CACCAGCTAATCTTGGCTTTTCTCCAAGTCTACGACGACGAGCTGGGCGAGTGCTGCCAGCGCCCAGGCCCTGAC
CTCCACCCGTGCGGCCCCATCATCCAGGCCACGCACCAGAATCTGACTTCCTACAGCCAAATCCCCAGAGGCCAA
CCTAAAAAGCCGGCTTTAGTTACGATGACTACAGTTCCCACGTGCGCAACTCTGCCCTTGGCTCAAGGATTCCGT
GATGTTCATTTTGGTTTTCTAAGCGAGAGGCTCCGAGCCTTCCAACCTCTGACTGGCTGGTCCTGTGAGACCCCT
CGATCAGGGATGCTGCTGCAAGTGGTCATGGCAGTTGCTGACACCTCTGCGAAGGCCGTGGAGACCGTGAAGAAG
CAGCAAGGCGAGCAGATCTGCTGGGGTGGCAGCAGCTCCGTCATGAGTCTAGCTACCAAGATGAATGAACTAATG
GAGAAATAGAAAGTCTTCAGTGATGGCCTACGCCAAAGCACAGGATGGGGCGGGCAGGAAGCCCTCTCCCAAGAT
CGAGTTGGCCGAGGATGGATGATTGTGGCAGCAGAAGCCGTTGCAGCCCCACGTTGTGCTCTAGGCAGCTGGGGG
CGGGCTGCGGCCGCTGATTAAAGGCCGCCTAGAGCAGCCTGTGTGGCGACAGGTGCCCAGAAGCCCAGGAAGCCG
GTCAGTGCCCGCCCCAGTTTGAGGACTTGCTATCCCCGTGGGAACATCACC**ATG**TCCGAGGCACCCCGGGCCGAG
ACCTTTGTCTTCCTGGACCTGGAAGCCACTGGGCTCCCCAGTGTGGAGCCCGAGATTGCCGAGCTGTCCCTCTTT
GCTGTCCACCGCTCCTCCCTGGAGAACCCGGAGCACGACGAGTCTGGTGCCCTAGTATTGCCCCGGGTCCTGGAC
AAGCTCACGCTGTGCATGTGCCCGGAGCGCCCCTTCACTGCCAAGGCCAGCGAGATCACCGGCCTGAGCAGTGAG
GGCCTGGCGCGATGCCGGAAGGCTGGCTTTGATGGCGCCGTGGTGCGGACGCTGCAGGCCTTCCTGAGCCGCCAG
GCAGGGCCCATCTGCCTTGTGGCCCACAATGGCTTTGATTATGATTTCCCCCTGCTGTGTGCCGAGCTGCGGCGC
CTGGGTGCCCGCCTGCCCCGGGACACTGTCTGCCTGGACACGCTGCCGGCCCTGCGGGGCCTGGACCGCGCCCAC
AGCCACGGCACCCGGGCCCGGGGCCGCCAGGGTTACAGCCTCGGCAGCCTCTTCCACCGCTACTTCCGGGCAGAG
CCAAGCGCAGCCCACTCAGCCGAGGGCGACGTGCACACCCTGCTCCTGATCTTCCTGCACCGCGCCGCAGAGCTG
CTCGCCTGGGCCGATGAGCAGGCCCGTGGGTGGGCCCACATCGAGCCCATGTACTTGCCGCCTGATGACCCCAGC
CTGGAGGCC**TGA**

FIGURE 4323

CCGAGCGGGCTGGGGGAGGGGAGCGTGGGGCCGACAGTTTTGGGGGTGAAAAGGCAAAAGGCGGGTGAAAGGCTG
CCTCCCGAGACTCTCCTTGCTTGGAATTCTGCCCACTCTGCGGAGTTAGCAGTCACGACCTCCAGCACAGG**ATG**T
GGTACCACAGATTGTCCCACCTACACAGCAGGCTTCAGGACTTGCTGAAGGGAGGAGTCATATATCCGGCCCTTC
CACAGCCCAACTTCAAAAGCTTACTTCCTTTAGCTGTCCATTGGCACCATACAGCCTCCAAGTCTCTGACTTGTG
CTTGGCAGCAACATGAAGATCATTTTGAGCTGAAATATGCTAATACCGTGATGCGCTTTGATTACGTCTGGCTTC
GAGACCACTGCCGCTCAGCATCGTGCTACAACTCTAAGACTCACCAGCGCAGCCTGGATACTGCCAGTGTGGATT
TATGTATCAAGCCAAAGACCATTCGTCTGGATGAGACCACACTCTTTTTCACTTGGCCAGATGGTCATGTGACTA
AATATGATTTGAATTGGCTGGTGAAAAACAGCTATGAAGGGCAGAAACAAAAAGTCATCCAGCCTAGAATACTAT
GGAATGCTGAAATCTACCAGCAAGCCCAAGTTCCATCGGTAGATTGCCAGAGCTTCTTAGAAACCAACGAGGGAC
TGAAGAAGTTTCTGCAAAACTTTCTGCTCTATGGAATTGCATTCGTAGAAAATGTCCCTCCCACTCAAGAGCACA
CAGAGAAGTTGGCAGAAAGGATCAGCTTAATCAGAGAAACCATTTATGGGAGGATGTGGTATTTCACTTCAGACT
TCTCCAGAGGTGACACTGCGTACACCAAGCTAGCTCTGGATCGGCACACTGACACTACCTATTTTCAAGAGCCCT
GTGGCATTCAAGTGTTTCATTGTCTTAAACATGAAGGAACTGGTGGCAGGACACTGCTAGTAGATGGATTCTATG
CAGCAGAACAGGTACTTCAAAAGGCACCTGAGGAATTTGAACTCCTCAGTAAAGTGCCATTGAAGCATGAATATA
TTGAAGATGTTGGAGAATGTCACAACCACATGATTGGGATTGGGCCAGTCTTAAATATCTACCCATGGAATAAAG
AGCTGTATTTGATCAGGTACAACAACTATGACCGGGCTGTCATCAATACCGTTCCTTATGATGTCGTCCATCGCT
GGTATACAGCACACCGGACTCTAACGATAGAGTTGAGGAGACCTGAGAATGAGTTTTGGGTCAAACTAAAGCCTG
GCAGGGTCCTATTTATAGACAACTGGCGTGTCCTACATGGCAGGGAATGCTTCACTGGCTACCGCCAACTGTGTG
GCTGCTATTTAACAAGAGATGATGTATTAAACACTGCTCGCCTCTTGGGGCTTCAGGCT**TAA**AATTGACAGCATC
TGGATTATGAATACACCTGGCACCCTGGCTACCAGAATTTCATATGGGCAGAATAATATTGTGTCAAACTCTACT
TCAGATTGTCTCCTTATCCCATCCCACAAAACAGAATCTGTCCGTTTCTCTAGTAAGGGAGACTTGTTGGAGAGG
CGGGACTCTGAGTTATCTAATGTCAGACATCTAGTGGGGCAGCTCTCTTCCTCATGTTATAACATGGATCCACTT
GTTTTATTTAAACCTTTTAATATAATTTTGGTCAGTCTCCTTCAGAAATATAATCTCCATATTGATAGGAAAGCA
ATAATTGCCATGAGGTAACGATTTTTTTCCCAAGTAGATCAGTTAGAAAGAAATGCATTCTAGAAATAACAAAAA
TCCTGATAAAGCAACAATTTGCAAAATGTTTGGTCTTAGGACACCTTAACACTCTTAAAAGTTATTGAAGGCCCC
AAGGAGTTCTTGGGTGTGGGTTCTATCTATTGATACTAATTATTTTAGGTATTAAGACTGAGAAATATTTAAAGC
TCAAGAAGAACACAGAAGCACACATCCCTCAGCTATGAGAGAGATGACATAACCATATGTCATGTAGCCTCTGGA
AAAGTCCTCTGTATCCTCATGAGATAACGAGAGGGGGAAAAAAAGCTACTACTGCCTTTGTAACTTCCACTTAGC
CTACTACAGGGCTATGCACATCTTAGTTTCCAAAAGTCTGCTTAATTTCAAAAGAAAAATGCCTAATTGAATGTA
ACTCATCTTGGTGTTATTATACAAAATAATTTTTAATCTGCAGACCCACGAAAAGGGTCTCAGGGACTCCTCCAG
GGGTCTTCAGACCATACTTTGAGAACCCATGGGCTAGCGACTACCTTGAGACAGTCCTTTACCTAGGCCTGTGGA
TTAAAGGGTTTAGCTGAAACCCTAGATTCTTCTCTGTAGTCTAATAGAACTCCAAACATTGTAAGAATTGCTTGG
TAGCATAAGCTCAGGGATAAGGTGGGAATTGAGTTCAAATATAGTGTTTTATCTTCCACACAAATCATCTCTATA
GGAGTTAAATTAGGAAGTCACAACAGCGCCTGTTGAACAAACTCATCAGTGTGGTAATCCTATGAGGGATAATTG
CAGAAAGGTTTTAGAGACTTGTGAGGTTCCATATGATAATTCTTTACACCTCCCCCCCCCAAGAGAAAGTACACA
GGGCTATTCTGTAATATTGTTCAGGGAAATCAGCATGATAGATGCTGTGCCTCCAGAGAGTTCTCTGGAGATTAC
TACCCAAATGTGTATTTTGGCAATTTGGTGGTATTTAGGATGTAATATGTTTTCCTCCATTTCTGCTAATTTTCT
CTCTCTCTCTCTCATAACATACTATACATGCTAATTGCCAAGATTTGAATGAGTCAAATTT

4985/5332

FIGURE 4324

AAAACGATTTCAAGAGCTGCACTTAAGCATCTAGAATTTTCTGCGTCACACCTCTTGAGAGAAGAGACTGGCTCC
AGGTCTGACTCAGTCCACTACAAGCTAGACGGTCTTCTTAAAGCACCAACATTACTTGAGTCTTTGGATAAAATT
GAGAAAAGAGTCTACAAGTATTGTGGACTCTACAGGAGGCAGGAGGCTGACAACTGGCAGTAAAGACAAAG**ATG**T
CAGGCCTGCGGCCCGGCACTCAAGTGGACCCTGAGATTGAGCTTTTTGTAAAGGCTGGAAGTGATGGAGAGAGTA
TTGGAAACTGTCCCTTTTGCCAACGCCTTTTCATGATCCTCTGGCTTAAAGGAGTTAAATTTAATGTGACAACTG
TTGACATGACCAGAAAGCCTGAAGAACTAAAGGACTTAGCCCCAGGTACCAATCCTCCGTTCCTGGTGTATAACA
AGGAGTTGAAAACAGACTTCATTAAAATTGAGGAGTTTTTAGAACAAACCCTGGCTCCTCCAAGGTACCCTCACC
TGAGTCCCAAGTACAAGGAGTCTTTTGATGTGGGCTGTAACCTCTTTGCCAAGTTTTCTGCATACATTAAGAATA
CACAAAAGGAGGCAAATAAGAATTTTGAAAAATCTCTGCTCAAAGAATTCAAGCGTCTGGATGACTACTTAAACA
CCCCACTTCTGGATGAAATTGATCCAGACAGTGCTGAGGAACCCCCAGTTTCCAGAAGACTATTCTTGGATGGGG
ACCAGCTAACACTGGCTGATTGTAGCTTGTTACCCAAGCTGAACATTATTAAAGTTGCTGCCAAGAAATATCGTG
ACTTTGACATTCCAGCAGAATTCTCAGGAGTCTGGCGTTATCTCCACAATGCCTATGCCCGTGAAGAATTTACCC
ACACGTGTCCTGAAGACAAAGAAATTGAAAATACTTACGCAAATGTGGCTAAACAGAAGAGT**TAG**GAGAGCTCTT
ACAGGAGAAAAGGCTATATTTGTGATCAGATTTTACTTATTGACATATTAGAAAGGTTTTTGCAAATAAGAATAT
GAAAAATACTGTTTCTTCTATCCAACTCTCTTATGAAAAGGAACTCTGTATTTTCTATTAGCCATAAATAATCTG
TCCACTGTATTTTACAGGTCTTCATACTTTTACTTAATTTTCTTTATCTGTATGGCAAACCACTGCAATCCTGAA
TGACATGGAAAGCATCACAATCTTTTGCCCTTTGCTTGAATTCCTGGAATGCATACATATAAGCTAAACAGATGT
CTGCAGTTATAAATGTCATAAGTAGAGGTACAATCTCACCCTGCTCCTTAGAAACATTTCCATATAAATCGCTAA
AATAATTTCACATTTTTGTTAGTTTAATATATACATGAGTTTATTTCTGATATAAATAATAAATACAGAGAGTGA
GCATATCAGAGAGGCAAATTCTTAAAGAATGATTTTTAAAATCAGCTCTAGGAAGAGCTCAAGATCAATTGGTCA
TAGAACAGCATTTGACGCCTAGAACTATGACCACCTCATGGTCAGAGATGAGAATGTAGCCTTTGTGACCAGATT
ATATTATTTTTAAATGAAGAAGCACTCATTAAATAAAACATAATTTTAAAAAACAATATAAGAAACAAAGTCAAC
TGAATCTTTTATTCATAGAAATGAAAAGGAAAATAAAAACTGTGGCTGACC

FIGURE 4325

CTCTTACAGATAGTGCGGCGGCCCAGGCGTCGCGTCTACGCGGGGGATTACAGTAACCCGGTTGTCAGTGATGAG
TCAGAGTGCGTGGTGCTGATGCTGCTGCCATTTCATCACCTTTGCGAGCGCAGCATCCATCCCTCCGCTCTCCCG
GCGCCTGGGCCTACCCAGCTTCGGGCTCCCAGGCCAGCGATGCGCTCGCGGCTGAGCTAGATCCTGCCGAGCCGC
GCTCTCTGAGGCGTCGGCGGGGCGCCCCCTCCCGCCGTCCCCGGTCCGGGCCAAGGAGACCTGCAGAGCCGCGGC
C**ATG**GAGGCCATCTGGCTGTACCAGTTCCGGCTCATTGTCATCGGGGATTCCACAGTGGGCAAGTCCTGCCTGAT
CCGCCGCTTCACCGAGGGTCGCTTTGCCCAGGTTTCTGACCCCACCGTGGGGGTGGATTTTTTCTCCCGCTTGGT
GGAGATCGAGCCAGGAAAACGCATCAAGCTCCAGATCTGGGATACCGCGGGTCAAGAGAGGTTCAGATCCATCAC
TCGCGCCTACTACAGGAACTCAGTAGGTGGTCTTCTCTTATTTGACATTACCAACCGCAGGTCCTTCCAGAATGT
CCATGAGTGGTTAGAAGAGACCAAAGTACACGTTCAGCCCTACCAAATTGTATTTGTTCTGGTGGGTCACAAGTG
TGACCTGGATACACAGAGGCAAGTGACTCGCCACGAGGCCGAGAAACTGGCTGCTGCATACGGCATGAAGTACAT
TGAAACGTCAGCCCGAGATGCCATTAATGTGGAGAAAGCCTTCACAGACCTGACAAGAGACATATATGAGCTGGT
TAAAAGGGGGGAGATTACAATCCAGGAGGGCTGGGAAGGGGTGAAGAGTGGATTTGTACCAAATGTGGTTCACTC
TTCAGAAGAGGTTGTCAAATCAGAGAGGAGATGTTTGTGC**TAG**TCAGTTCTTTTATTTCCAAAACATGCTCTCCT
ACTTGAACTGAAAAGTAAGAGAAATAAATAGAATCTTTGTGT

FIGURE 4326

ACGCTTGTCACTTACCTGAGCGCAGCCAATCAGCACCTAGAGGTTGGGCTACTTTCGGCCAAAGGAGAACGGGGA
CTTGTGGGGGACGCTCCCTGCGCACCAATGAATGTGCATGGAGATGGAGAGGCGGGCCTGCAAGTGCGAACAAGC
CAATCACGGAATCCCGGCGGCCGGCGGCCCGGGAGGCAGTCGCGCGCTCGCATCCCCAAG**ATG**GCGGCCGTTAAG
GACAGTTGTGGCAAAGGAGAAATGGCCACAGGGAATGGGCGGCGGCTCCACCTGGGGATTCCTGAGGCCGTGTTT
GTGGAAGATGTAGATTCCTTCATGAAACAGCCTGGGAATGAGACTGCAGATACAGTATTAAAGAAGCTGGATGAA
CAGTACCAGAAGTATAAGTTTATGGAACTCAACCTTGCTCAAAAGAAAAGAAGGCTAAAAGGTCAGATTCCTGAA
ATTAAACAGACTTTGGAAATTCTAAAATACATGCAGAAGAAAAAAGAGTCCACCAACTCAATGGAGACCAGATTC
TTGCTGGCAGATAACCTGTATTGCAAAGCTTCAGTTCCTCCTACCGATAAAATGTGTCTGTGGTTGGGGGCTAAT
GTAATGCTTGAATATGATATTGATGAAGCTCAGGCATTGTTGGAAAAGAATTTATCGACTGCCACAAAGAATCTT
GATTCCCTGGAGGAAGACCTTGACTTTCTTCGAGATCAATTTACTACCACAGAAGTCAATATGGCCAGGGTTTAT
AATTGGGATGTAAAAAGAAGAAACAAGGATGACTCTACCAAGAACAAAGCA**TAA**TGCTGGCAATTAAAAATGTGG
TTTAGTTTTCCAAACATGTTATCTTAAATACCCCTTTATCCTTACAGGTTGACATAACTTTGAATGTTTTAACAG
CAAGAATTTTAAGAAAAGATAAACACCATTTTATTTATTTATAAAAACAAAATTAGTTTCAAATATTTTTGACAT
TGTGATTTTTTTTTCCACATTTCTCAGCAAAGCTAATGGTATTTTAATCATTATTTTTGCCTGTCATAAGAAAAC
TCTTAGCTGAAATGGCCGAAAACTGTGAGACATGCTATGGAAGCTGAATGCCGGACGCTAGCACAGTTTACTTTT
TCCCTTTCTAATCGGCTGATGTTACTCTCACTTGATGTGGTTAAACCATTTTAGAGGTAGAGAAGACAGACAGTT
TGAATATTTGTAAACTTGTTTTTCTTTGGTATATTTAGGACTTAGTGGTCCTCTGTTGCTATTGTCTTCTATAAG
TGGAGTTTCATGACTTACTGCTTAACGAATAACTAACTACTATGATATTCTGGACATTTTAGGAAATGGTAATTT
GCCTTGCTACACATTAAGAGGGCTATTAAGACTACATTTTTTCTAACCTCAGATAAGTGCAGTGTCTTTGCAATG
CCAACATAAGGGAGATCTTGGCCAACGTGAAATAAAATTACTCATTCAAAACTCTGCCTAAGGTGATTTTGTAGT
TCTTAACAGTTCTCCAGAGCATCTTGAACAGGAATATTAAGATAAATGTGAATCTGCAATGGCTGAAAAGAGTTG
TGAGCTTTTTTATTCATGATAAAACCTTATAGGAATAGTATAAAAAATCCCTGTGGAAAGCTACTAGTACATTGA
CCAGCGCTGGGTGATACAGATTCTGATAAAAACATAAATGTATTAGTTCATCTCCATGTAGTAAAAAGTATACTT
ATACAATGTTTTGTACTTGTATTTCATGAAATTAAAACAGTGATGCTAAAAC

FIGURE 4327

GACATCATGGGCTATTTTTAGGGGTTGACTGGTAGCAGATAAGTGTTGAGCTCGGGCTGGATAAGGGCTCAGAGT
TGCACTGAGTGTGGCTGAAGCAGCGAGGCGGGAGTGGAGGTGCGCGGAGTCAGGCAGACAGACAGACACAGCCAG
CCAGCCAGGTCGGCAGTATAGTCCGAACTGCAAATCTTATTTTCTTTTCACCTTCTCTCTAACTGCCCAGAGCTA
GCGCCTGTGGCTCCCGGGCTGGTGTTTCGGGAGTGTCCAGAGAGCCTGGTCTCCAGCCGCCCCCGGGAGGAGAGC
CCTGCTGCCCAGGCGCTGTTGACAGCGGCGGAAAGCAGCGGTACCCACGCGCCCGCCGGGGGAAGTCGGCGAGCG
GCTGCAGCAGCAAAGAACTTTCCCGGCTGGGAGGACCGGAGACAAGTGGCAGAGTCCCGGAGCCAACTTTTGCAA
GCCTTTCCTGCGTCTTAGGCTTCTCCACGGCGGTAAAGACCAGAAGGCGGCGGAGAGCCACGCAAGAGAAGAAGG
ACGTGCGCTCAGCTTCGCTCGCACCGGTTGTTGAACTTGGGCGAGCGCGAGCCGCGGCTGCCGGGCGCCCCCTCC
CCCTAGCAGCGGAGGAGGGGACAAGTCGTCGGAGTCCGGGCGGCCAAGACCCGCCGCCGGCCGGCCACTGCAGGG
TCCGCACTGATCCGCTCCGCGGGGAGAGCCGCTGCTCTGGGAAGTGAGTTCGCCTGCGGACTCCGAGGAACCGCT
GCGCACGAAGAGCGCTCAGTGAGTGACCGCGACTTTTCAAAGCCGGGTAGCGCGCGCGAGTCGACAAGTAAGAGT
GCGGGAGGCATCTTAATTAACCCTGCGCTCCCTGGAGCGAGCTGGTGAGGAGGGCGCAGCGGGGACGACAGCCAG
CGGGTGCGTGCGCTCTTAGAGAAACTTTCCCTGTCAAAGGCTCCGGGGGGCGCGGGTGTCCCCCGCTTGCCACAG
CCCTGTTGCGGCCCCGAAACTTGTGCGCGCAGCCCAAACTAACCTCACGTGAAGTGACGGACTGTTCT**ATG**ACTG
CAAAGATGGAAACGACCTTCTATGACGATGCCCTCAACGCCTCGTTCCTCCCGTCCGAGAGCGGACCTTATGGCT
ACAGTAACCCCAAGATCCTGAAACAGAGCATGACCCTGAACCTGGCCGACCCAGTGGGGAGCCTGAAGCCGCACC
TCCGCGCCAAGAACTCGGACCTCCTCACCTCGCCCGACGTGGGGCTGCTCAAGCTGGCGTCGCCCGAGCTGGAGC
GCCTGATAATCCAGTCCAGCAACGGGCACATCACCACCACGCCGACCCCCACCCAGTTCCTGTGCCCCAAGAACG
TGACAGATGAGCAGGAGGGCTTCGCCGAGGGCTTCGTGCGCGCCCTGGCCGAACTGCACAGCCAGAACACGCTGC
CCAGCGTCACGTCGGCGGCGCAGCCGGTCAACGGGGCAGGCATGGTGGCTCCCGCGGTAGCCTCGGTGGCAGGGG
GCAGCGGCAGCGGCGGCTTCAGCGCCAGCCTGCACAGCGAGCCGCCGGTCTACGCAAACCTCAGCAACTTCAACC
CAGGCGCGCTGAGCAGCGGCGGCGGGGCGCCCTCCTACGGCGCGGCCGGCCTGGCCTTTCCCGCGCAACCCCAGC
AGCAGCAGCAGCCGCCGCACCACCTGCCCCAGCAGATGCCCGTGCAGCACCCGCGGCTGCAGGCCCTGAAGGAGG
AGCCTCAGACAGTGCCCGAGATGCCCGGCGAGACACCGCCCCTGTCCCCCATCGACATGGAGTCCCAGGAGCGGA
TCAAGGCGGAGAGGAAGCGCATGAGGAACCGCATCGCTGCCTCCAAGTGCCGAAAAAGGAAGCTGGAGAGAATCG
CCCGGCTGGAGGAAAAAGTGAAAACCTTGAAAGCTCAGAACTCGGAGCTGGCGTCCACGGCCAACATGCTCAGGG
AACAGGTGGCACAGCTTAAACAGAAAGTCATGAACCACGTTAACAGTGGGTGCCAACTCATGCTAACGCAGCAGT
TGCAAACATTT**TGA**AGAGAGACCGTCGGGGGCTGAGGGGCAACGAAGAAAAAAAATAACACAGAGAGACAGACTT
GAGAACTTGACAAGTTGCGACGGAGAGAAAAAAGAAGTGTCCGAGAACTAAAGCCAAGGGTATCCAAGTTGGACT
GGGTTGCGTCCTGACGGCGCCCCCAGTGTGCACGAGTGGGAAGGACTTGGCGCGCCCTCCCTTGGCGTGGAGCCA
GGGAGCGGCCGCCTGCGGGCTGCCCCGCTTTGCGGACGGGCTGTCCCCGCGCGAACGGAACGTTGGACTTTTCGT
TAACATTGACCAAGAACTGCATGGACCTAACATTCGATCTCATTCAGTATTAAAGGGGGGAGGGGGAGGGGGTTA
CAAACTGCAATAGAGACTGTAGATTGCTTCTGTAGTACTCCTTAAGAACACAAAGCGGGGGGAGGGTTGGGGAGG
GGCGGCAGGAGGGAGGTTTGTGAGAGCGAGGCTGAGCCTACAGATGAACTCTTTCTGGCCTGCCTTCGTTAACTG
TGTATGTACATATATATATTTTTTAATTTGATGAAAGCTGATTACTGTCAATAAACAGCTTCATGCCTTTGTAAG
TTATTTCTTGTTTGTTTGTTTGGGTATCCTGCCCAGTGTTGTTTGTAAATAAGAGATTTGGAGCACTCTGAGTTT
ACCATTTGTAATAAAGTATATAATTTTTTTATGTTTTGTTTCTGAAAATTCCAGAAAGGATATTTAAGAAAATAC
AATAAACTATTGGAAAGTACTCCCCTAACCTCTTTTCTGCATCATCTGTAGATACTAGCTATCTAGGTGGAGTTG
AAAGAGTTAAGAATGTCGATTAAAATCACTCTCAGTGCTTCTTACTATTAAGCAGTAAAAACTGTTCTCTATTAG
ACTTTAGAAATAAATGTACCTGATGTACCTGATGCTATGGTCAGGTTATACTCCTCCTCCCCCAGCTATCTATAT
GGAATTGCTTACCAAAGGATAGTGCGATGTTTCAGGAGGCTGGAGGAAGGGGGGTTGCAGTGGAGAGGGACAGCC
CACTGAGAAGTCAAACATTTCAAAGTTTGGATTGTATCAAGTGGCATGTGCTGTGACCATTTATAATGTTAGTAG
AAATTTTACAATAGGTGCTTATTCTCAAAGCAGGAATTGGTGGCAGATTTTACAAAAGATGTATCCTTCCAATTT
GGAATCTTCTCTTTGACAATTCCTAGATAAAAAGATGGCCTTTGCTTATGAATATTTATAACAGCATTCTTGTCA
CAATAAATGTATTCAAATACC

FIGURE 4328A

GTTAACAAAAGGATTAATGGGTTGCTTAAATTAGTGAGCTTCATCAGTTTTATTTTTAATTCCTTGAGATAATGA
ATTTTAAAAGCAATAAATACAATGCTGTAGTTTTTGACTTCTTTTCTAAATATTTACATGGATTTACATGAAAGA
ACTAAAGAGATAGTATTTGTGGAACCAATTTAAACTCTTACATGCCTTTCAGGATTTGGGAATGTATTAACACCT
GCTGCTTTGTATCCAGTCTAAGGGAGCCTATTTGTTTGTTATCACATTGACTTCCTTTGATGTCTTTTAGTGTTA
CCCTCACTCAGACCCAAGGATTATGTCTTTTGGGGCTCCCATCATCCTGAGCTAGAGACACGTGACAGGGGTACA
CTCTCCTACAAAACCAGCCAGTTACTCAGTAAAGTGGACGATAGAAGAAAAAGAGCTGTTTGAACAAGGGCTGGC
TAAATTTGGCCGAAGATGGACCAAAATTTCAAAGCTAATTGGAAGCCGCACTGTTTTACAAGTGAAGAGTTATGC
AAGACAGTATTTTAAAAATAAGGTCAAATGCGGTCTGGATAAAGAAACACCAAATCAGAAGACCGGCCATAATCT
TCAAGTTAAAAATGAAGATAAAGGGACAAAGGCATGGACACCATCATGTTTAAGGGGACGTGCTGATCCCAACTT
GAATGCTGTAAAAATTGAAAAGTTATCTGATGATGAAGAAGTAGACATCACAGATGAGGTGGACGAGTTGTCTTC
TCAAACACCCCAGAAGAATTCTAGCAGTGATCTCTTGTTAGACTTTCCTAATAGTAAA**ATG**CATGAAACCAATCA
AGGAGAATTCATTACTTCTGACAGCCAGGAAGCTCTCTTTTCTAAGTCTTCCAGGGGCTGTCTTCAAAATGAAAA
GCAAGATGAAACACTTTCAAGCTCAGAAATTACACTGTGGACTGAGAAACAGAGCAATGGTGACAAAAAATCAAT
TGAATTAAATGACCAGAAATTTAATGAATTGATTAAAAACTGCAACAAGCATGATGGAAGGGGAATAATAGTTGA
TGCCAGGCAGTTGCCTTCTCCAGAGCCTTGTGAAATTCAGAAAAATTTGAATGATAATGAAATGCTTTTTCATTC
TTGCCAAATGGTAGAGGAAAGCCATGAGGAAGAAGAGCTTAAGCCACCAGAACAGGAAATAGAAATAGATAGAAA
TATCATTCAAGAAGAAGAAAAACAAGCAATTCCTGAGTTTTTTGAGGGGCGCCAAGCTAAAACACCAGAACGCTA
TTTGAAAATTAGAAATTATATTTTGGATCAATGGGAGATATGCAAACCAAAATACTTAAATAAGACCTCAGTACG
TCCTGGCCTGAAGAACTGTGGAGATGTTAATTGTATTGGACGGATTCATACATACCTCGAATTGATAGGAGCAAT
CAATTTTGGATGTGAACAGGCTGTGTATAATAGGCCACAAACAGTTGACAAAGTACGAATCAGAGACAGAAAAGA
TGCAGTAGAAGCATACCAACTTGCCCAGCGTCTGCAGTCTATGCGTACAAGGAGACGTAGGGTCCGAGACCCATG
GGGAAACTGGTGTGATGCAAAGGACTTAGAAGGACAAACGTTTGAGCATCTCTCTGCTGAGGAGTTGGCAAAAAG
AAGAGAAGAGGAAAAAGGCAGACCTGTTAAATCTTTAAAAGTGCCAAGACCAACAAAAAGCTCGTTTGATCCCTT
CCAACTGATACCTTGTAATTTTTTTAGTGAAGAAAAGCAGGAGCCATTTCAGGTGAAAGTGGCTTCAGAAGCACT
TTTAATAATGGATTTGCATGCTCATGTTTCTATGGCAGAAGTGATTGGTCTGTTAGGAGGAAGATACTCAGAAGT
TGATAAAGTAGTTGAAGTCTGTGCAGCAGAACCATGTAACAGTCTGAGTACAGGACTACAGTGTGAGATGGATCC
TGTATCACAAACACAGGCCTCAGAAACCTTGGCTGTTAGAGGCTTCAGTGTTATTGGATGGTATCATTCTCATCC
TGCTTTTGATCCTAATCCTTCCTTACGAGATATTGACACACAAGCTAAATACCAGAGTTACTTCTCCAGAGGAGG
TGCAAAGTTCATTGGGATGATTGTTAGTCCCTATAATCGAAATAATCCCTTACCATATTCTCAGATTACCTGCCT
GGTTATAAGTGAGGAAATTAGCCCAGATGGCTCTTATCGCTTACCTTACAAATTTGAAGTACAGCAGATGTTAGA
AGAACCTCAGTGGGGATTAGTATTTGAAAAGACAAGATGGATAATAGAAAAATACAGGCTCTCCCATAGCAGCGT
CCCCATGGATAAAATCTTTCGCCGGGATTCTGACCTGACTTGTTTGCAGAAACTTTTGGAGTGTATGAGGAAGAC
TCTGAGCAAAGTGACCAATTGCTTTATGGCTGAAGAATTCTTGACTGAAATAGAAAATTTGTTCCTTTCCAATTA
TAAAAGCAACCAAGAGAATGGAGTAACCGAAGAGAACTGTACAAAGGAATTGTTAATG**TGA**TTATTTTAAAGTTA
AGACATTTTAATCTTGACACAGTAGATCTTACTTTCAAAGTTATAAACTTGAAGTGATTGTAGTTAACATTGGCA
CAGCTTTGGTATTTTTTCTCTATTTCACAAAATCCAAACTTTGCCACATAAATCATGTGAAAAGGAAGAGATACA
AATTTGTTTTCATATAGTGATTATCAGAGTGTTCTGCAAACCAGGGTCCACCACGGTGTTCTAGTCCTTTACTGA
GCAATGCTGTAGGCTGTGAAACTAAGCAACCTGGTCGGCTTTACTGTTGTGTTCAGCTTGGGATTTGGACTATGT
CTCTAAGTCATTTCTTCCCTGAACTAGTCATTTATGTTCCATTGTGGTATCTCCTATTTCATTTAAAAGCACTTC
CATTCTTTCCATATATTCTGCTGAGATTTGTTTATGGCTATAAATGAGATATGGATGGGTGGTCACTGAGATAAT
TAATATGGTTTAGAACTACTGATTAATAAATCTAACAGGAGACCAGGAGAGGCATGACAAGAAAATCTTAAAAAC
AGGAAAAACCCAAAGGAGAGAACTAAATTACCAGTTTCTAATCATAGATACTATCTTCCATTTCATTGTATAGCA
GTAGTATCATAAGATATGCCATTTTCTCAGCTATCTGAAAATTTTTAACCAATTTTACACACATAAAATAATTAG
CTTCAATTGTGAGTCCACTTACATTAGTAGGTGTGATAAAACCTCATTTAACTGGAACATAGGTAATCATAACTC
AAACTTTTTTTCTACTGCCTACTACTAGGAGAAAGAGGCAAATGATAATAAAGCTGGAATAAATCAGAGATTTAA
TTTTTAAAACAAGCCTTTCAGGACATGTTACATATTCAGCCCAGTTTCATATGCTTTCTGAATCTATAATGGAGG
TCAGTGAACTTTTTTAATGTAAAGGGCCAGTTTGTAAATAATTTTGGCTTTTCAGGCCACATATGATGTCTATGA
GACATTCTTCTTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTTTTACAGCCCTTTAAAATGATAAAAA

FIGURE 4328B

CCATTGTTAACTCACAGGCCTCATAAAACATAGGCTGTTGGCTATTATTCTCCAACCCTTGATCTAGAGAATTTT
AAACATTAGAATTTTGTTTTACATTTGTTAAGCTTTACGTCATCTTCAAATGACACCAAAACTCAGAATTATGAT
CTGCATTTAAGCCAATTTTAAAATAAAATAAGCAGTCAATGCTGCCTCATTTATTGAAATTCAGTAGATTTTAGT
TTATTTCTTAGTAGTCAGAGAATTGATTTATAGCTATTCACCAAACATTCTTACTAACGTTTCCTTATATCTAAA
TCAGATTGATTCTATATTTTGCTTTGTTTGTAATCAATAGCCAATGAAGAATAAGGAGTATTGGAAGAAGCAGTG
AGTCAGCTTTAGGTGACCTGGTTCTTGTCTCAACTTTGTGATTTGGGGAGATACAGTTTACTTTCCCTGAGCCTT
AATTCTTGTGTAACTGAAGTCTAACTTAACTTCTTAATGTCCTTCCAGAACTAAAATTTTATTGTTCATTCTAAT
CGTTGGACTACTCTTGTGAAGTTTATATTTTGAGTTAATACAGTTTCCAAATTAACATACATTTAAAAAAAAAAG
GGTAGTATTTTTCCATTTCTCTGTGTGCACTTAGGATAAACAGTGAAGTATAGCTTATAAAACAATTAGTTTGAG
GGCTGAGAGTGTAAGAGGAACTATACCAAAAGTCAGGAAACCTGAGCTCTTACCCTAACTCTGTTACCAACTTTG
CTGTGTGACCTTAATCAAAACACATAACCTGGACCCCATGCTCCTCACCAGTAAATCAAGGGCCTGAATTTTATG
GCTTAGTATTCCCTTCCAAGCTCCGAAGTTGCGTGATTCTGTGAAAGGCAGTGATTGATTCCTTTGTACTCATCT
TCCTTTTGACCTGTTTCCTCATGATATATTGGGGAACAAATACTAAAAAGTGTTTTATACTAGCTTTCTTGATTG
ACATTTCCCTATAATACTGATGAATTTGGGTGATGGAAAGTAATGGAAATTGTTAAAAGTTCTGCTCTCAAATCT
GAGTCTCCTTGCCCTGTGTGCCAATGTTTAACCATATTTGCTAATCTAAGCCATATTGCGAGGATCTCAAGGATG
ATACTTGTCAAGAGTTTGGGGCCTTGAGAGCACAGTTTTCAAAATAATACTTAGTATTTTCTGACTATAGAGTAC
ATTTGTCTTGTAAAGTATATTTTAAAATACAGAGAAGTGTGAAGTACAAATATCTCAGTGCTACTATTTAAAAAA
ACACAATTAGTATATAAATCCTTCCCCATTTTTTTGACAGTATAATTTTAGTATGTTAAACTTGGTTACTTCTTT
CTCTCTTCCTCCATCATTTTCCCTGCTTCCTTTTTCTTTTGTCATATTCTTAAAACAATTTTGCAACCACAGGTA
CCCACATTGCTGGCACTACCAGCCTTGGGCTACTACCGAGGATAATGGAGCCAGGGCCTTGTAGAAGCACAGAGG
AAGTCTAGAACTGAGGGGGCCTATGATACAGGAAGTTCAGGAGGCAGAGTCTCAAAGGAACACCTGCCTTTAATA
ATGTTTACAGAAGTGGAGAAAGGACTAAAGGACTTAAAGACATGCAGGTGTCTTCATCCTGATTCTGTCTTTGTT
ATTGCACAATGACTATAAAATAATGACCTAATTTTTTTTTTTTCTGGCTTGGCTAATGGAAATCGACACTAGCG
CTTCCCCAGTATTAGACTTAATCTAATTCCAAAGTAACATTCAAGAAAAGAAAAACCAGTGGAACAGGATCAGTA
AGCTCAGACTCTCCATCTCCATTATTTTAGCCTTGACCATTCTTCTCTAATCCTTTTAAATTATCTTCAGTTTCC
AGTTCAAGTTACATTGCTTCAGTTACAGTTTGTTTGACCCTGTATTCAGAGCTGCATTATGATTCTTGTGGGCCC
TAGATAGTTTTGCCATCTTAGACCCCTTCTTCCATACAAAATTAAAAGTGATATTTTACAATTGTATCTGTATGA
AATGAATGTATTAATATTTTAGATTAAAACATTTTGTTTAGAAGTTCAGTTTTTTCTTATGAGGCTAAAAAAAAT
TAAAACATTTTTGTGGGCTTCTAAAAAACTGTGGGCCTTAGGTACTGTGCCTAATGGATAAGTTGGCATTGCCTG
TATTCTGAAGGGCATCATTGGAAAAATAGCAGTCATTATTCTGTCCCCTTCTCCCACCACCACAGTCCTTGGAGA
AGCCTTTGCCACTCCATCCAGGAGCACTGCAGTTTCCACGGTTATAGATCTATAGACTTGAACTTACTTCCTTCC
CAACCTAACGAAAACTCACAAGGATTACTTGGGACCATTCATCCTCAAAAAAGATAGGAGGCAGTGGTTTGTTTT
AGTCTTCAGATATTTTTGTTTTGGTCAGTCCCTAATCTGTAGTTTTGAAACTCGTGCCACACTTGAAAGGGAAAC
ATCCTACTACCTTTCTTTCCTCTCCATTTCCCACAAACCCTTTCCTTCATCATCACTCCCTGCATTCTTACTTCT
CAGCATATAAATACAAGACCCTTCTTTCTATTATTTGTTGAAAGCTAGGCCTGTAAAATAGAGATGGACAGACCA
TGCATGTTTCCATGAAGCTATTTAATGCTGCTCCCAGTCTTCTGTCCATACCATTCCTTCCCTGCCCCTAGGAGT
GGGGTTGAGGTCTGTGACATGCAGACTGTAAGCACAGTCAGAACCTCTGCAGCTCTCAACCCAACAGAGGAGACT
GTGGCTTCAACATGCCAACCTGAGCAGGTCTCCTCTGCATTACCTTCCTCCCATTTCTCTTCCTGGGTCCTGATG
AGGTGAGCTGGAGGAACCAATAGTCAGGATGCCCTGGAATTGATGTTGCTCTGTTTTGTGCTCACAAAACAGCCA
TGTAACACATGAGCACCTGAGTTGAAGCCATCCAGTCGCAAGTCAGCAGACAGCAGTTGATGGAATTCTCAGTAG
AAATTCAGTAAGGGTGCCCAAATTTTATTTTTTTTTTCACCTATACTCTACCAATATATGGTATTTAGGAAAACT
TCTTTTATCCAAGCACAAAGAAAAGCACACACATTTTTATAATCATCTGCTTCATCAGGGTAAATAAATAATTTA
ACAAATTTGATCAGCATCTCTAGTTTACCAGTACTTTAATATTAGTTTTCTTACAAATTAATGTATTTTGCAATA
TTTCCAGAAAATCACTGTGGGAGAATAATGTAATATACTTTAGGATATATTTCCTGACCTTTTCTTAAATGGCTT
CATGTGCTATTCCCCCAAATTCTGCTTTCTCTATTTTCTTTTTTATTTAACCTATAATTATACTTTCTAGTATAT
TCTGAGTCTATCTTCTAAGCCACCTTACATTTTTCCTGGAACAAGGGAGGGAATAAATAGTTGCCTCCACTAAAT
CAGGAAAAAATAAAAATATCCCAGGGGAGCTGTGATTATGCCAAGAGCTCTAAACAGAAGTTTGAGAAGGTAAAA
ATTAAGTTGTAGTATCTGAGTTGTTTTTATTTTCTTCCTTTGGTGTTTATGAAGGTATTCATAAGAACTTTAATT

FIGURE 4328C

TCAGGGGAAAAAAATGCCTGATTTGCTATTTTTGACATTTCCTCGTCTCTTAAGAAGTCAGTTAAATATGTTTTC
ATAGTTTATATTCCTGTTTCATAGATTACTGTGAAACATGTATTTAAACCTATGAATTATAAAATAGTATTTAGA
TTCTAGCGTGAGTTAAATAGATTAGTCATATATCTTTTAGATTTGTGGATTTGACATGTAAATTATGTGTTGTGT
ATAAGTAAGTTAGTTACTAAACATATGGCATGGTTATTGATAAACTTGTTGCTATTTTTTTCCAAATGCTATCAG
TGTTTGTGGACTTTTAAAAATTAGTTTGAATTTTGGAATGTTCTGTGATAAAATGTAATTTCAACTATTTTGTAC
ATTTAAATATGCCATGTTGTATATGTCTGTATTTAAAAATGTTGTAAATACCTGCATTTTAAGAATTATGAAAGA
TTTTCCTCAAAAATGACAGAACTCTCCATACTTAATTGTGACACATTATAAGATATCTGATTTTAAGCTTTTGGA
TTTTGTTCTAAAAATTAAGTTTAAACATGCTGAAAATTCCATAAAAATAAAATTTTGAAAATAAA

FIGURE 4329

GAACTGGTGGCAGTGAGAGACTTCGGCGGACATGGCTCCCAGCGTGCCAGCGGCAGAACCCGAGTGTCCTAAAGG
CTGTGCTGCTGGGGCCTCCCAGGGCCGGTAAAGGCACCCAGGCACCCAGATTGGCTGAAAACTTCTGTGTCTGCC
ATTTAGCTACTGGGGACATGCTGAGGGCCATGGTGGCTTCTGGCTCAGAGCTAGGAAAAAAGCTGAAGGCAACTA
TGGATGCTGGGAAACTGGTGAGTGATGAAATGGTAGTGGAGCTCATTGAGAAGAATTTGGAGACCCCCTTGTGCA
AAAATGGTTTTCTTCTGGATGGCTTCCCTCGGACTGTGAGGCAGGCAGAAATGCTCGATGACCTCATGGAGAAGA
GGAAAGAGAAGCTTGATTCTGTGATTGAATTCAGCATCCCAGACTCTCTGCTGATCCGAAGAATCACAGGAAGGC
TGATCACCCCAAGAGTGGCCGTTCCTACCACGAGGAGTTCAACCCTCCAAAAGAGCCCATGAAGATGACATCAC
CGGGGAACCCTTGATCCGTTGATCAGATGATAATGAAAAGGCCTTGAAAATCTGCCGGCAAGCCTACCACACTCA
AACCACCCCACTCATAGAGTACTACAGGAAACGGGGGATCCACTCTGCCATCAATGCATCCCAGACCCCTGATGT
CGTGTTCGCAAGCATCCTAGCAGCCTTCTCCAAAGCCACATCCTAGTATCAGAAGGCCAGGCGAAACTGCAACAC
TGCTCATCACCCGGTGGCGTGATCCCTGCTCTTAGGTGCTGGGCAGAGGGAAAGGGTGGTCAGGGTGAGGATGGT
GAGGGAGGGCTGGTGAGGGGCTGAGAGGAATACTTGAAACAACAGCAGTGTTATTGTAATGTGGCAGTTTATTTT
ATACATAGGTGAGAGTTTTTAAAGTGTAAGGGAAAAATTAATTTTTTAAAAAACACCATGCTTGGAGGGTGGGGG
TAGAAATAGAGAGACACAATATTATTTCTAAGGAATCGGGTTTTCATTTACTCTGGACTGGTGAAAATATTTTTT
AAAGCCAGTGCTCTAAGACCTCAGCTTTTATCTCAGAACCCCATGGGTTCCAGACCAAGAGTACAGGAAATCAAA
TTGTTGTCCTGTCTGTCTATAGCTTGGAACAGGGAGGCTTTGATTACTGACCCCGGTTCCACACACTGTAAGATC
AAAAAACCATTTCCACATCTGAAAGAGATGTAAGGTGTATTCATAGGGATGGTGGCTCAACAAATCAAACAAACT
GGAATCAAGGGGAGGGAGAAGGGAATGAAATGGAAAGGGAGGCTGATTCCCTTCCCCTGACTTACCACTAATTTA
CTAGGCTACGTAATCTCATGAGTAACCTCTCACAGCTACCCAGCACATGCCACAATCCTATGCTCTTGCCTTCTT
TTATCTGCAATGTGTGAAGGGACTCTTTTAAATAAATGAGCAAGTGTCCTAAGCTATGTCATCCAAAGATTGTCC
TTTCCATTCTCAAATCCTGTGACTGGGATCACTCAACAGCACTGTGATGTATTATTTTCAATGAGGTGCCTTTCT
TAACTGACCAAATGCTGCCTTGTTTGGCCCCTAAATCAATAAAATATGTTAAAATTTG

FIGURE 4330

CGGGTCTGATAGTCCCTACCTGTCAGGACTGGTGTTAGGATGAGATAATGTTTGTGAACTGTAAACTATATAAAC
GTGTGCTACTGTGAGAACTGGACAAAGAAGAGAGGGAGTGAGAGAAATTAAGGGAGGGCTGGGGCTGGGAAAGAA
CGAAAAGGGAGTCGCGTATAGAGGAGAGCGCGACAGTCGCGAGCCACACTTTGCAATGAAACTCTTTAGACTTTC
TGCCGGGAGAGCGGCCCAGACGCGCCAGGTCTGTAGCAGGAGGCCGCGCCGAGGGCGGGTCCCCAGAAGCCTACA
GGTGAGTATCGGTTCTCCCCTTCCCGGCTTTCGGTCCGGAGGAGGCGGGAGCAGCTTCCCTGTTCTGATCCTATC
GCGGGCGGCGCAGGGCCGGCTTGGCCTTCCGTGGGACGGGGAGGGGGGCGGGATGTGTCACCCAAATACCAGTGG
GGACGGTCGGTGGTGGAACCAGCCGGGCAGGTCGGGTAGAGTATAAGAGCCGGAGGGAGCGGCCGGGCGGCAGAC
GCCTGCAGACCATCCCAGACGCCGGAGCCCGAGCCCCGCCGAGTCCCCGCGCCTCATCCGCCCGCGTCCGGTCCG
CGTTCCTCCGCCCCACA**ATG**GCTCGGGGCCCCGGCCTCGCGCCGCCACCGCTGCGGCTGCCGCTGCTGCTGCTGG
TGCTGGCGGCGGTGACCGGCCACACGGCCGCGCAGGACAACTGCACGTGTCCCACCAACAAGATGACCGTGTGCA
GCCCCGACGGCCCCGGCGGCCGCTGCCAGTGCCGCGCGCTGGGCTCGGGCATGGCGGTCGACTGCTCCACGCTGA
CCTCCAAGTGTCTGCTGCTCAAGGCGCGCATGAGCGCCCCCAAGAACGCCCGCACGCTGGTGCGGCCGAGTGAGC
ACGCGCTCGTGGACAACGATGGCCTCTACGACCCCGACTGCGACCCCGAGGGCCGCTTCAAGGCGCGCCAGTGCA
ACCAGACGTCGGTGTGCTGGTGCGTGAACTCGGTGGGCGTGCGCCGCACGGACAAGGGCGACCTGAGCCTACGCT
GCGATGAGCTGGTGCGCACCCACCACATCCTCATTGACCTGCGCCACCGCCCCACCGCCGGCGCCTTCAACCACT
CAGACCTGGACGCCGAGCTGAGGCGGCTCTTCCGCGAGCGCTATCGGCTGCACCCCAAGTTCGTGGCGGCCGTGC
ACTACGAGCAGCCCACCATCCAGATCGAGCTGCGGCAGAACACGTCTCAGAAGGCCGCCGGTGAAGTGGATATCG
GCGATGCCGCCTACTACTTCGAGAGGGACATCAAGGGCGAGTCTCTATTCCAGGGCCGCGGCGGCCTGGACTTGC
GCGTGCGCGGAGAACCCCTGCAGGTGGAGCGCACGCTCATCTATTACCTGGACGAGATTCCCCCGAAGTTCTCCA
TGAAGCGCCTCACCGCCGGCCTCATCGCCGTCATCGTGGTGGTCGTGGTGGCCCTCGTCGCCGGCATGGCCGTCC
TGGTGATCACCAACCGGAGAAAGTCGGGGAAGTACAAGAAGGTGGAGATCAAGGAACTGGGGGAGTTGAGAAAGG
AACCGAGCTTG**TAG**GTACCCGGCGGGGCAGGGGATGGGGTGGGGTACCGGATTTCGGTATCGTCCCAGACCCAAG
TGAGTCACGCTTCCTGATTCCTCGGCGCAAAGGAGACGTTTATCCTTTCAAATTCCTGCCTTCCCCCTCCCTTTT
GCGCACACACCAGGTTTAATAGATCCTGGCCTCAGGGTCTCCTTTCTTTCTCACTTCTGTCTTGAAGGAAGCATT
TCTAAAATGTATCCCCTTTCGGTCCAACAACAGGAAACCTGACTGGGGCAGTGAAGGAAGGGATGGCACAGCGTT
ATGTGTAAAAAACAAGTATCTGTATGACAACCCGGGATCGTTTGCAAGTAACTGAATCCATTGCGACATTGTGAA
GGCTTAAATGAGTTTAGATGGGAAATAGCGTTGTTATCGCCTTGGGTTTAAATTATTTGATGAGTTCCACTTGTA
TCATGGCCTACCCGAGGAGAAGAGGAGTTTGTTAACTGGGCCTATGTAGTAGCCTCATTTACCATCGTTTGTATT
ACTGACCACATATGCTTGTCACTGGGAAAGAAGCCTGTTTCAGCTGCCTGAACGCAGTTTGGATGTCTTTGAGGA
CAGACATTGCCCGGAAACTCAGTCTATTTATTCTTCAGCTTGCCCTTACTACCACTGATATTGGTAATGTTCTTT
TTTGTAAAATGTTTGTACATATGTTGTCTTTGATAATGTTGCTGTAATTTTTTAAAATAAAACACGAATTTAATA
AAATATGGGAAAGGCACAAACCAGAAGTCGGCATTTGTGAAAAGTCCCTCCAGATTTCTATCACATTGGTCTCTA
ATTTCCCAAGACTTGTATTTTTTTTTTATTTCAAATTATAACACTTTTTTTTCCCCCAGAAGTGGGTGTTTCATG
TTGCTACTCTGGTGTGTCCTAAGATATCCTAACTGGCCAGTGTAAATGCTATTCTTTCTAAATAAGATTATTTGG
AAACTTCCTTCAAACTGCAGGAGGGTGAGCTTGAGGGAGGAAGCTAAACTAGCTGCTTTTATGAAAAAGAGTGCC
AGTCTTTGGTCATCTCTAAACAAGGCTTATCACCAATGGAGACAGAAAACTCTAGTTCAAGAGCTGTACCTCCTT
TGAATCCCAGCCCTACTTTGAAATAGGTGGTACTATTTCCATTTAGCCTTTGAGCAAATCACTTAATCTCAAAGC
GTTGTGGCTCTAAGATTAAACGACTTT

FIGURE 4331

GTATGGCGGGCAGGAAGTGCGGGTGCGCGCCTGCGCATAGGTCGGGTCTGCGGTGTCACCGCTTTCGCTTCTGCT
TGAGTAGTCAAGTGAAAAA**ATG**AGCTTCATCTGTGGATTGCAGTCTGCTGCTAGAAACCATGTTTTCTTCCGATT
TAATTCACTGTCTAACTGGAGAAAATGTAACACATTAGCATCCACCTCACGGGGCTGTCATCAAGTACAAGTTAA
CCATATAGTAAATAAGTATCAGGGACTGGGAGTAAATCAGTGTGACAGGTGGAGTTTTCTGCCTGGAAACTTTCA
TTTTTATAGTACTTTTAACAACAAAAGAACAGGAGGCCTCTCAAGTACCAAAAGTAAGGAAATTTGGAGGATTAC
CAGCAAATGTACTGTATGGAATGATGCTTTTTCAAGACAGCTGCTAATAAAAGAAGTTACAGCAGTCCCTAGTCT
GTCAGTATTGCATCCTCTAAGCCCTGCTTCCATAAGAGCTATTAGGAATTTCCATACTTCTCCACGGTTTCAAGC
TGCTCCGGTTCCTCTCTTGTTGATGATTCTTAAACCAGTACAGAAGTTATTTGCAATCATTGTAGGCAGGGGCAT
AAGGAAATGGTGGCAGGCACTTCCTCCTAACAAGAAGGAAGTAGTTAAAGAAAATATAAGGAAGAATAAATGGAA
GCTATTCCTTGGTTTGAGTAGTTTTGGATTGCTCTTTGTGGTGTTTTATTTTACTCACCTGGAAGTAAGTCCAAT
CACAGGAAGGAGCAAGCTACTATTATTGGGGAAAGAACAGTTCAGACTTTTATCGGAACTGGAATATGAAGCATG
GATGGAAGAATTTAAAAATGATATGCTAACTGAGAAAGATGCCCGATACCTGGCTGTTAAAGAAGTGCTTTGTCA
TCTAATTGAATGCAATAAAGATGTTCCAGGGATCTCTCAGATCAATTGGGTTATTCATGTGGTTGATTCCCCAAT
TATTAATGCCTTCGTGCTTCCAAATGGACAAATGTTTGTTTTCACTGGATTTTTAAATAGTGTAACCGATATTCA
TCAACTTTCTTTCCTTCTGGGCCATGAAATAGCACATGCAGTACTTGGGCATGCTGCAGAAAAGGCTGGCATGGT
TCATTTGTTGGATTTCCTAGGTATGATTTTCCTCACAATGATTTGGGCCATTTGTCCTCGAGATAGCTTGGCACT
TTTGTGCCAGTGGATACAGTCTAAATTGCAGGAGTATATGTTTAATAGACCATACAGCAGAAAATTGGAGGCCGA
AGCTGACAAAATTGGACTACTGCTTGCTGCAAAGGCTTGTGCAGACATAAGAGCCAGTTCAGTGTTTTGGCAGCA
AATGGAGTTCGTTGATAGCCTGCATGGCCAACCCAAGATGCCAGAATGGTTATCTACACACCCTTCTCATGGCAA
TCGAGTTGAGTACTTGGATAGACTTATACCTCAGGCTCTCAAAATTAGAGAGATGTGTAATTGTCCACCACTGTC
TAATCCAGACCCTCGATTACTATTCAAACTCAGCACGAAGCATTTTCTTGAAGAATCAGAGAAAGAAGACCTAAA
TATCACGAAGAAACAGAAAATGGATACTCTTCCTATTCAAAAACAGGAGCAAATACCATTAACATACATAGTTGA
GAAAAGAACGGGCAGT**TGA**ATTAAAATTTATGAGACACAAGATATATGAAGAATGTTGCAGTCCTTATCATTTTA
TGTTACTTTTTAAAAAATGATGTTTGAAGTGAAAAAAAAAAGGATATTCAGGGTCAAATCATGTACATTACAGAT
ATTATCTAAATTCTTCTAGAATTTATTTTTCATGAAATATTGATGTATTTTAATCTATGTTAAAATATCTTCAAT
GAGGAAAATGTCACAGAATAAATTTATATTACACATTTT

FIGURE 4332

AGCCTGAACCTCTAGGACTTTTAATTGATACCAGTGGTCTCCGCTCTGAAACAGTCCACCAGAATGAGGGTACCA
AACTGACCTCAGAGGTTTCCAGGTTTGATGAACTTGTGAAAAAATTCAAAGTCGAATATCATGCTGGTGGCTCTA
CCCAGAATTCAATTAAAGTGGCTCAGAATCTGGAGAGCCTGTCTTGTTTGCCCGGACAGATACCCCTCTTCCAGC
AGATCTCTGCACAGAATTATTTTCAGACCACAGCAAGAAGGGTCAGAGCTGAGAATGGACCACCTGAGGATCTGC
TGTGGGATGGAGCAGGAACCTGCTTAGGTGGTACCAATCTTGACTTCCAG**ATG**GAACAGTACATCTCTATAAGGA
AAAGTGATGGCATCCACATCGTAAATCTGAAGAGGACCTGGGAGAAGCTTCTGCTGGCAGCTTGTGCCATTGTTG
CCATTGAAAACCCTGCTGATGTCAGTGTTATATCCTCCAGGAATATTGGCCAAAGGGCTGTGCTGAAGTTTGCTG
CTGCCACTGGAGCCACTCCAATTGTTGGCCACTTCACTCCTGGAACCTTCACTAACCACATCCAGGCAGCCTTCC
AAGAGCCACGGCTTCTTGTGGTTACTGACCCCAGGGCTGACCACCAGCCTCTCACAGAGGCATCTTACGTTAACC
TATCTACCGTTGCTTTGTGTAACACAGATTCTCCTCTGCACTTTGTGGACATTGCCATTCTATGCAACAATAAGG
GAGCTCACTCAATGGGTTTGATGTGGTGGATGCCAGCCCGGGAAGGTTTGCGCGCGTGTGGCACCATTTCCCATG
AACACCCATGGGAATTCATGCCTGATCTCTACAGAGATCCTAAAGAGACTGAAAAAGCAGAGCAGCCTGCTGCTG
AAAAGGCTGTGACCAAGGAGGAATTTCAGGGTGAATGGACTGCTCCAGCTCCTGAGTTAACTGCTACTCAGCCTG
AGGTTGCAGACTGGTCTGAAGGTGTGCAGGTGCCCTCTGCGCCTATTCATCAGTTCCCTACTGAAGACTGGAGTG
CTGAGCCTGCCACGGAAGGCTGGTCCACAGCTCCCAATGCTCAGGCCATTGAATGGTGGATGATTCAACAGCCAC
ACAAAGCAGCAACATTTTTTGGATGCATTGGGATAGATAAATTTGGGGAGATCCTGAAGAGAAAAGCTGCTGAAG
CCCATGTGGATGCTCATTACTACGAGCAGAATGAGCAGCCAACAGGAACTTGTGCTGCATGCATCACTGGTGACA
ACAGGTCCCTCATAGCTAATCTTGCTGCTGCCAATTGTTATAAAAAGGAAAAACATCTTGATCTGGAGAAAAACT
GGATGTTGGTAGAAAAAGCAAGAGTTTGTTATATAGCAGGTGTGATAAAGCATATTACTAGAAAAGCATCAATCG
GTCTTTCAGGTACAATACCAGAGGAACCATCACAGTTTATTTACCTTTCAGAAGCTTTAAAAATAAAGTTACATG
ATGCCTCTGCTCTCCAGATTTCTAATCAAACCCTGGAACAAAAGAGCCAAGCACATTCTATC**TGA**

FIGURE 4333A

GGTTGAGAATGCTTGCACCAAGCTTGTCCAGGCAGCTCAG**ATG**CTTCAGTCAGACCCTTACTCAGTGCCTGCTCG
AGATTATCTAATTGATGGGTCAAGGGGCATCCTCTCTGGAACATCAGACCTGCTCCTTACCTTCGATGAGGCTGA
GGTCCGTAAAATTATTAGAGTTTGCAAAGGAATTTTGGAATATCTTACAGTGGCAGAGGTGGTGGAGACTATGGA
AGATTTGGTCACTTACACAAAGAATCTTGGGCCAGGAATGACTAAGATGGCCAAGATGATTGACGAGAGACAGCA
GGAGCTCACTCACCAGGAGCACCGAGTGATGTTGGTGAACTCGATGAACACCGTGAAAGAGTTGCTGCCAGTTCT
CATTTCAGCTATGAAGATTTTTGTAACAACTAAAAACTCAAAAAACCAAGGCATAGAGGAAGCTTTAAAAAATCG
CAATTTTACTGTAGAAAAAATGAGTGCTGAAATTAATGAGATAATTCGTGTGTTACAACTCACCTCTTGGGATGA
AGATGCCTGGGCCAGCAAGGACACTGAAGCCATGAAGAGAGCATTGGCCTCCATAGACTCCAAACTGAACCAGGC
CAAAGGTTGGCTCCGTGACCCTAGTGCCTCCCCAGGGGATGCTGGTGAGCAGGCCATCAGACAGATCTTAGATGA
AGCTGGAAAAGTTGGTGAACTCTGTGCAGGCAAAGAACGCAGGGAGATTCTGGGAACTTGCAAAATGCTAGGGCA
GATGACTGATCAAGTGGCTGACCTCCGTGCCAGAGGACAAGGATCCTCACCGGTGGCCATGCAGAAAGCTCAGCA
GGTATCTCAGGGTCTGGATGTGCTCACAGCAAAAGTGGAAAATGCAGCTCGCAAGCTGGAAGCCATGACCAACTC
AAAGCAGAGCATTGCAAAGAAGATCGATGCTGCTCAGAACTGGCTTGCAGATCCAAATGGTGGACCGGAAGGAGA
AGAGCAGATTCGAGGTGCTTTGGCTGAAGCTCGGAAAATAGCAGAATTATGTGATGATCCTAAAGAAAGAGATGA
CATTCTACGTTCCCTTGGGGAAATATCTGCTCTGACTTCTAAATTAGCAGATCTACGAAGACAGGGGAAAGGAGA
TTCTCCAGAGGCTCGAGCCTTGGCCAAACAGGTGGCCACGGCCCTGCAGAACCTGCAGACCAAAACCAACCGGGC
TGTGGCCAACAGCAGACCGGCCAAAGCAGCTGTACACCTTGAGGGCAAGATTGAGCAAGCACAGCGGTGGATTGA
TAATCCCACAGTGGATGACCGTGGAGTCGGTCAGGCTGCCATCCGGGGGCTTGTGGCCGAAGGGCATCGTCTGGC
TAATGTTATGATGGGGCCTTATCGGCAAGATCTTCTCGCCAAGTGTGACCGAGTGGACCAGCTGACAGCCCAGCT
GGCTGACCTGGCTGCCAGAGGGGAAGGGGAGAGTCCTCAGGCACGAGCACTTGCATCTCAGCTCCAAGACTCCTT
AAAGGATCTAAAAGCTCGGATGCAGGAGGCCATGACTCAGGAAGTGTCAGATGTTTTCAGCGATACCACAACTCC
CATCAAGCTGTTGGCAGTGGCAGCCACGGCGCCTCCTGATGCGCCTAACAGGGAAGAGGTATTTGATGAGAGGGC
AGCTAACTTTGAAAACCATTCAGGAAAGCTTGGTGCTACGGCCGAGAAGGCGGCTGCGGTTGGTACTGCTAATAA
ATCAACAGTGGAAGGCATTCAGGCCTCAGTGAAGACGGCCCGAGAACTCACACCCCAGGTGGTCTCGGCTGCTCG
TATCTTACTTAGGAACCCTGGAAATCAAGCTGCTTATGAACATTTTGAGACCATGAAGAACCAGTGGATCGATAA
TGTTGAAAAAATGACAGGGCTGGTGGACGAAGCCATTGATACCAAATCTCTGTTGGATGCTTCAGAAGAAGCAAT
TAAAAAAGACCTGGACAAGTGCAAGGTAGCTATGGCCAACATTCAGCCTCAGATGCTGGTTGCTGGGGCAACCAG
TATTGCTCGTCGGGCCAACCGGATCCTGCTGGTGGCTAAGAGGGAGGTGGAGAATTCCGAGGATCCCAAGTTCCG
TGAGGCTGTGAAAGCTGCCTCTGATGAATTGAGCAAAACCATCTCCCCGATGGTGATGGATGCAAAAGCTGTGGC
TGGAAACATTTCCGACCCTGGACTGCAAAAGAGCTTCCTGGACTCAGGATATCGGATCCTGGGAGCTGTGGCCAA
GGTCAGAGAAGCCTTCCAACCTCAGGAGCCTGACTTCCCGCCGCCTCCACCAGACCTTGAACAACTCCGACTAAC
AGATGAGCTTGCTCCTCCCAAACCACCTCTGCCTGAAGGTGAGGTCCCTCCACCTAGGCCTCCACCACCAGAGGA
AAAGGATGAAGAGTTCCCTGAGCAGAAGGCCGGGGAGGTGATTAACCAGCCAATGATGATGGCTGCCAGACAGCT
CCATGATGAAGCTCGCAAATGGTCCAGCAAGCCGGGCATCCCAGCCGCTGAGGTGGGTATAGGTGTTGTAGCTGA
GGCAGATGCGGCCGATGCTGCTGGCTTCCCTGTCCCCCCTGACATGGAAGACGATTACGAACCTGAGCTGCTGTT
AATGCCATCCAATCAGCCGGTCAACCAGCCCATTCTGGCCGCGGCTCAGTCCTTGCATCGGGAAGCTACCAAGTG
GTCTAGTAAGGGCAATGACATCATTGCAGCAGCCAAGCGCATGGCTCTGCTGATGGCTGAGATGTCTCGGCTGGT
AAGAGGGGGCAGTGGTACCAAGCGGGCACTCATTCAGTGTGCCAAGGACATCGCCAAGGCCTCAGATGAGGTGAC
TCGGTTGGCCAAGGAGGTTGCCAAGCAGTGCACAGATAAACGGATTAGAACCAACCTCTTACAGGTATGTGAGCG
AATCCCAACCATAAGCACCCAGCTCAAAATCCTGTCCACAGTGAAGGCCACCATGCTGGGCCGGACCAACATCAG
TGATGAGGAGTCTGAGCAGGCCACAGAGATGCTGGTTCACAATGCCCAGAACCTCATGCAGTCTGTGAAGGAGAC
TGTGCGGGAAGCTGAAGCTGCTTCAATCAAAATTCGAACAGATGCTGGATTTACACTGCGCTGGGTTAGAAAGAC
TCCCTGGTACCAG**TAG**GCACCTGGCTGAGCCTGGCTGGCACAGAAACCTCTACTAAAAAGAAGGAAAATGATCTG
AGTCCCAGGAGCTGCCCAGAGTTGCTGGGAGCTGAAAAATCACATCCTGGCCTGGCACATCAGAAAGGAATGGGG
GCCTCTTCAAATTAGAAGACATTTATACTCTTTTTTCATGGACACTTTGAAATGTGTTTCTGTATAAAGCCTGTA
TTCTCAAACACAGTTACACTTGTGCACCCTCTATCCCAATAGGCAGACTGGGTTTCTAGCCCATGGACTTCACAT
AAGCTCAGAATCCAAGTGAACACTAGCCAGACACTCTGCTCTGCCCTTGTTCCCTAGGGGACACTTCCCTCTGTT
TCTCTTTCCTTGGCTCCCATTCACTCTTCCAGAATCCCAAGACCCAGGGCCCAGGCAAATCAGTTACTAAGAAGA

FIGURE 4333B

AAATTGCTGTGCCTCCCAAAATTGTTTTGAGCTTTCCATGTTGCTGCCAACCATACCTTCCTTCCCTGGGCTGTG
CTACCTGGGTCCTTTTCAGAAGTGAGCTTTGCTGCTACAGGGGAAGGTGGCCTCTGTGGAGCCCCAGCATATGGG
GGCCTGGATTCATTTCCTGCCCTTCCTCAGTTTAATCCTTCTAGTTTCCCACAATATAAAACTGTACTTCACTGT
CAGGAAGAAATCACAGAATCATATGATTCTGCTTTTACCATGCCCCTGAGCAATGTCTGTGCTAGGGAAACTTCC
CGTCCCATATCCTGCCTCAGCCCGCCAAGGTAGCCATCCCATGAACACACTGTGTCCTGGTGCTCTCTGCCACTG
GAAGGGCAGAGTAGCCAGGGTGTGGCCCTGCCATCTTCCCAGCAGGGCCACTCCCGGCACTCCATGCTTAGTCAC
TGCCTGCAGAGGTCTGTGCTGAGGCCTTATCATTCATTCTTAGCTCTTAATTGTTCATTTTGAGCTGAAATGCTG
CATTTTAATTTTAACCAAAACATGTCTCCTATCCTGGTTTTTGTAGCCTTCCTCCACATCCTTTCTAAACAAGAT
TTTAAAGACATGTAGGTGTTTGTTCATCTGTAACTCTAAAAGATCCTTTTTAAATTCAGTCCTAAGAAAGAGGAG
TGCTTGTCCCCTAAGAGTGTTTAATGGCAAGGCAGCCCTGTCTGAAGGACACTTCCTGCCTAAGGGAGAGTGGTA
TTTGCAGACTAGAATTCTAGTGCTGCTGAAGATGAATCAATGGGAAATACTACTCCTGTAATTCCTACCTCCCTG
CAACCAACTACAACCAAGCTCTCTGCATCTACTCCCAAGTATGGGGTTCAAGAGAGTAATGGGTTTCATATTTCT
TATCACCACAGTAAGTTCCTACTAGGCAAAATGAGAGGGCAGTGTTTCCTTTTTGGTACTTATTACTGCTAAGTA
TTTCCCAGCACATGAAACCTTATTTTTTCCCAAAGCCAGAACCAGATGAGTAAAGGAGTAAGAACCTTGCCTGAA
CATCCTTCCTTCCCACCCATCGCTGTGTGTTAGTTCCCAACATCGAATGTGTACAACTTAAGTTGGTCCTTTACA
CTCAGGCTTTCACTATTTCCTTTATAATGAGGATGATTATTTTCAAGGCCCTCAGCATATTTGTATAGTTGCTTG
CCTGATATAAATGCAATATTAATGCCTTTAAAGTATGAATCTATGCCAAAGATCACTTGTTGTTTTACTAAAGAA
AGATTACTTAGAGGAAATAAGAAAAATCATGTTTGCTCTCCCGGTTCTTCCAGTGGTTTGAGACACTGGTTTACA
CTTTATGCCGGATGTGCTTTTCTCCAATATCAGTGCTCGAGACACAGTGAAGCAAATTAAAAAAAA

FIGURE 4334

TCAGGATCTACAGTCTTTGCAGAAATTCAGGGGGTCATTGATGCTTGCATTAAACTATCTGGA**ATG**CCTGATCTC
TCCCTTTCTTTCATGAACCCTAGGCTTCTGGATGATGTCAGCTTTCACCCCTGCATCCGGTTCAAGCGTTGGGAA
TCTGAAAGAGTTTTGTCATTTATTCCTCCAGATGGAAATTTCCGACTCATATCATACCGTGTCAGCTCACAAAAT
CTAGTGGCAATACCAGTGTATGTGAAACATAGTATCAGCTTTAAGGAGAACAGTTCTTGCGGCAGATTTGATATA
ACAATTGGACCAAAGCAGAATATGGGGAAAACTATTGAAGGAATTACAGTGACAGTTCACATGCCAAAAGTTGTG
CTGAACATGAACCTGACACCCACACAAGGCAGCTATACATTTGATCCAGTCACCAAGGTACTAACATGGGATGTG
GGAAAAATTACTCCACAAAAGCTCCCAAGTCTTAAAGGACTGGTAAATTTACAGTCTGGAGCCCCCAAACCAGAA
GAGAATCCGAGCCTCAACATACAGTTTAAGATCCAGCAGCTTGCTATTTCAGGCTTAAAAGTAAACCGTTTGGAC
ATGTATGGGGAGAAATATAAGCCATTTAAAGGAGTCAAATACGTCACGAAAGCTGGAAAGTTCCAAGTGAGGACA
TGAGAAGAGGCCAAAATTCCTCAGGACCAGTTTGTTTTCCAAGTGTCATTACGATGTATCACTATTAGGTACCAA
GTGAGTGGGAATACATATTCTAGTTAAAGCATTTGTGTCTAGCTACACACCGCTAACAAAGTTACTTAGTTATCA
ATGTAGGATTCTTAAGGAGCTTTAAGCTAAGGAAACCTTTTAGTGACTTAGCTTATTTTGTATCTTTTCACTTAG
GAAGATTTTGGAGGTGATTTTTTTCCATAGGAGGATACCATCTGGCGGCTGCACATTGTAACAGTAAAGGCAGAA
AGCTGTAGTGATAACCTCTCTCCTAAAAGAGTTAACTGGTCTCATCCAGCAGAAGCTATCTTAAATCTGTGATGT
GTCAGGTGCAGCCAAATATCACACCTTCTGATCTTAGCCATCCCAAACCAGTATCTGTCCCGAGAGGAAATTCCC
CCCACCCCCAGAAGTTTACAGAAAACTGCCTCTTCAAGTGTTTGCCTTATTCAGCTTTTCACTTGTGCCATTAAG
CAAGCACTGTAGCAAAAGCCACTTCCACATGGCCCTGGCAGGGAGCACTGCTGCTCCATGCTCCATTCTCACTGT
ACTTGGTATTGTATTTTTTATAAATAAGATTTTTATGTAAAGCTTAGAATTTGATTTACAGGGACCTTGCTGCAG
TAAATACCATCTCAATTTTGTGCCACTGGTTCAGCTGTTAGCACAGTAAAAAAATCATTTGTATCAAAGGGGCAA
ATGCTTTATTAAGGTAGTAAAAGGGAACATTACTTCTGCTTTTAGGAAGTTACTGCAAGCACAAGCATTTGTGCT
TTTAAGCAAATTAAAGTAGTAAAAGAAAAACTTAAGTGAAACCTTTGCCATCTTCATGTTTTATAATATAAAGCT
TACCCAACACCAGTTAAGCCATGGTTAACCTAAATGCCTCATGCCCCAGTTCAGCAAAAGGAGGAAAATGTGCCT
GCCTCACAGTCATCAGTCTTTTTAAATCTTTTTTGTTGTTGTTCTTAAGGGTTTGAATTTGTCTGCATTCCTTGT
CTTTAGGGGAAATTCCCTTTTCATATTGTGTGCTTCCCAAAGCTATAGTCATAGATTTCTTCCAGAAACTATTGT
CATAATTGTCACTGGAGTGCTTAAATATACGTACTATACTGACAAAATACATGGAAGTGAGTTATAATGAGGCAG
AAACAAAATCCTCGGTAACATTGATGATACTCTACCGATCACCGTGGTTTTGGAAAGTCAGTCAACAGTTGTATT
ATTGCACTCAATTTCATTGTGACATTTTATTTAACTTCTTCATCTTGGTGGTCCTTGCCCAGTTATTTTGCCTCA
TTAGACATCAAGAAATGGAGAAAGACTGAAAGTTAATATCTTAAGTGCTTGTTCTTCATGTTTCCTTCTTGTTAT
TTATGCTATTCTCTTTGTGGCTCCATTCTTCTTTCAATCTTCTCAGCTTATAACCGTCTTTCCCTTATGCTAAGG
ATAGCCCTTACACTCATCCCATCTATGCTGTCAAGGGCTGCTGGTTGGTGCTGGTACAAGGAGCCCACTCAGCAG
TTTTCTTACCTTTGCCTGCCCTGCCTTTCATGGAATAAGAAAGGCAACGTTTTGCAGCTTCCAAATTTCTGAAGA
AACTAATCTCAGATTGGCAGTTAAAGTCAAAATGTTGCCAAATATTTATTCCTTTTGCCTAAGTTTGGCTACCCG
GTTCAATTGCTTTTTATTTTTAATGTCTTGACTCTTCAGAGTTCGTACCTCAAAAGAACAATGAGAACATTTGCT
TTGCTTTCTGCTGAATCCCTAATCTCAACAATCTATACCTGGACTGTCCAGTTCTCCTCCTGTGCTATCTTCTCT
TCTATCCAAGTAGAATGTACGCCAGGAGCTCCTTCCCTCTAGCAATTTCTACTAAAATGTCCAAGTAGAATGTTT
CCTTTTACAATCAAATTACTGTATTTATTAATTTGCTAGAATCCAGTAAATCATTTTGGTAGCTCTGGCTGTGCT
ATCAATAAAAAGATGAAAGC

FIGURE 4335

ATGCTGCCCCTGCAAAGCATCGGAGGGGTCTGGGTCCCTGGTAGAGGGTCCTCAAAGGTGGCGCGGTCAGCCAGC
TCGGTCCCCCTGCGGGCCACGACTGGCGAAGGGCTGCTGGAGCCGGAGCTGCACCAGACAGGCGGGGACTCAGCC
AAACGGAGAGAACGTCTGGCAAGGGCGCCGTCACCCTCCTCCCCAAGTCCGGCAGCGCTCACCTCAGCGCTTGCG
GCGCCTCCACCTTCAGCTTTTTGGGCTTCGGCTCCTCCTCAGCAGCTGCCATCTTCGCGCTCCCACCCCACTTTG
GCTCTACAGCCCACCTCTGCCATCCACTCTCTGGTCCCGCCCCCTCTTCGCATCACCGCTTTCTCTTCTCCAAAT
CCCGCCCCTCCAGACTCCGCCCATTCTGTGCCGCTGTCATCCACAATCATTGGCTCTATCCGTCGGCACCAACAG
CGAATGCCCCGCCCATTCCTGACCCCGCCTCCCCTACCA**TGA**

FIGURE 4336

ATGATCCACAGTCTATTTCTCATAAACTGTTCCGGTGACATATTTCTAGAGAAGCACTGGAAGAGCGTTGTGAGC
CAGTCTGTCTGTGATTATTTCTTTGAAGCTCAAGAGAAAGCTGCTGATGTTGAAAATGTACCACCTGTCATTTCA
ACACCTCACCACTACCTCATCAGTATCTACCGGGATAAGCTCTTCTTTGTATCTGTCATACAGACCGAAGTGCCA
CCTCTCTTTGTAATTGAGTTCCTACATCGAGTTGCTGACACTTTTCAGGACTACTTTGGTGAGTGTTCAGAGGCT
GCAATTAAGGATAATGTGGTCATAGTATATGAACTCTTAGAAGAAATGTTAGACAATGGATTTCCACTGGCTACC
GAATCTAACATTTTGAAAGAATTGATTAAACCACCAACAATTCTACGCTCTGTTGTCAACTCTATTACAGGCAGT
AGTAATGTTGGGGACACACTCCCCACCGGGCAGCTGTCCAACATACCATGGCGTCGGGCAGGGGTAAAGTACACA
AACAATGAAGCCTATTTTGATGTTGTTGAAGAAATAGACGCAATTATAGATAAATCAGGCCTTTCTGGGACACTT
CTGGTTCTCAGTACCTTTGAGCAAAGCAACTGCAATAGCCTGCAGGTGTCTCAAGAAGGTTGCAACTGCAAGCTG
TTAGGAGAGAAGCATGCAAGCGCTGGGGCAGGGATGCATGGAGCTCATAAAGGACATCCAAGAGGATCTGAGGGC
ATCACGGCAGAGAACTGGCAGCTTTCACTCTGCAGATCCTCAGAACACATGTTGTCATTTAAT**TAA**

FIGURE 4337

CTTTTCCTCCTTGGCTGTCTGAAGATAGATCGCCATC**ATG**AACGACACCGTAACTATCCGCACTAGAAAGTTCAT
GACCAACCGACTACTTCAGAGGAAACAAATGGTCATTGATGTCCTTCACCCCGGGAAGGCGACAGTGCCTAAGAC
AGAAATTCGGGAAAAACTAGCCAAAATGTACAAGACCACACCGGATGTCATCTTTGTATTTGGATTCAGAACTCA
TTTTGGTGGTGGCAAGACAACTGGCTTTGGCATGATTTATGATTCCCTGGATTATGCAAAGAAAAATGAACCCAA
ACATAGACTTGCAAGACATGGCCTGTATGAGAAGAAAAAGACCTCAAGAAAGCAACGAAAGGAACGCAAGAACAG
AATGAAGAAAGTCAGGGGGACTGCAAAGGCCAATGTTGGTGCTGGCAAAAAG**TGA**GCTGGAGATTGGATCACAGC
CGAAGGAGTAAAGGTGCTGCAATGATGTTAGCTGTGGCCACTGTGGATTTTTCGCAAGAACATTAATAAACTAAA
AACTTCATGTGT

FIGURE 4338A

ATGGTGAAGGAGCAGTTCCGGGAGACGGATGTGGCCAAGAAAATAAGCCACATCTGTTTTGGAATGAAGTCACCT
GAGGAGATGCGCCAGCAGGCGCACATCCAAGTTGTGAGTAAGAACCTGTACAGCCAGGACAACCAACATGCCCCC
TTGCTATATGGGGTGCTCGACCATAGGATGGGTACGAGTGAGAAGGATCGTCCATGTGAAACCTGTGGGAAAAAC
TTGGCTGACTGTCTAGGCCACTATGGGTATATCGACCTGGAGTTGCCGTGTTTTCATGTAGGGTACTTCAGAGCA
GTCATAGGCATCTTACAGATGATCTGCAAAACCTGCTGCCACATCATGCTGTCCCAAGAGGAGAAGAAGCAGTTT
CTGGACTATCTAAAGAGGCCCGGCCTGACCTACCTTCAGAAGCGAGGACTGAAAAAGAAAATCTCTGACAAGTGC
CGGAAGAAAAACATCTGCCATCACTGTGGCGCTTTTAATGGTACCGTAAAGAAGTGTGGACTGCTGAAAATAATT
CATGAGAAATACAAGACCAACAAAAAAGTGGTGGATCCCATTGTATCAAATTTCCTTCAGTCTTTTGAAACAGCC
ATTGAACATAATAAAGAAGTGGAGCCTCTGCTGGGAAGGGCACAGGAAAACTTGAATCCCTTAGTAGTTCTGAAT
TTATTTAAACGAATCCCAGCTGAAGATGTTCCTCTACTTCTGATGAACCCAGAAGCCGGAAAGCCGTCTGATTTG
ATTCTCACACGACTTTTGGTGCCTCCTTTGTGTATCAGACCCTCCGTTGTGAGTGATTTGAAGTCTGGCACCAAT
GAAGATGATCTGACAATGAAACTGACAGAAATCATTTTCCTAAACGATGTTATTAAAAAGCATCGGATCTCAGGA
GCCAAGACCCAGATGATCATGGAGGACTGGGATTTCCTGCAGCTGCAGTGTGCCCTCTACATTAACAGTGAGCTC
TCGGGCATTCCCCTCAACATGGCACCCAAGAAGTGGACCAGAGGCTTCGTCCAACGCCTGAAGGGAAAACAGGGT
CGATTTAGAGGAAATCTCTCAGGAAAGAGAGTGGATTTTTCTGGCAGAACAGTCATCTCGCCCGACCCCAACCTC
CGGATTGATGAGGTAGCTGTGCCAGTTCATGTGGCCAAAATTCTAACTTTTCCTGAGAAGGTAAACAAAGCAAAC
ATCAATTTCTTGAGGAAACTGGTTCAAAACGGCCCTGAGGTTCACCCAGGAGCAAACTTCATTCAGCAGAGACAT
ACGCAGATGAAAAGGTTTTTGAAATACGGAAATCGAGAAAAGATGGCTCAAGAGCTCAAGTATGGTGACATCGTA
GAGAGACACCTCATCGATGGAGATGTGGTGCTGTTCAATCGGCAGCCCTCGCTGCACAAATTGAGCATTATGGCT
CATCTGGCCAGGGTCAAGCCCCACCGGACCTTCAGATTTAATGAGTGTGTCTGTACACCCTATAATGCTGACTTT
GATGGTGATGAAATGAACCTTCATCTTCCTCAAACAGAAGAAGCTAAAGCAGAGGCCCTTGTTCTGATGGGGACT
AAAGCAAATCTTGTAACCCCGAGGAATGGGGAACCGCTGATTGCTGCTATTCAGGATTTTCTAACAGGTGCCTAT
CTCCTCACTCTCAAGGACACTTTCTTTGATCGAGCCAAGGCTTGCCAAATCATTGCTTCAATACTGGTTGGCAAG
GATGAGAAAATTAAAGTTCGCCTCCCACCGCCTACAATCCTAAAGCCTGTCACCCTGTGGACGGGAAAGCAGATC
TTCAGTGTCATCCTCAGGCCTAGCGATGACAATCCAGTGAGGGCCAACCTGCGAACCAAGGGCAAGCAGTACTGT
GGCAAAGGGGAAGATCTCTGTGCCAATGATTCCTATGTTACAATCCAGAACAGTGAGTTGATGAGTGGCAGCATG
GACAAAGGAACCCTAGGGTCAGGATCCAAGAACAATATTTTTTACATTTTGCTGCGAGACTGGGGACAGAATGAA
GCTGCAGATGCCATGTCACGGCTCGCCAGGCTGGCTCCTGTCTACCTGTCTAACCGTGGTTTCTCAATTGGGATC
GGTGATGTCACACCTGGCCAAGGACTGCTGAAGGCCAAGTATGAGTTGCTGAATGCCGGCTACAAGAAATGTGAT
GAGTACATCGAAGCCCTGAACACGGGCAAGCTGCAGCAGCAGCCTGGCTGCACTGCTGAGGAGACCCTGGAGGCA
CTGATCCTGAAGGAGCTGTCTGTGATCCGTGACCACGCTGGCAGTGCCTGCCTCCGGGAGCTGGACAAGAGCAAC
AGCCCCCTCACCATGGCTCTGTGCGGCTCCAAAGGTTCCTTCATTAACATATCACAGATGATTGCCTGTGTGGGA
CAGCAGGCCATCAGTGGCTCTCGAGTGCCAGACGGCTTTGAAAACAGGTCCTTGCCTCATTTTGAAAAACACTCA
AAGCTCCCAGCTGCCAAAGGCTTTGTGGCTAATAGCTTTTATTCCGGTTTGACACCAACTGAGTTTTTCTTCCAC
ACAATGGCCGGCCGGGAAGGTCTAGTCGACACGGCTGTAAAGACAGCTGAAACGGGATACATGCAGCGAAGGCTT
GTCAAATCTCTTGAAGATCTTTGCTCCCAGTATGATCTGACAGTCCGAAGCTCTACTGGCGATATTATCCAGTTC
ATTTATGGAGGAGATGGCTTAGATCCTGCAGCTATGGAGGGAAAAGATGAACCTTTGGAGTTTAAAAGGGTTCTG
GACAACATCAAAGCAGTCTTCCCGTGTCCCAGTGAGCCTGCTCTCAGCAAAAACGAGCTGATCCTGACCACAGAG
TCCATCATGAAGAAGAGTGAGTTCCTCTGCTGCCAGGACAGCTTCCTGCAGGAAATAAAAAAATTCATTAAGGGG
GTCTCTGAGAAGATCAAGAAAACCAGAGATAAATATGGCATCAATGATAACGGCACAACAGAGCCCCGTGTGCTG
TACCAGCTGGACCGCATCACCCCCACCCAAGTAGAAAAGTTTCTGGAGACCTGTAGGGACAAGTACATGAGGGCA
CAGATGGAGCCAGGTTCTGCAGTGGGTGCTCTGTGTGCCCAGAGCATTGGTGAGCCAGGCACCCAGATGACCCTG
AAGACTTTCCACTTTGCAGGTGTGGCCTCCATGAACATCACCCTGGGCGTGCCCCGGATTAAAGAGATCATCAAC
GCTTCCAAGGCCATCAGCACTCCAATTATCACAGCACAGCTAGACAAGGATGACGACGCGGATTATGCTCGCCTC
GTGAAAGGGAGAATTGAGAAAACCCTCTTGGGAGAGATTTCCGAGTATATTGAAGAAGTGTTTCTTCCTGATGAC
TGCTTTATTCTCGTCAAGCTCTCCCTGGAACGGATTAGGCTTCTGAGACTGGAAGTGAACGCTGAGACAGTGAGA
TATTCCATCTGCACATCCAAGCTCCGTGTGAAGCCCGGTGATGTGGCTGTTCATGGTGAGGCTGTGGTGTGTGTC
ACCCCCAGAGAGAACAGCAAGAGCTCCATGTACTACGTGCTGCAGTTCCTGAAAGAGGATCTCCCCAAGGTGGTG

FIGURE 4338B

GTGCAGGGCATTCCAGAGGTGTCCAGAGCTGTCATCCACATTGACGAGCAGAGTGGAAAGGAGAAGTACAAGCTT
CTGGTGGAAGGTGATAACCTGCGGGCAGTCATGGCCACACACGGTGTGAAGGGCACCCGAACCACCTCCAATAAC
ACCTATGAGGTGGAGAAAACTCTGGGCATCGAGGCCGCCCGGACAACGATCATCAATGAAATCCAGTACACCATG
GTGAACCACGGCATGAGCATCGACAGGAGGCACGTGATGCTGCTCTCCGACCTCATGACCTACAAGGGTGAAGTC
CTGGGCATCACTAGGTTTGGCCTGGCCAAGATGAAGGAGAGTGTGCTGATGCTGGCCTCCTTTGAGAAGACGGCT
GACCATCTCTTTGACGCTGCCTACTTCGGGCAGAAGGACTCTGTGTGTGGGGTGTCTGAGTGCATCATCATGGGA
ATCCCAATGAACATTGGAACCGGGCTCTTCAAGCTGCTTCACAAGGCTGACAGGGACCCGAACCCTCCCAAGAGG
CCCCTGATCTTCGACACAAATGAATTCCACATCCCCCTTGTCACA**TAG**

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FIGURE 4339

GTGTGTGGGTGTGTGTGTGAACTTTCATTTCCAATTCCTCACAGACTGGTATTTAGCCAAATACACTGACAATTC
CTAGAGAGATGAAAATTTAAAACTCTAAGTCTTGCAAAAGGTAAGCTCTATTTTTTTCTTGTTAGATTCAACAGA
CATAAAATTACGACGTCCTGTTTCCATAGCAGTTTCTAGACACTCACTGTCAATTTCTGAGCATGCCTTGTTGCA
GTAGGGGCTTGGTTTGTGTCCAGGTGCTGTTATGTGGAGCACACTGGAGTACCCCTGGCCTGGTGTCTATAGACC
CCTTTGTCAAACTCCTATAGTACAGGGCTGGCCCAAGTTGGCGCCATCATCTTTCTGTGACTCTCCTCTTGGCCA
TGAGCTATCTGGCTCCTTAAACTTGTCGTTTCCTGCAGAATCCTGCTAATGATTAGACCACCGCCACATGTCCTC
CAAACTTCCTTCTGATGCCCTGGGATTCCCCCAACCATTGCAAACCCAACCCAGGGTGTTAACTGCAGTGGGGTG
GGCAGTTTACATATGAGTGATCAACTCAAGAGGGGCAATTTTCTTTCCCAGTTTCTTGCTGGTGAAGGAGAGTCA
GGTGGGGATGGAGCAGAGTGCCAAGGAGCACAAAGCAGACAGCCACACAGTAGAAAGAGTGCAAGCTGTACTGCC
TTGCCTCAAACCTGGGGTCTTACTCTGAGCTGAATGACGTGTCTGGGGGGCTCTTTTGCAGGGGTCATCCAGGGA
GGAGCCCTGTCAAGCATTTGCACTCAGATCTTGGCAATGGTCAATCAAGAACAAAATAAAGTCCTGTGGATTCCA
GCCTGCCCGCTCTAGGAGAATGCTGTGCTGTGGATGACTGCAGCTGGCCGCCTGAGGGGACACCAGACTCAGCTC
TTTTCTAGCGACTGAAAGTAGAAGTCTGTCCGTCTATGAACATGCGGGGGAAGGATCCGGAACCAGGACCCAGAA
GCACCTCCTTTGTAGACAGAGGGCCACGGCTGCGTGCGATCCAGGCCCAGGCCCACACACTCTGCCCGTGTCACA
CGTGTGCTTTAACACAAAACAGATAACACTAAAGACGGGTTCAGCACCCACCTTTCTTTAGCCAGCTGATCAGAG
ATGCTGCAAAGAGAACCTTTCGGATCACTCGTTTACAAGCCTTTTCTAAGTATTTGGTGGTTTATGTTTACTTGA
ACGGCTCCATGTTGCCGGTGCCCAGCCCCTGTCCCCTCTGTCAACCCCCTGTCGCTTTGGTGTTGGTTTCGTTCC
CGTCTTCAGCAAAACGACCTTGGAACCTCA**ATG**GGGGCTGCTTTGCTTTGGGAGGTTCTTGTTGGTGGGACCAGA
GCTTTGACAAACCTCCTGCTCCTTGGTGGCACCTCTCCTGGAAGGACGTCACAACTCCAGGTGCTCAGACTGCCT
GTGGCAGCAGAACCAGTGCCTTTGGCATTTTCCTCCCACAATGGGGAAGGTGACTTTGGCATTCTTACAAACTCG
TCTCTCGGCCTTTCTCTCCTGCCTTCCACAGCCTCTCGTTTCTCCTCCATCTGTGCTTATTACTTGAGGACTGTG
TCTGCTCCG**TGA**GAGCTGCGTGGGCAGGGCTGCAGTGGGGTCCAGGTGGTGTTCAGCTGTGCTGATGCCTGCCAT
TGGGTCCTCCTTAGGCTCTGTAAGTCGTGACAGCCTTCATCAGTGCAATGTTTGCAGGGTAATTCTTAAACTTTT
TAGAGGGTGGCAGGTACATCAGTTCTTTTTGATATGAAAACATTCATGTTTCAGACATTGAATTGAGAGCTTTTA
GGGGAAGCATAATGGTTATTGTCACTATCAACAGTCTAAAAAGAAAAACTGAGGTCTTTTTAATCTTGATTACAG
CACTCACGGCATGCACCCTACTCAGTGTGGGTGTCTTCGTTTGGGGGCTTTTTTTTTTTTTGCACTTCTGAGGCT
AGATATGTCTGGCTGAAGATTTGATGTGGTTCCTCCTTAAGCTATGCGTCCTGTTAATAATAGGTACTGTACTGG
GCTCTGTGTAAGTGTCGTTGGGGTAGGACCTATATTTTAATACTGTTCCTAACATTTCATTTTACTAGCGAGAAA
TCTTTGATTTCATTTTATTCTTTGTAATTCTAGACACTAGATTGTAGTTTAGCCATAACTGATGTTTTTTAAAAA
GGGATATATTTTCTTGCACAGTTGTTCAAAAAAGAGACAAGTTTCAGTCCTCAATGCTGTCCTTTGTTTTACAGG
TACAAGTTTTCTAGCTCAGACAAACTATGAAAAACTGTAGACTATTCTCAAGGTATTAACTCGCAGACCCTCTGG
GGGTAGGGGCTGTTTTCTAAGTTACAGGCAGAGTGGGACTGAGATGGTACAGTGTGCACAGACAGGTACTGAGCT
GACAGACTGGGATTTTCTGTACTAAAATGTTACTTTGTATCAAAAGTTAAACAGGCTTTAGTACAACAAATAAAG
GTCAATTTCTGT

FIGURE 4340

ATTTTAAAGCCAGTCCCAGCAGGTCAAATGATAGTTTCTCCATCAAGCAATATTTCCACTTCAACTTCCACTCTT
CAGAGCCCTGTGGGAGCTGGCACACACACTGTCACAAAAATTCAGTCTGGCATAACTGGGACAGTCATATCGGCT
CCTTTAAGCATTCCCATCACCCCAGCCATGCCCCTAGATGAAGACCCCTCCAAAGTGTGTAGACATAGTCTAAAA
TGTTTGGAGTGTAATGAAGTCTTCAGTATGAGACATCA**ATG**GCTACACATTTCCAGCAGGCTGCAGATACACGTG
GACAAAAGACTTGCACTATCTGCCAGATGCTGCTTCCTAACCAGTGCAGTTACGCATCACACCAGAGAATCCATC
AGCACAAATCTCTCTACACCTGCCCTGAGTGCGGGGCCATCTGCAGGTCGGTGCACTTCCAGACCCATGTCACCA
AGAACTGTCTGCACTACATGAGGAGAGTTGGTTTTCGATGTGTGCATTGCAATGTTGTATACTCTGATGTGGCTG
CCCTGCAGTCTCACATTCAAGGTTCTCACTGTGAAGTCTTCTACAAGTGTCCTATTTGTCCAATGGCATGTAAGT
CCGCCCCAAGCACACATTCCCACACCTACACACAGCATCCTGGCATCAAGATAGGAGAACCAGAAATAATATATA
AGTGTTCCATGTGCGACACTGTGTTCACCCTGCAAACCTTGCTGTATCGCCACTTTGACCAACACATTGAAAACC
AGAAGTTGTCTGTTTTCAAGTGTCCAGACTGTTATCTTTTATATGCACAGAAGCAACTTATGATGGACCATATCA
AGTCTATGCATGGAACATTGAAAAGTATTGAAGGGCCTCCAAACTTGGGTATAAACTTGCCTTTGAGCATTAAGC
CTGCAACTCAAAATTCAGCAAATCAGAACAAAGAGGACACCAAATCCATGAATGGGAAAGAGAAATTGGAAAAGA
AATCTCCATCTCCTGTGAAAAAATCAGTGGAAACCAAGAAAGTGGCCAGTCCTGGGTGGACGTGTTGGGAGTGTG
ACCGCCTGTTCATTCAGAGAGATGTGTACATATCCCACGTGAGGAAGGAGCAAGGGAAGCAAATGAAGAAACATC
CCTGCCGCCAGTGTGACAAGCTCATCCCACAGCCTGTGCCAGCACAACCGGATCAAGCACAAAGGCATCAGGAAA
GTGTATGCCTGCTCGCACTGCCCAGACTCCAGACGTACCTTTACCAAACGATTGATGCTAGAGAAGCACGTCCAG
CTGATGCACAGCCTCAAGGACCC**TGA**CCTGAAAGAAATGACAGATGCCACCAATGAGGAGGAAACAGAAATAAAA
GAAGACACCAAGTTCCCCAGTCCCAAGTGGAAGTTGGAAGAACCAGTTCTGGAGCTCAGGCCTTCCTGAGGAGCA
ATCACTCAACCACTGAAAAAGCTGAAAATCAATGTTTTTAAGGTTCTCAAGAGTGCCATGTGTGGCTTCACCACC
GAAAACCTGCTTCAGTTCCACGAACACATCCCTCAGCACAAATCTGATAGTTCTTCCTACCAGTGCCAGGAGTGT
GGCCTCTGGTACACGTCTCACGTCTCTCTGTCCAGGCACCTCTTCATTGTACACAAGTTAAAGGAACCTCAGCCA
GTGTCCAAGCAAAATGGAGCTGGGGAAGATAACCAACAGGAGAACAAACCCAGCCATGAGGATGAATCCCCCAAT
GGCACCGTGTCAGACAGAAAGTGCAAAGTGTGCGTGAAAACTTTTGAAACTGAAGCTGCCTTAAATACTCACATG
CGGATACATGGCATGGCCTTCATCAAATCCAAAAGGATGAGCTCAGCCAAGAAATAGCCACAGAAGGTACATGAG
GAAAATCCCTGTCCACATTGGAATAAAAAAGATATTTTTGTTACAAAAAGTTTGCAGTATAATAAACAGTACTGT
CTAGGCTGTTGCAATATGTTCTCTTTCAACGTACCTTCCTTCACCTCGTTGTATATATCCTCGATAAGTAGTAAA
ACAGTATTTGAGTTTCAAAGAGTTTGTATAGATTTAAATGAATAACTTTTTATACTGTTTGTTACACATTTGTAT
CAGTATTTAGTGGCAAACGATTTGAGTTGTTTTGGGTCAGAATTTTTCTTTTTGTACTGTTTCTTTAAAACAGAG
TTCTTAGTAACAGGGGCAGCTCCTGAATTCAAATAAACCATTTTGTATGTTTGGATTTTGAAGAGGTTAACTAAT
TACAGGCTAAAATAATGCCTTTTTTAGTGTTTTTAATTTTTAGAATACACTACATAAATTGTAAGTAATTGTGGG
TCTCAAAAACCCTAGGAACTTTTAAGTGTCTTAGCACTTCCTCGATGTGCCTGCCCTGAAGGAGTGAGCTCACAT
GTGAGACAACTGCACTCCAGTGTGGGCGTGCCTTTTTCTTCAGGCCATGCGAAGGGTGTTTAAAGCAGCCTTGCA
GGTCGCTCCTTTCCCAGCCGTGGATAAAAACTGAAGCCAGGAATCTAATAAGGAATGCTGATTTCCTCAATTCCA
TTTTGGGGCATGGGGAAGGCTGTTCTAAAGAAAAAAATGGGACTGGTTTTCTAGGCAGATCTGCAAGGCTGGCTT
TAAAAGCACAAGGAGGGAAAGTAACGAAAGGGCTGGACTACTATAAAAGTTACAAATACGTAGTTAGACCAATAG
ATTTATATAGTCAGGTTTTTGTCATGTAATTTATTAACTATTACAGAAACACAACTAAGAATATCAAGTATTTCT
CTGGCTCTTGACAGAAAAAAAAATCAGTTGACTTAACCCTTTGCTGTCAAAAGAGTTGGCATTGCCTGTTCTAGG
TGCTACTGCCAAATGTTCTGATACTTAGAGTTGGGATGCACAACGTCAACCACTGACTTCTCAATGCAGCCGCCT
GTGTATTGCAATTGGCCGTTACCTTAAGCGCGGGGCCACCCGGGTTTAGTTCAGCCATTTCAAGAAGTATATTTA
ACGTCGGTAGTTCTGCTTTATTAAAATGCAGCAGAGGTACTCTTCTGTCCCTTCCGTTTATAGTTCTCTGAGAGA
GTTCTATTTTTTGGTTTTGTTTCGTGTTTTCTTTTGCATTTCATATCTTACATTTATCCCTGAACATGTTTTGTA
CTTTTTTTTGTTGTTAAGAAAAGGAATTCTTTTGTGTATCTATAGATACTTGCATGATCTACTGTAGTCAACGTT
CGGTTCCTCAAAAGGTCTTGCTGCTGTCAGGTGTTATGCACTCCATCCATAATAACTGTGTGAAACACATTTCAT
ATGTAAATAAACGTGGGACATTTGGCCC

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FIGURE 4341A

AGCCCCGTGCTGATCCCATTCCAATATGTAGCTTCTGTTTGGGGACTAAAGAATCAAATCGTGAAAAGAAACCAG
AAGAACTCCTCTCTTGTGCAGATTGTGGCAGTAGTGGACACCCATCCTGTTTGAAATTTTGTCCTGAATTAACAA
CAAATGTAAAGGCCTTAAGGTGGCAGTGCATCGAATGCAAGACATGCAGTGCCTGTAGAGTCCAAGGCAGAAATG
CTGATAATATGCTTTTTTGTGATTCCTGTGATAGAGGATTTCATATGGAATGCTGTGACCCACCACTTTCCAGAA
TGCCAAAAGGGATGTGGATTTGCCAAGTCTGCAGACCAAAGAAAAAGGGAAGAAAACTACTTCATGAGAAAGCTG
CACAAATAAAACGACGATATGCAAAACCCATTGGACGACCGAAAAATAAATTAAAGCAACGATTGTTGTCTGTAA
CCAGTGATGAAGGATCCATGAATGCATTCACAGGAAGGGGGTCACCTGGTAGGGGTCAAAAGACTAAAGTCTGTA
CCACACCTTCATCTGGTCATGCTGCATCTGGGAAGGACTCAAGCAGCAGATTGGCTGTTACAGACCCCACTCGGC
CTGGTGCCACCACCAAAATCACCACCACCTCCACCTACATTTCTGCCTCTACACTTAAAGTTAACAAGAAAACCA
AAGGGCTCATTGATGGCCTTACTAAGTTTTTTACACCATCACCTGATGGTCGCAGATCACGAGGTGAAATTATAG
ACTTTTCAAAGCACTATCGTCCAAGGAAAAAGGTCTCTCAGAAACAGTCATGCACTTCTCATGTGTTGGCTACAG
GTACCACACAAAAGCTAAAACCTCCACCTTCTTCACTTCCACCCCCAACCCCCATCTCCGGTCAGAGCCCCAGTT
CACAAAAGTCCAGCACGGCCACTTCTTCTCCCTCTCCCCAGAGTTCTTCCAGCCAGTGCAGTGTGCCCTCCCTGA
GCAGCCTTACCACTAACAGCCAGCTGAAGGCACTCTTTGATGGGCTTTCTCATATCTATACCACTCAGGGACAGT
CTCGCAAAAAGGGACACCCGAGTTATGCACCACCCAAACGTATGCGTCGTAAAACTGAATTATCTTCCACGGCAA
AATCTAAAGCCCACTTCTTTGGCAAAAGAGATATTAGAAGTCGGTTTATTTCTCACTCCTCCTCCTCTAGCTGGG
GGATGGCTAGAGGAAGTATTTTTAAAGCAATTGCTCACTTCAAGCGAACAACTTTCCTTAAAAAGCACAGGATGC
TAGGCAGATTAAAATATAAAGTGACCCCTCAGATGGGGACCCCCTCACCAGGGAAGGGGAGCTTGACAGACGGAA
GGATTAAACCTGATCAGGATGATGATACTGAAATAAAAATAAACATCAAACAAGAAAGTGCAGATGTAAATGTGA
TTGGAAACAAGGATGTCGTTACTGAAGAGGATTTGGATGTTTTTAAGCAGGCCCAGGAACTTTCTTGGGAGAAAA
TAGAGTGTGAGAGTGGGGTGGAAGACTGTGGCCGGTACCCTTCTGTGATTGAATTTGGTAAATATGAAATCCAAA
CCTGGTACTCCTCGCCTTACCCACAGGAATATGCAAGATTACCAAAGCTTTACCTGTGTGAATTCTGTCTTAAAT
ATATGAAAAGTAAAAATATTTTGCTAAGACACTCCAAGAAGTGTGGATGGTTTCATCCTCCAGCAAATGAAATTT
ACCGAAGGAAAGACCTTTCAGTATTTGAGGTTGATGGGAATATGAGCAAAATTTATTGCCAAAACCTTTGCTTGT
TAGCCAAGCTCTTCCTGGACCACAAAACGTTGTATTATGATGTCGAGCCATTCCTTTTTTATGTCCTTACAAAAA
ATGATGAAAAGGGCTGTCATCTGGTTGGATACTTCTCTAAGGAAAAGCTTTGCCAGCAGAAGTATAATGTCTCCT
GCATAATGATCATGCCCCAGCACCAAAGGCAAGGATTTGGACGGTTTCTCATTGATTTCAGCTATTTGCTTTCTA
GAAGAGAAGGCCAAGCAGGGTCTCCTGAAAAGCCTCTCTCCGATCTGGGCCGTCTCTCCTACCTGGCATATTGGA
AGAGCGTCATCTTGGAGTATCTCTACCACCACCATGAGAGGCACATCAGCATCAAGGCAATTAGCAGAGCGACGG
GCATGTGCCCACATGACATTGCCACCACTCTGCAGCACCTCCACATGATCGACAAGAGAGATGGCAGATTTGTCA
TCATTAGACGGGAAAAGTTGATATTGAGCCACATGGAAAAGCTGAAAACCTGTTCCAGAGCCAATGAACTTGATC
CAGACAGTCTGAGGTGGACCCCAATTTTAATTTCTAATGCTGCAGTGTCTGAAGAAGAGCGAGAAGCTGAGAAAG
AGGCTGAGCGGCTAATGGAACAAGCTAGCTGCTGGGAGAAGGAGGAACAAGAAATCCTGTCAACTAGAGCTAACA
GTAGGCAATCACCTGCAAAAGTACAATCGAAAAATAAATATTTGCATTCCCCGGAGAGCCGGCCAGTCACAGGGG
AGCGAGGGCAGCTGCTGGAGCTGTCTAAAGAGAGCAGTGAAGAAGAAGAGGAGGAGGAGGACGAGGAGGAGGAAG
AAGAGGAGGAAGAAGAGGAAGAGGATGAAGAGGAGGAAGAAGAGGAAGAAGAAGAAGAAGAAGAAAATATTC
AAAGCTCTCCCCCAAGATTGACGAAACCACAGTCAGTTGCCATAAAGAGAAAGAGGCCTTTTGTACTAAAGAAGA
AAAGGGGTCGTAAACGCAGGAGGATCAACAGCAGTGTAACAACAGAGACCATTTCAGAGACGACAGAAGTACTGA
ATGAGCCCTTTGACAACTCAGATGAAGAGAGGCCAATGCCACAGCTGGAGCCTACCTGTGAGATTGAAGTGGAGG
AAGATGGCAGGAAGCCAGTCCTGAGAAAAGCATTCCAGCATCAGCCTGGGAAGAAAAGACAAACAGAGGAAGAGG
AAGGAAAAGACAATCATTGCTTCAAGAATGCTGACCCTTGTAGAAACAATATGAATGATGATTCAAGTAACTTGA
AAGAAGGCAGTAAAGACAATCCCGAACCTCTAAAGTGCAAACAAGTGTGGCCAAAAGGAACAAAGCGCGGTCTAT
CTAAGTGGAGGCAAAACAAAGAGAGGAAGACCGGATTTAAACTGAATTTGTACACCCCGCCAGAAACACCCATGG
AGCCTGACGAGCAGGTAACAGTGGAAGAACAGAAGGAGACTTCAGAAGGAAAAACCAGCCCCAGTCCCATCAGGA
TTGAGGAGGAGGTCAAGGAAACTGGGGAAGCCCTGTTGCCTCAAGAGGAAAACAGAAGGGAAGAAACATGTGCCC
CTGTAAGTCCAAACACATCACCAGGTGAAAAACCAGAAGATGATCTCATCAAACCTGAGGAAGAGGAAGAGGAGG
AGGAGGAGGAAGAGGAAGAAGAGGAAGAAGAGGAAGGGGAAGAAGAAGAAGGAGGAGGAAATGTAGAAAAAGATC
CAGATGGTGCTAAAAGCCAAGAAAAAGAGGAACCAGAAATCTCCACGGAAAAAGAAGACTCTGCACGTTTGGATG

FIGURE 4341B

ATCACGAAGAGGAGGAGGAAGAGGATGAAGAGCCATCCCACAACGAGGACCATGATGCCGATGACGAGGATGACA
GCCACATGGAGTCTGCCGAAGTGGAGAAGGAAGAGCTGCCCAGAGAAAGCTTCAAAGAAGTACTGGAAAACCAGG
AGACTTTTTTAGACCTTAATGTGCAGCCTGGTCACTCGAACCCAGAGGTCTTAATGGACTGTGGCGTCGACCTGA
CAGCTTCTTGTAACAGTGAGCCCAAGGAGCTTGCTGGGGACCCTGAAGCTGTACCCGAATCTGACGAGGAGCCAC
CCCCAGGAGAACAGGCACAGAAGCAGGACCAAAAGAACAGCAAGGAAGTCGATACAGAGTTCAAAGAGGGAAACC
CAGCAACCATGGAAATCGACTCTGAGACTGTCCAGGCCGTTCAGTCTTTGACCCAGGAGAGCAGCGAACAGGACG
ACACCTTTCAGGATTGTGCCGAGACTCAAGAGGCCTGTAGAAGCCTACAGAACTACACCCGTGCAGACCAAAGTC
CACAGATTGCCACCACGCTCGACGATTGCCAACAGTCGGACCACAGTAGCCCAGTTTCATCCGTCCACTCCCATC
CTGGCCAGTCCGTACGTTCTGTCAACAGCCCAAGTGTCCCTGCTCTGGAAAACAGCTACGCCCAAATCAGCCCAG
ATCAAAGTGCCATCTCAGTGCCATCTCTGCAGAACATGGAAACCAGTCCCATGATGGATGTCCCATCAGTTTCAG
ATCATTCACAGCAAGTCGTAGACAGTGGATTTAGTGACCTGGGCAGTATCGAGAGCACAACTGAGAACTACGAAA
ACCCAAGCAGCTACGATTCTACTATGGGAGGCAGCATCTGTGGAAACGGCTCTTCACAGAACAGCTGCTCCTATA
GCAACCTCACCTCCAGCAGTCTGACACAGAGCAGCTGTGCTGTCACCCAGCAGATGTCCAACATCAGCGGGAGCT
GCAGCATGCTGCAGCAAACCAGCATCAGCTCCCCTCCGACCTGCAGCGTCAAGTCTCCTCAAGGCTGTGTGGTGG
AGAGGCCTCCGAGCAGCAGCCAGCAGCTGGCTCAGTGCAGCATGGCTGCTAACTTCACCCCACCCATGCAGCTGG
CTGAAATCCCCGAGACGAGCAACGCCAACATTGGCTTATACGAGCGAATGGGTCAGAGTGATTTTGGGGCTGGGC
ATTACCCGCAGCCGTCAGCCACCTTCAGCCTTGCCAAACTGCAGCAGTTAACTAATACACTTATTGATCATTCAT
TGCCTTACAGCCATTCCGCTGCTGTGACTTCCTATGCAAACAGTGCCTCTTTGTCCACACCATTAAGTAACACAG
GGCTTGTTCAACTTTCTCAGTCTCCACACTCCGTCCCTGGGGGACCCCAAGCACAAGCTACCATGACCCCACCCC
CCAACCTGACTCCTCCTCCAATGAATCTGCCGCCGCCTCTTTTGCAACGGAACATGGCTGCATCAAATATTGGCA
TCTCTCACAGCCAAAGACTGCAAACCCAGATTGCCAGCAAGGGCCACATCTCCATGAGAACCAAGTCAGCGTCTC
TGTCACCAGCCGCTGCCACCCATCAGTCACAAATCTATGGGCGCTCCCAGACTGTAGCCATGCAGGGTCCTGCAC
GGACTTTAACGATGCAAAGAGGCATGAACATGAGTGTGAACCTGATGCCAGCGCCAGCCTACAATGTCAACTCTG
TGAACATGAACATGAACACTCTCAACGCCATGAATGGGTACAGCATGTCCCAGCCAATGATGAACAGTGGCTACC
ACAGCAATCATGGCTATATGAATCAAACGCCCCAATACCCTATGCAGATGCAGATGGGCATGATGGGCACCCAGC
CATATGCCCAGCAGCCAATGCAGACCCCACCCCACGGTAACATGATGTACACGGCCCCCGGACATCACGGCTACA
TGAACACAGGCATGTCCAAACAGTCTCTCAATGGCTCCTACATGAGAAGG**TAG**

FIGURE 4342

CCCGCGGCCTCGCC**ATG**GCGACCCACGGACAGACTTGCGCGCGTCCAATGTGTATTCCTCCATCATATGCTGACC
TTGGCAAAGCTGCCAGAGATATTTTCAACAAAGGATTTGGTTTTGGGTTGGTGAAACTGGATGTGAAAACAAAGT
CTTGCAGTGGCGTGGAATTTTCAACGTCCGGTTCATCTAATACAGACACTGGTAAAGTTACTGGGACCTTGGAGA
CCAAATACAAGTGGTGTGAGTATGGTCTGACTTTCACAGAAAAGTGGAACACTGATAACACTCTGGGAACAGAAA
TCGCAATTGAAGACCAGATTTGTCAAGGTTTGAAACTGACATTTGATACTACCTTCTCACCAAACACAGGAAAGA
AAAGTGGTAAAATCAAGTCTTCTTACAAGAGGGAGTGTATAAACCTTGGTTGTGATGTTGACTTTGATTTTGCTG
GACCTGCAATCCATGGTTCAGCTGTCTTTGGTTATGAGGGCTGGCTTGCTGGCTACCAGATGACCTTTGACAGTG
CCAAATCAAAGCTGACAAGGAATAACTTTGCAGTGGGCTACAGGACTGGGGACTTCCAGCTACACACTAATGTCA
ATGATGGGACAGAATTTGGAGGATCAATTTATCAGAAAGTTTGTGAAGATCTTGACACTTCAGTAAACCTTGCTT
GGACATCAGGTACCAACTGCACTCGTTTTGGCATTGCAGCTAAATATCAGTTGGATCCCACTGCTTCCATTTCTG
CAAAAGTCAACAACTCTAGCTTAATTGGAGTAGGCTATACTCAGACTCTGAGGCCTGGTGTGAAGCTTACACTCT
CTGCTCTGGTAGATGGGAAGAGCATTAATGCTGGAGGCCACAAGGTTGGGCTCGCCCTGGAGTTGGAGGCT**TAA**T
CCAGCTGAAAGAAACCTTTGGGAATGGATATCAGAAGATTTGGCCTTAATATATTTCCATTGTGACCAGCAGCAG
GCTTTTTTCCCCCAAGAAGATGATCAAAACAAAGGATGATCTCAACAAGAGCTGTATTTTAAGTATTTAGACAGT
TCTTTGTTAGCTGGTTTCTAGTTGGTTATCTAGTTACCAATGCTGCAGTCCTGCAGTCACCTATACATTATTTAA
ATGTATTTAACTGTTAAATGCGCTACCCACCAATAATGAAATAGACCTTTATGAAAACTGTGCAATTGTGTGCAT
GTTTGTTTTTATGTTCCTTTAGAAAACATTGACTGTTACCATTGAATGAGATGGATCAGTGGATATTAAGATGAG
GTTACAAATTTTGTTAAGTTCAGCCATTATTACTTTTGGTATCCCAGAACATGACAAATTATGAATAAAACAAGT
ATACAT

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FIGURE 4343

GACCTGTCACTGCCTCCCGCCGCCTCCTGCCCGCGCCATGACCCAGCCGGTGCCCCGGCTCTCCGTGCCCGCCGC
GCTGGCCCTGGGCTCAGCCGCACTGGGCGCCGCCTTCGCCACTGGCCTCTTCCTGGGGAGGCGGTGCCCCCCATG
GCGAGGCCGGCGAGAGCAGTGCCTGCTTCCCCCCGAGGACAGCCGCCTGTGGCAGTATCTTCTGAGCCGCTCCAT
GCGGGAGCACCCGGCGCTGCGAAGCCTGAGGCTGCTGACCCTGGAGCAGCCGCAGGGGGATTCTATGATGACCTG
CGAGCAGGCCCAGCTCTTGGCCAACCTGGCGCGGCTCATCCAGGCCAAGAAGGCGCTGGACCTGGGCACCTTCAC
GGGCTACTCCGCCCTGGCCCTGGCCCTGGCGCTGCCCGCGGACGGGCGCGTGGTGACCTGCGAGGTGGACGCGCA
GCCCCCGGAGCTGGGACGGCCCCTGTGGAGGCAGGCCGAGGCGGAGCACAAGATCGACCTCCGGCTGAAGCCCGC
CTTGGAGACCCTGGACGAGCTGCTGGCGGCGGGCGAGGCCGGCACCTTCGACGTGGCCGTGGTGGATGCGGACAA
GGAGAACTGCTCCGCCTACTACGAGCGCTGCCTGCAGCTGCTGCGACCCGGAGGCATCCTCGCCGTCCTCAGAGT
CCTGTGGCGCGGGAAGGTGCTGCAACCTCCGAAAGGGGACGTGGCGGCCGAGTGTGTGCGAAACCTAAACGAACG
CATCCGGCGGGACGTCAGGGTCTACATCAGCCTCCTGCCCCTGGGCGATGGACTCACCTTGGCCTTCAAGATCTA
GGGCTGGCCCCTAGTGAGTGGGCTCGAGGGAGGGTTGCCTGGGAACCCCAGGAATTGACCCTGAGTTTTAAATTC
GAAAATAAAGTGGGGCTGGGACACACG

FIGURE 4344

CTGGCAGCGGCGGCGGCGGCGGCGCGGGACGCGTCACATCCCCTTGACCCTCCAATCACCTCGGGCTCCCATTTG
ATTGGAAGGCGGCAAAGGCTTTAATCTCCCCCTTGGTGCAGCTGCTTTTGAAGTGAGTTTCCTCGCCAGAGCCCC
GGCTGGACACGCAGCGGCTCGCATCGCAGAGCGCAGCGCCGGCGCGGGGCCGCGAGAACGCAGCGCAGGGGAGCA
GCCCGAGGCGGACACCGCGAGCCGCCCGGCACTCCCGCAGTCCAGCCGGCTCCTCTAGCCCGGCCACGGCTCCGC
TGCGGGCCACCCAGGATTACTCGCGTCTGGCTCCAGGCGCCGAGAAGGCGCGCTGGGCGCCCGTGGCCGCCGCGC
CAGCTCCTCCTCCTCCCGCTGCTCCTGCTCCCGGGGCGAGCGCGCAGCCCCGAGCCCGCCCCGCGCCTCCCGGAG
CCCTCCCCCCCCGCTGCTCCCATGCGCGCGGGTGGGTC**ATG**AGCACAGCGCCCTCGCTTTCTGCCCTAAGAAGCAG
TAAGCACAGCGGCGGCGGCGGCGGCGGAGGCGGAGGCGGCGGTGCAGACCCTGCCTGGACCAGCGCGCTCTCTGG
AAATAGCTCCGGCCCCGGCCCAGGCTCGTCCCCGGCCGGCAGCACCAAGCCTTTTGTGCACGCCGTGCCCCCCTC
TGACCCCCTGCGCCAGGCCAACCGCCTGCCAATCAAGGTGCTGAAGATGCTGACGGCACGAACTGGCCACATTTT
GCACCCCGAGTACCTGCAGCCCCTGCCTTCCACGCCGGTCAGCCCCATCGAGCTCGATGCCAAGAAGAGCCCGCT
GGCGCTGTTGGCGCAAACATGTTCGCAGATCGGGAAGCCCGACCCCTCGCCCTCCTCCAAACTCTCCTCGGTTGC
CTCCAACGGGGGCGGCGCGGGCGGTGCCGGCGGCGGTGCTGCGGGCGACAAGGACACCAAATCGGGCCCCCTGAA
GCTGAGCGACATCGGCGTGGAGGACAAGTCGAGTTTCAAGCCGTACTCCAAACCCGGCTCGGATAAGAAGGAGCC
GGGAGGCGGCGGTGGAGGCGGTGGCGGTGGCGGGGGCGGCGGCGGGGGTGTTTCGTCGGAGAAGTCGGGATTCCG
GGTACCGAGCGCCACCTGCCAGCCATTCACGCCCAGGACAGGCAGCCCGAGCTCCAGCGCCTCGGCATGCTCGCA
GAGAGGTATGCTGTCCTCGGCCGGGGGTGCCCCGGAGGGCAAGTACGACAAGAAAGACACTGTCGTGGGCGGCGG
TGGCAAGGGCACCGGGGGCGCCTCGGCCGAAGGGGGACCCACGGGGCTGGCACACGGCCGGATTAGCTGCGGCGG
CGGGATTAATGTGGATGTGAACCAGCATCCGGATGGGGGCCCGGGAGGCAAGGCTCTGGGCTCGGACTGCGGCGG
TTCATCGGGCTCCAGCTCCGGCTCCGGCCCCAGCGCGCCCACCTCCTCCTCAGTGTTGGGCTCTGGGCTGGTGGC
TCCCGTGTCACCCTACAAGCCGGGCCAGACAGTGTTCCCTCTGCCTCCCGCGGGTATGACCTACCCAGGCAGCCT
GGCCGGGGCCTACGCCGGCTACCCGCCCCAGTTCCTGCCACACGGCGTGGCACTTGACCCCACCAAGCCGGGCAG
CCTGGTGGGGGCGCAGCTGGCGGCGGCCGCGGCCGGGTCTCTGGGCTGCAGTAAGCCGGCCGGCTCCAGCCCTTT
GGCCGGAGCGTCTCCGCCGTCCGTGATGACAGCCAGTTTGTGCCGGGACCCTTACTGCCTCAGCTACCACTGCGC
TAGCCACCTGGCAGGGGCGGCGGCCGCCAGCGCTTCTTGCGCACATGATCCGGCTGCTGCGGCTGCGGCGCTGAA
GTCCGGATACCCGCTGGTGTACCCCACGCACCCGCTGCACGGTGTGCACTCCTCGCTAACGGCCGCCGCGGCTGC
TGGCGCCACACCGCCCTCCCTGGCCGGCCACCCCCTCTACCCCTACGGCTTTATGCTCCCTAACGACCCACTCCC
CCACATCTGCAACTGGGTGTCGGCCAACGGGCCGTGCGACAAGCGCTTCGCCACGTCCGAAGAGCTGCTGAGCCA
CTTGCGGACCCATACGGCATTTCCCGGGACAGACAAACTGCTGTCGGGCTACCCCAGCTCGTCGTCTCTGGCCAG
CGCTGCCGCGGCCGCCATGGCTTGCCACATGCACATCCCCACCTCGGGCGCACCGGGCAGCCCTGGGACGCTGGC
GCTGCGCAGCCCCCACCACGCGCTGGGACTCAGCAGCCGCTACCACCCCTACTCCAAGAGCCCGCTTCCCACGCC
TGGCGCCCCCGTGCCGGTGCCCGCCGCCACCGGACCGTACTACTCCCCCTACGCCCTCTACGGACAGAGACTGAC
CACCGCCTCGGCGCTGGGGTATCAG**TGA**GGGCGGCCGGGAGGGCGAGCGAGGGAGAGGAGGGAGAGGGGGAGGGG
AGGAGTCCAGGGAGAGGCGGGATCACGGCCCAGGCTGCTGACACCCGCGCGTGGGGAGGACTCGGGCCACGAAAG
GAAAGAAATGTATACCGTATCTATCTACCCGACAGCAGCGACCGAGACCCGGTGGGACACTCCCCTTCTCCCCAC
TTTCACCTCCCCACCCAAACTTTATAAAAGTTGAAAAAATATCATTTGACTTTTTATAGAAAAAAAAAGGAAAAA
ATAATTGAGAAAGTGTTCATCTGAGGACTGCATCGGTGGACACTGGTATTTATTTATGTTAGCTCCAAGCGGACC
GGTGGTTCAAAAGTGCATTATTTAGTTTGAGCTCTGTAGGTAAAAAGGAGGTGGGAAAAATTTTAAAACTTGAGG
GTAAAAATGTGGAAAACAAACCCTCCCATCCCTTGTAGATTATAAATAAAAGCAAAACCGCCACAGAACTAGAGG
TCTTCTCTTTAATGTTACTTTAAAATTGCTATGATTGTATTGTACGTTATTTAATGTCTGATTGAAACACAAATT
TACATGCATGTTTGTTAC

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FIGURE 4345

CCCGCACTCTGCGCCTCTCCTCGCCTTTCTCGCACCTGCTCCTGCGCCAGGCCCGGAGACCCCCGGGGCGGCTTC
CCAGAACCTGCGGAGCACAACTGGCCGACCGACCCATTCATTGGGAACCCCGTCTTTTGCCAGAGCCCACGTCCC
CTGCCACCTCTAGCTCGGAGCGGCGTGTAGCGCC**ATG**GAGAAGAGCAACGAGACCAACGGCTACCTTGACAGCGC
TCAGGCGGGGCCTGCGGCCGGGCCCGGAGCTCCGGGGACCGCGGCGGGACGCGCACGGCGTTGCGCGGGCTTCCT
GCGGCGCCAAGCGCTGGTGCTGCTCACCGTGTCCGGGGTGCTGGCGGGCGCGGGCCTGGGCGCGGCGTTGCGCGG
GCTCAGCCTGAGCCGCACGCAGGTCACCTACCTGGCCTTCCCCGGCGAGATGCTGCTCCGCATGCTGCGCATGAT
CATCCTGCCGCTGGTGGTCTGCAGCCTGGTGTCGGGCGCCGCCTCGCTCGATGCCAGCTGCCTCGGGCGTCTGGG
CGGCATCGCTGTCGCCTACTTTGGCCTCACCACACTGAGTGCCTCGGCGCTCGCCGTGGCCTTGGCGTTCATCAT
CAAGCCAGGATCCGGTGCGCAGACCCTTCAGTCCAGCGACCTGGGGCTGGAGGACTCGGGGCCTCCTCCTGTCCC
CAAAGAGACGGTGGACTCTTTCCTCGACCTGGCCAGAAACCTGTTTCCCTCCAATCTTGTGGTTGCAGCTTTCCG
TACGTATGCAACCGATTATAAAGTCGTGACCCAGAACAGCAGCTCTGGAAATGTAACCCATGAAAAGATCCCCAT
AGGCACTGAGATAGAAGGGATGAACATTTTAGGATTGGTCCTGTTTGCTCTGGTGTTAGGAGTGGCCTTAAAGAA
ACTAGGCTCCGAAGGAGAAGACCTCATCCGTTTCTTCAATTCCCTCAACGAGGCGACGATGGTGCTGGTGTCCTG
GATTATGTGGTACGTACCTGTGGGCATCATGTTCCTTGTTGGAAGCAAGATCGTGGAAATGAAAGACATCATCGT
GCTGGTGACCAGCCTGGGGAAATACATCTTCGCATCTATATTGGGCCATGTTATTCATGGAGGAATTGTTCTGCC
ACTTATTTATTTTGTTTTCACACGAAAAAACCCATTCAGATTCCTCCTGGGCCTCCTCGCCCCATTTGCGACAGC
ATTTGCTACCTGCTCCAGCTCAGCGACCCTTCCCTCTATGATGAAGTGCATTGAAGAGAACAATGGTGTGGACAA
GAGGATCAGCAGGTTTATTCTCCCCATCGGGGCCACCGTGAACATGGACGGAGCAGCCATCTTCCAGTGTGTGGC
CGCGGTGTTCATTGCGCAACTCAACAACGTAGAGCTCAACGCAGGACAGATTTTCACCATTCTAGTGACTGCCAC
AGCGTCCAGTGTTGGAGCAGCAGGCGTGCCAGCTGGAGGGGTCCTCACCATTGCCATTATCCTGGAGGCCATTGG
GCTGCCTACTCATGACCTGCCTCTGATCCTGGCTGTGGACTGGATTGTGGACCGGACCACCACGGTGGTGAATGT
GGAAGGGGATGCCCTGGGTGCAGGCATTCTCCACCACCTGAATCAGAAGGCAACAAAGAAAGGCGAGCAGGAACT
TGCTGAGGTGAAAGTGGAAGCCATCCCCAACTGCAAGTCTGAGGAGGAGACATCGCCCCTGGTGACACACCAGAA
CCCCGCTGGCCCCGTGGCCAGTGCCCCAGAACTGGAATCCAAGGAGTCGGTTCTG**TGA**TGGGGCTGGGCTTTGGG
CTTGCCTGCCAGCAGTGATGTCCCACCCTGTTCACCCAGCCGCCAGTCATGGACACAGGGCACTGCCCTTGCCAA
CTTTTACCCTCCCAAGCAATGCTTTGGCCCAGTCGCTGGCCTGAGGCTTACCTCTCGGCACTGGCATTGGGCTCC
CCAGCCGGAACTGGTTACCAAGGACAAGGACACTCTGACATTCGGCTTGATCCATGTCCAGGTGCAACTGTGTGT
ACACCAGGGATCTGTTTGGAAACAACCCCTTGAGCTGCCAGGCTCAAGAAATCATGGACTCACAGGGTCCTGTGT
GGTT

FIGURE 4346

AGGGGGAGTCCGAGCGAAGTCCTAGCCAGCGAGTCAGAGGGGAGGGGAGCAGGGAGGGGCCGAGGGTGGGGAGGT
GAGGGAGTGGGGAATGGGGCGGGCGACAACCCTTCAGGTACGCATGCCCCAGAGGCGCGGCGCTTGGCGGGAAGC
TGAGTCCTGGCCTTGCGTCGCACTGTCTGTCCTCAGCTCGCGTAGCCGCGCTCGCGACTCCCTTTCCCGGCATGC
CAGGCGGTGCGGCCGCCCTCTGGGCCGTGTAAAGGCCCCTCGGTCTAAGGCTTCCCTATTTCCTGGTTCGCCGGC
GGCCATTTTGGGTGGAAGCGATAGCTGAGTGGCGGCGGCTGCTGATTGTGTTCTAGGGGACGGAGTAGGGGAAGA
CGTTTGCTCTCCCGGAACAGCCTATCTCATTCCTTTCTTTCGATTACCCGTGGCGCGGAGAGTCAGGGCGGCGGC
TGCGGCAGCAAGGGCGGCGGTGGCGGCGGCGGCAGCTGCAGTGAC**ATG**TCCAGCATGAATCCCGAATATGATTAT
TTATTCAAGTTACTTCTGATTGGCGACTCAGGGGTTGGAAAGTCTTGCCTTCTTCTTAGGTTTGCAGATGATACA
TATACAGAAAGCTACATCAGCACAATTGGTGTGGATTTCAAAATAAGAACTATAGAGTTAGACGGGATCACCTCC
AGTTATTACAGAGGAGCCCATGGCATCATAGTTGTGTATGATGTGACAGATCAGGAGTCCTTCAATAATGTTAAA
CAGTGGCTGCAGGAAATAGATCGTTATGCCAGTGAAAATGTCAACAAATTGTTGGTAGGGAACAAATGTGATCTG
ACCACAAAGAAAGTAGTAGACTACACAACAGCGAAGGAATTTGCTGATTCCCTTGGAATTCCGTTTTTGGAAACC
AGTGCTAAGAATGCAACGAATGTAGAACAGTCTTTCATGACGATGGCAGCTGAGATTAAAAAGCGAATGGGTCCC
GGAGCAACAGCTGGTGGTGCTGAGAAGTCCAATGTTAAAATTCAGAGCACTCCAGTCAAGCAGTCAGGTGGAGGT
TGCTGC**TAA**AATTTGCCTCCATCCTTTTCTCACAGCAATGAATTTGCAATCTGAACCCAAGTGAAAAAACAAAAT
TGCCTGAATTGTACTGTATGTAGCTGCACTACAACAGATTCTTACCGTCTCCACAAAGGTCAGAGATTGTAAATG
GTCAATACTGACTTTTTTTTTATTCCCTTGACTCAAGACAGCTAACTTCATTTTCAGAACTGTTTTAAACCTTTG
TGTGCTGGTTTATAAAATAATGTGTGTAATCCTTGTTGCTTTCCTGATACCAGACTGTTTCCCGTGGTTGGTTAG
AATATATTTTGTTTTGATGTTTATATTGGCATGTTTAGATGTCAGGTTTAGTCTTCTGAAGATGAAGTTCAGCCA
TTTTGTATCAAACAGCACAAGCAGTGTCTGTCACTTTCCATGCATAAAGTTTAGTGAGATGTTATATGTAAGATC
TGATTTGCTAGTTCTTCCTTGTAGAGTTATAAATGGAAAGATTACACTATCTGATTAATAGTTTCTTCATACTCT
GCATATAATTTGTGGCTGCAGAATATTGTAATTTGTTGCACACTATGTAACAAAACAACTGAAGATATGTTTAAT
AAATATTGTACTTATTGGAAGTAATATCAAACTGTATGGTGATAAGTATTGTTTTGATTCTTATGGTTAAAGGGA
AATAGAGCCTTGCATTATATTCAACACAGCCATTTGTGTGTGCACAATGCAAACTAAGGTATTCTAGACCTATCT
TAGAGCAGCATCCAGTATTTGCTTTCTAGATAATATGCCCAATAACATGACCTAGAGGGGCTTCTGTGCTGTGTA
GGGATTTAACCAACTTCAGTGGTTCAGGGAGCTCAAACTATATGTAAAACAAGTTTAGAATGTATGCTATCTAGC
CCGTTATCTCTGATCCTTCTCTAAAACCATTTGAAATAGCTTCATTGATCAACATTTCATAAATGCATCTGTGGT
AGAGGTAGAAAGCAGCACCTTTCCTAATTGGCAAATGATCAGACTAATGTGTGCTAATGTTTTTCTTCCATGCTT
TCAGTCAGATTCAACTATTTTATCCTCCACAGTTGCTTAACTTGGTGTTGGAGGAGGGTTTAAGCATTAAGATAG
GAAGCAGGAAATTTGATTGCTCTAAATTTAGAAATTATATCCCTAAAAATTAAAACATGAATACTGGGTGGTAAT
GATAATTGAGGCAAATGTATTTATTTTGGTGACATTTTGCATATATGAAGATTTTCTGAAATAGGACCTTCAAGA
TCCTAGGGGGTTTTGTTTGGTTTTTAATTGTGAGGAATAAAAAATCTTCTGCCCACACTGGCATTTTAAGGTGAC
TGAGGTCAAACGTTGTTTCCTTAGGTTGAAATAGCAGCCAAAACATTCTTCACGCAGGGGCTTGGGATATGGCTG
CTGGCAACACATTTTGTTGTGGGCTCCTTAATTTAATGATAAAATTTAAGCTAAACACAAGCCAAAAATGAATAG
GTTTTTTTAATTTTTATTTTTCACTAAACAGGCAATTGAAATACATGGTACAAAAATAAGTGGTAAGATAATTGT
AAAATGAAATGGACAGAATATTCAATTTTCCATCTATGAAAATTTCACAATAAAAATCATAGTTTACTTTGT

FIGURE 4347

AGCTGCTGCAGCTGCAGCCCGACCGCGAGCGTGCCAAGCGGCTTCAGCAGCTAGCGGAGCGGTGGCGGCGGCCCC
GCTCAGGAGACCACCAGATTCCCCTCTTCCCGCGGCCTCGCC**ATG**GCGACCCACGGACAGACTTGCGCGCGTCCA
ATGTGTATTCCTCCATCATATGCTGACCTTGGCAAAGCTGCCAGAGATATTTTCAACAAAGGATTTGGTTTTGGG
TTGGTGAAACTGGATGTGAAAACAAAGTCTTGCAGTGGCGTGGAATTTTCAACGTCCGGTTCATCTAATACAGAC
ACTGGTAAAGTTACTGGGACCCTGGAGACCAAATACAAGTGGTGTGAGTATGGTCTGACTTTCACAGAAAAGTGG
AACACTGATAACACTCTGGGAACAGAAATCGCAATTGAAGACCAGATTTGTCAAGGTTTGAAACTGACATTTGAT
ACTACCTTCTCACCAAACACAGGAAAGAAAAGTGGTAAAATCAAGTCTTACAAGAGGGAGTGTATAAACCTTGGT
TGTGATGTTGACTTTGATTTTGCTGGACCTGCAATCCATGGTTCAGCTGTCTTTGGTTATGAGGGCTGGCTTGCT
GGCTACCAGATGACCTTTGACAGTGCCAAATCAAAGCTGACAAGGAATAACTTTGCAGTGGGCTACAGGACTGGG
GACTTCCAGCTACACACTAATGTCAATGATGGGACAGAATTTGGAGGATCAATTTATCAGAAAGTTTGTGAAGAT
CTTGACACTTCAGTAAACCTTGCTTGGACATCAGGTACCAACTGCACTCGTTTTGGCATTGCAGCTAAATATCAG
TTGGATCCCACTGCTTCCATTTCTGCAAAAGTCAACAACTCTAGCTTAATTGGAGTAGGCTATACTCAGACTCTG
AGGCCTGGTGTGAAGCTTACACTCTCTGCTCTGGTAGACGGGAAGAGCATTAATGCTGGAGGCCACAAGGTTGGG
CTCGCCCTGGAGTTGGAGGCT**TAA**TCCAGCTGAAAGAAACCTTTGGGAATGGATATCAGAAGATTTGGCCTTAAT
ATATTTCCATTGTGACCAGCAGCAGGCTTTTTTCCCCCAAGAAGATGATCAAAACAAAGGATGATCTCAACAAGA
GCTGTATTTTAAGTATTTAGACAGTTCTTTGTTAGCTGGTTTCTAGTTGAATTGGTTATCTAGTTACCAATGCTG
CAGTCCTGCAGTCACCTATACATTATTTAAATGTATTTAACTGTTAAATGCGCTACCCACCAATAATGAAATAGA
CCTTTATGAAAA

FIGURE 4348

GAGAAAACGGCCGGGCGGCGGTGGCTGTAGGTTGTGCGGCTGCAGCGGCTCTTCCCTGGGCGGACG**ATG**GACAGC
CAGGGCAGGAAGGTGGTGGTGTGCGACAACGGCACCGGGTTTGTGAAGTGTGGATATGCAGGCTCTAACTTTCCA
GAACACATCTTCCCAGCTTTGGTTGGAAGACCTATTATCAGATCAACCACCAAAGTGGGAAACATTGAAATCAAG
GATCTTATGGTTGGTGATGAGGCAAGTGAATTACGATCAATGTTAGAAGTTAACTACCCTATGGAAAATGGCATA
GTACGAAATTGGGATGACATGAAACACCTGTGGGACTACACATTTGGACCAGAGAAACTTAATATAGATACCAGA
AATTGTAAAATCTTACTCACAGAACCTCCTATGAACCCAACCAAAAACAGAGAGAAGATTGTAGAGGTAATGTTT
GAAACTTACCAGTTTTCCGGTGTATATGTAGCCATCCAGGCAGTTCTGACTTTGTACGCTCAAGGTTTATTGACT
GGTGTAGTGGTAGACTCTGGAGATGGTGTGACTCACATTTGCCCAGTATATGAAGGCTTTTCTCTCCCTCATCTT
ACCAGGAGACTGGATATTGCTGGGAGGGATATAACTAGATATCTTATCAAGCTACTTCTGTTGCGAGGATACGCC
TTCAACCACTCTGCTGATTTTGAAACGGTTCGCATGATTAAAGAAAAACTGTGTTACGTGGGATATAATATTGAG
CAAGAGCAGAAACTGGCCTTAGAAACCACAGTATTAGTTGAATCTTATACACTCCCAGATGGACGTATCATCAAA
GTTGGGGGAGAGAGATTTGAAGCACCAGAAGCTTTATTTCAGCCTCACTTGATCAATGTTGAAGGAGTTGGTGTT
GCTGAATTGCTTTTTAACACAATTCAGGCAGCTGACATTGATACCAGATCTGAATTCTACAAACACATTGTGCTT
TCTGGAGGGTCTACTATGTATCCTGGCCTGCCATCACGGTTGGAACGAGAACTTAAACAGCTTTACTTAGAACGA
GTTTTGAAGGGTGATGTGGAAAAACTTTCTAAATTTAAGATCCGCATTGAAGACCCACCCCGCAGAAAGCACATG
GTATTCCTGGGTGGTGCAGTTCTAGCGGATATCATGAAAGACAAAGACAACTTTTGGATGACCCGACAAGAGTAC
CAAGAAAAGGGTGTCCGTGTGCTAGAGAAACTTGGTGTGACTGTTCGA**TAA**ACTCCAAAGCTTGTTCCCGTCATA
CCCGTAATGCTTTCTTTTTTCCTTTATTGCCAATCTTTGAACTCATTCAACTCCAGGACATGGAAGAGGCCTCTC
TCTGCCCTTTGACTGGAAAGGTCAAGTTTTATTCTGGTGTCTTGGGGAAGCTTTGTTAAATTTTTGTTAATGTGG
GTAAATCTGAGTTTAATTCAACTGCTTCCCTACATAGACTAGAGGGCTAAGGATTCTGTCTGCTGCTTTGTTTCT
TCTAAGTAGGCATTTAGATCATTCCTATAGGCTTCCTATTTTCACTTTACTGCTCTAATGCTGCTAGTCGTAGTC
TTTAGCACACTAGGTGGTATGCCTTTATTAGCATAAAACAAAAAAAACTTTAACAGGAGCTTTTACATATTACTG
GGATGGGGGGTGGTTCGGGATGGGTGGGCAGCTGCTGAACCCTTTAGGGCATTTCCTCTGTAATGTGGCGCTTTC
AACTGTACTGCTGCAGCTTTAAGTACCTTAAAGCTTCTCCTGTGAACTTCTTAGGGAAATGTTAGGTTCAGAACT
AAAGTGTTTTGGGTGGGTTTTGTTGCGGGGGGGAGGGTAACAATGGGTGGTCTTCTGATTTTTATTTTTGAGGTT
TTGTCAACTGGAGTACGTAGAGGAACTTTATTTACAGTACTTTGATTTGGCAGGTTTTCTTCTACTTGTGCTCTG
CCTGGAGCTGTTTCCATATGATATAAAAAGCAAGTGTAGTATTCCATTACTATGTGGCTTAGGGATTTATTTGTT
TTTTAAAATCAACCATGTTAGCTGGGATTAGACTCCCTACAGTCCTTCAATGGAAAAGTAACATTTAAAAATCCT
TTGGGTAATTCGAATTACAGATTTAAAAGAGCTTAAGATCTGGTGTTTTGTTAATGCTTCTGTTTATTCCAGAAG
CATTAAGGTAACCCATTGCCAAGTATCATTCTTGCAAATTATTCTTTTATATAACTGACCAGTGCTTAATAAAAC
AAGCAGGTACTTACAAATAATTACTGGCAGTAGGTTATAATTGGTGGTTTAAAAATAACATTGGAATACAGGACT
TGTTGCCAATTGGGTAATTTTCATTAGTTGTTTTGTTTGTTTTGATTTGAAACCTGGAAATACAGTAAAATTTGA
CTGTTTAAAATGTTGGCCAAAAAAATCAAGATTTAATTTTTTTATTTGTACTGAAAAACTAATCATAACTGTTAA
TTCTCAGCCATCTTTGAAGCTTGAAAGAAGAGTCTTTGGTATTTTGTAAACGTTAGCAGACTTTCCTGCCAGTGT
CAGAAAATCCTATTTATGAATCCTGTCGGTATTCCTTGGTATCTGAAAAAAATACCAAATAGTACCATACATGAG
TTATTTCTAAGTTTGAAAAATAAAAAGAAATTGCATCACACTAATTACAAAATA

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FIGURE 4349

CCCGCCTCCCGCCTCCCGCCTCCCTCCAGCTGCGAGTGCGGCCTCGGCTGGCGGCGGCACCAGGCCACAGTTGTA
AGGGATCTTGTGGCTGTCAGG**ATG**GCAGAGGAGCAGGAGTTCACCCAGCTCTGCAAGTTGCCTGCACAGCCCTCA
CACCCACACTGCGTGAACAACACCTACCGCAGCGCACAGCACTCCCAGGCTCTGCTCCGAGGGCTGCTGGCTCTC
CGGGACAGCGGAATCCTCTTCGATGTTGTGCTGGTGGTGGAGGGCAGACACATCGAGGCCCATCGCATCCTGCTG
GCTGCGTCCTGCGATTACTTCAGAGGAATGTTTGCTGGGGGATTGAAGGAGATGGAACAGGAAGAGGTCCTGATC
CACGGTGTGTCCTACAATGCTATGTGCCAAATCCTACATTTCATATACACCTCCGAGCTGGAGCTCAGCCTGAGC
AATGTACAAGAGACACTGGTGGCTGCCTGCCAGCTTCAGATCCCAGAAATTATCCATTTCTGCTGTGATTTCCTC
ATGTCCTGGGTGGACGAAGAGAACATTCTCGATGTCTACCGGCTGGCAGAGCTGTTTGACTTGAGCCGCCTGACT
GAGCAACTGGACACCTATATCCTCAAAAACTTTGTGGCCTTCTCTCGGACTGACAAGTACCGCCAGCTTCCATTG
GAGAAGGTCTACTCCCTCCTCAGCAGCAATCGCCTGGAGGTCTCCTGCGAGACCGAGGTATATGAGGGGGCCCTT
CTCTACCATTATAGCCTGGAGCAGGTGCAGGCTGACCAGATCTCGCTGCACGAGCCCCCAAAGCTCCTTGAGACA
GTGCGGTTTCCGCTGATGGAAGCTGAGGTCCTGCAGCGGCTGCATGACAAGCTGGACCCCAGCCCTTTGAGGGAC
ACAGTGGCCAGCGCCCTCATGTACCACCGGAACGAGAGCCTACAGCCCAGCCTGCAGAGCCCGCAAACGGAGCTG
CGGTCGGACTTCCAGTGCGTTGTGGGCTTCGGGGGCATTCACTCCACGCCGTCCACTGTCCTCAGCGACCAGGCC
AAGTATCTAAACCCCTTACTGGGAGAGTGGAAGCACTTCACTGCCTCCCTGGCCCCCCGCATGTCCAACCAGGGC
ATCGCGGTGCTCAACAACTTCGTATACTTGATTGGAGGGGACAACAATGTCCAAGGATTTCGAGCAGAGTCCCGA
TGCTGGAGGTATGACCCACGGCACAACCGCTGGTTCCAGATCCAGTCCCTGCAGCAGGAGCACGCCGACCTGTCC
GTGTGTGTTGTAGGCAGGTACATCTACGCTGTGGCGGGCCGTGACTACCACAATGACCTGAATGCTGTGGAGCGC
TACGACCCTGCCACCAACTCCTGGGCATACGTGGCCCCACTCAAGAGGGAGGTGTATGCCCACGCAGGCGCGACG
CTGGAGGGGAAGATGTATATCACCTGCGGCCGCAGAGGGGAGGATTACCTGAAAGAGACACACTGCTACGATCCA
GGCAGCAACACTTGGCACACACTGGCTGATGGGCCTGTGCGGCGCGCCTGGCACGGCATGGCAACCCTCCTCAAC
AAGCTGTATGTGATCGGGGGCAGCTGGGGTTGGAGGATGAGAGCTCCTGAGGGGCAGAGGAGCAGAGATGCATCA
GCTCGCCTGGGACTGGCTCTG**TGA**TAAAAAGACCCCTCCCGCTGGGTTTTCAGACCCCATGTTGTTGGTCAATGA
AATAAAGCATCTTACAG

FIGURE 4350

TTGGGCCTGGCTCTGTGACTGAGGCGGCGGCGGTGGCGGCCAAGCGGGATACGGGCGGCGGGAGCTGGGGAACAG
GC**ATG**GACGTTTCCGGGCAAGAGACCGACTGGCGGAGCACCGCCTTCCGGCAGAAGCTGGTCAGTCAAATCGAGG
ATGCCATGAGGAAAGCTGGTGTGGCACACAGTAAATCCAGCAAGGATATGGAGAGCCATGTTTTCCTGAAGGCCA
AGACCCGGGACGAATACCTTTCTCTCGTGGCCAGGCTCATTATCCATTTTCGAGACATTCATAACAAGAAATCTC
AAGCTTCCGTCAGTGATCCTATGAATGCACTCCAGAGCCTGACTGGCGGACCTGCTGCGGGAGCCGCTGGAATTG
GCATGCCTCCTCGGGGCCCGGGACAGTCTCTGGGCGGGATGGGTAGCCTTGGTGCCATGGGACAGCCAATGTCTC
TCTCAGGGCAGCCGCCTCCTGGGACCTCGGGGATGGCCCCTCACAGCATGGCTGTCGTGTCTACGGCAACTCCAC
AGACCCAGCTGCAGCTCCAGCAGGTGGCGCTGCAGCAGCAGCAGCAACAGCAGCAGTTCCAGCAGCAGCAGCAGG
CGGCGCTACAGCAGCAGCAGCAGCAGCAGCAACAGCAGCAGTTCCAGGCTCAGCAGAGTGCCATGCAGCAGCAGT
TCCAAGCAGTAGTGCAGCAGCAGCAGCAGCTCCAGCAGCAGCAGCAGCAGCAGCAGCATCTAATTAAATTGCATC
ATCAAAATCAGCAACAGATACAGCAGCAGCAACAGCAGCTGCAGCGAATAGCACAGCTGCAGCTCCAACAACAGC
AACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGGCTTTGCAGGCCCAGCCACCAATTCAGCAGCCAC
CGATGCAGCAGCCACAGCCTCCGCCCTCCCAGGCTCTGCCCCAGCAGCTGCAGCAGATGCATCACACACAGCACC
ACCAGCCGCCACCACAGCCCCAGCAGCCTCCAGTTGCTCAGAACCAACCATCACAACTCCCGCCACAGTCGCAGA
CCCAGCCTTTGGTGTCACAGGCGCAAGCTCTCCCTGGACAAATGTTGTATACCCAACCACCACTGAAATTTGTCC
GAGCTCCGATGGTGGTGCAGCAGCCCCCAGTGCAGCCCCAGGTGCAGCAGCAGCAGACAGCAGTACAGACAGCTC
AGGCTGCCCAGATGGTGGCTCCCGGAGTCCAGATGATCACGGAAGCCTTGGCCCAAGGTGGGATGCACATAAGAG
CCCGGTTCCCGCCTACCACCGCTGTGTCCGCCATCCCGTCAAGCTCCATCCCTTTGGGCAGACAGCCCATGGCAC
AGGTCAGCCAGAGCAGCCTCCCCATGCTGTCCTCGCCGTCACCGGGCCAGCAGGTGCAGACCCCGCAGTCGATGC
CCCCTCCCCCCCAGCCGTCCCCGCAGCCCGGCCAGCCCAGCTCACAGCCCAACTCCAACGTCAGCTCTGGCCCTG
CCCCATCTCCCAGTAGCTTCCTGCCCAGCCCCTCACCGCAGCCCTCCCAGAGCCCAGTGACGGCGCGGACCCCAC
AGAACTTCAGTGTCCCCTCACCTGGACCTTTAAACACACCTGTGAACCCCAGCTCTGTCATGAGCCCAGCTGGCT
CCAGCCAGGCTGAGGAGCAGCAGTACCTGGACAAGCTGAAGCAGCTGTCGAAGTACATCGAGCCCCTGCGCCGCA
TGATCAACAAGATCGACAAGAACGAAGACAGAAAAAAGGACCTGAGTAAGATGAAGAGCCTTCTGGACATTCTGA
CAGACCCCTCGAAGCGGTGTCCCCTGAAGACCTTGCAAAAGTGTGAGATCGCCCTGGAGAAACTCAAGAATGACA
TGGCGGTGCCCACTCCCCCACCGCCCCCGGTGCCACCGACCAAACAGCAGTACCTATGCCAGCCGCTCCTGGATG
CCGTCCTGGCCAACATCCGCTCACCTGTCTTCAACCATTCCCTGTACCGCACATTCGTTCCAGCCATGACCGCCA
TTCACGGCCCACCCATCACGGCCCCAGTGGTGTGCACCCGGAAGCGCAGGCTTGAGGATGATGAGCGGCAGAGCA
TCCCCAGTGTGCTCCAGGGTGAGGTGGCCAGGCTGGACCCCAAGTTCCTGGTAAACCTGGACCCTTCTCACTGCA
GCAACAATGGCACTGTCCACCTGATCTGCAAGCTGGATGACAAGGACCTCCCAAGTGTGCCACCACTGGAGCTCA
GTGTGCCCGCTGACTATCCTGCCCAAAGCCCGCTGTGGATAGACCGGCAGTGGCAGTACGACGCCAACCCCTTCC
TCCAGTCGGTGCACCGCTGCATGACCTCCAGGCTGCTGCAGCTCCCGGACAAGCACTCGGTCACCGCCTTGCTCA
ACACCTGGGCCCAGAGCGTCCACCAGGCCTGCCTCTCAGCCGCC**TAG**CCAAGACTGCAGGGATGGCCCGCAGCCT
CATCGGGGCCAAGGACACACGCCTCCTGTCAGACACTTCTAGGTGTTGGCTTCCTTAGAGAGCCTGGGGTTAGGT
TAGCTTTCCTGCTTTTATCTTCTGCCTTGGGGACCTGCCAAACGAAATCCCACACCTGTACAGAACTGGGATAGG
CGCAGTGGAGCGGGTTGCTTGGGGGGCGTTGGCCGACTTCTTAGAGAAGGCCCTCCATGTGACTTCCTCCCAGGA
GCCAGATGCGATCCTCAGGCTGCTCTCACCGTGGCCTGTCCACGGTCCAGGTCCATCTCAGCAGCGTGAGGGTGC
ACTCAGGGTGTTGTTAGAGCGTCTCGTGTGTGCTAGACGCACCCCTACTCGTTCCTATAGAACACAGAGGACATA
GGAAACCCTTAAAACACACATGGGATTCTCTGGTCACAGTTTTGGGTTCAGGCTATGCTGCTTTGGGCAGGTGGA
GCACCCCCCGAGGAAGCCTGCAAGTCCAGGGCACAGGCTGCCTTTTGGAGGGAGGGCTGGCCCATAGGTGCTGCT
GGCTCCCCGCCACCAGCTGGGCCTCAGCCCTCACGGCATTCCTGCTGAGCACCGTGGGGCACCCAGGGAGCAGGG
GCGTCAGGGATCCTGCTGCCGGCACCCCTGTGCCGCTGGCATGAGGGCCGTGTCCCCACTGTGAAGGATGAAGAG
CAAGGCCCTCAGGACCCGTGTCCTCAGAGCACCACACACTGAGCACCCAGAGACAGCGGGCCTGGCAGCGGGCCG
GGCCATGCAGGGAGCGCCTCCCTATGTTGCCTGCCACTCTGGGCACCGGCCAGCACCCTCTGGTGAGAAGAGGTC
CCCCCTTTTTATGTGCACTACCCCACCATCTGTGATTATAATAAATTTATTATTCCTGTG

FIGURE 4351

CTCATCTTCACGTTTTCTGCATCTATTGAAGTGCGCCACTGAGATCGTGGAGTTCTTCCCTGTTTGTCCATATGA
TGAACAACACTGATTTTCTGATGTTGAACAATCCCTGGAATAAACTCTGTTTGGTTTCCATGGATTTCTGTTTCC
CTTTAGATTTTGTTAGTAATTTATTTTGGATTTTTGCATCCAAGTTCATAATTGTAACTGGACAAATAAAGGCAG
ATTTTAAAAGGACAAGTTGGGAGGCTAAGGCGGAAGGATCACTTGAGCCTGGGAGATTGAAGCTGCAGCTAGCTT
CGATTGTTCCACTGTACTCCAGCCTGGTGACAGCAGGACCTGCCTCTAAAATAATAATACTTAAAAGGACGAGTT
TACCTACAGTCTCACCAAGCAATGAAAGAGCTTATCTTCTTCCTGTTTCCTTTACGGATCTTGCTCATGTATTTT
ATCTTAGTTACTTTAGCATAAATGCTAAATCAAATTCTTTTTCACTAGACATCATAATAGCTCTAGGCATACCAC
ATAATACCCAAGCACATTTTAATCATTAAAATTGTTTCCTTTTTTTGTGGCTACTGTAACCACTTCAGCGAACCA
TTTAGTGTGTAGTGGGTTTAAATTTTTTCTCCTTCCTGGGATAAATTTCCCAGGAGAGGGATAATTGGGTCAAAA
GTTACGAACATATTTATGGGTTCTTTTCCACAAGAGATCGATCAGTTTGCAAGTGCCATCTGCACTGTGGGGGAA
CCAATCTTCAACTTGCCTGCATTTGGTATTAGTATTTCATTAACCTTTCATTGATCTAATTACGGCTCTTTGACA
CAATTTTCATCAGTGATGGACTAAGTGTGATCCGGCCTGACCCGCCTCCGGCCGGCGTGAGAAGGGGCATGTGTC
GGGCTACCCTCGGGCTTCCCCTGCCGCCCATTGTGATCCAGCCCGCTAGGCGCTCCCTGCCGCCCATTGTGACGC
CTGCCAGCCGCAGGCTGGGTCCCCGAGGCGGGCGGCATTTAGGCTCGGTCTCCACAGCCATGGCCGCGACGCAGG
AGCTGCTGCTGCAGTTGCAGAAGGATAACCGAGATGGTCGCCAGCGGAAGCAGGAGCTAGAGAAGCTGATGCGCG
GGCTCGAGGCCGAGAGCGAGAGCCTGCCTCAACCAGCGCCTGCAGGACCTGAGCGAGCGGGAGCGGAGGCTGCTG
CGGAGGCGAAGCCAGGAAGCGCTGCTTCTGCAAGGGGAGGTGCGCGAGGCGGCGCGGGAGCGCGCGCAGCGGGTG
CGCAGAAGACTGGAGGAGGCGGAGCGCCACAAGGAGGACTTGAAGCCCGGTAAACCCCGTCCTTACGAGCCCCGC
CCCTAGCTCTTCTACTACGGAGGGGAACTGCAGAGCCAGAAGAGCACGGAGCAGCAACTCGCAGCCCAATTGGTG
ACGCTGCAGAATGAACTGGAGCTGGCGGAGACCAAATGCGCCTTGCAGGAGGAGAAGCTGCAGCAGGACGCGCTG
CAGACAGCGGAGGCCTGGGCCATATTCCAGGAGCAGACCGTAGTCCTGCAGGTGTGACGGGCAGCTTCGCAGAGT
GCAGTACAGCACCGAGTCGCTCATGGAGGAGATGGCCAGGGCGGACCGAGAGACGCGGCTGTTCGGCGGTCCTCG
CGCGCTGGCCATCAGGCGCTGCTGACGCTGCCGCTCCTCTTCCTGGGGCTGTCGCTGCTCTGGACGGTGCTGTTG
GACCCCGGCGCCGTCTCCGCGTGGCTCTGGAGCCTCACCTCGGAGACGACGCTGCGCCGCCTGCGCTACACGCTG
TCCCCGCTGCTGGAGCTGCGCGCTAACGGGCTGCTGCCAACCTAAGTGCAGCGCCCCGCGCCTGGCTCCAGGTGG
ACTCCAGGGCACCGGCTTTATTTCTGGTGCACTCCTCTCCTGAGAGTGTAGACCAAGGTCGCCTAATAAACTCCT
CAAGGGAT

FIGURE 4352

TGGTTTCTAAATCTTATTCAGTGAGCACGTGTTCCTTTTTTTAATTAGAGAAAACTTGACAGTAGCCCCTTTTTG
TGTTTCACAGAGGAGCTAACATTCCTTCTGTACCTGTAGTTC**ATG**CGGGAGATGGCAGGGGCCTGGCACATGACG
GTGGAGCAGAAATTTGGCCTGTTTTCTGCTGAGATAAAGGAAGCAGACCCCCTGGCTGCCTCGGAAGCAAGTCAA
CCCAAACCCTGTCCCCCCGAAGTGACCCCCCACTACATCTGGATCGACTTCCTGGTGCAGCGGTTTGAGATCGCC
AAGTACTGCAGCTCTGACCAAGTGGAGATCTTCTCCAGCCTGCTGCAGCGCTCCATGTCCCTGAACATCGGCGGG
GCCAAGGGGAGCATGAACCGGCACGTGGCGGCCATCGGGCCCCGCTTCAAGCTGCTGACCCTGGGGCTGTCCCTC
CTGCATGCCGATGTGGTTCCAAATGCAACCATCCGCAATGTGCTTCGCGAGAAGATCTACTCCACTGCCTTTGAC
TACTTCAGCTGTCCCCCAAAGTTCCCTACTCAAGGAGAGAAGCGGCTGCGTGAAGACATAAGCATCATGATTAAA
TTTTGGACCGCCATGTTCTCAGATAAGAAGTACCTGACCGCCAGCCAGCTTGTTCCCCCAGATAATCAGGACACC
CGGAGCAACCTGGACATAACTGTCGGCTCTCGGCAACAAGCCACCCAAGGCTGGATCAACACATACCCCCTGTCC
AGCGGCATGTCCACCATCTCCAAGAAATCAGGCATGTCTAAGAAAACCAACCGGGGCTCCCAGCTGCACAAATAC
TACATGAAGCGCAGGACGCTGCTGCTGTCCCTGCTGGCCACTGAGATCGAGCGTCTCATCACATGGTACAACCCG
CTGTCAGCCCCGGAACTGGAACTAGACCAGGCCGGAGAGAACAGCGTGGCCAACTGGAGATCTAAGTACATCAGC
CTGAGTGAGAAGCAGTGGAAGGACAACGTGAACCTCGCCTGGAGCATCTCTCCCTACCTAGCCGTGCAGCTGCCT
GCCAGGTTTAAGAACACAGAAGCCATTGGGAACGAAGTGACCCGTCTCGTTCGGTTGGACCCGGGAGCCGTTAGT
GATGTGCCTGAAGCAATCAAGTTCCTGGTCACCTGGCACACCATCGACGCCGATGCTCCAGAGCTCAGCCATGTG
CTGTGCTGGGCGCCCACGGACCCACCCACAGGCCTCTCCTACTTCTCCAGCATGTACCCGCCGCACCCTCTCACG
GCGCAGTACGGGGTGAAAGTCCTGCGGTCCTTCCCTCCGGACGCCATCCTCTTCTACATCCCCCAGATTGTGCAG
GCCCTCAGGTACGACAAGATGGGCTATGTGCGGGAGTATATTCTGTGGGCAGCGTCTAAATCCCAGCTTCTGGCA
CACCAGTTCATCTGGAACATGAAGACTAACATTTATCTAGATGAAGAGGGCCACCAGAAAGACCCTGACATCGGC
GACCTCCTGGATCAGTTGGTAGAGGAGATCACAGGCTCCTTGTCCGGCCCAGCGAAGGACTTTTACCAGCGGGAG
TTTGATTTCTTTAACAAGATCACCAACGTGTCGGCTATCATCAAGCCCTACCCTAAAGGCGACGAGAGAAAGAAG
GCTTGTCTGTCGGCCCTGTCTGAAGTGAAGGTGCAGCCGGGCTGCTACCTGCCCAGCAACCCTGAGGCCATTGTG
CTGGACATCGACTACAAGTCTGGGACCCCGATGCAGAGTGCTGCAAAAGCCCCATATCTGGCCAAGTTCAAGGTG
AAGCGATGTGGAGTTAGTGAACTTGAAAAAGAAGGTCTGCGGTGCCGCTCAGACTCCGAGGATGAGTGCAGCACG
CAGGAGGCCGACGGCCAGAAGATCTCCTGGCAGGCAGCCATCTTCAAGGTGGGAGACGACTGCCGGCAGGACATG
CTGGCCCTGCAGATCATCGACCTCTTCAAGAACATCTTCCAGCTGGTCGGCCTGGACCTCTTTGTTTTTCCCTAC
CGCGTGGTGGCCACTGCCCCTGGGTGCGGGGTGATCGAGTGCATCCCCGACTGCACCTCCCGGGACCAGCTGGGC
CGCCAGACAGACTTCGGCATGTACGACTACTTCACACGCCAGTACGGGGATGAGTCCACTCTGGCCTTCCAGCAG
GCCCGCTACAACTTCATCCGAAGCATGGCCGCCTACAGCCTCCTGCTGTTCCTGCTGCAGATCAAGGACAGACAC
AACGGCAACATTATGCTGGACAAGAAGGGTCATATCATCCACATCGACTTTGGCTTCATGTTTGAAAGCTCGCCG
GGCGGCAATCTCGGCTGGGAACCCGACATCAAGCTGACGGATGAGATGGTGATGATCATGGGGGGCAAGATGGAG
GCCACACCCTTCAAGTGGTTCATGGAGATGTGTGTCCGAGGCTACCTGGCTGTGCGGCCCTACATGGACGCGGTC
GTCTCCCTGGTCACTCTCATGTTGGACACGGGCCTGCCCTGTTTTCGCGGCCAGACAATCAAGCTCTTGAAGCAC
AGGTTTAGCCCCAACATGACTGAGCGCGAGGCTGCAAATTTCATCATGAAGGTCATCCAGAGCTGCTTCCTCAGC
AACAGGAGCCGGACCTACGACATGATCCAGTACTATCAGAATGACATCCCCTAC**TGA**GGAGGGGACCTTCGAGGG
CCTCTGCCCCATGTGCCCTCAAAGCTGTCCCACAATCATGGAGCCCTGCGACCTCCCTGCCCTGCCGCCACATGC
AGTGGAGGAGAGGCCTGTGGCCCAAAGAACCTGGTAGCGCCTCCTGGGGCAGCACGTGGGTGGCGCAGCCTTGGT
AACGCCATGGACTGCAGCGACAATCAATGGATGGTGCTGTCTATGCACAGGTGTGAGTCCTCTGTTTGCACTGGA
CATATTCCCTACCTGTCTTATTTCATAGGTACATGAAGTATTGTGTATAAAAAAAGAGATAAGATTTAACCAACA
TCAACAAAATAAAAACCCAAAATAGT

FIGURE 4353

GGAGTTCGCGCGACGACCGCGGGGTCGGCGGGCGGGGCGAGGCCCTGGACGGCGGCGGCAGTGGGGCTCCTCCTT
CTGTTTCCCAGACCGAGAGCCGCGCCGGCACC**ATG**TCAGCTTACCCTAAAAGCTACAATCCGTTCGACGACGACG
GGGAGGACGAAGGCGCCCGGCCGGCCCCTTGGAGGGACGCCCGAGACCTCCCCGACGGGCCCGACGCGCCCGCGG
ACAGGCAGCAGTACTTGCGGCAGGAGGTCCTCCGCAGGGCTGAGGCCACGGCCGCCAGCACCAGCAGGTCCCTGG
CCCTCATGTACGAGTCCGAGAAGGTTGGGGTCGCCTCTTCCGAGGAGCTCGCCCGTCAGCGAGGAGTCCTGGAGC
GCACAGAGAAGATGGTGGACAAGATGGACCAAGATTTGAAGATCAGCCAGAAACACATCAATAGCATTAAGAGCG
TGTTTGGGGGGCTGGTCAATTACTTCAAATCCAAACCAGTAGAGACCCCACCTGAACAGAATGGCACCCTCACCT
CCCAGCCCAACAACAGATTGAAAGAAGCTATAAGTACAAGTAAAGAACAGGAAGCAAAGTACCAGGCCAGCCACC
CAAACCTTAGAAAGCTGGATGATACAGACCCTGTCCCCAGAGGGGCTGGTTCTGCCATGAGTACTGATGCTTACC
CAAAGAACCCACACCTTCGAGCCTATCACCAGAAGATCGACAGCAACCTAGATGAGCTGTCCATGGGACTGGGTC
GTCTGAAGGACATAGCCCTGGGGATGCAGACAGAAATTGAGGAGCAAGATGACATTCTTGACCGGCTGACAACCA
AAGTGGACAAGTTAGATGTCAACATAAAAAGCACAGAAAGAAAAGTTCGACAACTC**TGA**AGACAGACGGATTTCC
ACTCTATTGTGATGAAAAGATTTGAAAGATCTTTTTTTGAACTTCCAAGAAATTTCATTTACTATTTTAGTATGT
AAATTAATGTGTGTTTGCAAATGTTATAATAGAGTAGGTCTTAAGACATTTTTGCTGTTATAAGGAAGTGTTTGT
CCCACATTTTCCTAGGGTTAACACCTCACCAAGTTCTTCCAGCAAAATGCTTATTAGAGTTTTTGTCTGAGCACA
GTAGCCTGGCCCTGCATATCTTGGGCGTTTGATTACCATGCTGGAATAAGAAGAGTTGCATTTCTCATTTTAATG
AGCATATGGAAAGATGGGAACAGAATTTCAGTCTTGCAGCCATGAGCCTCTATTTCTCATTCCTAAGCCTTACCA
TGAGTCAGAGTGTTAAGGGGGCCTGTGAGCCAGTCGTTTGGTGGAGGAGGGTCCTTCCCACACCTTTGTTTAGGA
GTCATCATTCACACACACACACACACACACACACACACACACACACACACACACTCTGAGCACATTATCTGTGATTCTT
TCATCCTCCCAGAAAGGATCAGTGTTAGAATGGGAAATAGAGTGTGCCATCTTGCTCTTTTGTTGGCAGATGTCC
CCGCTTCCCTCCAGCCCCCCATCCTTGGCATGTATATTAGTAGGAGGGCTTCACACCAGCACTGCTCACTGCGAC
TCCTGGAAATGTGTGGGGAATTGGGTGAGCCCCTCTTCCCCACGTGCTCCCATCTGTAACTCTCCATCTGTGATT
TGCAACAGGTCTTCCACTGGCTCGAGGCTGCGAGGCTGACCGACAGGGGCGCCCAATAGAGTTTGTGGGAATGGA
GTATTGCACAGATGCAGCTGCACAATGGTCTTCCTCCACCCCTCTGGGAATCACCATTAGGCAGGCCTCAGTAGG
GCAAAATGTTTATTTGGTACCGGGGGTCTCCTGACCTGTCTAGCATTCCCACCCACTCTTCTGCACTTCTTGCAA
GGTAACTTGAATCATCACTTATTTCTCTGCCACCTGGTTTTAGGACTGGCACTCTATAAATGACGCTGACTTTGT
ATAGAAGGATTTTGCTAAGGGGGCAAAAAGCCCAGATACCATTTTAACTGGCCCAGCTCATTTTCTCCTTTCATT
TTACAAAAGAAATCATGCAGAAGCATCAATTAAAACTGATTTATTTATGTTGGTACATCCAACAAAATAGTTGGA
GCCACAAGGCCCTTGTCTTTTTAAAAAAACAAAATATTTTGAAGATGGTGAAAGTGACTGATTTTAATAATGAGA
TAGGTCACTTAAAATAACAGTGCCTTTGACCTTAAAACATGGCACTGGCCCATGTGACCTTTGCCATTTCCCAGT
ACTTCCCTTTACAGTCTGCAGCCTATAAACAGTGGTGTCTCAAAGCAAAGGAAACCTCCACAAGTGCTGCAACAG
TGCATTAGTTTTTATGTAGCAATTTGTTTATAAAAATTCCCATCCCATAATGCATGACCTTCCTAAAAATACCCA
CAGCCTCCATAGGCAAGGTGAGCTTTCTGTGCTACCCACTGGTTAGATTCCAGCCACCTCAGGGATTCTGATCCA
TGTCATTAACGACCATCCCAGGGTGTGAGGGCCTGATTAAAGCTTATCGAACTAGACATTTGTTTATTAGATGAG
CTCGGCATTATTATTTTCTCAATAACTGGTAGAAGGGAAATTTTAAACATAACACTCAACCCAAACAAAACTACT
TCGTGAGGCTTTCAGCAAAAAGGCTGCTTAAAAGCATGAACCCGGGATGCAGAGCAGCTTTTGTGCACGGTTCCA
CTTACTGTAATTGTTTCTGGTTCTTTCCTCTAACACCTTCCATGTATGTCAACTTTTTATCACCGTCAGGCATAG
ACTCGTGGAGATTAGTCATTATAGCTCAGACCTAAGCTAATTATTTAAAATAAATACATGTAAAGGCCACTGCCA
CATTCTCAGCAGA

5020/5332

FIGURE 4354

AACAGGTTAAGTAGCAGGTTGGGTTTTTATGATAGTGCAAGGAATGACTCATGCCTCTGAGCTTCTAAACTGAAG
CTGCTGTAACTAAAGGAATCTGAAAAGAACAACCCTGAAGCAGAGGCCTTTATTGTCTTGGTTGCCAGTAGTACC
TTGTTTTGCCATGTAGCAGACAACACACAAAATAATGCAGTTGTGGTGTGCCATGCTATGTGCACAGCCCCTTGG
ATTACTTTGTTTTAAAAAGCATCAGAGTTGGGGGTACTTTAGGGAAACCTTTGCTTACCTTGTTTTGCCAGTGAT
AAGAGCAGTGGGTTGGAGGGCACTTGGCCAGTTTTCTGTTCAGCTTTTCAGTGAATGTACCCCTTTAAGGTTCAG
ACTTAAACTTCCTTAAAAAGTGGCGTTGTTCATAGAATCGTTGGACTCATTAATGAATCGTTCAACTCCACTCAC
TGAAGCCCAGACCTCCGTGCCCAGGCCCAATCTCGTCAGGCTGCCAGAGAAAGTTGGTGCTGCTCATACTGGTCT
CACAGTCTAAGTAAGTGTCTGTGATGCTCCCAAGCAAAGGAAATGCAAGCTCTGGAAATTCGTTAATGTATTTGA
TGTCTTAGTGTTTTAGTGACTAGGGAGACCATTAACTAGTTTATCATTAACCACTTATCAGTGTATTGATGTTAA
AGCATTTCCCTGTTAGCTAAAAGAGGCCTGTTCATACAAGCCAACTGGTATATACGTGTGGTTCATCCATCATCT
GCTGCACATAGCAGACTAGAATTCTGGGAACCCTGTGCAATTCAGTCTGCTCTCCCTTGTGGACCCTGGTAAAGA
AAAGCCTCAGCTCATAGTGAACACAGCAGACCTAGAAATGTAGCAGCAGCCTACTGAGTAGCTTTCATTTACTGA
TCATCTGCTGTGACTGTGGCCCTGTCTGGAGGTTCCTAGGTTTTGAGATTTAGAGCAATGCATTCTGGAGACAGA
ACCAGCAGAACAGCCATTTTTCAATTTTTCTTTAAATCAGTATTCCATCAGGCAGATAACTGCTGTATTCATGAA
TCTTGAGAGTGTTCCTGAGACAGAATTAATGGTCATTTGGGAAAACTATCGCCATGGCTTCCCATCTGTGGTTTT
CCTCTAAAAGCCTTGGAGATTAGCCCTTCCTTGCCAGTGAGAACGGTGACCGCCTCCTGCTCTGCACGGTCTGCG
GCAGTTGCCGCTTCTGGTTAGGTGTGTCAGGTTGGCTTATTTTGGGTTCAGGCCTGGCGTAGCACCCACAAGTGG
CAGACATATCACAAGAGTCCCCAGACTCTGCCTAGAAACAGTGTTTGCCCTTTGGCCAGTGACGTGGTTCATCCC
GGCCC**ATG**TTGAGCCATGAGTGGAGTTTCCAACAGAGGGAGGAATGTGTGCCTTGTTCAAGGAGGGCACGACCCT
TAGGCCTTTTTCAACCAGATTTAGCTGAAGGGCTTGACACCTTTGAATTACAGCAGTTGACTCAGAGTGCAAGAA
GTCTGGCCATTTTGGAAAGCAAGGTTTCCTTTCAGCCCTGTCTACTGACCAATACCCCGACTCACCTTGTGTGGC
GCACTTCAGAATCAGATATACCTAGAGTATACCTGTGGTTTGGTTTTATAATTAATCAGCTCGTTACTTCAGCCC
ATGAAAATGGCATCCAGGGCTGCCAGGAGATTCAGAGCTCAAAACAAGGCGAGCTTGAGTTCTGCACTCCAGATA
TGTGCCAAAAC**TAG**TAAAACTTAACGGACTTACAACCTTGTCAGTTTTTTTAATGAGGCAGGGATACTCTGTTTT
TCACACTAAACATATGAATGCAGCACTGCTGCCTCAGCTCAGCTTCGTGCCTGGGTTCCCCACTGGTCTGGGAAG
ACTGTTGTGCTCCATAGAGCAGTGCACATCTGACCCAGAGGGTGGGTGTTCATAACTGCTACTTGCTCTGCTCTA
CCATGTTTAAAGAAATATTTGGATGTTAAATTAACTCACTATGGTTTTTCACCTGGGAAGGAAACAAATTACGTA
CTAGAGGGCATTGACTGGTTAAAAACTTGTGTATCCCGGGAAGGACCTGCGGTACAGGAGTCAGCCATGTCTGTG
CTGTGTGGAACCACCTGATGACATGGTTAACGAGGAAGACGATGTGTTGACCGGCTGCCGTTTGAGGACTTTGGT
CACCCAGACTAGACACCTTCTGTGCTCATGTTTGGAAAGCTGAAAGGGAAGGACAGCTGTGCCCTCCTGGGAGCT
CATGTGTCCCTGGCGCTGTGCTAGCTTTCCTTTACAGCTGTTTACAGACAAGGCAGGCCTGAGGCAGATGGCCAC
TGCTCTTGTGATGTTTGCTCAGAGGAATATGAACATTTTATTTTTGAAAAGGGATGATGTGGTTTTTTGCCAGGT
GTTTATAATTAATCCTTTAATATTATGGTTATTAACCTCTTAAACATGAATGAATTCTTGATTGTTTTAACACAG
TACCTAAGACTAATGCTTTCTGTGGACACCACTGAGCTCTGCCTCAACTCCACCCTCTGCGACCGGAGGACTATG
CCCCTAGTAACTGCTGTCGGTGTGGACGCTGTGCTGGTTCTGTTTTCTAAAGGAGCAGAAGGACAGGTCTCTGAG
ACAGGATCGTTGTCCCTACAGGAGGAACAGTGGCCTTGCTTCTTAGACGGTCTTCACTGTGTGTTTTAAAACAAC
AACAACAACAACAACAACATAAAACTCTTTTGACCTGTAACTTAAAGATCATAAACTTCAGGCAATAATATT
TTCTGTGTAAGCTTTTAAAATTATTTTTGGGGATCATAGCTTGTTTTATTTTGTGCTATAAAATTAACAGTATTA
AATGACTTATATTCTTAGAATA

FIGURE 4355

CGTGAGTGCCGCTGACAGAAGTCAAGAGAATCGGCTGGGACGGGGTTGGGGCGACAACGGGCCGGGGGGGACCCG
ACAGGCCAGAGCCCCTTGGGGAGGAGCGGCGGCTGGAGGCGCGAGGCTCCTCCGGATGCCCGGAGAGCCGCTTGC
GACTTAACTCCCGCCTCTTTCCCAG**ATG**CCGCGTCACTGCTCCGCCGCCGGCTGCTGCACACGGGACACGCGCGA
GACGCGCAACCGCGGCATCTCCTTCCACAGACTTCCCAAGAAGGACAACCCGAGGCGAGGCTTGTGGCTGGCCAA
CTGCCAGCGGCTGGACCCCAGCGGCCAGGGCCTGTGGGACCCGGCATCCGAGTACATCTACTTCTGCTCCAAACA
CTTTGAGGAGGACTGCTTTGAGCTGGTGGGAATCAGTGGATATCACAGGCTAAAGGAGGGGGCAGTCCCCACCAT
ATTTGAGTCTTTCTCCAAGTTGCGCCGGACAACCAAGACCAAAGGACACAGTTACCCACCTGGCCCCGCTGAAGT
CAGCCGGCTCAGACGATGCAGGAAGCGCTGCTCCGAGGGCCGAGGGCCCACAACTCCATTTTCTCCACCTCCACC
TGCTGATGTCACCTGCTTTCCTGTGGAAGAGGCCTCAGCACCTGCCACTTTGCCGGCCTCCCCAGCTGGGAGGCT
GGAGCCTGGCCTTAGCAGCCCCTTTTCAGACCTACTGGGCCCCTTGGGTGCCCAGGCAGATGAAGCAGGCTGCAG
CGCCCAGCCTTCACCAGAGCGGCAGCCCTCCCCTCTCGAACCACGGCCAGTCTCCCCCTCAGCGTATATGCTGCG
CCTGCCCCCACCCGCCGGAGCCTACATCCAGAATGAACACAGCTACCAGGTGGGCAGCGCCTTACTCTGGAAGCG
GCGAGCCGAGGCAGCCCTTGATGCCCTTGACAAGGCCCAGCGCCAGCTGCAGGCCTGCAAGCGGCGGGAGCAGCG
GCTGCGGTTGAGACTGACCAAGCTGCAGCAGGAGCGGGCACGGGAGAAGCGGGCACAGGCAGATGCCCGCCAGAC
TCTGAAGGAGCATGTGCAGGACTTTGCCATGCAGCTGAGCAGCAGCATGGCC**TGA**GGGGCTGCTGGACTGACCGA
GGGGCTGCCCAGCAAGACTGCAGCCTCTTCCTCCCTCAGATCCCACCAGACCCACCAGGTGCCATAATAAAGCGG
ATTCTAGACGGAG

FIGURE 4356A

GGACACTTGACATCAGTGGTGTCAAGACAACTCTAAGAAGGTTTTCCGTGATCCTGCAAGCCCTGCCTTCCTTCC
TGGGATCCTGCCTTCAATTTGATTGCACAGGTACCACAGCAAGCCAGTGCTGTGTGCTCCGAGTTCCAGGGCGTC
CTCCAGCTCAGCCACTGCACTGAGAAC**ATG**GACTCTCTGTGGGGCCCAGGAGCCGGGAGTCACCCCTTTGGGGTC
CACAACACCCGGCTGTCCCCAGACTTGTGTCCAGGGAAGATAGTGTTGAGGGCCCTCAAGGAGAGCGGGGCAGGG
ATGCCTGAGCAGGACAAGGACCCTAGAGTCCAAGAGAATCCTGGTGATCAGAGAAGGGTCCCCGAGGTCACCGGG
GATGCACCGTCTGCATTTCGGCCCCTGCGGGACAATGGAGGCCTCTCTCCCTTTGTGCCCGGGCCCGGGCCTCTG
CAGACAGACCTCCATGCCCAGAGGTCAGAAATCAGATATAACCAGACATCCCAGACCTCCTGGACGAGCTCCTGC
ACCAACCGAAATGCCATCTCCAGCTCCTACAGCTCCACGGGAGGCTTGCCGGGGCTAAAGCGGAGGAGGGGGCCA
GCCTCATCCCACTGCCAGCTGACCCTCAGTTCCTCAAAGACAGTGAGTGAGGACAGGCCTCAGGCTGTCTCTTCA
GGTCACACCCAGTGTGAAAAGGCAGCAGATATAGCACCAGGGCAGACACTCGCCCTCAGGAATGACTCCTCCACA
TCCGAGGCCTCTAGGCCCAGTACACACAAGTTTCCCCTGCTGCCACGCAGGCGAGGGGAGCCTTTGATGCTGCCA
CCTCCCTTAGAGCTGGGGTACCGGGTCACTGTTGAAGACCTTGACCGGGAGAAGGAGGCGGCATTCCAGCGCATC
AACAGTGCACTGCAAGTTGAGGACAAGGCCATCTCGGACTGCAGACCCTCACGGCCTTCCCACACTTTGTCCTCA
CTTGCAACAGGGGCTTCTGGTCTGCCTCCCGTTTCTAAAGCACCCAGTATGGATGCACAGCAGGAGACACACAAG
TCCCAAGACTGCCTGGGCCTACTGGCCCCCTTAGCATCTGCTGCAGGGGTCCCCTCTACAGCTCCCATGTCTGGG
AAGAAGCACAGACCACCAGGCCCCCTGTTCTCCTCCTCAGATCCCCTTCCTGCCACCTCTTCCCATTCCCAGGAC
TCAGCCCAGGTCACCTCGCTGATTCCTGCCCCCTTCCCAGCTGCAAGCATGGATGCGGGCATGAGAAGAACAAGG
TGTGGCACTTCTGCTCCTGCAGCTGCCGCAGCAGCCCCTCCCCCCTCCACATTGAACCCCACGTTGGGGTCACTA
CTGGAGTGGATGGAGGCCCTTCACATTTCTGGGCCTCAGCCACAGCTGCAGCAGGTGCCCAGAGGTCAGAACCAG
AGATCCCAGACCTCCCGGACCAGCTCGTGCCCCAAACGAAATGCCATCTCGAGCCCCTACCGCTCTACGGGAGGC
CTCCCGGAACGAAAGCGGAGAAGGGGGCCAGCCTCATCCCACTGCCAGCTGACCCTCAGTTCC**TGA**AACACAGAC
CCAGGGTGCATGCCCATCTCCAGCCCAGGGCAGCTCCCCTGTAAGCTGGGTGAGCTACTGAAGCCAAGGCGGGAG
GCAGCTGACAACACCCACAGCCCATGCGGAGGTGGTGGAAAGGCTGGACTCAGCAGCAACACCAAATCCTGGACC
AGGCAGAAACCACCCAAGACTGAGGGGCTCGTGCCAGAGCGGTGGCCACAGGGCTGAATGGTTGCTGAGACAGAG
ATGGAAGCCAGGACAAGGGAGCCCACCGGGCCCAGATAGAGACTTCAGAACCCACTCCTGAGAACAGCGGAGCCA
GGCGCTTAGAGGAAGACCAAATGCTGCCAGGACACGGATTGTCCAGGGATTACATTCCAGCATCTTATTAGATGG
CCTGATTAGCCAGAGGTTTCCAGGCCGTCTGTCCGCCTCCAGGAGATGGACTGGGACCTTTAGACATCGGTGGAG
AACAGGATGCTCTGTCCCTTGCTGTCCAGGGCAGGGATGGCCTCCAGCCGCAAGAAGTACAGCAGCACCTCGACC
TGCCCTCGCGGAGTGGGGAAGAGGAGAGTGGCTCGGAAGGGGGCGCACAGCTGCTGGTGGGAGGTCTTTGGGGCC
CAAGATCCCAAGTCCACCTCAGGTGCTAGAAACCCCTGCTGGTGTCATGAACCCCTTACAGTGAGACGGGGGTGG
GGTGGGGTCCTGACAAGGCATGACTTGTTGGGTGGGGGGTGGTTATTTATTTTAGAGATGCACAGGGCCTTGCTC
TGTCCCCCAGGCTGGAGTACAGTGGCTCCATCATGGATCACTGCAGCCTCTAACTCCTGGGCTCAAGCAATCCTC
CTGTGTCAGCCTCCCAGATACCTAGGATTACAGATATGTGCCCCAATGCCTGCCTAATTTTTCTTTGTATTTTTT
CTGGAGATGGGGTTTGCTACATTGCCCAGACTGGTCTCAAACACCTGGGTTCAGTTGTCCTGCCTCGGCCTCCCA
AAGTGCTGGGATTACAGGCATGAGCCACCACACTCGAACACTTGGGGTGGTTTTAAGCCCCCAGCAAGGTGCACC
AGCAGGACCAGGAGGTGGCCTAGGCACCCCCTATCACTCCCATCCATGCAAACCTAGGCAAGTCCCTGTCTCTGA
ATCTCAGCCACCACCACATACAATGCAAGTCGGAAGATGGGCAGGACTGGGGGTGGGGCAGGCAGAGGCCACCTC
TGTCAGGCTGGGGTTGCATGGGCTGGAGGCTGTCTTCCCATACCTGGGACATGACCTCCAAGGACCAGCTGTCAG
TCATGGTGATGGGCTGGCTGGGGTTGGCAGGGAGCTTGCTCTCCTTCTCGGAGGGCCGGAGCAGCGTGGGGCCAA
ACACCGTGCCAAGGTTGTGCAGGGACATCTTATTGACTGCCTCCTTCTCTGCCATCCTGTAGAGGACCGAAGCAG
AGGGTGCTGTTTCAACGCCACCACCAGGAGAGAGGCAGAGGGGCTGTGCCGTGCTAGAGTCCTCAGGGAGGGAGT
GACCTCGACCCTGGCTGTGCTGCAAGCTGACTCCAGCCTTGGGGTCAGCAGCACCCGGCAAACAGCAGCAGGAGG
AGCCGCTAGAGCAGCTGCTCATGGGCAGAGCTGCCCTCGGGCAACTCCTGCCACCACCCCCTCCCCAGGGAGCCC
AAGGCAGGGGAGGCTCAGCATGGAATGAAACAGGGGAGTGAGGGACACAAGGAGGTGGGAAGTGGGAGGGTCCCA
GCCCCACCAAGTACGCAGAGACCCCCTCGACATCCTGGACACCACAGGGGCACCTGCAGGCTGGGAGACCAGGTC
CTCTGTGCATGGGCCCGGGAGGCAGACCTGCCCTAAGGGTGATGCACAGGCTACAGGTGCTGCACGCTCCAGCGC
CCACTCTAGACATCAGCCTCCAGGTTGACTAAGGGTCAGGTCATGTTTGAAACCATGCTTGGCTGGACCAGGACC
CATGGCAAGAGCACCTGGGCACCAGTGTTTAGCCCTGGTCTGCAGGAAGGAGGACAGCAGACTTTAGGACCCCAC

FIGURE 4356B

AGCACGGCAGTGCTGACCATTTCACCCACTTGGCCTCCTTGAGAAATATGGATGGGGAGCCCTCTGGGGATGGGC
AAGGCCTTCCAGGATAGGCTCAGTTTTGGTCCCCTGCTTTTTGAGGTTGGGTTAAAATTCCGACCATGGCAGAGG
AAGCACAGCTCGGGTTCCCACACCTCACTTTTCACAGCCTCTGAGGGCAGCAGTGCACGTGGAGGAGACGTCTCC
CATGAGGCCAAGGCCTCCAGTGCTCACCGATGCCCTCTGCGAAGTTGGGGTAGAACTCGTCAGTGAAGAGGGGCT
CGGGCAGCTCACGGAAGTACAGCTTCAGCATGCCTGCGATGGCGTTCACGTCCATCTCGCTCATCATCACTGACA
CGTCCTTGTTATCTGGAAAGAGCACGGAAATGCAGCGGCCTCCTTGAAGATCCTGATAAATGAAGAAAAGACACA
GAGAAGGATGTGACATGCCTGGGCCATGGAGCACTCTGAGATCTCATCGTGGACACCACTGCCCACACCTCCATC
CCGTCCTGCGCAGGCCGACACTCACTGACGTTGAAGCCTGCCTTCAGTGCCTGGATGTCTGCGGCCACCCCAGAC
ATGCGGTAGATGCCCACCTCCTCCATGCCTCGGCGCTCGATCTCCTCCACGCACTGACGCACGATGTAGGGCACC
TTGGACCTCTCTCTCCTGCGGGAGGAGGGAATGTTCTCAGTGTCCTAACAGCCCTGCTTGGGCCATAACACAGGA
GACCTGCTCCCTATCTGCGCACCCGGAGGTGGGGTGAGGACGGTGACGAAGGTACCCAGGTCTGGGGCTGCACAC
AGAGCCTTCTGCATGCCTGTCCTCCCTCTGCAAGCTCTGTCCTCATTGCATGTACTTTCTCAGGAACCTTTCAAG
CGGCCAGAACCCCTGCGAATCACACATGACCTTTGTGGGAAGGTCAGGAGGCCTGTCTAAGTCAAGTCAGCACGG
GAAGGGCATCTGACAGATTCCAGGCCTGGGGTTAGCAGCCTGTGCCCCCGGCTGGGAGGTCAGACCCGGTGTTGG
TCCTGCCACCCACGTGCTGTGTGAGAGGAGAATCCCTGACCCCTGCCCTGGGCCTTAACACACATCCGACGAATG
AATGAAGGGTTGCCTCAGCACCGGTGCTCCAAGTCCTGCGATGCTAAGTGCTTTTCTCCTCTGAGTCTTAGCAAT
GGACAATTCCAATACCTCCACACAGGACACTAGAGTAAGAATCCTTCACAGTTAGAACGCAGTGCTGTGCGGAGG
CCTTAACTTGAGTTCTGTTTTGCACCTGGATTTACCAGCACATCAAAGCTGCTTCGCAAGCCCCCTCATCAGCAG
GGCTTATGTGGGGGAGCTGCTGATGGAGTCCTCGCTGCTCATGCCCACAGCCCTCCCAGAGTGCTATGCGAGTGG
CTGCCGTGCAGTTGGGGGTGGGGCGTGGTGTTTAGACACAGATAGGAGTCCAGGGTATGACTGATGGAGGCCCCG
GCCCACGTGACCAGCAAGGTCAGAGGCCCAGCCAGATTCCATCCTGGGGAAGCAAATGAATTCTCAGAGGAAGTG
GTCTGTGTCTGTATGAACTGCTCTCAAACCAACAAATAGGCTTCTCTTGGCAACTGACTCGTGACAAAGGGTTCA
AGATTGTTTGAAAAAAAAAAAAAAAGGGGGGGAACAGGGAGGCAGTAGGTCCTGGAAAAGTAAATTCTTTATTTTA
CAATAAGAAAGTGATTACATATTTTATTTTTTTTACAATGGTGGAAAATTAGAAGTGATTGTGAAAATGATGTCT
ACCCGCCTTGCTGATGAGTAGGATGTGATTTGGCTCTTTAGGAAACTGAATTTGCAGAACTTAAGAATATTGATT
TATAAAGGGCATGGCCATTGACCCAGTCCATCTTATGCAAATCTGGATGCCATAAATAATATTTAAAAATGAAAG
TATTGGGGTGGAGGTTGCAGTGAGCGGAGATCGCCCCACTACACTCCAGCCTGGTCAACAGAGTGAGACTCTGTC
TCAAAACAAAAAAAAAAAAAAAAAAAAGGAAGAAGTCATTCCCAACATTGCTCATCAAATTATGACCATAAATTTC
CAGGATCAGACTAACGGCTAAAGAGACTGATGCATCAACACCAGGCAGAGAATAAAGCAGATTTTTTTTGTTTTG
TTTTGGAGAGCCTCTAGGAACTTGAAAAATACATATGCCACACTCTTAAGACCCGGTGGTTCTTAATCAGGGATG
TTCATTAAAATGCTGGAAAACTGTAAAGACTTCCAGGTCCCATCCAAGGAGATTTTGCTTCTGATTGACTGGCTA
GTGGCCTGGCCATTGGTATTTTGAAAAATCCCTCCAAGTGATTCTTTTACATCCCAGCTAGAAAACCCTAAATTA
AAGGTGAAAAACCAGACACCAAGTGGCATTTAAATAAATGTCAACTTTAACTCC

FIGURE 4357

CGGGAAGATGGCGGGCCGGGCGACTTGAGATCCGCGGGTCTCCCTGCTCCTTTTCCGTCTGCGTCGGGAGCTCCC
GGGCACGTGAGGCCGTGCCGCGTTTACTGGCGGGAGGGACGGCCTAGCCGGGCGACGCCTCGGAGGAGGCCGCGG
ACCCCTTAGGTGCTGGGCCCTTGGAAATCGGCGCGTGGGGGGCGGTGCTCGAGCTGAGCGCGAGAGGGCGGGAGA
GCTCGTGGGGTGCGAGGGGAGCAGGACGCCCGGCCGGGCAGCATGAGTCAGCAGCGGCCGGCGAGGAGATTACCC
AGTCTCCTCCTGCACCCGACGGAGGAGACCCCATCAACGTGGAGGGCCTGCTGCCATCAAAAATAAGGATTAATT
TAGAAGATAATGTACAATATGTGTCCATGAGAAATCTGCTCCCGGGGGTATTCTTGACTTAAACAAGGTTGCAAC
GAAACTGGGAGTCCGAAAGCGGAGAGTGTATGACATCACCGATGTCTTAGATGGAATCGACCTCGTTGAAAAGAA
ATCCAAGAACCATATTAGATGGATAGGATCTGATCTTAGCAATTTTGGAGCAGTTCCCCAACAAAAGAAGCTACA
GGAGGAACTTGCTGACTTACCAGCAATGGAAGATGCTTTGGATGAGTTAATTAAGGATTGTGCTCAGCAGCTGTT
TGAGTTAACAGATGACAAAGAAAATGAAAGACTAGCATATGTGACCTATCAAGACATTCATAGCATTCAGGCCTT
CCATGAACAGATCGTCATTGCAGTTAAAGCTCCAGCAGAAACCAGATTGGATGTTCCAGCTCCCAGAGAAGACTC
TATCACAGTGCACATAAGGAGCACCAACGGACCTATCGATGTCTATTTGTGAGAAGTGGAGCAGGGTCAGACCAG
TAACAAAAGGTCTGAAGGTGTCAGGACCTCTTCATCTGAGAGCACTCATCCAGAAGGCCCTGAGGAAGAAGAAAA
TCCTCAGCAAAGTGAAGAATTGCTTGAAGTAAGCAACTGATGGCATTTGAGAATTTATGTATCACTGAGTTTTTT
GGGAATATCTTCCTGGAGAATTACGCATCAAATTTGATTCTCAGAGCAATAAATTATCCATGAAGTGCTCTCGTT
CTCAGTAGCGGCATCATGGCCAGTAGTGTCTTTGAGGAGTTCACCACTTAGATTACTGAGTAATTGTGGTTTCCA
CATTTGAAAACAACTCCTTTTATAATTATTCACTGCTTTTTGTCAGTGAAATAGACATCTTGCCTCCTGAAGTAG
CTTCATCACAGAGTGTCATGAAGACAGACAGTCAGGCTGAAAAGGACAGTTCTTTGTGGACTCTACCCTTCCCTT
CAAGGAGTATGTCATATGTCACAAAAGAAATTGCCTTACACTGGTTCATGTTTGCAGTTACTGTTGTACATTGCA
TAGATGTACACACGAATTTAAATGTGATGTCTTTGTATATATCTGTATAATGTTGAGATTACTTACGAAATATGT
CTGAGTGACACTTTTCACTCTCGTACAGCCAAAATAATGTATATATGGAAAGTGACAGACAAATTCTCTAATCTC
TTTGGTATCTATAACTTATTAGAATCCTCTGGATGAGGGTTAGAAGAGACTTTTTCCAAACTTCTACATGTAGAA
GTATCATAAATGTGCTACACATTTATGTTTGTGGATTTAATTAAAGTATTTTAATATGGTTTTCAGTGCTAAAAT
TGGAGTCAGATACTTCTTGGTTTTAAGCTGTCTACCTAATTGCTGTCTCCCAGCAGATCGGTGGCATGCCCAGTG
GCTTTGGGGGCAAGGATAGAAATGTCATCAGGAAATAGCTGAATTCATTGTGAAAC**ATG**AATTCAGTCATGGTGA
TAATTGGAAACTCCTTTCAGGTTTTTGCAAGTAGATTTTGTAATGTTTGTGTATGCAGCCTTGCTGTTGAGTCAG
TCCAAGGGGTTTTACTTAGGACAAGTTGTACCTTGCCCTCTCTCCAGCTCTGCTCCCACATTTTCACATACCTAG
CTATTTCTACCTCATTGGGTAAGTCATTTACCACTCTGTGCCTCAGTTTACTCTGTAGTTTACCATTAGACTGTG
AGCTCCTTGAGGGACTTTGTCATAATCACTGTTACATCCCAGTGCCTCACACCATGCCTGGCCCT**TAA**GAAGTGC
TCAATAAATGTCTGAACAAAAAAAAAAACAAAAAAAA

FIGURE 4358

CGGGAAGATGGCGGGCCGGGCGACTTGAGATCCGCGGGTCTCCCTGCTCCTTTTCCGTCTGCGTCGGGAGCTCCC
GGGCACGTGAGGCCGTGCCGCGTTTACTGGCGGGAGGGACGGCCTAGCCGGGCGACGCCTCGGAGGAGGCCGCGG
ACCCCTTAGGTGCTGGGCCCTTGGAAATCGGCGCGTGGGGGGCGGTGCTCGAGCTGAGCGCGAGAGGGCGGGAGA
GCTCGTGGGGTGCGAGGGGAGCAGGACGCCCGGCCGGGCAGCATGAGTCAGCAGCGGCCGGCGAGGAGATTACCC
AGTCTCCTCCTGCACCCGACGGAGGAGACCCCATCAACGTGGAGGGCCTGCTGCCATCAAAAATAAGGATTAATT
TAGAAGATAATGTACAATATGTGTCCATGAGAAATCTGCTCCCGGGGGTATTCTTGACTTAAACAAGGTTGCAAC
GAAACTGGGAGTCCGAAAGCGGAGAGTGTATGACATCACCGATGTCTTAGATGGAATCGACCTCGTTGAAAAGAA
ATCCAAGAACCATATTAGATGGATAGGATCTGATCTTAGCAATTTTGGAGCAGTTCCCCAACAAAAGAAGCTACA
GGAGGAACTTTCTGACTTACCAGCAATGGAAGATGCTTTGGATGAGTTAATTAAGGATTGTGCTCAGCAGCTGTT
TGAGTTAACAGATGACAAAGAAAATGAAAGACTAGCATATGTGACCTATCAAGACATTCATAGCATTCAGGCCTT
CCATGAACAGATCGTCATTGCAGTTAAAGCTCCAGCAGAAACCAGATTGGATGTTCCAGCTCCCAGAGAAGACTC
TATCACAGTGCACATAAGGAGCACCAACGGACCTATCGATGTCTATTTGTGAGAAGTGGAGCAGGGTCAGACCAG
TAACAAAAGGTCTGAAGGTGTCAGGACCTCTTCATCTGAGAGCACTCATCCAGAAGGCCCTGAGGAAGAAGAAAA
TCCTCAGCAAAGTGAAGAATTGCTTGAAGTAAGCAACTGATGGCATTTGAGAATTTATGTATCACTGAGTTTTTT
GGGAATATCTTCCTGGAGAATTACGCATCAAATTTGATTCTCAGAGCAATAAATTATCCATGAAGTGCTCTCGTT
CTCAGTAGCGGCATCATGGCCAGTAGTGTCTTTGAGGAGTTCACCACTTAGATTACTGAGTAATTGTGGTTTCCA
CATTTGAAAACAACTCCTTTTATAATTATTCACTGCTTTTTGTCAGTGAAATAGACATCTTGCCTCCTGAAGTAG
CTTCATCACAGAGTGTCATGAAGACAGACAGTCAGGCTGAAAAGGACAGTTCTTTGTGGACTCTACCCTTCCCTT
CAAGGAGTATGTCATATGTCACAAAAGAAATTGCCTTACACTGGTTCATGTTTGCAGTTACTGTTGTACATTGCA
TAGATGTACACACGAATTTAAATGTGATGTCTTTGTATATATCTGTATAATGTTGAGATTACTTACGAAATATGT
CTGAGTGACACTTTTCACTCTCGTACAGCCAAAATAATGTATATATGGAAAGTGACAGACAAATTCTCTAATCTC
TTTGGTATCTATAACTTATTAGAATCCTCTGGATGAGGGTTAGAAGAGACTTTTTCCAAACTTCTACATGTAGAA
GTATCATAAATGTGCTACACATTTATGTTTGTGGATTTAATTAAAGTATTTTAATATGGTTTTCAGTGCTAAAAT
TGGAGTCAGATACTTCTTGGTTTTAAGCTGTCTACCTAATTGCTGTCTCCCAGCAGATCGGTGGCATGCCCAGTG
GCTTTGGGGGCAAGGATAGAAATGTCATCAGGAAATAGCTGAATTCATTGTGAAAC**ATG**AATTCAGTCATGGTGA
TAATTGGAAACTCCTTTCAGGTTTTTGCAAGTAGATTTTGTAATGTTTGTGTATGCAGCCTTGCTGTTGAGTCAG
TCCAAGGGGTTTTACTTAGGACAAGTTGTACCTTGCCCTCTCTCCAGCTCTGCTCCCACATTTTCACATACCTAG
CTATTTCTACCTCATTGGGTAAGTCATTTACCACTCTGTGCCTCAGTTTACTCTGTAGTTTACCATTAGACTGTG
AGCTCCCTGAGGGACTTTGTCATAATCACTGTTACATCCCAGTGCCTCACACCATGCCTGGCCCT**TAA**GAAGTGC
TCAATAAATGTCTGAACAAAAAAAAAAAAAAAAAA

FIGURE 4359

GGGCTGAATGGTCGCTGAGACAGAGATGGAAGCCAGGACAAGGGAGCCCACCGGGCCCAGATAGAGACTTCAGAA
CCCACTCCTGAGAACAGCGGAGCCAGGCGCTTAGAGGAAGACCAAATGCTGCCAGGACACGGATTGTCCAGGGAT
TACATTCCAGCATCTTATTAGAGGACCGAAGCAGAGGGTGCTGTTTCAACGCCACCACCAGGAGAGAGGCAGAGG
GGCTGTGCCGTGCTAGAGTCCTCAGGGAGGGAGTGACCTCGACCCTGGCTGTGCTGCAAGCTGACTCCAGCCTTG
GGGTCAGCAGCACCCGGCGAACAGCAGCAGGAGGAGCCGCTAGAGCAGCTGCTCATGGGCAGAGCTGCCCTCGGG
CAACTCCTGCCACCACCCCCTCCCCAGGGAGCCCAAGGCAGGGGAGGCTCAGCATGGAATGAAACAGGGGAGTGA
GGGACACAAGGAGGTGGGAAGTGGGAGGGTCCCAGCCCCACCAAGTACGCAGAGACCCCCTCGACATCCTGGACA
CCACAGGGGCACCTGCAGGCTGGGAGACCAGGTCCTCTGTGCATGGGCCCGGGAGGCAGACCTGCCCTAAGGGTG
ATGCACAGGCTACAGGTGCTGCACGCTCCAGCGCCCACTCTAGACATCAGCCTCCAGGTTGACTAAGGGTCAGGT
CATGTTTGAAACCATGCTTGGCTGGACCAGGACCCATGGCAAGAGCACCTGGGCACCAGTGTTTAGCCCTGGTCT
GCAGGAAGGAGGACAGCAGACTTTAGGACCCCACAGCACGGCAGTGCTGACCATTTCACCCACTTGGCCTCCTTG
AGAAATATGGATGGGGAGCCCTCTGGGGATGGGCAAGGCCTTCCAGGATAGGCTCAGTTTTGGTCCCCTGCTTTT
TGAGGTTGGGTTAAAATTCCGACCATGGCAGAGGAAGCACAGCTCGGGTTCCCACACCTCACTTTTCACAGCCTC
TGAGGGCAGCAGTGCACGTGGAGGAGACGTCTCCCATGAGGCCAAGGCCTCCAGTGCTCACCGATGCCCTCTGCG
AAGTTGGGGTAGAACTCGTCAGTGAAGAGGGGCTCGGGCAGCTCACGGAAGTACAGCTTCAGCATGCCTGCGATG
GCGTTCACGTCCATCTCGCTCATCATCACTGACACGTCCTTGTTATCTGGAAAGAGCACGGAAATGCAGCGGCCT
CCTTGAAGATCCTGATAA**ATG**AAGAAAAGACACAGAGAAGGATGTGACATGCCTGGGCCATGGAGCACTCTGAGA
TCTCATCGGGGACACCACTGCCCACACCTCCATCCCGTCCTGCGCAGGCCGACACTCACTGACGTTGAAGCCTGC
CTTCAGTGCCTGGATGTCTGCGGCCACCCCAGACATGCGGTAGATGCCCACCTCCTCCATGCCTCGGCGCTCGAT
CTCCTCCATGCACTGGCGCACGATGTAGGGCACCTTGGACCTCTCTCTCCTGCGGGAGGAGGGAATGTTCTCAGT
GTCCTAACAGCCCTGCTTGGGCCA**TAA**CACAGGAGACCTGCTCCCTATCTGCGCACCCGGAGGTGGGGTGAGGAC
GGTGACGAAGGTACCCAGGTCTGGGGCTGCACACAGAGCCTTCTGCATGCCTGTCCTCCCTCTGCAAGCTCTGTC
CTCATTGCATGTACTTTCTCAGGAACCTTTCAAGCGGCCAGAACCCCTGCGAATCACACATGACCTTTGCGGGAA
GGTCAGGAGGCCTGTCTAAGTCAAGTCAGCACGGGAAGGGCATCTGACAGATTCCAGGCCTGGGGTTAGCAGCCT
GTGCCCCCGGCTGGGAGGTCAGACCCGGTGTTGGTCCTGCCACCCACGTGCTGTGTGAGAGGAGAAACCCTGACC
CCTGCCCTGGGCCTTAACACACATCCGACGAATGAATGAAGGGTTGCCTCAGCACCGGTGCTCCAAGTCCTGCGA
TGCTAAGTGCTTTTCTCCTCTGAGTCTTAGCAATGGACAATTCCAATACCTCCACACAGGACACTAGAGTAAGAA
TCCTTCACAGTTAGAACGCAGTGCTGTGCGGAGGCCTTAACTTGAGTTCTGTTTTGCACCTGGATTTACCAGCAC
ATCAAAGCTGCTTCGCAAGCCCCCTCATCAGCAGGGCTTATGTGGGGGAGCTGCTGATGGAGTCCTCGCTGCTCA
TGCCCACAGCCCTCCCAGAGTGCTATGCGAGTGGCTGCCGTGCAGTTGGGGGTGGGGCGTGTGTTTAGACACAGA
TAGGAGTCCAGGGTATGACTGATGGAGGCCCCGGCCCACGTGACCAGCAAGGTCAGAGGCCCAGCCAGATTCCAT
CCTGGGGAAGCAAATGAATTCTCAGAGGAAGTGGTCTGTGTCTGCATGAACTGCTCTCAAACCAACAAATAGGCT
TCTCTTGGCAACTGACTCGTGACAAAGGGTTCAAGATTGTTTGAAAAAAAAAAAAAGGGGGGGGGGAACAGGGAGG
CAGTAGGTCCTGGAAAAGTAAATTCTTTATTTTACAATAAGAAAGTGATTACATATTTTATTTTTTTTACAATGG
TGGAAAATTAGAAGTGATTGTGAAAATGATGTCTACCCGCCTTGCTGATGAGTAGGATGTGATTTGGCTCTTTAG
GAAACTGAATTTGCAGAACTTAAGAATATTGATTTATAAAGGGCATGGCCATTGACCCAGTCCATCTTATGCAAA
TCTGGATGCCATAAATAATATTTAAAAATGAAAGTATTGGGGTGGAGGTTGCAGTGAGCGGAGATCGCCCCACTA
CACTCCAGCCTGGTCAACAGAGTGAGACTCTGTCTCA

FIGURE 4360

AGAATGAACTGGAGCTGGCGGAGACCAAATGCGCCTTGCAGGAGGAGAAGCTGCAGCAGGACGCGCTGCAGACAG
CGGAGGCCTGGGCCATATTCCAGGAGCAGACCGTAGTCCTGCAGGTGCGGCCCCACTCAGACGCCAAGGTGCCTC
CCGCCTCTCCTCCCCCAGACCTGGGGCGGTGTGACGGGCAGCTTCGCGGAGTGCAGTACAGCACCGAATCGCTCA
TGGAGGAGATGGCCAGGGCGGACCGAGAGACGCGGCTGTTCGGCGGCCCTCGCGCGCTGGCCATCAGGCGGTGCG
TGCTGGGCGCGCTGCAGGTGCTGCTGACGCTGCCGCTCCTCTTCCTGGGGCTGTCGCTGCTCTGGACGGTGCTGT
TGGACCCCGGCGCCGTCTCCGCGTGGCTCTGGAGCCTCACCTCGGAGACGACGCTGCGCCGCCTGCGCTACACGC
TGTCCCCGCTGCTGGAGCTGCGCGCTAACGGGCTTCTGCCAACCTAAGTGCAGCGCCCCGCGCCTGGCTCCAGGT
GGACTCCAGGGCACCTGGCTTTATTTCTGGTGCACTCCTCTCCTGAGAGTGTAGACCAAGGTTGCCTAATAAACT
CAAGGGATGAA

FIGURE 4361

GAACCCAGGAGGCAGAGGTTGCAGTGAGCCAAGATCGTGCCACTGCACTCCAGCCTGGCGACAGAGCGAGACTCC
ATTTAAAAAAAAAAAACACCAGGGCATCTGTAAGCCACTTTGGGAGTCAAAAGAATGTAGAGCTGGGCTGGACTCC
TTAGAAGAAAGTTAAGTTCTGAGTGTGGGAGGAAGTGCCTGCACCCCCACATCCAGACAGCCCGTCACTCCTGCT
GCCGAAGACTGACTTGCTGATTCGGGCTCTGCCTCCATAGTGGGGGCACAGAGCCAGGGAGAGTGCCCACAGGCC
CAGGGATCCTGGGTGTGGGACCAGGGAGAATGCCCACAGGCCCCAGGGCCTTTTTGAGCCCAGGGCGCTCTCTGC
ACAGGCCCGCTACAACTTCATCCGAAGCATGGCCGCCTACAGCCTCCTGCTGTTCCTGCTGCAGATCAAGGACAG
ACACAACGGCAACATTATGCTGGACAAGAAGGGCCATATCATCCACATCGGTCAGCCAGCCACAGCGCCACCCTC
CTCTCCCTTCACCCCGGCACCCAGGGGTGGATAGGGATCCCCACCCCACAGAGAGGAGAATGCCCAGGACCACCC
TGCCAGGAGTGTCAGGGTCCAGCTCTGAGGTCCGAACTGTCGGCCACCAAGCTGTTCTGCTGTAGAGGGTGCCTG
GCCCCGGCCCCAGGGAGCTGGGGCGAGAGCCGCCATTGCTCTGAGTCAGAAGCTGGAGCTGGGCGGAGTGGGGCT
GGTCCAGGTTCAGTGCCCCAGCTTGGCTCCTTCCTCCACTTCCTCCCTTCTCTTTCTCTGCCTGCTGCCCCACCA
CCCACCCCATCACTGTCTCCAAGAAAACACAACCTGCCTTTTGGGGGTGGAGGGGGTGCTCCTGTTGAAGAGTCC
TTTTCCACTCCTCAAAACAGACCACTCGTCCTTGCCCGCCCTGGCTCCTACCCAGTCACAGGCAGCTCTTTGGGG
TTTTGCAGACTTTGGCTTCATGTTTGAAAGCTCGCCGGGCGGCAATCTCGGCTGGGAACCCGACATCAAGCTGAC
GGATGAGATGGTGATGATCATGGGGGGCAAGATGGAGGCCACACCCTTCAAGTGGTTCATGGAGATGTGTGTCCA
GGCTACCTGGCTGTGCGGTGAGCCTGGGTGAGGGCCAGGGTGGAGGCGGAGGGGGTGTGTGGAACGTTCTGAGAT
CCCCTTTAGGATGAAGGGAATCGGGTTCCAGAGAGTGAGGTAGGTGCTAGCAGCCACCTGCTGACCTACACCTGT
CCTTTGGTCACCTCTGTCTGCCCACCTGTGCCAATAAATTCTTGCTCTGGGCATCTAATTCCAACCACCTTCCCC
ACAATCCTGCCCACGCCTTCAGCC**ATG**GGCTCTCCCTTTCTGGGCATCCCATCCACCTTGTCACCAAAGCCTGAG
CACCTGCCACCCCACAGGCTACGTGCCAAAGATGGGCTTTGTCCCAGTTTCATATACAGGTCACTTGGCCAAGGC
CACAGTCCAACCTGGGTTCATCCCCACTGCCCCGCAGAGAAAGGCAGGTCAGCGTGTCTGCATCCCACCCAGGTG
CAGAAGCCATGGCCGGCAGCCTTATGTGGGGGACAGGGCAGGACACTCAGCCTGTCCAGAGTGCGTATGGGCAGC
CCTTGCCTGGGCAGTACGGGTGACCGAGTGCAGCAGATCGAAAGTTGCCTCGGGGATGTGCAAGATGTGGCAGGC
GAGGTGGGTGGCAGGAGCCCACACCTGAGGCTGTTGGCATCAGCCAGTCCACAGGACTACAGGCAGGGCCACCAC
CTAGGCTGGCCTCAGCCCACCGCTCCCTCCTGTCTCTCCCCAGGCCCTACATGGATGTGGTCGTCTCCCTGGTCA
CTATCATGTTGGACACGGGCCTGCCCTGTTTTCGCGGCCAGACAATCAAGCTCT**TGA**AGTTTAGCCCCAACATGA
CTGAGCGCGAGGCTGCAAATTTCATCATGAAGGTCATCCAGAGCTGCTTCCTCAGCAACAGGAGCCGGACCTACA
ACATGATCCAGTACTATCAGAATGACATCCCCTACTGAGGAGGGGACCTTCGAGGGCCTCTGCCCCATGTGCCCT
TGAAGCTGCCCCACAATCATGGAGCCCTGCGACCTACCCGCCCTGCCGCCACATGCAGTGGAGGAGAGGCCTGTG
GCCCGAAGAGCCTGGTAGCGCCTCCTGGGGCAGCACGTGGGTGGCGCAGGCTTAGTAACGCCGTGGACTGCAGCG
ACAATCAGTGGATGGTGCTGTCTATGCACAGGTGTGAGTCCTCTGTTTGCACTGGACATATTCCCTACCTGTTTT
ATTTCATAGGTACATGAAGTATTGTGTATAAAAAAAGAGATAAGATTTAACCAACATCAACAAAATAAAAACCCA
AAATAGTG

FIGURE 4362

GAGCTTGAAGAAATCCGCAAATGTGGGATGAAAAACTTCCGTAACATCCAGGTTGATGAAGCTAATTTATTGACT
TGGCAAGGGCTTATTGTTCCTGACAACCCTCCATATGATAAGGGAGCCTTCAGAATCGAAATCAACTTTCCAGCA
GAGTACCCATTCAAACCACCGAAGATCACATTTAAAACAAAGATCTATCACCCAAACATCGACGAAAAGGGGCAG
GTCTGTCTGCCAGTAATTAGTGCCGAAAACTGGAAGCCAGCAACCAAAACCGACCAAGTAATCCAGTCCCTCATA
GCACTGGTGAATGACCCCCAGCCTGAGCACCCGCTTCGGGCTGACCTAGCTGAAGAATACTCTAAGGACCGTAAA
AAATTCTGTAAGAATGCTGAAGAGTTTACAAAGAAATATGGGGAAAAGCGACCTGTGGACTAAAATCTGCCACGA
TTGGTTCCAGCAAGTGTGAGCAGAGACCCCGTGCAGTGCATTCAGACACCCCGCAAAGCAGGACTCTGTGGAAAT
TGACACGTGCCACCGCCTGGCGTTCGCTTGTGGCAGTTACTAACTTTCTACAGTTTTCTTAATCAAAAGTGGTCT
AGGTAACCTGTAAAGAAAGGATTAAAAATTTAAGATGTTCTAGTTCTGCTCTCTTTGTTTTAAAAATCACTGCTT
CAATCTACTTCAAAAGAATGGTGTTTCTTTTCTTGTCCAATTTTATCCAAAATCTTCAAGTTACATTTAACCCAT
AAGGTTTAAAAAAAAGGAAAAAAAACGGTTGTGGTTCCCTTTCTTCCCTACCCTTGCCACTCCCACTTTCTGGCA
CCGAGTTTATTTTTCACTTACTTACTTCCCCAGACCCCGGGCTCGCCTCCACAAAGGAGAAAAGACTGCCCTGGC
GGTCCTGGTGGCTTTTCTTAGCATGTGTGGCACTGTTGCCCAGTGTGGGAGTTGGTTTAAATTCTCCTGACTCCA
GTTTATAACATCCTTTTAAAAAATTTAAAAACAAACAGCCACACCCCTCCTCCAGTCCTTCTCCTCAGTTCTTGT
GTGAAACTCCAGCTGATGTTACCACAGTAACATCAGTTAATTGGGCAAGCCCTGATGTCAGTGTGTGTAACTGAC
CTCTGGCCTGGCCTGCACAGAGAAGCCCTATAATCACAGGTCTGTGGTGGCCCCGAAATGGGGGGCCTGCTAGTC
AGGAGGATGCTGTGCACACTGTGTGTGATGAATCTCGCCAGAAAGGCTCCTGAGGTCCCAGGTTGGCACTTCTCC
CTGCAGCCATTGTAGAAGATCTGCTGGTCCTTGCAGGCAAAGCTACAGCCAGAATGTCCGTTTGAAACTCCTAGC
TCATCTGTCACCGAGCTTCATCCGAATGTGCCACGGAGCTTGCTCTCCACTTCCTCCGTGCAGTGGCCCTGCCAC
AGCCCTCCCTCGGCACACTTTGACCCTTTGTAGGATTGGAATTAGCAGGACTCGGCTATTTAAAGCACCAGTCTG
GGGTCGCCTGGGCCCCTGCTGACCCCCTCCTCCAGAGCAGCCAGCCCAGCCCGGGAACAAGACGGACTTCCTCTC
CCTTCGGACTCACAGCCTTTGCAGAGTCAAGCTCCACTTGAAGCTCACTCAGTAATATCCTTTCAATGTGTTTTA
TATTGTTTTGACTGCCTTTTTTTGTAGAAATAAAAATTGACCTTAGAATTTATCGTCAGATAAACTTGTAAAGAT
TTGAATATTAATGTCTTTTCAAGGCAAATGGGATTGTCCCCGCACTAGTAGAGAATCCATGTCGCTCTGACACCC
CAAGGAAGCCGACGATCCAAATGCCGTGTGTCACCAACCCCGCTTCTGCCACTGGCGGCTTCCCTTCTTGGCTCT
TGGGGGGGACTAGATCCTGTGGAGAAGATGACTTAAACTTTGCTTTTTGTTTTAATTTTAATTCTATAACTTGAG
ATCTTTCCGGGGCCTACAGGCGTGTAAGACAGCTTGGTCTGGTCTGTGCAGAAGTGGGGAGTGATGGGCAGGTTC
GGCAGCCTAACATTGTTCAGGCGCATGGCCCCTGCGGTGTGTACACGAACTCGGCTTCTTTTGTCCTAGGTACGC
CAAGGGCAGGTTTCTGGAGACTCCCTTGTGCCCGGGATGGCAAGGGCACCGGGCTGGCGTTTCCACATCTGTCTT
CATTAGCAGAAAAGTGATGATGGATTTTATTTCACTCACACTCCAGTTTGTAATAAA**ATG**CCAAATTCTGTCAGC
TATCCAAACAAGCCACCATTTGTTCTTGTTGCTTCTCTGGATCCAGAAATGTTGCCATTCTTGGAAACTGTCCCA
TTGCTTCGTATTTCTGCCAACGTAGCTCTGCCTGCCTGTCAACCCCTCACTGCACTCTGCTCATCACGGGAGGAT
ACCTGTGTGCCGGCAGCCCCTCAGGGACTCTCAGCCCTGGCACTGGCACCCCAGGGTTGGCCCCGTCAGCAGAGG
CTTGGCTTTCGAGCCAGTGGGTGTCTCTCCTTTGGGCCTGGGCGGCTTGCTCCTGCCAGCCATGCCTTCAGGGTA
GGCTCTGAGCAAGCTGGCGAACAGCCCTGGCTGCTCCAAAACCAAAAAGCTGGGTCCTCTGGAGGAGGGGCGAGC
TGTGGAGCAGCCACCCACTGCTGCCCCAAGCTCACTCAGGAATTCACACCCGCCTGGTTTCTTGAAGTGTGCTGG
GTCCTTCCCTCTGCTCCCTACTCCCCACCACGGCAGAGAATAGGCTTTCTAAGATGCTGCGATCCCGTTCTGCTG
CCCGTAATAAAAATGCTCTCAGACACTG

FIGURE 4363

GGGCTGTCCGGCCCACTCCCCTGGGAGCGCGAGCGGTGGACCCAGGCGGCC**ATG**TCCCGCCCTCGCATGCGCCTG
GTGGTCACCGCGGACGACTTTGGTTACTGCCCGCGACGCGATGAGGGTATCGTGGAGGCCTTTCTGGCCGGGGCT
GTGACCAGCGTGTCCCTGCTGGTCAACGGTGCGGCCACGGAGAGCGCGGCGGAGCTGGCCCGCAGGCACAGCATC
CCCACGGGCCTCCACGCCAACCTGTCCGAGGGCCGCCCCGTGGGTCCGGCCCGCCGTGGCGCCTCATCGCTGCTC
GGCCCGGAAGGCTTCTTCCTTGGCAAGATGGGATTCCGGGAGGCGGTGGCGGCCGGAGACGTGGATTTGCCTCAG
GTGCGGAGCCGCAGCTACAGGAGGATGCTCGCGAGGACCCCCAGAGCTCCGCCCGGAGGGTACTGTGAGGCCGTT
AGGAGCTGGCGGTGGATGACTTCCGCATTCAAACACTGGAGCCATCACACGGAAGCACGAGGAGGGTATCCTCGG
CAGCTACTCCCGGTCGCTCAAGGTGTCTCTCGCTCGCCCTCTAGGTGCGGGAGGAGCTCGAGGCCCAAC**TAA**GCT
GCTTCCGGGAGCTGCTGGGCAGGGCCCCCACGCACGCGGACGGGCACCAGCACGTGCACGTGCTCCCAGGTGGAC
AGACGCCTTCGTGGGCCTGAGCACTTGCGGCCGGCACATGTCCGCTCACCGCGTGTCCGGGGCCCTGGCGCGGGT
CCTGGAAGGTACCCTAGCGGGCCACACCCTGACAGCCGAGCTGATGGCGCACCCCGGCTACCCCAGTGTGCCTCC
CACCGGCGGCTGCGGTGAAGGCCCCGACGCTTTCTCTTGCTCTTGGGAGCGGCTGCATGAGCTGCGCGTCCTCAC
CGCGCCCACGCTGCGGGCCCAGCTTGCCCAGGATGGCGTGCAGCTTTGCGCCCTCGACGACCTGGACTCCAAGAG
GCCAGGGGAGGAGGTCCCCTGTGAGCCCACTCTGGAACCCTTCCTGGAACCCTCCCTACTCTGACCCCCTACAGA
CAACCAAGCACTAATCCCCTTAGTACCAAGAAAGGGGAGCCAGGATTTAGTCCTGGCCCAGCCCAGAGCTGGGAC
CTGGAGCACGATCTGTTGACTTCCCTGGGTAGGACACTGCCACCTCTGGGCTCAGGTCCTCATGCCTCCAAATGG
CATCTAGAGTTTGAGCAGCCTTCTTGGCTGCAGGCAGGCCTAGCCTGTGGCAGCGGGCTAGGGCCCGCAGAGCAT
TTGGTGCCCCTCCATGTTGCAATGCAAACACCTTCACCACTGGGGCAGTGGGGAGAGATGGCTATATTAATAAAA
TAACGTGTGTCTTTC

FIGURE 4364

GCTGGAGCCGGGCCGGGGCG**ATG**TGGAGCGCGGGCCGCGGCGGGGCTGCCTGGCCGGTGCTGTTGGGGCTGCTGC
TGGCGCTGTTAGTGCCGGGCGGTGGTGCCGCCAAGACCGGTGCGGAGCTCGTGACCTGCGGGTCGGTGCTGAAGC
TGCTCAATACGCACCACCGCGTGCGGCTGCACTCGCACGACATCAAATACGGATCCGGCAGCGGCCAGCAATCGG
TGACCGGCGTAGAGGCGTCGGACGACGCCAATAGCTACTGGCGGATCCGCGGCGGCTCGGAGGGCGGGTGCCCGC
GCGGGTCCCCGGTGCGCTGCGGGCAGGCGGTGAGGCTCACGCATGTGCTTACGGGCAAGAACCTGCACACGCACC
ACTTCCCGTCGCCGCTGTCCAACAACCAGGAGGTGAGTGCCTTTGGGGAAGACGGCGAGGGCGACGACCTGGACC
TATGGACAGTGCGCTGCTCTGGACAGCACTGGGAGCGTGAGGCTGCTGTGCGCTTCCAGCATGTGGGCACCTCTG
TGTTCCTGTCAGTCACGGGTGAGCAGTATGGAAGCCCCATCCGTGGGCAGCATGAGGTCCACGGCATGCCCAGTG
CCAACACGCACAATACGTGGAAGGCCATGGAAGGCATCTTCATCAAGCCTAGTGTGGAGCCCTCTGCAGGTCACG
ATGAACTC**TGA**GTGTGTGGATGGATGGGTGGATGGAGGGTGGCAGGTGGGGCGTCTGCAGGGCCACTCTTGGCAG
AGACTTTGGGTTTGTAGGGGTCCTCAAGTGCCTTTGTGATTAAAGAATGTTGGTCTATGA

FIGURE 4365

GAACTCGGCTGCGGCTCCATGGTCTGAGTTGTCAGCCGTTGTTTTTTCGTGCTCGCTAGTCGCCGCCGCCGCTCC
GCCATGGGGAAGCGACAGCACCAAAAGGACAAAATGTACATTACCTGTGCTGAATACACTCACTTTTATGGTGGC
AAGAAGCCAGATCTCCCACAAACAAATTTTCGTCGTTTACCTTTTGACCACTGCAGTCTCTCTCTGCAGCCCTTT
GTCTACCCAGTCTGCACTCCCGATGGCATCGTCTTTGACTTACTGAACATTGTTCCATGGCTTAAGAAGTACGGG
ACCAACCCCAGCAATGGAGAGAAGCTGGACGGGAGGTCCCTGATCAAGCTGAACTTTTCCAAGAACAGTGAGGGG
AAGTACCACTGCCCAGTGCTGTTTACCGTGTTCACCAACAACACCCACATCGTGGCTGTGAGGACGACCGGCAAC
GTCTACGCCTATGAGGCAGTGGAACAGCTAAATATCAAGGCCAAGAACTTCCGGGACCTGCTGACCGACGAGCCC
TTCTCCCGGCAGGACATCATCACCCTCCAGGACCCCACCAATTTGGACAAGTTCAATGTCTCTAACTTCTATCAT
GTGAAGAATAACATGAAAATAATAGACCCAGATGAAGAGAAGGCCAAACAGGACCCGTCTTATTATCTGAAAAAT
ACAAATGCCGAGACCCGAGAGACCCTGCAGGAGCTCTACAAGGAGTTCAAAGGGGACGAGATTCTGGCAGCCACC
ATGAAGGCCCCGGAGAAGAAGAAAGTGGACAAGCTGAACGCTGCCCACTATTCCACAGGGAAGGTCAGCGCTTCC
TTCACCTCCACCGCGATGGTCCCGGAGACCACACATGAAGCAGCTGCCATCGACGAGGATGTGCTGCGCTACCAG
TTTGTGAAGAAGAAGGGCTACGTGCGGCTGCACACCAACAAGGGCGACCTCAACCTGGAGCTGCACTGCGACCTG
ACACCAAAAACCTGCGAAAACTTCATCAGGCTTTGCAAGAAGCATTATTACGATGGCACCATCTTCCACAGATCC
ATCCGGAACTTTGTGATCCAAGGGGGCGACCCCACAGGCACAGGCACGGGTGGGGAGTCATACTGGGGGAAGCCC
TTCAAAGACGAGTTCCGGCCCAACCTCTCGCACACGGGCCGCGGCATCCTCAGCATGGCCAACTCCGGGCCCAAC
AGCAACAGGTCTCAATTCTTCATCACGTTTCGCTCCTGTGCCTACCTGGACAAGAAGCATACCATCTTTGGACGG
GTTGTTGGGGGCTTTGACGTACTGACAGCCATGGAGAATGTGGAGAGTGACCCCAAAACTGACCGCCCTAAGGAG
GAGATCCGCATTGATGCCACTACAGTGTTCGTGGACCCCTATGAGGAGGCCGATGCCCAGATTGCGCAGGAGCGG
AAGACACAGCTCAAGGTAGCCCCGGAGACCAAAGTGAAGAGCAGCCAGCCCCAGGCAGGGAGCCAGGGCCCCCAG
ACCTTCCGCCAGGGCGTGGGCAAGTACATCAACCCAGCAGCCACGAAGCGAGCAGCAGAGGAAGAGCCCTCAACC
AGTGCCACTGTCCCCATGTCCAAGAAGAAGCCCAGTCGGGGTTTTGGGGACTTCAGCTCCTGGTAGCAGCAGGTT
GGCCGCTGTGGACCTTGGTGGGGTTGCAGGGCTGGGGGCCCATGTCCACATCTCCATTTCCAGCCTTTCTAGCCT
GCCCTCTGCTGCCAGCCAATAAATTGCTTGCCTGCTGCCTGCATCCCCTTTCCTGGCCCCTGGGAGCCCACAGCC
TTCCCATCCCTTAACCTGTTGCCAAGGGCCTTGGCCCTGTTTCCAGGACCTGGCCCAGCCAGAGCCCACTGCTGG
GACCTTCAAGCACAAGGCCTGCCCTACACCCAGGCTGGTGCCTCAGGCCTCCCCTCTAGTAGGCAGGCCAGGTTA
GTGAGGAAGGACTGTGTCTCCAGATTGTGGTTTCCTCTTTAAGACAGGGTCTTGCTCTGTTGCCCAGGCTCCAGT
GCAGTGGTGTGATCATGGCTCACTGCAGCCTCGACCTCCTGGGCTCAAGCAATCCTCCTGCCTCAGCCTCGCAAG
TAGCTGGGACTACAGCCGTGCACCACTACATCCAGCTGTATATGTCTGGTTTTCTTACCCCTACTTCTGTCATCT
TCTCAGGGACAGCCTATTTATACAACCAGTGTGGTCCCCTGACCAACGCCATTACCTGGGACAAGTTTTCAGACC
CCAGACTTACTGAGCCTAAGCCTCTGCAGGGTGGGCTTCTCGGTCTGTTTTGACAAAACTTCAGGGGCTTCTGAA
GGCTGGTGTTGGACGGCAGCATTGAGTTTCCTGCCGTGCCCTGCCTGAGCTCTCAGGGCCCTGCTCACCTGCTCT
GGCTGTGAACCACCTGGGCTTCATCTCAAGCCTGCCTGGCGTCTCTGTGCCCCTGTGAGAATCTTGAGGGGACCC
ACACTGGGTTGAGGCCAGTGTCTCCTGCTGTGAGAACAAGTGGATGTCCCTCTCCCCGCCCTCCTGCTGAAGTGG
CCTTGCTGCTCTCAGGCCCGGCCA

FIGURE 4366

TAAATTTGCAGAACTTCAAATTGGCTATTCCTCTTGCAAATGAACCCTTAAAGTACAGTGTTATTTAAGAATCTT
CCAGAGGCAGTCAACAGACTTATACACTAAGGGCATTTTTGGTTTTTAGCTTGTTCAAAAACAGAGGCCAGCACA
GATGACATTTTAGATACACTCTAAATTGAGAATGGTGTCTAGTGGAACATGTTTATTTAAGCCAGTAGATTCCTT
ATCTAGAAAGCAGGTGAGCTAGCCCTTAGAGAAGGCTGTCCCGGGGCCCGCAGAGGTGCCCTTACTGAGGTGACA
GCCTCACAGGGTCTGGTACCAGGGGTTGTGCCCTCAGCAGTGACAGCAGCTTAGGTGTCAGGCAGTTGCTGAGTG
GCTGGTCCATGTCTATAGAGTAACACACTGGACCGAGGAAAAGTCAGATTTCATTTTCTACCCTGGATGTACTTG
AAGAAAAAGAATTATTTTTGCATATGAAAGAGGCCAGAACCCACAGGAAAAACTTCAAAACTTGACATTTGCCAG
AATGTTTAAAATTTGTTCAGAAAAGGTTAAAGCAACAAGTTTAGCCTTTGTGCATGAAGACGCCTGGCCTGCTAG
ACGCGTTGCCCGTCCCTGCGTGGTGCTGTCCCATGTCACTTGAACTGATAGAGGGGCCTGTGCAATCTCCTAAGG
CCTGTGTTTCTGCCATATATTTTATTATAAATTACAATCCACTCATCCACCTGCCCTCCACCAGGAGTGGGCACC
CCATAAGGGTTTAGGCCACTTTGCAGAGGATGGAGGTCAAAAACCACTCCCAGATAAGTTTGGTTTTCAACATTT
AGTAACTTGTCTCAGGGCAGAGGGCAGGCAGGGGGACCGAGGGGCAGCAGATAGGAGAGCACTGAGCCCGGATAG
TTCTCAGCCTGGCAAGTGGCTCTGAAGCTGCCTTCAGACAAGGCTAGTCTAGGGGCAAGAGTGCGAGCTGGCTGA
CAATAAGAACGTGGCCACCTGCCCAGCTTCACACCTCCCCCGACTTCAGCCCTTCCTAAACCCAGACCTGCGGTC
CAGGCAGGCACTGGGCTGTGCCCACTCGAGCTCACTGCCCACACACAGCATGCCTTTGGGTGCCATCTCTTTGCC
CAAGCCTGGAAGCCTTGGCAGGTGGGAAATGCCGCTGCCCTGGTGGGC**ATG**GCACTGAGATGCATCCACTCAGCA
GGAGTGACAGAGGCAGAAGTTCCTTTAAAGCACATCTTCCACTTAGGAAAGGAAGGAAATCTTTGTACTGTCTTG
GAAGCCTCCACATCCGGCTATGGCCCTGCAAGCTGCTTTATCCCTGCGCTAGTCTCCCCCGAGGGTTTAGGCTGG
CCCAGCACATCCTGTCCTCCTGAGCTCGCGTGCAGCCACCCAGAGCGCAGGGGTCACTGCACGCTGCAGGGCTCT
TGCTGCCATGGTCTCAAGCCTGAAGAGGCTCCGCCCACAAGCTGGCCCATGAAGTTAGCAATGCCTGTGGCTTCA
GTCAATTGTCTTGAGACTGTGAAGAGGCTGAAAGACACCTTCCCGGGTGGAAGAAGGAGTTCACTGAAAACTTAT
CTTAAACTGACCCTTCCCTTTGAG**TGA**GTCTTCATTCCTCTCCCATGTGGGAACCCAGCCTCCGATGCCCCGGGG
ACTAGGGGAAACAGTTGGAGGTTCGTGCCGTCCCCAGCCTGCCACGGGTGCGAGGACAGCCAAGTCCTGAGTGAC
TCAAGATGCTTCACTTACATGGAAGAAACTTCTAAAACTCTACCGAGTGGTTTTTGTATATACTAAAGTTCTATT
TAGAGCTTTTCTGTTTTGGGCAAGTTCGCTGCTCCTTCTATTTGGGCACTTTGGTTTTTGTACTGTCTTTTGTGA
CGGCATTGATTGAACATTTTTTACTAGTAGTCTTATGACTTTTGTATTTTTTTTTTTTTTTGTAATTTATACCAA
CAACACTTTTATCACTTTTTTTTTGTTGGGCTTCTGCAAAATACAAGCTCATTTTTAAACCAAATGAACAGACCA
TGAGCTGGCTTCAGGGGAAGTGCTATTCACAGGACCATATCCACCACCCTCTTAAATTCCTAAACAATATCATCT
AGGACTTCTATTTAAGTTATTTAAAATAAATCTTCCTTGAGAGCCTTGGGAGGTGATGTCAGGGTTATAAATGGC
ACAGTGCATTTGCTGTAGGAATGTGGTTTGGCATTGTTTTATACACACAGTATTTTTTATACCTTAATGCTTATT
CTTGATGGCATCTGTCAGATATTAGAATTGAAAATAAGAATCTTCCCAAAATCCTTTAATTTACCTGATGCCCTC
ATCAGGTCGTTAAAAATTCAAATGGTTTTAATAGCTAAAAAACTACAAATTAAGCTCTAAAACAAACAAACTACA
GAAATGTAAACCTTCATTTGCCAAAGGTCCTTGGTGGCCTGTCCCCTGCCCTGGGAGCAGATGGCCCTGAAGCCC
TTCCCTCACTGTGCAGGCCACCGGGTGAGGCTGGACGGTCACCCATGGTGGCTTCACTGCAAGGAGCAGGACTGC
CGAGCTCAAGCACGGGGCCTTCAGCTTCCCCTGTCCTCTGGCCACACCGCCAGCCCTTGGTCCTTATCTGTGTGA
GGTTTACAAATAAAGCTTCTGATGTCAAATGTT

FIGURE 4367A

CTGTTTTCTCTTTATTTGCTTATATGTTAATATGGTTTTTAAATTGGTAACTTTTATATAGTATGGTAACAGTAT
GTTAATACACACATACATACGCACACATGCTTTGGGTCCTTCCATAATACTTTTATATTTGTAAATCAATGTTTT
GGAGCAATCCCAAGTTTAAGGGAAATATTTTTGTAAATGTAATGGTTTTGAAAATCTGAGCAATCCTTTTGCTTA
TACATTTTTAAAGCATTTGTGCTTTAAAATTGTTATGCTGGTGTTTGAAACATGATACTCCTGTGGTGCAGATGA
GAAGCTATAACAGTGAATATGTGGTTTCTCTTACGTCATCCACCTTGACATGATGGGTCAGAAACAAATGGAAAT
CCAGAGCAAGTCCTCCAGGGTTGCACCAGGTTTACCTAAAGCTTGTTGCCTTTTCTTGTGCTGTTTATGCGTGTA
GAGCACTCAAGAAAGTTCTGAAACTGCTTTGTATCTGCTTTGTACTGTTGGTGCCTTCTTGGTATTGTACCCCAA
AATTCTGCATAGATTATTTAGTATAATGGTAAGTTAAAAAATGTTAAAGGAAGATTTTATTAAGAATCTGAATGT
TTATTCATTATATTGTTACAATTTAACATTAACATTTATTTGTGGTATTTGTGATTTGGTTAATCTGTATAAAAA
TTGTAAGTAGAAAGGTTTATATTTCATCTTAATTCTTTTGATGTTGTAAACGTACTTTTTAAAAGATGGATTATT
TGAATGTTTATGGCACCTGACTTGTAAAAAAAAAAAACTACAAAAAAATCCTTAGAATCATTAAATTGTGTCCCT
GTATTACCAAAATAACACAGCACCGTGCATGTATAGTTTAATTGCAGTTTCATCTGTGAAAACGTGAAATTGTCT
AGTCCTTCGTTATGTTCCCCAGATGTCTTCCAGATTTGCTCTGCATGTGGTAACTTGTGTTAGGGCTGTGAGCTG
TTCCTCGAGTTGA**ATG**GGGATGTCAGTGCTCCTAGGGTTCTCCAGGTGGTTCTTCAGACCTTCACCTGTGGGGGG
GGGGGTAGGCGGTGCCCACGCCCATCTCCTCATCCTCCTGAACTTCTGCAACCCCACTGCTGGGCAGACATCCTG
GGCAACCCCTTTTTTCAGAGCAAGAAGTCATAAAGATAGGATTTCTTGGACATTTGGTTCTTATCAATATTGGGC
ATTATGTAATGACTTATTTACAAAACAAAGATACTGGAAAATGTTTTGGATGTGGTGTTATGGAAAGAGCACAGG
CCTTGGACCCATCCAGCTGGGTTCAGAACTACCCCCTGCTTATAACTGCGGCTGGCTGTGGGCCAGTCATTCTGC
GTCTCTGCTTTCTTCCTCTGCTTCAGACTGTCAGCTG**TAA**AGTGGAAGCAATATTACTTGCCTTGTATATGGTAA
AGATTATAAAAATACATTTCAACTGTTCAGCATAGTACTTCAAAGCAAGTACTCAGTAAATAGCAAGTCTTTTTA
AATGCTGCTTTATTTCACTAAATTTTGTTGTGAGGTGTCACTAAAATGCCTGCAAACAAACGTAACTGCTAATCT
GAGAGGAAACCCTCTTACTAATCAGAGAAGAAACCCTCCTGTCAGAAACCTTCAGGGAAGTGAGCTGATCACACC
TAAACTGGGAGTTTGCAATGGGGTATTTGAAGCACTGTGGGAGTATTCCACTGGCCCTCTCCCTGAGAGACTTAA
CAGTCTTCCCTGTTGTCCAGATTCTGTATAAGGCAATCAGAATAATCATCTTCCTTGTTCAGCAGAGGAGCCTGG
TCCCATTTTCCCCACTTTGTGATGGGCTTCTCTCAGCGGTAGCTCAGCAGTTCCAGATGGCAGTTTGGACCAGCA
TCTAGGCTGGCCAGTTCGCTGTGTTTACTTAGAACCAACACGTTCAGAGCTGGCCTGGACCATCTGAGGGGAACA
GGAAACACCCCTAGGCTGTGGAAGCAAGTGCAGACCCCCACCCCCGGCCCTGAAGCCAAGGGGGCAGGGTTTGGG
AGTGGCCAAAGAGAAGCAGTGCAGGGATGGGTTTTCCTAGGGACAGGCTTAGCATTCCTGACTCTAGGAAGAAGG
AGCAGTGAGGCGGAGAAACAGTGGAGGGGATGGTGGCATTGGGCCCCATGGGGCCGAGATGGACACAGGGCTCGT
TCTCTTGAGTCTGGTGCCAAGGACAGCTGAAGACGACATCATTTTCAGGTGGAGAGGAGAGAGTGGAGGGAGATC
ATGCCCTGTGATGTGTCTTTTGCAGGTGAAGGTGGGAGACAAGGTCTCTGCTGACGATGAGGCAGAGCCACCGTG
AAAGTTGTAATAGGAGGACTGCCCGCCGCTGGAAGGGCCTGCAGTGACGCTAGGACACCCTCTGCCTGCATGTCA
CGTTAGCTGGGCTGGGCGAAGTAGAAGACCAAGGGGAAGAGGTGCAGTGGGGAGACCAGGTGGGATGCAACCACA
GGACCAGTGGAGGGGCTGTGGCACGTGGGCGGAGACTGAGTGGCTGGGCATGTGTTGTGGCTGAGCATGTGGTGT
GGGCAGTGGTCCTAGACCCCGCCATGTCCGGACAATGATATAGAGCGTCTCAGCATCGCCAGTCTAGACTGTCTA
TGGAGAGCAGAAAGTTGTCTGGGGCTGCCTGGGGAACTGTGAGGCCAGCTATATCACCGTCGCTGATGGTGACAT
TACGGTGGTGGCAGGAGCAAGGAGAGAGGGAAGAAGGACCCCGTCCAGCTTTAGTCACAAAATACCCAATGGAAG
ATGCCAGTGCCAATCCTGTGGGTTTCCTTGGGACTTCACACTGGCTTTCTTATCTGCTCCAGATCCATTCAGTAG
TCACTGAGTTCCTGCCAAATACTTTGTAGCGCCAGAAGCCAGGAGCGGGGTCTGCAGCAGGGCAGTCCCCATTTT
CAGGAAATGCCTGGAGCTGCTGGTCCCTGAGAGAAAGGAAAACATCTTTCAGCCGTACGCAGGCCAAGAAGGCCA
ATGTCCAGTAGCTTTGTGATTTTTTTTATATTTTTTTATTTATTTATTTTTGAGATAGAGTCTTGCTCTGTCGCT
CAGGCTGGAGTGCAGTGGCGTGATCTCCACTCACTGCAACTTCCGCCTCCTGGGGTCAAGCAGTTCTGCCTCAGC
CTCCCGAGTAGCTGGGATTACAGGCACACGCCACCACACCCAGCTAATTTTTGTGTTTTTAGTAGAGACGGTTTC
ACCATGTCGGCCAGGCTGGTCTCAAACTCCTGACCTCAGATGATTCAGCCTCCCAAAGTGCTGGGATTACAGGTG
TGAGCCACTGCACCCAGCCTGTGATGTTTCTGTGGGGTTCCACAAATGTGTGTGTGTGTAAAAGCTGATGATTAC
AGCAAGAATGTGAACAGTAGCAGTTTTCCATTTGAAGGCAAGTTTTGTCTTTATCTGGGTATCAGAAGGACCCTC
TGGGCCATTGTCGCTTCCTGTACTCAGAGCCACCCTAGTACTACGGGCACACACAGAAAACAGCAGCCTGCGTAC
TTTCAAAGGAAAGGCATCTTTAATCACCAATGCCTGGAAAAATTATTTTGTTTCCCTCTTCCTTCCGTCTTGTTT

FIGURE 4367B

CCTAACTTCTTACCAAAGTTTAGAGTCTGAGTTTTTCGTATAATAATGTCCCACATCCACACATCGGGCCTACAG
ATGCTCTCCCTTGAATCGACTGGAAACATGACACCGGTTCCATGCTCTGGAACTGTCACCTGTGATGTGCTGGGC
TGTGTCCCAAGCACAGGAATCCCAGCAGTTTCAGCTCGATGCAGAACCACCATGCTCCAGACACAGGCTTGGGAA
AGACACGTCAAAATTAAAATACTAGGTAAGAGAAGCACCTGATTGGGTAGAAGTTGGAGAGGAATCCTGGAATTT
TGTGGCCAGAAGGAGCCACTGCCCCTTTTGTTTAGTAAGACTAGACAGTAACAGAAGCCAGTTGTCAGCTATGAA
AGTGGTGGGTGAAGCAGGGGAGGCTCCTCTATGGTGGGACCCTGGACAAGGGAAGCCGAATGTGTGAAGAAGGGG
TGCGGGGGTGTGCGGTGCCCTAGGACACTAGGGCAAAGGTTTCAAACCTGGAACAAGGCACTGGAGGAAGATCTG
CTGCCAGTCAGCAGTGCGGGCCCTCGAGTTAGCAGTCCGTGCGCAGAGGGGCCAGTTCTGAGACCAGTTTGGAGA
GTCAGGCAGTGACCCATTGGCCATGTCATAATTCCTTCAGCCTGCCTCCTCTTTAATCCCAGAGAGTGCTCTTTC
TTCATACTTCCTTTAAAATACTAAATTGTTCCCATTCCATGGGGAGCTGGCTAGGCTTTACAGGCTAGGAAATGT
AGGTTTTCTGAGATGGAACCATCTACACAAGGAGGAGGAAGGCACTAAGACTACAGATGAGACCCATGACAGGGC
TGAGCATTTGGAAGCCAACCCTGGTTGCTTTTCAAGAATTGCTTTGTGGCTGGGTGCAGTGGTTCACACCTGTAA
TTGCAGCACTTTGGGAGGCTGAGGCAGGTGGATTGCTTGAACCCAGGAGTTCGAGACCAGCCTGGGCAACATATG
GGACACCCCACCGCCCCCGGCTCTGCAAAAAAATTAAAAATTAGCCAGGCGTGGTGTCATGAGCCTGTGGTCTCA
ACTACTCAGGAGGCTGAGGCTGGAGGATCGCTTGAACCTGGGAGGTCAAGGCTCCAGTGAACCATAATTGTGCCA
CTGCACTGCAGCCTGGGCGACAATTTGTTTTCTAAATTGCTTTTGAAAGTCTACTGCATTACATATTCCAAAAAG
CAGTGGTTTTCAAATACTTTTATCACCGATATCCTTTTATGAAATGAAATCAGTAGAACTTTCTCTGCTCTGAAT
AAGCAAGGGTGGGAACCTGTCTACCTCCCACAGATAGCATAATGTGCCTGCCATAGAGGAGCCAAAAAATGGTGA
TGGGAACTGAGAGGAGAGCAAATGTCACAAAAGACTGAGCAATTGAGAAAACAAAACAAGACCACAGATGACTGT
TAACGCCTCCACAGTGGACCAAGAAAGGACAGAGAGCTGGCAGCATGGGCATCACTGTCTGGTCGGCAGCAGGAA
GGCCTCGCTAGGGAATTGAGTACAGTCATCTAACTAGTTTAAAAGTACAGGAAGGATGATTAAGGCTATTGGAGA
GGTCATACAAATAGGGGAGGGGCAGGCAATGGCTGATAAGACATGAATTTGTAAGGCGATGAGTATTGCAGTCAG
CAAAACAAACGAGACTGCTCTCCCAACACATAACTCAGCAGGGAGGCCAGGCATTGGTTTAACCATTTAATATAA
AGAAGTTAAAATTACAAATGCGCTAAGTGCCTAAAGAAGAATAAGTGCAGGAATGAGAGCAGCATGGACTGCCAC
AGTTTTAGAATAAGCACTGTCACTGCTAGATTGGAAACAAAAATCCATAAATTTGGCCCGGTGTGGTGGCGGACG
CCTGTAGTCCCAGCTACTTGGAGGCTGAGGCGTGAGAATCGCTTGAACCCGGGAGGCGGAGGTTGCAGTGAGCCG
AGATGGCGCCACTGCACTCCAGCCTGGGCGTCAGAGTGAGAACTCTGTATCAAAAAATAAAAATAAAAAAAAGTC
CATAAATCTGCAATGTCTCAGTTAAGAAAGAAAGACTGGGCCAATGCAGATTTCAAACCGGAGAAAGTCATACTG
TCAGTGAAGGCCGCCTGTGGCCGGAAGGCGCCAGGGGATTAGCACCCTGGACTCAGTGTTGCTGGGAAACAGGGC
CCCAAGGCTGGGAGCACAGTGTTTAAAGGGCATCTACCCAAGAAGGGAGCACAGGGCAAGGAGGAGCTGCAGGGG
GGCTTGGCTGCCAAAGTGAATTCTGAGGAGAGAGCTATTGCTGCCTACGATATGCAGGCTGCACAGAACACAAGT
GGAATCAGCAGGCAGGAGAGGCAGCTAACGACGCAGCCCGTTTCTTATTTCTGTTTTCTCACAAGCGATGAAAGT
GGAAAAGAGGGTGAGCAGGTGGCCCACACATGTGCCTCCAGTGCTGCGGCCCCTCCGGGGACCATCAGCCAGGCC
CCGGGGAGGGAGCCAGCCACAGTGTGTCCGGCTCTTCTCTGAAGGGAAGAGAGCCTTGAATAGACTGAAGCGAAG
ACGGTTCTGCAAGGACAAGGCAGACCGAAGGCATTGGTTTTTTTTTTCAGATAAGGAGAATTAGACTCCCAAGTA
GACACCAGAGTCACTGTTTGGTTGGTGGGTGATAGTGGGGTCACAGTGGCTGCCTGTGCTCCCCCAGGGTGAGCG
TGACTGTGCTAACCTGGGTGGGGCAGCATGCACACCCCTCTGGCAGCCCTTTGTTGCTCGCTGATGACAAGTTTG
GATGATCCCGCCAAACAGCTTGCTAAGATGTAGTCCCCAGTGTTGGAGGTGGGGCCTGATGGGAGGTGCTACCCT
TGTGAGATAAGGTTGTGTAAAAGCCTGTGGCACCTCCCCACACTGACGCTCTCACCCCTGCTCTGGCCATGTGCC
GCGCCTGCTCCCACTTCCCCTTCTGCCAGGAGTAAAAGCCCCCGAGACCTCCCAGAAGCCAAGCAGATGCTAGTG
CCATGCTTCCTCTGCAGCCTGCAGAACTGTGAGCCAATTAAACCTCTTTTCTCTAT

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FIGURE 4368

GGCAGATGATTCTGGACCAGATGAAGCCTGAGGAGCCTTCCAGCTCTAAGATAGCAGGATAGGAGACTTCTAAGA
TTGGAGCTGCAGAAGACTTGCCAGCCCACCAGCACA**ATG**TCAGGAAGCCATACACCTGCCTGTGGCCCTTTCTCA
GCCCTGACTCCGAGCATATGGCCCCAGGAGATCTTGGCCAAGTACACGCAGAAGGAAGAGTCAGCAGAGCAACCA
GAGTTCTACTACGATGAGTTTGGTTTCCGTGTGTACAAGGAAGAAGGTGATGAGCCTGGCTCCAGTCTGCTGGCG
AACTCCCCTCTGATGGAGGATGCTCCACAGAGGCTGCGGTGGCAGGCCCACCTGGAGTTCACCCATAACCACGAT
GTGGGGGATCTCACCTGGGACAAGATTGCCGTCTCCCTACCCCGCTCTGAGAAGCTCCGCTCCCTGGTGCTGGCC
GGCATCCCACATGGCATGAGGCCACAGCTGTGGATGCGGCTCTCTGGGGCCCTGCAGAAGAAGAGGAACTCTGAG
CTGTCCTACCGCGAGATTGTGAAGAACAGCTCCAACGATGAGACCATCGCTGCCAAGCAGATCGAGAAGGACCTG
CTCCGCACCATGCCCAGCAACGCCTGCTTCGCCAGCATGGGTAGCATCGGGGTGCCCCGCCTGCGCAGGGTGCTC
CGGGCCCTGGCCTGGCTCTACCCAGAGATCGGCTACTGCCAGGGCACCGGCATGGTGGCCGCCTGCCTCCTGCTG
TTCCTGGAGGAGGAGGACGCCTTCTGGATGATGTCTGCCATCATCGAGGACCTGCTCCCCGCCTCCTACTTCAGC
ACCACCCTGCTGGGTGTCCAGACTGACCAGCGGGTCCTGCGCCACCTCATTGTCCAGTACCTGCCTCGCCTGGAC
AAGCTGCTCCAGGAGCATGACATTGAGCTGTCCCTGATCACACTGCACTGGTTCCTCACGGCCTTCGCCAGCGTG
GTGGACATCAAGCTGCTCCTGCGCATCTGGGACCTGTTTTTCTACGAGGGCTCCCGGGTGCTGTTCCAGCTCACG
CTGGGCATGCTGCACCTCAAGGAGGAAGAGCTGATCCAGTCAGAGAACTCGGCCTCCATCTTCAACACGCTATCG
GATATCCCGTCGCAGATGGAGGACGCGGAGCTGCTTCTGGGGGTGGCCATGCGGCTGGCCGGCTCCCTCACCGAT
GTGGCCGTGGAGACTCAGCGCCGCAAGCACCTGGCCTATCTCATTGCAGACCAGGGCCAGCTCCTGGGGGCCGGC
ACCCTCACCAACCTCTCTCAGGTTGTTCGCCGCAGGACCCAGCGGAGGAAGTCCACCATCACTGCTCTGCTCTTC
GGGGAGGATGACCTGGAGGCACTCAAGGCCAAGAACATCAAGCAGACGGAACTGGTGGCTGACCTCCGGGAAGCC
ATCCTGCGCGTGGCACGCCACTTCCAGTGCACAGACCCCAAAAACTGCAGCGTGGTGAGTCGCCAGCTCCCTGGG
CTGCTACCAAACACGGCCCTAACTCCTCCAACCCCCTTGGTGGGCCTGTGTTCACTGTGGCAGGAGCTGACTCCA
GACTATAGCATGGAGAGCCACCAGCGGGACCACGAGAACTACGTGGCGTGCTCACGCAGCCACCGGCGCCGAGCC
AAGGCCCTGCTGGACTTTGAGCGGCACGACGACGACGAGCTGGGCTTCCGCAAGAACGACATCATCACAATCGTG
TCTCAGAAGGACGAGCACTGCTGGGTGGGGGAGCTCAACGGCCTGCGAGGCTGGTTTCCAGCCAAGTTCGTGGAA
GTCCTGGATGAGCGCAGCAAAGAGTACTCCATCGCGGGGGATGACTCGGTGACGGAGGGGGTCACAGACCTCGTG
CGAGGGACCCTCTGCCCGGCCCTTAAGGCCCTGTTCGAACATGGACTGAAGAAGCCATCCCTGCTTGGGGGCGCC
TGCCACCCCTGGCTGTTTATCGAGGAGGCTGCAGGCCGGGAGGTCGAGAGAGACTTTGCCTCCGTGTATTCCCGT
CTGGTGCTCTGTAAGACCTTCAGGTTGGATGAAGATGGCAAAGTCCTGACCCCGGAGGAGCTGCTCTACCGGGCT
GTGCAGTCTGTGAACGTGACCCACGATGCAGTGCATGCACAAATGGATGTGAAGCTCCGCTCACTGATCTGCGTG
GGGCTCAAG**TGA**CAGGTGCTGCACCTGTGGCTGGAGGTGCTCTGCTCCAGCCTGCCCACCGTGGAGAAGTGGTAC
CAGCCCTGGTCCTTCCTGCGCAGCCCGGGCTGGGTCCAGATCAAGTGTGAGCTCCGAGTCCTCTGCTGCTTTGCC
TTCAGCCTCTCCCAGGACTGGGAGCTCCCTGCGAAGAGAGAGGCGCAGCAGCCCCTGAAGGAGGGCGTCCGGGAC
ATGCTGGTGAAGCACCACCTCTTCAGCTGGGATGTGGACGGGTGACCCCCTCCTCCCCAGCCCAACCTCGGGCCT
GCGTCTGAGGTGGCCCAGGACCCCAAGCTGCAGAGCCCAGGGAAGAGCAGCTCCAGAGCCCTGGCCGGGGCCGCG
GGATATCAATATCAGGCTGCCCCACTCCACGTTCCCCAGCACATCCCAGGTGGTGGGAGCAGAGGGTACCCTGCC
CCACCAGGGTCCTTAGGGATGCTCTAGGCCAAACCACAGTTTGTACCAAAAACCTTGTGAGGAGGTGGGGGAGCC
ATGTCTGTGCTCAGGAAGAGGGAAGGGGATGGGGGTGGCTAGTAGGCTCCTGGCCTCTTTGGTTTATAAATAAAC
TGTGTCTGTCTTTGAGAAAGCA

FIGURE 4369A

ACTTCTGCAATTACAGACAGTTGCACTTCAAGGGGACCCTTCTTTCACACTACATCCTTCTGTTTTTAGACTTTT
TTTGCGTTTGAAAATGTGTTTTTTGAGGTGGAATACCCAACTGACCCCTCATCTCTCCTCTCTCTCTGCTGCCCT
GCAGTGCTACAGTTGAAACTCCAGCAGCGCCGGACCCGGGAAGAACTGGTGAGCCAAGGGATC**ATG**CCGCCTTTG
AAAAGTCCAGCCGCATTTCATGAGCAGAGAAGGAGCTTGGAGCGGGCCAGGACAGAGGACTATCTCAAACGGAAG
ATTCGTTCCCGGCCGGAGAGATCGGAGCTGGTCAGGATGCACATTTTGGAAGAGACCTCGGCTGAGCCATCCCTC
CAGGCCAAGCAGCTGAAGCTGAAGAGAGCCAGACTAGCCGATGACCTCAATGAGAAGATTGCACAGAGGCCTGGC
CCCATGGAGCTGGTGGAGAAGAACATCCTTCCTGTTGAGTCCAGCCTGAAGGAAGCCATCATTGTGGGCCAGGTG
AACTATCCCAAAGTAGCAGACAGCTCTTCCTTCGATGAGGACAGCAGCGATGCCTTATCCCCCGAGCAGCCTGCC
AGCCATGAGTCCCAGGGTTCTGTGCCGTCACCCCTGGAGGCCCGAGTCAGCGAACCACTGCTCAGTGCCACCTCT
GCATCCCCCACCCAGGTTGTGTCTCAACTTCCGATGGGCCGGGATTCCAGAGAAATGCTTTTCCTGGCAGAGCAG
CCTCCTCTGCCTCCCCCACCTCTGCTGCCTCCCAGCCTCACCAATGGAACCACTATCCCCACTGCCAAGTCCACC
CCCACACTCATTAAGCAAAGCCAACCCAAGTCTGCCAGTGAGAAGTCACAGCGCAGCAAGAAGGCCAAGGAGCTG
AAGCCAAAGGTGAAGAAGCTCAAGTACCACCAGTACATCCCCCCGGACCAGAAGCAGGACAGGGGGGCACCCCCC
ATGGACTCATCCTACGCCAAGATCCTGCAGCAGCAGCAGCTCTTCCTCCAGCTGCAGATCCTCAACCAGCAGCAG
CAGCAGCACCACAACTACCAGGCCATCCTGCCTGCCCCGCCAAAGTCAGCAGGCGAGGCCCTGGGAAGCAGCGGG
ACCCCCCCAGTACGCAGCCTCTCCACTACCAATAGCAGCTCCAGCTCGGGCGCCCCTGGGCCCTGTGGGCTGGCA
CGTCAGAACAGCACCTCACTGACTGGCAAGCCGGGAGCCCTGCCGGCCAACCTGGACGACATGAAGGTGGCAGAG
CTGAAGCAGGAGCTGAAGTTGCGATCACTGCCTGTCTCGGGCACCAAAACTGAGCTGATTGAGCGCCTTCGAGCC
TATCAAGACCAAATCAGCCCTGTGCCAGGAGCCCCCAAGGCCCCTGCCGCCACCTCTATCCTGCACAAGGCTGGC
GAGGTGGTGGTAGCCTTCCCAGCGGCCCGGCTGAGCACGGGGCCAGCCCTGGTGGCAGCAGGCCTGGCTCCAGCT
GAGGTGGTGGTGGCCACGGTGGCCAGCAGTGGGGTGGTGAAGTTTGGCAGCACGGGCTCCACGCCCCCCGTGTCT
CCCACCCCCTCGGAGCGCTCACTGCTCAGCACGGGCGATGAAAACTCCACCCCCGGGGACACCTTTGGTGAGATG
GTGACATCACCTCTGACGCAGCTGACCCTGCAGGCCTCGCCACTGCAGATCCTCGTGAAGGAGGAGGGCCCCCGG
GCCGGGTCCTGTTGCCTGAGCCCTGGGGGGCGGGCGGAGCTAGAGGGGCGCGACAAGGACCAGATGCTGCAGGAG
AAAGACAAGCAGATCGAGGCGCTGACGCGCATGCTCCGGCAGAAGCAGCAGCTGGTGGAGCGGCTCAAGCTGCAG
CTGGAGCAGGAGAAGCGAGCCCAGCAGCCCGCCCCCGCCCCCGCCCCCCTCGGCACCCCCGTGAAGCAGGAGAAC
AGCTTCTCCAGCTGCCAGCTGAGCCAGCAGCCCCTGGGCCCCGCTCACCCATTCAACCCCAGCCTGGCGGCCCCA
GCCACCAACCACATAGACCCTTGTGCTGTGGCCCCGGGGCCCCCGTCCGTGGTGGTGAAGCAGGAAGCCTTGCAG
CCTGAGCCCGAGCCGGTCCCCGCCCCCCAGTTGCTTCTGGGGCCTCAGGGCCCCAGCCTCATCAAGGGGGTTGCA
CCTCCCACCCTCATCACCGACTCCACAGGGACCCACCTTGTCCTCACCGTGACCAATAAGAATGCAGACAGCCCT
GGCCTGTCCAGTGGGAGCCCCCAGCAGCCCTCGTCCCAGCCTGGCTCTCCAGCGCCTGCCCCCTCTGCCCAGATG
GACCTGGAGCACCCACTGCAGCCCCTCTTTGGGACCCCCACTTCTCTGCTGAAGAAGGAACCACCTGGCTATGAG
GAAGCCATGAGCCAGCAGCCCAAACAGCAGGAAAATGGTTCCTCAAGCCAGCAGATGGACGACCTGTTTGACATT
CTCATTCAGAGCGGAGAAATTTCAGCAGATTTCAAGGAGCCGCCATCCCTGCCAGGGAAGGAGAAGCCATCCCCG
AAGACAGTCTGTGGGTCCCCCCTGGCAGCACAGCCATCACCTTCTGCTGAGCTCCCCCAGGCTGCCCCACCTCCT
CCAGGCTCACCCTCCCTCCCTGGACGCCTGGAGGACTTCCTGGAGAGCAGCACGGGGCTGCCCCTGCTGACCAGT
GGGCATGACGGGCCAGAGCCCCTTTCCCTCATTGACGACCTCCATAGCCAGATGCTGAGCAGCACTGCCATCCTG
GACCACCCCCCGTCACCCATGGACACCTCGGAATTGCACTTTGTTCCTGAGCCCAGCAGCACCATGGGCCTGGAC
CTGGCTGATGGCCACCTGGACAGCATGGACTGGCTGGAGCTGTCGTCAGGTGGTCCCGTGCTGAGCCTAGCCCCC
CTCAGCACCACAGCCCCCAGCCTCTTCTCCACAGACTTCCTCGATGGCCATGATTTGCAGCTGCACTGGGATTCC
TGCTTG**TAG**CTCTCTGGCTCAAGACGGGGTGGGGAAGGGGCTGGGAGCCAGGGTACTCCAATGCGTGGCTCTCCT
GCGTGATTCGGCCTCTCCACATGGTTGTGAGTCTTGACAATCACAGCCCCTGCTTTTTCCCTTCCCTGGGAGGCT
AGAACAGAGAAGCCCTTACTCCTGGTTCAGTGCCACGCAGGGCAGAGGAGAGCAGCTGTCAAGAAGCAGCCCTGG
CTCTCACGCTGGGGTTTTGGACACACGGTCAGGGTCAGGGCCATTTCAGCTTGACCTCCTTTTTTGAGGTCAGGG
GGCACTGTCTGTCTGGCTACAATTTGGCTAAGGTAGGTGAAGCCTGGCCAGGCGGGAGGCTTCTCTTCTGACCCA
GGGCTGAGACAGGTTAAGGGGTGAATCTCCTTCCTTTCTCTCCCTGCTTTGCTGTGAAGGGAGAAATTAGCCTGG
GCCTCTACCCCCTATTCCCTGTGTCTGCCAACCCCAGGATCCCAGGGCTCCCTGCCATTTTAGTGTCTTGGTGTA
GTGTAACCATTTAGTGGTTGGTGGCAACAATTTTATGTACAGGTGTATATACCTCTATATTATATATCGACATAC

FIGURE 4369B

ATATATATTTTTGGGGGGGGGCGGACAGGAGATGGGTGCAACTCCCTCCCATCCTACTCTCACAGAAGGGCCTGG
ATGCAAGGTTACCCTTGAGCTGTGTGCCACAGTCTGGTGCCCAGTCTGGCATGCAGCTACCCAGGCCCACCCATC
ACGTGTGATTGACATGTAGGTACCCTGCCACGGCCTATGCCCCACCTGCCCTGCTTCCTGGCTCCTTATCAGTGC
CATGAGGGCAGAGGTGCTACCTGGCCTTCCTGCCAGGAGCTCTCCACCCACTCACATTCCGTCCCCGCCGCCTCA
CTGCAGCCAGCGTGGCCCTAGGACAGGAGGAGCTTCGGGCCCAGCTTCACCCTGCGGTGGGGCTGAGGGGTGGCC
ATCTCCTGCCCTGGGGCCACTGGCTTCACATTCTGGGCTGACTCATAGGGGAGTAGGGGTGGAGTCACCAAAACC
AGTGCTGGGACAAAGATGGGGAAGGTGTGTGAACTTTTTAAAATAAACACAAAAACACAG

FIGURE 4370

GCGGGTTTGAGAGGGCGGGGATTGCGACTCTCACACCCTGAGCTCCGGTGCTCCTTTCCTAACTCCACTGGCTGC
GGCATCTGTGGGAAAAGTGTGGCTGGGTCTTCGAGGAGCCGCACCA**ATG**GCTTCCGTGCTGTCCTACGAAAGCCT
GGTCCACGCCGTGGCCGGAGCCGTGGGAAGCGTGACAGCAATGACAGTGTTTTTTCCCCTGGATACAGCTAGACT
TCGACTTCAGGTTGATGAGAAAAGAAAATCCAAAACTACACACATGGTGCTCCTGGAGATCATTAAAGAAGAAGG
ACTCCTGGCACCATATCGAGGGTGGTTTCCAGTGATTTCCAGTCTCTGCTGCTCCAATTTTGTCTATTTCTACAC
TTTTAATAGCCTCAAAGCACTCTGGGTCAAAGGTCAACATTCTACCACTGGAAAAGATCTGGTAGTTGGGTTTGT
TGCAGGAGTGGTTAATGTGTTGCTAACAACTCCACTCTGGGTGGTAAACACCAGACTGAAGCTTCAAGGAGCAAA
ATTTAGGAATGAAGACATTGTACCAACAAACTACAAAGGTATCATTGATGCTTTTCATCAGATCATTCGCGATGA
AGGAATCTCGGCTTTATGGAATGGCACATTTCCCTCATTGCTGTTGGTCTTCAATCCTGCCATCCAGTTCATGTT
TTATGAAGGTTTAAAACGGCAGCTTTTAAAGAAACGGATGAAGCTTTCTTCCTTGGATGTGTTCATCATTGGTGC
AGTAGCCAAAGCGATTGCCACCACGGTGACCTATCCCCTGCAGACGGTACAGTCAATTCTGAGGTTTGGGCGTCA
TAGACTAAACCCAGAAAACAGAACATTGGGAAGTCTTCGGAATATTCTCTATCTTCTTCACCAACGAGTAAGACG
TTTTGGAATAATGGGACTCTACAAAGGCCTTGAAGCCAAACTGCTGCAGACAGTCCTCACTGCTGCTCTCATGTT
CCTTGTTTATGAGAAACTGACAGCTGCCACCTTCACAGTTATGGGGCTGAAGCGTGCACACCAACAC**TGA**GACGC
CTTCCCATGAAAAATTCCGAAGATGCTCAAGAGGGAGGTTTCCTCCTGAGTGAAGAGAAGTGATTCTCCCTTGAC
TCTGGCTCCTGCCACCACAAATGTTACCCTCATTGGCTTGAAAAGCATCCAAGGGTGCACAGGGAGTATGGCCAA
CTGGACCTGTTGTCACCTTAATTGTCATGCTGGCTGGTTGGATTTTGGGGTGGCAGTTGGACTAATGTGAAAAAA
ACATTGCTGAAAACCTAAAAATGAAAGTTTGTGAGTGTTTATTGGTTTTCTTAAGAGAAATGGACTATTTTGCTC
TCATGTGTAATGTTTTCTATTTAAATCTTTCTTAAATATACCAGCTGTTCTCTTTCCCTGAACTCTCCCCCAGGT
TCTAGGACAAATTTAATAACATGTAATTCTCCTCAAATACTTTTGTATGTCTCAGTGTTGGTGTTTTCCTCCCTA
AAACTAACATTAGGGCTGTGCCACGGGCATGACTTTATTTTTGTTGGGCTTTTTTTTCCCTGCTTAAGGAGAGGT
GTCTTTTTTGGATATGAGCTATTTATTTTGTGAAATGAAAATTGTTCACCCAAATGATTCTCTTATAAACTATTT
GTAAATGTCACTTATTCATTAGTGTTTGACATAATTTTTAGAATATTTATTTTGAATCAATCCTTTCATTACGAA
AGACTTGAAGTTTTGTGTCCATTCTTACAAGCCCTGGTCAGTCAAGTCCCAATAAATGGTCAGCAC

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FIGURE 4371

GGGTGGGAGGAGCCAGCGGCCGGGGAGGTTCTAGTCTGTTCTGTCTTGCGGCAGCCGCCCCCTTCTGCGCGGTCA
CGCCGAGCCAGCGCCTGGGCCTGGAACCGGGCCGTAGCCCCCCCAGTTTCGCCCACCACCTCCCTACC**ATG**GACC
CCCGCAAAGTGAACGAGCTTCGGGCCTTTGTGAAAATGTGTAAGCAGGATCCGAGCGTTCTGCACACCGAGGAAA
TGCGCTTCCTGAGGGAGTGGGTGGAGAGCATGGGTGGTAAAGTACCACCTGCTACTCAGAAAGCTAAATCAGAAG
AAAATACCAAGGAAGAAAAACCTGATAGTAAGAAGGTGGAGGAAGACTTAAAGGCAGACGAACCATCAAGTGAGG
AAAGTGATCTAGAAATTGATAAAGAAGGTGTGATTGAACCAGACACTGATGCTCCTCAAGAAATGGGAGATGAAA
ATGCGGAGATAACGGAGGAGATGATGGATCAGGCAAATGATAAAAAAGTGGCTGCTATTGAAGCCCTAAATGATG
GTGAACTCCAGAAAGCCATTGACTTATTCACAGATGCCATCAAGCTGAATCCTCGCTTGGCCATTTTGTATGCCA
AGAGGGCCAGTGTCTTCGTCAAATTACAGAAGCCAAATGCTGCCATCCGAGACTGTGACAGAGCCATTGAAATAA
ATCCTGATTCAGCTCAGCCTTACAAGTGGCGGGGGAAAGCACACAGACTTCTAGGCCACTGGGAAGAAGCAGCCC
ATGATCTTGCCCTTGCCTGTAAATTGGATTATGATGAAGATGCTAGTGCAATGCTGAAAGAAGTTCAACCTAGGG
CACAGAAAATTGCAGAACATCGGAGAAAGTATGAGCGAAAACGTGAAGAGCGAGAGATCAAAGAAAGAATAGAAC
GAGTTAAGAAGGCTCGAGAAGAGCATGAGAGAGCCCAGAGGGAGGAAGAAGCCAGACGACAGTCAGGAGCTCAGT
ATGGCTCTTTTCCAGGTGGCTTTCCTGGGGGAATGCCTGGTAATTTTCCCGGAGGAATGCCTGGAATGGGAGGGG
GCATGCCTGGAATGGCTGGAATGCCTGGACTCAATGAAATTCTTAGTGATCCAGAGGTTCTTGCAGCCATGCAGG
ATCCAGAAGTTATGGTGGCTTTCCAGGATGTGGCTCAGAACCCAGCAAATATGTCAAAATACCAGAGCAACCCAA
AGGTTATGAATCTCATCAGTAAATTGTCAGCCAAATTTGGAGGTCAAGCG**TAA**TGTCCTTCTGATAAATAAAGCC
CTTGCTGAAGGAAAAGCAACCTAGATCACCTTATGGATGTCGCAATAATACAAACCAGTGTACCTCTGACCTTCT
CATCAAGAGAGCTGGGGTGCTTTGAAGATAATCCCTACCCCTCTCCCCCAAATGCAGCTGAAGCATTTTACAGTG
GTTTGCCATTAGGGTATTCATTCAGATAATGTTTTCCTACTAGGAATTACAAACTTTAAACACTTTTTAAATCTT
CAAAATATTTAAAACAAATTTAAAGGGCCTGTTAATTCTTATATTTTTCTTTACTAATCATTTTGGATTTTTTTC
TTTGAATTATTGGCAGGGAATATACTTATGTATGGAAGATTACTGCTCTGAGTGAAATAAAAGTTATTAGTGCGA
GGCAAACATAACTCATTTGAGGATAAAGTTTGTGTTGGATATGTGGTTCCTGATGCATTTTGACTTGTCTTTTTA
AATGCTTTATCTTTTTCTTTAAAGATTTATTTCAATAAAACTAATTGGGACCACCCGTATTTCAGTAGGACCTGG
GTAGGGATTGGAAGTACTTGGCAGGGCAGCAGCAATCTTGCTGTGTTTGATATAACATGCATCCTTGGGCAGGTT
GCCCTTAAATCTTACACTGTGGTGAAGGGATGTTTTTTTTGTAATGCTGCAGTAGAGTTGGAGTACTTAGTTCTC
TTGTTGTCCAGTATATCTAATAAGTGTTTTTCATATTATTTCCACGTAAGGGAAATAAGGTAGTACTTTTCTTTT
TATATTTCTATGCTTAAAATTCTCTTTCCTAGTCAAAAATTGCCCAAATCTGTGTTTGCTTTCTGCTTGCTACAT
TTGTCTCCCTTACTTTTCTTGAGCTAAAGACAGGCTTTTTCCACCGGCATCATCACTGCTATCATCATTAACAGC
GTAATTATACAAGCATATTTAATGCTGAGTTTAATTTAATATGTAATACATATGGTAATTGTAGGGTAATACCCA
CAACAACTGTAGTTTCTTACTTGGCCAAGAGAATGCTTATTTAAGTGTTAGACTTCCATTCTGGCAAAATCTTGC
CTTATCAGAAGACATTGGAAAGAGGGATTCCCTTTGGTGTTTGGTCTTCTACTTAGAAAAACCTATTGCAGTTAG
TTTATCTTGTAGTATTCATCTTTGTATTCTGAAGATAAGGTTTGAATTAAATTGATACACACAGAGGGGAACCGA
TTTTTTTTATCCAATGTGAATTATAAATGAGATAATCCACAGTTATTCATTGTGGAGTTGTTGAGACTATGAAAG
ACTCATTGTCTTTGTATTCAGCTCTTAAATAGTGTAACTATATCCCCACCTCTGCTTGCTTTCTTTCCCTCCCCT
CCAATGATAAAGAAAATGATAAATTTTCTGTTGTGCATTCAATTCTTATTTTAAATAAGACTAAGTATAGGCATT
GTACCTGACATTGCTACGTTTCTACCAGTGTTTCAATTTAAAGTGCTAGTGTTTAAAAACATTTTCAAGGGATAA
GGCCTTCTGTACTTTGCTTATTTGAAGAATCAGTGGTAGGAGCAGTGAAGTAAATTCTATGGAGTACATTTCTAA
AATACCACATTTCTGAAATCATAAATAAGTTTATTCAGGTTCTAACCCTTTGCTGTACACAAGCAGACAGAAATG
CATCTGTTACATAAATGAGAAAAAGCTATTATGCTGATGGAGCATGCTTTTTAAATCCTTTAAAAACACTCACCA
TATAAACTTGCATTTGAGCTTGTGTGTTCTTTTGTTAATGTGTAGAGTTCTCCTTTCTCGAAATTGCCAGTGTGT
ACTTGGCTTAACTCAAGAACAGTTTCTTCTGGATTCCTTATTTGATTTATTTAACCTAATTATATTCTAATATTG
CAAATATTACCATAAGTGGGTAAAAGTAAAATTCCTCTTCTG

FIGURE 4372

GGTTTCCTGGCGACGCGGCCCTGCAGGCGGTTGCGTTCCCCGTCGTTACCCTCTTTCTCTTCCCGACGCGTGAGT
TAGGCCGTA**ATG**CCTTGGCTGCTCTCAGCCCCCAAGCTGGTTCCCGCTGTAGCAAACGTCCGCGGCCTCTCAGGA
TGTATGTTGTGTTCACAGCGAAGGTACTCCCTTCAGCCTGTCCCAGAAAGGAGGATTCCAAACCGATACTTAGGC
CAGCCCAGCCCCTTTACACACCCACACCTCCTCAGACCAGGGGAGGTAACTCCAGGACTATCTCAGGTGGAATAT
GCACTTCGCAGACACAAACTAATGTCTCTGATCCAGAAGGAAGCTCAAGGGCAGAGTGGGACAGACCAGACAGTG
GTTGTGCTCTCCAACCCTACATACTACATGAGCAACGATATTCCCTATACTTTCCACCAAGACAACAATTTCCTG
TACCTATGTGGATTCCAAGAGCCTGATAGCATTCTTGTCCTTCAGAGCCTCCCTGGCAAACAATTACCATCACAC
AAAGCCATACTTTTTGTGCCTCGGCGAGATCCCAGTCGAGAACTTTGGGATGGTCCGCGATCTGGCACTGATGGA
GCAATAGCTCTAACTGGAGTAGACGAAGCCTATACGCTAGAAGAATTTCAACATCTTCTACCAAAAATGAAAGCT
GAGACGAACATGGTTTGGTATGACTGGATGAGGCCCTCACATGCACAGCTTCACTCTGACTATATGCAGCCCCTG
ACTGAGGCCAAAGCCAAGAGCAAGAACAAGGTTCGGGGTGTTCAGCAGCTGATACAGCGCCTCCGGCTGATCAAG
TCTCCTGCAGAAATTGAACGAATGCAGATTGCTGGGAAGCTGACATCACAGGCTTTCATAGAAACCATGTTCACC
AGTAAAGCCCCTGTGGAAGAAGCCTTTCTTTATGCTAAGTTTGAATTTGAATGCCGGGCTCGTGGCGCAGACATT
TTAGCCTATCCACCTGTGGTGGCTGGTGGTAATCGGTCAAACACTTTGCACTATGTGAAAAATAATCAACTCATC
AAGGATGGGGAAATGGTGCTTCTGGATGGAGGTTGTGAGTCTTCCTGCTATGTGAGTGACATCACACGTACGTGG
CCAGTCAATGGCAGGTTCACCGCACCTCAGGCAGAACTCTATGAAGCCGTTCTAGAGATCCAAAGAGATTGTTTG
GCCCTCTGCTTCCCTGGGACAAGCTTGGAGAACATCTACAGCATGATGCTGACCCTGATAGGACAGAAGCTTAAA
GACTTGGGGATCATGAAGAACATTAAGGAAAATAATGCCTTCAAGGCTGCTCGAAAATACTGTCCTCATCATGTT
GGCCACTACCTCGGGATGGATGTCCATGACACTCCAGACATGCCCCGTTCCCTCCCTCTGCAGCCTGGGATGGTA
ATCACAATTGAGCCCGGCATTTATATTCCAGAGGATGACAAAGATGCCCCAGAGAAGTTTCGGGGTCTTGGTGTA
CGAATTGAGGATGATGTAGTGGTGACTCAGGACTCACCTCTCATCCTTTCTGCAGACTGTCCCAAAGAGATGAAT
GACATTGAACAGATATGCAGCCAGGCTTCT**TGA**CCTTCACTGCGGCCCACATGCACCTCAGGTTCAAAATGGGTG
TCTTCTGGCAGCCCTGCACGTGTGCTTTCTGAGTGTCTCTGTGTGTGCATTAATATATGCATTCCATTTGGGAGC
ATAGCAGCTGTGTGAATGTATGTAATTGTGTGTGGGGGGTTTTTTGTTTTAAGTAGTTAGAAGTCTGGGAAAATG
AATTTTTGAATAGTATGTTACTGCAGCTTTGGTAACATTAATTCTATAGAATTAATGATCAGAGCAAGTTTAATT
TTTAAACATAAAGGTCTTGGTTACACATGTCCATGCATTCCAGTTAACACATTTAAACATATAGAAAATTCACTT
CTTCTTTCAAGTCCTTCCCTTTCTATACTTTTGCTGAGATCAACCCAATATCATAAGAAGTTTGTGTGATGCCTG
TATTTTTAGCTAATTACCAAGGTCTCTGCCTATGCAAAAATTCATCTTTCGGTGATTGTGGGCGGCCAATACATA
CCTTCTGTAACTCCTCCCTACCTATTCTAGATCCTGCATATCTACTGGAGCCATATGAGCCCTCAGGGGCACTGG
TGTCCTGCAGTCTTACTAGTCAGCCACAGTCCAGGTTCCAGCAACACTAGCTACCTACCAAACAAAACACTTCTG
AGCTTTTCTTGCCATTTGGTTGCCTGGGACCTGGAAAGTGTTTAGATTCTTGATAAAGATGGAAATGGAAGAGAA
AGAAAATTATATATGTATATACTAAAGATCCAGACATCAGGGCTGGGCACAGCGGTTCCGCCTGTAATCCCAGCA
CTTTGGGAGGTCCAGGCAGGTGGATCTCTTGAGACCAGGAGGTCAAGACCAGCCTGGCCAACGTGGTGAAACACT
GTCTCTACTAAAAATACAAAAATGAGCTGGGTGTGATGATACATGCCTGTAATCCTGGCTACTTGGGAGGCTGAG
GCATGAGAATTGCTTGAACCTGGGAGGTGGAGGTTGCAGTGAGCTGAGCTCATGCGACTGCACTCCAGCCTGGGT
GACTGAGCAAGACTCTGCCTCAAAAAAACAAATAAATAAATAAAATCCTGACATCCTGCCATCTTTTCTCTTCAA
TTTAAAGTTGATTTCTTAATGATGACTTCAAAAATTAATAAAAAGAAAAGAAAAAAATGATTTCT

FIGURE 4373

TAACATTGTCTTTAACATAAAAGTGTACCTATTTGCAGTCACTACCTCTATCACCACCACCAGCAGAGCCTGAGC
TGAGGAAACCACGGTTCTCAATACCCAGCACACCCACTTCCAACTATCTGTTAAAAC**ATG**GTGGATTACTATGAA
GTTCTAGGACTGCAAAGATATGCTTCACCTGAGGACATTAAAAAAGCTTATCATAAAGTGGCACTTAAATGGCAC
CCTGATAAAAATCCAGAAAATAAAGAAGAAGCAGAGAGAAAATTCAAAGAAGTAGCTGAGGCATACGAGGTATTA
TCAAATGATGAGAAACGGGACATTTATGATAAATATGGCACAGAAGGATTAAACGGAGGTGGAAGTCATTTTGAT
GATGAATGTGAGTACGGCTTCACATTCCATAAGCCAGATGATGTTTTTAAAGAAATTTTTCATGAAAGGGATCCA
TTTTCTTTTCACTTCTTTGAAGACTCGCTTGAGGACCTGTTAAATCGTCCAGGAAGCTCCTATGGAAACAGAAAC
AGAGATGCAGGATACTTTTTCTCCACTGCCAGTGAATATCCAATTTTTGAGAAATTTTCTTCATATGATACAGGA
TATACATCACAGGGTTCATTGGGGCATGAAGGCCTTACTTCTTTCTCTTCCCTGGCTTTTGATAATAGTGGGATG
GACAACTACATATCTGTTACAACTTCAGACAAAATCGTTAATGGCAGAAATATTAATACAAAGAAAATTATTGAA
AGTGATCAAGAAAGAGAAGCTGAAGATAATGGAGAGTTGACATTTTTTCTTGTAAATAGTGTGGCCAATGAAGAG
GGCTTTGCAAAAGAATGCAGCTGGAGAACACAGTCATTCAACAACTATTCACCAAATTCTCACAGCTCCAAACAT
GTATCTCAATATACTTTCGTGGACAATGATGAGGGAGGTATATCTTGGGTTACCAGCAACAGAGATCCCCCTATT
TTCTCAGCAGGAGTCAAAGAGGGTGGTAAGAGGAAAAAAAAGAAGCGTAAAGAGGTGCAAAAGAAGTCTACCAAA
AGGAATTGT**TAA**ATTGACTCTTCAAATATATAACATTTGAACACAATTGTGTGTGTTTTGGTTAATCACAAATTT
TGTAGATAACACTTAATACTATACTAAGAGCTTTTCAACACTTTTAGCAGGATTGTGGACATTTGGTTAGTAGTT
TTTTTGAATGGGTATGTCAGAAAAGGATGAGTTTGTGGTGACAGTTGGTGCTAATAAGAATTTGCCTGGGCAGTA
TAGTGAGATCTTTTCTCTACAAAAAATTTAAAAATTAGCCAAGTGTGGTGGTGTGCACCTGTAGTCCCAGCTACT
CGGGAAGCTGGTAGAAAGACTGCTTGAGCCTGGAAGACATAGGTTGCAGTGTAATGGGATCACGCCACTGCACTC
CAGCTTGGGTGACAAAGTAAGACCCTGTCTTAAAAAAAAAAAAAAAGGAATTTGGAAAACTGCAATGAGTTTTTTA
CTTTTGAATTTTTCTTTAGTAGAGTTTATAGCCTATTTTTCTTTTTTCTAATTAAAACCACTATACAAACTTACG
AAACATGCATAGCATTAGAAGACAAGAATGTATCAAGACACACAGGTTCAGACTACACAATTATTCATGAAATGG
CTGTTTTCCAATGGAGGAACAGCATTTGATGCATTATAACTTAAAGGTACTACAAATTAAAAATTAAAGTATAAA
GTATTTTAAGTTAGAAATAGACTTAGCTGGGTGCAGTGGCTCACACCTGTAATCCTAGCATCTTGGGAGGCCCAG
GCAGGAGGGTTGAAGTCAGAATTTCACGACAGTCCGGGTAACATAATGAGACCTGTCCTCTATGAAAAAACTTTT
TTAAAAATTTAGCTGGGTGTGGTGGTACGTGCCTGTAGGCCTAGCTACTTAGGAGGCTGAGGTGGGAGGATTGCT
TGAGCCCAGGAGTTTGAGGTTGTAGGGAGCTATGATCTTGCCATTGCACTCCAGCTGAGAGTGTGACCCTGTCTC
TAAAGAAAAACTATAGAAAATTTAAAAAATTAAAAAACGGGTAACATGGTAAATTTTATGTAGTATATTTTACCA
CATTTTTTTTAAAGGCCAGTCTTATCCTGAATTCCTCAGAGCAGTCTGTATGGTAGGCCATCAGTGAATCACTCC
AGACAGGAAATTTTCTATTTTTGTTTAGAGTTTGTACACAAAATCTACAAATACATTACTCTAAAATAGCACCTA
TAGCCATTTTAATTTAGTCATGTTGGGAGAAAAATAGATGGGTTACAAATACATCAGATATCGAGCAAATGGTTT
GAGTTACATCTAGCAGCACTAAAACTTATTCAACTTTGGCCAAATACAAATGCGAAATTAGAAAAAAATTATAAT
ATCTGCTATTTTTAAAAGACAGCTATAGTCAAGAGCTTGTGTTTTGTATCGGTATTTGATTTTTAGTGGGCAGAT
GGGAGAAGGAAAGGTTATTTATTCTATAGAAGAGACTGCGGACAATTAGTATTCAAAGTTTATTTTCAGAAAATA
AAATAATAAAAGCCCAGGGTATTTTAAA

FIGURE 4374

CCAAA**ATG**GCGGCAGCGATGGATGTGGATACCCCGAGCGGCACCAACAGCGGCGCGGGCAAGAAGCGCTTTGAAG
TGAAAAAGTGGAATGCAGTAGCCCTCTGGGCCTGGGATATTGTGGTTGATAACTGTGCCATCTGCAGGAACCACA
TTATGGATCTTTGCATAGAATGTCAAGCTAACCAGGCGTCCGCTACTTCAGAAGAGTGTACTGTCGCATGGGGAG
TCTGTAACCATGCTTTTCACTTCCACTGCATCTCTCGCTGGCTCAAAACACGACAGGTGTGTCCATTGGACAACA
GAGAGTGGGAATTCCAAAAGTATGGGCAC**TAG**GAAAAGACTTCTTCCATCAAGCTTAATTGTTTTGTTATTCATT
TAATGACTTTCCCTGCTGTTACCTAATTACAAATTGGATGGAACTGTGTTTTTTTCTGCTTTGTTTTTTCAGTTT
GCTGTTTCTGTAGCCATATTGTATTCTGTGTCAAATAAAGTCCAGTTGGATTCTGG

FIGURE 4375

GCTCTTTCTCAGTGACCGGGTTCTAGGCTTAGGCGCAGACGGGTTAGGGGAGCCAACATGCCAGTGGCCCGGAGC
TGGGTTTGTCGCAAAACTTACGTGACCCCGCGGAGATCCTTTGAGAAATCTCGTCTCGACCAAGAGCTGAAGCTG
ATCGAAGAGTATGGGCTCCGGAATAAACGTGAGGTCTGGAGGGTCAAATTTACCCTGGCCAAGATAGAGGATTTC
TTAGAGAGACGCCTACAGACCCAGGTCTTCAAGCTGGGCTTGGCCAAGTCCATCCACCACGCTCGCGTGCTGATC
CGCCAGCGCCATTTCAGGGTCCGCAAGCAGGTGGTGAACATCCCGTCCTTCATTGTCCGCCTGGATTCCCAGAAG
CACATCGACTTCTCTCTGTGCTCTCCCTATGGGGGTGGCCGCCCGGGCCGCGTGAAGAGGAAGAATGCCAAGAAG
GGCCAGGGTGGGGCTGGGGCTGGAGACCACAAGGAGGAGGATTAAGCCCACCTGTCCCTCCTGGGCTGCTGCATT
GTCTAGTTTTCCTGCCAAATAAACAGGATCAGCGCTTTAAAAAAAAAAAAA

FIGURE 4376A

CTTGTTTGTGTGCTAGGCTGGGGGGGAGAGAGGGCGAGAGAGAGCGGGCGAGAGTGGGCAAGCAGGACGCCGGGC
TGAGTGCTAACTGCGGGAGCCAGAGAGTGCGGAGGGGAGTCGGGTCGGAGAGAGGCGGCAGGGGCCGAGACAGTG
GCAGGGGGCCCGGGGCGCACGGGCTGAGGCGACCCCCAGCCCCCTCCCGTCCGCACACACCCCCACCGCGGTCCA
GCAGCCGGGCCGGCGTCGACGCCTAGGGGGGACCATTACATAACCCCGCGCCCCGCGGCGTCTTCTCCCGCCGCC
GCGGGCGGCCCCGAACGGAGCCCCGGGGGGCGGGCGCTCCCAGCACCTGGCCGCCGGCGGTGGGGGCCGTAGCAG
CGGCCGTATTTATTTATTTTCCGCGGGAAAGGAAGGCGAAGGAGGGGAGCGCGGCGCGAGGAGGGGCCGCCTGCG
CCGCCGCCGGAGCGGGGCCTCCTCGGTGGGCTCCGCGTCGGCGCGGGCGTGCGGGCGGCGCTGCTCGGCCCGGCC
CCCTCGGCCCTCTGGTCCGGCCAGCTCCGCTCCCGGCGTCCTTGCCGCGCCTCCGCCGGCCGCCGCGCGATGTGA
GGCGGCGGCGCCAGCCTGGCTCTCGGCTCGGGCGAGTTCTCTGCGGCCATTAGGGGCCGGTGCGGCGGCGGCGGC
GCGGAGCGCGGCGGCAGGAGGAGGGTTCGGAGGGTGGGGGCGCAGGCCCGGGAGGGGGCACCGGGAGGAGGTGAG
TGTCTCTTGTCGCCTCCTCCTCTCCCCCCTTTTCGCCCCCGCCTCCTTGTGGCGATGAGAAGGAGGAGGACAGCG
CCGAGGAGGAAGAGGTTGATGGCGGCGGCGGAGCTCCGAGAGACCTCGGCTGGGCAGGGGCCGGCCGTGGCGGGC
CGGGGACTGCGCCTCTAGAGCCGCGAGTTCTCGGGAATTCGCCGCAGCGGACGCGCTCGGCGAATTTGTGCTCTT
GTGCCCTCCTCCGGGCTTGGGCCCAGGCCCGGCCCCTCGCACTTGCCCTTACCTTTTCTATCGAGTCCGCATCCC
TCTCCAGCCACTGCGACCCGGCGAAGAGAAAAAGGAACTTCCCCCACCCCCTCGGGTGCCGTCGGAGCCCCCCAG
CCCACCCCTGGGTGCGGCGCGGGGACCCCGGGCCGAAGAAGAGATTTCCTGAGGATTCTGGTTTTCCTCGCTTGT
ATCTCCGAAAGAATTAAAA**ATG**GCCGAGAATGTGGTGGAACCGGGGCCGCCTTCAGCCAAGCGGCCTAAACTCTC
ATCTCCGGCCCTCTCGGCGTCCGCCAGCGATGGCACAGATTTTGGCTCTCTATTTGACTTGGAGCACGACTTACC
AGATGAATTAATCAACTCTACAGAATTGGGACTAACCAATGGTGGTGATATTAATCAGCTTCAGACAAGTCTTGG
CATGGTACAAGATGCAGCTTCTAAACATAAACAGCTGTCAGAATTGCTGCGATCTGGTAGTTCCCCTAACCTCAA
TATGGGAGTTGGTGGCCCAGGTCAAGTCATGGCCAGCCAGGCCCAACAGAGCAGTCCTGGATTAGGTTTGATAAA
TAGCATGGTCAAAAGCCCAATGACACAGGCAGGCTTGACTTCTCCCAACATGGGGATGGGCACTAGTGGACCAAA
TCAGGGTCCTACGCAGTCAACAGGTATGATGAACAGTCCAGTAAATCAGCCTGCCATGGGAATGAACACAGGGAT
GAATGCGGGCATGAATCCTGGAATGTTGGCTGCAGGCAATGGACAAGGGATAATGCCTAATCAAGTCATGAACGG
TTCAATTGGAGCAGGCCGAGGGCGACAGAATATGCAGTACCCAAACCCAGGCATGGGAAGTGCTGGCAACTTACT
GACTGAGCCTCTTCAGCAGGGCTCTCCCCAGATGGGAGGACAAACAGGATTGAGAGGCCCCCAGCCTCTTAAGAT
GGGAATGATGAACAACCCCAATCCTTATGGTTCACCATATACTCAGAATCCTGGACAGCAGATTGGAGCCAGTGG
CCTTGGTCTCCAGATTCAGACAAAAACTGTACTATCAAATAACTTATCTCCATTTGCTATGGACAAAAAGGCAGT
TCCTGGTGGAGGAATGCCCAACATGGGTCAACAGCCAGCCCCGCAGGTCCAGCAGCCAGGCCTGGTGACTCCAGT
TGCCCAAGGGATGGGTTCTGGAGCACATACAGCTGATCCAGAGAAGCGCAAGCTCATCCAGCAGCAGCTTGTTCT
CCTTTTGCATGCTCACAAGTGCCAGCGCCGGGAACAGGCCAATGGGGAAGTGAGGCAGTGCAACCTTCCCCACTG
TCGCACAATGAAGAATGTCCTAAACCACATGACACACTGCCAGTCAGGCAAGTCTTGCCAAGTGGCACACTGTGC
ATCTTCTCGACAAATCATTTCACACTGGAAGAATTGTACAAGACATGATTGTCCTGTGTGTCTCCCCCTCAAAAA
TGCTGGTGATAAGAGAAATCAACAGCCAATTTTGACTGGAGCACCCGTTGGACTTGGAAATCCTAGCTCTCTAGG
GGTGGGTCAACAGTCTGCCCCCAACCTAAGCACTGTTAGTCAGATTGATCCCAGCTCCATAGAAAGAGCCTATGC
AGCTCTTGGACTACCCTATCAAGTAAATCAGATGCCGACACAACCCCAGGTGCAAGCAAAGAACCAGCAGAATCA
GCAGCCTGGGCAGTCTCCCCAAGGCATGCGGCCCATGAGCAACATGAGTGCTAGTCCTATGGGAGTAAATGGAGG
TGTAGGAGTTCAAACGCCGAGTCTTCTTTCTGACTCAATGTTGCATTCAGCCATAAATTCTCAAAACCCAATGAT
GAGTGAAAATGCCAGTGTGCCCTCCCTGGGTCCTATGCCAACAGCAGCTCAACCATCCACTACTGGAATTCGGAA
ACAGTGGCACGAAGATATTACTCAGGATCTTCGAAATCATCTTGTTCACAAACTCGTCCAAGCCATATTTCCTAC
GCCGGATCCTGCTGCTTTAAAAGACAGACGGATGGAAAACCTAGTTGCATATGCTCGGAAAGTTGAAGGGGACAT
GTATGAATCTGCAAACAATCGAGCGGAATACTACCACCTTCTAGCTGAGAAAATCTATAAGATCCAGAAAGAACT
AGAAGAAAAACGAAGGACCAGACTACAGAAGCAGAACATGCTACCAAATGCTGCAGGCATGGTTCCAGTTTCCAT
GAATCCAGGGCCTAACATGGGACAGCCGCAACCAGGAATGACTTCTAATGGCCCTCTACCTGACCCAAGTATGAT
CCGTGGCAGTGTGCCAAACCAGATGATGCCTCGAATAACTCCACAATCTGGTTTGAATCAATTTGGCCAGATGAG
CATGGCCCAGCCCCCTATTGTACCCCGGCAAACCCCTCCTCTTCAGCACCATGGACAGTTGGCTCAACCTGGAGC
TCTCAACCCGCCTATGGGCTATGGGCCTCGTATGCAACAGCCTTCCAACCAGGGCCAGTTCCTTCCTCAGACTCA
GTTCCCATCACAGGGAATGAATGTAACAAATATCCCTTTGGCTCCGTCCAGCGGTCAAGCTCCAGTGTCTCAAGC

FIGURE 4376B

ACAAATGTCTAGTTCTTCCTGCCCGGTGAACTCTCCTATAATGCCTCCAGGGTCTCAGGGGAGCCACATTCACTG
TCCCCAGCTTCCTCAACCAGCTCTTCATCAGAATTCACCCTCGCCTGTACCTAGTCGTACCCCCACCCCTCACCA
TACTCCCCCAAGCATAGGGGCTCAGCAGCCACCAGCAACAACAATTCCAGCCCCTGTTCCTACACCTCCTGCCAT
GCCACCTGGGCCACAGTCCCAGGCTCTACATCCCCCTCCAAGGCAGACACCTACACCACCAACAACACAACTTCC
CCAACAAGTGCAGCCTTCACTTCCTGCTGCACCTTCTGCTGACCAGCCCCAGCAGCAGCCTCGCTCACAGCAGAG
CACAGCAGCGTCTGTTCCTACCCCAACAGCACCGCTGCTTCCTCCGCAGCCTGCAACTCCACTTTCCCAGCCAGC
TGTAAGCATTGAAGGACAGGTATCAAATCCTCCATCTACTAGTAGCACAGAAGTGAATTCTCAGGCCATTGCTGA
GAAGCAGCCTTCCCAGGAAGTGAAGATGGAGGCCAAAATGGAAGTGGATCAACCAGAACCAGCAGATACTCAGCC
GGAGGATATTTCAGAGTCTAAAGTGGAAGACTGTAAAATGGAATCTACCGAAACAGAAGAGAGAAGCACTGAGTT
AAAAACTGAAATAAAAGAGGAGGAAGACCAGCCAAGTACTTCAGCTACCCAGTCATCTCCGGCTCCAGGACAGTC
AAAGAAAAAGATTTTCAAACCAGAAGAACTACGACAGGCACTGATGCCAACTTTGGAGGCACTTTACCGTCAGGA
TCCAGAATCCCTTCCCTTTCGTCAACCTGTGGACCCTCAGCTTTTAGGAATCCCTGATTACTTTGATATTGTGAA
GAGCCCCATGGATCTTTCTACCATTAAGAGGAAGTTAGACACTGGACAGTATCAGGAGCCCTGGCAGTATGTCGA
TGATATTTGGCTTATGTTCAATAATGCCTGGTTATATAACCGGAAAACATCACGGGTATACAAATACTGCTCCAA
GCTCTCTGAGGTCTTTGAACAAGAAATTGACCCAGTGATGCAAAGCCTTGGATACTGTTGTGGCAGAAAGTTGGA
GTTCTCTCCACAGACACTGTGTTGCTACGGCAAACAGTTGTGCACAATACCTCGTGATGCCACTTATTACAGTTA
CCAGAACAGGTATCATTTCTGTGAGAAGTGTTTCAATGAGATCCAAGGGGAGAGCGTTTCTTTGGGGGATGACCC
TTCCCAGCCTCAAACTACAATAAATAAAGAACAATTTTCCAAGAGAAAAAATGACACACTGGATCCTGAACTGTT
TGTTGAATGTACAGAGTGCGGAAGAAAGATGCATCAGATCTGTGTCCTTCACCATGAGATCATCTGGCCTGCTGG
ATTCGTCTGTGATGGCTGTTTAAAGAAAAGTGCACGAACTAGGAAAGAAAATAAGTTTTCTGCTAAAAGGTTGCC
ATCTACCAGACTTGGCACCTTTCTAGAGAATCGTGTGAATGACTTTCTGAGGCGACAGAATCACCCTGAGTCAGG
AGAGGTCACTGTTAGAGTAGTTCATGCTTCTGACAAAACCGTGGAAGTAAAACCAGGCATGAAAGCAAGGTTTGT
GGACAGTGGAGAGATGGCAGAATCCTTTCCATACCGAACCAAAGCCCTCTTTGCCTTTGAAGAAATTGATGGTGT
TGACCTGTGCTTCTTTGGCATGCATGTTCAAGAGTATGGCTCTGACTGCCCTCCACCCAACCAGAGGAGAGTATA
CATATCTTACCTCGATAGTGTTCATTTCTTCCGTCCTAAATGCTTGAGGACTGCAGTCTATCATGAAATCCTAAT
TGGATATTTAGAATATGTCAAGAAATTAGGTTACACAACAGGGCATATTTGGGCATGTCCACCAAGTGAGGGAGA
TGATTATATCTTCCATTGCCATCCTCCTGACCAGAAGATACCCAAGCCCAAGCGACTGCAGGAATGGTACAAAAA
AATGCTTGACAAGGCTGTATCAGAGCGTATTGTCCATGACTACAAGGATATTTTTAAACAAGCTACTGAAGATAG
ATTAACAAGTGCAAAGGAATTGCCTTATTTCGAGGGTGATTTCTGGCCCAATGTTCTGGAAGAAAGCATTAAGGA
ACTGGAACAGGAGGAAGAAGAGAGAAAACGAGAGGAAAACACCAGCAATGAAAGCACAGATGTGACCAAGGGAGA
CAGCAAAAATGCTAAAAAGAAGAATAATAAGAAAACCAGCAAAAATAAGAGCAGCCTGAGTAGGGGCAACAAGAA
GAAACCCGGGATGCCCAATGTATCTAACGACCTCTCACAGAAACTATATGCCACCATGGAGAAGCATAAAGAGGT
CTTCTTTGTGATCCGCCTCATTGCTGGCCCTGCTGCCAACTCCCTGCCTCCCATTGTTGATCCTGATCCTCTCAT
CCCCTGCGATCTGATGGATGGTCGGGATGCGTTTCTCACGCTGGCAAGGGACAAGCACCTGGAGTTCTCTTCACT
CCGAAGAGCCCAGTGGTCCACCATGTGCATGCTGGTGGAGCTGCACACGCAGAGCCAGGACCGCTTTGTCTACAC
CTGCAATGAATGCAAGCACCATGTGGAGACACGCTGGCACTGTACTGTCTGTGAGGATTATGACTTGTGTATCAC
CTGCTATAACACTAAAAACCATGACCACAAAATGGAGAAACTAGGCCTTGGCTTAGATGATGAGAGCAACAACCA
GCAGGCTGCAGCCACCCAGAGCCCAGGCGATTCTCGCCGCCTGAGTATCCAGCGCTGCATCCAGTCTCTGGTCCA
TGCTTGCCAGTGTCGGAATGCCAATTGCTCACTGCCATCCTGCCAGAAGATGAAGCGGGTTGTGCAGCATACCAA
GGGTTGCAAACGGAAAACCAATGGCGGGTGCCCCATCTGCAAGCAGCTCATTGCCCTCTGCTGCTACCATGCCAA
GCACTGCCAGGAGAACAAATGCCCGGTGCCGTTCTGCCTAAACATCAAGCAGAAGCTCCGGCAGCAACAGCTGCA
GCACCGACTACAGCAGGCCCAAATGCTTCGCAGGAGGATGGCCAGCATGCAGCGGACTGGTGTGGTTGGGCAGCA
ACAGGGCCTCCCTTCCCCCACTCCTGCCACTCCAACGACACCAACTGGCCAACAGCCAACCACCCCGCAGACGCC
CCAGCCCACTTCTCAGCCTCAGCCTACCCCTCCCAATAGCATGCCACCCTACTTGCCCAGGACTCAAGCTGCTGG
CCCTGTGTCCCAGGGTAAGGCAGCAGGCCAGGTGACCCCTCCAACCCCTCCTCAGACTGCTCAGCCACCCCTTCC
AGGGCCCCCACCTGCAGCAGTGGAAATGGCAATGCAGATTCAGAGAGCAGCGGAGACGCAGCGCCAGATGGCCCA
CGTGCAAATTTTTCAAAGGCCAATCCAACACCAGATGCCCCCGATGACTCCCATGGCCCCCATGGGTATGAACCC
ACCTCCCATGACCAGAGGTCCCAGTGGGCATTTGGAGCCAGGGATGGGACCGACAGGGATGCAGCAACAGCCACC

FIGURE 4376C

CTGGAGCCAAGGAGGATTGCCTCAGCCCCAGCAACTACAGTCTGGGATGCCAAGGCCAGCCATGATGTCAGTGGC
CCAGCATGGTCAACCTTTGAACATGGCTCCACAACCAGGATTGGGCCAGGTAGGTATCAGCCCACTCAAACCAGG
CACTGTGTCTCAACAAGCCTTACAAAACCTTTTGCGGACTCTCAGGTCTCCCAGCTCTCCCCTGCAGCAGCAACA
GGTGCTTAGTATCCTTCACGCCAACCCCCAGCTGTTGGCTGCATTCATCAAGCAGCGGGCTGCCAAGTATGCCAA
CTCTAATCCACAACCCATCCCTGGGCAGCCTGGCATGCCCCAGGGGCAGCCAGGGCTACAGCCACCTACCATGCC
AGGTCAGCAGGGGGTCCACTCCAATCCAGCCATGCAGAACATGAATCCAATGCAGGCGGGCGTTCAGAGGGCTGG
CCTGCCCCAGCAGCAACCACAGCAGCAACTCCAGCCACCCATGGGAGGGATGAGCCCCCAGGCTCAGCAGATGAA
CATGAACCACAACACCATGCCTTCACAATTCCGAGACATCTTGAGACGACAGCAAATGATGCAACAGCAGCAGCA
ACAGGGAGCAGGGCCAGGAATAGGCCCTGGAATGGCCAACCATAACCAGTTCCAGCAACCCCAAGGAGTTGGCTA
CCCACCACAGCAGCAGCAGCGGATGCAGCATCACATGCAACAGATGCAACAAGGAAATATGGGACAGATAGGCCA
GCTTCCCCAGGCCTTGGGAGCAGAGGCAGGTGCCAGTCTACAGGCCTATCAGCAGCGACTCCTTCAGCAACAGAT
GGGGTCCCCTGTTCAGCCCAACCCCATGAGCCCCCAGCAGCATATGCTCCCAAATCAGGCCCAGTCCCCACACCT
ACAAGGCCAGCAGATCCCTAATTCTCTCTCCAATCAAGTGCGCTCTCCCCAGCCTGTCCCTTCTCCACGGCCACA
GTCCCAGCCCCCCCACTCCAGTCCTTCCCCAAGGATGCAGCCTCAGCCTTCTCCACACCACGTTTCCCCACAGAC
AAGTTCCCCACATCCTGGACTGGTAGCTGCCCAGGCCAACCCCATGGAACAAGGGCATTTTGCCAGCCCGGACCA
GAATTCAATGCTTTCTCAGCTTGCTAGCAATCCAGGCATGGCAAACCTCCATGGTGCAAGCGCCACGGACCTGGG
ACTCAGCACCGATAACTCAGACTTGAATTCAAACCTCTCACAGAGTACACTAGACATACAC**TAG**AGACACCTTGT
AGTATTTTGGGAGCAAAAAAATTATTTTCTCTTAACAAGACTTTTTGTACTGAAAACAATTTTTTTGAATCTTTC
GTAGCCTAAAAGACAATTTTCCTTGGAACACATAAGAACTGTGCAGTAGCCGTTTGTGGTTTAAAGCAAACATGC
AAGATGAACCTGAGGGATGATAGAATACAAAGAATATATTTTTGTTATGGCTGGTTACCACCAGCCTTTCTTCCC
CTTTGTGTGTGTGGTTCAAGTGTGCACTGGGAGGAGGCTGAGGCCTGTGAAGCCAAACAATATGCTCCTGCCTTG
CACCTCCAATAGGTTTTATTATTTTTTTTAAATTAATGAACATATGTAATATTAATAGTTATTATTTACTGGTGC
AGATGGTTGACATTTTTCCCTATTTTCCTCACTTTATGGAAGAGTTAAAACATTTCTAAACCAGAGGACAAAAGG
GGTTAATGTTACTTTAAAATTACATTCTATATATATATAAATATATATAAATATATATTAAAATACCAGTTTTTT
TTCTCTGGGTGCAAAGATGTTCATTCTTTTAAAAAATGTTTAAAAAAAA

FIGURE 4377

GGCAGGCCAATATGGCTTCCTGCACCTGGTGACGCTTGGCGAAACTGAGGTCTCATGGAGAAGCCCCGGAGTATT
GAGGAGACCCCATCTTCAGAACCAATGGAGGAAGAGGAAGATGACGACTTGGAGCTGTTTGGTGGCTATGATAGT
TTCCGGAGTTATAACAGCAGTGTGGGCAGTGAGAGCAGCTCCTATCTGGAGGAGTCAAGTGAAGCAGAAAATGAG
GATCGGGAAGCAGGGGAACTGCCGACCTCCCCGCTGCATTTGCTCAGCCCTGGGACTCCTCGCTCCTTGGATGGC
AGTGGTTCTGAGCCAGCTGTCTGTGAGATGTGTGGTATCGTGGGTACAAGGGAAGCCTTCTTCTCCAAGACCAAG
AGGTTCTGCAGCGTCTCCTGCTCCAGGAGCTACTCCTCCAACTCCAAGAAAGCCAGTATCTTGGCTAGGTTACAG
GGAAAACCACCGACCAAAAAAGCCAAAGTCCTGCACAAGGCTGCCTGGTCTGCCAAAATTGGAGCCTTCCTCCAC
TCTCAAGGGACAGGACAGCTGGCAGATGGGACACCAACAGGACAAGACGCTCTGGTCTTGGGCTTCGACTGGGGG
AAGTTCCTGAAGGATCACAGTTACAAGGCTGCTCCCGTCAGCTGTTTCAAGCACGGTATCGGGTGCTGCTTCGGT
ATGAAGGCTTTGAAAATGACGCCAGCCATGACTTCTGGTGCAACCTGGGAACAGTGGATGTCCACCCCATTGGCT
GGTGTGCCATCAACAGCAAGATCCTAGTGCCTCCACAGCCATCCATGCCAAGTTCACCGACTGGAAGGGCTACCT
C**ATG**AAACGGCTGGTGGGCTCCAGGACGCTTCCCGTGGATTTCCACATCAAGATGGTGGAGAGCATGAAGTACCC
CTTTAGGCAGGGCATGCGGCTGGAAGTGGTGGACAAGTCCCAGGTGTCACGCACTCGCATGGCTGTGGTGGACAC
AGTAATCGGGGGTCGCCTACGGCTCCTCTACGAGGATGGTGACAGTGACGACGACTTCTGGTGCCACATGTGGAG
CCCCCTGATCCACCCAGTGGGTTGGTCACGACGTGTGGGCCACGGCATCAAGATGTCAGAGAGGCGAAGTGACAT
GGCCCATCACCCCACCTTCCGGAAGATCTACTGTGATGCCGTTCCTTACCTCTTCAAGAAGGTACGAGCAGTCTA
CACAGAAGGCGGTTGGTTTGAGGAAGGGATGAAGCTGGAGGCCATTGACCCCCTGAATCTGGGCAACATCTGCGT
GGCAACTGTCTGTAAGGTTCTCCTGGATGGATACCTGATGATCTGTGTGGACGGGGGGCCCTCCACAGATGGCTT
GGACTGGTTCTGCTACCATGCCTCTTCCCACGCCATCTTCCCGGCCACCTTCTGTCAGAAGAATGACATTGAGCT
CACACCGCCAAAAGGTTATGAGGCACAGACTTTCAACTGGGAGAACTACTTGGAGAAGACCAAGTCGAAAGCCGC
TCCATCGAGACTCTTTAACATGGATTGCCCAAACCATGGCTTCAAGGTGGGCATGAAGCTGGAGGCCGTGGACCT
GATGGAGCCCCGGCTCATCTGTGTGGCCACGGTGAAACGAGTGGTGCATCGGCTCCTCAGCATCCACTTTGACGG
CTGGGACAGCGAGTACGACCAGTGGGTGGACTGCGAGTCCCCAGACATCTACCCCGTCGGCTGGTGTGAGCTCAC
CGGCTACCAGCTCCAGCCTCCTGTGGCCGCAGAACCGGCCACACCGCTGAAGGCCAAAGAGGCCACAAAGAAGAA
AAAGAAACAGTTTGGGAAGAAAAGGAAAAGAATCCCGCCCACTAAGACGCGACCCCTCAGACAGGGGTCCAAGAA
GCCCCTGCTGGAGGACGACCCTCAGGGTGCCAGGAAGATCTCGTCGGAGCCTGTTCCTGGCGAGATCATTGCTGT
GCGTGTGAAGGAAGAGCATCTAGACGTGGCCTCGCCCGACAAGGCTTCAAGTCCAGAGCTGCCTGTCTCCGTCGA
GAACATCAAGCAGGAAACAGACGAC**TGA**GCCTTCCTGCCTCCAGCCTGGCTTCTAGCTGGAAGCCAGCCCAGCGT
TTCTCTACCACCACCACCATGCCTCCACCTGACTTTGGCTTGGAGACTGATCCTCTCTGTGTAAATTCTGCCCGG
TGCTGTGAAGGCTGGACGGTGGAGGACCTGCTGGGGTCTCCTGGGACCCGCCTGTTGCTTCTGCCCTCCCCTGTG
GAAAGGTCTATATGACGGGCCGCCTGAGGCCCCAGAACTCGTCTGTGAACCACCTTTTCCAGCCAGAGTTCCCAA
AGCTGGAACGCTAGCTGCCTGCTCTTCCTTAAGATGGCCTCCCCCCGACCCGCCACGGCCCTCAGTTGCCAGGGA
TGGGGCCACCACTGTCACACTGTGGAATACAAGACAGTGAACTCTGTCTGCCTGAACGAGCCATGTAAATTAAGT
TCTAGAGCAGCTCTCTGAGCAGGATAAGGTCCCCTGACAGTGAGTTGTGTGGTGGGGGCAGCCTCTGCCTCAAAA
ATTCACCAAGCAGAATGCCTCTCAGCCTCATGTGTTGGTCCTCTGCTCCTCCTAGCTCCCCAGGGATGTTGGGGA
CCCAGCTTGTCTCGGCAGCTAAGAAGCAGTGACCAGGATGTGGATTTTGGCGACCTGTGTGGTGGCCTTGAGCTG
CTTTCTGTGTTTGTGAGGACTGACTCCCATTTCCTAAAGGAAATGCCCCCGGGGAGGACATTGGGAGGAAGATGG
CCTGAGTGTGCACTTTGGCTCTGCTACCTGCTCCTGAAGCCCCGCTAAAAATAATTCATCCAAGATTCCTTTGTA
GTTAAAGGGTCCAGTTCTGACTGGAGCCTCTAGAGAGCTGGGCTTGTATGTTCTTTTGGCCTTTTGTTCCTACCT
AAATGAAGAAACCATGCCTGGAGGGGCCGTGAACACAGAACCCTCAAGACAAGGATGACAGAGCTGGAGGACACA
TCTAGCTGCCATTGCAACCTCACTGGGCTCCCCAGACTCTGTGTGTGAGAAATTAAACCCCCTGCTTGCTTG

FIGURE 4378

ATGGCCTCGGAAGACATTGCCAAGCTGGCAGAGACACTTGCCAAGACTCAGGTGGCCGGGGGACAGCTGAGTTTC
AAAGGCAAGAGCCTCAAACTCAACACTGCAGAAGATGCTAAAGATGTGATTAAAGAGATTGAAGACTTTGACAGC
TTGGAGGCTCTGCGTCTGGAAGGCAACACAGTGGGCGTGGAAGCAGCCAGGGTCATCGCCAAGGCCTTAGAGAAG
AAGTCGGAGTTGAAGCGCTGCCACTGGAGTGACATGTTCACGGGAAGGCTGCGGACCGAGATCCCACCAGCCCTG
ATCTCACTAGGGGAAGGACTCATCACAGCTGGGGCTCAGCTGGTGGAGCTGGACTTAAGCGACAACGCATTCGGG
CCCGACGGTGTGCAAGGCTTCGAGGCCCTGCTCAAGAGCTCAGCCTGCTTCACCCTGCAGGAACTCAAGCTCAAC
AACTGTGGCATGGGCATTGGCGGCGGCAAGATCCTGGCTGCAGCTCTGACCGAATGTCACCGGAAATCCAGTGCC
CAAGGCAAGCCTCTGGCCCTGAAGGTCTTTGTGGCTGGCAGAAACCGTCTGGAGAATGATGGCGCCACTGCCTTG
GCAGAAGCTTTTAGGGTCATCGGGACCCTGGAGGAGGTCCACATGCCACAGAATGGGATCAACCACCCTGGCATC
ACTGCCCTGGCCCAGGCTTTCGCTGTCAACCCCCTGCTGCGGGTCATCAACCTGAATGACAACACCTTCACTGAG
AAGGGCGCCGTGGCCATGGCCGAGACCTTGAAGACCTTGCGGCAGGTGGAGGTGATTAATTTTGGGGACTGCCTG
GTGCGCTCCAAGGGTGCAGTTGCCATTGCAGATGCCATCCGCGGCGGCCTGCCCAAGCTAAAGGAGCTGAACTTG
TCATTCTGTGAAATCAAGAGGGATGCTGCCCTGGCTGTTGCTGAGGCCATGGCAGACAAAGCTGAGCTGGAGAAG
CTGGACCTGAATGGCAACACCCTGGGAGAAGAAGGCTGTGAACAGCTTCAGGAGGTGCTGGAGGGCTTCAACATG
GCCAAGGTGCTGGCGTCCCTCAGTGATGACGAGGACGAGGAGGAGGAGGAGGAAGGAGAAGAGGAAGAAGAGGAA
GCAGAAGAAGAGGAGGAGGAAGATGAGGAAGAGGAGGAAGAAGAGGAGGAGGAGGAGGAAGAAGAGCCTCAGCAG
CGAGGGCAGGGAGAGAAGTCAGCCACGCCCTCACGGAAGATTCTGGACCCTAACACTGGGGAGCCAGCTCCCGTG
CTGTCCTCCCCACCTCCTGCAGACGTCTCCACCTTCCTGGCTTTTCCCTCTCCAGAGAAGCTGCTGCGCCTAGGG
CCCAAGAGCTCCGTGCTGATAGCCCAGCAGACTGACACGTCTGACCCCGAGAAGGTGGTCTCTGCCTTCCTAAAG
GTGTCATCTGTGTTCAAGGACGAAGCTACTGTGAGGATGGCAGTGCAGGATGCAGTAGATGCCCTGATGCAGAAG
GCTTTCAACTCCTCGTCCTTCAACTCCAACACCTTCCTCACCAGGCTGCTCGTGCACATGGGTCTGCTCAAGAGT
GAAGACAAGGTCAAGGCCATTGCCAACCTGTACGGCCCCCTGATGGCGCTGAACCACATGGTGCAGCAGGACTAT
TTCCCCAAGGCCCTTGCACCCCTGCTGCTGGCGTTCGTGACCAAGCCCAACAGCGCCCTGGAATCCTGCTCCTTC
GCCCGCCACAGTCTGCTGCAGACGCTGTACAAGGTC**TAG**

FIGURE 4379

AGCAGAGGTCACCTCCTGACATGCGCTCTGGGAAAGGTGGCAGAGGGCAGGACACCATGAGCTCAGGATCTGTGT
GAGGTGTGGGAGGTGGGAAGGGTGAGGGTCTGGGGGGAATGCGGAGAAAAGGGAGGCTTGACCCCGGGCACC**ATG**G
GCCACTCCAGGATGGGACACGGCCCCTCTTTCTTGGGGACCCAGTATGTCCTCTCCTCTAGACCCAGACATACAG
TTATAACCGTCTGTCCTAGCCCCTCCCTAATCCCTGGCCCTCCCAGCTGTCTGGGACTTCAGTGGACCCCCAGCC
CCTGCCCCCACTCACCAAGGCCTCGCTCGTCCCTCTCGTCTGACATGTCTGTGTGCACCCCCCTCCTCTCCACCC
TACCTTCCATCAACCAGGGCAGATCCACCGTGCCCTGGTTCCCCAGACATTCCAGAATGCCCCACATCATTGGCA
CAGGAGTGGGGCAGCCCCGGAAGGAACCAGGGATTAGGCTG**TAG**GGGGGTGAGAAGGAGAGAAGGGACCACCCCA
TTCTTCTCAAGCAAGGATTGCCAGCGCGCGCTGACACAGTGATGGGCTGCCCAGGGCTGGAGGGGACGCTGTTCC
TCCCGCCGCCACTGCCCAACCTTTCCTGATAATCGTGGCATGCGCCCTTTCCTCTTCCCTGCCCCACCCCCTGGC
CGCAGCAGGCCAGCACTGCAGAGTTTGGGTGCTGGTGGTGTGGCTGTAGGGGAGGGGAGACCACACCCAAGGTGG
GGGCTGTGGCCATGTGTGGCCGTGATGTCGATGATACTCGTTTTCCCTGATCCGTGGTGTTGCAGTCCGTTGTCA
CCAGCCTTGTTTCTAGTGTGTATATATGTCGCCCCCGTGATGCATATATACACAGGTATTAAATATATCGCTCTA
TATAATATTATATATGTGTGTGGTATCCAAGGAATCACTTTTATGAGGGCTAAAGATAAAGAATTTGGCCAGAAA
ATGCAGCCATCCTTGTGTGATTAGGAGGGTTTCAGGGGCCACTGGACTATTTGCAAGGTGACAGGGACTGGAGCC
ATGGCTCAGAGGTGATTCGGGCAGCCAGGGACAGGAGCCACCCTCCCCAGGCCCAACTCTGCTAGCTTCCCAGAC
CACCCCCATCGAGTGCGGAGAGAGTGGGAGTGCTCAGGGAAAGAAGGTGATTTGTATTTGTCTCCCCGCTGAAAA
GAACAGGATTCAAGTCCAGAGTTTTCATCTTCAGCCTGTGATCTGTCCAGGGACCCTTGGGATCTGGGGCTTCCT
GGCCTGGCCAGAGCTGGAGCCCCCACAGGGTAAGGAAGAGAGAGTGGGAGGCAGAGTGTGATGGGGAGGAGGGAC
AGGAAGACCCTTTTAATGATGAGGGTAACTATTTCAGTTGTGAGCCTTCTAGGGCCCCAGGCTGGGAGGCTCAGA
GGACTGAATCTGGGACCTGTGTTCCCCCCGGCAGGCAGGGACAAGATGGCATGGCAAGCATGGGGGCGGGGTGGG
TGGGGAGGGATGCTGCATTTCTCAGCTGGGCAGTAATCAATTTAATGGTCCTTTAAAATGTCTGTGTATTAAAAA
TTTAAGAATACCACACTTTAATATTAAATATTCATAAGGTCTAGTATCTTGATAATAATGTAGATGTTTTAATAA
CAATTTTTGTCCTTCTTAAAATAAAATGAAAGAAACTTG

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FIGURE 4380

GGGAGGCGAGGTGCGCGAGCCGAGTCCGGGGCACG**ATG**TCCGACGCGGGCGGCGGAAAGAAGCCGCCTGTGGACC
CGCAGGCAGGACCCGGTCCGGGGCCGGGGCGCGCAGCTGGGGAAAGGGGCCTGTCGGGGTCCTTCCCCCTGGTCC
TGAAGAAGCTGATGGAGAACCCCCCGCGCGAGGCGCGCCTCGATAAGGAAAAGGGGAAGGAAAAGCTGGAGGAGG
ACGAGGCCGCAGCCGCCAGCACCATGGCTGTCTCAGCCTCCCTCATGCCACCCATCTGGGACAAGACCATCCCAT
ATGATGGCGAATCTTTCCACCTGGAGTACATGGACCTGGATGAGTTCCTGCTGGAGAATGGCATCCCCGCCAGCC
CCACCCACCTGGCCCACAACCTGCTGCTGCCTGTAGCAGAGCTAGAAGGGAAGGAGTCTGCCAGCTCTTCCACAG
CATCCCCACCATCCTCCTCCACTGCCATCTTTCAGCCCTCTGAAACCGTGTCCAGCACAGAATCTTCCCTGGAGA
AGGAGAGGGAGACTCCCAGTCCCATCGACCCCAATTGTGTGGAAGTGGATGTGAACTTCAATCCGGACCCCGCCG
ACCTGGTGCTCTCCAGTGTGCCAGGCGGGGAGCTCTTCAACCCTCGGAAGCACAAGTTTGCTGAGGAGGACCTGA
AGCCCCAGCCTATGATCAAAAAGGCCAAGAAGGTCTTTGTCCCCGACGAGCAGAAGGATGAAAAGTACTGGACAA
GACGCAAGAAGAACAACGTGGCAGCTAAACGGTCACGGGATGCCCGGCGCCTGAAAGAGAATCAGATCACCATCC
GGGCAGCCTTCCTGGAGAAGGAGAACACAGCCCTGCGGACGGAGGTGGCCGAGCTACGCAAGGAGGTGGGCAAGT
GCAAGACCATCGTGTCCAAGTATGAGACCAAATACGGGCCCTTG**TAA**CCCGTGCCCCCCGCCCGGGCGGGGTACT
GCCTGCACCTCAGACCTCTGCCTG

FIGURE 4381

ACTGGGGCCCACAGTCAGACATGAGCCACTGGTGGGGCAGAAATAGGCTCCTGGTTCTGTGTGATCCAAAGTTGG
TGCTTTTCTGTCTATCCCTAGCTGTTGGTCACCACCAGCTTTCTGCATATTTTCTCACGGTGCCTCTCATTTCCC
AGAGCCGCCTGGAGCCCAAGGCTGTACACGTGCCCTGTGCTGATTCTCTGCCTAGGAAAGGACC**ATG**CAGCTAGA
GATCAAAGTGGCCCTGAACTTCATCATCTCCTACTTGTACAACAAGCTGCCCCGGCGCCGGGCAGACCTGTTTGG
GGAGGAGCTAGAGCGGCTTTTGAAAAAGAAATATGAAGGCCACTGGTACCCTGAGAAGCCACTGAAAGGCTCTGG
CTTCCGCTGTGTTCACATTGGGGAGATGGTGGACCCCGTGGTGGAGCTGGCCGCCAAGCGGAGTGGCCTGGCGGT
GGAAGATGTGCGGGCCAATGTGCCTGAGGAGCTGAGTGTCTGGATTGATCCCTTTGAGGTGTCCTACCAGATTGG
TGAGAAGGGAGCTGTGAAAGTGCTGTACCTGGATGACAGTGAGGGTTGCGGTGCCCCAGAGCTGGACAAGGAGAT
CAAGAGCAGCTTCAACCCTGACGCCCAGGTGTTCGTGCCCATTGGCAGCCAGGACAGCTCCCTGTCCAACTCCCC
ATCGCCATCCTTTGGCCAGTCACCCAGCCCTACCTTCATTCCCCGCTCCGCTCAGCCCATCACCTTCACCACCGC
CTCCTTCGCTGCCACCAAATTTGGCTCCACTAAGATGAAGAAGGGGGGCGGGGCAGCAAGTGGTGGGGGTGTAGC
CAGCAGTGGGGCGGGTGGCCAGCAGCCACCACAGCAGCCTCGCATGGCCCGCTCACCCACCAACAGCCTGCTGAA
GCACAAGAGCCTCTCTCTGTCTATGCATTCACTGAACTTCATCACGGCCAACCCGGCCCCTCAGTCCCAGCTCTC
ACCCAATGCCAAGGAGTTCGTGTACAACGGTGGTGGCTCACCCAGCCTCTTCTTTGATGCGGCCGATGGCCAGGG
CAGCGGCACCCCAGGCCCGTTTGGAGGCAGTGGGGCTGGCACCTGCAACAGCAGCAGCTTTGACATGGCCCAGGT
ATTTGGAGGTGGTGCCAACAGCCTCTTCCTGGAGAAGACACCCTTTGTGGAAGGCCTCAGCTACAACCTGAACAC
CATGCAGTATCCCAGCCAGCAGTTCCAGCCCGTGGTGCTGGCCAAC**TGA**CCATCTACCTGCCCGTGGGGCCAGGA
GCACCCAAGACCACAGAAAAGAGAAAGGAAAGGCCAAAAAAAAGAGGAAAAG

FIGURE 4382

CCGAAGCTTCCGGTGGCCGGCTTAGTTAGGAGCT**ATG**GCTAAACATCATCCTGATTTGATCTTTTGCCGCAAGCA
GGCTGGTGTTGCCATCGGAAGACTGTGTGAAAAATGTGATGGCAAGTGTGTGATTTGTGACTCCTATGTGCGTCC
CTGCACTCTGGTGCGCATATGTGATGAGTGTAACTATGGATCTTACCAGGGGCGCTGTGTGATCTGTGGAGGACC
TGGGGTCTCTGATGCCTATTATTGTAAGGAGTGCACCATCCAGGAGAAGGACAGAGATGGCTGCCCAAAGATTGT
CAATCTGGGGAGCTCTAAGACAGACCTCTTCTATGAACGCAAAAAATACGGCTTCAAGAAGAGG**TGA**TTGGTGGG
TGGCCCCTTCCTCCCCCCAACATCAGTCTGCTGCAGCTGCCAGAAAACATGCCTACTACTACCAGCAGAAAGGGA
GCAGAGCCCAGAGCATCACCAGGAGTGCCTGCTAGTGTACTGGCAGCTTGCCACCCCCTCCTCTCCCTTCACCCA
GACACGTGGTAGGGATGGAAAAGGATTCTTCACAGAGCACTCTGGCACACCATATCGGAGAAAACTTGATAGATT
AGTTAATGGTTTTTCTTGAATTCGAGAAGCAAAGATCTGTTCTCCATATTGGTATGTTCTCCCTCAACCAAGATC
TTCTAAAAAGAAATAATATTTTAGTCTTCTGCTTGAGGAACTGACTGTGAAGCGACGCCCAGTGAAAAACATGTT
CTTGCAGCAGCTCTGGTGGCAGCTGTCCTTGAGGAACCTTTGGTGTGTGGTGGGAAGCTATCAGAACAAGAAATG
TAGGCATTTCCCGTTTTTTTTGGGGGGGGGGTGGGGGGGCAGGGCTCTGCCCTCTTGAAAGGCATTTACTTGTTT
AACACTTGTCCAGCTACAGTGGGGTACAGTAGCTGGCTATTCACAGGCATCATCATAGCCCACTAGTCTCATATT
ATTTTCCTTTTGAGAAATTGGAAACTCTTTCTGTTGCTATTATATTAATAAAGTTGGTGTTTATTTTCTGGT

FIGURE 4383

AAAGCTCTGGGTGTGCGGCAGTACCATGTGGCCTCAGTCCTGTGCCAACGGGCCAAGGTGGCG**ATG**AGCCACTTT
GAGCCCAACGAGTACATCCATTATGACCTGCTAGAGAAGAACATTAACATTGTTCGCAAACGACTGAACCGGCCG
CTGACACTCTCGGAGAAGATTGTGTATGGACACCTGGATGACCCCGCCAGCCAGGAAATTGAGCGAGGCAAGTCG
TACCTGCGGCTGCGGCCGGACCGTGTGGCCATGCAGGATGCGACGGCCCAGATGGCCATGCTCCAGTTCATCAGC
AGCGGGCTGTCCAAGGTGGCTGTGCCATCCACCATCCACTGTGACCATCTGATTGAAGCCCAGGTTGGGGGCGAG
AAAGACCTGCGCCGGGCCAAGGACATCAACCAGGAAGTTTATAATTTCCTGGCAACTGCAGGTGCCAAATATGGC
GTGGGCTTCTGGAAGCCTGGATCTGGAATCATTCACCAGATTATTCTGGAAAACTATGCGTACCCTGGTGTTCTT
CTGATTGGCACTGACTCCCACACCCCCAATGGTGGCGGCCTTGGGGGCATCTGCATTGGAGTTGGGGGTGCCGAT
GCTGTGGATGTCATGGCTGGGATCCCCTGGGAGCTGAAGTGCCCCAAGGTGATTGGCGTGAAGCTGACGGGCTCT
CTCTCCGGTTGGTCCTCACCCAAAGATGTGATCCTGAAGGTGGCAGGCATCCTCACGGTGAAAGGTGGCACAGGT
GCAATCGTGGAATACCACGGGCCTGGTGTAGACTCCATCTCCTGCACTGGCATGGCGACAATCTGCAACATGGGT
GCAGAAATTGGGGCCACCACTTCCGTGTTCCCTTACAACCACAGGATGAAGAAGTACCTGAGCAAGACCGGCCGG
GAAGACATTGCCAATCTAGCTGATGAATTCAAGGATCACTTGGTGCCTGACCCTGGCTGCCATTATGACCAACTA
ATTGAAATTAACCTCAGTGAGCTGAAGCCACACATCAATGGGCCCTTCACCCCTGACCTGGCTCACCCTGTGGCA
GAAGTGGGCAAGGTGGCAGAGAAGGAAGGATGGCCTCTGGACATCCGAGTGGGTCTAATTGGTAGCTGCACCAAT
TCAAGCTATGAAGATATGGGGCGCTCAGCAGCTGTGGCCAAGCAGGCACTGGCCCATGGCCTCAAGTGCAAGTCC
CAGTTCACCATCACTCCAGGTTCCGAGCAGATCCGCGCCACCATTGAGCGGGACGGCTATGCACAGATCTTGAGG
GATCTGGGTGGCATTGTCCTGGCCAATGCTTGTGGCCCCTGCATTGGCCAGTGGGACAGGAAGGACATCAAGAAG
GGGGAGAAGAACACAATCGTCACCTCCTACAACAGGAACTTCACGGGCCGCAACGACGCAAACCCCGAGACCCAT
GCCTTTGTCACGTCCCCAGAGATTGTCACAGCCCTGGCCATTGCGGGAACCCTCAAGTTCAACCCAGAGACCGAC
TACCTGACGGGCACGGATGGCAAGAAGTTCAGGCTGGAGGCTCCGGATGCAGATGAGCTTCCCAAAGGGGAGTTT
GACCCAGGGCAGGACACCTACCAGCACCCACCCAAGGACAGCAGCGGGCAGCATGTGGACGTGAGCCCCACCAGC
CAGCGCCTGCAGCTCCTGGAGCCTTTTGACAAGTGGGATGGCAAGGACCTGGAGGACCTGCAGATCCTCATCAAG
GTCAAAGGGAAGTGTACCACTGACCACATCTCAGCTGCTGGCCCCTGGCTCAAGTTCCGTGGGCACTTGGATAAC
ATCTCCAACAACCTGCTCATTGGTGCCATCAACATTGAAAACGGCAAGGCCAACTCCGTGCGCAATGCCGTCACT
CAGGAGTTTGGCCCCGTCCCTGACACTGCCCGCTACTACAAGAAACATGGCATCAGGTGGGTGGTGATCGGAGAC
GAGAACTACGGCGAGGGCTCGAGCCGGGAGCATGCAGCTCTGGAGCCTCGCCACCTTGGGGGCCGGGCCATCATC
ACCAAGAGCTTTGCCAGGATCCACGAGACCAACCTGAAGAAACAGGGCCTGCTGCCTCTGACCTTCGCTGACCCG
GCTGACTACAACAAGATTCACCCTGTGGACAAGCTGACCATTCAGGGCCTGAAGGACTTCACCCCTGGCAAGCCC
CTGAAGTGCATCATCAAGCACCCCAACGGGACCCAGGAGACCATCCTCCTGAACCACACCTTCAACGAGACGCAG
ATTGAGTGGTTCCGCGCTGGCAGTGCCCTCAACAGAATGAAGGAACTGCAACAG**TGA**GGGCAGTGCCTCCCCGCC
CCGCCGCTGGCGTCAAGTTCAGCTCCACGTGTGCCATCAGTGGATCCGATCCGTCCAGCCATGGCTTCCTATTCC
AAG

FIGURE 4384A

GTGATACGAGCGGCGGCACGTGGCGCGGGTGCGGGGCGTGGAGTGGCGTGGCGTGGAGTGGCGTGGCGTGGCGGG
GTCTCGCGGCGCGGGCGCGCACCCGGAGCTGTGGACGGAGAGTGCCTCCCTCTGGCCTCAGTTTCCTCATGTTGT
AGTAGCGGAGCATGGCCCGGACCGGGCCCCCGAGACCGCCCCGTGCAACCTCACCGCCAGCCTGGGGGCCTCAGC
GACTGGGACGGGACCAAGGGGCTCGGGGATTCTCCCTGCCCCCGGCCCTGGTGCGTGACTGACCCTCCTGTTCCC
AGAGCCCCCAGCGCAGGCCGGGATGTTCGTCCTGGTGGAAATGGTGGACACCGTCCGGATCCCCCCTTGGCAGTT
TGAGAGGAAGCTCAACGACTCCATTGCCGAGGAGCTGAACAAGAAGTTGGCCAACAAGGTCGTGTACAACGTGGG
ACTCTGCATTTGTCTGTTTGATATCACCAAACTGGAGGATGCCTATGTATTCCCTGGGGATGGCGCATCACACAC
CAAAGTCCATTTTCGCTGCGTGGTGTTTCATCCATTCCTAGATGAGATTCTCATTGGGAAGATCAAAGGCTGCAG
CCCAGAAGGAGTGCACGTCTCTCTAGGCTTCTTCGATGACATTCTCATCCCCCCAGAGTCACTGCAGCAGCCAGC
CAAGTTCGACGAAGCGGAGCAGGTGTGGGTGTGGGAGTACGAGACGGAGGAAGGAGCACACGACCTCTACATGGA
CACCGGCGAGGAGATCCGCTTCCGGGTGGTGGACGAGAGCTTTGTTGACACGTCCCCCACAGGGCCCAGCTCAGC
AGATGCCACCACTTCCAGTGAGGAGCTGCCAAAGAAGGAGGCTCCGTACACGCTTGTGGGATCCATCAGTGAGCC
AGGCCTGGGCCTTCTCTCCTGGTGGACCAGCAACTAGCCCTGGGGCTGGACAGTGGACCCTACCAGCCTGCGGGA
AGGTGGTATGGCCGGCTGTGAAGACAACAGCAGCTGAGGCCGATGCTAAGGAGATAGTGTCTCGAGCTGGACAGT
GAGGCAAGGCCAGGAGTGCCCACCAGCTTGCCCCGCTCCTCCACCATCTAGGCCCTGCTCCTCCTTCACTGCAGT
GATGGATCCATCTGTGGCTGTGGCTGTTGGGCCTCCACTGACCTTGACTGAAAAGACCCTTCCTGGACCCTGGAC
TTGACAACAAACGGCACAGACACCAATCACTCACAGAACAGTCACTGGTTTTGGATTCTTGTTTTCCTTGCAAGA
ACAAAAGGTTCTCTAGAATCCTTCAGCCACCAATGAAATGATCAGGCAGGAGAAAAACTTTAGATGGGAGTCTTG
TCATCAAAAATAAATACAGTTGCATGGAGCTGCTTAAGATCTGAACCAAACTCAAAATAGGAAGACGGGGGCTAA
AAAGTTATTTTAAGAACCCCCCCACCACAACCACAGTCACTCCGTGGGCTAAGCGGGGAGCAGGAAGCATGTCTG
GTCACACCATCTTGGAATAGGAAGCC**ATG**GCTGGACGGATCGGATCCACTGATGGCACACGTGGAGCTGAACTTG
ACGCCAGCGGCGGGGCGGGGAGGCACTGCCCTCACTGTTGCAGTTCCTTCATTCTGTTGAGGGCACTGCCAGCGC
GGAACCACTCAATCTGCGTCTCGTTGAAGGTGTGGTTCAGGAGGATGGTCTCCTGGGTCCCGTTGGGGTGCTTGA
TGATGCACTTCAGGGGCTGCAAGGAGAAGGTGGGTGTGGGTGGAAGTGGTGGGTACTGTGTGCCCTTGGCCCCGC
AGGGGGGTCAGGGAGACAGGGCACTGCCTGGGGACCTAAGAGGTCAGCAGGCAAACCAAATCCTAGGCCAGTCTG
TGCCTGATGGCCCAGGTCAGACCCAGGTGGCACCTACAGGGGATTCCTGGGGCCCAGAGGGTCCTGCAGTGGGTG
GGCTGTCCCCTGAGTGCCAGGTCCTGGTGAGTAAAGGGAGGTTGGGGAGGTGTGAGGGCCCCGGGTTGACTCCAA
CCCCCAACTCTGAGAAGCCACTTTGCTTTCTCTGTGGGGCCACCTGGAGAACTGGGGGCCTTTCCAGCTGGAATG
AAGCCTCCTGGGAGAAGCTACCCTGGGGCCAGTGCAGGAGGGGAAACAAGGTGGCTGCCCCTCACCCCACCACCT
CAGGGGGACCCGGGCCCCTAACCTTGCCAGGGGTGAAGTCCTTCAGGCCC**TGA**ATGGTCAGCTTGTCCACAGGGT
GAATCTTGTTGTAGTCAGCCGGGTCAGCGAAGGTCAGAGGCAGCAGGCCCTGTTTCTTCAGGTTGGTCTCTGGAA
AGCAGGCGGCATTCGGTCATCGGGGGCCTGACTAGCCTGGAGAGCTTCATTTTCTGAACCCATCTGGGGCTCTGG
GAGATGCCCCTAATCCTGCTGCCTGGGACAATGCCCGGGCAGTGACTATGGGGCCCTGGTCTGCTCCCTTTCACT
AGGGGTGCCCCTAGCAAGTGTGCGCTGGTGCTGAGGTCTGCGAGGCCTTCCTGCTGCACATTCATGATCAGAAAG
AACCCCCTGGCACATGTCCTAGATCTCAGCGGCTCAGATCTACAAGCCTGGAAGCAGGGCCTGCGGGAAGCCGGG
AAGCTGAGCGTCGGATGTGCACTGTGTGAGCCTAAGAAGGGGCAAGAGGCTGACGGGCCTGTGGGCTGCAGTGGA
CACAGCCTAGAACCAGGCCCAACTCAGCCACGGGCAGGGAGAGTGACCTTGATCACTAGGGATGGGATGAGGATG
GCCTGGGTACAGACTCCAGCTCACCGTGGATCCTGGCAAAGCTCTTGGTGATGATGGCCCGGCCCCCAAGGTGGC
GAGGCTCCAGAGCTGCATGCTCCCGGCTCGAGCCCTCGCCGTAGTTCTCGTCTCCGATCACCACCCACCTGATGC
CATGTTTCTGTCAGGCAAGCGGGGGTAAGGTTATAAGGCAGAGGAGGGCACCGTCCTCACCTGTCTGGCCCTACC
TGCCTGGCCTCACCCACCTGGCGCCTGGGCATCCTGAGGCTCCCGGTAAAGGGGCTGGAGGGGCCCTTCCTCGCC
TGCTGCCTAAGGGCAAGTGAAGCCTGCGTGAATGAGACCCAAACGAGGCCCCGAGGGGACAGAGGCACGTGGTTG
TTTGCAGTGGCAAAGAAGACAGAAGCCACCCATTGGTGCTTGGCAGAGGCAGGTGTGTGTGGAGGGAGGTTGGGT
GAGACAGGGACGGCCTCCGGGCCCCACACAAGATGCATCTGTGAAGCTCAAGGCGCCCCCTTCCTGGGAGCACCC
TCTGCCCCACCCAGCCACCAGGGGGTGCCAGAGTCCTTTCACCCGGCTGGGCCAGGACTTGGGTTCAGCCCTGGT
TCTGTTTGTTTCTCAAAGCAGAAAAAGTCCAATCACCTCAGACCCTCTCTGCCTGCTCACTGTGAGGCCCCGTGT
AGCCCCCTCTCTGAGCTTTTGGCCTCTGACTTCCTGAGTCGGCCCCCTTCCTTGTCTTTGTCTAGGGCCAGATAT
CCTAAGATATCTCTCACTAACTCCTCCTGGTGCAGGGACCCGGCTGTACCACCGGACCTGGGCCTCATGCCTTCT

FIGURE 4384B

CAGCCACAGGGAGGGGCTGCAGGCCTCTCCTCCCTTCCACAGCAGTCCCCTTTGGGCTTGGTCGGCCTCCTTCCC
AGTTTCCACTCCCCTAATGTCCTCCCTGCACCTGCCTTGCAGGCCCCTTCAGGAGTGACCACTGGCATTGCCCCT
ATCAACTCTGACCCACCTTGTAGTAGCGGGCAGTGTCAGGGACGGGGCCAAACTCCTGAGTGACGGCATTGCGCA
CGGAGTTGGCCTTGCCGTTTTCAATGTTGATGGCACCAATGAGCAGGTTGTTGGAGATGTTATCCAAGTGCCCAC
GGAACTTGAGCCAGGGGCCAGCAGCTGAGATGTGGTCAGTGGTACACTTCCCTTTGACCTTGGGTGGTAAGTAGA
GAGGACAGAGGTCAGGGCATGGCCCTGGAGGGGTGGATGACAAGCCCTCCAGAGGCAGGCAGCAGGCCCCGGGGC
CCAGGAGGGGTGACAGAGGGGTGAGAGGCAGGCAAGTCTTCAGACACGTGTTCTGTGGTCCTGGTGCTTCCACCC
TAAGGCCACATGGGCTCAGGCCAGGCCTTCATCCCCTCAAAGGCCTCTGGCTGCTCAGTCTCCCTTATGGGGCAG
AGGCCGCCCAAAGTTGGGACAGGTCAATGTTCGCTCACCCTTCAGGCCTCAGCTGCAAGATCAGCCACAGACCTC
ATGCTGGACACAGGAGCCCAGGACATGCCTGGGTCCTGGCTGATGACTGATTAGTCTCTTCTGTCACAGGGGTGC
CTGGAGACCCCTTAATAAGCAGCATAAATAAATATCTGACACAGATTGGAGGCCTCTGGCCACACC

FIGURE 4385

AGCC**ATG**GCAGTCACCGCCCAGGCAGCCCGCAGGAAGGAGCGCGTCCTCTGCCTGTTTGACGTGGACGGGACCCT
CACGCCGGCTCGCCAGAAAATTGACCCTGAGGTGGCCGCCTTCCTGCAGAAGCTACGAAGTAGAGTGCAGATCGG
TGTGGTGGGCGGCTCTGACTACTGTAAGATCGCTGAGCAGCTGGGTGACGGGGATGAAGTCATTGAGAAGTTTGA
TTATGTGTTTGCCGAGAACGGGACGGTGCAGTATAAGCACGGACGACTGCTCTCCAAGCAGACCATCCAGAACCA
CCTGGGGGGAGGAGCTGCTGCAGGACTTGATCAACTTCTGCCTCAGCTACATGGCCCTGCTCAGGCTGCCCAAGAA
GCGTGGAACCTTCATCGAGTTCCGGAATGGCATGCTGAACATCTCGCCCATCGGCCGGAGCTGCACCCTGGAGGA
GAGGATCGAGTTCTCCGAACTGGACAAGAAAGAGAAGATCCGGGAGAAGTTCGTGGAAGCCCTGAAAACAGAGTT
TGCTGGCAAAGGGCTGAGGTTCTCTCGAGGAGGCATGATCAGCTTTGACGTCTTCCCCGAGGGCTGGGACAAGCG
CTACTGCCTGGATAGCCTGGACCAGGACAGCTTCGACACCATCCACTTCTTTGGGAACGAGACTAGCCCTGGTGG
GAACGACTTTGAGATCTTTGCCGACCCCCGGACTGTTGGCCACAGCGTGGTGTCTCCTCAGGACACGGTGCAGCG
ATGCCGGGAGATTTTCTTCCCAGAGACAGCTCATGAGGCG**TGA**CCGGGGCCCACATCTGTGTGTCGTGACTTCTG
AAGAGTTTGGCCTAGGCCTAAAGAGAGGTCCTGGTGTTGGATAGATGCCAGGGCCCCTCCTCTGGCCCAGGACGC
CTGCTGCAAGCCCACCCAGATGGGGCCAGAGTCTGTGTGGACAACCGTCCCCAGCCAGTCTGCTCCTAGTGGCAC
TGGCTTCGTCCTCCCAGGGCCCAGAGTGTTCCCCATGCTCCACCTGGTGGCCCAGGCCACAGCTGCTGCTTGTAT
TTCGGTACAGAAGAGGTTTCTTTCTGCACCAGGAGGAGGCGTGCTCAAGTATCGGTACGAGATCTAGCCTGCCCT
GCCTGCCTGCCCTGGGCGATGAGGTACGGTGGGGAAGGTGCCTATTTTAGAGAACTTTGTCACAGTATTAAAGTT
CCC

FIGURE 4386

GCGGGCCGTTATCCATTTGTGTTGTTCGCCAGCTAGGCCTGGCCTCGTCCCGCTTCGCTCGGTCGGTCTCGCGCG
CCCCCATAGCCTTGCTAGAGGGTTAGCGTTAGCCTTAAGTGTGCGAATCCGAGGAGCAGCGACAGACTCGAGACC
ACGCTCCTTCCTCGGGAAGGAGGCGGCACCTCGCGTTTGAGGCCCGCCTGCGTTTGAGGCCCGCCTGCGCTTGCG
GCCCGCCTGCGCTTGAGGCCTGTCTGCGTTTGAGATCTCATTGGGCGTGATTGAGGAATTTGGGGAGGTTTTTGG
GCGGTATTGAGGACGAGGGGGTCCGTTAGTCAGCATAGAATCCTGGAGCGGGAATCCCTCACCGTCTAAATGGCG
TCGGGGGCGGGACCTCCGGGATCTGGCTTCCGCGGGCCGCCGCCGGCCCTGAAACGTGAGGGATAGCTGAGATGA
GGCAGCTACTGGGATGGCCCCCATGCGCATTTACATGCAGTCCGACTGCCGAGCTTTCGAGGCAGCAGGATTTAC
CGTCCACATTCCTCACTACTAACCAAGCTTTTAGAACAGATCTCACAAGAACCTAGAGGTCGGTATTTTTTCGAT
TTAAATTTGCCTGTTACTGACGTTAACGTCTTTCGCCTAGTGAGCAGTAGCCAAC**ATG**TCAGGGTGGGAGTCATA
TTACAAAACCGAGGGCGATGAAGAAGCAGAGGAAGAACAAGAAGAGAACCTTGAAGCAAGTGGAGACTATAAATA
TTCAGGAAGAGATAGTTTGATTTTTTTGGTTGATGCCTCCAAGGCTATGTTTGAATCTCAGAGTGAAGATGAGTT
GACACCTTTTGACATGAGCATCCAGTGTATCCAAAGTGTGTACATCAGTAAGATCATAAGCAGTGATCGAGATCT
CTTGGCTGTGGTGTTCTATGGTACCGAGAAAGACAAAAATTCAGTGAATTTTAAAAATATTTACGTCTTACAGGA
GCTGGATAATCCAGGTGCAAAACGAATTCTAGAGCTTGACCAGTTTAAGGGGCAGCAGGGACAAAAACGTTTCCA
AGACATGATGGGCCACGGATCTGACTACTCACTCAGTGAAGTGCTGTGGGTCTGTGCCAACCTCTTTAGTGATGT
CCAATTCAAGATGAGTCATAAGAGGATCATGCTGTTCACCAATGAAGACAACCCCCATGGCAATGACAGTGCCAA
AGCCAGCCGGGCCAGGACCAAAGCCGGTGATCTCCGAGATACAGGCATCTTCCTTGACTTGATGCACCTGAAGAA
ACCTGGGGGCTTTGACATATCCTTGTTCTACAGAGATATCATCAGCATAGCAGAGGATGAGGACCTCAGGGTTCA
CTTTGAGGAATCCAGCAAGCTAGAAGACCTGTTGCGGAAGGTTCGCGCCAAGGAGACCAGGAAGCGAGCACTCAG
CAGGTTAAAGCTGAAGCTCAACAAAGATATAGTGATCTCTGTGGGCATTTATAATCTGGTCCAGAAGGCTCTCAA
GCCTCCTCCAATAAAGCTCTATCGGGAAACAAATGAACCAGTGAAAACCAAGACCCGGACCTTTAATACAAGTAC
AGGCGGTTTGCTTCTGCCTAGCGATACCAAGAGGTCTCAGATCTATGGGAGTCGTCAGATTATACTGGAGAAAGA
GGAAACAGAAGAGCTAAAACGGTTTGATGATCCAGGTTTGATGCTCATGGGTTTCAAGCCGTTGGTACTGCTGAA
GAAACACCATTACCTGAGGCCCTCCCTGTTCGTGTACCCAGAGGAGTCGCTGGTGATTGGGAGCTCAACCCTGTT
CAGTGCTCTGCTCATCAAGTGTCTGGAGAAGGAGGTTGCAGCATTGTGCAGATACACACCCCGCAGGAACATCCC
TCCTTATTTTGTGGCTTTGGTGCCACAGGAAGAAGAGTTGGATGACCAGAAAATTCAGGTGACTCCTCCAGGCTT
CCAGCTGGTCTTTTTACCCTTTGCTGATGATAAAAGGAAGATGCCCTTTACTGAAAAAATCATGGCAACTCCAGA
GCAGGTGGGCAAGATGAAGGCTATCGTTGAGAAGCTTCGCTTCACATACAGAAGTGACAGCTTTGAGAACCCCGT
GCTGCAGCAGCACTTCAGGAACCTGGAGGCCTTGGCCTTGGATTTGATGGAGCCGGAACAAGCAGTGGACCTGAC
ATTGCCCAAGGTTGAAGCAATGAATAAAAGACTGGGCTCCTTGGTGGATGAGTTTAAGGAGCTTGTTTACCCACC
AGATTACAATCCTGAAGGGAAAGTTACCAAGAGAAAACACGATAATGAAGGTTCTGGAAGCAAAAGGCCCAAGGT
GGAGTATTCAGAAGAGGAGCTGAAGACCCACATCAGCAAGGGTACGCTGGGCAAGTTCACTGTGCCCATGCTGAA
AGAGGCCTGCCGGGCTTACGGGCTGAAGAGTGGGCTGAAGAAGCAGGAGCTGCTGGAAGCCCTCACCAAGCACTT
CCAGGAC**TGA**CCAGAGGCCGCGCGTCCAGCTGCCCTTCCGCAGTGTGGCCAGGCTGCCTGGCCTTGTCCTCAGCC
AGTTAAAATGTGTTTCTCCTGAGCTAGGAAGAGTCTACCCGACATAAGTCGAGGGACTTTATGTTTTTGAGGCTT
TCTGTTGCCATGGTGATGGTGTAGCCCTCCCACTTTGCTGTTCCTTACTTTACTGCCTGAATAAAGAGCCCTAAG
TTTGTACT

FIGURE 4387

ATCCGTGTCCTTGCGGTGCTGGGCAGCAGACCGTCCAAACCGACACGCGTGGTATCCTCGCGGTGTCCGGCAAGA
GACTACCAAGACAGACGCT**ATG**ACTGAGGCTGATGTGAATCCAAAGGCCTATCCCCTTGCCGATGCCCACCTCAC
CAAGAAGCTACTGGACCTCGTTCAGCAGTCATGTAACTATAAGCAGCTTCGGAAAGGAGCCAATGAGGCCACCAA
AACCCTCAACAGGGGCATCTCTGAGTTCATCGTGATGGCTGCAGACGCCGAGCCACTGGAGATCATTCTGCACCT
GCCGCTGCTGTGTGAAGACAAGAATGTGCCCTACGTGTTTGTGCGCTCCAAGCAGGCCCTGGGGAGAGCCTGTGG
GGTCTCCAGGCCTGTCATCGCCTGTTCTGTCACCATCAAAGAAGGCTCGCAGCTGAAACAGCAGATCCAATCCAT
TCAGCAGTCCATTGAAAGGCTCTTAGTC**TAA**ACCTGTGGCCTCTGCCACGTGCTCCCTGCCAGCTTCCCCCCTGA
GGTTGTGTATCATATTATCTGTGTTAGCATGTAGTATTTTCAGCTACTCTCTATTGTTATAAAATGTAGTACTAA
ATCTGGTTTCTGGATTTTTGTGTTGTTTTTGTTCTGTTTTACAGGGTTGCTATCCCCCTTCCTTTCCTCCCTCCC
TCTGCCATCCTTCATCCTTTTATCCTCCCTTTTTGGAACAAGTGTTCAGAGCAGACAGAAGCAGGGTGGTGGCAC
CGTTGAAAGGCAGAAAGAGCCAGGAGAAAGCTGATGGAGCCAGGACAGAGATCTGGTTCCAGCTTTCAGCCACTA
GCTTCCTGTTGTGTGCGGGGTGTGGTGGAATTAAACAGCATTCATTGTGTGTCCCTGTGCCTGGCACACAGAATC
ATTCATACGTGTTCAAGTGATCAAGGGGTTTCATTTGCTCTTGGGGGATTAGGTATCATTTGGGGAGGAAGCATG
TGTTCTGTGAGGTTGTTCGGCTATGTCCAAGTGTCGTTTACTAATGTACCCCTGCTGTTTGCTTTTGGTAATGTG
ATGTTGATGTTCTCCCCCTACCCACAACCATGCCCTTGAGGGTAGCAGGGCAGCAGCATACCAAAGAGATGTGCT
GCAGGACTCCGGAGGCAGCCTGGGTGGGTGAGCCATGGGGCAGTTGACCTGGGTCTTGAAAGAGTCGGGAGTGAC
AAGCTCAGAGAGCATGAACTGATGCTGGCATGAAGGATTCCAGGAAGATCATGGAGACCTGGCTGGTAGCTGTAA
CAGAGATGGTGGAGTCCAAGGAAACAGCCTGTCTCTGGTGAATGGGACTTTCTTTGGTGGACACTTGGCACCAGC
TCTGAGAGCCCTTCCCCTGTGTCCTGCCACCATGTGGGTCAGATGTACTCTCTGTCACATGAGGAGAGTGCTAGT
TCATGTGTTCTCCATTCTTGTGAGCATCCTAATAAATCTGTTCCATTTTG

FIGURE 4388

GAGCTGAGGTGTGGGTGTTCGTTTCTCAGGTGAAAC**ATG**GCTAAAAGCTTACGGAGTAAGTGGAAAAGAAAGATG
CGTGCTGAAAAGAGAAAAAAGAATGCCCCAAAGGAGGCCAGCAGGCTTAAAAGTATTCTCAAACTAGACGGTGAT
GTTTTAATGAAAGATGTTCAAGAGATAGCAACTGTGGTGGTACCCAAACATTGCCAAGAGAAAATGCAATGTGAG
GTAAAAGATGAAAAAGATGACATGAAAAGGGAGACTGATACTAAGAGAAACAAAAAGACTCTTCTAGACCAGCAT
GGACAGTACCCAATATGGATGAACCAAAGGCAAAGAAAAAGGCTGACGGCAAAGCGAGAGAAAAGAAAGGGGAAA
AGCAAAGCAAAAGCAGTGAAAGTGGCAAAGGGTTTGGCGTGG**TAG**ACTCTTAAAACCTTGGAAAATGCCACATGG
GATAGATGATGGATTAGAATGTATATACATGTATACTTTGATTTCAGCTGCCACCAAATGAAAACCATTTGTTTT
CCTATTTTAACTTGGCCTTTTTTCTTCAATTCAAACCCAGCATAACTCCTGAAGTTTGTTTTGGGAACTTGAATA
AAATATTTTCTTTGATACA

FIGURE 4389

GGACCACAGCTGATGATGGTACAGAGACCCAGGCTCCTGCAGGAGATGACCAGGGACAGTTAAGAGTTGAAATTG
CTGAAGAGATCCAGGTACAAGGGCAAGGAAATAAGAATGACGGTGGAGTTGAGGATGTTGCAGAACTCCAGGATA
TAGGAAGCCAGAGAAAGTGCACAGATGAGGATGTTGGAGAGCCTCGAGCACCAAGGGGAGGAAACAAGGATCTGG
TCAGAGGAGAGGATGCTGTGAGGGACAGTCTCCAAGTCGACTGTTCTGGGAGTGAGAGGCCCACAGGCAGGAAGC
ACAGCCTACCATGGCCTCCAGCCTTCACTGGCTATGGATGTGGGACCCGGGAACAGGAACAGGCAGTGGCTGTGA
ATGGTTTCATCTCTGCCCCCTGTCCTGAG**ATG**AATCCTGTCCCCCACTGGGGTGAAGTCTTCCTGCTGGTGGGTG
GGGAGGGAGAGCATCTGGCCAGCCAGGGCACAACCCCTGCCAGGGATCATAGAGTGGGGATCAGTCCAGCCTCCC
AGCAGGCCCAACCTGAATCCTGGAGAAGACGACAAAGGGACAAAGGGGTGGATCCAGAGAAGGCCCCCAGCCTGA
CTCGGCAGTCCCAAAACCCTCCGTCTCTGACAGCTCCCTTGGGCATGCCCTCTGCCTGCTCCTGTCTCCCGTGTG
GCCCAGCCCCGGAAGCTGCCATCATTCTAGCGGGTCCTCCCACCGCCCTCACTGTCCTGCCCAAGGGGACAGGCC
TCAAGAAGAGCAAACGACTGCTCCTGGAGTCCCTCATGCGGAGGAGGATTGCACACCTGAAGTGGGGTCTTCCCC
GGCGGATCCTGGAGTCCTATTTCCTGTTTAACTTCTTAGGATCTTGCTCATTGACCCTTGCTGGGGCGAGGCTCT
CTGGACTGAACACAGGCCAGGAGCTCCAAGCCCAGCAGGAAAGGTATTGTGAGGCCCAAGGCTCCCCACCAGGCC
TTAAGTCCCCAGAGAGGTTCCAGAGGGTTCAGCGCCCAGACAGAAAAAGCTCGAAACTTCCTATACAAGCCAGAG
CTCTGGAGAGGAACAGACCGCACATGTCAGAGCCCATTAAGCATTTCCATCCAGCC**TGA**AAAGGCCAGGAGAGTC
AGGCCACCAGGGGGCGCCAGAGAACCACAGGAGATCCAGGAAGCGCTTGCTAGGACCAAGCTCCCAGCTCCCAGG
ACCCCCAGGCCGGCAGCGGAGTCCAGGAGCTGGTGTGGCCCACAAAGGGTCGGAGAGCCTCCCAGTGAGAACAGT
AGGGGCAGGAAAATGATCAGGTCAAGGGTCTCCCAGCTGGCAGAGAGGGCTCCCAGCAGAGTGAGGACTTCATTC
TCTAGGGCAGACCACGCCCACTGGAGGAAGGAATGTACATCCTGGGAGGCCTCTAAGCTCCCCAGACTCAAATGC
CAGCAGCTCACATACTGGAGAAGAGGAAGCCTGGAATCTACAGGGTGCAGAGGGGCTGGGCAGCAGCCTTCCTGC
CATTCTGCAGAACCTGTCAGCTTCAAAGGGAGGCTCCACTCTGCGGTGGCAAAGCTGGGCCTGACCCTTCTGGCC
AAGATGTCCTGGTCCCCACAGCTCGCCAAGCGCAAGCACTTGGCCCCTAACCTGAGCCTGAGGGAACCTGATTCT
ACTCTGCCTCCCAAAGTGGGTGATCCTCGTGCAGGGGAGGACAGCATCGGAGATCACACTGCTTCACAGAGGGAT
CTTCAGCTGCAAGGTCACTGCTGTACTGGGGCCACCCTTCCTAAGACAGAGAGTCCCCAGGGCCAGGAGGCACCT
GGGAACCCAAATGGGGCTCCACAGAATACACGAGCCTCCAAAAAGTTTAGTATTATGAAGCATCTGAATTTTTTT
CTCTTCCAGAATGGCTTTAAAAAGTAGACTCAGGCCCAGAGTCCTCAGGACATATCAGAAAAGCTTTGAGAGTGT
CCTGATCCCTGCAAAGCCTCTAATAAATTGGTCATTTGG

FIGURE 4390

AGTTGCTTTGCTGTTAGCCTGTTGGACCTTCGAGCCTAGCTGCTCGCACAGGACTCGGCCACCTGCCCTTCCTGC
ACCGACTGGCCAGCTCAAGAGGTTTGGAT**ATG**GACCTTCTTCAATTCCTGGCCTTCCTCTTTGTCCTGCTTTTGT
CTGGGATGGGAGCCACAGGCACCTTGAGGACCTCCCTGGACCCAAGCCTGGAGATCTACAAGAAGATGTTTGAGG
TGAAGCGGCGGGAGCAGCTGTTGGCACTGAAGAACCTGGCACAGCTGAACGACATCCACCAGCAGTACAAGATCC
TTGATGTCATGCTCAAGGGGCTCTTTAAGGTGCTGGAGGACTCCCGGACAGTGCTCACCGCTGCTGATGTGCTCC
CAGATGGGCCCTTCCCCCAGGACGAGAAGCTGAAGGATGCTTTCTCCCACGTGGTGGAGAACACGGCCTTCTTCG
GCGATGTGGTGCTGCGCTTCCCGAGGATTGTGCACTATTACTTTGACCACAACTCCAACTGGAACCTCCTCATCC
GCTGGGGTATCAGTTTCTGCAACCAGACAGGCGTCTTCAACCAGGGGCCCCACTCGCCCATCCTCAGCCTGATGG
CCCAGGAGCTGGGGATCAGTGAGAAAGACTCCAACTTCCAGAACCCATTTAAAATCGACCGCACAGAGTTCATTC
CCAGCACTGACCCTTTCCAGAAGGCCCTGAGAGAAGAAGAGAAACGCCGAAAGAAAGAGGAGAAGCGGAAGGAGA
TCCGAAAAGGCCCAAGGATCTCCAGATCCCAGTCTGAGTTA**TAG**CCCTGGAGCAGCTCAGGGCTCAGGGGGCCAC
AAGGAGGCAGGTCGGGAGGAAGAAGAGGTGGAGGTGTGGTTGTGGTGGAGAGCACCAGCTAGCCCCTTCCAGAAG
GGGAGGCCACATTTGCCCGGCCCCCTGGAGCTGGGTCTGAGCCCCAGCTGAAGGGACTGAGCCTCAGATGGCTGG
ATTTTCTCTCAGGGGCCTCCTGCTGAAGGGGCCTTCAGAGGATTTTATGCTGGAAATATGACCCTGTGCAGACTG
CTGGGGGAGGCAGGAGGATGCCTGCCTGGACCCTGTTGGTGGCTGAAGACCTCTGGCCAGCTGGCTTCCGCCCTT
GGTGGGGAAGCAGCAGAACTAGGTTCTGAGCCACGGGTCAGGGTGCCACCCTGCTGCTGGCCCCACTGTGTCACA
GAGCTGCCTGGCACAGGTCCCAGCCCCTCTGCAGAGACACAATAAAAGCCAGCAGACCCTTTG

FIGURE 4391A

CCGTCGGTGAGGCGGTGCCGGGCGGGGGGTTGTCGGGTGTCATGGGCGGTGGCGACGGCACCGCCCCCGCGTCTCC
CTGAGCGGGACGGCAGGGGGGGCTTCTGCGCTGAGCCGGGCG**ATG**GACGACAGCGGCGAGCTGGGTGGTCTGGAG
ACCATGGAGACCCTCACGGAGCTGGGCGACGAGCTGACCCTGGGAGACATCGACGAGATGCTGCAATTTGTCAGT
AATCAAGTGGGAGAGTTCCCTGACTTGTTTTCAGAACAGCTGTGTAGCTCCTTTCCTGGCAGTGGTGGTAGTGGT
AGCAGCAGCGGCAGCAGTGGCAGCAGCAGCAGCAGCAGCAATGGCAGGGGCAGCAGCAGCGGAGCTGTGGACCCT
TCAGTGCAACGGTCATTCACCCAGGTCACATTACCTTCCTTCTCTCCCTCGGCGGCCTCCCCACAGGCTCCAACT
CTGCAAGTCAAGGTTTCTCCCACCTCAGTTCCCACCACACCCAGGGCAACTCCTATTCTTCAGCCCCGCCCCCAG
CCCCAGCCTCAACCTCAAACTCAGCTGCAACAACAGACGGTAATGATCACGCCAACATTCAGCACCACTCCGCAG
ACGAGGATCATCCAGCAGCCTTTGATATACCAGAATGCAGCTACTAGCTTTCAAGTCCTTCAGCCTCAAGTCCAA
AGCCTGGTGACATCCTCCCAGGTACAGCCGGTCACCATTCAGCAGCAGGTGCAGACAGTACAGGCCCAGCGGGTG
CTGACACAAACGGCCAATGGCACGCTGCAGACCCTTGCCCCGGCTACGGTGCAGACAGTTGCTGCGCCACAGGTG
CAGCAGGTCCCGGTCCTGGTCCAGCCTCAGATCATCAAGACAGATTCCCTTGTTTTGACCACACTGAAGACAGAT
GGCAGCCCTGTTATGGCTGCGGTCCAGAACCCGGCCCTCACCGCCCTCACCACCCCTATCCAGACGGCTGCCCTT
CAAGTACCAACCCTGGTGGGCAGCAGTGGGACCATTCTGACCACAATGCCTGTAATGATGGGGCAAGAGAAAGTG
CCCATTAAGCAGGTACCTGGGGGAGTCAAGCAGCTTGAGCCCCCCAAAGAAGGAGAAAGGCGGACAACCCATAAT
ATCATTGAGAAACGATATCGCTCCTCCATCAATGACAAAATCATCGAATTGAAAGACCTGGTCATGGGGACAGAC
GCCAAGATGCACAAGTCTGGCGTTCTGAGGAAGGCCATTGATTACATCAAATACTTGCAGCAGGTCAATCATAAA
CTGCGCCAGGAGAACATGGTGCTGAAGCTGGCAAATCAAAAGAACAAGCTTCTAAAGGGCATCGACCTAGGCAGT
CTGGTGGACAATGAGGTGGACCTGAAGATCGAGGACTTTAATCAGAATGTCCTTCTGATGTCCCCCCCAGCCTCT
GACTCAGGGTCCCAGGCTGGCTTCTCTCCCTACTCCATTGACTCTGAGCCAGGAAGCCCTCTATTGGATGATGCA
AAGGTCAAAGATGAGCCAGACTCTCCTCCTGTGGCGCTGGGCATGGTAGACCGCTCACGGATTCTTCTGTGTGTC
CTCACCTTCCTGTGCCTCTCCTTTAACCCCCTGACTTCCCTGCTGCAGTGGGGAGGGGCCCACGACTCTGACCAG
CACCCACACTCAGGCTCTGGCCGCAGTGTCCTGTCATTCGAGTCAGGTTCTGGGGGCTGGTTTGACTGGATGATG
CCTACTCTTCTCTTATGGCTGGTAAATGGTGTGATTGTCCTGAGCGTCTTTGTGAAGCTGCTGGTTCATGGGGAG
CCAGTGATCCGGCCACACTCGCGCTCCTCGGTCACCTTCTGGAGGCACCGGAAACAGGCAGATCTGGATCTCGCC
AGAGGAGATTTTGCAGCTGCTGCCGGCAACCTACAAACCTGCCTGGCAGTTTTGGGCCGGGCACTGCCCACCTCC
CGCCTGGACCTGGCCTGCAGCCTCTCCTGGAACGTGATCCGCTACAGCCTGCAGAAGCTACGCCTGGTGCGCTGG
CTGCTCAAGAAAGTCTTCCAGTGCCGGCGGGCCACGCCAGCCACTGAGGCAGGCTTTGAAGACGAAGCTAAGACC
AGCGCCCGGGATGCGGCTCTGGCCTATCACCGGCTGCACCAGCTGCACATCACAGGGAAGCTTCCTGCAGGATCC
GCCTGTTCCGATGTACACATGGCGTTGTGTGCCGTGAACCTGGCTGAATGTGCAGAGGAGAAGATCCCACCGAGC
ACACTGGTTGAGATCCATCTGACTGCTGCCATGGGGCTCAAGACCCGGTGTGGAGGCAAGCTGGGCTTCCTGGCC
AGCTACTTCCTCAGCCGAGCCCAGAGCCTGTGTGGCCCCGAGCACAGTGCTGTTCCTGACTCCCTGCGCTGGCTC
TGCCACCCCCTGGGCCAGAAGTTTTTCATGGAGCGGAGCTGGTCTGTGAAGTCAGCTGCCAAGGAGAGTCTATAC
TGTGCCCAGAGGAACCCAGCTGACCCCATTGCGCAGGTCCACCAGGCCTTCTGCAAGAACCTGCTGGAGCGAGCT
ATAGAGTCCTTGGTGAAACCTCAGGCCAAGAAGAAGGCTGGAGACCAGGAAGAAGAGAGCTGTGAATTCTCCAGT
GCTCTGGAGTACTTGAAATTACTTCATTCTTTTGTGGACTCTGTGGGGGTTATGAGCCCCCCACTCTCCAGGAGC
TCCGTGCTCAAGTCCGCCCTGGGTCCAGACATCATCTGTCGGTGGTGGACGTCTGCAATCACTGTGGCCATCAGC
TGGCTCCAGGGAGACGATGCAGCTGTGCGCTCTCATTTTACCAAAGTGGAACGCATCCCCAAGGCCCTGGAAGTG
ACAGAGAGCCCCCTGGTGAAGGCCATCTTCCATGCCTGCAGAGCCATGCATGCCTCACTCCCTGGGAAAGCAGAT
GGGCAGCAGAGTTCCTTCTGCCATTGCGAGAGGGCCAGTGGCCACCTATGGAGCAGCCTCAACGTCAGTGGGGCC
ACCTCTGACCCTGCCCTCAACCACGTGGTCCAGCTGCTCACCTGTGACCTGCTACTGTCGCTACGGACAGCGCTC
TGGCAAAAACAGGCCAGTGCCAGCCAGGCTGTGGGGGAGACCTACCACGCGTCAGGCGCTGAACTGGCGGGCTTC
CAACGGGACCTGGGCAGCCTGCGCAGGCTGGCACACAGCTTCCGCCCAGCATACCGCAAGGTGTTCCTGCATGAA
GCCACCGTGCGCCTGATGGCAGGAGCCAGCCCCACCCGCACCCACCAGCTGCTGGAACACAGCCTGCGGCGGCGC
ACCACGCAGAGCACCAAGCACGGAGAGGTGGATGCCTGGCCCGGCCAGCGAGAGCGGGCCACCGCCATCCTGCTG
GCCTGCCGCCACCTGCCCCTCTCCTTCCTCTCCTCCCCGGGCCAGCGGGCAGTGCTGCTGGCCGAAGCTGCCCGC
ACCCTGGAGAAGGTGGGCGACCGGCGCTCCTGCAACGACTGCCAGCAGATGATTGTTAAGCTGGGTGGTGGCACT
GCCATTGCCGCCTCC**TGA**CCACCAGGCTCAGCCCACCCCTCCACCTCTCTCTCGATTTCTCTCTCTCCCCCTCAG

FIGURE 4391B

CATCTTCCCGCTGAGAGTGGTGGGGAAGAGCCTTGTCTTCTTAGCTGTCACCTGCCGAGGCTTCTGGGCCACTCA
GGCCAGTGCACCCCTGGGCAGAGCCCCTTAAAGCTGCTGTCACTAGATGCCCATGGTCCAGGGCCTGGTGGGCGT
GAGAGGATAGGTGGCAGGGCAGAAACTGGGCAGCCCTGACTTGATAGCAGCAGGGGGAGCTCCCAAGCTGCCAAG
CCCCTGCCTCCAGCCTTCCTGAGTTTCTCTCTCCTGAACCCTACTCTCTCCTTTTTGCTTCCTCAGTTTTTATCA
GGCTTTCTCTGGGGGACAGCAGTCTCTGAGCACCAGGGAGCAGTTGCCCTCAGGCCTGTGCCCAGCATGCCCTCC
CCTTTTTATACGAATGTTTTCTACCAGTGTGCTTGGGTTTGCCATGATGCGAGGCTGAGTTGCTGTAGCGTCTTG
ATTCTCTCCCTGGGTCTGCGTTCCCTCCCCTGGGCCTGACTGAGCCTGCTCATTGTTTTTCCCTTTATTACACAG
GACAGCCAGGGGAGGAGGGGGGCCCAGCCCTGGGAGGCTGGTGGGAGGCAGGGGGCAGGCCTGCGGATGCATGAA
ATAATGTTGGCATTATTTTTTAATTTTTTAAAAAATAAATGGTATCTTA

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FIGURE 4392

GCACCGCAGGAGCAACGGTTGGTCCTGCGGCTGTG**ATG**TCGGTGTTGAGGCCCCTGGACAAGCTGCCCGGCCTGA
ACACGGCCACCATCTTGCTGGTGGGCACGGAGGATGCTCTTCTGCAGCAGCTGGCGGACTCGATGCTCAAAGAGG
ACTGCGCCTCCGAGCTGAAGGTCCACTTGGCAAAGTCCCTCCCTTTGCCCTCCAGTGTGAATCGGCCCCGAATTG
ACCTGATCGTGTTTGTGGTTAATCTTCACAGCAAATACAGTCTCCAGAACACAGAGGAGTCCCTGCGCCATGTGG
ATGCCAGCTTCTTCTTGGGGAAGGTGTGTTTCCTCGCCACAGGTGCTGGGCGGGAGAGCCACTGCAGCATTCACC
GGCACACCGTGGTGAAGCTGGCCCACACCTATCAAAGCCCCCTGCTCTACTGTGACCTGGAGGTGGAAGGCTTTA
GGGCCACCATGGCGCAGCGCCTGGTGCGCGTGCTGCAGATCTGTGCTGGCCACGTGCCCGGTGTCTCAGCTCTGA
ACCTGCTGTCCCTGCTGAGAAGCTCTGAGGGCCCCTCCCTGGAGGACCTG**TGA**GGGTGGCTGGCCCCTGGGCTGC
CCCTTCTCATGGCTTCGTGCTGACTCCATAAACATTCTCTGTTGAGGATGTCCAGTCAGGGCTTGACAGGCCCAG
GCTCAGCCCGCCGTGGCTGGGAAGGTTCCCTGCAGTGCCAGTGCTGCAGCAGGGAGAGCTGGGCAGAAGCAGCGA
GGGGGCCCAGCTGGCGAGACTGTAGCCCCCTCCCACTCCCACACTCACTCTTGCAGAGCCTGTGTCTTTAAGCAG
CTGGCGTGTTACATCTCCATTTAAGGTTTCCTTTGAACAAAAGGTCTGTGGCTAAAAAAAGTTTAAAAATC

FIGURE 4393A

GATTCGAGTCAGAAGCGGCGGCAGGTCTGAACGCTTCGGTAGGATAAGTGCGGTGGGAGGGGGCTCTGCGGTTTT
GGGGAGCCCAGGGCGGGAACCCGGACCCGGCTGGAAGTCCGGAGCCTGGCCGCAGCCCCGCCCCTCCGCTCTTTC
TTGGTGACCTTAAGCCAGTGGCTGCCTTTTTCTGAGCCCGGGCGGGGCCGAAGGCGGCCCGTAGGCCCTCGGGAC
TCCCAGCACTGCAGAGGGTGTGAGGTCTGACATCCAAGACACGTTGTTTCGTATTTCTGAAGGAAGAACTGAAGC
TCCGGGAAGTGATGGCTGGGGATGGGGCGGGCAACTTGGGGACCGAGTGTACGATCCACGCCTAAGGTTGAGGGC
GGCCGAGCTAGCCAGGCAGCCGTGACCCCAGTGCTTTTCAGACGTTTCTTAGCTTCCAGAGCCCAACACATACAG
CTGATACACGCAGACCAGATCTGGTCAGGTCCTCGGAAGCTGAGTCCAGAGCG**ATG**CTGCTGAAGACAGTGCTCT
TGCTGGGACATGTGGCCCAGGTGCTGATGCTGGACAATGGGCTCCTGCAGACACCACCCATGGGCTGGCTGGCCT
GGGAACGCTTCCGCTGCAACATTAACTGTGATGAGGACCCAAAGAACTGCATAAGTGAACAGCTCTTCATGGAGA
TGGCTGACCGGATGGCACAGGATGGATGGCGGGACATGGGCTACACATACCTCAACATTGATGACTGCTGGATCG
GTGGTCGCGATGCCAGTGGCCGCCTGATGCCGGATCCCAAGCGCTTCCCTCATGGCATTCCTTTCCTGGCTGACT
ACGTTCACTCCCTGGGCCTGAAGTTGGGTATCTACGCGGACATGGGCAACTTCACCTGCATGGGTTACCCAGGCA
CCACACTGGACAAGGTGGTCCAGGATGCTCAGACCTTCGCCGAGTGGAAGGTAGACATGCTCAAGCTGGATGGCT
GCTTCTCCACCCCCGAGGAGCGGGCCCAGGGGTACCCCAAGATGGCTGCTGCCCTGAATGCCACAGGCCGCCCCA
TCGCCTTCTCCTGCAGCTGGCCAGCCTATGAAGGCGGCCTCCCCCCAAGGGTGAACTACAGTCTGCTGGCGGACA
TCTGCAACCTCTGGCGTAACTATGATGACATCCAGGACTCCTGGTGGAGCGTGCTCTCCATCCTGAATTGGTTCG
TGGAGCACCAGGACATACTGCAGCCAGTGGCCGGCCCTGGGCACTGGAATGACCCTGACATGCTGCTCATTGGGA
ACTTTGGTCTCAGCTTAGAGCAATCCCGGGCCCAGATGGCCCTGTGGACGGTGCTGGCAGCCCCCCTCTTGATGT
CCACAGACCTGCGTACCATCTCCGCCCAGAACATGGACATTCTGCAGAATCCACTCATGATCAAAATCAACCAGG
ATCCCTTAGGCATCCAGGGACGCAGGATTCACAAGGAAAAATCTCTCATCGAAGTGTACATGCGGCCTCTGTCCA
ACAAGGCTAGCGCCTTAGTCTTCTTCAGCTGCAGGACCGATATGCCTTATCGCTACCACTCCTCCCTTGGCCAGC
TGAACTTCACCGGGTCTGTGATATATGAGGCCCAGGACGTCTACTCAGGTGACATCATCAGTGGCCTCCGAGATG
AAACCAACTTCACAGTGATCATCAACCCTTCAGGGGTAGTGATGTGGTACCTGTATCCCATCAAGAACCTGGAGA
TGTCCCAGCAG**TGA**GGAGCTGGGACATGTGACAGGCTGTGGTGGCACCACTGAGCCTAGACCATGGAGCCTTGGC
ATGCCCAGGGCAAGTGGGGAGGTTCTCTGCTCCCCAGGCCTGCTCGGTGACTGACCCCATCATACCCAAAGTGCA
ATCTCACGGCCAGGTTCTATGCCCTGTCCAAGCGTAAACCCTCTTGGAAACTTCTTTTGGGGCAATTTTCCTGTG
GCCTTCCTGGCCTCTACTTCCATGTGCGCAGCCCCACAGACGTTGCTGAGCAACTCGCCAGCCTCCTGAGCTCCA
TGCCCATCAGGACTCTAGCCTCTGACCTTGCTGTTGACTCTGAAATCAGGATTTGGAAGTTTTCGAATTAGGAGT
AGAGAGATCTGACCTCTTGCCAGGAATGCCCATGGATCATGTGATTGGCTTTTCTACCCATAGAGGGCCTTGCAG
CCTGATACCACCTGGGAGTGAGGGTCACAAAGGAGACCTTGGCTCCCTCAGGTCACCAATAAACCTGTTCTTTAA
TCAAGTAGTTGTAATATGGACCTGGGGTACCTTTAGTTAGGGACTCTGGTGGCACTACACGGGGTGCTGGATTCA
AATCTCACCTCTATGGATGATGTCTGGCATCGTCTGGCCCCTCCTTTTCCAAAGTGACCAGAAGATTGTACTTCC
TAGAGATGCCAGACTTGCCTCACACCCAGGAGCTGCCCCTGCTGTGCCTGGTATGCTGGCAGTGGTGATGGTGAC
AACACAATGAGGCCAAGTAGCAATGCTCCCAGGTCCTGCAGCTTGTGCTCTGCCCAGCAGTGCCCCTGGCCCAGC
ACCTCAGCCTGCTCTTCTCTCTGGTGGCTCCACCCCAACCCCTACTTCTTTTCCTTTATTTCTCTCCCAACCTGG
CTGCAAAGGAGGTTCATATTCCCCAGATGTGTCCACAAACCTGTCCAGGAGTTGTGTCTTAAAATTGATTTCCTG
TCCCTCTTCCTAAGGACAGGGGTAACAGTCAAAGTGAAGGAATGATGGGTTCTTGCCTGTCTTGCTTTGGTCCGT
ATTTCCCAAGCCCTCCTCTTTTAGCCAAGGCTACAGGGCACTTGTCTTCCCTGGTGGCTCTCCCCTTTGGAGAGA
GCTAGTGGCAGAGCAACCTAGCTAGGTCCTCCTTGGGCTTTGAATGCAGGAGCACCCAGTGCCCCAGGCCTTGCA
CTGTGCTGCCCAAGGAGTATTTTCTGGGTGGATCTCCCATACTCCTCAGGGTTCTGAGGTCCTTGTATTTAGGGT
ATGGTGTAAAAACTTACATATGCACATTTTGTTACATCATTTAAGATGATTGAAGCTTTACTGGTTAAGTATAGG
GTCACCAGAGAAAGTTCCTTTCCCCAGTTGATGTCTTGAGGCTGTTGAGAAACTTAGGACAGAAGCCTACCTCAT
CCCAGGCCTGCCCCTCCGTGCATAGCTCTGCCTTTGGGTCTTGTTCATAGTGCTGTTCAGGCAAAATGGAATAGT
CTCAGGTGGGAACACCTTCTCTTGCTAGCTCCAGGAAGGCTTTGTGGGAAATGAGTTGAGACCATGGACTTGGGA
GTTGGGGGCCAGAGTTGAGCCTGGACTTGACCAATTAATTCCCTTACCTTTCAGCCCAAGATAGCTACATGTCTT
TACTTGCTGTATAAGTTTTCCTTTTGTCCTGGGGGTGCCTGATTGATCCTATCTCTTCACCCTTCATTCTTTCAA
CAAACATGCCATCTATCTCCCAGGACATTTATTCCCTTCTATTCAAGGCCAGTTAGGAATGCAATTATTTTTTTT
TTTCAGTTAAATACAGACTTGTTTGGACGCAAGGTACCCTTTCTCTTTTTAAAAACTTTTTATCATGAAAACTTT

FIGURE 4393B

CAAATACAAAAATAAAATGGTAGAGTGAACCTCCATG

FIGURE 4394

GGGCGGCACGAGGGCTGGGCGGTGGGGTGCGGGTGCCCGGGTGAGGGGCGGAGCTGGGGGC**ATG**GCGTCCGGAGC
GGCTCGCTGGCTAGTATTGGCACCCGTCAGGTCCGGGGCTCTCCGGAGCGGGCCTAGCTTGAGGAAAGATGGCGA
TGTCTCCGCCGCATGGAGCGGCTCAGGCCGGAGCCTGGTACCGTCGAGGTCAGTCATCGTTACCCGCAGCGGCGC
CATTTTGCCCAAACCGGTGAAAATGTCCTTCGGCCTTCTCCGTGTGTTCTCCATTGTGATCCCCTTTCTCTATGT
CGGGACACTCATTAGCAAGAACTTTGCTGCTCTACTTGAGGAACATGACATTTTTGTTCCAGAGGATGATGATGA
TGATGAC**TAA**CAGGAATTACAGAAAGGAGAAAGCACTAACTGAAGAAATGGTGATGCTCTCAGTTTCTCTGCCTT
CCCTATCAGCAGAAAGGCTCGGGGAAGGCCCTCAGCCTCCCAGTCTGGTGAAGCTTCCTGTATGGTCCATGACCG
TATTCCACCCCAGGCTCTGGGAGGCTCCCTGAGATGTGCTGTCCACTAAGCACTGCACAAACAAGCAATCAAATT
ATGAATAAACATAATAAATATCAGCCGTGCG

FIGURE 4395

GGCGTTTCTGTAGATGAGCATGCGCAGCACCCACCGTTCGCTCAGCCAGAGAGAGGCTTCCCAGCCAATCCGAGA
GCCTCAGAGTCATCCTCCCGCCCACCCAGCATACAGGCGGGGCGTTCCTCCTTAGCCAATGGGAAAAGACATTCG
CCCGCGGTCCGCACGCGCTGCTTGCAAAGGGGTGGGGTTGTGGAGTGGATGCTTTGGCAAG**ATG**GCGGGGAGCGG
CGTCCGCCAAGCTACTTCTACCGCCAGCACCTTCGTGAAGCCCATTTTCAGTCGGGACATGAACGAGGCCAAGCG
GAGGGTGCGCGAGCTCTACCGCGCCTGGTATCGGGAGGTGCCGAACACTGTGCACCAATTCCAGCTGGACATCAC
TGTGAAAATGGGACGGGATAAAGTCCGAGAAATGTTTATGAAGAATGCCCATGTCACAGACCCCAGGGTGGTTGA
TCTTCTGGTCATTAAGGGAAAGATCGAACTGGAAGAAACAATTAAAGTATGGAAGCAGCGGACACATGTTATGCG
GTTCTTCCATGAAACAGAAGCGCCAAGGCCAAAGGATTTCCTATCCAAGTTCTATGTTGGCCACGATCCA**TGA**AG
TCATTCAGTGGAAAGATGCACGTTGATACTATTTTAGAGCACAAATAAACTCACTATACAATGGTCACTTTGTGA
TAGAATTCCATTGATGAACCAATTTTCTGCAGCCTCTTTTTGCCTGAGCAAGTGGGACCTTGGTATACACATCAC
CTGTTCTTTCCCTTTTCTTGAAATGTGGTGTTTGCTGTAAATTGGATTGAATTATTTTTCTCAGAGCCTTGCATG
TCAGTAAACAGGAAGGAAGGAGGCCATCTGTTCAAAAATTGTGACATTGGGCATGAGGCTGGACGACTTGTTAAT
GTAGTTGTTTCTATAGCCCCTATGATTAGACACTTCAGTGTCAGGGCACAGATTATCTAAAATTAGCCAGCTCTT
CCTGTCAGGGATCAGGGCAGCACTAACAGGCGCAAAAGTAGAGCTGTCAAGATGGGCTAGTTTTCCTTGGGTTCT
GAAGAAAATGGATGTGCAAAGGCTTGGCTCCGCTACTTGTAACAAGCTCCAGCCCTTAAAATGAAATTAACTTCC
TACTCAGGCACCCTGCTTAGGTGCACAGCTGTTCAATATACACAGAGAACAGAAATATTCCTACTGTCTTTGGAA
ACCCTGGTGTACCTCTCAGTGGCAGAATAAACATCAACACAGGTTCAAGAACTG

5070/5332

FIGURE 4396

GTTCCACCGCTGTCGCCGCCGTAGTGCGGCATGCCGCTCGGCGGAGGGGCCGGGCCTGCGTTCTCTCCTCCTTCC
TCCCCGCCTCTGGCTGCCGGCAGGACCTTTCTCTCGCTGCTACTGGGACCCCGTGTCATAGCCCAGGCTGAGCAC
GATGCCCCCTCAAAAGGGAGGTGATGGAATTAAACCACCCCCAATCATTGGAAGATTTGGAACCTCACTGAAAAT
TGGTATTGTTGGATTGCCAAATGTTGGGAAATCTACTTTCTTCAATGTATTAACCAATAGTCAGGCTTCAGCAGA
AAACTTCCCATTCTGCACTATTGATCCTAATGAGAGCAGAGTACCTGTGCCAGATGAAAGGTTTGACTTTCTTTG
CCAATATCACAAACCAGCAAGCAAAATTCCTGCCTTTCTAAATGTAGTGGATATTGCTGGCCTTGTGAAAGGAGC
TCACAATGGGCAGGGCCTGGGGAATGCTTTTTTATCTCATTTTAGTGCTTGTGATGGCATCTTTCATCTAACACG
TGCTTTTGAAGATGATGATATCACACATGTTGAAGAAAGTGTAGATCCTATTCGAGATATAGAAATAATACATGA
AGAGCTTCAGCTTAAAGATGAGGAATGACTGGGCCCATTATAGATAAACTAGAAAAGGTGGCTGTGAGAGGAGGA
GATAAAAAACTAAAACCCAAATATGATATAATGTGCAAAGTAAAATCCTGGGTTATAGATCAAAAGAACCTGTTC
GCTTCTATCATGATTGGAATGACAAAGAGATTGAAGTGTTGAATAAACACTTATTTTTGACTTCAAAACCA**ATG**G
TCTACTTGGTTAATCTTTCTGAAAAAGACTACATTAGAAAGAAAAACAAATGGCTGATAAAAATTAAAGAGTGGG
TGGACAAGTATGACCCAGGTGCCTTGGTCATTCCTTTTAGTGGGGCCTTGGAACTCAAGTTGCAAGAATTGAGTG
CTGAGGAGAGACAGCAGTATCTGGAAGCGAACATGACACAAAGTGCTTTGCCAAAGATCATTAAGGCTGGGTTTG
CAGCACTCCAACTAAAATACTTTTTCACTGCAGGCCCAGATGAAGTGCGTGCACGGACCATCAGGAAAGGGACTA
AGGCTCCTCAGGCTGCAGGAAAGATTCACACAGATTTTGAAAAGGGATTCATTATGGCTGAAGTAATGAAATATG
AAGATTTTAAAGAGGAAGGTTCTGAAAATGCAGTCAAGGCTGCTGGAAAGTACAGACAACAAGGCAGAAATTATA
TTGTTGAAGATGGAGATATTATCTTCTTCAAATTTAACACACCT**TAA**CAACTGAAGAAGAAATAAAATTTAGTTA
CTGCTCAGATAAACATACAACTTCCAAAAGGCATCTGATTTTTTAAAAATTAAAATTTCTGAAAACCAATGGGAC
AAATAAAGTTGGGGAGATGGGAATCTTTGACAAACAAATTATTTTTGTTTTAAAATTAAAATACTGTGTACCCTC
TCCCCCCAATGAAATGCAAGTTCACTAAATGTGAACACCTTTGCTTTTCATGTGATTAAGACCCTACTCCAAATT
ATAGAAGCTTTTCAAGAACCATGTTACTCTCATGATACTTCATTAATCTCCATCATGTATGCCAAGCCTAACACA
TTTGACAGTGAGAACAATGTGGCTTGCTCCTTTTTGAATCTACAGATAATGCATGTTTTATAGTACTCCAGATGT
CTACACTCAATAAAACATTTGACAAAACC

FIGURE 4397

GAGAGTGTCCTGCCTGGTCCTCTGTGCCTGGTGGGGTGGGGGTGCCAGGTGTGTCCAGAGGAGCCCAGTTGGTAG
TGAGGCAGCCATGGGGCTAGAAGCACTGGTGCCCCTGGCCATGATAGTGGCCATCTTCCTGCTCCTGGTGGACCT
GATGCACCGGCACCAACGCTGGGCTGCACGCTACCCGCCAGGTCCCCTGCCACTGCCCGGGCTGGGCAACCTTGC
TGCATGTGGACTTCCAGAACACACCATACTGCTTCGACCAGTTGCGGCGCCGCTTCGGGGACGTGTTCAGCCTGC
AGCTGGCCTGGACGCCGGTGGTCGTGCTCAATGGGCTGGCGGCCGTGCGCGAGGCG**ATG**GTGACCCGCGGCGAGG
ACACGGCCGACCGCCCGCCTGCGCCCATCTACCAGGTCCTGGGCTTCGGGCCGCGTTCCCAAGGGGTGATCCTGT
CGCGCTATGGGCCCGCGTGGCGCGAGCAGAGGCGCTTCTCCGTGTCCACCTTGCGCAACTTGGGCCTGGGCAAGA
AGTCGCTGGAGCAGTGGGTGACCGAGGAGGCCGCCTGCCTTTGTGCCGCCTTCGCCGACCAAGCCGGACGCCCCT
TTCGCCCCAACGGCCTCTTGGACAAAGCCGTGAGCAACGTGATCGCCTCCCTCACCTGCGGGCGCCGCTTCGAGT
ACGACGACCCTCGCTTCCTCAGGCTGCTGGACCTAGCTCAGGAGGGACTGAAGGAGGAGTCGGGCTTCCTGCGCG
AGGTGCTGAATGCTGTCCCCGTCCTCCCGCACATCCCAGCGCTGGCTGGCAAGGTCCTACGCTTCCAAAAGGCTT
TCCTGACCCAGCTGGATGAGCTGCTAACTGAGCACAGGATGACCTGGGACCCAGCCCAGCCACCCCGAGACCTGA
CTGAGGCCTTCCTGGCAAAGAAGGAGAAGGCCAAGGGGAGCCCTGAGAGCAGCTTCAATGATGAGAACCTGCGCA
TAGTGGTGGGTAACCTGTTCCTTGCCGGGATGGTGACCACCTCGACCACGCTGGCCTGGGGCCTCCTGCTCATGA
TCCTACACCTGGATGTGCAGCTCCGTGTCCAACAGGAGATCGACGACGTGATAGGGCAGGTGCGGCGACCAGAGA
TGGGTGACCAGGCTCACATGCCCTGCACCACTGCCGTGATTCACGAGGTGCAGCGCTTTGGGGACATCATCCCCC
TGAGTGTGACCCATATGACATCCCGTGACATCGAAGTACAGGGCTTCCGCATCCCTAAGGGAACGACACTCATCA
CCAACCTGTCATCGGTGCTGAAGGATGAGGCCGTCTGGAAGAAGCCCTTCCGCTTCCACCCCGAACACTTCCTGG
ATGCCCAGGGCCACTTTGTGAAGCCGGAGGCCTTCCTGCCTTTCTCAGCAGGCCGCCGTGCATGCCTCGGGGAGC
CCCTGGCCCGCATGGAGCTCTTCCTCTTCTTCACCTCCCTGCTGCAGCACTTCAGCTTCTCCGTGGCCGCCGGAC
AGCCCCGGCCCAGCCACTCTCGTGTCGTCAGCTTTCTGGTGACCCCATCCCCCTACGAGCTTTGTGCTGTGCCCC
GC**TAG**AATGGGGTACCTAGTCCCCAGCCTGCTCCCTAGCCAGAGGCTCTAATGTACAATAAAGCAATGTGGTAGT
TCCAACTTGGGTCCCCTGCTCACGCCCTCGTTGGGATCATCCTCCTCAGGGCAACCCCACCCCTGCCTCATTCCT
GCTTACCCCACCGCCTGGCCGCATTTGAGACGGGTACGTTGAGGCTGAGCAGATGTCAGTTACCCTTGCCCATAA
TCCCATGTCCCCCACTGACCCAACTCTGACTGCCCAGATTGGTGACAAGGACTACATTGTCCTGGCATGTGGGGA
AGGGGCCAGAATGGGCTGACTAGAGGTGTCAGTCAGCCCTGGATGTGGTGGAGAGGGCAGGACTCAGCCTGGAGG
CCCATATTTCAGGCCTAACTCAGCCCACCCCACATCAGGGACAGCAGTCCTGCCAGCACCATCACAACAGTCACC
TCCCTTCATATATGACACCCCAAAATGGAAGACAAATCATGTCAGGGAGCTATATGCCAGGGCTACCTCCCAGGG
CTCAGTCGGCAGGTGCCAGAACATTCCCTGGGAAGGCCCCAGGAAAACCCAGGACCGAGCCACCGCCCTCAGCCT
GTCACCTTGTGTCCAAAATTGGTGGGTTCTTGGTCTCACTGACTTCAAGAATGAAGCCGTGGACCCTCACGGTGA
GTGTTACAGTTCTT

FIGURE 4398

ACACCATCCTCTTAGTTGCTCAGACTGAAAACCTAGCAGCCATCCTGGATTTCTCTCACACTGCCTATTCAACGT
GTGAATGCATGAGTGGAAAGCTGAGTTCGCACTCGTGACTGGCCGGGGTCAACTCTGACATTCGCTCCCACTTTC
GCGCGCTGATTTATCTCTGAGCGG**ATG**AAGGTTGGGCCATGGCGGGCGGGGCCGGGGAGGCGGGCTTGGAGTGAG
GGGGCGGGGCAGGCGCCACGAAAACGCGCTCGCGCCGGCGCCGAACCGCAACTCCCGGCGGCCCCCGCGCTCCCG
GGTGGCAAGATGGTGGCGCGCAGGAGGAAGTGCGCCGCGCGGGACCCGGAGGACCGTATCCCCAGCCCACTGGGC
TACGCAGCTATTCCAATCAAGTTCTCTGAAAAGCAACAGGCTTCTCACTACCTCTATGTGAGAGCACACGGCGTT
CGACAAGGCACCAAGTCCACCTGGCCTCAGAAGAGGACTCTTTTTGTCCTCAATGTGCCCCCATACTGCACAGAG
GAGAGCCTGTCCCGCCTCCTGTCCACCTGTGGCCTCGTCCAGTCTGTAGAGTTGCAGGAGAAGCCGGACCTGGCT
GAGAGCCCAAAGGAGTCAAGGTCGAAGTTTTTTCATCCCAAGCCAGTTCCGGGTTTCCAGGTAGCCTATGTGGTG
TTCCAGAAGCCAAGTGGGGTGTCAGCGGCCTTGGCCCTGAAGGGCCCCCTGCTGGTGTCCACAGAGAGCCACCCT
GTGAAGAGTGGCATTCACAAGTGGATCAGTGACTACGCAGACTCTGTGCCCGACCCTGAGGCCCTGAGGGTGGAA
GTGGACACGTTCATGGAGGCATATGACCAGAAGATCGCTGAGGAAGAAGCTAAGGCCAAGGAGGAGGAGGGGGTC
CCTGACGAGGAGGGCTGGGTGAAGGTGACCCGCCGGGGCCGGCGGCCTGTGCTCCCCCGGACTGAGGCAGCCAGC
TTGCGGGTGCTGGAGAGGGAGAGACGGAAGCGCAGCCGAAAAGAGCTGCTCAACTTCTACGCCTGGCAGCATCGA
GAGAGCAAGATGGAGCATCTAGCGCAGCTGCGCAAGAAGTTCGAGGAGGACAAGCAGAGGATCGAGCTGCTGCGG
GCCCAGCGCAAATTCCGACCGTAC**TGA**GCTGTGAGAGCCGCAGTGAATGGCTGGAGGTGCAGGGCCAGGAGGAGG
CGAGGCAGGGCCTGCAGCGGTCTCTGAGAGGCCGAGCTCTGGCCAACGGGCCCCAGGTTGAAGGCCACCGCGTCC
AACAGCCCCATCAGAGTCCACACAGGCCAGGAGGGAAGGACCAGGCCACCCCTCGGGTCTTGTGCTTCAGCAGTC
CTGGGGACCCAGGCGTGCCGAGAGGAGGACTTGTCCTTCCTGCTTCTTGCCTCCACACCCTCCTCTCCAGGACCC
TGGATGAATCCGTTCTGTGCTTCCTTTTCCCTCAATGCAAAAGCCCTTGCTGGCAACGAAAAAGCCTCAAAAGCA
GTGAGAATACAAGAACCTTTTATTTTCCATCCAGTTGGGCAGCAGGGAAAGGCTAGGTGGGCCCAGCCCGCCCTT
CCTTCCTCCAGCTGGCTGGAGATTATTAGCCAGGAGACAGCAGCCCTGGAACCCAGACTCTGTCTCCCCCTTGAG
GTCACAGATGTTGAAGTTGGAATCTCGCTCCTTCCCCTGACTACCATCCTAGGCTGGGCCTCAAGACTAGTGAGG
CCTGTCCCCACCATCCCTGGCCTTGTTGTGGGGCTCAGGAACTCAGAGTCCCAGTGTTGAGTCTGGGAGCACTAG
GTCTTCATAGTTCCAGGCCCAGAGCTACAGCTGGGCTGGGAGCGTGTGTGTGCACTGTAAGAAGGAGCTGATGAT
ACTGGCCACGTGCTGGGGTTCGCTCATGTGGACACAGTGATTGCCTGGGACTTCCACAAACTGGAACCGCTCTTT
GAGGGTGGATTTCATTGTGTCTATCATGAACGACAGGGACTCCTTGTCAGAGTAATTCTCTCTTGGATCAAAATA
TCCGTGGACTGCTTTGATCAACAGGACATGGGCCTGCAGCTTCCTGATGGAATGCGCACACAGCTCCCTGCTGAC
GAAGTCAATGCTGTTCTCTGCC

FIGURE 4399

ATGAGTGAGAACGCCGCACCAGGTCTGATCTCAGAGCTGAAGCTGGCTGTGCCCTGGGGCCACATCGCAGCCAAA
GCCTGGGGCTCCCTGCAGGGCCCTCCAGTTCTCTGCCTGCACGGCTGGCTGGACAATGCCAGCTCCTTCGACAGA
CTCATCCCTCTTCTCCCGCAAGACTTTTATTACGTTGCCATGGATTTCGGAGGTCATGGGCTCTCGTCCCATTAC
AGCCCAGGTGTCCCATATTACCTCCAGACTTTTGTGAGTGAGATCCGAAGAGTTGTGGCAGCCTTGAAATGGAAT
CGATTCTCCATTCTGGGCCACAGCTTCGGTGGCGTCGTGGGCGGAATGTTTTTCTGTACCTTCCCCGAGATGGTG
GATAAACTTATCTTGCTGGACACGCCGCTCTTTCTCCTGGAATCAGATGAAATGGAGAACTTGCTGACCTACAAG
CGGAGAGCCATAGAGCACGTGCTGCAGGTAGAGGCCTCCCAGGAGCCCTCGCACGTGTTCAGCCTGAAGCAGCTG
CTGCAGAGGTTACTGAAGAGCAATAGCCACTTGAGTGAGGAGTGCGGGGAGCTTCTCCTGCAAAGAGGAACCACG
AAGGTGGCCACAGGTCTGGTTCTGAACAGAGACCAGAGGCTCGCCTGGGCAGAGAACAGCATTGACTTCATCAGC
AGGGAGCTGTGTGCGCATTCCATCAGGAAGCTGCAGGCCCATGTCCTGTTGATCAAAGCAGTCCACGGATATTTT
GATTCAAGACAGAATTACTCTGAGAAGGAGTCCCTGTCGTTCATGATAGACACGATGAAATCCACCCTCAAAGAG
CAGTTCCAGTTTGTGGAAGTCCCAGGCAATCACTGTGTCCACATGAGCGAACCCCAGCACGTGGCCAGTATCATC
AGCTCCTTCTTACAGTGCACACACATGCTCCCAGCCCAGCTG**TAG**

FIGURE 4400A

CGATGAAGTGCAACCTTCACATGAATGGGAATGTTATCACCTCAGACCAGCCCATCCTGCTGTGAGTTCCAAAGG
CGGGGTGCTGGGGAGAGGCAGCTCCGTCCATCTCTTTTTGTTCTAATGGGTAAACTGCCTGCATCACAGCTCCCC
TTCATCCCCCCATTCCGTTTCCTCTGTTCTAATGGCAGCTGGCCGTTTCATATGCTTAAACTTGACCAAAATGGT
TTGCTTTGTTATTTCCCCAGGGCTTGACCCTATAGGGACTAGCATTATGATCTCGTTCTCAGCTTTCTGATTTAG
AAATATCTGAGTGGAAGTTGGAGGGGGAGGCTGCTTGGGTCTCCTAGCTGTGTGCATCATCCCGGGAACAGAGAA
CTCCACTGCATGATTGGCTCTGATGGAGACAGTGCCAGATGCTACCCCTTATTTTGTTCCCCAGTGAGGTTTTTT
GTTTGTTTGTTTGTTTGTTTGTTTTTTGCTTTTTCAGTTATTTTGAGAGTCTCACTGTGTTGCCCAGGTTGGTTT
CAAACTCCTGGGGTCAAGCAACCCTCTCCCCTCAGCCTCCTGAGGACCTGGGACTATAGGCGCACACCATCACGC
CCAGCTGGATTTGGCTTTTAAGTACAGTGGGAAGCCATTGAAGGCTTTTGTTGCACACAGCTGAGTATACATGCC
TGGCCCAGGACTGAGGGATGTTTTGAAGCCTGAGATGCATAAAATGTTGAGACTGTGAGGACTTCACCTTCTAGA
TAAGGAAGCAGATACCAGGGAGGAGGTTAGACTTGCCAGGGTGAGTGGGATAGTGTGGGGCAGGGCTGAAATAGA
CTTTGAGATTTAAAAAGACTAGGATTTGAACCCTGGGTAATGAATTATGTGATTTGGATAAGTTCTTAAACTGTG
TTCAAGGAATAAGAAATATTTCTTAGGGTTTTGTAACCTAATAAGTTTGGGAACTACTGGGCTAAACAGAGTTAC
ATCTGTTTCACTTTCGGGCTTCTCAGATTGTGTAATATGCTAATGGATGTTACCATCCAGAAGGAACATGCAGTG
TTTCCTAAACTTAAAACCACAATTAGCCAGGTGTGGTGGCATGCACCTATAGTCCCAGTTACTTGGGGGGCCGAG
GTGGGAGGATCGCTTGAGCCTGGAAGATCGAGACTAGTGAGCCATCATCATGCCACTGCACTTCAGCCTGGGTGA
CAGAGTGAGATTCTGTCTCAAAAAAACCCCACAAAACCCTAGAACATACAGCACTGCCTGCGTCTCCATTTTCTC
ATCAGTAAATAAGAAAAACACAGCCTGGGCCACATAGCAAGACCTGGTCTCTACAAAAAATTTTAAAAATGAGCC
AGGCATGGTGGTACACGCCTGTAGTCCTAGCTCCTTAGGAGGCTGTGGCAGGAGAACTGCTTGAGCCTAGGAGAT
GGAGGCTGATGTGAGCTGTGATTGAGTTTGCTGCGAGGTGGAATGAGATGAAGGGGTATGGAAAGTGTTACACCC
AGTGCCTAGCTCATGACAGATGCCCAGTAAATGGTGGGTCCCCTCCCCATCTAAGGAAAAACTGACAAGAATTTT
TGACTCTTCTCTGCTCTCCACAGGCGGCTGAGTGACAGCCCATCAATGAAAAAGGAGAGCGAGCTGCCTCGCAGG
GTGAACTCTGCCTCCTCCTCCAACCCCCCTGCCGAAGTGGACCCTGACACCATCCTGAAGGCACTCTTCAAGTCC
TCAGGGGCCTCTGTGACCACGCAGCCCACAGAATTCAAAATCAAGCTTTGAGCAGGGGAGTGAGGCAGCCAGAAG
TGGGGGCAGAGGAGGGTGGCTCTGTTTCCCCAAGGCAAAGCTTATGACCAATGGGCCATCGGACTGGAGACCCCT
GATTGTGGGAAGGGTTGCCAGGGATAAAGAGCTTCCTCACTGGATGGGACCCGCCTTTCTGTGTTGTGTTCTGCC
CTGTGCTCTTCTCTCTACGTTAACGTTTCCTGTAGTATGTTTCTTCATCTCATCGCCAAGGTAGGCTTGTGTTTT
TCAGTGTGTGCCTCCCCGAGCCTCAGCCCCAAGCTGATTTCTTATCTGGAAATGGTACACTGAATTCTCTGGGTG
GCTTTCTTGTGGCCCCATGGGATGCAGCGTGGGGGCTGTCTGAAGGACCCTGCTTTTTCCAGGGGCCGAGGGGCT
GCCTTTCCTTTGTGTGTATTAAGCTTTTCAAACAATGGAGGGGATGGAGAGCCCTGGTGTCCTGACGGGAGCCAG
GTCGGCCTGAGAGCTGTGCCGCTCCTCTGTCTTGTCAGTGGAGGTGCCTGGGTGGGGAGCAGGTCTCAGGCCTCT
TGTCCTCTCCCCAGTGGCTCCAGGCCTCACTAGTGGCAAGGGCAGGATGAGGCTGCACCGCTGGGAAGAGTCTAT
CTAAGCTCTTGGCTTGGAGTCCCGTGTCGTCTCCACCCAGAGGAAGTTCTCCAGAGTTCACCTTTCCCTTTTCCT
TGAGTTGTGCTGA**ATG**CCCCACCCCAGCTCTCTTTCCCTTCTGGGTGTCTTTGCTGGGAGGGGGCTGTGTTGTGA
GCCCTCCCGGTTCTCACCTCGCCTGGCACTTAACCACACCCTGGTTTTGTGTAGCCGCCAGCTCTCTTCTGGTTG
GGCCTTTGAAAGGCTCAGCCTCCCATTGTGCAGTGCTTGGGTTTGGAGCTTATTTGAATGGAAGAGGTCAGTTTG
TTCCTGGCTCTCCATTTCTGGCCTCAGTTGTCTACAGGACAGTGGTCAGGGATGCCTGGAGGCATATATCCAGCT
GCCACCAAGGGGCACTGTTTGTTCCCACTTATGTGAG**TGA**CCCCATCCATCCATGACCAGAGGATTATTTTCCTG
CCTTGGCAGAGGAGGAGGAGTCAAGGGAGCAGGGCAGCTCTACCAGGCAAGGTGTTTCCCCAGCATAGGCGCAGA
CAGTTGGGACGAAACTTCAGAGCCCAGGCAGTCCCTGAATGACCAGGCCAGTGTTGTCACTGAGTGGTCCCCTGC
TGGTTGGGAGTGAAGAGAATCCAGGCTGGCAGAGCTGGAGCCAGTTGGGGAGCACGGTTCTGGGAGCTCTGCAAA
ATCAGTAGCAAGTGCTGGAAAAGGCACATGCCGAAGATACTCAAGAGCTCCCAAGATTTGCTTGAGGCTAGCCCA
GTGAAAAAAACCAGAGACTCATGTTTCCAGGGGTCAGTCTGTCAGGCAGGAAGGACCCAGGATTTGAACCCAGCT
TCAGTGTGCAGGCTCTGAGGCTGCCCAGGACGGGAAAGTCCAAGGAAGGGGCCTGGTGGTGCTCCACTTGCAGTT
CTTTAAAGAATGCTGCTTTTTATTCTCCTAACCCTTTCAAGTGGGTGCAGACTTCTCGTTAGCAGCTGGAAGACA
TTCCTCCCACACTTTTCCCTTCCTGGCCCAAGAGAGCATCCAGAAGGCAGTAGGACCTGGTTTTTCAGGTACTGG
GAGCCGGGGGCTCACTGCTTGCACTGTGCTTAGGGTAGGGATGGTAAATATCCTCCCTGCATGGCTTTATCCTCC
CTCTCATCCCAAAGCAGGTATCTTCTGGTTGTCACAGAGTTTCATTGAGTCCAGCTGCAGCCACGTGGCCATCTG

FIGURE 4400B

GAGCTGGTGCTATAGGTGACCATCTGGTACATTGAGGGGACCTGTTTGCCTCCTCCACTCTATAAGCAGTCATCT
TGGGAGACCGGGAGGAGAAGGTGGTGGGCTAGTCCTGTGTCCTCCTCCACTTCCCATGCCTCTATGTTACCCATC
TGTGTCTCCTGTGCAGAAGGAGAGGAAGGGGCATTAAGAGATGAAGGGTGATTATGTATTACTTATCCATTTCTG
AATAAACATTTGTTATTCCTACCTTTGAGTTATCTTTTTTTTTTTTTTTTTTTTTTTTTGAGACAAAGTCTCAC
TCTGTTGCCAAGGCTGGAGTGCAGTGGCACTATCTCAGCTCACTGCAACCTCCGCAGCCAGACTCAAGTAATCCT
CCCACCTCAGCCTCCCAATTAGCTGGGACTGCAGGCGTGCATCACCATGTCTGGCTAATTTTTGTAGAGATGAGG
TTTCACCATGTTGCACAAGCTGGTCTTGAAATCCTGACCTCAGGTGGTCTGCCTGCCTCGGCCTCCCAAAGTTGG
AATTAACAGGCGTGAGCCACCACGCCCAGCCAAGGGTTTTAATCTTGCAGGGATTTCAACATTTGGGGTGGAACT
TAATTATTTAAAAAATAGAGACAGATTCTTGCTATGATACCCAGGATGGTCTTGAACTCCTGGGCACAAGTGATC
CTCCTGCTTCAGCCTCTCAAAGTGTTGGAGTTACAGGCATGAGCCACTGCTCCCCACCAGGGATGCAAATTACTT
GATACTCCTCTCCAGAAGGTGGGGTCCTGTGCCCCTCCTGAACCCAAGTGTGCTCTGTTACTACTTTGACCAGAT
GTGACTCTGCCATTTCTGTGCCTAGGCTTTTAAAGATGGTCACTTCTCCATTTCCTGTGCCTGGAACATTCTCTG
GGAGCCTTGACACCACATTTGAAGTTGCCTATTGGGGCCAGCATGGTGGCTCACGCCTGTAATCCCAGCACTTCA
GAAGGCCGAGGCAGGCAGATCGCATGAAATCAGGAGTTTGAGACCAGCCTAACCAACGTGGTAAAACCCTGTCTC
TACTAAAAATTACAAAAATTAGAGGGGCGCGGTGGTGGGCGCTTGTAATCCCAGCTATTCAGGAGGCTGAGGCAG
GAGAATCACTTGAACCCGGGAGGCGGAGTTTGCAGTGAGGTGAAATCACGCCACTGCACTCCAGCCTGTGCAACA
GAGCGAGGCTCTGTCTCAAAAGAAAAAAAATAGTTGACTGTCGGTTTGGCATGGTGGCTCATGCCTCTTGTCCCA
GCACTTTGGGATGCTGAGGCAGGAAGATTACTGGAGCTCAGGAGTTCGAGACCAGCTTGGGCAATATAGTGAAGC
CCTATCTTTACAAAAAACGAAAAATTAGCTCAGCTACTCAGGAGCCTGAAATGGAGGATCATTTGTGCCCAGGAG
GCAGAGGTCGCAGTGAGCTGTGATCATGCCACTATACTCCATCCTGGGCAACACAGTGAGACGGCAGAAAAAAAA
AAATAGTTGACTATTGAGTCTCATATCTGATTGCCCACCTGACATCTCCCCTGAGTGGCCTAATGGGCATCTCAC
CACGGCCCACAGAGAACTGATCTACTCGATTTTCCCTAAGCTGGCCCCTCTCCTGCAGTCTACCCATGTCAGTCA
ATGGCAACACCATCCTCTTAGTTGCTCAGACTGAAAAGCTAGCAGCCATCCTGGATTTCTCTCACACTGCCTATT
CAACGTGTGAATGCATGAGTGGAAAGCTGAGTTCGCACTCGTGACTGGCCGGGGTCGACTCTGACATTCACTCCC
ACTTTGGCGCGCTGATTTGCCTCTGAGCGGATGAAGGTTGAGCCATGGCGGGCGGGGCCGGGGAGGCGGGCTTGG
AGCGAGGGGGCGGGGCAGGCGCCACAAAAACGCGCTCGCGCCGGCGCCGAACCGCAACTCCCGGCGACCCCCGCG
CTCCCGGGTGGCAAGATGGTGGCGCGCAGGACGAAGCTCGCGGCGCGGGACCCGGAGGACGGTATCCCGAGCCCA
CCGTGCTACGCAGGTGAGGGGATCCGGAACGCGAGACCGGGGGCGGCCAGCATCGCCGGGAGGTGTTTGGGGGCT
GGCGGCGGCCGGGGGTCCCCAGGAGCGGCCGC

FIGURE 4401

CGCGACGGTCTCGGCGGCGGCGGCGGCGGCGACAGAGCGAGCGCGGCGCGGGGCCACC**ATG**GGGGCCCAGCTCAG
CACGTTGGGCCATATGGTGCTCTTCCCAGTCTGGTTCCTGTACAGTCTGCTCATGAAGCTGTTCCAGCGCTCCAC
GCCAGCCATCACCCTCGAGAGCCCGGACATCAAGTACCCGCTGCGGCTCATCGACCGGGAGATCATCAGCCATGA
CACCCGGCGCTTCCGCTTTGCCCTGCCGTCACCCCAGCACATCCTGGGCCTCCCTGTCGGCCAGCACATCTACCT
CTCGGCTCGAATTGATGGAAACCTGGTCGTCCGGCCCTATACACCCATCTCCAGCGATGATGACAAGGGCTTCGT
GGACCTGGTCATCAAGGTTTACTTCAAGGACACCCATCCCAAGTTTCCCGCTGGAGGGAAGATGTCTCAGTACCT
GGAGAGCATGCAGATTGGAGACACCATTGAGTTCCGGGGCCCCAGTGGGCTGCTGGTCTACCAGGGCAAAGGGAA
GTTCGCCATCCGACCTGACAAAAAGTCCAACCCTATCATCAGGACAGTGAAGTCTGTGGGCATGATCGCGGGAGG
GACAGGCATCACCCCGATGCTGCAGGTGATCCGCGCCATCATGAAGGACCCTGATGACCACACTGTGTGCCACCT
GCTCTTTGCCAACCAGACCGAGAAGGACATCCTGCTGCGACCTGAGCTGGAGGAACTCAGGAACAAACATTCTGC
ACGCTTCAAGCTCTGGTACACGCTGGACAGAGCCCCTGAAGCCTGGGACTACGGCCAGGGCTTCGTGAATGAGGA
GATGATCCGGGACCACCTTCCACCCCCAGAGGAGGAGCCGCTGGTGCTGATGTGTGGCCCCCCACCCATGATCCA
GTACGCCTGCCTTCCCAACCTGGACCACGTGGGCCACCCCACGGAGCGCTGCTTCGTCTTC**TGA**GGGCCGGGCAC
GGTCACACGGCCACCCGCCCCGCGCACCCCACGCCCTGTTCACGCTCACCCAGTCACCTCCCCACATCGCACACT
GGGGCCCCGGGTTCAGCCTGGCCTGCCCGTGCCCTGGTGAATCACCTGGCTGAGCAGTTCCCCTGGAGCCCCTTC
GGGAGCAGGGCTGTGTCCCAGATGGGCCACGGCTGAGCCTTCAGAGTACGTCCTGCCTGGCACTTACTGGTCCTT
ACCAGAGACGCCCAGCCCCATCCCTGTCCTCATGACCCCTCGTCCACCCCCCACACACACTATAAGGCTGAGGGC
TGCCAGCAGCCCCGTCTGCCCACCATTCCCGGCCGTGGACCATAGTCGGGATGTCAGCAGACACACATGGGCAGC
CCAAAGCTGCAGGTGCCAGGGCCCACCCCAGCCTCGCCTGTCACCCCCACTCCCGCCTCAGGGCCAGGCCCAGGC
CTCACCACCTGACGCTGCATGAGACATTGACACCAGAAAGCCCTCTTGGGGGCACTGCTCCCTACCCCAGGGCCC
TGGCCAGCCGGGAGCTTGGCTCTCCTCTGGCTAGAGTGGGAAGAGGGGGCTGGCCATGGGGCCCTCCCAGAACCT
CAGCATTTCCTTCCAGCCCATCCAAACACTGAGGCAGCCTTGGGGAACCCCGAGCTGGGGGGTTGGCAGCCCACT
GCACCGCCTCAGGGTTTTGGGGTCCTGGGCTGGGGCCACCATCCCTGATGGCAGAACTCCCACAACCACATGTAT
TTATTCCTCTGTCCTAAACCGTCCCCTCCTTCCCTCACCCCCAGCACAGGGGGATTCTGAGCAGTGCCTCTTGTC
TGAGGGACATATCAGTGACCTCGACGTTGCCTTTAGACTACAGTTGTGTTAGCCTCTTGCGTATTGGCTTTTTCA
GAGTCATTTATGAGCAGAAAAAAAAAAAGTAAAACTTTGCTAATATT

FIGURE 4402

ATGCCTTCAAAGGAAAAGCAAGGGACACTCACCTTGCAAAACCATCAAAACTATTCCCACAGACGCCACATGAGC
CCCCATTTATCTGACTTAAAAGAAGCAGGGTCTGCTGGGATTCGAATCCTCTGGTTCCAGAGAGAGAAGCTCTTT
CAAAGACTGGATTCTGGCCCACAAAAGAAGGTTCCTGCTTACTGGAATCAAGAGGTCAAAGATTTTTCTGAATCA
TGCATCCACGGAGAAGAGCCCATTAGGGCTATTCCAGCAGACAGCAGTAAGGATGTCCATGAGCTTTATGTTGTT
GTTGGGAGCTGGGATTCTACTCTTCCAGAAGAATATGACCTCAAAAGGAGCCACCACAGAACGAGCTCGGCACCC
ATCTACGAATGTATTGCTAAGGATCATTGGGGATGGGGTGACCCAGAAGTGAACTGGCTCCATGATCCATTAAAC
AATCACCCTGAAATCCACAGTGCCAGTCAACTAATGGGGCTTGGAGCCATCATTAGGTCACTGGAAAATGATATC
TTCCTGGAGGTTGATACTGGCTTCACCATCCTGAGAGCAGAAGGCTTGAGGGAGGAACAGCCTCCTGGGCATGGA
GGCACCTGCCATCCCACATCAAATCACAGAGCCATGCTTAAAAGGGCCAGGTGGATGACTTATGTGGAAGAAGTG
AGCCGGGTGAGGATTTCTACTTCGAGAAACCTTGCTCGAAGCGCTTTCATCATTCTCTCCTACACAACAAACCCT
GAACTCTTAGAAGCAGCTCTTGGCACAGGAGCCTCCAACCCGTTTTTCAGCCGGCTTTCTCTACTTGTTTCTCAT
TCCATGATCACAGAAAACAGCTCCATTAAGACTCTTTTCAGGTCTACCAAAGAGCTAGTGATTGCACTCAATCGA
TGTTTCTTCGGCATTACTCAAAGTGCAGCTACACTCAGCCCACAGCTTCACATCAGATTTATCAGCAGAGAACAA
AAGAAGTACTTGAAATTGCCACTTACAACGTTTATGAGTAAACTGGAATCCAAAGTCTGGCCTCTAGCCAAGCGG
TTACGCCAGTGGCCTGACTCATATACAAAGAAGTTTGAGCACAGAATCTACCCCATCACATTTTCTGTTGGAAAC
CCTCAGGAGTGGAAGAAATTGTTCAAACCCTGTGCTGCCCAGAGACTCTTTCTTCCGATCAACCTGGAGCTCTAC
GCCTCCTACGTTTACCTGTCCATGTCTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAACTTTGCCAAATAC
TTTCTTCACCAATCTCATGAGGAGAGGGAACATGCCGAGAAACTGATGACGTTGCAGAACCAACGAGGTGGCCGA
ATCTTCCTTCAGGATATCAAGAAACCAGACTGTGACGACTGGGAGAGCGGGCTGAATGCGATGGATGACAAAAAT
GACCCCCATTTGTGTGACTTCATTGAGACACATTACCTGAATGAGCAGGTGAAAGCCATCAAAGAATTGGGTGGC
CACGTGACCAACTTGTGCAAGATGGGAGCACCCGAATCTGGCTCGGCAGAATATCTCTTTGACAAGCACACGCTG
GGAGACAGTGATAACGAAAGC**TAA**

FIGURE 4403

ATGCTGACCCCGGCGTTCGACCTCAGCCAGGATCCGGACTTCCTGACTATCGCCATCCGCGTGCCCTACGCCCGG
GTCTCCGAGTTCGACGTCTACTTCGAGGGGTCTGACTTCAAGTTCTACGCCAAGCCATACTTTCTCAGGCGAGTT
CGGGGAATTTTTACCATTCGCCTGCCCAAAGAAACCCCTGGCCAGCATTTTGAGGGGCTGAACATGTTAACTGCT
CTTCTGGCACCAAGAAAATCCAGGACAGCAAAACCACTTGTGGAAGAAATAGGTGCTTCTGAGATTCCTGAGGAA
GTAGTTGACGATGAAGAGTTTGATTGGGAAATTGAGCAGACACCCTGTGAAGAGGTATCAGAAAGTGCTTTGAAT
CCGCAGTGCCACTATGGATTTGGAAACTTACGATCAGGAGTGTTGCAACGGTTACAGCTGCTGTTTATGGCAGCC
GTAACAAGTGGTTCAAAACTGAGTGATCATGATGAACTGAGTGATGTTATTGATATTAAGGATCCAGATTTCACC
CCTGCAGCTGAACGAAGACAGAAGCGCCTGGCCGCTGAGCTGGCCAAGTTTGATCCTGATCATTATCTAGCTGAC
TTTTTTGAAGATGAGGCGATTGAACAGATTTTGAAGTATAATCCTTGGTGGACTGACAAATATTCAAAAATGATG
GCCTTTTTGGAAAAGAGTCAGGAACAAGAAAATCATGCTACATTAGCGTGGGCTGTTGTCTGTTTAACACCTCCT
CATCAGGTGTCGCCAGGCAGATACAACAGTGCAGTGCCTCCCTATTCTGTGATCTTAAAAGTGTACACCCTTGCC
ACAACCATAGCATTTGCTCAGTACTCTCAACATAAACCAAGCTTAGATCGCAATGAAACTGCGGACCTGCAGGCT
GCCTTGCTTCAC**TGA**

FIGURE 4404

ATGATCTTTAATTTTGCCCTGAATACCTTGGTTGCAATCACTGTGCTTGTTTATCCAAACGGCATTCAGGAATAC
ATACGACAACTGCCTCCGAATTTTCCCTACAGAGATGATGTCATGAGGCCTGGAGAACCCAGGAGTTTCCAAGCT
GTGCTGCCACCCGAGCTCTGGATCCACCTGGCTGTGGTGGCCTGTGGCAATCGGCTGGAGGAGACGCTGGTCATG
CTCAAATCAGCTGTGCTTTTTAGCCACAGGAAGATCCAATTCCACATCTTCACTGAAGACTCTCTGAAGCCCGAG
TTTGATAAGCAGTTACGCCAGTGGCCTGACTCATATACAAAGAAGTTTGAGCACAGAATCTACCCCATCACATTT
TCTGTTGGAAACCCTCAGGAGTGGAAGAAATTGTTCAAACCCTGTGCTGCCCAGAGACTCTTTCTTCCGATCAAC
CTGGAGCTCTACGCCTCCTACGTTTACCTGTCCATGTCTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAAC
TTTGCCAAATACTTTCTTCACCAATCTCATGAGGAGAGGGAACATGCCGAGAAACTGATGACGTTGCAGAACCAA
CGAGGTGGCCGAATCTTCCTTCAGGATATCAAGAAACCAGACTGTGACGACTGGGAGAGCGGGCTGAATGCGATG
GATGACAAAAATGACCCCCATTTGTGTGACTTCATTGAGACACATTACCTGAATGAGCAGGTGAAAGCCATCAAA
GAATTGGGTGGCCACGTGACCAACTTGTGCAAGATGGGAGCACCCGAATCTGGCTCGGCAGAATATCTCTTTGAC
AAGCACACGCTGGGAGACAGTGATAACGAAAGC**TAA**

FIGURE 4405

ATGGAGTTGATGCGTTGGTCCACACTTGTGGAGGACTATGGAATGGAATTAAGAAAAGGTTCCGTTGGCAGTCCT
GCAACTGATGCTTTTGGTTCTACAGAGGAAGGCGAAAAAAAGGTGGAAAGATTTGAATAACAGAGTTGTTGAACAT
AATATTAGAATAATGGCCAAGTATTATACTCGGATGACAATGAAAAGGATGGTACAGCTTCTGGATCTATCTGTT
GATGAGTCCGAAGCCTTTCTCTCAAATCTAGTAGTTAACAAGACCATATTTGCTAAAGTAGACAGATTAGCAGGA
ATTAACAACTTCCAGAGACCCAAGGATCCAAATAATTTA**TGA**

FIGURE 4406

ATGGAGTTGATGCGTTGGTCCACACTTGTGGAGGACTATGGAATGGAATTAAGAAAAGGTTCCGTTGGCAGTCCT
GCAACTGATGCTTTTGGTTCTACAGAGGAAGGCGAAAAAAGGTGGAAAGATTTGAATAACAGAGTTGTTGAACAT
AATATTAGAATAATGGCCAAGTATTATACTCGGATGACAATGAAAAGGATGGTACAGCTTCTGGATCTATCTGTT
GATGAGTCCGAAGCCTTTCTCTCAAATCTAGTAGTTAACAAGACCATATTTGCTAAAGTAGACAGATTAGCAGGA
ATTAACAACTTCCAGAGACCCAAGGATCCAAATAATTTA**TGA**

FIGURE 4407

GTCCCTCACACCGAGAGTTCCTGCGCGTGGGGAGTTGGAGAGTTTGCGTGGCGGGAACGCGGCGGCAGTGAGAGC
GAGCGGCGCCGGCCCTTGCGTCCGGTGCGGCG**ATG**CTGACCCCGGCGTTCGACCTCAGCCAGGATCCGGACTTCC
TGACTATCGCCATCCGCGTGCCCTACGCCCGGGTCTCCGAGTTCGACGTCTACTTCGAGGGGTCTGACTTCAAGT
TCTACGCCAAGCCATACTTTCTCAGATTAACCCTTCCTGGAAGAATTGTAGAAAATGGAAGTGAGCAAGGGTCCT
ATGATGCAGATAAAGGAATTTTTACCATTCGCCTGCCCAAAGAAACCCCTGGCCAGCATTTTGAGGGGCTGAACA
TGTTAACTGCTCTTCTGGCACCAAGAAAATCCAGGACAGCAAAACCACTTGTGGAAGAAATAGGTGCTTCTGAGA
TTCCTGAGGAAGTAGTTGACGATGAAGAGTTTGATTGGGAAATTGAGCAGACACCCTGTGAAGAGGTATCAGAAA
GTGCTTTGAATCCGCAGTGCCACTATGGATTTGGAAACTTACGATCAGGAGTGTTGCAACGGTTACAGGATGAAC
TGAGTGATGTTATTGATATTAAGGATCCAGATTTCACCCCTGCAGCTGAACGAAGACAGAAGCGCCTGGCCGCTG
AGCTGGCCAAGTTTGATCCTGATCATTATCTAGCTGACTTTTTTGAAGATGAGGCGATTGAACAGATTTTGAAGT
ATAATCCTTGGTGGACTGACAAATATTCAAAAATGATGGCCTTTTTGGAAAAGAGTCAGGAACAAGAAAATCATG
CTACATTAGTGTCTTTTTCTGAAGAAGAGAAGTATCAGCTACGAAAATTTGTCAATAAATCTTATCTGCTGGACA
AGAGAGCCTGTCGTCAAGTGTGCTACAGTTTGATTGATATCCTTCTGGCATATTGCTATGAAACCCGTGTCACTG
AAGGAGAGAAGAATGTTGAATCTGCATGGAATATCAGGAAACTGAGTCCAACACTATGCTGGTTTGAGACTTGGA
CTAACGTTCATGATATCATGGTGTCTTTTGGAAGAAGGGTGTTGTGTTACCCACTCTATCGCCATTTCAAGCTGG
TGATGAAGGCCTACAGGGACACTATAAAGATATTGCAACTGGGTAAAAGTGCAGTTTTAAAGTGTCTCCTGGATA
TTCACAAAATTTTTCAGGAAAATGACCCAGCGTACATACTGAATGATCTCTACATCTCAGACTACTGTGTGTGGA
TTCAGAAAGTCAAATCCAAAAAGTTGGCAGCTCTTGCAGAAGCCTTAAAGGAAGTCTCCCTTACAAAGGCCCAGC
TGGGGTTAGAACTGGAAGAACTAGAAGCAGCAGCACTGCTTGTCCAGGAGGAAGAAACTGCATTAAAAGCAGCCC
ATTCAGTTTCTGGGCAGCAGACACTTTGCTCCAGCTCTGAGGCAAGTGATTCGGAGGACTCAGACAGCAGCGTGT
CATCTGGAAACGAAGACTCAGGCTCAGATTCAGAACAAGATGAACTCAAAGATAGTCCATCTGAGACAGTCAGTT
CTTTGCAAGGTCCCTTTCTTGAAGAAAGCAGTGCCTTTCTTATTGTTGATGGTGGAGTACGCAGAAACACAGCCA
TCCAGGAGTCTGATGCCAGTCAGGGAAAGCCACTTGCCTCTTCCTGGCCTCTTGGAGTGTCTGGGCCTCTGATAG
AGGAGCTTGGGGAACAACTGAAGACTACAGTTCAGGTTTCTGAACCCAAGGGCACCACTGCTGTAAACCGCAGCA
ATATTCAGGAGAGAGACGGCTGTCAGACACCAAATAAT**TGA**CTCTTAGGTGGTTTTATTCATTGTTGAGAAATAT
GGTAGATTGGGTTTCATTTACCGAATGAGAATTCTTCATTTTCACTTTGTAATTTTTCTTAGTATATAGTCAGCC
CACTGTATTTGTGTGTTCCACATCTGTGGATTCAACCAACTGCAGATCAAAAATATTGAAGAAAAAATCGCATCT
GTACCAAACATGTACAGACTTTTTTCTTGTTATTATTCTCTAAATAATACAGTATGACAACTATTTCCACAGCAT
TTACATTGTATTGGGTAATATAAGTAATCTAGTGATGATTTAAACTGTGCAGGAGGATGTGGGTAGGTTATATGC
AAATACTGCACCATTTTTTATCAGGGGCTTGAGCATCTGAGGATTTTAGTATCCTCAGGAGTCCTGGAACCAACC
CCCCACAGATACGGGGACAACTTTATGACATTGTTTTTCAACCAATGAATGTTTATACCTTTTGTTTTCCTTGCC
GCGACTGTGAAGATAAAGTTCAAAAGTATTTTTACCAAAGTGTAGCTAATATTTCAAGCTGAAAATAATAGTTCT
ACTGCCCGTGTCTCCAGAATGTAGAGCCCATCAATATTTTTATTTTAGGAGGTGTACTTGACACCCAATAAACTG
CACGTATCAAAAGTGTACAATGTGTTGGCGTATGTATACCCTGCGTAAAACTATCACCACAACTGAAGTGAGGAA
CGGACCCATCATTCCCAAGTGCCCTTGTGCCCTGTTATTAGTTTGCATGTCCTAGAATTCTATGTAAATTGAATC
ATACAATATGTATCCCTTTTTTGGTCAGGCATATTTTACTCAGTATAGTTATTTTGAGATTCATCCATGTGGTAG
CATGTGTCACGAGTTTTTGTTTTTATGTTTTTCATTGCTGAGTACTGCTTCATTGAATAGATTTGTTCATTGACC
TATCGATGGACACCTGGGTTGTTT

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FIGURE 4408

GTGGCACTCACCCGGCTCGCGCGGCCCCGGCGCCCCACGCGCGCGCGTCGTTCTCCCGCCCGCTCGCTCCCCGGC
GCTCACACCTGAGCTCACTCGCGCACGCCCGCCCGGCCCGAGAACCGCGCCGCCGCCTCGGCCCCGCGGAAGCCC
CGCCGCGCC**ATG**TCTTCGCCTCCCGAAGGGAAACTAGAGACTAAAGCTGGACACCCGCCCGCCGTGAAAGCTGGT
GGAATGCGAATTGTGCAGAAACACCCACATACAGGAGACACCAAAGAAGAGAAAGACAAGGATGACCAGGAATGG
GAAAGCCCCAGTCCACCTAAACCCACTGTGTTCATCTCTGGGGTCATCGCCCGGGGTGACAAAGATTTCCCCCCG
GCGGCTGCGCAGGTGGCTCACCAGAAGCCGCATGCCTCCATGGACAAGCATCCTTCCCCAAGAACCCAGCACATC
CAGCAGCCACGCAAG**TGA**GCCTGGAGTCCACCAGCCTGCCCCATGGCCCCGGCTCTGCTGCACTTGGTATTTCCC
TGACAGAGAGAACCAGCAGTTTCGCCCAAATCCTACTCTGCTGGGAAATCTAAGGCAAAACCAAGTGCTCTGTCC
TTTGCCTTACATTTCCATATTTAAAACTAGAAACAGCTCCAGCCCAAACCTTGTTTATGGGGAGTCTGGTTGGAT
GTCATTTGAGGATCATTGTGCCCCTAGAGGTGCCATTAGCAGAATTTGCCAAGATCCGAGAAAAATTTTAGCTTT
AGTTCTATTTCAGCAGTCACCTGACGTCCTTGTCTATGGTCTTAAAAACAAGAAGGCACACATTTGAGAAGATGA
GATTAAGGTTAGGAGAAAACCTCAGTCATTGCATGCTTTTTAGTATGGGCCAATAAAATCTCAACACCTGTGGGA
GAGTAAGAACTAAGGGAATGAGTTTGGGCGGCCCCTCATAAAGGACCTTAGAGGCAGGGAACAGCAATGCCAAAT
TTCCCTCTCTCGTGAGATGGGGGATCCTGTGCAGGCTGATGAGGCACCCATGAGAAAAGCCGAAAAAGCATGCAT
CTTAGAAATAGCCCCTCAATTCCAGGAGTCAACATGCCAAAGAATGAGGCTGGAGACAGGTAGCTCCGAGGGAGG
ACTTCTGGCATGAGATCTCGGCACGGCAAGCCCAGCATCGCCTCAGCCCAGACAGGCTCCACCAGGAGATCAAGC
AAGGGCTGCCTTTCAGGAGTCACCTCCTGAGCCACTTCAGAGTTCTGGAAGTGACCACGGACCAGGGTGGAGGAA
TAGACTTCTAGTTCATTCTGGGACACTTGAGCCAGAGAGTTGAAAGCTTGGAAAGACCAGATAAGAAACCTGCCC
TTTGTCTCCCTAGGGACATGAGACACCACATTCCATTTGTGCTAGAAAAACCTATCCACTGATGAGTCTAACTGT
TCCAAACGCCTCCCACCTGGTGTGCACAGCTGCCTGGGTCCATTGTCACTTGGGTGCATCAGGTTGTCCTCCGAT
TTTTAGATGAGTTTCCTGTCTAGAGATGTCCTAGTCTGCTCACTGGCTGGTGGCAGTAGGGTACCCTGCGTCCTC
GAAAAGCCAGAGGGTTCACCTAGTCAGACGAAACTCCAGAACAGTGCTTGTGGAGGGCCTGACTGTCCTGCTCAC
CCACAGCCGATCTGCTGCAGGTCAGCAACTGTGTCGTGAGCAGCTGCCAACCACCAGCCTTTCTGGTGCTGTTCT
CCAGTTCACGTCTGCCAGCTGGTGAGGGCAGAGGCAGACCTGGTCAGACCCAGCGCCCCTCCTCCCTGAGGGAGC
ATGGCACAGCCTCACACTTGAAAGACGGTGTTTGGTTTCCCATCTAATCAACTTAAGGGAAGCCGGCATGTACCC
TTCAAGGCCCTGTCACCACCTATTTCCTGATCAGTTGGTATAAACTGAGGGTGGCTTTTAGAGACCCAGACTTGG
TTGGCAGCGCTGCCATGGAACACCCCAGCAAGCACCTCCCAGCCTGCCTTTCGGAGCAGCACCCAGGAGGGGATG
CCGCGCTCCAGCAACACCAGGTCAGGCCTGTGCAGACCCCTGCCCTGCCGCTGCAGAAATCCAGAAGCATCCTTA
ATGCTTCTCAGTCTTCAGCCAGAGGGAGGGCTGTTATTTCCAGAGGTGCGCTTTTTATGTACTTTTAGCTAGATG
TGGCATGCATCTGTGAGCTTTAGATCATTAAATCCAAAATGTTTGCCTAAATGAG

FIGURE 4409

ATGTTGGCCAAAACTGGTGTCCATCACTACGGTGGCAATAATATTGAACTGGGCACAGCATGCGGAAAATATTAC
AGAGTGGGCACACCGGCTATCATTGATCTAGCTTCCGCCTTATTCACCCCTGATGGGAGGCAGAGGTGGAGCCAG
GAGAGCTCTGCTCATGACTGTGCTCCAGGAGGCTCCACCTCCGTGTGCACCCAGAAGGCCCACAGGAGAGATGTT
GTAGCCTGCAAAGCACTACTGCCTGCACGACTGCACGGCCGGCTCCACAGGCTCCTCGGAAACGACAGCAGGAGC
AAAGATGAGGGCTACAGTGCCAGGGGGCTGGCCATTGCCAAGCCTCCCCACGTGGCCTTTCCAGAAGACAGTACC
ATCACTGACCTCACTGTCATTGGCCCCATTCGCCGGCAGCTCTGGACACCAGATGGGCCTGGCGTGGAGCCTCAT
TGCTGGTGGTTAAGCAGTTTAGCTCACTTCTTACCTCAGCATCTT**TGA**

FIGURE 4410

GCAGTGGCACGATCCTGGTTCACTGCACCCTCTGCCTCCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCAAG
TAGCTGGTACTACAGGTGCGTGCCACCACACCTGGCTTATTTTAGTTATTTTAGTAGAGATAGGGTTTCACCATG
TTGGCCAGGCTGGTCTCGGAACTCCTGACTGCAGGTGATCCGTCCTCCTTGGGCTCCCAAAGTGCTGGGATTATA
GGTGTGAGCCCCCACGCCTGGCCAACTTGATTATATTAATTTTGGGTTTTTTGTTTTGTTTTGTTTTGTTTTTTA
ATTTTTCAAAGAATTTGTGGATCTTGGTATAAAGTCATTGGAACATATCTGTTTTAACAGCAAGAGATCCTAGGC
AGATACTTCAAAAGGTTAAAAATTCTTAATCCTACAGAATTTTAAATGAATCTTATCAATGTTTTGTAAACAAAC
AATATGAATGGCCAAAAAATTGCCCTCCATTTTACTGGCAGGTAATTTATATTGTCTTACTTAAGAATTCTCCCC
TAGTTTTTCAATTGTACTTTATCGTGTTGTTTTCAATGAGATAAGTATTTTCATAGGGAAAGCATTTTCCAGCAT
AATATTTGCTTGGGTAGCATCCGGGTTTTAGTATTTAACCAAGAGCCTTTTAAATATTGAAAACCCATAGTTCAG
AAAATGTTAGTATTGCTGCCCTTCTTCACATAAATTTTTTTTTAAATTATACTATTATTTTGCTTAATTTTATAT
TGGGTTAAAACAACCTTCAAGAAGGTTAACTAGGAAAGAAGACCTTTTTGTTTTATTTTTACTATTTATATATAG
AAGACAAATCAGCATTTGGTGATAGTTTTACATGACCAGTTATCAAACGGTCATAGTATGAAGTGTGCAGTTGTT
CATTATTAGTAAATTATGTTTGATTTTTAAACTATTTAGTACTAATAGTTGAGATGAAAACTGAAGAAAAATGCC
AATGTGACGTTTGTGTATAGCTAGCCTTAAAAAACTTCCCATGTTTTTAGGTGACTTTTTTCCCCCTCTTAGTAC
TCTGGAGAAACAATGAAGATGGGCCATCTCAATTCCAGATGTAAACAAAAAGTAATTTTTATTTCAACATTTAAT
GTAACTGCTATTATTGTGGATTCTTGTCTTGTGTATTTTCTTTCCCTTATTCAAGTAATATAGAATAACTTTCCT
TAAAATGATTTGATCCAAGATACGTCATTTCTGTATTGGCAAAATGCCACTATTAAAGTGTAATTCTTGAATTTA
GGTTGAATTGATGACTTTTTAAAACAAAACAAACACTGGACAGTTCTACATTGTATTGCGTTTGCGA**ATG**TGCGT
GAACACACGCACACGTGCAGGAGAATGTAGTGCCATAAGAACACTGGCGCTTTTTAAAACTTTCCAAGCTAGCTA
CTTATTTTCATTTTCAGGGTTGAGTACTCTAAGCTCTCTACTTACTGTGAGAAGTTTTCTACATTGTAAAATTAA
AAGATTATATTTAAAATACTTCTTTAGGATGTTATTCAGCCATCAAAAAAAAACCCAACTAAAATGTCTTACCAG
TAAAGTATTATTAAAAGCCTCATTTGTGGAGATTCGC**TGA**CTTCCTTGGTTAAGCTGTCTTGTATTTACTTAATT
TGTCCCCTCAACCAGGTGTTTTCTTTTCAGCCTGTTACTGTCCTGTGCCATTTTTAAAAATAGCCATCATGAGTA
AGGGCTTCTTTAAAATAATCCCTGACAATATCTTTGGCATTAATACGACATAAAGACAAGACAGTATATGTATGT
TTTCATTCCTGTTTTGTACGAGTGCCTCATTTTGTAGTCATGAAAGTAACATAGTACCTTAAATAAAAATGTAAT
GACTAATCTAAGGTCTAGGAATAACTATTGTAGAAGCTAAGTAGAACACTTAGTTTGGGGGTGTCAATTTTCTATC
AACGCAAACACCTTAGGGTACCCAGACCAATTTTATGTATATATATTCTGAAATGCTCCCTTTTTAATGTGGTCA
TTTGTTGCCTTCTAAGTTGAGAGGACAAAACTGAATAAAGTGAATGTTAATTGT

FIGURE 4411A

AGACATATGTAGAGTGTGTCGGTCAGAAGGAACACCTGAGAAACCGCTTTATCATCCTTGTGTATGTACTGGCAG
TATTAAGTTTATCCATCAAGAATGCTTAGTTCAATGGCTGAAACACAGTCGAAAAGAATACTGTGAATTATGCAA
GCACAGATTTGCTTTTACACCAATTTATTCTCCAGAT**ATG**CCTTCACGGCTTCCAATTCAAGACATATTTGCTGG
ACTGGTTACAAGTATTGGCACTGCAATACGATATTGGTTTCATTATACACTTGTGGCCTTTGCATGGTTGGGAGT
TGTTCCTCTTACAGCATGCCGCATCTACAAGTGCTTGTTTACTGGCTCCGTGAGCTCACTACTGACGCTGCCATT
AGATATGCTGTCAACGGAAAATTTGTTGGCAGATTGTTTGCAGGGTTGTTTTGTGGTGACGTGCACACTGTGTGC
ATTCATCAGCCTGGTGTGGTTGAGAGAGCAGATAGTCCATGGGGGAGCACCAATTTGGTTGGAGCATGCTGCCCC
ACCGTTCAATGCTGCGGGGCATCACCAAAATGAGGCTCCAGCAGGAGGAAATGGTGCAGAAAATGTTGCTGCTGA
TCAGCCTGCTAACCCACCAGCTGAGAACGCAGTGGTGGGGGAAAACCCTGATGCCCAGGATGACCAGGCAGAAGA
GGAGGAGGAGGACAATGAGGAGGAAGATGACGCTGGTGTGGAGGATGCGGCAGATGCTAATAACGGAGCCCAGGA
TGACATGAATTGGAATGCTTTAGAATGGGACCGAGCTGCTGAAGAGCTTACATGGGAAAGAATGCTAGGACTTGA
TGGATCACTAGTTTTTCTGGAACATGTCTTCTGGGTGGTATCTTTAAATACACTGTTCATTCTTGTTTTTGCATT
TTGCCCTTACCATATTGGTCATTTCTCCCTTGTTGGTTTGGGATTTGAAGAACACGTCCAAGCATCTCATTTTGA
AGGCCTAATCACAACCATAGTTGGGTATATACTTTTAGCAATAACACTGATAATTTGTCATGGCTTGGCAACTCT
TGTGAAATTTCATAGATCTCGTCGCTTACTGGGAGTCTGCTATATTGTTGTTAAGGTCTCTTTGTTAGTGGTGGT
AGAAATTGGAGTATTCCCTCTCATTTGTGGTTGGTGGCTGGATATCTGTTCCTTGGAAATGTTTGATGCTACTCT
GAAAGATCGAGAACTGAGCTTTCAGTCGGCTCCAGGTACTACCATGTTTCTGCATTGGCTAGTGGGAATGGTATA
TGTCTTCTACTTTGCCTCCTTCATTCTACTACTGAGAGAGGTACTTCGACCTGGTGTCCTGTGGTTTCTAAGGAA
TTTGAATGATCCAGATTTCAATCCAGTACAGGAAATGATCCATTTGCCAATATATAGGCATCTCCGAAGATTTAT
TTTGTCAGTGATTGTCTTTGGCTCCATTGTCCTCCTGATGCTTTGGCTTCCTATACGTATAATTAAGAGTGTGCT
GCCTAATTTTCTTCCATACAATGTCATGCTCTACAGTGATGCTCCAGTGAGTGAACTGTCCCTCGAGCTGCTTCT
GCTTCAGGTTGTCTTGCCAGCATTACTCGAACAGGGACACACGAGGCAGTGGCTGAAGGGGCTGGTGCGAGCGTG
GACTGTGACCGCCGGATACTTGCTGGATCTTCATTCTTATTTATTGGGAGACCAGGAAGAAAATGAAAACAGTGC
AAATCAACAAGTTAACAATAATCAGCATGCTCGAAATAACAACGCTATTCCTGTGGTGGGAGAAGGCCTTCATGC
AGCCCACCAAGCCATACTCCAGCAGGGAGGGCCTGTTGGCTTTCAGCCTTACCGCCGACCTTTAAATTTTCCACT
CAGGATATTTCTGTTGATTGTCTTCATGTGTATAACATTACTGATTGCCAGCCTCATCTGCCTTACTTTACCAGT
ATTTGCTGGCCGTTGGTTAATGTCGTTTTGGACGGGGACTGCCATAAGGGCTGTGACGGTGATGGTGGCATGGAT
GCCTCAGGGACGCAGAGTGATCTTCCAGAAGGTTAAAGAGTGGTCTCTCATGATCATGAAGACTTTGATAGTTGC
GGTGCTGTTGGCTGGAGTTGTCCCTCTCCTTCTGGGGCTCCTGTTTGAGCTGGTCATTGTGGCTCCCCTGAGGGT
TCCCTTGGATCAGACTCCTCTTTTTTATCCATGGCAGGACTGGGCACTTGGAGTCCTGCATGCCAAAATCATTGC
AGCTATAACATTGATGGGTCCTCAGTGGTGGTTGAAAACTGTAATTGAACAGGTTTACGCAAATGGCATCCGGAA
CATTGACCTTCACTATATTGTTCGTAAACTGGCAGCTCCCGTGATCTCTGTGCTGTTGCTTTCCCTGTGTGTACC
TTATGTCATAGCTTCTGGTGTTGTTCCTTTACTAGGTGTTACTGCGGAAATGCAAAACTTAGTCCATCGGCGGAT
TTATCCATTTTTACTGATGGTCGTGGTATTGATGGCAATTTTGTCCTTCCAAGTCCGCCAGTTTAAGCGCCTTTA
TGAACATATTAAAAATGACAAGTACCTTGTGGGTCAACGACTCGTGAACTACGAACGGAAATCTGGCAAACAAGG
CTCATCTCCACCACCTCCACAGTCATCCCAAGAA**TAA**AGTAGTTGTCTCAACAACTTGACCTTCCCCTTTACATG
TCCTTTTTTGTGGACTTCTCTCTTTGGAGATTTTTCCCAGTGATCTCTCAGCGTTGTTTTTAAGTTAAATGTATT
TGACTTGTGTTCTCAGCATTCAGAGAGCAGCGGTGTAAGATTCTGCTGTTCTCCCTGGATCTTCTGACATTACTG
CTGTCTGAGATTTGTATATGTGTAAATACAAGTTCCTTGATACCCTAAAACCTTGGATTAAACAGAATGTGCATT
GTACATCTTTAAACAAAATGTATATTAATTTATTAAATCTAGTTGTCACTTTATTTTGGACCTGCTGTGATCTCG
ACAGGAAACGTGCCACAGAGCAGTAGTGCGCAGGCAAGACTTTTCAGTGACGCCTTGTGGAACGCAGTTCATGAT
GTCCTAGCAGCTCTCACTAAGGGAACTGTACATTCTTTCTTTCTTGGCTATTCAGACCTTACCAAGAACGTTAAA
GGAAACAAGTAGAAATCAGCAGTGGAGTGTCTGTGGTAAGAAAACATGAACTTTATGCTTCACTGTTAGTTGTTT
GTGGAAGTTATTTTGTATAACACCAAAGCTGTTGTACATTTCCTACTGCCTGATTTTTTTCATGTGTCTGTGTTT
GTAATATTGTATAGTATCTTGTGCTAGGTGAGGAAATTATTTTTAATTTTGATAATTTAATATTCCTAGTGTGAT
CAGCATTGGGAGTTGGGTTTCAGTGGGGCATGTCTATACTTAGAGAAAAAAAGTCCAAATGAAGATTTTCATGAG
TCAGCCCCCCCGCCCGCCCCCACCCCACACCCACATCCTCTCTTTTCCACACACAACTATCTGTTTATTTTTTGT
AGCAGTGGCCGAAAGTCCTGCAAGGTCATAAATCTTTCAGAGTGACATCACCAACTGTACTGCATCTTACTGGAT

FIGURE 4411B

TTAGGACTTCTGAGATGCTTGTGAAGTATAGATGTGGTTGTGGTCTTAGATTGACAGCATTAGAGAAGACTGGTT
AGAACATCTGGTCTCGCTGGTTAGTGCCTCGTTGGCTGAGGACTAGGTGTGCATTTCTCCTAGCTTTTCATCAGG
AAATCCCAAAGTTTCCAAAGCTTTTTGTTTACAGAATAAAACTTCAAATAAAACCAATTCATTATTTGTCCAGAA
GGAAGCTTGGCTGAGCTGGCCTTTTAACATAGGAATGTATTTCGTTGGAAACATTCTGAAAAATCTCAGAGAACT
GAACCCTTACAAACTTTGTTTTCCCTCATAACCAAAGCTTCAGGTTAGAAGTTTAGAAAAATAGAATGGTTGGGT
ACATGATCTAAATGTTTAATGCTAAAGGTATATCGTAAGGGTAGTGTTTGTTTTTGAACGATAATTTAGAAGTTC
TCATAGAAAGCGTATAACATAGGTCTTCAGAAACTATAAAAGAATTTTCATATAGTATTAAAATCCATAGACTAA
AATCTGAGAATTTTTTAACATATGCAAGTCAGCCAAACATAAGCTACCAAAATAAAGAGCAATGTGTTCTGGCTG
TTTTATACTTCAACAATTTTTTCCCTAAGTGGTAAGCAATTACTTTAAAACATATTTTTAAAAACATCGGTATCG
GGAGCTGCGGTGGCTCCGGCCGGTTGTCCTGGCACACAAGGAGGCGAGGCTATGCGTTCGAGGCCAACCTAGGCA
AAATTGG

FIGURE 4412A

TAGACTACATGAGGAAATAATTGACTTTTATAACTTC**ATG**TCCCCTTGTCCTGAAGAAGCAGCTATGAGAAGAGA
GGTGGTGAAACGGATCGAAACTGTGGTGAAAGACCTTTGGCCGACGGCTGATGTACAGATATTTGGCAGCTTTAG
TACAGGTCTTTATCTTCCAACTAGCGACATAGACCTGGTGGTCTTCGGGAAATGGGAGCGTCCTCCTTTACAGCT
GCTGGAGCAAGCCCTGCGGAAGCACAACGTGGCTGAGCCGTGTTCCATCAAAGTCCTTGACAAGGCTACGGTACC
AATAATAAAGCTCACAGATCAGGAGACTGAAGTGAAAGTTGACATCAGCTTTAACATGGAGACGGGCGTCCGGGC
AGCGGAGTTCATCAAGAATTACATGAAGAAATATTCATTGCTGCCTTACTTGATTTTAGTATTGAAACAGTTCCT
TCTGCAGAGGGACCTGAATGAAGTTTTTACAGGTGGAATTAGCTCATACAGCCTAATTTTAATGGCCATTAGCTT
TCTACAGTTGCATCCAAGAATTGATGCCCGGAGAGCTGATGAAAACCTTGGAATGCTTCTTGTAGAATTTTTTGA
ACTCTATGGGAGAAATTTTAATTACTTGAAAACCGGTATTAGAATCAAAGAAGGAGGTGCCTATATCGCCAAAGA
GGAGATCATGAAAGCCATGACCAGCGGGTACAGACCGTCGATGCTGTGCATTGAGGACCCCCTGCTGCCAGGGAA
TGACGTTGGCCGGAGCTCCTATGGCGCCATGCAGGTGAAGCAGGTCTTCGATTATGCCTACATAGTGCTCAGCCA
TGCCGTGTCACCGCTGGCCAGGTCCTATCCAAACAGAGACGCCGAAAGTACTTTAGGAAGAATCATCAAAGTAAC
TCAGGAGGTGATTGACTACCGGAGGTGGATCAAAGAGAAGTGGGGCAGCAAAGCCCACCCGTCGCCAGGCATGGA
CAGCAGGATCAAGATCAAAGAGCGAATAGCCACATGCAATGGGGAGCAGACGCAGAACCGAGAGCCCGAGTCTCC
CTATGGCCAGCGCTTGACTTTGTCGCTGTCCAGCCCCCAGCTCCTGTCTTCAGGCTCCTCGGCCTCTTCTGTGTC
TTCACTTTCTGGGAGTGACGTTGATTCAGACACACCGCCCTGCACAACGCCCAGTGTTTACCAGTTCAGTCTGCA
AGCGCCAGCTCCTCTCATGGCCGGCTTACCCACCGCCTTGCCAATGCCCAGTGGCAAACCTCAGCCCACCACTTC
CAGAACACTGATCATGACAACCAACAATCAGACCAGGTTTACTATACCTCCACCGACCCTAGGGGTTGCTCCTGT
TCCTTGCAGACAAGCTGGTGTAGAAGGAACTGCGTCTTTGAAAGCCGTCCACCACATGTCTTCCCCGGCCATTCC
CTCAGCGTCCCCCAACCCGCTCTCGAGCCCTCATCTGTATCATAAGCAGCACAACGGCATGAAACTGTCCATGAA
GGGCTCTCACGGCCACACCCAAGGCGGCGGCTACAGCTCTGTGGGTAGCGGAGGTGTGCGGCCCCCTGTGGGCAA
CAGGGGACACCACCAGTATAACCGCACCGGCTGGAGGAGGAAAAAACACACACACACACGGGACAGTCTGCCCGT
GAGCCTCAGCAGA**TAA**TGGCTCCTGGCTGCGTCAGCCTCCCCCACCCCTCTGCAGACTGCCCCGCGGCCTCGGCC
ACCGGCAGGGGAACCGAGACCAGCACCCCGCACGTCAGCCGGGCTCGCGGCACGCCCGCCGCTGATCACTCTGCA
TGTTTCTTCGTGTGGTGGTCGCGTCCATCTTCAAGAACAGCTCGTTGTGCTCATCTGTGAAGCCTTATTAAACGT
GGACGTTGTTTTCTGCCTTCCCAGGATTCTTCCTTCAGTGCTGAGGCAGGTTGGGCTCAGGAACTGCAGGGACGT
GAACATGCGCTTGCGGTTTGAGGTAGCCGTGTCTGTTCCTTCGCGGTTTGCTATTTTCATTTCCTGTTCGTCAAA
GCAGCAGAGGAGATCAAACCCCGTTCGTGTGTCTTTCCTCCATGGATAAGCTTGGGAGGTCATTGTTTTACTGCC
CTCACATTTTGTTTGAAATTTCAGAACTGTTTTTCTATGTAAATATTGAAAACTTATGATTTGTGCAATAACTCA
GATATTTTTTATTTAATTTCCTATTTTCACATAAGTTATATTTAAGGGAGGAGGGAATTTTTTTTAAACAAGCTT
AGGTCCTTTCCCGAGCTGCATTTTCTAAGTTGGGTCATCGTGTCGGCTGGTTGTCTGACGAGCATCGTTACAAAC
ACCATGATGAGGGGTTTGGGGTTTTATTTTGATGTCTTTTCTTTTGGTCGGAAGTGAGTGAAGGAGCCAGGTCGC
CCTGAAGGTTTTCCAAAGGGCTTGGCTCCAGAGCCACCTGGCAGACTGCCCGTGGCCCTGCTGTCGGGCCCCAGG
CCGTTGTCCTGCTCTGACCACAGAGTTTTAATGTTTTGGTTTTCACTTCTTTTAAACTGGACAACAAATCCAGCA
TTTCAAGTGCCAGAAGTATAACTTTCTAAGGAGAGAAGGGTTGTCACATTATAAAATCTTTAGGAAAATGTGAAC
TGGAAAACGCTTCGGTCAGTTTTAGTGACATAGCCTGTGATGATGGGTCTGGTGACTATTATTGCGGACCGTGGT
ACCCAGTTTTAGGAATGTGGAGAAAGGAATTCTGTTGATTCCGTTGAGGAATCTGTAGCGTATGCATTCGTTCTG
TTAAGAGCAAATCTAGGAGAAGTGCTTCAGCTGCCCAGTGCGCCGTGGGGAGTGTTTTAACGGATCGTGTCGCAG
GAGAGCACAGCCCAGCGTTGGGGCCGGGACCGCTGGCGCCCGACGTCGGAAGCATACAGGTATACTATGCAAGTG
TATTCTGCCACAACAACCACTGTCTTTGTTACCTTTTTTTGAACAAGAATATATCCATCCTGCCTAACCCTGAGT
TTTTGGAGCACCACAGTTGTCCTGGGAGTTGGTTGCATCTTGTAGGCCATCTGACTTCCTGTTTTTAAAACGGGG
GTCTGGTCTTGCTAAACACTACAGGTAGGTTGGTCTTTGAAGTCCACTAGTGGAGAATGTCAAGACAAGATACTT
ATTACCATGACATCTGATGCATGTGCAGCAGTGGGGAGTTCTAGATTGATCTCTGAATGTGATCGACGCCCAGCA
AGGACAAGCTTTAAAATGTCTGCGGTCTGCCCTTTTGAAGCAGGACTGGCTCACTCTGTCATTGGGAGCTGTCAG
CTGCGACTGCAGGTTCTCTAGGAGGCATTCCAGAATAGAGTAGCACACTGTGTCTGCAGTTCTCGATGACCGAAA
GTTATCAAAAATATTTAAAATATTTAAATTGTGAACCTATTGATAAAGAATATTTATAAAAACTGATCTGTAGGC
CTGTACTAATCTCTACGCATTAGCAATATTGACTGTAAACCCACATTAAGGAAACCACTACGGGTCTGGCAGTGC
GTGTCCCGTGGGGTGTGCATTTTAAAACTCGATTCATAGACACAGGTACCATGTTCCATTTCCGTCATGGTGAAG

FIGURE 4412B

CAAATGAATTGGCCTGGCTACCACTGTGGTCGCGTGCTACAGGTTTGACAAAAAGATATCATGTTTCGATTTTTT
TGTGTGTGGACAACAATATGGAAGCTAAAATTGACATATTTTTATGTAAAGTTTTTCTATTCTTTGATTTTTAAT
AAACTTTGGAAACC

FIGURE 4413

CTCTCCCTGCACCTTTCTTTATCTTGGAGCCTCTCCCATCTCTCCCTCCCTCTTCCTCCCTACCCCACCCTCCGA
CCACCCCACTTCTTCCCCTCCCCTCACACTTCCCTCCCTCCCTTCTCTCGTCTCCTCCCCACTGCGCCTCCCTCC
CTCCTGGCCTTCCTTCCCTTCCCCGACTTTGCAGATTTCTCTTCCCCCAGGCCTCCCTCCTCCACCTCTCCGCCC
CCTCCGGGCTTGGCTCTCCCAGGAGGCTACGACTGGAGCCACTGGTCCCGCAGGATCCCCGCGTCCTCGGTCGCC
GCGTCCACGTCCCTCTCGCGTCCCCGCCCGGCGCCACGCCGCCTCCTCTGGGTTCGGCCTCCGCGCGGTGCAGCG
CAGTCTCAGGCCGCGGGACAAGCCCGACTTAAATCTCTGCA**ATG**GCTAACGAAGCTTATCCTTGTCCGTGTGACA
TTGGCCACAGACTTGAGTATGGAGGGCTAGGCCGTGAAGTTCAAGTCGAGCACATCAAGGCTTATGTCACCAAAT
CCCCCGTTGATGCAGGCAAAGCTGTGATTGTCATTCAAGATATATTTGGCTGGCAGTTGCCCAATACCAGATATA
TAGCTGACATGATCTCAGGAAATGGATACACAACCATTGTTCCAGACTTCTTTGTAGGGCAAGAGCCTTGGGACC
CCTCTGGCGACTGGTCTATCTTCCCTGAGTGGCTGAAAACAAGAAATGCCCAGAAGATCGATAGAGAGATCAGTG
CTATCTTGAAGTATCTGAAACAACAGTGTCATGCCCAGAAAATTGGCATCGTGGGATTCTGCTGGGGTGGAACTG
CTGTCCATCATTTGATGATGAAATACTCAGAATTCAGGGCAGGGGTGTCCGTCTATGGCATTGTCAAGGATTCTG
AAGACATTTACAATTTAAAGAACCCCACTTTGTTCATTTTTGCTGAAAATGATGTTGTGATTCCACTCAAGGACG
TATCTTTGCTGACTCAGAAGTTGAAAGAACACTGCAAAGTTGAATATCAAATTAAAACATTTTCTGGGCAGACTC
ATGGGTTCGTGCATCGGAAGAGAGAAGATTGCTCACCTGCAGACAAGCCCTACATTGACGAGGCCAGAAGGAATT
TAATTGAGTGGCTGAACAAGTACATG**TAG**CAAGAATCAAGGGCAAGCCTTCCTAGAATAGCTTTCATCCCAAAAT
TTGCTTGGAAATAGTTAGATCATTTGATTTAATTTTCACTTTTATAAAATAAGTGTAGGAATCCTAAAATTGATT
ATTTCATTTGAAACACAAATTCAGTAGGACGTAATGCATGAAATAATTTAATTTTTGACATGTACATCGAATCAT
AATTTAAAAACAAGGTCTGACCAGGTGTAGTGCCTCATGCCTGTAATTCCAGCACTTTGGGAGGCCAAAGTGGGT
GGATCACCTGAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAGACCCCATCTCTACAAAAAATACAAAA
ATTAGCCTGGTGTGGTGGTGCACGCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCACAAGAATCAATAGAACCC
AGGAGGTGGAGACTGCAGTGAGCCAAGATTGTGCCACTACTGTACTCTAGCCTGGGCAGCAGAGTGAGACCCTGT
CTCAAAAATAAATAAGTAAATAAATAAATAAATAAAATAAAAACCAGGTCAGTACCTGGAGAATTTGAATGATAG
AGAATGATAGAGTAATACCCTAATTATTAGTTAAAACCTACAGGCCGGGTGCGGTGGCTCACGCCTGTAATCCCA
GCACTTTGGGAGGCCGAGGTGGGTGGATCACTTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAAC
CCCATCTCTACTAAAAATATAAAAATCAGCCGGGCATGGTGGCATGTGCCTGTAATCCCAGCTACTCAGGAGTCT
GAGGAGGAGAATCACTTGAACCTGGAGGCAGAGGTTGCAGTGAGTCGAGGTTGCGCTACTGCACTCCAGCCTGGA
CAACAGAGGGAGACTCTGTCTC

FIGURE 4414

AATAAAGAAATAGTGCTTTAAGTCAATGAATTCCTCCTTGGGACCCACTATCGAGAAACTATCAGTGGTAACGTT
TTAAAAAATGACAAATTCAATCTGCTCTTGACTTGTGTGTCCTAAGATTTCCACTAAGTGTCTTCAAACCTCCCC
CTCCCCGGCTTCCTGGATAATAGAAGTTCCCGAAGGCCGCCGATTCCAGAAGATACTGTCTGGCGTGAAATTAGT
CTCAGTAGAAACATAAGTCCCGCGCGTCTTGTGCTGCGCGTGCGCAAGCTTTTGGGCCCTCCCGAGAAAGGGAAG
TGCATTCTCGCTTCCGTAGCGGTCTCCGCCGGTTGGGGGGAAGTAATTCCGGTTGTTGCACC**ATG**GCGTCCATGG
GGACCCTCGCCTTCGATGAATATGGGCGCCCTTTCCTCATCATCAAGGATCAGGACCGCAAGTCCCGTCTTATGG
GACTTGAGGCCCTCAAGTCTCATATAATGGCAGCAAAGGCTGTAGCAAATACAATGAGAACATCACTTGGACCAA
ATGGGCTTGATAAGATGATGGTGGATAAGGATGGAGATGTGACTGTAACTAATGATGGGGCCACCATCTTAAGCA
TGATGGATGTTGATCATCAGATTGCCAAGCTGATGGTGGAACTGTCCAAGTCTCAGGATGATGAAATTGGAGATG
GAACCACAGGAGTGGTTGTCCTGGCTGGTGCCTTGTTAGAAGAAGCGGAGCAATTGCTAGACCGAGGCATTCACC
CAATCAGAATAGCCGATGGCTATGAGCAGGCTGCTCGTGTTGCTATTGAACACCTGGACAAGATCAGCGATAGCG
TCCTTGTTGACATAAAGGACACCGAACCCCTGATTCAGACAGCAAAAACCACGCTGGGCTCCAAAGTGGTCAACA
GTTGTCACCGACAGATGGCTGAGATTGCTGTGAATGCCGTCCTCACTGTAGCAGATATGGAGCGGAGAGACGTTG
ACTTTGAGCTTATCAAAGTAGAAGGCAAAGTGGGCGGCAGGCTGGAGGACACTAAACTGATTAAGGGCGTGATTG
TGGACAAGGATTTCAGTCACCCACAGATGCCAAAAAAAGTGGAAGATGCGAAGATTGCAATTCTCACATGTCCAT
TTGAACCACCCAAACCAAAAACAAAGCATAAGCTGGATGTGACCTCTGTCGAAGATTATAAAGCCCTTCAGAAAT
ACGAAAAGGAGAAATTTGAAGAGATGATTCAACAAATTAAAGAGACTGGTGCTAACCTAGCAATTTGTCAGTGGG
GCTTTGATGATGAAGCAAATCACTTACTTCTTCAGAACAACTTGCCTGCGGTTCGCTGGGTAGGAGGACCTGAAA
TTGAGCTGATTGCCATCGCAACAGGAGGGCGGATCGTCCCCAGGTTCTCAGAGCTCACAGCCGAGAAGCTGGGCT
TTGCTGGTCTTGTACAGGAGATCTCATTTGGGACAACTAAGGATAAAATGCTGGTCATCGAGCAGTGTAAGAACT
CCAGAGCTGTAACCATTTTTATTAGAGGAGGAAATAAGATGATCATTGAGGAGGCGAAACGATCCCTTCACGATG
CTTTGTGTGTCATCCGGAACCTCATCCGCGATAATCGTGTGGTGTATGGAGGAGGGGCTGCTGAGATATCCTGTG
CCCTGGCAGTTAGCCAAGAGGCGGATAAGTGCCCCACCTTAGAACAGTATGCCATGAGAGCGTTTGCCGACGCAC
TGGAGGTCATCCCCATGGCCCTCTCTGAAAACAGTGGCATGAATCCCATCCAGACTATGACCGAAGTCCGAGCCA
GACAGGTGAAGGAGATGAACCCTGCTCTTGGCATCGACTGTTTGCACAAGGGGACAAATGATATGAAGCAACAGC
ATGTCATAGAAACCTTGATTGGCAAAAAGCAACAGATATCTCTTGCAACACAAATGGTTAGAATGATTTTGAAGA
TTGATGACATTCGTAAGCCTGGAGAATCTGAAGAA**TGA**AGACATTGAGAAAACTATGTAGCAAGATCCACTTCTG
TGATTAAGTAAATGGATGTCTCGTGATGCATCTACAGTTATTTATTGTTACATCCTTTTCCAGACACTGTAGATG
CTATAATAAAAATAGCTGTTTGGTAACCATAGTTTCACTTGTTCAAAGCTGTGTAATCGTGGGGGTACCATCTCA
ACTGCTTTTGTATTCATTGTATTAAAAGAATCTGTTTAAACAACCTTTATCTTCTCTTCGGGTTTAAGAAACGTT
TATTGTAACAGTAATTAAATGCTGCCTTAATTG

FIGURE 4415

GTATACCCCTAGAAACACTTAAAGAAGAAAGTCAGTCAAGACATGTTCTACCTGCAAGTTTTGAAGTCAACAGTT
TGCAGAAAAGCAACTGGGGGTTCTTACTTACTGGGCTTGTGGGTGGCACCCCTGGTGGCTGTGTACGCTGTAGCC
ACGCCGTTTGTAACGCCAGCCCTTCGAAAAGTCTGTTTGCCGTTTGTACCTGCAACTACGAAGCAGATTGAAAAT
GTTGTGAAAATGTTGCGATGCCGAAGAGGATCCCTTGTGGACATCGGTAGTGGGGACGGACGCATTGTTATTTTT
ATTGCATATTATTACTTGTTCACAAAACCATCCTCCCAGACACTTTCATTTCACTGCTGCTGTGCTAGCCCACTG
ATGGAGAGATGCAGTGGATTTTCAGCAATGTTTTGTTCGACCTCCCCGGGGGTTGGCTGACCTAGAATCAATTAT
GGAGGTGTTCCAAGTGAACCTGA**ATG**TCTATTCTGATACTTGAGGTCATAGCGGCTGCGAAGAAAGGGTTCACAG
CAGTTGGTTATGAATTAAACCCATGGCTAGTTTGGTATTCCAGATACCGCGCTTGGCGAGAAGGTGTGCATGGAT
CTGCCAAATTTTATATTTCAGATTTGTGGAAGGTTACTTTTTCGCAGTACTCGAACGTTGTTATTTTCGGTGTGC
CTCAGATGATGCTGCAGTTGGAGAAGAAACTTGAACGTGAACTTGAGGATGATGCACGAGTTATTGCTTGCCGGT
TCCCTTTCCCACATTGGACTCCAGACCACGTCACGGGGGAGGGGATAGACACAGTGTGGGCATATGATGCAAGCA
CTTTTAGAGGCCGTGAAAAGAGGCCCTGTACATCGATGCATTTCCAGCTGCCCATTCAAGCA**TAA**ACTTGACTGG
GAGTGTTTTTCTGAAATATTGTAGTCTTCCCTGATCTTGTAGAGACTTACAGCTGTGTCCTTAGCAAAGGAGCAT
AATTGTCTTTGGTTTGGAATGAGAAATTACTATTACTTTCCTTAACTGTTGGAGAAAACAAACGAAGAAAAACAG
GTAGATTTAAAATCTGCTTTTGATGCTATTTTCTTAAAAATTGTACTTACTGCCTTTCCATGCACCTGGATGCAT
GAAAAGATGAATAAGTGATGGTCATGGTTATGGGTAGGAAAATAAGATGCCAATAGCTCTTCACATTATAAACAA
TATGGCTTAATGCCTCGATAAGGAGAAATGATTTTTAAAGACAGTATATATTACCAACTGTTTGTAGTATCCTAT
AACTTTGTTCATACTTAAGTTGTATCTCTTTCCTTTTTGTACTTCATGGCAAAATTAATTTTCTAAAGGATTCAG
AGAGGCGTTTATATTTTATAACATTTATTAGAAATAATTTGTTCCACCACTAGATTACTGTATTTTATGGAATCT
AAGCTGTATATGTGTACATTTGTATACATGTATGTGTAAATGTAAGCCTGACGTGGGTTCAGATTCCAGTTTTGT
CATCAGCAAGAGGCCTCGGACCCATGACTTACTGCCTCTGAGCCTTGGCTTTCTGTGTATCTCTGCCACTGGGAT
AATGGTACACATAACAGTGGAGTGGGGACCAATTTCTAAAACTCATGGCACCTAGTCTTTGGTCCATAAATGGTG
TTTGTTATTTTAGACACTGAGAAAAATCTTATTCACAGAAGTTGCAGATTATTTCTGCTAGTCACTTTTTTATTT
CTTGAGAGCTGCCACTCATTTAATATTTCTCATTTATGAGAAGAGACTTGACTGATTTAGATAAAAGACGAATTA
AGGAAAACCTTTGAACGTGAGTAGACAAGCTTCATATATCTGTAAAGTGAATATTGAATGGTAGCTTGAGTCATT
CGTACTTATCACAGAAAAGAATTGAACTCCCAGTCATACACCTGTAACTGAAATACCAAACTGTCTTAATGGAGA
TGTAATGAAGTAAGATGGTCACATCTTTAACTAAACTTATAAAAATTG

FIGURE 4416

GGAGCTTTCTATTGGTCCTGGGTACCGAGC**ATG**GGCGCTGCGTCAGTGCGCGCTGGCGCAAGGTTGGTGGAAGTC
GCGTTGTGCAGTTTCACTGTTACATGCCTTGAAGTGATGAGGAGGTTTCTGTTACTATATGCTACACAGCAGGGA
CAGGCAAAGGCCATCGCAGAAGAAATATGTGAGCAAGCTGTGGTACATGGATTTTCTGCAGATCTTCACTGTATT
AGTGAATCCGATAAGTATGACCTAAAAACCGAAACAGCTCCTCTTGTTGTTGTGGTTTCTACCACGGGCACCGGA
GACCCACCCGACACAGCCCGCAAGTTTGTTAAGGAAATACAGAACCAAACACTGCCGGTTGATTTCTTTGCTCAC
CTGCGGTATGGGTTACTGGGTCTCGGTGATTCAGAATACACCTACTTTTGCAATGGGGGGAAGATAATTGATAAA
CGACTTCAAGAGCTTGGAGCCCGGCATTTCTATGACACTGGACATGCAGATGACTGTGTAGGTTTAGAACTTGTG
GTTGAGCCGTGGATTGCTGGACTCTGGCCAGCCCTCAGAAAGCATTTTAGGTCAAGCAGAGGACAAGAGGAGATA
AGTGGCGCACTCCCGGTGGCATCACCTGCATCCTCGAGGACAGACCTTGTGAAGTCAGAGCTGCTACACATTGAA
TCTCAAGTCGAGCTTCTGAGATTCGATGATTCAGGAAGAAAGGATTCTGAGGTTTTGAAGCAAAATGCAGTGAAC
AGCAACCAATCCAATGTTGTAATTGAAGACTTTGAGTCCTCACTTACCCGTTCGGTACCCCCACTCTCACAAGCC
TCTCTGAATATTCCTGGTTTACCCCCAGAATATTTACAGGTACATCTGCAGGAGTCTCTTGGCCAGGAGGAAAGC
CAAGTATCTGTGACTTCAGCAGATCCAGTTTTTCAAGTGCCAATTTCAAAGGCAGTTCAACTTACTACGAATGAT
GCCATAAAAACCACTCTGCTGGTAGAATTGGACATTTCAAATACAGACTTTTCCTATCAGCCTGGAGATGCCTTC
AGCGTGATCTGCCCTAACAGTGATTCTGAGGTACAAAGCCTACTCCAAAGACTGCAGCTTGAAGATAAAAGAGAG
CACTGCGTCCTTTTGAAAATAAAGGCAGACACAAAGAAGAAAGGAGCTACCTTACCCCAGCATATACCTGCGGGA
TGTTCTCTCCAGTTCATTTTTACCTGGTGTCTTGAAATCCGAGCAATTCCTAAAAAGGCATTTTTGCGAGCCCTT
GTGGACTATACCAGTGACAGTGCTGAAAAGCGCAGGCTACAGGAGCTGTGCAGTAAACAAGGGGCAGCCGATTAT
AGCCGCTTTGTACGAGATGCCTGTGCCTGCTTGTTGGATCTCCTCCTCGCTTTCCCTTCTTGCCAGCCACCACTC
AGTCTCCTGCTCGAACATCTTCCTAAACTTCAACCCAGACCATATTCGTGTGCAAGCTCAAGTTTATTTCACCCA
GGAAAGCTCCATTTTGTCTTCAACATTGTGGAATTTCTGTCTACTGCCACAACAGAGGTTCTGCGGAAGGGAGTA
TGTACAGGCTGGCTGGCCTTGTTGGTTGCTTCAGTTCTTCAGCCAAACATACATGCATCCCATGAAGACAGCGGG
AAAGCCCTGGCTCCTAAGATATCCATCTCTCCTCGAACAACAAATTCTTTCCACTTACCAGATGACCCCTCAATC
CCCATCATAATGGTGGGTCCAGGAACCGGCATAGCCCCGTTTATTGGGTTCCTACAACATAGAGAGAAACTCCAA
GAACAACACCCAGATGGAAATTTTGGAGCAATGTGGTTGTTTTTTGGCTGCAGGCATAAGGATAGGGATTATCTA
TTCAGAAAAGAGCTCAGACATTTCCTTAAGCATGGGATCTTAACTCATCTAAAGGTTTCCTTCTCAAGAGATGCT
CCTGTTGGGGAGGAGGAAGCCCCAGCAAAGTATGTGCAAGACAACATCCAGCTTCATGGCCAGCAGGTGGCGAGA
ATCCTCCTCCAGGAGAACGGCCATATTTATGTGTGTGGAGATGCAAAGAATATGGCCAAGGATGTACATGATGCC
CTTGTGCAAATAATAAGCAAAGAGGTTGGAGTTGAAAAACTAGAAGCAATGAAAACCCTGGCCACTTTAAAAGAA
GAAAAACGCTACCTTCAGGATATTTGGTCA**TAA**AACCAGAAATTAAAGAAAGAGGATTAAGCTTTTTTGACTGAA
AGTACTAAAAGTCAGCTTTACTAGTGCCAAACCTTTAAATTTTCAAAAGAAAATTTTCTTTCAACATTTCTTGAA
GGACATGGAGTGGAGATTGGATCATTTAACAATATAACAAAACTTCCTGATTTGATTTTACGTATCTTCTATCTA
CGCCCTTCCTGTGCCTGTGACTCTCCCCAAATTGCCCTGTTGCCTTGAGCTCTTCTGAGCTAAGGCAGCCTTCAG
TCCCTATCAGCGCCTCCTTTACTTCCCAGAGAACTTCACAGAGACTCTGTCCTTCCATGCAAAGGCTTCCTGAAA
TAGGGAGACTGACTGAGTAGCTCATTCTTGTGACTTACAGTGCCAACATTTAAAAAAGTATGAAAATGATTTATT
TTTATATGATGTATACCCATAAAGAATGCTCATATTAATGTACTTAAATTACACATGTAGAGCATATCTGTTATA
TGTTTATGTAACTATCAAATGGTTATTTGTTACTAAAGCTATATTTCTGATAAAAAATATTTTAGGATAATTGCC
TACAGAGGGATTTATTTTTATGATGCTGGAAATATGAAATGTATTTTAAAATTTCACTCTGGCATATGATTTATC
TATCACCATTACTTTTTTTTAAGTCACAATTTCAGAATTTTGGGACATTTGCATTCAATTTACAGGTACCAGTAC
GTACATATTTTAATAGAAAGATACAACCTTTTTATTTTCACTCCTTTTATTTCTGCTGCTTGGCACATTTTTGAG
TTTTCCCACATTATTTGTCTCCATGATACCACTCAAGCAGTGTGCTGGACCTAAAATACTGACTTTAGTTAGTAT
CCTTGGATTTTTAGATTCCCAGTGTCTAATTCCCTGTTATAATTTGCACAAACAAAACAAAATGTTATGATAATC
TTTCTCCACTGTTCTAATATATATTGTATTTTTATTTGATAGCTTGGGATTTAAAACATCTCTGTTGAAGGCTTT
TGATCCTTTTGAGAAATAAAGATCTGAAAGAAATGGCATAATCTT

FIGURE 4417

CCAGAACACAGGTGTCATGAAAACTACCCCTAAAAGCCAAAATGGGAAAGGAAAAGACTCATATCAACATTGTCG
TCATTGGACACGTAGATTCGGCAGGATGTCTACAAAATTGGTGGTATTGGTAGTGTTCCTGTTGGCCGAGTGGAG
ACTGGTATTCTCAAACCCGGT**ATG**GTGGTCACCTTTGCTCCAGTCAACGTTACAACAGAAGTAAAATCTGTCGAA
ATGCACCATGAAGCTTTGGGTGAAGCTCTTCCTGGGGACAGTGTGGGCTTCCATGTCAAGAATGTGTCTGTCAAG
GATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAATGACCCACCAATGGAAGCAGCTGGCTTCACTGCTCAG
GTGATTATCCTGAACCATCCAGGCCAAATAAGCGCTGGCTATGCCCCTGTATTGGATTGCCACACGGCTCATATT
GCATGCAAGTTTGCTGAGCTGAAGGAAAAGATTGATCGCCGTTCTGGTAAAAAGCTGGAAGATGGCCCTAAATTC
TTGAAGTCCGGTGATGCTGCCATTGTTGATATGGTTCCTGGCAAGCCCATGTGTGCTGAGAGCTTCTCAGACTAT
CCACCTTTGGGTCGCTTTGCTGTTCGTGATATGAGACACACAGTTGCGGTGGGTGTCATCAAAGCAGTGGACAAG
AAGGCTGCTGGAGCTGGCAAGGTCACCAACTCTGCCCAGAAAGCTCAGATGGCTAAA**TGA**ATATTATCCCTAATA
C

FIGURE 4418

CTTTTTCACAACGGGTTTGCCGCCAGAACACAGGTGTCATGAAAACTACCCCTAAAAGCCAAA**ATG**GGAAAGGAA
AAGACTCATATCAACATTGTCGTCATTGGACACGTAGATTCGGGCAAGTCCACCACTACTGGCCATCTGATCTAT
AAATGCAGTAGCATCGACAAAAGAACCATTGATATCTCCTTGTGGAAATTTGAGACCAGCAAGTACTATGTGACT
ATCACTGATGCTCCAGGACACAGAGACTTCATCAAAAACATGATTACAGGGACATCTCAGGCTGACTGTGCTGTC
CCGATTGTTGCTGCTGGTGTTGGTGAATTTGAAGCTGGTATCTCTAAGAATGGGCAGACCCGAGAGCATGCCCTT
CTGGCTTACACACTGGGTGTGAAACAACTAATTGTTGGTGTTAACAAAATGGATTCCACTGAGCCACCCTACAGC
CAGAAGAGATATGAGGAAATTGTTAAGGAAGTCAGCACTTACATTAAGAAAATTGGCTACAACCCCGACACAGTA
GCATTTGTGCCAATTTCTGGTTGGAATGGTAACAACATGCTGGAGCCAAGTGCTAACATGCCTTGGTTCAAGGGA
TGGAAAGTCACCCGTAAGGATGGCAATGCCAGTGGAACCATGCTGCTTGAGGCTCTGGACTGCATCCTACCACCA
ACTCGTCCAACTGACAAGCCCTTGCGCCTGCCTCTCCAGGATGTCTACAAAATTGGTGGTATTGGTAGTGTTCCT
GTTGGCCGAGTGGAGACTGGTATTCTCAAACCCGGTATGGTGGTCACCTTTGCTCCAGTCAACGTTACAACAGAA
GTTGTGGGCTTCCATGTCAAGAATGTGTCTGTCAAGGATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAAT
GACCCACCAATGGAAGCAGCTGGCTTCACTGCTCAGGTGATTATCCTGAACCATCCAGGCCAAATAA

FIGURE 4419

GCCACTGCCTGGCACCCCGACGGGAGGGGCTCCGGATCGTTCGGAGCCGGCTGAACCCCTTCGGCCGCGAGCGAC
CGCATGAGTCGGGGGACTATGCCCCAGCCCGAAGCGTGGCCAGGCGCGAGCTGCGCCGAGACGCCGGCGCGGGAG
GCGGCGGCCACGGCGCGGGACGGCGGGAAGGCGGCGGCCAGCGGGCAGCCGCGGCCCGAGATGCAGTGCCCGGCC
GAGCAGTGAGAGGACATGTACCGTGCTGCAGATGAAATAGAAAAGGAGAAAGAATTGCTTATACATGAAAGAGGG
GCATCAGAACCGAGATTAAGCGTAGCTCCTGAAATGGATATCATGGACTACTGCAAAAAAGAATGGAGAGGAAAT
ACACAGAAAGCAACGTGT**ATG**AAAATGGGCTATGAAGAGGTTTCTCAGAAGTTCACCTCCATACGGCGAGTCCGT
GGTGATAATTACTGTGCACTGAGGGCCACGCTGTTCCAGGCCATGAGCCAGGCTGTGGGGCTGCCGCCCTGGCTG
CAGGACCCGGAGCTCATGCTGTTACCAGAAAAACTCATAAGCAAATACAACTGGATCAAGCAATGGAAACTTGGA
CTGAAATTTGATGGGAAGAATGAGGACCTGGTTGATAAAATTAAAGAGTCCCTTACTCTGCTGAGGAAGAAGTGG
GCAGGCTTGGCTGAAATGAGAACTGCTGAAGCAAGACAGATAGCTTGTGATGAACTATTCACAAATGAGGCGGAG
GAATATAGCCTCTATGAAGCTGTAAAATTTCTAATGCTAAACAGAGCCATTGAACTATATAATGATAAAGAGAAA
GGAAAGGAAGTACCATTTTTCTCTGTGCTTCTGTTTGCTCGGGACACATCAAATGACCCAGGACAGCTTCTGAGG
AACCACCTCAACCAGGTGGGACACACTGGTGGTCTTGAACAGGTTGAAATGTTCCTTCTTGCCTATGCTGTGCGC
CACACCATCCAGGTGTACCGGCTCTCCAAGTACAACACGGAAGAATTCATCACAGTCTACCCCACCGACCCACCC
AAGGACTGGCCAGTGGTAACGCTCATTGCTGAGGACGATCGGCACTATAACATCCCCGTCAGAGTGTGTGAGGAG
ACCAGTCTA**TGA**GAGACGCATGCTCCTGACAGCCTGGCGACGTGGCGAAGATGCACAGGTGGCTCCTGGGCTTGG
GCTGCAGGTTTGGGGGTCTCTAAGAACAATCTCTGAGAAGAACCCTTGGGCCCCTGGGAGCCAAGTTGGACAGGA
TGTCCTGAAGACTAGCTTTTGATAAGAGAAATTAACCAAGTCTTTCCCCTCATCTATGATGCAATATATTTCAGT
GGGGGCCTTCAGAGCACACCTGTTGGACGGTGCAAACCATATCTTCTCCAGAAGGCAAATACTTTTGTATCAGAG
GAAACTCAGTTTTGGAGAGGAATATGTTCTTTATATCTCAAATCAAAACTCTCTCTAATGGTAAACTGGCTTCTA
ATTTTTTTAAGTACAGTATTTTTTTTTCCCCTTTAGTAGTAACGGGTTTCTATAGATCTTCCTATACAGTCTGCT
TTAACTCAGGACCTTGAGATTATGAGACTGACGTGCTGCCCACTGCACTGAGGGGGCTTCTAACAGTCTGCTTTA
AGTGGTATAATTCTGGGATAGATCTGTTACTGGCATAGTCATGACAACCTCTGGTAATCTTACCTTCTCCTTTTT
ATGAAGGGAAGAGCAATGGTTTGGACTTACATCTTAATTAAGGCTATTTTAAGCAGATTGTTTTGCAACAGATTA
AGAATTGGGTCCCAAAGTGGGTTATTTCAAGGCATTTTTGAAGACTGGAGGAGCGTAGGAGGGAGTGGTGAGGGA
ACCTAGAACTTCTTGCTCCTTGTGACTATGACAGATGTCTGATGCCCCCAGCGCACTGGAGTCTGGGGCTTGGTG
CAGGTGGTGCCCCATCAGTGTGGACAGACACTACTTGCCTTTGTGGTTTAGTGTTGGAAGCTTTAATTATTCTAC
AGTTCCATAGATTCACAATTTTATAGCCAAACAGTTTGTATCCACCTGCTTTCAGAGGAGGAACCAAAGGCCAAA
TTACTTTGAGGTAGGGCTTAGCTGGACCTGGGTTTTCCTATGCTCTTTTCATGCTGTGTTGGAGGGTGTGTCCAC
TGCCAGATCTGTGTAACCCGTCTGGGTCAGGGGATGAGTGACAGCAAACCATCTTAAAATTTTTCATGAGTACAT
TTAAGCGGAAGCATACGGGAATATGAGTGCAAAAGTGTGGCTGAGCCGCGTATGCCCTTGATTGGTTTTGGGAAG
CCTGAGGGAGGCAGCCTTCCTGGCTATGAGCCATCGCCTGCCCAATCAGGCTAAGGGTGGTGACTGGGGTGGTGA
AGGGGCAGCTCTGCTGAGCATGGTCTGCCTTATGGCCTGAATTGTCCTCAAGGGGTGTGGACTGCAGATGGTGTT
CACATGAACCGGAGACATCACTCTTTAGGATTCTACTGGCAGCCCCTGAATTGGCTCAACGTTTGTGGAGGTGGT
ATTTCCCTGAAGTACTGAGCTTTGTTTTATAATAATTAAAATCCTTATTTGGTCCAATTTAATATAGTTTAGAAG
CTATTTTTTTTGAGGCAAACCGTTTTTGAAAATGTAAATTTTGTTTTTAATTAAAAATAAAGTCTTAGTTAAGAA
AACTCAGGATGCACAAAACTATTCAGACTGTTACTTTAGCTTTCTCCCATTACCTCATCAGTAATATTCACCACA
TTTTGCTAAATATTTATTGATTAGAGTGTTGAAATCAAATTCTGCTCTAAATGTGTGTGAATATGTTGGAGAGGC
TTTGTGTTCTTCACTGTGAAATGCAATTGTGCCTTGAATAAGAAGGTACCTAGAAGCCAAATTAAAGTAATAATG
ACTTCTT

FIGURE 4420A

CTCTTTTTTTTCCCGGCAGATCTTTGTTGTGTGGGAGGGCAGCAGGGATGGACTTGAGCTTGCGGATCCCCTGCT
AGAGCAGCCGCGCTCGGAGAAGGCGCCGCAGCCGCGAGGAGGAGCCGCCGCCGCCGCGCCCGAGGCCCCGCCGCC
CGCGGCCTCTGTCGGCCCGCGCCCCGCTCGCCCCGTCGCCCCGTCGCCCCTCGCCTCCCCGCAGAGTCCCCTCGC
GGCAGCAGATGTGTGTGGGGTCAGCCCACGGCGGGGACT**ATG**GTGAAATTCCCGGCGCTCACGCACTACTGGCCC
CTGATCCGGTTCTTGGTGCCCCTGGGCATCACCAACATAGCCATCGACTTCGGGGAGCAGGCCTTGAACCGGGGC
ATTGCTGCTGTCAAGGAGGATGCAGTCGAGATGCTGGCCAGCTACGGGCTGGCGTACTCCCTCATGAAGTTCTTC
ACGGGTCCCATGAGTGACTTCAAAAATGTGGGCCTGGTGTTTGTGAACAGCAAGAGAGACAGGACCAAAGCCGTC
CTGTGTATGGTGGTGGCAGGGGCCATCGCTGCCGTCTTTCACACACTGATAGCTTATAGTGATTTAGGATACTAC
ATTATCAATAAACTGCACCATGTGGACGAGTCGGTGGGGAGCAAGACGAGAAGGGCCTTCCTGTACCTCGCCGCC
TTTCCTTTCATGGACGCAATGGCATGGACCCATGCTGGCATTCTCTTAAAACACAAATACAGTTTCCTGGTGGGA
TGTGCCTCAATCTCAGATGTCATAGCTCAGGTTGTTTTTGTAGCCATTTTGCTTCACAGTCACCTGGAATGCCGG
GAGCCCCTGCTCATCCCGATCCTCTCCTTGTACATGGGCGCACTTGTGCGCTGCACCACCCTGTGCCTGGGCTAC
TACAAGAACATTCACGACATCATCCCTGACAGAAGTGGCCCGGAGCTGGGGGGAGATGCAACAATAAGAAAGATG
CTGAGCTTCTGGTGGCCTTTGGCTCTAATTCTGGCCACACAGAGAATCAGTCGGCCTATTGTCAACCTCTTTGTT
TCCCGGGACCTTGGTGGCAGTTCTGCAGCCACAGAGGCAGTGGCGATTTTGACAGCCACATACCCTGTGGGTCAC
ATGCCATACGGCTGGTTGACGGAAATCCGTGCTGTGTATCCTGCTTTCGACAAGAATAACCCCAGCAACAAACTG
GTGAGCACGAGCAACACAGTCACGGCAGCCCACATCAAGAAGTTCACCTTCGTCTGCATGGCTCTGTCACTCACG
CTCTGTTTCGTGATGTTTTGGACACCCAACGTGTCTGAGAAAATCTTGATAGACATCATCGGAGTGGACTTTGCC
TTTGCAGAACTCTGTGTTGTTCCTTTGCGGATCTTCTCCTTCTTCCCAGTTCCAGTCACAGTGAGGGCGCATCTC
ACCGGGTGGCTGATGACACTGAAGAAAACCTTCGTCCTTGCCCCCAGCTCTGTGCTGCGGATCATCGTCCTCATC
GCCAGCCTCGTGGTCCTACCCTACCTGGGGGGTGCACGGTGCGACCCTGGGCGTGGGCTCCCTCCTGGCGGGCTTT
GTGGGAGAATCCACCATGGTCGCCATCGCTGCGTGCTATGTCTACCGGAAGCAGAAAAAGAAGATGGAGAATGAG
TCGGCCACGGAGGGGGAAGACTCTGCCATGACAGACATGCCTCCGACAGAGGAGGTGACAGACATCGTGGAAATG
AGAGAGGAGAATGAA**TAA**GGCACGGGACGCCATGGGCACTGCAGGGACAGTCAGTCAGGATGACACTTCGGCATC
ATCTCTTCCCTCTCCCATCGTATTTTGTTCCCTTTTTTTTGTTTTGTTTTGGTAATGAAAGAGGCCTTGATTTAA
AGGTTTCGTGTCAATTCTCTAGCATACTGGGTATGCTCACACTGACGGGGGGACCTAGTGAATGGTCTTTACTGT
TGCTATGTAAAAACAAACGAAACAACTGACTTCATACCCCTGCCTCACGAAAACCCAAAAGACACAGCTGCCTCA
CGGTTGACGTTGTGTCCTCCTCCCCTGGACAATCTCCTCTTGGAACCAAAGGACTGCAGCTGTGCCATCGCGCCT
CGGTCACCCTGCACAGCAGGCCACAGACTCTCCTGTCCCCCTTCATCGCTCTTAAGAATCAACAGGTTAAAACTC
GGCTTCCTTTGATTTGCTTCCCAGTCACATGGCCGTACAAAGAGATGGAGCCCCGGTGGCCTCTTAAATTTCCCT
TCCGCCACGGAGTTCGAAACCATCTACTCCACACATGCAGGAGGCGGGTGGCACGCTGCAGCCCGGAGTCCCCGT
TCACACTGAGGAACGGAGACCTGTGACCACAGCAGGCTGACAGATGGACAGAATCTCCCGTAGAAAGGTTTGGTT
TGAAATGCCCCGGGGGCAGCAAACTGACATGGTTGAATGATAGCATTTCACTCTGCGTTCTCCTAGATCTGAGCA
AGCTGTCAGTTCTCACCCCCACCGTGTATATACATGAGCTAACTTTTTTAAATTGTCACAAAAGCGCATCTCCAG
ATTCCAGACCCTGCCGCATGACTTTTCCTGAAGGCTTGCTTTTCCCTCGCCTTTCCTGAAGGTCGCATTAGAGCG
AGTCACATGGAGCATCCTAACTTTGCATTTTAGTTTTTACAGTGAACTGAAGCTTTAAGTCTCATCCAGCATTCT
AATGCCAGGTTGCTGTAGGGTAACTTTTGAAGTAGATATATTACCTGGTTCTGCTATCCTTAGTCATAACTCTGC
GGTACAGGTAATTGAGAATGTACTACGGTACTTCCCTCCCACACCATACGATAAAGCAAGACATTTTATAACGAT
ACCAGAGTCACTATGTGGTCCTCCCTGAAATAACGCATTCGAAATCCATGCAGTGCAGTATATTTTTCTAAGTTT
TGGAAAGCAGGTTTTTTCCTTTAAAAAAATTATAGACACGGTTCACTAAATTGATTTAGTCAGAATTCCTAGACT
GAAAGAACCTAAACAAAAAAATATTTTAAAGATATAAATATATGCTGTATATGTTATGTAATTTATTTTAGGCTA
TAATACATTTCCTATTTTCGCATTTTCAATAAAATGTCTCTAATACAATACGGTGATTGCTTGTGTGCTCAACAT
ACCTGCAGTTGAAACGTATTGTATCAATGAACATTGTACCTTATTGGCAGCAGTTTTATAAAGTCCGTCATTTGC
ATTTGAATGTAAGGCTCAGTAAATGACAGAACTATTTTTCATTATGGGTAACTGGGGAATAAATGGGTCACTGGA
GTAGGAATAGAAGTGCAAGCTGGAAAGGCAAAAATGAGAAAGAAAAAGGCAGGCCCTTTGTGTCTACCGTTTTCA
GTGCTGTGTGATCATATTGTTCCTCACAGCAAAAAAGAATGCAAGGGCATAATGTTAGCTGTGAACATGCCAGGG
TTGCATTCACATTCCTGGGTACCCAGTGCTGATGGGGTGTGCCCACGTGGGGACATGTCCTTGGCGTGCTTCCTC
AGAGTGGCTTTTCCTCCATTAATACATATATGAGTACTGAAAAATTAAGTTGCATAGCTGCTTTGCAGTGGTTTC

FIGURE 4420B

AGAGGCAGATCTGAGAAGATTAAAAAAAAATCTCAAATGTATCAGCTTTTTTTAAAGGACATTACTAGAAAATTA
AACAGTATTTTTTAACATGTGTGACTTTCATGCTTCTGGGGTTGGAGCTTAAAGATCCAAACTGAGAAAGCAGGC
CGGGCATGGTGGCTCATGCCTGTAATCCCAACACTTTGGGAGGCCAAGGAGGGTGGATCACTTAAGGTCAGGAGT
TTGAGACCAGCCTGGCCAACATGGCGAAACCCTGTCTCTACTAAAAACATAAAAATTAGCTGGGGGTGGTAGCAC
ATACCTGTAATCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATTTGCTTGATCCTGGGAGGCAGAGGTTGTAGTG
AGCCGAGATCGCGCCATCGCACTCCAGCCTGGGTGACAAGAGCAAAACTCCATCTC

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FIGURE 4421

CGCGTGCGCAGAGCGAACGCCTGCAGCCTCCCTGCCCCTCCCACAACGCTCGACCCCAGGATTCCCCCGGCTCGC
CTGCCCGCC**ATG**GCCGACAAGGAAGCAGCCTTTGACAACACAGTGGAAGAATGAGTGATCAACAAGGAATACAAA
ATATGGAAAAAGAACACCCCTTTTCTTTATAATTTGGTGATGACCCATGCTCTGGAGTGGCCCAGCCTAACTGCC
CAGTGGCTTCCAGATGTAACCAGACCAGAAGGGAAAGATTTCAGCCTTCATCGACTTGTCCTGGGGACACACACA
TCGGATGAACAAAACCATCTTGTTATAGCCAGTGTGCAGCTGCCTGATGATGATGCTCAGTTTGATGCATCACAC
TACGACAGAGAGAAAGGAGAATTTGGAGGTTTTGGTTCAGTTAGTGGAAAAATTGAAATAGAAATCAAGATCAAC
CATGAAGGAAAAGTAAACAGGGCCCGTTATATGCCCCAGAACCCTTGTATCATCACAACAAAGACTCCTTCCAGT
GATATTCTTGTCTTTGACTATACAAAACATCCTTCTAAACCAGATCCTTCTGGAGAATGCAACCCAGACTTGCGT
CTCCGTGGACATCAGAAGGAAGGCTATGGGCTTTCTTGGAACCTAAATCTCAGTGGGCACTTACTTAGTGCTTCA
GATGACCACACCATCTGCCTGTGGGACATCAGTGCCGTTCCAAAGGAGGGAAAAGTGGTAGATGCGAAGACCATC
TTTACAGGGCATACGGCAATAGTAGAAGATGTTTCCTGGCATCTACTCTGTGAGTCTCTGTTTGGGTCAGTTGCT
GATGATCAGAAACTGATGATTTGGGATACTCGTTCAAACAATACTTCCAAACCAAGCCACTCAGTTGACACTCAC
ACTGCTGAAGTGAACTGCCTTTCTTTCAGTCCTTATAGTGAGTTCATTCTTGCCACAGGATCAGCTGACAAGACT
GTTGCCTTGTGGGATCTGAGAAATCTGAAACTTAAGTTGCATTCCTTTGAGTCACATAAGGATGAAATATTCCAG
GTTCAGTGGTCACCTCACAATGAGACTATTTTAGCTTCCAGTGGTACTGATCACAGACCGAATGTCTAGGATTTA
AGTAAAATTGGAGAGGAACAATCCCCAGAAGATGCAGAAGACAGGCCACCAGAGTTGTTGTTTATTCATGGTGGT
CACACTGCCAAGATACCTGATTTCTCCTGGAATCCCAGTGAACCTTGAGTGATGTGTTCTGTATCGGAAGACAAT
ATCATGCAAGTGTGGCAAATGGCAGAGAACATTTATAATGATGAAGACCCTGAAGGAAGCATGGATCCAGAAGGA
CAAGGGTCC**TAA**ATATGTCTTTACTTCTTGTGATTTTAGACTCCCCTTTTTTCTTCTCAACCCCGAGAGTGATTT
AACACTGGTTCTGAGACAGATTTTATTCAGCTATCCCTCTATATAATAGGTACCACCGATAATGCTATTAGCCCA
AACAGTGGGTGTTTTCTAAATATTAATGGGGGGCTTGATTCAACAAAGCTACAGAGTTATGTTGAAATTTTCTTC
AGGAATTTTCTAGTAACCCAGGTCTAAAGTAGCTACAGAAAGGGGAATATTATGTGTGATTATTTTTCTTCTTAT
GCTATATCCCCAAGTTTTTTGGACTCATTTAAGTAAAGGCTAGAGTGAGTAAGGAGAATAGAGCCAAATGAGGTA
GGTGTCTGAGCCATGAAGTATAAATACTGAAAGATGTCACTTTTATTCAGGAAATAGGGGAGATTCAAGTCATAT
AGATTCCTACTCGAAAATCTCGACACCTGAGTTTCCAGGATGCACATTTTCATACGTAGACCAGTTTCCTCTTGG
TTTCTTCAGTTAAGTCAAAACAGCACGTTCCTCTTTCCCCATATATTCATATATTTTTGCTCGTTAGTGTATTTC
TTGAGCTGTTTTCATGTTGTTTATTTCCTGTCTGTGAAATGGTGTTTTTTTTTTTTTTGTTGGTGTGTGTTTTTT
TTTTTTAACTTGGGACCGCCAAGTTGTAAAGATGTATGTTTTTACCTGACAGGTATACCACAGGTAGATTGTCAA
GTTGAGAAGAGTGAATCGATAAATTGTATTTGTTTTAAAAATTAAATTAATCCTTGATAAGAGTTGCTTTTTTTT
TAGGAGTTTGTCCTTGACCACTAGTTTGATGCCATCTCCATTTTGGGTGACCTGTTTCACCAGCAGGCCTATTAC
TCTCCATGACTAACTGTGTAAGTGCTTAAAATGGAATAAATTGCTTTTCTACATT

FIGURE 4422

AGGAATGCAGCGGCTGCCACGGAGCTCGTAGCTGCAGCTTTGGAGGAGTAAGCGGCGTGGTAGCGAAGGTCGCCG
AACCCGCCTGGCTAGCCGGCGAGTTGAGTGGCGACTCTTTTGAAACAGATGGTCACCATGTTTAGATATTAGCAG
TCCCGTATGTGCATGTCTGCATTTGAAAATGGAAGAGGGAAACAACAATGAAGAGGTAATTCACTTGAACAACTT
TCACTGCCATCGGGGACAAGACTTTGTAATTTTCTTCTGGAAAACCCAGATTATCCAAAGAGAGAAGACAGAATC
ATTATAAATCCCAGTAGCAGTCTGCTGGCCAGCCAAGATGAGACAAAGTTGCCTAAAATAAGACTTTTTTGACTA
TTCTAAATTGACTCCTCTTGACCAGCACTGCTTCATCCAAGCTGCTGACCTCCTCATGGCCGACTTCAAAGTGCT
CAGTAGTCAGGACATCATGTGGGCCCTGCACGAGCTCAAAGGACACT**ATG**CAATCACCCGAAAGGGGTTGGCATC
TGCACATCCTTCCTGGGCATCTCGTGGGCACTGCTCGATTACCACCAGGCCTTGCACACCTGCCTCCCCTCCAAG
CCCCTCCTGGGCCTGGGCTCCTCTGTGATCTACGTCCTGTGGAACCTGCTGCTACTGTGGCCCCGAGTCCTAGCT
GTGGCCCTGTTCTCAGCCCTCTTCCCCAGTATGTAGCCCTGCATTTCCTGGGCCTGTGGCTGGTACTGCTGCTCT
GGGTTTGGCTTCAAGGCACAGACTTCATGCTGGACCCCAGTTCCGAGTATCCTCTATTTCTCCTGGTTCAACGTG
GC**TGA**GGG

FIGURE 4423

GTGCGTCGCGGGGGCGGGGCCGCGCAGGCGTACCGGGTGCCCCGGCTCTGGAGCATAAACAAGAGCGGGGACGGG
ATGAGGCGGCGGTTGATCCCAGGGTGGCGAGTGGCGGCGACCGAGGCGGCGAGCGGGGCCCGGCGCCGACCCTGA
GTGCAGCCTGACCCGCCCTCGCGCGCGCGCCCTCCCCGGCCGGGCCCACTCGCCGCGCGCCCAGCC**ATG**AACCTG
GCGAGCCAGAGCGGGGAGGCCGGCGCCGGCCAGCTGCTCTTCGCCAACTTCAACCAGGACAACACAGAAGTGAAA
GGGGCATCAAGAGCAGCTGGTCTTGGCCGTCGCGCTGTTGTCTGGTCCCTAGCTGTTGGTAGTAAGTCCGGTTAT
AAATTTTTCTCCCTTTCTTCTGTGGATAAGCTGGAACAGATCTATGAATGCACCGATACGGAAGATGTGTGCATT
GTAGAGAGATTGTTCTCCAGCAGCCTAGTGGCCATCGTCAGCCTTAAAGCACCAAGGAAGCTAAAGGTTTGCCAC
TTTAAGAAGGGAACTGAGATCTGCAACTACAGCTACTCCAACACGATTCTGGCTGTGAAGCTCAACAGGCAGAGG
CTGATAGTATGCCTGGAGGAGTCCCTGTACATCCACAACATTCGGGACATGAAGGTGCTGCATACGATCAGGGAG
ACGCCTCCAAACCCTGCAGGCCTGTGTGCGCTGTCAATCAACAACGACAACTGCTACTTGGCGTACCCAGGGAGC
GCGACCATCGGAGAGGTGCAGGTCTTCGATACCATTAATTTGAGAGCTGCAAACATGATTCCGGCTCACGACAGT
CCTTTAGCGGCACTGGCCTTTGACGCAAGTGGAACTAAACTTGCCACGGCTTCGGAGAAGGGGACCGTGATTAGG
GTATTTTCCATTCCAGAAGGACAAAAACTCTTTGAGTTTCGGAGAGGAGTAAAGAGGTGCGTGAGCATCTGCTCC
CTGGCCTTCAGCATGGACGGCATGTTCCTCTCCGCCTCCAGCAACACTGAGACCGTGCACATCTTCAAACTCGAG
ACTGTGAAAGAAAAACCCCCAGAGGAGCCCACCACCTGGACCGGGTACTTCGGGAAAGTGCTCATGGCCTCCACC
AGCTACCTGCCTTCCCAAGTGACAGAAATGTTCAACCAGGGCAGAGCCTTCGCCACGGTCCGCCTGCCATTCTGC
GGCCACAAAAACATCTGCTCGCTAGCCACAATTCAGAAGATCCCGCGGTTGTTGGTGGGTGCCGCCGACGGGTAC
CTGTACATGTACAACCTGGACCCCCAGGAGGGCGGCGAGTGTGCCCTGATGAAGCAGCACCGGCTGGACGGCAGT
CTGGAAACGACCAATGAGATCTTGGACTCTGCCTCTCACGACTGCCCCTTAGTCACTCAGACATACGGCGCAGCT
GCAGGAAAAGGTACTTACGTGCCTTCATCCCCAACGAGACTTGCCTACACAGACGACCTGGGTGCTGTGGGTGGC
GCCTGCCTGGAGGACGAGGCCAGCGCCCTGCGCCTGGATGAGGACAGCGAGCACCCGCCCATGATTCTTCGGACT
GAC**TGA**ACTTGACCTGTGACCTCTGACCCGGGGAGCAGAGAACACTGGCTTCACAGAGGACTTTGTGCATTGCTG
CTATGAACTTTGACCTGAGTCGGGGGAGAGGATGGCAGAGACTTTATTAAAAAAAAAAAAAAGATTGTAGTGGTAG
TCTAACTCCATAACGCTGAGGAAATACATCATTTTCACTTCAGTGGCTTTTAAATCCTGCTTATGAATTTTAGCT
TTTTGTTTGTTTGTTTTCTCTTTTTGCCAAAATTAACTGTTTGGTGAAGCCCGCAAAACCTCCTCGCTTTGCATG
CATGAACGTGCCAAGCCAGCATAGGGGAGCTAGAAGCCACTTTCCAGCCACCTGCCGTTGGGTTTTTTCATATCT
GTACATAATGCCGAGTGCGTAAGGAAACCGTGGCGTCGCGCACAGTGGGTCTGCTTGTCAAGGCCAGTTCTGCAG
TGACAGGCCCAGGGGCTGCCCACCAGGTGTGCTGGGCAGACTTCAGCTGGGACAGAAGTCCGATCTCCCTAGGGC
CCCACCTGGACCATTTTCCCTCCGTTTTATTTTGTTAATTAAATTCTTTCCAAATTGGATCGCTCTGGGATTTCT
TCCATGGTGGACTTTTGTTTCTGATCTTGTTTTCCCTGTGGATATTGGAGGACAGCGAGGTTCTTTCTGATACTA
AAAACCTTTCTTTCAGGCAGCAAATGAACTTGAAAGGTTGCCTGGACTCGCTGGAGCAAAGGAAAGCGATTTTGT
TTGTATAATTAAATGATCTGTTCTTCTACTTCACTCTT

FIGURE 4424A

CGCCTGGCACTCTCACCCGAAGACAAGCCCATCCGCTTGTCCCCCTCCAAGATCACAGAGCCGCTGCGGGAGGGC
CCGGAGGAAGAACCGCTGGCTGAGCGGGAGGTGAAGGCAGAGGTGGAGGACATGGACGAGGGCCCCACAGAGCTG
CCGCCTCTGGAGTCGCCGCTGCCACTGCCCGCCGCGGAAGCCATGGCTACCCCCAGCCCTGCAGGGGGTTGTGGA
GGTGGCCTGTTGGAGGCCCAGGCGCTGAGTGCCACCGGGCAGAGCTGCGCAGAGCCCTCTGAGTGTCCAGACTTT
GTGGAGGGGCCTGAACCACGGGTGGATTCCCCGGGCCGGACAGAACCCTGCACCGCCGCCCTGGACCTGGGGGTG
CAGCTGACACCCGAGACACTGGTGGAGGCCAAGGAGGAGCCGGTGGAGGTGCCTGTGGCGGTGCCCGTGGTGGAG
GCAGTGCCCGAGGAAGGCCTGGCGCAGGTGGCACCGAGCGAGTCCCAGCCCACCCTAGAAATGTCAGACTGTGAC
GTGCCCGCCGGGGAGGGACAGTGCCCGAGCCTGGAGCCCCAAGAGGCCGTGCCTGTACTCGGCAGCACCTGCTTC
CTGGAAGAGGCAAGCTCTGACCAGTTCCTGCCCAGTCTGGAGGACCCACTGGCTGGCATGAACGCCCTGGCGGCA
GCTGCGGAGCTGCCCCAGGCCAGGCCTCTGCCCTCCCCGGGTGCTGCTGGAGCCCAGGCCTTGGAGAAGCTGGAA
GCAGCCGAGAGCCTTGTCTTGGAGCAGAGCTTCCTGCATGGCATCACCCTGCTAAGTGAGATCGCAGAGCTGGAG
CTGGAGAGGAGGAGCCAAGAGATGGGAGGTGCGGAGCGGGCCCTGGTGGCGCGGCCCTCCCTGGAGAGTCTGCTG
GCAGCTGGCAGCCACATGCTGAGGGAGGTGCTGGATGGGCCCGTGGTGGACCCACTCAAGAACCTGCGGCTCCCG
CGGGAGCTGAAGCCCAACAAGAAGTACAGCTGGATGCGCAAGAAGGAGGAGCGGATGTATGCCATGAAGTCCTCC
CTGGAGGACATGGACGCCCTGGAGCTGGACTTCCGGATGCGGCTGGCCGAGGTGCAGCGCCAGTACAAGGAGAAG
CAGCGTGAGCTGGTGAAGCTGCAGCGCCGCCGGGACTCCGAGGACAGGCGCGAGGAACCCCATAGAAGCTTGGCA
CGCAGAGGCCCTGGCAGGCCGCGGAAACGGACCCACGCCCCGAGCGCCCTGTCGCCCCCCCGCAAGAGAGGGAAG
AGCGGCCACAGTAGCGGAAAGCTGAGCAGCAAGTCTCTGCTGACATCAGATGATTATGAGCTGGGAGCAGGGATA
AGAAAGAGACACAAGGGGTCTGAGGAGGAACATGATGCCCTCATCGGAATGGGGAAAGCCAGGGGGAGGAACCAG
ACTTGGGATGAACATGAGGCCTCGTCGGACTTCATCAGTCAGCTAAAGATTAAGAAGAAGAAGATGGCCAGCGAC
CAGGAGCAGTTGGCAAGCAAGCTCGACAAGGCCCTCTCCCTCACCAAGCAGGACAAGTTGAAGTCGCCCTTCAAG
TTTTCGGACAGTGCTGGGGGGAAATCGAAAACTAGCGGGGGCTGCGGCAGGTACTTGACTCCTTACGACAGCCTG
CTGGGGAAGAACAGGAAGGCGCTGGCCAAGGGCCTCGGCCTGTCTCTGAAATCCTCCAGAGAAGGTAAACACAAA
AGGGCAGCCAAAACCAGGAAGATGGAGGTGGGGTTCAAGGCCAGAGGCCAGCCCAAGTCGGCCCATTCCCCGTTT
GCCTCGGAAGTGAGCAGCTACTCTTACAATACGGACTCAGAGGAAGACGAAGAATTCCTGAAGGACGAGTGGCCC
GCCCAAGGCCCCTCCAGCTCCAAACTGACGCCTTCCCTCCTGTGTAGCATGGTGGCAAAGAACAGCAAGGCAGCT
GGTGGCCCCAAGCTGACCAAGAGGGGCCTGGCGGCCCCCCGGACTCTGAAACCCAAGCCGGCCACCAGCAGGAAG
CAGCCGTTTTGTCTGCTGCTTCGAGAGGCCGAGGCGCGTTCCTCCTTCAGCGACTCTTCGGAGGAATCGTTTGAC
CAAGATGAGAGCTCGGAGGAGGAGGACGAGGAGGAGGAGCTCGAGGAGGAGGACGAGGCCAGCGGTGGTGGCTAC
AGGCTGGGTGCCCGGGAGCGGGCCCTGTCACCGGGCCTGGAGGAGAGTGGGCTGGGCCTGCTGGCACGCTTCGCC
GCCAGCGCCCTCCCCAGCCCCACGGTGGGTCCATCCCTGTCTGTGGTACAGCTGGAGGCCAAGCAGAAGGCCGGG
AAGAAAGAGGAGCGGCAGAGCCTGCTGGGCACAGAGTTCGAGTACACCGACTCAGAGAGCGAGGTCAAGGTGCGC
AAGCGGTCGCCTGCGGGGCTGCTGCGGCCCAAGAAGGGGCTGGGGGAGCCGGGACCCTCCCTGGCCGCACCCACG
CCTGGCGCCCGCGGTCCCGACCCCAGCAGCCCAGACAAGGCCAAGCTGGCGGTGGAGAAGGGGCGCAAGGCCCGG
AAGCTGCGGGGCCCCAAGGAGCCTGGCTTCGAGGCGGGGCCCGAGGCCAGCGACGACGACCTGTGGACGCGGCGC
CGCAGCGAGCGCATCTTCCTGCACGACGCCTCGGCTGCTGCACCTGCGCCCGTCAGCACCGCGCCCGCCACCAAG
ACCAGCCGCTGCGCCAAGGGCGGCCCCCTGAGCCCGCGCAAGGACGCCGGGCGTGCAAAGGACAGGAAGGACCCC
AGGAAGAAGAAGAAAGGGAAAGAGGCTGGGCCAGGAGCTGGGCTGCCGCCGCCCCGAGCTCCTGCCTTGCCCTCT
GAGGCCAGGGCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCATCCTCCTCTTCCTCCTCCTCCTCTTCCTCCTCCT
CCTCTTCCTCTTCGTCTTCCTCCTCTTCCTCCTCCTCCTCTTCCTCGTCCTCATCCTCCTCCTCCTCCTCCTCTT
CCTCCTCTTCTTCCTCCACCACAGACGAGGACTCTTCCTGCAGCTCGGACGATGAGGCAGCCCCCGCCCCCACGG
CTGGCCCTTCCGCGCAGGCGGCGCTCCCCACCAAGGCCACCAAGCAGGCCGGCAAGGCGCGGCCCTCGGCCCACT
CCCCAGGCAAGAAGACGCCCGCGCCCCAGCCCCAGGCGCCTCCTCCGCAGCCCACACAGCCTCTGCAGCCCAAGG
CTCAGGCCGGGGCCAAGAGCCGACCCAAGAAGAGAGAGGGCGTCCACCTCCCCACCACCAAGGAGCTGGCCAAGC
GGCAGCGCCTGCCGTCCGTGGAGAACCGGCCCAAGATCGCCGCCTTCCTGCCAGCCCGGCAGCTCTGGAAGTGGT
TCGGCAAGCCCACCCAGCGGCGTGGCATGAAGGGCAAGGCCCGCAAGCTCTTCTACAAGGCCATCGTGCGCGGCA
AGGAGATGATCCGTATCGGGGACTGTGCCGTGTTCCTCTCTGCCGGCCGCCCCAACCTGCCCTACATCGGCCGCA
TCCAGAGCATGTGGGAGTCGTGGGGCAACAACATGGTGGTCCGCGTCAAGTGGTTCTACCACCCCGAGGAGACCA

FIGURE 4424B

GCCCGGGCAAGCAGTTCCACCAGGGCCAGCACTGGGACCAGAAGTCCAGCCGCAGCCTCCCGGCGGCCCTGCGGG
TCTCCAGCCAGAGGAAGGACTTCATGGAGCGCGCGCTATACCAGTCCTCGCATGTGGACGAAAATGACGTGCAGA
CGGTGTCGCACAAGTGCCTGGTGGTGGGCCTGGAGCAGTATGAGCAGATGCTGAAGACCAAGAAGTACCAGGACA
GCGAGGGCCTGTACTACCTCGCGGGCACCTACGAGCCCACCACGGGCATGATCTTCTCCACGGACGGCGTGCCCG
TGCTCTGCTGAGCCCGCCGGGCCCTGCGGGCCACCTGTGCCCCGAGGGCGGCCAGGGACCCATCTCCATCACTGC
CATGGCGCGGAGACCACGTGCGTTGTGTGCATGCGAGCGCTCCTGCAGGCGTGTGCATGGGGCCAGGTGTGCACG
TGGATGCCCGGGTGAGTGTGTGTGCATGCACGTGTGTGCACGCATGTGCACATGCCTCCAGCCCCACCTTCCAAC
CCCTCAGTGCCCCCAGGACAGGGGCCCCTCTTAGCTATCAGGGTATGGCCGGACCGGCCCTTCCTGCCCAGCACG
TTGCAAGCACTTGGCCAGGCCGGCCCTCCAGGCTGCTGCTGCGTGGGGGCCCGGGTGCCCCCAGGTCCATGCAGA
CTGGGGATTCGGTGGGGAGGGGCGCTTCTAAGGAACCAAACTGACGCTCACTCTGGGCTTCCCAAGCACCCTTAG
CATGGAGCCCACCCCAAGGCCTCCCACCGTGCATGGGACAGGGCAGCCCGATGCCAGCTGGCCTACCTGACTGTG
CCAGGGGCCCTGCCCCCACCCTCTCAGGATGGCCTAGACTTGGGGAACAGAGCCGGGTGGGGTTGCAGCCCGGAG
TGTCTGTCAAAGGCACCAGGTGGAGAGGGCCCGGCACAGGCCCACCCTGGTCCAAACCCTCACACTACAGAAAAC
CCCAATGGTGCTGAAACTGTCGCCCGGCCACGCCTGGCCCCTCCCCACCCAGGAGGGAGGTGGCACTTCTTAACC
TGTACAGTTTTATTGTACCAAGAGACTCGCCCCGCCCCTGTATCATAAGCCTTTAAATGGAGTCAACTTTTTAAT
TATATATATAAAGATAAATATATATAAATATATATATAAACTTTTTAAAACTGTGAAAAATAGCTATGAAATTAT
AAAAAAAAACATTCTGACGTGCAGAATATTATTTTTTATTTCCTGTTAGATTATAGTGTCTAGCACCGGCTTCAC
CGGCCTCCCAGTCCCCAGCACACCCCCCGCCCACCCCACCAAGTGTACTGTACTCACCCCCCAGGATAGAGAAGT
GTTTGTTAGGGAGAGAAGAGGGAGAGGCAGGAGCCGGCCCAAGCCCAGGGTCCCTGCTTGGGCCCCAGAAAGCAC
TTAACCAGGCCCCAAGCCTTCAAGGGAAACCAAGGCCTCAACCAGACAATCTTGAGGGAAGGAAAAGCCAGACTT
TGGGTTTGTTTTTTGGGGGAATTATTGGTTTTTTTTTTTATGTTTCTTTTGGAATTTTGTTTGTTGGCAAATTCT
GTGTGATCTTTTTTCATAAAAAAAAAAGAAAAGATTTAATTGGAAAAAT

FIGURE 4425

GTGCAGAACCTTTGCCTCCTGGCCAGAGGGACCCTTCTGCAGGCTGATTCCAGCAGTGCCCGATGGTGGGACCCA
CACCAGACCAAGCCTTCGCCTCCCAGAGGCCTCCTGGCCCTCCTGTCATGGCCTGTGAGAGCCACACCCCTAGGC
CCCGTCTCCTAGTCTGCAGGCCGCAGGACCAGCTGCCCACGGCCCCAGGGGGCAGGGGCTGTAGATGAGGGTCTC
AGAGGTGGTGGGAGCACCCCCCCCACCCACAGTTCCTGGGCATTTCTTTAGAGCTTTAAAATGGCACCTGGAGAC
CACCAGGCGCGGCGATCAGATCGGGTGGTGTGGTGCCTCCTGGGACTGACCACTTCTTGCTCTCCGACCAGGCAG
GGGCGAGTGGCCTGGGAGGTTCCCGGACCCTCAGGGGGCCTGTGTCTCTGGGCACCGCAGCTCCGCCCCACTCCT
TCCTCCAGAACATTCCCCACTCGGGCTAGAGAATTGCGTCTGCTCCAGGAATGCATCCTAGCGTGTGTACGATCG
CGCCTGGGTGTCCTGTTCTCATGAGCAAGCGGTTTTAACCAGCAGCATAATTTATACTCATAGACAGGACTGGGG
GAAGGGCTGTTCCTGAGGCTGGGGTGCAGTGCCTTGGAAAGCACCCCTGAAACAGTGGACCTTGTATTTTTAGTG
TCCCCTGCAACCATCCTCTGACTTAGAGCAAGAATTTCCGCTGCTGCTACCCCCGAGATGGGCTTCACCAGATGT
TAATAACGTGCTTATTTTCTCTAAGTGCTATTTTGGCACCAGCGTTAGTTGCAATTTATATTCTGCAGCATTTGA
TGCTGGGAAAAGAACCCACCCTAATGGTCCCCAATTGGCAGAGCTCGGCTGTTAAGCAGCAGACCATATGCTGCC
TGCTGGAGGAGCGTGGTCAGCACTTGTCCCCGTGCCTGCGTGCGTGTGCCTGCGTGCACGTGTGCCTGCGGGTAC
CTGTGCCCTGTGTGTGCACATGTGCCTGCATGCGTGTGCCTGCGTGCACGTGTGCCTGTGTGTACATGTGCCTGC
GTGTACCTGTGCCCTGTGTGTGCACGTGTGCCTTCGTGTACCTGTGCCCTGTGTGTGCATGTGTGTGTGAGTCAC
GTCTTCCGTGTGTGTATGTGAGGGAGAGACTGTGGGGTTGGAGGGAGGGAGGAGGGGAAAGGGTATGTATCCCTT
TGTTCTTTAAAAGGGAGAGCCCCAACCTCTCTGGCTGCCCCCTCCTGCCTGTGCTCCCAGCTCACCCCACACCTA
GCTGCTATTTATTCTCCTGACCCCCTTCCCGGCCCTGCAGCCCCGTGTCCCGCAGCCTCCGCCCCGCCTCCTGCT
CCACGTCACCAGGCAACACTCGGCTCCACCAGGCTTCCGAAGGTGGCCCAGAGCAGGCACTTGAGCCTGATGACC
CAGAGCAAAGCTGCCTTTCTGGGCCTTGAGTACTCCTTTCTGCTATGGAAGGCTTTTCTTGTTTTCAACGGCCCG
TCCAGCCCAGGGGGGCTGGGTGAGGGCCGCTTCCTTCTGCAGCAGAGGGGGCGGGCTCTATCCTTGCCATCTGCT
GCCCCCAGAGGCCCTGCCAGGACATGGGCCTGAGCGGTTTCTTCTCCAAGAGGCCCTCCTGGGACCTGTCTGTGC
ACAGGGCGGGAAGACACTTGCTGCTTCGACCCAGGACGGCAGCCAGGACGGGCTGAGCTCCTCTTGCGCTGCAAA
CACACAAGGGTTGCCTGCCAGCTCAGCAGCGCCCTCCCTCAACCACACCCTGGGTCCGGACCCAGAGCCACAGGC
CGTTGGACCCAGGGGACCGGGGCTGGGCTCAGGCGTGGGCCTGGAGGGCTTGTGGAGGGGCCAGACCTAGAGCCG
TAGGGCTCCAACAGCTGAGGGCTGGGCCCCTGCCGGCCAATGAAGCTCCAGACCAGTGCTCCGGCCTTGGCGGTG
CCAGCAGTGCTCCTGCAGGGATGGAGGGTGCTGGAGGCCTGGATGCGGGGACCTTGATCCCCCAGCAGGCAGCGC
TGTGGTCCCAGCCACTCAGGAGGCTGAGGCAGGAGAATGGCATGAACCTGGGAGGCGGAGCTTGCAGTGAGCTGA
GATCGCACCACTGCATTCCAGCCTGGGCGACAGAGTGAGACTCCGTCTCAAAAAAAAAAAAAAACAAAAGAAGTTT
CTAGATCTACTGGGCATGATGAACACAAACCCCACAGACACTGAGGAACCCAGTGGTGGCAGTGACTCGGGCTCC
TCTGCTCTCTAAAGCTCCTTTGAGAAAC**ATG**GGAGGGGCCGGGCGTGGTGGTTCACGCCTGTCATCCCAGCACTT
TGGGAGGCTGGGGCAGGAGGATCGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGGCAACATAGTGAGACTGTATC
GCTACATAAAATAAAAAAAAAAGTTAGCTGGGCATTGTACATGTGCCTGTGGTCCCAGCTACTCAGGAGGCTGAG
GCAGGAGGATTGCTTGAGCCCAGGAGTTGGATGTTGCAGTGAGCCAAGATCGCACCATTGCCCTCCACTCTGGGC
CACGGAGCAATACCCTGTCTCAGAAAACAAACAACAAAAAGCAGAAACGCTGAAGGGGTCGGTTTACGGGAAAAC
CGCCTGTCAGAACACTTGGCTACTCCTACCCCAGATCAGTGGACCTGGGAATGAGGGTTGGTCCCGGGAGGCTTT
TCTCCAAGCTGTTGCCACCAGACCCGCCATGGGAACCCTGGCCACAGAAGCCTCCCGGGGAGTGAGCCAGAGCCT
GGACCGCTGTGCTGATGTGTCTGGGGTGGAGGGAGGGTGGGGAGTGTGCAAGGGTGTGTGTGTGCCCGGGGGGTG
TTCATGGGCAAGCATGTGCGTGCCTGTGTGTGTGCGTGCCCCTCCCCTGCAGCCGTCGGTGGTATCTCCCTCCAG
CCCCTTCGCCACCTTC**TGA**GCATTGTCTGTCCACGTGAGACTGCCCAGAGACAGCAGAGCTCCACGTGGTTTTAA
GGGGAGACCTTTCCCTGGACCTGGGGGTCTCGCCGTATCTCATGACCAGGTGCTAAATGACACGACATGCATCAC
CTGCCTTTCGATGACCAACCTCCCTGTCCCCGTCCCGCTGACCTGCCCCCGTGGCGTCTCACGGTGATGCCTGCT
CCTGACATTGGTGTTCACTGTAGCAAACTACATTCTGGATGGGAATTTTCATGTACATGTGTGGCATGTGGAAAA
TTTCAAATAAAATGGACTTGATTTAG

FIGURE 4426

CGCGTCCGCCCCGCGAGCACAGAGCCTCGCCTTTGCCGATCCGCCGCCCGTCCACACCCGCCGCCAGCTCACCATG
GGATGATGATATCGCCGCGCTCGTCGTCGACAACGGCTCCGGCATGTGCAAGGCCGGCTTCGCGGGCGACGATGC
CCCCCGGGCCGTCTTCCCCTCCATCGTGGGGCGCCCCAGGCACCAGGGCGTGATGGTGGGCATGGGTCAGAAGGA
TTCCTATGTGGGCGACGAGGCCCAGAGCAAGAGAGGCATCCTCACCCTGAAGTACCCCATCGAGCACGGCATCGT
CACCAACTGGGACGACATGGAGAAAATCTGGCACCACACCTTCTACAATGAGCTGCGTGTGGCTCCCGAGGAGCA
CCCCGTGCTGCTGACCGAGGCCCCCCTGAACCCCAAGGCCAACCGCGAGAAGATGACCCAGATCATGTTTGAGAC
CTTCAACACCCCAGCCATGTACGTTGCTATCCAGGCTGTGCTATCCCTGTACGCCTCTGGCCGTACCACTGGCAT
CGTGATGGACTCCGGTGACGGGGTCACCCACACTGTGCCCATCTACGAGGGGTATGCCCTCCCCCATGCCATCCT
GCGTCTGGACCTGGCTGGCCGGGACCTGACTGACTACCTCATGAAGATCCTCACCGAGCGCGGCTACAGCTTCAC
CACCACGGCCGAGCGGGAAATCGTGCGTGACATTAAGGAGAAGCTGTGCTACGTCGCCCTGGACTTCGAGCAAGA
GATGGCCACGGCTGCTTCCAGCTCCTCCCTGGAGAAGAGCTACGAGCTGCCTGACGGCCAGGTCATCACCATTGG
CAATGAGCGGTTCCGCTGCCCTGAGGCACTCTTCCAGCCTTCCTTCCTGGGCATGGAGTCCTGTGGCATCCACGA
AACTACCTTCAACTCCATCATGAAGTGTGACGTGGACATCCGCAAAGACCTGTACGCCAACACAGTGCTGTCTGG
CGGCACCACCATGTACCCTGGCATTGCCGACAGGATGCAGAAGGAGATCACTGCCCTGGCACCCAGCACAATGAA
GATCAAGATCATTGCTCCTCCTGAGCGCAAGTACTCCGTGTGGATCGGCGGCTCCATCCTGGCCTCGCTGTCCAC
CTTCCAGCAGATGTGGATCAGCAAGCAGGAGTATGACGAGTCCGGCCCCTCCATCGTCCACCGCAAATGCTTCTAG
GGCGGACTATGACTTAGTTGCGTTACACCCTTTCTTGACAAAACCTAACTTGCGCAGAAAACAAGATGAGATTGG
CATGGCTTTATTTGTTTTTTTTGTTTTGTTTTGGTTTTTTTTTTTTTTTTGGCTTGACTCAGGATTTAAAAACTG
GAACGGTGAAGGTGACAGCAGTCGGTTGGAGCGAGCATCCCCCAAAGTTCACAATGTGGCCGAGGACTTTGATTG
CACATTGTTGTTTTTTTAATAGTCATTCCAAATATGAGATGCGTTGTTACAGGAAGTCCCTTGCCATCCTAAAAG
CCACCCCACTTCTCTCTAAGGAGAATGGCCCAGTCCTCTCCCAAGTCCACACAGGGGAGGTGATAGCATTGCTTT
CGTGTAAATTATGTAATGCAAAATTTTTTTAATCTTCGCCTTAATACTTTTTTATTTTGTTTTATTTTGAATGAT
GAGCCTTCGTGCCCCCCCTTCCCCCTTTTTTGTCCCCCAACTTGAGATGTATGAAGGCTTTTGGTCTCCCTGGGA
GTGGGTGGAGGCAGCCAGGGCTTACCTGTACACTGACTTGAGACCAGTTGAATAAAAGTGCACACCTTA

FIGURE 4427

GCGGAGGGTGCGTGCGGGCCGCGGCAGCCGAACAAAGGAGCAGGGGCGCCGCCGCAGGGACCCGCCACCCACCTC
CCGGGGCCGCGCAGCGGCCTCTCGTCTACTGCCACC**ATG**ACCGCCAACGGCACAGCCGAGGCGGTGCAGATCCAG
TTCGGCCTCATCAACTGCGGCAACAAGTACCTGACGGCCGAGGCGTTCGGGTTCAAGGTGAACGCGTCCGCCAGC
AGCCTGAAGAAGAAGCAGATCTGGACGCTGGAGCAGCCCCCTGACGAGGCGGGCAGCGCGGCCGTGTGCCTGCGC
AGCCACCTGGGCCGCTACCTGGCGGCGGACAAGGACGGCAACGTGACCTGCGAGCGCGAGGTGCCCGGTCCCGAC
TGCCGTTTCCTCATCGTGGCGCACGACGACGGTCGCTGGTCGCTGCAGTCCGAGGCGCACCGGCGCTACTTCGGC
GGCACCGAGGACCGCCTGTCCTGCTTCGCGCAGACGGTGTCCCCCGCCGAGAAGTGGAGCGTGCACATCGCCATG
CACCCTCAGGTCAACATCTACAGCGTCACCCGTAAGCGCTACGCGCACCTGAGCGCGCGGCCGGCCGACGAGATC
GCCGTGGACCGCGACGTGCCCTGGGGCGTCGACTCGCTCATCACCCTCGCCTTCCAGGACCAGCGCTACAGCGTG
CAGACCGCCGACCACCGCTTCCTGCGCCACGACGGGCGCCTGGTGGCGCGCCCCGAGCCGGCCACTGGCTACACG
CTGGAGTTCCGCTCCGGCAAGGTGGCCTTCCGCGACTGCGAGGGCCGTTACCTGGCGCCGTCGGGGCCCAGCGGC
ACGCTCAAGGCGGGCAAGGCCACCAAGGTGGGCAAGGACGAGCTCTTTGCTCTGGAGCAGAGCTGCGCCCAGGTC
GTGCTGCAGGCGGCCAACGAGAGGAACGTGTCCACGCGCCAGGGTATGGACCTGTCTGCCAATCAGGACGAGGAG
ACCGACCAGGAGACCTTCCAGCTGGAGATCGACCGCGACACCAAAAAGTGTGCCTTCCGTACCCACACGGGCAAG
TACTGGACGCTGACGGCCACCGGGGGCGTGCAGTCCACCGCCTCCAGCAAGAATGCCAGCTGCTACTTTGACATC
GAGTGGCGTGACCGGCGCATCACACTGAGGGCGTCCAATGGCAAGTTTGTGACCTCCAAGAAGAATGGGCAGCTG
GCCGCCTCGGTGGAGACAGCAGGGGACTCAGAGCTCTTCCTCATGAAGCTCATCAACCGCCCCATCATCGTGTTC
CGCGGGGAGCATGGCTTCATCGGCTGCCGCAAGGTCACGGGCACCCTGGACGCCAACCGCTCCAGCTATGACGTC
TTCCAGCTGGAGTTCAACGATGGCGCCTACAACATCAAAGACTCCACAGGCAAATACTGGACGGTGGGCAGTGAC
TCCGCGGTCACCAGCAGCGGCGACACTCCTGTGGACTTCTTCTTCGAGTTCTGCGACTATAACAAGGTGGCCATC
AAGGTGGGCGGGCGCTACCTGAAGGGCGACCACGCAGGCGTCCTGAAGGCCTCGGCGGAAACCGTGGACCCCGCC
TCGCTCTGGGAGTAC**TAG**GGCCGGCCCGTCCTTCCCCGCCCCTGCCCACATGGCGGCTCCTGCCAACCCTCCCTG
CTAACCCCTTCTCCGCCAGGTGGGCTCCAGGGCGGGAGGCAAGCCCCCTTGCCTTTCAAACTGGAAACCCCAGAG
AAAACGGTGCCCCCACCTGTCGCCCCTATGGACTCCCCACTCTCCCCTCCGCCCGGGTTCCCTACTCCCCTCGGG
TCAGCGGCTGCGGCCTGGCCCTGGGAGGGATTTCAGATGCCCCTGCCCTCTTGTCTGCCACGGGGCGAGTCTGGC
ACCTCTTTCTTCTGACCTCAGACGGCTCTGAGCCTTATTTCTCTGGAAGCGGCTAAGGGACGGTTGGGGGCTGGG
AGCCCTGGGCGTGTAGTGTAACTGGAATCTTTTGCCTCTCCCAGCCACCTCCTCCCAGCCCCCCAGGAGAGCTGG
GCACATGTCCCAAGCCTGTCAGTGGCCCTCCCTGGTGCACTGTCCCCGAAACCCCTGCTTGGGAAGGGAAGCTGT
CGGGTGGGCTAGGACTGACCCTTGTGGTGTTTTTTTGGGTGGTGGCTGGAAACAGCCCCTCTCCCACGTGGCAGA
GGCTCAGCCTGGCTCCCTTCCCTGGAGCGGCAGGGCGTGACGGCCACAGGGTCTGCCCGCTGCACGTTCTGCCAA
GGTGGTGGTGGCGGGCGGGTAGGGGTGTGGGGGCCGTCTTCCTCCTGTCTCTTTCCTTTCACCCTAGCCTGACTG
GAAGCAGAAAATGACCAAATCAGTATTTTTTTTAATGAAATATTATTGCTGGAGGCGTCCCAGGCAAGCCTGGCT
GTAGTAGCGAGTGATCTGGCGGGGGGCGTCTCAGCACCCTCCCCAGGGGGTGCATCTCAGCCCCCTCTTTCCGTC
CTTCCCGTCCAGCCCCAGCCCTGGGCCTGGGCTGCCGACACCTGGGCCAGAGCCCCTGCTGTGATTGGTGCTCCC
TGGGCCTCCCGGGTGGATGAAGCCAGGCGTCGCCCCCTCCGGGAGCCCTGGGGTGAGCCGCCGGGGCCCCCCTGC
TGCCAGCCTCCCCCGTCCCCAACATGCATCTCACTCTGGGTGTCTTGGTCTTTTATTTTTTGTAAGTGTCATTTG
TATAACTCTAAACGCCCATGATAGTAGCTTCAAACTGGAAATAGCGAAATAAAATAACTCAGTCTGC

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FIGURE 4428

GTCTCTGGGCGGGCCGTGGGAGGCTCCCGAGGTGGGGGCCGGGGCGGGATGGCTGCAGCGGCGGCCGGGGCCGGG
AGCGGGCCCTGGGCGGCCCAGGAGAAGCAGTTCCCGCCGGCGCTGCTGAGTTTCTTCATCTACAACCCGCGCTTC
GGGCCGCGCGAAGGACAGGAGGAAAATAAGATTTTATTTTATCATCCAAATGAGGTAGAAAAGAATGAGAAGATT
AGAAATGTCGGATTGTGTGAAGCTATTGTACAGTTTACAAGGACATTTAGCCCATCAAAACCTGCAAAATCTTTA
CATACACAGAAGAACAGACAGTTCTTCAATGAACCAGAAGAAAATTTCTGGATGGTCATGGTTGTTCGGAATCCT
ATAATTGAAAAACAGAGTAAAGATGGAAAACCAGTTATTGAATATCAAGAGGAGGAGTTGTTGGACAAGGTTTAT
AGCTCGGTGCTGCGGCAGTGCTACAGCATGTACAAGCTTTTTAATGGTACATTTCTGAAAGCCATGGAAGACGGA
GGCGTCAAGCTTCTGAAAGAAAGATTAGAGAAATTCTTCCATCGGTATTTGCAAACGCTACATTTGCAGTCATGT
GACCTACTTGACATTTTTGGTGGAATCAGCTTCTTCCCGTTGGATAAAATGACTTATTTGAAAATCCAGTCCTTT
ATTAATAGAATGGAGGAAAGCCTGAATATAGTCAAATACACTGCTTTTCTCTATAACGATCAGCTCATCTGGAGT
GGATTAGAACAAGATGACATGAGAATTTTATACAAATACCTTACCACCTCCCTTTTTCCAAGGCACATCGAACCT
GAGTTAGCAGGAAGGGATTCTCCAATAAGAGCAGAAATGCCAGGAAATCTTCAACACTATGGAAGATTTCTTACC
GGACCCTTGAACCTCAATGATCCAGATGCAAAATGCAGATTCCCCAAAATTTTTGTAAATACAGATGACACTTAT
GAAGAGCTCCATTTAATCGTTTATAAGGCCATGAGTGCGGCTGTGTGCTTTATGATCGACGCCTCTGTCCACCCA
ACGTTGGATTTTTGCCGAAGACTGGACAGCATCGTTGGGCCCCAGCTCACAGTGCTGGCCTCTGACATCTGTGAA
CAGTTTAACATCAACAAGAGGATGTCCGGGTCTGAGAAAGAACCCCAGTTTAAGTTTATCTACTTCAACCACATG
AATCTCGCCGAGAAGAGCACAGTTCACATGAGGAAAACGCCCAGCGTGTCGCTCACTTCCGTGCACCCGGATTTA
ATGAAGATTCTCGGTGACATCAACAGTGACTTTACCAGAGTGGATGAAGATGAGGAGATCATTGTGAAGGCCATG
AGTGATTACTGGGTTGTTGGAAAGAAGTCTGATCGGCGGGAGCTCTATGTTATTTTGAATCAAAAAAATGCAAAC
CTGATTGAAGTAAATGAAGAGGTCAAGAAACTTTGTGCAACGCAGTTCAACAACATCTTCTTCTTGGATTGACGG
ATGACGGCTCACCGAGAGCATATCTAAAAAACACTCTGCAAACATTTGGTCACATGCAAGTTAGTGGTCATATGA
CGGACTGCATTCAGGACAAGGGTAAAGCAATACTTGCTTTGAAGAATCACATTTCGACTCGGTCTGCTGATCTGA
GGTTTTTAGATTTTAAATATTTATGTGGAATTAATTAAAGGTAGTTGGCTATATCGCTATCATTTCATTCTTTTG
ACATTATGTGAATATTTTACTGGAAAATAAGACTAATAAATTGTTAAAAGTTTTTAAAATTCTGGTTTGGTGTTG
AGTCTCTCTCCTGCTGCCTATTTATAGATTACACTGGCCACCAGCTCCGTGACCCAGGCTGGAATGCAATGGCTC
ACTGCAGCCTCAACCTCCTGAGCTCAAGCAATCCTCCCACCTCAGCCTCCCAAGAAGCTAGAACCACATGTACAC
ACCACCACGGTCGGCTGATGTTTTAATTTTGCAGAGATGGGGGGGTCTCACTATGTTGCCCAGGCTGGTCTCGAA
CTCCCGTAATCCAGCCATGTAGGAAACCTGAGATGCAGTGGGCCAAGGGGTATGTTAAAACACTGTGACGAGTTC
AGTGCTAAGAACTGTAATGCTCAGGAAATCTTACAGCACGTGCCATCCTAAGCCTGTGTGTGTGTCCTCGTGTCT
CTCTACTTTTTCTTCTTCTTGCTGGTGATGGTCTTGCTGGATGGGGACACGGTCACATCCTCCTTGGGAGGGTCC
AGTATGAGGTGAGAGGATGACACGTCTGCCGGCTCCTTGAGCACTGTGATGTCCACCTCATAGTCATGTCTCTTG
GCCTCTTCCTCTCTCAAGATGAAGATGTTCAGCCT

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FIGURE 4429

CGAGGCGGATCGGGTGTTGCATCC**ATG**GAGCGAGCTGAGAGCTCGAGTACAGAACCTGCTAAGGCCATCAAACCT
ATTGATCGGAAGTCAGTCCATCAGATTTGCTCTGGGCAGGTGGTACTGAGTCTAAGCACTGCGGTAAAGGAGTTA
GTAGAAAACAGTCTGGATGCTGGTGCCACTAATATTGATCTAAAGCTTAAGGACTATGGAGTGGATCTTATTGAA
GTTTCAGACAATGGATGTGGGGTAGAAGAAGAAAACTTCGAAGGCTTAACTCTGAAACATCACACATCTAAGATT
CAAGAGTTTGCCGACCTAACTCAGGTTGAAACTTTTGGCTTTCGGGGGGAAGCTCTGAGCTCACTTTGTGCACTG
AGCGATGTCACCATTTCTACCTGCCACGCATCGGCGAAGGTTGGAACTCGACTGATGTTTGATCACAATGGGAAA
ATTATCCAGAAAACCCCCTACCCCCGCCCCAGAGGGACCACAGTCAGCGTGCAGCAGTTATTTTCCACACTACCT
GTGCGCCATAAGGAATTTCAAAGGAATATTAAGAAGGAGTATGCCAAAATGGTCCAGGTCTTACATGCATACTGT
ATCATTTCAGCAGGCATCCGTGTAAGTTGCACCAATCAGCTTGGACAAGGAAAACGACAGCCTGTGGTATGCACA
GGTGGAAGCCCCAGCATAAAGGAAAATATCGGCTCTGTGTTTGGGCAGAAGCAGTTGCAAAGCCTCATTCCTTTT
GTTCAGCTGCCCCCTAGTGACTCCGTGTGTGAAGAGTACGGTTTGAGCTGTTCCGATGCTCTGCATAATCTTTTT
TACATCTCAGGTTTCATTTCACAATGCACGCATGGAGTTGGAAGGAGTTCAACAGACAGACAGTTTTTCTTTATC
AACCGGCGGCCTTGTGACCCAGCAAAGGTCTGCAGACTCGTGAATGAGGTCTACCACATGTATAATCGACACCAG
TATCCATTTGTTGTTCTTAACATTTCTGTTGATTCAGAATGCGTTGATATCAATGTTACTCCAGATAAAAGGCAA
ATTTTGCTACAAGAGGAAAAGCTTTTGTTGGCAGTTTTAAAGACCTCTTTGATAGGAATGTTTGATAGTGATGTC
AACAAGCTAAATGTCAGTCAGCAGCCACTGCTGGATGTTGAAGGTAACTTAATAAAAATGCATGCAGCGGATTTG
GAAAAGCCCATGGTAGAAAAGCAGGATCAATCCCCTTCATTAAGGACTGGAGAAGAAAAAAAAGACGTGTCCATT
TCCAGACTGCGAGAGGCCTTTTCTCTTCGTCACACAACAGAGAACAAGCCTCACAGCCCAAAGACTCCAGAACCA
AGAAGGAGCCCTCTAGGACAGAAAAGGGGTATGCTGTCTTCTAGCACTTCAGGTGCCATCTCTGACAAAGGCGTC
CTGAGACCTCAGAAAGAGGCAGTGAGTTCCAGTCACGGACCCAGTGACCCTACGGACAGAGCGGAGGTGGAGAAG
GACTCGGGGCACGGCAGCACTTCCGTGGATTCTGAGGGGTTCAGCATCCCAGACACGGGCAGTCACTGCAGCAGC
GAGTATGCGGCCAGCTCCCCAGGGGACAGGGGCTCGCAGGAACATGTGGACTCTCAGGAGAAAGCGCCTAAAACT
GACGACTCTTTTTCAGATGTGGACTGCCATTCAAACCAGGAAGATACCGGATGTAAATTTCGAGTTTTGCCTCAG
CCAACTAATCTCGCAACCCCAAACACAAAGCGTTTTAAAAAAGAAGAAATTCTTTCCAGTTCTGACATTTGTCAA
AAGTTAGTAAATACTCAGGACATGTCAGCCTCTCAGGTTGATGTAGCTGTGAAAATTAATAAGAAAGTTGTGCCC
CTGGACTTTTCTATGAGTTCTTTAGCTAAACGAATAAAGCAGTTACATCATGAAGCACAGCAAAGTGAAGGGGAA
CAGAATTACAGGAAGTTTAGGGCAAAGATTTGTCCTGGAGAAAATCAAGCAGCCGAAGATGAACTAAGAAAAGAG
ATAAGG**TAA**AACGATGTTTGCAGAAATGGAAATCATTGGTCAGTTTAACCTGGGATTTATAATAACCAAACTGAA
TGAGGATATCTTCATAGTGGACCAGCATGCCACGGACGAGAAGTATAACTTCGAGATGCTGCAGCAGCACACCGT
GCTCCAGGGGCAGAGGCTCATAGCACCTCAGACTCTCAACTTAACTGCTGTTAATGAAGCTGTTCTGATAGAAAA
TCTGGAAATATTTAGAAAGAATGGCTTTGATTTTGTTATCGATGAAAATGCTCCAGTCACTGAAAGGGCTAAACT
GATTTCCTTGCCAACTAGTAAAAACTGGACCTTCGGACCCCAGGACGTCGATGAACTGATCTTCATGCTGAGCGA
CAGCCCTGGGGTCATGTGCCGGCCTTCCCGAGTCAAGCAGATGTTTGCCTCCAGAGCCTGCCGGAAGTCGGTGAT
GATTGGGACTGCTCTTAACACAAGCGAGATGAAGAAACTGATCACCCACATGGGGGAGATGGACCACCCCTGGAA
CTGTCCCCATGGAAGGCCAACCATGAGACACATCGCCAACCTGGGTGTCATTTCTCAGAACTGACCGTAGTCACT
GTATGGAATAATTGGTTTTATCGCAGATTTTTATGTTTTGAAAGACAGAGTCTTCACTAACCTTTTTTGTTTTAA
AATGAACCTGCTACTTAAAAAAAATACACATCACACCCATTTAAAAGTGATCTTGAGAACCTTTTCAAACC

FIGURE 4430

CCGAACGCCCGCAGCAGGGTCAGAAGGGAGGTGGCCGGTCTCCGTCGTGACCTCTGACGGTTTCTGAGCGTTGGC
CTTTGGCACGCGCTACCCCCTTTTGCTTTGGTTCTGCC**ATG**CCGATGTACCAGGTAAAGCCCTATCACGGGGGCG
GCGCGCCTCTCCGTGTGGAGCTTCCCACCTGCATGTACCGGCTCCCCAACGTGCACGGCAGGAGCTACGGCCCAG
CGCCGGGCGCTGGCCACGTGCAGGAAGAGTCTAACCTGTCTCTGCAAGCTCTTGAGTCCCGCCAAGATGATATTT
TAAAACGTCTGTATGAGTTGAAAGCTGCAGTTGATGGCCTCTCCAAGATGATTCAAACACCAGATGCAGACTTGG
ATGTAACCAACATAATCCAAGCGGATGAGCCCACGACTTTAACCACCAATGCGCTGGACTTGAATTCAGTGCTTG
GGAAGGATTACGGGGCGCTGAAAGACATCGTGATCAACGCAAACCCGGCCTCCCCTCCCCTCTCCCTGCTTGTGC
TGCACAGGCTGCTCTGTGAGCACTTCAGGGTCCTGTCCACGGTGCACACGCACTCCTCGGTCAAGAGCGTGCCTG
AAAACCTTCTCAAGTGCTTTGGAGAACAGAATAAAAAACAGCCCCGCCAAGACTATCAGCTGGGATTCACTTTAA
TTTGGAAGAATGTGCCGAAGACGCAGATGAAATTCAGCATCCAGACGATGTGCCCCATCGAAGGCGAAGGGAACA
TTGCACGTTTCTTGTTCTCTCTGTTTGGCCAGAAGCATAATGCTGTCAACGCAACCCTTATAGATAGCTGGGTAG
ATATTGCGATTTTTCAGTTAAAAGAGGGAAGCAGTAAAGAAAAAGCCGCTGTTTTCCGCTCCATGAACTCTGCTC
TTGGGAAGAGCCCTTGGCTCGCTGGGAATGAACTCACCGTAGCAGACGTGGTGCTGTGGTCTGTACTCCAGCAGA
TCGGAGGCTGCAGTGTGACAGTGCCAGCCAATGTGCAGAGGTGGATGAGGTCTTGTGAAAACCTGGCTCCTTTTA
ACACGGCCCTCAAGCTCCTTAAG**TGA**ATTGCCGTAACTGATTTTAAAGGGTTTAGATTTTAAGAATGGTGCTCTT
TCATGCCTATTATCAGTAAGGGGACTTGTATTAGAGTCAGAGTCTTTTTATTTAGGCCAGTTGTCAAGTGTCAAT
AAAAGCATCATGTAATTTA

FIGURE 4431A

GTTACTTCCGGGTCGGACGGCGCTAGCTGCAGCATCGGAGTGTGGCAGTGCTGGGCTGGCCGGCGGGCTGGGCTG
CGGCCCGCGCGCGGCCGGCG**ATG**CAGGGGGGCAACTCCGGGGTCCGCAAGCGCGAAGAGGAGGGCGACGGGGCTG
GGGCTGTGGCTGCGCCGCCGGCCATCGACTTTCCCGCCGAGGGCCCGGACCCCGAATATGACGAATCTGATGTTC
CAGCAGAAATCCAGGTGTTAAAAGAACCCCTACAACAGCCAACCTTCCCTTTTGCAGTTGCAAACCAACTCTTGC
TGGTTTCTTTGCTGGAGCACTTGAGCCACGTGCATGAACCAAACCCACTTCGTTCAAGACAGGTGTTTAAGCTAC
TTTGCCAGACGTTTATCAAAATGGGGCTGCTGTCTTCTTTCACTTGTAGTGACGAGTTTAGCTCATTGAGACTAC
ATCACAACAGAGCTATTACTCACTTAATGAGGTCTGCTAAAGAGAGAGTTCGTCAGGATCCTTGTGAGGATATTT
CTCGTATCCAGAAAATCAGATCAAGGGAAGTAGCCTTGGAAGCACAAACTTCACGTTACTTAAATGAATTTGAAG
AACTTGCCATCTTAGGAAAAGGTGGATACGGAAGAGTATACAAGGTCAGGAATAAATTAGATGGTCAGTATTATG
CAATAAAAAAAATCCTGATTAAGGGTGCAACTAAAACAGTTTGCATGAAGGTCCTACGGGAAGTGAAGGTGCTGG
CAGGTCTTCAGCACCCCAATATTGTTGGCTATCACACCGCGTGGATAGAACATGTTCATGTGATTCAGCCACGAG
CAGACAGAGCTGCCATTGAGTTGCCATCTCTGGAAGTGCTCTCCGACCAGGAAGAGGACAGAGAGCAATGTGGTG
TTAAAAATGATGAAAGTAGCAGCTCATCCATTATCTTTGCTGAGCCCACCCCAGAAAAAGAAAAACGCTTTGGAG
AATCTGACACTGAAAATCAGAATAACAAGTCGGTGAAGTACACCACCAATTTAGTCATAAGAGAATCTGGTGAAC
TTGAGTCGACCCTGGAGCTCCAGGAAAATGGCTTGGCTGGTTTGTCTGCCAGTTCAATTGTGGAACAGCAGCTGC
CACTCAGGCGTAATTCCCACCTAGAGGAGAGTTTCACATCCACCGAAGAATCTTCCGAAGAAAATGTCAACTTTT
TGGGTCAGACAGAGGCACAGTACCACCTGATGCTGCACATCCAGATGCAGCTGTGTGAGCTCTCGCTGTGGGATT
GGATAGTCGAGAGAAACAAGCGGGGCCGGGAGTATGTGGACGAGTCTGCCTGTCCTTATGTTATGGCCAATGTTG
CAACAAAAATTTTTCAAGAATTGGTAGAAGGTGTGTTTTACATACATAACATGGGAATTGTGCACCGAGATCTGA
AGCCAAGAAATATTTTTCTTCATGGCCCTGATCAGCAAGTAAAAATAGGAGACTTTGGTCTGGCCTGCACAGACA
TCCTACAGAAGAACACAGACTGGACCAACAGAAACGGGAAGAGAACACCAACACATACGTCCAGAGTGGGTACTT
GTCTGTACGCTTCACCCGAACAGTTGGAAGGATCTGAGTATGATGCCAAGTCAGATATGTACAGCTTGGGTGTGG
TCCTGCTAGAGCTCTTTCAGCCGTTTGGAACAGAAATGGAGCGAGCAGAAGTTCTAACAGGTTTAAGAACTGGTC
AGTTGCCGGAATCCCTCCGTAAAAGGTGTCCAGTGCAAGCCAAGTATATCCAGCACTTAACGAGAAGGAACTCAT
CGCAGAGACCATCTGCCATTCAGCTGCTGCAGAGTGAACTTTTCCAAAATTCTGGAAATGTTAACCTCACCCTAC
AGATGAAGATAATAGAGCAAGAAAAAGAAATTGCAGAACTAAAGAAGCAGCTAAACCTCCTTTCTCAAGACAAAG
GGGTGAGGGATGACGGAAAGGATGGGGGCGTGGGA**TGA**AAGTGGACTTAACTTTTAAGGTAGTTAACTGGAATGT
AAATTTTTAATCTTTATTAGGGTATAGTTGGTACAATGCTTCGTTGTATTTAGTAAGCCTTTACAAGACTTGTTA
AAGATGTCAGAGTGCCCCAAGCTGCCGTTCCTTCCCTTCCTGCCCCACAAGCTCCTTTTCCTGAATTTCCTACCT
AAATATTAACCATATGCCTAGTCTCTGAAACTAAAAACTTGGACCTCATCCTCAATTATTTTCTCCTTTCAACTC
TGTTGACCCTCTGTCTGGTCTTCCTCTAGAAGGTACCGCAGAAATTGATGTGTGCTCCCTGCCCTCGTCACTGCC
CAAGCCCGGGCCTGCACATACTCACTGGACTGTTCCAGTTTTGACAGCTGCCAGTCTTCCTGCCCCTTTCACACT
GCAGCTGAAGTTCATTACCTGAAGGACGCCTCATCATTTCATTCCTTGGCTCCAAACCTTCTGCTGCCTCTAAGA
TAAAAGCTCAACTTCTTAACAGTGTACAGTGTGCAACTTCCAACCTTTTTATCTGTTCTCTCCACCTTCAGTTTA
GCGTCATTCCAAAACCACACCCTTGCAAAGCTTTGTACTCCGCACCCCAGATGATCTCCAGGCAGCTCAGATCTC
TTTCCTGCCTTTGCCCTGCACTGTTCCCCGGTACTTCCTCCTTTATTGTAGCACTCAGCTCCCCAGCCAATCTGT
ACATCCCTCAGAGGCAGCGATCTGATGAATTGGTTTTTGAATCCCAGAAAGGGTCTGCCATGGAGTTGGCAGTCA
TCACGGTAGATGGCGTATGATTTTGCTGAATTTTAAATAAAATGAAAACCATAAATTACATGATGCTTTTATTGA
CACTTGACAACTGGCCTAAATAAAAAGACTCTGACTCTAATACAAGTCCCCTTACTGATAATAGGCATGAAAGAG
CACCATTCTTAAAATCTAAACCCTTTAAAATCAGTTACGGCAATTCACTTAAGGAGCTTGAGGGCCGTGTTAAAA
GGAGCCAGGTTTTCACAAGACCTCATCCACCTCTGCACATTGGCTGGCACTGTCACACTGCAGCCTCCGATCTGC
TGGAGTACAGACCACAGCACCACGTCTGCTACGGTGAGTTCATTCCCAGCGAGCCAAGGGCTCTTCCCAAGAGCA
GAGTTCATGGAGCGGAAAACAGCGGCTTTTTCTTTACTGCTTCCCTCTTTTAACTGAAAAATCGCAATATCTACC
CAGCTATCTATAAGGGTTGCGTTGACAGCATTATGCTTCTGGCCAAACAGAGAGAACAAGAAACGTGCAATGTTC
CCTTCGCCTTCGATGGGGCACATCGTCTGGATGCTGAATTTCATCTGCGTCTTCGGCACTGAAAAGAAAAAACAC
GCCAGGTAGCATCACCAGAGCAGCCCTGAGGGAAGTACTCGCACAGTGGGGAAGGGGACAGTCACCAAACACCAC
AGACTGATGACATGGGAAAGGGTGTTTTCAAGAAGAACATCACATTTTCAGTCTGTCTCTAAGATGCTTACTACT
GAAAAGGGTTTAAGTGCAAACTATGTTAAAAAAGTAACCAAAGAGTCATTCCTGGTATTTGATTATGACACTTCT

FIGURE 4431B

GAAGCTAGAAGGGACCTCAGACCACCTGCTCCAATCCCTGCTGCCTAAGGTTTTGGGGGCTGAGGGCTGGAAACC
CAGGAGCTGCATCTCCCAGGCTCTTGGCCTCATAATCGCCTTCTGTGAGACTGAGGGCAATTAAGATATGAATGA
CATGAACTCGCTTATCTCCATATCAACATAAACCAGAAGAGGCATACATCTGTGGGATAGTCAATACATAACATC
CTATCTTTATATGGCCATATGAGAAGATAACTTCAGTGTCCCTATGATGGTAAGTTCTTGAATGTGAGGGCAAGA
TGGCTGTGATAGCCATGACTCCCCGCTTTGCCTGGTTGGACAGAACCCCCTTCCCCAAATGCTCACAGTCCCCCC
CTTGAGCTGTGTCTCACTCAGAGACCCTAAATTTTGCAGACGAACAAGGGCATCTTTGCGTTGCTTCATCTCTGC
TCCTCCTCTAGAACTATCCCACAGGCTTTCTAGACTTAGAATATCTGACCTGATGCAAATCGCTATGTGGCCAGT
ATGCCACAGAATGTCCTAAACCCTTGCTGCCTCTTATCAAAACCATGTTGCACATCTCATCATATAGTACAGCTA
ACCCTTGAACAGTGGGGGGGTTAGGGACACTGACCCCCGACTGCTGTGCAGTCGAAAATCCACATAAAACTTCTG
ACTCCTTCAAAACTTAAGCACTAATAGCCTACTATTCATGGGAAGCCTTACCCATCACAGTTGATTAACACGTTT
TGTATGGTCTGTATATTATATGCTATATTCTTACAATAAACTTGAGAAAATGTTAAGAAAAT

FIGURE 4432

CGGCCAGGCTGGTACAGGCGGCTGCTCGCGGAGGCACTTCTCCGAGCGTGACGTGCGGACTCCGCTCCACTGCGG
CCCGCCCGCCCGCCGGTCTAGCCGCCGCCTCCTTCGCTCCCTGAGCACGCCAGGCGAGGGTCAGCTGCCGGGGCG
ACGCGGCGCGGAGAGGGCGGGCGGGGGGGCTGTGGGAGCGCCGGTCTCTATATGGCGGCGGCTCTGTCGGGCCTG
GCTGTCCGGCTCTCGCGCTCGGCCGCCGCCCGCTCCTATGGGGTCTTCTGCAAGGGGCTGACTCGCACGCTGCTC
ATCTTCTTCGACCTGGCCTGGCGGCTGCGTATCAACTTCCCCTACCTCTACATCGTGGCTTCCATGATGCTCAAC
GTCCGCCTGCAGGTTCATATTGAGATCCATTGAAGGCCCTCCCAGACTGACGAAGGCGTGACCTCAGGCCCACCG
CATCCAAGAACACGAAGCATGAGGGACAGAAGAGGGCCCCTCGGCACCTGCCTGGCACAAGTGCAGCAGGCCGGA
GGAGGTGACTCGGACAAACTATCATGCAGCCTTAAGAAAAGAATGCCGGAGGGCCCTTGGCCTGCAGATGCACCC
TCCTGGATGAATAAGCCTGTGGTTGATGGAAATTCACAAAGTGAGGCATTATCACTGGAAATGAGAAAGGATCCG
AGCGGGGCTGGCCTCTGGCTTCACAGTGGCGGCCCAGTGCTTCCATATGTGAGAGAATCAGTAAGAAGAAATCCA
GCCTCAGCAGCCACTCCGAGCACAGCCGTGGGTTTGTTCCCTGCTCCAACAGAGTGTTTTGCTCGGGTGTCCTGC
AGTGGTGTTGAAGCTCTGGGGCGGCGAGACTGGCTGGGAGGAGGGCCCAGGGCCACTGACGGCCACAGAGGACAG
TGCCCCAAAGGAGAGCCTCGGGTGTCACGACTGCCACGCCATCAAAAAGTGCCGGAAATGGGAAGTTTTCAGGAT
GACCCACCAAGTGCTTTTCCCAAGGGTCTGGGCTCTGAGTTGGAACCCGCTTGCCTGCACTCCATCCTGTCTGCA
ACGCTGCACGTGTATCCCGAAGTGCTCCTGAGTGAGGAGACAAAACGCATTTTCCTTGACCGTTTAAAGCCCATG
TTTTCAAAGCAAACAATAGAATTCAAGAAAATGCTTAAAAGCACCTCAGATGGTCTGCAGATAACACTGGGGTTA
CTGGCTCTGCAACCTTTTGAATTAGCAAATACATTATGCCATAGTTAAGGTACAAGCAGAACAATACCAATAGAT
TAATTTTAAGAGTTGTCTTAGAATGATTTCTTTCGCATTAAGTCTGGATGCAAACTGTGCAGCCCTTAGGTTCCT
GCTGTAGTTTTGTACGACCTGGCAGACTTAAAGTAAATTGAGTTTAAATTCAAAGCCAGTTGATGCGGAAGGAAC
TTTTTTGGCATGTGTTAAATTGTGCTTTAAAAGACATATAAAGAATTGGGAAACATTTCAGGAGACGATCATAGC
CTGTATAAATACCAGATTAGAACATACGGATTTACCATGAAGTTCTGTCTTCAACATCCATTCTAAAGGGCTACT
GTCCCAAATCCTGTGTGTCCTTTTGACTTGTCTGATCACCCAATGGAAGTGGATACTTGTAAAGTCTACACCACT
GTACTTGGCGTTAAATCTTGCTGAATTCGTGGTAAGCTGTTACCATGTCTACATTTTGTAGAATGATTTTGGTCT
GCAGCAAAATTCGATTTCACTTCTCATACCCCTTTCCTTCCACTTGAAATGCAATTTAGACAGAGGCCCTGTGGT
GAAAGTTGCAATATTAAGTTTACCTTTAGAAGATCCCTTCTCAAACTCAGAACCCTAGCAGTGTTACCTTAAACA
AAAATGAGCTCGAGAAAAAAGTAGCTCAGTTACAGAGAAGCAAATCGAGTTATTTCCCACATAAAAAGTTTCCCA
GATTCTAAGAATTGCAGTATCCTGTACCCTAAAATTTTTCAAGGTGACTCCTGTTGTCGTCTGTTGATAACTTTA
ATAAAGGTCATTTAAGGACATAAGTTTTTAAAGACTCCCAAAGTGAAACTTAAACATTTTCGGGATTATCGATTG
CATATATCAGTTTATGCTGTGTGCTGAATTACTATGCCATGTGCTATTTTAGTGTTTGGGGAAAATGAAAAATAA
AATTTGTTCTTTAGCTT

FIGURE 4433

CTGCCGGGCATCGGCTTCCCGTCCGCCGCGCCCCGAGCCCGCCGCTTCCTATCTCAGCGCCCTGCCGCCGCCGCC
GCGGCCCAGCGAGCGGCCCTG**ATG**CAGGCCATCAAGTGTGTGGTGGTGGGAGACGGAGCTGTAGGTAAAACTTGC
CTACTGATCAGTTACACAACCAATGCATTTCCTGGAGAATATATCCCTACTGTCTTTGACAATTATTCTGCCAAT
GTTATGGTAGATGGAAAACCGGTGAATCTGGGCTTATGGGATACAGCTGGACAAGAAGATTATGACAGATTACGC
CCCCTATCCTATCCGCAAACAGATGTGTTCTTAATTTGCTTTTCCCTTGTGAGTCCTGCATCATTTGAAAATGTC
CGTGCAAAGTGGTATCCTGAGGTGCGGCACCACTGTCCCAACACTCCCATCATCCTAGTGGGAACTAAACTTGAT
CTTAGGGATGATAAAGACACGATCGAGAAACTGAAGGAGAAGAAGCTGACTCCCATCACCTATCCGCAGGGTCTA
GCCATGGCTAAGGAGATTGGTGCTGTAAAATACCTGGAGTGCTCGGCGCTCACACAGCGAGGCCTCAAGACAGTG
TTTGACGAAGCGATCCGAGCAGTCCTCTGCCCGCCTCCCGTGAAGAAGAGGAAGAGAAAATGCCTGCTGTTG**TAA**

ATGTCTCAGCCCCTCGTTCTTGGTCCTGTCCCTTGGAACCTTTGTACGCTTTGCTCAAAAAAAAACAAAAAAAAA
AAACAAAAAAA

FIGURE 4434

GCGTTTGCGCTTGAGCGCCGATAATTTGGTGGCGGCGTCCGGAGGGTGCTGGTTTGTTCTCGGTGAACGGCGCGC
GGGGTCTCTCCTGAGTGCGAGCTACGGGACCTTCGCC**ATG**CCGGGGATGGTACTCTTCGGCCGGCGCTGGGCCAT
CGCCAGCGACGACTTGGTCTTCCCAGGGTTCTTCGAGCTGGTCGTGCGAGTGCTGTGGTGGATTGGCATTCTGAC
GTTGTATCTCATGCACAGAGGAAAGCTGGACTGTGCTGGTGGAGCCTTGCTCAGCAGTTACTTGATCGTCCTCAT
GATTCTCCTGGCAGTTGTCATATGTACTGTGTCAGCCATCATGTGTGTCAGCATGAGAGGAACGATTTGTAACCC
TGGACCGCGGAAGTCTATGTCTAAGCTGCTTTACATCCGCCTGGCGCTGTTTTTTCCAGAGATGGTCTGGGCCTC
TCTGGGGGCTGCCTGGGTGGCAGATGGTGTTCAGTGCGACAGGACAGTTGTAAACGGCATCATCGCAACCGTCGT
GGTCAGTTGGATCATCATCGCTGCCACAGTGGTTTCCATTATCATTGTCTTTGACCCTCTTGGGGGGAAAATGGC
TCCATATTCCTCTGCCGGCCCCAGCCACCTGGATAGTCATGATTCAAGCCAGTTACTTAATGGCCTCAAGACAGC
AGCTACAAGCGTGTGGGAAACCAGAATCAAGCTCTTGTGCTGTTGCATTGGGAAAGACGACCATACTCGGGTTGC
TTTTTCGAGTACGGCAGAGCTTTTCTCAACCTACTTTTCAGACACAGATCTGGTGCCCAGCGACATTGCGGCGGG
CCTCGCCCTGCTTCATCAGCAACAGGACAATATCAGGAACAACCAAGAGCCTGCCCAGGTGGTCTGCCATGCCCC
AGGGAGCTCCCAGGAAGCTGATCTGGATGCAGAATTAGAAAACTGCCATCATTACATGCAGTTTGCAGCAGCGGC
CTATGGGTGGCCCCTCTACATCTACAGAAACCCCCTCACGGGGCTGTGCAGGATTGGTGGTGACTGCTGCAGAAG
CAGAACCACAGACTATGACTTGGTCGGAGGCGATCAGCTCAACTGTCACTTCGGCTCCATCCTGCACACCACAGG
GCTGCAGTACAGGGACTTCATCCACGTCAGCTTCCATGACAAGGTTTACGAGCTGCCGTTTTTAGTGGCTCTGGA
TCACAGGAAAGAGTCTGTTGTGGTCGCTGTGAGGGGGACCATGTCTCTGCAGGATGTCCTTACGGACCTGTCAGC
GGAGAGTGAGGTGCTGGACGTGGAGTGTGAGGTGCAGGACCGCCTGGCACACAAGGGTATTTCTCAAGCTGCCAG
ATACGTTTACCAACGACTCATCAACGACGGGATTTTGAGCCAAGCCTTCAGCATTGCTCCTGAGTACCGGCTGGT
CATAGTGGGCCACAGCCTCGGGGGCGGGGCGGCCGCCCTGCTGGCCACCATGCTCAGAGCCGCCTACCCGCAGGT
CAGGTGCTACGCCTTCTCCCCACCCCGGGGGCTGTGGAGCAAAGCTCTGCAGGAATATTCTCAGAGCTTCATCGT
GTCACTCGTCCTGGGGAAGGATGTGATTCCCAGGCTCAGTGTGACCAACTTGGAAGATCTGAAGAGAAGAATCTT
GCGAGTGGTCGCGCACTGCAATAAACCCAAGTACAAGATCTTGCTGCACGGTTTGTGGTACGAACTGTTTGGAGG
AAACCCCAACAACTTGCCCACGGAGCTGGACGGGGGCGACCAGGAAGTCCTGACACAGCCTCTTCTGGGGGAGCA
GAGCCTACTGACGCGCTGGTCCCCGGCCTACAGCTTCTCCAGCGACTCCCCACTGGACTCTTCTCCCAAGTACCC
CCCTCTCTACCCTCCCGGCAGGATCATCCACCTGCAGGAGGAGGGCGCCTCGGGGCGGTTTGGCTGCTGCTCTGC
TGCTCACTATAGCGCCAAGTGGTCACACGAAGCGGAATTCAGCAAAATACTCATAGGTCCGAAGATGCTCACCGA
CCACATGCCAGACATCCTGATGCGGGCCTTGGACAGCGTGGTCTCCGACAGAGCGGCCTGCGTCTCCTGTCCAGC
ACAAGGGGTCTCCAGTGTGGACGTGGCC**TGA**CCAGGGCCACTGGAAACTGTCCCAGGAACGATGGACTCACGCTT
TTGTCCTTAAACTGACTTACCATCCGAGGAGTTCCCATGACGCCAAAACAGCGAATGTCCATCAACAGGAATCGG
ATGGGAACAGAATTCCATGGTCTCAATGACTTAAGTTTATGGGAAGTCATTGTGGCCATAATGGTAGCAGAAGTA
GTGAGCACGCTCAGGTGATAGGACGACTCCTGAGACCCAGCGACCGTGGAGACAGCCTCGGGAAGCCCTGGCCCG
TGGATGGATCCCTTGGCTGTCTGAGGACTGCTCCAGAAGTGCGGGAATCCAGGGCCCACCCAGAAGACCGTGAAC
AGTTCCTTAGCCTCCCACCCCCAAGGCAGCTCTTTTCATCCAACTCAGTTTACAGGCGTGGTTTGTTTTTCAAAC
TGGGCTTCCTGGATGTACAAATGGAACTGTGGTGAGGGTGCGGGCTGGGGTTTTCTCCTGGGCGTCACCAAGGGC
AGCCCTGGGCTCTGGCTGGGGATGAAGACGAAACCCGATCGGGAAAGTAAGTGGAGCCCCCGGCCCCGCCGAGCC
ACAGCCCCCCAACTGCCTATTCCCACTGCCCAGTTGTTTGTCCACATCAGGAGTTGCTGATTGAATTCTTGCTAC
TCTTCTGGCTCTGGGGTCGGCCAGTGGATTCAGGAGTTGAAACAATAAAGCGCGCGTCAC

FIGURE 4435

GCCGCCGCCGCC**ATG**AACATTTTCCGGCTGACTGGGGACCTGTCCCACCTGGCGGCCATCGTCATCCTGCTGCTG
AAGATCTGGAAGACGCGCTCCTGCGCCGGTATTTCTGGGAAAAGCCAGCTTCTGTTTGCACTGGTCTTCACAACT
CGTTACCTGGATCTTTTTACTTCATTTATTTCATTGTATAACACATCTATGAAGGTTATCTACCTTGCCTGCTCC
TATGCCACAGTGTACCTGATCTACCTGAAATTTAAGGCAACCTACGATGGAAATCATGATACCTTCCGAGTGGAG
TTTCTGGTGGTCCCTGTGGGAGGCCTCTCATTTTTAGTTAATCACGATTTCTCTCCTCTTGAGATCCTCTGGACC
TTCTCCATCTACCTGGAGTCCGTGGCTATCCTTCCGCAGCTATTTATGATCAGCAAGACTGGGGAGGCCGAGACC
ATCACCACCCACTACCTGTTCTTCCTGGGCCTCTATCGTGCTTTGTATCTTGTCAACTGGATCTGGCGCTTCTAC
TTTGAGGGCTTCTTTGACCTCATTGCTGTGGTGGCCGGCGTAGTCCAGACCATCCTATACTGTGACTTCTTCTAC
TTGTACATTACAAAAGTACTCAAGGGAAAGAAGCTCAGTTTGCCAGCA**TAA**GTGCCAAAGACCATCACCAGCATC
TGTCCTTCAGGGTGCTCGGACAGAATTCTTACCACAGCAAAGGCATAAGATGCTTGATACGGAAAATCAGAAACT
TAACTCTTTTGTTGCAGATAGTCATCAGTGGCTCTGTAAAAACGCAGAGGAAAAGAGCCAGAAGGTTTCTGTTTA
ATGCATCTTGCCTTATCTTTTTTTATTACTGTGTACAAAGATTTTTTTACACAAAGAAACTTAATGCTGTATTAA
TAAATTCAGTGTGTAGCTTCAATTGGGATAGTTCCAAAAGTGAAGATTTTGTGAGGAATAAGTGCAAATTTTTTT
TTTATTTTAAAAAATTCTTTGAAACTCTTAAGTCTTTGTGTCTGCAATGAAATTGTACTCCTTGACAGTTGATAG
ATTATATATTCTTCCATCCCTCAAACTTGCATTCCACTATATTTATTTTTTGGCAAAAGATGAGCTGTATTTGTT
TGAAATCTGAGACACTATGTTCAATTGG

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FIGURE 4436

ATTAATTACGCCAAGAAAATCACTGACGACCTCTCGGCAAGCCCCTCCCCAGCGGTGTGATCCTGGACCCAAGGG
CTTGGGTGATGCCCACACAACACTTAAGGACAGGTCTGACCCGACCCCACTACACCACACCTAGAGCCCGGTCTT
GCACGGGCAGGGTGGGGAGCCGAGTGACCTCTCCCGGCGCCCGCCCCACCTCCCGAGCTGGCTGGGCTGCCACGT
CAGGCGCAGCCGGCCACGATCCTGCCCATCCTCCTCCCGCCCGTCCCATTGATTCGCGGGTTTCCTGCAACCCCG
GGACCCCCACGGGAGATCCCGGCCGGAGAAGCGCCCCCATTCAAGCCCAGAGAGGGGCCACGCCTGTCGGACCCC
CCGTCCCACGCCAACTTTTCAGACACAGCAGGGCCCCGCGCAGCCGGGTGCGCTCCGACAGCTCAAGTTCACGCG
GGGACCGACTGCAGAGCGGGGTCCCGCGCTGCGACACCCGGCCCGGAGCCCACCCCGAGGGCCCGCAGGCCGCTG
CCCCCCGGGTCCGGGCACCCGTTAGGCCGGCCGAGGGGGTGTGTCGGGCCGGCGCAGGCCCCGCGAGCCGTGGGG
TGGCCGAGGTCGGCGGGTCCTCGGCGAGACCCGGCCCCCACGCCCGAGCCTCTCCGGGCCTTCCCCCGCCGCTCA
CCGGCGCAGGAGCGCGTCTTCCAGATCTTCAGCAGCAGG**ATG**ACGATGGCCGCCAGGTGGGACAGGTCCCCAGTC
AGCCGGAAAATGTTCATGGCGGCGGCGGCGGTGGCGGTCGGCGCAGCGCGGCGGCCCCGGGGCTGGGCGGCTCAG
GAGGCGGCGGCCCCTGAGAGGAAGCGGCGAAGATGGCGAGATCGCCCGCGACGTGGCCAGGGACGTGGCCGAACT
GCCGGCGCGCGCGCGCGCGGGGCACCCTGGGAGAGCGGGGCCAGGCCCCGCCCCTTAAAGGGGGCGCGCCCCAGC
GCAGGCTCAGCAGGTCAGCTCGCAGGGACTCCCTTGCAAGAAGACCCCGGACTCTGCCAAATTTTCCCTGCCGGG
TTTCCGGCTTCTCCTCGGGTGCCAGCAGTTTCCTTTACTTTTTTGAAA**TAA**CACTCCCTGGGGATCTTTTCTTTC
CTCCCACATATCAAAAGAGCTCTACAGGCCTATTGTATGAAAAAGTGTAAGAGAAGGCCGGGTGCGGTGGCTCAT
GCCTGAAATTCTAGCAGTTTGAGAGGCCGAAACAGGAGGATCCTTTGAGCCTAGGAGTTCGAGACCAGCCTGGGC
AACCTAATGAGAGTTCCTCCACCCCCCGTCTCTACAAAAATTTTTTAAAAAATTAGCCAGGCCTGATGGTGGGTG
CCTGTAGTACCAGCTATTTTAAAGGCTAAGGCAGGAGGATTGCTTGAGCCCAGGACATCGAGGCTGCGGTGAACC
ATGATTGTACCACTGTATTCCAGCCTGGACGACTGAGTGAGACCCTGTCTCAAACAAAACAAAACAAAACAAAAC
AAAAAAAAGTACAAGAGGAAAAAAATTGATTTCTGATTGCCTCACTCAAGATAAGGTCAACATTGAAGGTGGAGG
TGGAAGATGCAGTTTATGTAGGGGTCTGAAGATTTTACCATTCTGGGGACTGTCTTTAAGAAAGAGAATCCAAAA
TTAGGTAGAAAAGTGAACGTCTGACCGGGCGCGGTGGCTCATCCCTGTAATCCCAGCACTTAAGGAGTACGAGAC
GGGAGGATCACGAGGTCAAGAGATCGACAGCATGCTGGCCAACGTGGTGAAACCCCGTCTCTACTGAAAATACAA
AAATTAGCCGGGCGTGGTGGCACGCACCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGGAGAATCGCTTGAA
CCTGGGAGGAGAAGGTTGCAGTGAGCTGAGATGGTGCCACTGCACTCCAGCCTGGCGACAGAGCAAGACTCCATC
TC

FIGURE 4437

AAGTCTCGTATCGCGCCCGGGAGGCGCCGGAGCCCAGCGGCTGGCGCCAGATCCAGGCTCCTGGAAGAACCATGT
CCGGCAGCTACTGGTCATGCCAGGCACACACTGCTGCCCAAGAGGAGCTGCTGTTTGAATTATCTGTGAATGTTG
GGAAGAGGAATGCCAGAGCTGCCGGCTGAAAATTACCCAACCAAGAGAAATCTGCAGG**ATG**GACTTTCTGGTCCT
CTTCTTGTTCTACCTGGCTTCGGTGCTGATGGGTCTTGTTCTTATCTGCGTCTGCTCGAAAACCCATAGCTTGAA
AGGCCTGGCCAGGGGAGGAGCACAGATATTTTCCTGTATAATTCCAGAATGTCTTCAGAGAGCCGTGCATGGATT
GCTTCATTACCTTTTCCATACGAGAAACCACACCTTCATTGTCCTGCACCTGGTCTTGCAAGGGATGGTTTATAC
TGAGTACACCTGGGAAGTATTTGGCTACTGTCAGGAGCTGGAGTTGTCCTTGCATTACCTTCTTCTGCCCTATCT
GCTGCTAGGTGTAAACCTGTTTTTTTTCACCCTGACTTGTGGAACCAATCCTGGCATTATAACAAAAGCAAATGA
ATTATTATTTCTTCATGTTTATGAATTTGATGAAGTGATGTTTCCAAAGAACGTGAGGTGCTCTACTTGTGATTT
AAGGAAACCAGCTCGATCCAAGCACTGCAGTGTGTGTAACTGGTGTGTGCACCGTTTCGACCATCACTGTGTTTG
GGTGAACAACTGCATCGGGGCCTGGAACATCAGGTACTTCCTCATCTACGTCTTGACCTTGACGGCCTCGGCTGC
CACCGTCGCCATTGTGAGCACCACTTTTCTGGTCCACTTGGTGGTGATGTCAGATTTATACCAGGAGACTTACAT
CGATGACCTTGGACACCTCCATGTTATGGACACGGTCTTTCTTATTCAGTACCTGTTCCTGACTTTTCCACGGAT
TGTCTTCATGCTGGGCTTTGTCGTGGTTCTGAGCTTCCTCCTGGGTGGCTACCTGTTGTTTGTCCTGTATCTGGC
GGCCACCAACCAGACTACTAACGAGTGGTACAGAGGTGACTGGGCCTGGTGCCAGCGTTGTCCCCTTGTGGCCTG
GCCTCCGTCAGCAGAGCCCCAAGTCCACCGGAACATTCACTCCCATGGGCTTCGGAGCAACCTTCAAGAGATCTT
TCTACCTGCCTTTCCATGTCATGAGAGGAAGAAACAAGAA**TGA**CAAGTGTATGACTGCC

FIGURE 4438

GGAGGAGGAAGAGGTGGAGCTGGAGCTC**ATG**CCGGTGGACCTGGGGTCAGAGCAGGAGCTGGAGCAGCAGCGGCA
GGAGTTGGAGCGGCAGCAGGAGCTGGAACGGCAGCAGGAGCAGCGGCAGCTGCAGCTCAAACTGCAGGAGGAGCT
GCAGCAGCTGGAGCAACAGCTGGAGCAGCAGCAGCAGCAGCTGGAGCAGCAGGAGGTGCAGCTGGAGCTGACCCC
GGTGGAGCTAGGCGCCCAGCAGCAGGAGGTGCAGCTGGAGCTGACCCCCGTGCAGCCGGAGCTGCAGCTGGAACT
GGTGCCAGCCGCAGGGGGCGGCGGAGCGGCGGTCCCGGGGGCTCCGGCCGCGGTCGTGGTGGCTCCCCCGGGCTA
CGTGGTGGTGCAGGAGCTCATGGTGCTGCCCGCCGTGGCAGCGCCGGCCGTGGTGGCCATCCCGGGCCCGGCAGG
CAGCGCGGCGTTGACCCCTGCACGGCAGCGGCGGCGGCGGCGCGCTCGGGACCGGCCGACCATCTGCGGGGAGTG
CGGCAAGGGCTTCAGCCGCAGCACGGACCTGGTGCGCCACCAGGCCACGCACACGGGTGAGCGGCCACACCGCTG
CGGCGAGTGCGGCAAGGGCTTCTCGCAGCACTCGAATCTGGTGACGCACCAACGCATCCACACGGGCGAGAAACC
CTACGCCTGCTCCTACTGCGCCAAGCGCTTCAGCGAGAGCTCGGCGCTCGTGCAGCACCAGCGCACGCACACCGG
GGAGCGACCCTACGCCTGCGGGGACTGTGGCAAGCGCTTCAGCGTCTCCTCCAACCTGCTGCGCCACCGGCGCAC
GCACTCGGGCGAGCGGCCCTACGTGTGCGAGGACTGTGGCGAGCGCTTCCGACACAAGGTGCAGATCCGCCGCCA
CGAGCGCCAGCTGCACGGCGCGGGCCGCTCCAGGGGCCTCGGCCTGCTGCGCGCCTCGCGGCCGGCGGCCCTCGG
TGGCCCAGCCCGCGCGGAGCAGGCCGCTACAGCCACTGCGCCCGCAGACAAGGCGCTG**TGA**GGGCCGTGATCGGG
GCTGCCTGGCCGGGAGGGGACCCCCCACCCGCCTCCACCTGAAAAGCTCCTTGACCCGGGTTCATGGGCGCTGGA
GGCGTCCTGGAATATCCCTGGAGTAAAAGGCTTCCACCATCATCATCATCATCATCTTCCGGATTCCCTGAGAAA
ATACCAGGTTCACAGATTTCACCGCCAGAAAAATCCATCCGCCAAAAGAGAAGTGGACCGGGGCTGAAACAGCAC
ACGGGACACGTTTGTCTGCCCTTTGAGGGGTCTGCCAAAGGTTTTCCCTCCGGGAAAACTGGACTTACTACGAAC
GAGGAAAAACCCCCAGTGGCGAGACGATTAATGACACTGGCCGAGGACTGGACACCCACCAGGGAATCAAGACGT
GGTGAGACACACGTGGAAAATCTTCGATCCTGGTGAAAATGATCGCAAGGAGAAATTCGGGGAGGAAGCAAACTT
GTTTGCACTATGTAGAAACTGACCAAGGCATCGAATCGTCCTCAGACACTGTGCCATTGCTGGGGCTGGGGAAAG
AATATCTGAGACGACGTTTGGGAGCAATGCTCTTTACCACGTTCACCAAGTCGTCTGGGGCAGGGGTTGTGAGCT
GCAGCAGTTGCTGGTGCCTTGTGGGAAGGTGGGGCAGGGAGGAGGCTGCCCGCCACCTCTGCCCCCAGTCACTTC
CTGCTTGACCTGACTCTTCACATGTGGCTGCTTAATTCCTGCCCCTCTCCCCCCAGCTGCTTCTCCTTTACTAAC
ACACCTGCTACATTTTACACATGTGTTGGTAAGTGAGAAACAGAAACGAAAAATAAATTAAAATGCAG

FIGURE 4439

TACTCTAAATGAAGAAAGTCTTTATCAGAAAATTCGTATTTTGGAGAAACCTTTTGAATATATTGAATGCCAGAA
AGCCTTCCAAAAGGACACTGTTTTTGTTAATCAC**ATG**GAAGAAAAGCCCTATAAGTGGAATGGATCTGAAATAGC
CTTTCTCCAGATGTCGGACCTCACTGTACATCAGACATCTCATATGGAAATGAAGCCCTATGAATGCAGTGAATG
TGGGAAATCCTTCTGTAAAAAGTCAAAATTTATTATACATCAGAGGACTCACACAGGAGAGAAACCTTACGAATG
TAATCAGTGTGGGAAATCCTTCTGCCAGAAGGGAACCCTTACTGTGCATCAGAGAACACACACAGGGGAGAAGCC
CTATGAATGTAATGAATGTGGGAAGAACTTTTACCAGAAGTTACACCTCATTCAGCATCAGAGAACTCACTCAGG
AGAGAAGCCCTATGAATGTAGTTATTGTGGAAAATCCTTTTGCCAGAAGACACACCTCACACAACATCAGAGAAC
ACATTCAGGAGAGAGACCTTATGTTTGTCATGACTGTGGGAAAACCTTCTCGCAGAAGTCAGCACTTAATGACCA
TCAGAAAATTCACACAGGTGTGAAACTCTACAAGTGTAGTGAATGTGGGAAATGCTTCTGCCGCAAGTCTACTCT
CACGACCCACCTGAGGACCCACACAGGAGAGAAACCGTATGAATGTAATGAGTGTGGAAAATTCTTCTCTCGGTT
GTCATATCTCACTGTACATTATAGAACTCATTCAGGAGAGAAACCCTATGAATGTAATGAATGTGGAAAAACCTT
CTACCTGAATTCAGCCCTCATGAGACATCAGAGAGTGCACACAGGAGAGAAACCTTACGAATGTAATGAATGTGG
AAAGTTATTCTCCCAGTTGTCATACCTCACTATCCATCATAGAACTCATTCAGGAGTAAAACCCTATGAATGTAG
TGAATGTGGGAAAACCTTCTACCAGAACTCAGCCCTTTGTAGACATCGGAGAATACACAAAGGAGAGAAGCCCTA
TGAATGCTATATATGTGGAAAATTCTTCTCTCAGATGTCATACCTCACTATACATCATAGAATTCATTCAGGAGA
GAAGCCCTATGAATGTAGTGAATGTGGGAAAACCTTCTGCCAGAATTCAGCCCTTAATCGACATCAGAGAACACA
CACAGGAGAGAAAGCCTACGAATGTTATGAATGTGGGAAGTGCTTCTCTCAGATGTCCTATCTCACTATACATCA
TCGAATTCATTCAGGAGAGAAACCCTTTGAATGTAATGAGTGTGGAAAAGCCTTCTCTCGGATGTCATACCTCAC
TGTACATTATAGAACTCATTCAGGAGAGAAACCCTATGAGTGTACTGAATGTGGAAAAAAATTCTACCACAAATC
AGCATTCAACAGCCATCAGAGAATTCATAGGAGAGGCAATATGAATGTAATAGATGTGGGAAGGCTTCTC**TGA**AG
TCAGACCTCATTTTATATCAGAGAACCCTTTCAGTATAGTGAATCAGAAACTCCTGCCTGAAGTCAAACACCTTG
TACATCAGAGAGTTCACACAGGTTAGTGTGGACATCCCCTTGTGTGTTGGACTCATAATCTGAAGACTCACAGAA
TGGAAACCATGATTATAACAAGACCACATGGTATAACAATACTAGACTATAGACAAGTAAAAATTTATAAATATT
AAGAATGTATATACATGTCACCATGGATTGGAACTGTTTTGCATATCAGGGAAATCATAGCCAAGGGGAAATCTA
TCAGTATAAGGAATGTGGAAGACATAATCCTTTGGAAACTGTTAATACTAAAAGATATGTTTCTGATACAATAGC
AAACTTG

5120/5332

FIGURE 4440

GTCTCTGGGCGGGCCGTGGGAGGCTCCCGAGGTGGGGGCCGGGGCGGGATGGCTGCAGCGGCGGCCGGGGCCGGG
AGCGGGCCCTGGGCGGCCCAGGAGAAGCAGTTCCCGCCGGCGCTGCTGAGTTTCTTCATCTACAACCCGCGCTTC
GGGCCGCGCGAAGGACAGGAGGAAAATAAGATTTTATTTTATCATCCAAATGAGGTAGAAAAGAATGAGAAGATT
AGAAATGTCGGATTGTGTGAAGCTATTGTACAGTTTACAAGGACATTTAGCCCATCAAAACCTGCAAAATCTTTA
CATACACAGAAGAACAGACAGTTCTTCAATGAACCAGAAGAAAATTTCTGGATGGTCATGGTTGTTCGGAATCCT
ATAATTGAAAAACAGAGTAAAGATGGAAAACCAGTTATTGAATATCAAGAGGAGGAGTTGTTGGACAAGGTTTAT
AGCTCGGTGCTGCGGCAGTGCTACAGCATGTACAAGCTTTTTAATGGTACATTTCTGAAAGCCATGGAAGACGGA
GGCGTCAAGCTTCTGAAAGAAAGATTAGAGAAATTCTTCCATCGGTATTTGCAAACGCTACATTTGCAGTCATGT
GACCTACTTGACATTTTTGGTGGAATCAGCTTCTTCCCGTTGGATAAAATGACTTATTTGAAAATCCAGTCCTTT
ATTAATAGAATGGAGGAAAGCCTGAATATAGTCAAATACACTGCTTTTCTCTATAACGATCAGCTCATCTGGAGT
GGATTAGAACAAGATGACATGAGAATTTTATACAAATACCTTACCACCTCCCTTTTCCCAAGGCACATCGAACCT
GAGTTAGCAGGAAGGGATTCTCCAATAAGAGCAGAAATGCCAGGAAATCTTCAACACTATGGAAGATTTCTTACC
GGACCCTTGAACCTCAATGATCCAGATGCAAAATGCAGATTCCCCAAAATTTTTGTAAATACAGATGACACTTAT
GAAGAGCTCCATTTAATCGTTTATAAGGCCATGAGTGCGGCTGTGTGCTTTATGATCGACGCCTCTGTCCACCCA
ACGTTGGATTTTTGCCGAAGACTGGACAGCATCGTTGGGCCCCAGCTCACAGTGCTGGCCTCTGACATCTGTGAA
CAGTTTAACATCAACAAGAGGATGTCTGGGTCTGAGAAAGAACCCCAGTTTAAGTTTATCTACTTCAACCACATG
AATCTCGCCGAGAAGAGCACAGTTCACATGAGGAAAACGCCCAGCGTGTCGCTCACTTCCGTGCACCCGGATTTA
ATGAAGATTCTCGGTGACATCAACAGTGACTTTACCAGAGTGGATGAAGATGAGGAGATCATTGTGAAGGCCATG
AGTGATTACTGGGTTGTTGGAAAGAAGTCTGATCGGCGGGAGCTCTATGTTATTTTGAATCAAAAAAATGCAAAC
CTGATTGAAGTAAATGAAGAGGTCAAGAAACTTTGTGCAACGCAGTTCAACAACATCTTCTTCTTGGATTGACGG
ATGACGGCTCACCGAGAGCATATCTAAAAAACACTCTGCAAACATTTGGTCACATGCAAGTTAGTGGTCATATGA
CGGACTGCATTCAGGACAAGGGTAAAGCAATACTTGCTTTGAAGAATCAGATTTCGACTCGGTCTGCTGATCTGA
GGTTTTTAGATTTTAAATATTTATGTGGAATTAATTAAAGGTAGTTGGCTATATCGCTATCATTTCATTCTTTTG
ACATTATTTGAATATTTTACTGGAAAATAAGACTAATAAATTGTTAAAAGTTTTTAAAATTCTGGTTTGGTGTTG
AGTCTCTCTCCTGCTGCCTATTTATAGATTACACTGGCCACCAGCTCCGTGACCCAGGCTGGAATGCAATGGCTC
ACTGCAGCCTCAACCTCCTGAGCTCAAGCAATCCTCCCACCTCAGCCTCCCAAGAAGCTAGAACCACATGTACAC
ACCACCACGGTCGGCTGATGTTTTAATTTTGCAGAGATGGGGGGGTCTCACTATGTTGCCCAGGCTGGTCTCGAA
CTCCCGTAATCCAGCCATGTAGGAAACCTGAGATGCAGTGGGCCAAGGGGTATGTTAAAACACTGTGACGAGTTC
AGTGCTAAGAACTGTAATGCTCAGGAAATCTTACAGCACGTGCCATCCTAAGCCTGTGTGTGTGTCCTCGTGTCT
CTCTACTTTTTCTTCTTCTTGCTGGTGATGGTCTTGCTGGATGGGGACACGGTCACATCCTCCTTGGGAGGGTCC
AGTATGAGGTGAGAGGATGACACGTCTGCCGGCTCCTTGAGCACTGTGATGTCCACCTCATAGTCATGTCTCTTG
GCCTCTTCCTCTCTCAAGATAAAGATGTTCAGCCT

FIGURE 4441

CCTCAGCTGCGATGCCCAAGAGAAACAGGCTGGTGGAGGGGCAGACCCCCTACAAGGCCTGAAGGTGCCGTTCCT
CCACCCGCTCCTCTTGTGGCCAGAGGAGAGGGACACCCCCGCC**ATG**AAGAGCTCTGAACGGTTGGAACTCTCAGG
GGATCCAGAACTGCAGCTGGTCCTCGCTGGGCTGTTCCTGTCCATCTGCCTGGTCATGGTGCTGGGGAACCTGCT
CATCATCCTGGCCATCAGCCCTGACTCCCACCTCCACACCCCCGTGTACTTCTTCCTCTCCAACCTGTCCTTGCC
TGACATCAGTTTCACCTCCACCACAGTCCCCAAGATGATTGTGGACATCCAATCTCACAGCAGAGCATGGAAGAG
AGGCATGCTCCTGAGTGTGATGGCCTATGACTGGTTTGTAGCCATCTGTCACCCTCTATATCATTCAGCCATCAT
GAACCCTCTTTTAGATGCCCAGCTGCACAACTTGATTGCCTTACAAGTGACCTGCTTCAAGGATGTGGAAATTCC
TAATTTCTTCTGTGACCCTTCTCAACTCCCCCATCTTGCATGTTGTGACACCTTCACCATTAACATAATCATGTA
TTTCCCTGCCGCCATATTTGGTTTTCTTCCCATCTCGGGGACCCTTTTCTCTTACTCTAAAATTGTTTCCTCCAT
TCTGAGGGTTTCATCGTCAGGTGGGAGAAAGGGTGCAGTGGCCTCAGTGATGTACGCGGTTGTCACCCCCATGCT
GAACCCCTTCGTCTACAGCCTGAGAAACAGGGATGTTAAAGGTGTCCTGCGGCGGCCACACGGCAGCACAGTC**TA**
A

FIGURE 4442

GGGTTATGGTGTGTGCTCGGTGGGGCTGGAGTGGCTGGCTTACCTCCTCGTGGCTTACAGCCTGGGCGCCTCAGC
CGCCTCACTCCTGGTTCTGCTGGGCCTGTGGCTGCCACACCCGGTGCCCCTCGTGGCTGGAGAAGGGGTGCACCT
GCTGCTCACCTTCATCCTCTTTTTCTGGGCCCCTGTGCCTCAGGTCCTGCAACACAGCTGGATCCTCTGTGTGGC
AGCCGCCCTTTGGGGTGTGGGCAGCGCCCTGAACAAGACTGGACTCAGCACACTCCTGGGAATCTTGTACGAAGA
CAAGGAGAGACAGGACTTCATCTTCACCATCTACCACTGGTGGCAGGCTGTGGCCATCTTCACCGTGTACCTGGG
CTCCAGCCTGCACATGAAGGCTAAGCTGGCGGTGCTGCTGGTGACGCTGGTGGTGGCCGCGGTCTCCTACCTGCG
GATGGAGCAGAAGCTGCGGCGGGGCGTGGCCCCGCGCCAGCCCCGCATCCCGCGGCCCCAGCACAAGGTGCGCGG
TGACGGCTACTTGGAGGAGGACAACTCGGACGAGAGCGACGCGGAGGGCGAGC**ATG**GGGACGGCGCGGAGGAGGA
GGCGCCGCCCCCGGGGCCCAGGCCTGGCCCCGAGCCCGCTGGACTCGGCCGCCGGCCCTGCCCGTACGAACAGGC
GCAGGGGGGCGACGGGCCGGAGGAGCAGTGAGGGGCCGCCTGGTCCCCGGACTCAGCCTCGCTCCTCGCCGGCCT
CAGTTTACCACGTCTTAGGTCGGGGGGACCCCCTCCGAGTCTCGCGCTGTCTTCGAAGGCCCCTGTCTCCCTTCC
CCCACGTTGGGGACGCCCCTCCCAGAGCCCGGGTCACCTCCGGGGCTTCCGCAGCCCCCTCCAAGGCGGAGTGGAG
CCTTGGGAACTCCCCGGCCAAGCACAGGGGTTCGAAAATACAGC**TGA**TACCCCGCGGGCCCTTAGCACGCGCCCC
AGCGCCGGAGCAGGGTCAGGGTCTTCTTGCGACCCGGCCCCGCTCCAGATCCCCCCAGCTCTCGGCCGCGGACCC
GGGCCGCGTGTGAGCGCCCTTTGCACCTCCTATCTCCAGGGTCCGCCGAGAGCCACGATTTTTTACAGAAAATGA
GCGATAAAGAGATTTTGTACTGTC

FIGURE 4443

ATGAGAGCTACTGCAGGCTGGGCTGTGACCGTCTATGACAAGCCGGCATCTTTCTTTAAAGGGACACCTCTGGAC
CTGCAGCACAGGCTCTTCATGAAGCTGGGCGGCATGCACTCTCCGTTCAGGGCCCGTTTAGAACCTGAGGAACCA
GCCACGGAGCCGTCGGCCTTCATGGAGCGGGATGCTGGGAGCGGGCTGGTGATGTGTCTCTGCGAGTGGCCAGCC
CTGCTGGTCAGCAGCACAGGCTGGACAGAGGACGAAGACTTCTCCATCCTGCTGGCAGCTTTAGAAAGTAGGGGT
GTAGCTGTGCATGTTCCTGTCCCGGGCCACTGGGTGGGGCAGCCTGGGGACAGCGGAGGTGGTGGAGAGTTTGAG
CAACTGACTCTTGATGGACACAACCTTCCTTCTCTCGTCTGTATAACAGGCTCCCAGGAGTGGTTTGGAGCCCGC
GCCATGTGCTCTGGAGGCTGTGGCAGGGCAGGGGGAGTCCTCGTGTCCCCTGTGCACAACACAGACAAAAGGCTG
GGTCCACCCAGTGGGGGCCCGAGGCCAGCTGGCTGCAAGTGCAGGGCTGTGCGTCAGGGGTCAGGGTGCACACAC
CCCTGCGGGTCTCGGGGCTCCTGGGATGCTTCCCGAAGGGCCCGGATGGGGCCTGACTGGAGCTGCCGAGGGGTG
GAGCTTCTGGGAAAGGGATCCCTCCTAGCGGGGAGTGTCTTGGGCCTGGGGCCACTTGGTAGGGTCAGAGACGGG
TCCATAGCAGTATCTGCTCTTCTCTGTGAAGGCAAAGGGCCTCTGACGGAGTATTACAGCTGCCTCATCCACCAG
AAGCATTTCCAGCACATCCAGGAGGGCTGGGCCTGGGGTTGGGGCACTGTTGCCCAGGTGTGGGAGGGCAGTGGC
TTTGGGAGGTACAGGGACGATGTGTCAAACAGCGTCGCTTCTCCCAGTGAGATGGTTCTCCTTTGCCTCCGTCTC
TTTCCCCGATTGATTTTTCCAAATGGGGAGTCGTGGCTTGGTCCTGATGCGTCTCTAGAGCTGCATCTTCCAGCT
TCAAGGTCGGTGGACCTGGGTGTCTGTCTGCACACGTTCTCCAGTGGCCTGGACCTGCCCATGAAGGTGGTGGAC
ATGTTCGGGTGCTATTTGCCTGCGTGTGCCGTGAACTTCAAGTGTTTAAATGAGCTGGTGAAACATGAAGAAAAT
GGCCTGGTCTTTGAGGACTCAGAGGAACTGGCAGCTCAGCTGCAGATGCTTTTCTCAAACTTTCCTGATCCTGCA
GGCAAGCTAAACCAGTTCCGGAAGAACCTGCGG**TAA**

FIGURE 4444

CTTTTTCGCAACGGGTTTGCCGCCAGAACACAGGTGTCGTGAAAACTACCCCTAAAAGCCAAAATGGGAAAGGAA
AAGACTCATATCAACATTGTCGTCATTGGACACGTAGATTCAGGCAAGTCCACCACTACTGGCCATCTGATCTAT
AAATGCGGTGGCATCGACAAAAGAACCATTGAAAAATTTGAGAAGGAGGCTGCTGAGATGGGAAAGGGCTCCTTC
AAGTATGCCTGGGTCTTGGATAAACTGAAAGCTGAGCGTGAACGTGGTATCACCATTGATATCTCCTTGTGGAAA
TTTGAGACCAGCAAGTACTATGTGACTATCATTGATGCCCCAGGACACAGGGACTTCATCAAAAACATGATTACA
GGGACATCTCAGGCTGACTGTGCTGTCCTGATTGTTGCTGCTGGTGTTGGTGAATTTGAAGCTGGTATCTCCAAG
AATGGGCAGACCCGAGAGCATGCCCTTCTGGCTTACACACTGGGTGTGAAACAACTAATTGTCGGTGTTAACAAA
ATGGATTCCACTGAGCCACCCTACAGCCAGAAGAGATATGAGGAAATTGTTAAGGAATCAGCACTTACATTAAGA
AAATTGGCTACAACCCCGACACAGTAGCATTTGTGCCAATTTCTGGTTGGAATGGTGACAAC**ATG**CTGGAGCCAA
GTGCTAACATGCCTTGGTTCAAGGGATGGAAAGTCACCCGTAAGGATGGCAATGCCAGTGGAACCACGCTGCTTG
AGGCTCTGGACTGCATCCTACCACCAACTCATCCAACTGACAAGCCCTTGCGCCTGCCTCTCCAGGATGTCTACA
AAATTGGTGGTATTGGTACTGTTCCTGTTGGCCGAGTGGAGACTGGTGTTCTCAAACCCGGTATGGTGGTCACCT
TTGCTCCAGTCAACGTTACAACGGAAGTAAAATCTGTCGAAATGCACCATGAAGCTTTGAGTGAAGCTCTTCCTG
GGGACAATGTGGGCTTCAATGTCAAGAATGTGTCTGTCAAGGATGTTCGTCGTGGCAACGTCGCTGGTGACAGCA
AAAATGACCCACCAATGGAAGCAGCGGGCTTCACTGCTCAGGTGATTATCCTGAACCATCCAGGCCAAATAAGCA
CCGGCTATGCCCCTGTATTGGATTGCCACACGGCTCACATTGCATGCAAGTTTGCTGAGCTGAAGGAAAAGATTG
ATCGCCGTTCTGGTAAAAAGCTGGAAGATGGCCCTAAATTCTTGAAGTCTGGTGATGCTGCCATTGTTGATATGG
TTCCTGGCAAGCCCATGTGTGTTGAGAGCTTCTCAGACTATCCACCTTTGGGTCGCTTTGCTGTTCGTGATATGA
GACAGACAGTTGCGGTGGGTGTCATCAAAGCAGTGGACAAGAAGGCTGCTGGAGCTGGCAAGGTCACCAAGTCTG
CCCAGAAAGCTCAGAAGGCTAAA**TGA**ATATTATCCCTAATACCTGCCACCCCACTCTTAATCAGTGGTGGAAGAA
TGGTCTCAGAACTGTTTGTTTCAATTGGCCATTTAAGTTTAGTAGTAAAAGACTGGTTAATGATAACAATGCATC
GTAAAACCTTCAGAAGGAAAGGAGAATGTTTTGTGGACCACTTTGGTTTTCTTTTTTGCGTGTGGCAGTTTTAAG
TTATTAGTTTTTAAAATCAGTACTTTTTAATGGAAACAACTGGACCAAAAATTTGTCACAGAATTTTGAGACCCA
TT

FIGURE 4445

CTCTCTCCGGTCCATGCCTCCAAG**ATG**ACAAAGAAAAGAAGGAACAACGTTCGTGCCAAAAAGGGCCGCGGCCAC
GTGCAGCCTATTCGCTGCACTAACTGTGCCCGATGCGTGCCCAAGGACAACGCCATTAAGAAATTCGTCATTCGA
AACATAGTGGAGGCTGCAGCAGTCAGGGACATTTCTGAAGCGAGCGTCTTCGATGCCTATGTGCTTCCCAAGCTG
TGTGTGAAGCTACATTACTGTGTGAGTTGTGTAATTCACAGCAAAGTAGTCAGGAATCGATCTCGTGAAGCCCGC
AAGGACCGAACACCCCCACCCCGATTTAGACCTGCGGGTGCTGCCGCACGTCCCCCACCAAAGCCCATG**TAA**GGA
GCTGAGTTCTTAAAGACTGAAGACAGACTATTCTCTGGAGAAAAATAAAATGGACATTGTACTTAAAAAAAAACA
AAAAAAAAAAAAAAAAAAA

FIGURE 4446

CCGTGTGTGGCGCCTGCGCACCTCCTTTCCCTTTCGGATTCCCGACGCTGTGGTTGCTGTAAGGGGTCCTCCCTG
CGCCACACGGCCGTCGCC**ATG**GTGAAGCTGAGCAAAGAGGCCAAGCAGAGACTACAGCAGCTCTTCAAGGGGAGC
CAGTTTGCCATTCGCTGGGGCTTTATCCCTCTTGTGATTTACCTGGGATTTAAGAGGGGTGCAGATCCCGGAATG
CCTGAACCAACTGTTTTGAGCCTACTTTGGGGA**TAA**AGGATTATTTGGTCTTCTGGATTTGGAGGCAATCAGCGG
ACAGCATGGAAGATGTGTGCTCTGGCTCGGATAAGAGATGGGACATCATTCAGTCACTAGTTGGATGGCACAAGG
CTCTTCACAGACGCATCTGTAGCAGAGTGGAACTTGTACTAACTTATGATAGAATGTATCAGAATAAATGTTTTT
AACAGTGT

FIGURE 4447

ATGAACGACACATGGTTGATGGCAGAGTTCAGACAACAATTATTTGGAGCAGACCAGGAGCAAAGACAGCTGATT
AGAGGATCAGTACCCAGGGCGGTACCACTCACCAACCAGCTGGCCTCTGTTGTCACCCGTCAGCTCACGATCCAG
TCCCTCTGGATGGTGACGGTCAGCGCCGTGCCGGCCAGGTTTGCCAAGGCCACTAGGGTGGTCACCAGTGCACAG
CAGGCCACCTACCGAAGGAGGGGAAAGGGTCTTACAAACAAGCTGTTATTCCAAGAATCTCTTCAAAAAACAGCA
ACAAGGCTTTCAGCTTTCAGCTGGGAGGAGGCCAAGGTGCAACTTTCTTGGGTCGTCCTGAATCTAGCCACCTCT
GCCATGCTGCCGAAGTTCTACCCCAATGAGATCAAAGTCACATACCTAAGGTGTACTGGGGATGAAGTGGGTGCC
ACGTCTGTGTTGGCCCCCAAGATCAGCCCCCTAGGTCTGTCTTCAGAAAAGAACAGAGAGGCCCAGATTGAGGTG
GTGACTTCTGCCTCTGCCCTGATCATCAAAGCCCTCAAGGAACCGCCAAGAGACAGAAAGAAACAGAAAAACATT
AAACACAGTGGAAATATCACTTTTGATGAGATTGTCAATGTTGCTCAACACATGTGGCACCGATCTTTAGCCAGA
GAACTCTCTGGAATCATTAAAGAGATCCTGGGGACTCCCCAGTCTGTGGGCTGCAATGTTGATGGCTGCCACCCT
CATGATATCATAGATGACATCAACGGTGGTGCTGTGGAATGCCCAGCTAAT**TAA**

FIGURE 4448

ATCACG**ATG**CCAGTTATATTTAATGAGCCTCTGAGCTTCCTACAGCGCCTAACTGAATACATGGAGCATACTTAC
CTCATCCACAAGGCCAGTTCACTCTCTGATCCTGTGGAAAGGATGCAGTGTGTAGCTGCGTTTGCTGTATCTGCT
GTTGCTTCTCAGTGGGAACGGACTGGAAAACCTTTCAACCCACTGCTGGGAGAGACTTATGAATTAGTGCGAGAT
GACCTTGGATTTAGACTCATCTCCGAACAGGTCAGCCATCACCCACCAATCAGTGCATTTCATGCTGAAGGATTA
AACAATGACTTCATCTTTCATGGCTCTATCTATCCCAAACTGAAATTCTGGGGGAAGAGTGTAGAAGCAGAACCC
AAAGGAACCATCACCTTGGAGCTCCTTGAACACAATGAGGCATATACATGGACAAATCCCACCTGCTGTGTGCAT
AATATCATTGTGGGTAAACTGTGGATCGAACAGTATGGCAATGTGGAAATTATAAACCACAAGACTGGGGACAAA
TGTGTGTTGAATTTTAAGCCATGTGGCCTTTTTGGTAAGGAATTACACAAAGTTGAAGGCTACATTCAAGATAAA
AGCAAAAAGAAGCTCTGTGCCCTCTATGGGAAGTGGACTGAATGTTTATACAGTGTTGACCCTGCCACGTTTGAC
GCTTACAAAAAAAAATGATAAGAAAAATACAGAAGAGAAGAAGAACAGCAAACAGATGAGCACCTCTGAGGAGTTG
GATGAAATGCCAGTGCCGGATTCTGAAAGTGTATTCATTATCCCTGGAAGCGTTCTTCTATGGCGAATAGCCCCA
CGGCCTCCAAATTCTGCCCAGATGTATAATTTTACTAGTTTTGCAATGGTTTTGAATGAAGTAGACAAAGACATG
GAGAGTGTGATTCCCAAGACAGACTGCAGGTTACGGCCTGACATCAGAGCCATGGAAAATGGAGAGATAGATCAA
GCTAGTGAAGAAAAAAAACGACTTGAGGAAAAACAAAGAGCAGCCCGCAAAAACAGGTCCAAGTCAGAAGAGGAC
TGGAAGACGAGGTGGTTCCATCAAGGTCCTAATCCCTACAATGGAGCACAGGACTGGATTTACTCTGGCAGCTAC
TGGGACAGAAATTACTTCAATTTGCCTGACATTTAT**TAA**AATGCATACAAGTCAGGGTGTTTGGCTAATCTACAA
ATAAGTCTTAAACCTATGTTTTTAAATTTTTTTCCCTTGGTTTCTACTTATCTTTTAAAAAAAAAAATGAAAAAA
CACTCATGAGATAACTGCATTTCACCCAACAAAAGCAGGGTATAAGGCGATATTGGTGATGA

FIGURE 4449

GCCCACTCCCACCGCCAGCTGGAACCCTGGGGACTACGACGTCCCTCAAACCTTGCTTCTAGGAGATAAAAAGAA
CATCCAGTC**ATG**GATAAAAATGAGCTGGTTCAGAAGGCCAAACTGGCCGAGCAGGCTGAGCGATATGATGACATG
GCAGCCTGCATGAAGTCTGTAACTGAGCAAGGAGCTGAATTATCCAATGAGGAGAGGAATCTTCTCTCAGTTGCT
TATAAAAATGTTGTAGGAGCCCGTAGGTCATCTTGGAGGGTCGTCTCAAGTATTGAACAAAAGACGGAAGGTGCT
GAGAAAAAACAGCAGATGGCTCGAGAATACAGAGAGAAAATTGAGACGGAGCTAAGAGATATCTGCAATGATGTA
CTGTCTCTTTTGGAAAAGTTCTTGATCCCCAATGCTTCACAAGCAGAGAGCAAAGTCTTCTATTTGAAAATGAAA
GGAGATTACTACCGTTACTTGGCTGAGGTTGCCGCTGGTGATGACAAGAAAGGGATTGTCGATCAGTCACAACAA
GCATACCAAGAAGCTTTTGAAATCAGCAAAAAGGAAATGCAACCAACACATCCTATCAGACTGGGTCTGGCCCTT
AACTTCTCTGTGTTCTATTATGAGATTCTGAACTCCCCAGAGAAAGCCTGCTCTCTTGCAAAGACAGCTTTTGAT
GAAGCCATTGCTGAACTTGATACATTAAGTGAAGAGTCATACAAAGACAGCACGCTAATAATGCAATTACTGAGA
GACAACTTGACATTGTGGACATCGGATACCCAAGGAGACGAAGCTGAAGCAGGAGAAGGAGGGGAAAAT**TAA**CCG
GCCTTCCAACTTTTGTCTGCCTCATTCTAAAATTTACACAGTAGACCATTTGTCATCCATGCTGTCCCACAAATA
GTTTTTTGTTTACGATTTATGACAGGTTTATGTTACTTCTATTTGAATTTCTATATTTCCCATGTGGTTTTTATG
TTTAATATTAGGGGAGTAGAGCCAGTTAACATTTAGGGAGTTATCTGTTTTCATCTTGAGGTGGCCAATATGGGG
ATGTGGAATTTTTATACAAGTTATAAGTGTTTGGCATAGTACTTTTGGTACATTGTGGCTTCAAAAGGGCCAGTG
TAAAACTGCTTCCATGTCTAAGCAAAGAAAACTGCCTACATACTGGTTTGTCCTGGCGGGGAATAAAAGGGATCA
TTGGTTCCAGTCACAGGTGTAGTAATTGTGGGTACTTTAAGGTTTGGAGCACTTACAAGGCTGTGGTAGAATCAT
ACCCCATGGATACCACATATTAAACCATGTATATCTGTGGAATACTCAATGTGTACACCTTTGACTACAGCTGCA
GAAGTGTTCCTTTAGACAAAGTTGTGACCCATTTTACTCTGGATAAGGGCAGAAACGGTTCACATTCCATTATTT
GTAAAGTTACCTGCTGTTAGCTTTCATTATTTTTGCTACACTCATTTTATTTGTATTTAAATGTTTTAGGCAACC
TAAGAACAAATGTAAAAGTAAAGATGCAGGAAAAATGAATTGCTTGGTATTCATTACTTCATGTATATCAAGCAC
AGCAGTAAAACAAAAACCCATGTATTTAACTTTTTTTTAGGATTTTTGCTTTTGTGATTTTTTTTTTTTTTTTT
GATACTTGCCTAACATGCATGTGCTGTAAAAATAGTTAACAGGGAAATAACTTGAGATGATGGCTAGCTTTGTTT
AATGTCTTATGAAATTTTCATGAACAATCCAAGCATAATTGTTAAGAACACGTGTATTAAATTCATGTAAGTGGA
ATAAAAGTTTTATGAATGGACTTTTCAACTACTTTCTCTACAGCTTTTCATGTAAATTAGTCTTGGTTCTGAAAC
TTCTCTAAAGGAAATTGTACATTTTTTGAAATTTATTCCTTATTCCCTCTTGGCAGCTAATGGGCTCTTACCAAG
TTTAAACACAAAATTTATCATAACAAAAATACTACTAATATAACTACTGTTTCCATGTCCCATGATCCCCTCTCT
TCCTCCCCACCCTGAAAAAAATGAGTTCCTATTTTTTCTGGGAGAGGGGGGGATTGATTAGAAAAAAATGTAGTG
TGTTCCATTTAAAATTTTGGCATATGGCATTTTCTAACTTAGGAAGCCACAATGTTCTTGGCCCATCATGACATT
GGGTAGCATTAACTGTAAGTTTTGTGCTTCCAAATCACTTTTTGGTTTTTAAGAATTTCTTGATACTCTTATAGC
CTGCCTTCAATTTTGATCCTTTATTCTTTCTATTTGTCAGGTGCACAAGATTACCTTCCTGTTTTAGCCTTCTGT
CTTGTCACCAACCATTCTTACTTGGTGGCCATGTACTTGGAAAAAGGCCGCATGATCTTTCTGGCTCCACTCAGT
GTCTAAGGCACCCTGCTTCCTTTGCTTGCATCCCACAGACTATTTCCCTCATCCTATTTACTGCAGCAAATCTCT
CCTTAGTTGATGAGACTGTGTTTATCTCCCTTTAAAACCCTACCTATCCTGAATGGTCTGTCATTGTCTGCCTTT
AAAATCCTTCCTCTTTCTTCCTCCTCTATTCTCTAAATAATGATGGGGCTAAGTTATACCCAAAGCTCACTTTAC
AAAATATTTCCTCAGTACTTTGCAGAAAACACCAAACAAAAATGCCATTTTAAAAAAGGTGTATTTTTTCTTTTA
GAATGTAAGCTCCTCAAGAGCAGGGACAATGTTTTCTGTATGTTCTATTGTGCCTAGTACACTGTAAATGCTCAA
TAAATATTGATGATGGGAGGCAGTGAGTCTTGATGATAAGGGTGAGAAACTGAAATCCC

FIGURE 4450

TCTCCGGTCCGTGCCTCCAAG**ATG**ACAAAGAAAAGAAGGAACAATGGTCGTGCCAAAAAGGGCCGCGGCCACGTG
CAGCCTATTCGCTGCACTAACTGTGCCCGATGCGTGCCCAAGGACAAGGCCATTAAGAAATTCGTCATTCGAAAC
ATAGTGGAGGCCGCAGCAGTCAGGGACATTTCTGAAGTGAGCGTCTTCGATGCCTATGTGCTTCCCAAGCTGTAT
GTGAAGCTACATTACTGTGTGAGTTGTGCAATTCACAGCAAAGTAGTCAGGAATCGATCTCGTGAAGCCCGCAAG
GACCGAACACCCCCACCCCGATTTAGACCTGCGGGTGCTGCCCCACGTCCCCCACCAAAGCCCATG**TGA**GGAGCT
GAGTTCTTAAAGACTGAAGACAGGCTGTTCTCTGGAGAAAAATAAAATGGAAATTGTACTT

FIGURE 4451

CCTTCTCCCCGGCGGTTAGTGCTGAGAGTGCGGAGTGTGTGCTCCGGGCTCGGAACACACATTTATTATTAAAAA
ATCCAAAAAAAATCTAAAAAAATCTTTTAAAAAACCCCAAAAAAATTTACAAAAAATCCGCGTCTCCCCCGCCGG
AGACTTTTATTTTTTTTCTTCCTCTTTTATAAAATAACCCGGTGAAGCAGCCGAGACCGACCCGCCCGCCCGCGG
CCCCGCAGCAGCTCCAAGAAGGAACCAAGAGACCGAGGCCTTCCCGCTGCCCGGACCCGACACCGCCACCCTCGC
TCCCCGCCGGCAGCCGGCAGCCAGCGGCAGTGGATCGACCCCGTTCTGCGGCCGTTGAGTAGTTTTCAATTCCGG
TTGATTTTTGTCCCTCTGCGCTTGCTCCCCGCTCCCCTCCCCCCGGCTCCGGCCCCCAGCCCCGGCACTCGCTCT
CCTCCTCTCACGGAAAGGTCGCGGCCTGTGGCCCTGCGGGCAGCCGTGCCGAG**ATG**AACCCCAGTGCCCCCAGCT
ACCCCATGGCCTCGCTCTACGTGGGGGACCTCCACCCCGACGTGACCGAGGCGATGCTCTACGAGAAGTTCAGCC
CGGCCGGGCCCATCCTCTCCATCCGGGTCTGCAGGGACATGATCACCCGCCGCTCCTTGGGCTACGCGTATGTGA
ACTTCCAGCAGCCGGCGGACGCGGAGCGTGCTTTGGACACCATGAATTTTGATGTTATAAAGGGCAAGCCAGTAC
GCATCATGTGGTCTCAGCGTGATCCATCACTTCGCAAAAGTGGAGTAGGCAACATATTCATTAAAAATCTGGACA
AATCCATTGATAATAAAGCACTGTATGATACATTTTCTGCTTTTGGTAACATCCTTTCATGTAAGGTGGTTTGTG
ATGAAAATGGTTCCAAGGGCTATGGATTTGTACACTTTGAGACGCAGGAAGCAGCTGAAAGAGCTATTGAAAAAA
TGAATGGAATGCTCCTAAATGATCGCAAAGTATTTGTTGGACGATTTAAGTCTCGTAAAGAACGAGAAGCTGAAC
TTGGAGCTAGGGCAAAAGAATTCACCAATGTTTACATCAAGAATTTTGGAGAAGACATGGATGATGAGCGCCTTA
AGGATCTCTTTGGGCCTGCCTTAAGTGTGAAAGTAATGACTGATGAAAGTGGAAAATCCAAAGGATTTGGATTTG
TAAGCTTTGAAAGGCATGAAGATGCACAGAAAGCTGTGGATGAGATGAACGGAAAGGAGCTCAATGGAAAACAAA
TTTATGTTGGTCGAGCTCAGAAAAAGGTGGAACGGCAGACGGAACTTAAGCGCAAATTTGAACAGATGAAACAAG
ATAGGATCACCAGATACCAGGGTGTTAATCTTTATGTGAAAAATCTTGATGATGGTATTGATGATGAACGTCTCC
GGAAAGAGTTTTCTCCATTTGGTACAATCACTAGTGCAAAGGTTATGATGGAGGGTGGTCGCAGCAAAGGGTTTG
GTTTTGTATGTTTCTCCTCCCCAGAAGAAGCCACTAAAGCAGTTACAGAAATGAACGGTAGAATTGTGGCCACAA
AGCCATTGTATGTAGCTTTAGCTCAGCGCAAAGAAGAGCGCCAGGCTCACCTCACTAACCAGTATATGCAGAGAA
TGGCAAGTGTACGAGCTGTTCCCAACCCTGTAATCAACCCCTACCAGCCAGCACCTCCTTCAGGTTACTTCATGG
CAGCTATCCCACAGACTCAGAACCGTGCTGCATACTATCCTCCTAGCCAAATTGCTCAACTAAGACCAAGTCCTC
GCTGGACTGCTCAGGGTGCCAGACCTCATCCATTCCAAAATATGCCCGGTGCTATCCGCCCAGCTGCTCCTAGAC
CACCATTTAGTACTATGAGACCAGCTTCTTCACAGGTTCCACGAGTCATGTCAACACAGCGTGTTGCTAACACAT
CAACACAGACAATGGGTCCACGTCCTGCAGCTGCAGCCGCTGCAGCTACTCCTGCTGTCCGCACCGTTCCACAGT
ATAAATATGCTGCAGGAGTTCGCAATCCTCAGCAACATCTTAATGCACAGCCACAAGTTACAATGCAACAGCCTG
CTGTTCATGTACAAGGTCAGGAACCTTTGACTGCTTCCATGTTGGCATCTGCCCCTCCTCAAGAGCAAAAGCAAA
TGTTGGGTGAACGGCTGTTTCCTCTTATTCAAGCCATGCACCCTACTCTTGCTGGTAAAATCACTGGCATGTTGT
TGGAGATTGATAATTCAGAACTTCTTCATATGCTCGAGTCTCCAGAGTCACTCCGTTCTAAGGTTGATGAAGCTG
TAGCTGTACTACAAGCCCACCAAGCTAAAGAGGCTGCCCAGAAAGCAGTTAACAGTGCCACCGGTGTTCCAACTG
TT**TAA**AATTGATCAGGGACCATGAAAAGAAACTTGTGCTTCACCGAAGAAAAATATCTAAACATCGAAAAACTTA
AATATTATGGAAAAAAAACATTGCAAAATATAAAATAAATAAAAAAAGGAAAGGAAACTTTGAACCTTATGTACC
GAGCAAATGCCAGGTCTAGCAAACATAATGCTAGTCCTAGATTACTTATTGATTTAAAAACAAAAAAACACAAAA
AAATAGTAAAATATAAAAACAAATTAATGTTTTATAGACCCTGGGAAAAAGAATTTTCAGCAAAGTACAAAAATT
TAAAGCATTCCTTTCTTTAATTTTGTAATTCTTTACTGTGGAATAGCTCAGAATGTCAGTTCTGTTTTAAGTAAC
AGAATTGATAACTGAGCAAGGAAACGTAATTTGGATTATAAAATTCTTGCTTTAATAAAAATTCCTTAAACAGTG

FIGURE 4452

ATGGTGCAGCGCATGTGGGCCGAGGCGGCCGGGCCTGCTGGCGGCGCCGAGCCGCTGTTTCCGGGCTCCCGGCGG
AGCCGCAGCGTGTGGGACGCCGTGCGCCTGGAGGTGGGCGTCCCCGACAGCTGCCCGGTGGTGCTGCACAGCTTC
ACGCAGCTAGACCCCGACCTGCCGCGCCCGGAGGTGGGTGGGGGTCGGGGCCTTCTGCAGAAATCAGCCAGCAGG
GTGGGCAGTGGGGGCTGCCGCCGCGCCCCGTCCAACAGTAGGGACCACGGCTGGGGTTTTGCGCCCCTCAATACC
GTTCCAGGGCCTGCTGTCACCAAGGCCGCTGCAGCCCAGGTGGACCTTTTTCTGCGGCACTGTCCCTGTTTACAT
CGGTGGCCTGTGCCTTATTTCACTCAGTTCCCACCCAGGGCCCGCAGCGCGTCGTTAGCCTTTACGATGCAGCCC
AGCATCCGTCGCCGGCCCCAGGGGGATATGATGTCAGGTGTTGTCCGGTACCACGCCATCAGGTCCCAGTGCCGG
TCACCGAGCTGTGTGCATTCTCTCTTGACCCCCACTGTTGCCTGTGACAGCCAGGGACACGGCATCCTGCTGGCC
TGTCACTCTGAGAAGGCTGATCAGGCTGTAGGTCTGTGCAGCCGCCAGTCTGTGCCCTATCTGGGAAACAGGTTA
CACAGGTGCATCCCCTGCACGGTGGCCAGGCAGGCCCTTGACGTCCCCGCGCCCGGCTGCCGGGCGTTGTCTTCA
CAGAGCTCCACGCAGGAGATCGGTGAGGAGCTGATCAACGGAGTCATCTACTCCATCTCCCTGCGCAAGGTGCAG
CTGCACCACGGAGGCAACAAGGGGCAGCGCTGGCTCGGGTATGAGAATGAGTCGGCCCTGAACCTTTATGAGACT
TGCAAGGTGCGGACCGTGAAGGCTGGCACGCTGGAGAAGCTGGTGGAGCACCTGGTGCCAGCCTTCCAGGGCAGC
GACCTCTCCTACGTCACCATCTTCCTGTGTACCTATAGAGCCTTCACCACCACCCAACAGGTCCTGGACCTGCTG
TTCAAAAGATACGGCTGCATCCTCCCCTATTCCGACGAGGATGGTGGACCCCAGGACCAACTTAAAAATGCCATC
TCCTCCATCCTGGGCACCTGGCTGGACCAGTACTCGGAGGATTTCTGTCAACCTCCGGACTTTCCCTGCCTCAAG
CAGCTGGTGGCCTACGTGCAGCTCAACATGCCAGGCTCAGACCTGGAGCGCCGTGCCCACCTTCTCCTGGCCCAG
CTGGAGCACTCGGAACCCATTGAGGCAGAGCCTGAGGGTGAGGAGGACTGGGCGCCAGCTCTGGAACTAGAGCCA
GCTCCAGAACAGGATCCAGCTCCCTCACAAACTCTAGAGCTGGAGCCAGCTCCAGCACCAGTTCCATCATTACAG
CCTTCCTGGCCTTCACCTGTGGTTGCAGAGAACGGGCTGAGTGAGGAGAAGCCTCACCTCTTGGTGTTCCCTCCA
GATCTGGTGGCAGAGCAGTTTACACTGATGGATGCGGAACTGTTCAAGAAGGTGGTGCCCTACCACTGCCTGGGC
TCCATCTGGTCCCAGCGGGACAAGAAGGGCAAGGAGCACCTGGCGCCCACCATCCGCGCCACTGTCACCCAGTTC
AACAGTGTGGCCAACTGTGTCATCACCACCTGCCTCGGGAACCGAAGCACGAAAGCCCCAGACAGGGCCAGGGTG
GTGGAGCACTGGATCGAGGTGGCCAGGGAGTGCCGGATCCTCAAGAACTTCTCGTCACTGTATGCCATCCTCTCT
GCCCTGCAGAGCAACTCCATCCACCGTCTGAAGAAGACGTGGGAAGACGTTTCCAGGGACAGTTTCCGGATCTTT
CAGAAGCTGTCAGAGATCTTCTCAGATGAGAACAACTACTCATTGAGCCGGGAGCTGCTCATCAAGGAGGGCACC
TCCAAGTTTGCCACCCTGGAGATGAACCCCAAGAGAGCCCAGAAACGGCCGAAGGAGACGGGCATCATCCAGGGC
ACCGTTCCCTACCTGGGCACGTTCCTCACCGACCTGGTGATGCTGGACACTGCCATGAAGGACTATCTGTATGGC
AGACTCATCAACTTTGAGAAGAGGAGGAAGGAGTTCGAGGTGATCGCCCAGATCAAGCTGCTGCAGTCGGCCTGC
AACAACTACAGCATCGCGCCAGATGAGCAATTTGGGGCCTGGTTCCGGGCCGTGGAGCGGCTCAGCGAGACTGAG
AGCTACAACCTGTCGTGCGAGCTGGAGCCCCCATCCGAGTCAGCCAGCAACACCCTCAGGACCAAGAAGAACACA
GCCATTGTCAAGCGCTGGAGCGACCGCCAGGCCCCCAGCACTGAGCTCAGTACCAGTGGCAGCTCCCACTCCAAG
TCCTGTGACCAGCTCAGGTGTGGCCCCTACCTCAGCAGCGGGGACATCGCTGACGCGCTCAGCGTGCACTCGGCC
GGCTCCTCTAGCTCCGACGTGGAGGAGATCAACATCAGCTTCGTCCCGGAGTCTCCTGATGGCCAGGAAAAGAAG
TTCTGGGAATCAGCCTCACAGTCATCCCCGGAGACCTCCGGCATCAGCTCAGCCTCCAGCAGCACCTCGTCCTCC
TCAGCCTCCACCACGCCCGTGGCTGCCACACGCACCCACAAGCGCTCTGTCTCAGGGCTCTGCAACTCCAGCTCC
GCGCTGCCGCTCTACAACCAGCAGGTGGGCGACTGCTGTATCATCCGCGTCAGCCTGGACGTGGACAATGGCAAC
ATGTACAAGAGCATCCTGGTGACCAGCCAAGATAAGGCTCCGGCTGTAATCCGCAAGGCCATGGACAAACACAAC
CTGGAGGAGGAGGAGCCGGAGGACTATGAGCTGCTGCAGATTCTCTCAGATGACCGGAGCGTGAACAGGCAGTTC
AAAGCTCACATCAGTGAGGAGCAAAGAGAAAAGGCATTTTTCACTGGGACAGAGCTGAAGATCCCTGAAAACGCC
AACGTCTTCTATGCCATGAACTCTACCGCCAACTATGACTTTGTCCTCAAGAAGCGGACCTTCACCAAGGGAGTG
AAGGTCAAGCACGGAGCCAGCTCCACCCTCCCTCGCATGAAGCAGAAAGGACTCAAGATTGCCAAGGGCATCTTC
TGA

FIGURE 4453

ATGGCGGCGGAGGCGGCCGATTTGGGGCTGGGGGCCGCCGTCCCCGTGGAGCTGAGGCGGGAGCGACGCATGGTG
TGCGTGGAGTACCCGGGAGTGGTGCGTGATGTGGCTAAGATGCTGCCGACTCTGGGCGGCGAGGAAGGCGTCTCC
CGGATCTACGCAGACCCCACCAAGAGGCTGGAGCTGTACTTCCGGCCCAAGGACCCATACTGCCACCCAGTGTGC
GCCAACCGCTTCAGTACCAGCAGCCTGCTGCTCCGCATCAGGAAGAGAACGAGGCGGCAGAAAGGGGTGCTGGGC
ACTGAGGCCCACTCCGAGGTCACATTTGACATGGAGATCCTTGGCATCATCTCCACCATTTACAAATTTCAGGGG
ATGTCTGACTTCCAGTACTTGGCTGTGCATACGGAAGCAGGCGGCAAGCATACGTCAATGTATGACAAGGTGCTC
ATGCTCCGGCCCGAGAAGGAGGCCTTTTTCCACCAGGAGCTGCCGCTCTACATCCCCCCACCCATCTTCTCCCGG
CTGGACGCCCCGGTGGACTACTTCTACCGACCAGAGACCCAGCACCGGCACTTTAAAAAGAAGGCCCAGGCTCGA
TCCCGTCTTTCTAGTTTTGTTTCACAATGTGAAAATTACTGCTATTCTTTGGAAGGCTACAACAATCCCCCCATC
TCAGGTGAGAATCTGATTGGCCTGAGCAGAGCCCGGCGCCCCCACAATGCCATCTTTGTCAACTTTGAGGATGAG
GAGGTGCCCAAGCAGCCACTGGAGGCTGCAGCCCAGACGTGGAGGAGAGTCTGCACTAACCCCGTGGACCGGAAG
GTGGAGGAGGAGCTGAGGAAGGCAAGTCCTGCGCTGCGCCTGGCCCCGCTGTTTGACATCCGTCCCATCTGGTCC
CGAAATGCTGTCAAGGCCAACATCAGCGTCCACCCAGACAAGCTCAAGGTCTTGCTTCCCTTCATAGCCTATTAC
ATGATAACAGGCCCCTGGCGCAGCCTATGGATTCGATTTGGGTATGACCCCCGAAAAAACCCAGATGCCAAGATT
TATCAAGTCCTCGATTTCCGAATCCGTTGTGGAATGAAACACGGTTACGCCCCCAGTGACTTGCCGGTCAAAGCA
AAGCGCAGCACCTACAACTACAGCCTCCCCATCACCGTCAAGAAGACATCCAGCCAGCTTGTCACCATGCATGAC
CTGAAGCAGGGCCTGGGCCCGTCGGGGACGAGTGGTGCTCGGAAACCAGCTTCCAGCAAGTACAAGCTCAAGGAC
TCTGTCTACATCTTCCGGGAAGGGGCCTTGCCACCCTATCGGCAGATGTTCTACCAGTTATGCGACTTGAATGTG
GAAGAGTTGCAGAAGATCATTCACCGCAATGACGGGGCAGAGAATTCCTGCACAGAACGGGATGGGTGGTGCCTC
CCCAAGACCAGCGACGAGCTCAGGGACACCATGTCCCTCATGATCCGGCAGACCATCCGCTCCAAGAGGCCTGAG
GGCTGTGCGGTGGCTGGAGCTGCCACTGAGTGTCTCGGTGAGGGTGACCTCACACTGGCTGAGCTTAAAGGCCCC
ATC**TGA**

FIGURE 4454

AGGATGGCAATGCCAGTGGAACCACGCTGCTTGAGGCTCTGGACTGCATCCTACCACCAACTCGCCCAACTGACA
AGCCCTTGCGCCTGCCTCTCCAGGATGTCTACAAAATTGGTGGTATTGGTACTGTTCCTGTTGGCCGAGTGGAGA
CTGGTGTTCTCAAACCCGGT**ATG**GTGGTCACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAAATCTGTCGAAA
TGCACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATGTGGGCTTCAAGGTCAAGAATGTGTCTGTCAAGG
ATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAATGACCCACCAATGGAAGCAGCTGGCTTCACTGCTCAGG
TGATTATCCTGAACCATCCAGGCCAAATAAGCGCCGGCTATGCCCCTGTATTGGATTGCCACATGGCTCACATTG
CATGCAAGTTTGCTGAGCTGAAGGAAAATGGCAAGGTCACCAAGTCTGCCCAGAAAGCTCAGAAGGCTAAA**TGA**A
TATTATCCCTAATACCTGCCACCCCACTCTTAATC

FIGURE 4455

GCCAAA**ATG**GGAAAGGAAAAGACTCATATCAACATTGTCGTCATTGGACACGTAGATTCGGGCAAGTCCACCACT
ACTGGCCATCTGATCTATAAATGCGGTGGCATCGACAAAAGAACCATTGAAAAATTTGAGAAGGAGGCTGCTGAG
ATGGGAAAGGGCTCCTTCAAGTATGCCTGGGTCTTGGATAAACTGAAAGCTGAGCGTGAACGTGGTATCACCATT
GATATCTCCTTGTGGAAATTTGAGACCAGCAAGTACTATGTGACTATCATTGATGCCCCAGGACACAGAGACTTC
ATCAAAAACATGATTACAGGGACATCTCAGGCTGACTGTGCTGTCCTGATTGTTGCTGCTGGTGTTGGTGAATTT
GAAGCTGGTATCTCCAAGAATGGGCAGACCCGAGAGCATGCCCTTCTGGCTTACACACTGGGTGTGAAACAACTA
ATTGTCGGTGTTAACAAAATGGATTCCACTGAGCCACCCTACAGCCAGAAGAGATATGAGGAAATTGTTAAGGAA
GTCAGCACTTACATTAAGAAAATTGGCTACAACCCCGACACAGTAGCATTTGTGCCAAATTCT**TGA**AGTCTGGTG
ATGCTGCCATTGTTGATATGGTTCCTGGCAAGCCCATGTGTGTTGAGAGCTTCTCAGACTATCCACCTTTGGGTC
GCTTTGCTGTTCGTGATATGAGACAGACAGTTGCGGTGGGTGTC

FIGURE 4456

AAATTGTTAAGGAAGTCAGCACTTACATTAAGAAAATTGGCTACAACCCCGACACAGTAGCATTTGTGCCAATTT
CTGGTTGGAATGGTGACAAC**ATG**CTGGAGCCAAGTGCTAACATGCCTTGGTTCAAGGGATGGAAAGTCACCCGTA
AGGATGGCAATGCCAGTGGAACCACGCTGCTTGAGGCTCTGGACTGCATCCTACCACCAACTCGCCCAACTGACA
AGCCCTTGCGCCTGCCTCTCCAGGATGTCTACAAAATTGGTGGTATTGGTACTGTTCCTGTTGGCCGAGTGGAGA
CTGGTGTTCTCAAACCCGGTATGGTGGTCACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAAATCTGTCGAAA
TGCACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATGTGGGCTTCAAGGTCAAGAATGTGTCTGTCAAGG
ATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAATGACCCACCAATGGAAGCAGCTGGCTTCACTGCTCAGG
TGATTATCCTGAACCATCCAGGCCAAATAAGCGCCGGCTATGCCCCTGTATTGGATTGCCACATGGCTCACATTG
CATGCAAGTTTGCTGAGCTGAAGGAAAAGATTGATCGCCGTTCTGGTAAAAAGCTGGAAGATGGCCCTAACCACC
TTTGGGTCGCTTTGCTGTTCGTGATA**TGA**GACAGACAGTTGCGGTGGG

FIGURE 4457

CTAAAAGCCAAA**ATG**GGAAAGGAAAAGACTCATATCAACATTGTCGTCATTGGACACGTAGATTCGGGCAAGTCC
ACCACTACTGGCCATCTGATCTATAAATGCGGTGGCATCGACAAAAGAACCATTGAAAAATTTGAGAAGGAGGCT
GCTGAGATGGGAAAGGGCTCCTTCAAGTATGCCTGGGTCTTGGATAAACTGAAAGCTGAGCGTGAACGTGGTATC
ACCATTGATATCTCCTTGTGGAAATTTGAGACCAGCAAGTACTATGTGACTATCATTGATGCCCCAGGACACAGA
GACTTCATCAAAAACATGATTACAGGGACATCTCAGGCTGACTGTGCTGTCCTGATTGTTGCTGCTGGTGTTGGT
GAATTTGAAGCTGGTATCTCCAAGAATGGGCAGACCCGAGAGCATGCCCTTCTGGCTTACACACTGGGTGTGAAA
CAACTAATTGTCGGTGTTAACAAAATGGATTCCACTGAGCCACCCTACAGCCAGAAGAGATATGAGGAAACTACA
AAATTGGTGGTATTGGTACTGTTCCTGTTGGCCGAGTGGAGACTGGTGTTCTCAAACCCGGTATGGTGGTCACCT
TTGCTCCAGTCAACGTTACAACGGAAG**TAA**AATCTGTCGAAATGCACCATGAAGCTTTGAGTGAAGCTCTTCCTG
GGGACAATGTGG

FIGURE 4458

GGGCCAGGCCTCCAAGCCGGCCTTACACCCAATCCAAGGAGGACAGACCGGACACAGAGGGACGGAGCGAGCAAG
GAGAC**ATG**GCTTCATCATTCCTGCCCGCGGGGGCCATCACCGGCGACAGCGGTGGAGAGCTGAGCTCAGGGGACG
ACTCCGGGGAGGTGGAGTTCCCCCATAGCCCTGAGATCGAGGAGACCAGTTGCCTGGCCGAGCTGTTTGAGAAGG
CTGCCGCGCACCTGCAAGGCCTGATTCAGGTGGCCAGCAGGGAGCAGCTCTTGTACCTGTATGCCAGGTACAAAC
AGGTCAAAGTTGGAAATTGTAATACTCCTAAACCAAGCTTCTTTGATTTTGAAGGAAAGCAAAAATGGGAAGCTT
GGAAAGCACTTGGTGATTCAAGCCCCAGCCAAGCAATGCAGGAATATATCGCAGTAGTTAAAAAACTAGATCCAG
GTTGGAATCCTCAGATACCAGAGAAGAAAGGAAAAGAAGCAAATACAGGTTTTGGTGGGCCAGTTATTAGTTCTC
TATATCATGAAGAAACCATCAGGGAAGAAGACAAAAATATATTTGATTACTGCAGGGAAAACAACATTGACCATA
TAACCAAAGCCATCAAATCGAAAAATGTGGATGTGAATGTGAAAGATGAAGAGGGTAGGGCTCTACTTCACTGGG
CCTGTGATCGAGGACATAAGGAACTAGTCACAGTGTTGCTGCAACATAGAGCTGACATTAACTGTCAGGACAATG
AAGGCCAAACAGCTCTACATTATGCCTCTGCCTGTGAGTTTCTGGATATTGTAGAGCTGCTGCTCCAGTCTGGTG
CTGACCCCACTCTCCGAGACCAGGATGGCTGCCTGCCAGAGGAGGTGACAGGCTGCAAAACAGTTTCTTTGGTGC
TGCAGCGGCACACAACTGGCAAGGCT**TAA**TCAAAAGACTGGAAAACTGCAGTCTGTAATAGCATAAGGCTTCCAT
TATGAAAGAAAACTACAAAAATAATACTTCTTTTCCACCCGTCTTTGGTATGTATTGGCTAATAAAATCAGTTCT
GTGGAACTGGG

FIGURE 4459

AATAAATTATTTTTGTTAAGGCAAGCATTGGTGTGTTCTTTAACTTGCTACTTGGAGACCTAGTGTCCAGTCTGG
ACAGA**ATG**CACAGAGACCAGCCTCACCTGGAATGCAGCCAGACTCGATGTCCCTCAGCACACACAGCTCCTGGCC
ACAGACTGCCCATAGAACTGTCTGCACCCAAACCCCATGGCCTTTTCATGCACGGAGACAGGCCTCTGGATGTGC
AGCCTTGCCACCCCCTGCCCCAATCCTCCCTGAGAGCTCCTGCCTCAGTGCCCTGGGCTGGTGAGGGAGAAGCCT
GTCTGCACCTGCCTAATTCCAGCTCCTCCAGGAAGCAAGGGCTTGTTTGTCAGAGCTGCAGGGTTGGCCACTCGG
TGGGGAGGAGTCAGCCAGGATTAGAGAGCCTGCCCCTAATCCGGCCTGCTGGGTTTTACAAGGATCAGAGCTGC**T**
GATAATGAACCTCATTAAGGGGGAGCAGGAGCCTCAATCCGATTTGGTTTTCTCTTTGACATCTTCACTCTGCTC
AGATGGCCTGGGTGCTATGTGGAGCAGGTGGGATGCCAAGGCCACTCCTGCTATGGGGCAGCTGGGGCTGGGGAG
GGATGGCAGTCTCCCTGCATGTTTCCCTCGACCTCTTTAGCTGCAGCGCCTTGCTGGGCTCCTGGGTTGGACTCC
CTCTCTGTGCCCCTGCTCCAGGCACCCATTGGCTCCATCCTCCTGGTTGTGCTCTGCACCCCCTGCTCCCTTGGG
CTGGCCCTGGCTGGGGGCCTGAGAGACAGACAGGAACCCACAATCAGGAGGCAACCCTGGCCTGCAAGAGGAAGA
CAGAGGCTCCCAGGGCCGGTGCCCTGTGTGCCCACTGCACCAAGGCCGCTGAATAAGCCTGCCCTTCACCCCCTA
AGGGCTCCTTGCCCAATGCCAAGTGCTGGGGATTTCTGTCAGCAAGCCCTGTGGCTCCAGTGACGGTATTTCTAA
AGCCAAACTTAGTTACCTAGAATTAGCGCCATGTTGGAAACACTGTCGCAGCAGCCCGGGCTGCACAGTGTGTAG
CCCAGCCTCCAGGTCCACGGAGTGGTGTGGACCTCCCACCTCACAGCTGCCTCTGGCAGCCAAGCCTCTTTTCGC
CCGGCCCCAGCCCCTCTGGTTGATAAACGGGTGGGCCTCCTCAGCAGCGTGGCTGCCTTTCACCTTGATTTCCCC
AGGGCTCTCGGCAACATCGATAAACCAGCCTCGCCCACCAGCTGGGCCCTCCCCCACCCAGTCTGCCAGGCTGGG
AGCTGGAGCTTGCTGAGTCTTGAATGCCCTTCTAGATGGCTTCTCTAGAGGCTCTCCTGGCAAGAGAGGGTCCCA
AGGGGAGCCCTGCAAAGCAAAGGCTCCTTGTCTGGGGCGGGATAGAGAATCTCGCCTCTGTCTGGTGTGTTACCT
ACTGGGGGCACAGGAACAATTTCCTCAAGGAGACAGTGGCATGGAGCTTTGAAAGACGAGTAGGTGTTAGCAAGG
AAATAAGGAGGAACGGGGGTTACGGGCAGAGGAGAAAGCACATGCCAAGTCAGCAAAGAAAAGTAGAATTCGAAA
ACTTTTTAAAAATATTACTAAGGATTTTCACAATGCTGCACTGGGCTAGAAACTGAAGCTAAAACAGATACGTGG
TCCCTGCTGCTATGGGGCTTCCGTTCTAGAGGCAAGGACAGGTTGTGATGAGGGTTCTGAAGGATAGAGACCAAG
CAGGGAGGGTGTTGAGGAGGCTTCTGCGAGACCTGAAGGATGGGAAGCCAGGAAGTGGGAGGGGTGGGGGTCCAG
GCTGGAGGGGCCCAATGTAGGTGTAGAGGGACTACAGCCCTGAGGGGCTGCTCCATGCGGCATTCTTGGAGGTCC
AAGAGGGGCAGCGCCACCTTGGGCCAGGCTCCTCTCCAGCAGCCTTGGTATGGGGTGGGGGTGGGAAGACCCCTG
ATGCAGCCTGTCCTCTGGGTGTGGGGGTGGAGGAGAGGGCTCCAGGGGACCCAGCCAGCCTTGACCCTGGAGGAA
AGTCAGGTGGGCTCAGAGAGAGCCCTCAAATCTGGGCCCTGGGTCAGGGTGGGGTCAAGTCCAGCCTTGAAGAGA
ATGGACTCTGGAATCTGACGTCTGGGTTTGAATCCAGCTTCCAACACTCACTGGCTGTGTGACTTTGGGCAAGAT
AACTTATCCCCTTGTCCCCATGTGTCATTGGAGATAAACTACCCACCTACCAGATTGTTGTACCATGCTGGGCAA
ACACTAAGTGCTTAATAATGGTAGCCCACTGCTC

5140/5332

FIGURE 4460

GGAGGCAGGCGGTGCCGCGGCGCCGGGACCCGACTCATCCGGTGCTTGCGTGTGGTGGTGAGCGCAGCGCCGAGG
ATGAGGAGGTGCAACAGCGGCTCCGGGCCGCCGCCGTCGCTGCTGCTGCTGCTGTGGCTGCTCGCGGTTCCC
GGCGCTAACGCGGCCCCGCGGTCGGCGCTCTATTCGCCTTCCGACCCGCTGACGCTGCTGCAGGCGGACACGGTG
CGCGGCGCGGTGCTGGGCTCCCGCAGCGCCTGGGCCGTGGAGTTCTTCGCCTCCTGGTGCGGCCACTGCATCGCC
TTCGCCCCGACGTGGAAGGCGCTGGCCGAAGACGTCAAAGCCTGGAGGCCGGCCCTGTATCTCGCCGCCCTGGAC
TGTGCTGAGGAGACCAACAGTGCAGTCTGCAGAGACTTCAACATCCCTGGCTTCCCGACTGTGAGGTTCTTCAAG
GCCTTTACCAAGAACGGCTCGGGAGCAGTATTTCCAGTGGCTGGTGCTGACGTGCAGACACTGCGGGAGAGGCTC
ATTGACGCCCTGGAGTCCCATCATGACACGTGGCCCCCAGCCTGTCCCCCACTGGAGCCTGCCAAGCTGGAGGAG
ATTGATGGATTCTTTGCGAGAAATAACGAAGAGTACCTGGCTCTGATCTTTGAAAAGGGAGGCTCCTACCTGGGT
AGAGAGGTGGCTCTGGACCTGTCCCAGCACAAAGGCGTGGCGGTGCGCAGGGTGCTGAACACAGAGGCCAATGTG
GTGAGAAAGTTTGGTGTCACCGACTTCCCCTCTTGCTACCTGCTGTTCCGGAATGGCTCTGTCTCCCGAGTCCCC
GTGCTCATGGAATCCAGGTCCTTCTATACCGCTTACCTGCAGAGACTCTCTGGGCTCACCAGGGAGGCTGCCCAG
ACCACAGTTGCACCAACCACTGCTAACAAGATAGCTCCCACTGTTTGGAAATTGGCAGATCGCTCCAAGATCTAC
ATGGCTGACCTGGAATCTGCACTGCACTACATCCTGCGGATAGAAGTGGGCAGGTTCCCGGTCCTGGAAGGGCAG
CGCCTGGTGGCCCTGAAAAAGTTTGTGGCAGTGCTGGCCAAGTATTTCCCTGGCCGGCCCTTAGTCCAGAACTTC
CTGCACTCCGTGAATGAATGGCTCAAGAGGCAGAAGAGAAATAAAATTCCCTACAGTTTCTTTAAAACTGCCCTG
GACGACAGGAAAGAGGGTGCCGTTCTTGCCAAGAAGGTGAACTGGATTGGCTGCCAGGGGAGTGAGCCGCATTTC
CGGGGCTTTCCCTGCTCCCTGTGGGTCCTCTTCCACTTCTTGACTGTGCAGGCAGCTCGGCAAAATGTAGACCAC
TCACAGGAAGCAGCCAAGGCCAAGGAGGTCCTCCCAGCCATCCGAGGCTACGTGCACTACTTCTTCGGCTGCCGA
GACTGCGCTAGCCACTTCGAGCAGATGGCTGCTGCCTCCATGCACCGGGTGGGGAGTCCCAACGCCGCTGTCCTC
TGGCTCTGGTCTAGCCACAACAGGGTCAATGCTCGCCTTGCAGGTGCCCCCAGCGAGGACCCCCAGTTCCCCAAG
GTGCAGTGGCCACCCCGTGAACTTTGTTCTGCCTGCCACAATGAACGCCTGGATGTGCCCGTGTGGGACGTGGAA
GCCACCCTCAACTTCCTCAAGGCCCACTTCTCCCCAAGCAACATCATCCTGGACTTCCCTGCAGCTGGGTCAGCT
GCCCGGAGGGATGTGCAGAATGTGGCAGCCGCCCCAGAGCTGGCGATGGGAGCCCTGGAGCTGGAAAGCCGGAAT
TCAACTCTGGACCCTGGGAAGCCTGAGATGATGAAGTCCCCCACAAACACCACCCCACATGTGCCGGCTGAGGGA
CCTGAGGCAAGTCGACCCCCGAAGCTGCACCCTGGCCTCAGAGCTGCACCAGGCCAGGAGCCTCCTGAGCACATG
GCAGAGCTTCAGAGGAATGAGCAGGAGCAGCCGCTTGGGCAGTGGCACTTGAGCAAGCGAGACACAGGGGCTGCA
TTGCTGGCTGAGTCCAGGGCTGAGAAGAACCGCCTCTGGGGCCCTTTGGAGGTCAGGCGCGTGGGCCGCAGCTCC
AAGCAGCTGGTCGACATCCCTGAGGGCCAGCTGGAGGCCCGAGCTGGACGGGGCCGAGGCCAGTGGCTGCAGGTG
CTGGGAGGGGGCTTCTCTTACCTGGACATCAGCCTCTGTGTGGGGCTCTATTCCCTGTCCTTCATGGGCCTGCTG
GCCATGTACACCTACTTCCAGGCCAAGATAAGGGCCCTGAAGGGCCATGCTGGCCACCCTGCAGCC**TGA**ACCACC
TGGGGAGGAGGCGGGAGAGGGAGCTGCCATCTCTAGGCACCTCAAGCCCCCTGACCCCATTCCCTCCCCTCCCAC
CCCTTGCTCCTTGTCTGGCCTAGAAGTGTGGGAAATTCAGGAAAACGAGTTGCTCCAGTGAAGCTTCTTGGGGTT
GCTAGGACAGAGAGCTCCTTTGACACAAAAGACAGGAGCAGGGTCCAGGTTCCCCTGCTGTGCAGGGAGGGCAGC
CCCGGGCAGTGGGCATAGGGCAGCTCAGTCCCTGGCCTCTTAGCACCACATTCCTGTTTTTCAGCTTATTTGAAG
TCCTGCCTCATTCTCACTGGAGCCTCAGTCTCTCCTGCTTGGTCTTGGCCCTCAACTGGGGCAAGTGAAGCCAGA
GGAGGGTCCCCCAGCTGGGTGGGCTGGAATGGAACTCCTCACTAGCTGCTGGGGCTCCGCCCACCCTGCTCCCTT
CCGGACAATGAAGAAGCCTTTGCACCCTGGGAGGAAGGACCACCCCGGGCCCTCTATGCCTGGCCAGCCTCCAGC
TCCTCAGACCTCCTGGGTGGGGTTTGGCTTCAGGGTGGGGTTTGGAAGCTTCTGGAAGTCGTGCTGGTCTCCCAG
GTGAGGCAAGCCATGGTTGCTGGGCTGTAGGGTGAGTGGCTTGCTTGGTGGGACCTGACGAGTTGGTGGCATGGG
AAGGATGTGGGTCTCTAGTGCCTTGCCCTGGCTTAGCTGCAGGAGAAGATGGCTGCTTTCACTTCCCCCCATTGA
GCTCTGCTCCCTCTGAGCCTGGTCTTTTGTCCTTTTTTATTTTGGTCTCCAAGATGAATGCTCATCTTTGGAGGG
TGCCAGGTAGAAGCTAGGGAGGGGAGTGTCTTCTCTCTCCAGGTTTCACCTTCCAGTGTGCAGAAGTTAGAAGGG
TCTGGCGGGGGCAGTGCCTTACACATGCTTGATTCCCACGCTACCCCCTGCCTTGGGAGGTGTGTGGAATAAATT
ATTTTTGTTAAGGC

FIGURE 4461A

CCCGGAGCCGGTGCGAGGAGGGCACCCGGTGCGTCCCCGGAGCGGGGAGGCCAGGCCGGGCAGCCCTGGGGCCGG
TCGGGGCGGCGTCACTGCACCCTCCGCCAGGCTCCGCGGGATGCACCGTGGTAGCCGAGGGCGGAGGCGACACTC
TCAGGTAAATTGGCAGG**ATG**AGGAGCAGCAAATCAAAAGAGGTGCCTTTACCAAATCCAAGGAACTCTCAAAGCA
AGGATACTGTTCAAGCAGATATAACCACATCGTGGGATGCACTTTCTCAAACCAAGGCTGCTCTGAGACACATTG
AAAATAAATTAGAAGTAGCCCCTACAAGTACAGCTGTGTGTGATTCTGTCATGGATACCAAGAAGTCTTCTACAA
GTGCTACTCGAAAAATAAGTAGAAAAGATGGTAGATACCTGGATGATTCTTGGGTTAATGCTCCAATCTCCAAAT
CCACTAAATCACGAAAAGAGAAATCTCGTAGTCCTCTCAGGGCCACCACCCTGGAGAGTAATGTGAAGAAAAATA
ATCGTGTGGAATTTCGTGAACCTTTGGTTTCTTATAGGGAAATCCATGGTGCACCTTCCAATTTCAGTTCCAGCC
ATCTGGAATCAAAGCACGTATACTGTGTAGATGTTAATGAAGAAAAGACTGAGAGCGGTAACTGGATGATAGGCA
GTCGAGAAGAACGGAATATACGGAGCTGTGATTTTGAGAGCTCCCAATCATCTGTCATCAATGATACAGTTGTTA
GGTTTTTAAATGATCGACCAGCAATTGATGCATTGCAAAATTCTGAATGTTTGATTAGGATGGGAGCTTCTATGA
GAACTGAGGAAGAAATGCCTAACAGAACAAAAGGAAGTGAGAATAATTTGAAGCTTTCTGTGAATAACATGGCCC
ATGATACTGATCCAAAAGCGTTACGACTAACTGACTCTTCTCCATCCTCTACTAGTACTTCTAATTCCCAAAGAT
TAGATATTCTAAAGCGGCGACAACATGATGTCAAACTGGAAAAACTTAAGGAACGGATTAGAAAACAGTGGGAAC
ACTCAGAAGAAACAAATGGCCGGGGCCAGAAGCTGGGTCATATTGACCATCCAGTAATGGTTGTTAATGTTGATA
ACTCAGTAACAGCAAAAGTCAGAAAAGTGGCAACAGCACCACCTGCTCCAGCATATAAAGGTTTCAACCCTTCAG
AGACCAAGATTCGAACACCTGATGGGAAAGTGTGGCAGGAGGCTGAGTTTCAAAACATGAGTAGAGAACTGTATC
GAGATTTAGCACTTCACTTTGCAGATGATATTTCTATAAAGGAGAAACCTGCTGAAAAAAGTAAAGAGAAGAAAG
TAGTCAAGCCAGTACGAAAAGTCCAAAAAGTAGCACAGTTATCAAGTACAGAATGCAGAACAGGTAGTAGTCATC
TTATAAGTACATCTTCTTGGCGAGATGGACAAAAATTAGTAAAGAAGATTCTGGGACCTGCTCCCAGAATGGAGC
CAAAAGAGCAAAGAACAGCATCAAGTGACAGAGGTGGAAGAGAAAGAACTGCTAAATCTGGGGGTCACATTGGAA
GAGCAGAATCTGATCCCAGGTTGGACGTTTTACATAGACATCTTCAAAGAAACTCAGAACGTTCGAGAAGTAAAT
CTCGGTCTGAAAATAATATAAAGAAACTAGCTTCATCTCTTCCAGATAATAAGCAGGAGGAAAATACTGCCTTAA
ATAAGGACTTTTTACCTATTGAAATTCGTGGCATTCTTGATGACCTACAGCTGGATTCTACAGCTCACACTGCAA
AGCAAGATACTGTAGAGTTACAGAACCAGAAGTCATCAGCACCAGTACATGCTCCTAGGAGTCACAGCCCAGTAA
AAAGAAAACCTGACAAAATAACAGCTAATGAAGATCCCCCTGTTATTTCCAAAAGGCGCCACTATGACACAGATG
AGGTACGACAGTACATTGTTAGGCAGCAGGAGGAAAGGAAGAGAAAGCAAAATGAAGAGAAGAAGGCTCAAAAGG
AGGCTACAGAACAGAAAAACAAACGATTACAAGAGCTCTACCGGAAGCAGAAGGAAGCCTTTACTAAAGTAAAAA
ATGTCCCTCCTTCTGAGCCATCAGCAACTAGGCGACTACAGGAAACTTACTCCAAATTGCTACTAGAAAAGACCT
TGCTTGAAGAGCCATCTCATCAACATGTTACGCAGGAAACACAGGCCAAACCAGGGTATCAGCCATCTGGAGAAT
CTGACAAAGAAAACAAAGTACAGGAACGTCCCCCAAGTGCATCTTCCAGTAGTGACATGTCTCTCTCAGAACCTC
CACAGCCTCTTGCAAGAAAAGACTTGATGGAATCTACATGGATGCAGCCTGAAAGATTGAGCCCACAAGTTCACC
ATTCTCAACCACAGCCTTTTGCTGGAACAGCTGGAAGTTTACTCTCCCATCTCTTGAGTTTAGAGCATGTAGGAA
TTTTGCATAAGGATTTTGAATCTATTTTACCAACCAGGAAGAATCATAATATGGCTTCAAGGCCATTAACTTTTA
CACCTCAACCATATGTGACCTCACCAGCTGCTTATACAGATGCCTTGTTAAAACCTAGTGCCAGCCAATATAAGA
GTAAACTGGATCGTATTGAAGCCTTGAAAGCAACAGCTGCTTCTTTGTCCAGCAGAATTGAAAGTGAAGCCAAGA
AATTAGCTGGGGCCAGCATTAACTATGGGTCAGCATGGAACACTGAGTATGATGTGCAGCAGGCACCTCAAGAAG
ATGGACCTTGGACCAAGGCTGTAACTCCACCTGTGAAAGATGATAATGAAGATGTTTTCTCTGCCAGAATTCAGA
AGATGCTGGGAAGCTGTGTATCTCATGCAACTTTTGATGATGATCTTCCTGGTGTAGGCAATCTTAGTGAATTTA
AAAAGCTTCCTGAGATGATAAGACCACAGAGTGCCATATCAAGCTTTAGAGTGAGATCCCCTGGTCCCAAACCAG
AAGGGCTACTGGCACAGTTATGTAAAAGGCAGACTGACTCTTCTAGCTCTGATATGCAAGCCTGTTCTCAAGACA
AAGCCAAAATATCTCTTGGTTCCAGCATAGATTCAGTCAGTGAAGGGCCTCTTCTTAGTGAGGGGAGTCTCTCTG
AAGAAGAGGGAGACCAGGATGGACAGCCCCTTTTGAAAGTAGCAGAAATTTTAAAAGAAAAGGAATTTTGTCCTG
GAGAAAGAAATAGTTATGAACCCATCAAAGAGTTTCAGAAAGAAGCTGAAAAATTCTTGCCACTTTTTGGGCACA
TAGGTGGTACACAAAGCAAAGGACCATGGGAAGAATTGGCAAAGGGAAGTCCACATAGCGTCATTAATATTTTTA
CAAAATCCTATCAGTTATATGGAAAAGGGTTTGAAGACAAGTTGGACAGAGGAACATCAACATCACGGCCTTTGA
ATGCCACCGCAACTCCTCTAAGTGGTGTTTCATATGAAGATGATTTTGTCTCCTCTCCAGGGACTGGGACTTCGA
CAGAAAAAAAATCAACTCTTGAACCTCATAGCACTTTAAGCCCTCAGGAGGACCATTCTAACAGAAAGTCTGCCT

FIGURE 4461B

ATGATCCTTCCTCTGTGGATGTTACCTCCCAGCATTCATCAGGAGCCCAGTCTGCTGCATCGTCTCGTTCATCTA
CTTCTTCTAAAGGAAAGAAAGGAAAAAAGGAAAAGACAGAATGGTTGGATTCATTCACTGGAAATGTTCAGAACT
CACTTCTTGATGAGGAAAAAGCAGAACGTGGCTCCCATCAAGGAAAGAAATCTGGGACCAGCAGCAAACTTTCTG
TTAAAGATTTTGAGCAGACTCTTGATACAGATAGCACTTTGGAGGATCTTTCTGGACATTCTGTGAGTGTCTCAT
CAGATAAGGGAAGATCTCAGAAAACTCCAACTTCTCCCCTGTCACCAAGTTCCCAGAAATCATTGCAGTTTGACG
TTGCAGGAACTTCTTCAGAAAGATCTAAGTCGTCAGTAATGCCTCCAACTATAACAGGATTTAAGCCTAATGCAC
CTCTCACTGATCTGAACCCGGCAGCCAGCAGAACAACGACAGAGAACATGGCTCCAATACCAGGTTCTAAGCGCT
TTTCTCCTGCTGGCCTCCATCATCGTATGGCAGCAGAACTCAGTTATCTGAACGCCATTGAGGAGTCGGTGCGCC
AACTGTCAGATGTAGAAAGAGTTAGAGGCATTTCACTTGCTCAGCAGGAGAGTGTGTCTCTAGCTCAGATAATAA
AGGCACAACAGCAACGCCATGAAAGAGACTTGGCCCTCTTGAAACTAAAGGCTGAACAAGAGGCTCTGGAGAGTC
AGAGACAATTAGAAGAAACCCGAAACAAAGCAGCTCAGGTCCATGCAGAATCATTACAGCAGGTGGTTCAATCAC
AACGGGAAGTAACTGAAGTCCTGCAGGAAGCAACGTGTAAAATAGCAGCTCAGCAGTCAGAAACTGCTCGCCTCA
CCACAGACGCAGCACGTCAAATCTGTGAGATGGCAGAGTTGACTAGAACTCATATCTCAGATGCTGTCGTGGCTT
CAGGAGCTCCCCTTGCAATACTGTATGACCACCAACGGCAGCACCTTCCAGACTTTGTGAAACAGCTGAGGACCA
GAACTGAAACAGATAGGAAAAGTCCATCTGTTTCACTCTCTCAGAGTAAAGAAGGGACCCTTGACTCAAAGCATC
AGAAGTATTCTGCTTCATATGATAGTTATTCTGAGTCTTCAGGATACAAGAATCATGATAGAAGAAGTAGCAGTG
GTAGCAGCCGCCAAGAAAGTCCTTCAGTTCCATCTTGTAAGGAAAATGAGAAGAAACTTAATGGTGAAAAGATAG
AGAGTTCCATTGATGAACAGGTTCAGACTGCTGCAGATGATTCTCTACGAAGTGATAGTGTTCCATCTCTTCCTG
ATGAAAAAGACTCAACGTCTATTGCAACAGAATATTCTCTGAAATTTGATGAATCCATGACAGAAGATGAAATAG
AAGAACAATCATTTCGATCATTACTACCTTCAGAGAGTCACCGCAGATTTAACATGGAAAAGAGAAGAGGTCATC
ATGATGACTCTGATGAAGAAGCTTCTCCAGAAAAAACTACACTGTCTACTGCCAAGGAACTGAACATGCCATTCT
CAGGAGGACAAGATAGCTTTTCTAAATTTACTATGGAGATGGTTCGACAGTATATGAAAGAGGAAGAAATGAGGG
CAGCTCACCAGTCTTCACTCCTGCGTCTCCGTGAAAAGGCCTTGAAGGAGAAGACTAAGGCTGAATTGGCCTGGT
TAGAGCATCAAAAAAAACATCTACGAGACAAAGGAGAGGATGATAAAATGCCCCCGCTCCGGAAGAAACAGCGTG
GTTTGCTTTTAAGGTTGCAGCAAGAAAAGGCAGAAATAAAACGTCTTCAAGAAGCCAATAAGGCAGCTCGGAAGG
AAAGACAGCTGATTCTTAAACAGCAGGAGGAGATAGAAAAGATCCGACAGACCACCATAAAACTACAGGAGAAAT
TGAAGTCTGCAGGGGAGAGTAAATTGGACTCTCATAGTGATGATGATACAAAGGATAATAAGGCAACCAGTCCTG
GTCCAACTGACTTGGAGACCCGCAGTCCTTCTCCCATTTCAATCTCCAGCAGTGAAACTAGCAGCATTATGCAGA
AACTGAAGAAAATGAGAAGCCGCATGGATGAAAAGTTTCTGACAAAGCGGGAGCAAAAATTAATGCAACGGCGAC
AACATGCAGAGGAGCTCCTAGAGTGGAAGCGACGTTTAGATGCAGAAGAAGCAGAAATTCGTCAAATGGAAAAAC
AAGCTTTGGCTGCCTGGGACAAAGAATTAATAAAACCCAAAACTCCTAAGAAAGAACTGGAGGACCAGAGAACAG
AACAGAAAGAAATAGCAAGTGAAGAGGAATCTCCAGTACCTCTGTACTCTCATCTAAACAGTGAAAGCTCCATTC
CAGAAGAATTAGGCAGCCCTGCTGTTGAATATGTACCATCCGAGTCTATAGGACAGGAGCAGCCAGGGAGTCCAG
ATCACAGTATACTTACTGAAGAAATGATTTGTTCACAGGAACTAGAATCTTCTACCTCTCCTAGTAAACATTCAC
TTCCCAAAAGCTGCACATCTGTGTCAAAGCAGGAGTCTAGCAAAGGAAGTCATAGGACTGGAGGACAATGTCACC
TGCCTATCAAGTCCCATCAGCACTGTTATAGTTGGTCAGATGAGTCATTATCTATGACACAGTCAGAAACTACAT
CTGACCAGAGTGATATTGAAGGTAGGATCAGAGCTCTGAAGGATGAGTTGCGGAAAAGAAAATCAGTTGTGAACC
AGCTGAAGAAGGAACAGAAAAAAAGGCAAAAGGAAAGACTGAAAGCCCAAGAAGCCAGTCTGATCAAGCAGTTAG
AGTCATATGATGAATTTATTAAGAAAACTGAAGCCGAGCTTAGCCAAGATTTGGAAACATCACCAACAGCCAAGC
CTCAGATTAAAACGCTCTCCTCAGCTTCTGAAAAACCCAAGATCAAACCCCTCACACCACTACACAGATCTGAAA
CGGCAAAGAATTGGAAATCACTAACAGAGTCAGAACGTTCCAGAGGATCCCTGGAGTCTATTGCTGAACATGTTG
ATGCTTCACTGTCTGGTTCTGAGAGATCAGTATCAGAAAGGTCTTTATCTGCATATGCAAAGAGAGTAAATGAAT
GGGACAGTCGAACAGAAGATTTTCAGACCCCATCTCCAGTTCTCAGATCATCAAGGAAAATCAGAGAAGAATCTG
GAGATTCTCTAGAAAATGTACCTGCATTACATCTTCTCAAAGAATTAAATGCCACTAGTAGAATTCTTGATATGT
CAGATGGCAAGGTTGGAGAATCTAGTAAAAAATCAGAAATAAAAGAAATAGAGTATACAAAATTGAAGAAGAGTA
AGATTGAAGATGCCTTTTCTAAAGAAGGTAAATCTGATGTCTTACTGAAATTAGTCCTAGAACAGGGAGATTCAT
CTGAAATTCTTTCAAAGAAAGATCTTCCTTTAGATTCTGAAAATGTTCAGAAAGACCTAGTTGGATTAGCTATTG
AAAATCTCCATAAAAGTGAGGAAATGTTGAAAGAGAGACAGTCAGATCAAGATATGAATCATAGTCCAAACATCC

FIGURE 4461C

AATCAGGAAAAGACATTCACGAACAAAAGAACACAAAGGAAAAAGATTTGTCTTGGTCAGAACATCTTTTTGCTC
CTAAAGAGATACCATACTCTGAAGATTTTGAAGTGTCTTCTTTCAAGAAAGAAATTTCAGCTGAATTGTACAAAG
ATGATTTTGAGGTGTCATCTTTGCTGTCACTCAGGAAAGACTCTCAGTCTTGCAGAGATAAGCCACAGCCAATGA
GGAGCTCTACAAGTGGAGCCACTAGCTTTGGTAGTAATGAGGAAATCAGTGAGTGCCTAAGTGAGAAAAGCCTTT
CTATCCATAGCAATGTTCATTCTGACAGGCTGTTGGAACTCAAGTCCCCTACTGAGCTGATGAAAAGTAAGGAGC
GCAGTGATGTGGAGCATGAACAGCAAGTTACTGAATCCCCTTCCTTGGCTTCAGTTCCTACTGCAGACGAGTTAT
TTGATTTCCACATTGGTGATAGGGTGTTGATTGGAAATGTTCAGCCAGGAATTCTTCGATTCAAAGGTGAGACTA
GTTTTGCTAAAGGATTTTGGGCCGGAGTGGAGTTAGATAAACCTGAAGGAAATAACAATGGAACATATGATGGTA
TTGCATATTTTGAGTGCAAAGAAAAGCATGGTATTTTTGCTCCTCCTCAAAAAATATCTCACATTCCAGAAAACT
TTGATGACTATGTAGACATTAATGAAGATGAAGACTGTTACTCAGATGAACGATATCAGTGCTATAATCAAGAGC
AAAATGATACAGAGGGTCCAAAAGACAGAGAAAAGGATGTCAGTGAATATTTTTATGAGAAATCCCTACCTAGTG
TGAATGATATAGAAGCCTCAGTTAATAGAAGTAGAAGCCTTAAAATAGAAACAGACAATGTACAGGACATTTCTG
GGGTACTTGAAGCCCATGTTCACCAGCAGTCTTCAGTGGATTCACAGATTTCTTCAAAGGAAAACAAAGACCTCA
TTTCTGATGCCACAGAAAAGGTTTCCATCGCTGCAGAAGATGACACTTTAGACAATACCTTTTCCGAAGAATTGG
AGAAGCAACAGCAGTTTACAGAAGAGGAAGACAACCTATATGCTGAAGCTTCAGAAAAGCTTTGTACACCACTTC
TGGATCTTTTAACAAGAGAAAAAAACCAACTGGAAGCCCAGCTGAAGTCATCACTAAATGAGGAAAAAAAGTCAA
AACAACAACTGGAAAAAATCAGCTTACTGACAGACAGTTTACTAAAAGTCTTTGTAAAGGACACAGTCAATCAAC
TACAACAAATCAAAAAAACCAGGGATGAGAAAATCCAGCTTAGCAATCAGGAGCTTCTTGGTGATGACCAAAAGA
AAGTAACACCCCAAGACCTATCCCAAAATGTTGAGGAACAGTCGCCAAGTATTTCAGGTTGCTTCTTAAGTTCTG
AATTGGAAGATGAAAAAGAAGAGATTTCCTCTCCAGATATGTGTCCCAGACCGGAGAGCCCAGTATTTGGTGCCA
GTGGGCAGGAAGAACTTGCTAAGAGACTTGCTGAACTTGAACTCAGCCGGGAGTTCCTGAGCGCGTTAGGAGATG
ATCAAGACTGGTTTGATGAAGACTTTGGTTTGAGCTCTTCTCACAAGATCCAAAAAAATAAGGCAGAAGAAACCA
TTGTACCTCTAATGGCAGAACCTAAAAGAGTAACCCAACAACCATGTGAAACATTATTGGCAGTCCCCCATACTG
CAGAAGAAGTAGAGATTCTTGTACATAATGCAGCAGAAGAACTTTGGAAATGGAAAGAATTAGGCCACGATCTTC
ATAGCATCAGTATTCCTACAAAACTGCTTGGCTGTGCCAGTAAAGGTCTAGATATAGAAAGCACTAGTAAAAGGG
TCTACAAACAGGCGGTTTTTGATTTAACAAAAGAGATTTTTGAGGAAATATTTGCTGAGGATCCCAACTTAAATC
AACCTGTCTGGATGAAGCCATGTAGAATCAACTCTAGTTATTTCCGACGAGTGAAAAATCCAAATAACCTTGATG
AAATCAAGAGCTTCATAGCAAGTGAAGTACTCAAGTTGTTCAGTCTTAAAAAGGAGCCAAACCACAAAACAGATT
GGCAGAAAATGATGAAATTTGGAAGAAAGAAAAGAGACCGAGTGGATCATATCCTGGTTCAGGAGCTCCATGAGG
AGGAGGCACAGTGGGTGAACTATGATGAGGATGAGTTGTGTGTGAAAATGCAGCTAGCCGACGGGATCTTTGAGA
CCCTGATCAAAGATACTATTGATGTTCTGAATCAGATCAGTGAAAAGCAGGGGAGAATGCTACTTGTG**TGA**CATC
TTGCAAATAAATCGAACGCTGAGTGCTAATGTGAGTCCTGGGCCTTTCTGCCTCCTGATGTACACCCATCGCCAT
CATAGCAAGAGTGCTTCTGGACCTTGTACTTATTCTTAAAGACTACCAGTATGGAGTTCATAGGACAATGTGGTA
CACCTGGTATTACAGCCTTTGCCTTTCGAGACTATCCACTGGATTAATGGGTTATTTTCAGTGGGCAGGGTTGCA
CAGTGTAATCCTACACCTTTTGCTAACACCCCTACTAGGTCCCAGAGGGCCAGAAACACCTGACTTACCTCTGAG
TTTAGACTAGGGTATCACTTCTTTGAGTCTGAAGTCAAGTGAGAGAGGTATAGATAAATGCATCACATCACTTTT
GAAATGTAATTCTGGTCTATACCATGGAAGTCATAAATGGACATTATAGTCTCTAAACAGTATTAAACCCTTAAC
CACTTCTAAAATAGGCAAGCTCAATAATGTCTGCCAACTTCACATTCTGGAGTTTATTTCATTTCTTTTTGAAGA
CCATTTTCTTCCATTATTGTAGTTGAGCAGCACCAAGTGGACTGTCAGGCTAACAGGAATAAGTGGTAGCCTTGC
TTTCTGAGCACCATCTAAAGAATTTTAAACCTCTGCATTATGTTTAGTGTTCTCTGTGTGGGCATGAAAACAAAG
AAATGCCCCTACTGAAGACTGGGCTCAAAGGACCAATGCAGGGCTGGTTCTTTTACCCCTTGGTTTACTCCTGCA
CTTGTCTTACTCATTCTGAATCTCTACCAGCTGCTCCCAGAATCACAGATACTCAGGACCATCTCAGGCATCCAG
GCATGGCAAAGTGGAAATAATTCATTTTGGCCTGCAAACCTTCAACTCCCATCTTTCCCCAAGAAGTCAGAGATG
CTGTTACTTGAATGATTTAGGAAATGAGTGTGTGCACCAAAGACAAAAAGATATTGTCTATTGTTTGTGTGCTTG
TTTTGCGCTATGGAACATTTTTTAATTTATTTTAAGATAAATTATTAAGTTGAAAATGTGTGTCCCTATTCAGAA
GTGAAAGATTCATCTTGTAATAGTTAAACCTCCATCTTGAAGCTTCTATGGTTCATAGTCTTTGCACAGGAACCT
GTGGTTTTAACAAACCAATACACATATTGAAGAAGTCATTTTAATTCAGTGAAACGAAGATGGGCTTTTCCAGAT
CACCTGCAATAGCAGCAGTGGGATAAAATGATTTAAAAACACTGTACAATTTAACTCTGCCTCTCTTGCAGCATT

FIGURE 4461D

GCTTCTCACAACTATTACCTGCATCTGAAAAAAAATCTATAGACTCCAGCTGCTACATTAGAGCATAAGAGATGC
TCTCCTGGGACCTCAGTACCCTGCCTTCTTGACTGGTTTCCGTTCATCAGTCCTGTCCCTCTTCAAGTAATCTAG
AAGAATGTGGATACTCTTAGGCGTGAATGTAAATGCCTTAATATTGAAGGTCCTGGTTAGAAGCATGATACAAGA
CATCTACTGGATTCATATTTACAAATATCCTGGAATGTTATAGCTTCAAAGTATATTAGAAAAACCCCAAAGATG
GTATAATCTTTAAGTGTGCACGTTCGTTTATTTCTGCATCTTCCCTCCAAACTTGCCTTTGCATCTTAAATATTT
CACTATGCACACTCCCATTCCTCTTGGGTTTCATCTTGTCGTTTAAGAAATGTACTGAAATAATCATTGGAATAT
TTGCATTTTGCACAATGACTGGTATGATAGCTCTTGACAAATAAGGAAAGCACTGAAATGTTGTGATTGGGTCTC
GGGAAATGCTCAGATTGATGTCTTACCAGCATTTCTTCTGGGCTTGTGATGTTGAGCTGTAGTCTTGTAGCCATA
ATGAGCAAATTGACTAAGAGAAGCAAAGGTTTCTTGGGGTTATTAACCAGTAGTGTGGAAATACTAGTTTTATGT
GGCCAAGGAAAAGCAAAGGCTTTTCTTTTCAGTTTGTGTTATTTGGAAGACAGAAAAACATCTTGTCTACATCCT
TTGGCTGTTTGTAGGATCACGTTGTCCTTACGATACTGAAACTTTACAGCTGCTGTAAATTTTTTATAAATGAAT
TTCAAAATGTTATAATGGGACTGTAGGTTGTTTTTCTACATCTTCATTATTTGGACCTAAAACCAGTTTTTAATA
AGAAAGTTTATCTTTACTCTTTCTGAAATTATGACTCCAG

FIGURE 4462

ATGTCGGACACGTGGAGCTCTATCCAGGCCCACAAGAAGCAGCTGGACTCTCTGCGGGAGAGGCTGCAGCGGAGG
CGGAAGCAGGACTCGGGGCACTTGGATCTACGGAATCCAGAGGCAGCATTGTCTCCAACCTTCCGTAGTGACAGC
CCAGTGCCTACTGCACCCACCTCTGGTGGCCCTAAGCCCAGCACAGCTTCAGCAGTTCCTGAATTAGCTACAGAT
CCTGAGTTAGAGAAGAAGTTGCTACACCACCTCTCTGATCTGGCCTTAACATTGCCCACTGATGCTGTGTCCATC
TGTCTTGCCATCTCCACGCCAGATGCTCCTGCCACTCAAGATGGGGTAGAAAGCCTCCTGCAGAAGTTTGCAGCT
CAGGAGTTGATTGAGGTAAAGCGAGGTCTCCTACAAGATGATGCACATCCTACTCTTGTAACCTATGCTGACCAT
TCCAAGCTCTCTGCCATGATGGGTGCTGTGGCAGAAAAGAAGGGCCCTGGGGAGGTAGCAGGGACTGTCACAGGG
CAGAAGCGGCGTGCAGAACAGGACTCGACTACAGTAGCTGCCTTTGCCAGTTCGTTAGTCTCTGGTCTGAACTCT
TCAGCATCGGAACCAGCAAAGGAGCCAGCCAAGAAATCAAGGAAACATGCTGCCTCAGATGTTGATCTGGAGATA
GAGAGCCTTCTGAACCAACAGTCCACTAAGGAACAACAGAGCAAGAAGGTCAGTCAGGAGATCCTAGAGCTATTA
AATACTACAACAGCCAAGGAACAATCCATTGTTGAAAAATTTCGCTCTCGAGGTCGGGCCCAAGTGCAAGAATTC
TGTGACTATGGAACCAAGGAGGAGTGCATGAAAGCCAGTGATGCTGATCGACCCTGTCGCAAGCTGCACTTCAGA
CGAATTATCAATAAACACACTGATGAGTCTTTAGGTGACTGCTCTTTCCTTAATACATGTTTCCACATGGATACC
TGCAAGTATGTTCACTATGAAATTGATGCTTGCATGGATTCTGAGGCCCCTGGCAGCAAAGACCACACGCCAAGC
CAGGAGCTTGCTCTTACACAGAGTGTCGGAGGTGATTCCAGTGCAGACCGACTCTTCCCACCTCAGTGGATCTGT
TGTGATATCCGCTACCTGGACGTCAGTATCTTGGGCAAGTTTGCAGTTGTGATGGCTGACCCACCCTGGGATATT
CACATGGAACTGCCCTATGGGACCCTGACAGATGATGAGATGCGCAGGCTCAACATACCCGTACTACAGGATGAT
GGCTTTCTCTTCCTCTGGGTCACAGGCAGGGCCATGGAGTTGGGGAGAGAATGTCTAAACCTCTGGGGGTATGAA
CGGGTAGATGAAATTATTTGGGTGAAGACAAATCAACTGCAACGCATCATTCGGACAGGCCGTACAGGTCACTGG
TTGAACCATGGGAAGGAACACTGCTTGGTTGGTGTCAAAGGAAATCCCCAAGGCTTCAACCAGGGTCTGGATTGT
GATGTGATCGTAGCTGAGGTTCGTTCCACCAGTCATAAACCAGATGAAATCTATGGCATGATTGAAAGACTATCT
CCTGGCACTCGCAAGATTGAGTTATTTGGACGACCACACAATGTGCAACCCAACTGGATCACCCTTGGAAACCAA
CTGGATGGGATCCACCTACTAGACCCAGATGTGGTTGCACGGTTCAAGCAAAGGTACCCAGATGGTATCATCTCT
AAACCTAAGAATTTA**TAG**

FIGURE 4463A

GGGTCTGAGACGGTGGGAGCGGTTGTGTGAAG**ATG**GAGTTTCCCGGAGGAAATGACAATTACCTGACGATCACAG
GGCCTTCGCACCCCTTCCTGTCAGGGGCCGAGACATTCCATACACCAAGCTTGGGTGATGAGGAATTTGAAATCC
CACCTATCTCCTTGGATTCTGATCCCTCATTGGCTGTCTCAGATGTGGTTGGCCACTTTGATGACCTGGCAGACC
CTTCCTCTTCACAGGATGGCAGTTTTTCAGCCCAGTATGGGGTCCAGACATTGGACATGCCTGTGGGCATGACCC
ATGGCTTGATGGAGCAGGGCGGGGGGCTCCTGAGTGGGGGCTTGACCATGGACTTGGACCACTCTATAGGAACTC
AGTATAGTGCCAACCCACCTGTTACAATTGATGTACCAATGACAGACATGACATCTGGCTTGATGGGGCATAGCC
AGTTGACCACCATTGATCAGTCAGAACTGAGTTCCCAGCTGGGTTTGAGCCTAGGGGGTGGCACCATCCTGCCAC
CTGCCCAGTCACCTGAAGATCGTCTTTCAACCACCCCTTCACCTACTAGTTCACTTCACGAGGATGGTGTTGAGG
ATTTCCGGAGGCAACTTCCCAGCCAGAAGACAGTCGTGGTGGAAGCAGGGAAAAAGCAGAAGGCCCCAAAGAAGA
GAAAAAAGAAAGATCCTAATGAACCTCAGAAACCAGTTTCAGCATATGCTTTATTCTTTCGTGATACACAGGCTG
CCATCAAGGGACAGAATCCTAATGCCACTTTTGGTGAGGTTTCAAAAATTGTGGCCTCCATGTGGGATAGTCTTG
GAGAGGAGCAAAAACAGGTATATAAGAGGAAAACTGAGGCTGCCAAGAAAGAGTATCTGAAGGCACTGGCTGCTT
ACAAAGACAACCAGGAGTGTCAGGCCACTGTGGAAACAGTGGAATTGGATCCAGCACCACCATCACAAACTCCTT
CTCCACCTCCTATGGCTACTGTTGACCCAGCATCTCCAGCACCAGCTTCAATAGAGCCCCCTGCCCTGTCCCCAT
CCATTGTTGTTAACTCCACCCTTTCATCCTATGTGGCAAACCAGGCATCTTCTGGAGCTGGGGGTCAGCCCAATA
TCACCAAGTTGATTATTACCAAACAAATGTTGCCCTCTTCTATTACTATGTCTCAAGGAGGGATGGTTACTGTTA
TCCCAGCCACAGTGGTGACCTCCCGGGGGCTCCAACTAGGCCAAACCAGTACAGCTACTATCCAGCCCAGTCAAC
AAGCCCAGATTGTCACTCGGTCAGTGTTGCAGGCAGCAGCAGCTGCTGCTGCTGCTTCTATGCAACTGCCTC
CACCCCGACTACAGCCCCCTCCATTACAACAGATGCCACAGCCCCCGACTCAGCAGCAAGTTACCATTCTGCAGC
AGCCTCCTCCACTCCAGGCCATGCAACAGCCTCCACCTCAGAAAGTTCGAATCAATTTACAGCAACAGCCTCCTC
CTCTGCAGATCAAGAGTGTGCCTCTACCCACTTTGAAAATGCAGACTACCTTAGTCCCACCAACTGTGGAAAGTA
GTCCTGAGCGGCCTATGAACAACAGCCCTGAGGCCCATACAGTGGAGGCACCTTCTCCTGAGACTATCTGTGAGA
TGATCACAGATGTAGTTCCTGAGGTTGAGTCTCCTTCTCAGATGGATGTTGAATTGGTGAGTGGGTCTCCTGTGG
CACTCTCACCCCAGCCTCGATGTGTGAGGTCTGGTTGTGAGAACCCTCCCATTGTGAGTAAGGACTGGGACAATG
AATACTGCAGCAATGAGTGTGTGGTGAAGCACTGCAGGGATGTATTCTTGGCCTGGGTAGCCTCTAGAAATTCAA
ACACAGTGGTGTTTGTGAAA**TAG**TCCTTCCTGTTCTCCAAGCCAGTGAAGAGTTATCTGCTGGGAAAGTGTCCAA
GAGCCTGTTTTTGAAACACAAGCTGGGCTTCTGGTAGTGCCTCATCACAACCCATGATGGCTGTTCATGTTTCAC
CCCTTTTCTTCCTTCAGCAGAGGCCAGGCTATGGAGCAGGGCCACTGAATTTGCTGTAATCTGGAGATGCTTTTT
ACTTTCAACCATAAGCGGTAATAGCAGAGGAAAGGGTGAAGGGAGTCTGGGCAAGCAAAGCATAGAGATGGTGGG
GTGGTGGTGGGGTTGAAGAAACTTGTTGGTATAATTGTCATAGGACTTGCCTAAAATATTATTAAAATTACGGGA
GTGTACTCAGCTTTGAGCCTAGGAGAAAATGCCACTGTGTGCATCCATTTTAAAGGGTTCCCTCATAAAAAAATG
TTATTCCCCATTATCACATCAGTACACTGCTTTGAAAACAAAACTTTTCAACATGGGCATACTGGGCTACATGGA
AAATGACATCACCCAGGAGTGATTTCTCTTTATATATATTATTTCTGCAGTTACCATCCTTATCTGAGTTATCAC
AGTTCATGAATCTAAGAGGCGGAACTCTACATCATTAGTAAGAGGTTCCACCAAAGTCTAAAGTTGTATTCACTT
GTGTTTGATGAACTATCTTTAAAAGACCATAGGTCTATCATTATTTCTTAGACATAATCTAAAGAAAAACAGACT
AGAGAAGCCACCTGGTTGTAACAGAATAAGCAGAAGTTTACAGCATGATAGTCCAAGTGGTGATAACTTTAAATA
AAACTCAAATTTTTACTGTTTGTAGACAGGAATGCTGTCCTAGAGAACCTCCTCCTCAACCAGCTACGTACATAG
TTTTATCCTATGCATTCCTGTTTTCTGTGTGTTTTTTGTTTTTTTTTTTTTTTTTTTTTTTGAGACAGAGTCTC
GCTCTGTCACCCAGGCTGGAGTGCAGTGGTGCGACCTCAGCTCACTGAAACCTCTGCCTCCCGGGTTCAAGCGAT
TCTCCTGCATCAGCCTCCCGAGTAGCTAGGATTACAGGCGCCCGCCACTACGCCCAGCTAATTTGTGGTATTTTT
AGTAGAGACAGGGTTTCACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCATGATCCGCCCGCCTTGACCT
CCCAAAGTGCTGGGATTACAGGCATGAGCCACCGCACCCAGCCTGCATTCCTGTTTTTTTAATGGTTTTGGAGGG
TAGCAGTAGAGATGGGGTCTCACTATGTTGCCCAGTCTAGTCTTGAACTCCTGGGCTACAGTTACCCTCCTACCT
CGGCTTCCCAAAGTGCTCGGATTACAGGTGTGAGCCACTGTGCCTAGCCTATAATGATCATTTTAATGTTTCCCA
TGCACTCATTTAGTTTGAACCTTCACAGCAACCCAATGAGGTAATACTCCCATTTCACATATAATACTGAGAGAT
GAGTTGCACAAGATTATACACTGTTAAGTAGCAGAGCCAGAATGGACTTCAGAATCCCAACTACAATACAAATGT
TTATTTAAATAAAGAAGAAAGCTATTGTACAAATATCACTCTTCAGGTTTAGCTTACAGAGCCATGGCTATGGAT
TCTTAGCTCTGTAAGGAAGTGCTTCTATAAATTCTTAGGTTTAGAGATGATACCATCTGGGTACCTTTGCTTGAA

FIGURE 4463B

CCGTGCAACCACATCTGGGTCTAGTAGGTGGATCCCATCCAGTTGGTTTCCAAGGGTGATCCTGAAACAGTGTAA
AAGGAGGGGCAAACCAGAAATCCTGGAATTAGAGGGTTTAATATTGTTAAAAAATGCATACCAAATGAAGACTGC
CTATCATCATATCAAATATGCCAATTCTAAAAAGAGCTTAACATTAGAATAGTATATGGTAGAATTACTAGTTCA
GAATTGGCATAGATTCTGGTGTTAAAATAGACTGGATCTGTATTATCTGAGGGTTAGTAACTAATGCTTAGCCAG
GCCTGCTTCACAGAGTTGCTACCAGGGAGTATTCTTTGGATAAGCAAAATGCTAGCAGCATGTGTTTTAAGCTCT
GTTAAGGGGTGAAAGATGTAATTATTGACAGATTAAATAGATAACTTCGTAACCACCAGGGGGCAGATTCAATAC
ATCACAGAATGGCTGAGGAAGATCCTTGGGTTGTGAAGAGAGTAGAAACCCTAGGGAGCAGTGCTTTTGGGTCCT
AGAACCTGTTGAGTTTCTAATGAATATTTGTAGAATCTCATAAAACAGTTTAAATACAAGCTT

FIGURE 4464A

CCAAAGGGGCAGGTCATACCAAC**ATG**CCTAATCTACTTAACACAATGATGGAGTTGCGCAAGTGCTGCAACCACC
CATATCTCATCAATGGTGCTGAAGAAAAAATCCTAACAGAATTCCGTGAAGCTTGCCATATTATACCTCATGACT
TTCACCTGCAGGCCATGGTTCGTTCAGCCGGCAAACTGGTTCTTATTGACAAGTTGCTTCCAAAGCTTAAAGCTG
GTGGCCATAAAGTTCTGATCTTCTCTCAGATGGTGCGCTGCCTAGACATCCTAGAGGATTATTTAATCCAGAGGA
GGTACTTATATGAACGTATTGATGGGCGAGTTAGAGGCAACCTTCGACAGGCTGCCATTGACCGCTTCAGCAAGC
CTGACTCAGACCGCTTTGTCTTCTTACTGTGTACCCGGGCTGGTGGACTTGGTATTAATCTTACAGCTGCTGATA
CCTGCATCATCTTTGATTCAGACTGGAATCCACAAAATGACCTGCAGGCCCAGGCACGATGTCATCGAATTGGGC
AGAGCAAAGCTGTGAAGGTGTACCGCCTCATCACTCGTAATTCCTACGAGAGAGAGATGTTTGATAAGGCCAGCC
TCAAGTTGGGGTTGGATAAGGCTGTGCTTCAATCCATGAGTGGTCGGGATGGCAACATTACTGGAATCCAACAGT
TCTCTAAGAAGGAGATTGAAGATCTTTTAAGAAAAGGAGCATATGCAGCCATCATGGAGGAAGATGATGAAGGCT
CCAAGTTTTGTGAAGAGGACATTGACCAGATCTTGTTAAGACGAACTACAACCATCACCATTGAATCTGAAGGAA
AAGGTTCCACCTTTGCTAAGGCAAGCTTTGTTGCTTCTGAAAACAGGACAGATATTTCTTTGGATGACCCCAACT
TTTGGCAAAAGTGGGCCAAAAAGGCTGACCTAGACATGGATCTGCTCAACAGCAAGAATAATTTGGTAATTGACA
CACCTAGAGTACGAAAACAAACGCGCCACTTTAGCACTCTGAAAGATGATGACCTGGTGGAATTCTCTGATTTGG
AAAGTGAGGATGATGAGCGGCCACGCTCCCGCAGACATGACCGTCATCATGCCTATGGGCGCACTGACTGCTTTC
GGGTGGAAAAGCATCTCCTGGTATATGGTTGGGGACGATGGCGAGATATTTTATCTCATGGACGCTTCAAGCGAC
GTATGACTGAACGAGATGTGGAGACCATTTGTCGGGCCATTCTCGTGTACTGTCTTCTACACTACCGTGGGGATG
AAAATATTAAAGGCTTCATCTGGGACTTGATTAGCCCAGCTGAAAATGGCAAGACAAAAGAATTGCAGAATCATT
CAGGTCTATCTATCCCTGTGCCTCGTGGACGCAAAGGAAAAAAAGTAAAGTCACAAAGCACTTTTGATATCCATA
AGGCAGATTGGATCCGGAAATATAACCCTGACACTTTGTTCCAAGATGAAAGTTATAAGAAGCACTTGAAACATC
AGTGTAACAAGGTACTGTTGCGGGTACGAATGCTATACTACCTGAGGCAGGAGGTTATTGGAGACCAAGCAGAAA
AGGTGTTAGGGGGTGCGATTGCCAGTGAGATTGACATATGGTTCCCAGTAGTGGATCAACTGGAGGTTCCAACAA
CTTGGTGGGACAGTGAGGCTGACAAGTCGCTGCTCATTGGAGTCTTTAAACATGGCTATGAGAAATATAATACCA
TGAGGGCAGACCCAGCCTTATGTTTCCTAGAAAAGGCTGGCCGACCAGATGACAAAGCAATTGCAGCAGAACATC
GAGTGTTGGATAACTTCTCTGACATAGTAGAAGGGGTTGACTTTGATAAAGATTGTGAAGATCCTGAATATAAAC
CACTCCAAGGTCCCCCAAAGGACCAAGATGATGAGGGTGATCCCTTGATGATGATGGATGAGGAGATCTCAGTGA
TTGATGGAGATGAAGCCCAGGTGACCCAACAGCCAGGCCATTTATTCTGGCCTCCGGGCTCTGCCCTAACAGCTA
GGCTTCGGCGTCTAGTAACAGCGTATCAGCGCAGCTACAAGAGAGAACAAATGAAGATAGAGGCTGCAGAACGTG
GGGACCGGCGAAGGCGGCGTTGTGAAGCAGCCTTCAAGCTGAAAGAAATTGCACGGCGGGAGAAACAACAACGAT
GGACAAGGCGTGAACAAACTGATTTTTATCGAGTGGTGTCTACGTTTGGTGTGGAATATGACCCTGACACCATGC
AGTTCCATTGGGATCGCTTCCGCACTTTTGCTCGACTAGACAAAAAGACAGATGAAAGCCTTACCAAGTACTTCC
ATGGCTTTGTGGCCATGTGCCGCCAAGTATGCCGCCTTCCCCCAGCAGCTGGAGATGAACCCCCCGACCCTAACC
TGTTCATTGAGCCCATCACTGAGGAGAGAGCCTCACGGACTCTCTACCGTATAGAATTGCTTCGGCGCTTACGGG
AACAAGTTTTATGCCACCCCCTTTTGGAAGATCGGCTGGCATTGTGTCAGCCTCCTGGTCCTGAATTGCCCAAAT
GGTGGGAGCCTGTTCGGCATGATGGGGAGCTTCTAAGAGGGGCAGCCCGCCATGGGGTGAGCCAAACAGACTGCA
ACATCATGCAGGACCCAGACTTCTCTTTTCTGGCTGCCCGTATGAATTATATGCAGAACCATCAAGCAGGAGCAC
CAGCTCCATCCTTGTCACGCTGCTCTACTCCACTGCTGCACCAGCAGTATACCTCACGCACTGCCTCACCACTGC
CCCTGCGCCCAGATGCTCCTGTTGAAAAGTCACCCGAGGAGACAGCTACCCAGGTCCCCAGTCTGGAGAGTCTGA
CTTTAAAGCTAGAGCACGAGGTGGTGGCCAGGAGCCGACCAACCCCACAAGACTATGAGATGCGAGTATCCCCCT
CTGATACTACCCCTCTGGTTTCCCGGAGTGTTCCACCAGTCAAACTGGAGGATGAGGATGATTCGGACTCTGAGC
TGGACTTGAGCAAGCTGTCACCATCTTCTTCTTCTTCCTCATCCTCATCCAGCTCCAGCTCCAGCACTGATGAGA
GTGAGGATGAGAAGGAAGAGAAGCTAACTGACCAGTCCCGCTCAAAGCTCTATGATGAAGAGAGTCTCCTGTCCC
TCACTATGTCCCAAGATGGATTCCCAAATGAAGATGGAGAACAAATGACCCCTGAGCTTCTGCTACTGCAGGAAA
GACAAAGAGCCTCTGAGTGGCCCAAGGATCGTGTCCTGATAAACCGTATTGACCTCGTCTGCCAGGCTGTACTCT
CAGGGAAGTGGCCTTCTAGCCGTAGGAGCCAGGAAATGGTAACAGGAGGAATTTTGGGGCCAGGCAACCACTTGC
TAGACAGTCCCTCATTGACTCCTGGAGAATATGGTGACTCTCCAGTCCCCACACCACGAAGTAGTAGTGCAGCTT
CCATGGCAGAGGAGGAAGCATCTGCAGTCAGCACAGCGGCAGCCCAGTTCACCAAACTTCGCCGAGGCATGGATG
AAAAGGAGTTTACAGTTCAAATCAAAGATGAGGAAGGATTGAAGTTAACATTCCAGAAGCACAAGTTGATGGCGA

FIGURE 4464B

ATGGAGTAATGGGAGATGGACATCCACTGTTTCATAAGAAGAAGGGGAACAGAAAGAAGCTAGTAGAGCTGGAGG
TGGAGTGCATGGAAGAGCCTAATCACCTTGATGTGGACCTGGAGACCCGGATCCCTGTCATCAATAAGGTGGATG
GTACTTTGCTGGTGGGTGAGGATGCCCCTCGCCGGGCTGAACTGGAGATGTGGTTACAGGGTCATCCAGAGTTTG
CTGTTGATCCCCGATTTCTAGCGTATATGGAGGATCGCAGAAAACAGAAGTGGCAAAGATGTAAAAAAAAATAATA
AGGCAGAATTGAACTGTTTGGGAATGGAACCAGTACAGACAGCTAACTCTAGAAATGGGAAAAAGGGTCATCACA
CTGAAACGGTGTTCAACCGGGTTTTGCCAGGGCCTATTGCACCAGAGAGCAGCAAGAAGCGGGCCCGTAGGATGC
GACCAGACCTTTCTAAGATGATGGCCCTCATGCAGGGTGGAAGCACTGGGTCTCTATCTCTGCATAACACGTTCC
AACACAGCAGTAGTGGCCTACAGTCTGTGTCATCTTTGGGTCACAGCAGTGCCACTTCTGCATCTTTGCCTTTTA
TGCCATTTGTGATGGGTGGTGCACCATCATCCCCTCATGTAGACTCCAGCACCATGCTTCATCACCACCACCACC
ACCCCCACCCCCACCATCACCACCATCACCATCCAGGCTTGAGAGCCCCTGGCTACCCCTCTTCACCAGTGACTA
CCGCCTCTGGTACTACCTTGCGGTTGCCACCACTGCAACCTGAGGAGGATGACGATGAGGATGAAGAAGATGATG
ATGACTTATCTCAGGGCTATGATAGCTCAGAAAGGGACTTCTCACTCATTGATGATCCTATGATGCCAGCTAACT
CAGACTCCAGTGAAGATGCTGATGAC**TGA**AGCCCCAGCATGGGCCCCATTGCTTGGGCGGCTGCTGTATTTTCAT
TTACTCTGGCCCTTGGACTATGGAAACGTGGGAGGGGCAGGGGAGATGTGGGGAAGTCCAGGACTCCAGGAGGTG
AAAAGGAAAAAAAAAAAAAAATGTACCTGATTGCTCCCAATTATGAGAGGATTGGGTGGGCAGGGGAACTCCTAA
AATAATACATGACCACTTCCTCATTTCTGGGGAAGGAAAGGAGACTAGAGCAGCTGGTGTGCTCACCCCTCCCTA
GTCACCTCCATTAACCACAGACTATGTAGCGCTGGCCCTAGCCTCTGGCAGAGCCTGTTCCTGGCCGAACTGTGG
ATACAGCTGGAGGGTCAGGAACTGTTACCTTCTTTCCCCTTGGCATTAATAAATTTAAGTTAATCCTT

FIGURE 4465A

GGCAGACCGTCACGTGACGACGTCGATTCGCGTGCGGCAGTGGCGAAGTTGACAAACCCCGCGAAAATCGACTCT
TTGCATCGCACATTTTGTTGATTTTCCCTCGTTTTTCTTTCTCTCTTTCCCCCGTCCATCCGAAAGAGGGTTGGA
AAAAAACAAAACAAACAAACAAACAAAAAAAAAAACCTAACGCTGTTGGGACCCGGAAGCGGAAAGGGCATCTTTG
AGGTCGATACTTCCGGGTCATTGGGAGAGTGCGGGATTCCTGGGCCGAGAGCGGGTGGCTGAGCCGGGACCTCGC
GTGATTCTCGGAACCCGAGGAGAAGCGGCGTCCGGGGCT**ATG**GCTGTGACTCTGGACAAAGACGCTTATTATCGG
CGAGTGAAGAGACTGTACAGCAATTGGCGGAAAGGAGAAGATGAGTATGCCAACGTTGATGCCATTGTTGTATCA
GTGGGTGTTGATGAAGAAATTGTTTATGCCAAATCAACTGCCTTACAGACATGGCTCTTTGGTTATGAACTAACT
GATACTATCATGGTCTTTTGTGATGACAAAATCATCTTTATGGCCAGCAAGAAAAAAGTGGAGTTCTTGAAACAG
ATTGCCAACACTAAGGGCAATGAGAATGCTAATGGAGCCCCTGCCATCACACTGCTAATACGAGAAAAGAATGAA
AGTAATAAGAGTAGCTTTGACAAAATGATTGAAGCCATTAAAGAAAGCAAGAATGGCAAGAAGATTGGAGTGTTC
AGCAAAGACAAATTCCCTGGAGAGTTCATGAAGAGCTGGAATGACTGCCTCAACAAAGAAGGCTTTGACAAAATA
GATATCAGTGCAGTTGTGGCATATACCATCGCTGTAAAGGAGGATGGGGAGCTCAACCTAATGAAGAAAGCAGCC
AGCATCACTTCTGAAGTCTTCAACAAATTCTTCAAGGAAAGAGTCATGGAAATAGTTGATGCAGATGAGAAAGTT
CGACACAGCAAACTGGCTGAGTCTGTGGAAAAGGCCATTGAAGAGAAAAAATACCTTGCTGGGGCAGACCCTTCT
ACTGTGGAAATGTGTTACCCTCCTATCATTCAGAGTGGTGGCAACTATAATCTCAAGTTCAGTGTGGTGAGTGAC
AAGAATCATATGCACTTTGGGGCTATCACTTGTGCCATGGGTATTCGCTTCAAGTCTTACTGCTCCAACCTTGTT
CGCACTTTGATGGTTGATCCTTCTCAAGAAGTTCAAGAAAATTATAACTTTTTGCTCCAGCTTCAAGAGGAGCTG
CTGAAGGAATTAAGACATGGTGTGAAGATATGTGACGTGTATAACGCTGTCATGGACGTGGTTAAAAAGCAGAAG
CCAGAACTGCTGAACAAAATTACCAAAAACCTAGGGTTTGGGATGGGAATTGAATTCCGTGAAGGCTCCCTAGTA
ATCAATAGCAAAAATCAATACAAACTGAAGAAAGGAATGGTTTTCAGCATCAATTTAGGATTCTCAGACCTGACT
AACAAGGAGGGGAAAAAGCCAGAAGAGAAAACCTATGCCCTGTTCATTGGTGACACAGTGCTTGTGGATGAGGAT
GGCCCAGCTACTGTTCTCACTTCTGTGAAGAAGAAAGTGAAGAATGTGGGGATTTTCCTAAAGAATGAAGATGAG
GAAGAAGAGGAGGAGGAGAAAGATGAGGCAGAGGACCTTTTGGGAAGAGGTTCTCGGGCAGCATTACTTACAGAA
AGAACAAGAAATGAAATGACTGCAGAAGAGAAGCGAAGAGCACATCAGAAAGAACTAGCGGCTCAACTCAATGAA
GAAGCAAAGAGGCGATTGACTGAACAAAAGGGAGAACAGCAGATTCAGAAAGCTCGCAAGTCTAATGTGTCCTAT
AAAAACCCATCTCTGATGCCTAAGGAACCACATATTCGGGAAATGAAGATCTACATCGATAAGAAATATGAGACT
GTAATAATGCCCGTGTTTGGCATTGCAACACCGTTTCACATTGCCACAATCAAGAATATAAGTATGTCCGTGGAA
GGAGATTATACTTACTTGCGAATCAACTTTTATTGCCCAGGCAGTGCTCTGGGCAGGAATGAAGGCAACATCTTT
CCTAACCCTGAAGCGACTTTTGTCAAGGAAATTACATACCGAGCATCAAATATTAAGGCACCCGGAGAACAGACA
GTACCAGCCTTGAACCTTCAGAATGCTTTCCGAATTATTAAAGAAGTACAGAAACGTTATAAAACTCGAGAAGCT
GAAGAGAAAGAGAAGGAGGGGATTGTAAAACAAGACTCACTGGTGATCAATCTAAACCGGAGTAATCCGAAACTG
AAAGATCTATACATTCGCCCAAATATTGCCCAAAAGAGGATGCAAGGCTCACTGGAGGCCCATGTCAATGGCTTC
CGCTTCACATCTGTTCGAGGAGACAAAGTGGATATTTTGTACAATAATATTAAGCATGCTTTGTTCCAGCCCTGT
GATGGAGAAATGATTATTGTCTTGCACTTTCACCTCAAGAATGCCATCATGTTTGGGAAGAAGCGGCACACGGAT
GTGCAGTTCTACACAGAAGTGGGAGAGATAACCACGGACTTGGGGAAACATCAGCATATGCATGACCGAGATGAC
CTCTATGCTGAGCAGATGGAACGAGAAATGAGGCACAAACTGAAAACAGCCTTTAAAAATTTCATTGAGAAAGTA
GAGGCTCTAACTAAGGAGGAACTGGAATTTGAAGTGCCTTTTAGGGACTTGGGATTTAACGGAGCTCCCTATAGG
AGTACCTGCCTCCTTCAGCCCACTAGTAGTGCGCTGGTAAATGCTACGGAATGGCCACCTTTTGTGGTGACATTG
GATGAGGTAGAGCTGATCCACTTTGAGCGGGTCCAGTTTCACCTGAAGAACTTTGATATGGTAATCGTCTACAAG
GACTACAGCAAGAAAGTGACCATGATCAACGCCATTCCTGTAGCCTCTCTTGACCCCATCAAGGAATGGTTGAAT
TCCTGCGACCTGAAATACACAGAAGGAGTACAGTCCCTCAACTGGACTAAAATCATGAAGACCATTGTTGATGAC
CCTGAGGGCTTCTTCGAACAAGGTGGCTGGTCTTTCCTGGAGCCTGAGGGTGAGGGGAGTGATGCTGAAGAAGGG
GATTCAGAGTCTGAAATTGAAGATGAGACTTTTAATCCTTCAGAAGATGACTATGAAGAGGAAGAGGAGGACAGT
GATGAAGATTATTCATCAGAAGCAGAAGAGTCAGACTATTCTAAGGAGTCATTGGGTAGTGAAGAAGAGAGTGGA
AAGGATTGGGATGAACTGGAGGAAGAAGCCCGAAAAGCGGACCGAGAAAGTCGTTACGAGGAAGAAGAAGAACAA
AGTCGAAGTATGAGCCGGAAGAGGAAGGCATCTGTGCACAGTTCGGGCCGTGGCTCTAACCGTGGTTCCAGACAC
AGCTCTGCACCCCCCAAGAAAAAGAGGAAG**TAA**CTTCTGAACTTTGGCCCTGAGCTCCATTCTTCCTCCAGCCAA
CCCCTGAAAATTTTACATGACATAGAAACTGTATTTTTCCTTTCGTTTTCATTTGAAGTTTTGCCATTTGTGTTT

FIGURE 4465B

ATGGGTTTAGGGGGCCATTTGTGTGGACCAATCTACTCGGGGAATTCCAGGCCCACCAGGACACGTGCCAATGGC
CCCATTCAGATGGCAAGGGAGGAGGTGTTCTTGAAGACAGGAGGAGGCTCCCGCTGTTAATAAATATTGTTTCAT
TCTTCTCTCTTCCTGTCACCTTCTGCCAAGACATTGATGGCTTCTGACATCTTATTTGGTGTCTCAAAGCTGTAT
TTCCAAGACAGTGGTACAAGGTGACCCTTAATTACCCGTATCATGGTTCTTGACCAGCACATTCAATCCTCCAAC
CTACCCTACTGCCATGACCTTCCGCACATCTCTAAGTTTTATCTTTGCAATACTCAAGGTTCTCGGAAATTTGCT
AATGGTTGTGATAAACCATACAGCTTGAGCCAGTGAGGCAGATTGGGCTGGTGCCTTCGTCTGAGTTTTCCTGCT
TTCCTGCCTCGTGCAGATTCTGAGGTATATCTGCTGCCTTGGAAGACATAAGAAGCAGTGATACTCCCTGGCTCG
GTTATTTTCTCCATACAATGCACACATGGTACAATGATAGAAGGCAAAATTGCCACTGTCTTCTTTTTTTTCTCA
TATATCTAAGGAAGATATATCAGGTTGTGCCTCATGTACCGCTTCTAGTGAAATGTAGAGGAAGGCTCAAAGGAG
TCAACATTTATATCTGGAAGGGACAAGTCATGCCTTGGGCCTAGAATACCCTGATGAGAAAAGAGAAGAGGAAGG
GAGGCCATATCTACAACACAGCCTCTCGGCACTGCTGCTCCTTATTTTAACTTTGTCTTGCATTGTCCTGTATTT
ATCACAGTTTCTGTTGAACAGCTTTTCAAGTATTTGGGGAGTTTATCTTGCCATCCTCCCCTTCTGGTTCTCTGC
ACCCACCTGTCCCACTGCAGTTCCTTCCGTGCTCTGTGACTTTAAGAGAAGAAGGGGGGAGGGGTCCCGGATTTT
ATGTTTGTTTGTTTTTTCTCCTTAGCAGTAGGACTTGATATTTTCAATTTTGGAAGAACTAAAAGATGAATAAAC
TGGGTTTTTTTTGTTGTTTGTTTTTGT

FIGURE 4466

TTTTGTGAAGAGACGAAGACTGAGCGGTTGTGGCCGCGTTGCCGACCTCCAGCAGCAGTCGGCTTCTCTACGCAG
AACCCGGGAGTAGGAGACTCAGAATCGAATCTCTTCTCCCTCCCCTTCTTGTGAGATTTTTTTGATCTTCAGCTA
CATTTTCGGCTTTGTGAGAAACCTTACCATCAAACACG**ATG**GCCAGCAACGTTACCAACAAGACAGATCCTCGCT
CCATGAACTCCCGTGTATTCATTGGGAATCTCAACACTCTTGTGGTCAAGAAATCTGATGTGGAGGCAATCTTTT
CGAAGTATGGCAAAATTGTGGGCTGCTCTGTTCATAAGGGCTTTGCCTTCGTTCAGTATGTTAATGAGAGAAATG
CCCGGGCTGCTGTAGCAGGAGAGGATGGCAGAATGATTGCTGGCCAGGTTTTAGATATTAACCTGGCTGCAGAGC
CAAAAGTGAACCGAGGAAAAGCAGGTGTGAAACGATCTGCAGCGGAGATGTACGGGTCAGTAACAGAACACCCTT
CTCCGTCCCCTCTACTCAGCTCCTCTTTTGACTTGGACTATGACTTTCAACGGGACTATTATGATAGGATGTACA
GTTACCCAGCACGTGTACCTCCTCCTCCTCCTATTGCTCGGGCTGTAGTGCCCTCGAAACGTCAGCGTGTATCAG
GAAACACTTCACGAAGGGGCAAAAGTGGCTTCAATTCTAAGAGTGGACAGCGGGGATCTTCCAAGTCTGGAAATG
AAAGGAGA**TGA**CCTTCAGGCCATTAAGAAGGAGCTGACCCAGATAAAACAAAAAGTGGATTCTCTCCTGGAAAAC
CTGGAAAAAATTGAAAAGGAACAGAGCAAACAAGCAGTAGAGATGAAGAATGATAAGTCAGAAGAGGAGCAGAGC
AGCAGCTCCGTGAAGAAAGATGAGACTAATGTGAAGATGGAGTCTGAGGGGGGTGCAGATGACTCTGCTGAGGAG
GGGGACCTACTGGATGATGATGATAATGAAGATCGGGGGGATGACCAGCTGGAGTTGATCAAGGATGATGAAAAA
GAGGCTGAGGAAGGAGAGGATGACAGAGACAGCGCCAATGGCGAGGATGACTCTTAAGCACATAGTGGGGTTTAG
AAATCTTATCCCATTATTTCTTTACCTAGGCGCTTGTCTAAGATCAAATTTTTCACCAGATCCTCTCCCCTAGTA
TCTTCAGCACATGCTCACTGTTCTCCCCATCCTTGTCCTTCCCATGTTCATTAATTCATATTGCCCCGCGCCTAG
TCCCATTTTCACTTCCTTTGACGCTCCTAGTAGTTTTGTTAAGTCTTACCCTGTAATTTTTGCTTTTAATTTTGA
TACCTCTTTATGACTTAACAATAAAAAGGATGTATGGTTTTTATCAACTGTCTCCAAAATAATCTCTTGTTATGC
AGGGAGTACAGTTCTTTTCATTCATACATAAGTTCAGTAGTTGCTTCCCTAACTGCAAAGGCAATCTCATTTAGT
TGAGTAGCTCTTGAAAGCAGCTTTGAGTTAGAAGTATGTGTGTTACACCCTCACATTAGTGTGCTGTGTGGGGCA
GTTCAACACAAATGTAACAATGTATTTTTGTGAATGAGAGTTGGCATGTCAAATGCATCCTCTAGAAAAATAATT
AGTGTTATAGTCTTAAGATTTGTTTTCTAAAGTTGATACTGTGGGTTATTTTTGTGAACAGCCTGATGTTTGGGA
CCTTTTTTCCTCAAAATAAACAAGTCCTTATTAAACCAGGAATTTGGAG

FIGURE 4467

ACACCGGCGTGCTCGCAAGAGGCGGGAAAGCGTTAGGGAGAGACGCGGGTCGCAGGGTCCCTCCCTCTGCCTGCC
CTATCTACCCGCCTGCCCAGCGAGCCTGTCCATCTTCAGCGCCCAGGCCCTAGGGGAGGGGACGAGAAAGGCCCC
GCGCTTCTGACTCATCATCTCCAACCCCTTTCTCGCGCGCGCTCCAAGTCTCAGGACTTCGGACCTGGGCCCTCC
TGCGAGGGGGTGCGGCGACAGCATCTGGGAAGCCCCAGCTCTGCCAAGCGTCAGCTCCGAGCCCTCGCCAGTCTC
TGAAGCTGCCAGCGCAGGGCTGGGGACCCAGATCCAGCTCTCTATTGCAGTGGCTGGGGGAGCGGCACGCCAGTG
CAGGACCGCCCGCCCGGCTCCTCCCCGAACGCGGGGCCAGTGGTCGCGTCCGAGAAAGCGCCAGGCTAGGCCCCG
ACTTCCCCGCCTCGCGTCACTCAGCACATCCAACAGCGCCCCTACCGCGGAGAGAAGGCTCTTTATTTCCTAGCC
GGTCACGGGCTAGCGGGGCATCCTGGGACTTGTAGTCTCCGCTACAGTAGAAAGGAGATGGATCGAAAGGGGAAC
TGGGGCACTCCTGAATTGGATTCAGGGAGTTGGCGTGTGCAGGGTCCGGGATTTGGAGTGGATGGGATTATGAAA
GGTGGACAGAAAAGAAAAGTGCGATGAGGCAAATGTGAAGCTGTATGGGGAGGTGACAGGAAGAGAGGATATGGA
TGCAAGGGAGAAAGCAGCTTTTCAGGGTGGTGAGGTGAGGATATATTCTCGTCCAGGTGTATCTTCCCCTAACAG
GGAAGGAACGAAAAAAGGGCCTGCTTTGAGTGAAAACTGAAGGCACTCCCGGACTTCCTATTGGACTCGAAGGAT
CCCAGCAAGCTTCTGAGTTTGGTGGGGTGGGATGCAGGAATGTCTGGAGAGCATTCTCTCAGGGTGGAAGGAGAG
CAGCACGTGTCTGTTCCCGCTGTCCCACCCTCTCATTTGCTCCTGTGCTGGCCACCGTGGGACCATTCTCCAAAC
CAGGAACCTCTTCCAACTCAGAGAAGCCCTGAAAACCAGAGACAGGTGTGAGCAAATTGTAGAGGTGAGAAAGGA
GAAACCCCAGACAGAAACAACTGCTTCCTCCTGCCCAATTTTCTATCCTGTTTCCCATAGTCCTGCCAATATTTA
GGCAGCTTCCTAATGCTTTCCCACTCTTTTAACCTCAATCATTTGGATTCCCAGTTTCCTCTTACCCACCATTAG
GGGAGAAATGTTCAAAGCCAGAGAAAGCCAATCAGTTTCATTCTAGGACCTCTTCTTTTCTCTCCTGCCCCATTA
TTTTCCCTTAAGTGCCACTGACCAGGATAGGCAGTGGAAAAATTAGTTGGCAGCTAGCTATTCGTGCTTTCTTCC
CTGCCCCCATACCTCCTGCAGCTCTTGATAGTGCAGACTCTGGCTCCTGCAGCATCCTGGTTTCCTCTGGCTCAG
CAAGAATAGGGCGTGCACTGAGACCAGCACTCCCCCTAGGGTGAAGGCCTCAGCACTGAGTTCCAGCACCAGCAA
GCCAGC**ATG**CTGCAGGTAGACAGGGCTGAGAATGCAGGGACCCCGCACCTGTTTGCCCCTGCCCTTTTCCCTTCC
CACCTCCTCTTGCCTCCTTATCCTCCCACCTTCTCCTTCATTGACCAGTACCTGGGAGGAGGCAGTTGGGGCAGG
CCCCAAGGCTGTCTTCATCACCTCGACCACCACCACTATGAAACCCAAGATCAAGTTGAAGGTGTTGAATATCAT
CATGGCCCGCACCTGCCAGTGAGCCAGCTCAGCCCTGCCCAGCCTAGGGGAGTCATTCCAACCTCAATCCCCACT
TGCAGCCTAGCTGAAGACAAAACTCAGCTTCTGCTTCTCAGCCTCCAAACAGGGCCA**TAA**GCCCTCTTAACTTTT
TTGCTTTCCTCCTCAGTGATTGAGGCCAGTCAGTGGTGACAGCTGAGAGAATGAGTCAACACTTAGCCACTTACT
TCCTAGGCTGAGGGTTGTAGGTGTCTGTTTTAGGGAGTGGGAGGACAGTGCTGCGTTTTCTTCCCTCTCACCTTC
CAAAGGCGGGGTGCTCTGCGAAGCTCCAGAGTGACAGTCCCAGTGAGGAGACCCTGAATGGTGAGAAGGGCAAGT
GTTGAGCTCTGGTCCCGTTAGGAAGGGGCCCTGGGACCTTCCACCCTCCCTTGTGGTGGGTCTTACTGAGGCTCC
AGGCCCAAGAGGCAGCGCTGTGGCCATGTGACAATCAGAGTTCAGGCAGGCGACTGAGACAGCAAGGGGCACCAC
AACCACTGCCAGCCATAGCTGGCTCACCTGGGGGTAAGGGTAGGGTAATTGGGGAGGAACTGTCAGGGATTCCCT
CCCTTCTCGTAACTCCTACCTCTTTAGAGATCAGGAAATGGGATTGAATGCAGGGTGGAGGAAAGCAGTCAACCC
AGAGCAAGGACGTGATCATTAAAAATTAAGTATCATTT

FIGURE 4468

GCACCCCGCCCCTGGCGGCCGCCTCTCGCGGCTCCCGGGGTCCCCAGCTCCCTGTCCCCGGAGCCAGAGCCCGGC
TCCCGCGCGGCTCCCAGCCCCGCCGCGCCGCCCCCCGCATGCTAATGGCCGGGCCGCCTCCCGCCGCACACAATG
CGGGCCAGGGCCGGGGGCGGGGGACCGGGGAGGGGGCGGGGGCCGGGCCGGGGGCGGGGGGGCCGGGGCCCGGCG
CATCTCCCCCGGCCCCACGTAACGCTGACGCCCGCGCCGCCGGCCCGCCGCCCGCCGCCGCCGCCGCCGCCG
CCCGCTCCGCCGCCGCCCGCCCGGGGCTCCTCCACAGCACCTGTTGCCTTCATTAGCAGCTTTTCCTCCTCTTCC
CTGCACTTCCCAGAACCAAAGAATGTGAAGGGGGTCC**ATG**GAGGGCTCACGTCCCCGCGCCCCGAGCGGCCACTT
AGCGCCGTCGCCGCCGGCTTTCGACGGCGAGCTGGATCTGCAGCGATACTCCAACGGGCCAGCCGTGAGCGCAGG
GTCGCTCGGGATGGGAGCGGTGAGCTGGTCTGAGAGTCGTGCAGGCGAACGGCGCTTCCCCTGCCCTGTATGCGG
GAAGCGCTTCCGCTTCAACTCTATCCTTGCTTTGCACCTGCGGGCGCACCCAGGAGCCCAGGCCTTCCAGTGCCC
TCACTGCGGCCACCGCGCGGCGCAGCGGGCTCTGCTGCGCTCGCACCTGCGCACACACCAGCCCGAGCGCCCACG
TAGTCCTGCTGCACGCCTGTTGCTGGAGTTGGAAGAGCGCGCGCTACTACGCGAGGCCCGACTGGGGAGAGCCCG
AAGCTCAGGGGGCATGCAGGCCACCCCTGCCACTGAGGGTCTGGCGCGGCCCCAGGCTCCTTCATCGTCCGCCTT
CCGTTGCCCCTACTGCAAAGGCAAGTTTCGCACCTCGGCGGAGCGCGAACGCCACCTGCACATCCTGCATAGGCC
CTGGAAGTGCGGCCTGTGCAGTTTCGGCTCCAGCCAGGAGGAGGAGCTGCTGCACCACAGCCTGACGGCCCACGG
GGCTCCCGAGCGTCCCCTGGCGGCCACCTCCGCTGCGCCTCCGCCTCAGCCTCAGCCTCAGCCTCCACCCCAGCC
CGAACCCAGATCAGTCCCCCAGCCGGAGCCGGAGCCGGAGCCCGAACGTGAGGCAACCCCGACCCCAGCTCCTGC
CGCTCCCGAGGAGCCCCCAGCGCCTCCGGAGTTCCGCTGCCAAGTGTGCGGCCAGAGCTTTACACAGTCTTGGTT
TCTCAAGGGCCACATGCGTAAGCACAAGGCCTCCTTCGATCATGCGTGTCCGGTGTGCGGCCGCTGCTTCAAGGA
GCCCTGGTTCCTTAAGAACCACATGAAGGTGCACGCCAGCAAGCTGGGCCCACTGCGTGCCCCGGGGCCTGCCTC
CGGGCCTGCCCGCGCCCCCCAGCCTCCTGACCTCGGCCTGCTGGCCTATGAGCCGTTGGGCCCAGCGCTCCTCTT
GGCCCCGGCTCCCACCCCGGCCGAGCGCCGTGAGCCCCCGAGCCTCTTGGGCTACCTGAGCCTGCGAGCTGGCGA
GGGCCGGCCCAACGGCGAGGGTGCTGAGCCCGGTCCCGGCCGCAGCTTCGGAGGCTTCCGCCCGCTGTCCTCTGC
TCTCCCGGCCCGGGCTCGCCGGCACCGTGCGGAGGAGCCTGAGGAAGAAGAGGAGGTGGTGGAGGCCGAGGAGGA
AACCTGGGCCCGGGGCAGGTCGCTGGGCTCTCTGGCTTCCCTGCACCCGCGCCCGGGTGAGGGACCGGGGCACTC
TGCCTCTGCTGCTGGGGCCCAGGCAAGATCGACCGCCACGCAGGAAGAGAATGGGCTGTTGGTTGGAGGGACCCG
GCCTGAAGGGGGCCGGGGCGCCACCGGCAAGGATTGTCCTTTCTGCGGAAAATCTTTCCGCTCAGCACATCACCT
CAAAGTGCATCTGCGAGTGCACACAGGCGAGCGGCCCTACAAGTGTCCGCACTGCGACTACGCGGGCACCCAGTC
CGGCTCGCTCAAGTATCACCTACAGCGCCACCACCGGGAGCAGAGGAGCGGGGCCGGCCCCGGGCCACCCCCGGA
GCCACCGCCTCCTTCCCAGCGGGGTTCGGCCCCGCAATCTGGAGCCAAGCCGTCTCCGCAGCCTGCGACCTGGGT
GGAGGGCGCCTCAAGTCCCCGGCCTCCTTCTAGCGGTGCTGGGCCGGGGTCCCGTCGGAAGCCCGCCAGCCCTGG
GAGGACCCTGCGCAACGGGCGAGGCGGTGAGGCCGAACCCCTGGACCTGTCCTTGCGGGCAGGGCCGGGAGGCGA
GGCCGGGCCTGGGGGTGCCCTCCACCGCTGCCTCTTCTGCCCGTTCGCCACTGGAGCCCCAGAGCTCATGGCCTT
GCACCTTCAAGTGCACCACAGCCGCCGGGCTAGGGGCCGCCGGCCACCCCAGGCTGACGCGTCCCCGCCCTATGC
CCGAGTACCATCAGGAGAGACCCCTCCCAGTCCTTCGCAGGAAGGGGAGGAGGGCTCCGGGCTGTCCAGACCCGG
AGAGGCAGGGCTGGGGGGGCAAGAACGG**TAG**TGGGCCCTCAGGGGCGATTAGCTTAGTGAGCTTACCCCGCCGGA
GCGGGGGAGCGCTAGAGGTAGTTGGGTAGAGAAGCCAGCAGGGGGCAGCGTGGGACCCATATCCCAGCCCCAGGC
GGACCAGAGGTGGAAGGCGCGGCGGGCGTAGGAGGGTGGGCTGGCGGTACCCACCCAGCCCAAGGGAGTCACAGT
GCCTTAGAAGTGGCAGAGGTGAGGGTCAAAGAACGGGGTCCCTGGGCTGGCAGAGAAGGTTTGTGTCCCTGTTGA
GGAGCCACTCTGCCAGTCTTTGCTGGTCCATAGGCGTGAGAGTTTATTTTTGTACAAGGGGTGAGGGTGGGGGGC
ACTGTACCCTTCTAGCCCCATCAGGGGCCCTGTAGACGTCGCTATTTTTGGTACGATTCCTGTCATCCCTATTGC
AGAGTCGTGTCCCCAATAAACAGGTGTCTTGAGGCACAGG

FIGURE 4469

CGGCCCCCCGCATTCCCCGCCCCCACCTCCCCGCCTTGTTGTCCAACTTCTCCCGGAGCAGCCGGAGAGCAGGCG
TCGGGACGCAGCAAAGAGAGGAGAGGCCACC**ATG**GCGGAGCTGCAGGAGGTGCAGATCACAGAGGAGAAGCCACT
GTTGCCAGGACAGACGCCTGAGGCGGCCAAGGAGGCTGAGTTAGCTGCCCGAATCCTCCTGGACCAGGGACAGAC
TCACTCTGTGGAGACACCATACGGCTCTGTCACTTTCACTGTCTATGGCACCCCCAAACCCAAACGCCCAGCGAT
CCTTACCTACCACGATGTGGGACTCAACTATAAATCTTGCTTCCAGCCACTGTTTCAGTTCGAGGACATGCAGGA
AATCATTCAGAACTTTGTGCGGGTTCATGTGGATGCCCCTGGAATGGAAGAGGGAGCCCCTGTGTTCCCTTTGGG
ATATCAGTACCCATCTCTGGACCAGCTTGCAGACATGATCCCTTGCGTCCTGCAGTACCTAAATTTCTCTACAAT
AATTGGAGTTGGTGTTGGAGCTGGAGCCTACATCCTGGCGAGATATGCTCTTAACCACCCGGACACTGTTGAAGG
TCTTGTCCTCATCAACATTGATCCCAATGCCAAGGGTTGGATGGATTGGGCAGCCCACAAGCTAACAGGCCTCAC
CTCTTCCATTCCGGAGATGATCCTTGGACATCTTTTCAGCCAGGAAGAGCTCTCTGGAAATTCTGAGTTGATACA
AAAGTACAGAAATATCATTACACATGCACCCAACCTGGATAACATTGAATTGTACTGGAACAGCTACAACAACCG
CCGAGACCTGAACTTTGAGCGTGGAGGTGATATCACCCTCAGGTGTCCTGTGATGCTGGTGGTAGGAGACCAAGC
ACCTCATGAAGATGCAGTGGTGGAATGTAACTCAAAACTGGACCCCACCCAGACCTCGTTCCTCAAGATGGCTGA
CTCCGGAGGTCAGCCCCAGCTGACTCAGCCAGGCAAGCTGACCGAGGCCTTCAAGTACTTCCTGCAAGGCATGGG
CTACATGGCCTCATCCTGCATGACTCGCCTGTCCCGGTCTCGTACAGCCTCTCTGACCAGTGCAGCATCCGTTGA
TGGCAACCGGTCCCGCTCTCGCACCCTGTCCCAGAGCAGCGAGTCTGGAACTCTTTCTTCGGGGCCCCCGGGGCA
CACCATGGAGGTCTCCTGT**TGA**ATGGCCCTTGTTGCCCTAGAGTGGGACCCAGCCCTCACCTCCCCCAGAGCTAA
CCTGGGAGGTGCTGAAGGGGCATTGGGCCACCGTAAGCAAGGGAAAAAGGGCAGATCATGCGGGGAGATGACCTT
GATCTTTGATTGCTACCCTAACCTTGACCTTTAACCCGTGATTCCCCCCAGCTCCTGGAAGAGATGTCCTAATAT
CTCTTAGGGACCCAGACCCCTAAATTCTCCTCCTCCCCCATTTTGATGTTAAGGTGGAGAGGGCATATGCATCCT
CTGTCCTGATCTAGGTGTCTATAGCTGAGGGGTAAGAGGTTGTTGTAGTTGTCCTGGTGCCTCCATCAGACTCTC
CCTACTTGTCCCATATTTGCAAGGGGAGGGGATTTGGGGCTGGGGCTCCATTCACCAAAGCTGAGGTGGCTTCTC
ATTAACCCTTTAGGACTCTGAAGGGTATGGACCTACGTGAATGTGTGTCAGGGGGAGACTTGCTGGTGGGTTAGT
GGTCCTCAGGATGTGATAGAAACATCCAGTGTAAAAAGGAAGTTGGAATGGGAGTTGGCGGGCAGTGAACGAGTG
TGGGGAAGGATTGGTGCTGGGGCAACAGGAAGGGGCCTGGGGCCGTTTGGCTGCACTAACTTTGGTAGCTCAGTG
TGCATCTAGAGTGGGACTGGGGAGGGAGCTAAGCTTGGGCTGGGCTGCTTGGGGCTTGGCATAGGGTGGAAAGGG
CTACCCTGGGGCTCTGACCACACTGTAGTATGTGTGGAGGGTGCCCTCCCGTCTCCCACAACTTCTGCTATAACA
ATAAACTGTAGAGGAATCTGAGTACCGTT

FIGURE 4470

GTTTCCGGTTCGCCTCCGGAGCC**ATG**GCGGCGGCACTGAAGTGTCTACTGACATTAGGAAGATGGTGCCCCGGCC
TTGGAGTGGCTCCCCAGGCCCGGGCGCTCGCCGCCTTAGTACCCGGAGTGACCCAGGTAGATAACAAGTCCGGTT
TCCTGCAGAAGAGGCCTCATCGCCAGCACCCTGGCATCCTAAAGCTGCCGCACGTGCGGCTGCCACAGGCACTGG
CTAACGGTGCCCAGTTATTGCTACTTGGGAGCGCTGGGCCCACTATGGAGAATCAGGTGCAAACACTGACCAGTT
ATCTCTGGAGCAGACATTTGCCTGTAGAGCCAGAGGAGTTGCAAAGACGGGCTAGGCATCTTGAGAAAAAATTCC
TGGAAAACCCAGACTTATCTCAGACAGAGGAGAAACTTCGTGGAGCAGTGCTACACGCACTACGTAAAACTACCT
ACCATTGGCAAGAACTGAGCTACACTGAGGGACTGAGCCTGGTGTATATGGCAGCAAGACTGGATGGTGGCTTTG
CAGCAGTCTCCAGAGCATTCCATGAGATCCGGGCTCGAAATCCAGCATTTCAGCCACAAACTTTGATGGACTTTG
GCTCAGGTACTGGTTCTGTCACCTGGGCTGCTCACAGTATTTGGGGCCAGAGCCTACGTGAATATATGTGTGTGG
ACAGATCAGCTGCCATGTTGGTTTTGGCAGAAAAACTACTGAAAGGTGGTTCAGAATCTGGGGAGCCTTATATTC
CAGGTGTCTTTTTCAGACAGTTTCTACCTGTATCACCCAAGGTGCAGTTTGATGTAGTAGTGTCAGCTTTTTCCT
TAAGTGAACTGCCCAGCAAGGCTGACCGCACTGAGGTAGTTCAAACCTTATGGCGTAAGACAGGTCATTTCCTGG
TACTGGTGGAGAATGGAACAAAAGCTGGGCACAGCCTTCTCATGGATGCCAGGGATCTGGTCCTTAAGGGAAAAG
AGAAGTCACCTTTGGACCCTCGACCTGGTTTTGTCTTTGCCCCGTGTCCCCATGAACTCCCTTGTCCCCAGTTGA
CCAACCTGGCCTGTAGCTTCTCACAGGCGTACCATCCCATCCCCTTCAGCTGGAACAAGAAACCAAAGGAAGAAA
AGTTCTCTATGGTGATCCTTGCTCGGGGGTCTCCAGAGGAGGCTCATCGCTGGCCCCGTATCACTCAGCCTGTCC
TTAAACGGCCTCGCCATGTGCATTGTCACTTGTGCTGTCCAGATGGGCACATGCAGCATGCTGTGCTCACAGCCC
GCCGGCACGGCAGGGATTTGTATCGTTGTGCCCGTGTCAGCTCCTGGGGAGATCTTTTACCTGTGCTTACTCCGT
CTGCGTTTCCTCCATCTACGGCTCAGGATCCCTCTGAGAGT**TGA**TGAGGATGTGTAACAAGTATTTTCTTCTATC
GTGCCTGCCAGGGCTGAAGCTGCCTGGTATCCAGGAGGGGAATGCTGGTATCCCCATATGTCTGTGTTTGTTTGA
GATTTTTAATAATAAATAATAAATTTTTGAAGAATGG

FIGURE 4471

AGAGACTTGGGTTTTGCTCCCTAGGAGCCCTGGAATAGCTTTGGCCAGAATTCCCTATCTCCCATTAGAACCTCT
CCTTTGCGTCCTTTGTTAACCTCCAAGTCTACTTGGTGAAAACGCCCACGAAGAAGTAACAAGGACTTTGTTCCT
AGTGTGCCAGGTTTGGGCACCAGTGCTGTAGTGGCTTTCTCTGCTGCTCCTTGTGCATCAGCAGACAGATGTGGT
TCACATAGGAAGAAAGACTAACGTAGGCAAAGATTTGCTCTTTCTTCAGCAGCCCTAGAAAGACGGCGGCCTGGG
TGATTCACCACTCCTTCCTCACGTCCTTGATTTTATTTGAACTGAGCTCCAGATGCTCCTCCCACCCTTTTCCTC
TTGGAAGCCAAACCCCTTTGTAATCTGTATAAGGTCCACACCCCGGGAGCTGAGTGATTGCAGAAACTGGCCTTC
CATCTCTCTCAGACACCAAGCTGCAGATCCAGGCTTTTCTGGGAAAGTGAGGCCACC**ATG**GCTCTGGAGAAGTCT
CTTGTCCGGCTCCTTCTGCTTGTCCTGATACTGCTGGTGCTGGGCTGGGTCCAGCCTTCCCTGGGCAAGGAATCC
CGGGCCAAGAAATTCCAGCGGCAGCATATGGACTCAGACAGTTCCCCCAGCAGCAGCTCCACCTACTGTAACCAA
ATGATGAGGCGCCGGAATATGACACAGGGGCGGTGCAAACCAGTGAACACCTTTGTGCACGAGCCCCTGGTAGAT
GTCCAGAATGTCTGTTTCCAGGAAAAGGTCACCTGCAAGAACGGGCAGGGCAACTGCTACAAGAGCAACTCCAGC
ATGCACATCACAGACTGCCGCCTGACAAACGGCTCCAGGTACCCCAACTGTGCATACCGGACCAGCCCGAAGGAG
AGACACATCATTGTGGCCTGTGAAGGGAGCCCATATGTGCCAGTCCACTTTGATGCTTCTGTGGAGGACTCTACC
TAAGGTCAGAGCAGCGAGATACCCCACCTCCCTCAACCTCATCCTCTCCACAGCTGCCTCTTCCCTCTTCCTTCC
CTGCTGTGAAAGAAGTAACTACAGTTAGGGCTCCTATTCAACACACACATGCTTCCCTTTCCTGAGTCCCATCCC
TGCGTGATTTTGGGGGTGAAGAGTGGGTTGTGAGGTGGGCCCCATGTTAACCCCTCCACTCTTTCTTTCAATAAA
ACGCAGTTGCAAACACCTGAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 4472

CACGCCGACCCTCCACACCTCACCACGCCCCCATCTCCGTCCGTGTACACACACTCACACAAGGACGCCAACCCC
ACCTAGATGCAAAGCAGGATTCAAAAGAACATCTTTGCGTTTTCTACCGGCTCCCCATCATCGTACTAGGGAGGA
AGAAGCGGGTGAGAAACAAAACTTCTTTCCATTGTCCTGCCCGTTTCTGCGGACTTGTTCTGAGGCCGAGGCACC
TCTAAGATACTG**ATG**GCTCTGCAGAGGACCCATTCATTGCTTCTGCTTTTGCTGCTGACCCTGCTGGGGCTGGGG
CTGGTCCAGCCCTCCTATGGCCAGGATGGCATGTACCAGCGATTCCTGCGGCAACACGTGCACCCTGAGGAGACA
GGTGGCAGTGATCGCTACTGCAACTTGATGATGCAAAGACGGAAGATGACTTTGTATCACTGCAAGCGCTTCAAC
ACCTTCATCCATGAAGATATCTGGAACATTCGTAGTATCTGCAGCACCACCAATATCCAATGCAAGAACGGCAAG
ATGAACTGCCATGAGGGTGTAGTGAAGGTCACAGATTGCAGGGACACAGGAAGTTCCAGGGCACCCAACTGCAGA
TATCGGGCCATAGCGAGCACTAGACGTGTTGTCATTGCCTGTGAGGGTAACCCACAGGTGCCTGTGCACTTTGAC
GGT**TAG**ATGCCACCATGTAGGGATTATCGCGAGTGGTTGACCTTACACTTACTCCTTAAATAGCAGTGAGTAATG
CATTTGAGCTGTCCCAGGCTCTGTCTCCTCAGCTCATTTCCTACTCTTTTTCTCTATATAACTCATTCTATTAAA
TACATTGCACCAAAGAGATATGGAGACATAAACCTGTAATGAATGAGGCTGGGCTTTTCTGTAATAAGCTTCCTT
TTATAATACTGGTCAGCTTAGCTCTCTCAGATCCTATCCTGTGGAATTTAGTTATTATGTGTATTTATGTAGTAT
TTCAAACATTTCAAAATGCTTTCATCTATGTTTATCACATTTTAATACCACAGCACTTATAATGATGTCACTACA
TATAGAAGCTCAAAGTTAAGGGATTTGCTGAAGACTGTAAAGTTAATGGAAGAATTGAGACAAAAATCCAGTGTA
GCTGGCCACTTATCCAGGGCTTTTTCTACTTCATCACAAGGAATGTTTTGAAAGTGTCTGCTTTTTTTATCCTTA
AAATTCACCTGTCAGGGAGGCATTAAAAATTTGGAAATGTATGCCAGCAAAATGTGAGCTCTGTATTTTTTGGCA
TTCTTATGTTTGGGTTTAATAAGATTAAGAAAATGATACTGGGAATTTTCTTTTTCCTGAAACTTTGAATCACCC
TAGTAAGTCAAAGTACTAAAAAATGTACTAGATCATTAAGACTTATGTGCTCTTACTGATTGAAAGATTTTTTAT
GTTTTCCTTGTAATAAAGGACCTAAACCGAAGGTACCTG

FIGURE 4473

ATGATGCCGTGTCAGAGAGCAAAGCTCCTGTCCTTTTGGCCTAATTTGGTGATGCTGTTCTTGGGTCTACCACAC
CTCCTTTTGCCCTCCGCAGGAGCCTGTGTTGGAAGAG**ATG**GTGATGGGCCTGGGCGTTTTGTTGTTGGTCTTCGT
GCTGGGTCTGGGTCTGACCCCACCGACCCTGGCTCAGGATAACTCCAGGTACACACACTTCCTGACCCAGCACTA
TGATGCCAAACCACAGGGCCGGGATGACAGATACTGTGAAAGCATCATGAGGAGACGGGGCCTGACCTCACCCTG
CAAAGACATCAACACATTTATTCATGGCAACAAGCGCAGCATCAAGGCCATCTGTGAAAACAAGAATGGAAACCC
TCACAGAGAAAACCTAAGAATAAGCAAGTCTTCTTTCCAGGTCACCACTTGCAAGCTACATGGAGGTTCCCCCTG
GCCTCCATGCCAGTACCGAGCCACAGCGGGGTTCAGAAACGTTGTTGTTGCTTGTGAAAATGGCTTACCTGTCCA
CTTGGATCAGTCAATTTTCCGTCGTCCG**TAA**CCAGCGGGCCCCTGGTCAAGTGCTGGCTCTGCTGTCCTTGCCTT
CCATTTCCCCTCTGCACCCAGAACAGTGGTGGCAACATTCATTGCCAAGGGCCCAAAGAAAGAGCTACCTGGACC
TTTTGTTTTCTGTTTGACAACATGTTTAATAAATAAAAATGTCTTGATATCAGT

FIGURE 4474

AACTGTGCGAACCAGACCCGGCAGCCTTGCTCAGTTCAGCATAGCGGAGCGGATCCGATCGGATCGGAGCGGATC
GGAGCACACCGGAGCAGGCTCATCGAGAAGGCGTCTGCGAGACC**ATG**GAGAACGGATACACCTATGAAGATTATA
AGAACACTGCAGAATGGCTTCTGTCTCACACTAAGCACCGACCTCAAGTTGCAATAATCTGTGGTTCTGGATTAG
GAGGTCTGACTGATAAATTAACTCAGGCCCAGATCTTTGACTACGGTGAAATCCCCAACTTTCCCCGAAGTACAG
TGCCAGGTCATGCTGGCCGACTGGTGTTTGGGTTCCTGAATGGCAGGGCCTGTGTGATGATGCAGGGCAGGTTCC
ACATGTATGAAGGGTACCCACTCTGGAAGGTGACATTCCCAGTGAGGGTTTTCCACCTTCTGGGTGTGGACACCC
TGGTAGTCACCAATGCAGCAGGAGGGCTGAACCCCAAGTTTGAGGTTGGAGATATCATGCTGATCCGTGACCATA
TCAACCTACCTGGTTTCAGTGGTCAGAACCCTCTCAGAGGGCCCAATGATGAAAGGTTTGGAGATCGTTTCCCTG
CCATGTCTGATGCCTACGACCGGACTATGAGGCAGAGGGCTCTCAGTACCTGGAAACAAATGGGGGAGCAACGTG
AGCTACAGGAAGGCACCTATGTGATGGTGGCAGGCCCCAGCTTTGAGACTGTGGCAGAATGTCGTGTGCTGCAGA
AGCTGGGAGCAGACGCTGTTGGCATGAGTACAGTACCAGAAGTTATCGTTGCACGGCACTGTGGACTTCGAGTCT
TTGGCTTCTCACTCATCACTAACAAGGTCATCATGGATTATGAAAGCCTGGAGAAGGCCAACCATGAAGAAGTCT
TAGCAGCTGGCAAACAAGCTGCACAGAAATTGGAACAGTTTGTCTCCATTCTTATGGCCAGCATTCCACTCCCTG
ACAAAGCCAGT**TGA**CCTGCCTTGGAGTCGTCTGGCATCTCCCACACAAGACCCAAGTAGCTGCTACCTTCTTTGG
CCCCTTGCTGGAGTCATGTGCCTCTGTCCTTAGGTTGTAGCAGAAAGGAAAAGATTCCTGTCCTTCACCTTTCCC
ACTTTCTTCTACCAGACCCTTCTGGTGCCAGATCCTCTTCTCAAAGCTGGGATTACAGGTGTGAGCATAGTGAGA
CCTTGGCGCTACAAAATAAAGCTGTTCTCATTCCTGTTCTTTCTTACACAAGAGCTGGAGCCCGTGCCCTACCAC
ACATCTGTGGAGATGCCCAGGATTTGACTCGGGCCTTAGAACTTTGCATAGCAGCTGCTACTAGCTCTTTGAGAT
AATACATTCCGAGGGGCTCAGTTCTGCCTTATCTAAATCACCAGAGACCAAACAAGGACTAATCCAATACCTCTT
GGA

FIGURE 4475

ACTGGTTGCGGAGTGAGCTGGGCGCGCGGCGCGCAGGCGCCCTGGGGACCCGGTAGCGGCGGTGGCGGTGGCGGC
GGTGGCGGTGGCTGCGGCGACGGCAGAGGCGAAGGGAGCCGGATCGCCGACCTGAGCGGGAGGCGGCGGTGGCGG
CC**ATG**GCGGCAGATGGAGAGCGTTCCCCGCTGCTGTCTGAGCCCATCGACGGTGGCGCGGGCGGCAACGGTTTAG
TGGGGCCCGGCGGGAGTGGGGCTGGGCCCGGGGGAGGCCTGACCCCCTCCGCACCACCGTACGGAGCCGCATTTC
CCCCGTTTCCCGAGGGGCATCCAGCCGTGTTGCCTGGGGAGGACCCACCCCCCTATTCACCCTTAACTAGCCCGG
ACAGTGGGAGTGCCCCTATGATCACCTGCCGAGTCTGCCAATCTCTCATCAACGTGGAAGGCAAGATGCATCAGC
ATGTAGTCAAATGTGGTGTCTGCAATGAAGCCACCCCAATCAAGAATGCACCCCCAGGGAAAAAATATGTTCGAT
GCCCCTGTAACTGTCTCCTTATCTGCAAAGTGACATCCCAACGGATTGCATGCCCTCGGCCCTACTGCAAAAGAA
TCATCAACCTGGGGCCTGTGCATCCCGGACCTCTGAGTCCAGAACCCCAACCCATGGGTGTCAGGGTTATCTGTG
GACATTGCAAGAATACTTTTCTGTGGACAGAGTTCACAGACCGCACTTTGGCACGTTGTCCTCACTGCAGGAAAG
TGTCATCTATTGGGCGCAGATACCCACGTAAGAGATGTATCTGCTGCTTCTTGCTTGGCTTGCTTTTGGCAGTCA
CTGCCACTGGCCTTGCCTTTGGCACATGGAAGCATGCACGGCGATATGGAGGCATCTATGCAGCCTGGGCATTTG
TCATCCTGTTGGCTGTGCTGTGTTTGGGCCGGGCTCTTTATTGGGCCTGTATGAAGGTCAGCCACCCTGTCCAGA
ACTTCTCC**TGA**GCCTGATGACCCACAGACTGTGCCTGGCCCCTCCCTGGTGGGGACAGTGACACTACGAAGGGAG
CTGGGGTAGTTAAAGGCTCCCGGGGCTTCTAGAAGGAAGCCAAGCAGCTGCCTTCCTTTTCCCTGGGGAGAGGTA
GGAAGGAACCAGGCCCTCACTTAGGTTTGGAGGGGCAGATAAGAGCACTGCTGACCATCTGCTTTCCTCCAAGGG
TTGCTGTGTCTAGGGTGAAGTAGGCAAAACGTTGCCCTTAAAACTGGGCCCTGAAGACGGTTCCAGCCTTGTCCT
TCCTGTGTGCTCCCTGAGAGCCATTCCTGTCCCTTACACATTCCAGGGCAGGGTGGGGGTGGGTAGCCCTGGGGG
TTCCCCTCCCTCTTGTGCACCATTAGGACTTTGCTGCTGCTATTGCACTTCACCAGAGGTTGGCTCTGGCCTCAG
TACCCTCAGTCTCCTCTCCCCACATTGTGTCCTGTGGGGGTGGGGTCAGCCGCTGCTCTGTACAGAACCACAGGA
ACTGATGTGTATATAACTATTTAATGTGGGATATGTTCCCCTATTCCTGTATTTCCCTTAATTCCTCCTCCCGAC
CTTTTTTACCCCCCCAGTTGCAGTATTTAACTGGGCTGGGTAGGGTTGCTCAGTCTTTGGGGGAGGTTAGGGACT
TATCCTGTGCTTGTAAATAAATAAGGTCATGACTCT

FIGURE 4476

CAGACAGACCAATCACGCGCATTCTTCGGCCACGACAAGCGCGCCTCTGATCACGTGACCAGGTCCGCTACCCAC
GTGGGGGCTCAGCGTGCACCCTTCTTTGTGCTCGGGTTAGGAGGAGCTAGGCTGCCATCGGGCCGGTGCAGATAC
GGGGTTGCTCTTTTGCTCATAAGAGGGGCTTCGCTGGCAGTCTGAACGGCAAGCTTGAGTCAGGACCCTTAATTA
AGATCCTCAATTGGCTGGAGGGCAGATCTCGCGAGTAGGGCAACGCGGTAAAAATATTGCTTCGGTGGGTGACGC
GGTACAGCTGCCCAAGGGCGTTCGTAACGGGA**ATG**CCGAAGCGTGGGAAAAAGGGAGCGGTGGCGGAAGACGGGG
ATGAGCTCAGGACAGAGCCAGAGGCCAAGAAGAGTAAGACGGCCGCAAAGAAAAATGACAAAGAGGCAGCAGGAG
AGGGCCCAGCCCTGTATGAGGACCCCCCAGATCAGAAAACCTCACCCAGTGGCAAACCTGCCACACTCAAGATCT
GCTCTTGGAATGTGGATGGGCTTCGAGCCTGGATTAAGAAGAAAGGATTAGATTGGGTAAAGGAAGAAGCCCCAG
ATATACTGTGCCTTCAAGAGACCAAATGTTCAGAGAACAAACTACCAGCTGAACTTCAGGAGCTGCCTGGACTCT
CTCATCAATACTGGTCAGCTCCTTCGGACAAGGAAGGGTACAGTGGCGTGGGCCTGCTTTCCCGCCAGTGCCCAC
TCAAAGTTTCTTACGGCATAGGCGATGAGGAGCATGATCAGGAAGGCCGGGTGATTGTGGCTGAATTTGACTCGT
TTGTGCTGGTAACAGCATATGTACCTAATGCAGGCCGAGGTCTGGTACGACTGGAGTACCGGCAGCGCTGGGATG
AAGCCTTTCGCAAGTTCCTGAAGGGCCTGGCTTCCCGAAAGCCCCTTGTGCTGTGTGGAGACCTCAATGTGGCAC
ATGAAGAAATTGACCTTCGCAACCCCAAGGGGAACAAAAAGAATGCTGGCTTCACGCCACAAGAGCGCCAAGGCT
TCGGGGAATTACTGCAGGCTGTGCCACTGGCTGACAGCTTTAGGCACCTCTACCCCAACACACCCTATGCCTACA
CCTTTTGGACTTATATGATGAATGCTCGATCCAAGAATGTTGGTTGGCGCCTTGATTACTTTTTGTTGTCCCACT
CTCTGTTACCTGCATTGTGTGACAGCAAGATCCGTTCCAAGGCCCTCGGCAGTGATCACTGTCCTATCACCCTAT
ACCTAGCACTG**TGA**CACCACCCCTAAATCACTTTGAGCCTGGGAAATAAGCCCCCTCAACTACCATTCCTTCTTT
AAACACTCTTCAGAGAAATCTGCATTCTATTTCTCATGTATAAAACTAGGAATCCTCCAACCAGGCTCCTGTGAT
AGAGTTCTTTTAAGCCCAAGATTTTTTATTTGAGGGTTTTTTGTTTTTTAAAAAAAAATTGAACAAAGACTACTA
ATGACTTTGTTTGAATTATCCACATGAAAATAAAGAGCCATAGTTTC

FIGURE 4477

AGTGCTATCTGCAGGCTGGCCAGCTTCCTCTGCGCTCCGGAAAGCTGCGGCCCAGCGCGGACTAGTGAGGACCTC
CACAGCTCCTGACATTGCCAGGAGTCCTGTCGGCGTTTTCTCCCAGCCTCCGCC**ATG**CCGGCGGTGCTGGGTTTT
GAAGGCAGCGCCAATAAGATTGGCGTGGGCGTGGTGCGGGATGGCAAGGTGCTGGCGAACCCGCGGCGGACTTAC
GTCACGCCTCCTGGCACAGGATTCCTTCCAGGTGATACAGCCAGGCATCACCGAGCTGTTATCCTAGACCTGCTG
CAGGAGGCACTAACAGAGTCTGGATTAACCTCCCAGGATATCGACTGCATTGCATACACCAAGGGCCCTGGCATG
GGTGCCCCACTGGTTTCTGTGGCTGTTGTGGCCCGTACTGTGGCCCAACTGTGGAATAAGCCATTGGTGGGTGTG
AACCACTGTATAGGCCACATTGAGATGGGCCGCCTCATCACTGGAGCCACCAGCCCAACCGTGTTGTATGTGAGT
GGAGGAAATACGCAGGTGCCTGTAATCCTAGCAACTCCGGAGGCTGGGCAGGAGAATCACTTGAACCCAGGAGGC
GGAAGTTGCGGTGAACCGAGATCGCACCATTGCATTCCAGCCTGGGCAACAAGAGCAAAACTCCGTCTCAAACAA
ACAAACAAACAAAAAACAAAAAAAAACAAC**TAA**AGGACACTACCTGATTTATTATTTTGGGTGATTGCATACTCG
GAACATCGTTACCGTATCTTTGGGGAAACCATCGATATTGCAGTGGGTAATTGTCTGGATCGTTTTGCTCGAGTG
CTGAAGATTTCTAACGACCCAAGTCCAGGATACAACATTGAACAGATGGCAAAGCGAGGCAAGAAGCTAGTTGAG
CTGCCATACACTGTAAAGGGGATGGACGTCTCATTCTCAGGGATCCTGTCTTTCATTGAGGATGTAGCCCATCGG
ATGCTGGCCACAGGCGAGTGTACTCCTGAGGATCTGTGTTTCTCCCTGCAGGAAACTGTGTTTGCAATGCTGGTA
GAGATCACAGAGCGAGCCATGGCACATTGTGGCTCCCAGGAGGCCCTCATTGTGGGAGGAGTGGGGTGTAATGTG
AGGCTACAGGAGATGATGGCAACAATGTGCCAGGAACGTGGAGCCCGGCTTTTTGCTACAGATGAGAGATTCTGT
ATTGACAATGGAGCGATGATAGCCCAGGCTGGCTGGGAGATGTTTCGGGCTGGACACAGGACCCCACTCAGTGAT
TCTGGGGGTTACACAGAGGTATCGGACAGATGAAGTAGAGGTGACCTGGAGGGACTAATAAGATCAACAGAATCAG
AGTAGATAGTTCCTTAATCGGAACCCAAAGGACCCCGTGCCTCAATCTCTATCCTGATGTCATGGGAGTCCTAGC
AAAGCTATAGACTCCAAGCAAGGCTTGGGGTCCTTTATGGAACCCCAGGATGACTCAGCAATAAAATATTTTTGG
TTTTTTGGTTTTGTATGTTGGTGATTGGATTGTGTTGTTCAGGACCAATGTAGATTTGGTGCTGGATAAATTCTT
GTTGGAGCTTGCTGCTGTGGAACCAAGAATGAGGTATCTTTTTTTTTTTTTTTAAGAAACGGAATCTTGCTGTGT
TTCCCAGGCTGGTCTCGAACTGGGCTCAAGCAGTCTTACCACCTCAGCCTCCTGAGTAAGGATGCCATTGTGCCT
GGCAACAATAGTAGTATCATAACTATTATTATAGCATCGGGTCCCGTGCTAACTGCTTTACATTCATTCTCTCAT
TTAAATTCTTTGAAGTAGGTGTGCAAGACTTCTCTCAAAATAGCCTGGAGGCTCACACCTGTTATCCCAGTGCTG
TGGGAGGCCAAGTCAGGAGGATCCCTTGAGCCCAGGAGTTTGAGCCCAGCCTGGGCAAATAGCAAGACACCATCT
ATTTGAAAAATGTAAAAATTATCTGGGCATGGTGGCGCACATCTGTAGTCCCAGCTCCAAGGGAGGCTGAGGCGG
GAAGATAGCTTGAGCCCAGGAGTTTGAGGTTGCAGTGAGCTGTGATTGAGCCACTGCATTCCAGCCTGAGTGACA
GAACAAAACCTTGTCTCTTAAAAACAAACAAACAAACAGCCTGGAGATTGGTCTAACTTGT

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FIGURE 4478

CCATGGCGGCGCGGCGGCGACGGAGCACCGGCGGCGGCAGGGCGAGAGCATTAAATGAAAGCAAAAGAGTTAATA
ATGGCAACACGGCTCCAGAAGACTCTTCCCCTGCCAAGAAAACTCGTAGATGCCAGAGACAGGAGTCGAAAAAGA
TGCCTGTGGCTGGAGGAAAAGCTAATAAGGACAGGACAGAAGACAAGCAAGATGGTATGCCAGGAAGGTCATGGG
CCAGCAAAAGGGTCTCTGAATCTGTGAAGGCCTTGCTGTTAAAGGGCAAAGCTCCTGTGGACCCAGAGTGTACAG
CCAAGGTGGGGAAGGCTCATGTGTATTGTGAAGGAAATGATGTCTATGATGTCATGCTAAATCAGACCAATCTCC
AGTTCAACAACAACAAGTACTATCTGATTCAGCTATTAGAAGATGATGCCCAGAGGAACTTCAGTGTTTGGATGA
GATGGGGCCGAGTTGGGAAAATGGGACAGCACAGCCTGGTGGCTTGTTCAGGCAATCTCAACAAGGCCAAGGAAA
TCTTTCAGAAGAAATTCCTTGACAAAACGAAAAACAATTGGGAAGATCGAGAAAAGTTTGAGAAGGTGCCTGGAA
AATATGATATGCTACAGATGGACTATGCCACCAATACTCAGGATGAAGAGGAAACAAAGAAAGAGGAATCTCTTA
AATCTCCCTTGAAGCCAGAGTCACAGCTAGATCTTCGGGTACAGGAGTTAATAAAGTTGATCTGTAATGTTCAGG
CCATGGAAGAAATGATGATGGAAATGAAGTATAATACCAAGAAAGCCCCACTTGGGAAGCTGACAGTGGCACAAA
TCAAGGCAGGTTACCAGTCTCTTAAGAAGATTGAGGATTGTATTCGGGCTGGCCAGCATGGACGAGCTCTCATGG
AAGCATGCAATGAATTCTACACCAGGATTCCGCATGACTTTGGACTCCGTACTCCTCCACTAATCCGGACACAGA
AGGAACTGTCAGAAAAAATACAATTACTAGAGGCTTTGGGAGACATTGAAATTGCTATTAAGCTGGTGAAAACAG
AGCTACAAAGCCCAGAACACCCATTGGACCAACACTATAGAAACCTACATTGTGCCTTGCGCCCCCTTGACCATG
AAAGTTATGAGTTCAAAGTGATTTCCCAGTACCTACAATCTACCCATGCTCCCACACACAGCGACTATACCATGA
CCTTGCTGGATTTGTTTGAAGTGGAGAAGGATGGTGAGAAAGAAGCCTTCAGAGAGGACCTTCATAACAGGATGC
TTCTATGGCATGGTTCCAGGATGAGTAACTGGGTGGGAATCTTGAGCCATGGGCTTCGAATTGCCCCACCTGAAG
CTCCCATCACAGGTTACATGTTTGGGAAAGGAATCTACTTTGCTGACATGTCTTCCAAGAGTGCCAATTACTGCT
TTGCCTCTCGCCTAAAGAATACAGGACTGCTGCTCTTATCAGAGGTAGCTCTAGGTCAGTGTAATGAACTACTAG
AGGCCAATCCTAAGGCCGAAGGATTGCTTCAAGGTAAACATAGCACCAAGGGGCTGGGCAAGATGGCTCCCAGTT
CTGCCCACTTCGTCACCCTGAATGGGAGTACAGTGCCATTAGGACCAGCAAGTGACACAGGAATTCTGAATCCAG
ATGGTTATACCCTCAACTACAATGAATATATTGTATATAACCCCAACCAGGTCCGTATGCGGTACCTTTTAAAGG
TTCAGTTTAATTTCCTTCAGCTGTGGTGAATGTTGATATTAAATAAACCAGAGATCTGATCTTCAAGCAAGAAAA
TAAGCAGTGTTGTACTTGTGAATTTTGTGATATTTTATGTAATAAAAACTGTACAGGTCT

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FIGURE 4479

CTCCACTTTCTTTCCCTCTCCGTTTTGGTGGGCTGGTTGAAGATGAAATCCACTGAGGAGGGAAGTCCAGCACCC
TGTGTGCCAGTCCAGAACTGGCCCATCTGTAGACCCCCTGAAAATCATATGGGCTTGGATTTGGATATTCTCAAC
AGAAAGGGTTAAAGGCTGATGGTACCTAAAGCCTGGTACTTGAATTTTGATCAAGATAAGCTGCCTTAAGTTCTC
TTCATTACACAAATGATCCTAGATAATTGATAGATCCTGTGGTTCAACTGGATTTCTAGATAGAAGCTGGATTCA
TGTGATGCCAGAGGAGTAAAATTTCAAGAGACTGAAACCAGATCTGAGTTTCGCTGTTCCAGTCTGGACCTCTTT
GGTGCTGTAAATCCTGGATATACTGTAGATGAGTACTGCGTTTTTCTTTTATGGACTCTCTTCAGCTTCTGGAGA
CCTCACTATCCTATT**ATG**TCTTTGTGTGAAGACATGCTGCTTTGTAATTATCGAAAGTGTCGCATCAAACTCTCT
GGCTATGCATGGGTCACTGCCTGCTCTCACATCTTCTGTGATCAGCATGGCAGTGGTGAGTTTAGTCGCTCACCA
GCTATCTGTCCTGCCTGCAACAGTACCCTTTCTGGAAAGCTAGATATTGTCCGCACAGAACTCAGTCCATCAGAG
GAATATAAAGCTATGGTATTGGCAGGACTGCGACCAGAGATCGTGTTGGACATTAGCTCCCGAGCGCTGGCCTTC
TGGACATATCAGGTACATCAGGAACGTCTCTATCAAGAATACAATTTCAGCAAGGCTGAGGGCCATCTGAAACAG
ATGGAGAAGATATATACTCAGCAAATACAAAGCAAGGATGTAGAATTGACCTCTATGAAAGGGGAGGTTACCTCC
ATGAAGAAAGTACTAGAAGAATACAAGAAAAAGTTCAGTGACATCTCTGAGAAACTTATGGAGCGCAATCGTCAG
TATCAAAAGCTCCAAGGCCTCTATGATAGCCTTAGGCTACGAAACATCACTATTGCTAACCATGAAGGCACCCTT
GAACCATCCATGATTGCACAGTCTGGTGTTCTTGGCTTCCCATTAGGTAACAACTCCAAGTTTCCTTTGGATAAT
ACACCTGTTCGAAATCGGGGCGATGGAGATGGAGATTTTCAGTTCAGACCATTTTTTGCGGGTTCTCCCACAGCA
CCTGAACCCAGCAACAGCTTTTTTAGTTTTGTCTCTCCAAGTCGTGAATTAGAGCAGCAGCAAGTTTCTAGCAGG
GCCTTCAAAGTAAAAAGAATT**TGA**GCCACGCATAGTGTCACGCACCTGTGATCCCAGCTACTTAGGAGGTTGAGG
CTGGGAGGATCACTTGAGCCCAGGAGTCTGAGGCTTTAGTGATCTAAGATCATGCCACTGCACTCCAGCCTGGGC
AACAGAGTGAGACCCTGTTTCTAAAAAAAAAATAAAGATAATTTAGCTAACTT

FIGURE 4480

GTATGAACGCAGCGGCGGACCTGTGAGGGGATCCGACTTGCCGGCAGAACTTACGCTGCGGGACCCCGGGCACTG
TTGCTGCTGCGGGAGACTGTGGGCTGTTTAGTGCC**ATG**CACCCTTTACAGTGTGTCCTCCAAGTGCAGAGGTCTC
TGGGGTGGGGACCATTGGCCTCTGTGTCTTGGCTGTCGCTGAGGATGTGCAGGGCACACAGCAGTCTCTCTAGTA
CCATGTGTCCCAGTCCAGAGAGGCAGGAGGATGGAGCTCGGAAGGATTTCAGCTCCAGGCTGGCTGCTGGACCGA
CTTTTCAACATTTTTTAAAAAGTGCCTCAGCTCCTCAGGAGAAGCTGTCTTCAGAAGTGGAAGACCCACCTCCCT
ATCTCATGATGGATGAACTTCTTGGAAGGCAGAGAAAAGTCTACCTCGAGACCTATGGCTGCCAGATGAATGTGA
ATGACACAGAGATAGCCTGGTCCATCTTACAGAAGAGTGGCTACCTGCGGACCAGTAACCTCCAAGAGGCAGATG
TGATTCTCCTTGTCACATGCTCTATCAGGGAGAAGGCTGAGCAGACCATCTGGAACCGTTTACATCAGCTTAAAG
CCTTGAAGACAAGGCGGCCCCGCTCCCGGGTTCCTCTGAGGATTGGAATTCTAGGCTGCATGGCTGAGAGGTTGA
AGGAGGAGATTCTCAACAGAGAGAAAATGGTAGATATTTTGGCTGGTCCTGATGCCTACCGGGACCTTCCCCGGC
TGCTGGCTGTTGCTGAGTCGGGCCAGCAAGCTGCCAACGTGCTGCTCTCTCTGGACGAGACCTATGCTGATGTCA
TGCCAGTCCAGACAAGCGCCAGTGCCACGTCTGCCTTTGTGTCAATCATGCGAGGCTGTGACAACATGTGTAGCT
ACTGCATTGTTCCTTTCACCCGGGGCAGGGAGAGGAGTCGGCCTATTGCCTCCATTCTAGAGGAAGTGAAGAAGC
TTTCTGAGCAGGGGCTGAAAGAAGTGACACTTCTTGGTCAGAATGTTAATAGTTTTCGGGACAATTCGGAGGTCC
AGTTCAACAGTGCAGTGCCTACCAATCTCAGTCGTGGCTTTACCACCAACTATAAAACCAAGCAAGGAGGACTTC
GTTTTGCTCATCTTCTGGATCAGGTCTCCAGAGTAGATCCTGAAATGAGGATCCGTTTTACCTCTCCCCACCCCA
AGGATTTTCCTGATGAGGTTCTGCAGCTGATTCATGAGAGAGATAACATCTGTAAACAGATCCACCTGCCAGCCC
AGAGTGGAAGCAGCCGTGTGTTGGAGGCCATGCGGAGGGGATATTCAAGAGAAGCTTATGTGGAGTTAGTTCACC
ATATTAGAGAATCTATTCCAGGTGTGAGCCTCAGCAGCGATTTCATTGCTGGCTTTTGTGGTGAGACGGAGGAAG
ATCACGTCCAGACAGTCTCTTTGCTCCGGGAAGTTCAGTACAACATGGGCTTCCTCTTTGCCTACAGCATGAGAC
AGAAGACACGGGCATATCATAGGCTGAAGGATGATGTCCCGGAAGAGGTAAAATTAAGGCGTTTGGAGGAACTCA
TCACTATCTTCCGAGAAGAAGCAACAAAAGCCAATCAGACCTCTGTGGGCTGTACCCAGTTGGTGCTAGTGGAAG
GGCTCAGTAAACGCTCTGCCACTGACCTGTGTGGCAGGAATGATGGAAACCTTAAGGTGATCTTCCCTGATGCAG
AGATGGAGGATGTCAATAACCCTGGGCTCAGGGTCAGAGCCCAGCCTGGGGACTATGTGCTGGTGAAGATCACCT
CAGCCAGTTCTCAGACACTTAGGGGACATGTTCTCTGCAGGACCACTCTGAGGGACTCTTCTGCATATTGC**TGA**C
CTGAGAGGATGGCCTCAGAGCTGACTTGGGCAATCCTCCCCAACAGGAAGGGGAGACATTGCCTGCCACTGAGGA
AACAGGTCATGAAGGTGGAGATAAGCTGCAAGGGGCGAAGCAACTTTATGTCAGTGGAAAACGTGTCTCTTTAAA
GCTGCTATGTGAACAGCTTTTACAGTCATTAAATTTACCTAAACTAAGGTT

FIGURE 4481

CCCTTCTGACCCACCCCGCTAGGTAGTCCCACACGGCGGCCCTCGGCTCCCGGGCCCCGCCCCGGCCTCCTGCAT
TTGCCCGAGGCCCCCTCCCCAGCACTGGCCACACCCCAGGGTAGCCCCGCCCCCAGAGCTCCTCCCCCAGCGGCC
GGGGTAGGGTGGCGGCTGGCCCAGCCGGGCCCCCGCTGCCCTCTGCCCTGGGCGCTTGGTCGGAGCGGGCTGGGC
AAAGCGGGACAGGGCGAGCGCGGCGGCCCGGGGGCTCGGAGGCGAAG**ATG**GCGTCCGGCAGGCGCGCCCCGCGCA
CCGGGCTGCTGGAGCTGCGCGCCGGGGCGGGCTCGGGGGCCGGCGGCGAGCGATGGCAGCGGGTGCTGCTGAGTC
TGGCGGAGGACGTGCTGACCGTGAGCCCCGCCGACGGCGACCCTGGTCCCGAGCCCGGCGCTCCGCGGGAGCAGG
AGCCCGCGCAGCTCAACGGCGCCGCGGAGCCGGGCGCCGGGCCCCCGCAGCTGCCAGAGGCGCTACTGCTCCAGC
GGCGCCGCGTGACGGTGCGCAAGGCCGACGCCGGTGGGCTGGGCATCAGCATCAAAGGCGGCCGGGAGAACAAGA
TGCCTATTCTCATTTCCAAGATCTTCAAGGGATTGGCAGCTGACCAGACAGAGGCCCTTTTTGTGGGGGATGCCA
TCCTGTCTGTGAATGGGGAAGACTTGTCCTCTGCTACCCATGATGAGGCGGTGCAGGTCCTCAAGAAGACAGGCA
AGGAGGTGGTGCTGGAGGTCAAGTATATGAAGGACGTCTCACCGTATTTCAAGAACTCTACTGGTGGGACCTCGG
TCGGCTGGGACTCACCTCCTGCCTCACCCCTTCAGCGGCAGCCTTCCTCCCCTGGCCCCACACCCCGGAACTTCA
GCGAGGCCAAACACATGTCCTTGAAGATGGCATATGTCTCGAAGAGGTGCACCCCCAATGACCCGGAGCCCAGGT
ATCTGGAGATCTGCTCGGCAGATGGTCAAGACACCCTCTTCCTGAGGGCCAAGGATGAGGCTAGTGCGAGGTCGT
GGGCGACTGCCATCCAAGCCCAGGTCAATACTCTGACGCCGCGGGTCAAGGATGAGCTGCAGGCACTGTTGGCAG
CCACCAGCACAGCTGGGAGCCAGGACATCAAGCAGATTGGCTGGCTAACTGAGCAGCTGCCCAGTGGGGGCACAG
CCCCCACCCTGGCCCTGCTAACTGAAAAGGAACTGCTCCTCTACTTGTCTCTCCCCGAGACCCGCGAGGCCCTGA
GCCGGCCAGCCCGTACTGCCCCACTCATCGCCACCAGACTGGTGCACTCAGGCCCCTCCAAGGGCTCAGTGCCCT
ACGATGCAGAGCTCTCTTTTGCCCTGCGCACGGGCACGCGTCACGGTGTGGACACTCACCTGTTCAGCGTGGAGT
CACCGCAGGAGCTGGCTGCCTGGACCCGCCAGCTTGTGGATGGCTGTCACCGGGCCGCCGAGGGTGTGCAGGAGG
TGTCTACAGCCTGCACGTGGAATGGGCGTCCCTGCAGCCTGTCTGTGCACATCGACAAGGGCTTCACACTGTGGG
CGGCTGAGCCAGGTGCAGCCCGAGCTGTGCTCCTGCGACAGCCCTTCGAGAAGCTGCAGATGTCTTCAGATGACG
GTGCCAGTCTCCTTTTCCTGGATTTTGGAGGTGCTGAAGGCGAGATCCAGCTGGACCTGCACTCGTGTCCCAAAA
CCATAGTCTTCATCATCCACTCCTTCCTGTCGGCCAAAGTCACCCGCCTCGGGCTGTTGGCC**TAG**AAGTCGCCGG
ATGCACTAGCCCTGAAGAGGGGTGTCCATGACATGGCCTGAGCTGGGCCTCCACCGACTGCCTGCTCACCCCTGG
GCTGAGGGAAGGGAGAGGAGAGGAACAAGGGCCTCCGAAACCCCAACCCTGAGGGAGACTGGATTGGTCTTGGGG
CCCAGGACCCAGACGCAGGACAGAGTGGACTCTGCCTGTGATGGGGTGGCCTTCCTGCTGCCCCCCTCCACCAGT
GCCTTTTGCAGAGAGATATTTTGTGTACACAGAAGCCATTCCGAGTCTGGGACCTGCCCCTGTGCGGATCCTGAC
CCCAGCCAACAGCTGAGCTGCCGGGCCTCCTCGAGGCCCCTAAGCCACCCCCAGAGGTCCCATCTGAAGCTGGAG
TACCCTGGGGTCAGCAGCAAGAGAAAGAAGAGGAGATTTTCTGTTTGTTTTTCCCCTCAGCCCTGCCACCGTGGG
GAGTCTGGTTTTTCTCTTCATCCTGTCTCTCTCCTCCTTACTCTTGGATAAATAAACAGCCTGTGAGCACACAGG
CAGCCCGGCCCAGTG

FIGURE 4482A

GGAAGGGTAGTGGAGAGAGAGGAAGCAGGAGGGAGGGAGAAAAAGAGAGAGACTGACTGTATCTGGGGATTCTGG
CAAGGTGAAGAGCTGGTCTGTTTGGCAGGACCTTCCCATCTGGGATCCATCTGTGTTTCCCTGGAATGGGACAGG
CAGCTCTAGTCAGTGAGAAATCGCAGATGTGAGAGAGCTGACACATGTCCAGCTAATGAAAGGAGGAGGAAGGCT
GGTCTCCGATTGAGCTTTGAAGATTAGGAGGAGAAAAAGAGGAGCTTTGGAATATCTATTTCAAATAAATTTGGT
GTATTTAAGAATCTGGATTGTTTATAATTTGGGCATTTGGGTTGGTCCTGAGAAAAGGGTGCCAGCGATGCCTGG
ATCGCCTGTGGAAGTGAAGATACAGTCCAGATCCTCACCTCCCACCATGCCACCCCTCCCACCAATAAATCCTGG
AGGACCGAGGCCAGTGTCCTTCACTCCTACTGCATTAAGCAATGGCATCAACCATTCTCCTCCTACCCTGAATGG
TGCCCCATCACCGCCACAGAGATTCAGCAATGGTCCTGCCTCCTCCACATCATCTGCACTCACAAATCAGCAATT
GCCAGCCACTTGTGGTGCTCGACAACTCAGCAAGTTGAAACGCTTTCTTACCACTCTGCAACAGTTTGGCAATGA
CATCTCCCCTGAGATTGGGGAGAAGGTGCGGACTCTTGTTCTTGCACTGGTGAACTCAACAGTGACAATTGAGGA
ATTCCACTGTAAGCTCCAAGAAGCCACAAACTTTCCCCTTCGTCCTTTTGTGATTCCATTTCTCAAGGCCAACCT
GCCCCTGCTGCAGCGGGAACTGCTGCACTGCGCTCGGGCGGCCAAGCAGACCCCATCCCAGTACCTGGCTCAGCA
CGAACACCTTCTGCTCAACACAAGCATTGCATCGCCTGCTGACTCGTCAGAGTTGCTCATGGAGGTGCACGGAAA
TGGGAAGAGGCCCAGTCCAGAGAGGAGAGAAGAGAATAGTTTTGATAGAGACACAATTGCTCCTGAGCCTCCTGC
CAAGAGAGTATGTACCATCAGCCCTGCTCCTCGGCACAGTCCTGCTCTCACTGTGCCCCTCATGAATCCCGGGGG
CCAATTCCATCCTACCCCTCCACCTCTTCAGCATTACACCTTAGAGGATATTGCAACTTCTCACCTGTATCGGGA
ACCCAACAAGATGCTAGAGCATCGAGAAGTTCGTGATAGACACCACAGTCTTGGTCTAAATGGAGGCTATCAAGA
TGAGTTGGTAGATCATCGTTTGACAGAAAGGGAATGGGCTGATGAATGGAAACATCTTGACCATGCGCTGAATTG
CATTATGGAAATGGTAGAGAAAACAAGGCGCTCTATGGCAGTTCTGCGGCGCTGTCAGGAATCAGATCGTGAAGA
ACTCAACTACTGGAAAAGACGGTACAATGAAAACACAGAGCTGAGGAAAACGGGGACCGAGTTGGTCTCCAGGCA
GCACAGCCCTGGGAGTGCAGATTCTCTCAGCAATGATTCTCAGAGAGAGTTCAACAGCAGGCCAGGTACAGGATA
CGTACCTGTGGAGTTTTGGAAAAAAACAGAAGAAGCTGTGAATAAGGTGAAAATTCAGGCCATGTCAGAAGTACA
GAAGGCCGTCGCTGAGGCAGAGCAGAAAGCCTTTGAAGTGATTGCAACAGAGAGAGCACGAATGGAGCAAACCAT
AGCGGATGTCAAGCGGCAGGCCGCAGAGGATGCTTTCCTCGTCATCAATGAGCAAGAGGAGTCCACGGAGAACTG
CTGGAACTGTGGCCGCAAAGCCAGCGAGACATGCAGTGGCTGCAATATCGCGCGATACTGTGGCTCTTTCTGCCA
GCACAAGGACTGGGAGCGGCACCACCGCCTCTGTGGTCAGAACCTGCATGGCCAGAGCCCCCACGGCCAGGGCCG
GCCGCTGCTTCCTGTAGGCAGGGGCTCCTCTGCCAGGTCCGCCGACTGCAGCGTGCCCAGCCCAGCCCTCGACAA
GACCTCGGCAACCACATCGCGTTCCTCAACACCTGCTTCTGTGACAGCTATCGACACCAACGGACTCTGAGCCCC
GGACTCTGCTTACCCTGATGGCTGCTCAGCACCACAGAGTGCTTGGGCTGAGGGACTGACTGTTGGAACCCGTGC
ATGTAGCTGCCGGGTCATCAGCAAGAAATGAATTGGAGGCAGGAAGAGTCCAAGCCTGAATAATAACACCCCACA
GCCTCTCTGTGCACTTGCTGTCTGCGGAGCCAGTGTGCCATTCTCTGCACATGGGCAGCCAGCCTGAGCTGCCTC
CTCCATGGCTTTCCTGGTTTGTTCCTCTCTCCACTGAAGCTGACTTAGCCGGCCCCTTTTCAGTGTAGACCACCA
GCTCCCCTCCCCATCTCCTTGAGTCAGCAGACTGTCCAATGTGCTCAGCCAGGCTGGAGGCGGCAGGCGGCAGGC
AGCAGGCTGTGGAGGAGGCCCCTCGGTCAGGGAGCGGCCTGCCTCACCCCTGAATAGCTCCTTCGGCCCCATCTC
CATCCTCAGCAGATGACACTGATTGGCCTCACGGGGACTTGGGTAAGCAACAGGCGGCATTCAGGACTCTTCTCA
ACCCTGCTGTTCAGACTTGATAAGATCTCAGAGTCCACAGGAAAGAAGTCACTGTTGCAATAAAAGCACCCGTAG
TAGCAAAAACATAAAACAAATAAAACTTCCCCCACATCACAGATGATTTTGGACAAGATTTTCCAACCTTGCTGG
CTACTTTAGTTTGGGACCTGTTTTTTTTCTCATTTGATTTTGCTTGTGCAGAAAATAGTTTCCAGCACATGGATT
GATCTGAGAGAGAATGAGGCTCAGTTGTGGATAGTCTGTTTTCTCTGAGCATGTTGGCCAACTAGTATCGTCAAA
TTATTGAGTGGATCATCTCTTGGAAATGCAGAACTTCTGCCACCACTTGGCTATTTGCACAGTCATCTTGTTCTG
TGTCCTTTTATCTCTCAGACCACACACATCTGGAACGCTGTGGGCATCTTCTGCCCATGGGCTCCATTTGGCACC
TGCTGAGCCACAGTTGTCCTGCTGGATGTGCTGTGCAGGTTGGTAGGACTTGCCCCCACTGTCAAGGCCTGGTCT
CATCTGAAAAGCCCTCCTGGACCTCAAAGAATTCTTCAGACCTCATAGTTACAGGTCATTATATCTACTATGTTG
ATTTATCATCAGGCACACAACTTCTGTTTCCTTCTCTTGTGTTATCTGATAGCGTCCCTCCTTGAGCTCATCAGA
AAGGTTTTATGAAATGTGAACCATTTTGGGAAAAGCTGATCAATTTTTCTTCCTAGCTTCCCATTTTCAAATGGG
ACATCACTCATATCCCTTTCAGAATGTTAGGAACTGCCTCCCACATTCTTCCCTGTCTTTTTGGGTTTTGTTTTT
TGTTGTTGTGGTGGTTTTTTAACACAAACCTGGGCAACAGAGCAAAACTCTGTCTCAAAAAAAAAAAAAAAAGG
CAAAATTAAAGAATTTCAAGTCCCTAATTTACTCTAACCAAGCATTTTCAGTCTTACAAAGAAATCTAGTGCACG

FIGURE 4482B

ACACCTTTAAAATGCCTAGATTTCCATTGCCTAAAGTAAGGTGTGACCAGTGAAACAACAGCAGAGAATCATGTT
CCTTTGCTGTGGAACACATAAGCCCCACAGTTTTCCAGTCAGCCTAATACATGGGTATCCCCCGACCCCATCTGC
CTCCTTAAGCCACAGTCCTTGGTGGGGAACTCTAAGGGGGACGGAGTCAGTACCCCGGACAGGGCCACATTTGCA
TGAGACATGGCTGTCTCACAGGTCACAGAGCCATTACAACAGCTTACTAGTTTTTCATGGATTTGTTGGATTAAC
ACCTTAAGCAGGTTTTTTATTGTTATTTTGTTTGTTTGTTTGTTTTGAGACGGGAGTTTCTCTCTTGTCTCCCAG
GCTGGAGTGCAATCGCGCAATCTCGGCTCACGGTAACCTCTGCCTCCCAGGTTCAAGCGAGTCTCCTGCCTCAGC
CTTCTGAGTAGCTGGGATTACAGGCATGCGCCACCACGCCCAACTAATTTTGTATTTTTAGTAGAGACGGGGTTT
CTCCTTGTTGGTCAGGCTGGTCTCAAACCCCGGACCTCAGGTGATCCCCCCACCTTGGCCTCCCAAAGTGCCAGG
ATTACAGGCATGAGCCACTGTGTCCGGTCTTGAGCAGGTTTTTAAAATCTCCAGTGGCCATAAAACTAGCCAGGG
TAGCTCATGCTTTTACTGGTTGGAATAAGGAGCCAAAACCAACAAAATAATATTTATTAGGGCTCGATGCCCATT
TCTGTGGCTAAGGCTTAGGTTTGGTGTGCAGAGCCTGGCCTGCTCTTGTGGGCTGTGGTTGCTGTGACAGTTTCG
TTTTCTGAATCTTTGTAATGCTCTTCCACCCTGCTCGTGCTGCCCAGAGGCTGATCTGCAAACCTGGGCAGTATT
CCACACTGAAGCTCAGTTTGCAAACCTTCTGCTGTGTTAATTCTGGTCAGTTTCACACAGAAGTCACGAGGGCCT
CTGCCCAGGACCTTCTATTCACATTTCAAGAATCCCTTTCTGAAATTCTCCAACTCTCTGGTCAGGAGGAGGAGC
ACCATTGGGGCGGGGTAGGCAGCTAGAGGCGCAGGAGCGAATCCAGGTTCCTTGCGTGGTTCCCAGCCTCTGCTG
ACAGCACCTCAGCTACCAGGTGGGGAGTGGAAATTCAGCCTGCTTAGAGGACTGACCTCTACAGTTCATATTTGC
AGTGACATAAAAGGCAAAGAGGAGCTGGCATGGTGGTACAGAAGGTATCAGTCAAGCGCAGGCTCTTCAGAAACC
TAGAAACTAAAAAGAGATGCAACATGTGACTGGCCATCAGCCAGACATGTCTAGGGTGAGACCAGTGCTCAGCAC
CACCCGCCAAGGAACACTGATGAGTTGTGGGACATTATGGTCGGCCAAGTGAGGAATGATTGCAGGGACCAGAGA
AGACCAAAGATGCCAGATGTCCCCAGAGTTTCTTGAGGGCTGGGTTTCACGTCTTTGCTTGTCCTTTTTGTCCCC
ACTTGCCTGCACCGTGCCTGACTCATCCAGTGGGGAAGGTGACTCAAGAAGTTGTTTAAGCCTAGGCCTAGGCAG
TCCACTTCGGGAGGTGGGGGCACTCCACACTGGGGGGCCCTGCAGCTCCAGGGCTGGTGCTCTAGCAGATCCGCT
CAGGCACGGTTGGGTGACCGTGGGGTCACCGATTGCGTAGATTATTTCTAGGGCAGTGCTGGGTTAGAAATGTCT
GTCTGGAAACAGGACACATCTTGCCACCACAAGTCCACACCTGGCCTTGGCTGCTGCCCGCTCTCTGCAGCGTGG
ATTTCCTTTGCCCATTTGGGCCAGAAGGTCACCAGGAGTTCATCACTGCTTAGTGTCAACTTGACATCTTCAGCT
TCCAGACAGAAAACCCATGCTTTACTTTGTACAGCCCTGTCCCAGAGTTAGTAAGCCTCGGCTTGTCACCTGCTT
GCAAAGGGTATAGACATCATTCTGGGTAGTTCTAGAGGATATCGCAACAAGTGCGTTTGAAGGTTCAGCACAGCT
GGAATTGTACGGTAGTGAGCTCTTCAAAATGAAAACAGAATGACCGGATGGCCATCTGTCCTGGAAACTGTAGAA
TTGAATAAATCACTGAAAATAGAACACTTCTTGGAGGCTTTCTTCAGAACTGAACTAGAAACAAGGTTTCCAGGC
TCCCAGGTCAGTAGACCAAACCAACTTCCTTAGATTTTTTTTTTTAAGCTGTTTGCAGAAAACTGGGTGGTAGCG
TGTCTGAACCAAACGGAAGAATAGCCAGCGGAGCATGGACTGTTCCAGCACGGGCCAGATGGCCAGCTGTCGAGA
GCAGCCCTGCCCAGATTGCGGTGGGGGCTGTGCCAGCGGCTCCGCAGGGCCCTTCCAACTCTGGAGTGTCTGTAG
TTCTTGTGAAACCAAAACGTTGACTACCTGCCTCTTTCCTCGGGCATCGACGTGCTCATTTCCAAAGATGATGGT
GCAGGTGACCTTTTCCATCGTGAGCTAAGAGAAGGTTAGGAGGCCTGAGGGGCGGGCCTTGTGTCCCCTCCTCCC
CCTCCACAGCCCCTGAGGTGGAGCTTCCCTCACAGACCCCATCTGGTCGAGCCTACGGCTGCCCAGTGTACACTC
AGTGATGCTTATACCAAATAGGGCATGTGCGCTGGTGTCTGTTGGGGACAGCCCCATCCCTACCTTGGAGTCGGC
AGAGAAGCAGCAATAAGCATTAGGCGAATGATTGAAAGGGCTGCTGCGCCAAGAGGCCTTCAGTCCCCTTAACGT
GGCTTTCCAACTTCCTGACGAGGCTACAAAGGCTCCGCTCACAAAAGAAAGCCAATAATGTAAATAAATAGAAAA
CGAAGCCTCCACGCGTGGTTTTTAAAGGGGGATGATGAATGTGACACCACCCACAGAATGCATTAGAATCTGGTT
TTTCTGTGCTTTGTCATTTTACTCTGATAGGAATTTTTGTTACCTAACTCTGTGCATAACTTATTTAATGTACTG
TATAAATGAACCAAAACTGTTAAATATGTATTTAGTTTGTTCTACTTAAAGTAGTCAATAAAAAGGCTATATTCC
T

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FIGURE 4483

GGCGCCGGCGCCAAGGGGCGGCCTCTAGCCACACCGAGTCCGCCGCGGCGTCCAGGGTCGGCAGCAACCGCAGCC
GAGCCCGAGCGGGTGGCGGCGCC**ATG**GCGTGCGCGGGGCTGCTCACCGTGTGCCTGCTCCGGCCGCCCGCGCCCC
AGCCCCAGCCCCAGACCCCGCGGCACCCCCAGCTCGCGCCCGACCCGGGGCCCGCCGGACACACGCTCTTCCAGG
ACGTTTTCCGCAGAGCAGACAAGAATGATGATGGGAAGCTCTCATTTGAGGAATTCCAGAATTACTTTGCCGATG
GGGTTCTCAGCCTGGGGGAGCTGCAGGAACTGTTCAGCGGCATTGATGGGCATCTCACCGACAATTTAGAAACAG
AAAAACTGTGTGACTACTTCTCAGAGCACCTGGGTGTCTACCGGCCGGTGCTGGCTGCATTGGAATCGCTGAACC
GTGCAGTGCTCGCTGCCATGGATGCCACCAAGCTGGAGTACGAGAGGGCCTCCAAAGTGGACCAGTTTGTGACGC
GCTTCCTGCTGCGGGAGACGGTGAGCCAGCTGCAAGCCCTTCAGAGCTCGCTGGAGGGGGCGTCAGATACCCTGG
AGGCCCAGGCCCATGGCTGGCGGTCAGATGCAGAGAGCGTGGAGGCGCAGAGCAGGCTCTGCGGCAGCCGGCGGG
CAGGACGCCGAGCCCTGAGGAGTGTCAGCCGGTCATCCACCTGGTCCCCCGGCTCTTCTGACACAGGGCGCAGCT
CAGAGGCCGAGATGCAGTGGCGGCTCCAGGTGAACCGCCTCCAGGAGCTCATCGACCAGCTCGAGTGCAAGGCCC
CCCGGCTGGAACCCCTGCGTGAAGAGGACCTGGCCAAGGGGCCTGACTTGCACATCCTCATGGCCCAGAGGCAGG
TCCAGGTGGCAGAGGAAGGCCTGCAGGACTTCCACCGAGCCCTGCGCTGCTATGTGGACTTCACAGGGGCCCAGA
GCCATTGTCTGCAG**TGA**GTCCGCCCAGAAGATGCTGGACGGTGCCTCCTTCACCCTGTATGAGTTCTGGCAGGAT
GAGGCCTCCTGGAGAAGGCACCAGCAGTCGCCTGGCAGCAAGGCCTTCCAGCGCATCCTCATCGACCACCTGCGG
GCCCCGGACACCCTCACCACTGTGTTCTTCCCAGCCTCCTGGTGGATAATGAATAACAACTGAGCCAGACCTGCA
CACGCCGAGGGCCCCGGGACCCTGCCTGCCTCCCTCTGGAGCCTTCTGGACTGGCCAGCCCAGCGCAAAGACCAG
GACTTGTCTCCTCCTGGACTTGGGCCTGGTGGAAGGGCTCTCAGCCCAGGGATCAGGGACTGGGCTGCTTGCTTT
CTATTTATTATTGATTTATTTATCCCTGTATTTTATTGTTTGTCACTTCAGCCTCCAAGCTACTTTGGCTTCTGC
CTGGCTCAGGAGACCTGGATTCTGGTCCCTGCTGTCCCTGCCTGGCTGAGCGACCCAGGGCAGGTCCCGTCCCTG
TCTGGGTGGGCCTCAGGCCATCTGGCCGCCTAGCGAGGGTCCTGCTTTCTTCCTGCTGTCTTGGGACCAGGCTTC
TGCTCCTCCTCAGCCAGCGGCAGAAGCAGGGCTGATGCTCAGGGACCCCCCAACCCTCAAACCTTGCCTCCGAGG
CTGGGCCTGAGCTGGGTGCCCCGTCGCCCTCCCAGGCCACTAGGCTCTGACTCTTCCAGCACCCATGGATGTGCC
AGAGGCCTCTGGGTTGGTTTGCATGTCATTTGCATATCGTTTGCATGCCCTCATCCCACCCATTCTCAGGGCAGT
ATGGGAAGCCCCAAGGTGACCTGGCCAAGTAGCAATAATTTGGGTCCAGGGTCACCTATTGCCCCCAGAGGCCTC
TGAACCCCAGGCTGGGACCCCAGCACAGAGGCAATAAAGGCAGTGGTCCCTTCC

FIGURE 4484

CCCTGCTGGGGCATCCCCGGCCTGTGATGCTCCCCGTCTCCCCAGAACCGCTGTTGTCCCGGATGGGCAGCCTGC
GGGCTCCCGTGGACGAGGACCGCCTGTCCCCGCTGGTGGCGGCCGACTCGCTCCTGGAGC**ATG**TGCGGGAGGACT
TCTCCGGCCTCCTCCCTGAGGAGTTCATCAGCCTTTCCCCACCCCACGAGGCCCTCGACTACCACTTCGGCCTCG
AGGAGGGCGAGGGCATCAGAGACCTCTTCGACTGTGACTTTGGGGACCTCACCCCCCTGGATTTCTGACAGGGCT
TGGAGGGACCAGGGTTTCCAGAGATGCTCACCTTGTCTCTGCAGCCCTGGAGCCCCCTGTCCCTGGCCGTCCTCC
CAGCCTGTTTGGAAACATTTAATTTATACCCCTCTCCTCTGTCTCCAGAAGCTTCTAGCTCTGGGGTCTGGCTAC
CGC**TAG**GAGGCTGAGCAAGCCAGGAAGGGAAGGAGTCTGTGTGGTGTGTATGTGCATGCAGCCTACACCCACACG
TGTGTACCGGGGGTGAATGTGTGTGAGCATGTGTGTGTGCATGTACCGGGGAATGAAGGTGAACATACACCTCTG
TGTGTGCACTGCAGACACGCCCCAGTGTGTCCACATGTGTGTGCATGAGTCCATGTGTGCGCGTGGGGGGGCTCT
AACTGCACTTTCGGCCCTTTTGCTCTGGGGGTCCCACAAGGCCCAGGGCAGTGCCTGCTCCCAGAATCTGGTGCT
CTGACCAGGCCAGGTGGGGAGGCTTTGGCTGGCTGGGCGTGTAGGACGGTGAGAGCACTTCTGTCTTAAAGGTTT
TTTCTGATTGAAGCTTTAATGGAGCGTTATTTATTTATCGAGGCCTCTTTGGTGAGCCTGGGGAATCAGCAAAGG
GGAGGAGGGGTGTGGGGTTGATACCCCAACTCCCTCTACCCTTGAGCAAGGGCAGGGGTCCCTGAGCTGTTCTTC
TGCCCCATACTGAAGGAACTGAGGCCTGGGTGATTTATTTATTGGGAAAGTGAGGGAGGGAGACAGACTGACTGA
CAGCCATGGGTGGTCAGATGGTGGGGTGGGCCCTCTCCAGGGGGCCAGTTCAGGGCCCCAGCTGCCCCCCAGGAT
GGATATGAGATGGGAGAGGTGAGTGGGGGACCTTCACTGATGTGGGCAGGAGGGGTGGTGAAGGCCTCCCCCAGC
CCAGACCCTGTGGTCCCTCCTGCAGTGTCTGAAGCGCCTGCCTCCCCACTGCTCTGCCCCACCCTCCAATCTGCA
CTTTGATTTGCTTCCTAACAGCTCTGTTCCCTCCTGCTTTGGTTTTAATAAATATTTTGATGACGTTTGGGCCGG
GTTTTGGGACTCTGTTGGGAACATTTCGGGGCGGGAGAGGCCAAGGTTGCTGGGGAAATGCCCATTCTCCACTTC
CCTTCTCCCTGTCCGTGCCCGATTTGATTTGAGCCTCATAACTCGAAGAAAGGTCAGCTTCCTCGCTGTTTTGGT
CCTAACTCAAAAGCAGATCCAGTAAAGGTTTTTGTTGT

FIGURE 4485

CAGCTGCGGGGCGGAGGCGGAGGCGGAGGAGAGGCCTGCGGCGGCAGGGAGCGGCGGGACTGGGAGCGGGCGCCG
GAGCCGACCCGAGCCGAGCCGAGCCGAGCCGAGCCGGAGCGGGCGGCGAAGGCCGGCGCGGCGAGCAGCAACCATG
TCGGTGTTCGGGAAGCTGTTCGGGGCTGGAGGGGGTAAGGCCGGCAAGGGCGGCCCGACCCCCCAGGAGGCCAT
CCAGCGGCTGCGGGACACGGAAGAGATGTTAAGCAAGAAACAGGAGTTCCTGGAGAAGAAAATCGAGCAGGAGCT
GACGGCCGCCAAGAAGCACGGCACCAAAAACAAGCGCGCGGCCCTCCAGGCACTGAAGCGTAAGAAGAGGTATGA
GAAGCAGCTGGCGCAGATCGACGGCACATTATCAACCATCGAGTTCCAGCGGGAGGCCCTGGAGAATGCCAACAC
CAACACCGAGGTGCTCAAGAACATGGGCTATGCCGCCAAGGCCATGAAGGCGGCCCATGACAACATGGACATCGA
TAAAGTTGATGAGTTAATGCAGGACATTGCTGACCAGCAAGAACTTGCAGAGGAGATTTCAACAGCAATTTCGAA
ACCTGTAGGGTTTGGAGAAGAGTTTGACGAGGATGAGCTCATGGCGGAATTAGAAGAACTAGAACAGGAGGAACT
AGACAAGAATTTGCTGGAAATCAGTGGACCCGAAACAGTCCCTCTACCAAATGTTCCCTCTATAGCCCTACCATC
AAAACCCGCCAAGAAGAAAGAAGAGGAGGACGACGACATGAAGGAATTGGAGAACTGGGCTGGATCCATGTAATG
GGGTCCAGCGCTGGCTGGGCCCAGACAGACTGTGGTGGCCTGCGCAGCGAGCAGGCGTGTGCGTGTGTGGGGCAG
GCAGGATGTGGTGCAGGCAGGTTCCATCGCTTTCGACTCTCACTCCAAAGCAGTAGGGCCGCGTTGCTGCTCACT
CTCTGCATAGCATGGTCTGCACCTGGGAGATGGGCGGGGGGAGGGGGGCGGGCGGGGTGGGAAGTGCCTGCTGTT
TATAATGTTGAATTTCTGTAAAATAAACTGTATTTGCAAATCCAACATTGAGCTTCTGGACTACGCTGACTCCAC
TGCTGAATCCTCAATGGAAAGGGTCGACTGGTTGCAGTTGAAATGACCTGAAATGTAGCCTCTGTCCTTGTAAGT
CAGTTGACTTGCCGCACATCTCTTTGTGTACTTGTACGGTACTGGCAGAAAAGTCATTTTTCAAAAGCCATAGGC
TTTTCCTTGCCCTTAGCTGTAATAATGCATCTGATTTTGATTTCCTCCAGAGCTGTGTTTCTGTCCATCACCTGT
GTATTGGCCCTGTGTTTACCACTCTGGCCCACTCCTCACCCCCTTGCTCCCCTGGTCTTCTGGAGTTTGTGACAT
TGATTTGAAATGGATGGTGTTCTCTTGAGAGCAAGTGAGATTGTTAGAATTAAGTTCCAACTATACAGTTTTCTA
ACATAGCTATAAGGTCCTTGTTGCTGTTTGTGATAACTGATAGATAACTCATTGGAAACGTGCATACATTTATAT
TCAGATGAAATTATGGTTTGCACTGTCTATTAAATATCTCGATTAATTTTC

FIGURE 4486

CGCGCGAGCGGCGCCAGCTCGGGGCAGCGGAACCCAGAGAAGCTGAGGGGGCGGTAGCGGCGGCGACGGCGACGA
CGACGACTCCCGCGCGTGTGCCCAGCCTCTTCCCGCCGCAGCCGCCCTTTTCCTCCCTCCCTTACGTCCCCGAGT
GCGGCAGTACCGCCTCCTTCCCAGCCGCGCGGCTTCCTCCAGACCTCTCGGCGCGGGTGAGCCCTATTCCCAGAG
GCAGGTGGTGCTGACCCTGTAACCCAAAGGAGGAAACAGCTGGCTAAGCTCATCATTGTTACTGGTGGGCACC**AT**
GTCCTTGAAGCTTCAGGCAAGCAATGTAACCAACAAGAATGACCCCAAGTCCATCAACTCTCGAGTCTTCATTGG
AAACCTCAACACAGCTCTGGTGAAGAAATCAGATGTGGAGACCATCTTCTCTAAGTATGGCCGTGTGGCCGGCTG
TTCTGTGCACAAGGGCTATGCCTTTGTTCAGTACTCCAATGAGCGCCATGCCCGGGCAGCTGTGCTGGGAGAGAA
TGGGCGGGTGCTGGCCGGGCAGACCCTGGACATCAACATGGCTGGAGAGCCTAAGCCTGACAGACCCAAGGGGCT
AAAGAGAGCAGCATCTGCCATATACAGTGGCTACATCTTTGACTATGATTACTACCGGGACGACTTCTACGACAG
GCTCTTCGACTACCGGGGCCGTCTGTCGCCCGTGCCAGTGCCCAGGGCGGTCCCTGTGAAGCGACCCCGGGTCAC
AGTCCCTTTGGTCCGGCGTGTCAAAACTAACGTACCTGTCAAGCTCTTTGCCCGCTCCACAGCTGTCACCACCAG
CTCAGCCAAGATCAAGTTAAAGAGCAGTGAGCTGCAGGCCATCAAGACGGAGCTGACACAGATCAAGTCCAATAT
CGATGCCCTGCTGAGCCGCTTGGAGCAGATCGCTGCGGAGCAAAAGGCCAATCCAGATGGCAAGAAGAAGGGTGA
TGGAGGTGGCGCCGGCGGCGGCGGCGGTGGTGGTGGCAGCGGTGGCGGTGGCAGTGGTGGTGGCGGTGGCGGTGG
CAGCAGCCGGCCACCAGCCCCCCAAGAGAACACAACTTCTGAGGCAGGCCTGCCCCAGGGGGAAGCACGGACCCG
AGACGACGGCGATGAGGAAGGGCTCCTGACACACAGCGAGGAAGAGCTGGAACACAGCCAGGACACAGACGCGGA
TGATGGGGCCTTGCAG**TAA**GCAGCCTGACAGGAGCAATGGCCACCAGCAGGTGAAGGGCATCGCTGCCCCAGGCC
TCAAGCCGGGCACCCAACCCTGGATGCCACCCCCCAGCGGGTACCAGAGGAAAGCTGGCAGCAGGCGCCTCCTCC
CCCAACGCATCCCAGCCAGTGCCATGTCCTCTGCAGGTGGAGTTACTGGCCTACTCCTTCCCCATGAGCCCTCCC
TGTCTGCACTGCCCAGGCCAGAGGGTAGAGCACAGGGGTTTCCCCATACTACCTCCCCTCCCCAGGACACTCCCA
GGCTTGGGTTTTTTCTATAGGTTTGGCGGGGGGCCACAGGGAGGGGACCCTGACAATAAAGAGATTGGATCCC

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FIGURE 4487

GGTGGTGGGAGAGGTATCGGCAGGGGCAGCGCTGCCGCCGGGGCCTGGGGCTGACCCGTCTGACTTCCCGTCCGT
GCCGAGCCCACTCGAGCCGCAGCC**ATG**TCTGGGGACGAGATGATTTTTGATCCTACTATGAGCAAGAAGAAAAAG
AAGAAGAAGAAGCCTTTTATGTTAGATGAGGAAGGGGATACCCAAACAGAGGAAACCCAGCCTTCAGAAACAAAA
GAAGTGGAGCCAGAGCCAACTGAGGACAAGGATTTGGAAGCTGATGAAGAGGACACTAGGAAAAAAGATGCTTCT
GATGATCTAGATGACTTGAACTTCTTTAATCAAAAGAAAAAGAAGAAAAAAACTAAAAAGATATTTGATATTGAT
GAAGCTGAAGAAGGTGTAAAGGATCTTAAGATTGAAAGTGATGTTCAAGAACCAACTGAACCAGAGGATGACCTT
GACATTATGCTTGGCAATAAAAAGAAGAAAAAGAAGAATGTTAAGTTCCCAGATGAGGATGAAATACTAGAGAAA
GATGAAGCTCTAGAAGATGAAGACAACAAAAAAGATGATGGTATCTCATTCAGTAATCAGACAGGCCCTGCTTGG
GCAGGCTCAGAAAGAGACTACACATACGAGGAGCTGCTGAATCGAGTGTTCAACATCATGAGGGAAAAGAATCCA
GATATGGTTGCTGGGGAGAAAAGGAAATTTGTCATGAAACCTCCACAAGTCGTCCGAGTAGGAACCAAGAAAACT
TCTTTTGTCAACTTTACAGATATCTGTAAACTATTACATCGTCAGCCCAAACATCTCCTTGCATTTTTGTTGGCT
GAATTGGGTACAAGTGGTTCTATAGATGGTAATAACCAACTTGTAATCAAAGGAAGATTCCAACAGAAACAGATA
GAAAATGTCTTGAGAAGATATATCAAGGAATATGTCACTTGTCACACATGCCGATCACCGGACACAATCCTGCAG
AAGGACACACGACTCTATTTCCTACAGTGCGAAACTTGTCATTCTAGATGTTCTGTTGCCAGTATCAAAACCGGC
TTCCAGGCTGTCACGGGCAAGCGAGCACAGCTCCGTGCCAAAGCTAAC**TAA**TTTGCTAATCACTGATTTTGCAAA
GCTTGTTGTGGAGATGTGGCTGGACAGGTTTGCCATCAGAGTGGATATACCGTTGTATTAAAAACAAGATAAAAA
AGCTGCCAAGATTTTTGGCGAGTGGTTGGTCTGAAGTCCTTGCAAGACGCTGATGCTCAAGCTGTTGACATACTC
ATTGCCTACTTTAACACCTGTCAGAGAAACGTGATATGGGGTAAGGAGGTGCTTTTTTAAAATCGTTCATAGACT
TCTGTAAAATGCAAGATAAATTAAAGTTATTATAACAGTGATTCTTTCA

FIGURE 4488

CTGAGGCCCAGCCCCCTTCGCCCGTTTCCATCACGAGTGCCGCCAGC**ATG**TCTGACAAACTGCCCTACAAAGTCG
CCGACATCGGCCTGGCTGCCTGGGGACGCAAGGCCCTGGACATTGCTGAGAACGAGATGCCGGGCCTGATGCGTA
TGCGGGAGCGGTACTCGGCCTCCAAGCCACTGAAGGGCGCCCGCATCGCTGGCTGCCTGCACATGACCGTGGAGA
CGGCCGTCCTCATTGAGACCCTCGTCACCCTGGGTGCTGAGGTGCAGTGGTCCAGCTGCAACATCTTCTCCACCC
AGGACCATGCGGCGGCTGCCATTGCCAAGGCTGGCATTCCGGTGTATGCCTGGAAGGGCGAAACGGACGAGGAGT
ACCTGTGGTGCATTGAGCAGACCCTGTACTTCAAGGACGGGCCCCTCAACATGATTCTGGACGACGGGGGCGACC
TCACCAACCTCATCCACACCAAGTACCCGCAGCTTCTGCCAGGCATCCGAGGCATCTCTGAGGAGACCACGACTG
GGGTCCACAACCTCTACAAGATGATGGCCAATGGGATCCTCAAGGTGCCTGCCATCAATGTCAATGACTCCGTCA
CCAAGAGCAAGTTTGACAACCTCTATGGCTGCCGGGAGTCCCTCATAGATGGCATCAAGCGGGCCACAGATGTGA
TGATTGCCGGCAAGGTAGCGGTGGTAGCAGGCTATGGTGATGTGGGCAAGGGCTGTGCCCAGGCCCTGCGGGGTT
TCGGAGCCCGCGTCATCATCACCGAGATTGACCCCATCAACGCACTGCAGGCTGCCATGGAGGGCTATGAGGTGA
CCACCATGGATGAGGCCTGTCAGGAGGGCAACATCTTTGTCACCACCACAGGCTGTATTGACATCATCCTTGGCC
GG**TAG**GTGCCAGATGGGGGGTCCCGGGGAGTGAGGGAGGAGGGCAGAGTTGGGACAGCTTTCTGTCCCTGACAAT
CTCCCACGGTCTTGGGCTGCCTGACAGGCACTTTGAGCAGATGAAGGATGATGCCATTGTGTGTAACATTGGACA
CTTTGACGTGGAGATCGATGTCAAGTGGCTCAACGAGAACGCCGTGGAGAAGGTGAACATCAAGCCGCAGGTGGA
CCGGTATCGGTTGAAGAATGGGCGCCGCATCATCCTGCTGGCCGAGGGTCGGCTGGTCAACCTGGGTTGTGCCAT
GGGCCACCCCAGCTTCGTGATGAGTAACTCCTTCACCAACCAGGTGATGGCGCAGATCGAGCTGTGGACCCATCC
AGACAAGTACCCCGTTGGGGTTCATTTCCTGCCCAAGAAGCTGGATGAGGCAGTGGCTGAAGCCCACCTGGGCAA
GCTGAATGTGAAGTTGACCAAGCTAACTGAGAAGCAAGCCCAGTACCTGGGCATGTCCTGTGATGGCCCCTTCAA
GCCGGATCACTACCGCTACTGAGAGCCAGGTCTGCGTTTCACCCTCCAGCTGCTGTCCTTGCCCAGGCCCCACCT
CTCCTCCCTAAGAGCTAATGGCACCAACTTTGTGATTGGTTTGTCAGTGTCCCCCATCGACTCTCTGGGGCTGAT
CACTTAGTTTTTGGCCTCTGCTGCAGCCGTCATACTGTTCCAAATGTGGCAGCGGGAACAGAGTACCCTCTTCAA
GCCCCGGTCATGATGGAGGTCCCAGCCACAGGGAACCATGAGCTCAGTGGTCTTGGAACAGCTCACTAAGTCAGT
CCTTCCTTAGCCTGGAAGTCAGTAGTGGAGTCACAAAGCCCATGTGTTTTGCCATCTAGGCCTTCACCTGGTCTG
TGGACTTATACCTGTGTGCTTGGTTTACAGGTCCAGTGGTTCTTCAGCCCATGACAGATGAGAAGGGGCTATATT
GAAGGGCAAAGAGGAACTGTTGTTTGAATTTTCCTGAGAGCCTGGCTTAGTGCTGGGCCTTCTCTTAAACCTCAT
TACAATGAGGTTAGTACTTTTAGTCCCTGTTTTACAGGGGTTAGAATAGACTGTTAAGGGGCAACTGAGAAAGAA
CAGAGAAGTGACAGCTAGGGGTTGAGAGGGGCCAGAAAAACATGAATGCAGGCAGATTTCGTGAAATCTGCCACC
ACTTTATAACCAGATGGTTCCTTTCACAACCCTGGGTCAAAAAGAGAATAATTTGGCCTATAATGTTAAAAGAAA
GCAGGAAGGTGGGTAAATAAAAATCTTGGTGCCTGG

FIGURE 4489

AGTTCCCGACCGCGGGCG**ATG**GCTGCCGCTGGGGGCGCCCGGCTGCTGCGCGCCGCTTCTGCGGTCCTCGGCGAC
CCGGCCGGCCGGTGGCTGCACCACGCCGGGTCCCGCGCTGGAGCCAGCGGCCTGCTGAGGAGCCGGGGACCGGGC
CGGAGCGCGGAGGCGAGCCGGCCGCTGAGCGTGTCGGCAGGGGCGCGGAGCAGCTCAGAAGATAAAGTGACAGTC
CACTTTATAAACTGTGATGGTGAAACATTAACAACCAAAGGAAAAGTTGGTGATTCTCTGCTAGACGTTGTGGTT
GAAAATAATCCAGATATTGATGGCTTTGGTGCATGTGAGGGAACTCTGGCTTGTTTAACCTGTCATCTCATCTTT
GAAGATCACATATATGAGAAGTTAGATGCAATCACTGATGAGGAGAATCACATGCTCGATCTGGCATATGGACTA
ACAGATCACAGTTGGGCTGCCAAATCTGTT**TGA**CAAAATCTATGGACAATATGACTGTTCGAGTGCCTGAAACAG
TGGCTGATGCCAGACAATCCATTGATGTGGGCAAGACCTCCTGAACTAGAACAAATAGGAATATTTTCATGGAAT
TTTACCTATTTTTATAATTATTATTTAAGTGATAAAATGAGTACATGGATGAGTGGATTCTGTATTATGACTAGC
TTTACTATTTTAATTCACCTTGTATAACTACTAAATTTTGTCATTCTTGAAAGTATGCAATTTTTATTTTGGTTA
TATTACAAAAATGTCAGTCAGATATTAAAAAATAGTTAATGTGATAGAAAAACCTTACATATTTTTTCTTATGTT
TGTTTAGCGACTTTAGCAAAATGTTTTCATATAATCTCATCTGTTTACCTAGAAGATAGGTTAAGGAAATATATT
ATTATTCCTGTTTGATGTAGGTGAAGGCAGAGATCTAACCTGGCTTGTTTAGGGCCATACCACTAATTGGAAAAT
CTGTACTAGAACCTGTGTCTTATTACTATAAGCTATTATGTTCAGACTGAAACTGGAGAAATTACGACAATTTAT
AGCAGTAGTTAAATCTGAATGTGTATGGACAAAAATATTTAATTGCTCAGTAAACTGCTTAACTTCAAAGATAGT
TATTAACCTCATAAATATTTCAAAATTTTGATTCTGAAGTCTAAGTCTGAACACAGACATAACACTATCAAAGAA
GTTTGATCTCTGTTTTGACTCAACTAGAGGAAAAATGATTGGATGGGTTTATTCTTTTCTAAGCAGAATGGTTTA
ACTTTGTACTCTTTGAAAAACAATGCTGATTTCTAAATCTCTGCCTATAACAGAATGG

FIGURE 4490

GGACTCGCTAAGTGTTCGCTACGCGGGGCTACCGGATCGGTCGGAA**ATG**GCAGAGGTGGAGGAGACACTGAAGCG
ACTGCAGAGCCAGAAGGGAGTGCAGGGAATCATCGTCGTGAACACAGAAGGCATTCCCATCAAGAGCACCATGGA
CAACCCCACCACCACCCAGTATGCCAGCCTCATGCACAGCTTCATCCTGAAGGCACGGAGCACCGTGCGTGACAT
CGACCCCCAGAACGATCTCACCTTCCTTCGAATTCGCTCCAAGAAAAATGAAATTATGGTTGCACCAGATAAAGA
CTATTTCCTGATTGTGATTCAGAATCCAACCGAA**TAA**GCCACTCTCTTGGCTCCCTGTGTCATTCCTTAATTTAA
TGCCCCCCAAGAATGTTAATGTCAATCATGTCAGTGGACTAGCACATGGCAGTCGCTTGGAACCCACTCACACCA
ATCCAGTGACCGTGTGTGGGCTGGCGGCTCTTCTCCCCCACCAACGGAACCCCTGTGTGCACCAACCTTCCCCAG
AGCTCCGGAGCGCCCTCTCCTCACTTCCAGGTTTTGGAGCAAGAGCTTGCAGGAAGCCCGCACCCAGCTTCCTTC
TGACCTTCAGTTCACTTTGTCGCCCTTGGAGAAAGCTGTTTTTCTTTAACTAAAAATAACCAAAATGCT

FIGURE 4491

GAGTTACCTCCCGCAGCCGCAGCCGCCGTGCTCAGCGCGAGCCCCGGAGCCCTTGAGCGCGAGGCGCGGAGCCCC
CGGAGCCCCCAAACCGCAGACACATCCCCGCGCCCCAGAGCCCCGGCCTGCGCGCCCAGCCGGGCCCGCGCG**ATG**

CCCTCAGACCGGCCTTTCAAGCAGCGGCGGAGCTTCGCCGACCGCTGTAAGGAGGTACAGCAGATCCGCGACCAG
CACCCCAGCAAAATCCCGGTGATCATCGAGCGCTACAAGGGTGAGAAGCAGCTGCCCGTCCTGGACAAGACCAAG
TTTTTGGTCCCGGACCATGTCAACATGAGCGAGTTGGTCAAGATCATCCGGCGCCGCCTGCAGCTGAACCCCACG
CAGGCCTTCTTCCTGCTGGTGAACCAGCACAGCATGGTGAGTGTGTCCACGCCCATCGCGGACATCTACGAGCAG
GAGAAAGACGAGGACGGCTTCCTCTATATGGTCTACGCCTCCCAGGAAACCTTCGGCTTC**TGA**GCCAGCAGTAGG
GGGGCTCGGCCTGGGAGTCGGGCGGCCCCGGTCAGGCCCTGCCCAGAGAGCTCCTGGTTCCTGAACTGAGCTGCC
TCTACCGTGGTGGGCTGGGCAGGCATGTGCCCCCCTAGTCAGAGGGCACCAACCCACCTACTCTGCCCCTGGGTG
GATCCTGGGCCGGTCGTGTTAGGGTTGTCCCTCTGGGTGCTGGCTGGTGGGATGGGGGAGGGTGGGGAGCAGCTC
CCAGCACCCCTGCTGTGTGGTTCATCTTTTTTTTAGGCCCCTGCCTGTCTGCCCATCTGCCCCTCACCCACCCGA
GGCTCTGCCCACCGCCTGGACCTGCCCACCCCTGAAAGACTGGCCCCTGGCTCCCCGCCCCTCGGTCTCCACGTG
GTGTATGGATCTGTGGTCATTGTCCCTCTGCAGAATAAAGATTGCTCAGGCCTGCCTGGC

FIGURE 4492

ATGGCGGCTCCCTTGGTCCTGGTGCTGGTGGTGGCTGTGACAGTGCGGGCGGCCTTGTTCCGCTCCAGTCTGGCC
GAGTTCATTTCCGAGCGGGTGGAGGTGGTGTCCCCACTGAGCTCTTGGAAGAGAGTGGTTGAAGGCCTTTCACTG
TTGGACTTGGGAGTATCTCCGTATTCTGGAGCAGTATTTCATGAAACTCCATTAATAATATACCTCTTTCATTTC
CTAATTGACTATGCTGAATTGGTGTTTATGATAACTGATGCACTCACTGCTATTGCCCTGTATTTTGCAATCCAG
GACTTCAATAAAGTTGTGTTTAAAAAGCAGAAACTCCTCCTAGAACTGGACCAGTATGCCCCAGATGTGGCCGAA
CTCATCCGGACCCCTATGGAAATGCGTTACATCCCTTTGAAAGTGGCCCTGTTCTATCTCTTAAATCCTTACACG
ATTTTGTCTTGTGTTGCCAAGTCTACCTGTGCCATCAACAACACCCTCATTGCTTTCTTCATTTTGACTACGATA
AAAGGCAGTGCTTTCCTCAGTGCTATTTTTCTTGCCTTAGCGACATACCAGTCTCTGTACCCACTCACCTTGTTT
GTCCCAGGACTCCTCTATCTCCTCCAGCGGCAGTACATACCTGTGAAAATGAAGAGCAAAGCCTTCTGGATCTTT
TCTTGGGAGTATGCCATGATGTATGTGGGAAGCCTAGTGGTAATCATTTGCCTCTCCTTCTTCCTTCTCAGCTCT
TGGGATTTCATCCCCGCAGTCTATGGCTTTATACTTTCTGTTCCAGATCTCACTCCAAACATTGGTCTTTTCTGG
TACTTCTTTGCAGAGATGTTTGAGCACTTCAGCCTCTTCTTTGTATGTGTGTTTCAGATCAACGTCTTCTTCTAC
ACCATCCCCTTAGCCATAAAGCTAAAGGAGCACCCCATCTTCTTCATGTTTATCCAGATCGCTGTCATCGCCATC
TTTAAGTCCTACCCGACAGTGGGGGACGTGGCGCTCTACATGGCCTTCTTCCCCGTGTGGAACCATCTCTACAGA
TTCCTGAGAAACATCTTTGTCCTCACCTGCATCATCATCGTCTGTTCCCTGCTCTTCCCTGTCCTGTGGCACCTC
TGGATTTATGCAGGAAGTGCCAACTCTAATTTCTTTTATGCCATCACACTGACCTTCAACGTTGGGCAGATCCTG
CTCATCTCTGATTACTTCTATGCCTTCCTGCGGCGGGAGTACTACCTCACACATGGCCTCTACTTGACCGCCAAG
GATGGCACAGAGGCCATGCTCGTGCTCAAGTAG

FIGURE 4493

CCCTCACTCCTGGTCCCCATACCCAGCATCTAATCATCC**ATG**CCCCCTACTCCTGGCCCCTCCATCCTTTCTTCT
CTGGTCCCCATCCCTGTCTCTCCCTTTCACCCTTGCCCTCCAGTCCTCTACCTCTGGCCTGCCCCTATTTCTGAA
AGCTTCTTCCAGTCCCTGATCTGGCTCATTCCCCACCTTCAACTCCCACCTTACATGTCTCACACTATCCCATGG
TTGGCATTACACTCACTCCTGTTCCCTTATTCTTCATTCCCAGTAATTCCCTACCAAATGGTGGGGACCCTGAGC
CCAGCTCTGACCAGG**TAG**AGCCTGTGCAGCCTGGGCTGCTGTCATTGCCCTCCAGTAAGGGCTCAGGGTTTTGCT
TTTAGTCTCCCCTTCCTTCTGCCTTGGGGGCGGTACTCTGTGGAGCTGCTTAGGCCTGGAAAGGTACAGTATGTA
GAAGAGGACTGTGAGACGTGAGTTAGAGGGAGAAGATGGAGGGAATCTAGGGAACGAGGCAGCCTATTGGAGATG
CGGACAGGACAGACACGTTGAGAAGCTGCAGGGAGCAGGGCACCAAGGGAGTGTGCACTGTGCTTGCTCAGAGAG
GCCAAACCCTGCTCCCAGGCTGAAGCCTGGAGTCTGCCCCCACTTCCCTTTTCTATAATCCACCCTTCTGCAGGC
CCTGAAATCTGAAGGGCTTAGTTAGTACCTTGCCACTCTACCCCCAACACGTCACCCGAGTAGAAGCTGGGCAAG
GCCCTACCATCCTGGCCGTCTGTTCACAAGCCCAAGGTGCTAGAACTAGCTTAGGAGACATGCAGGCCACAGGGC
TTCTAGGCAGGGAAAGGGCACACACCCTAGGTCAGCGTGCAGAGCAGTGATGCTGGAGGACACACCATGGGGTGA
AGCCATCCCAAGGCTGACAGCTCAGTCTTCACCTTGCCTCTGGCCTTGTATTTCACACCCTGCTCAGTATGGCTA
GCCAGCAGTCCTGAGTAGGAGTCCAGGACTCCCACTGTCTCAATCTGCAAATTGTTCCTATCCAGGTTCAGGGCC
TTCAGGGGGCCTCTTTTCATTTTCTCCCACAGGCCTCTCTTTCTTTCTAGGTTGCTGGGGAGAAATGGGTACCCT
ATGATCCCCCTCCCCTTCTCCTCCAGTAAATACCTGGAAGAGGGAACCTGAATCCCTGGGGGAGACAGAAGGGGC
AGGGGCCACCAGCCTCCCCTTCTTGTGGTGAGACTGAATTTTGGGCTCAGACACCAGCAACAGCCTCTTGGGATG
CCCTGAGTTGCTTCCCATTTCCTCTTTCTAGCCGTCCTTTTCTAGTGTGTGCTCACTCTTCCTAGGAACTTTTAA
GACTTCTTGGTACCTATGAACATAGGTCCTCCCCTCACCCCAACTCTAGGTTTCCAGGCCTCACAGCCAAGCTGA
AGCTTGGAGAAAACTCTGCATTCCCATGAGGGCAAAGGCAGCTGCCCTCCCTGACCCTATAGCCCCAGGCCTCAT
GGGGGGTATGTGGGGAAGGGATGGGGTATCCCCATGGATGCTGGGATGAGGACAGAGGAAGACCTGATGGGGTCT
CCTATTCCAGGGAATAAGCCAAATTAACACTAAAAACGGATCAAAGCTCCCACGCCAGTCCACTAGGGCCCCAGT
AGTTGACAGCCTTGCTCCTCTCCCAAGTTCTCCTTCAGAACCTAGTTGCTTTTATTCTTCCAGCTACCACTTGGG
CACTTCACAGCCAGCCTAGGGTCTTCGGCACCTCCAAGAGCTGAATCTCCCTCCAACCCTTCTTGCCTACTCCTC
ACTGCCAGCTGGGACCTAGGCTCAGTCCTGTGTGGTGCCCATGATCCTTCTGGTGGGGGAAGAGTTTAAGTTATA
GGGCATTTGGCTCAAATTTTAAAAGGCCTTTTGTTTACCTATATTTCTGGAGGCTCCTGTATTCTAGAACCCAAT
CTCTCACCTGCTTGGTTGCAAGGCTCATATTTTTTTGTACCTTTCCTATAGATTCTGTAGCATTTGAGTGTGGCA
ATATTTTAATTGTGTATAGATTTCTAAGAACCAACACTACTCAGTCTCCTGCTAGTCTGACTCCTGAAGCATCAG
CCCTTGTCATACTGTATTGACTGTGTACGTGCCTTTCACCTTGAGCATGCTTCAGGATTTTTTTTTAAACCACAG
AACTTGAATACATGAGGGAACCAGAGTTCAAAGTCCTATGCAACCTTAGGAGGGGGTTAGAGAGTCTGTTTTGAT
TGATGTTTTCTGAGGCCCTAGAGGAGTTTGTATCAATTTGTGAGTATTAATGTCAGTACTACCAGCACTTTGCCA
AAACTGTCAGAGGGACCCGTTTCTAGAGTGAGTCCCAGTTACATCAAACAGTGACTTCCAGTTATTCCCCAGTAA
GTCTGAGTGGTTCCTTCAAGCTGGGTGTCTTTCCAGCCTTTGCCAGTCTAGCCCCAGCAGGGCACCGTGTATGAA
TGCAGTTTGGTGCTGTTTTAGAGTATGCCTGCTCCCCAGCCCCCTGCCTGGAACCCTCTGAGCAACTTGCTCTGA
CCTATAATGTCTTAGGTGCAACACGGACCCCACCAGAGCTCTTGGATACCCCCCTAGATCCATGTGGCTTTATGT
GAGGGGACTGAATGCAGACACACCATAGCCCCCTTCTACTACTTTCCCTCTCGCCCTGCCACCTAGTTCCACATG
GAACCAACAAGTTGAGTGCATCCCTGTTGGGTGTTTTGTGTTGAGACTGGCTGAAATGAGGAGACTTTGACCATG
TGACGTGTCAACAGACTCAAGGAGACAACCACCTCAACTGGGTCATGTGGCATGCCTGTGTATGTGTGTAACAGA
ATTCTGATTGTTAGACTGTAATGCTATTCCTCTATGGGAGAAAAAAATTAATATAAAGAAAAACAAATAAAAATA
TATTTAAAGC

FIGURE 4494A

CTCCAGCCCAGGCAACAGAGCGTGACTCCGTCTCAAAAAAAAAAAAAAAAAGTGAAAGGAAAATGAGGGGAGAATT
CTCATTGATAATAAGGGCGAAAAGGTTTTTTTGGCAGAGTAATAGAGTTTTGGAAACCATTGCAAAGCTGTCAAG
TGTGGTGTAGTTTTTGGTTAAGGAAATCAGAGGTGTCAGCAGACATAAAAGACAGGGGAAAACATGGGAAGTGTC
CTACCTATAGTGTAGAAAAAGCACAACTATCTATGTCAGAGGTCGACAGACTGTGGTCCATAGGTCAAATCTGGC
CCACGATCTGTTTTTGTAAATAACGTTTTATTGGAACATAGCCACACTCATTTATTTATATATTGTCCATATCTT
CTTTTGTGGTACCAATAGCAGAGTTGAGTAGTCGTGACAGAGATGTGTTGTGTCAGCTCACAAAGCTGGAAATAC
TCTTTACAAAAACATTTGCCAACCCCTGATCTATGTGTTTGAGTGTTGGATGTTCAACCTCTAATTTGCCATCCA
ATGTCTATATGATGATAGAGAATGAATAAACGTCTTGGCTCTGCCCTTTGGGCTGGATTACCCATGCTCTGTGTA
CCTGCAGCATAACACAGACCCCTGAATATTTATATCAGTCAGTGATGGCAAGGTCTATTGTTCTGGAGTGTACTG
TGTGGTAACTGTGGTAGTGCCAGCTTTACACGGATTAGATAATGCTCGGGCTTGTTTTGCCATTTTTTTTATTGG
GTTGTCTTTTACAAAAGATTTATTTATATATTCTGATTATTAATCCTTTGTTGTTGGTAGATATTACAGATGTCA
TTTCCCAGTTTCTTGCTTATTTTAATTTTTTTTTTTTTTTTTTTGAGATGAAGTCTTGCTCTGTCGCCCAGGCTG
GAGTGCAGTCGTGCCATCTCAGCTCATTGTAACCTCCGTCTCCCAGGTTCAAGTGATTCTCTTGCCTCAGCCTCC
CAAGTAGCTGGGACTACAGGCATGTGCCACCACACCTGGCTGATTTTTGTGTTTTTAGTAGGGATGGGGTTTCAT
CATGTTGGCCAGGCTGGTCTCAAACTCCTGACCTCAAGTGATCCACCCGTCTTGGCCTCCTAAAGTGCTGGGATT
ACAGGTGTGAGCCACTGCGCCTGGCCTGTTGCTTATTTTAAAACATCTGTTTTAAGGTGTCATTTGTTAAAAAGT
TCTGAATTTTAGTATCAACTTTATCAATCTTTTCCTTTAAGATTTGCAGTTATTCTTTGTTTTGAGGCAGGGTCT
CGCTCTGTCACCGAGGCTGGAGTGCAGTGGTGCGATCTCGGCTCACTGCAGCCTCAACCTCCTGGGCTCAAGCAA
CCCTCCCACCTCCCATGCCAGTTGAGACCACAGGCATGCGCCACCATGCCCTGCTACTTTTTGCATTTTTTGTAG
AGGCGGGGTTTCGCCATGTTGCCCAGGCTAGTCTGGAACTCCTGAGCTCAAGCAGTCCACAAAGTGCTGGGATTA
CAGGTGTGAGCTACTGTGCCCAGCCTGCAATTATTCTTTATATTCTGGAATACCTACTGTTGTTTTCAATGGTTA
GATCTTTAATGTATCTGGAATGGATTCTTATGTGTAGTGTAAGGTCGGGTCCAGTTTCATTTTTTTTCCCTATGT
ATAACCAGTGATCCCAGCATCATTTATTGAATGGGGCTTGCTTTCAAATTGTGAGCTCTTTTTGGTGGAGTCTGT
CTCAGGTCCTTATTAAGCACTGCTGCTTGCTGATTGTGTGACCTTGGACAAATAAAACCTCATTGCGCCTCAGTC
TTTAAGGATAATAGTAATCTCATAGGGTTTTGTGAGGATTAAATGAGTCAATATACATAACGTGTAAAACAGTGC
TTGGCACCTAGAACATGCTCAATAAATATTAGCTGTACTTTAGCACTACTGTTCATTTCTGATTCCTCAGCACCT
GGTACAGAGCAGGGGCTCATTTTGCTCAATTAAATTGCCAAATTAATTTGGTTTTCAGGTCAATCAGAATGGTGA
GAGTTGGGCTGAGTGTTGCAGGAGATGCTTCCAAGGAGCTACTTAGTTTTAGGGGCTGCCTTAGATTATCTGCTA
GGATAGAACTCTTCTCACGCCATCACTTTTGCAGAGAACTTCTGTAGCAGAGGTTGCAAACTGGCAACCTGTGGT
TGGATTTGACCTGTATAAGTATTTTGTTTGGTTTACACAATATTTTTAATGTCTTAAAAATGTACACAGACCTCT
GAGTTTCTGACTTAACCTTGAAAAATTGGAAGATCTGTCAACAGCAAGCCCATATTCATTTATAGCGGTAACCAG
CTGAAACTTTTAGGTCCTGGGAGGAATGGAGAGGGGTCCCACTGACTAACTTTTCTGAGAGTGGTCAGAGAGTTC
TTAAGCAGAATTTTGATTTGGCTGCTGGGCTGCTACCTTGAAATCCAAGCCCTAAAAATGCCAGCTTCTTTGGAC
TTAGAAGATGACCTGGATAAATGATAAAAATTAAGAAAGAGATTTTGAAGTTTTCTTATTGTCCTCTTGGCATAT
GCTTCTGGAATAATATTCACC**ATG**GTTTTGGATGACCTTCCAAACTTAGAAGACATCTATACTTCCTTGTGTTCA
TCAACAATGGAAGACTCAGAGATGGATTTTGACTCTGGACTAGAAGATGATGACACAAAAAGTGATAGTATTTTG
GAGGATTCCACAATTTTTGTGGCCTTCAAAGGAAATATAGATGATAAAGACTTCAAATGGAAATTAGATGCAATA
TTGAAAAACGTGCCCAATTTGTTACACATGGAGTCCAGCAAGCTAAAAGTACAGAAGGTGGAGCCCTGGAACAGC
GTGCGTGTGACATTCAACATCCCCCGGGAAGCAGCGGAGCGGCTACGGATCCTTGCTCAGAGCAACAACCAGCAG
CTTCGGGATTTAGGGATTCTCTCCGTTCAGATTGAAGGGGAAGGTGCTATTAACCTGGCTTTGGCTCAGAACCGA
AGCCAAGATGTGAGAATGAATGGACCCATGGGAGCTGGAAATTCAGTTAGGATGGAGGCGGGATTTCCTATGGCA
AGTGGTCCAGGAATAATAAGGATGAACAACCCTGCCACTGTTATGATACCCCCGGGTGGAAATGTGTCATCTTCC
ATGATGGCACCAGGCCCCAATCCAGAGCTGCAGCCCAGGACTCCTCGCCCTGCTTCTCAGTCAGATGCAATGGAT
CCACTCCTCTCTGGGCTCCATATACAGCAGCAAAGTCATCCCTCAGGATCTTTAGCTCCCCCACATCACCCAATG
CAGCCTGTCTCTGTGAACAGACAAATGAACCCAGCTAATTTTCCCCAGCTGCAGCAGCAGCAGCAACAACAACAA
CAGCAGCAGCAGCAGCAGCAGCAGCAACAACAGCAACAGCAGCAACAACAGTTGCAGGCAAGACCCCCACAGCAA
CATCAGCAGCAACAGCCACAGGGAATTCGACCCCAGTTTACTGCCCCAACTCAGGTGCCTGTTCCTCCAGGCTGG
AACCAGCTGCCTTCTGGAGCCCTTCAACCTCCTCCAGCCCAGGGTTCTCTGGGCACAATGACTGCAAACCAAGGG

FIGURE 4494B

TGGAAGAAGGCTCCCTTGCCCGGCCCAATGCAACAGCAACTCCAGGCAAGACCATCCTTAGCCACGGTACAGACG
CCTTCCCACCCTCCCCCTCCATATCCCTTTGGCAGCCAGCAAGCCTCACAAGCCCACACAAACTTTCCTCAGATG
AGCAACCCAGGCCAGTTCACAGCTCCTCAGATGAAGAGTTTGCAGGGAGGGCCCTCTAGGGTCCCAACTCCCTTG
CAGCAGCCCCACCTCACCAACAAGTCTCCTGCCTCCTCACCCTCCTCCTTCCAGCAGGGATCCCCTGCATCCTCC
CCAACGGTTAACCAAACTCAGCAGCAGATGGGACCAAGGCCACCTCAAAATAACCCACTTCCCCAGGGATTTCAG
CAGCCTGTCAGCTCTCCGGGTCGGAATCCTATGGTTCAACAGGGAAATGTGCCACCTAACTTCATGGTGATGCAG
CAGCAACCACCAAACCAGGGGCCACAGAGTTTACATCCAGGCCTAGGAGGAATGCCTAAACGCCTCCCACCTGGC
TTCTCAGCAGGACAGGCCAATCCGAACTTTATGCAAGGTCAGGTGCCTTCGACCACAGCAACCACCCCTGGGAAT
TCAGGAGCCCCTCAGCTGCAAGCAAATCAAAATGTCCAGCATGCAGGTGGTCAAGGAGCTGGTCCTCCTCAAAAC
CAGATGCAGGTGTCCCACGGGCCGCCAAATATGATGCAGCCCAGCCTCATGGGAATTCATGGCAACATGAACAAT
CAGCAGGCTGGTACTTCTGGGGTTCCTCAAGTGAACCTCAGCAACATGCAAGGCCAGCCCCAGCAGGGCCCACCA
TCTCAGCTGATGGGCATGCACCAGCAAATCGTGCCCTCCCAGGGCCAGATGGTCCAGCAACAAGGAACCTTGAAC
CCTCAGAACCCTATGATCCTTTCAAGGGCCCAGCTTATGCCACAGGGCCAGATGATGGTGAACCCCCCGAGCCAA
AATCTTGGGCCCTCGCCCCAAAGGATGACCCCACCCAAGCAGATGCTTTCCCAGCAGGGCCCACAAATGATGGCG
CCACATAACCAGATGATGGGGCCTCAGGGGCAGGTTTTGCTCCAACAGAACCCAATGATAGAGCAGATTATGACC
AATCAAATGCAGGGGAATAAGCAGCAGTTTAACACTCAGAACCAGTCCAATGTCATGCCGGGACCAGCCCAGATA
ATGAGGGGACCAACTCCAAACATGCAAGGAAATATGGTGCAGTTTACGGGACAGATGTCAGGACAGATGCTGCCC
CAGCAAGGGCCTGTGAACAACAGTCCATCTCAGGTTATGGGCATTCAGGGACAGGTCCTGCGGCCACCAGGGCCC
AGCCCACACATGGCCCAGCAGCATGGTGATCCTGCTACTACAGCAAATAACGATGTCAGTTTATCTCAGATGATG
CCTGATGTTAGCATTCAACAAACCAACATGGTCCCCCCTCATGTGCAGGCCATGCAGGGAAACAGTGCCTCGGGA
AACCACTTCTCAGGCCATGGGATGTCTTTCAATGCACCTTTCAGTGGAGCTCCCAATGGAAATCAGATGTCCTGT
GGTCAAAATCCAGGCTTCCCAGTCAATAAGGATGTCACGCTAACGAGCCCATTGTTGGTCAACTTATTGCAGAGT
GACATATCTGCAGGCCATTTTGGGGTAAACAATAAGCAAAATAATACCAACGCAAATAAACCGAAGAAGAAGAAA
CCCCCTCGGAAGAAGAAAAATAGTCAGCAAGATCTAAACACCCCAGATACTCGCCCAGCTGGTCTGGAAGAGGCT
GATCAGCCACCGTTGCCTGGAGAACAAGGAATTAACTTGGATAACTCAGGCCCTAAACTGCCAGAATTTTCAAAC
CGGCCACCAGGTTATCCTTCTCAACCAGTTGAACAGAGGCCACTTCAGCAGATGCCTCCTCAACTCATGCAGCAT
GTGGCACCCCCACCACAGCCACCACAGCAGCAGCCACAGCCACAACTGCCTCAGCAGCAGCAGCCACCACCTCCC
AGTCAGCCACAGTCTCAGCAGCAGCAGCAGCAGCAGCAACAAATGATGATGATGCTCATGATGCAGCAGGATCCC
AAATCAGTTAGGCTTCCAGTCTCTCAAAATGTCCATCCTCCAAGGGGCCCCCTGAACCCCGACTCCCAGAGAATG
CCCATGCAACAGAGTGGCAGTGTGCCTGTCATGGTCAGTCTGCAAGGACCTGCCTCCGTGCCACCATCACCTGAT
AAACAAAGAATGCCAATGCCTGTGAATACTCCCTTGGGAAGCAATTCAAGGAAAATGGTCTATCAGGAGAGCCCG
CAGAATCCTTCCAGCTCGCCACTGGCGGAGATGGCCTCACTCCCTGAAGCAAGTGGCAGTGAAGCACCATCTGTC
CCAGGAGGCCCAAACAACATGCCTTCACATGTAGTACTTCCCCAGAATCAGTTAATGATGACAGGGCCAAAACCT
GGACCATCGCCCCTTTCAGCAACTCAAGGTGCAACTCCCCAGCAACCCCCTGTAAATTCCCTGCCCAGCTCTCAC
GGCCACCACTTCCCAAATGTGGCTGCGCCAACCCAGACATCTAGGCCCAAAACACCAAACAGAGCCAGCCCCAGA
CCCTATTATCCTCAGACACCCAACAACCGCCCTCCCAGCACAGAACCTTCAGAAATCAGTCTGTCACCAGAAAGA
CTCAATGCCTCCATAGCAGGACTCTTCCCTCCACAGATTAATATTCCTTTACCTCCTAGGCCAAATTTAAACAGG
GGCTTTGATCAACAAGGCCTAAATCCAACAACTTTGAAGGCCATCGGGCAAGCACCTTCAAATCTTACCATGAAT
CCTTCCAATTTTGCTACCCCACAAACTCACAAATTAGATTCTGTGGTAGTGAATTCTGGAAAGCAGTCTAATTCT
GGAGCAACAAAACGGGCAAGTCCAAGCAACAGTCGCAGGTCTAGTCCTGGGTCCAGTAGGAAAACCACTCCAAGC
CCTGGGAGGCAAAATTCAAAAGCCCCTAAACTTACTCTGGCCTCTCAGACAAATGCAGCCCTATTGCAGAATGTG
GAGTTGCCGAGAAATGTATTGGTCAGTCCCACTCCTCTGGCCAATCCCCCTGTACCTGGGAGCTTTCCTAACAAC
AGTGGGCTGAATCCTCAGAATTCTACTGTGTCTGTGGCTGCAGTTGGGGGTGTTGTTGAGGATAACAAGGAGAGC
TTGAATGTGCCTCAGGACAGTGATTGCCAGAATTCCCAGAGTAGGAAGGAACAGGTAAACATTGAACTAAAAGCA
GTCCCTGCCCAAGAAGTTAAAATGGTTGTCCCTGAAGATCAGTCCAAAAAGGATGGGCAGCCTTCGGATCCTAAC
AAACTTCCCAGTGTCGAAGAGAACAAAAATTTGGTGTCTCCTGCTATGAGGGAAGCACCAACATCGTTAAGTCAA
CTTCTTGACAACTCTGGAGCTCCCAATGTGACAATTAAACCCCCTGGGCTTACAGATCTGGAAGTAACACCTCCA
GTAGTTTCTGGGGAGGACCTCAAAAAAGCATCTGTCATTCCCACACTGCAGGATCTGTCTTCTTCTAAAGAACCT

FIGURE 4494C

TCTAATTCCCTAAACTTACCTCACAGTAATGAGCTGTGTTCATCCCTTGTGCATCCCGAATTGAGTGAGGTCAGT
TCTAACGTTGCACCAAGCATCCCTCCAGTAATGTCAAGACCTGTTAGCTCTTCCTCCATTTCCACTCCCTTGCCC
CCAAATCAAATAACTGTATTTGTCACTTCCAATCCCATCACAACTTCAGCTAACACATCAGCAGCTTTGCCAACT
CACTTGCAGTCTGCATTGATGTCAACAGTTGTCACAATGCCCAATGCGGGTAGCAAGGTTATGGTTTCTGAGGGA
CAGTCAGCTGCTCAGTCTAATGCCCGGCCTCAGTTCATTACACCTGTCTTTATCAATTCATCCTCAATAATTCAG
GTTATGAAAGGATCACAGCCAAGCACAATTCCTGCAGCCCCACTGACAACCAACTCTGGCCTGATGCCTCCCTCT
GTTGCAGTTGTTGGCCCTTTACACATACCTCAGAACATAAAATTTTCTTCTGCTCCTGTACCGCCTAATGCCCTC
TCCAGTAGTCCTGCTCCAAACATCCAGACAGGTCGACCTTTGGTCCTTAGCTCACGAGCCACCCCTGTTCAGCTT
CCTTCCCCTCCTTGTACGTCTTCTCCAGTTGTCCCTTCTCATCCCCCTGTGCAGCAAGTGAAAGAATTGAATCCA
GATGAGGCTAGCCCTCAGGTGAACACCTCAGCAGATCAGAACACTCTTCCCTCTTCACAGTCAACCACAATGGTT
TCTCCCCTTTTGACCAATAGTCCAGGGTCCTCTGGCAACCGGCGAAGCCCAGTCTCGTCTAGTAAGGGCAAAGGA
AAAGTGGACAAAATTGGCCAAATTTTGTTGACCAAGGCATGTAAGAAAGTTACAGGCTCTCTTGAGAAAGGGGAA
GAACAATATGGTGCAGATGGAGAGACTGAAGGCCAAGGGCTAGACACCACAGCTCCGGGGCTCATGGGAACAGAG
CAGTTATCCACAGAGCTGGACAGTAAAACCCCAACGCCCCCAGCACCCACTCTGCTAAAAATGACCTCTAGCCCT
GTGGGCCCGGGCACTGCCTCAGCAGGACCCAGCTTACCTGGCGGTGCTCTCCCCACCAGTGTACGCTCGATAGTA
ACCACTCTGGTACCCTCCGAGCTCATCTCCGCCGTACCGACCACAAAAAGCAATCATGGTGGCATAGCATCTGAG
TCACTTGCGGGTGGCCTAGTGGAGGAGAAGGTGGGATCCCATCCAGAACTTCTACCCAGCATAGCCCCGTCGCAG
AATTTAGTCTCAAAGGAAACTTCAACCACAGCACTGCAGGCCTCTGTTGCCAGACCAGAGCTGGAGGTAAATGCT
GCCATAGTCTCTGGACAAAGCAGTGAGCCCAAAGAGATAGTTGAAAAGTCCAAAATCCCAGGCCGAAGAAACTCC
CGAACTGAAGAGCCAACTGTGGCCTCTGAAAGTGTGGAAAATGGACATCGTAAACGATCTTCTCGACCTGCTTCA
GCCTCCAGCTCTACTAAAGACATAACCAGTGCGGTGCAATCCAAGCGAAGAAAATCCAAG**TAA**ACAAGCAGGACT
GCGACTTGATACTTGGAAATGTGTGTGACTTTTACAAAGAGCAATTTTGAGCTGTGACTTTTTTAAATCAATTTC
TGTACAGTTAGTAATTTTAATAATGTGGCCCTTTTCCTAGTCCCTGCAACCTGTTTCATAAAGTGCAATGGGGAA
AGCAGGACTGTTGAGCCCTTTTGGTGTTGCGAGTTGAAGTTCAAGGTTTCTAAAATGTTGTCTTGTATTGAAAGG
AGCTAATGCCATTATAAATGTTACTAGTTTTCACATTTCCTAAGCAGCCTAGAGTACAGGGTGAGCATTTTTAGA
TCTCCTAATGATGTATTGTGCCGTGGAAGTACTGTGTGTGAATAGCAGTAGTGGGGGCAAAAGCAATCTTCTCAT
TTGGAAATGTTGTAAATAATTTTATTATATAGTGTTTTGGATGTATTTGTTGTAGAAATGGACCAGTGAATAAAG
AGAATCTAAGGATTTGTACAATGTGAAATAACGTGTTAAATAAATGTCATTGTCATAGAACATAAAGTTATGTTA
TTGGTAAGGG

FIGURE 4495

ATGGCGGCGGAGAACGAGGCCAGCCAGGAGAGCGCCCTGGGCGCCTACTCGCCAGTGGACTACATGAGCATCACC
AGCTTCCCGCGGCTGCCCGAGGACGAGCCGGCGCCCGCGGCCCCGCTGAGGGGCCGCAAGGACGAGGACGCCTTT
CTGGGAGACCCCGACACCGACCCGGACTCCTTCCTGAAGTCTGCACGGCTGCAGCGGCTGCCATCGTCGTCGTCG
GAGATGGGCAGCCAAGACGGGTCGCCGCTACGCGAGACGCGCAAAGACCCGTTCTCCGCCGCAGCGGCCGAGTGC
TCCTGCCGCCAGGATGGGCTCACGGTCATCGTCACGGCCTGTCTCACCTTCGCTACCGGTGTCACCGTGGCGCTG
GTCATGCAGATCTACTTCGGGGACCCCCAGATCTTCCAGCAGGGTGCCGTGGTGACCGATGCTGCCCGCTGCACT
TCACTGGGCATCGAGGTGCTCAGTAAACAGGGATCTTCTGTGGACGCAGCGGTGGCAGCAGCCTTGTGTTTGGGT
ATCGTGGCTCCACACAGTTCTGGCCTGGGCGGTGGGGGCGTGATGCTGGTACATGACATCCGACGAAATGAGAGC
CACCTAATTGATTTCCGGGAGTCCGCACCAGGGGCCCTCAGGGAAGAGACCCTGCAAAGATCCTGGGAGACCAAG
GTGGGGACCCTGCCTGGGCTCTTGGTGGGGGTTCCCGGAATGGTGAAGGGGCTACATGAAGCTCACCAGCTCTAT
GGCAGGCTGCCATGGTCCCAAGTCCTGGCCTTTGCAGCAGCTGTGGCCCAAGATGGCTTCAACGTGACTCATGAT
CTAGCCCGTGCCCTGGCTGAACAGCTGCCACCCAACATGTCCGAGCGCTTCCGGGAGACGTTCCTGCCATCGGGC
CGCCCGCCACTACCTGGCTCGTTGCTGCATCGGCCCGACCTGGCTGAGGTGCTGGATGTACTTGGCACCTCCGGC
CCGGCTGCCTTCTACGCAGGTGGCAACCTCACACTGGAGATGGTGGCCGAGGCTCAGCACGCAGGGGGTGTCATA
ACCGAAGAGGACTTCAGCAATTACAGCGCCCTTGTGGAGAAGCCTGTGTGTGGCGTGTACAGAGGCCACCTGGTT
CTTAGTCCCCCACCTCCGCACACGGGCCCTGCCCTCATCAGTGCTCTCAACATCCTGGAGGGCTTCAATCTCACC
AGCCTGGTATCCCGAGAACAGGCTCTTCACTGGGTGGCAGAGACCCTGAAGATTGCATTAGCCCTGGCCAGCAGA
CTGGGAGATCCCGTCTATGATTCTACCATCACTGAGAGCATGGATGACATGCTCAGCAAGGTGGAGGCCGCCTAC
CTCCGGGGCCATATCAATGACTCCCAGGCAGCCCCTGCCCCACTCCTGCCTGTCTATGAACTAGACGGAGCTCCC
ACGGCTGCCCAGGTGCTGATCATGGGACCTGATGACTTCATTGTGGCCATGGTTAGCTCCCTGAACCAGCCCTTT
GGCAGCGGCCTTATCACCCCCTCGGGGATCCTGCTCAACAGCCAGATGCTGGACTTCTCCTGGCCCAACCGGACA
GCTAACCACTCTGCACCCAGCCTGGAGAATTCAGTGCAGCCAGGGAAGCGGCCACTCTCTTTCCTGCTGCCCACA
GTGGTCCGACCCGCGGAGGGGCTCTGTGGAACCTACCTCGCTCTGGGGGCCAATGGAGCTGCGCGGGGCCTCAGC
GGCCTGACACAGGTTCTGCTGAATGTCCTGACCTTGAACCGGAACCTGAGTGACAGCCTGGCCCGCGGCCGCCTA
CACCCGGACCTGCAGTCCAACCTCCTGCAGGTGGACAGTGAGTTCACAGAGGAAGAGATTGAGTTCCTGGAAGCC
AGGGGTCACCACGTGGAGAAAGTAGATGTCTTATCCTGGGTCCATGGCAGCCGAAGGACCAACAACTTCATCATC
GCTGTTAAGGACCCTCGGAGCCCAGATGCAGCTGGAGCCACCATCCTGTAG

FIGURE 4496

ATGGGGCTTCCTGAGGAGCGGGTCCGGAGCGGCAGCGGGAGCCGGGGCCAGGAGGAAGCTGGAGCCGGAGGCCGG
GCGCGGAGTTGGTCTCCGCCGCCCGAGGTCAGCCGCTCCGCGCACGTCCCCTCGCTGCAGCGCTACCGCGAGCTG
CACCGGCGCTCCGTGGAGGAGCCGCGGGAATTCTGGGGAGACATTGCCAAGGAATTTTACTGGAAGACTCCATGC
CCTGGCCCATTCCTTCGGTACAACTTTGATGTGACTAAAGGGAAAATCTTCATTGAGTGGATGAAAGGAGCAACT
ACCAACATCTGCTACAATGTACTGGATCGAAATGTCCATGAGAAAAAGCTTGGAGATAAAGTTGCTTTTTACTGG
GAGGGCAATGAGCCAGGGGAGACCACTCAGATCACATACCATCAGCTTCTGGTCCAAGTGTGTCAGTTCAGCAAT
GTTCTCCGAAAACAGGGCATTCAGAAGGGGGACCGAGTGGCCATCTACATGCCTATGATCCCAGAGCTTGTGGTG
GCCATGCTGGCATGTGCCCGCATTGGGGCTTTGCACTCCATTGTGTTTGCAGGCTTCTCTTCAGAGTCTCTATGT
GAACGGATCTTGGATTCCAGCTGCAGTCTTCTCATCACTACAGATGCCTTCTACAGGGGGGAAAAGCTTGTGAAC
CTGAAGGAGCTGGCTGACGAGGCCCTGCAGAAGTGTCAGGAGAAGGGTTTCCCAGTAAGATGCTGCATTGTGGTC
AAGCACCTGGGGCGGGCAGAGCTCGGCATGGGTGACTCCACCAGCCAGTCCCCCCCAATTAAGAGGTCATGCCCA
G**ATG**TGCAGATCTCATGGAACCAAGGGATTGACTTGTGGTGGCATGAGCTCATGCAAGAGGCAGGGGATGAGTGT
GAGCCCGAGTGGTGTGATGCCGAGGACCCACTCTTCATCCTGTACACCAGTGGCTCCACAGGCAAACCCAAGGGG
TGTGGTTCACACAGTTGGGGGCTACATGCTCTATGTAGCCACAACCTTCAAGTATGTGTTTGACTTCCATGCAGA
GGATGTGTTCTGGTGCACGGCAGACATTGGTTGGATCACTGGTCATTCCTACGTCACCTATGGGCCACTGGCCAA
TGGTGCCACCAGTGTTTTGTTTGAGGGGATTCCCACATATCCGGACGTGAACCGCCTGTGGAGCATTGTGGACAA
ATACAAGGTGACCAAGTTCTACACAGCACCCACAGCCATCCGTCTGCTCATGAAGTTTGGAGATGAGCCTGTCAC
CAAGCATAGCCGGGCATCCTTGCAGGTGTTAGGCACAGTGGGTGAACCCATCAACCCTGAGGCCTGGCTATGGTA
CCACCGGGTGGTAGGTGCCCAGCGCTGCCCCATCGTGGACACCTTCTGGCAAACAGAGACAGGTGGCCACATGTT
GACTCCCCTTCCTGGTGCCACACCCATGAAACCCGGTTCTGCTACTTTCCCATTCTTTGGTGTAGCTCCTGCAAT
CCTGAATGAGTCCGGGGAAGAGTTGGAAGGTGAAGCTGAAGGTTATCTGGTGTTCAAGCAGCCCTGGCCAGGGAT
CATGCGCACAGTCTATGGGAACCACGAACGCTTTGAGACAACCTACTTTAAGAAGTTTCCTGGATACTATGTTAC
AGGAGATGGCTGCCAGCGGGACCAGGATGGCTATTACTGGATCACTGGCAGGATTGATGACATGCTCAATGTATC
TGGACACCTGCTGAGTACAGCAGAGGTGGAGTCAGCACTTGTGGAACATGAGGCTGTTGCAGAGGCAGCTGTGGT
GGGCCACCCTCATCCTGTGAAGGGTGAATGCCTCTACTGCTTTGTCACCTTGTGTGATGGCCACACCTTCAGCCC
CAAGCTCACCGAGGAGCTCAAGAAGCAGATTAGAGAAAAGATTGGCCCCATTGCCACACCAGACTACATCCAGAA
TGCACCTGGCTTGCCTAAAACCCGCTCAGGGAAAATCATGAGGCGAGTGCTTCGGAAGATTGCTCAGAATGACCA
TGACCTCGGGGACATGTCTACTGTGGCTGACCCATCTGTCATCAGTCACCTCTTCAGCCACCGCTGCCTGACCAT
CCAG**TGA**

FIGURE 4497

GGGAGAACCGTTCGCGGAGGAAAGGCGAACTAGTGTTGGG**ATG**GCCACCAACTGGGGGAGCCTCTTGCAGGATAA
ACAGCAGCTAGAGGAGCTGGCACGGCAGGCCGTGGACCGGGCCCTGGCTGAGGGAGTATTGCTGAGGACCTCACA
GGAGCCCACTTCCTCGGAGGTGGTGAGCTATGCCCCATTCACGCTCTTCCCCTCACTGGTCCCCAGTGCCCTGCT
GGAGCAAGCCTATGCTGTGCAGATGGACTTCAACCTGCTAGTGGATGCTGTCAGCCAGAACGCTGCCTTCCTGGA
GCAAACTCTTTCCAGCACCATCAAACAGGATGACTTTACCGCTCGTCTCTTTGACATCCACAAGCAAGTCCTAAA
AGAGGGCATTGCCCAGACTGTGTTCCTGGGCCTGAATCGCTCAGACTACATGTTCCAGCGCAGCGCAGATGGCTC
CCCAGCCCTGAAACAGATCGAAATCAACACCATCTCTGCCAGCTTTGGGGGCCTGGCCTCCCGGACCCCAGCTGT
GCACCGACATGTTCTCAGTGTCCTGAGTAAGACCAAAGAAGCTGGCAAGATCCTCTCTAATAATCCCAGCAAGGG
ACTGGCCCTGGGAATTGCCAAAGCCTGGGAGCTCTACGGCTCACCCAATGCTCTGGTGCTACTGATTGCTCAAGA
GAAGGAAAGAAACATATTTGACCAGCGTGCCATAGAGAATGAGCTACTGGCCAGGAACATCCATGTGATCCGACG
AACATTTGAAGATATCTCTGAAAAGGGGTCTCTGGACCAAGACCGAAGGCTGTTTGTGGATGGCCAGGAAATTGC
TGTGGTTTACTTCCGGGATGGCTACATGCCTCGTCAGTACAGTCTACAGAATTGGGAAGCACGTCTACTGCTGGA
GAGGTCACATGCTGCCAAGTGCCCAGACATTGCCACCCAGCTGGCTGGGACTAAGAAGGTGCAGCAGGAGCTAAG
CAGGCCGGGCATGCTGGAGATGTTGCTCCCTGGCCAGCCTGAGGCTGTGGCCCGCCTCCGCGCCACCTTTGCTGG
CCTCTACTCACTGGATGTGGGTGAAGAAGGGGACCAGGCCATCGCCGAGGCCCTTGCTGCCCCTAGCCGGTTTGT
GCTAAAGCCCCAGAGAGAGGGTGGAGGTAACAACCTATATGGGGAGGAAATGGTACAGGCCCTGAAACAGCTGAA
GGACAGTGAGGAGAGGGCCTCCTACATCCTCATGGAGAAGATCGAACCTGAGCCTTTTGAGAATTGCCTGCTACG
GCCTGGCAGCCCTGCCCGAGTGGTCCAGTGCATTTCAGAGCTGGGCATCTTTGGGGTCTATGTCAGGCAGGAAAA
GACACTCGTGATGAACAAGCACGTGGGGCATCTACTTCGAACCAAAGCCATCGAGCATGCAGATGGTGGTGTGGC
AGCGGGAGTGGCAGTCCTGGACAACCCATACCCTGTG**TGA**GGGCACAACCAGGCCACGGGACCTTCTATCCTCTG
TATTTGTCATTCCTCTCCTAGCCCTCCTGAGGGGTATCCTCCTAAAGACCTCCAAAGTTTTTATGGAAGGGTAAA
TACTGGTACCTTCCCCCAGCTTTCCATCTGAGGACCAGAAAAGTTGTGTCTCCCTTAGATGAGATCTAGACGCCC
CCAAATCCTTGAGATGTGGGTATAGCTCAGGGTAAGCTGCTCTGAGGTAAAGGTCCATGAACCCTGCCCCACTCC
TGTCAGCCCCTCATCAGCCTTTTCAGCAGGTTCCAGTGCCTGACTTGGGATAGGACTGAGTGGTAGGAGGAGGGG
GAGTGGAGGGGCATAGCCTTTCCCTAATTCTGCCTTAAATAAAACTGCATTGCTG

FIGURE 4498

GACATGGCGGCGGCGCCGGTAGCGGCTGGGTCTGGAGCCGGCCGAGGGAGACGGTCGGCAGCCACAGTGGCGGCT
TGGGGCGGATGGGGCGGCCGGCCGCGGCCTGGTAACATTCTGCTGCAGCTGCGGCAGGGCCAGCTGACCGGCCGG
GGCCTGGTCCGGGCGGTGCAGTTCACTGAGACTTTTTTGACGGAGAGGGACAAACAATCCAAGTGGAGTGGAATT
CCTCAGCTGCTCCTCAAGCTGCACACCACCAGCCACCTCCACAGTGACTTTGTTGAGTGTCAAAACATCCTCAAG
GAAATTTCTCCTCTTCTCTCCATGGAGGCTATGGCATTTGTTACTGAAGAGAGGAAACTTACCCAAGAAACCACT
TATCCAAATACTTACATTTTTGACTTGTTTGGAGGTGTTGATCTTCTTGTAGAAATTCTTATGAGGCCTACGATC
TCTATCCGGGGACAGAAACTGAAAAGTAATGATGAAATGTCCAAGGACTGCTTGAGTATCCTGTATAATACCTGT
GTCTGTACAGAGGGAGTTACAAAGCGTTTGGCAGAAAAGAATGACTTTGTGATCTTCCTGTTTACATTGATGACA
AGTAAGAAGACATTCTTACAAACAGCAACCCTCATTGAAGATATTTTGGGTGTTAAAAAGGAAATGATCCGACTA
GATGAAGTCCCCAATCTGAGTTCCTTAGTATCCAATTTCGATCAGCAGCAGCTCGCTAATTTCTGCCGGATTCTG
GCTGTCACCATTTCAGAGATGGATACAGGGAATGATGACAAGCACACGCTTCTTGCCAAAAATGCTCAACAGAAG
AAGAGCTTGAGTTTGGGGCCTTCTGCAGCTGAAATCAATCAAGCGGCCCTTCTCAGCATTCCTGGCTTTGTTGAG
CGGCTTTGCAAACTGGCGACTCGAAAGGTGTCAGAGTCAACGGGCACAGCCAGCTTCCTTCAGGAGTTGGAAGAG
TGGTACACATGGCTAGACAATGCTTTGGTGCTAGATGCCCTGATGCGAGTGGCCAATGAGGAGTCAGAGCACAAT
CAAGCCTCCATTGTGTTCCCTCCTCCAGGGGCTTCTGAGGAGAATGGCCTGCCTCACACGTCAGCCAGAACCCAG
CTGCCCCAGTCAATGAAGATTATGCATGAGATCATGTACAAACTGGAAGTGCTCTATGTCCTCTGCGTGCTGCTG
ATGGGGCGTCAGCGAAACCAGGTTCACAGAATGATTGCAGAGTTCAAGCTGATCCCTGGACTTAATAATTTGTTT
GACAAACTGATTTGGAGGAAGCATTCAGCATCTGCCCTTGTCCTCCATGGTCACAACCAGAACTGTGACTGTAGC
CCGGACATCACCTTGAAGATACAGTTTTTGAGGCTTCTTCAGAGCTTCAGTGACCACCACGAGAACAAGTACTTG
TTACTCAACAACCAGGAGCTGAATGAACTCAGTGCCATCTCTCTCAAGGCCAACATCCCTGAGGTGGAAGCTGTC
CTCAACACCGACAGGAGTTTGGTGTGTGATGGGAAGAGGGGCTTATTAACTCGTCTGCTGCAGGTCATGAAGAAG
GAGCCAGCAGAGTCGTCTTTCAGGTTTTGGCAAGCTCGGGCTGTGGAGAGTTTCCTCCGAGGGACCACCTCCTAT
GCAGACCAGATGTTCCTGCTGAAGCGAGGCCTCTTGGAGCACATCCTTTACTGCATTGTGGACAGCGAGTGTAAG
TCAAGGGATGTGCTCCAGAGTTACTTTGACCTCCTGGGGGAGCTGATGAAGTTCAACGTTGATGCATTCAAGAGA
TTCAATAAATATATCAACACCGATGCAAAGTTCCAGGTATTCCTGAAGCAGATCAACAGCTCCCTGGTGGACTCC
AACATGCTGGTGCGCTGTGTCACTCTGTCCCTGGACCGATTTGAAAACCAGGTGGATATGAAAGTTGCCGAGGTA
CTGTCTGAATGCCGCCTGCTCGCCTACATATCCCAGGTGCCCACGCAGATGTCCTTCCTCTTCCGCCTCATCAAC
ATCATCCACGTGCAGACGCTGACCCAGGAGAACGTCAGCTGCCTCAACACCAGCCTGGTGATCCTGATGCTGGCC
CGACGGAAAGAGCGGCTGCCCCTGTACCTGCGGCTGCTGCAGCGGATGGAGCACAGCAAGAAGTACCCCGGCTTC
CTGCTCAACAACTTCCACAACCTGCTGCGCTTCTGGCAGCAGCACTACCTGCACAAGGACAAGGACAGCACCTGC
CTAGAGAACAGCTCCTGCATCAGCTTCTCATACTGGAAGGAGACAGTGTCCATCCTGTTGAACCCGGACCGGCAG
TCACCCTCTGCTCTCGTTAGCTACATTGAGGAGCCCTACATGGACATAGACAGGGACTTCACTGAGGAGTGACCT
TGGGCCAGGCCTCGGGAGGCTGCTGGGCCAGTGTGGGTGAGCGTGGGTACGATGCCACACGCCCTGCCCTGTTCC
CGTTCCTCCCTGCTGCTCTCTGCCTGCCCCAGGTCTTTGGGTACAGGCTTGGTGGGAGGGAAGTCCTAGAAGCCC
TTGGTCCCCCTGGGTCTGAGGGCCCTAGGTCATGGAGAGCCTCAGTCCCCATAATGAGGACAGGGTACCATGCCC
ACCTTTCCTTCAGAACCCTGGGGCCCAGGGCCACCCAGAGGTAAGAGGACATTTAGCATTAGCTCTGTGTGAGCT
CCTGCCGGTTTCTTGGCTGTCAGTCAGTCCCAGAGTGGGGAGGAAGATATGGGTGACCCCCACCCCCCATCTGTG
AGCCAAGCCTCCCTTGTCCCTGGCCTTTGGACCCAGGCAAAGGCTTCTGAGCCCTGGGCAGGGGTGGTGGGTACC
AGAGAATGCTGCCTTCCCCCAAGCCTGCCCCTCTGCCTCATTTTCCTGTAGCTCCTCTGGTTCTGTTTGCTCATT
GGCCGCTGTGTTCATCCAAGGGGGTTCTCCCAGAAGTGAGGGGCCTTTCCCTCCATCCCTTGGGGCACGGGGCAG
CTGTGCCTGCCCTGCCTCTGCCTGAGGCAGCCGCTCCTGCCTGAGCCTGGACATGGGGCCCTTCCTTGTGTTGCC
AATTTATTAACAGCAAATAAACCAATTAAATGGAGACTATTAAATAACTTTATTTT

FIGURE 4499

GGAAGAACCCGCAGCAGCTCCCAGGATGAACTGGTTGCAGTGGCTGCTGCTGCTGCGGGGGCGCTGAGAGGACAC
GAGCTCT**ATG**CCTTTCCGGCTGCTCATCCCGCTCGGCCTCCTGTGCGCGCTGCTGCCTCAGCACCATGGTGCGCC
AGGTCCCGACGGCTCCGCGCCAGATCCCGCCCACTACAGGGAGCGAGTCAAGGCCATGTTCTACCACGCCTACGA
CAGCTACCTGGAGAATGCCTTTCCCTTCGATGAGCTGCGACCTCTCACCTGTGACGGGCACGACACCTGGGGCAG
TTTTTCTCTGACTCTAATTGATGCACTGGACACCTTGCTGATTTTGGGGAATGTCTCAGAATTCCAAAGAGTGGT
TGAAGTGCTCCAGGACAGCGTGGACTTTGATATTGATGTGAACGCCTCTGTGTTTGAAACAAACATTCGAGTGGT
AGGAGGACTCCTGTCTGCTCATCTGCTCTCCAAGAAGGCTGGGGTGGAAGTAGAGGCTGGATGGCCCTGTTCCGG
GCCTCTCCTGAGAATGGCTGAGGAGGCGGCCCGAAAACTCCTCCCAGCCTTTCAGACCCCCACTGGCATGCCATA
TGGAACAGTGAACTTACTTCATGGCGTGAACCCAGGAGAGACCCCTGTCACCTGTACGGCAGGGATTGGGACCTT
CATTGTTGAATTTGCCACCCTGAGCAGCCTCACTGGTGACCCGGTGTTCGAAGATGTGGCCAGAGTGGCTTTGAT
GCGCCTCTGGGAGAGCCGGTCAGATATCGGGCTGGTCGGCAACCACATTGATGTGCTCACTGGCAAGTGGGTGGC
CCAGGACGCAGGCATCGGGGCTGGCGTGGACTCCTACTTTGAGTACTTGGTGAAAGGAGCCATCCTGCTTCAGGA
TAAGAAGCTCATGGCCATGTTCCTAGAGTATAACAAAGCCATCCGGAACTACACCCGCTTCGATGACTGGTACCT
GTGGGTTCAGATGTACAAGGGGACTGTGTCCATGCCAGTCTTCCAGTCCTTGGAGGCCTACTGGCCTGGTCTTCA
GAGCCTCATTGGAGACATTGACAATGCCATGAGGACCTTCCTCAACTACTACACTGTATGGAAGCAGTTTGGGGG
GCTCCCGGAATTCTACAACATTCCTCAGGGATACACAGTGGAGAAGCGAGAGGGCTACCCACTTCGGCCAGAACT
TATTGAAAGCGCAATGTACCTCTACCGTGCCACGGGGGATCCCACCCTCCTAGAACTCGGAAGAGATGCTGTGGA
ATCCATTGAAAAAATCAGCAAGGTGGAGTGCGGATTTGCAACAATCAAAGATCTGCGAGACCACAAGCTGGACAA
CCGCATGGAGTCGTTCTTCCTGGCCGAGACTGTGAAATACCTCTACCTCCTGTTTGACCCAACCAACTTCATCCA
CAACAATGGGTCCACCTTCGACGCGGTGATCACCCCCTATGGGGAGTGCATCCTGGGGGGCTGGGGGGTACATCTT
CAACACAGAAGCTCACCCCATCGACCCTGCCGCCCTGCACTGCTGCCAGAGGCTGAAGGAAGAGCAGTGGGAGGT
GGAGGACTTGATGAGGGAATTCTACTCTCTCAAACGGAGCAGGTCGAAATTTCAGAAAAACACTGTTAGTTCGGG
GCCATGGGAACCTCCAGCAAGGCCAGGAACACTCTTCTCACCAGAAAACCATGACCAGGCAAGGGAGAGGAAGCC
TGCCAAACAGAAGGTCCCACTTCTCAGCTGCCCCAGTCAGCCCTTCACCTCCAAGTTGGCATTACTGGGACAGGT
TTTCCTAGACTCCTCA**TAA**CCACTGGATAATTTTTTTATTTTTATTTTTTTGAGGCTAAACTATAATAAATTGCT
TTTGGCTATC

FIGURE 4500

CAGGTCCGGAGCCTCAACTTCAGG**ATG**TTGACAACATTGCTGCCGATACTGCTGCTGTCTGGCTGGGCCTTTTGT
AGCCAAGACGCCTCAGATGGCCTCCAAAGACTTCATATGCTCCAGATCTCCTACTTCCGCGACCCCTATCACGTG
TGGTACCAGGGCAACGCGTCGCTGGGGGGACACCTAACGCACGTGCTGGAAGGCCCAGACACCAACACCACGATC
ATTCAGCTGCAGCCCTTGCAGGAGCCCGAGAGCTGGGCGCGCACGCAGAGTGGCCTGCAGTCCTACCTGCTCCAG
TTCCACGGCCTCGTGCGCCTGGTGCACCAGGAGCGGACCTTGGCCTTTCCTCTGACCATCCGCTGCTTCCTGGGC
TGTGAGCTGCCTCCCGAGGGCTCTAGAGCCCATGTCTTCTTCGAAGTGGCTGTGAATGGGAGCTCCTTTGTGAGT
TTCCGGCCGGAGAGAGCCTTGTGGCAGGCAGACACCCAGGTCACCTCCGGAGTGGTCACCTTCACCCTGCAGCAG
CTCAATGCCTACAACCGCACTCGGTATGAACTGCGGGAATTCCTGGAGGACACCTGTGTGCAGTATGTGCAGAAA
CATATTTCCGCGGAAAACACGAAAGGGAGCCAAACAAGCCGCTCCTACACTTCGCTGGTCCTGGGCGTCCTGGTG
GGCAGTTTCATCATTGCTGGTGTGGCTGTAGGCATCTTCCTGTGCACAGGTGGACGGCGATGT**TAA**TTACTCTCC
AGCCCCCTCAGAAGGGGCTGGATTGATGGAGGCTGGCAAGGGAAAGTTTCAGCTCACTGTGAAGCCAGACTCCCC
AACTGAAACACCAGAAGGTTTGGAGTGACAGCTCCTTTCTTCTCCCACATCTGCCCACTGAAGATTTGAGGGAGG
GGAGATGGAGAGGAGAGGTGGACAAAGTACTTGGTTTGCTAAGAACCTAAGAACGTGTATGCTTTGCTGAATTAG
TCTGATAAGTGAATGTTTATCTATCTTTGTGGAAAACAGATAATGGAGTTGGGGCAGGAAGCCTATGGCCCATCC
TCCAAAGACAGACAGAATCACCTGAGGCGTTCAAAAGATATAACCAAATAAACAAGTCATCCACAATCAAAATAC
AACATTCAATACTTCCAGGTGTGTCAGACTTGGGATGGGACGCTGATATAATAGGGTAGAAAGAAGTAACACGAA
GAAGTGGTGGAAATGTAAAATCCAAGTCATATGGCAGTGATCAATTATTAATCAATTAATAATATTAATAAATTT
CTTATATTT

FIGURE 4501

TCACTGAGGAGCCCTAGACAAGGCCA**ATG**GGTTCATCAATGCCCACTGGCTCTCTGCCAAAGCCAAAAAGGTGTC
AGGCAGTCTCCAGCGTGCTGGCCGGGTCTCGGATGCCACCCCTGCTCACTGAGCCTGCATGGGCCTTGCCCCCGA
CCCTGTGGTCTCTGGGATTGGGGTCGGCTTACCCTGTAGCACAGACAGGGACTCCTGCTGCCCTGGGAGCTGTCT
CAAGCAAAATCTCTTGTCCCAGAGGTGCCCATGTGGGTCCGCTGTGTCCCCTGTCATCATCCTTGTTTTTTCTCA
TTTTGGCCAAGGGCAGGCTCCCTGGGACAGGCAGGGAACAACTGCGGAGATAT**TAG**TGATTCATAGGTTTGTACA
GTGTTTTATACTTTGCAAAGCACTTTATTAGCTCACACCTGTCCACTCACATGAAACTCGTGTTAGGCCCTGGGA
GGCCGACGGTAACTCTCACCGTGCCCTCAGATGAAGCACAGAGAGGTTGTTACTTGCCCGGGCCATCCAGTGGGC
TGGCTGGGTCTTGTGTCCCCATCTGTGGACCCCTCTAGGGTCTGAGATGAGATGAGAAGTGTCTCCTGTATCCAC
CTCTTCCTGGCCTCCCTTCCCCCACTTCCTGGTCCCTGTCCACTCCTCAGGTTGGTGCTCTCACTTCTTGAAAGC
TCTAGGCACCCCCGCCTCCCGCCAGGCTCCCCATTGGCTCCTGGCAGGCCAGCTGAGAATGAACAGGAGATGGAG
GCAGGCTGGGGTGTAGACTGCGAAGGCGGCCCTGCCGGGACTTCTTTCCAGTCCCCGGCGACCTCTTCGAATTCT
CTGCTATCTCTGGGGAGCCTCGGGTGGGAGGGGGTGTAAGAGACGCAGGGACGTGGGGAGAGGAGACAAGGCAGG
CAAGAACCACAGGGGACGGCGGACAGACGGGCGACATCCTGCGGAGGACGCCGTCAGTACCAGGAAGTGCAGGCG
ATGAGGAAGCGCACGTCGTCCAGCGGCCCCCACGGGCTGGGCTCGGGCTGGGGCTGGGGCTGGGGCTGGGGCTGG
GGCTGGGGCGGATGCCGGGGCTGTTCCGGGCCCTCCGGCGCCGCAGGCTGGGGCTGGGGCTGGGGCTGGGTTTGC
GCAGGCTCCGGGGCGCCGCGGCCG

FIGURE 4502

GGTGGTGGCGTCACGGCGCCAGCTCCTCCCGACGCCGAGACCATGGGGGCTCAGCTAAGCGGCGGCCGCGGCGCC
CCGGAGCCTGCGCAAACCCAGCCCCAGCCCCAGCCCCAGCCTGCGGCGCCGGAGGGCCCGGAACAGCCCCGGCAT
CCGCCCCAGCCCCAGCCCCAGCCCCAGCCCCAGCCCCAGCCCGAGCCCAGCCCGTGGGGGCCGCTGGACGACGTG
CGCTTCCTCATCGCCTGCACTTCCTGGTACTGACGGCGTCCTCCGCAGG**ATG**TCGCCCGTCTGTCCGCCGTCCCC
TGTGGTTCTTGCCTGCCTTGTCTCCTCTCCCCACGTCCCTGCGTCTCTTACACCCCCTCCCACCCGAGGCTCCCC
AGAGATAGCAGAGAATTCGAAGAGGTCGCCGGGGACTGGAAAGAAGTCCCGGCAGGGCCGCCTTCGCAGTCTACA
CCCCAGCCTGCTTCCCAGCCTACACCCAGACCCAGCTCAGACCTTCGTGACCACCCCATCCCTTTCTCCGGCTGG
CTGGGTCGGGGGCATCCCTCTCTGTCGCTGGCTTCCAGAGGCAGGACAGGCCTCCTGGTCATGTCCCAGGTCATG
GAGAAGCCCGTGCCACAGTGACCCTCCCCATACTCCTGGGGGGGCTGCTCTCCATCCTGGATCG**TAA**GGAGGCAT
CATCAGGCTGTGTTCCTGGAACCCCAATAACCCTGGGCCCCCAGGGCCAGCCTGTTGTAGAGGGAGGCTATCTGA
CCGCCGGTCTGGCAGAGGAGATGGGTGGGCAGCTCCCAGACACCCCAAAGGACCCGGTTCTCTTCCCAGAGCGTC
CTAAGGTTACTCTTGGAACCTGATCTTTGTTCCCTCATCCCAGGGAAATGACACACTCTGTATTTCTGTTTTATT
TAGAAATGATTTAAAAAACATTATACAAAGGCTGATCAGTTTAAAATGTGACTGACACTGAAATGCTGTGATGTC
CCCCAGGCTGAGGGGAAGCTAGGCTCTGGGGCCCCCAGTGCTTTGCCCCTCTGTCTGCCCTGTCCTGGGGTGATG
GACAAACAGATGACCACAGGCAGGAGAATCTGAGATTGGAAGCCTCTAGGCTGAGCCCTCTGGGCCTGGCCCCAC
ATCCCTCACCTCTGCAGCCTGGGCTGCCTGCCTCCATCTCCTGTTCATTCTCAGCTGGCCTGCCAGGAGCCAATG
GGGAGCCTGGCGGGAGGCGGGGGTGCCTAGAGCTTTCAAGAAGTGAGAGCACCAACCTGAGGAGTGGACAGGGAC
CAGGAAGTGGGGGAAGGGAGGCCAGGAAGAGGTGGATACAGGAGACACTTCTCATCTCATCTCAGACCCTAGAGG
GGTCCACAGATGGGGACACAAGACCCAGCCAGCCCACTGGATGGCCCGGGCAAGTAACAACCTCTCTGTGCTTCA
TCTGAGGGCACGGTGAGAGTTACCGTCGGCCTCCCAGGGCCTAACACGAGTTTCATGTGAGTGGACAGGTGTGAG
CTAATAAAGTGCTTTGCAAAGTAT

FIGURE 4503

ACGGAAACCTTTTTAGGGAGTCCAAGGTACAGTCGCCGCGTGCGGAGCTTGTTACTGGTTACTTGGCCTC**ATG**GC
GGTCCGAGCTTCGTTCGAGAACAACTGTGAGATCGGCTGCTTTGCCAAGCTCACCAACACCTACTGTCTGGTAGC
GATCGGAGGCTCAGAGAACTTCTACAGTGTGTTCGAGGGCGAGCTCTCCGATACCATCCCCGTGGTGCACGCGTC
TATCGCCGGCTGCCGCATCATCGGGCGCATGTGTGTGGGGAACAGGCACGGTCTCCTGGTACCCAACAATACCAC
CGACCAGGAGCTGCAACACATTCGCAACAGCCTCCCAGACACAGTGCAGATTAGGCGGGTGGAGGAGCGGCTCTC
AGCCTTGGGCAATGTCACCACCTGCAATGACTACGTGGCCTTGGTCCACCCAGACTTGGACAGGGAGACAGAAGA
AATTCTGGCAGATGTGCTCAAGGTGGAAGTCTTCAGACAGACAGTGGCCGACCAGGTGCTAGTAGGAAGCTACTG
TGTCTTCAGCAATCAGGGAGGGCTGGTGCATCCCAAGACTTCAATTGAAGACCAGGATGAGCTGTCCTCTCTTCT
TCAAGTCCCCCTTGTGGCGGGGACTGTGAACCGAGGCAGTGAGGTGATTGCTGCTGGGATGGTGGTGAATGACTG
GTGTGCCTTCTGTGGCCTGGACACAACCAGCACAGAGCTGTCAGTGGTGGAGAGTGTCTTCAAGCTGAATGAAGC
CCAGCCTAGCACCATTGCCACCAGCATGCGGGATTCCCTCATTGACAGCCTCACC**TGA**GTCACCTTCCAAGTTGT
TCCATGGGCTCCTGGCTCTGGACTGTGGCCAACCTTCTCCACATTCCGCCCAATCTGTACCGGATGCTGGCAGGG
AGGTGGCAGAGAGCTCACTGGGACTGAGGGGCTGGGCACCCAACCCTTTTCCACCTGTGCTTATCGCCTGGATCT
ATCATTACTGCAAAAACCTGCTCTGTTGTGCTGGCTGGCAGGCCCTGTGGCTGCTGGCTGAGGGTTCTGCTGTCC
TGTGCCACCCCATTAAAGTGCAGTTCCCTCCGG

FIGURE 4504

AGGAACCAGACTAGCATTTCTCAGTGGGTTCCAGTATGCAGCCGATTGATACCTGTGTCTCCTACCCAAGGACAG
GGGGACAGGGCTCTGTCTCGCACTTCCCAGTGGCCCCAG**ATG**AGCCAGTCCCGAGCATGTGGTGGATCAGAACAG
ATTCCTGGAATAGACATACAGCTGAATAGGAAGTATCACACCACACGTAAGCTTTCTACTACCAAAGATTCCCCA
CAGCCTGTTGAGGAGAAGGTTGGTGCTTTCACAAAGATAATAGAAGCCATGGGATTCACGGGACCTTTGAAATAC
AGTAAATGGAAGATTAAGATTGCGGCCCTGCGCATGTATACTAGCTGTGTGGAGAAAACTGACTTCGAGGAATTC
TTTCTAAGGTGTCAGATGCCTGATACATTCAATTCATGGTTTCTTATAACCCTACTCCACGTCTGGATGTGTCTA
GTCCGAATGAAGCAGGAAGGCCGGAGTGGGAAGTACATGTGTCGTATCATAGTTCATTTTATGTGGGAGGATGTT
CAGCAGCGCGGCAGAGTCATGGGGGTTAATCCCTATATCCTGAAGAAGAACATGATCCTCATGACAAATCATTTC
TATGCAGCGATCTTGGGATATGATGAGGGGATCCTTTCAGATGATCATGGGCTGGCCGCTGCCCTCTGGAGAACC
TTCTTCAACCGGAAATGTGAAGACCCTCGACATCTTGAATTGCTGGTAGAGTATGTGAGGAAACAGATACAGTAC
CTGGACTCCATGAACGGGGAGGATCTGCTTCTGACAGGGGAGGTGAGCTGGCGCCCTCTAGTGGAGAAGAATCCT
CAGAGCATCCTGAAGCCCCATTCTCCGACTTACAACGACGAGGGACTT**TGA**TGGGCTGGGCCCTCCGCACGGCCC
GCCAGCTGGCTTCGAGGAACCTCCAGGAGAGAAGTGCCTGTTGGTCCAGGACCCTGCAGAAAGTGGCCTGAACTG
ACCTCTGAACAGCATCTGTCAAATACCTGGCCCCATTTGTGTTGAGTTTCCTCTTAGTGTGCCCAGGAGTCTGAT
CTGCTGGGGTACAGGGCTGGGAGAACCCCTAGCTCTCCCGGGGTGTCCTCTCCCTTAGGGGAAGCCCCGAGTGAG
AGTCCCCCAGCACACACTCCCCAACCCCCTCCAGCAACTACATGTGACTGATAGCTTTTCCCAAAGGCCAAGGAA
GGGATGGTGTAGGTTCAAAAGGGAAACCCCCCAGGGCCTGCTGTGGCCTAGGAGCAGATTGTAATGCTGCCGAGT
CCGGTCGGTGACCACGCGTTGTCCCTCGGCTTTCAGCCATGGGGTTGAGTTGGCCATTAAAAGAAACAGAGACTT
CTCTCTGCCATGGCCCTTCTTTATTCCAGGGACTTAGAAACTTGCCTGAGATGGTGGACGCAGTAATGAGGGCAC
CGCGCAGCTCAGTTAGAGACGGAGAAAGGGAAGAGGCTGGGATGGTCTCTGCTGCTCTTGCCTCTAGTTCATGGA
GATGTGTCTCTGTTCAGGCCAAGATACAGCCAGCCAGGCCTGTCGTCTGGGACCCAGGAGGCCTCTGATGACCAA
GGGCTTTCACATCCTAAGTCATTTGGAAGGAGGCCTTGAGAACAAAGTCACCTTTGTCACTCCCAGTGAACTGAA
TGAGGAACATGCTGTCTCCTGTCTTGGCCTCCCCTTTCATGAGATACTGGGGAGAAGAGAACATTCCTCCTGGCT
TAGTTGTAGCAGACCCAGACCTGTGCCCAGCTTTGGTCCCCCTTCCCAACTTCTGAAGCACGTGCTGCAGAGCCA
CCTTGGTCTGAGCACCTGAGGACCAGCCCCTCCTCCCTCAGTGCGGGTCATCTCTTGGGGGATTTTCTTAAAGTG
AAGAAAGGGGGTGGGGAACCATATTGCCCCTCCCTCCCCCATCAAACTTCCTTCATTTAACTTGCTATAAAATGA
GTCATATAAAGAAACTCTATATGGGTGAGGTATATCCCACTTCTGTGAAAACATTACAAATCAAACCGCTTCTCT
CAGTTTATTTAAGATGCTTTTGTTGCGAGCGGAGCTCTAGAGTGAAGCCTCCTGTGTGTGTGTGAGATAATAACA
CCTTGTAACTCATTACAGCTGGGCACTATTTACATAAACCAGAGCTGAGCCAGGCAGGAATTTGCTGATTAATTT
ATTTTTAATGGAGTGAAGTATACCATGCACCAAAATAAACTTTACTGTGTGTACCTAACTGCTCCTGG

FIGURE 4505B

AACGGGAGCTGAAGGAGGCAGCCCGGCAGCACAGAGATGACCTTGCTGCCCTCCAAGAAGAGAGCAGCTCCCTGC
TGCAGGATAAGATGGACCTGCAGAAGCAGGTGGAGGACTTGAAGTCTCAGCTGGTGGCCCAGGATGACTCCCAGA
GGCTGGTGGAGCAGGAGGTTCAGGAGAAGCTGAGAGAGACCCAGGAGTATAACCGAATTCAGAAGGAGCTGGAGA
GAGAGAAAGCCAGCCTGACTCTGTCACTGATGGAAAAGGAACAGAGACTCCTTGTTTTACAAGAAGCTGACTCTA
TTCGACAACAAGAGCTGAGTGCCCTGCGCCAGGACATGCAGGAGGCCCAGGGAGAACAGAAAGAGCTCAGTGCTC
AGATGGAATTACTAAGGCAAGAGGTGAAGGAAAAGGAGGCTGACTTTCTGGCCCAGGAAGCACAGCTGCTGGAGG
AGCTGGAGGCGTCTCATATCACGGAGCAGCAGCTGCGAGCCTCCTTGTGGGCCCAGGAAGCCAAGGCAGCCCAAC
TACAGCTGCGACTGCGCAGCACAGAGAGCCAGCTAGAAGCGCTGGCCGCAGAGCAGCAGCCCGGGAACCAGGCCC
AGGCCCAGGCCCAGCTGGCCAGCCTCTACTCTGCCCTGCAGCAGGCCCTGGGGTCTGTTTGTGAGAGCAGGCCTG
AGCTGAGTGGTGGGGGAGACTCTGCTCCTTCCGTCTGGGGCCTTGAGCCAGACCAGAATGGAGCTAGGAGCCTCT
TTAAGAGAGGGCCCCTGCTGACTGCTCTCTCCGCTGAGGCAGTAGCATCTGCCCTCCACAAGCTTCATCAAGACC
TGTGGAAGACTCAACAGACCCGGGATGTTCTGAGGGATCAGGTCCAGAAACTGGAAGAGCGTCTAACTGATACTG
AGGCTGAGAAGAGCCAGGTCCACACAGAGTTGCAGGATCTGCAGAGACAGCTCTCCCAGAATCAGGAAGAGAAAT
CCAAGTGGGAAGGAAAGCAGAACTCCCTAGAATCTGAGCTGATGGAACTACATGAAACTATGGCATCCTTACAGA
GTCGCCTGCGGAGAGCAGAGCTACAGCGAATGGAAGCCCAGGGTGAGCGAGAGTTACTTCAGGCAGCCAAGGAGA
ACCTGACAGCCCAGGTGGAACACCTGCAAGCAGCTGTCGTAGAAGCCAGGGCTCAGGCAAGTGCTGCTGGCATCC
TGGAAGAAGACCTGAGAACGGCTCGCTCAGCACTGAAGCTGAAAAATGAGGAAGTAGAGAGTGAGCGTGAGAGAG
CCCAGGCTCTGCAAGAGCAGGGCGAACTGAAGGTGGCCCAAGGGAAGGCTCTGCAAGAGAATTTGGCCCTCCTGA
CCCAGACCCTAGCTGAAAGAGAAGAGGAGGTGGAGACTCTGCGGGGACAAATCCAGGAACTGGAGAAGCAACGGG
AAATGCAGAAGGCTGCTTTGGAATTGCTGTCTCTGGACCTGAAGAAGAGGAACCAAGAGGTAGATCTGCAGCAAG
AACAGATTCAGGAGCTAGAGAAGTGTAGGTCTGTTTTAGAGCATCTGCCCATGGCCGTCCAGGAGCGAGAGCAGA
AGCTGACTGTGCAGAGGGAGCAGATCAGAGAGCTCGAGAAGGATCGGGAGACTCAGAGGAACGTCTTGGAGCATC
AGCTTCTAGAACTTGAGAAGAAAGACCAAATGATTGAGTCCCAGAGAGGACAGGTTCAGGACCTGAAAAAGCAGT
TGGTTACTCTGGAATGCCTGGCCCTGGAACTGGAGGAAAACCATCACAAGATGGAGTGCCAGCAAAAACTGATCA
AGGAGCTGGAGGGCCAGAGGGAAACCCAGAGAGTGGCTTTGACCCACCTTACGCTGGACCTAGAAGAAAGGAGCC
AGGAGCTGCAGGCACAAAGCAGCCAGATCCATGACCTGGAGAGCCACAGCACCGTTCTGGCAAGAGAGCTGCAGG
AGAGGGACCAGGAGGTGAAGTCTCAGCGAGAACAGATCGAGGAGCTGCAGAGGCAGAAAGAGCATCTGACTCAGG
ATCTCGAGAGGAGAGACCAGGAGCTGATGCTGCAGAAGGAGAGGATTCAGGTTCTCGAGGATCAGAGGACCCGGC
AGACCAAGATCCTGGAGGAGGACCTGGAACAGATCAAGCTGTCCTTGAGAGAGCGAGGCCGGGAGCTGACCACTC
AGAGGCAGCTGATGCAGGAACGGGCAGAGGAAGGGAAGGGCCCAAGTAAAGCACAGCGCGGGAGCCTAGAGCACA
TGAAGCTGATCCTGCGTGATAAGGAGAAGGAGGTGGAATGTCAGCAGGAGCATATCCATGAACTCCAGGAGCTCA
AAGACCAGCTGGAGCAGCAGCTCCAGGGCCTGCACAGGAAGGTAGGTGAGACCAGCCTCCTCCTGTCCCAGCGAG
AGCAGGAAATAGTGGTCCTGCAGCAGCAACTGCAGGAAGCCAGGGAACAAGGGGAGCTGAAGGAGCAGTCACTTC
AGAGTCAACTGGATGAGGCCCAGAGAGCCCTAGCCCAGAGGGACCAGGAACTGGAGGCTCTGCAGCAAGAACAGC
AGCAGGCCCAGGGACAGGAGGAGAGGGTGAAGGAAAAGGCAGACGCCCTCCAGGGAGCTCTGGAGCAAGCCCATA
TGACACTGAAGGAGCGTCATGGAGAGCTTCAGGACCACAAGGAACAGGCACGAAGGCTGGAGGAAGAGCTGGCAG
TGGAGGGACGGCGGGTCCAGGCCCTGGAGGAGGTGCTGGGAGACCTAAGGGCTGAGTCTCGGGAACAGGAGAAAG
CTCTGTTGGCCCTCCAGCAGCAGTGTGCTGAGCAGGCACAGGAGCATGAGGTGGAGACCAGGGCCCTGCAGGACA
GCTGGCTGCAGGCCCAGGCAGTGCTCAAGGAACGGGACCAGGAGCTGGAAGCTCTGCGGGCAGAAAGTCAGTCCT
CCCGGCATCAGGAGGAGGCTGCCCGGGCCCGGGCTGAGGCTCTGCAGGAGGCCCTTGGCAAGGCTCATGCTGCCC
TGCAGGGGAAAGAGCAGCATCTCCTCGAGCAGGCAGAATTGAGCCGCAGTCTGGAGGCCAGCACTGCAACCCTGC
AAGCCTCCCTGGATGCCTGCCAGGCACACAGTCGGCAGCTGGAGGAGGCTCTGAGGATACAAGAAGGTGAGATCC
AGGACCAGGATCTCCGATACCAGGAGGATGTGCAGCAGCTGCAGCAGGCACTTGCCCAGAGGGATGAAGAGCTGA
GACATCAGCAGGAACGGGAGCAGCTGCTGGAGAAGTCTCTGGCCCAGAGGGTCCAAGAGAATATGATCCAAGAGA
AGCAGAATCTGGGGCAAGAGAGAGAAGAGGAGGAGATAAGGGGCCTTCATCAGAGTGTAAGGGAGCTACAGCTGA
CTCTAGCCCAAAAGGAACAGGAGATTCTGGAGCTGAGGGAGACCCAGCAAAGGAACAACCTGGAAGCCTTACCCC
ACAGCCACAAAACCTCCCCAATGGAGGAACAATCTCTAAAACTTGATTCTTTAGAGCCCAGGCTGCAGCGGGAGC
TGGAGCGGCTACAGGCAGCCCTGAGACAGACAGAAGCCAGGGAGATTGAGTGGAGGGAGAAGGCCCAGGACTTGG

FIGURE 4505C

CACTCTCCCTAGCGCAGACCAAGGCCAGTGTCAGCAGTCTGCAGGAGGTAGCCATGTTCCTACAAGCCTCTGTCC
TGGAGCGGGACTCAGAACAGCAAAGGCTGCAGGATGAACTGGAGCTCACCAGACGGGCTCTGGAGAAGGAGCGGC
TACACAGCCCAGGTGCAACCAGCACAGCAGAACTGGGGTCCAGAGGGGAGCAGGGTGTGCAGCTGGGAGAGGTCT
CAGGAGTGGAGGCTGAGCCTAGTCCTGATGGAATGGAGAAGCAGTCATGGAGACAAAGGCTTGAACACCTGCAGC
AAGCAGTGGCCCGGCTGGAGATTGACAGGAGCAGGCTGCAGCGCCACAATGTCCAGCTGCGGAGTACCTTGGAGC
AGGTGGAGCGAGAACGGAGGAAGCTGAAGAGGGAGGCCATGCGTGCGGCCCAGGCAGGGTCCCTAGAGATCAGCA
AGGCCACGGCTTCTTCACCCACACAGCAGGATGGGAGAGGACAGAAGAACTCAGATGCCAAGTGTGTGGCTGAAC
TGCAGAAAGAGGTGGTCCTGCTGCAAGCTCAGCTGACTTTGGAGCGGAAGCAGAAGCAGGACTACATCACCCGCT
CAGCACAGACCAGCCGTGAGCTAGCAGGCCTGCACCACAGCCTCTCACACTCACTTCTTGCCGTGGCCCAGGCCC
CTGAGGCCACTGTCCTGGAGGCAGAGACCCGCAGGCTGGATGAGTCCCTGACTCAAAGTCTGACATCCCCAGGGC
CAGTCCTGCTACACCCCAGCCCCAGCACTACCCAAGCCGCCTCCAGG**TAG**CAGCCACAGCCAGGAGCACACAGAC
AGAAGACTGTGTCATGGGTCATGGCCCCTCCGCACACCTACAGGTTTGCCAAAGGAAAAGCCTGGCTCTGTTAGG
CACCCAGGAGCCCCAGGTCGGCGGGTGTTCCCAGGAAGAGGAAGTAAATCTGCAACCCTGGGGAGGACCCCAACT
CACCTGGGAATGAGGCAAATTGCATTTGCTTGCTCCCTATGGAATCACCCAGAGGGGTGCCTTGCCCTGGCTGAG
GGACATGTACTGCCTCTCATCTAGAATTTATTTTCCTAGCACTTCACCACCTCCTTCATCTTCTCCTTCAACAAT
AAACCCTGAGATCTTTGCATTC

FIGURE 4506

CTGGCGTCCCCTTTCCGGCCGGTCCCC**ATG**GAGGCGCTGGGGAAGCTGAAGCAGTTCGATGCCTACCCCAAGACT
TTGGAGGACTTCCGGGTCAAGACCTGCGGGGGCGCCACCGTGACCATTGTCAGTGGCCTTCTCATGCTGCTACTG
TTCCTGTCCGAGCTGCAGTATTACCTCACCACGGAGGTGCATCCTGAGCTCTACGTGGACAAGTCGCGGGGAGAT
AAACTGAAGATCAACATCGATGTACTTTTTCCGCACATGCCTTGTGCCTATCTGAGTATTGATGCCATGGATGTG
GCCGGAGAACAGCAGCTGGATGTGGAACACAACCTGTTCAAGCAACGACTAGATAAAGATGGCATCCCCGTGAGC
TCAGAGGCTGAGCGGCATGAGCTTGGGAAAGTCGAGGTGACGGTGTTTGACCCTGACTCCCTGGACCCTGATCGC
TGTGAGAGCTGCTATGGTGCTGAGGCAGAAGATATCAAGTGCTGTAACACCTGTGAAGATGTGCGGGAGGCATAT
CGCCGTAGAGGCTGGGCCTTCAAGAACCCAGATACTATTGAGCAGTGCCGGCGAGAGGGCTTCAGCCAGAAGATG
CAGGAGCAGAAGAATGAAGGCTGCCAGGTGTATGGCTTCTTGGAAGTCAATAAGGTGGCCGGAAACTTCCACTTT
GCCCCTGGGAAGAGCTTCCAGCAGTCCCATGTGCACGTCCATGACTTGCAGAGCTTTGGCCTTGACAACATCAAC
ATGACCCACTACATCCAGCACCTGTCATTTGGGGAGGACTATCCAGGCATTGTGAACCCCCTGGACCACACCAAT
GTCACTGCGCCCCAAGCCTCCATGATGTTCCAGTACTTTGTGAAGGTGGTGCCCACTGTGTACATGAAGGTGGAC
GGAGAGGTACTGAGGACAAATCAGTTCTCTGTGACCAGACATGAGAAGGTTGCCAATGGGCTGTTGGGCGACCAA
GGCCTTCCCGGAGTCTTCGTCCTCTATGAGCTCTCGCCCATGATGGTGAAGCTGACGGAGAAGCACAGGTCCTTC
ACCCACTTCCTGACAGGTGTGTGCGCCATCATTGGGGGCATGTTCACAGTGGCTGGACTCATCGATTCGCTCATC
TACCACTCAGCACGAGCCATCCAGAAGAAAATTGATCTAGGGAAGACAACG**TAG**TCACCCTCGGTGCTTCCTCTG
TCTCCTCTTTCTCCCTGGCCTGTGGTTGTCCCCCAGCCTCTGCCACCCTCCACCTCCTCGGTCAGCCCCAGCCCC
AGGTTGATAAATCTATTGATTGATTGTGATAGT

FIGURE 4507

ATCAAGGCCCTGGGCTGGAGGAAGACATCCCAGATCCAGAGGAGCTCGACTGGGGGTCCAAGTACTATGCGTCGC
TGCAGGAGCTCCAGGGGCAGCACAACTTTGATGAAGATGAAATGGATGATCCTGGAGATTCAGATGGGGTCAACC
TCATTTCTATGGTTGGGGAGATCCAAGACCAGGGTGAGGCTGAAGTCAAAGGCACTGTGTCCCCAAAAAAAGCAG
TTGCCACCCTGAAGATCTACAACAGGTCCCTGAAGGAAGAATTTAACCACTTTGAAGACTGGCTGAATGTGTTTC
CTCTGTACCGAGGGCAAGGGGGCCAGGATGGAGGTGGAGAAGAGGAAGGATCTGGACACCTTGTGGGCAAGTTCA
AGGGCTCCTTCCTCATTTACCCTGAATCAGAGGCAGTGTTGTTCTCTGAGCCCCAGATCTCCCGGGGGATCCCAC
AGAACCGGCCCATCAAGCTCCTGGTCAGAGTGTATGTTGTAAAGGCTACCAACCTGGCTCCTGCAGACCCCAATG
GCAAAGCAGACCCTTACGTGGTGGTGAGCGCTGGCCGGGAGCGGCAGGACACCAAGGAACGCTACATCCCCAAGC
AGCTCAACCCCATCTTTGGAGAGATCCTGGAGCTAAGCATCTCTCTCCCAGCTGAGACGGAGCTGACGGTCGCCG
TATTTGATCATGACCTCGTGGGTTCTGACGACCTCATCGGGGAGACCCACATTGATCTGGAAAACCGATTCTATA
GCCACCACAGAGCAAACTGTGGGCTGGCCTCCCAGTATGAAGTGTGGGTCCAGCAGGGCCCACAGGAGCCATTCT
GAGTTTCTGGCCAAACACATTCAAGCTCACATTCCCTTTTGTGTCTCCAGATCCTATGATTTCATGGAAGGGGAC
CCTCCCACCCACCGCCACTGCCAACCAAGACATAGCTCAGTGGTCAAGACTTGGGCTTGGGAGTCGGGATCCTGT
AACGAATGTCACTTGACCGCTTTCTTTTTTTATGAAACAGTCTCGCTCTGTCTCCCAGGTTGGAGTGCAGTGGCA
CGATCTCGGCTGACTGCAACCTCCACCTCCTGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCCAGTAGCTGGGA
TTACAGGCGTGGGCCCCCATGTCCAGCTAATTTTTATATTTTCGCTCTGTCTCCCAGGTTGGAGTGCAGTGGCAC
GATCTCGGCTGACTGCAACCTCCACCTCCTGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCCAGTAGCTGGGAT
TACAGGCGTGGGCCCCCATGTCCAGCTAATTTTTATATTTTTAGTAGAGACAGGGTTTCACCATGTTGTCCAGGC
TGGTCTTGAACCCCTGACCTCAAGTGATCCACCCACCTCTGCCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCA
CCATGCCAGGCCCTCTTAACCTCTTCAAGTCTGTTTTCTCATCTGCAAAACAGAGGTAATAAGATCAGTATCTTC
TTAATGGAAGCACCTGGACTACATTTTTTTCATTCATTGTTATCATAAATGAGGACTAACCTGTCTCCCGTTGGG
AGTTTTGAACCTAGACCTCATGTCTTCATGACGTCATCACTGCCCCAGGCCCAGCTGTGTCCCTACACCAGCCCC
AGCTGACGCATCTTCTTTTTCTGCCTGTAGAGATGGTTACAATGCCTGGCGTGATGCATTCTGGCCTTCGCAGAT
CCTGGCGGGGCTGTGCCAACGCTGTGGCCTCCCTGCCCCTGAATACCGAGCCGGTGCTGTCAAGGTGGGCAGCAA
AGTCTTCCTGACACCACCGGAGACCCTGCCCCCAGGGATCTCTTCACATGTGGATTGACATCTTTCCTCAAGATG
TGCCTGCTCCACCCCCAGTTGACATCAAGCCTCGGCAGCCAATCAGCTATGAGCTCAGAGTTGTCATCTGGAACA
CGGAGGATGTGGTTCTGGATGACGAGAATCCACTCACCGGAGAGATGTCGAGTGACATCTATGTGAAGAGCTGGG
TGAAGGGGTTGGAGCATGACAAGCAGGAGACAGACGTTCACTTCAACTCCCTGACTGGGGAGGGGAACTTCAATT
GGCGCTTTGTGTTCCGCTTTGACTACCTGCCCACGGAGCGGGAGGTGAGCGTCTGGCGCAGGTCTGGACCCTTTG
CCCTGGAGGAGGCGGAGTTCCGGCAGCCTGCAGTGCTGGTCCTGCAGGTCTGGGACTATGACCGCATCTCTGCCA
ATGACTTCCTTGGATCCCTGGAGTTGCAGCTACCAGACATGGTGCGTGGGGCCCGGGGCCCCGAGCTCTGCTCTG
TGCAGCTGGCCCGCAATGGGGCCGGGCCGAGGTGCAATCTGTTTCGCTGCCGCCGCCTGAGGGGCTGGTGGCCGG
TAGTGAAGCTGAAGGAGGCAGAGGACGTGGAGCGGGAGGCGCAGGAGGCTCAGGCTGGCAAGAAGAAGCGAAAGC
AGAGGAGGAGGAAGGGCCGGCCAGAAGACCTGGAGTTCACAGACATGGGTGGCAATGTGTACATCCTCACGGGCA
AGGTGGAGGCAGAGTTTGAGCTGCTGACTGTGGAGGAGGCCGAGAAACGGCCAGTGGGGAAGGGGCGGAAGCAGC
CAGAGCCTCTGGAGAAACCCAGCCGCCCCAAAACTTCCTTCAACTGGTTTGTGAACCCGCTGAAGACCTTTGTCT
TCTTCATCTGGCGCCGGTACTGGCGCACCCTGGTGCTGCTGCTACTGGTGCTGCTCACCGTCTTCCTCCTCCTGG
TCTTCTACACCATCCCTGGCCAGATCAGCCAGGTCATCTTCCGTCCCCTCCACAAGTGACTCTCGCTGACCTTGG
ACACTCACCCAGGGTGCCAACCCTTCAATGCCTGCTCCTGGAAGTCTTTCTTACCCATGTGAGCTACCCCAGAGT
CTAGTGCTTCCTCTGAATAAACCTATCACAGCC

FIGURE 4508

CAAATATTCCATTCAGCATTACAAAGATGGATGTTCTTCAGTTCCTAGAAGGAATCCCAGTGGATGAAAATGCTG
TACATGTTCTTGTTGATAACAATGGGCAAGGTCTAGGACAGGCATTGGTTCAGTTTAAAAATGAAGATGATGCAC
ATGGCCCACTGCGTGACCTTGGTTCAGCTGTCCATTTCCTGTGACCATCTCATTGACAAGGACATCGGCTCCAAG
TCTGACCCACTCTGCGTCCTTTTACAGGATGTGGGAGGGGGCAGCTGGGCTGAGCTTGGCCGGACTGAACGGGTG
CGGAACTGCTCAAGCCCTGAGTTCTCCAAGACTCTACAGCTTGAGTACCGCTTTGAGACAGTCCAGAAGCTACGC
TTTGGAATCTATGACATAGACAACAAGACGCCAGAGCTGAGGGATGATGACTTCCTAGGGGGTGCTGAGTGTTCC
CTAGGACAGATTGTGTCCAGCCAGGTACTGACTCTCCCCTTGATGCTGAAGCCTGGAAAACCTGCTGGGCGGGGG
ACCATCACGGTCTCAGCTCAGGAATTAAAGGACAATCGTGTAGTAACCATGGAGGTAGAGGCCAGAAACCTAGAT
AAGAAGGACTTCCTGGGAAAATCAGATCCATTTCTGGAGTTCTTCCGCCAGGGTGATGGGAAATGGCACCTGGTG
TACAGATCTGAGGTCATCAAGAACAACCTGAACCCTACATGGAAGCGTTTCTCAGTCCCCGTTCAGCATTTCTGT
GGTGGGAACCCCAGCACACCCATCCAGGTGCAATGCTCCGATTATGACAGTGACGGGTCACATGATCTCATCGGT
ACCTTCCACACCAGCTTGGCCCAGCTGCAGGCAGTCCCGGCTGAGTTTGAATGCATCCACCCTGAGAAGCAGCAG
AAAAAGAAAAGCTACAAGAACTCTGGAACTATCCGTGTCAAGATTTGTCGGGTAGAAACAGAGTACTCCTTTCTG
GACTATGTGATGGGAGGCTGTCAGATCAACTTCACTGTGGGCGTGGACTTCACTGGCTCCAATGGAGACCCCTCC
TCACCTGACTCCCTACACTACCTGAGTCCAACAGGGGTCAATGAGTACCTGATGGCACTGTGGAGTGTGGGCAGC
GTGGTTCAGGACTATGACTCAGACAAGCTGTTCCCTGCATTTGGATTTGGGGCCCAGGTTCCCCCTGACTGGCAG
GTCTCGCATGAATTTGCCTTGAATTTCAACCCCAGTAACCCCTACTGTGCAGGCATCCAGGGCATTGTGGATGCC
TACCGCCAAGCCCTGCCCCAAGTTCGCCTCTATGGCCCTACCAACTTTGCACCCATCATCAACCATGTGGCCAGG
TTTGCAGCCCAGGCTGCACATCAGGGGACTGCCTCGCAATACTTCATGCTGTTGCTGCTGACTGATGGTGCTGTG
ACGGATGTGGAAGCCACACGTGAGGCTGTGGTGCGTGCCTCGAACCTGCCCATGTCAGTGATCATTGTGGGTGTG
GGTGGTGCTGACTTTGAGGCCATGGAGCAGCTGGACGCTGATGGTGGACCCCTGCATACACGTTCTGGGCAGGCT
GCTGCCCGCGACATTGTGCAGTTTGTACCCTACCGCCGGTTCCAGAATGCCCCTCGGGAGGCATTGGCACAGACC
GTGCTCGCAGAAGTGCCCACACAACTGGTCTCATACTTCAGGGCCCAGGGTTGGGCCCCGCTCAAGCCACTTCCA
CCCTCAGCCAAGGATCCTGCACAGGCCCCCCAGGCC**TAG**GTTCCCTTGGAGGCTGTGGCAAGTCCTCAATCCTGT
GTCCCAGAGGTCCCTCTGGGCCACAACCCAACCCTTCTCACTCTCCTCAGTGCTAGCACTTTGTATTTTTTGATA
CTTTTATACTTGTTTCTGCTTTTGCTGCTCTTGATCCCACCTTTGCTCCTGACAACCCTCATTCAATAAAGACCA
GTGAAGACC

FIGURE 4509A

GCTTCCTTTGGGAGCCCAACGTTTAGCTCAACTGTTCCAAGCACAGCCTCTCCAATGAACACAGTCCCGCCGCCA
CCAATTCCTCCAATTCCAGCGATGCCATCTCTGTGCCACCC**ATG**ACCCCACTGCCACCCATGTCGGGCATGCCGC
CCTTGAATCCGCCACCTGTGGCACCTCTACCTGCTGGAATGAATGGCTCTGGAGCACCTATGAATTTGAACAATA
ATCTGAATCCTATGTTTCTTGGTCCGTTGAATCCTGTTAACCCTATCCAGATGAACTCTCAGAGCAGTGTGAAGC
CACTCCCCATCAACCCTGATGATCTGTATGTCAGTGTGCATGGAATGCCCTTTTCTGCAATGGAAAATGATGTCA
GAGATTTTTTTCATGGGCTCCGTGTTGATGCAGTGCATTTGTTGAAAGATCATGTAGGTCGAAATAATGGGAATG
GATTGGTTAAGTTTCTCTCCCCTCAAGATACATTTGAAGCTTTGAAACGAAACAGAATGCTGATGATTCAACGCT
ATGTGGAAGTTAGCCCTGCCACAGAAAGACAGTGGGTAGCTGCTGGAGGCCATATCACTTTTAAGCAAAATATGG
GACCTTCTGGACAAACTCATCCCCCTCCTCAGACACTTCCCAGGTCAAAATCGCCCAGTGGGCAGAAAAGATCAA
GGTCAAGATCACCACATGAGGCTGGTTTTTGTGTTTACTTGAAAGGGCTACCATTTGAAGCAGAAAACAAACATG
TCATTGATTTTTTTAAAAAGCTGGATATTGTGGAAGATAGTATTTATATAGCTTATGGACCCAATGGGAAAGCAA
CTGGCGAAGGCTTTGTAGAGTTCAGAAATGAGGCTGACTATAAGGCTGCTCTGTGTCGTCATAAACAGTACATGG
GCAATCGCTTTATTCAAGTTCATCCAATTACTAAGAAAGGTATGCTAGAAAAGATAGATATGATTCGAAAAAGAC
TGCAGAACTTCAGCTATGACCAGAGGGAAATGATACTAAATCCAGAGGGGGATGTCAACTCTGCCAAAGTCTGTG
CCCACATAACAAATATTCCATTCAGCATTACAAAGATGGATGTTCTTCAGTTCCTAGAAGGAATCCCAGTGGATG
AAAATGCTGTACATGTTCTTGTTGATAACAATGGGCAAGGTCTAGGACAGGCATTGGTTCAGTTTAAAAATGAAG
ATGATGCACGTAAGTCTGAACGCTTACACCGTAAAAAACTTAATGGGAGAGAAGCTTTTGTTCATGTAGTTACCC
TAGAAGATATGAGAGAGATTGAGAAAAATCCCCCTGCCCAAGGAAAAAAGGGATTAAAGATGCCTGTGCCAGGTA
ATCCTGCAGTTCCAGGAATGCCCAATGCGGGACTGCCCGGTGTGGGACTGCCCAGTGCAGGACTTCCCGGTGCAG
GCCTGCCCAGCACAGGACTGCCTGGTTCAGCAATAACCAGTGCAGGACTGCCTGGTGCGGGAATGCCCAGTGCAG
GAATACCTAGTGCAGGAGGTGAAGAGCATGCCTTCCTGACTGTAGGATCAAAGGAAGCCAATAATGGGCCTCCAT
TTAACTTTCCTGGTAATTTTGGTGGATCAAATGCCTTTGGGCCACCAATCCCTCCTCCAGGATTAGGAGGCGGGG
CCTTTGGTGATGCTAGGCCTGGTATGCCTTCAGTTGGAAACAGTGGTTTGCCTGGTCTAGGACTGGATGTTCCGG
GTTTTGGAGGTGGACCAAACAATTTAAGTGGGCCATCGGGATTTGGAGGGGGCCCTCAGAATTTTGGAAATGGCC
CTGGTAGCTTAGGCGGTCCCCCGGGGTTTGGAAGTGGCCCTCCTGGTCTTGGAAGTGCCCCTGGGCATTTGGGTG
GGCCACCAGCTTTTGGGCCTGGCCCCGGCCCCGGCCCCGGCCCTGGCCCAATCCATATTGGTGGTCCCCCTGGCT
TTGCATCTAGTTCTGGAAAACCAGGACCGACAGTAATTAAAGTGCAAAACATGCCCTTTACTGTGTCTATTGATG
AGATTTTAGATTTCTTTTATGGCTATCAAGTAATCCCAGGCTCAGTGTGTTTAAAATACAATGAAAAAGGTATGC
CCACAGGTGAAGCCATGGTGGCCTTTGAGTCTCGGGATGAAGCCACAGCTGCTGTCATTGACTTAAATGACAGGC
CTATAGGTTCAAGAAAAGTAAAACTTGTATTAGGG**TAG**CCATTCACATCATTTTTTATAGGGTAGATCTTCATAT
TGCTGTGATTAATGCATCCAGATTGTTTTCCTAGTATTTCCAGGTTAGAACCTGTGGATTGTTTCAATTGCATAT
AGCTTGGTTTCCATAACATAGAGCATTGGTTGACTGTTTACAGAAGACTCACTCACCAGGATAAACATTGCTGTA
TGTTACAGTAAAGCTATCTGGAGAGAACACATAAATGATTTTGGCATACCATTAGAGAAACCATTTGTAAAACTC
AAATGACCACATAAAGCTTATCAAGGAGTCTAGATTGGTTTTGTTTTATACCATATGGGATGAAGAAAATAGAAA
TGTCAGTAGAACTCATTGAGGGTGCTCTTGCCAGCTGCTGAAAATAGAAGTTGGCTACTCTCAGAATTTGGTTTA
AAGCTGGACAGATTTGCTTTGTTATAGGGTAAAGCTTTGTCTAAAGTCCTCATTTTCTTTTAAAATTGAATAAAA
TTTCTGTATACAGATTCATTGTATGTACCTTTATTGCTTCTTAAGGGTCCTTGCTGTATAGACAGTCCTGCTTCA
GAAGTTGCTGCTTTGTTTGTCTAATTGACTCATTTGTAAATGAGCAGAACTGTTTTGTTGGTTTTTTTCCCTAAA
TATAAAAGTCCACACTTCGTTTGTGCTATAACCTCAAACTTTGATTTCTAATGTCACACTTAAAACTGTGTGGAA
TAAGACTTTTGCCATAAAAATAAACTATGGAGTCCTTTATCTACCAGAGCCTTTTTGGTTTGACCGCCACGATTT
AGGTTAGTCAGTTTAAAAATTGTTCATGTTGTTTGGATGGTATCGAAAACCAGAAACCACTTTTAATAATGTGTT
TAAGATACTTGATTTGAAGTCCTTTTCATATGGACTAATTGTAGTATCAATTTCCTCCTGTCCCGATTATGTGAA
ATTTTGGCCTTTAAACAAAGAGGGGCCCATTCATAAGAAAGTGTTATATCTAGGTTTTTAAAACTGAAGTTGAAA
TTATCTTTGTTAGCAGTAGTAGTATAGAATAAAAGATCCGTATGCTGGTTCGTAGATTGATACGTGTTAGTCCTG
TTATTTGGAGGCTTTTTGGCATAGTTGTTCGATCAGGAGCCTGTTTACTAAAAGTCTTCATACAGAGTACAAGTG
CAGCCGCCAGAGGAGAAAATTGAGATTCTTGACCCTTTCATACTCTTTTCTTTGGTATTCAGGACACTAAGGCAG
GAGGACCACATGAGTTCTGGTTGGTAAGTGTCCTTGTCATGAAAACACTTGCCTTACAAGGCTCTAATTATGATT
TCCCTAGTCAGTGCTCTGAAGATGTGTCACATTATATTATAAACAATACGGAAGGGGAGATAGGTGAGATGATAT

FIGURE 4509B

GAAAAACAAATTTTCTCACTGTCATAAAAGGCTCTAATTATGGTTACTTTCCTTGTGATGAAAAACTTGGCCTTA
CAGGGCTCTAGTTATGGTTACTTTCCCTAGTCAATGCTCTGAAAATGTGTCACATTATAAACAATACAGAAGGAG
AGATAGATGAGAGATCATGAAAACCAAATTTTATCTTTTACATGGCCCCTTTGTCTTCGTTTGAAACATCCCCAA
CATTTCCTACAAATCAGCGTAGTTACAAAGGGGTCAGTCTTTTAAAATAAGTATTTCCTATTAAACTATATATAT
ATACAGTGCCTTTTTGGTGTTGTGAGTCAGTGGAACACTGAAATACAGCGGTTGTGTAATTTAAGAGTGGCAACA
GTTTCATTTGATAAGATTTGAAAAGGCTTTTTATCACTACAATCTTAGAGGATTGACAGTACAGGATTTTTGTTT
AAGAGAAGGATTGTTTAGACTCAAGAGGTGACTATGTTGTGGGTCTTTTGATAATTCATGAATACAGATTTGCTT
TGACCGATCACTAGATACTGCCTCCTCAATTTCAAAAGCAATATAACGTTTGTATATGCTGTTTAATTTAAGTTA
ATGTTAAGTAATCATTTCTCATTCCAAAGACAATGCAAAAAACTTCAGCACTGCTTGAGAGTTGTATTTCAGCCA
CAGATATTTTCTCCATTGGAAAGCTATTTTCATTTTAGAAAAATGGGTTGTTTGAAGATGAAAGTCTTTTATCTT
TTTTCACAATTTATTTTGGTTATATGTTCGTACATTCTTATTAAATATTTCATACACTTTATTGCAACTACTTTG
TTATTTCTACATCTTAGATAAATGCTGAAAAGGAAAACGATTTCATTGTTCATCTAATTAAATAAATTAAAAGAG
CGGTTTGTGTAGAAATTGGAGAGAACTATGTTTTATATGAATCACAACAGTGCTCGTTGTGGACTGTAATTAAAT
GCTTTGCCCTCTGGAACTTG

FIGURE 4510

GAGCCTGGGGCCCAGGACTGCAGCGGCTTCGGAAGGTGGGCTCTGCCAGCGGGACC**ATG**CTGCTCCGAGCCGCTT
GGAGGCGGGCGGCAGTGGCGGTGACAGCGGCTCCAGGGCCGAAGCCCGCGGCGCCCACTCGGGGGCTGCGCCTGC
GCGTTGGAGACCGTGCTCCTCAGTCTGCGGTTCCCGCAGATACAGCCGCTGCCCCGGAGGTGGGGCCAGTGCTGC
GACCTCTCTATATGGATGTGCAAGCTACAACTCCTCTGGACCCCCGGGTGCTTGATGCCATGCTCCCTTACCTAA
TCAACTACTATGGGAACCCACACTCCCGGACACATGCTTATGGCTGGGAGAGTGAGGCAGCCATGGAACGTGCTC
GTCAGCAAGTAGCATCTCTGATTGGAGCTGATCCTCGTGAGATCATTTTTACTAGTGGTGCTACTGAATCCAACA
ACATAGCAATTAAGGGGGTGGCCCGATTCTACAGGTCACGGAAAAAGCACTTGATCACCACCCAGACAGAACACA
AATGTGTCTTGGACTCCTGCCGTTCACTGGAAGCTGAGGGCTTTCAGGTCACCTACCTCCCAGTGCAGAAGAGTG
GGATCATTGACCTAAAGGAACTAGAGGCTGCTATCCAGCCAGATACTAGCCTGGTGTCAGTCATGACTGTGAACA
ATGAGATTGGAGTGAAGCAGCCTATTGCAGAAATAGGGCGGATTTGCAGTTCCAGAAAGGTATATTTCCATACTG
ATGCAGCCCAGGCTGTTGGAAAAATCCCACTTGATGTCAATGACATGAAAATTGATCTCATGAGCATTAGTGGTC
ACAAAATCTACGGTCCCAAAGGGGTTGGTGCCATCTACATCCGTCGCCGGCCCCGTGTGCGTGTGGAGGCCCTGC
AGAGTGGAGGGGGGCAGGAGCGGGGTATGCGGTCTGGGACAGTGCCCACACCCTTAGTGGTGGGGCTGGGGGCTG
CGTGTGAGGTGGCACAGCAAGAGATGGAGTATGACCACAAGCGAATCTCAAAGTTGTCAGAGCGGCTGATACAGA
ATATAATGAAGAGCCTTCCAGATGTGGTGATGAATGGGGACCCTAAGCACCATTATCCCGGCTGTATCAACCTCT
CCTTTGCATATGTGGAAGGGGAAAGTCTGCTGATGGCACTGAAGGACGTTGCCTTATCCTCAGGGAGTGCCTGCA
CCTCTGCATCCCTGGAGCCCTCTTATGTGCTTAGAGCAATTGGCACTGATGAGGATTTAGCGCACTCTTCTATCA
GGTTTGGAATTGGCCGCTTCACTACAGAGGAGGAAGTGGACTACACAGTGGAGAAATGCATTCAGCATGTGAAGC
GTCTTCGAGAAATGAGCCCTCTCTGGGAGATGGTTCAGGATGGCATTGACCTCAAGAGCATCAAGTGGACCCAAC
AC**TAG**AAGAATAGGGCCCTGACTTTGTGCTGGTCTGGCCCCTCCTGCCTCACCAACCCGTGCACAACCAGACACC
TTGTTACACCTAGTGGATGCTCTAGATTGGTATAGACCAGTTGACTTCAGCATCAGTCCACCTCTATGACAGAAA
CACAAGAAAACTGTCTTTCCCTAGCTTCAGTTCCTTGGGTGTGGAGCACTCCCCATTTCTTCTCGGGTCTTAAAG
TGTGTGGACATTTTCATCCCGAAGCCATAGAGACATTTGCTGTCATATTGCTGCTGGGCACATCTGTGCTCTTGG
TGAGGAGAGCAAGAGGAACCAGAAGAAGTCTCTTTGGTCAGGGACCATGATGCTCTACATGGACATTTGAGTCTT
CGTCTTCTGCTGCTGCTCGGCTGGACCAGCTTCTTTAACAGCAAGCATAATCCACTTCAATGTAATATTTTCTGT
AGCTCCAAAGGCTATCTCTTCATATTGACTGCAGACAGACTGAATGGACAGTTTCTTAGAGGGCTTGTCTCCTTT
CTACCCTTGTCCTCTTTCCTTTCCTTTGACCTAATGGAGCTAGAAATATGTCTGTGACTCCACCAGTTATTCTAA
TAATTTGTTTTCTTGAAAATTGTTAATTTCAAGACTGGAGAAATAAACTCACCTTCTATTTACTCTGTGACTTTA
TGAGAGGTTGAGGGAAAAGTGGAAGCTGTACTTGGGAATTGTGGAGAAGACCGCCACTCCATCTGATTTGCATAA
ATGACTCAGTGGGCTTTTGTATCTCTTCATTTAAGAATTATTTGAATGCCTGCCAGGAGCCAGATTTGTTCTGGG
TATTAGGAATACACTGGTTAACAGGACCAAAAAAGACCCTGCCCTCACTGAGTTTTAAATTTTAGTGGAGAGATG
GAAAATAATTAAACAAATAAACAATGTTATAGATTGTG

FIGURE 4511

GACGCGGGGCCGGAACGCGAAGAGGGTGGTGGAGTCGGGCTACCCACTGATTTTCCTTCCCTTACTTCCCCTGAG
CCCTTGGGCCCACTTCCCAGCCTACCGCTTCCGTCCCCGCCCGACTCTTGGGCCAGCGCCTGGGCCCACACTTTC
CTATCCCCCGCAG**ATG**CCGGTGGCCGTGGGTCCCTACGGACAGTCCCAGCCAAGCTGCTTCGACCGTGTCAAAAT
GGGCTTCGTGATGGGTTGCGCCGTGGGCATGGCGGCCGGGGCGCTCTTCGGCACCTTTTCCTGTCTCAGGATCGG
AATGCGGGGTCGAGAGCTGATGGGCGGCATTGGGAAAACCATGATGCAGAGTGGCGGCACCTTTGGCACATTCAT
GGCCATTGGGATGGGCATCCGATGC**TAA**CCATGGTTGCCAACTACATCTGTCCCTTCCCATCAATCCCAGCCCAT
GTACTAATAAAAGAAAGTCTTTGAGT

FIGURE 4512

CGGGCTGGGCGGTTCCGCGGCCTGGGCCTAGGGGCTTAACAGTAGCAACAGAAGCGGCGGCGGCGGCAGCAGCAG
CAGCAGCAGCAGCAATCTCTTCCCGAACACGAGCACCACAGGCGCCCGAAGGCCGGAACAGGCGTTTAGAGAAAA
TGGCAGACGATATTGATATTGAAGCAATGCTTGAGGCTCCTTACAAGAAGGATGAGAACAAGTTGAGCAGTGCCA
ACGGCCATGAAGAACGTAGCAAAAAGAGGAAAAAAAGCAAGAGCAGAAGTCGTAGTCATGAACGAAAGAGAAGCA
AAAGTAAGGAACGGAAGCGAAGTAGAGACAGAGAAAGGAAAAAGAGCAAAAGCCGTGAAAGAAAGCGAAGTAGAA
GCAAAGAGAGGCGACGGAGCCGCTCAAGAAGTCGAGATCGAAGATTTAGAGGCCGCTACAGAAGTCCTTACTCCG
GACCAAAATTTAACAGTGCCATCCGAGGAAAGATTGGGTTGCCTCATAGCATCAAATTAAGCAGACGACGTTCCC
GAAGCAAAAGTCCATTCAGAAAAGACAAGAGCCCTGTGAGAGAACCTATTGATAATTTAACTCCTGAGGAAAGAG
ATGCAAGGACAGTCTTCTGTATGCAGCTGGCGGCAAGAATTCGACCAAGGGATTTGGAAGAGTTTTTCTCTACAG
TAGGAAAGGTTCGAGATGTGAGGATGATTTCTGACAGAAATTCAAGACGTTCCAAAGGAATTGCTTATGTGGAGT
TCGTCGATGTTAGCTCAGTGCCTCTAGCAATAGGATTAACTGGCCAACGAGTTTTAGGCGTGCCAATCATAGTAC
AGGCATCACAGGCAGAAAAAAACAGAGCTGCAGCAATGGCAAACAATTTACAAAAGGGAAGTGCTGGACCTATGA
GGCTTTATGTGGGCTCATTACACTTCAACATAACTGAAGATATGCTTCGTGGGATCTTTGAGCCTTTTGGAAGAA
TTGAAAGTATCCAGCTGATGATGGACAGTGAAACTGGTCGATCCAAGGGATATGGATTTATTACATTTTCTGACT
CAGAATGTGCCAAAAAGGCTTTGGAACAACTTAATGGATTTGAACTAGCAGGAAGACCAATGAAAGTTGGTCATG
TTACTGAACGTACTGATGCTTCGAGTGCTAGTTCATTTTTGGACAGTGATGAACTGGAAAGGACTGGAATTGATT
TGGGAACAACTGGTCGTCTTCAGTTAATGGCAAGACTTGCAGAGGGTACAGGTTTGCAGATTCCGCCAGCAGCAC
AGCAAGCTCTACAGATGAGTGGCTCTTTGGCATTTGGTGCTGTGGCAGATTTGCAAACAAGACTTTCCCAGCAGA
CTGAAGCTTCAGCTTTAGCTGCAGCTGCCTCTGTTCAGCCACTTGCAACACAATGTTTCCAACTCTCTAACATGT
TTAACCCTCAAACAGAAGAAGAAGTTGGATGGGATACCGAGATTAAGGATGATGTGATTGAAGAATGTAATAAAC
ATGGAGGAGTTATTCATATTTATGTTGACAAAAATTCAGCTCAGGGCAATGTGTATGTGAAGTGCCCATCAATTG
CTGCAGCTATTGCTGCTGTCAATGCATTGCATGGCAGGTGGTTTGCTGGTAAAATGATAACAGCAGCATATGTAC
CTCTTCCAACTTACCACAACCTGTTTCCTGATTCTATGACAGCAACACAGCTACTGGTTCCAAGTAGACGATGAA
GGAAGATATAGTCCCTTATGTATATAGCTTTTTTTCTTTCTTGAGAATTCATCTTGAGTTATCTTTTATTTAGAT
AAAAATAAAGAGGCAAGGATCTACTGTCATTTGTATGCAATTTCCTGTTACCTTGAAAAAATAAAAATGTTAACA
GGAATGCAGTGTGCTCATTCTCCCTAAATAGTAAATCCCACTGTATACAAAACTGTTCTCTTGTTCTGCCTTTTA
AAATGTTCATGTAGAAAATTAATGAACTATAGGAATAGCTCTAGGAGAACAAATGTGCTTTCTGTAAAAAGGCAG
ACCAGGGATGTAATGTTTTTAATGTTTCAGAAGCCTAACTTTTTACACAGTGGTTACATTTCACATTTCACTAAT
GTTGATATTTGGCTGATGGTTGAGCAGTTTCTGAAATACACATTTAGTGTATGGAAATACAAGACAGCTAAAGGG
CTGTTTGGTTAGCATCTCATCTTGCATTCTGATCAATTGGCAAGAAAGGGAGATTTCAAAATTATATTTCTTGAT
GGTATCTTTTCAATTAATGTATCTGTAAAAGTTTCTTTGTAAATACTATGTGTTCTGGTGTGTCTTAAAATTCCA
AACAAAATGATCCCTGCATTTCCTGAAGATGTTTAAACGTGAGAGTCTGGTAGGCAAAGCAGTCTGAGAAAGAAA
TAGGAAATGCAGAAATAGGTTTTGTCTGGTTGCATATAATCTTTGCTCTTTTTAAGCTCTGTGAGCTCTGAAATA
TATTTTTGGGTTACTTCAGTGTGTTTGACAAGACAGCTTGATATTTCTATCAAACAAATGACTTTCATATTGCAA
CAATCTTTGTAAGAACCACTCAAATAAAAGTCTCTTAAAAAGGCC

FIGURE 4513

ATGAAAAGAGTCAAGAGATTCCTTGAGAAGAGAGAACCAAAACTCAATGAAAATATTAAAAATGCAATGCTGATT
AAAGGGGGAAATGCAAACGCAACAGTGACACAAGTACTTAAAGATGTGTGTGCACTGAAAAAACCATACGGTGTA
CTGTATAAAAAGAAAAATGTTACAAGACCTTTTGAGGATCAGACATCACTGGAATTACTTTCAAAGAAGTCAGAT
TGTTCTTTATTCATGTTTGGCTCCTATAATAAGAAGCGGCCAAATAATCTAGTAATAGGTCATATGTATGACTAC
CATGTGCTGGATATGATTGAATTAGGTATTGAGAATTTTGTCTCTCTAAAAGACATTAAGAACAGTAAATGTCCT
GAGGGAACAAAACCCATGCTAATATTTGCTGGTGATGATTTCAATGTAACAGAAGATTACAGAAGACTAAAAAGT
CTTCTTACTGATTTCTTCAGAGGCCCCACAGTATCAAATATCTGCCTGGCTGGATTAGAATATGTTCTGCACTTC
ACTGCACTGAATGGGAAGATTTACTTTCGAAGATATAAGTTGCTGTTGAAGAAATCTGGTTGCAGAACACCACGG
ATTGAATTGGAAGAGATAGGACCCTCATTGAATCTGGTTCTGAGGAGGACACACCTGGCATCCGATGACCTTTAT
ACATTATCTATGAAAATGCCAAAAGCTCTCAAGCCAAAGAAGAAGAAAAATATCTCCAATGATACTTTTGGTACA
ACTTATGGAAGGATTCATATG**TAG**

FIGURE 4514

GGAGAATAAAGGCAGCCCCGTTGATGACTGAAA**ATG**ACAAAGCATCCACCTAACAGACGAGGAATCAGCTTTGAA
GTGGGAGCCCAGTTGGAAGCCCGGGACCGTTTAAAAAACTGGTATCCAGCTCACATAGAAGACATTGACTACGAG
GAAGGAAAAGTACTCATCCATTTCAAGCGTTGGAACCATCGTTATGATGAGTGGTTCTGCTGGGACAGTCCTTAT
TTACGCCCTTTAGAGAAAATACAGCTGAGGAAAGAGGGCTTGCATGAAGAGGATGGATCTTCTGAATTTCAAATA
AATGAGCAGGTCCTTGCTTGCTGGTCTGATTGTCGTTTTTACCCGGCCAAAGTCACTGCTGTTAACAAGGATGGT
ACTTACACTGTGAAATTTTATGATGGAGTAGTTCAGACTGTCAAACATATTCATGTCAAAGCTTTTTCCAAAGAT
CAGAATATTGTGGGTAATGCTAGGCCTAAAGAAACAGATCACAAAAGTCTTTCATCATCTCCTGATAAACGAGAG
AAGTTTAAAGAACAGAGAAAAGCAACAGTGAATGTGAAGAAAGACAAAGAAGATAAACCCTTAAAGACAGAAAAG
CGACCCAAGCAGCCTGATAAAGAAGGAAAGTTAATCTGTTCTGAAAAGGGGAAAGTGTCAGAGAAAAGTCTTCCC
AAGAACGAGAAGGAAGACAAGGAAAACATTTCCGAAAATGACAGAGAGTATTCTGGAGATGCCCAAGTGGATAAG
AAACCTGAAAATGACATTGTGAAGAGTCCACAAGAAAACTTGAGGGAACCCAAAAGAAAACGAGGCAGACCCCCT
TCCATAGCTCCTACTGCTGTGGATTCAAACTCTCAAACTTTGCAACCAATAACATTGGAACTGAGAAGAAGGAAA
ATATCAAAAGGATGTGAAGTCCCATTAAAACGTCCTCGGCTTGACAAAAATTCATCCCAGGAAAAGTCAAAAAAC
TACTCGGAAAACACTGACAAAGACTTATCGAGGAGACGTTCCTCCAGGCTGTCCACTAATGGGACCCATGAGATC
CTAGATCCTGACTTGGTTGTATCAGATTTGGTTGATACGGATCCTTTGCAAGACACGTTGTCTAGTACCAAGGAA
TCTGAAGAAGGTCAGTTGAAGTCTGCTTTGGAAGCTGGCCAGGTCTCATCTGCACTGACTTGCCACTCCTTTGGG
GATGGATCCGGGGCTGCAGGCTTGGAGTTGAACTGCCCATCAATGGGAGAAAACACGATGAAAACAGAACCGACT
TCTCCCCTTGTGGAATTACAAGAGATTTCGACTGTGGAAGTAACAAATACTTTTAAGAAAACAGATGATTTTGGG
TCATCTAATGCACCAGCTGTCGACCTAGACCATAAGTTTAGATGCAAAGTTGTGGACTGTTTAAAATTTTTCCGC
AAAGCCAAACTGTTGCACTATCACATGAAGTATTTCCATGGAATGGAGAAGTCACTGGAGCCAGAAGAGAGCCCG
GGAAAGAGGCATGTCCAAACCAGGGGCCCTTCAGCTTCAGACAAGCCCAGCCAGGAGACCCTGACCAGGAAGCGG
GTCTCTGCCAGTTCCCCAACTACAAAAGACAAGGAAAAGAATAAAGAGAAGAAATTCAAGGAGTTTGTGAGAGTG
AAGCCAAAGAAGAAAAAGAAAAAGAAAAAGAAAACCAAACCTGAATGCCCCTGCAGTGAGGAGATCAGTGACACC
TCCCAGGAACCTTCTCCACCCAAGGCATTTGCTGTTACCAGGTGTGGGTCCTCACACAAGCCAGGGGTCCATATG
AGCCCGCAGCTTCATGGCCCAGAATCTGGACACCACAAAGGGAAAGTGAAAGCATTGGAGGAGGATAATTTGAGT
GAGTCCTCTTCTGAGAGCTTTCTCTGGAGTGATGATGAGTATGGCCAAGATGTGGATGTGACCACCAACCCAGAT
GAGGAACTTGATGGGGATGACCGCTATGACTTCGAGGTGGTCCGCTGCATCTGTGAGGTCCAGGAGGAAAATGAC
TTCATGATTCAGTGTGAAGAGTGCCAGTGCTGGCAGCATGGGGTCTGCATGGGATTACTGGAAGAAAATGTGCCC
GAGAAATACACCTGTTATGTTTGCCAAGACCCTCCAGGTCAGAGGCCTGGCTTCAAGTACTGGTATGACAAGGAG
TGGCTGAGCAGGGGACATATGCATGGCCTGGCATTTCTAGAAGAGAACTACTCCCATCAGAATGCCAAGAAGATC
GTGGCCACCCACCAGCTTCTTGGTGATGTGCAGAGAGTGATTGAGGTTCTGCATGGCCTGCAGCTCAAGATGAGC
ATCTTGCAAAGCCGGGAGCATCCTGATCTGCCGCTGTGGTGCCAGCCTTGGAAACAGCACTCAGGGGAGGGGAGA
TCTCATTTCAGAAACATCCCTGTCACTGACACCAGGAGCAAGGAGGAAGCTCCAAGCTATAGAACTTTGAACGGG
GCAGTGGAGAAGCCCAGGCCCCTGGCCCTGCCCCTGCCGCGTTCTGTGGAGGAATCCTATATCACCAGTGAGCAT
TGCTACCAGAAGCCCCGCGCCTATTACCCTGCCGTGGAGCAGAAGCTGGTGGTGGAGACGAGGGGCTCTGCCCTC
GACGATGCGGTCAACCCCCTCCATGAGAACGGCGATGATTCCCTTTCCCCGCGCCTGGGCTGGCCTCTAGACCAA
GACAGGAGCAAGGGGGACAGTGACCCCAAACCCGGCTCCCCAAAGGTGAAGGAATATGTCTCCAAAAAGGCCCTA
CCAGAAGAAGCCCCTGCTCGGAAGCTGCTGGACAGAGGTGGAGAGGGGCTGCTGAGCTCCCAGCACCAGTGGCAG
TTTAACCTGCTGACCCATGTGGAATCTCTTCAGGATGAAGTTACGCACAGGATGGACTCCATTGAGAAGGAGTTG
GATGTGTTGGAGAGCTGGCTGGACTACACTGGGGAACTGGAGCCCCCTGAGCCGCTGGCCAGGCTTCCGCAGCTC
AAGCATTGTATCAAGCAGCTGCTGATGGACCTGGGCAAGGTGCAGCAGATCGCCCTCTGCTGCTCAACA**TGA**AAC
TGGGCACCCAAAACTCATGGGGGCACAATCCTGGGGCACCTGCAGGAGGAGCTTCGCAT

FIGURE 4515

GGACGCAGAGAAGCCAGAGACTTTCGCTTCCGGCTGCCGCAGGCGCTTCGCTGGTGCAGGTAAGCTCCGCACACT
CTCGGCCGGTCCCGAGTCCGACTCCCTCAAGGGTGACGCGAGCTCTGCCCTTTAACCGGAAACGTCTCCCTGCTC
ACCCCACCCCCGCGCAGACGCAGTGCTGAGCACACAGCTACCGGACAAAGAGTGACGCCCGGAGCTGGAGTT**ATG**

GCGGCTACGGAGCCGATCTTGGCGGCCACTGGGAGTCCCGCGGCGGTGCCACCGGAGAAACTGGAAGGAGCCGGT
TCGAGCTCAGCCCCTGAGCGTAACTGTGTGGGCTCCTCGCTGCCAGAGGCCTCACCGCCTGCCCCTGAGCCTTCC
AGTCCCAACGCCGCGGTCCCTGAAGCCATCCCTACGCCCCGAGCTGCGGCCTCCGCGGCCCTGGAGCTGCCTCTC
GGGCCCGCACCCGTGAGCGTAGCGCCTCAGGCCGAAGCTGAAGCGCGCTCCACACCAGGCCCCGCCGGCTCTAGA
CTCGGTCCCGAGACGTTCCGCCAGCGTTTCCGGCAGTTCCGCTACCAGGATGCGGCGGGTCCCCGGGAGGCTTTC
CGGCAGCTGCGGGAGCTGTCCCGCCAGTGGCTGCGGCCTGACATCCGCACCAAGGAGCAGATCGTGGAGATGCTG
GTGCAAGAGCAGCTGCTCGCCATCCTGCCCGAGGCGGCTCGGGCCCGGCGGATCCGCCGCCGCACGGATGTGCGC
ATCACTGGC**TGA**GCGGTGGAGCTGCGGGCGGCCAGGGCCGGGCGCTCTGTGCGGACTGGGGCCATGATCGGGCCC
GGGGGCCTGAGCCTGGGACCCCACCCCGTGTTAATGAAAAATGAGTTTTGGCAGCGCC

FIGURE 4516A

CATCAGCGGGCGGGGGTGTCGCCGAACAGGCTGCTCCGCAGAGCCCGCCGCGACCCCGCGCCGCCCCGCCCCGCG
GCCTGCCTGCCAGAGGAGCCGAGGGGGCCGCCCCTCGCCCAACCTGCCCGACATGGGGAACCCCGGGCCCAGGCG
TGCTGGTCACC**ATG**ACAACAGAGACAGGCCCCGACTCTGAGGTGAAGAAAGCTCAGGAGGAGGCCCCGCAGCAGC
CCGAGGCTGCTGCCGCTGTGACCACCCCTGTGACCCCTGCAGGCCACGGCCACCCAGAGGCCAACTCCAATGAGA
AGCATCCATCCCAGCAGGACACGCGGCCTGCTGAACAGAGCCTAGACATGGAGGAGAAGGACTACAGTGAGGCCG
ATGGCCTTTCGGAGAGGACCACGCCCAGCAAGGCCCAGAAATCGCCCCAGAAGATTGCCAAGAAATACAAGAGTG
CCATCTGCCGGGTCACTCTGCTTGATGCCTCGGAGTATGAGTGTGAGGTGGAGAAACATGGCCGGGGCCAGGTGC
TGTTTGACCTGGTCTGTGAACACCTCAACCTCCTAGAGAAGGACTACTTCGGCCTGACCTTCTGTGATGCTGACA
GCCAGAAGAACTGGCTGGACCCCTCCAAGGAGATCAAGAAGCAGATCCGGAGTAGCCCCTGGAATTTTGCCTTCA
CAGTCAAGTTCTACCCGCCTGATCCTGCCCAGCTGACAGAAGACATCACAAGATACTACCTGTGCCTGCAGCTGC
GGGCAGACATCATCACGGGCCGGCTGCCATGCTCCTTTGTCACGCATGCCCTACTGGGCTCCTACGCTGTGCAGG
CTGAGCTGGGTGACTATGATGCTGAGGAGCATGTGGGCAACTATGTCAGCGAGCTCCGCTTCGCCCCTAACCAGA
CCCGGGAGCTGGAGGAGAGGATCATGGAGCTGCATAAGACATATAGGGGGATGACCCCGGGAGAAGCAGAAATCC
ACTTCTTAGAGAATGCCAAGAAGCTTTCCATGTACGGAGTAGACCTGCACCATGCCAAGGACTCTGAGGGCATCG
ACATCATGTTAGGCGTTTGTGCCAATGGCCTGCTCATCTACCGGGACCGGCTGAGAATCAACCGCTTTGCCTGGC
CCAAGATCCTCAAGATCTCCTACAAGAGGAGTAACTTCTATATCAAGATCCGGCCTGGGGAGTATGAGCAATTTG
AGAGCACAATTGGCTTTAAGCTCCCAAACCACCGGTCAGCCAAGAGACTGTGGAAGGTCTGCATCGAGCATCATA
CATTCTTCCGGCTGGTGTCCCCTGAGCCCCCACCCAAGGGCTTCCTGGTGATGGGCTCCAAGTTCCGGTACAGTG
GGAGGACCCAGGCACAGACTCGCCAGGCCAGCGCCCTCATTGACCGGCCTGCACCCTTCTTTGAGCGTTCTTCCA
GCAAACGGTACACCATGTCCCGCAGCCTTGATGGAGCAGAGTTCTCCCGCCCAGCCTCGGTCAGCGAGAACCATG
ATGCAGGGCCTGACGGTGACAAGCGGGATGAGGATGGCGAGTCTGGGGGGCAACGGTCAGAGGCTGAGGAGGGAG
AGGTCAGGACTCCAACCAAGATCAAGGAGCTAAAGCCGGAGCAGGAAACCACGCCGAGACACAAGCAGGAGTTCT
TAGACAAGCCAGAAGATGTCTTGCTGAAGCACCAGGCCAGCATCAATGAGCTCAAAAGGACCCTGAAGGAGCCCA
ACAGCAAACTCATCCACCGGGATCGAGACTGGGAACGGGAGCGCAGGCTGCCCTCCTCCCCCGCCTCCCCCTCCC
CCAAGGGCACCCCTGAGAAAGCCAATGAGAGAGCAGGGCTGAGGGAGGGCTCCGAGGAGAAAGTCAAACCACCAC
GTCCCCGGGCCCCAGAGAGTGACACAGGCGATGAGGACCAGGACCAGGAGAGGGACACGGTGTTCCTGAAGGACA
ACCACCTGGCCATTGAGCGCAAGTGCTCCAGCATCACGGTCAGCTCTACGTCTAGCCTGGAGGCTGAGGTGGACT
TCACGGTCATTGGTGACTACCATGGCAGCGCCTTCGAAGACTTCTCCCGCAGCCTGCCTGAGCTCGACCGGGACA
AAAGCGACTCGGACACTGAGGGCCTGCTGTTCTCCCGGGATCTCAACAAGGGGGCCCCCAGCCAGGATGATGAGT
CTGGGGGCATTGAGGACAGCCCGGATCGAGGGGCCTGCTCCACCCCGGATATGCCCCAGTTTGAGCCCGTGAAAA
CAGAAACCATGACTGTCAGCAGTCTGGCCATTAGAAAGAAGATTGAGCCGGAGGCCGTACTGCAGACCAGAGTCT
CCGCTATGGATAACACCCAGCAGGTTGATGGGAGTGCCTCAGTGGGGAGGGAGTTCATAGCAACCACTCCCTCCA
TCACCACGGAGACCATATCGACCACCATGGAGAACAGTCTCAAGTCCGGGAAGGGGGCAGCTGCCATGATCCCAG
GCCCACAGACGGTGGCCACGGAAATCCGTTCTCTTTCTCCGATCATCGGGAAAGATGTCCTCACCAGCACCTACG
GCGCCACTGCGGAAACCCTCTCAACCTCCACCACCACCCATGTCACCAAAACTGTGAAAGGAGGGTTTTCTGAGA
CAAGGATCGAGAAGCGAATCATCATTACTGGGGATGAAGATGTCGATCAAGACCAGGCCCTGGCTTTGGCCATCA
AGGAGGCCAAACTGCAGCATCCTGATATGCTGGTAACCAAAGCTGTCGTATACAGAGAAACAGACCCATCCCCAG
AGGAGAGGGACAAGAAGCCACAGGAATCC**TGA**CCTCTGTGAAGAGATCCTGGCATTTCTGGTCCAACCCAAGCCA
GAGAACCATTAAGAAGGGGCCTTCATTCTGGATTCTCCGACGCAACACTGACGTCCCAGCTGCGACGTACTGTCA
CTGATGAGAGACTGGGAAGGGAAAAGCATATATATATAGATATATAGAGATATAGATATATATACAGGAAACACC
GCATCCTTGCACTGCTGCTGGGGCTGGCAGAGCAGTTGGCTGACAGCAACAACCGACATCTGAACACCTACATTT
CCTTTGCAGACAAATTGAAGAACTGGTGGGATTTTTTTCAAGAAAAAAAATTATATAATAACTATAATCCCTTGC
TCACCCCTTTCCCCCGCCAAATAAGAAACGCAAGCCAGACCACGATGATTGTAGAAGTCCCTCCCGCCCTGGTTC
TGCACGTTACAGTTAGCAGACGAGCAATTCCATTTGTTCTTCTCCAGCATCTCTAAGGCCCACTTGAATGCAAAG
GAAAACACTTGCACAGCAAAGCAAGAGAAGTCACAGCAGCAAGACACGCACAGTCAACCATTTTCCGAGAAAAAA
AGAAAATTCCCCACTTGGAAAGAAAGAGGAGGAACACTGGATTCTTACTTTCTGGATCTTGACACTGGGCTGCAA
AACCTACCTTCCTCTCTCCCGCCTCCCCTCACCCTCAACTCTCAATGTCTTGCTGTCATTTTCTGTCTCGGCTCC
CTCCTCCCCCTTCCCCCTTCCCCCACCCCACACCCTTCACCCTCTGTGTCCTGGTCCTTCTGAGGGCCACTGCAG

FIGURE 4516B

ATGACTCTCCTTTGAAATGAGAAAAAGAAAAGAAAGCAAGAACAGAAAACGAAGCCACAGGAAGGGAAGTAGACA
TTGTATGCTTATGGTTTCTCATTATGAAGGTGCAGCTTGTAGGAGGTTTGTACGGATGTGCTTTGAAGTTATGTA
TATTACATATAACAGGAAAAAATATTAAAATAAACAGTGCTGGTAAGTATGAAGCTGACATTCTAAAATTATAAT
TATCTGACTGTGATTGATGTATCCTGAGGTTCCTAGATCTCACTGAACTGGCCCAGCTAAGGAGACCTGGACTCT
GGGTGTGGGTTGGCTCACAGTAGGGGCTGACGGGTTCAGTGTAGTAATACTGTGTGTGGTGTTTGTAATTGGTTG
ATTGGTGGGGAGGGGTGGGGGGCCCTAATGGAGAGGTGTGGGTTTGGCAAGAAAGAAGCAACACAGATGTCGTCC
CCAAAATGCCAGTTCAAGACACCTTCTCCCTGCCCCCCTGGTAGTAACAGTCAGGGCCTGGTCTGTGCTCAGGTA
CTGGGTCCCAGTCTGGGACTCTGCTGCTGAAGTTGCCACAGTAGAGGTCCCTGGCTTAGTCCTTATCTCCCTACG
GGGCTTGCCTTGGTTTTCAGTCTTCTCTCTCTTTCTCTCTTTTTTTTTTTTTGCCACATTCTGCCCTTCCCTGA
CCCCATTGTAATAACCAACTCCATATCCAAAGGGAGGTGGTGCTCTCAGCCATTGTAGAAGATGGTGGCTTTAAC
CTGACTGTCTAAAAATTCCCAGCTAAGCCTTTTCCTCTACTCTCTTCCTTGTTCTGAATCATTTCTTCTTCTCAG
GCCAAAGTAGCCATGGTAAGGAGGCTTCATGGGGCAGACCCTGAAAGATCAAAACTGCATTTGCAAAGCCCTCCC
CTGTCCCAGGACAAAGCTGAGACTGACGGGTGATGTTGCTCATAGGCTCCAGCTCTGCATAAGACCTTGGCTTGG
AGACCTCCCTCTCAGTCAACAGCTGAACTCTGAGCTTGTGCCCAGAAATTACCCCAAGACCACAGGAACCCTTCA
AGAAGCTCCCATCACAAGCTTGGCATTGCTCTCTGCCACACGTGGGCTTCCTCAGGCTTGTCTGCCACAAGCTAC
TTCTCTGAGCTCAGAAAGTGCCCCTTGATGAGGGAAAATGTCCCACTGCACTGCGAATTTCTCAGTTCCATTTTA
CCTCCCAGTCCTCCTTCTAAACCAGTTAATAAATTCATTCCACAAGTATTTACTGATTACCTGCTTGTGCCAGGG
ACTATTCTCAGGCTGAAGAAGGTGGGAGGGGAGGGCGGAACCTGAGGAGCCACCTGAGCCAGCTTTATATTTCAA
CCATGGCTGGCCCATCTGAGAGCATCTCCCCACTCTCGCCAACCTATCGGGGCATAGCCCAGGGATGCCCCCAGG
CGGCCCAGGTTAGATGCGTCCCTTTGGCTTGTCAGTGATGACATACACCTTAGCTGCTTAGCTGGTGCTGGCCTG
AGGCAGGGCAGGAAATCAGAATAGCATTTGCTTCTCTGGGCAAATGGGAAGTTCAGCGGGGCAGCAGAATCAGTG
GCATTCCCCCTGGTGCAGGCCGGTGGGTCCACTCCAACTCCCCCTGAGTGTAGCAGCACACTTTCCATACACCAG
GTTCTTTCTACAATCCTGGTGGAAAAGCCACAGAACCTTCTTCCTGCCCTTCTTGAGAGTTCCCCCTCTTTCTGG
GTCAAGAGCTGGAGTGGTGGCTCCATCCTCTCTGGGCCACTTCGGTCTAGGAACTCATCTTTGCAGGAACCAGGA
GTCCTGAGCACACTGAACACACCTCAGAGGGAGGATCCTTGTTGTGGATTTTGCACCTGGCTTTGGGGCAGGGGT
GAAGTGACCAGGCTTAGCTTGTGGAGTTTATGGGCCACCAGGGTTTGGGGAAATCACCATCCCGCGGATGCTGTG
ACCTCCCTTCTACGGAGATGCAGGCAGTGCCACGAGGGAGGAGGGGACCTGCAAAGCTAGAATCTAGGGCACTGT
TTCCTCCCCATCCTTCTCTTTGTAGAGAATAGAGACGTTTGTCTTGTCTGTCTTCAACCTACTTTTCCTTTTCTC
TTTTTTGTTTCTCATCCTCTCTGTGCCACCTCTCCACCCAGGAGGCCATGTAGCATAGTGGAAAAAGTCCCTGAG
GGCGGTTAGGAGTTCTGGGTGACCATCCTGGCTCAGCTCCTAACTCACCATGTGACATCAGGCTATCCCCATTCC
CCCTCTTGGGCCTCAGTTTCCCGACTTGCAAAATAAGCAGAAAGAACCAGATGCTCTCCAGGGTCTTTTTCTACT
TTGCTATCTCATGGGTCTTCATTTTCTCTTATTTTGTTTTCTCTGGATCTTTTCCATCTGAGGGTACAGGAAGTA
CCAGGACCTGTTTCAGTTTTTGAATCCTGCAAGCACATTCCAAGACTGGCCTGAAACTGCATGAGCAACATCACT
CGAAATAATTTTTTTTTTCAAAAGCACCTTAACAACCAATTGCGATGCTGTCCTGTTCCTTTTTACTCACACCCT
TCTCTCCTTTCTCGTCCCCATGCTCCCCCACCTCAGTGCTCCGTGCTGTATGCGTGTGCTCTCTGTTCTTGTATA
CTCAATATAAGTGAAATAAATGTGTTTGATGCTGAACCAT

FIGURE 4517

GTTTTATTTAGTACACAGGCAAGCAGCATAATCCAGTTTGTATTTTAGAAAGATCATATCAGTTGCTGTATGGAA
ACTAGATTGGAAGGGCCAGGAGAGGACCCAAGGAGGCCATTCTGTTATTTAGGGAAGAGATGATGGTGGTGTGGA
TCGGGTTGTGGTTGGTGGAGGAGGAGAGAAGTGCACAGATTGTAGAAGTGTTTTATAAGCAGTCAAGATTTGTCG
ATGGAGTACATGTGGGCAGTGCTCAAGATTGTGTCCCACATTTCTTTTTTTCTTTTTTTTTTTTGTTTGATTGGG
ATGGAGTCTCACTGTATTGCCCAGGCTGGAGTTCAGTGGCACCATCTCGGCTTACTGCAACCTCCACCTCCCGGG
TTCAAGCGATTCTCCTGCCTCAGCCTCCCAAGTACCTGGGGCTACAGGCGCCCGCTACCACACCCAGCTAATTTT
TGTATTTTTAATAGACATGAGGTTTCACCATGTTGGCCAGGCTGTTCTCAAACTCCTGACCTCAAA**TGA**TCTGCC
CGCCTCAGCCTCCCAAAGTGCTGAGATTACAAGTGTGAGCCACTGTGCCCGGCCTTAAATTTCTGATGGAAGGGT
GCCATATACCGAGAAGGGGAAATCTGGCAGGGGAACAGGTTTGGGGAGAAATCAAGAATTCTATTTTTTTTTTTA
ATTTTTTGTTTTTTAGAGACAGGGTCTCCTTCTTTTGCCCAGGCTGGAATGCAGTGGTGCAGTCATAGCTCACCA
CAGCCTTGAATTCCTGGGCTTAAGCAATCCTCGTGCTTCCACAGGCACATGCCACCACATCCATGCTAATTTGTT
TCTTCTCTTGGTAAAGATGAGGTCTCGCTGTGTTGCCTAGGCTGGTTTCAAACTCTTGGGCTTAAGTGATCCTCT
TGCCTTGGCCTCCCAAAATGTTAGGGTTACAAGCATGAGCCACTTGTGCCTGGCCAAGAATTCTATCTGTATATC
TTTATAGGTCTTGAGACATCCAAGTGGAGATGTCAAGAAGGCAGTATGTGAGTTTGGAATTCAAAGGAGCGGGCT
GGAGATACACATTTGAGAGCTGTTAGCATCGAGACCGTGGGTTTCAAACCTGCATCTGTGTCAGAATCACTTGGC
GTCATTCCCAGAGAGTATGATTCAGTGGTGGTATCTTAGGCTTTTTATGGCAAGCAAGAGAAACCATCCTGAGCT
GATTTAAGCAGAAAAGGGCTGCACTGAAAGGGAATGTTCAGTAGTTCACAGAATTTCTGGGAAGTTGGAAAACTG
GGGCTGGGCAGCAGGCAGGATCTCAGCCAAAATCATGCCACCGAGCCAGTTTGGCAGGACACTGCTGCCACACAC
TAAATGCCATCGCTGTGTCACTGTTCCCTGAACACTAGACACCATTGCTGTGGTTGCCACCAGCATTGGAATGGA
TCTTCCACTGTGCTCCTGATTCAAAGTCTGTAGTGAGGGCTTCTGATTGGTTGAGCTTAGGTGTAAGGGAGGCTG
GAAAAGCAAGAATTTGTTGTTTTCAGCTTTCACAGGAGGTGAACTCTGCCAAGACCTGTGCAGTGAGGAAGTCCC
CAGACATAGGAAGGAGGTCAGATGCCAGACTGGCACACAATGACAGATGTACTTGACAGCAAGTTTGCCAGCTTG
TGGGATTGTCTGGGAATCTGCATTTAAACCAGCACCCTGGAAATTCCCATGCAGGTGCTGCCTGAACCACATTTG
CATCCATTGCTTGAACTGGTACTTAAAGCTGTGGGGGCTGGGCGCGGTGGCCCACACCCGTAATCCCAGCACTTT
GGGAGGCTGAGGCAGGGGGACCACTTGAGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGCGAAACCCCGTCT
CACTAAAAATGCAAAAAATTAGCCGGGCGTGGTGGCACGCACCTGTAGTCCCAGCTATTCGGAGGCTGAGGCAGG
AGAATCGCTTGAACCCGGGAGGTGGAGGTTGCAGTGAGCCGAGATTGCGCCACTGCACTCCAGCCTGGGTGAAAG
GGCAAGACTATGTCTC

FIGURE 4518

CGGACTGGCAGGGGGCAGGGAAGCTCAAAGATCTGGGGTGCTGCCAGGAAAAAGCAAATTCTGGAAGTTAATGGT
TTTGAGTGATTTTTAAATCCTTGCTGGCGGAGAGGCCCGCCTCTCCCCGGTATCAGCGCTTCCTCATTCTTTGAA
TCCGCGGCTCCGCGGTCTTCGGCGTCAGACCAGCCGGAGGAAGCCTGTTTGCAATTTAAGCGGGCTGTGAACGCC
CAGGGCCGGCGGGGGCAGGGCCGAGGCGGGCCATTTTGAATAAAGAGGCGTGCCTTCCAGGCAGGCTCTATAAGT
GACCGCCGCGGCGAGCGTGCGCGCGTTGCAGGTCACTGTAGCGGGACTTCTTTTGGTTTTCTTTCTCTTTGGGGC
ACCTCTGGACTCACTCCCCAGC**ATG**AAGGCGCTGAGCCCGGTGCGCGGCTGCTACGAGGCGGTGTGCTGCCTGTC
GGAACGCAGTCTGGCCATCGCCCGGGGCCGAGGGAAGGGCCCGGCAGCTGAGGAGCCGCTGAGCTTGCTGGACGA
CATGAACCACTGCTACTCCCGCCTGCGGGAACTGGTACCCGGAGTCCCGAGAGGCACTCAGCTTAGCCAGGTGGA
AATCCTACAGCGCGTCATCGACTACATTCTCGACCTGCAGGTAGTCCTGGCCGAGCCAGCCCCTGGACCCCCTGA
TGGCCCCCACCTTCCCATCCAGACAGCCGAGCTCACTCCGGAACTTGTCATCTCCAACGACAAAAGGAGCTTTTG
CCAC**TGA**CTCGGCCGTGTCCTGACACCTCCAGGTGAGTATCTCCTCTCTTGGAGAGGGAGGTTTAAACGGCAAGT
CCTGGAGTTGGCAGACGTTTTGAAAAATTGCCACTCACTCGGTTTAGGGAAACTGAGGCCAGAGAGGGACAAGTG
ACTTGCCCATGGTTG

FIGURE 4519

TTCTCTTCCTGCTCTCCATC**ATG**GCGCAGGATCAAGGTGAAAAGGAGAACCCCATGCGGGAACTTCGCATCCGCA
AACTCTGTCTCAACATCTGTGTTGGGGAGAGTGGAGACAGACTGACGCGAGCAGCCAAGGTGTTGGAGCAGCTCA
CAGGGCAGACCCCTGTGTTTTCCAAAGCTAGATACACTGTCAGATCCTTTGGCATCCGGAGAAATGAAAAGATTG
CTGTCCACTGCACAGTTCGAGGGGCCAAGGCAGAAGAAATCTTGGAGAAGGGTCTAAAGGTGCGGGAGTATGAGT
TAAGAAAAAACAACTTCTCAGATACTGGAAACTTTGGTTTTGGGATCCAGGAACACATCGATCTGGGTATCAAAT
ATGACCCAAGCATTGGTATCTACGGCCTGGACTTCTATGTGGTGCTGGGTAGGCCAGGTTTCAGCATCGCAGACA
AGAAGCGCAGGACAGGCTGCATTGGGGCCAAACACAGAATCAGCAAAGAGGAGGCCATGCGCTGGTTCCAGCAGA
AGTATGATGGGATCATCCTTCCTGGCAAA**TAA**ATTCCCGTTTCTATCCAAAAGAGCAATAAAAAGTTTTCAGTGA
AATGTGCAA

FIGURE 4520

GTTCCGGCGAGGAGGCCGCGCCAGTGACAGCG**ATG**GCGGCGGAGTCGGCGCTCCAAGTTGTGGAGAAGCTGCAGG
CGCGCCTGGCCGCGAACCCGGACCCTAAGAAGCTATTGAAATATTTGAAGAAACTCTCCACCCTGCCTATTACAG
TAGACATTCTTGCGGAGACTGGGGTTGGGAAAACAGTAAATAGCTTGCGAAAACACGAGCATGTTGGAAGCTTTG
CCAGGGACCTAGTGGCCCAGTGGAAGAAGCTGGTTCCTGTGGAACGAAATGCTGAGCCTGATGAACAGGACTTTG
AGAAGAGCAATTCCCGAAAGCGCCCTCGGGATGCCCTGCAGAAGGAGGAGGAGATGGAGGGGGACTACCAAGAAA
CCTGGAAAGCCACGGGGAGCCGATCCTATAGCCCTGACCACAGGCAGAAGAAACATAGGAAACTCTCGGAGCTCG
AGAGACCTCACAAAGTGTCTCACGGTCATGAGAGGAGAGATGAGAGAAAGAGGTGTCACAGAATGTCACCAACTT
ACTCTTCAGACCCTGAGTCTTCTGATTATGGCCATGTTCAATCCCCTCCATCTTGTACCAGTCCTCATCAGATGT
ACGTCGACCACTACAGATCCCTGGAGGAGGACCAGGAGCCCATTGTTTCACACCAGAAGCCTGGGAAAGGCCACA
GCAATGCCTTTCAGGACAGACTCGGGGCCAGCCAAGAACGACACCTGGGTGAACCCCATGGGAAAGGGGTTGTGA
GTCAAAACAAGGAGCACAAATCTTCCCACAAGGACAAACGCCCCGTGGATGCCAAGAGTGATGAGAAGGCCTCTG
TGGTGAGCAGAGAGAAATCACACAAGGCCCTCTCCAAAGAGGAGAACCGAAGGCCACCCTCAGGGGACAATGCAA
GGGAGAAACCGCCCTCTAGTGGCGTAAAGAAAGAGAAGGACAGAGAGGGCAGCAGCCTGAAGAAGAAGTGTTTGC
CTCCCTCAGAGGCCGCTTCAGACAACCACCTGAAAAAGCCAAAGCACAGAGACCCAGAGAAAGCCAAATTGGACA
AAAGCAAGCAAGGTCTGGACAGCTTTGACACAGGAAAAGGAGCAGGAGACCTGTTGCCCAAGGTAAAAGAGAAGG
GTTCTAACAACCTAAAGACTCCAGAAGGGAAAGTCAAAACTAATTTGGATAGAAAGTCACTGGGCTCCCTCCCTA
AAGTTGAGGAGACAGATATGGAGGATGAATTCGAGCAGCCAACCATGTCTTTTGAATCCTACCTCAGCTATGACC
AGCCCCGGAAGAAAAAGAAAAAGATTGTGAAAACTTCAGCCACGGCACTTGGAGATAAAGGACTTAAAAAAAATG
ACTCTAAAAGCACTGGTAAAAACTTGGACTCAGTTCAGAAATTACCCAAGGTGAACAAAACCAAGTCAGAGAAGC
CGGCTGGAGCTGATTTAGCCAAGCTGAGAAAGGTGCCTGATGTGTTGCCAGTGTTGCCAGACCTCCCGTTACCCG
CGATACAGGCCAATTACCGTCCACTGCCTTCCCTCGAGCTGATATCCTCCTTCCAGCCAAAGCGAAAAGCGTTCT
CTTCACCCCAGGAAGAAGAAGAAGCTGGATTTACTGGGCGCAGAATGAATTCCAAGATGCAGGTGTATTCTGGTT
CCAAGTGTGCCTATCTCCCTAAAATGATGACCTTGCACCAGCAATGCATCCGAGTACTTAAAAACAACATCGATT
CAATCTTTGAAGTGGGAGGAGTCCCATACTCTGTTCTTGAACCCGTTTTGGAGAGGTGTACACCTGATCAGCTGT
ATCGCATAGAGGAATACAATCATGTATTAATTGAAGAAACAGATCAATTATGGAAAGTTCATTGTCACCGAGACT
TTAAGGAAGAAAGACCCGAAGAGTATGAGTCGTGGCGAGAGATGTACCTGCGGCTTCAGGACGCCCGAGAGCAGC
GGCTACGAGTACTAACAAAGAATATCCAGTTCGCACATGCCAATAAGCCCAAAGGCCGACAAGCAAAGATGGCCT
TTGTCAACTCTGTGGCCAAGCCACCTCGTGACGTCCGGAGGAGGCAGGAAAAGTTTGGAACGGGAGGAGCAGCTG
TCCCTGAGAAAATCAAGATCAAGCCAGCCCCGTACCCCATGGGAAGCAGCCATGCTTCCGCCAGTAGCATCAGCT
TTAACCCCAGCCCTGAGGAGCCGGCCTATGATGGCCCAAGCACCAGCAGTGCCCACTTGGCACCAGTGGTCAGCA
GCACTGTTTCCTATGATCCTAGGAAACCCACTGTGAAGAAAATTGCCCCAATGATGGCCAAGACAATTAAAGCTT
TCAAGAACAGATTCTCCCGACGA**TAA**ACTGAGGACTTGCCTTGGAAATGGAATCTGGGGAGGCAGGAATACAAGG
ACAGTGGGGGTTGGGGAATGGAATTCTACAGGAGACTGGAGTCTTGCTTTGTGGATCCTTTTGGTCTCCGAGTCC
TGCAGTCTGCAGGTGCTGCCCCTGGGAACCTGCGTGCCACAGCCCCGCCTCCCTGCCTGGAGCACACTTTAGAAT
TCTGAAGATGTGAAGCCTCTGTCTCACTGAGGATTTTAAAGGTCAATTATACTTTTGTTGTTCATTAGCATCTTT
GTAAACTATAAGACGTAGTTTTAATTAATAAATATTGCCCCCAGAT

FIGURE 4521

GGAAGTTCCGGCGGGGGCGGCCGAGGGGGAAGAGTGTGTCTGCGGGAGAAAGAGGAGAATCGCCCAAGCGGCCTC
GGAAGTCCCAGGGAGTGGAGGCCCCCGCCGTGGAGCCGTGTGGTGTATGTGTGGTAACACCATGTCTGTGCCCCT
GCTCACCGATGCTGCCACCGTGTCTGGAGCTGAGCGGGAAACGGCCGCGGTTATTTTTTTACATGGACTTGGAGA
CACAGGGCACAGCTGGGCTGACGCCCTCTCCACCATCCGGCTCCCTCACGTCAAGTACATCTGTCCCCATGCGCC
TAGGATCCCTGTGACCCTCAACATGAAGATGGTGATGCCCTCCTGGTTTGACCTGATGGGGCTGAGTCCAGATGC
CCCAGAGGACGAGGCTGGCATCAAGAAGGCAGCAGAGAACATCAAGGCCTTGATTGAGCATGAAATGAAGAACGG
GATCCCTGCCAATCGAATCGTCCTGGGAGGCTTTTCACAGGGCGGGGCCCTGTCCCTCTACACGGCCCTCACCTG
CCCCCACCCTCTGGCTGGCATCGTGGCGTTGAGCTGCTGGCTGCCTCTGCACCGGGCCTTCCCCCAGGCAGCTAA
TGGCAGTGCCAAGGACCTGGCCATACTCCAGTGCCATGGGGAGCTGGACCCCATGGTGCCCGTACGGTTTGGGGC
CCTGACGGCTGAGAAGCTCCGGTCTGTTGTCACACCTGCCAGGGTCCAGTTCAAGACATACCCGGGTGTCATGCA
CAGCTCCTGTCCTCAGGAGATGGCAGCTGTGAAGGAATTTCTTGAGAAGCTGCTGCCTCCTGTCTAACTAGTCGC
TGGCCCCAGTGCAGTACCCCAGCTCATGGGGGACTCAGCAAGCAAGCGTGGCACCATCTTGGATCTGAGCCGGTC
GAGCCCCTGTCCCCACCCTTCCTGACCTGTCCTTTTCCCACAGGCCTCTGGGGGCAGGTGGCAAGGCCTGGCCGG
GCCTTCCTTCCTGGCCTTAGCCACCTGGCTCTGTCTGCAGCAGGGGCAGGCTGCTTTCTTATCCATTTCCCTGGA
GGCGGGCCCCCCTGGCAGCAGTATTGGAGGGGCTACAGGCAGCTGGAGAAAGGGGCCCAGCCGCTGACCCACTCA
CTCAGGACCTCACTCACTAGCCCCGCTTTGGGCCCCCTCCTGTGACCTCAGGGTTTGGCCCATGGGGCCCCCCCA
GGCCCCTGCCCCAACTGATTCTGCCCAGATAATCGTGTCTCCTGCCTCCACTCAGCTGCTTCTCAGTCATGAATG
TGGCCATGGCCCCGGGGTCCCCTTGCTGCTGTGGGCTCCCTGTCCCTGGGCAGGAGTGCTGGTGAGGAGGTGGAG
CCTTTTGAGGGGGGCCTTCCCTCAGCTGTTTCCCCACACTGGGGGGCTGGGCCCTGCCTCCCCGTTACCCTCCTT
CCCTGCAGGCCTGGAGCCTGTAGGGCTGGACTGAGGTTCAGGTCTCCCCCCAGCTGTCTCACCCCCACTTTGTCC
CCACTCTAGAGCAGGGAGGCAGTGGGGGAGGAGTTGTGTCTCGTCTTCTGTCTCCATGTGGTTTTTGGGTGTTTT
TCTTGTTGTGTCCTGGATTCCGATAAAATTAAAGAAATTGCTTCCTC

FIGURE 4522

GGCCAAG**ATG**GCAGCAATGAGGAAGGCGCTTCCGCGGCGACTGGTGGGCTTGGCGTCCCTCCGGGCTGTCAGCAC
CTCATCTATGGGCACTTTACCAAAGCGGGTGAAAATTGTGGAAGTTGGTCCCCGAGATGGACTACAAAATGAAAA
GAATATCGTATCTACTCCAGTGAAAATCAAGCTGATAGACATGCTTTCTGAAGCAGGACTCTCTGTTATAGAAAC
CACCAGCTTTGTGTCTCCTAAGTGGGTTCCCCAGATGGGTGACCACACTGAAGTCTTGAAGGGCATTCAGAAGTT
TCCTGGCATCAACTACCCAGTCCTGACCCCAAATTTGAAAGGCTTCGAGGCAGCGGTTGCTGCTGGAGCCAAGGA
AGTAGTCATCTTTGGAGCTGCCTCAGAGCTCTTCACCAAGAAGAACATCAATTGTTCCATAGAGGAGAGTTTTCA
GAGGTTTGACGCAATCCTGAAGGCAGCGCAGTCAGCCAATATTTCTGTGCGGGGGTACGTCTCCTGTGCTCTTGG
CTGCCCTTATGAAGGGAAGATCTCCCCAGCTAAAGTAGCTGAGGTCACCAAGAAGTTCTACTCAATGGGCTGCTA
CGAGATCTCCCTGGGGGACACCATTGGTGTGGGCACCCCAGGGATCATGAAAGACATGCTATCTGCTGTCATGCA
GGAAGTGCCTCTGGCTGCCCTGGCTGTCCACTGCCATGACACCTATGGTCAAGCCCTGGCCAACACCTTGATGGC
CCTGCAGATGGGAGTGAGTGTCGTGGACTCTTCTGTGGCAGGACTTGGAGGCTGTCCCTACGCACAGGGGGCATC
AGGAAACTTGGCCACAGAAGACCTGGTCTACATGCTAGAGGGCTTGGGCATTCACACGGGTGTGAATCTCCAGAA
GCTTCTGGAAGCTGGAAACTTTATCTGTCAAGCCCTGAACAGAAAAACTAGCTCCAAAGTGGCTCAGGCTACCTG
TAAACTC**TGA**GCCCCTTGCCCACCTGAAGCCCTGGGGATGATGTGGAAATAGGGGCACACACAGATGATTCATGG
ATGGGGACATGGAAATGAGAATAGGTTAAATGGTGCAGGTACCTCATAGCCAGCTCTACACAGAGGTCTCTCCTG
GCAGAAAGCAGGCGAAGGGCAGGAGGAGCTGCTTGGCAGAAGGACCTCCTGCCCAGACCTGAGGAGTGAGAGGCT
TTGAGGGCTGAAGTCTCCCTTTGTTACGGACCCTGGCCCAGGAGTTGAATGCCTGAGGACGTGTGGGAACCCCGT
TCCCTACTTAGCATGATCCTTGAGTCTCCTCTCTGGATGGAATCCGCGAGCTGGCCACCTGGCCACCCTCTACAC
GGCTCCACCCTGCCATGGCCGTGGGGCCCTTGCTCTCTGACTTCTCAGGACACAGGTCATGGAGGTTCTTCCCAA
GCTGGCAGAGGCCATTTGTGGAAAGTGGAGAGCTACGTGGTGGCCGTCTGCCAACTCCAGCATCTCTGGAAAATC
TCCACGCTGAATGTGATTTTTGAAAACAGCTTATGTAATTAAAGGTTGAATGGCACATCAT

FIGURE 4523

GTCGGTAGAGGCAGAAGGAGAAGGTCGGGTTGTAGAAGCTGGGGTGGCCGGCAGCTCGCTCATCGGTGTTCGTGG
GCTTTGTCGGTCCGTGCCTCGTCTCTCCCTGGAAAGGGAGGGAGGCTTCGACGTCGAGAGGGAGCCGCTGCCGCG
TTAGTTCCGAGCTTGAAGTCACTAGGACTTCTCTCAAACTTGTGTGCTGAGGAGACTCAGATGTTGGCCTCAGCT
CCTAGGCTGAACTCAGCAGATCGGCCCATGAAAACTTCTGTATTGAGACAAAGGAAGGGATCTGTCAGAAAGCAA
CACTTGTTATCTTGGGCTTGGCAGCAAGGAAGAGGACAGGTAGTGGAGATCCTGCAATCTGAAAAGCAGACTGAA
AGGTGACAAAGAAGCTGAAG**ATG**GGTGGTGGAGAGAGGTATAACATTCCAGCCCCTCAATCTAGAAATGTTAGTA
AGAACCAACAACAGCTTAACAGACAGAAGACCAAGGAACAGAATTCCCAGATGAAGATTGTTCATAAGAAAAAAG
AAAGAGGACATGGTTATAACTCATCAGCAGCTGCCTGGCAGGCCATGCAAAATGGGGGGAAGAACAAAAATTTTC
CAAATAATCAAAGTTGGAATTCTAGCTTATCAGGTCCCAGGTTACTTTTTAAATCTCAAGCTAATCAGAACTATG
CTGGTGCCAAATTTAGTGAGCCGCCATCACCAAGTGTTCTTCCCAAACCACCAAGCCACTGGGTCCCTGTTTCCT
TTAATCCTTCAGATAAGGAAATAATGACATTTCAACTTAAAACCTTACTTAAAGTACAGGTA**TAA**AATAAGACAA
ATGTTTAAATTTAGTTATGTTCACGGATAGTTGTCAATTGGTCTGAAACAAATTCGCTAGGGAATCTATTTGTGT
AGAACTAATTAATGTAAAAAAAATAGACCATCTCGTGTTGTGTGCACTGTGATATAATGGTAGTATCAGTGCAAC
TTAAACTAATGATTGTACTTGATATTAAGTGTTCTCAACTGAGTAACTTTTAAGTGGAAACCAAGTTTAGATTTG
GGGAGTGGTAAAGGAATCAGCTTTTTCTATTGTTAGGGGAAGACAGTAATTTATCATTCATGGACCAGTAGATTG
TTGAAAGTTGGTGAATCGGATTATAAGCTTCTAGCTAACACAAGGATTCAGAATTAGGTAAACATCTGAAGGTTT
AGTATATTAGAAACACCCAAACCAGTAATATGCTAACCTGATGCACTGCTGAAAGAAAATGTGAATTTTTCGTAA
TAATTGCATTTTAGTGAATTGTACAGTGGGTGGAAAGGGCATTTGGAGCTCATTAGAATGAGACATAGTACACCC
CAATGGCCCTGTTTATTAAATGTAGTGGATTAAGTGTCTGTCAACAAATACACCAAAACCATTTTTTATAGAAAC
AGTATTTAATGGTCACTCAATAGCTTTCAAAATACATTTTTGTATTACAGCACTGCACAAGCTATTCTAATAGTG
CTCTGGCCTCATCATTCCTGCAAAGCTTGCTTTGGGGAGTTGGATAATGTGAAAATTTTAAGTACCTAGGGGAGA
AAGAGCCATGTAAATATCTGTAATAAACTTGTAGCATATGTAAAGTTTTCTTGGCCTTTATCTTACAAAAATGGA
GTATTTTAGTATGAATTTGCTGAATGTAAGACCGTGGACTGTTTTTTATAATATGGCCTAATTTTAAAGGTCCAA
AATAACTTGTTTTTAAAGTTTGCCCTTGTGCTAAAGTGCCAGTGTATGTATGTTATACTTGATTTGGTTGTAAAC
TATATTTCAAAGTAAACCCTAGTGTAATAAGTTTTATAACTAAAAAGGTTTAAGCTGCTAAAACTATTTTTAAGA
GATGTGAAATGCAGTATGGGACTATCTTTTTTTCCTCCTCTAAGCCCAAAGATTAACTAGAGTCCCTCCAACCTT
ATAGATTGTTGGCTTTCACAATCTTATAACCTAGGATACAGGTAGTTTCGAGTATGGTGCCAGTGATGTTTTGTT
TTTGTTTGGTCAAGGGGTAGGTGCAACCCAATGGACCACTTATGCAAAAGATGTAAACTCTTGCATAATACATTG
ATAACATGTTTTGCCAACTTTAAATGCTTAAACATAAGCGAAACCAGTAGCAAGTATGTGGGTCAGCTTAAAAAT
TTTGATTGTTAATGCCCTATTTTCTAATTTGGCACCTCTTGATGCCTAAGCAGGTAAGCAGATGCCTAAGCTGTA
TTTCTCCAAATAAATCAAGATGAAGTACTGCCCAAGTTAAATATTGATAGCCTAAAGACAAGTTTATGTAGTACT
TAATGTACATGATATGAATGTGAAGCATAAAATTAAATAAAATTTTTCCCC

FIGURE 4524

GTCTGAGGCTCGGCCGCCTGAGCCGCGGACGGTTTGCTGAGCCCGTTAGTGCGCCCGGCCGAGACACGCCGCCGC
C**ATG**TCCCGCTACCTGCGTCCCCCCAACACGTCTCTGTTCGTCAGGAACGTGGCCGACGACACCAGGTCTGAAGA
CTTGCGGCGTGAATTTGGTCGTTATGGTCCTATAGTTGATGTGTATGTTCCACTTGATTTCTACACTCGCCGTCC
AAGAGGATTTGCTTATGTTCAATTTGAGGATGTTCGTGATGCTGAAGACGCTTTACATAATTTGGACAGAAAGTG
GATTTGTGGACGGCAGATTGAAATACAGTTTGCCCAGGGGGATCGAAAGACACCAAATCAGATGAAAGCCAAGGA
AGGGAGGAATGTGTACAGTTCTTCACGCTATGATGATTATGACAGATACAGACGTTCTAGAAGCCGAAGTTATGA
AAGGAGGAGATCAAGAAGTCGGTCTTTTGATTACAACTATAGAAGATCGTATAGTCCTAGAAACAGTAGACCGAC
TGGAAGACCACGGCGTAGCAGAAGCCATTCCGACAATGATAGATTCAAACACCGAAATCGATCTTTTTCAAGATC
TAAATCCAATTCAAGATCACGGTCCAAGTCCCAGCCCAAGAAAGAAATGAAGGCTAAATCACGTTCTAGGTCTGC
ATCTCACACCAAAACTAGAGGCACCTCTAAAACAGATTCCAAAACACATTATAAGTCTGGCTCAAGATATGAAAA
GGAATCAAGGAAAAAAGAACCACCTAGATCCAAATCTCAGTCAAGATCACAGTCTAGGTCTAGGTCAAAATCTAG
ATCAAGGTCTTGGACTAGTCCTAAGTCCAGTGGCCAC**TGA**TAGTATAAACCATGGTCATTTTTAGGCATGTATCA
TTCATTTACTCATAGTTTGGTTTACTTAAATTATCAGGAATACAATGTTGCAATGATGCTTAAAAAACACTTGTT
AGTTTTCCCTGTACCAGGCAATGGTTATAATTAAAATGATATGCTGTTGAGAAGCCACTCTTAAGAGTCCAGTTT
GTTTAATGTTATGGGCAGCTACCAATTTGTGGTGTCTCTGTATATTTTTGTAAAGATTCTCATTTTTTATGCTTG
AAGTATTTGGTGAAAAGATGTTGGTTGACCATAATTTGCAACATTGTCTCATTAAAAATAAACTTTCATATTCAT
ATTTGGTAGAACTGTTAACCTAGAAATGTAGCTTGCTAATAAGATAGAATGATACAAAAGTGAAGTAGTAGCCAC
AGTACAACACTGACTGCTCAGACACATTTAGGTTCAGGGTGGACCTTTATGTCTTGTCAAGATGTCTAGGCCCGG
CTGGGCGTGGTGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGAGTT
CGAGACCAGCCTGACCAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTATCCGGGCATGGTGGCACA
TGCCTGTAATCTCAGCTACTCAGGAGGCTGAGGCAAGAGAATCGCTTGAACCTGGGAGGTAGAAGTTGCAGTGAG
CCAAAATCACGCCACTGCACTCCAGCCTGGGCAACAGAGTGAGACTCCGTCTCAAAAAAAAAAAAAAAACCGGATG
TCTAGGCCAATGATAATTATTTTGATGCAGTGTGGATTAGTTCTTTTGTTAACCCCACTGTCTTGGGGAATGAT
GCCAGCTGGGAAATTGAGTTTTTGACTGAAACATGGAGCCTTCACTGCTTTTTTTCTGGTTCCTATGAAGATTTG
GAACATAGAAAACACAAAAACTCACCTTAAAATTTGAGCAGGTCGTTGATGGCAAAAATAATTTTAAGGAAAAAG
GAATATTCTTATGTAGTTATTCTAAAGTTTAAGGAGCGTTGTTGACCATAATATTGCTTAGTTTTCTTACTGCTG
TTAAGTAAGTAAATTGTTTCAAAGTAGGTTTTGTGTGTGTGTGCCTAGTGTAAAAGAACTGAAATTTTGATGCTT
ACAGCACTTGGCTCGTGCATTTGTATCAAAATTTGCCTGCCTCTTTATGAGGGAGGCCTGCTTTTCACACCTCAG
TTTATTTAATACGAGGCAAGTTGTAAGACAACACTCATTCTAGGTGATTCTGTGGTGCCATGAAATTTAAGGTAA
TTTGGGGAAAAGGATTAGTCAGTTTTAAGCAAGAGTCACATCTTTTGAGCTTTCGATTATCAGTGTAGTACCTGA
CTAAAAATGAAGTAATACCCTTAAACCATTTATAATTTCTAGTATTTCTCTGAAAGATCGTTTTGGGGACAAAAG
TGACTTGACATGTCCAATTTCATTTCAGAATAAAAAGCTAGCATCTTTAAAAATCTCAGATTGCTTGCTTACAGA
TACAAGTACGAATTATGGACAAACGATTCCTTTTAGAGGATTACTTTTTTCAATTTCGGTTTTAGTAATCTAGGC
TTTGCCTGTAAAGAATACAACGATGGATTTTAAATACTGTTTGTGGAATGTGTTTAAAGGATTGATTCTAGAACC
TTTGTATATTTGATAGTATTTCTAACTTTCATTTCTTTACTGTTTGCAGTTAATGTTCATGTTCTGCTATGCAAT
CGTTTATATGCACGTTTCTTTAATTTTTTTAGATTTTCCTGGATGTATAGTTTAAACAACAAAAAGTCTATTTAA
AACTGTAGCAGTAGTTTACAGTTCTAGCAAAGAGGAAAGTTGTGGGGTTAAACTTTGTATTTTCTTTCTTATAGA
GGCTTCTAAAAAGGTATTTTTATATGTTCTTTTTAACAAATATTGTGTACAACCTTTAAAACATCAATGTTTGGA
TCAAAACAAGACCCAGCTTATTTTCTGCTTGCTGTAAATTAAGCAAACATGCTATAATAAAAACAAAATGAAGG

FIGURE 4525

AGGAACGAG**ATG**GCGGTTCTCTGGAGGCTGAGTGCCGTTTGCGGTGCCCAAGGAGGCCGAGCTGGCTCCAAGGCT
GCATCTCTCCACTGGACTAGCGAGAGGGTTGTCAGTGTTTTGCTCCCGGGTCTGCTTCCGGCTGCTTATTTGAAT
CCTTGCTCTGCGACGGACTATTCCCTGGCTGCAGCCCTCACTCTTCATGGTCACTGGGGCCTTGGACAAGTTGTT
ACTGACTATGTTCATGGGGATGCCTCGCAGAAAGCTGCCAAGGCAGGGCTTTTGGCATTTTCAGCTTTAACCTTT
GCTGGGCTTTGCTATTTCAACTATCACGATGTGGGCATCTGCAAAGCTGTTGCCATGCTGTGGAAGCTC**TGA**CCT
TTTTGACTTCCTACTTTGAAGAATTGATGTATGCCTCTTTGCCTCTGCTTTGTCATGCCATTAAGCTCACAATAA
GGAAGAAATAACAGATAAGTCCATTGGTGGACAGCCTTCTTCTCTTAATCACAAGATTATTTTCAGAATTTAACT
TTGAGGAAAAGGTTTGAGAGGAATTATATTTAAGTTGTGAGACTGAGTTCTGTATTCTGGTGAGTTAATGGGGTT
GCCTCCCAGCTTCTTATAAGACTCACAGTATAACTAAACATGATATATCAGCTTTTGCCTTTTAATTTCTCAATC
TCTTAAAGAGAATC

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FIGURE 4526

CAGGAACGAG**ATG**GCGGTTCCCTGGAGGCTGAGTGCCGTTTGCGGTGCCCAAGGAGGCCGAGCTCTGTTGCTGCG
AACTCCAGTGGTCAGACCTGCTCATATCTCAGCATTTCTTCAGGACCGACCTATCCCAGAATGGTGTGGAGTGCA
GCACATACACTTGTCACCGAGCCACCATTCTGGCTCCAAGGCTGCATCTCTCCACTGGACTAGCGAGAGGGTTGT
CAGTGTTTTGCTCCCGGGTCTGCTTCCGGCTGCTTATTTGAATCCTTGCTCTGCGACGGACTATTCCCTGGCTGC
AGCCCTCACTCTTCATGGTCACTGGGGCCTTGGACAAGTTGTTACTGATTATGTTCATGGGGATGCCTCGCAGAA
AGCTGCCAAGGCAGGGCTTTTGGCATTTTCAGCTTTAACCTTTGCTGGGCTTTGCTATTTCAACTATCACGATGT
GGGCATCTGCAAAGCTGTTGCCATGCTGTGGAAGCTC**TGA**CCTTTTTGACTTCCTACTTTGAAGAATTGATGTAT
GCCTCTTTGCCTCTGCTTTGTCATGCCATTAAGCTCACAATAAGGAAGAAATAACAGATAAGCCCATTGGTGGAC
AGCCTTCTTCTCTTAATCACAAGATTATTTTCAGAATTTAATCTTTGAGGAAAAGGTTTGAGAGGAATTATATCT
AAGTTGTGAGACTGAGTTCTGTATTCTGGTGAGTTAATGGGGTTGCCTCCCAGCTTCTTATAAGACTCACAATAT
AACTAAACATGATATATCAGCTTTTGCCTTTTAATTTCTCAATCTCTTAAAGAGAATCCAGCTTTATTATGATTA
GTACATGATCAAATTTCCATATTTGCCTTGGGAATAATGGACAAAGGGAAATACTCTTAATTCATGAATAAAAAC
TTTGCAGAAAATTAGACAGTGTTTAATTTTCAAAAACTTCCCTCTCTAGTCAGTAGATACCACCTACTGATGGTT
ACATATACTAGGGAAATTTTAAAATTAGGAAATGCTGCTATCTCATATTATAAATTTCTAAATCCTAGGAAGAAA
CGCTTGGAGTGCTTCTGAAGATACAGAAGTTCCATTTAAGGGCAAGTTTCCCCAGAGACATATCAAAATATTATC
CATTGTAAACTGAGATTTAATTCTCAAATGTATTCTACTTGTTCTAAAACAATCTGTCCACAAATATAAAACTAT
AAGTAATAAATTGTTATTTCCGCACAATGGGAATCTCTAATGTGAAAATGTATTCTATGAAAATAATTTTTTTAA
ATAAAATGTTGTATAAAAAAA

FIGURE 4527

TTGCTACATATGGAACTATTATTATTAGAAACCTTTCAGTGGAACCTCTGCCTTCCAACAGCCGCCCATTTCATT
GAGTATTATCTCTCTGAAGCAGTACACGAAACAGATCTTCATGACGGCTGGCCAATGATTTGCTTGGAAAAGACT
AAACTCTACATGGCCAAATATGCAGATTACTTCCTGGAAGTATCTTTGCAAGCTGCTGCATGTGTGGCTTCTTCG
AGGATTATACTTCGTCTTTCTCCAACGTGGCCTACAAGACTACATCGTCTTACTGCCTACTCTTGGGATTTCTTA
GTGCAGTGTATTGAACGACTGTTGATCGCTCATGATAATGATGTGAAAGAAGCAAACAAACAGAGAGGGCAAGCA
GGACCTCAGTCAGCGCAACTAAGTGTATTCCAGACAGCCTCCCAGCCATCACGGCCAGTTCACTTTCAGCAACCT
CAGTATCTCCATCAGACACATCAGACCTCACTGCAGTATCGCCATCCTACGTCAGAACAACCAAGCTGTCAGCAG
ATTGTATCGACCACACACACCTCATCTTACACACTACAGACATGTCCTGCTGGCTTCCAAACTAGTGTTCAGGGC
CTTGGGCACATGCAGACTGGTGTTGGGATGTCACTGGCAATACCAGTAGAAGTTAAGCCCTGTCTGAGTGTTTCT
TACAACCGGAGTTATCAGATAAATGAACATTACCCTTGTATTACTCCATGTTTTGAAAGGTGATTATTTGTGAAG
CTGATAACCGACCCAGACTGCTTTGTGACATGAAGCTATGGGTAAGCGTTTTGTAAACTTCTGTTCAAAAGGAAA
GGGATCTAAATGACATCAGAACTCTTCAGGTACCAGCACCAGGAAGACTGAATATCCTTTTTAATGCACCATGAA
TCCTGGGAGACTAAGCAAATTAACAGTATGTCAAATTCTGTTACAACAAATCCCTGTATGACAAAAATGTTCAAG
TCCTGGCTGATGGTCCAAATATTTCAAAAATATTCAGTACAACAGAAAATTTGGACAGACTTCAATTTGCCATTT
TGAGATTTGACCTGTGGTAGCATCTGGGCCTAATGTTGGCTTCTAAGTCAAAGACTAAATGTTTATCTCATCTAT
GGACTTGCCAAACAGTCTTTTATGAAGGAAAGTTACAGTATTAATTTTTGAAAAGGTTTTTTTTATTCTGCAATT
TTTTATTTTTGTTCTACACATGAATTTTTGACTAAGTTTAAACTCATGAATTGTTATGCTATACCAATCTGCAGT
AAAAAAAATTTTTTTAGATGATTCTATATAACTTCGTCTCACAAATAGTGTAGGTATCTGGGTTTATATACTAAA
ATTAAGGGTGGAGAAGATCTTATTTTTTAAATCATGGTCATAATTTTTCTTTTTTTCCCTAAGTGATCAACATCA
AATTTTTAGAATTAAAATACATTTAACTCAGGGAATTTGTACTACTTGGAAACACTTAACTGTAATGCAACATGC
CTTGGGAATGTTATAGTGTGAACTACCTTTATAACATAGGTTAAAATACGCTTGCTAGGGTGTGTTTTCAAATGA
GAACATAATATAGCTCAGAATGAAGTGGTAGTTCCTGTGATTCATAATACATATGTAGGTTTTGCATATCTCAGT
GCAATCCATGATTTATACTCAGAATCGACATTCTTAAAAAGTTATTTCAAGGGATGGCATAACTGTAAGAGGTCA
GTGCTAGAATAAAGTCCTGTAGGTTTATTTTGGAAGGGACTGTGGCCAGGGTAGTTCTCAGGTTGTGCTAGAGCA
GCACTTTGTTATGTGGAAGACAGGTTTTTTAAGCAACCTTTGAATCCAGCTCTAGTCAGTCTAAGCAGGCAAAGG
TAACTGATGACTAAATTTCAGTAGCTACTTTCATTGGATTGACCCTACAACTGCCCTGGGACATTTCACTGTACC
AGTATTAACTGCAAACAGCAATAATTGTCATTACAGCAAGGGCAGTTTGGGGGTAAAGCATTTTGGAGGAATAAC
CTTAAAAAGTTAAAAAGTCATTGTAATAACTGATAAACTGTATACATTGTGCTCCTTTCTGTGGGAGAAGAAAGA
TTTGGTGGAGGGAAGCTTTCTGGTTTAAAAATTAGTAAGGTGTGTCTTTTTGTTTTTTTTAAGATAGCACTTGAA
TAGAAGGGAAAACTGCATGGCAGATACGTGACTGCCACAATATGCATCGAAGACAAACTTACTATAAAGATGTTG
TGGGTATGCAGCAGGAGTCTCAGTAATCAAGCCAATGGCCTTTGTCAGGAAGGGAAGGGGCTCAACACAGTGATG
GACTGATCCAGATGGCTCCCGGGGATGAATGTGGGTGGGTAGCTTCTGTCAGTATCAATGCTTAGAGAAATATCC
TTTCCTTAAAAAGAAAATAACTTTTATATTTAGAGTACATAGGGCATGATGTGGATTTATTAGTCTGGTAGATAA
AATGAAAAACCACTCAGGTAAGAACACTCACTCATGGCAGTTTTTAAGCATGAAAATTGTTTTCTGAAAGTATCA
TCACTTTTCCTTTTTAAAGAAGGCTGCTAATTGGATTTTGGTAGTTCTTACCTCAAGAAAACTTGAATTATTTGG
GGGAAAGTAGGCTCAAAAGAGAATATATCTTTCACATTCACATTCAGAACCCAGCAACCTGGAGTCCAATTTTCA
GTATTTTAACTACCTCAATAATGCTATGAATGTAAGATATTGGGATAGAGATCCCAACTTGAAACAACAGCCAGT
GCCTGTGGTAACTTAATGTCTTGTCAAATACTTTTATTGATTGGTTTATATGCCATTCTTGTTATAGAAGAATAT
GCCTTTTAAAAAAGCTTATTAATAACACTTTCCCAATTTATATTTTAAAAAGCTAAAGAACACTGGATTAATAAT
CTTTTGGGAGGGTAGAATAAAATAATTGATTACTATTGCTGCATACCCGGGGTGGGATGGGGTGGTTGGAGAACC
AGAACTATTTTTAAAACATTAGGTTTCAATATAAATACAACTCACAACTGCTAGCTTTGGGGGGTGGGGGAACAT
TGTGTGGGTTTTGTTTTGTTTAATTTATTGATTAGTCTTTAAAGTAGGCTTTTTTTTTTTTTTTGAGAATACTG
GACCATCATTAAATGTGTACTGTGAAGAGATTAATATGTATGAAGGGCTTTACCAAAGTCCACTAAATAAACACT
ACTCAAGTACAGACTGCAAACCAAAATGTATCTGTGTTACGACATTAATTGCAAATAGCAAGTATGGTGCTAAAG
TCTACACCAATGGAATTAGATGAGTGCTATGCACTTAATTTTAAAATAAAACTAGTTTTCAGT

FIGURE 4528A

GAAGGAACTGAGACACAGAGGTTGAGACTTGTCTAAAGTAACATGACCAATGAGGAAACTGAGGTCCAGAGAAGT
TGAAGTTTTCCCAAGGTCACACAGCAGAGCTGGAACTAGAGCTTGCATTTCCTGACTTCCAGATTAGTGTTATTT
TTACTTCAAACTATTACTTCTTGATAACTTCAAGAGTTTTCAGAAAAAAAGAAATTGGGACTTTTTTGGTTAAAT
CATGCCATCTGAACAGAAACAGTTATTTTGTGATGAAAAACAAACTACTTTAAAAAAAGATTATGATGTGAAAAA
TGAGATAGTTGATAGGTCGGCACCTAAACCAAAAATTTCAGGAAGTATTCATTATGCACTAAAAAATGTGAAAAT
TGATTTGCCAAAAATAAATATTCCAAATGAAGTCCTATTGAAACATGAAGTTGACAAATACAGAAAATTATTTCA
GAGTAAACAGCAGACTGCAAGAAAATCTATCAGTATAAAGACTGTAAGCTGTGTAGAGGAGTGTACATTGCTTCA
TAAGTCTGAGAGAGCTGAAGAAGAGGGTGTAAAAATGTCTGCAAAAATACTCAATTTCAGCTGTTTAAAATGCCG
AGACAACACTCGATATAGCCCAAATGATTTGCAGAAACACTTTCAAATGTGGCACCATGGCGAATTACCTTCATA
TCCTTGTGAAATGTGCAACTTTTCAGCAAATGACTTTCAGGTATTTAAACAACACAGACGAACCCATAGAAGCAC
TTTAGTAAAATGTGACATTTGTAACAATGAGAGTGTATATACTTTACTGAACTTGACAAAGCATTTCACATCCAC
ACATTGTGTTAATGGTAATTTTCAATGTGAAAAGTGTAAGTTCTCCACCCAGGATGTTGGCACATTTGTTCAGCA
CATTCATAGACATAATGAAATTCATTATAAGTGTGGTAAATGTCATCATGTATGTTTTACCAAAGGAGAGCTTCA
GAAGCACCTTCATATTCATTCTGGTACTTTTCCCTTCACTTGTCAATATTGTAGCTATGGTGCCACCAGGAGAGA
ACACCTTGTAAGACATGTTATAACTTTGCACAAAGAACATTTATATGCAAAAGAAAAACTGGAAAAAGACAAATA
TGAAAAAAGAATGGCAAAGACTTCTGCAGGACTTAAGCTAATACTGAAAAGATATAAAATAGGTGCATCAAGGAA
GACGTTCTGGAAACGTAAGAAAATTAACAGTGGAAGTGACAGAAGTATAGAAAAGAACACTCAAGTGCTTAAGAA
AATGAACAAAACACAGACTAAATCTGAAGACCAGAGCCATGTTGTTCAAGAGCATTTAAGTGAAGAAAAGGATGA
AAGACTACACTGTGAGAATAATGATAAAGCCCCTGAATCAGAGTCAGAGAAGCCAACTCCTCTGTCCACTGGGCA
AGGTAATAGAGCTGAAGAGGGACCAAACGCTAGTTCAGGTTTCATGAAGACTGCTGTACTAGGACCTACACTGAA
AAATGTAATGATGAAAAATAATAAACTAGCAGTTTCCCCTAACTATAATGCTACGTTTATGGGCTTCAAGATGAT
GGATGGAAAACAGCATATTGTATTAAAATTGGTGCCTATCAAACAAAATGTATGTTCACCAGGCTCACAGTCAGG
TGCTGCAAAGGACGGTACTGCTAATTTGCAGCCCCAGACTTTGGACACTAATGGATTTTTAACAGGAGTAACAAC
TGAGTTAAATGACACAGTTTATATGAAAGCAGCTACTCCATTTTCATGTTCATCTTCTATACTTTCAGGGAAAGC
AAGTTCAGAAAAAGAAATGACTTTGATATCTCAAAGGAATAATATGCTTCAAACAATGGATTATGAGAAAAGTGT
ATCTTCTTTGTCAGCAACATCAGAATTGGTTACAGCATCAGTGAATTTGACCACAAAATTTGAAACAAGAGATAA
TGTTGACTTCTGGGGAAATCATCTCACTCAGAGTCACCCCGAGGTATTAGGTACCACCATTAAAAGTCCAGATAA
AGTCAACTGTGTTGCCAAACCAAATGCATACAACAGTGGAGATATGCATAATTATTGCATTAATTATGGCAACTG
TGAGTTACCTGTTGAATCCTCCAACCAAGGATCATTACCTTTTCATAATTACTCAAAAGTGAATAATTCTAATAA
ACGTCGTAGGTTTTCAGGAACAGCAGTGTATGAAAACCCTCAAAGAGAATCTTCATCCAGCAAAACAGTTGTCCA
ACAACCAATTAGTGAATCATTTTTATCACTAGTGAGGCAGGAGAGCTCAAAACCAGATAGCCTATTAGCATCTAT
TAGCCTTTTAAATGATAAAGATGGAACTTTAAAAGCAAAATCTGAAATTGAAGAACAGTATGTTTTAGAAAAAGG
ACAAAACATTGATGGACAAAACCTGTACAGTAATGAAAATCAAAATTTAGAGTGTGCGACTGAAAAATCTAAATG
GGAAGACTTTTCTAATGTCGATTCACCTATGATGCCTAGAATCACATCTGTTTTCTCTCTCCAGAGCCAACAGGC
ATCAGAATTTCTGCCACCTGAAGTAAACCAATTGCTTCAGGATGTATTGAAAATAAAACCTGATGTAAAACAAGA
CTCTAGTAACACTCCAAATAAAGGCTTGCCACTTCATTGTGACCAGTCATTTCAAAAACACGAGAGAGAAGGCAA
AATTGTTGAATCTTCGAAAGATTTCAAAGTGCAAGGCATCTTCCCAGTTCCACCTGGCAGTGTGGGTATTAATGT
GCCTACAAATGATTTGAATTTGAAATTTGGAAAAGAAAAACAAGTGTCATCAATACCACAAGATGTGAGAGATTC
AGAGAAGATGCCTAGAATTTCAGGTTTTGGCACATTACTTAAGACTCAGTCAGATGCGATAATAACACAGCAGCT
TGTAAAAGACAAACTACGAGCCACCACACAAAATTTAGGTTCTTTTTATATGCAGAGTCCACTTTTAAATTCAGA
ACAAAAAAAAACTATAATTGTTCAGACTTCAAAAGGATTCTTAATACCATTGAACATTACTAACAAGCCTGGGCT
ACCAGTTATTCCTGGAAATGCACTTCCATTGGTTAATTCACAAGGTATCCCTGCTTCTCTTTTTGTAAACAAGAA
ACCTGGGATGGTTTTAACACTTAATAATGGGAAACTTGAAGGTGTTTCCGCTGTCAAAACCGAGGGTGCCCCAGC
TCGTGGAACTGTGACTAAGGAGCCTTGCAAAACACCTATTTTGAAGGTAGAACCAAACAATAATTGTCTTACACC
TGGACTTTGTTCCAGCATTGGCAGTTGTTTGAGCATGAAAAGTAGCTCAGAAAATACTTTGCCATTAAAAGGCCC
TTACATTTTGAAACCAACGAGTTCTGTGAAAGCTGTTCTTATTCCTAACATGCTATCTGAGCAACAGAGCACTAA
GTTGAATATCTCCGATTCAGTAAAACAGCAGAATGAGATTTTTCCAAAACCACCTCTTTATACCTTCTTGCCTGA
TGGCAAACAAGCTGTTTTTTTAAAGTGTGTGATGCCAAATAAAACTGAGCTGCTTAAGCCCAAATTAGTCCAAAA

FIGURE 4528B

TAGTACTTATCAAAATATACAGCCAAAGAAACCTGAAGGAACACCACAAAGAATATTGCTGAAAATTTTTAACCC
TGTTTTAAATGTGACTGCTGCTAATAATCTGTCAGTAAGCAACTCTGCATCCTCATTGCAAAAAGACAACGTACC
ATCTAATCAGATTATAGGAGGAGAGCAGAAAGAGCCAGAATCTAGAGATGCCTTACCCTTCTTACTAGATGACTT
AATGCCAGCAAATGAAATTGTGATAACTTCTACTGCAACATGCCCAGAATCTTCTGAGGAACCAATATGTGTCAG
TGACTGTTCAGAGTCCAGGGTATTAAGGTGTAAAACAAATTGTAGAATTGAGAGGAACTTCAATAGAAAAAAGAC
TTCCAAAAAAATTTTTTCAAAAACAAAAACTCATGGAAGTAAAGACTCTGAAACTGCCTTTGTATCTAGAAACAG
AAACTGTAAACGAAAGTGTAGGGATAGTTACCAAGAACCTCCAAGAAGAAAAGCAACATTGCATAGAAAGTGTAA
AGAAAAGGCAAAACCTGAAGATGTCCGTGAAACATTTGGATTTAGCAGACCTAGGCTTTCAAAAGATTCCATCAG
AACTTTGCGGCTTTTCCCTTTTAGTTCTAAACAGCTTGTGAAATGTCTAGGAGAAACCAACCAGTTG**TAG**TTTTG
AATCATCCTGACGCAGATGCACCAGAAGTAGTAAGTGTAATGAAAACTATTGCTAAATTTAATGGACATGTACTT
AAGGTTTCATTGTCAAAAAGAACTATAAATGCTTTACTGAAACCAGTTTGTTATAACCCTCCTAAAACAACTTAT
GATGATTTTTCCAAGAGGCACAAAACATTTAAACCTGTTAGTTCTGTGAAAGAAAGATTTGTGCTAAAATTAACA
CTCAAAAAGACAAGCAAAAACAATTACCAGATTGTGAAGACTACCTCTGAAAATATTTTGAAGGCTAAATTTAAC
TGTTGGTTTTGTGGTAGAGTATTTGACAATCAGGATACTTGGGCTGGTCATGGGCAGAGACATTTAATGGAAGCT
ACTCGGGATTGGAACATGTTAGAATAGTTTACCATAATTACCAAGGAAAAGAAAAGTAAAATTACCTTAGAAGAA
AACAACGGGTTCAGTTACCATAATGCAGACATTTTCTACTTCAGTATAGTACCTGAAATCGAACATTTTAAAAGT
TGATTGTATTTCTGTGGAAGAGTAAAAGTTGTATGTATGATATTTGAAAATGCTATCCCTGCACTCAAAAGTTTT
GAAAGAAACTAATCACAGCACAGAAGTACCTTGATTTAATTTTTTAAACGTGTTCTCGGGAAGTTAGGGCTAAAG
AAAATTTTGATAAAACAATTTTCCCACTTTAGTTCTTTAGTGACTCTTAGTAGAGGGTAATGGCTGACACCCCCA
TTCCCTCTCTTCTTCCACCAGCCTTATGCATCTAAGTGTAGCTCCTCTGGAGATGGAGAGCTCTTTCATCGTAGA
ACTGAAGGAGTTTCTCACATTTGTGAAGATACTTTGAGAGAACCTGGGTAAAGAAGTCACTCTATATCTGCTAAA
TATAGTTATTTTGAAGGATATTAGGCTCCTTGAAAGTACATTTAACTCACTACAGTTACACCTCATACAATGCTT
GAAGAGTTTTTGGCAAGTAAATTTTTTTTCCAGTTGAACTCTGTCACTTGTTAGAGATTGGGAACACTCTCCCAA
GGTGATTTTCTTTTTCTAAGTGACTGTGTCAAATGTTGCAGTAGATGGGCAGCTTCAAGAGAAGAATTTAAACTC
TTTGTCTCATTGAAAGTTTGGTTAAAGAACTTGAACATATTTCTAAATTTGATTATATTCTCTGATGATCCCTTT
GCACAGAACTATGCTTATCTCATGTTTGTCCTCCATAAACAAATGGCCATTTTTTTCTTCTTGGTTCCCATCCCT
TTAAAAAGAGTGGAACATAGGAGCACTTCCAAGGGAGTGGCTTTTCTTGAAAATTAAAATTGTTTACCAAAACAG
TATTTTGAAGCAAGATCATATTTTTGTCTGTATTCACTTTATTATTTGAACATGTCCAAATTAGGACAAAGCATT
TCTGTTAGCTGCTTCTCAGTGTGACTGACAACCCAAAACATATATACAGATTGTTGGCATTTGCAAAAGGAAGCA
TCAATAGTGGACCCAGAGGCAGTGCATAAAACCTTAGGATAGATTCCTAAGGGACATGCCCAACAGAGTTTTAAA
ATGGATGTTTTCATGATGACAACAGAATCATAGATTTAGATTTTTCACCTTGTAAGTTTGGATCAAATTTTGCTG
GTTCTTTGGATAATGGAGTTCTTGTGTTAACAAATTACGTGCTATATGATTTTTTGTTACATTGTTACAAGTGTT
AATGACATTTTCATTAATGGATGAAAACTTCAGGGCTTCTTTTCTGTATATAACAAATTAAGTCTGTACATATTT
TTGTACCTTTTATGTAAATTTTGCACAGAAATTTTTGGCATAAGTTTATTTTCTTTCAGTTTAGTTCAGTGCATG
CACTAATAAAACTGGTTGTTTAATTTAAAAGGAATATATAAGACTTTACCCATGTTATTTTCTTGGTTTTTATTT
CAGATGTAGATTTTGTTTTTGAGGTAAATTCGTTCTTCAGGGATTGAACACTATTGTTAGCAAGTGCCTAAAAAA
GATGTGAAACAGTTTACATATGTCAACTGTAACAGTAGGTCCCAAATGGGCCCATTCCCCTAATAGTTTTATTTT
TAAAGAAAGCCATACATAGAATGCTTCAAGCTATCTTGCTATGCACATTATACTTGTACTGTTTTGTGCAGTTTG
TCTACTTTCTTAGTGAAGTATTTTTTGTATAAAATGTTACAATTGTGTTTCTTAAATTGAGCCTAAGAATGGAGT
TAATTGGAAATATACAGTATATATTAATAATGTACATGGTGTTTAAAGAATGGTAAGCATTGTTAATTTCTGTAA
TGAACATTTTCAATTAAATTTATCTTGTTTGTGTTT

FIGURE 4529

ATGGAAGATTCGATGGACATGGACGCCGACAAAGATGATCACTTTAAGGTGGATAATGATGAAAATGAGCACCAG
TTATCCTTAAGAACGCCAACAGTTTCCCTTGGGGTCTTTGAAATAACACCACCAGTGCTTTTATGGTTGAAGTGT
GGTTCAGGGCCAGTGCATATTAGTGGACAGCATTTAGTAGCTGTGGAGGAAGATGCAGAGTCAGAAGATGAAGAG
GAGGAGGATGTGAAACTCTTAAGGATATCTGGAAAATTAAAAGGACAAGAATCCTTCAAAAAACAGGAAAAAACT
CGTAAAACACCAAAAGGGCCTAGTTCTGTAGAAGACATTAAATCAAAAATGCAAGCAAGTATAGAAAAAGGTGGT
TCTCTTCCCAAATGGAGGAAGTCTCTT**TAG**

FIGURE 4530

GCAGCCTGCACTCTCAGAAATCAGACTTGAGTGGCCGGAACCCTTGAGACCAGAGGCTTACCATGCTGCTCCCTA
GGAGGGCCAGGAACTGCTGACGTGACCACTGGACAGTTATTCGTGTCTCTTACAATTACCAAACAGA**ATG**GACAA
GCTTAATAAAATAACCGTCCCCGCCAGTCAGAAGTTGAGGCAGCTTCAAAAGATGGTCCATGATATTAAAAACAA
TGAAGGTGGAATAATGAATAAAATCAAAAAGCTAAAAGTCAAAGCACCTCCAAGTGTTCCTCGAAGGGACTACGC
TTCAGAGAGCCCTGCTGACGAAGAGGAGCAGTGGTCCGATGACTTTGACAGCGACTATGAAAATCCAGATGAGCA
CTCGGACTCAGAGATGTACGTGATGCCCGCCGAGGAGAACGCTGATGACAGCTACGAGCCGCCTCCAGTAGAGCA
GGAAACCAGGCCGGTTCACCCAGCCCTGCCCTTCGCCAGAGGCGAGTATATAGACAATCGATCAAGCCAGAGGCA
TTCCCCACCCTTCAGCAAGACACTTCCCAGTAAGCCCAGCTGGCCTTCAGAGAAAGCAAGGCTCACCTCCACCCT
GCCGGCCCTGACTGCTTTGCAGAAACCTCAAGTCCCACCCAAACCCAAAGGCCTCCTTGAGGATGAGGCTGATTA
TGTGGTCCCCGTGGAAGATAATGATGAAAACTATATTCATCCCACAGAAAGCAGTTCACCTCCACCTGAAAAAGC
TCCCATGGTGAATAGATCAACCAAGCCAAATTCCTCAACGCCCGCCTCTCCTCCAGGAACAGCTTCAGGTCGAAA
CAGTGGGGCCTGGGAAACCAAGTCACCTCCACCAGCTGCACCATCCCCGTTGCCACGGGCCGGGAAAAAACCAAC
GACACCACTGAAGACAACTCCAGTTGCCTCTCAACAGAATGCTTCAAGTGTTTGTGAAGAAAAACCTATACCTGC
TGAACGCCACCGAGGGTCAAGTCACAGACAAGAAGCTGTGCAGTCACCAGTGTTTCCTCCTGCCCAGAAACAAAT
CCACCAAAAACCCATACCTCTGCCAAGATTTACAGAAGGGGGAAACCCAACTGTGGATGGGCCCCTACCCAGCTT
TTCATCTAATTCCACTATTTCAGAACAGGAAGCTGGCGTTCTCTGCAAGCCATGGTATGCTGGAGCCTGTGATCG
AAAGTCTGCTGAAGAGGCATTGCACAGATCAAACAAGGATGGATCATTTCTTATTCGGAAAAGCTCTGGCCATGA
TTCCAAACAACCATATACACTAGTTGTATTCTTTAATAAGCGAGTATATAATATTCCTGTGCGATTTATTGAAGC
AACAAAACAATATGCCTTGGGCAGAAAGAAAAATGGTGAAGAGTACTTTGGAAGTGTTGCTGAAATCATCAGGAA
TCATCAACATAGTCCTTTGGTTCTTATTGACAGTCAGAATAACACAAAAGATTCCACCAGACTGAAGTATGCAGT
TAAAGTTTCA**TAA**AGGGGGAAAAAAAAGATCAATACCATTGCTTCAGACACTTTCCCAAAGTTTCTCCTTTTGAG
AAAAAGTCCCAAAACTTCATATTTTGGATTATGAATCATCCAGTAATAAAATGGAAGATGGAGTCAGCTATTGAA
GTGGTCATCCATTTCTTTTTAAGAAGCTCATGTGGACTTGTTCTATTGCCTGACCTGATGAACTGTTAATATCTG
GTGAGGTTGAGTTATCATGCTACTAATATTTTCCAAATAAATATTTTTATTTTT

FIGURE 4531

GTGAGATGACATCAAAACCCTTCGTGTAGGAGGGTGGCAGTCTCCCTCCCTTCTGGAGACACCACCAGATGGGCC
AGCCAGAGGCAGCAGCAGCCTCTTCCC**ATG**GATCCACCACGAGCGTCCCACTTGAGCCCTCGGAAGAAGAGACCC
CGGCAGACGGGTGCCTTGATGGCCTCCTCTCCTCAAGACATCAAATTTCAAGATTTGGTCGTCTTCATTTTGGAG
AAGAAAATGGGAACCACCCGCAGAGCGTTCCTCATGGAGCTGGCCCGCAGGAAAGGGTTCAGGGTTGAAAATGAG
CTCAGTGATTCTGTCACCCACATCGTAGCAGAGAACAACTCGGGTTCGGATGTTCTGGAGTGGCTTCAAGCACAG
AAAGTACAAGTCAGCTCACAACCAGAGCTCCTCGATGTCTCCTGGCTGATCGAATGCATAAGAGCAGGGAAACCG
GTGGAAATGACAGGAAAACACCAGCTTGTTGTGAGAAGAGACTATTCAGATAGCACCAACCCAGGCCCCCCGAAG
ACTCCACCAATTGCTGTACAAAAGATCTCCCAGTATGCGTGTCAGAGAAGAACCACTTTAAACAACTGTAACCAG
ATATTCACGGATGCCTTTGATATACTGGCTGAAAACTGTGAGTTTAGAGAAAATGAAGACTCCTGTGTGACATTT
ATGAGAGCAGCTTCTGTATTGAAATCTCTGCCATTCACAATCATCAGTATGAAGGACACAGAAGGAATTCCCTGC
CTGGGGTCCAAGGTGAAGGGTATCATAGAGGAGATTATTGAAGATGGAGAAAGTTCTGAAGTTAAAGCTGTGTTA
AATGATGAACGATATCAATCCTTCAAACTCTTTACTTCTGTATTTGGAGTGGGGCTGAAGACTTCTGAGAAGTGG
TTCAGGATGGGTTTCAGAACTCTGAGTAAAGTAAGGTCGGACAAAAGCCTGAAATTTACACGAATGCAGAAAGCA
GGATTTCTGTATTATGAAGACCTTGTCAGCTGTGTGACCAGGGCAGAAGCAGAGGCCGTCAGTGTGCTGGTTAAA
GAGGCTGTCTGGGCATTTCTTCCGGATGCTTTCGTCACCATGACAGGAGGGTTCCGGAGGGGTAAGAAGATGGGG
CATGATGTAGATTTTTTAATTACCAGCCCAGGATCAACAGAGGATGAAGAGCAACTTTTACAGAAAGTGATGAAC
TTATGGGAAAAGAAGGGATTACTTTTATATTATGACCTTGTGGAGTCAACATTTGAAAAGCTCAGGTTGCCTAGC
AGGAAGGTTGATGCTTTGGATCATTTTCAAAAGTGCTTTCTGATTTTCAAATTGCCTCGTCAAAGAGTGGACAGT
GACCAGTCCAGCTGGCAGGAAGGAAAGACCTGGAAGGCCATCCGTGTGGATTTAGTTCTGTGCCCCTACGAGCGT
CGTGCCTTTGCCCTGTTGGGATGGACTGGCTCCCGGTTTGAGAGAGACCTCCGGCGCTATGCCACACATGAGCGG
AAGATGATTCTGGATAACCATGCTTTATATGACAAGACCAAGAGGATATTCCTCAAAGCAGAAAGTGAAGAAGAA
ATTTTTGCGCATCTGGGATTGGATTATATTGAACCGTGGGAAAGAAATGCC**TAG**GAAAGTGTTGTCAACATTTTT
TTCCTATTCTTTTCAAGTTAAATAAATTATGCTTCATATTAGTAAAAGATGCCATAGGAGAGTTTGGGGTTATTT
AGGTCTTATTGAAATGCAGATTGCTACTAGAAATAAATAACTTTGGAAACATGGGAAGGTGCCACTGGTAATGGG
TAAGGTTCTAATAGGCCATGTTTATGACTGTTGCATAGAATTCACAATGCATTTTTCAAGAGAAATGATGTTGTC
ACTGGTGGCTCATTCAGGGAAGCTCATCAAAGCCCACTTTGTTCGCAGTGTAGCTGAAATACTGTCTATCTCTAA
TAAAAACAGGAGGAAAC

FIGURE 4532

GAGGAAGAGGCTGAGGAGGCGCGGGGGGCGGGGGAGGCTCAGGAGCGGGCGGTGACGGCGACGGCGGCGGCAGAG
GAGGCAGCGGCTGGGCCGGGCCCCGTGCGTCTGTCCGCGCCCCGTGGATGCGAATCGGCCGCGGCGGAGGCGGCG
GCGGCGGAGGAGGCGGCGGCGGGAGGAGGAGTCGGTGAGCCGGCTCCGGGCCGGAGGGGCGCGGAGG**ATG**AGGCC
GCTGCCTGGCGCTCTTGGCGTGGCGGCGGCCGCCGCGCTGTGGCTGCTGCTGCTGCTGCTGCCCCGGACCCGGGC
GGACGAGCACGAACACACGTATCAAGATAAAGAGGAAGTTGTCTTATGGATGAATACTGTTGGGCCCTACCATAA
TCGTCAAGAAACATATAAGTACTTTTCACTTCCATTCTGTGTGGGGTCAAAAAAAAGTATCAGTCATTACCATGA
AACTCTGGGAGAAGCACTTCAAGGGGTTGAATTGGAATTTAGTGGTCTGGATATTAAATTTAAAGATGATGTGAT
GCCAGCCACTTACTGTGAAATTGATTTAGATAAAGAAAAGAGAGATGCATTTGTATATGCCATAAAAAATCATTA
CTGGTACCAGATGTACATAGATGATTTACCAATATGGGGTATTGTTGGTGAGGCTGATGAAAATGGAGAAGATTA
CTATCTTTGGACCTATAAAAAACTTGAAATAGGTTTTAATGGAAATCGAATTGTTGATGTTAATCTAACTAGTGA
AGGAAAGGTGAAACTGGTTCCAAATACTAAAATCCAGATGTCATATTCAGTAAAATGGAAAAAGTCAGATGTGAA
ATTTGAAGATCGATTTGACAAATATCTTGATCCGTCCTTTTTTCAACATCGGATTCATTGGTTTTCAATTTTCAA
CTCCTTCATGATGGTGATCTTCTTGGTGGGCTTAGTTTCAATGATTTTAATGAGAACATTAAGAAAAGATTATGC
TCGGTACAGTAAAGAGGAAGAAATGGATGATATGGATAGAGACCTAGGAGATGAATATGGATGGAAACAGGTGCA
TGGAGATGTATTTAGACCATCAAGTCACCCACTGATATTTTCCTCTCTGATTGGTTCTGGATGTCAGATATTTGC
TGTGTCTCTCATCGTTATTATTGTTGCAATGATAGAAGATTTATATACTGAGAGGGGATCAATGCTCAGTACAGC
CATATTTGTCTATGCTGCTACGTCTCCAGTGAATGGTTATTTTGGAGGAAGTCTGTATGCTAGACAAGGAGGAAG
GAGATGGATAAAGCAGATGTTTATTGGGGCATTCCTTATCCCAGCTATGGTGTGTGGCACTGCCTTCTTCATCAA
TTTCATAGCCATTTATTACCATGCTTCAAGAGCCATTCCTTTTGGAACAATGGTGGCCGTTTGTTGCATCTGTTT
TTTTGTTATTCTTCCTCTAAATCTTGTTGGTACAATACTTGGCCGAAATCTGTCAGGTCAGCCCAACTTTCCTTG
TCGTGTCAATGCTGTGCCTCGTCCTATACCGGAGAAAAAATGGTTCATGGAGCCTGCGGTTATTGTTTGCCTGGG
TGGAATTTTACCTTTTGGTTCAATCTTTATTGAAATGTATTTCATCTTCACGTCTTTCTGGGCATATAAGATCTA
TTATGTCTATGGCTTCATGATGCTGGTGCTGGTTATCCTGTGCATTGTGACTGTCTGTGTGACTATTGTGTGCAC
ATATTTTCTACTAAATGCAGAAGATTACCGGTGGCAATGGACAAGTTTTCTCTCTGCTGCATCAACTGCAATCTA
TGTTTACATGTATTCCTTTTACTACTATTTTTTCAAAACAAAGATGTATGGCTTATTTCAAACATCATTTTACTT
TGGATATATGGCGGTATTTAGCACAGCCTTGGGGATAATGTGTGGAGCGATTGGTTACATGGGAACAAGTGCCTT
TGTCCGAAAAATCTATACTAATGTGAAAATTGAC**TAG**AGACCCAAGAAAACCTGGAACTTTGGATCAATTTCTTT
TTCATAGGGGTGGAACTTGCACAGCAAAAACAAACAAACGCAAGAAGAGATTTGGGCTTTAACACACTGGGTACT
TTGTGGGTCTCTCTTTCGTCGGTGGCTTAAAGTAACATCTATTTCCATTGATCCTAGGTTCTTCCTGACTGCTTT
CTCCAACTGTTCACAGCAAATGCTTGGATTTTATGCAGTAGGCATTACTACAGTACATGGCTAATCTTCCCAAAA
ACTAGCTCATTAAAGATGAAATAGACCAGCTCTCTTCAGTGAAGAGGACAAATAGTTTATTTAAAGCATTTGTTC
CAATAAAATAAATAGAGGGAAACTTGGATGCTAAAATTACATGAATAGGAATCTTCCTGGCACTTAGTGTTTCTA
TGTTATTGAAAAATGATGTTCCAGAAAGATTACTTTTTTCCTCTTATTTTTACTGCCATTGTCGACCTATTGTGG
GACATTTTTATATATTGAATCTGGGTTCTTTTTTGACTTTTTTTTTTTCCCAATCCAACAGCATCCTTTTTTTTA
AAAGAGAGAATTAGAAAATATTAAATCCTGCATGTAATATATCTGCTGTCATCTTAGTTGGACCAACTTCCCATT
TATTTATCTTAAAACTATACAGTTACATCTTAATTCCATCCAAAGAAGATACAGTTTGAAGACAGAAGTGTACTC
TCTACAATGCAATTTACTGTACAGTTAGAAAGCAAAGTGTTAAATGGAGAAGATACTTGTTTTTATTAAACATTT
TGAGATTTAGATAAACTACATTTTAACTGAATGTCTAAAGTGATTATCTTTTTTCCCCCCAAGTTAGTCTTAAAT
CTTTTGGGTTTGAATGAAGGTTTTACATAAGAAATTATTAAAAACAAGGGGGGTGGGTAATAAATGTATATAACA
TTAAATAATGTAACGTAGGTGTAGATTCCCAAATGCATTTGGATGTACAGATCGACTACAGAGTACTTTTTTCTT
ATGATGATTGGTGTAGAAATGTGTGATTTGGGTGGGCTTTTACATCTTGCCTACCATTGCATGAAACATTGGGGT
TTCTTCAAAATGTGTGTGTCATACTTCTTTTGGGAGGGGGGTTGTTTTCTTCTGTTTATTTTCTGAGACTCCTAC
AGGAGCCAAATTTGTAATTTAGAGACACTTAATTTTGTTAATCCTGTCTGGGACACTTAAGTAACATCTAAAGCA
TTATTGCTTTAGAATGTTCAAATAAAATTTCCTGACCAAATTGTTTTGTGGAAATAGATGTGTTTGCAATTTGAA
GATATCTTTCTGTCCAGAAGGCAAAATTACCGAATGCCATTTTTAAAAGTATGCTATAAACTATGCTACTCTCAT
ACAGGGGACCCGTATTTTAAAATCTCCAGACTTGCTTACATCTAGATTATCCAGCACAATCATAAAGTGAATGAC
AAACCCTTTGAATGAAATTGTGGCACAAAATCTGTTCAGGTTGGTGTACCGTGTAAAGTGGGGATGGGGTAAAAG
TGGTTAACGTACTGTTGGATCAACAAATAAAGGTTACAGTTTTGTAAGAG

FIGURE 4533A

ATTCTGGCTGTGACTCAGTCACTGACACTGAGCCTGAGGACGAGAAGGTTGTTTCCTACTCGAAGCAGCAGAACC
TGCCGACGGTGACTTCACCTGGGAACCTG**ATG**GTGGTGCAGCCGGACCGCATTCGCTGTGGGGCAGAAACCACTG
TCTATGTTATTGTGAGATGTAAGCTGGATGACAGGGTGGCGACAGAAGCAGAGTTTTCTCCTGAGGATTCTCCCT
CTGTAAGGATGGAAGCCAAGGTGGAGAATGAGTACACCATTTCAGTGAAGGCTCCCAACCTTTCATCTGGGAACG
TTTCTCTGAAGATATATTCTGGAGACTTAGTGGTGTGTGAAACCGTTATCAGCTATTATACTGACATGGAAGAAA
TTGGGAATTTATTGTCCAATGCCGCGAATCCTGTGGAATTCATGTGTCAGGCCTTTAAAATTGTGCCCTACAACA
CAGAGACCCTTGATAAACTGCTAACCGAATCCCTGAAGAACAATATCCCTGCAAGCGGACTGCACCTCTTTGGAA
TCAACCAGCTGGAAGAAGAAGATATGATGACAAATCAGAGGGATGAAGAGCTGCCCACCCTGTTGCATTTTGCTG
CGAAGTATGGACTGAAGAACCTCACTGCCTTGTTGCTCACCTGCCCAGGAGCCCTGCAGGCGTACAGCGTGGCCA
ACAAGCATGGCCACTACCCCAACACCATCGCTGAGAAACACGGCTTCAGGGACCTGCGGCAGTTCATCGACGAGT
ATGTGGAAACGGTGGACATGCTCAAGAGTCACATTAAAGAGGAACTGATGCACGGGGAGGAGGCTGATGCTGTGT
ACGAGTCCATGGCCCACCTTTCCACAGACCTGCTTATGAAATGCTCGCTCAACCCCGGCTGTGACGAGGATCTCT
ATGAGTCCATGGCTGCCTTTGTCCCAGCTGCCACTGAAGACCTCTATGTTGAAATGCTTCAGGCCAGTACATCTA
ACCCAATCCCTGGAGATGGTTTCTCTCGGGCCACTAAGGACTCTATGATCCGCAAGTTTTTAGAAGGCAACAGCA
TGGGAATGACCAATCTGGAGAGAGATCAGTGCCATCTTGGTCAGGAAGAAGATGTTTATCACACGGTGGATGACG
ATGAGGCCTTTTCTGTGGACCTGGCCAGCAGGCCCCCTGTCCCAGTGCCCAGACCAGAGACCACTGCTCCTGGTG
CTCACCAGCTGCCTGACAACGAACCATACATTTTTAAAGTTTTTGCAGAAAAAAGTCAAGAGCGGCCTGGGAATT
TCTACGTTTCCTCAGAGAGCATCAGGAAAGGGCCGCCCGTCAGACCATGGAGGGACAGGCCCCAGTCGAGTATAT
ATGACCCTTTTGCGGGAATGAAAACGCCAGGCCAGCGGCAGCTTATCACCCTCCAGGAGCAGGTGAAGCTGGGCA
TTGTCAACGTGGATGAGGCTGTGCTCCACTTCAAAGAGTGGCAGCTCAACCAGAAGAAACGATCGGAGTCCTTTC
GTTTCCAGCAGGAAAATCTTAAACGGCTAAGAGACAGCATCACCCGAAGACAGAGAGAGAAGCAAAAATCAGGAA
AGCAGACAGACTTGGAGATCACGGTCCCAATTCGGCACTCACAGCACCTGCCTGCAAAAGTGGAGTTTGGAGTCT
ATGAGAGTGGCCCCAGGAAAAGTGTCATTCCCCCTAGGACGGAGCTGAGACGAGGAGACTGGAAAACAGACAGCA
CCTCCAGCACAGCAAGTAGCACAAGTAACCGCTCCAGCACCCGGAGCCTCCTCAGTGTGAGCAGCGGGATGGAAG
GGGACAACGAGGATAATGAAGTCCCTGAGGTTACCAGAAGTCGCAGTCCAGGCCCCCCACAAGTGGATGGGACAC
CCACCATGTCCCTCGAGAGACCCCCCAGGGTGCCTCCGAGAGCTGCCTCACAGAGGCCTCCGACCAGGGAGACCT
TCCATCCTCCTCCACCTGTTCCACCCAGAGGACGC**TGA**TTCCACCTCCTAAAACCTGCCTACTTCAGGACTTTAA
GACTCACAGTCTTCAGCCTGTTAATGATGTCTTCATGTTGAGTTTTATAGCATGACTGTTGACCTTAAGATCCAT
TCTCATTGCTGATAATGCTGCAGCCCTGCTGGTTTGGGCTTGCCTCGAAGATTTTATTAAGGCACGAAGAAGTGA
AAAACTAAGGGCTTCATTCACCATCACCAAGTATATCGAACCATATACTTGTTTGCCAAAAGGATGAAGACTTAA
TCGAAATACTTACCTCTAATTTGCCATATCAGAAGCCTAAAAAGAATGATCATAAATGTACTTCACCAGTGATTT
TACTGAAATGCACTTATATTAGTCTTTATGTATTTGCTAGTTCAGCCTGATTTCTAGAAGAGGTTATAGTGTGAG
ACTTGTAGTATTCAAGTAAGATAAGTGACCTAATTTTAAAATAATTCTTCTACTTTTCTGTATATTCAGCAGGGT
ATTTAAGTGCTAGGGCTGGTCACACACAACCAACTGAAAAAGACTAGAGGGATTAGTACAAACTCCTCTTATACA
GAAGGCAAATCTGAGGTTCCACAGAAGTCTGGAACCAAGACTATTCAGTTGGTTAAATAAAGAGGTTAGTCTAGA
CTGGGCCTGCTCATTCTAGGTCACCACATTTTCCATCTCCAAATAGCCAGGCCCTCTCTCCCTCAAGAAATGCCC
AGATGTAGAAATTCATCAGTGCCTATTGGTCTTCCAGAATTTTCCATCTTCCGTATCTCCCAGGCATGAGACTAC
CAAGTTTGTTTGTTTTCTTTCCAATTTGGGAATTTATACTTCAGTATGGTTTCAACGCAGTTATGTTTCCAGAGA
ACATCTAGAAGTGGCTGGAAACCAGAAGCTGGGGATTCCAGGGACCCCACTTAGTGCTCTATTTCCTTTATAGGT
TTTATTTCTGGTCATAGAGAGAGAAGGACCTTTGACTTTTTCTTCGTTGAGGCTTCTGAGGAGGAAAAACAAACC
TAAAATAGAAATACAGTCAGCCTTTCAAATCCATGGGTTCTGTGTCCGTGGATTCAACCAACCTTGGATCAAAAA
TATTTGAAAAAAAATCTACAAAGTTTCAAAAAGCAAAACTTGAATTTGCTGCATGCCAAGAAGTATGTTGAATTC
ATGTAAATGAAGTGATGTGTAGGCATTGTATTAGATATTATAAGAAATCTAGAAATGATTTAAAGCATACAGGAG
GATGTGCATAGGTTATATGCAAATACTATGCTATTTTATATATGGGACTTGAGCATTTGTGGATTTTGATACTGG
GGGATCCTGGAACCAATCCCCCATGGATACCAAAGTACGACTGTAGTTATCTATTTTTTACATACTTATTATTAC
CACCATGCTCAGTAAGTCCATTTTTGCATGGAATATGGAGCCTTAAAACATGTCATGAATTTGGAGTCCCTGGCA
CATAAATCTACCTTCAAATCAGAGGTCCTTAATGATGCCTAAACATACAGTAAAATTAGAATCAGAAATACTTCT
TTAAAAAATATTCAAAATGTGTTTGTTTCCCATGGGATTATTCTCTATCCCACACGAATGTAAAAAAATCCACAT

FIGURE 4533B

TAATGATCCATTTAAGTATAGTTTTATTGGGTCCTTTTCTAATGATTAAAGGTTCTTTCTCAATTTCATTCCTCA
GTCCTGCAAGTAAGGACTCATACTGAAGAGTACTGAAACAAGGACTTCTTGTCAGAAACAGCTTCTGGAATCTTG
GGTTTTGTTTTTGTTTTTTGACAAAATACACTATTGGCCATGTCCATCACGAGAGTGTTTGTAGTAATTAATTAC
CTTGTACAGGACCTGGCACTTAGTAGCATTCTTCAAATGTTCCCTCAGTGATCCTTTTACTCTCCTTGTCACTTA
TTTGGGAGAAATAGGGGCACGTGAGATAAGAAGAAGAATAATTTTGATGTTGGTATGCTTGCCCTGTTACTTATA
GACAGTCTTTGTCATAGGCAAACTTGAATTTGATTTAAAATAGGGCTGGGAAAAATATTCAATAACTGTAAGCCC
CCTTTTGGATGCCAAACTTAGAATTTTGTACATTCTCTGATGAACAAGCATTTAGATCGTAACATGGTAAAGCCT
ATTACCAGCCAATGTTGTTAGCATCTTTGTATGCACATCACTGTTTGTGCAATATATGAATATTTTGTTGCATTG
TATTCTTATATAAAAATAAGTAGAAAACATAAAATTGAAATTGCTGATGAGAAGCCTTGTCTCGTGAATGTGATA
CACTTGAGACACGGATGGAACTGATCAGGAGTGCCAAGTCAAAAGCAGCAGATCTTAAGCCCTCACTGGTTGTTC
CTTTAACATCCAAAATGGTTGGTTATATGTAAAAGAAGAAAATGAAATAATCTGGATGAAACACTGGGACTGTGT
TATCAAAGAATGTCTGTAGTGATGAGGTGAAAATTTTCATTTTCCAGAAACAGAACTGCTCATTTATAACATAAA
TATATTCAACTTCCACA

FIGURE 4534

CGAAG**ATG**GCGGAGGTGCAGGTCCTGGTGCTTGATGGTCGAGGCCATCTCCTGGGCCGCCTGGCGGCCATCGTGG
CTAAACAGGTACTGCTGGGCCGGAAGGTGGTGGTTGTACGCTGTGAAGGCATCAACATTTCTGGCAATTTCTACA
GAAACAAGTTGAAGTACCTGGCTTTCCTCCGCAAGCGGATGAACACCAACCCTTCCCGAGTCCCCTACCACTTCC
GGGCCCCCAGCCGCATCTTCTGGCGGACCGTGCGAGGTATGCTGCCCCACAAGACCAAGCGAGGCCAGGCCGCTC
TGGACCGTCTCAAGGTGTTTGACGGCATCCCACCGCCCTACGACAAGAAAAAGCGGATGGTGGTTCCTGCTGCCC
TCAAGGTCGTGCGTCTGAAGCCTACAAGAAAGTTTGCCTATCTGGGGCGCCTGGCTCACGAGGTTGGCTGGAAGT
ACCAGGCAGTGACAGCCACCCTGGAGGAGAAGAGGAAAGAGAAAGCCAAGATCCACTACCGGAAGAAGAAACAGC
TCATGAGGCTACGGAAACAGGCCGAGAAGAACGTGGAGAAGAAAATTGACAAATACACAGAGGTCCTCAAGACCC
ACGGACTCCTGGTC**TGA**GCCCAATAAAGACTGTTAATTCCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAGAAAAA

FIGURE 4535

AGACTATCTTTCTAGACAAGGCAGTTGAGGAGGAGGGAGCGCTTGAGGGGGACTGGCCTGGCGTGCACTCCGCAC
CTCGGGGACATTATTGCGCGTGGAACGGCTGCTTTTGGAAGGCACAACTTCCTGAATGGACCATGACTCCCACCA
AAGATCCCTGTCTCTGATTCACCAAACAGCTTCAACCCTGAAACCAGGACGAGAAGTTGACAACATCTGAGTGGA
CAGCTAATTGACCTAAGACTTCAGACCAGACTATTGCCCAGAAGAAAAG**ATG**TTTGGTTTTCACAAGCCAAAGAT
GTACCGAAGTATAGAGGGCTGCTGTATTTGCAGAGCTAAGTCCTCCAGTTCTCGATTCACTGACAGTAAACGCTA
TGAAAAGGACTTCCAGAGCTGTTTTGGATTGCATGAGACTCGTTCAGGAGACATCTGCAATGCCTGTGTCCTGCT
TGTGAAAAGATGGAAGAAGTTGCCAGCAGGATCAAAAAAAAACTGGAATCATGTGGTAGATGCAAGGGCTGGACC
CAGTCTAAAGACTACATTGAAACCAAAGAAAGTGAAAACTCTATCTGGGAACAGGATAAAAAGCAACCAGATCAG
TAAACTGCAGAAGGAATTTAAACGTCATAATTCTGATGCTCACAGTACCACCTCAAGTGCCTCCCCAGCTCAATC
TCCTTGTTACAGTAACCAGTCAGATGACGGCTCAGATACAGAGATGGCTTCTGGTTCTAACAGAACACCAGTTTT
TTCCTTTTTAGATCTCACTTACTGGAAAAGACAGAAGATATGTTGTGGGATCATCTATAAAGGCCGTTTTGGGGA
AGTCCTCATTGACACACATCTCTTCAAGCCTTGCTGCAGCAATAAGAAAGCAGCTGCTGAGAAGCCAGAGGAGCA
GGGGCCAGAGCCTCTGCCCATCTCCACTCAGGAGTGG**TGA**CTGAGGTTTTTATGTAGAAGGGGAACAAAAAAAAA
AATATCTGAATTTTGAAAAACCACAAAGCTACAAACTGACCCTCTTTTTTTTTTGAGACGGAGTTTTGCTCTTGT
TACCCAGGCTGGAGTGCAGTGGCGTGATCTTGGCTCACTGCAACTTCCGTCTCCCGGGTTCAAGTGATTCTCCTG
CCTCAGCCTCCCAAGTAGCTGGGTTTATAGGTGCCCGCCACCAGACCCGGCTAATTTTTTAGTTTTAGTAGAGAC
GGGGTTTCACCACGTTGGCCAGGCTGGTCTTAAATGACCCTCTTATTTTTAACTTGGATACCTGCTATTCTGCCA
AAAGACAATTTCTAGAGTAGTTTTGAATGGGTTGATTTCCCCCACTCCCACAAACTCTGAAGCCAGTGTCTAGCT
TACTAAAAAAAAGAGTTGTATATAATATTTAAGATGCTGAGTATTTCATAGGAAAGCTGAATGCTGCTGTAAAGTG
CTCTTTAAGTCTTTTTTTTTTTTAATCCCCTTCTAATGAATGAAACTAGGGGAATTTCAGGGGACAGAGATGGGA
TTTGTTGTATGATAAACTGTATGTAGTTTTTAGTCTTTCTGTTTTGAGAAGCAGTGGTTGGGGCATTTTTAAGAT
GGCTGGCTACTCTTGTTTTCCCTCATGATAATAAATTTGTCATAACTCAGTAACATGAACTTGCCCCTAGAGGTA
GTTGTTAATAATTTTGAAATATTAAGGTCTTGCCAAGCTTCTGATGATTCACACCTGTACTACTGATTATTAAGC
AGGACAGACTGAGCTTTCTGTTGCAAATACCTTGGAGGAGAAAGTAATTTCTAAATATACAGAGAGGTAACTTGA
CTATATATGTTGCATCCTGTGCCTCCCTTCATATTAATATTTGATAAAGATTTTAATTTATGTAAAACTTCTAAA
GCAGAATCAAAGCTCCTCTTGGGGAAATGGCAAGTCTTTAGGATAGGCAAGACCCTGTATGAATAGTACCAAAGC
ATTACCGCATGGTAGAGAACACACTCGATTAAAAATGTTAAGCTATCTGAAAAATAAAATGTGCAAGTCTTCAGG
ATGGCACAAAACAAAGGTTAATGCTTCTTGGGGCACATTTCTTAGAGGGCTTGCTGAGTGTGTAAATATAATCGA
CTTTTGTTTGTGTTACATGACTTCTGTGACTTCATTGAAAATCTGCACAATTCAGTTTCAGCTCTGGATTACTTC
AGTTGACCTTTGTGAAGGTTTTTATCTGTGTAGAATGGGTGTTTGACTTGTTTTAGCCTATTAAATTTTTATTTT
CTTTCACTCTGTATTAAAAGTAAAACTTACTAAAAGAAAAGAGGTTTGTGTTCACATTAAATGGTTTTGGTTTGG
CTTCTTTTAGTCAGGCTTTCTGAACATTGAGATATCCTGAACTTAGAGCTCTTCAATCCTAAGATTTTCATGAAA
AGCCTCTCACTTGAACCCAAACCAGAGTACTCTTACTGCCTCTTTTCTAAATGTTCAGGAAAAGCATTGCCAGTT
CAGTCTTTTCAAAATGAGGGAGAAACATTTGCCTGCCTTGTAATAACAAGACTCAGTGCTTATTTTTTAAACTGC
ATTTTAAAAATTGGATAGTATAATAACAATAAGGAGTAAGCCACCTTTTATAGGCACCCTGTAGTTTTATAGTTC
TTAATCTAAACATTTTATATTTCCTTCTTTTGGAAAAAACCTACATGCTACAAGCCACCATATGCACAGACTATA
CAGTGAGTTGAGTTGGCTCTCCCACAGTCTTTGAGGTGAATTACAAAAGTCCAGCCATTATCATCCTCCTGAGTT
ATTTGAAATGATTTTTTTTGTACATTTTGGCTGCAGTATTGGTGGTAGAATATACTATAATATGGATCATCTCTA
CTTCTGTATTTATTTATTTATTACTAGACCTCAACCACAGTCTTCTTTTTCCCCTTCCACCTCTCTTTGCCTGTA
GGATGTACTGTATGTAGTCATGCACTTTGTATTAATATATTAGAAATCTACAGATCTGTTTTGTACTTTTTATAC
TGTTGGATACTTATAATCAAAACTTTTACTAGGGTATTGAATAAATCTAGTCTTACTAGAAAATAAAA

FIGURE 4536

CTTTCCCAAGCGGCTGGCGAAGACGGCAGAGGTGCAGGTCCTGGTGCTTGATGGTCGAGGCCATCTCCTGGGCCG
CCTGGCGGCCATCGTGGTAAACAGGTACTGCTGGGCCGGAAGGTGGTGGTCGTACGCTGCGAAGGCATCAACATT
TCTGGCAATTTCTACAGAAACAAGTTGAAGTACCTCGCTTTCCTCCGCAAGCGG**ATG**AACACCAACTCTTACCGA
GGCTCCTACCACTTCCGGGCCCCCAGCCGCATCTTCTGGCGGACCGTGCGAGGTATGCTGCCCCACAAGACCAAG
CGAGGCCAGGCCGCTCTGGACCGCCTCAAGGTGTTTGATGGCATCCCACCGCCCTACGACAAGAAAAAGCGGATG
GTGGTTCCTGTTGCCCTCAAGGTTGTGCGTCTGAAGCCTACAAGAAAGTTTGCCTATCTGGGGCGCCTGGCTCAC
GAGTTTGGCTGGAAGTACCAGGCAGGGACAGCCACCCTGGAGGAGAAGAGGAAAGAGAAAGCCAAGATCCACTAC
GGGAAGAAGAAACAGCTCATGAGGCTACGGAAACAGGCCGAGAAGAACGTGGAGAAGAAAATTGACAAATACACA
GAGGTCCTCAAGACCCACGGCCTCCTGATC**TGA**GCCCAATAAAGACTGTTAATTCCTCA

FIGURE 4537A

ATGCTCTATATGCAGTATGTTCTGCTGATTCCTTCTGTTCTACAAGAAGGCTCTTTGGATAAAGCTTGTGCCCAG
CTTTTTAATCTCACTGAATCTGTTGTTTTGACGGTCTCCCTCAACTATGGTGAGGTCCAGACCAAAATATTTGAA
GAAAATGTTACTGGAGAAAATTTCTTCAAATGCATCAGCTTTGAGGTTCCTCAGGCCAGATCTGACCCACTGGCA
TTTATTACATTTTCTGCTAAAGGAGCCACTCTCAACCTGGAAGAGAGGAGATCTGTGGCAATCAGATCCAGAGAG
AATGTGGTCTTTGTACAGACTGATAAACCCACCTACAAGCCTGGACAGAAAGCATGCAAAAATACACTTTCTTAT
TCTCAGGATCCAGAAGGCAATCGAATACAACAGTGGGTGAATGAGGAGTCTGTGGGAGGGATTCTACAACTCTCC
TTCCAGTTAATCTCAGAGCCCATCCTCGGATGGTATGAAATCACCGTGGAGATGCTCAATGAGAAGAAAACATAT
CACTCCTTCTCTGTGGAAGAATATGTGTTACCCAAATTTCAAATGACTGTGGATGCACCAGAAAATATCTTAGTT
GTGGACTCTGAATTCAAAGTGAATGTCTGTGCCTTATATACCTATGGTGAACCTGTGGACGGGAAGGTCCAACTT
AGTGTGTGCAGAGAATCTACGGCTTATCATTCATGTGCTCATCTTATCAGTTCACTCTGTAAAAATTTTACCATT
CAGATTAAATTGCTTAATCCAGACAACTCTCCAATCCCAAATGAAGTTGTTCAGTTGCATCTGAAGGACAAAATC
GTGGGAAACTACACCACAGATGTAAATGGCATCGCTCAGTTTTTCTTGGACACATATACGTTTACATACCCAAAT
ATCACTTTGAAAGCAGCCTACAAGGCCAATGAAAATTGCCAGGCTCATGGCTGGGTGTTGCCTCAATACCCTCAG
CCCGAGTACTTTGCATATCGATTTTACTCCAAGATGAATAGCTTCCTAAAGATTGTCCAAGAGATGGAAGAACTG
AGATGCAACCAGCAGAAGAGGGTGCTAGTGCACTGCATTCTCAATATGGAAGACTTTGAAGACAAAACCTACACA
GCAGACTTCAATTATTTGGTGATTTCAAAAGGTGTAATCATTCTTCATGGGCAACAGAAAATTGAGATCAACGAA
AATGGGAGGAAGGGCATATTTTCCATTTCTATAGACATTAACCCTGAATTAGCGCCCTCAGTACATATGCTTGTC
TATAGCTTGCATCCTGGAGGAGAAATGGTCAACTTAAATTTTTCTAAAGAAAAAAGTTTACCAGGATCCAATGTC
GATCTTCAAGTCTCGGCTGCTTCAAACTCTCTTTATGCTCTTTGGGCGGTAGACCAGAGGGTATTGCTACTAAGG
AATTATGGTCAGCTGCCAGCACAAACTGTGTATAGTCAGCTACATTCCAGCGAACTACATGGCTATTATTTCAGA
GGACTTAACTTAGAAGATGGCCTTAAAGTGCCGTGTCTTGAAGATGGACATATCCTTTACAATGGAATTTATTAC
ACACCTGCATGGGCTGACTTTGGAAAAGATGGCTATGACCTTGTGAAGGATCCTCAAAACAATCGGATTTTTCAA
TGGCAAAATGTGACTTCTTTCCGAAATATTACCCAACTCTCGTTCCAACTGATTTCAGAACCAATGTTTGGAGAT
TACTGGATTGTTGTGAAAAGAAACTCAAGGAAGACAGTGACACACCAATTTGCTGTTAAAAGATATGTGCTGCCC
AAGTTTGAAGTTACGGTCAATGCACCACAAACAGTAACTATTTCAGATGATGAATTCCAAGTGGATGTATGTGCT
AAGTACACCTTTGGCCAACCTGTGCAAGGGAAAACCCAAATCCGGGTGTGCAGAGAGTATTTTTCTTCAAGCAAT
TGTGAGAAAAATGACAATGAAATATGTGAGCAATTTATTGCACAGCTTAAATTTTCGGATCCCAATAATGTACCT
ATGGTGAACAAGTTGTTGCAACTGGAGCTCAATGATGAATTTATAGGAAATTATACTACGGACGAGAATGGCGAA
GCTCAATTTTCCATTGACACTTCAGACATATTTGATCCAGAGTTCAACCTAAAAGCCACATATGTTCGACCTAAG
AGCTGCTATCTTCCCAGCTGGTTGACGCCTCAGTACTTGGATGCTCACTTCTTAGTCTCACGCTTTTACTCCCGA
ACGAACAGCTTCCTGAAGATTGTTCCAGAACCAAAGCAGCTTGAATGTAATCACCAGAAGGTTGTTACTGTGCAT
TACTCCCTAAACAGTGAAGCATATGAGGATGATTCCAATGTAAAGTTCTTCTATTTGATGATGGTAAAAGGAGCT
ATCTTACTCAGTGGACAAAAGGAAATCAGAAACAAAGCCTGGAATGGAAACTTCTCGTTCCCACTCAGCATCAGT
GCTGATCTGGCTCCTGCAGCCGTCCTGTTTGTCTACACCCTTCACCCCAGTGGGGAAATTGTGGCTGACAGTGTC
AGATTCCAGGTTGACAAGTGCTTTAAACACAAGGTTAACATAAAGTTCTCTAACGAGCAGGGCTTACCTGGTTCC
AATGCTAGTCTCTATCTTCAAGCGGCGCCTGTCTTATTCTGTGCCCTCGGGGCTGTGGATGGGAACGTCCTTCTA
CTGAAATCTGAACAACAGCTGTCAGCTGAAAGTAGGGATATGTTCTACAATGGTTTATATTACACACCTGTAAGC
AACTATGGGGATGGAGATATCTATAATATTGTCAGGAACATGGGTCTCAAAGTCTTTACCAATCTCCATTACCGA
AAACCAGAAGTATGTGTGATGGAGAGAAGGCTGCCACTCCCTAAGCCGCTTTATCTAGAAACAGAAAATTATGGT
CCAATGCATAGTGTTCCGTCTAGAATTGCATCTAGTGGAATCAGAGGGGAGAATGCTGACTATGTAGAACAGGCT
ATAATTCAAACAGTAAGAACAAACTTCCCAGAGACATGGATGTGGGACCTCGTCAGTGTCGATTCCTCAGGCTCT
GCCAATCTTTCGTTCCTCATTCCTGATACGATAACCCAATGGGAGGCAAGTGGCTTTTGTGTGAATGGCGACGTT
GGATTTGGCATTTCCTCTACAACCACTCTAGAAGTCTCCCAACCTTTCTTTATTGAAATTGCCTCACCCTTTTCG
GTTGTTCAAAATGAACAATTTGATTTGATTGTCAATGCCTTCAGCTACCTGAATACATGTGTAGAGATTTCTGTT
CAAGTGGAGGAGTCTCAGAATTATGAAGCAAATATTAATACCTGGAAAATCAATGGCAGTGAGGTTATTCAAGCT
GGAGGGAGGAAAACAAACATCTGGACTATTATACCTAAGAAATTGGGTGCCAAAGCCTCCAAGCAGGGAGTTTTG
GACTTGCCAAATGATGTAGTAGAAGGGTCAGCCAGAGGCTTTTTCACTGTTGTGGGGGATATTCTAGGACTTGCC
ATGCAGAATCTGGTTGTTCTCCAAATGCCCTATGGAGGTGGAGAGCAGAATGCTGCCCTACTAGCATCTGATACT

FIGURE 4537B

TATGTTCTGGACTATCTGAAATCTACTGAGCAACTGACAGAGGAAGTTCAATCTAAGGCTTTCTTTCTCTTATCT
AATGGTTATCAAAGGCAATTATCTTTCAAAAACTCTGATGGTTCCTATAGTGTGTTTTGGCAGCAGAATCAGAAA
GGAAGCATATGGCTCAGTGCTCTTACTTTTAAGACATTGGAGAGAATGAAAAAATTTGTATTCATTGATGAAAAT
GTTCAAAAACAGACCTTAATCTGGCTTTCAAGCCAACAGAAAACAAGCGGCTGCTTTAAGAATGATGGCCAGCTT
TTCAACCACGCCTGGGAGTTTCCTGCTCTACGAAACGCACTCTTTTGCCTTGAAGCGGCATTGGACAGTGGTGTC
ACTAATGGCTACAATCATGCAATTCTAGCTTATGCTTTTGCCTTAGCTGGAAAAGAGAAGCAAGTGGAATCTTTA
CTCCAAACCCTGGATCAATCTGCCACAAAACTAAATAATGTCATCTACTGGGAAAGAGAAAGGAAACCCAAGACA
GAAGAATTTCCATCCTTTATTCCCTGGGCACCTTCTGCTCAGACTGAGAAGAGTTGCTATGTGCTGTTGGCTGTC
ATTTCCCGGAAAATTCCTGACCTCACCTATGCTAGTAAGATTGTGCAGTGGCTTGCCCAACAGATGAATTCCCAT
GGAGGCTTTTCTTCCAACCAGACACCTGATGATACTCTGTTCAAATTATATACGGGCCAAAAAGAAAGCTTTCGC
TCTAGTTCTGTGGGCTATACACTGGGAAAAGCAAATGAAAAGAAGGAAAACAGGAGAAATGGGGGAGCCGGTGGG
GAAGAGTGGCTGGCTCTCAGTCCCCGCCTCGCGGGCGGTGCCTCCCCACACTTCGATGGGGTTCCCAAGAGCCGG
GGGGAGCCAGGCGGGGAAGAGGGGCTCTTCTCTAAGAATCAAAACACTGTCACCTTTAGCAGTGAAGGATCCAGT
GAGATCCAGTTTAACGGTCATAACCGCCTACTGGTCCAACGTTCAGAAGTAACACAGGCACCTGGACAATACACA
GTAGATGTGGAAGGACGCGGTTGTACATTTATCCAGGCCACCCTTAAGTACAATGTTCTCCTACCTAAGAAGGCA
TCTGGATTTTCTCTTTCCTTGGAAATAGTAAAGAACTACTCTTTGACTGTTTTTGACCTCACAGTGAACCTCAAA
TACACTGGAATTCGCAATAAATCCAGTATGGTGGTTATAGATGTAAAAATGCTATCAGGATTTACTCCAACCATG
TCATCCATTGAAGAGGAGAAGCTGAAGTCCTTTCCTGTGTGTGTGAGCGCCAAGCTGGAGCCCAAGGATGACATG
GAGGAGGCGCTTGGGGGGTCTCCCCAGGTCTCCATGCTGCTCGTCAACATCAGAGAGATCCTGTGTAGCAGAAAA
TGGAGTCGCAGGGTATACAAGAAGTCTGTCTTCCCAGACGGACTGGCTGGTGCTGTAACAAAGACCCATGTGATG
CTGGGGGTAGAGACAGATAAACTGTTCAGTGCCCCTTGTCCATCAGTGAGAGAGCAGCTGGAGCAGAAGGTGGAG
AGGGAGGGGCAGCATCACCCACTCTGCCCTGGCACCAGGCTCAAGTCGCTCAAGCCCAGTGAGCTGGGTGTTAGG
ATGGCAGCCAGGCTCCCTGCTCAGTCACCTCCTTCCCTAGGCACCCCACACTTTCTCCCATTTCCACTTCCTACC
TATAAGATGGCACGT**TAA**

FIGURE 4538A

CTGAGGGGACCCGCCAGTTTCTAACTCAGTGGCGTTTGCCCTGATTCCCGGGGCCTGGCTTTCAGCGTAGCAATT
CTGCCGGCGAAGAAGGTGAGCGCAGTGCTGTGTGGCAGCAGAGCTCCTTAGGACGAGGAGCAGCGGGACGAGGAA
GGGCAGACTGGTGAAATCGCAAACTGGGCGTCTGTTCCGGCGCCGGACCCCTATTTGCAAAGGTCC**ATG**GCTAAT
GAAACACAGAAGGTTGGTGCCATCCATTTTCCTTTTCCCTTCACACCCTATTCCATCCAGGAAGACTTCATGGCA
GAGCTGTACCGGGTTTTGGAGGCTGGCAAGATTGGGATATTTGAGAGTCCAACTGGCACTGGGAAGTCCTTAAGT
CTTATTTGTGGGGCCCTCTCTTGGCTCCGTGACTTTGAACAGAAGAAGCGTGAAGAAGAGGCACGACTCCTTGAA
ACTGGAACTGGCCCCTTACATGATGAGAAAGATGAATCCCTGTGTCTGTCTTCTTCCTGCGAAGGGGCTGCAGGC
ACCCCGAGGCCTGCTGGAGAACCGGCCTGGGTTACTCAGTTTGTGCAGAAGAAAGAAGAGAGGGACCTGGTGGAC
CGACTAAAGGCGGAGCAGGCCAGGAGGAAGCAGCGAGAAGAACGCCTGCAGCAGCTGCAGCACAGGGTGCAGCTC
AAGTATGCAGCCAAGCGCCTGAGGCAGGAAGAAGAAGAAAGAGAGAATCTCCTCCGCCTCAGCAGGGAGATGCTA
GAGACAGGCCCGGAGGCTGAGCGGCTGGAGCAGCTGGAGTCTGGGGAGGAGGAGCTGGTCCTCGCCGAATACGAG
AGTGATGAGGAGAAAAAGGTGGCGAGCAGAGTGGATGAGGATGAGGATGACCTGGAGGAAGAACACATAACTAAG
ATTTATTACTGTAGTCGGACACACTCCCAGCTGGCCCAGTTTGTGCATGAGGTGAAGAAGAGCCCCTTTGGCAAG
GATGTTCGGCTGGTCTCCCTTGGCTCCCGGCAGAACCTTTGTGTAAATGAAGACGTGAAAAGCCTAGGTTCTGTG
CAGCTTATCAACGACCGCTGTGTGGACATGCAGAGAAGCAGGCACGAGAAGAAGAAAGGAGCTGAGGAGGAGAAG
CCAAAGAGGAGGAGGCAGGAGAAGCAGGCAGCCTGCCCCTTCTACAACCACGAGCAGATGGGCCTTCTCCGGGAT
GAGGCCCTGGCAGAGGTGAAGGACATGGAGCAGCTGCTGGCCCTTGGGAAGGAGGCCCGGGCCTGTCCCTATTAC
GGGAGCCGCCTTGCCATCCCTGCAGCCCAGCTGGTGGTGCTGCCCTATCAGATGCTGCTGCATGCGGCCACTCGG
CAGGCCGCGGGCATCCGGCTGCAGGACCAGGTGGTGATCATCGACGAGGCGCACAACCTGATCGACACCATCACG
GGCATGCACAGCGTGGAGGTCAGCGGCTCCCAGCTCTGCCAGGCCCATTCCCAGCTGCTGCAGTACGTGGAGCGA
TACGGGAAGCGTTTGAAGGCCAAGAACCTGATGTACCTGAAGCAGATCCTGTATTTGCTGGAGAAATTCGTGGCT
GTGCTAGGGGGGAACATTAAGCAAAATCCCAATACACAGAGTCTGTCACAGACAGGGACGGAGCTGAAGACCATC
AACGACTTTCTCTTCCAGAGCCAGATCGACAACATCAACCTGTTCAAGGTGCAGCGATACTGTGAGAAGAGCATG
ATCAGCAGAAAGCTCTTTGGATTCACTGAACGGTACGGAGCAGTGTTCTCATCCCGGGAGCAGCCCAAACTGGCT
GGGTTTCAGCAATTCCTGCAGAGCCTGCAGCCCAGGACGACTGAAGCTCTTGCAGCCCCTGCAGACGAGAGTCAG
GCCAGCACCCTGCGACCAGCTTCTCCACTGATGCACATCCAAGGCTTCCTGGCAGCTCTCACTACGGCCAACCAG
GACGGCAGGGTCATCCTGAGCCGCCAAGGCAGCCTCAGTCAGAGCACCCTGAAGTTTTTGCTCCTGAATCCAGCT
GTGCACTTTGCCCAAGTGGTGAAGGAATGCCGGGCAGTGGTCATTGCGGGGGGTACCATGCAGCCGGTGTCTGAC
TTCCGGCAGCAGCTGCTGGCCTGTGCCGGGGTGGAAGCTGAGCGCGTGGTGGAGTTTTCCTGTGGTCACGTGATC
CCTCCAGACAACATCCTGCCCCTCGTCATCTGCAGCGGGATCTCCAACCAGCCGCTGGAATTCACGTTCCAGAAA
AGAGAGCTGCCTCAGATGATGGACGAGGTGGGTCGCATTCTCTGTAACCTGTGCGGTGTGGTTCCTGGAGGGGTG
GTCTGTTTCTTCCCCTCCTACGAGTACCTGCGCCAGGTCCATGCCCACTGGGAGAAGGGTGGCCTGCTGGGCCGT
CTGGCTGCCAGGAAGAAGATATTCCAGGAACCTAAGAGCGCACACCAGGTGGAGCAGGTGCTGCTGGCATATTCC
AGGTGCATCCAGGCCTGTGGCCAGGAGAGAGGCCAGGTGACAGGGGCCCTGCTCCTCTCTGTGGTTGGAGGAAAG
ATGAGTGAAGGGATCAACTTCTCTGACAACCTAGGCCGGTGTGTGGTGATGGTGGGCATGCCCTTCCCCAACATC
AGGTCTGCAGAGCTGCAGGAGAAGATGGCCTACTTGGATCAAACCCTCAGCCCCCGGCCAGGCACCCCCAGGGAA
GGCTCTGGTGGAGAACCTGTGCATGAAGGCCGTCAACCAGTCCATAGGCAGGGCCATCAGGCACCAGAAGGATTT
TGCCAGCGTAGTGCTCCTGGACCAGCGATATGCCCGGCCCCCTGTCCTGGCCAAGCTGCCGGCCTGGATCCGAGC
CCGTGTGGAGGTCAAAGCTACCTTTGGCCCCGCCATTGCTGCTGTGCAGAAGTTTCACCGGGAGAAGTCGGCCTC
TTCCTGATGGGCAACCACACCACTGCCTGGCGCCGTGCCCTTCCTTTGTCCTGCCCGCTGGAGACAGTGTTTGTC
GTGGGCGTGGTCTGCGGGGATCCTGTTACAAAGGTGAAACCCAGGAGGAGAGTGTGGAGTCCAGAGTGCTGCCAG
GACCCAGGCACAGGCGTTAGCTCCCGTAGGAGAAAATGGGGGAATCCTGAA**TGA**ACAGTGGGTCCTGGCTGTCCT
TGGGGCGTTCCAGGGCAGCTCCCCTCCTGGAATAGAATCTTTCTTTCCATCCTGCATGGCTGAGAGCCAGGCTTC
CTTCCTGGTCTCCGCAGGAGGCTGTGGCAGCTGTGGCATCCACTGTGGCATCTCCGTCCTGCCCACCTTCTTAAG
AGGCGAGATGGAGCAGGCCCATCTGCCTCTGCCCTTTCTAGCCAAGGTTATAGCTGCCCTGGACTGCTCACTCTC
TGGTCTCAATTTAAAATGATCCATGGCCACAGGGCTCCTGCCCAGGGGCTTGTCACCTTCCCCTCCTCCTTCCTG
AGTCACTCCTTCAGTAGAAGGCCCTGCTCCCTATCCTGTCCCACAGCCCTGCCTGGATTTGTATCCTTGGCTTCG
TGCCAGTTCCTCCAAGTCTATGGCACCTCCCTCCCTCTCAACCACTTGAGCAAACTCCAAGACACCTTCTACCCC

FIGURE 4538B

AACACCAGCAATTATGCCAAGGGCCGTTAGGCTCTCAACATGACTATAGAGACCCCGTGTCATCACGGAGACCTT
TGTTCCTGTGGGAAAATATCCCTCCCACCTGCAACAGCTGCCCCTGCTGACTGCGCCTGTCTTCTCCCTCTGACC
CCAGAGAAAGGGGCTGTGGTCAGCTGGGATCTTCTGCCACCATCAGGGACAAACGGGGGCAGGAGGAAAGTCACT
GATGCCCAGATGTTTGCATCCTGCACAGCTATAGGTCCTTAAATAAAAGTGTGCTGTTGGTT

FIGURE 4539

AAAACAACTACGGCTGCGGTGTGGTTGGTGGTGAGATGACGACCTTAGTGCTGGATAATGGAGCTTACAACGCCA
AAATCGGTTACAGCCATGAAAATGTGTCGGTTATTCCTAATTGTCAGTTCCGGTCAAAAACAGCACGTCTTAAAA
CTTTTACTGCCAACCAGATAGATGAAATAAAAGACCCTTCTGGACTCTTTTACATCCTCCCTTTTCAAAAGGGCT
ACTTGGTGAATTGGGATGTTCAGAGACAAGTTTGGGATTACCTTTTTGGAAAAGAAATGTATCAGGTTGATTTTT
TAGATACTAATATTATTATCACTGAACCATACTTTAACTTCACTTCAATTCAAGAATCAATGAATGAAATTCTAT
TTGAAGAATACCAGTTTCAAGCAGTATTAAGAGTAAATGCTGGGGCTCTCAGTGCACATAGGTATTTCCGAGATA
ATCCTTCCGAATTATGCTGTATCATTGTTGATAGTGGATATTCCTTTACACATATAGTTCCTTATTGTAGAAGTA
AAAAGAAAAAAGAAGCAATTATTCGGATAAATGTGGGAGGAAAACTCTTAACCAATCATCTAAAGGAGATCATAT
CTTACAGGCAGCTACATGTTATGGATGAAACACATGTGATTAATCAAGTGAAAGAAGATGTATGCTATGTGTCTC
AGGATTTTTATAGAGACATGGATATTGCAAAGTTGAAAGGAGAAGAAAATACAGTAATGATAGACTATGTCTTGC
CTGACTTCAGTACAATTAAAAAGGGCTTTTGTAAGCCAAGGGAAGAGATGGTGTTGAGTGGAAAATACAAATCTG
GGGAACAAATTCTTCGTTTGGCCAATGAGAGATTTGCTGTTCCGGAAATACTCTTTAATCCTTCTGATATAGGCA
TTCAAGAAATGGGAATTCCAGAAGCTATTGTCTATTCAATTCAAAATCTACCTGAAGAAATGCAGCCGCATTTTT
TTAAGAACATTGTCTTGACAGGAGGAAATTCCCTTTTCCCAGGATTTAGGGATCGGGTTTACTCAGAAGTTCGAT
GTCTTACTCCAACAGATTATGATGTTTCTGTTGTGCTGCCTGAAAACCCTATTACTTATGCCTGGGAAGGTGGAA
AATTGATATCAGAGAATGATGATTTTGAAGATATGGTGGTAACAAGAGAAGATTACGAAGAAAATGGACATAGCG
TCTGTGAAGAGAAATTTGATATTTAAGCAACATTTTTGAATGAAAGTTGTGACCATAAGGTTTAATTTCAAAGTT
CCTTTTAAAAGAGGTTAAGGAACTGTGTTACCTTTTGTCCTAAGAAAAAGGCTTGAATTTATGTAAATACTTTGA
TCGATTGCTAATTTTCAAAGGCTTCTTAGGTAGGTTACTACAGTAAACTGTAACTCAGTCCACATTTTCATTTAG
GAGCTAGACTACCATAACAATGCTTATGCTGTTTCCAAGGGTAGGTTATTTTTCATTAAAAGAAGAATGAATGCA
TTTTAAGTTTAATTCTTCATAGCTGAAAGCACAAATTTAACGGCTTCACTGGACAGTTTTCCTTAGAAGGTAGTT
TTGTGTGACTGTGACTAAACTATTTTATTTTAAAATGTCATTCTTATTTATACATTCTAAAGTTGGAAAGACTGA
TCTTATATGTGTATAATGTTTATTTTGTACCTAGAGTACATTTAAAAGGGTGGAGACTAAGCTAATAAAGTTTTT
TTGGCC

FIGURE 4540A

GGAGGATATGGAGTAAAGCCAGAGTCAGTGGCCAGGCACGAAGGCAGAGCAGGAACAGCCAGGAGGCGTTTATTA
GGGGGGCGGGGGGAAAGAGCCCCAGCACCGCCCCTCCTGGAAGAAGGAAGAGGTAACTATAACTACCCAATATTG
CAGCC**ATG**GAGTCCATGCTTAATAAATTGAAGAGTACTGTTACAAAAGTAACAGCTGATGTCACTAGTGCTGTAA
TGGGAAATCCTGTCACTAGAGAATTTGATGTTGGTCGACACATTGCCAGTGGTGGCAATGGGCTAGCTTGGAAGA
TTTTTAATGGCACAAAAAAGTCAACAAAGCAGGAAGTGGCAGTTTTTGTCTTTGATAAAAAACTGATTGACAAGT
ATCAAAAATTTGAAAAGGATCAAATCATTGATTCTCTAAAACGAGGAGTCCAACAGTTAACTCGGCTTCGACACC
CTCGACTTCTTACTGTCCAGCATCCTTTAGAAGAATCCAGGGATTGCTTGGCATTTTGTACAGAACCAGTTTTTG
CCAGTTTAGCCAATGTTCTTGGTAACTGGGAAAATCTACCTTCCCCTATATCTCCAGACATTAAGGATTATAAAC
TTTATGATGTAGAAACCAAATATGGTTTGCTTCAGGTTTCTGAAGGATTGTCATTCTTGCATAGCAGTGTGAAAA
TGGTGCATGGAAATATCACTCCTGAAAATATAATTTTGAATAAAAGTGGAGCCTGGAAAATAATGGGTTTTGATT
TTTGTGTATCATCAACCAATCCTTCTGAACAAGAGCCTAAATTTCCTTGTAAAGAATGGGACCCAAATTTACCTT
CATTGTGTCTTCCAAATCCTGAATATTTGGCTCCTGAATACATACTTTCTGTGAGCTGTGAAACAGCCAGTGATA
TGTATTCTTTAGGAACTGTTATGTATGCTGTATTTAATAAAGGGAAACCTATATTTGAAGTCAACAAGCAAGATA
TTTACAAGAGTTTCAGTAGGCAGTTGGATCAGTTGAGTCGTTTAGGATCTAGTTCACTTACAAATATACCTGAGG
AAGTTCGTGAACATGTAAAGCTACTGTTAAATGTAACTCCGACTGTAAGACCAGATGCAGATCAAATGACAAAGA
TTCCCTTCTTTGATGATGTTGGTGCAGTAACACTGCAATATTTTGATACCTTATTCCAAAGAGATAATCTTCAGA
AATCACAGTTTTTCAAAGGACTGCCAAAGGTTCTACCAAAACTGCCCAAGCGTGTCATTGTGCAGAGAATTTTGC
CTTGTTTGACTTCAGAATTTGTAAACCCTGACATGGTACCTTTTGTTTTGCCCAATGTTCTACTTATTGCTGAGG
AATGCACCAAAGAAGAATATGTCAAATTAATTCTTCCTGAACTTGGCCCTGTGTTTAAGCAGCAGGAGCCAATCC
AGATTTTGTTAATTTTCCTACAAAAAATGGATTTGCTACTAACCAAAACCCCTCCTGATGAGATAAAGAACAGTG
TTCTACCCATGGTTTACAGAGCACTAGAAGCTCCTTCCATTCAGATCCAGGAGCTCTGTCTAAACATCATTCCAA
CCTTTGCAAATCTTATAGACTACCCATCCATGAAAAACGCTTTGATACCAAGAATTAAAAATGCTTGTCTACAAA
CATCTTCCCTTGCGGTTCGTGTAAATTCATTAGTGTGCTTAGGAAAGATTTTGGAATACTTGGATAAGTGGTTTG
TACTTGATGATATCCTACCCTTCTTACAACAAATTCCATCCAAGGAACCTGCGGTCCTCATGGGAATTTTAGGTA
TTTACAAATGTACTTTTACTCATAAGAAGTTGGGAATCACCAAAGAGCAGCTGGCCGGAAAAGTGTTGCCTCATC
TTATTCCCCTGAGTATTGAAAACAATCTTAATCTTAATCAGTTCAATTCTTTCATTTCCGTCATAAAAGAAATGC
TTAATAGATTGGAGTCTGAACATAAGACTAAACTGGAGCAACTTCATATAATGCAAGAACAGCAGAAATCTTTGG
ATATAGGAAATCAAATGAATGTTTCTGAGGAGATGAAAGTTACAAATATTGGGAATCAGCAAATTGACAAAGTTT
TTAACAACATTGGAGCAGACCTTCTGACTGGCAGTGAGTCCGAAAATAAAGAGGACGGGTTACAGAATAAACATA
AAAGAGCATCACTTACACTTGAAGAAAAACAAAAATTAGCAAAAGAACAAGAGCAGGCACAGAAGCTGAAAAGCC
AGCAGCCTCTTAAACCCCAAGTGCACACACCTGTTGCTACTGTTAAACAGACTAAGGACTTGACAGACACACTGA
TGGATAATATGTCATCCTTGACCAGCCTTTCTGTTAGTACCCCTAAATCTTCTGCTTCAAGTACTTTCACTTCTG
TTCCTTCCATGGGCATTGGTATGATGTTTTCTACACCAACTGATAATACAAAGAGAAATTTGACAAATGGCCTAA
ATGCCAATATGGGCTTTCAGACTTCAGGATTCAACATGCCCGTTAATACAAACCAGAACTTCTACAGTAGTCCAA
GCACAGTTGGAGTGACCAAGATGACTCTGGGAACACCTCCCACTTTGCCAAACTTCAATGCTTTGAGTGTTCCTC
CTGCTGGTGCAAAGCAGACCCAACAAAGACCCACAGATATGTCTGCCCTTAATAATCTCTTTGGCCCTCAGAAAC
CCAAAGTTAGCATGAACCAGTTATCACAACAGAAACCAAATCAGTGGCTTAATCAGTTTGTACCTCCTCAAGGTT
CTCCAACTATGGGCAGTTCAGTAATGGGGACACAGATGAACGTGATAGGACAATCTGCTTTTGGTATGCAGGGTA
ATCCTTTCTTTAACCCACAGAACTTTGCACAGCCACCAACTACTATGACCAATAGCAGTTCAGCTAGCAATGATT
TAAAAGATCTTTTTGGG**TGA**GGTGTCTTACTTCTATTTTGAAGGATTATTTCAGTTTCAATCATGGGTGAGCTGA
TTTACATCTTTATATAGTTGGCTTGGAGGAAGTACTTCTATGGGAAAGTGAACAGTTCTGTGACAGGAAACATCT
CTGTCCATGCCAGCATAGTAGTTGTATGGACTTCTAACCAGTTGAGTTTTTTAAAGCATTGAGGATTTTTTCCTC
TTACCAACTCCTCTTCAGGTTTTTAAAGACCCAGCCCTTCCCAATCTCAAAGAGAAAAAGGAAACTGAGTTATCT
TGAATAACATAACTTTTTAATCAAATGTTTATTTTGGCTTGTGGATCTTGGTGTTATTTAAAAAATTGAGGTGAT
GGTCATTGCAAGCTCATCTATTAAGTACTATATGGTACACAGTCTATGAGTCATTAGTCTTCATTTTAATATGTA
AAAAATCTTGATGCTGTATTGATTTGTTTGCATTTAAGATGACAGTGAGAAAATGATAAGCATAAAGAGAAGTAT
CAGGTTATTTGCTTTTTCCAAACTTTTCAGATGAACTATTGTTTAGTACAGAGACTGAGCAAATACTACAAAATT
CAACTTAACCTTCATTTCATTGGTTTAAATGCGTTATTAACCATCTTAAGTGCAAACTAATCATTGTAAATTATA

FIGURE 4540B

TTTTAGCATGGTCTGCCTCAAATAGTAATGTATTTTTCTGCATTCACTTGGATATATTTAGAATCACTTTTTTCC
TCCTGTATCAAGGAAGAGGTATGTGCTGATTTGTTTGGATATTTGACAAGGCACTCTGATGTGACTTCCCTGACT
ACTACCTTCATATTTCATTTCAAATTCAAACTTCTGAGGTTGCAGCATATATGAATTGCATTTTCAAAAGAAGAT
TTGTAAGAATTAAACTATATTTATGAGTAAACTTTTGAGGTTTCTGCTGTATTGTTTCAAATGTAATAAACTTTA
CTTCTGT

FIGURE 4541

GGATTGAAACAAGATGGCGGGTTCGTGGTGAGAAGCCGTCAAGGAGTAGAAATTGGTATGCTTAGAAGCAGATTC
TAAAAGCAGTTTCTCTTCAGAACATCTTTTTTCATACCACTTGATAAGCATCTTGAAACACC**ATG**GCTGTAGCTG
CAGTAAAATGGGTGATGTCAAAGAGAACTATCTTGAAACATTTATTTCCAGTCCAAAATGGAGCTTTATATTGTG
TTTGTCATAAATCTACGTATTCTCCTCTACCAGATGACTATAATTGCAACGTAGAGCTTGCTCTGACTTCTGATG
GCAGGACAATAGTATGCTACCACCCTTCTGTGGACATTCCATATGAACACACAAAACCTATCCCTCGGCCAGATC
CTGTGCATAATAATGAAGAAACACATGATCAAGTGCTGAAAACCAGATTGGAAGAAAAAGTTGAACACCTTGAGG
AAGGACCTATGATAGAACAACTTAGCAAAATGTTCTTTACTACTAAGCACCGTTGGTATCCTCATGGACGGTATC
ACAGATGTCGTAAGAATCTGAATCCTCCAAAAGACAGA**TGA**TGCGGAGGTTCCTGGGGGAATCAAAGAGAAATGT
GCCTCATTTGCCATTTGAGAAAATGCAGTCTGGTGTATTCAGTAATATATAGTAAAGTAATAATGATAAAATATC
TTTTCATATATTAGAATGTGTACTTTTATATAAAGTAATTCTGGATTTGACATTCTCATTTAGAGAAACCTATTT
TCTTTTTTCTTTTTCTATTTTAGTGTTTCATTTATGTGCGGTCTCCAATTTAGGACTTTTCCATAGTGCCAAAGC
CATACATATTCAGTAGAACATCAATAAATTACATCAGAAATTCAACACTTTATTATAAAACGGGCTTCGTGTTAG
ATAATTTTGCTAAACAGTAGGCTACTGTAAGTGTTCTGAGCATATTTAAGACAGGCTAGCATTTTCAATTTACAA
TATTTTCAACTGATAGTAGGTTTATTGGGATGTAACCCTATGATAAGTTGAGAAACATCTCTTTTTGTGTGTCTA
CTGTGATTTAAGTATTTTTAATCATCAGCCAAGCATTGTTAGTAGTATAAATATGATTAATAAAAATGTGCATGG
CTTTCCT

FIGURE 4542

GGTTAAGAGAGACGCGCGCGCAGTCGCGCGCGGGTCGTGCCGTACCACCGTCGCGGGCAGGCTCGGCCACGAGCG
CCAGAGCCCCGCGCCTCCCCTCGCGGCCTGTCCCAAGTCCCTGCCCCGCAACAGAGCGTCACTTCCGCCATCCCC
GGCAGCGGTTGGGGCGGGGCGCACGGGGGAGGGGGCCAGGTCGGAGGGAAGCCCGCCCGTGCCCGAGCCCGCGCC
CGAGCAGGGACTACATTTCCCGAGGGGCCTCGGCGGCGGCTGCGGCGACGGGCGCGGCAACGTCCCCCGGAAGTG
GAGCCCGGGACTTCCACTCGTGCGTGAGGCGAGAGGAGCCGGAGACGAGACCAGAGGCCGAACTCGGGTTCTGAC
AAG**ATG**GCCGGGCTGCCCCGCAGGATCATCAAGGAAACCCAGCGTTTGCTGGCAGAACCAGTTCCTGGCATCAAA
GCCGAACCAGATGAGAGCAACGCCCGTTATTTTCATGTGGTCATTGCTGGCCCTCAGGATTCCCCCTTTGAGGGA
GGGACTTTTAAACTTGAACTATTCCTTCCAGAAGAATACCCAATGGCAGCCCCTAAAGTACGTTTCATGACCAAA
ATTTATCATCCTAATGTAGACAAGTTGGGAAGAATATGTTTAGATATTTTGAAAGATAAGTGGTCCCCAGCACTG
CAGATCCGCACAGTTCTGCTATCGATCCAGGCCTTGTTAAGTGCTCCCAATCCAGATGATCCATTAGCAAATGAT
GTAGCGGAGCAGTGGAAGACCAACGAAGCCCAAGCCATAGAAACAGCTAGAGCATGGACTAGGCTATATGCCATG
AATAATATT**TAA**ATTGATACGATCATCAAGTGTGCATCACTTCTCCTGTTCTGCCAAGACTTCCTCCTCTTTGTT
TGCATTTAATGGACACAGTCTTAGAAACATTACAGAATAAAAAAGCCCAGACATCTTCAGTCCTTTGGTGATTAA
ATGCACATTAGCAAATCTATGTCTTGTCCTGATTCACTGTCATAAAGCATGAGCAGAGGCTAGAAGTATCATCTG
GATTGTTGTGAAACGTTTAAAAGCAGTGGCCCCTCCCTGCTTTTATTCATTTCCCCCATCCTGGTTTAAGTATAA
AGCACTGTGAATGAAGGTAGTTGTCAGGTTAGCTGCAGGGGTGTGGGTGTTTTTATTTTATTTTATTTTATTTTA
TTTTTGAGGGGGGAGGTAGTTTAATTTTATGGGCTCCTTTCCCCCTTTTTTGGTGATCTAATTGCATTGGTTAAA
AGCAGCTAACCAGGTCTTTAGAATATGCTCTAGCCAAGTCTAACTTTATTTAGACGCTGTAGATGGACAAGCTTG
ATTGTTGGAACCAAAATGGGAACATTAAACAAACATCACAGCCCTCACTAATAACATTGCTGTCAAGTGTAGATT
CCCCCCTTCAAAAAAAGCTTGTGACCATTTTGTATGGCTTGTCTGGAAACTTCTGTAAATCTTATGTTTTAGTAA
AATATTTTTTGTTATTCTA

FIGURE 4543A

GCCGCGGTGCTGCTGCTCAGTGGGAGCGGGTCTTCGCAACTGTCTCCGCGTGGCGCGCGCCTCTAGCCGCCCTTC
CCCTGGCGGCTACGGCCGGAGGGAGCGGAGGCGAGCGGGAGTCGGGCTCCATGGAGAGCGGCGGACAACTGGGCA
GAGGCGGAGCTTTCATCTCGGCACCCTGGTTCCAGTGACCCGCGCTAGCGTCCCGTCCCGCCCGCGTCGGAGCGG
CCGCCGGCCCCGGGACTGACCGGCCTCGCCGCACCTCCCGCACCGACTAGCGCTCCCGGGCGCTCCTGCGCCCGA
CTCGCCCTCGCCCCCACTCCCCGGCGGGGTGGCGGCGGCCGGGCCCCCACGGCGGCGGCCGGAGCAGCAGCAGCA
GCAGCAGGAGCCCGCCTCT**ATG**ATGAAGTTCAAGCCCAACCAGACGCGGACCTACGACCGCGAGGGCTTCAAGAA
GCGGGCGGCGTGCCTGTGCTTCCGGAGCGAGCAGGAGGACGAGGTGCTGCTGGTGAGTAGCAGCCGGTACCCAGA
CCAGTGGATTGTCCCAGGAGGAGGAATGGAACCCGAGGAGGAACCTGGCGGTGCTGCCGTGAGGGAAGTTTATGA
GGAGGCTGGAGTCAAAGGAAAACTAGGCAGACTTCTGGGCATATTTGAGAACCAAGACCGAAAGCACAGAACATA
TGTTTATGTTCTAACAGTCACTGAAATATTAGAAGATTGGGAAGATTCTGTTAATATTGGAAGGAAGAGAGAGTG
GTTCAAAGTAGAAGATGCTATCAAAGTTCTCCAGTGTCATAAACCTGTACATGCAGAGTATCTGGAAAAGCTAAA
GCTGGGTTGTTCCCCAGCCAATGGAAATTCTACAGTCCCTTCCCTTCCGGATAATAATGCCTTGTTTGTAACCGC
TGCACAGACCTCTGGGTTGCCATCTAGTGTAAGA**TAG**AGAGAACTGGGTAGGCCTCTCCCACCATGTGCAGTCTC
ATGGGGAGAGGCTTCTTTCGTTTCCTCGTCAAACATCTGATTGACGCTTGCAAACTGTCTGAATTTGCCATGCAA
GGTTTTCAAACAATTTGCATGTTTTTCAGATGCTTTCAAATCTTTTTTTAAAAAAATAGTGTAAAATATTTTAAT
AAGCCAAAGCCATGTGGAATTTTTGTTTAGATGCCTTAACTGTGCCACACCCCACAACCCCCTATATTATTTTGG
TTGTCTATTTCTCACAGCATATTTTCAGTTTTTTGTCCATTTGACATCAGTCTGTGGTTTATTTTGTCATCAGAT
TACTTGTGGGTATACCTACCCCAAAATTGTTTTCTCATTCACAGCATTAGCATATTCAGCAAATCCATCTGTGGT
GGGAATTAAAAATATTATTGGTATTAAAGAAATCCATTCACCCCAAAACTTGTTTTACAGGATTACAATTTTAAT
TCAAAATTTCCAGATTTGGGCTATTTCTGTATGATCCAATAACTTATTTTGTCACAGGGCTTAATTTGCCATTTT
TGGGGATTTGTCGACTCATTTTGTCTGAATTTTCACAACTGGTATTATGTCACTAGCTACCTGATACGGCTATTT
CCCTTATAACTCAATAGTACCTTAACACAAAGTATAACTCTGTAGAGTTGGTGAATATTTTAGGGAAATATTAGC
AAAATGCATGTAGTAAAGACATCTTATGAAAACTGTATTCATGGAATTTGATTTAGCATGCTCAGTTGCCAGTTC
CCATTATCGATACTCTTTCTTTGCAGAATACCTTAGAACCGTTATTTCCCTCAGTGTAGATTGCTCTTAAAATGT
ATTCAGTTATTTAGTGGCCCCCACAGGAGTGGAGTCTTGAAATCTAATTCTAAATGCCAGTCAGTGATGATCGCA
TCACAGTTGAGTGAAATGGCCTTCCTGTTCAGCTGTTAGAGACTGAAGATTGTTAGGGCACCTTAGAATGTCTCA
TCTTTTCTAGGTTGTCAACAGGTACTATTTGTCACATAACTAACTTTCGAGGCACTGGAACATACCTGAACTAAG
AATTAAATCTTTTACTTTATACTCACTTAAAATCAAGAATCCCATCTAAAACACATAGGTACCTTATCTGAAACT
CTTGCACTTCCCCAACCAGGGCAGAAATGAGGTGGGAGAAGTTTGACTAAAATGAGGGATGGGGGAAAGTAAAAG
ATGTTTTTTTTTTTTTGAGACTCGCTTTGTCACCCAGGCTGGAGTGCAATGGCACAATCTCAACTCACCGCAACC
TCCGCCTCCCGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAGTTGGGATTACAGGCGCCTGCCTCCATG
CCTGGCTAATTTTGTATTTTTAGTAGAGACAGGGTTTCTTCATGTTGGTCAGGCTGGTCTCAAACTCCTAACCTC
GTGATCCGCCTGCCTCGACCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCATGCCCAGCCAAAGATCATTT
TTTTATATAGACTTCAGCCCTTTGTAAATATTGTAACTGGGGAGTATAGAGTAGAAAAAAAGTATAGTTAAAACA
TTTGTTCTACAAATTAACCTTTAAAAATATAATTACTGCTAAAAATAGAGTGCTGTTACACTTAAGGAAAATTAG
TGCCATTTTGGAAATGAGATCTTGTGCCATAAATACAGCTGAACTGAATATAAATGTTCACAAATTAATGCTGTC
AAAGGAATGAGTAAAGCAGAAAAACTTTTAACCAGCAACATTTCAAGTACGTAGTGTGATCAAACATGATCATCC
AGAATTTTTATATTTTTTTCTTTGTACAGAGGTTACATATTCTGGGTGTTCTTTTATAAAGGAAACATTTTAAAT
CCCACAAATTGACACTTTCTATCTTCAATGGACTAAGATTTTTTTGGTCAGTAATCTCTGAAATTTCCTTAAATT
ATATACTTAACATAGCAGAGAAACTGGATTGTTTTTGTATATAAGACTGCTTCCACCTGAAATGCTGTCATAAGT
ACTGGGGGGGGTGGGGGAGTGCCCATCTTGTACATGATATTCTTAGAGGTAATAAGGTAATGATGCATGAATTTAT
TTTATAAACTCTTGGACTATGTATTTGACATGTAAAATATGTACAGTATTAACGTCAACCATCTCTTTAAAGTTA
GCCTATAAATATTGTTGTATAATTTTCTTTGGTCAGAAACACTTGGACTGAATAGTGACACTCGGTAAGGATTTT
CAGTGCCATTTAGCAAAACGTCTTTAGTCTATGCAACTAGCAAAAATCTGCATAATGCAACAACACAGTTTTCAC
ACTTCAAATTTTACATGAGGGGTTCTTCACGATTCTCCTGGAACCCAGTCTAGCAAAATGAGAGGAAAGGCCCTA
GGGAGATTTATTTCTGTTAAATAGTTAACTCTGCTGAGTATGACAAATAGTGTCTACTATCTCAACCCTCCAAAA
TTTGCAGAGTGTTGGGACTGTCATTTGTGATTTTTTTTTTTTTTTTTGGTGGGGTAGTTGAATAAAATTGGGCA
GCTAAATTTTTCAGTTCCATGTGCCTCCCAAATAAAAAACAGAAAATAAGTAGTTTTTGTGAATTGACTTGCAGA

FIGURE 4543B

CAAAGTAGAAACTGTGCTGCATGATGTTATTTTGTAAACAGATGACATTTTCTGACCAGGCACATGCCATCCAAT
TTTCTGTCAATCACACTGTTGTATAAAGCAGCAGAACTGAAGGGGAAAAATGATTGTTGTATACACTGAATTGCT
TTGCATGGTCTCATTTGAGATAATTGATGTAAGAATCCTGACTTTTTTATATTTGGAAACATCAAATAAAAATGG
AAAAAATGATCATGGCTTTAAAAAAAAAACAAAAACACACACACATGAACTCAGATTTGCAAACCAGGTTTCTGA
AACTTTGGGTAAGGTGTATGCTTTTAACTTTGAAATGTATAAACACCCAGCGGAAACGTATACCTTTCAGTGCAT
AGTGCATTGTGTGCTTACCCTGGGTTGTTTAAACTTGTGTTCAAATATTCCCCCTCCAAGTGAAAGCCTGTCGGG
AATTCCACAGTAACACCTTTACTGTTCTCCCATTGATGATCATATACGTTACCTCTTCCTAGCGGTACATTTGTA
TGATCCTTACTACTGGAATTACCGGGTTAAAAGGAAATGCTTACCACTAAGATGTCAGTATTCTCCTCATGGATA
TTTTCAGTCTCAATGTTGCCAGTCTAATAGTATAGTATGTGGTTGCTTTACTGCTGTTCTCCCCACCCCCGTGGA
GTTGTGTCATTATTTTAATGAATGTGAGCTCTTGACTTACTCTAGAATTCTAATACAGATACTTTCTGCACTAGT
ATCACTTTTATTATTGCAGTTCCATTTAAAAGCATAACTGGCTAAGTCACCGCCCCACCCGCCGCATTACATTTC
CTAAAACATACTGCTGCCAAAGACCAACTGTAGAATCCTTAAGTCCTGTTCAAGTGTCACTTCATTTTTTATTAG
GGGTTTCTTAGTTGGAGGGCATGAGAAACTTGGCCCTTTCCAATGTTGTCTTCACATTGGAGTATAAGAATTCTC
TATAGGACTCTTTAATTTTTTTTTTTTTTTGGTAGAGATGGGGTCTTGCTGTGTTGCCCAGGCTGGTCTCAAACT
CCTAGGCTTAAGCAGTCCTCCAGCCTCAGCCTTCTCAAAGTGCTAGGATGATTGGCATGAGCCACCTCGTCTGGC
CTGCAGGTCTTTTTAAGCATTTGCTGTTCAATAATAAGCATCTTCTTTATGCCTAGTATTTGTGATAAGAGCACA
AAACAA

FIGURE 4544

CAGTGGGTGACCGCGGCTGCGAGGGACTTTGTCATCCGTCCTCCAGGATCTGGGGAGAAAGAGCCCCATCCCTTC
TCTCTCTGCCACCATTTCGGACACCCCGCAGGGACTCGTTTTGGGATTCGCACTGACTTCAAGGAAGGACGCGAA
CCCTTCTCTGACCCCAGCTCGGGCGGCCACCTGTCTTTGCCGCGGTGACCCTTCTCTC**ATG**ACCCTGCGGTGCCT
TGAGCCCTCCGGGAATGGCGGGGAAGGGACGCGGAGCCAGTGGGGGACCGCGGGGTCGGCGGAGGAGCCATCCCC
GCAGGCGGCGCGTCTGGCGAAGGCCCTGCGGGAGCTCGGTCAGACAGGATGGTACTGGGGAAGTATGACTGTTAA
TGAAGCCAAAGAGAAATTAAAAGAGGCACCAGAAGGAACTTTCTTGATTAGAGATAGCTCGCATTCAGACTACCT
ACTAACAATATCTGTTAAAACATCAGCTGGACCAACTAATCTTCGAATCGAATACCAAGACGGAAAATTCAGATT
GGACTCTATCATATGTGTCAAATCCAAGCTTAAACAATTTGACAGTGTGGTTCATCTGATCGACTACTATGTTCA
GATGTGCAAGGATAAGCGGACAGGTCCAGAAGCCCCCCGGAACGGCACTGTTCACCTTTATCTGACCAAACCGCT
CTACACGTCAGCACCATCTCTGCAGCATCTCTGTAGGCTCACCATTAACAAATGTACCGGTGCCATCTGGGGACT
GCCTTTACCAACAAGACTAAAAGATTACTTGGAAGAATATAAATTCCAGGTA**TAA**ATGTTTCTCTTTTTTTAAAC
ATGTCTCACATAGAGTATCTCCGAATGCAGCTATGTAAAAGAGAACCAAAACTTGAGTGCTCTGGATAACTATAT
GGAATGCTTTCTAAGAACAGCTGAAGCTAATCTAATTTAAATTTAACAGCTTGAAGAGGTAGCTAGGTGTTTAAA
GTTCCTCCAGATACTTTTACCTGAGTGATGCTTCCCTTCCTAAGGCTGACCAAGACCTGTTGATCCTTTTAGATT
AAAAATAAAATGTCGCATGTAAAGGCTGAAGTCGCGTTTTATCAGAATGCCTTGCCTTCTTAGGTTCTTTTCCAT
TATGTCAAAGGTCCAGGCTCCAGTAGGAGAGAAAGAACTCCTCATAGGAATACTGAAGAAGTGGGAAGGAACCAA
GCTGACACAGGCCTCACTGCAATTTGATATGCCTGCTGATCAGAGTCTCTTGGGCATTTTATATTTTGCATTCTG
ATGTACCTAGGAGTTTTGTTAAACAGATGATGTATGTGAGTATTTATCCCATTTTATGCAATTAACCAAATCAAC
CAAAAAAAGTGACCATGAAGTCCTGTATTTGTCTTTTTACTACATGTAGGAACTCTCATGTGAATGAGTACTGTA
GTAATCCATTCTATGGGAGCCTTATTTCAGAAATATTTCAAACTGGTGCAAATGGAAAAGACTTTCTCTTTTCCT
TTAAAGCTAAAGACAAGAATATCATGCTATACAGGTGCAACTCAATCCCCGTTAATAAAAACCAATGTAGGTATA
GGCATTCTACCCTTTGAAATAGCTGTGTCCCAACCTGTTGCCATTGATTTTTTGGAAATGGCTTTAGAAATATCC
AAGTTGTCCTTGAATTGTCTAACCATGGACATAAACAGTTGTCTCCCTTCTACTGTGTAGAATACTTTGACTTAA
TTTTCTTCCAGATACAGGGGGATACCTGCCTGTTTTTCAAAGTGTTTATTTACTGCTGTTACTATTTGATTAGAA
TGTATTAAATAAAAAAAACCTGATTTCT

FIGURE 4545

GGTGCCGCATCCCCAGCCCGCCGCC**ATG**GCCGCCTACAAACTGGTGCTGATCCGGCACGGCGAGAGCGCATGGAA
CCTGGAGAACCGCTTCAGCGGCTGGTACGACGCCGACCTGAGCCCGGCGGGCCACGAGGAGGCGAAGCGCGGCGG
GCAGGCGCTACGAGATGCTGGCTATGAGTTTGACATCTGCTTCACCTCAGTGCAGAAGAGAGCGATCCGGACCCT
CTGGACAGTGCTAGATGCCATTGATCAGATGTGGCTGCCAGTGGTGAGGACTTGGCGCCTCAATGAGCGGCACTA
TGGGGGTCTAACCGGTCTCAATAAAGCAGAAACTGCTGCAAAGCATGGTGAGGCCCAGGTGAAGATCTGGAGGCG
CTCCTATGATGTCCCACCACCTCCGATGGAGCCCGACCATCCTTTCTACAGCAACATCAGTAAGGATCGTAGGTA
TGCAGACCTCACAGAAGATCAGCTACCCTCCTGTGAGAGTCTGAAGGATACTATTGCCAGAGCTCTGCCCTTCTG
GAATGAAGAAATAGTTCCCCAGATCAAGGAGGGGAAACGTGTACTGATTGCAGCCCATGGCAACAGCCTCCGGGG
CATTGTCAAGCATCTGGAGGGTCTCTCTGAAGAGGCTATCATGGAGCTGAACCTGCCGACTGGTATTCCCATTGT
CTATGAATTGGACAAGAACTTGAAGCCTATCAAGCCCATGCAGTTTCTGGGGGATGAAGAGACGGTGCGCAAAGC
CATGGAAGCTGTGGCTGCCCAGGGCAAGGCCAAGAAG**TGA**AGGCCGGCGGGGAGGATACTGTCCCCAGGAGCACC
CTCCCTGCCCGTCTTGTCCCTCTGCCCCTCCCACCTGCACATGTCACACTGACCACATCTGTAGACATCTTGAGT
TGTAGCTGCAGATGGGGACCAGTGGCTCCCATTTTCATTTTAGCCATTTTGTCGCCTGCACCCACTCCCTTCATA
CAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGTCTAAGCTATGGAAAAGCTCCCCTTATCCAACAG
AGTTTAAAAGTAGTGACTTGGGTTTTTGCGAGTGCTTTGTTTACTAAGGACTTTGGGGAGGAACCATGCTAAGCC
ATGACCAGTGAGGAGAAGCAACAGAGCCTGTCTGTCCCCATGAGCGGAGTCTGTCCTCTGCTCTTCTGCAGTCAG
GCCACTGCCTACTGCCTGGGGGCTCTAGTCATTCCAGTGGAAGACGAATGTAACCTGCGTGGTGATGTGACAACT
GTTTCCTCCCTGACCCCAGAGGATCTGGCTCTAGGTTGGGATCAATCCTGAATTTCGTTATGTGTTAATTTACTT
TTATTAAAAAAAGTATAGTATATATAAATAATACAAAACAATAACCCTTCTGGGGTTTCTTGTGGCGGTTGAAATA
GTCCCACATGTGGTCATCAGAAAATAAGCCATTCCTCATACCAATATAGGATCAGCTCCTTGACCTCTGAGGGGC
AGGAGTGCTTCCTGGTGTGTGTATTAGAATCCCTTCCTGCCTTGTTTCATGGCAGTGAAATGCCTCTTGGTCCTG
TCCAAGTGTATCTTTCACTGATTTCTGAATCATGTTCTAGTTGCTTGACCCTGCCACATGGGTCCAGTGTTCATC
TGAGCATAACTGTACTAAATCCTTTTTCCATATCAGTATAATAAAGGAGTGATGTGCAA

FIGURE 4546A

CTGGTTTCTTGCCTTAAGGAGCCCATTGCCTTTCCCGCTGAAGTCTAGATGTTGACATGTAATAAAGCGGGCAGC
AGGATGGTGGTGGATGCGGCCAACTCCAATGGGCCTTTCCAGCCCGTGGTCCTTCTCCATATTCGAGATGTTCCT
CCTGCTGATCAAGAGAAGCTTTTTATCCAGAAGTTACGTCAGTGTTGCGTCCTCTTTGACTTTGTTTCTGATCCA
CTAAGTGACCTAAAGTGGAAGGAAGTAAAACGAGCTGCTTTAAGTGAAATGGTAGAATATATCACCCATAATCGG
AATGTGATCACAGAGCCTATTTACCCAGAAGTAGTCCATATGTTTGCAGTTAACATGTTTCGAACATTACCACCT
TCCTCCAATCCTACGGGAGCGGAATTTGACCCGGAGGAAGATGAACCAACGTTAGAAGCAGCCTGGCCTCATCTA
CAGCTTGTTTATGAATTTTTCTTAAGATTTTTAGAGTCTCCAGATTTCCAACCTAATATAGCGAAGAAATATATT
GATCAGAAGTTTGTATTGCAGCTTTTAGAGCTCTTTGACAGTGAAGATCCTCGGGAGAGAGATTTTCTTAAAACC
ACCCTTCACAGAATCTATGGGAAATTCCTAGGCTTGAGAGCTTACATCAGAAAACAGATAAATAATATATTTTAT
AGGTTTATTTATGAAACAGAGCATCATAATGGCATAGCAGAGTTACTGGAAATATTGGGAAGTATAATTAATGGA
TTTGCCTTACCACTAAAAGAAGAGCACAAGATTTTCTTATTGAAGGTGTTACTACCTTTGCACAAAGTGAAATCT
CTGAGTGTCTACCATCCCCAGCTGGCATACTGTGTAGTGCAGTTTTTAGAAAAGGACAGCACCCTCACGGAACCA
GTGGTGATGGCACTTCTCAAATACTGGCCAAAGACTCACAGTCCAAAAGAAGTAATGTTCTTAAACGAATTAGAA
GAGATTTTAGATGTCATTGAACCATCAGAATTTGTGAAGATCATGGAACCCCTCTTCCGGCAGTTGGCCAAATGT
GTCTCCAGCCCACACTTCCAGGTGGCAGAGCGAGCTCTCTATTACTGGAATAATGAATACATCATGAGTTTAATC
AGTGACAACGCAGCGAAGATTCTGCCCATCATGTTTCCTTCCTTGTACCGCAACTCAAAGACCCATTGGAACAAG
ACAATACATGGCTTGATATACAACGCCCTGAAGCTCTTCATGGAGATGAACCAAAAGCTATTTGATGACTGTACA
CAACAGTTCAAAGCAGAGAAACTAAAAGAGAAGCTAAAAATGAAAGAACGGGAAGAAGCATGGGTTAAAATAGAA
AATCTAGCCAAAGCCAATCCCCAGTACACAGTGTATAGTCAAGCCAGCACCATGAGCATTCCGGTTGCAATGGAG
ACAGATGGGCCTTTATTTGAAGATGTGCAGATGCTGAGAAAGACAGTGAAGGACGAGGCTCATCAGGCACAGAAA
GATCCGAAGAAGGACCGTCCTCTTGCACGCCGCAAGTCCGAGCTGCCTCAGGACCCCCACACCAAGAAAGCCTTG
GAAGCTCACTGCAGGGCCGATGAGCTGGCCTCCCAGGACGGCCGCTAGCCTCCGGGGGCGCCGCGTCGGGGCCGGG
CCCGCCAGTTCTTTTCCGGATTCTGTAGAAAATACATACTTCCTGTGCCATACCAATCAGTTACACTCAAAGCTT
TCTTGGACCCCGTTCCGTAGGCAATAACGTGCGTCCGCCTCAGCGCGAGATTAGGAGTTCAAACAATGGTGACTT
CCCAGAGCCCGCTGGCAGAGCCGCGGGTTGACGACGGTGTCCTCGCAGTGTCGCCGCCACCCCAGCGTAGTCCAA
GTCAGACTATTTCACAAAGTCAGAGCGATAGGAAAGCACCCTGCCCTTCATCTTCATGTTCTCCCAAATGGAACT
TAGGATCTTTTAACATAGGTGGTTCTGTGATAACATCAGTGTTTTCCAAATCAAAGGAACGCTTTAAAAAATAGG
ACCTATTTTTTAAGACTTTACAGCCTTTGAAATGGTTTCCACGTGATTGTTACGCCAGCAGTTCTCGTTTTGTTT
GTTTTTCAATCTCAGTGAAATGGCTCTTTGCTTTCGAGTTCTCACGCAACGTACTGGGCAAATGACAATCCTCAG
CCGCTGGTATTTTCTAAGGGGTCTCTTCACTTTGATGAGTGACATGAACACCGTGTCTCCTTCTCTTGTGTGTAC
CTAAAGCCATATTTCCAAGTCTGTGGTACTCCAGGATTCCAGGAGTAAGCCTGTAGAAGAGATTTATTTTAAAAG
AGATTGCTCTGAAATTTATCTTAAAAGAGCTTGCTCTGTCTACCTTGACAGAAATTGGAGTTTTAAAATTATGTG
TTAATATTTTTATTTGCAGATTTCGTTTCCGTCAACTTAAACATTGTTGCCCTTCAACAAGGCTCTTGAATTAAT
AAAATTATAGTCTCTAAGAATTCCACATTTTATGGAAAGTTAGAGCAAAATCATTTTGAGTTAAGCCAGTTCTTA
GCCTAATGCAAACTGCAGCGCCTTTAAGCATAAAGTAACACAACAGCATTGCACGGGGCCGGCACTGCCGCTGCC
TTCACTGAAGGCTGCAGTGCTGTTCTGAGAGCTTGGAGGAGGCACCAGCGAGGATGACGTTTAGTGGAGCTCTTT
CTGTTGAAAAGAGCTCACGTTATCAACACCTTGTAAGGAAAATACAGTGTCTGAGTTTTCATCGGTCTTCACATG
CTGCTATATATTCCACAGAGTTCCTTGCATGTACTGAGCTTTTGTTTTAGATGGAATAGCACAAGGAGAAAAATC
TTTAAACTTAGTGCTTTGTCTATTCTTTATTTCTCTCAGGGTGGCCAGTATTTTGACTTATTTATCCTGCTTGAA
AGCTACTTGAGATGTGTACTGCTATTCTAAACACGTGATCTAGTTTCTTTCATCTCTGGCATAAGATTATATAAC
TTAATGTTAAGTGTCTTGAGGCATAAAAGACAAAATGTGGCTTATTTTAGGATCTGTTTTTTCATCGAGGTCTCG
GGTATCCTTTCAAAGATAGTGAGAAGCAGACACTGCTCCTTGTGCAGCTCTGGTACCTCCTGCCCACTGCTGTCA
CTTCAAGCCACTGGCAATGCTTCTGTCCTCGTGTCTTGGAGGAAAATCACCTGGGGGGAGGGGACTTCTTGTGGT
AAGAGCAAGTGCAGGTATGAAATGCGAAGATTGCCCCAGCTAAAAGTGGACAAGTCCGCTTTGTGAGATGAATAC
TTCCTGAGAAACTTGACAAGTATCTCTCCATTTTACCATTATGAAAACTATCATTAAAAAAAACAGTTTAGATGC
CTTCTCCTTTTGAGGGAAAAAGGGTGCTTTTTATTGTATAAAGCAGCGTCTTATGTATTTTGATATACCATTGTT
TGAACTTCCGTCTTTAGCTGATAGATTCTCAAATATCCTTGATTTTGGATGTTCAGTATGTTTGTGAGAGAGGTT
TCTGGGAAGACTCTCTTTTTGCCCTCGGGAAAAAGCAAAATATCAATGTTTGGGTGACTGTGTAAAGCTCAGTGT

FIGURE 4546B

GTAAGAACATCTTTTTGTCTAGGTTTTCTTTCTGCTCTTTATTGAAGACAAACACTCACCAAAAAGAAAAATAAA
AGTTTTCAGAGAAACTAATTTTCTTTGGCAAGAGTATTACTTAATATTTTGGCCTCCTAAAGTTTCCCTAGTTAG
TACTCGGACTCCTGTGCTAATTGTCAGCTTACATATCATTGTATAGAGACTGTTTATTCTGTACCAAACTGATTT
CAAAAGTACTACATTGAAAATAAACCGGTGACTGTTTTTCTTCATAAAGTTCTGCGTTTGGCATCTTCACTCTTT
CCAAAATGTATCTGTACATCAGAAATGTCACTATTCCAAGTGTCTTTTTAGTGTGGCTTTAGTATGGCTTCCTTT
TAATATTGTACATACATTGTATCTTTGTTTTATGGTAATAAGTAATAAAAATGTAGACTTC

FIGURE 4547

ACACGGGTTTATCTGCATCAATCACGGGAGTACGTTTA**ATG**AATGCCAAACCTATTGGATTTAACCCCATAATGA
ATGTCTATGTTGATGTTATAGGAAATGAATTCTTTTTCTTCTTCTCCTTCATCACCGACGTCCTCTTTGAGCGTG
GAGCGCTCCACCAGCACCGTGTGGACCTGCGGGTCCGAAAGGAACTTGCGCATCTGCTCCAGGGCGCTCTTCTCC
TCCAGCGCCGCCTCCAGCGCGGCCGGCGCCTCGCCGCCGTCCTCCAGCAGCAGCGGCACCAGCTTGCGCAGGTGC
TTCTGCAGCACCGACACGTCCGCCACATTCTGCACGGCCGACACTTCCAATCCGGCCGAGCCGTCCTCGCCGCCG
CCGCCCCCGGGCTCCGACATGGTGTCGCGCTCGGGACCTTCCAGGAGCGA**TGA**GAAGGCGGCCGC

FIGURE 4548

CAGTTGCTTCAGCGTCCCGGTGTGGCTGTGCCGTTGGTCCTGTGCGGTCACTTAGCCAAG**ATG**CCTGAGGAAACC
CAGACCCAAGACCAACCGATGGAGGAGGAGGAGGTTGAGACGTTCGCCTTTCAGGCAGAAATTGCCCAGTTGATG
TCATTGATCATCAATACTTTCTACTCGAACAAAGAGATCTTTCTGAGAGAGCTCATTTCAAATTCATCAGATGCA
TTGGACAAAATCCGGTATGAAAGCTTGACAGATCCCAGTAAATTAGACTCTGGGAAAGAGCTGCATATTAACCTT
ATACCGAACAAACAAGATCGAACTCTCACTATTGTGGATACTGGAATTGGAATGACCAAGGCTGACTTGATCAAT
AACCTTGGTACTATCGCCAAGTCTGGGACCAAAGCGTTCATGGAAGCTTTGCAGGCTGGTGCAGATATCTCTATG
ATTGGCCAGTTCGGTGTTGGTTTTTATTCTGCTTATTTGGTTGCTGAGAAAGTAACTGTGATCACCAAACATAAC
GATGATGAGCAGTACGCTTGGGAGTCCTCAGCAGGGGGATCATTCACAGTGAGGACAGACACAGGTGAACCTATG
GGTCGTGGAACAAAAGTTATCCTACACCTGAAAGAAGACCAAACTGAGTACTTGGAGGAACGAAGAATAAAGGAG
ATTGTGAAGAAACATTCTCAGTTTATTGGATATCCCATTACTCTTTTTGTGGAGAAGGAACGTGATAAAGAAGTA
AGCGATGATGAGGCTGAAGAAAAGGAAGACAAAGAAGAAGAAAAAAGAAAAAGAAGAGAAAGAGTCGGAAGACAAA
CCTGAAATTGAAGATGTTGGTTCTGATGAGGAAGAAGAAAAGAAGGATGGTGACAAGAAGAAGAAGAAGAAGATT
AAGGAAAAGTACATCGATCAAGAAGAGCTCAACAAAACAAAGCCCATCTGGACCAGAAATCCCGACGATATTACT
AATGAGGAGTACGGAGAATTCTATAAGAGCTTGACCAATGACTGGGAAGATCACTTGGCAGTGAAGCATTTTTCA
GTTGAAGGACAGTTGGAATTCAGAGCCCTTCTATTTGTCCCACGACGTGCTCCTTTTGATCTGTTTGAAAACAGA
AAGAAAAAGAACAACATCAAATTGTATGTACGCAGAGTTTTCATCATGGATAACTGTGAGGAGCTAATCCCTGAA
TATCTGAACTTCATTAGAGGGGTGGTAGACTCGGAGGATCTCCCTCTAAACATATCCCGTGAGATGTTGCAACAA
AGCAAAATTTTGAAAGTTATCAGGAAGAATTTGGTCAAAAAATGCTTAGAACTCTTTACTGAACTGGCGGAAGAT
AAAGAGAACTACAAGAAATTCTATGAGCAGTTCTCTAAAAACATAAAGCTTGGAATACACGAAGACTCTCAAAAT
CGGAAGAAGCTTTCAGAGCTGTTAAGGTACTACACATCTGCCTCTGGTGATGAGATGGTTTCTCTCAAGGACTAC
TGCACCAGAATGAAGGAGAACCAGAAACATATCTATTATATCACAGGTGAGACCAAGGACCAGGTAGCTAACTCA
GCCTTTGTGGAACGTCTTCGGAAACATGGCTTAGAAGTGATCTATATGATTGAGCCCATTGATGAGTACTGTGTC
CAACAGCTGAAGGAATTTGAGGGGAAGACTTTAGTGTCAGTCACCAAAGAAGGCCTGGAACTTCCAGAGGATGAA
GAAGAGAAAAAGAAGCAGGAAGAGAAAAAAACAAAGTTTGAGAACCTCTGCAAAATCATGAAAGACATATTGGAG
AAAAAAGTTGAAAAGGTGGTTGTGTCAAACCGATTGGTGACATCTCCATGCTGTATTGTCACAAGCACATATGGC
TGGACAGCAAACATGGAGAGAATCATGAAAGCTCAAGCCCTAAGAGACAACTCAACAATGGGTTACATGGCAGCA
AAGAAACACCTGGAGATAAACCCTGACCATTCCATTATTGAGACCTTAAGGCAAAAGGCAGAGGCTGATAAGAAC
GACAAGTCTGTGAAGGATCTGGTCATCTTGCTTTATGAAACTGCGCTCCTGTCTTCTGGCTTCAGTCTGGAAGAT
CCCCAGACACATGCTAACAGGATCTACAGGATGATCAAACTTGGTCTGGGTATTGATGAAGATGACCCTACTGCT
GATGATACCAGTGCTGCTGTAACTGAAGAAATGCCACCCCTTGAAGGAGATGACGACACATCACGCATGGAAGAA
GTAGAC**TAA**

FIGURE 4549

CTCTCTCCGGTCCGTGCCTCCAAG**ATG**ACAAAGAAAAGAAGGAACAATGGTCGTGCCAAAAAGGGCCGCGGCCAC
ATGCAGCCTATTCGCTGCACTAACTGTGCCCGATGCGTGCCCAAAGACAAGGCCATTAAGAAATTCGTCATTCGA
AACATAGTGGAGTCCGCAGCAGTCAGGGACATTTCTGAAGCGAGCGTCTTCGATGCCTATGTGCTTCCCAAGCTG
TATGTGAAGCTGCATTACTGTGTGAGTTGTGCAATTCACAGCAAAGTAGTCAGGAATCGATCTCGTGAAGCCCGC
AAGGACCGAACACCCCCACCCCGATTTAGACCTGCGGGTGCTGCCCCACGTCCCCCACCAAAGCCCATG**TAA**GGA
GGTGAGTTCTTAAAGACTGAAGACAGGCTATTCTCTGGAGAAAAATAAAATGGAAATTGTACTT

FIGURE 4550

GGCTGGGGAAG**ATG**GCGGTGGCTGGGGCGGTGTCCGGGGAGCCGCTGGTGCACTGGTGCACCCAGCAGTTGCGGA
AGACTTTCGGCCTGGATGTCAGCGAGGAGATCATTCAGTACGTTTTGTCAATTGAGAGTGCTGAAGAGATACGAG
AATATGTTACTGATCTCCTCCAGGGAAATGAAGGCAAAAAAGGTCAATTCATAGAAGAACTTATAACCAAATGGC
AAAAGAATGATCAGGAGTTGATTTCGGATCCTTTGCAGCAGTGCTTCAAAAAAGATGAAATTTTAGATGGGCAGA
AATCAGGCGACCATCTAAAGCGGGGTAGGAAGAAAGGGAGAAACAGACAGGAAGTTCCTGCATTTACTGAACCTG
ACACGACTGCAGAGGTTAAAACACCTTTTGATTTGGCCAAGGCACAAGAGAACAGCAACTCCGTAAAGAAGAAGA
CAAAGTTTGTCAATTTATACACAAGAGAGGGACAGGACAGGCTTGCAGTCCTGCTCCCTGGTCGTCACCCTTGTG
ATTGCCTGGGCCAGAAGCACAAGCTCATCAATAACTGTCTGATCTGTGGGCGCATTGTCTGTGAACAAGAAGGCT
CAGGCCCTTGCTTATTCTGTGGCACTCTGGTGTGTACTCATGAGGAACAAGATATTTTACAGCGTGACTCAAACA
AGAGCCAGAAACTGCTAAAGAAACTCATGTCAGGAGTGGAGAATTCTGGAAAGGTGGACATCTCTACCAAGGACC
TTCTTCCTCATCAAGAATTGCGAATTAAGTCTGGTCTGGAGAAGGCTATCAAGCATAAAGACAAACTGTTAGAGT
TTGACAGAACTAGTATTCGAAGGACCCAAGTCATTGATGATGAGTCAGATTACTTTGCCAGTGATTCTAACCAAT
GGTTGTCCAAACTTGAGCGGGAAACCTTGCAGAAGCGAGAGGAGGAGCTGAGAGAACTTCGACACGCCTCTCGAC
TTTCTAAGAAGGTCACCATTGACTTTGCAGGAAGGAAGATCCTGGAAGAAGAAAATTCACTAGCAGAGTATCATA
GCAGACTAGATGAGACAATACAGGCCATTGCCAATGGAACCTTGAACCAGCCACTGACCAAATTGGATAGATCTT
CTGAAGAGCCTTTGGGAGTTCTGGTAAATCCCAACATGTACCAGTCCCCTCCCCAGTGGGTTGACCACACAGGTG
CAGCCTCACAGAAGAAGGCTTTCCGTTCTTCAGGATTTGGACTAGAGTTCAACTCATTTCAGCACCAGTTGCGAA
TCCAGGATCAAGAATTTCAGGAAGGCTTTGATGGTGGCTGGTGCCTCTCTGTACATCAGCCCTGGGCTTCTCTGC
TTGTCAGAGGGATTAAAAGGGTGGAGGGCAGATCCTGGTACACCCCCCACAGAGGACGACTTTGGATAGCAGCCA
CAGCTAAAAAACCCTCCCCTCAAGAAGTCTCAGAACTCCAGGCTACATATCGTCTTCTTCGTGGGAAAGATGTGG
AATTTCCTAATGACTATCCGTCAGGTTGTCTTCTGGGCTGTGTGGACCTAATTGACTGCTTGTCCCAGAAGCAAT
TTAAGGAGCAGTTCCAAGCATCAGTCAAGAGTCTGATTCTCCATTTGTTTTCATCTGCAAAAATCCTCAGGAAAT
GGTTG**TGA**AGTTTCCTATTAAAGGAAATCCAAAAATCTGGAAATTGGATTCCAAGATCCATCAAGGAGCAAAGAA
GGGGTTAATGAAGCAGAATAAAGCTGTCTGACCCAGGAGAAAAGGAACTATACAGCATAGTGGAGTTTTGTGTAC
TAAAATTGCTATCTACTGGTCCTTTGGAATTGAAGTAGTAGAAACCTAAAGGCTTGGCGTCAGGCTTGAATATCT
CAGAACTTAAACTCTTACCAAAATCTGTATATTTTTCTTAAGGAGTGGGATTCCTACTTTATGTAATGGGGTCGA
AATCTTTGAACACATTATTTATAAAAACCTGTTTAAAAATTCT

FIGURE 4551

GTGAAACACCCTCGGCTGGGAAGTCAGTTCGTTCTCTCCTCTCCTCTCTTCTTGTTTGAAC**ATG**GTGCGGACTAA
AGCAGACAGTGTTCCAGGCACTTACAGAAAAGTGGTGGCTGCTCGAGCCCCCAGAAAGGTGCTTGGTTCTTCCAC
CTCTGCCACTAATTCGACATCAGTTTCATCGAGGAAAGCTGAAAATAAATATGCAGGAGGGAACCCCGTTTGCGT
GCGCCCAACTCCCAAGTGGCAAAAAGGAATTGGAGAATTCTTTAGGTTGTCCCCTAAAGATTCTGAAAAAGAGAA
TCAGATTCCTGAAGAGGCAGGAAGCAGTGGCTTAGGAAAAGCAAAGAGAAAAGCATGTCCTTTGCAACCTGATCA
CACAAATGATGAAAAAGAA**TAG**AACTTTCTCATTCATCTTTGAATAACGTCTCCTTGTTTACCCTGGTATTCTAG
AATGTAAATTTACATAAATGTGTTTGTTCCAATTAGCTTTGTTGAACAGGCATTTAATTAAAAAATTTAGGTTTA
AATTTAGATGTTCAAAAGTAGTTGTGAAATTTGAGAATTTGTAAGACTAATTATGGTAACTTAGCTTAGTATTCA
ATATAATGCATTGTTTGGTTTCTTTTACCAAATTAAGTGTCTAGTTCTTGCTAAAATCAAGTCATTGCATTGTGT
TCTAATTACAAGTATGTTGTATTTGAGATTTGCTTAGATTGTTGTACTGCTGCCATTTTTATTGGTGTTTGATTA
TTGGAATGGTGCCATATTGTCACTCCTTCTACTTGCTTTAAAAAGCAGAGTTAGATTTTTGCACATTAAAAAATT
CAGTATTAATT

FIGURE 4552

ACGGCGCCCGCCGCCCGCCCGGAGCCCGCGAGCAACCCCAGTCCCCCCCACCCGCGCGTGGCGGCGCCGGCTCCC
TAGCCACCGCGGCCCCACCCTCTTCCGGCCTCAGCTGTCCGGGCTGCTTTCGCCTCCGCCTGTGG**ATG**CTGCGCC
TCTCCGAACGCAACATGAAGGTGCTCCTTGCCGCCGCCCTCATCGCGGGGTCCGTCTTCTTCCTGCTGCTGCCGG
GACCTTCTGCGGCCGATGAGAAGAAGAAGGGGCCCAAAGTCACCGTCAAGGTGTATTTTGACCTACGAATTGGAG
ATGAAGATGTAGGCCGGGTGATCTTTGGTCTCTTCGGAAAGACTGTTCCAAAAACAGTGGATAATTTTGTGGCCT
TAGCTACAGGAGAGAAAGGATTTGGCTACAAAAACAGCAAATTCCATCGTGTAATCAAGGACTTCATGATCCAGG
GCGGAGACTTCACCAGGGGAGATGGCACAGGAGGAAAGAGCATCTACGGTGAGCGCTTCCCCGATGAGAACTTCA
AACTGAAGCACTACGGGCCTGGCTGGGTGAGCATGGCCAACGCAGGCAAAGACACCAACGGCTCCCAGTTCTTCA
TCACGACAGTCAAGACAGCCTGGCTAGATGGCAAGCATGTGGTGTTTGGCAAAGTTCTAGAGGGCATGGAGGTGG
TGCGGAAGGTGGAGAGCACCAAGACAGACAGCCGGGATAAACCCCTGAAGGATGTGATCATCGCAGACTGCGGCA
AGATCGAGGTGGAGAAGCCCTTTGCCATCGCCAAGGAG**TAG**GGCACAGGGACATCTTTCTTTGAGTGACCGTCTG
TGCAGGCCCTGTAGTCCGCCACAGGGCTCTGAGCTGCACTGGCCCCGGTGCTGGCATCTGGTGGAGCGGACCCAC
TCCCCTCACATTCCACAGGCCCATGGACTCACTTTTGTAACAAACTCCTACCAACACTGACCAATAAAAAAAAAT
GTGGGTTTTTTTTTTTTTAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 4553

AGAAG**ATG**GCGTCGGGTGGTGGTGGCTGTAGCGCTTCGGAGAGACTGCCTCCGCCCTTCCCCGGCCTGGAGCCGG
AGTCCGAGGGGGCGGCCGGGGGATCAGAACCCGAGGCTGGGGACAGCGACACCGAGGGGGAGGACATTTTCACCG
GCGCCGCGGTGGTCAGTAAACATCAGTCTCCAAAGATAACTACATCCCTTCTTCCCATCAACAATGGCTCCAAAG
AAAATGGGATCCATGAAGAACAAGACCAAGAGCCACAGGATCTCTTTGCAGATGCCACAGTGGAGCTATCCTTGG
ACAGCACACAAAATAATCAGAAGAAGGTGCTAGCCAAAACACTCATTTCTCTTCCTCCTCAGGAAGCCACAAATT
CTTCGAAGCCCCAGCCAACCTATGAGGAGCTAGAGGAAGAAGAACAGGAGGATCAATTTGATTTGACAGTCGGTA
TAACTGATCCTGAGAAGATAGGGGATGGTATGAATGCATATGTAGCCTACAAAGTTACAACACAGACAAGCTTAC
CATTGTTCAGAAGCAAACAGTTTGCAGTAAAAAGAAGATTTAGTGACTTTCTGGGTCTTTATGAGAAGCTTTCCG
AGAAGCACTCTCAGAATGGCTTCATTGTCCCTCCGCCCCCGGAGAAGAGCCTCATAGGGATGACAAAAGTGAAAG
TTGGGAAGGAAGATTCTTCTTCTGCAGAATTTCTTGAAAAACGGAGGGCCGCTTTAGAAAGGTACCTTCAGAGGA
TTGTAAATCATCCTACCATGTTACAGGACCCTGACGTCAGAGAGTTCTTGGAAAAAGAAGAGCTGCCACGTGCCG
TGGGTACCCAGACATTGAGTGGTGCTGGTCTCCTCAAGATGTTCAACAAAGCCACAGATGCCGTCAGCAAAATGA
CCATCAAGATGAATGAATCAGACATTTGGTTTGAGGAGAAGCTCCAGGAGGTAGAGTGTGAGGAGCAGCGCTTAC
GGAAACTGCATGCTGTTGTAGAAACTCTAGTCAACCATAGGAAAGAGCTAGCGCTGAACACAGCCCAGTTTGCAA
AGAGTCTAGCCATGCTTGGGAGCTCTGAGGACAACACGGCATTGTCACGGGCACTCTCCCAGCTGGCTGAGGTGG
AAGAAAAAATTGAGCAGCTCCACCAGGAACAGGCCAACAATGACTTCTTCCTCCTTGCTGAGCTCCTGAGTGACT
ACATTCGCCTCCTGGCCATAGTCCGCGCTGCCTTCGACCAGCGCATGAAGACATGGCAGCGCTGGCAGGATGCCC
AAGCCACACTGCAGAAGAAGCGGGAGGCCGAGGCTCGGCTGCTGTGGGCCAACAAGCCTGATAAGCTGCAGCAGG
CCAAGGACGAGATCCTCGAGTGGGAGTCTCGGGTGACTCAATATGAAAGGGACTTCGAGAGGATTTCAACAGTGG
TCCGAAAAGAAGTGATACGGTTTGAGAAAGAGAAATCCAAGGACTTCAAGAACCACGTGATCAAGTACCTTGAGA
CACTCCTTTACTCACAGCAGCAGCTGGCAAAGTACTGGGAAGCCTTCCTTCCTGAGGCAAAGGCCATCTCC**TAA**T
GGACCAAGGACCCCAGAGCCCACCTGTGTGACGCTGCCTTTTTATACACTGTCCTCCTCCACCTTGATGGACCCC
TAGTGATGCATCCTGCCTAGGCTGGACTTAACCCCTTCCTCCCTGTCCCCACGACCAACTGTCCCCAGTTACTCT
AACCGTTATTTCATTTAGCTTCCATATATATTTTCTTACCTAAGAGAATAGTTTCCTGCTTTAAGCAAAAGACCT
ACAATAGGTGGTGGAATTATGGGATGGGGTGGAGTATTGATATAAATATATAAATACAAATGTATATTTTTCAGG
ATGTGGTTTAGGAACTGGGAATAACGTTTTC

FIGURE 4554

GTCTGGCCCCGCCTTTTCTCTGCTCTCCTGAACCTTTAGGCTTGTCTCGGCCCATTTGAAGACCAGGAAGTTGAT
CAATCCCGAGGCTGCTGAGAGACGGTGGCGCGATTGGGACAGTCGCCAGGGATGGCTGAGCGTGAAG**ATG**CAGCG
GGTGTCCGGGCTGCTCTCCTGGACGCTGAGCAGAGTCCTGTGGCTCTCCGGCCTCTCTGAGCCGGGAGCTGCCCG
GCAGCCCCGGATCATGGAAGAGAAAGCGCTAGAAGTTTATGATTTGATTAGAACTATCCGGGACCCAGAAAAGCC
CAATACTTTAGAAGAACTGGAAGTGGTCTCGGAAAGTTGTGTGGAAGTTCAGGAGATAAATGAAGAAGAATATCT
GGTTATTATCAGGTTCACGCCAACAGTACCTCATTGCTCTTTGGCGACTCTTATTGGGCTGTGCTTAAGAGTAAA
ACTTCAGCGATGTTTACCATTTAAACATAAGTTGGAAATCTACATTTCTGAAGGAACCCACTCAACAGAAGAAGA
CATCAATAAGCAGATAAATGACAAAGAGCGAGTGGCAGCTGCAATGGAAAACCCCAACTTACGGGAAATTGTGGA
ACAGTGTGTCCTTGAACCTGAC**TGA**TAGCTGTTTTAAGAGCCACTGGCCTGTAATTGTTTGATATATTTGTTTAA
ACTCTTTGTATAATGTCAGAGACTCATGTTTAATACATAGGTGATTTGTACCTCAGAGTATTTTTTAAAGGATTC
TTTCCAAGCGAGATTTAATTATAAGGTAGTACCTAATTTGTTCAATGTATAACATTCTCAGGATTTGTAACACTT
AAATGATCAGACAGAATAATATTTTCTAGTTATTATGTGCAAGATGAGTTGCTATTTTTCTGATGCTCATTCTGA
TACAACTATTTTTCGTGTCAAATATCTACTGTGCCCAAATGTACTCAATTTAAATCATTACTCTGTAAAATAAAT
AAGCAGATGATTCTTAT

FIGURE 4555

GCGCATGCGCGGGGGCCATATTAGCAGCGGTTATTCGGTGAGCGGTGGTGGTTTATTCTTCCGTGGAGTTAAGGG
CTCCGTGGACATCTCAGGTCTTCAGGGTCTTCCATCTGGAACTATATAAAGTTCAGAAAAC**ATG**TCTCGAAGATA
TGACTCCAGGACCACTATATTTTCTCCAGAAGGTCGCTTATACCAAGTTGAATATGCCATGGAAGCTATTGGACA
TGCAGGCACCTGTTTGGGAATTTTAGCAAATGATGGTGTTTTGCTTGCAGCAGAGAGACGCAACATCCACAAGCT
TCTTGATGAAGTCTTTTTTTCTGAAAAAATTTATAAACTCAATGAGGACATGGCTTGCAGTGTGGCAGGCATAAC
TTCTGATGCTAATGTTCTGACTAATGAACTAAGGCTCATTGCTCAAAGGTATTTATTACAGTATCAGGAGCCAAT
ACCTTGTGAGCAGTTGGTTACAGCGCTGTGTGATATCAAACAAGCTTATACACAATTTGGAGGAAAACGTCCCTT
TGGTGTTTCATTGCTGTACATTGGCTGGGATAAGCACTATGGCTTTCAGCTCTATCAGAGTGACCCTAGTGGAAA
TTACGGGGGATGGAAGGCCACATGCATTGGAAATAATAGCGCTGCAGCTGTGTCAATGTTGAAACAAGACTATAA
AGAAGGAGAAATGACCTTGAAGTCAGCACTTGCTTTAGCTATCAAAGTACTAAATAAGACCATGGATGTTAGTAA
ACTCTCTGCTGAAAAAGTGGAAATTGCAACACTAACAAGAGAGAATGGAAAGACAGTAATCAGAGTTCTCAAACA
AAAAGAAGTGGAGCAGTTGATCAAAAAACATGAGGAAGAAGAAGCCAAAGCTGAGCGTGAGAAGAAAGAAAAAGA
ACAGAAAGAAAAGGATAAA**TAG**AATCAGAGATTTTATTACTCATTTGGGGCACCATTTCAGTGTAAAAGCAGTCC
TACTCTTCCACACTAGGAAGGCTTTACTTTTTTTAACTGGTGCAGTGGGAAAATAGGACATTACATACTGAATTG
GGTCCTTGTCATTTCTGTCCAATTGAATACTTTATTGTAACGATGATGGTTACCCTTCATGGACGTCTTAATCTT
CCACACACATCCCCTTTTTTTGGAATAAAATTTGGAAAATGGAAATGAAGGAATAAATTCTCTGTAGCAGTAATT
GTTAAATATA

FIGURE 4556

AAAATTTTAGGTGGTTAAAATGTGGTACGTAAATTTTATATGTCTCAACTCTGTTTCATGTTAAATGTGTTACAG
GAATGAATCTGAAGTCTGCTGCAGTAAAACACAGAAGGCTTTAAAATGTTTTCTTGCATAAAATTCAAAACTTTT
AAGTAGCTGCTTATGAGAATAGGGAAGGCAGAAAGCTAATGTCTGTCTCAAGATACAGGACAGCTGTTTGCTCAT
CAACCTCAACTGTGTGTGCAACTGAGGAAC**ATG**GCTCAAGAAACTAATCACAGCCAAGTGCCTATGCTTTGTTCC
ACTGGCTGTGGATTTTATGGAAACCCTCGTACAAATGGCATGTGTTCAGTATGCTATAAAGAACATCTTCAAAGA
CAGAATAGTAGTAATGGTAGAATAAGCCCACCTGCAACCTCTGTCAGTAGTCTGTCTGAATCTTTACCAGTTCAA
TGCACAGATGGCAGTGTGCCAGAAGCCCAGTCAGCATTAGACTCTACATCTTCATCTATGCAGCCCAGCCCTGTA
TCAAATCAGTCACTTTTATCAGAATCTGTAGCATCTTCTCAATTGGACAGTACATCTGTGGACAAAGCAGTACCT
GAAACAGAAGATGTGCAGGCTTCAGTATCAGACACAGCACAGCAGCCATCTGAAGAGCAAAGCAAGTCTCTTGAA
AAACCGAAACAAAAAAAGAATCGCTGTTTCATGTGCAGGAAGAAAGTGGGACTTACTGGGTTTGAATGCCGGTGT
GGAAATGTTTACTGTGGTGTACACCGTTACTCAGATGTACACAATTGCTCTTACAATTACAAAGCCGATGCTGCT
GAGAAAATCAGAAAAGAAAATCCAGTAGTTGTTGGTGAAAAGATCCAAAAGATT**TGA**ACTCCTGCTGGAATACAA
AATTCTTGAGCATCTGCAAACTAAAAATTGACTTGAGGTTTTTTTTTTCCTAGTCATTGGGAATGTAGAGCAGTG
TATCTTGCATGTCATCGGAAGAATAGATTTTTGTTTTGGTTTTGTTTTGAAAATGACTCTGAACATTTATTTCCA
TTGCAATTTCTGTGGCTGAGGAGACTTAAACTTTACAAGTATTATCCTTTTAAGATCATTTTAATTTTAGTTGAG
TGCAGAGGGCTTTTATAACAAACGTGCAGAAATTTTGGAGGGCTGTGATTTTTCCAGTATTAAACATGCATGCAT
TAATCTTGCAGTTTATTTTCTCATTGTGTATGTATATATCGCTTTTCTCTGCAGCACGATTTCTCTTTTGATAAT
GCCCTTTAGGGCACAACTAGTTATCAGTAACTGAATGTATCTTAATCATTATGGCTGCTTCTGTTTTTTCATTAA
CAAAGGTTATTCATATGTTAGCATATAGTTTCTTTGCACCCACTATTTATGTCTGAATCATTTGTCACAAGAGAG
TGTGTGCTGATGAGATTGTAAGTTTGTGTGTTTAAACTTTTTTTTGAGCGAGGGAAGAAAAAGCTGTATGCATTT
CATTGCTGTCTACAGGTTTCTTTCAGATTATGTTCATGGGTTTGTGTGTATACAATATGAAGAATGATCTGAAGT
AATTGTGCTGTATTTATGTTTATTCACCAGTCTTTGATTAAATAAAAAGGAAAACCAG

FIGURE 4557

ATGGTTAACCCCACTGTGTTTTTTGACATCGCCGTCGATGGCGAGCCCTTGGGCCACGTCTCCTTCGAGCTGCTT
GCAGACAAGTTTCCAAAGACAGCAGAAAACTTTCATGCTCTGAGCACTGGAGAGAAAGGATTTGAATTATCAGAG
TTTATGTGTCAGGGTGGTGACTTCACATGCCATAATGGCACTGGTGGCAAGTCCATCTATGGGGAGAAATTTGAT
GATGAGAACTTCATCCTAAAGCATACAGTGGTGGATGGCAAGCATGTGGTCTTTGGCAAGGTGAAAGAAGGCATG
AATATTGTGGAGGCCACGGAGCGCTTTGAGTCCAGGAATGGCAAGACCAGGAAGAAGATCACCATTGCTGACTGT
GGACAACTC**TAA**

FIGURE 4558

GTGCACGCGCTGAAACCGGAGCGCGCAGGGCGCGCCAGGGTGAGGGGGACGGGGGCGGGGTGGGGGCAGCCCTTT
CCCAGGCGGTAGCGGGGGCGGCGTCGCTGTTGCCCTTTTAAGCCGCGGGGCCGCCGCCTCCTGCCGCTGGAGTCG
GTTACAAAGGAAGCGCCACCCAGGCCGCCACACGCCGAGGCTTCCGCGCCCCTCGCCATTTTCCAGCAGCGCTCG
ACGAGGCGGAGCCGCGAGAGCGCGGCCCAGGCCGGCCCCGCGGGGCGGTCGCGGCCGTGACGGCGGCTCCGGGCC
CGGCTCCCCTTCCGCGCCCGGCTCCCCTTCCGCGCCCCTCCCGCCGGAGATGAGGGGAAG**ATG**TCCGTGTCAGGG
CTCAAGGCCGAGCTGAAGTTCCTGGCGTCCATCTTCGACAAGAACCACGAGCGATTCCGCATCGTCAGTTGGAAG
CTGGACGAGCTGCACTGCCAGTTCCTGGTGCCGCAGCAGGGCAGCCCGCACTCGCTGCCGCCGCCACTCACGCTC
CACTGCAACATCACGGAATCCTATCCATCTTCTTCACCGATATGGTTTGTGGATTCTGAAGACCCAAATCTGACA
TCAGTTCTGGAACGTCTAGAAGATACTAAGAACAACAATTTGCTTCGTCAGCAATTGAAGTGGTTGATATGTGAA
CTCTGCAGTTTATATAACCTTCCTAAGCACCTGGATGTTGAGATGCTAGATCAACCACTACCCACGGGTCAGAAT
GGGACAACAGAAGAAGTGACTTCAGAAGAAGAGGAAGAAGAAGAAGAGATGGCTGAAGATATAGAAGACTTAGAT
CACTATGAGATGAAGGAAGAAGAGCCTATTAGTGGGAAAAAGTCAGAGGATGAAGGAATTGAAAAAGAAAATTTG
GCAATATTAGAGAAAATTAGGAAGACTCAAAGGCAAGACCATTTAAATGGTGCAGTGTCTGGGTCAGTGCAAGCT
TCAGATAGACTTATGAAAGAGCTCAGGGACATATACAGATCACAGAGTTATAAAACAGGGATTTATTCAGTGGAA
CTCATAAATGACAGTTTATATGACTGGCATGTTAAACTGCAGAAGGTTGACCCTGATAGTCCTTTGCACAGTGAT
CTTCAGATCTTAAAAGAAAAAGAAGGCATAGAATATATTTTGCTTAACTTCTCTTTTAAGGATAACTTTCCATTT
GATCCTCCATTTGTTCGAGTGGTGTTACCTGTTCTCTCAGGAGGGTATGTATTGGGTGGAGGAGCATTATGTATG
GAACTTCTCACAAAACAGGGCTGGAGCAGTGCCTACTCAATAGAATCGGTCATCATGCAAATAAATGCCACCTTA
GTCAAAGGCAAAGCCAGAGTGCAGTTTGGAGCAAATAAGAATCAATATAATCTAGCAAGAGCCCAACAATCCTAT
AATTCCATTGTACAGATACATGAGAAAAATGGCTGGTACACCCTCCAAAGGAAGATGGC**TAA**ATGTGTTGACTG
TTGTATGTTTGGACTAATGTTGCTTTAAAGAAAATCTTTCTAACATGCAGACAAAAGCTTTGAGTGCCCCTATTA
CAGCAGTACCGAAGATGTTAGTTAATAGATATTTTAGTGGATAATCTGTCATCTGACATCCAGTATAAGTTACAG
CCTTTGCATTTTGCTCATTTTAGATATCTTGGACTGAGCAGTGGGGCCTTTACTGTATTTTTCCTGATAAATACA
CATACTGGCCACTCCTTATCTCTTTTTCTTGAAAAGTGAACTTTTTAAAGCAGCCAAGTCAACATCAGGCTACTG
AAGTTGAGGCTTTAGGGTAACTTTCCTATATTGAGCCCATGGGTTACAAGGATTTGCAATATATTGTTCCATTTA
CAGCCAATACAGGTTTAATCGATGTTCAATATTGGTTTAGGAAATTTAAGGCCTTCTAAATCATAATAGCTCTTT
CATGTCTAAAACCATTTTATGATATTGCCAAAATGTGATAGGAAACCTACTCATTAAATTGTTAAACTTTTTAAT
GACTATGTGAAGATATGAATTGTTTCCTGAAGATAATACTCTTAATTGAGTTGTATTGTACTTCTTAGGCAAAGC
AGTGTAAAACTGTATCAATTAAGGCTTGTGAGTAGTGATTTCCACTGGGGCATCAGAGTCTTGGCTGGGCTGAAT
CTGCTGCTTGTTGGTTCAGTGTTTCTTATGAACAAGAGCCACAGTACAGAGCTTCAAGTTATTTAAAATACTAAG
TCATCTTACGTTTCCATTTTATTAACGGGATGTTGCAATCGTTTGTAAACTAATAAACTTATAAAGTGATTGGCA
CAAAGACTCCTTGAGCAAAAGCTGTGCAGTTAAGTACAAAAAGATACTTAATTTGGAGACTCTTACAGTAATTTT
TGCCATGTCAAAACAATGGCTTTTACATTGAAAGATTAATAGAAACTCTACATATGTTAATTTTTTTATAGAACC
TGACTCAAATCAAGGTACTCTCCATTTTATTGCCTTACCTGAATCAGTCCTTTTTGGTTGGTAATAGATTTTTTT
ATACACCCACGTTTGATTTAAAAGTAAATTCTAGTTCTTAAGCACTTTTAACAAATCCAGAAGCACATTTTTCTG
CACAAACAAGTTACAAAGTTCAAAAGTGTTTCTTGTGCATTAGCTTTGAGATTCAGTTTTTAACTTTGTAAACCA
CATCTGAGAGACTTGTCATTTCTACATTGTGTGTGTTTAATTTCTTTTGATTCCATTTTGGTTAAGAGAGCAGTA
AATAGATTTTCTGGTATTCTTGTTCACTTGATTACATTTGTATAAAGTTCTGATTGCCAGTTGCTCAGATAACAA
GTGACAAGGCAGAATTCTTTAAATCAGTAAAGTTCCTTAAGCCTAAGGCTAAATCTTGAATACATTGTTGAATTC
TTTAATATCCTGATGGCAAGCAGACTGATAGCTGCACATTTGGCATGCTTTGTTTAATGGATTTTATTTTTAATT
GCAGATTTATTTGGCAATGTACAGTAAATTTTGTAAACTTGCATCAAGTTTATGAATAAAGAACCATTT

FIGURE 4559

AGTGCGCGCCGGCCGGGCAACCCTATGCTGGCGTAATCGGGTTCCTCCGAGCCGCCGTAGGACTGGTTCCGGCGG
GCTGGTGAGGA**ATG**GAGCCGGTAGGCTGCTGCGGCGAGTGCCGCGGCTCCTCCGTAGACCCGCGGAGCACCTTCG
TGTTGAGTAACCTGGCGGAGGTGGTGGAGCGTGTGCTCACCTTCCTGCCCGCCAAGGCGTTGCTGCGGGTGGCCT
GCGTGTGCCGCTTATGGAGGGAGTGTGTGCGCAGAGTATTGCGGACCCATCGGAGCGTAACCTGGATCTCCGCAG
GCCTGGCGGAGGCCGGCCACCTGGAGGGGCATTGCTTGGTTCGCGTGGTAGCAGAGGAGCTTGAGAATGTTCGCA
TCTTACCACATACAGTTCTTTACATGGCTGATTCAGAAACTTTCATTAGTCTGGAAGAGTGTCGTGGCCATAAGA
GAGCAAGGAAAAGAACTAGTATGGAAACAGCACTTGCCCTTGAGAAGCTATTCCCCAAACAATGCCAAGTCCTTG
GGATTGTGACCCCAGGAATTGTAGTGACTCCAATGGGATCAGGTAGCAATCGACCTCAGGAAATAGAAATTGGAG
AATCTGGTTTTGCTTTATTATTCCCTCAAATTGAAGGAATAAAAATACAACCCTTTCATTTTATTAAGGATCCAA
AGAATTTAACATTAGAAAGACATCAACTCACTGAAGTAGGTCTTTTAGATAACCCTGAACTTCGTGTGGTCCTTG
TCTTTGGTTATAATTGCTGTAAGGTGGGAGCCAGTAATTATCTGCAGCAAGTAGTCAGCACTTTCAGTGATATGA
ATATCATCTTGGCTGGAGGCCAGGTGGACAACCTGTCATCACTGACTTCTGAAAAGTATGTCTTGTGTGCTTCTG
ATTTCGTCTGTGAA**TGA**AGGGAAATGGTCTCAGGTTTTGTCACTTTGGGGTTAACAATTTAAAAAACGTGTTTAA
AGAATTATTAAGATAATAGTTCATTCCATTTTGTAGTAGACATTGGCTAAGGGGCTTACTGAACATAATTCTGCT
TACGGTTGAATAATTACATTTTTATATATATTGTCCTTCAAGAACTTCCTTGAGTCACATTCTCCTTAAAATTTG
ACATTGCCTGTTGATCTTTCCTTTGACAGATGTGGTACTCTGTGTGACCTCAATGTGTCACCTCCTTTCTAGTTT
CCTCCTTTAAAGGAAACACATGGTTAGAGTGTATCTTTATGGCAAAACTTCTCAGAGCTTCTAATATGCCCAGTG
CTGTGGAAATCTGGAAGGAGAATAGCATTACCTGTGACAGTTCCCAAATGTGTTTGGTCACAAAACTTTTTTCCA
CAGAATGTCTTGCAAGTCGTACTGGTTTTTGGAAATTCTGTATTAGATCTTTTGAAAGGCTTTTTCAAGCTTAAA
AATTGTGGATCTTTTTTGTTACTAAGGCTTTTGCTTTCAAAGATAAAAATATTTGCTCTTC

FIGURE 4560

AGCATTAGGTGACTGGCTGAGGCGGCGCCAGTTGGCCGGGCACGGGGCTGCTGTAAGGCCGAGGTTGCGGCGGAA
GCGGAGACC**ATG**TTCCGAGCGGCGGCTCCGGGGCAGCTCCGGCGGGCGGCCTCATTGCTACGATTTCAGAGTACC
CTGGTAATAGCTGAGCATGCAAATGATTCCCTAGCACCCATTACTTTAAATACCATTACTGCAGCCACACGCCTT
GGAGGTGAAGTGTCCTGCTTAGTAGCTGGAACCAAATGTGACAAGGTGGCACAAGATCTCTGTAAAGTAGCAGGC
ATAGCAAAAGTTCTGGTGGCTCAGCATGATGTGTACAAAGGCCTACTTCCAGAGGAACTGACACCATTGATTTTG
GCAACTCAGAAGCAGTTCAATTACACACACATCTGTGCTGGAGCATCTGCCTTCGGAAAGAACCTTTTGCCCAGA
GTAGCAGCCAAACTTGAGGTTGCCCCGATTTCTGACATCATTGCAATCAAGTCACCTGACACATTTGTGAGAACT
ATTTATGCAGGAAATGCTCTATGTACAGTGAAGTGTGATGAGAAAGTGAAAGTGTTTTCTGTCCGTGGAACATCC
TTTGATGCTGCAGCAACAAGTGGCGGTAGTGCCAGTTCAGAAAAGGCATCAAGTACTTCACCAGTGGAAATATCA
GAGTGGCTTGACCAGAAATTAACAAAAAGTGATCGACCAGAGCTAACAGGTGCCAAAGTGGTGGTATCTGGTGGT
CGAGGCTTGAAGAGTGGAGAGAACTTTAAGTTGTTATATGACTTGGCAGATCAACTACATGCTGCAGTTGGTGCT
TCCCGTGCTGCTGTTGATGCTGGCTTTGTTCCCAATGACATGCAAGTTGGACAGACGGGAAAAATAGTAGCACCA
GAACTTTATATTGCTGTTGGAATATCTGGAGCCATCCAACATTTAGCTGGGATGAAAGACAGCAAGACAATTGTG
GCAATTAATAAAGACCCAGAAGCTCCAATTTTCCAAGTGGCAGATTATGGAATAGTTGCAGATTTATTTAAGGTA
GTTCCTGAAATGACTGAGATATTGAAGAAAAAA**TGA**ATCAGGATCATGCCTTAAAAAGAAAACTTTTGTTAAAGT
ATTCCACTGAAATCACAGATATTTGTGGGTATTATAACAATCATTGGAAAGCATGGAGAGCTACATTTCATAATT
TGAGGGAAAATTTCTAACAGATGCCAGAATGCTTGTTTATGGGATTGCTGTGTTTCCTTTTAATTATTTGTGGTT
CCAAACAATTATTGTTTGAACTTTTTAAATTCTGTACTAAAATCTATAATAAAGCTTTTCCACAGCTTTAAAACT
ATCAGAAATATGCCTAGCCTCTAGAGAAAATTGAAGAAAAGGAGTAAAAATTTTGTTTATTT

FIGURE 4561A

CAAGATGGCGGCCAAGGTGGCGAAGCAGCAGCCGCGGCGGCGGCGGCGGCTGGAGTGAGCGTCCGACTCGCCGCG
CCGAACGAGGTCCCGGTGTAGGGCCGCGCGCCGTGGCCGCGTCCCACTCCTCAGGCCGGGGCGCACGTCGGCTCC
CACGCTTAGCCAGCTCCCGGTGGTTTCCTAGAAACATGATTGTTTATTGGCATTGATCTCACAGTCTGGTGAGGA
CTTCTTTACTGATA**ATG**TCAAGTTCAGGTTATCCTCCCAACCAAGGAGCATTCAGCACAGAACAAAGTCGTTATC
CTCCTCACTCTGTCCAGTATACATTTCCCAACACCCGCCACCAGCAGGAGTTCGCAGTCCCTGATTATCGTTCCT
CTCATCTTGAAGTGAGTCAGGCATCACAGCTTTTGCAGCAACAGCAGCAGCAACAGCTTCGAAGGCGACCTTCCT
TGCTTTCAGAATTTCACCCAGGTTCTGACAGGCCTCAAGAAAGGAGAACTAGTTATGAACCGTTTCATCCAGGCC
CATCCCCAGTGGATCATGATTCACTGGAATCGAAGCGACCACGTCTGGAACAGGTTTCTGATTCTCATTTTCAGC
GTGTCAGTGCTGCGGTTTTGCCTTTAGTGCACCCGCTGCCAGAAGGGCTGAGGGCTTCTGCAGATGCTAAGAAGG
ATCCAGCATTCGGAGGCAAACATGAAGCTCCATCCTCTCCAATTTCGGGGCAACCATGTGGAGATGATCAAAATG
CTTCACCTTCAAAACTCTCAAAGGAAGAGTTAATACAGAGTATGGATCGTGTAGATCGAGAAATTGCAAAAGTAG
AACAGCAGATCCTTAAACTGAAAAAGAAACAACAACAGCTTGAAGAAGAGGCAGCTAAACCTCCTGAGCCTGAGA
AGCCCGTGTCCCCTCCTCCTGTGGAGCAGAAACACCGCAGTATTGTCCAAATTATTTATGATGAGAATCGGAAAA
AAGCAGAAGAAGCTCATAAAATTTTTGAAGGTCTTGGCCCAAAAGTTGAACTGCCACTGTATAACCAGCCATCAG
ATACCAAGGTGTACCATGAGAACATCAAGACAAACCAGGTGATGAGGAAAAAACTCATTTTATTTTTTAAAAGAA
GAAATCATGCAAGAAAACAAAGGGAACAAAAAATCTGCCAGCGTTATGATCAGCTCATGGAGGCATGGGAGAAAA
AAGTGGACAGAATAGAAAATAATCCTCGGAGGAAAGCTAAAGAAAGCAAAACAAGGGAATACTATGAAAAGCAGT
TTCCAGAAATTCGAAAACAAAGAGAACAGCAAGAAAGATTTCAGCGAGTTGGGCAGAGGGGAGCTGGTCTTTCAG
CCACCATTGCTAGGAGTGAGCATGAGATTTCTGAAATTATTGATGGGCTCTCTGAGCAGGAGAATAATGAGAAAC
AAATGCGGCAGCTCTCTGTGATTCCACCTATGATGTTTGATGCAGAACAAAGACGAGTCAAGTTCATTAACATGA
ATGGGCTTATGGAGGACCCTATGAAAGTGTATAAAGATAGGCAGTTTATGAATGTTTGGACTGACCATGAAAAGG
AGATCTTTAAGGACAAGTTTATCCAGCATCCAAAAAACTTTGGACTAATTGCATCATACTTGGAGAGGAAGAGTG
TTCCTGATTGTGTTTTGTATTACTATTTAACCAAGAAAAATGAGAATTATAAAGCCCTCGTCAGAAGGAATTATG
GGAAACGCAGAGGCAGAAACCAGCAAATTGCTCGACCCTCGCAAGAAGAAAAAGTAGAAGAAAAAGAAGAGGATA
AAGCAGAAAAAACAGAAAAAAAAGAAGAAGAAAAGAAAGATGAAGAGGAAAAAGATGAAAAAGAAGACTCCAAAG
AAAATACCAAGGAAAAGGACAAGATAGATGGTACAGCAGAAGAAACTGAGGAAAGAGAGCAAGCCACACCCCGGG
GGCGAAAGACTGCCAACAGTCAGGGCCGCCGTAAGGGCCGGATCACCAGGTCCATGACAAACGAAGCTGCAGCTG
CCAGTGCTGCAGCCGCAGCGGCTACTGAAGAGCCCCCACCACCTCTGCCACCGCCACCAGAACCCATTTCTACAG
AGCCTGTGGAGACCTCTCGATGGACAGAAGAAGAAATGGAAGTTGCTAAAAAAGGTCTAGTAGAACATGGTCGTA
ACTGGGCAGCAATTGCTAAAATGGTGGGAACGAAAAGTGAAGCTCAATGTAAAAACTTCTATTTTAACTATAAAA
GGCGACACAATCTTGACAACCTCTTACAGCAGCATAAACAGAAAACTTCACGAAAACCTCGTGAAGAGCGAGATG
TGTCTCAATGTGAAAGTGTCGCTTCCACTGTTTCTGCTCAGGAGGATGAAGATATTGAAGCCTCCAATGAAGAAG
AAAATCCAGAAGACAGCGAAGTTGAAGCTGTCAAGCCCAGCGAGGACAGTCCTGAAAATGCTACTTCTCGAGGAA
ACACAGAACCTGCGGTTGAGCTTGAGCCCACCACGGAAACTGCACCCAGTACATCTCCCTCCTTAGCAGTTCCAA
GTACAAAACCAGCTGAAGATGAAAGTGTGGAGACCCAGGTGAATGACAGCATCAGTGCTGAGACAGCAGAGCAGA
TGGATGTAGATCAGCAGGAGCACAGTGCTGAAGAGGGTTCTGTTTGTGATCCCCCACCCGCTACCAAAGCTGACT
CTGTGGACGTTGAAGTGAGGGTGCCAGAAAACCATGCATCTAAAGTTGAAGGTGATAATACCAAAGAAAGAGACT
TGGATAGAGCCAGTGAGAAGGTGGAACCTAGAGATGAAGATTTGGTGGTAGCTCAGCAAATAAATGCCCAAAGGC
CCGAGCCCCAGTCAGACAATGATTCCAGTGCCACGTGCAGCGCTGATGAGGATGTGGATGGAGAGCCAGAGAGGC
AGAGAATGTTTCCTATGGACTCAAAGCCTTCACTGTTAAACCCCACTGGATCTATACTCGTCTCATCTCCGTTAA
AACCAAATCCACTGGATCTGCCACAGCTTCAGCATCGAGCTGCTGTTATCCCACCAATGGTATCCTGCACCCCAT
GTAACATACCAATTGGAACCCCAGTGAGCGGCTATGCTCTCTACCAGCGACACATTAAAGCAATGCATGAGTCAG
CACTCCTGGAGGAGCAGCGGCAGAGACAAGAACAGATAGATTTGGAATGTAGAAGTTCTACAAGTCCATGTGGCA
CATCCAAGAGTCCAAACAGAGAGTGGGAAGTCCTTCAGCCTGCTCCACATCAAGTGATAACTAATCTCCCTGAAG
GCGTTCGGCTTCCGACAACTCGACCAACCAGGCCACCGCCCCCTCTCATCCCGTCATCCAAAACCACAGTGGCTT
CAGAAAAACCATCTTTTATAATGGGAGGCTCCATCTCACAGGGAACACCAGGCACTTATTTGACTTCTCATAATC
AGGCTTCCTACACTCAAGAAACACCCAAGCCGTCAGTGGGATCTATCTCTCTTGGACTGCCACGGCAACAGGAAT
CTGCCAAATCAGCTACTTTGCCCTACATCAAGCAGGAAGAATTTTCTCCCCGAAGCCAAAACTCACAACCTGAGG

FIGURE 4561B

GTCTGTTGGTCAGGGCCCAACATGAAGGTGTAGTCAGAGGTACCGCAGGAGCCATACAAGAAGGAAGTATAACTC
GGGGAACTCCAACCAGCAAAATTTCAGTGGAGAGCATTCCATCCCTACGGGGCTCTATCACTCAGGGCACCCCGG
CTCTGCCCCAGACTGGCATACCAACAGAGGCTTTGGTGAAGGGGTCCATTTCGAGAATGCCCATTGAAGACAGCA
GTCCTGAGAAAGGCAGAGAGGAAGCTGCATCCAAAGGCCATGTTATTTATGAAGGCAAAAGTGGACATATCTTGT
CATATGATAATATTAAGAATGCCCGAGAAGGGACTAGGAGTCCAAGAACAGCTCATGAAATCAGTTTAAAGAGAA
GCTATGAATCAGTGGAAGGAAATATAAAGCAAGGGATGTCAATGAGGGAGTCTCCTGTATCAGCACCGTTAGAGG
GGCTGATATGCCGAGCATTACCCAGGGGGAGTCCTCATTCTGACCTCAAAGAAAGGACTGTATTGTCTGGCTCCA
TAATGCAGGGGACACCAAGAGCAACAACTGAAAGCTTTGAAGATGGCCTTAAATATCCCAAACAAATTAAAAGGG
AAAGTCCTCCCATACGAGCATTTGAAGGTGCCATTACCAAAGGAAAACCATATGATGGCATCACCACCATCAAAG
AAATGGGGCGTTCCATTCATGAGATTCCAAGGCAAGATATTTTAACTCAGGAAAGTCGGAAAACTCCAGAAGTGG
TCCAGAGCACACGGCCGATAATTGAGGGTTCCATTTCCCAGGGCACACCAATAAAGTTTGACAACAACTCAGGTC
AATCTGCCATCAAACACAATGTCAAATCCTTAATCACGGGGCCTAGCAAACTATCCCGTGGAATGCCTCCGCTGG
AAATTGTGCCAGAGAACATAAAAGTGGTAGAACGGGGAAAATATGAGGATGTGAAAGCAGGCGAGACCGTGCGTT
CCCGGCACACGTCAGTGGTAAGCTCTGGCCCCTCCGTTCTTAGGTCCACACTGCATGAAGCTCCCAAAGCACAAC
TGAGCCCTGGGATTTATGATGACACCAGTGCACGGAGGACCCCTGTGAGTTATCAAAACACCATGTCCAGAGGCT
CACCCATGATGAACAGAACTTCTGATGTTACAATTTCTTCTAACAAGTCTACCAATCATGAAAGGAAATCGACAC
TGACCCCTACCCAGAGGGAAAGTATCCCAGCGAAGTCTCCAGTGCCTGGGGTGGACCCTGTCGTGAGCCACAGTC
CGTTTGATCCCCATCACAGAGGCAGCACTGCAGGCGAGGTTTATCGGAGCCACCTGCCCACGCACTTGGATCCAG
CCATGCCTTTTCACAGGGCTTTGGATCCTGCAGCGGCTGCTTACCTGTTTCAGAGACAGCTTTCACCAACTCCAG
GTTACCCAAGTCAGTATCAGCTTTACGCAATGGAGAACACAAGACAGACAATCTTAAATGATTACATTACCTCAC
AACAGATGCAAGTGAACTTGCGTCCAGATGTGGCCAGAGGACTCTCCCCAAGAGAGCAGCCACTGGGTCTCCCAT
ACCCAGCAACGAGAGGAATCATTGACCTGACCAATATGCCTCCAACAATTTTAGTGCCTCATCCAGGGGGAACAA
GCACTCCTCCCATGGACAGAATCACTTATATTCCTGGTACACAGATTACTTTCCCTCCCAGGCCGTACAACTCTG
CTTCCATGTCTCCAGGACACCCAACACACCTTGCAGCTGCTGCAAGTGCTGAGAGGGAACGGGAACGGGAGCGGG
AGAAGGAGCGGGAGCGGGAACGGATTGCTGCAGCTTCCTCCGACCTCTACCTGCGGCCAGGCTCAGAACAGCCTG
GCCGACCTGGCAGTCATGGATATGTTCGCTCCCCTTCCCCTTCAGTAAGAACTCAGGAGACCATGTTGCAACAGA
GACCCAGTGTTTTCCAAGGAACCAATGGAACCAGTGTAATCACACCTTTGGATCCAACTGCTCAGCTACGAATCA
TGCCACTGCCTGCTGGGGGCCCTTCAATAAGCCAAGGCCTGCCAGCCTCCCGTTACAACACTGCTGCGGATGCCC
TGGCTGCTCTTGTGGATGCTGCAGCTTCTGCACCCCAGATGGATGTGTCCAAAACAAAAGAGAGTAAGCATGAAG
CTGCCAGGTTAGAAGAAAATTTGAGAAGCAGGTCAGCAGCAGTTAGTGAACAGCAGCAGCTAGAGCAGAAAACCC
TGGAGGTGGAGAAGAGATCTGTTCAGTGTTTATACACTTCTTCAGCCTTTCCAAGTGGCAAGCCCCAGCCTCATT
CTTCAGTAGTTTATTCTGAGGCTGGGAAAGATAAAGGGCCTCCTCCAAAATCCAGATATGAGGAAGAGCTAAGGA
CCAGAGGGAAGACTACCATTACTGCAGCTAACTTCATAGACGTGATCATCACCCGGCAAATTGCCTCGGACAAGG
ATGCGAGGGAACGTGGCTCTCAAAGTTCAGACTCTTCTAGTAGCTTATCTTCTCACAGGTATGAAACACCTAGCG
ATGCTATTGAGGTGATAAGTCCTGCCAGCTCACCTGCGCCACCCCAGGAGAAACTGCAGACCTATCAGCCAGAGG
TTGTTAAGGCAAATCAAGCGGAAAATGATCCTACCAGACAATATGAAGGACCATTACATCACTATCGACCACAGC
AGGAATCACCATCTCCCCAACAACAGCTGCCCCCTTCTTCACAGGCAGAGGGAATGGGGCAAGTGCCCAGGACCC
ATCGGCTGATCACACTTGCTGATCACATCTGTCAAATTATCACACAAGATTTTGCTAGAAATCAAGTTTCCTCGC
AGACTCCCCAGCAGCCTCCTACTTCTACATTCCAGAACTCACCTTCTGCTTTGGTATCTACACCTGTGAGGACTA
AAACATCAAACCGTTACAGCCCAGAATCCCAGGCTCAGTCTGTCCATCATCAAAGACCAGGTTCAAGGGTCTCTC
CAGAAAATCTTGTGGACAAATCCAGGGGAAGTAGGCCTGGAAAATCCCCAGAGAGGAGTCACGTCTCTTCGGAGC
CCTACGAGCCCATCTCCCCACCCCAGGTTCCGGTTGTGCATGAGAAACAGGACAGCTTGCTGCTCTTGTCTCAGA
GGGGCGCAGAGCCTGCAGAGCAGAGGAATGATGCCCGCTCACCAGGGAGTATAAGCTACTTGCCTTCATTCTTCA
CCAAGCTTGAAAATACATCACCCATGGTTAAATCAAAGAAGCAGGAGATTTTTCGTAAGTTGAACTCCTCTGGTG
GAGGTGACTCTGATATGGCAGCTGCTCAGCCAGGAACTGAGATCTTTAATCTGCCAGCAGTTACTACGTCAGGCT
CAGTTAGCTCTAGAGGCCATTCTTTTGCTGATCCTGCCAGTAATCTTGGGCTGGAAGACATTATCAGGAAGGCTC
TCATGGGAAGCTTTGATGACAAAGTTGAGGATCATGGAGTTGTCATGTCCCAGCCTATGGGAGTAGTGCCTGGTA
CTGCCAACACCTCAGTTGTGACCAGTGGTGAGACACGAAGAGAGGAAGGGGACCCATCACCTCATTCAGGAGGAG

FIGURE 4561C

TTTGCAAACCAAAGCTGATCAGCAAGTCAAACAGCAGGAAATCTAAGTCTCCTATACCTGGGCAAGGCTACTTAG
GAACGGAACGGCCCTCTTCAGTCTCCTCTGTACATTCAGAAGGGGATTACCATAGGCAGACGCCAGGGTGGGCCT
GGGAAGACAGGCCCTCTTCAACAGGCTCAACTCAGTTTCCTTATAACCCTCTGACTATGCGGATGCTCAGCAGTA
CTCCACCAACACCGATTGCATGTGCTCCCTCTGCGGTGAACCAAGCAGCTCCTCACCAACAGAACAGGATCTGGG
AGCGAGAGCCTGCCCCACTGCTCTCAGCACAGTACGAGACCCTGTCGGATAGTGATGAC**TGA**ACTGCACAAAGTG
AGGGGAACAGGGTGCAGGAGAGGGATCTCTAGTTTTTGTGGTTTAATTTTTAGTAGCAGGTCAAAAACCTGCCCT
CCTGTGACTTATTCCCTGAGACTTTTCAGGAGAGCCAGCCCACAGATGATGAAGAAATGATGGAAGTTCATTTGG
AGAGTCAAATGGGAAAAAAACAAACAAAAAACTGCCTTTGATACAGGCAATTCAGTGGACTATAATAATAGTGGA
GGGTTGAGATGTAGAGTTTTTAAAAAGTGAACAGTTGCTGTTCTTACATCTGTAAAGAAAACCATAATGTCTTTA
AATCACTCTTCTGTAAATAGATGACCTTTTTGCAGTGTA

FIGURE 4562

CCATC**ATG**GAAGCAATGTGGCTCCTGTGTGTGGCGTTGGCGGTCTTGGCATGGGGCTTCCTCTGGGTTTGGGACT
CCTCAGAACGAATGAAGAGTCGGGAGCAGGGAGGACGGCTGGGAGCCGAAAGCCGGACCCTGCTGGTCATAGCGC
ACCCTGACGATGAAGCCATGTTTTTTGCTCCCACAGTGCTAGGCTTGGCCCGCCTAAGGCACTGGGTGTACCTGC
TTTGCTTCTCTGCAGGAAATTACTACAATCAAGGAGAGACTCGTAAGAAAGAACTTTTGCAGAGCTGTGATGTTT
TGGGGATTCCACTCTCCAGTGTAATGATTATTGACAACAGGGATTTCCCAGATGACCCAGGCATGCAGTGGGACA
CAGAGCACGTGGCCAGAGTCCTCCTTCAGCACATAGAAGTGAATGGCATCAATCTGGTGGTGACTTTCGATGCAG
GGGGAGTAAGTGGCCACAGCAATCACATTGCTCTGTATGCAGCTGTGAGGGCCCTGCACTCAGAAGGGAAGTTAC
CTAAAGGGTGCTCTGTGCTCACGCTTCAGTCTGTGAATGTGCTGCGCAAGTACATCTCCCTTCTGGATCTGCCCT
TGTCTCTGCTTCATACGCAGGATGTCCTCTTCGTGCTCAACAGCAAAGAAGTGGCACAGGCCAAGAAAGCCATGT
CCTGCCACCGCAGCCAGCTCCTCTGGTTCCGCCGCCTCTACATTATCTTCTCCCGGTACATGAGAATCAACTCAC
TGAGCTTCCTC**TGA**AGCCTTGAAGGGTTTTCAGATCCAAGGAACAAAGGGGAAAATAGACAAAGGAGTGCAGAGG
ACCTGGCCTGGCACTGGCTTATTTACCTGAGCTCAAGGAGATCCCCGCTGGAGCAGCCTCTGCAAAAGGGAGCCC
ATGTAGGCCAGGGGCTGTCCAAACTCCAGCTTCTTCCCCTGGGAAAAAACCCAAAGAACCAAAAACAAACCACCC
CAAGGATAATAATAGCTACACTGCTAGCTTCTCAAGTTCTTGTGAAAAACAATTTACATAATGACACAGTAGATG
TGGAACACCTAGCCCAGTGCCTGGGCAGGTCCCTATTATCATAAATGAACATAAAAGTGCTCTAAAAACACTC

FIGURE 4563

GGGCGGTTGGCTTTGTTGGGTGAGCTTGTTTGTGTCCCTGTGGGTGGACGTGGTTGGTGATTGGCAGGATCCTGG
TATCCGCTAACAGGTCAAA**ATG**CAGATCTTCGTGAAAACCCTTACCGGCAAGACCATCACCCTTGAGGTGGAGCC
CAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAGGATAAGGAAGGCATTCCCCCCGACCAGCAGAGGCTCAT
CTTTGCAGGCAAGCAGCTGGAAGATGGCCGTACTCTTTCTGACTACAACATCCAGAAGGAGTCGACCCTGCACCT
GGTCCTGCGTCTGAGAGGTGGTATGCAGATCTTCGTGAAGACCCTGACCGGCAAGACCATCACCCTGGAAGTGGA
GCCCAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAGGATAAAGAAGGCATCCCTCCCGACCAGCAGAGGCT
CATCTTTGCAGGCAAGCAGCTGGAAGATGGCCGCACTCTTTCTGACTACAACATCCAGAAGGAGTCGACCCTGCA
CCTGGTCCTGCGTCTGAGAGGTGGTATGCAGATCTTCGTGAAGACCCTGACCGGCAAGACCATCACTCTGGAGGT
GGAGCCCAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAAGATAAAGAAGGCATCCCCCCCGACCAGCAGAG
GCTCATCTTTGCAGGCAAGCAGCTGGAAGATGGCCGCACTCTTTCTGACTACAACATCCAGAAAGAGTCGACCCT
GCACCTGGTCCTGCGCCTGAGGGGTGGCTGT**TAA**TTCTTCAGTCATGGCATTCGCAGTGCCCAGTGATGGCATTA
CTCTGCACTATAGCCATTTGCCCCAACTTAAGTTTAGAAATTACAAGTTTCAGTAATAGCTGAACCTGTTCAAAA
TGTTAATAAAGGTTTCGTTGCATGGTA

FIGURE 4564

AGGTAGGCTCTCTAGGAATCTGGGAGTAGTAGCTGGGGGGCAAGAGCAAATAAAGAGCTCGAGCTTCTGTGGTCT
CTGGGGAG**ATG**TTCCCGGGAAGCCTGTCTAGAGGGCGGAGGGCAGCTGTTGAGATGGCGTGGCTCCCCGGCTCCT
GCGCCCGCGTGGCTTTCGCGGCGGGCGCTGCGGCCCGGTATTGGACAGCCTGGCAGGGCAGCGCGGGGCCGAATC
CGGCTGCCGTGGCTGAGGCTCATGGATCACTCTTTTGTGGTAGGGCCACATCTGCCAGAGCCTGGAGTCTGCGAA
GGCCGGGACCCGGTTCCCCGGCCCACAGTGGGGGTGTGCAAACCCGAGAGAACTGGATTGCGTACCCACTGCAGA
GTGCTGAAGACGGGGTAGCCACGAGGTTGCAAATTCGTGAAGAATCAGCATCATGTTTGGCAGCTGAGTATTGGA
GCCAGGAGCCTGCCATGAGGTTT**TGA**GAACAGAGTGCTGTTTTAGAGCTGGCAGCAGCATCTCAGCCCAAGAGAA
GGTTATATTCCCAGAGGATGTCAGTCCCAAGGACCAGTAGCTGCCATCAGTTTGGATTCTGAAAACTAACTGGCA
TCAACACTGGGTGTAGAAACATGCTTGCCTTATGTATCAGAGGACATGCTCAGCAGATCCAAGAGATATATTTGG
CAACTTTTTCTAGAAAAGGCACATTGGGTATCATTCATTACATTCTTGAGT

5267/5332

FIGURE 4565

TCCTATCCACCCTCCACTCCCCTGTCCCTTGGTGACTCATCCCTGAGCTTCCCAAGGAAGCCCCCACCCTCTGCC
CTTTCCTCCCGCCTTCCATGAGTGGAAAATCCACCTCCGCCCCCTATAGCAGGCCAGCCCCCTTCCTCCCCAGTC
TCCGACCCCATCCCCCAGCCGACCAGTTTCCTCTCCAGGACCAGGGAGCAATCACAGCTGCCCCGACCTTGGCTT
CCTCTGCTGGGTGGGATTGGGGGCTGGGCCCCCAAATGGGCCCCTGGCTTCCCCCTTCCTCTGGGCAGGGGACAG
AGAGACACAGGCTCGGGGAGCAGGACTGACTTCCTCTTGTCCCGGAATGAGCATGCCTGCCCTTTGCAAGCAGGT
TTGGGTCTCACGCAGAGGAAACCAAAAGCAATAAGAGGGAGGGAAGGCAGAGCAACCAATCAAGGGCAGGGTGAG
ACTCAAAACGAGCGGGCTCCCTGGGGAGCCAGACAGAGGCTGGGGGTG**ATG**GCGGAGCTACAGCAGCTGCAGGAG
TTTGAGATCCCCACTGGCCGGGAGGCTCTGAGGGGCAACCACAGTGCCCTGCTGCGGGTCGCTGACTACTGCGAG
GACAACTATGTGCAGGCCACAGACAAGCGGAAGGCGCTGGAGGAGACCATGGCCTTCACTACCCAGGCACTGGCC
AGCGTGGCCTACCAGGTGGGCAACCTGGCCGGGCACACTCTGCGCATGTTGGACCTGCAGGGGGCCGCCCTGCGG
CAGGTGGAAGCCCGTGTAAGCACGCTGGGCCAGATGGTGAACATGCATATGGAGAAGGTGGCCCGAAGGGAGATC
GGCACCTTAGCCACTGTCCAGCGGCTGCCCCCCGGCCAGAAGGTCATCGCCCCAGAGAACCTACCCCCTCTCACG
CCCTACTGCAGGAGACCCCTCAACTTTGGCTGCCTGGACGACATTGGCCATGGGATCAAGGACCTCAGCACGCAG
CTGTCAAGAACAGGCACCCTGTCTCGAAAGAGCATCAAGGCCCCTGCCACACCCGCCTCCGCCACCTTGGGGAGA
CCACCCCGGATTCCCGAGCCAGTGCACCTGCCGGTGGTGCCCGACGGCAGACTCTCCGCCGCCTCCTCTGCGTTT
TCCCTGGCCTCGGCCGGCAGCGCCGAAGGTGTCGGTGGGGCCCCCACGCCCAAGGGGCAGGCAGCACCTCCAGCC
CCACCTCTCCCCAGCTCCTTGGACCCACCTCCTCCACCAGCAGCCGTCGAGGTGTTCCAGCGGCCTCCCACGCTG
GAGGAGTTGTCCCCACCCCCACCGGACGAAGAGCTGCCCCTGCCACTGGACCTGCCTCCTCCTCCACCCCTGGAT
GGAGATGAATTGGGGCTGCCTCCACCCCCACCAGGATTTGGGCCTGATGAGCCCAGCTGGGTGCCTGCCTCATAC
TTGGAGAAAGTGGTGACACTGTACCCATACACCAGCCAGAAGGACAATGAGCTCTCCTTCTCTGAGGGCACTGTC
ATCTGTGTCACTCGCCGCTACTCCGATGGCTGGTGCGAGGGCGTCAGCTCAGAGGGGACTGGATTCTTCCCTGGG
AACTATGTGGAGCCCAGCTGC**TGA**CAGCCCAGGGCTCTCTGGGCAGCTGATGTCTGCACTGAGTGGGTTTCATGA
GCCCCAAGCCAAAACCAGCTCCAGTCACAGCTGGACTGGGTCTGCCCACCTCTTGGGCTGTGAGCTGTGTTCTGT
CCTTCCTCCCATCGGAGGGAGAAGGGGTCCTGGGGAGAGAGAATTTATCCAGAGGCCTGCTGCAGATGGGGAAGA
GCTGGAAACCAAGAAGTTTGTCAACAGAGGACCCCTACTCCATGCAGGACAGGGTCTCCTGCTGCAAGTCCCAAC
TTTGAATAAAACAGATGATGTCCTGTGACTGCCCCACAGAGATAAGGGGCCAGGAGGGATTGAAAGGCATCCCAG
TTCTAAGGCTGCTGCTAATTACAGCCCCCAACCTCCAACCCACCAGCTGACCTAGAAGCAGCATCTTCCCATTTC
CTCAGTACCCACAAAGTGCAGCCCACATTGGACCCCAGACACCCCTCTGCAGCCATTGACTGCAACTTGTTCTTT
TGCCCATT

FIGURE 4566

AGTATGTGTGGTTGGGGAATTCATGTGGAGGTCAGAGTGGAAGCAGGTGTGAGAGGGTCCAGCAGAAGGAAACATG
GGCTGCCAAAGTGTTTGAGTCCATTGGCAAGTTTGGCCTGGCCTTAGCTGTTGCAGGAGGCGTGGTGAACTCTGC
CTTATATAATGTGGATGCTGGGCACAGAGCTGTCATCTTTGACCGATTCCGTGGAGTGCAGGACATTGTGGTAGG
GGAAGGGACTCATTTTCTCATCCCGTGGGTACAGAAACCAATTATCTTTGACTGCCGTTCTCGACCACGTAATGT
GCCAGTCATCACTGGTAGCAAAGATTTACAGAATGTCAACATCACACTGCGCATCCTCTTCCGGCCTGTCGCCAG
CCAGCTTCCTCGCATCTTCACCAGCATCGGAGAGGACTATGATGAGCGTGTGCTGCCGTCCATCACAACTGAGAT
CCTCAAGTCAGTGGTGGCTCGCTTTGATGCTGGAGAACTAATCACCCAGAGAGAGCTGGTCTCCAGGCAGGTGAG
CGACGACCTTACAGAGCGAGCCGCCACCTTTGGGCTCATCCTGGATGACGTGTCCTTGACACATCTGACCTTCGG
GAAGGAGTTCACAGAAGCGGTGGAAGCCAAACAGGTGGCTCAGCAGGAAGCAGAGAGGGCCAGATTTGTGGTGGA
AAAGGCTGAGCAACAGAAAAAGGCGGCCATCATCTCTGCTGAGGGCGACTCCAAGGCAGCTGAGCTGATTGCCAA
CTCACTGGCCACTGCAGGGGATGGCCTGATCGAGCTGCGCAAGCTGGAAGCTGCAGAGGACATCGCGTACCAGCT
CTCACGCTCTCGGAACATCACCTACCTGCCAGCGGGGCAGTCCGTGCTCCTCCAGCTGCCCCAGTGAGGGCCCAC
CCTGCCTGCACCTCCGCGGGCTGACTGGGCCACAGCCCCGATGATTCTTAACACAGCCTTCCTTCTGCTCCCACC
CCAGAAATCACTGTGAAATTTCATGATTGGCTTAAAGTGAAGGAAATAAAGGTAAAATCACTTCAGATCTCTAAT
TAGTCTATCAAATGAAACTCTTTCATTCTTCTCACATCCATCTACTTTTTTATCCACCTCCCTACCAAAAATTGC
CAAGTGCCTATGCAAACCAGCTTTAGGTCCCAATTCGGGGCCTGCTGGAGTTCCGGCCTGGGCACCAGCATTTGG
CAGCACGCAGGCGGGGCAGTATGTGATGGACTGGGGAGCACAGGTGTCTGCCTAGATCCACGTGTGGCCTCCGTC
CTGTCACTGATGGAAGGTTTGCGGATGAGGGCATGTGCGGCTGAACTGAGAAGGCAGGCCTCCGTCTTCCCAGCG
GTTCCTGTGCAGATGCTGCTGAAGAGAGGTGCCGGGGAGGGGCAGAGAGGAAGTGGTCTGTCTGTTACCATAAGT
CTGATTCTCTTTAACTGTGTGACCAGCGGAAACAGGTGTGTGTGAACTGGGCACAGATTGAAGAATCTGCCCCTG
TTGAGGTGGGTGGGCCTGACTGTTGCCCCCCAGGGTCCTAAAACTTGGATGGACTTGTATAGTGAGAGAGGAGGC
CTGGACCGAGATGTGAGTCCTGTTGAAGACTTCCTCTCTACCCCCCACCTTGGTCCCTCTCAGATACCCAGTGGA
ATTCCAACTTGAAGGATTGCATCCTGCTGGGGCTGAACATGCCTGCCAAAGACGTGTCCGACCTACGTTCCTGGC
CCCCTCATTCAGAGACTGCCCTTCTCACGGGCTCTATGCCTGCACTGGGAAGGAAACAAATGTGTATAAACTGCT
GTCAATAAATGACACCCAGACCTTCC

FIGURE 4567

AGATCGATCTAAGATGGCGACCGTCGAACCGGAAACCACCCCTACTCCTAATCCCCCGACTACAGAAAAGGAGAA
AACGGAATCTAATCAGGAGGTTGCTAACCCAGAACACTATATTAAACATCCCCTACAGAACAGATGGGCACTCTG
GTTTTTTAAAAATGATAAAAGCAAAACTTGGCAAGCAAACTTGTGGCTGATCTCCAAGTTTGATACTGTTGAAGA
CTTTTGGGCTCTGTACAACCATATCCAGTTGTCTAGTAATTTAATGCCTGGCTGTGACTACTCACTTTTTAAGGA
TGGTATTGAGCCTATGTGGGAAGATGAGAAAAACAAACGGGGAGGACGATGGCTAATTACATTGAACAAACAGCA
GAGACGAAGTGACCTCGATCGCTTTTGGCTAGAGACACTTCTGTGCCTTATTGGAGAATCTTTTGATGACTACAG
TGATGATGTATGTGGCGCTGTTGTTAATGTTAGAGCTAAAGGTGATAAGATAGCAATATGGACTACTGAATGTGA
AAACAGAGAAGCTGTTACACATATAGGGAGGGTATACAAGGAAAGGTTAGGACTTCCTCCAAAGATAGTGATTGG
TTATCAGTCCCACGCAGACACAGCTACTAAGAGCGGCTCCACCACTAAAAATAGGTTTGTTGTTTAAGAAGACAC
CTTCTGAGTATTCTCATAGGAGACTGCGTCAAGCAATCGAGATTTGGGAGCTGAACCAAAGCCTCTTCAAAAAGC
AGAGTGGACTGCATTTAAATTTGATTTCCATCTAAATGTTACTCAGATATAAGAGAAGTCTCATTCGCCTTTGTC
TTGTACTTCTGTGTTCTTTTTTTTTTTTTTTTTTTTTTTTTTGGCTAGAGTTTACACTATCCCAATCAAAGAA
TTACAGTACACATCTCCAGAATCCATAAATGTGTTCCTGGCCCACTCTGTAATAGTTCAGTAGAATTACCATTAA
TTACATACAGATTTTACCTATCCACAATAGTCAGAAAACAACTTGGCATTTCTATACTTTACAGGAAAAAAAATT
CTGTTGTTCCATTTTATGCAGAAGCATATTTTGCTGGTTTGAAAGATTATGATGCATACAGTTTTCTAGCAATTT
TCTTTGTTTCTTTTTACAGCATTGTCTTTGCTGTACTCTTGCTGATGGCTGCTAGATTTTAATTTATTTGTTTCC
CTACTTGATAATATTAGTGATTCTGATTTCAGTTTTTCATTTGTTTTGCTTTTGTTTTTTTCCTCATGTAACATT
GGTGAAGGATCCAGGAATATGACACAAAGGTGGAATAAACATTAATTTTGTGCATTCTTTGGTAATTTTTTTTGT
TTTTTGTAACTACAAAGCTTTGCTACAAATTTATGCATTTCATTCAAATCAGTGATCTATGTTTGTGTGATTTCC
TAAACATAATTGTGGATTATAAAAAATGTAACATCATAATTACATTCCTAACTAGAATTAGTATGTCTGTTTTTG
TATCTTTATGCTGTATTTTAACACTTTGTATTACTTAGGTTATTTTGCTTTGGTTAAAAATGGCTCAAGTAGAAA
AGCAGTCCCATTCATATTAAAACAGTGTACAAAACTGTAAATAAAATGTGTACAGTGAATTGTCTTT

FIGURE 4568

GAAACCCAGGGAGGGGAGGGGAGGAGAAGGGAGTAATGGGGAGGAGGCCGCGCGGGGTGGGGTCTGGCGGTACGC
GCTGGCTGCGTCGACGTGCTGACGCCATGACGCCCCGGCTGGTGTGTGTCGGTGTGTATGTGTGTGTGTGAGTGT
GCGCGCTCCGAGTGTGTGTGTATTTGTGTATCGGCGGTCCCGCAGGTCCCGGATGTTGCGGACAGTATGAGGCAA
GCGCAGGGGGACGGGGACCAGCAGCTGTCGCCGCCGCTCTCAGGGTGAAGAGGGAACAGAAATCTTTGCCCCCTG
ACTTTGGAAATCTCGTTTAACCTTCAAACTGGCG**ATG**TCAAGGGTTCCAAGTCCTCCACCTCCGGCAGAAATGTC
GAGTGGCCCCGTAGCTGAGAGTTGGTGCTACACACAGATCAAGGTAGTGAAATTCTCCTACATGTGGACCATCAA
TAACTTTAGCTTTTGCCGGGAGGAAATGGGTGAAGTCATTAAAAGTTCTACATTTTCATCAGGAGCAAATGATAA
ACTGAAATGGTGTTTGCGAGTAAACCCCAAAGGGTTAGATGAAGAAAGCAAAGATTACCTGTCACTTTACCTGTT
ACTGGTCAGCTGTCCAAAGAGTGAAGTTCGGGCAAAATTCAAATTCTCCATCCTGAATGCCAAGGGAGAAGAAAC
CAAAGCTATGGAGAGTCAACGGGCATATAGGTTTGTGCAAGGCAAAGACTGGGGATTCAAGAAATTCATCCGTAG
AGATTTTCTTTTGGATGAGGCCAACGGGCTTCTCCCTGATGACAAGCTTACCCTCTTCTGCGAGGTGAGTGTTGT
GCAAGATTCTGTCAACATTTCTGGCCAGAATACCATGAACATGGTAAAGGTTCCTGAGTGCCGGCTGGCAGATGA
GTTAGGAGGACTGTGGGAGAATTCCCGGTTCACAGACTGCTGCTTGTGTGTTGCCGGCCAGGAATTCCAGGCTCA
CAAGGCTATCTTAGCAGCTCGTTCTCCGGTTTTTAGTGCCATGTTTGAACATGAAATGGAGGAGAGCAAAAAGAA
TCGAGTTGAAATCAATGATGTGGAGCCTGAAGTTTTTAAGGAAATGATGTGCTTCATTTACACGGGGAAGGCTCC
AAACCTCGACAAAATGGCTGATGATTTGCTGGCAGCTGCTGACAAGTATGCCCTGGAGCGCTTAAAGGTCATGTG
TGAGGATGCCCTCTGCAGTAACCTGTCCGTGGAGAACGCTGCAGAAATTCTCATCCTGGCCGACCTCCACAGTGC
AGATCAGTTGAAAACTCAGGCAGTGGATTTCATCAACTATCATGCTTCGGATGTCTTGGAGACCTCTGGGTGGAA
GTCAATGGTGGTGTCACATCCCCACTTGGTGGCTGAGGCATACCGCTCTCTGGCTTCAGCACAGTGCCCTTTTCT
GGGACCCCCACGCAAACGCCTGAAGCAATCC**TAA**GATCCTGCTTGTTGTAAGACTCCGTTTAATTTCCAGAAGCA
GCAGCCACTGTTGCTGCCACTGACCACCAGGTAGACAGCGCAATCTGTGGAGCTTTTACTCTGTTGTGAGGGGAA
GAGACTGCATTGTGGCCCCAGACTTTTAAAACAGCACTAAATAACTTGGGGGAAACGGGGGGAGGGAAAATGAAA
TGAAAACCCTGTTGCTGCGTCACTGTGTTCCCTTTGGCCTGGCTGAGTTTGATACTGTGGGGATTCAGTTTAGGC
GCTGGCCCGAGGATATCCCAGCGGTGGTACTTCGGAGACACCTGTCTGCATCTGACTGAGCAGAACAAATCGTCA
GGTGCCTGGAGCAAAAAGG

FIGURE 4569

GATGTCCGGCTGGAGCTGTCGCCTCCGCCGCCGCTGCTGCCGGTGCCGGTTGTGAGCGGGTCTCCAGTCGGCTCC
TCTGGGCGTCTC**ATG**GCCTCTAGCAGCTCCCTGGTGCCCGACCGGCTGCGCCTGCCGCTCTGCTTCCTGGGTGTC
TTTGTCTGCTATTTTTACTATGGGATCCTGCAGGAAAAGATAACAAGAGGAAAGTATGGGGAAGGAGCCAAGCAG
GAGACGTTCACCTTTGCCTTAACTTTGGTCTTCATTCAATGTGTGATCAATGCTGTGTTTGCCAAGATCTTGATC
CAGTTTTTTGACACTGCCAGGGTGGATCGTACCCGGAGCTGGCTCTATGCTGCCTGTTCTATCTCCTATCTGGGT
GCCATGGTCTCCAGCAATTCAGCACTACAGTTTGTCAACTACCCAACTCAGGTCCTTGGTAAATCCTGCAAGCCA
ATCCCAGTCATGCTCCTTGGGGTGACCCTCTTGAAGAAGAAGTACCCGTTGGCCAAGTACCTGTGTGTGCTGTTA
ATTGTGGCTGGAGTGGCCCTTTTCATGTACAAACCCAAGAAAGTTGTTGGGATAGAAGAACACACAGTCGGCTAT
GGAGAGCTACTCTTGCTATTATCGCTGACCCTGGATGGACTGACTGGTGTTTCCCAGGACCACATGCGGGCTCAT
TACCAAACAGGCTCCAACCACATGATGCTGAACATCAACCTTTGGTCGACATTGCTGCTGGGAATGGGAATCCTG
TTCACTGGGGAGCTCTGGGAGTTCTTGAGCTTTGCTGAAAGGTACCCTGCCATCATCTATAACATCCTGCTCTTT
GGGCTGACCAGTGCCCTGGGTCAGAGCTTCATCTTTATGACGGTTGTGTATTTTGGTCCCCTGACCTGCTCCATC
ATCACTACAACTCGAAAGTTCTTCACAATTTTGGCCTCTGTGATCCTCTTCGCCAATCCCATCAGCCCCATGCAG
TGGGTGGGCACTGTGCTTGTGTTCCTGGGTCTTGGTCTTGATGCCAAGTTTGGGAAAGGAGCTAAGAAGACATCC
CAC**TAG**GAAGAGAGAGACTACCTCCACATCAAGAATATTTAAGTTATTATCTCAAACAGTGACATCTCTTGGGAA
AATGGACTTAATAGGAATATGGGACTGAGTTCCAGTCTTTTTTAATAAAATAAAATCAAGC

FIGURE 4570

GCAGCCGGGAGAGCCATGGCGGGGGGCCGCAGCGGGCGGCAGAGGCGGAGGTGCCTGGGGGCCGGGGCGCGGAGGG
GCCGGGGGGGCTCCGGCGGGGCTGCTCTCCCCCAGCCCCCGCCGGCTCCCCCCGGGCTGGGCTGCAGCCGCTCAGG
GCCACGATCCCCTTCCAGCTGCAGCAGCCGCACCAGCGCCGGGACGGGGGTGGCCGTGCAGCCAGCGTCCCATGC
TCGGTGGCCCCAGAAAAGTCAGTGTGTAGGCCTCAGCCACTTCAGGTCCGGCGTACATTCTCCCTGGACACCATC
CTCAGCTCCTACCTTCTGGGCCAGTGGCCACGAGATGCTGATGGGGCCTTCACCTGCTGCACCAATGACAAGGCC
ACCCAGACGCCCCTGTCCTGGCAAGAGCTAGAAGGTGAGCGTGCCAGTTCCTGTGCACACAAGCGCTCAGCATCC
TGGGGCAGCACAGACCACCGAAAAGAGATTTCCAAGTTGAAGCAACAACTGCAGAGGACGAAGCTGAGCCGCAGT
GGGAAAGAGAAGGAGCGAGGTTCACCACTCCTAGGGGACCACGCAGTGCGGGGAGCACTGAGGGCGTCCCCTCCC
AGCTTCCCCTCAGGGTCCCCTGTCTTGCGACTCAGCCCCTGCCTGCACAGGAGCCTGGAAGGGCTCAACCAAGAG
CTGGAGGAGGTATTTGTGAAGGAGCAGGGAGAAGAGGAGCTGCTGAGGATCCTTGATATCCCTGATGGGCACCGG
GCCCCAGCTCCTCCCCAGAGTGGCAGCTGTGATCATCCCCTCCTCCTCCTGGAGCCTGGCAACCTTGCCAGCTCT
CCTTCCATGTCCTTGGCATCTCCCCAGCCTTGTGGCCTGGCCAGTCATGAGGAACATCGGGGTGCCGCCGAGGAG
CTGGCATCCACCCCCAACGACAAAGCCTCCTCTCCAGGACACCCAGCCTTTCTTGAAGATGGCAGCCCATCTCCA
GTCCTTGCCTTTGCTGCCTCCCCTCGACCTAATCATAGCTACATCTTCAAACGGGAGCCCCCAGAAGGCTGTGAG
AAAGTGCGTGTGTTTGAAGAAGCCACGTCTCCAGGTCCTGACCTGGCCTTCCTGACTTCCTGTCCTGACAAGAAC
AAAGTCCATTTCAACCCGACTGGCTCAGCCTTCTGCCCCGTCAACCTGATGAAGCCCCTCTTCCCCGGCATGGGC
TTCATCTTCCGTAACTGCCCCTCAAACCCGGGATCTCCCCTTCCCCCGGCCAGCCCCAGGCCACCACCTCGGAAG
GATCCGGAAGCCTCCAAGGCCTCCCCACTGCCATTCGAGCCATGGCAGCGCACCCCACCATCAGAAGAGCCTGTG
CTTTTCCAGAGCTCCCTGATGGTCTGAGGGTCCCACCCCTGCCCCACTTTACCATAGAGACCAGTGCCTTGGTGG
CAGGTCCCTCCCCAGGTCCCCTGAGATGGGGTATGGAGGGGCCCTTCCCTCTCGGCCTTCGAGCACTTTCTTTCA
CTTACTGTGTCAAAGCCCTGGGTCCTCTTTTTGATGGGCACCGGCCCCTCTGAACGTGATGGGACCTGCCTTCTC
CACTAGTAGCTGGGCAGCTCACAATTCACACCTGTGTACCTGCCACATCCCTCACTTGGTGGAAAACACCCAGAA
GGTCTTGAGTCCCCCACCCCTGGGTGTCAGTCCAAATGACTGTATAGGAGGCCCTTATTTTTGTCACAGAGCAAG
CTGGCCATGAACGAAGGAGAGAAGACGCCACAGATTTCCTTCCCTCTCCTCCAGGAGACCATAAGATAGATCCCC
CATCCTCTCAGCCCTATTCCCATGCCTCCCTCTCATTGGAGGAGCTGACCAAAGCAGCCCTAACGGGCCATAACA
CTTGACCAATTCAGCTGCTGGCAGAGGGAGGAAACAAGTGTTTTCCCAAGTGGCATTTTCATCTCGCTTTCACCC
TGACTAAAGATTGTCTTAAGTAGCAGCCCAGCCCGCCCAGCCCCAGGTGGGTAGTGGGGAGGAGAGCTGGCATTC
CTCCAGGTGGCAAATGGCGACTCTATACTCTCCGCCCGCCCCAGGGCTGGATGGATTAGAAAAATGCCTATTTTT
CTTGTATCGATGTAGAGACTCTATTTTCTCCCAAAGACACTATTTTTGCAGCTGTTTGAAGTTTGTATATTTTCC
GTACTGCAGAGCTTACACAAAATTGAAGAATGTTAATGTTCGAGTTTTCTTATCTTGTGTTTAGAGGTTGTTTTT
TGCAGATCTTGGTGTTAATAGACCAAATAAATAAATAAATATTCCCAGC

FIGURE 4571

GCCGCTGCCCGAATCGGAACCGTCGGGCCGCAGCCGCCGGCA**ATG**CCGCGAAGGAAGAGGAATGCAGGCAGTAGT
TCAGATGGAACCGAAGATTCCGATTTTTCTACAGATCTCGAGCACACAGACAGTTCAGAAAGTGATGGCACATCC
CGACGATCTGCTCGAGTCACCCGCTCCTCAGCCAGGCTAAGCCAGAGTTCTCAAGATTCCAGTCCTGTTCGAAAT
CTGCAGTCTTTTGGCACTGAGGAGCCTGCTTACTCTACCAGAAGAGTGACCCGTAGTCAGCAGCAGCCTACCCCA
GTGACACCGAAAAAATACCCTCTTCGGCAGACTCGTTCATCTGGTTCAGAAACTGAGCAAGTGGTTGATTTTTCA
GATAGAGAAACTAAAAATACAGCTGATCATGATGAGTCACCGCCTCGAACTCCAACTGGAAATGCGCCTTCTTCT
GAGTCTGACATAGACATCTCCAGCCCCAATGTATCTCACGATGAGAGCATTGCCAAGGACATGTCCCTGAAGGAC
TCAGGCAGTGATCTCTCTCATCGCCCCAAGCGCCGTCGCTTCCATGAAAGCTACAACTTCAATATGAAGTGTCCT
ACACCAGGCTGTAACTCTCTAGGACACCTTACAGGAAAACATGAGAGACATTTCTCCATCTCAGGATGCCCACTG
TATCATAACCTCTCAGCTGACGAATGCAAGGTGAGAGCACAGAGCCGGGATAAGCAGATAGAAGAAAGGATGCTG
TCTCACAGGCAAGATGACAACAACAGGCATGCAACCAGGCACCAGGCACCAACGGAGAGACAGCTTCGATATAAG
GAAAAAGTGGCTGAACTCAGGAAGAAAAGAAATTCTGGACTGAGCAAAGAACAGAAAGAGAAATATATGGAACAC
AGACAGACCTATGGGAACACACGGGAACCTCTTTTAGAAAACCTGACAAGCGAGTATGACTTGGATCTTTTCCGA
AGAGCACAAGCCCGGGCTTCAGAGGATTTGGAGAAGTTAAGGCTGCAAGGCCAAATCACAGAGGGAAGCAACATG
ATTAAAACAATTGCTTTTGGCCGCTATGAGCTTGATACCTGGTATCATTCTCCATATCCTGAAGAATATGCACGG
CTGGGACGTCTCTATATGTGTGAATTCTGTTTAAAATATATGAAGAGCCAAACGATACTCCGCCGGCACATGGCC
AAATGTGTGTGGAAACACCCACCTGGTGATGAGATATATCGCAAAGGTTCAATCTCTGTGTTTGAAGTGGATGGC
AAGAAAAACAAGATCTACTGCCAAAACCTGTGCCTGTTGGCCAAACTTTTTCTGGACCACAAGACATTATATTAT
GATGTGGAGCCCTTCCTGTTCTATGTTATGACAGAGGCGGACAACACTGGCTGTCACCTGATTGGATATTTTTCT
AAGGAAAAGAATTCATTCCTCAACTACAACGTCTCCTGTATCCTTACTATGCCTCAGTACATGAGACAGGGCTAT
GGCAAGATGCTTATTGATTTCAGTTATTTGCTTTCCAAAGTCGAAGAAAAAGTTGGCTCCCCAGAACGTCCACTC
TCAGATCTGGGGCTTATAAGCTATCGCAGTTACTGGAAAGAAGTACTTCTCCGCTACCTGCATAATTTTCAAGGC
AAAGAGATTTCTATCAAAGAAATCAGTCAGGAGACGGCTGTGAATCCTGTGGACATTGTCAGCACTCTGCAAGCC
CTTCAGATGCTCAAATACTGGAAGGGAAAACACCTAGTTTTAAAGAGACAGGACCTGATTGATGAGTGGATAGCC
AAAGAGGCCAAAAGGTCCAACTCCAATAAAACCATGGATCCCAGCTGCTTAAAATGGACCCCTCCCAAGGGCACT
TAAAGTGACCTGTCATTCCGAGCCAGCGAACCCCAGCAGTAGGAATCCGTACCCTAGGGATCTGTCTGTCATTTC
TCTGTTGCTCTTGTGATTGGCAAGTACAGTATCCTTTGGGAAGGCCATCCCCCTCAGGACTGTCCTGGCTCCGAC
CTTTGTGTACACTGCAGACGCTGGTTCTGAGGAACTGTTGTTTCGGCCTCAGTGAGGTTGCCTGGATGGGATCTG
TATTAGACTTGAGTGCAGGTCTCTCAGCACTGACCCAAGGAGTTCTGTTATGGTACTGTACCTGTCCAGTCACTG
GTTCTCTCCTCATGTCCTCTCGCCCCATGAGGTTGTGTTGTGTCTTCTAAGCGTGGTACTAGTGCTTGCCACCTG
GTCACCAGACCTCCAAATATGGCTGCCACCACCAGGACCTTTCCAGTTACTCCTTATATGTGTGTTCTATGGAGG
GGCAGGGAAAAGGTGGCACTTGTGAGTGTGTGTGGATTGGCAGGGGGTCCATTCACTTTGGGTTCCATCTTGCTT
TAAATTTCTTCATTTTGATTAAGAGACCTCTTTTTGATCTGTATTGGGCTAACCAGAGCCAAATACTTTTGAAGA
GTTTCCCAGGGACTAGTCATGGTAATAGCATATAATTGATCTGAATGAGATGGAGAGAAGAATGAAGGGGTGGTG
GTTCTGGGTTTGATTTGAGTTCACCTGTGGGCAGTGGGCAGTGGGCAGTGTCTTGGTGAAAGGGAACGGATACTA
CTTTTTGCCTCACCGTAAAGTACTCACTAGTAAATATTTCCTTCTCTCTTTACTCCCACTTTTTACGTTTGCAGG
TGCCAAAGTAATGTCCACTTTTCCCTTTCATGCTGCATATTAACTGGTTAATTATACTGCAGAAACCTTTTCACC
TCCACTAGTCTGATACAGTACATCTGTACTTCCATATACCTTGCACTGATTTTGTCTGAGTGCCCTGGGAGAAGT
AGAAAATGATTGAAAGTGACTTCCGTATCTCAGCCCATGACTCAGCAAGGCAGAATGGCCACCCCTGCCAAAGTT
TGCTTCTCTTTTCAACAGTGCCTCACCCTCCCTCTAGGATTAAAGTGCTTCTGCCCTTCCACGAACTCCTCCTCC
ATTTCCTTTTTGGGATTTGTCACCATCCTTCTATTCTCTGGTCTTCTATTTTTGGTGTTGTTCAAGTGAAGGAAG
AGATGTTCCCTCTAATTTCTCTCTAGCCCATTATAACCTGCTATCTTGGGGCAACTTTTGATGTATGACATGTCA
CCCTTCCCAACTTGGTCTCCTCCAACATGCTGTCTTCATGTGGAGCCCTCACCACAATCCCTGACTCCGGTCATT
TGTGCCTTTCTCTTGTCATCTCTGTACACTACTTATATTCACTGTGGGTTGGGGGAGCTAATTTTAAGCATGTTC
AGTGGCAGCTCCCCTCCAGTTTCAGTGTCACTGTTAAAATTTATCAAAAAGCAACTTCACTAGGGGTTTTCTTAA
GGGATAAAGGCCTTTTACAGAAGCTAAACCCTTCCCCACATGTGGTAGAATGTGCTCTTCTATATCTACTCCTCA
ATAAAGCATGTTCTCTGCTC

FIGURE 4572

GAATTAAACAACCACC**ATG**TCGAGCAAAAAGGCAAAGACCAAGACCACCAAGAAGCGCCCTCAGCGTGCAACATC
CAATGTGTTTGCCATGTTTGACCAGTCACAGATTCAGGAGTTCAAAGAGGCCTTCAACATGATTGATCAGAACAG
AGATGGCTTCATCGACAAGGAAGATTTGCATGATATGCTTGCTTCTCTAGGGAAGAATCCCACTGATGCATACCT
TGATGCCATGATGAATGAGGCCCCAGGGCCCATCAATTTCACCATGTTCCTGACCATGTTTGGTGAGAAGTTAAA
TGGCACAGATCCTGAAGATGTCATCAGAAACGCCTTTGCTTGCTTTGATGAAGAAGCAACAGGCACCATTCAGGA
AGATTACCTAAGAGAGCTGCTGACAACCATGGGGGGATCGGTTTACAGATGAGGAAGTGGATGAGCTGTACAGAGA
AGCACCTATTGACAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCCTGAAACATGGAGCCAAAGACAA
AGATGAC**TGA**AAGAACTTTAGCTAAAATCTTCCAGTTACATTGTCTTACTCTCTTTTACTTCTCAGACACTTCCC
CCACCCTCATAGAACCTGTTGCATGCAACTTAGTTTCACAGCTTTGCCTCTTCTTTTTGATGTATTTATTCCAGA
CCTTTCTGCCACTTAGCACTTGTATAATCAGACTGGAAATGGGGATGAGGGTGTAAATTGTATTGAAAAAGATCG
CGAATAAAAATCAACAAATGTGAAAGCCCAGAAAAATATATTCGTATTTCTGGTTTTGCTGGATTTTTACATTTT
TATATAATAAAAATGTTATTTTGAAATAAAGATTATGCTGACTCAAATGCAATGT

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FIGURE 4573

GAATTAAACAACCACC**ATG**TCGAGCAAAAAGGCAAAGACCAAGACCACCAAGAAGCGCCCTCAGCGTGCAACATC
CAATGTGTTTGCCATGTTTGACCAGTCACAGATTCAGGAGTTCAAAGAGGCCTTCAACATGATTGATCAGAACAG
AGATGGCTTCATCGACAAGGAAGATTTGCATGATATGCTTGCTTCTCTAGGGAAGAATCCCACTGATGCATACCT
TGATGCCATGATGAATGAGGCCCCAGGGCCCATCAATTTCACCATGTTCCTGACCATGTTTGGTGAGAAGTTAAA
TGGCACAGATCCTGAAGATGTCATCAGAAACGCCTTTGCTTGCTTTGATGAAGAAGCAACAGGCACCATTCAGGA
AGATTACCTAAGAGAGCTGCTGACAACCATGGGGGATCGGTTTACAGATGAGGAAGTGGATGAGCTGTACAGAGA
AGCACCTATTGACAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCCTGAAACATGGAGCCAAAGACAA
AGATGAC**TGA**AAGAACTT

FIGURE 4574

GCGCCGAGCAGGAGCAGGGAACAAAGGAGCGGAGAGGGGAGGGGAGAGAGTTGGGCGAGGGAGAGCCCCCGGCCG
GCTGCCAGAAGATCCCGGCGGGAGGAAGCCCAAGTGTCACTTGAATTCCACCCAAGGAGCGGGCGCCTGGGATCA
GAGCGTCCTGTTTAGCAATAACGGCTGGAGCACGTCCTACAAGTTACGGGAGAGTCGGCTGTGAAGGAGACGTTC
GCTTATCCCCTGTGTCCCCGCTCCTGGCCCCTCCAGACCCCAGCCTTGCCTCGCGCTGGGAGGGGAGATCCAGAA
TGAAAGGCAAGAAAGGTATTGTTGCAGCATCTGGCAGTGAGACTGAGGATGAGGACAGCATGGACATTCCCTTGG
ACCTTTCTTCATCCGCTGGCTCAGGCAAGAGAAGGAGAAGGGGCAACCTACCCAAGGAGTCTGTGCAGATTCTTC
GGGATTGGCTGTATGAGCACCGTTACAATGCCTATCCTTCAGAGCAAGAAAAAGCGTTGCTGTCCCAGCAAACAC
ACCTGTCTACGCTACAGGTCTGTAACTGGTTCATCAACGCCCGCCGCAGGCTCCTCCCTGACATGCTGAGAAAGG
ATGGCAAAGATCCAAATCAGTTCACAATTTCCCGCCGTGGGGCCAAGATTTCTGAAACGAGCTCTGTGGAGTCCG
TGATGGGCATCAAAAACTTCATGCCAGCTCTAGAGGAGACCCCATTTCATTCCTGTACAGCTGGGCCAAACCCAA
CCCTAGGGAGGCCACTGTCTCCTAAGCCGTCATCCCCGGGATCAGTTTTGGCTCGTCCATCAGTGATCTGCCATA
CCACTGTGACTGCATTGAAAGATGTCCCTTTCTCTCTCTGCCAGTCGGTCGGTGTGGGACAAAACACAGATATAC
AGCAGATAGCGGCCAAAAACTTCACAGACACCTCTCTCATGTACCCAGAGGACACTTGTAAATCTGGACCAAGTA
CGAATACACAGAGTGGTCTTTTCAACACTCCTCCCCCTACTCCACCGGACCTCAACCAGGACTTCAGTGGATTTC
AGCTTCTAGTGGATGTTGCACTCAAACGGGCTGCAGAGATGGAGCTTCAGGCAAAACTTACAGCTTAACCCATTT
TCAAGCAAAACAGTTCTCAGAAATGTCATGATTGCCGGGGTGAAGGCAAGAGATGAATTGCATTATTTTATATAT
TTTTTATTAATATTTGCACATGGGATTGCTAAAACAGCTTCCTGTTACTGAGATGTCTTCAATGGAATACAGTCA
TTCCAAGAACTATAAACTTAAAGCTACTGTAGAAACAAAGGGTTTTCTTTTTTAAATGTTTCTTGGTAGATTATT
CATAATGTGAGATGGTTCCCAATATCATGTGATTTTTTTTTTTCCTCCCCTTCCCTTTTTTTGTTATTTTTTCAG
ACTGTGCAATACTTAGAGAACCTATAGCATCTTCTCATTCCCATGTGGAACAGGATGCCCACATACTGTCTAATT
AATAAATTTTCCATTTTTTTTCAAACAAGT

FIGURE 4575

TCAGAAACCCTGATTTGAGCCAGACGTCCAAAGTCAAACCTCCGGGTGGACATTCCCCTCAGGTGAACCATCTGA
AAAGACCAGTCAGTGGAGTGGGGGACGCTCCAGGCACCAGCAATGGCGCAACTGTCTCTTCCACCAAAAGGCACA
AGTCCCTTTTTCAGTGCGCGAAATGTAGTTTTGCCACAGACTCGGGGCTCGAATTTCAGAGCCACATACCTAAGC
ACCAGGTGGACAGCTCCACAGCCCAATGTCTCCTCTGTGGTTTGTGCTACACCTCTGCCAGCTCCCTCAGCCGCC
ACCTCTTCATTGTCCACAAGGTGAGAGACCAGGAGGAGGAGGAGGAAGAGGAGGCGGCGGCAGCGGAGATGGCAG
TGGAGGTGGCAGAGCCAGAGGAGGGCTCCGGGGAGGAGGTGCCCATGGAGACTAGAGAGA**ATG**GACTGGAAGAAT
GTGCCGGTGAGCCTTTGTCGGCTGACCCAGAGGCGAGGAGATTGCTGGGCCCGGCCCCTGAGGACGACGGTGGCC
ACAATGATCACAGTCAACCACAGGCCTCTCAGGACCAGGACAGCCACGCACCATCCCCTCAGGTGTGACCGGAGA
CTTTGCAGTGTGCATGGTCAGGGGTGGTGCCGAAGCGTCTTCCACCTGCCGTGCGGACCGTGGAAAATAAAAGGC
TCTGCCCCCGGGGGTGAGTGTGGCCGGTTGTACCCTGCAG**TAG**CGTCTGCCCTGAGCTGCCAGTGCTGGGTATCCC
CCAGCCCCAGGAAATGTGGGGTCGGCCGGGACCCTCACAGCTCTGAATTTGCTTCTGTTATTTACGGCTTTTTGC
TGCTTCTTGGTACCCCATCTCCTGTCTGTGTCCTTCCAACCCCAGGCTGCTTATGTGGCCCAACCCCAATGCTGT
CAACTAGGCTTGAACCCCACAGCGGCTGTGCTCTTCTGGGAGGTTCCCGCTTGCTGCCTTCAGCCAGGGCGCTCC
TCAGAGCCCTGTTTTCCTGCAGACACCAGCTCTCCTTCCTGCCTTTAGATCCTGAGAAGGAGGGAAATGAGGGGT
GCTGACACAGTCCCTCTGGGAGAGCTCTGCCTAGTCTGGTTTGGTGAGGCCCTTGATCACCTTGGCCCTCCTCCC
TGTCTTCTCTGATTCTTTTCCCTCAAAATAGTCCTGAGAACTAATTGTCACAGACATTGGAATATTTGTACTGCT
CTCGTGCCATTTGAGAGGCTGCTGCCCCAGGCAGGCCAGCCCCTACTCCTCTTGGCTACACTCATGTTGCTCAGA
CTATATTTCAAATAAAAAAATCTTCTCACC

FIGURE 4576

ATGAAGGATCCCAAACAGATGATCCGAGACATGGAGAAATTGGATGAAATGGAGTTTAACCCAGTGCAACAGCCA
CAATTAAATGAGAAAGTACTGAAAGACAAGCGTGAGATGAAGGCATGGTACATAGTCCTGAAATTGCCCAGCGAG
GTCATGATGATGATGTTTTTAGCACCAGTGAAGATGATGGCTATCCTGAGGACGTGGATCAAGATAAGCATGATG
ACAGTACTGATGACAGTGACACCGACGGATCAGATTGAGAAAGTGTGCGCCATGATGATGAAGTCAGGTCTGAGT
GTACGGTTTGCAGATATGCCTGGAAAATCAAGGAAGAAAAAAACCATGAAGGAACTGACTCCTCTTCAAGCCACG
ATGCTTCGTATGGCAGGTCAAGAAATCCCTGAGGAGGGACGGGAAGTAGAGGAATTTTCAGAGGACAATGATGAA
GATGATTCTGATGACTCTAAAGCAGAAAAACAATCACAAAAACACAATCAAGAGGAACTGCATTCTGATGGCACA
TCCACTGCTTCTTCACAGCAGCAGGCTCCCCGGCAGTCTGTTCCTCCTTCTCAGGAGCTCCTCCTGAGACCACCT
GGAATGCCAGGACTCGGCCTTTACCCTGACTTTTACCTCCACGACCACCGACTTTTACTACCTCCCCCACGTCTA
CCTCCAAGTCTGCCCCCTGGTCCCCCTCCTCGGGAACCCCCACCAAGGATACCTCCCCCTGCACCTCCAGCTCCC
TTGCTGAACCCTGAGATTTTAAGTGCCCCACCCGGCTTGATTCAGCGATCCAAGGTAGATAATACAAGTGCAGCC
ACCGTTGAGAAGAAAGCCACAGCAACCGTCACTGCCAAACCACAGATCACTAATCCCAAGGCAGAGATTACTCGA
TTTGTGCCCAGTGCATTGAGAGTACGTCGGGAGAATAAAAGGGCTACTGCTGCTTCCCAAAGAAAGTCAGAGGAT
AATTCTGCTGTGCCTCTTGCCAAAGCAGCACCCAAATCTGGTCCTTCTGTTCCTGTCTCAGTACAAACTAAGGAT
GATGTCTATGAGGATTTCATGAAAGAGATGGAAGGGCTACTGTGA

FIGURE 4577

CCTTTCTGCCCGTGGACGCCGCCGAAGAAGCATCGTTAAAGTCTCTCTTCACCCTGCCGTC**ATG**TCTAAGTCAGA
GTCTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACAACTGATGAGAGCCT
GAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAG
GGGCTTTGGGTTTGTCACATATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGA
TGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAGAAGATTCTCAAAGACCAGGTGCCCACTTAACTGTGAA
AAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAAGAGATTATTTTGAACAGTATGGAAA
AATTGAAGTGATTGAAATCATGACTGACCGAGGCAGTGGCAAGAAAAGGGGCTTTGCCTTTGTAACCTTTGACGA
CCATGACTCCGTGGATAAGATTGTCATTCAGAAATACCATACTGTGAATGGCCACAACTGTGAAGTTAGAAAAGC
CCTGTCAAAGCAAGAGATGGCTAGTGCTTCATCCAGCCAAAGAGGTCGAAGTGGTTCTGGAAACTTTGGTGGTGG
TCGTGGAGGTGGTTTCGGTGGGAATGACAACTTCGGTCATGGAGGAAACTTCAGTGGTCGTGGTGGCTTTGGTGG
CAGCCGTGCTGGTGGTAGATATGGTGGCAGTGGGGATGGCTCTAATGGATTTGGTAATGATGGAAGCAATTTTGG
AGGTGGTGGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAAA
TTTTGGAGGCAGAAACTCTGGCCCCTATGGCGGTGGAGGCCAGTACTTTGCAAAACCACGAAACCAAGGTGGCTA
TGGCGGTTCCAGCAGCAGCAGTAGCTGTGTCAGTGGCAGAAGATTT**TAA**TTAGGAAACAAAGCTTAGCAGGAGAG
GAGAGCCAGAGAAGTGACAGGGAAGCCACAGGTTACAACAGATTTGTGAACTCAGCCAAGCACAGTGGTGGCAGG
GCCTAGCTGCTACAAAGAAGACATGTTTTAGACAAATACTCATGTGTATGGGCAAAAAACTCGAGGACTGTGTTT
GTGACTAATTGTATAACAGGTTATTTTAGTTTCTGTTCTGTGGAAAGTGTAAAGCATTCCAACAAAGCGTTTTAA
TGTAGATTTTTTTTTTTTGCACCCATGCTGTTGATTGCTAAATGTAATAGTCTGATCGTGACGCTGAATAAATGT
CTTTTTTTTTTTAATGTGCTGTGTAAAGTTAGTCTACTCTGAAGCCATCTTGGTAAATTTCCCCAACAGTGTGAA
GTTAGAATTCCTTCAGGGTGATGCCAGGTTCTATTTGGAATTTATATACAACCTGCTTGGGTGGAGAAGCCATTG
TCTTCGGAAACCTTGGTGTAGTTGAACTGATAGTTACTGTTGTGACCTGAAGTTCACCATTAAAAGGGATTACCC
AAACAAAGTCATGGAATGGTTATAAAAGTGATTGTTGGCACATCCTATGCAATATATCTAAATTGAATAATGGTA
CCAGATAAAATTATAGATGGGAATGAAGCTTGTGTATCATCCATTATCATGTGTAATCAATAAACAATTTAATTC
TCTTGAA

FIGURE 4578

AAGTCTCTCTTCACCCTGCCGTC**ATG**TCTAAGTCAGAGTCTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCA
TTGGAGGGTTGAGCTTTGAAACAACTGATGAGAGCCTGAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACT
GTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAGGGGCTTTGGGTTTGTCACATATGCCACTGTGGAGGAGG
TGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGATGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAG
AAGATTCTCAAAGACCAGGTGCCCACTTAACTGTGAAAAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAG
AACATCACCTAAGAGATTATTTTGAACAGTATGGAAAAATTGAAGTGATTGAAATCATGACTGACCGAGGCAGTG
GCAAGAAAAGGGGCTTTGCCTTTGTAACCTTTGACGACCATGACTCCGTGGATAAGATTGTCATTCAGAAATACC
ATACTGTGAATGGCCACAACTGTGAAGTTAGAAAAGCCCTGTCAAAGCAAGAGATGGCTAGTGCTTCATCCAGCC
AAAGAGGTCGAAGTGGTTCTGGAAACTTTGGTGGTGGTCGTGGAGGTGGTTTCGGTGGGAATGACAACTTCGGTC
ATGGAGGAAACTTCAGTGGTCGTGGTGGCTTTGGTGGCAGCTCTAATGGATTTGGTAATGATGGAAGCAATTTTG
GAGGTGGTGGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAA
ATTTTGGAGGCAGAAACTCTGGCCCCTATGGCGGTGGAGGCCAGTACTTTGCAAAACCACGAAACCAAGGTGGC

FIGURE 4579

AGGGAAGTGGAACTTTCCATGCTGAGTGAAAACTAACCAAGTGGCAGTTGTGACTGAAAACACTGAAACCTACCA
CGTCCAGATTCACTGGATTGGGGGATAGAGGAACGGTCACAGCTAGGGAGAAAGAAGTGATACCGGAAAAGAAAA
CCTAAATGAAGAGAATGAGGATGACTGCACAGTAGATGGCCACCTCTACCTCCACAGAGGCAAAGTCAGCCTCGT
GGTGGAATTATTTTTTTCTTTATGATGGTTCCAAGGTAAAGGAAGAAGGCGATCCAACAAGAGCTGGCATTTGTT
ACTTTTATCCTTCCCAGACCCTGCTAGACCAACAGGAGTTGCTTTGTGGACAGATTGCTGGAGTTGTCCGCTGTG
TTTCTGACATTTCTGACTCTCCTCCTACTCTTGTTCGTCTGAGAAAACTGAAGTTTGCCATAAAAGTTGATGGAG
ATTACCTTTGGGTGCTGGGCTGTGCTGTGGAGCTCCCTGATGTCAGCTGCAAGCGGTTTCTGGATCAGCTAGTTG
GATTCTTTAATTTTTACAATGGACCTGTTTCCCTAGCTTATGAGAACTGTTCTCAGGAAGAACTGAGCACGGAGT
GGGACACCTTCATCGAGCAAATTCTGAAAAACACCAGTGATCTGCATAAGATTTTCAATTCCCTCTGGAACTTGG
ACCAAACTAAAGTGGAGCCCCTGTTGTTGCTGAAGGCAGCCCGCATTCTGCAGACCTGCCAGCGCTCGCCTCACA
TTCTCGCTGGCTGCATCCTCTATAAAGGACTGATTGTCAGCACCCAACTCCCGCCCTCCCTCACCGCCAAGGTCC
TGCTTCACCGAACAGCACCTCAGGAGCAGAGACTCCCTACGGGAGAGGATGCCCCGCAGGAACATGGAGCGGCAT
TGCCCCCGAATGTCCAGATTATCCCTGTTTTTGTGACCAAAGAGGAAGCCATTAGTCTCCACGAGTTCCCGGTGG
AACAGATGACAAGGTCTCTAGCATCTCCAGCAGGACTCCAGGATGGTTCAGCCCAGCACCATCCAAAGGGTGGGA
GCACATCTGCCCTGAAAGAAAACGCCACTGGCCATGTGGAATCCATGGCCTGGACCACCCCAGATCCCACATCCC
CTGACGAAGCTTGTCCAGATGGCAGGAAGGAGAACGGATGCTTGTCTGGCCATGATCTGGAGAGCATCAGGCCCG
CAGGACTGCACAACTCTGCCAGGGGTGAGGTTCTTGGCCTCAGCTCCTCCCTGGGGAAGGAACTAGTCTTTCTCC
AAGAAGAACTCGACTTGTCTGAAATCCACATTCCAGAGGCTCAGGAAGTGGAAATGGCCTCAGGTCATTTTGCCT
TCCTACATGTGCCTGTTCCAGATGGCAGGGCTCCTTACTGCAAGGCATCTCTCAGCGCCTCCAGCAGCCTGGAAC
CCACGCCTCCTGAGGACACAGCCATCAGCAGCTTGCGCCCTCCCTCTGCTCCTGAGATGCTGACCCAGCATGGAG
CCCAAGAGCAGCTCGAAGACCATCCTGGCCATAGCAGCCAAGCCCCCATTCCCAGAGCAGACCCTCTCCCCAGAA
GGACCCGCAGGCCCTTGTTATTGCCTCGCTTAGATCCAGGACAGAGAGGAAACAAGCTTCCCACGGGGGAACAAG
GCCTGGATGAGGATGTTGATGGGGTCTGTGAAAGCCACGCAGCCCCTGGTCTGGAATGCAGTTCAGGCTCAGCAA
ACTGTCAGGGTGCTGGCCCCTCTGCAGATGGAATCAGCTCCAGGCTGACACCAGCAGAGTCCTGCATGGGGCTCG
TGAGGATGAATCTCTACACTCACTGCGTCAAAGGGCTGGTGCTGTCCCTGCTGGCTGAGGAGCCGCTGCTGGGAG
ACAGCGCAGCCATAGAGGAAGTGTACCACAGCAGCCTGGCTTCACTGAATGGGCTGGAAGTCCACCTGAAAGAGA
CGCTGCCCAGGGATGAGGCAGCCTCCACGAGCAGCACCTACAACTTCACACATTACGACCGCATTCAGAGCTTGC
TGATGGCAAACCTGCCGCAGGTGGCCACCCCGCAGGATCGCCGCTTCCTCCAGGCCGTCAGCCTGATGCATAGCG
AATTTGCCCAGCTGCCCGCGCTTTATGAAATGACTGTCAGAAATGCCTCCACGGCTGTGTACGCCTGTTGCAACC
CCATCCAGGAGACATATTTCCAGCAGCTGGCACCTGCAGCACGGAGCTCCGGCTTCCCAAACCCTCAGGATGGCG
CCTTCAGCCTCTCCGGCAAAGCAAAGCAGAAGCTGCTGAAGCACGGGGTGAACTTGCTCTGAACTGCACCCAGGA
GGTGACTGGGAAGGAGAAAACCAGCAAAGGAAGCTCTGCCTTTTATAATTGAAAAGGCCCCTCTATTTTATTTTT
CTTGAAAACATTCCCTTTTTTAGGAACCAAATGATATTTGAGTTTTTGTTATTCCTTTTGCAGATTGGGATGTGT
TTTGGGGGCAGGGGTTAGTTCTTCAGGTCGGCAGACCCAGAGCACTTGATAAAGAACTGTATTTAATCGGTAGTG
TTGGGGCCGGGACGGGCTTGGCTCCCTCTCTGCCATACTGAGCCTGAGGTATTTCATATCTCCTGCTGTTCCATC
CCAGCTTGAATTGGTGCCACAAGCTTCCAAGTTGGCATTTTTTCTAGAACCTGATCGTCCACTAGCCCAGAGTGT
GTGTGTTCAACCCCCACACCAGGTGGTGGTAGGCGGTGTGACTGCACAGCGAGGTGCCGGATCTGTGAGCAGGCC
GACTCCACTCCCACGCCGCAGGTAGGTTTCTCCAGTGCGCTCTTGCTGGGAGGTCCGGATCGTTCCTGCAGGGAA
GCGGCAGCACACGGAGACCACTTGGTTGAATTCTGTTGGAACTCTACTCAAATCTAGGGGCGTCTTCTTTGGACC
CACAATGGGGGCAAGCCTTAATAATATGGAAGGGAGTTTGGGCTTTAGAGATCCCTTTATAAAAGCTCTGGGGGC
TGAGCCCTGAGAATTCAGTGACAACAGGACCAACCTGCGCTGCCTTTGACTACAAGTGGGCCGTGCAGCTGGTTC
CTCTCGAGCGAGTGTCCCTAAATAGGAGTTTACAAGATGTCTGGGGGTAAAAGCACTGTGCTTTTCAGTGGTGGC
TGCGTGAAAGGGAGCGACACTCAGCTGTGTGTTCCTGGGCTTGTGTGGTACTTAGAACCTCAGTTCTATTACGTT
ATAGTCAGACATTTTTTTGACAGTATGAGACAGACTGCAGGATGAAAATATTTGTCAAAATCTTAACTGAATGTT
TACTGGAAGTACTTGAGATTCCATTTGAGAGTTGTATTGTTAATAATTTCATGTCAGTGAACTGATATCTGATGT
TTATGATATGGTGTCTTTTTCTTGAAACAAGCTTCCAAGGGCTAGAAATAAAATAGCCAAAAAATGCTGGAGTTC
TGAGTAATTAAA

FIGURE 4580

GTCAGAGACCA**ATG**GCTGCGGCCGCAGCTGCGGCGCTGGAATCCTGGCAGGCGGCGGCTCCGCGGAAGAGGCGCT
CCGCGGCTCGACGGCCGCGGCGGAGGGAGGCGGCGCCCCGGGGGGAGAGAGGCGGCGCCCCGGGGGAGAGAGGCGG
CGCCCCGGGGCCCCGAGGCGGAGTTCGAGTCTGACAGCGGAGTCGTGCTTCGTCGCATCTGGGAGGCTGAGAAGG
ACCTGTTTATCTCTGATTTCTGGAGTTCAGCACTAGAAACCATCAATAGATGTCTCACAAAACATCTGGAACAAC
TGAAGGCCCCTGTGGGGACTCTTTCAGACATCTTTGGAAACCTGCATCTTGACTCATTGCCAGAGGAGTCAGATG
TGGCCACTGATTCTATCCCAAGAGAGATCTTGGTCACAGGAACCTGCCATTTGAAGTGTGTGTGTTACGGCATTG
GGAACTTTGCCACCTGCATCGTAGCTAGAAACCAGCTAACGTTTTTGCTGCTTTTGTTGGAAAAGTGCCAGATTC
CCAGAAGTCACTGTTGGGTATATGACCCTCTGTTTAGCCAACTTGAAATTGAAGTCCTTAACACCCTTGGTGTGA
CTGTTCTCAGTGAGAACGAGGAAGGGAAACGGAGTATTCGCGGGGAGCCTACCATCTTTTACATGCTCCATTGTG
GGACGGCCTTGTACAACAATCTTTTATGGAGTAACTGGTCAGTAGATGCCCTTTCTAAGATGGTCATCATTGGGA
ACAGTTTCAAAGGACTTGAGGAGAGGTTGTTGGCAAGGATTCTGCAGAAAAATTATCCCTACATTGCAAAGATTT
TAAAAGGACTGGAGGAGCTTGAGTTTCCTCAGACTTCACAATACATGGACATATTTAATGATACCTCTGTCCACT
GGTTCCCTGTGCAAAAGCTAGAACAGCTCTCCATAGATATTTGGGAGTTTCGGGAAGAACCAGATTATCAGGACT
GTGAGGACCTTGAAATCATCAGGAACAAGAGAGAAGATCCTTCTGCTACTGAC**TGA**ACTCGTTGTGAGGTACTCA
GTGTTGGCTGAGGTAGAAGCTGCCAC

FIGURE 4581

CCGGCCACGGTGCTTCCGGGTTCTGGTGTAGGAGCGGCGTCTTCTCGCGCGGATGGTGAAGCTGAATTTGGTACG
CTGGACCCTCGGACAGACAGCAAGAGAGAGACAAGCCCGAGGCCTGACTTCTAGCACTCCTGAGTTTGAGCCCTA
TGAGCAGTGGAACCTAGGGACCACCAAGGATCCAGATATAATTCTTTCCTCAGTAATAGAAAAAAGAATCTGGGA
TCTAAGAAGATACCTACTCATTTTCTAAGTGACTGGCC**ATG**TCATTGTCCCACTTATACCGGGATGGGGAAGGCC
GCATTGATGATGATGATGACGAGCGGGAGAACTTTGAGATCACTGACTGGGATCTCCAGAATGAGTTCAACCCCA
ACCGACAGCGCCACTGGCAGACCAAGGAAGAAGCCACCTACGGGGTGTGGGCAGAGCGAGACTCGGATGATGAGA
GGCCCAGCTTTGGAGGCAAACGGGCCCGTGACTACTCTGCGCCAGTCAACTTCATCAGCGCAGGGCTCAAGAAAG
GGGCAGCGGAGGAGGCAGAGTTGGAAGATTCTGATGACGAAGAGAAACCTGTTAAGCAGGACGACTTTCCTAAGG
ATTTTGGACCAAGGAAGCTAAAAACGGGTGGCAATTTTAAGCCCAGCCAGAAAGGTTTTGCAGGAGGAACCAAAT
CTTTCATGGACTTCGGCAGCTGGGAAAGACACACAAAAGGAATTGGACAGAAGCTTCTTCAGAAGATGGGCTACG
TCCCTGGACGGGGCCTCGGGAAGAATGCACAAGGTATCATTAACCCAATTGAAGCCAAGCAGAGAAAGGGAAAAG
GTGCTGTGGGGGCTTATGGATCCGAGCGCACCACTCAGTCCATGCAAGACTTCCCTGTGGTTGACTCAGAGGAAG
AAGCTGAAGAGGAGTTTCAGAAGGAGCTGAGCCAGTGGAGGAAAGACCCAAGTGGAAGCAAGAAGAAGCCCAAAT
ACTCTTACAAGACCGTGGAAGAGTTGAAGGCCAAGGGCAGGATTAGCAAGAAGCTCACTGCTCCCCAGAAGGAAC
TTTCTCAAGTCAAGGTCATAGACATGACAGGCCGGGAGCAGAAGGTCTACTACAGCTACAGTCAGATCAGCCACA
AGCACAACGTTCCCGATGATGGGCTGCCGCTACAGTCCCAACAGCTGCCACAGTCTGGCAAAGAGGCCAAGGCCC
CCGGCTTCGCGCTGCCCGAGCTGGAGCACAACCTGCAGCTGCTCATCGACCTCACGGAGCAGGAGATCATCCAGA
ATGACCGGCAGCTACAGTATGAGCGGGACATGGTGGTCAACCTCTTCCACGAGCTGGAGAAGATGACCGAGGTCC
TGGACCACGAGGAGCGGGTCATCTCGAACCTCAGCAAGGTCCTGGAGATGGTGGAGGAGTGCGAGCGGCGGATGC
AGCCCGACTGCAGCAACCCCCTCACCCTGGACGAGTGTGCCCGCATCTTCGAAACCCTGCAGGACAAGTACTATG
AGGAGTACAGGATGTCCGACCGTGTGGACCTTGCTGTGGCCATCGTCTATCCACTCATGAAGGAGTACTTCAAGG
AGTGGGATCCCCTCAAAGACTGCACTTATGGCACCGAGATCATCTCTAAGTGGAAAAGCCTCCTAGAGAATGACC
AGCTCTTGTCCCATGGCGGACAGGACCTCTCAGCAGATGCCTTTCACAGGTTGATATGGGAAGTCTGGATGCCTT
TTGTTCGAAATATTGTCACCCAGTGGCAGCCAAGGAACTGTGACCCGATGGTGGACTTTTTGGATAGTTGGGTGC
ACATTATTCCTGTGTGGATCTTAGATAACATACTGGACCAACTCATCTTCCCCAAGCTGCAAAAGGAGGTGGAAA
ACTGGAACCCGCTCACAGACACTGTTCCCATCCACTCTTGGATCCACCCATGGCTGCCCCTTATGCAGGCACGGC
TGGAGCCACTCTATTCCCCCATCCGTAGTAAGCTGTCCAGCGCCCTGCAGAAGTGGCACCCCAGCGACTCCTCTG
CCAAGCTCATCCTCCAGCCCTGGAAGGATGTCTTCACTCCTGGCTCCTGGGAAGCATTCATGGTCAAAAACATAG
TGCCCAAGCTGGGGATGTGTCTTGGTGAGCTAGTCATTAACCCCCACCAGCAGCACATGGATGCATTCTATTGGG
TGATTGACTGGGAAGGGATGATCTCTGTCTCTAGCCTGGTGGGACTTCTTGAAAAGCACTTCTTCCCCAAGTGGC
TTCAGGTGCTGTGCTCTTGGCTCAGTAACAGCCCAAATTATGAGGAGATCACCAAGTGGTACCTGGGTTGGAAGT
CGATGTTCTCAGACCAAGTGCTGGCACATCCATCTGTCAAGGACAAATTTAATGAGGCACTTGATATCATGAACC
GGGCGGTGTCCTCCAACGTTGGTGCCTACATGCAGCCAGGAGCACGGGAGAACATTGCCTATCTCACCCACACGG
AGCGGAGGAAGGACTTCCAGTACGAGGCCATGCAGGAGAGGCGGGAGGCTGAGAACATGGCTCAGAGGGGCATTG
GCGTGGCCGCTAGCTCTGTGCCCATGAACTTTAAGGACCTCATTGAGACCAAGGCTGAGGAGCACAACATTGTCT
TCATGCCCGTCATTGGGAAGCGACACGAAGGGAAGCAGCTCTACACCTTTGGCCGCATTGTGATCTACATCGACC
GGGGAGTGGTCTTTGTCCAGGGCGAGAAGACGTGGGTGCCCACCTCACTGCAGAGCCTGATCGACATGGCCAAG**T**
GAACTGTGGCAGGTCCAGAACCAGTCAGAGACTTGCCCCTAAGAGGGATGTACTGTAAATAAACAGTATTTTTAG
ATCACCTTCAAAAGGGTAACTTCTTTACTCAGGAGCTACTCCACATCAGGCCAGGTCATGAGGGAAGGATGTAAA
ATGGGACAATGCCACGTAGGGCAGGAATCTTTATACCAAGTCCTCATGTGGGGTATCGTCCTCAAAACAGGACAG
CCAAGTTGATGTTCTTTCCTGGCAAAGGAGTTCTCTGTAGTTCCTCCATAGCAGCCTTCCCTTTAGTCTCTGGTG
GCAGCTTCTACCTCAGCCAACACTGAGTACCTCACAACGAGTTCAGTCAGTAGCAGAAGGATCTTCTCTCTTGTT
CCTGATGATTTCAAGGTCCTCACAGTCCTGATAATCTGGTTCTTCCCGAAACTCCCAAATATCTATGGAGAGCTG
TTCTAGCTTTTGCACAGGGAACCAGTGGACAGAGGTATCATTAAATATGTCCATGTATTGTGAAGTCTGAGGAAA
CTCAAGCTCCTCCAGTCCTTTTAAAATCTGAGCAGAAAAATTCAAGTATAAAAACTTCAGATAGTCACAGTAATC
CCCACTCTTCTGGGATAAATTTCCACTTTACTTGTCATCCCCACTTTACTTTTTAAAAAAATAACAAATAGGGTA
TTTTGATTTAAATGCTTTTGCACAATGAATTGGGCGCCCCAAGGACAGTGGATATCATGGACTGTGATACTAAGA
ATAAAGGAAATAAGGAAAAAACTAAGAGATGCATTAAAGA

FIGURE 4582

GGCTCTGCCAGCAGACAGCCTTGGCACACAGGCACAAGGGCTGGAGCCCAGAGATGAGAGTGCCCAAGGGAGATG
TGAGCCTGGCGGGCTGCCCGCTAACCTGTCGCTGAAGCCCCAGAAGCGGGCCCTCAGGCCAGGCCTACCCTGCCT
CCGGCCCAGC**ATG**CGCCTGTCGGTGCGGAGGGTGCTGCTGGCAGCCGGCTGCGCCCTGGTCCTGGTGCTGGCGGT
TCAGCTGGGACAGCAGGTGCTAGAGTGCCGGGCGGTGCTGGCGGGCCTGCGGAGCCCCCGGGGGGCCATGCGGCC
TGAGCAGGAGGAGCTGGTGATGGTGGGCACCAACCACGTGGAATACCGCTATGGCAAGGCCATGCCGCTCATCTT
CGTGGGTGGCGTGCCTCGCAGTGGCACCACGTTGATGCGCGCCATGCTGGACGCGCACCCCGAGGTGCGCTGCGG
CGAGGAGACCCGCATCATCCCGCGCGTGCTGGCCATGCGCCAGGCCTGGTCCAAGTCTGGCCGTGAGAAGCTGCG
GCTGGATGAGGCGGGGGTGACGGATGAGGTGCTGGACGCCGCCATGCAGGCCTTCATCCTGGAGGTGATTGCCAA
GCACGGAGAGCCGGCCCGCGTGCTCTGCAACAAGGACCCATTTACGCTCAAGTCCTCGGTCTACCTGTCGCGCCT
GTTCCCCAACTCCAAGTTCCTGCTGATGGTGCGGGACGGCCGGGCCTCCGTGCACTCCATGATCACGCGCAAAGT
CACCATTGCGGGCTTTGACCTCAGCAGCTACCGTGACTGCCTCACCAAGTGGAACAAGGCCATCGAGGTGATGTA
CGCCCAGTGCATGGAGGTAGGCAAGGAGAAGTGCCTGCCTGTGTACTACGAGCAGCTGGTGCTGCACCCCAGGCG
CTCACTCAAGCTCATCCTCGACTTCCTCGGCATCGCCTGGAGCGACGCTGTCCTCCACCATGAAGACCTCATTGG
CAAGCCCGGTGGTGTCTCCCTGTCCAAGATCGAGCGGTCCACGGACCAGGTCATCAAGCCTGTTAACCTGGAAGC
GCTCTCCAAGTGGACTGGCCACATCCCTGGGGATGTGGTGCGGGACATGGCCCAGATCGCCCCCATGCTGGCTCA
GCTCGGCTATGACCCTTATGCAAACCCCCCCAACTATGGCAACCCTGACCCCTTCGTCATCAACAACACACAGCG
GGTCTTGAAAGGGGACTATAAAACACCAGCCAATCTGAAAGGATATTTTCAGGTGAACCAGAACAGCACCTCCTC
CCACTTAGGAAGCTCG**TGA**TTTCCAGATCTCCGCAAATGACTTCATTGCCAAGAAGAGAAGAAAATGCATTTAAG
TGGAAATCGGACCTCTAATCCAAGCATATTGCTTGCTATTAATCGCCAAAACAGGACTGCTGATGAGGAATGTAT
TTGCATATGTTTGCAAAAGCTGAATCATTGAAAACGTACCTTGAAACTCTCTATCTCTGGACACTCCAGGGTAGA
GAATGAAGGGTATGGAAGTAGTCCGGCTTTTGAAACTTAGGTATTTTATATTTTTCCCCTCAAGAACTTTTTTTT
AAGAGACAGATTTGCCATCCTCCTTAATTTGCAGGACTGCCTTGGTGGCTTTGTTTGCTGGGACAAGGCCCACAA
CCTGTGCCTCTCCTATTGACCCTTACTTTGAATTCAAAGAATCTATTTAAGAGTTTAATATATGAGGCTTTCTTT
GATTCCTCCTCAGTTCTACCTAGTTTCACAGAGGAAAAAAATACTCTTTGAATAAAGTGAACAGAGGCTCATTTG
TTTGTGCCTTACTTTAC

FIGURE 4583

CATTGCAGTACACTGAGCTCCACAGAGACAGCGCCGGGGCAAGTGAGAGCCGGACGGGCACTGGGCGACTGTGCC
TCGCTGAGGAAAAATAACTAAACATGAGCAAAGGAGATCCTAAGAAGCTGAGAGGCAAAATGTCATCAC**ATG**CAT
TTTTTGGGCAAACTTGTCGGGAGGCGCATAAGAAGAAGCACCCAGATGCTTCAGTCAACCTCTCAGAGTTTTCTA
AGAAGTGCCCATTACGAAAGAGAAATGAAAACCTATATCCCTCCCAAAGGGGAGACAAAAAAGAAGTTCAAGGAT
CCGAATGCACCCAAGAGGACTCCTTCGGCCTTCTTCCTGTTCTGCTCTGCGTATCGCCCAAAAATCAAAGGAGAA
CATCCTGGCCTGTCCATTGGTGATGTTGCGAAGAAACTGGGAGAGATGTGGAATAACACTGCCGCAGATGACAAG
CAGCCTTATGAAAAGAAGGCTGCGAAGCTGAAGGAAAAATACGAAAAGGATATTGCTGCATATCGAGCTAAAGGA
AAGCCTGATGCAGCAAAAAAGGGAGTTGTCAAGGCTGAAAAAAGCAAGAAAAAGAAGGAAGAGGAGGAAGATGAG
GAAGATGAAGAGGATGAGGAGGAGGAAGATGAAGAAGATGAAGATGAAGAAGATGATGAA**TAA**GTTGGTTCTAGC
GCAGTTTTTTTTTTCTTGTCTATAAAGCATTTAACCCCCCTGTACACAACTCACTCCTTTTAAAGAAAAAAATTG
AAATGTAAGGCTGTGTAAGATTTGTTTTTAAACTGTACAGTGTCTTTTTTTGTATAGTTAACACACTACCGAATG
TGTCTTTAGATAGCCCTGTCCTGATGGTATTTTCAATAGCCGCTAACCTTGCCTGGTACAGTATGGGGGCTGTAA
ATTGGCATGGAAATTTAAAGCGGGTTCTTGTTGGTGCACAGCACAAATTAGTTATATATGGGGATGATAGTTTTT
TCATCTTCAGTTGTCTCTGATGCAGCTTATACGAAATAATTATTCTGTTAACTGAATACCACTCTGTAATTGCAA
AAAGAAAAAGTTGCAGCTGTTTTGTTGACATTCTGAATGCTTCTAAGTAAATACAATTTTTTTATTAG

FIGURE 4584

ATGGGTGCATACAAGTACATCCTGGAGCTATGGAGAAAGAAGCAGTCTGATGTCATGCGCTTTCTTCTGAGGGTC
CGCTGCTGGCAGTACCGCCAGCTATCTGCTCTCCACAGGGCTCCCCGCCCCACCCGGCCTGATAAAGTGCACCGA
CTGGGCTACAAACAAGGCCAAGCAAGTGACAGTGAGTCGTGTGGACCTGGTAAAATCACCAACTTCTCTGATTCT
CCTTATCTTGAAAACAGGGATGATAATGCTCCCCCCTACCCCACAGATGCTGTGACGTTCCAAGCAGACATC**TAA**

FIGURE 4585

CCAGAACACAGGTGTCATGAAAACTACCCCTAAAAGCCAAAATGGGAAAGGAAAAGACTCATATCAACATTGTCG
TCATTGGACACGTAGATTCGGCAGGATGTCTACAAAATTGGTGGTATTGGTAGTGTTCCTGTTGGCCGAGTGGAG
ACTGGTATTCTCAAACCCGGT**ATG**GTGGTCACCTTTGCTCCAGTCAACGTTACAACAGAAGTAAAATCTGTCGAA
ATGCACCATGAAGCTTTGGGTGAAGCTCTTCCTGGGGACAGTGTGGGCTTCCATGTCAAGAATGTGTCTGTCAAG
GATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAATGACCCACCAATGGAAGCAGCTGGCTTCACTGCTCAG
GTGATTATCCTGAACCATCCAGGCCAAATAAGCGCTGGCTATGCCCCTGTATTGGATTGCCACACGGCTCATATT
GCATGCAAGTTTGCTGAGCTGAAGGAAAAGATTGATCGCCGTTCTGGTAAAAAGCTGGAAGATGGCCCTAAATTC
TTGAAGTCCGGTGATGCTGCCATTGTTGATATGGTTCCTGGCAAGCCCATGTGTGCTGAGAGCTTCTCAGACTAT
CCACCTTTGGGTCGCTTTGCTGTTCGTGATATGAGACACACAGTTGCGGTGGGTGTCATCAAAGCAGTGGACAAG
AAGGCTGCTGGAGCTGGCAAGGTCACCAACTCTGCCCAGAAAGCTCAGATGGCTAAA**TGA**ATATTATCCCTAATA
C

FIGURE 4586

CTTTTTCACAACGGGTTTGCCGCCAGAACACAGGTGTCATGAAAACTACCCCTAAAAGCCAAA**ATG**GGAAAGGAA
AAGACTCATATCAACATTGTCGTCATTGGACACGTAGATTCGGGCAAGTCCACCACTACTGGCCATCTGATCTAT
AAATGCAGTAGCATCGACAAAAGAACCATTGATATCTCCTTGTGGAAATTTGAGACCAGCAAGTACTATGTGACT
ATCACTGATGCTCCAGGACACAGAGACTTCATCAAAAACATGATTACAGGGACATCTCAGGCTGACTGTGCTGTC
CCGATTGTTGCTGCTGGTGTTGGTGAATTTGAAGCTGGTATCTCTAAGAATGGGCAGACCCGAGAGCATGCCCTT
CTGGCTTACACACTGGGTGTGAAACAACTAATTGTTGGTGTTAACAAAATGGATTCCACTGAGCCACCCTACAGC
CAGAAGAGATATGAGGAAATTGTTAAGGAAGTCAGCACTTACATTAAGAAAATTGGCTACAACCCCGACACAGTA
GCATTTGTGCCAATTTCTGGTTGGAATGGTAACAACATGCTGGAGCCAAGTGCTAACATGCCTTGGTTCAAGGGA
TGGAAAGTCACCCGTAAGGATGGCAATGCCAGTGGAACCATGCTGCTTGAGGCTCTGGACTGCATCCTACCACCA
ACTCGTCCAACTGACAAGCCCTTGCGCCTGCCTCTCCAGGATGTCTACAAAATTGGTGGTATTGGTAGTGTTCCT
GTTGGCCGAGTGGAGACTGGTATTCTCAAACCCGGTATGGTGGTCACCTTTGCTCCAGTCAACGTTACAACAGAA
GTTGTGGGCTTCCATGTCAAGAATGTGTCTGTCAAGGATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAAT
GACCCACCAATGGAAGCAGCTGGCTTCACTGCTCAGGTGATTATCCTGAACCATCCAGGCCAAATAA

FIGURE 4587

GCCACTGCCTGGCACCCCGACGGGAGGGGCTCCGGATCGTTCGGAGCCGGCTGAACCCCTTCGGCCGCGAGCGAC
CGCATGAGTCGGGGGACTATGCCCCAGCCCGAAGCGTGGCCAGGCGCGAGCTGCGCCGAGACGCCGGCGCGGGAG
GCGGCGGCCACGGCGCGGGACGGCGGGAAGGCGGCGGCCAGCGGGCAGCCGCGGCCCGAGATGCAGTGCCCGGCC
GAGCAGTGAGAGGACATGTACCGTGCTGCAGATGAAATAGAAAAGGAGAAAGAATTGCTTATACATGAAAGAGGG
GCATCAGAACCGAGATTAAGCGTAGCTCCTGAAATGGATATCATGGACTACTGCAAAAAAGAATGGAGAGGAAAT
ACACAGAAAGCAACGTGT**ATG**AAAATGGGCTATGAAGAGGTTTCTCAGAAGTTCACCTCCATACGGCGAGTCCGT
GGTGATAATTACTGTGCACTGAGGGCCACGCTGTTCCAGGCCATGAGCCAGGCTGTGGGGCTGCCGCCCTGGCTG
CAGGACCCGGAGCTCATGCTGTTACCAGAAAAACTCATAAGCAAATACAACTGGATCAAGCAATGGAAACTTGGA
CTGAAATTTGATGGGAAGAATGAGGACCTGGTTGATAAAATTAAAGAGTCCCTTACTCTGCTGAGGAAGAAGTGG
GCAGGCTTGGCTGAAATGAGAACTGCTGAAGCAAGACAGATAGCTTGTGATGAACTATTCACAAATGAGGCGGAG
GAATATAGCCTCTATGAAGCTGTAAAATTTCTAATGCTAAACAGAGCCATTGAACTA-ATAATGATAAAGAGAAA
GGAAAGGAAGTACCATTTTTCTCTGTGCTTCTGTTTGCTCGGGACACATCAAATGACCCAGGACAGCTTCTGAGG
AACCACCTCAACCAGGTGGGACACACTGGTGGTCTTGAACAGGTTGAAATGTTCCTTCTTGCCTATGCTGTGCGC
CACACCATCCAGGTGTACCGGCTCTCCAAGTACAACACGGAAGAATTCATCACAGTCTACCCCACCGACCCACCC
AAGGACTGGCCAGTGGTAACGCTCATTGCTGAGGACGATCGGCACTATAACATCCCCGTCAGAGTGTGTGAGGAG
ACCAGTCTA**TGA**GAGACGCATGCTCCTGACAGCCTGGCGACGTGGCGAAGATGCACAGGTGGCTCCTGGGCTTGG
GCTGCAGGTTTGGGGGTCTCTAAGAACAATCTCTGAGAAGAACCCTTGGGCCCCTGGGAGCCAAGTTGGACAGGA
TGTCCTGAAGACTAGCTTTTGATAAGAGAAATTAACCAAGTCTTTCCCCTCATCTATGATGCAATATATTTCAGT
GGGGGCCTTCAGAGCACACCTGTTGGACGGTGCAAACCATATCTTCTCCAGAAGGCAAATACTTTTGTATCAGAG
GAAACTCAGTTTTGGAGAGGAATATGTTCTTTATATCTCAAATCAAAACTCTCTCTAATGGTAAACTGGCTTCTA
ATTTTTTTAAGTACAGTATTTTTTTTTCCCCTTTAGTAGTAACGGGTTTCTATAGATCTTCCTATACAGTCTGCT
TTAACTCAGGACCTTGAGATTATGAGACTGACGTGCTGCCCACTGCACTGAGGGGGCTTCTAACAGTCTGCTTTA
AGTGGTATAATTCTGGGATAGATCTGTTACTGGCATAGTCATGACAACCTCTGGTAATCTTACCTTCTCCTTTTT
ATGAAGGGAAGAGCAATGGTTTGGACTTACATCTTAATTAAGGCTATTTTAAGCAGATTGTTTTGCAACAGATTA
AGAATTGGGTCCCAAAGTGGGTTATTTCAAGGCATTTTTGAAGACTGGAGGAGCGTAGGAGGGAGTGGTGAGGGA
ACCTAGAACTTCTTGCTCCTTGTGACTATGACAGATGTCTGATGCCCCCAGCGCACTGGAGTCTGGGGCTTGGTG
CAGGTGGTGCCCCATCAGTGTGGACAGACACTACTTGCCTTTGTGGTTTAGTGTTGGAAGCTTTAATTATTCTAC
AGTTCCATAGATTCACAATTTTATAGCCAAACAGTTTGTATCCACCTGCTTTCAGAGGAGGAACCAAAGGCCAAA
TTACTTTGAGGTAGGGCTTAGCTGGACCTGGGTTTTCCTATGCTCTTTTCATGCTGTGTTGGAGGGTGTGTCCAC
TGCCAGATCTGTGTAACCCGTCTGGGTCAGGGGATGAGTGACAGCAAACCATCTTAAAATTTTTCATGAGTACAT
TTAAGCGGAAGCATACGGGAATATGAGTGCAAAAGTGTGGCTGAGCCGCGTATGCCCTTGATTGGTTTTGGGAAG
CCTGAGGGAGGCAGCCTTCCTGGCTATGAGCCATCGCCTGCCCAATCAGGCTAAGGGTGGTGACTGGGGTGGTGA
AGGGGCAGCTCTGCTGAGCATGGTCTGCCTTATGGCCTGAATTGTCCTCAAGGGGTGTGGACTGCAGATGGTGTT
CACATGAACCGGAGACATCACTCTTTAGGATTCTACTGGCAGCCCCTGAATTGGCTCAACGTTTGTGGAGGTGGT
ATTTCCCTGAAGTACTGAGCTTTGTTTTATAATAATTAAAATCCTTATTTGGTCCAATTTAATATAGTTTAGAAG
CTATTTTTTTTGAGGCAAACCGTTTTTGAAAATGTAAATTTTGTTTTTAATTAAAAATAAAGTCTTAGTTAAGAA
AACTCAGGATGCACAAAACTATTCAGACTGTTACTTTAGCTTTCTCCCATTACCTCATCAGTAATATTCACCACA
TTTTGCTAAATATTTATTGATTAGAGTGTTGAAATCAAATTCTGCTCTAAATGTGTGTGAATATGTTGGAGAGGC
TTTGTGTTCTTCACTGTGAAATGCAATTGTGCCTTGAATAAGAAGGTACCTAGAAGCCAAATTAAAGTAATAATG
ACTTCTT

FIGURE 4588A

CTCTTTTTTTTCCCGGCAGATCTTTGTTGTGTGGGAGGGCAGCAGGGATGGACTTGAGCTTGCGGATCCCCTGCT
AGAGCAGCCGCGCTCGGAGAAGGCGCCGCAGCCGCGAGGAGGAGCCGCCGCCGCCGCGCCCGAGGCCCCGCCGCC
CGCGGCCTCTGTCGGCCCGCGCCCCGCTCGCCCCGTCGCCCCGTCGCCCCTCGCCTCCCCGCAGAGTCCCCTCGC
GGCAGCAGATGTGTGTGGGGTCAGCCCACGGCGGGGACT**ATG**GTGAAATTCCCGGCGCTCACGCACTACTGGCCC
CTGATCCGGTTCTTGGTGCCCCTGGGCATCACCAACATAGCCATCGACTTCGGGGAGCAGGCCTTGAACCGGGGC
ATTGCTGCTGTCAAGGAGGATGCAGTCGAGATGCTGGCCAGCTACGGGCTGGCGTACTCCCTCATGAAGTTCTTC
ACGGGTCCCATGAGTGACTTCAAAAATGTGGGCCTGGTGTTTGTGAACAGCAAGAGAGACAGGACCAAAGCCGTC
CTGTGTATGGTGGTGGCAGGGGCCATCGCTGCCGTCTTTCACACACTGATAGCTTATAGTGATTTAGGATACTAC
ATTATCAATAAACTGCACCATGTGGACGAGTCGGTGGGGAGCAAGACGAGAAGGGCCTTCCTGTACCTCGCCGCC
TTTCCTTTCATGGACGCAATGGCATGGACCCATGCTGGCATTCTCTTAAAACACAAATACAGTTTCCTGGTGGGA
TGTGCCTCAATCTCAGATGTCATAGCTCAGGTTGTTTTTGTAGCCATTTTGCTTCACAGTCACCTGGAATGCCGG
GAGCCCCTGCTCATCCCGATCCTCTCCTTGTACATGGGCGCACTTGTGCGCTGCACCACCCTGTGCCTGGGCTAC
TACAAGAACATTCACGACATCATCCCTGACAGAAGTGGCCCGGAGCTGGGGGGAGATGCAACAATAAGAAAGATG
CTGAGCTTCTGGTGGCCTTTGGCTCTAATTCTGGCCACACAGAGAATCAGTCGGCCTATTGTCAACCTCTTTGTT
TCCCGGGACCTTGGTGGCAGTTCTGCAGCCACAGAGGCAGTGGCGATTTTGACAGCCACATACCCTGTGGGTCAC
ATGCCATACGGCTGGTTGACGGAAATCCGTGCTGTGTATCCTGCTTTCGACAAGAATAACCCCAGCAACAAACTG
GTGAGCACGAGCAACACAGTCACGGCAGCCCACATCAAGAAGTTCACCTTCGTCTGCATGGCTCTGTCACTCACG
CTCTGTTTCGTGATGTTTTGGACACCCAACGTGTCTGAGAAAATCTTGATAGACATCATCGGAGTGGACTTTGCC
TTTGCAGAACTCTGTGTTGTTCCTTTGCGGATCTTCTCCTTCTTCCCAGTTCCAGTCACAGTGAGGGCGCATCTC
ACCGGGTGGCTGATGACACTGAAGAAAACCTTCGTCCTTGCCCCCAGCTCTGTGCTGCGGATCATCGTCCTCATC
GCCAGCCTCGTGGTCCTACCCTACCTGGGGGTGCACGGTGCGACCCTGGGCGTGGGCTCCCTCCTGGCGGGCTTT
GTGGGAGAATCCACCATGGTCGCCATCGCTGCGTGCTATGTCTACCGGAAGCAGAAAAAGAAGATGGAGAATGAG
TCGGCCACGGAGGGGGAAGACTCTGCCATGACAGACATGCCTCCGACAGAGGAGGTGACAGACATCGTGGAAATG
AGAGAGGAGAATGAA**TAA**GGCACGGGACGCCATGGGCACTGCAGGGACAGTCAGTCAGGATGACACTTCGGCATC
ATCTCTTCCCTCTCCCATCGTATTTTGTTCCCTTTTTTTTGTTTTGTTTTGGTAATGAAAGAGGCCTTGATTTAA
AGGTTTCGTGTCAATTCTCTAGCATACTGGGTATGCTCACACTGACGGGGGGACCTAGTGAATGGTCTTTACTGT
TGCTATGTAAAAACAAACGAAACAACTGACTTCATACCCCTGCCTCACGAAAACCCAAAAGACACAGCTGCCTCA
CGGTTGACGTTGTGTCCTCCTCCCCTGGACAATCTCCTCTTGGAACCAAAGGACTGCAGCTGTGCCATCGCGCCT
CGGTCACCCTGCACAGCAGGCCACAGACTCTCCTGTCCCCCTTCATCGCTCTTAAGAATCAACAGGTTAAAACTC
GGCTTCCTTTGATTTGCTTCCCAGTCACATGGCCGTACAAAGAGATGGAGCCCCGGTGGCCTCTTAAATTTCCCT
TCCGCCACGGAGTTCGAAACCATCTACTCCACACATGCAGGAGGCGGGTGGCACGCTGCAGCCCGGAGTCCCCGT
TCACACTGAGGAACGGAGACCTGTGACCACAGCAGGCTGACAGATGGACAGAATCTCCCGTAGAAAGGTTTGGTT
TGAAATGCCCCGGGGGCAGCAAACTGACATGGTTGAATGATAGCATTTCACTCTGCGTTCTCCTAGATCTGAGCA
AGCTGTCAGTTCTCACCCCCACCGTGTATATACATGAGCTAACTTTTTTAAATTGTCACAAAAGCGCATCTCCAG
ATTCCAGACCCTGCCGCATGACTTTTCCTGAAGGCTTGCTTTTCCCTCGCCTTTCCTGAAGGTCGCATTAGAGCG
AGTCACATGGAGCATCCTAACTTTGCATTTTAGTTTTTACAGTGAACTGAAGCTTTAAGTCTCATCCAGCATTCT
AATGCCAGGTTGCTGTAGGGTAACTTTTGAAGTAGATATATTACCTGGTTCTGCTATCCTTAGTCATAACTCTGC
GGTACAGGTAATTGAGAATGTACTACGGTACTTCCCTCCCACACCATACGATAAAGCAAGACATTTTATAACGAT
ACCAGAGTCACTATGTGGTCCTCCCTGAAATAACGCATTCGAAATCCATGCAGTGCAGTATATTTTTCTAAGTTT
TGGAAAGCAGGTTTTTTCCTTTAAAAAAATTATAGACACGGTTCACTAAATTGATTTAGTCAGAATTCCTAGACT
GAAAGAACCTAAACAAAAAAATATTTTAAAGATATAAATATATGCTGTATATGTTATGTAATTTATTTTAGGCTA
TAATACATTTCCTATTTTCGCATTTTCAATAAAATGTCTCTAATACAATACGGTGATTGCTTGTGTGCTCAACAT
ACCTGCAGTTGAAACGTATTGTATCAATGAACATTGTACCTTATTGGCAGCAGTTTTATAAAGTCCGTCATTTGC
ATTTGAATGTAAGGCTCAGTAAATGACAGAACTATTTTTCATTATGGGTAACTGGGGAATAAATGGGTCACTGGA
GTAGGAATAGAAGTGCAAGCTGGAAAGGCAAAAATGAGAAAGAAAAAGGCAGGCCCTTTGTGTCTACCGTTTTCA
GTGCTGTGTGATCATATTGTTCCTCACAGCAAAAAAGAATGCAAGGGCATAATGTTAGCTGTGAACATGCCAGGG
TTGCATTCACATTCCTGGGTACCCAGTGCTGATGGGGTGTGCCCACGTGGGGACATGTCCTTGGCGTGCTTCCTC
AGAGTGGCTTTTCCTCCATTAATACATATATGAGTACTGAAAAATTAAGTTGCATAGCTGCTTTGCAGTGGTTTC

FIGURE 4588B

AGAGGCAGATCTGAGAAGATTAAAAAAAAAATCTCAAATGTATCAGCTTTTTTTAAAGGACATTACTAGAAAATTA
AACAGTATTTTTTAACATGTGTGACTTTCATGCTTCTGGGGTTGGAGCTTAAAGATCCAAACTGAGAAAGCAGGC
CGGGCATGGTGGCTCATGCCTGTAATCCCAACACTTTGGGAGGCCAAGGAGGGTGGATCACTTAAGGTCAGGAGT
TTGAGACCAGCCTGGCCAACATGGCGAAACCCTGTCTCTACTAAAAACATAAAAATTAGCTGGGGGTGGTAGCAC
ATACCTGTAATCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATTTGCTTGATCCTGGGAGGCAGAGGTTGTAGTG
AGCCGAGATCGCGCCATCGCACTCCAGCCTGGGTGACAAGAGCAAAACTCCATCTC

FIGURE 4589

CGCGTGCGCAGAGCGAACGCCTGCAGCCTCCCTGCCCCTCCCACAACGCTCGACCCCAGGATTCCCCCGGCTCGC
CTGCCCGCC**ATG**GCCGACAAGGAAGCAGCCTTTGACAACACAGTGGAAGAATGAGTGATCAACAAGGAATACAAA
ATATGGAAAAAGAACACCCCTTTTCTTTATAATTTGGTGATGACCCATGCTCTGGAGTGGCCCAGCCTAACTGCC
CAGTGGCTTCCAGATGTAACCAGACCAGAAGGGAAAGATTTCAGCCTTCATCGACTTGTCCTGGGGACACACACA
TCGGATGAACAAAACCATCTTGTTATAGCCAGTGTGCAGCTGCCTGATGATGATGCTCAGTTTGATGCATCACAC
TACGACAGAGAGAAAGGAGAATTTGGAGGTTTTGGTTCAGTTAGTGGAAAAATTGAAATAGAAATCAAGATCAAC
CATGAAGGAAAAGTAAACAGGGCCCGTTATATGCCCCAGAACCCTTGTATCATCACAACAAAGACTCCTTCCAGT
GATATTCTTGTCTTTGACTATACAAAACATCCTTCTAAACCAGATCCTTCTGGAGAATGCAACCCAGACTTGCGT
CTCCGTGGACATCAGAAGGAAGGCTATGGGCTTTCTTGGAACCTAAATCTCAGTGGGCACTTACTTAGTGCTTCA
GATGACCACACCATCTGCCTGTGGGACATCAGTGCCGTTCCAAAGGAGGGAAAAGTGGTAGATGCGAAGACCATC
TTTACAGGGCATACGGCAATAGTAGAAGATGTTTCCTGGCATCTACTCTGTGAGTCTCTGTTTGGGTCAGTTGCT
GATGATCAGAAACTGATGATTTGGGATACTCGTTCAAACAATACTTCCAAACCAAGCCACTCAGTTGACACTCAC
ACTGCTGAAGTGAACTGCCTTTCTTTCAGTCCTTATAGTGAGTTCATTCTTGCCACAGGATCAGCTGACAAGACT
GTTGCCTTGTGGGATCTGAGAAATCTGAAACTTAAGTTGCATTCCTTTGAGTCACATAAGGATGAAATATTCCAG
GTTCAGTGGTCACCTCACAATGAGACTATTTTAGCTTCCAGTGGTACTGATCACAGACCGAATGTCTAGGATTTA
AGTAAAATTGGAGAGGAACAATCCCCAGAAGATGCAGAAGACAGGCCACCAGAGTTGTTGTTTATTCATGGTGGT
CACACTGCCAAGATACCTGATTTCTCCTGGAATCCCAGTGAACCTTGAGTGATGTGTTCTGTATCGGAAGACAAT
ATCATGCAAGTGTGGCAAATGGCAGAGAACATTTATAATGATGAAGACCCTGAAGGAAGCATGGATCCAGAAGGA
CAAGGGTCC**TAA**ATATGTCTTTACTTCTTGTGATTTTAGACTCCCCTTTTTTCTTCTCAACCCCGAGAGTGATTT
AACACTGGTTCTGAGACAGATTTTATTCAGCTATCCCTCTATATAATAGGTACCACCGATAATGCTATTAGCCCA
AACAGTGGGTGTTTTCTAAATATTAATGGGGGGCTTGATTCAACAAAGCTACAGAGTTATGTTGAAATTTTCTTC
AGGAATTTTCTAGTAACCCAGGTCTAAAGTAGCTACAGAAAGGGGAATATTATGTGTGATTATTTTTCTTCTTAT
GCTATATCCCCAAGTTTTTTGGACTCATTTAAGTAAAGGCTAGAGTGAGTAAGGAGAATAGAGCCAAATGAGGTA
GGTGTCTGAGCCATGAAGTATAAATACTGAAAGATGTCACTTTTATTCAGGAAATAGGGGAGATTCAAGTCATAT
AGATTCCTACTCGAAAATCTCGACACCTGAGTTTCCAGGATGCACATTTTCATACGTAGACCAGTTTCCTCTTGG
TTTCTTCAGTTAAGTCAAAACAGCACGTTCCTCTTTCCCCATATATTCATATATTTTTGCTCGTTAGTGTATTTC
TTGAGCTGTTTTCATGTTGTTTATTTCCTGTCTGTGAAATGGTGTTTTTTTTTTTTTTGTTGGTGTGTGTTTTTT
TTTTTTAACTTGGGACCGCCAAGTTGTAAAGATGTATGTTTTTACCTGACAGGTATACCACAGGTAGATTGTCAA
GTTGAGAAGAGTGAATCGATAAATTGTATTTGTTTTAAAAATTAAATTAATCCTTGATAAGAGTTGCTTTTTTTT
TAGGAGTTTGTCCTTGACCACTAGTTTGATGCCATCTCCATTTTGGGTGACCTGTTTCACCAGCAGGCCTATTAC
TCTCCATGACTAACTGTGTAAGTGCTTAAAATGGAATAAATTGCTTTTCTACATT

FIGURE 4590

AACAGCTGCTGCTGGCTCTTCCTCTTGCGGCCTTTTCCTGAAACGGATTCTTCTTTCGGGGAACAGAAAGCGCCA
GCCATGCAGCCTTGGCACGGAAAGGCCATGCAGAGAGCTTCCGAGGCCGGAGCCACTGCCCCCAAGGCTTCCGCA
CGGAATGCCAGGGGCGCCCCGATGGATCCCACCGAGTCTCCGGCTGCCCCCGAGGCCGCCCTGCCTAAGGCGGGA
AAGTTCGGCCCCGCCAGGAAGTCGGGATCCCGGCAGAAAAAGAGCGCCCCGGACACCCAGGAGAGGCCGCCCGTC
CGCGCAACTGGGGCCCGCGCCAAAAAGGCCCCTCAGCGCGCCCAGGACACGCAGCCGTCTGACGCCACCAGCGCC
CCTGGGGCAGAGGGGCTGGAGCCTCCTGCGGCTCGGGAGCCGGCTCTTTCCAGGGCTGGTTCTTGCCGCCAGAGG
GGCGCGCGCTGCTCCACGAAGCCAAGACCTCCGCCCGGGCCCTGGGACGTGCCCAGCCCCGGCCTGCCGGTCTCG
GCCCCCATTCTCGTACGGAGGGATGCGGCGCCTGGGGCCTCGAAGCTCCGGGCGGTTTTGGAGAAGTTGAAGCTC
AGCCGCGATGATATCTCCACGGCGGCGGGGATGGTGAAAGGGGTTGTGGACCACCTGCTGCTCAGACTGAAGTGC
GACTCCGCGTTCAGAGGCGTCGGGCTGCTGAACACCGGGAGCTACTATGAGCACGTGAAGATTTCTGCACCTAAT
GAATTTGATGTCATGTTTAAACTGGAAGTCCCCAGAATTCAACTAGAAGAATATTCCAACACTCGTGCATATTAC
TTTGTGAAATTTAAAAGAAATCCGAAAGAAAATCCTCTGAGTCAGTTTTTAGAAGGTGAAATATTATCAGCTTCT
AAGATGCTGTCAAAGTTTAGGAAAATCATTAAGGAAGAAATTAACGACATTAAAGATACAGATGTCATCATGAAG
AGGAAAAGAGGAGGGAGCCCTGCTGTAACACTTCTTATTAGTGAAAAAATATCTGTGGATATAACCCTGGCTTTG
GAATCAAAAAGTAGCTGGCCTGCTAGCACCCAAGAAGGCCTGCGCATTCAAAACTGGCTTTCAGCAAAAGTTAGG
AAGCAACTACGACTAAAGCCATTTTACCTTGTACCCAAGCATGCAAAGGAAGGAAATGGTTTCCAAGAAGAAACA
TGGCGGCTATCCTTCTCTCACATCGAAAAGGAAATTTTGAACAATCATGGAAAATCTAAAACGTGCTGTGAAAAC
AAAGAAGAGAAATGTTGCAGGAAAGATTGTTTAAAACTAATGAAATACCTTTTAGAACAGCTGAAAGAAAGGTTT
AAAGACAAAAAACATCTGGATAAATTCTCTTCTTATCATGTGAAAACTGCCTTCTTTCACAGACTCTACTGATAT
ATTTCCAAGTATTAGGTCACTTGATAAGTGATCCGCACTGAAGCAAAAGATAAACTCAGCATTCTTAGGTGCTTA
TTCTAATGCCACCAGTTTTACTTCTGTTAGCAAAAATCTAAAGTAACATAACAGACTTATCACCCCCATTTGGAA
TTAGTATACAAATAGAAATGATCCTAATCAATTTAATTAATTATAATGGACACACAAGAAAAAATACCTACACAG
CTTTTCGAGAAACGAAGACAATGACTTTGTCTGTGGATGACATACTCTGTAGAAAAGTTTGCATGTGACTCCATT
TCTCTTCCTCGGTGGTTACAATTATATTTTGCTTCACTGAACTTACAGCCTAAAGGATTCAAAGAACATAGTTCA
TCAAGGTCATCATGATTGAGGGTGAGACCGCATACATCAGCTCAAAATGCATCTTCTCTCTCATTGGTTAATGTT
TTTAATAAACTGCTAAGCAAAATGGCAGACGTCCTAAAAAAA

FIGURE 4591

GGCCGCGCCCTGCAGATTGTCTCTTGTTGCGTAAGTTTTTTTGACCGTCACTCGTGTCAGCTTCAAAGTCAGATA
GATTTTTCTCCCAGC**ATG**TTCTACTTCCGAGGCTGTGGCCGTTGGGTCGCGGTTTCCTTCACCAAGCAGCAATTT
CCGTTGGCACGGTTGAGCAGTGACAGCGCGGCGCCCCGGACTCCGCACTTCGACGTGATAGTCATTGGTGGAGGA
CATGCCGGGACTGAGGCAGCCACCGCCGCCGCTCGGTGCGGCTCTCGGACTCTGCTCCTCACTCACCGCGTGGAC
ACGATCGGTCAGATGTCATGTAATCCTTCCTTTGGTGGCATCGGAAAGGGACATTTAATGAGGGAAGTAGATGCC
TTGGATGGCCTGTGTTCTCGCATCTGTGACCAGTCTGGTGTACATTATAAAGTATTAAACCGGCGTAAGGGACCA
GCTGTGTGGGGTCTGAGAGCTCAGATTGATAGGAAACTCTATAAACAGAACATGCAGAAAGAAATCTTGAATACA
CCACTGCTTACTGTTCAGGAGGGAGCTGTAGAAGATCTTATTCTTACAGAACCAGAGCCTGAACACACTGGGAAA
TGCCGTGTCAGTGGGGTTGTTTTGGTGGATGGAAGCACAGTATATGCAGAGAGTGTGATTCTGACTACTGGGACA
TTTCTGAGAGGCATGATTGTAATTGGATTGGAGACGCATCCAGCAGGACGTTTAGGGGATCAGCCTTCTATAGGA
TTGGCTCAGACACTGGAGAAGTTAGGGTTTGTGGTGGGAAGGTTGAAGACTGGGACTCCACCCCGAATTGCCAAA
GAGTCCATTAATTTCAGTATTCTAAACAAGCATATACCGGACAATCCATCCATACCATTCAGCTTTACCAATGAG
ACAGTATGGATTAAGCCAGAAGATCAGCTGCCATGTTACTTGACTCACACCAACCCTAGAGTGGATGAGATTGTC
CTTAAGAACCTTCACCTTAATAGTCATGTTAAAGAAACGACAAGAGGACCTCGATACTGTCCCTCCATTGAATCA
AAAGTTTTGCGTTTTCCAAACCGTCTACATCAGGTTTGGTTGGAACCTGAAGGAATGGATTCTGACCTTATCTAC
CCACAGGGGTTATCTATGACGCTACCAGCTGAGTTACAAGAGAAAATGATCACATGCATCAGAGGCTTGGAGAAA
GCTAAAGTGATTCAGCCAGACGGAGTTTTGCTCTTGTTGCCCAGGATGGAGTGCAATGGTGCGATCTCGGCTCAC
CACAACCTCCCCCTGCCAGGCTACGGTGTTCAGTATGATTACTTAGATCCCCGTCAGATCACCCCTTCCTTGGAG
ACTCATTTGGTTCAACGACTCTTCTTTGCTGGACAGATCAATGGCACCACTGGTTATGAGGAAGCTGCAGCTCAA
GGTGTGATAGCCGGAATCAACGCCAGTCTTCGGGTCAGTCGCAAGCCTCCCTTTGTGGTTAGCCGAACAGAAGGT
TACATAGGAGTCTTGATTGATGACCTCACTACTCTGGGCACCAGTGAACCATACCGCATGTTTACCAGCCGAGTA
GAGTTCCGTTTGTCACTGCGCCCTGATAATGCTGACAGCCGGCTCACACTGCGAGGGTATAAAGACGCTGGCTGT
GTGTCCCAACAACGATATGAAAGAGCTTGTTGGATGAAGTCTTCTTTAGAAGAAGGCATTTCTGTGTTGAAATCT
ATTGAGTTTTTGAGCTCTAAATGGAAAAAATTAATCCCAGAGGCTTCTATAAGTACTAGTAGAAGTCTGCCTGTC
AGAGCTCTCGATGTTCTGAAGTATGAGGAAGTTGACATGGATTCATTAGCCAAGGCTGTTCCAGAGCCCTTGAAG
AAGTATACTAAATGTAGAGAGCTGGCTGAAAGACTGAAAATAGAAGCCACTTATGAATCAGTGTTGTTCCATCAA
CTACAAGAAATAAAGGGAGTTCAGCAAGATGAAGCTCTCCAACTGCCAAAAGACCTAGATTATTTGACTATCAGG
GATGTGTCTTTGTCCCATGAAGTTCGAGAGAAACTACATTTTAGTCGTCCACAGACGATCGGGGCTGCTAGTCGC
ATACCCGGAGTAACACCTGCCGCCATCATCAATCTGCTGAGATTTGTGAAGACCACTCAACGAAGACAGTCGGCT
ATGAATGAATCATCCAAGACTGATCAATACTTATGTGATGCAGACAGACTTCAAGAGAGAGAGTTA**TAG**CTTTCA
ATTCATAAAAGATTTTTAAAGAGCATATAAATAATTTGATCAATACAACAGTATAGATAAAAGAATTATTTAGCA
CATGTTAAAATAGCTTTATTAGGTTACTATGGGTTTGCCATTAATTTCTGAGTGGGACAGAAATTATAATTGTGC
TTTTTCGTGTATATGAAAAAACTAGTCGTAAACAATTTGTACTCTTTCTTTAAGGAGCTGTAATACAAATAACTT
TGTGCAGTGTTCATCAAAGAGAGAGACAGTGAACCTAAAACTGAACCTGGAATAAAACTCAACATGCAGATTTGC
CTACTCATAGGGACTTTGCCTATTAAGTCTACCAAATTAAAAGTCTTATCATTCAGCGTGTTTTGAGAGTTAATA
ATCTTTTGCTTGGTTATACTAGGCTAGGAAGCAATATCAAAGCCCTTAAATTCTCAAGACTAAAGACTTGAGATT
ATATAAAATTATCCAGAATCATTCAGCTAATACTATTGGAATATAGTATGTAGGGTGAAAGTTGACAGAAATCTG
TACTTCTTCAGGAAATCCTCACTGGTAATTGTTTTGAACATTAATGAAAGCCCTATAAAATAGAAAGATTGGAAA
TCACCATTGTTTCCTATTATCCACAGTGTGGATGGATACTTATTTGGTGACCTAGTTATGGGAGAATTGAGTAAC
GTTAGTTATTTTATATCATACCATAAAAATATTTTC

FIGURE 4592

CTCATTTAACTTTTTTAATGGGTCTCAAAATTCTGTGACAAATTTTTGGTCAAGTTGTTTCCATTAAAAAGTACT
GATTTTAAAAACTAATAACTTAAAACTGCCACACGCAAAAAAGAAAACCAAAGTGGTCCACAAAACATTCTCCTT
TCCTTCTGAAGGTTTTACGATGCATTGTTATCATTAACCAGTCTTTTACTACTAAACTTAAATGGCCAATTGAAA
CAAACAGTTCTGAGACCGTTCTTCCACCACTGATTAAGAGTGGGGTGGCAGGTATTAGGGATAATATTCATTTAG
CCTTCTGAGCTTTCTGGGCAGACTTGGTGACCTTGCCAGCTCCAGCAGCCTTCTTGTCCACTGCTTTGATGACAC
CCACCGCAACTGTCTGTCTCATATCACGAACAGCAAAGCGACCCAAAGGTGGATAGTCTGAGAAGCTCTCAACAC
ACATGGGCTTGCCAGGAACCATATCAACAATGGCAGCATCACCAGACTTCAAGAATTTAGGGCCATCTTCCAGCT
TTTTACCAGAACGGCGATCAATCTTTTCCTTCAGCTCAGCAAACTTGCATGCAATGTGAGCCGTGTGGCAATCCA
ATACAGGGGCATAGCCGGCGCTTATTTGGCCTGGATGGTTCAGGATAATCACCTGAGCAGTGAAGCCAGCTGCTT
CCATTGGTGGGTCATTTTTGCTGTCACCAGCAACGTTGCCACGACGAACATCCTTGACAGACACATTCTTGACAT
TGAAGCCCACATTGTCCCCAGGAAGAGCTTCACTCAAAGCTTCATGGTGCATTTCGACAGATTTTACTTCCGTTG
TAACGTTGACTGGAGCAAAGGTGACCACCATACCGGGTTTGAGAACACCAGTCTCCACTCGGCCAACAGGAACAG
TACCAATACCACCAATTTTGTAGACATCCTGGAGAGGCAGGCGCAAGGGCTTGTCAGTTGGACGAGTTGGTGGTA
GGATGCAGTCCAGAGCCTCAAGCAGCGTGGTTCCACTGGCATTGCCATCCTTACGGGTGACTTTCCATCCCTTGA
ACCAAGGCATGTTAGCACTTGGCTCCAGCATGTTGTCACCATTCCAACCAGAAATTGGCACAAATGCTACTGTGT
CGGGGTTGTAGCCAATTTTCTTAATGTAAGTGCTGACTTCCTTAACAATTTCCTCATATCTCTTCTGGCTGTAGG
GTGGCTCAGTGGAATCCATTTTGTTAACACCGACAATTAGTTGTTTCACACCCAGTGTGTAAGCCAGAAGGGC**AT**
GCTCTCGGGTCTGCCCATTCTTGGAGATACCAGCTTCAAATTCACCAACACCAGCAGCAACAATCAGGACAGCAC
AGTCAACCTGAGATGTCCCTGTAATCATGTTTTTGATAAAGTCTCTGTGTCCTGGGGCATCAATGATAGTCACAT
AGTACTTGCTGGTCTCAAATTTCCACAAGGAGATATCAATGGTGATACCACGTTCACGCTCAGCTTTCAGTTTAT
CCAAGACCCAGGCATACTTGAAGGAGCCCTTTCCCATCTCAGCAGCCTCCTTCTCAAATTTTTCAATGGTTCTTT
TGTCGATGCCACCGCATTTATAGATCAGATGGCCAGTAGTGGTGGACTTGCCCGAATCTACGTGTCCAATGACGA
CAATGTTGATATGAGTCTTTTCCTTTCCCATTTTGGCTTT**TAG**GGGTAGTTTTCACGACACCTGTGTTCTGGCGG
CAAACCCG

FIGURE 4593

ACGGGTTTGCCGCCAGAACACAGGTGTCGTGAAAACTACCCCTAAAAGCCAAA**ATG**GGAAAGGAAAAGACTCATA
TCAACATTGTCGTCATTGGACACGTAGATTCGGGCAAGTCCACCACTACTGGCCATCTGATCTATAAATGCGGTG
GCATCGACAAAAGAACCATTGAAAAATTTGAGAAGGAGGCTGCTGAGATGGGAAAGGGCTCCTTCAAGTATGCCT
GGGTCTTGGATAAACTGAAAGCTGAGCGTGAACGTGGTATCACCATTGATATCTCCTTGTGGAAATTTGAGACCA
GCAAGTACTATGTGACTATCATTGATGCCCCAGGACACAGAGACTTTATCAAAAACATGATTACAGGGACATCTC
AGGCTGACTGTGCTGTCCTGATTGTTGCTGCTGGTGTTGGTGAATTTGAAGCTGGTATCTCCAAGAATGGGCAGA
CCCGAGAGCATGCCCTTCTGGCTTACACACTGGGTGTGAAACAACTAATTGTCGGTGTTAACAAAATGGATTCCA
CTGAGCCACCCTACAGCCAGAAGAGATATGAGGAAATTGTTAAGGAAGTCAGCACTTACATTAAGAAAATTGGCT
ACAACCCCGACACAGTAGCATTTGTGCCAATTTCTGGTTGGAATGGTGACAACATGCTGGAGCCAAGTGCTAACA
TGCCTTGGTTCAAGGGATGGAAAGTCACCCGTAAGGATGGCAATGCCAGTGGAACCACGCTGCTTGAGGCTCTGG
ACTGCATCCTACCACCAACTCGTCCAACTGACAAGCCCTTGCGCCTGCCTCTCCAGGATGTCTACAAAATTGGTG
GTATTGGTACTGTTCCTGTTGGCCGAGTGGAGACTGGTGTTCTCAAACCCGGTATGGTGGTCACCTTTGCTCCAG
TCAACGTTACAACGGAAGTAAAATCTGTCGAAATGCACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATG
TGGGCTTCAATGTCAAGAATGTGTCTGTCAAGGATGTTCGTCGTGGCAACGTTGCTGGTGACAGCAAAAATGACC
CACCAATGGAAGCAGCTGGCTTCACTGCTCAGGTGATTATCCTGAACCATCCAGGCCAAATAAGCGCCGGCTATG
CCCCTGTATTGGATTGCCACACGGCTCACATTGCATGCAAGTTTGCTGAGCTGAAGGAAAAGATTGATCGCCGTT
CTGGTAAAAAGCTGGAAGATGGCCCTAAATTCTTGAAGTCTGGTGATGCTGCCATTGTTGATATGGTTCCTGGCA
AGCCCATGTGTGTTGAGAGCTTCTCAGACTATCCACCTTTGGGTCGCTTTGCTGTTCGTGATATGAGACAGACAG
TTGCGGTGGGTGTCATCAAAGCAGTGGACAAGAAGGCTGCTGGAGCTGGCAAGGTCACCAAGTCTGCCCAGAAAG
CTCAGAAGGCTAAA**TGA**ATATTATCCCTAATACCTGCCACCCCACTCTTAATCAGTGGTGGAAGAACGGTCTCAG
AACTGT

FIGURE 4594

ATCTTCCGGTAATTCGCCAAAATGACGAACACAAAGGGAAAGAGGAGAGGCACCTGACATATGTTCTCTAGGCCT
TTTAGAAAACATGGAATGGGTACTGTTCAAAAAGGAATGCCCCACAAGTGTCACCATGGCAAAACTGGGAGTCTA
CGATGTTCCCCAGCATGCTGTTGGCATTGTTGTAAACAAACAAGTTAAGGGCAAGATTCTTGCCAAGAGAATTAA
TGTGCGTATTGAGCACATTACGCACTCTAAGAGCCGAGATAGCTTCCTGAAACGCGTGAAGGAAAATGATCAGAA
AAAGAAAGAAGCCAAAGAGAAAGGTACCTGGGTTCAGCTAAAGCGCCAGCCTGCTCCACCCAGAGAAACACACTT
TGTGAGAACCAATGGGAAGGAGCCTGAGCTGCTGGAACCTATTCCCTATTAATTCATGGCATAATAGGTGTTAAA
AAGAAAAATAAA

FIGURE 4595

GGCCGGCGGCAGAGCTGTCCGGCTGCGCGGTGGCCCGGGGGGCCCGGGCGGCAGGGCAAGCAGCGCGGCCTCGGC
CTATGCGACCGGTGGCGCCGGCGCGGCTTCTGCCTGGAGAGGATTCAAG**ATG**ACCAACGAAGAACCTCTTCCCAA
GAAGGTTCGATTGAGTGAAACAGACTTCAAAGTTATGGCAAGAGATGAGTTAATTCTAAGATGGAAACAATATGA
AGCATATGTACAAGCTTTGGAGGGCAAGTACACAGATCTTAACTCTAATGATGTAACTGGCCTAAGAGAGTCTGA
AGAAAAACTAAAGCAACAACAGCAGGAGTCTGCACGCAGGGAAAACATCCTTGTAATGCGACTAGCAACCAAGGA
ACAAGAGATGCAAGAGTGTACTACTCAAATCCAGTACCTCAAGCAAGTCCAGCAGCCGAGCGTTGCCCAACTGAG
ATCAACAATGGTAGACCCAGCGATCAACTTGTTTTTCCTAAAAATGAAAGGTGAACTGGAACAGACTAAAGACAA
ACTGGAACAAGCCCAAAATGAACTGAGTGCCTGGAAGTTTACGCCTGATAGG**TAA**ACAAATCATACTCCCCAGTC
AAGACTTCCCTGACAGTCCCACTACGAGAAAGCTGTGGTGGGACAGCCAAGTACTCGTTTCCACACCAAGACTCA
GACTTTTTGAGCCAAAAAAAAGCCACATTCTTACACTGTCCAGCTTGTAATGGTTAATGTAAAACTTACCAGATG
AACCTTGTGTTTCAGCTTTTTTCTTTTCCCCTTCCCCTTGCTTCAGAGGCCTGATGGCGTCGGACTATTCCGAAG
AAGTGGCCACCTCCGAAAAATTCCCCTTCTAGAACATGTAGACACTTGAGAAATGTTTCTGTTTGAAGAAAATAG
AGGGAGAAACAGAAGTCTTAAGTCTGTGGCACACTGTGTCTTCAGACAGTTTGAAGGAATGAAAACCTAGAGATT
TTAAATCATGAATTGAACATGTAAAATTCCAGTAAAATGTAAAAACGGAATATGCATCGCTCTTAACCTTGAGCA
TAGTGACTTAGAGACACTGTGTATCAGTTTTGCCAATAAGACTGTGGACTTCATGATTGTTGTTGAACTTCTGGG
TCAAAACTCAAATGAGGTGAATTTTGCCTTTAAAGGGTTTATTTGCTGAGAACCAACTTTCAATAGTCATGAGAG
AATCAAATAATAGATGTCCGTACAAGTAGCGCATATATTTAACCATTTAGTTTGGGGCTCTATATTACTTGCTTG
AGCCTTAATCAATGTGGTTTTATTCAATGGTTTGTTCTTTGAATGGTTGCAAAAACTGTAGATAATCTTACTGAG
GACTGTACAAACATGAAGGTGTGGTATCAAACTTCAGGTTGAAACTGTTTGAAGCATTATAAACATTCATTTCAC
AACTAGATTGTATAAGGATATTAGCTGTGATGAGACTCACTGCATTATTTTTTTTAGTGAATTTTATGAAATCCC
CGTTCCATTCAACAGGCACATGTTTAAAAGAGCTTTGTCGTTGGTGTTAATGGGGGAATGTGTTCCTTCATTGTA
TTTGGGCCTTTTGTATTGCACTCTTGATATTAAATTAAATGTGCCTT

FIGURE 4596

GAGGGTGGGGCTGTAGCACCAGGTCAGGGAACGCGGGAGCCGCAGGGTTCCAGGGATCCCGCGGCTCCTCGCGGC
TTGGCCTGACCGGCTTCCTCCACATACGCCCCTCTCCTACACAAGTCCGGCCCTCGGCGCTCCTGCCGAAGCAGC
AGGCGCCTCGGACTCTGCGCGGCTCCCGCCGGCCACTCACCT**ATG**ATGGTCCGCGCCGCCGAGACGATGACCACA
GGATCTGAGCCTGCATTCATCTTGCTTCTCCTGCCGCCGTCTGCCCTGCGCTGCCTGCAAGCTAGGCAAAGCTCC
TCCTCGCAGCCCACAGGCCTGCCGCGGGCGGGACCTGAGCTCAGGACTGGAATCCCACGGGCGAGAATCTCGAGT
GCGAGCCCGGCCCGCGGCGGGTCTCAGCACAGCTCTGATGGGTCCTTTTGCTCTCGGCGGCTTCGGGAGGTCCTA
TGCGTTTCTCCTGGCGCCAGTCATTCGCTCGCG**TGA**GGGGCTTGCTAGGAGCGTCTCGGTGCGAGCCCCCTGCCT
TCTAAGATCAACTCTGGCTGTGAACGGGTGAGGACGCCGGGAGCGTCTTAGCGTCACAAAAGTTCCTTTGGTTGA
CGTTTGGACAGTGAAAGGAGCATGTAACAAGTGGGGTCAGTTTTGTTTAAAACCCTTTCTGACTTCCCAGCCTCT
TACTGGGCAAAGTTCATAATTTTTCTGAGCTTTCTAGGGTTTCCAGGCAAGCTTATGAGGGGCCACCGTTACAGC
AACTTGTTGGGAACACCTGGATAGTGGAACAAGAAAGCTTTGTCACAAAGTCATGAAGGGGAAAACTGTTGACGG
ACCTGGAGAATCTTCCTGAAGAACTTTAAAGTTGATTGAAAGAATCATTAAATCCTGGAAACCTACATTAAGACT
T

FIGURE 4597

GGCAGCGCAGGGCAGACGGCGGCAGGAGAAGCAAGATGAATGCAGGCTCAGATCCTGTGGTCATCGTCTCGGCGG
CGCGGACCATCATAGGTTCCTTCAATGGTGCCTTAGCTGCTGTTCCTGTCCAGGACCTGGGCTCCACTGTCATCA
AAGAAGTCTTGAAGAGGGCCACTGTGGCTCCGGAAGATGTGTCTGAGGTCATCTTTGGACATGTCTTGGCAGCAG
GCTGTGGGCAGAATCCTGTTAGACAAGCCAGTGTGGGTGCAGGAATTCCCTACTCTGTTCCAGCATGGAGCTGCC
AGATGATCTGTGGGTCAGGCCTAAAAGCTGTGTGCCTTGCAGTCCAGTCAATAGGGATAGGAGACTCCAGCATTG
TGGTTGCAGGAGGCATGGAAAATATGAGCAAGGCTCCTCACTTGGCTTACTTGAGAACAGGAGTAAAGATAGGTG
AGATGCCACTGACTGACAGTATACTCTGTGATGGTCTTACAGATGCATTTCACAACTGTCATATGGGTATTACAG
CTGAAAATGTAGCCAAAAAATGGCAAGTGAGTAGAGAAGATCAGGACAAGGTTGCAGTTCTGTCCCAGAACAGGA
CAGAGAATGCACAGAAAGCTGGCCATTTTGACAAAGAGATTGTACCAGTTTTGGTGTCAACTAGAAAAGGTCTTA
TTGAAGTTAAAACAGATGAGTTTCCTCGCCATGGGAGCAACATAGAAGCCATGTCCAAGCTAAAGCCTTACTTTC
TTACTGATGGAACGGGAACAGTCACCCCAGCCAATGCTTCAGGAATAAATGATGGTGCTGCAGCTGTCGTTCTTA
TGAAGAAGTCAGAAGCTGATAAACGTGGGCTTACACCTTTAGCACGGATAGTTTCCTGGTCCCAAGTGGGTGTGG
AGCCTTCCATTATGGGAATAGGACCAATTCCAGCCATAAAGCAAGCTGTTACAAAAGCAGGTTGGTCACTGGAAG
ATGTTGACATATTTGAAATCAATGAAGCCTTTGCAGCTGTCTCTGCTGCAATAGTTAAAGAACTTGGATTAAACC
CAGAGAAGGTCAATATTGAAGGAGGGGCTATAGCCTTGGGCCACCCTCTTGGAGCATCTGGCTGTCGAATTCTTG
TGACCCTGTTACACACACTGGAGAGAATGGGCAGAAGTCGTGGTGTTGCAGCCCTGTGCATTGGGGGTGGGATGG
GAATAGCAATGTGTGTTCAGAGAGAATGAATTGCTTAAACTTTGAACAACCTCAATTTCTTTTTAAACTAATAAA
GTACTAGGTTGCAATATGTGAAATCAGAGGACCAAAGTACAGATGGAAACCATTTCCTACATCACAAAAACCCAA
GTTTACAGCTTGTACTTTACTTTAATGTGTAATACTCAACTCAAGGTACAAGACAATTGCATTTAACATTGTTAT
AAATAAAAGGAACATCAGATCAATCATT

FIGURE 4598

ACGTGTATCGCTGCCGTCAAGATGGAGGGGCCTTTGTCCGTGTTCGGTGACCGCAGCACTGGGGAAACGATCCGC
TCCCAAAACGTTATGGCTGCAGCTTCGATTGCCAATATTGTAAAAAGTTCTCTTGGTCCAGTTGGCTTGGATAAA
ATGTTGGTGGATGATATTGGTGATGTAACCATTACTAACGATGGTGCAACCATCCTGAAGTTACTGGAGGTAGAA
CATCCTGCAGCTAAAGTTCTTTGTGAGCTGGCTGATCTGCAAGACAAAGAAGTTGGAGATGGAACTACTTCAGTG
GTTATTATTGCAGCAGAACTCCTAAAAAATGCAGATGAATTAGTCAAACAGAAAATTCATCCCACATCAGTTATT
AGTGGCTATCGACTTGCTTGCAAGGAAGCAGTGCGTTATATCAATGAAAACCTAATTGTTAACACAGATGAACTG
GGAAGAGATTGCCTGATTAATGCTGCTAAGACATCCATGTCTTCCAAAATCATTGGAATAAATGGTGATTTCTTT
GCTAACATGGTAGTAGATGCTGTACTTGCTATTAAATACACAGACATAAGAGGCCAGCCACGCTATCCAGTCAAC
TCTGTTAATATTTTGAAAGCCCATGGGAGAAGTCAAATGGAGAGTATGCTCATCAGTGGCTATGCACTCAACTGT
GTGGTGGGATCCCAGGGCATGCCCAAGAGAATCGTAAATGCAAAAATTGCTTGCCTTGACTTCAGCCTGCAAAAA
ACAAAAATGAAGCTTGGTGTACAGGTGGTCATTACAGACCCTGAAAAACTGGACCAAATTAGACAGAGAGAATCA
GATATCACCAAGGAGAGAATTCAGAAGATCCTGGCAACTGGTGCCAATGTTATTCTAACCACTGGTGGAATTGAT
GATATGTGTCTGAAGTATTTTGTGGAGGCTGGTGCTATGGCAGTTAGAAGAGTTTTAAAAAGGGACCTTAAACGC
ATTGCCAAAGCTTCTGGAGCAACTATTCTGTCAACCCTGGCCAATTTGGAAGGTGAAGAAACTTTTGAAGCTGCA
ATGTTGGGACAGGCAGAAGAAGTGGTACAGGAGAGAATTTGTGATGATGAGCTGATCTTAATCAAAAATACTAAG
GCTCGTACGTCTGCATCGATTATCTTACGTGGGGCAAATGATTTCATGTGTGATGAGATGGAGCGCTCTTTACAT
GATGCACTTTGTGTAGTGAAGAGAGTTTTGGAGTCAAAATCTGTGGTTCCCGGTGGGGGTGCTGTAGAAGCAGCC
CTTTCCATATACCTTGAAAACTATGCAACCAGCATGGGGTCTCGGGAACAGCTTGCGATTGCAGAGTTTGCAAGA
TCACTTCTTGTTATTCCCAATACACTAGCAGTTAATGCTGCCCAGGACTCCACAGATCTGGTTGCAAAATTAAGA
GCTTTTCATAATGAGGCCCAGGTTAACCCAGAACGTAAAAATCTAAAATGGATTGGTCTTGATTTGAGCAATGGT
AAACCTCGAGACAACAAACAAGCAGGGGTGTTTGAACCAACCATAGTTAAAGTTAAGAGTTTGAAATTTGCAACA
GAAGCTGCAATCACCATTCTTCGAATTGATGATCTTATTAAATTACATCCAGAAAGTAAAGATGATAAACATGGA
AGTTATGAAGATGCTGTTCACTCTGGAGCCCTTAATGATTGATCTGATGTTCCTTTTATTTATAACAATGTTAAA
TGCAATTGTCTTGTACCTTGAGTTGAGTATTACACATTAAAGTAAAGTACAAGCTGTAAACTTGGGTTTTTGTGA
TGTAGGAAATGGTTTCCATCTGTACTTTGGTCCTCTGATTTCACATATTGCAACCTAGTACTTTATTAGTTTAAA
AAGAAATTGAGGTTGTTCAAAGTTTAAGCAATTCATTCTCTCTGAACACACATTGCTATTCCCATCCCACCCCCA
ATGCACAGGGCTGCAACACCACGACTTCTGCCCATTCTCTCCAGTGTGTGTAACAGGGTCACAAGAATTC

FIGURE 4599

GGAGAGTTTGGGGATCTACAGCAGCCAAAGGCTTGTCCCTGACTTTATATGGCTGCTCCTGGCGAGCGACTGAGT
CGTCCGTGAGGAAAAAGAGGCGAGGCTTTTCCGAGATCGTCTCAGCG**ATG**GCGCTTCGGTCGCGGTTTTGGGGGT
TGTTCTCGGTTTGCAGGAACCCTGGGTGCAGGTTCGCAGCCCTGTCAACCAGCTCCGAGCCGGCAGCGAAACCTG
AAGTGGACCCTGTGGAAAATGAAGCTGTCGCCCCAGAATTCACCAACCGGAACCGCCGGAACCTGGAGCTTTTAT
CTGTAGCCAGGAAAGAGCGGGGCTGGCGGACGGTGTTTCCCTCCCGTGAGTTCTGGCACAGGTTGCGAGTTATAA
GGACTCAGCATCATGTAGAAGCACTTGTGGAGCATCAGAATGGCAAGGTTGTGGTTTCGGCCTCCACTCGTGAGT
GGGCTATTAAAAAGCACCTTTATAGTACCAGAAATGTGGTGGCTTGTGAGAGTATAGGACGAGTGCTGGCACAGA
GATGCTTAGAGGCGGGAATCAACTTCATGGTCTACCAACCAACCCCGTGGGAGGCAGCCTCAGACTCGATGAAAC
GACTACAAAGTGCCATGACAGAAGGTGGTGTGGTTCTACGGGAACCTCAGAGAATCTATGAA**TAA**ATGGAAGCAT
TAATTGTTTTGAACATGTAAATATAAATCTGTCAGCCACTACAGCCATCAAAAGAGAGCATCTGGAAGAACAGCC
AGCTTGGAAGTTTTACAGCAATAATGTTGCAGTGGAATATTATTTGTAGTTAAGGTCATCCTCCTCCCCTTTCTG
TTTTTTTAAATCAAGAACTACGTTCTGCCCCTCTCTTGGGCTTCAGAAGCATCTAAGAAAAGCAGTCATCAATTA
TAATTAACTTTCAAAGGGCAAGTCAGAAGTTGTTTATAAATTACAAAATAAAGGCATATTATGAACTCTT

FIGURE 4600A

CGAGCCCAGTCGAGCCGCGCTCACCTCGGGCTCCCGCTCCGTCTCCACCTCCGCCTTTGCCCTGGCGGCGCGACC
CCGTCCCGGGCGCGGCCCCCAGCAGTCGCGCGCCGTTAGCCTCGCGCCCGCCGCGCAGTCCGGGCCCGGCGCGATT
GGGGGCCGCCGCCGGCCGGAGCCCCCACCTGGGGCCCGCGCCCGCCCGCCGCCCGCAGCGCTCTCTGCTCCTGCT
GCAGCTGCTGCTGCTCGTCGCTGCCCCGGGGTCCACGCAGGCCCAGGCCGCCCCGTTCCCCGAGCTGTGCAGTTA
TACATGGGAAGCTGTTGATACCAAAAATAATGTACTTTATAAAATCAACATCTGTGGAAGTGTGGATATTGTCCA
GTGCGGGCCATCAAGTGCTGTTTGTATGCACGACTTGAAGACACGCACTTATCATTCAGTGGGTGACTCTGTTTT
GAGAAGTGCAACCAGATCTCTCCTGGAATTCAACACAACAGTGAGCTGTGACCAGCAAGGCACAAATCACAGAGT
CCAGAGCAGCATTGCCTTCCTGTGTGGGAAAACCCTGGGAACTCCTGAATTTGTAACTGCAACAGAATGTGTGCA
CTACTTTGAGTGGAGGACCACTGCAGCCTGCAAGAAAGACATATTTAAAGCAAATAAGGAGGTGCCATGCTATGT
GTTTGATGAAGAGTTGAGGAAGCATGATCTCAATCCTCTGATCAAGCTTAGTGGTGCCTACTTGGTGGATGACTC
CGATCCGGACACTTCTCTATTCATCAATGTTTGTAGAGACATAGACACACTACGAGACCCAGGTTCACAGCTGCG
GGCCTGTCCCCCCGGCACTGCCGCCTGCCTGGTAAGAGGACACCAGGCGTTTGATGTTGGCCAGCCCCGGGACGG
ACTGAAGCTGGTGCGCAAGGACAGGCTTGTCCTGAGTTACGTGAGGGAAGAGGCAGGAAAGCTAGACTTTTGTGA
TGGTCACAGCCCTGCGGTGACTATTACATTTGTTTGCCCGTCGGAGCGGAGAGAGGGCACCATTCCCAAACTCAC
AGCTAAATCCAACTGCCGCTATGAAATTGAGTGGATTACTGAGTATGCCTGCCACAGAGATTACCTGGAAAGTAA
AACTTGTTCTCTGAGCGGCGAGCAGCAGGATGTCTCCATAGACCTCACACCACTTGCCCAGAGCGGAGGTTCATC
CTATATTTCAGATGGAAAAGAATATTTGTTTTATTTGAATGTCTGTGGAGAAACTGAAATACAGTTCTGTAATAA
AAAACAAGCTGCAGTTTGCCAAGTGAAAAAGAGCGATACCTCTCAAGTCAAAGCAGCAGGAAGATACCACAATCA
GACCCTCCGATATTCGGATGGAGACCTCACCTTGATATATTTTGGAGGTGATGAATGCAGCTCAGGGTTTCAGCG
GATGAGCGTCATAAACTTTGAGTGCAATAAAACCGCAGGTAACGATGGGAAAGGAACTCCTGTATTCACAGGGGA
GGTTGACTGCACCTACTTCTTCACATGGGACACGGAATACGCCTGTGTTAAGGAGAAGGAAGACCTCCTCTGCGG
TGCCACCGACGGGAAGAAGCGCTATGACCTGTCCGCGCTGGTCCGCCATGCAGAACCAGAGCAGAATTGGGAAGC
TGTGGATGGCAGTCAGACGGAAACAGAGAAGAAGCATTTTTTCATTAATATTTGTCACAGAGTGCTGCAGGAAGG
CAAGGCACGAGGGTGTCCCGAGGACGCGGCAGTGTGTGCAGTGGATAAAAATGGAAGTAAAAATCTGGGAAAATT
TATTTCCTCTCCCATGAAAGAGAAAGGAAACATTCAACTCTCTTATTCAGATGGTGATGATTGTGGTCATGGCAA
GAAAATTAAAACTAATATCACACTTGTATGCAAGCCAGGTGATCTGGAAAGTGCACCAGTGTTGAGAACTTCTGG
GGAAGGCGGTTGCTTTTATGAGTTTGAGTGGCACACAGCTGCGGCCTGTGTGCTGTCTAAGACAGAAGGGGAGAA
CTGCACGGTCTTTGACTCCCAGGCAGGGTTTTCTTTTGACTTATCACCTCTCACAAAGAAAAATGGTGCCTATAA
AGTTGAGACAAAGAAGTATGACTTTTATATAAATGTGTGTGGCCCGGTGTCTGTGAGCCCCTGTCAGCCAGACTC
AGGAGCCTGCCAGGTGGCAAAAAGTGATGAGAAGACTTGGAACTTGGGTCTGAGTAATGCGAAGCTTTCATATTA
TGATGGGATGATCCAACTGAACTACAGAGGCGGCACACCCTATAACAATGAAAGACACACACCGAGAGCTACGCT
CATCACCTTTCTCTGTGATCGAGACGCGGGAGTGGGCTTCCCTGAATATCAGGAAGAGGATAACTCCACCTACAA
CTTCCGGTGGTACACCAGCTATGCCTGCCCGGAGGAGCCCCTGGAATGCGTAGTGACCGACCCCTCCACGCTGGA
GCAGTACGACCTCTCCAGTCTGGCAAAATCTGAAGGTGGCCTTGGAGGAAACTGGTATGCCATGGACAACTCAGG
GGAACATGTCACGTGGAGGAAATACTACATTAACGTGTGTCGGCCTCTGAATCCAGTGCCGGGCTGCAACCGATA
TGCATCGGCTTGCCAGATGAAGTATGAAAAAGATCAGGGCTCCTTCACTGAAGTGGTTTCCATCAGTAACTTGGG
AATGGCAAAGACCGGCCCGGTGGTTGAGGACAGCGGCAGCCTCCTTCTGGAATACGTGAATGGGTCGGCCTGCAC
CACCAGCGATGGCAGACAGACCACATATACCACGAGGATCCATCTCGTCTGCTCCAGGGGCAGGCTGAACAGCCA
CCCCATCTTTTCTCTCAACTGGGAGTGTGTGGTCAGTTTCCTGTGGAACACAGAGGCTGCCTGTCCCATTCAGAC
AACGACGGATACAGACCAGGCTTGCTCTATAAGGGATCCCAACAGTGGATTTGTGTTTAATCTTAATCCGCTAAA
CAGTTCGCAAGGATATAACGTCTCTGGCATTGGGAAGATTTTTATGTTTAATGTCTGCGGCACAATGCCTGTCTG
TGGGACCATCCTGGGAAAACCTGCTTCTGGCTGTGAGGCAGAAACCCAAACTGAAGAGCTCAAGAATTGGAAGCC
AGCAAGGCCAGTCGGAATTGAGAAAAGCCTCCAGCTGTCCACAGAGGGCTTCATCACTCTGACCTACAAAGGGCC
TCTCTCTGCCAAAGGTACCGCTGATGCTTTTATCGTCCGCTTTGTTTGCAATGATGATGTTTACTCAGGGCCCCT
CAAATTCCTGCATCAAGATATCGACTCTGGGCAAGGGATCCGAAACACTTACTTTGAGTTTGAAACCGCGTTGGC
CTGTGTTCCTTCTCCAGTGGACTGCCAAGTCACCGACCTGGCTGGAAATGAGTACGACCTGACTGGCCTAAGCAC
AGTCAGGAAACCTTGGACGGCTGTTGACACCTCTGTCGATGGGAGAAAGAGGACTTTCTATTTGAGCGTTTGCAA
TCCTCTCCCTTACATTCCTGGATGCCAGGGCAGCGCAGTGGGGTCTTGCTTAGTGTCAGAAGGCAATAGCTGGAA

FIGURE 4600B

TCTGGGTGTGGTGCAGATGAGTCCCCAAGCCGCGGCGAATGGATCTTTGAGCATCATGTATGTCAACGGTGACAA
GTGTGGGAACCAGCGCTTCTCCACCAGGATCACGTTTGAGTGTGCTCAGATATCGGGCTCACCAGCATTTCAGCT
TCAGGATGGTTGTGAGTACGTGTTTATCTGGAGAACTGTGGAAGCCTGTCCCGTTGTCAGAGTGGAAGGGGACAA
CTGTGAGGTGAAAGACCCAAGGCATGGCAACTTGTATGACCTGAAGCCCCTGGGCCTCAACGACACCATCGTGAG
CGCTGGCGAATACACTTATTACTTCCGGGTCTGTGGGAAGCTTTCCTCAGACGTCTGCCCCACAAGTGACAAGTC
CAAGGTGGTCTCCTCATGTCAGGAAAAGCGGGAACCGCAGGGATTTCACAAAGTGGCAGGTCTCCTGACTCAGAA
GCTAACTTATGAAAATGGCTTGTTAAAAATGAACTTCACGGGGGGGGACACTTGCCATAAGGTTTATCAGCGCTC
CACAGCCATCTTCTTCTACTGTGACCGCGGCACCCAGCGGCCAGTATTTCTAAAGGAGACTTCAGATTGTTCCTA
CTTGTTTGAGTGGCGAACGCAGTATGCCTGCCCACCTTTCGATCTGACTGAATGTTCATTCAAAGATGGGGCTGG
CAACTCCTTCGACCTCTCGTCCCTGTCAAGGTACAGTGACAACTGGGAAGCCATCACTGGGACGGGGGACCCGGA
GCACTACCTCATCAATGTCTGCAAGTCTCTGGCCCCGCAGGCTGGCACTGAGCCGTGCCCTCCAGAAGCAGCCGC
GTGTCTGCTGGGTGGCTCCAAGCCCGTGAACCTCGGCAGGGTAAGGGACGGACCTCAGTGGAGAGATGGCATAAT
TGTCCTGAAATACGTTGATGGCGACTTATGTCCAGATGGGATTCGGAAAAAGTCAACCACCATCCGATTCACCTG
CAGCGAGAGCCAAGTGAACTCCAGGCCCATGTTCATCAGCGCCGTGGAGGACTGTGAGTACACCTTTGCCTGGCC
CACAGCCACAGCCTGTCCCATGAAGAGCAACGAGCATGATGACTGCCAGGTCACCAACCCAAGCACAGGACACCT
GTTTGATCTGAGCTCCTTAAGTGGCAGGGCGGGATTCACAGCTGCTTACAGCGAGAAGGGGTTGGTTTACATGAG
CATCTGTGGGGAGAATGAAAACTGCCCTCCTGGCGTGGGGGCCTGCTTTGGACAGACCAGGATTAGCGTGGGCAA
GGCCAACAAGAGGCTGAGATACGTGGACCAGGTCCTGCAGCTGGTGTACAAGGATGGGTCCCCTTGTCCCTCCAA
ATCCGGCCTGAGCTATAAGAGTGTGATCAGTTTCGTGTGCAGGCCTGAGGCCAGGCCAACCAATAGGCCCATGCT
CATCTCCCTGGACAAGCAGACATGCACTCTCTTCTTCTCCTGGCACACGCCGCTGGCCTGCGAGCAAGCGACCGA
ATGTTCCGTGAGGAATGGAAGCTCTATTGTTGACTTGTCTCCCCTTATTCATCGCACTGGTGGTTATGAGGCTTA
TGATGAGAGTGAGGATGATGCCTCCGATACCAACCCTGATTTCTACATCAATATTTGTCAGCCACTAAATCCCAT
GCACGGAGTGCCCTGTCCTGCCGGAGCCGCTGTGTGCAAAGTTCCTATTGATGGTCCCCCCATAGATATCGGCCG
GGTAGCAGGACCACCAATACTCAATCCAATAGCAAATGAGATTTACTTGAATTTTGAAAGCAGTACTCCTTGCTT
AGCGGACAAGCATTTCAACTACACCTCGCTCATCGCGTTTCACTGTAAGAGAGGTGTGAGCATGGGAACGCCTAA
GCTGTTAAGGACCAGCGAGTGCGACTTTGTGTTCGAATGGGAGACTCCTGTCGTCTGTCCTGATGAAGTGAGGAT
GGATGGCTGTACCCTGACAGATGAGCAGCTCCTCTACAGCTTCAACTTGTCCAGCCTTTCCACGAGCACCTTTAA
GGTGACTCGCGACTCGCGCACCTACAGCGTTGGGGTGTGCACCTTTGCAGTCGGGCCAGAACAAGGAGGCTGTAA
GGACGGAGGAGTCTGTCTGCTCTCAGGCACCAAGGGGGCATCCTTTGGACGGCTGCAATCAATGAAACTGGATTA
CAGGCACCAGGATGAAGCGGTCGTTTTAAGTTACGTGAATGGTGATCGTTGCCCTCCAGAAACCGATGACGGCGT
CCCCTGTGTCTTCCCCTTCATATTCAATGGGAAGAGCTACGAGGAGTGCATCATAGAGAGCAGGGCGAAGCTGTG
GTGTAGCACAACTGCGGACTACGACAGAGACCACGAGTGGGGCTTCTGCAGACACTCAAACAGCTACCGGACATC
CAGCATCATATTTAAGTGTGATGAAGATGAGGACATTGGGAGGCCACAAGTCTTCAGTGAAGTGCGTGGGTGTGA
TGTGACATTTGAGTGGAAAACAAAAGTTGTCTGCCCTCCAAAGAAGTTGGAGTGCAAATTCGTCCAGAAACACAA
AACCTACGACCTGCGGCTGCTCTCCTCTCTCACCGGGTCCTGGTCCCTCGTCCACAACGGAGTCTCGTACTATAT
AAATCTGTGCCAGAAAATATATAAAGGGCCCCTGGGCTGCTCTGAAAGGGCCAGCATTTGCAGAAGGACCACAAC
TGGTGACGTCCAGGTCCTGGGACTCGTTCACACGCAGAAGCTGGGTGTCATAGGTGACAAAGTTGTTGTCACGTA
CTCCAAAGGTTATCCGTGTGGTGGAAATAAGACCGCATCCTCCGTGATAGAATTGACCTGTACAAAGACGGTGGG
CAGACCTGCATTCAAGAGGTTTGATATCGACAGCTGCACTTACTACTTCAGCTGGGACTCCCGGGCTGCCTGCGC
CGTGAAGCCTCAGGAGGTGCAGATGGTGAATGGGACCATCACCAACCCTATAAATGGCAAGAGCTTCAGCCTCGG
AGATATTTATTTTAAGCTGTTCAGAGCCTCTGGGGACATGAGGACCAATGGGGACAACTACCTGTATGAGATCCA
ACTTTCCTCCATCACAAGCTCCAGAAACCCGGCGTGCTCTGGAGCCAACATATGCCAGGTGAAGCCCAACGATCA
GCACTTCAGTCGGAAAGTTGGAACCTCTGACAAGACCAAGTACTACCTTCAAGACGGCGATCTCGATGTCGTGTT
TGCCTCTTCCTCTAAGTGCGGAAAGGATAAGACCAAGTCTGTTTCTTCCACCATCTTCTTCCACTGTGACCCTCT
GGTGGAGGACGGGATCCCCGAGTTCAGTCACGAGACTGCCGACTGCCAGTACCTCTTCTCTTGGTACACCTCAGC
CGTGTGTCCTCTGGGGGTGGGCTTTGACAGCGAGAATCCCGGGGACGACGGGCAGATGCACAAGGGGCTGTCAGA
ACGGAGCCAGGCAGTCGGCGCGGTGCTCAGCCTGCTGCTGGTGGCGCTCACCTGCTGCCTGCTGGCCCTGTTGCT
CTACAAGAAGGAGAGGAGGGAAACAGTGATAAGTAAGCTGACCACTTGCTGTAGGAGAAGTTCCAACGTGTCCTA

FIGURE 4600C

CAAATACTCAAAGGTGAATAAGGAAGAAGAGACAGATGAGAATGAAACAGAGTGGCTGATGGAAGAGATCCAGCT
GCCTCCTCCACGGCAGGGAAAGGAAGGGCAGGAGAACGGCCATATTACCACCAAGTCAGTGAAAGCCCTCAGCTC
CCTGCATGGGGATGACCAGGACAGTGAGGATGAGGTTCTGACCATCCCAGAGGTGAAAGTTCACTCGGGCAGGGG
AGCTGGGGCAGAGAGCTCCCACCCAGTGAGAAACGCACAGAGCAATGCCCTTCAGGAGCGTGAGGACGATAGGGT
GGGGCTGGTCAGGGGTGAGAAGGCGAGGAAAGGGAAGTCCAGCTCTGCACAGCAGAAGACAGTGAGCTCCACCAA
GCTGGTGTCCTTCCATGACGACAGCGACGAGGACCTCTTACACATC**TGA**CTCCGCAGTGCCTGCAGGGGAGCACG
GAGCCGCGGGACAGCCAAGCACCTCCAACCAAATAAGACTTCCACTCGATGATGCTTCTATAATTTTGCCTTTAA
CAGAAACTTTCAAAAGGGAAGAGTTTTTGTGATGGGGGAGAGGGTGAAGGAGGTCAGGCCCCACTCCTTCCTGAT
TGTTTACAGTCATTGGAATAAGGCATGGCTCAGATCGGCCACAGGGCGGTACCTTGTGCCCAGGGTTTTGCCCCA
AGTCCTCATTTAAAAGCATAAGGCCGGACGCATCTCAAAACAGAGGGCTGCATTCGAAGAAACCCTTGCTGCTTT
AGTCCCGATAGGGTATTTGACCCCGATATATTTTAGCATTTTAATTCTCTCCCCCTATTTATTGACTTTGACAAT
TACTCAGGTTTGAGAAAAAGGAAAAAAAAACAGCCACCGTTTCTTCCTGCCAGCAGGGGTGTGATGTACCAGTTT
GTCCATCTTGAGATGGTGAGGCTGTCAGTGTATGGGGCAGCTTCCGGCGGGATGTTGAACTGGTCATTAATGTGT
CCCCTGAGTTGGAGCTCATTCTGTCTCTTTTCTCTTTTGCTTTCTGTTTCTTAAGGGCACACACACGTGCGTGCG
AGCACACACACACATACGTGCACAGGGTCCCCGAGTGCCTAGGTTTTGGAGAGTTTGCCTGTTCTATGCCTTTAG
TCAGGAATGGCTGCACCTTTTTGCATGATATCTTCAAGCCTGGGCGTACAGAGCACATTTGTCAGTATTTTTGCC
GGCTGGTGAATTCAAACAACCTGCCCAAAGATTGATTTGTGTGTTTGTGTGTGTGTGTGTGTGTGTGTGTGTG
TGTGAGTGGAGTTGAGGTGTCAGAGAAAATGAATTTTTTCCAGATTTGGGGTATAGGTCTCATCTCTTCAGGTTC
TCATGATACCACCTTTACTGTGCTTATTTTTTTAAGAAAAAAGTGTTGATCAACCATTCGACCTATAAGAAGCCT
TAATTTGCACAGTGTGTGACTTACAGAAACTGCATGAAAAATCATGGGCCAGAGCCTCGGCCCTAGCATTGCACT
TGGCCTCATGCTGGAGGGAGGCTGGGCGGGTACAGCGCGGAGGAGGAGGGAGGCCAGGCGGGCATGGCGTGGAGG
AGGAGGGAGGCCGGGCGGTCACAGCATGGAGGAGGAGGGAGGCGCTGCTGGTGTTCTTATTCTGGCGGCAGCGCC
TTTCCTGCCATGTTTAGTGAATGACTTTTCTCGCATTGTAGAATTGTATATAGACTCTGGTGTTCTATTGCTGAG
AAGCAAACCGCCCTGCAGCATCCCTCAGCCTGTACCGGTTTGGCTGGCTTGTTTGATTTCAACATGAGTGTATTT
TTTAAAATTGATTTTTCTCTTCATTTTTTTTTCAATCAACTTTACTGTAATATAAAGTATTCAACAATTTCAATA
AAAGATAAATTATTAA

FIGURE 4601

CTTTTTCGCAACGGGTTTGCCGCCAGAACACAGGTGTCGTGAAAACTACCCCTAAAAGCCAAAATGGGAAAGGAA
AAGACTCATATCAACATTGTCGTCATTGGACACGTAGATTCAGGCAAGTCCACCACTACTGGCCATCTGATCTAT
AAATGCGGTGGCATCGACAAAAGAACCATTGAAAAATTTGAGAAGGAGGCTGCTGAGATGGGAAAGGGCTCCTTC
AAGTATGCCTGGGTCTTGGATAAACTGAAAGCTGAGCGTGAACGTGGTATCACCATTGATATCTCCTTGTGGAAA
TTTGAGACCAGCAAGTACTATGTGACTATCATTGATGCCCCAGGACACAGGGACTTCATCAAAAACATGATTACA
GGGACATCTCAGGCTGACTGTGCTGTCCTGATTGTTGCTGCTGGTGTTGGTGAATTTGAAGCTGGTATCTCCAAG
AATGGGCAGACCCGAGAGCATGCCCTTCTGGCTTACACACTGGGTGTGAAACAACTAATTGTCGGTGTTAACAAA
ATGGATTCCACTGAGCCACCCTACAGCCAGAAGAGATATGAGGAAATTGTTAAGGAATCAGCACTTACATTAAGA
AAATTGGCTACAACCCCGACACAGTAGCATTTGTGCCAATTTCTGGTTGGAATGGTGACAAC**ATG**CTGGAGCCAA
GTGCTAACATGCCTTGGTTCAAGGGATGGAAAGTCACCCGTAAGGATGGCAATGCCAGTGGAACCACGCTGCTTG
AGGCTCTGGACTGCATCCTACCACCAACTCATCCAACTGACAAGCCCTTGCGCCTGCCTCTCCAGGATGTCTACA
AAATTGGTGGTATTGGTACTGTTCCTGTTGGCCGAGTGGAGACTGGTGTTCTCAAACCCGGTATGGTGGTCACCT
TTGCTCCAGTCAACGTTACAACGGAAGTAAAATCTGTCGAAATGCACCATGAAGCTTTGAGTGAAGCTCTTCCTG
GGGACAATGTGGGCTTCAATGTCAAGAATGTGTCTGTCAAGGATGTTCGTCGTGGCAACGTCGCTGGTGACAGCA
AAAATGACCCACCAATGGAAGCAGCGGGCTTCACTGCTCAGGTGATTATCCTGAACCATCCAGGCCAAATAAGCA
CCGGCTATGCCCCTGTATTGGATTGCCACACGGCTCACATTGCATGCAAGTTTGCTGAGCTGAAGGAAAAGATTG
ATCGCCGTTCTGGTAAAAAGCTGGAAGATGGCCCTAAATTCTTGAAGTCTGGTGATGCTGCCATTGTTGATATGG
TTCCTGGCAAGCCCATGTGTGTTGAGAGCTTCTCAGACTATCCACCTTTGGGTCGCTTTGCTGTTCGTGATATGA
GACAGACAGTTGCGGTGGGTGTCATCAAAGCAGTGGACAAGAAGGCTGCTGGAGCTGGCAAGGTCACCAAGTCTG
CCCAGAAAGCTCAGAAGGCTAAA**TGA**ATATTATCCCTAATACCTGCCACCCCACTCTTAATCAGTGGTGGAAGAA
TGGTCTCAGAACTGTTTGTTTCAATTGGCCATTTAAGTTTAGTAGTAAAAGACTGGTTAATGATAACAATGCATC
GTAAAACCTTCAGAAGGAAAGGAGAATGTTTTGTGGACCACTTTGGTTTTCTTTTTTGCGTGTGGCAGTTTTAAG
TTATTAGTTTTTAAAATCAGTACTTTTTAATGGAAACAACTGGACCAAAAATTTGTCACAGAATTTTGAGACCCA
TT

FIGURE 4602

CTCTCTCCGGTCCATGCCTCCAAG**ATG**ACAAAGAAAAGAAGGAACAACGTTCGTGCCAAAAAGGGCCGCGGCCAC
GTGCAGCCTATTCGCTGCACTAACTGTGCCCGATGCGTGCCCAAGGACAACGCCATTAAGAAATTCGTCATTCGA
AACATAGTGGAGGCTGCAGCAGTCAGGGACATTTCTGAAGCGAGCGTCTTCGATGCCTATGTGCTTCCCAAGCTG
TGTGTGAAGCTACATTACTGTGTGAGTTGTGTAATTCACAGCAAAGTAGTCAGGAATCGATCTCGTGAAGCCCGC
AAGGACCGAACACCCCCACCCCGATTTAGACCTGCGGGTGCTGCCGCACGTCCCCCACCAAAGCCCATG**TAA**GGA
GCTGAGTTCTTAAAGACTGAAGACAGACTATTCTCTGGAGAAAAATAAAATGGACATTGTACTTAAAAAAAAACA
AAAAAAAAAAAAAAAAAAA

FIGURE 4603

ATGAACGACACATGGTTGATGGCAGAGTTCAGACAACAATTATTTGGAGCAGACCAGGAGCAAAGACAGCTGATT
AGAGGATCAGTACCCAGGGCGGTACCACTCACCAACCAGCTGGCCTCTGTTGTCACCCGTCAGCTCACGATCCAG
TCCCTCTGGATGGTGACGGTCAGCGCCGTGCCGGCCAGGTTTGCCAAGGCCACTAGGGTGGTCACCAGTGCACAG
CAGGCCACCTACCGAAGGAGGGGAAAGGGTCTTACAAACAAGCTGTTATTCCAAGAATCTCTTCAAAAAACAGCA
ACAAGGCTTTCAGCTTTCAGCTGGGAGGAGGCCAAGGTGCAACTTTCTTGGGTCGTCCTGAATCTAGCCACCTCT
GCCATGCTGCCGAAGTTCTACCCCAATGAGATCAAAGTCACATACCTAAGGTGTACTGGGGATGAAGTGGGTGCC
ACGTCTGTGTTGGCCCCCAAGATCAGCCCCCTAGGTCTGTCTTCAGAAAAGAACAGAGAGGCCCAGATTGAGGTG
GTGACTTCTGCCTCTGCCCTGATCATCAAAGCCCTCAAGGAACCGCCAAGAGACAGAAAGAAACAGAAAAACATT
AAACACAGTGGAAATATCACTTTTGATGAGATTGTCAATGTTGCTCAACACATGTGGCACCGATCTTTAGCCAGA
GAACTCTCTGGAATCATTAAAGAGATCCTGGGGACTCCCCAGTCTGTGGGCTGCAATGTTGATGGCTGCCACCCT
CATGATATCATAGATGACATCAACGGTGGTGCTGTGGAATGCCCAGCTAATTAA

FIGURE 4604A

GGGTCCCTGGTCGTGCCTGTCAGAGAGGCTGGCGGCAGTGGTGGCTCTCCCGGCTGGGTTGTCAGTCAGTGAGAG
GAGGGGGAAGATGGCTCACCGGGACCCGTTCTGCTAGGAAGAAGGGGAGCAGGTGGTGCTGCTACTCGGGAGGAA
GCAGAGCAGCCTCCGTCGCTGTCGCTGAGAGCCTCACGAGTCGAGGTCCTGCAGGTGGAGCTCCGGCAGCCGCCC
TGGTTGAAGGTTTAGAACAGATGTGGAAAA**ATG**TTTACTTCAGAGAAAGGGGTTGTGGAGGAATGGTTGTCAGAG
TTTAAGACATTACCAGAAACATCTTTACCAAATTATGCCACAAATTTGAAAGACAAGAGTTCTTTAGTTTCATCT
CTCTATAAAGTTATCCAGGAGCCACAAAGTGAGTTGCTAGAACCTGTCTGTCACCAGCTCTTTGAATTCTATCGC
AGTGGAGAGGAGCAGTTGCTTCAATTTACGCTGCAATTTCTCCCAGAACTAATTTGGTGCTACCTTGCAGTCTCA
GCCAGCAGAAATGTGCATAGCAGTGGATGCATTGAAGCTCTTCTTCTAGGGGTTTACAATTTGGAAATAGTTGAC
AAACAGGGACATACCAAAGTATTGAGTTTTACGATTCCATCTTTATCCAAACCATCTGTATACCATGAACCTTCC
AGCATTGGGTCCATGGCTCTGACTGAGAGTGCACTATCCCAGCATGGTTTGTCAAAAGTGGTATACAGTGGACCT
CATCCTCAAAGGGAGATGCTGACAGCACAGAATCGGTTTGAAGTGTTGACATTCCTTTTGTTGTGTTACAATGCT
GCCTTAACTTACATGCCCAGTGTTTCTCTTCAGTCACTGTGTCAAATTTGTTCAAGAATCTGTGTTTGTGGATAT
CCTCGACAACATGTAAGAAAATATAAAGGTATAAGTAGCAGGATACCAGTTTCTTCAGGATTCATGGTGCAAATG
TTAACAGGGATTTATTTTGCCTTTTATAATGGAGAATGGGATCTAGCTCAAAAAGCACTGGATGATATTATATAC
AGAGCCCAGCTAGAATTATATCCAGAGCCATTGCTGGTTGCTAATGCAATAAAGGCTTCATTGCCTCATGGTCCC
ATGAAATCTAATAAGGAAGGTACAAGGTGTATTCAAGTTGAAATCACACCAACTTCCTCTCGAATATCAAGAAAT
GCAGTAACCAGCATGTCAATAAGGGGTCATAGGTGGAAAAGACATGGAAATACAGAATTAACAGGTCAAGAAGAA
CTGATGGAGATATCTGAAGTTGACGAGGGATTTTATTCCAGGGCTGCGTCTAGTACCAGCCAGTCGGGTTTATCA
AACAGTAGTCACAATTGTAGTAACAAGCCAAGTATAGGAAAGAACCACAGACGGTCAGGAGGAAGCAAAACTGGA
GGAAAAGAAAAAGAAACTACAGGGGAATCTTGCAAAGATCACTTTGCTCGAAAACAAACTCAGAGAGCCCAAAGT
GAGAATCTTGAGCTTCTCTCTTTGAAGAGACTTACTTTAACAACCAGCCAATCCCTACCTAAGCCTAGTAGCCAT
GGTTTGGCTAAGACCGCAGCGACTGTATTTAGTAAATCCTTTGAACAAGTCAGTGGTGTCACAGTCCCACATAAC
CCGTCATCTGCTGTTGGTTGTGGGGCTGGGACAGATGCCAATAGGTTTTCCGCTTGTAGTCTCCAAGAAGAAAAG
CTTATTTACGTTTCAGAAAGAACTGAACTTCCAATGAAGCATCAATCAGGTCAGCAGAGACCTCCTAGTATTAGC
ATTACTCTGTCCACAGAT**TAA**TTAGTAACATATTTTTCTCCCATAACCTAGTGAACCTGGAAATACAACTTTGCT
TCTTTATGAAAGTACCCTGGGTCTTTCATCCGTATTCCTGACAGGAGCCCTGATGTCTTAAATTCTGAAGGCTCC
CCTGACTTTATGAAGGGAAGATTGTCTAGGTTGCAGTAAGTTGAAATATGGTTTTGTTATTTCTTGATTAAGATT
TTTTCCCCTTGGTTTGAGTCTTTTTTTTCCCTCCTCTTATTTGTTATTGTTGCCCTAAGATTGTCAGTGACAATA
AATTTTGACAGGTTGTCTAATCAAGTTGGTTATGTCTCATGTGAGGTTGTAAGGTGGTTTTTCTTGTTTTGGTTT
GGTTTGGTTTTTTAATAGCTCCTATTTTGATGGCTGTGTGTTTGGCCTTCAGAGTCAAAGGGAGTCTGCATGTAT
GGGAACTGTTTTATAGAGAATGGGGCAGAGGCACAACTCCAGGAATTCTCTAGCTCCTGGTCAGGAAGCCAATCT
GAAAACAGGCATGTGGAAACACAAAAATGATGTGTATGAAAAGCACCTGATGAAAATATTTGTAAGCAGATCATC
TTTATGATTAGAACAATTTGCTCAAAGCCCTGGAAAATGCCTGGTAACCCAGTGCCTAGAATATTATATGATTCC
AGGGGATGGCTAGAGGCATTTCTGTTGTTATCTCTGAAACATTTTTATATCAAAAATCAGATTGCTGGTAGGTGT
GTTGTTTTGAAGTGTTTTATCTGGATTTAGCATGTGAAGATCCCTTTCAATTATTAAGGTATAATAGGCTGTAAA
GCTGATTTACCCTACTGCTGGACTTTGGAAATCCTAGTTAGTTTGGACTCCTATAATTCAGAGCATACGTCATTG
GAAGACTTCCTGGAAATCAGTGTAAATCTTGCAACATAGCTCTCAAGATACCACTGTATAATATGTAATTGTTTG
TCTGCAAATGCATTTTTCATCTATAAAATGTCATGAAAGAAAATAAAGGTAGTGAAATATGGACAAAGGACATTT
ATATATTAACTAAAGTTGTTTATGTTTGTGTTCTTAAATTTAAAACACGAAGAAAAAGAAATGTCTTTCTTGTTA
GTGAACAGGCCTGTTTTAAATATCTTAGTATGATATCAAAAGAATAATCAATTTAGTTACCTCCCAACTAAAAAG
TAAAAATGAAAAAGACGACATGGCAGAAGTTGAAACAAACTTGTATGTATCTGTATGTGACCTCTAGATGGAAAT
AAAAGTTTGATGTTTGCTAGCCGTGGTCCTTTTGGCTATGGTTGCGGTTCCCCTGTAAAGCAAATGTACTTAAGT
CATCATTCAGAGTGAGAGAGAGAAAGCACGGCTGAGGCTGAGTCAGTTGACCGTTGAGGAAGACCTAAGGAGCTG
TCCAGTTCTTGGCTCTTTTTCACTGTGACTGCACAGCGGTTTCCTTCTTCATAGTCCCTTGCTGTAGTCACCAAG
AGAGCATGCTAGTGTTTTCCTCTTGTTCCTGCTTATGCAGAGCTCAGATATATGAAAAATTTGTATGCTTTGAAG
GCTGCCAAAGCATTTATACTCTGGACATAGTTTTAACTGCAACTGCTTTGGCTACCAGTTTAAACCGAGTTCTTC
AAAAAGCATGAACTCGTTTTCATTCATTAGCCCTGTTTACAATGTGGATTTTGACATAAATGAATTTGATTTTCT
TTTAGCTCCAGTAACAGAATGGAATAAGATCTATTGCCATAAATTGTAGTTAAGAACTGTAAGGCAATCGGGCAG

FIGURE 4604B

TGAAACTTGATATTGTATTAACTTAATAGGAACCCTGTGTACAATTTAAAATATTTGTAAAATATCACTGTGAAT
TTACAGATGTCTTTTTGTCATTCTTTAACAATGAATTTCCCCTGTGCATAGTTATTAATAGTATTGGTATTATTA
AAAACTAATTTGGCATTTT

FIGURE 4605

GCGCCGAGCCGGTTTCCCCGCCGGTGTCCGAGAGGCGCCCCCGGCCCGGCCCGGCCCGGCCCGCGCCCTCCGCCC
CCGCCTCCCCGGGCCGGCGGCGGTGGGCGAGCTCGCGGGCCCGGCCGCCCCCAGCCCCAGCCCCGCCGGGCCCCG
CCCCCCGTCGAGTGC**ATG**AGGTTGACGCTACTTTGTTGCACCTGGAGGGAAGAACGTATGGGAGAGGAAGGAAGC
GAGTTGCCCGTGTGTGCAAGCTGCGGCCAGAGGATCTATGATGGCCAGTACCTCCAGGCCCTGAACGCGGACTGG
CACGCAGACTGCTTCAGGTGTTGTGACTGCAGTGCCTCCCTGTCGCACCAGTACTATGAGAAGGATGGGCAGCTC
TTCTGCAAGAAGGACTACTGGGCCCGCTATGGCGAGTCCTGCCATGGGTGCTCTGAGCAAATCACCAAGGGACTG
GTTATGGTGGCTGGGGAGCTGAAGTACCACCCCGAGTGTTTCATCTGCCTCACGTGTGGGACCTTTATCGGTGAC
GGGGACACCTACACGCTGGTGGAGCACTCCAAGCTGTACTGCGGGCACTGCTACTACCAGACTGTGGTGACCCCC
GTCATCGAGCAGATCCTGCCTGACTCCCCTGGCTCCCACCTGCCCCACACCGTCACCCTGGTGTCCATCCCAGCC
TCATCTCATGGCAAGCGTGGACTTTCAGTCTCCATTGACCCCCCGCACGGCCCACCGGGCTGTGGCACCGAGCAC
TCACACACCGTCCGCGTCCAGGGAGTGGATCCGGGCTGCATGAGCCCAGATGTGAAGAATTCCATCCACGTCGGA
GACCGGATCTTGGAAATCAATGGCACGCCCATCCGAAATGTGCCCCTGGACGAGATTGACCTGCTGATTCAGGAA
ACCAGCCGCCTGCTCCAGCTGACCCTCGAGCATGACCCTCACGATACACTGGGCCACGGGCTGGGGCCTGAGACC
AGCCCCCTGAGCTCTCCGGCTTATACTCCCAGCGGGGAGGCGGGCAGCTCTGCCCGGCAGAAACCTGTCTTGAGG
AGCTGCAGCATCGACAGGTCTCCGGGGCGCTGGCTCACTGGGCTCCCCGGCCTCCCAGCGCAAGGACCTGGGTCGC
TCTGAGTCCCTCCGCGTAGTCTGCCGGCCACACCGCATCTTCCGGCCGTCGGACCTCATCCACGGGGAGGTGCTG
GGCAAGGGCTGCTTCGGCCAGGCTATCAAGGTGACACACCGTGAGACAGGTGAGGTGATGGTGATGAAGGAGCTG
ATCCGGTTCGACGAGGAGACCCAGAGGACGTTCCTCAAGGAGGTGAAGGTCATGCGATGCCTGGAACACCCCAAC
GTGCTCAAGTTCATCGGGGTGCTCTACAAGGACAAGAGGCTCAACTTCATCACTGAGTACATCAAGGGCGGCACG
CTCCGGGGCATCATCAAGAGCATGGACAGCCAGTACCCATGGAGCCAGAGAGTGAGCTTTGCCAAGGACATCGCA
TCAGGGATGGCCTACCTCCACTCCATGAACATCATCCACCGAGACCTCAACTCCCACAACTGCCTGGTCCGCGAG
AACAAGAATGTGGTGGTGGCTGACTTCGGGCTGGCGCGTCTCATGGTGGACGAGAAGACTCAGCCTGAGGGCCTG
CGGAGCCTCAAGAAGCCAGACCGCAAGAAGCGCTACACCGTGGTGGGCAACCCCTACTGGATGGCACCTGAGATG
ATCAACGGCCGCAGCTATGATGAGAAGGTGGATGTGTTCTCCTTTGGGATCGTCCTGTGCGAGATCATCGGGCGG
GTGAACGCAGACCCTGACTACCTGCCCCGCACCATGGACTTTGGCCTCAACGTGCGAGGATTCCTGGACCGCTAC
TGCCCCCCAAACTGCCCCCCGAGCTTCTTCCCCATCACCGTGCGCTGTTGCGATCTGGACCCCGAGAAGAGGCCA
TCCTTTGTGAAGCTGGAACACTGGCTGGAGACCCTCCGCATGCACCTGGCCGGCCACCTGCCACTGGGCCCACAG
CTGGAGCAGCTGGACAGAGGTTTCTGGGAGACCTACCGGCGCGGCGAGAGCGGACTGCCTGCCCACCCTGAGGTC
CCCGAC**TGA**GCCAGGGCCACTCAGCTGCCCCTGTCCCCACCTCTGGAGAATCCACCCCCACCAGATTCCTCCGCG
GGAGGTGGCCCTCAGCTGGGACAGTGGGGACCCAGGCTTCTCCTCAGAGCCAGGCCCTGACTTGCCTTCTCCCAC
CCCGTGGACCGCTTCCCCTGCCTTCTCTCTGCCGTGGCCCAGAGCCGGCCCAGCTGCACACACACACCATGCTCT
CGCCCTGCTGTAACCTCTGTCTTGGCAGGGCTGTCCCCTCTTGCTTCTCCTTGCATGAGCTGGAGGGCCTGTGTG
AGTTACGCCCCTTTCCACACGCCGCTGCCCCAGCAACCCTGTTCACGCTCCACCTGTCTGGTCCATAGCTCCCTG
GAGGCTGGGCCAGGAGGCAGCCTCCGAACCATGCCCCATATAACGCTTGGGTGCGTGGGAGGGCGCACATCAGGG
CAGAGGCCAAGTTCCAGGTGTCTGTGTTCCCAGGAACCAAATGGGGAGTCTGGGGCCCGTTTTCCCCCCAGGGGG
TGTCTAGGTAGCAACAGGTATCGAGGACTCTCCAAACCCCCAAAGCAGAGAGAGGGCTGATCCCATGGGGCGGAG
GTCCCCAGTGGCTGAGCAAACAGCCCCTTCTCTCGCTTTGGGTCTTTTTTTTGTTTCTTTCTTAAAGCCACTTTA
GTGAGAAGCAGGTACCAAGCCTCAGGGTGAAGGGGGTCCCTTGAGGGAGCGTGGAGCTGCGGTGCCCTGGCCGGC
GATGGGGAGGAGCCGGCTCCGGCAGTGAGAGGATAGGCACAGTGGACCGGGCAGGTGTCCACCAGCAGCTCAGCC
CCTGCAGTCATCTCAGAGCCCCTTCCCGGGCCTCTCCCCCAAGGCTCCCTGCCCCTCCTCATGCCCCTCTGTCCT
CTGCGTTTTTTCTGTGTAATCTATTTTTTAAGAAGAGTTTGTATTATTTTTTCATACGGCTGCAGCAGCAGCTGC
CAGGGGCTTGGGATTTTATTTTTGTGGCGGGCGGGGGTGGGAGGGCCATTTTGTCACTTTGCCTCAGTTGAGCAT
CTAGGAAGTATTAAAACTGTGAAGCTTTCTCAGTGCACTTTGAACCTGGAAAACAATCCCAACAGGCCCGTGGGA
CCATGACTTAGGGAGGTGGGACCCACCCACCCCCATCCAGGAACCGTGACGTCCAAGGAACCAAACCCAGACGCA
GAACAATAAAATAAATTCCGTACTCCCCACCC

FIGURE 4606

GACGGCAA**ATG**GCGGACTTCGACACCTACGACGATCGGGCCTACAGCAGCTTCGGCGGCGGCAGAGGGTCCCGCG
GCAGTGCTGGTGGCCATGGTTCCCGTAGCCAGAAGGAGTTGCCCACAGAGCCCCCCTACACAGCATACGTAGGAA
ATCTACCTTTCAATACGGTTCAGGGCGACATAGATGCTATCTTTAAGGATCTCAGCATAAGGAGTGTACGGCTAG
TCAGAGACAAAGACACAGATAAATTTAAAGGATTCTGCTATGTAGAATTCGATGAAGTGGATTCCCTTAAGGAAG
CCTTGACATACGATGGTGCACTGTTGGGCGATCGGTCACTTCGTGTGGACATTGCAGAAGGCAGAAAACAAGATA
AAGGTGGCTTTGGATTCAGAAAAGGTGGACCAGATGACAGAGGAATGGGTAGCTCTCGAGAATCTAGAGGTGGAT
GGGATTCCCGGGATGACTTCAATTCTGGCTTCAGGGATGACTTCTTAGGGGGCAGGGGAGGTAGTCGCCCAGGCG
ACCGGCGAACAGGCCCCCCCATGGGCAGCCGCTTCAGAGATGGCCCTCCCCTCCGTGGATCCAACATGGATTTCA
GAGAACCCACAGAAGAGGAAAGAGCACAGAGACCACGACTCCAGCTTAAACCTCGAACAGTCGCGACGCCCCTCA
ATCAAGTAGCCAATCCCAACTCTGCTATCTTCGGGGGTGCCAGGCCTAGAGAGGAAGTCGTTCAAAAGGAGCAAG
AA**TGA**GCCTGCGGTTGGGAGGGAATGGGGCGTGGGGGGTTAGAGCAGGACCACAGCCTGGTGAGTCCCCGGGCAG
CCGTCCTGCAGCCGCCACTCCTGCGCCTGCCATTGGCCTCCTCACAGCGGAAACACAGCTTGTGAGTGCATGTCA
GCTGTTAACAAGTGGTTTTTAGTACATTCTGGGCTTTGCTGTATCTATCTAGTGCCTGTTTGTGCGTTTTTTTCT
TTCTTCCGCTGCTTCCCCATTTTCCTTCTGTCCTTTTTCTCCTGCTCCTTGTTTTCCCAGCAGCACATGGGGTTC
CTCGGAGGAGCAGAGGTGGCCGCCGTGGGGGGGCGTTTGGGCTGCGGTGCTGCGTCATTTTTCCTTTGCTTTCTC
TTTACTTTAGACACTGGCCCAACTCCAGGCGTTTCCTTTCATTCCCTCAGTGCTTCTCTTCTGACCTGCATGTTG
AGTTCTGTATTGCTGGGGCTTCCAACAAAAACCAGAGTCACTGACAGAGGGAACAGCAGAGACCTTGTTGGTATT
CAGCTGTGATGGATATAGAGAATCAGAGGCACCTTGTTTTCACAACTAGGATAAAAATATCTGCAGGGTCCTTTC
CATTCCTATTTAGAGGGAGTCCTGGCTCCATGACCCCCTCCCGAGTGGACTGTCCAAGCAGATAGGCTCACACGA
GAAACAGTGAGGCTGAAAGGGGGGGCTATGGAAGAGCGGTAGGGAGTCCACGGAGAAGATGCAGTGAATGCTTGC
ATGCATTCACACGTGTGTGTGTCCCAGCTAGTTCACTCCTTTCGCCGTGCGTGGTGGAGGCTGGCCTCTCTGGCT
GGGTGCAGTGAATGGCCAGCGGGTTTCTTTTCTGCTGGGCCAAGGCGCTTTGGGGGTGGAGGGGGTGGTGCTGGT
GCTGCACTGGGCTGACTGCGGCGCTGACGCAGCGTTTCCCCCCATCCCTGTTGCCTGTGTGTTGTGTGGATCTGT
TCCTAGTATAGGCAACATAATGAGATACTGTGCTTCCCACCTCCCCTTCAGTTCAGAGCCAAAATGGGTCTAGAA
TCTGGCACTTTACTCATTTCCTTTGATAAATTGTACTATGCAGAGCTGTCAGGAACCTTCAGATAGCAGTAGAGG
ACTGCAGCTGTCTAGGTCTGCGGCCACATCTTGGGGACACACTGGACTGTTCCCATGTGCAGGGTTCAGCAGTTA
TGTGGGAGTGCTAGGGGTTAGGCTTTTGAGCTTGAACGCCTGCGTGTGAACAGATGAAAAATCCTTCAGTACCCA
AGTCCCAGTCTGTCCTATGGGGAGCAGTTTGGGGGCGGCCGGCAGCAGGAGCCTGGGAAAGAGGCCCTCGCCAGG
TGATGGCAGGGCCAGGGTGGCCTGGGGCACCCAGCGGAATGTGCTTAGTATTTGGTCACCAGCCGTCATCCTGGG
CTTTTCCTACTGTGTCTTGTTACAAGGCCTCAGCAATCCACAGAACTCTCTCTCCTTCCTTCCACCTGTCAGCTT
CTCTGCTTCTGAGATAAGAACCATTTGTGTAACACCAACACTTAACTTCAGAAAGACATGCATTATGTGGTGTAA
TCAAACCCGATGCTTTCAGATGACCTACTTACATCTTCAATGTGGATAAGATAAAGAACAAAACACATGCATCTA
AACTGCTGGGCAATCCAGTTGACTTTTAAATGTAAGAATGGAATTCCAAACACTTAACACATTCAGCTATATGAC
AGAAAGTAAATCTATGGATATGGTATTTTGTGAATGATCTTTTAAATAAAAGAAAACCTTACGTAATATTT

FIGURE 4607

CAGTGCGGCGGATGTACGGATGATTCAGTGGCTGGCAGGAAGCCCGCCCTGCCCGCCCGCCAGTGTCAGTGGTGT
TGGCATCAGCTTGGGCAGGTGTGCGGGCTCAGGATGGGGCGGCCGTGGTGAGGAACCCTGGACTCTCAGAGATGG
AATTTCACCGTGTTGCCTAGGCTGGTCTGGAGCTCTTGATCTCAAGCGATCCTCCCTGCCTCGGCCTCCCAACGT
GCTGGGATTATAGGCGTGAGCCACCGCTCCTGGCCAGGGTCTGTTCCTAGTTGCAACAGTTCTTGGAAACCCACT
CGAGAGGGCCACGCCTCCATTCACCAGGCCACGCATCACAAGAGGCAACACCAGGAGCCAAC**ATG**AGCTCGGGGA
CTGAACTGCTGTGGCCCGGAGCAGCGCTGCTGGTGCTGTTGGGGGTGGCAGCCAGTCTGTGTGTGCGCTGCTCAC
GCCCAGGTGCAAAGAGGTCAGAGAAAATCTACCAGCAGAGAAGTCTGCGTGAGGACCAACAGAGCTTTACGGGGT
CCCGGACCTACTCCTTGGTCGGGCAGGCATGGCCAGGACCCCTGGCGGACATGGCACCCACAAGGAAGGACAAGC
TGTTGCAATTCTACCCCAGCCTGGAGGATCCAGCATCTTCCAGGTACCAGAACTTCAGCAAAGGAAGCAGACACG
GGTCGGAGGAAGCCTACATAGACCCCATTGCCATGGAGTATTACAACTGGGGGCGGTTCTCGAAGCCCCCAGAAG
ATGATGATGCCAATTCCTACGAGAATGTGCTCATTTGCAAGCAGAAAACCACAGAGACAGGTGCCCAGCAGGAGG
GCATAGGTGGCCTCTGCAGAGGGGACCTCAGCCTGTCACTGGCCCTGAAGACTGGCCCCACTTCTGGTCTCTGTC
CCTCTGCCTCCCCGGAAGAAGATGAGGAATCTGAGGATTATCAGAACTCAGCATCCATCCATCAGTGGCGCGAGT
CCAGGAAGGTCATGGGGCAACTCCAGAGAGAAGCATCCCCTGGCCCGGTGGGAAGCCCAGACGAGGAGGACGGGG
AACCGGATTACGTGAATGGGGAGGTGGCAGCCACAGAAGCC**TAG**GGCAGACCAAGAAGAAAGGAGCCAAGGCAAA
GAGGGACCACTGTGCTCATGGACCCATCGCTGCCTTCCAAGGACCATTTCCCAGAGCTACTCAACTTTTAAGCCC
CTGCCATGGTTGCTCCTGGAAGGAGAACCAGCCACCCTGAGGACCACCTGGCCATGCGTGCACAGCCTGGGAAAA
GACAGTTACTCACGGGAGCTGCAGGCCCGTCACCAAGCCCTCTCCCGACCCAGGCTTTGTGGGGCAGGCACCTGG
TACCAAGGGTAACCCGGCTCCTGGTATGGACGGATGCGCAGGATTTAGGATAAGCTGTCACCCAGTCCCCATAAC
AAAACCACTGTCCAACACTGGTATCTGTGTTCTTTTGTGCTATGAATTTGGATTCCTAATTGCTATTGTTGGTTG
CTGGGGTTTTAAATGATTGATAAGCTTGTACAGTTAACTTATAGAGGGGGAGCCATATTTAACATTCTGGATTTC
AGAGTAGAGATTTCTGTGTTGTCTCCTAGAAAGCATTACATGTAGTTTATTTCAGCATCCTTGTTGGGTGGGGCC
CTGGCTCTCTTCCCCTTTGGTGGGACCTCCCCTTTCTTTGGGCTTCAGTTCACTCAGGAAGAAATGAGGCTGTCG
CCATCTTTATGTGCTTCCAGTGGAAATGTCACTTGCTACAGACAATAGTGCATGAGAGTCTAGAGAAGTAGTGAC
CAGAACAGGGCAGAGTAGGTCCCCTCCATGGCCCTGAATCCTCCTCTGCTCCAGGGCTGGCCTCTGCAGAGCTGA
TTAAACAGTGTTGTGACTGTCTCATGGGAAGAGCTGGGGCCCAGAGGGACCTTGAGTCAGAAATGTTGCCAGAAA
AAGTATCTCCTCCAACCAAAACATCTCAATAAAACCATTTTAGTTG

FIGURE 4608

GGGAAGAGGAGGCGCGAGA**ATG**GAGGTGGAGGCCGTCTGTGGTGGCGCGGGCGAGGTGGAGGCCCAGGACTCTGA
CCCTGCCCCTGCCTTCAGCAAGGCCCCCGGCAGCGCCGGCCACTACGAACTGCCGTGGGTTGAAAAATATAGGCC
AGTAAAGCTGAATGAAATTGTCGGGAATGAAGACACCGTGAGCAGGCTAGAGGTCTTTGCAAGGGAAGGAAATGT
GCCCAACATCATCATTGCGGGCCCTCCAGGAACCGGCAAGACCACAAGCATTCTGTGCTTGGCCCGGGCCCTGCT
GGGCCCAGCACTCAAAGATGCCATGTTGGAACTCAATGCTTCAAATGACAGGGGCATTGACGTTGTGAGGAATAA
AATTAAAATGTTTGCTCAACAAAAAGTCACTCTTCCCAAAGGCCGACATAAGATCATCATTCTGGATGAAGCAGA
CAGCATGACCGACGGAGCCCAGCAAGCCTTGAGGAGAACCATGGAAATCTACTCTAAAACCACTCGCTTCGCCCT
TGCTTGTAATGCTTCGGATAAGATCATCGAGCCCATTCAGTCCCGCTGTGCAGTCCTCCGGTACACAAAGCTGAC
CGACGCCCAGATCCTCACCAGGCTGATGAATGTTATCGAGAAGGAGAGGGTACCCTACACTGATGACGGCCTAGA
AGCCATCATCTTCACGGCCCAGGGAGACATGAGGCAGGCGCTGAACAACCTGCAGTCCACCTTCTCAGGATTTGG
CTTCATTAACAGTGAGAACGTGTTCAAGGTCTGTGACGAGCCCCACCCACTGCTGGTAAAGGAGATGATCCAGCA
CTGTGTGAATGCCAACATTGACGAAGCCTACAAGATTCTTGCTCACTTGTGGCATCTGGGCTACTCACCAGAAGA
TATCATTGGCAACATCTTTCGAGTGTGTAAAACTTTCCAAATGGCAGAATACCTGAAACTGGAGTTTATCAAGGA
AATTGGATACACTCACATGAAAATAGCGGAAGGAGTGAACTCTCTTTTGCAGATGGCAGGCCTCCTGGCAAGGCT
GTGTCAGAAGACAATGGCCCCGGTGGCCAGT**TAG**AGCAGAGACTTCACTGACTGACTTACAGGTGCCCTATTCTG
AGGTACAGGAGCCGCGGCTTTCTGATGGGGGAAAATGCCGCCTTAGGCTGGAGCCAACATGACTGTCCTTTAAAC
TCCAGTGGCTGGCCAGGCACGGTAGCTCACGCCTGTAATCCCAACACTTTGGGAGGCCGAGGCAGGTGGATCACC
TGAGGTCAGAAGTTCAAGACCAGCCTGGCCAACATGGGGAAACCCTGTCTTTACTAAAAATATAAAAATTAGCTG
GGTGTGGTGGCGGGCACCTGTAATCCCAGCTACTCGGGAGGCTGTGGCAGGAGAATCGCTTGAACCCAGGAGGTG
GAGGTTGCAGTGAGCCAAGATCACACCATTGCACTCCAGCCTGGGCGACAGAGTCTCCATCTGGGGAAAAAAATT
AAATAAATAAACTCCCG

FIGURE 4609A

CGGCTCGGCCGCGGGGCGCGCAGGCGGCTGCTGGGCGGCCTCGGTGCGCGCCTCCCGCCTTCCCAGAGACGTGGC
GCGAGGCCCGGGCCCTGAGCACCTATCGCGGGGATCCCCGGCGCCAGGAGGGGGTGCAGCCGGTGGGCAGCGCCG
CGCAGGGAGGGGCCGCAGCATCCTCGCCCCCCAGCGCGCCCGGGCCCGAGAGGAGGAGGCCGGGGCTCTCCGGGC
CTCCCGCCGCTTAGCCTGATGCTGGAAGGACGAAGGTGAGTGAAGATGGCAGAGAGGACGTGACCAGCACTCACC
CTTGTCCACCTGCCCAGTGGCACCGCC**ATG**CAGAAGCCCAGCGGCCTGAAGCCCCCCGGCCGTGGGGGGAAGCAC
TCCAGCCCCATGGGCCGGACATCTACTGGGTCAGCTTCATCCTCGGCGGCGGTGGCCGCTAGCTCCAAGGAAGGC
TCCCCACTGCACAAACAGTCATCTGGACCCTCCTCCTCCCCGGCCGCAGCTGCTGCCCCCGAGAAGCCGGGCCCC
AAGGCGGCGGAAGTGGGGGATGACTTCCTGGGGGACTTTGTGGTGGGCGAGCGGGTGTGGGTGAACGGCGTGAAG
CCAGGCGTGGTGCAGTATCTGGGAGAGACGCAGTTCGCACCGGGCCAGTGGGCTGGCGTGGTGCTGGACGACCCG
GTGGGCAAGAATGATGGCGCGGTGGGCGGCGTGCGCTACTTCGAGTGCCCGGCCCTCCAGGGTATCTTCACGCGG
CCCTCCAAGCTGACCCGGCAGCCCACGGCCGAGGGCTCGGGGAGTGATGCCCACTCCGTGGAGTCGCTGACTGCC
CAGAACCTGTCATTGCATTCGGGCACGGCCACGCCCCCGCTGACCAGCCGCGTCATCCCCCTGCGGGAGAGCGTC
CTCAACAGCTCCGTGAAGACTGGCAACGAGTCGGGATCCAACCTCTCAGACAGCGGCTCTGTGAAGCGGGGCGAA
AAGGACCTGCGCCTGGGGGACCGCGTGCTGGTTGGCGGGACGAAGACTGGCGTGGTGCGGTACGTGGGGGAGACA
GACTTTGCCAAGGGCGAGTGGTGTGGCGTGGAGCTGGACGAGCCCCTTGGGAAGAATGATGGGGCGGTGGCGGGC
ACCAGGTACTTCCAGTGCCCACCCAAGTTTGGTCTCTTCGCGCCCATCCACAAAGTGATCCGTATCGGCTTCCCA
TCTACCAGCCCAGCCAAGGCCAAGAAGACCAAGCGTATGGCCATGGGTGTGTCAGCACTGACCCACAGTCCCAGC
AGTTCCTCCATCAGCTCCGTCAGCTCTGTGGCCTCCTCCGTGGGGGGTCGGCCCAGCCGCAGTGGCCTGCTCACG
GAGACCTCTTCACGCTACGCCCGCAAGATCTCGGGCACCACGGCCTTGCAGGAGGCACTGAAGGAGAAGCAGCAG
CACATTGAGCAGCTGCTGGCTGAACGAGACCTGGAACGGGCTGAGGTGGCCAAGGCCACAAGCCACATCTGCGAG
GTGGAGAAGGAGATTGCCCTGCTCAAGGCACAGCATGAGCAGTATGTTGCAGAAGCCGAGGAGAAGCTGCAGCGA
GCCCGGCTGCTCGTGGAGAGCGTGCGGAAAGAGAAGGTGGACCTGTCCAACCAGCTGGAGGAGGAGAGGAGGAAG
GTGGAGGATCTGCAGTTCCGCGTGGAGGAGGAGTCCATCACCAAGGGAGACCTGGAGACCCAGACGCAGCTGGAG
CACGCGCGCATTGGGGAGCTGGAACAGAGCCTGCTACTGGAGAAGGCGCAGGCCGAGCGGCTGCTCCGAGAATTA
GCGGACAACAGGCTGACCACAGTGGCCGAGAAGTCGCGCGTGCTGCAGCTGGAGGAGGAGCTCACCCTGCGCCGA
GGTGAAATCGAGGAGCTCCAGCAGTGCCTGTTGCACTCGGGTCCCCCACCTCCGGACCACCCAGACGCCGCCGAG
ATCCTGCGGCTACGGGAGCGGCTGCTCTCGGCCAGCAAGGAACACCAGAGGGAGAGTGGGGTGCTGCGGGATAAA
TACGAGAAGGCCCTGAAGGCCTACCAGGCGGAGGTGGACAAGCTCCGCGCGGCCAACGAGAAGTACGCACAGGAG
GTGGCGGGCCTGAAGGACAAGGTTCAGCAGGCCACCAGCGAGAACATGGGGCTAATGGACAACTGGAAATCCAAG
CTGGACTCGCTGGCCTCGGACCACCAGAAGTCCCTGGAGGACCTCAAAGCCACCCTGAACTCGGGCCCAGGCGCC
CAGCAGAAGGAGATCGGCGAGCTGAAGGCAGTGATGGAGGGCATCAAGATGGAGCACCAGCTGGAGCTGGGTAAC
TTGCAGGCCAAGCATGACCTGGAGACCGCCATGCACGTGAAGGAGAAGGAGGCCCTGCGAGAGAAGCTGCAGGAG
GCCCAGGAGGAGCTGGCTGGGCTGCAGCGGCACTGGCGGGCCCAGCTGGAGGTGCAAGCCAGCCAGCACCGGCTG
GAGCTGCAGGAGGCCCAGGACCAGCGCCGGGATGCCGAGCTGCGTGTGCACGAGCTGGAAAAACTGGACGTGGAG
TACCGGGGCCAGGCGCAGGCTATCGAGTTCCTCAAGGAGCAGATCTCGCTGGCCGAGAAGAAGATGTTGGACTAC
GAGCGGCTGCAGCGGGCAGAAGCCCAGGGCAAACAGGAGGTCGAGAGTTTGCGGGAGAAGCTCCTGGTGGCTGAG
AACAGACTCCAGGCGGTCGAGGCCCTGTGCTCCTCCCAGCACACCCACATGATTGAGTCGAATGACATTTCAGAG
GAGACGATCAGGACGAAGGAAACTGTGGAGGGCCTGCAGGACAAGCTGAACAAGAGGGACAAAGAGGTGACAGCC
TTGACCTCCCAGACCGAGATGCTCAGGGCCCAAGTAAGTGCGCTGGAGAGCAAGTGTAAGTCAGGCGAGAAGAAG
GTGGACGCCCTCCTGAAGGAGAAGCGGCGCCTGGAGGCAGAGCTGGAGACCGTGTCCCGGAAGACCCATGACGCC
TCGGGCCAGCTAGTCCTCATCAGCCAGGAGCTGCTGCGGAAGGAGCGGAGCCTGAACGAACTGCGGGTGTTGCTG
CTGGAGGCCAATCGTCACTCCCCAGGGCCGGAGAGGGACCTGAGCCGTGAGGTACACAAGGCTGAGTGGCGGATC
AAGGAGCAGAAACTCAAGGATGACATCCGGGGCCTGCGTGAAAAGCTGACCGGGCTGGACAAAGAGAAATCCCTG
TCGGATCAGAGGCGCTACTCCCTCATCGACCGGTCCTCGGCGCCCGAGCTTCTGCGGCTGCAGCACCAGCTGATG
AGCACGGAGGACGCCCTGCGGGATGCGCTGGACCAGGCTCAGCAGGTGGAGAAGCTGATGGAGGCCATGAGGAGC
TGCCCTGACAAGGCCCAGACCATCGGCAATTCCGGTTCTGCAAACGGCATCCACCAGCAGGACAAAGCTCAGAAA
CAAGAGGACAAGCAC**TGA**TCCTGAGGGGATACTGTGGAGCAGCCCAGTCCACACCAGAGCCCCACGCGGCTGCCC
GGCAGTACCTCCTCCAGGCAGGAGCCGGGACTGTCACTTTGGAGACAAAACAGTGTTTGTAACAATAACGTACTC

FIGURE 4609B

ACCGCCGCGGACAATCCCCCACCCCGATCCCTCGCCAGACCAGGACGCTTCCTCAAGCCCAGCCTTCTACAGAGA
GTGTGAACGGTACAGCCCCGGCCTGACCCGGGGACCTTCAGCCTGGACACCCGGCAGCTTCTGGAGTTTGTCAGT
GGAGGCAGAGGGGATCCGGCCAGGCCCCTCTGTCCAGAAGGAGCTGCCCTGAGGACCATCTTAGCGGCCCTGTCC
TCTTTTTCCGCCCATTCTCCCTCGGGTCTCCCCAGAGGGGCCGGCGGGGGCTGGGGAGGGGGTAAGTTTATCCAT
GCAGACACCAAGGGGGAGCATCCAGTCTTTAAGAGCCAAGTGGGGGCCCCTTTTCCGAAGCCACTTCCAGGCCAA
GGCAGTCGCCAGGGCTTCTTGTCCCCACCTTCTGAACCTTCTTCAAACAGTAGTACAAGCTCCCCTCAGCCAGCC
TGCCTGCCCAGCGAGGCCCCCAGGTTCAAGGTGTTGGCGGGGGCGGAGGGCAGGGGAACGGGATCCTTCTCCCGC
TGCCCACCAACACCAACACACACACACCTCTAAGCTGCTGGCCGAAGATGTCACCAAGGCCAAAGACACAGTATT
ATGAAGGTTTGGAAACCCCTCTCCTCACCTCCCACCGTGACCTTGGGCAAACCCTGGCTCGGAGCCCAGGGCAGA
GGCAGCTCAGAGTGGAGGCTCTAGGCAGGTTTGACAAAGGTCAGTAATACGGTTTCCCCTGGGGTTGACCAGATG
TTCCAAAATATCTGCATCCACCTGGAGATGCAGCTAAGTGGGTCCTTATGTACACACCACGTTCACACACACACA
GAGGGACCACGTGTGCACGCATGACCGTGTGGGTGGCGGCGTTTGCTGTGAACCACGCTCAGGCCACACAGAGAC
ACATACTTGGTTTCTGGGACTGAGACCCAGGCCTGGCAGGACCGTGCCTACAGATACTGCAAACGTTCCTACAGC
CTAGAGGTGCGTATACACACCCAAGTACACGCAGCCAGGCATTCAGGGGTGTGTTTGCCACATGGAGCATCCCTT
CCTGGTCTTGCCAGGCACCTGCACAGAGCGTCTCCAGCCCCATCTCCTAACGGGGGCTGGGGGTAAGAGAAATCT
AACTGCGCTCCCCCAACCCCTCGCCCTGCCATCTTCCCCTCAAGCCTGCTAAGTTATCCCAGGCCTGTGCGTGGT
GGAAAAAGCCAGCCTTGGCCCTGCAGCCTCCACCTCGCCGCTGGGGGACCAACAGGTTGCTTACAGCTTTGCACC
CCGGCATCAGCACAGGGGTCCCTGCCCCACCCTCCGGCAGCTCAGGGAGTGTTTTCCTGTGAGGCCTCCCCCATC
AGTGGACCAGAGGGAGAAGCCCGATGCCCCATCCCGGCTTTCCCGTAACGCACAGGACACGTGTGCAATTCATAG
GAACGGCCCAGATCGCCCTCATGAGTGCCACCTGGTACAGGTAGGTGGCGCTCACGTTCCTGCCCAAATGCAGCC
CATCGGGGAGTCACAGTCAGTCCCCCCGGCCCCCCTCCCAGTCCCTGTTGGCTTTCGGTAGCTCTCGCATGCAGT
TCTATTAACAGCCGTCTAGAAGCGATGCTTTAGTGGCCTAACCCAGGGTCAAATACAGCTCTTTCTAGCAAAATC
AGGCAGCTCTGCCCCATCGGTAGGGGCACCGATTAGTCTACTAACAGCCAGAGGTCCATCTAGCAGGGTGCCGGG
AGGAGCTGAGCCCCCGGAGGTGGGCTCCTGGTGACGGGTGTCCAAGAAGCGGTTTCCTTGGGAGCTTCTGCCTCC
GTGGGCCTCTCAGCCCGCCCCGTGTGGCCGCCCGGGTGTGGCTCAGCCATGTCCCCTCCCCAGGTCCTTCATTCA
CCCCTCCCCTCCCCACAGTGGAATTGTTGAAGTGTGGCGAGTCTGTGCTCGGGACAATAAAGCTTGTGACAGGTC
CAGG

FIGURE 4610

TAAATGGCAGCCAATGGAGGGTGGTGTTGCGCGGGGCTGGGATTAGGGCCGGGGCGAATGGCTGGCAATCTTACT
GGGATTACAGAACAAAGAGCCTCCCCGCGCTCCCGCTCTCCGCTCCTCTCCCCGCGCCGCCCCGCCCTCCGCCGC
AGCCCGCGCCGGGGGTGGGGGCCGCCGAGCGCCAGCCCCCCGGCCGGCCGATTCCCCCCCCGCGCCCCCTCCCCG
CGCCTCCCTCCCCGCCCTCGCCGCGCCGCCGTCCTCGCCTCCCTCTGCCTCTCCTTCCCCCATTCTCCCGGATTA
ATTAAGGAGGCAGCGGCAGGAGGCTGAGTCCTGGCCGCGGGCCGGGGCCGGGGCGCCGCTGGCAGGAGCGCTTGG
GGATCCTCCAAGGCGACC**ATG**GCCTTGCTGGGTAAGCGCTGTGACGTCCCCACCAACGGCTGCGGACCCGACCGC
TGGAACTCCGCGTTCACCCGCAAAGACGAGATCATCACCAGCCTCGTGTCTGCCTTAGACTCCATGTGCTCAGCG
CTGTCCAAACTGAACGCCGAGGTGGCCTGTGTCGCCGTGCACGATGAGAGCGCCTTTGTGGTGGGCACAGAGAAG
GGGAGAATGTTCCTGAATGCCCGGAAGGAGCTACAGTCAGACTTCCTCAGGTTCTGCCGAGGGCCCCCGTGGAAG
GATCCGGAGGCAGAGCACCCCAAGAAGGTGCAGCGGGGCGAGGGTGGAGGCCGTAGCCTCCCTCGGTCCTCCCTG
GAACATGGCTCAGATGTGTACCTTCTGCGGAAGATGGTAGAGGAGGTGTTTGATGTTCTTTATAGCGAGGCCCTG
GGAAGGGCCAGTGTGGTGCCACTGCCCTATGAGAGGCTGCTCAGGGAGCCAGGGCTGCTGGCCGTGCAGGGGCTG
CCCGAAGGCCTGGCCTTCCGAAGGCCAGCCGAGTATGACCCCAAGGCCCTCATGGCCATCCTGGAACACAGCCAC
CGCATCCGCTTCAAGCTCAAGAGGCCACTTGAGGATGGCGGGCGGGACTCGAAGGCCCTGGTGGAGCTGAACGGT
GTCTCCCTGATTCCCAAGGGGTCACGGGACTGTGGCCTGCATGGCCAGGCCCCCAAGGTGCCACCCCAGGACCTG
CCCCCAACCGCCACCTCCTCCTCCATGGCCAGCTTCCTGTACAGCACGGCGCTCCCCAACCACGCCATCCGAGAG
CTCAAGCAGGAAGCACCTTCCTGCCCCCTTGCCCCCAGCGACCTGGGCCTGAGTCGGCCCATGCCAGAGCCCAAG
GCCACCGGTGCCCAAGACTTCTCCGACTGTTGTGGACAGAAGCCCACTGGGCCTGGTGGGCCTCTCATCCAGAAC
GTCCATGCCTCCAAGCGCATTCTCTTCTCCATCGTCCATGACAAGTCAGAGAAGTGGGACGCCTTCATAAAGGAA
ACCGAGGACATCAACACGCTCCGGGAGTGTGTGCAGATCCTGTTTAACAGCAGATATGCGGAAGCCCTGGGCCTG
GACCACATGGTCCCCGTGCCCTACCGGAAGATTGCCTGTGACCCGGAGGCTGTGGAGATCGTGGGCATCCCGGAC
AAGATCCCCTTCAAGCGCCCCTGCACTTATGGAGTCCCCAAGCTGAAGCGGATCCTGGAGGAGCGCCATAGTATC
CACTTCATCATTAAGAGGATGTTTGATGAGCGAATTTTCACAGGGAACAAGTTTACCAAAGACACCACGAAGCTG
GAGCCAGCCAGCCCGCCAGAGGACACCTCTGCAGAGGTCTCTAGGGCCACCGTCCTTGACCTTGCTGGGAATGCT
CGGTCAGACAAGGGCAGCATGTCTGAAGACTGTGGGCCAGGAACCTCCGGGGAGCTGGGCGGGCTGAGGCCGATC
AAAATTGAGCCAGAGGATCTGGACATCATTCAGGTCACCGTCCCAGACCCCTCGCCAACCTCTGAGGAAATGACA
GACTCGATGCCTGGGCACCTGCCATCGGAGGATTCTGGTTATGGGATGGAGATGCTGACAGACAAAGGTCTGAGT
GAGGACGCGCGGCCCGAGGAGAGGCCCGTGGAGGACAGCCACGGTGACGTGATCCGGCCCCTGCGGAAGCAGGTG
GAGCTGCTCTTCAACACACGATACGCCAAGGCCATTGGCATCTCGGAGCCCGTCAAGGTGCCGTACTCCAAGTTT
CTGATGCACCCGGAGGAGCTGTTTGTGGTGGGACTGCCTGAAGGCATCTCCCTCCGCAGGCCCAACTGCTTCGGG
ATCGCCAAGCTCCGGAAGATTCTGGAGGCCAGCAACAGCATCCAGTTTGTCATCAAGAGGCCCGAGCTGCTCACT
GAGGGAGTCAAAGAGCCCATCATGGATAGTCAAGGAACTGCCTCCTCACTTGGCTTCTCTCCCCCTGCCCTGCCC
CCAGAGAGGGATTCCGGGGACCCTCTGGTGGACGAGAGCCTGAAGAGACAGGGCTTTCAAGAAAATTATGACGCG
AGGCTCTCACGGATCGACATCGCCAACACACTAAGGGAGCAGGTCCAGGACCTTTTCAATAAGAAATACGGGGAA
GCCTTGGGCATCAAGTACCCGGTCCAGGTCCCCTACAAGCGGATCAAGAGTAACCCCGGCTCCGTGATCATCGAG
GGGCTGCCCCCAGGAATCCCGTTCCGAAAGCCCTGTACCTTCGGCTCCCAGAACCTGGAGAGGATTCTTGCTGTG
GCTGACAAGATCAAGTTCACAGTCACCAGGCCTTTCCAAGGACTCATCCCAAAGCCTGATGAAGATGACGCCAAC
AGACTCGGGGAGAAGGTGATCCTGCGGGAGCAGGTGAAGGAACTCTTCAACGAGAAATACGGTGAGGCCCTGGGC
CTGAACCGGCCGGTGCTGGTCCCTTATAAACTAATCCGGGACAGCCCAGACGCCGTGGAGGTCACGGGTCTGCCT
GATGACATCCCCTTCCGGAACCCCAACACGTACGACATCCACCGGCTGGAGAAGATCCTGAAGGCCCGAGAGCAT
GTCCGCATGGTCATCATTAACCAGCTCCAACCCTTTGCAGAAATCTGCAATGATGCCAAGGTGCCAGCCAAAGAC
AGCAGCATTCCCAAGCGCAAGAGAAAGCGGGTCTCGGAAGGAAATTCCGTCTCCTCTTCCTCCTCGTCTTCCTCT
TCCTCGTCCTCTAACCCGGATTCAGTGGCATCGGCCAACCAGATCTCACTCGTGCAATGGCCAATGTACATGGTG
GACTATGCCGGCCTGAACGTGCAGCTCCCGGGACCTCTTAATTAC**TAG**ACCTCAGTACTGAATCAGGACCTCACT
CAGAAAGACTAAAGGAAATGTAATTTATGTACAAAATGTATATTCGGATATGTATCGATGCCTTTTAGTTTTTCC
AATGATTTTTACACTATATTCCTGCCACCAAGGCCTTTTTAAATAAGT

FIGURE 4611A

AGGAGGAGGAGGGTGAGAGAGAAGCTGGGAGAGCAGAGAAAAGGGGCCACCGGTCGCCCCCCCGCTTCCCCGCAC
GCGCTCTCCAGCCGCGGCCGCCCGCCTGCCGCGGTCACCCCGGCCTCTGCCTCTGTCCCCCAGTGATCGGATCAA
GGCGCTGAGCGAGGCCCTGCCTGCGGGGCGGCCATGCGGCGGTGACAGGAGCGCGACCGACACGCACGGGCCCCT
CGCCCCCTCTCGCCTCCCGTCCGCTCGCCAGCTCCCCTCAGCCGAGGCTGCTCCGCGGCGGCCGCAGCCCGCGCG
CGGCCCACACTCGCCTCCCCTCGGCACCCCCGGCCCCGGAGCTGCCTGGAGGCGGCCGCACTCGGGGATC**ATG**GC
CCAAGTTGCAATGTCCACCCTCCCCGTTGAAGATGAGGAGTCCTCGGAGAGCAGGATGGTGGTGACATTCCTCAT
GTCAGCTCTCGAGTCCATGTGTAAAGAACTGGCCAAGTCCAAAGCCGAAGTGGCCTGCATTGCAGTGTATGAAAC
AGACGTGTTTGTCGTCGGAACTGAAAGAGGACGTGCTTTTGTCAATACCAGAAAGGATTTTCAAAAAGATTTTGT
AAAATATTGTGTTGAAGAAGAAGAAAAAGCTGCAGAGATGCATAAAATGAAATCTACAACCCAGGCAAATCGGAT
GAGTGTAGATGCTGTAGAAATTGAAACACTCAGAAAAACAGTTGAGGACTATTTCTGCTTTTGCTATGGGAAAGC
TTTAGGCAAATCCACAGTGGTACCTGTACCATATGAGAAGATGCTGCGAGACCAGTCGGCTGTGGTAGTGCAGGG
GCTTCCGGAAGGTGTTGCCTTTAAACACCCCGAGAACTATGATCTTGCAACCCTGAAATGGATTTTGGAGAACAA
AGCAGGGATTTCATTCATCATTAAGAGACCTTTTTTAGAGCCAAAGAAGCATGTAGGTGGTCGTGTGATGGTAAC
AGATGCTGACAGGTCAATACTATCTCCAGGTGGAAGTTGTGGCCCCATCAAAGTGAAAACTGAACCCACAGAAGA
TTCTGGCATTTCCCTGGAAATGGCAGCTGTGACAGTAAAGGAAGAATCAGAAGATCCTGATTATTATCAATATAA
CATTCAAGCAGGCCCTTCTGAAACTGATGATGTTGATGAAAAACAGCCCCTATCGAAGCCTTTGCAAGGAAGCCA
CCATTCTTCAGAGGGCAATGAAGGCACAGAAATGGAAGTACCAGCAGAAGATTCTACTCAACATGTCCCTTCAGA
AACAAGTGAGGACCCTGAAGTTGAGGTGACTATTGAAGATGATGATTATTCTCCACCGTCTAAGAGACCAAAGGC
CAATGAGCTACCGCAGCCACCAGTCCCGGAACCCGCCAATGCTGGGAAGCGGAAAGTGAGGGAGTTCAACTTCGA
GAAATGGAATGCTCGCATCACTGATCTACGTAAACAAGTTGAAGAATTGTTTGAAAGGAAATATGCTCAAGCCAT
AAAAGCCAAAGGTCCGGTGACGATCCCGTACCCTCTTTTCCAGTCTCATGTTGAAGATCTTTATGTAGAAGGACT
TCCTGAAGGAATTCCTTTTAGAAGGCCATCTACTTACGGAATTCCTCGCCTGGAGAGGATATTACTTGCAAAGGA
AAGGATTCGTTTTGTGATTAAGAAACATGAGCTTCTGAATTCAACACGTGAAGATTTACAGCTTGATAAGCCAGC
TTCAGGAGTAAAGGAAGAATGGTATGCCAGAATCACTAAATTAAGAAAGATGGTGGATCAGCTTTTCTGCAAAAA
ATTTGCGGAAGCCTTGGGGAGCACTGAAGCCAAGGCTGTACCGTACCAAAAATTTGAGGCACACCCGAATGATCT
GTACGTGGAAGGACTGCCAGAAAACATTCCTTTCCGAAGTCCCTCATGGTATGGAATCCCAAGGCTGGAAAAAAT
CATTCAAGTGGGCAATCGAATTAAATTTGTTATTAAAAGACCAGAACTTCTGACTCACAGTACCACTGAAGTTAC
TCAGCCAAGAACGAATACACCAGTCAAAGAAGATTGGAATGTCAGAATTACCAAGCTACGGAAGCAAGTGGAAGA
GATTTTTAATTTGAAATTTGCTCAAGCTCTTGGACTCACCGAGGCAGTAAAAGTACCATATCCTGTGTTTGAATC
AAACCCGGAGTTCTTGTATGTGGAAGGCTTGCCAGAGGGGATTCCCTTCCGAAGCCCTACCTGGTTTGGAATTCC
ACGACTTGAAAGGATCGTCCGCGGGAGTAATAAAATCAAGTTCGTTGTTAAAAAACCTGAACTAGTTATTTCCTA
CTTGCCTCCTGGGATGGCTAGTAAAATAAACACTAAAGCTTTGCAGTCCCCCAAAAGACCACGAAGTCCTGGGAG
TAATTCAAAGGTTCCTGAAATTGAGGTCACCGTGGAAGGCCCTAATAACAACAATCCTCAAACCTCAGCTGTTCG
AACCCCGACCCAGACTAACGGTTCTAACGTTCCCTTCAAGCCACGAGGGAGAGAGTTTTCCTTTGAGGCCTGGAA
TGCCAAAATCACGGACCTAAAACAGAAAGTTGAAAATCTCTTCAATGAGAAATGTGGGGAAGCTCTTGGCCTTAA
ACAAGCTGTGAAGGTGCCGTTCGCGTTATTTGAGTCTTTCCCGGAAGACTTTTATGTGGAAGGCTTACCTGAGGG
TGTGCCATTCCGAAGACCATCGACTTTTGGCATTCCGAGGCTGGAGAAGATACTCAGAAACAAAGCCAAAATTAA
GTTCATCATTAAAAAGCCCGAAATGTTTGAGACGGCGATTAAGGAGAGCACCTCCTCTAAGAGCCCTCCCAGAAA
AATAAATTCATCACCCAATGTTAATACTACTGCATCAGGTGTTGAAGACCTTAACATCATTCAGGTGACAATTCC
AGATGATGATAATGAAAGACTCTCGAAAGTTGAAAAAGCTAGACAGCTAAGAGAACAAGTGAATGACCTCTTTAG
TCGGAAATTTGGTGAAGCTATTGGTATGGGTTTTCCTGTGAAAGTTCCCTACAGGAAAATCACAATTAACCCTGG
CTGTGTGGTGGTTGATGGCATGCCCCCGGGGGTGTCCTTCAAAGCCCCCAGCTACCTGGAAATCAGCTCCATGAG
AAGGATCTTAGACTCTGCCGAGTTTATCAAATTCACGGTCATTAGACCATTTCCAGGACTTGTGATTAATAACCA
GCTGGTTGATCAGAGTGAGTCAGAAGGCCCCGTGATACAAGAATCAGCTGAACCAAGCCAGTTGGAAGTTCCAGC
CACAGAAGAAATAAAAGAGACTGATGGAAGCTCTCAGATCAAGCAAGAACCAGACCCCACGTGG**TAG**ACCTCTTC
CCTCCTAGGCTTAAAGTATCAGTGGTTGAGAAGAGCTTTTCGGACCTGTTACTACCCCAAGCTGTGTAATATACT
TGTATAACAGAAATACCTTCTATACAAACCTTTTTTTCTACTTTTAGATAGAAATGTCTACTTTTTCAGCAGTTC
TGTGAATTAAAGAGCAGAGTGACTGTGGGTCTGGAATGGCTGGTGTACTTGGGAATGTACTATCAGGATTTTACA

FIGURE 4611B

GCAATGCTGGGAAATGACAGGGAAAATGACAGGAATGAATCTCACCAGATTTTTTATGTACTCAGCAGAGCCTTG
AGTTACGGTGTTTATTTTCCAATCAAGTGAAGATATCTCCTACTTCTCCTACTGGAACATCTCAGCTTCTGCAGT
GAAGAAAAATTCCTGTGATAGTTCAGTTCTTTAGTTTTTCTATTTGAAAAAAAAAAAATCATTTAAATGATCCTTT
GTTCACGGCTCTCCTTAATGACTGAGTGAACAGTTCCTATCTGTATATTTGACTAAACCTTTTCCTAAGCTATCT
CTCATGGTTCCTATGTTTTTTTATCATAATTAAAAGCAAAACCATCTGGATCACCTAACAGTCAGAGGTCAGTAT
CTCAGCGTGTGAATTATAGAGGAAATACAGAGAGAACCTCTTCCACTTTTACTTTTCGTCCAAATAAAATGCATG
GTGTACCAGAAGTTGAAGATCGGGTTGAGGATTGGGGCTAGCTCGATGACACTAAGGCCCCAACATCGCGGGACC
TGCTGTGGCGCGGATTCTTAGGAACGCTGTTCTAGCCGGCCCCCTCTCCAGGGGTCGCCGTGGCCGGCATTATTT
CCTAGTTCTTCTTGTAACCCTGAGGTGCCAGCGCGGGGAGTGAGGAGGGGTCAGGGGGCTAAGGATGCAACCTCT
GACGTTCTGCGCCTTCCTAGGAGAGTCTTACATGTGTTGAGATTTCACAAGCAATGCGAGTTGTAAAATACCAGC
TCTACAAGAAGCTAGGCTCTGTGACGGCATAGTTTTCAGTAGCTTTATCACAATATTCACAATGGAGAATTATAT
GACATGGTAGCAGAAATAGGCCCTTTTATGTGTTGCTTCTATTTTACCTCAAATTGTAGATATAGGGTAATCAAT
AAAATCCATCCATGCCTTTCACACACTAA

FIGURE 4612

AGATGGGCCATCAACTGAGAAAGACCTTGACGAAAAGAAGAAAGAACCTGCAATTACATCGCAGAACAGCCCTGA
GGCAAGAGAAGAAAGTACTTCCAGCGGCAATGTAAGCAACAGAAAGGATGAGACAAATGCTCGAGATACTTATGT
TTCATCCTTTCCTCGGGCACCAAGCACTTCTGATTCTGTGCGGTTGAAGTGTAGGGAGATGCTTGCTGCAGCTCT
TCGAACAGGGGATGACTACATTGCAATTGGAGCTGATGAGGAAGAATTAGGATCTCAAATTGAAGAAGATATATA
TCAAGAAATAAGGAATACAGACATGAAATACAAAAATAGAGTACGAAGTAGGATATCAAATCTTAAAGATGCAAA
AAATCCAAATTTAAGGAAAAATGTCCTCTGTGGGAATATTCCTCCTGACTTATTTGCTAGAATGACAGCAGAGGA
AATGGCTAGTGATGAGCTGAAAGAGATGCGGAAAAACTTGACCAAAGAAGCCATCAGAGAGCATCAGATGGCCAA
GACTGGTGGGACCCAGACTGACTTGTTCACATGTGGCAAATGTAAAAAGAAGAATTGCACTTACACACAGGTACA
AACCCGTAGTGCTGATGAACCAATGACAACATTTGTTGTCTGTAATGAATGTGGAAATCGATGGAAGTTCTGTTG
AGTTGGAAGAATTGGCAAAATATCTGGACCATTAAGAAAACGGATTTTGTAACTAGCTTTAAACTAGGCCAAGCA
ACTAGTTTTCCTGCAAATCAAATTTTTAAAGCAACTTGGGTTAGACTTTGTTTTTGACCTAACATCCCTTCCTTA
AATGCCTTCTGTAGTTTCAGATCAGTAGGGAGACCATATAATAATTTTATGGTACCTGTTTCAAAACATATTTTT
TCTGTTTTTATAAGTAAGTTGATATTAATTAAACTCTTGGCAATATTTCTTCTTTCTTAAAGGAAAATATACCTT
AACTTTTTTTCTTTTACACTGTGAAACATACACAGTAGAAATTCTGTTACTCTCTGTTATTAATACATAAATGAA
AATACATTTTTTTCCATATTGGCATGTAGCTACAAATATTAAAGGAGGAGAAAAGGTAATATAATTTTAGGTTTA
CCAAATATGGTGTGTATTCAAATAATACTTGACCAGCTTATCTAAAATGTACATAATTTTGAGGTAGCTTATGAA
TTTGATTTTAATTATTATGTTCACAAGCTTGGAATATTAGATATTATTTTGCATCTGTAACTAACCGTGATCATC
ATTTCTTGTAATTTCTTGTACATGTATATTACTTGTTCTTAATAGATTTTTGGAAACAAGACTTTATTGAGATCA
GTTTGGTTTTCCTGTTAATTTACCTGTTTGACTTTATAATGTGTTTTAGTTTTGCAGAAGAACACTGTTGTAGTT
TAGAAGGCTTTTCATAAATCCCCTCATAGGCAAAGATGAAAACTTCCCACTATTTTTTTCCCCTCTTAGGAAGAC
ATACTGGAAAGAAAATGTTTAGCATCTTAGTGTAGTATAGCTATTGTAAACAGTTCATGACTAGATTTTGATTCG
GAAATCTATACTGACCAAGGATTAATCTTAAGGATTGTATAATTCATTAAAGCTGTGGTCTTTCCATGTGGAGAC
TGATAGAAAATAATTTTGTCCCAAGTCTTATTTGCTGACTTTTTCTGTCATGAGTGAGATTGTTGAACAAACTGA
ATATATGGGCTATAGCAAGTAGCTTTACAGTACAGATCTTACAATTAAGTTTTGCTTTTGTTAAAGTGTGTACCA
TTTTTTCTGTTTGGAGTAAGACAAAAATTGTTTTGACATAGGTTCCCTAGGGTACACTTGCTCTAGCATACTTTA
AAGGCCACTGTTGCAAAGTCTACATTTTATGCTGAATCTGCATTCTGTCAGGCACCCGTAGAAAGACCTCAGTAC
ATGCTTTGCACTCTCCTTTGCTCCCTTTTTCCAATTTCTTATTGCATATCATTTTGTTGTAATACAGAAAGCAGC
ATTTTTAAATGTCCGTGTTAAGAATTGGCCCACTGGTACCAACTCACCTCTATTTTGTCAGTTCATAGTTGAAGA
TTTTGTTTTATTTCAAAAACAAAGTACATTTTTGAAATAATGTTTCAGAATAAAATAATCTCACTTTTAAGTGAT
CCATTTTAAAATTTGTAATTCAATAAAGTTTTTTTTGTTGTTAAACAT

FIGURE 4613

TACCTGTGCGGCCCTCAACGTCTCCTTGGTGCGGGACCCGCTTCACTTTCGGCTCCCGGAGTCTCCCTCCACTGC
TCAGACCTCTGGACCTGACAGGAGACGCCTACTTGGCTCTGACGCGGCGCCCCAGCCCGGCTGTGTCCCCGGCGC
CCCGGACCACCCTCCCTGCCGGCTTTGGGTGCGTTGTGGGGTCCCGAGGATTTGTTGAAAGACATTCAAGATTAC
GAAGTTTAG**ATG**ACCAAAATGGATATCCGAGGTGCTGTGGATGCTGCTGTCCCCACCAATATTATTGCTGCCAAG
GCTGCAGAAGTTCGTGCAAACAAAGTCAACTGGCAATCCTATCTTCAGGGACAGATGATTTCTGCTGAAGATTGT
GAGTTTATTCAGAGGTTTGAAATGAAACGAAGCCCTGAAGAGAAGCAAGAGATGCTTCAAACTGAAGGCAGCCAG
TGTGCTAAAACATTTATAAATCTGATGACTCATATCTGCAAAGAACAGACCGTTCAGTATATACTAACTATGGTG
GATGATATGCTGCAGGAAAATCATCAGCGTGTTAGCATTTTCTTTGACTATGCAAGATGTAGCAAGAACACTGCG
TGGCCCTACTTTCTGCCAATGTTGAATCGCCAGGATCCCTTCACTGTTCATATGGCAGCAAGAATTATTGCCAAG
TTAGCAGCTTGGGGAAAAGAACTGATGGAAGGCAGTGACTTAAATTACTATTTCAATTGGATAAAAACTCAGCTG
AGTTCACAGAAACTGCGTGGTAGCGGTGTTGCTGTTGAAACAGGAACAGTCTCTTCAAGTGATAGTTCGCAGTAT
GTGCAGTGCGTGGCCGGGTGTTTGCAGCTGATGCTCCGGGTCAATGAGTACCGCTTTGCTTGGGTGGAAGCAGAT
GGGGTAAATTGCATAATGGGAGTGTTGAGTAACAAGTGTGGCTTTCAGCTCCAGTATCAAATGATTTTTTCAATA
TGGCTCCTGGCATTCAGTCCTCAAATGTGTGAACACCTGCGGCGCTATAATATCATTCCAGTTCTGTCTGATATC
CTTCAGGAGTCTGTCAAAGAGAAAGTAACAAGAATCATTCTTGCAGCATTTCGTAACTTTTTAGAAAAATCAACT
GAAAGAGAAACTCGCCAAGAATATGCCCTGGCTATGATTCAGTGCAAAGTTCTGAAACAGTTGGAGAACTTGGAA
CAGCAGAAGTACGATGATGAAGATATCAGCGAAGATATCAAATTTCTTTTGGAAAAACTTGGAGAGAGTGTCCAG
GACCTTAGTTCATTTGATGAATACAGTTCAGAACTTAAATCTGGAAGGTTGGAATGGAGTCCTGTGCACAAATCT
GAGAAATTTTGGAGAGAGAATGCTGTGAGGTTAAATGAGAAGAATTATGAACTCTTGAAAATCTTGACAAAACTT
TTGGAAGTGTCAGATGATCCCCAAGTCTTAGCTGTTGCTGCTCACGATGTTGGAGAATATGTGCGGCATTATCCA
CGAGGCAAACGGGTCATCGAGCAGCTCGGTGGGAAGCAGCTGGTCATGAACCACATGCATCATGAAGACCAGCAG
GTCCGCTATAATGCTCTGCTGGCCGTGCAGAAGCTCATGGTGCACAACTGGGAATACCTTGGCAAGCAGCTCCAG
TCCGAGCAGCCCCAGACCGCTGCCGCCCGAAGC**TAA**GCCTGCCTCTGGCCTTCCCCTCCGCCTCAATGCAGAACC
AGTAGTGGGAGCACTGTGTTTAGAGTTAAGAGTGAACACTGTTTGATTTTACTTGGAATTTCCTCTGTTATATAG
CTTTTCCCAATGCTAATTTCCAAACAACAACAACAAAATAACATGTTTGCCTGTTAAGTTGTATAAAAGTAGGTG
ATTCTGTATTTAAAGAAAATATTACTGTTACATATACTGCTTGCAATTTCTGTATTTATTGTTCTCTGGAAATAA
ATATAGTTATTAAAGGATTCTCACTCCAAACATGGCCTCTCTCTTTACTTGGACTTTGAACAAAAGTCAACTGTT
GTCTCTTTTCAAACCAAATTGGGAGAATTGTTGCAAAGTAGTGAATGGCAAATAAATGTTTTAAAATCT

FIGURE 4614

CTTCCTTCCGCTTGCGCTGTGAGCTGAGGCGGTGT**ATG**TGCGGCAATAACATGTCAACCCCGCTGCCCGCCATCG
TGCCCGCCGCCCGGAAGGCCACCGCTGCGGTGATTTTCCTGCATGGATTGGGAGATACTGGGCACGGATGGGCAG
AAGCCTTTGCAGGTATCAGAAGTTCACATATCAAATATATCTGCCCGCATGCGCCTGTTAGGCCTGTTACATTAA
ATATGAACGTGGCTATGCCTTCATGGTTTGATATTATTGGGCTTTCACCAGATTCACAGGAGGATGAATCTGGGA
TTAAACAGGCAGCAGAAAATATAAAAGCTTTGATTGATCAAGAAGTGAAGAATGGCATTCCTTCTAACAGAATTA
TTTTGGGAGGGTTTTCTCAGGGAGGAGCTTTATCTTTATATACTGCCCTTACCACACAGCAGAAACTGGCAGGTG
TCACTGCACTCAGTTGCTGGCTTCCACTTCGGGCTTCCTTTCCACAGGGTCCTATCGGTGGTGCTAATAGAGATA
TTTCTATTCTCCAGTGCCACGGGGATTGTGACCCTTTGGTTCCCCTGATGTTTGGTTCTCTTACGGTGGAAAAAC
TAAAAACATTGGTGAATCCAGCCAATGTGACCTTTAAAACCTATGAAGGTATGATGCACAGTTCGTGTCAACAGG
AAATGATGGATGTCAAGCAATTCATTGATAAACTCCTACCTCCAATTGAT**TGA**CGTCACTAAGAGGCCTTGTGTA
GAAGTACACCAGCATCATTGTAGTAGAGTGTAAACCTTTTCCCATGCCCAGTCTTCAAATTTCTAATGTTTTGCA
GTGTTAAAATGTTTTGCAAATACATGCCAATAACACAGATCAAATAATATCTCCTCATGAGAAATTTATGATCTT
TTAAGTTTCTATACATGTATTCTTATAAGACGACCCAGGATCTACTATATTAGAATAGATGAAGCAGGTAGCTTC
TTTTTTCTCAAATGTAATTCAGCAAAATAATACAGTACTGCCACCAGATTTTTTATTACATCATTTGAAAATTAG
CAGTATGCTTAATGAAAATTTGTTCAGGTATAAATGAGCAGTTAAGATATAAACAATTTATGCATGCTGTGACTT
AGTCTATGGATTTATTCCAAAATTGCTTAGTCACCATGCAGTGTCTGTATTTTTATATATGTGTTCATATATACA
TAATGATTATAATACATAATAAGAATGAGGTGGTATTACATTATTCCTAATAATAGGGATAATGCTGTTTATTGT
CAAGAAAAAGTAAAATCGTTCTCTTCAATTAATGGCCCTTTTATTTTGGGACCAGGCTTTTATTTTCCCTGATAT
TATTTCTATTTAATACTCTTTTCTCTCAAGAAAAAAAAAAAAGTTTGTTTTTTCTTTATTGTCCTTCATAGCAGG
CCAAGTATTGCCTCTCTGCAATAGACAGCTACTGTCAATACATGCTGTAATTTGACATTCTGGGTCACAGATATA
AGGTATTTAAAATCTATTTATGCTTTATAGAGAAACCAGACATTAAAACTTCATGCACTACTTATTTCGAATTAC
TGTACCTTATCCAAATTTACACCTAGCTATTAGGATCTTCAACCCAGGTAACAGGAATAATTCTGTGGTTTCATT
TTTCTGTAAACAACTGAAAGAATAATTAGATCATATTCTAGTATGTTCTGAAATATCTTTAAGACTGATCTTAAA
AACTAACTTCTAAGATGATTTCATCTTCTCATAGTATAGAGTTTACTTTGTACACGTTTGAAACCAACTACTGTA
GAAGATGAGGAATCTATTGTAATTTTTTGCTTTATTTTCATCTGCCAGTGGACTTATTTGAAATTTTCACTTTAG
TCAAATTATTTTTTGTATTAGTTTTTGATGCAGACATAAAAATAGCAATCATTTTAAATTGTCAAAATTTCCAGA
TTACTGGTAAAAATTATTTGAAAACAAACTTATGGGTAATAAAGGCTAGTCAGAACCCTATACCATAAAGTGTAG
TTACCATACAGATTAATATGTAGCAAAAATGTATGCTTGATATTTCTCAACTGTGTTAATTTTTCTGCTGTATTC
CAGCTGACCAAAACAATATTAAGAATGCATCTTTATAAATGGGTGCTAATTGATAATGGAAATAATTTAGTAATG
GACTATACAGGATGTTAATAATGAAGCCATATGTTTATGTCTGGATTTAAAAATTTTAAACAATCATTTACTATG
TCATTTTTCTTTACCTTGAAGAACATAAACTGTTATTTCACTTCTACAAATCAGCAAGATATTATTTATGGCAAG
AAATATTCCATTGAAATATTGTGCTGTAACATGGGAAAGTGTAAATGTTTTTCATGGTTTCTATCAATGTGAAAT
AAAATTTAATTCTGA

FIGURE 4615

CACGTGGCCTCCGAGCAGCTCAGGGCGCCCTTGAAAGTTCTTGGATCTGCGGGTTATGGCCGGTCCCTTGCAGGG
CGGTGGGGCCCGGGCCCTGGACCTACTCCGGGGCCTGCCGCGTGTGAGCCTGGCCAACTTAAAGCCGAATCCCGG
CTCCAAGAAACCGGAGAGAAGACCAAGAGGTCGGAGAAGAGGTAGAAAATGTGGCAGAGGCCATAAAGGAGAAAG
GCAAAGAGGAACCCGGCCCCGCTTGGGCTTTGAGGGAGGCCAGACTCCATTTTACATCCGAATCCCAAAATACGG
GTTTAACGAAGGACATAGTTTCAGACGCCAGTATAAGCCTTTGAGTCTCAATAGACTGCAGTATCTTATTGATTT
GGGTCGTGTTGATCCTAGTCAACCTATTGACTTAACCCAGCTTGTCAATGGGAGAGGTGTGACCATCCAGCCACT
TAAAAGGGATTATGGTGTCCAGCTGGTTGAGGAGGGTGCTGACACCTTTACGGCAAAAGTTAATATTGAAGTACA
GTTGGCTTCAGAACTAGCTATTGCTGCCATTGAAAAAAATGGTGGTGTTGTTACTACAGCCTTCTATGATCCAAG
AAGTCTGGACATTGTATGCAAACCTGTTCCATTCTTTCTTCGTGGACAACCCATTCCAAAAAGAATGCTTCCACC
AGAAGAACTGGTACCATATTACACTGATGCAAAGAACCGTGGGTACCTGGCGGATCCTGCCAAATTTCCTGAAGC
ACGACTTGAACTCGCCAGGAAGTATGGTTATATCTTACCTGATATCACTAAAGATGAACTCTTCAAAATGCTCTG
TACTAGGAAGGATCCAAGGCAGATTTTCTTTGGTCTTGCTCCAGGATGGGTGGTGAATATGGCCGATAAGAAAAT
CCTAAAACCTACAGATGAAAATCTCCTTAAGTATTATACCTCATGAATTCCCGTCCAAGGAAGCAGAGTTGTTAA
AGAGTACTGGAATAGGGGCTGAAGGATCTATATTCCCTTATTGCATTTTCCTTATGTATAATTTTCCAGATGGTG
ATGTTACTTTTCAGTGTACTCATATGTCTCATTTTCATCTAAAATTAAATGGCAGGAAACAAGGACTGCATAGAG

FIGURE 4616

CTCGCCTCACCAGGTACGGATCTCCCGCGCGTCGCCGAAAGCGGCTCTGACCCAGCGGAAGTAATTCTTTCGACT
GCCCCGGAACCCACCGGAGCAGGCAGCTGGGGGTGGGGGGGCGGCCCTGGGATAGGGGCTGTGGCAGTACGCGGG
GACCCGGCTGCGGTGGCTGCGGGACTGACGAGAAACTACTAAAGTTCCTGGGGAAGCAAAGTAGAATTTCATAAG
AACAAA**ATG**GATGGAGAGGAGAAAACCTATGGTGGCTGTGAAGGACCTGATGCCATGTATGTCAAATTGATATCA
TCTGATGGCCATGAATTTATTGTAAAAAGAGAACATGCATTAACATCAGGCACGATAAAAGCCATGTTGAGTGGC
CCAGGTCAGTTTGCTGAGAACGAAACCAATGAGGTCAATTTTAGAGAGATACCTTCACATGTGCTATCGAAAGTA
TGCATGTATTTTACGTACAAGGTTCGCTACACTAACAGCTCCACCGAGATTCCTGAATTCCCAATTGCACCTGAA
ATTGCACTGGAACTGCTGATGGCTGCGAACTTCTTAGATTGT**TAA**ATAAAATAAATTATAATAAACTGTTAACTC
TTTTCAGTATTTAATACCTGTAGTTCAGTTAGTAACTTTTTCATATATAGCATGTTGCCTGTATGCAGTTGAACT
ATATAAAGTTCATTGCAAAGCAGATTATCTTGTTTTTTTGCATAGCAATCAAAGTTGAAATTTGTTTGCTACATC
AACAAATTAAGGACATTTTCACAAACTGAGAAATAAACAAATATGCCAATTCGTAGGTGGTTTTGCCTTATCCTT
TGAATGTGACTTAAAATCAGCAATGATGATATAGTAAATACTGAAATTTAGGTGTAAATCAATACGTTCTACAGG
GAAATAATGAGGCTAAGTATTTTTATGTTTTTAGTGGTTTTTTAGAAACCTAATCTTATAGCCGCCATTAGCATT
ACTAGAGTTATGCAAATAATTGCATTATAAACATGTTTATAACTTAGCCAAAACATTGATTTTTATAACTCTCCA
AGTATGAGTTGAAATTTCTTATGTCTTTTGATAAACTGCAGTATTCTTTAAGTGTACTTTGTCCTTTTGTTTATT
GCTACAATTTAAGAACTTTATTTAAAAACAATTTTGGAAGGTTACTAGGTACAGCTTTTGCAGAAGAAACTGAAC
TGTAGCCAGATGGTCAGCAAGTAAACTACATGACTTAGAGTTCTTGTGCATTATACATTTTGGGTAATTCAAAGT
ACTGTATTTGCATTGACTATAAAGCGTCGTTTGCAATATTTATTCTTCCTTCATAGTCCCTTGTTGTGATTATAC
TTCCAGTTGTTTAAATGTATTTTAAAAGACTCACTATTAACTTTATTCAGATCTTAAAAGCTACACCTTTTTGAA
CTATTCCAGTCTTTCTCCATCCAATTAGAATGTTATGGAATAACATGTGAAGAGATACAGTGAAAATCATATTAT
AATGCATTGAAGATATCCTACATGAATTATCTTCTATTAAAATATGTCCCAATAAATATACCCATAATCAGTGGG
TCTTCTACTGAAATCAAGCTCATTCAGCTTTTCTATTAAGCAGCCAAAAAATTTTTTGAAAAAATATGACAGCAT
CATTCCTTATGCATGGGGAAAGAAGCACTGGAGATGGGTTTAGTATTGTCTTTATCTCAGAGGTGGAACAAAGTT
GTCATTATAGGGTCTATAAACTTAAGTCTCCAGCTTATTTGAGACTGGCTTAATATGGCTGAGCCCGGTGGCTCA
TGCCTGTAATCCCAGCACTTTCAGAGGACGAGGCGGGTAGATCACTTGAGGCCAGGAGTTTGAGACCAGCCTGGC
CACCATGGCAAAACCCCATCTCTACCAAAAATGCAAAAATTAGCTAGGCCATGGTGGCACACGCCTGTAATCCCA
GCTACTTGTGAGGCTGAGGCATGAGAATCGCTTGAACCTGGGAGGTGGAGGTGGCAGTGAGCCGAGATCGCACCA
CTGCACTCCAGCCTGGGTGACAGAGCGAGACTGTCTC

FIGURE 4617

CTCTTTTTCCGGCTGGAACC**ATG**GAGGGTGTAGAAGAGAAGAAGAAGGAGGTTCCTGCTGTGCCAGAAACCCTTA
AGAAAAAGCGAAGGAATTTCGCAGAGCTGAAGATCAAGCGCCTGAGAAAGAAGTTTGCCCAAAAGATGCTTCGAA
AGGCAAGGAGGAAGCTTATCTATGAAAAAGCAAAGCACTATCACAAGGAATATAGGCAGATGTACAGAACTGAAA
TTCGAATGGCGAGGATGGCAAGAAAAGCTGGCAACTTCTATGTACCTGCAGAACCCAAATTGGCGTTTGTCATCA
GAATCAGAGGTATCAATGGAGTGAGCCCAAAGGTTCGAAAGGTGTTGCAGCTTCTTCGCCTTCGTCAAATCTTCA
ATGGAACCTTTGTGAAGCTCAACAAGGCTTCGATTAACATGCTGAGGATTGTAGAGCCATATATTGCATGGGGGT
ACCCCAATCTGAAGTCAGTAAATGAACTAATCTACAAGCGTGGTTATGGCAAAATCAATAAGAAGCGAATTGCTT
TGACAGATAACGCTTTGATTGCTCGATCTCTTGGTAAATACGGCATCATCTGCATGGAGGATTTGATTCATGAGA
TCTATACTGTTGGAAAACGCTTCAAAGAGGCAAATAACTTCCTGTGGCCCTTCAAATTGTCTTCTCCACGAGGTG
GAATGAAGAAAAAGACCACCCATTTTGTAGAAGGTGGAGATGCTGGCAACAGGGAGGACCAGATCAACAGGCTTA
TTAGAAGAATGAAC**TAA**GGTGTCTACCATGATTATTTTTCTAAGCTGGTTGGTTAATAAACAGTACCTGCTCTCA
AATTGAAAAAAAAAAAAAAAAAAAAAG

FIGURE 4618

TGAAAAGGATGGAATTAAAACAACCTTGGTTTGCCCTTATCTTGTAGACACTGGC**ATG**TTCAGAGGCTGCCGAAT
CAGGAAAGAAATTGAGCCTTTTCTGCCACCTCTGAAGCCTGATTACTGTGTGAAGCAGGCCATGAAGGCCATCCT
CACTGACCAGCCCATGATCTGCACTCCCCGCCTCATGTACATCGTGACCTTCATGAAGAGCATCCTACCATTTGA
AGCAGTTGTGTGCATGTATCGGTTCCTAGGAGCGGACAAGTGTATGTACCCCTTTATTGCTCAAAGAAAGCAAGC
CACAAACAATAATGAAGCAAAAAATGGAATC**TAA**GAATCTTTTTGTATGGAATATTACTTCTATCAGAAGATGAT
CAAGATGTTTCAGTCCAGTGCACATCAGCATTGCTGACATTTTATGGATTCTAAACTTGTGTTGTTTCTTTTTTA
AATCAACTTTTTAAAAAAATAAAGTGTAAATTAACCGACTAGAGTACTTGGAAAATGTGATCAGTACAAGTGAAC
TTAGGTTGTTGCCAACAGGGTCCTTTTAGGCAGAACCCAGAAACCAGTCAAATCTGTAGAGAAGCAGTGTGACAT
CTTCAGGTTACCATTATTTTTTAATGAGCAGGAAGTCTAGAAATGATAACTAGACTGTATGTTTCATGTGTGTGA
TTTTTCAGAATTCCCAGAGTTTACTCATTCTTGTTATTAAACTCTAGCCAGTTGACATCTTCGCAATTTCAAGGA
CTGATAGTGCTGTATTTTCTCACGTTTTCTAAGTTTCCGTTTTGCAAGGCCTAGGTGACTTTTTCATGGTGTTTG
TATGTTTAGCTCTTTTGAAAAGGAATTTTGAAATCTCCATCAACTGAAGTAAATGATGTCTGAGTGTTACAGTAA
AGGTGACCAAGTCTCTTTCTTAAAGTCACAATGACTAAAGTATTAGTTGAATTTTTTTTTTTTTTTTTGATGG
AGTCTCGCTCTGTCACCAGGCTGGAGTGCAGTAGCACAATCACGGCTCACTGCAATCTCTGCCTCCCAGTTTCAA
GTGATTCTGCTGTCTCAGCCTCCCAAGTAGCTGGGACTACAGGCATGCGCCACCACGCCCAGCTAATTTTTGTAT
TTTTAGTAGAGACGGGGTTTCACCATGTTGGTCAGGATGGTCTCCATCTCTTGACATTGTGATCCACCTGCCTCG
GCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACTGCACCCAGCCTTGAATTTTTAATTTTATCTCTGATATA
CTTCATTAAGTGTCTGGAGACCTAATTATCCTAAAAGATCATACATTTTCTACCTATGAATTTTGCTGCATACAG
AAAGTGCCCTTTCCTCAGGAAGTTGCTGTGTTTCATTTCTTTGGATGGACTCTTATCTAGAATACATAGCAGCTC
TGCAAAGGAACAGTTTTTAAAAATGGGAACTTCTACATTGAAAAGTCCCCATTTTTGTGCCAACTATGATTAGTG
AGAGGAAGAAATCTTATTCTATGGCATATGTATGGAAGGGTGTAAAGATTCTTTTGAAAGGTTTATTCACATTGT
AGAACAGCAAATGACATTTTTACAGTATTTTTTTGTAAAGCAAACTATTTTGTGCCTTGAATTTGGTATATGTGT
ATTAGTGAAACATTGTAAAGGTGAACTTCTACCTCTGTATCTAAATGTATACCATCCACTTGTAAATGACTATAA
ACTATTATGTGATTGCTTTTTTTTTTTAGAATGTCTTGTTTAAATAGTGGCCAATGTTTAAGGCTGTTAAAATAAG
CCAACTTTTACTAATTGGGGAGTTTTATAAATGACTGATTAAATTTAAAGAATTAACTTACATGCAATTGTGTGA
TTATTAGTTATCAGCAGTGTTGTAAGGAAAATTATTGTGTTTTTTTTTATGATCATTATCCCACTTTAGGTAAAG
AAAAATATTGGAATGGAATAGTGTTGGGAAACAGACATTAACAACCTAGGGTGCCTGCACTCAAATAGCCGATGT
TACTGTCCCTAGATTAGAGACTTGATTAAGGGCTTGTTTGTACCAAAAGTGGGGAAACAATGCCATGACCTGTGT
TTTAGTTTGGCTGCACCACAGATCAAATCTGCACTGTGTCTACATATAGGAAAGGTCCTGGTGTGTGCTAATGTT
CCCAATGCAGGACTTGAGGAAGAGCTCTGTTATATGTTTCCATTTCTCTTTATCAAAGATAACCAAACCTTATGG
CCCTTATAACAATGGAGGCACTGGCTGCCTCTTAATTTTCAATCATGGACCTAAAGAAGTACTCTGAAGGGTCTC
AACAATGCCAGGTGGGGACAGATATACTCAGAGATTATCCAGGTCTGCCTCCCAGCGAGCCTGGAGTACACCAGA
CCCTCCTAGAGAAATCTGTTATAATTTAACAACCCACTTATCCACCTTAAAACTGAGGAAAGTCGTCTTTACATC
TAATTTTATTCTTGTGTGTTATAACTTAAACCTATTTCTATTTTTGTTTGTTATTGCCCTTATAAGGGTGTCCAT
CTCCAAGTTCAATAAACTAATTCATTT

FIGURE 4619A

CCAATGTTGGAGCCGTCTGCAAAGTGTCCCCGGCAAGAAGAGGCTGCCTACCACAAGGACTTTAGCTTACTTTTT
AAAGATTGAAGAAAAAAAAGAAGACAGAAAAAGAAGAACTCAAAGATACACAAAGTAATTTGAACCAAGGCTCAG
AAGTTTTTGGAGCCGTGAGGGATACAGCAGTTTGGTCAATATTGTCTTAAC**ATG**CTTCAAATAAATCAGATGTTC
TCAGTGCAGCTGAGTCTTGGTGAGCAGACATGGGAATCCGAAGGCAGCAGTATAAAGAAGGCTCAGCAGGCTGTT
GCCAATAAAGCTTTGACTGAATCTACGCTTCCCAAACCAGTTCAGAAGCCACCCAAAAGTAATGTTAACAATAAC
CCAGGCAGTATAACTCCAACTGTGGAACTGAATGGGCTTGCTATGAAAAGGGGAGAGCCTGCCATCTACAGGCCA
TTAGATCCAAAGCCATTCCCAAATTATAGAGCTAATTACAACTTTCGGGGCATGTACAATCAGAGGTATCATTGC
CCAGTGCCTAAGATCTTTTATGTTCAGCTCACTGTAGGAAATAATGAATTTTTTGGGGAAGGAAAGACTCGACAA
GCTGCTAGACACAATGCTGCAATGAAAGCCCTCCAAGCACTGCAGAATGAACCTATTCCAGAAAGATCTCCTCAG
AATGGTGAATCAGGAAAGGATGTGGATGATGACAAAGATGCAAATAAGTCTGAGATCAGCTTAGTGTTTGAAATT
GCTCTGAAGCGAAATATGCCTGTCAGTTTTGAGGTTATTAAAGAAAGTGGACCACCACATATGAAAAGCTTTGTT
ACTCGAGTGTCAGTAGGAGAGTTCTCTGCAGAAGGAGAAGGAAATAGCAAAAAACTCTCCAAGAAGCGCGCTGCG
ACCACCGTCTTACAGGAGCTTAAAAAACTTCCACCTCTTCCTGTGGTGGAAAAGCCAAAACTATTTTTTAAAAAA
CGCCCTAAAACAATAGTAAAGGCCGGACCAGAATATGGCCAAGGGATGAACCCTATTAGCCGCCTGGCGCAAATT
CAACAGGCCAAAAAGGAAAAGGAGCCGGATTATGTTTTGCTTTCAGAAAGAGGAATGCCTCGACGTCGAGAATTT
GTGATGCAGGTGAAGGTAGGCAATGAAGTTGCTACAGGAACAGGACCTAATAAAAAGATAGCCAAAAAAAATGCT
GCAGAAGCAATGCTGTTACAACTTGGTTATAAAGCATCCACTAATCTTCAGGATCAACTTGAGAAGACAGGGGAA
AACAAAGGATGGAGTGGTCCAAAGCCTGGGTTTCCTGAACCAACAAATAATACTCCAAAAGGAATTCTTCATTTG
TCTCCTGATGTTTATCAAGAGATGGAAGCCAGCCGCCACAAAGTAATCTCTGGCACTACTCTAGGCTATTTGTCA
CCCAAAGATATGAACCAACCTTCAAGCTCTTTCTTCAGTATATCTCCCACATCGAATAGTTCAGCTACAATTGCC
AGGGAACTCCTTATGAATGGAACATCTTCTACAGCTGAAGCCATAGGTTTAAAAGGAAGTTCTCCTACTCCCCCT
TGTTCTCCAGTACAACCTTCAAAACAACTGGAATATTTAGCAAGGATTCAAGGCTTTCAGGTA**TGA**ATTAAAAGC
AAAAACAAAAAACAAAACAATTCATTAGCCTCAGATTCTTCATCTGTATACATCACAAGGCTCATTCTTGCCTGC
TAGTATGGCCTACATGCCACTTACGTTTTAAGTTATTTAGGAACACAAAGGACAGACAAAAAAGCCATATGCACA
TGCCTCATTTTCTCTTATTTTTGATCTATCTAGTAATTCTTTTGCTGCCTGTCTCTTCTCCATTTTCCTTCTTCT
TTTTTAAGCATTTTTCATATTCTTCACTGTCTTCTATTTGGTCTTGATTAGGTGCATCTATCTCTTCGCTCTGTC
TTCCACAAACAAAAATTCTGCCTTCAGACATTTGGTGTTAGTATTTCACACTCAGTTCTCCCTTTTTTTACATAA
GGATTGAGTTTCTTTTTATGATGATTTTACCTTTATAGCAATTTTGAATTTTGCATTCTATTGCTAGTATTGATT
CAGGTACACCATTAAGATACAACATTCTAGAAGTCTATTACCTTAGGAGTTAATTAAACATGATATTTGAAGAAT
AATGAAATGCTTTATAGTTGTTTGAGGCATAACAATGTGTATTTGTTTTACTGGATCATGTTTTGAACTGACTAG
GGAGGGTAGCACCTGCCTCAGATAGTACCAACAATTCTGTTTCACTGGGTAGTCTAAAACTAGCTTATAGTTTAA
CTTAACTTGTTGTGTATGTGAATTTAGGGATGGAAACTTTTTTTCCCCTATTTATTCTTTGTTTCCTTCTGGGAA
AAAACCCCACAAAAATCAGCACTCCTTTATGGATACATTGGAGCTTTTGAAAGAATTGTAAACTCTAGGAAGGGG
AAATATCTGTGTCTTGATTTCTTAGTTGCCTTGAAAATCATGTACTGAACTGTAACCGCTAACTTGACTGGATGA
ACTAGTTTGCTTGTGTGTAGAGAGTGTATTGCTTCCTCAGATTTCACTGTTTTCATCTCCTTTTCCATCTTAGTC
TTTATTCCTTAAGACCAAAAACTGTAATATCCTTTAGAAATGCTCTAGAAGATCTGTATTGTGTAGAATGATCAT
GTATTTATAAATATTTTACAAGTTTAGATTATAAAATGAAAAAGAAGGTCATGTGTTTTGGGGGGTATTTTGCAT
GTTCGGATTTTTTTTTCACTTCACCGAACCCTTCTGATTCTTTCAAACTATTGCCAGGTAGTTGTTAGTGTTTCT
AATTGGACTCTTAATATGAACTTCAAGAAGCTGTTACCAGTTATCGGCTCTGTCATCTGAAATTTTAACCACTTA
ATTTAAAGTTACAATTTTAGAATTTGTTTTTGTTGTTTTACCTTAAGAAACACAATAAATCACTGTTTAAAAAAG
ATCTCAATTTATATAAAGTACTGGAAAAAAGCTAAGTAATTTTTAGTTCTATCTATAATCTCCGTAGGATGAATT
AGAAATAAATTGTGATGAAAAGAAATTAACTGCTTATTTATGAATCTAATCATTTAGAAATGTCTGAGAGTAACA
CTGCATTCTTATAGAAACAAAGCACAAATTGCATTCAAGCTCTGAATTGATTTTTTGCTTGGAGCTGTTGTTACA
GTAGCTGTAATTTTGCTACCAGAATGTCTTAATTTTTTAAATTTGTTTTTATTTCTAAGCTCTTGGCAATGACAA
TAATTATAATTTTAACATATCTTCACTGTAGTCAACATGTAGAGTCTGCTTCCCTCATTATTGCATTGCTAAGGC
CTTTTTAAAAAGCTTATGCTTACATAATATACTCTTTTTTATGGACACGTTATATGTTTCCAAATCTGTGTATTG
TGATTTTTACATACTAATGAATATAAACAGGTGATTTTAAAATATTACTGTGCTTCTTTGGTTGAATGAGCTGGT
ATTGATGTAAAATACTCTGTCATTGATGGACCACTACCTGCAGCTAAGCAGTGAGCAGAATCTCCGGGAAATGAC

FIGURE 4619B

TTAGTCTGGCCACATGCATAGCCCATCTTCATAATGTCGCAGCAGAAGGTTCTTTGTGGTTAAAAGTTTTAAAGC
CTATTTCTTTATAGGTAACCCTCTCAGGTATATTTACCTGGTAGAAAAACATGTAGATTGTTTCTATTACTTAAA
TGTTTTAATTGGACTGTAGTTTAGAAATTACAGGACCAGCTTGTTACAGATTATACACTATTCTGTTACTTTTAT
TTCTGAAACTTAAAAACAATAAATTCTTTTTCTGTGTTTCTAGGTTAGAACTTTTTTATTTTATTGCACACTGAA
CAGATACTGTTGCTTATTGAATATTGTGTAAACCCTTCTTTGGCTTTCCTTGCCCATTGCAATTTGATTTAAGCC
TACTAGAGCCATTGTATGTGACAGCTATATTGTATTACAAAGTAAAAATATATGAGTGTATTG

FIGURE 4620

GCCCACTCCCACCGCCAGCTGGAACCCTGGGGACTACGACGTCCCTCAAACCTTGCTTCTAGGAGATAAAAAGAA
CATCCAGTC**ATG**GATAAAAATGAGCTGGTTCAGAAGGCCAAACTGGCCGAGCAGGCTGAGCGATATGATGACATG
GCAGCCTGCATGAAGTCTGTAACTGAGCAAGGAGCTGAATTATCCAATGAGGAGAGGAATCTTCTCTCAGTTGCT
TATAAAAATGTTGTAGGAGCCCGTAGGTCATCTTGGAGGGTCGTCTCAAGTATTGAACAAAAGACGGAAGGTGCT
GAGAAAAAACAGCAGATGGCTCGAGAATACAGAGAGAAAATTGAGACGGAGCTAAGAGATATCTGCAATGATGTA
CTGTCTCTTTTGGAAAAGTTCTTGATCCCCAATGCTTCACAAGCAGAGAGCAAAGTCTTCTATTTGAAAATGAAA
GGAGATTACTACCGTTACTTGGCTGAGGTTGCCGCTGGTGATGACAAGAAAGGGATTGTCGATCAGTCACAACAA
GCATACCAAGAAGCTTTTGAAATCAGCAAAAAGGAAATGCAACCAACACATCCTATCAGACTGGGTCTGGCCCTT
AACTTCTCTGTGTTCTATTATGAGATTCTGAACTCCCCAGAGAAAGCCTGCTCTCTTGCAAAGACAGCTTTTGAT
GAAGCCATTGCTGAACTTGATACATTAAGTGAAGAGTCATACAAAGACAGCACGCTAATAATGCAATTACTGAGA
GACAACTTGACATTGTGGACATCGGATACCCAAGGAGACGAAGCTGAAGCAGGAGAAGGAGGGGAAAAT**TAA**CCG
GCCTTCCAACTTTTGTCTGCCTCATTCTAAAATTTACACAGTAGACCATTTGTCATCCATGCTGTCCCACAAATA
GTTTTTTGTTTACGATTTATGACAGGTTTATGTTACTTCTATTTGAATTTCTATATTTCCCATGTGGTTTTTATG
TTTAATATTAGGGGAGTAGAGCCAGTTAACATTTAGGGAGTTATCTGTTTTCATCTTGAGGTGGCCAATATGGGG
ATGTGGAATTTTTATACAAGTTATAAGTGTTTGGCATAGTACTTTTGGTACATTGTGGCTTCAAAAGGGCCAGTG
TAAAACTGCTTCCATGTCTAAGCAAAGAAAACTGCCTACATACTGGTTTGTCCTGGCGGGGAATAAAAGGGATCA
TTGGTTCCAGTCACAGGTGTAGTAATTGTGGGTACTTTAAGGTTTGGAGCACTTACAAGGCTGTGGTAGAATCAT
ACCCCATGGATACCACATATTAAACCATGTATATCTGTGGAATACTCAATGTGTACACCTTTGACTACAGCTGCA
GAAGTGTTCCTTTAGACAAAGTTGTGACCCATTTTACTCTGGATAAGGGCAGAAACGGTTCACATTCCATTATTT
GTAAAGTTACCTGCTGTTAGCTTTCATTATTTTTGCTACACTCATTTTATTTGTATTTAAATGTTTTAGGCAACC
TAAGAACAAATGTAAAAGTAAAGATGCAGGAAAAATGAATTGCTTGGTATTCATTACTTCATGTATATCAAGCAC
AGCAGTAAAACAAAAACCCATGTATTTAACTTTTTTTTAGGATTTTTGCTTTTGTGATTTTTTTTTTTTTTTTTT
GATACTTGCCTAACATGCATGTGCTGTAAAAATAGTTAACAGGGAAATAACTTGAGATGATGGCTAGCTTTGTTT
AATGTCTTATGAAATTTTCATGAACAATCCAAGCATAATTGTTAAGAACACGTGTATTAAATTCATGTAAGTGGA
ATAAAAGTTTTATGAATGGACTTTTCAACTACTTTCTCTACAGCTTTTCATGTAAATTAGTCTTGGTTCTGAAAC
TTCTCTAAAGGAAATTGTACATTTTTTGAAATTTATTCCTTATTCCCTCTTGGCAGCTAATGGGCTCTTACCAAG
TTTAAACACAAAATTTATCATAACAAAAATACTACTAATATAACTACTGTTTCCATGTCCCATGATCCCCTCTCT
TCCTCCCCACCCTGAAAAAAATGAGTTCCTATTTTTTCTGGGAGAGGGGGGGATTGATTAGAAAAAAATGTAGTG
TGTTCCATTTAAAATTTTGGCATATGGCATTTTCTAACTTAGGAAGCCACAATGTTCTTGGCCCATCATGACATT
GGGTAGCATTAACTGTAAGTTTTGTGCTTCCAAATCACTTTTTGGTTTTTAAGAATTTCTTGATACTCTTATAGC
CTGCCTTCAATTTTGATCCTTTATTCTTTCTATTTGTCAGGTGCACAAGATTACCTTCCTGTTTTAGCCTTCTGT
CTTGTCACCAACCATTCTTACTTGGTGGCCATGTACTTGGAAAAAGGCCGCATGATCTTTCTGGCTCCACTCAGT
GTCTAAGGCACCCTGCTTCCTTTGCTTGCATCCCACAGACTATTTCCCTCATCCTATTTACTGCAGCAAATCTCT
CCTTAGTTGATGAGACTGTGTTTATCTCCCTTTAAAACCCTACCTATCCTGAATGGTCTGTCATTGTCTGCCTTT
AAAATCCTTCCTCTTTCTTCCTCCTCTATTCTCTAAATAATGATGGGGCTAAGTTATACCCAAAGCTCACTTTAC
AAAATATTTCCTCAGTACTTTGCAGAAAACACCAAACAAAAATGCCATTTTAAAAAAGGTGTATTTTTTCTTTTA
GAATGTAAGCTCCTCAAGAGCAGGGACAATGTTTTCTGTATGTTCTATTGTGCCTAGTACACTGTAAATGCTCAA
TAAATATTGATGATGGGAGGCAGTGAGTCTTGATGATAAGGGTGAGAAACTGAAATCCC

FIGURE 4621

TCTCCGGTCCGTGCCTCCAAG**ATG**ACAAAGAAAAGAAGGAACAATGGTCGTGCCAAAAAGGGCCGCGGCCACGTG
CAGCCTATTCGCTGCACTAACTGTGCCCGATGCGTGCCCAAGGACAAGGCCATTAAGAAATTCGTCATTCGAAAC
ATAGTGGAGGCCGCAGCAGTCAGGGACATTTCTGAAGTGAGCGTCTTCGATGCCTATGTGCTTCCCAAGCTGTAT
GTGAAGCTACATTACTGTGTGAGTTGTGCAATTCACAGCAAAGTAGTCAGGAATCGATCTCGTGAAGCCCGCAAG
GACCGAACACCCCCACCCCGATTTAGACCTGCGGGTGCTGCCCCACGTCCCCCACCAAAGCCCATG**TGA**GGAGCT
GAGTTCTTAAAGACTGAAGACAGGCTGTTCTCTGGAGAAAAATAAAATGGAAATTGTACTT

FIGURE 4622

CCTTCTCCCCGGCGGTTAGTGCTGAGAGTGCGGAGTGTGTGCTCCGGGCTCGGAACACACATTTATTATTAAAAA
ATCCAAAAAAAAATCTAAAAAAATCTTTTAAAAAACCCCAAAAAAATTTACAAAAAATCCGCGTCTCCCCCGCCGG
AGACTTTTATTTTTTTTCTTCCTCTTTTATAAAATAACCCGGTGAAGCAGCCGAGACCGACCCGCCCGCCCGCGG
CCCCGCAGCAGCTCCAAGAAGGAACCAAGAGACCGAGGCCTTCCCGCTGCCCGGACCCGACACCGCCACCCTCGC
TCCCCGCCGGCAGCCGGCAGCCAGCGGCAGTGGATCGACCCCGTTCTGCGGCCGTTGAGTAGTTTTCAATTCCGG
TTGATTTTTGTCCCTCTGCGCTTGCTCCCCGCTCCCCTCCCCCCGGCTCCGGCCCCCAGCCCCGGCACTCGCTCT
CCTCCTCTCACGGAAAGGTCGCGGCCTGTGGCCCTGCGGGCAGCCGTGCCGAG**ATG**AACCCCAGTGCCCCCAGCT
ACCCCATGGCCTCGCTCTACGTGGGGGACCTCCACCCCGACGTGACCGAGGCGATGCTCTACGAGAAGTTCAGCC
CGGCCGGGCCCATCCTCTCCATCCGGGTCTGCAGGGACATGATCACCCGCCGCTCCTTGGGCTACGCGTATGTGA
ACTTCCAGCAGCCGGCGGACGCGGAGCGTGCTTTGGACACCATGAATTTTGATGTTATAAAGGGCAAGCCAGTAC
GCATCATGTGGTCTCAGCGTGATCCATCACTTCGCAAAAGTGGAGTAGGCAACATATTCATTAAAAATCTGGACA
AATCCATTGATAATAAAGCACTGTATGATACATTTTCTGCTTTTGGTAACATCCTTTCATGTAAGGTGGTTTGTG
ATGAAAATGGTTCCAAGGGCTATGGATTTGTACACTTTGAGACGCAGGAAGCAGCTGAAAGAGCTATTGAAAAAA
TGAATGGAATGCTCCTAAATGATCGCAAAGTATTTGTTGGACGATTTAAGTCTCGTAAAGAACGAGAAGCTGAAC
TTGGAGCTAGGGCAAAAGAATTCACCAATGTTTACATCAAGAATTTTGGAGAAGACATGGATGATGAGCGCCTTA
AGGATCTCTTTGGGCCTGCCTTAAGTGTGAAAGTAATGACTGATGAAAGTGGAAAATCCAAAGGATTTGGATTTG
TAAGCTTTGAAAGGCATGAAGATGCACAGAAAGCTGTGGATGAGATGAACGGAAAGGAGCTCAATGGAAAACAAA
TTTATGTTGGTCGAGCTCAGAAAAAGGTGGAACGGCAGACGGAACTTAAGCGCAAATTTGAACAGATGAAACAAG
ATAGGATCACCAGATACCAGGGTGTTAATCTTTATGTGAAAAATCTTGATGATGGTATTGATGATGAACGTCTCC
GGAAAGAGTTTTCTCCATTTGGTACAATCACTAGTGCAAAGGTTATGATGGAGGGTGGTCGCAGCAAAGGGTTTG
GTTTTGTATGTTTCTCCTCCCCAGAAGAAGCCACTAAAGCAGTTACAGAAATGAACGGTAGAATTGTGGCCACAA
AGCCATTGTATGTAGCTTTAGCTCAGCGCAAAGAAGAGCGCCAGGCTCACCTCACTAACCAGTATATGCAGAGAA
TGGCAAGTGTACGAGCTGTTCCCAACCCTGTAATCAACCCCTACCAGCCAGCACCTCCTTCAGGTTACTTCATGG
CAGCTATCCCACAGACTCAGAACCGTGCTGCATACTATCCTCCTAGCCAAATTGCTCAACTAAGACCAAGTCCTC
GCTGGACTGCTCAGGGTGCCAGACCTCATCCATTCCAAAATATGCCCGGTGCTATCCGCCCAGCTGCTCCTAGAC
CACCATTTAGTACTATGAGACCAGCTTCTTCACAGGTTCCACGAGTCATGTCAACACAGCGTGTTGCTAACACAT
CAACACAGACAATGGGTCCACGTCCTGCAGCTGCAGCCGCTGCAGCTACTCCTGCTGTCCGCACCGTTCCACAGT
ATAAATATGCTGCAGGAGTTCGCAATCCTCAGCAACATCTTAATGCACAGCCACAAGTTACAATGCAACAGCCTG
CTGTTCATGTACAAGGTCAGGAACCTTTGACTGCTTCCATGTTGGCATCTGCCCCTCCTCAAGAGCAAAAGCAAA
TGTTGGGTGAACGGCTGTTTCCTCTTATTCAAGCCATGCACCCTACTCTTGCTGGTAAAATCACTGGCATGTTGT
TGGAGATTGATAATTCAGAACTTCTTCATATGCTCGAGTCTCCAGAGTCACTCCGTTCTAAGGTTGATGAAGCTG
TAGCTGTACTACAAGCCCACCAAGCTAAAGAGGCTGCCCAGAAAGCAGTTAACAGTGCCACCGGTGTTCCAACTG
TT**TAA**AATTGATCAGGGACCATGAAAAGAAACTTGTGCTTCACCGAAGAAAAATATCTAAACATCGAAAAACTTA
AATATTATGGAAAAAAAACATTGCAAAATATAAAATAAATAAAAAAAGGAAAGGAAACTTTGAACCTTATGTACC
GAGCAAATGCCAGGTCTAGCAAACATAATGCTAGTCCTAGATTACTTATTGATTTAAAAACAAAAAAACACAAAA
AAATAGTAAAATATAAAAACAAATTAATGTTTTATAGACCCTGGGAAAAAGAATTTTCAGCAAAGTACAAAAATT
TAAAGCATTCCTTTCTTTAATTTTGTAATTCTTTACTGTGGAATAGCTCAGAATGTCAGTTCTGTTTTAAGTAAC
AGAATTGATAACTGAGCAAGGAAACGTAATTTGGATTATAAAATTCTTGCTTTAATAAAAATTCCTTAAACAGTG

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PATENT COOPERATION TREATY

PCT

DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rule 13*ter*.1(c) and 39)

Applicant's or agent's file reference P5102R1	**IMPORTANT DECLARATION**	Date of mailing (day/month/year) 27 APR 2005
International application No. PCT/US03/29126	International filing date *(day/month/year)* 15 October 2003 (15.10.2003)	(Earliest) Priority date *(day/month/year)* 18 October 2002 (18 10 2002)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): C12Q 1/00, 1/68, C12N 5/00, 15/00, A01N 61/00, 43/04; A61K 38/00; C07 1/00, 16/00; C07H 21/00 and US Cl 435/4, 6, 243, 320.1, 325, 440; 514/2, 44, 530/300, 350, 387.1; 536/23.1

Applicant

GENENTECH, INC.

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below.

1. ☐ The subject matter of the international application relates to:
   - a. ☐ scientific theories
   - b. ☐ mathematical theories
   - c. ☐ plant varieties
   - d. ☐ animal varieties.
   - e. ☐ essential biological processes for the production of plants and animals, other than microbiological processes and the products of such processes.
   - f. ☐ schemes, rules or methods of doing business.
   - g. ☐ schemes, rules or methods of performing purely mental acts.
   - h. ☐ schemes, rules or methods of playing games.
   - i. ☐ methods for treatment of the human body by surgery or therapy.
   - j ☐ methods for treatment of the animal body by surgery or therapy.
   - k ☐ diagnostic methods practised on the human or animal body.
   - l. ☐ mere presentations of information.
   - m ☐ computer programs for which this International Searching Authority is not equipped to search prior art.

2. ☐ The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:
   ☐ the description ☐ the claims ☐ the drawings

3. ☒ The failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions prevents a meaningful search from being carried out:
   ☐ the written form has not been furnished or does not comply with the standard.
   ☒ the computer readable form has not been furnished or does not comply with the standard.

4. Further comments:
No computer readable form (CRF) is present. Therefore, no meaningful search of the claimed invention can be performed, wherein the claims provided the limitation "SEQ ID NOS: 1-4622".

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